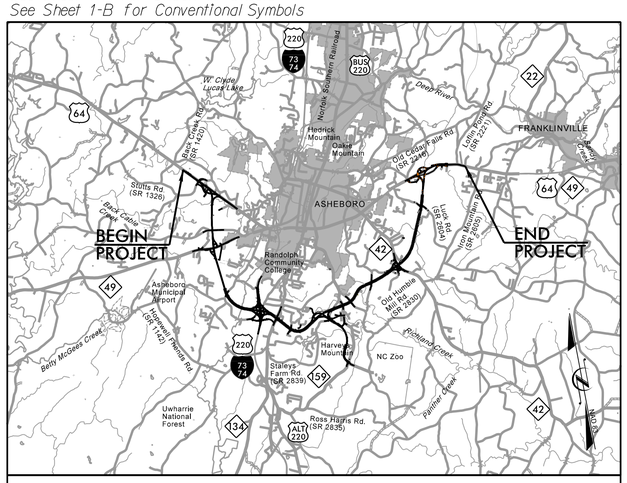
09/08/49

TIP PROJECT: R-2536

CONTRACT: C203617

See Sheet 1-A for Index of Sheets
See Sheet 1-B for Conventional Symbols



VICINITY MAP (NTS)

RIGHT OF WAY PLANS (SECTION 1A)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

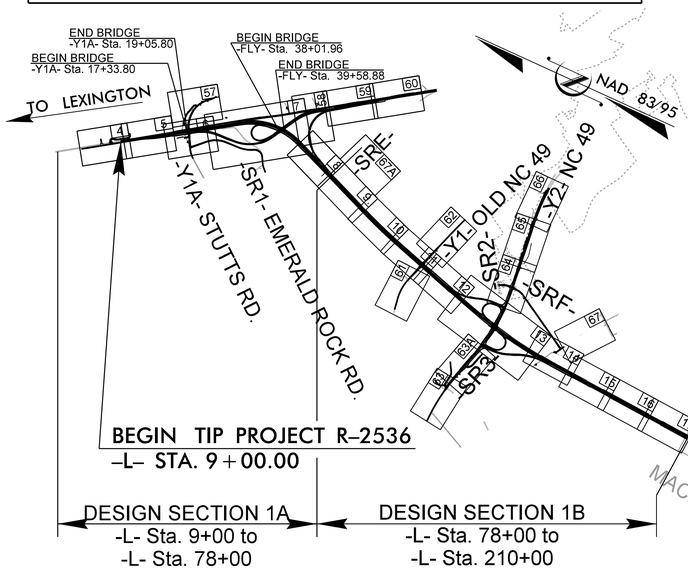
RANDOLPH COUNTY

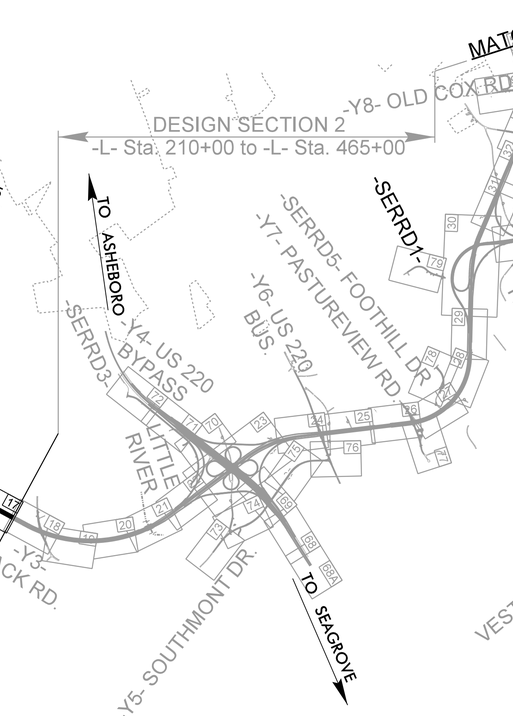
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2536	1	

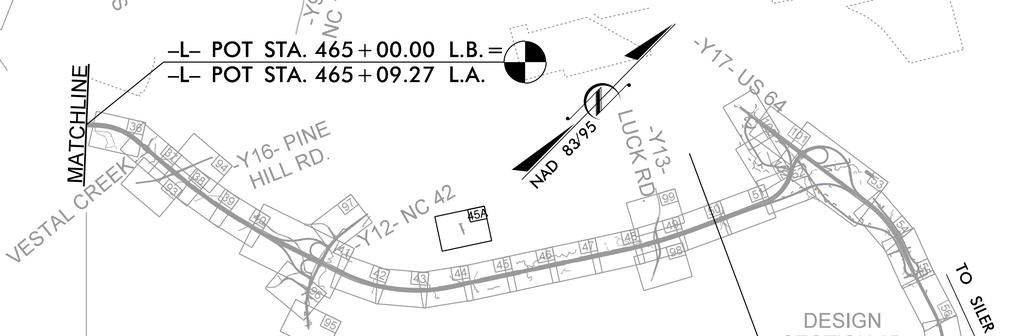
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34450.3.S1		PE

LOCATION: *US 64 BYPASS FROM EXISTING US 64 WEST OF ASHEBORO TO EXISTING US 64 EAST OF ASHEBORO AND THE ZOO CONNECTOR FROM EAST OF STALEYS FARM RD. TO EXISTING NC 159/ZOO ENTRANCE*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, WIDENING, RESURFACING, CULVERTS, STRUCTURES, AND SIGNALS*







NOTES:
1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DESIGN - BUILD TEAM

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2015 = 12,600
ADT 2040 = 18,800
DHV = 11 %
D = 60 %
T = 13 % *
V = 70 MPH
(*TTST = 8% + DUAL = 5%)

FUNCTIONAL CLASSIFICATION
FREEWAY

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2536.....	14.619 mi
LENGTH STRUCTURE TIP PROJECT R-2536.....	0.121 mi
TOTAL LENGTH TIP PROJECT R-2536.....	14.740 mi

NCDOT CONTACT

K. Zak Hamidi, P.E.
PROJECT ENGINEER - DESIGN-BUILD UNIT

RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE, SUITE 350
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO. F-0112
1-888-521-4455 OR 919-878-9560

FOR
DIVISION OF HIGHWAYS

2012 STANDARD SPECIFICATIONS

B. Keith Skinner, P.E.
PROJECT ENGINEER

Michael T. Merritt, P.E.
PROJECT DESIGN ENGINEER

LETTING DATE:
JUNE 29, 2015

CONTRACTOR :

HYDRAULICS ENGINEER

P.E.
SIGNATURE:
ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

STATE OF NORTH CAROLINA

3/22/2016
R:\Roadway\Proj\Plan Sheets\Sec\R2536_Rdy_tsh_sec1.dgn
fkeys

12/05/11

PROJECT REFERENCE NO.	SHEET NO.
R-2536	1-B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H–Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
R-2536	ID-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CENTERLINE COORDINATE LIST

Point #	Chain	Station	Northing (Y)	Easting (X)
1	L	8+00.00	712515.1252	1738244.3317
2	L	9+00.00	712468.2109	1738332.6439
3	L	10+00.00	712421.2965	1738420.9561
4	L	11+00.00	712374.3821	1738509.2683
5	L	12+00.00	712327.4677	1738597.5804
6	L	13+00.00	712280.5534	1738685.8926
7	L	14+00.00	712233.6390	1738774.2048
8	L	15+00.00	712186.7246	1738862.5170
9	L	16+00.00	712139.8103	1738950.8292
10	L	17+00.00	712092.8959	1739039.1414
11	L	18+00.00	712045.9815	1739127.4535
12	L	19+00.00	711999.0672	1739215.7657
13	L	20+00.00	711952.1528	1739304.0779
14	L	21+00.00	711905.2384	1739392.3901
15	L	22+00.00	711858.3240	1739480.7023
16	L	23+00.00	711811.4097	1739569.0145
17	L	24+00.00	711764.4953	1739657.3266
18	L	25+00.00	711717.5809	1739745.6388
19	L	26+00.00	711670.6666	1739833.9510
20	L	27+00.00	711623.7522	1739922.2632
21	L	28+00.00	711576.8378	1740010.5754
22	L	29+00.00	711529.9234	1740098.8876
23	L	30+00.00	711483.0091	1740187.1997
24	L	31+00.00	711436.0947	1740275.5119
25	L	32+00.00	711389.1803	1740363.8241
26	L	33+00.00	711342.2660	1740452.1363
27	L	34+00.00	711295.3516	1740540.4485
28	L	35+00.00	711248.4372	1740628.7607
29	L	36+00.00	711201.5229	1740717.0729
30	L	37+00.00	711154.6085	1740805.3850
31	L	38+00.00	711107.6941	1740893.6972
32	L	39+00.00	711060.7797	1740982.0094
33	L	40+00.00	711013.8654	1741070.3216
34	L	41+00.00	710966.9510	1741158.6338
35	L	42+00.00	710920.0366	1741246.9460
36	L	43+00.00	710873.1223	1741335.2581
37	L	44+00.00	710826.0915	1741423.5083
38	L	45+00.00	710777.8612	1741511.1063
39	L	46+00.00	710726.9008	1741597.1392
40	L	47+00.00	710671.9837	1741680.6978
41	L	48+00.00	710612.9590	1741761.4072
42	L	49+00.00	710549.9744	1741839.0657
43	L	50+00.00	710483.1871	1741913.4793
44	L	51+00.00	710412.7642	1741984.4619
45	L	52+00.00	710338.8816	1742051.8361
46	L	53+00.00	710261.7241	1742115.4335
47	L	54+00.00	710181.4844	1742175.0951
48	L	55+00.00	710098.3632	1742230.6719
49	L	56+00.00	710012.5681	1742282.0249
50	L	57+00.00	709924.3138	1742329.0258
51	L	58+00.00	709833.8206	1742371.5570
52	L	59+00.00	709741.3149	1742409.5123
53	L	60+00.00	709647.0278	1742442.7968
54	L	61+00.00	709551.1950	1742471.3274
55	L	62+00.00	709454.0560	1742495.0326
56	L	63+00.00	709355.8560	1742513.8672
57	L	64+00.00	709256.9357	1742528.4875
58	L	65+00.00	709157.6687	1742540.5638
59	L	66+00.00	709058.3033	1742551.8113
60	L	67+00.00	708958.9350	1742563.0339
61	L	68+00.00	708859.5667	1742574.2564
62	L	69+00.00	708760.1984	1742585.4790
63	L	70+00.00	708660.8302	1742596.7016
64	L	71+00.00	708561.4619	1742607.9242
65	L	72+00.00	708462.0936	1742619.1468
66	L	73+00.00	708362.7254	1742630.3694
67	L	74+00.00	708263.3571	1742641.5920
68	L	75+00.00	708163.9888	1742652.8146
69	L	76+00.00	708064.6205	1742664.0371
70	L	77+00.00	707965.2523	1742675.2597
71	L	78+00.00	707865.8840	1742686.4823
72	L1	90+00.00	712984.2689	1737361.2099
73	L1	91+00.00	712937.3546	1737449.5220
74	L1	92+00.00	712890.4402	1737537.8342
75	L1	93+00.00	712843.5258	1737626.1464
76	L1	94+00.00	712796.6114	1737714.4586
77	L1	95+00.00	712749.6971	1737802.7708
78	L1	96+00.00	712702.7827	1737891.0830
79	L1	97+00.00	712655.8683	1737979.3951
80	L1	98+00.00	712608.9540	1738067.7073
81	L1	99+00.00	712562.0396	1738156.0195

Point #	Chain	Station	Northing (Y)	Easting (X)
82	L1	100+00.00	712515.1252	1738244.3317
83	L1RT	10+00.00	712499.1201	1738349.0639
84	L1RT	11+00.00	712451.6837	1738437.0961
85	L1RT	12+00.00	712403.2075	1738524.5601
86	L1RT	13+00.00	712353.6985	1738611.4436
87	L1RT	14+00.00	712303.1636	1738697.7344
88	L1RT	15+00.00	712251.6099	1738783.4204
89	L1RT	16+00.00	712199.0445	1738868.4896
90	L1RT	17+00.00	712145.7480	1738953.1032
91	L1RT	18+00.00	712093.0211	1739038.0727
92	L1RT	19+00.00	712041.0351	1739123.4975
93	L1RT	20+00.00	711989.7938	1739209.3710
94	L1RT	21+00.00	711939.3012	1739295.6869
95	L1RT	22+00.00	711889.5611	1739382.4386
96	L1RT	23+00.00	711840.5772	1739469.6196
97	L1RT	24+00.00	711792.3533	1739557.2232
98	L1RT	25+00.00	711744.8929	1739645.2428
99	L1RT	25+21.24	711734.9124	1739663.9885
100	Y	10+00.00	710914.0791	1741383.9216
101	Y	11+00.00	710867.1647	1741472.2337
102	Y	12+00.00	710820.2503	1741560.5459
103	Y	13+00.00	710773.3360	1741648.8581
104	Y	14+00.00	710726.4216	1741737.1703
105	Y	15+00.00	710679.4458	1741825.4498
106	Y	16+00.00	710631.8419	1741913.3918
107	Y	17+00.00	710583.4751	1742000.9166
108	Y	18+00.00	710534.3490	1742088.0175
109	Y	19+00.00	710484.4674	1742174.6879
110	Y	20+00.00	710433.8341	1742260.9213
111	Y	21+00.00	710382.8116	1742346.9252
112	Y	22+00.00	710332.6952	1742433.4597
113	Y	23+00.00	710283.6075	1742520.5820
114	Y	24+00.00	710235.5555	1742608.2797
115	Y	25+00.00	710188.4415	1742696.4853
116	Y	26+00.00	710141.4874	1742784.7763
117	Y	27+00.00	710094.5334	1742873.0674
118	Y	28+00.00	710047.5793	1742961.3585
119	Y	29+00.00	710000.6252	1743049.6496
120	Y	30+00.00	709953.6712	1743137.9407
121	Y	31+00.00	709906.7171	1743226.2318
122	Y	32+00.00	709859.7630	1743314.5228
123	Y	33+00.00	709812.8090	1743402.8139
124	Y	34+00.00	709765.8549	1743491.1050
125	Y	35+00.00	709718.9008	1743579.3961
126	Y	36+00.00	709671.9468	1743667.6872
127	Y	37+00.00	709624.9927	1743755.9783
128	Y	38+00.00	709578.0386	1743844.2693
129	Y	39+00.00	709531.0845	1743932.5604
130	Y	40+00.00	709484.1305	1744020.8515
131	Y	41+00.00	709437.1764	1744109.1426
132	Y	42+00.00	709390.2223	1744197.4337
133	Y	43+00.00	709343.2683	1744285.7248
134	Y	44+00.00	709296.3142	1744374.0158
135	Y	45+00.00	709249.3601	1744462.3069
136	Y	46+00.00	709202.4061	1744550.5980
137	Y	47+00.00	709155.4520	1744638.8891
138	Y	48+00.00	709108.4979	1744727.1802
139	Y	49+00.00	709061.5439	1744815.4713
140	Y	50+00.00	709014.5898	1744903.7623
141	Y	51+00.00	708967.6357	1744992.0534
142	Y	52+00.00	708920.6816	1745080.3445
143	Y	53+00.00	708873.7276	1745168.6356
144	Y	54+00.00	708826.7735	1745256.9267
145	Y	55+00.00	708779.8194	1745345.2178
146	Y	56+00.00	708733.0931	1745433.6293
147	Y	57+00.00	708687.1168	1745522.4331
148	Y	58+00.00	708641.8986	1745611.6254
149	Y	59+00.00	708596.4748	1745700.7131
150	Y	60+00.00	708550.2780	1745789.4024
151	Y	61+00.00	708503.4139	1745877.7412
152	Y	62+00.00	708456.4599	1745966.0322
153	Y	63+00.00	708409.5058	1746054.3233
154	Y	64+00.00	708362.5517	1746142.6144
155	Y	65+00.00	708315.5977	1746230.9055
156	Y	66+00.00	708268.6436	1746319.1966
157	Y	67+00.00	708221.6895	1746407.4877
158	Y	68+00.00	708174.7355	1746495.7787
159	Y	69+00.00	708127.7814	1746584.0698
160	Y	70+00.00	708080.8273	1746672.3609
161	Y	70+79.34	708043.5742	1746742.4107

Point #	Chain	Station	Northing (Y)	Easting (X)
162	YRT	10+00.00	709435.9481	1743987.9272
163	YRT	11+00.00	709388.9941	1744076.2183
164	YRT	12+00.00	709342.0400	1744164.5094
165	YRT	13+00.00	709295.0859	1744252.8005
166	YRT	14+00.00	709248.1319	1744341.0916
167	YRT	15+00.00	709201.1778	1744429.3827
168	YRT	16+00.00	709154.3140	1744517.7216
169	YRT	17+00.00	709108.1178	1744606.4112
170	YRT	18+00.00	709062.6946	1744695.4992
171	YRT	19+00.00	709018.0478	1744784.9788
172	YRT	20+00.00	708974.1807	1744874.8432
173	YRT	21+00.00	708931.0967	1744965.0857
174	YRT	22+00.00	708888.7991	1745055.6994
175	YRT	23+00.00	708847.2910	1745146.6775
176	YRT	24+00.00	708806.0366	1745237.7711
177	YRT	25+00.00	708764.0461	1745328.5275
178	YRT	26+00.00	708721.3007	1745418.9310
179	YRT	27+00.00	708677.8035	1745508.9750
180	YRT	28+00.00	708633.5575	1745598.6535
181	YRT	29+00.00	708588.5656	1745687.9602
182	YRT	30+00.00	708542.8312	1745776.8888
183	YRT	31+00.00	708496.3572	1745865.4332
184	YRT	31+15.14	708489.2558	1745878.8068
185	Y1A	10+00.00	710789.1949	1739743.6549
186	Y1A	11+00.00	710886.7153	1739765.4616
187	Y1A	12+00.00	710980.5613	1739799.7939
188	Y1A	13+00.00	711069.1315	1739846.0657
189	Y1A	14+00.00	711153.4282	1739899.8596
190	Y1A	15+00.00	711237.6144	1739953.8289
191	Y1A	16+00.00	711321.8006	1740007.7981
192	Y1A	17+00.00	711405.9869	1740061.7674
193	Y1A	18+00.00	711490.1731	1740115.7366
194	Y1A	19+00.00	711574.3593	1740169.7059
195	Y1A	20+00.00	711655.7731	1740227.6750
196	Y1A	21+00.00	711729.6961	1740294.9311
197	Y1A	22+00.00	711795.0325	1740370.5562
198	Y1A	23+00.00	711850.8418	1740453.4616
199	Y1A	24+00.00	711896.3207	1740542.4541
200	Y1A	25+00.00	711930.8146	1740636.2527
201	Y1A	26+00.00	711953.8120	1740733.5098
202	Y1A	27+00.00	711964.2515	1740832.8909
203	Y1A	28+00.00	711961.5620	1740932.7826
204	Y1A	29+00.00	711945.7900	1741031.4579
205	Y1A	30+00.00	711917.2082	1741127.2111
206	Y1A	30+66.17	711892.0661	1741188.4115
207	Y1B	10+00.00	711778.6314	1740125.8090
208	Y1B	11+00.00	711837.9830	1740206.2912
209	Y1B	12+00.00	711895.6123	1740287.9946
210	Y1B	13+00.00	711946.0576	1740374.2366
211	Y1B	14+00.00	711974.3471	1740469.9281
212	Y1B	15+00.00	711996.8703	1740567.3586
213	Y1B	16+00.00	712019.3936	1740664.7891
214	Y1B	17+00.00	712007.9182	1740759.0160
215	Y1B	17+54.17	711960.6662	1740783.0221
216	SR1	11+00.00	711083.0359	1739945.8302
217	SR1	12+00.00	711052.6946	1740041.1161
218	SR1	13+00.00	711022.3533	1740136.4020
219	SR1	14+00.00	710992.0119	1740231.6879
220	SR1	15+00.00	710961.6706	1740326.9739
221	SR1	16+00.00	710928.3457	1740421.2133
222	SR1	17+00.00	710884.3868	1740510.9664
223	SR1	18+00.00	710829.9956	1740594.8090
224	SR1	19+00.00	710765.9547	1740671.5343
225	SR1	20+00.00	710693.1862	1740740.0379
226	SR1	21+00.00	710612.7375	1740799.3337
227	SR1	22+00.00	710526.8964	1740850.6121
228	SR1	23+00.00	710440.6150	1740901.1642
229	SR1	24+00.00	710354.3335	1740951.7163
230	SR1	25+00.00	710268.0521	1741002.2684
231	SR1	26+00.00	710183.0230	1741054.8477
232	SR1	27+00.00	710103.5485	1741115.4692
233	SR1	28+00.00	710030.7346	1741183.9475
234	SR1	29+00.00	709965.3544	1741259.5556
235	SR1	30+00.00	709908.0649	1741341.4667
236	SR1	31+00.00	709837.1251	1741410.8379
237	SR1	32+00.00	709743.6278	1741444.0501
238	SR1	33+00.00	709644.8226	1741434.9760
239	SR1	34+00.00	709557.5171	1741387.1768

Point #	Chain	Station	Northing (Y)	Easting (X)
240	SR1	35+00.00	709474.8633	1741330.8887
241	SR1	36+00.00	709389.2207	1741279.4778
242	SR1	37+00.00	709295.8803	1741243.9604
243	SR1	38+00.00	709200.0538	1741215.3726
244	SR1	38+35.55	709165.9908	1741205.2106
245	DR1A	10+00.00	711446.0232	1739897.8177
246	DR1A	11+00.00	711401.3804	1739987.2997
247	DR1A	11+60.55	711374.3475	1740041.4844
248	FLY	11+00.00	711401.3008	1740240.4484
249	FLY	12+00.00	711352.1041	1740327.5011
250	FLY	13+00.00	711297.7843	1740411.4321
251	FLY	14+00.00	711236.7922	1740490.6418
252	FLY	15+00.00	711169.4186	1740564.4999
253	FLY	16+00.00	711096.1311	1740632.4936
254	FLY	17+00.00	711017.4383	1740694.1512
255	FLY	18+00.00	710934.2454	1740749.6085
256	FLY	19+00.00	710848.5861	1740801.2015
257	FLY	20+00.00	710762.3104	1740851.7633
258	FLY	21+00.00	710676.0290	1740902.3154
259	FLY	22+00.00	710589.7476	1740952.8675
260	FLY	23+00.00	710503.5808	1741003.6140
261	FLY	24+00.00	710418.8245	1741056.6669
262	FLY	25+00.00	710337.6449	1741115.0154
263	FLY	26+00.00	710261.5573	1741179.8605
264	FLY	27+00.00	710191.1312	1741250.8138
265	FLY	28+00.00	710126.8555	1741327.3830
266	FLY	29+00.00	710069.1761	1741409.0366
267	FLY	30+00.00	710018.4936	1741495.2079
268	FLY	31+00.00	709975.1595	1741585.2988
269	FLY	32+00.00	709939.4747	1741678.6841
270	FLY	33+00.00	709911.6869	1741774.7156
271	FLY	34+00.00	709891.9888	1741872.7268
272	FLY	35+00.00	709880.4386	1741972.0308
273	FLY	36+00.00	709875.2224	1742071.8860
274	FLY	37+00.00	709872.6718	1742171.8531
275	FLY	38+00.00	709870.3375	1742271.8258
276	FLY	39+00.00	709868.0032	1742371.7986
277	FLY	40+00.00	709865.6690	1742471.7713
278	FLY	41+00.00	709863.3347	1742571.7441
279	FLY	42+00.00	709861.0005	1742671.7168
280	FLY	43+00.00	709858.5408	1742771.6864
281	FLY	44+00.00	709854.1952	1742871.5873
282	FLY	45+00.00	709845.1063	1742971.1579
283	FLY	46+00.00	709829.7040	1743069.9471
284	FLY	47+00.00	709807.9647	1743167.5378
285	FLY	48+00.00	709779.9788	1743263.5238
286	FLY	49+00.00	709745.8627	1743357.5059
287	FLY	50+00.00	709705.7916	1743449.1084
288	FLY	51+00.00	709661.0792	1743538.5490
289	FLY	52+00.00	709614.3291	1743626.9478
290	FLY	53+00.00	709567.3751	1743715.2389
291	FLY	54+00.00	709520.4210	1743803.5300
292	FLY	55+00.00	709473.4669	1743891.8211
293	FLY	56+00.00	709426.5129	1743980.1122
294	FLY	56+02.47	709425.3532	1743982.2927
295	LPD	10+00.00	710309.3175	1742014.9403
296	LPD	11+00.00	710378.3050	1741942.7296
297	LPD	12+00.00	710427.9328	1741856.3607
298	LPD	13+00.00	710443.2618	1741758.2915
299	LPD	14+00.00	710416.1456	1741662.8548
300	LPD	15+00.00	710351.3530	1741587.7190
301	LPD	16+00.00	710260.9405	1741546.8653
302	LPD	17+00.00	710161.7316	1741547.8954
303	LPD	18+00.00	710072.1831	1741590.6127
304	LPD	19+00.00	710006.4834	1741665.3010
305	LPD	20+00.00	709965.1678	1741756.1169
306	LPD	21+00.00	709939.9775	1741852.8378
307	LPD	22+00.00	709922.6186	1741951.3003
308	LPD	23+00.00	709911.9472	1742050.7102
309	LPD	24+00.00	709907.6773	1742150.6068
310	LPD	25+00.00	709905.3430	1742250.5796
311	LPD	26+00.00	709903.0087	1742350.5523
312	LPD	27+00.00	709900.6745	1742450.5251
313	LPD	28+00.00	709898.3402	1742550.4978
314	LPD	29+00.00	709896.0059	1742650.4706
315	LPD	30+00.00	709893.6717	1742750.4433
316	LPD	31+00.00	709891.3088	1742850.4154
317	LPD	32+00.00	709887.3134	1742950.3303
318	LPD	33+00.00	709877.7567	1743049.8487

Point #	Chain	Station	Northing (Y)	Easting (X)
319	LPD	34+00.00	709860.1422	1743148.2557
320	LPD	35+00.00	709834.3977	1743244.8550
321	LPD	36+00.00	709800.7398	1743338.9913
322	LPD	37+00.00	709760.9800	1743430.7373
323	LPD	38+00.00	709718.8551	1743521.4316
324	LPD	39+00.00	709676.5862	1743612.0591
325	LPD	40+00.00	709634.3173	1743702.6865
326	LPD	40+91.52	709595.6320	1743785.6303
327	RPA	10+00.00	708051.7466	1742712.7899
328	RPA	11+00.00	708151.6641	1742708.7297
329	RPA	12+00.00	708251.5816	1742704.6695
330	RPA	13+00.00	708351.4992	1742700.6092
331	RPA	14+00.00	708451.4167	1742696.5492
332	RPA	15+00.00	708551.3607	1742693.2640
333	RPA	16+00.00	708651.3429	1742694.0349
334	RPA	17+00.00	708750.9782	1742702.2220
335	RPA	18+00.00	708849.5864	1742718.6728
336	RPA	19+00.00	708946.4832	1742743.2743
337	RPA	20+00.00	709040.9959	1742775.8558
338	RPA	21+00.00	709132.4687	1742816.1911
339	RPA	22+00.00	709219.5081	1742865.2919
340	RPA	23+00.00	709299.4136	1742925.2977
341	RPA	24+00.00	709370.7556	1742995.2684
342	RPA	25+00.00	709432.3007	1743073.9944
343	RPA	26+00.00	709482.9851	1743160.1145
344	RPA	27+00.00	709521.9324	1743252.1400
345	RPA	28+00.00	709548.4694	1743348.4798
346	RPA	29+00.00	709562.1372	1743447.4686
347	RPA	30+00.00	709562.6996	1743547.3949
348	RPA	31+00.00	709550.1468	1743646.5312
349	RPA	32+00.00	709524.6959	1743743.1636
350	RPA	33+00.00	709487.1959	1743835.8068
351	RPA	34+00.00	709442.1656	1743925.0824
352	RPA	34+25.74	709430.0948	1743947.8198

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
R-2536	ID-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CENTERLINE COORDINATE LIST

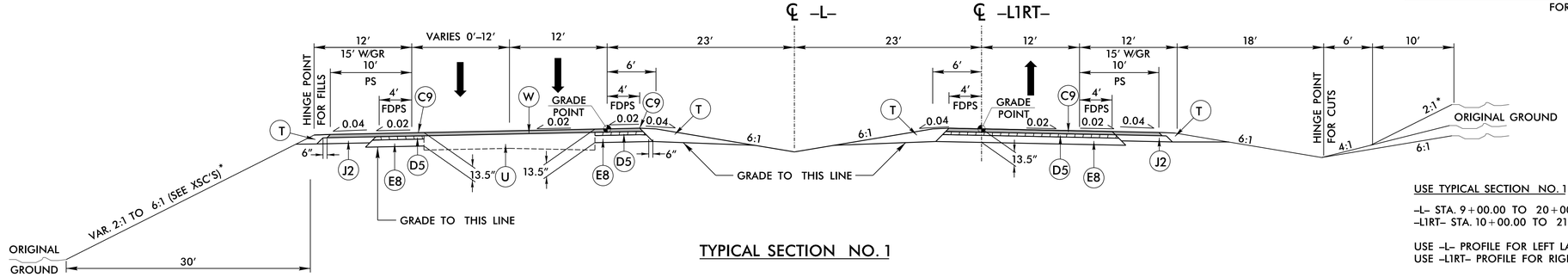
Point #	Chain	Station	Northing (Y)	Easting (X)
1	L	78+00.00	707865.8840	1742686.4823
2	L	79+00.00	707766.5157	1742697.7049
3	L	80+00.00	707667.1475	1742708.9275
4	L	81+00.00	707567.7792	1742720.1501
5	L	82+00.00	707468.4109	1742731.3727
6	L	83+00.00	707369.0426	1742742.5953
7	L	84+00.00	707269.6744	1742753.8178
8	L	85+00.00	707170.3061	1742765.0404
9	L	86+00.00	707070.9378	1742776.2630
10	L	87+00.00	706971.5695	1742787.4856
11	L	88+00.00	706872.2013	1742798.7082
12	L	89+00.00	706772.8330	1742809.9308
13	L	90+00.00	706673.4647	1742821.1534
14	L	91+00.00	706574.0965	1742832.3760
15	L	92+00.00	706474.7282	1742843.5985
16	L	93+00.00	706375.3803	1742854.9992
17	L	94+00.00	706276.1014	1742866.9857
18	L	95+00.00	706176.8970	1742879.5737
19	L	96+00.00	706077.7708	1742892.7626
20	L	97+00.00	705978.7262	1742906.5521
21	L	98+00.00	705879.7671	1742920.9416
22	L	99+00.00	705780.8970	1742935.9306
23	L	100+00.00	705682.1195	1742951.5185
24	L	101+00.00	705583.4383	1742967.7048
25	L	102+00.00	705484.8571	1742984.4888
26	L	103+00.00	705386.3793	1743001.8700
27	L	104+00.00	705288.0088	1743019.8477
28	L	105+00.00	705189.7489	1743038.4213
29	L	106+00.00	705091.6035	1743057.5900
30	L	107+00.00	704993.5288	1743077.1181
31	L	108+00.00	704895.4547	1743096.6498
32	L	109+00.00	704797.3807	1743116.1815
33	L	110+00.00	704699.3067	1743135.7132
34	L	111+00.00	704601.2327	1743155.2449
35	L	112+00.00	704503.1587	1743174.7766
36	L	113+00.00	704405.0847	1743194.3083
37	L	114+00.00	704307.0107	1743213.8401
38	L	115+00.00	704208.9366	1743233.3718
39	L	116+00.00	704110.8626	1743252.9035
40	L	117+00.00	704012.7886	1743272.4352
41	L	118+00.00	703914.7146	1743291.9669
42	L	119+00.00	703816.6406	1743311.4986
43	L	120+00.00	703718.5666	1743331.0303
44	L	121+00.00	703620.4925	1743350.5620
45	L	122+00.00	703522.4185	1743370.0937
46	L	123+00.00	703424.3445	1743389.6254
47	L	124+00.00	703326.2705	1743409.1571
48	L	125+00.00	703228.1965	1743428.6888
49	L	126+00.00	703130.1225	1743448.2205
50	L	127+00.00	703032.0485	1743467.7522
51	L	128+00.00	702933.9744	1743487.2839
52	L	129+00.00	702835.9004	1743506.8156
53	L	130+00.00	702737.8264	1743526.3473
54	L	131+00.00	702639.7524	1743545.8791
55	L	132+00.00	702541.6788	1743565.4131
56	L	133+00.00	702443.6832	1743585.3334
57	L	134+00.00	702345.8254	1743605.9200
58	L	135+00.00	702248.1099	1743627.1718
59	L	136+00.00	702150.5412	1743649.0878
60	L	137+00.00	702053.1238	1743671.6671
61	L	138+00.00	701955.8623	1743694.9085
62	L	139+00.00	701858.7612	1743718.8110
63	L	140+00.00	701761.8249	1743743.3735
64	L	141+00.00	701665.0580	1743768.5949
65	L	142+00.00	701568.4648	1743794.4739
66	L	143+00.00	701472.0499	1743821.0095
67	L	144+00.00	701375.8178	1743848.2003
68	L	145+00.00	701279.7729	1743876.0451
69	L	146+00.00	701183.9196	1743904.5427
70	L	147+00.00	701088.2624	1743933.6916
71	L	148+00.00	700992.8057	1743963.4906
72	L	149+00.00	700897.5539	1743993.9382
73	L	150+00.00	700802.5115	1744025.0332
74	L	151+00.00	700707.6828	1744056.7739
75	L	152+00.00	700613.0722	1744089.1590
76	L	153+00.00	700518.6840	1744122.1870
77	L	154+00.00	700424.5228	1744155.8562
78	L	155+00.00	700330.5928	1744190.1653
79	L	156+00.00	700236.8983	1744225.1125
80	L	157+00.00	700143.4437	1744260.6963
81	L	158+00.00	700050.2334	1744296.9150
82	L	159+00.00	699957.2716	1744333.7670
83	L	160+00.00	699864.5627	1744371.2504
84	L	161+00.00	699772.1108	1744409.3637
85	L	162+00.00	699679.9204	1744448.1051
86	L	163+00.00	699587.9957	1744487.4726
87	L	164+00.00	699496.3409	1744527.4646
88	L	165+00.00	699404.9603	1744568.0792
89	L	166+00.00	699313.8239	1744609.2392
90	L	167+00.00	699222.7235	1744650.4790
91	L	168+00.00	699131.6231	1744691.7187
92	L	169+00.00	699040.5227	1744732.9585
93	L	170+00.00	698949.4223	1744774.1983
94	L	171+00.00	698858.3219	1744815.4380
95	L	172+00.00	698767.2215	1744856.6778
96	L	173+00.00	698676.1211	1744897.9176
97	L	174+00.00	698585.0207	1744939.1573
98	L	175+00.00	698493.9203	1744980.3971
99	L	176+00.00	698402.8199	1745021.6368
100	L	177+00.00	698311.7196	1745062.8766
101	L	178+00.00	698220.6192	1745104.1164
102	L	179+00.00	698129.5188	1745145.3561
103	L	180+00.00	698038.4184	1745186.5959
104	L	181+00.00	697947.3180	1745227.8357
105	L	182+00.00	697856.2176	1745269.0754
106	L	183+00.00	697765.1172	1745310.3152
107	L	184+00.00	697674.0168	1745351.5550
108	L	185+00.00	697582.9164	1745392.7947
109	L	186+00.00	697491.8160	1745434.0345
110	L	187+00.00	697400.7156	1745475.2743
111	L	188+00.00	697309.6152	1745516.5140
112	L	189+00.00	697218.5148	1745557.7538
113	L	190+00.00	697127.4144	1745598.9935
114	L	191+00.00	697036.3140	1745640.2333
115	L	192+00.00	696945.2136	1745681.4731
116	L	193+00.00	696854.1132	1745722.7128
117	L	194+00.00	696763.0129	1745763.9526
118	L	195+00.00	696671.9125	1745805.1924
119	L	196+00.00	696580.8121	1745846.4321
120	L	197+00.00	696489.7117	1745887.6719
121	L	198+00.00	696398.6113	1745928.9117
122	L	199+00.00	696307.5109	1745970.1514
123	L	200+00.00	696216.4105	1746011.3912
124	L	201+00.00	696125.3101	1746052.6310
125	L	202+00.00	696034.2097	1746093.8707
126	L	203+00.00	695943.1093	1746135.1105
127	L	204+00.00	695852.0089	1746176.3502
128	L	205+00.00	695760.9085	1746217.5900
129	L	206+00.00	695669.8081	1746258.8298
130	L	207+00.00	695578.7077	1746300.0695
131	L	208+00.00	695487.6073	1746341.3093
132	L	209+00.00	695396.5069	1746382.5491
133	L	210+00.00	695305.4065	1746423.7888
134	Y1	10+00.00	703601.2846	1741793.4311
135	Y1	11+00.00	703661.7294	1741873.0956
136	Y1	12+00.00	703722.1742	1741952.7600
137	Y1	13+00.00	703782.6190	1742032.4245
138	Y1	14+00.00	703841.7940	1742113.0210
139	Y1	15+00.00	703895.3289	1742197.4581
140	Y1	16+00.00	703942.6101	1742285.5497
141	Y1	17+00.00	703983.3893	1742376.8332
142	Y1	18+00.00	704017.4525	1742470.8296
143	Y1	19+00.00	704044.6210	1742567.0455
144	Y1	20+00.00	704064.7595	1742664.9746
145	Y1	21+00.00	704081.6578	1742763.5365
146	Y1	22+00.00	704098.5562	1742862.0984
147	Y1	23+00.00	704115.4546	1742960.6603
148	Y1	24+00.00	704132.3530	1743059.2221
149	Y1	25+00.00	704149.2514	1743157.7840
150	Y1	26+00.00	704166.1497	1743256.3459
151	Y1	27+00.00	704183.0481	1743354.9078
152	Y1	28+00.00	704199.9465	1743453.4697
153	Y1	29+00.00	704216.8449	1743552.0316
154	Y1	30+00.00	704233.7432	1743650.5934
155	Y1	31+00.00	704250.6416	1743749.1553
156	Y1	32+00.00	704267.5400	1743847.7172
157	Y1	33+00.00	704284.4384	1743946.2791
158	Y1	34+00.00	704301.3368	1744044.8410
159	Y1	35+00.00	704318.2351	1744143.4029
160	Y1	36+00.00	704335.1335	1744241.9647
161	Y1	37+00.00	704351.8046	1744340.5652
162	Y1	38+00.00	704367.9830	1744439.2477
163	Y1	39+00.00	704383.6677	1744538.0099
164	Y1	40+00.00	704398.8583	1744636.8493
165	Y1	41+00.00	704413.5547	1744735.7634
166	Y1	42+00.00	704427.7562	1744834.7497
167	Y1	43+00.00	704441.4627	1744933.8058
168	Y1	44+00.00	704454.6737	1745032.9292
169	Y1	44+50.26	704461.1265	1745082.7745
170	Y1_DET	10+00.00	704053.2757	1742604.8750
171	Y1_DET	11+00.00	704080.2541	1742701.0995
172	Y1_DET	12+00.00	704119.0188	1742793.2097
173	Y1_DET	13+00.00	704165.9339	1742881.5113
174	Y1_DET	14+00.00	704207.8772	1742972.2665
175	Y1_DET	15+00.00	704243.2365	1743065.7837
176	Y1_DET	16+00.00	704271.8316	1743161.5860
177	Y1_DET	17+00.00	704293.5165	1743259.1847
178	Y1_DET	18+00.00	704308.1808	1743358.0822
179	Y1_DET	19+00.00	704315.7495	1743457.7740
180	Y1_DET	20+00.00	704316.1842	1743557.7518
181	Y1_DET	21+00.00	704309.4825	1743657.5057
182	Y1_DET	22+00.00	704295.8232	1743756.5507
183	Y1_DET	23+00.00	704286.6542	1743856.0716
184	Y1_DET	24+00.00	704289.2299	1743955.9807
185	Y1_DET	24+72.42	704298.4140	1744027.7938
186	Y2	10+00.00	700388.0011	1740559.7269
187	Y2	11+00.00	700433.6674	1740648.6905
188	Y2	12+00.00	700478.0346	1740738.3080
189	Y2	13+00.00	700520.8312	1740828.6861
190	Y2	14+00.00	700562.0440	1740919.7973
191	Y2	15+00.00	700601.6606	1741011.6138
192	Y2	16+00.00	700639.6688	1741104.1077
193	Y2	17+00.00	700676.0571	1741197.2508
194	Y2	18+00.00	700710.8144	1741291.0147
195	Y2	19+00.00	700743.9302	1741385.3709
196	Y2	20+00.00	700775.3943	1741480.2907
197	Y2	21+00.00	700805.1971	1741575.7451
198	Y2	22+00.00	700833.3296	1741671.7050
199	Y2	23+00.00	700859.7832	1741768.1412
200	Y2	24+00.00	700884.5499	1741865.0245
201	Y2	25+00.00	700907.6221	1741962.3251
202	Y2	26+00.00	700929.0192	1742060.0080
203	Y2	27+00.00	700949.5035	1742157.8875
204	Y2	28+00.00	700969.9411	1742255.7767
205	Y2	29+00.00	700990.3788	1742353.6659
206	Y2	30+00.00	701010.8165	1742451.5552
207	Y2	31+00.00	701031.2541	1742549.4444
208	Y2	32+00.00	701051.6918	1742647.3336
209	Y2	33+00.00	701072.1295	1742745.2229
210	Y2	34+00.00	701092.5685	1742843.1118
211	Y2	35+00.00	701113.3084	1742940.9372
212	Y2	36+00.00	701135.2957	1743038.4888
213	Y2	37+00.00	701159.0565	1743135.6234
214	Y2	38+00.00	701184.6053	1743232.3031
215	Y2	39+00.00	701211.9335	1743328.4951
216	Y2	40+00.00	701241.0317	1743424.1665
217	Y2	41+00.00	701271.8899	1743519.2847
218	Y2	42+00.00	701304.4978	1743613.8175
219	Y2	43+00.00	701338.8442	1743707.7326
220	Y2	44+00.00	701374.9173	1743800.9980
221	Y2	45+00.00	701412.7050	1743893.5821
222	Y2	46+00.00	701452.1944	1743985.4532
223	Y2	47+00.00	701493.3719	1744076.5802
224	Y2	48+00.00	701536.2237	1744166.9319
225	Y2	49+00.00	701580.7351	1744256.4777
226	Y2	50+00.00	701626.8910	1744345.1871
227	Y2	51+00.00	701674.6756	1744433.0298
228	Y2	52+00.00	701724.0728	1744519.9760
229	Y2	53+00.00	701775.0655	1744605.9961
230	Y2	54+00.00	701827.6367	1744691.0608
231	Y2	55+00.00	701881.7643	1744775.1436
232	Y2	56+00.00	701937.1159	1744858.4270
233	Y2	57+00.00	701992.8652	1744941.4451
234	Y2	58+00.00	702048.6246	1745024.4565
235	Y2	59+00.00	702104.3840	1745107.4679
236	Y2	60+00.00	702160.1433	1745190.4793
237	Y2	61+00.00	702215.9027	1745273.4907
238	Y2	62+00.00	702271.6620	1745356.5021
239	Y2	63+00.00	702327.4214	1745439.5135
240	Y2	64+00.00	702383.1807	1745522.5249
241	Y2	65+00.00	702438.9401	1745605.5364
242	Y2	66+00.00	702494.6995	1745688.5478
243	Y2	67+00.00	702550.5317	1745771.5101
244	Y2	68+00.00	702606.5952	1745854.3164
245	Y2	69+00.00	702662.8951	1745936.9621
246	Y2	70+00.00	702719.4308	1746019.4467
247	Y2	71+00.00	702776.1612	1746101.7976
248	Y2	72+00.00	702832.9114	1746184.1348
249	Y2	73+00.00	702889.6615	1746266.4720
250	Y2	74+00.00	702946.4117	1746348.8092
251	Y2	75+00.00	703003.1618	1746431.1465
252	Y2	76+00.00	703059.9120	1746513.4837
253	Y2	77+00.00	703116.6622	1746595.8209
254	Y2	78+00.00	703173.1783	1746678.3184
255	Y2	79+00.00	703228.5480	1746761.5891
256	Y2	80+00.00	703282.6688	1746845.6769
257	Y2	81+00.00	703335.5285	1746930.5630
258	Y2	82+00.00	703387.1155	1747016.2287
259	Y2	83+00.00	703437.4181	1747102.6547
260	Y2	84+00.00	703486.4253	1747189.8219
261	Y2	85+00.00	703534.1260	1747277.7107
262	Y2	86+00.00	703580.5098	1747366.3017
263	Y2	87+00.00	703625.5661	1747455.5751
264	Y2	88+00.00	703669.2850	1747545.5111
265	Y2	88+88.30	703706.9506	1747625.3713
266	Y2A	10+00.00	700816.5295	1741613.6582
267	Y2A	11+00.00	700911.7977	1741625.5806
268	Y2A	12+00.00	700960.6112	1741710.4647
269	Y2A	13+00.00	700993.3087	1741804.9680
270	Y2A	14+00.00	701026.0061	1741899.4713
271	Y2A	15+00.00	701076.6422	1741984.8325
272	Y2A	16+00.00	701156.9108	1742043.7096
273	Y2A	16+51.88	701201.4873	1742070.2451
274	Y2LPB	10+00.00	701639.3159	1743824.0653
275	Y2LPB	11+00.00	701736.5006	1743800.6036
276	Y2LPB	12+00.00	701835.8807	1743791.4385
277	Y2LPB	13+00.00	701933.3924	1743810.9896
278	Y2LPB	14+00.00	702014.7966	1743867.7066
279	Y2LPB	15+00.00	702064.7371	1743953.4353
280	Y2LPB	16+00.00	702073.9212	1744052.2235
281	Y2LPB	17+00.00	702040.6398	1744145.6891
282	Y2LPB	18+00.00	701972.9249	1744218.6034
283	Y2LPB	19+00.00	701889.7876	1744274.0508
284	Y2LPB	20+00.00	701804.1672	1744325.7146
285	Y2LPB	21+00.00	701718.5460	1744377.3771
286	Y2LPB	21+65.37	701662.5758	1744411.1486
287	Y2RPB	10+00.00	703213.7774	1743479.4834
288	Y2RPB	11+00.00	703115.8271	1743499.6185
289	Y2RPB	12+00.00	703018.6985	1743523.3560
290	Y2RPB	13+00.00	702923.5050	1743553.8965
291	Y2RPB	14+00.00	702831.1044	1743592.0622
292	Y2RPB	15+00.00	702742.1085	1743637.6059
293	Y2RPB	16+00.00	702657.1053	1743690.2266
294	Y2RPB	17+00.00	702576.6562	1743749.5767
295	Y2RPB	18+00.00	702501.2547	1743815.2231
296	Y2RPB	19+00.00	702430.1703	1743885.5453
297	Y2RPB	20+00.00	702361.0564	1743957.8168
298	Y2RPB	21+00.00	702291.1494	1744029.3160
299	Y2RPB	22+00.00	702217.7383	1744097.1943
300	Y2RPB	23+00.00	702140.1372	1744160.2390
301	Y2RPB	24+00.00	702058.6568	1744218.1832
302	Y2RPB	25+00.00	701973.6320	1744270.7888
303	Y2RPB	26+00.00	701886.8731	1744320.5170
304	Y2RPB	27+00.00	701800.1132	1744370.2435
305	Y2RPB	28+00.00	701713.3533	1744419.9700
306	Y2RPB	28+40.15	701678.5210	1744439.9341
307	Y2LPD	10+00.00	701198.4657	1743851.1115
308	Y2LPD	11+00.00	701102.0338	1743877.5042
309	Y2LPD	12+00.00	701003.0300	1743890.2148
310	Y2LPD	13+00.00	700904.6728	1743875.2251
311	Y2LPD	14+00.00	700819.8560	1743823.6396
312	Y2LPD	15+00.00	700763.3154	1743742.0423
313	Y2LPD	16+00.00	700744.8058	1743644.5110
314	Y2LPD	17+00.00	700767.5208	1743547.8725
315	Y2LPD	18+00.00	700826.4728	1743467.7976
316	Y2LPD	19+00.00	700906.6546	1743408.4092
317	Y2LPD	20+00.00	700995.4049	1743362.4046
318	Y2LPD	21+00.00	701085.7204	1743319.4731
319	Y2LPD	22+00.00	701176.0387	1743276.5476
320	Y2LPD	22+20.40	701194.4642	1743267.7906
321	Y2RPD	10+00.00	699535.8423	1744458.8637
322	Y2RPD	11+00.00	699627.3999	1744418.6505
323	Y2RPD	12+00.00	699718.1300	1744376.6113
324	Y2RPD	13+00.00	699807.0962	1744330.9723
325	Y2RPD	14+00.00	699893.3804	1744280.4527
326	Y2RPD	15+00.00	699976.5832	1744225.0047
327	Y2RPD	16+00.00	700056.4235	1744164.8159
328	Y2RPD	17+00.00	700132.6316	1744100.0894
329	Y2RPD	18+00.00	700204.9498	1744031.0441
330	Y2RPD	19+00.00	700273.1884	1743957.9621
331	Y2RPD	20+00.00	700338.0105	1743881.8241
332	Y2RPD	21+00.00	700400.8335	1743804.0227
333	Y2RPD	22+00.00	700463.2656	1743725.9063
334	Y2RPD	23+00.00	700527.6694	1743649.4175
335	Y2RPD	24+00.00	700596.6597	1743577.0642
336	Y2RPD	25+00.00	700671.8641	1743511.2092
337	Y2RPD	26+00.00	700752.9377	1743452.7312
338	Y2RPD	27+00.00	700839.1593	1743402.1504
339	Y2RPD	28+00.00	700929.1091	1743358.4754
340	Y2RPD	29+00.00	701019.4275	1743315.5499
341	Y2RPD	30+00.00	701109.7458	1743272.6244
342	Y2RPD	30+84.16	701185.7573	1743236.4984
343	SR2	10+00.00	702012.6484	1744970.8972
344	SR2	11+00.00	702095.7020	1744915.2006
345	SR2	12+00.00	702176.4053	1744856.2993
346	SR2	13+00.00	702244.7442	1744783.5222
347	SR2	14+00.00	702298.8622	1744699.5161
348	SR2	14+03.55	702300.6849	1744696.4730
349	SR_F	10+00.00	702012.6484	1744970.8972
350	SR_F	11+00.00	701925.5103	1745019.1868
351	SR_F	12+00.00	701827.0184	1745032.0987
352	SR_F	13+00.00	701729.6349	1745010.3157
353	SR_F	13+97.90	701635.2935	1744984.1663
354	DR6	10+00.00	700908.9862	1741623.6378
355	DR6	11+00.00	700964.4116	1741540.4041
356	DR6	12+00.00	701043.4003	1741481.7571
357	DR6	13+00.00	701142.3865	1741476.1966
358	DR6	13+81.03	701223.2290	1741481.6928

6/2/99

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	D6	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	J4	PROP. 10" AGGREGATE BASE COURSE.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E1	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J5	VARIABLE DEPTH ABC.
C3	PROP. APPROX. 2½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E2	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	N1	GEOTEXTILE FOR SUBGRADE STABILIZATION, TYPE 4 (SEE NOTE 2)
C4	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 ½" IN DEPTH.	E3	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.	P	PRIME COAT.
C5	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B,AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E4	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.	R1	1'-6" CONCRETE CURB AND GUTTER.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E5	PROP. APPROX. 5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.	R2	2'-6" CONCRETE CURB AND GUTTER.
C7	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.	E6	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	R4	5" MONOLITHIC CONCRETE ISLAND (KEYED-IN).
C8	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E7	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R5	EXPRESSWAY GUTTER.
C9	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E8	PROP. APPROX. 7.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.C, AT AN AVERAGE RATE OF 427.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R6	DOUBLE FACED CONCRETE BARRIER TYPE T
C10	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.	E9	PROP. APPROX. 8.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.C, AT AN AVERAGE RATE OF 484.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R7	DOUBLE FACED CONCRETE BARRIER TYPE T1
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	E10	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	R8	SHOULDER BERM GUTTER
D2	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	G	PROP. 8.0" CEMENT TREATED BASE COURSE.	S	SPLIT SEAL
D3	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	J1	PROP. 6" AGGREGATE BASE COURSE.	T	EARTH MATERIAL.
D4	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	J2	PROP. 7" AGGREGATE BASE COURSE.	U	EXISTING PAVEMENT.
D5	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J3	PROP. 8" AGGREGATE BASE COURSE.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAILS).

NOTES: 1) PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
2) TYPE 5 GEOTEXTILE SHALL REPLACE TYPE 4 GEOTEXTILE FOR ALL EMBANKMENTS THAT ARE OVER TEN FEET IN HEIGHT (AS MEASURED VERTICALLY FROM THE TOE OF THE EMBANKMENT TO THE ELEVATION OF THE OUTER EDGE OF PAVEMENT) AND 200 FEET IN LENGTH.



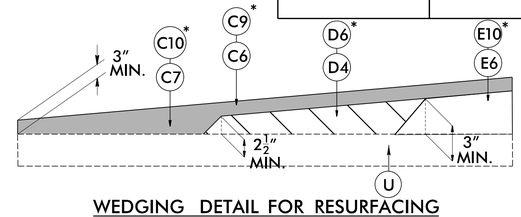
TYPICAL SECTION NO. 1

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

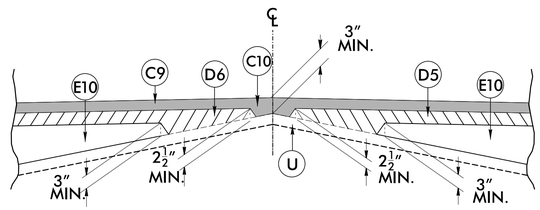
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



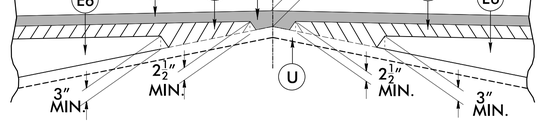
WEDGING DETAIL FOR RESURFACING

FOR –L–* & –Y2–



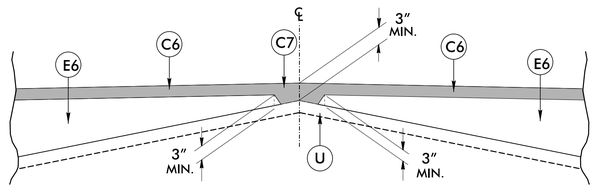
DETAIL SHOWING METHOD OF WEDGING

FOR –Y–



DETAIL SHOWING METHOD OF WEDGING

FOR –Y1–*, –Y2–**



DETAIL SHOWING METHOD OF WEDGING

FOR –Y1A–

USE TYPICAL SECTION NO. 1

–L– STA. 9+00.00 TO 20+00.00
–L1RT– STA. 10+00.00 TO 21+01.38

USE –L– PROFILE FOR LEFT LANES &
USE –L1RT– PROFILE FOR RIGHT LANES.

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

3/22/2016
R:\Roadway\Proj\Plan Sheets\Sec1\R2536_Rdy_typ_SEC1.dgn
Ekaur

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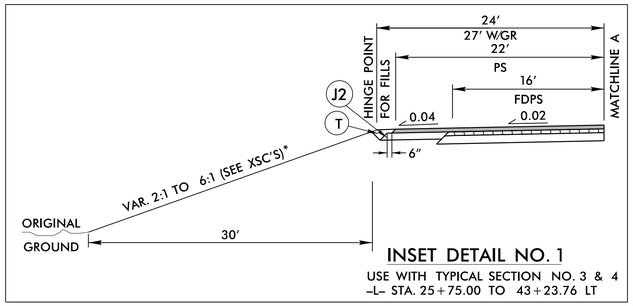
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-2

ROADWAY DESIGN ENGINEER

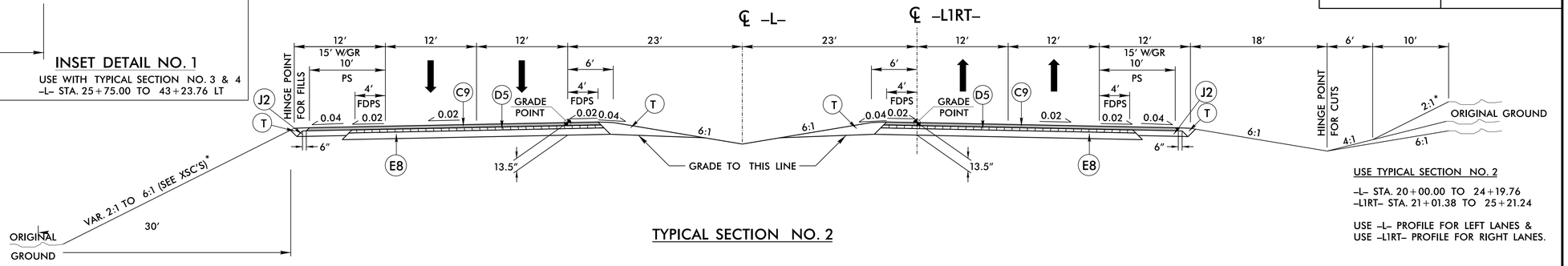
PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



INSET DETAIL NO. 1

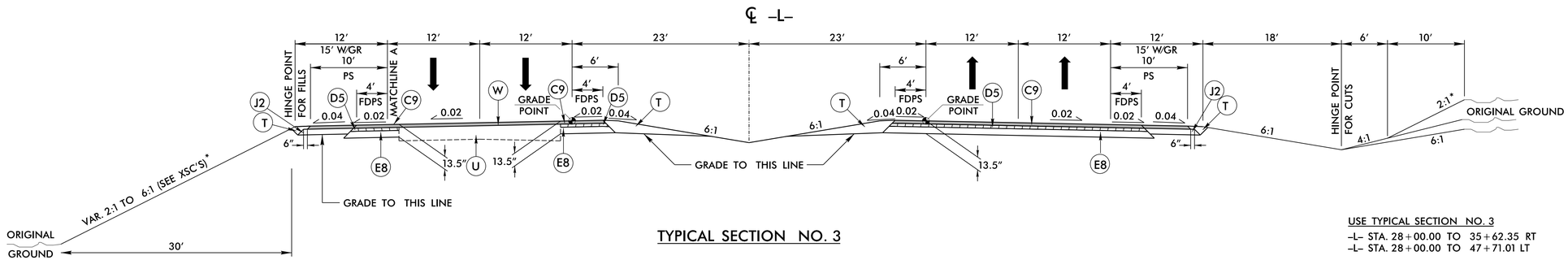
USE WITH TYPICAL SECTION NO. 3 & 4
–L– STA. 25+75.00 TO 43+23.76 LT



TYPICAL SECTION NO. 2

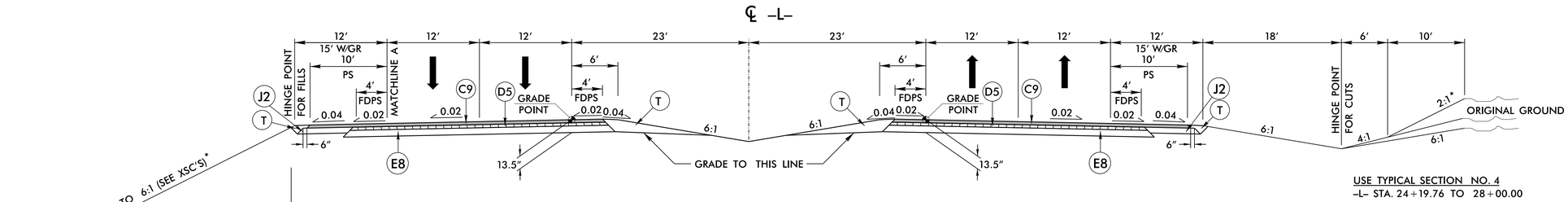
USE TYPICAL SECTION NO. 2
–L– STA. 20+00.00 TO 24+19.76
–L1RT– STA. 21+01.38 TO 25+21.24

USE –L– PROFILE FOR LEFT LANES &
USE –L1RT– PROFILE FOR RIGHT LANES.



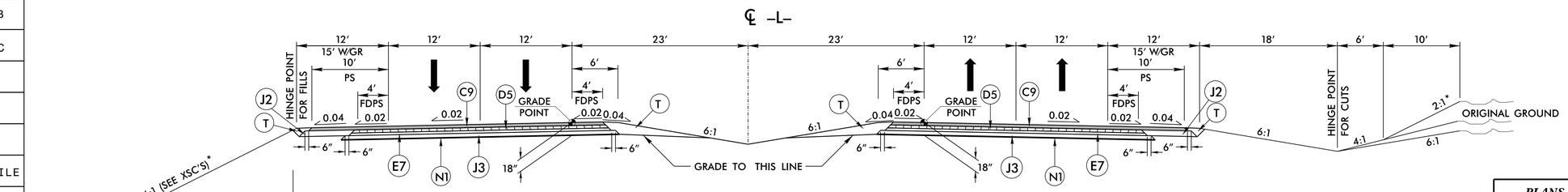
TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3
–L– STA. 28+00.00 TO 35+62.35 RT
–L– STA. 28+00.00 TO 47+71.01 LT



TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4
–L– STA. 24+19.76 TO 28+00.00



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5
–L– STA. 35+62.35 TO 47+71.01 RT
–L– STA. 47+71.01 TO 143+14.50 (BEGIN BRIDGE LT)
–L– STA. 144+35.09 (END BRIDGE LT) TO STA. 210+00.00

PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
C9	3″ TYPE S9.5C
D3	4″ TYPE I19.0B
D5	3″ TYPE I19.0C
E1	3″ TYPE B25.0B
E7	4″ TYPE B25.0C
J2	7″ ABC
J3	8″ ABC
J4	10″ ABC
N1	TYPE 4 GEOTEXTILE
T	EARTH MATERIAL

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
C9	3″ TYPE S9.5C
D3	4″ TYPE I19.0B
D5	3″ TYPE I19.0C
E1	3″ TYPE B25.0B
E7	4″ TYPE B25.0C
J2	7″ ABC
J3	8″ ABC
J4	10″ ABC
N1	TYPE 4 GEOTEXTILE
R7	DOUBLE FACED CONC. BARRIER TYPE T1
T	EARTH MATERIAL

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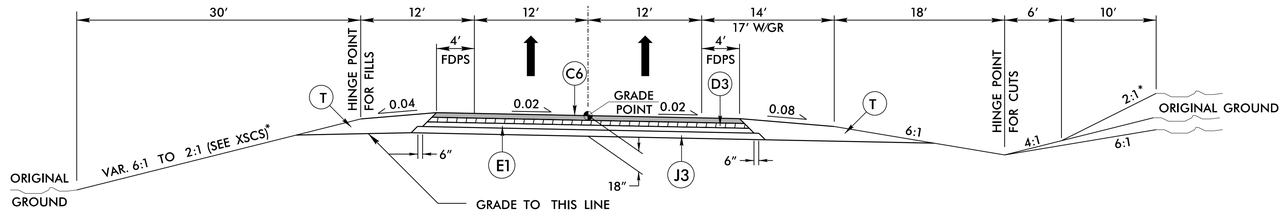
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-3

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

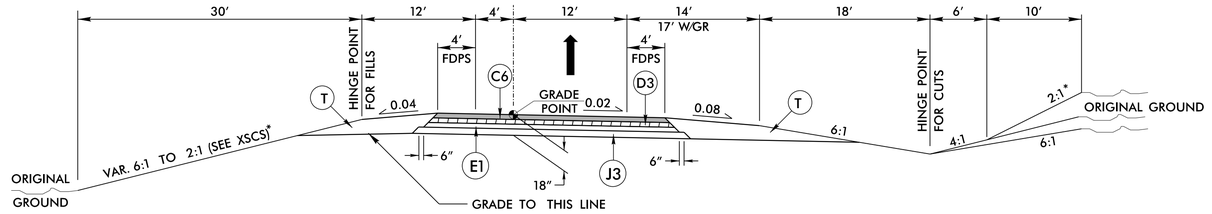
℄ –FLY–



TYPICAL SECTION NO. 6

USE TYPICAL SECTION NO. 6
–FLY– STA. 10+33.56 TO 32+00.62
–FLY– STA. 52+65.99 TO 56+02.47

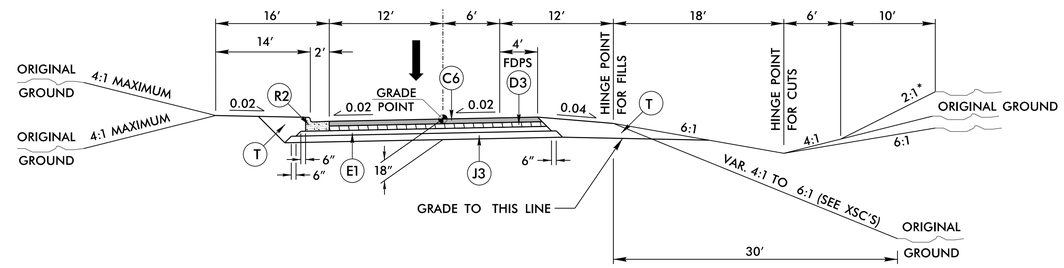
℄ –RPA–



TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7
–RPA– STA. 10+00.00 TO 34+25.74

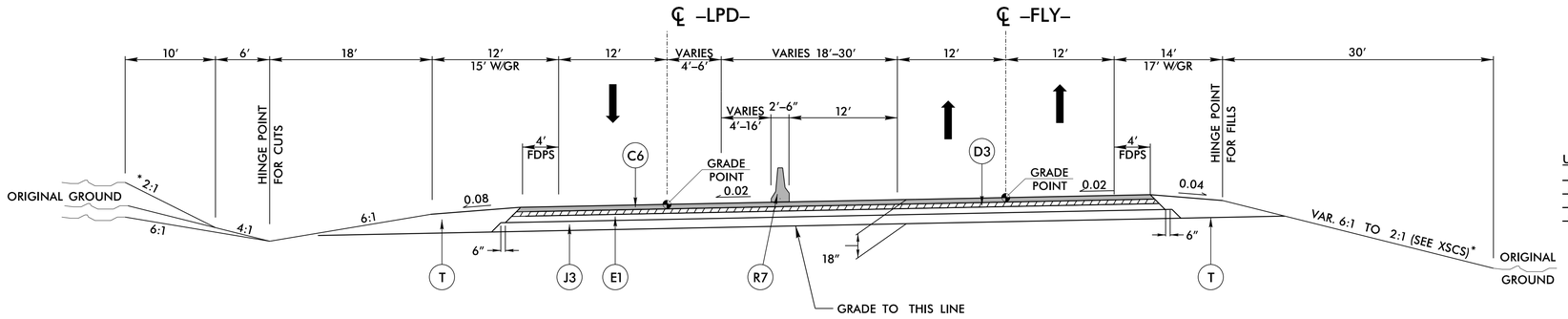
℄ –LPD–



TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8
–LPD– STA. 9+51.52 TO 19+36.53
–LPD– STA. 40+07.49 TO 40+91.52

℄ –LPD– ℄ –FLY–



TYPICAL SECTION NO. 9

USE TYPICAL SECTION NO. 9
–LPD– STA 19+36.53 TO 24+97.78 (BEGIN BRIDGE)
–LPD– STA 26+64.70 (END BRIDGE) TO STA 40+07.49
–FLY– STA 32+00.62 TO STA 37+94.16 (BEGIN BRIDGE)
–FLY– STA 39+61.17 (END BRIDGE) TO STA 52+65.99

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

PLANS PREPARED BY :
RK&K
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900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
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PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
D2	3″ TYPE I19.0B
D3	4″ TYPE I19.0B
E1	3″ TYPE B25.0B
E2	4″ TYPE B25.0B
J3	8″ ABC
J4	10″ ABC
R2	2′-6″ C&G
R7	TYPE T1 BARRIER
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

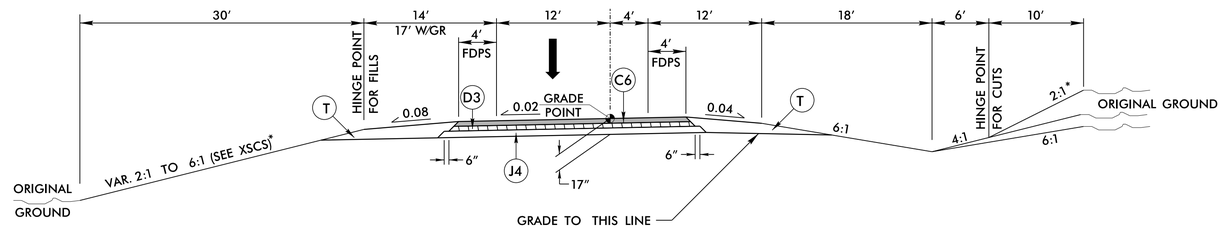
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-4

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

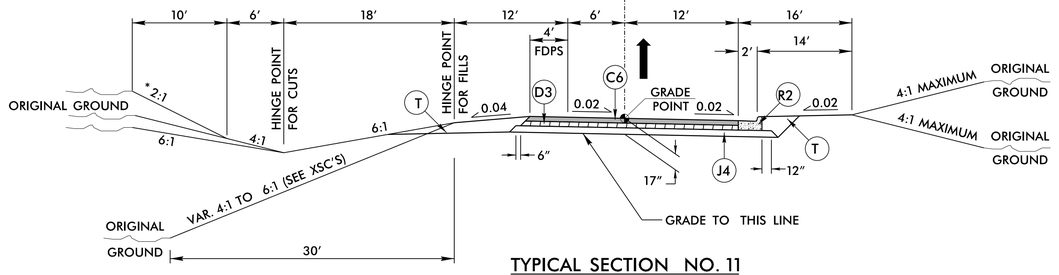
℄ –Y2RPB– & –Y2RPD–



TYPICAL SECTION NO. 10

USE TYPICAL SECTION NO. 10
–Y2RPB– STA. 10+00.00 TO 28+07.65
–Y2RPD– STA. 10+00.00 TO 30+84.16

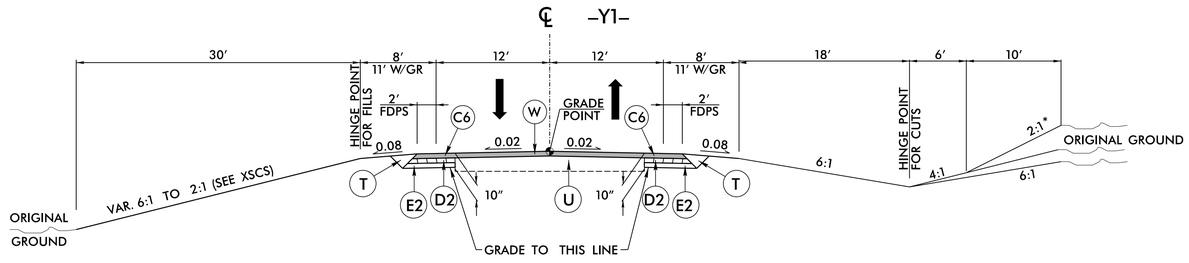
℄ –Y2LPB– & –Y2LPD–



TYPICAL SECTION NO. 11

USE TYPICAL SECTION NO. 11
–Y2LPB– STA. 10+00.00 TO 21+65.37
–Y2LPD– STA. 10+00.00 TO 22+20.40

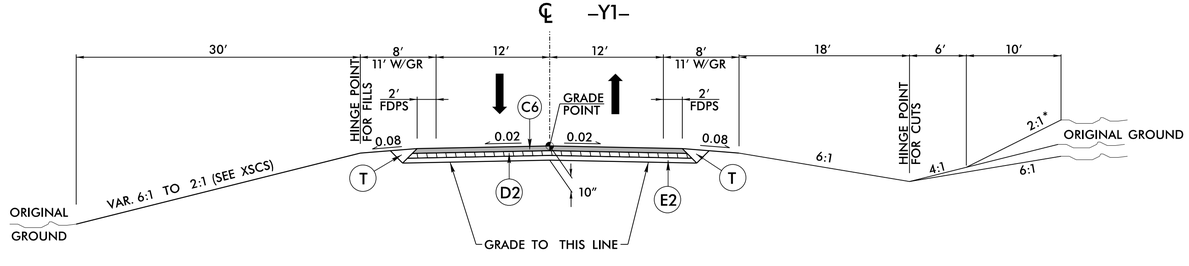
℄ –Y1–



TYPICAL SECTION NO. 12

USE TYPICAL SECTION NO. 12
–Y1– STA. 20+50.00 TO 21+00.00
–Y1– STA. 31+50.00 TO 33+00.00

℄ –Y1–



TYPICAL SECTION NO. 13

USE TYPICAL SECTION NO. 13
–Y1– STA. 21+00.00 TO 25+07.79 (BEGIN BRIDGE)
–Y1– STA. 26+63.85 (END BRIDGE) TO 31+50.00

NOTES:
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NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C5	1½" TYPE S9.5B
C6	3" TYPE S9.5B
D1	2½" TYPE I19.0B
D2	3" TYPE I19.0B
E2	4" TYPE B25.0B
E4	5" TYPE B25.0B
J1	6" ABC
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

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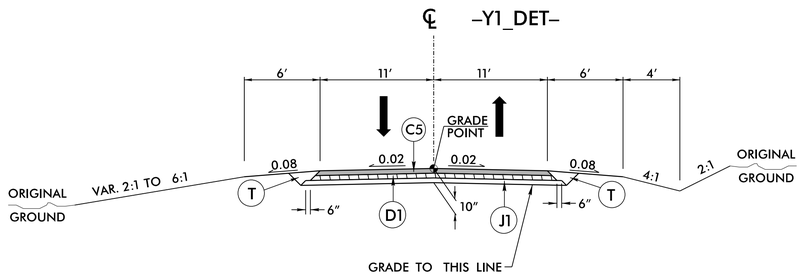
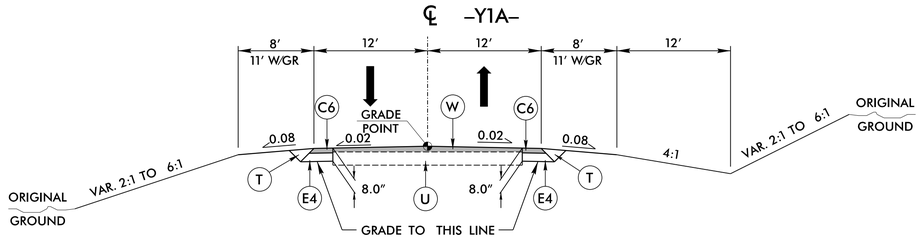
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



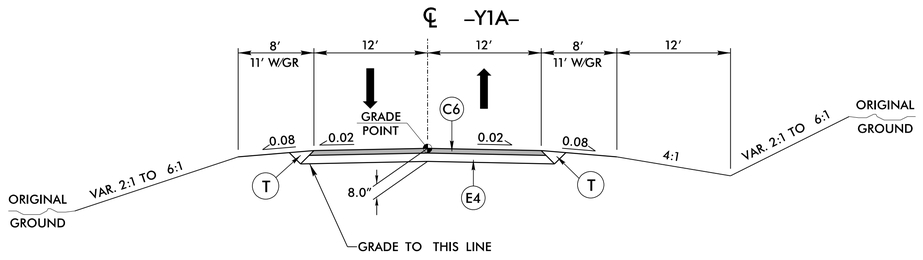
TYPICAL SECTION NO. 14

USE TYPICAL SECTION NO. 14
–Y1DET– STA. 11+24.59 TO 23+26.12



TYPICAL SECTION NO. 15

USE TYPICAL SECTION NO. 15
–Y1A– STA. 11+65.00 TO 13+50.00
–Y1A– STA. 27+00.00 TO 27+23.83
–Y1A– STA. 29+22.09 TO 30+50.00



TYPICAL SECTION NO. 16

USE TYPICAL SECTION NO. 16
–Y1A– STA. 13+50.00 TO 17+46.52 (BEGIN BRIDGE)
–Y1A– STA. 19+08.06 (END BRIDGE) TO 27+00.00
–Y1A– STA. 27+23.83 TO 29+22.09

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

PLANS PREPARED BY :
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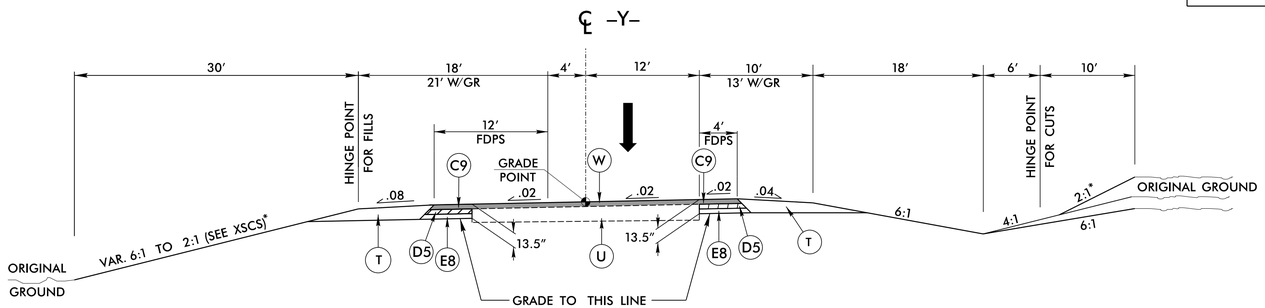
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
C9	3″ TYPE S9.5C
D3	4″ TYPE I19.0B
D5	3″ TYPE I19.0C
E5	5½″ TYPE B25.0B
E8	7½″ TYPE B25.0C
R4	CONC. ISLAND
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

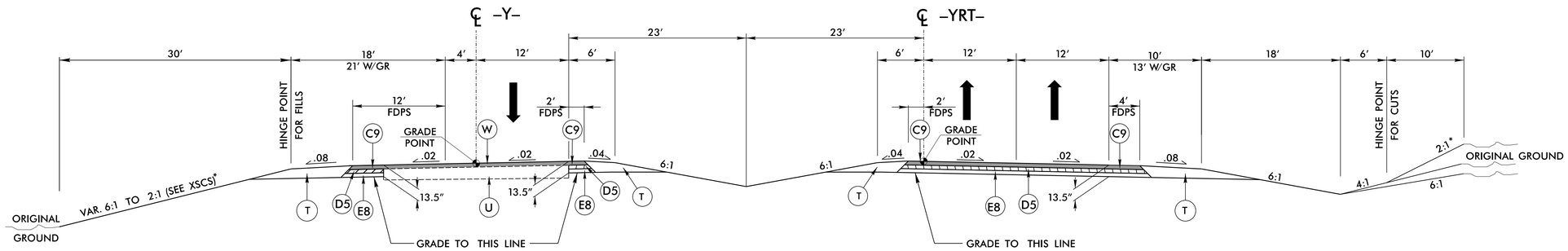
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



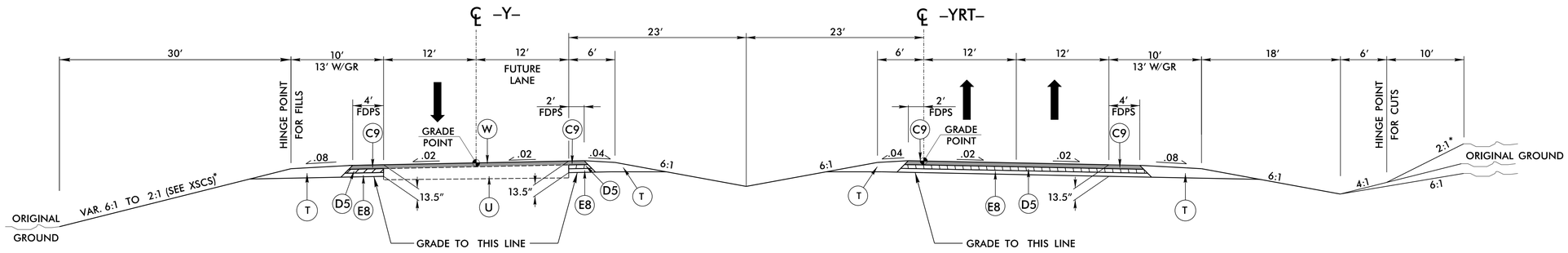
TYPICAL SECTION NO. 17

USE TYPICAL SECTION NO. 17
–Y– STA. 10+00.00 TO 39+93.55



TYPICAL SECTION NO. 18

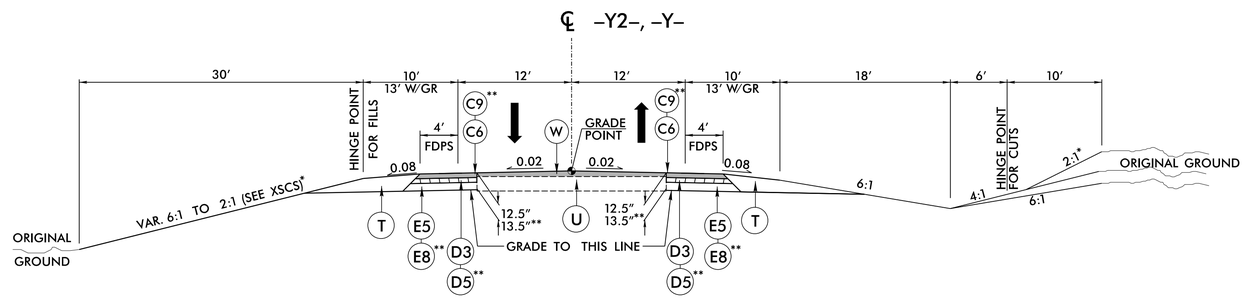
USE TYPICAL SECTION NO. 18
–Y– STA. 39+93.55 TO 46+50.00
–YRT– STA. 10+00 TO 23+77.21



TYPICAL SECTION NO. 19

USE TYPICAL SECTION NO. 19
–Y– STA. 46+50.00 TO 61+07.59
–YRT– STA. 23+77.21 TO 31+15.14

TRANSITION FROM TYPICAL SECTION NO. 18 TO 19 FROM –Y– STA. 46+50.00 TO STA. 53+70.00.



TYPICAL SECTION NO. 20

USE TYPICAL SECTION NO. 20
–Y2– STA. 21+63.73 TO 30+10.00
**–Y– STA. 61+07.59 TO 64+00.00

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

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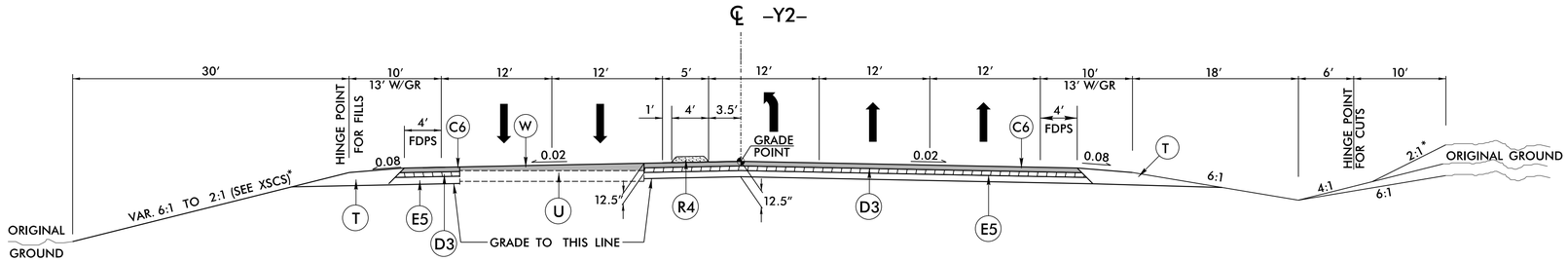
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C3	2½" TYPE SF9.5A
C6	3" TYPE S9.5B
D3	4" TYPE I19.0B
E2	4" TYPE B25.0B
E5	5½" TYPE B25.0B
R2	2'-6" C&G
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

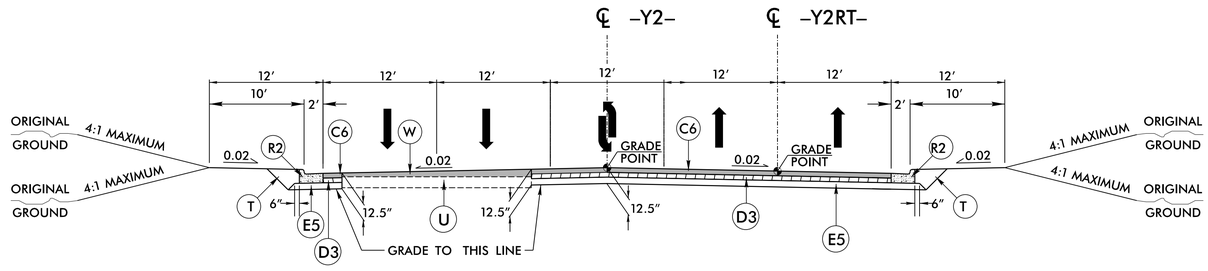
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



TYPICAL SECTION NO. 21

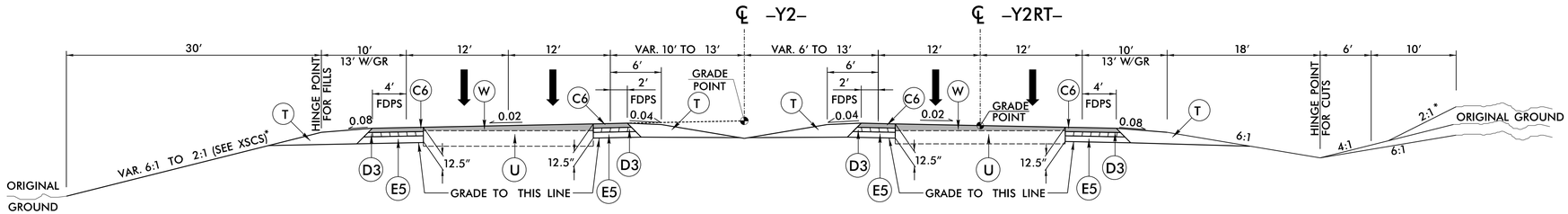
USE TYPICAL SECTION NO. 21
–Y2– STA. 30+10.00 TO 57+10.00



TYPICAL SECTION NO. 22

USE TYPICAL SECTION NO. 22
–Y2– STA. 57+10.00 TO 86+45.00

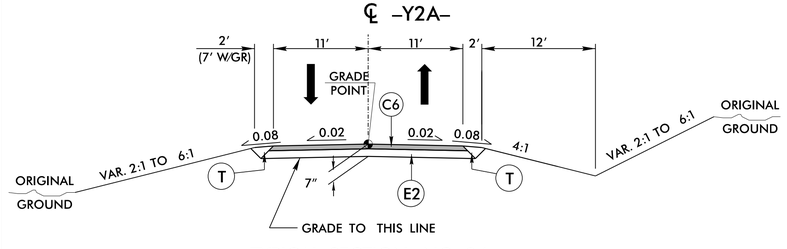
USE –Y2RT– FROM STA. 83+20 to STA. 86+45



TYPICAL SECTION NO. 23

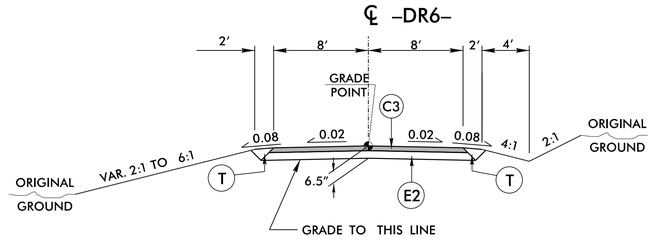
USE TYPICAL SECTION NO. 23
–Y2– STA. 86+45.00 TO 87+86.66

USE –Y2– GRADE FOR LEFT SIDE & USE –Y2RT– GRADE FOR RIGHT SIDE.



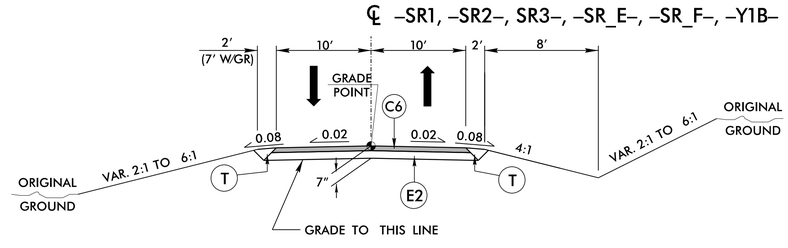
TYPICAL SECTION NO. 24

USE TYPICAL SECTION NO. 24
–Y2A– STA. 10+12.00 TO 16+00.00



TYPICAL SECTION NO. 25

USE TYPICAL SECTION NO. 25
–DR6– STA. 10+13.99 TO 12+50.00



TYPICAL SECTION NO. 26

USE TYPICAL SECTION NO. 26
–SR1– STA. 10+20.60 TO 34+83.62
–SR2– STA. 10+44.50 TO 14+03.13
–SR3– STA. 10+32.54 TO 16+00.00
–SR_E– STA. 10+20.00 TO 14+15.00
–SR_F– STA. 10+32.50 TO 13+97.90
–Y1B– STA. 10+00.00 TO 17+53.92

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

PLANS PREPARED BY :
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NC LICENSE NO. F-0112 • (919) 878-9560

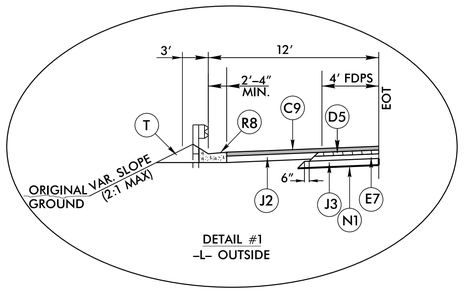
PAVEMENT SCHEDULE	
C5	1½" TYPE S9.5B
C6	3" TYPE S9.5B
C9	3" TYPE S9.5C
D2	4" TYPE I19.0B
D3	4" TYPE I19.0B
D5	3" TYPE I19.0C
E1	3" TYPE B25.0B
E2	4" TYPE B25.0B
E4	5" TYPE B25.0B
E5	5½" TYPE B25.0B
E7	4" TYPE B25.0C
J1	6" ABC
J2	7" ABC
J3	8" ABC
J4	10" ABC
N1	TYPE 4 GEOTEXTILE
P	PRIME COAT
R8	SHLD. BERM GUTTER
S	SPLIT SEAL
T	EARTH MATERIAL

SHOULDER BERM GUTTER DETAILS

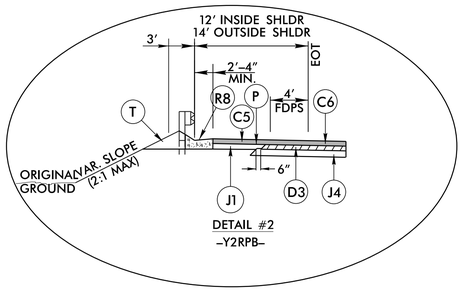
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

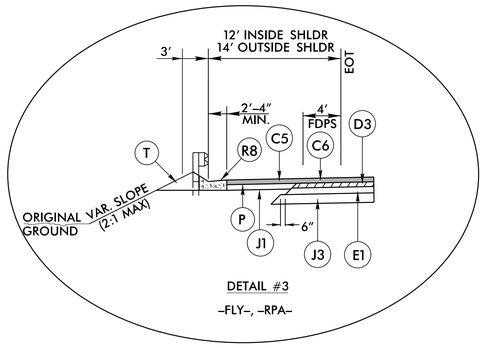
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



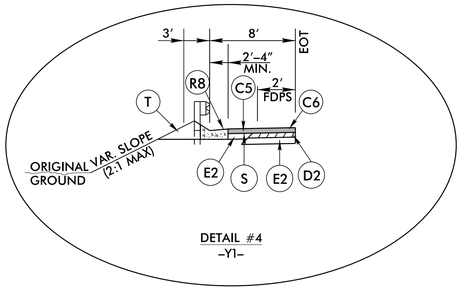
DETAIL #1
–L– OUTSIDE



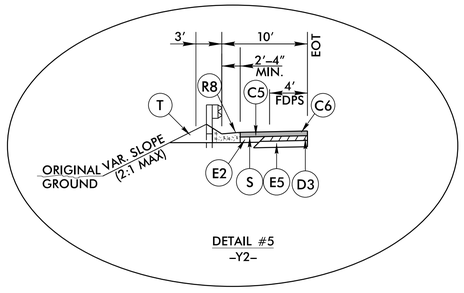
DETAIL #2
–Y2RPB–



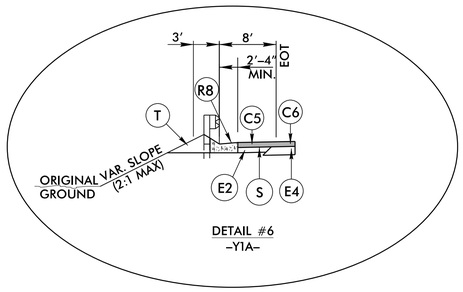
DETAIL #3
–FLY–, –RPA–



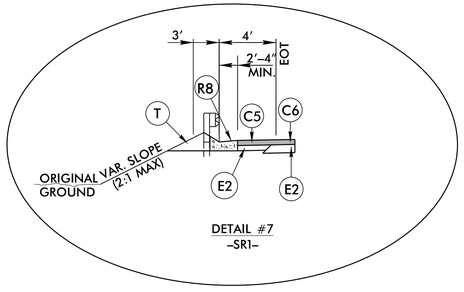
DETAIL #4
–Y1–



DETAIL #5
–Y2–



DETAIL #6
–Y1A–



DETAIL #7
–SR1–

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Plans

PAVEMENT SCHEDULE	
C5	1½" TYPE S9.5B
C6	3" TYPE S9.5B
C8	1½" TYPE S9.5C
C9	3" TYPE S9.5C
D2	4" TYPE I19.0B
D3	4" TYPE I19.0B
D5	3" TYPE I19.0C
E1	3" TYPE B25.0B
E2	4" TYPE B25.0B
E5	5½" TYPE B25.0B
E7	4" TYPE B25.0C
E8	7½" TYPE B25.0C
J1	6" ABC
J2	7" ABC
J3	8" ABC
J4	10" ABC
N1	TYPE 4 GEOTEXTILE
P	PRIME COAT
S	SPLIT SEAL
T	EARTH MATERIAL

GUARDRAIL WIDENING DETAILS

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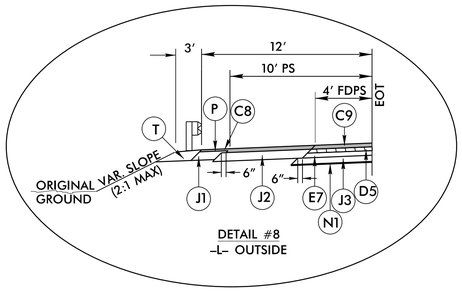
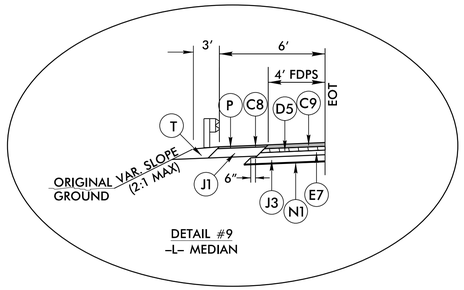
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-9
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

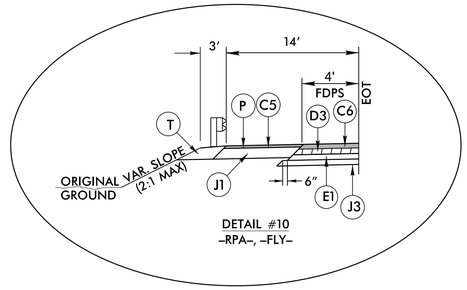
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



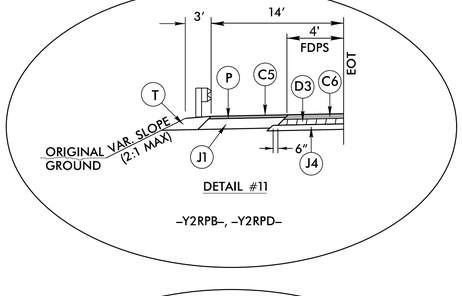
DETAIL #8
–L– OUTSIDE



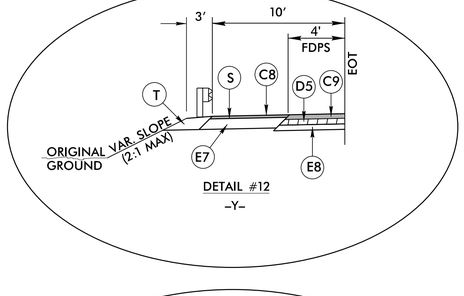
DETAIL #9
–L– MEDIAN



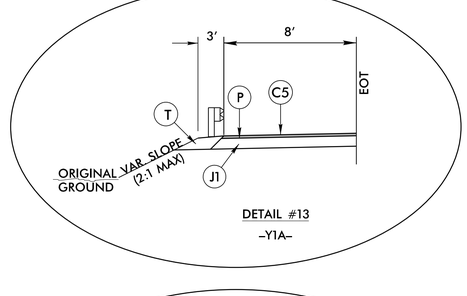
DETAIL #10
–RPA–, –FLY–



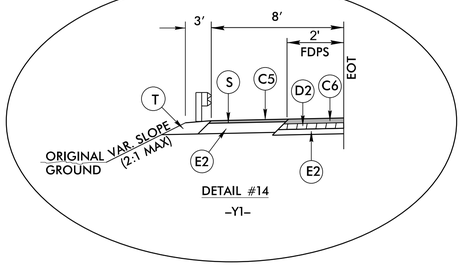
DETAIL #11
–Y2RPB–, –Y2RPD–



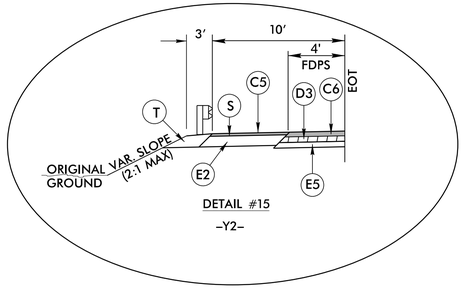
DETAIL #12
–Y–



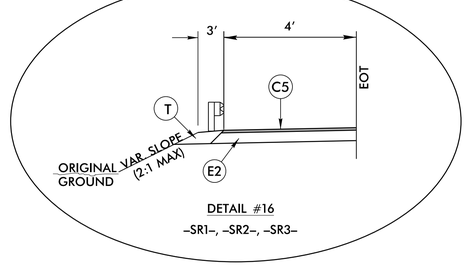
DETAIL #13
–Y1A–



DETAIL #14
–Y1–

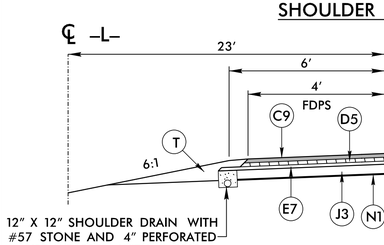


DETAIL #15
–Y2–

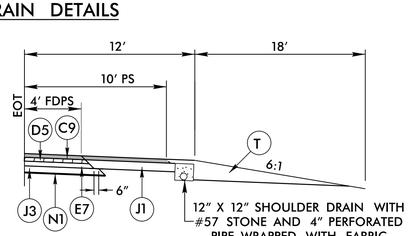


DETAIL #16
–SR1–, –SR2–, –SR3–

SHOULDER DRAIN DETAILS



–L– MEDIAN SHOULDER DRAIN DETAIL



DETAIL #1
–L– OUTSIDE

–L– OUTSIDE SHOULDER DRAIN DETAIL

LINE	STATION	TO STATION	LOCATION	OUTLET	STATION
–L1RT–	19+70	25+22	LT	—	—
				—	—
–L1RT–	19+70	25+22	RT	—	—
				—	—
–L–	24+19	25+40	LT	—	—
–L–	24+19	25+40	RT	—	—
				—	—
				—	—
				—	—
–L–	27+29	43+24	LT	—	—
				—	—
				—	—
				—	—
–L–	43+24	45+30	MED. LT	—	—
				—	—
				—	—
				—	—
				—	—
–L–	27+29	45+30	RT	—	—
				—	—
				—	—
				—	—
				—	—
–L–	45+65	46+83	MED. LT	—	—
–L–	45+65	46+83	RT	—	—
–L–	55+90	65+44	MED. LT	—	—
				—	—
–L–	65+44	70+50	LT	—	—
				—	—

LINE	STATION	TO STATION	LOCATION	OUTLET	STATION
–L–	55+90	70+50	RT	—	—
				—	—
				—	—
				—	—
				—	—
–L–	93+00	108+00	LT	—	—
				—	—
				—	—
				—	—
				—	—
				—	—
–L–	93+00	108+00	RT	—	—
				—	—
				—	—
				—	—
				—	—
–L–	120+10	130+10	LT	—	—
				—	—
				—	—
				—	—
–L–	120+10	130+10	RT	—	—
				—	—
				—	—
				—	—

LINE	STATION	TO STATION	LOCATION	OUTLET	STATION
–L–	153+50	160+50	LT	—	—
				—	—
				—	—
–L–	153+50	160+50	RT	—	—
				—	—
				—	—
–L–	166+15	167+69	LT	—	—
–L–	166+15	167+69	RT	—	—
				—	—
–L–	168+97	175+42	LT	—	—
				—	—
				—	—
–L–	168+97	175+42	RT	—	—
				—	—
				—	—
				—	—
				—	—
–L–	179+75	195+92	LT	—	—
				—	—
				—	—
				—	—
				—	—
				—	—
–L–	179+75	195+92	RT	—	—
				—	—
				—	—
				—	—
				—	—
				—	—

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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DETAIL OF TEMPORARY ON-SITE DETOUR FOR -Y1- (OLD NC 49).

NAD 83'95

-L- POT Sta.114+22.14 =
-Y1_DET- POT Sta.16+58.16

S 11°15'47.7" E

-L-

-Y1-

N 80° 16' 16.5" E

BEGIN CONSTRUCTION
-Y1_DET- POC Sta.10+80.00

BEGIN GRADE
-Y1_DET- POC Sta.11+24.68

END CONSTRUCTION
-Y1_DET- POC Sta.24+33.48

END GRADE
-Y1_DET- POC Sta.23+26.12

-Y1_DET- PC Sta. 10+00.00

-Y1_DET- PRC Sta. 12+40.33

-L- POT Sta.115+46.07 =
-Y1- POT Sta. 25+85.82

-Y1_DET- PRC Sta. 21+87.56

-Y1_DET- PT Sta. 24+72.42

10+00 | 15+00 | 20+00

30 NANCY BYRD DB 1645 PG 657

31 CYNTHIA PIERCE DB 1645 PG 663

28 28 GARY MCBRIDE DB 1697 PG 2135

313 BARBARA COUNCILMAN DB 1377 PG 1222

314 ALIJOHN ARASTA DB 1236 PG 2001 DB 2035 PG 1432 PB 112 PG 12

32 ALIJOHN ARASTA

26 CYNTHIA PIERCE DB 1645 PG 663

OLD NC HWY 49 (SR 1193) 20' PAVED RDWY

BARN · 25FD ABAND · 3.5 CONC WALK · WELL HOUSE · SOIL & GRAVEL · GARDEN AREA · PASTURE · 5' WOOD · EXISTING R/W · 4' WM · 25PR · 27PR · 200PR · 300PR · 600PR · 5' RCP · 18" RCP · 24" RCP · EIP · TV FO · T FO · ISBKD · WOOD DECK · ISFD · WD DECK · 3' SLATE WALK · BK STEPS & ROCK WALK · 12" SOIL & GRAVEL DR · 2S G · MTL GATE · JASON PIERCE RD (SR 1820) SOIL & GRAVEL RDWY · GRASS · WOODS

-Y1_DET-		
PI Sta 11+21.07	PI Sta 17+32.88	PI Sta 23+31.34
Δ = 17° 12' 43.3" (LT)	Δ = 38° 45' 57.4" (RT)	Δ = 19° 12' 06.3" (LT)
D = 7° 09' 43.1"	D = 4° 05' 33.2"	D = 6° 44' 26.4"
L = 240.33'	L = 947.23'	L = 284.86'
T = 121.07'	T = 492.55'	T = 143.78'
R = 800.00'	R = 1,400.00'	R = 850.00'
SE = 0.08	SE = 0.07	SE = 0.08
V = 50mph	V = 50mph	V = 50mph

DRIVEWAY RADII ARE 15' UNLESS NOTED.

FOR -Y1- PROFILE SEE SHT. 140
FOR -Y1_DET- PROFILE SEE SHT. 140A

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kkelly

CROSS SECTION LAYOUT DIAGRAM
–L– & –FLY– INTERCHANGE

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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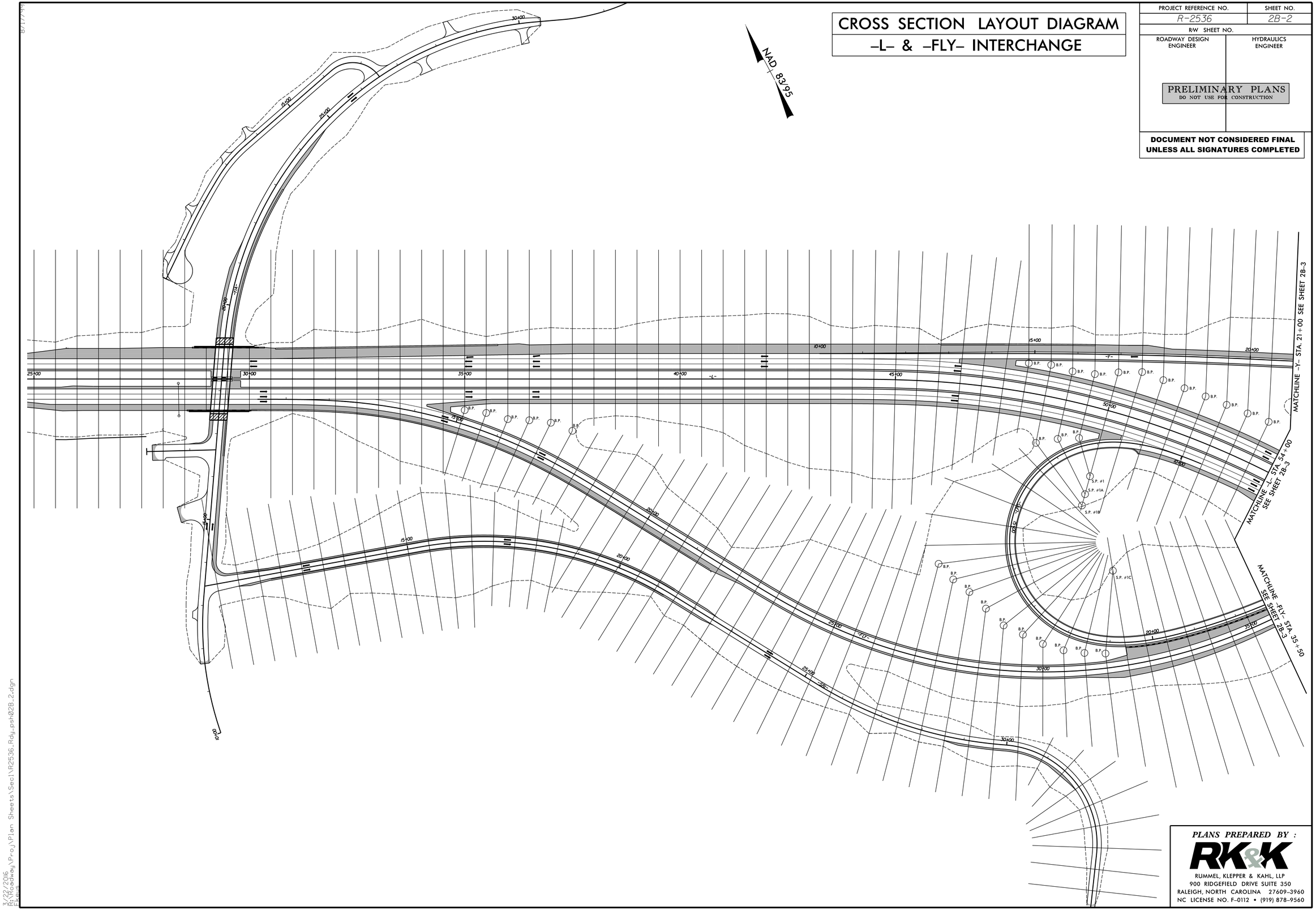

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ksmith

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CROSS SECTION LAYOUT DIAGRAM
–L– & –FLY– INTERCHANGE

NAD 83/95

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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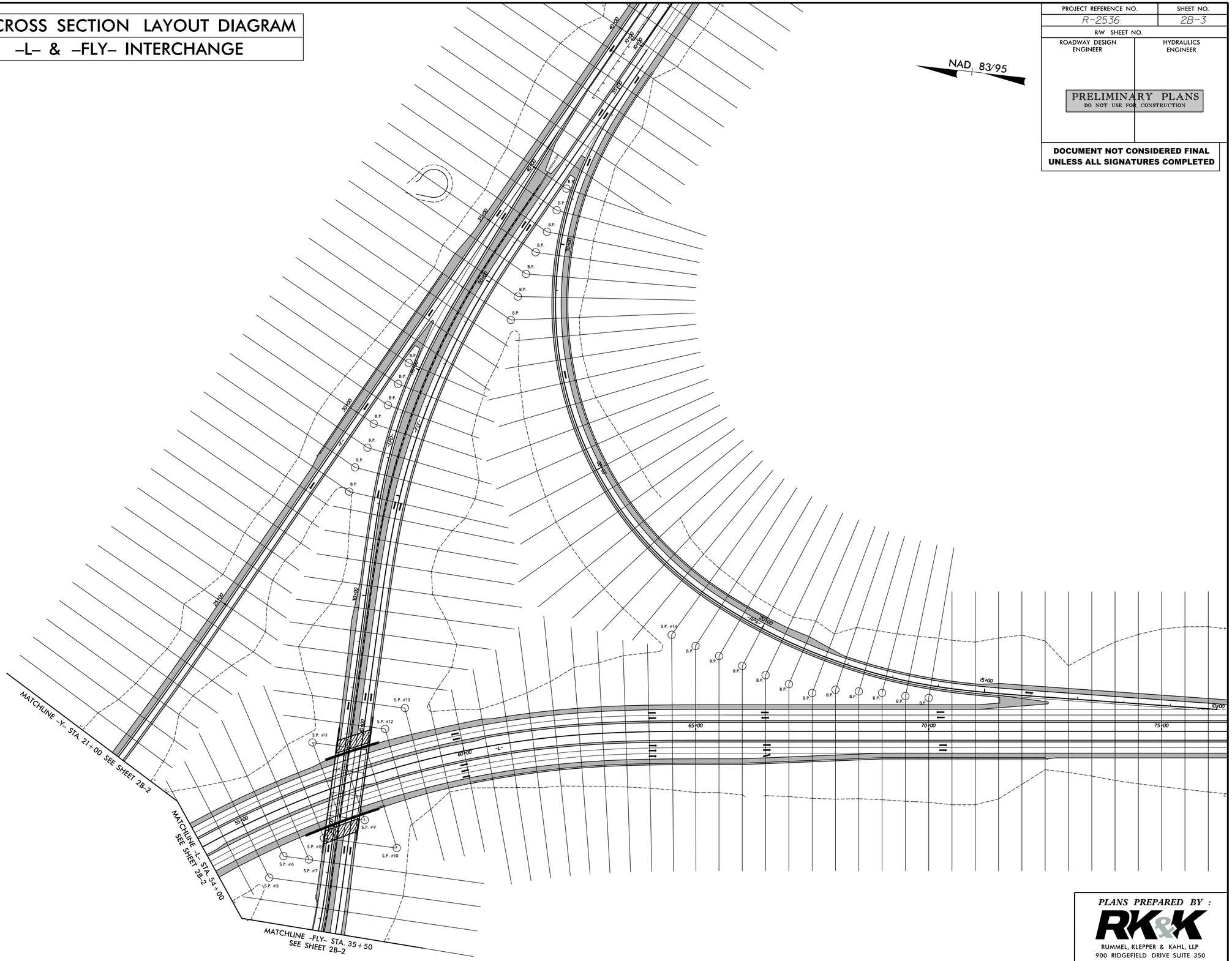

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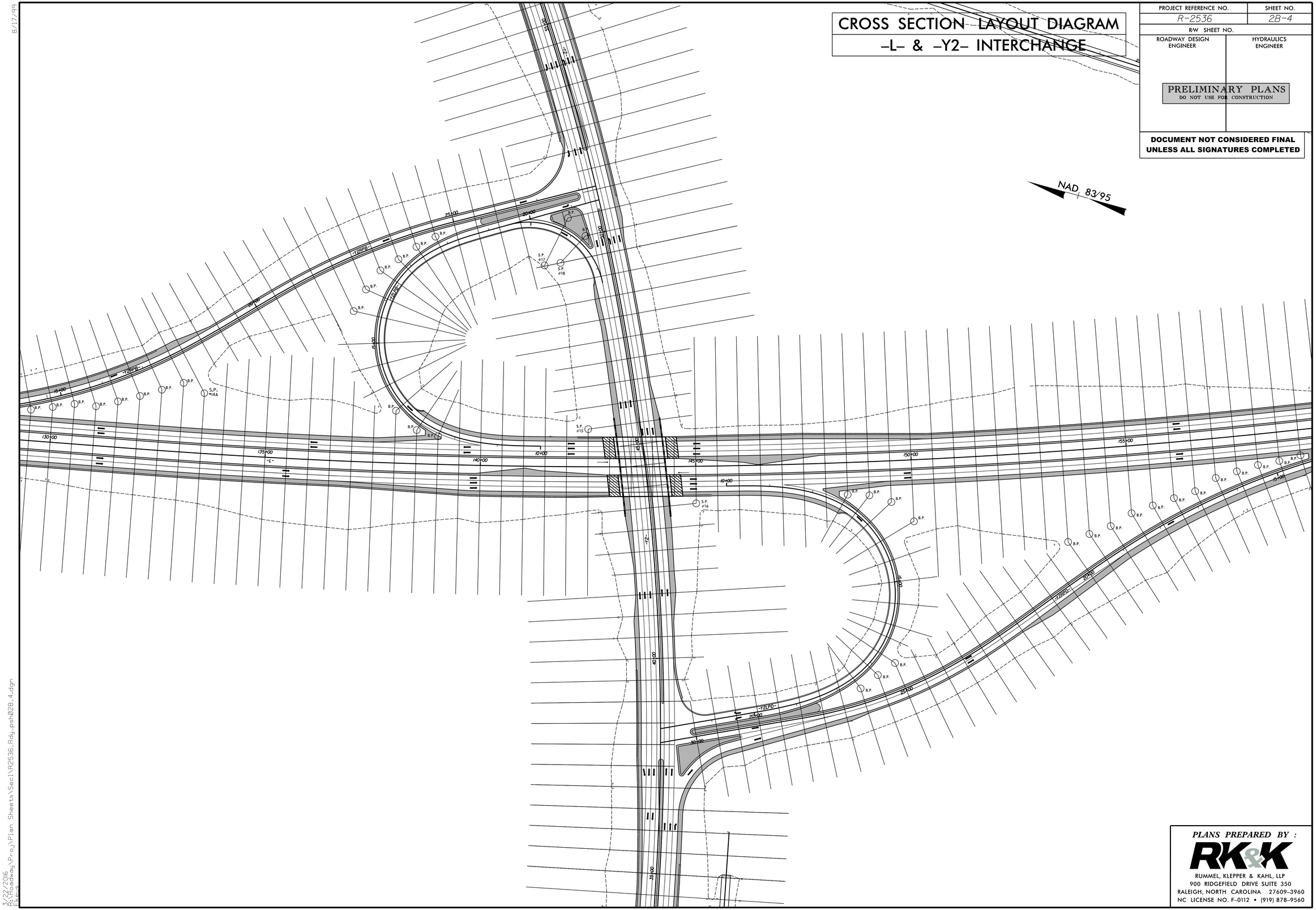
CROSS SECTION LAYOUT DIAGRAM
–L– & –Y2– INTERCHANGE

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95



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3/22/2016
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PROJECT REFERENCE NO.	SHEET NO.
R–2536	2D–1

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY :

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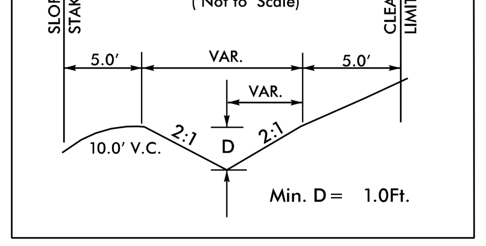
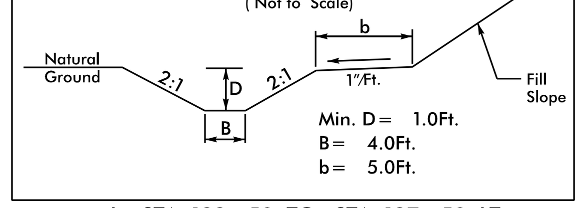
DETAIL A
BERM DITCH
(Not to Scale)



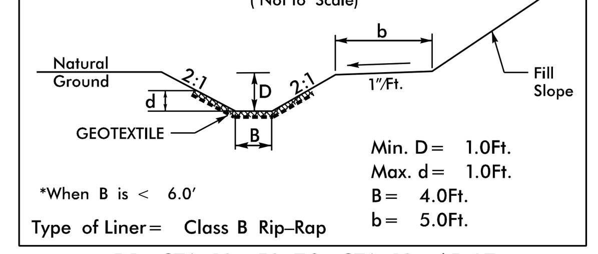
–L– STA. 25+50 TO STA. 28+50 RT
–L– STA. 27+00 TO STA. 28+00 LT
–L– STA. 71+00 TO STA. 72+00 LT
–L– STA. 89+00 TO STA. 90+00 RT
–L– STA. 106+50 TO STA. 110+50 RT
–L– STA. 166+00 TO STA. 169+00 LT
–L– STA. 207+00 TO STA. 210+00 LT
–Y– STA. 25+50 TO STA. 26+65 LT
–Y2– STA. 64+00 TO STA. 65+00 RT
–Y2– STA. 74+00 TO STA. 78+22 RT
–Y2– STA. 79+18 TO STA. 82+50 RT

DETAIL B
LATERAL BASE DITCH
(Not to Scale)



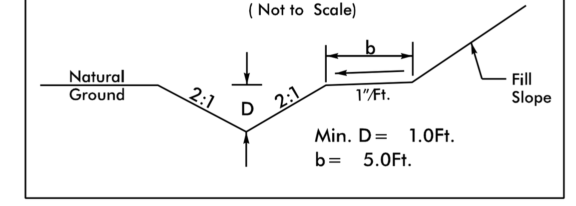
–L– STA. 133+50 TO STA. 137+50 LT
–SR1– STA. 15+25 TO STA. 15+75 LT
–SR1– STA. 18+69 TO STA. 19+50 RT, B=2'
–SR_E– STA. 11+00 TO STA. 13+00 LT
–Y1A– STA. 20+50 TO STA. 23+00 RT
–Y2– STA. 28+50 TO STA. 29+00 LT
–Y2RPD– STA. 22+50 TO STA. 23+50 RT
–Y2RPD– STA. 11+87.06 TO STA. 15+35 LT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



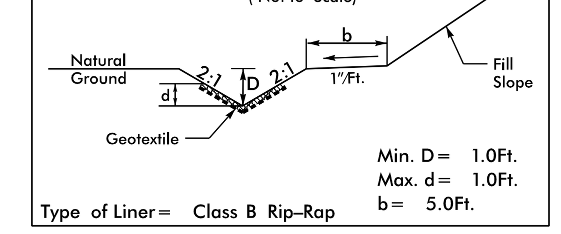
–DR– STA. 10+50 TO STA. 13+65 LT
–DR– STA. 14+25 TO STA. 14+45 LT
–FLY– STA. 19+25 TO STA. 21+25 LT
–FLY– STA. 36+80 TO STA. 37+50 RT
–L– STA. 90+50 TO STA. 92+50 RT
–L– STA. 137+05 TO STA. 138+50 RT
–L– STA. 178+50 TO STA. 181+50 RT
–L– STA. 199+00 TO STA. 200+15 RT
–RPA– STA. 20+50 TO STA. 23+39 RT
–SR1– STA. 19+50 TO STA. 20+97 RT, B=2'
–SR1– STA. 26+80 TO STA. 27+98 RT
–Y– STA. 30+00 TO STA. 34+50 LT
–Y– STA. 38+25 TO STA. 38+50 RT
–Y– STA. 44+75 TO STA. 45+00 LT
–Y– STA. 47+00 TO STA. 47+50 LT
–Y– STA. 58+00 TO STA. 60+30 RT
–Y2– STA. 35+00 TO STA. 36+92 RT
–Y2– STA. 52+00 TO STA. 56+00 LT
–Y2RPD– STA. 20+27 TO STA. 22+50 RT

DETAIL D
LATERAL 'V' DITCH
(Not to Scale)



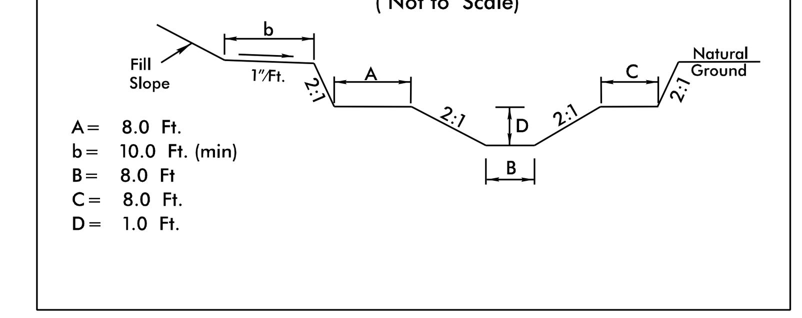
–DR6– STA. 11+50 TO STA. 12+30 RT
–FLY– STA. 13+66 TO STA. 14+63 RT
–FLY– STA. 41+50 TO STA. 41+66 LT
–FLY– STA. 43+50 TO STA. 44+85 LT
–L– STA. 31+56 TO STA. 32+50 LT
–L– STA. 33+84 TO STA. 34+00 LT
–L– STA. 168+18 TO STA. 168+50 RT
–L– STA. 182+00 TO STA. 183+57 LT
–L– STA. 182+85 TO STA. 183+00 RT
–RPA– STA. 23+39 TO STA. 24+50 RT
–SR1– STA. 15+75 TO STA. 17+00 LT
–SR1– STA. 18+69 TO STA. 19+50 RT
–SR_E– STA. 10+20 TO STA. 11+00 LT
–SR_F– STA. 10+82 TO STA. 11+35 LT
–SR_F– STA. 12+30 TO STA. 13+00 LT
–Y– STA. 27+50 TO STA. 28+50 RT
–Y– STA. 37+25 TO STA. 38+25 RT
–Y1– STA. 20+62 TO STA. 22+00 LT
–Y1– STA. 20+63 TO STA. 22+00 RT
–Y1– STA. 31+50 TO STA. 33+00 RT
–Y1A– STA. 14+50 TO STA. 16+00 LT
–Y1A– STA. 26+30 TO STA. 27+00 RT
–Y2– STA. 39+07 TO STA. 40+00 RT
–Y2– STA. 52+50 TO STA. 53+60 RT
–Y2– STA. 52+00 TO STA. 56+00 LT
–Y2RPD– STA. 26+50 TO STA. 29+95 RT

DETAIL E
LATERAL 'V' DITCH
(Not to Scale)



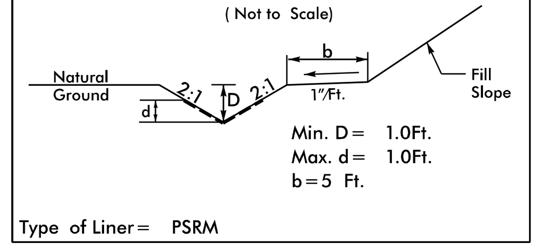
–FLY– STA. 14+63 TO STA. 15+11 RT
–L– STA. 90+57 TO STA. 90+80 LT
–L– STA. 152+25 TO STA. 152+63 LT, D=1.5', d=1.5'
–L1A– STA. 12+87 TO STA. 13+50 LT
–SR_F– STA. 11+00 TO STA. 11+35 LT

DETAIL F
CHANNEL RELOCATION
(Not to Scale)



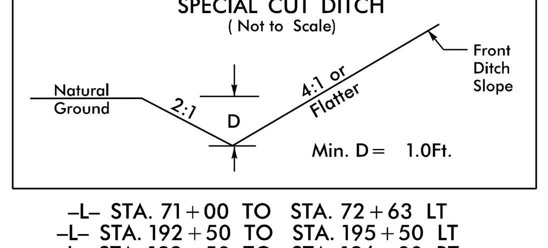
–L– STA. 66+18.43 TO STA. 70+95.02 RT

DETAIL G
LATERAL 'V' DITCH
(Not to Scale)



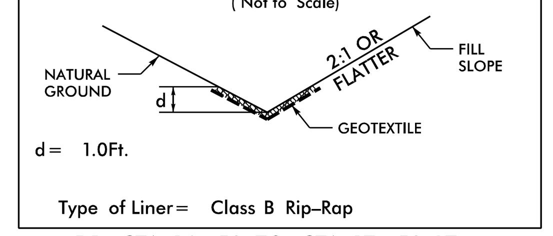
–DR6– STA. 10+37 TO STA. 11+59 LT
–DR6– STA. 10+50 TO STA. 11+50 RT
–FLY– STA. 12+85 TO STA. 13+66 RT
–FLY– STA. 18+00 TO STA. 19+25 LT
–FLY– STA. 31+50 TO STA. 36+80 RT
–FLY– STA. 39+88 TO STA. 41+50 LT
–FLY– STA. 41+66 TO STA. 43+50 LT
–L– STA. 25+78 TO STA. 26+20 LT
–L– STA. 32+50 TO STA. 33+84 LT
–L– STA. 50+64 TO STA. 50+80 RT
–L– STA. 89+50 TO STA. 90+57 LT
–L– STA. 125+00 TO STA. 128+16 LT
–L– STA. 176+50 TO STA. 176+80 LT
–L– STA. 179+45 TO STA. 181+50 LT
–L– STA. 183+00 TO STA. 184+00 RT
–L– STA. 196+50 TO STA. 197+50 LT, D=1.5', d=1.5'
–LPD– STA. 14+50 TO STA. 15+00 RT
–LPD– STA. 20+73 TO STA. 23+22 LT
–SR1– STA. 11+00 TO STA. 13+00 LT
–SR1– STA. 15+00 TO STA. 15+50 LT
–SR1– STA. 16+26 TO STA. 17+50 RT
–SR2– STA. 11+40 TO STA. 14+00 RT
–SR_F– STA. 12+00 TO STA. 12+30 LT
–SR_F– STA. 13+00 TO STA. 14+00 LT
–Y– STA. 15+99 TO STA. 16+40 LT
–Y– STA. 28+82 TO STA. 29+40 LT
–Y– STA. 62+00 TO STA. 63+50 RT
–Y– STA. 23+00 TO STA. 24+80 RT
–Y– STA. 24+55 TO STA. 25+50 LT
–Y– STA. 55+76 TO STA. 58+00 RT
–Y2A– STA. 11+15 TO STA. 11+50 LT

DETAIL H
SPECIAL CUT DITCH
(Not to Scale)



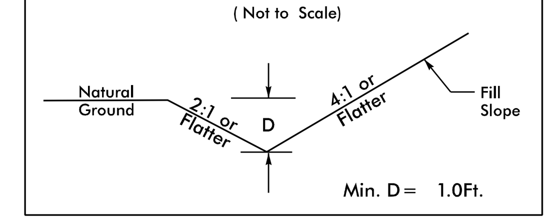
–L– STA. 71+00 TO STA. 72+63 LT
–L– STA. 192+50 TO STA. 195+50 LT
–L– STA. 192+50 TO STA. 196+00 RT
–L– STA. 202+00 TO STA. 203+00 LT
–SR1– STA. 20+97 TO STA. 21+97 RT
–SR1– STA. 34+50 TO STA. 35+00 LT
–SR1– STA. 34+50 TO STA. 34+76 RT
–Y– STA. 25+50 TO STA. 27+50 LT
–Y– STA. 63+50 TO STA. 64+33 RT
–Y1– STA. 22+00 TO STA. 24+50 LT
–Y1– STA. 22+00 TO STA. 24+50 RT
–Y1A– STA. 29+50 TO STA. 30+66 RT
–Y1A– STA. 11+66 TO STA. 12+50 LT
–Y1B– STA. 12+62 TO STA. 13+78 LT
–Y2– STA. 21+83 TO STA. 22+50 RT
–Y2– STA. 27+00 TO STA. 29+00 LT
–Y2– STA. 32+50 TO STA. 33+50 RT
–Y2A– STA. 15+50 TO STA. 16+14 LT
–Y2A– STA. 15+50 TO STA. 16+07 RT

DETAIL I
TOE PROTECTION
(Not to Scale)



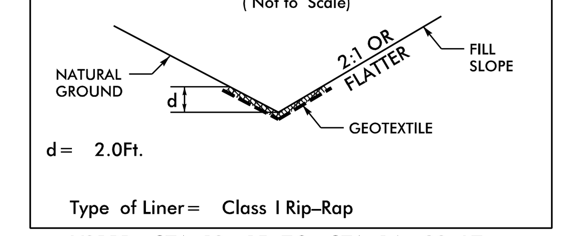
–DR– STA. 14+50 TO STA. 17+50 LT
–L– STA. 34+00 TO STA. 35+50 LT
–L– STA. 62+40 TO STA. 63+20 LT
–L– STA. 64+00 TO STA. 64+35 LT
–L– STA. 156+25 TO STA. 156+60 LT
–L– STA. 176+50 TO STA. 178+50 RT
–L– STA. 183+00 TO STA. 183+50 LT
–LPD– STA. 13+50 TO STA. 14+25 RT
–SR_E– STA. 12+50 TO STA. 14+00 RT
–SR_E– STA. 13+00 TO STA. 14+00 LT
–Y– STA. 23+55 TO STA. 24+50 LT
–Y– STA. 54+50 TO STA. 55+30 LT

DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



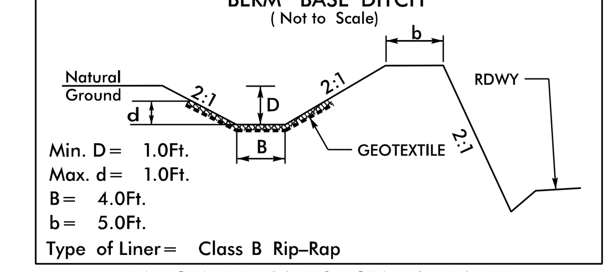
–Y1– STA. 29+00 TO STA. 33+00 LT
–Y1B– STA. 13+78 TO STA. 14+36 LT
–Y1DET– STA. 19+77 TO STA. 21+84 RT

DETAIL K
TOE PROTECTION
(Not to Scale)



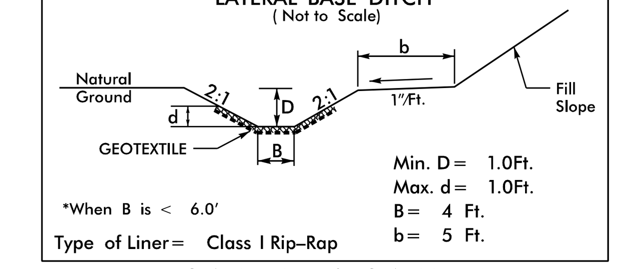
–Y2RPB– STA. 13+15 TO STA. 14+82 LT

DETAIL L
BERM BASE DITCH
(Not to Scale)



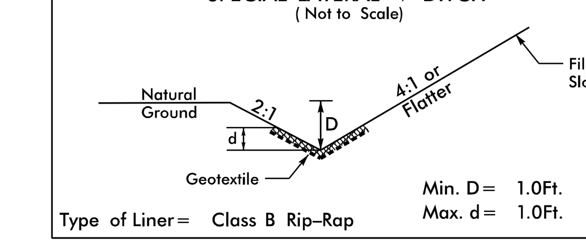
–RPA– STA. 15+20 TO STA. 19+50 RT
–Y2RPB– STA. 18+50 TO STA. 20+50 LT
–Y– STA. 39+00 TO STA. 40+00 LT
–Y– STA. 47+50 TO STA. 50+25 LT
–Y– STA. 53+00 TO STA. 54+50 LT

DETAIL M
LATERAL BASE DITCH
(Not to Scale)



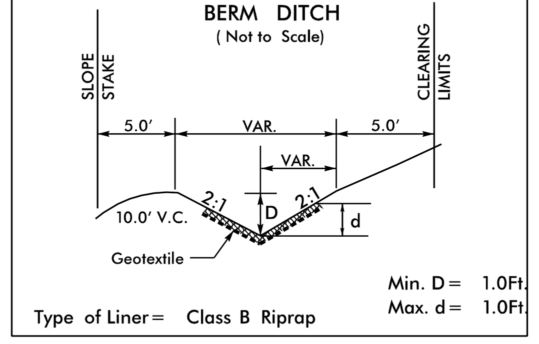
–FLY– STA. 21+25 TO STA. 22+50 LT
–L– STA. 15+96 TO STA. 17+00 RT
–L– STA. 126+50 TO STA. 127+16 RT
–L– STA. 197+50 TO STA. 199+00 LT
–RPA– STA. 19+00 TO STA. 20+50 RT
–SR1– STA. 14+90 TO STA. 15+25 LT
–Y– STA. 12+81 TO STA. 13+82 LT
–Y2– STA. 29+00 TO STA. 30+00 LT
–Y2– STA. 34+50 TO STA. 35+00 RT
–Y2RPB– STA. 18+25 TO STA. 19+00 RT

DETAIL N
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



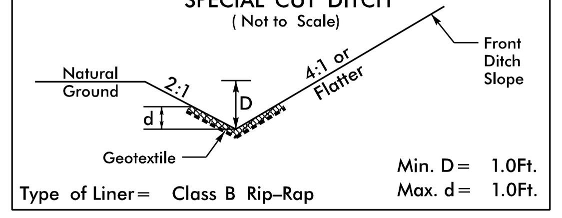
DETAIL NOT USED IN SECTION 1

DETAIL O
BERM DITCH
(Not to Scale)



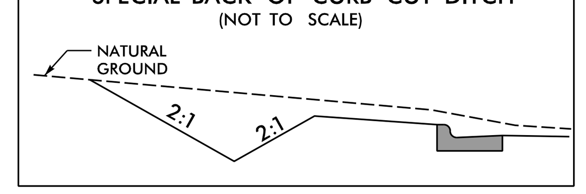
–L– STA. 86+17 TO STA. 89+00 RT
–L– STA. 161+00 TO STA. 166+00 LT
–Y2– STA. 64+00 TO STA. 68+00 RT
–Y2RPB– STA. 20+50 TO STA. 22+00 LT

DETAIL P
SPECIAL CUT DITCH
(Not to Scale)



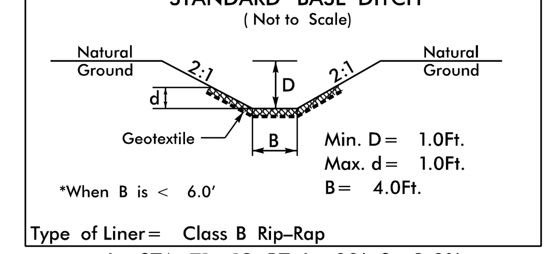
DETAIL NOT USED IN SECTION 1

DETAIL Q
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



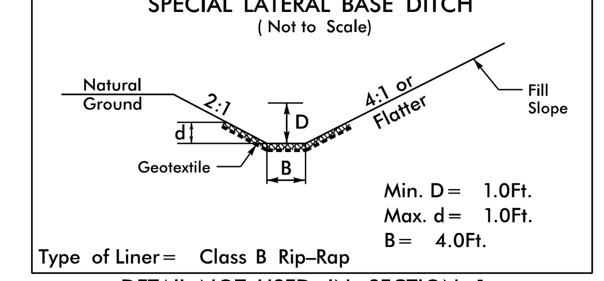
DETAIL NOT USED IN SECTION 1

DETAIL R
STANDARD BASE DITCH
(Not to Scale)



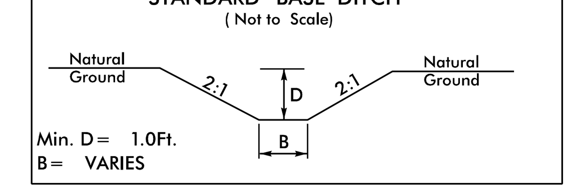
–L– STA. 71+12 RT, L=93', S=2.9%
BEG. ELEV=625.0, END ELEV=622.3
–L– STA. 71+20 RT, L=69', S=0.3%
BEG. ELEV=622.5, END ELEV=622.3
–L– STA. 181+50 RT, L=36', S=1.08%
BEG. ELEV=707.4, END ELEV=707.0
–LPD– STA. 20+73 LT, L=48', S=0.75%
BEG. ELEV=661.4, END ELEV=661.0
–Y2– STA. 63+50 LT, L=35', S=9.3%
BEG. ELEV=753.3, END ELEV=750.0

DETAIL S
SPECIAL LATERAL BASE DITCH
(Not to Scale)

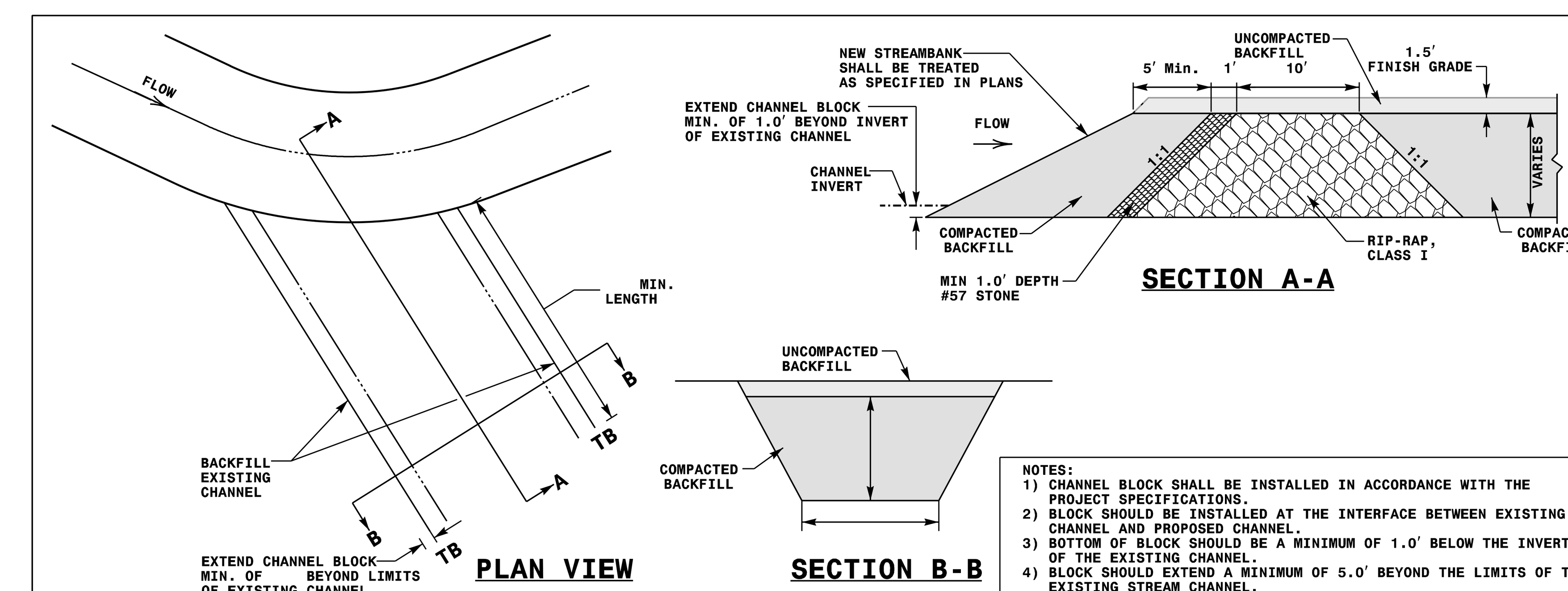


DETAIL NOT USED IN SECTION 1

DETAIL T
STANDARD BASE DITCH
(Not to Scale)



–L– STA. 81+43 RT, L=90', S=23.6%
BEG. ELEV=754.0, END ELEV=732.68
–Y– STA. 24+75 RT, B=2', L=34', S=0.76%
BEG. ELEV=664.5, END ELEV=664.2
–Y1A– STA. 20+50 RT, L=127', S=4.4%
BEG. ELEV=686.5, END ELEV=680.9

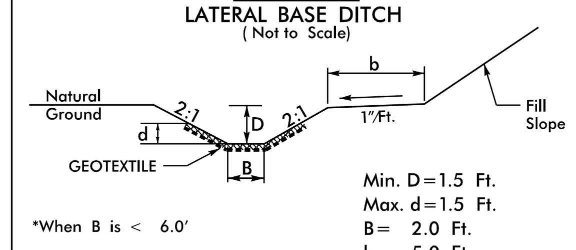


CHANNEL BLOCK DETAIL U
NOT TO SCALE

NOTES:
1) CHANNEL BLOCK SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2) BLOCK SHOULD BE INSTALLED AT THE INTERFACE BETWEEN EXISTING CHANNEL AND PROPOSED CHANNEL.
3) BOTTOM OF BLOCK SHOULD BE A MINIMUM OF 1.0' BELOW THE INVERT OF THE EXISTING CHANNEL.
4) BLOCK SHOULD EXTEND A MINIMUM OF 5.0' BEYOND THE LIMITS OF THE EXISTING STREAM CHANNEL.
5) INSTALL EROSION CONTROL MATTING AND SEED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS IMMEDIATELY AFTER GRADING.
6) COMPACT BACKFILL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.

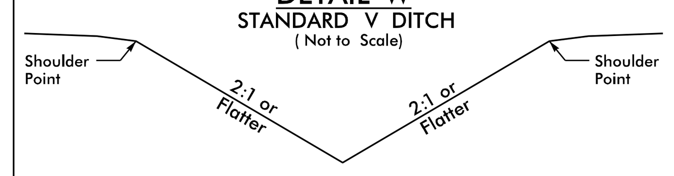
–RPA– STA. 22+76 LT
–L– STA. 62+75 LT
–L– STA. 70+65 RT
–L– STA. 127+21 RT
–L– STA. 176+90 LT
–L– STA. 179+23 LT
–L– STA. 200+15 LT
–Y– STA. 45+55 RT
–Y2– STA. 31+25 RT
–Y2– STA. 53+65 RT

DETAIL V
LATERAL BASE DITCH
(Not to Scale)



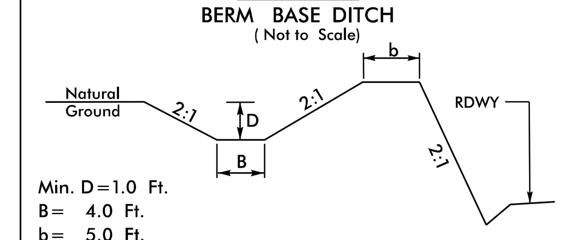
DETAIL NOT USED IN SECTION 1

DETAIL W
STANDARD V DITCH
(Not to Scale)



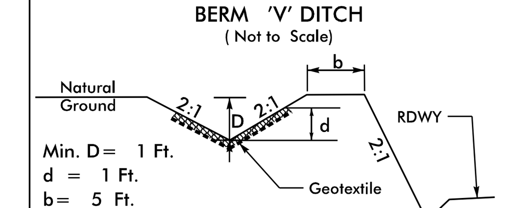
–FLY– STA. 16+99 TO STA. 18+00 LT, S=5.9%
BEG. ELEV=696.0, END ELEV=690.0
–L– STA. 63+00 RT, L=28', S=0.32%
BEG. ELEV=637.11, END ELEV=637.02
–L– STA. 168+20 RT, L=19', S=3.2%
BEG. ELEV=754.6, END ELEV=754.0
–Y– STA. 58+30 TO STA. 58+69 LT, S=4.46%
BEG. ELEV=755.00, END ELEV=753.28
–Y2– STA. 32+50 TO STA. 34+50 RT, S=0.3%
BEG. ELEV=691.74, END ELEV=691.14

DETAIL X
BERM BASE DITCH
(Not to Scale)



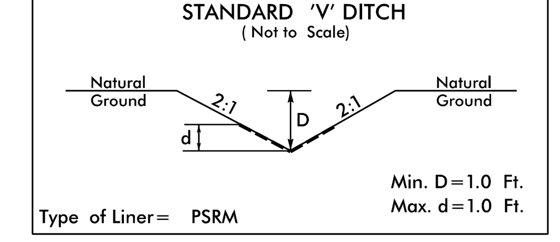
–L– STA. 15+00 TO STA. 18+00 LT
L– STA. 36+05 TO STA. 40+90 LT
–Y– STA. 21+50 TO STA. 23+50 LT
–Y– STA. 34+50 TO STA. 38+75 LT
–Y2– STA. 65+00 TO STA. 68+00 RT

DETAIL Y
BERM 'V' DITCH
(Not to Scale)



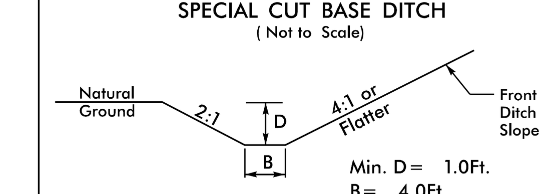
DETAIL NOT USED IN SECTION 1

DETAIL Z
STANDARD 'V' DITCH
(Not to Scale)



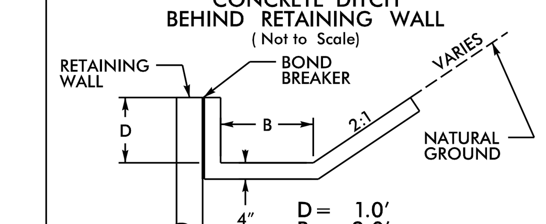
DETAIL NOT USED IN SECTION 1

DETAIL AA
SPECIAL CUT BASE DITCH
(Not to Scale)



–Y– STA. 61+60 TO STA. 63+00 LT

DETAIL AB
CONCRETE DITCH
BEHIND RETAINING WALL
(Not to Scale)



–Y2– STA. 82+75 TO STA. 84+00 RT

8/17/99
3/22/2016
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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2D-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

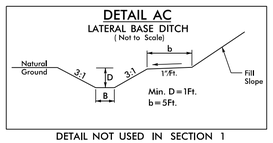
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

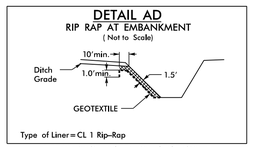
DETAIL AC
LATERAL BASE DITCH
(Not to Scale)



Min. D = 1Ft.
b = 5Ft.

DETAIL NOT USED IN SECTION 1

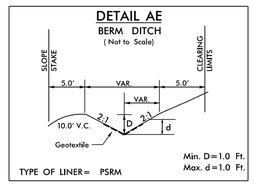
DETAIL AD
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner = CL 1 Rip-Rap

DETAIL NOT USED IN SECTION 1

DETAIL AE
BERM DITCH
(Not to Scale)

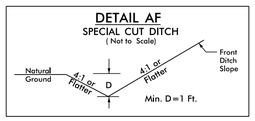


TYPE OF LINER = PSRM

Min. D = 1.0 Ft.
Max. d = 1.0 Ft.

–L– STA. 82+00 TO STA. 89+00 RT

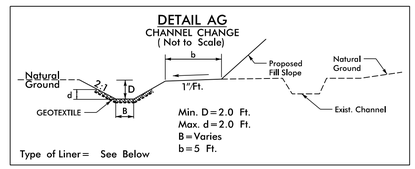
DETAIL AF
SPECIAL CUT DITCH
(Not to Scale)



Min. D = 1 Ft.

DETAIL NOT USED IN SECTION 1

DETAIL AG
CHANNEL CHANGE
(Not to Scale)

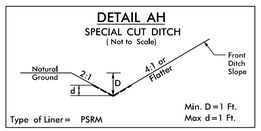


Min. D = 2.0 Ft.
Max. d = 2.0 Ft.
B = Varies
b = 5 Ft.

Type of Liner = See Below

–L– STA. 62+40 TO STA. 63+11 LT, B = 4', CL B
–L– STA. 63+95 TO STA. 64+35 LT, B = 4', CL B
–L– STA. 64+90 TO STA. 66+24 RT, B = 4', CL I
–L– STA. 127+16 TO STA. 133+50 RT, B = 4', CL B
–L– STA. 133+50 TO STA. 135+00 RT, B = 5', CL I
–L– STA. 135+00 TO STA. 137+05 RT, B = 5', CL B
–L– STA. 152+63 TO STA. 156+43 LT, B = 4', CL B
–L– STA. 176+80 TO STA. 178+30 LT, B = 3', GRASS
–L– STA. 178+30 TO STA. 179+34 LT, B = 3', CL B
–L– STA. 183+25 TO STA. 183+90 LT, B = 2', CL B
–RPA– STA. 21+50 TO STA. 22+77 LT, B = 4', CL B
–SR2– STA. 56+28 TO STA. 58+78 LT, B = 6', CL B
–Y– STA. 13+82 TO STA. 15+99 LT, B = 4', CL B
–Y– STA. 43+91 TO STA. 45+92 RT, B = 9', CL I
–Y2– STA. 30+61 TO STA. 31+50 RT, B = 6', CL B
–Y2– STA. 53+47 TO STA. 54+35 RT, B = 6', CL II
–Y2– STA. 56+28 TO STA. 58+78 LT, B = 6', CL B

DETAIL AH
SPECIAL CUT DITCH
(Not to Scale)

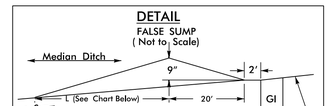


Type of Liner = PSRM

Min. D = 1 Ft.
Max. d = 1 Ft.

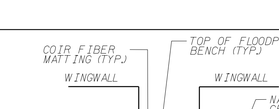
DETAIL NOT USED IN SECTION 1

DETAIL
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

DETAIL AI
LATERAL BASE DITCH
(Not to Scale)



Min. D = 2.0Ft.
B = 4.0Ft.
b = 5.0Ft.

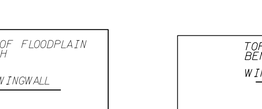
–Y– STA. 29+40 TO STA. 30+00 LT
–Y– STA. 58+69 TO STA. 60+75 LT
–Y2– STA. 30+00 TO STA. 35+04 LT

DETAIL AJ
BANK STABILIZATION AT PIPE OUTLET
(Not to Scale)

Class I Rip Rap

–FLY– STA. 35+76 RT, L = 50'
–FLY– STA. 42+03 RT, L = 35'
–FLY– STA. 45+52 RT, L = 36'
–L– STA. 181+69 RT, L = 50'
–L– STA. 198+57 RT, L = 50'
–LPD– STA. 11+87 LT, L = 42'
–SR1– STA. 16+30 RT, L = 50'
–SR2– STA. 11+42 LT, L = 50'
–SR3– STA. 13+50 RT, L = 50'
–Y– STA. 45+00 RT, L = 30'

DETAIL AK
STANDARD BASE DITCH
(Not to Scale)



*When B is < 6.0'

Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 3 Ft.

Type of Liner = PSRM

DETAIL NOT USED IN SECTION 1

DETAIL AL
STANDARD 'V' DITCH
(Not to Scale)

Min. D = 1 Ft.

–Y1– STA. 27+25 TO STA. 27+60 RT, S = 0.60%
BEG. ELEV = 778.68, END ELEV = 778.47
–Y– STA. 44+00 RT, L = 30' S = 2.6%
BEG. ELEV = 666.2, END ELEV = 665.5

DETAIL AM
BERM BASE DITCH
(Not to Scale)

Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2 Ft.
b = 5 Ft.

Type of Liner = Class B Rip-Rap

DETAIL NOT USED IN SECTION 1

DETAIL AO
LATERAL BASE DITCH
(Not to Scale)

Min. D = 3 Ft.
B = 5 Ft.
b = 5 Ft.

DETAIL NOT USED IN SECTION 1

DETAIL AN
CHANNEL CHANGE
(Not to Scale)

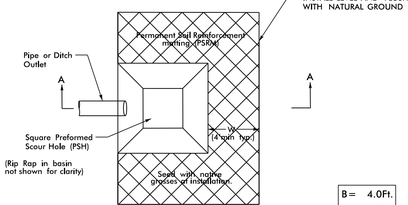
Min. D = 3 Ft.
Max. d = 3 Ft.
B = 5 Ft.
b = 5 Ft.

Type of Liner = PSRM

DETAIL NOT USED IN SECTION 1

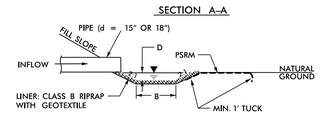
PREFORMED SCOUR HOLE DETAIL AP
*NOT TO SCALE

PLAN VIEW



B = 4.0Ft.
D = 1.0Ft.
W = 4.0Ft.

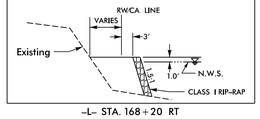
SECTION A-A



308

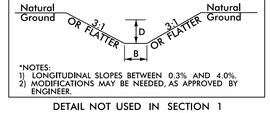
DETAIL NOT USE IN SECTION 1

DETAIL AQ
FILL IN POND W/ROCK PLATING
(Not to Scale)



–L– STA. 168+20 RT

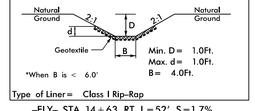
DETAIL AR
STANDARD BASE GRASSED SWALE
(Not to Scale)



*NOTES:
1) LONGITUDINAL SLOPES BETWEEN 0.3% AND 4.0%.
2) MODIFICATIONS MAY BE NEEDED, AS APPROVED BY ENGINEER.

DETAIL NOT USED IN SECTION 1

DETAIL AS
STANDARD BASE DITCH
(Not to Scale)



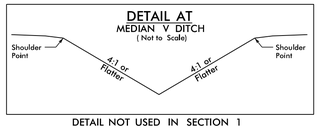
*When B is < 6.0'

Min. D = 1.0Ft.
Max. d = 1.0Ft.
B = 4.0Ft.

Type of Liner = Class I Rip-Rap

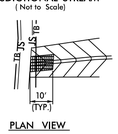
–FLY– STA. 14+63 RT, L = 52', S = 1.7%
BEG. ELEV = 649.9, END ELEV = 649.0
–FLY– STA. 18+90 LT, L = 47', S = 14.9%
BEG. ELEV = 685.0, END ELEV = 678.0
–L– STA. 8+95 TO 9+50 LT, S = 11.4%
BEG. ELEV = 564.0, END ELEV = 570.5
–L– STA. 48+00 RT, L = 47', S = 12.3%
BEG. ELEV = 690.5, END ELEV = 684.7
–LPD– STA. 13+50 RT, L = 36', S = 11.9%
BEG. ELEV = 689.0, END ELEV = 684.7
–Y– STA. 45+00 LT, L = 50', S = 11.2%
BEG. ELEV = 698.0, END ELEV = 692.4
–Y– STA. 45+85 RT, L = 40', S = 12.6%
BEG. ELEV = 674.5, END ELEV = 669.5

DETAIL AT
MEDIAN 'V' DITCH
(Not to Scale)

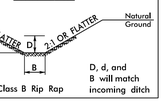


DETAIL NOT USED IN SECTION 1

DETAIL AU
RIPRAP TRANSITION AT JURISDICTIONAL STREAM
(Not to Scale)



PLAN VIEW

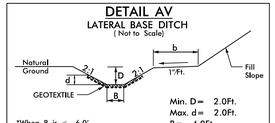


D, d, and B will match incoming ditch

Type of Liner = Class B Rip Rap

–L– STA. 8+85 LT
–L– STA. 128+05 LT
–L– STA. 197+46 LT
–Y2– STA. 35+15 LT

DETAIL AV
LATERAL BASE DITCH
(Not to Scale)



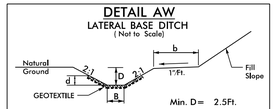
*When B is < 6.0'

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 4.0Ft.
b = 5.0Ft.

Type of Liner = Class B Rip-Rap

–L– STA. 156+43 TO STA. 161+00 LT
–Y2RPD– STA. 15+35 TO STA. 20+27 LT
–L– STA. 181+69 TO STA. 182+25 RT
–L– STA. 198+00 TO STA. 199+50 RT
–Y– STA. 45+00 TO STA. 45+20 LT
–Y2– STA. 35+04 TO STA. 40+50 LT
–Y2– STA. 57+90 TO STA. 62+00 RT

DETAIL AW
LATERAL BASE DITCH
(Not to Scale)



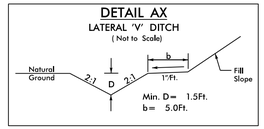
*When B is < 6.0'

Min. D = 2.5Ft.
Max. d = 2.5Ft.
B = 4.0Ft.
b = 5.0Ft.

Type of Liner = Class B Rip-Rap

–Y2RPB– STA. 16+20 TO STA. 18+50 LT

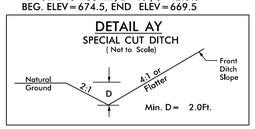
DETAIL AX
LATERAL 'V' DITCH
(Not to Scale)



Min. D = 1.5Ft.
b = 5.0Ft.

DETAIL NOT USED IN SECTION 1

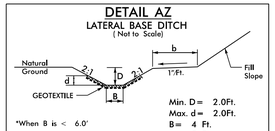
DETAIL AY
SPECIAL CUT DITCH
(Not to Scale)



Min. D = 2.0Ft.

DETAIL NOT USED IN SECTION 1

DETAIL AZ
LATERAL BASE DITCH
(Not to Scale)



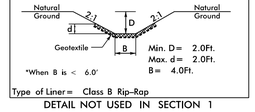
*When B is < 6.0'

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 4 Ft.
b = 5 Ft.

Type of Liner = Class I Rip-Rap

DETAIL NOT USED IN SECTION 1

DETAIL BA
STANDARD BASE DITCH
(Not to Scale)



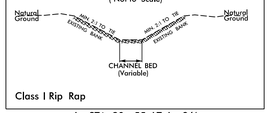
*When B is < 6.0'

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 4.0Ft.

Type of Liner = Class B Rip-Rap

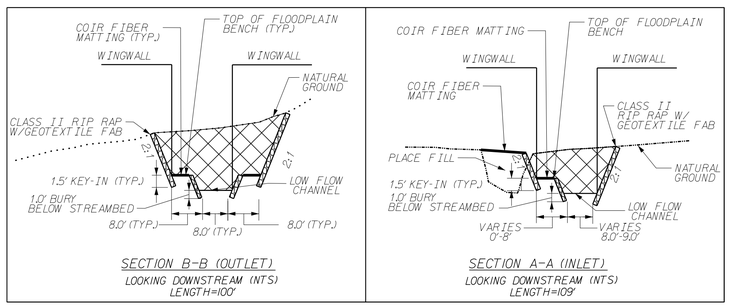
DETAIL NOT USED IN SECTION 1

DETAIL BB
BANK STABILIZATION AT PIPE OUTLET
(Not to Scale)

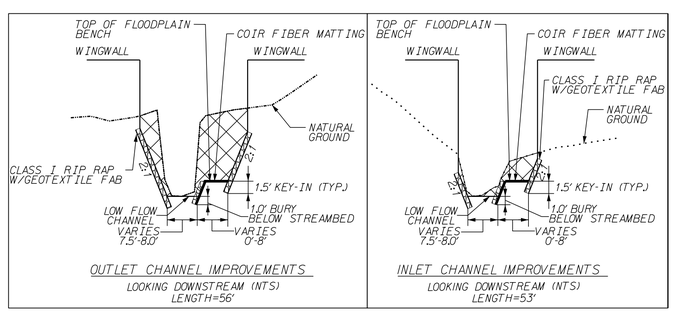


Class I Rip Rap

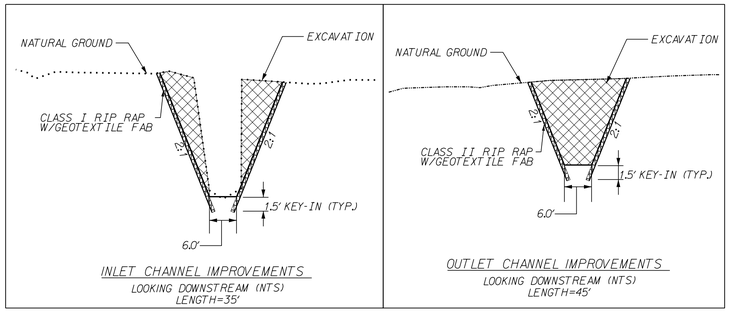
–L– STA. 90+55 LT, L = 36'
–Y– STA. 58+00 RT, L = 30'



CULVERT INLET/OUTLET DETAILS
–L– STA 65+84



CULVERT INLET/OUTLET DETAILS
–L– STA 153+70



CULVERT INLET/OUTLET DETAILS
–Y2– STA 55+28

3/22/2016
R:\2536\Roadway\Utilities\CADD\R-2536_Hyd_DitchDet_SEC1.dgn
RLKeen

PROJECT REFERENCE NO.	SHEET NO.
R–2536	3–P

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
1	4	CINDY D. WEAKLAND
2	4,5	FRANK DELK
3	4	HAROLD & GREALDINE BRUBAKER
4	4,5	KAREN POOLE COLE
5	4,5	T.T. GRAHAM CONSTRUCTION, INC.
6	5,6	WILLIAM & FRANK DELK
7	5	JOSEPH POOLE, SR.
8	5,6	H.L. DELK, SR.
9	6,57	H.L. DELK CONSTRUCTION, INC.
10	6,57	H.L. DELK CONSTRUCTION, INC.
11	6,57	HAZEL HILL & OTHERS
12	6	DAVID LAMBETH
13	6	H.L.DELK CONSTRUCTION, INC.
14	6,7	CHARLES SMITH
15	6,7	RONALD LAMBETH
16	7	LEONARD LATHAM
17	7	MARTHA WILLIAMS
18	7	JAMES & MARTHA MURRAY, TOBY & ELIZABETH STRIDER
19	7	KEVIN RICHARDSON
20	7	SAMUEL DAVIS
22	7	ALTON & KENNETH DELK
23	7	STEPHEN & JAYNE BRUEILLY
24	7,58	ALVA & BELINDA DAVIS
25	7	CHRISTOPHER SMITH
26	6,7	WILLIAM & ALICE HOLLOWAY
27	7,8,9,10,58,59	BRANSON-COLEMAN PROPERTIES, LLC
27A	7	JAMES ROTH
27B	7,8	DONALD COX
27C	7	RAEFORD & LINDA SKEEN
27D	7,8	JERRY MCDOWELL
27E	7	BRENDA DAVIS
27F	7	HENRY C. COBLE
27G	67A	ALLEN RAY PARKS
27H	67A	CHAD BRANSON
27I	67A	LUTHER E. BROWN
27J	67A	JAYNELLE CALDWELL
27K	67A	LOUT DEAN HIGHSMITH
27L	67A	MELVIN CLARENCE COLTRANE
28	10,11	GARY MCBRIDE
28A	7	THURMAN & LOUISE COLTRANE
29	7	NELLIE PARKER
30	10,11,61	NANCY BYRD
31	11,12,13,61	CYNTHIA PIERCE
32	12,13,62	ALI JOHN ARASTA
33	12,13	LISA ELAINE ROBINSON
33A	58	CARLENE LUCAS
34	58	INEZ BURCHAM
35	13,64	BERNADETTE LAMBETH
35A	58,59	ALBERT WAYNE DENNIS & JACK L. SHARP
35D	13,64	CORIN T. LAMBETH
36	13	GREGORY ALAN PARK
36A	58,59	UNKNOWN OWNER
37	13,14	KENNETH F. STOUT
37B	63,63A	FRANCES H. CALLICUTT
37E	63,63A	JOHN WESLEY BEAN JR.
38	13,63A	BETTY C. WATSON
38A	63A	JOSEPH H. WHATLEY
38B	59,60	DONALD & CHERYL LANIER
38C	59,60	LOUISE BOLING
39	13,14,64	CHARLES REEDER

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
39A	59,60	JHS MASTER CAPITAL, LLC
40	60	LOU DEAN HIGHSMITH
41	13	JONATHAN OWENS
41A	60	THOMAS & TERESA SWANEY
41B	60	AUBREY B. HOAG
42	13,63A	JAMES AND JUDITH OWENS
43A	60	LOU DEAN HIGHSMITH
44	14	B H CAUDILL SR. FAMILY PARTNERSHIP
45	14,15,16,17,67	LARRY BRYANT WALKER
46	14	HEATHER DANA YATES
47	13,14	MITCHELL G. GROOVER
48	13	MICHAEL & TANGYE STRICKLAND
48A	60	GLEN DAVIS
48B	60	CERTIFIED CONCRETE CORPORATION
48C	60	MARTHA MARSH
49	16	GERALD BRASWELL
50	16	JACK A CAVINESS
51	16,17	BILLY & BOBBY MCDOWELL
52	17	NORMA GOINS
53	17	LUCILLE G. LAMBE
305	57	WILLIAM T. HINSHAW
306	57	B. DARREN WILLIAMS
307	57	OTIS ALLEN, JR.
308	57	JOHN & LINDA SKEEN
309	57	CLARA GARNER
309A	57	WESLEY ALAN GARNER
310	6,57	CAROLYN & ALLEN SCARBOROUGH
313	62	BARBARA COUNCILMAN
317	63,63A	SCHWARZ PROPERTIES LLC.
318	64	MARK ANTHONY PARK
319	64	CLAUDE REVELL MORRIS
320A	64	JAECO GENERAL CONTRACTING LLC
320B	64,65,66	KLAUSSNER FURNITURE INDUSTRIES INC.
320C	64,65	PLASTICS COLOR CORP. OF N.C. INC.
320D	64	CITY OF ASHEBORO
320E	66	PATRICIA YATES
902	7	N C DEPARTMENT OF TRANSPORTATION
930	7	N C DEPARTMENT OF TRANSPORTATION

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

REVISIONS

5/28/99

3/22/2016
R:\Archive\Proj\Plan Sheets\Sec1\R2536_Rdy_parc03P.dgn
Plan Sheets

8/17/99

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-DR-

PI Sta 11+97.53	PI Sta 12+89.23
Δ = 122° 25' 34.8" (RT)	Δ = 32° 25' 34.8" (LT)
D = 95° 29' 34.7"	D = 22° 55' 05.9"
L = 128.20'	L = 141.49'
T = 109.20'	T = 72.69'
R = 60.00'	R = 250.00'

NAD 83/95

1
CINDY D. WEAKLAND
DB 2416 PG 1343
PB 84 PG 85

2
FRANK DELK
DB 1086 PG 689
PB 18 PG 38

3
HAROLD & GREALDINE BRUBAKER
DB 1729 PG 982
PB 12 PG 96

4
KAREN POOLE COLE
DB 1086 PG 690
PB 18 PG 38

-LI- POT Sta. 89+00.00

-DR- PT Sta. 13+58.03

-DR- PRC Sta. 12+16.54

BEGIN CONSTRUCTION
-L- Sta. 9+00.00 =
-LIRT- Sta. 10+00.00

-DR- PC Sta. 10+88.33

BEGIN CONSTRUCTION
-DR- POT Sta. 10+48.33

-DR- POT Sta. 10+00.00 =
-LI- POT STA. 98+00.00

-L- POT Sta. 8+00.00 (LA)=
-LI- POT STA. 100+00.00 (LB)

DRIVEWAY BY OTHERS

60' ACCESS BREAK

+96.73 / +56.73

PROP. 47" WW FENCE

+16.00 238'
+57.46 221'
+68.04 -L1- 200' BEGIN PARTIAL C/A BEGIN FENCE
+55.00 86.68' EXIST. R/W
+55.00 86.68'
+77.62 181'
+25.20 -L1- EXIST. R/W
+18.00 86.65' EXIST. R/W
+01.74 -L1- EXIST. R/W
+88.00 63.38' EXIST. R/W
+90.00 63.33' EXIST. R/W
+61.00 124'
+71.20 -L1- 200' BEGIN C/A BEGIN FENCE
+65.00 200'
+95.00 -L1- 221'
+40.00 -L- 221' 200'
+00.00 -L- 200'

(0402) 2 TONS CL B RIPRAP W/7 SY GEO FAB
(0404) 5 TONS CL B RIPRAP W/14 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL C
CHANNEL BLOCK SEE DETAIL U
TOE PROTECTION SEE DETAIL I
24" CSP 2 ELBOWS ROD & LUG
15" RCP-III
(040) 2GI
BEGIN FENCE
50' TAPER TO EXIST.
GRAU 350

R=40'
AT-1
200'
30'
4:1 SLOPE
2:1 SLOPE

-BL-201
-BL-202

US HWY 64 VARIABLE WIDTH PAVED RDWY

WOODS
EXISTING R/W
EIP
MTL GATE
GRAVEL DR
ST
CMP

90+00
95+00
100+00
10+00

N 28°37'23" W 253.29'
N 17°12'30" E 429.16'
N 01°41'14" E 321.15'
S 06°12'44" E 58.79'
S 00°08'47" W 367.39'
S 38°05'34" E 184.78'
S 62° 01' 16.6" E
N 27° 58' 43.4" E
RETAIN

-LIRT-

PI Sta 13+22.10
Δ = 4° 22' 16.1" (RT)
D = 0° 40' 43.9"
L = 643.89'
T = 322.10'
R = 8,440.00'
SE = RC
V = 60 MPH

MATCHLINE -L- STA. 11+00 SEE SHEET 5

FOR -L1RT- PROFILE SEE SHT. 103
FOR -L- PROFILE SEE SHT. 104

PLANS PREPARED BY :
RK&K
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ekaur

PROJECT REFERENCE NO.	SHEET NO.
R-2536	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99 R/W REVISION: DATE: 3/16/16 - REVISED R/W FOR PARCEL NO.8

3/22/2016
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Ekaur

-DR-
PI Sta 17+13.90
△ = 84° 11' 05.4" (LT)
D = 95° 29' 34.7"
L = 88.16'
T = 54.20'
R = 60.00'

-LIRT-
PI Sta 13+22.10
△ = 4° 22' 16.1" (RT)
D = 0° 40' 43.9"
L = 643.89'
T = 322.10'
R = 8,440.00'
SE = RC
V = 60 MPH

PI Sta 20+82.78
△ = 4° 22' 16.1" (LT)
D = 0° 29' 53.6"
L = 877.34'
T = 438.88'
R = 11,500.00'
SE = NC
V = 60 MPH

MATCHLINE -L- STA. 11+00 SEE SHEET 4

MATCHLINE -L- STA. 23+00 SEE SHEET 6

5 T.T. GRAHAM CONSTRUCTION, INC. DB 1878 PG 1044

6 WILLIAM & FRANK DELK WB 12E PG 713 PB 18 PG 38

7 JOSEPH POOLE, SR. DB 1086 PG 685 PB 18 PG 38

4 KAREN POOLE COLE DB 1086 PG 690 PB 18 PG 38

8 H. L. DELK, SR. DB 1177 PG 1173 DB 1201 PG 1520

APPROX. BUILDING LOCATION BASED ON AERIAL

60' ACCESS BREAK

-DR- POT Sta. 18+31.00

END PARTIAL ACCESS CONTROL
BEGIN FULL ACCESS CONTROL
-L- Sta. 13+48.46

-L- POT Sta. 16+92.80=
-LIRT- POC Sta. 17+93.79

+00.00 200' LT

+48.46 200' LT

PROP. 47" WW FENCE

END CONSTRUCTION
-DR- POT Sta. 17+94.18

N 33° 47' 38.0" E
-DR- PT Sta. 17+47.86

-DR- PC Sta. 16+59.70

BM2 ELEVATION = 655.74
N 712234 E 1738998
BL STATION 24+25.89 94.97' LEFT
RR-SPIKE IN BASE OF 18IN OAK TREE

720' LANE DROP
720' MEDIAN TRANSITION

BERM BASE DITCH SEE DETAIL X

-BL-203

18" CSP 2 ELBOWS ROD & LUG

BDO

PROP. 47" WW FENCE

18" RCP-III

GRAU 350

8:1

+41.02 78' LT

+62.27

+22.27

+22.67

15+00

15+66

20+00

S 62° 01' 16.6" E

15" CSP 2 ELBOWS ROD & LUG

3 TONS CL B RIPRAP W/10 SY GEO FAB

2 TONS CL B RIPRAP W/7 SY GEO FAB CUTFILL TRANSITION

300' TAPER

LATERAL BASE DITCH SEE DETAIL M

+50.00

+66.56 150'

+98.51 200'

-LIRT- PRC Sta. 16+43.89

S 26° 48' 27" W 128.06'

S 42° 35' 05" E 758.31'

FOR -L- PROFILE SEE SHT. 104
FOR -L1RT- PROFILE SEE SHT. 103

PLANS PREPARED BY :
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 1983

-YIA-
PI Sta 11+61.23
Δ = 23° 48' 10.2" (RT)
D = 7° 29' 22.7"
L = 317.81'
T = 161.23'
R = 765.00'
SE = 0.06
V = 47 MPH

PI Sta 22+66.52
Δ = 46° 20' 52.1" (RT)
D = 6° 52' 41.7"
L = 673.83'
T = 356.58'
R = 833.00'
SE = 0.06
V = 50 MPH

-FLY-
PIs Sta 11+86.97
Θs = 5° 29' 27.0"
Ls = 230.00'
LT = 153.41'
ST = 76.73'

PI Sta 14+82.44
Δ = 20° 40' 25.1" (RT)
D = 4° 46' 28.7"
L = 432.99'
T = 218.87'
R = 1,200.00'
SE = 0.08
V = 60 MPH

-LIRT-
PI Sta 20+82.78
Δ = 4° 22' 16.1" (LT)
D = 0° 29' 53.6"
L = 877.34'
T = 438.88'
R = 11,500.00'
SE = NC
V = 60 MPH

-SRI-
PI Sta 18+46.93
Δ = 41° 58' 16.8" (RT)
D = 6° 52' 41.7"
L = 610.20'
T = 319.52'
R = 833.00'
SE = 0.04
V = 30 MPH

MATCHLINE -L- STA. 23+00 SEE SHEET 5

MATCHLINE -YIB- STA 10+75 SEE SHEET 57

MATCHLINE -YIA- STA 21+50 SEE SHEET 57

MATCHLINE -L- STA. 36+00 SEE SHEET 7

MATCHLINE -FLY- STA. 16+75 SEE SHEET 7

MATCHLINE -SRI- STA. 17+25 SEE SHEET 7

N 53° 35' 35.2" E
BEGIN CONSTRUCTION
-YIB- POT Sta. 10+00.00
-YIA- PC Sta.19+09.94
-L- POT Sta.29+35.76 =
-YIA- POT Sta.18+27.29

-LIRT- POT Sta. 25+21.24=
-L- POT Sta.24+19.76

-YIA- POT Sta. 16+62.42 =
-DRIA- POT Sta. 11+60.55

S 63° 29' 07.0" E

-DRIA- POT
Sta. 10+00.00

N 32° 39' 45.8" E

-L- POT Sta. 30+18.94 =
-FLY- ST Sta. 10+33.56 (47.00' RT.)

-FLY- SC Sta. 12+63.56

-YIA- POT Sta. 13+45.00 =
-SRI- POT Sta. 10+20.60

S 72° 20' 14.2" E

-YIA- PT Sta. 13+17.81

-SRI- PC Sta. 15+27.41

-YIA- POC Sta. 11+65.00

S 62° 01' 16.6" E

PROP. SIGN

720' LANE DROP

CONCRETE BARRIER

US HWY 64 VARIABLE WIDTH PAVED RDWY

TDE FOR EROSION CONTROL DEVICE

WILLIAM & FRANK DELK
WB 12E PG 713
PB 18 PG 38

H.L. DELK CONSTRUCTION, INC.
DB 1974 PG 1886

H.L. DELK CONSTRUCTION, INC.
DB 1977 PG 1011A
PB 104 PG 17

H.L. DELK CONSTRUCTION, INC.
DB 1977 PG 1011
PB 104 PG 18

H. L. DELK, SR.
DB 1177 PG 1173
DB 1201 PG 1520

DAVID LAMBETH
DB 1250 PG 741
DB 2173 PG 931

CHARLES SMITH
DB 1988 PG 40
PB 64 PG 33

HAZEL HILL & OTHERS
DB 372 PG 2

RONALD LAMBETH
DB 1303 PG 1372

WILLIAM & ALICE HOLLOWAY
DB 759 PG 457

SITE 1- -YIA- STRUCTURE

-L- POT Sta.29+35.76 =
-YIA- POT Sta.18+27.29
Δ = 94°41'02.35"

BEGIN APPROACH SLAB
-YIA- Sta.17+31.52

BEGIN BRIDGE
-YIA- Sta.17+46.52

END BRIDGE
-YIA- Sta.19+08.06

END APPROACH SLAB
-YIA- Sta.19+23.07

N 32° 39' 45.8" E
-YIA-

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FOR FUTURE CONSTR. DETAIL SEE SHT. 02C-1
FOR -L- PROFILE SEE SHT. 104
FOR -L1RT- PROFILE SEE SHT. 103
FOR -Y1A- PROFILE SEE SHT. 133
FOR -FLY- PROFILE SEE SHT. 136
FOR -SR1- PROFILE SEE SHT. 146

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REVISIONS
8/17/99
R/W REVISION: DATE: 3/16/16 - REVISED R/W, TCE, PUE AND ADDED PDE FOR PARCEL NO.8

3/22/2016
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6/2/99

REVISIONS

R/W REVISION: DATE:
– ADDED PARCEL 27F AS A PORTION OF PARCEL 27B WAS SOLD.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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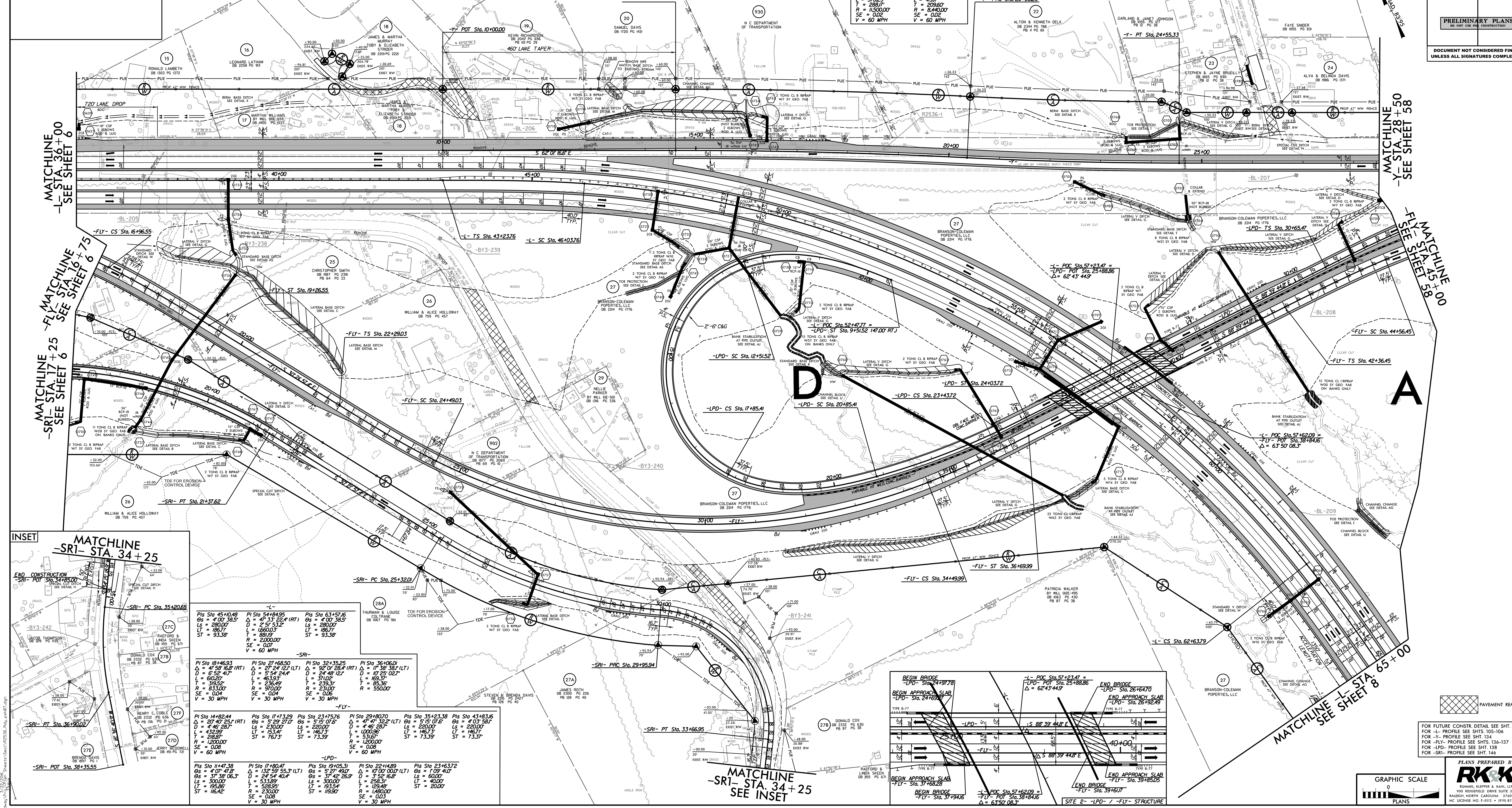

-Y-

PI Sta 17+48.17	PI Sta 22+45.82
Δ = 2° 52' 15.2" (RT)	Δ = 2° 50' 42.5" (LT)
D = 0° 29' 53.6"	D = 0° 40' 43.9"
L = 576.23'	L = 419.11'
T = 288.17'	T = 209.60'
R = 11,500.00'	R = 8,440.00'
SE = 0.02	SE = 0.02
V = 60 MPH	V = 60 MPH

-L-

PIs Sta 45+10.48	PI Sta 54+84.95	PIs Sta 63+57.16
Θs = 4° 00' 38.5"	Δ = 47° 33' 22.4" (RT)	Θs = 4° 00' 38.5"
Ls = 280.00'	D = 2° 51' 53.2"	Ls = 280.00'
LT = 186.71'	L = 1,660.03'	LT = 186.71'
ST = 93.38'	T = 881.19'	ST = 93.38'
	R = 2,000.00'	
	SE = 0.07	
	V = 60 MPH	

-SRI-

PI Sta 18+46.93	PI Sta 27+68.50	PI Sta 32+35.25	PI Sta 36+06.01
Δ = 41° 58' 16.8" (RT)	Δ = 27° 24' 12.1" (LT)	Δ = 92° 01' 28.4" (RT)	Δ = 17° 38' 38.1" (LT)
D = 6° 52' 41.7"	D = 5° 54' 24.4"	D = 24° 48' 12.1"	D = 10° 25' 02.7"
L = 610.20'	L = 463.93'	L = 371.02'	L = 169.37'
T = 319.52'	T = 236.49'	T = 239.31'	T = 85.36'
R = 833.00'	R = 970.00'	R = 231.00'	R = 550.00'
SE = 0.04	SE = 0.04	SE = 0.06	
V = 30 MPH	V = 30 MPH	V = 30 MPH	

-FLY-

PI Sta 14+82.44	PIs Sta 17+73.29	PIs Sta 23+75.76	PI Sta 29+80.70	PIs Sta 35+23.38	PIs Sta 43+83.16
Δ = 20° 40' 25.1" (RT)	Θs = 5° 29' 27.0"	Θs = 5° 15' 07.6"	Δ = 47° 47' 32.2" (LT)	Θs = 5° 15' 07.6"	Θs = 4° 03' 58.1"
D = 4° 46' 28.7"	Ls = 230.00'	Ls = 220.00'	D = 4° 46' 28.7"	Ls = 220.00'	Ls = 220.00'
L = 432.99'	LT = 153.41'	LT = 146.73'	L = 1,000.96'	LT = 146.73'	LT = 146.71'
T = 218.87'	ST = 76.73'	ST = 73.39'	T = 531.67'	ST = 73.39'	ST = 73.37'
R = 1,200.00'			R = 1,200.00'		
SE = 0.08			SE = 0.08		
V = 60 MPH			V = 60 MPH		

-LPD-

PIs Sta 11+47.38	PI Sta 17+80.47	PIs Sta 19+05.31	PI Sta 22+14.89	PIs Sta 23+63.72
Θs = 4° 07' 47.8"	Δ = 132° 59' 55.3" (LT)	Θs = 5° 27' 49.0"	Δ = 10° 00' 00.0" (LT)	Θs = 1° 09' 41.0"
Θs = 37° 38' 06.3"	D = 24° 54' 40.4"	Θs = 37° 42' 26.9"	D = 3° 52' 16.8"	Ls = 60.00'
Ls = 300.00'	L = 533.89'	Ls = 300.00'	L = 258.31'	LT = 40.00'
LT = 195.86'	T = 528.95'	LT = 193.54'	T = 129.48'	ST = 20.00'
ST = 116.42'	R = 230.00'	ST = 119.90'	R = 1,480.00'	
	SE = 0.08		SE = 0.03	
	V = 30 MPH		V = 30 MPH	

PAVEMENT REMOVAL

FOR FUTURE CONSTR. DETAIL SEE SHT. 02C–2
FOR –L– PROFILE SEE SHTS. 105–106
FOR –Y– PROFILE SEE SHT. 134
FOR –FLY– PROFILE SEE SHTS. 136–137
FOR –LPD– PROFILE SEE SHT. 138
FOR –SR1– PROFILE SEE SHT. 146

GRAPHIC SCALE
0
PLANS

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

MATCHLINE –L– STA. 65+00 SEE SHEET 7

MATCHLINE –RPA– STA. 20+50 SEE SHEET 58

MATCHLINE –L– STA. 78+00 SEE SHEET 9

PROP. 47" WW FENCE

0807 2 TONS CL B RIPRAP W/7 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL M

15" CSP 2 ELBOWS ROD & LUG 2GI

0806

20+00

GRAU 350

8:1

4' P.S.

4' P.S.

CLEAR CUT

150'

BERM BASE DITCH SEE DETAIL L

27 BRANSON-COLEMAN POPERTIES, LLC DB 2214 PG 1776

–RPA– SC Sta. 16+12.90

+12.90 150'

–RPA– TS Sta. 13+92.90

–BL–211

BERM DITCH SEE DETAIL A

0812 BDO

18" CSP 2 ELBOWS ROD & LUG

+20.00 –L– 200'

+50.00 240'

PROP. 47" WW FENCE

ROCKS

SOIL LOGGING RD

0805 BDO

18" CSP 2 ELBOWS ROD & LUG

CLEAR CUT

SPECIAL CUT DITCH SEE DETAIL H

FS MIN EL. 673.0

27.5' TYP.

4' P.S.

2GI

0813

15" CSP 2 ELBOWS FS 2GI ROD & LUG

0801

10' P.S.

–L– POT Sta. 76+18.26 =
–RPA– POT Sta. 10+00.00 (47.00' RT)
Δ = 4° 07' 00"

200'

N 2° 19' 37.1" W

10+00

15+00

–BL–210

–RPA–

40.0' TYP.

+23.79

10' P.S.

CLEAR CUT

2-@ 8' X 8' RCBC

PERENNIAL STREAM

JS

4' P.S.

4' P.S.

12'

12'

2

70+00

–L–

0808 FS 2GI

0809 15" RCP–III 2GI

PROP. SBG

12'

12'

2

23'

23'

0802 FS 2GI–A S 6° 26' 37.1" E

75+00

36" RCP–III

36" RCP–II

24" RCP–V

CLEAR CUT

CAT–1

0803 FS 2GI–A

–BL–212

–BL–213

1350' ACCELERATION LENGTH

300' TAPER

15" CSP 2 ELBOWS ROD & LUG

2 TONS CL B RIPRAP W/7 SY GEO FAB

0810

0811 JB w/MH

24" RCP–III

5 TONS CL B RIPRAP W/14 SY GEO FAB

0804

0814

11 TONS CL B RIPRAP W/28 SY GEO FAB

36" CSP 2 ELBOWS ROD & LUG

CHANNEL CHANGE SEE DET AG

CHANNEL RELOCATION SEE DETAIL F

CHANNEL BLOCK SEE DETAIL U

CLASS I RIP RAP W/GEO FAB ON BANKS ONLY

STANDARD BASE DITCH SEE DETAIL R

CLEAR CUT

PROP. 47" WW FENCE

+70.00 200'

+43.79 200.00'

SEE CULVERT OUTLET DETAIL –L– STA. 65+84

–L– ST Sta. 65+43.79

+30.00 232.94'

+60.00 320'

+50.00 275.29'

+97.00 343'

TDE FOR EROSION CONTROL DEVICE

TDE

27 BRANSON-COLEMAN POPERTIES, LLC DB 2214 PG 1776

608.72' S 02°37'39" W

916.85' S 76°48'48" E

558.24' N 02°37'39" E

–L–	–RPA–	
PIs Sta 63+57.16	PI Sta 18+70.92	PIs Sta 15+39.63
Θs = 4° 00' 38.5"	Δ = 24° 16' 10.3" (RT)	Θs = 5° 15' 07.6"
Ls = 280.00'	D = 4° 46' 28.7"	Ls = 220.00'
LT = 186.71'	L = 508.30'	LT = 146.73'
ST = 93.38'	T = 258.02'	ST = 73.39'
	R = 1,200.00'	
	SE = 0.08	
	V = 60 MPH	

FOR –L– PROFILE SEE SHT. 106
FOR –RPA– PROFILE SEE SHT. 139

PLANS PREPARED BY :

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3/22/2016
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kkeen

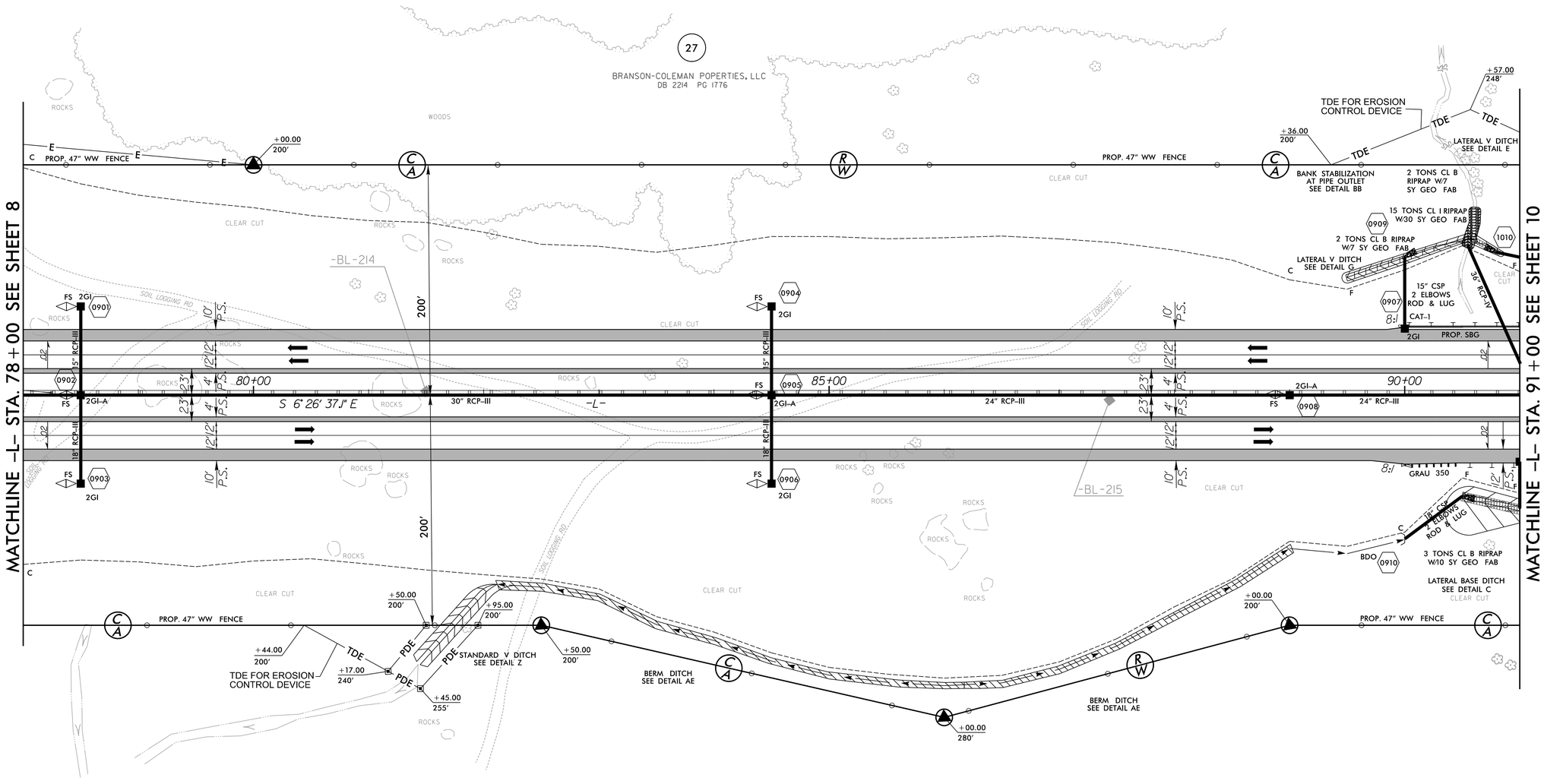
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95



PLANS PREPARED BY :

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3/22/2016
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kgaus

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

27
BRANSON-COLEMAN POPERTIES, LLC
DB 2214 PG 1776

28
GARY MCBRIDE
DB 1697 PG 2135

30
NANCY BYRD
DB 1645 PG 657

MATCHLINE –L– STA. 91+00 SEE SHEET 9

MATCHLINE –L– STA. 104+00 SEE SHEET 11

TDE FOR EROSION CONTROL DEVICE

TDE

–L– PC Sta. 92+23.09

+23.09 / 200'

+62.00 / 200'

PROP. 47" WW FENCE

BM7 ELEVATION = 751.40
N 706488 E 1742979
BL STATION 105+56.37 135.42 LEFT
RR-SPIKE IN BASE OF 10IN OAK TREE

-BL-216

-BL-217

-BL-218

N 01°31'14" E 2339.83'

S 16° 26' 37.1" E 2215.08'
N 03°15'20" E

15" CSP
2 ELBOWS
ROD & LUG

24" RCP-III

18" RCP-III

15" RCP-II

15" RCP-III

GRAU 350

95+00

100+00

200'

PROP. SBG

2GI

FS

2GI-A

1001 1002 1003 1004 1005 1006 1007 1008 1009 1011

CAT-10:1

HW

2 TONS CL B RIPRAP W/7 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL C

10' P.S.

12'12' P.S.

23' 4' P.S.

WOODS

ROCKS

PASTURE

–L–
PI Sta 99+17.48
△ = 4° 49' 10.6" (LT)
D = 0° 20' 50.1"
L = 1,387.95'
T = 694.38'
R = 16,500.00'
SE = NC
V = 70 MPH

FOR –L– PROFILE SEE SHT. 107

PLANS PREPARED BY :
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kkevans

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS
8/17/99
R/W REVISION: DATE: 2/5/16 - REVISED TCE TO PARCELS 28 AND 30 TO ACCOMMODATE -Y1_DET- BASINS.

-L- POT Sta.115+46.07 =
-Y1- POT Sta. 25+85.82
Δ = 91°32'04.2"

END APPROACH SLAB
-Y1- Sta. 26+88.85

BEGIN BRIDGE
-Y1- Sta. 25+07.79
BEGIN APPROACH SLAB
-Y1- Sta. 24+82.79

END BRIDGE
-Y1- Sta. 26+63.85

SITE 3- -Y1- STRUCTURE

NAD 83/95

MATCHLINE -Y1- STA. 30+00 SEE SHEET 62

MATCHLINE -L- STA. 104+00 SEE SHEET 10

MATCHLINE -L- STA. 118+00 SEE SHEET 12

MATCHLINE -Y1- STA. 22+00 SEE SHEET 61

28 GARY MCBRIDE DB 1697 PG 2135

30 NANCY BYRD DB 1645 PG 657

31 ARTHUR & CYNTHIA PIERCE DB 1089 PG 994

31 CYNTHIA PIERCE DB 1645 PG 663

TCE FOR DETOUR

-L- POT Sta.115+46.07 =
-Y1- POT Sta. 25+85.82
Δ = 91° 32' 04.22"

S 11°15' 47.7" E

N 80°16' 16.5" E

-L-
PI Sta 99+17.48
Δ = 4° 49' 10.6" (LT)
D = 0° 20' 50.1"
L = 1,387.95'
T = 694.38'
R = 16,500.00'
SE = NC
V = 70 MPH

FOR -L- PROFILE SEE SHTS. 107-108
FOR -Y1- PROFILE SEE SHT. 140
FOR -Y1_DET- PLAN SEE SHT. 2B-1

PLANS PREPARED BY :
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3/22/2016
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Ekeris

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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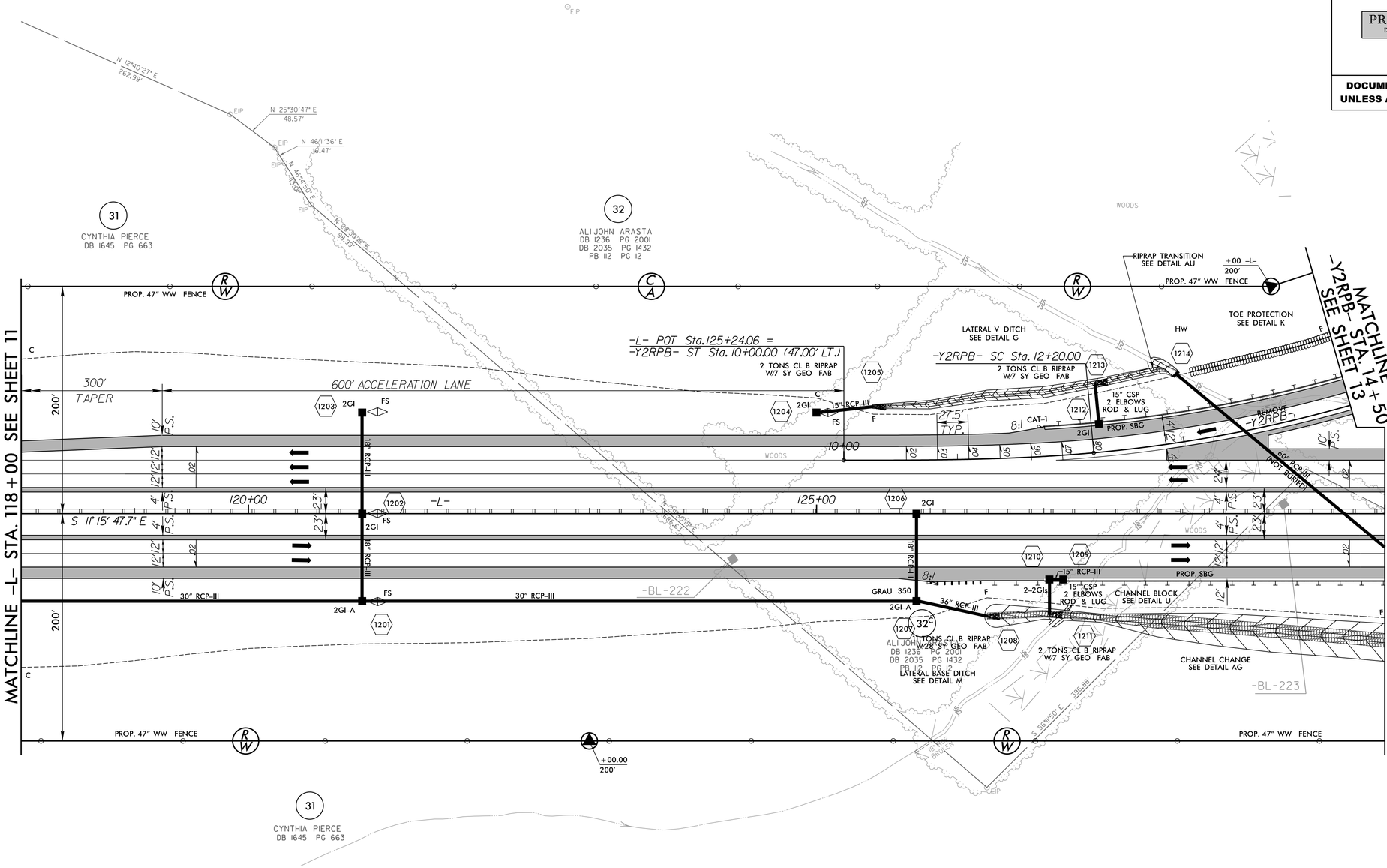
NAD 83/95



-Y2RPB-	
PIs Sta 11+46.73	PI Sta 14+91.82
Θs = 5°07'26.4"	Δ = 24°55'25.0" (LT)
Ls = 220.00'	D = 4°39'29.5"
LT = 146.73'	L = 535.05'
ST = 73.39'	T = 271.82'
	R = 1,230.00'
	SE = 0.08
	V = 60 MPH

FOR -L- PROFILE SEE SHT. 108
FOR -Y2RPB- PROFILE SEE SHT. 144

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REVISIONS
R/W REVISION: DATE: 2/5/2016
– PARCELS 42 AND 43 COMBINED INTO ONE PARCEL, 42, JAMES AND JUDITH OWENS.
– PARCELS 37 AND 37A COMBINED INTO ONE PARCEL, 37, KENNETH STOUT.
– PARCEL 35 DIVIDED INTO PARCELS 35, BERNADETTE LAMBETH, AND 35D, CORIN T. LAMBETH.
– ROW REVISED TO INCLUDE ALL OF PARCEL 36, GREGORY ALLEN PARK.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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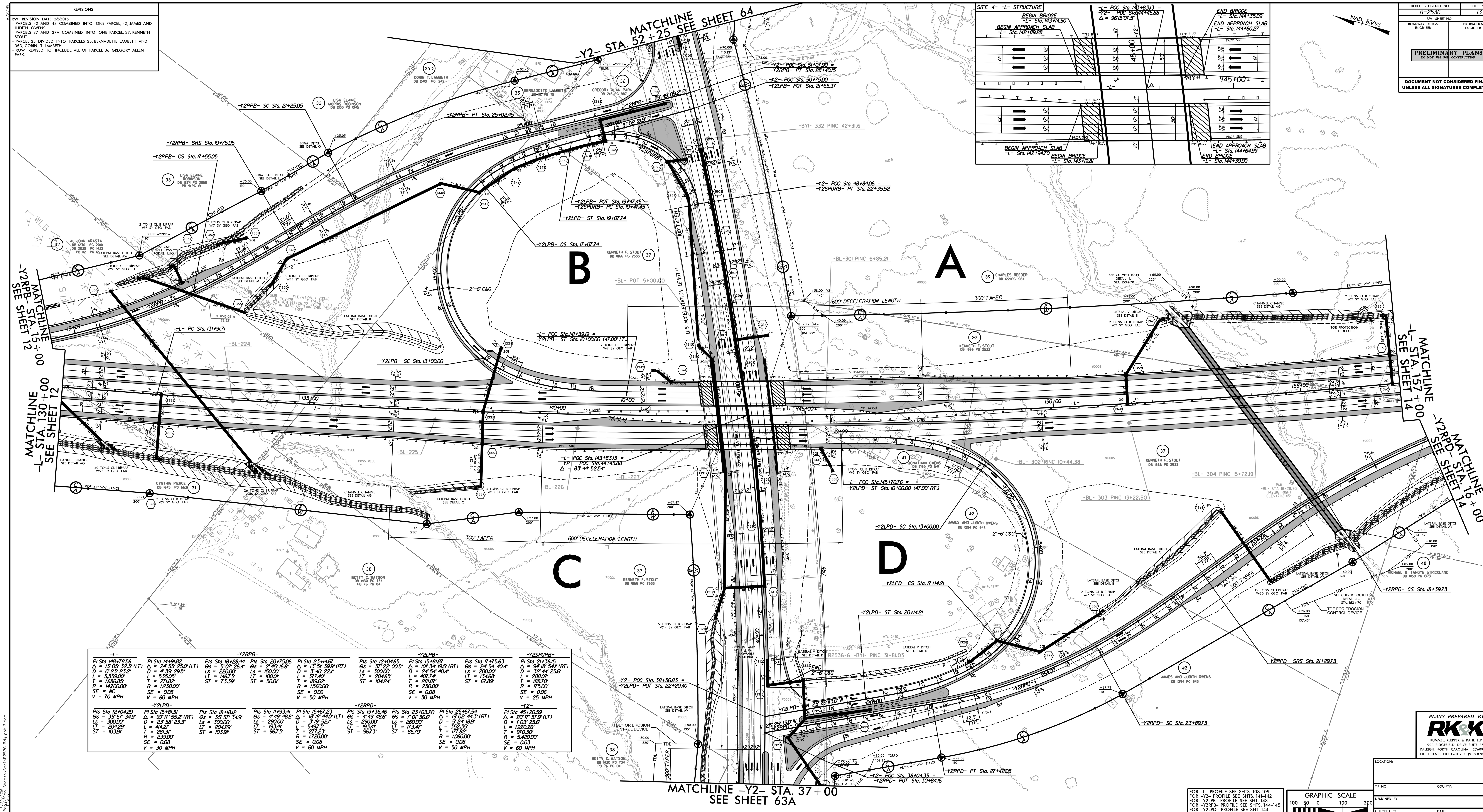

-L-	-Y2RPB-			
PI Sta 148+78.56	PI Sta 14+91.82	PIs Sta 18+28.44	PIs Sta 20+75.06	PI Sta 23+14.67
Δ = 13° 05' 32.3" (LT)	Δ = 24° 55' 25.0" (LT)	Θs = 5° 07' 26.4"	Θs = 2° 45' 16.6"	Δ = 13° 51' 39.9" (RT)
D = 0° 23' 23.2"	D = 4° 39' 29.5"	Ls = 220.00'	Ls = 150.00'	D = 3° 40' 22.1"
L = 3,359.00'	L = 535.05'	LT = 146.73'	LT = 100.01'	L = 377.40'
T = 1,686.85'	T = 271.82'	ST = 73.39'	ST = 50.01'	T = 189.62'
R = 14,700.00'	R = 1,230.00'			R = 1,560.00'
SE = NC	SE = 0.08			SE = 0.06
V = 70 MPH	V = 60 MPH			V = 50 MPH

-Y2LPB-			-Y2SPURB-
PIs Sta 12+04.65	PI Sta 15+81.87	PIs Sta 17+75.63	PI Sta 21+36.15
Θs = 37° 22' 00.5"	Δ = 101° 34' 19.5" (RT)	Θs = 24° 54 40.4"	Δ = 94° 18' 54.1" (RT)
Ls = 300.00'	D = 24° 54' 40.4"	Ls = 200.00'	D = 32° 44' 25.6"
LT = 204.65'	L = 407.74'	LT = 134.68'	L = 288.07'
ST = 104.24'	T = 281.87'	ST = 67.89'	T = 188.70'
	R = 230.00'		R = 175.00'
	SE = 0.08		SE = 0.06
	V = 30 MPH		V = 25 MPH

-Y2LPD-		
PIs Sta 12+04.29	PI Sta 15+81.31	PIs Sta 18+18.12
Θs = 35° 57' 34.9"	Δ = 99° 17' 55.2" (RT)	Θs = 35° 57' 34.9"
Ls = 300.00'	D = 23° 58' 23.3"	Ls = 300.00'
LT = 204.29'	L = 414.21'	LT = 204.29'
ST = 103.91'	T = 281.31'	ST = 103.91'
	R = 239.00'	
	SE = 0.08	
	V = 30 MPH	

-Y2RPD-					-Y2-
PIs Sta 11+93.41	PI Sta 15+67.23	PIs Sta 19+36.46	PIs Sta 23+03.20	PI Sta 25+67.54	PI Sta 45+20.59
Θs = 4° 49' 48.6"	Δ = 18° 18' 44.0" (LT)	Θs = 4° 49' 48.6"	Θs = 7° 01' 36.6"	Δ = 19° 02' 44.3" (RT)	Δ = 20° 17' 57.9" (LT)
Ls = 290.00'	D = 3° 19' 52.1"	Ls = 290.00'	Ls = 260.00'	D = 5° 24' 18.9"	D = 1° 03' 25.6"
LT = 193.41'	L = 549.73'	LT = 193.41'	LT = 173.47'	L = 352.35'	L = 1,920.26'
ST = 96.73'	T = 277.23'	ST = 96.73'	ST = 86.79'	T = 177.82'	T = 970.30'
	R = 1,720.00'			R = 1,060.00'	R = 5,420.00'
	SE = 0.08			SE = 0.08	SE = 0.03
	V = 60 MPH			V = 50 MPH	V = 60 MPH

FOR –L– PROFILE SEE SHTS. 108–109
FOR –Y2– PROFILE SEE SHTS. 141–142
FOR –Y2LPB– PROFILE SEE SHT. 143
FOR –Y2RPB– PROFILE SEE SHTS. 144–145
FOR –Y2LPD– PROFILE SEE SHT. 144
FOR –Y2RPD– PROFILE SEE SHT. 145

GRAPHIC SCALE
100 50 0 100 200
PLANS

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LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

PROJECT REFERENCE NO.	SHEET NO.
R-2536	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
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NAD 83/95

REVISIONS

8/17/99 R/W REVISION: DATE: 2/5/16 - ADDED FOUR ROW MONUMENTS AT INTERSECTION OF PROPOSED ROW WITH EXISTING ROW.
- ADDED PARCEL NO. 44A, MARCIA L. CORNELL

MATCHLINE -SR_F- STA. 30+00 SEE SHEET 67

-SR_F1- POT Sta. 13+32.53

-SR_F- POT Sta. 33+56.63=
-SR_F1- POT Sta. 12+06.19

-SR_F1- POT Sta. 10+00.00

MARCIA L. CORNELL
DB 1620 PG 1185
44A

JOHNNY E. WALKER
DB 08E PG 219
DB 1877 PG 1815
45A

CHARLES REEDER
DB 1221 PG 1984
39

B H CAUDILL SR. FAMILY PARTNERSHIP
DB 1825 PG 586
44

HEATHER DANA YATES
DB 1590 PG 1677
46

LARRY BRYANT WALKER
DB 1535 PG 1013
45

MITCHELL G. GROOVER
DB 1492 PG 210

-BY4- 349 PINC 9+08.80

-BL- 309 PINC 30+50.95

-BL- 308 PINC 27+10.93

-BL- 307 PINC 22+76.48

-BL- 305 PINC 18+90.66

-BL- 306 PINC 21+42.43

-L- PT Sta. 165+50.71

-L- POC Sta. 163+36.40 =
-Y2RPD- ST Sta. 10+00.00 (47.00' RT.)

REMOVE -Y2RPD- SC Sta. 12+90.00

MATCHLINE -L- STA. 157+00 SEE SHEET 13

MATCHLINE -Y2RPD- STA. 16+00 SEE SHEET 13

MATCHLINE -L- STA. 170+00 SEE SHEET 15

PROP. 47" WW FENCE

PROP. SBG

BERM DITCH SEE DETAIL A

BERM DITCH SEE DETAIL O

LATERAL BASE DITCH SEE DETAIL AV

LATERAL BASE DITCH SEE DETAIL B

LATERAL BASE DITCH SEE DETAIL AV

LATERAL V DITCH SEE DETAIL D

STANDARD V DITCH SEE DETAIL W

FILL IN POND W/ROCK PLATING SEE DETAIL AQ

TEMPORARILY DRAIN POND

2 TONS CL B RIPRAP W/7 SY GEO FAB

3 TONS CL B RIPRAP W/10 SY GEO FAB

GRADE TO DRAIN

600' ACCELERATION LENGTH

300' TAPER

18" CSP 2 ELBOWS ROD & LUG

15" RCP-III

18" RCP-III

-L-	-Y2RPD-		-SR4-
PI Sta 148+78.56	PI Sta 15+67.23	PIs Sta 11+93.41	PI Sta 13+84.09
Δ = 13° 05' 32.3" (LT)	Δ = 18° 18' 44.0" (LT)	Θs = 4° 49' 48.6"	Δ = 57° 32' 30.8" (LT)
D = 0° 23' 23.2"	D = 3° 19' 52.1"	Ls = 290.00'	D = 11° 48' 48.8"
L = 3,359.00'	L = 549.73'	LT = 193.41'	L = 487.08'
T = 1,686.85'	T = 277.23'	ST = 96.73'	T = 266.31'
R = 14,700.00'	R = 1,720.00'		R = 485.00'
SE = NC	SE = 0.08		SE = 0.06
V = 70 MPH	V = 60 MPH		V = 40 MPH

FOR -L- PROFILE SEE SHTS. 109-110
FOR -Y2RPD- PROFILE SEE SHT. 145

"NOTE" RECORDED EASEMENT FOR "QUARY DRIVE" NOW "AUTUMN WOODS RD" RECORDED IN DB 1407 PG 1812 AND DB 1051 PG 411

PAVEMENT REMOVAL

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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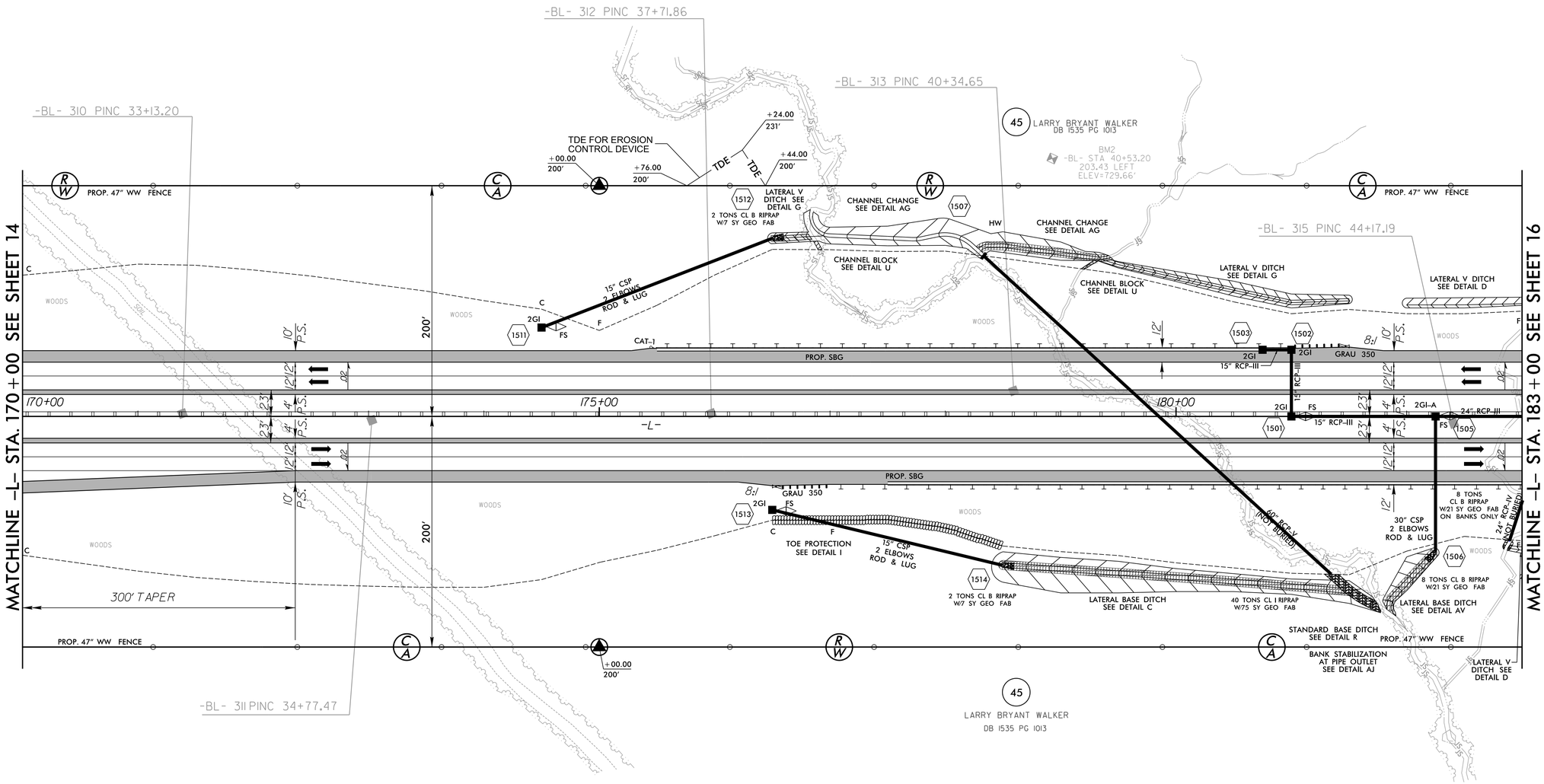
NAD 83/95



FOR -L- PROFILE SEE SHT. 110

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

LUTHER E. OWENS
DB 1125 PG 228
PB 12 PG 10

LUTHER E. OWENS
DB 1115 PG 228
PB 12 PG 10

JANE C. THOMAS
DB 1177 PG 599
PB 12 PG 10

GERALD BRASWELL
DB 2303 PG 162

JACK A CAVINESS
DB 1867 PG 2147

LARRY BRYANT WALKER
DB 1535 PG 1013

BILLY & BOBBY McDOWELL
DB 2209 PG 150

MATCHLINE –L– STA. 183+00 SEE SHEET 15

MATCHLINE –L– STA. 196+00 SEE SHEET 17

-BL- 316 PINC 49+87.47

-BL- 317 PINC 52+04.21

-BL- 315 PINC 47+20.32

-BL- 318 PINC 54+83.46

-L-

185+00 S 24° 21' 19.9" E 190+00 195+00

+00.00 = 200.00

PROP. 47" WW FENCE

LATERAL V DITCH SEE DETAIL D

TOE PROTECTION SEE DETAIL I

SPECIAL CUT DITCH SEE DETAIL H

LATERAL V DITCH SEE DETAIL G

TONS CL B RIPRAP W/7 SY GEO FAB

PIPES DO NOT INTERSECT

15" CSP 2 ELBOWS ROD & LUG

24" RCP-III

18" RCP-III

15" RCP-III

PROP. SBG

CAT-1

WOODS

GRASS

WD TIMBERS

DOG LOT

WD POOL

EARTH DAM

SOIL & GR

GRAU 350

FOR –L– PROFILE SEE SHTS. 110–111

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

MATCHLINE –L– STA. 196+00 SEE SHEET 16

MATCHLINE –L– STA. 210+00 SEE SHEET 18

END SECTION 1
–L– Sta. 210+00.00

-BL- 321PINC 62+84.87

-BL- 320 PINC 59+70.84

-BL- 322 PINC 65+60.36

-BL- 323 PINC 68+19.39

-BL- 324 PINC 69+90.16

-BL- 319 PINC 58+24.03

51 BILLY & BOBBY McDOWELL DB 2209 PG 150

52 NORMA GOINS DB 1127 PG 567

53 LUCILLE G. LAMBE DB 367 PG 626

54 TIMOTHY NILES CALLICUTT DB 1117 PG 810 DB 03E PG 156

45 LARRY BRYANT WALKER DB 1535 PG 1013

PROP. 47" WW FENCE

RIPRAP TRANSITION SEE DETAIL AU

2 TONS CL B RIPRAP W/7 SY GEO FAB

LATERAL V DITCH SEE DETAIL G

HW w/Sill See Detail (Sht.2B–?)

LATERAL BASE DITCH SEE DETAIL M

LATERAL BASE DITCH SEE DETAIL C

CHANNEL BLOCK SEE DETAIL U

SPECIAL CUT DITCH SEE DETAIL H

15" CSP 2 ELBOWS ROD & LUG

CAT–1

GRAU 350

8:1

PROP. SBG

15" RCP–III

18" RCP–III

24" RCP–III

18" CSP 2 ELBOWS ROD & LUG

24" CSP 2 ELBOWS ROD & LUG

BDO

BERM DITCH SEE DETAIL A

3 TONS CL B RIPRAP W/10 SY GEO FAB

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL AJ

48 TONS CL I RIPRAP W/89 SY GEO FAB ON BANKS ONLY

8 TONS CL B RIPRAP W/21 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL M

BM3 -BL- STA 60+21.75 197.93 RIGHT ELEV=730.06'

TDE

POSSIBLE SPRING

WOODS

S 24° 21' 19.9" E

N 87°32'28" E 153.00'

S 77°36'39" E 170.39'

N 77°24'39" W 100.53'

S 00°38'29" W 423.78'

S 18°03'34" E 86.50'

326.33' S 00°37'03" W

S 88°32'24" E 238.08'

N 86°2

FOR –L– PROFILE SEE SHT. 111

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REVISIONS

8/17/99 R/W REVISION: DATE: 2/5/16 – TDE ADDED TO PARCEL NO.52 FOR EROSION CONTROL.

3/22/2016
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Eleanor

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	57
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-Y1A-		
PI Sta 22+66.52	PI Sta 28+16.31	PI Sta 32+04.82
Δ = 46° 20' 52.1" (RT)	Δ = 34° 01' 29.0" (RT)	Δ = 25° 17' 18.7" (LT)
D = 6° 52' 41.7"	D = 7° 32' 20.1"	D = 12° 27' 20.2"
L = 673.83'	L = 451.32'	L = 203.03'
T = 356.58'	T = 232.53'	T = 103.20'
R = 833.00'	R = 760.00'	R = 460.00'
SE = 0.06	SE = 0.06	SE = EXIST.
V = 50 MPH	V = 45 MPH	

-Y1B-		
PI Sta 11+96.02	PI Sta 13+14.63	PI Sta 17+11.93
Δ = 6° 03' 54.4" (RT)	Δ = 17° 19' 30.8" (RT)	Δ = 96° 46' 31.4" (RT)
D = 4° 14' 38.9"	D = 18° 28' 57.0"	D = 76° 23' 39.7"
L = 142.91'	L = 93.74'	L = 126.68'
T = 71.52'	T = 47.23'	T = 84.44'
R = 1,350.00'	R = 310.00'	R = 75.00'
SE = 0.02	SE = 0.05	SE = 0.06
V = 25 MPH	V = 25 MPH	V = STOP CONDITION

NAD 83/95

8/17/99

N 84°53'
633.81'

S 01°27'46" E
557.11'

S 24°16'54" W
351.00'

JOHN & LINDA SKEEN
DB 1543 PG 265
DB 1543 PG 576
PB 17 PG 23

373.20'
N 88°07'30" W

-Y1A- POT Sta. 30+66.17
END CONSTRUCTION
-Y1A- POT Sta. 30+50.00

309A
WESLEY ALAN GARNER
DB 2097 PG 1232
PB 118 PG 87

308
JOHN & LINDA SKEEN
DB 1543 PG 265
DB 1543 PG 576
PB 17 PG 23

CLARA GARNER
DB 1889 PG 1899
309

2 TONS CL B RIPRAP
W/7 SY GEO FAB
CUT/FILL TRANSITION

-BY2-233

-BY2-232

-Y1B- PC Sta. 16+27.49

100' TAPER

2 TONS CL B RIPRAP
W/7 SY GEO FAB
CUT/FILL TRANSITION

CLARA GARNER
DB 1889 PG 1899

R=30'

-Y1A- PT Sta. 33+04.65

WILLIAM GARNER
HENRY GARNER
FRED GARNER
RHONDA GARNER DUNN
LOUISE GARNER (LE)

DB 2097 PG 1230
PB 118 PG 87

307
OTIS ALLEN, JR.
DB 1244
PG 570

-Y1B- PT Sta. 13+61.14

306
B. DARREN WILLIAMS
DB 1744 PG 141

-BY2-234

-Y1B- PCC Sta. 12+67.40

DAVID & TINA POOLE
DB 1963 PG 606

305
WILLIAM T. HINSHAW
DB 1431PG 222
DB 1963 PG 604

SPECIAL CUT DITCH
SEE DETAIL H

-Y1B- PC Sta. 11+24.50

SP. LAT V DITCH SEE DETAIL J

-Y1A- PT Sta. 30+35.09

-Y1A- PC Sta. 31+01.62

LATERAL V DITCH
SEE DETAIL D

-Y1A- POT Sta. 26+49.99 =
-Y1B- POT Sta. 17+54.17

-Y1A- PCC Sta. 25+83.77

309
CLARA GARNER
DB 1889 PG 1899

CAROLYN & ALLEN
SCARBOROUGH
DB 1585 PG 1452

10
H.L. DELK
CONSTRUCTION,
INC.
DB 1977 PG 1011
PB 104 PG 17

310
LATERAL BASE
DITCH SEE
DETAIL B

MATCHLINE
-Y1B- STA. 10+75
SEE SHEET 6

MATCHLINE
-Y1A- STA. 21+50
SEE SHEET 6

N 89°28'09" E
623.03'

N 89°19'29" W
157.93'

FOR -Y1A- PROFILE SEE SHT. 133

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Lewis

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	58
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE –RPA– STA. 20+50 SEE SHEET 8

MATCHLINE –FLY– STA. 45+00 SEE SHEET 7

MATCHLINE –Y– STA. 28+50 SEE SHEET 7

TOE PROTECTION SEE DETAIL I

CHANNEL CHANGE SEE DETAIL AG

CHANNEL BLOCK SEE DETAIL U

CLEAR CUT

54" RCP-III (NOT BURIED)

2 @ 8'-X 8'-RCBC

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL AJ

2 TONS CL B RIPRAP W/7 SY GEO FAB

36" RCP-IV (NOT BURIED)

11 TONS CL B RIPRAP W/28 SY GEO FAB ON BANKS ONLY

-LPD- SC Sta. 32+65.47

PROP. SBG

-RPA-

-LPD- CS Sta. 35+61.15

-LPD- ST Sta. 37+61.15

-FLY- CS Sta. 49+57.86

-FLY- ST Sta. 51+77.86

-Y-

-BYI-228

-BY5-244

15" CSP 2 ELBOWS ROD & LUG

RETAIN

Sp. Box Det. JB w/Slab Lid

REMOVE

TYPE "T" DBL FACE MED. CONC. BARRIER

ATTENUATOR

LATERAL BASE DITCH SEE DETAIL C

LATERAL V DITCH SEE DETAIL D

2 TONS CL B RIPRAP W/7 SY GEO FAB

PROP. 47" WW FENCE

SEE CULVERT INLET DETAIL -L- STA. 65+84

TDE

TDE FOR EROSION CONTROL DEVICE

LATERAL V DITCH SEE DETAIL G

LATERAL BASE DITCH SEE DETAIL AI

BERM BASE DITCH SEE DETAIL X

PUE

FENCE

WOODS

GRASS

BRANSON-COLEMAN POPERTIES, LLC
DB 2214 PG 1776

KIRA BARNES
DB 2154 PG 184

CARLENE LUCAS
DB 1069 PG 70

JERRY & SUE BARNES
DB 804 PG 550
DB 1003 PG 395

INEZ BURCHAM
DB 858 PG 531
DB 906 PG 119

ALBERT & DEBBIE DENNIS
DB 2361 PG 1261
PB 94 PG 50

ALBERT WAYNE DENNIS & JACK L. SHARP
DB 1894 PG 57
PB 94 PG 50

NAD 83/95

BM4 ELEVATION = 691.59
N 710143 E 1743624
-BY5 STATION 5+00.00
N 23°55'10.1" W Dist= 85.61
RR-SPIKE IN BASE OF POWER POLE

-FLY-

PI Sta 47+09.37	PIs Sta 50+31.23
Δ = 18° 32' 04.7" (RT)	Θs = 4° 03' 58.1"
D = 3° 41' 47.4"	Ls = 220.00'
L = 501.41'	LT = 146.71'
T = 252.91'	ST = 73.37'
R = 1,550.00'	
SE = 0.08	
V = 65 MPH	

-RPA-

PI Sta 18+70.92	PI Sta 27+96.80	PIs Sta 32+92.52
Δ = 24° 16' 10.3" (RT)	Δ = 83° 16' 15.2" (RT)	Θs = 7° 32' 20.1"
D = 4° 46' 28.7"	D = 7° 32' 20.1"	Ls = 200.00'
L = 508.30'	L = 1,104.55'	LT = 133.45'
T = 258.02'	T = 675.60'	ST = 66.78'
R = 1,200.00'	R = 760.00'	
SE = 0.08	SE = 0.08	
V = 60 MPH	V = 50 MPH	

-LPD-

PIs Sta 31+98.85	PI Sta 34+14.06	PIs Sta 36+27.86
Θs = 4° 46' 28.7"	Δ = 14° 07' 03.5" (RT)	Θs = 4° 46' 28.7"
Ls = 200.00'	D = 4° 46' 28.7"	Ls = 200.00'
LT = 133.38'	L = 295.68'	LT = 133.38'
ST = 66.71'	T = 148.59'	ST = 66.71'
	R = 1,200.00'	
	SE = 0.07	
	V = 50 MPH	

PAVEMENT REMOVAL

FOR FUTURE CONSTR. DETAIL SEE SHT. 02C-3
FOR –Y– PROFILE SEE SHTS. 134–135
FOR –FLY– PROFILE SEE SHT. 137
FOR –LPD– PROFILE SEE SHTS. 138–139
FOR –RPA– PROFILE SEE SHTS. 139–140

MATCHLINE –FLY– STA. 54+00 SEE SHEET 59

MATCHLINE –Y– STA. 38+00 SEE SHEET 59

PLANS PREPARED BY :

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	59
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

-YRT- POT Sta. 10+00.00 =
-FLY- POT Sta. 56+02.47 (12.00' RT.)=
-LFUTURE- POT Sta.10+00.00 (23.00' LT.)=
-Y- POT Sta.39+93.55 (58.00' LT.)=

MATCHLINE -Y- STA. 38+00 SEE SHEET 58

MATCHLINE -FLY- STA. 54+00 SEE SHEET 58

MATCHLINE -Y- STA. 52+00 SEE SHEET 60

720' LANE SHIFT

36A UNKNOWN OWNER (GAP) PB 94 PG 50

38C KELLY CONTRACTORS, LLC DB 2173 PG 821 (REF DB 1278 PG 831)

38B DONALD & CHERYL LANIER

27 BRANSON-COLEMAN POPERTIES, LLC DB 2214 PG 1776

PROP. 47" WW FENCE

BERM BASE DITCH SEE DETAIL X

BERM BASE DITCH SEE DETAIL L

LATERAL BASE DITCH SEE DETAIL C

LATERAL BASE DITCH SEE DETAIL AV

3 TONS CL B RIPRAP W/10 SY GEO FAB

2 TONS CL B RIPRAP W/7 SY GEO FAB

8 TONS CL B RIPRAP W/21 SY GEO FAB

TDE FOR EROSION CONTROL DEVICE STANDARD BASE DITCH SEE DETAIL AS

TDE FOR EROSION CONTROL DEVICE

BDO

FALLOW BDO

18" CSP 2 ELBOWS ROD & LUG

15" CSP 2 ELBOWS ROD & LUG

30" CSP 2 ELBOWS ROD & LUG

15" CSP (NOT BURIED) 2 ELBOWS ROD & LUG

COLLAR & EXTEND

FS ELEV. 712.0

18" RCP-III COLLAR

15" RCP-III

30" RCP-III (NOT BURIED)

2GI-D

2GI

FS

F CAT-1

CAT-8:1

CAT-18:1

GRAU 350

REMOVE

Sp. Det. JB w/Slab Lid

JB w/MH

STD. V DITCH SEE DETAIL AL

STD. BASE DITCH SEE DETAIL AS

CHANNEL BLOCK SEE DETAIL U

CHANNEL CHANGE SEE DETAIL AG

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL AJ

COLLAR & EXTEND

+30.00 156'

+86.00 151'

+55.00 130'

+33.00 151'

+30.00 -FLY- 115'

+40.00 -YRT- 127'

+85.00 116.04'

+90.00 150'

+09.00 230'

+54.00 262'

+05.00 215'

+35.00 245'

+92.00 208'

+10.00 128.10'

10+00

40+00

45+00 PROP. SBG

50+00

15+00

20+00

-FLY- 55+00

-RPA-

-Y-

-FUTURE-

-YRT-

S 61° 59' 43.8" E

S 6° 59' 43.8" E

N 56°03'35" E 12.30'

N 51°42'16" W 12.30'

N 02°10'20" E 267.33'

N 03°53'05" E 400.05'

-YRT- PC Sta. 15+51.52

-FLY- POT Sta. 55+69.81 =
-RPA- ST Sta. 34+25.74

300' ACCELERATION

300' TAPER

75:1

130'

185'

PROP. SBG

PAINTED ISLAND

-BYI-229

R2536-2

P.S.

4'

12'

8'

2'

2.3'

US HWY 64 (VARIABLE WIDTH PAVED ROW)

CLEAR CUT

STUMP PILE

WOODS

ATV TRAILS

MUD HOLE

WOOD BILLBOARD

EXISTING R/W

EIP

EIP Open

-RPA-

PIs Sta 32+92.52
Θs = 7° 32' 20.1"
Ls = 200.00'
LT = 133.45'
ST = 66.78'

-YRT-

PI Sta 19+34.25
△ = 3° 48' 44.2" (LT)
D = 0° 29' 53.6"
L = 765.17'
T = 382.73'
R = 11,500.00'
SE = NC
V = 60 mph

-Y-

PI Sta 56+54.38
△ = 1° 18' 31.5" (LT)
D = 0° 29' 53.6"
L = 262.68'
T = 131.35'
R = 11,500.00'
SE = NC
V = 60 mph

PI Sta 59+17.06
△ = 1° 18' 31.5" (RT)
D = 0° 29' 53.6"
L = 262.68'
T = 131.35'
R = 11,500.00'
SE = NC
V = 60 mph

FOR FUTURE CONSTR. DETAIL SEE SHT. 02C-4
FOR -Y- PROFILE SEE SHT. 135
FOR -FLY- PROFILE SEE SHT. 137
FOR -RPA- PROFILE SEE SHT. 140

PLANS PREPARED BY :
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REVISIONS

R/W REVISION: DATE: 3/16/16 - REVISED NAME FOR PARCEL NO.38C TO KELLY CONTRACTORS, LLC

8/17/99

3/22/2016
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	60
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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REVISIONS
8/17/99
R/W REVISION: DATE: 2/5/16 - AUBREY B. HOAG PARCEL NO. REVISED FROM 41 TO 41B

MATCHLINE -Y- STA. 52+00 SEE SHEET 59

MATCHLINE -Y- STA. 66+00 SEE SHEET INSET

720' LANE SHIFT

39A JHS MASTER CAPITAL, LLC DB 2302 PG 1745

40 LOU DEAN HIGHSMITH DB 1126 PG 557

41B AUBREY B. HOAG DB 2306 PG 619 PB II PG 46

41A THOMAS & TERESA SWANEY DB 1331 PG 61

43A LOU DEAN HIGHSMITH BY WILL 009E-108 DB 406 PG 345 DB 878 PG 473

-Y- PC Sta. 55+23.03

-Y- PRC Sta. 57+85.71

-Y- PT Sta. 60+48.40

-YRT- PT Sta. 31+15.14 = -Y- POT Sta. 61+07.59 (12.00' RT)

END CONSTRUCTION
-Y- POT Sta. 64+00.00

50' BLEND TO EXIST.

PROP. 47" WW FENCE

+23.03 PROP. 47" WW FENCE 130"

BERM BASE DITCH SEE DETAIL L

TOE PROTECTION SEE DETAIL I

STANDARD V DITCH SEE DETAIL W

2 TONS CL B RIPRAP W/7 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL AI

SP. CUT BASE DITCH SEE DETAIL AA

15" CSP 2 ELBOWS ROD & LUG

15" RCP-III

24" CSP 2 ELBOWS ROD & LUG

GRAU 350

PROP. SBG

PAINTED ISLAND

660' LANE DROP

(FUTURE PROJECT)

-LFUTURE-

-YRT-

GRAU 350 15" CSP 2 ELBOWS ROD & LUG

LATERAL V DITCH SEE DETAIL G

Sp. Det JB w/Slab Lid

18" CSP 2 ELBOWS ROD & LUG

3 TONS CL B RIPRAP W/10 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL C

REMOVE HW

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB

11 TONS CL B RIPRAP W28 SY GEO FAB

LATERAL V DITCH SEE DETAIL G

SPECIAL CUT DITCH SEE DETAIL H

PROP. 47" WW FENCE

+00.00 -Y- 185'

+64.76 106' EXIST. R/W

+75.05 106 EXIST. R/W END C/A END FENCE

+15.14 179'

+00.00 44' EXIST. R/W END C/A END FENCE

+87.00 154'

+57.00 145'

+81.76 -Y- 124'

+70.00 132'

+90.00 90'

38B DONALD & CHERYL LANIER

48C MARTHA MARSH DB 1177 PG 1854 PB II PG 46

48B CERTIFIED CONCRETE CORPORATION DB 1061 PG 797 PB II PG 46

48A GLEN DAVIS DB 1373 PG 1002

48 STEPHEN & JANE BRUEILLY DB 1404 PG 1216 DB 1541 PG 1001 PB 38 PG 2

CHESTER BRANSON CRAIG BRANSON LARRY MCKENZIE DB 1362 PG 1282

-BY1-230

-BY6-245

-YRT-
PI Sta 27+16.07
△ = 3° 48' 44.2" (RT)
D = 0° 28' 38.9"
L = 798.44'
T = 399.37'
R = 12,000.00'
SE = NC
V = 60 mph

INSET
MATCHLINE -Y- STA. 66+00

FOR FUTURE CONSTR. DETAIL SEE SHT. 02C-5
FOR -Y- PROFILE SEE SHT. 135

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	61
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

REVISIONS

8/17/99 R/W REVISION: DATE: 2/5/16 - REVISED TCE TO PARCEL NO.30 TO ACCOMMODATE -Y1_DET- BASINS.

-Y1- POT Sta. 10+00.00

-Y1- POT Sta. 13+34.06

-Y1- POT Sta. 20+50.00

BEGIN CONSTRUCTION

-Y1- PT Sta. 19+95.46

-Y1- Sta. 21+46.25

-Y1-

10+00

15+00

20+00

N 52° 48' 39.1" E

-BY7-249

-BY7-250

-BY7-251

CONNIE HOOVER
DB 2046 PG 508
PB 17 PG 23

JOHN & LINDA SKEEN
DB 1546 PG 576
PB 17 PG 23

JOHN & ANNETTE BLUE
DB 2066 PG 73
PB 17 PG 23

PATSY VARNER
DB 1482 PG 890
PB 17 PG 23

NANCY BYRD
DB 1645 PG 657

DB 417 PG 431
THURMAN & HELENIA MCBRIDE

CYNTHIA PIERCE
DB 1645 PG 663

BM8 ELEVATION = 786.97
N 703796 E 1742638
BL STATION 131+78.16 648.76 RIGHT
RR-SPIKE IN BASE OF POWER PILE

+84.00 50' 29.48' EXIST. R/W

+62.34 53' EXIST. R/W

+71.63 60' EXIST. R/W

+23.27 79' EXIST. R/W

+21.81 60' EXIST. R/W

+00.00 60' END C/A END FENCE

+00.00 76' BEGIN CA BEGIN FENCE

+52.00 73' 60'

+25.00 110' LATERAL V DITCH SEE DETAIL D

+50.00 88'

50' BLEND TO EXIST.

MATCHLINE -Y1- STA. 22+00 SEE SHEET 11

4 TONS CL B RIPRAP
W14 SY GEO FAB

LATERAL V DITCH
SEE DETAIL D

PUE

EXISTING R/W

OLD NC HWY 88 (SR 1125)
20' PAVED R/W

INCIDENTAL PAVED R/W

EXIST. DRIVE

ISBKD

CONC WALK

DOG LOT

HTR

WD DECK

BLK WELL HOUSE

GRASS

WOODS

PECAN TREES

GRAPE VINES

PASTURE

SOIL & GRAVEL

4' WM

-Y1-
PI Sta 16+71.24
△ = 27° 27' 37.4" (RT)
D = 4° 09' 06.7"
L = 661.40'
T = 337.18'
R = 1,380.00'
V = 60 MPH

FOR -Y1- PROFILE SEE SHT. 140
FOR -Y1_DET- PROFILE SEE SHT. 140A
FOR -Y1_DET- PLAN SEE SHT. 2B-1

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	62
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

REVISIONS

8/17/99 R/W REVISION: DATE: 2/5/16 - PARCEL NO.31A AND 32 COMBINED INTO ONE PARCEL NO.32, ALI JOHN ARASTA. - ADDITIONAL TCE TO PARCEL NO.28 AND 313 TO ACCOMMODATE -Y1_DET- BASINS.

MATCHLINE -Y1- STA. 30+00 SEE SHEET 11

28 GARY MCBRIDE DB 1697 PG 2135

313 BARBARA COUNCILMAN DB 1377 PG 1222

END CONSTRUCTION -Y1- POT Sta. 33+00.00

-BY7-248

-BY7-247

-BY7-246

+90.00 150'

+20.00 100'

+65.00 60'

+00.00 60' 29.39' EXIST. R/W

+00.00 67'

SP. LAT. V DITCH SEE DETAIL J

SP. LAT. V DITCH SEE DETAIL J 27.5' TYP.

PUE

4' WW ISW

25PR 27PR

EXISTING R/W

8:1

-Y1-

N 80° 16' 16.5" E

20' PAVED RDWY (S OLD NC HWY 49 (SR 1193)

REMOVE 15"

RETAIN

35+00

40+00

15" CMP

12" CMP

TO ASHEBORO

200PR

300PR

WOODS

FALLOW

GRASS

PASTURE

ROCK

MTL GATE

WOOD SIGN

+06.76 45'

+64.00 77'

+68.00 93'

+89.00 89'

+50.00 45'

+85.00 72'

+00.57 60'

+05.00 69' 45' 30.63' EXIST. R/W

LATERAL V DITCH SEE DETAIL D

50' BLEND TO EXIST.

TDE FOR EROSION CONTROL DEVICE

TDE

3' SLOPE WALK

ISFD

BK STEPS & ROCK WALK

WD DECK

2S G

S

N 0°40'27" E 16.84'

-Y1- PC Sta. 36+03.98

N 37°46'06" W 2166.50'

N 10°01'58" E 805.19'

32 ALI JOHN ARASTA DB 1236 PG 2001 DB 2035 PG 1432 PB 112 PG 12

316 CLAUDE & SHELBY MORRIS DB 702 PG 263 DB 1014 PG 44

ISBKD

CONC

G

S

ROCKS

-Y1-

PI Sta 40+27.18
Δ = 2° 25' 27.9" (RT)
D = 0° 17' 11.3"
L = 846.28'
T = 423.20'
R = 20,000.00'
V = 60 MPH

FOR -Y1- PROFILE SEE SHT. 140
FOR -Y1_DET- PROFILE SEE SHT. 140A
FOR -Y1_DET- PLAN SEE SHT. 2B-1

PLANS PREPARED BY :
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	63
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS
8/17/99 R/W REVISION: DATE: 2/5/16 - PARCELS 37B, 37C AND 37D COMBINED INTO ONE PARCEL, 37B, FRANCES H. CALLICUTT.

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NAD 83'95

-BY3- 344 PINC 10+54.09
-BY3- 343 PINC 7+84.34
-BY3- 345 PINC 14+12.32
-BY3- 346 PINC 16+76.58
-BY2- 336 PINC 8+47.31
-BYI- 330 POT 5+00.00
R2536-5 -BYI- PINC 13+85.33

-DR6- POT Sta. 13+81.03
-DR6- PT Sta. 12+63.05
END CONSTRUCTION -DR6- PT Sta. 12+50.00
-DR6- PC Sta. 10+94.71
-DR6- PT Sta. 10+00.00=
-Y2A- POC Sta. 10+96.58
-Y2A- PT Sta. 11+61.59
-Y2A- POT Sta. 10+00.00=
-Y2- POC Sta. 21+39.57
BEGIN CONSTRUCTION -Y2-
-Y2- POC Sta. 20+60.00
-Y2A- PC Sta. 10+07.61
-Y2- SC Sta. 11+00.00

MATCHLINE -Y2- STA. 24+00 SEE SHEET 63A

BM6
-BY2- STA 7+46.34
178.20' RIGHT
ELEV=686.85'

TIMOTHY GREENE DB 099E PG 346
FRED WORTH LINEBERRY DB 1174 PG 1879
HARRIS L. THORNBURG DB 1108 PG 304 PB 11 PG 11
MAURINE DR. 60' R/W PB 11 PG 11
HARRIS L. THORNBURG DB 879 PG 361
TIMOTHY LEE GREENE DB 1184 PG 1080
HARRIS L. THORNBURG DB 947 PG 249 PB 11 PG 11
JOHN WESLEY BEAN JR. DB 218 PG 2162 PB 11 PG 11
FRANCES H. CALLICUTT DB 1040 PG 0446 PB 11 PG 11
JERRY L. BULLINS DB 1922 PG 254
RANDOLPH BAPTIST ASSOCIATION INC. DB 1873 PG 551 PB 55 PG 94
THOMAS MICHAEL GADDIS DB 08E PG 251
VERNON RAY VUNCANNON DB 2202 PG 539
BRENDA L. JONES DB 1450 PG 867
HARLOW L. KING JR. DB 1847 PG 759 PB 10 PG 61
MARTHA A. BIGGERS DB 1681 PG 420 PB 62 PG 20
GARY S. BRAY DB 1684 PG 179 PB 62 PG 20
LARRY E. CATLIN DB 2050 PG 783 PB 49 PG 52 PB 62 PG 20
SCHWARZ PROPERTIES LLC DB 1733 PG 607

-DR6-	-Y2A-	-Y2-	
PI Sta 11+87.61	PI Sta 11+04.56	PIs Sta 10+66.67	PI Sta 18+31.27
Δ = 60° 16' 47.1" (RT)	Δ = 88° 13' 23.5" (RT)	Θs = 0° 29' 59.9"	Δ = 14° 32' 44.8" (RT)
D = 35° 48' 35.5'	D = 57° 17' 44.8"	Ls = 100.00'	D = 0° 59' 59.7"
L = 168.33'	L = 153.98'	LT = 66.67'	L = 1,454.68'
T = 92.90'	T = 96.95'	ST = 33.33'	T = 731.27'
R = 160.00'	R = 100.00'		R = 5,730.00'
SE = 0.04	SE = 0.04		SE = 0.03
V = 25 MPH	V = 20 MPH		V = 60 MPH

FOR -DR6- PROFILE SEE SHT. 140A
FOR -Y2- PROFILE SEE SHT. 141
FOR -Y2A- PROFILE SEE SHT. 145A

PLANS PREPARED BY :
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	63A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99 R/W REVISION: DATE: 2/5/2016 - PARCELS 42 AND 43 COMBINED INTO ONE PARCEL 42, JAMES AND JUDITH OWENS. - PARCELS 37 AND 37A COMBINED INTO ONE PARCEL 37, KENNETH STOUT.

3/22/2016 R:\2536Bdwy\Proj\Plan Sheets\Sec1\R2536_Rdy_pltb3a.dgn kevis

NAD 83/95

MATCHLINE -Y2- STA. 24+00 SEE SHEET 63

MATCHLINE -Y2- STA. 37+00 SEE SHEET 13

-Y2A- POT Sta. 18+49.72
-BY3-347 PINC 20+64.29
-Y2A- PT Sta. 18+22.87
-Y2A- PC Sta. 17+30.41
-Y2A- PC Sta. 14+02.49
-Y2A- PT Sta. 15+67.17
-Y2- POT Sta. 29+90.00=
-SR3- POT Sta. 10+00.00
-BY3- 348 POT 22+02.10
-Y2- SC Sta. 35+50.29
-Y2- TS Sta. 33+80.29
-BY1- 331PINC 23+45.61
-SR3- PC Sta. 10+16.94
-Y2- ST Sta. 26+54.68
-Y2- CS Sta. 25+54.68
-SR3- PCC Sta. 11+41.90
-SR3- PT Sta. 12+84.68
END CONSTRUCTION -Y2A- POT Sta. 16+00.00
END CONSTRUCTION -SR3- POT Sta. 16+00.00
-SR3- POT Sta. 17+00.00

37E JOHN WESLEY BEAN JR. DB 2118 PG 2162 PB 11 PG 11

DALE HOOVER DB 2295 PG 171

JOSEPH H. WHATLEY DB 84E PG 479

LARRY M. POOLE DB 1497 PG 111

38 BETTY C. WATSON DB 1430 PG 734 PB 76 PG 04

38A JOSEPH H. WHATLEY DB 84E PG 479

317 SCHWARZ PROPERTIES LLC. DB 1733 PG 607

37 KENNETH F. STOUT DB 1866 PG 2533

42 JAMES AND JUDITH OWENS DB 1294 PG 943

MARTHA A. BIGGERS DB 1797 PG 1138 PB 62 PG 20

RANDOLPH BAPTIST ASSOCIATION INC. DB 1873 PG 551 PB 49 PG 52

-Y2-				-Y2A-	-SR3-	
PI Sta 18+31.27	PIs Sta 25+88.02	PIs Sta 34+93.62	PI Sta 45+20.59	PI Sta 14+88.37	PI Sta 10+85.20	PI Sta 12+15.29
Δ = 14° 32' 44.8" (RT)	Θs = 0° 29' 59.9"	Θs = 0° 53' 54.8"	Δ = 20° 17' 57.9" (LT)	Δ = 40° 09' 01.0" (LT)	Δ = 57° 16' 40.9" (LT)	Δ = 32° 43' 19.1" (LT)
D = 0° 59' 59.7"	Ls = 100.00'	Ls = 170.00'	D = 1° 03' 25.6"	D = 24° 22' 52.3"	D = 45° 50' 11.8"	D = 22° 55' 05.9"
L = 1,454.68'	LT = 66.67'	LT = 113.33'	L = 1,920.26'	L = 164.68'	L = 124.96'	L = 142.78'
T = 731.27'	ST = 33.33'	ST = 56.67'	T = 970.30'	T = 85.88'	T = 68.26'	T = 73.39'
R = 5,730.00'			R = 5,420.00'	R = 235.00'	R = 125.00'	R = 250.00'
SE = 0.03			SE = 0.03	SE = 0.04	SE = NC	SE = NC
V = 60 MPH			V = 60 MPH	V = 30 MPH		

FOR -Y2- PROFILE SEE SHT. 141
FOR -Y2A- PROFILE SEE SHT. 145A
FOR -SR3- PROFILE SEE SHT. 147

PLANS PREPARED BY :
RK&K
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	64
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

REVISIONS

8/17/99 R/W REVISION: DATE: 3/16/16 - PUE REVISED FOR PARCELS 318 AND 319
R/W REVISION: DATE: 2/5/16 - ADDED DUE LOCATED AT -Y2- STA.61+45.00 TO STA.62+35.00 AND REVISED PUE
- PARCEL 35 DIVIDED INTO PARCELS 35, BERNADETTE LAMBETH AND 350, CORIN T. LAMBETH.
- ROW REVISED TO INCLUDE ALL OF PARCEL 36, GREGORY ALLEN PARK.

MATCHLINE -Y2- STA. 52+25 SEE SHEET 13

MATCHLINE -Y2- STA. 66+00 SEE SHEET 65

MATCHLINE -SR_F- STA. 15+50 SEE SHEET 67

END CONSTRUCTION -SR2- PT Sta. 14+03.55

-SR2- PT Sta. 13+57.17

-SR2- PC Sta. 11+36.94

-SR2- PI Sta 12+48.87
Δ = 25° 14' 08.3" (LT)
D = 11° 27' 33.0"
L = 220.22'
T = 111.93'
R = 500.00'
SE = 0.05
V = 30 MPH

-Y2- PI Sta 45+20.59
Δ = 20° 17' 57.9" (LT)
D = 1° 03' 25.6"
L = 1,920.26'
T = 970.30'
R = 5,420.00'
SE = 0.03
V = 60 MPH

-Y2- PIs Sta 55+27.22
Θs = 0° 53' 54.8"
Ls = 170.00'
LT = 113.33'
ST = 56.67'

-SR_F- PI Sta 11+49.73
Δ = 49° 20' 18.4" (RT)
D = 22° 55' 05.9"
L = 215.28'
T = 114.82'
R = 250.00'
SE = 0.06
V = 30 MPH

-Y2- CS Sta. 54+70.55

-Y2- ST Sta. 56+40.55

-SR_F- PT Sta. 14+07.52

-SR2- POT Sta. 10+00.00 =
-SR_F- POT Sta. 10+00.00
-Y2- POC Sta. 57+35.48

-BYI- STA 52+11.03
256.47' RIGHT
ELEV=759.71'

-BYI- 333 PINC 53+30.17

BM8

FOR -SR_F- PROFILE SEE SHT. 140A
FOR -Y2- PROFILE SEE SHT. 142
FOR -SR2- PROFILE SEE SHT. 147

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kevin

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	65
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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MATCHLINE -Y2- STA. 66+00 SEE SHEET 64

MATCHLINE -Y2- STA. 80+00 SEE SHEET 66

STANLEY W. BINGHAM
DB 1573 PG 329
DB 1115 PG 094
PB 13 PG 57
60' EASEMENT

ASHEBORO CITY LIMITS

-Y2- PC Sta. 66+21.59

-Y2- PT Sta. 70+41.04

-Y2- PC Sta. 77+38.35

-BYI-334 PINC 66+56.69

320C PLASTICS COLOR CORP. OF N.C. INC.
DB 1573 PG 329

320B KLAUSSNER FURNITURE INDUSTRIES INC.
DB 1349 PG 1862

POLYSPRAY CORP.
DB 1130 PG 576

POLYSPRAY CORP.
DB 1132 PG 241

POLYSPRAY CORP.
DB 1145 PG 944

POLYSPRAY CORP.
DB 1152 PG 717

POLYSPRAY CORP.
DB 1249 PG 234

GARY D. RICHARDSON
DB 1900 PG 1846
DB 1900 PG 1854

8" X 12" CONCRETE CURB

2'-6" C&G

35.0' TYP.

REMOVE SYSTEM

REMOVE

RETAIN

BERM DITCH SEE DETAIL A

BERM BASE DITCH SEE DETAIL X

END FENCE

70+00

75+00

+62.00
111.39'
EXIST. RW

+81.00
160.80'

+40.00
118.30'
EXIST. RW

-Y2-
PI Sta 68+31.32
△ = 0° 41' 11.9" (LT)
D = 0° 09' 49.3"
L = 419.45'
T = 209.73'
R = 35,000.00'
SE = NC
V = 60 MPH

FOR -Y2- PROFILE SEE SHT. 142-143

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	66
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

REVISIONS

8/17/99 R/W REVISION: DATE: 2/5/16 - SHIFTED DRIVEWAY PIPE FOR PARCEL 330E AND ELIMINATED TOE.

MATCHLINE -Y2- STA. 80+00 SEE SHEET 65

-BYI-335 POT 78+72.80

GARY D. RICHARDSON
DB 1900 PG 1846
DB 1900 PG 1854

HTR

WD DECK

ISBBKD

BLK WELL HOUSE

WOODS

ASHEBORO CITY LIMITS

320E

PATRICIA YATES
DB 1085 PG 695

N 01°55'05" E 272.61'

S 84°59'05" E 248.73'

N 05°34'38" E 83.05'

N 05°34'38" E 96.35'

EIP

S 56°24'51" E 357.77'

END CONSTRUCTION
-Y2- POC Sta. 87+75.00

325' MEDIAN TAPER FROM 6.0' TO 12.5' LT

BEGIN 2'-6" C&G

50' TAPER TO EXIST.

-Y2- LT ST Sta. 88+88.30

+10

2'-6" C&G

35' TYP.

6612

6611

6610

6609

6608

6607

6606

6605

6604

6603

6602

6601

6512

DI

15" RCP-III

CB

CAT

85+00

5" MONO CONC

RETAIN

GRADE TO DRAIN

6" CONC CURB

NC 49 WBL 25' PAVED ROADWAY

TO ASHEBORO

N 64° 48' 48.1" E

N 66° 16' 21.1" E

15+00

NC 49 EBL 26' PAVED ROADWAY

EXIST. BRIDGE

25' TYP.

50' TAPER TO EXIST.

BM9
BYI- STA 78+72.80
137.2' E Dist 146.63
ELEV=847.13'

-Y2RT- PC Sta. 10+00.00

BERM DITCH
SEE DETAIL A

CONCRETE DITCH
BEHIND RETAINING WALL
SEE DETAIL AB

GRAVITY WALL

END
2'-6" C&G

NEW PIER UNDER CONSTRUCTION

-Y2RT- PT Sta. 14+08.31

END CONSTRUCTION
-Y2RT- POC Sta. 14+65.00

-Y2RT- PCC Sta. 11+82.76

-Y2- PT Sta. 88+36.34

-Y2RT- ST Sta. 15+66.87

320B

KLAUSSNER FURNITURE INDUSTRIES INC.
DB 1349 PG 1862

CRIP RAP

S GENERATOR

8' BST

WELL HOUSE

WATER TOWER

CITY OF ASHEBORO
DB 1531 PG 101

ASHEBORO CITY LIMITS

MILTON & ROGER YATES
DB 1124 PG 23

S 29°29'07" E 58.38'

S 29°29'07" E 30.00'

S 29°29'07" E 209.68'

N 03°10'04" E 205.42'

N 60°30'27" E 90.08'

84" CHL

50PR

12"DI

FSS

W

-Y2-	-Y2RT-	
PI Sta 82+88.57	PI Sta 10+91.39	PI Sta 12+95.59
Δ = 9° 23' 22.4" (RT)	Δ = 1° 34' 01.7" (RT)	Δ = 4° 18' 27.1" (RT)
D = 0° 51' 18.6"	D = 0° 51' 26.9"	D = 1° 54' 35.5"
L = 1,097.99'	L = 182.76'	L = 225.54'
T = 550.23'	T = 91.39'	T = 112.82'
R = 6,700.00'	R = 6,682.00'	R = 3,000.00'
SE = 0.02		
V = 50 MPH		

FOR -Y2- PROFILE SEE SHT. 143

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	67
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
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KLAUSSNER FURNITURE INDUSTRIES INC.
DB 1599 PG 1050

KLAUSSNER FURNITURE INDUSTRIES INC.
DB 1599 PG 1050

N. 87°26'23" W
623.36'

N 86°44'50" E
520.19'

MATCHLINE –SR F– STA. 15+50 SEE SHEET 64

MATCHLINE –SR F– STA. 30+00 SEE SHEET 14

20+00

25+00

30+00

S 2°10'57.2" W

S 02°10'57" W
1342.03'

N 86°36'17" E
125.50'

PC-AB

CHARLES REEDER
DB 1221PG 1984

WOODS

S 88°21'44" W
440.45'

39

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	67A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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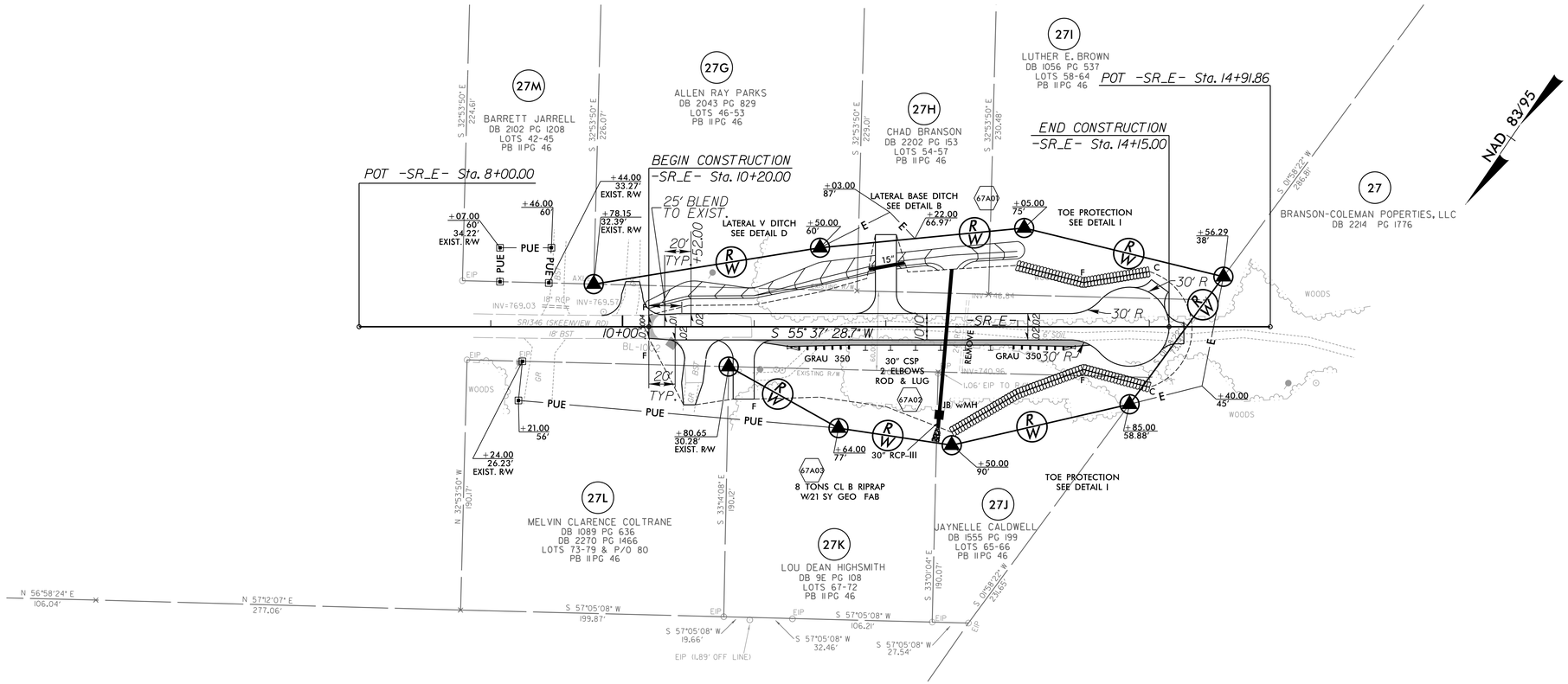
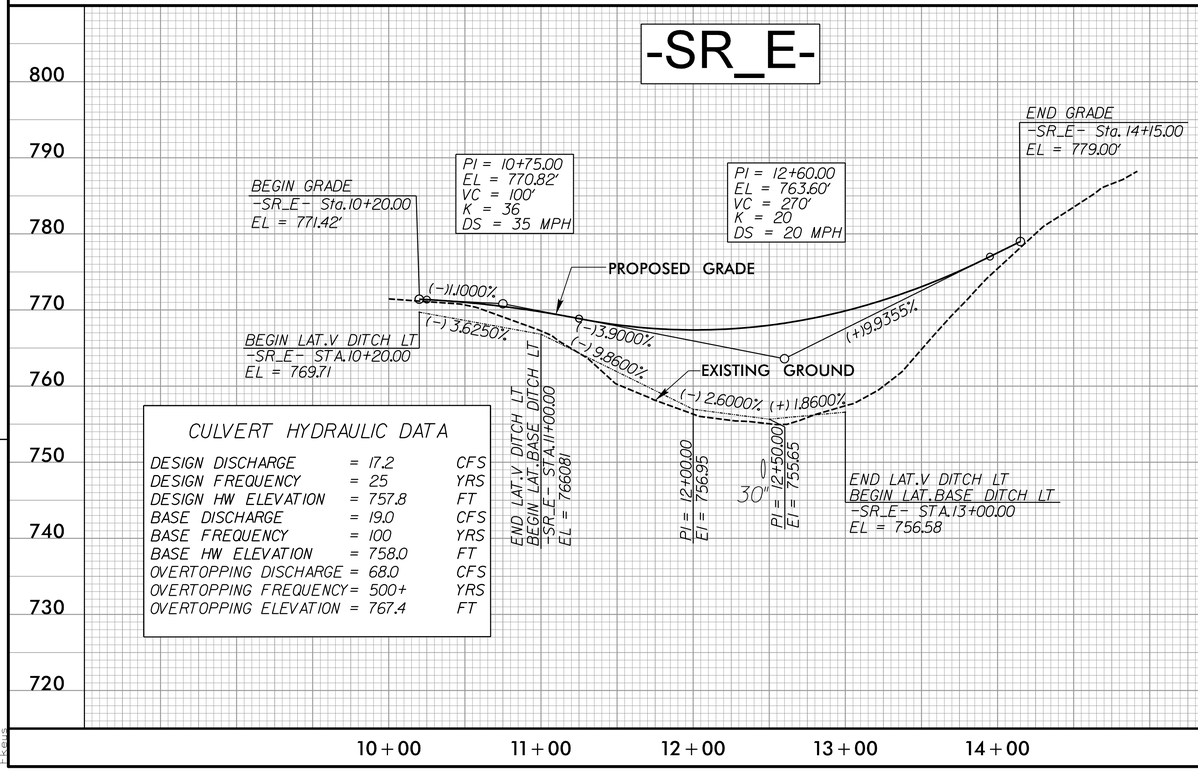
REVISIONS

R/W REVISION: DATE: 3/21/16 - REVISED R/W,TCE,AND PUE TO PARCELS 27G,27H,27I,27J,27K,27L AND 27M
R/W REVISION: DATE: 3/4/16 - REVISED CONSTRUCTION EASEMENT FOR PARCEL NO.27

8/17/99





CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 17.2	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 757.8	FT
BASE DISCHARGE	= 19.0	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 758.0	FT
OVERTOPPING DISCHARGE	= 68.0	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 767.4	FT

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-L1RT-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	103

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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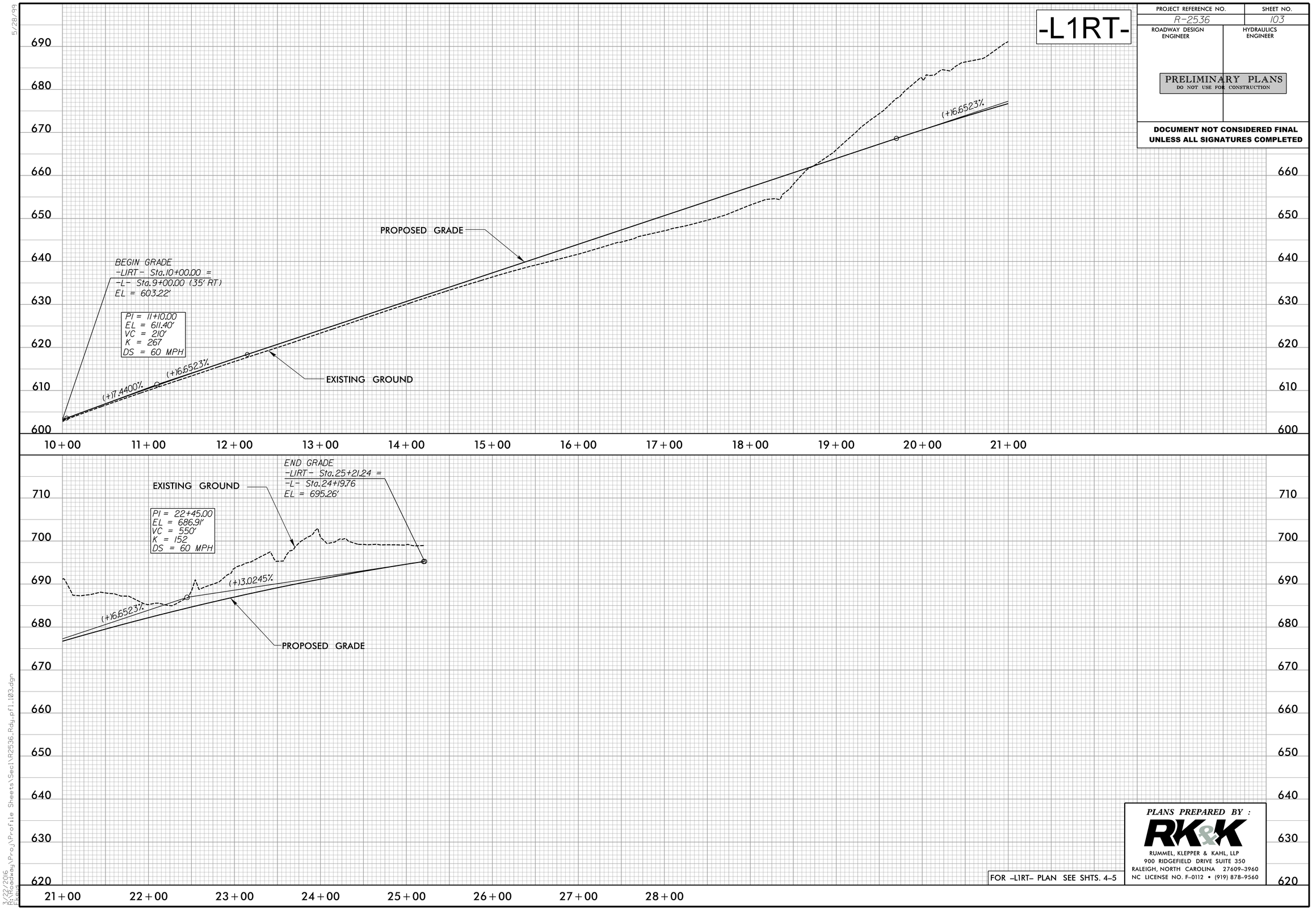

FOR –L1RT– PLAN SEE SHTS. 4–5

PLANS PREPARED BY :
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	104

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L-

MATCH LINE

690
680

BM2
ELEV. = 655.74'
BL STA. 24+25.89
94.97' LT
-L- STA. 15+97.29
105.06' LT
RR-SPIKE IN BASE OF
18IN OAK TREE

PROPOSED GRADE

BEGIN GRADE
-L- Sta. 9+00.00=
-LIRT- Sta.10+00.00 (35' LT)
EL = 603.22'

PI = 10+20.00
EL = 612.15'
VC = 240'
K = 307
DS = 70 MPH

(+)17.4400%

(+)16.6578%

EXISTING GROUND

(+) 0.8966%

BEGIN LAT.BASE DITCH RT
-L- STA.15+96.00
EL = 622.41

(+)14.9133%

END LAT.BASE DITCH RT
-L- STA.17+00.00
EL = 633.90

PI = 16+25.00
EI = 622.67

(+)16.6578%

PI = 23+25.00
EL = 699.03'
VC = 920'
K = 153
DS = 60 MPH

690 630 620 610 600 590 580 570

9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00

730 720 710 700 690 680 670 660

PI = 23+25.00
EL = 699.03'
VC = 920'
K = 153
DS = 60 MPH

(+)16.6578%

(+)10.6325%

PROPOSED GRADE

-L- Sta. 29+35.76=
-Y1A- Sta.18+27.79

PI = 30+50.00
EL = 703.62'
VC = 210'
K = 3763
DS > 80 MPH

(+)10.6325%

(+)0.5767%

(+)0.5767%

(+)0.7467%

PI = 33+00.00
EL = 705.06'
VC = 210'
K = 1236
DS > 80 MPH

EXISTING GROUND

(+) 6.3810%

BEGIN LAT.V DITCH LT
-L- STA.25+78.00
EL = 679.32

END LAT.V DITCH LT
-L- STA.26+20.00
EL = 682.00

BEGIN LAT.V DITCH LT
-L- STA.31+56.00
EL = 680.87

(+) 4.9255%

END LAT.V DITCH LT
-L- STA.32+50.00
EL = 685.50

(-) 10.3955%

18"

END LAT.V DITCH LT
BEGIN LAT.V DITCH LT
-L- STA.33+84.00
EL = 671.57

(+) 5.8125%

END LAT.V DITCH LT
-L- STA.34+00.00
EL = 672.50

36"

PIPE HYDRAULIC DATA
-L- STA.33+94

DRAINAGE AREA	= 12.46	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 40.2	CFS
DESIGN HW ELEVATION	= 674.69	FT
100 YEAR DISCHARGE	= 42.3	CFS
100 YEAR HW ELEVATION	= 674.84	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

FOR -L- PLAN SEE SHTS. 4-6

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730 720 710 700 690 680 670 660

22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	105
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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PROPOSED GRADE

EXISTING GROUND

PI = 43+30.00
EL = 712.75'
VC = 400'
K = 155
DS = 60 MPH

(+)0.7467%

(−)1.8298%

PI = 48+00.00
EL = 704.15'
VC = 470'
K = 249
DS = 70 MPH

(−)1.8298%

(−)3.7194%

BM3
ELEV. = 713.94'
BL STA. 51+23.36
309.13' LT
-L- STA. 42+93.67
320.24' LT
RR-SPIKE IN BASE OF
30IN OAK TREE

PIPE HYDRAULIC DATA
-L- STA. 49+09

DRAINAGE AREA	= 28.59	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 63.0	CFS
DESIGN HW ELEVATION	= 682.99	FT
100 YEAR DISCHARGE	= 66.5	CFS
100 YEAR HW ELEVATION	= 683.26	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

36"

EXISTING GROUND

(−)3.7194%

PROPOSED GRADE

-L- Sta. 57+23.47=
-LPD- Sta. 25+88.86

-L- Sta. 57+62.09=
-FLY- Sta. 38+84.16

PI = 63+20.00
EL = 647.61'
VC = 1,460'
K = 191
DS = 70 MPH

(+)8.2500%

END LAT.V DITCH RT
-L- STA. 50+80.00
EL = 667.00

BEGIN LAT.V DITCH RT
-L- STA. 50+64.33
EL = 664.36

(+)3.9099%

BEGIN CHANNEL CHANGE LT
-L- STA. 62+40.00
EL = 640.95

(−)4.4648%

END CHANNEL CHANGE LT
-L- STA. 63+11.00
EL = 637.78

BEGIN CHANNEL CHANGE LT
-L- STA. 63+95.00
EL = 634.30

(−)7.6190%

FOR -L- PLAN SEE SHT. 7

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	106
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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-L-

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 600	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 639.9	FT
BASE DISCHARGE	= 650	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 640.41	FT
OVERTOPPING DISCHARGE	= 1980	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 662.9	FT

PROPOSED GRADE

PI = 63+20.00
EL = 647.61'
VC = 1,460'
K = 191
DS = 70 MPH

(+)3.9099%

BM6
ELEV. = 629.03'
BL STA. 81+12.83
158.62' RT
-L- STA. 67+51.63
154.38' RT
RR-SPIKE IN BASE OF
12IN SOURWOOD TREE

CABLE CREEK

(-)7.6190%

(-)4.0415%

2@8'x8' RCBC

(-)0.5426% ALONG ℄ CHANNEL

EXISTING GROUND

BEGIN SP.CUT DITCH LT
-L- STA.71+00.00
EL = 670.68

(-)0.3000%

BEGIN SP.LAT.BASE DITCH RT
-L- STA.71+10.00
EL = 628.27

(+)16.8250%

PI = 71+50.00
EL = 635.00

(+)30.0000%

24"

END SP.LAT.BASE DITCH RT
-L- STA.72+50.00
EL = 665.00

END SP.CUT DITCH LT
-L- STA.72+62.00
EL = 670.19

END CHANNEL CHANGE LT
-L- STA.64+34.90
EL = 631.26

BEGIN CHANNEL CHANGE RT
-L- STA.64+90.00
EL = 630.25

END CHANNEL CHANGE RT
-L- STA.66+24.11
EL = 624.83

BEGIN CHANNEL CHANGE RT
-L- STA.66+22.64
EL = 624.89

END CHANNEL CHANGE RT
-L- STA.71+00.00
EL = 622.30

FOR -L- PLAN SEE SHTS. 7-8

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780 770 760 750 740 730 720 710 700 690 680 670 660 650 640 630 620 610 600 590

64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	107
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

EXISTING GROUND

PROPOSED GRADE

(+)3.9099%

BEGIN LAT.V DITCH RT
-L- STA.90+50.00
EL = 743.63

(-)17.2667%

(+)147.368%

PI = 91+55.00
EL = 736.00

36"

(-)244.667%

(-)0.3125%

(+)6.0870%

BEGIN LAT.V DITCH LT
-L- STA.89+50.00
EL = 737.00

PI = 90+25.00
EL = 718.50

END LAT.V DITCH LT
-L- STA.90+80.00
EL = 719.80

END LAT.V DITCH LT
BEGIN LAT.V DITCH LT
-L- STA.90+57.00
EL = 718.40

PIPE HYDRAULIC DATA
-L- STA.91+10

DRAINAGE AREA	= 12.73	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 47.9	CFS
DESIGN HW ELEVATION	= 739.57	FT
100 YEAR DISCHARGE	= 501	CFS
100 YEAR HW ELEVATION	= 739.63	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 100+50.00
EL = 793.46'
VC = 1,500'
K = 250
DS = 70 MPH

EXISTING GROUND

BM7
ELEV. = 751.40'
BL STA. 105+56.37
135.42' LT
-L- STA. 92+01.68
136.53' LT
RR-SPIKE IN BASE OF
10IN OAK TREE

(+)3.9099%

PROPOSED GRADE

(+)147.368%

END LAT.V DITCH RT
-L- STA.92+50.00
EL = 750.00

FOR –L– PLAN SEE SHTS. 9–11

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R-2536	108
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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-L-

820 810 800 790 780 770 760 750 740 730

PI = 100+50.00
EL = 793.46'
VC = 1,500'
K = 250
DS = 70 MPH

EXISTING GROUND

(-)12.0875%

PROPOSED GRADE

-L- Sta. 115+46.07 =
-Y1- Sta. 25+85.82

106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00

760 750 740 730 720 710 700 690 680 670

PI = 125+10.00
EL = 742.10'
VC = 1,000'
K = 277
DS > 80 MPH

BM9
ELEV. = 733.12'
BL STA. 147+26.22
221.75' LT

-L- STA. 133+64.97
218.64' LT
RR-SPIKE IN BASE OF
TWIN 24IN POPLAR TREE

PROPOSED GRADE

(+)11.5244%

(-)12.0875%

(-) 5.0791%

(-) 1.6364%

(-) 3.0315%

PI = 134+00.00
EL = 727.00

BEGIN LATERAL V DITCH LT
-L- STA. 125+00.00
EL = 742.53

BEGIN LAT. BASE DITCH LT
-L- STA. 133+59.00
EL = 726.15

(+) 2.0732%

END LATERAL V DITCH LT
-L- STA. 128+16.00
EL = 726.48

66"

EXISTING GROUND

48"

BEGIN LATERAL V DITCH RT
-L- STA. 126+50.00
EL = 736.50

END LATERAL V DITCH RT
BEGIN CHANNEL CHANGE RT
-L- STA. 127+16.00
EL = 735.42

PI = 133+50.00
EI = 716.20

PIPE HYDRAULIC DATA
-L- STA. 129+64

DRAINAGE AREA	= 39.11	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 149.4	CFS
DESIGN HW ELEVATION	= 731.93	FT
100 YEAR DISCHARGE	= 156.0	CFS
100 YEAR HW ELEVATION	= 732.08	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 336.4	CFS
OVERTOPPING ELEVATION	= 739.20	FT

PIPE HYDRAULIC DATA
-L- STA. 132+72

DRAINAGE AREA	= 23.8	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 87.7	CFS
DESIGN HW ELEVATION	= 729.20	FT
100 YEAR DISCHARGE	= 91.6	CFS
100 YEAR HW ELEVATION	= 729.40	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 251.5	CFS
OVERTOPPING ELEVATION	= 739.50	FT

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FOR -L- PLAN SEE SHTS. 11-13

120+00 121+00 122+00 123+00 124+00 125+00 126+00 127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00

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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-L-

PROPOSED GRADE

EXISTING GROUND

PI = 134+00.00
EI = 727.00

(+) 5.6895%

END LAT BASE DITCH LT
-L- STA.137+50.00
EL = 746.91

(−) 2.8000%

PI = 135+00.00
EI = 712.00

(−) 1.8667%

PI = 136+50.00
EI = 709.20

(−) 0.3091%

END CHANNEL CHANGE RT
BEGIN LATERAL V DITCH RT
-L- STA.137+05.00
EL = 709.03

(+) 7.5655%

END LATERAL V DITCH LT
-L- STA.138+50.00
EL = 720.00

BEGIN BRIDGES
-L- Sta.143+14.50 (LT)
-L- Sta.143+19.81 (RT)

PI = 143+40.00
EL = 770.00'
VC = 840'
K = 250
DS = 70 MPH

-L- Sta.143+83.13=
-Y2- Sta.44+45.88

END BRIDGES
-L- Sta.144+35.09 (LT)
-L- Sta.144+39.90 (RT)

(+)1.5244%

(−)1.8382%

134+00 135+00 136+00 137+00 138+00 139+00 140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00

790 780 770 760 750 740 730 720 710 700

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 440	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 705.7	FT
BASE DISCHARGE	= 460	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 705.85	FT
OVERTOPPING DISCHARGE	= 3800	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 748.4	FT

PROPOSED GRADE

EXISTING GROUND

PI = 157+00.00
EL = 745.00'
VC = 700'
K = 182
DS = 70 MPH

(−)1.8382%

(+)2.0000%

BMI
ELEV=702.45'
-BL- STA. 16+28.93
142.86' RT
-L- STA. 154+67.29
181.23' RT
RR SPIKE IN BASE OF
12IN POPLAR TREE

TAYLORS CREEK

2@8'x8'
RCBC

(−) 5.2632%

BEGIN LAT.V DITCH LT
-L- STA.152+25.00
EL = 703.00

END LAT.V DITCH LT
BEGIN CHANNEL CHANGE LT
-L- STA.152+63.00
EL = 701.00

(+) 2.6316%

(+) 4.3478%

PI = 158+50.00
EI = 711.00

END CHANNEL CHANGE LT
BEGIN LAT.BASE DITCH LT
-L- STA.156+43.00
EL = 710.00

(+) 10.5200%

END LAT.BASE DITCH LT
-L- STA.161+00.00
EL = 746.30

148+00 149+00 150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00 159+00 160+00 161+00 162+00

770 760 750 740 730 720 710 700 690 680

FOR -L- PLAN SEE SHTS. 13-14

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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-

PRELIMINARY PLANS
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PI = 172+00.00
EL = 775.00'
VC = 1,170'
K = 249
DS = 70 MPH

EXISTING GROUND

PROPOSED GRADE

(+)2.0000%

(+)0.3438%

BEGIN LAT.V DITCH RT
-L- STA.168+18.00
EL = 758.14

END LAT.V DITCH RT
-L- STA.168+50.00
EL = 758.25

800 790 780 770 760 750 740 730 720 710

162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00 171+00 172+00 173+00 174+00 175+00 176+00

BM2
ELEV=729.66'
-BL- STA. 40+53.20
203.43' LT
-L- STA. 178+92.74
223.59' LT
RR SPIKE IN BASE OF
15IN PINE TREE

PIPE HYDRAULIC DATA
-L- STA.180+09

DRAINAGE AREA	= 109.60	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 174.0	CFS
DESIGN HW ELEVATION	= 721.35	FT
100 YEAR DISCHARGE	= 195.0	CFS
100 YEAR HW ELEVATION	= 721.90	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PIPE HYDRAULIC DATA
-L- STA.183+09

DRAINAGE AREA	= 4.99	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 16.7	CFS
DESIGN HW ELEVATION	= 737.42	FT
100 YEAR DISCHARGE	= 17.5	CFS
100 YEAR HW ELEVATION	= 737.54	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 57.8	CFS
OVERTOPPING ELEVATION	= 747.20	FT

PI = 172+00.00
EL = 775.00'
VC = 1,170'
K = 249
DS = 70 MPH

PI = 183+00.00
EL = 745.30'
VC = 650'
K = 189
DS = 70 MPH

(-)12.7000%

(-)12.7000%

(+)0.7483%

EXISTING GROUND

PROPOSED GRADE

END CHANNEL CHANGE LT
BEGIN CHANNEL CHANGE LT
-L- STA.178+30.00
EL = 715.35

BEGIN LAT.V DITCH LT
-L- STA.182+00.00
EL = 739.00

(-) 2.9500%

(-) 0.3421%

END LAT.V DITCH LT
-L- STA.183+57.28
EL = 735.16

BEGIN LAT.BASE DITCH RT
-L- STA.178+50.00
EL = 726.00

(-) 6.2000%

(+) 8.5366%

END LAT.V DITCH LT
-L- STA.181+50.00
EL = 738.00

30"

(+) 10.0000%

END LAT.V DITCH RT
-L- STA.184+00.00
EL = 732.00

(+) 2.3333%

PI = 183+00.00
EI = 735.34

END LAT.V DITCH LT
BEGIN CHANNEL CHANGE LT
-L- STA.176+80.00
EL = 715.80

(-) 5.5000%

(-) 0.3000%

(+) 4.0748%

66"

END LAT.BASE DITCH RT
-L- STA.182+25.00
EL = 711.00

PI = 183+00.00
EI = 722.00

BEGIN LAT.V DITCH RT
-L- STA.182+85.00
EL = 721.65

BEGIN LAT.V DITCH LT
-L- STA.176+50.00
EL = 717.45

END CHANNEL CHANGE LT
-L- STA.179+34.30
EL = 719.60

BEGIN LAT.V DITCH LT
-L- STA.179+45.00
EL = 720.50

(+) 4.2857%

END LAT.BASE DITCH RT
-L- STA.181+50.00
EL = 707.40

BEGIN LAT.BASE DITCH RT
-L- STA.181+69.00
EI = 708.60

790 780 770 760 750 740 730 720 710 700

176+00 177+00 178+00 179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00 187+00 188+00 189+00 190+00

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FOR -L- PLAN SEE SHTS. 14-16

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	111
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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PIPE HYDRAULIC DATA
-L- STA.198+00

DRAINAGE AREA	= 106.47	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 171.0	CFS
DESIGN HW ELEVATION	= 730.77	FT
100 YEAR DISCHARGE	= 191.0	CFS
100 YEAR HW ELEVATION	= 731.32	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

EXISTING GROUND

PROPOSED GRADE

PI = 197+30.00
EL = 756.00'
VC = 400'
K = 242
DS > 80 MPH

(+)0.7483%

(+)2.4000%

BEGIN SP.CUT DITCH LT & RT
-L- STA.192+50.00
EL = 748.53

(-) 0.3000% LT
(-) 0.3000% RT

(+) 4.9380%

PI = 194+50.00
EI = 747.93 LT & RT

(+) 2.1333%

END SP.CUT DITCH LT
-L- STA.195+00.00
EL = 750.4

END SP.CUT DITCH RT
-L- STA.196+00.00
EL = 751.13

PI = 198+00.00
EI = 728.00

END LAT.V DITCH LT
BEG. LAT.BASE DITCH LT
-L- STA.197+50.00
EL = 724.82

BEGIN LAT.V DITCH LT
-L- STA.196+50.00
EL = 729.00

(-) 8.0400%

PI = 197+00.00
EI = 724.98

(-) 0.3140%

(+) 6.3540%

BEGIN LAT.BASE DITCH RT
-L- STA.198+00.00
EL = 724.50

66"

(+) 7.2000%

(-) 7.8106%

PI = 198+56.59
EI = 720.08

(+) 3.1260%

END LAT.BASE DITCH RT
-L- STA.199+50.00
EL = 723.00

(+) 5.7565%

END LAT.BASE DITCH LT
BEGIN LAT.BASE DITCH LT
-L- STA.199+00.00
EL = 735.20

END LAT.BASE DITCH LT
-L- STA.200+15.00
EL = 741.82

BEGIN SP.CUT DITCH LT
-L- STA.202+00.00
EL = 763.28

(-) 0.3000%

(+) 5.3400%

END SP.CUT DITCH LT
-L- STA.203+00.00
EL = 765.80

800 790 780 770 760 750 740 730 720 710

190+00 191+00 192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00 204+00

EXISTING GROUND

END CONSTRUCTION SECTION I
-L- STA.210+00.00
EL. = 786.48

(+)2.4000%

PROPOSED GRADE

820 810 800 790 780 770 760 750 740 730

204+00 205+00 206+00 207+00 208+00 209+00 210+00

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FOR -L- PLAN SEE SHTS. 16-17

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R-2536	133
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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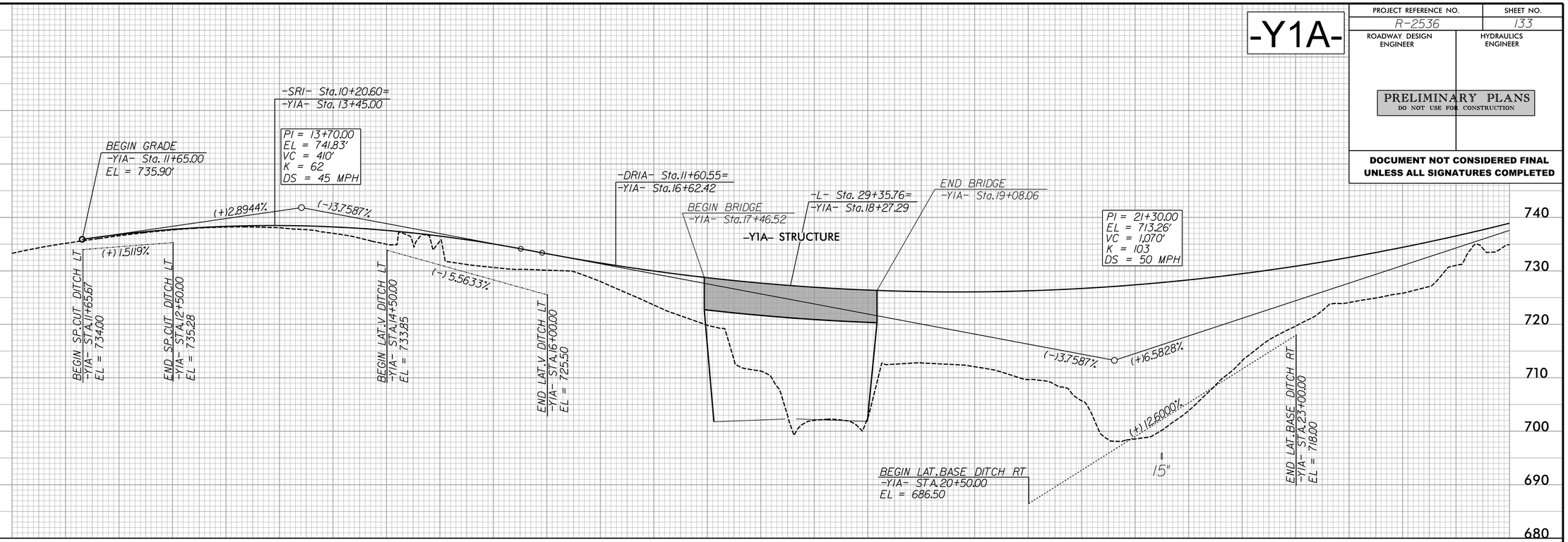
-Y1A-



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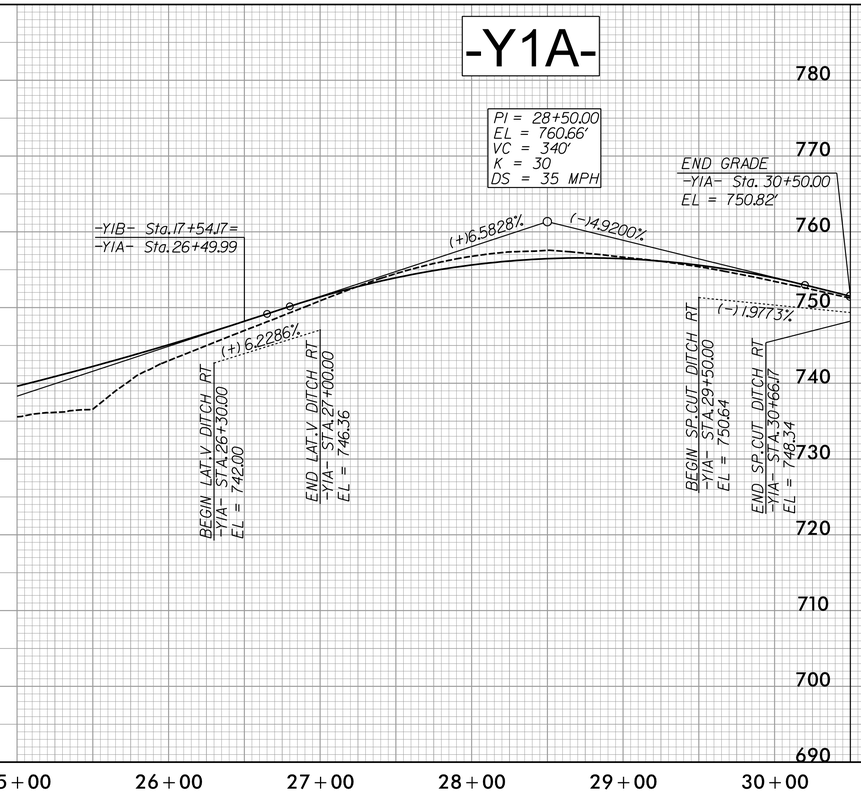
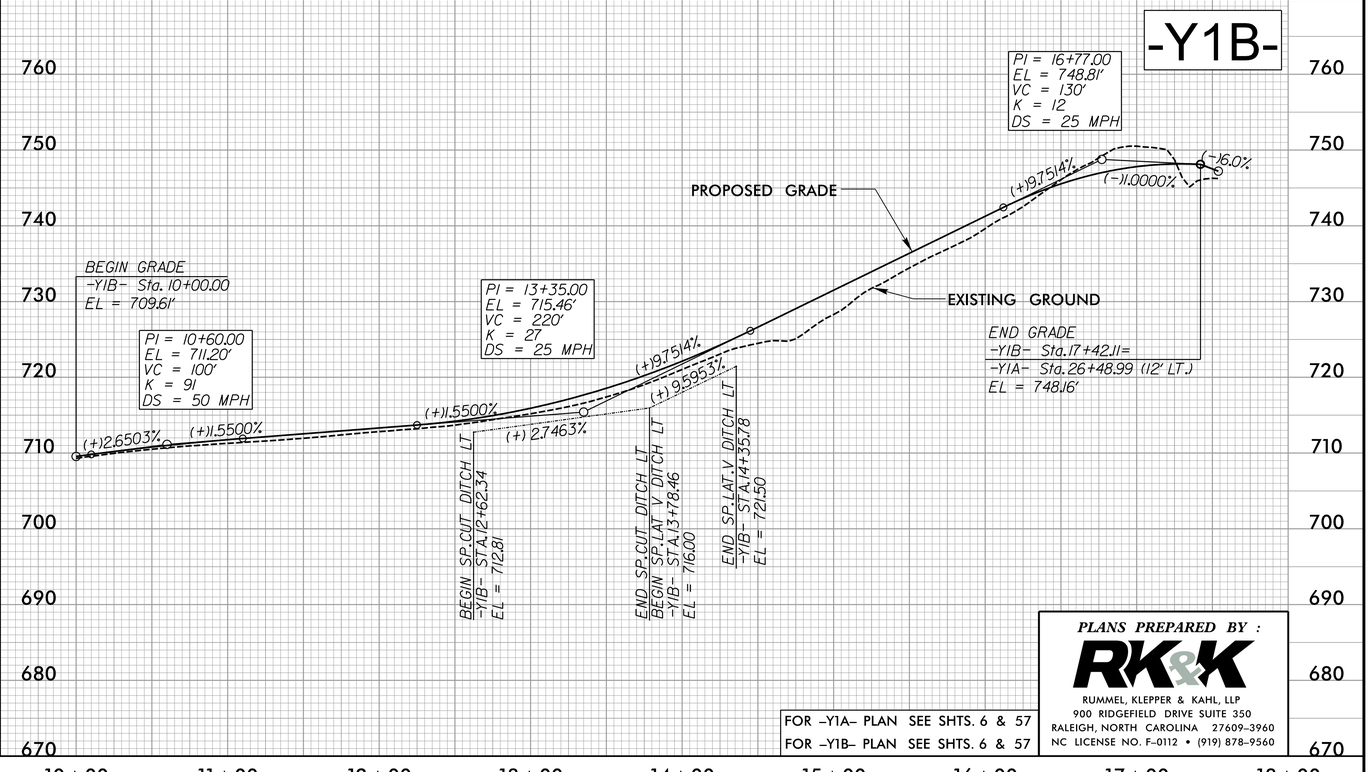


-Y1B-



FOR –Y1A– PLAN SEE SHTS. 6 & 57
FOR –Y1B– PLAN SEE SHTS. 6 & 57

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R-2536	134
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PIPE HYDRAULIC DATA
-Y- STA.16+00

DRAINAGE AREA	= 28.59	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 63.0	CFS
DESIGN HW ELEVATION	= 682.99	FT
100 YEAR DISCHARGE	= 66.5	CFS
100 YEAR HW ELEVATION	= 683.26	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

BEGIN GRADE
-Y- Sta.10+00.00=
-L- Sta.43+23.76
EL = 711.25'

PI = 11+85.00
EL = 711.25'
VC = 360'
K = 193
DS = 65 MPH

PI = 14+55.00
EL = 706.21'
VC = 180'
K = 466
DS > 80 MPH

PI = 16+80.00
EL = 701.15'
VC = 180'
K = 287
DS > 80 MPH

PI = 22+50.00
EL = 691.90'
VC = 200'
K = 3074
DS > 80 MPH

(+)10.0000%
(-)11.8650%
(-)11.8650%
(-)12.2509%
(-)12.2509%
(-)11.6228%
(-)11.6228%
(-)11.6879%
(-)18.0041%
(-)13.3967%
(-)1.6829%
(+)13.7805%
(-)1.9667%

PROPOSED GRADE
EXISTING GROUND

BEGIN LAT.BASE DITCH LT
-Y- STA.12+80.56
EL = 697.50

PI = 13+00.00
EI = 694.00

END LAT.BASE DITCH LT
BEGIN CHANNEL CHANGE LT
-Y- STA.13+82.11
EL = 683.00

END CHANNEL CHANGE LT
BEGIN LAT.V DITCH LT
-Y- STA.15+99.00
EL = 679.35

BEGIN LAT.V DITCH LT
-Y- STA.16+40.00
EL = 685.00

BEGIN LAT.V DITCH RT
-Y- STA.23+00.00
EL = 681.00

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

PI = 28+00.00
EL = 682.62'
VC = 390'
K = 139
DS = 60 MPH

PI = 34+00.00
EL = 689.35'
VC = 400'
K = 139
DS = 60 MPH

(-)11.6879%
(+)11.1222%
(+)11.1222%
(+)14.0000%
(-)0.3000%
(-)9.6667%
(-)8.0800%
(+)6.6316%
(+)0.3090%
(+)0.3090%
(-)9.8960%
(-)6.3219%
(+)0.3088%
(+)3.9200%
(+)6.5000%

BEGIN LAT.V DITCH
-Y- STA.24+55.00
EL = 673.50

PROPOSED GRADE
EXISTING GROUND

BEGIN LAT.V DITCH RT
-Y- STA.27+50.00
EL = 681.30

PI = 24+50.00
EI = 666.50

END LAT.V DITCH RT
-Y- STA.24+75.00
EL = 664.48

PI = 25+50.00
EI = 679.80

END LAT.V DITCH LT
BEGIN SP.CUT DITCH LT
-Y- STA.26+00.00
EL = 679.95

END SP.CUT DITCH LT
-Y- STA.27+50.00
EL = 680.42

END LAT.V DITCH RT
-Y- STA.28+50.00
EL = 671.40

BEGIN LAT.V DITCH LT
-Y- STA.28+82.00
EL = 662.50

END LAT.V DITCH LT
BEGIN LAT.BASE DITCH LT
-Y- STA.29+38.41
EL = 658.93

END LAT.BASE DITCH LT
BEGIN LAT.BASE DITCH LT
-Y- STA.30+00.00
EL = 659.12

PI = 31+50.00
EI = 665.00

END LAT.BASE DITCH LT
-Y- STA.34+50.00
EL = 684.50

BEGIN LAT.V DITCH RT
-Y- STA.37+25.00
EL = 677.74

24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00

FOR -Y- PLAN SEE SHTS. 7 & 58

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ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

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-Y-

PIPE HYDRAULIC DATA
-Y- STA. 44+86

DRAINAGE AREA	= 19.00	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 54.0	CFS
DESIGN HW ELEVATION	= 697.92	FT
100 YEAR DISCHARGE	= 56.4	CFS
100 YEAR HW ELEVATION	= 698.07	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 40+90.00
EL = 716.40'
VC = 200'
K = 301
DS = 70 MPH

PI = 38+35.00
EL = 706.75'
VC = 200'
K = 927
DS > 80 MPH

PROPOSED GRADE

EXISTING GROUND

(+)3.1188%
(+)3.2167%
(+)3.7843%
(+)3.7843%
(+)4.0000%
(+)4.0000%
(-)9.2800%
(+)0.6000%
(+)1.7600%
(+)10.420%

END LAT. BASE DITCH RT
-Y- STA. 38+50.00
EL = 680.00

END LAT. V DITCH RT
BEGIN LAT. BASE DITCH RT
-Y- STA. 38+25.00
EL = 677.44

BEGIN LAT. BASE DITCH LT
-Y- STA. 44+75.00
EL = 694.70

END LAT. BASE DITCH LT
BEGIN LAT. BASE DITCH LT
-Y- STA. 45+00.00
EL = 692.38

END LAT. BASE DITCH LT
-Y- STA. 45+20.00
EL = 692.50

BEGIN LAT. BASE DITCH LT
-Y- STA. 47+00.00
EL = 728.00

END LAT. BASE DITCH LT
-Y- STA. 47+50.00
EL = 730.00

BEGIN CHANNEL CHANGE RT
-Y- STA. 43+90.67
EL = 665.80

END CHANNEL CHANGE RT
-Y- STA. 45+92.36
EL = 670.20

38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00

PIPE HYDRAULIC DATA
-Y- STA. 58+50

DRAINAGE AREA	= 22.56	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 51.2	CFS
DESIGN HW ELEVATION	= 756.84	FT
100 YEAR DISCHARGE	= 53.8	CFS
100 YEAR HW ELEVATION	= 757.00	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 59+00.00
EL = 772.55'
VC = 300'
K = 1004
DS > 80 MPH

PI = 63+00.00
EL = 785.75'
VC = 200'
K = 335
DS > 80 MPH

END GRADE
-Y- Sta. 64+00.00
EL = 788.45'

PI = 54+00.00
EL = 757.55'
VC = 300'
K = 1384
DS > 80 MPH

PI = 51+00.00
EL = 747.90'
VC = 300'
K = 3065
DS > 80 MPH

PROPOSED GRADE

EXISTING GROUND

(+)3.1188%
(+)3.2167%
(+)3.2167%
(+)3.0000%
(+)3.0000%
(+)3.2987%
(+)3.2987%
(+)2.7024%
(+)4.3300%
(+)6.6429%
(+)6.6800%
(-)4.4629%
(+)0.3487%
(-)7.4324%
(-)8.3067%
(+)4.5478%

BEGIN SP. CUT BASE DITCH LT
-Y- STA. 61+60.00
EL = 772.50

BEGIN LAT. V DITCH RT
-Y- STA. 62+00.00
EL = 773.00

END SP. CUT BASE DITCH LT
-Y- STA. 63+00.00
EL = 781.80

END LAT. V DITCH RT
BEGIN SP. CUT DITCH RT
-Y- STA. 63+50.00
EL = 783.02

END SP. CUT DITCH RT
-Y- STA. 64+33.14
EL = 786.62

BEGIN ST. V DITCH LT
-Y- STA. 58+30.00
EL = 755.00
<= 36"

END ST. V DITCH LT
BEGIN LAT. BASE DITCH LT
-Y- STA. 58+68.54
EL = 753.28

END LAT. BASE DITCH LT
-Y- STA. 60+75.00
EL = 754.00

BEGIN LAT. V DITCH RT
-Y- STA. 55+76.00
EL = 742.50

PI = 56+50.00
EL = 737.00

END LAT. V DITCH RT
BEGIN LAT. BASE DITCH RT
-Y- STA. 58+00.00
EL = 724.54

END LAT. BASE DITCH RT
-Y- STA. 60+30.00
EL = 735.00

50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00

FOR -Y- PLAN SEE SHTS. 59–60

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-YRT-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	135A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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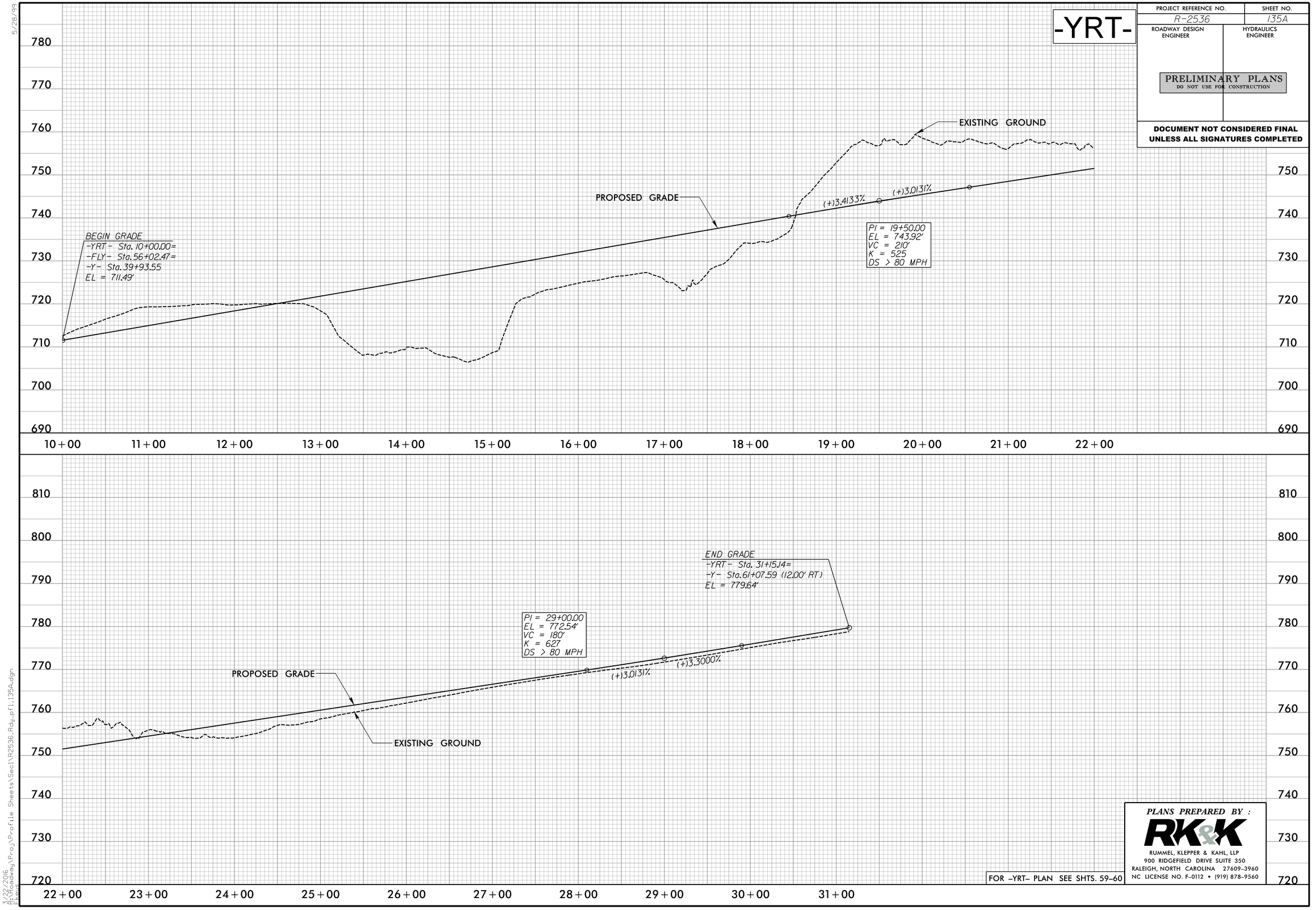

FOR -YRT- PLAN SEE SHTS. 59-60

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-FLY-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	136
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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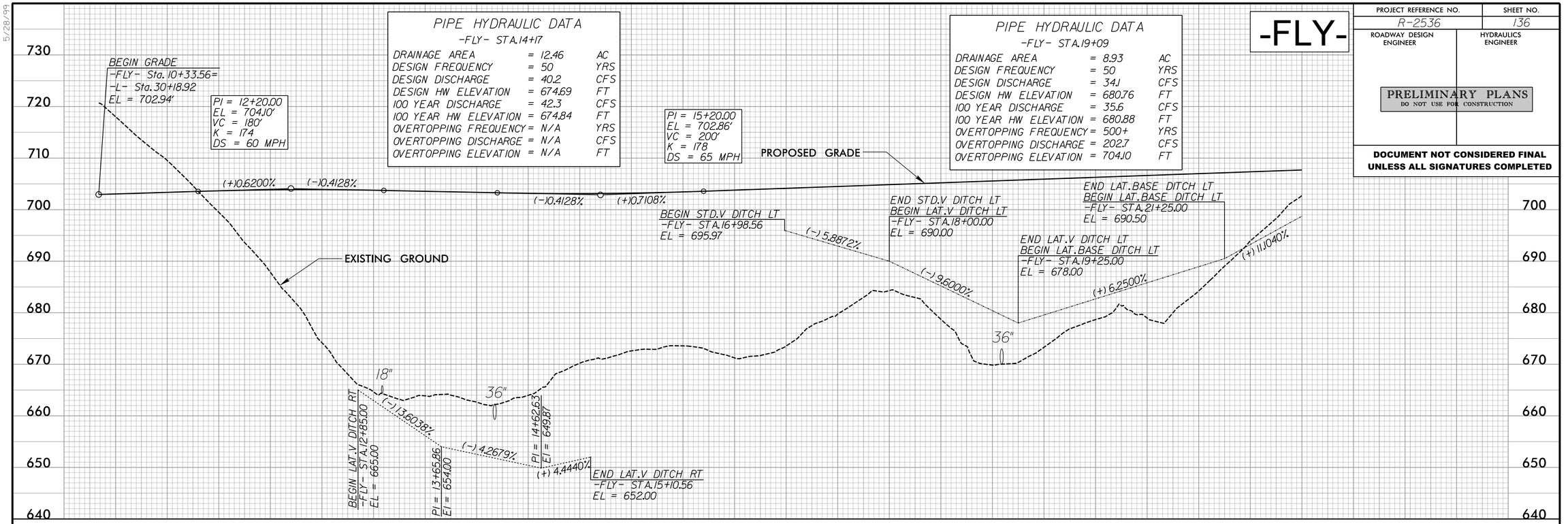
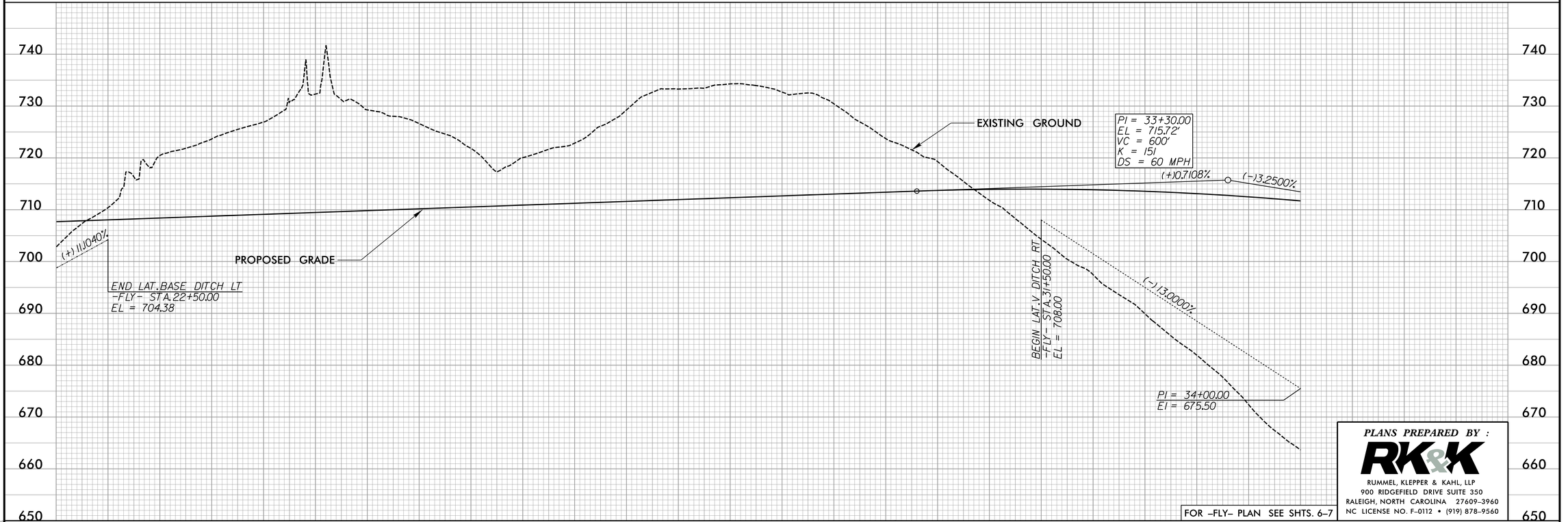
PIPE HYDRAULIC DATA
-FLY- STA.14+17

DRAINAGE AREA	= 12.46	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 40.2	CFS
DESIGN HW ELEVATION	= 674.69	FT
100 YEAR DISCHARGE	= 42.3	CFS
100 YEAR HW ELEVATION	= 674.84	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PIPE HYDRAULIC DATA
-FLY- STA.19+09

DRAINAGE AREA	= 8.93	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 34.1	CFS
DESIGN HW ELEVATION	= 680.76	FT
100 YEAR DISCHARGE	= 35.6	CFS
100 YEAR HW ELEVATION	= 680.88	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 202.7	CFS
OVERTOPPING ELEVATION	= 704.10	FT





FOR –FLY– PLAN SEE SHTS. 6–7

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-FLY-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	137
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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PIPE HYDRAULIC DATA
-FLY- STA. 35+76

DRAINAGE AREA	= 40.29	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 102.6	CFS
DESIGN HW ELEVATION	= 665.46	FT
100 YEAR DISCHARGE	= 108.6	CFS
100 YEAR HW ELEVATION	= 665.64	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PIPE HYDRAULIC DATA
-FLY- STA. 41+84

DRAINAGE AREA	= 14.21	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 42.0	CFS
DESIGN HW ELEVATION	= 663.88	FT
100 YEAR DISCHARGE	= 43.9	CFS
100 YEAR HW ELEVATION	= 663.94	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 33+30.00
EL = 715.72'
VC = 600'
K = 151
DS = 60 MPH

-LPD- & -FLY-
STRUCTURE

-L- Sta. 57+62.09 =
-FLY- Sta. 38+84.16

END BRIDGE
-FLY- Sta. 39+61.17

BEGIN BRIDGE
-FLY- Sta. 37+94.16

PI = 46+20.00
EL = 673.80'
VC = 1,000'
K = 137
DS = 60 MPH

PROPOSED GRADE

PI = 34+00.00
EI = 675.50

60"

(-) 10.5357%

END LAT.V DITCH LT
BEGIN LAT.V DITCH LT
-FLY- STA. 41+50.00
EL = 660.95

PI = 43+50.00
EI = 677.15

(-) 4.1326%

(-) 13.2500%

(+) 4.0450%

END LAT.V DITCH LT
-FLY- STA. 44+85.00
EL = 671.57

(-) 9.2901%

PI = 41+65.62
EI = 660.90

(+) 8.8133%

EXISTING GROUND

END LAT.BASE DITCH RT
-FLY- STA. 37+50.00
EL = 646.21

BEGIN LAT.V DITCH LT
-FLY- STA. 39+88.00
EL = 676.00

(-) 0.3201%

42"

36"

(+) 0.3000%

END LAT.V DITCH RT
BEGIN LAT.BASE DITCH RT
-FLY- STA. 36+80.00
EL = 646.00

730 720 710 700 690 680 670 660 650 640

34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00

PI = 46+20.00
EL = 673.80'
VC = 1,000'
K = 137
DS = 60 MPH

PROPOSED GRADE

PI = 52+40.00
EL = 698.88'
VC = 180'
K = 285
DS > 80 MPH

(+) 4.0450%

(+) 3.4133%

END GRADE
-FLY- Sta. 56+02.47=
-YRT- Sta. 10+00.00=
-Y- Sta. 39+93.55
EL = 711.25

18"

EXISTING GROUND

720 710 700 690 680 670 660 650 640 630

48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00

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FOR -FLY- PLAN SEE SHTS. 7, 58-59

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ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
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-LPD-

PIPE HYDRAULIC DATA
-LPD- STA. 12+59

DRAINAGE AREA	= 28.59	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 63.0	CFS
DESIGN HW ELEVATION	= 682.99	FT
100 YEAR DISCHARGE	= 66.5	CFS
100 YEAR HW ELEVATION	= 683.26	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 10+90.00
EL = 690.99'
VC = 190'
K = 198
DS = 70 MPH

PI = 12+75.00
EL = 696.11'
VC = 180'
K = 343
DS = 75 MPH

PI = 19+50.00
EL = 718.35'
VC = 990'
K = 151
DS = 60 MPH

PROPOSED GRADE

(+)3.7300%
(+)2.7700%
(+)2.7700%
(+)3.2950%
(+)3.2950%
(-)3.2500%

BEGIN GRADE
-LPD- Sta. 9+51.52=
-L- Sta. 52+47.77
EL = 685.82'

42"

EXISTING GROUND

(+) 6.4162%

BEGIN LAT. V DITCH LT
-LPD- STA. 20+73.00
EL = 661.00

740 730 720 710 700 690 680 670 660 650

9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00

720 710 700 690 680 670 660 650 640 630

22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00

-LPD- Sta. 25+88.86=
-L- Sta. 57+23.47

-LPD- & -FLY-
STRUCTURE

BEGIN BRIDGE
-LPD- Sta. 24+97.78

END BRIDGE
-LPD- Sta. 26+64.70

END LAT. V DITCH LT
-LPD- STA. 23+22.37
EL = 677.00

(+) 6.4162%

60"

PI = 32+20.00
EL = 677.08'
VC = 810'
K = 137
DS = 60 MPH

PROPOSED GRADE

(-)3.2500%
(+)2.6500%

EXISTING GROUND

PIPE HYDRAULIC DATA
-LPD- STA. 22+79

DRAINAGE AREA	= 40.29	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 102.6	CFS
DESIGN HW ELEVATION	= 665.46	FT
100 YEAR DISCHARGE	= 108.6	CFS
100 YEAR HW ELEVATION	= 665.64	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

FOR -LPD- PLAN SEE SHTS. 7 & 58

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-LPD-

PI = 38+50.00
EL = 693.77'
VC = 240'
K = 192
DS = 70 MPH

PROPOSED GRADE

(+)2.6500%

(+)3.9000%

END GRADE
-LPD- Sta. 40+91.52=
-Y- Sta. 37+39.97
EL = 703.19'

EXISTING GROUND

-RPA-

PI = 10+60.00
EL = 695.55'
VC = 120'
K = 242
DS = 65 MPH

(−)3.9100%

(−)4.4056%

BEGIN GRADE
-RPA- Sta. 10+00.00=
-L- Sta. 76+18.76
EL = 697.90'

PROPOSED GRADE

EXISTING GROUND

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R-2536	139

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

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-RPA-

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 600	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 639.9	FT
BASE DISCHARGE	= 650	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 640.41	FT
OVERTOPPING DISCHARGE	= 1980	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 662.9	FT

PI = 19+70.00
EL = 655.46'
VC = 770'
K = 102
DS = 50 MPH

(−)4.4056%

(+)3.1504%

(−)8.9200%

PROPOSED GRADE

PI = 27+60.00
EL = 680.35'
VC = 230'
K = 141
DS = 60 MPH

(+)3.1504%

(+)4.7794%

PI = 32+60.00
EL = 704.25'
VC = 210'
K = 153
DS = 60 MPH

EXISTING GROUND

BEGIN LAT. BASE DITCH RT
-RPA- STA. 19+00.00
EL = 658.38

PI = 20+50.00
EL = 645.00

BEGIN CHANNEL CHANGE LT
-RPA- STA. 21+50.00
EL = 631.26

CABLE CREEK

2@8'x8'
RCBC

(−) 3.2506%

(+) 2.4221%

END CHANNEL CHANGE LT
-RPA- STA. 22+76.75
EL = 634.33

(+) 2.1357%

END LAT. BASE DITCH RT
BEGIN LAT. V DITCH RT
-RPA- STA. 23+38.56
EL = 635.62

END LAT. V DITCH RT
-RPA- STA. 24+50.00
EL = 638.00

FOR –LPD– PLAN SEE SHT. 58
FOR –RPA– PLAN SEE SHTS. 8, 58

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-RPA-

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HYDRAULICS ENGINEER

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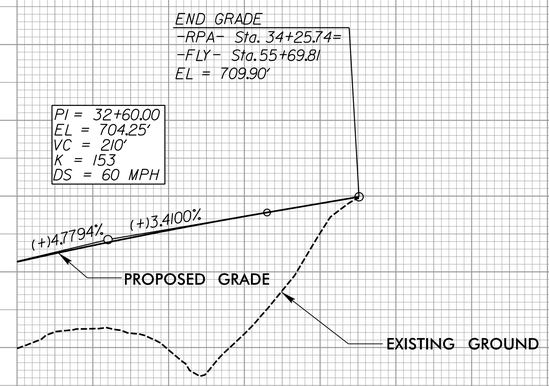

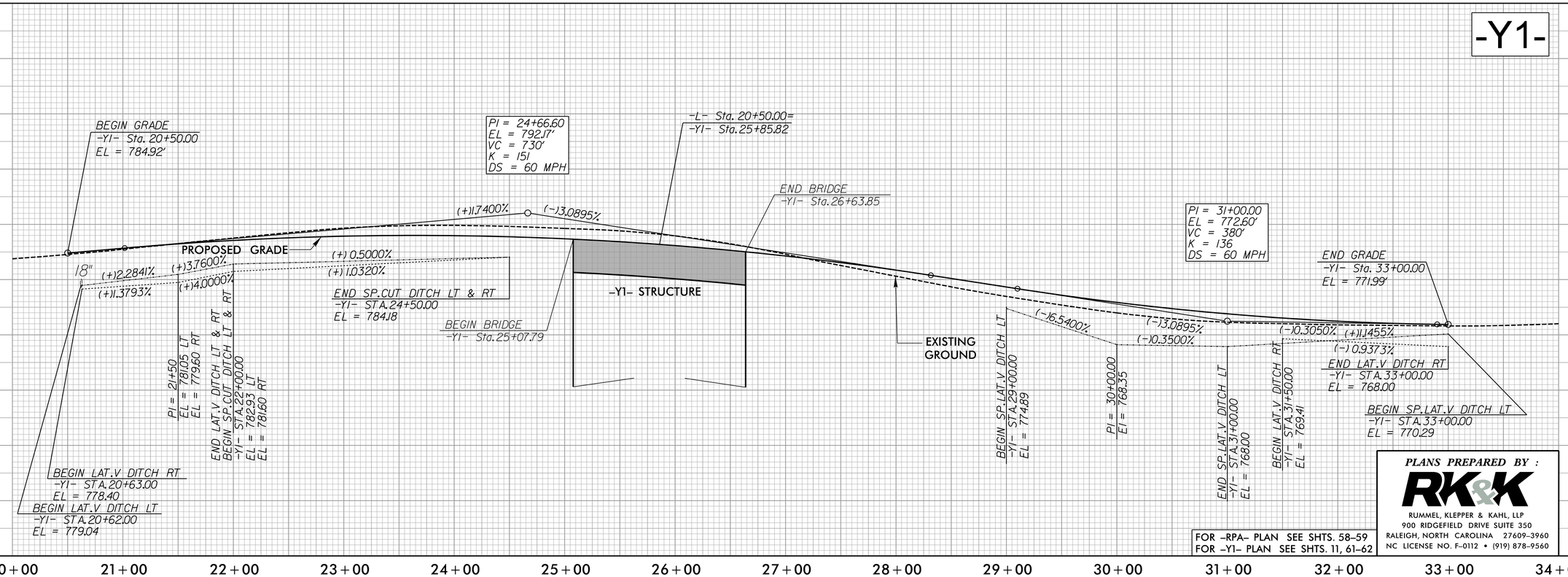

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FOR -RPA- PLAN SEE SHTS. 58-59
FOR -Y1- PLAN SEE SHTS. 11, 61-62

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-Y1DET-

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R-2536	140A

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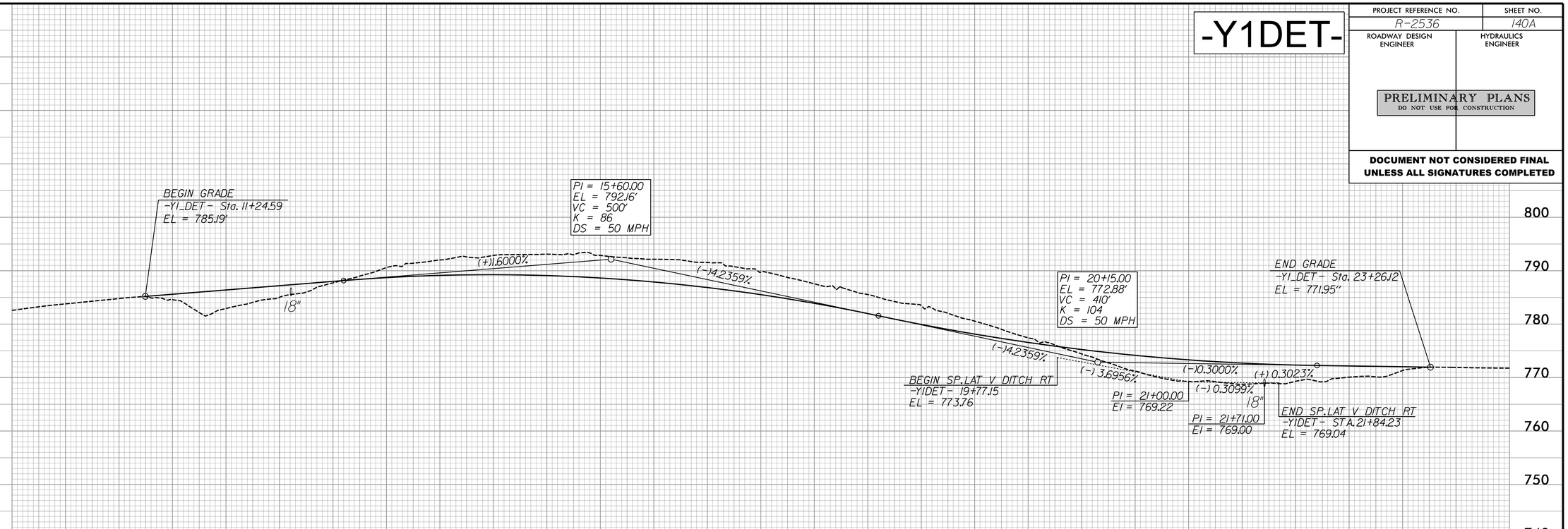
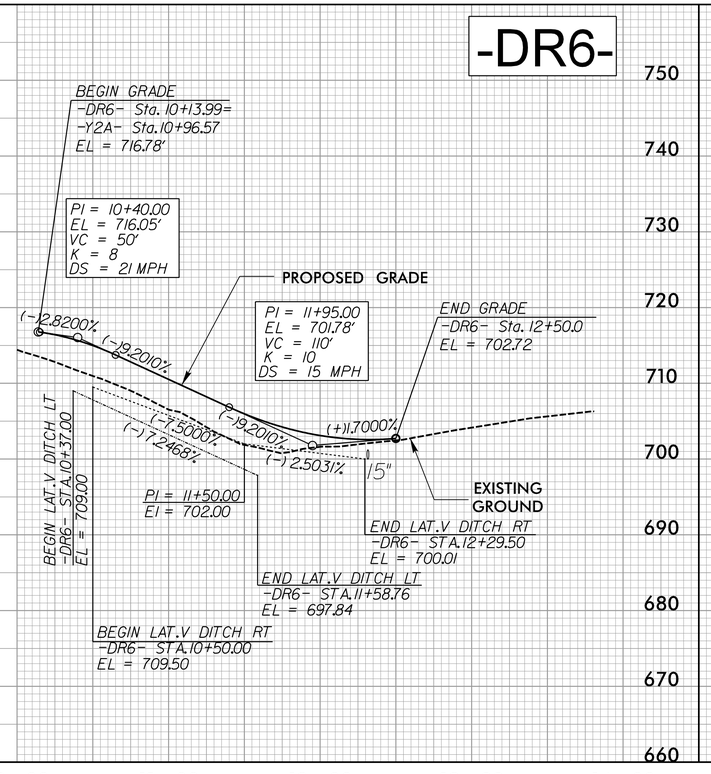


-DR6-



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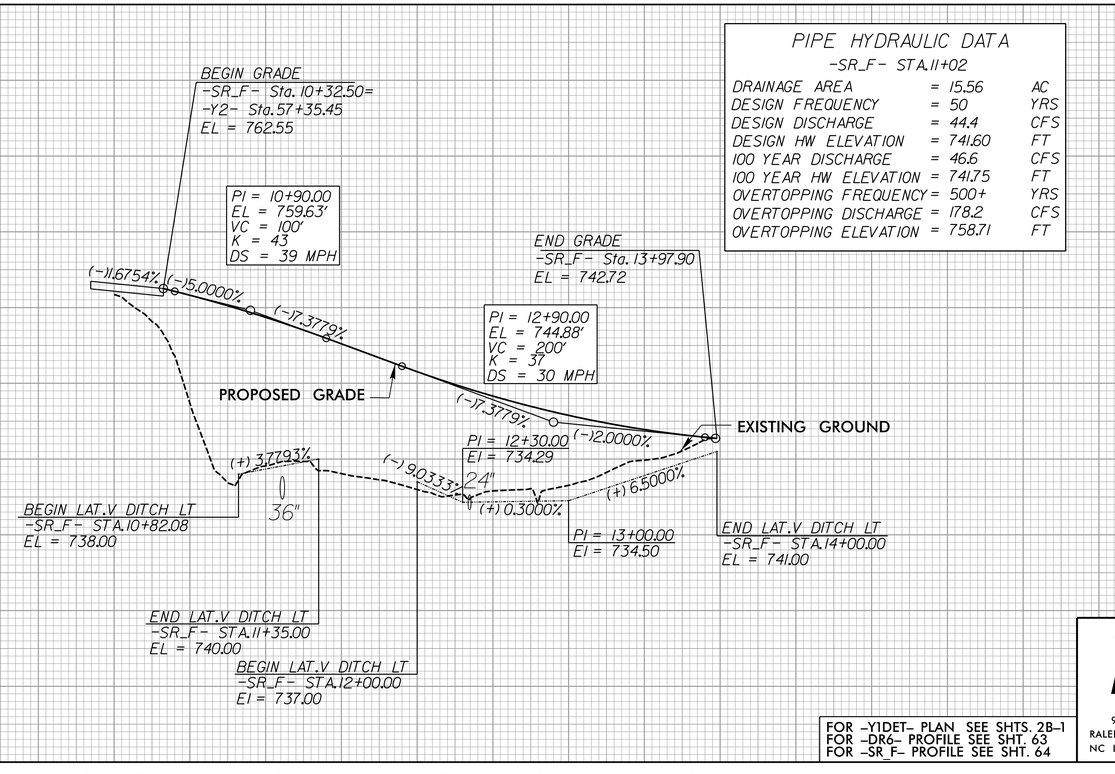

PIPE HYDRAULIC DATA
-SR_F- STA.11+02

DRAINAGE AREA	= 15.56	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 44.4	CFS
DESIGN HW ELEVATION	= 741.60	FT
100 YEAR DISCHARGE	= 46.6	CFS
100 YEAR HW ELEVATION	= 741.75	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 178.2	CFS
OVERTOPPING ELEVATION	= 758.71	FT

FOR -Y1DET- PLAN SEE SHTS. 2B-1
FOR -DR6- PROFILE SEE SHT. 63
FOR -SR_F- PROFILE SEE SHT. 64

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-Y2-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	141
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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760 750 740 730 720 710 700 690 680 670

20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00

BEGIN GRADE
-Y2- Sta. 20+25.00
EL = 714.24'

-Y2A- Sta.10+00.00=
-Y2- Sta. 21+39.57

PI = 21+70.00
EL = 718.06'
VC = 250'
K = 187
DS = 60 MPH

PI = 24+50.00
EL = 721.70'
VC = 210'
K = 330
DS = 75 MPH

PROPOSED GRADE

EXISTING GROUND

-SR3- Sta.10+00.00=
-Y2- Sta. 29+99.99

(+)2.6345%
(+)1.3000%
(+)0.6644%
(+) 2.9462%
(−) 1.9850%
(−) 9.5000%
(−) 2.8160%
(+) 5.6047%
(−) 7.3280%
(−) 0.3000%

BEGIN SP.CUT DITCH RT
-Y2- STA.20+58.80
EL = 710.00

END SP.CUT DITCH RT
-Y2- STA.22+00.00
EL = 714.16

BEGIN SP.CUT DITCH LT
-Y2- STA.27+00.00
EL = 719.47

END SP.CUT DITCH LT
BEGIN LAT.BASE DITCH LT
-Y2- STA.29+00.00
EL = 715.50

END LAT.BASE DITCH LT
BEGIN LAT.BASE DITCH LT
-Y2- STA.30+00.00
EL = 706.00

PI = 30+37.00
EI = 704.67

PI = 31+50.00
EI = 710.43

PI = 34+00.00
EI = 692.11

BEGIN STANDARD V DITCH RT
-Y2- STA.32+50.00
EL = 691.74

(+) 0.9652%

BEGIN CHANNEL CHANGE RT
-Y2- STA.30+61.00
EL = 682.00

END CHANNEL CHANGE RT
-Y2- STA.31+50.00
EL = 682.86

PIPE HYDRAULIC DATA
-Y2- STA.34+02

DRAINAGE AREA	= 141.00	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 227.0	CFS
DESIGN HW ELEVATION	= 698.73	FT
100 YEAR DISCHARGE	= 249.0	CFS
100 YEAR HW ELEVATION	= 699.52	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

BM7
ELEV=735.67'
-BYI- STA. 32+04.16
95.34' RT
-Y2- STA. 39+91.28
106.12' RT
RR SPIKE IN BASE
OF POWER POLE

-Y2RPD- Sta. 30+84.16=
-Y2- Sta. 38+04.35

-Y2LPD- Sta. 22+20.40=
-Y2- Sta. 38+36.83

PROPOSED GRADE

PI = 40+30.00
EL = 732.84'
VC = 200'
K = 234
DS > 80 MPH

PI = 44+00.00
EL = 738.89'
VC = 300'
K = 1210
DS > 80 MPH

(+)0.6644%
(+)0.7802%
(+) 3.8953%
(+)11.6351%
(+)11.8831%

EXISTING GROUND

BEGIN LAT.V DITCH RT
-Y2- STA.39+25.00
EL = 727.00

END LAT.V DITCH RT
-Y2- STA.40+00.00
EL = 730.63

-L- Sta.143+83.13=
-Y2- Sta.44+45.88

PI = 34+75.00
EL = 728.51'
VC = 200'
K = 1727
DS > 80 MPH

END LAT.BASE DITCH RT
-Y2- STA.36+92.00
EL = 706.90

PI = 35+00.00
EI = 695.00

(−) 0.9038%
(+) 7.7200%
(+) 6.1979%
(+) 2.9268%
(+) 6.4773%

PI = 35+04.00
EI = 691.17

END STANDARD V DITCH RT
BEGIN LAT.BASE DITCH RT
-Y2- STA.34+50.00
EL = 691.14

PI = 37+50.00
EI = 698.37

END LAT.BASE DITCH LT
-Y2- STA.40+50.00
EL = 717.80

FOR -Y2- PLAN SEE SHTS. 13, 63-63A

770 760 750 740 730 720 710 700 690 680

34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00

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-Y2-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	142
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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CULVERT HYDRAULIC DATA
EXISTING 6' X 5' CULVERT EXTENSION

DESIGN DISCHARGE	= 270	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 731.0	FT
BASE DISCHARGE	= 280	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 731.20	FT
OVERTOPPING DISCHARGE	= 3,650	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 752.8	FT

BM8
ELEV=759.71'
-BYI- STA. 52+11.03
256.47' RT
-Y2- STA. 59+83.60
259.81' RT
RR SPIKE IN BASE OF POWER POLE

PI = 50+50.00
EL = 751.13'
VC = 500'
K = 3240
DS > 80 MPH

PI = 59+20.00
EL = 766.17'
VC = 490'
K = 159
DS = 65 MPH

-Y2LPB- Sta. 21+65.37=
-Y2- Sta. 50+75.00

-Y2RPB- Sta. 28+40.15=
-Y2- Sta. 51+07.90

(+)1.8831%
(+)1.7287%
(+)1.7287%
(+)4.8149%

PROPOSED GRADE
EXISTING GROUND

BEGIN LAT. BASE DITCH LT
-Y2- STA. 52+00.00
EL = 748.55

-SR2- Sta. 10+00.00=
-SR_F- Sta. 10+00.00=
-Y2- Sta. 57+35.48

BEGIN LAT. BASE DITCH RT
-Y2- STA. 57+90.00
EL = 738.00

END LAT. BASE DITCH RT
-Y2- STA. 62+00.00
EL = 750.00

(+) 2.8333%
(+) 3.1818%

BEGIN CHANNEL CHANGE LT
-Y2- STA. 56+25.00
EL = 724.80

(-)6.3876%
(-)15.3000%

EXIST. 1@6'x5' RCBC
TAYLORS CREEK

BEGIN LAT. V DITCH RT
-Y2- STA. 52+50.00
EL = 723.80

(-)2.5727%

PI = 54+50.00
EL = 732.58

END LAT. V DITCH RT
-Y2- STA. 53+60.00
EL = 720.97

END LAT. BASE DITCH LT
-Y2- STA. 56+00.00
EL = 724.63

(+)0.7500%
(+)1.0490%
(+)0.9286%

PI = 56+65.00
EL = 725.10

PI = 58+08.00
EL = 726.60

END LAT. BASE DITCH RT
BEGIN LAT. BASE DITCH RT
-Y2- STA. 59+00.00
EL = 741.50

END CHANNEL CHANGE LT
-Y2- STA. 58+78.00
EL = 727.25

(+)4.8149%
(+)0.7922%

PI = 74+60.00
EL = 840.32'
VC = 820'
K = 204
DS = 65 MPH

PROPOSED GRADE
EXISTING GROUND

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FOR -Y2- PLAN SEE SHTS. 13, 64-65

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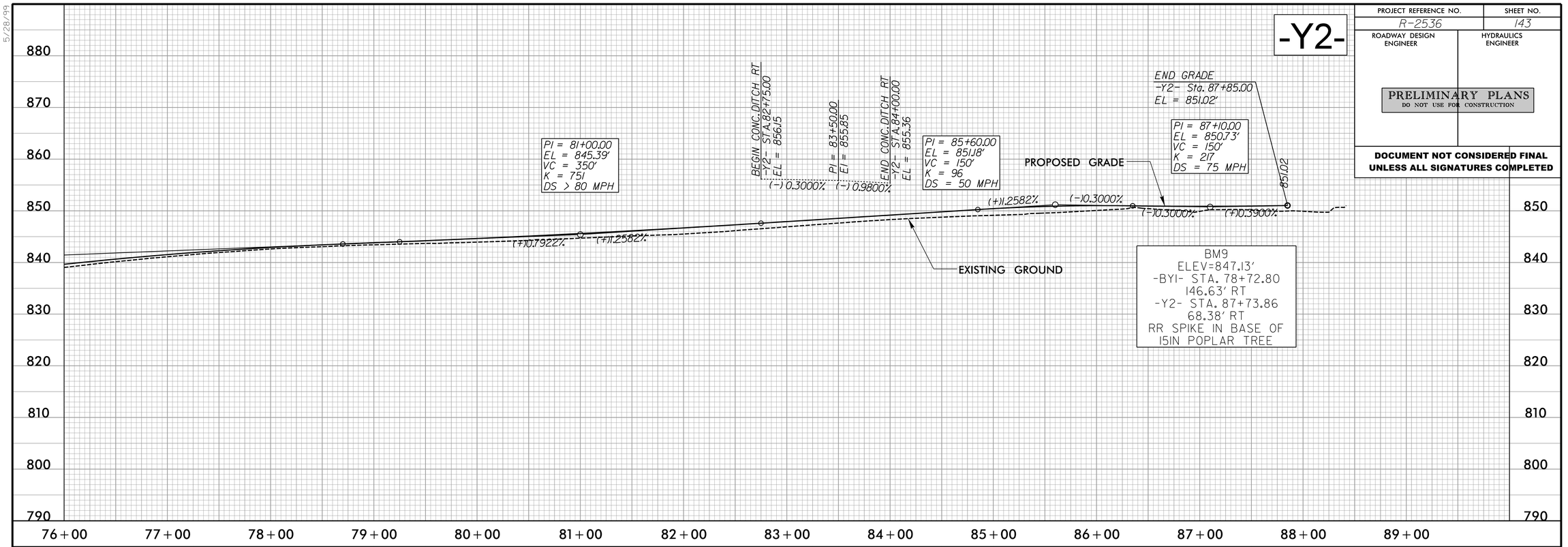
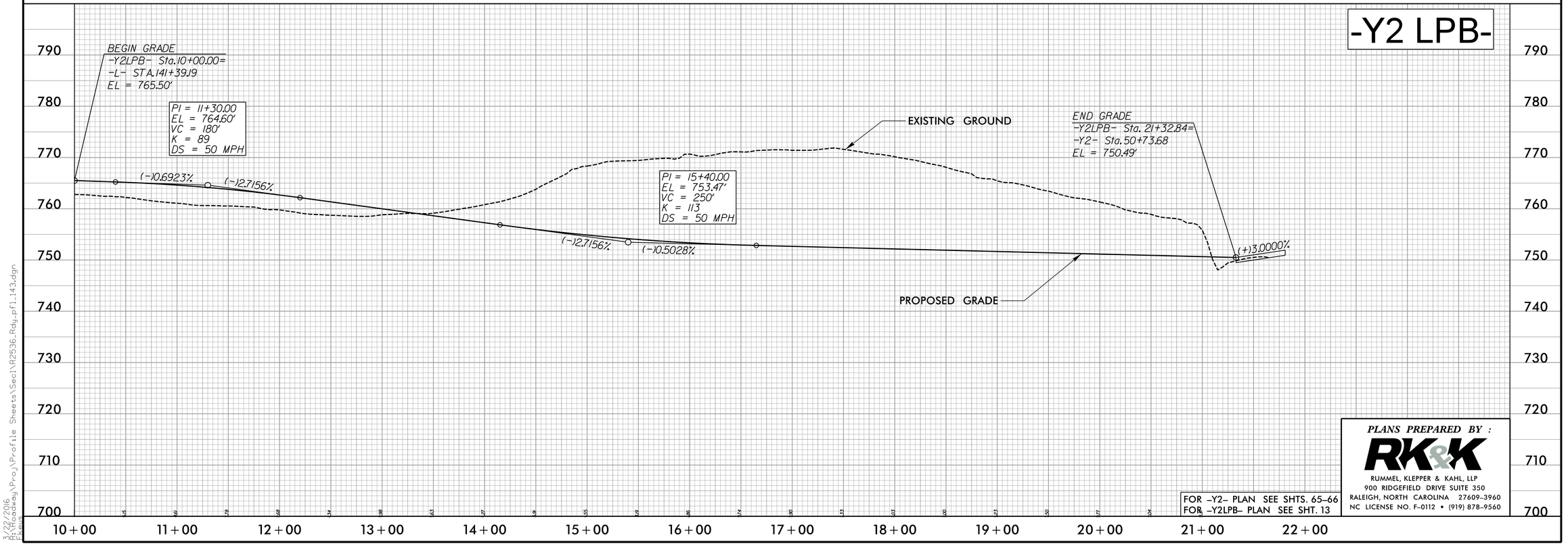
-Y2-



-Y2 LPB-



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FOR –Y2– PLAN SEE SHTS. 65–66
FOR –Y2LPB– PLAN SEE SHT. 13

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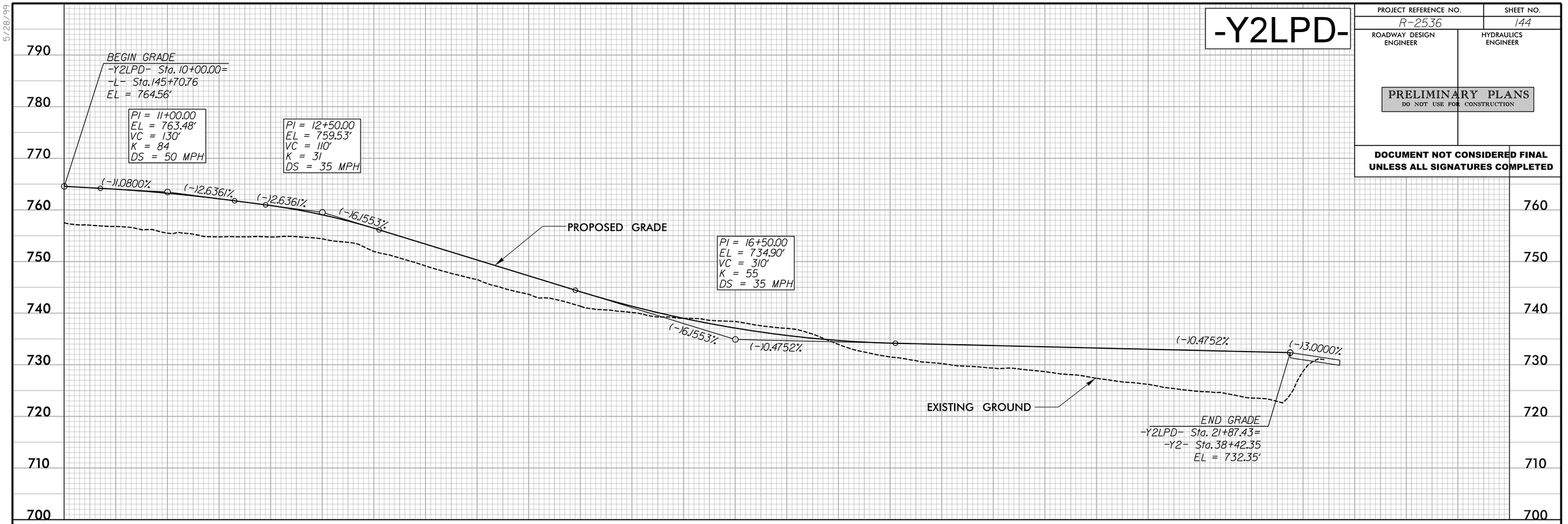
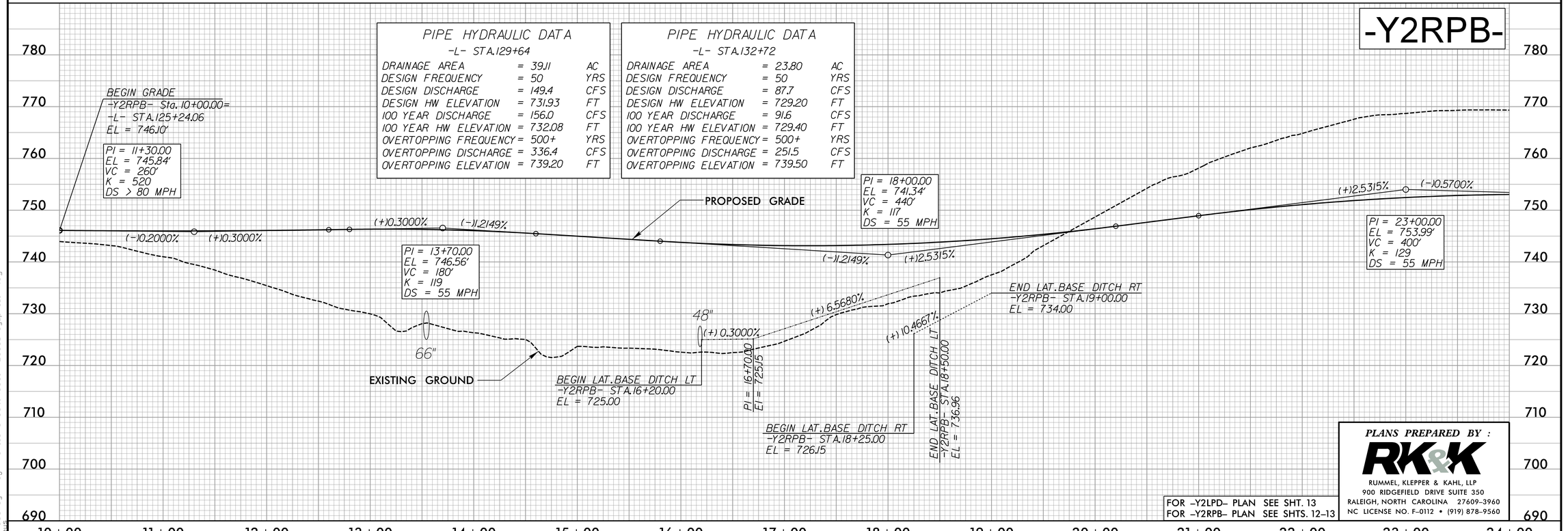
-Y2LPD-



-Y2RPB-



FOR –Y2LPD– PLAN SEE SHT. 13
FOR –Y2RPB– PLAN SEE SHTS. 12–13

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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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-Y2RPB-

EXISTING GROUND

PI = 23+00.00
EL = 753.99'
VC = 400'
K = 129
DS = 55 MPH

END GRADE
-Y2RPB- Sta. 28+07.65=
-Y2- Sta. 51+07.53
EL = 751.10'

(+)3.0000%

PROPOSED GRADE

-Y2RPD-

BEGIN GRADE
-Y2RPD- Sta. 10+00.00=
-L- Sta. 163+36.40
EL = 757.25'

PI = 13+80.00
EL = 749.57'
VC = 520'
K = 259
DS = 70 MPH

(-)12.0200%

(-)14.0300%

PROPOSED GRADE

BEGIN LAT. BASE DITCH LT
-Y2RPD- STA. 11+87.06
EL = 746.70

(-)16.0585%

PI = 13+89.09
EL = 734.46

(-)17.3059%

PI = 15+35
EL = 723.80

EXISTING GROUND

(-)19.8852%

-Y2RPD-

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 440	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 705.7	FT
BASE DISCHARGE	= 460	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 705.85	FT
OVERTOPPING DISCHARGE	= 3800	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 748.4	FT

PIPE HYDRAULIC DATA
-Y2RPD- STA. 20+27

DRAINAGE AREA	= 8.09	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 32.5	CFS
DESIGN HW ELEVATION	= 713.23	FT
100 YEAR DISCHARGE	= 34.0	CFS
100 YEAR HW ELEVATION	= 713.32	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 158.2	CFS
OVERTOPPING ELEVATION	= 727.28	FT

PI = 26+10.00
EL = 735.67'
VC = 220'
K = 87
DS = 50 MPH

PROPOSED GRADE

END GRADE
-Y2RPD- Sta. 30+51.16=
-Y2RPD- Sta. 38+10.07
EL = 732.10'

(+)11.7228%

(-)10.8100%

(-) 2.5800%

(-) 1.5102%

(-)10.8100%

(-)3.0000%

(-)4.0300%

(+)11.7228%

PI = 19+90.00
EL = 724.99'
VC = 560'
K = 97
DS = 50 MPH

(+) 3.1435%

(+) 5.2200%

EXISTING GROUND

TAYLOR CREEK

(-)9.8852%

(+)4.8128%

36"

2@8'x8' RCBC

BEGIN LAT. BASE DITCH LT
-Y2RPD- STA. 20+27.00
EL = 702.65

END LAT. BASE DITCH LT
-Y2RPD- STA. 18+40.00
EL = 693.65

BEGIN LAT. BASE DITCH RT
-Y2RPD- STA. 20+27.00
EL = 710.50

PI = 22+50.00
EL = 717.51

END LAT. BASE DITCH RT
-Y2RPD- STA. 23+50.00
EL = 722.73

BEGIN LAT. V. DITCH RT
-Y2RPD- STA. 26+50.00
EL = 733.28

PI = 27+50.00
EL = 730.70

END LAT. V. DITCH RT
-Y2RPD- STA. 29+95.00
EL = 727.00

FOR -Y2RPB- PLAN SEE SHT. 13
FOR -Y2RPD- PLAN SEE SHTS. 13–14

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-Y2SPURB-

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R-2536	145A

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
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790 780 770 760 750 740 730 720 710 700

PI = 19+90.00
EL = 751.21'
VC = 70'
K = 28
DS = 30 MPH

PI = 20+90.00
EL = 748.23'
VC = 100'
K = 40
DS = 30 MPH

PI = 22+00.00
EL = 747.68'
VC = 70'
K = 51
DS = 40 MPH

EXISTING GROUND

PROPOSED GRADE

(−)10.5000%

(−)2.9816%

(−)10.5000%

(−)1.8600%

BEGIN GRADE
-Y2SPURB- Sta. 19+47.45=
-Y2LPB- Sta.19+47.45
EL = 751.42'

END GRADE
-Y2SPURB- Sta. 22+35.52=
-Y2- Sta. 48+84.06
EL = 747.02'

19+00 20+00 21+00 22+00 23+00

760 750 740 730 720 710 700

-Y2A-

BEGIN GRADE
-Y2A- Sta. 10+12.00=
-Y2- Sta. 21+39.49
EL = 717.28'

PI = 11+60.00
EL = 714.32'
VC = 265'
K = 26
DS = 25 MPH

EXISTING GRADE

PROPOSED GRADE

(−)3.0000%

(−)2.0000%

(+)7.8470%

(+)18.0385%

BEGIN LAT.V DITCH LT
-Y2A- STA.11+15.00
EL = 709.50

END LAT.V DITCH LT
-Y2A- STA.11+50.00
EL = 714.68

PI = 14+20.00
EL = 735.22'
VC = 150'
K = 28
DS = 34 MPH

(+)18.0385%

(+)2.7000%

(+) 3.9583%

(+) 4.1810%

BEGIN SP.CUT DITCH LT & RT
-Y2A- STA.15+50.00
EL = 735.32 LT
EL = 735.76 RT

END GRADE
-Y2A- Sta.16+00.00
EL = 740.08

END SP.CUT DITCH LT
-Y2A- STA.16+14.10
EL = 738.00

END SP.CUT DITCH RT
-Y2A- STA.16+06.59
EL = 738.00

10+00 11+00 12+00 13+00 14+00

890 880 870 860 850 840 830 820 810 800

-Y2RT-

BEGIN GRADE
-Y2RT- Sta. 10+00.00 =
-Y2- Sta.83+20.00
EL = 847.80'

PI = 12+45.00
EL = 850.89'
VC = 200'
K = 128
DS = 55 MPH

END GRADE
-Y2RT- Sta. 14+65.00
EL = 850.22'

PROPOSED GRADE

(+)11.2600%

(−)0.3032%

EXISTING GROUND

FOR –Y2A– PLAN SEE SHTS. 63 & 63A

10+00 11+00 12+00 13+00 14+00

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-SR1-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	146
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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PIPE HYDRAULIC DATA
-SRI- STA.15+96

DRAINAGE AREA	= 23.96	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 76.0	CFS
DESIGN HW ELEVATION	= 652.88	FT
100 YEAR DISCHARGE	= 79.5	CFS
100 YEAR HW ELEVATION	= 653.00	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PIPE HYDRAULIC DATA
-SRI- STA.18+97

DRAINAGE AREA	= 8.93	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 34.1	CFS
DESIGN HW ELEVATION	= 680.76	FT
100 YEAR DISCHARGE	= 35.6	CFS
100 YEAR HW ELEVATION	= 680.88	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 202.7	CFS
OVERTOPPING ELEVATION	= 704.10	FT

(−)13.5450%
(−)12.3926%
(−)17.9283%
(−)11.8750%
(−)14.2857%
(+)4.8000%
(−)2.0000%
(+)10.8306%
(+)2.1728%
(+)16.9549%
(+)15.0000%
(+)6.9893%
(−)4.6414%
(+)5.0000%
(−)18.8740%
(+)9.7482%
(+)20.3424%
(−)5.5940%
(−)5.3540%

BEGIN LAT.V DITCH LT
-SRI- STA.11+00.00
EL = 727.50

PI = 11+50.00
EL = 735.25'
VC = 200'
K = 36
DS = 35 MPH

BEGIN GRADE
-SRI- Sta. 10+33.03=
-Y1A- Sta.13+48.22
EL = 738.05'

END LAT.V DITCH LT
-SRI- STA.13+00.00
EL = 703.75

END LAT.BASE DITCH LT
BEGIN LAT.BASE DITCH LT
-SRI- STA.15+25.00
EL = 650.00

END LAT.BASE DITCH LT
BEGIN LAT.V DITCH LT
-SRI- STA.15+75.00
EL = 649.00

END LAT.V DITCH LT
-SRI- STA.17+00.00
EL = 655.00

BEGIN LAT.BASE DITCH LT
-SRI- STA.14+90.00
EL = 655.00

END LAT.V DITCH RT
-SRI- STA.17+50.00
EL = 655.00

BEGIN LAT.V DITCH RT
-SRI- STA.16+26.00
EL = 641.57

54"

BEGIN LAT.BASE DITCH RT
-SRI- STA.18+69.00
EL = 648.24

36"

BEGIN LAT.V DITCH LT
-SRI- STA.20+47.29
EL = 676.23

PI = 20+20.00
EL = 666.28'
VC = 1,250'
K = 97
DS = 50 MPH

END LAT.BASE DITCH RT
BEGIN SP.CUT DITCH RT
-SRI- STA.20+97.45
EL = 675.50

END LAT.BASE DITCH RT
BEGIN LAT.BASE DITCH RT
-SRI- STA.19+50.00
EL = 650.50

END SP.CUT DITCH RT
END LAT.V DITCH LT
-SRI- STA.21+97.46
EL = 682.99 RT
EL = 683.20 LT

PI = 32+14.00
EL = 725.98'
VC = 270'
K = 29
DS = 35 MPH

BEGIN SP.CUT DITCH LT
-SRI- STA.34+50.00
EL = 702.80

END GRADE
-SRI- Sta. 34+85.00
EL. = 701.93

BEGIN LAT.BASE DITCH RT
-SRI- STA.26+79.68
EL = 686.00

PI = 27+41.23
EL = 692.00

END LAT.BASE DITCH RT
-SRI- STA.27+98.18
EL = 703.59

BEGIN SP.CUT DITCH RT
-SRI- STA.34+50.00
EL = 702.68

END SP.CUT DITCH LT & RT
-SRI- STA.35+00.00
EL = 700.00

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00
23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00
640 650 660 670 680 690 700 710 720 730 740

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FOR -SR1- PLAN SEE SHTS. 6-7

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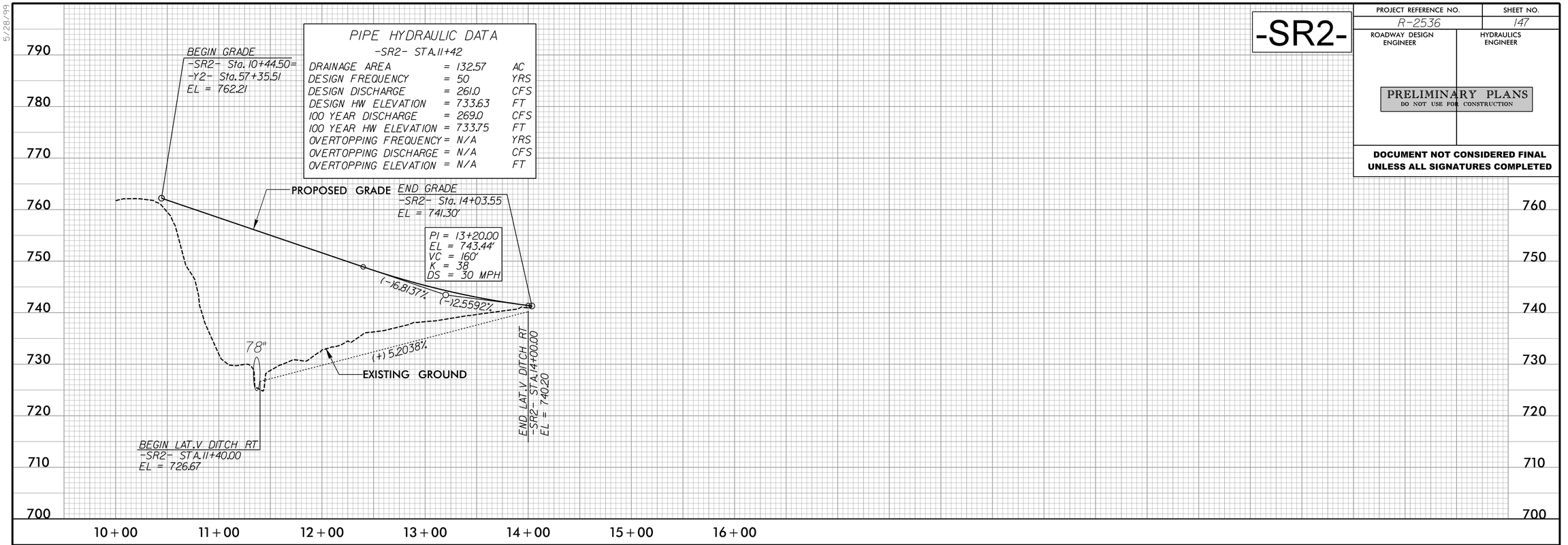
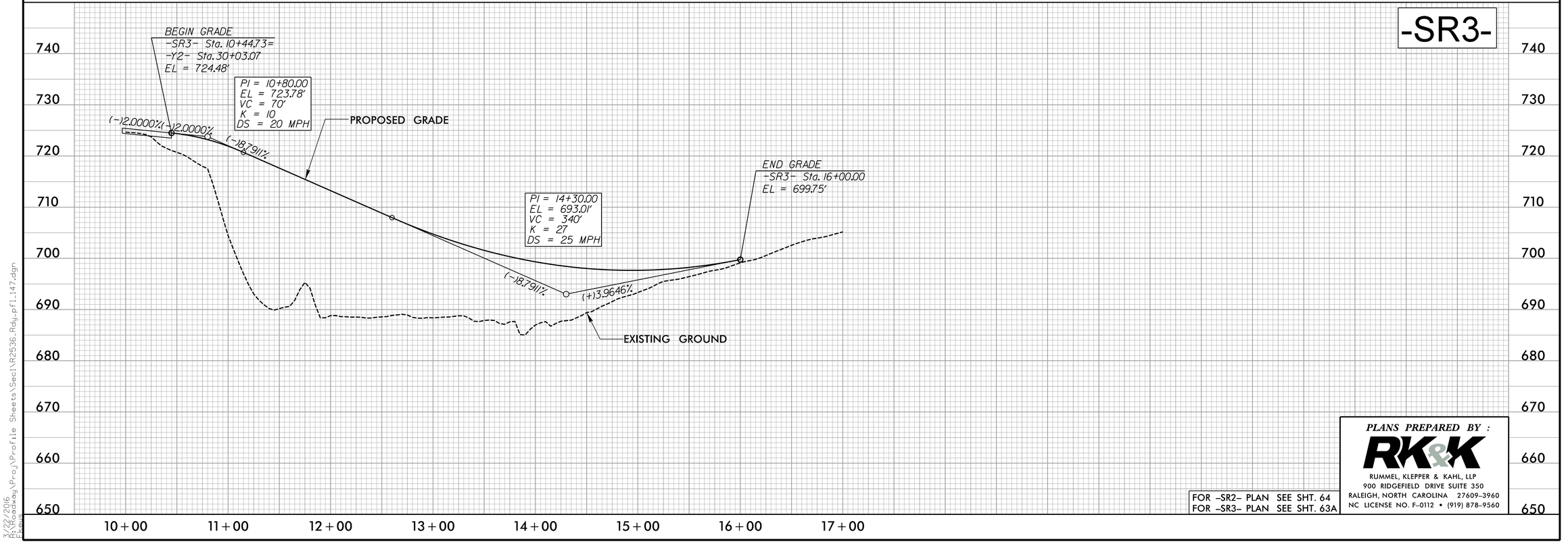


-SR3-



FOR –SR2– PLAN SEE SHT. 64
FOR –SR3– PLAN SEE SHT. 63A

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R-2536	148

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

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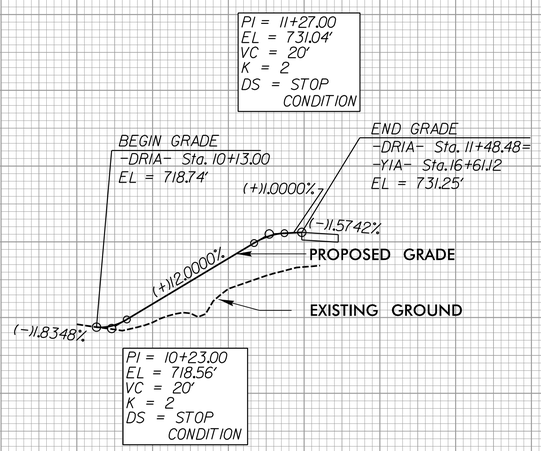

FOR –DR1A– PLAN SEE SHT. 6

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

3/22/2016
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PROJ. REFERENCE NO.	SHEET NO.
R-2536	X-0

US 64 BYPASS
RANDOLPH COUNTY

T.I.P. PROJECT R-2536

STATE PROJECT # 34450.3.S1

LINE	SHEET NO.
-L-	X-12 THRU X-128
-FLY-	X-129 THRU X-147
-RPA-	X-148 THRU X-152
-LPD-	X-153 THRU X-154A
-Y-	X-155 THRU X-188
-Y1A-	X-189 THRU X-199A
-Y1-	X-200 THRU X-204
-Y2-	X-204A THRU X-243
-Y2RPB-	X-244 THRU X-248
-Y2LPB-	X-249 THRU X-250
-Y2RPD-	X-251 THRU X-256
-Y2LPD-	X-257
-Y2A-	X-258 THRU X-267
-SR1-	X-261 THRU X-270
-SR2-	X-271 THRU X-272
-SR3-	X-273 THRU X-276
-SR_E-	X-277 THRU X-278
-SR_F-	X-279 THRU X-297
-SR_F1-	X-298 THRU X-299
-Y1_DET-	X-300 THRU X-306
-DR-	X-307 THRU X-309
-DR6-	X-310 THRU X-311

SUBMITTAL NO.: S-055
DATE: 12-11-15

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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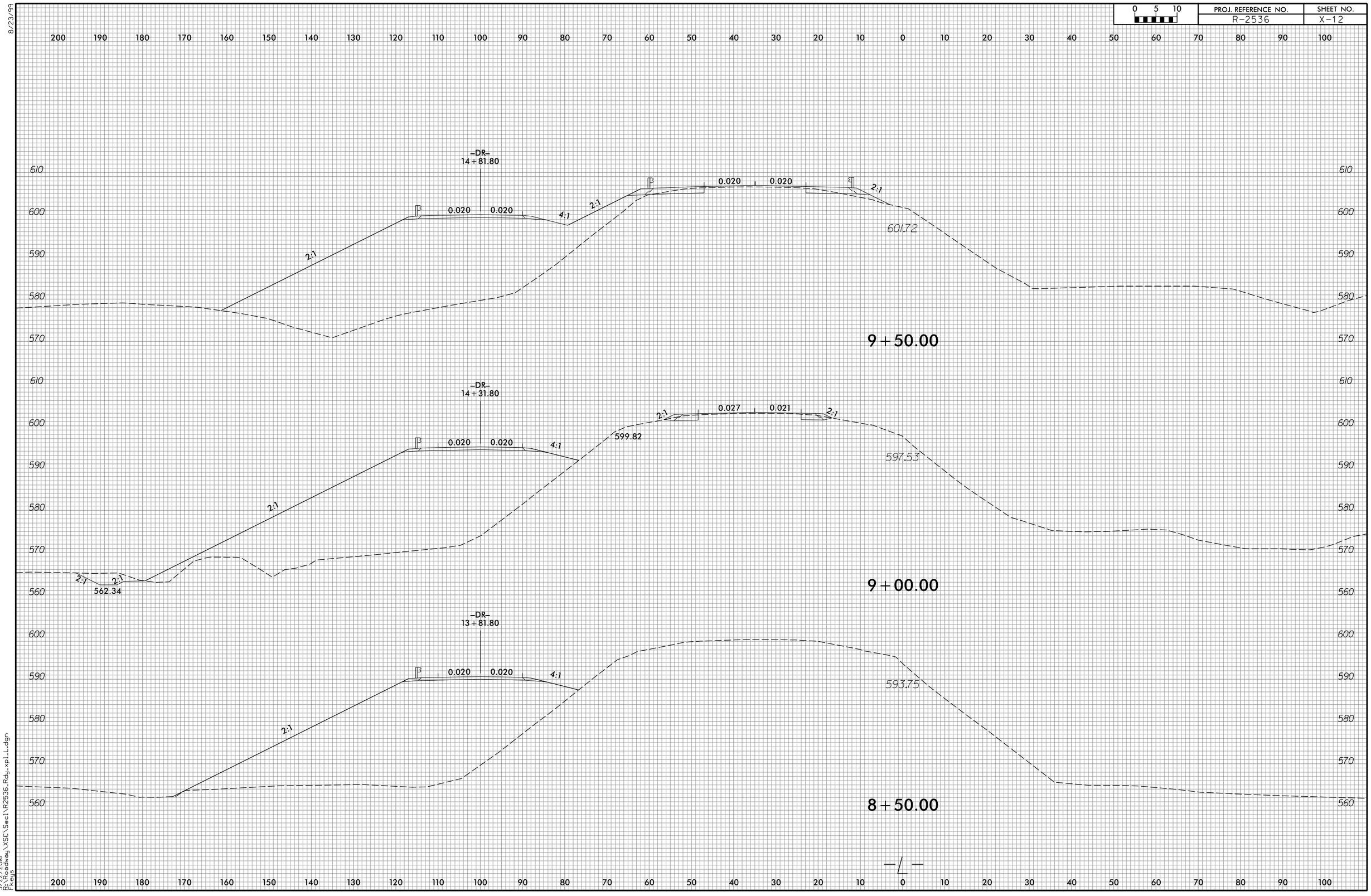
	R-2536	X-12



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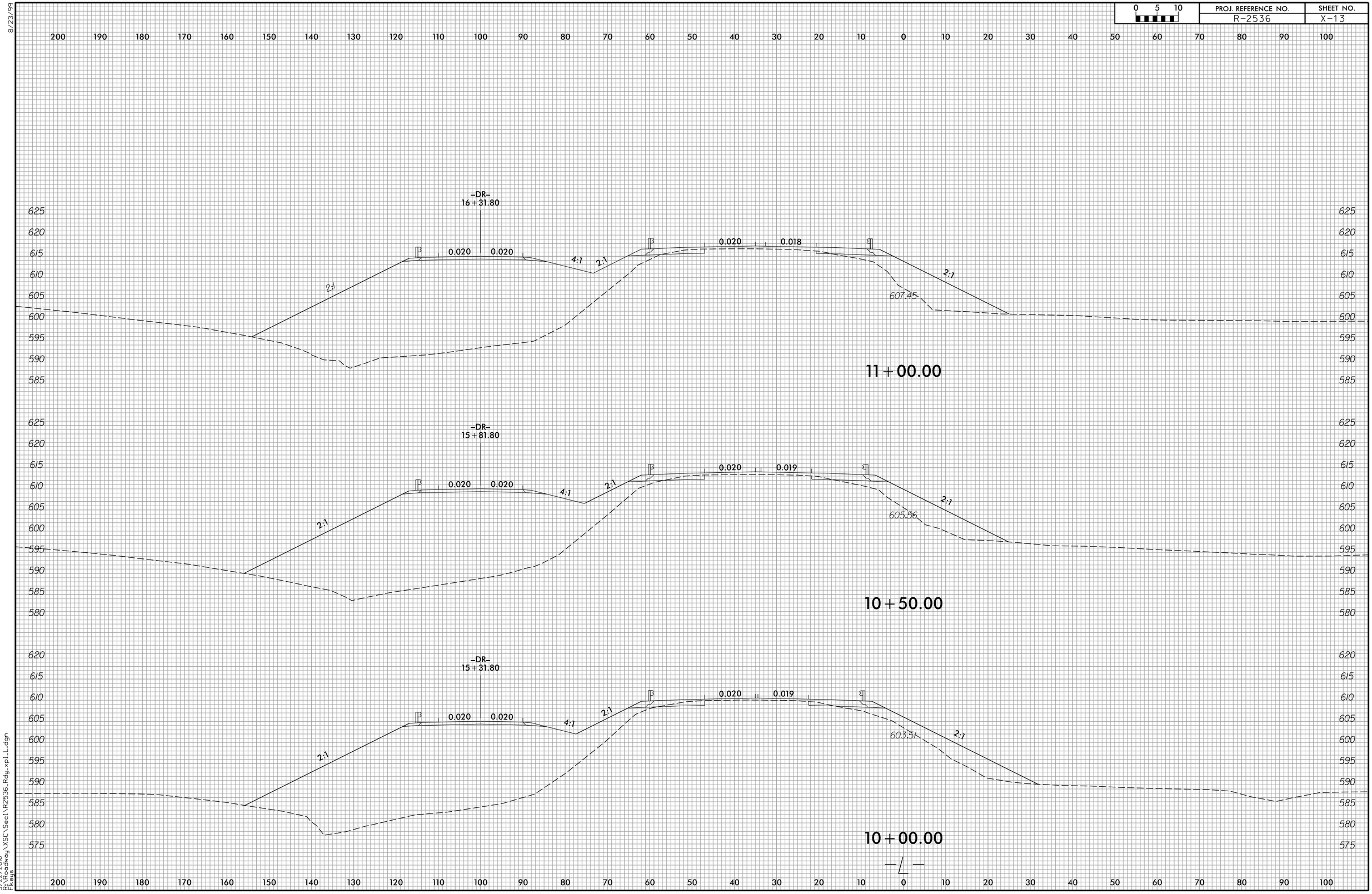
	R-2536	X-13



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	R-2536	X-14

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

635 630 625 620 615 610 605 600 595

6:1 6:1 0.020 0.017 5.29:1

627.15

624.26

13+00.00

635 630 625 620 615 610 605 600 595

4.63:1 6:1 0.020 0.017 4.09:1

623.70

620.75

12+50.00

630 625 620 615 610 605 600

3.28:1 6:1 0.020 0.018 3:1

620.37

615.95

12+00.00

630 625 620 615 610 605 600 595

–DR–
16+82.33

0.029 0.049 4.13:1 2:1 0.020 0.018 2.15:1

2.39:1

612.00

11+50.00

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

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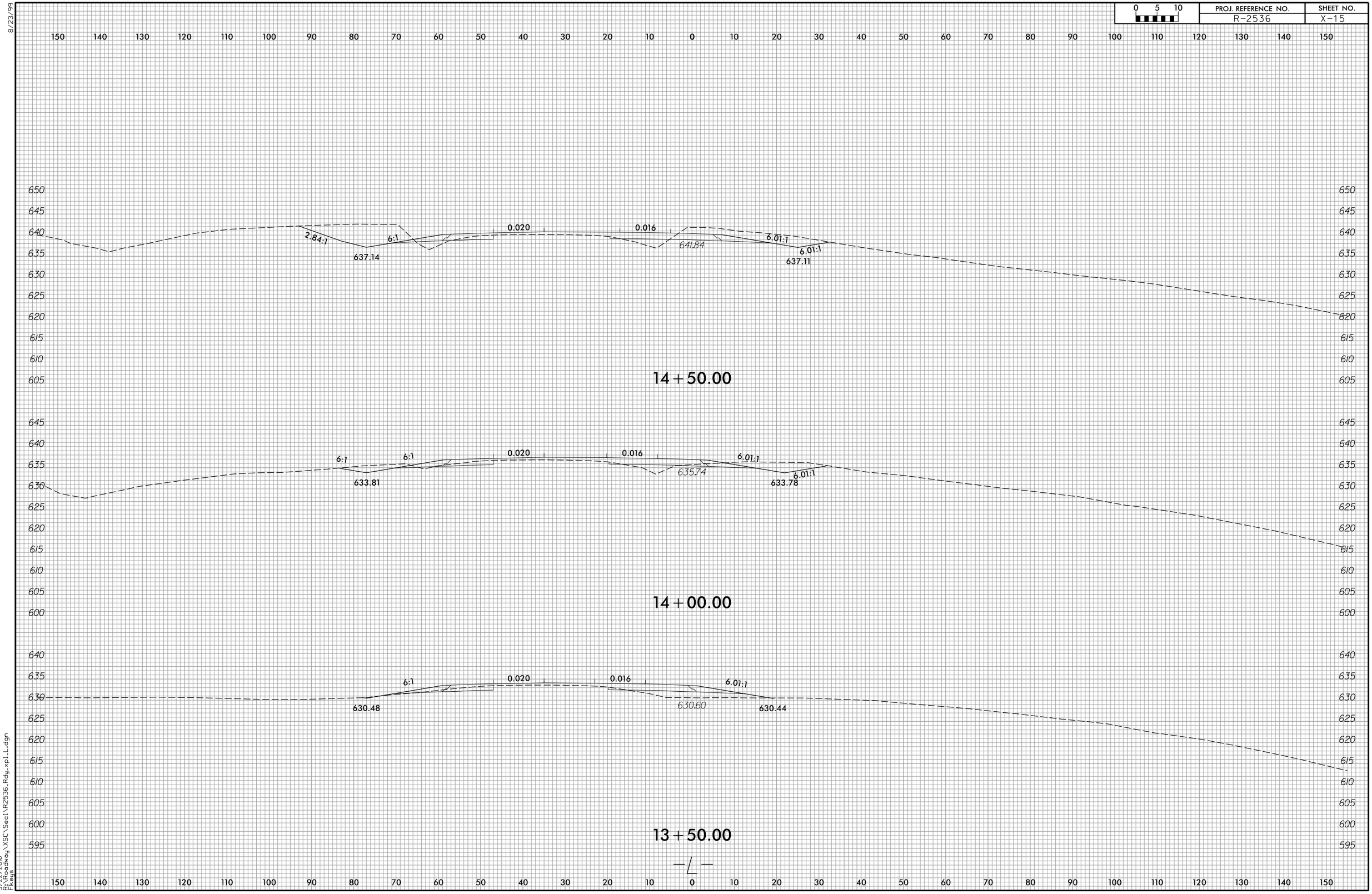
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-15



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	R-2536	X-16

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

670 665 660 655 650 645 640 635 630 625 620 615

2.15:1 6:1 647.10 0.020 6.015:1 6.405:1 0.015 D.P. 649.475 643.31 4:1 2:1 2:1 622.45

16+00.00

665 660 655 650 645 640 635 630 625 620 615 610

2:1 6:1 643.79 0.020 6.017:1 6.560:1 0.015 D.P. 646.384 643.78 3.96:1

15+50.00

655 650 645 640 635 630 625 620 615 610

2:1 6:1 640.47 0.020 0.015 643.37 6.02:1 6.02:1 640.45

15+00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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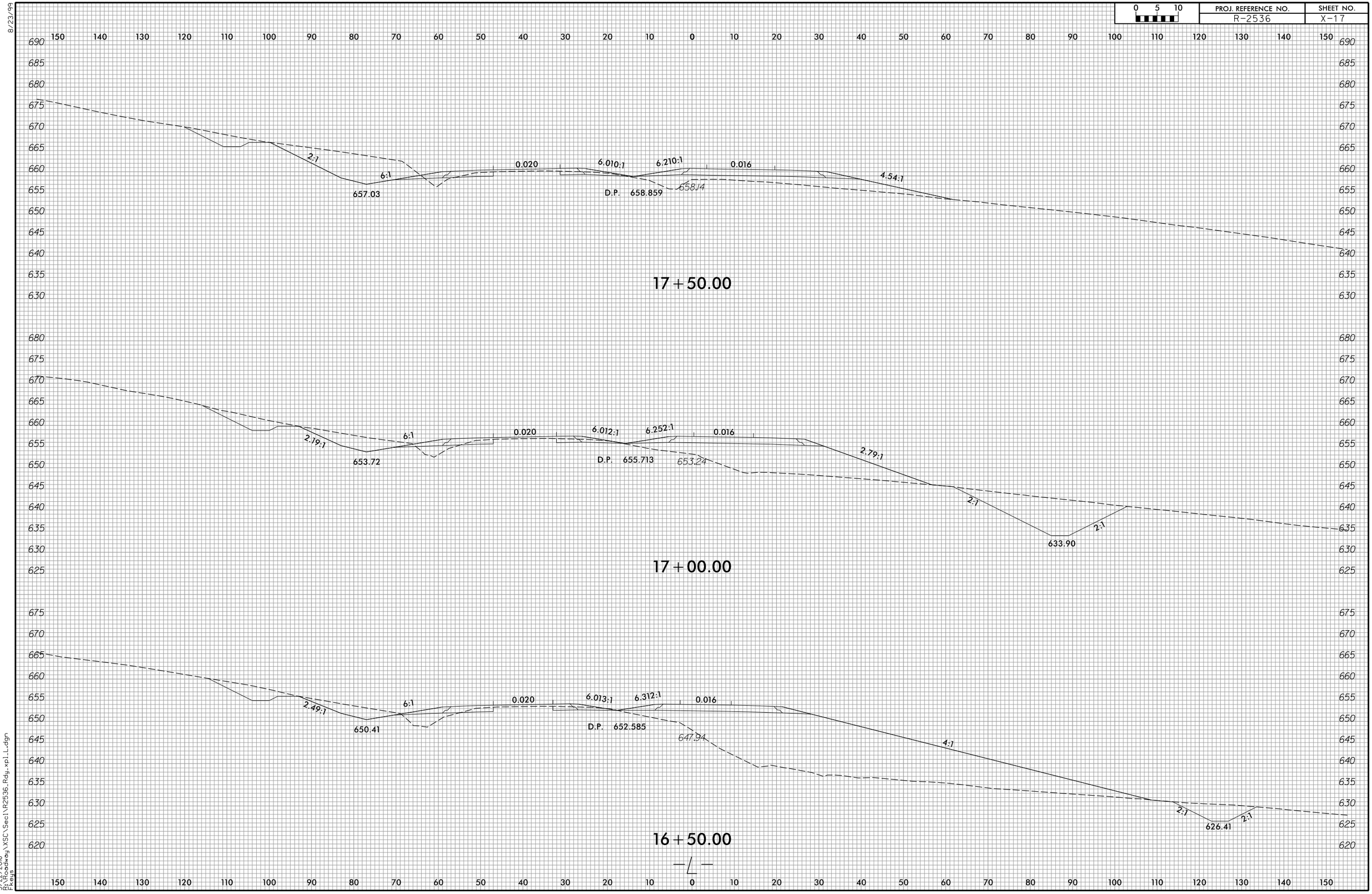
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-17



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-18

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 695 690 685 680 675 670 665 660 655 650

2:1 6:1 0.020 6.006:1 6.122:1 0.017 6.02:1 2.59:1

675.64

666.93 D.P. 668.366 666.89

19+00.00

695 690 685 680 675 670 665 660 655 650 645

2:1 6:1 0.020 6.007:1 6.160:1 0.017 6.02:1 4.19:1

667.98

663.66 D.P. 665.206 663.63

18+50.00

695 690 685 680 675 670 665 660 655 650 645 640 635

2:1 6:1 0.020 6.009:1 6.181:1 0.016 6.03:1 6.03:1

662.61

660.35 D.P. 662.023 660.34

18+00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-19

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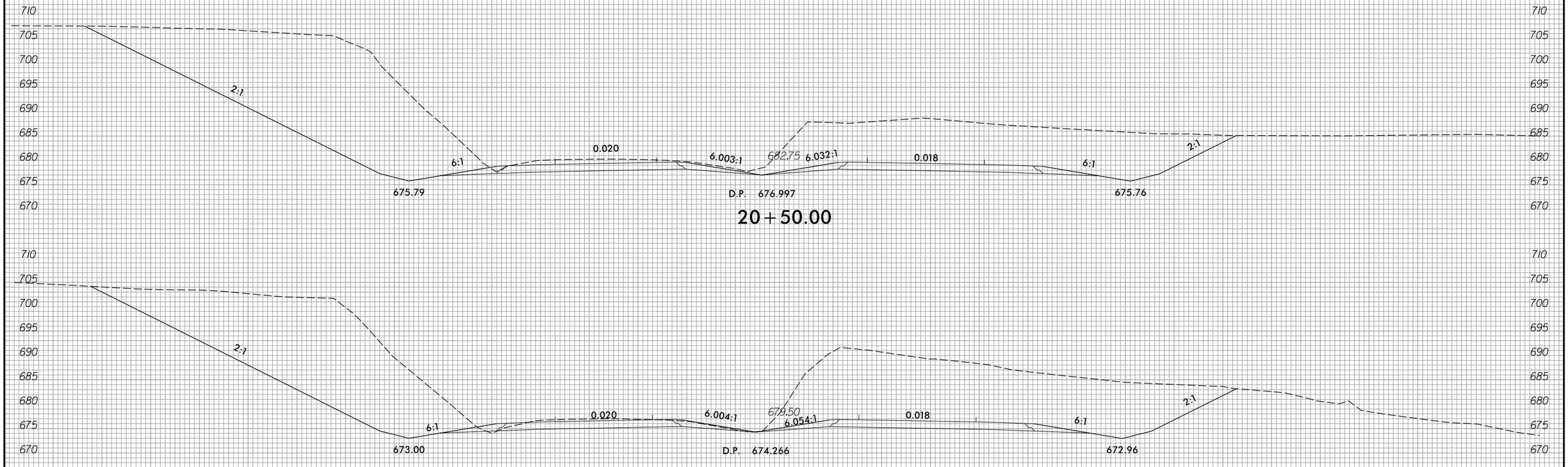
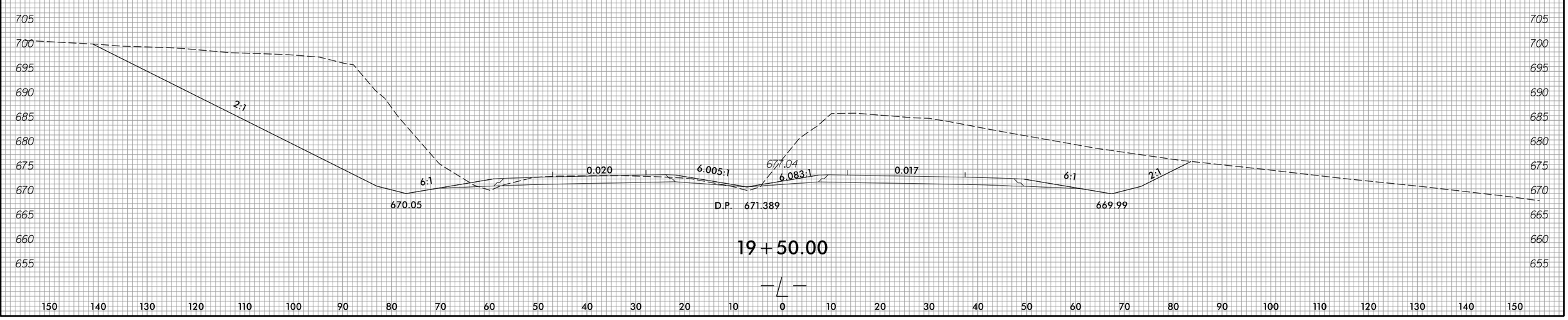


20+50.00

20+00.00



19+50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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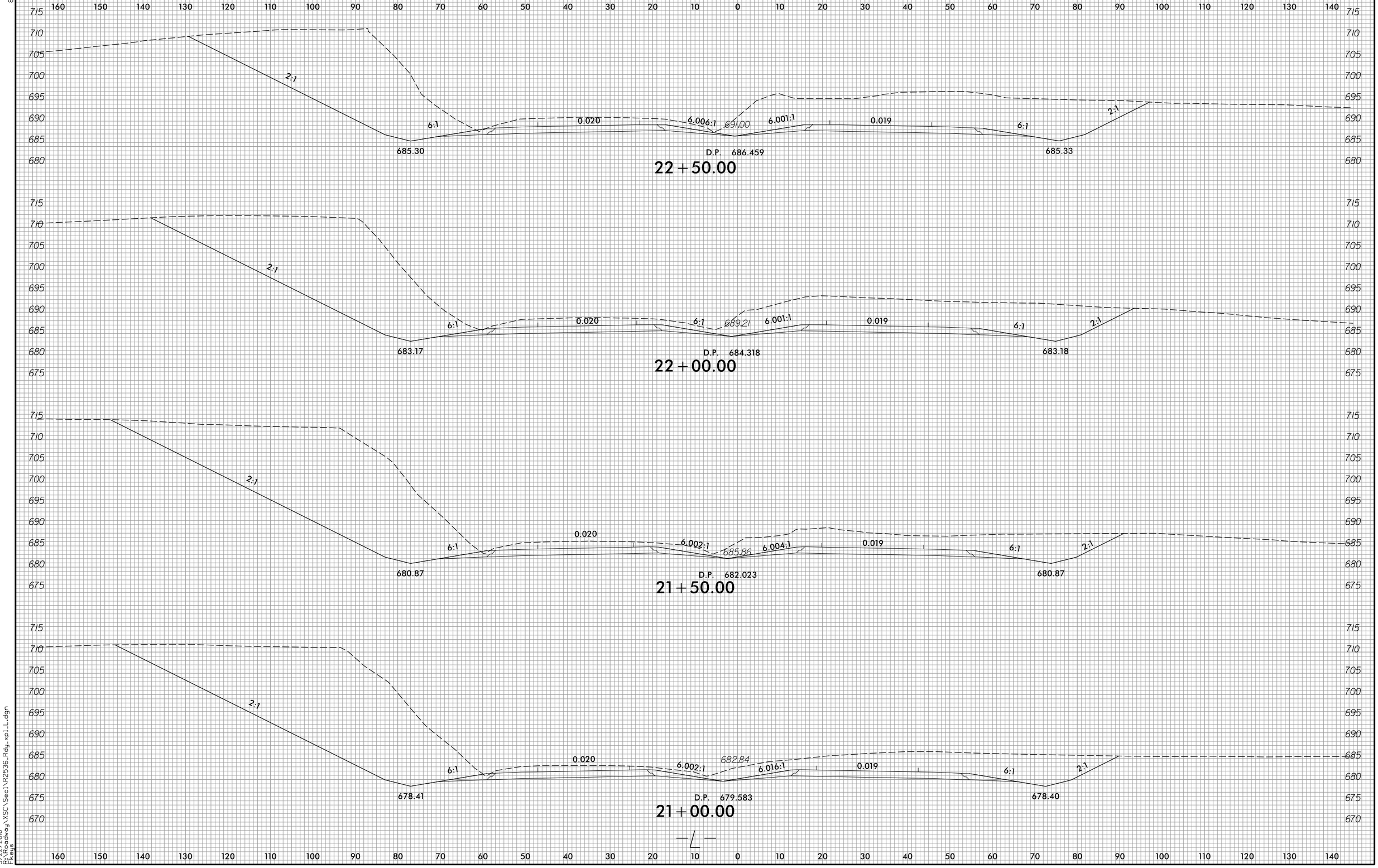
	R-2536	X-20



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-21

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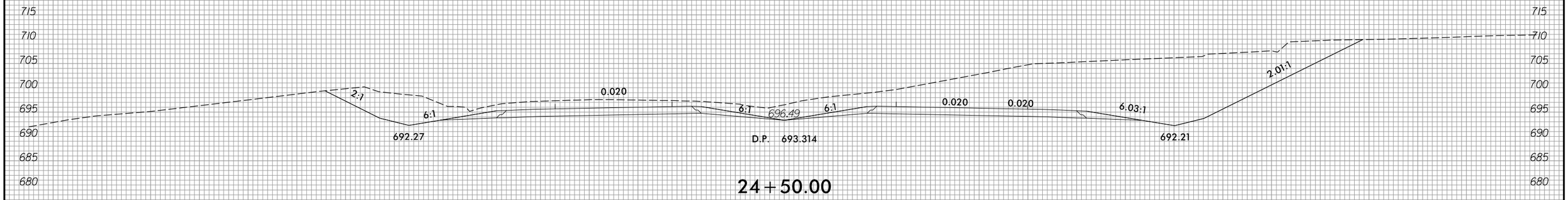
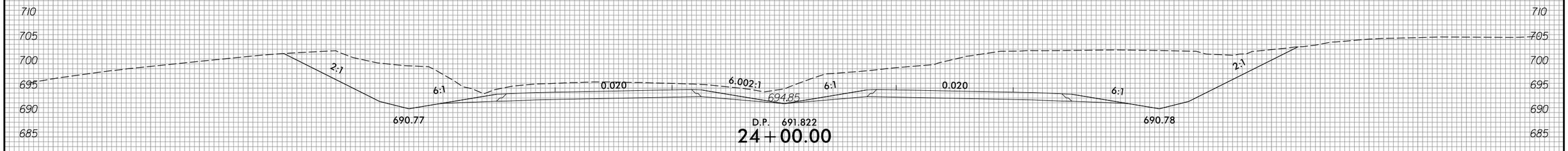
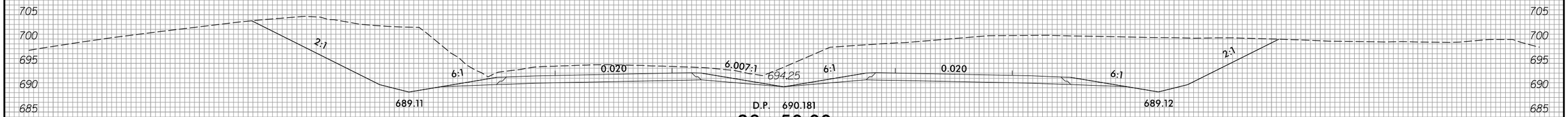


24+50.00



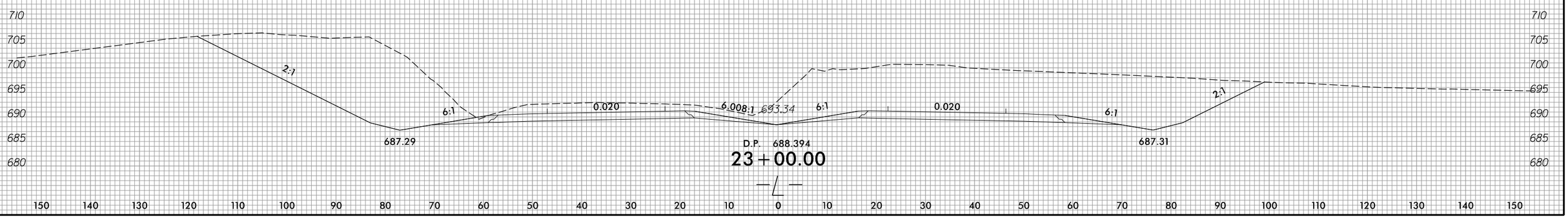
D.P. 691.822

24+00.00



D.P. 690.181

23+50.00



D.P. 688.394

23+00.00

—L—

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-22

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

725 720 715 710 705 700 695 690 685 680

2:1 2:1 2:1 680.72 0.020 6.91:1 6:1 697.03 D.P. 697.190 0.020 5:1 695.41 2:1

26+00.00

725 720 715 710 705 700 695 690 685 680 675

2:1 0.020 0.020 6:1 698.20 6:1 0.020 0.020 5:1 694.50 2.01:1

D.P. 695.813

25+50.00

720 715 710 705 700 695 690 685 680 675 670

6.05:1 6.05:1 693.55 0.020 0.020 6:1 698.70 6:1 0.020 0.020 6.03:1 693.44 2.01:1

D.P. 694.646

25+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-23

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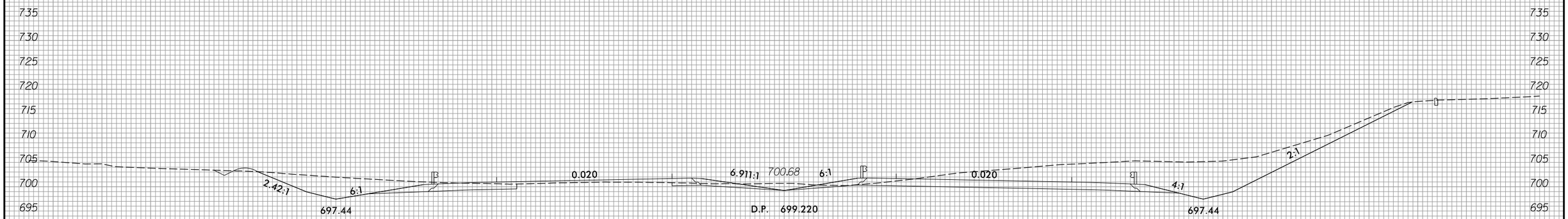
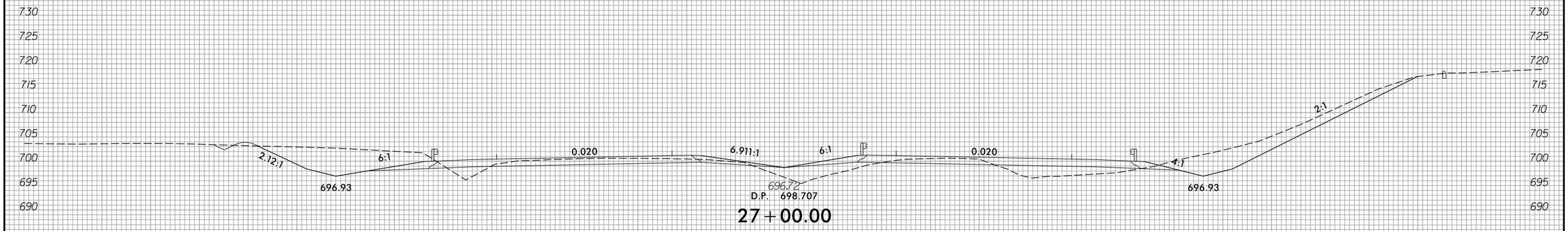
735 730 725 720 715 710 705 700 695 690



D.P. 699.220

27+50.00

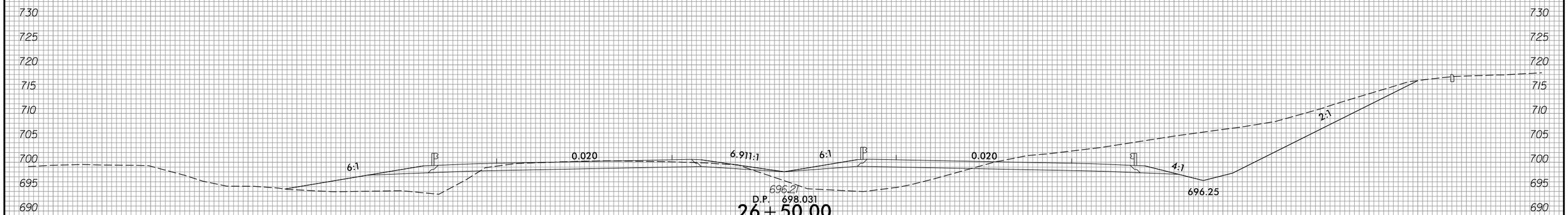
730 725 720 715 710 705 700 695 690



D.P. 698.707

27+00.00

730 725 720 715 710 705 700 695 690



D.P. 698.031

26+50.00

—L—

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-24

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

735 730 725 720 715 710 705 700 695 690

0.020 6:1 6:1 0.020

699.84

D.P. 699.835

29+00.00

735 730 725 720 715 710 705 700 695 690

2:1 6:1 0.020 6.911:1 6:1 0.020 4:1 2:1

698.11 699.89 698.11

D.P. 699.892

28+50.00

735 730 725 720 715 710 705 700 695 690

2:1 6:1 0.020 6.911:1 6:1 0.020 4:1 2:1

697.80 700.88 697.80

D.P. 699.576

28+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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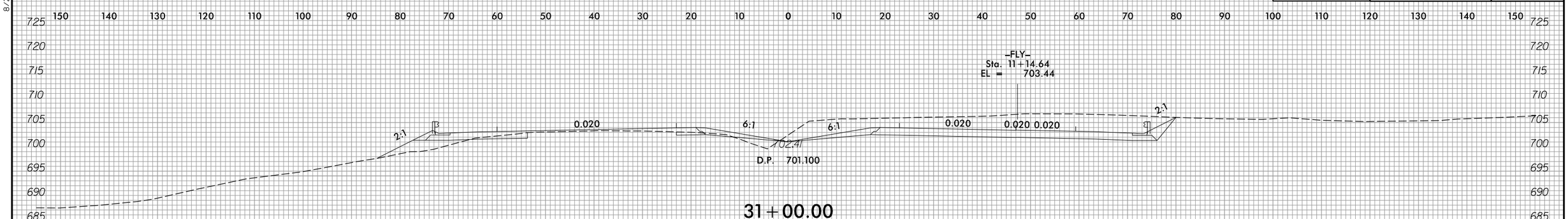
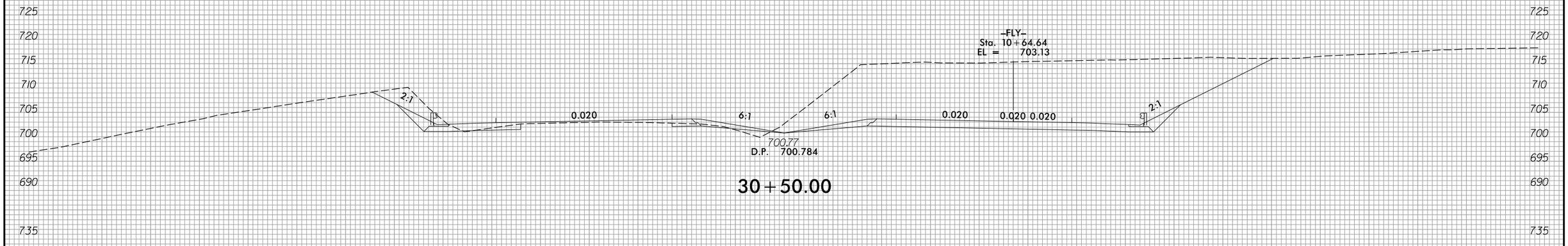
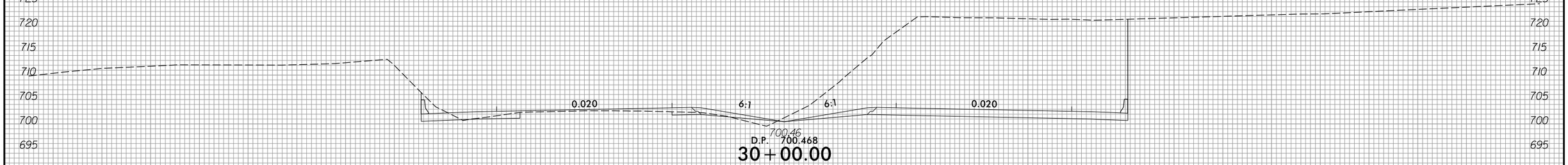
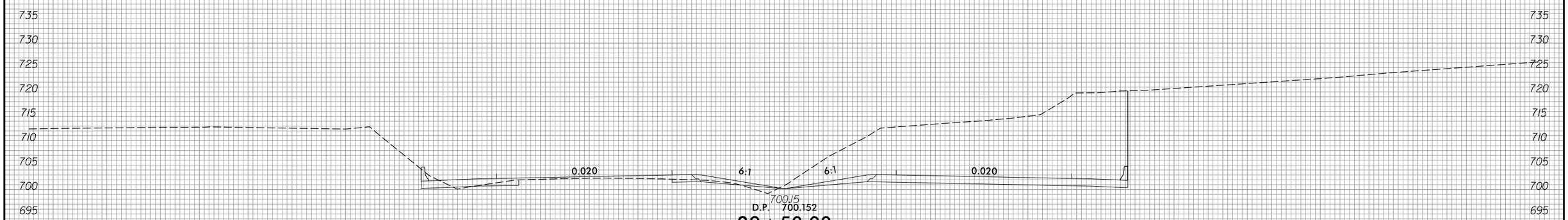
	R-2536	X-25









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Fkeys

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	R-2536	X-26

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

725 720 715 710 705 700 695 690 685 680 675 670 665

–FLY–
Sta. 12+64.86
EL = 703.85

0.020 6:1 6:1 0.020 0.054 0.055

2:1 2:1 2:1 685.50 2.010:1

D.P. 701.917
697.80

32+50.00

725 720 715 710 705 700 695 690 685 680 675

–FLY–
Sta. 12+14.71
EL = 703.86

0.020 6:1 6:1 0.020 0.037 0.037

2:1 2:1 2:1 683.04 2.004:1

D.P. 701.667
695.41

32+00.00

725 720 715 710 705 700 695 690 685 680

–FLY–
Sta. 11+64.65
EL = 703.72

0.020 6:1 6:1 0.020 0.020 0.020

2:1 2.001:1

D.P. 701.398
697.94

31+50.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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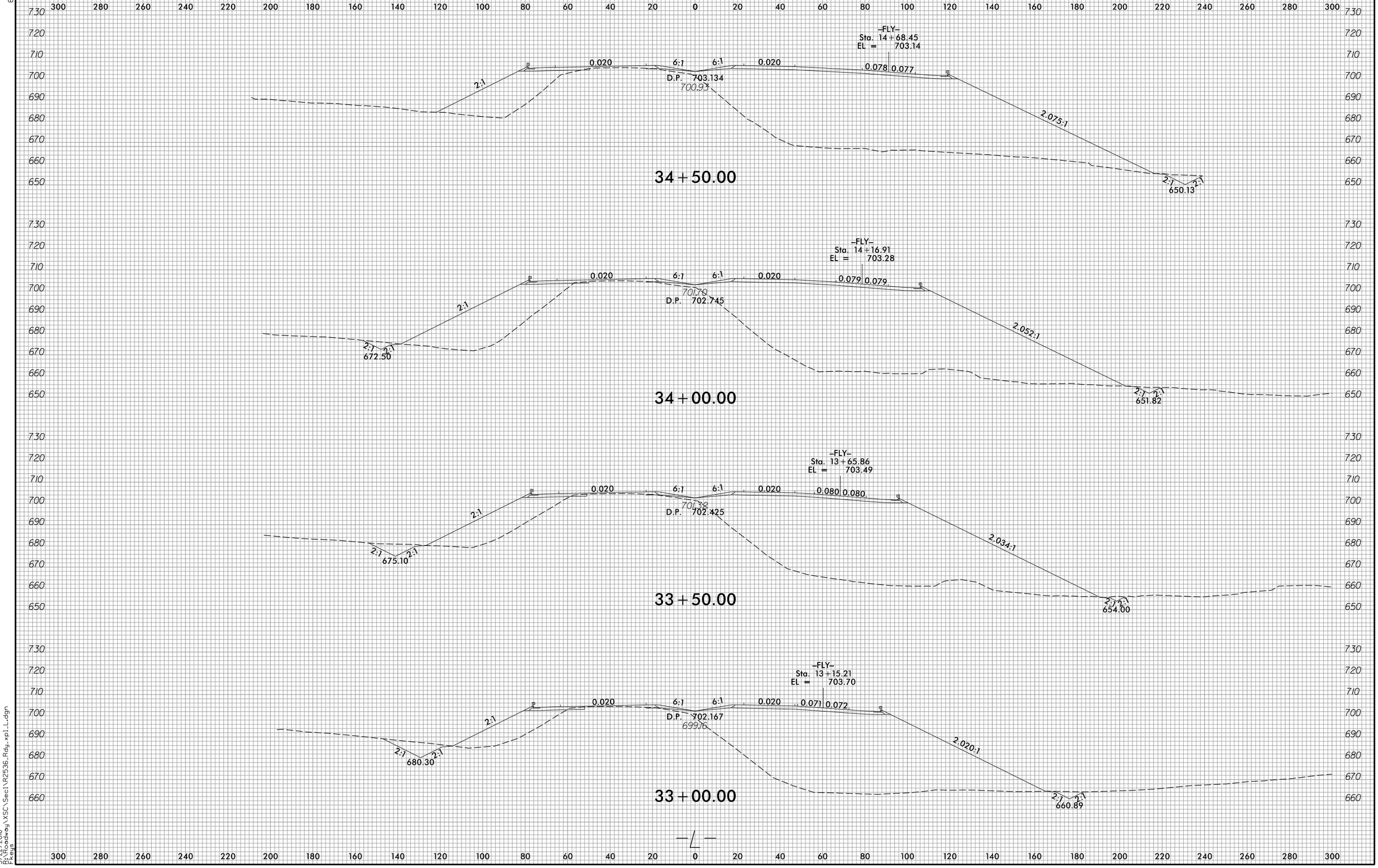

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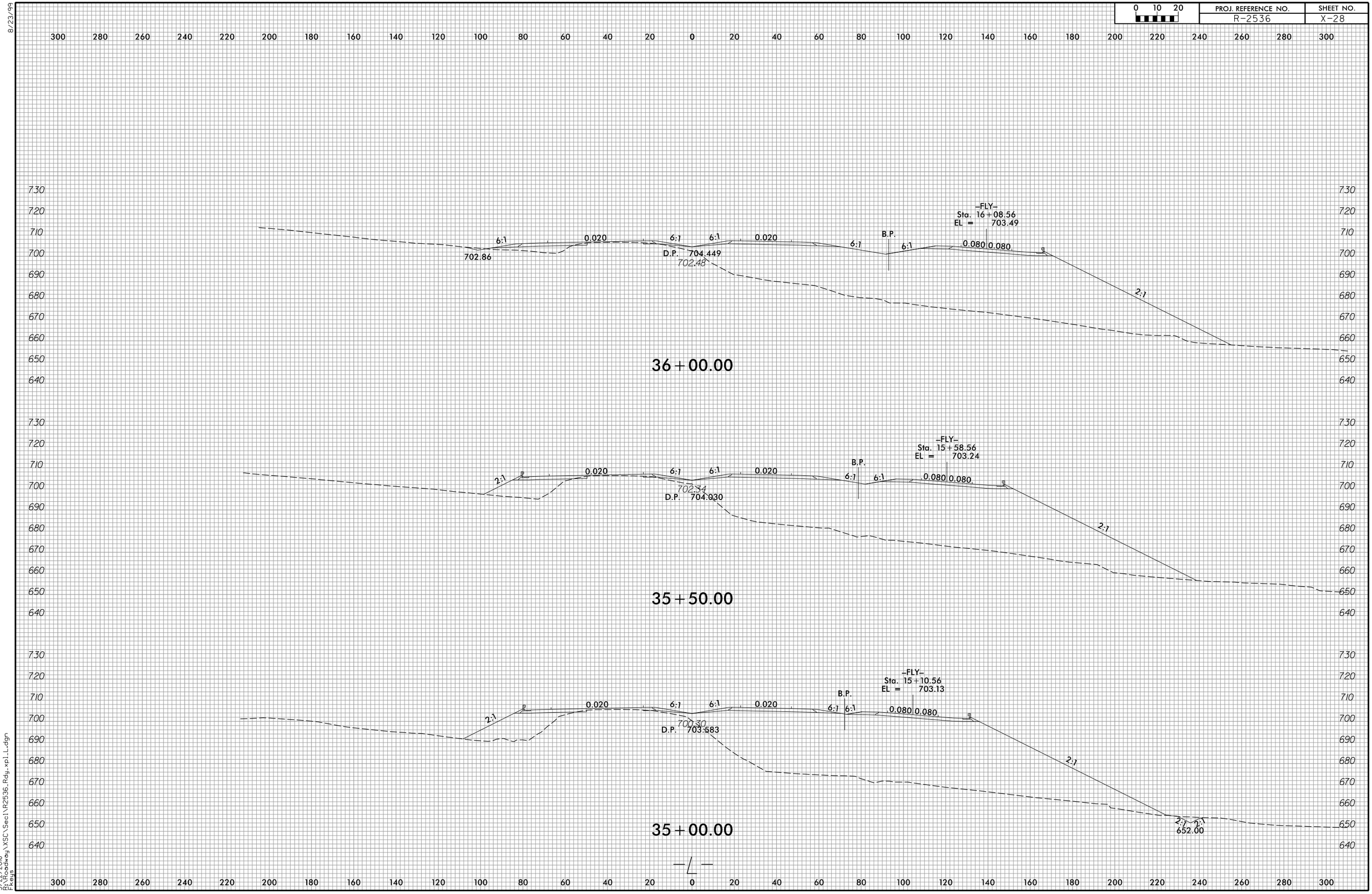
	R-2536	X-28



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8/23/99

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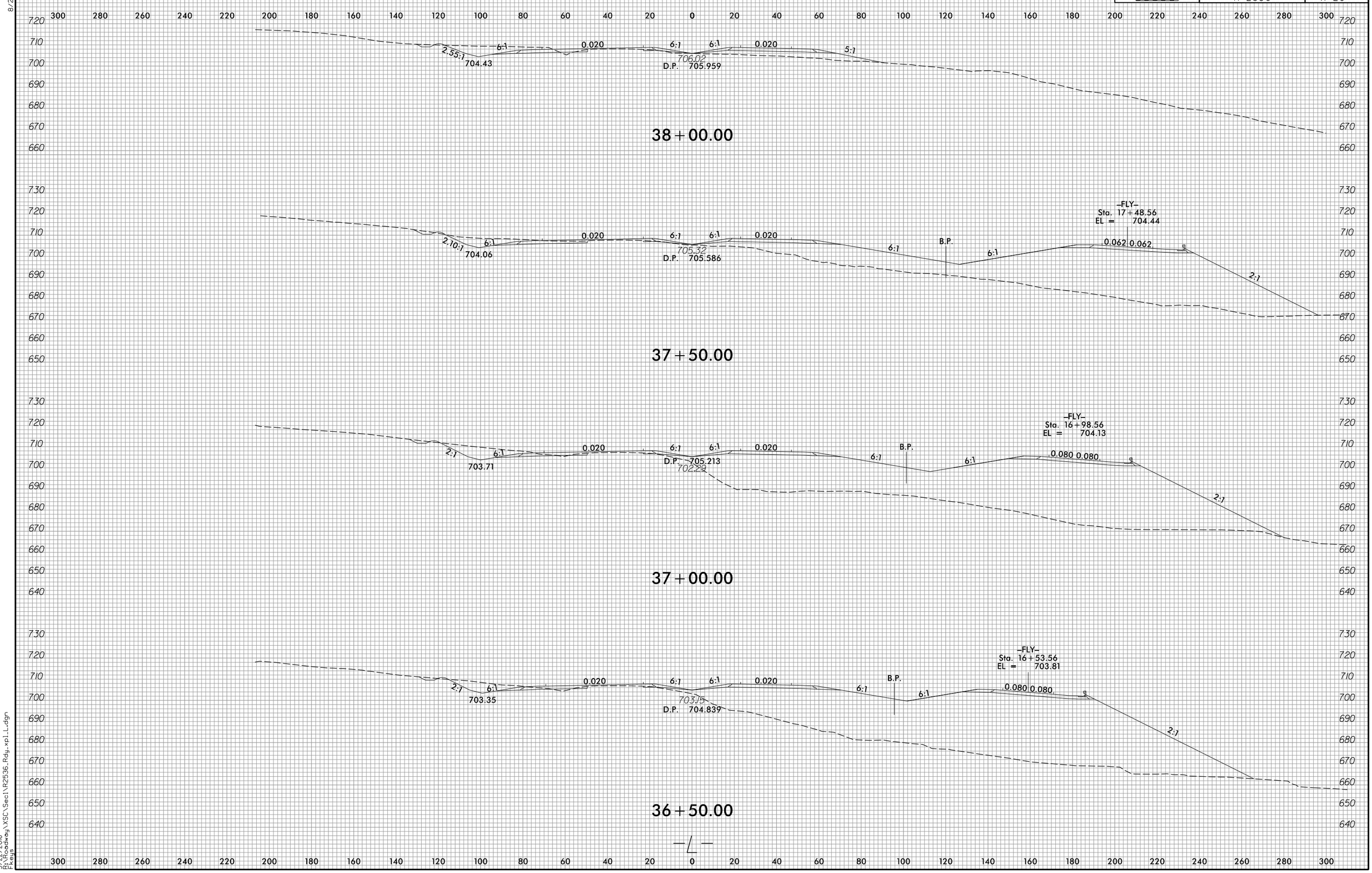
	R-2536	X-29



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Keys

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	R-2536	X-30

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690

2:1 6:1 0.020 6:1 6:1 0.020 6:1 4:1

706.30 707.84 706.78

D.P. 707.826

40+50.00

740 730 720 710 700 690 680

2:1 6:1 0.020 6:1 6:1 0.020 6:1 4:1

705.93 707.35 706.41

D.P. 707.453

40+00.00

730 720 710 700 690 680

2:1 6:1 0.020 6:1 6:1 0.020 6:1 4:1

705.55 706.82 706.03

D.P. 707.079

39+50.00

720 710 700 690 680 670

2:1 6:1 0.020 6:1 6:1 0.020 6:1 5:1

705.18 706.50 705.66

D.P. 706.706

39+00.00

720 710 700 690 680 670 660

2.10:1 6:1 0.020 6:1 6:1 0.020 6:1

704.81 707.52

D.P. 706.333

38+50.00

—℄—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-31

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

750 740 730 720 710 700

—Y—
Sta. 10+26.28
EL = 711.23

2:1 6:1 0.020 0.020 0.007 6.358:1 6:1 0.020 6:1 4:1

707.59 711.44 D.P. 708.507 707.46

43+50.00

2:1 6:1 0.020 0.006 6.184:1 6:1 0.020 6:1 4:1

707.57 712.51 D.P. 708.762 707.72

43+00.00

2:1 6:1 0.020 0.018 6.020:1 6:1 0.020 6:1 4:1

707.37 711.68 D.P. 708.856 707.81

42+50.00

2:1 6:1 0.020 6:1 6:1 0.020 6:1 4:1

707.26 711.77 D.P. 708.788 707.74

42+00.00

2:1 6:1 0.020 6:1 6:1 0.020 6:1 4:1

707.03 712.84 D.P. 708.560 707.51

41+50.00

2:1 6:1 0.020 6:1 6:1 0.020 6:1 4:1

706.67 709.40 D.P. 708.199 707.15

41+00.00

—L—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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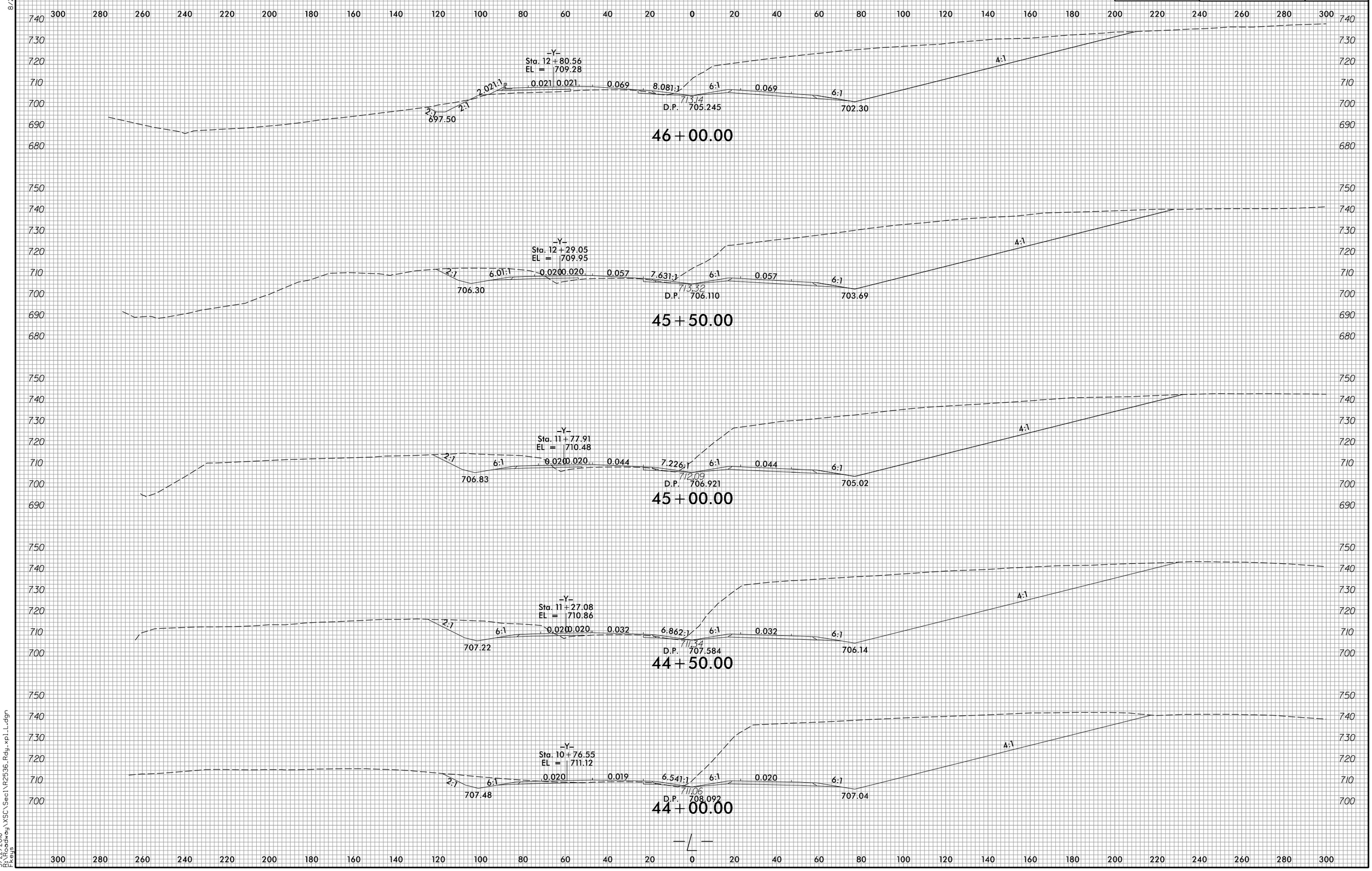
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-32



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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-33

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670

–Y–
Sta. 15+38.00
EL = 704.35
B.P.
0.020 0.020
6:1 6:1 8.121:1 6:1 0.070 0.070
2:1 2:1 2:1
680.38
678.99
D.P. 699.069
B.P.
0.080
4:1
S.P. #1B
ELEV. 672.83

48+50.00

730 720 710 700 690 680

–Y–
Sta. 14+86.00
EL = 705.48
B.P.
0.020 0.020
6:1 6:1 8.121:1 6:1 0.070 0.070
2:1 2:1 2:1
681.25
684.83
D.P. 700.506

48+00.00

730 720 710 700 690 680

–Y–
Sta. 14+36.92
EL = 706.50
0.023 0.023
6:1 6:1 8.121:1 6:1 0.070 0.070
2.021:1 2:1 2:1
682.08
691.97
D.P. 701.843
6:1
698.86
4:1

47+50.00

730 720 710 700 690 680

–Y–
Sta. 13+84.52
EL = 707.53
0.022 0.022
6:1 6:1 8.121:1 6:1 0.070 0.070
2.021:1 2:1 2:1
682.96
703.04
D.P. 703.080
6:1
700.09
4:1

47+00.00

740 730 720 710 700 690 680

–Y–
Sta. 13+32.42
EL = 708.47
0.021 0.021
6:1 6:1 8.121:1 6:1 0.070 0.070
2.021:1 2:1 2:1
689.66
711.58
D.P. 704.216
6:1
701.23
4:1

46+50.00

—L—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-34

260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340

720 710 700 690 680 670 660

—Y—
Sta. 17+50.00
EL = 700.02

B.P.

5:1 6:1 6:1 0.020 0.020 6:1 6:1 6:1 6:1 0.070 8.121:1 6:1 0.070 0.061 0.061 4.05:1

696.33 697.09 693.40 693.87 D.P. 692.318

50+50.00

—Y—
Sta. 16+95.00
EL = 701.01

B.P.

6:1 6:1 0.020 0.020 6:1 6:1 0.070 8.121:1 6:1 0.070 0.055 0.054 5.80:1

697.32 695.34 D.P. 694.153 682.72

S.P. #1 ELEV. 684.96
S.P. #1A ELEV. 677.51
S.P. #1B ELEV. 672.83

50+00.00

730 720 710 700 690 680 670 660

—Y—
Sta. 16+40.00
EL = 702.09

B.P.

2:1 2:1 2:1 0.020 0.020 6:1 6:1 0.070 8.121:1 6:1 0.070 6:1 6:1 0.076 4.49:1

684.00 D.P. 695.892 675.57

B.P.

S.P. #1 ELEV. 684.96

49+50.00

730 720 710 700 690 680 670 660

—Y—
Sta. 15+88.00
EL = 703.22

B.P.

2:1 2:1 2:1 0.020 0.020 6:1 6:1 0.070 8.121:1 6:1 0.070 6:1 6:1 0.080 4.27:1

679.54 D.P. 697.531 674.29

B.P.

S.P. #1A ELEV. 677.51

49+00.00

—℄—

260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340

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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-35

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670 660 650

—Y—
Sta. 19+50.00
EL = 696.77

2:1 6:1 692.97 0.020 0.020 6:1 693.85 4:1 4:1 B.P. 685.96 6:1 0.070 8.121:1 6:1 0.070 0.070 6:1 4:1 681.05

702.75

D.P. 684.879

52+50.00

720 710 700 690 680 670 660

—Y—
Sta. 19+00.00
EL = 697.58

2:1 6:1 693.78 0.020 0.020 6:1 694.66 4:1 4:1 B.P. 687.82 6:1 0.070 8.121:1 6:1 0.070 0.069 6:1 4:1 682.65

701.94

D.P. 686.739

52+00.00

720 710 700 690 680 670 660

—Y—
Sta. 18+50.00
EL = 698.39

3:1 6:1 694.59 0.020 0.020 6:1 695.47 4:1 B.P. 689.68 6:1 0.070 8.121:1 6:1 0.070 0.068 6:01:1 6.01:1 684.43

698.75

D.P. 688.599

51+50.00

720 710 700 690 680 670 660

—Y—
Sta. 18+00.00
EL = 699.20

4:1 6:1 695.40 0.020 0.020 6:1 6:1 696.28 6:1 6:1 B.P. 691.54 6:1 0.070 8.121:1 6:1 0.070 0.065 4.32:1

695.19

D.P. 690.458

51+00.00

—℄—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-36

340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260

730 720 710 700 690 680 670 660

–Y–
Sta. 20+50.00
EL = 695.15

2:1 6:1 691.35 0.020 0.020 6:1 692.23 4:1 4:1 B.P. 698.22 6:1 682.24 0.070 8.121:1 6:1 D.P. 681.160 0.070 6:1 677.33 4:1

53+50.00

730 720 710 700 690 680 670 660

–Y–
Sta. 20+00.00
EL = 695.96

2:1 6:1 692.16 0.020 0.020 6:1 693.04 4:1 4:1 B.P. 701.07 6:1 684.10 0.070 8.121:1 6:1 D.P. 683.020 0.070 0.070 6:1 679.19 4:1

53+00.00

–℄–

340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-37

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

690 685 680 675 670 665 660

4:1 6:1 0.070 0.095 FT./FT. 6:1 0.070

672.95

676.53

D.P. 672.337

56+00.00

S.P. #7
ELEV. 694.72

690 685 680 675 670 665

5.56:1 6:1 0.070 0.095 FT./FT. 6:1 0.070 6:1

674.80

682.81

D.P. 674.194

55+50.00

671.82

S.P. #6
ELEV. 676.24

690 685 680 675 670 665

4:1 6:1 0.070 0.095 FT./FT. 6:1 0.070 6:1 4.48:1

676.66

687.72

D.P. 676.054

55+00.00

671.40

S.P. #5
ELEV. 678.21

695 690 685 680 675 670 665

4:1 6:1 0.070 8.121:1 5:1 0.070 6:1 4:1

678.52

691.77

D.P. 677.440

54+50.00

673.26

700 695 690 685 680 675 670

4:1 6:1 0.070 8.121:1 6:1 0.070 6:1 4:1

680.38

695.01

D.P. 679.300

54+00.00

675.06

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-38

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

680 675 670 665 660 655 650

0.070 | 7.679:1 | 673.82 | 6:1 | 0.070 | 3.5:1

D.P. 665.575

S.P. #10
ELEV. 660.21

4:1

S.P. #9
ELEV. 696.68

685 680 675 670 665 660 655 650

58+00.00

672.39

0.070 | 0.099 FT./FT. | 6:1 | 0.070

D.P. 667.424

685 680 675 670 665 660 655 650

57+50.00

S.P. #11
ELEV. 683.41

4:1 | 6:1 | 672.14 | 0.070 | 0.095 FT./FT. | 6:1 | 0.070

D.P. 668.931

669.39

S.P. #8
ELEV. 700.96

57+00.00

690 685 680 675 670 665 660

4:1 | 6:1 | 671.18 | 0.070 | 0.095 FT./FT. | 6:1 | 0.070

D.P. 670.569

668.56

56+50.00

—℄—

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

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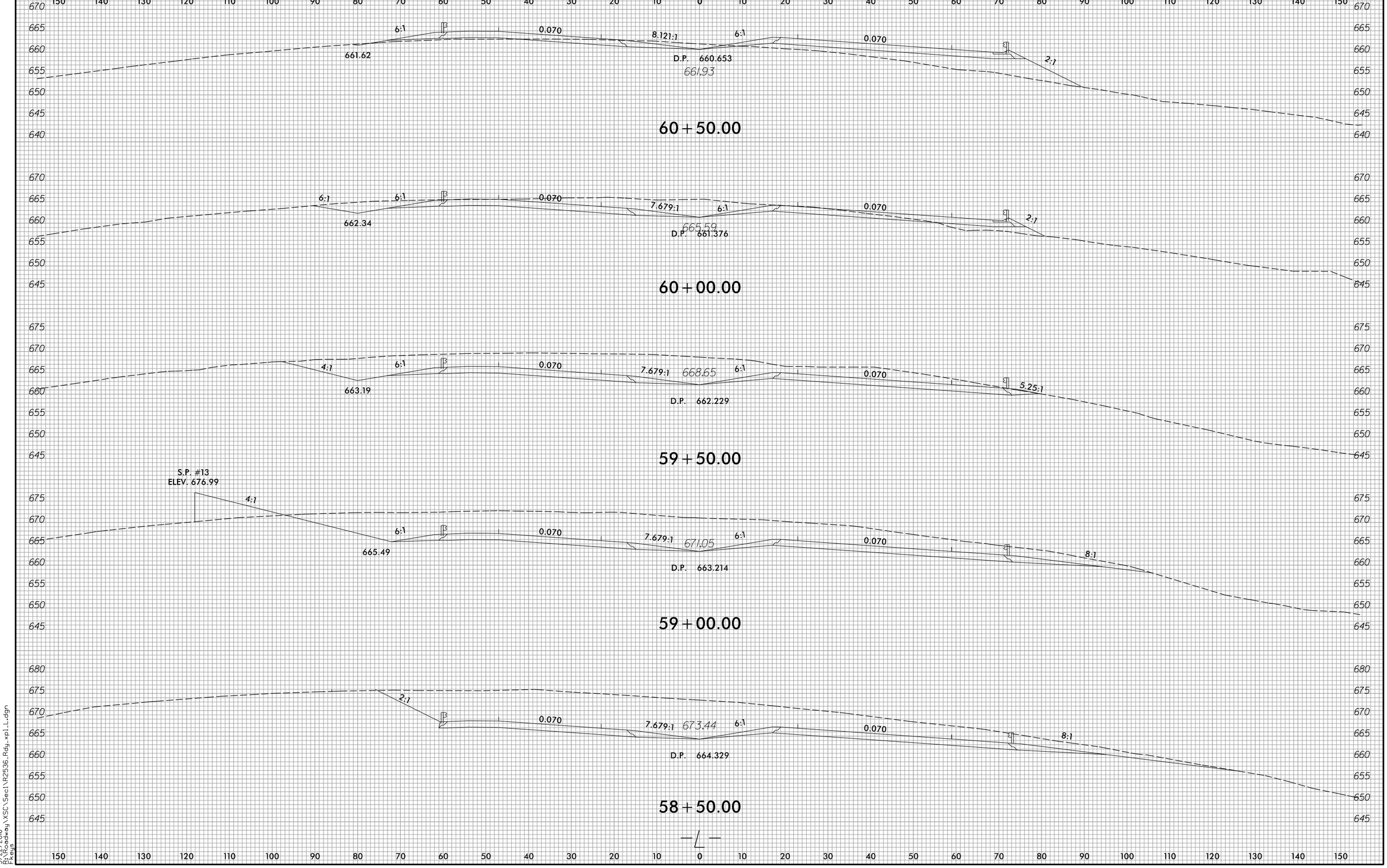
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-39



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-40

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

670 665 660 655 650 645 640 635

4:1 0.070 8.121:1 6:1 0.070 2:1

D.P. 659.066

640.50 2:1 2:1

646.09

62+50.00

670 665 660 655 650 645 640 635

4:1 0.070 8.121:1 6:1 0.070 2:1

D.P. 659.267

649.65

62+00.00

670 665 660 655 650 645 640 635

4:1 0.070 8.121:1 6:1 0.070 2:1

D.P. 659.598

654.62

61+50.00

670 665 660 655 650 645 640 635

4.67:1 0.070 8.121:1 6:1 0.070 2:1

D.P. 660.060

658.43

61+00.00

℄

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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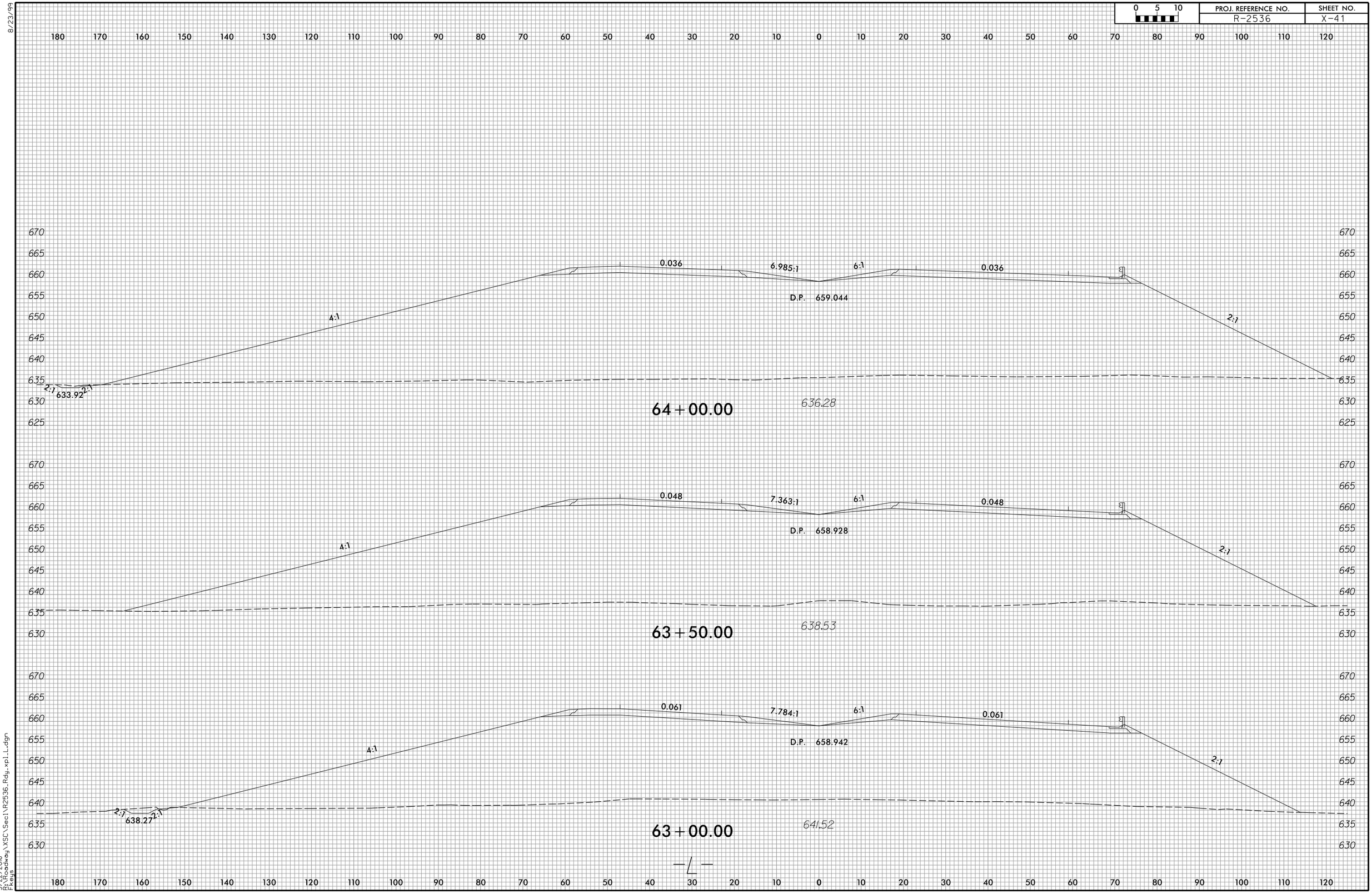
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-41



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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-42

380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220

710 700 690 680 670 660 650 640 630 620

–RPA–
Sta. 20+00.00
EL = 662.59

0.080 2:1 2:1 2:1 649.40 4:1 B.P. 4:1 0.014 6.077:1 6:1 0.020 2:1 2:1 2:1 625.80

D.P. 661.020

631.71

66+00.00

710 700 690 680 670 660 650 640 630 620

–RPA–
Sta. 20+50.00
EL = 662.55

0.080 2:1 2:1 2:1 645.00 4:1 B.P. 4:1 0.002 6.244:1 6:1 0.020 2:1 2:1 2:1 627.83

D.P. 660.306

632.58

65+50.00

700 690 680 670 660 650 640 630 620

–RPA–
Sta. 21+00.00
EL = 662.75

0.080 2:1 2:1 2:1 643.37 4:1 B.P. 4:1 0.011 6.421:1 6:1 0.020 2:1 2:1 2:1 629.85

D.P. 659.723

633.99

65+00.00

670 660 650 640 630 620

S.P. #14
ELEV. 639.72

6.59:1 0.023 6.644:1 6:1 0.023 2:1

D.P. 659.291

634.84

64+50.00

380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220

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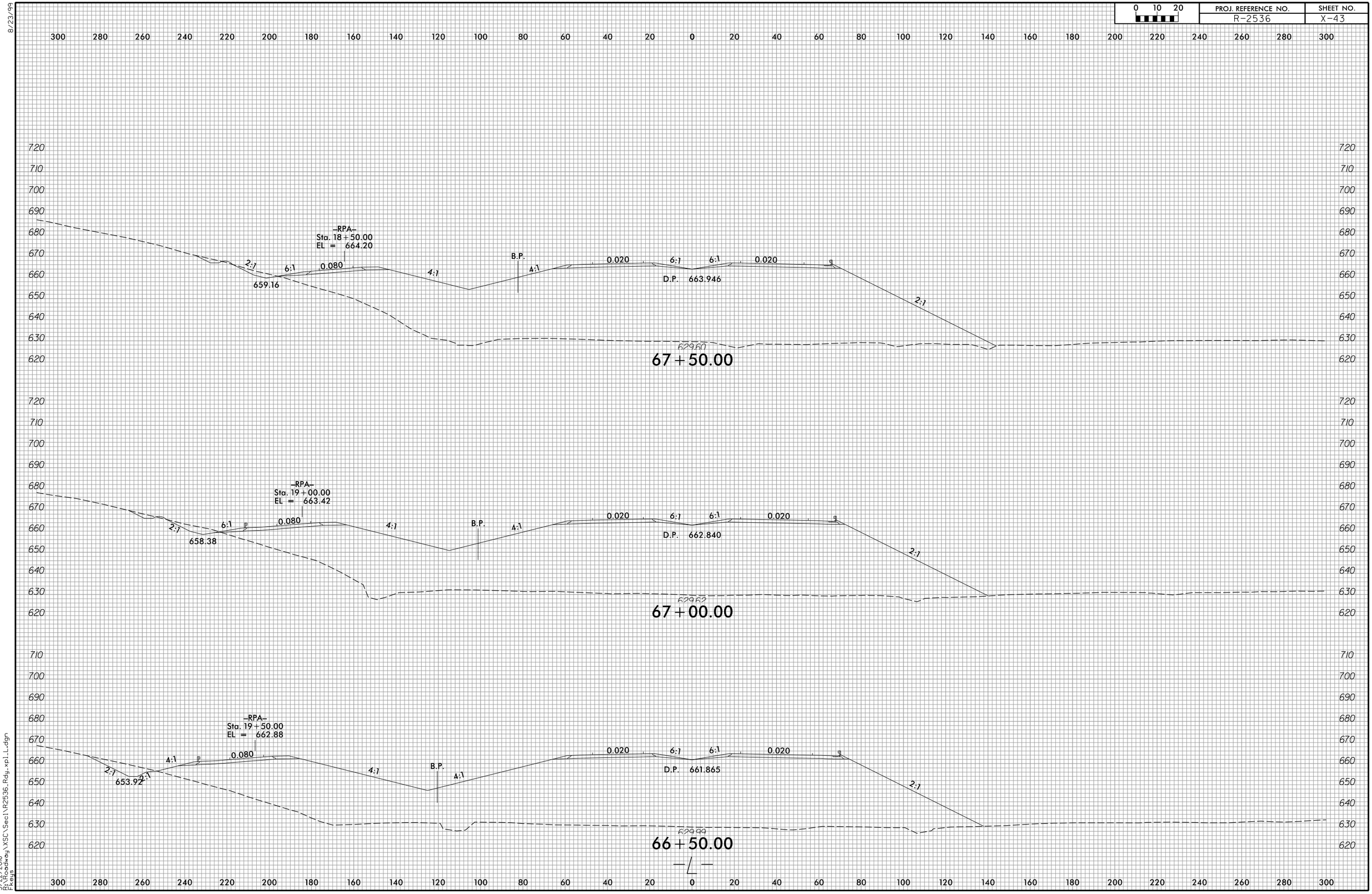
8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-43



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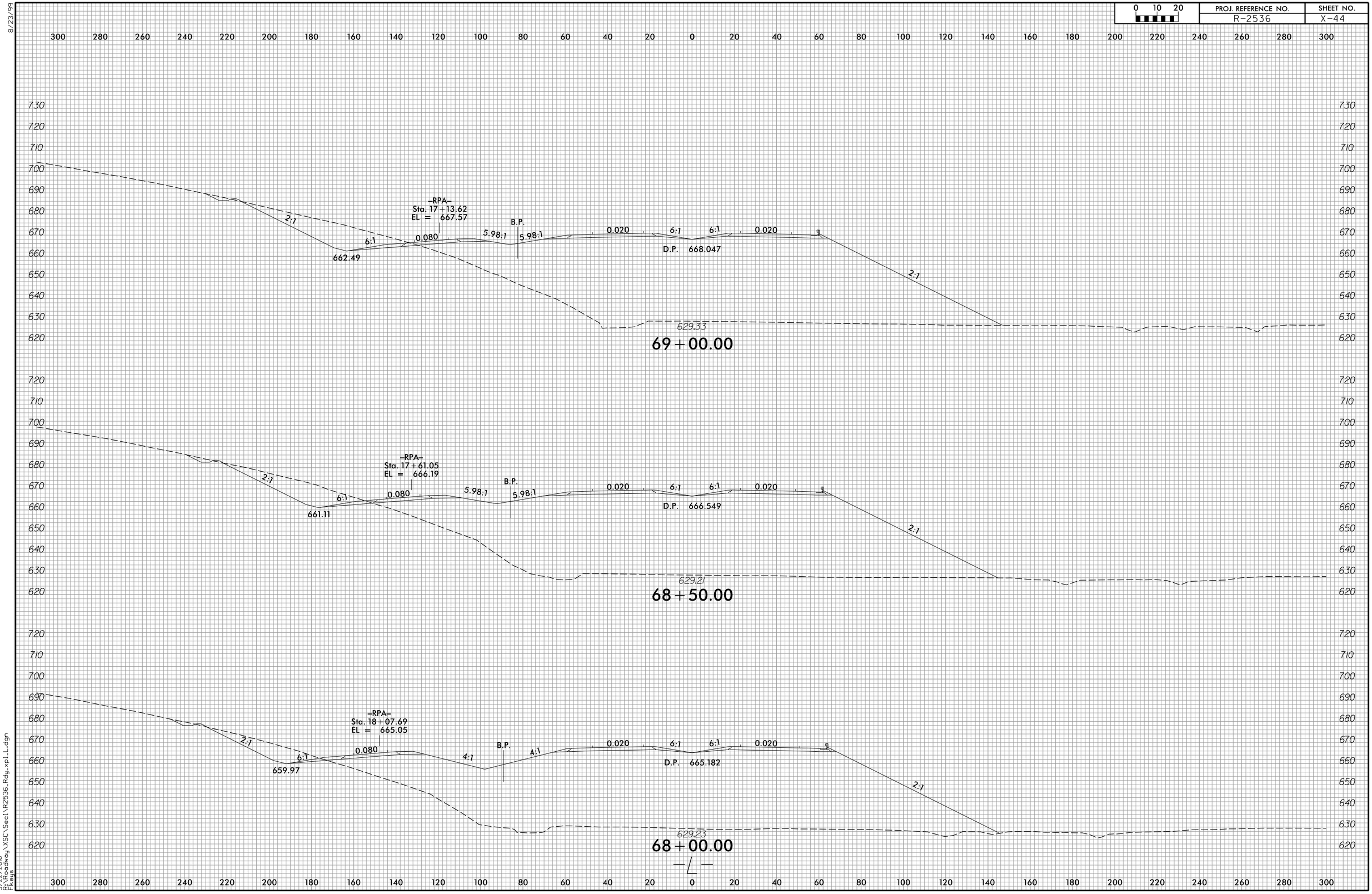
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-44



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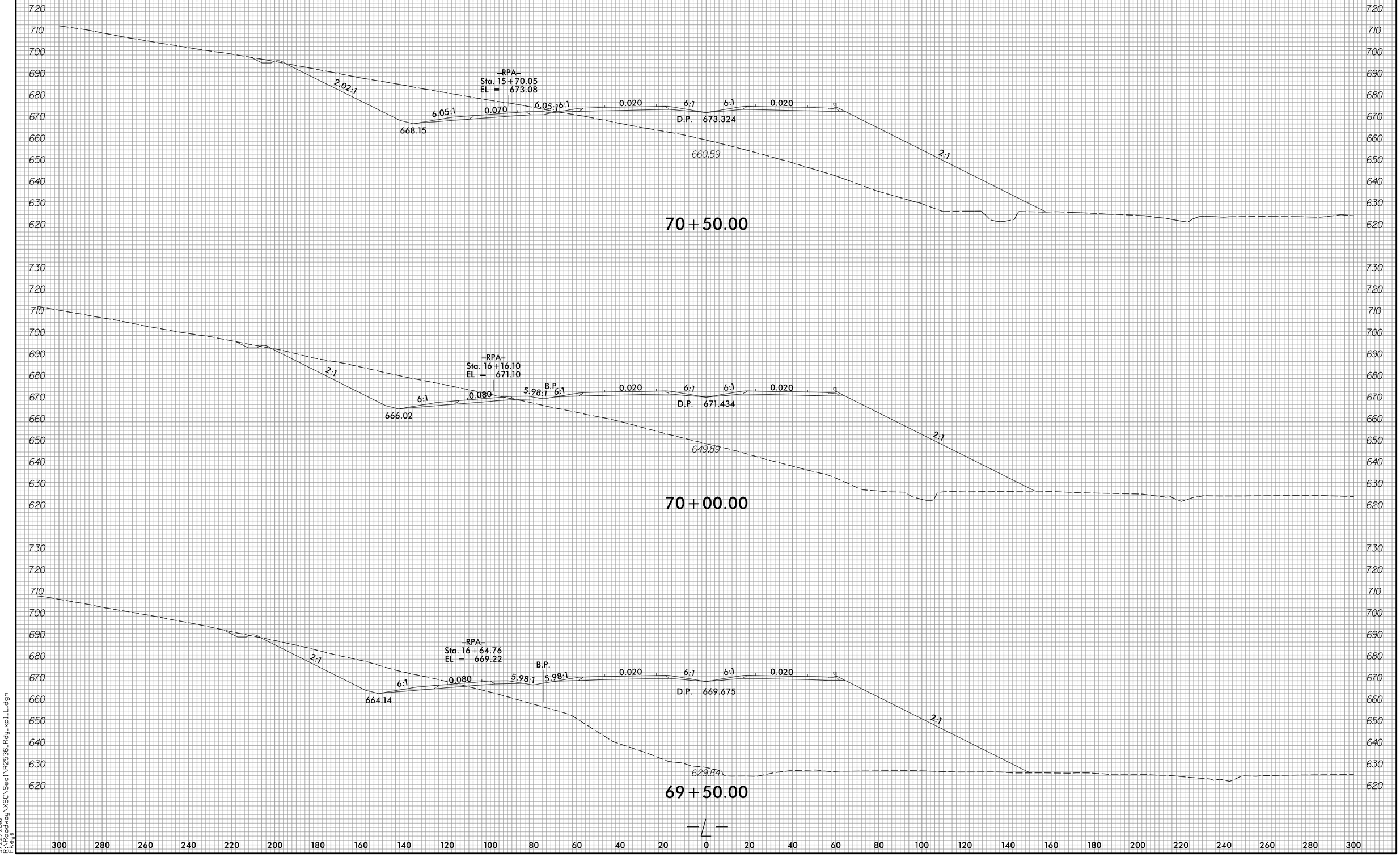
8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-45



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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-46

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670 660 650 640 630 620

—RPA—
Sta. 14+19.35
EL = 679.72

2:1
4:1
670.24
0.023
0.020
6:1
6:1
0.020
D.P. 679.189
2:1
659.67

72+00.00

730 720 710 700 690 680 670 660 650 640 630 620

—RPA—
Sta. 14+69.50
EL = 677.51

2:1
4:1
670.36
0.032
0.020
6:1
6:1
0.020
D.P. 677.234
2:1
664.98

71+50.00

720 710 700 690 680 670 660 650 640 630 620

—RPA—
Sta. 15+19.71
EL = 675.30

2.01:1
6.03:1
670.68
0.051
6:1
0.020
6:1
6:1
0.020
D.P. 675.279
2:1
666.04

71+00.00

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-47

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670 660 650 640

–RPA–
Sta. 12+68.96
EL = 686.35

701.89

2.01:1 6.02:1 0.023 0.020 6:1 6:1 0.020 6:1 2:1

682.04

D.P. 685.054

683.89

73+50.00

720 710 700 690 680 670 660 650 640 630 620

–RPA–
Sta. 13+19.09
EL = 684.14

692.55

2.01:1 6.02:1 0.023 0.020 6:1 6:1 0.020 6:1 6:1

679.83

D.P. 683.099

681.93

73+00.00

720 710 700 690 680 670 660 650 640 630 620

–RPA–
Sta. 13+69.22
EL = 681.93

2:1 4:1 0.023 0.020 6:1 6:1 0.020 2:1

670.09

D.P. 681.144

678.78

72+50.00

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-48

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

750 740 730 720 710 700 690 680 670

2.01:1

724.91

–RPA–
Sta. 11+18.57
EL = 692.97

6.02:1 0.023 0.020 6:1 6:1 0.020 6:1 2:1

688.80 D.P. 690.919 689.87

75+00.00

750 740 730 720 710 700 690 680 670 660

2.01:1

716.04

–RPA–
Sta. 11+68.70
EL = 690.77

6.02:1 0.023 0.020 6:1 6:1 0.020 6:1 2:1

686.46 D.P. 688.964 687.92

74+50.00

740 730 720 710 700 690 680 670 660 650

2.01:1

709.20

–RPA–
Sta. 12+18.83
EL = 688.56

6.02:1 0.023 0.020 6:1 6:1 0.020 6:1 2:1

684.25 D.P. 687.009 685.84

74+00.00

—℄—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-49

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

770 760 750 740 730 720 710 700 690

748.19

2:1

6:1 0.020 6:1 6:1 0.020 6:1

2:1

695.74 D.P. 696.784 695.74

76+50.00

760 750 740 730 720 710 700 690 680

742.11

2.01:1

–RPA–
Sta. 10+18.31
EL = 697.18

6.02:1 0.023 0.020 6:1 6:1 0.020 6:1

2:1

692.87 D.P. 694.829 693.78

76+00.00

760 750 740 730 720 710 700 690 680 670

734.16

2.01:1

–RPA–
Sta. 10+68.44
EL = 695.13

6.02:1 0.023 0.020 6:1 6:1 0.020 6:1

2:1

690.82 D.P. 692.874 691.83

75+50.00

—℄—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-50

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

770 760 750 740 730 720 710 700 690

759.59

2:1

6:1 0.020 6:1 6:1 0.020 6:1

701.60 D.P. 702.648 701.60

2:1

78+00.00

770 760 750 740 730 720 710 700 690

757.86

2:1

6:1 0.020 6:1 6:1 0.020 6:1

699.65 D.P. 700.693 699.65

2:1

77+50.00

770 760 750 740 730 720 710 700 690

755.57

2:1

6:1 0.020 6:1 6:1 0.020 6:1

697.69 D.P. 698.738 697.69

2:1

77+00.00

—℄—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-51

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

770 760 750 740 730 720 710 700 690

766.69

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

709.42 D.P. 710.468 709.42

80+00.00

770 760 750 740 730 720 710 700 690

767.68

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

707.47 D.P. 708.513 707.47

79+50.00

770 760 750 740 730 720 710 700 690

765.04

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

705.51 D.P. 706.558 705.51

79+00.00

770 760 750 740 730 720 710 700 690

761.67

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

703.56 D.P. 704.603 703.56

78+50.00

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300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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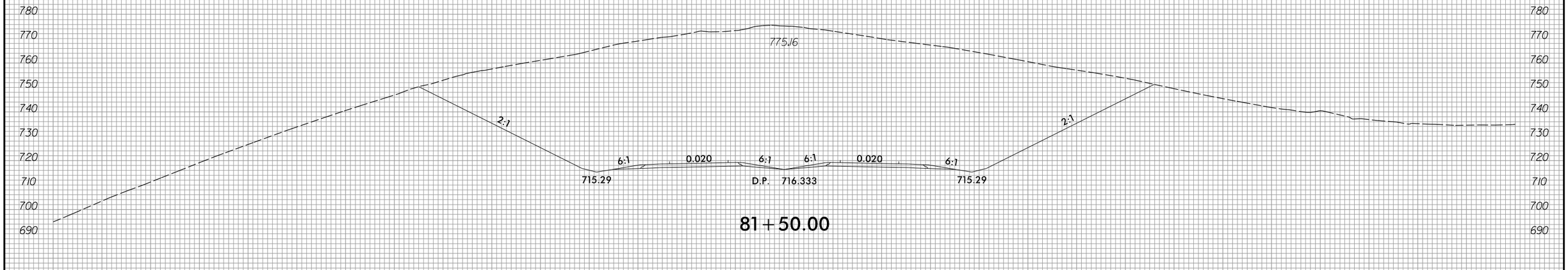
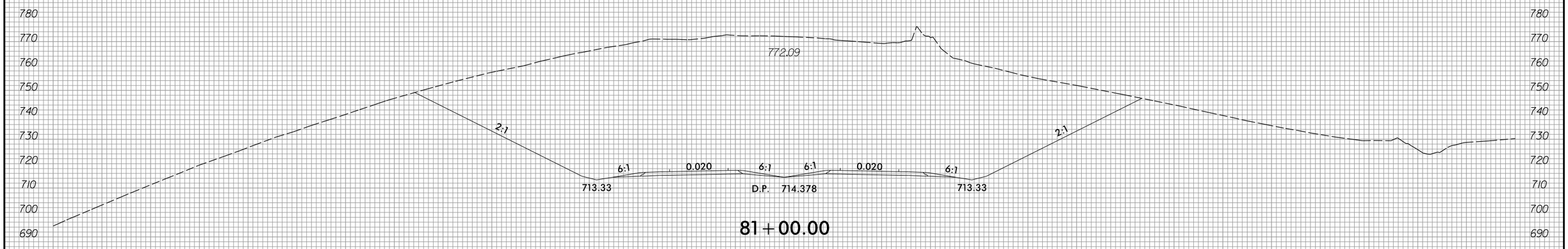
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-52

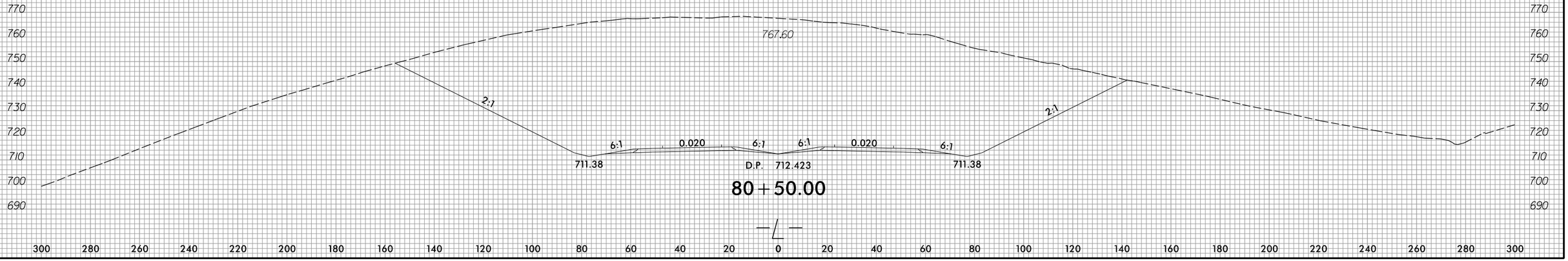
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



81+50.00



81+00.00



80+50.00

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300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-53

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

780 770 760 750 740 730 720 710 700 690

772.78

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

721.15 D.P. 722.198 721.15

83+00.00

780 770 760 750 740 730 720 710 700 690 680

772.04

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

719.20 D.P. 720.243 719.20

82+50.00

780 770 760 750 740 730 720 710 700 690 680

773.07

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

717.24 D.P. 718.288 717.24

82+00.00

—℄—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-54

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

810 800 790 780 770 760 750 740 730 720 710

777.02

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

727.02 D.P. 728.063 727.02

84+50.00

800 790 780 770 760 750 740 730 720 710 700

773.88

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

725.06 D.P. 726.108 725.06

84+00.00

790 780 770 760 750 740 730 720 710 700 690

771.93

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

723.11 D.P. 724.153 723.11

83+50.00

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300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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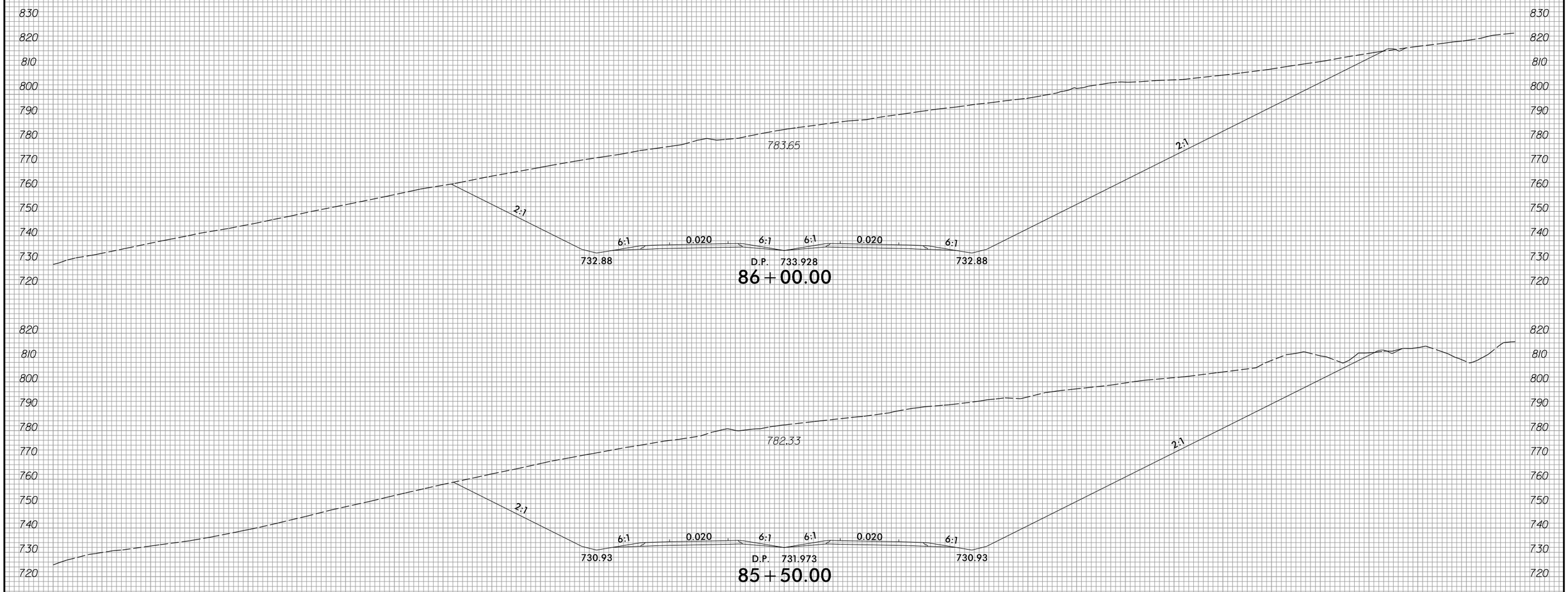
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-55

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



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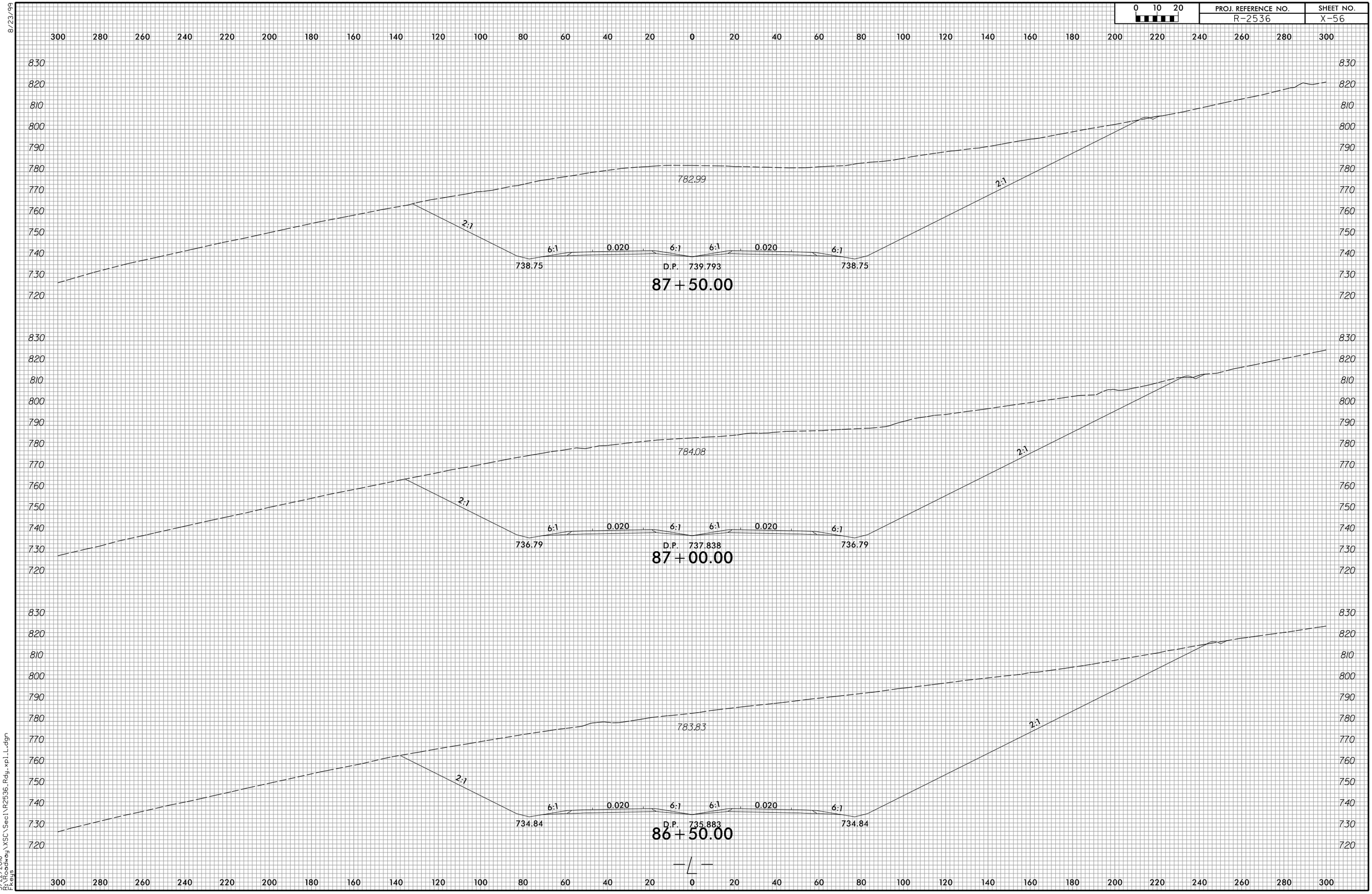
	R-2536	X-56



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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-57

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

830 820 810 800 790 780 770 760 750 740 730 720

777.88

2:1

6:1 0.020 6:1

740.70

D.P. 741.748

6:1 0.020 6:1

740.70

2:1

88+00.00

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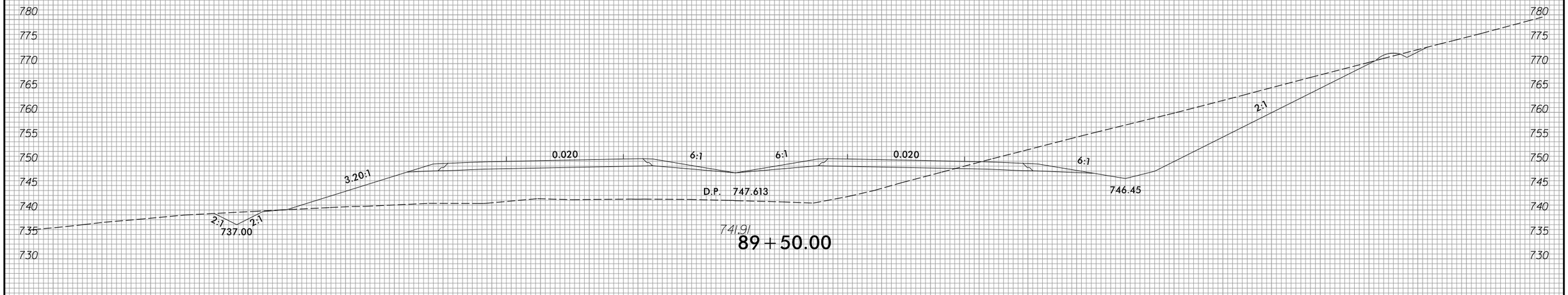
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-58

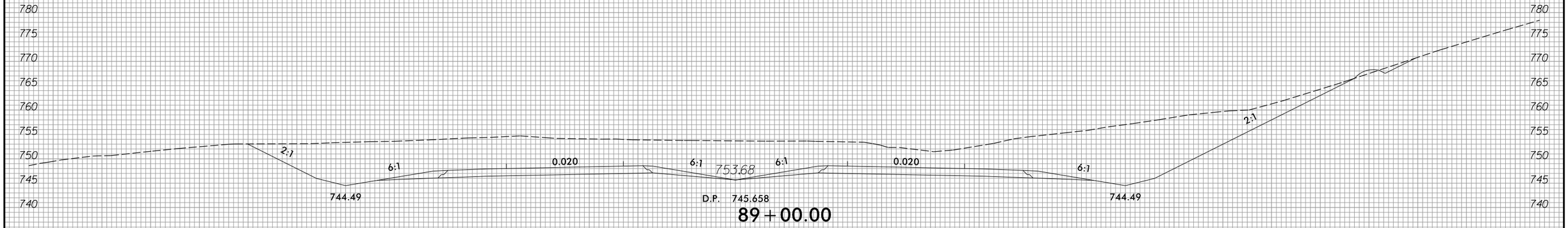
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

780 775 770 765 760 755 750 745 740 735 730



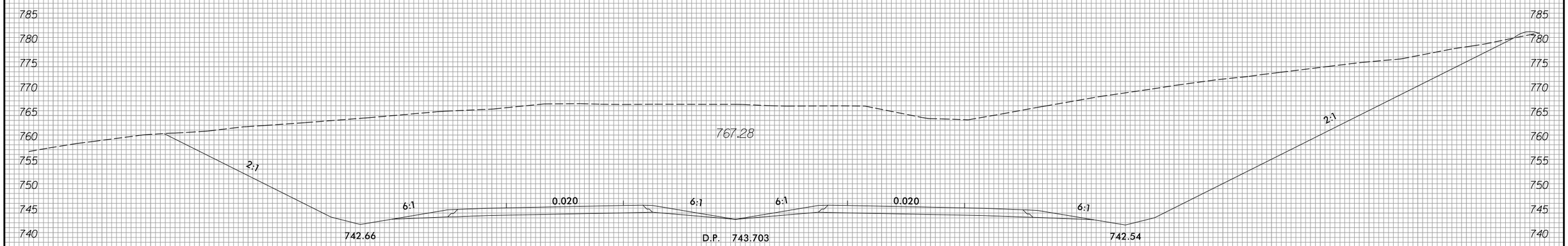
89+50.00

780 775 770 765 760 755 750 745 740



89+00.00

785 780 775 770 765 760 755 750 745 740 735



88+50.00

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140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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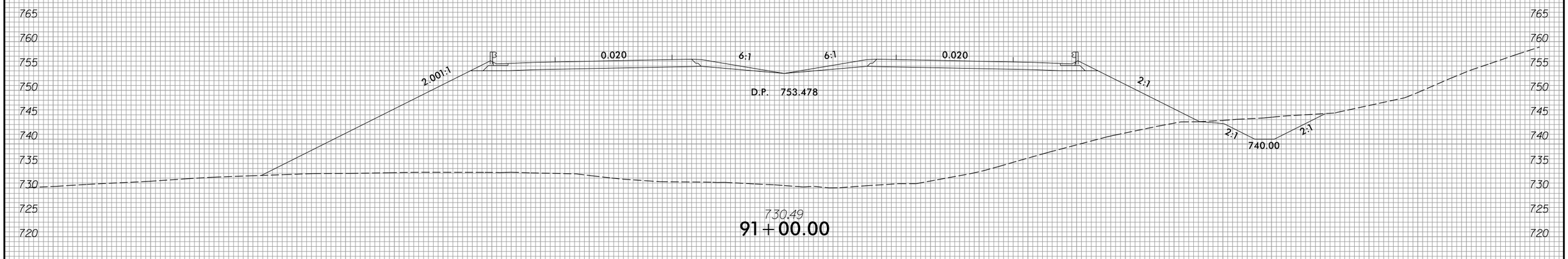
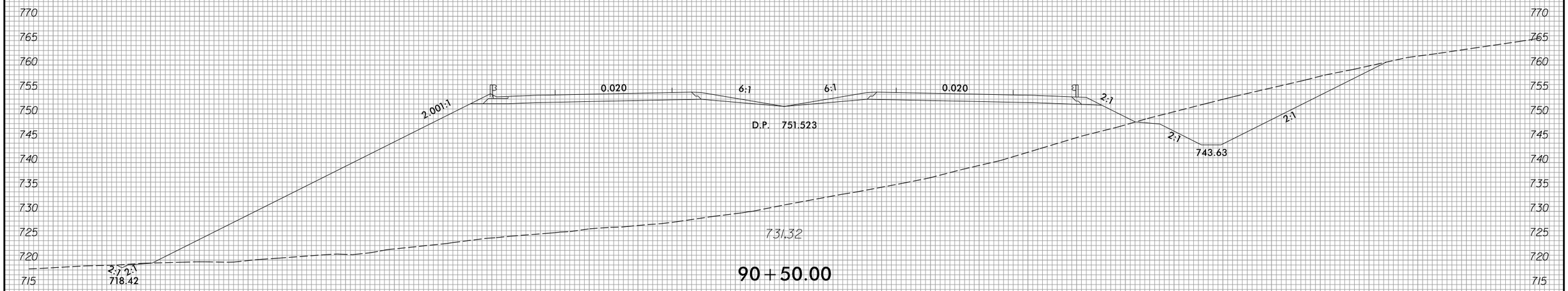
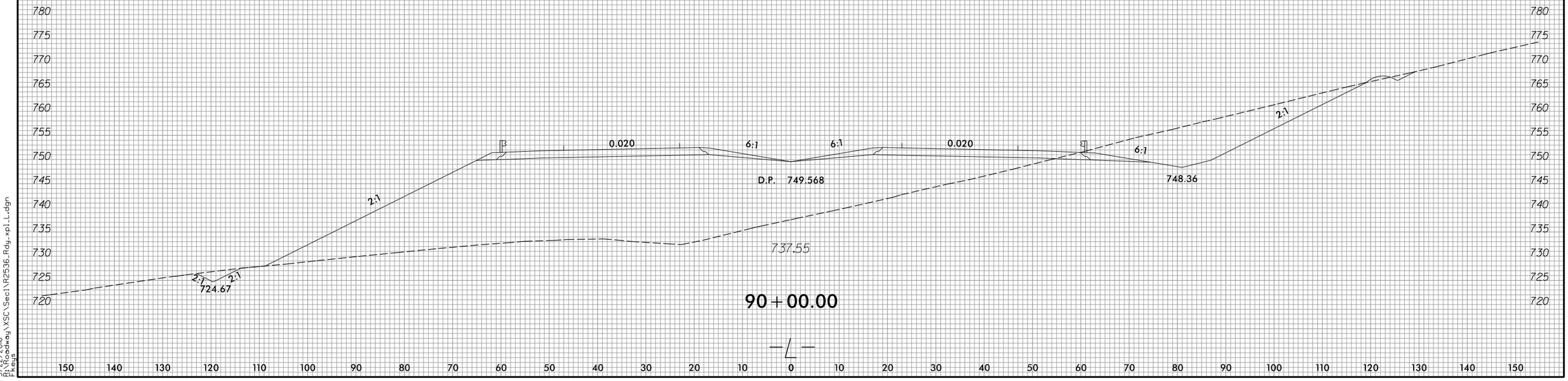
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-59







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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-60

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775 770 765 760 755

2.03:1 6:1 6:1 0.020 6:1 771.69 6:1 0.020 6:1 2:1

762.04 762.04

D.P. 763.202

93+50.00

770 765 760 755

6:1 6:1 0.020 6:1 6:1 0.020 6:1 6:1

760.13 760.13

765.17

D.P. 761.297

93+00.00

770 765 760 755 750 745

6:1 0.020 6:1 6:1 0.020 2:1 2:1 2:1

750.00

D.P. 759.342

758.65

92+50.00

770 765 760 755 750 745 740

2.001:1 0.020 6:1 6:1 0.020 2:1 2:1 2:1 742.63

D.P. 757.387

752.25

92+00.00

770 765 760 755 750 745 740 735

2.001:1 0.020 6:1 6:1 0.020 2:1 2:1 2:1 736.36

D.P. 755.433

742.09

91+50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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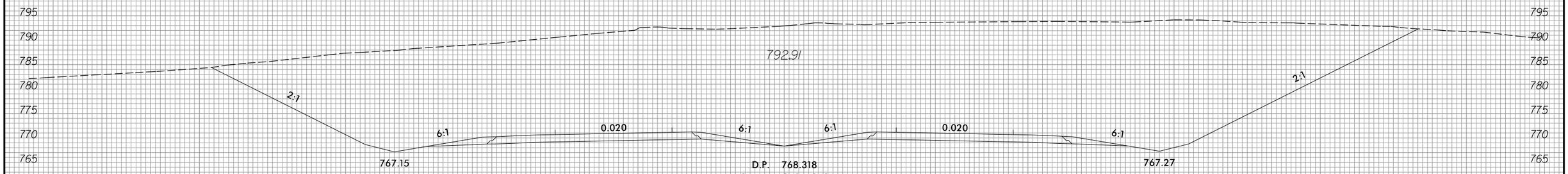
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-61

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

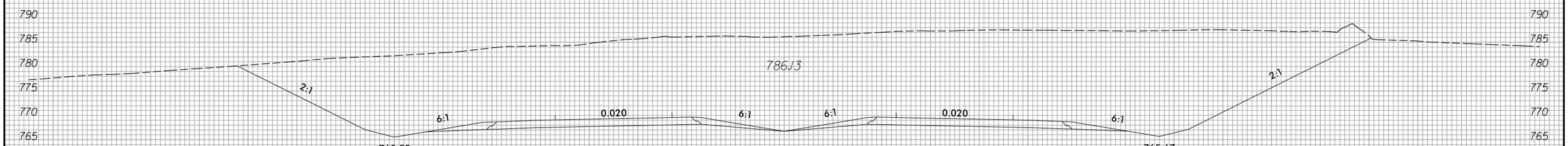
D.P. 769.823

95 + 50.00



D.P. 768.318

95 + 00.00



D.P. 766.713

94 + 50.00

D.P. 765.007

94 + 00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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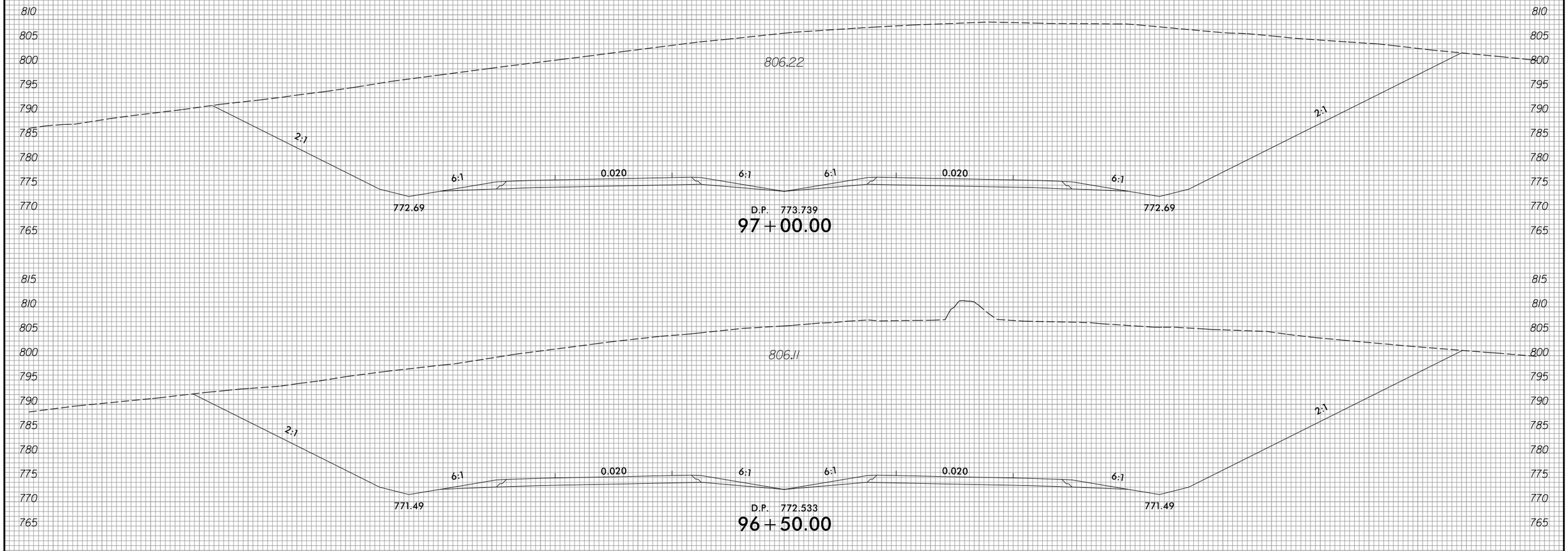
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-62

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

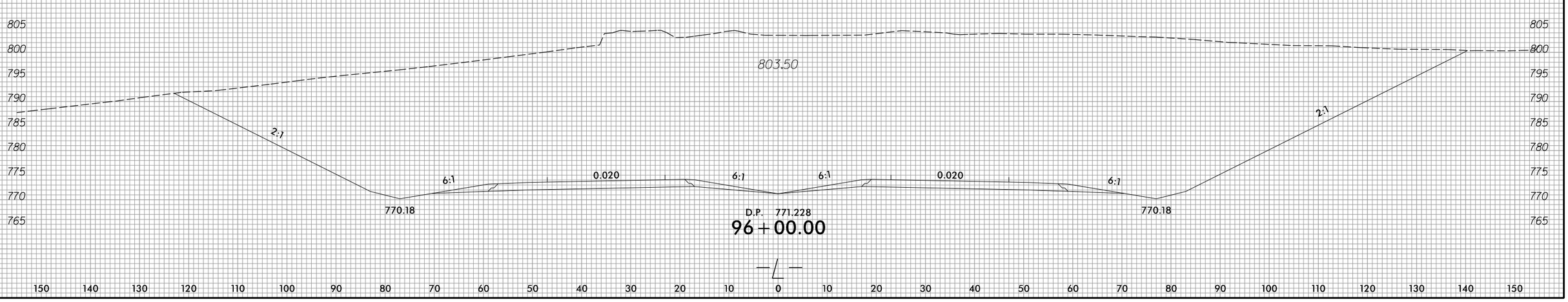


D.P. 773.739

97+00.00

D.P. 772.533

96+50.00



D.P. 771.228

96+00.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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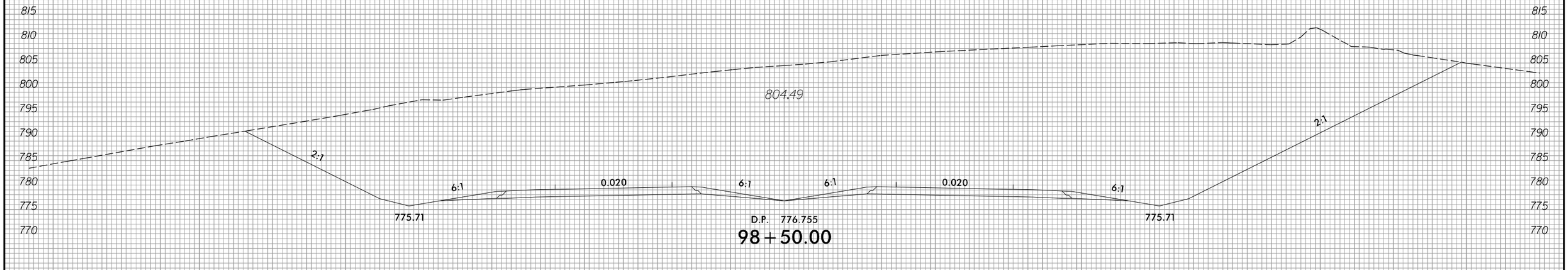
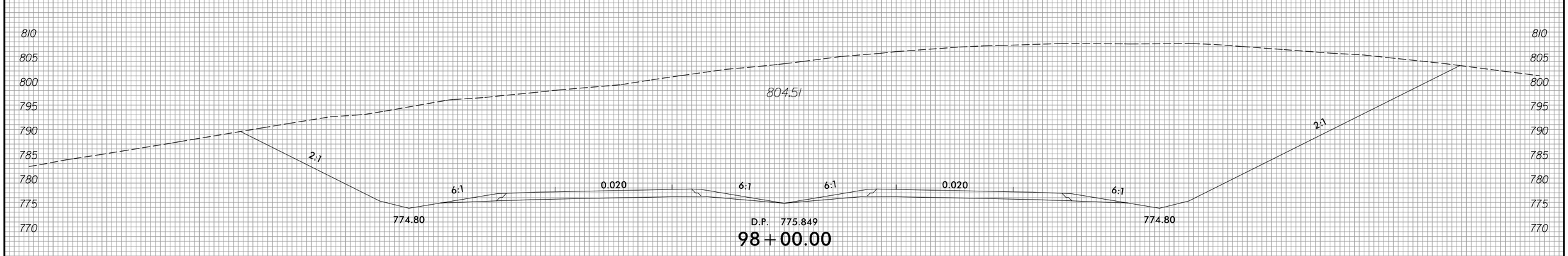
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-63

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



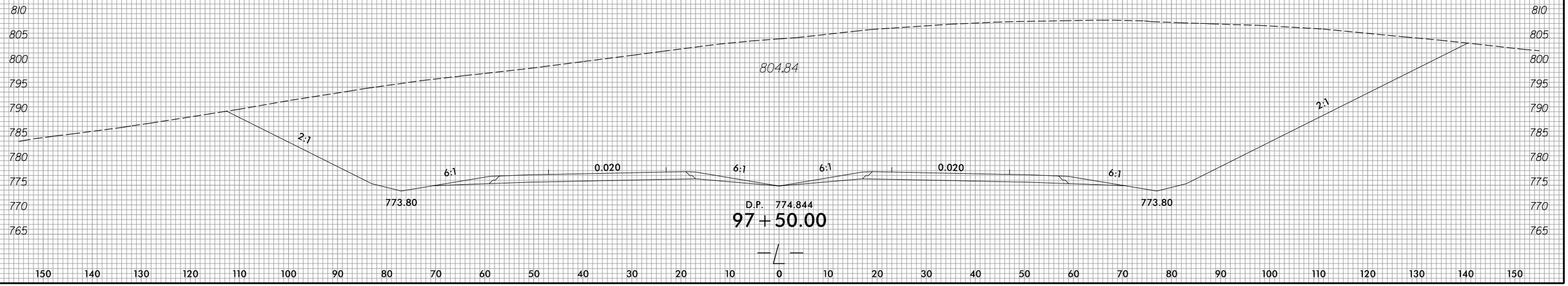
D.P. 776.755

98+50.00



D.P. 775.849

98+00.00



D.P. 774.844

97+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-64

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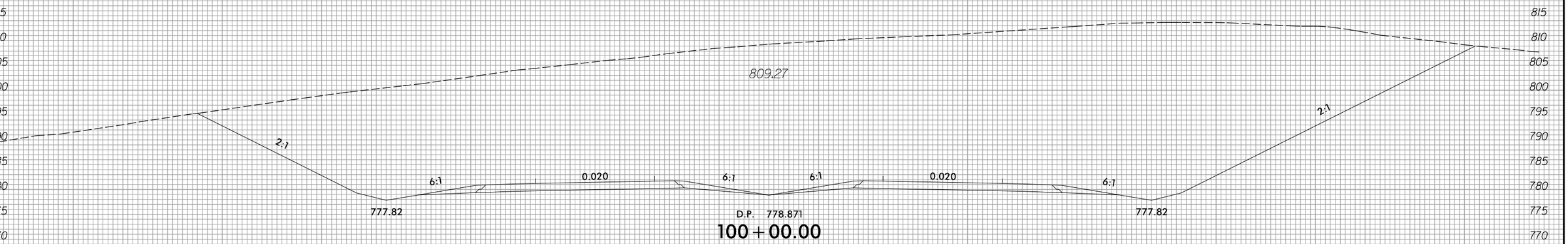
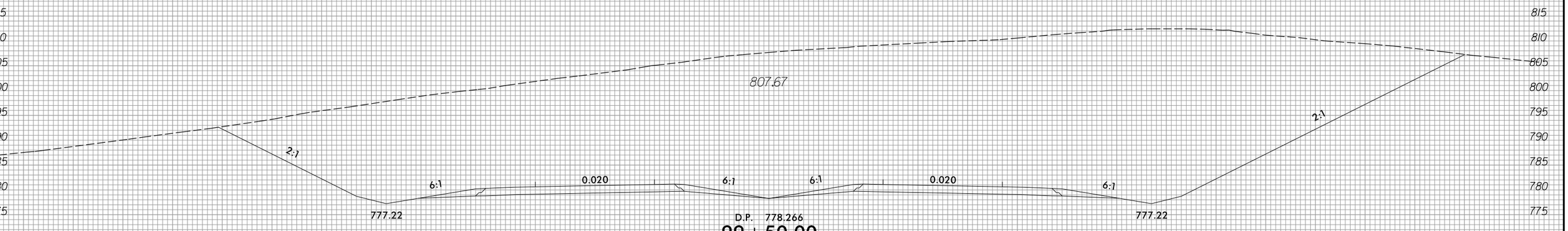


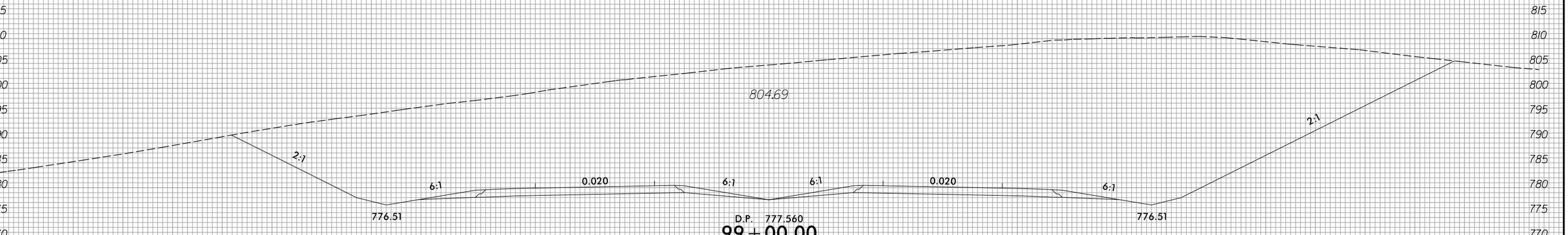
D.P. 778.871

100 + 00.00



D.P. 778.266

99 + 50.00



D.P. 777.560

99 + 00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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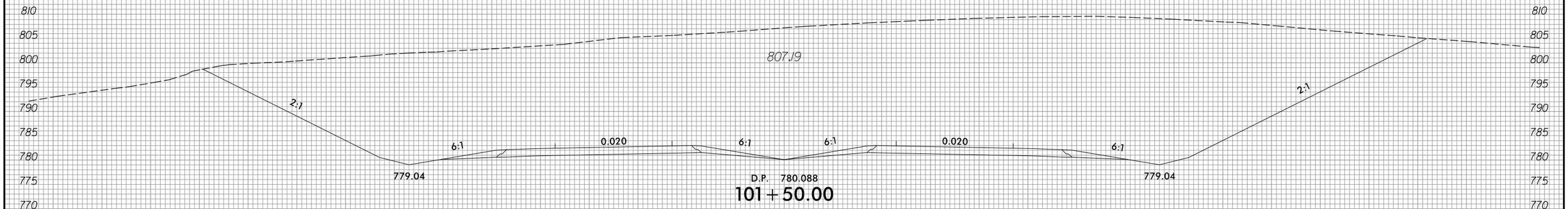
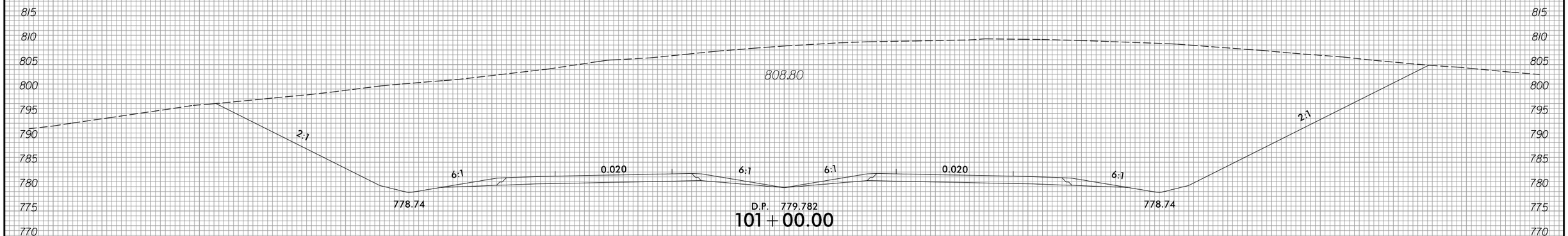
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-65

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



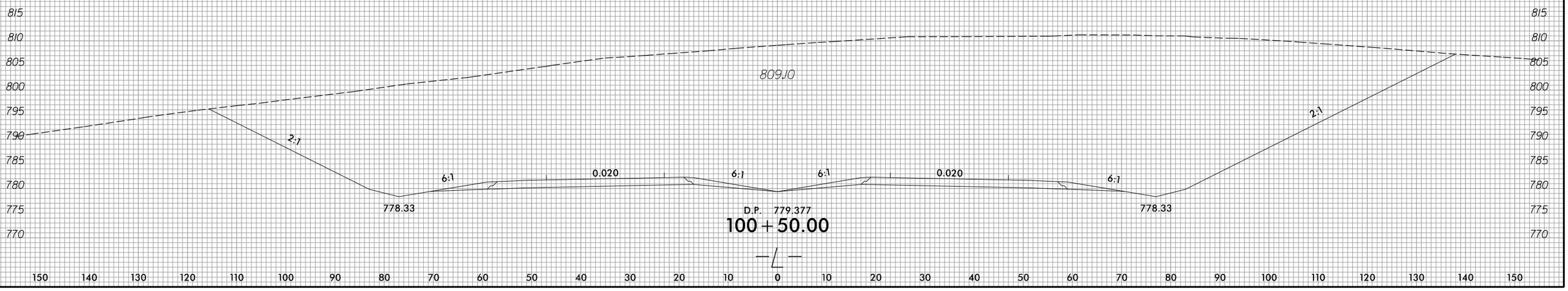
D.P. 780.088

101+50.00



D.P. 779.782

101+00.00



D.P. 779.377

100+50.00

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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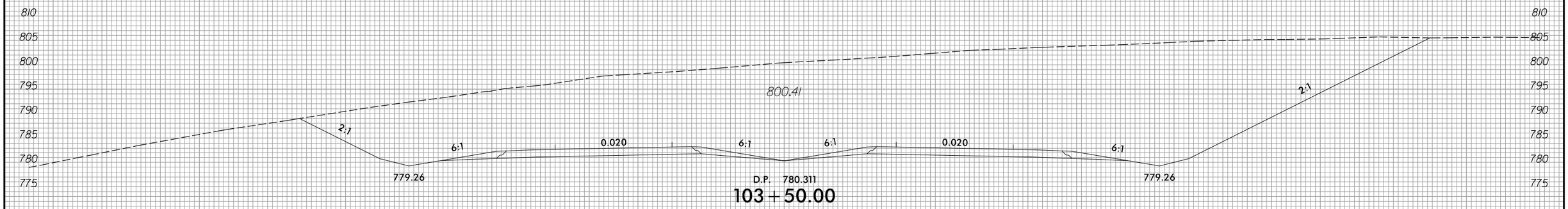
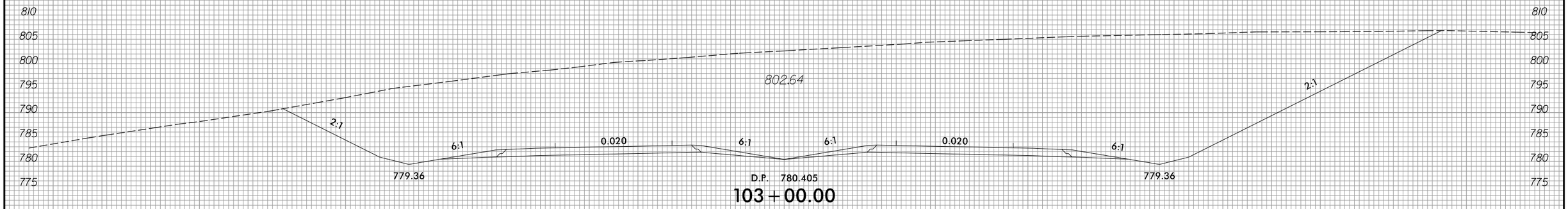


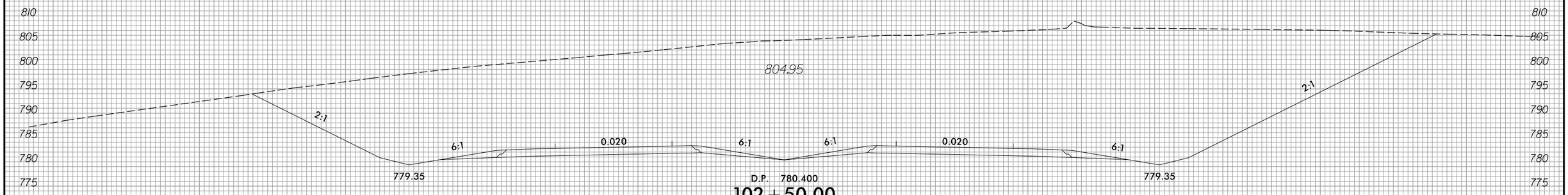
D.P. 780.311

103 + 50.00



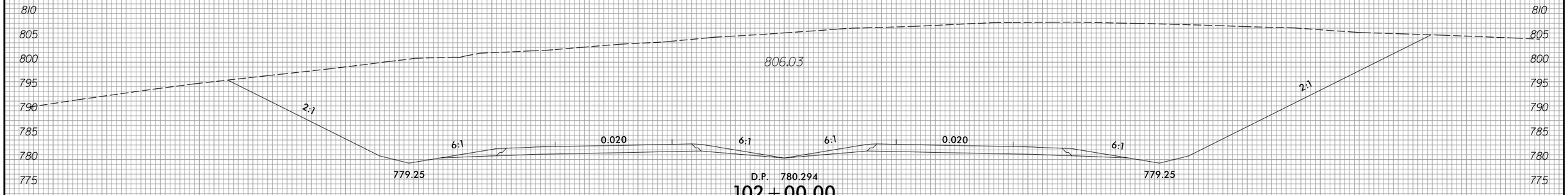
D.P. 780.405

103 + 00.00



D.P. 780.400

102 + 50.00



D.P. 780.294

102 + 00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-67

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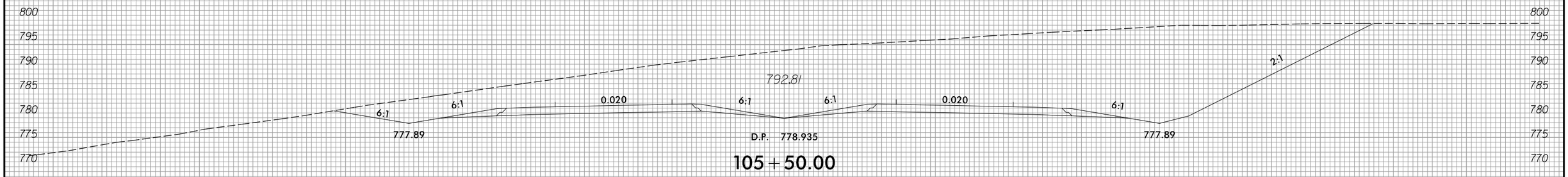
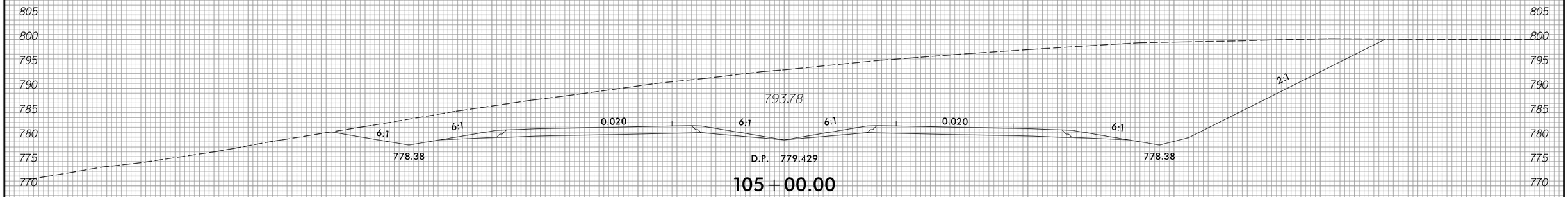
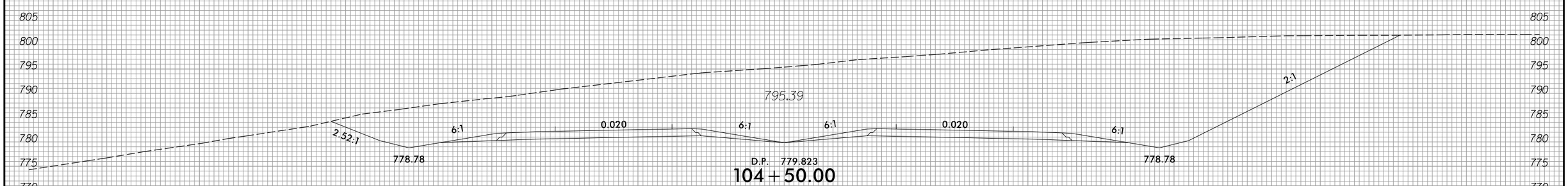


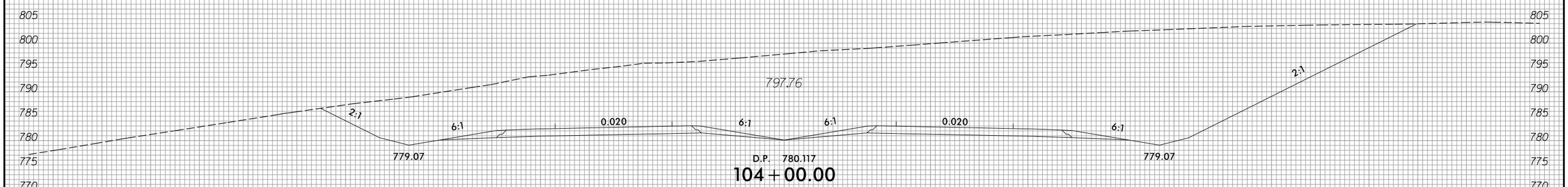
105 + 50.00



105 + 00.00



104 + 50.00



104 + 00.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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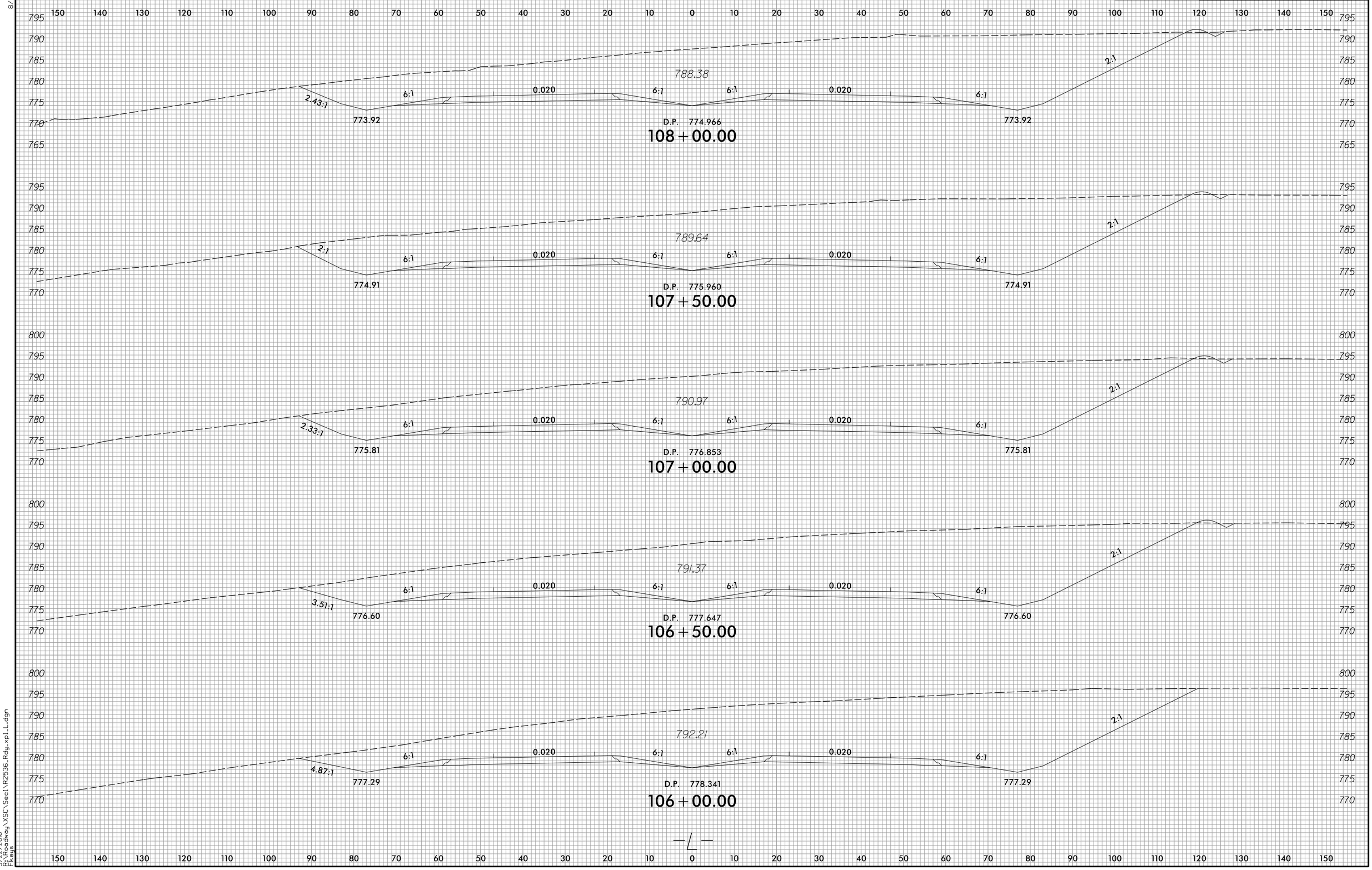
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-68



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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-69

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

795 790 785 780 775 770 765

793.78

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

769.74 769.74

D.P. 770.791

110+00.00

795 790 785 780 775 770 765

792.48

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

770.79 770.79

D.P. 771.835

109+50.00

795 790 785 780 775 770 765

789.95

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

771.83 771.83

D.P. 772.878

109+00.00

795 790 785 780 775 770 765

787.08

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

772.88 772.88

D.P. 773.922

108+50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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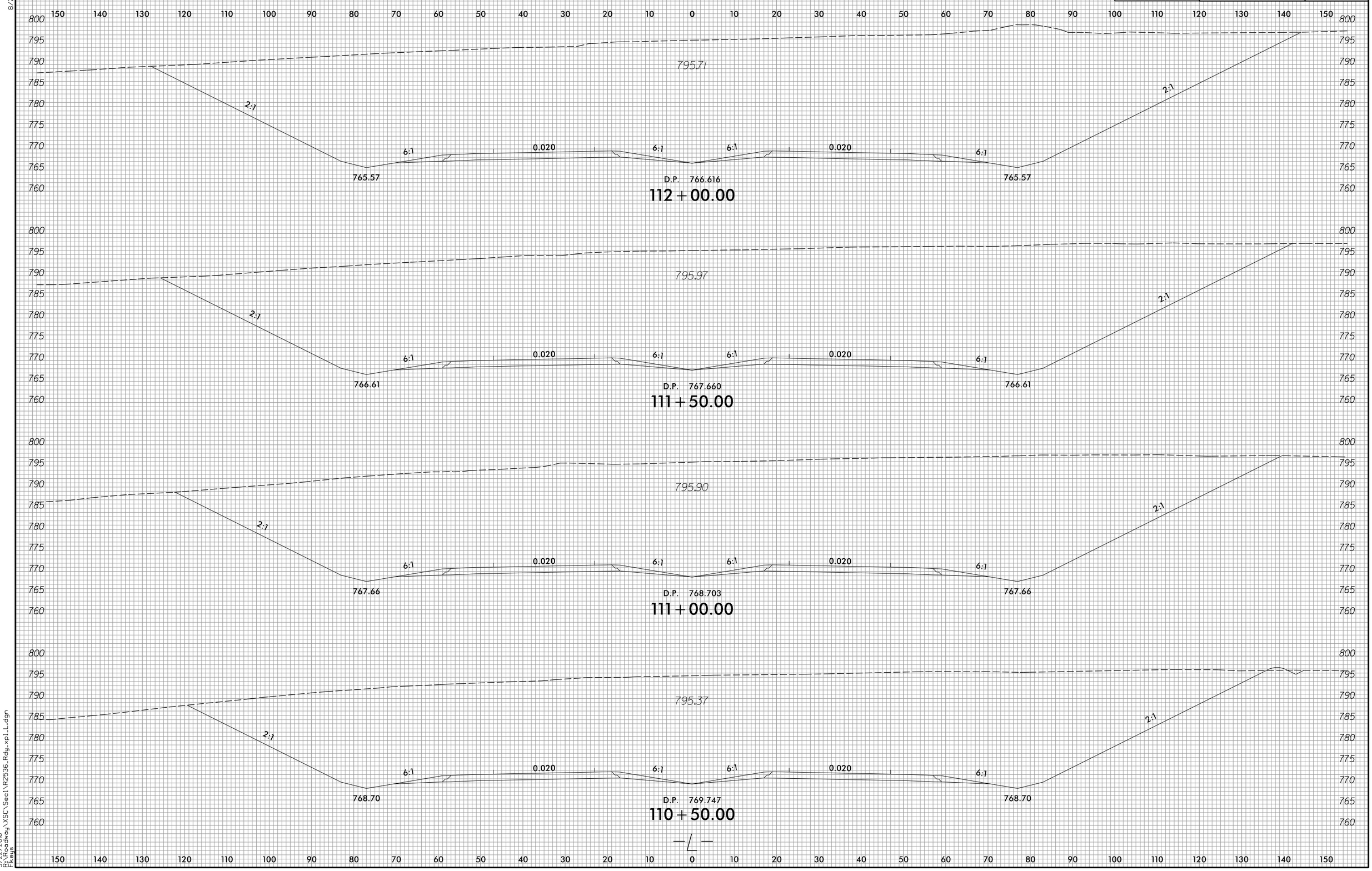
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-70



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-71

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 795 790 785 780 775 770 765 760 755

791.88

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

762.44 762.44

D.P. 763.485

113 + 50.00

800 795 790 785 780 775 770 765 760 755

792.97

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

763.48 763.48

D.P. 764.529

113 + 00.00

800 795 790 785 780 775 770 765 760

794.14

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

764.53 764.53

D.P. 765.572

112 + 50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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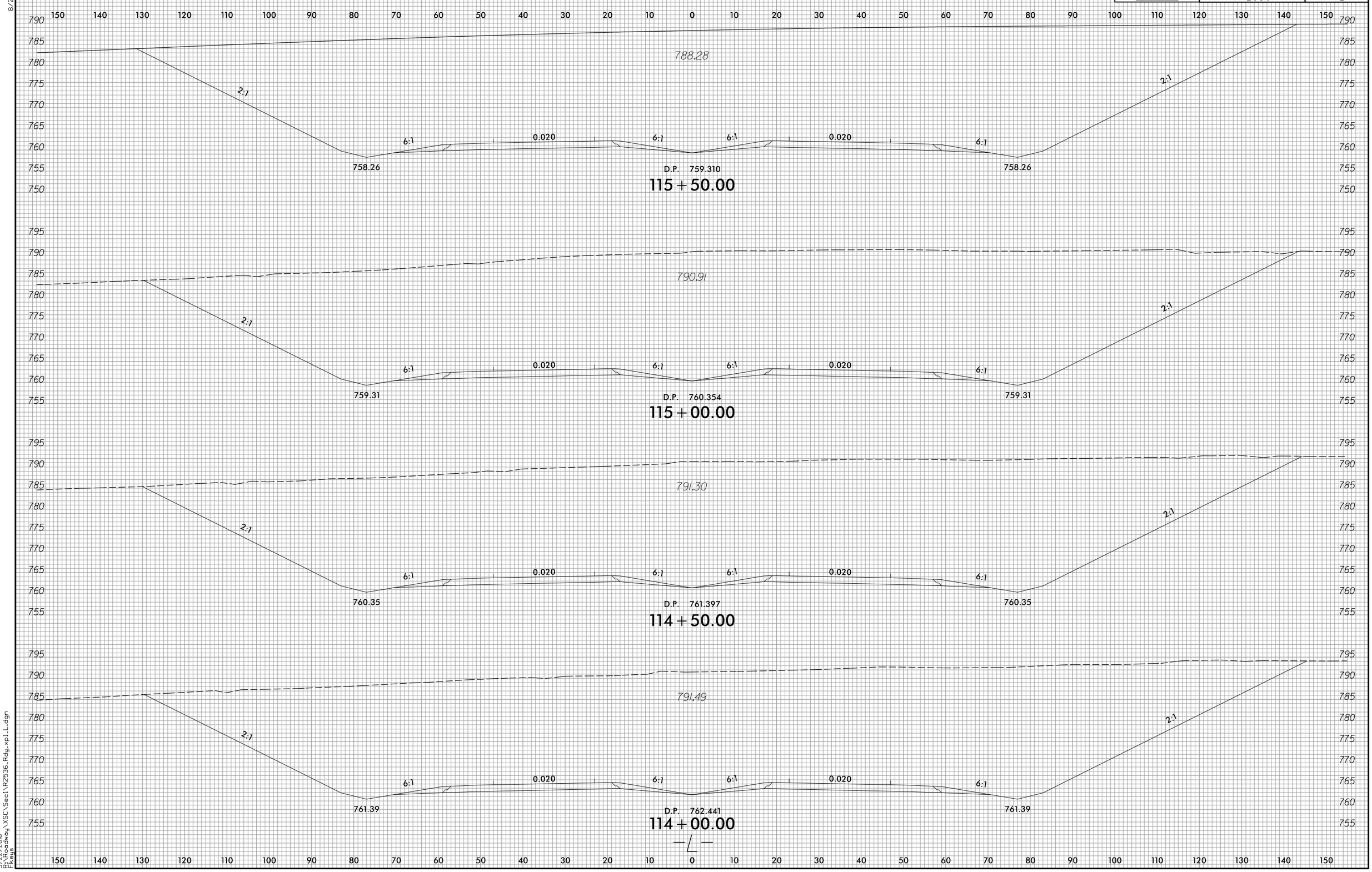
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-72



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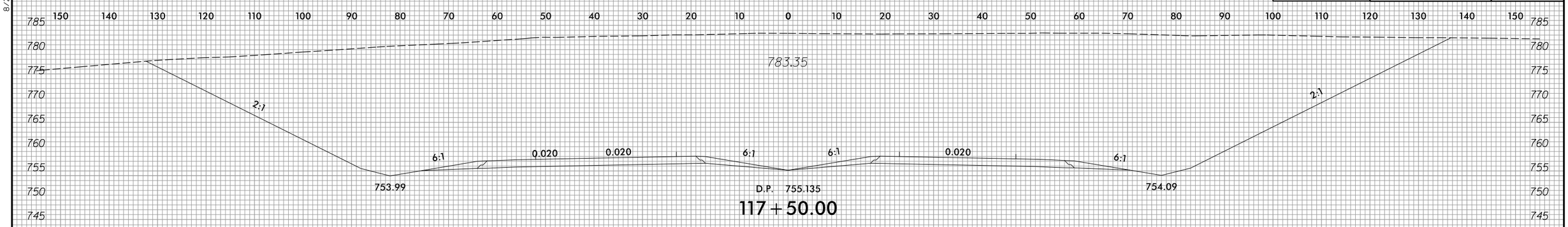
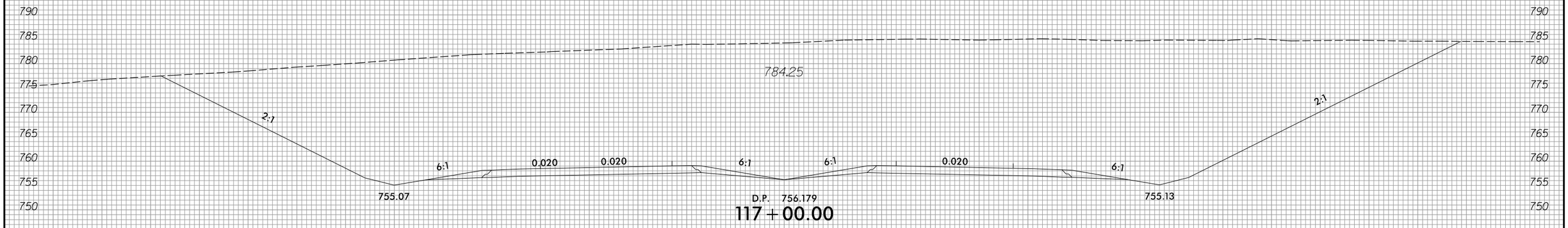
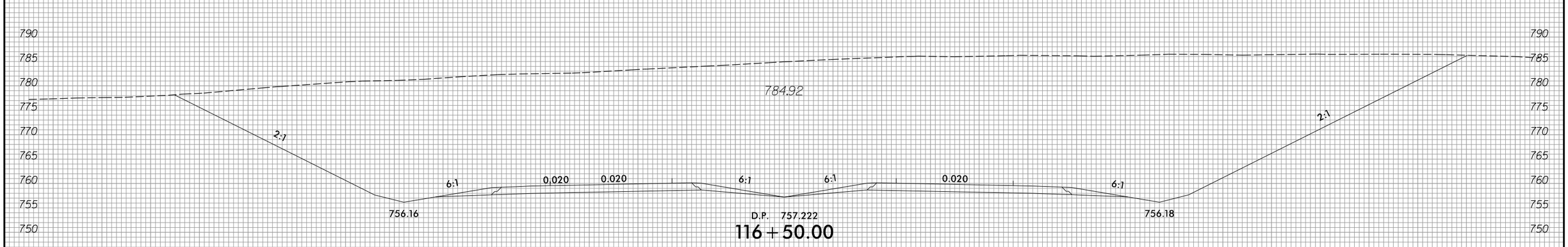
Fkeys

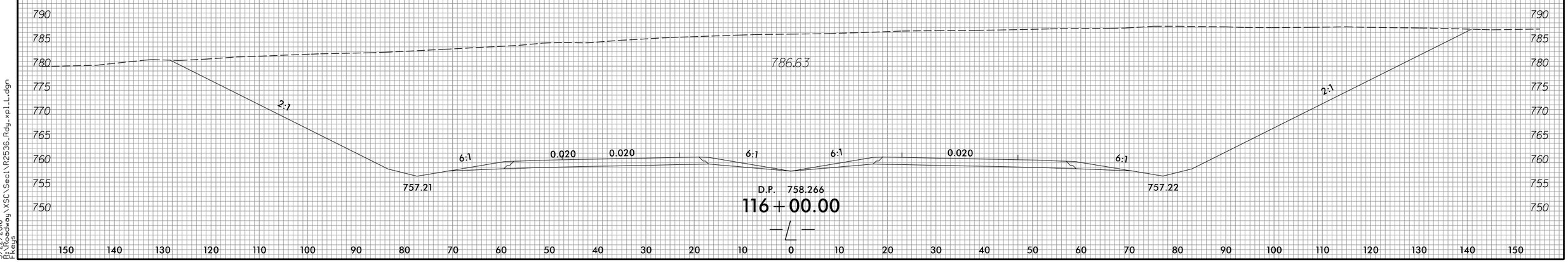
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-73









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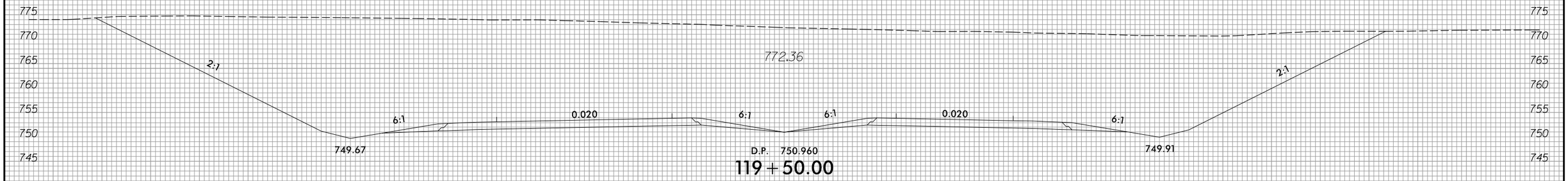
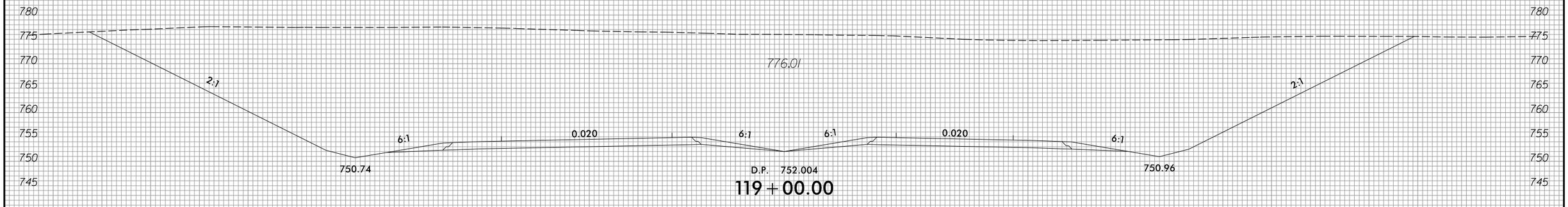
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-74

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



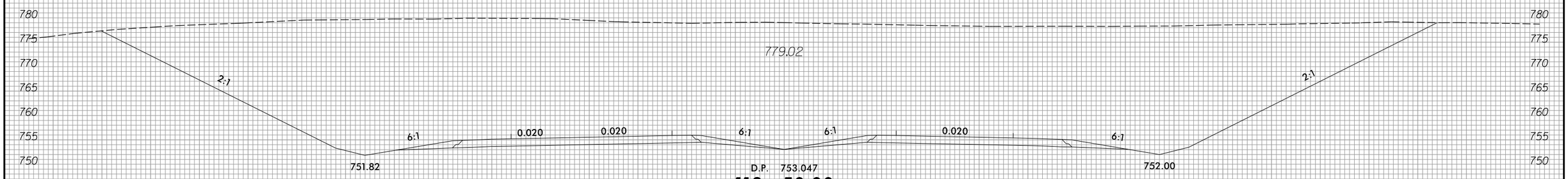
D.P. 750.960

119 + 50.00



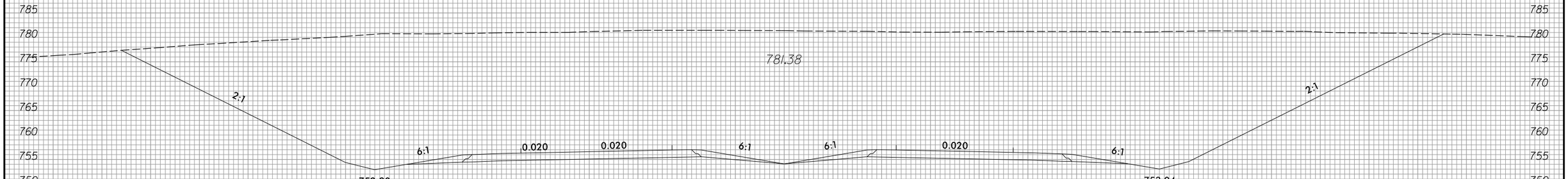
D.P. 752.004

119 + 00.00



D.P. 753.047

118 + 50.00



D.P. 754.091

118 + 00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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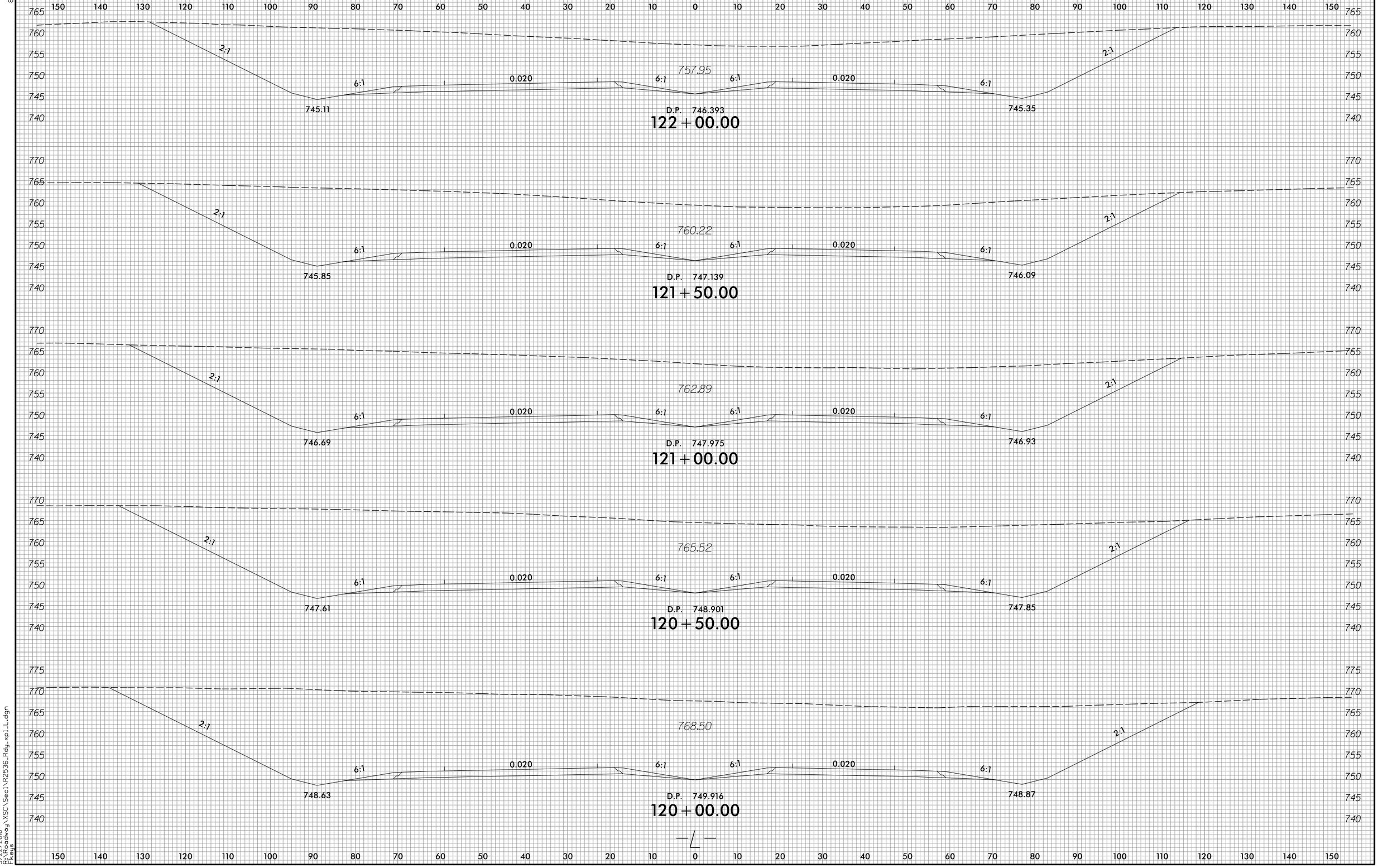
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-75



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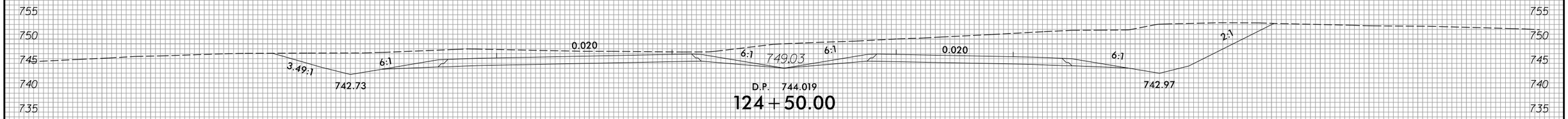
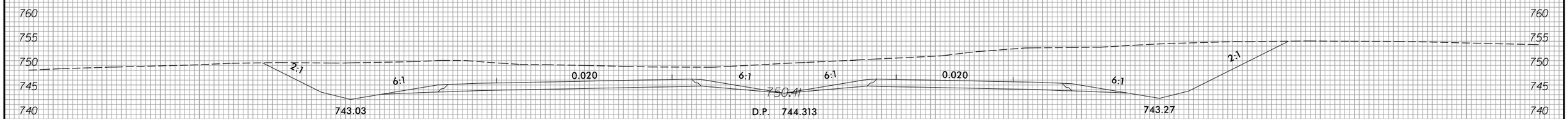
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-76



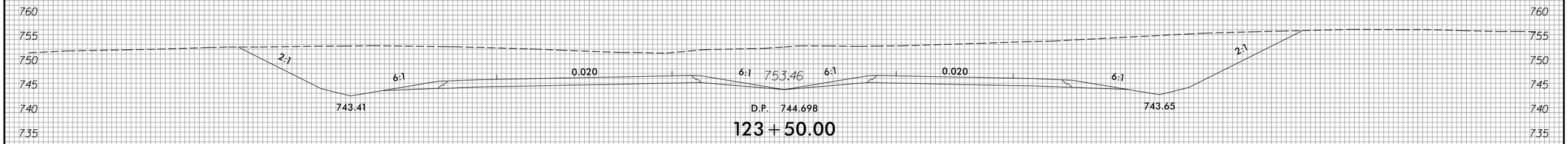
D.P. 744.019

124+50.00



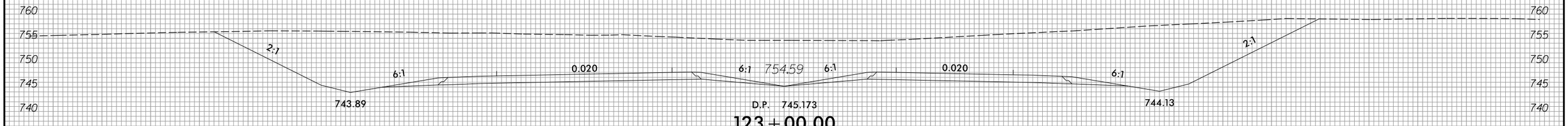
D.P. 744.313

124+00.00



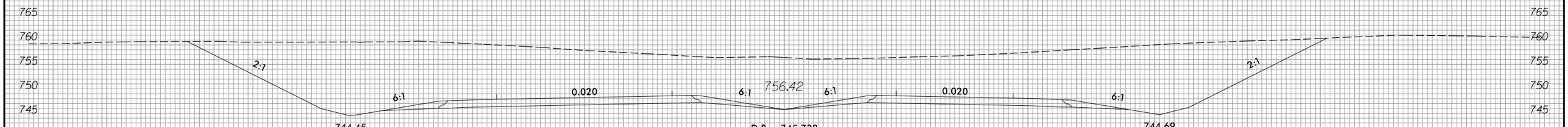
D.P. 744.698

123+50.00



D.P. 745.173

123+00.00



D.P. 745.738

122+50.00

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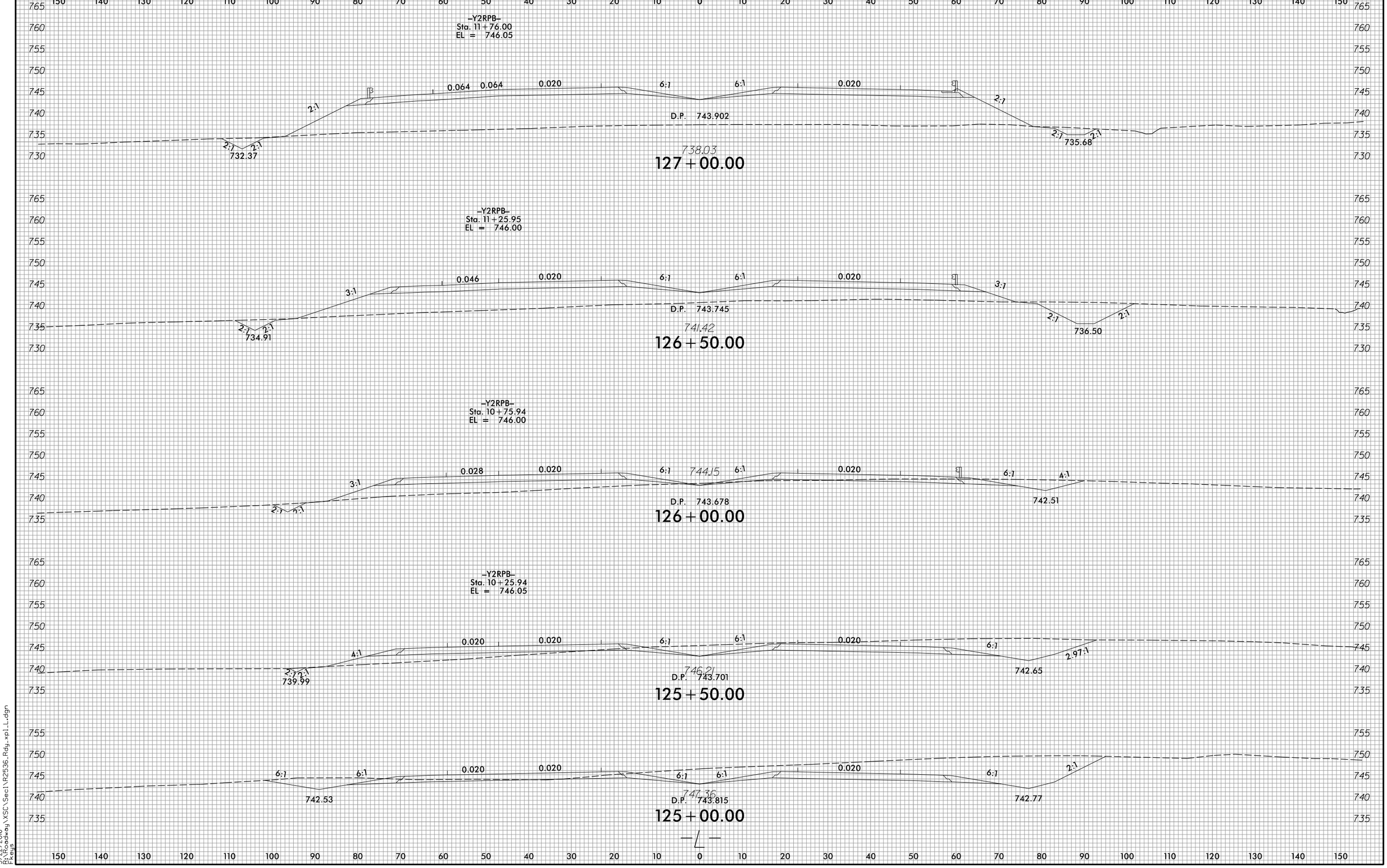
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-77



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-78

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

765 760 755 750 745 740 735 730 725 720

–Y2RPB–
Sta. 13+27.09
EL = 746.34

0.079 0.079 0.020 6:1 6:1 0.020

2.032:1

2:1

D.P. 744.915

2:1 2:1

731.36

730.49

128+50.00

765 760 755 750 745 740 735 730 725 720

–Y2RPB–
Sta. 12+76.47
EL = 746.28

0.079 0.079 0.020 6:1 6:1 0.020

2.019:1

2:1

D.P. 744.487

2:1 2:1

727.29

2:1 2:1

732.87

730.96

128+00.00

765 760 755 750 745 740 735 730 725 720

–Y2RPB–
Sta. 12+26.14
EL = 746.14

0.079 0.079 0.020 6:1 6:1 0.020

2.009:1

2:1

D.P. 744.150

2:1 2:1

729.83

2:1 2:1

734.39

734.71

127+50.00

–L–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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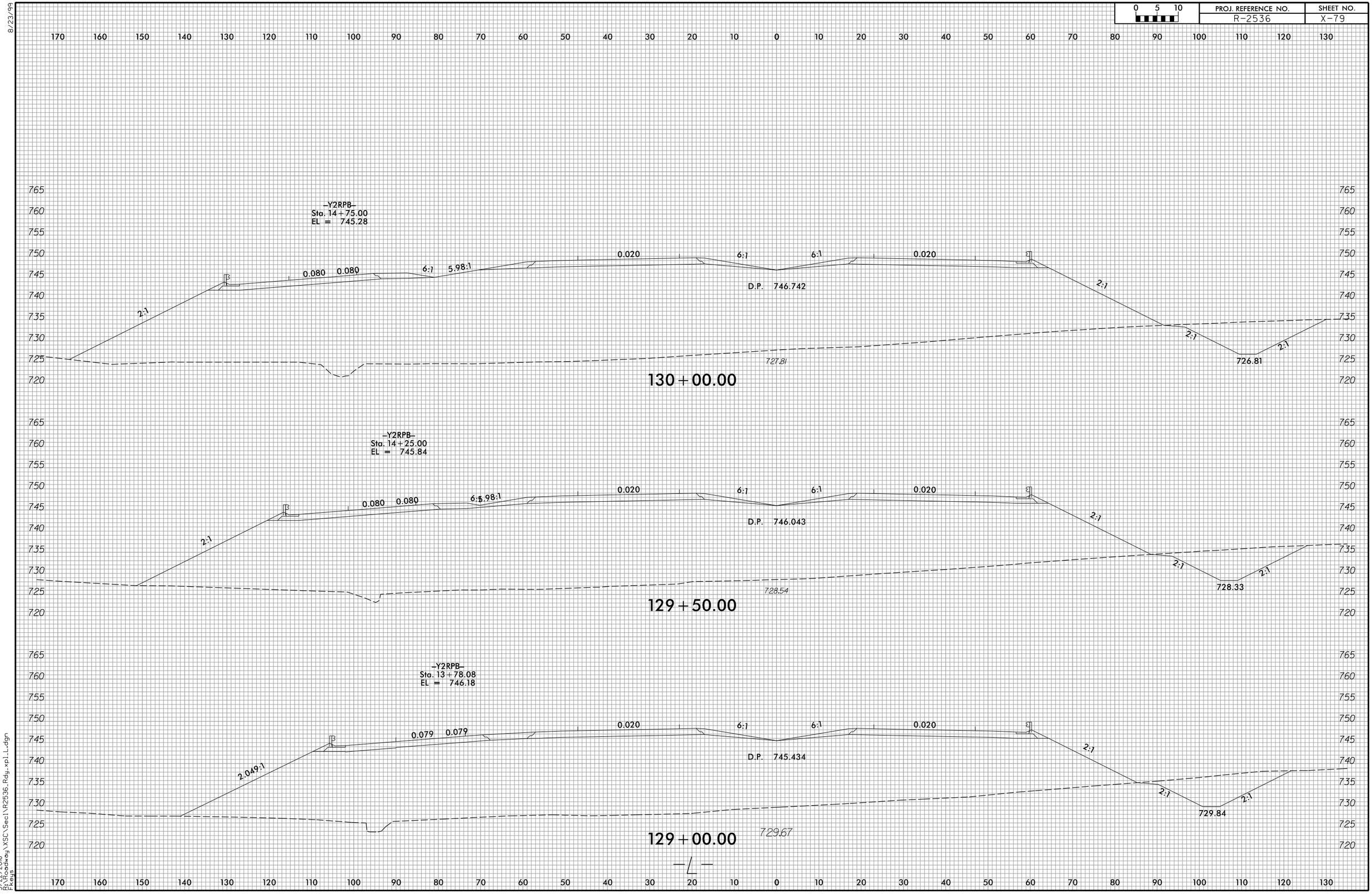
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-79



3/22/2016
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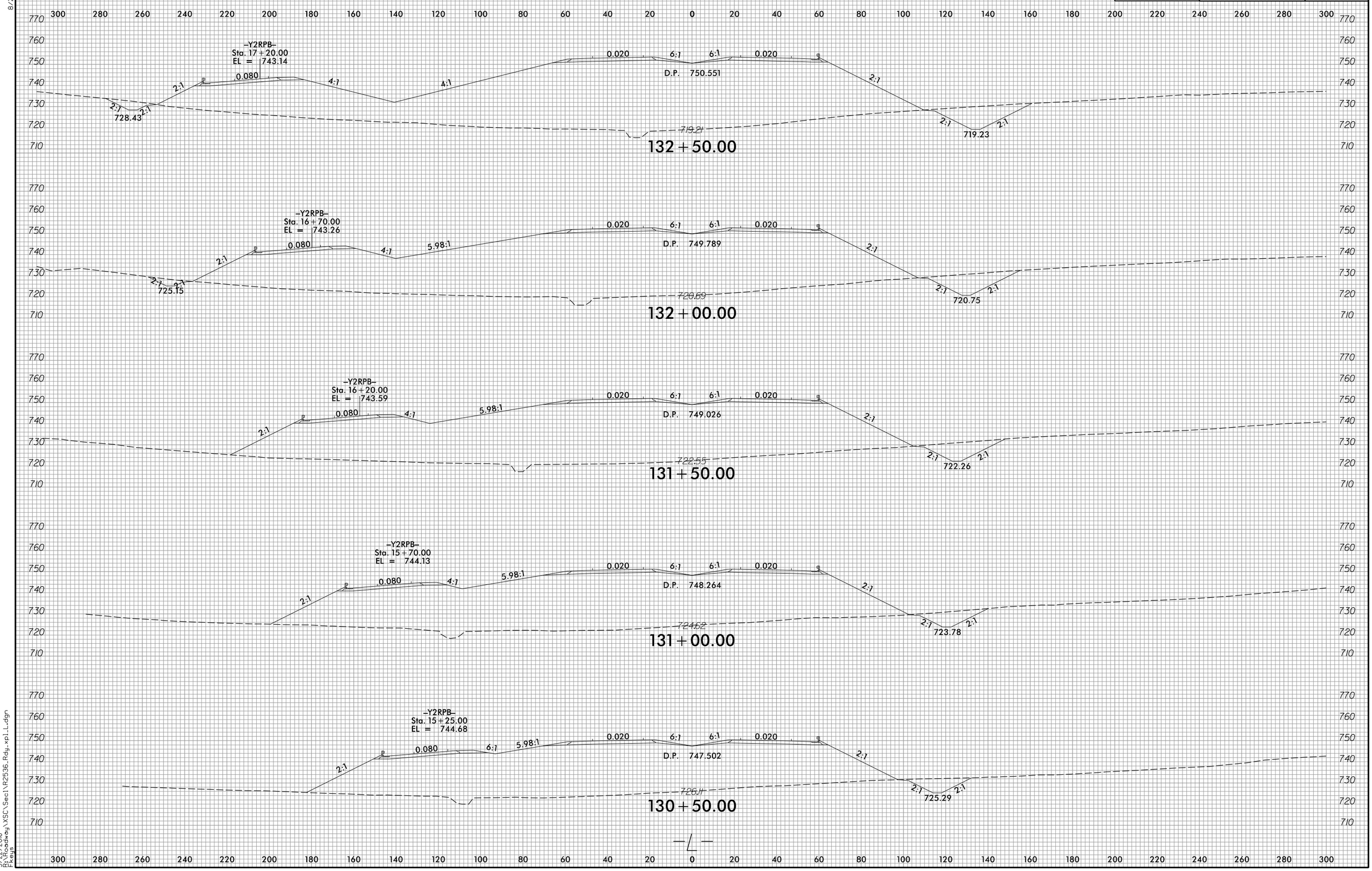
Keys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-80



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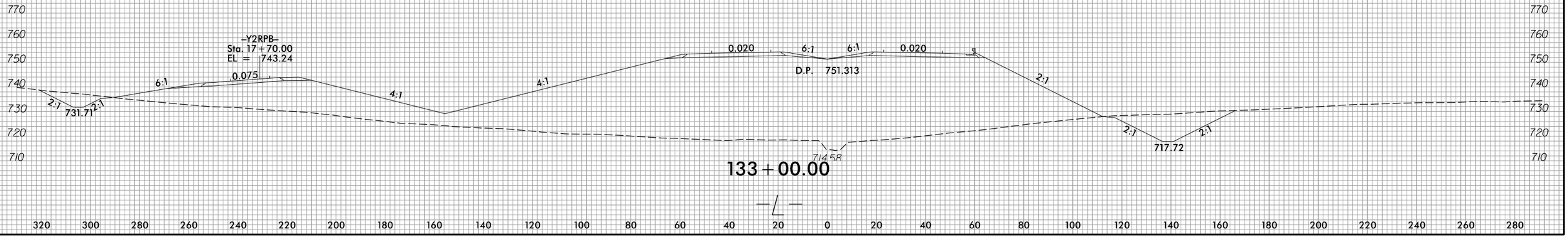
Fkeys

8/23/99

0 10 20

PROJ. REFERENCE NO.	SHEET NO.
R-2536	X-81

320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280



3/22/2016
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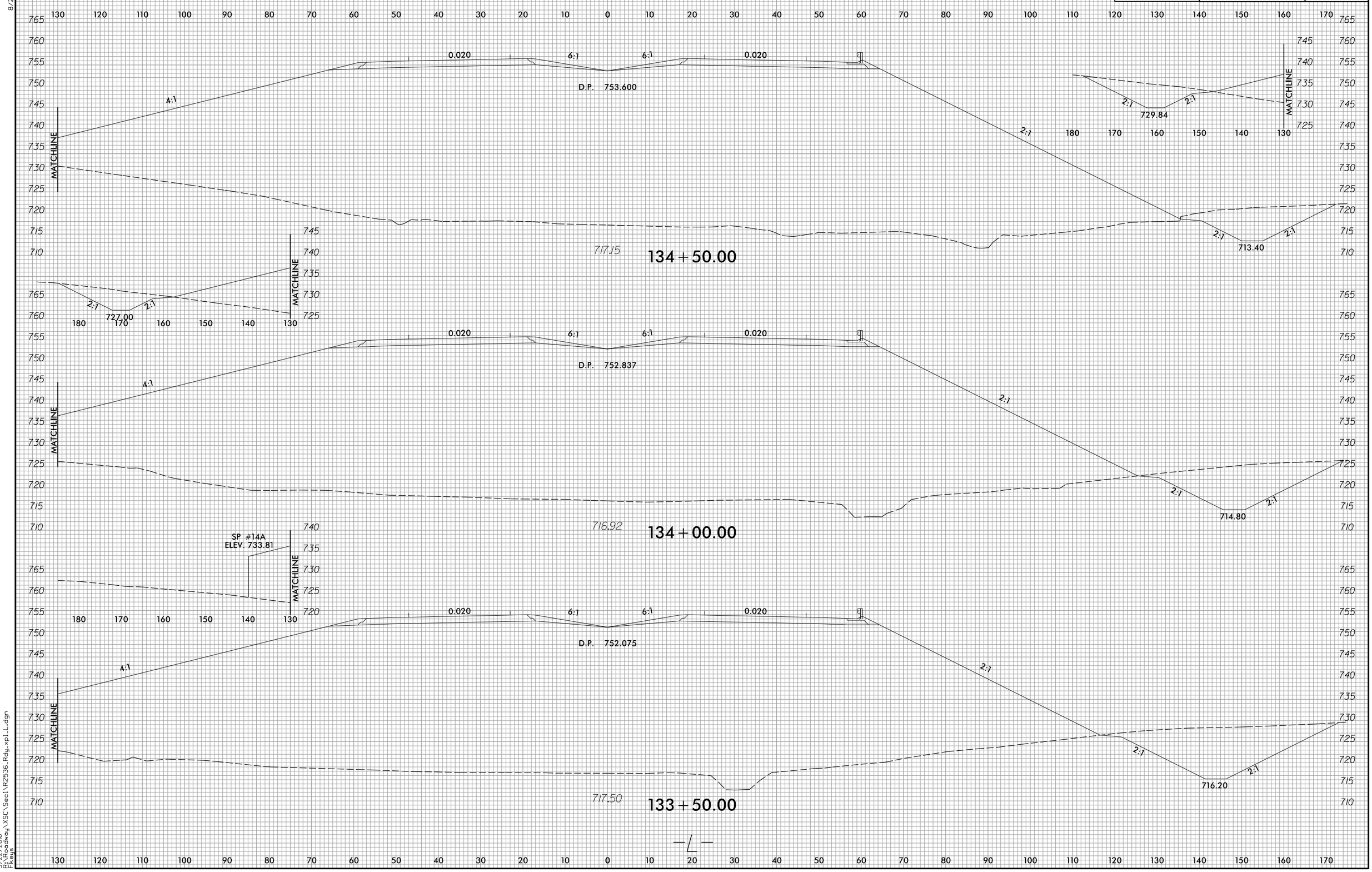
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-82



3/22/2016
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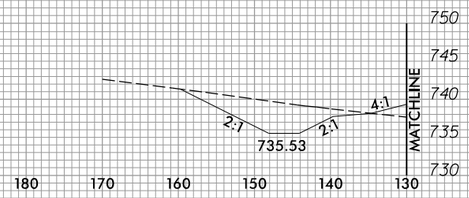
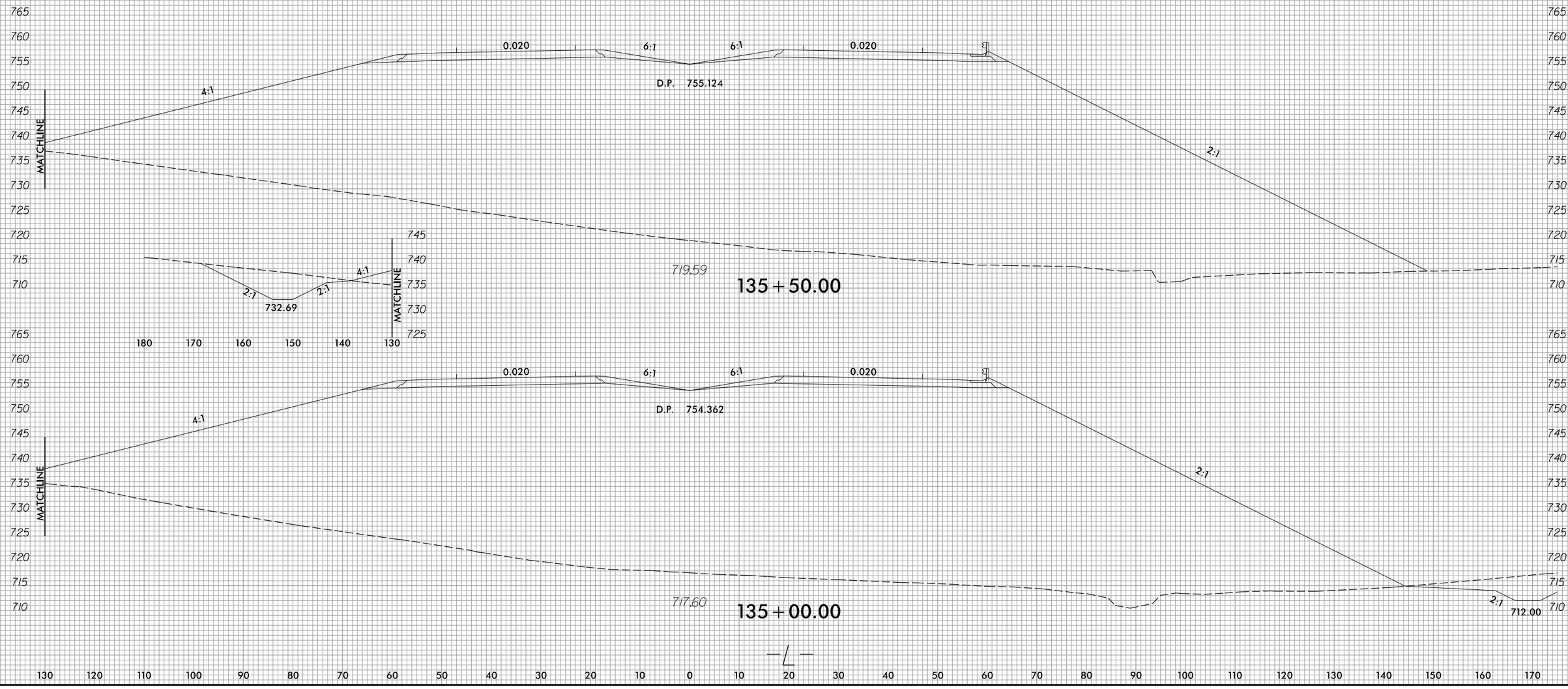
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-83

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170





130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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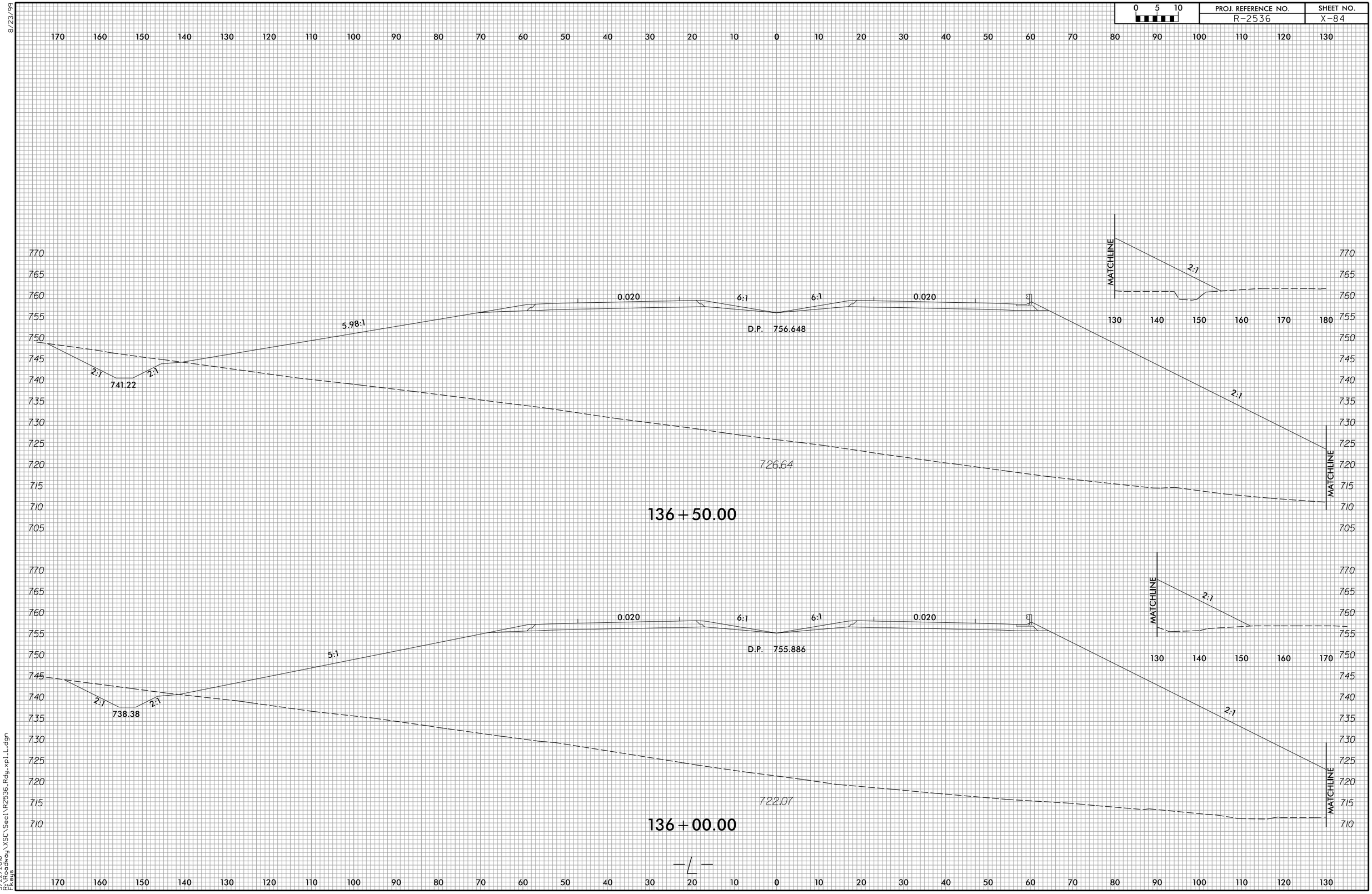
Fixed

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-84



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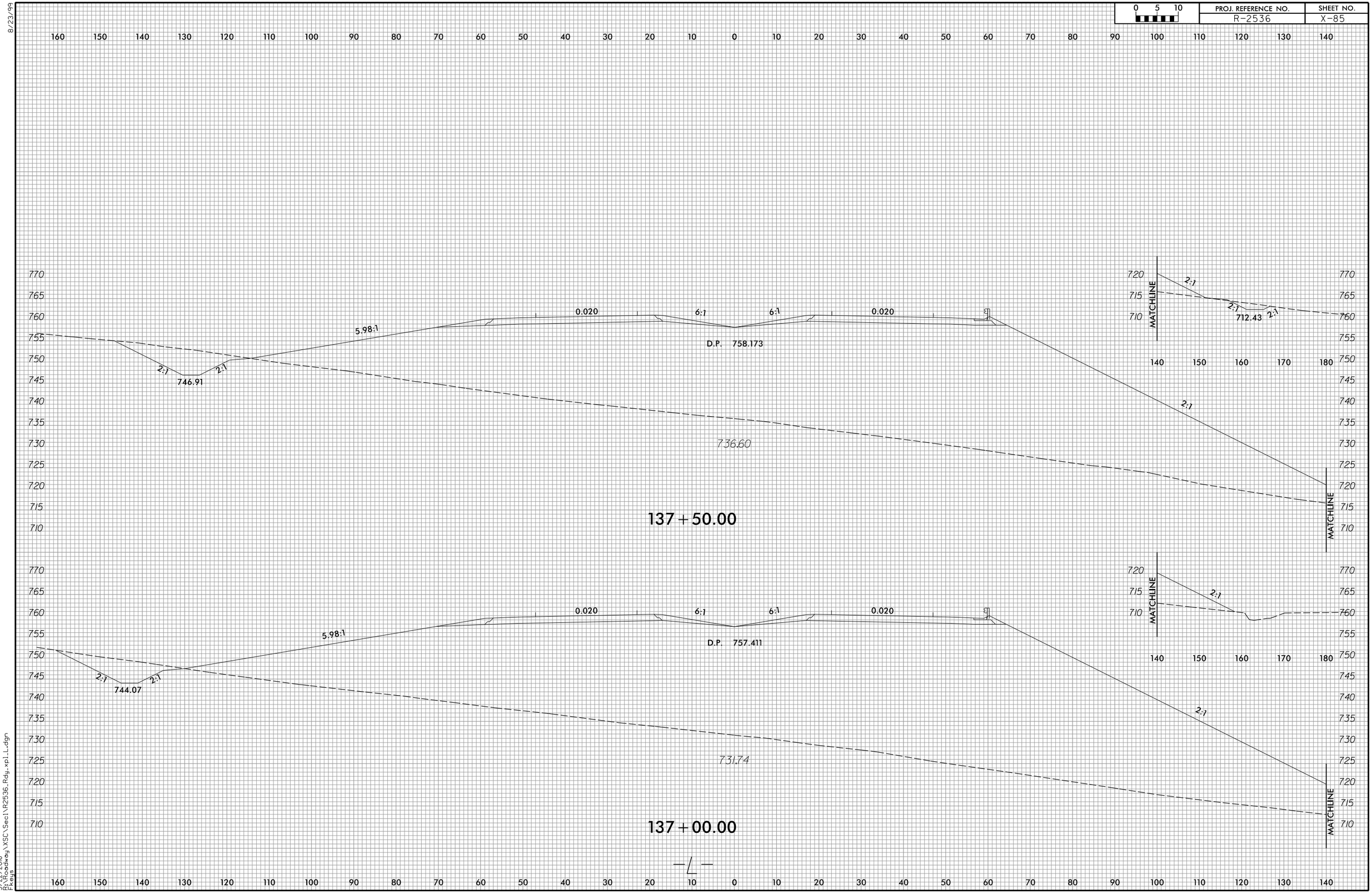
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-85



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Fleug

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-86

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

780 775 770 765 760 755 750 745 740 735 730 725 720 715 710 705

—Y2LPB—
Sta. 12+84.00
EL = 760.42

B.P.

4:1 6:1 0.076 0.076 6:1 6:1 0.020 6:1 6:1 0.020 2:1

755.60

D.P. 759.697

743.69

MATCHLINE

750 745 740 735 730 725 720 715

2:1 2:1

MATCHLINE

100 110 120 130 140 150

138+50.00

780 775 770 765 760 755 750 745 740 735 730 725 720 715 710 705

—Y2LPB—
Sta. 13+44.00
EL = 758.79

4:1 0.080 0.080 6:1 5.98:1 0.020 6:1 6:1 0.020

D.P. 758.935

740.15

MATCHLINE

745 740 735 730 725 720 715 710

2:1

MATCHLINE

100 110 120 130 140 150

138+00.00

—℄—

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

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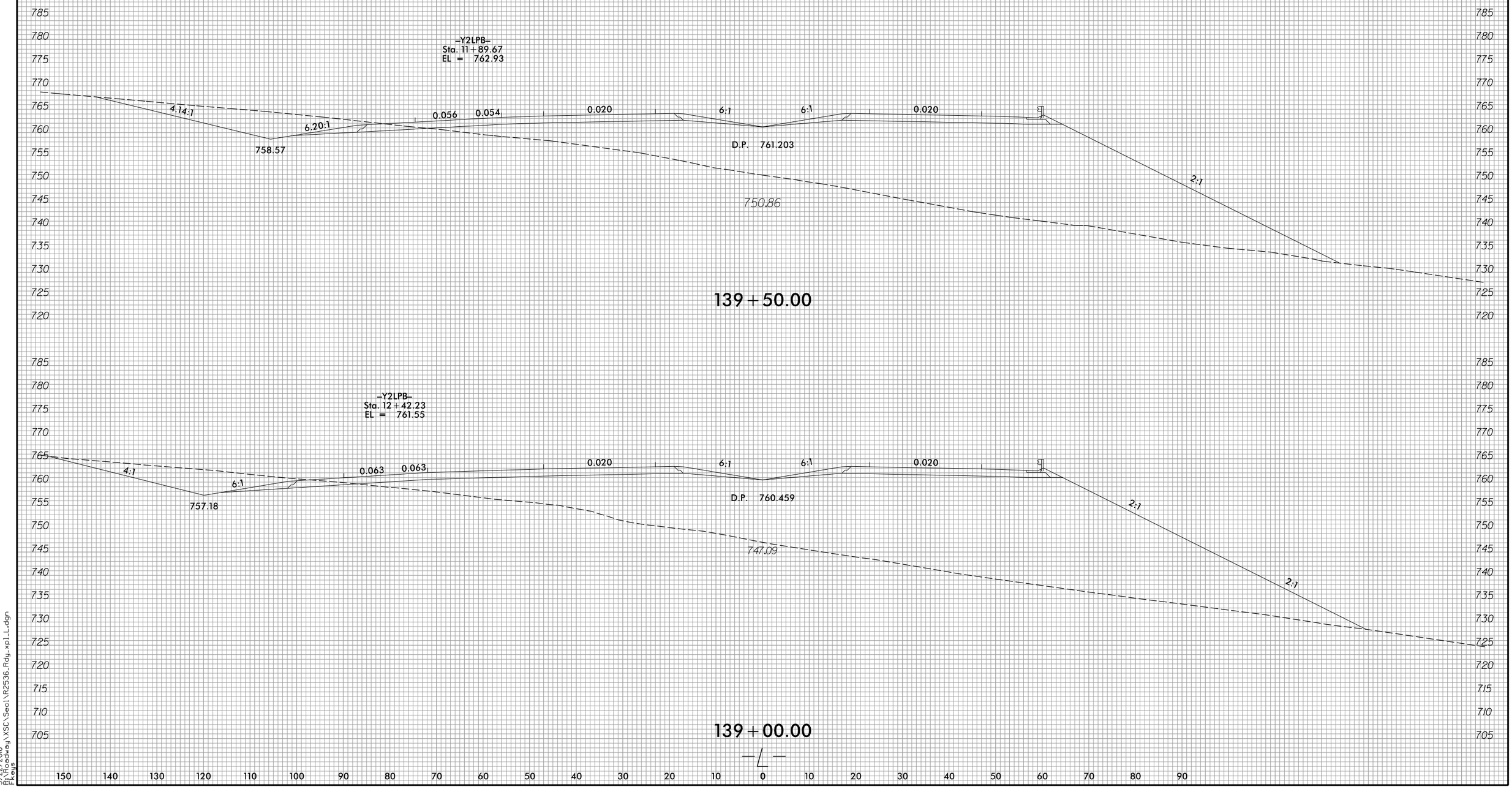
fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-87



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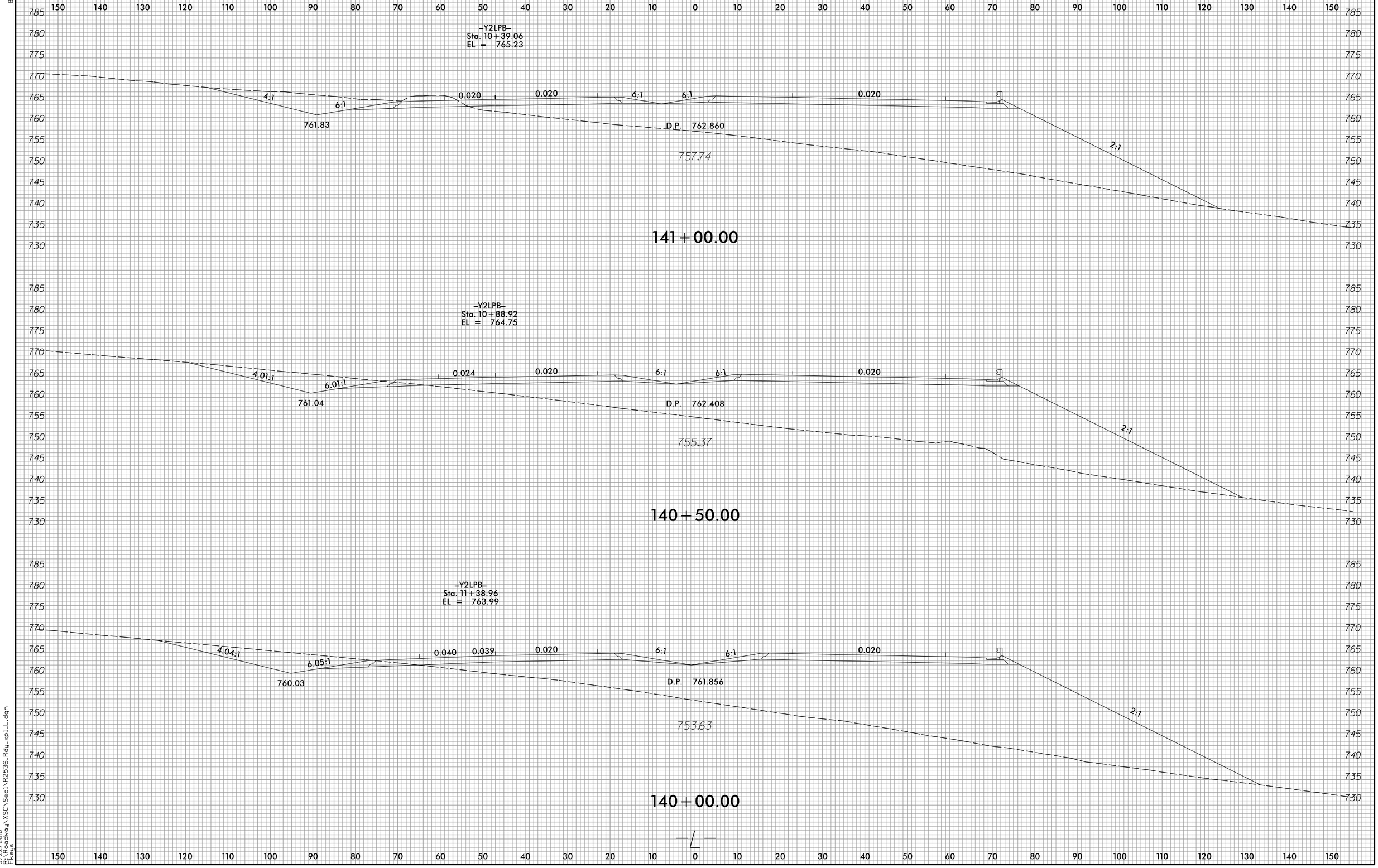
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-88



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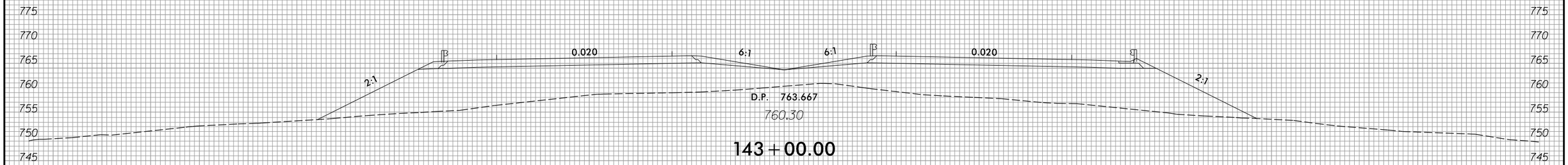
Fkeys

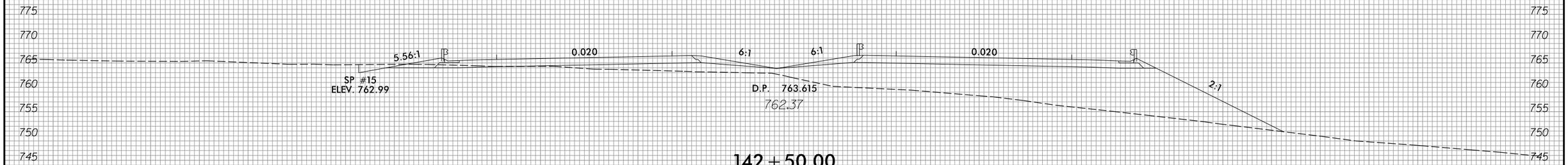
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-89

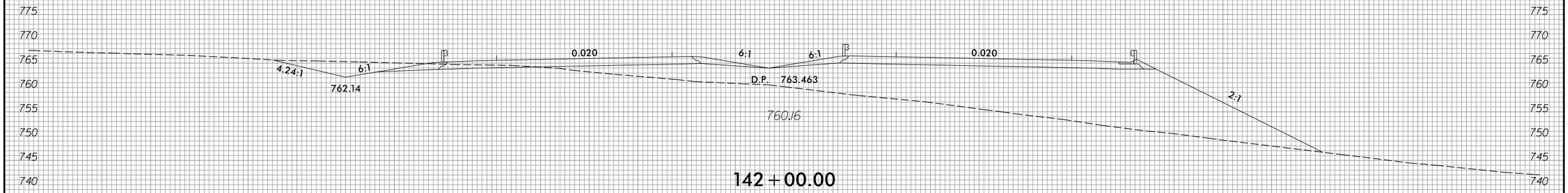
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



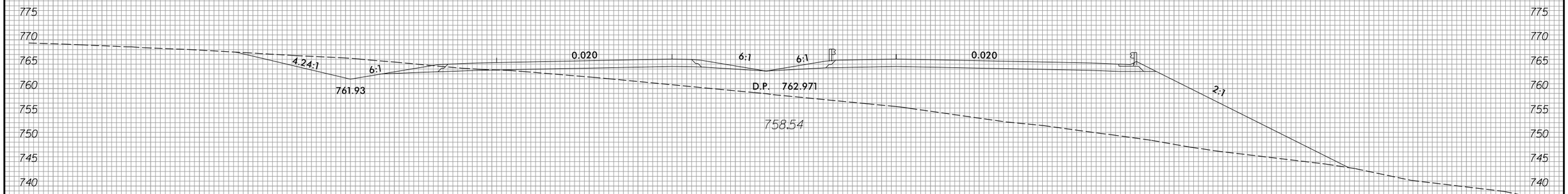
143 + 00.00



142 + 50.00



142 + 00.00



141 + 50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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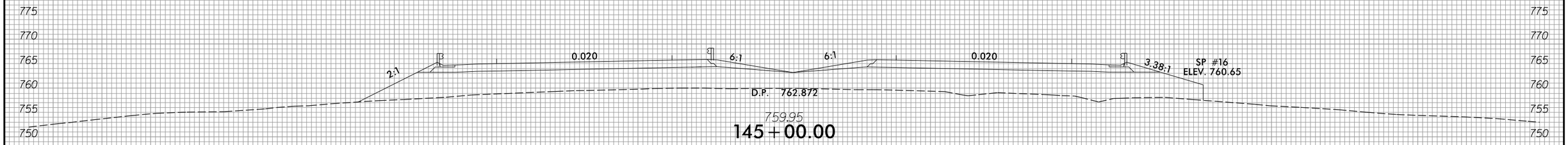
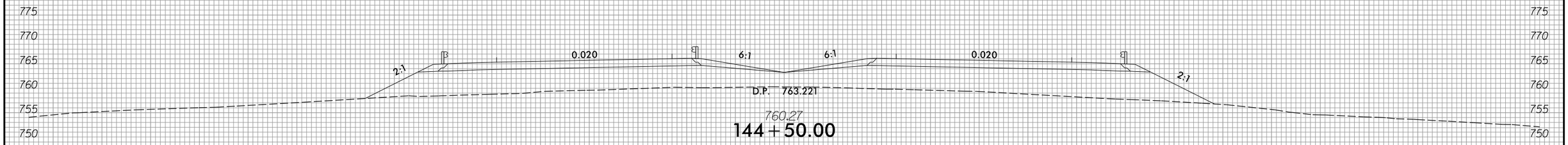
Keys

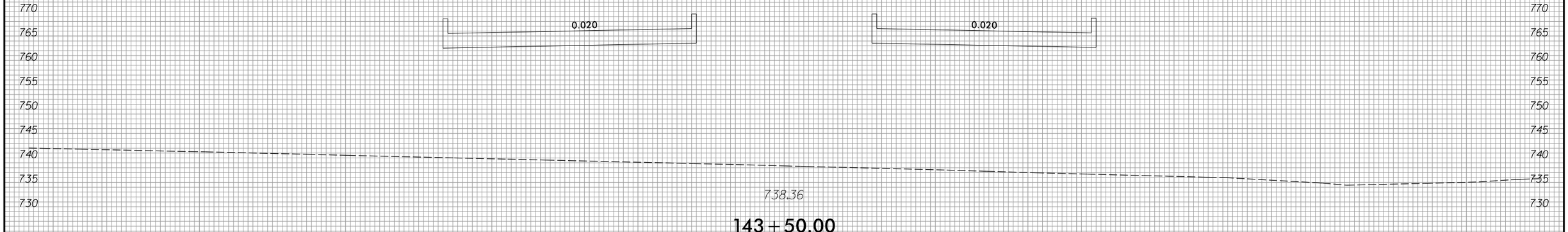
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-90

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150







150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

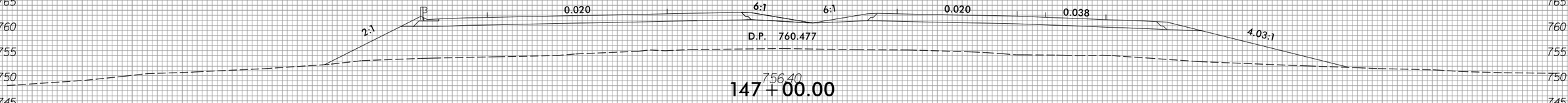
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-91

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

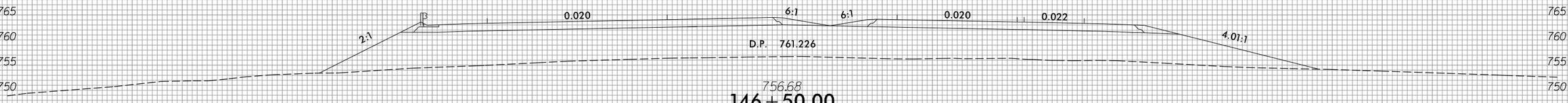
785 780 775 770 765 760 755 750 745

–Y2LPD–
Sta. 11+29.88
EL = 762.62



756.40
147+00.00

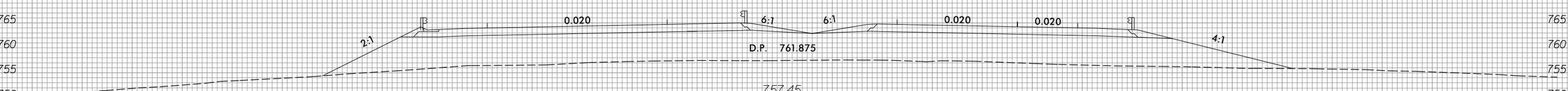
–Y2LPD–
Sta. 10+79.51
EL = 763.58



756.68
146+50.00

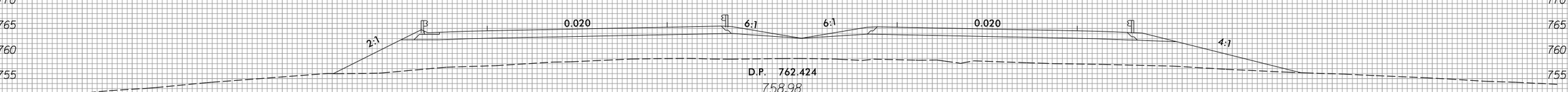
785 780 775 770 765 760 755 750 745

–Y2LPD–
Sta. 10+29.33
EL = 764.24



757.45
146+00.00

775 770 765 760 755 750



758.98
145+50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-92

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780 775 770 765 760 755 750 745 740 735 730 725

–Y2LPD–
Sta. 12+75.00
EL = 757.84

2.001:1 | 0.020 | 0.020 | 6:1 | 6:1 | 0.020 | 5.98:1 | 6:1 | 0.073 | 0.073 | 6:1

D.P. 757.792

751.94

148+50.00

780 775 770 765 760 755 750 745 740

–Y2LPD–
Sta. 12+33.82
EL = 759.71

2.001:1 | 0.020 | 0.020 | 6:1 | 6:1 | 0.020 | 0.072 | 0.075 | 6.55:1

D.P. 758.711

755.03

148+00.00

780 775 770 765 760 755 750 745

–Y2LPD–
Sta. 11+80.93
EL = 761.35

2.001:1 | 0.020 | 0.020 | 6:1 | 6:1 | 0.020 | 0.053 | 0.054 | 4.13:1

D.P. 759.628

756.34

147+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-93

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

770 760 750 740 730 720 710 700

0.020 6:1 6:1 0.020

D.P. 754.115

2:1

5:1

732.42

150+50.00

770 760 750 740 730 720 710

–Y2LPD–
Sta. 14+00.00
EL = 750.29

0.020 0.020 6:1 6:1 0.020

D.P. 755.034

2.002:1

5.98:1

B.P.

6:1

0.080

4:1

738.12

150+00.00

780 770 760 750 740 730 720 710

–Y2LPD–
Sta. 13+50.00
EL = 753.37

0.020 0.020 6:1 6:1 0.020

D.P. 755.953

2.002:1

5.98:1

B.P.

6:1

0.080

4:1

743.17

149+50.00

780 770 760 750 740 730 720

–Y2LPD–
Sta. 13+12.00
EL = 755.71

0.020 0.020 6:1 6:1 0.020

D.P. 756.873

2.002:1

B.P.

5.98:1 6:1

0.080

4:1

748.07

149+00.00

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-94

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

770 760 750 740 730 720 710 700

0.020 6:1 6:1 0.020

D.P. 750.439

2:1 2:1 4:1

701.68

714.57

152 + 50.00

0.020 6:1 6:1 0.020

D.P. 751.358

2:1 4:1

720.54

152 + 00.00

0.020 6:1 6:1 0.020

D.P. 752.277

2:1 4:1

725.04

151 + 50.00

0.020 6:1 6:1 0.020

D.P. 753.196

2:1 4:1

727.60

151 + 00.00

—L—

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Fkeys

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-95

200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400

760 750 740 730 720 710 700 690

0.020 6:1 6:1 0.020

D.P. 747.036

2:1 4:1 4:1 2:1 2:1 2:1 2:1

705.92 702.04 696.30

B.P.

–Y2RPD–
Sta. 18+95.00
EL = 730.58
0.065

154+50.00

760 750 740 730 720 710 700 690

0.020 6:1 6:1 0.020

D.P. 747.750

2:1 4:1 4:1 2:1 2:1 2:1 2:1

704.61 703.04 698.70

B.P.

–Y2RPD–
Sta. 19+45.00
EL = 729.64
0.051

154+00.00

760 750 740 730 720 710 700 690

0.020 6:1 6:1 0.020

D.P. 748.600

2:1 4:1 4:1 2:1 2:1 2:1 2:1

703.29 704.93 701.11

B.P.

–Y2RPD–
Sta. 19+95.00
EL = 728.96
0.037

153+50.00

760 750 740 730 720 710 700 690

0.020 6:1 6:1 0.020

D.P. 749.520

2:1 4:1 2:1 2:1 2:1

701.97 708.87

153+00.00

200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400

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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-96

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

760 750 740 730 720 710 700

0.020 6:1 6:1 0.020 5:1 4:1 0.080 2:1 2:1

D.P. 745.553

–Y2RPD–
Sta. 16+90.00
EL = 737.08

B.P.

711.30 708.48

720.56

156+50.00

760 750 740 730 720 710 700

0.020 6:1 6:1 0.020 4:1 4:1 0.080 2:1 2:1

D.P. 745.718

–Y2RPD–
Sta. 17+40.00
EL = 735.11

B.P.

709.87 703.54

713.45

156+00.00

760 750 740 730 720 710 700 690

0.020 6:1 6:1 0.020 4:1 4:1 0.080 2:1 2:1

D.P. 746.021

–Y2RPD–
Sta. 17+90.00
EL = 733.38

B.P.

708.55 698.59

704.77

155+50.00

760 750 740 730 720 710 700 690

0.020 6:1 6:1 0.020 4:1 4:1 0.080 2:1 2:1

D.P. 746.460

–Y2RPD–
Sta. 18+40.00
EL = 731.90

B.P.

707.24

702.83

155+00.00

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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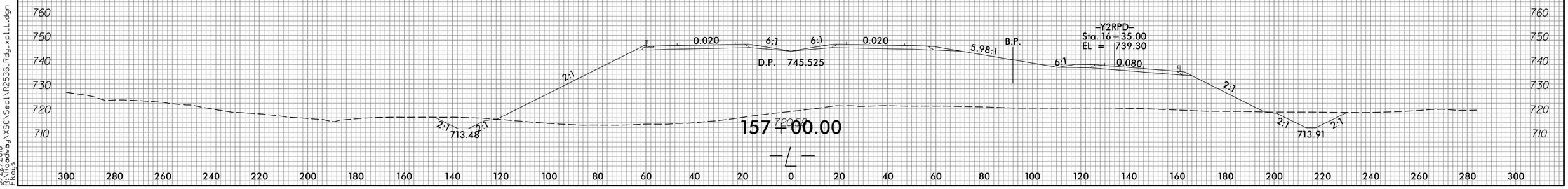
Fkeys

8/23/99

0 10 20

PROJ. REFERENCE NO.	SHEET NO.
R-2536	X-97

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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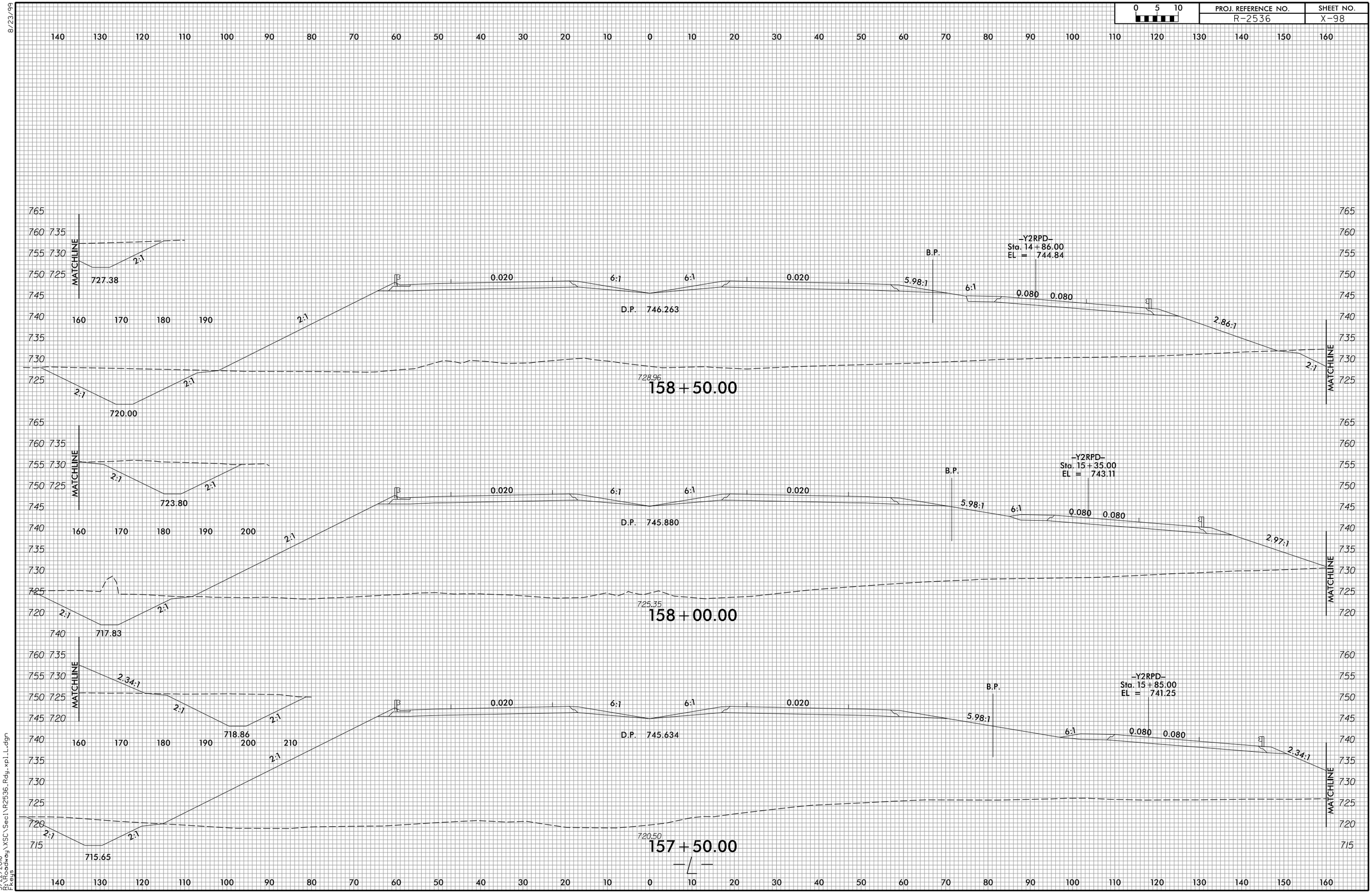
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-98



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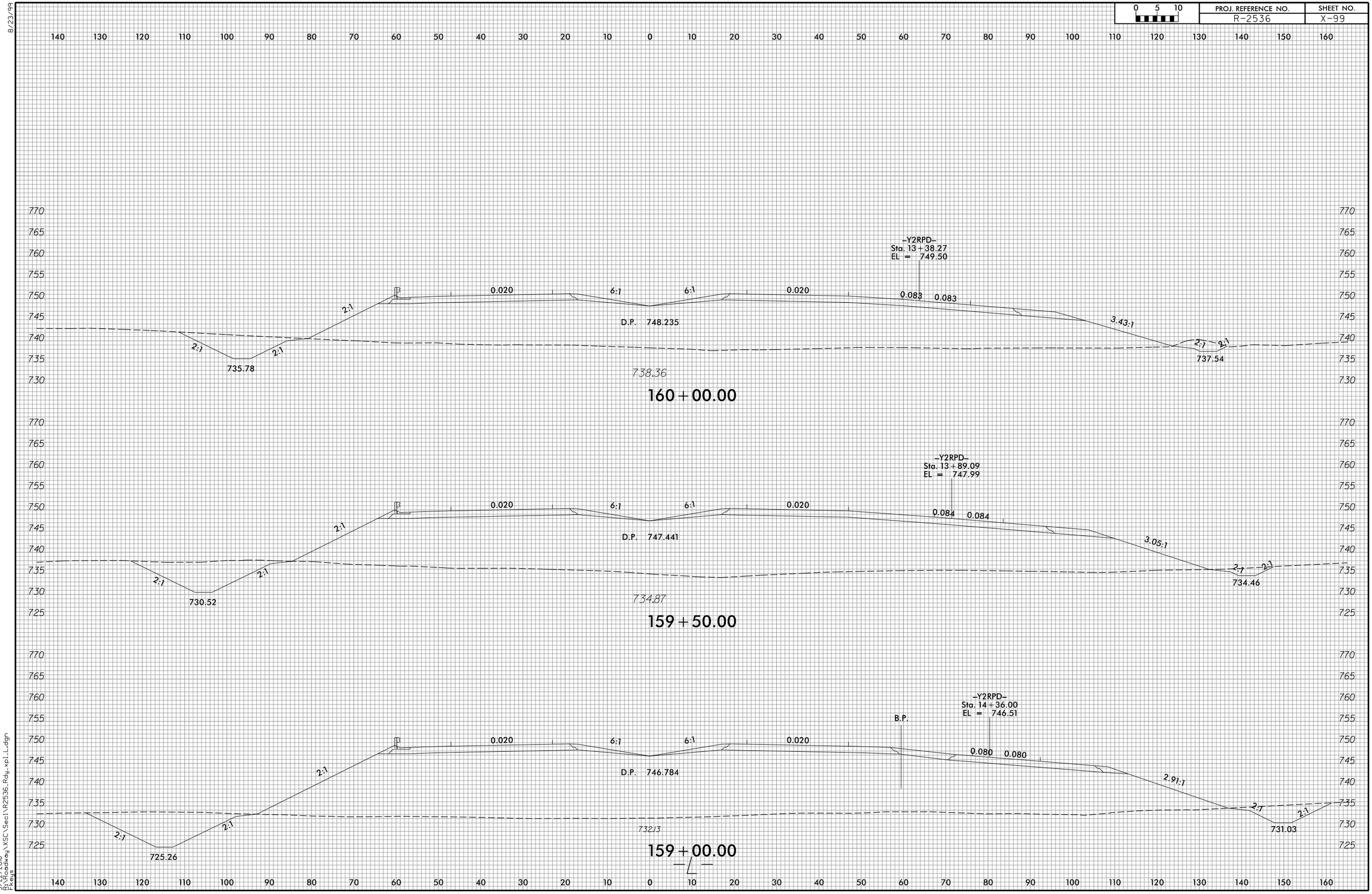
Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-99



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P:\Roadway\XSC\Sec1\R2536_Rdy_xpl_L.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-100

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775 770 765 760 755 750 745

–Y2RPD–
Sta. 11+36.86
EL = 754.48

2:40:1 6:1 751.12 6:1 0.020 6:1 6:1 0.020 0.038 6:1 6:1 749.84

755.50
D.P. 752.167

162+00.00

775 770 765 760 755 750 745 740

–Y2RPD–
Sta. 11+87.06
EL = 753.39

6:1 6:1 750.12 0.020 6:1 6:1 0.020 0.053 5:1 2:1 2:1 746.70

D.P. 751.167
750.40

161+50.00

775 770 765 760 755 750 745 740 735

–Y2RPD–
Sta. 12+37.33
EL = 752.19

2:1 2:1 746.30 4:1 0.020 6:1 6:1 0.020 0.067 0.067 5.78:1 2:1 2:1 743.65

D.P. 750.167
745.88

161+00.00

770 765 760 755 750 745 740 735 730

–Y2RPD–
Sta. 12+87.71
EL = 750.90

2:1 2:1 741.04 3:1 0.020 6:1 6:1 0.020 0.082 0.082 4.19:1 2:1 2:1 740.60

D.P. 749.167
741.64

160+50.00

–℄–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-101

3/22/2016
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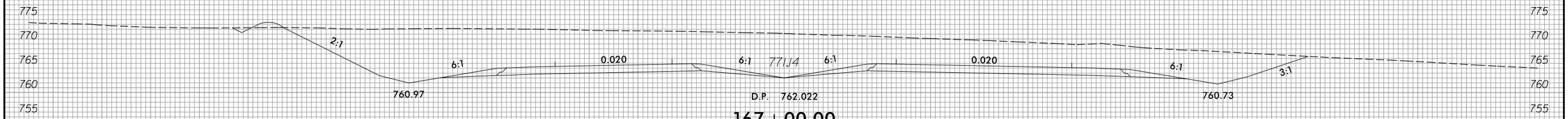
Fkeys

8/23/99

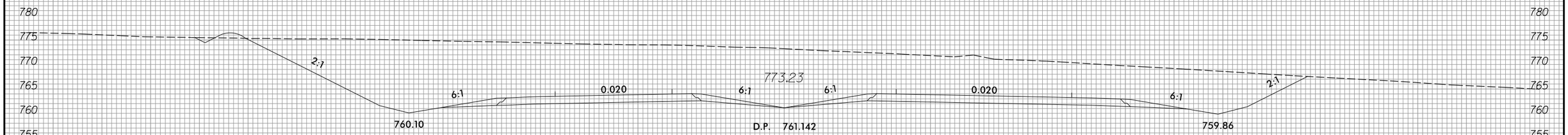
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-102

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



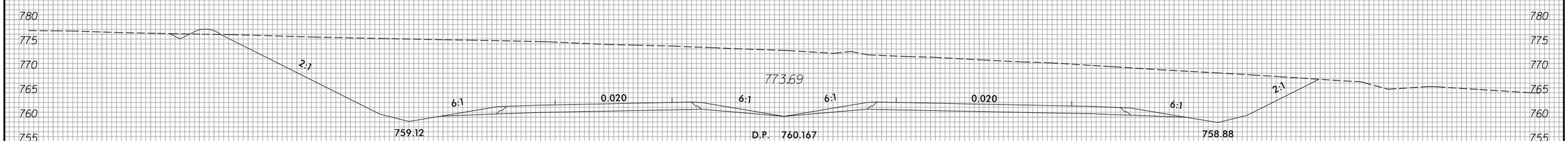
D.P. 762.022

167 + 00.00



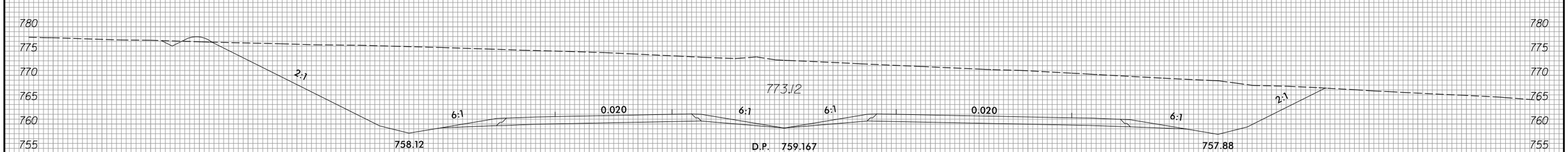
D.P. 761.142

166 + 50.00



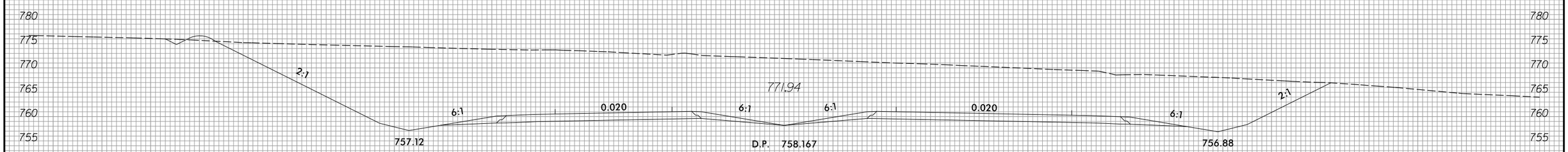
D.P. 760.167

166 + 00.00



D.P. 759.167

165 + 50.00



D.P. 758.167

165 + 00.00

— L —

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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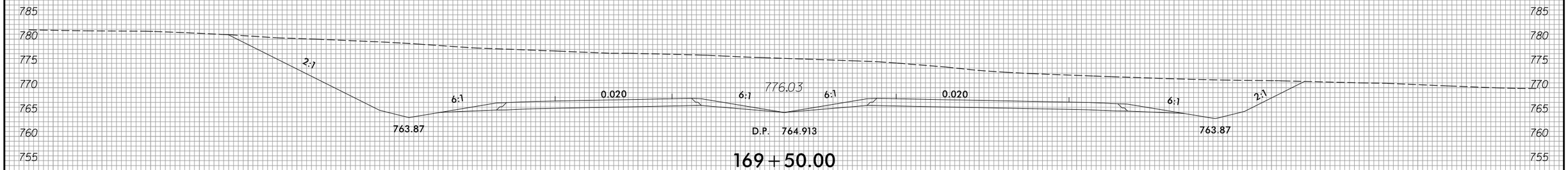
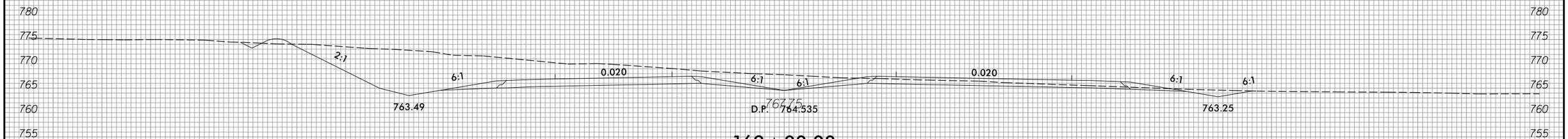
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-103

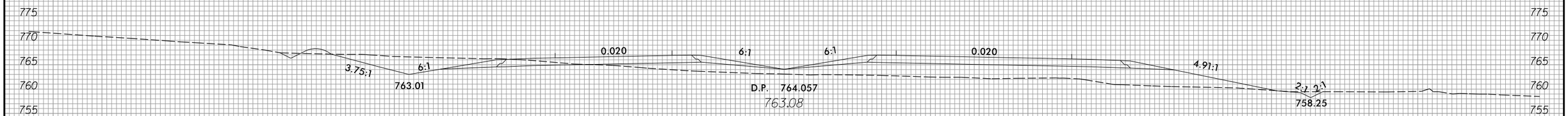
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



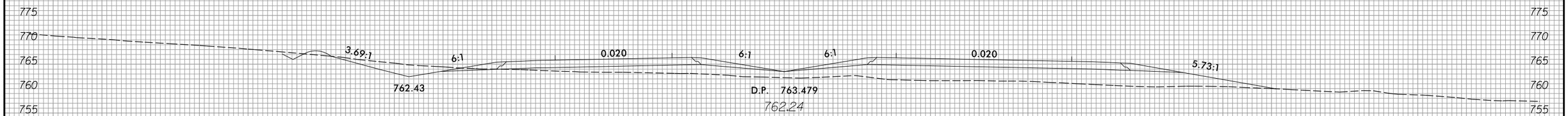
169+50.00



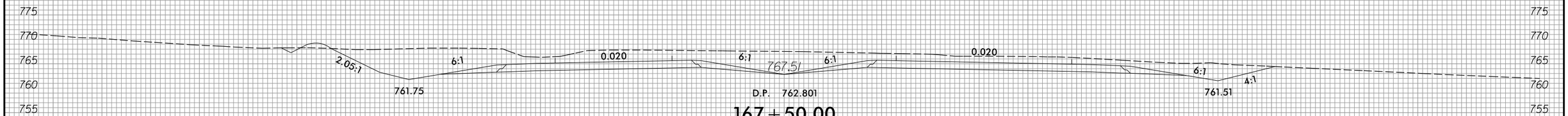
169+00.00



168+50.00



168+00.00



167+50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-104

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 795 790 785 780 775 770 765 760

795.74

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

764.37 764.37

D.P. 765.418

171+50.00

795 790 785 780 775 770 765 760

791.98

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

764.40 764.40

D.P. 765.442

171+00.00

790 785 780 775 770 765 760

787.46

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

764.32 764.32

D.P. 765.366

170+50.00

790 785 780 775 770 765 760 755

782.79

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

764.14 763.95

D.P. 765.189

170+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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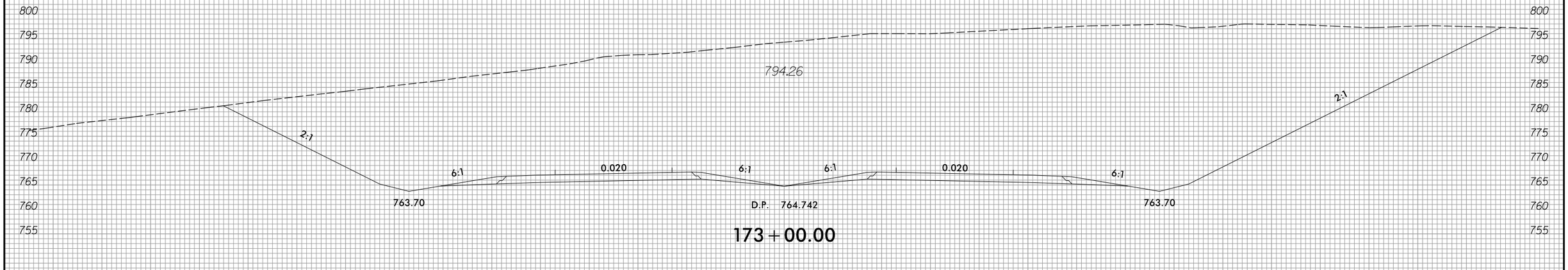
Fkeys

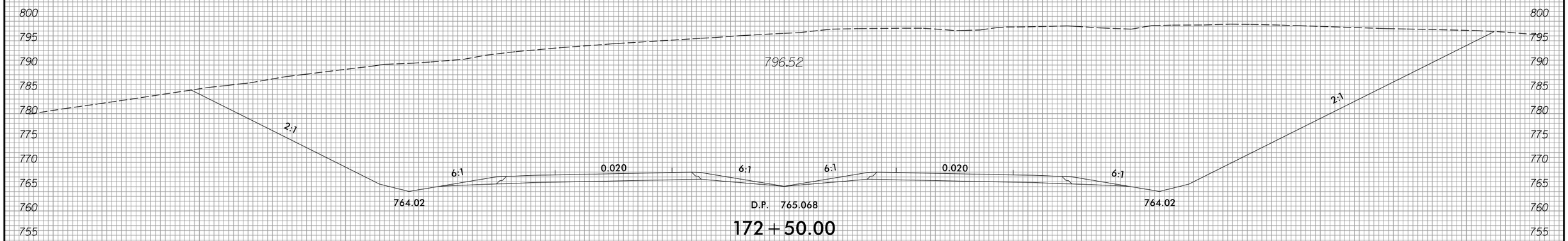
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-105

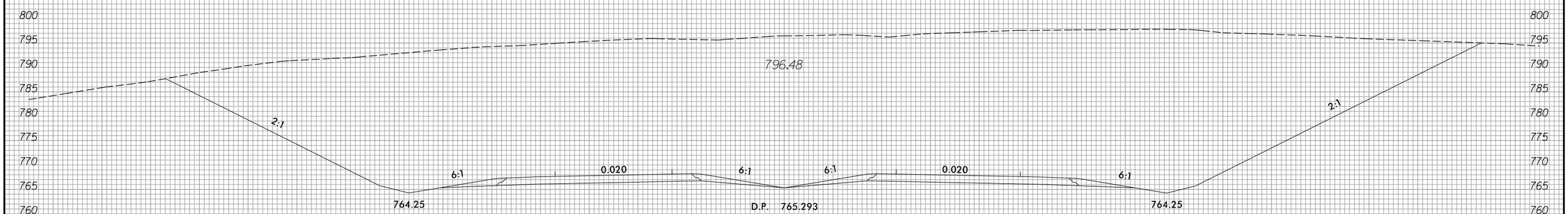
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



173+00.00



172+50.00



172+00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-106

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

795 790 785 780 775 770 765 760 755

776.51

3.39:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

762.12 762.12

D.P. 763.163

174 + 50.00

800 795 790 785 780 775 770 765 760 755

782.71

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

762.74 762.74

D.P. 763.789

174 + 00.00

800 795 790 785 780 775 770 765 760 755

789.20

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

763.27 763.27

D.P. 764.316

173 + 50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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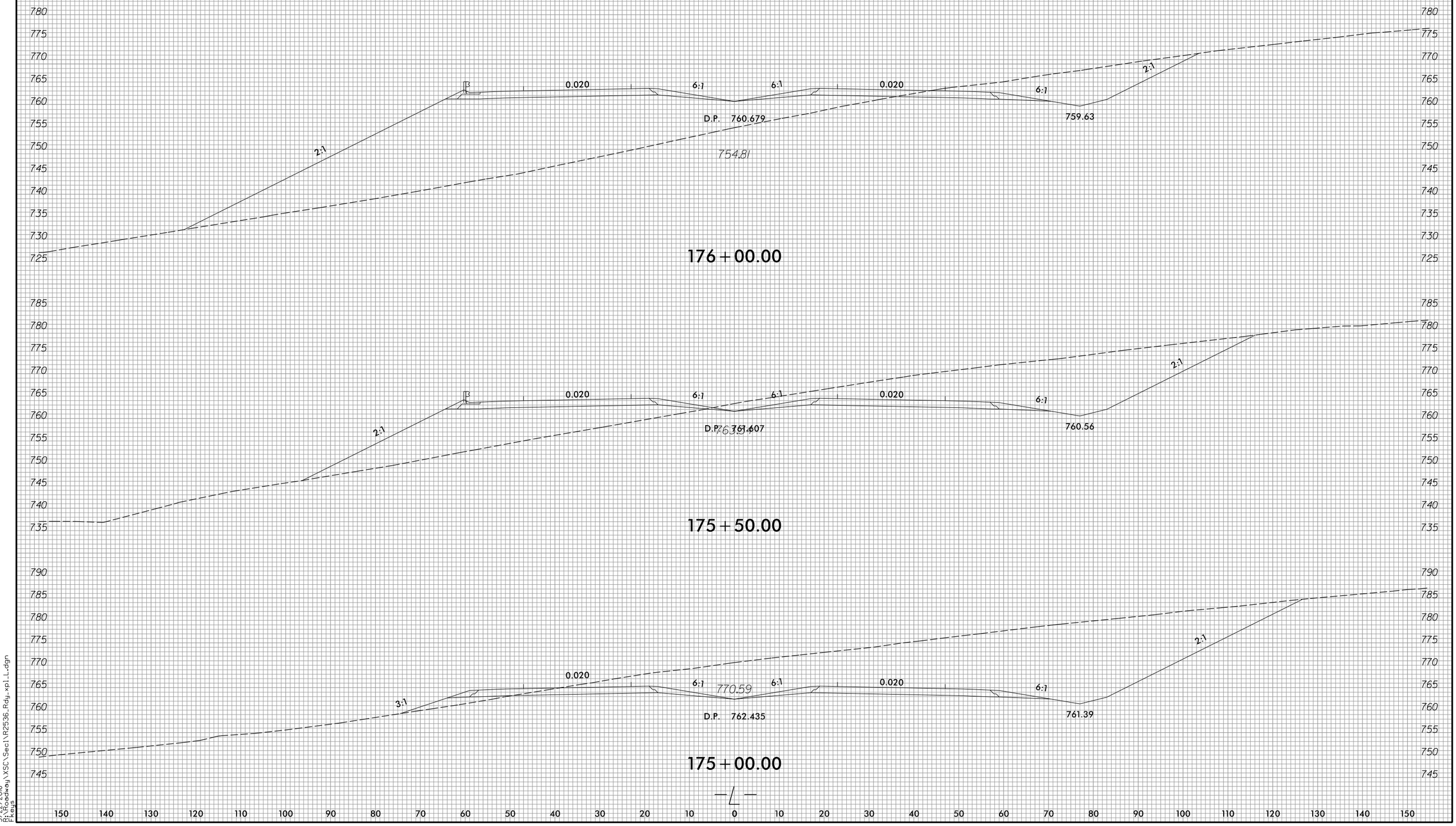
Fkeys

8/23/99

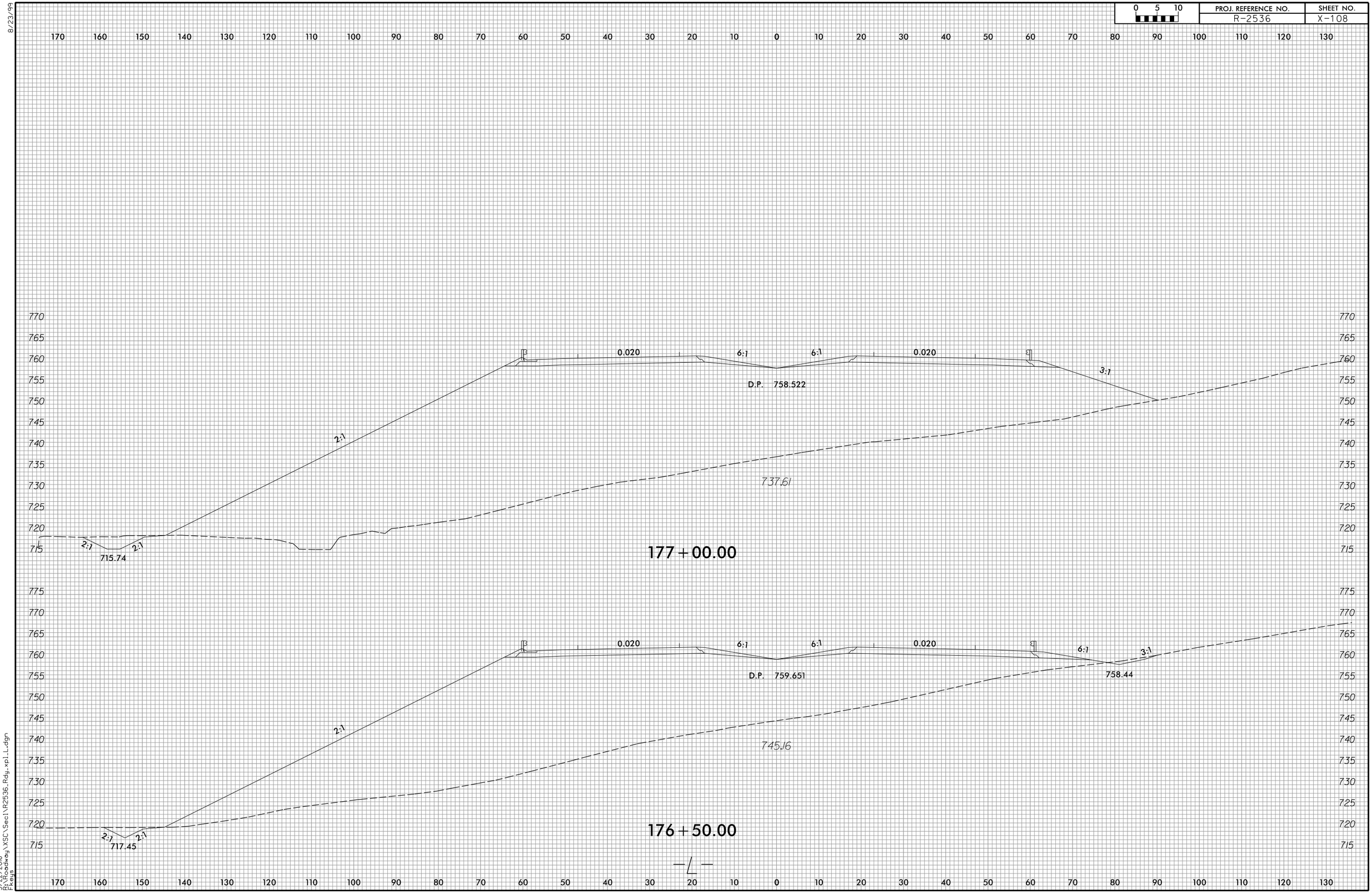
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-107



3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_L.dgn
Pkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-108



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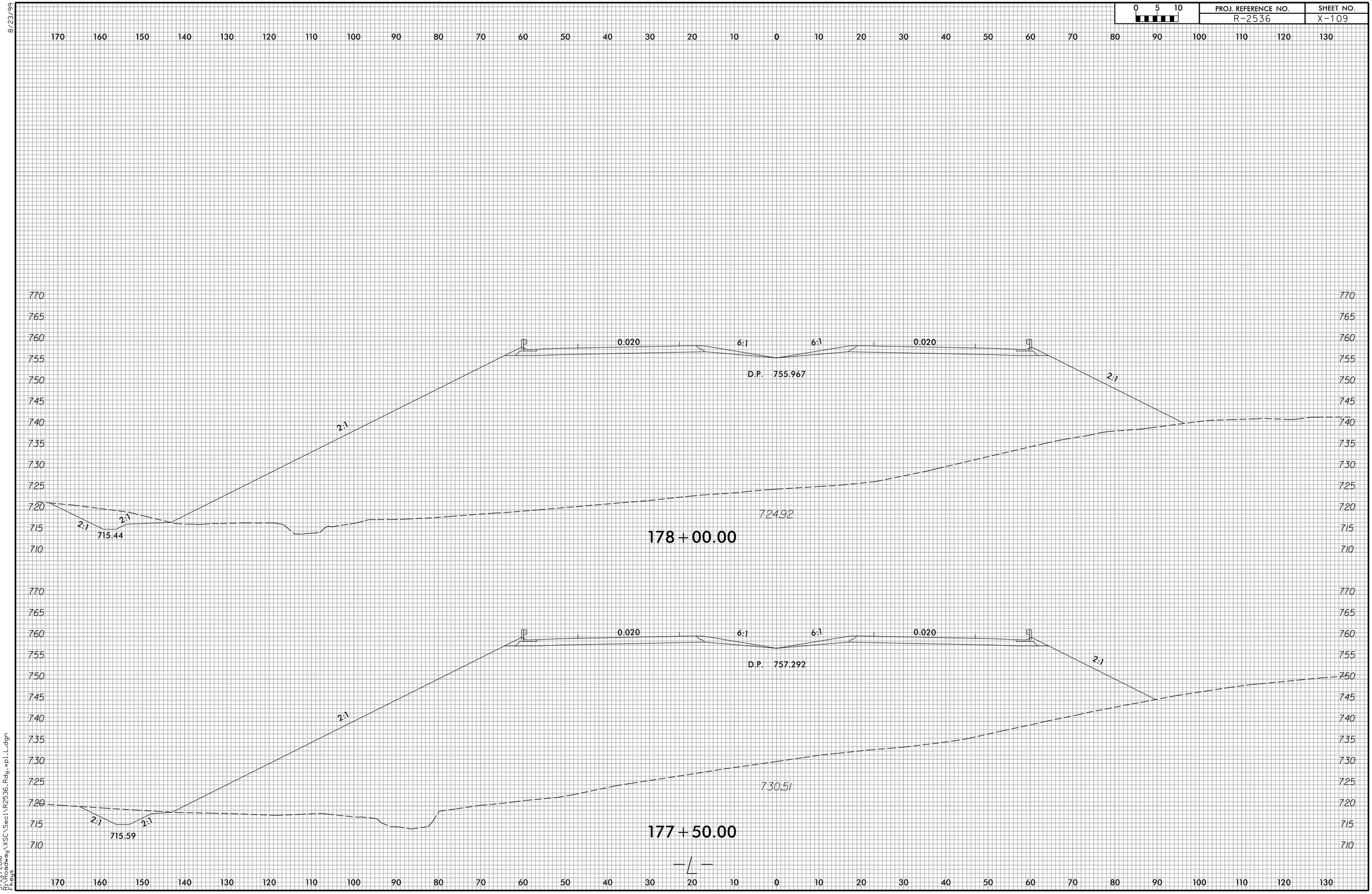
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-109



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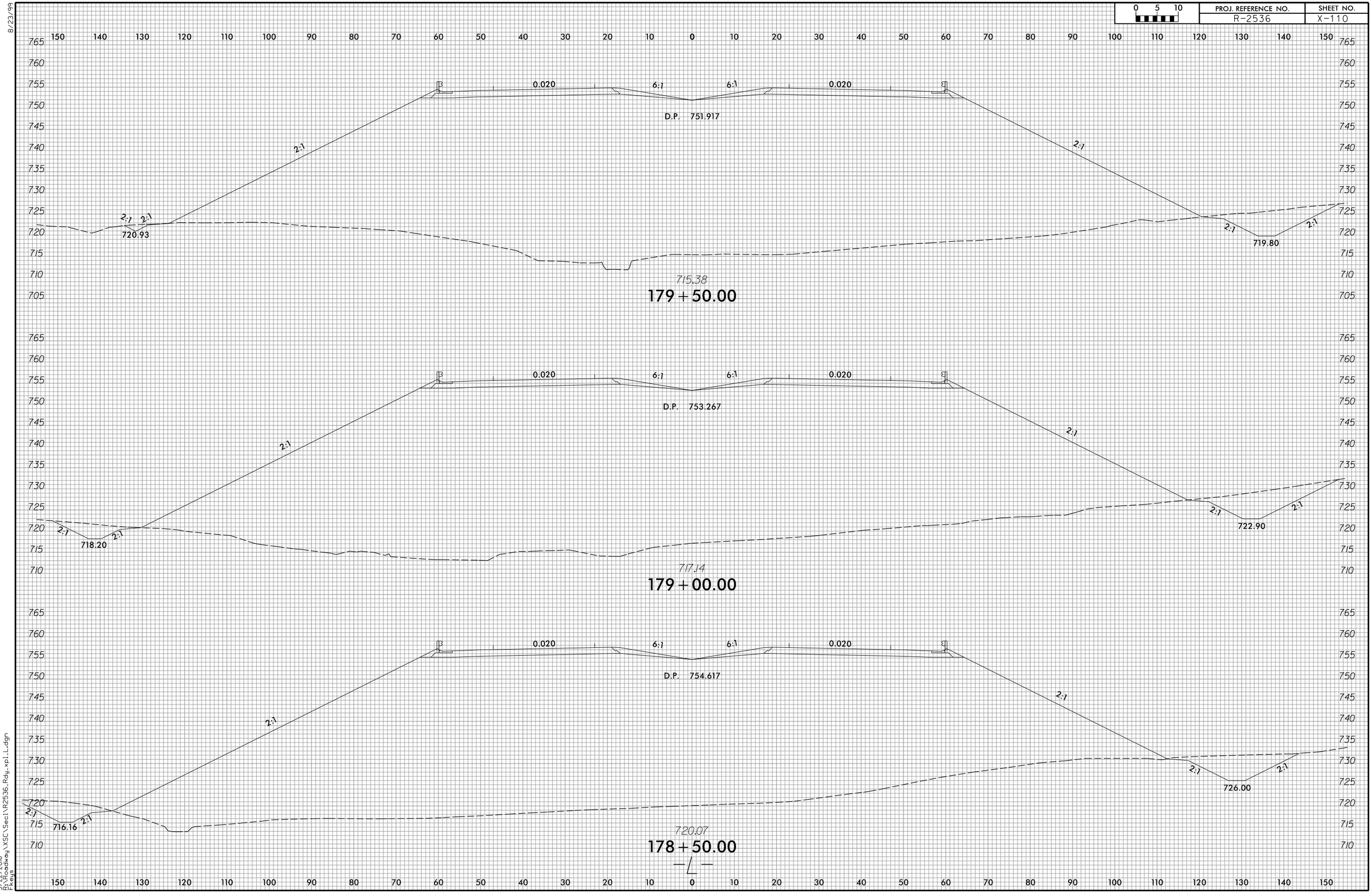
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-110



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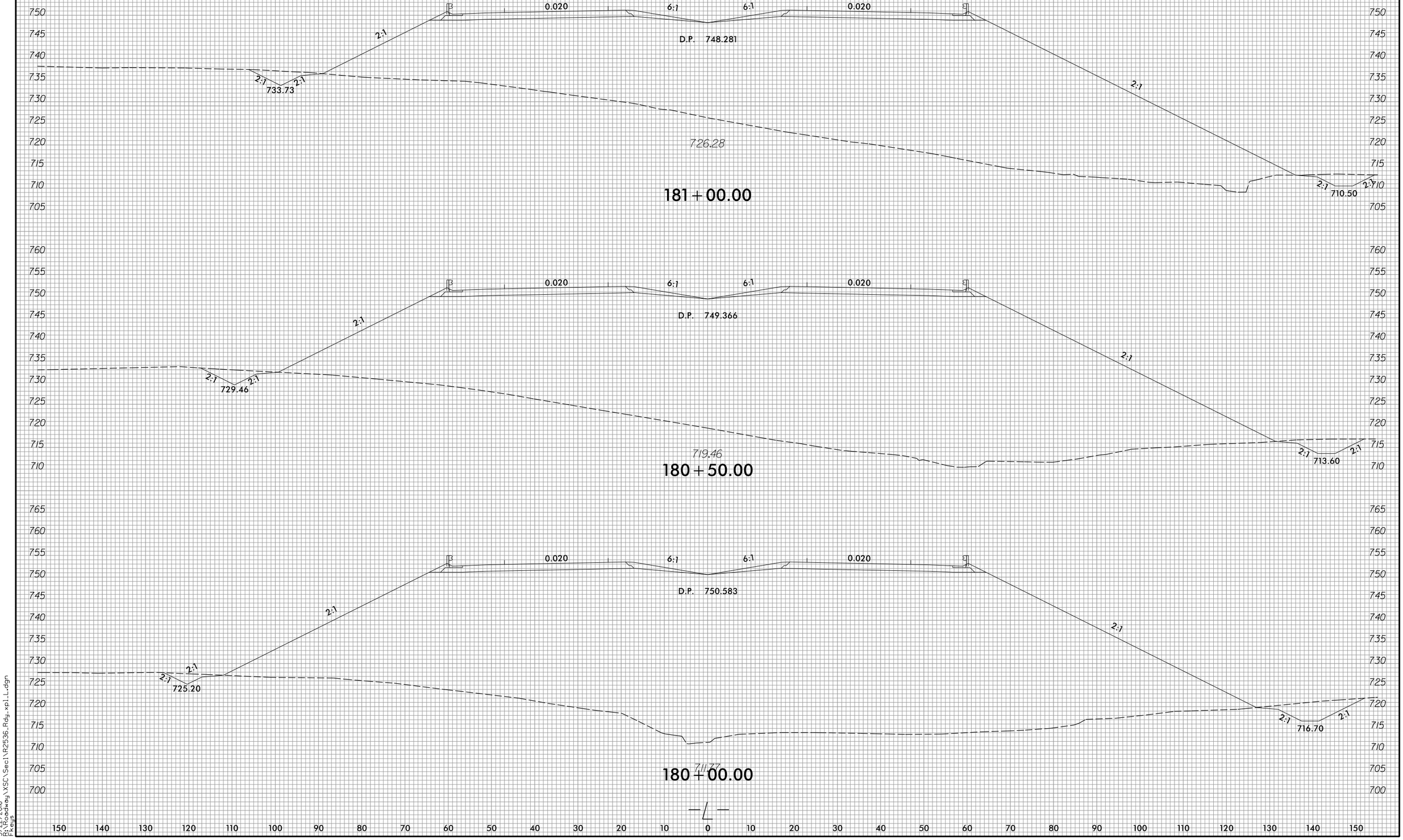
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-111



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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-112

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

760 755 750 745 740 735 730 725 720

737.17 2:1 2:1 3.40:1 0.020 6:1 6:1 0.020 2:1

D.P. 745.823

731.81

182 + 50.00

760 755 750 745 740 735 730 725 720 715 710

739.00 2:1 2:1 3.88:1 0.020 6:1 6:1 0.020 2:1 2:1 2:1

709.93

D.P. 746.509

732.23

182 + 00.00

760 755 750 745 740 735 730 725 720 715 710 705

738.00 2:1 2:1 3.12:1 0.020 6:1 6:1 0.020 2:1 2:1 2:1

707.40

D.P. 747.329

730.43

181 + 50.00

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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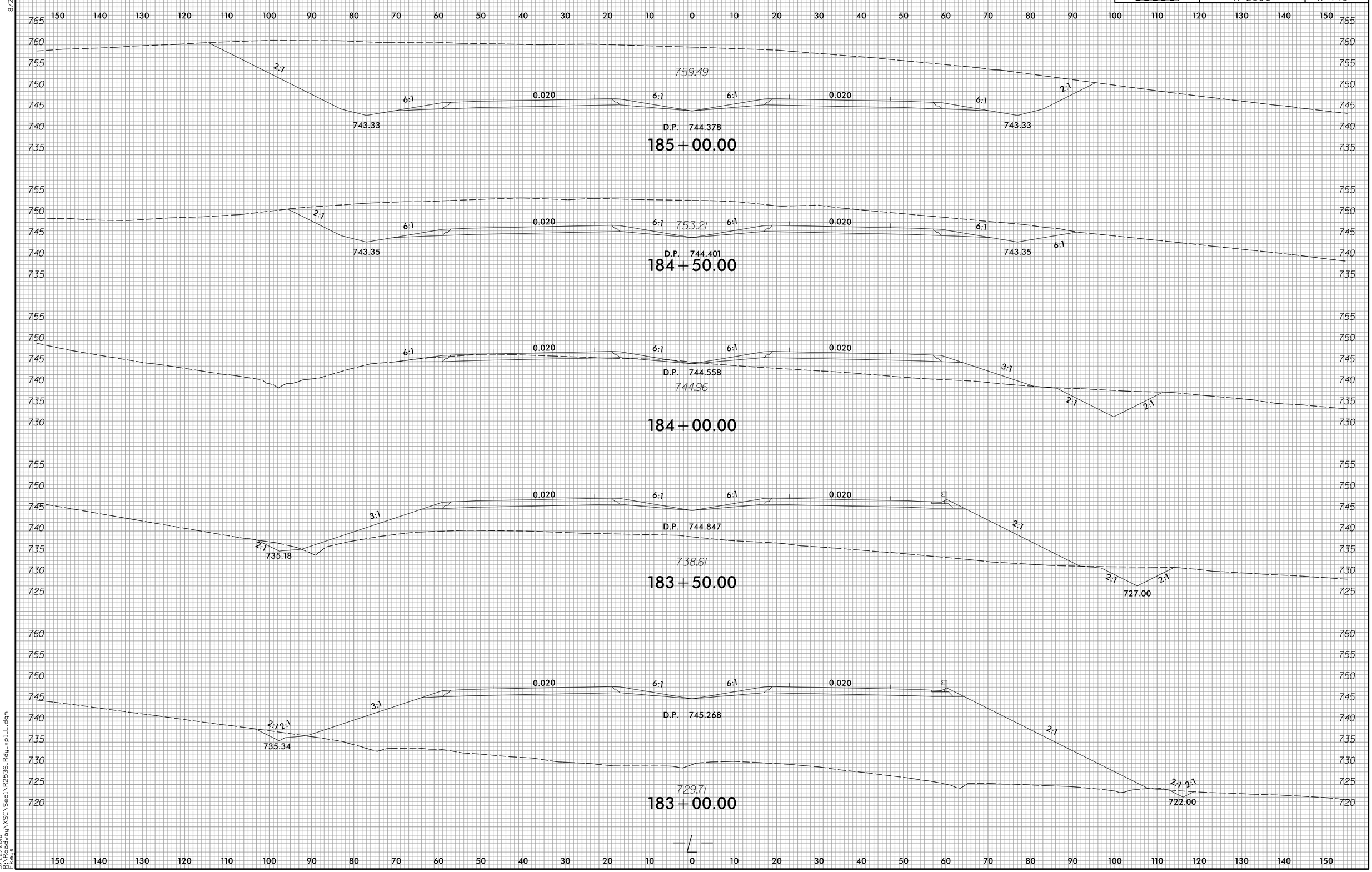
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-113



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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-114

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

785 780 775 770 765 760 755 750 745 740 735

775.11

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

744.04 744.04

D.P. 745.086

186+50.00

780 775 770 765 760 755 750 745 740 735

770.55

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

743.68 743.68

D.P. 744.728

186+00.00

775 770 765 760 755 750 745 740 735

764.58

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

743.44 743.44

D.P. 744.486

185+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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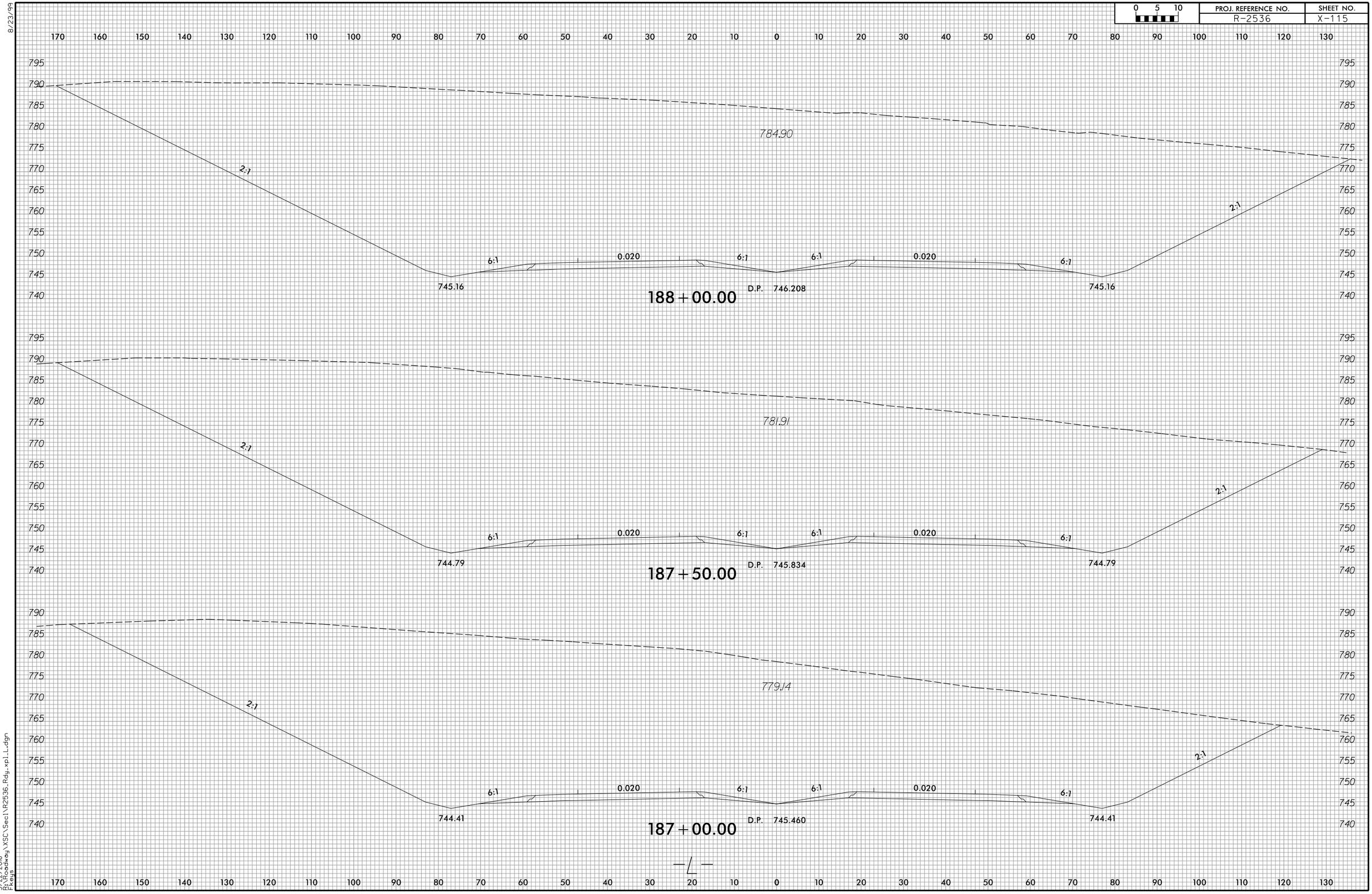
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-115



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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-116

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

800 790 780 770 760 750 740

793.90

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

746.66 746.66

D.P. 747.704

190+00.00

792.74

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

746.28 746.28

D.P. 747.330

189+50.00

789.21

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

745.91 745.91

D.P. 746.956

189+00.00

787.18

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

745.54 745.54

D.P. 746.582

188+50.00

—/—

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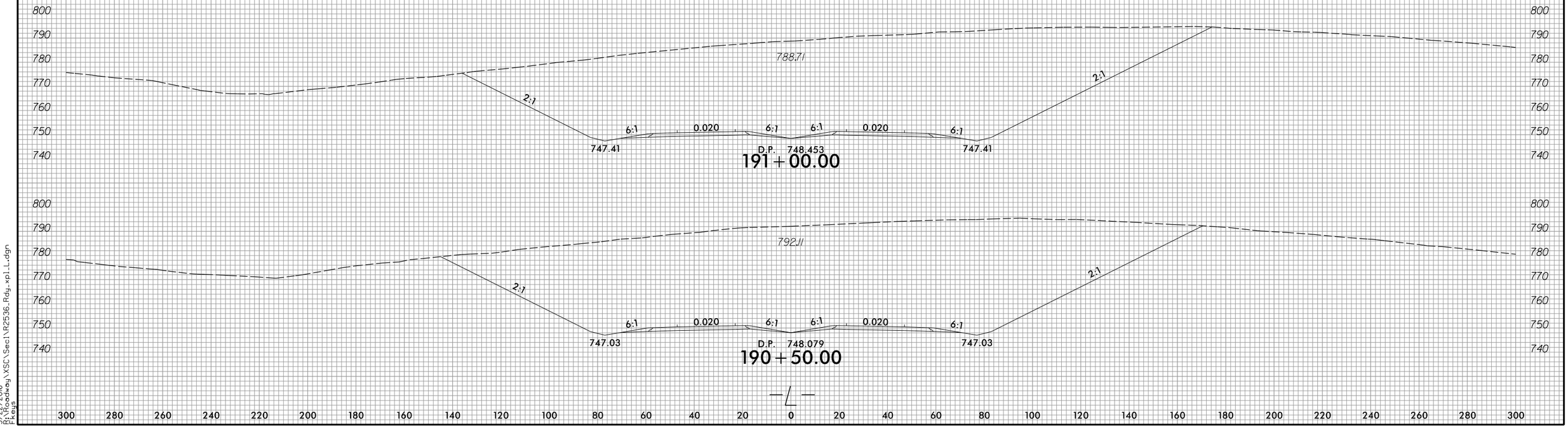
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-117

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-118

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

785 780 775 770 765 760 755 750 745 740

775.99

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

748.53 748.53

D.P. 749.575

192+50.00

790 785 780 775 770 765 760 755 750 745 740

780.96

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

748.15 748.15

D.P. 749.201

192+00.00

795 790 785 780 775 770 765 760 755 750 745 740

785.29

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

747.78 747.78

D.P. 748.827

191+50.00

—℄—

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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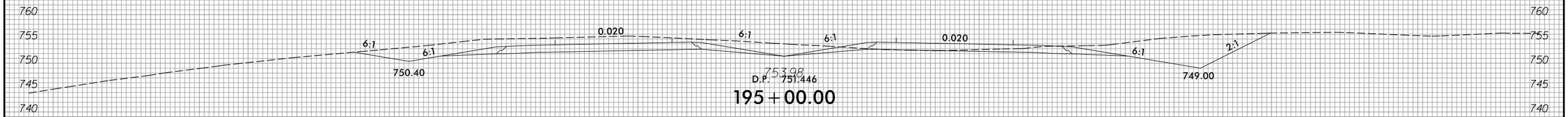
Fkeys

8/23/99

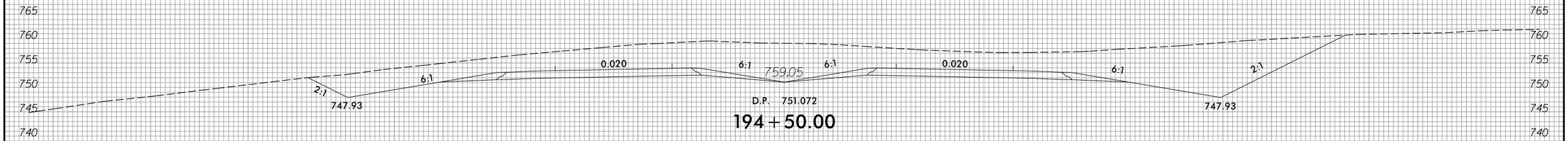
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-119

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



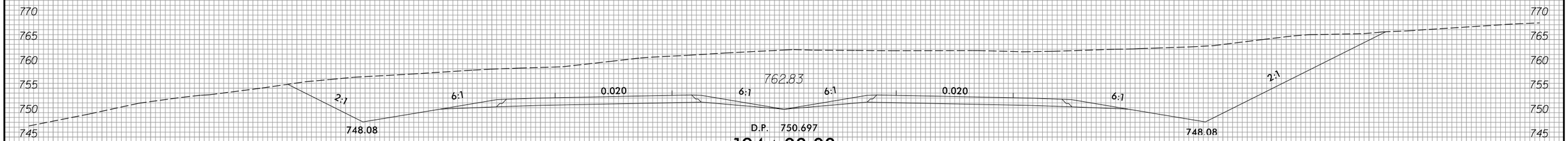
D.P. 751.446

195 + 00.00



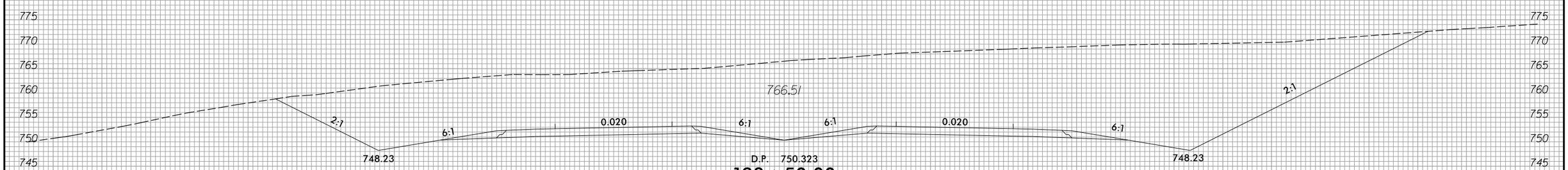
D.P. 751.072

194 + 50.00



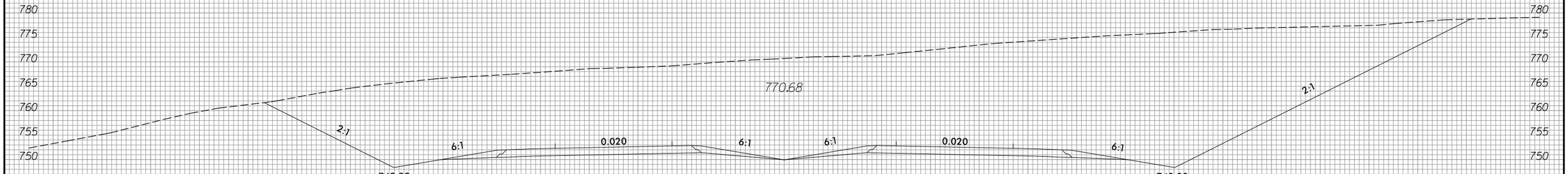
D.P. 750.697

194 + 00.00



D.P. 750.323

193 + 50.00



D.P. 749.949

193 + 00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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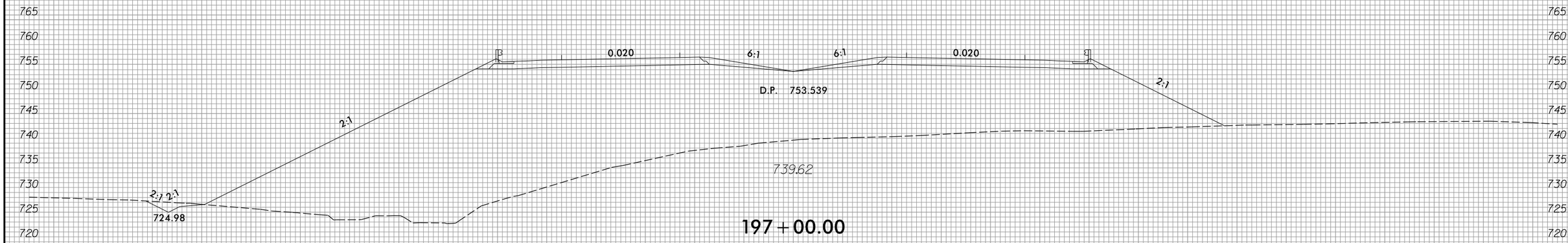
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-120

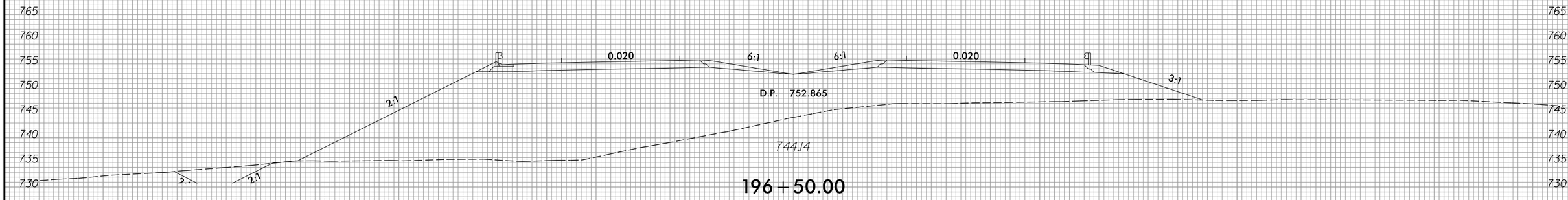
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

765 760 755 750 745 740 735 730 725 720



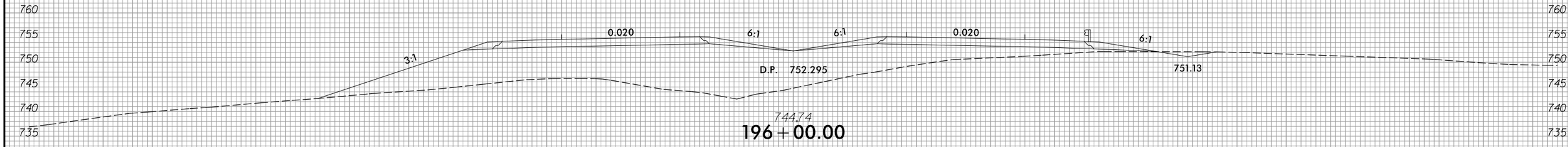
197 + 00.00

765 760 755 750 745 740 735 730



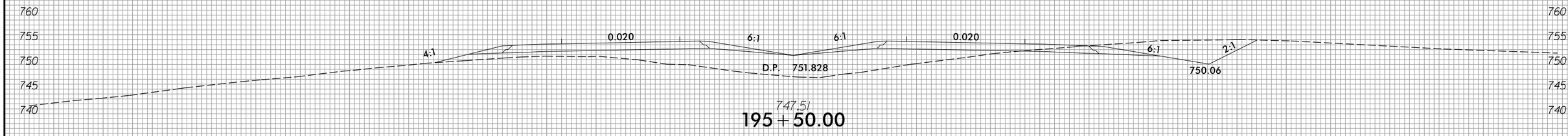
196 + 50.00

760 755 750 745 740 735



196 + 00.00

760 755 750 745 740



195 + 50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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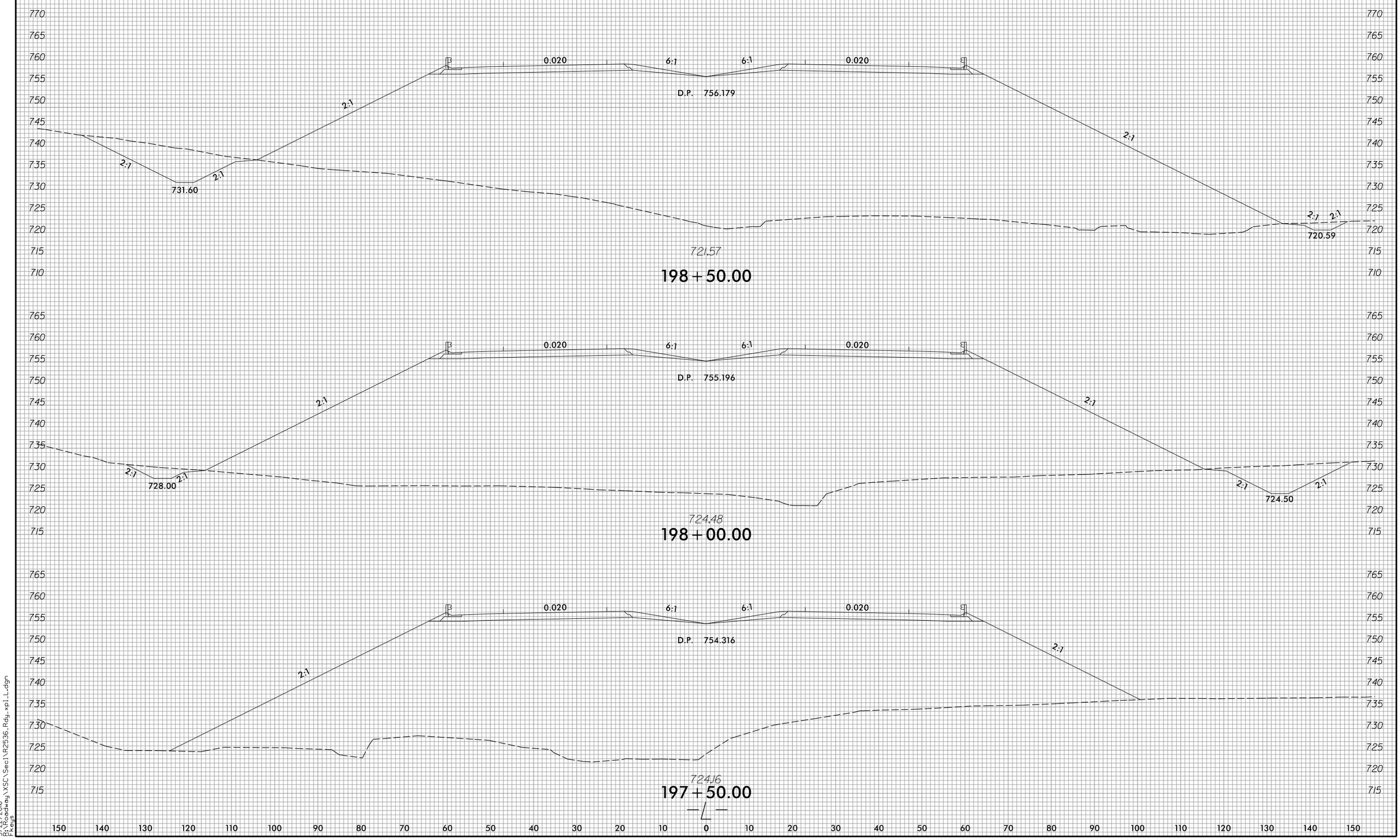
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-121



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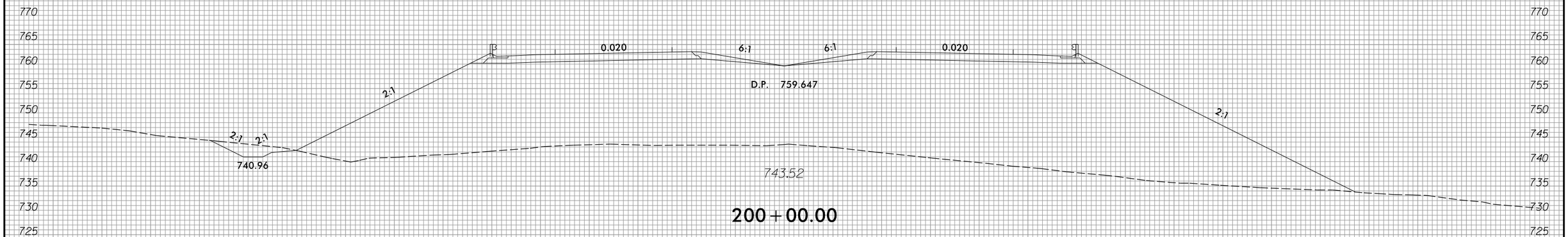
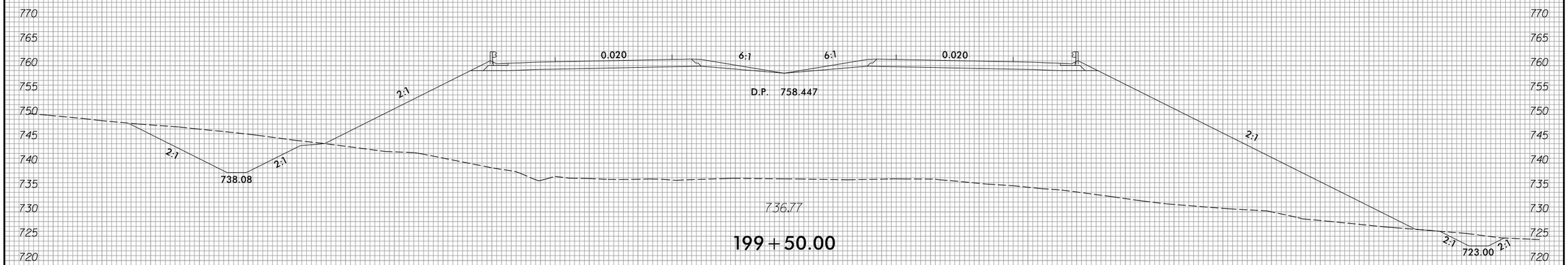
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-122

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

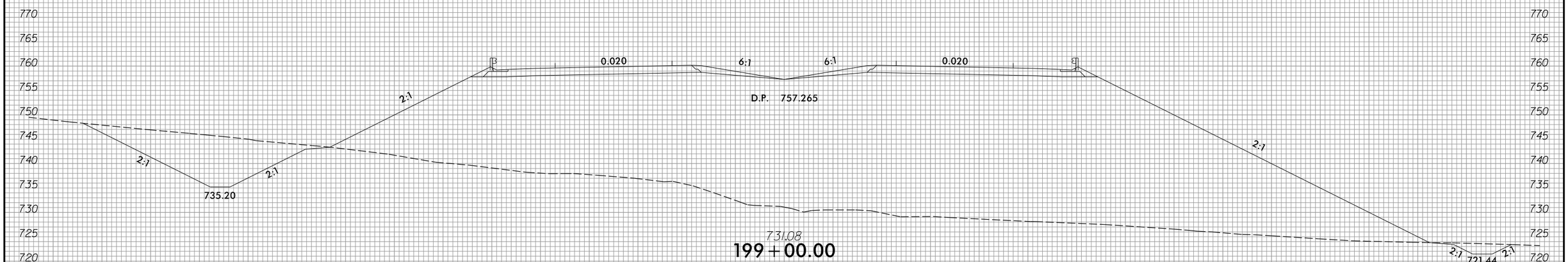
770 765 760 755 750 745 740 735 730 725



200+00.00



199+50.00



199+00.00

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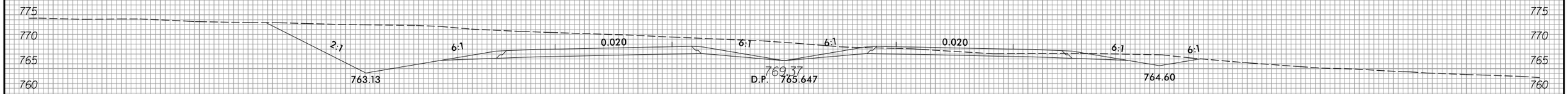
Fkeys

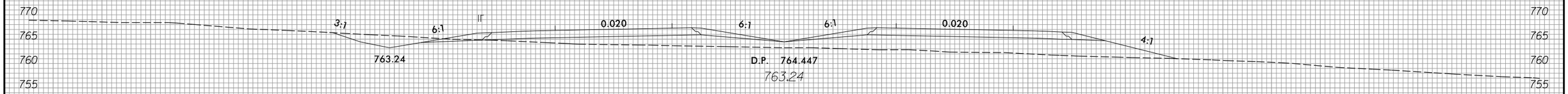
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-123

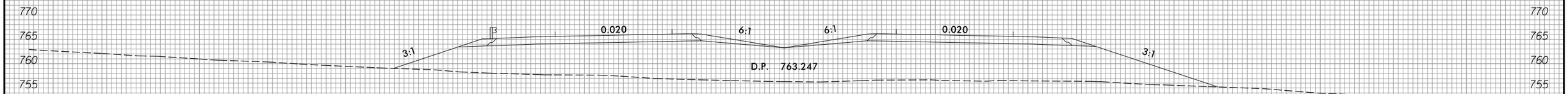
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



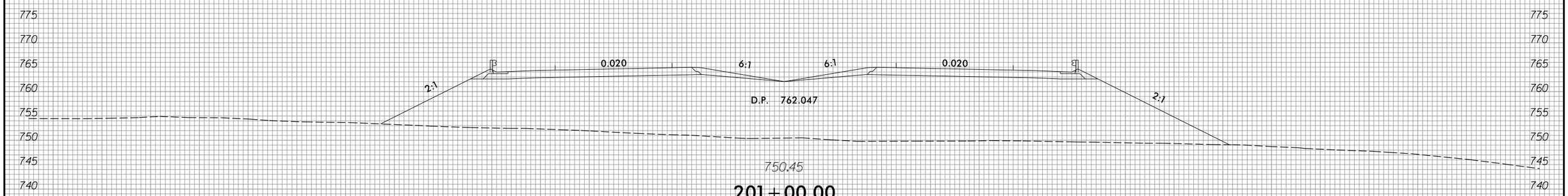
202 + 50.00



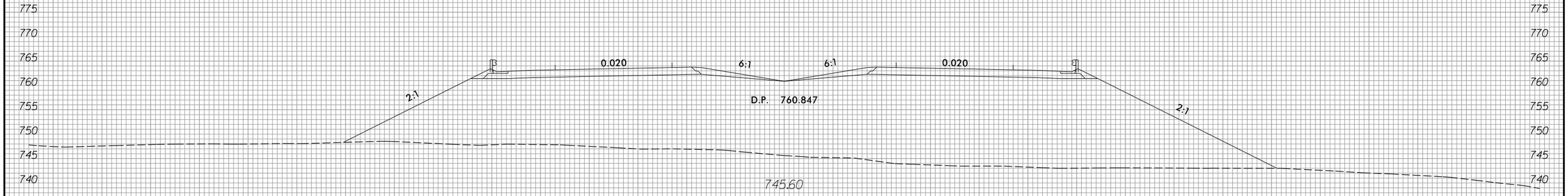
202 + 00.00



201 + 50.00



201 + 00.00



200 + 50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-124

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 795 790 785 780 775 770 765

795.54

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

770.60 770.60

D.P. 771.647

205+00.00

795 790 785 780 775 770 765

790.04

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

769.40 769.40

D.P. 770.447

204+50.00

790 785 780 775 770 765 760

786.02

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

768.20 768.20

D.P. 769.247

204+00.00

785 780 775 770 765 760

781.87

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

767.00 767.00

D.P. 768.047

203+50.00

780 775 770 765 760

776.28

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2.64:1

765.80 765.80

D.P. 766.847

203+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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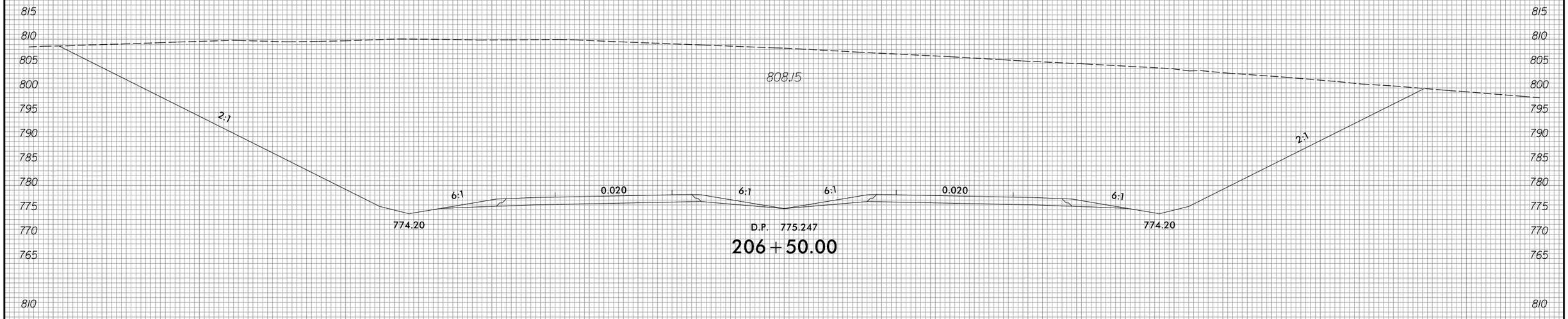
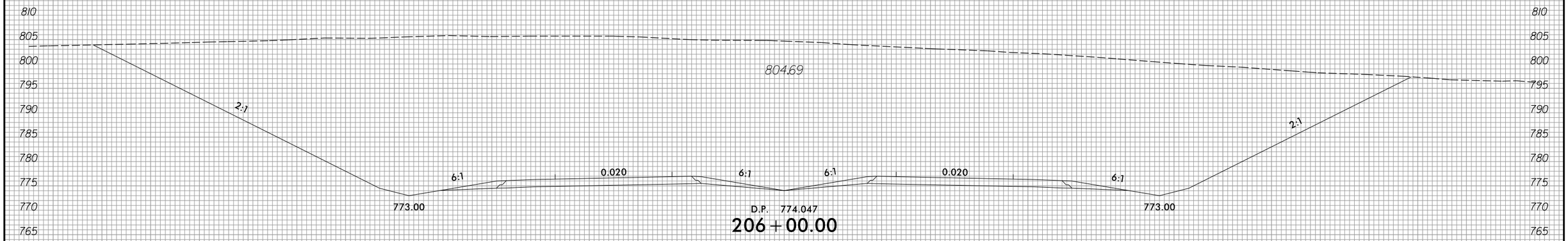
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-125

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



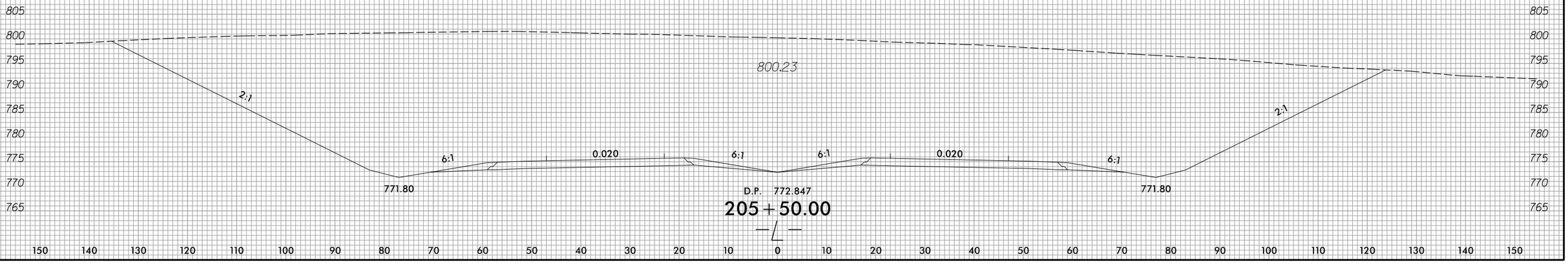
D.P. 775.247

206 + 50.00



D.P. 774.047

206 + 00.00



D.P. 772.847

205 + 50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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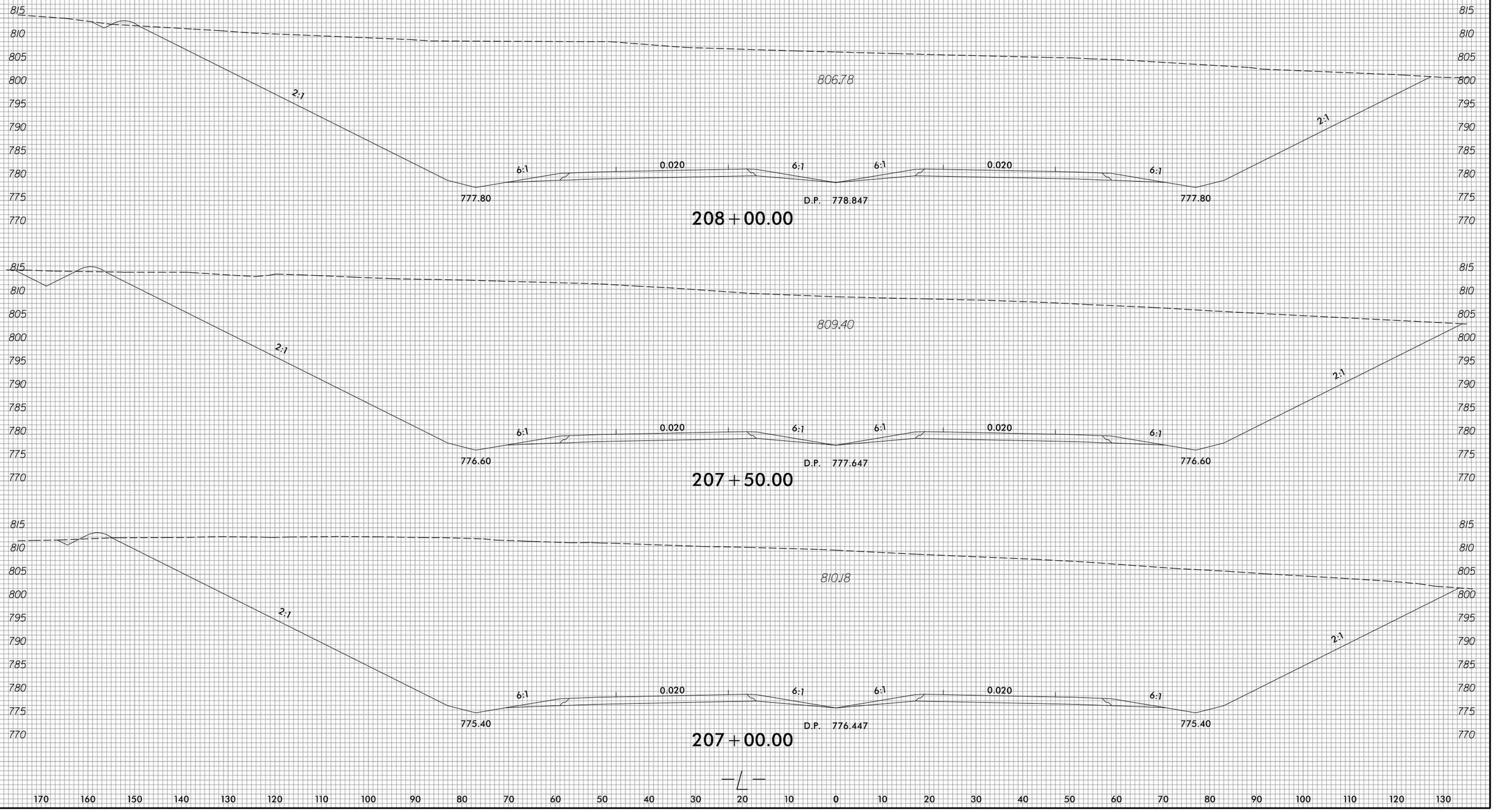
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-126

170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-127

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

820 815 810 805 800 795 790 785 780 775

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

794.52

781.40 781.40

D.P. 782.447

209+50.00

815 810 805 800 795 790 785 780 775

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

797.51

780.20 780.20

D.P. 781.247

209+00.00

815 810 805 800 795 790 785 780 775 770

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

802.75

779.00 779.00

D.P. 780.047

208+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-128

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

820
815
810
805
800
795
790
785
780
775

2:1

797.15

6:1 0.020 6:1 6:1 0.020 6:1 2.19:1

782.60 782.60

D.P. 783.647

210+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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F.Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-129

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

710 705 700 695 690 685 680 675 670 665 660 655 650

18+00.00

-FLY-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-130

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670 660

0.020 0.020
4:1
2:1
2:1
682.69
678.67
2:1
674.76
2.028:1
0.037 0.037
2.030:1
2:1 2:1
658.43
–SR1–
STA. 19+96.79
ELEV = 686.84

20+00.00

720 710 700 690 680 670 660 650

0.020 0.020
4:1
2:1
2:1
679.56
673.31
2:1
672.72
2.053:1
0.034 0.034
2.056:1
2:1 2:1
650.38
–SR1–
STA. 19+45.77
ELEV = 687.85

19+50.00

720 710 700 690 680 670 660 650 640

0.020 0.020
4:1
2:1
2:1
680.40
669.84
2:1
670.12
2.086:1
0.030 0.030
2.090:1
2:1 2:1
648.94
–SR1–
STA. 18+94.21
ELEV = 689.14

19+00.00

720 710 700 690 680 670 660 650 640

0.027 0.027
4:1
2:1
2:1
685.20
678.74
2:1

18+50.00

–FLY–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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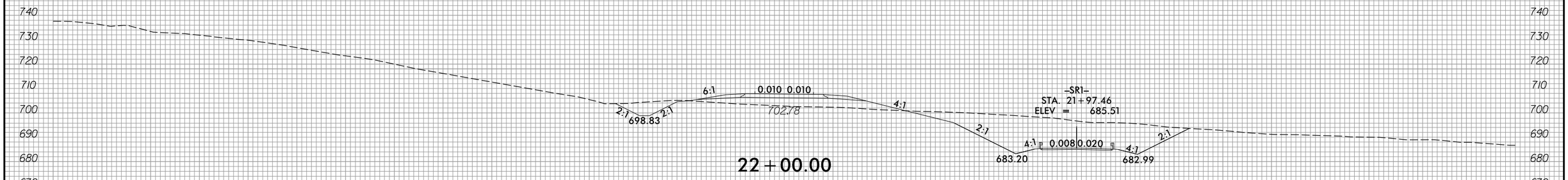
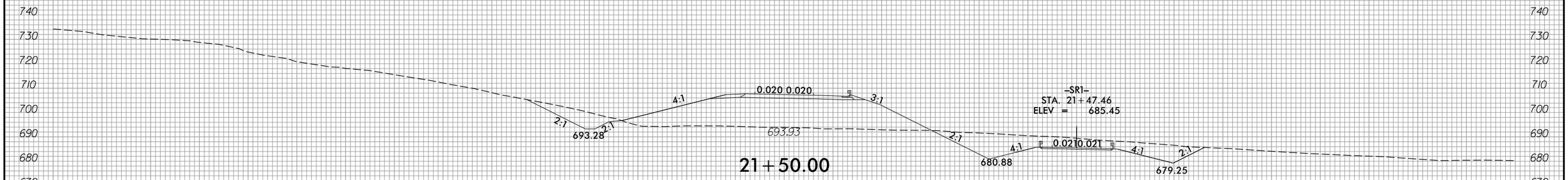
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-131

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

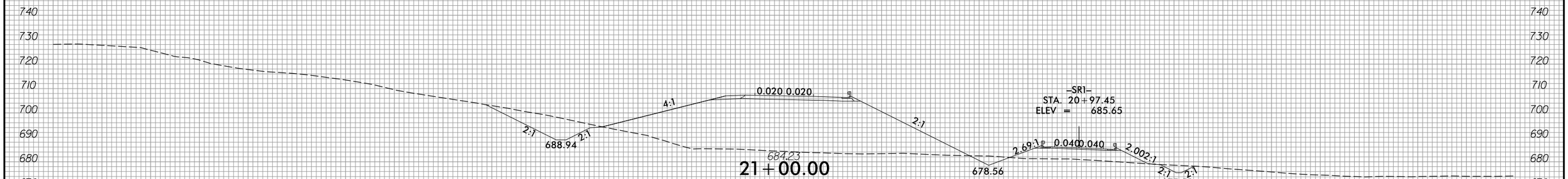
740 730 720 710 700 690 680 670



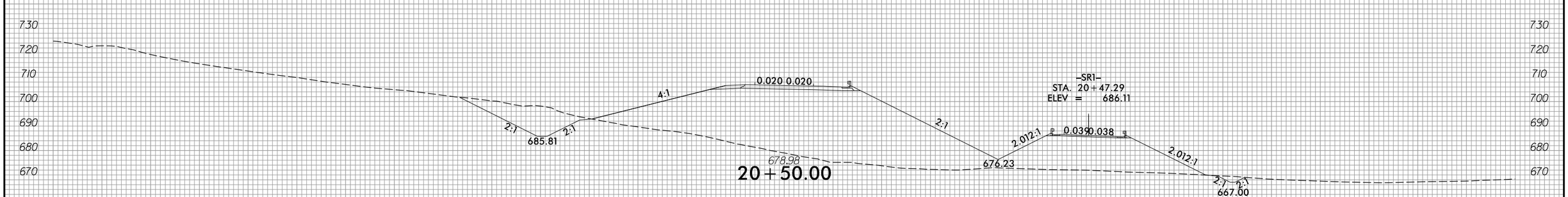
22+00.00



21+50.00



21+00.00



20+50.00

–FLY–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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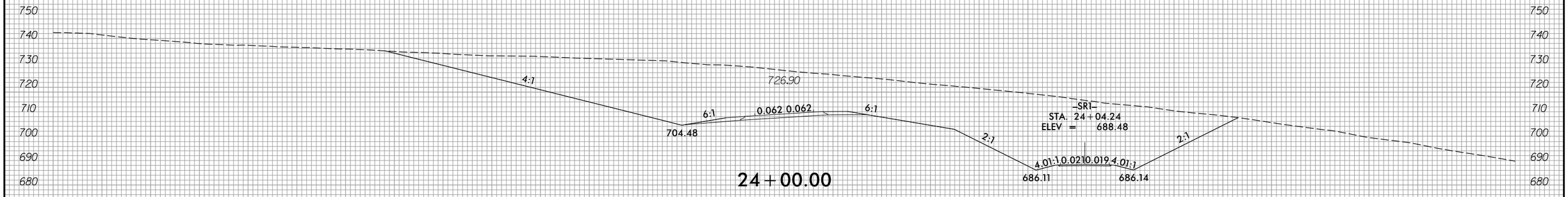
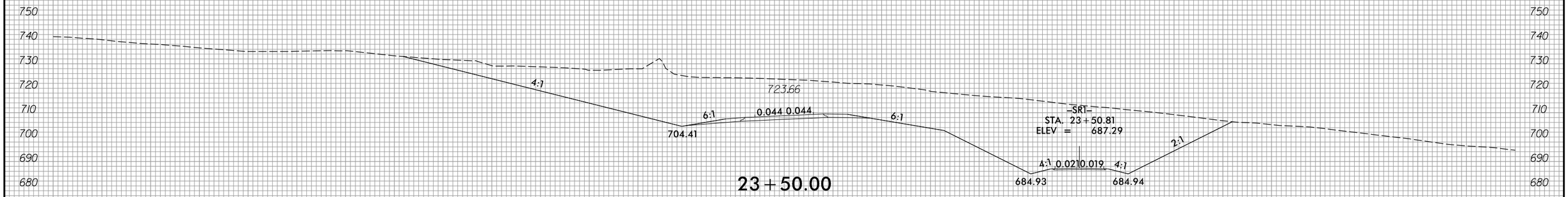
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-132

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

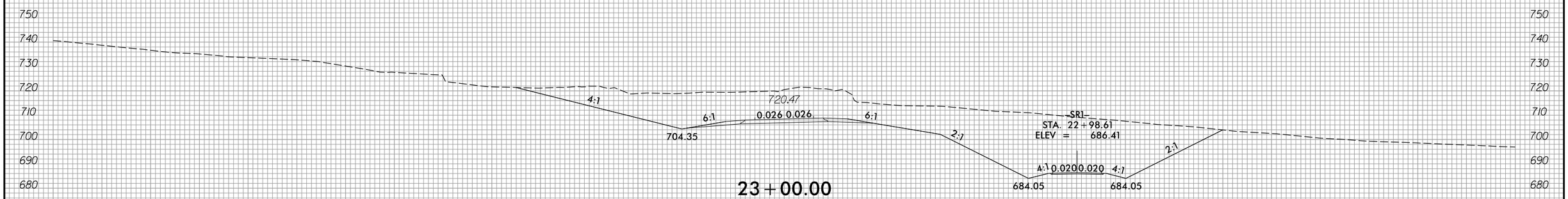
750 740 730 720 710 700 690 680



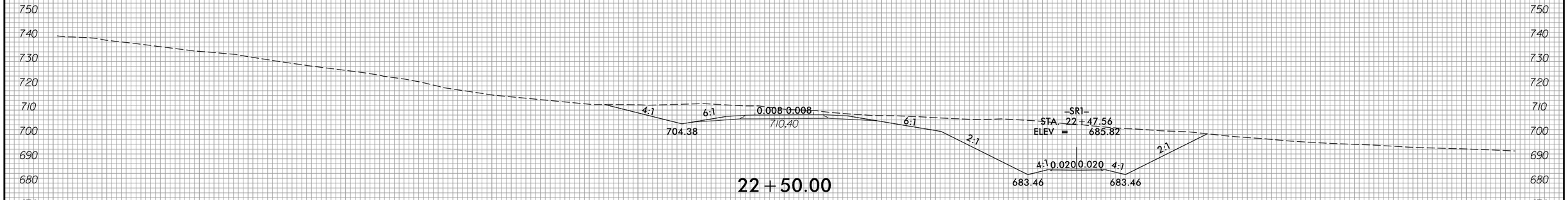
24+00.00



23+50.00



23+00.00



22+50.00

-FLY-

670

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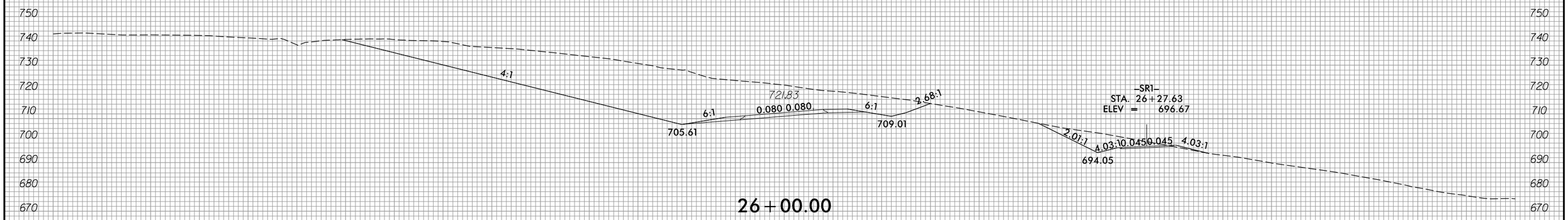
8/23/99

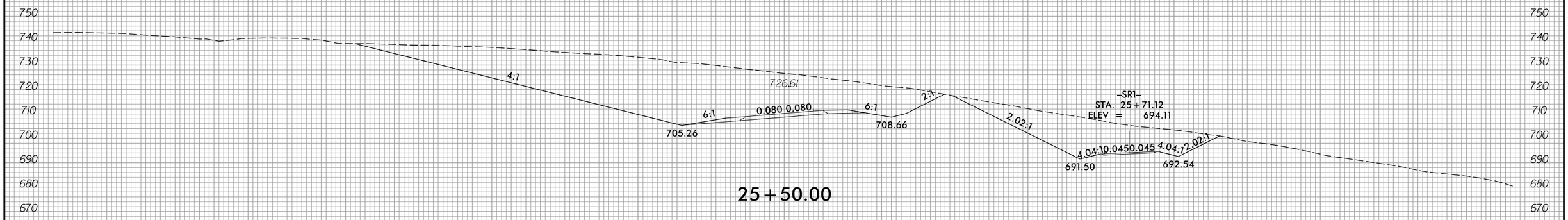
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-133

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

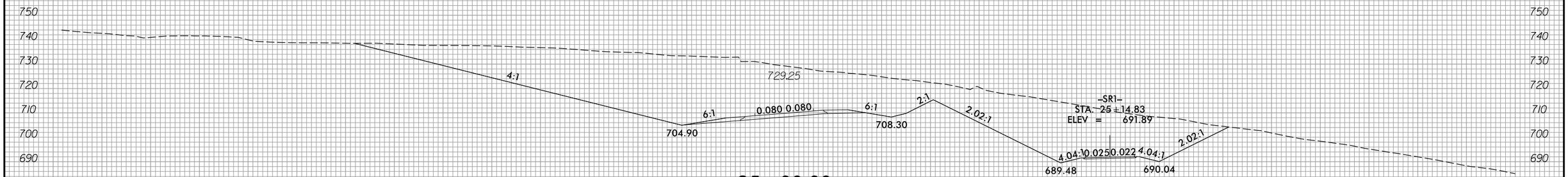
750 740 730 720 710 700 690 680 670



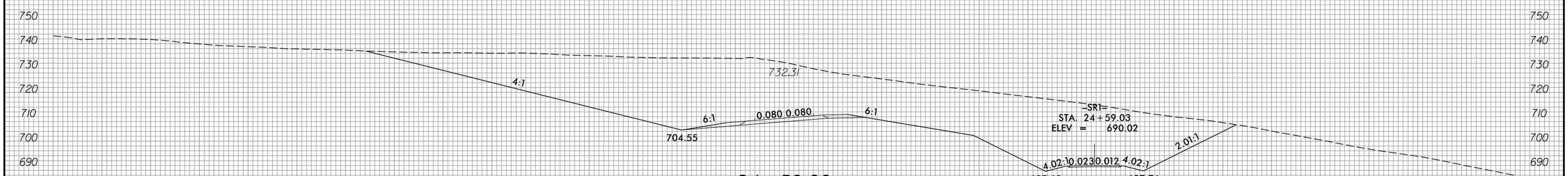
26+00.00



25+50.00



25+00.00



24+50.00

-FLY-

750 740 730 720 710 700 690 680

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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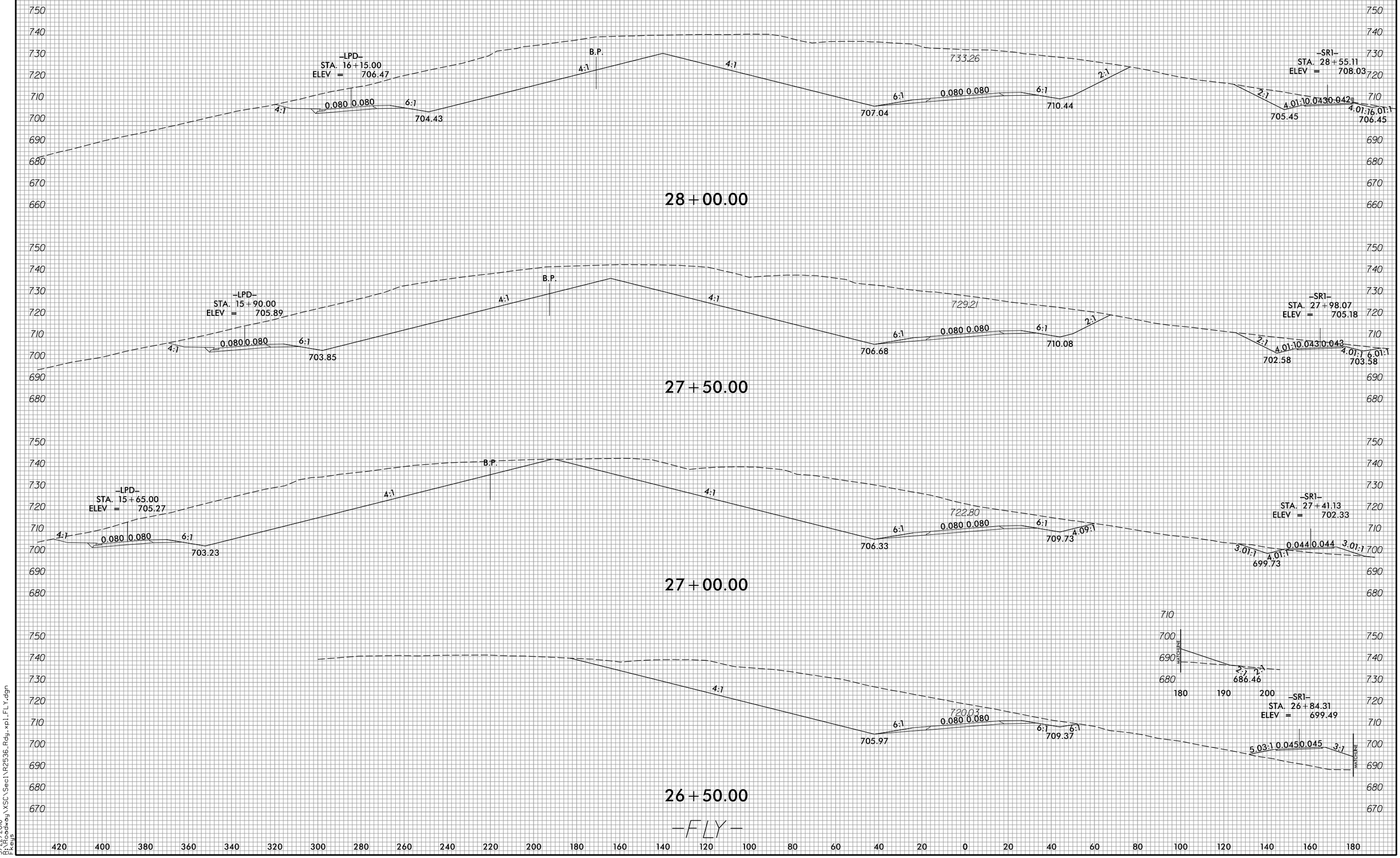
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-134



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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-135

380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220

730 720 710 700 690 680 670 660

–LPD–
STA. 17+65.00
ELEV = 709.08

723.75

4:1 | 0.080 0.080 | 6:1 | 4:1 | 4:1 | 6:1 | 0.080 0.080 | 6:1 | 2:1

B.P.

707.04 | 708.46 | 711.86

30+00.00

740 730 720 710 700 690 680 670 660

–LPD–
STA. 17+25.00
ELEV = 708.53

730.47

–SR1–
STA. 30+26.71
ELEV = 716.57

4:1 | 0.080 0.080 | 6:1 | 4:1 | 4:1 | 6:1 | 0.080 0.080 | 6:1 | 2:1 | 6.07:1 | 0.0100.012 | 2.03:1

B.P.

706.49 | 708.10 | 711.50

29+50.00

740 730 720 710 700 690 680 670 660

–LPD–
STA. 16+90.00
ELEV = 707.96

732.72

–SR1–
STA. 29+69.37
ELEV = 713.74

4:1 | 0.080 0.080 | 6:1 | 4:1 | 4:1 | 6:1 | 0.080 0.080 | 6:1 | 2:1 | 5:1 | 4:1 | 0.0160.016 | 2:1

B.P.

705.92 | 707.75 | 711.15 | 711.43

29+00.00

740 730 720 710 700 690 680 670 660

–LPD–
STA. 16+50.00
ELEV = 707.21

734.26

–SR1–
STA. 29+12.22
ELEV = 710.89

4:1 | 0.080 0.080 | 6:1 | 4:1 | 4:1 | 6:1 | 0.080 0.080 | 6:1 | 2:1 | 2:1 | 4:1 | 0.0420.042 | 3:1

B.P.

705.17 | 707.39 | 710.79 | 708.31

28+50.00

–FLY–

380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-136

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670 660

–LPD–
STA. 19+34.56
ELEV = 710.24

0.040 0.040 0.080 0.080 3.22:1 2:1 2:1

4.043:1

S.P. #1C
ELEV. 675.64

697.56

701.50

32+00.00

730 720 710 700 690 680 670 660

–LPD–
STA. 18+92.00
ELEV = 710.13

0.052 0.052 6:1 B.P. 6:1 0.080 0.080 5.82:1 2:1 2:1

4:1

S.P. #1C
ELEV. 675.64

704.36

708.00

31+50.00

730 720 710 700 690 680 670 660

–LPD–
STA. 18+48.00
ELEV = 709.88

0.063 0.063 6:1 B.P. 6:1 0.080 0.080 6:1 2.22:1

4:1

711.86

712.42

31+00.00

730 720 710 700 690 680 670 660

–LPD–
STA. 18+06.00
ELEV = 709.53

0.075 0.074 6:1 4:1 B.P. 4.40:1 6:1 0.080 0.080 6:1 2:1

4:1

719.34

707.39 708.80

712.20

30+50.00

–FLY–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-137

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

740 730 720 710 700 690 680 670 660 650 640 630 620 610 600

–LPD–
STA. 20+78.97
ELEV = 709.73

0.030 0.030 0.080 0.080

4:1 2:1 2:1 2:1 2:1 2:1

661.38

682.00

672.51

33+50.00

740 730 720 710 700 690 680 670 660

–LPD–
STA. 20+30.83
ELEV = 710.05

0.030 0.030 0.080 0.080

4:1 2:1 2:1 2:1

688.50

682.02

33+00.00

730 720 710 700 690 680 670 660

–LPD–
STA. 19+82.72
ELEV = 710.22

0.030 0.030 0.080 0.080

4:1 2:1 2:1 2:1

695.00

690.01

32+50.00

–FLY–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-138

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670 660 650

–LPD–
STA. 22+23.99
ELEV = 707.83

0.029 0.029 0.062 0.062

4:1 2:1 2:1 2:1 2:1 2:1

670.69 654.90 664.96

35+00.00

740 730 720 710 700 690 680 670 660 650

–LPD–
STA. 21+75.43
ELEV = 708.62

0.029 0.029 0.080 0.080

4:1 2:1 2:1 2:1 2:1 2:1

667.57 655.33 670.23

34+50.00

740 730 720 710 700 690 680 670 660 650

–LPD–
STA. 21+27.16
ELEV = 709.25

0.030 0.030 0.080 0.080

4:1 2:1 2:1 2:1 2:1 2:1

664.47 663.74 675.50

34+00.00

–FLY–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-139

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670 660 650 640

–LPD–
STA. 23+72.08
ELEV = 704.46

0.025 0.020 0.036

4:1

2:1

S.P. #5
ELEV. 678.21

656.54

2:1
649.16

36+50.00

730 720 710 700 690 680 670 660 650 640

–LPD–
STA. 23+22.37
ELEV = 705.75

0.029 0.029 0.025 0.025

4:1

2:1

655.83

2:1 2:1
654.43

36+00.00

730 720 710 700 690 680 670 660 650 640

–LPD–
STA. 22+73.00
ELEV = 706.88

0.029 0.029 0.044 0.044

4:1

2:1

2:1 2:1
673.83

655.28

2:1 2:1
664.96

35+50.00

–FLY–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-140

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

725 720 715 710 705 700 695 690 685 680 675 670 665 660 655 650 645 640

–LPD–
STA. 24+72.06
ELEV = 701.38

S.P. #8
ELEV. 700.96

0.020 0.020 0.020 0.020

2:1

S.P. #10
ELEV. 660.22

664.30

2:1 2:1

646.21

37+50.00

–LPD–
STA. 24+22.06
ELEV = 702.99

S.P. #7
ELEV. 694.72

0.020 0.020 0.020 0.025

3:1

2:1

S.P. #6
ELEV. 676.24

661.22

2:1 2:1

646.06

37+00.00

–FLY–

3/22/2016
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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-141

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 715 710 705 700 695 690 685 680 675 670 665 660 655 650 645

–LPD–
STA. 25+72.06
ELEV = 698.13

0.020 0.020 0.020 0.020

668.19

38+50.00

725 720 715 710 705 700 695 690 685 680 675 670 665 660 655 650 645 640

–LPD–
STA. 25+22.06
ELEV = 699.76

0.020 0.020 0.020 0.020

S.P. #9
ELEV. 696.68

659.89

38+00.00

–FLY–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-142

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

715 710 705 700 695 690 685 680 675 670 665 660 655

–LPD–
STA. 26+72.06
ELEV = 694.88

0.020 0.020 0.020 0.020

4:1

S.P. #11
ELEV. 681.30

677.85

39+50.00

720 715 710 705 700 695 690 685 680 675 670 665 660 655 650

–LPD–
STA. 26+22.06
ELEV = 696.51

0.020 0.020 0.020 0.020

674.68

39+00.00

–FLY–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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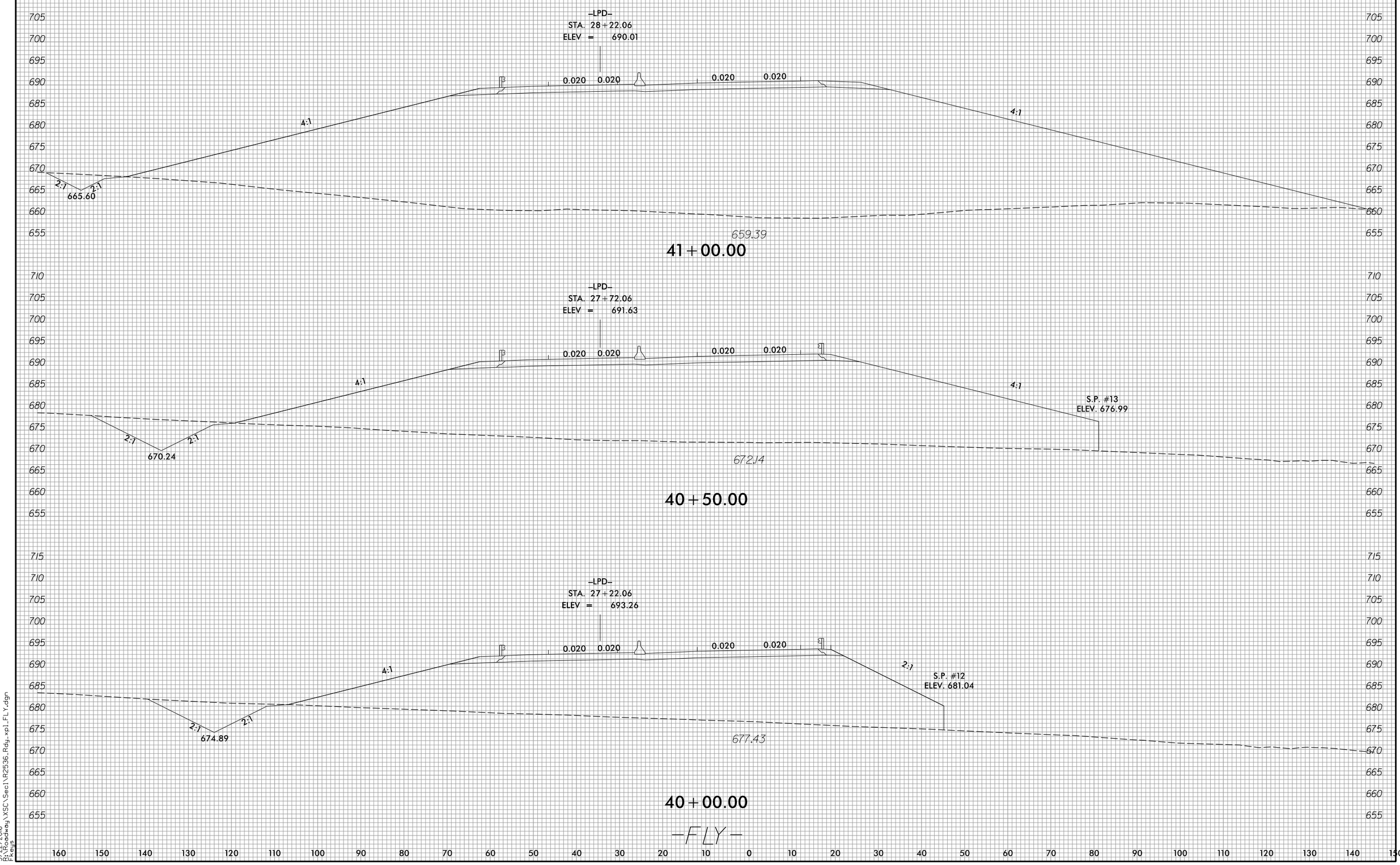
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-143



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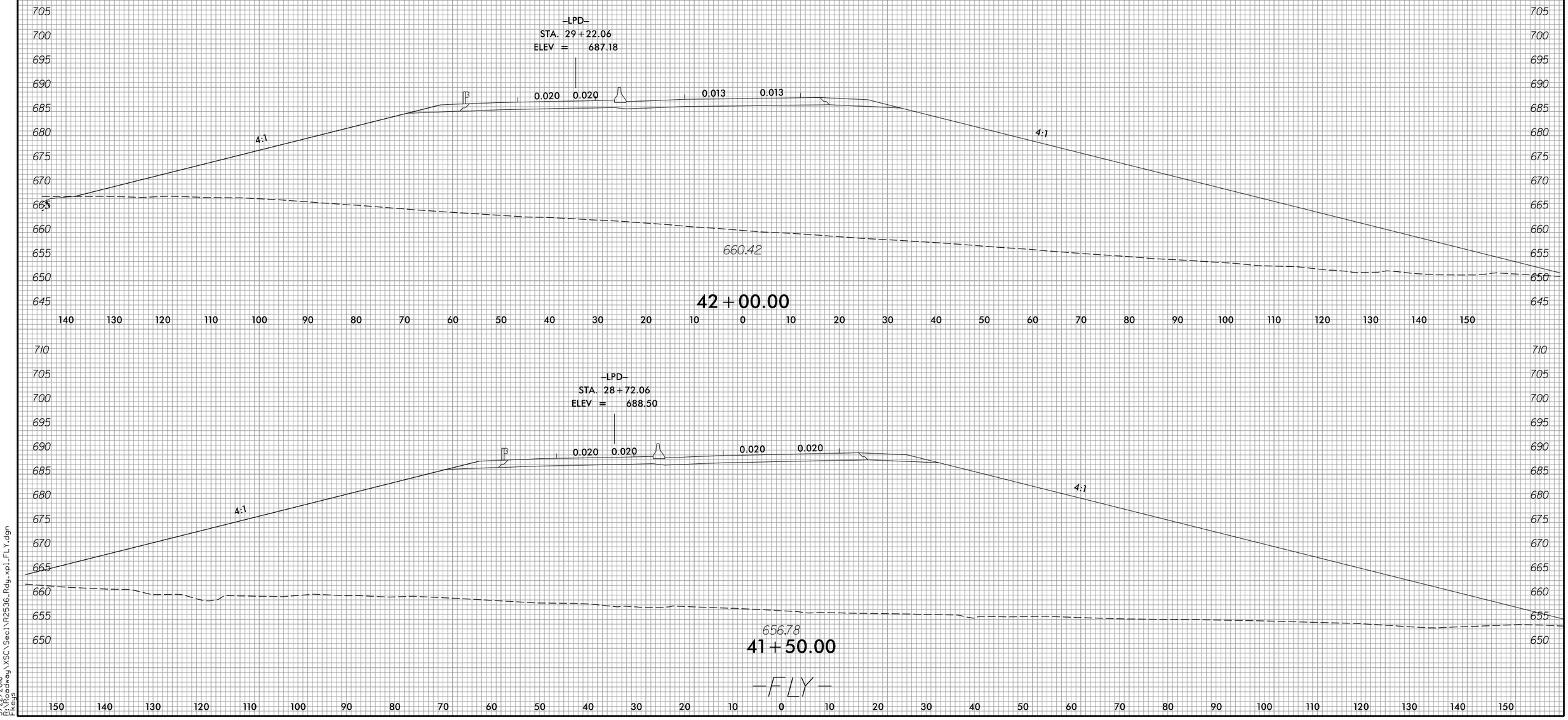
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-144



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-145

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

705 700 695 690 685 680 675 670 665 660 655 650 645

–LPD–
STA. 30+22.26
ELEV = 685.07

0.015 0.015 0.023 0.023

4.57:1 4:1

2:1 2:1

672.74

671.31

43+00.00

–LPD–
STA. 29+72.07
ELEV = 686.03

0.020 0.020 0.005 0.005

4:1 4:1

2:1 2:1

668.34

667.89

42+50.00

–FLY–

640

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-146

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 695 690 685 680 675 670 665 660 655 650 645 640

–LPD–
STA. 31+23.46
ELEV = 683.68

5.87:1 0.020 0.020 0.059 0.059 4:1

2:1 2:1 675.08

671.70

44+00.00

–LPD–
STA. 30+72.72
ELEV = 684.28

6:1 0.002 0.002 0.041 0.041 4:1

2:1 2:1 677.15

672.72

43+50.00

–FLY–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fleug

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-147

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 695 690 685 680 675 670 665 660 655 650 645 640

—LPD—
STA. 31+74.54
ELEV = 683.26

0.038 0.038 0.078 0.078

4:1 2:1 2:1 4:1

673.02

667.59

44+50.00

—FLY—

3/22/2016
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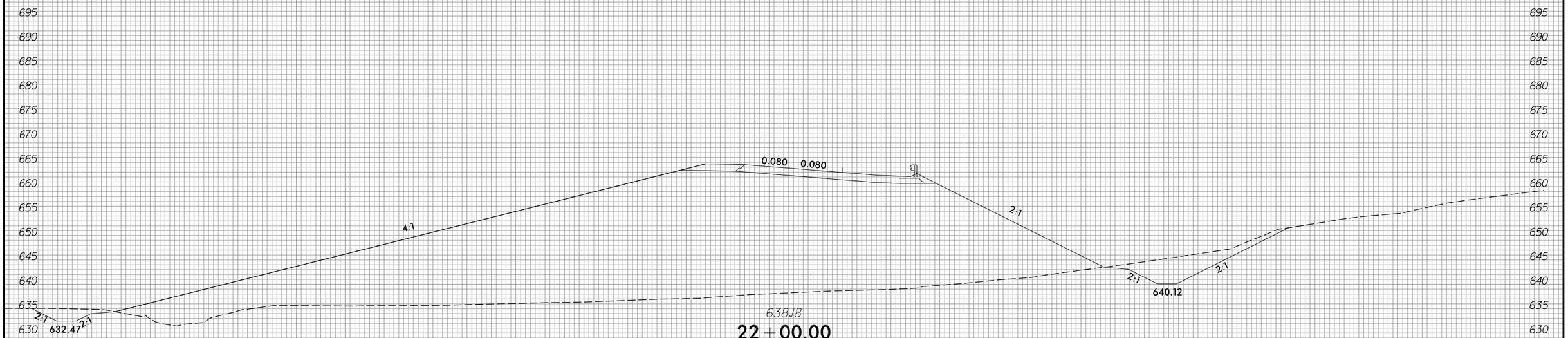
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-148

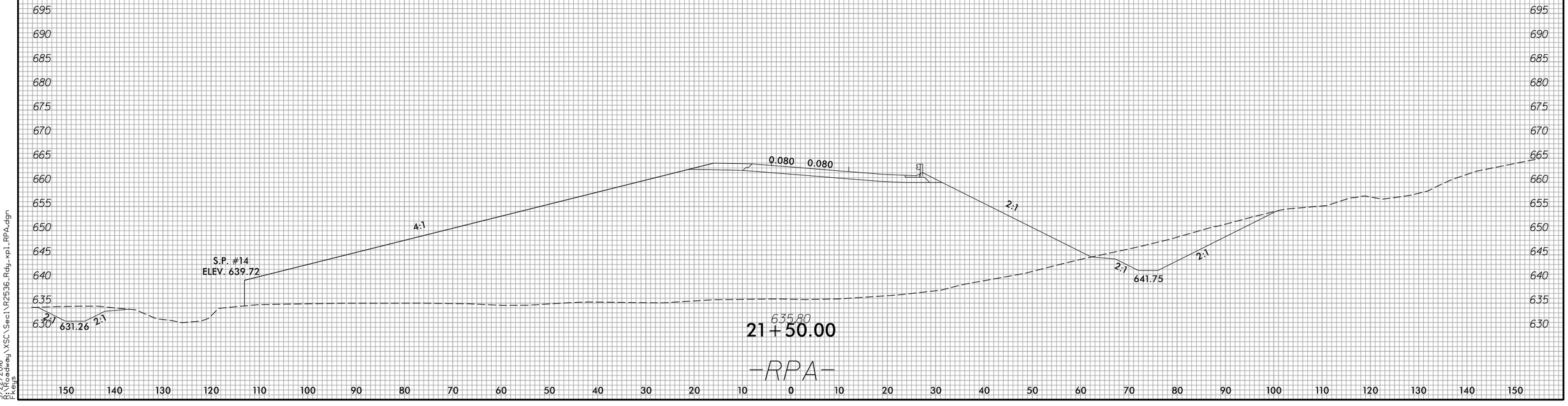
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

695 690 685 680 675 670 665 660 655 650 645 640 635 630



22 + 00.00

695 690 685 680 675 670 665 660 655 650 645 640 635 630



21 + 50.00

—RPA—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

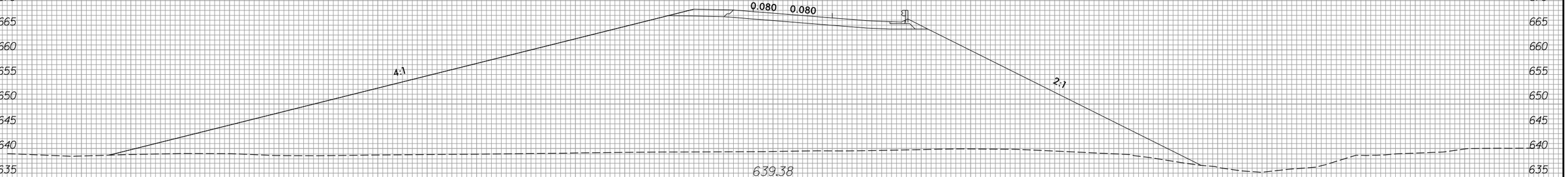
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_RPA.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-149

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

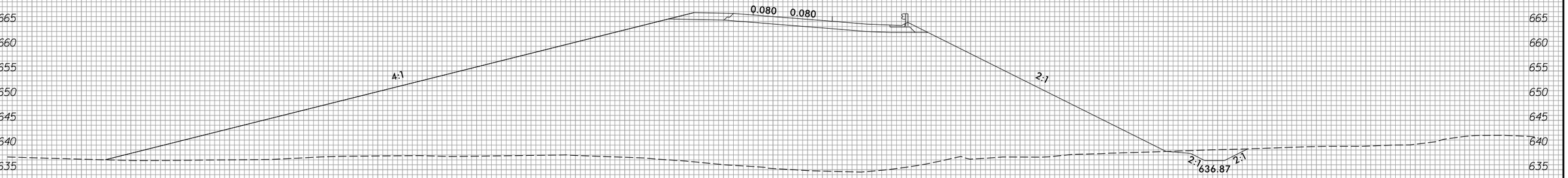
675 670 665 660 655 650 645 640 635 630



639.38

23+50.00

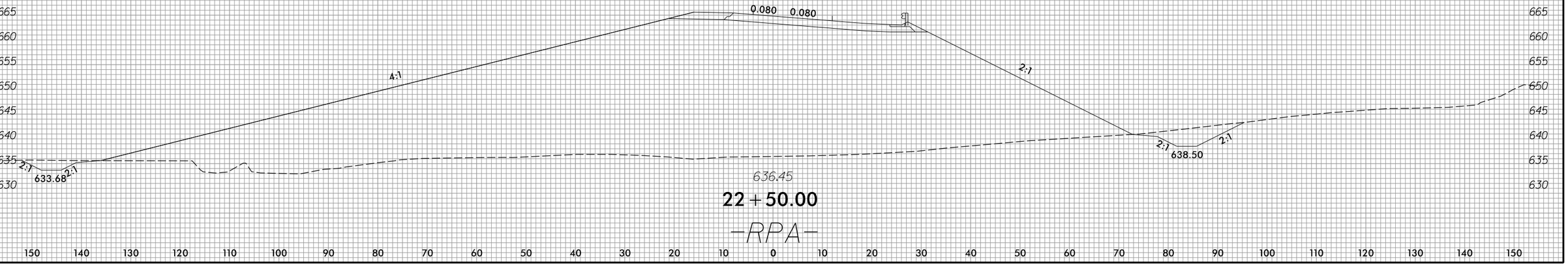
685 680 675 670 665 660 655 650 645 640 635 630



635.24

23+00.00

690 685 680 675 670 665 660 655 650 645 640 635 630



636.45

22+50.00

–RPA–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-150

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

680 675 670 665 660 655 650 645 640 635

0.080 0.080

4:1

2:1

645.22

25+00.00

680 675 670 665 660 655 650 645 640 635

0.080 0.080

4:1

2:1

2:1 2:1

638.00

642.30

24+50.00

675 670 665 660 655 650 645 640 635

0.080 0.080

4:1

2:1

2:1 2:1

636.93

640.35

24+00.00

-RPA-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

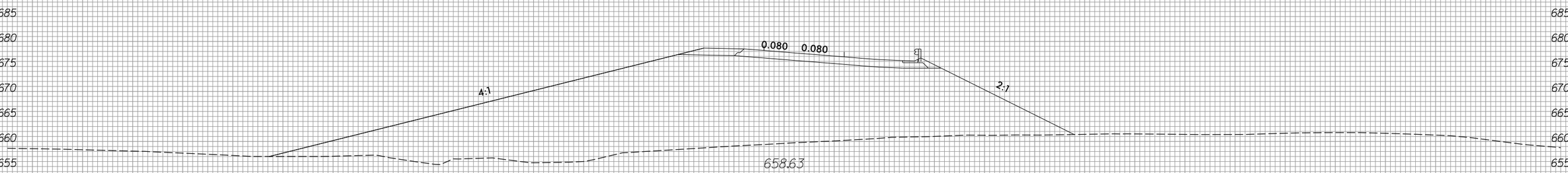
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_RPA.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-151

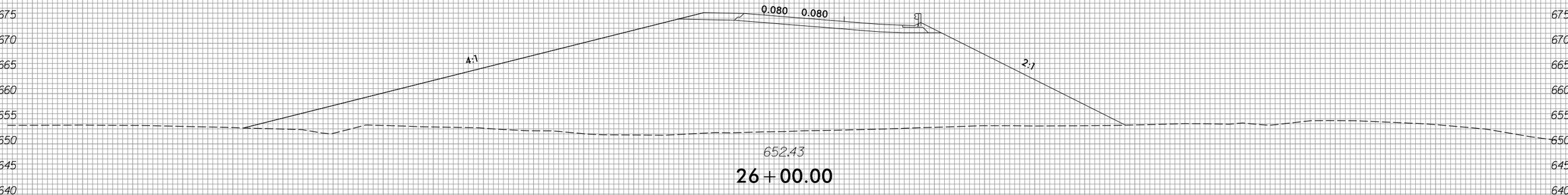
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

685 680 675 670 665 660 655 650 645



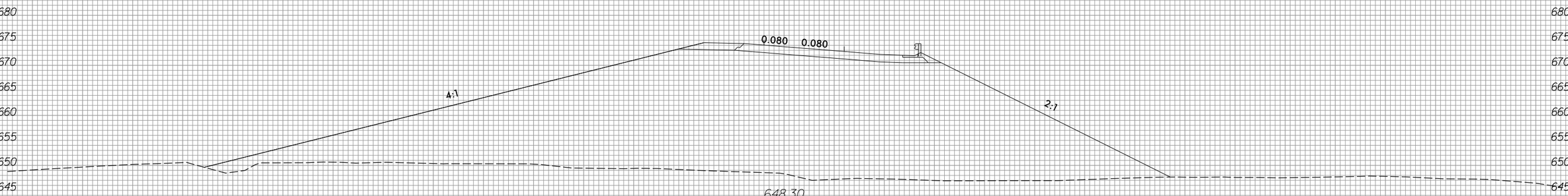
26+50.00

685 680 675 670 665 660 655 650 645 640



26+00.00

680 675 670 665 660 655 650 645 640



25+50.00

-RPA-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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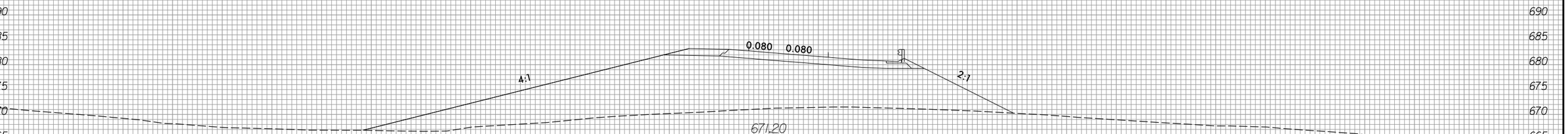
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-152

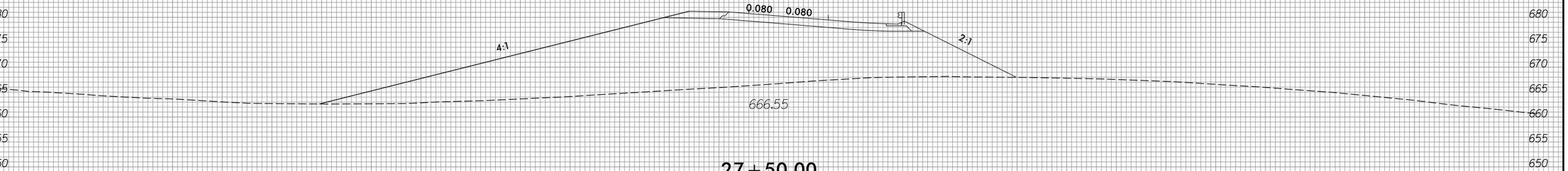
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

690 685 680 675 670 665 660 655 650



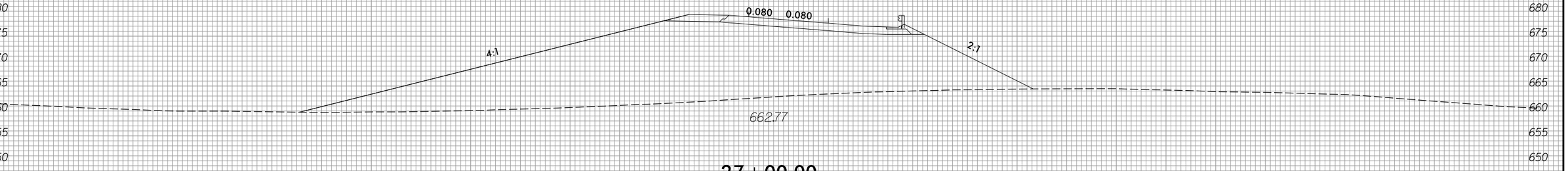
28+00.00

690 685 680 675 670 665 660 655 650



27+50.00

685 680 675 670 665 660 655 650 645



27+00.00

-RPA-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec1\R2536_Rdy_xpl_RPA.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-153

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

730 725 720 715 710 705 700 695 690 685 680 675 670

0.080 0.080 6:1

698.19

693.47

14+00.00

715 710 705 700 695 690 685 680 675 670 665

0.080 0.080

684.53

13+50.00

—LPD—

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_LPD.dgn
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-154

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670

709.27
0.080 0.080 6:1
700.42

15+00.00

740 735 730 725 720 715 710 705 700 695 690 685 680 675 670

0.080 0.080 6:1
698.84
700.17

14+50.00

-LPD-

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

3/22/2016
R:\R2536Rdy\XSC\Sec1\R2536_Rdy_xpl_LPD.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-154A

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670

712.13

0.080 0.080 6.1

702.56

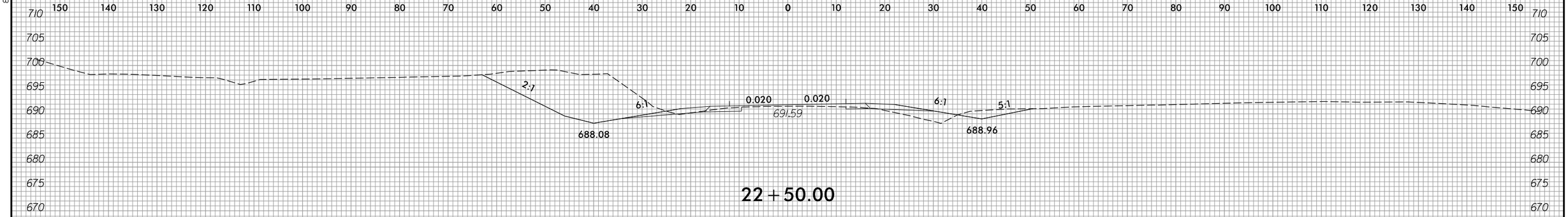
15+40.00

-LPD-

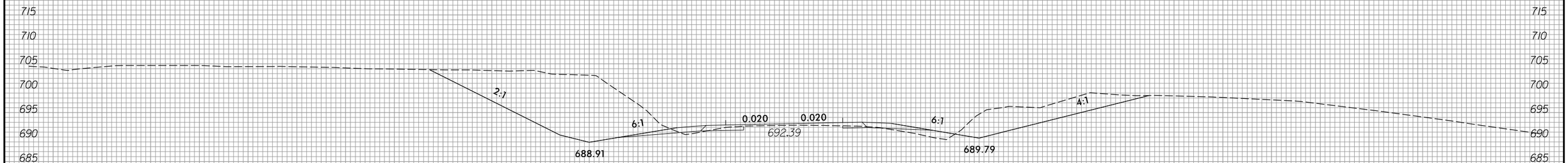
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_LPD.dgn
Fkeys

8/23/99

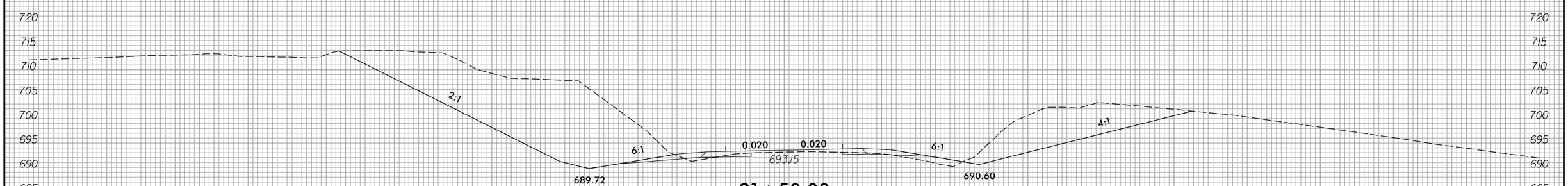
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-155



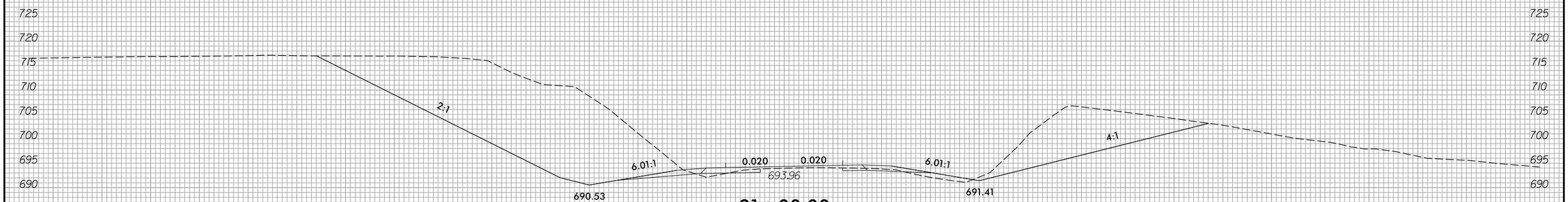
22+50.00



22+00.00



21+50.00



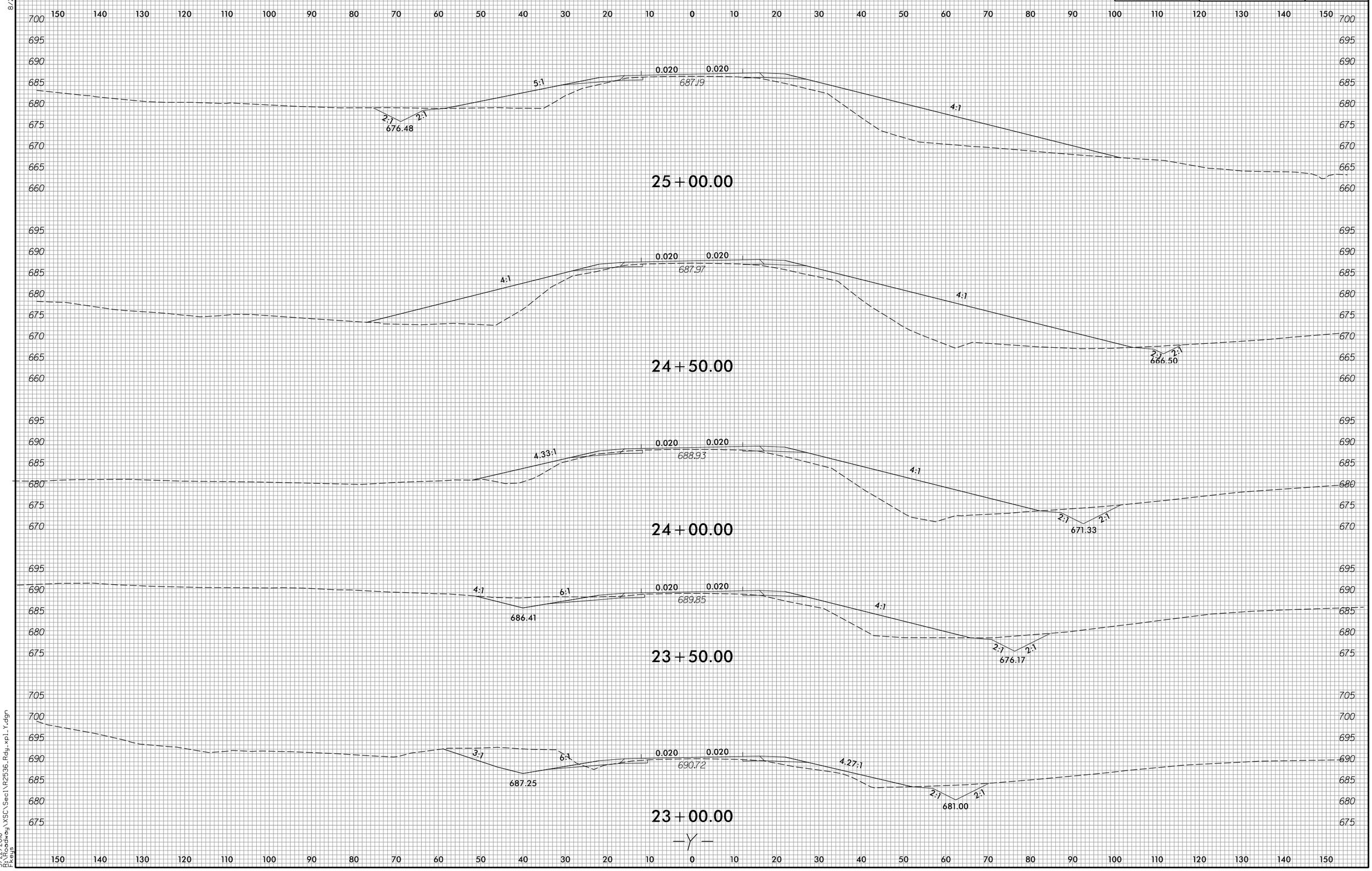
21+00.00

—Y—

3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-156



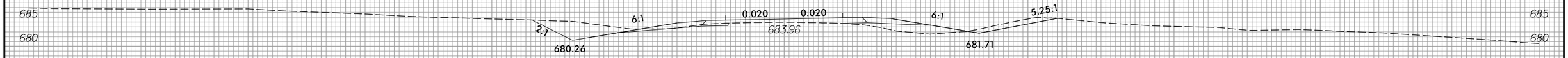
3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-157

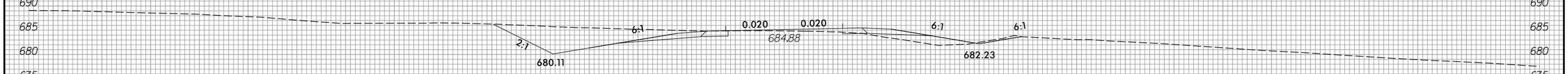
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

695 690 685 680 675 670 665



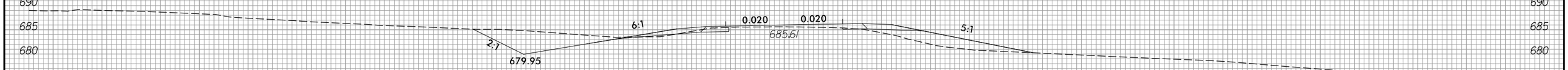
27+00.00

695 690 685 680 675 670 665 660



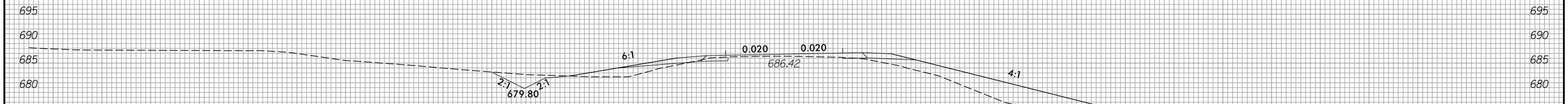
26+50.00

695 690 685 680 675 670 665 660 655



26+00.00

695 690 685 680 675 670 665 660 655



25+50.00

—Y—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fkeys

8/23/99

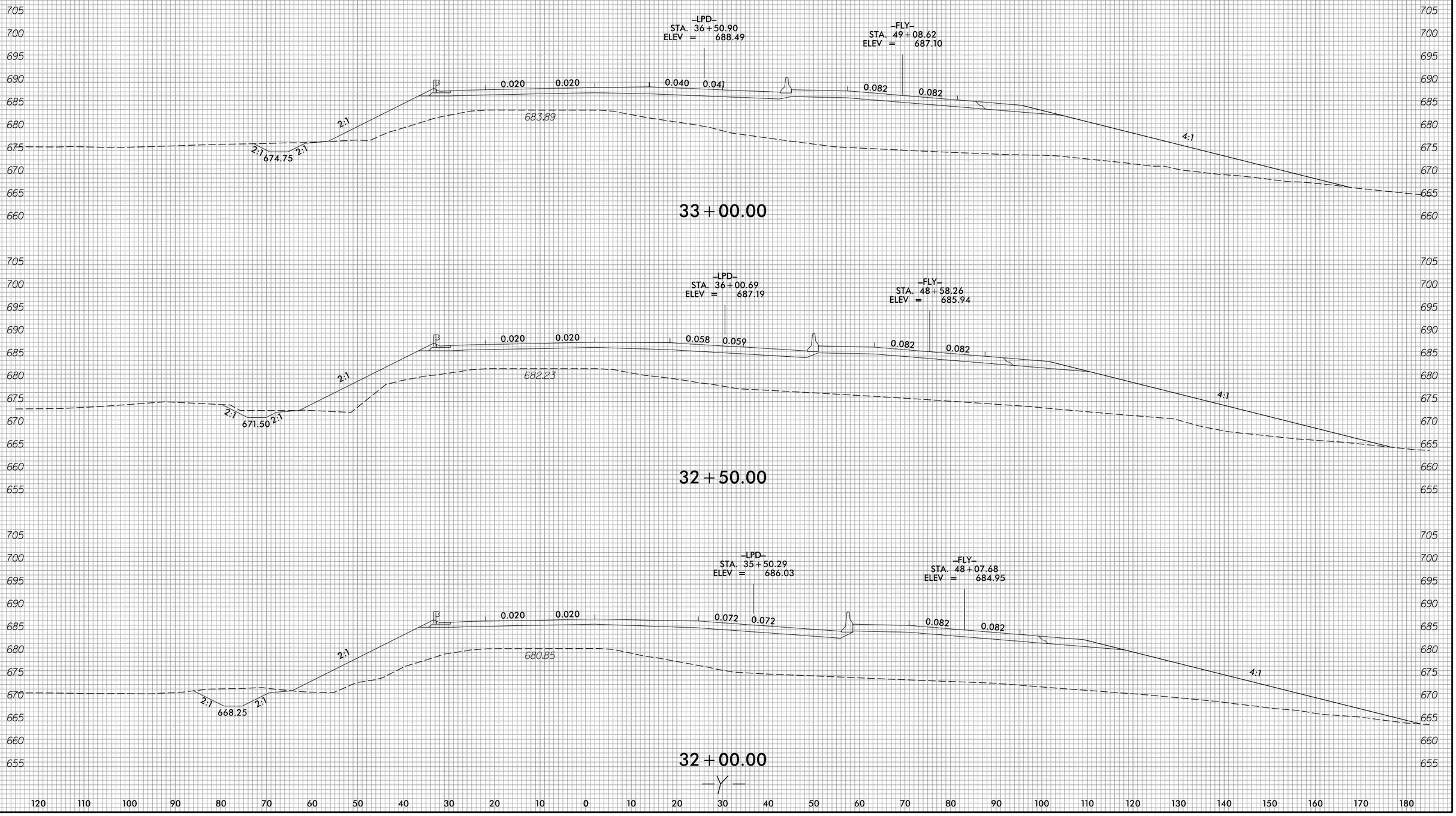
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-160

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_Y.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-161

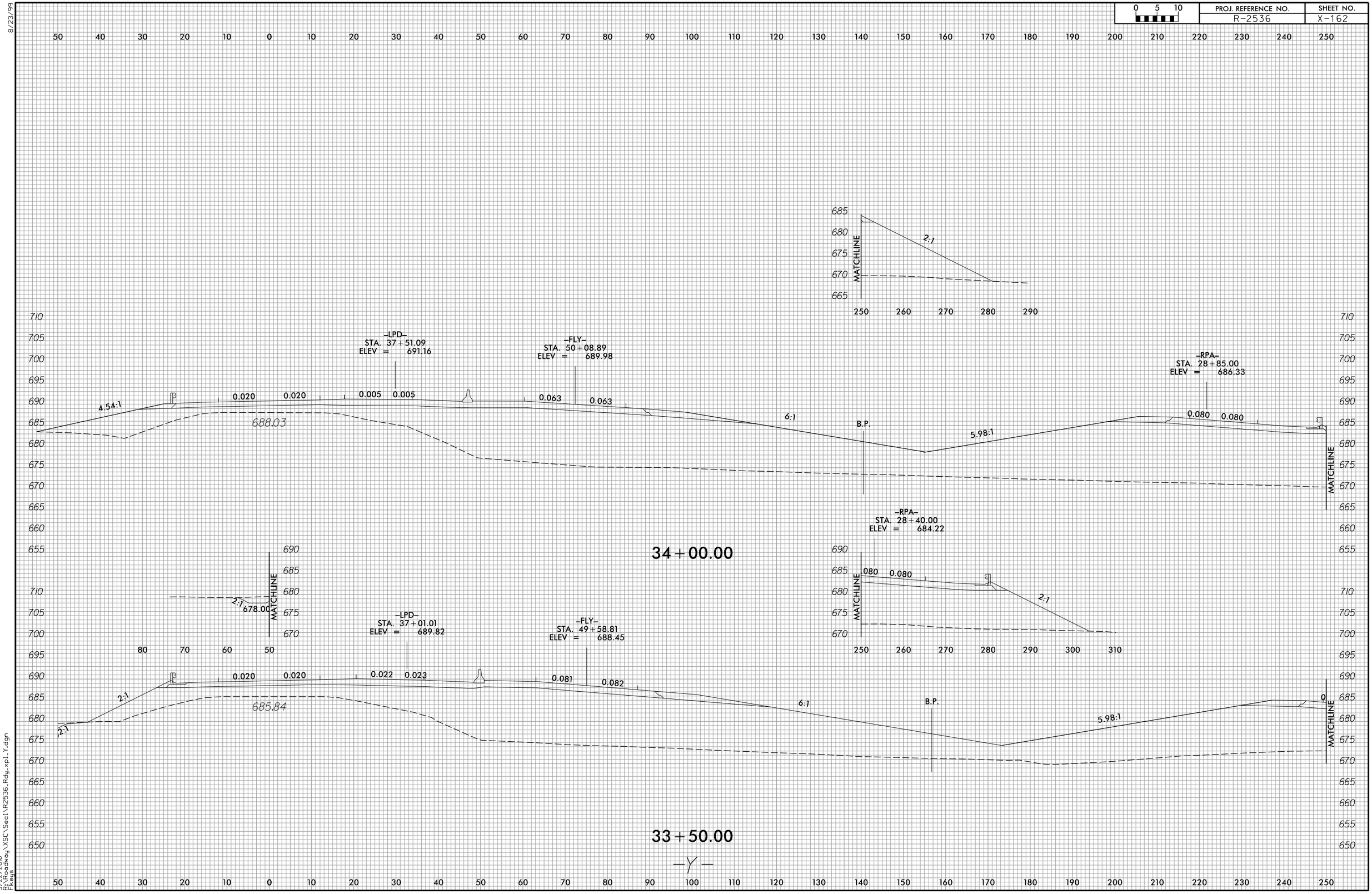
120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180



3/22/2016
P:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fleys

8/23/99

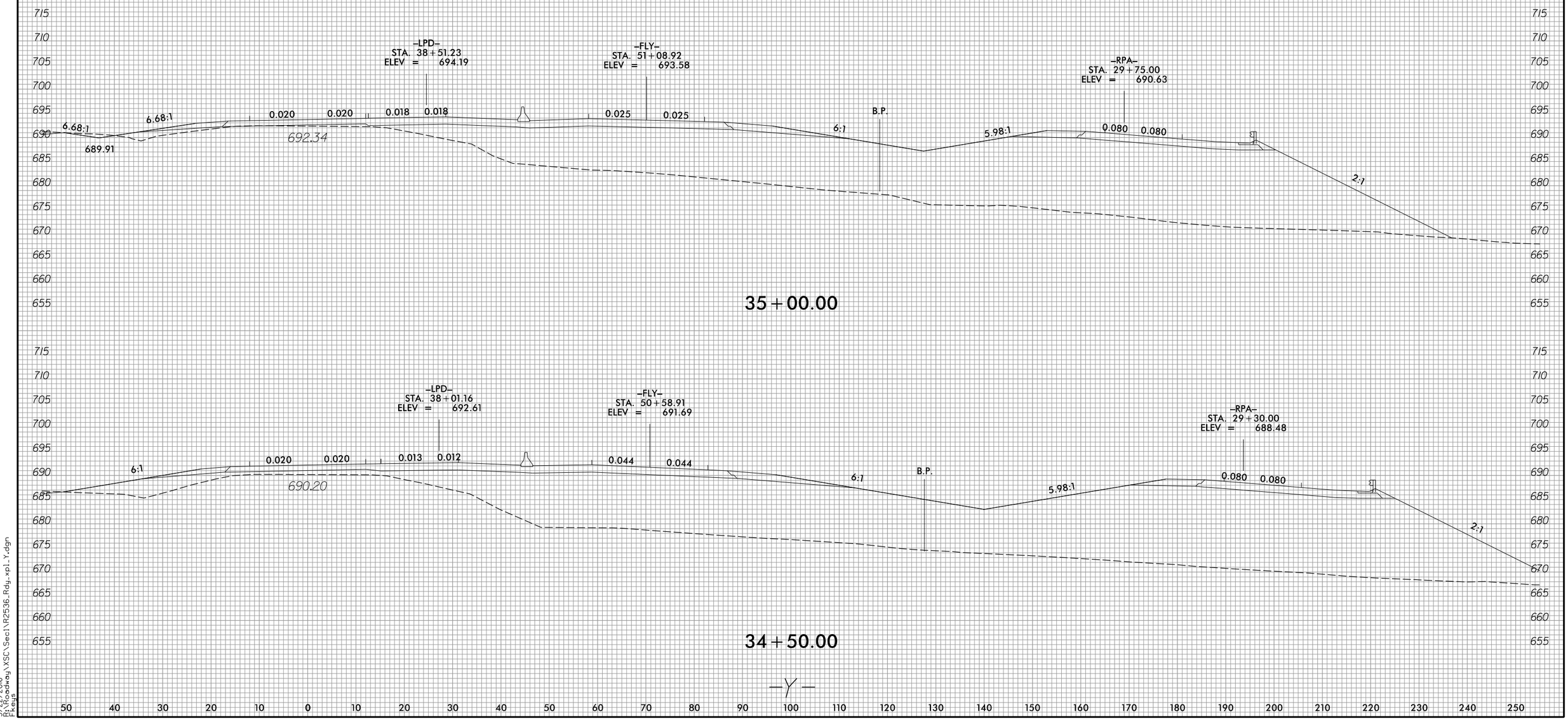
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-162



3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fkeys

8/23/99

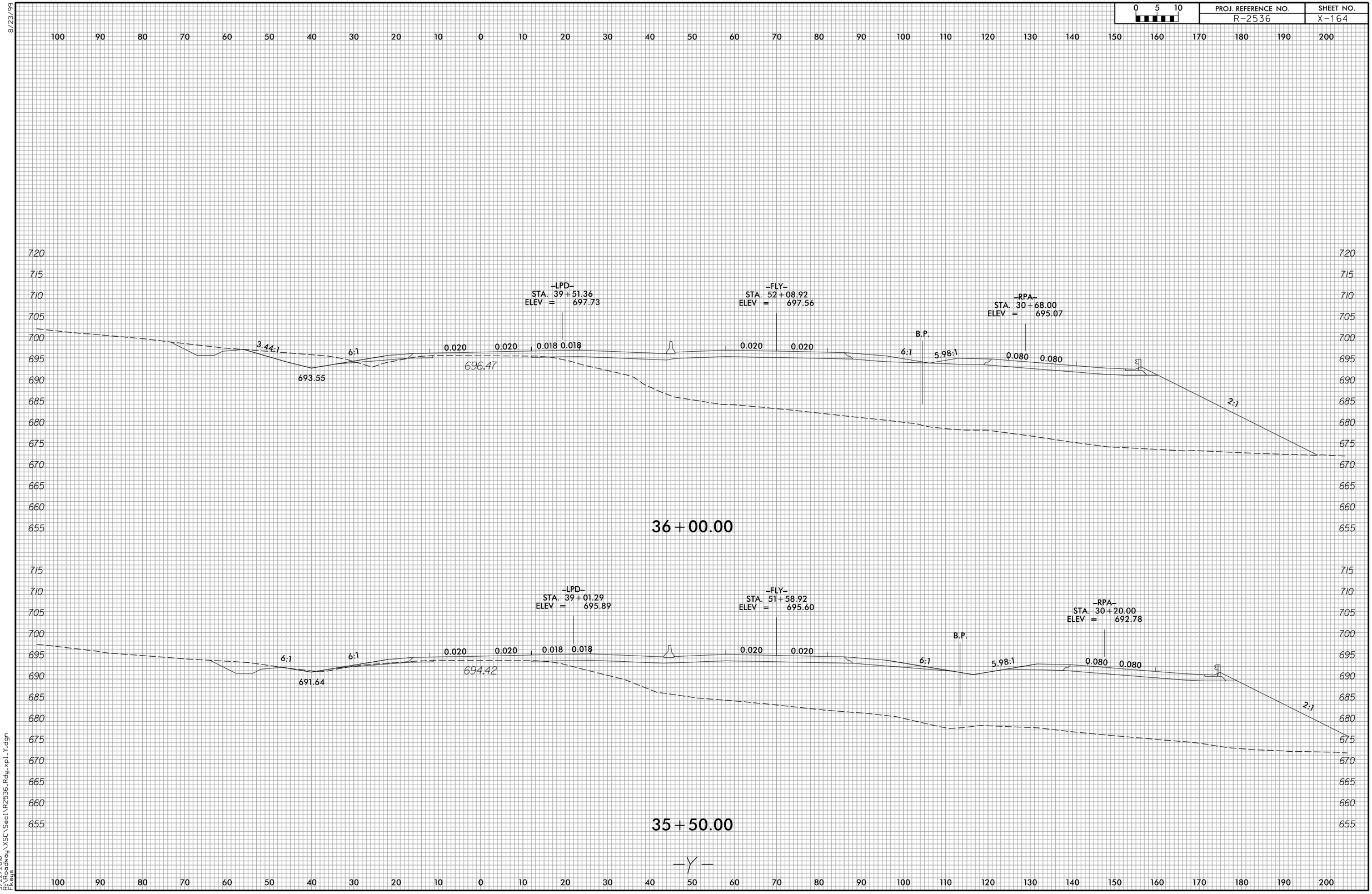
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-163



3/22/2016
P:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-164



3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fleug

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-165

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

730 725 720 715 710 705 700 695 690 685 680 675 670

–LPD–
STA. 40+51.50
ELEV = 701.63

–FLY–
STA. 53+08.92
ELEV = 701.22

–RPA–
STA. 31+63.57
ELEV = 699.64

2:1 6:1 0.020 0.020 0.018 6:1 6:1 0.020 0.020 0.088 0.088 2.048:1

700.75

697.55

37+00.00

730 725 720 715 710 705 700 695 690 685 680 675 670 665

–LPD–
STA. 40+01.43
ELEV = 699.68

–FLY–
STA. 52+58.92
ELEV = 699.43

–RPA–
STA. 31+17.00
ELEV = 697.41

B.P.

2:1 6:1 0.020 0.020 0.018 6:1 6:1 0.020 0.020 0.080 0.080 2:1

698.65

695.55

36+50.00

—Y—

725 720 715 710 705 700 695 690 685 680 675 670 665 660 655

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xs1_Y.dgn
Fleug

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-166

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670 665

2:1

6:1

0.020 0.020 0.020

704.75

701.53

6:1

0.020 0.020 0.068 0.068

–FLY–
STA. 54+08.92
ELEV = 704.64

–RPA–
STA. 32+64.73
ELEV = 704.08

2.007:1

38+00.00

740 735 730 725 720 715 710 705 700 695 690 685 680 675 670 665

2:1

6:1

0.020 0.020 0.020

702.78

699.55

6:1

0.020 0.020 0.086 0.086

–FLY–
STA. 53+58.92
ELEV = 702.94

–RPA–
STA. 32+14.40
ELEV = 701.95

2.022:1

37+50.00

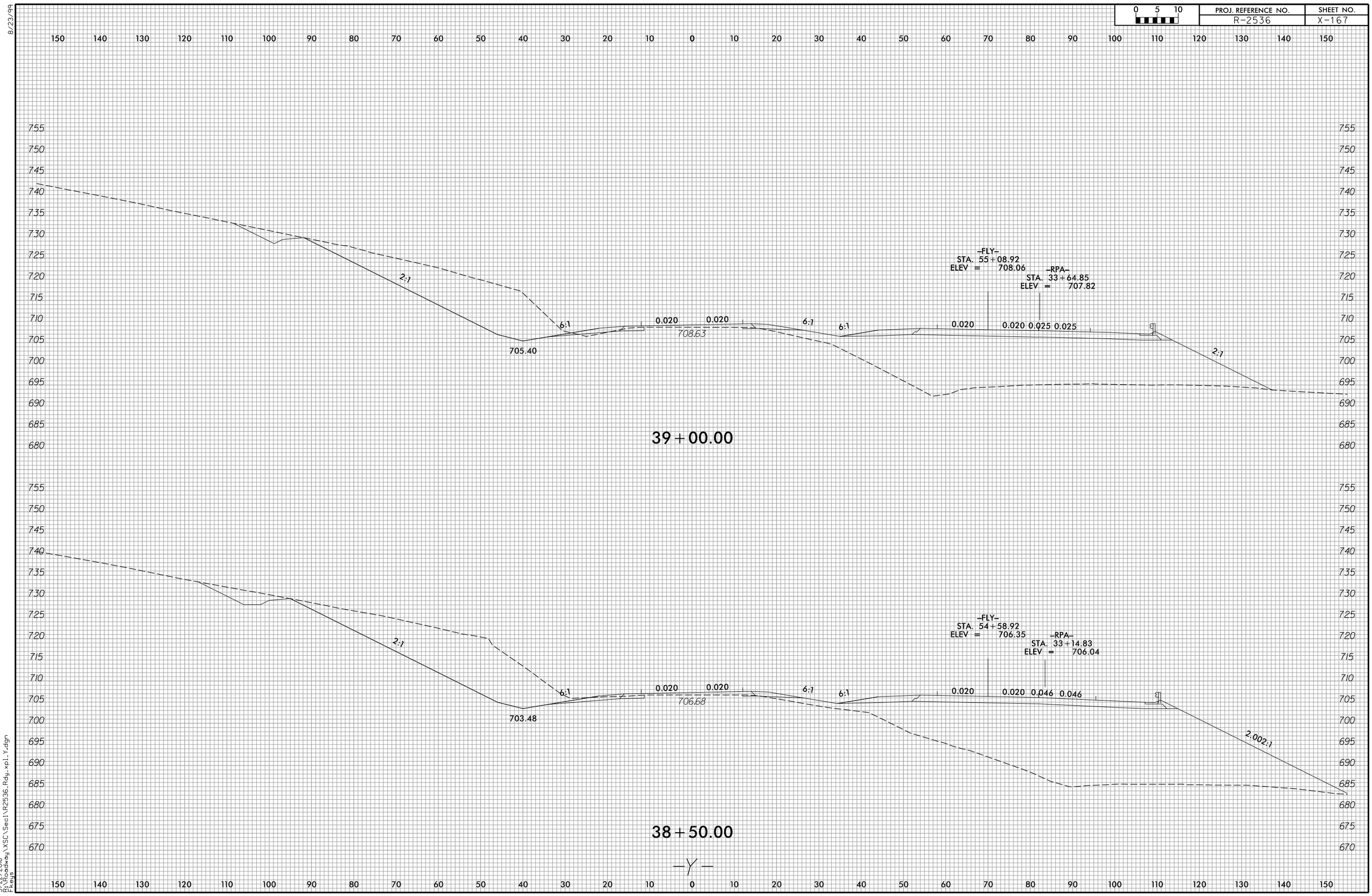
–Y–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fkeys

8/23/99

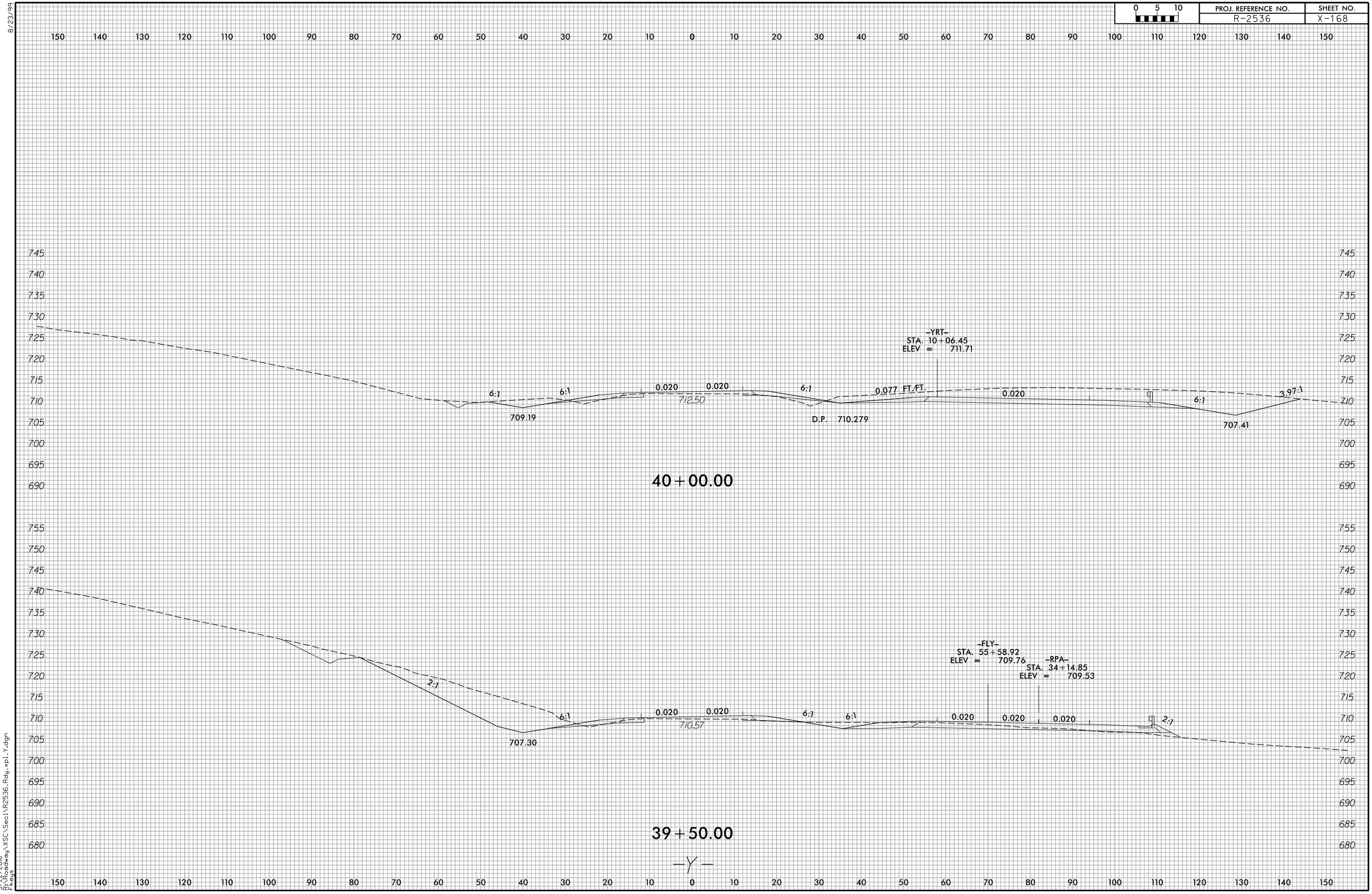
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-167



3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-168

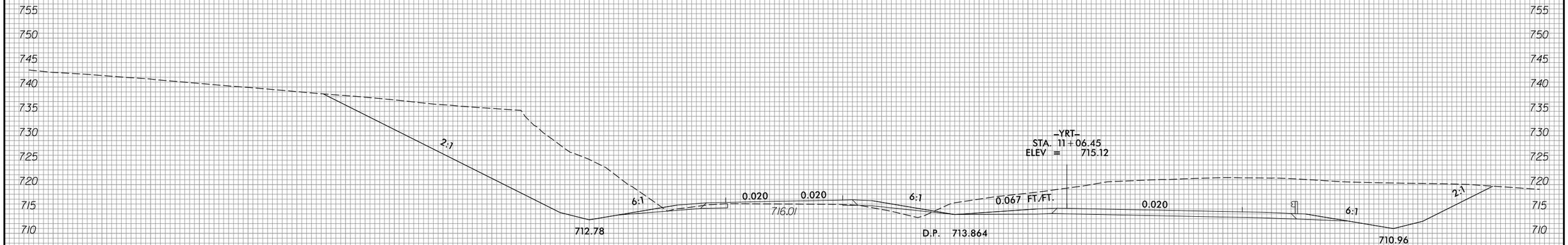


3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Keys

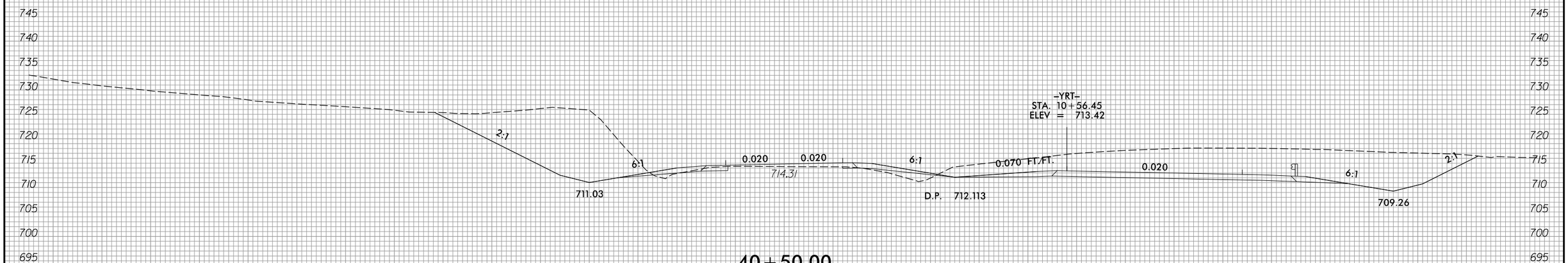
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-169

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



41+00.00



40+50.00

—Y—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_Y.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-170

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

765 760 755 750 745 740 735 730 725 720 715 710 705 700 695

2:1

6:1

716.03

719.16

0.020

0.020

6:1

D.P. 717.117

0.076 FT./FT.

–YRT–
STA. 12+06.45
ELEV = 718.54

0.020

6:1

714.38

2.56:1

42+00.00

760 755 750 745 740 735 730 725 720 715 710 705 700 695

2:1

6:1

714.44

717.63

0.020

0.020

6:1

D.P. 715.531

0.069 FT./FT.

–YRT–
STA. 11+56.45
ELEV = 716.83

0.020

6:1

712.67

2:1

41+50.00

—Y—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

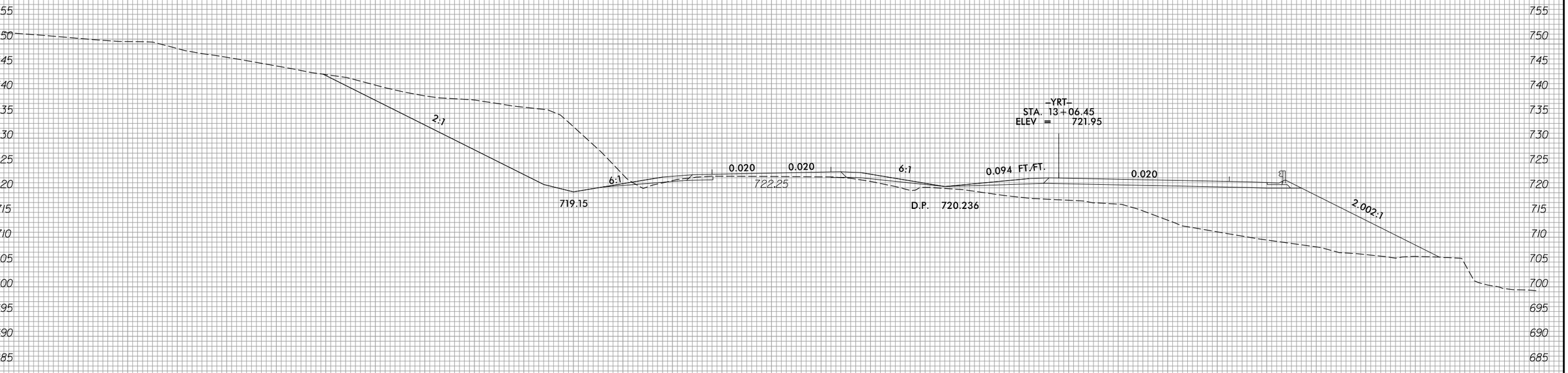
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xs1_Y.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-171

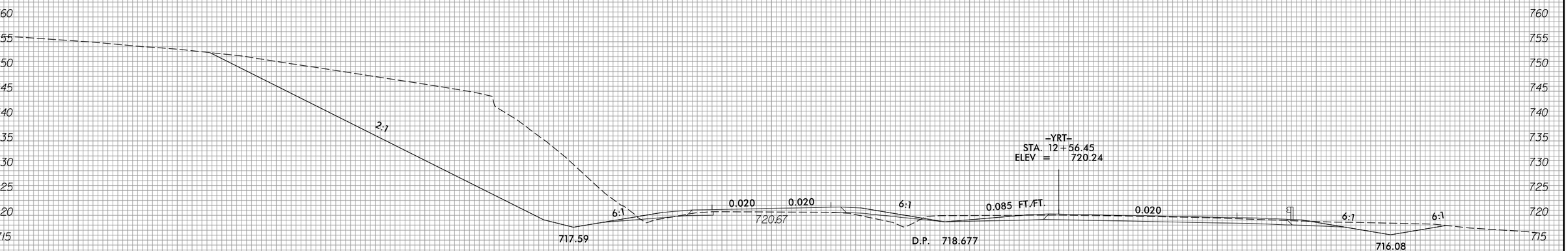
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675



43+00.00

760 755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680



42+50.00

–Y–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-172

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230

745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670 665

–YRT–
STA. 14+06.45
ELEV = 725.36

6:1 0.020 0.020 6:1 9.003:1 0.020

725.34

D.P. 723.355

2.002:1

2:1 2:1

666.00

44+00.00

745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670 665

–YRT–
STA. 13+56.45
ELEV = 723.66

2.42:1 6:1 0.020 0.020 6:1 9.765:1 0.020

723.90

720.71

D.P. 721.796

2.002:1

43+50.00

–Y–

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230

3/22/2016
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Fkeys

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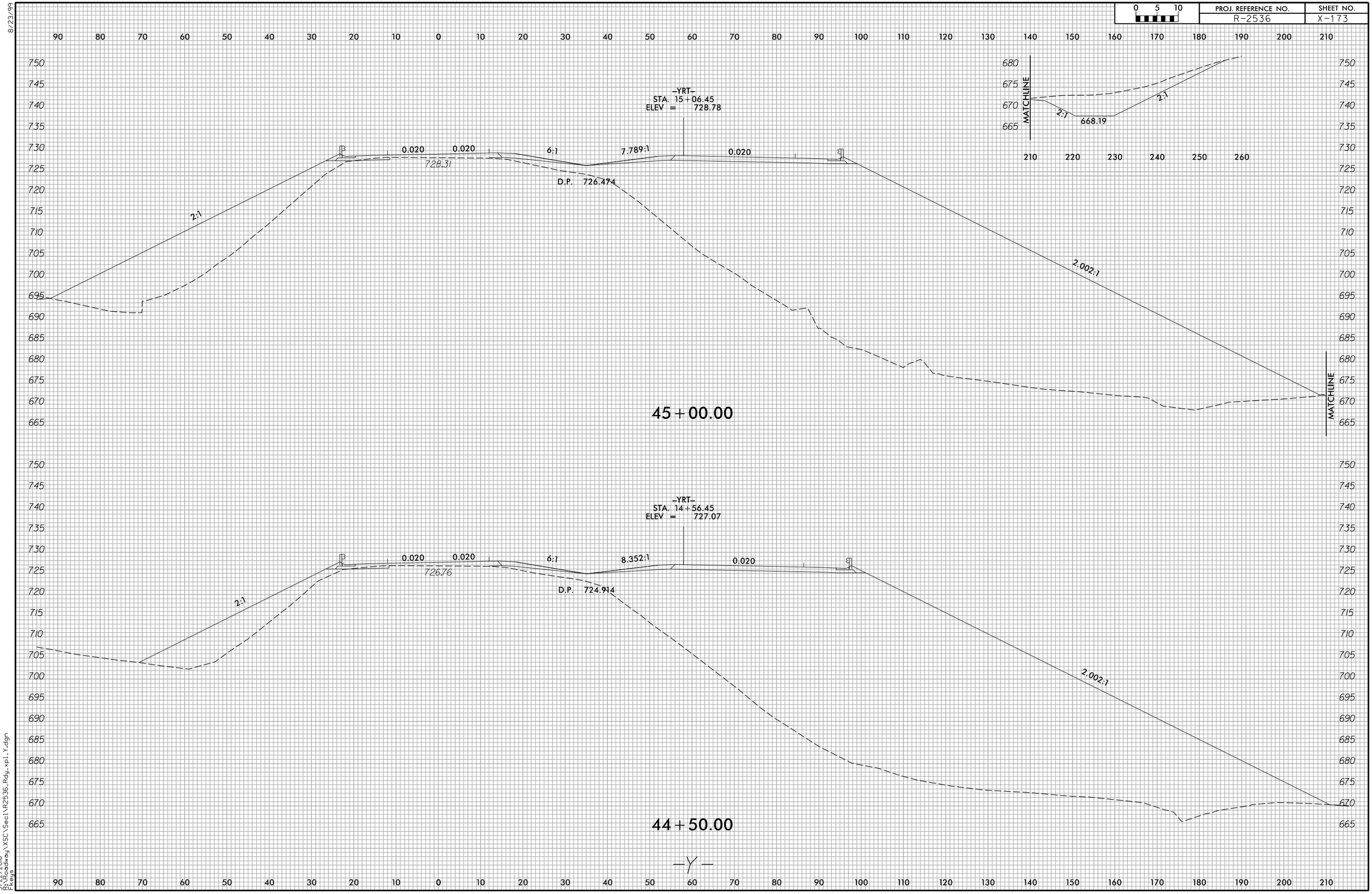
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-173



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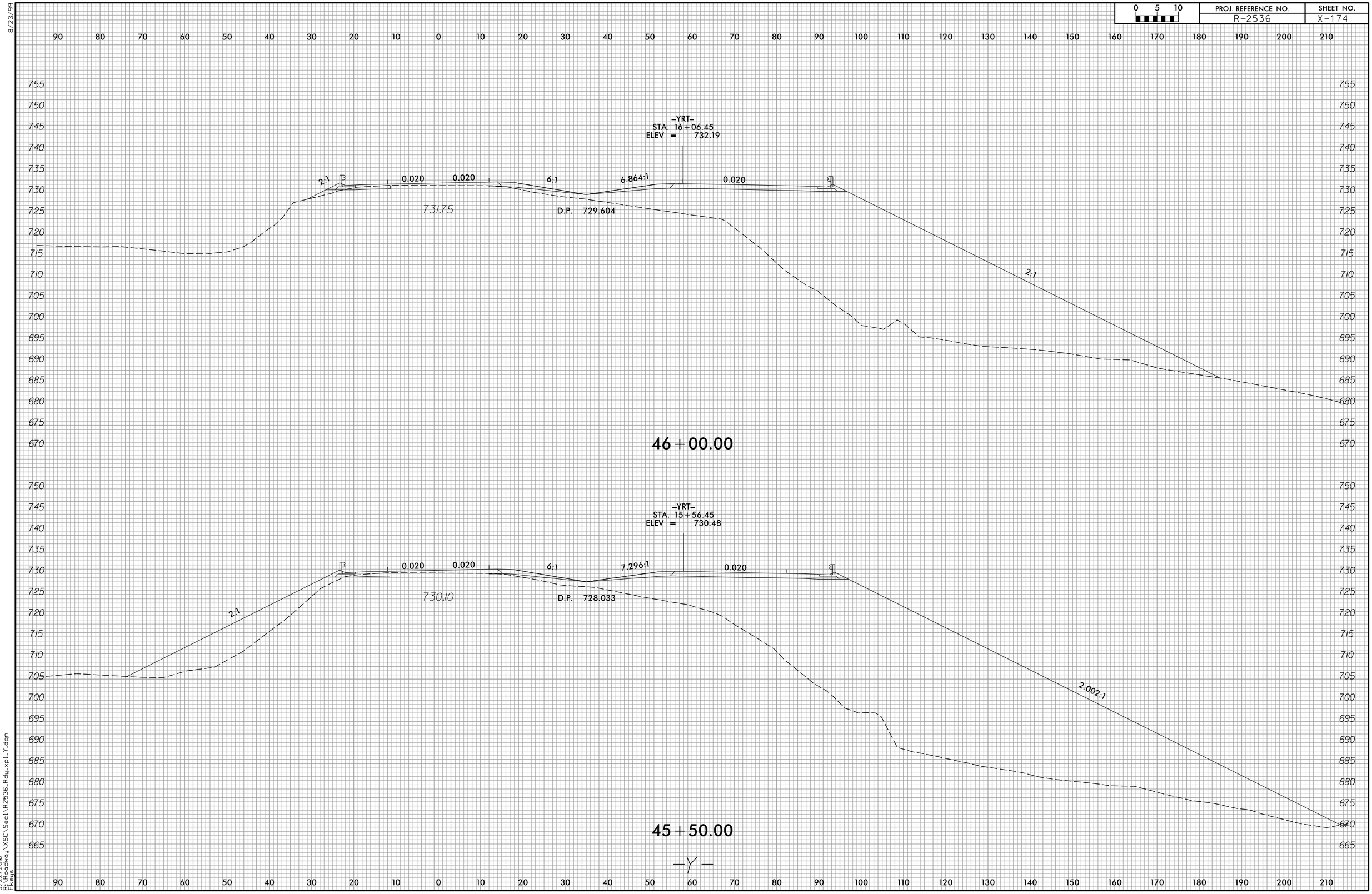
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-174



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-175

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

755 750 745 740 735 730 725 720 715 710 705 700 695

–YRT–
STA. 17+06.45
ELEV = 735.60

2:1 | 0.020 | 0.020 | 6.001:1 | 6.131:1 | 0.020 | 2:1

734.83

D.P. 732.798

47+00.00

755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680

–YRT–
STA. 16+56.45
ELEV = 733.90

2:1 | 0.020 | 0.020 | 6:1 | 6.480:1 | 0.020 | 2:1

733.34

D.P. 731.192

46+50.00

–Y–

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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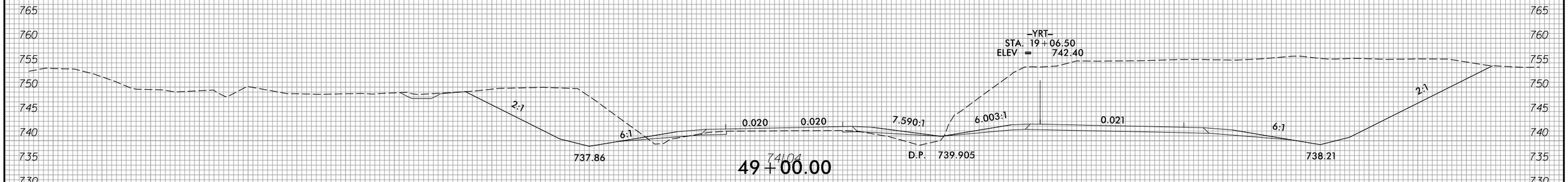
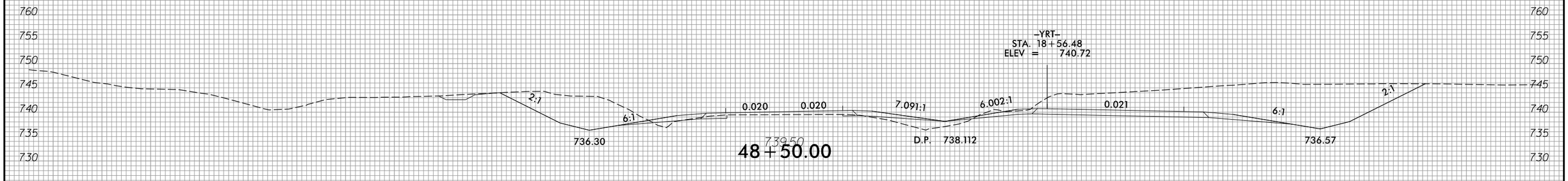
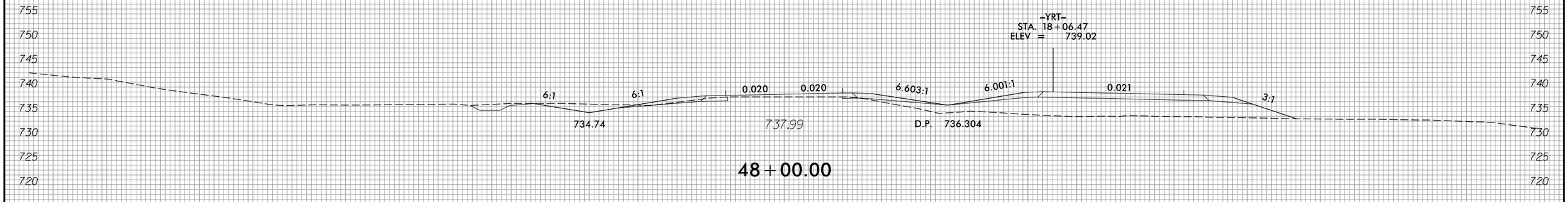
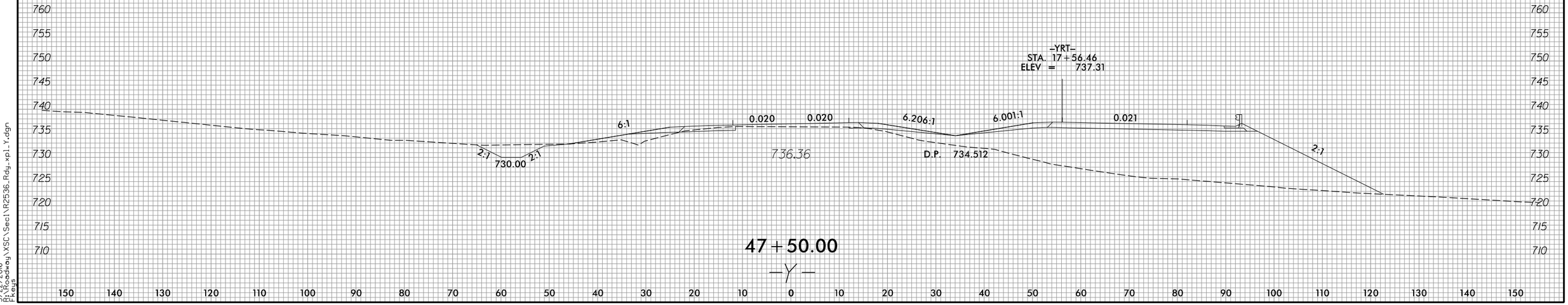
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-176









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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-177

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

—Y—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-178

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765 760 755 750 745

2:1

6:1

748.93

0.020 0.020

7.495:1 6.011:1

–YRT–
STA. 22+56.89
ELEV = 753.16

D.P. 752.023

0.022

6:1

2:1

748.60

75209

52+50.00

790 785 780 775 770 765 760 755 750 745 740

2:1

6:1

747.32

0.020 0.020

7.842:1 6.010:1

–YRT–
STA. 22+06.80
ELEV = 751.65

D.P. 750.266

0.022

6:1

2:1

747.16

75051

52+00.00

785 780 775 770 765 760 755 750 745 740

2:1

6:1

745.72

0.020 0.020

8.074:1 6.008:1

–YRT–
STA. 21+56.72
ELEV = 750.14

D.P. 748.528

0.022

6:1

2:1

745.72

74900

51+50.00

–Y–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-179

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765 760 755 750 745 740 735

2:1

6:1

752.11

0.020 0.020

755.19

–YRT–
STA. 23+57.10
ELEV = 756.18

6.602:1 6.012:1

D.P. 755.579

0.022

6:1

3.06:1

751.60

53+50.00

790 785 780 775 770 765 760 755 750 745 740

2:1

6:1

750.52

0.020 0.020

753.61

–YRT–
STA. 23+06.99
ELEV = 754.67

7.076:1 6.013:1

D.P. 753.798

0.022

6:1

6:1

750.03

53+00.00

—Y—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-180

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 795 790 785 780 775 770 765 760 755 750 745 740 735 730 725 720 715 710

–YRT–
STA. 24+57.27
ELEV = 759.20

2:1 6:1 0.020 0.020 0.022 6:1

D.P. 759.132

755.21

758.38

54+50.00

–YRT–
STA. 24+07.19
ELEV = 757.69

2:1 6:1 0.020 0.020 0.022 6:1 2.31:1

D.P. 757.349

753.67

756.78

753.05

54+00.00

–Y–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 795 790 785 780 775 770 765 760 755 750 745 740 735 730 725 720 715 710

3/22/2016
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Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-181

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

810 805 800 795 790 785 780 775 770 765 760 755 750 745 740 735 730 725 720 715 710

-YRT-
STA. 25+07.34
ELEV = 760.71

2:1

6:1

0.020 0.020 0.022

756.74

759.85

2:1

55+00.00

-Y-

3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-182

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

815 810 805 800 795 790 785 780 775 770 765 760 755 750 745 740 735 730 725 720 715 710

2:1

6:1

758.25

761.37

-YRT-
STA. 25+57.44
ELEV = 762.22

0.020 0.020 0.021

2:1

55+50.00

-Y-

3/22/2016
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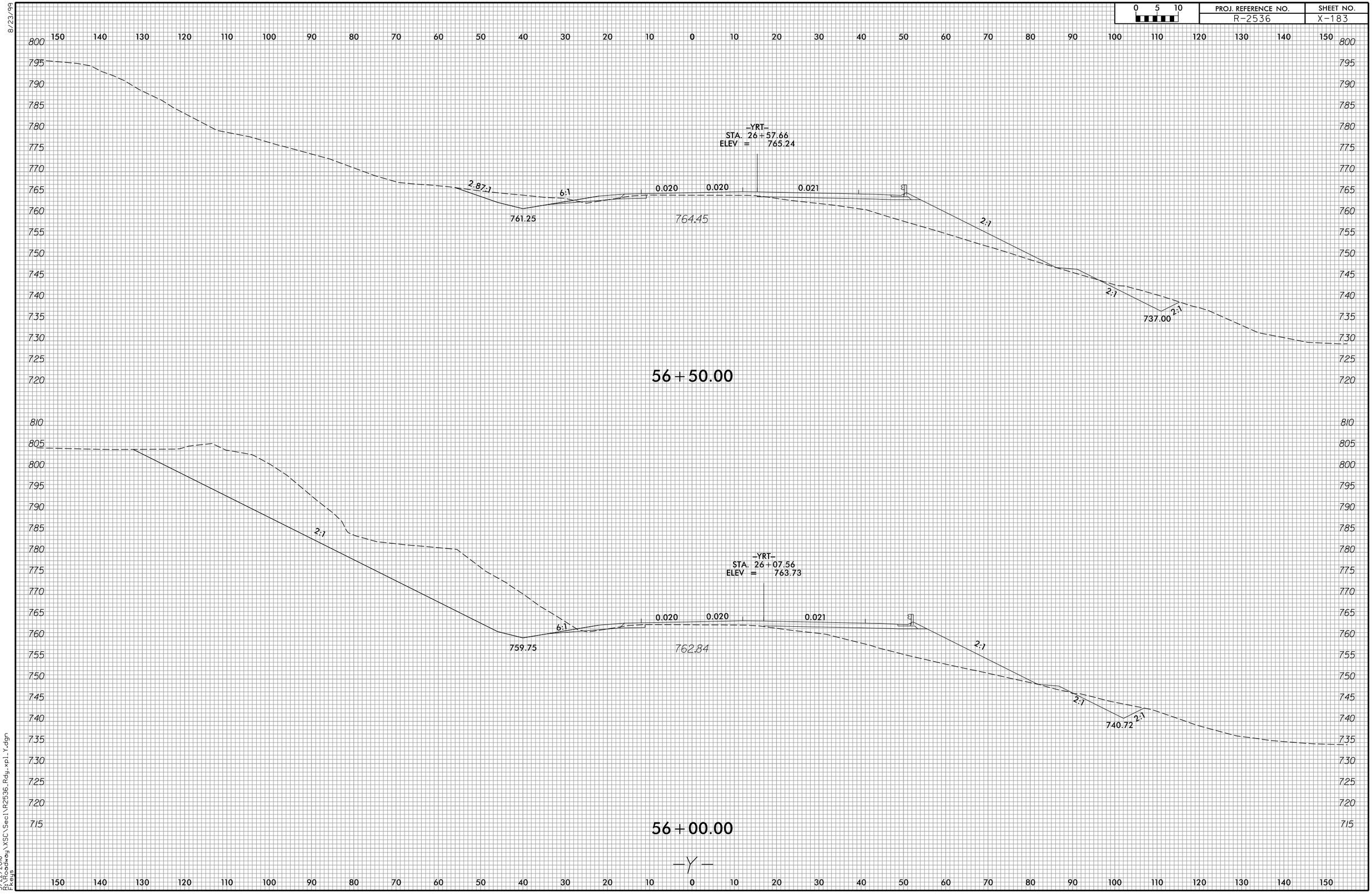
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-183



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-184

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765 760 755 750 745 740 735 730

–YRT–
STA. 27+57.80
ELEV = 768.26

6:1 6:1 0.020 0.020 0.020 2:1

764.37

767.67

2:1 2:1 2:1

728.69

57+50.00

–YRT–
STA. 27+07.73
ELEV = 766.75

4.02:1 6:1 0.020 0.020 0.021

762.75

766.05

2:1 2:1 2:1

732.85

57+00.00

–Y–

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-185

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765 760 755 750 745 740 735 730 725 720

–YRT–
STA. 28+57.77
ELEV = 771.29

2:1 0.020 0.020 0.020 2:1

770.50

2:1 2:1 726.81 2:1

58+50.00

–YRT–
STA. 28+07.83
ELEV = 769.76

2:1 0.020 0.020 0.020 2:1

769.18

2:1 2:1 724.54 2:1

58+00.00

–Y–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-186

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

795 790 785 780 775 770 765 760 755 750 745 740 735 730

–YRT–
STA. 29+57.66
ELEV = 774.45

0.020 0.020 0.020

773.69

2:1 2:1 2:1 2:1 2:1 2:1

753.56

731.36

59+50.00

795 790 785 780 775 770 765 760 755 750 745 740 735 730

–YRT–
STA. 29+07.71
ELEV = 772.85

0.020 0.020 0.020

772.04

2:1 2:1 2:1 2:1 2:1 2:1

753.39

729.09

59+00.00

—Y—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-187

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765 760 755 750 745 740

–YRT–
STA. 31+07.55
ELEV = 779.39

0.020 0.020 0.020

2:1

780.17

2:1

61+00.00

–YRT–
STA. 30+57.55
ELEV = 777.74

785 780 775 770 765 760 755 750 745 740 735

0.020 0.020 0.020

776.89

2:1

2:1

753.91

2:1

2:1

60+50.00

–YRT–
STA. 30+07.60
ELEV = 776.09

785 780 775 770 765 760 755 750 745 740 735

0.020 0.020 0.020

775.31

2:1

2:1

753.74

2:1

2:1

733.64

2:1

60+00.00

–Y–

730

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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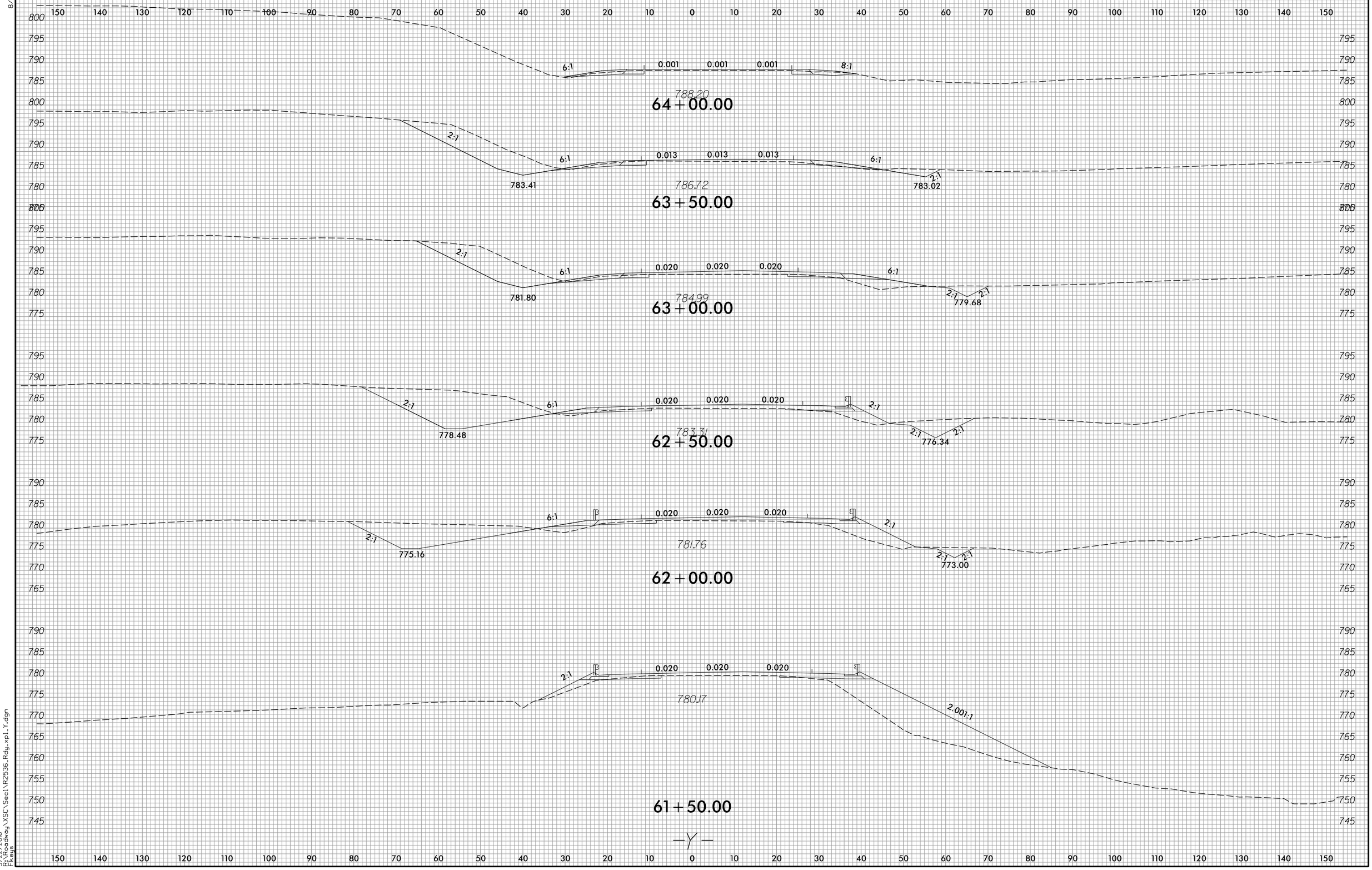
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-188



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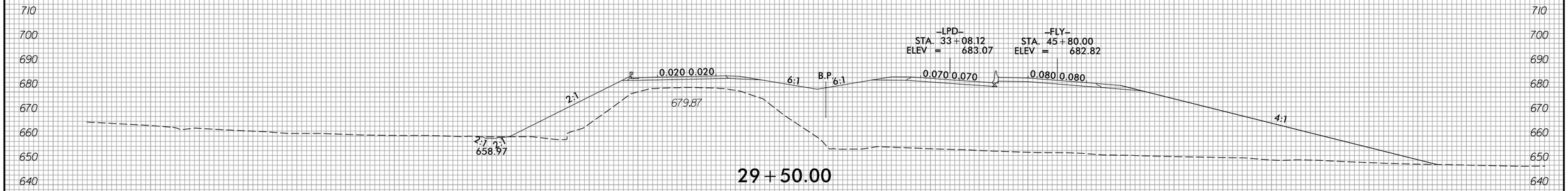
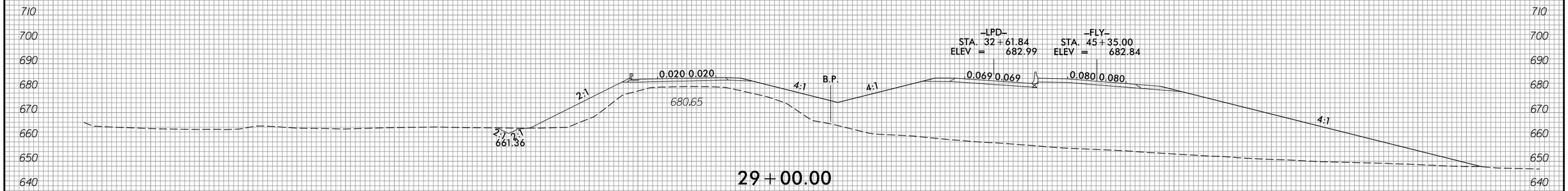
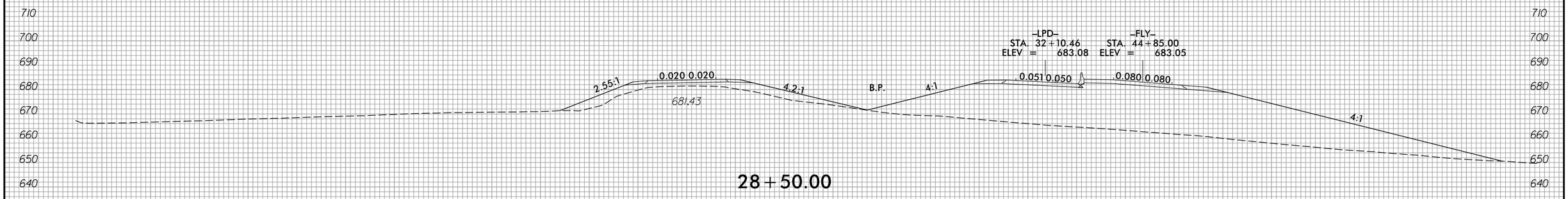
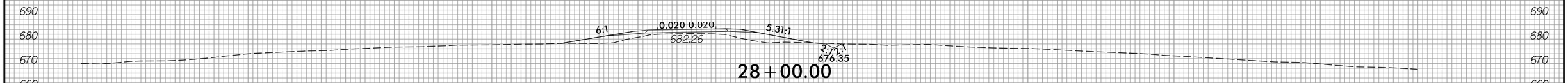
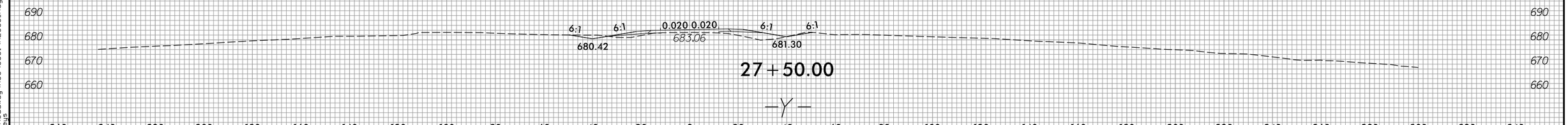
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-158











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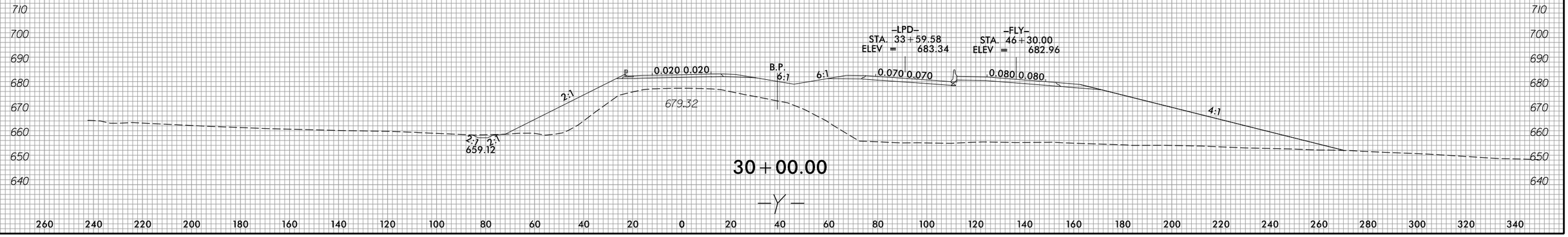
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-159

260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340



260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340

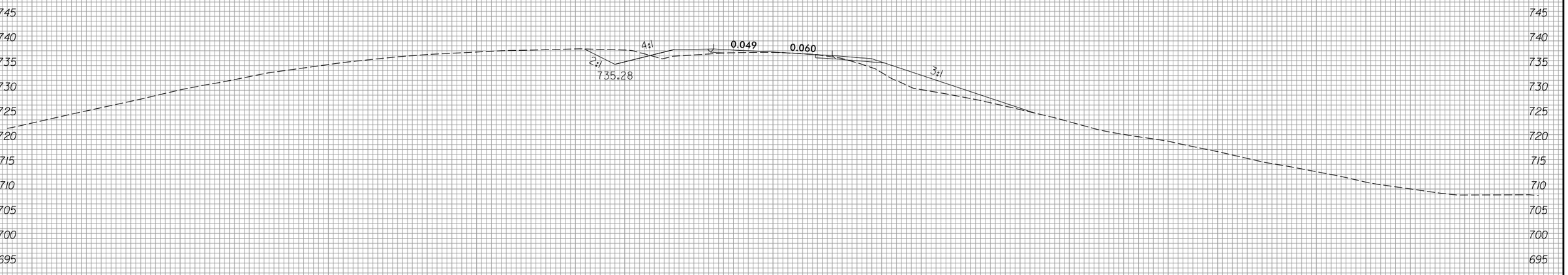
3/22/2016
P:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-189

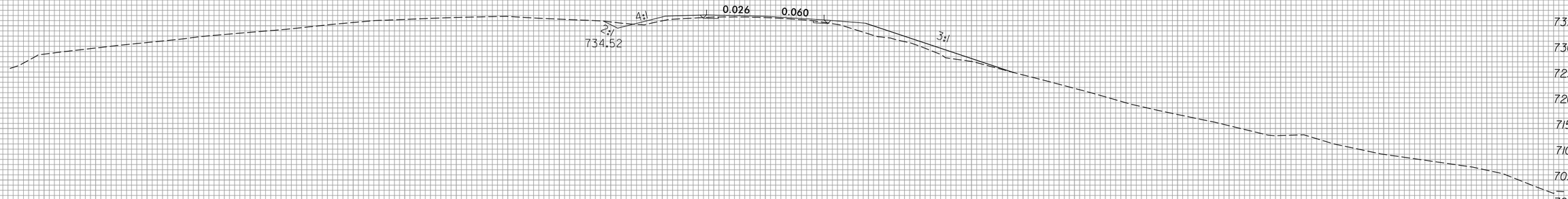
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

745 740 735 730 725 720 715 710 705 700 695 690 685 680



12+50.00

745 740 735 730 725 720 715 710 705 700 695 690 685 680



12+00.00

—Y1A—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-190

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750 745 740 735 730 725 720 715 710 705 700 695 690 685

2:1 4:1 0.035 0.035 735.69

SR 1325
EMERALD ROCK R
INTERSECTION

13+50.00

750 745 740 735 730 725 720 715 710 705 700 695 690 685

4:1 2:1 0.058 0.058 4:1 736.00

13+00.00

—YIA—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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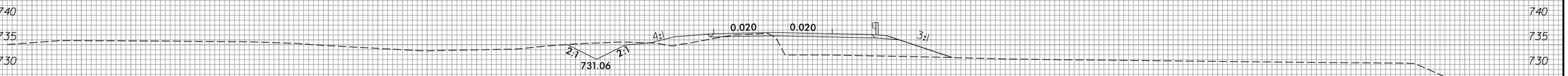
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-191

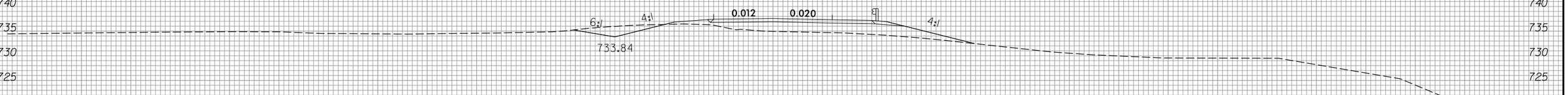
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

740 735 730 725 720 715 710 705 700 695



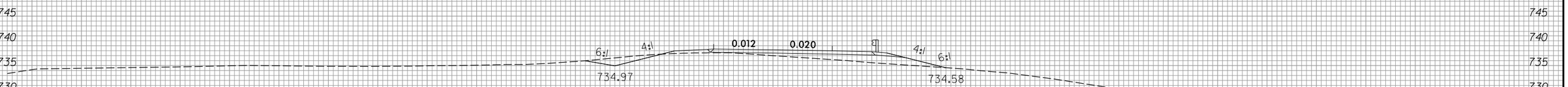
15+00.00

745 740 735 730 725 720 715 710 705 700 695



14+50.00

745 740 735 730 725 720 715 710 705 700 695



14+00.00

-Y1A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

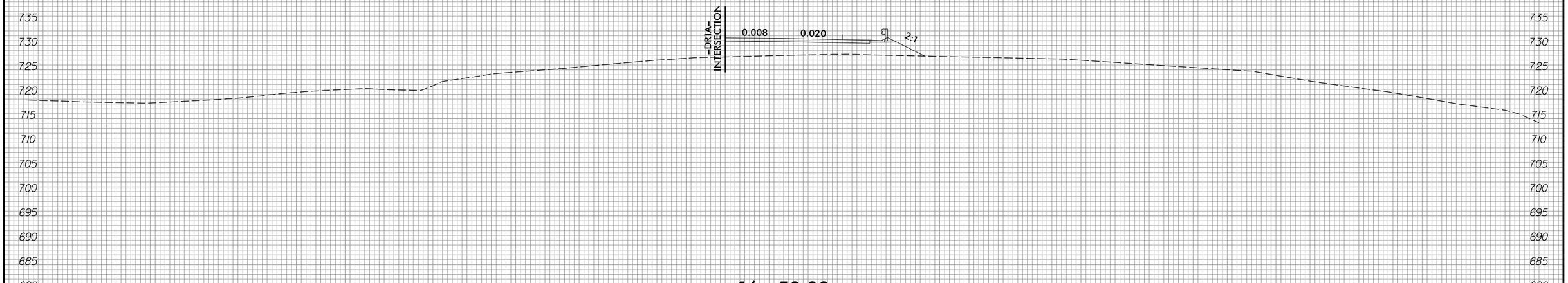
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y1A.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-192

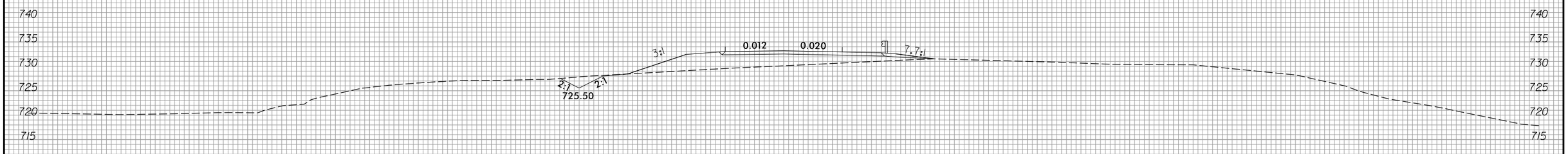
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

740 735 730 725 720 715 710 705 700 695 690 685 680



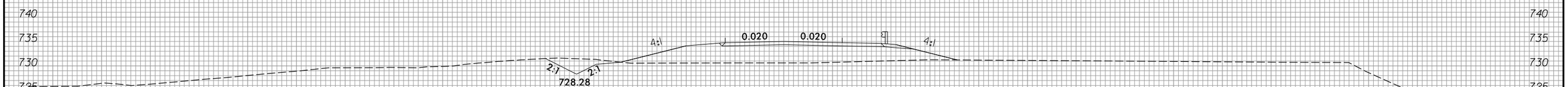
16+50.00

740 735 730 725 720 715 710 705 700 695 690 685



16+00.00

740 735 730 725 720 715 710 705 700 695 690 685



15+50.00

-Y1A-

740 735 730 725 720 715 710 705 700 695 690

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-193

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

735 730 725 720 715 710 705 700 695 690 685 680 675

0.040 0.040

17+50.00

740 735 730 725 720 715 710 705 700 695 690 685 680 675

2:1 0.028 0.028 2:1

17+00.00

-Y1A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-194

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

735 730 725 720 715 710 705 700 695 690

0.040 0.040

19+00.00

735 730 725 720 715 710 705 700 695 690

0.040 0.040

18+50.00

735 730 725 720 715 710 705 700 695 690 685 680 675 670

0.040 0.040

18+00.00

-Y1A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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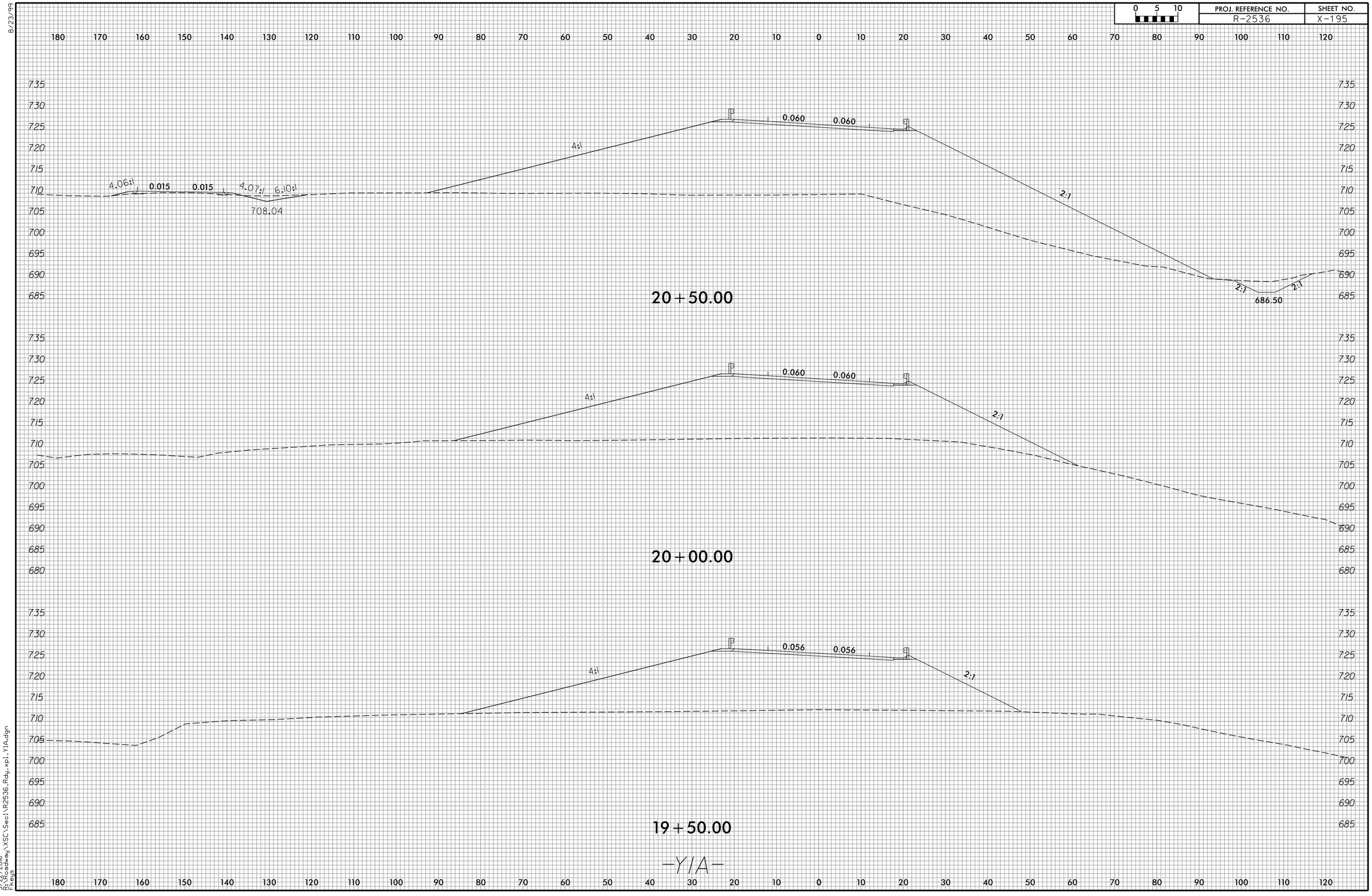
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-195



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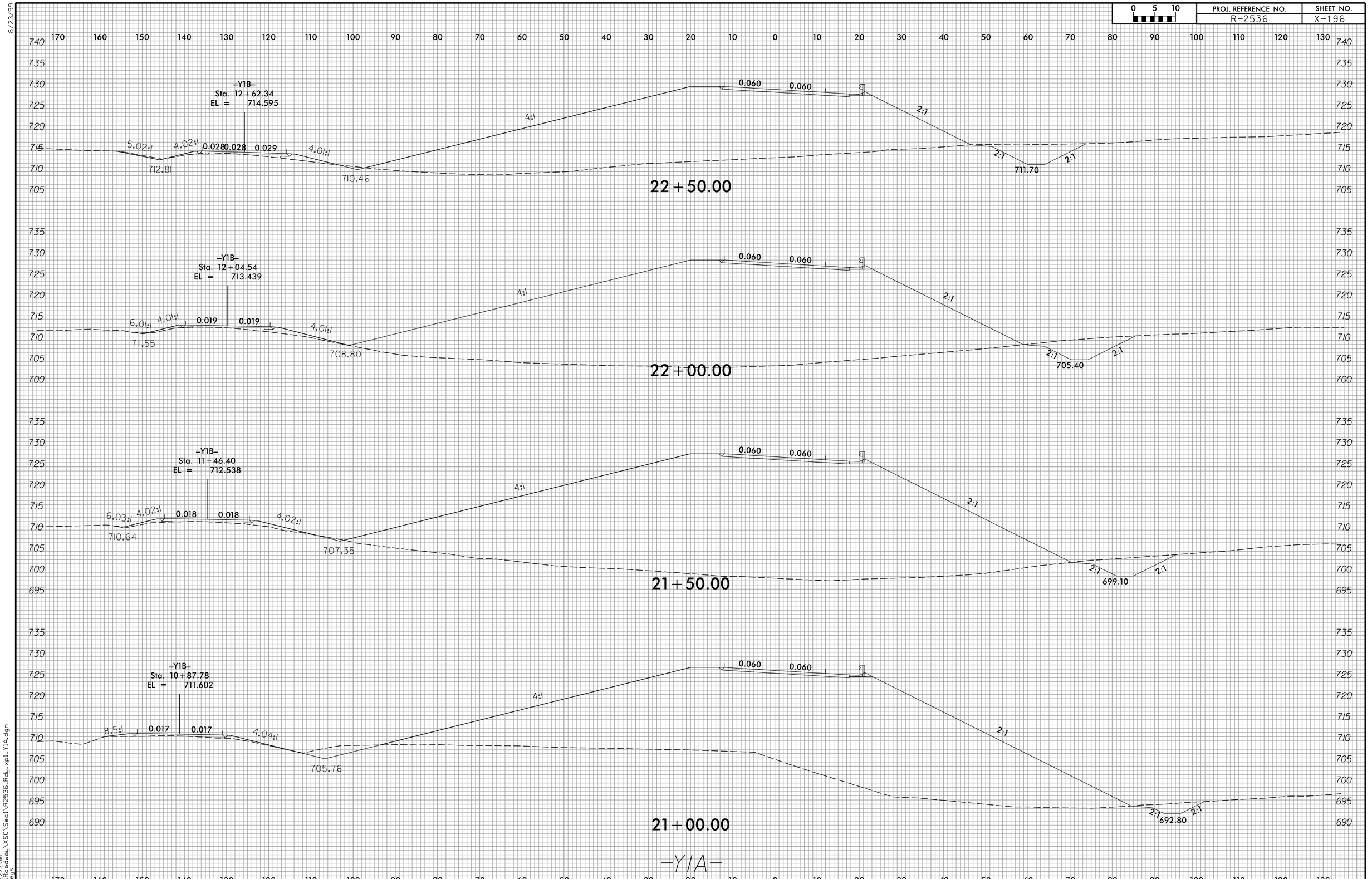
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-196



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-197

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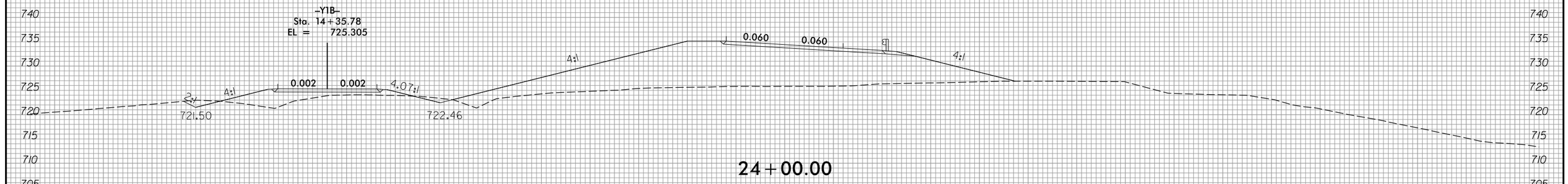
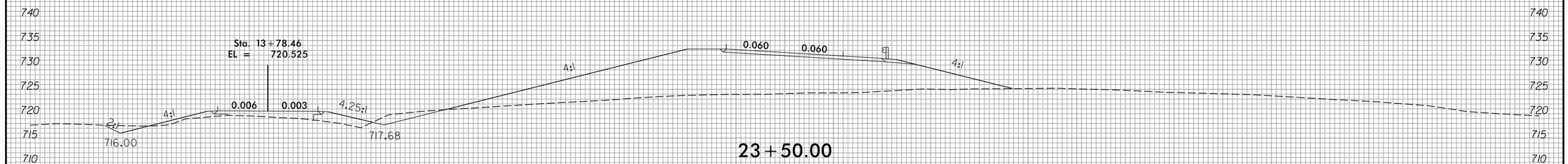
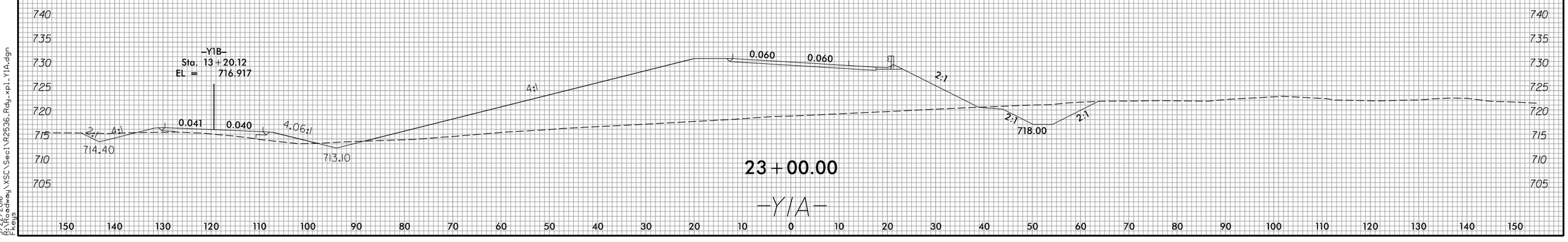
24+50.00



24+00.00



23+50.00



23+00.00

-Y1A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-198

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

760 750 740 730

SR 1424
WESTGHAPEL RD
INTERSECTION

0.060 0.060 4:1 2:1 2:1

746.29

743.25

26+50.00

760 750 740 730

–Y1B–
Sta. 16+57.13
EL = 746.031

5.13:1 4.10:1 0.039 0.039 0.033 4.53:1 4:1 0.060 0.060 4:1

744.48

740.89

742.31

26+00.00

760 750 740 730

–Y1B–
Sta. 16+01.80
EL = 741.478

4:1 0.020 0.020 4:1 4:1 0.060 0.060 4:1

735.93

735.89

25+50.00

760 750 740 730 720 710

–Y1B–
Sta. 15+47.03
EL = 736.137

4.01:1 0.014 0.014 4.01:1 4:1 0.060 0.060 4:1

731.76

25+00.00

–Y1A–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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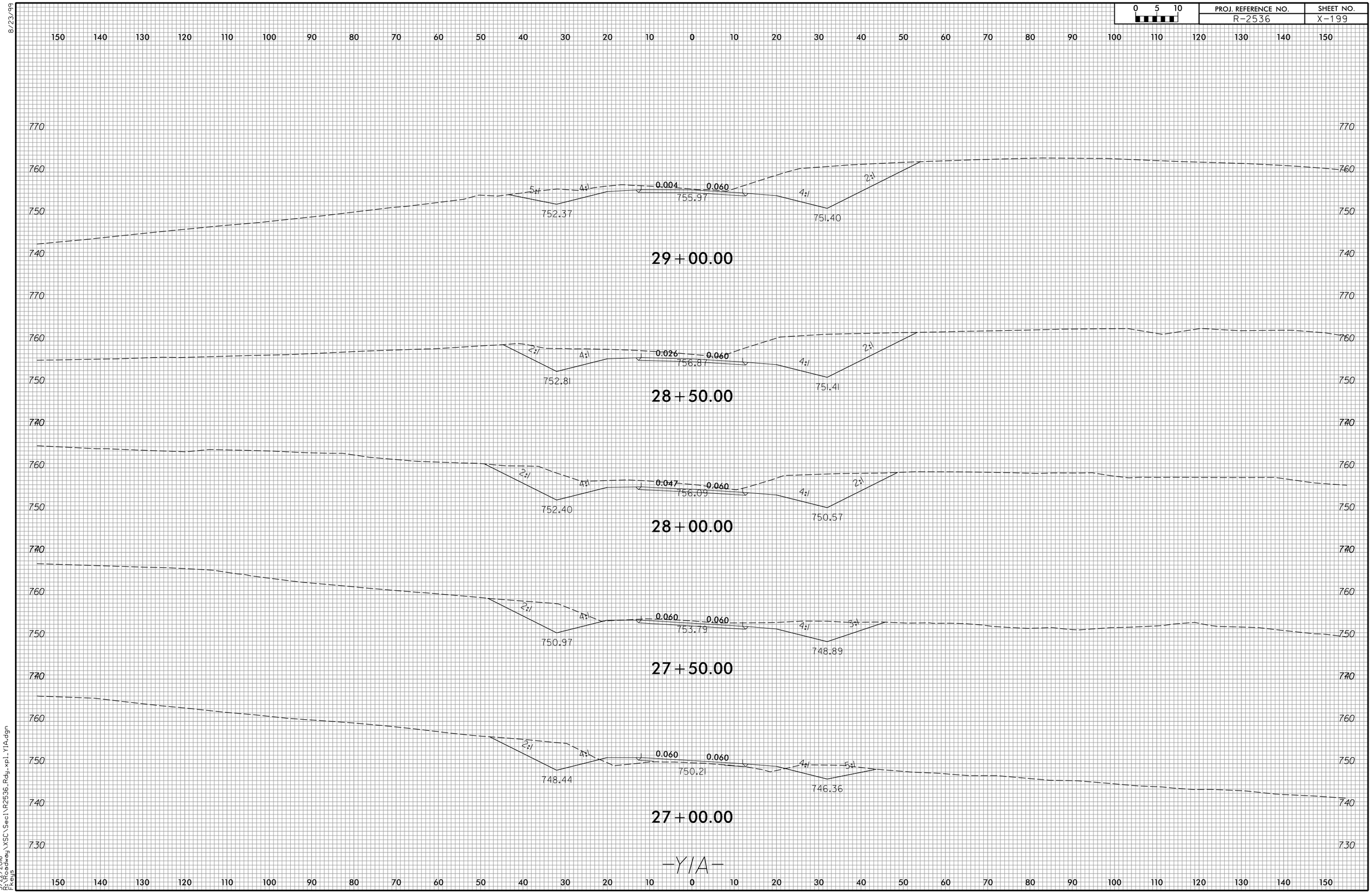
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-199



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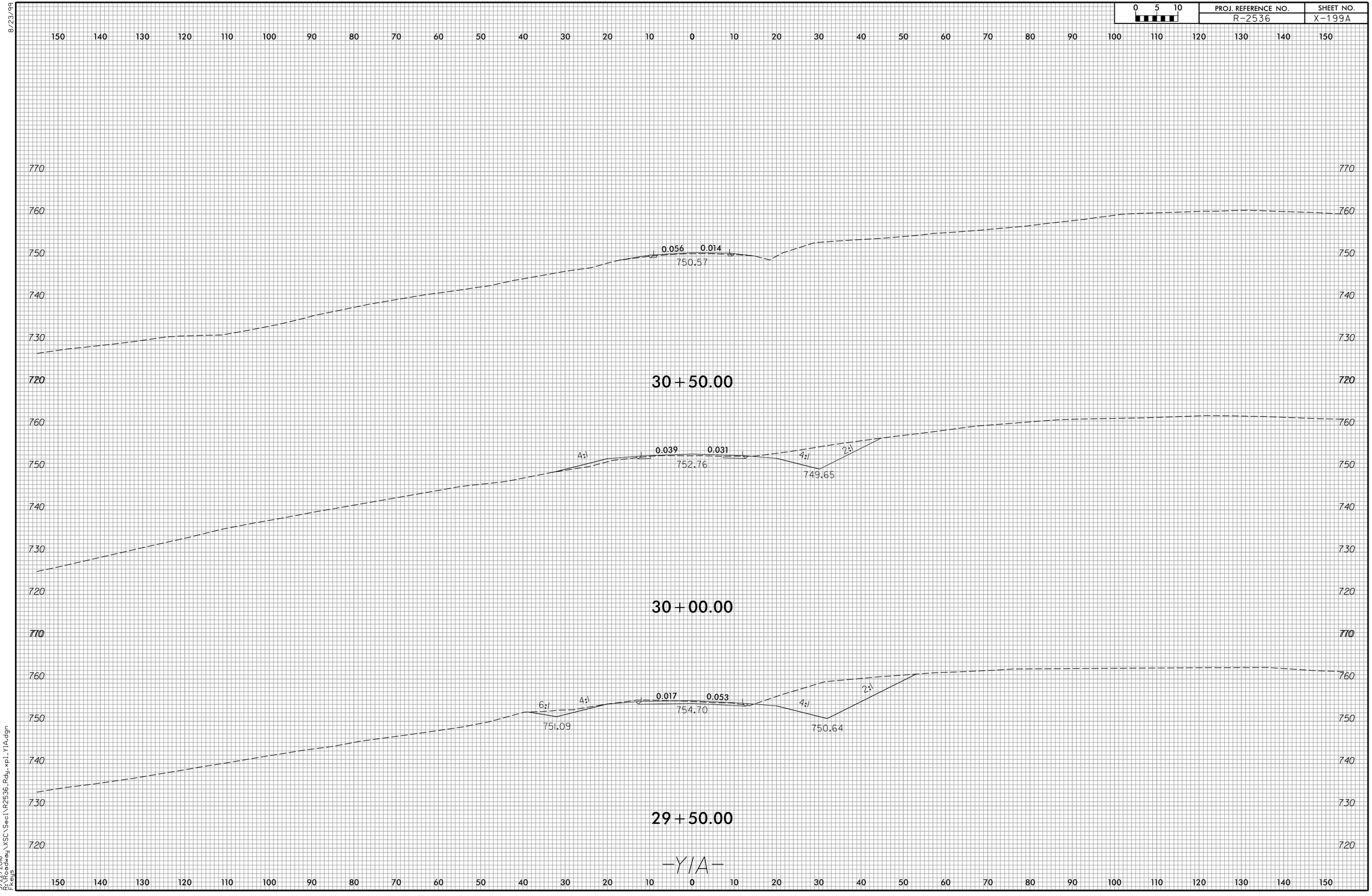
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-199A



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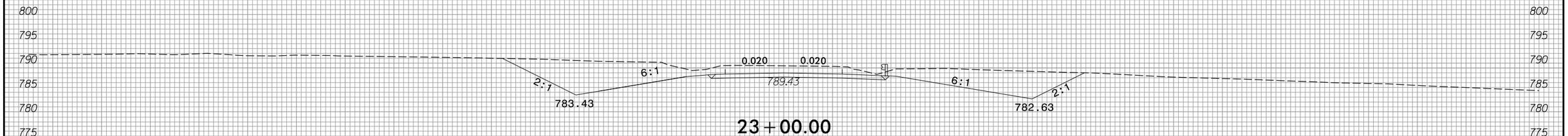
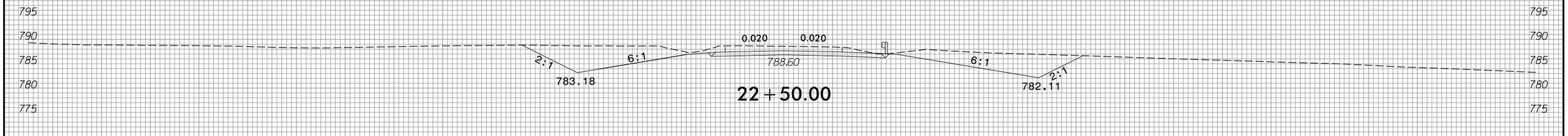
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-200

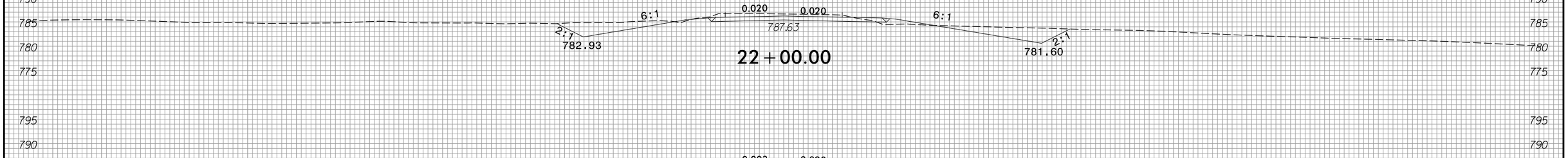
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



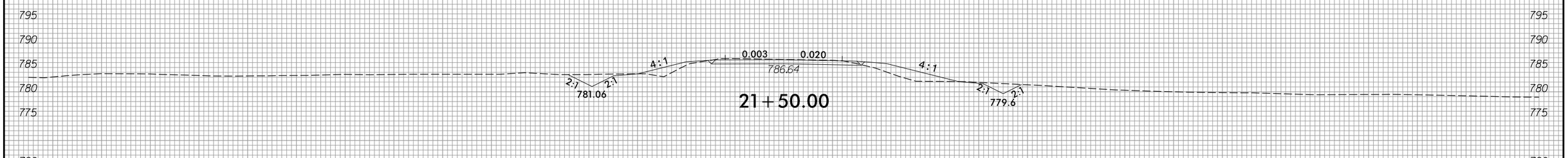
23+00.00



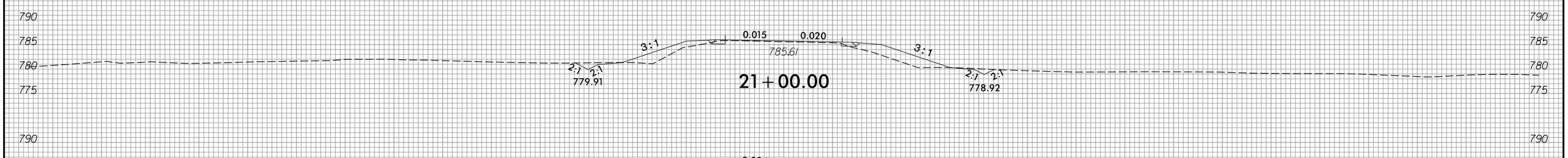
22+50.00



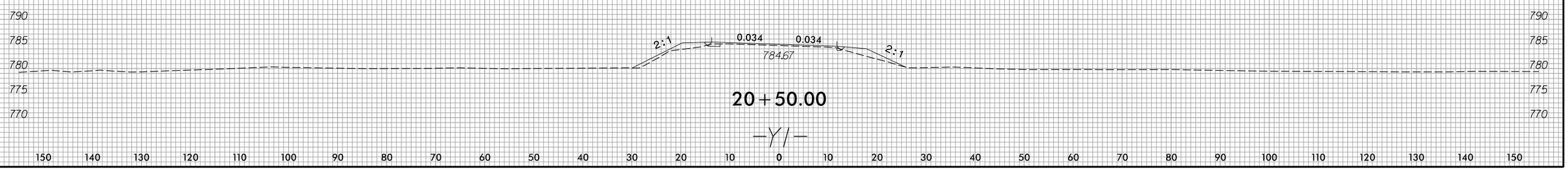
22+00.00



21+50.00



21+00.00



20+50.00

—Y1—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-201

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 795 790 785 780 775

788.94
0.020 0.020

25+50.00

800 795 790 785 780 775

789.38
2:1 6:1 0.020 0.020 6:1 3.5:1
783.82 783.82

25+00.00

800 795 790 785 780 775

789.74
2:1 6:1 0.020 0.020 6:1 4.5:1
784.18 784.18

24+50.00

800 795 790 785 780 775

789.93
2:1 6:1 0.020 0.020 6:1 2:1
783.93 783.66

24+00.00

800 795 790 785 780 775

789.85
2:1 6:1 0.020 0.020 6:1 2:1
783.68 783.15

23+50.00

—Y1—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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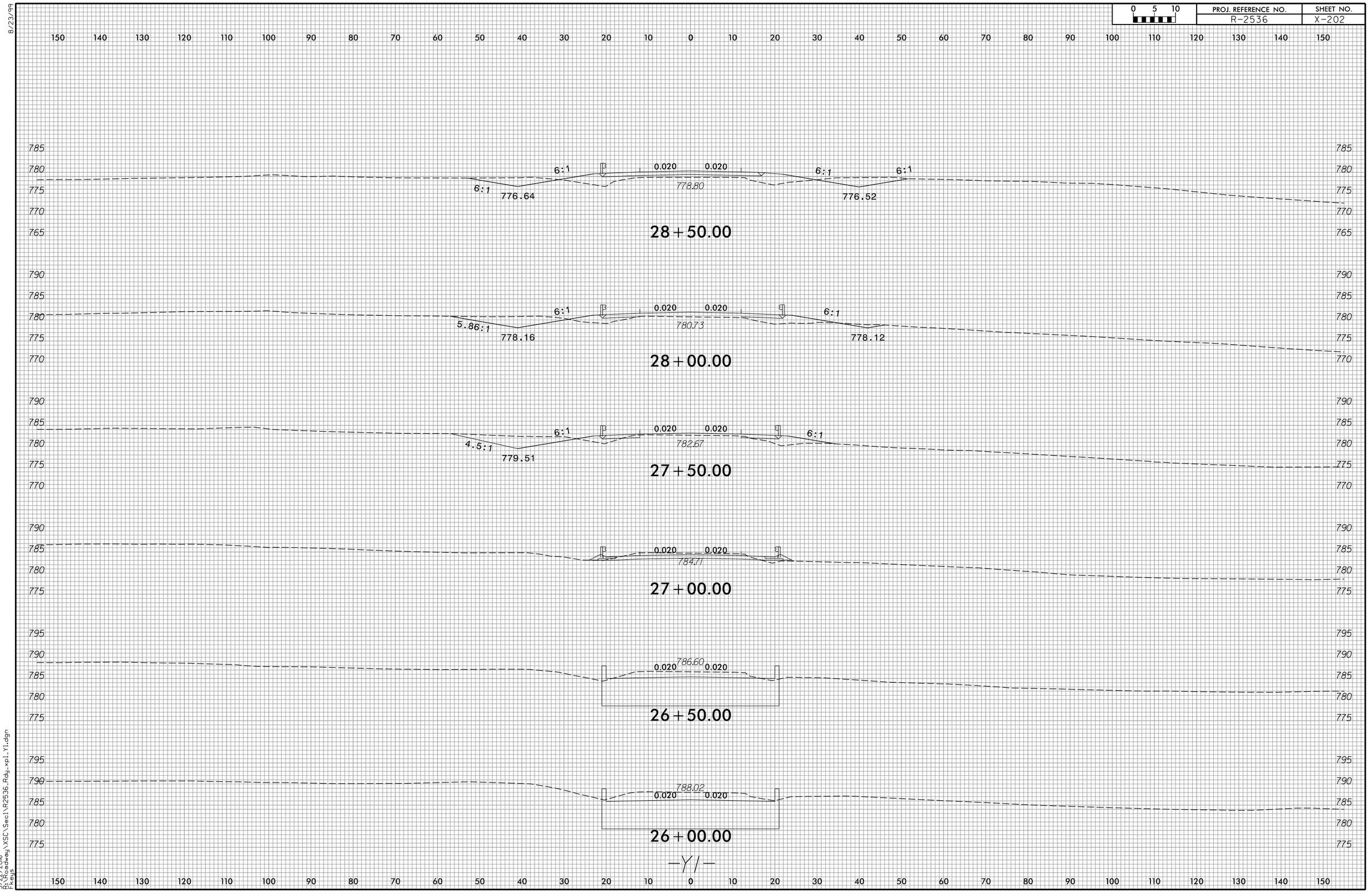
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-202



3/22/2016
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Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-203

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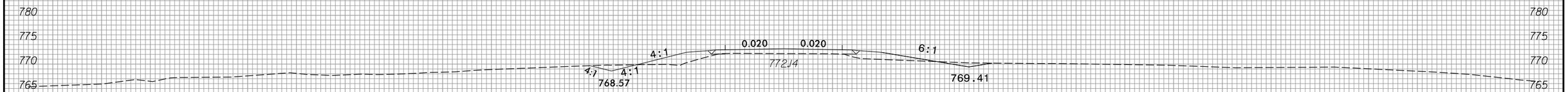
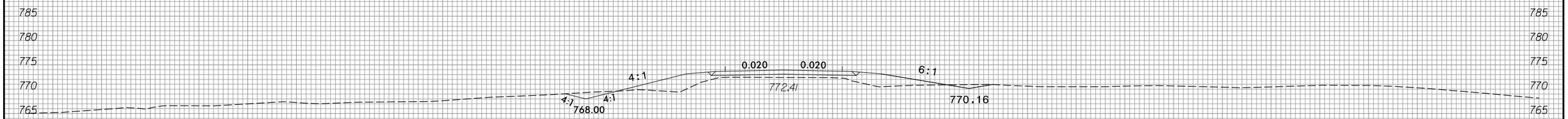
780 775 770 765 760



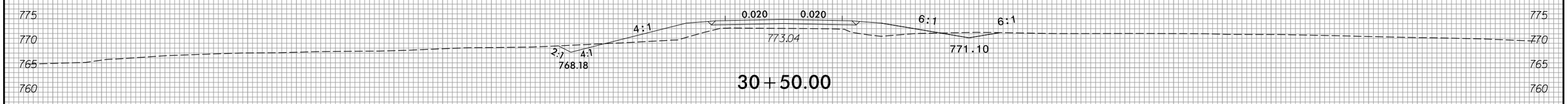
31+50.00

785 780 775 770 765 760



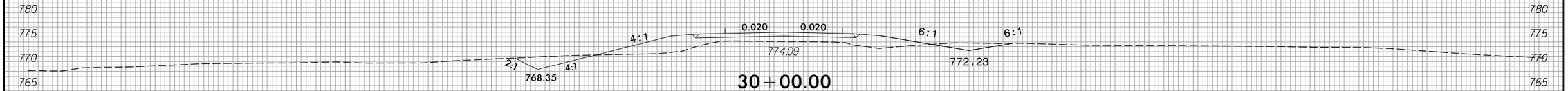
31+00.00

780 775 770 765 760



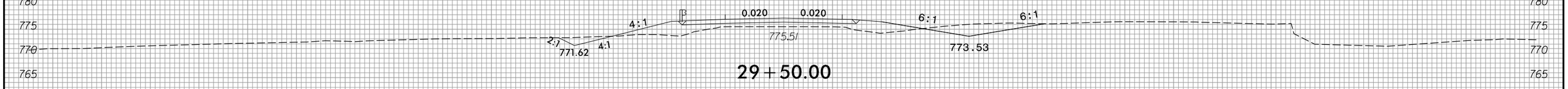
30+50.00

780 775 770 765 760



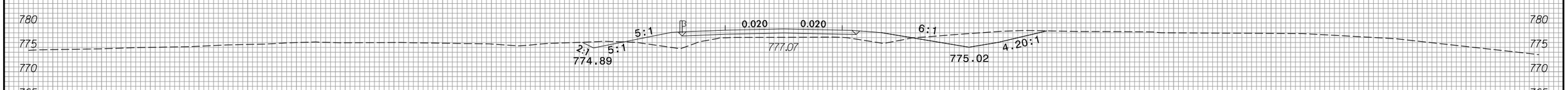
30+00.00

785 780 775 770 765



29+50.00

790 785 780 775 770 765 760



29+00.00

—Y1—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-204

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775
770
765
760

5.6:1 0.020 0.020 3.8:1
771.74
2:1 2:1
768.00

33+00.00

775
770
765
760

5:1 0.020 0.020 4.8:1
4:1 5:1
771.82
769.72
2:1 2:1
768.47

32+50.00

780
775
770
765
760

4:1 0.020 0.020 6:1
4:1 4:1
771.92
769.15
2:1 2:1
768.94

32+00.00

—Y1—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-204A

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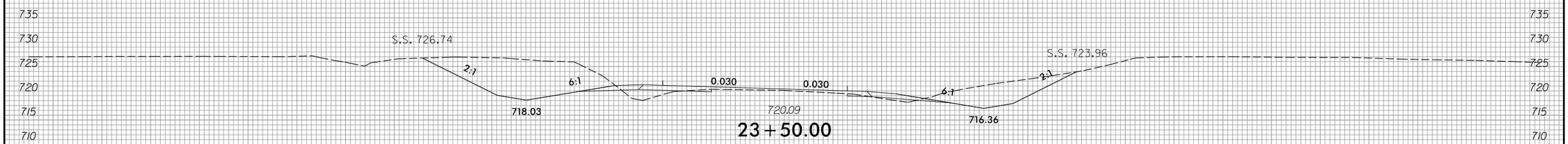

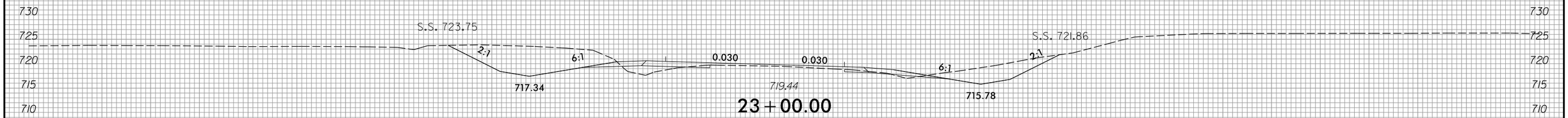

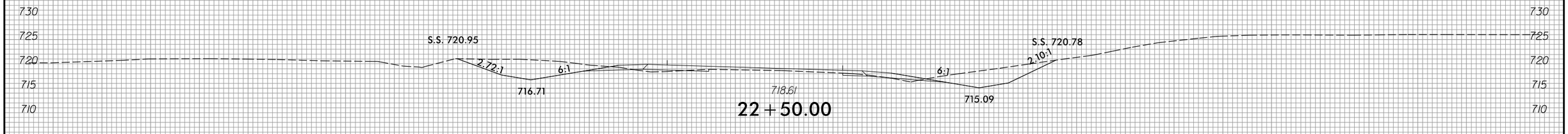

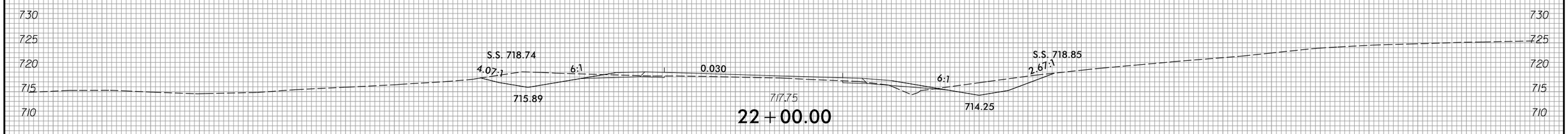

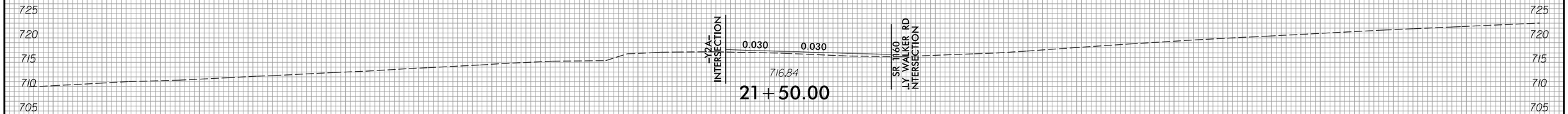

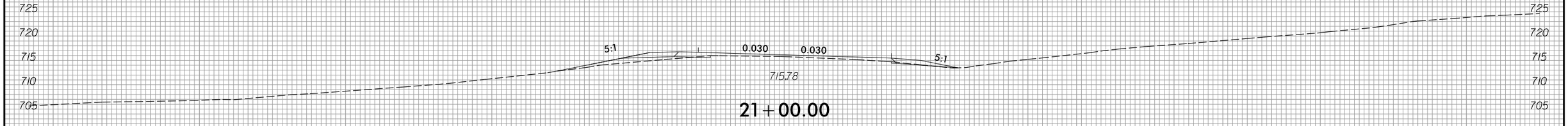

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-205

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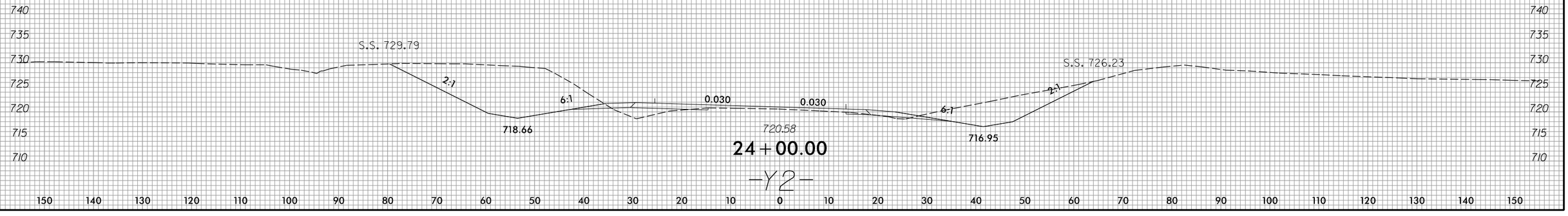

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Fkeys

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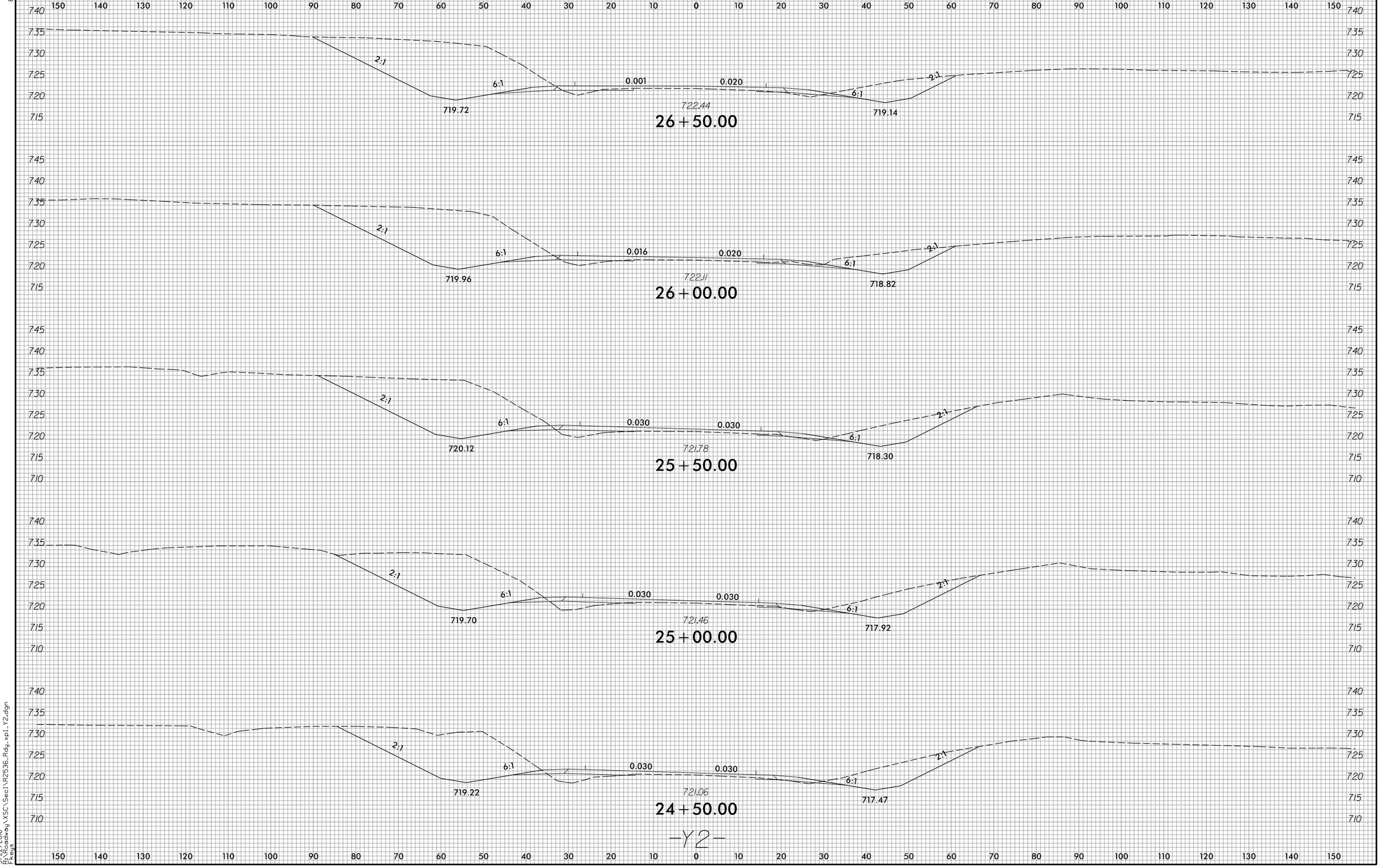
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-206



3/22/2016
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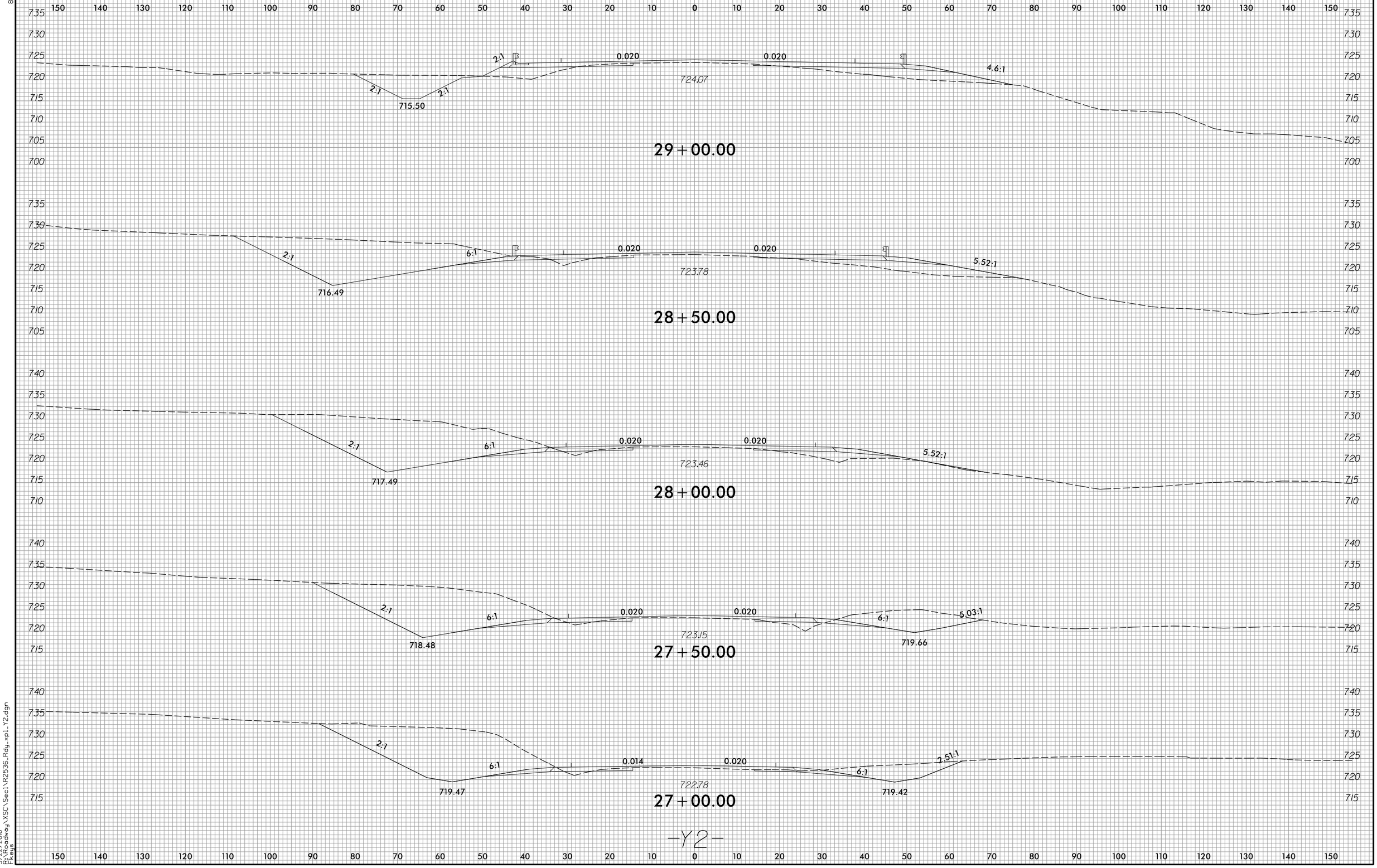
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-207



3/22/2016
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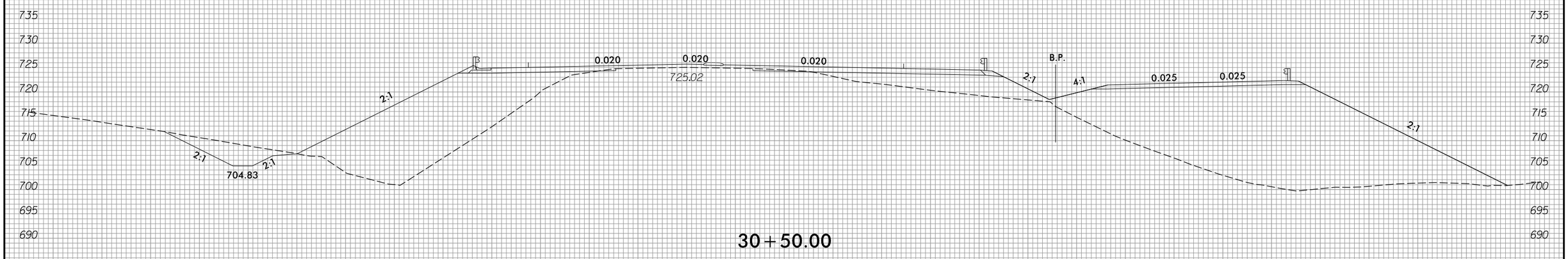
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-208

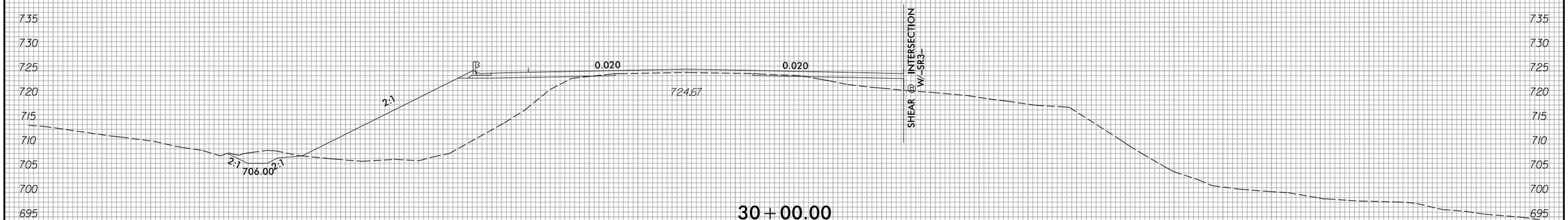
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

735 730 725 720 715 710 705 700 695 690



30+50.00

735 730 725 720 715 710 705 700 695



30+00.00

735 730 725 720 715 710 705 700

29+50.00

-Y2-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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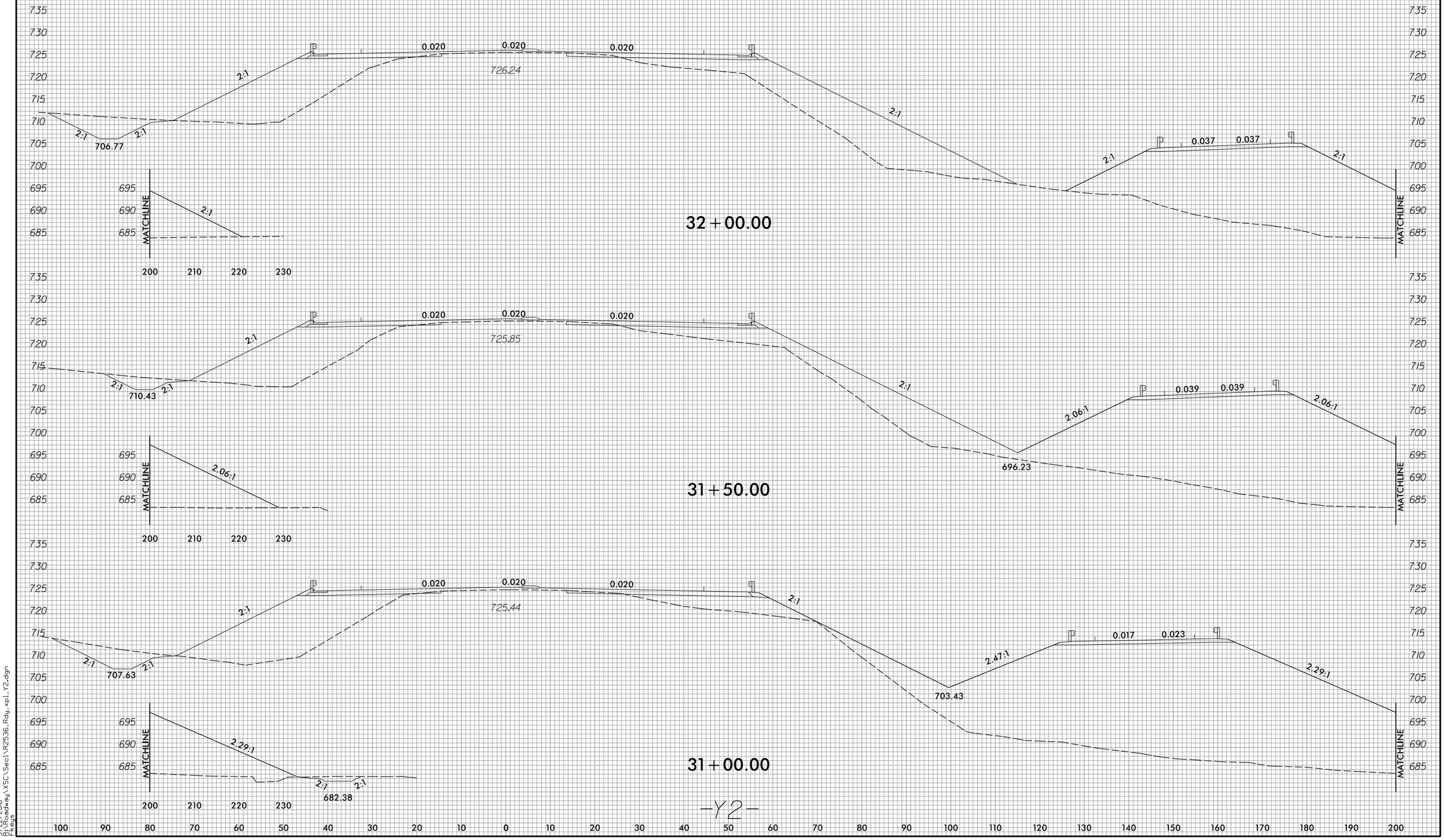
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-209



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fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-210

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210

735 730 725 720 715 710 705 700 695 690 685 680

MATCHLINE

2:1 2:1 2:1 2:1 695.77

120 110 100 90

MATCHLINE

2:1 2:1 2:1 699.44

120 110 100 90

0.020 0.005 0.005 727.18

2:1 2:1

0.020 0.016 2:6:1 2:1 691.44

33+50.00

MATCHLINE

2:1 2:1 2:1 703.10

120 110 100 90

0.020 0.014 0.014 726.82

2:1 2:1

0.020 0.002 2.4:1 2:1 691.59

33+00.00

MATCHLINE

2:1 2:1

120 110 100 90

0.020 0.020 0.020 726.53

2:1 2:1

0.020 0.020 2:1 2:1 691.74

32+50.00

-Y2-

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-211

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 200

740 735 730 725 720 715 710 705 700 695 690 685

MATCHLINE 700 695 690

2:1

140 130 120 110

MATCHLINE

2:1

0.021 0.021 0.021

728.18

2:1

2:1 695.00 2:1 6:1 0.020 0.020 4:1 6:1

697.14

35+00.00

740 735 730 725 720 715 710 705 700 695 690 685

MATCHLINE 700 695 690

2:1 691.66 2:1

140 130 120 110

MATCHLINE

2:1

0.020 0.012 0.012

727.82

2:1

2:1 691.14 2:6:1 0.020 0.020 4:1 6:1

695.73

34+50.00

740 735 730 725 720 715 710 705 700 695 690 685

MATCHLINE 700 695 690

2:1 692.11 2:1

140 130 120 110

MATCHLINE

2:1

0.020 0.003 0.003

727.49

2:1

2:7:1 691.29 0.020 0.020 4:1

34+00.00

-Y2-

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 200

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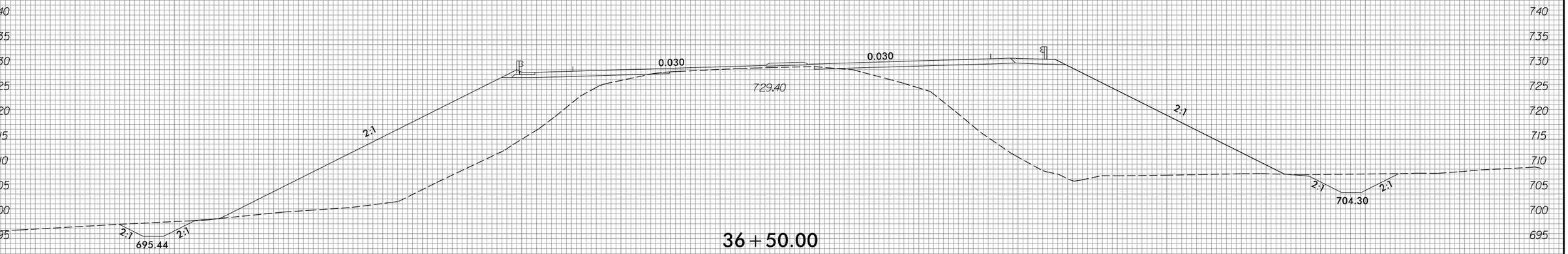
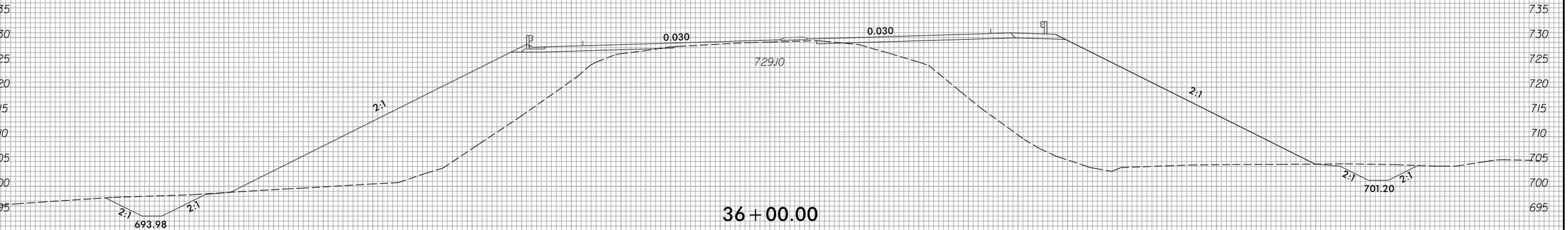
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-212

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

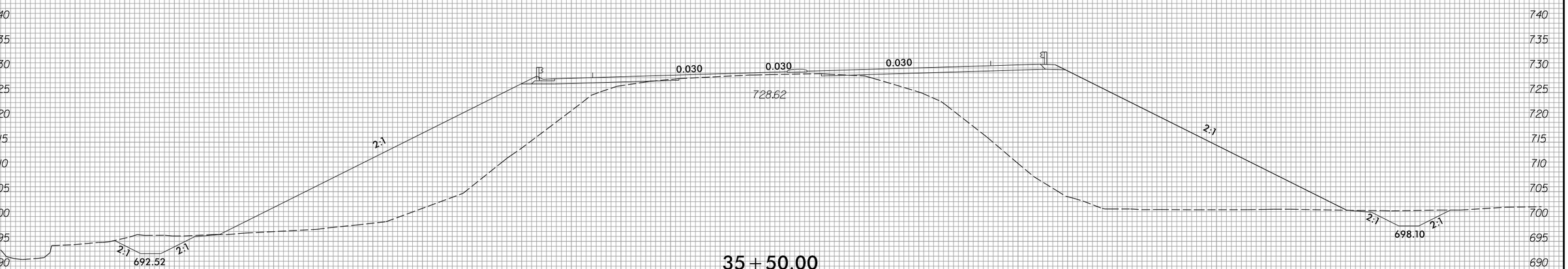
740 735 730 725 720 715 710 705 700 695



36+50.00



36+00.00



35+50.00

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Fkeys

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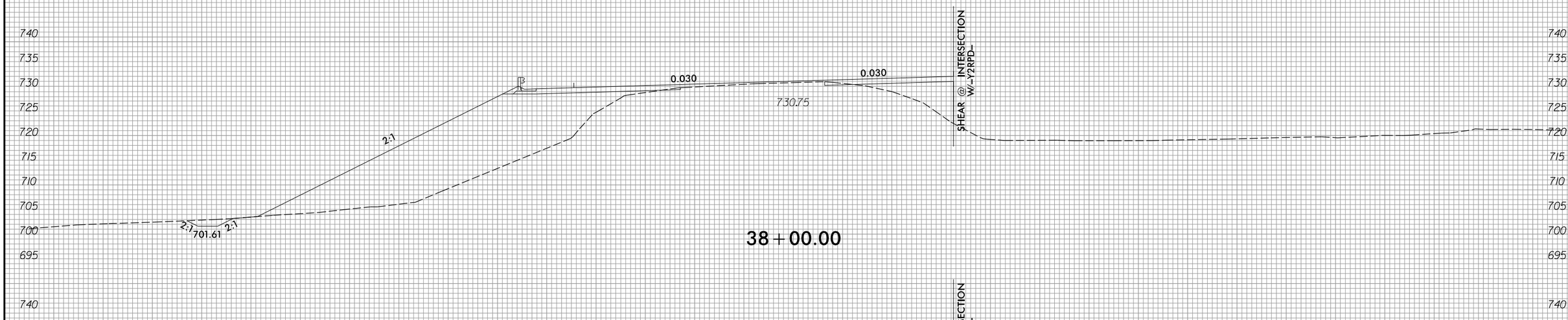
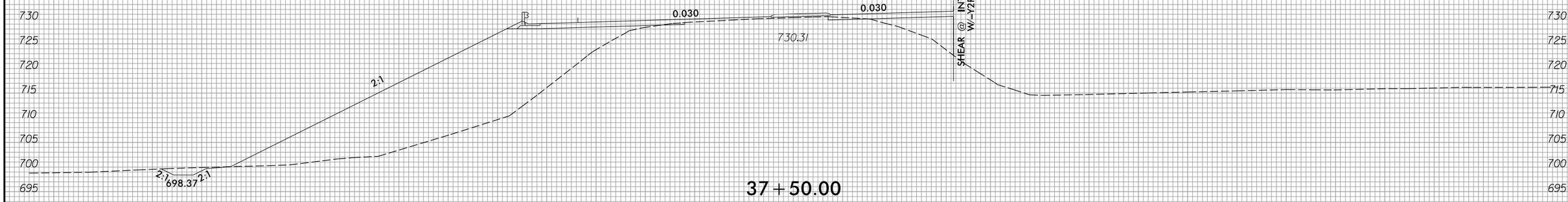
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-213

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

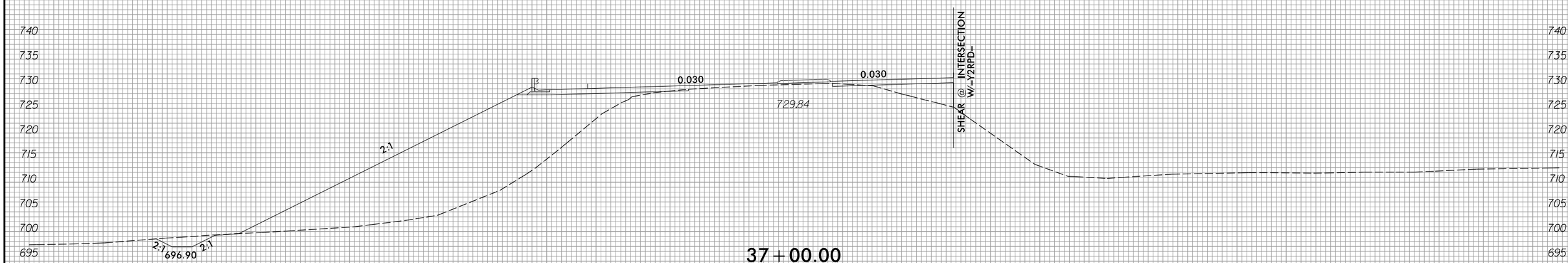
740 735 730 725 720 715 710 705 700 695



38+00.00



37+50.00



37+00.00

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-214

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

740 735 730 725 720 715

3:1 2:1 2:1 714.56 0.030 0.030 732.34 6:1 730.63 5.16:1

40+00.00

745 740 735 730 725 720 715 710

2:1 2:1 2:1 711.32 0.030 0.030 731.88 3:1 2:1 2:1 728.68

39+50.00

745 740 735 730 725 720 715 710 705

2:1 2:1 2:1 708.08 0.030 0.030 731.47 2:1

39+00.00

740 735 730 725 720 715 710 705 700

2:1 2:1 2:1 704.85 0.030 0.030 731.10

SHEAR @ INTERSECTION W/_Y2LPD_

38+50.00

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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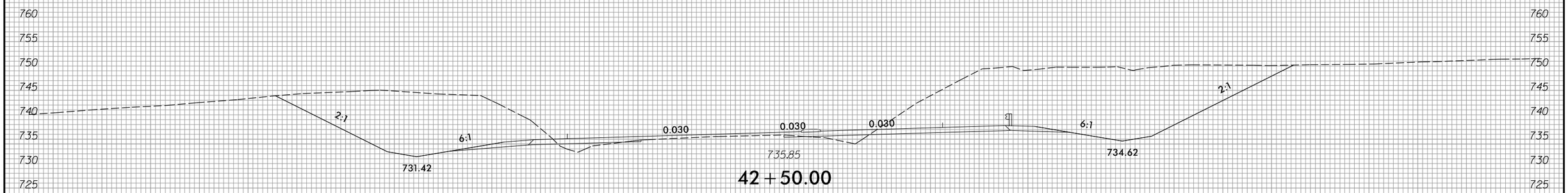
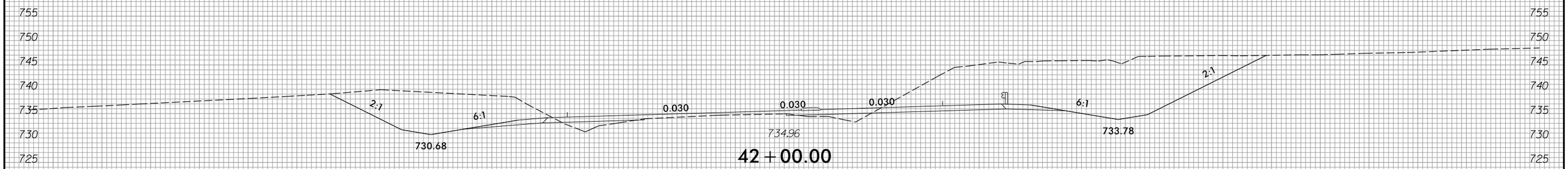
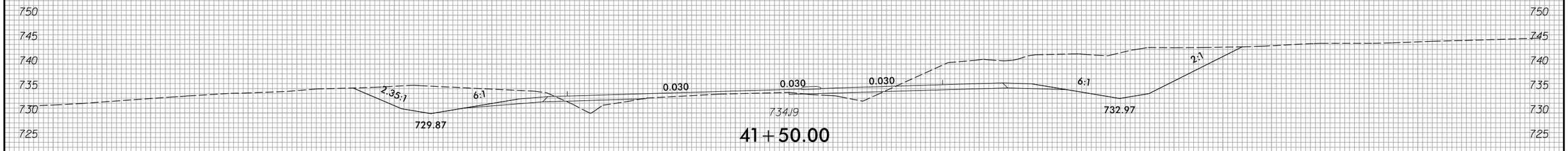
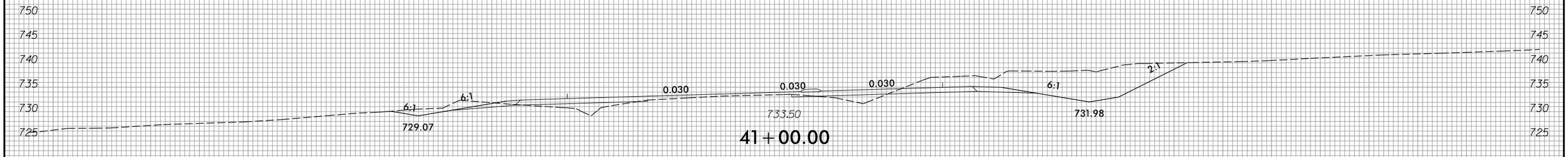
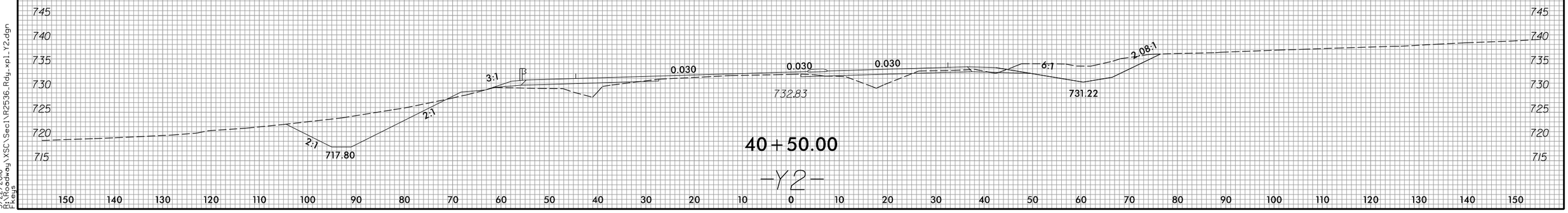
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-215











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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-216

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

770 765 760 755 750 745 740 735 730

0.030 0.030

739.27

44+50.00

760 755 750 745 740 735 730

0.030 0.030 0.030

738.40

44+00.00

770 765 760 755 750 745 740 735 730

SP #16
ELEV. 760.65

3.85:1

0.030 0.030 0.030

737.55

43+50.00

760 755 750 745 740 735 730 725

2:1 6:1 0.030 0.030 0.030 6:1 2:1

732.12 736.72 735.48

43+00.00

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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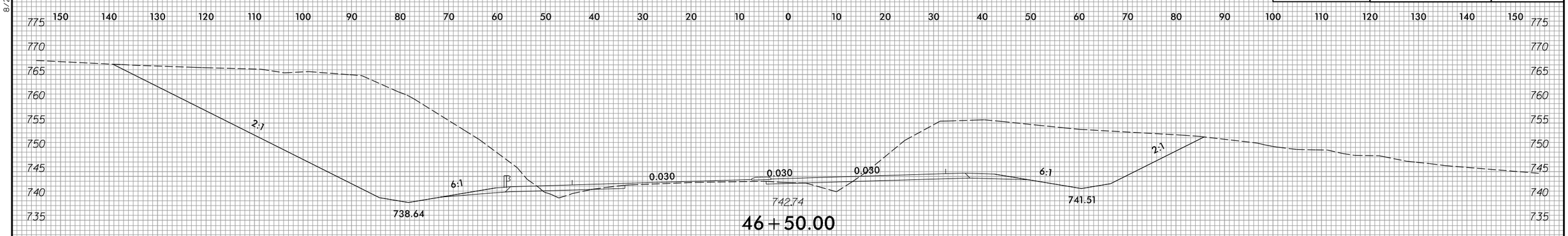
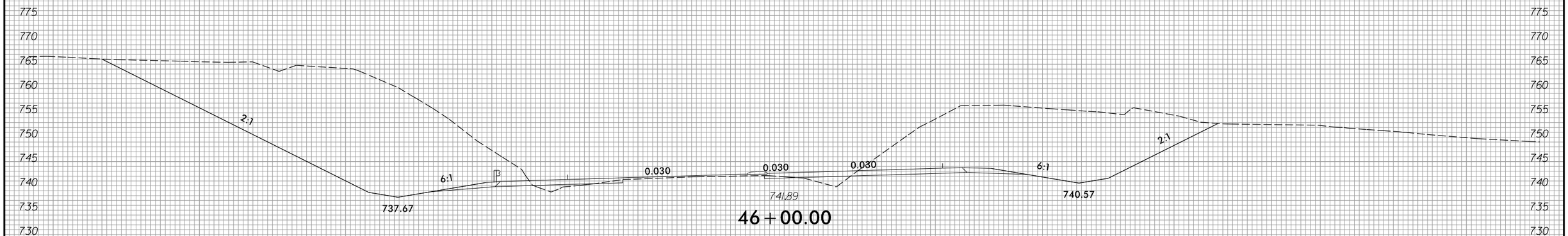
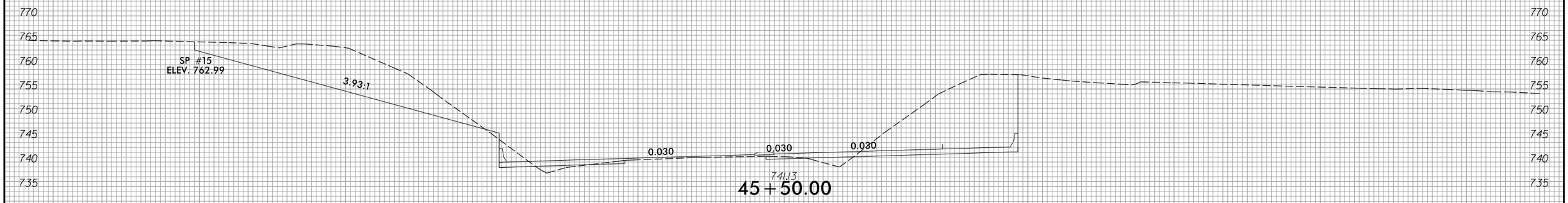
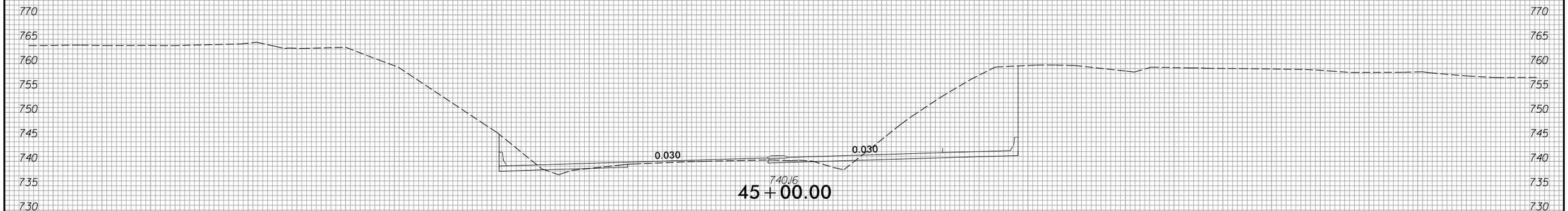
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-217









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Fkeys

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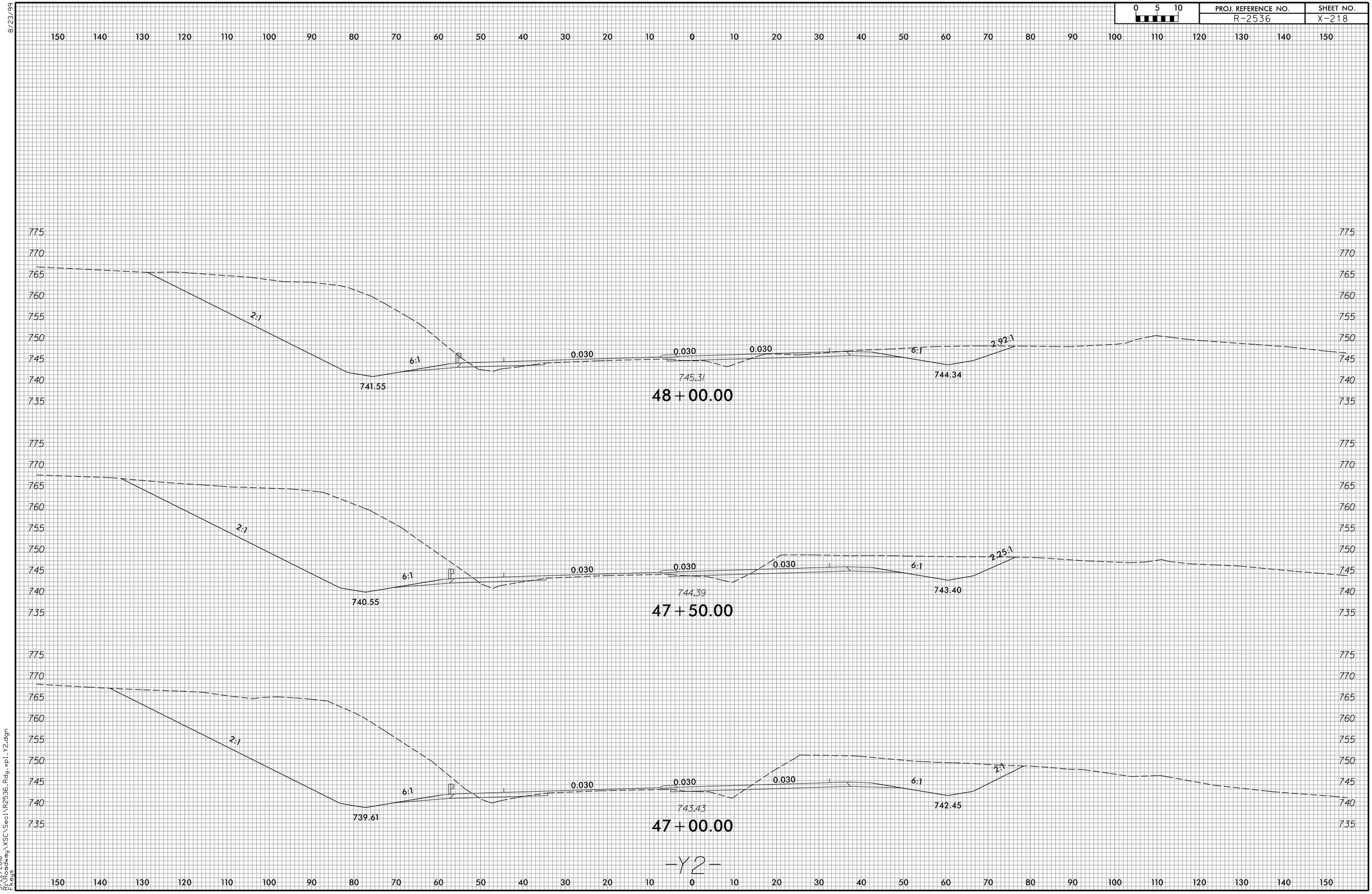
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-218



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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-219

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

765 760 755 750 745 740

SP #18
ELEV. 756.89

4.220:1

0.060 0.060

B.P.

0.030 0.030 0.030

5:1

749.02

50+00.00

770 765 760 755 750 745 740

SP #17
ELEV. 765.07

4.780:1

SP #18
ELEV. 756.89

0.053

0.030 0.030 0.030

6:1

747.92

747.13

49+50.00

775 770 765 760 755 750 745 740

4.018:1

0.035

0.030 0.030 0.030

6:1 6:1

747.06

746.20

49+00.00

775 770 765 760 755 750 745 740 735

2:1

6:1

742.50

0.030 0.030 0.030

6:1 4.23:1

746.16

745.27

48+50.00

-Y2-

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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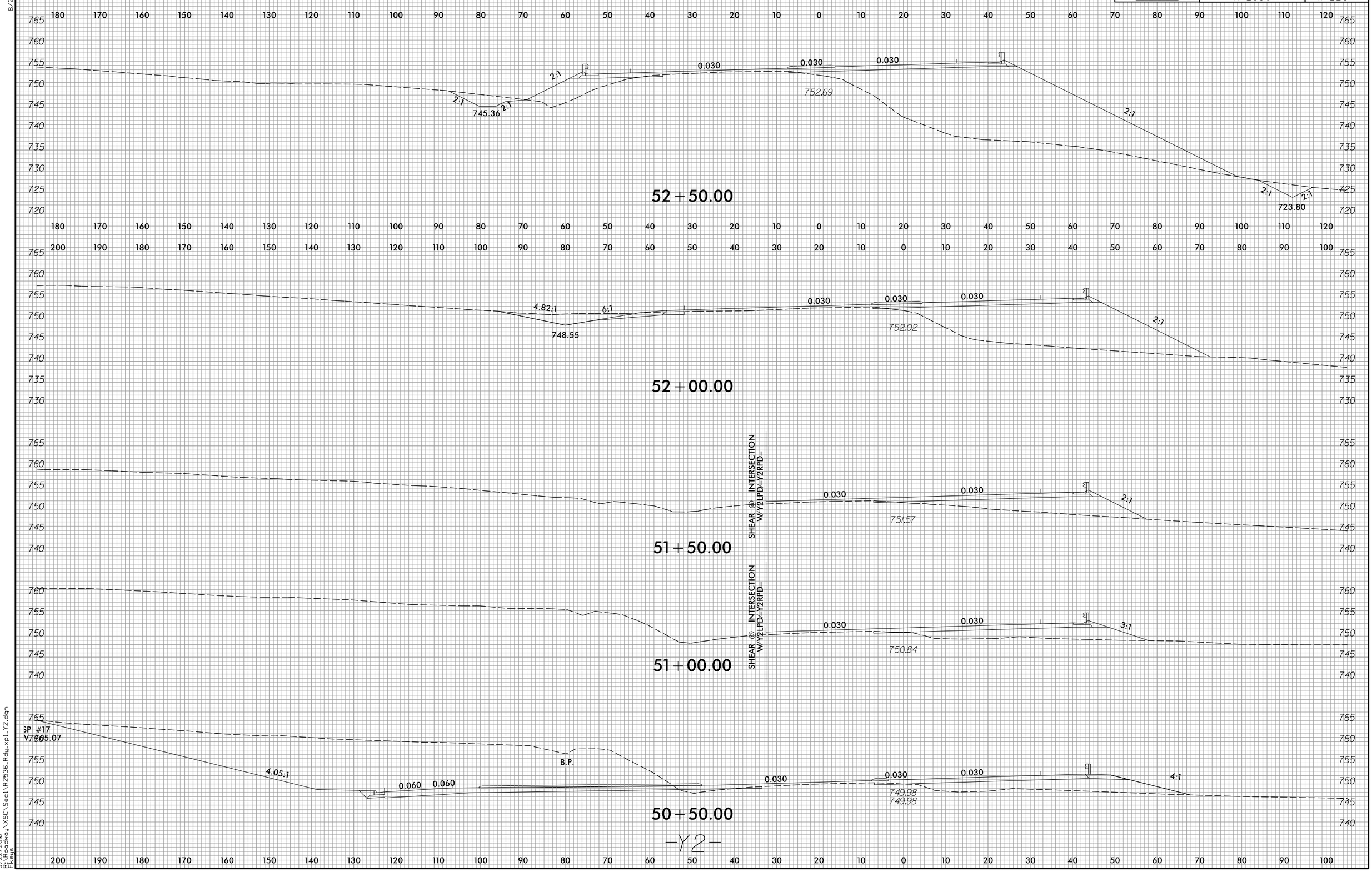
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-220



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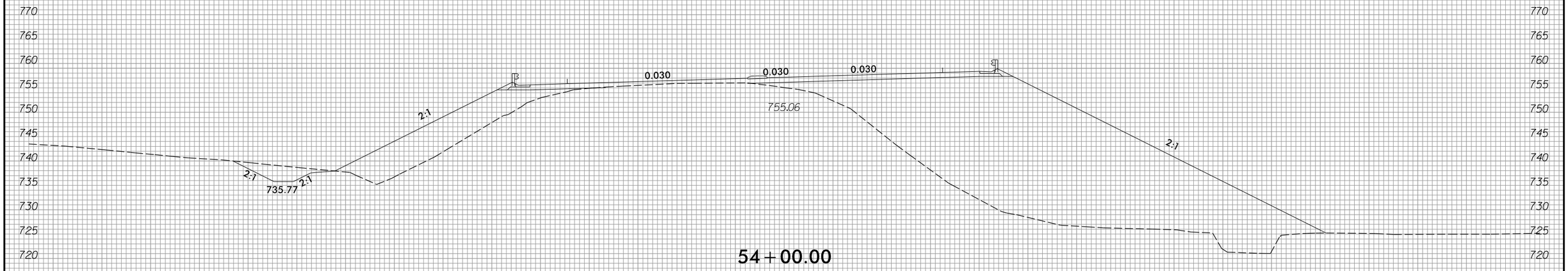
Fkeys

8/23/99

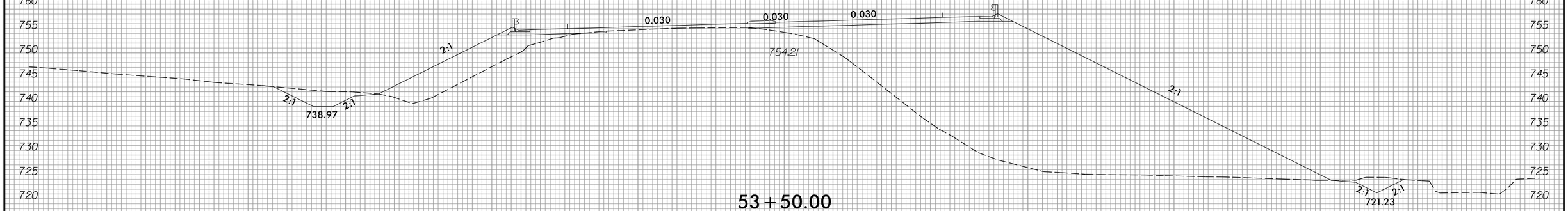
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-221

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

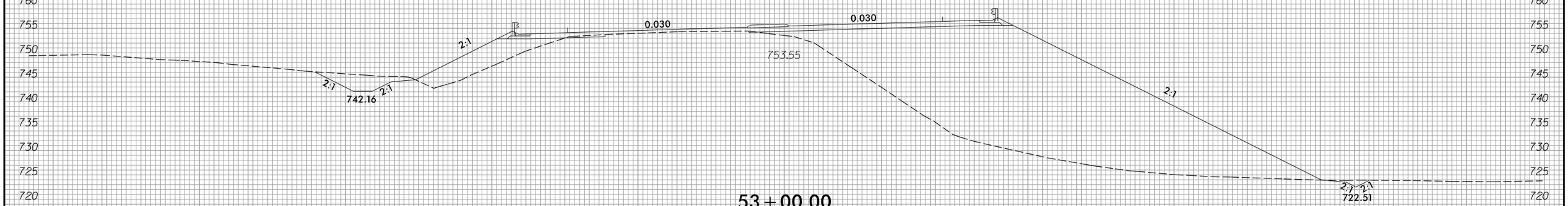
770 765 760 755 750 745 740 735 730 725 720



54+00.00



53+50.00



53+00.00

-Y2-

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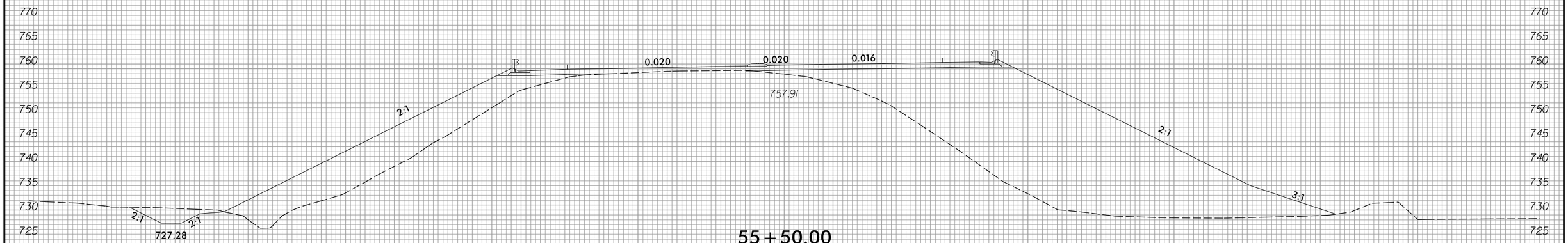
8/23/99

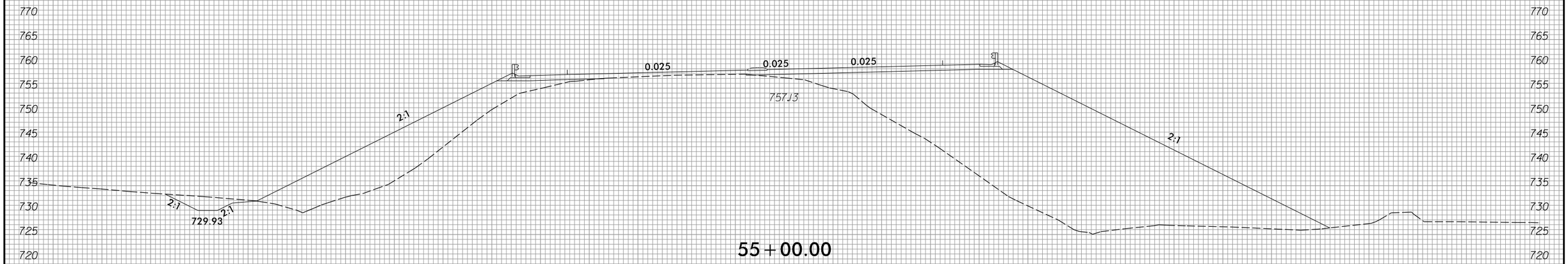
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-222

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

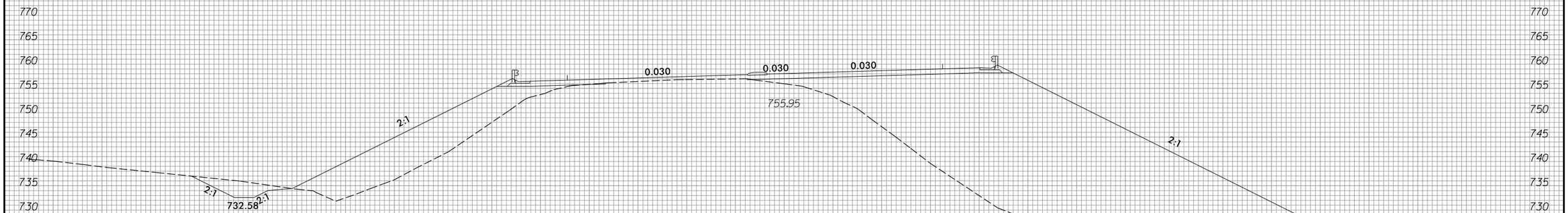
770 765 760 755 750 745 740 735 730 725



55+50.00



55+00.00



54+50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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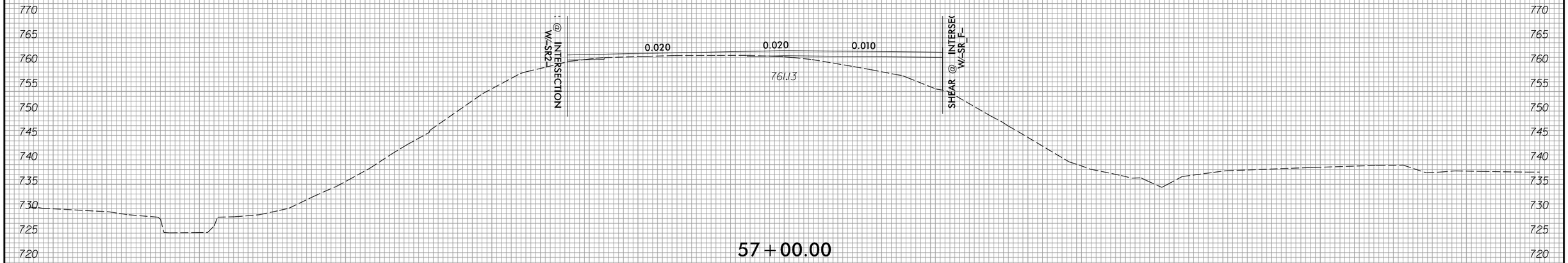
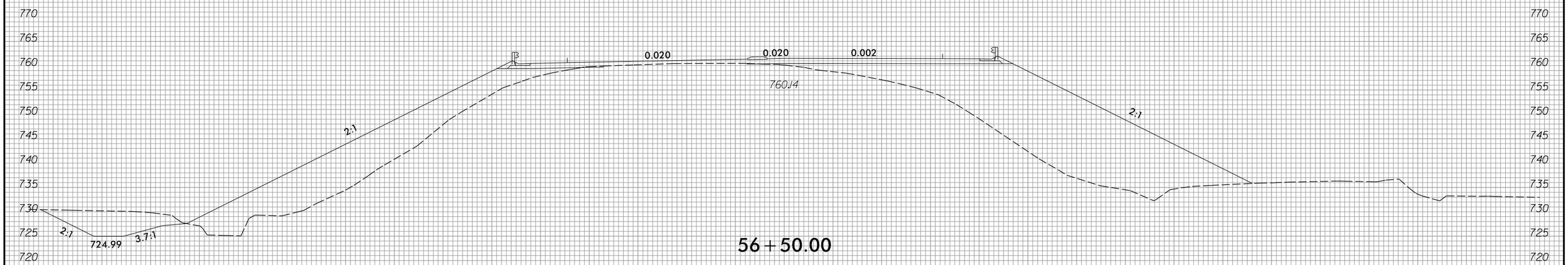
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-223

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

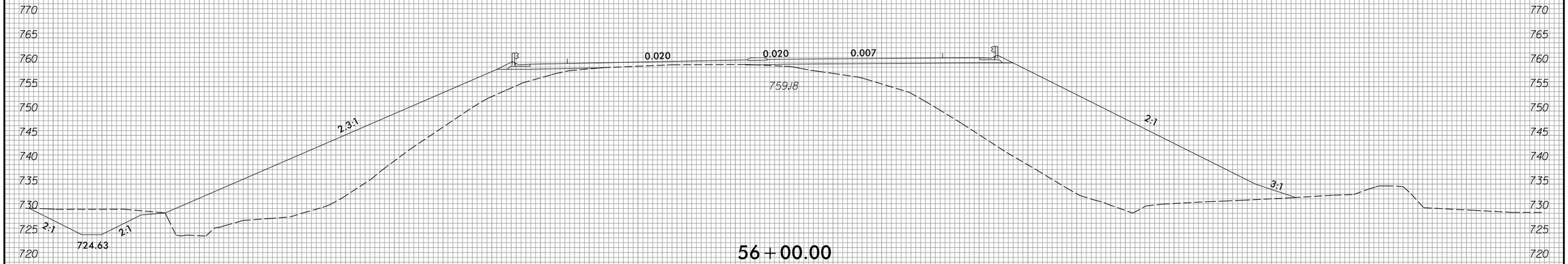
770 765 760 755 750 745 740 735 730 725 720



57+00.00



56+50.00



56+00.00

-Y2-

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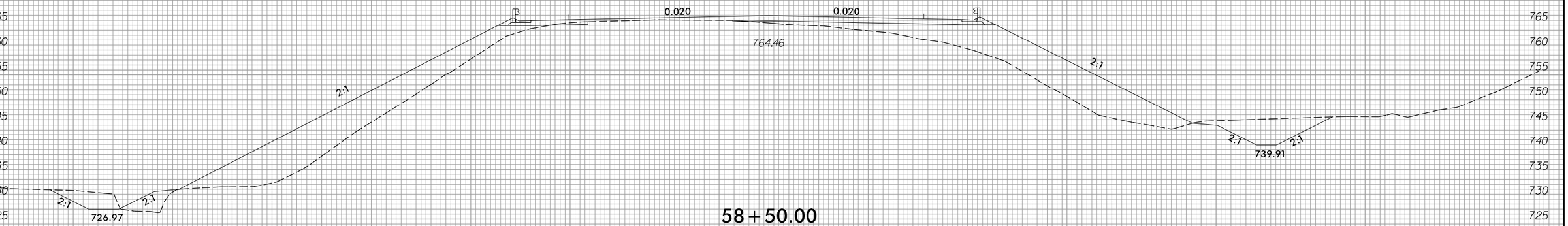
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-224

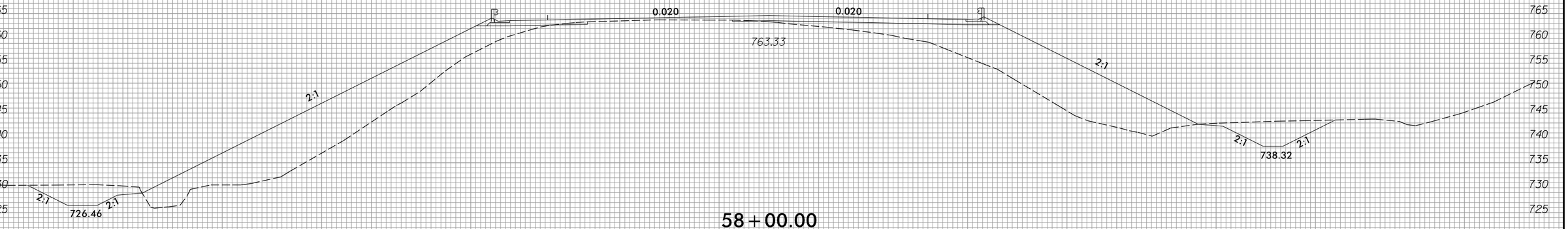
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775 770 765 760 755 750 745 740 735 730 725



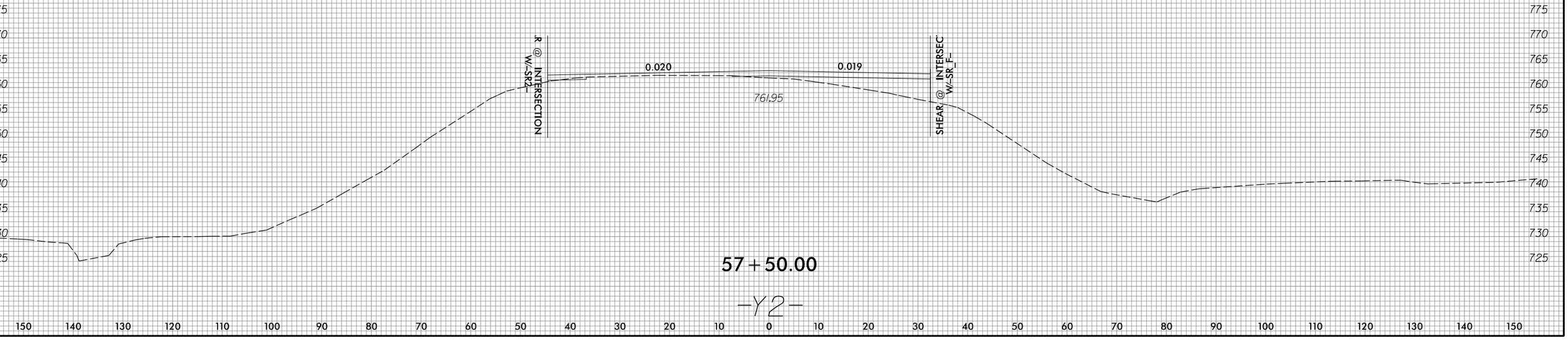
58+50.00

775 770 765 760 755 750 745 740 735 730 725 720



58+00.00

775 770 765 760 755 750 745 740 735 730 725



57+50.00

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-225

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780 775 770 765 760 755 750 745 740 735 730

WETLAND

2:1 0.020 0.020 2:1

769.26

2:1 2:1 2:1

744.33

60+00.00

780 775 770 765 760 755 750 745 740 735 730 725

2:1 0.020 0.020 2:1

767.46

2:1 2:1 2:1

742.92

59+50.00

775 770 765 760 755 750 745 740 735 730 725

2:1 0.020 0.020 2:1

766.06

2:1 2:1 2:1

741.50

59+00.00

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-226

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

785 780 775 770 765 760 755 750 745 740 735

2:1 0.020 0.020 2:1

775.18

2:1 2:1 2:1

748.58

61+50.00

785 780 775 770 765 760 755 750 745 740 735

2:1 0.020 0.020 2:1

773.18

2:1 2:1 2:1

747.17

61+00.00

780 775 770 765 760 755 750 745 740 735 730

2:1 0.020 0.020 2:1

771.11

2:1 2:1 2:1

745.75

WETLAND

60+50.00

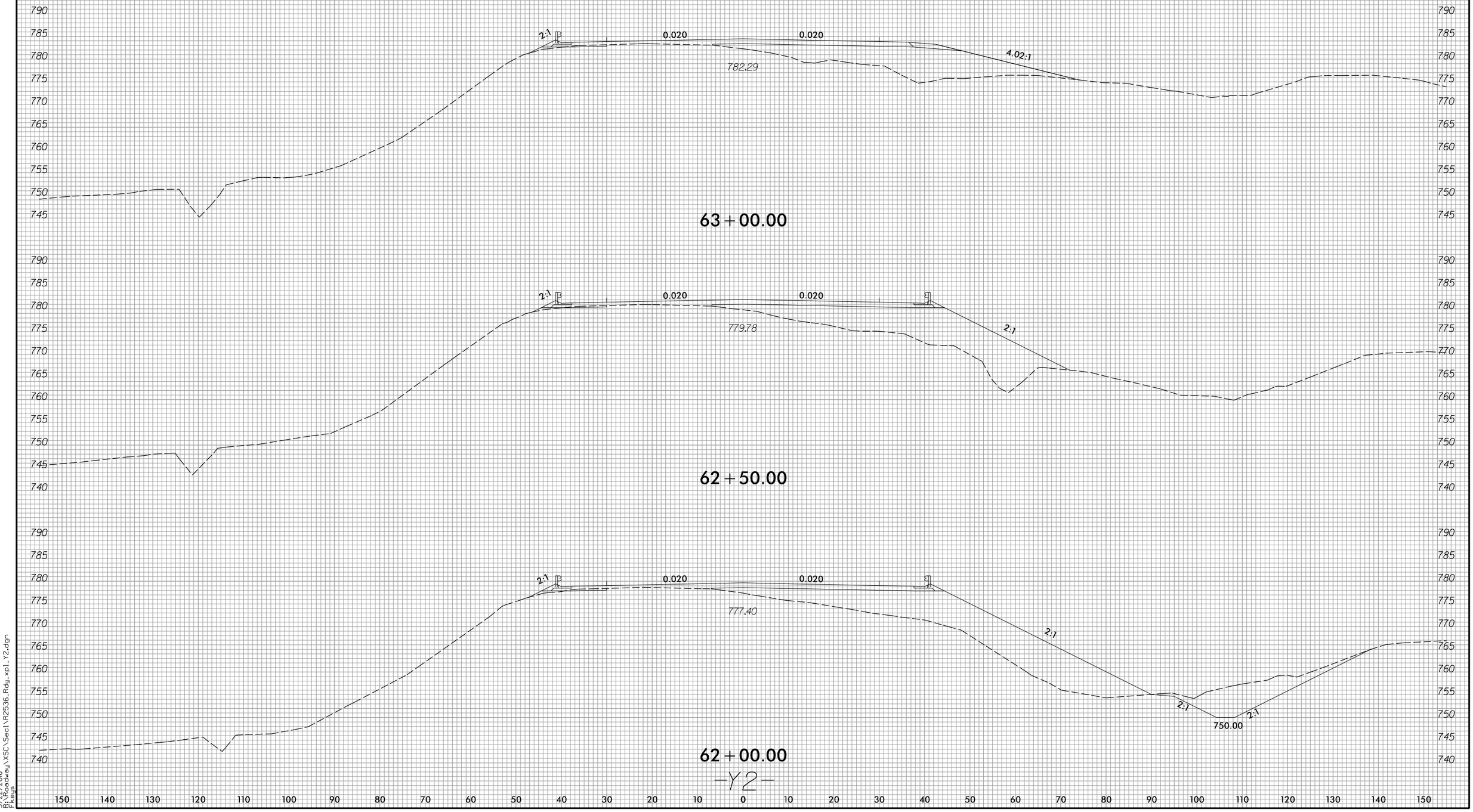
-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_Y2.dgn
Fkeys

8/23/99

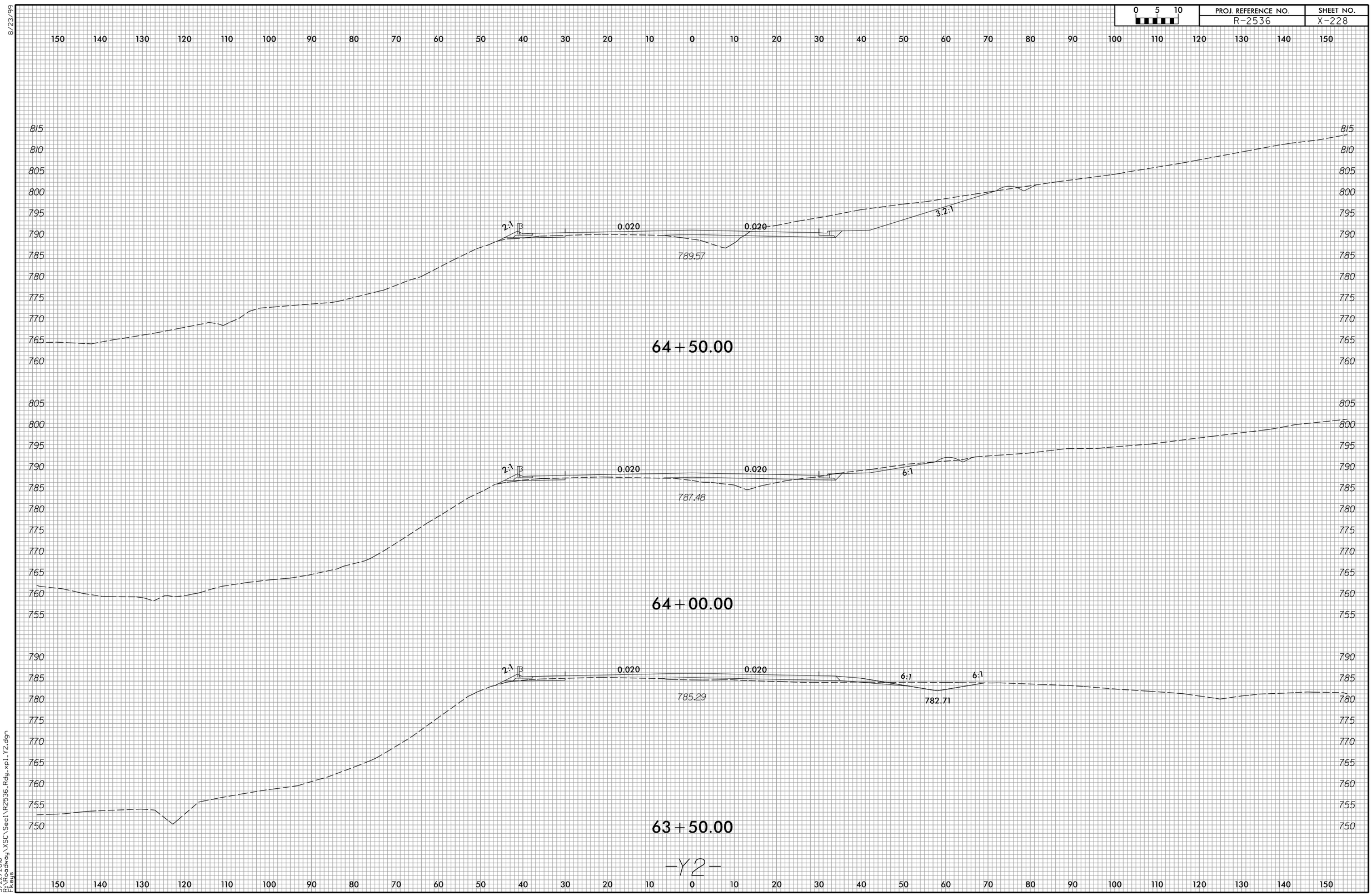
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-227



3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-228



3/22/2016
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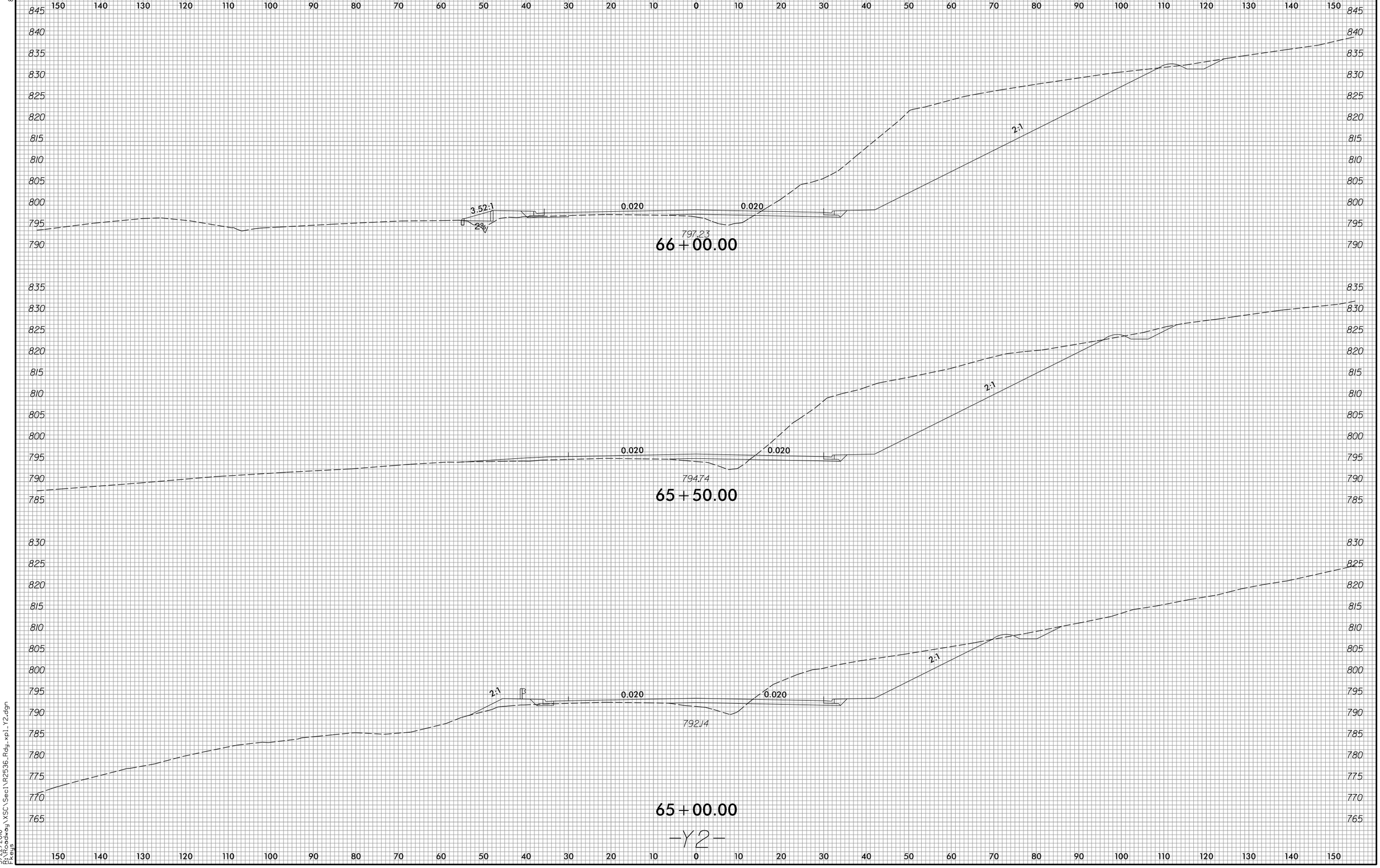
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-229



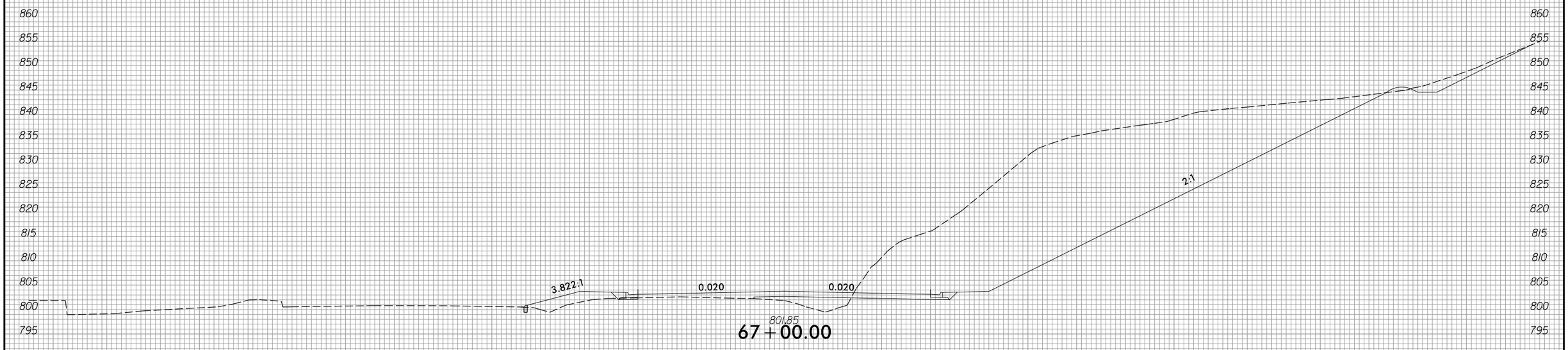
3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-230

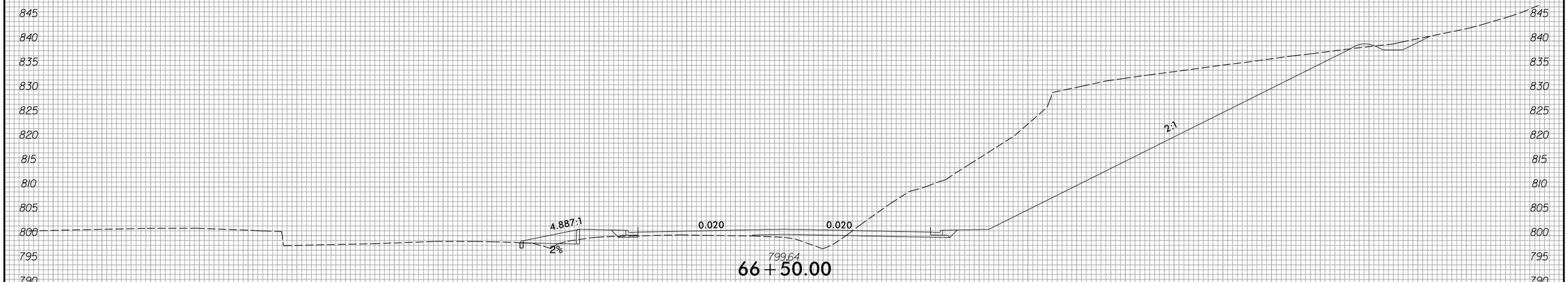
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

860 855 850 845 840 835 830 825 820 815 810 805 800 795



801.85
67+00.00

850 845 840 835 830 825 820 815 810 805 800 795 790



799.64
66+50.00

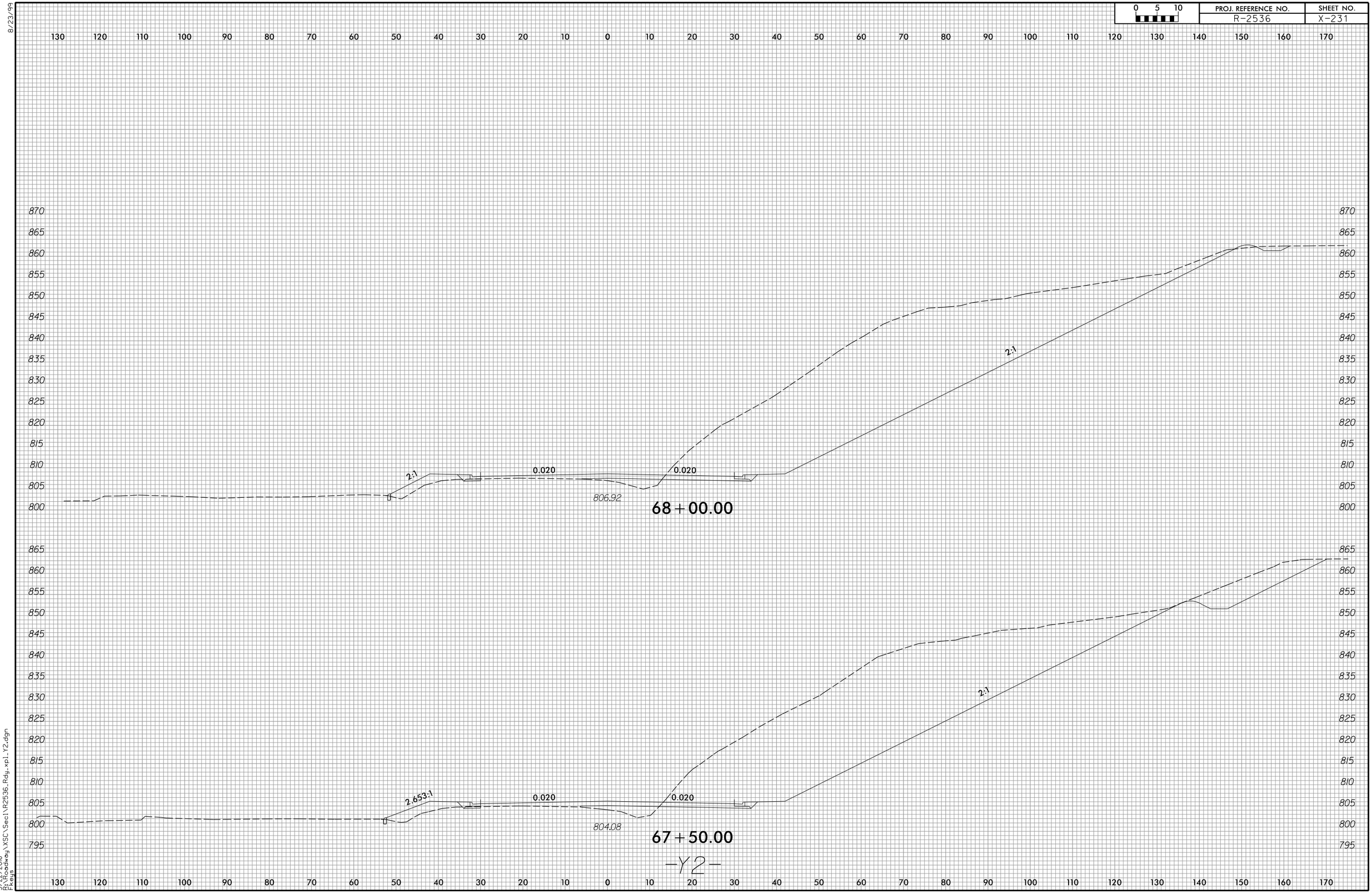
-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-231



-Y2-

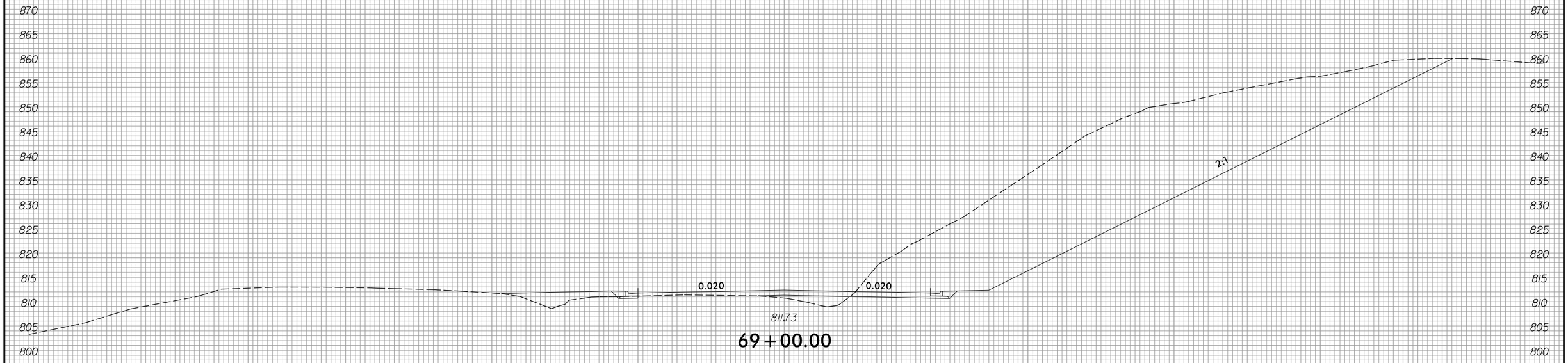
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

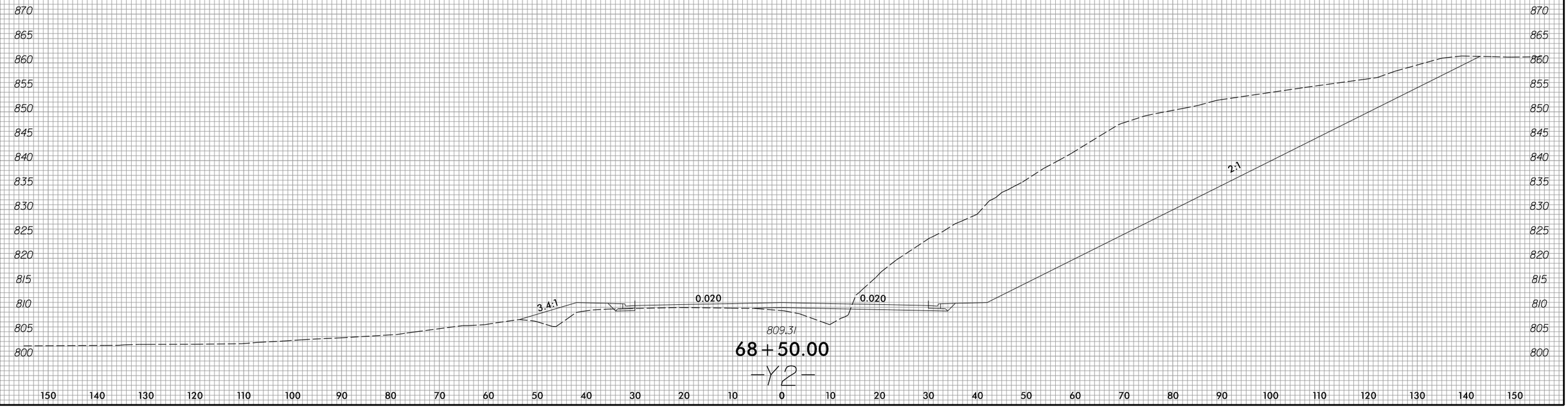
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-232

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

870 865 860 855 850 845 840 835 830 825 820 815 810 805 800



870 865 860 855 850 845 840 835 830 825 820 815 810 805 800



-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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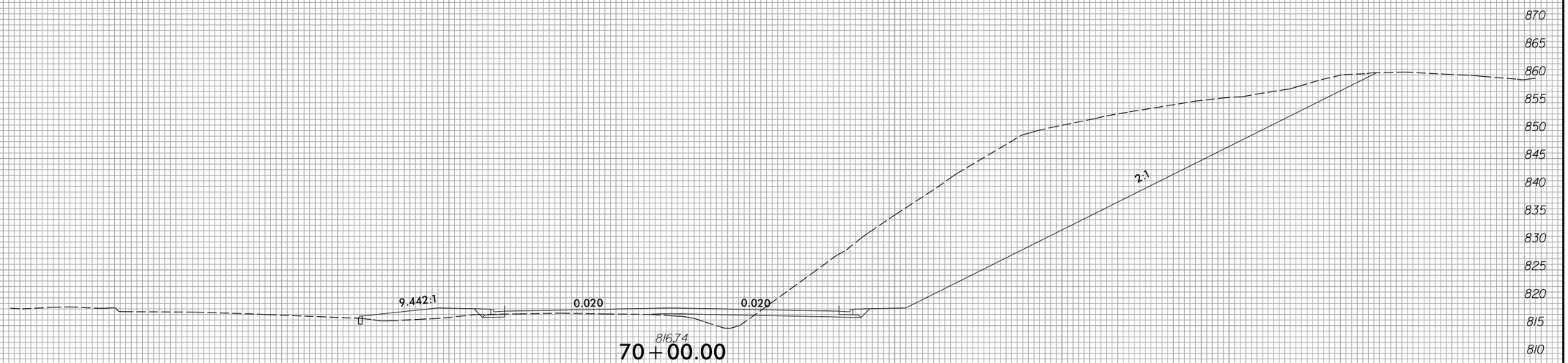
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-233

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

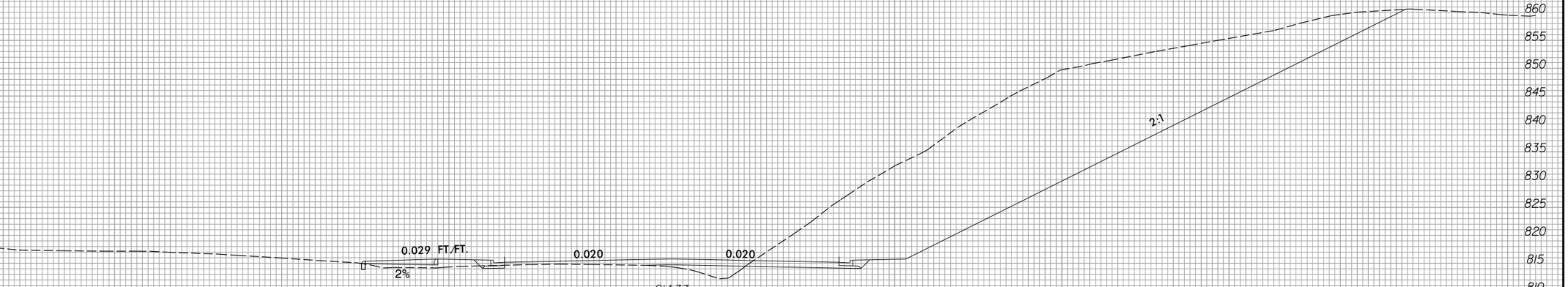
870 865 860 855 850 845 840 835 830 825 820 815 810



816.74

70+00.00

870 865 860 855 850 845 840 835 830 825 820 815 810 805



814.33

69+50.00

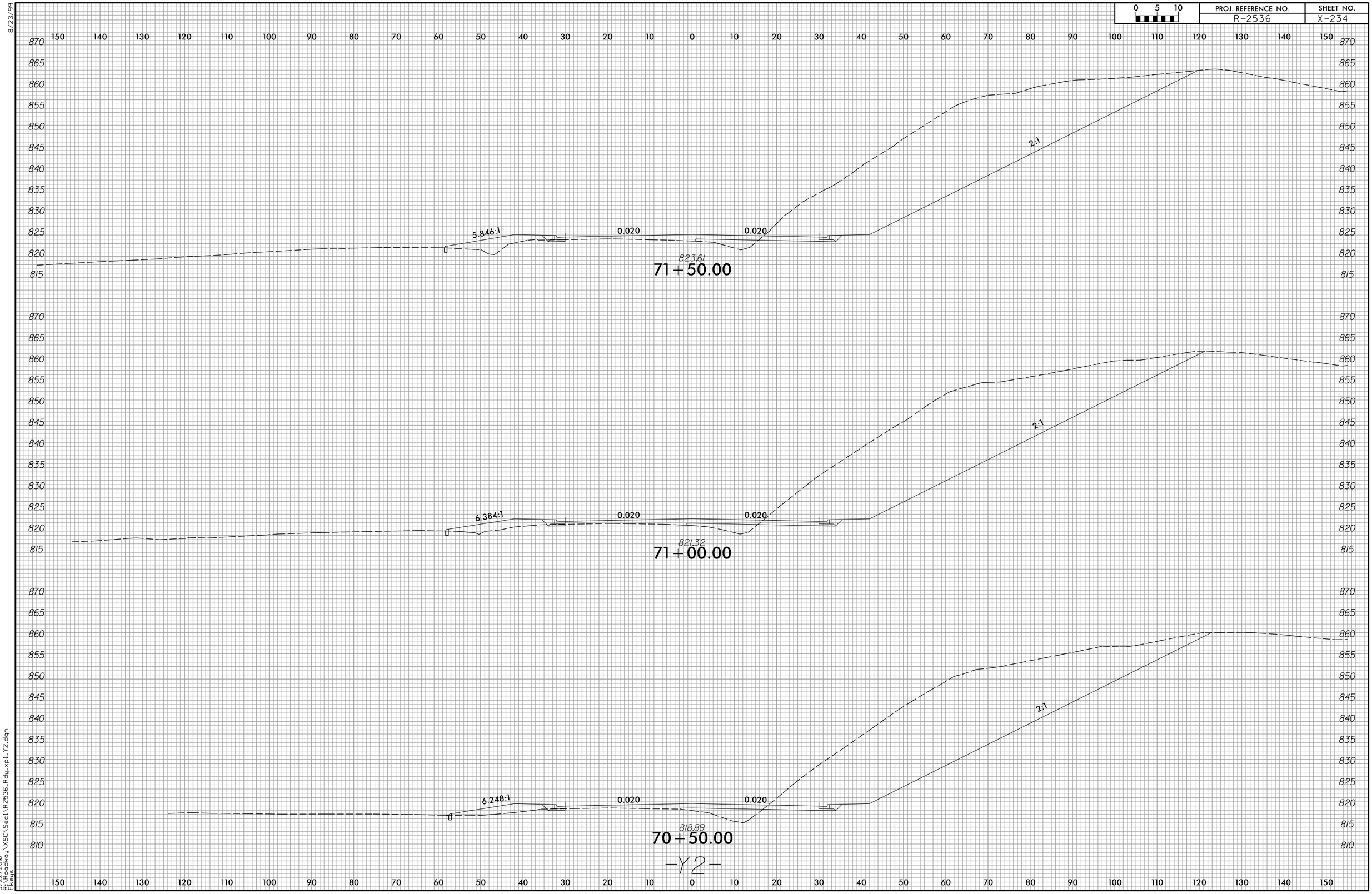
-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-234

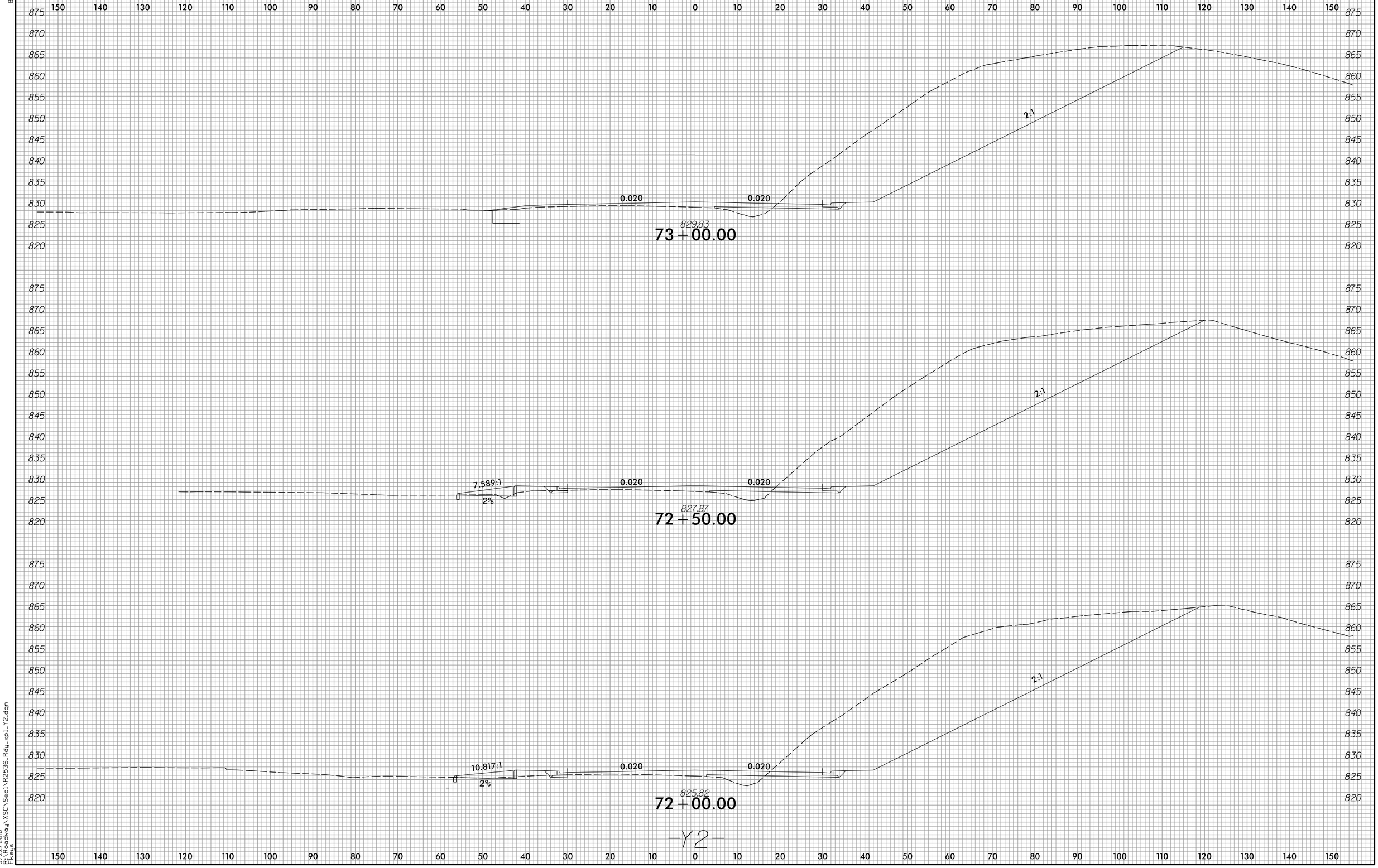


-Y2-

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-235



-Y2-

3/22/2016
P:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-236

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

870 865 860 855 850 845 840 835 830 825

2:1 0.020 0.020 2:1

835.20

74+50.00

875 870 865 860 855 850 845 840 835 830 825

2:1 0.020 0.020 2:1

833.50

74+00.00

875 870 865 860 855 850 845 840 835 830 825

2:1 0.020 0.020 2:1

831.79

73+50.00

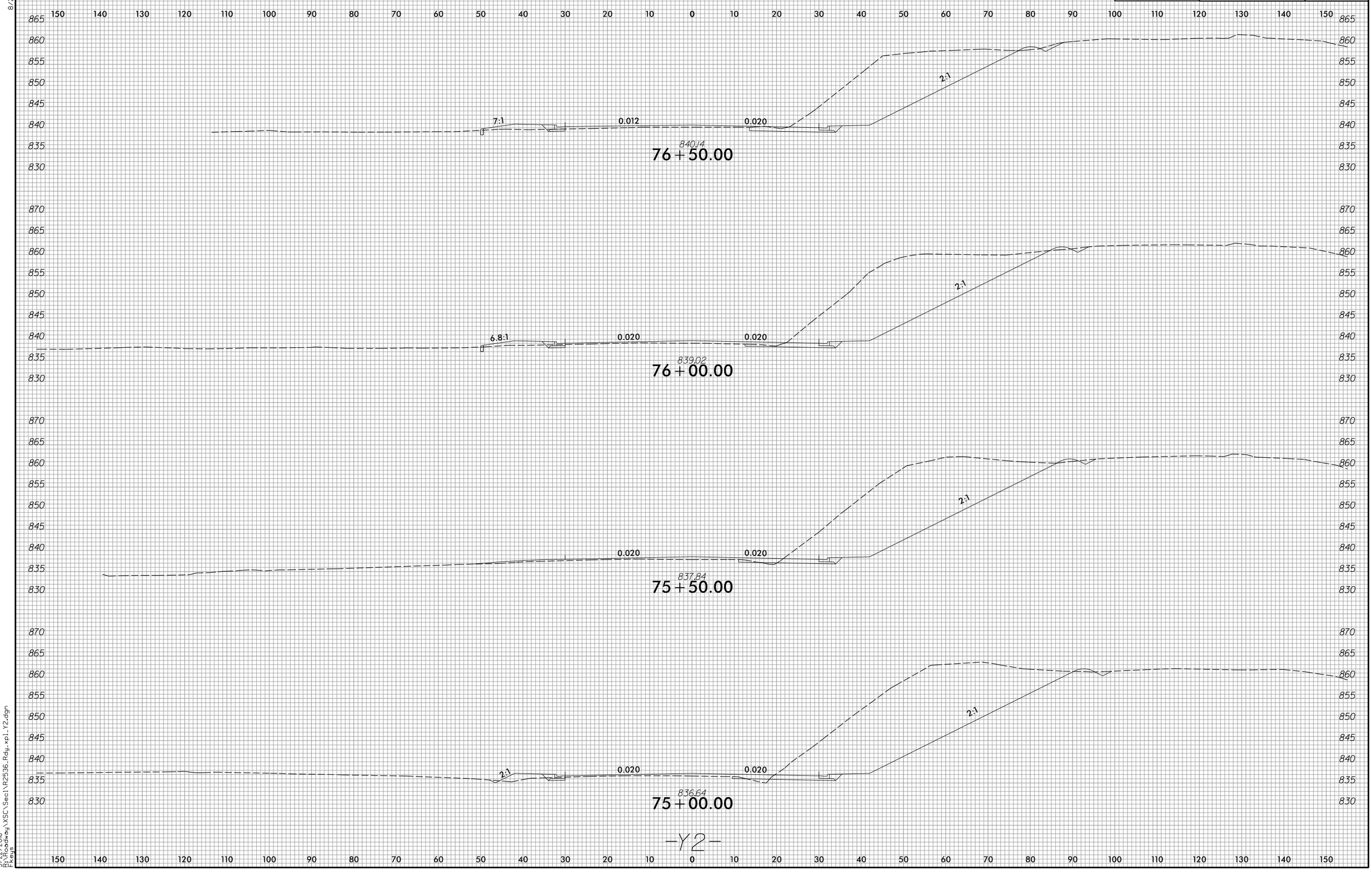
-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-237



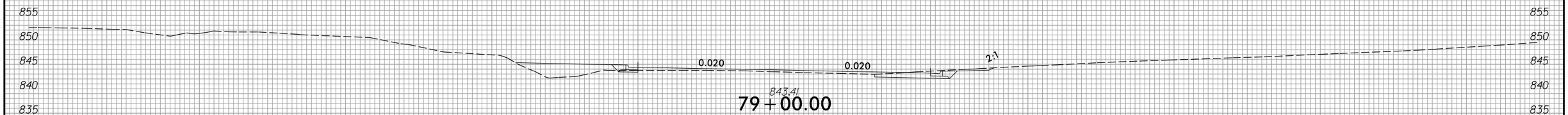
-Y2-

3/22/2016
D:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

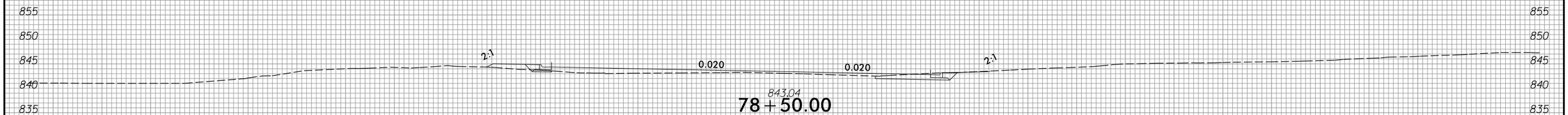
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-238

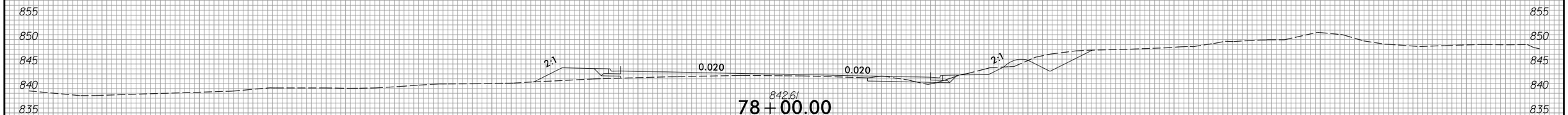
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



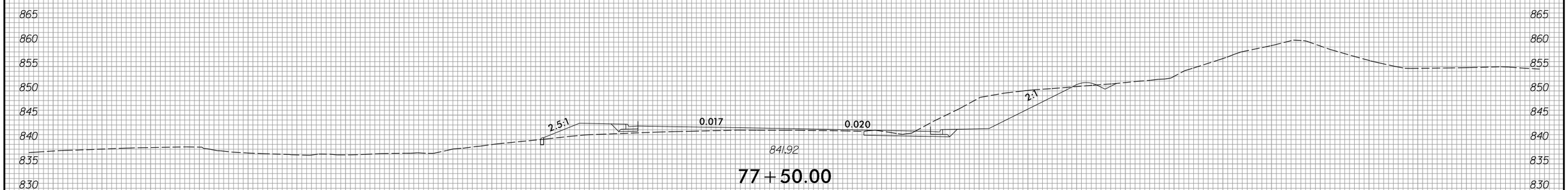
843.41
79+00.00



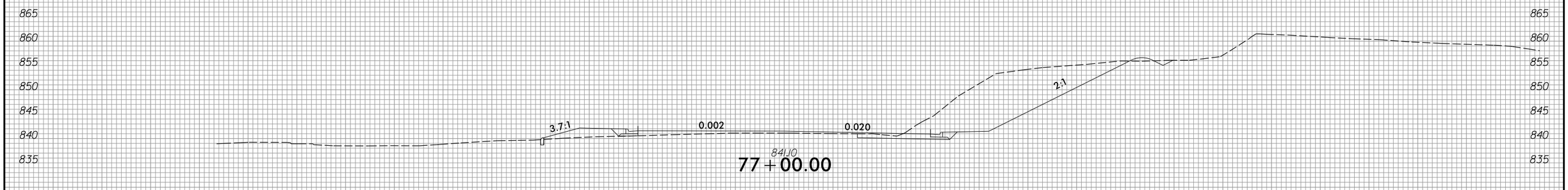
843.04
78+50.00



842.61
78+00.00



841.92
77+50.00



841.10
77+00.00

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-239

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

870 865 860 855 850 845 840 835

0.020 0.020 2:1

844.70

81+00.00

865 860 855 850 845 840 835

0.020 0.020 2:1

844.26

80+50.00

865 860 855 850 845 840 835

0.020 0.020 2:1

843.94

80+00.00

860 855 850 845 840 835

0.020 0.020 2:1

843.68

79+50.00

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

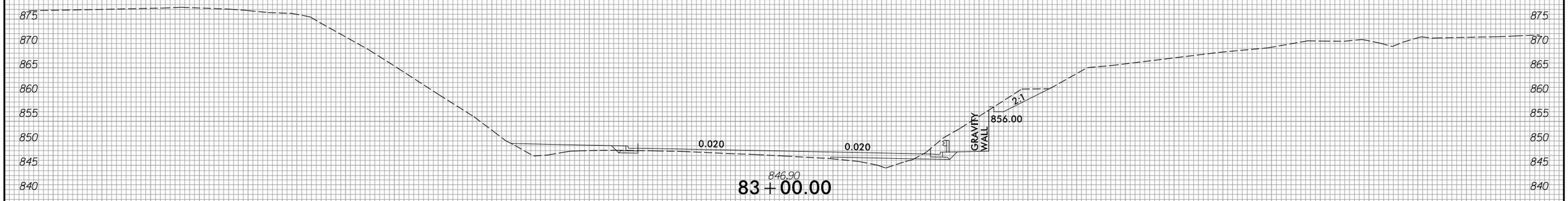
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-240

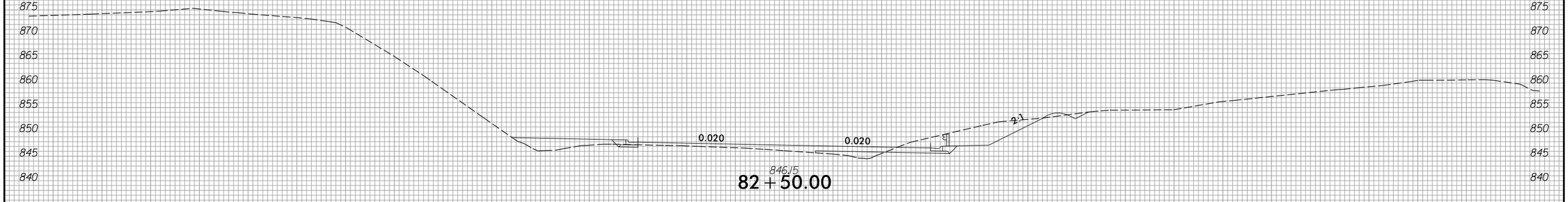
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

880 875 870 865 860 855 850 845 840



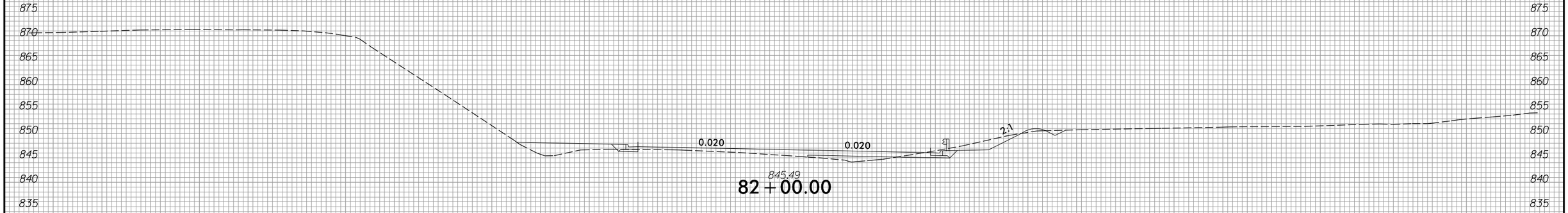
846.90
83+00.00

880 875 870 865 860 855 850 845 840



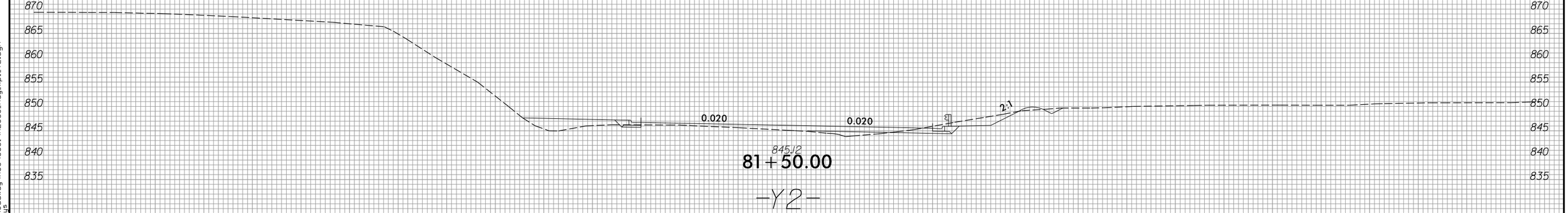
846.15
82+50.00

875 870 865 860 855 850 845 840 835



845.49
82+00.00

870 865 860 855 850 845 840 835



845.12
81+50.00

-Y2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-241

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

880 875 870 865 860 855 850 845 840

–Y2RT–
STA. 11+29.65
ELEV = 849.43

0.020 0.020 0.020

848.76

84+50.00

885 880 875 870 865 860 855 850 845 840

–Y2RT–
STA. 10+79.79
ELEV = 848.81

0.020 0.020 0.020

GRAVITY WALL 2:1 855.36

848.29

84+00.00

885 880 875 870 865 860 855 850 845 840

–Y2RT–
STA. 10+29.92
ELEV = 848.18

0.020 0.020

GRAVITY WALL 2:1 855.85

847.61

83+50.00

–Y2–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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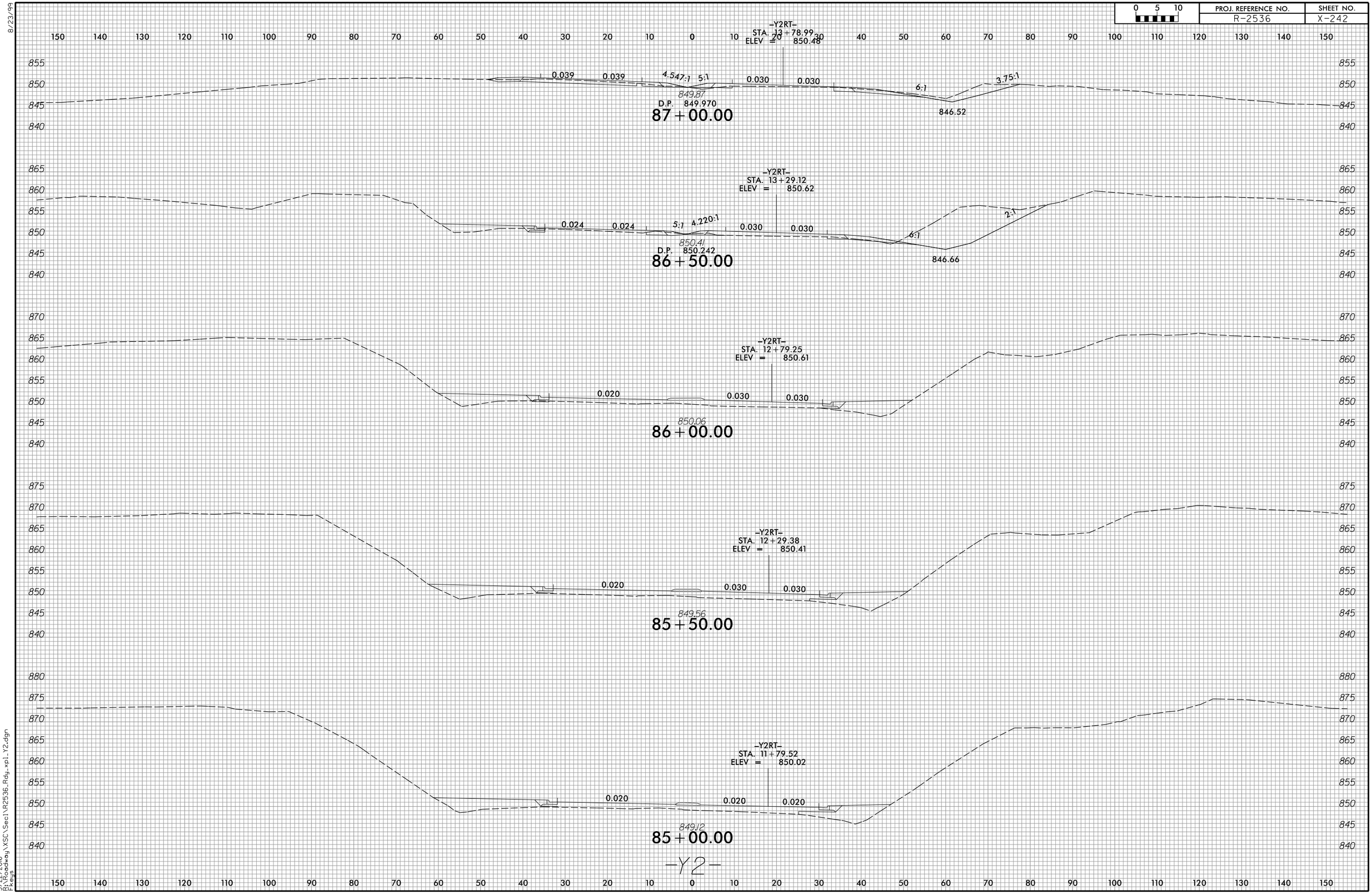
Fkeys

8/23/99

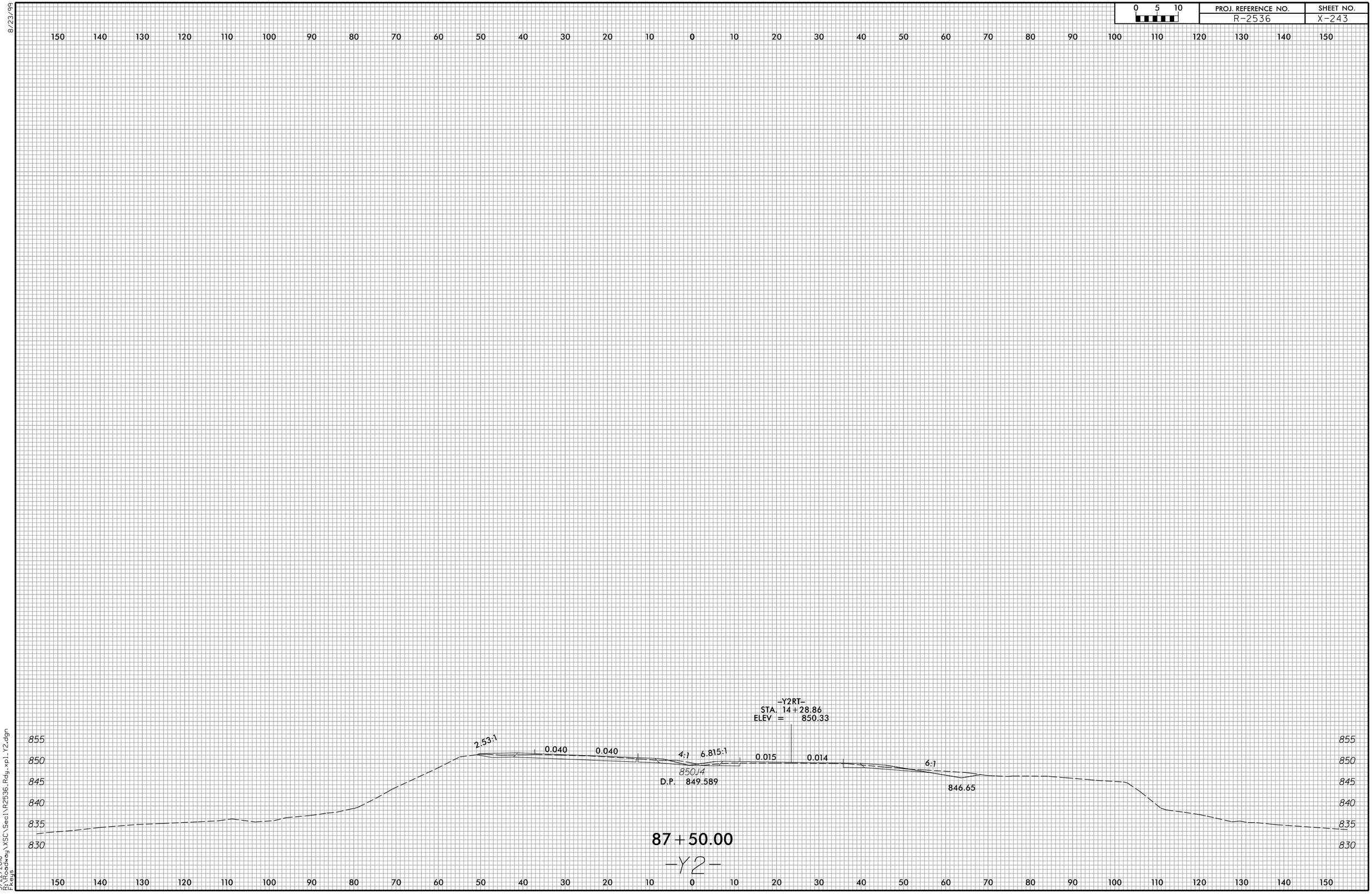
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-242



3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-243



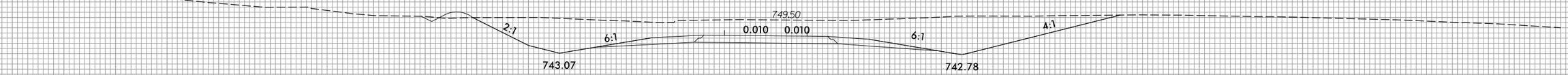
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-244

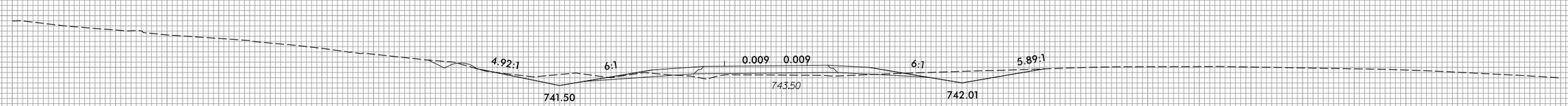
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

760 755 750 745 740 735 730



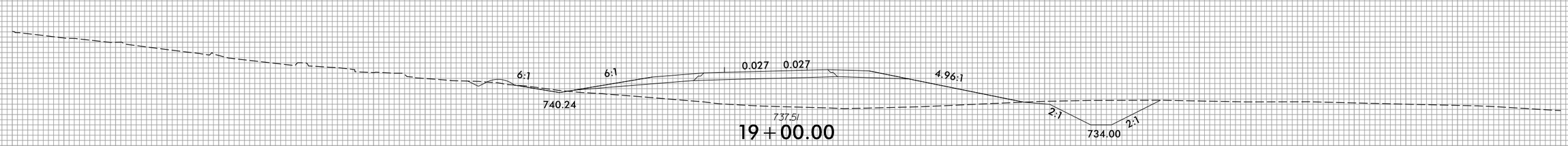
20+00.00

755 750 745 740 735 730



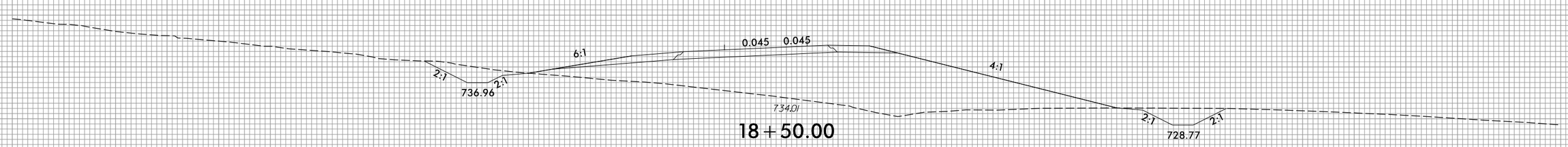
19+50.00

755 750 745 740 735 730



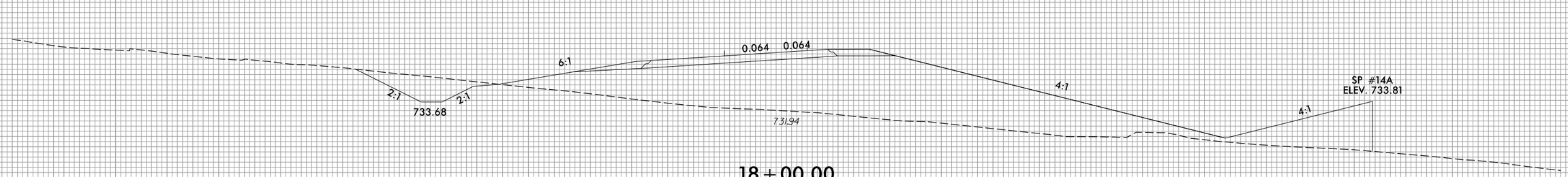
19+00.00

750 745 740 735 730 725



18+50.00

750 745 740 735 730 725 720



18+00.00

—Y2RPB—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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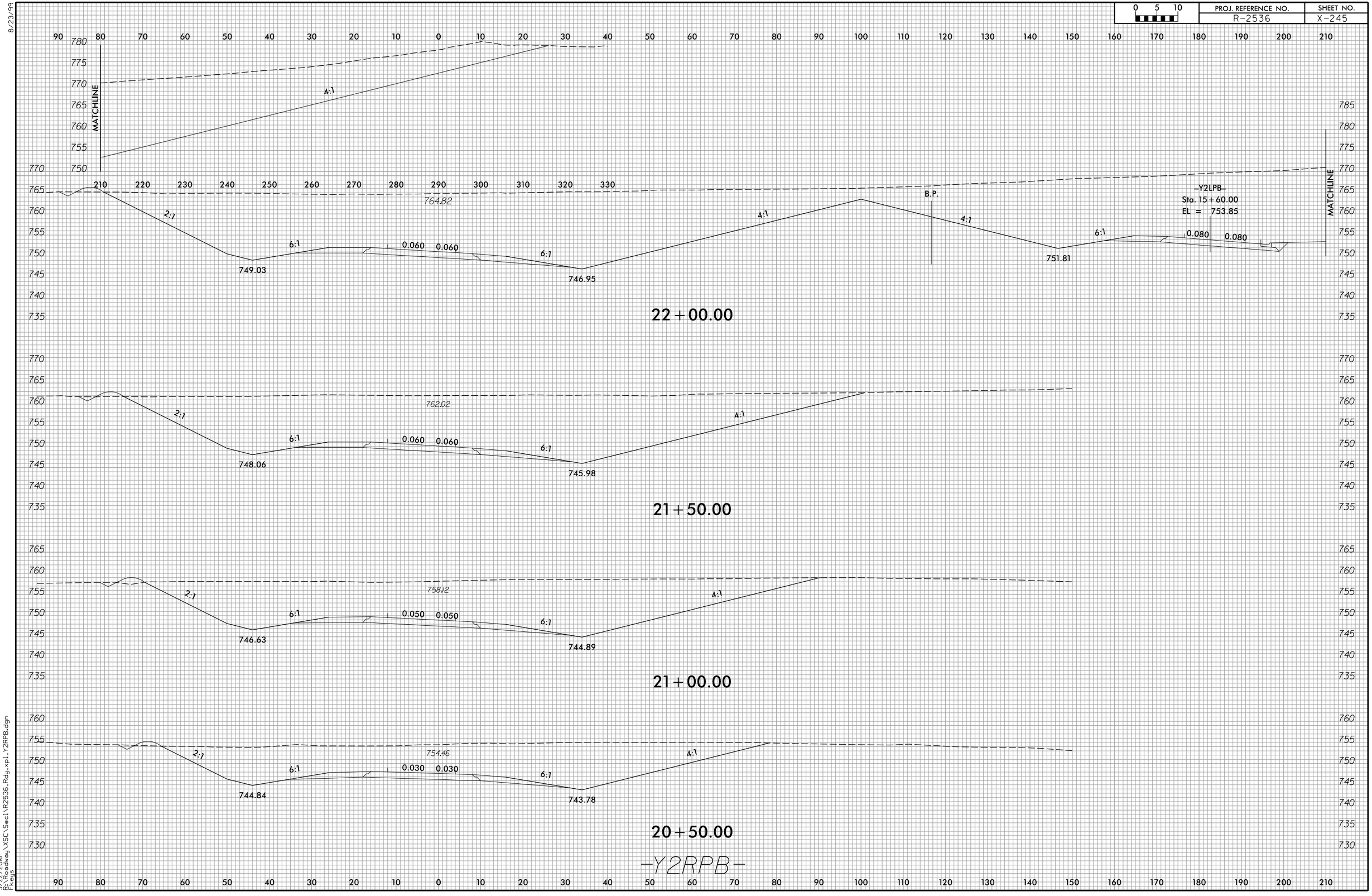
Fteys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-245



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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-246

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210

780 775 770 765 760 755 750 745 740 735

769.29

2:1 6:1 6:1 6:1 4:1

0.060 0.060 0.080 0.080

750.80 749.08

B.P.

–Y2LPB–
Sta. 16+90.00
EL = 752.71

23+50.00

MATCHLINE

140 150 160 170 180

780 775 770 765

4:1

768.69

2:1 6:1 6:1 6:1 4:1 4:1

0.060 0.060 0.080 0.080

750.40 746.93

B.P.

–Y2LPB–
Sta. 16+50.00
EL = 752.92

23+00.00

MATCHLINE

140 150 160 170 180 190 200

780 775 770 765 760

4:1

767.57

2:1 6:1 6:1 6:1 4:1 4:1 6:1 4:1

0.060 0.060 0.080 0.080

749.82 747.74 751.26

B.P.

–Y2LPB–
Sta. 16+05.00
EL = 753.30

22+50.00

–Y2RPB–

3/22/2016
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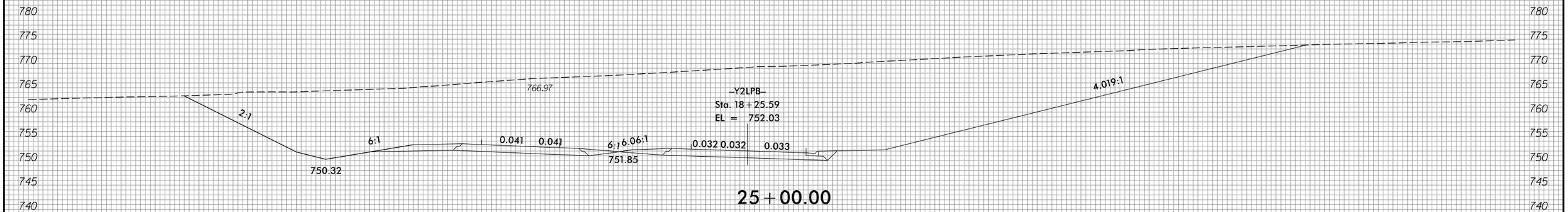
Ft-sys

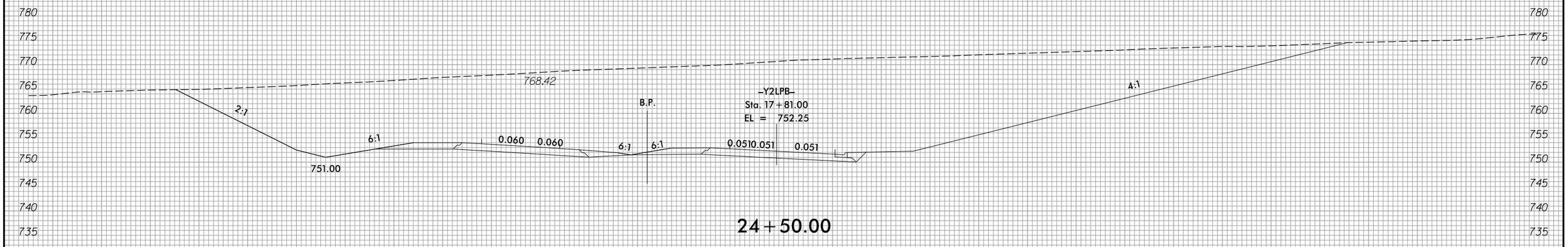
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-247

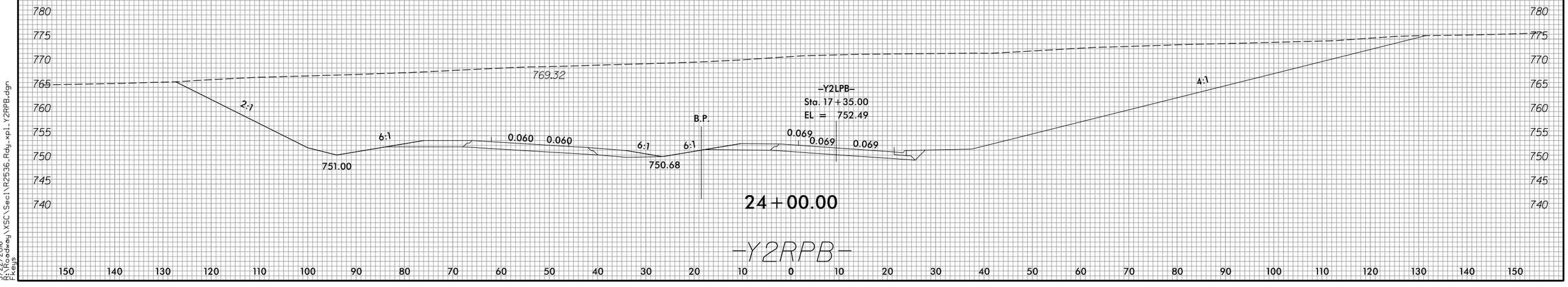
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



25+00.00



24+50.00



24+00.00

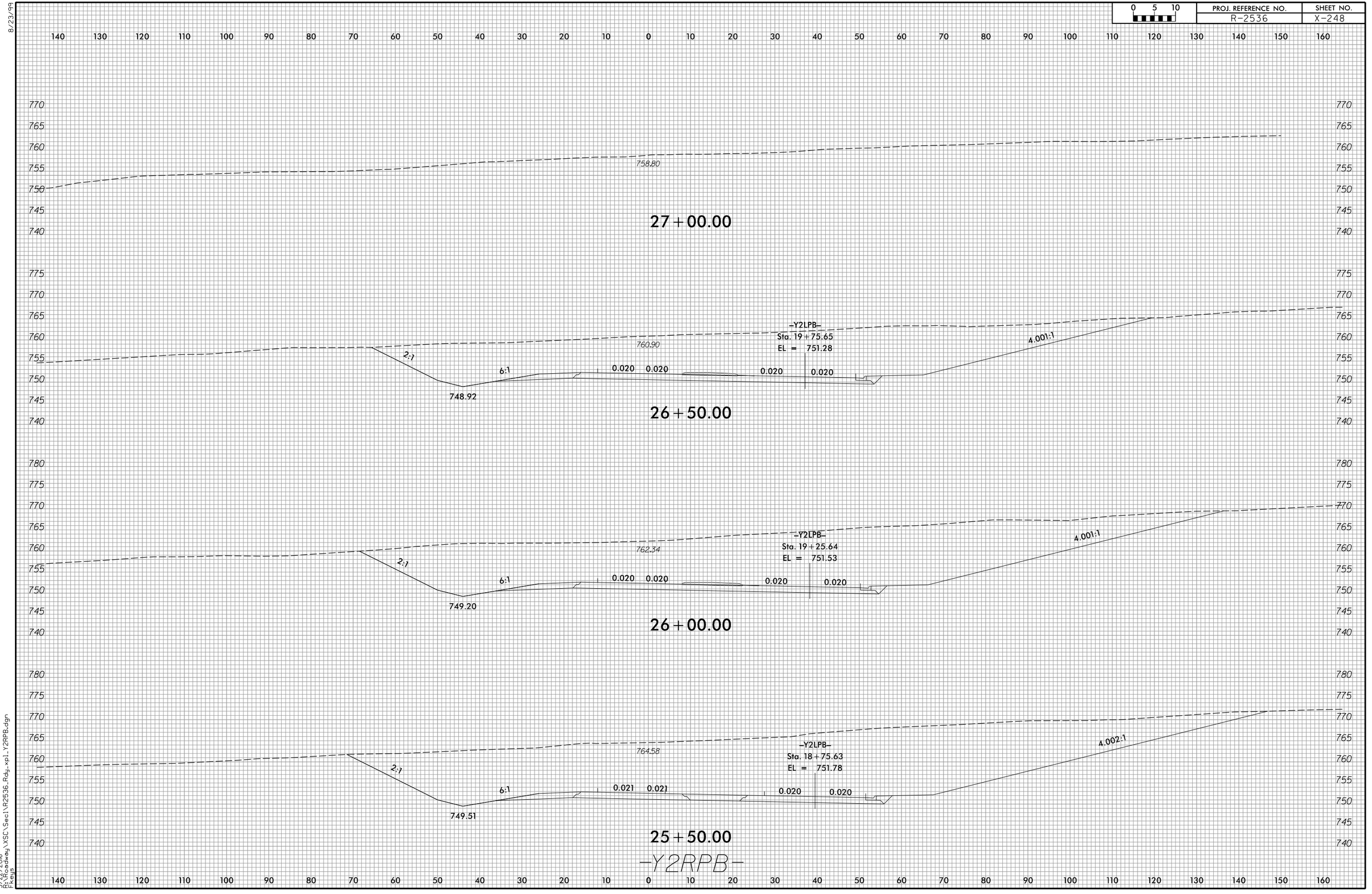
–Y2RPB–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_Y2RPB.dgn
FLeys

8/23/99

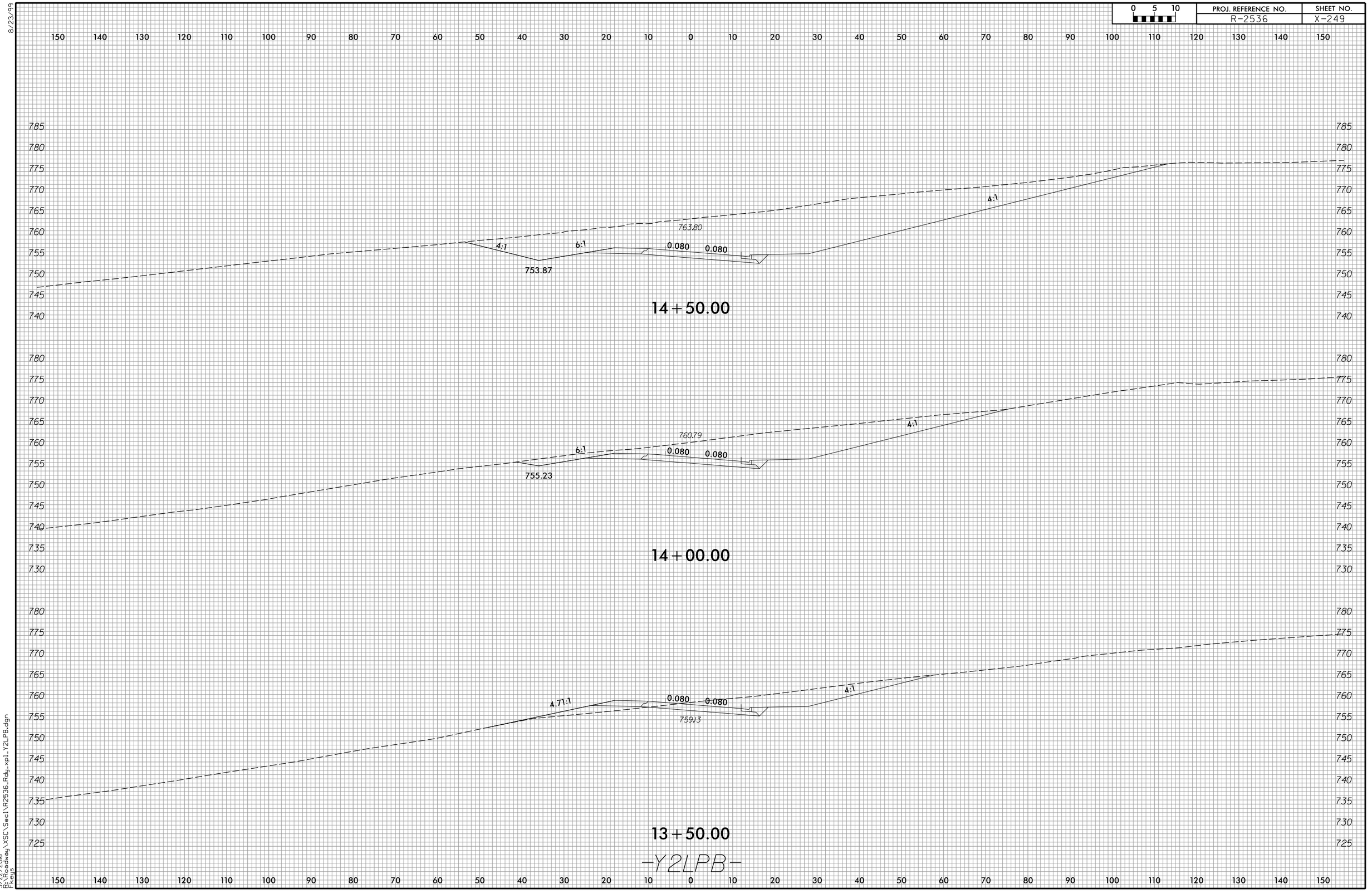
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-248



3/22/2016
R:\RDWay\XSC\Sec1\R2536_Rdy_xpl_Y2RPB.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-249

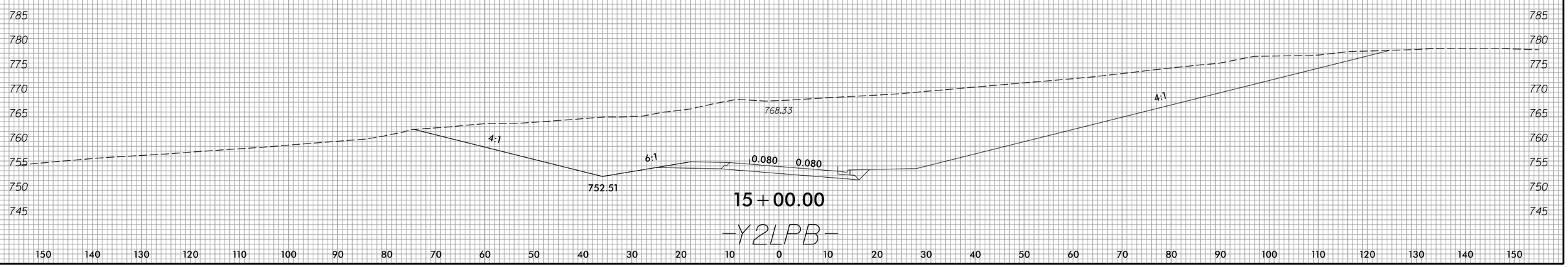


3/22/2016
R:\Projects\VSC\Sec1\R2536_Rdy_xpl_Y2LPB.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-250

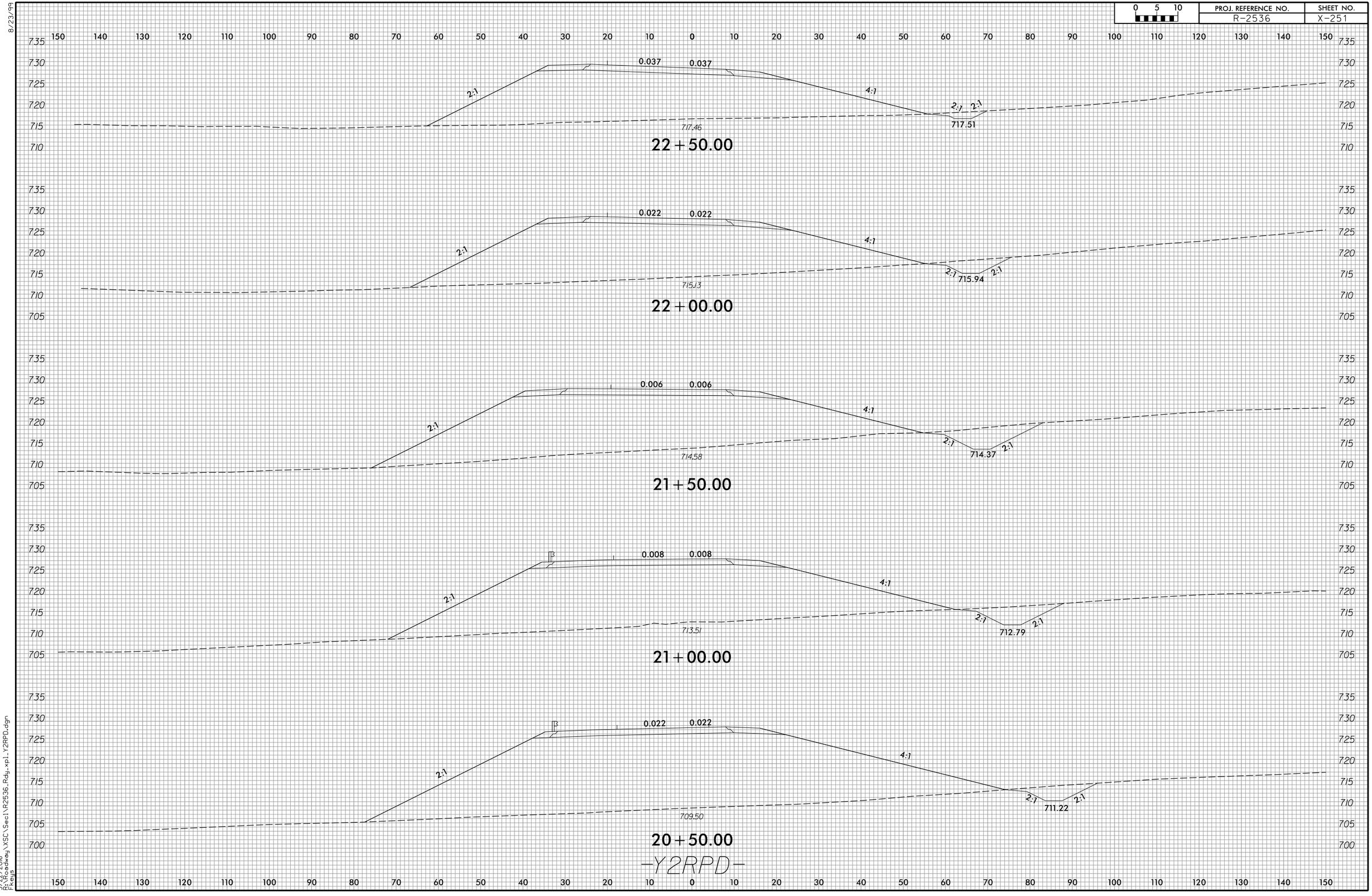
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



3/22/2016
R:\R-Projects\XSC\Sec1\R2536_Rdy_xpl_Y2LPB.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-251



-Y2RPD-

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2RPD.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-252

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

760 755 750 745 740 735 730 725 720

–Y2LPD–
Sta. 16+70.00
EL = 736.42

B.P.

3.93:1 | 0.080 | 0.080 | 6:1 | 6:1 | 0.080 | 0.080 | 4:1

732.15

728.55

25+00.00

740 735 730 725 720

4.88:1 | 0.080 | 0.080 | 6:1 | 6:1

730.52

728.64

24+50.00

740 735 730 725 720

4.67:1 | 0.080 | 0.080 | 6:1

728.53

727.78

24+00.00

735 730 725 720

3.72:1 | 0.068 | 0.068 | 6:1 | 2:1 | 2:1

725.43

722.73

23+50.00

735 730 725 720 715

3.04:1 | 0.052 | 0.052 | 4:1 | 2:1 | 2:1

720.86

720.12

23+00.00

–Y2RPD–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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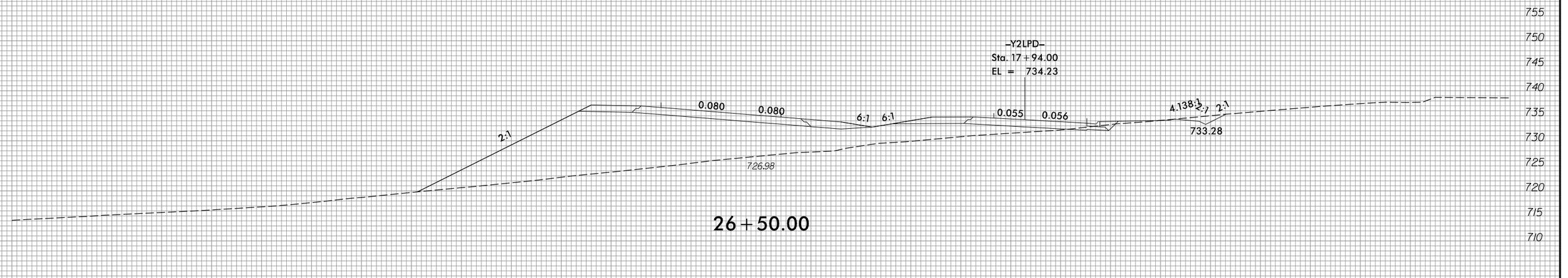
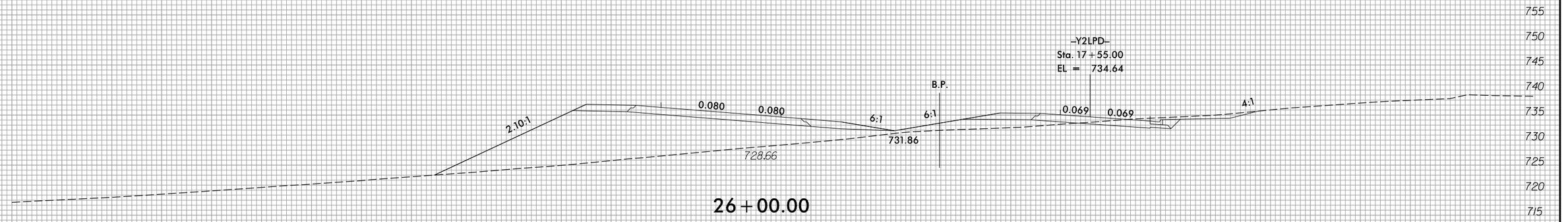
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-253

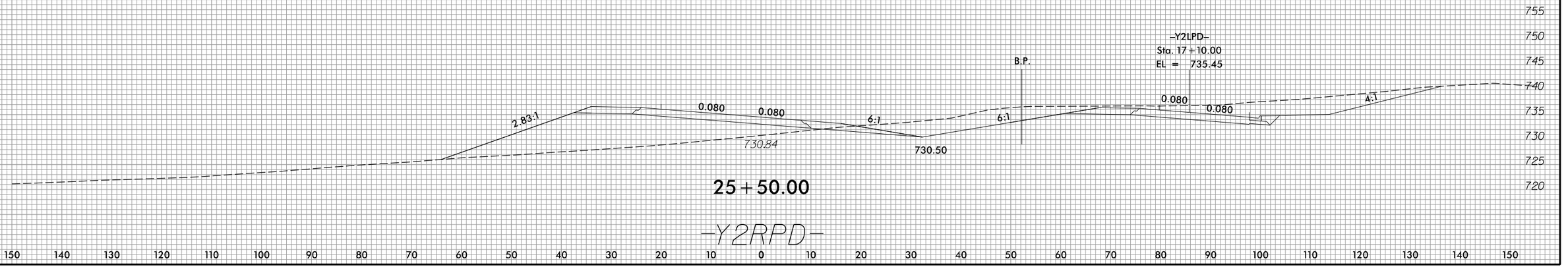
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



26+50.00



26+00.00



25+50.00

–Y2RPD–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\R-Roadway\XSC\Sec1\R2536_Rdy_xpl_Y2RPD.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-254

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

755 750 745 740 735 730 725 720 715 710

–Y2LPD–
Sta. 19+41.80
EL = 733.52

0.036 0.036 0.036 0.019 0.019 4.00 3:1 2:1 2:1

2:1

726.25

729.94

28+00.00

755 750 745 740 735 730 725 720 715 710

–Y2LPD–
Sta. 18+91.68
EL = 733.76

0.051 0.051 0.051 0.032 0.032 4.02 3:1 2:1 2:1

2:1

725.91

730.70

27+50.00

755 750 745 740 735 730 725 720 715 710

–Y2LPD–
Sta. 18+42.80
EL = 733.99

0.066 0.066 6:1 6:1 0.044 0.045 4.05 9:1 2:1 2:1

2:1

725.78

731.99

27+00.00

–Y2RPD–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_Y2RPD.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-255

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

755 750 745 740 735 730 725 720 715 710

–Y2LPD–
Sta. 20+91.81
EL = 732.81

0.011 0.010 0.011 0.020 0.020

2.04:1 4:1 2:1 2:1

722.09

727.68

29+50.00

–Y2LPD–
Sta. 20+41.81
EL = 733.04

0.005 0.005 0.007 0.007

2.54:1 4:1 2:1 2:1

723.48

729.93

29+00.00

–Y2LPD–
Sta. 19+91.81
EL = 733.28

0.020 0.020 0.020 0.006 0.006

2:1 4:1 2:1 2:1

724.69

729.19

28+50.00

–Y2RPD–

3/22/2016
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Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-256

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

755 750 745 740 735 730 725 720 715 710 705

–Y2LPD–
Sta. 21+41.81
EL = 732.57

0.020 0.017 0.020 0.020

2.27:1

4:1

720.91

30+00.00

–Y2RPD–

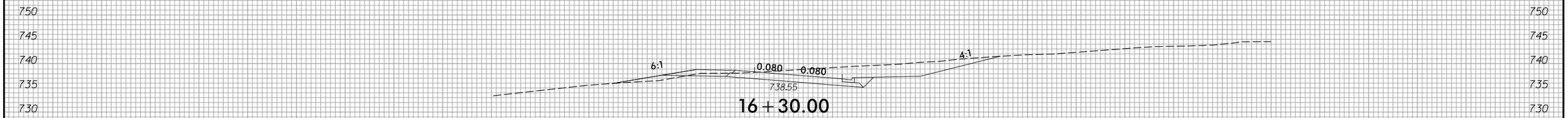
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec1\R2536_Rdy_xpl_Y2RPD.dgn
Fkeys

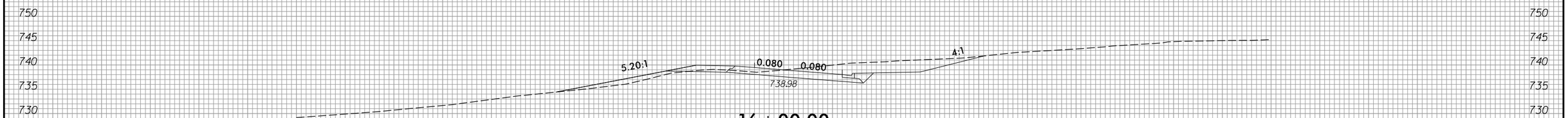
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-257

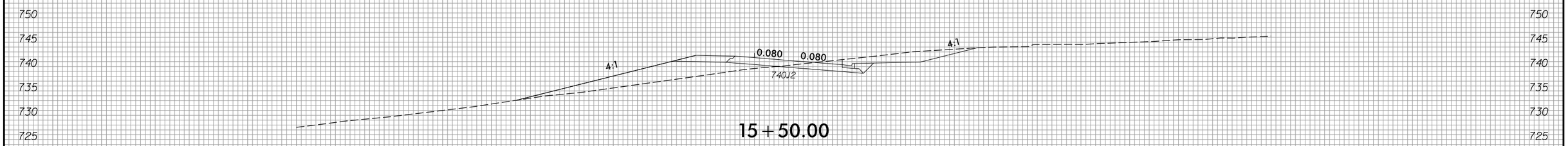
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



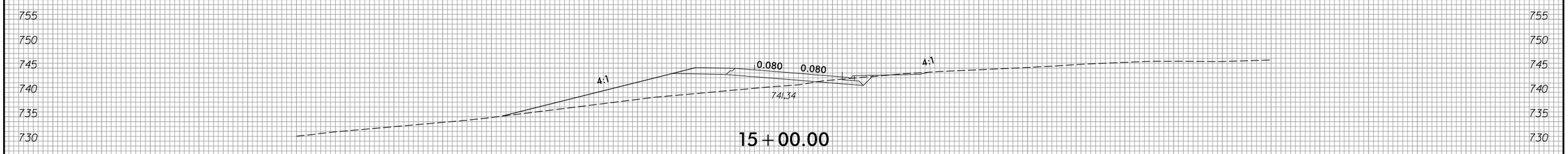
16 + 30.00



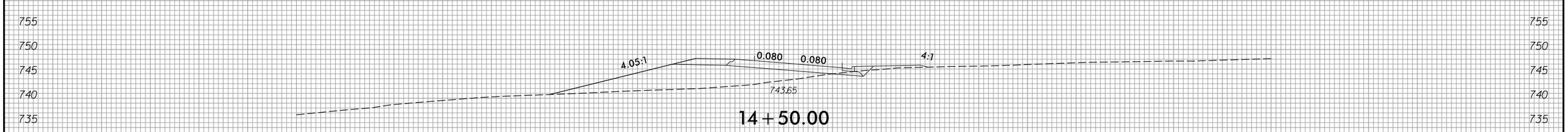
16 + 00.00



15 + 50.00



15 + 00.00



14 + 50.00

-Y2LPD-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec1\R2536_Rdy_xpl_Y2LPD.dgn
Fkeys

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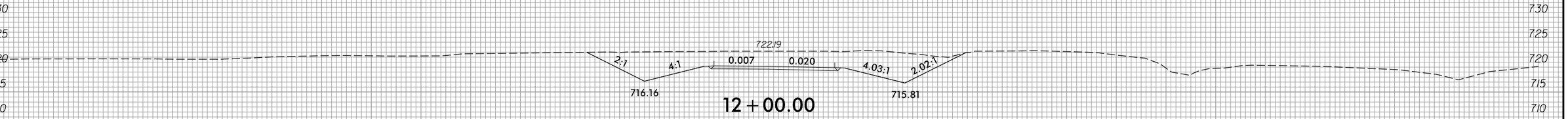
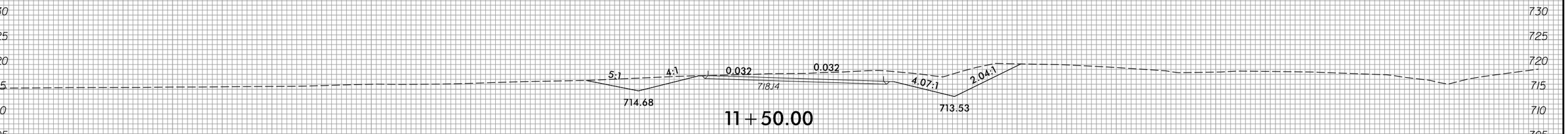
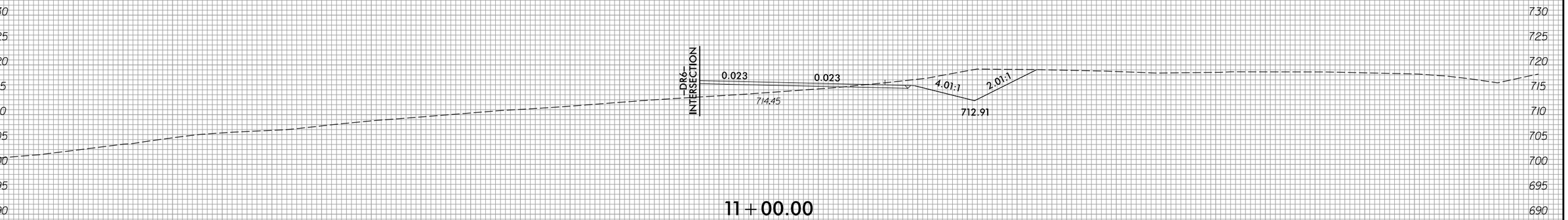
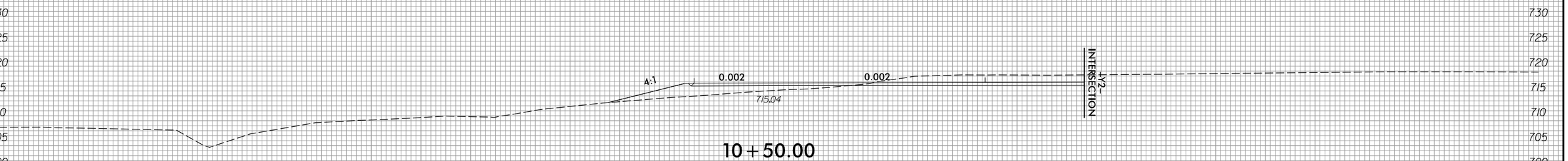
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-258

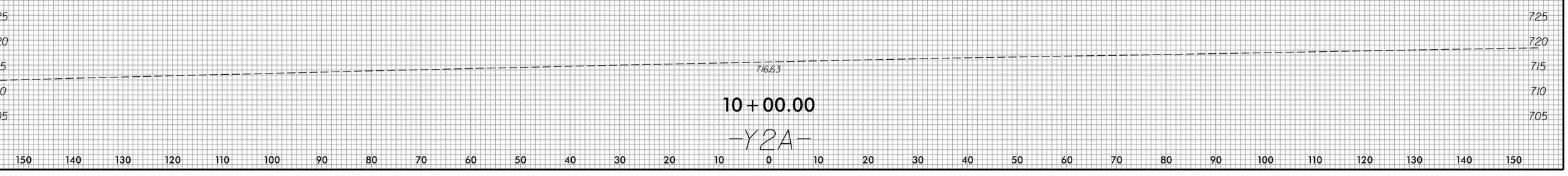
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150











—Y2A—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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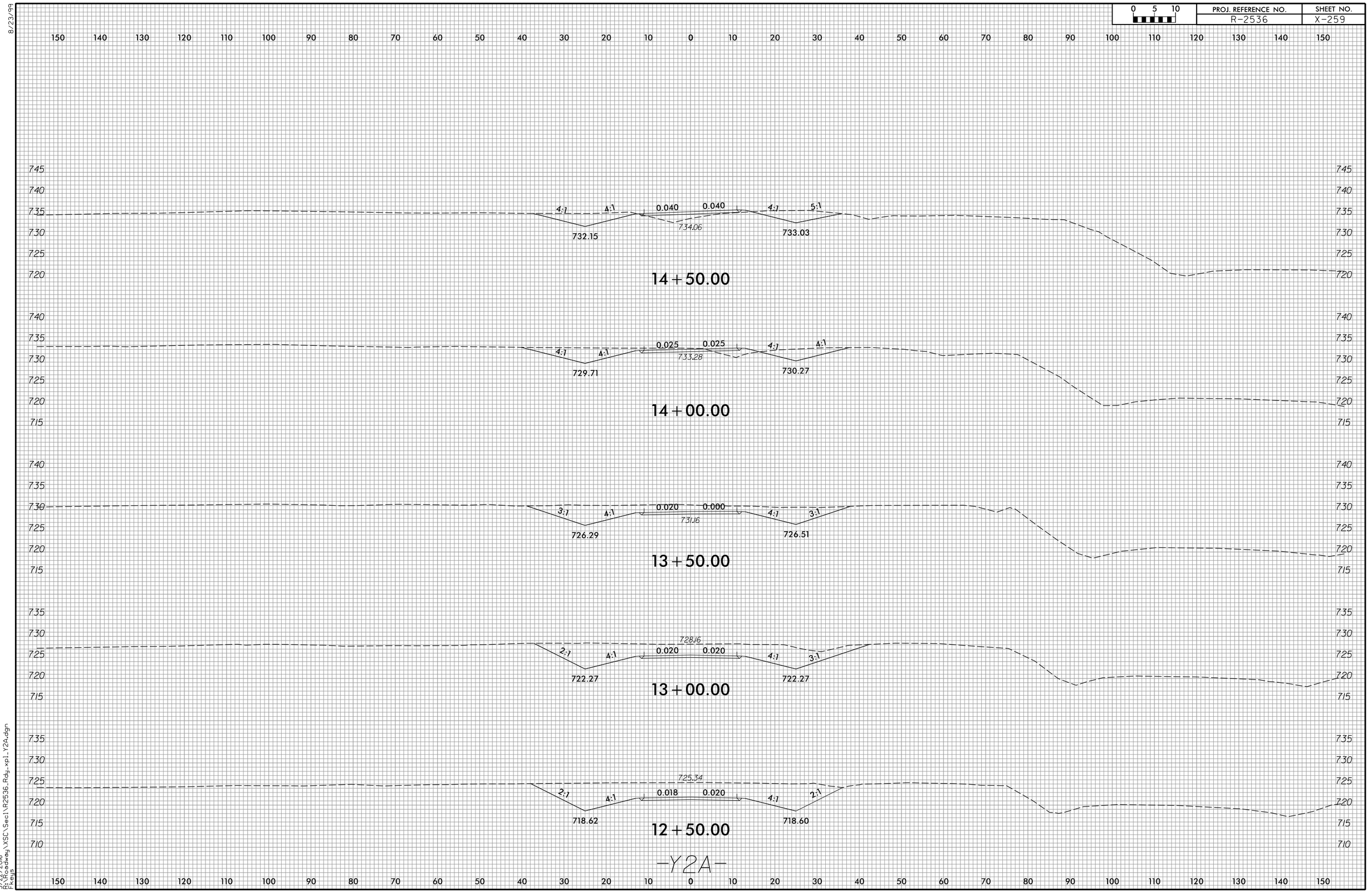
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-259



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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-260

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

745 740 735 730 725 720

741.00

16+50.00

745 740 735 730 725 720

6:1 4:1 0.028 0.015 4:1 6:1

737.41 739.73 737.74

16+00.00

745 740 735 730 725 720

5:1 4:1 0.030 0.010 4:1 6:1

735.32 738.45 735.76

15+50.00

745 740 735 730 725 720

4:1 4:1 0.035 0.035 4:1 5:1

733.91 737.02 734.68

15+00.00

—Y2A—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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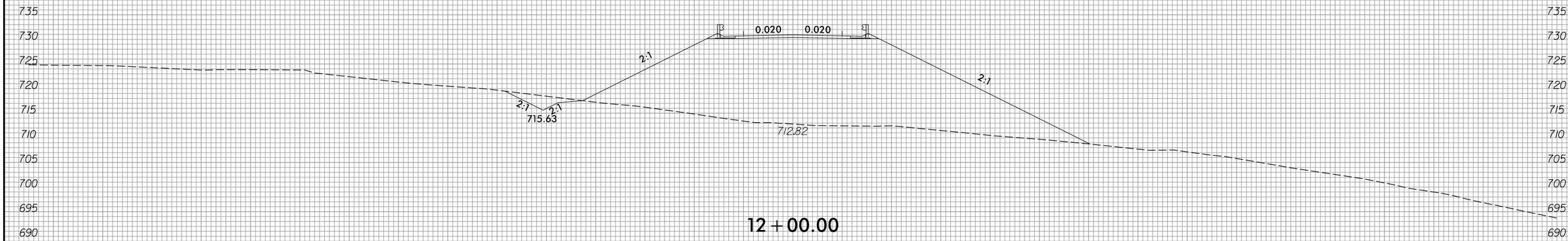
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-261

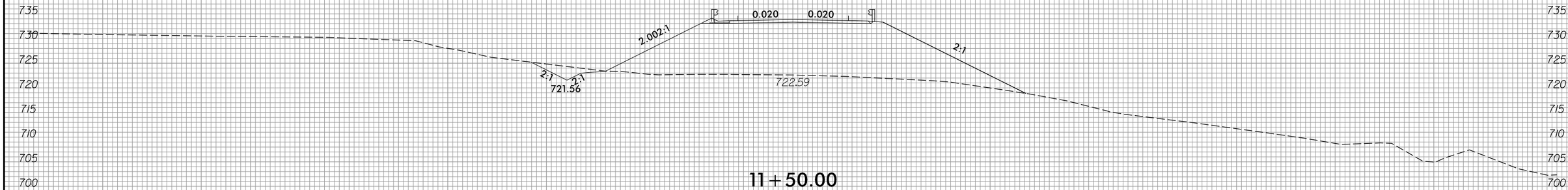
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

735 730 725 720 715 710 705 700 695 690



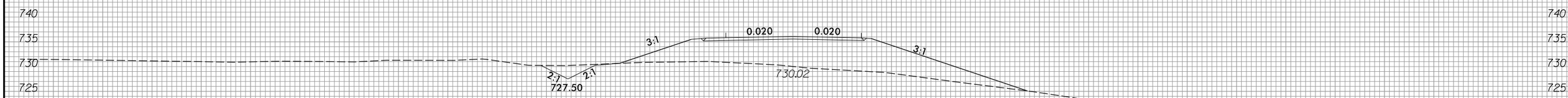
12+00.00

740 735 730 725 720 715 710 705 700



11+50.00

740 735 730 725 720 715 710



11+00.00

-SRI-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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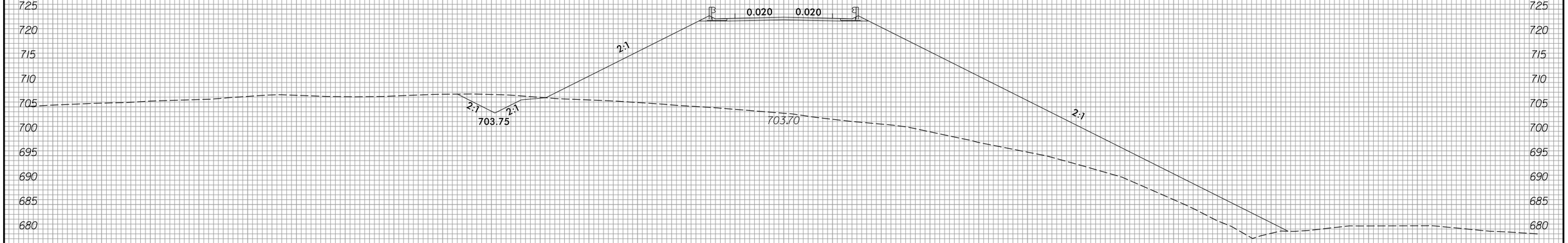
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-262

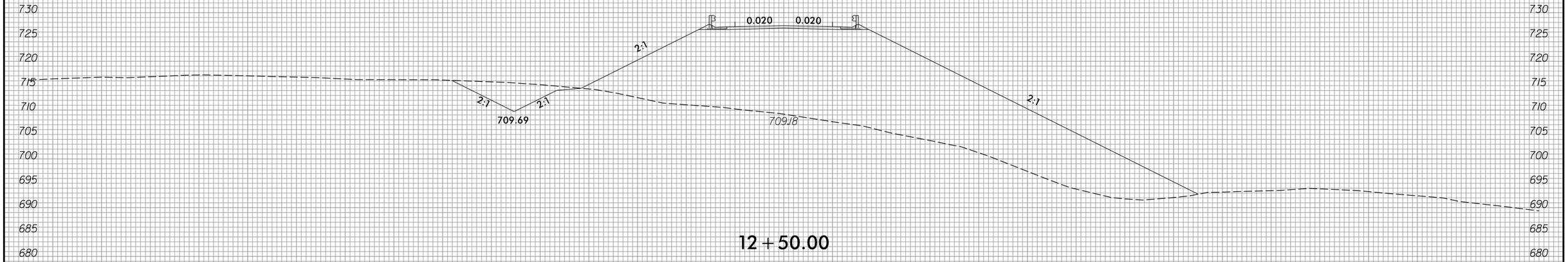
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 725 720 715 710 705 700 695 690 685 680 675 670



13+00.00

735 730 725 720 715 710 705 700 695 690 685 680



12+50.00

-SR1-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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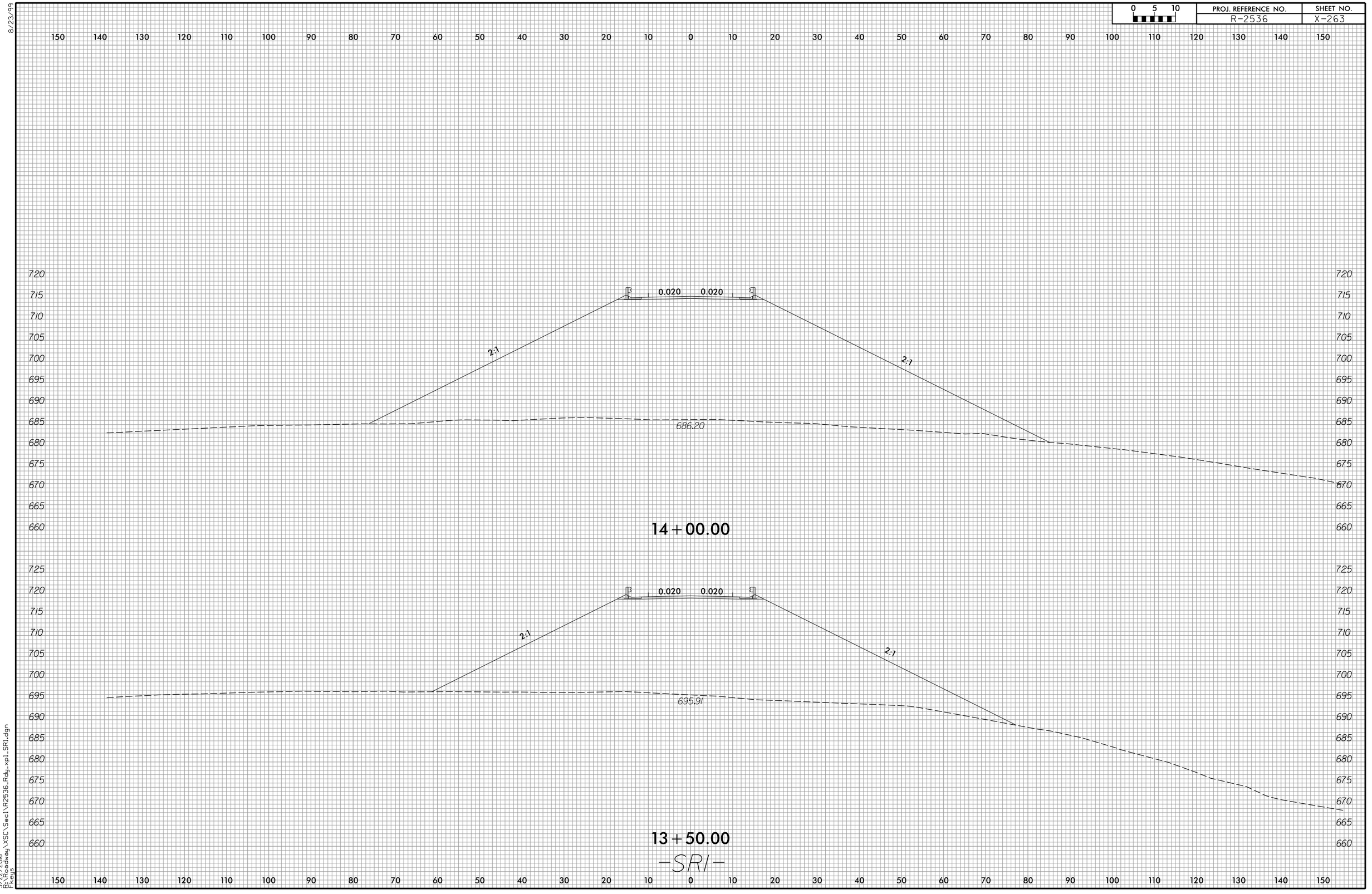
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-263



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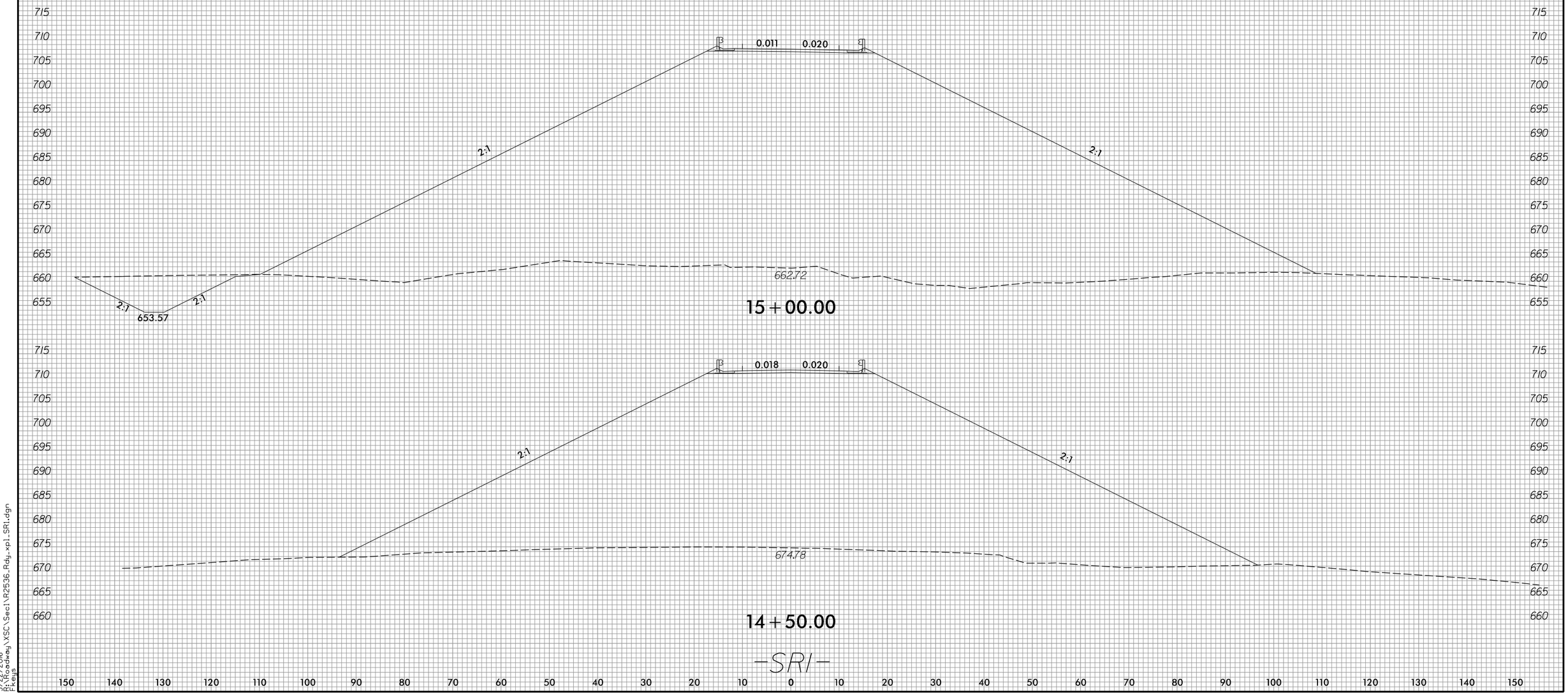
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-264

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

715 710 705 700 695 690 685 680 675 670 665 660 655



-SRI-

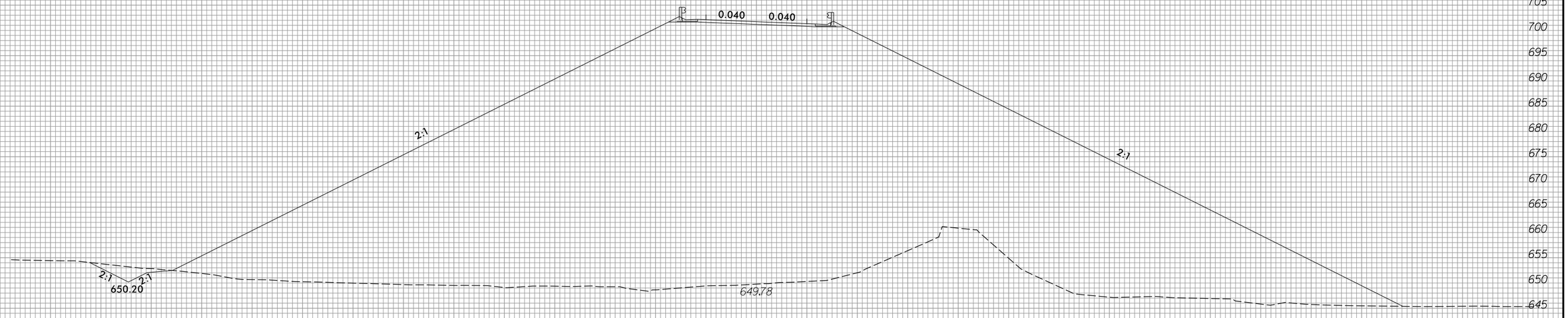
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_SR1.dgn
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-265

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

705 700 695 690 685 680 675 670 665 660 655 650 645 640



16 + 00.00

710 705 700 695 690 685 680 675 670 665 660 655 650 645

15 + 50.00

-SR1-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-266

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 695 690 685 680 675 670 665 660 655 650 645

0.040 0.040

2:1 2:1

662.25

2:1 2:1 655.00

2:1 2:1 649.58

17+00.00

705 700 695 690 685 680 675 670 665 660 655 650 645 640

0.040 0.040

2:1 2:1

652.47

2:1 2:1 652.60

2:1 2:1 644.17

16+50.00

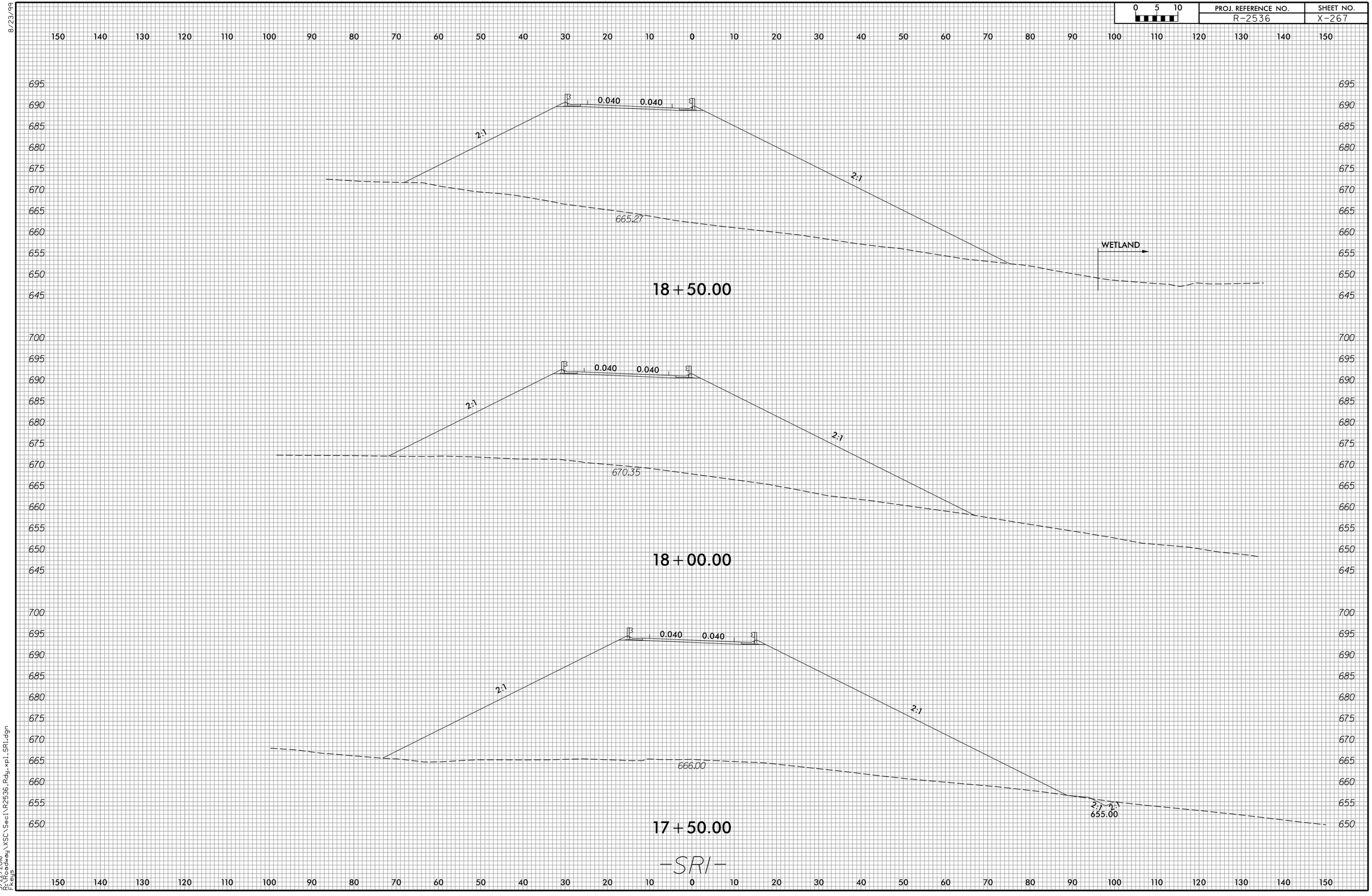
-SR1-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_SR1.dgn
Pkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-267



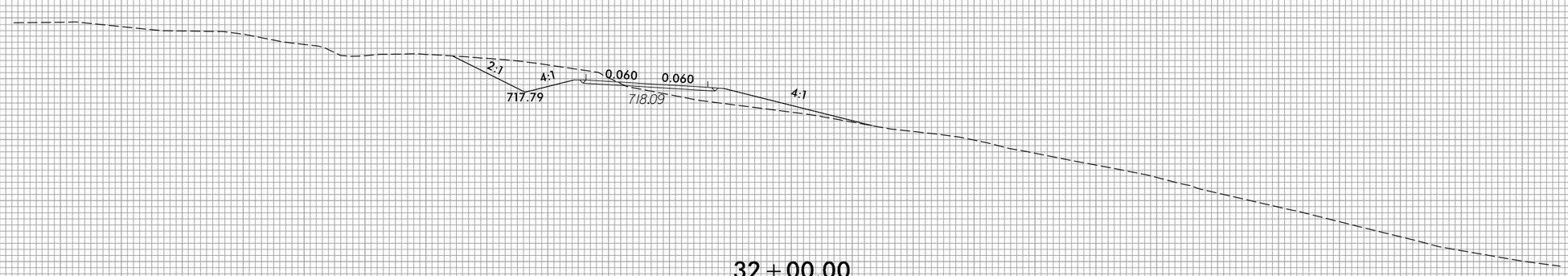
3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_SR1.dgn
Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-268

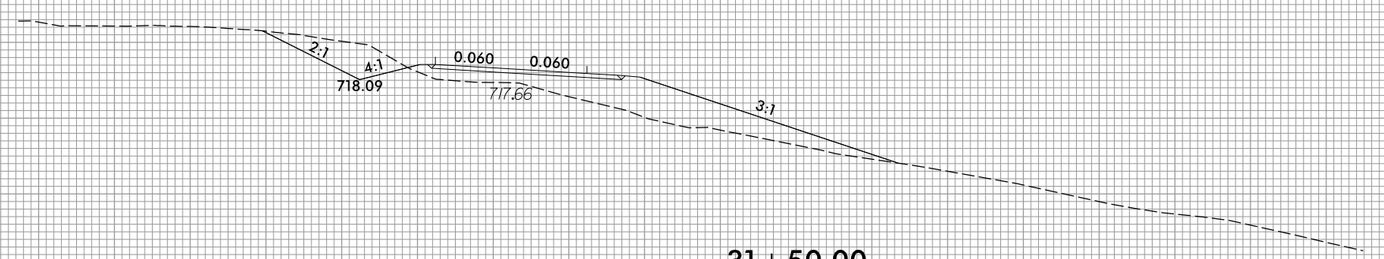
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 725 720 715 710 705 700 695 690 685



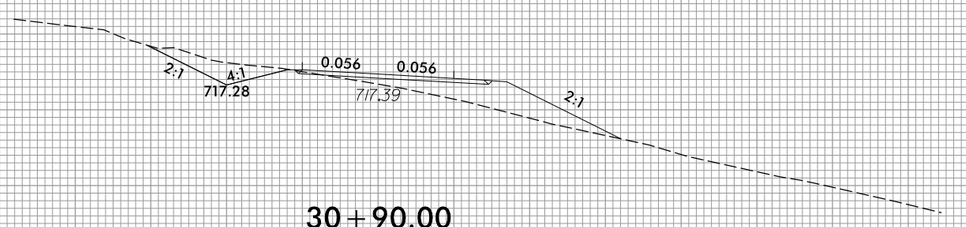
32+00.00

730 725 720 715 710 705 700 695 690 685



31+50.00

730 725 720 715 710 705 700 695 690 685



30+90.00

-SRI-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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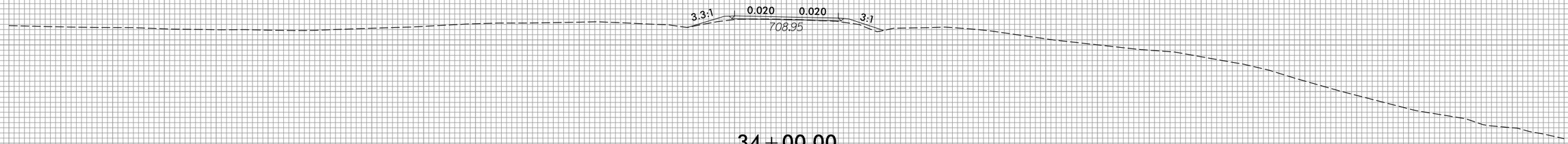
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-269

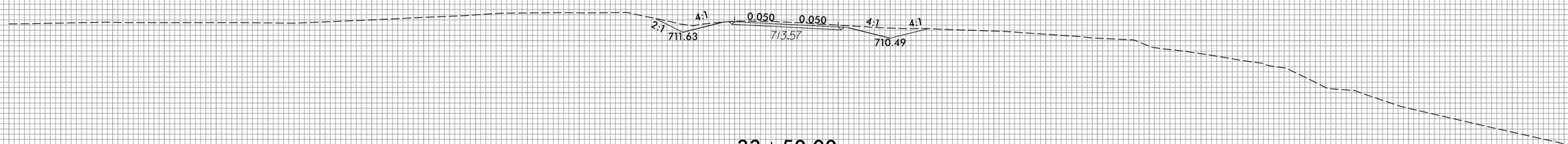
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 715 710 705 700 695 690 685



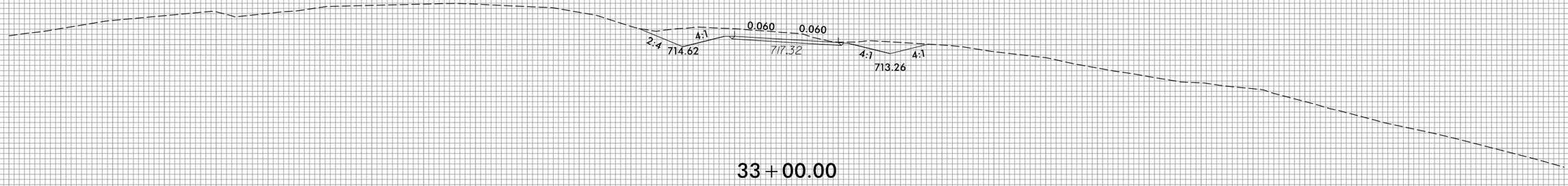
34+00.00

720 715 710 705 700 695 690



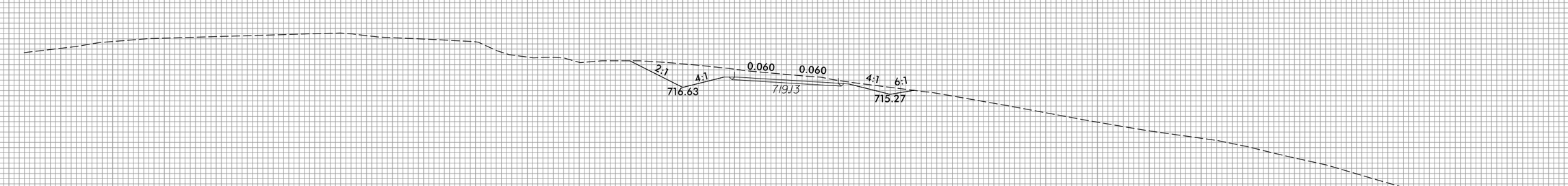
33+50.00

725 720 715 710 705 700 695 690



33+00.00

730 725 720 715 710 705 700 695 690



32+50.00

-SRI-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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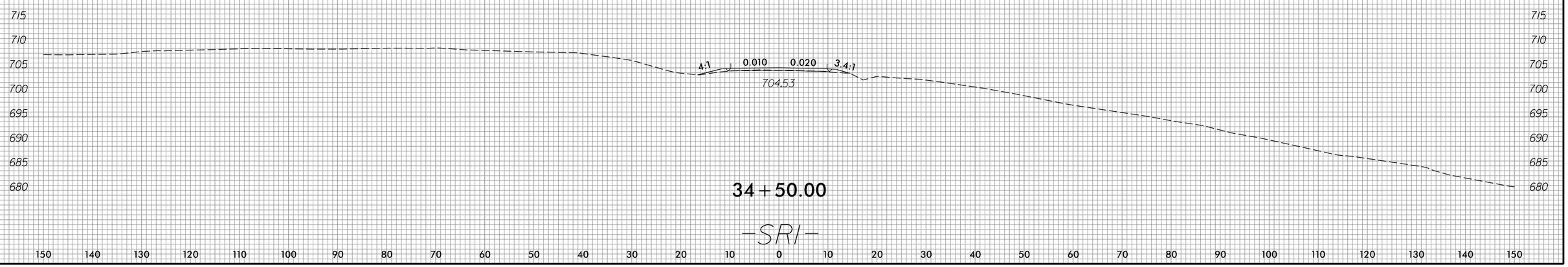
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-270

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



3/22/2016
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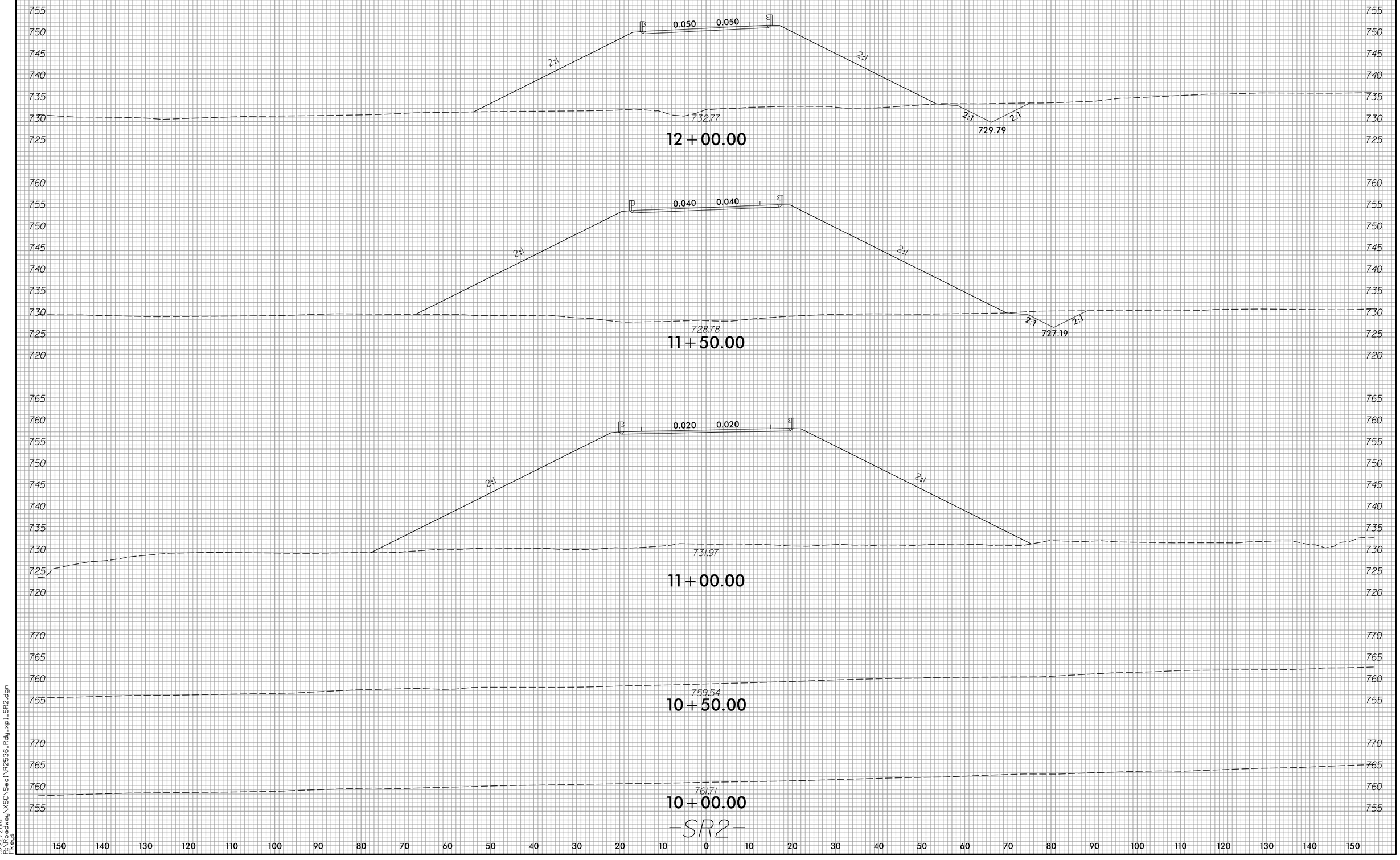
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-271



3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-272

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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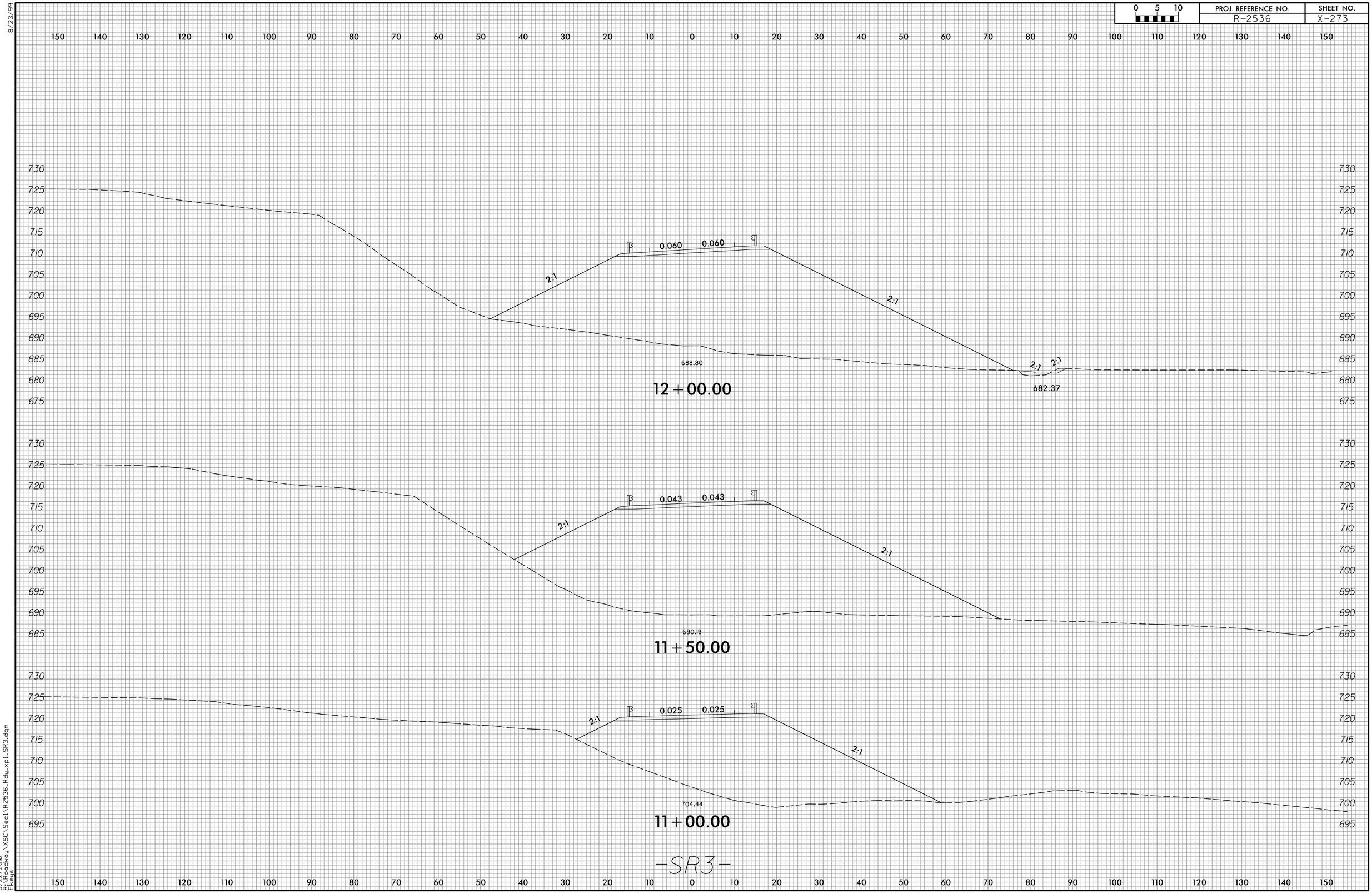
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-273



3/22/2016
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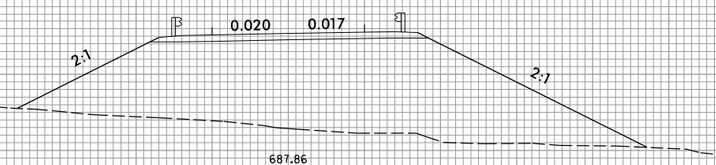
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-274

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

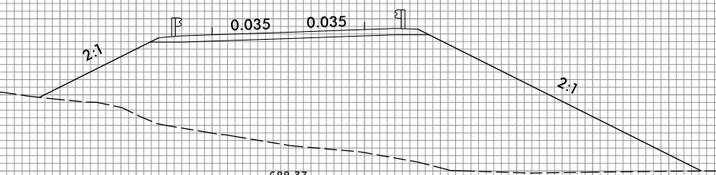
730 725 720 715 710 705 700 695 690 685 680



687.86

13+50.00

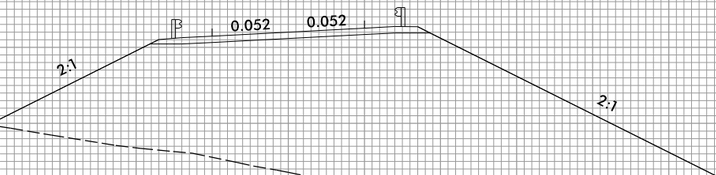
730 725 720 715 710 705 700 695 690 685 680



688.37

13+00.00

730 725 720 715 710 705 700 695 690 685 680



688.56

12+50.00

-SR3-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-275

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 725 720 715 710 705 700 695 690 685

4:1 0.020 0.020 5:1

693.33

15+00.00

730 725 720 715 710 705 700 695 690 685 680

0.020 0.018

2:1 2:1

689.41

14+50.00

730 725 720 715 710 705 700 695 690 685 680

0.020 0.001

2:1 2:1

686.97

14+00.00

-SR3-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-276

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 725 720 715 710 705 700 695 690

6:1 4:1 0.020 0.020 4:1 5:1

696.77 699.13 696.77

16+00.00

730 725 720 715 710 705 700 695 690

6:1 4:1 0.020 0.020 4:1 5:1

694.85 696.42 694.85

15+50.00

-SR3-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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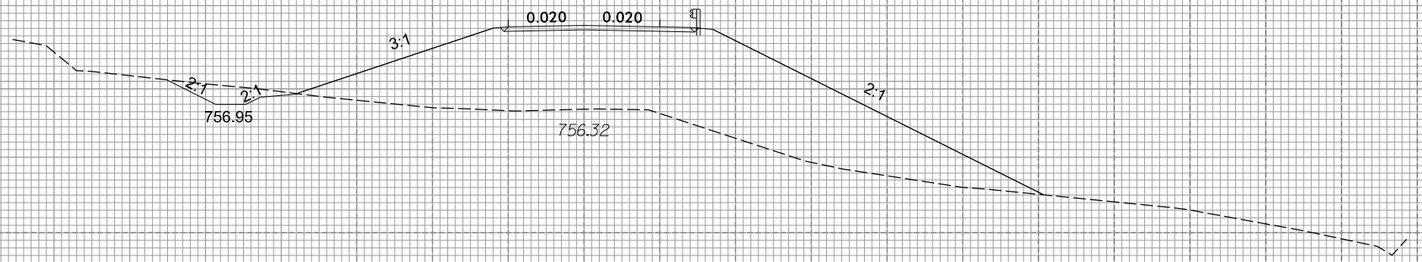
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-277

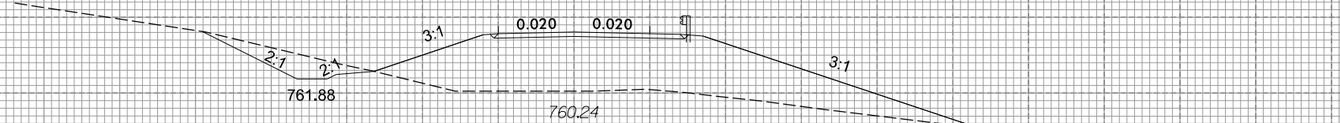
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780 770 760 750 740



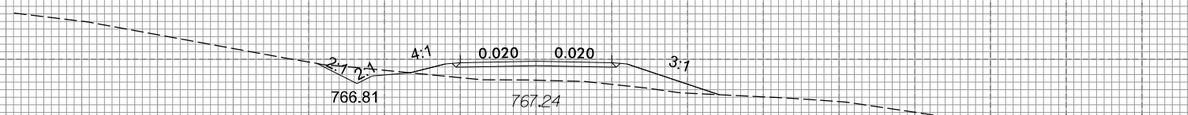
12+00.00

780 770 760 750



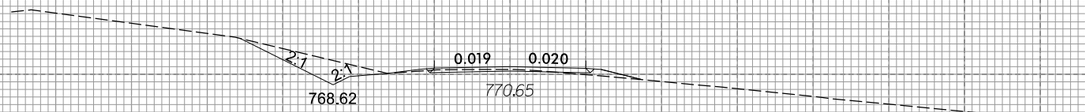
11+50.00

780 770 760 750



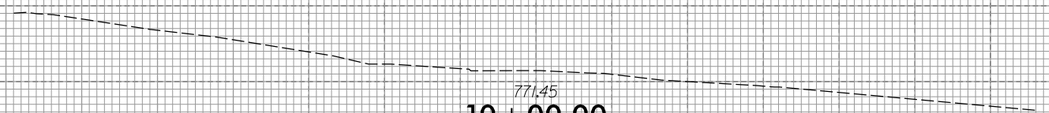
11+00.00

780 770 760 750



10+50.00

780 770 760



10+00.00

-SR_E-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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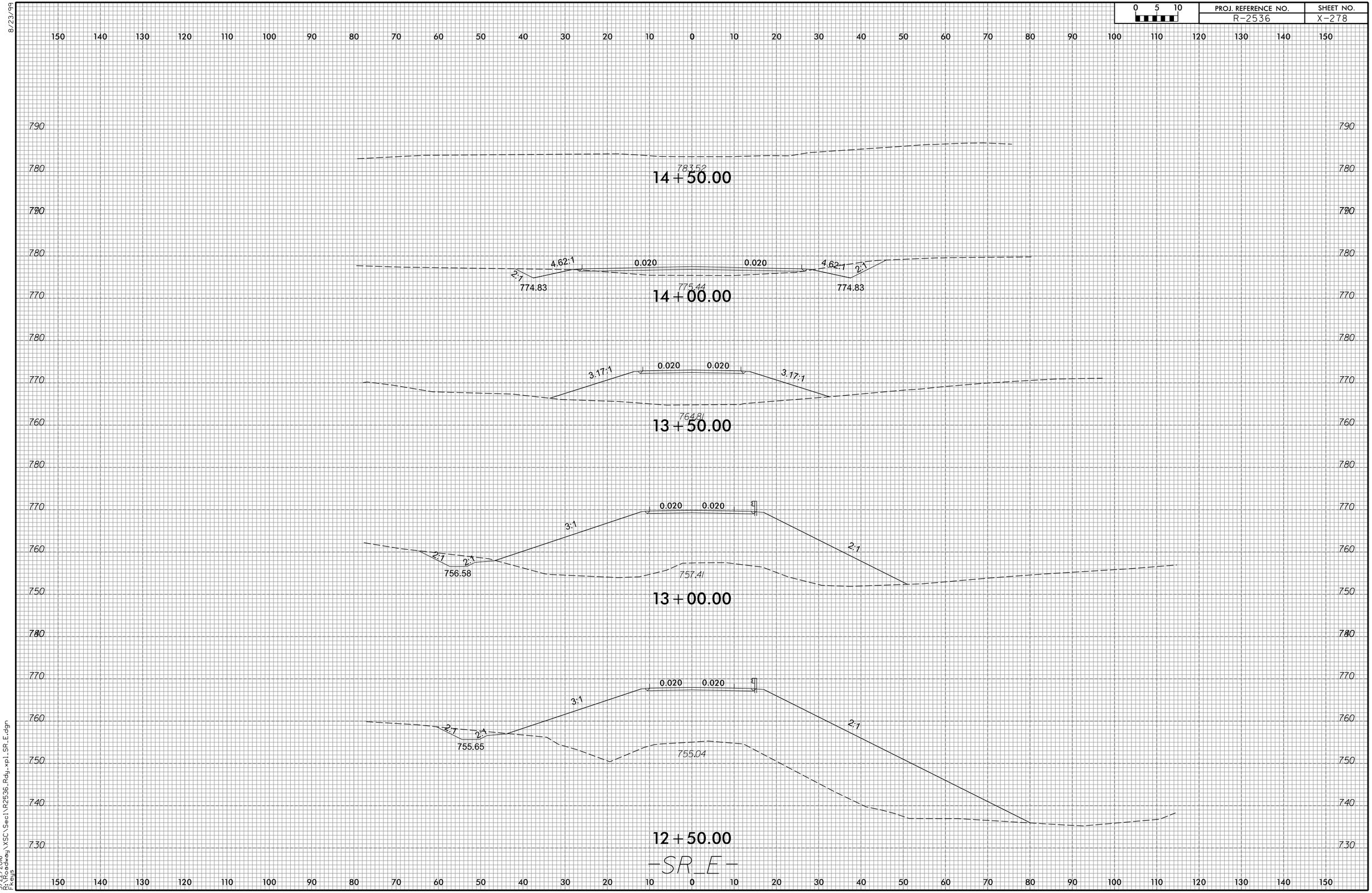
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-278



3/22/2016
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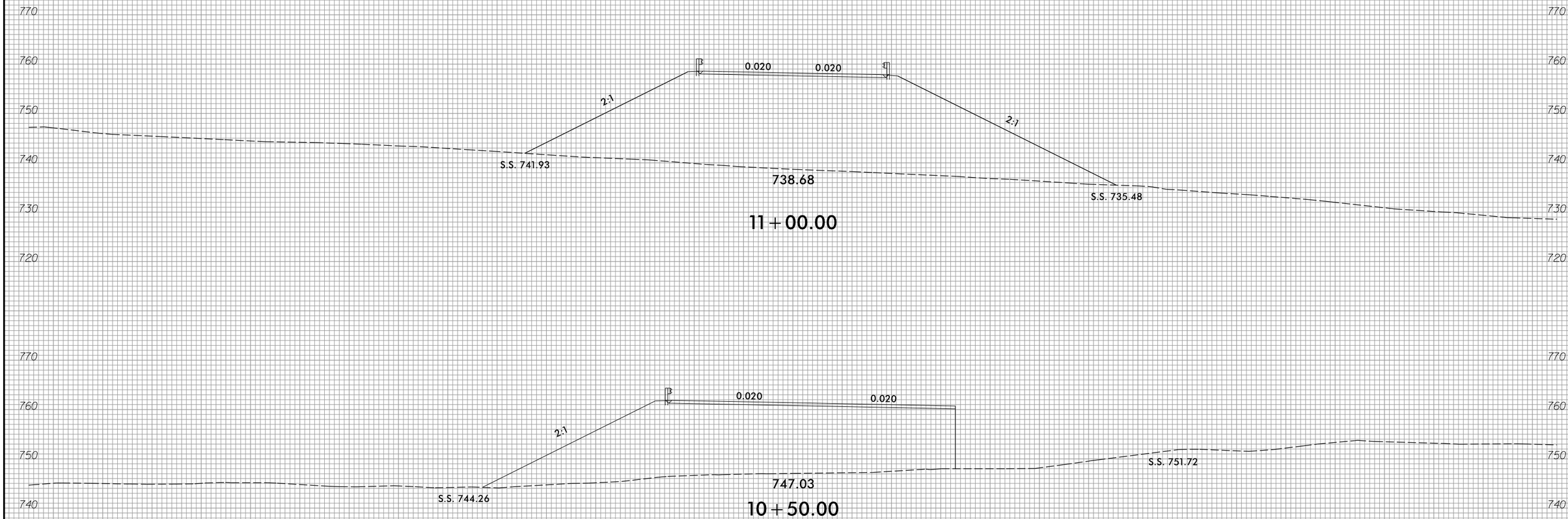
Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-279

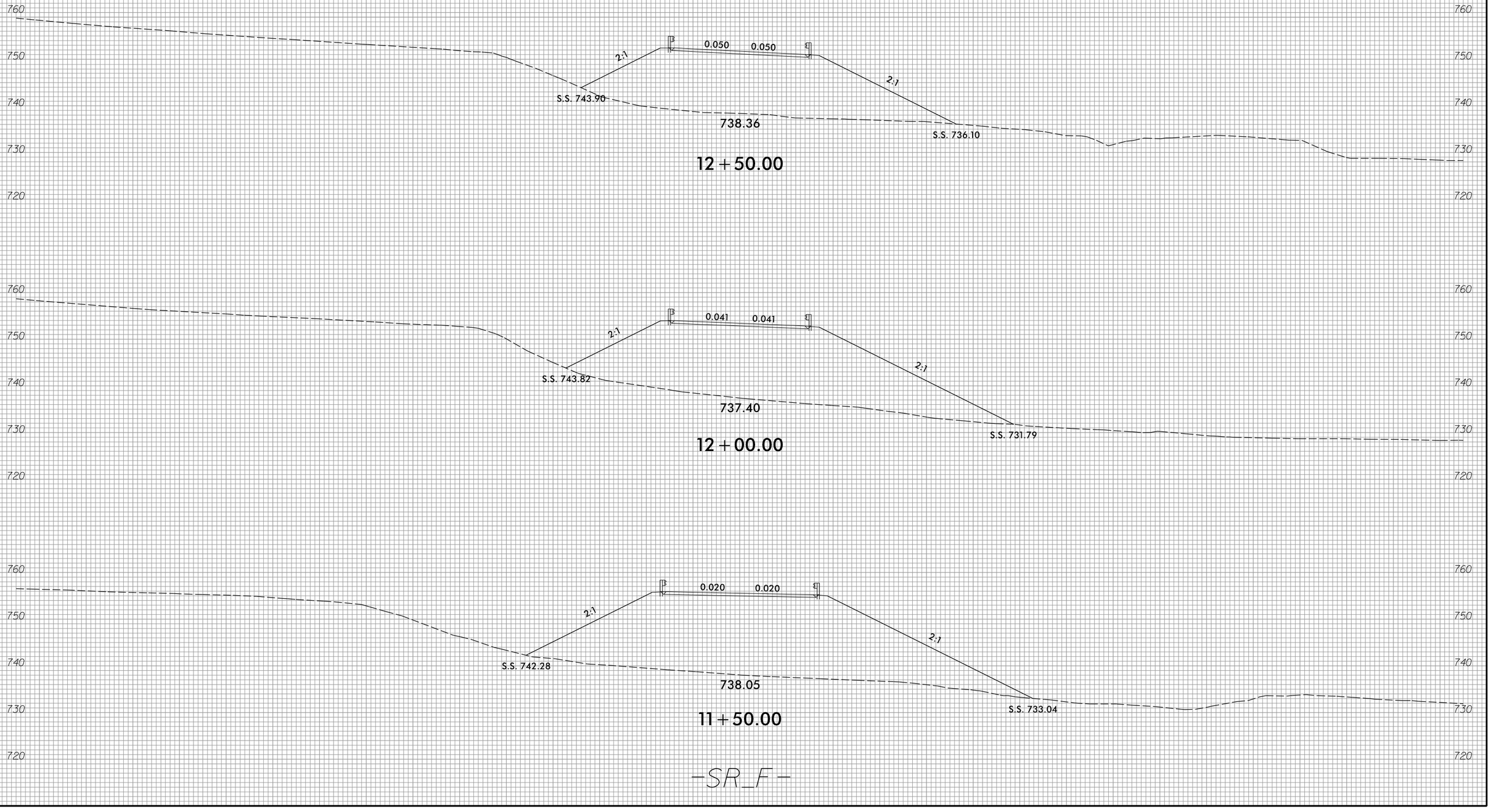


-SR_F-

3/22/2016
R:\RDWG\dwg\XSC\Sec1\R2536_Rdy_xpl_SR_F.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-280



-SR_F-

3/22/2016
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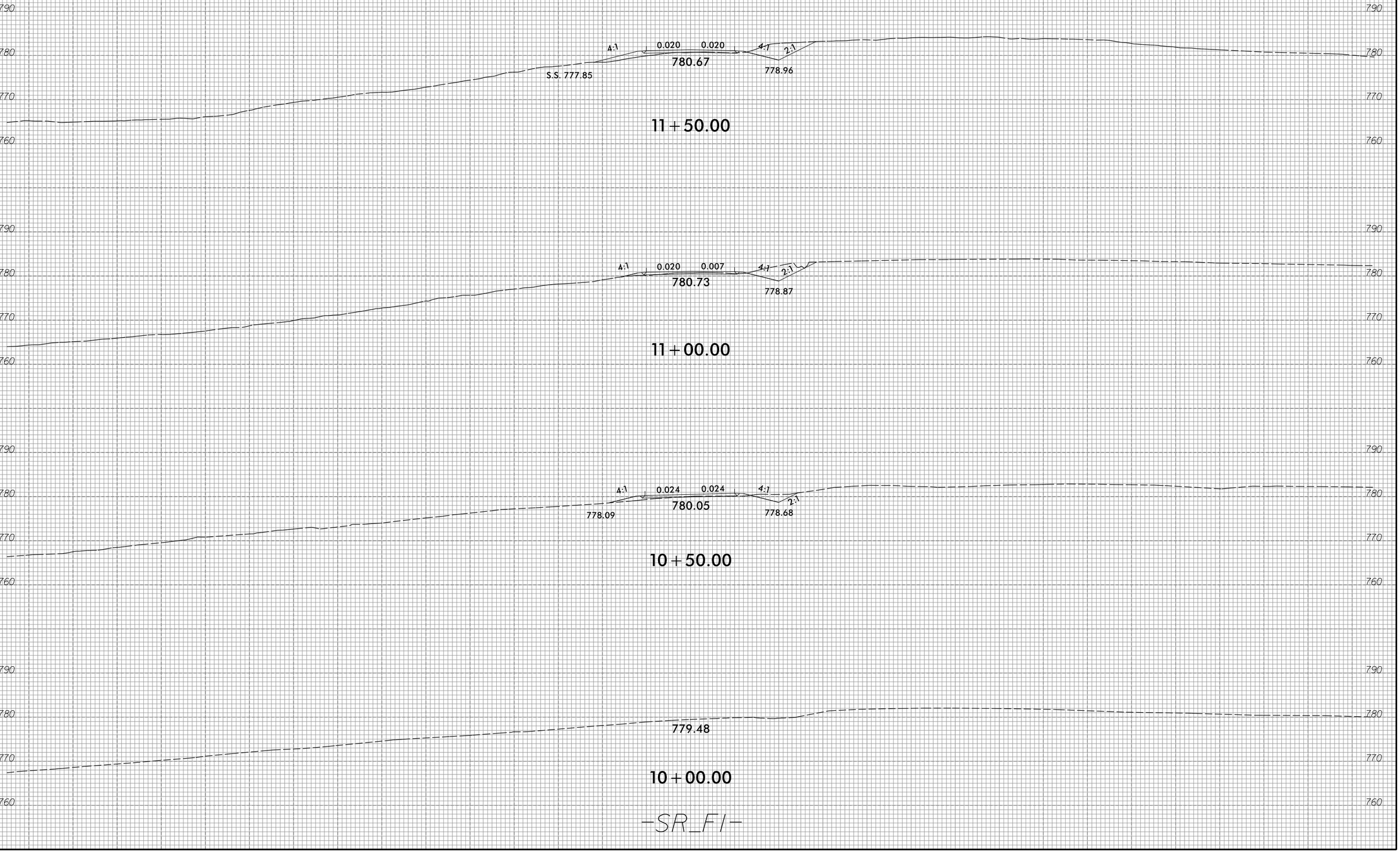
Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-298



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Fleig

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-299

790
780
770

782.32

13+00.00

790
780
770

2:1 4:1 0.020 0.020 4:1 2:1

779.44 781.77 779.45

12+50.00

790
780
770
760

4:1 0.020 0.020 4:1 2:1

S.S. 778.68 780.93 779.20

12+00.00

-SR_F1-

3/22/2016
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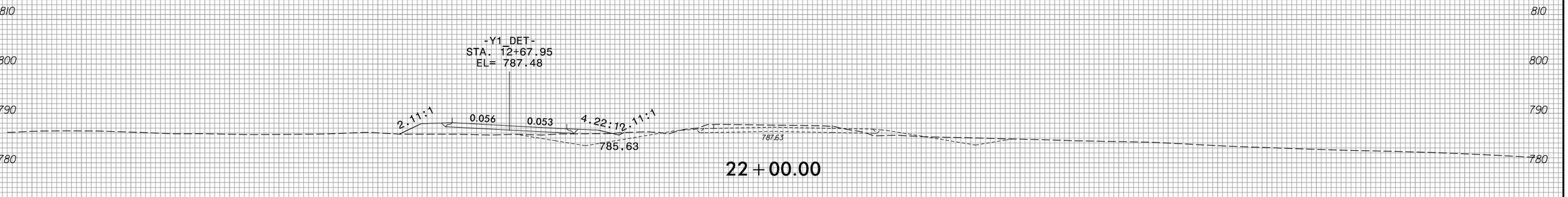
Fleig

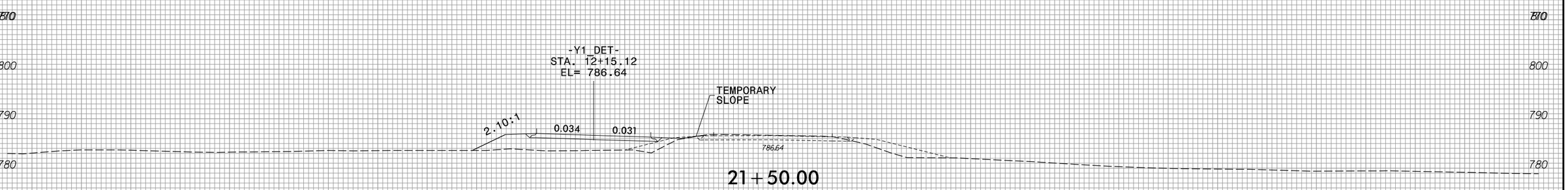
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-300

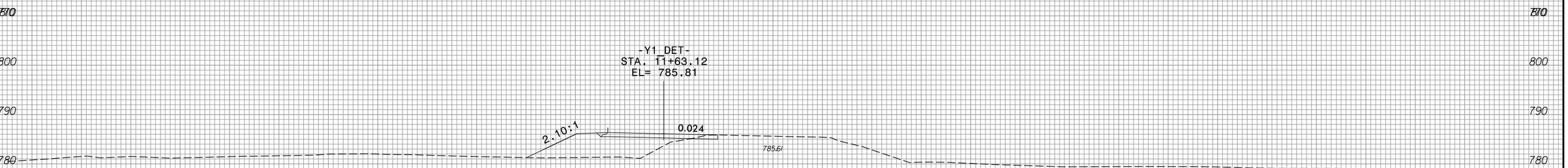
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



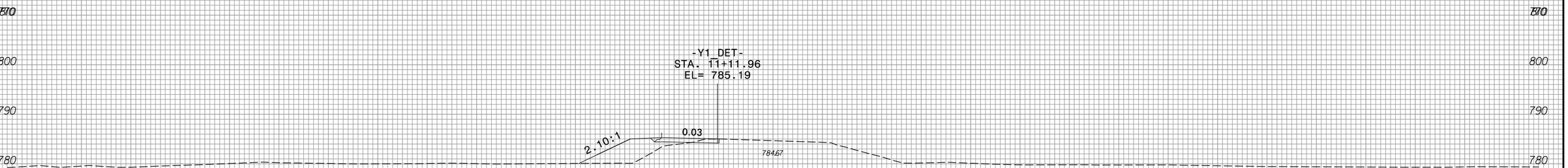
22+00.00



21+50.00



21+00.00



20+50.00

-Y1_DET-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-301

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

810 800 790 780 770

-Y1_DET-
STA. 14+74.45
EL= 789.21

2.03:1 4.06:1 0.068 0.068 4.06:1 2.03:1

788.73 787.21

788393

24+00.00

-Y1_DET-
STA. 14+23.50
EL= 789.22

TEMPORARY SLOPE

2.04:1 4.09:1 0.069 0.069 4.09:1 2.05:1

788.76 787.20

788385

23+50.00

-Y1_DET-
STA. 13+72.16
EL= 788.93

TEMPORARY SLOPE

2.06:1 4.12:1 0.070 0.070 4.13:1 2.06:1

788.48 786.89

788343

23+00.00

-Y1_DET-
STA. 13+20.34
EL= 788.32

TEMPORARY SLOPE

2.08:1 4.16:1 0.071 0.071 4.17:1 2.09:1

787.89 786.26

788280

22+50.00

-Y1_DET-

3/22/2016
R:\RDWay\XSC\Sec1\R2536_Rdy_xpl_Y1DET.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-302

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

810
800
790
780
770

-Y1_DET-
STA. 16+75.67
EL= 786.20

2:1 4:1 0.069 0.069 4:1 2:1 2:1

785.72 784.20

788.02

26+00.00

-Y1_DET-
STA. 16+25.61
EL= 787.39

2:1 4.01:1 0.068 0.068 4.01:1 2:1 2:1

786.91 785.40

788.94

25+50.00

-Y1_DET-
STA. 15+75.43
EL= 788.29

2.01:1 4.02:1 0.068 0.068 4.02:1 2.01:1

787.81 786.30

789.38

25+00.00

-Y1_DET-
STA. 15+25.07
EL= 788.90

2.02:1 4.04:1 0.068 0.068 4.04:1 2.02:1

788.41 786.90

789.74

24+50.00

-Y1_DET-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-303

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 / 790 / 780 / 770

-Y1_DET-
STA. 18+76.01
EL= 778.98

2:0 7:1 4.03:1 0.074 0.074 4.03:1 2.01:1

778.55 776.92

780.73

28+00.00

-Y1_DET-
STA. 18+25.79
EL= 780.91

2.01:1 4.01:1 0.073 0.073 4.01:1 2.01:1

780.47 778.87

782.67

27+50.00

-Y1_DET-
STA. 17+75.70
EL= 782.95

2:1 4:1 0.071 0.072 4:1 2:1

782.50 780.92

784.71

27+00.00

-Y1_DET-
STA. 17+25.68
EL= 784.72

2:1 4:1 0.070 0.070 4:1 2:1 2:1

784.26 782.71

786.60

26+50.00

-Y1_DET-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-304

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 790 780 770 760

-Y1_DET-
STA. 20+79.68
EL= 773.63

2.07:1 | 0.072 | 0.072 | 2.07:1 | 2:1

769.97

774.09

30+00.00

-Y1_DET-
STA. 20+28.20
EL= 774.61

2.05:1 | 0.073 | 0.073 | 4.10:1 | 2:1

771.87

775.51

29+50.00

-Y1_DET-
STA. 19+77.15
EL= 775.83

2.03:1 | 0.074 | 0.074 | 4.07:1 | 2.04:1

773.76

777.07

29+00.00

-Y1_DET-
STA. 19+26.44
EL= 777.29

2.02:1 | 4.04:1 | 0.074 | 0.074 | 4.05:1 | 2.02:1

776.87

775.22

778.80

28+50.00

-Y1_DET-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-305

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 790 780 770 760

-Y1_DET-
STA. 22+88.28
EL= 772.06

2.08:1 0.01 0.01

771.92

32+00.00

-Y1_DET-
STA. 22+36.71
EL= 772.22

TEMPORARY SLOPE

2.08:1 0.024 0.021

772.14

31+50.00

-Y1_DET-
STA. 21+84.23
EL= 772.44

TEMPORARY SLOPE

2.11:1 0.046 0.043 2.12:1 2:1

772.41

769.04

31+00.00

-Y1_DET-
STA. 21+31.66
EL= 772.91

TEMPORARY SLOPE

2.09:1 0.070 0.067 2.09:1 2:1

773.04

769.12

30+50.00

-Y1_DET-

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-306

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780
770
760

771.46

35+00.00

780
770
760

772.88

34+50.00

780
770
760

772.13

34+00.00

780
770
760

771.82

33+50.00

790
780
770
760

-Y1_DET-
STA. 23+89.58

2.08:1
0.015

771.74

33+00.00

790
780
770
760

-Y1_DET-
STA. 23+39.17
EL= 771.95

2.08:1
0.01

771.82

32+50.00

-Y1_DET-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-307

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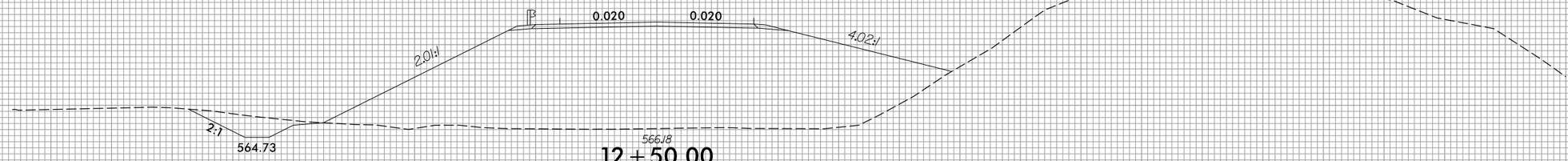

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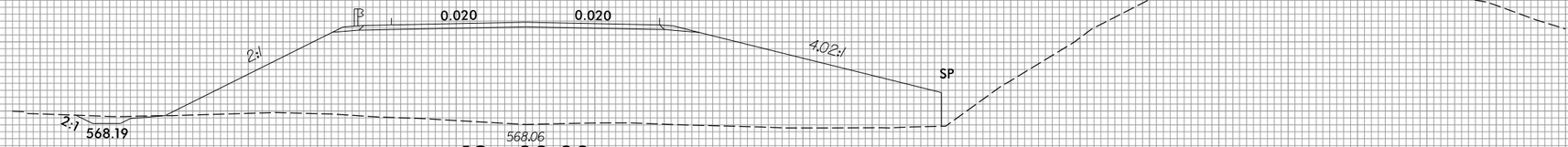
590 580 570 560



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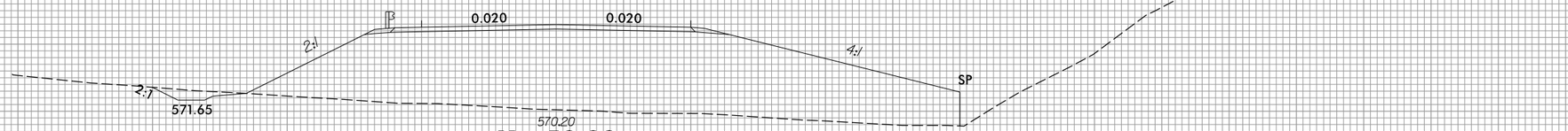

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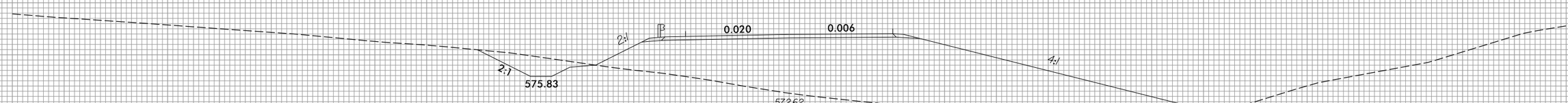
590 580 570 560



11 + 00.00

-DR-

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3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-308

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610 600 590 580 570 560

SEE -L- CROSS SECTIONS

570.69

14+00.00

600 590 580 570 560

SEE -L- CROSS SECTIONS

567.01

13+50.00

600 590 580 570 560

0.020 0.020 4.0:1

2:1

2:1

561.28

563.11

13+00.00

550

-DR-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec1\R2536_Rdy_xp1_DR.dgn
FLewis

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-309

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 630 620 610 600 590

0.020 0.020 4.0% 4.0%

629.30 626.62

2:1

17+90.00

SEE -L- CROSS SECTIONS

595.36

16+50.00

-DR-

3/22/2016
R:\RD_Roadway\XSC\Sec1\R2536_Rdy_xpl_DR.dgn
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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-310

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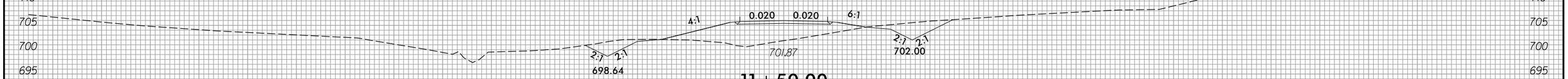
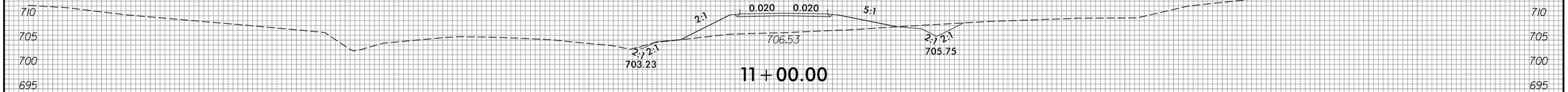
730 725 720 715 710 705 700 695 690



11+50.00

730 725 720 715 710 705 700 695



11+00.00

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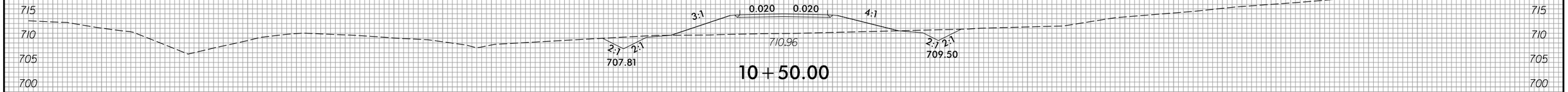
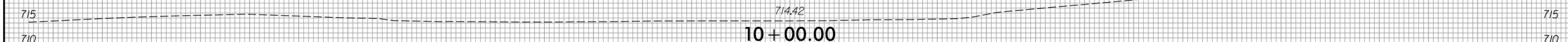


10+50.00

730 725 720 715 710



10+00.00

—DR6—

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-311

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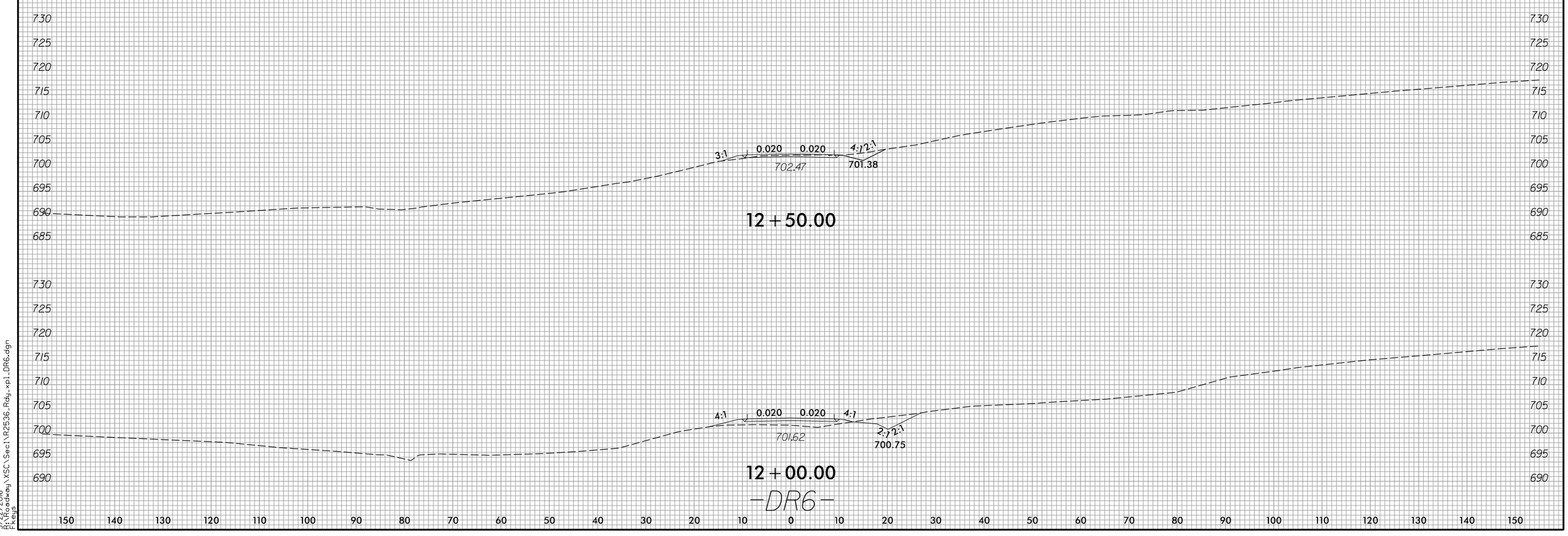

730 725 720 715 710 705 700 695 690

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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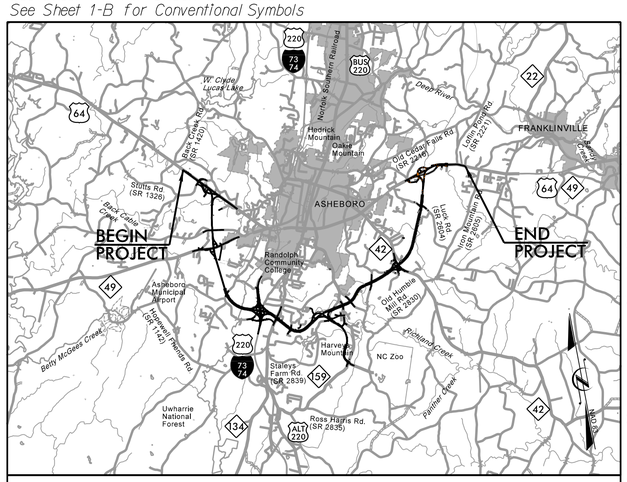
Fkeys

09/08/49

TIP PROJECT: R-2536

CONTRACT: C203617

See Sheet 1-A for Index of Sheets
See Sheet 1-B for Conventional Symbols



VICINITY MAP (NTS)

RIGHT OF WAY PLANS (SECTION 2)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

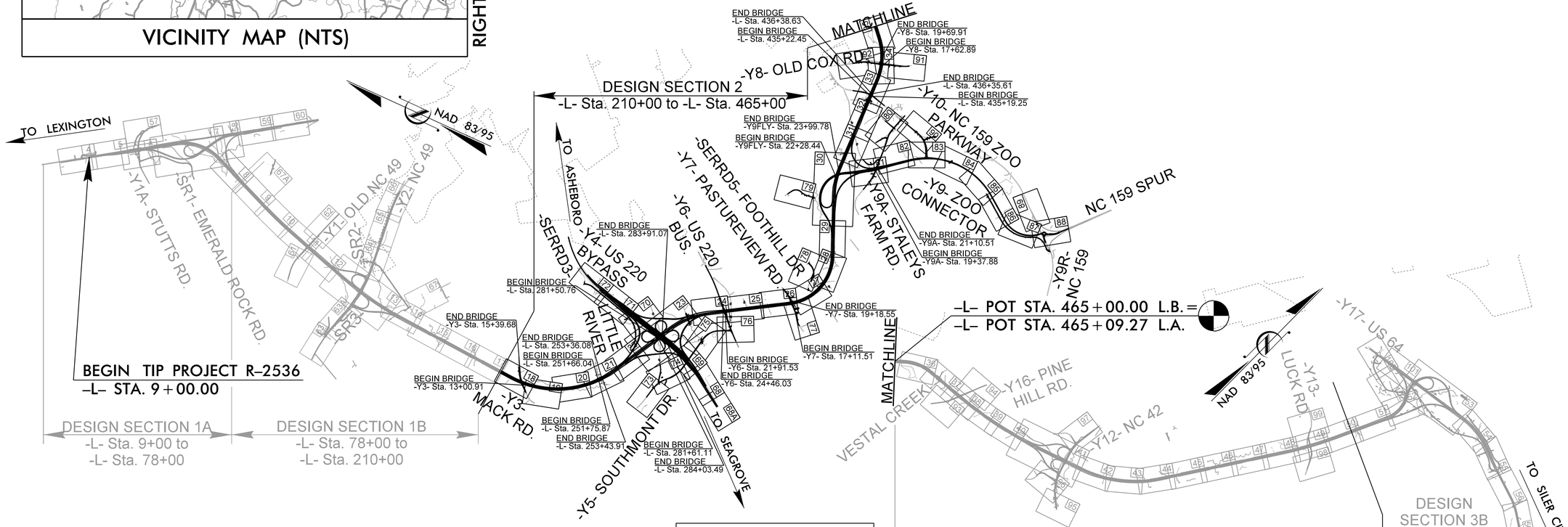
RANDOLPH COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2536	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34450.3.S1		PE

LOCATION: *US 64 BYPASS FROM EXISTING US 64 WEST OF ASHEBORO TO EXISTING US 64 EAST OF ASHEBORO AND THE ZOO CONNECTOR FROM EAST OF STALEYS FARM RD. TO EXISTING NC 159/ZOO ENTRANCE*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, WIDENING, RESURFACING, CULVERTS, STRUCTURES, AND SIGNALS*



NOTES:
1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DESIGN - BUILD TEAM

GRAPHIC SCALES

PLANS: 50 25 0 50 100

PROFILE (HORIZONTAL): 50 25 0 50 100

PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2015 = 12,600
ADT 2040 = 18,800
DHV = 11 %
D = 60 %
T = 13 % *
V = 70 MPH
(*TTST = 8% + DUAL = 5%)

FUNCTIONAL CLASSIFICATION
FREEWAY

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2536.....	14.619 mi
LENGTH STRUCTURE TIP PROJECT R-2536.....	0.121 mi
TOTAL LENGTH TIP PROJECT R-2536.....	14.740 mi

NCDOT CONTACT

K. Zak Hamidi, P.E.
PROJECT ENGINEER - DESIGN-BUILD UNIT

RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE, SUITE 350
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO. F-0112
1-888-521-4455 OR 919-878-9560

FOR
DIVISION OF HIGHWAYS

2012 STANDARD SPECIFICATIONS

LETTING DATE:
JUNE 29, 2015

B. Keith Skinner, P.E.
PROJECT ENGINEER

Michael T. Merritt, P.E.
PROJECT DESIGN ENGINEER

CONTRACTOR :

ASHEBORO 64 Bypass Constructors, LLC
WRIGHT BORDERS RK&K

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

STATE OF NORTH CAROLINA

3/22/2016
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Fkeys

12/05/11

PROJECT REFERENCE NO.	SHEET NO.
R-2536	1-B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H–Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
R-2536	ID-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CENTERLINE COORDINATE LIST

Point #	Chain	Station	Northing (Y)	Easting (X)
1	L	210+00.00	695305.4065	1746423.7888
2	L	211+00.00	695214.3061	1746465.0286
3	L	212+00.00	695123.2058	1746506.2684
4	L	213+00.00	695032.1054	1746547.5081
5	L	214+00.00	694941.0225	1746588.7865
6	L	215+00.00	694850.2228	1746630.6828
7	L	216+00.00	694760.1720	1746674.1617
8	L	217+00.00	694671.2101	1746719.8264
9	L	218+00.00	694583.4175	1746767.7005
10	L	219+00.00	694496.8490	1746817.7543
11	L	220+00.00	694411.5588	1746869.9564
12	L	221+00.00	694327.6002	1746924.2743
13	L	222+00.00	694245.0256	1746980.6739
14	L	223+00.00	694163.8867	1747039.1201
15	L	224+00.00	694084.2341	1747099.5762
16	L	225+00.00	694006.1177	1747162.0046
17	L	226+00.00	693929.5862	1747226.3662
18	L	227+00.00	693854.6875	1747292.6207
19	L	228+00.00	693781.4684	1747360.7268
20	L	229+00.00	693709.9747	1747430.6419
21	L	230+00.00	693640.2509	1747502.3224
22	L	231+00.00	693572.3408	1747575.7233
23	L	232+00.00	693506.2868	1747650.7989
24	L	233+00.00	693442.1301	1747727.5022
25	L	234+00.00	693379.9108	1747805.7853
26	L	235+00.00	693319.6678	1747885.5992
27	L	236+00.00	693261.4389	1747966.8941
28	L	237+00.00	693205.2602	1748049.6192
29	L	238+00.00	693151.1670	1748133.7227
30	L	239+00.00	693099.1931	1748219.1522
31	L	240+00.00	693049.3710	1748305.8542
32	L	241+00.00	693001.7317	1748393.7745
33	L	242+00.00	692956.3051	1748482.8582
34	L	243+00.00	692913.1196	1748573.0496
35	L	244+00.00	692872.2021	1748664.2923
36	L	245+00.00	692833.5782	1748756.5294
37	L	246+00.00	692797.2721	1748849.7031
38	L	247+00.00	692763.3065	1748943.7553
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41	L	250+00.00	692675.6570	1749230.5922
42	L	251+00.00	692651.2506	1749327.5654
43	L	252+00.00	692629.2758	1749425.1184
44	L	253+00.00	692609.7466	1749523.1903
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51	L	260+00.00	692542.1158	1750219.0366
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53	L	262+00.00	692540.3198	1750419.0280
54	L	263+00.00	692539.5858	1750519.0253
55	L	264+00.00	692538.8518	1750619.0226
56	L	265+00.00	692538.1178	1750719.0199
57	L	266+00.00	692537.3838	1750819.0172
58	L	267+00.00	692536.6498	1750919.0145
59	L	268+00.00	692535.9158	1751019.0118
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61	L	270+00.00	692534.4478	1751219.0064
62	L	271+00.00	692533.7138	1751319.0037
63	L	272+00.00	692532.9798	1751419.0010
64	L	273+00.00	692532.2458	1751518.9983
65	L	274+00.00	692531.5118	1751618.9957
66	L	275+00.00	692530.7778	1751718.9930
67	L	276+00.00	692530.0438	1751818.9903
68	L	277+00.00	692529.3098	1751918.9876
69	L	278+00.00	692528.5758	1752018.9849
70	L	279+00.00	692527.8418	1752118.9822
71	L	280+00.00	692527.1078	1752218.9795
72	L	281+00.00	692526.3738	1752318.9768
73	L	282+00.00	692525.6398	1752418.9741
74	L	283+00.00	692524.9058	1752518.9714
75	L	284+00.00	692524.1718	1752618.9687
76	L	285+00.00	692523.4378	1752718.9660
77	L	286+00.00	692522.7038	1752818.9633
78	L	287+00.00	692521.9698	1752918.9606
79	L	288+00.00	692521.0535	1753018.9563
80	L	289+00.00	692518.9896	1753118.9337
81	L	290+00.00	692514.6076	1753218.8342
82	L	291+00.00	692507.1311	1753318.5501
83	L	292+00.00	692496.4933	1753417.9784
84	L	293+00.00	692482.7049	1753517.0190
85	L	294+00.00	692465.7799	1753615.5721
86	L	295+00.00	692445.7352	1753713.5383
87	L	296+00.00	692422.5911	1753810.8188
88	L	297+00.00	692396.3709	1753907.3158
89	L	298+00.00	692367.1011	1754002.9319
90	L	299+00.00	692334.8111	1754097.5708
91	L	300+00.00	692299.5334	1754191.1370
92	L	301+00.00	692261.3037	1754283.5364
93	L	302+00.00	692220.1604	1754374.6758
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95	L	304+00.00	692129.3212	1754552.8191
96	L	305+00.00	692080.2318	1754639.9391
97	L	306+00.00	692029.8992	1754726.3484
98	L	307+00.00	691979.2642	1754812.5813
99	L	308+00.00	691928.6275	1754898.8131
100	L	309+00.00	691877.9908	1754985.0449
101	L	310+00.00	691827.3541	1755071.2766
102	L	311+00.00	691776.7174	1755157.5084
103	L	312+00.00	691726.0807	1755243.7402
104	L	313+00.00	691675.4439	1755329.9720
105	L	314+00.00	691624.8072	1755416.2038
106	L	315+00.00	691574.1705	1755502.4356
107	L	316+00.00	691523.5338	1755588.6674
108	L	317+00.00	691472.8971	1755674.8992
109	L	318+00.00	691422.2603	1755761.1310
110	L	319+00.00	691371.6236	1755847.3628
111	L	320+00.00	691320.9869	1755933.5946
112	L	321+00.00	691270.3502	1756019.8264
113	L	322+00.00	691219.7135	1756106.0582
114	L	323+00.00	691169.0768	1756192.2900
115	L	324+00.00	691118.4400	1756278.5218
116	L	325+00.00	691067.8033	1756364.7536
117	L	326+00.00	691017.1666	1756450.9854
118	L	327+00.00	690966.5299	1756537.2172
119	L	328+00.00	690915.8932	1756623.4490
120	L	329+00.00	690865.2564	1756709.6808
121	L	330+00.00	690814.6197	1756795.9126
122	L	331+00.00	690763.9830	1756882.1444
123	L	332+00.00	690713.3463	1756968.3762
124	L	333+00.00	690662.7096	1757054.6080
125	L	334+00.00	690612.0728	1757140.8398
126	L	335+00.00	690561.4361	1757227.0716
127	L	336+00.00	690510.7994	1757313.3034
128	L	337+00.00	690460.1829	1757399.5470
129	L	338+00.00	690410.1564	1757486.1334
130	L	339+00.00	690361.9042	1757573.7182
131	L	340+00.00	690316.6811	1757662.9003
132	L	341+00.00	690275.6661	1757754.0907
133	L	342+00.00	690239.2594	1757847.2168
134	L	343+00.00	690207.5526	1757942.0461
135	L	344+00.00	690180.6249	1758038.3416
136	L	345+00.00	690158.5436	1758135.8625
137	L	346+00.00	690141.3640	1758234.3652
138	L	347+00.00	690129.1289	1758333.6034
139	L	348+00.00	690121.8689	1758433.3291
140	L	349+00.00	690119.6022	1758533.2929
141	L	350+00.00	690122.3344	1758633.2452
142	L	351+00.00	690130.0588	1758732.9360
143	L	352+00.00	690142.7559	1758832.1161
144	L	353+00.00	690160.3942	1758930.5377
145	L	354+00.00	690182.9294	1759027.9547
146	L	355+00.00	690210.3053	1759124.1237
147	L	356+00.00	690242.4534	1759218.8043
148	L	357+00.00	690279.2934	1759311.7599
149	L	358+00.00	690320.7332	1759402.7580
150	L	359+00.00	690366.6692	1759491.5713
151	L	360+00.00	690416.9867	1759577.9777
152	L	361+00.00	690471.5597	1759661.7614
153	L	362+00.00	690530.2520	1759742.7128
154	L	363+00.00	690592.9169	1759820.6296
155	L	364+00.00	690659.3976	1759895.3172
156	L	365+00.00	690729.5281	1759966.5887
157	L	366+00.00	690803.0174	1760034.3948
158	L	367+00.00	690878.9937	1760099.4090
159	L	368+00.00	690956.4792	1760162.6211
160	L	369+00.00	691034.5741	1760225.0804
161	L	370+00.00	691112.7171	1760287.4797
162	L	371+00.00	691190.8601	1760349.8790
163	L	372+00.00	691269.0031	1760412.2783
164	L	373+00.00	691347.1461	1760474.6776
165	L	374+00.00	691425.2890	1760537.0769
166	L	375+00.00	691503.4320	1760599.4762
167	L	376+00.00	691581.5750	1760661.8756
168	L	377+00.00	691659.7180	1760724.2749
169	L	378+00.00	691737.8610	1760786.6742
170	L	379+00.00	691816.0040	1760849.0735
171	L	380+00.00	691894.1470	1760911.4728
172	L	381+00.00	691972.2899	1760973.8721
173	L	382+00.00	692050.4329	1761036.2714
174	L	383+00.00	692128.5759	1761098.6707
175	L	384+00.00	692206.7189	1761161.0700
176	L	385+00.00	692284.8619	1761223.4693
177	L	386+00.00	692363.0049	1761285.8687
178	L	387+00.00	692441.1479	1761348.2680
179	L	388+00.00	692519.2908	1761410.6673
180	L	389+00.00	692597.4338	1761473.0666
181	L	390+00.00	692675.5768	1761535.4659
182	L	391+00.00	692753.6973	1761597.8933
183	L	392+00.00	692831.4237	1761660.8099
184	L	393+00.00	692908.0951	1761725.0057
185	L	394+00.00	692983.0109	1761791.2385
186	L	395+00.00	693055.7042	1761859.9026
187	L	396+00.00	693126.0688	1761930.9512
188	L	397+00.00	693194.0265	1762004.3053
189	L	398+00.00	693259.5017	1762079.8836
190	L	399+00.00	693322.4217	1762157.6019
191	L	400+00.00	693382.7167	1762237.3741
192	L	401+00.00	693440.3195	1762319.1113
193	L	402+00.00	693495.1682	1762402.7218
194	L	403+00.00	693547.4751	1762487.9476
195	L	404+00.00	693598.0262	1762574.2284
196	L	405+00.00	693647.7067	1762661.0146
197	L	406+00.00	693697.2511	1762747.8785
198	L	407+00.00	693746.7955	1762834.7425
199	L	408+00.00	693796.3399	1762921.6065
200	L	409+00.00	693845.8843	1763008.4705
201	L	410+00.00	693895.4287	1763095.3345
202	L	411+00.00	693944.9731	1763182.1985
203	L	412+00.00	693994.5175	1763269.0625
204	L	413+00.00	694044.0619	1763355.9264
205	L	414+00.00	694093.6063	1763442.7904
206	L	415+00.00	694143.1507	1763529.6544
207	L	416+00.00	694192.6951	1763616.5184
208	L	417+00.00	694242.2395	1763703.3824
209	L	418+00.00	694291.7839	1763790.2464
210	L	419+00.00	694341.3283	1763877.1104
211	L	420+00.00	694390.8727	1763963.9743
212	L	421+00.00	694440.4172	1764050.8383
213	L	422+00.00	694489.9616	1764137.7023
214	L	423+00.00	694539.5060	1764224.5663
215	L	424+00.00	694589.0504	1764311.4303
216	L	425+00.00	694638.5948	1764398.2943
217	L	426+00.00	694688.1392	1764485.1582
218	L	427+00.00	694737.6836	1764572.0222
219	L	428+00.00	694787.2280	1764658.8862
220	L	429+00.00	694836.7724	1764745.7502
221	L	430+00.00	694886.3168	1764832.6142
222	L	431+00.00	694935.8612	1764919.4782
223	L	432+00.00	694985.4056	1765006.3422
224	L	433+00.00	695034.9500	1765093.2061
225	L	434+00.00	695084.4944	1765180.0701
226	L	435+00.00	695134.0388	1765266.9341
227	L	436+00.00	695183.5832	1765353.7981
228	L	437+00.00	695233.1276	1765440.6621
229	L	438+00.00	695282.6720	1765527.5261
230	L	439+00.00	695332.2164	1765614.3901
231	L	440+00.00	695381.7608	1765701.2540
232	L	441+00.00	695431.3265	1765788.1059
233	L	442+00.00	695481.4017	1765874.6644
234	L	443+00.00	695532.9207	1765960.3695
235	L	444+00.00	695586.8077	1766044.6029
236	L	445+00.00	695643.8219	1766126.7494
237	L	446+00.00	695704.0755	1766206.5502
238	L	447+00.00	695767.4720	1766283.8778
239	L	448+00.00	695833.9101	1766358.6083
240	L	449+00.00	695903.2834	1766430.6222
241	L	450+00.00	695975.4811	1766499.8043
242	L	451+00.00	696050.3876	1766566.0439
243	L	452+00.00	696127.8830	1766629.2351
244	L	453+00.00	696207.8434	1766689.2767
245	L	454+00.00	696290.1409	1766746.0728
246	L	455+00.00	696374.6438	1766799.5324
247	L	456+00.00	696461.2169	1766849.5701
248	L	457+00.00	696549.7217	1766896.1057
249	L	458+00.00	696640.0166	1766939.0648
250	L	459+00.00	696731.9271	1766978.4517
251	L	460+00.00	696825.0391	1767014.9152
252	L	461+00.00	696918.8817	1767049.4605
253	L	462+00.00	697013.0464	1767083.1203
254	L	463+00.00	697107.2491	1767116.6741
255	L	464+00.00	697201.4518	1767150.2279
256	L	465+00.00	697295.6544	1767183.7817
257	Y3	10+00.00	694048.2376	1746735.8877
258	Y3	11+00.00	694145.5725	1746758.8207
259	Y3	12+00.00	694242.9073	1746781.7538
260	Y3	13+00.00	694339.8523	1746806.2499
261	Y3	14+00.00	694435.5418	1746835.2608
262	Y3	15+00.00	694529.7418	1746868.7938
263	Y3	16+00.00	694622.2389	1746906.7728
264	Y3	17+00.00	694712.8233	1746949.1117
265	Y3	18+00.00	694801.2896	1746995.7145
266	Y3	19+00.00	694887.4373	1747046.4756
267	Y3	20+00.00	694972.2880	1747099.3940
268	Y3	20+86.97	695046.0786	1747145.4167
269	Y4	10+00.00	688848.5689	1752627.5613
270	Y4	11+00.00	688948.1328	1752636.8901
271	Y4	12+00.00	689047.6967	1752646.2190
272	Y4	13+00.00	689147.2606	1752655.5478
273	Y4	14+00.00	689246.8245	1752664.8767
274	Y4	15+00.00	689346.3885	1752674.2055
275	Y4	16+00.00	689445.9524	1752683.5343
276	Y4	17+00.00	689545.5163	1752692.8632
277	Y4	18+00.00	689645.0802	1752702.1920
278	Y4	19+00.00	689744.6441	1752711.5209
279	Y4	20+00.00	689844.2080	1752720.8497
280	Y4	21+00.00	689943.7719	1752730.1786
281	Y4	22+00.00	690043.3358	1752739.5074
282	Y4	23+00.00	690142.9020	1752748.8118
283	Y4	24+00.00	690242.5160	1752757.5848
284	Y4	25+00.00	690342.2440	1752764.9395
285	Y4	26+00.00	690442.0849	1752770.5557
286	Y4	27+00.00	690542.0086	1752774.4288
287	Y4	28+00.00	690641.9846	1752776.5575
288	Y4	29+00.00	690741.9826	1752776.9411
289	Y4	30+00.00	690841.9721	1752775.5796
290	Y4	31+00.00	690941.9226	1752772.4734
291	Y4	32+00.00	691041.8036	1752767.6235
292	Y4	33+00.00	691141.5848	1752761.0312
293	Y4	34+00.00	691241.2358	1752752.6986
294	Y4	35+00.00	691340.7262	1752742.6283
295	Y4	36+00.00	691440.0256	1752730.8233
296	Y4	37+00.00	691539.1040	1752717.2872
297	Y4	38+00.00	691637.9310	1752702.0242
298	Y4	39+00.00	691736.4767	1752685.0388
299	Y4	40+00.00	691834.7109	1752666.3363
300	Y4	41+00.00	691932.6038	1752645.9223
301	Y4	42+00.00	692030.1255	1752623.8031
302	Y4	43+00.00	692127.2510	1752600.0039
303	Y4	44+00.00	692224.0727	1752574.9936
304	Y4	45+00.00	692320.8056	1752549.6412
305	Y4	46+00.00	692417.5373	1752524.2842
306	Y4	47+00.00	692514.2690	1752498.9271
307	Y4	48+00.00	692611.0007	1752473.5700
308	Y4	49+00.00	692707.7324	1752448.2130
309	Y4	50+00.00	692804.4640	1752422.8559
310	Y4	51+00.00	692901.1957	1752397.4988
311	Y4	52+00.00	692997.9274	1752372.1418
312	Y4	53+00.00	693094.6591	1752346.7847
313	Y4	54+00.00	693191.3908	1752321.4276
314	Y4	55+00.00	693288.1225	1752296.0706
315	Y4	56+00.00	693384.8542	1752270.7135
316	Y4	57+00.00	693481.5859	1752245.3564
317	Y4	58+00.00	693578.3175	1752219.9994
318	Y4	59+00.00	693675.0492	1752194.6423
319	Y4	60+00.00	693771.7809	1752169.2852
320	Y4	61+00.00	693868.5126	1752143.9282
321	Y4	62+00.00	693965.2443	1752118.5711
322	Y4	63+00.00	694061.9760	1752093.2140
323	Y4	64+00.00	694158.7077	1752067.8570
324	Y4	65+00.00	694255.4393	1752042.4999
325	Y4	66+00.00	694352.1710	1752017.1429
326	Y4	67+00.00	694448.9027	1751991.7858
327	Y4	68+00.00	694545.6344	1751966.4287
328	Y4	69+00.00	694642.3661	1751941.0717
329	Y4	70+00.00	694739.0978	1751915.7146
330	Y4	71+00.00	694835.8295	1751890.3575
331	Y4	72+00.00	694932.5612	1751865.0005
332	Y4	73+00.00	695029.2928	1751839.6434
333	Y4	74+00.00	695126.0245	1751814.2863
334	Y4	75+00.00	695222.7562	1751788.9293
335	Y4	76+00.00	695319.4879	1751763.5722
336	Y4	77+00.00	695416.2649	1751738.3891
337	Y4	78+00.00	695513.2892	1751714.1796
338	Y4	79+00.00	695610.7696	1751691.8845
339	Y4	80+00.00	695708.7905	1751672.1024
340	Y4	81+00.00	695807.2956	1751654.8927
341	Y4	82+00.00	695906.2175	1751640.2672
342	Y4	83+00.00	696005.4882	1751628.2361
343	Y4	84+00.00	696105.0398	1751618.8075
344	Y4	85+00.00	696204.8042	1751611.9879
345	Y4	86+00.00	696304.7128	1751607.7820
346	Y4	87+00.00	696404.6973	1751606.1926
347	Y4	88+00.00	696504.6892	1751607.2209
348	Y4	89+00.00	696604.6199	1751610.8661
349	Y4	90+00.00	696704.4209	1751617.1257
350	Y4	91+00.00	696804.0239	1751625.9955
351	Y4	92+00.00	696903.3606	1751637.4694
352	Y4	93+00.00	697002.3629	1751651.5394
353	Y4	94+00.00	697100.9631	1751668.1961
354	Y4	95+00.00	697199.0934	1751687.4279
355	Y4	96+00.00	697296.6868	1751709.2216
356	Y4	97+00.00	697393.6762	1751733.5624
357	Y4	98+00.00	697489.9953	1751760.4336
358	Y4	99+00.00	697585.5781	1751789.8167
359	Y4	100+00.00	697680.3590	1751821.6916
360	Y4	101+00.00	697774.2731	1751856.0365
361	Y4	102+00.00	697867.2842	1751892.7580
362	Y4	103+00.00	697959.5961	1751931.2075
363	Y4	103+92.46	698044.6289	1751967.5126
364	Y4RPA	10+00.00	692377.5874	1754152.3945
365	Y4RPA	11+00.00	692412.4641	1754058.6735
366	Y4RPA	12+00.00	692447.3408	1753964.9526
367	Y4RPA	13+00.00	692482.2175	1753871.2316
368	Y4RPA	14+00.00	692517.1022	1753777.5137
369	Y4RPA	15+00.00	692553.0917	1753684.2180
370	Y4RPA	16+00.00	692593.4115	1753592.7266
371	Y4RPA	17+00.00	692640.7085	1753504.6515
372	Y4RPA	18+00.00	692695.1644	1753420.8134
373	Y4RPA	19+00.00	692755.4567	1753341.0494
374	Y4RPA	20+00.00	692818.5877	1753263.4980
375	Y4RPA	21+00.00	692882.1387	1753186.2887
376	Y4RPA	22+00.00	692945.6897	1753109.0794
377	Y4RPA	23+00.00	693009.2407	1753031.8701
378	Y4RPA	24+00.00	693072.7916	1752954.6608
379	Y4RPA	25+00.00	693136.3426	1752877.4516
380	Y4RPA	26+00.00	693199.8936	1752800.2423
381	Y4RPA	27+00.00	693263.4446	1752723.0330
382	Y4RPA	28+00.00	693327.0542	1752645.8721
383	Y4RPA	29+00.00	693392.2592	1752570.0638
384	Y4RPA	30+00.00	693461.9396	1752498.3739
385	Y4RPA	31+00.00	693537.2784	1752432.6604
386	Y4RPA	32+00.00	693617.8257	1752373.4459
387	Y4RPA	33+00.00	693703.0222	1752321.1414
388	Y4RPA	34+00.00	693792.2768	1752276.1099
389	Y4RPA	35+00.00	693884.9699	1752238.6639
390	Y4RPA	36+00.00	693980.2805	1752208.4566
391	Y4RPA	37+00.00	694076.8144	1752182.3652
392	Y4RPA	37+03.07	694079.7873	1752181.5859
393	Y4RPB	10+00.00	692587.5285	1750390.7721
394	Y4RPB	11+00.00	692587.2524	1750490.7709
395	Y4RPB	12+00.00	692589.7231	1750590.7332
396	Y4RPB	13+00.00	692597.2228	1750690.4390
397	Y4RPB	14+00.00	692610.1868	1750789.5824
398	Y4RPB	15+00.00	692628.5760	1750887.8642
399	Y4RPB	16+00.00	692652.3348	1750984.9879
400	Y4RPB	17+00.00	692681.3914	1751080.6602
401	Y4RPB	18+00.00	692715.1654	1751174.7771
402	Y4RPB	19+00.00	692751.3919	1751267.9838
403	Y4RPB	20+00.00	692787.9871	1751361.0472
404	Y4RPB	21+00.00	692824.5822	1751454.1106
405	Y4RPB	22+00.00	692861.8000	1751546.9241
406	Y4RPB	23+00.00	692903.9613	1751637.5681

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
R-2536	ID-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CENTERLINE COORDINATE LIST

Point #	Chain	Station	Northing (Y)	Easting (X)
407	Y4RPB	24+00.00	692955.7807	1751723.0184
408	Y4RPB	25+00.00	693017.8471	1751801.3431
409	Y4RPB	26+00.00	693089.1943	1751871.3185
410	Y4RPB	27+00.00	693168.7091	1751931.8527
411	Y4RPB	28+00.00	693255.1505	1751982.0011
412	Y4RPB	29+00.00	693347.1697	1752020.9812
413	Y4RPB	30+00.00	693443.3308	1752048.1847
414	Y4RPB	31+00.00	693542.1332	1752063.1871
415	Y4RPB	32+00.00	693642.0352	1752065.7542
416	Y4RPB	33+00.00	693741.5190	1752056.1460
417	Y4RPB	34+00.00	693839.9012	1752038.2961
418	Y4RPB	35+00.00	693937.8355	1752018.0756
419	Y4RPB	36+00.00	694035.7617	1751997.8159
420	Y4RPB	37+00.00	694133.6879	1751977.5561
421	Y4RPB	37+70.58	694202.8041	1751963.2568
422	Y4LPB	10+00.00	692586.1461	1752213.9759
423	Y4LPB	11+00.00	692589.2942	1752114.0488
424	Y4LPB	12+00.00	692606.8093	1752015.7960
425	Y4LPB	13+00.00	692651.5173	1751926.9591
426	Y4LPB	14+00.00	692727.7895	1751863.5083
427	Y4LPB	15+00.00	692823.6918	1751838.0877
428	Y4LPB	16+00.00	692921.3790	1751855.4276
429	Y4LPB	17+00.00	693002.6738	1751912.3013
430	Y4LPB	18+00.00	693052.4490	1751998.1261
431	Y4LPB	19+00.00	693061.4428	1752096.9318
432	Y4LPB	20+00.00	693027.9815	1752190.3331
433	Y4LPB	21+00.00	692958.9706	1752261.8057
434	Y4LPB	22+00.00	692870.4943	1752307.8410
435	Y4LPB	23+00.00	692775.0432	1752337.4962
436	Y4LPB	23+23.20	692752.6128	1752343.4072
437	Y4RPC	10+00.00	692479.4808	1750669.3551
438	Y4RPC	11+00.00	692473.5143	1750769.1769
439	Y4RPC	12+00.00	692467.5478	1750868.9988
440	Y4RPC	13+00.00	692460.8383	1750968.7715
441	Y4RPC	14+00.00	692450.1435	1751068.1833
442	Y4RPC	15+00.00	692432.1372	1751166.5194
443	Y4RPC	16+00.00	692406.0100	1751263.0160
444	Y4RPC	17+00.00	692371.9414	1751357.0029
445	Y4RPC	18+00.00	692330.1721	1751447.8301
446	Y4RPC	19+00.00	692281.9154	1751535.4004
447	Y4RPC	20+00.00	692230.3586	1751621.0834
448	Y4RPC	21+00.00	692178.2549	1751706.4368
449	Y4RPC	22+00.00	692126.1512	1751791.7903
450	Y4RPC	23+00.00	692074.0476	1751877.1437
451	Y4RPC	24+00.00	692021.9439	1751962.4971
452	Y4RPC	25+00.00	691969.8402	1752047.8505
453	Y4RPC	26+00.00	691917.7366	1752133.2040
454	Y4RPC	27+00.00	691865.6309	1752218.5562
455	Y4RPC	28+00.00	691812.2258	1752303.0931
456	Y4RPC	29+00.00	691752.8710	1752383.5162
457	Y4RPC	30+00.00	691684.2472	1752456.1598
458	Y4RPC	31+00.00	691606.8988	1752519.4332
459	Y4RPC	32+00.00	691522.0954	1752572.2981
460	Y4RPC	33+00.00	691431.2290	1752613.8867
461	Y4RPC	34+00.00	691335.7910	1752643.5162
462	Y4RPC	35+00.00	691237.4298	1752661.2711
463	Y4RPC	36+00.00	691137.9183	1752671.0208
464	Y4RPC	36+14.45	691123.5111	1752672.0879
465	Y4LPC	10+00.00	692427.4313	1752428.6497
466	Y4LPC	11+00.00	692330.1381	1752451.6578
467	Y4LPC	12+00.00	692230.7164	1752460.3592
468	Y4LPC	13+00.00	692133.2969	1752440.3534
469	Y4LPC	14+00.00	692052.1582	1752383.2573
470	Y4LPC	15+00.00	692002.6182	1752297.2965
471	Y4LPC	16+00.00	691993.8951	1752198.4665
472	Y4LPC	17+00.00	692027.6121	1752105.1572
473	Y4LPC	18+00.00	692097.4952	1752034.7313
474	Y4LPC	19+00.00	692190.5408	1752000.2934
475	Y4LPC	20+00.00	692289.4353	1752008.2516
476	Y4LPC	21+00.00	692375.7768	1752057.1251
477	Y4LPC	22+00.00	692433.8666	1752137.6325
478	Y4LPC	23+00.00	692460.7222	1752233.6140
479	Y4LPC	24+00.00	692467.0539	1752333.3336
480	Y4LPC	24+44.50	692466.9402	1752377.8358
481	Y4RPD	10+00.00	691188.0444	1752847.2888
482	Y4RPD	11+00.00	691288.0395	1752848.2876
483	Y4RPD	12+00.00	691388.0225	1752849.9787
484	Y4RPD	13+00.00	691487.7199	1752857.3083
485	Y4RPD	14+00.00	691585.8742	1752876.0527
486	Y4RPD	15+00.00	691680.7216	1752907.5099
487	Y4RPD	16+00.00	691770.6220	1752951.1391
488	Y4RPD	17+00.00	691854.0211	1753006.1860
489	Y4RPD	18+00.00	691929.4772	1753071.6991
490	Y4RPD	19+00.00	691996.0535	1753146.2452
491	Y4RPD	20+00.00	692055.6102	1753226.5397
492	Y4RPD	21+00.00	692108.2768	1753311.5129
493	Y4RPD	22+00.00	692153.6878	1753400.5750
494	Y4RPD	23+00.00	692191.5279	1753493.1079
495	Y4RPD	24+00.00	692221.5345	1753588.4694
496	Y4RPD	25+00.00	692243.4994	1753685.9976
497	Y4RPD	26+00.00	692257.2701	1753785.0157
498	Y4RPD	27+00.00	692262.7511	1753884.8364
499	Y4RPD	28+00.00	692259.9043	1753984.7670
500	Y4RPD	29+00.00	692248.7495	1754084.1137
501	Y4RPD	30+00.00	692229.3640	1754182.1873
502	Y4RPD	31+00.00	692201.8825	1754278.3069
503	Y4RPD	32+00.00	692166.4965	1754371.8058
504	Y4RPD	33+00.00	692124.0343	1754462.3227
505	Y4RPD	34+00.00	692076.8953	1754550.5082
506	Y4RPD	34+07.73	692073.1283	1754557.2627
507	Y4LPD	10+00.00	692464.0013	1752778.2137
508	Y4LPD	11+00.00	692460.8532	1752878.1407
509	Y4LPD	12+00.00	692443.3381	1752976.3935
510	Y4LPD	13+00.00	692398.6302	1753065.2304
511	Y4LPD	14+00.00	692322.3580	1753128.6812
512	Y4LPD	15+00.00	692226.4556	1753154.1018
513	Y4LPD	16+00.00	692128.7684	1753136.7619
514	Y4LPD	17+00.00	692047.4737	1753079.8882
515	Y4LPD	18+00.00	691997.6984	1752994.0635
516	Y4LPD	19+00.00	691988.7047	1752895.2577
517	Y4LPD	20+00.00	692022.1660	1752801.8564
518	Y4LPD	21+00.00	692091.1768	1752730.3838
519	Y4LPD	22+00.00	692179.6532	1752684.3485
520	Y4LPD	23+00.00	692275.1043	1752654.6933
521	Y4LPD	23+23.20	692297.5347	1752648.7823
522	Y5	8+00.00	690879.4835	1750526.4787
523	Y5	9+00.00	690906.7682	1750622.6845
524	Y5	10+00.00	690934.0529	1750718.8902
525	Y5	11+00.00	690961.3376	1750815.0960
526	Y5	12+00.00	690988.4435	1750911.3513
527	Y5	13+00.00	691010.4615	1751008.8731
528	Y5	14+00.00	691025.0918	1751107.7733
529	Y5	15+00.00	691032.2517	1751207.4930
530	Y5	16+00.00	691031.9006	1751307.4688
531	Y5	17+00.00	691024.0407	1751407.1358
532	Y5	18+00.00	691008.7162	1751505.9308
533	Y5	19+00.00	690986.0139	1751603.2956
534	Y5	20+00.00	690956.5656	1751698.8478
535	Y5	21+00.00	690930.4480	1751795.3526
536	Y5	22+00.00	690911.6533	1751893.5465
537	Y5	23+00.00	690900.2878	1751992.8748
538	Y5	24+00.00	690896.4157	1752092.7763
539	Y5	25+00.00	690900.0588	1752192.6863
540	Y5	26+00.00	690911.1966	1752292.0404
541	Y5	27+00.00	690929.7661	1752390.2772
542	Y5	28+00.00	690955.6624	1752486.8415
543	Y5	29+00.00	690985.5676	1752582.2652
544	Y5	30+00.00	691015.4841	1752677.6853
545	Y5	31+00.00	691045.4006	1752773.1055
546	Y5	32+00.00	691075.3170	1752868.5256
547	Y5	33+00.00	691105.2335	1752963.9458
548	Y5	34+00.00	691135.1500	1753059.3659
549	Y5	35+00.00	691165.0665	1753154.7861
550	Y5	36+00.00	691194.9829	1753250.2062
551	Y5	37+00.00	691224.8994	1753345.6264
552	Y5	38+00.00	691254.8159	1753441.0465
553	Y5	39+00.00	691284.7324	1753536.4666
554	Y5	40+00.00	691314.6489	1753631.8868
555	Y5	41+00.00	691344.5653	1753727.3069
556	Y5	42+00.00	691374.1716	1753822.8212
557	Y5	43+00.00	691395.6412	1753920.4288
558	Y5	44+00.00	691405.3663	1754019.8955
559	Y5	45+00.00	691403.2093	1754119.8132
560	Y5	46+00.00	691389.2006	1754218.7675
561	Y5	47+00.00	691363.5387	1754315.3576
562	Y5	48+00.00	691326.5866	1754408.2164
563	Y5	49+00.00	691278.8676	1754496.0292
564	Y5	50+00.00	691221.8745	1754578.1660
565	Y5	51+00.00	691163.2006	1754659.1436
566	Y5	52+00.00	691104.5267	1754740.1212
567	Y5	53+00.00	691045.8528	1754821.0988
568	Y5	54+00.00	690987.1789	1754902.0765
569	Y5	54+57.13	690953.6556	1754948.3429
570	Y5A	10+00.00	691032.7097	1751281.7288
571	Y5A	11+00.00	691116.2226	1751335.7292
572	Y5A	12+00.00	691180.3166	1751412.4269
573	Y5A	13+00.00	691243.2566	1751490.1350
574	Y5A	14+00.00	691306.3390	1751567.7260
575	Y5A	15+00.00	691376.2623	1751639.0964
576	Y5A	16+00.00	691455.6345	1751699.7847
577	Y5A	17+00.00	691541.5541	1751750.9221
578	Y5A	18+00.00	691628.0246	1751801.1501
579	Y5A	18+06.16	691633.3512	1751804.2441
580	Y6	10+00.00	690483.9226	1754831.2379
581	Y6	11+00.00	690581.3577	1754853.7412
582	Y6	12+00.00	690678.7540	1754876.4111
583	Y6	13+00.00	690775.8556	1754900.3082
584	Y6	14+00.00	690872.5656	1754925.7435
585	Y6	15+00.00	690968.8598	1754952.7106
586	Y6	16+00.00	691064.7138	1754981.2027
587	Y6	17+00.00	691160.1180	1755011.1673
588	Y6	18+00.00	691255.3301	1755041.7394
589	Y6	19+00.00	691350.5401	1755072.3182
590	Y6	20+00.00	691445.7501	1755102.8969
591	Y6	21+00.00	691540.9601	1755133.4756
592	Y6	22+00.00	691636.1701	1755164.0543
593	Y6	23+00.00	691731.3801	1755194.6331
594	Y6	24+00.00	691826.5900	1755225.2118
595	Y6	25+00.00	691921.8000	1755255.7905
596	Y6	26+00.00	692017.0100	1755286.3692
597	Y6	27+00.00	692112.2200	1755316.9480
598	Y6	28+00.00	692207.4300	1755347.5267
599	Y6	29+00.00	692302.6400	1755378.1054
600	Y6	30+00.00	692397.8500	1755408.6842
601	Y6	31+00.00	692493.0599	1755439.2629
602	Y6	32+00.00	692588.2992	1755469.7500
603	Y6	33+00.00	692683.8913	1755499.1084
604	Y6	34+00.00	692779.9716	1755526.8270
605	Y6	35+00.00	692876.5125	1755552.8964
606	Y6	36+00.00	692973.4856	1755577.3090
607	Y6	37+00.00	693070.8625	1755600.0575
608	Y6	38+00.00	693168.6146	1755621.1354
609	Y6	39+00.00	693266.7133	1755640.5365
610	Y6	40+00.00	693365.1240	1755658.2888
611	Y6	41+00.00	693463.6705	1755675.2764
612	Y6	42+00.00	693562.2195	1755692.2499
613	Y6	43+00.00	693660.7684	1755709.2235
614	Y6	43+60.89	693720.7782	1755719.5592
615	Y7	8+00.00	689404.9386	1757283.6681
616	Y7	9+00.00	689504.3482	1757292.9879
617	Y7	10+00.00	689597.8255	1757327.5681
618	Y7	11+00.00	689686.5673	1757373.6644
619	Y7	12+00.00	689769.3158	1757429.4973
620	Y7	13+00.00	689844.9176	1757494.8501
621	Y7	14+00.00	689930.9455	1757545.4843
622	Y7	15+00.00	690025.5175	1757577.4336
623	Y7	16+00.00	690124.1723	1757593.6405
624	Y7	17+00.00	690223.0492	1757608.5859
625	Y7	18+00.00	690321.9261	1757623.5312
626	Y7	19+00.00	690420.8029	1757638.4766
627	Y7	20+00.00	690519.6798	1757653.4219
628	Y7	21+00.00	690618.6271	1757667.8704
629	Y7	22+00.00	690718.2489	1757676.2752
630	Y7	23+00.00	690818.2216	1757677.0581
631	Y7	24+00.00	690918.1558	1757673.4321
632	Y7	24+40.00	690958.1309	1757671.9716
633	Y8	10+00.00	695319.7588	1767065.9933
634	Y8	11+00.00	695387.8707	1766992.7760
635	Y8	12+00.00	695455.9825	1766919.5587
636	Y8	13+00.00	695524.0944	1766846.3414
637	Y8	14+00.00	695592.2063	1766773.1241
638	Y8	15+00.00	695660.3181	1766699.9068
639	Y8	16+00.00	695728.4300	1766626.6895
640	Y8	17+00.00	695796.7218	1766553.6403
641	Y8	18+00.00	695865.5622	1766481.1079
642	Y8	19+00.00	695934.9586	1766409.1072
643	Y8	20+00.00	696004.9067	1766337.6425
644	Y8	21+00.00	696075.4025	1766266.7179
645	Y8	22+00.00	696146.4418	1766196.3378
646	Y8	23+00.00	696218.0204	1766126.5061
647	Y8	24+00.00	696290.0128	1766057.1016
648	Y8	25+00.00	696358.5028	1765984.2702
649	Y8	26+00.00	696421.3285	1765906.4998
650	Y8	27+00.00	696478.1347	1765824.2299
651	Y8	28+00.00	696528.6058	1765737.9281
652	Y8	29+00.00	696576.0668	1765649.9085
653	Y8	30+00.00	696623.5278	1765561.8889
654	Y8	30+59.99	696651.9982	1765509.0885
655	Y9	10+00.00	692163.6494	1764767.2604
656	Y9	11+00.00	692124.5653	1764859.3063
657	Y9	12+00.00	692085.4812	1764951.3521
658	Y9	13+00.00	692044.8487	1765042.7199
659	Y9	14+00.00	692001.1937	1765132.6827
660	Y9	15+00.00	691954.5648	1765221.1407
661	Y9	16+00.00	691905.0138	1765307.9956
662	Y9	17+00.00	691852.5956	1765393.1508
663	Y9	18+00.00	691797.3686	1765476.5118
664	Y9	19+00.00	691739.3940	1765557.9859
665	Y9	20+00.00	691678.7364	1765637.4826
666	Y9	21+00.00	691615.4631	1765714.9136
667	Y9	22+00.00	691549.6443	1765790.1928
668	Y9	23+00.00	691481.3533	1765863.2367
669	Y9	24+00.00	691410.6659	1765933.9641
670	Y9	25+00.00	691337.6606	1766002.2964
671	Y9	26+00.00	691262.4185	1766068.1576
672	Y9	27+00.00	691185.0232	1766131.4747
673	Y9	28+00.00	691105.5608	1766192.1772
674	Y9	29+00.00	691024.1195	1766250.1977
675	Y9	30+00.00	690940.7897	1766305.4718
676	Y9	31+00.00	690855.6641	1766357.9381
677	Y9	32+00.00	690768.8373	1766407.5382
678	Y9	33+00.00	690680.4056	1766454.2171
679	Y9	34+00.00	690590.4674	1766497.9229
680	Y9	35+00.00	690499.1226	1766538.6070
681	Y9	36+00.00	690406.4726	1766576.2242
682	Y9	37+00.00	690312.6205	1766610.7328
683	Y9	38+00.00	690217.6703	1766642.0944
684	Y9	39+00.00	690121.7278	1766670.2741
685	Y9	40+00.00	690024.8994	1766695.2407
686	Y9	41+00.00	689927.2927	1766716.9664
687	Y9	42+00.00	689829.0161	1766735.4271
688	Y9	43+00.00	689730.1789	1766750.6023
689	Y9	44+00.00	689630.8909	1766762.4751
690	Y9	45+00.00	689531.2624	1766771.0322
691	Y9	46+00.00	689431.4040	1766776.2643
692	Y9	47+00.00	689331.4267	1766778.1655
693	Y9	48+00.00	689231.4416	1766776.7337
694	Y9	49+00.00	689131.5597	1766771.9704
695	Y9	50+00.00	689031.8921	1766763.8811
696	Y9	51+00.00	688932.5494	1766752.4745
697	Y9	52+00.00	688833.5480	1766738.3828
698	Y9	53+00.00	688734.5814	1766724.0439
699	Y9	54+00.00	688635.6147	1766709.7050
700	Y9	55+00.00	688536.6481	1766695.3662
701	Y9	56+00.00	688437.6815	1766681.0273
702	Y9	57+00.00	688338.7148	1766666.6884
703	Y9	58+00.00	688239.7482	1766652.3496
704	Y9	59+00.00	688140.7815	1766638.0107
705	Y9	60+00.00	688041.8149	1766623.6718
706	Y9	61+00.00	687942.8482	1766609.3329
707	Y9	62+00.00	687843.8816	1766594.9941
708	Y9	63+00.00	687744.9001	1766580.7608
709	Y9	64+00.00	687645.3237	1766571.8866
710	Y9	65+00.00	687545.3542	1766571.3315
711	Y9	66+00.00	687445.6854	1766579.0996
712	Y9	67+00.00	687347.0090	1766595.1368
713	Y9	68+00.00	687250.0100	1766619.3319
714	Y9	69+00.00	687155.3615	1766651.5170
715	Y9	70+00.00	687063.7204	1766691.4686
716	Y9	71+00.00	686975.7228	1766738.9094
717	Y9	72+00.00	686891.9794	1766793.5103
718	Y9	73+00.00	686813.0714	1766854.8923
719	Y9	74+00.00	686739.5465	1766922.6293
720	Y9	75+00.00	686671.9150	1766996.2512
721	Y9	76+00.00	686610.6462	1767075.2471
722	Y9	77+00.00	686556.1654	1767159.0687
723	Y9	78+00.00	686508.8507	1767247.1342
724	Y9	79+00.00	686469.0305	1767338.8324
725	Y9	80+00.00	686436.8685	1767433.4928
726	Y9	80+52.98	686421.2771	1767484.1301
727	Y9A	10+00.00	692275.1659	1762728.6222
728	Y9A	11+00.00	692298.8600	1762825.7747
729	Y9A	12+00.00	692322.5540	1762922.9271
730	Y9A	13+00.00	692346.2480	1763020.0795
731	Y9A	14+00.00	692370.2619	1763117.1517
732	Y9A	15+00.00	692398.6923	1763213.0101
733	Y9A	16+00.00	692432.7090	1763307.0313
734	Y9A	17+00.00	692472.1943	1763398.8900
735	Y9A	18+00.00	692517.0117	1763488.2685
736	Y9A	19+00.00	692566.9965	1763574.8635
737	Y9A	20+00.00	692619.2137	1763660.1475
738	Y9A	21+00.00	692671.4309	1763745.4315
739	Y9A	22+00.00	692723.6481	1763830.7156
740	Y9A	23+00.00	692775.8653	1763915.9996
741	Y9A	24+00.00	692828.0825	1764001.2836
742	Y9A	25+00.00	692880.2997	1764086.5676
743	Y9A	26+00.00	692932.5169	1764171.8516
744	Y9A	27+00.00	692984.7341	1764257.1357
745	Y9A	28+00.00	693037.0376	1764342.3667
746	Y9A	29+00.00	693090.2254	1764427.0480
747	Y9A	30+00.00	693144.4848	1764511.0466
748	Y9A	31+00.00	693199.8072	1764594.3491
749	Y9A	32+00.00	693256.1836	1764676.9419
750	Y9A	33+00.00	693313.6049	1764758.8117
751	Y9A	34+00.00	693371.7629	1764840.1583
752	Y9A	35+00.00	693423.1000	1764925.9050
753	Y9A	36+00.00	693463.7986	1765017.1827
754	Y9A	37+00.00	693493.2729	1765112.6775
755	Y9A	38+00.00	693513.3951	1765210.6227
756	Y9A	39+00.00	693532.6832	1765308.7449
757	Y9A	40+00.00	693551.9712	1765406.8671
758	Y9A	41+00.00	693571.2592	1765504.9894
759	Y9A	42+00.00	693590.5473	1765603.1116
760	Y9A	43+00.00	693609.8353	1765701.2338
761	Y9A	44+00.00	693629.1233	1765799.3561
762	Y9A	45+00.00	693648.4114	1765897.4783
763	Y9A	45+36.75	693655.4992	1765933.5358
764	Y9B	10+00.00	692838.4111	1764018.1528
765	Y9B	11+00.00	692888.9219	1763933.5212
766	Y9B	12+00.00	692881.0695	1763835.4547
767	Y9B	13+00.00	692860.2347	1763738.3276
768	Y9B	14+00.00	692878.8489	1763640.7526
769	Y9B	15+00.00	692933.9913	1763558.1287
770	Y9B	16+00.00	693016.9560	1763503.5006
771	Y9B	17+00.00	693114.5473	1763483.8427
772	Y9B	18+00.00	693214.0742	1763474.1274
773	Y9B	18+65.53	693279.4509	1763470.1488
774	Y9C	9+00.00	693494.1451	1764294.1433
775	Y9C	10+00.00	693483.7730	1764393.6040
776	Y9C	11+00.00	693473.4009	1764493.0646
777	Y9C	12+00.00	693463.0289	1764592.5253
778	Y9C	13+00.00	693438.8003	1764688.9406
779	Y9C	14+00.00	693379.3718	1764768.5373
780	Y9C	14+47.88	693341.3661	1764797.6132
781	Y9D	10+00.00	693522.3790	1765256.3253
782	Y9D	11+00.00	693619.6563	1765233.1494
783	Y9D	12+00.00	693716.9336	1765209.9736
784	Y9D	13+00.00	693814.2110	1765186.7978
785	Y9D	14+00.00	693911.4883	1765163.6220
786	Y9D	14+75.00	693984.4463	1765146.2401

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
R-2536	ID-3

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CENTERLINE COORDINATE LIST

Point #	Chain	Station	Northing (Y)	Easting (X)
1	Y9FLY	10+00.00	693020.5938	1761091.8605
2	Y9FLY	11+00.00	693098.7757	1761154.1494
3	Y9FLY	12+00.00	693170.6228	1761223.6498
4	Y9FLY	13+00.00	693235.4725	1761299.7209
5	Y9FLY	14+00.00	693292.7271	1761381.6613
6	Y9FLY	15+00.00	693341.8584	1761468.7155
7	Y9FLY	16+00.00	693382.4136	1761560.0806
8	Y9FLY	17+00.00	693414.0186	1761654.9143
9	Y9FLY	18+00.00	693436.3820	1761752.3422
10	Y9FLY	19+00.00	693449.2977	1761851.4659
11	Y9FLY	20+00.00	693452.6464	1761951.3713
12	Y9FLY	21+00.00	693446.3975	1762051.1374
13	Y9FLY	22+00.00	693430.6083	1762149.8441
14	Y9FLY	23+00.00	693405.4247	1762246.5813
15	Y9FLY	24+00.00	693371.0787	1762340.4571
16	Y9FLY	25+00.00	693328.0658	1762430.6978
17	Y9FLY	26+00.00	693278.5916	1762517.5861
18	Y9FLY	27+00.00	693225.5987	1762602.3872
19	Y9FLY	28+00.00	693171.9270	1762686.7631
20	Y9FLY	29+00.00	693119.1501	1762771.7013
21	Y9FLY	30+00.00	693067.3201	1762857.2206
22	Y9FLY	31+00.00	693016.4436	1762943.3105
23	Y9FLY	32+00.00	692966.5267	1763029.9604
24	Y9FLY	33+00.00	692917.5757	1763117.1595
25	Y9FLY	34+00.00	692869.5965	1763204.8972
26	Y9FLY	35+00.00	692822.5951	1763293.1625
27	Y9FLY	36+00.00	692776.5774	1763381.9446
28	Y9FLY	37+00.00	692731.5489	1763471.2326
29	Y9FLY	38+00.00	692687.5153	1763561.0153
30	Y9FLY	39+00.00	692644.4820	1763651.2817
31	Y9FLY	40+00.00	692602.4542	1763742.0207
32	Y9FLY	41+00.00	692561.4373	1763833.2211
33	Y9FLY	42+00.00	692521.4362	1763924.8716
34	Y9FLY	43+00.00	692482.2709	1764016.8827
35	Y9FLY	44+00.00	692443.1868	1764108.9286
36	Y9FLY	45+00.00	692404.1028	1764200.9744
37	Y9FLY	46+00.00	692365.0187	1764293.0203
38	Y9FLY	47+00.00	692325.9347	1764385.0661
39	Y9FLY	48+00.00	692286.8507	1764477.1120
40	Y9FLY	49+00.00	692247.7666	1764569.1578
41	Y9FLY	50+00.00	692208.6826	1764661.2037
42	Y9FLY	51+00.00	692169.5986	1764753.2495
43	Y9FLY	51+15.22	692163.6494	1764767.2604
44	Y9RPB	10+00.00	691463.8440	1760507.7180
45	Y9RPB	11+00.00	691542.3612	1760569.6434
46	Y9RPB	12+00.00	691623.0613	1760628.6775
47	Y9RPB	13+00.00	691707.4938	1760682.2197
48	Y9RPB	14+00.00	691795.5812	1760729.5085
49	Y9RPB	15+00.00	691886.8612	1760770.2956
50	Y9RPB	16+00.00	691980.8546	1760804.3670
51	Y9RPB	17+00.00	692077.0682	1760831.5438
52	Y9RPB	18+00.00	692174.9968	1760851.6834
53	Y9RPB	19+00.00	692274.0939	1760864.9714
54	Y9RPB	20+00.00	692373.6920	1760873.8957
55	Y9RPB	21+00.00	692473.3509	1760882.1376
56	Y9RPB	22+00.00	692572.6187	1760894.0865
57	Y9RPB	23+00.00	692670.5762	1760914.0086
58	Y9RPB	24+00.00	692766.2091	1760943.1093
59	Y9RPB	25+00.00	692858.6569	1760981.1347
60	Y9RPB	26+00.00	692947.0886	1761027.7430
61	Y9RPB	26+97.26	693028.4894	1761080.9102
62	Y9LPB	10+00.00	692736.8043	1761524.2116
63	Y9LPB	11+00.00	692660.2090	1761459.9582
64	Y9LPB	12+00.00	692593.8119	1761385.4477
65	Y9LPB	13+00.00	692551.6274	1761295.3852
66	Y9LPB	14+00.00	692548.9103	1761196.2082
67	Y9LPB	15+00.00	692588.2208	1761105.1140
68	Y9LPB	16+00.00	692662.2439	1761039.0531
69	Y9LPB	17+00.00	692757.2036	1761010.2973
70	Y9LPB	18+00.00	692856.1154	1761020.9091
71	Y9LPB	19+00.00	692947.8394	1761060.1296
72	Y9LPB	19+77.70	693012.9906	1761102.4053
73	Y9RPC	10+00.00	692404.5742	1761379.2090
74	Y9RPC	11+00.00	692478.7620	1761446.2625
75	Y9RPC	12+00.00	692552.7952	1761513.4860
76	Y9RPC	13+00.00	692625.0858	1761582.5696
77	Y9RPC	14+00.00	692693.1722	1761655.7802
78	Y9RPC	15+00.00	692755.5658	1761733.8971
79	Y9RPC	16+00.00	692811.8681	1761816.5123
80	Y9RPC	17+00.00	692861.7562	1761903.1518
81	Y9RPC	18+00.00	692904.9438	1761993.3185
82	Y9RPC	19+00.00	692941.1834	1762086.4953
83	Y9RPC	20+00.00	692970.2668	1762182.1477
84	Y9RPC	21+00.00	692992.0274	1762279.7268
85	Y9RPC	22+00.00	693006.3403	1762378.6731
86	Y9RPC	23+00.00	693013.1234	1762478.4188
87	Y9RPC	24+00.00	693012.3378	1762578.3918
88	Y9RPC	25+00.00	693003.9879	1762678.0186
89	Y9RPC	26+00.00	692988.1218	1762776.7277
90	Y9RPC	27+00.00	692964.8303	1762873.9528
91	Y9RPC	28+00.00	692934.2471	1762969.1362
92	Y9RPC	29+00.00	692896.5562	1763061.7358
93	Y9RPC	30+00.00	692852.9556	1763151.7186
94	Y9RPC	30+94.70	692808.9282	1763235.5604
95	Y9RPD	10+00.00	694256.8206	1763823.8273
96	Y9RPD	11+00.00	694206.7716	1763737.2547
97	Y9RPD	12+00.00	694153.7321	1763652.4932
98	Y9RPD	13+00.00	694095.1488	1763571.4803
99	Y9RPD	14+00.00	694030.5167	1763495.2060
100	Y9RPD	15+00.00	693960.2143	1763424.1240
101	Y9RPD	16+00.00	693884.6574	1763358.6548
102	Y9RPD	17+00.00	693803.6576	1763300.1075
103	Y9RPD	18+00.00	693715.8456	1763252.4152
104	Y9RPD	19+00.00	693622.5230	1763216.6884
105	Y9RPD	20+00.00	693525.3117	1763193.5481
106	Y9RPD	21+00.00	693425.9012	1763183.3964
107	Y9RPD	22+00.00	693326.0192	1763186.4098
108	Y9RPD	23+00.00	693227.4015	1763202.5358
109	Y9RPD	24+00.00	693131.7620	1763231.4942
110	Y9RPD	25+00.00	693040.7628	1763272.7818
111	Y9RPD	26+00.00	692955.9856	1763325.6810
112	Y9RPD	27+00.00	692878.9036	1763389.2724
113	Y9RPD	28+00.00	692810.8565	1763462.4509
114	Y9RPD	29+00.00	692752.9769	1763543.9131
115	Y9RPD	30+00.00	692703.8771	1763631.0026
116	Y9RPD	31+00.00	692658.4367	1763720.0814
117	Y9RPD	31+68.15	692627.6288	1763780.8734
118	Y9R	10+00.00	686308.9925	1767479.7859
119	Y9R	11+00.00	686226.3843	1767423.5513
120	Y9R	12+00.00	686135.1085	1767383.1107
121	Y9R	13+00.00	686037.8249	1767360.3623
122	Y9R	14+00.00	685939.5906	1767341.6534
123	Y9R	14+13.65	685926.1817	1767339.0997
124	Y9RAB	10+00.00	686407.3420	1767495.5236
125	Y9RAB	11+00.00	686390.6360	1767581.5770
126	Y9RAB	12+00.00	686309.0765	1767549.4430
127	Y9RAB	13+00.00	686355.5522	1767475.1175
128	Y9RAB	13+58.15	686407.3419	1767495.5236
129	Y10	10+00.00	691731.8702	1765568.1499
130	Y10	11+00.00	691812.1197	1765627.8158
131	Y10	12+00.00	691892.3698	1765687.4809
132	Y10	13+00.00	691973.3188	1765746.1866
133	Y10	14+00.00	692057.5479	1765800.0325
134	Y10	15+00.00	692146.7160	1765845.1947
135	Y10	16+00.00	692240.1754	1765880.6335
136	Y10	17+00.00	692336.8694	1765905.9482
137	Y10	18+00.00	692435.7048	1765920.8526
138	Y10	19+00.00	692535.5640	1765925.1781
139	Y10	20+00.00	692635.3180	1765918.8759
140	Y10	21+00.00	692734.0041	1765902.8854
141	Y10	22+00.00	692831.7225	1765881.6607
142	Y10	23+00.00	692929.2514	1765859.5673
143	Y10	24+00.00	693026.7803	1765837.4740
144	Y10	25+00.00	693124.3092	1765815.3806
145	Y10	26+00.00	693221.8381	1765793.2872
146	Y10	27+00.00	693319.3669	1765771.1939
147	Y10	27+93.00	693410.0687	1765750.6470
148	Y10_END	10+00.00	694471.3528	1765504.4048
149	Y10_END	11+00.00	694568.7764	1765481.8517
150	Y10_END	12+00.00	694666.2000	1765459.2986
151	Y10_END	13+00.00	694763.6236	1765436.7455
152	Y10_END	14+00.00	694861.0472	1765414.1924
153	Y10_END	15+00.00	694958.4432	1765391.5214
154	Y10_END	16+00.00	695055.1663	1765366.1771
155	Y10_END	17+00.00	695149.6444	1765333.5287
156	Y10_END	18+00.00	695240.3411	1765291.5117
157	Y10_END	19+00.00	695326.2861	1765240.4746
158	Y10_END	20+00.00	695406.5926	1765180.9574
159	Y10_END	21+00.00	695481.5049	1765114.7406
160	Y10_END	22+00.00	695553.7977	1765045.6496
161	Y10_END	23+00.00	695625.8327	1764976.2885
162	Y10_END	24+00.00	695697.8677	1764906.9274
163	Y10_END	24+89.81	695762.5634	1764844.6331
164	Y10A	10+00.00	692382.3981	1765914.1509
165	Y10A	11+00.00	692366.9813	1766012.9554
166	Y10A	12+00.00	692345.1273	1766110.4639
167	Y10A	13+00.00	692310.6367	1766204.2503
168	Y10A	14+00.00	692266.8637	1766294.1535
169	Y10A	15+00.00	692222.5115	1766383.7798
170	Y10A	15+31.92	692208.3523	1766412.3926
171	NC159_SPUR	10+00.00	686298.5143	1767569.5364
172	NC159_SPUR	11+00.00	686239.6809	1767650.3983
173	NC159_SPUR	12+00.00	686180.8476	1767731.2601
174	NC159_SPUR	13+00.00	686122.0299	1767812.1333
175	NC159_SPUR	14+00.00	686072.4056	1767898.7597
176	NC159_SPUR	15+00.00	686040.7923	1767993.4724
177	NC159_SPUR	16+00.00	686016.2402	1768090.4115
178	NC159_SPUR	17+00.00	685991.6880	1768187.3507
179	NC159_SPUR	18+00.00	685967.1359	1768284.2898
180	NC159_SPUR	19+00.00	685942.5838	1768381.2289
181	NC159_SPUR	19+71.38	685925.0580	1768450.4259
182	Y5_DR1	10+00.00	690983.3424	1751612.9321
183	Y5_DR1	11+00.00	690899.0124	1751564.4553
184	Y5_DR1	12+00.00	690857.5690	1751473.8620
185	Y5_DR1	12+72.35	690797.5743	1751436.1840
186	Y7_DR1	10+00.00	690053.9685	1757583.0292
187	Y7_DR1	11+00.00	690007.3416	1757669.6265
188	Y7_DR1	11+33.91	689987.8086	1757697.3453
189	Y7_DR2	10+00.00	690083.2655	1757587.4574
190	Y7_DR2	11+00.00	690041.1030	1757676.6996
191	Y7_DR2	11+42.36	690019.0103	1757712.8428
192	Y7_DR3	10+00.00	690549.9858	1757658.0027
193	Y7_DR3	11+00.00	690529.3482	1757755.5428
194	Y7_DR3	11+74.56	690500.8841	1757824.4525
195	Y9A_DR1	10+00.00	692597.9423	1763356.5079
196	Y9A_DR1	11+00.00	692550.3231	1763438.2248
197	Y9A_DR1	11+52.82	692503.3998	1763462.4779
198	Y9A_DR2	10+00.00	692469.0056	1763391.9944
199	Y9A_DR2	11+00.00	692389.3692	1763452.4013
200	Y9A_DR2	11+32.92	692364.6935	1763474.1946
201	Y9B_DR1	10+00.00	692997.1596	1763646.9705
202	Y9B_DR1	11+00.00	692898.4396	1763631.0221
203	Y9B_DR1	11+14.47	692884.1505	1763628.7136
204	SERRD3	10+00.00	692901.6860	1751290.0020
205	SERRD3	11+00.00	692925.8161	1751387.0410
206	SERRD3	12+00.00	692961.2592	1751480.4275
207	SERRD3	13+00.00	693011.5847	1751566.7095
208	SERRD3	14+00.00	693075.4211	1751643.5352
209	SERRD3	15+00.00	693149.7490	1751710.3636
210	SERRD3	16+00.00	693230.1776	1751769.7254
211	SERRD3	17+00.00	693315.8404	1751821.2469
212	SERRD3	18+00.00	693405.9757	1751864.4698
213	SERRD3	19+00.00	693499.7817	1751899.0099
214	SERRD3	20+00.00	693596.4243	1751924.5598
215	SERRD3	21+00.00	693695.0439	1751940.8925
216	SERRD3	22+00.00	693794.7635	1751947.8625
217	SERRD3	23+00.00	693894.6963	1751945.4080
218	SERRD3	24+00.00	693993.9535	1751933.5508
219	SERRD3	25+00.00	694091.7972	1751912.9940
220	SERRD3	26+00.00	694189.2466	1751890.5528
221	SERRD3	27+00.00	694286.6961	1751868.1115
222	SERRD3	28+00.00	694384.1455	1751845.6703
223	SERRD3	29+00.00	694481.5949	1751823.2291
224	SERRD3	30+00.00	694579.0443	1751800.7878
225	SERRD3	31+00.00	694676.4938	1751778.3466
226	SERRD3	32+00.00	694773.9432	1751755.9053
227	SERRD3	33+00.00	694871.3926	1751733.4641
228	SERRD3	34+00.00	694968.8420	1751711.0228
229	SERRD3	35+00.00	695066.2915	1751688.5816
230	SERRD3	36+00.00	695163.7409	1751666.1403
231	SERRD3	37+00.00	695261.1903	1751643.6991
232	SERRD3	38+00.00	695358.6397	1751621.2578
233	SERRD3	39+00.00	695456.0892	1751598.8166
234	SERRD3	40+00.00	695553.5386	1751576.3753
235	SERRD3	41+00.00	695650.9880	1751553.9341
236	SERRD3	42+00.00	695748.4374	1751531.4929
237	SERRD3	43+00.00	695845.3463	1751506.9953
238	SERRD3	44+00.00	695936.5611	1751466.4174
239	SERRD3	45+00.00	696018.0787	1751408.7453
240	SERRD3	46+00.00	696095.5318	1751345.4916
241	SERRD3	46+40.56	696126.9435	1751319.8386
242	SERRD3_DR1	10+00.00	693937.4771	1751941.4614
243	SERRD3_DR1	11+00.00	693928.7235	1751841.9436
244	SERRD3_DR1	12+00.00	693951.4810	1751744.8909
245	SERRD3_DR1	12+13.93	693955.4785	1751731.5482
246	SERRD5	9+00.00	690583.1400	1758731.3078
247	SERRD5	10+00.00	690624.0352	1758822.5633
248	SERRD5	11+00.00	690665.8947	1758913.3600
249	SERRD5	12+00.00	690722.3508	1758995.6498
250	SERRD5	13+00.00	690795.5552	1759063.4734
251	SERRD5	14+00.00	690881.9076	1759113.4951
252	SERRD5	15+00.00	690977.1614	1759143.2548
253	SERRD5	16+00.00	691076.6318	1759151.2891
254	SERRD5	17+00.00	691176.4489	1759145.2800
255	SERRD5	17+68.82	691245.1314	1759140.9874
256	Y3_DET	10+00.00	693940.9882	1746707.2779
257	Y3_DET	11+00.00	694036.8937	1746735.3184
258	Y3_DET	12+00.00	694125.2325	1746781.7422
259	Y3_DET	13+00.00	694204.1673	1746843.0705
260	Y3_DET	14+00.00	694288.4852	1746896.6841
261	Y3_DET	15+00.00	694379.4136	1746938.1083
262	Y3_DET	16+00.00	694475.2012	1746966.5452
263	Y3_DET	17+00.00	694574.0034	1746981.4471
264	Y3_DET	18+00.00	694673.9227	1746984.6231
265	Y3_DET	19+00.00	694772.4719	1747000.5846
266	Y3_DET	20+00.00	694865.8856	1747035.8067
267	Y3_DET	21+00.00	694951.9166	1747086.6885
268	Y3_DET	22+00.00	695036.7662	1747139.6087
269	Y3_DET	22+10.98	695046.0786	1747145.4167
270	Y6_DET	10+00.00	691130.4935	1755001.7190
271	Y6_DET	11+00.00	691224.0449	1755036.9197
272	Y6_DET	12+00.00	691313.4291	1755081.6569
273	Y6_DET	13+00.00	691397.6772	1755135.4457
274	Y6_DET	14+00.00	691480.4315	1755191.5237
275	Y6_DET	15+00.00	691568.2795	1755239.2141
276	Y6_DET	16+00.00	691660.4499	1755277.8962
277	Y6_DET	17+00.00	691756.0215	1755307.1833
278	Y6_DET	18+00.00	691854.0395	1755326.7829
279	Y6_DET	19+00.00	691953.5245	1755336.4991
280	Y6_DET	20+00.00	692053.5022	1755337.8649
281	Y6_DET	21+00.00	692153.1290	1755345.9556
282	Y6_DET	22+00.00	692251.3746	1755364.3615
283	Y6_DET	22+70.54	692319.2707	1755383.4468

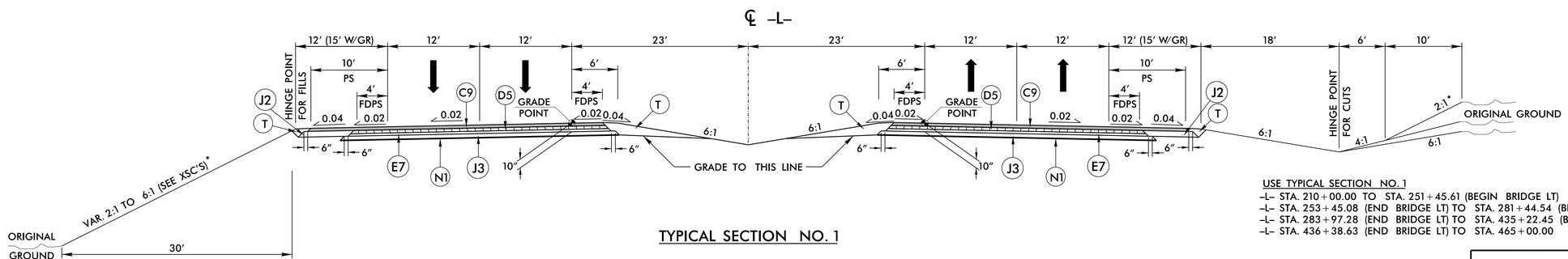
Point #	Chain	Station	Northing (Y)	Easting (X)

6/2/99

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	D6	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	J4	PROP. 10" AGGREGATE BASE COURSE.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E1	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J5	VARIABLE DEPTH ABC.
C3	PROP. APPROX. 2½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E2	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	N1	GEOTEXTILE FOR SUBGRADE STABILIZATION, TYPE 4 (SEE NOTE 2)
C4	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 ½" IN DEPTH.	E3	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.	P	PRIME COAT.
C5	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B,AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E4	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.	R1	1'-6" CONCRETE CURB AND GUTTER.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E5	PROP. APPROX. 5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.	R2	2'-6" CONCRETE CURB AND GUTTER.
C7	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.	E6	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	R4	5" MONOLITHIC CONCRETE ISLAND (KEYED-IN).
C8	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E7	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R5	EXPRESSWAY GUTTER.
C9	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E8	PROP. APPROX. 7.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.C, AT AN AVERAGE RATE OF 427.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R6	DOUBLE FACED CONCRETE BARRIER TYPE T
C10	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.	E9	PROP. APPROX. 8.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.C, AT AN AVERAGE RATE OF 484.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R7	DOUBLE FACED CONCRETE BARRIER TYPE T1
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	E10	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	R8	SHOULDER BERM GUTTER
D2	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	G	PROP. 8.0" CEMENT TREATED BASE COURSE.	S	SPLIT SEAL
D3	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	J1	PROP. 6" AGGREGATE BASE COURSE.	T	EARTH MATERIAL.
D4	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	J2	PROP. 7" AGGREGATE BASE COURSE.	U	EXISTING PAVEMENT.
D5	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J3	PROP. 8" AGGREGATE BASE COURSE.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAILS).

NOTES: 1) PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
2) TYPE 5 GEOTEXTILE SHALL REPLACE TYPE 4 GEOTEXTILE FOR ALL EMBANKMENTS THAT ARE OVER TEN FEET IN HEIGHT (AS MEASURED VERTICALLY FROM THE TOE OF THE EMBANKMENT TO THE ELEVATION OF THE OUTER EDGE OF PAVEMENT) AND 200 FEET IN LENGTH.



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
–L– STA. 210+00.00 TO STA. 251+45.61 (BEGIN BRIDGE LT)
–L– STA. 253+45.08 (END BRIDGE LT) TO STA. 281+44.54 (BEGIN BRIDGE LT)
–L– STA. 283+97.28 (END BRIDGE LT) TO STA. 435+22.45 (BEGIN BRIDGE LT)
–L– STA. 436+38.63 (END BRIDGE LT) TO STA. 465+00.00

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

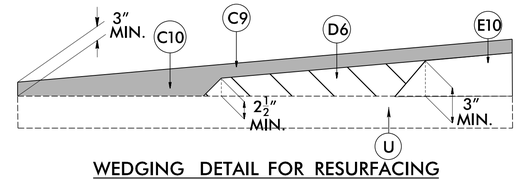
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-1

ROADWAY DESIGN ENGINEER

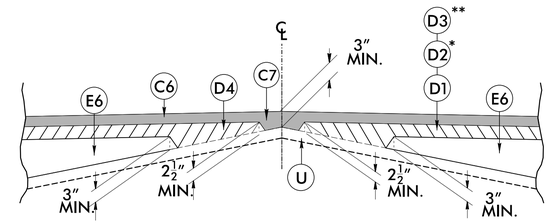
PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



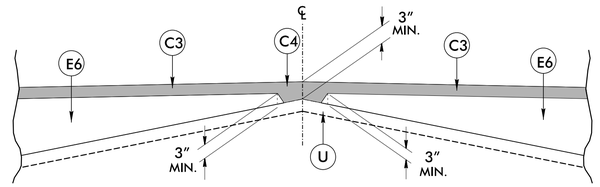
WEDGING DETAIL FOR RESURFACING

FOR –L–



DETAIL SHOWING METHOD OF WEDGING

FOR –Y3–, –Y5–, –Y5A–, –Y6–**, –Y9A–, –Y9R–*, –Y10–, –Y10_END–, –NC159_SPUR–*



DETAIL SHOWING METHOD OF WEDGING

FOR –Y7–, –Y8–, –Y10A–,–SERRD5–

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

3/22/2016
R:\Roadway\Proj\Plan Sheets\Sec2\R2536_Rdy_typ_SEC2.dgn
Eakins

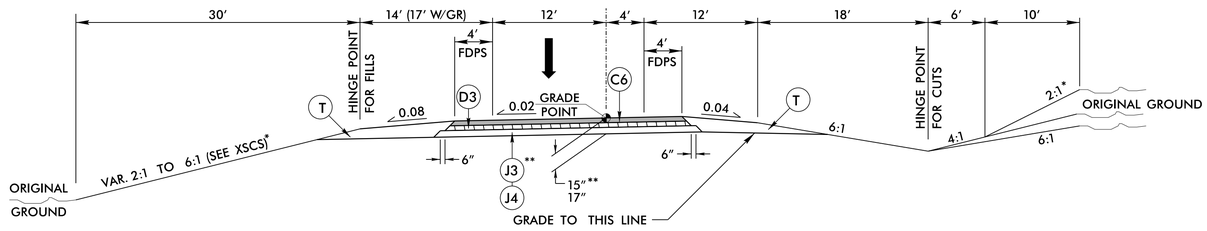
PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
D3	4″ TYPE I19.0B
J3	8″ ABC
J4	10″ ABC
R2	2′-6″ C&G
T	EARTH MATERIAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

℄ –Y4RPB–, –Y9RPB–, –Y9RPD–



TYPICAL SECTION NO. 2

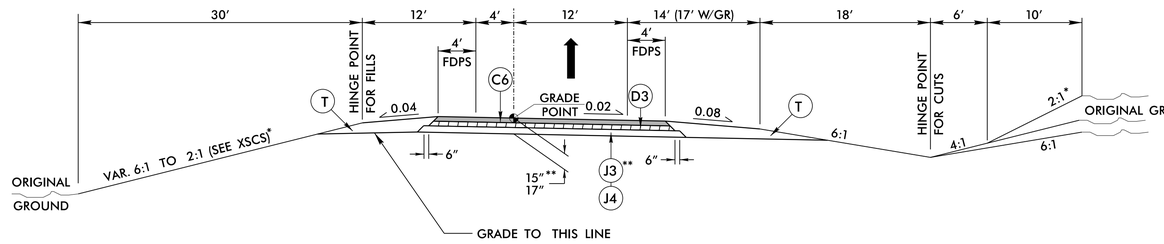
USE TYPICAL SECTION NO. 2
** –Y9RPB– STA. 10+00.00 TO 26+97.26
–Y4RPB– STA. 10+00.00 TO 37+70.58
** –Y9RPD– STA. 10+00.00 TO 31+68.15

NOTES:
USE –L– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y4RPB– STA. 10+00.00 TO 14+25.09
–Y9RPB– STA. 10+00.00 TO 13+81.57
–Y9RPD– STA. 10+00.00 TO 13+81.59

USE –Y4_CD– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y4RPB– STA. 32+56.57 TO 37+70.58

USE –Y9FLY– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y9RPD– STA. 27+67.38 TO 31+68.15

℄ –Y4RPA–, –Y4RPC–, Y4RPD–, –Y9RPC–



TYPICAL SECTION NO. 3

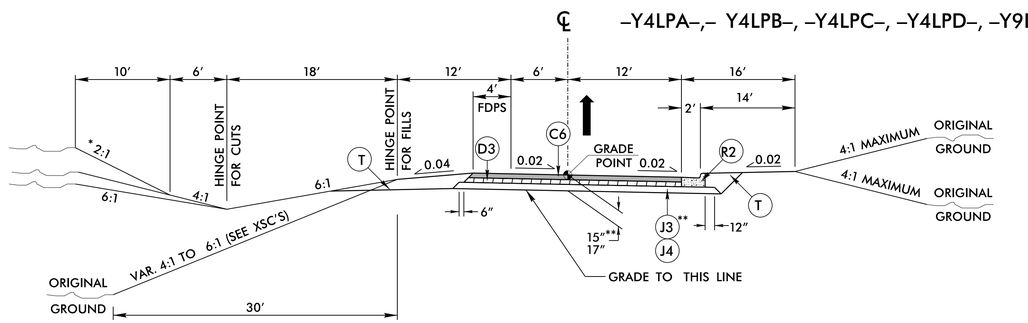
USE TYPICAL SECTION NO. 3
–Y4RPA– STA. 10+00.00 TO 37+03.07
–Y4RPC– STA. 10+00.00 TO 36+14.45
–Y4RPD– STA. 10+00.00 TO 34+07.73
** –Y9RPC– STA. 10+00.00 TO 30+94.70

NOTES:
USE –L– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y4RPA– STA. 10+00.00 TO 14+85.61
–Y4RPC– STA. 10+00.00 TO 14+69.89
–Y4RPD– STA. 29+47.00 TO 34+07.73
–Y9RPC– STA. 10+00.00 TO 14+09.32

USE –Y4_CD– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y4RPA– STA. 33+70.53 TO 37+03.07
–Y4RPC– STA. 33+14.68 TO 36+14.45
–Y4RPD– STA. 10+00.00 TO 12+89.05

USE –Y9FLY– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y9RPC– STA. 27+74.53 TO 30+94.70

℄ –Y4LPA–,– Y4LPB–, –Y4LPC–, –Y4LPD–, –Y9LPB–



TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4
–Y4LPA– STA. 10+00.00 TO 24+44.50
–Y4LPB– STA. 10+00.00 TO 23+23.20
–Y4LPC– STA. 10+00.00 TO 24+44.50
–Y4LPD– STA. 10+00.00 TO 23+23.20
** –Y9LPB– STA. 10+00.00 TO 19+77.70

NOTES:
USE –L– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y4LPA– STA. 22+08.96 TO 24+44.50
–Y4LPB– STA. 10+00.00 TO 12+62.99
–Y4LPC– STA. 22+08.96 TO 24+44.50
–Y4LPD– STA. 10+00.00 TO 12+60.00
–Y9LPB– STA. 10+00.00 TO 12+62.99

USE –Y4_CD– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y4LPA– STA. 10+00.00 TO 12+53.19
–Y4LPB– STA. 21+03.49 TO 23+23.20
–Y4LPC– STA. 10+00.00 TO 12+53.19
–Y4LPD– STA. 21+04.10 TO 23+23.20

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C6	3" TYPE S9.5B
C9	3" TYPE S9.5C
D1	2.5" TYPE I19.0B
D5	3" TYPE I19.0C
E2	4" TYPE B25.0B
E7	4" TYPE B25.0C
J3	8" ABC
P	PRIME COAT
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

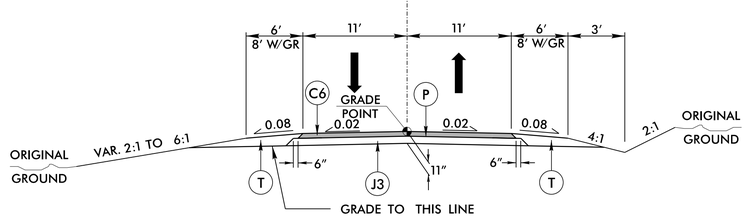
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-3

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

℄ –Y3_DET–

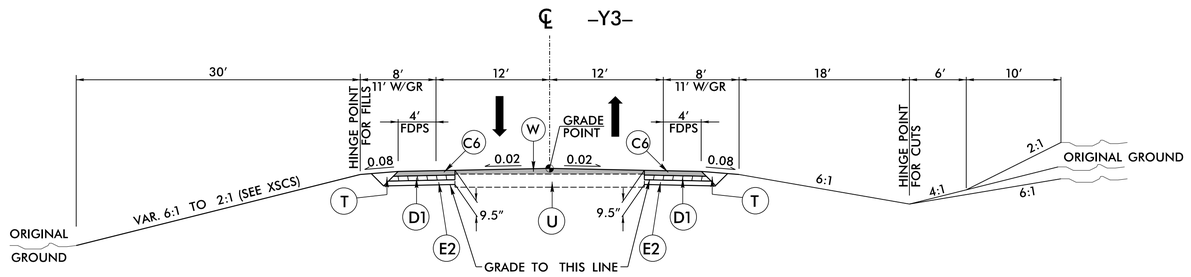


TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5
–Y3DET– STA 11+51.91 TO STA 19+37.09

NOTE: WIDEN OFF EXISTING MACK RD. AT THE FOLLOWING LOCATIONS:
–Y3DET– STA. 10+80.36 TO –Y3DET– STA. 11+51.91
–Y3DET– STA. 19+37.09 TO –Y3DET– STA. 20+16.91

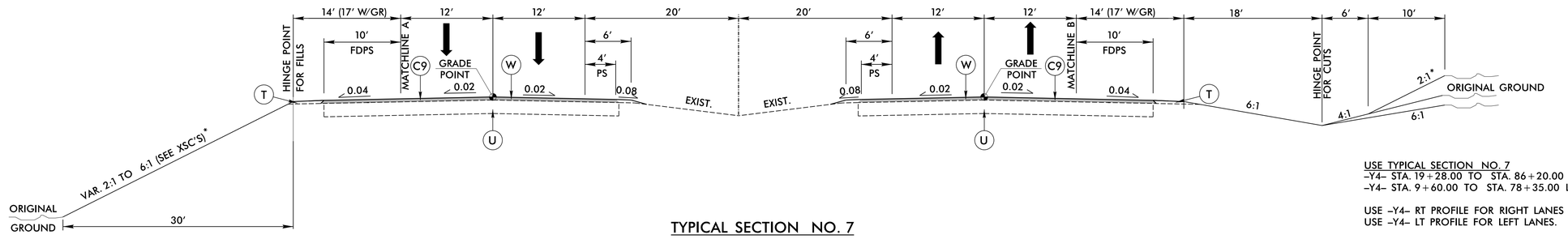
℄ –Y3–



TYPICAL SECTION NO. 6

USE TYPICAL SECTION NO. 6
–Y3– STA. 10+00.00 TO 13+00.91 (BEGIN BRIDGE)
–Y3– STA. 15+39.68 (END BRIDGE) TO 20+70.00

℄ –Y4–

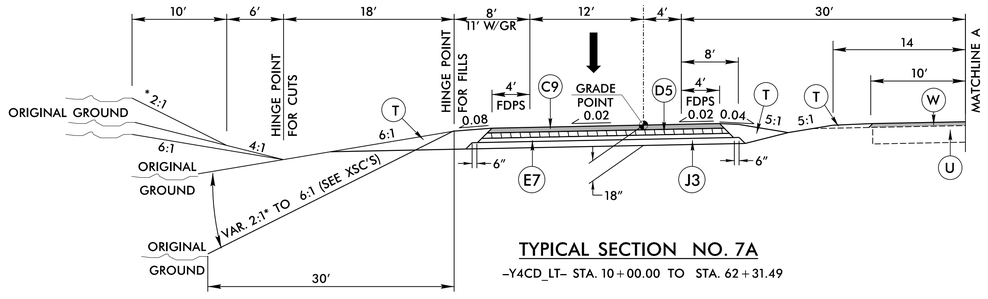


TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7
–Y4– STA. 19+28.00 TO STA. 86+20.00 RT
–Y4– STA. 9+60.00 TO STA. 78+35.00 LT

USE –Y4– RT PROFILE FOR RIGHT LANES &
USE –Y4– LT PROFILE FOR LEFT LANES.

℄ –Y4CD_LT–

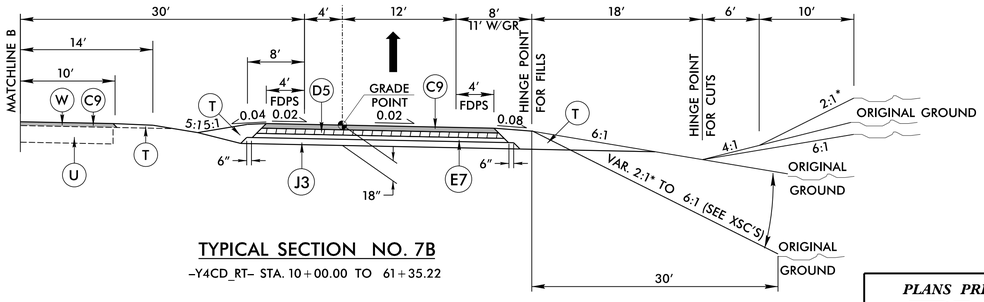


TYPICAL SECTION NO. 7A

–Y4CD_LT– STA. 10+00.00 TO STA. 62+31.49

NOTES:
USE –Y4– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y4CD_LT– STA. 10+00.00 TO 18+59.52
–Y4CD_LT– STA. 54+79.74 TO 62+31.49

℄ –Y4CD_RT–



TYPICAL SECTION NO. 7B

–Y4CD_RT– STA. 10+00.00 TO 61+35.22

NOTES:
USE –Y4– PAVEMENT DESIGN AT THE FOLLOWING LOCATIONS:
–Y4CD_RT– STA. 10+00.00 TO 18+59.52
–Y4CD_RT– STA. 52+27.89 TO 61+35.22

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C5	1.5″ TYPE S9.5B
C6	3″ TYPE S9.5B
D1	2.5″ TYPE I19.0B
D3	4″ TYPE I19.0B
E2	4″ TYPE B25.0B
E3	4.5″ TYPE B25.0B
J3	8″ ABC
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

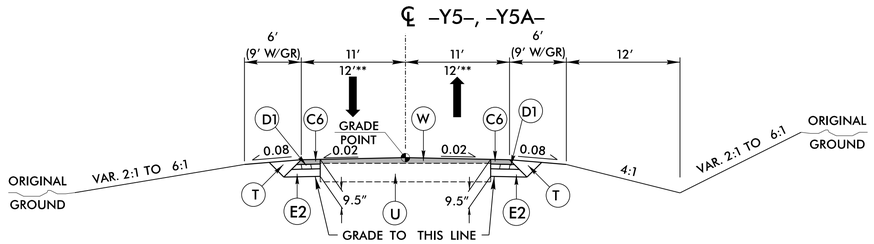
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-4

ROADWAY DESIGN ENGINEER

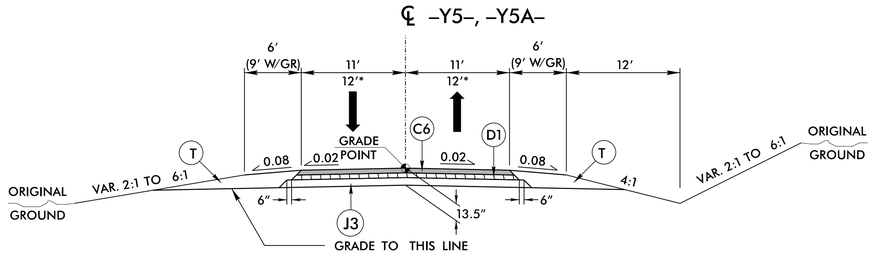
PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



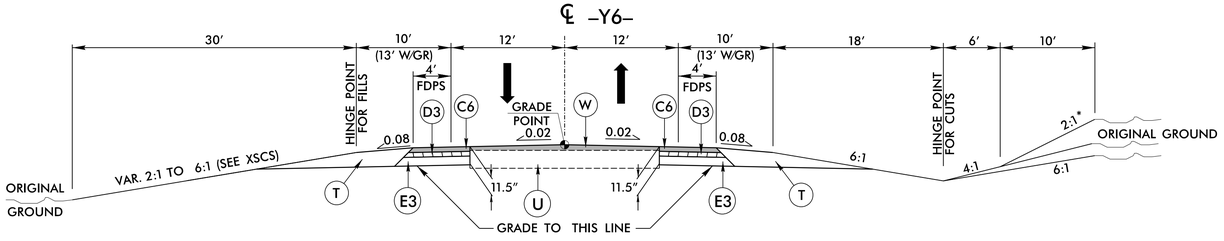
TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8
–Y5– STA. 10+50.00 TO 14+33.91
**–Y5A– STA. 11+80.00 TO 14+75.00



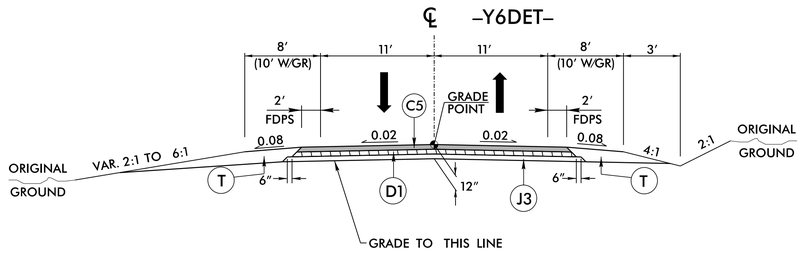
TYPICAL SECTION NO. 9

USE TYPICAL SECTION NO. 9
–Y5– STA. 14+33.91 TO 29+68.46 (BEG BRIDGE)
–Y5– STA. 32+10.13 (END BRIDGE) TO 54+44.37
* –Y5A– STA. 10+12.13 TO 11+80.00



TYPICAL SECTION NO. 10

USE TYPICAL SECTION NO. 10
–Y6– STA. 13+50.00 TO 21+92.80 (BEGIN BRIDGE)
–Y6– STA. 24+43.80 (END BRIDGE) TO 29+00.00



TYPICAL SECTION NO. 11

USE TYPICAL SECTION NO. 11
–Y6DET– STA. 11+54.21 TO 21+12.08

NOTE: WIDEN OFF EXISTING US 220 BUSINESS AT THE FOLLOWING LOCATIONS:
–Y6DET– STA. 10+49.00 TO –Y6DET– STA. 11+54.21
–Y6DET– STA. 21+12.08 TO –Y6DET– STA. 22+17.54

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C3	2½" TYPE S9.5A
E2	4" TYPE B25.0B
E5	5½" TYPE B25.0B
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

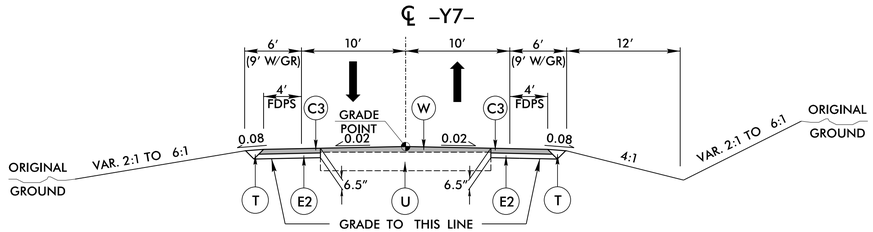
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-5

ROADWAY DESIGN ENGINEER

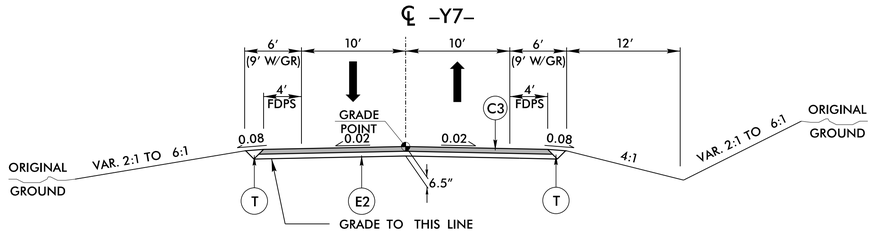
PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



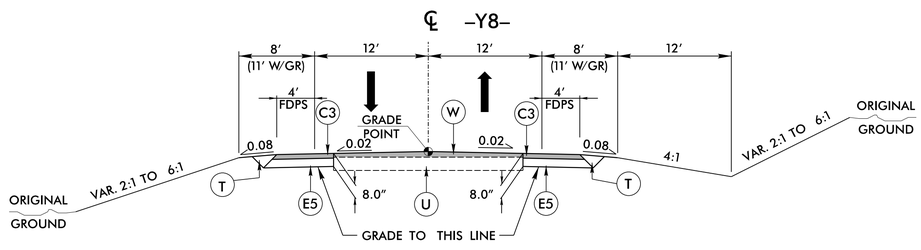
TYPICAL SECTION NO. 12

USE TYPICAL SECTION NO. 12
–Y7– STA. 11+50.00 TO 13+28.27
–Y7– STA. 20+75.99 TO 24+40.00



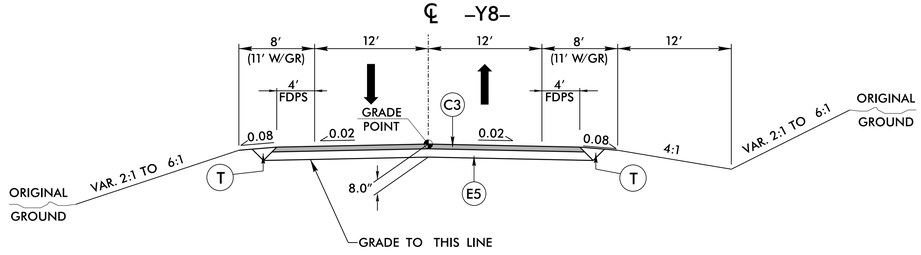
TYPICAL SECTION NO. 13

USE TYPICAL SECTION NO. 13
–Y7– STA. 13+28.27 TO 17+03.48 (BEGIN BRIDGE)
–Y7– STA. 19+05.55 (END BRIDGE) TO 20+75.99



TYPICAL SECTION NO. 14

USE TYPICAL SECTION NO. 14
–Y8– STA. 10+00.00 TO 13+06.30
–Y8– STA. 25+66.41 TO 29+60.00



TYPICAL SECTION NO. 15

USE TYPICAL SECTION NO. 15
–Y8– STA. 13+06.30 TO 17+62.89 (BEGIN BRIDGE)
–Y8– STA. 19+69.91 (END BRIDGE) TO 25+66.41

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.

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900 RIDGEFIELD DRIVE SUITE 350
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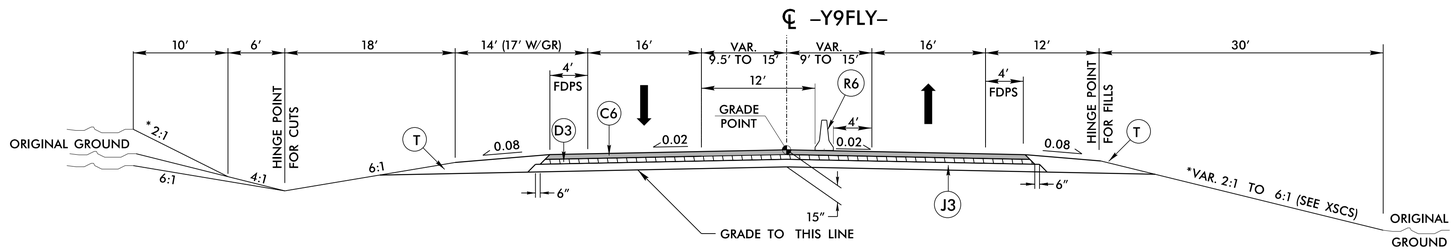
NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
D2	3″ TYPE I19.0B
D3	4″ TYPE I19.0B
E2	4″ TYPE B25.0B
J3	8″ ABC
R6	TYPE T BARRIER
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

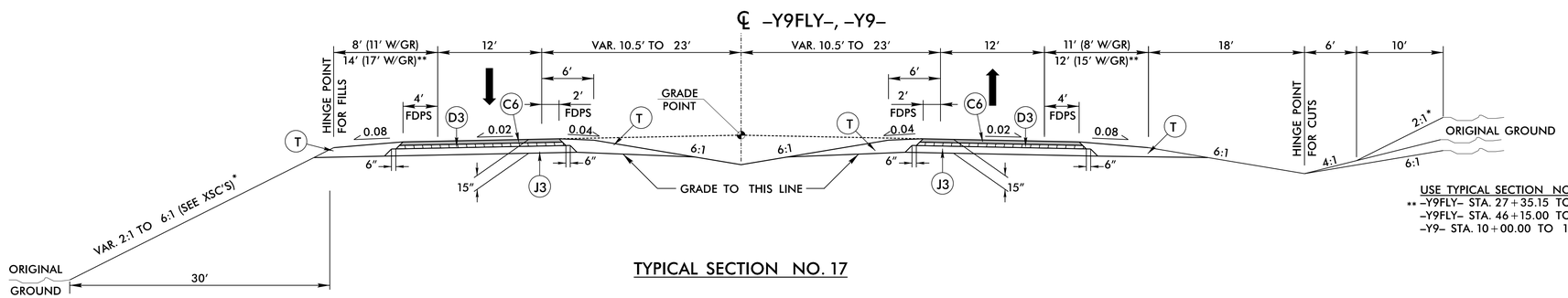
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



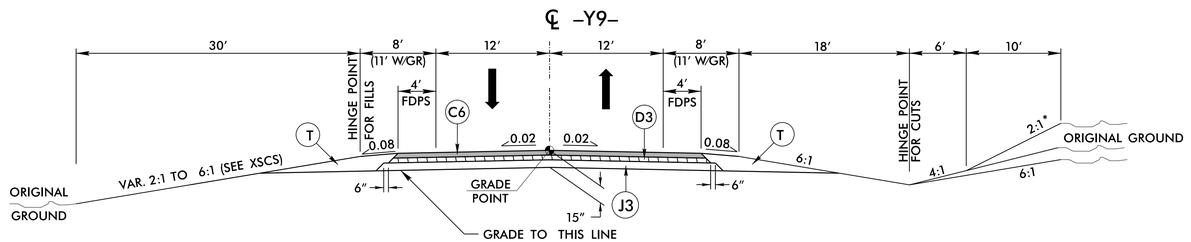
TYPICAL SECTION NO. 16

USE TYPICAL SECTION NO. 16
–Y9FLY– STA. 10+00.00 TO 22+28.44 (BEGIN BRIDGE)
–Y9FLY– STA. 23+99.78 (END BRIDGE) TO 27+35.15



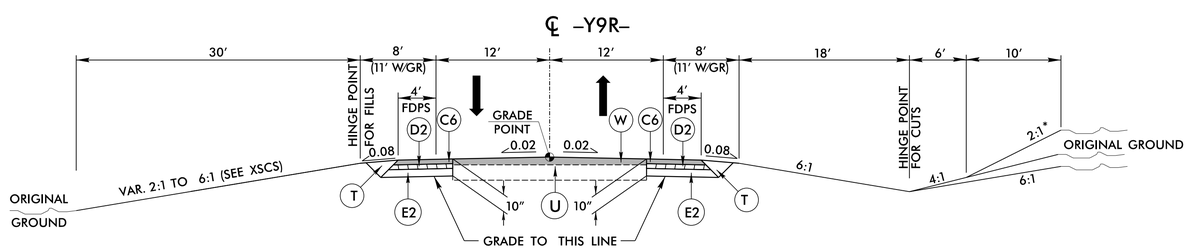
TYPICAL SECTION NO. 17

USE TYPICAL SECTION NO. 17
** –Y9FLY– STA. 27+35.15 TO 46+15.00
–Y9FLY– STA. 46+15.00 TO 51+15.22
–Y9– STA. 10+00.00 TO 12+53.28



TYPICAL SECTION NO. 18

USE TYPICAL SECTION NO. 18
–Y9– STA. 12+53.28 TO 80+52.98



TYPICAL SECTION NO. 19

USE TYPICAL SECTION NO. 19
–Y9R– STA. 10+00.00 TO 13+00.00

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
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RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C3	2.5" TYPE SF9.5A
C6	3" TYPE S9.5B
D1	2½" TYPE I19.0B
E2	4" TYPE B25.0B
J3	8" ABC
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

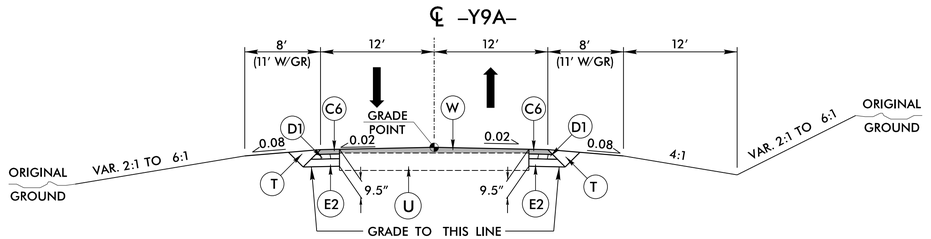
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-7

ROADWAY DESIGN ENGINEER

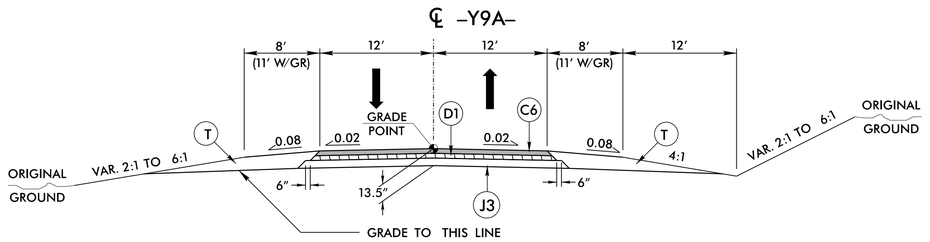
PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



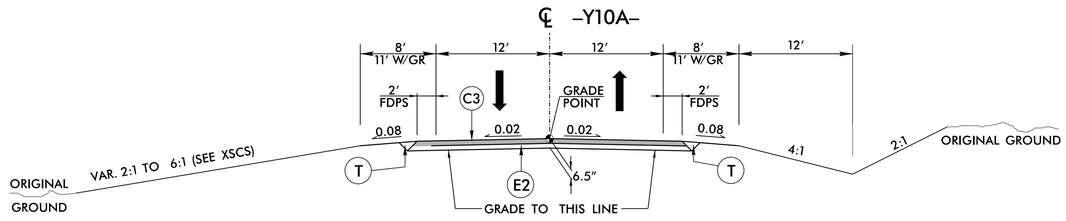
TYPICAL SECTION NO. 20

USE TYPICAL SECTION NO. 20
–Y9A– STA. 13+60.00 TO 16+76.86



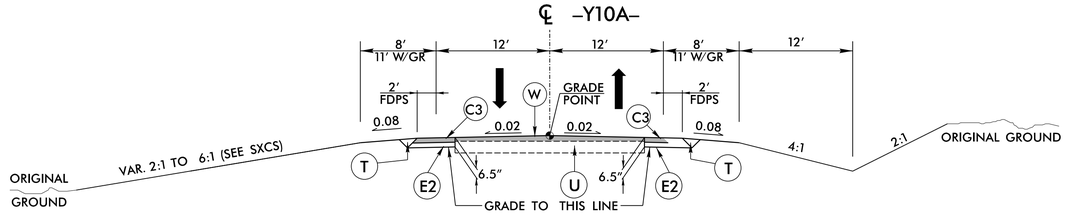
TYPICAL SECTION NO. 21

USE TYPICAL SECTION NO. 21
–Y9A– STA. 16+76.86 TO STA. 19+37.88 (BEGIN BRIDGE)
–Y9A– STA. 21+10.51 (END BRIDGE) TO 42+91.51



TYPICAL SECTION NO. 22

USE TYPICAL SECTION NO. 22
–Y10A– STA. 10+12.00 TO 11+97.71



TYPICAL SECTION NO. 23

USE TYPICAL SECTION NO. 23
–Y10A– STA. 11+97.71 TO STA. 15+30.00

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.

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NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
D1	2½″ TYPE I19.0B
D2	3″ TYPE I19.0B
E2	4″ TYPE B25.0B
J3	8″ ABC
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

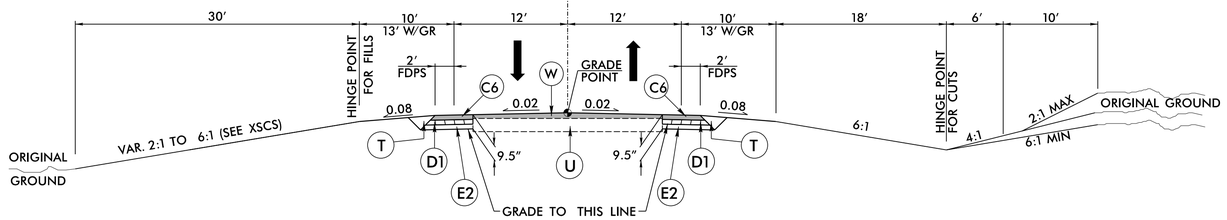
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-8

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

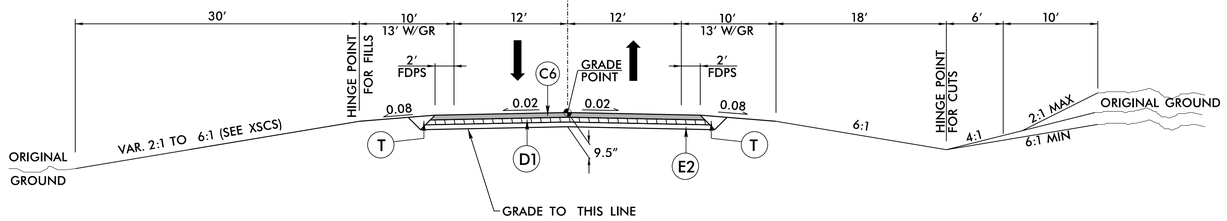
℄ –Y10–, –Y10_END–



TYPICAL SECTION NO. 24

USE TYPICAL SECTION NO. 24
–Y10– STA. 19+54.37 TO 23+50.00
–Y10_END– STA. 14+20.00 TO 22+20.00

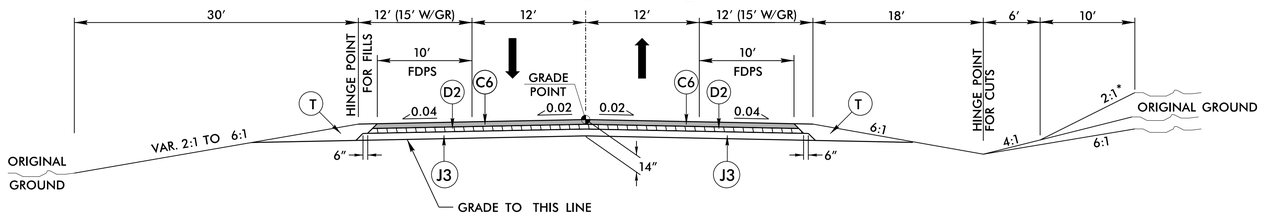
℄ –Y10–



TYPICAL SECTION NO. 25

USE TYPICAL SECTION NO. 25
–Y10– STA. 10+21.00 TO 19+54.37

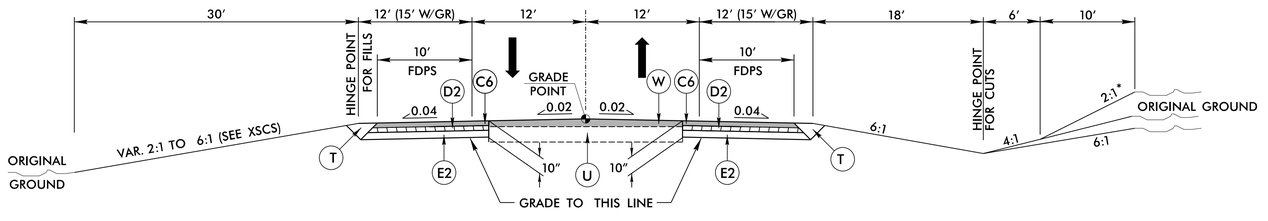
℄ –NC159_SPUR–



TYPICAL SECTION NO. 26

USE TYPICAL SECTION NO. 26
–NC159_SPUR– STA. 10+00.00 TO STA. 12+70.44

℄ –NC159_SPUR–



TYPICAL SECTION NO. 27

USE TYPICAL SECTION NO. 27
–NC159_SPUR– STA. 12+70.44 TO 15+75.00

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

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RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609–3960
NC LICENSE NO. F–0112 • (919) 878–9560

PAVEMENT SCHEDULE	
C3	2.5″ TYPE SF9.5A
E2	4″ TYPE B25.0B
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

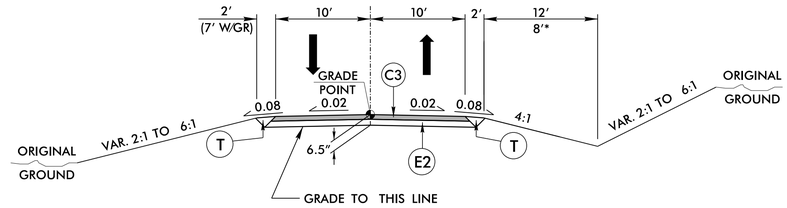
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-9

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

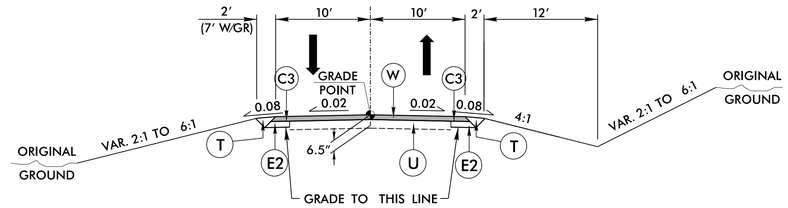
℄ –SERRD5–, –Y9B–, –Y9C–



TYPICAL SECTION NO. 28

USE TYPICAL SECTION NO. 28
* –SERRD5– STA. 11+36.20 TO 17+59.98
–Y9B– STA. 10+12.41 TO 16+80.00
–Y9C– STA. 11+30.00 TO 14+35.88

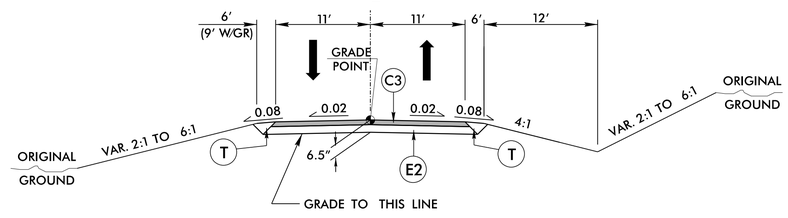
℄ –SERRD5–



TYPICAL SECTION NO. 29

USE TYPICAL SECTION NO. 29
–SERRD5– STA. 10+00.00 TO 11+36.70

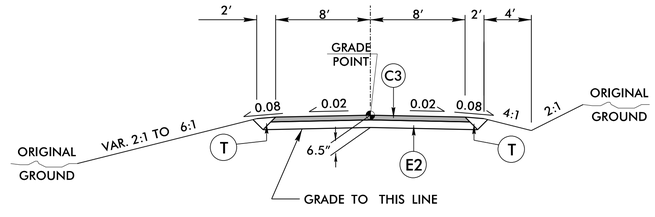
℄ –SERRD3–



TYPICAL SECTION NO. 30

USE TYPICAL SECTION NO. 30
–SERRD3– STA. 9+33.41 TO 46+40.56

℄ –Y5_DR1, –Y7_DR1–, –Y7_DR2–, –Y7_DR3–, –Y7_DR4–, –Y7_DR5–, –Y9A_DR1–, –Y9A_DR2–



TYPICAL SECTION NO. 31

USE TYPICAL SECTION NO. 31
–Y7_DR1– STA. 10+10.00 TO 12+00.06
–Y7_DR2– STA. 10+10.00 TO 12+07.27
–Y7_DR3– STA. 10+10.00 TO 11+90.06
–Y7_DR4– STA. 10+10.00 TO 11+06.15
–Y7_DR5– STA. 10+10.00 TO 11+24.47
–Y9A_DR1– STA. 10+40.00 TO 11+40.82
–Y9A_DR2– STA. 10+12.25 TO 11+30.00
–Y5_DR1– STA. 10+11.00 TO 12+06.00

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.

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SHOULDER BERM GUTTER DETAILS

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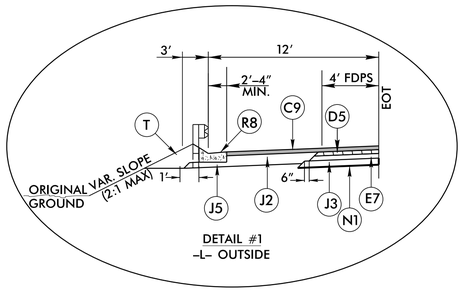
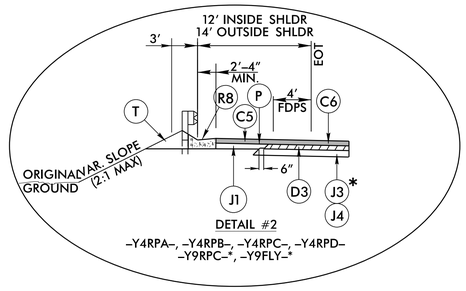
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-17
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

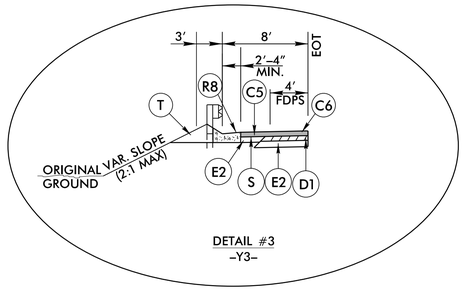
PAVEMENT SCHEDULE	
C1	1½" TYPE SF9.5A
C3	2½" TYPE SF9.5A
C5	1½" TYPE S9.5B
C6	3" TYPE S9.5B
C8	1.5" TYPE S9.5C
C9	3" TYPE S9.5C
D1	2½" TYPE I19.0B
D3	4" TYPE I19.0B
D5	3" TYPE I19.0C
E2	4" TYPE B25.0B
E4	5" TYPE B25.0B
E5	5½" TYPE B25.0B
E7	4" TYPE B25.0C
E9	8½" TYPE B25.0C
E10	VAR. TYPE B25.0C
J1	6" ABC
J2	7" ABC
J3	8" ABC
J4	10" ABC
J5	VAR. ABC
N1	TYPE 4 GEOTEXTILE
P	PRIME COAT
R8	SHLD. BERM GUTTER
S	SPLIT SEAL
T	EARTH MATERIAL



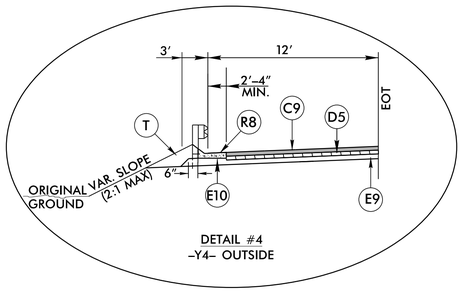
DETAIL #1
–L– OUTSIDE



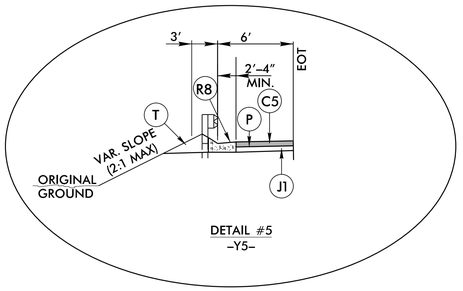
DETAIL #2
–Y4RPA–, –Y4RPB–, –Y4RPC–, –Y4RPD–
–Y9RPC–*, –Y9FLY–*



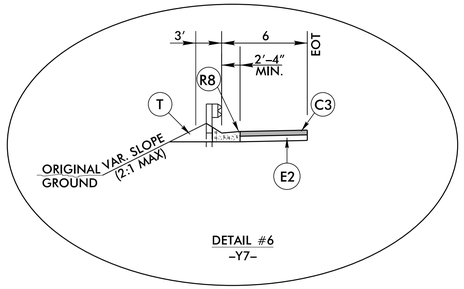
DETAIL #3
–Y3–



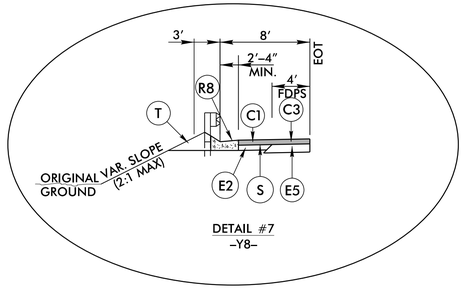
DETAIL #4
–Y4– OUTSIDE



DETAIL #5
–Y5–



DETAIL #6
–Y7–



DETAIL #7
–Y8–

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3/22/2016
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GUARDRAIL WIDENING DETAILS

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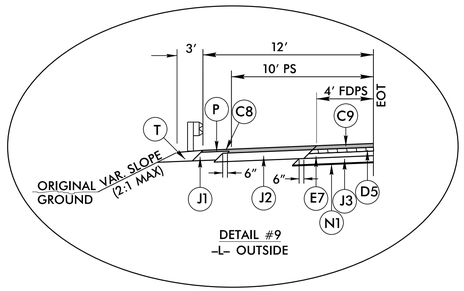
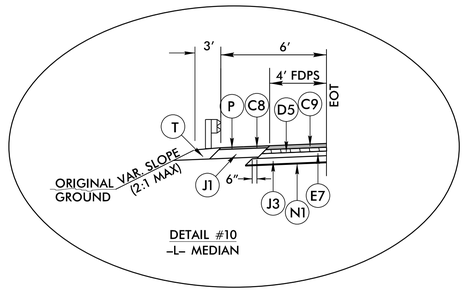
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-18
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

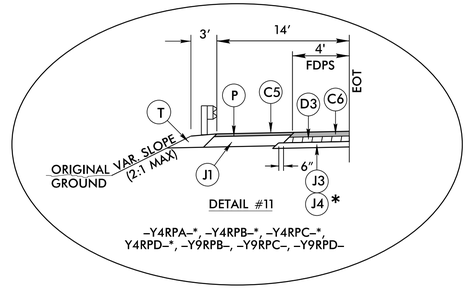
PAVEMENT SCHEDULE	
C1	1½" TYPE SF9.5A
C3	2½" TYPE SF9.5A
C5	1½" TYPE S9.5B
C6	3" TYPE S9.5B
C8	1½" TYPE S9.5C
C9	3" TYPE S9.5C
D1	2½" TYPE I19.0B
D3	4" TYPE I19.0B
D5	3" TYPE I19.0C
E2	4" TYPE B25.0B
E3	4½" TYPE B25.0B
E4	5" TYPE B25.0B
E5	5½" TYPE B25.0B
E7	4" TYPE B25.0C
E9	8½" TYPE B25.0C
J1	6" ABC
J2	7" ABC
J3	8" ABC
J4	10" ABC
N1	TYPE 4 GEOTEXTILE
P	PRIME COAT
S	SPLIT SEAL
T	EARTH MATERIAL



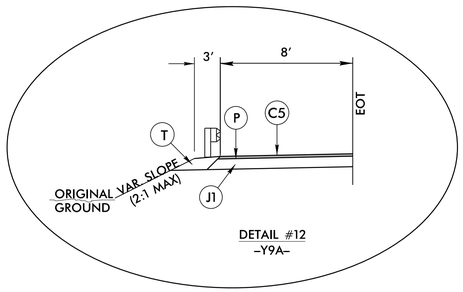
DETAIL #9
–L– OUTSIDE



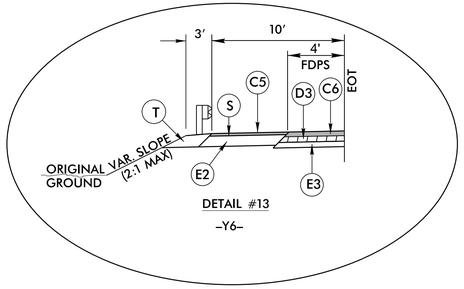
DETAIL #10
–L– MEDIAN



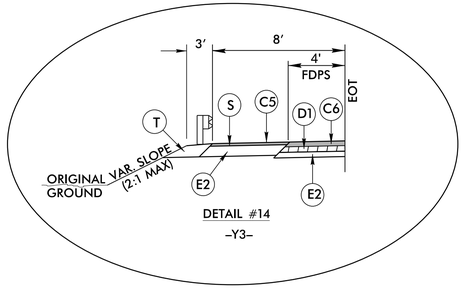
DETAIL #11
–Y4RPA–*, –Y4RPB–*, –Y4RPC–*,
Y4RPD–*, –Y9RPB–, –Y9RPC–, –Y9RPD–



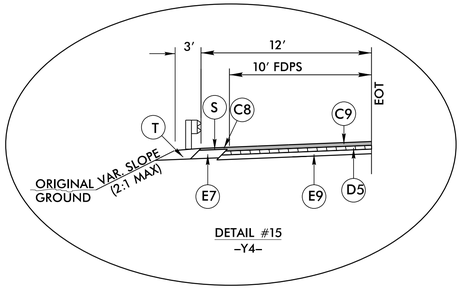
DETAIL #12
–Y9A–



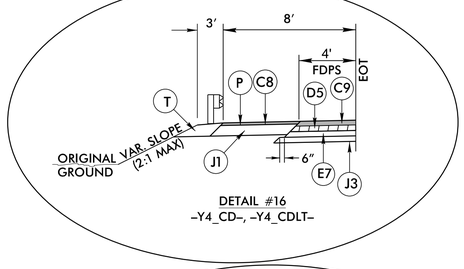
DETAIL #13
–Y6–



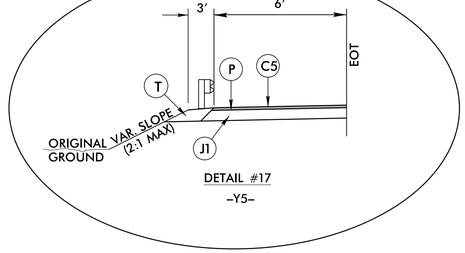
DETAIL #14
–Y3–



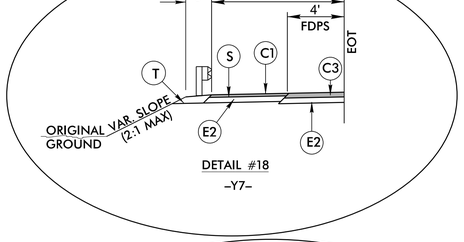
DETAIL #15
–Y4–



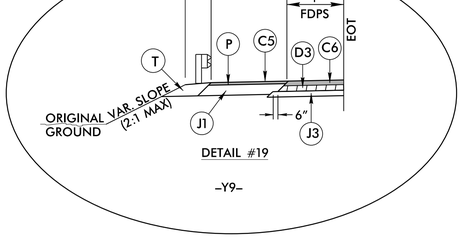
DETAIL #16
–Y4_CD–, –Y4_CDLT–



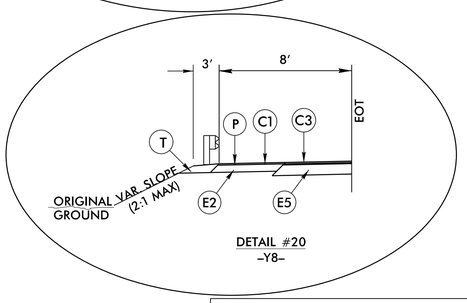
DETAIL #17
–Y5–



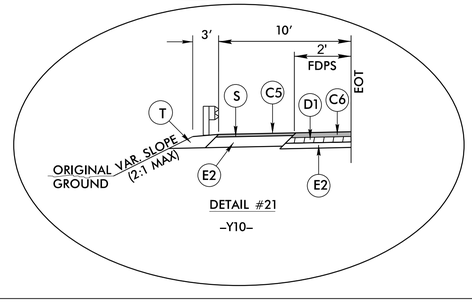
DETAIL #18
–Y7–



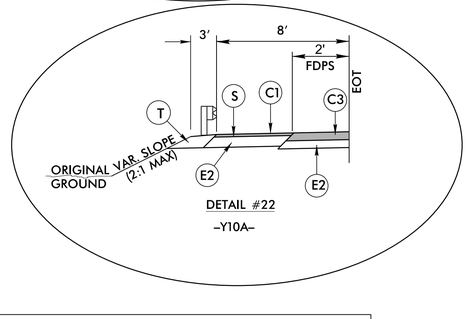
DETAIL #19
–Y9–



DETAIL #20
–Y8–

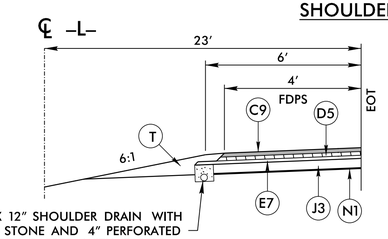


DETAIL #21
–Y10–

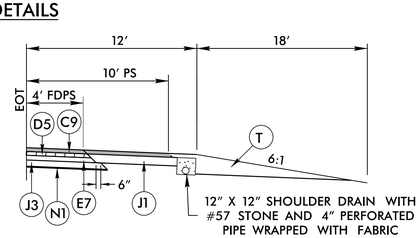


DETAIL #22
–Y10A–

SHOULDER DRAIN DETAILS



–L– MEDIAN SHOULDER DRAIN DETAIL



–L– OUTSIDE
–L– OUTSIDE SHOULDER DRAIN DETAIL

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

-Y3_DET- PT Sta. 20+48.54

END CONSTRUCTION
-Y3_DET- POC Sta. 20+16.91

END GRADE
-Y3_DET- POC Sta. 19+37.09

-Y3_DET- PRC Sta. 17+64.82

-L- POT Sta.220+91.56 =
-Y3_DET- POT Sta.14+51.54

-Y3_DET- PRC Sta. 12+49.77

BEGIN GRADE
-Y3_DET- POC Sta. 11+51.91

BEGIN CONSTRUCTION
-Y3_DET- POC Sta. 10+80.36

-Y3_DET- PC Sta. 10+45.32

-Y3_DET- POT Sta. 22+10.98

-Y3_DET- POT Sta. 10+00.00

-L- POC Sta.219+47.37 =
-Y3- POT Sta.14+21.88

-Y3-

-Y3_DET-

PI Sta 11+49.34	PI Sta 15+18.87	PI Sta 19+10.62
△ = 26° 01' 53.0" (RT)	△ = 40° 59' 11.7" (LT)	△ = 32° 30' 42.8" (RT)
D = 12° 43' 56.6"	D = 7° 57' 27.9"	D = 11° 27' 33.0"
L = 204.45'	L = 515.05'	L = 283.72'
T = 104.02'	T = 269.10'	T = 145.79'
R = 450.00'	R = 720.00'	R = 500.00'
SE = 0.06	SE = 0.06	SE = 0.06
V = 35 MPH	V = 35 MPH	V = 35 MPH

DRIVEWAY RADII ARE 15' UNLESS NOTED.

FOR -Y3- PLAN SEE SHT. 18
FOR -Y3- PROFILE SEE SHT. 149
FOR -Y3_DET- PROFILE SEE SHT. 149

DETAIL OF TEMPORARY ON-SITE DETOUR FOR -Y3- (MACK ROAD).

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

-Y6_DET- PT Sta. 22+70.54

END CONSTRUCTION
-Y6_DET- POC Sta. 22+25.81

-Y6_DET- PRC Sta. 13+13.25

BEGIN GRADE
-Y6_DET- POC Sta. 11+54.38

-Y6- ST Sta. 17+27.58

BEGIN CONSTRUCTION
-Y6_DET- POC Sta. 10+45.45

-Y6- CS Sta. 16+47.58

-Y6_DET- PC Sta. 10+00.00

-LT- POT Sta. 312+54.57 =
-Y6_DET- POC Sta. 16+40.13

END GRADE
-Y6_DET- POC Sta. 21+20.35

END CONSTRUCTION
-Y6- ST Sta. 29+00.00

-Y6_DET- PRC Sta. 19+60.04

-LT- POT Sta. 311+50.43 =
-Y6- POT Sta. 23+20.80

-LT- POT Sta. 311+50.43 =
-Y6- POT Sta. 23+20.80

-Y6_DET-

PI Sta 21+16.66	PI Sta 16+48.41	PI Sta 11+58.03
△ = 18° 31' 55.4" (RT)	△ = 37° 03' 28.9" (LT)	△ = 18° 41' 44.9" (RT)
D = 5° 58' 05.9"	D = 5° 43' 46.5"	D = 5° 58' 05.9"
L = 310.51'	L = 646.78'	L = 313.25'
T = 156.62'	T = 335.16'	T = 158.03'
R = 960.00'	R = 1,000.00'	R = 960.00'
SE = 0.08	SE = 0.08	SE = 0.08
V= 55 MPH	V= 55 MPH	V= 55 MPH

DRIVEWAY RADII ARE 15' UNLESS NOTED.

DETAIL OF TEMPORARY ON-SITE DETOUR FOR -Y6- (US 220 BUSINESS)

FOR -Y6- PLAN SEE SHTS. 24 & 76
FOR -Y6- PROFILE SEE SHT. 167
FOR -Y6_DET- PROFILE SEE SHT. 182

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CROSS SECTION LAYOUT DIAGRAM
–L– AND –Y4– INTERCHANGE

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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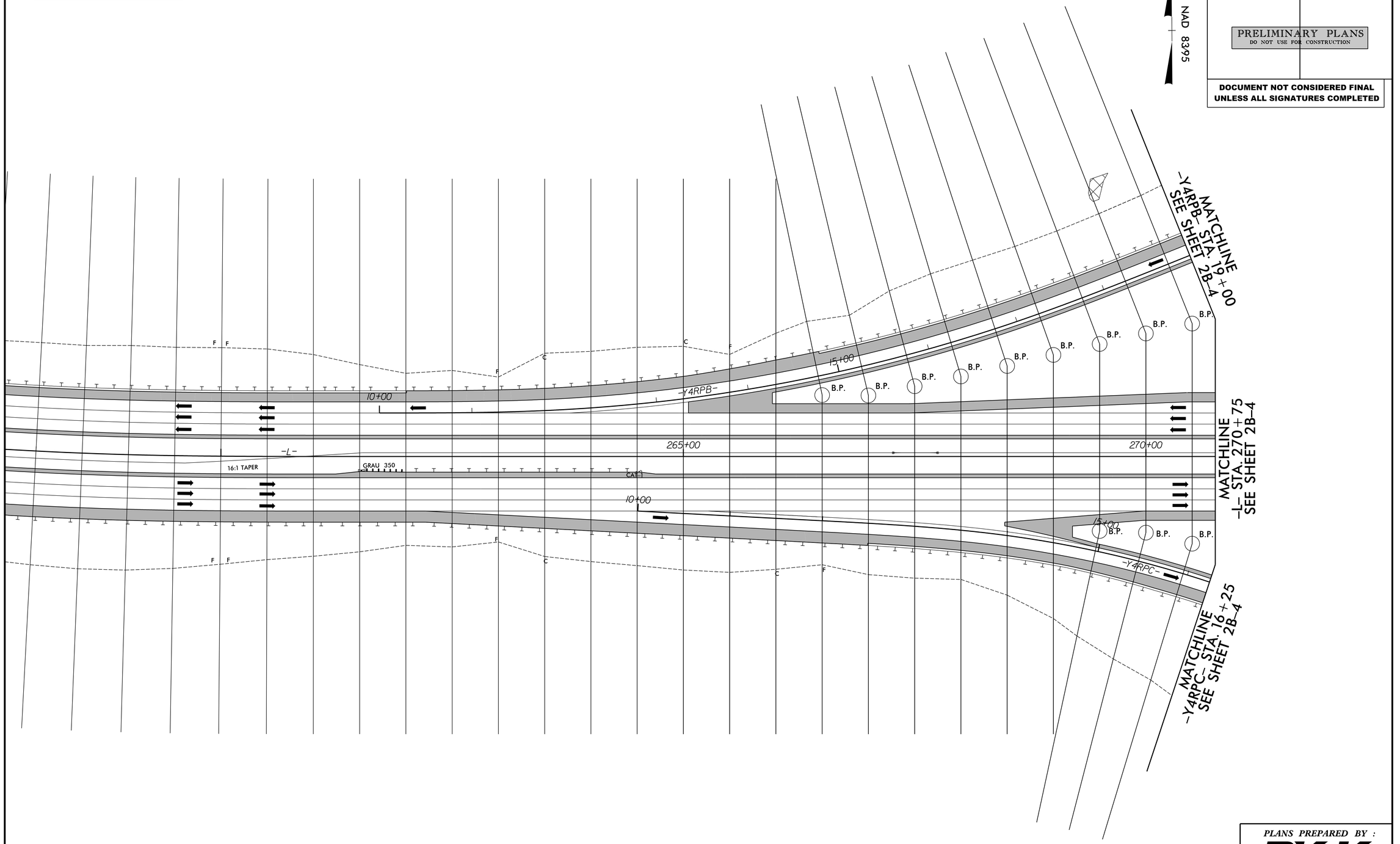
NAD 83\95



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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE -Y4RPA- STA. 23+75 SEE SHEET 2B-5

MATCHLINE -Y4RPB- STA. 19+00 SEE SHEET 2B-3

MATCHLINE -Y4RPC- STA. 16+25 SEE SHEET 2B-3

MATCHLINE -L- STA. 270+75 SEE SHEET 2B-3

MATCHLINE -Y4LPB- STA. 15+25 SEE SHEET 2B-5

MATCHLINE -Y4- STA. 52+25 SEE SHEET 2B-5

MATCHLINE -Y4LPA- STA. 14+25 SEE SHEET 2B-5

MATCHLINE -Y4LPA- STA. 18+25 SEE SHEET 2B-5

MATCHLINE -Y4RPA- STA. 22+75 SEE SHEET 2B-5

CROSS SECTION LAYOUT DIAGRAM
–L– AND –Y4– INTERCHANGE

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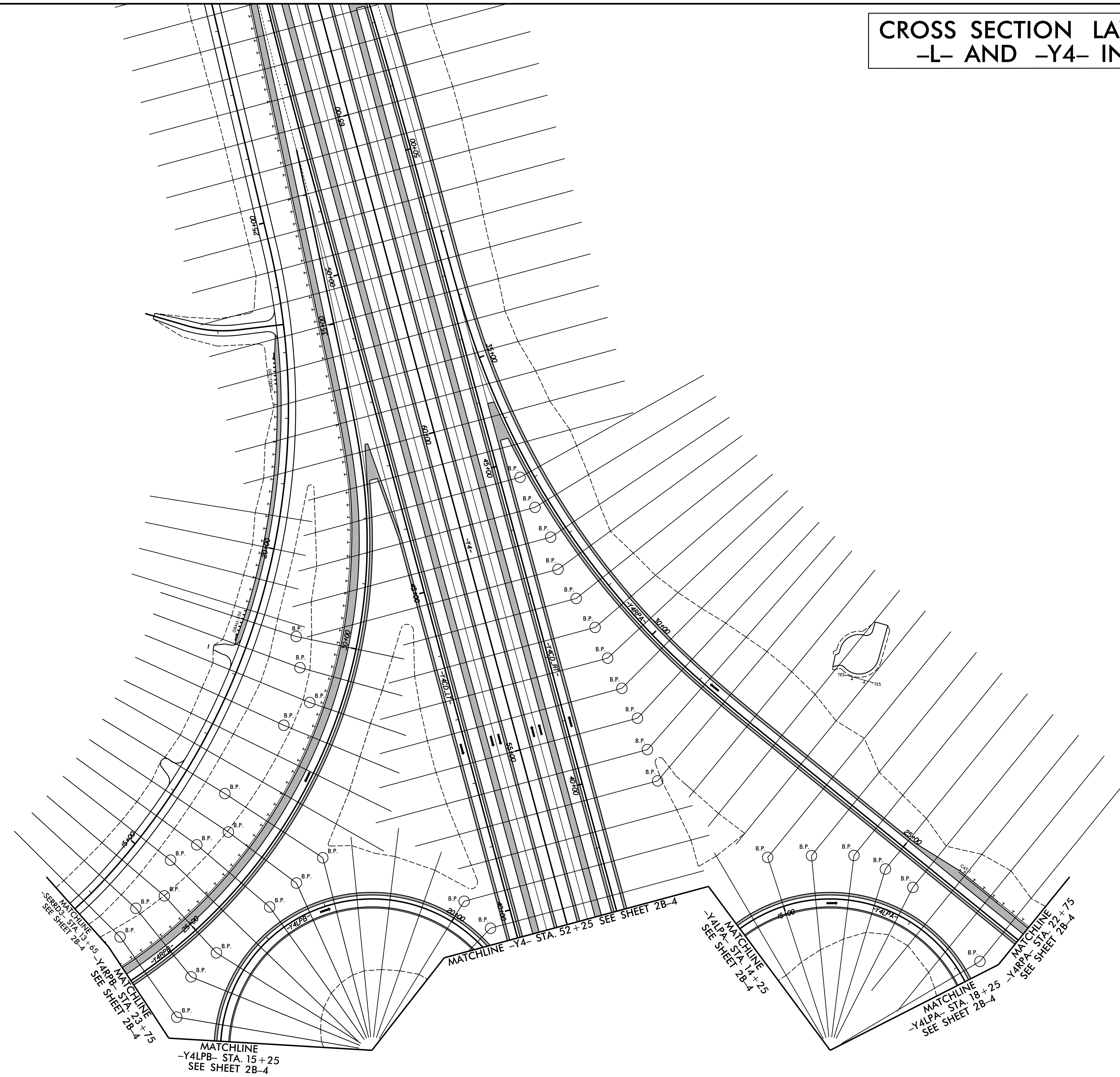
CROSS SECTION LAYOUT DIAGRAM
-L- AND -Y4- INTERCHANGE

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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CROSS SECTION LAYOUT DIAGRAM
–L– AND –Y9FLY– INTERCHANGE

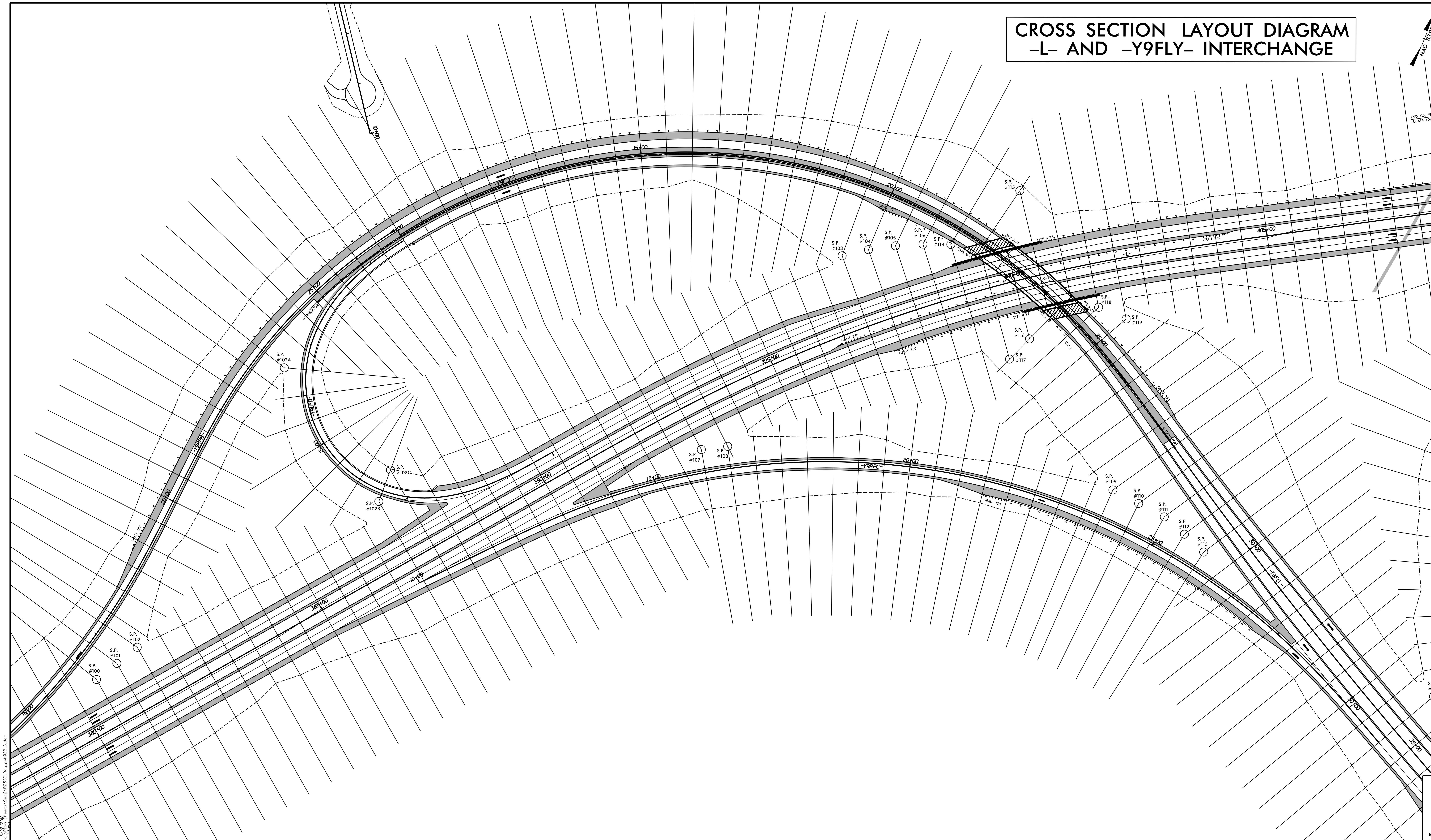
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-6

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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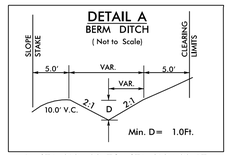
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2D-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

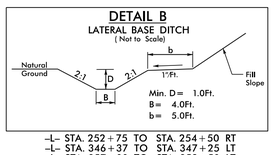
DETAIL A
BERM DITCH
(Not to Scale)



Min. D= 1.0Ft.

–L– STA. 210+00 TO STA. 212+00 LT
–L– STA. 229+00 TO STA. 230+00 RT
–L– STA. 301+50 TO STA. 303+50 LT
–L– STA. 339+12 TO STA. 340+50 LT
–L– STA. 449+70 TO STA. 451+50 LT
–SR_Q– STA. 17+48.76 TO STA. 20+48.76 RT
–SR_Q– STA. 21+98.77 TO STA. 26+81.87 RT
–Y4RPA– STA. 33+40 TO STA. 35+80 RT
–Y5– STA. 18+50 TO STA. 19+50 LT
–Y9FLY– STA. 39+25 TO STA. 44+00 RT
–Y9– STA. 37+75 TO STA. 41+50 LT
–Y9– STA. 48+58 TO STA. 50+00 RT
–Y9RPD– STA. 19+00 TO STA. 22+00 LT
–Y9RPD– STA. 23+00 TO STA. 27+50 LT

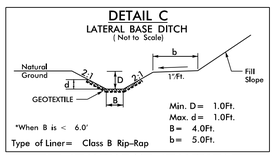
DETAIL B
LATERAL BASE DITCH
(Not to Scale)



Min. D= 1.0Ft.
B= 4.0Ft.
b= 5.0Ft.

–L– STA. 252+75 TO STA. 254+50 RT
–L– STA. 346+37 TO STA. 347+25 LT
–L– STA. 357+00 TO STA. 359+50 LT
–L– STA. 392+00 TO STA. 393+00 LT
–L– STA. 455+37 TO STA. 455+75 RT
–L– STA. 457+50 TO STA. 460+00 RT
–SERRD3– STA. 23+00 to STA. 25+25 LT
–SERRD5– STA. 12+00 TO STA. 15+00 LT
–SR_Q– STA. 11+98.76 TO STA. 14+48.76 RT
–SR_Q– STA. 20+48.76 TO STA. 20+88 RT
–SR_Q– STA. 34+19 TO STA. 37+04 RT
–SR_Q– STA. 37+56.54 TO STA. 42+00 RT
–Y4– STA. 38+60 TO STA. 40+50 RT
–Y4LPB– STA. 11+45 TO STA. 20+50 RT
–Y4LPD– STA. 11+41 TO STA. 19+50 RT
–Y4RPD– STA. 21+50 TO STA. 23+23 LT
–Y7– STA. 20+85 TO STA. 23+00 LT
–Y9– STA. 28+53 TO STA. 29+25 RT
–Y9– STA. 30+00 TO STA. 31+50 RT
–Y9– STA. 70+00 TO STA. 73+50 LT
–Y9– STA. 78+50 TO STA. 80+00 RT
–Y9– STA. 78+50 TO STA. 79+00 LT
–Y9B– STA. 12+00 TO STA. 15+00 LT
–Y9C– STA. 11+50 TO STA. 13+52 RT
–Y9FLY– STA. 10+00 TO STA. 11+50 RT
–Y9FLY– STA. 16+50 TO STA. 19+50 LT
–Y9FLY– STA. 20+50 TO STA. 22+80 LT
–Y9FLY– STA. 26+50 TO STA. 28+00 LT
–Y9LPB– STA. 16+90 TO STA. 19+77 RT
–Y9RPB– STA. 18+90 TO STA. 23+15 RT
–Y9RPC– STA. 19+50 TO STA. 23+50 LT
–Y9RPC– STA. 20+50 TO STA. 23+50 RT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



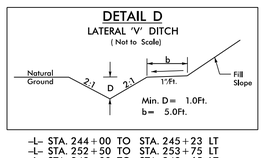
*When B is < 6.0'

Min. D= 1.0Ft.
Max. d= 1.0Ft.
B= 4.0Ft.
b= 5.0Ft.

Type of Liner= Class B Rip–Rap

–L– STA. 228+00 TO STA. 229+00 RT
–L– STA. 234+25 TO STA. 241+50 LT
–L– STA. 234+50 TO STA. 235+00 RT
–L– STA. 254+50 TO STA. 261+50 RT
–L– STA. 274+47 TO STA. 277+65 RT
–L– STA. 274+50 TO STA. 275+00 LT
–L– STA. 346+00 TO STA. 346+37 LT
–L– STA. 355+00 TO STA. 357+00 LT
–L– STA. 363+73 TO STA. 364+50 RT
–L– STA. 365+50 TO STA. 368+00 RT
–L– STA. 393+00 TO STA. 396+65 LT
–L– STA. 433+06 TO STA. 435+00 RT
–L– STA. 455+75 TO STA. 457+50 RT
–SERRD3– STA. 37+26 TO STA. 38+85 LT
–SERRD5– STA. 13+85 TO STA. 14+50 RT
–Y4LPD– STA. 10+00 TO STA. 11+41 RT
–Y4RPC– STA. 12+50 TO STA. 16+40 RT
–Y4RPD– STA. 13+35 TO STA. 14+71 RT
–Y4RPD– STA. 24+20 TO STA. 25+44 RT
–Y5– STA. 12+21 TO STA. 14+50 LT
–Y5– STA. 12+31.67 TO STA. 15+00 RT
–Y5– STA. 46+50 TO STA. 50+50 LT
–Y9– STA. 14+50 TO STA. 15+75 RT
–Y9– STA. 11+50 TO STA. 15+00 LT
–Y9– STA. 16+50 TO STA. 18+20 LT
–Y9– STA. 22+00 TO STA. 24+00 LT
–Y9A– STA. 37+00 TO STA. 38+25 LT
–Y9C– STA. 11+00 TO STA. 13+00 LT
–Y9FLY– STA. 19+50 TO STA. 20+50 LT
–Y9FLY– STA 50+00 TO STA. 51+15 RT
–Y9RPC– STA. 23+50 TO STA. 29+38 RT

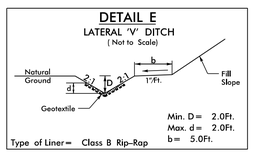
DETAIL D
LATERAL 'V' DITCH
(Not to Scale)



Min. D= 1.0Ft.
b= 5.0Ft.

–L– STA. 244+00 TO STA. 245+23 LT
–L– STA. 252+50 TO STA. 253+75 LT
–L– STA. 249+00 TO STA. 249+65 LT
–L– STA. 299+36 TO STA. 301+50 LT
–L– STA. 455+00 TO STA. 455+37 RT
–SERRD1– STA. 14+00 TO STA. 18+00 LT
–SERRD3– STA. 40+82 TO STA. 41+87 LT
–SERRD5– STA. 10+00 TO STA. 11+00 LT
Y3_DET– STA. 15+91.75 TO STA. 18+20.50 LT
–Y4– STA. 74+54 TO STA. 80+35 RT
–Y4LPA– STA. 17+20 TO STA. 23+39 RT
–Y4LPB– STA. 18+30 TO STA. 20+00 LT
–Y4LPC– STA. 20+50 TO STA. 23+25 RT
–Y4RPA– STA. 21+50 TO STA. 24+00 RT
–Y4RPB– STA. 14+90 TO STA. 16+25 LT
–Y4RPB– STA. 18+75 TO STA. 20+25 LT
–Y4RPB– STA. 21+25 TO STA. 25+50 LT
–Y4RPB– STA. 30+65 TO STA. 31+60 LT
–Y4RPD– STA. 15+18 TO STA. 16+75 LT
–Y6– STA. 27+00 TO STA. 29+00 LT
–Y8– STA. 10+50 TO STA. 13+00 LT
–Y8– STA. 14+00 TO STA. 15+00 LT
–Y9– STA. 19+90 TO STA. 22+00 LT
–Y9– STA. 44+50 TO STA. 45+25 RT
–Y9– STA. 60+00 TO STA. 60+96 RT
–Y9– STA. 69+50 TO STA. 72+53 RT
–Y9– STA. 78+00 TO STA. 78+50 RT
–Y9A– STA. 33+50 TO STA. 35+00 RT
–Y10– STA. 11+00 TO STA. 13+50 RT

DETAIL E
LATERAL 'V' DITCH
(Not to Scale)

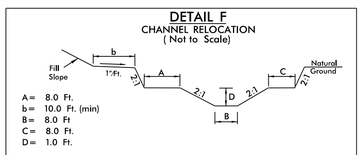


Min. D= 2.0Ft.
Max. d= 2.0Ft.
b= 5.0Ft.

Type of Liner= Class B Rip–Rap

–L– STA. 336+77 TO STA. 337+50 RT
–SERRD1– STA. 20+35 TO STA. 21+67 LT, CL I
–Y5– STA. 23+00 TO STA. 24+81 LT
–Y5A– STA. 11+00 TO STA. 13+00 LT

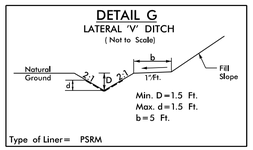
DETAIL F
CHANNEL RELOCATION
(Not to Scale)



A= 8.0 Ft.
b= 10.0 Ft. (min)
B= 8.0 Ft
C= 8.0 Ft.
D= 1.0 Ft.

DETAIL NOT USED IN SECTION 2

DETAIL G
LATERAL 'V' DITCH
(Not to Scale)

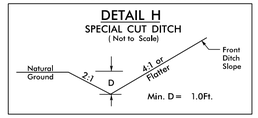


Min. D=1.5 Ft.
Max. d=1.5 Ft.
b=5 Ft.

Type of Liner= PSRM

–L– STA. 329+06 TO STA. 333+00 LT
–L– STA. 329+82 TO STA. 333+00 RT
–SERRD1– STA. 18+00 TO STA. 18+50 LT
Y3_DET– STA. 15+21.14 TO STA. 15+91.75 LT
–Y9– STA. 16+63 TO STA. 20+00 RT
–Y9– STA. 48+00 TO STA. 48+58 RT
–Y9– STA. 48+00 TO STA. 49+29 LT
–Y9A– STA. 29+00 TO STA. 33+50 RT

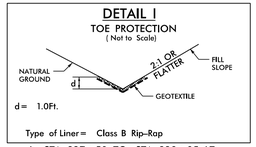
DETAIL H
SPECIAL CUT DITCH
(Not to Scale)



Min. D= 1.0Ft.

–L– STA. 219+50 TO STA. 227+50 LT
–L– STA. 220+75 TO STA. 226+00 RT
–L– STA. 247+50 TO STA. 249+00 LT
–L– STA. 301+50 TO STA. 307+50 LT
–L– STA. 302+00 TO STA. 303+50 RT
–L– STA. 336+50 TO STA. 339+00 LT
–L– STA. 337+50 TO STA. 339+00 RT
–L– STA. 451+50 TO STA. 455+00 LT
–L– STA. 449+50 TO STA. 453+00 RT
–SERRD3– STA. 10+00 TO STA. 11+50 LT
–SERRD3– STA. 43+99 TO STA. 45+85 RT
–SR_Q– STA. 11+02.65 TO STA. 11+98.76 RT
–SR_Q– STA. 14+48.76 TO STA. 15+48.76 RT
–Y3– STA. 10+50 TO STA. 11+50 RT
–Y3– STA. 20+50 TO STA. 20+87 RT
–Y4– STA. 49+00 TO STA. 50+00 RT
–Y4– STA. 50+50 TO STA. 54+50 RT
–Y4– STA. 86+00 TO STA. 86+42 RT
–Y4LPA– STA. 13+50 TO STA. 14+00 LT
–Y4LPC– STA. 23+25 TO STA. 23+85 RT
–Y4RPA– STA. 35+08 TO STA. 36+08 RT
–Y4RPC– STA. 21+00 TO STA. 22+50 LT
–Y4RPC– STA. 21+00 TO STA. 25+00 RT
–Y5– STA. 10+00 TO STA. 11+00 LT
–Y6– STA. 13+00 TO STA. 14+00 LT
–Y6– STA. 15+00 TO STA. 16+00 RT
–Y7– STA. 10+00 TO STA. 10+50 RT
–Y7– STA. 11+00 TO STA. 14+50 RT
–Y7– STA. 23+50 TO STA. 24+30 LT
–Y7– STA. 23+50 TO STA. 24+16 RT
–Y8– STA. 9+75 TO STA. 10+50 LT
–Y8– STA. 9+75 TO STA. 11+00 RT
–Y8– STA. 13+00 TO STA. 14+00 LT
–Y8– STA. 28+50 TO STA. 29+55 RT
–Y9– STA. 34+50 TO STA. 36+50 RT
–Y9– STA. 42+50 TO STA. 44+50 RT
–Y9– STA. 52+00 TO STA. 53+00 RT
–Y9– STA. 52+00 TO STA. 54+50 LT
–Y9– STA. 58+50 TO STA. 60+00 RT
–Y9A– STA. 12+40 TO STA. 14+00 RT
–Y9A– STA. 13+50 TO STA. 14+50 LT
–Y9A– STA. 37+50 TO STA. 39+00 RT
–Y9A– STA. 41+00 TO STA. 42+50 RT
–Y9B– STA. 16+50 TO STA. 18+00 RT
–Y9FLY– STA. 11+50 TO STA. 14+00 RT
–Y9FLY– STA. 40+00 TO STA. 43+00 RT
–Y9RPC– STA. 19+00 TO STA. 19+50 LT
–Y9RPC– STA. 20+00 TO STA. 20+50 RT
–Y9RPD– STA. 17+00 TO STA. 17+50 LT
–Y10– STA. 23+00 TO STA. 23+99 RT
–Y10A– STA. 15+00 TO STA. 15+74 RT
–Y10END– STA. 14+00 TO STA. 16+00 RT
–Y10END– STA. 18+00 TO STA. 19+50 RT

DETAIL I
TOE PROTECTION
(Not to Scale)

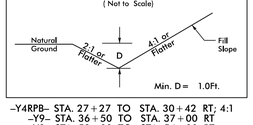


d= 1.0Ft.

Type of Liner= Class B Rip–Rap

–L– STA. 327+50 TO STA. 329+05 LT
–L– STA. 352+00 TO STA. 353+82 LT
–L– STA. 354+90 TO STA. 357+50 RT
–L– STA. 360+00 TO STA. 364+50 LT
–L– STA. 360+00 TO STA. 363+25 RT
–L– STA. 364+50 TO STA. 365+50 RT
–L– STA. 405+25 TO STA. 414+30 LT
–L– STA. 406+85 TO STA. 412+00 RT
–L– STA. 431+50 TO STA. 433+00 LT
–L– STA. 455+00 TO STA. 458+10 LT
–L– STA. 462+50 TO STA. 465+00 RT
–SERRD3– STA. 41+35 TO STA. 42+39 LT
–SERRD3– STA. 20+70 TO STA. 23+75 LT
–SERRD3 DRI– STA. 11+58 TO STA. 12+68 LT
–SERRD5– STA. 12+50 TO STA. 13+80 RT
–SERRD5– STA. 15+00 TO STA. 17+00 LT
–Y4RPC– STA. 16+40 TO STA. 21+00 RT
–Y4RPC– STA. 19+78 TO STA. 21+50 LT
–Y5– STA. 21+00 TO STA. 23+00 LT
–Y5– STA. 45+50 TO STA. 46+50 LT
–Y9– STA. 15+75 TO STA. 16+50 RT
–Y9– STA. 23+50 TO STA. 25+00 RT
–Y9– STA. 27+00 TO STA. 29+40 LT
–Y9– STA. 31+25 TO STA. 32+50 LT
–Y9– STA. 36+35 TO STA. 37+50 LT
–Y9– STA. 45+45 TO STA. 46+00 RT
–Y9– STA. 61+00 TO STA. 61+50 RT
–Y9RAB– STA. 10+55 TO –NC159– STA. 12+00 LT
–Y9C– STA. 13+50 TO STA. 14+00 LT
–Y9FLY– STA. 10+75 TO STA. 11+80 LT
–Y9FLY– STA. 17+00 TO STA. 19+50 RT
–Y9FLY– STA. 24+30 TO STA. 27+25 RT

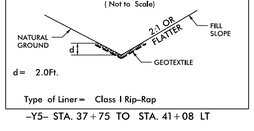
DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Min. D= 1.0Ft.

–Y4RPB– STA. 27+27 TO STA. 30+42 RT; 4:1
–Y9– STA. 36+50 TO STA. 37+00 RT
–Y9– STA. 53+00 TO STA. 54+00 RT

DETAIL K
TOE PROTECTION
(Not to Scale)

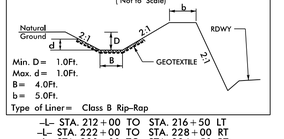


d= 2.0Ft.

Type of Liner= Class I Rip–Rap

–Y5– STA. 37+75 TO STA. 41+08 LT

DETAIL L
BERM BASE DITCH
(Not to Scale)

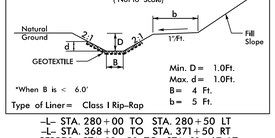


Min. D= 1.0Ft.
Max. d= 1.0Ft.
B= 4.0Ft.
b= 5.0Ft.

Type of Liner= Class B Rip–Rap

–L– STA. 212+00 TO STA. 216+50 LT
–L– STA. 222+00 TO STA. 228+00 RT
–L– STA. 230+00 TO STA. 234+50 RT
–L– STA. 317+20 TO STA. 318+20 LT
–SR_Q– STA. 13+98.76 TO STA. 14+98.76 RT CL I
–Y5– STA. 16+69 TO STA. 18+50 LT
–Y5– STA. 19+50 TO STA. 21+00 LT
–Y9– STA. 31+50 TO STA. 42+00 RT

DETAIL M
LATERAL BASE DITCH
(Not to Scale)



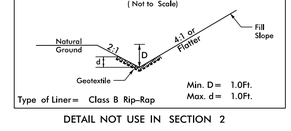
*When B is < 6.0'

Min. D= 1.0Ft.
Max. d= 1.0Ft.
B= 4 Ft.
b= 5 Ft.

Type of Liner= Class I Rip–Rap

–L– STA. 280+00 TO STA. 280+50 LT
–L– STA. 368+00 TO STA. 371+50 RT
–SERRD1– STA. 18+50 TO STA. 21+67 LT
–SERRD5– STA. 14+50 TO STA. 17+17 RT
–Y4– STA. 71+00 TO STA. 72+50 RT
–Y4LPB– STA. 9+50 TO STA. 11+45 RT
–Y4RPD– STA. 23+23 TO STA. 24+20 RT
–Y9– STA. 10+00 TO STA. 14+50 RT
–Y9A– STA. 29+00 TO STA. 32+83 LT

DETAIL N
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

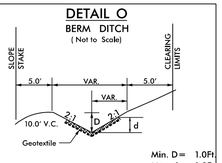


Min. D= 1.0Ft.
Max. d= 1.0Ft.

Type of Liner= Class B Rip–Rap

DETAIL NOT USE IN SECTION 2

DETAIL O
BERM DITCH
(Not to Scale)

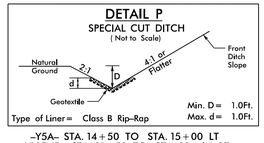


Min. D= 1.0Ft
Max. d= 1.0Ft

Type of Liner= Class B Riprap

DETAIL NOT USED IN SECTION 2

DETAIL P
SPECIAL CUT DITCH
(Not to Scale)

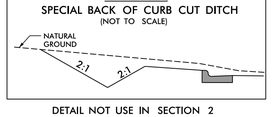


Min. D= 1.0Ft.
Max. d= 1.0Ft.

Type of Liner= Class B Rip–Rap

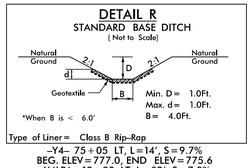
–Y5A– STA. 14+50 TO STA. 15+00 LT
–Y10END– STA. 21+50 TO STA. 22+34 RT

DETAIL Q
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



DETAIL NOT USE IN SECTION 2

DETAIL R
STANDARD BASE DITCH
(Not to Scale)



*When B is < 6.0'

Min. D= 1.0Ft.
Max. d= 1.0Ft.
B= 4.0Ft.

Type of Liner= Class B Rip–Rap

–Y4– 75+05 LT, L=14', S=9.7%
BEG. ELEV=777.0, END ELEV=775.6
–Y4LPA– 19+90 LT, L=82', S=7.3%
BEG. ELEV=829.0, END ELEV=823.0
–Y4LPD– 22+75 RT, L=89', S=8.0%
BEG. ELEV=825.0, END ELEV=817.7
–Y5– 46+00 RT, L=50', S=8.0%
BEG. ELEV=806.0, END ELEV=802.0
–Y9– STA. 53+33 LT, B=2', S=0.53%
L=68', BEG. ELEV=626.4, END ELEV=626.0
–Y9– STA. 79+00 LT, L=56', S=3.8%
BEG. ELEV=611.5, END ELEV=609.4

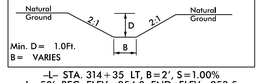
DETAIL S
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Min. D= 1.0Ft.
Max. d= 1.0Ft.
B= 4.0Ft.

Type of Liner= Class B Rip–Rap

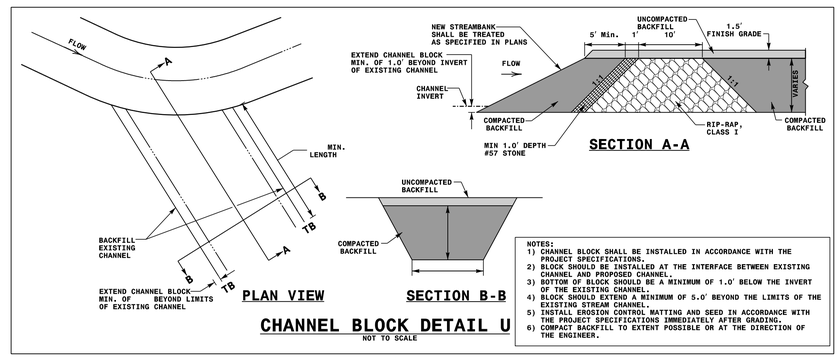
DETAIL NOT USE IN SECTION 2

DETAIL T
STANDARD BASE DITCH
(Not to Scale)



Min. D= 1.0Ft.
B= VARIES

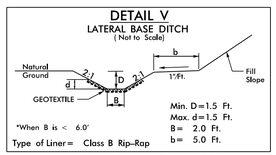
–L– STA. 314+35 LT, B=2', S=1.00%
L=50', BEG. ELEV=854.0, END ELEV=853.5
–L– STA. 445+54 RT, L=92', S=6.5%
BEG. ELEV=690.0, END ELEV=684.0
–NC159– STA. 12+00 LT, B=4' S=4.1%
BEG. ELEV=610.0, END ELEV=600.9
–SR_Q– STA. 40+00 LT, L=30', S=0.50%
BEG. ELEV= 617.2, END ELEV=617.1
–Y3– STA. 15+80 RT, L=44', S=0.68%
BEG. ELEV= 817.5 END ELEV=817.2
–Y4LPB– STA. 20+50 TO STA. 21+68 RT, B=4'
S=1.73%, L=118', BEG. ELEV=821.2, END ELEV=819.7
–Y6 DET– STA. 11+31.48 RT, B=4', S=0.96%
L=78', BEG. ELEV=846.8, END ELEV=846.0
–Y9B– STA. 15+00 LT, L=76', S=8.8%
BEG. ELEV=723.9, END ELEV=717.2



NOTES:
1) CHANNEL BLOCK SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2) BLOCK SHOULD BE INSTALLED AT THE INTERFACE BETWEEN EXISTING CHANNEL AND PROPOSED CHANNEL.
3) BOTTOM OF BLOCK SHOULD BE A MINIMUM OF 1.0' BELOW THE INVERT OF THE EXISTING CHANNEL.
4) BLOCK SHOULD EXTEND A MINIMUM OF 5.0' BEYOND THE LIMITS OF THE EXISTING STREAM CHANNEL.
5) INSTALL EROSION CONTROL MATTING AND SEED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS IMMEDIATELY AFTER GRADING.
6) COMPACT BACKFILL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.

–L– STA. 433+50 RT
–Y9– STA. 74+60 LT
–Y9– STA. 75+72 LT
–Y9– STA. 76+20 LT
–Y9FLY– STA. 11+54 LT
–Y9RPB– STA. 21+90 LT
–Y9RPB– STA. 24+30 LT
–Y9RPB– STA. 25+25 LT

DETAIL V
LATERAL BASE DITCH
(Not to Scale)



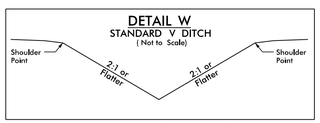
*When B is < 6.0'

Min. D=1.5 Ft.
Max. d=1.5 Ft.
B= 2.0 Ft.
b= 5.0 Ft.

Type of Liner= Class B Rip–Rap

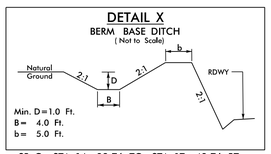
DETAIL NOT USED IN SECTION 2

DETAIL W
STANDARD V DITCH
(Not to Scale)



–L– STA. 221+50 TO STA. 222+00 RT, L=61'
S=0.31%, BEG. ELEV=833.1, END ELEV=832.9
–SERRD3– STA. 39+80 TO STA. 41+35 RT
–Y4RPA– STA. 26+00 RT, L=73', S=0.41%
BEG. ELEV=822.8, END ELEV=822.5
–Y4RPC– STA. 22+50 TO STA. 25+50 LT
–Y9A– STA. 42+50 RT, L=20', S=0.35%
BEG. ELEV= 630.1, END ELEV=630.0
–Y9LPB– STA. 16+00 LT, L=50', S=7.6%
BEG. ELEV= 643.8, END ELEV=640.0

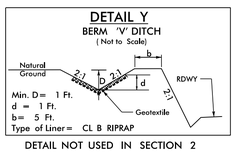
DETAIL X
BERM BASE DITCH
(Not to Scale)



Min. D=1.0 Ft.
B= 4.0 Ft.
b= 5.0 Ft.

–SR_Q– STA. 14+98.76 TO STA. 17+48.76 RT

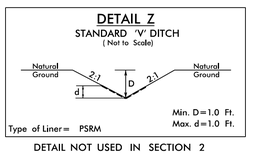
DETAIL Y
BERM 'V' DITCH
(Not to Scale)



Min. D= 1 Ft.
d = 1 Ft.
b= 5 Ft.
Type of Liner= CL B RIPRAP

DETAIL NOT USED IN SECTION 2

DETAIL Z
STANDARD 'V' DITCH
(Not to Scale)

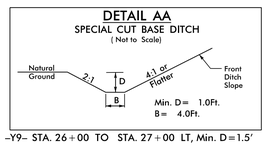


Min. D=1.0 Ft.
Max. d=1.0 Ft.

Type of Liner= PSRM

DETAIL NOT USED IN SECTION 2

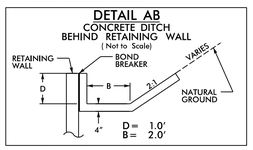
DETAIL AA
SPECIAL CUT BASE DITCH
(Not to Scale)



Min. D= 1.0Ft.
B= 4.0Ft.

–Y9– STA. 26+00 TO STA. 27+00 LT, Min. D=1.5'

DETAIL AB
CONCRETE DITCH
BEHIND RETAINING WALL
(Not to Scale)



D= 1.0'
B= 2.0'

DETAIL NOT USED IN SECTION 2

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

3/22/2016
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ERevis

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R–2536	2D–2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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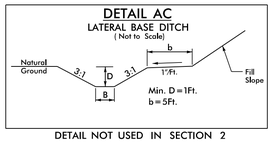
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

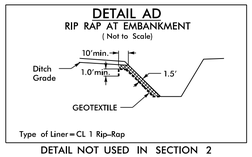
DETAIL AC
LATERAL BASE DITCH
(Not to Scale)



Min. D = 1Ft.
b = 5Ft.

DETAIL NOT USED IN SECTION 2

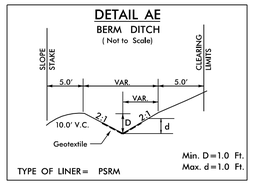
DETAIL AD
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner = CL 1 Rip–Rap

DETAIL NOT USED IN SECTION 2

DETAIL AE
BERM DITCH
(Not to Scale)

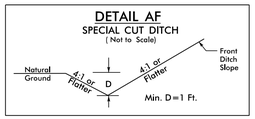


Min. D = 1.0 Ft.
Max. d = 1.0 Ft.

TYPE OF LINER = PSRM

–L– STA. 451+50 TO STA. 455+00 LT
–Y4RPA– STA. 31+50 TO STA. 33+40 RT

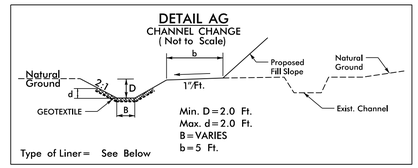
DETAIL AF
SPECIAL CUT DITCH
(Not to Scale)



Min. D = 1 Ft.

DETAIL NOT USED IN SECTION 2

DETAIL AG
CHANNEL CHANGE
(Not to Scale)

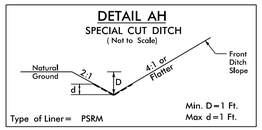


Min. D = 2.0 Ft.
Max. d = 2.0 Ft.
B = VARIES
b = 5 Ft.

Type of Liner = See Below

–L– STA. 237+00 TO STA. 243+00 RT, B = 4', CL B
–SR Q– 34+19 RT, L = 35', B = 4', CL I
–Y4– STA. 80+35 TO 80+66 RT, B = 3', CL B
–Y4RPD– STA. 25+44 TO 26+48 RT, B = 5', GRASS
–Y5– STA. 40+28 TO 41+63 LT, B = 4', GRASS
–Y9– STA. 73+50 TO STA. 76+31 LT, B = 4', CL I
–Y9– STA. 79+06 TO STA. –NC159– 12+09 LT, B = 4'–11', CL B

DETAIL AH
SPECIAL CUT DITCH
(Not to Scale)



Min. D = 1 Ft.
Max d = 1 Ft.

Type of Liner = PSRM

DETAIL NOT USED IN SECTION 2

DETAIL AI
LATERAL BASE DITCH
(Not to Scale)

Min. D = 2.0Ft.
B = 4.0Ft.
b = 5.0Ft.

–L– STA. 353+82 TO STA. 355+00 LT
–SERRD3– STA. 19+50 TO STA. 20+49 LT
–Y5– STA. 24+81 TO STA. 29+46 LT
–Y9– STA. 15+00 TO STA. 16+50 LT
–Y9– STA. 24+00 TO STA. 26+00 LT

DETAIL AJ
BANK STABILIZATION AT PIPE OUTLET
(Not to Scale)

Class I Rip Rap

–L– STA. 242+90 RT, L = 32'
–L– STA. 329+80 RT, L = 50'
–L– STA. 356+89 RT, L = 45'
–L– STA. 363+29 RT, L = 45'
–L– STA. 458+10 LT, L = 45'
–Y9A– STA. 43+05 RT, L = 30'
–Y9– STA. 16+53 RT, L = 48'
–Y9– STA. 60+40 LT, L = 35'

DETAIL AK
STANDARD BASE DITCH
(Not to Scale)

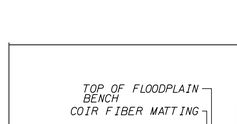
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 3 Ft.

*When B is < 6.0'

Type of Liner = PSRM

DETAIL NOT USED IN SECTION 2

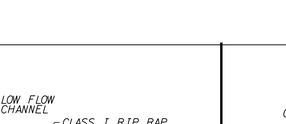
DETAIL AL
STANDARD 'V' DITCH
(Not to Scale)



Min. D = 1 Ft.

–L– STA. 247+56 RT, L = 80', S = 4.8%
BEG. ELEV = 746.0, END ELEV = 742.2
–SERRD3– STA. 45+85 RT, L = 125', S = 7.38%
BEG. ELEV = 786.0, END ELEV = 776.8
–SERRD3– STA. 45+85 LT, L = 32', S = 0.32%
BEG. ELEV = 774.3, END ELEV = 774.2

DETAIL AM
BERM BASE DITCH
(Not to Scale)

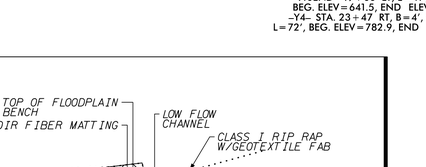


Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2 Ft.
b = 5 Ft.

Type of Liner = CL B Rip–Rap

–L– STA. 335+00 TO STA. 338+35 LT
–Y9RPD– STA. 12+20 TO STA. 19+00 LT

DETAIL AN
CHANNEL CHANGE
(Not to Scale)

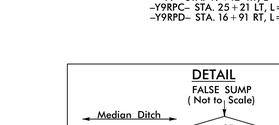


Min. D = 3 Ft.
Max. d = 3 Ft.
B = VARIES
b = 5 Ft.

Type of Liner = PSRM

–Y9FLY– STA. 11+54 TO STA. 11+76 LT, B = 4
–Y9RPB– STA. 21+89 TO STA. 22+45 LT, B = 2'
–Y9RPB– STA. 24+31 TO STA. 25+83 LT, B = 2'

DETAIL AO
LATERAL BASE DITCH
(Not to Scale)



Min. D = 3 Ft.
B = 5 Ft.
b = 5 Ft.

DETAIL NOT USED IN SECTION 2

PREFORMED SCOUR HOLE DETAIL AP
*NOT TO SCALE

PLAN VIEW

B = 4.0Ft.
D = 1.0Ft.
W = 4.0Ft.

SECTION A–A

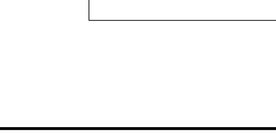
308

–L– STA. 250+20 LT
–L– STA. 408+00 LT
–Y4– STA. 77+82 LT
–Y5– STA. 42+23 RT

DETAIL AQ
FILL IN POND W/ROCK PLATING
(Not to Scale)

DETAIL NOT USED IN SECTION 2

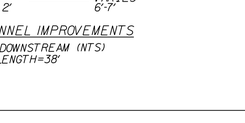
DETAIL AR
STANDARD BASE GRASSED SWALE
(Not to Scale)



*NOTES:
1) LONGITUDINAL SLOPES BETWEEN 0.3% AND 4.0%.
2) MODIFICATIONS MAY BE NEEDED, AS APPROVED BY ENGINEER.

DETAIL NOT USED IN SECTION 2

DETAIL AS
STANDARD BASE DITCH
(Not to Scale)



Min. D = 1.0Ft.
Max. d = 1.0Ft.
B = 4.0Ft.

*When B is < 6.0'

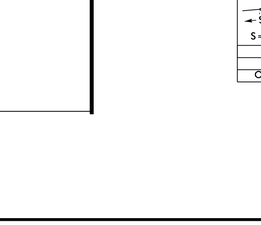
Type of Liner = Class I Rip–Rap

–L– STA. 354+62 RT, L = 80', S = 13.7%
BEG. ELEV = 735.3, END ELEV = 724.3
–L– STA. 455+37 RT, L = 78', S = 3.8%
BEG. ELEV = 658.5, END ELEV = 655.5
–SERRD1– STA. 10+00, B = 4', S = 0.3%
L = 70', BEG. ELEV = 709.4, END ELEV = 709.1
–SERRD1– STA. 11+00, B = 4', S = 9.0%
L = 70', BEG. ELEV = 715.7, END ELEV = 709.4
–SR Q– STA. 13+48.57 LT, L = 45', S = 6.0%
BEG. ELEV = 632.4, END ELEV = 629.7
–Y9B– STA. 17+20 RT, L = 137', S = 9.5%
BEG. ELEV = 722.0, END ELEV = 709.0
–Y9FLY– 12+00 LT, L = 60', S = 9.6%
BEG. ELEV = 712.5, END ELEV = 706.7

DETAIL AT
MEDIAN 'V' DITCH
(Not to Scale)

–L– STA. 220+00 TO STA. 226+00 CL
–Y9FLY– STA. 40+00 TO 43+00 CL

DETAIL AU
RIPRAP TRANSITION AT JURISDICTIONAL STREAM
(Not to Scale)



D, d, and B will match incoming ditch

Type of Liner = Class B Rip Rap

–L– STA. 252+60 LT & RT
–L– STA. 247+56 RT
–Y4– STA. 80+33 RT
–Y9– STA. 16+65 RT
–Y9– STA. 60+94 RT
–Y9– STA. 74+58 LT
–SERRD3– STA. 40+88 LT

DETAIL AV
LATERAL BASE DITCH
(Not to Scale)

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 4.0Ft.
b = 5.0Ft.

*When B is < 6.0'

Type of Liner = Class B Rip–Rap

–L– STA. 274+50 TO STA. 275+00 LT
–L– STA. 353+82 TO STA. 359+50 LT
–L– STA. 363+73 TO STA. 364+50 RT
–L– STA. 365+50 TO STA. 368+00 RT
–SERRD3– STA. 37+26 TO STA. 38+85 LT
–Y4– STA. 72+50 TO STA. 74+54 RT
–Y4RPA– STA. 10+00 TO STA. 21+50 RT
–Y9– STA. 14+50 TO STA. 15+75 RT
–Y9RPC– STA. 23+50 TO STA. 29+38 RT

DETAIL AW
LATERAL BASE DITCH
(Not to Scale)

Min. D = 2.5Ft.
Max. d = 2.5Ft.
B = 4.0Ft.
b = 5.0Ft.

*When B is < 6.0'

Type of Liner = Class B Rip–Rap

–L– STA. 234+25 TO STA. 241+50 LT
–L– STA. 433+37 TO STA. 435+00 RT, Min. D = 3.5'
–Y9– STA. 11+50 TO STA. 15+00 LT

DETAIL AX
LATERAL 'V' DITCH
(Not to Scale)

Min. D = 1.5Ft.
b = 5.0Ft.

–L– STA. 227+50 TO STA. 229+74 LT

DETAIL AY
SPECIAL CUT DITCH
(Not to Scale)

Min. D = 2.0Ft.

–Y9FLY– STA. 33+00 TO STA. 37+95 RT
–Y10END– STA. 21+50 TO STA. 22+05 LT

DETAIL AZ
LATERAL BASE DITCH
(Not to Scale)

Min. D = 1.5Ft.
Max. d = 1.5Ft.
B = 4 Ft.
b = 5 Ft.

*When B is < 6.0'

Type of Liner = Class I Rip–Rap

–L– STA. 435+93 TO STA. 439+00 RT
–Y4RPD– STA. 26+48 TO STA. 31+30 RT

DETAIL BA
STANDARD BASE DITCH
(Not to Scale)

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 4.0Ft.

*When B is < 6.0'

Type of Liner = Class B Rip–Rap

–L– STA. 235+00 RT, L = 83', S = 0.30%
BEG. ELEV = 776.4, END ELEV = 776.1
–Y10END– 19+00 LT, L = 41', S = 1.1%
BEG. ELEV = 641.5, END ELEV = 641.0
–Y4– STA. 23+47 RT, B = 4', S = 1.25%
L = 72', BEG. ELEV = 782.9, END ELEV = 782.0

DETAIL BB
BANK STABILIZATION AT PIPE OUTLET
(Not to Scale)

Class I Rip Rap

–L– STA. 229+60 LT, L = 25'
–L– STA. 346+96 RT, L = 25'
–L– STA. 410+75 LT, L = 30'
–L– STA. 414+35 LT, L = 10'
–SERRD3– STA. 20+29 LT, L = 24'
–SERRD5– STA. 13+85 RT, L = 35'
–Y4– STA. 58+92 LT, L = 20'
–Y5– STA. 12+32 RT, L = 16'
–Y5– STA. 21+95 RT, L = 25'
–Y9– STA. 36+00 LT, L = 25'
–Y9– STA. 45+52 LT, L = 35'
–Y9– STA. 49+12 RT, L = 16'
–Y9RPC– STA. 25+21 LT, L = 45'
–Y9RPD– STA. 16+91 RT, L = 30'

CULVERT INLET/OUTLET DETAILS
–Y4– STA 80+35

CULVERT INLET/OUTLET DETAILS
–L– STA 296+26

DETAIL
FALSE SUMP
(Not to Scale)

S = Ditch Slope
℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2D-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

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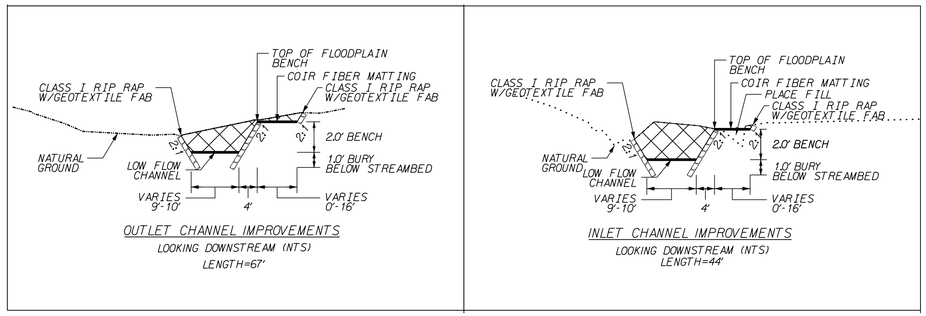
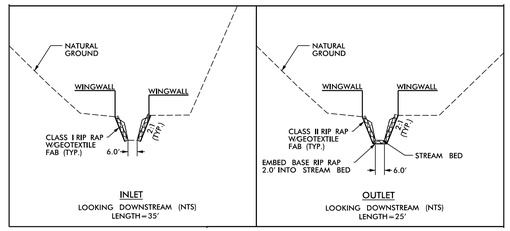
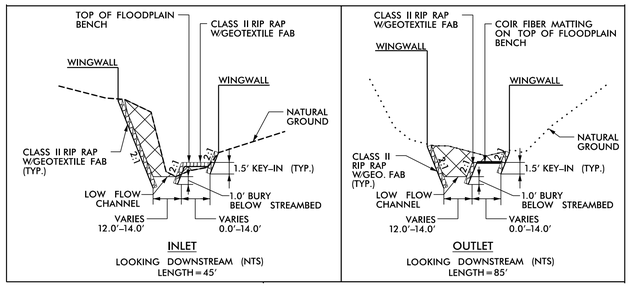


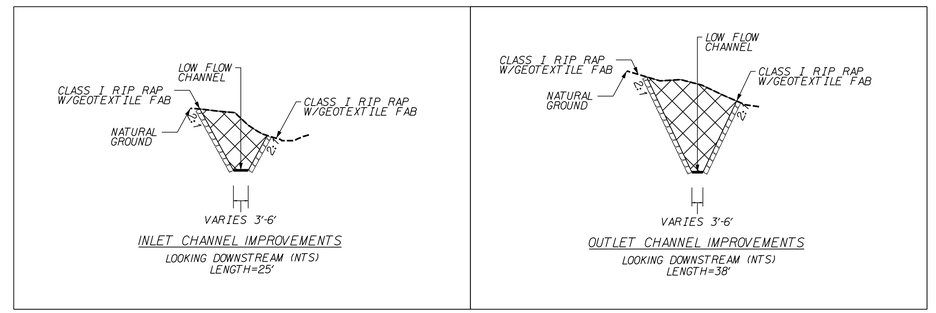
CULVERT INLET/OUTLET DETAILS
-Y5- STA 41+00



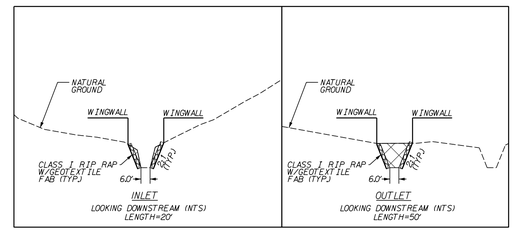
CULVERT INLET/OUTLET DETAILS
-L- STA 364+22



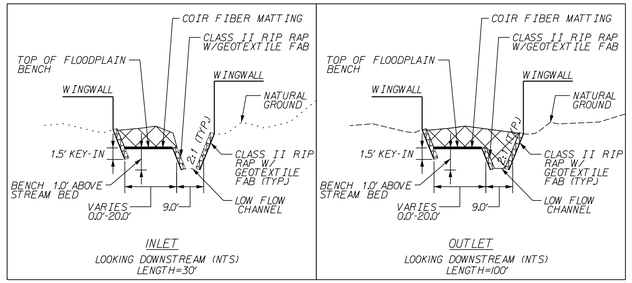
CULVERT INLET/OUTLET DETAILS
-Y9- STA 29+09



CULVERT INLET/OUTLET DETAILS
-Y9- STA 75+04



CULVERT INLET/OUTLET DETAILS
-L- STA 408+00



CULVERT INLET/OUTLET DETAILS
-L- STA 433+31

3/22/2016
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PROJECT REFERENCE NO.	SHEET NO.
R–2536	3P–1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
54	18	TIMOTHY NILES CALLICUTT
55	18	LEROY ALLMON
56	18	EDWARD L. RICH
57	18	TERRY L. ALLMON
58	18	THERESA L. MCCRACKEN
59	18	LARRY COOK
60	18, 19	MARK T. BRASWELL
63	18	ENDA LILLY
64	18, 19	JAMES STEVEN OWENS
66	18	JESSIE L. GREENE
67	18	BROWERS WESLEYAN MEMORIAL CHURCH
68	18, 19	SHIRLEY ANN SNOW
69	18, 19	OLA MAE BROWER SNOW
71	19	JAMES H. MURRAY
72	19, 20	SHEILA BROWER JACKSON
73	18, 19	GERLDINE DURHAM GARNER
76	19	JILL SHAW THOMAS
77	19, 20	KATE L. BROWER (LE)
78	20, 21	PATRICIA L. BROWNE
79	21	HELEN LUCAS (LE) PHILLIP LEDWELL CATHY LEDWELL
79A	21	HELEN L. LUCAS
81	21	HELEN LUCAS
82	20, 21, 22, 23,	ROBERT DALLAS BRITTAIN II
83	21	WILLIAM BLANKENSHIP
84	21, 22	CYNTHIA STRICKLAND
84A	21, 22	JASON UNDERWOOD
85	22	HELEN LUCAS (LIFE ESTATE) HANNAH LEDWELL
86	21, 22	ROBERT STRICKLAND
88	22	MARCELLA MILLER (LIFE ESTATE) ZACHARY MILLER
89	22, 23	HELEN LUCAS
90	22, 23, 70	VIRGINIA WEEKS
91	23	JOSE ULISES DOMINGUEZ ALEJANDRE YOLANDA LOPEZ
91A	23	FATIMA LAZARO ESPINOZA
92	23	FRANCISCO SOLIS
93	23	ANTONIO ALEJANDRE
94	23	LAZARO ALEJANDRO
95	23	ROBERT GRIFFIN
96	23, 69, 75	DEMPSEY MOORE, TRUSTEE
98	23	NANCY ABBOTT SUE MOORE
99	23	THE DONALD & MARY CROTTS FAMILY TRUST
100	23, 70	DEMPSEY & SUE MOORE LIVING TRUST
102	23	RICHARD ABBOTT
103	23, 24, 75, 76	NANCY DUNN
103A	75, 76	MICHAEL HAYES
104	24	KAREN RUSSELL
105	24, 25	DEBRA STANLEY
105A	24	EMERY LIVING TRUST
106	24, 25	WILLIAM SPIVEY
107	25	DARRELL JOHNSON
108	25	JAMES LEWALLEN
109	25	J. N. SISTRUNK
110	25	WILLIAM HANCOCK
111	25	JOHN WAGONER
112	25	RUBY HANCOCK
113	25, 26	LOREE REEDER
114	24, 25	EMERY LIVING TRUST
115	24, 25	DAVID LEVY
116	25	DARRELL JOHNSON
117	25, 76	RALPH MILLER
118	25, 26, 76, 77	WILLIAM T. SCOTT

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
119	26	BARBARA HOWELL
119A	26	MARIA LOPEZ VENCES
119B	26	ERNESTINA BENITEZ
119C	26	NELVA GALARZA
119D	26, 27	NEAL CRAVEN
119E	26	ENRIQUE HERNANDEZ
119F	26, 78	SALVADOR CAVILLO
119G	26, 78	HERMILA HERNANDEZ
121	26, 77	NEAL CRAVEN
122	26, 77	ERIBERTO AYALA
122A	77	JORGE SOSA
122B	77	DONALD BARBOUR
122C	77	FLORENCIO REYES
122D	77	EDDY BRAVO
122E	77	STEVEN CRAVEN
122F	77	MARTIN MARTINEZ
122G	77	MARIO HERNANDEZ
122H	77	ELIZANDRO CAMPOS
122I	77	ADAN VENCES SALINAS
123	26, 27	IGNACIO HERNANDEZ
124	26, 27	LUIS HERNANDEZ
125	26, 27	ISIDRA VENCES
126	27	PEDRO ESTEBAN
127	27, 77	PETRA ARROYO
128	27	FAUSTINO URIBE
129	27, 28, 78	LYNETTE S. GARNER AND HERMAN K. MCDOWELL, JR., LLC
129A	78	COEY L. LEAK AND WIFE, DEBRA C. LEAK
129B	78	PATSY Y. MCCLINTOCK
129C	78	FIDEL ARAUDA
129D	78	FREDY R. CARDONA AND WIFE, AMABILIA CARDONA
129E	78	JUDITH ALEMAN COBARRUBIAS
131	27, 28	WILLIAM COULSON
132	27	COLON HOLT
133	27	TERRY JAMES
134	28, 78	JP MORGAN CHASE BANK NATIONAL ASSOCIATION
135	28	NORRIS JESSUP
136	28, 29	GRAYSON FLOYD
137	28, 78	INEZ CHAVEZ
138	28	JOSEPH GAUDIO, JR.
139	28	ROSE CRUZ
140	28, 29	JULIA MORELAS
141	29	TOLEDO DURATE
143	29	BILLY LUNDY
144	29, 30	RAY DAVIS
145	29	MARK BRASWELL
146	29, 30	PAUL ROBERTS
147	30	BRIAN COOPER
148	30, 79	BUTTERFIELD FAMILY TRUST
149	30, 79	CHARLA WONG
150	30	JHS MASTER CAPITAL, LLC
151	30, 79	A. D. FREEMAN
152	30	JOSE CORTEZ
153	30	RANDY DUNN
154	30	APRIL HELTON
155	30, 31	FRED GARNER
156	30, 31	EVA WILLIAMS
156A	31	BRADLEY HUSSEY
156B	31	FURMAN GREENE, JR.
157	30	JEFFERY RITTER
158	30	JASON CASTEVENS

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REVISIONS

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	3P-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
159	30	FRANCISCO LOPEZ
159A	30	MARK BULLINS
159B	30	DAVID BRYANT
159C	30	SUSAN THOMPSON
159D	30	STEVEN RHENOW
160	30, 81	PAUL ROBERTS
161	31, 32	DAVID O. COOPER, JR.
162	31, 32	BRENDA HINSON
164	30, 31	GAIL BAILEY
165	32, 33	DONNA STALEY
166	33	GRACE MCDONALD
167	32, 33	LINDA MARLEY
168	32, 33	REBECCA ROUTH
169	33, 34	ELTON CAVINESS
169A	33	DAVID HALL
170	33, 34, 91, 92	THE CROSS ROAD REST AND RETIREMENT CENTER, INC.
171	34, 91	MARGARET FOSTER
171A	34, 91	CLARENCE M. HARRELSON
172	34, 35	MARY CATOE
173	34, 35	TIMOTHY HILL
175	34, 35, 91	THOMAS P. FRAZIER
176	35	GEORGE MILLER, JR.
322	18	JAMES A. MCNEIL JR.
325	73, 74	ROBERT D. BRITTAIN
326	68, 69, 74	ROBERT E. LUCK
326A	23, 74	PEGGY WOODRUFF
327	23, 69, 74	GAIL D. JONES
328	68, 69, 75	KLAUSSNER FURNITURE INDUSTRIES, INC.
328A	71, 72	MARY BARKER
328B	71	CECIL MOORE
328C	71, 72	LAWRENCE CRANFORD
329	71	JONITHAN BOWLAND
330	70, 71	CECIL CARRIER
330A	72	HERMAN MCDOWELL, JR.
330B	71, 72	HAROLD GROVE
330C	71, 72	VERA BEANE (LIFE ESTATE) HENRY FAUSNETT MICHELLE FAUSNETT
331	71	RUSSELL WILSON
332	70, 71	STEVE CAMPBELL
333	70	RANDY LUCK
334	70	CHARLES LUCK
335	70	JAMES KEATHLEY
336	23, 70	HELEN LUCAS
337	70	ROY PARKS
339	70	H. L. DELK CONSTRUCTION, INC.
340	23, 70	JOSEPH KINNEY
341	23	MARTIN BURGESS
342A	79	SUNRISE & SONS, LLC
342B	79	WILLIAM T. MAHAN
342C	30, 79	NATHAN BULLARD JR
342D	79	UNKNOWN OWNER
343	30, 81	ARMANDO ESTEBAN
343A	30, 81	VICKY LEONARD
344	81	OSCAR AGUILAR
344D	81	MARK BRASWELL
344E	81	MARY DEBERRY
344F	81	STC INVESTMENTS AND PROPERTIES, LLC
347	81	CARLA WILLARD
348	81	BOBBY H. WRIGHT, JR.
349	81, 82	BERNIE BAILEY
350	81	SILVINA TREJO PINEDA

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
350A	81, 31	DAVID BLACKWELL
351	80, 81, 82	BONITA S. CAMPBELL
351A	80, 82	JEAN B SCOTT
351B	80	KAREN RICHARDSON MILLER
351C	80	RONNIE J GILLESPIE
351D	80	JERRY R AND JEANNIE H HUNT
351E	80, 90	JERRY HUNT
351F	32, 80	KENNETH M AND KELLEY L STEWART
351G	80	RICHES INC. AND OTHERS
351H	80	WAYNE MORGAN
351I	80	CORNISHA L THOMPSON
351J	80	BONITA SPENSER CAMPBELL
351L	80	KENNETH TROTTER
351M	80	JERRY W AND SANDRA W WILLIAMS
351N	80	CHRISTOPHER M GARNER AND JENNIFER GRAVES
352	81	WAYNE HOOKER
353	30, 81	TONY GARNER
354	30, 31, 81	MARK BRASWELL
355	81, 82, 83	ERIC & DEBORAH NEWTON
356	82, 83	GARNER AND SON LLC
357	83, 84, 90	REID A. SHAW
358	84, 85	REID A. SHAW TRUSTEE
359	85, 86	ALFRED & EVANNA LAPRADE
361	86, 87	ERNEST & GERALDINE SHELTON
361A	87, 88	EVELYN GODFREY & OTHERS
361B	87, 88	WILLIAM & TRACI SAMPSON
361C	87	UNKNOWN OWNER
362	90	JOSEPH & JANICE LEE
362A	90	WILLIAM T MORRISON
362B	90	JAMES J YOW
363	90	HOWARD & CORA LEE
364	90	AARON & TRACI JORDAN
365	90	THELMA MILLER
366	80, 90	RODNEY VICK
367	80, 82, 90	JERALDINE & SHARON COOPER
368	90	MILDRED CROMER
369	90	MILDRED CROMER
370	90	STEPHANIE MABE
371	92	LYNDA MARTIN
372	92	OTEIA HILL
372A	92	REBECCA WILLIAMS
372B	92	UNKNOWN OWNER
374	34, 91	ELIZABETH BODMAN
374A	91	RANDY BARKER
901	18	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
905	70	N.C.D.O.T.
907	23	N.C.D.O.T.
912	23	N.C.D.O.T.
925 & 926	22	NCDOT

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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NAD 8395

MATCHLINE –L– STA. 210+00 SEE SHEET 17

MATCHLINE –L– STA. 223+50 SEE SHEET 19

END CONSTRUCTION
–Y3– POT Sta. 20+70.00

–Y3– PT Sta. 19+02.91

–L– POC Sta.219+47.37 =
–Y3– POC Sta.14+21.88

–L– TS Sta. 213+38.40

–L– SC Sta. 215+68.40

–Y3– PC Sta. 12+57.74

–Y3– PC Sta. 12+17.74

–BL-326 PINC 74+56.76

–BL-327 PINC 75+96.93

–BL-325 PINC 72+66.33

–BL-328 PINC 78+12.78

–BL-329 PINC 79+73.38

–BL-501 PINC 80+94.89

–BL-502 PINC 84+53.15

–BY5-355 PINC 19+09.43

BEGIN CONSTRUCTION
–Y3– POT Sta. 10+00.00
–Y3– POT Sta. 9+50.00

JAMES A. MCNEIL JR.
DB 1563 PG 1295

THERESA L. MCCRACKEN
DB 2133 PG 1513

TIMOTHY NILES CALLICUTT
DB 03E PG 156
DB 1117 PG 810

LEROY ALLMON
DB 1133 PG 93

EDWARD L. RICH
DB 1116 PG 564

LARRY COOK
DB 2204 PG 1294

MARK T. BRASWELL
DB 1425 PG 564

TERRY L. ALLMON
DB 1411PG 942

NORTH CAROLINA
DEPARTMENT OF TRANSPORATION
DB 1996 PG 1292

JESSIE L. GREENE
DB 1185 PG 1333

BROWERS WESLEYAN
MEMORIAL CHURCH
DB 1113 PG 283

ENDA LILLY
DB 2187 PG 989
DB 56 PG 44

JAMES STEVEN OWENS
DB 1403 PG 1493

SHIRLEY ANN SNOW
DB 1264 PG 119

OLA MAE BROWER SNOW
DB 1054 PG 135

PROP. 47" WW FENCE

BERM DITCH SEE DETAIL A

BERM BASE DITCH SEE DETAIL L

STANDARD BASE DITCH SEE DETAIL T

SPECIAL CUT DITCH SEE DETAIL H

MEDIAN V DITCH SEE DETAIL AP

STANDARD V DITCH SEE DETAIL W

BDO

30" CSP
2 ELBOWS
ROD & LUG

15" RCP-III

30" RCP-III REMOVE

8 TONS CL B RIPRAP
W/21 SY GEO FAB
PLACE RIPRAP IN CHANNEL,
EXTEND 15' FROM PIPE

1 TONS CL B RIPRAP
W/5 ST GEO FAB

GRAU 350

TYPE B-77

REMOVE

RETAIN

PUE

SITE 5– –Y3– STRUCTURE

–L– POC Sta.219+47.37 =
–Y3– POC Sta.14+21.88
Δ = 129°44'29.8"

BEGIN BRIDGE
–Y3– Sta.13+00.91

END BRIDGE
–Y3– Sta.15+39.68

BEGIN APPROACH SLAB
–Y3– Sta.12+75.91

END APPROACH SLAB
–Y3– Sta.15+64.68

PROP. SBG

–L–		–Y3–
PIs Sta 214+91.74	PI Sta 239+68.49	PI Sta 15+63.40
Θs = 1° 38' 50.1"	Δ = 61° 55' 45.8" (LT)	Δ = 18° 41' 37.9" (RT)
Ls = 230.00'	D = 1° 25' 56.6"	D = 2° 43' 42.1"
LT = 153.34'	L = 4,323.49'	L = 685.17'
ST = 76.67'	T = 2,400.09'	T = 345.65'
	R = 4,000.00'	R = 2,100.00'
	SE = 0.05	SE = 0.05
	V = 70 MPH	V = 50 MPH

PAVEMENT REMOVAL

FOR –L– PROFILE SEE SHT. 112
FOR –Y3– PROFILE SEE SHT. 149
FOR –Y3DET– PLAN SEE SHT. 2B-1
FOR –Y3DET– PROFILE SEE SHT. 149

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE -L- STA. 223+50 SEE SHEET 18

MATCHLINE -L- STA 234+00 SEE SHEET 20

-BL-505 PINC 95+05.58

-BL-504 PINC 90+96.23

-BL-503 PINC 87+95.52

-BY5-356 POT 24+00.10

-L-

PROP. 47" WW FENCE

MARK T. BRASWELL
DB 1425 PG 564
60

JAMES H. MURRAY
DB 1889 PG 390
PB 52 PG 50
71

SHEILA BROWER JACKSON
DB 2149 PG 1023
72

JAMES STEVEN OWENS
DB 1403 PG 1493
64

SHIRLEY ANN SNOW
DB 1264 PG 119
68

OLA MAE BROWER SNOW
DB 1054 PG 135
69

GERLDINE DURHAM GARNER
DB 1541 PG 118
DB 52 PG 50
73

JILL SHARP THOMAS
DB 2264 PG 1496
PB 122 PG 18
76

KATE L. BROWER(LE)
DB 2149 PG 567
PB 122 PG 18
77

DENNIS MICHAEL GARNER
DB 2014 PG 1761
PB 52 PG 50

KATE L. BROWER(LE)
DB 2149 PG 565
PB 122 PG 18

SPRINT TELEPHONE
99 YEAR LEASE
PB 52 PG 50

MIGUEL A. MENDEZ
DB 2153 PG 866

JOHN M. BARKER
DB 1766 PG 2172

30' EASEMENT
DB 1113 PG 926

SPECIAL CUT DITCH SEE DETAIL H

LATERAL V DITCH SEE DETAIL AX

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB

11 TONS CL I RIPRAP W/22 SY GEO FAB

REMOVE PIPE MATCH BASE DITCH TO EXISTING STREAM

MEDIAN V DITCH SEE DETAIL AP

BERM BASE DITCH SEE DETAIL L

LATERAL BASE DITCH SEE DETAIL C

BERM DITCH SEE DETAIL A

NOTE: TIE CUT AND BERM DITCHES DOWN TO LATERAL BASE DITCH

30" RCP III

15" RCP III

225+00

230+00

-L-
PI Sta 239+68.49
Δ = 61° 55' 45.8" (LT)
D = 1° 25' 56.6"
L = 4,323.49'
T = 2,400.09'
R = 4,000.00'
SE = 0.05
V = 70 MPH

FOR -L- PROFILE SEE SHT. 23

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

72
SHEILA BROWER JACKSON
DB 2149 PG 1023

78
PATRICIA L. BROWNE
DB 2037 PG 1370

78
PATRICIA L. BROWNE
DB 2037 PG 1370

77
KATE L. BROWER(LE)
DB 249 PG 567
PB 122 PG 18

78
PATRICIA L. BROWNE
DB 2037 PG 1370

82
ROBERT DALLAS BRITTAIN II
DB 095E PG 0355

MATCHLINE –L– STA. 234+00 SEE SHEET 19

MATCHLINE –L– STA. 247+00 SEE SHEET 21

-BL-507 PINC 101+08.52

-BL-508 PINC 104+88.12

-BL-506 PINC 97+96.86

PROP. 47" WW FENCE

+12.00
200'

+80.00
232'
200'

+95.00
245'
200'

+00.00
200'

N 54°18'34" W
352.59'

2 TONS CL B RIPRAP
W/7 SY GEO FAB
2003

LATERAL BASE DITCH
SEE DETAIL AW

PERMANENTLY
DRAIN POND

15" RCP-III

2002

235+00

240+00

245+00

2GI FS

2001

LATERAL BASE DITCH
SEE DETAIL C

STANDARD BASE DITCH
SEE DETAIL BA

2004

48" RCP-III

2008 HW

LATERAL V DITCH
SEE DETAIL D

2006 FS MIN
EL. 758.5

30" RCP-III

2005

24" RCP-III

2007
8 TONS CL B RIPRAP
W/21 SY GEO FAB

26 TONS CL I RIPRAP
W/50 SY GEO FAB
ON BANKS ONLY
2009

CHANNEL CHANGE
SEE DETAIL AG

BANK STABILIZATION
AT PIPE OUTLET
SEE DETAIL AJ

200'

PUE

+82.00
200'

+45.00
200'

+70.00
315'

+12.00
333'

10' P.S.

24' 4' P.S. 23'

.05

S32°32'37"W
166.58'

N33°12'1"E
368.28'

N 47°41'10" E
352.47'

N88°58'1"W
847.00'

STONE

WLB

EIP

-L-
PI Sta 239+68.49
△ = 61° 55' 45.8" (LT)
D = 1° 25' 56.6"
L = 4,323.49'
T = 2,400.09'
R = 4,000.00'
SE = 0.05
V = 70 MPH

FOR –L– PROFILE SEE SHTS. 112–113

PAVEMENT REMOVAL

PLANS PREPARED BY :
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83'95

MATCHLINE -L- STA. 247+00 SEE SHEET 20

MATCHLINE -L- STA. 260+00 SEE SHEET 22

-BL- 513 PINC Sta. 14+05.09

-L- CS Sta. 258+91.88

-BL- 511 PINC 7+38.06

-BL- 512 PINC Sta. 9+20.78

-BL-509 PINC 109+11.35

R-2536AB LB BL-510 PINC 111+85.97=
R2536B LA -BL- 510 POT 5+00.00

78 PATRICIA BROWN DB 2037 PG 1370

79A HELEN L. LUCAS DB 2004 PG 1102 PB 42 PG 61

79 HELEN LUCAS (LIFE ESTATE) PHILLIP LEDWELL CATHY LEDWELL DB 1968 PG 1789

81 HELEN LUCAS DB 1968 PG 1787

HELEN LUCAS DB 1159 PG 402

82 ROBERT DALLAS BRITTAIN II DB 095E PG 0355

83 WILLIAM BLANKENSHIP DB 1426 PG 713

86 ROBERT STRICKLAND DB 1093 PG 459

624.37' N83°43'52"W

660.05' S89°36'46"E

PROP. 47" WW FENCE

END C/A FENCE -L- STA. 252+20.00

BEGIN C/A FENCE -L- STA. 252+80.00

END C/A FENCE -L- STA. 252+40.00

BEGIN C/A FENCE -L- STA. 253+00.00

3 TONS CL B RIPRAP W/10 SY GEO FAB

2 TONS CL B RIPRAP W/7 SY GEO FAB

RIPRAP TRANSITION SEE DETAIL AU

SPECIAL CUT DITCH SEE DETAIL H

LATERAL V DITCH SEE DETAIL D

PSH SEE DETAIL AP

STANDARD V DITCH SEE DETAIL AL

LATERAL BASE DITCH SEE DETAIL B

LATERAL BASE DITCH SEE DETAIL C

18" CSP 2 ELBOWS ROD & LUG

15" CSP 2 ELBOWS ROD & LUG

CAT-1

BDO

GRAU 350 TL-3

16:1 TAPER

300' TAPER

500' ACCELERATION LANE

TYPE B-77

TYPE M350

15" RCP-III PROP. SBG

2GI

FS

250+00

255+00

CHORD +91.88 200'

+15.00 260'

+70.00 250'

+77.00 220'

10.00 215'

PUE

ISFD

WOODS

SITE 6- -L- STRUCTURE

BEGIN APPROACH SLAB -L- Sta. 251+20.29

END BRIDGE -L- Sta. 253+45.08

END APPROACH SLAB -L- Sta. 253+70.27

BEGIN BRIDGE -L- Sta. 251+45.61

BEGIN APPROACH SLAB -L- Sta. 251+25.92

BEGIN BRIDGE -L- Sta. 251+50.95

END BRIDGE -L- Sta. 253+48.12

END APPROACH SLAB -L- Sta. 253+73.03

-L-

PI Sta 239+68.49	PIs Sta 259+68.56
Δ = 61° 55' 45.8" (LT)	Θs = 1° 38' 50.1"
D = 1° 25' 56.6"	Ls = 230.00'
L = 4,323.49'	LT = 153.34'
T = 2,400.09'	ST = 76.67'
R = 4,000.00'	
SE = 0.05	
V = 70 MPH	

FOR -L- PROFILE SEE SHT. 113

PLANS PREPARED BY :

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-L-	-Y4RPB-		-Y4RPC-	
PIs Sta 259+68.56	PIs Sta 11+33.35	PI Sta 14+49.15	PIs Sta 17+61.92	PI Sta 15+98.79
Θs = 1° 38' 50.1"	Θs = 3° 08' 53.2"	△ = 15° 35' 25.7" (LT)	Θs = 3° 08' 53.2"	△ = 17° 28' 37.3" (RT)
Ls = 230.00'	Ls = 200.00'	D = 3° 08' 53.2"	Ls = 200.00'	D = 4° 46' 28.7"
LT = 153.34'	LT = 133.35'	L = 495.23'	LT = 133.35'	L = 366.04'
ST = 76.67'	ST = 66.69'	T = 249.16'	ST = 66.69'	T = 184.45'
		R = 1,820.00'		R = 1,200.00'
		SE = 0.07		SE = 0.08
		V = 60 MPH		V = 60 MPH

PROJECT REFERENCE NO.	SHEET NO.
R-2536	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE -L- STA. 260+00 SEE SHEET 21

MATCHLINE -L- STA. 272+00 SEE SHEET 23

MATCHLINE -Y4RPB- STA. 20+50 SEE SHEET 23

MATCHLINE -Y4RPC- STA. 17+50 SEE SHEET 23

-SERRD3- PC Sta. 10+74.83

BEGIN CONSTRUCTION -SERRD3- POT Sta. 9+33.41

-Y4RPB- ST Sta. 18+95.23

-BL- 515 PINC Sta. 21+91.16

-BL- 514 PINC Sta. 19+28.79

-BL- 516 PINC Sta. 24+77.47

-L- POT Sta. 261+71.40 = -Y4RPB- ST Sta. 10+00.00 (47' LT)

-Y4RPB- CS Sta. 16+95.23

-L- ST Sta. 261+21.88

-Y4RPB- SC Sta. 12+00.00

-L- POT Sta. 264+50.77 = -Y4RPC- PT Sta. 10+00.00 (59.00' RT)

-Y4RPC- TS Sta. 11+94.34

-Y4RPC- SC Sta. 14+14.34

84A JASON UNDERWOOD DB 1449 PG 685

85 HELEN LUCAS (LIFE ESTATE) HANNAH LEDWELL DB 2296 PG 1434 PB 79 PG 23 PB 103 PG 54

90 VIRGINIA WEEKS DB 1301 PG 55 DB 1301 PG 56

84 CYNTHIA STRICKLAND DB 1093 PG 460

89 HELEN LUCAS DB 1193 PG 176I DB 933 PG 510 DB 1578 PG 245

86 ROBERT STRICKLAND DB 1093 PG 459

88 MARCELLA MILLER (LIFE ESTATE) ZACHARY MILLER DB 2253 PG 790

925 & 926 NCDOT DB 2386 PGS 1860 & 1862

SPECIAL CUT DITCH SEE DETAIL H

LATERAL V DITCH SEE DETAIL D

LATERAL BASE DITCH SEE DETAIL C

2 TONS CL B RIPRAP W/7 SY GEO FAB

26 TONS CL I RIPRAP W/50 SY GEO FAB

TOE PROTECTION SEE DETAIL I

TDE FOR EROSION CONTROL DEVICE

15" CSP 2 ELBOWS ROD & LUG

30" CSP 2 ELBOWS ROD & LUG (NOT BURIED)

42" RCP CD (NOT BURIED)

48" RCP-III

JB w/MH

PROP. 47" WW FENCE

PROP. SBG

300' TAPER

500' ACCELERATION LANE

FOR -L- PROFILE SEE SHTS. 113-114
FOR -Y4RPB- PROFILE SEE SHT. 160
FOR -Y4RPC- PROFILE SEE SHTS. 162
FOR -SERRD3- PROFILE SEE SHT. 181

PLANS PREPARED BY :

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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2536	23
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

-L- (US 64 BYPASS) -Y4- (US 220 BYPASS)

ADT 2015		19,500
ADT 2040		42,300
1,450	2,350	12,600
2,200	3,000	18,800
US 64 BYPASS		
-L-		
9,250	4,500	22,250
15,800	5,800	46,500
2,050		
3,600		

-Y4- (US 220 BYPASS)

-Y4RPA-

Pi Sta 18+48.42	Pi Sta 16+85.74	Pi Sta 15+22.86	
Δ = 5° 15' 01.6"	Δ = 8° 32' 30.0" (RT)	Δ = 5° 15' 01.6"	
D = 4° 46' 28.7"	D = 4° 46' 28.7"	Ls = 220.00'	
Ls = 220.00'	Lt = 178.99'	Lt = 146.73'	
Lt = 146.73'	R = 1,200.00'	St = 73.39'	
St = 73.39'	V = 60 MPH		

-Y4RPD-

Pi Sta 25+99.71		
Δ = 63° 36' 11.8" (RT)		
D = 4° 46' 28.7"		
Lt = 1,332.42'		
R = 1,200.00'		
SE = 0.08		
V = 60 MPH		

-Y4-

Pi Sta 23+66.66	Pi Sta 33+46.61	
Gs = 0° 53' 59.8"	Δ = 18° 14' 30.7" (LT)	
Ls = 180.00'	D = 0° 59' 59.2"	
Lt = 120.00'	L = 1,824.32'	
St = 60.00'	T = 919.94'	
	R = 5,730.00'	
	SE = 0.04	
	V = 75 MPH	

-Y4LPA-

Pi Sta 12+04.65	Pi Sta 21+47.25	Pi Sta 22+48.74	
Gs = 3° 22' 00.5"	Δ = 20° 22' 33.0" (RT)	Gs = 3° 22' 00.5"	
Ls = 300.00'	D = 2° 54' 40.4"	Ls = 300.00'	
Lt = 204.65'	L = 844.50'	Lt = 204.65'	
St = 104.24'	T = 851.25'	St = 104.24'	
	R = 2,310.00'		
	SE = 0.08		
	V = 30 MPH		

-Y4LPD-

Pi Sta 16+92.65	Pi Sta 21+27.43	
Δ = 180° 09' 24.9" (RT)	Gs = 3° 22' 00.5"	
D = 24° 54' 40.4"	Ls = 300.00'	
L = 723.20'	Lt = 204.65'	
T = 157,965.80'	St = 104.24'	
R = 230.00'		
SE = 0.08		
V = 30 MPH		

-Y4CD_RT-

Pi Sta 27+81.40	Pi Sta 30+59.66	Pi Sta 25+20.71
Gs = 1° 13' 08.6"	Gs = 0° 24' 19.8"	Δ = 18° 24' 54.8" (LT)
Ls = 200.00'	Ls = 80.00'	D = 7° 02' 49.4"
Lt = 133.34'	Lt = 53.33'	L = 1,027.42'
St = 66.67'	St = 26.67'	T = 516.13'
		R = 3,652.00'
		SE = 0.03
		V = 50 MPH

-Y4CD_LT-

-Y4RPB-

Pi Sta 22+41.08	Pi Sta 28+32.16	
Gs = 1° 09' 43"	Δ = 65° 53' 55.7" (LT)	
Ls = 200.00'	D = 1° 09' 43"	
Lt = 133.44'	L = 920.12'	
St = 66.71'	R = 800.00'	
	SE = 0.08	
	V = 50 MPH	

-Y4LPB-

Pi Sta 12+04.65	Pi Sta 16+92.65.80	Pi Sta 21+27.43
Gs = 3° 22' 00.5"	Δ = 180° 09' 24.9" (RT)	Gs = 3° 22' 00.5"
Ls = 300.00'	D = 24° 54' 40.4"	Ls = 300.00'
Lt = 204.65'	L = 723.20'	Lt = 204.65'
St = 104.24'	T = 157,965.80'	St = 104.24'
	R = 230.00'	
	SE = 0.08	
	V = 30 MPH	

-Y4LPC-

Pi Sta 12+04.65	Pi Sta 21+47.25	Pi Sta 22+48.74
Gs = 3° 22' 00.5"	Δ = 20° 22' 33.0" (RT)	Gs = 3° 22' 00.5"
Ls = 300.00'	D = 2° 54' 40.4"	Ls = 300.00'
Lt = 204.65'	L = 844.50'	Lt = 204.65'
St = 104.24'	T = 851.25'	St = 104.24'
	R = 2,310.00'	
	SE = 0.08	
	V = 30 MPH	

-Y4RPC-

Pi Sta 15+98.79	Pi Sta 18+53.77	Pi Sta 28+20.52	Pi Sta 31+61.28
Δ = 17° 28' 37.3" (RT)	Gs = 5° 15' 01.6"	Gs = 7° 57' 44.2"	Δ = 38° 44' 20.9" (RT)
D = 4° 46' 28.7"	Ls = 220.00'	Ls = 200.00'	D = 7° 57' 44.2"
L = 366.04'	Lt = 146.73'	Lt = 133.45'	L = 527.38'
T = 184.45'	St = 73.39'	St = 66.71'	T = 274.22'
R = 1,200.00'			R = 720.00'
SE = 0.08			SE = 0.08
V = 60 MPH			V = 50 MPH

GRAPHIC SCALE
50 25 0 50 100

PLANS

FOR -L- PROFILE SEE SHTS. 114–115
FOR -Y4- PROFILE SEE SHTS. 156–157
FOR -Y4RPA- PROFILE SEE SHTS. 159
FOR -Y4RPB- PROFILE SEE SHTS. 161
FOR -Y4RPC- PROFILE SEE SHTS. 162–163
FOR -Y4RPD- PROFILE SEE SHTS. 163–164
FOR -Y4LPA- PROFILE SEE SHT. 160
FOR -Y4LPB- PROFILE SEE SHT. 161
FOR -Y4LPC- PROFILE SEE SHT. 162
FOR -Y4LPD- PROFILE SEE SHT. 164
FOR -Y4CD_RT- PROFILE SEE SHTS. 151–152
FOR -Y4CD_LT- PROFILE SEE SHTS. 151–152
FOR -SERRD3- PROFILE SEE SHT. 181

PAVEMENT REMOVAL

PLANS PREPARED BY :

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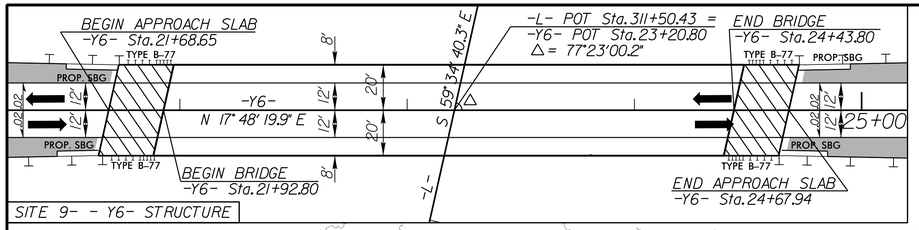

PROJECT REFERENCE NO.	SHEET NO.
R-2536	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 8395

END CONSTRUCTION
-Y6- ST Sta. 29+00.00

N80°40'53"W 640.97'

N6°54'13"E 271.11'

N12°13'11"W 582.97'

103
NANCY DUNN
WB 03E PG 730
DB 467 PG 333
DB 575 PG 453
DB 622 PG 388
DB 434 PG 452
PB 1 PG 274

104
KAREN RUSSELL
DB 1456 PG 926

105
105A
EMERY LIVING TRUST
DB 2168 PG 644
PB 49 PG 55
DB 2168 PG 646
PB 49 PG 55
DEBRA STANLEY
DB 1187 PG 202
PB 55 PG 55

-BL- 526 PINC Sta. 57+98.18
-BL- 527 PINC Sta. 61+95.40
-BL- 528 PINC Sta. 67+08.12 = -BY3- 528 PINC Sta. 31+27.05
-BL- 529 PINC Sta. 68+76.36

-L- POC Sta. 299+36.46 = -Y4RPA- POT Sta. 10+00.00 (59' LT)
-L- CS Sta. 303+51.80
-L- POT Sta. 311+50.43 = -Y6- POT Sta. 23+20.80
-Y4RPD- ST Sta. 34+07.73 = -L- POT Sta. 304+31.29
-Y4RPD- Sta. 33+29.25
-Y4RPD- CS Sta. 31+87.73

CHORD
PROP. 47" WW FENCE
TIE BERM DITCH AND SPECIAL CUT DITCH TO LATERAL DITCH LINE WITH 2 TONS CL B RIPRAP W/7 SY GEO FAB
BERM DITCH SEE DETAIL A
LATERAL BASE DITCH SEE DETAIL C
LATERAL V DITCH SEE DETAIL D
SPECIAL CUT DITCH SEE DETAIL H
LATERAL BASE DITCH SEE DETAIL AZ
45.0' TYP.
200'
600' TAPER
600' ACCELERATION LANE
300' TAPER
GRAU 350 8:1
18" CSP 2 ELBOWS ROD & LUG
CAT-1
8 TONS CL B RIPRAP W/21 SY GEO FAB
3 TONS CL B RIPRAP W/10 SY GEO FAB
PROP. SBG
18" RCP-III
24" RCP-III
30" RCP-III
15" RCP-III
27.5' TYP.
FILL AND CAP WITH 4" CONCRETE
15" CSP 2 ELBOWS ROD & LUG
PSRM
-Y6DET-
ATTENUATOR
PUE
REMOVE
REMAIN
TREES
WOODS
FIELD
GRASS
ISBKD
ISFBUS
EIP
TIMBERS
SOIL & GR
2GI
2GI-A
FS
PSRM

MATCHLINE -L- STA. 299+00 SEE SHEET 23

MATCHLINE -Y4RPD- STA. 29+00 SEE SHEET 23

MATCHLINE -L- STA. 313+00 SEE SHEET 25

MATCHLINE -Y6- STA. 20+00 SEE SHEET 76

-L-		-Y4RPD-	
PI Sta 296+73.33	PIs Sta 304+41.82	PI Sta 25+99.71	PIs Sta 32+76.75
Δ = 25°05' 25.9" (RT)	Θs = 2° 27' 19.9"	Δ = 63° 36' 11.8" (RT)	Θs = 1° 24' 54.6"
D = 1° 49' 08.1"	Ls = 270.00'	D = 4° 46' 28.7"	Θs = 5° 15' 08.6"
L = 1,379.42'	LT = 180.02'	L = 1,332.10'	Ls = 220.00'
T = 700.95'	ST = 90.02'	T = 744.08'	LT = 131.22'
R = 3,150.00'		R = 1,200.00'	ST = 89.01'
SE = 0.06		SE = 0.08	
V = 70 MPH		V = 60 MPH	

FOR -L- PROFILE SEE SHT. 115
FOR -Y4RPA- PROFILE SEE SHT. 159
FOR -Y4RPD- PROFILE SEE SHT. 164
FOR -Y6- PROFILE SEE SHT. 167
FOR -Y6DET- PLAN SEE SHT. 2B-2
FOR -Y6DET- PROFILE SEE SHT. 182

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 8395

MATCHLINE –L– STA. 313+00 SEE SHEET 24

MATCHLINE –L– STA. 327+00 SEE SHEET 26

MATCHLINE SEE SHEET 76

-BY5- 606 POT Sta. 5+00.00

-BL- 531 PINC Sta. 73+18.74

-BL- 533 PINC Sta. 78+70.15

-BL- 534 PINC Sta. 82+99.25

-BL- 530 PINC Sta. 70+59.05 =
-BY4- 530 PINC Sta. 21+78.98

-BL- 532 PINC Sta. 76+78.09 =
-BY5- 532 POT Sta. 10+20.05

105 DEBRA STANLEY
DB 1187 PG 2023
PB 5 PG 55

106 WILLIAM SPIVEY

107 DARRELL JOHNSON
DB 1055 PG 315
PB 7 PG 49

108 J. N. SISTRUNK
DB 588 PG 494
PB 7 PG 49

109 JAMES LEWALLEN
DB 702 PG 68
PB 7 PG 49

110 WILLIAM HANCOCK
DB 761 PG 414
DB 702 PG 116
PB 7 PG 49

111 JOHN WAGONER
DB 1731 PG 2279
PB 7 PG 49

112 RUBY HANCOCK
WB 07E PG 176
PB 7 PG 49

113 LOREE REEDER
DB 1502 PG 542
PB 4 PG 44
PB 7 PG 49

114 EMERY LIVING TRUST
DB 2168 PG 642
PB 5 PG 55

115 DAVID LEVY
DB 1677 PG 1545
PB 5 PG 55

116 DARRELL JOHNSON
DB 1087 PG 405
PB 7 PG 49

117 RALPH MILLER
DB 2015 PG 689
PB 7 PG 49

118 WILLIAM T. SCOTT
WB 90E PG 529
DB 980 PG 64
DB 1003 PG 163
DB 1243 PG 2025
DB 1340 PG 56
PB 1 PG 274

MARIE TUCKER
PB 7 PG 49
PB 5 PG 55
DB 407 PG 532

LEO CRANFORD
DB 682 PG 231
DB 734 PG 35
PB 7 PG 49

RUBY HANCOCK
WB 07E PG 176
PB 7 PG 49

LOREE REEDER
DB 1502 PG 542
PB 4 PG 44
PB 7 PG 49

SR 2930 CEDAR GROVE DR

PROP. 47" WW FENCE

PUE

RETAIN

2 TONS CL B RIPRAP W/7 SY GEO FAB

8 TONS CL B RIPRAP W/21 SY GEO FAB

STD. BASE DITCH SEE DETAIL T

BERM BASE DITCH SEE DETAIL L

30" CSP 2 ELBOWS ROD & LUG

15" RCP-III

18" RCP-III

24" RCP-III

15" RCP-III COLLAR

GRAU 350

FILL W/ FLOWABLE FILL

PAVEMENT REMOVAL

FOR –L– PROFILE SEE SHTS. 115–116

PLANS PREPARED BY :
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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BEGIN APPROACH SLAB
-Y7- Sta.16+98.94

BEGIN BRIDGE
-Y7- Sta.17+13.08

-L- POC Sta.339+18.07 =
-Y7- POT Sta.18+02.88
Δ= 102°17'24"

N 14° 47' 14.9" E

END BRIDGE
-Y7- Sta.18+98.84

END APPROACH SLAB
-Y7- Sta.19+12.99

SITE 10- -Y7- STRUCTURE

-BY6- 10 POT Sta. 5+00.00
R2536-10 (GPS)

-Y7- POT Sta.24+50.00

END CONSTRUCTION
-Y7- POT Sta. 24+25.00

-Y7- PT Sta. 23+08.28

-Y7_DR3- POT Sta. 11+90.06

-Y7_DR3- PT Sta. 11+24.15

Y7_DR3 POT Sta. 10+00.00=
-Y7- POT Sta.20+16.55

-Y7- PC Sta. 20+13.67

-Y7_DR3- PC Sta. 10+83.20

-L- SC Sta. 340+13.41

-L- TS Sta. 336+53.41

-L- POC Sta.339+18.07 =
-Y7- POT Sta.18+02.88

-BL- 537 PINC Sta. 96+30.06 =
-BY6- 537 POT Sta. 11+61.21

-BL- 536 PINC Sta. 94+34.66

-BL- 535 PINC Sta. 91+29.63

CHORD S 67° 33' 22.7" E 75.22'

CHORD N 14° 47' 14.9" E 100.11'

CHORD N 2° 05' 32.4" W

CHORD S 2° 34' 16" W 125.19'

MATCHLINE -L- STA. 327+00 SEE SHEET 25

MATCHLINE -L- STA. 341+00 SEE SHEET 27

MATCHLINE -Y7- STA. 16+00 SEE SHEET 77

NAD 83/95

113 LOREE REEDER
DB 1502 PG 542
PB 4 PG 44
PB 7 PG 49

118 WILLIAM T. SCOTT
WB 90E PG 529
DB 980 PG 64
DB 1003 PG 163
DB 1243 PG 2025
DB 1340 PG 56
PB 1 PG 274

119 BARBARA HOWELL
DB 2082 PG 303
PB 47 PG 45

119A MARIA LOPEZ VENCES
DB 2335 PG 1731
PB 47 PG 45

119B ERNESTINA BENITEZ
DB 2365 PG 484
PB 47 PG 45

119C NELVA GALARZA
DB 1489 PG 147
PB 47 PG 45

119D NEAL CRAVEN
DB 1996 PG 1453
PB 47 PG 45

119E ENRIQUE HERNANDEZ
DB 1485 PG 234
PB 47 PG 45

119F SALVADOR CALVILLO
DB 2070 PG 2122
PB 47 PG 45

119G HERMILA HERNANDEZ
DB 2063 PG 338
PB 47 PG 45

121 NEAL CRAVEN
DB 1412 PG 1677
PB 47 PG 45

123 IGNACIO HERNANDEZ
DB 1730 PG 1243
PB 47 PG 45

-L-	-Y7-	-Y7_DR3-
PIs Sta 338+93.51	PI Sta 354+53.22	PI Sta 21+62.05	PI Sta 11+03.70
Θs = 5° 09' 23.8"	Δ = 71° 30' 02.1" (LT)	Δ = 16° 52' 47.4" (LT)	Δ = 7° 49' 15.5" (RT)
Ls = 360.00'	D = 2° 51' 53.2"	D = 5° 43' 46.5"	D = 19° 05' 54.9"
LT = 240.10'	L = 2,495.84'	L = 294.61'	L = 40.95'
ST = 120.09'	T = 1,439.81'	T = 148.38'	T = 20.51'
	R = 2,000.00'	R = 1,000.00'	R = 300.00'
	SE = 0.08	SE = 0.05	SE = N.C.
	V = 70 MPH	V = 40 MPH	

FOR -L- PROFILE SEE SHT. 116
FOR -Y7- PROFILE SEE SHT. 168
FOR -Y7_DR3- PROFILE SEE SHT. 184

PLANS PREPARED BY :
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 8395

MATCHLINE EXISTING FOOTHILLS DRIVE SEE SHEET 78

MATCHLINE -L- STA. 341+00 SEE SHEET 26

MATCHLINE -L- STA. 354+00 SEE SHEET 28

MATCHLINE SEE SHEET 77

-BL- 538 PINC Sta. 98+85.42

-BL- 539 PINC Sta. 100+39.19

-BL- 540 PINC Sta. 103+63.39

-BL- 541 PINC Sta. 105+07.48 =
-BY10- 541 PINC Sta. 13+49.04

-BL- 542 PINC Sta. 108+20.30
-BY10- 629 PINC Sta. 10+98.22

PROP. 47" WW FENCE

PROP. 48" CL FENCE

PROP. SBG

PROP. 15" RCP-III

PROP. 24" RCP-III

PROP. 30" RCP-III

5 TONS CL B RIPRAP W/14 SY GEO FAB

11 TONS CL I RIPRAP W/22 SY GEO FAB

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB

LATERAL BASE DITCH SEE DETAIL B

LATERAL BASE DITCH SEE DETAIL C

TOE PROTECTION SEE DETAIL I

GRADE TO DRAIN

PERMANENTLY DRAIN POND

REMOVE 15" RCP

REMOVE 18" RCP-CD (NOT BURIED)

123 IGNACIO HERNANDEZ
DB 1730 PG 1243
PB 47 PG 45

124 LUIS HERNANDEZ
DB 1488 PG 1041
PB 47 PG 45

125 ISIDRA VENCES
DB 1489 PG 144
PB 47 PG 45

126 PEDRO ESTEBAN
DB 1492 PG 777
PB 47 PG 45

127 PETRA ARROYO
DB 1522 PG 1320
PB 47 PG 45

128 FAUSTINO URIBE
DB 2174 PG 1295
PB 92 PG 26

129 LYNETTE S. GARNER AND HERMAN K. McDOWELL, JR., LLC
DB 1863 PG 699
PB 92 PG 26

131 WILLIAM COULSON
DB 2038 PG 1755
PB 92 PG 26

132 COLON HOLT
DB 2146 PG 778
PB 92 PG 26

133 TERRY JAMES
DB 2327 PG 1707
PB 92 PG 26

JAMIE FONVILLE
DB 2092 PG 1244
PB 47 PG 55

KAREN MARTIN
DB 2199 PG 492
PB 43 PG 66

-L-
PI Sta. 354+53.22
Δ = 71° 30' 02.1" (LT)
D = 2° 51' 53.2"
L = 2,495.84'
T = 1,439.81'
R = 2,000.00'
SE = 0.08
V = 70 MPH

PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHTS. 116-117

PLANS PREPARED BY :
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3/22/2016
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Lewis

PROJECT REFERENCE NO.	SHEET NO.
R-2536	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

8/17/99

MATCHLINE –L– STA. 354+00 SEE SHEET 27

MATCHLINE –L– STA. 367+00 SEE SHEET 29

-BL- 545 PINC Sta. 115+94.20

-BL- 544 PINC Sta. 113+80.63

-BL- 547 PINC Sta. 119+52.37

-BL- 543 PINC Sta. 117+87.57

-BL- 546 PINC Sta. 118+44.28

-BL- 548 PINC Sta. 122+89.21

NAD 83/95

-L-
PI Sta 354+53.22
Δ = 71° 30' 02.1" (LT)
D = 2° 51' 53.2"
L = 2,495.84'
T = 1,439.81'
R = 2,000.00'
SE = 0.08
V = 70 MPH
PIs Sta 366+29.34
Θs = 5° 09' 23.8"
Ls = 360.00'
LT = 240.10'
ST = 120.09'

LYNETTE S. GARNER AND HERMAN K. McDOWELL, JR., LLC DB 1863 PG 699 PB 92 PG 26

JP MORGAN CHASE BANK NATIONAL ASSOCIATION DB 2364 PG 436 PB 92 PG 26

LYNETTE S. GARNER AND HERMAN K. McDOWELL, JR., LLC DB 1863 PG 699 PB 92 PG 26

GRAYSON FLOYD DB 1502 PG 526 PB 31 PG 42

INEZ CHAVEZ DB 1483 PG 1032 PB 43 PG 11

NORRIS JESSUP DB 1834 PG 3600 PB 31 PG 42

ROSE CRUZ DB 1993 PG 412 PB 31 PG 32

WILLIAM COULSON DB 2038 PG 1755 PB 92 PG 26

JOSEPH GAUDIO, JR. DB 2214 PG 2138 PB 43 PG 66

TDE FOR EROSION CONTROL DEVICE

PROP. 48" CL FENCE

PROP. 47" WW FENCE

BEGIN CL FENCE

CHORD

LATERAL BASE DITCH SEE DETAIL A

LATERAL BASE DITCH SEE DETAIL B

LATERAL BASE DITCH SEE DETAIL C

STD. BASE DITCH SEE DETAIL AS

LATERAL BASE DITCH SEE DETAIL AV

3 TONS CL B RIPRAP W/10 SY GEO FAB

2 TONS CL B RIPRAP W/7 SY GEO FAB

8 TONS CL B RIPRAP W/21 SY GEO FAB

33 TONS CL I RIPRAP W/62 SY GEO FAB ON BANKS ONLY

TOE PROTECTION SEE DETAIL I

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL AJ

SEE CULVERT INLET DETAIL –L– STA. 364+22

SEE CULVERT OUTLET DETAIL –L– STA. 364+22

300' TAPER

PROP. SBG

15" RCP-III

18" CSP 2 ELBOWS ROD & LUG

30" CSP 2 ELBOWS ROD & LUG

48" RCP-III (NOT BURIED)

48" RCP-IV (NOT BURIED)

Sp. Det. JB w/Slab Lid

6'X7' RCBC

45.0' TYP.

PAVEMENT REMOVAL

FOR –L– PROFILE SEE SHT. 117

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83'95

MATCHLINE –L– STA. 367+00 SEE SHEET 28

MATCHLINE –L– STA. 381+00 SEE SHEET 30

MATCHLINE –L– STA. 376+50 –Y9RPB– SEE SHEET 30

CEDAR GROVE TOWNSHIP
GRANT TOWNSHIP

140 JULIA MORELAS DB 1695 PG 832 PB 43 PG 11

141 TOLEDO DURATE DB 1507 PG 1083 PB 43 PG 12

SEVANDO GANOA DB 1472 PG 1237 PB 43 PG 12

GARY RICHARDSON DB 2110 PG 1123 PB 43 PG 12

143 BILLY LUNDY DB 1316 PG 203 PB 25 PG 47

144 RAY DAVIS DB 1880 PG 2425 PB 25 PG 47

145 MARK BRASWELL DB 2294 PG 498 PB 31 PG 42

136 GRAYSON FLOYD DB 1502 PG 526 PB 31 PG 42

146 PAUL ROBERTS DB 1261 PG 498 PB 25 PG 47

ROBERT SCHWEIGERT DB 1236 PG 1108 PB 28 PG 11

CHORD

+69.25 200'

PROP. 48" CL FENCE

END CL FENCE

+13.31 188.65'

PROP. 47" WW FENCE

-Y9RPB- SC Sta. 12+00.00

+93.05 -L- 200'

-L- POT Sta. 374+11.81 =
-Y9RPB- TS Sta. 10+00.00 (47.00' LT)

300' TAPER

600' ACCELERATION LANE

GRAU 350

PROP. SBG

18" RCP-III

16:1 TAPER

18" CSP
2 ELBOWS
ROD & LUG

45.0' TYP.

CAT-1 8:1

-BL- 549 PINC Sta. 126+32.10

-BL- 551 PINC Sta. 132+68.87

-BL- 552 PINC Sta. 136+82.26

-BL- 550 PINC Sta. 130+27.85

15" RCP-III

3 TONS CL B RIPRAP W/10 SY GEO FAB

LATERAL BASE DITCH
SEE DETAIL M

2 TONS CL B RIPRAP W/7 SY GEO FAB

-L- ST Sta. 368+69.25

8:1

-Y9RPB- 15+00

33.33' TYP.

+66.68

10' P.S.

2' P.S.

4' P.S.

2.3' P.S.

10+00

370+00

375+00

380+00

+00.00 200'

+60.00 313'

+60.00 344'

PUE

-L-	-Y9RPB-	
PIs Sta 366+29.34	PIs Sta 11+33.37	PI Sta 15+16.06
Θs = 5° 09' 23.8"	Θs = 4° 09' 06.7"	Δ = 25° 48' 00.5" (LT)
Ls = 360.00'	Ls = 200.00'	D = 4° 09' 06.7"
LT = 240.10'	LT = 133.37'	L = 621.41'
ST = 120.09'	ST = 66.70'	T = 316.06'
		R = 1,380.00'
		SE = 0.06
		V = 60 MPH

FOR –L– PROFILE SEE SHTS. 117–118
FOR –Y9RPB– PROFILE SEE SHT. 174

PLANS PREPARED BY :
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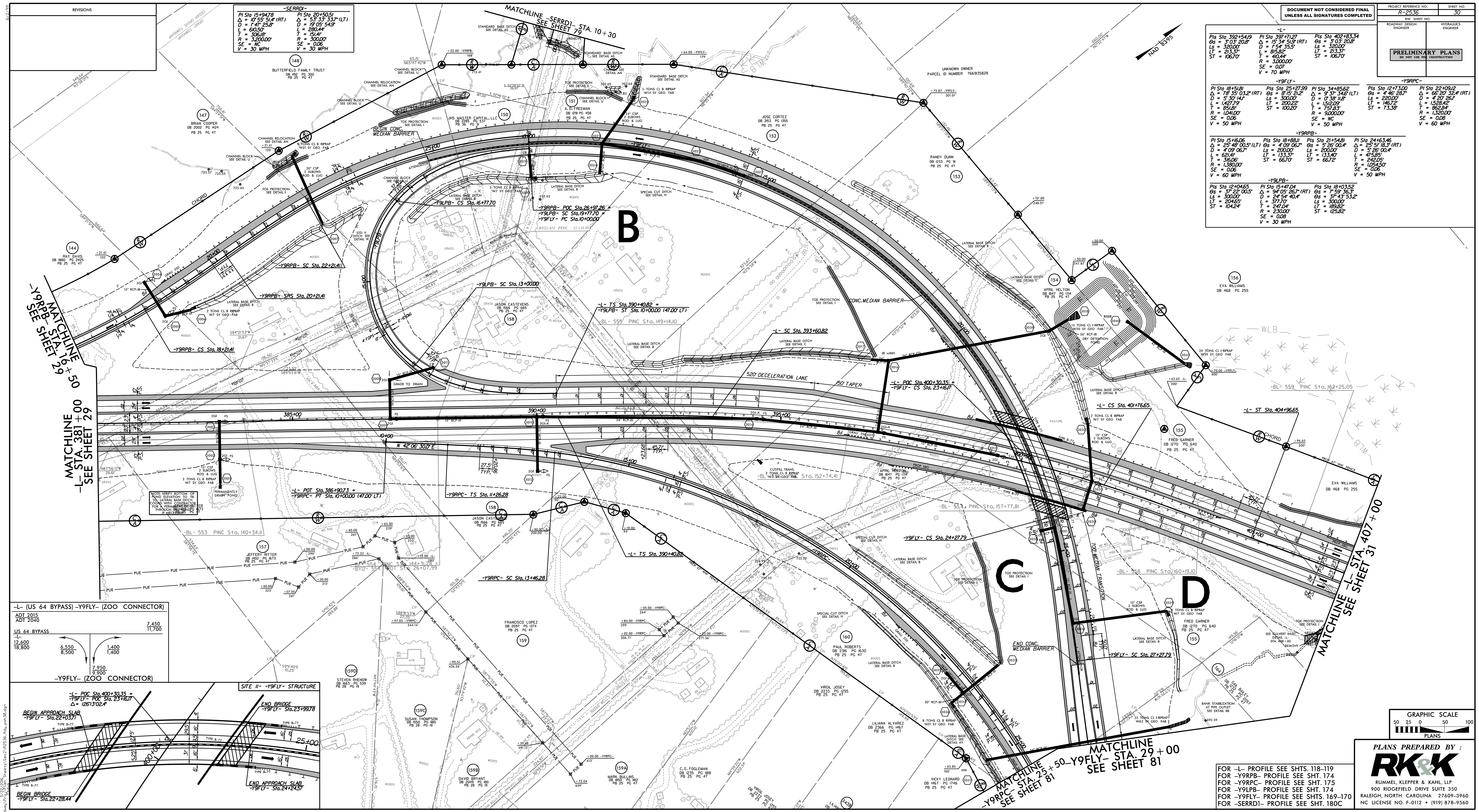
PROJECT REFERENCE NO.	SHEET NO.
R-2536	30

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



-SERRD1-	
PI Sta 15+94.78	PI Sta 20+50.51
Δ = 10° 55' 51.4" (RT)	Δ = 53° 33' 33.7" (LT)
D = 1° 47' 25.8"	D = 19° 05' 54.9"
L = 610.50'	L = 280.44'
T = 306.18'	T = 151.41'
R = 3,200.00'	R = 300.00'
SE = NC	SE = 0.06
V = 30 MPH	V = 30 MPH

-L-		
PIs Sta 392+54.19	PI Sta 397+71.27	PIs Sta 402+83.34
Θs = 3° 03' 20.8"	Δ = 15° 34' 51.9" (RT)	Θs = 3° 03' 20.8"
Ls = 320.00'	D = 1° 54' 35.5"	Ls = 320.00'
LT = 213.37'	L = 815.82'	LT = 213.37'
ST = 106.70'	T = 410.44'	ST = 106.70'
	R = 3,000.00'	
	SE = 0.07	
	V = 70 MPH	

-Y9FLY-		
PI Sta 18+51.81	PIs Sta 25+27.99	PI Sta 34+85.62
Δ = 78° 35' 03.2" (RT)	Θs = 8° 15' 21.2"	Δ = 9° 37' 34.6" (LT)
D = 5° 30' 14.1"	Ls = 300.00'	D = 0° 38' 11.8"
L = 1,427.79'	LT = 200.22'	L = 1,512.09'
T = 851.81'	ST = 100.20'	T = 757.83'
R = 1,041.00'		R = 9,000.00'
SE = 0.06		SE = NC
V = 50 MPH		V = 50 MPH

-Y9RPC-	
PIs Sta 12+73.00	PI Sta 22+09.12
Θs = 4° 46' 28.7"	Δ = 66° 20' 32.4" (RT)
Ls = 220.00'	D = 4° 20' 26.1"
LT = 146.72'	L = 1,528.42'
ST = 73.38'	T = 862.84'
	R = 1,320.00'
	SE = 0.08
	V = 60 MPH

-Y9RPB-			
PI Sta 15+16.06	PIs Sta 18+88.11	PIs Sta 21+54.81	PI Sta 24+63.46
Δ = 25° 48' 00.5" (LT)	Θs = 4° 09' 06.7"	Θs = 5° 26' 00.4"	Δ = 25° 51' 18.3" (RT)
D = 4° 09' 06.7"	Ls = 200.00'	Ls = 200.00'	D = 5° 26' 00.4"
L = 621.41'	LT = 133.37'	LT = 133.40'	L = 475.85'
T = 316.06'	ST = 66.70'	ST = 66.72'	T = 242.05'
R = 1,380.00'			R = 1,054.50'
SE = 0.06			SE = 0.06
V = 60 MPH			V = 50 MPH

-Y9LPB-		
PIs Sta 12+04.65	PI Sta 15+47.04	PIs Sta 18+03.52
Θs = 37° 22' 00.5"	Δ = 94° 05' 26.7" (RT)	Θs = 7° 59' 36.3"
Ls = 300.00'	D = 24° 54' 40.4"	Θs = 37° 43' 53.2"
LT = 204.65'	L = 377.70'	Ls = 300.00'
ST = 104.24'	T = 247.04'	LT = 189.82'
	R = 230.00'	ST = 125.82'
	SE = 0.08	
	V = 30 MPH	

-L- (US 64 BYPASS) -Y9FLY- (ZOO CONNECTOR)

ADT 2015 / ADT 2040

US 64 BYPASS -L-: 12,600 / 18,800; 7,450 / 11,700

6,550 / 8,500; 1,400 / 1,400; 7,950 / 9,900

-Y9FLY- (ZOO CONNECTOR)

SITE 11 -Y9FLY- STRUCTURE

-L- POC Sta. 400+30.35 = -Y9FLY- POC Sta. 23+16.17 Δ = 126°13'02.4"

BEGIN APPROACH SLAB -Y9FLY- Sta. 22+03.71

END BRIDGE -Y9FLY- Sta. 23+99.78

END APPROACH SLAB -Y9FLY- Sta. 24+24.51

BEGIN BRIDGE -Y9FLY- Sta. 22+28.44

REVISIONS

GRAPHIC SCALE
50 25 0 50 100
PLANS

FOR -L- PROFILE SEE SHTS. 118-119
FOR -Y9RPB- PROFILE SEE SHT. 174
FOR -Y9RPC- PROFILE SEE SHT. 175
FOR -Y9LPB- PROFILE SEE SHT. 174
FOR -Y9FLY- PROFILE SEE SHTS. 169-170
FOR -SERRD1- PROFILE SEE SHT. 180C

PLANS PREPARED BY :

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y9RPD-

PIs Sta 11+46.72	PI Sta 14+29.89
Θs = 4° 50' 53.2"	Δ = 18° 20' 35.1" (LT)
Ls = 220.00'	D = 4° 24' 26.5"
LT = 146.72'	L = 416.19'
ST = 73.38'	T = 209.89'
	R = 1,300.00'
	SE = 0.08
	V = 60 MPH

MATCHLINE -L- STA. 407+00 SEE SHEET 30

MATCHLINE -L- STA. 419+00 SEE SHEET 32

MATCHLINE -Y9RPD- STA. 22+50 SEE SHEET 81

D

NAD 83/95

156 EVA WILLIAMS DB 468 PG 255

-BL- 561 PINC Sta. 166+21.69

SEE CULVERT OUTLET DETAIL -L- STA. 408+00

PROP. 47" WW FENCE

END C/A FENCE -L- STA. 408+78.36

PLACE RIPRAP ONLY ON SLOPES IN WETLANDS 3113 PSH

15" CSP 2 ELBOWS ROD & LUG

END C/A FENCE -L- STA. 408+99.20

SYSTEMS DO NOT CONNECT

PROP. SBG

6'x7' RCBC

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB

15 TONS CL I RIPRAP W/30 SY GEO FAB

-BL- 562 PINC Sta. 168+43.40

TOE PROTECTION SEE DETAIL I PLACE RIPRAP ONLY ON SLOPES IN WETLANDS

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB

3 TONS CL I RIPRAP W/7 SY GEO FAB

-BL- 563 PINC Sta. 172+41.34

-BL- 564 PINC Sta. 174+11.80 =
-BY7- 564 PINC Sta. 10+83.14

162 BRENDA HINSON WB 96E PG 669 DB 2018 PG 1756 PB 10 PG 114

15" RCP-III

GRAU 350 8:1

410+00

-L-

415+00

10+00

15+00

CULTURAL RESOURCE

200'

600' ACCELERATION LANE

PROP. 47" WW FENCE

-L- POT Sta. 418+11.85 =
-Y9RPD- ST Sta. 10+00.00 (47.00' RT)

-Y9RPD- SC Sta. 12+20.00

27.5' TYP.

-Y9RPD- PCC Sta. 16+36.19

BERM DITCH SEE DETAIL AM

36" RCP-IV

1 TONS CL B RIPRAP W/5 SY GEO FAB

15 TONS CL I RIPRAP W/30 SY GEO FAB

TOE PROTECTION SEE DETAIL I

FS ELEV. = 696.4

SPECIAL CUT DITCH SEE DETAIL H

BERM DITCH SEE DETAIL AM

-BL- 560 PINC Sta. 164+61.43

686.72' S88°10'23"W

656.66' S87°42'13"W

20+00

-Y9RPD-

BERM DITCH SEE DETAIL A

S87°42'13"W 2.70'

-BY7- 614 PINC Sta. 19+21.35

S86°34'32"E 12.33'

182.60' S86°34'32"E

156 EVA WILLIAMS DB 468 PG 255

155 FRED GARNER DB 1270 PG 640 PB 25 PG 47

164 GAIL BAILEY DB 1232 PG 2057 PB 25 PG 47

354 MARK BRASWELL DB 2306 PG 191 PB 25 PG 47

156A BRADLEY HUSSEY DB 1341 PG 1104 PB 25 PG 19

156B FURMAN GREENE, JR. DB 1199 PG 1383 PB 10 PG 114

OSCAR PATTERSON DB 2162 PG 346 PB 97 PG 14

JUDY LEWALLEN DB 2119 PG 160 PB 97 PG 14

LIBERTY CIRCLE

FREEDOM TRAIL

STALEYS FARM RD SR 2839

GRADE TO DRAIN

R=30'

+87.00 233' PUE

+56.00 200' PUE

+43.23 142.38' EXIST. R/W

+35.00 84'

+58.00 300'

-56.00 302.99' EXIST. R/W

+80.00 330'

+62.00 235.03'

+89.58 227.81' EXIST. R/W

+95.01 250.21'

+34.00 -L- 213.55'

+20.61 -L- 200.00'

+40.00 -Y9RPD- 193.19'

FOR -L- PROFILE SEE SHT. 119
FOR -Y9RPD- PROFILE SEE SHT. 176

PLANS PREPARED BY :

RK&K

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Keys

PROJECT REFERENCE NO.	SHEET NO.
R-2536	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE –L– STA. 419+00 SEE SHEET 31

MATCHLINE –L– STA. 431+00 SEE SHEET 33

-BY7- 613 POT Sta. 5+00.00

BM 213 ELEVATION = 712.84
N 694754 E 1764050
BL STATION 178+87 273 LEFT
RR SPIKE IN BASE OF CP&L POLE # A67AD
-L- STA 422+54.97 272.70 LEFT

BM 214 ELEVATION = 663.50
N 695022 E 1764622
BL STATION 185+21 226 LEFT
RR SPIKE IN BASE OF 18" GUM
-L- STA 428+84.59 221.80 LEFT

-BL- 567 PINC Sta. 186+16.51

-BL- 566 PINC Sta. 183+19.03

-BL- 565 PINC Sta. 176+71.65

DAVID O. COOPER, JR. DB 2238 PG 1343 — 161

DONNA STALEY DB 1583 PG 709 — 165

BRENDA HINSON WB 96E PG 669 DB 2018 PG 1756 PB 10 PG 114 — 162

OLLIE BRIM DB 1192 PG 869 PB 10 PG 114

GILBERT BRIM DB 968 PG 438 PB 10 PG 114

JAMES & FELIX WARD WB 05E PG 50 PB 10 PG 114

HARRY LASHUA DB 1941 PG 2212 PB 10 PG 114

REBECCA ROUTH WB 08E PG 133 — 168

SPRINT DB 1219 PG 973

CULTURAL RESOURCE

PROP. SIGN

PROP. 47" WW FENCE

420+00 425+00 430+00

600' ACCELERATION LANE

300' TAPER

24" RCP–III 30" RCP–III 15" RCP–III

N 60°18'03.5" E

FOR –L– PROFILE SEE SHTS. 119

PAVEMENT REMOVAL

PLANS PREPARED BY :
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F.Keys

PROJECT REFERENCE NO.	SHEET NO.
R-2536	33
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

BEGIN BRIDGE
-L- Sta. 435+22.45
BEGIN APPROACH SLAB
-L- Sta. 434+97.47
TYPE B-77
-Y10 END-
END APPROACH SLAB
-L- Sta. 436+63.61
END BRIDGE
-L- Sta. 436+38.63
PROP. SBG
435+00
-L-
END BRIDGE
-L- Sta. 436+35.61
BEGIN APPROACH SLAB
-L- Sta. 434+94.23
BEGIN BRIDGE
-L- Sta. 435+19.25
-L- POT Sta. 435+68.03 =
-Y10_END- POC Sta. 17+19.59
Δ = 96°37'12.0"
END APPROACH SLAB
-L- Sta. 436+60.63
SITE 13- -L- STRUCTURE

MATCHLINE -L- STA. 431+00 SEE SHEET 32

MATCHLINE -L- STA. 443+00 SEE SHEET 34

THE ROBBINS FAMILY TRUST
DB 1880 PG 69

GRACE MCDONALD
DB 1576 PG 1096

DONNA STALEY
DB 1583 PG 709

LINDA MARLEY
DB 2233 PG 1145

REBECCA ROUTH
WB 08E PG 133

ELTON CAVINESS
DB 1803 PG 1521
PB 4 PG 24

THE CROSS ROAD REST AND RETIREMENT CENTER, INC.
DB 1319 PG 1752
DB 1319 PG 1757
DB 1403 PG 263
DB 1598 PG 1179
DB 1648 PG 1469
DB 2152 PG 168
DB 2168 PG 308
PB 62 PG 6
PB 91 PG 28

DAVID HALL
PB 4 PG 24
DB 355 PG 118
DB 537 PG 472
WB 01E PG 882

-BL- 568 PINC Sta. 188+36.64
-BL- 569 PINC Sta. 188+43.83
-BL- 570 PINC 191+94.67 =
-BY8- 570 PINC 25+84.63
-BL- 571 PINC Sta. 195+33.06
-BL- 572 PINC Sta. 198+82.69
-BY8- 622 PINC Sta. 21+92.37

-Y10_END- POT Sta. 22+20.00
-Y10_END- ST Sta. 21+76.00
-Y10_END- CS Sta. 19+76.00
-Y10_END- SC Sta. 16+47.78
-Y10_END- TS Sta. 14+47.78
BEGIN CONSTRUCTION
-Y10_END- POT Sta. 14+20.00

-L- TS Sta. 440+49.05

SPECIAL CUT DITCH SEE DETAIL P
SPECIAL CUT DITCH SEE DETAIL AY
SPECIAL CUT DITCH SEE DETAIL H
LATERAL BASE DITCH SEE DETAIL AZ
LATERAL BASE DITCH SEE DETAIL AW
STANDARD BASE DITCH SEE DETAIL BA
SEE CULVERT INLET DETAIL -L- STA. 433+31
TOE PROTECTION SEE DETAIL L
26 TONS CL I RIPRAP W/50 SY GEO FAB
2 TONS CL B RIPRAP W/7 SY GEO FAB
8 TONS CL B RIPRAP W/21 SY GEO FAB
11 TONS CL B RIPRAP W/28 SY GEO FAB
20 TONS CL I RIPRAP W/39 SY GEO FAB
8 TONS CL B RIPRAP W/21 SY GEO FAB
ROD & LUG CHANNEL BLOCK SEE DETAIL LL
ROD & LUG 2 ELBOWS

END C/A FENCE -L- STA. 433+10.15
BEGIN C/A FENCE -L- STA. 433+45.99
END C/A FENCE -L- STA. 433+03.73
BEGIN C/A FENCE -L- STA. 433+47.02
END C/A FENCE EXIST. R/W
BEGIN C/A FENCE EXIST. R/W
END C/A FENCE
BEGIN C/A FENCE

PROP. 47" WW FENCE
CHORD
RETAIN
REMOVE
PROP. SBG
TYPE B-77
TYPE M350
GRAU 350
CAT-1
2GI
2GI-A
16:1 TAPER
24" RCP-III
30" RCP-III
36" RCP-III
42" RCP-III
15" RCP-III
18" RCP-III
30" RCP-IV
42" RCP-IV
24" RCP-III
15" CSP
30" CSP
2 ELBOWS
HW
JB
WWMH
SBST
WOODS
LATTICE
EIP
EIPS
EXIST. R/W

-L-	-Y10 END-		
PIs Sta 442+89.12	PIs Sta 15+81.19	PI Sta 18+13.44	PIs Sta 20+42.74
Θs = 4°07'31"	Θs = 5°50'47.4"	Δ = 19°11'22.2" (LT)	Θs = 5°50'47.4"
Ls = 360.00'	Ls = 200.00'	D = 5°50'47.4"	Ls = 200.00'
LT = 240.07'	LT = 133.41'	L = 328.22'	LT = 133.41'
ST = 120.06'	ST = 66.73'	T = 165.66'	ST = 66.73'
		R = 980.00'	
		SE = 0.08	
		V = 50 MPH	

FOR -L- PROFILE SEE SHTS. 119-120
FOR -Y10 END- PROFILE SEE SHT. 180

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

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FLEWIS

PROJECT REFERENCE NO.	SHEET NO.
R-2536	34
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83\95

MATCHLINE -Y8- STA. 23+00 SEE SHEET 92

MATCHLINE -L- STA. 443+00 SEE SHEET 33

MATCHLINE -L- STA. 455+00 SEE SHEET 35

MATCHLINE -Y8- STA. 14+50 SEE SHEET 91

170 THE CROSS ROAD REST AND RETIREMENT CENTER, INC.
DB 1319 PG 1752
DB 1319 PG 1757
DB 1403 PG 263
DB 1598 PG 1179
DB 1648 PG 1469
DB 2152 PG 168
DB 2168 PG 308
PB 62 PG 6
PB 91 PG 28

174 LOIS JENNINGS
DB 1237 PG 179
DB 1307 PG 1157

173 TIMOTHY HILL
WB 12E PG 624

172 MARY CATOE
DB 1237 PG 157

175 THOMAS FRAZIER
DB 1590 PG 751

171 MARGARET FOSTER
WB 99E PG 594
PB 4 PG 24

171A CLARENCE HARRELSON

-BL- 573 PINC Sta. 201+04.96

-BL- 574 PINC Sta. 204+26.82

-BL- 575 PINC Sta. 206+34.26

-BL- 576 PINC Sta. 208+71.10

-BL- 577 PINC Sta. 211+22.07

-L- SC Sta. 444+09.05

-Y8- PC Sta. 16+20.00

-L- POC Sta. 449+07.79 = -Y8- POT Sta. 18+62.41

-L- POC Sta. 449+07.79 = -Y8- POC Sta. 18+62.41 Δ = 89°15'14.2"

PROP. SIGN

PROP. 47" WW FENCE

CHORD

DRAIN POND

PERMANENTLY DRAIN POND

STANDARD BASE DITCH SEE DETAIL T

NOTE: VERIFY BOTTOM OF POND ELEVATION TO TIE TO LATERAL BASE DITCH. COORD. WITH CONTRACTOR FOR A PERMANENT DITCH THROUGH THE POND IF NECESSARY

1 TONS CL B RIPRAP W/5 SY GEO FAB

2 TONS CL B RIPRAP W/7 SY GEO FAB

BERM DITCH SEE DETAIL A

BERM DITCH SEE DETAIL AE

SPECIAL CUT DITCH SEE DETAIL H

LATERAL V DITCH SEE DETAIL D

15" CSP 2 ELBOWS ROD & LUG

GRADE TO DRAIN

REMOVE

PUE

BDO

445+00

450+00

455+00

BEGIN APPROACH SLAB
-Y8- Sta. 17+47.89

END APPROACH SLAB
-Y8- Sta. 19+84.91

BEGIN BRIDGE
-Y8- Sta. 17+62.89

END BRIDGE
-Y8- Sta. 19+69.91

SITE 14- -Y8- STRUCTURE

FOR -L- PROFILE SEE SHTS. 120
FOR -Y8- PROFILE SEE SHT. 168

-L-		-Y8-
PIs Sta 442+89.12	PI Sta 451+36.44	PI Sta 19+99.85
Θs = 4° 07' 31.1"	Δ = 32° 26' 42.5" (LT)	Δ = 3° 20' 50.3" (RT)
Ls = 360.00'	D = 2° 17' 30.6"	D = 0° 26' 26.7"
LT = 240.07'	L = 1,415.69'	L = 759.48'
ST = 120.06'	T = 727.38'	T = 379.85'
	R = 2,500.00'	R = 13,000.00'
	SE = 0.08	SE = NC
	V = 70 MPH	V = 65 MPH

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8/17/95

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	35
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

MATCHLINE -L- STA. 455+00 SEE SHEET 34

MATCHLINE -L- STA. 468+00 SEE SHEET 36

176 GEORGE MILLER, JR. DB 2010 PG 937

173 TIMOTHY HILL WB 12E PG 624

177 JAMES & SHARON SIDES DB 2272 PG 853

172 MARY CATOE DB 1237 PG 157

175 THOMAS P. FRAZIER DB 1590 PG 751

NOTE: VERIFY BOTTOM OF POND ELEVATION TO TIE TO LATERAL BASE DITCH. COORD. WITH CONTRACTOR FOR A PERMANENT DITCH THROUGH THE POND IF NECESSARY

-L- CS Sta. 458+24.74

-BL- 579 PINC Sta. 217+94.52

-BL- 578 PINC Sta. 215+35.56

-BL- 580 POT 219+90.29

-BL- 670 PINC 7+98.00

-BL- 67

-L- ST Sta. 461+84.74

END SECTION 2
BEGIN SECTION 3A
-L- POT Sta. 465+00.00 L.B.=
-L- POT Sta. 465+09.27 L.A.

R2536C LA BL-580 POT 5+00.00
R2536B LB BL-580 POT 219+90.29

BM 217 ELEVATION = 702.40
N 696966 E 1767317
BL STATION 218+67 232 RIGHT
RR SPIKE IN BASE OF 16" RED OAK
-L- STA 462+34.35 236.41 RIGHT

PROP. 47" WW FENCE

CHORD

PROP. SBG

CAT-1 8:1

45.0' TYP.

GRAU 350

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL AJ

33 TONS CL I RIPRAP W/62 SY GEO FAB ON BANKS ONLY

4 TONS CL I RIPRAP W/10 SY GEO FAB

2 TONS CL B RIPRAP W/7 SY GEO FAB

15" CSP 2 ELBOWS ROD & LUG

TOE PROTECTION SEE DETAIL I

18" RCP CD (NOT BURIED)

PERMANENTLY DRAIN POND

LATERAL BASE DITCH SEE DETAIL B

LATERAL BASE DITCH SEE DETAIL C

STANDARD BASE DITCH SEE DETAIL AS

NOTE: VERIFY BOTTOM OF POND ELEVATION TO TIE TO LATERAL BASE DITCH. COORD. WITH CONTRACTOR FOR A PERMANENT DITCH THROUGH THE POND IF NECESSARY

-L-	-L-
PI Sta 451+36.44	PIs Sta 459+44.80
Δ = 32° 26' 42.5" (LT)	Θs = 4° 07' 31"
D = 2° 17' 30.6"	Ls = 360.00'
L = 1,415.69'	LT = 240.07'
T = 727.38'	ST = 120.06'
R = 2,500.00'	
SE = 0.08	
V = 70 MPH	

FOR -L- PROFILE SEE SHTS. 120-121

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	68A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

N 87°30'08" W
1173.84'

+48.92
129.65'

BEGIN CONSTRUCTION
-Y4- POT Sta. 9+60.00

WOODS

BAILEY GREENE
DB 2296 PG 1135
PB 133 PG 95

4" WW ISBW

SURVEY CONTROL LINE

600' TAPER

C

US HWY 220 BYPASS 38.8' BST

22.22'

C

10+00

N 5°21'10.1" E

20'

15

.02'

.02'

MATCHLINE -Y4- STA. 15+00 SEE SHEET 68

-BYII-130

BM 7 ELEVATION = 762.58
N 688371 E 1752715
BYII STATION 85+43.18
S 13°17'17.0" E Dist 595.95
RR SPIKE IN BASE OF 10" PIN OAK

WOODS

4" WW ISBW

EXISTING R/W

JS

JS

JS

JS

24" CMP

12" HDPE

RIP RAP

BST

BST

CONC

FOR -Y4- PROFILE SEE SHT. 154

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-Y4-	-Y4CD_LT-	
PIs Sta 23+66.66	PIs Sta 11+00.00	PI Sta 13+05.93
Θs = 0° 53' 59.8"	Θs = 1° 25' 56.6"	△ = 5° 57' 02.6" (LT)
Ls = 180.00'	Ls = 150.00'	D = 1° 54' 35.5"
LT = 120.00'	LT = 100.00'	L = 311.58'
ST = 60.00'	ST = 50.00'	T = 155.93'
		R = 3,000.00'
		SE = 0.05
		V = 60 MPH

NAD 83/95

PROJECT REFERENCE NO.	SHEET NO.
R-2536	68
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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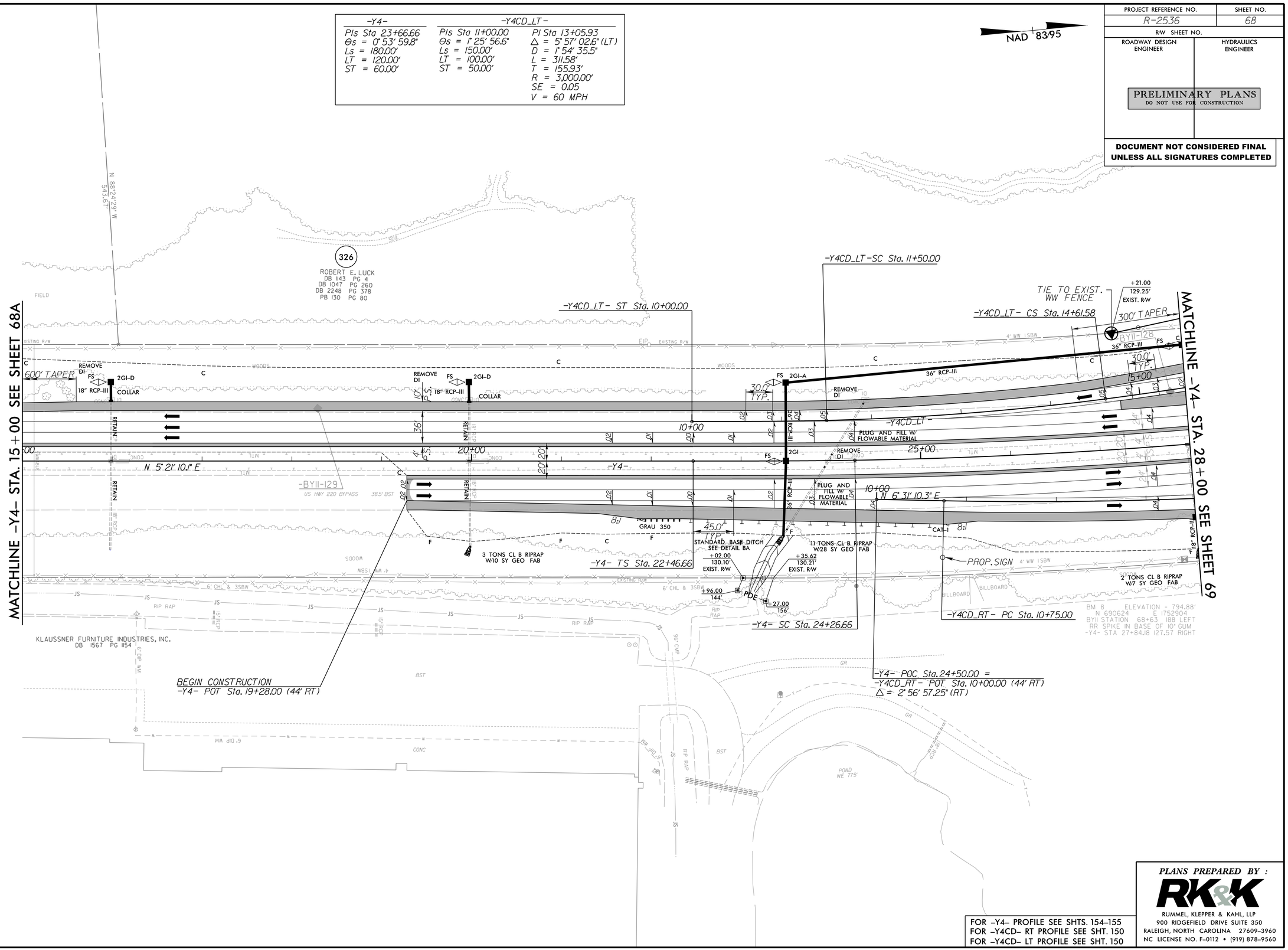

FOR -Y4- PROFILE SEE SHTS. 154-155
FOR -Y4CD- RT PROFILE SEE SHT. 150
FOR -Y4CD- LT PROFILE SEE SHT. 150

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FOR –Y4– PROFILE SEE SHTS. 155–156
FOR –Y4CD– RT PROFILE SEE SHTS. 150–151
FOR –Y4CD– LT PROFILE SEE SHT. 150–151
FOR –Y4RPC– PROFILE SEE SHT. 163
FOR –Y4RPD– PROFILE SEE SHT. 163
FOR –Y5– PROFILE SEE SHT. 165

PROJECT REFERENCE NO.	SHEET NO.
R-2536	69
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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NAD 83/95

MATCHLINE –Y5– STA. 27+00 SEE SHEET 74

MATCHLINE –Y4RPC– STA. 28+50 SEE SHEET 23

MATCHLINE –Y4– STA. 28+00 SEE SHEET 68

MATCHLINE –Y4– STA. 40+00 SEE SHEET 23

MATCHLINE –Y4RPD– STA. 17+00 SEE SHEET 23

MATCHLINE –Y5– STA. 36+00 SEE SHEET 75

–Y5– PT Sta. 28+05.60

–Y4RPC– CS Sta. 34+14.45

–Y4CD_LT– ST Sta. 16+11.58

–Y4CD_LT– POC Sta.19+28.58 =
–Y5– POT Sta.30+13.80

–Y4CD_LT– TS Sta. 19+25.58

–Y4CD_LT– SC Sta. 20+05.58

–Y4CD_LT– POC Sta.20+33.57=
–Y4RPC– ST Sta. 36+14.45 (12' LT)

–Y4RPC– SC Sta. 28+87.07

–Y4RPD– SC Sta. 13+14.20

–Y4RPD– TS Sta. 11+14.20

–Y4CD_RT– POC Sta.19+00.00 =
–Y4RPD– POT Sta. 10+00.00 (12' RT)

–Y4CD_RT– POC Sta.17+79.30 =
–Y5– POT Sta.31+71.38

–Y4– POC Sta.32+01.85 =
–Y5– POT Sta.30+94.14

–BY2– POT 20+34.33=
–BY1– POT 64+77.08
(NOT SET)

–BY2– 585 PINC Sta. 21+82.97

326 ROBERT E. LUCK
DB 1143 PG 4
DB 1047 PG 260
DB 2248 PG 378
PB 130 PG 80

327 GAIL D. JONES
DB 1820 PG 1859

328 KLAUSSNER FURNITURE INDUSTRIES, INC.
DB 1567 PG 1154

96 DEMPSEY MOORE, TRUSTEE

LATERAL BASE DITCH SEE DETAIL B

LATERAL V DITCH SEE DETAIL D

LATERAL BASE DITCH SEE DETAIL C

2 TONS CL B RIPRAP W/7 SY GEO FAB

5 TONS CL B RIPRAP W/14 SY GEO FAB

PROP. 47" WW FENCE

EXIST. R/W

TIE TO EXIST. WW FENCE

TIE TO EXIST.GUARDRAIL

PROP. SIGN

REMOVE 23' PIPE

PLUG AND FILL W/ FLOWABLE MATERIAL

FILL AND CAP WITH 4" CONCRETE

2 6" SCUPPERS @ 6' CENTERS

15" CSP 2 ELBOWS, F ROD & LUG

300' TAPER

US HWY 220 BYPASS 38.5' BST

WOODS

GRAU 350

TYPE B-77

TB JB w/Slab Lid

JB w/Slab Lid

TB JB w/MH

N 3° 27' 45.7" W

N 72° 35' 33.2" E

N 0° 34' 20.1" E

N 7° 27' 45.7" W

SITE 8– –Y5– STRUCTURE

BEGIN APPROACH SLAB
–Y5– Sta.29+53.47

END APPROACH SLAB
–Y5– Sta.32+25.13

BEGIN BRIDGE
–Y5– Sta.29+68.46

END BRIDGE
–Y5– Sta.32+10.13

–Y4RPC–

PI Sta 31+61.28	PIs Sta 34+89.36
Δ = 38° 44' 20.9" (RT)	Θs = 1° 00' 55.5"
D = 7° 20' 44.2"	Θs = 7° 20' 45.9"
L = 527.38'	Ls = 200.00'
T = 274.22'	LT = 125.40'
R = 780.00'	ST = 74.92'
SE = 0.08	
V = 50 MPH	

–Y4RPD–

PI Sta 15+96.98	PIs Sta 12+47.66
Δ = 40° 49' 03.4" (RT)	Θs = 7° 32' 20.1"
D = 7° 32' 20.1"	Ls = 200.00'
L = 541.43'	LT = 133.45'
T = 282.77'	ST = 66.78'
R = 760.00'	
SE = 0.08	
V = 50 MPH	

–Y4CD_LT–

PI Sta 25+20.71	PIs Sta 19+78.91	PIs Sta 15+11.58	PI Sta 13+05.93
Δ = 10° 24' 54.8" (LT)	Θs = 0° 24' 19.8"	Θs = 1° 25' 56.6"	Δ = 5° 57' 02.6" (LT)
D = 1° 00' 49.4"	Ls = 80.00'	Ls = 150.00'	D = 1° 54' 35.5"
L = 1,027.42'	LT = 53.33'	LT = 100.00'	L = 311.58'
T = 515.13'	ST = 26.67'	ST = 50.00'	T = 155.93'
R = 5,652.00'			R = 3,000.00'
SE = 0.03			SE = 0.05
V = 50 MPH			V = 60 MPH

–Y4CD_RT–

PI Sta 19+03.28
Δ = 19° 59' 21.8" (LT)
D = 1° 13' 08.6"
L = 1,639.74'
T = 828.29'
R = 4,700.00'
SE = 0.04
V = 60 MPH

–Y4–

PI Sta 33+46.61
Δ = 18° 14' 30.7" (LT)
D = 0° 59' 59.7"
L = 1,824.32'
T = 919.94'
R = 5,730.00'
SE = 0.04
V = 75 MPH

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	70
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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-SERRD3-
PI Sta 19+70.31
Δ = 59° 31' 10.9" (LT)
D = 5° 24' 18.9"
L = 1,101.14'
T = 606.08'
R = 1,060.00'
SE = 0.05
V = 40 MPH

-Y4RPB-
PI Sta 28+32.16
Δ = 65° 53' 55.7" (LT)
D = 7° 09' 43.1"
L = 920.12'
T = 518.52'
R = 800.00'
SE = 0.08
V = 50 MPH

PIs Sta 33+00.53
Θs = 7° 09' 43.1"
Ls = 200.00'
LT = 133.44'
ST = 66.77'

-Y4RPA-
PIs Sta 35+69.78
Θs = 4° 46' 28.7"
Ls = 200.00'
LT = 133.38'
ST = 66.71'

PI Sta 32+32.56
Δ = 26° 18' 14.4" (RT)
D = 4° 46' 28.7"
L = 550.91'
T = 280.40'
R = 1,200.00'
SE = 0.08
V = 60 MPH

PIs Sta 28+85.55
Θs = 4° 46' 28.7"
Ls = 200.00'
LT = 133.38'
ST = 66.71'

-SERRD3_DRI-
PI Sta 11+09.56
Δ = 23° 06' 37.5" (RT)
D = 28° 38' 52.4"
L = 80.67'
T = 40.89'
R = 200.00'
SE = NC

NAD 8395

MATCHLINE -Y4- STA. 63+00 SEE SHEET 71

-Y4CD_RT- POT Sta. 48+69.48 =
-Y4RPA- ST Sta. 37+03.07

-Y4RPA- CS Sta. 35+03.07

-SERRD3_DRI- POT Sta. 12+13.93

END CONSTRUCTION
-SERRD3_DRI- POT Sta. 12+00.00

-SERRD3_DRI- PT Sta. 11+49.33

-SERRD3_DRI- PC Sta. 10+68.66

-SERRD3- POC Sta. 23+42.97 =
-SERRD3_DRI- POT Sta. 10+00.00

-Y4RPB- ST Sta. 34+33.76

-Y4RPB- CS Sta. 32+33.76

-Y4RPA- SC Sta. 29+52.16

-Y4RPA- TS Sta. 27+52.16

-BYI- 581 POT Sta. 5+00.00

RANDY LUCK
PB 115 PG 32
DB 2063 PG 914
DB 2056 PG 1201
PB 114 PG 15

CHARLES LUCK
DB 2063 PG 916
PB 115 PG 32

CECIL CARRIER
DB 1407 PG 1051

MARCUS CHARLES
DB 2032 PG 34

ROY PARKS
DB 1972 PG 1563

JAMES KEATHLEY
DB 1133 PG 114

HELEN LUCAS
DB 1573 PG 451

VIRGINIA WEEKS
DB 1301 PG 55
DB 1301 PG 56

HELEN LUCAS
DB 507 PG 96

L. DELK CONSTRUCTION INC.
DB 1890 PG 1910
PB 56 PG 100

JOSEPH KINNEY
DB 2212 PG 766
PB 56 PG 100

DEMPSEY & SUE MOORE LIVING TRUST
DB 2026 PG 1367

NACY ABBOTT
DB 1398 PG 33
DB 1210 PG 1629

N.C.D.O.T.
DB 2103 PG 758
PB 56 PG 100

TOE PROTECTION SEE DETAIL
LATERAL BASE DITCH SEE DETAIL B
SPECIAL CUT DITCH SEE DETAIL H
BERM DITCH SEE DETAIL A
BERM DITCH SEE DETAIL AE
DRY DETENTION POND
RISER
3 TONS CL B RIPRAP W/11 SY GEO FAB
1 TON CL B RIPRAP W/5 SY GEO FAB
15 TONS CL I RIPRAP W/30 SY GEO FAB
11 TONS CL B RIPRAP W/22 SY GEO FAB
5 TONS CL B RIPRAP W/14 SY GEO FAB
BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB
BANK STAB. AT PIPE OUTLET SEE DETAIL BB
LATERAL V DITCH SEE DETAIL D
SP. LAT V DITCH SEE DETAIL J
LATERAL V DITCH SEE DETAIL D
GRADE TO DRAIN
REMOVE 20' PIPE
REMOVE 39' PIPE
REMOVE DI
600' ACCELERATION LENGTH
PROP 47" SWW FENCE
PROP 36" RCP
PROP GRAV-350
PROP 24" RCP-III
PROP 18" RCP-III
PROP 15" RCP-III
PROP 15" CSP 2 ELBOWS ROD & LUG
PROP 18" CSP 2 ELBOWS ROD & LUG
PROP 24" RCP-III
PROP 30" RCP-III (NOT BURIED)
PROP 36" RCP-III (NOT BURIED)
PROP 4OTCB
PROP 18" RCP-III
PROP 24" RCP-III
PROP 15" RCP-III
PROP 2GI-A
PROP 2GI-D
PROP 2GI Sp. Det.
PROP TB UB wSlab Lid
PROP Sp. Det. JB wSlab Lid
PROP Sp. Det. JB w/MH
PROP JB w/ Slab Lid
PROP 2GI RETAIN
PROP 4' P.S.
PROP 10' P.S.
PROP 12' P.S.
PROP 14' P.S.
PROP 24' P.S.
PROP 30' P.S.
PROP 20' P.S.
PROP 18" CSP 2 ELBOWS ROD & LUG
PROP 15" CSP 2 ELBOWS ROD & LUG
PROP 24" RCP-III
PROP 15" RCP-III
PROP 18" RCP-III
PROP 24" RCP-III
PROP 2GI-A
PROP 2GI-D
PROP 2GI Sp. Det.
PROP 2GI RETAIN
PROP 4' P.S.
PROP 10' P.S.
PROP 12' P.S.
PROP 14' P.S.
PROP 24' P.S.
PROP 30' P.S.
PROP 20' P.S.
PROP 4OTCB
PROP 2GI RETAIN
PROP 4' P.S.
PROP 12' P.S.
PROP 14' P.S.
PROP 24' P.S.
PROP 30' P.S.
PROP 20' P.S.
PROP 18" RCP-III
PROP 24" RCP-III
PROP 15" RCP-III
PROP 2GI-A
PROP 2GI Sp. Det.
PROP 2GI RETAIN
PROP 4' P.S.
PROP 10' P.S.
PROP 12' P.S.
PROP 14' P.S.
PROP 24' P.S.
PROP 30' P.S.
PROP 20' P.S.
PROP 24" RCP-III
PROP 15" RCP-III
PROP 2GI-A
PROP 2GI
PROP 4' P.S.
PROP 12' P.S.
PROP 14' P.S.
PROP 24' P.S.
PROP 30' P.S.
PROP 20' P.S.
PROP 24" RCP-III
PROP 15" RCP-III
PROP 2GI-A
PROP 2GI
PROP 4' P.S.
PROP 12' P.S.
PROP 14' P.S.
PROP 24' P.S.
PROP 30' P.S.
PROP 20' P.S.
PROP 24" RCP-III
PROP 15" RCP-III
PROP 2GI-A
PROP 2GI
PROP 4' P.S.
PROP 12' P.S.
PROP 14' P.S.
PROP 24' P.S.
PROP 30' P.S.
PROP 20' P.S.

N 73°19'17.7" W
S 85°34'04.8" W
N 14°41'20.7" W
N 14°41'20.7" W
N 14°41'20.7" W
N 14°41'20.7" W
S 87°12'52" E
S 87°13'49" E
N 87°27'51" W
N 87°27'51" W
N 87°19'28" W
N 87°19'28" W
N 74°42'30" W
N 87°26'6" W
N 86°16'58" W
N 01°53'53" E
N 03°09'51" E
N 51°21'46" E
N 76°45'36" E
N 76°45'36" E

FOR -Y4- PROFILE SEE SHTS. 157
FOR -Y4CD- RT PROFILE SEE SHT. 152
FOR -Y4CD- LT PROFILE SEE SHT. 152
FOR -Y4RPA- PROFILE SEE SHT. 159
FOR -Y4RPB- PROFILE SEE SHT. 161
FOR -SERRD3- PROFILE SEE SHT. 181
FOR -SERRD3_DR1- PROFILE SEE SHT. 182

PAVEMENT REMOVAL

MATCHLINE -SERRD3- STA. 16+00 SEE SHEET 23

MATCHLINE -Y4RPB- STA. 27+50 SEE SHEET 23

MATCHLINE -Y4- STA. 54+00 SEE SHEET 23

MATCHLINE -Y4RPA- STA. 26+00 SEE SHEET 23

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RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

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Ellen

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-SERRD3-	-Y4CD_RT-	-Y4CD_LT-
PI Sta 19+70.31	PI Sta 52+85.68	PI Sta 58+76.09	PI Sta 54+30.82
△ = 59° 31' 10.9" (LT)	△ = 3° 18' 01.3" (LT)	△ = 3° 18' 01.3" (RT)	△ = 2° 26' 01.0" (RT)
D = 5° 24' 18.9"	D = 0° 29' 53.6"	D = 0° 38' 11.8"	D = 0° 31' 49.9"
L = 1,101.14'	L = 662.42'	L = 518.42'	L = 458.72'
T = 606.08'	T = 331.30'	T = 259.28'	T = 229.40'
R = 1,060.00'	R = 11,500.00'	R = 9,000.00'	R = 10,800.00'
SE = 0.05	SE = NC	SE = NC	SE = NC
V = 40 MPH	V = 60 MPH	V = 50 MPH	V = 60 MPH

PROJECT REFERENCE NO.	SHEET NO.
R-2536	71
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -Y4- STA. 63+00 SEE SHEET 70

MATCHLINE -Y4- STA. 76+00 SEE SHEET 72

NAD 83/95

-SERRD3- PT Sta. 24+65.38

-Y4CD_LT- POT Sta.52+00.00 = -Y4RPB- POT Sta. 37+70.58 (12' LT)

-Y4CD_LT- PC Sta. 52+01.42

-Y4CD_LT- PT Sta. 56+60.15

-Y4CD_LT- POT Sta. 62+31.49

-Y4CD_RT- PC Sta. 49+54.38

-Y4CD_RT- PRC Sta. 56+16.80

-Y4- POT Sta.75+59.91 = -Y4CD_RT- PT Sta. 61+35.22 (44' RT)

-Y4- TS Sta. 75+96.39

600' ACCELERATION LENGTH

300' TAPER

760' ACCELERATION LANE

330A

332 STEVE CAMPBELL DB 1147 PG 48

330C VERA BEANE (LIFE ESTATE) HENRY FAUSNETT MICHELLE FAUSNETT DB 2180 PG 754 PB 125 PG 5

331 RUSSELL WILSON DB 2075 PG 2026

330 CECIL CARRIER DB 1407 PG 1051

329 JONITHAN BOWLAND DB 2335 PG 438

328B CECIL MOORE DB 1454 PG 1242 PD 43 PG 91

328A MARY BARKER PG 1454 PG 559

LATERAL BASE DITCH SEE DETAIL B

2 TONS CL B RIPRAP W/7 SY GEO FAB

3 TONS CL B RIPRAP W/10 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL M

LATERAL BASE DITCH SEE DETAIL AV

LATERAL V DITCH SEE DETAIL D

TDE FOR EROSION CONTROL DEVICE

PROP. 47" WW FENCE

PROP SIGN

REMOVE SYSTEM

REMOVE DI

REMOVE 15" RCP-III PIPE

15" CSP 2 ELBOWS ROD & LUG

36" RCP-III NOT BURIED

JB w/ Slab Lid

TB JB w/Slab Lid

FOR -Y4- PROFILE SEE SHTS. 157-158
FOR -Y4CD- RT PROFILE SEE SHT. 152-153
FOR -Y4CD- LT PROFILE SEE SHT. 152-153
FOR -Y4RPB- PROFILE SEE SHT. 161
FOR -SERRD3- PROFILE SEE SHT. 181

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-Y4-		-SERRD3-
PI Sta 90+28.40	PIs Sta 77+76.40	PI Sta 43+72.04
Δ = 33° 50' 19.0" (RT)	Θs = 2° 01' 29.5"	Δ = 26° 16' 09.0" (LT)
D = 1° 29' 59.6"	Ls = 270.00'	D = 11° 27' 33.0"
L = 2,256.07'	LT = 180.01'	L = 229.24'
T = 1,162.01'	ST = 90.01'	T = 116.67'
R = 3,820.00'		R = 500.00'
SE = 0.06		SE = 0.06
V = 70 MPH		V = 40 MPH

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	72
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 1983

MATCHLINE -Y4- STA. 76+00 SEE SHEET 71

END CONSTRUCTION -Y4- POC Sta.78+35.00

END CONSTRUCTION -SERRD3- POT Sta. 46+40.56

-SERRD3- PT Sta. 44+83.13

-SERRD3- PC Sta. 42+53.88

-Y4- SC Sta. 78+66.39

330B HAROLD GROVE DB 2359 PG 1232

330A HERMAN MCDOWELL, JR. JAMES BOGGS DB 2038 PG 1970

328C LAWRENCE CRANFORD DB 2205 PG 242 PB 125 PG 8

ROGER FAUSNETT DB 2300 PG 1381

MICHAEL BELLISSIMO DB 1966 PG 2335 PB 97 PG 74

LISA HUNT DB 2232 PG 1007 PB 97 PG 74

CHRISTOPHER SCOTT DB 2031 PG 339 PB 97 PG 74

FELIX VENCES DB 2330 PG 1808 PB 97 PG 74

MICHAEL SHEPPARD DB 2054 PG 212 PB 97 PG 74

PEMM, LLC DB 2216 PG 1240 PB 128 PG 60

LATERAL BASE DITCH SEE DETAIL AV

20 TONS CL I RIPRAP W/39 SY GEO FAB

SEE CULVERT OUTLET DETAIL -Y4- STA. 80+35

LATERAL V DITCH SEE DETAIL D

2 TONS CL B RIPRAP W/7 SY GEO FAB

5 TONS CL B RIPRAP W/14 SY GEO FAB

STANDARD V DITCH SEE DETAIL AL

PROP. 47" WW FENCE

STANDARD V DITCH SEE DETAIL W

PROP. SIGN

TOE PROTECTION SEE DETAIL I

SPECIAL CUT DITCH SEE DETAIL H

RETAIN SYSTEM

REMOVE SYSTEM

760' ACCELERATION LANE

540' TYP.

600' TAPER

CHANNEL CHANGE SEE DETAIL AG

RIPRAP TRANSITION SEE DETAIL AU

SEE CULVERT INLET DETAIL -Y4- STA. 80+35

US HWY 220 BYPASS

SR 1203 SKYCREST COUNTRY RD

-BYII-121

BM II ELEVATION = 796.94
N 696653 E 1791744
BYII STATION 6+92 183 LEFT
RR SPIKE IN BASE OF 12" WHITE OAK
-Y4- STA. 89+57.26 130.60 RIGHT

FOR -Y4- PROFILE SEE SHTS. 158-158A
FOR -SERRD3- PROFILE SEE SHTS. 181-182

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	73
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 8395

-BY1- 584 PINC Sta. 37+61.31 =
-BY2- 584 POT Sta. 5+00.00

-Y5- POT Sta. 8+00.00

BEGIN CONSTRUCTION
-Y5- POT Sta. 10+50.00

-Y5- PC Sta. 11+77.78

MATCHLINE -Y5- STA. 15+00
SEE SHEET 74

N 74° 09' 58.5" E

SR 1145 SOUTHMONT DR 20' BST

BM 223 ELEVATION = 766.27
N 690737 E 1750120
BY1STATION 48+65 39 LEFT
RR SPIKE IN BASE OF 24" CEDAR

-BY1- 585 POT 48+90.60

82
ROBERT D. BRITTAIN II
95E /355

325
ROBERT D. BRITTAIN
DB 1047 PG 297
DB 851 PG 591

+68.00 219'
+86.00 197'
+54.00 196'
+90.00 80'
+47.00 64'
+65.00 30' EXIST. R/W
+50.00 55' 29.97' EXIST. R/W
+96.00 95'
+80.00 80.49'
+88.00 110'
+00.00 94.98'
+17.00 98'
+24.00 114'
+42.00 107'
+62.00 56.29'
+68.00 67'
+33.00 51.87' EXIST. R/W
+50.00 70' 30.03' EXIST. R/W
+86.00 64.38'
+25.00 141'
+81.00 136'

SPECIAL CUT DITCH SEE DETAIL H
TDE FOR EROSION CONTROL DEVICE
LATERAL BASE DITCH SEE DETAIL C
REMOVE SYSTEM
REMOVE EXIST. PIPE
BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB
7 TONS CL I RIPRAP W/15 SY GEO FAB
2 TONS CL B RIPRAP W/7 SY GEO FAB
RETAIN

-Y5-
PI Sta 15+87.91
△ = 34° 16' 33.5" (RT)
D = 4° 18' 28.6"
L = 795.64'
T = 410.13'
R = 1,330.00'
SE = 0.06
V = 60 MPH

FOR -Y5- PROFILE SEE SHT. 165

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	74
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

LINE –Y5A– ROADWAY CUT DITCHES WITH CL B RIPRAP AND GEO FAB

–Y5A– PT Sta. 16+38.58

326A
PEGGY WOODRUFF
DB 1241 PG 1049
DB 1045 PG 287

249.24'
S40°02'00"W

+44.00
50'
29.9'
EXIST. R/W

+05.00
60'
29.8'
EXIST. R/W

PUE

N 31°09'03.4" E

559.34'
N87°13'7"W

281.70'
N87°11'41"W

BRIAN A. LUCK
DB 1589 PG 1284
PB 56 PG 11

END CONSTRUCTION
–Y5A– POC Sta. 14+75.00

–Y5A– PC Sta. 13+83.94

318.22'
N34°28'40"W

SPECIAL CUT DITCH
SEE DETAIL P

+75.00
50, 28.87'
EXIST. R/W

15+00

–Y5A– I

–BY1– 583 PINC 31+95.45

+75.00
60', 31.18'
EXIST. R/W

210.21'
S43°51'9"E

257.37'
N11°46'36"E

163.50'
S85°1'8"E

ROBERT D. BRITTAIN II
95E /355

82

326
ROBERT E. LUCK
DB 1143 PG 4
DB 1047 PG 260
DB 2248 PG 378
PB 130 PG 80

–BY2– 587 PINC Sta. 13+21.11

–BY2– 588 PINC Sta. 16+00.70

–BY2– 586 POT Sta. 9+61.69

LATERAL V DITCH
SEE DETAIL E

–Y5A– PT Sta. 11+26.62

N 50°59'38.7" E

+28.00 –Y5A–
68'

+75.00 –Y5–
125.08'

+03.00
136'

+10.00
119.83'

BERM DITCH
SEE DETAIL A

+52.00
109'

BERM BASE DITCH
SEE DETAIL L

BERM BASE DITCH
SEE DETAIL L

TOE PROTECTION
SEE DETAIL I

15" CSP
2 ELBOWS
ROD & LUG

+87.00
60'
END C/A
END FENCE

2 TONS CL B RIPRAP
W/7 SY GEO FAB

2 TONS CL B RIPRAP
W/7 SY GEO FAB

LATERAL V DITCH
SEE DETAIL E

LATERAL BASE DITCH
SEE DETAIL B

PROP. 47" WW FENCE

+90.00
105'

MATCHLINE –Y5– STA. 27+00 SEE SHEET 69

+56.00 –Y5A–
67.72'
EXIST. R/W

–Y5A– PC Sta. 10+26.98

–Y5_DRI– POT Sta. 10+00.00=
–Y5– POC Sta. 19+10.00

18" CSP
2 ELBOWS
ROD & LUG

BDO

7406

R=30'

R=50'

2GI

7405

15+00

–Y5–

20+00

25+00

8:1

7411

7403

7402

7401

7404

S 15° 42' 35.3" W

–Y5_DRI– PC Sta. 10+29.51

N 26° 16' 41.4" E

15" RCP-III

REMOVE

7409

7410

+50.00
60'

+27.00
72.99'

+50.00
68.81'

+87.00
60'
BEGIN C/A
BEGIN FENCE

–Y5– PRC Sta. 19+73.43

–Y5_DRI– PT Sta. 11+23.16

S 69° 22' 04.9" W

–Y5_DRI– PC Sta. 11+70.94

–Y5_DRI– PT Sta. 12+66.29

S 14° 44' 04.1" W

END CONSTRUCTION
–Y5_DRI– POT Sta. 12+72.35

30" RCP-IV

BANK STABILIZATION
AT PIPE OUTLET
SEE DETAIL BB

+20.00
90'

PROP. 47" WW FENCE

8 TONS CL B RIPRAP
W/21 SY GEO FAB

+00.00
90'

+60.00
74.57'

+00.00
112'

11 TONS CL I RIPRAP
W/22 SY GEO FAB

+70.00
148'

TDE

PDE

2 TONS CL B RIPRAP
W/7 SY GEO FAB
CUT/FILL TRANSITION

333.00'
S12°27'14"W

+54.86
160'

+46.68
229'

+72.00
231'

–Y5A– POT Sta. 10+00.00 =
–Y5– POC Sta. 15+74.25

MATCHLINE –Y5– STA. 15+00 SEE SHEET 73

325
ROBERT D. BRITTAIN
DB 1047 PG 297
DB 851 PG 591

PROP. 47" WW FENCE

+23.00
60'

PAVEMENT REMOVAL

–Y5_DRI–		–Y5–		–Y5A–	
PI Sta 12+22.59	PI Sta 10+80.09	PI Sta 15+87.91	PI Sta 24+03.64	PI Sta 10+77.59	PI Sta 15+12.68
Δ = 54° 38' 00.8" (LT)	Δ = 53° 39' 29.6" (RT)	Δ = 34° 16' 33.5" (RT)	Δ = 35° 50' 58.8" (LT)	Δ = 24° 42' 57.3" (RT)	Δ = 20° 50' 35.4" (LT)
D = 57° 17' 44.8"	D = 57° 17' 44.8"	D = 4° 18' 28.6"	D = 4° 18' 28.6"	D = 24° 48' 12.1"	D = 8° 11' 06.4"
L = 95.35'	L = 93.65'	L = 795.64'	L = 832.17'	L = 99.65'	L = 254.65'
T = 51.65'	T = 50.58'	T = 410.13'	T = 430.22'	T = 50.61'	T = 128.75'
R = 100.00'	R = 100.00'	R = 1,330.00'	R = 1,330.00'	R = 231.00'	R = 700.00'
SE = .02	SE = .02	SE = 0.06	SE = 0.06	SE = 0.03	SE = EXIST.
V = 60 MPH		V = 60 MPH	V = 60 MPH	V = 30 MPH	V = 30 MPH

FOR –Y5– PROFILE SEE SHT. 165
FOR –Y5A– PROFILE SEE SHT. 167

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R. Lewis

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	75
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

MATCHLINE -Y5- STA. 36+00 SEE SHEET 69

-Y5-
N 72° 35' 33.2" E

96
DEMPSEY MOORE, TRUSTEE

328
KLAUSSNER FURNITURE INDUSTRIES, INC.
DB 1567 PG 1154

151.00'
N86°27'27"W

505.55'
S61°55'49"W

-BY2- 592 PINC Sta. 32+76.80

-BY2- 593 PINC Sta. 36+07.04

-BY2- 591 PINC Sta. 29+22.76

-BY2- 590 PINC Sta. 27+47.32

-Y5- PC Sta. 41+76.66

-Y5- PT Sta. 49+58.57

103
NANCY DUNN
WB 03E PG 730
DB 467 PG 333
DB 575 PG 453
DB 622 PG 388
DB 434 PG 452
PB 1 PG 274

103A
MICHAEL HAYES

+42.52
192.56'

+11.76
122.39'

SEE CULVERT INLET DETAIL -Y5- STA. 41+00

CHANNEL RELOCATION SEE DETAIL AG

END C/A FENCE
-Y5- STA. 41+11.88

BEGIN C/A FENCE
-Y5- STA. 41+68.17

TDE FOR EROSION CONTROL DEVICE
+20.00
100.13'

PLACE RIPRAP ONLY ON SLOPES IN WETLANDS
+46.00
127'
+32.00
127'

TDE
+35.00
100'
TOE PROTECTION SEE DETAIL K

+50.00
114.57'

PROP. 47" WW FENCE

REMOVE

S67.68'
N87°36'20"W

6' P.S.

40+00

45+00

PROP. SBG

GRAU 350 TL-3

8:1

23.3'
TYP.

2GI
(7502)

15" CSP
2 ELBOWS
ROD & LUG

(7503)

1 TONS CL B RIPRAP
W/5 SY GEO FAB

END C/A FENCE
-Y5- STA. 40+32.96

BEGIN C/A FENCE
-Y5- STA. 40+87.95

SEE CULVERT OUTLET DETAIL -Y5- STA. 43+00

+74.00
152'

+22.00
82'

+82.00
120'

+51.00
125'

+69.00
111.23'

TDE FOR EROSION CONTROL DEVICE

+59.00
65'
BEGIN C/A
BEGIN FENCE

TDE FOR EROSION CONTROL DEVICE

+30.00
110'

+58.81
46.64'

+52.00
77'

5 TONS CL B RIPRAP
W/14 SY GEO FAB

+72.00
90'

STANDARD BASE DITCH SEE DETAIL R

+27.32
42.48'

+59.00
62'
END C/A
END FENCE

+55.00
70'
(7504)

+55.00
100'

TOE PROTECTION SEE DETAIL I
FS ELEV=814.3

94" RCP III

TDE FOR EROSION CONTROL DEVICE

+12.00
91'

LATERAL BASE DITCH SEE DETAIL C

+00.00
67'

+00.00
71.66'

+14.00
92'

POND
WB 806

S60°37'25"E
313.15'

+40.00
70.70'

MATCHLINE -Y5- STA. 50+00
SEE SHEET 76

-Y5-
PI Sta 45+98.53
Δ = 53° 20' 00.2" (RT)
D = 6° 49' 15.3"
L = 781.91'
T = 421.86'
R = 840.00'
SE = 0.06
V = 50 MPH

FOR -Y5- PROFILE SEE SHTS. 165-166

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	76
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

MATCHLINE –Y6– STA. 20+00 SEE SHEET 24

MATCHLINE –Y5– STA. 50+00 SEE SHEET 75

–Y6– DET– ORAN 350

PROP. 47' WW FENCE

PASTURE

103 NANCY DUNN
WB 03E PG 730333
PB 1 PG 274

103 NANCY DUNN
WB 03E PG 730
DB 467 PG 333
DB 575 PG 453
DB 622 PG 388
DB 434 PG 452
PB 1 PG 274

118 WILLIAM T. SCOTT
WB 90E PG 529
DB 980 PG 64
DB 1003 PG 163
DB 1243 PG 2025
DB 1340 PG 56
PB 1 PG 274

–Y6– ST Sta. 17+27.58

+40.00 75.57' EXIST. R/W BEGIN C/A BEGIN FENCE

+40.00 74.43' EXIST. R/W END C/A END FENCE

–Y6– CS Sta. 16+47.58

+95.00 100.00' 74.42' EXIST. R/W

+00.00 94.00' EXIST. R/W

3 TONS CL B RIPRAP W/10 SY GEO FAB

+78.00 124'

NOTE: DO NOT DISTURB EXISTING FENCE

–BY2– 595 POT Sta. 45+32.77

+21.00 –Y6– 74.64' EXIST. R/W

+00.00 –Y5– 58'

LATERAL BASE DITCH SEE DETAIL C

+15.00 53'

REMOVE

Conv. DI to 1B w/MH

RETAIN 2GI

+45.00 100' PASTURE

–Y6– POT Sta. 14+84.18

–Y5– POT Sta. 54+57.13

SPECIAL CUT DITCH SEE DETAIL H

S 54°04'26.6" E

+72.00 56.11' 2 TONS CL B RIPRAP W/7 SY GEO FAB CUT/FILL TRANSITION

+20.00 –Y5– 58'

–BY2– 594 PINC Sta. 42+71.64

+52.00 –Y6– SPECIAL CUT DITCH SEE DETAIL D 49.26' EXIST. R/W

BEGIN CONSTRUCTION –Y6– ST Sta. 13+50.00

+55.00 50.48' EXIST. R/W

+33.00 68'

+17.00 50.11' EXIST. R/W

+52.00 49.54' EXIST. R/W

–Y6– SC Sta. 11+99.71

–Y6– TS Sta. 11+19.71

–Y6– POT Sta. 10+00.00

N 13°00'17.3" E 10+00

103A MICHAEL HAYES
DB 2290 PG 221
PB 1 PG 274

FAITH COMMUNITY CHURCH OF ASHEBORO
DB 2094 PG 1467
PB 1 PG 274

399.52'
N76°38'44"W

WOODS

ISBKD

ISRK CHURCH

–Y5– (SOUTHMONT DR.) –Y6– (US 220 BUS.)

ADT 2015 / ADT 2040

	11,300 / 16,500	
425 / 700		
SOUTHMONT DR. –Y5–		
850 / 1,400		
425 / 700		
	11,300 / 16,500	

–Y6– (US 220 BUS.)

–Y6–		
PIs Sta 16+74.25	PI Sta 14+23.74	PIs Sta 11+73.04
Θs = 0° 21' 49.6"	Δ = 4° 04' 23.4" (RT)	Θs = 0° 21' 49.6"
Ls = 80.00'	D = 0° 54' 34.0"	Ls = 80.00'
LT = 53.33'	L = 447.87'	LT = 53.33'
ST = 26.67'	T = 224.03'	ST = 26.67'
	R = 6,300.00'	
	SE = 0.03	
	V = 60 MPH	

FOR –Y5– PROFILE SEE SHT. 166
FOR –Y6– PROFILE SEE SHT. 167

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	77
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE SEE SHEET 27

MATCHLINE -Y7- STA. 16+00 SEE SHEET 26

NAD 83/95

SEPTIC DRAINAGE FIELD

NEAL CRAVEN
PB 48 PG 36
DB 1412 PG 1677

WOODS

122H ELIZANDRO CAMPOS
DB 1499 PG 577
PB 48 PG 36

122G MARIO HERNANDEZ
DB 1491 PG 191
PB 47 PG 55

122C FLORENCIO REYES
DB 2231 PG 931
PB 47 PG 55

127

GRASS

END CONSTRUCTION
-Y7_DR2- POT Sta. 12+07.27

-BY6- 8 PINC Sta. 14+72.35
R2536-9 (GPS)
-Y7_DR2- PT Sta. 11+36.90

END CONSTRUCTION
-Y7_DR1- POT Sta. 12+00.06
S 55° 50' 55.7" E
-Y7_DR1- PT Sta. 11+98.36
-Y7_DR1- PC Sta. 10+63.17

END CONSTRUCTION
-Y7_DR5- POT Sta. 11+24.47
S 43° 53' 24.6" E
-Y7_DR5- PT Sta. 10+63.50

END CONSTRUCTION
-Y7_DR4- POT Sta. 11+06.15
S 39° 59' 42.1" E
-Y7_DR4- PT Sta. 10+85.97
-Y7_DR5- PC Sta. 10+12.28
-Y7_DR4- PC Sta. 10+30.61

122B DONALD BARBOUR
DB 2070 PG 2081
PB 47 PG 55

122I ADAN VENCES-SALINAS
DB 1852 PG 1716
PB 47 PG 55

-BY6- 607 PINC Sta. 19+44.85

ALLISON BRASWELL
DB 2189 PG 540
PB 47 PG 55

-BY6A- 609 PINC 11+25.04

MIRIAM CRUZ
DB 1988 PG 2526
PB 47 PG 55

PASCUAL FILOMENO
DB 1823 PG 1943
PB 47 PG 55

JAMIE FONVILLE
DB 2092 PG 1244
PB 47 PG 55

ALFREDO GUERRERO
DB 1916 PG 2346
PB 47 PG 55

SANTIAGO HERNANDEZ
DB 2036 PG 1433
PB 47 PG 55

MIGUEL SALINAS
DB 2358 PG 334
PB 47 PG 55

-BY6- 608 POT Sta. 22+78.49 =
-BY6A- 608 POT Sta. 5+00.00

NEAL CRAVEN
DB 1412 PG 1677
PB 47 PG 55

BM 221 ELEVATION = 795.33
N 689109 E 1757262
BY6A STATION 5+19 255 RIGHT
RR SPIKE IN BASE OF
CR&L POLE = 6NJ97

ROSA DEMORALES
DB 1843 PG 1545
PB 47 PG 55

PAUL HOLSTEN
DB 2323 PG 147
PB 47 PG 55

ELISEO REYES
DB 1515 PG 732
PB 47 PG 55

DONNA PRICE
DB 1498 PG 768
PB 47 PG 55

WILLIAM T. SCOTT
WB 90E PG 529
DB 980 PG 64
DB 1003 PG 163
DB 1243 PG 2025
DB 1340 PG 56
PB 1 PG 274

122A JORGE SOSA
DB 1496 PG 1280
PB 47 PG 45

122 ERIBERTO AYALA
DB 1496 PG 1089
PB 47 PG 45

121 NEAL CRAVEN
DB 1412 PG 1677
PB 47 PG 45

122D EDDY BRAVO
PB 47 PG 45
DB 1496 PG 1147

122E STEVEN CRAVEN
DB 1412 PG 1677
PB 47 PG 55

122F MARTIN MARTINEZ
DB 1546 PG 1670
PB 47 PG 55

-Y7- POT Sta. 8+00.00

-Y7- PC Sta. 8+41.21

BEGIN CONSTRUCTION
-Y7- POT Sta. 10+00.00
-Y7- PT Sta. 9+93.33

-Y7- POT Sta. 13+50.00

-Y7- PC Sta. 11+10.65

-Y7_DR5- POT Sta. 10+00.00=
-Y7- POT Sta. 13+90.00

-Y7- PT Sta. 14+41.63

-Y7_DR1- POT Sta. 10+00.00=
-Y7- POT Sta. 15+00.00

-Y7_DR2- PC Sta. 10+22.29

S 75° 12' 45.1" E

-Y7_DR2- POT Sta. 10+00.00=
-Y7- POT Sta. 15+40.00

N 27° 25' 48.8" E

-Y7-		-Y7_DR1-	-Y7_DR2-	-Y7_DR5-	-Y7_DR4-
PI Sta 12+76.81	PI Sta 9+18.49	PI Sta 11+31.42	PI Sta 10+79.85	PI Sta 10+38.47	PI Sta 10+59.02
Δ = 12° 38' 33.9" (LT)	Δ = 24° 54' 08.0" (RT)	Δ = 19° 21' 49.3" (RT)	Δ = 13° 08' 02.1" (RT)	Δ = 29° 21' 00.4" (RT)	Δ = 31° 43' 01.9" (RT)
D = 3° 49' 11.0"	D = 16° 22' 12.8"	D = 14° 19' 26.2"	D = 11° 27' 33.0"	D = 57° 17' 44.8"	D = 57° 17' 44.8"
L = 330.99'	L = 152.12'	L = 135.18'	L = 114.62'	L = 51.23'	L = 55.36'
T = 166.17'	T = 77.28'	T = 68.24'	T = 57.56'	T = 26.19'	T = 28.41'
R = 1,500.00'	R = 350.00'	R = 400.00'	R = 500.00'	R = 100.00'	R = 100.00'
SE = 0.04	SE = EXIST.	SE = N.C.	SE = N.C.	SE = N.C.	SE = N.C.
V = 40 MPH					

FOR -Y7_DR1- PROFILE SEE SHT. 184
FOR -Y7_DR2- PROFILE SEE SHT. 184
FOR -Y7_DR4- PROFILE SEE SHT. 183
FOR -Y7_DR5- PROFILE SEE SHT. 183
FOR -Y7- PROFILE SEE SHT. 168

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F.Keys

PROJECT REFERENCE NO.	SHEET NO.
R-2536	78
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

MATCHLINE EXISTING FOOTHILLS DRIVE SEE SHEET 27

BEGIN CONSTRUCTION -SERRD5- POT Sta. 9+73.33

END CONSTRUCTION -SERRD5- POT Sta. 17+59.98

POT -SERRD5- Sta. 17+68.82

-SERRD5- PC Sta. 10+69.00

-SERRD5- PT Sta. 16+14.36

EOY10-628 POT Sta. 5+00.00

-SERRD5-
PI Sta 13+80.81
△ = 69° 26' 14.2" (LT)
D = 12° 43' 56.6"
L = 545.36'
T = 311.81'
R = 450.00'
SE = 0.03
V = 25 MPH

FOR -SERRD5- PROFILE SEE SHT. 183

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	79
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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8/17/99

NAD 83/95

CEDAR GROVE TOWNSHIP
GRANT TOWNSHIP

342A
SUNRISE & SONS, LLC
DB 1915 PG 1582
PB 12 PG 74

342B
SUNRISE & SONS, LLC
DB 1915 PG 1582
PB 12 PG 74

342D
UNKNOWN OWNER

BOARD OF TRUSTEES OF
CENTRAL METHODIST CHURCH
DB 320 PG 211

151
A. D. FREEMAN
DB 1291 PG 458
PB 25 PG 47

342C
NATHAN BULLARD JR
DB 1936 PG 2846
PB 36 PG 31

342B
WILLIAM T. MAHAN
DB 2050 PG 785
PB 12 PG 74

149
CHARLA WONG
DB 1933 PG 1176
PB 36 PG 31

SUNRISE & SONS, LLC
DB 1915 PG 1582
PB 12 PG 74

SUNRISE & SONS, LLC
DB 1915 PG 1582
PB 12 PG 74

SUNRISE & SONS, LLC
PB 12 PG 74
DB 1915 PG 1582

END CONSTRUCTION
-SERRDI- POT Sta. 21+20.00

BEGIN CONSTRUCTION
-SERRDI- POT Sta. 10+50.00

-SERRDI- PT Sta. 20+49.07

-SERRDI- PRC Sta. 16+45.20

-SERRDI- POT Sta. 22+69.34

-SERRDI- PC Sta. 13+46.95

-SERRDI- POT Sta. 10+00.00

-BY12-655 PINC 9+12.53

-BY12-654 PINC 11+68.30

-BY12-653 PINC 13+95.42

-BY12-652 PINC 17+56.47

-BY12-656 PINC 7+03.49

-BY12-657 POT 5+00.00

+77.66
35.59'
EXIST. R/W

+30.00
102'

+55.00
70'

+42.59
80.79'

+03.20
31.75'

+00.00
27.02
EXIST. R/W

+26.00
53'

+65.00
60'

+12.00
45.09'

+86.00
79'

+50.00
43.23'

+64.00
65'

+94.00
47'

+62.00
65'

+07.00
34.95'

+33.00
37.22'

+46.00
62'

+00.00
57'

+72.00
55'

+59.00
33.65'

+80.00
35'

+05.00
63'

+56.00
39.04'

+60.00
35'

+60.00
44'

+75.00 -SERRD1-
64'

2 TONS CL B RIPRAP
W/7 SY GEO FAB
CUT/FILL TRANSITION

LATERAL V DITCH
SEE DETAIL G

LATERAL V DITCH
SEE DETAIL D

LATERAL BASE DITCH
SEE DETAIL M

GRAU 350

RETAIN

REMOVE

MATCHLINE -SERRD1- STA. 10+30
SEE SHEET 79

-SERRDI-

PI Sta 18+84.40	PI Sta 14+98.75
Δ = 77° 07' 58.3" (LT)	Δ = 26° 17' 23.8" (RT)
D = 19° 05' 54.9"	D = 8° 48' 53.0"
L = 403.87'	L = 298.25'
T = 239.20'	T = 151.80'
R = 300.00'	R = 650.00'
SE = 0.06	SE = 0.05
V = 30 MPH	V = 30 MPH

FOR -SERRD1- PROFILE SEE SHT. 180C

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Elements

–Y9A– (STALEYS FARM RD.) & NC 159

ADT 2015
ADT 2040

STALEYS FARM RD.
–Y9A–

2,150 / 2,600
4,500 / 5,400
2,250 / 2,800
100 / 200
2,450 / 3,000

NC 159

–Y9A–		–Y9C–
PI Sta 30+68.44	PI Sta 35+59.97	PI Sta 13+27.71
Δ = 4° 29' 15.3" (LT)	Δ = 24° 50' 41.0" (RT)	Δ = 48° 17' 25.4" (RT)
D = 0° 43' 40.9"	D = 6° 52' 41.7"	D = 22° 55' 05.9"
L = 616.40'	L = 361.21'	L = 210.71'
T = 308.36'	T = 183.49'	T = 112.07'
R = 7,870.00'	R = 833.00'	R = 250.00'
SE = NC	SE = 0.06	SE = 0.07
V = 50 MPH	V = 50 MPH	V = 30 MPH

PROJECT REFERENCE NO.	SHEET NO.
R-2536	80
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

LIBERTY CIRCLE
PB 10 PG 114
EXISTING R/W (PRIVATE)
60.00'

HARRY LASHUA
DB 981 PG 2212
PB 10 PG 114

RICHES INC. & OTHERS
DB 813 PG 325
PB 10 PG 114

–Y9D– POT Sta. 14+75.00

200.34'
S77°13'49"W

S13°09'53"E 46.35'

S12°49'44"E 151.65'

S12°46'11"E 50.00'

S12°46'11"E 50.00'

200.00'
S77°13'49"W

201.94'
S77°13'49"W

END CONSTRUCTION
–Y9A– POT Sta. 42+91.51

END CONSTRUCTION
–Y9D– POT Sta. 11+45.00

N 13° 24' 02.2" W

202.10'
S76°46'13"W

200.36'
S76°46'13"W

–Y9D– POT Sta. 10+00.00=
–Y9A– POT Sta.38+46.58

N 78° 52' 44.7" E

351N
CHRISTOPHER M GARNER AND JENNIFER GRAVES
PB 10 PG 114

351F
KENNETH M AND KELLEY L STEWART
PB 10 PG 114

351G
RICHES INC AND OTHERS
PB 10 PG 114

351M
JERRY W AND SANDRA W WILLIAMS
PB 10 PG 114

351H
WAYNE MORGAN
DB 1032 PG 247
PB 10 PG 114

351K
RICHES INC AND OTHERS
PB 10 PG 114

351I
CORNISHA THOMPSON
PB 10 PG 114

351
BONITA SPENSER CAMPBELL
PB 10 PG 114

351G
RICHES INC AND OTHERS
PB 10 PG 114

351B
KAREN RICHARDSON MILLER
PB 10 PG 114

351C
RONNIE J GILLESPIE
PB 10 PG 114

351D
JERRY R AND JEANNIE H HUNT
PB 10 PGII4

351L
KENNETH TROTTER
PB 1545 PG 605
PB 41 PG 20

351E
JERRY HUNT
DB 1040 PG 609
DB 1131 PG 335
PB 10 PG 114

351
BONITA S. CAMPBELL
DB 1131 PG 61

351A
JEAN B SCOTT
PB 10 PG 114

ROBERT G. FERREE, III
WB 95E PG 265
PB 10 PG 114

RICHES, INC.
DB 813 PG 325
DB 813 PG 328
PB 10 PG 114

MARTHA B MARSH
PB 10 PG 114

–Y9C– POT Sta. 9+00.00

S 84°02'47.5" E

10+00

35+00

30+00

S 35° 45' 22.1" E

–Y9C– Sta.11+30.00
BEGIN CONSTRUCTION

–Y9C– PC Sta. 12+15.64

–Y9C– PT Sta. 14+26.35

–Y9A– PRC Sta. 33+76.49

–Y9A– POC Sta.33+47.71 =
–Y9C– POT Sta.14+47.88

–Y9A– PT Sta. 37+37.69

MATCHLINE –Y9A– STA. 29+00 SEE SHEET 82

R=180'
R=400'
R=460'
R=350'

OFFSET=22.5'
OFFSET=9'
OFFSET=9'

REMOVE EXIST PAVEMENT

LATERAL BASE DITCH SEE DETAIL B
LATERAL BASE DITCH SEE DETAIL C
LATERAL BASE DITCH SEE DETAIL M
LATERAL V DITCH SEE DETAIL D
LATERAL V DITCH SEE DETAIL G
SPECIAL CUT DITCH SEE DETAIL H
SPECIAL CUT DITCH SEE DETAIL H
STANDARD V DITCH SEE DETAIL W

2 TONS CL B RIPRAP W/7 SY GEO FAB
3 TONS CL B RIPRAP W/10 SY GEO FAB
8 TONS CL B RIPRAP W/10 SY GEO FAB
15 TONS CL I RIPRAP W/30 SY GEO FAB ON BANKS ONLY

18" RCP-III
24" RCP-III
30" RCP-III
36" RCP-III
2 ELBOWS
ROD & LUG
2GI FS
TBJB w/MH
BANK STAB. AT PIPE OUTLET SEE DETAIL AJ

REMOVE PIPE MATCH BASE DITCH TO EXISTING STREAM

PLUG & FILL W/ FLOWABLE FILL

RETAIN

REMOVE

2150' LANE TAPER

FREEDOM TRAIL (SR 2994) 22' PAVED RDWY

EXISTING WHITE FLINT

S 84°55'18" E 25.00'
N 02°13'42" E 225.78'
N 02°13'42" E 230.05'
S 84°55'18" E 99.50'
N 02°13'42" E 233.03'
S 84°55'18" E 228.50'
N 02°13'42" E 236.73'
N 02°13'42" E 234.28'
N 02°10'43" E 90.36'
N 02°10'43" E 603.52'
S 84°17'15" E 100.18'
S 84°17'15" E 100.37'
S 84°17'15" E 88.45'
S 84°17'15" E 47.00'
S 88°33'06" E 110.76'
S 02°37'42" W 200.63'
S 02°37'42" W 200.49'
S 02°37'42" W 200.37'
S 02°42'45" W 207.70'
N 76°57'07" E 174.69'
N 77°11'43" E 199.82'
N 77°11'43" W 217.95'
N 77°11'53" E 200.27'
N 12°54'14" W 193.39'
N 12°54'18" E 200.00'
N 12°30'22" W 357.19'
N 12°48'16" W 148.16'

FOR –Y9A– PROFILE SEE SHTS. 177–178
FOR –Y9C– PROFILE SEE SHT. 178

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FOR –Y9FLY– PROFILE SEE SHT. 170
FOR –Y9RPC– PROFILE SEE SHT. 175
FOR –Y9RPD– PROFILE SEE SHT. 176
FOR –Y9A– PROFILE SEE SHT. 178
FOR –Y9B– PROFILE SEE SHT. 178
FOR –Y9A_DR1– PROFILE SEE SHT. 184
FOR –Y9A_DR2– PROFILE SEE SHT. 184

PAVEMENT REMOVAL

PROJECT REFERENCE NO.	SHEET NO.
R-2536	81
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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MATCHLINE –Y9RPD– STA. 22+50 SEE SHEET 31

MATCHLINE –Y9B– STA. 18+00 SEE INSET 1

MATCHLINE –Y9B– STA. 11+25 SEE SHEET 82

MATCHLINE –Y9A– STA. 23+00 SEE SHEET 82

MATCHLINE –Y9FLY– STA. 29+00 SEE SHEET 30

MATCHLINE –Y9RPC– STA. 25+50 SEE SHEET 30

MATCHLINE –Y9FLY– STA. 43+00 SEE SHEET 82

350 SILVINA TREJO PINEDA
DB 2384 PG 1303
PB 25 PG 19

351 BONITA S. CAMPBELL
DB 1131 PG 61

353 TONY GARNER
DB 1169 PG 1611
PB 25 PG 47

352 WAYNE HOOKER
DB 1177 PG 445
DB 1200 PG 379
PB 25 PG 47

344 OSCAR AGUILAR
DB 1981 PG 2511
PB 25 PG 47

343 ARMANDO ESTEBAN
DB 1715 PG 521
PB 25 PG 47

343A VICKY LEONARD
DB 1467 PG 1746
PB 25 PG 47

350A DAVID BLACKWELL
DB 1587 PG 865
PB 25 PG 19

348 BOBBY H. WRIGHT, JR.
DB 1557 PG 664
DB 1557 PG 666
PB 25 PG 19

349 BERNIE BAILEY
DB 733 PG 370

347 CARLA WILLARD
DB 2082 PG 1166
PB 25 PG 19

355 ERIC NEWTON
DB 1278 PG 915

344F STC INVESTMENTS AND PROPERTIES, LLC
DB 2284 PG 1027
PB 25 PG 19

344E MARY DEBERRY
DB 2173 PG 1584
PB 25 PG 19

344D MARK BRASWELL
DB 2282 PG 434
PB 25 PG 19

END CONSTRUCTION
POT Sta.16+80.00
–Y9B– PT Sta.16+71.25

–Y9B– PRC Sta. 12+01.51

–Y9B– POT Sta. 14+13.16 =
–Y9B_DR1– POT Sta. 11+14.47

–Y9B_DR1– POT Sta. 10+00.00

OFFSET =16'

–BL-615
R2536B –BY7– STA 23+91.79=
R2536D –BL– STA 5+00.00

–BL-902

–Y9FLY– PT Sta. 42+39.88

–Y9RPD– ST Sta. 30+62.26

–Y9RPD–CS Sta. 28+62.26

–Y9RPD– POC Sta.27+83.09 =
–Y9A– POC Sta.22+63.66

700' MEDIAN TRANSITION

600' ACCELERATION LANE

300' TAPER

–Y9FLY– POC Sta.34+55.56 =
–Y9RPC– ST 30+94.70 (39.00' RT)

–Y9FLY– POC Sta.40+25.00 =
–Y9RPD– POT 31+68.15 (39.00'LT)

–Y9A– PT Sta.18+93.82

–Y9A_DR1– PT Sta. 10+87.44

–Y9A– POC Sta.18+65.53

–Y9B– PC Sta. 18+13.16

–Y9RPC– CS Sta. 28+74.70

–Y9A_DR1– POC Sta. 10+00.00

–Y9A_DR1– PC Sta. 10+45.00

BEGIN CONSTRUCTION
–Y9A_DR1– Sta.10+53.00

END CONSTRUCTION
–Y9A_DR1– POT Sta. 11+52.82=
–Y9A– POT Sta.17+70.84

END CONSTRUCTION
–Y9A_DR2– Sta.11+30.00

–Y9A_DR2– POT Sta. 11+32.92

–Y9A_DR2– PT Sta. 10+88.87

–Y9A_DR2– PC Sta. 10+80.05

BEGIN CONSTRUCTION
–Y9A_DR2– POT Sta.10+00.00=
–Y9A– POT Sta.16+92.40

–Y9A– PC Sta. 13+66.52

BEGIN CONSTRUCTION
–Y9A– Sta.13+60.00

SITE 12– –Y9A– STRUCTURE

BEGIN BRIDGE
–Y9A– Sta.19+37.88

BEGIN APPROACH SLAB
–Y9A– Sta.19+12.88

END BRIDGE
–Y9A– Sta.21+10.51

END APPROACH SLAB
–Y9A– Sta.21+35.51

–Y9A– POC Sta.20+22.93=
–Y9FLY– Sta. 39+31.38
Δ= 56°26'55.88"

–Y9A– POC Sta.20+72.92 =
–Y9RPD– POC Sta. 31+02.53
Δ= 121°38'49.81"

INSET 1

INSET 2

–Y9RPD–	
PI Sta 24+30.45	PIs Sta 29+29.04
Δ = 92° 40' 34.3" (LT)	Θs = 7° 33' 31.7"
D = 7° 33' 31.7"	Ls = 200.00'
L = 1,226.07'	LT = 133.46'
T = 794.26'	ST = 66.78'
R = 758.00'	
SE = 0.08	
V = 50 MPH	

–Y9RPC–	
PI Sta 22+09.12	PIs Sta 29+48.08
Δ = 66° 20' 32.4" (RT)	Θs = 4° 46' 28.7"
D = 4° 20' 26.1"	Ls = 220.00'
L = 1,528.42'	LT = 146.72'
T = 862.84'	ST = 73.38'
R = 1,320.00'	
SE = 0.08	
V = 60 MPH	

–Y9FLY–	–Y9A_DR1–	–Y9A_DR2–
PI Sta 34+85.62	PI Sta 10+67.59	PI Sta 10+84.46
Δ = 9° 37' 34.6" (LT)	Δ = 48° 37' 57.3" (RT)	Δ = 5° 03' 13.6" (LT)
D = 0° 38' 11.8"	D = 114° 35' 29.6"	D = 57° 17' 44.8"
L = 1,512.09'	L = 42.44'	L = 8.82'
T = 757.83'	T = 22.59'	T = 4.41'
R = 9,000.00'	R = 50.00'	R = 100.00'
SE = NC		
V = 50 MPH		

–Y9A–	–Y9B–	
PI Sta 16+32.30	PI Sta 11+20.51	PI Sta 18+39.36
Δ = 17° 46' 19.3" (LT)	Δ = 66° 44' 59.7" (LT)	Δ = 5° 14' 13.5" (RT)
D = 3° 22' 13.2"	D = 35° 48' 35.5"	D = 10° 00' 00.0"
L = 527.31'	L = 186.40'	L = 52.37'
T = 265.79'	T = 105.40'	T = 26.20'
R = 1,700.00'	R = 160.00'	R = 572.96'
SE = 0.05	SE = RC	
V = 50 MPH	V <30mph (Stop Cond.)	

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-Y9B-	-Y9A-
PI Sta 11+20.51	PI Sta 30+68.44
Δ = 66° 44' 59.7" (LT)	Δ = 4° 29' 15.3" (LT)
D = 35° 48' 35.5"	D = 0° 43' 40.9"
L = 186.40'	L = 616.40'
T = 105.40'	T = 308.36'
R = 160.00'	R = 7,870.00'
SE = RC	SE = NC
V <30mph (Stop Cond.)	V = 50 MPH

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2536	82
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83'95

-Y9A- STA. 29+00 MATCHLINE SEE SHEET 80

-Y9A- PC Sta. 27+60.08

+00 65'

+60.08 85'

+60.08 65'

+25.00 -Y9A- -85'

R=200'

OFFSET=6'

R=175'

-Y9B- PC Sta. 10+15.11

100' LANE TAPER

15' 12' 12' 10'

R=50'

82°

-Y9A- POT Sta. 24+19.78 = -Y9B- POT Sta. 10+00.00

N 46° 16' 25.0" W

MATCHLINE -Y9B- STA. 11+25 SEE SHEET 82

MATCHLINE -Y9A- STA. 23+00 SEE SHEET 81

351
BONITA S. CAMPBELL
DB 1131 PG 61

349
BERNIE BAILEY
DB 733 PG 370

355
ERIC & DEBORAH NEWTON
DB 1278 PG 915

N 85°01'34" W 263.43'

STONE PILE

N 85°03'04" W 436.24'

S 87°57'35" E 20' PERPET DB 12

9.33'

+86.00 -Y9- 514'

+79.00 -Y9FLY- 478'

TDE

NOTE: VERIFY BOTTOM OF POND ELEVATION TO TIE TO LATERAL BASE DITCH. COORD. WITH CONTRACTOR FOR A PERMANENT DITCH THROUGH THE POND IF NECESSARY

PERMANENTLY DRAIN POND

+56.00 355.07'

+80.00 281.19'

POND

+73.00 205'

LATERAL BASE DITCH SEE DETAIL AW

+50.00 173' NO RISER

POND OVERFLOW @ PROP. 47" WW FENCE

INV=625

-Y9- POT Sta. 10+00.00 = -Y9FLY- POT Sta. 51+15.22

+80.00 -Y9- 130'

-Y9- PC Sta. 11+99.29

+48.00 -Y9- 148'

LATERAL BASE DITCH SEE DETAIL M

PROP. 47" WW FENCE

7 TONS CL I RIPRAP W/15 SY GEO FAB

24" CSP REVERSE RCP & ELLS

-Y9-

2GI-A

2GI

24" RCP-III

MATCHLINE -Y9- STA. 13+00 SEE SHEET 83

+00.00 160'

PROP. 47" WW FENCE

N88°18'15"E 195.50'

+15.00 -Y9FLY- 97'

-Y9FLY-

MATCHLINE -Y9FLY- STA. 43+00 SEE SHEET 81

240' TAPER

840' MEDIAN TRANSITION

4' P.S.

16'

23'

12'

45+00

50+00

10+00

S 66° 59' 35.5" E

28' TYP.

477.96

5" MONOLITHIC CONC ISLAND

15" RCP-III

GRAU 350

2GI

FS

-BL-903

-BL-904

300' TAPER

LATERAL BASE DITCH SEE DETAIL C

355
ERIC & DEBORAH NEWTON
DB 1278 PG 915

BERM DITCH SEE DETAIL A

+47.00 209'

PROP. 47" WW FENCE

S14°43'23"W 213.00'

35' WW

-Y9- -905

FOR -Y9FLY- PROFILE SEE SHT. 170
FOR -Y9- PROFILE SEE SHT. 171
FOR -Y9A- PROFILE SEE SHT. 178
FOR -Y9B- PROFILE SEE SHT. 178

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–Y9– (ZOO CONNECTOR)	–Y10– (NC 159)
ADT 2015 / ADT 2040	2,550 / 3,100
1,650 / 2,400	900 / 700
ZOO CONNECTOR –Y9– 7,950 / 9,900	7,200 / 8,200

PROJECT REFERENCE NO.	SHEET NO.
R-2536	83
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83'95

MATCHLINE –Y10– STA. 15+50 SEE SHEET 90

MATCHLINE SEE SHEET 82 –Y9– STA. 13+00

MATCHLINE –Y9– STA. 25+00 SEE SHEET 84

–Y10– SC Sta. 13+89.72

–Y10– TS Sta. 11+89.72

–Y9– POC Sta. 19+12.65 = –Y10– POT Sta. 10+00.00

356 TDE FOR EROSION CONTROL DEVICE

GARNER AND SON LLC
DB 2362 PG 855

357 REID A. SHAW
PB 41 PG 43
DB 822 PG 435

355 ERIC & DEBORAH NEWTON
DB 1278 PG 915

250' MEDIAN TAPER

100' TAPER

330' LEFT TURN LANE

250' TYP.

840' MEDIAN TRANSITION

540' MEDIAN TRANSITION

PROP. 47" WW FENCE

REMOVE SYSTEM

LATERAL V DITCH SEE DETAIL D

LATERAL V DITCH SEE DETAIL G

LATERAL BASE DITCH SEE DETAIL AW

LATERAL BASE DITCH SEE DETAIL B

LATERAL BASE DITCH SEE DETAIL C

LATERAL BASE DITCH SEE DETAIL AV

LATERAL BASE DITCH SEE DETAIL M

2 TONS CL B RIPRAP W/7 SY GEO FAB

26 TONS CL I RIPRAP W/50 SY GEO FAB

15" CSP 2 ELBOWS ROD & LUG

36" CSP 2 ELBOWS ROD & LUG

5" MONOLITHIC CONC ISLAND R=75'

RIPRAP TRANSITION SEE DETAIL AU

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL AJ

TOE PROTECTION SEE DETAIL I

BM #1 –BL– STA 30+00.36 260.93' RIGHT ELEV=621.45'

GRAU 350

–BL–907 –BL–908 –BL–909 –BL–906

N 36°37'51.4" E 1369.46'(TOTAL)

N 04°53'38" E 1369.46'(TOTAL)

S 31°39'19" E 59.82'

S 89°52'51" E 95.72'

S 04°54'06" E 66.71'

S 58°18'10" E 134.62'

–Y10–	–Y9–	–Y9–
PIs Sta 13+23.13	PI Sta 17+06.10	PI Sta 35+11.15
Θs = 6°05'43.1"	Δ = 37°12'15.3" (LT)	Δ = 75°14'13.9" (RT)
Ls = 200.00'	D = 6°05'43.1"	D = 1°54'35.5"
LT = 133.41'	L = 610.38'	L = 3,939.41'
ST = 66.74'	T = 316.38'	T = 2,311.86'
	R = 940.00'	R = 3,000.00'
	SE = 0.08	SE = 0.05
	V = 50 MPH	V = 60 MPH

FOR –Y9– PROFILE SEE SHT. 171
FOR –Y10– PROFILE SEE SHT. 179

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	84
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 8395

BM #2
-BL- STA 45+31.45
87.76' LEFT
ELEV=589.06'

-BL-912 -BL-913 -BL-914 -BL-911 -BL-910

357
REID A. SHAW
DB 822 PG 435
PB 41 PG 43

358
REID A. SHAW TRUSTEE
DB 2055 PG 1751
PB 41 PG 42

N 84°20'27" W
406.54'

N 88°00'43" W
756.68'

S 05°39'39" W
253.85'

STONE & EIP

EIP

SF

540' MEDIAN TRANSITION

TDE FOR EROSION CONTROL DEVICE

+98.00 100', 114'

+37.00 116'

+24.00 100'

TDE

PROP. 47" WW FENCE

SPECIAL CUT BASE DITCH SEE DETAIL AA

BDO

8413

30" CSP 2 ELBOWS ROD & LUG

TOE PROTECTION SEE DETAIL I

+26.00 100'

PDE

TDE

+71.00 167'

+05.00 150'

+75.00 150' 100'

SEE CULVERT OUTLET DETAIL -Y9- STA. 29+09

+05.00 100'

2 @ 10'x14'

JS

GRAU 350

8:1

-Y9-

30+00

35+00

100'

+00.00 100'

+90.00 130'

11 TONS CL I RIPRAP W22 SY GEO FAB

+60.00 130'

+65.00 100'

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB

8409

8402

+85.00 100'

+15.00 100'

15" CSP 2 ELBOWS ROD & LUG

8407

BDO

30" RCP-III

8408

FS 2GI

4' P.S.

8401

2GI

GRAU 350 TL-3

PROP. SBG

15" CSP 2 ELBOWS ROD & LUG

24" CSP 2 ELBOWS ROD & LUG

8403

LATERAL BASE DITCH SEE DETAIL B

2 TONS CL B RIPRAP W/7 SY GEO FAB CUT/FILL TRANSITION

SPECIAL CUT DITCH SEE DETAIL H

8411

F 2GI

SP. LAT. DITCH SEE DETAIL J

8410

BERM BASE DITCH SEE DETAIL L

2 TONS CL B RIPRAP W/7 SY GEO FAB

NOTE: TIE CUT DITCH AND BERM BASE DITCH DOWN TO LATERAL BASE DITCH

BERM BASE DITCH SEE DETAIL L

+00.00 100'

30" CSP 2 ELBOWS ROD & LUG

SEE CULVERT INLET DETAIL -Y9- STA. 29+09

8404

+50.00 100'

+30.00 100'

+80.00 135

LATERAL BASE DITCH SEE DETAIL B

TDE FOR EROSION CONTROL DEVICE

MATCHLINE -Y9- STA. 25+00 SEE SHEET 83

MATCHLINE -Y9- STA. 38+00 SEE SHEET 85

N 04°56'42" W
81.50'

S 89°36'07" E
88.49'

S 40°00'49" E
164.18'

N 00°24'44" W
1894.93'

-Y9-
PI Sta 35+11.5
Δ = 7° 14' 13.9" (RT)
D = 1° 54' 35.5"
L = 3,939.41'
T = 2,311.86'
R = 3,000.00'
SE = 0.05
V = 60 MPH

FOR -Y9- PROFILE SEE SHTS. 171-172

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	85
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

-BL-915

-BL-916

-BL-917

-BL-918

-BL-919

358
REID A. SHAW TRUSTEE
DB 2055 PG 1751
PB 41 PG 42

BM #3
-BL- STA 65+76.11
163.26' LEFT
ELEV=630.19'

134.21'

-Y9- PT Sta. 51+38.70

TDE FOR EROSION CONTROL DEVICE

+15.00 118'

+88.00 100'

+00.00 100'

20 TONS CL I RIPRAP W/39 SY GEO FAB

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL BB

PROP. 47" WW FENCE

BERM DITCH SEE DETAIL A

+25.00 100'

TDE

-Y9-

40+00

45+00

50+00

100'

4" P.S.

12'

10'

SPECIAL CUT DITCH SEE DETAIL H

42" RCP-III

HW

LATERAL V DITCH SEE DETAIL D

TOE PROTECTION SEE DETAIL I

+00.00 100'

+21.00 100'

+09.00 100'

BERM BASE DITCH SEE DETAIL L

+00.00 110'

TDE FOR EROSION CONTROL DEVICE

PROP. 47" WW FENCE

MATCHLINE -Y9- STA. 38+00 SEE SHEET 84

+60.00 100'

+40.00 130'

+00.00 100'

LATERAL V DITCH SEE DETAIL G

BANK STAB. AT PIPE OUTLET SEE DETAIL BB

2 TONS CL B RIPRAP W/7 SY GEO FAB CUT/FILL TRANSITION

+38.70 100'

7 TONS CL I RIPRAP W/15 SY GEO FAB

24" RCP-III

+54.00 -SR_Q- 29.13'

BERM DITCH SEE DETAIL A

PROP. 47" WW FENCE

10+00

+38.70 -Y9- 100'

-SR_Q- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-SR_Q- POT Sta. 11+00.00

S 8° 25' 50.0" W

+05.00 90'

SPECIAL CUT DITCH SEE DETAIL H

MATCHLINE -SR_Q- STA. 12+00 SEE SHEET 86

358
REID A. SHAW TRUSTEE
DB 2055 PG 1751
PB 41 PG 42

-Y9-
PI Sta. 35+11.15
Δ = 75° 14' 13.9" (RT)
D = 1° 54' 35.5"
L = 3,939.41'
T = 2,311.86'
R = 3,000.00'
SE = 0.05
V = 60 MPH

FOR -Y9- PROFILE SEE SHT. 172
FOR -SR_Q- PROFILE SEE SHT. 180A

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	86
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

N 87°27'23" W 1495.95

359
ALFRED & EVANNA LAPRADE
DB 1153 PG 874

359
ALFRED & EVANNA LAPRADE
DB 1161 PG 507
PB 21 PG 65

-BL-920
-BL-921
-BL-922
-BL-923

-Y9- PC Sta. 62+84.00

MATCHLINE -Y9- STA. 51+00 SEE SHEET 85

MATCHLINE -Y9- STA. 64+00 SEE SHEET 87

MATCHLINE -SR_Q- STA. 12+00 SEE SHEET 85

MATCHLINE -SR_Q- STA. 24+50 SEE SHEET 87

+25.00 130' STANDARD BASE DITCH SEE DETAIL R

+32.00 100'

+68.00 100'

+62.00 100'

+07.00 133'

+17.00 100'

+84.00 100'

PDE

TDE

TDE FOR EROSION CONTROL DEVICE

20 TONS CL I RIPRAP W/39 SY GEO FAB ON BANKS ONLY

PROP. 47" WW FENCE

20 TONS CL I RIPRAP W/39 SY GEO FAB

SPECIAL CUT DITCH SEE DETAIL H

28.0' TYP.

+60.03

42" RCP-III

100'

55+00

60+00

-Y9- S 8°14' 38.3" W

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL AJ

15" CSP 2 ELBOWS ROD & LUG

15" RCP-III (NOT BURIED)

2GI

8604

FS

8606

8601

HW

SP. LAT. DITCH SEE DETAIL J

15 TONS CL I RIPRAP W/30 SY GEO FAB

STANDARD BASE DITCH SEE DETAIL AS

GRAU 350

8:1

15+00

20+00

S 8°25' 50.0" W

36" CSP

8612

FS ELEV 643.0

RIPRAP TRANSITION SEE DETAIL AU

LATERAL V DITCH SEE DETAIL D

8602

15" RCP-III

FS 2GI

8603

27.5' TYP.

+19.83

8618

2 TONS CL B RIPRAP W/7 SY GEO FAB

8611

TOE PROTECTION SEE DETAIL I

15 TONS CL I RIPRAP W/30 SY GEO FAB

+46.00 -Y9- 100'

+41.00 -SR_Q- 25'

8617

2GI

18" CSP 2 ELBOWS ROD & LUG

8615

18" CSP 2 ELBOWS ROD & LUG

FS BDO

8614

8613

8616

-SR_Q- PC Sta. 22+46.75

3 TONS CL B RIPRAP W/10 SY GEO FAB

+20.00 65'

+75.00 85'

+60.00 65'

+15.00 113'

BERM BASE DITCH SEE DETAIL L

BERM BASE DITCH SEE DETAIL X

BERM DITCH SEE DETAIL A

LATERAL BASE DITCH SEE DETAIL B

NOTE: TIE BERM DITCH DOWN TO LATERAL BASE DITCH

-Y9-	-SR_Q-
PI Sta 73+11.26	PI Sta 31+21.41
Δ = 81° 07' 48.6" (LT)	Δ = 65° 52' 41.7" (LT)
D = 4° 46' 28.7"	D = 4° 14' 38.9"
L = 1,699.19'	L = 1,552.22'
T = 1,027.26'	T = 874.66'
R = 1,200.00'	R = 1,350.00'
SE = 0.08	SE = 0.05
V = 60 MPH	V = 45 MPH

FOR -Y9- PROFILE SEE SHT. 172
FOR -SR_Q- PROFILE SEE SHT. 180A

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	87
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

MATCHLINE -SR_Q- STA. 24+50 SEE SHEET 86

MATCHLINE -Y9- STA. 64+00 SEE SHEET 86

MATCHLINE -Y9- STA. 77+00 SR_Q- STA. 38+50 SEE SHEET 88

361
ERNEST & GERALDINE SHELTON
DB 1128 PG 670

361A
EVELYN GODFREY & OTHERS
DB 2E PG 651
DB 1128 PG 672
PB 21 PG 65

361B
WILLIAM & TRACI SAMPSON
DB 2290 PG 441

361C
GILBERT BRIM
DB 1064 PG 996

N 87°42'51" W
1498.65'

N 87°42'51" W
438.54'

S 10°47'20" W
447.14'

N 83°22'04" W
412.01'

N 83°22'04" W
473.93'

N 11°23'42" E
445.06'

-BL-924

-BL-925

-BL-926

-BL-928

-Y9-

-SR_Q- PRC Sta. 37+98.97

PROP. 47" WW FENCE

BERM DITCH SEE DETAIL A

15" CSP 2 ELBOWS ROD & LUG

2 TONS CL B RIPRAP W/7 SY GEO FAB

2 TONS CL B RIPRAP W/7 SY GEO FAB CUT/FILL TRANSITION

TDE

TDE FOR EROSION CONTROL DEVICE

GRAU 350

2GI

15" RCP-III

18" RCP-III

FS ELEV 630.6

BM #4
-BL- STA 86+23.26
149.92' RIGHT
ELEV=659.02'

-SR_Q-	-Y9-
PI Sta 31+21.41	PI Sta 73+11.26
△ = 65° 52' 41.7" (LT)	△ = 81° 07' 48.6" (LT)
D = 4° 14' 38.9"	D = 4° 46' 28.7"
L = 1,552.22'	L = 1,699.19'
T = 874.66'	T = 1,027.26'
R = 1,350.00'	R = 1,200.00'
SE = 0.05	SE = 0.08
V = 45 MPH	V = 60 MPH

FOR -Y9- PROFILE SEE SHT. 173
FOR -SR_Q- PROFILE SEE SHT. 180A, 180B

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	88
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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MATCHLINE EXISTING NC 159 SEE SHEET 89

NAD 83/95

-NC159_SPUR- POT Sta. 19+71.38

MATCHLINE -NC159- STA. 19+00

-BY-934

-Y9- POT Sta. 80+52.98=
-Y9RAB- POT Sta.13+58.15 (18.0' LT)

2 TONS CL B RIPRAP W/7 SY GEO FAB

CHANNEL CHANGE SEE DETAIL AG

-Y9- PT Sta. 79+83.19

361B
WILLIAM & TRACI SAMPSON
DB 2290 PG 441

+37 148.92' EXIST. R/W END FENCE

STD. BASE DITCH SEE DETAIL R

WW FENCE

PROP. R/W

+80 100'

LATERAL BASE DITCH SEE DETAIL B

8 TONS CL B RIPRAP W/21 SY GEO FAB

-Y9RAB- PC Sta. 10+00.00=
-Y9RAB- PT Sta. 13+58.15

CONCRETE APRON
1'-6" C&G
2'-6" C&G

TOE PROTECTION SEE DETAIL I

-X9RAB- PCC Sta. 11+79.08

-NC159_SPUR- POT Sta. 10+00.00=
-Y9RAB- POT Sta.11+87.92 (18.0' LT.)

STANDARD BASE DITCH SEE DETAIL T

-NC159_SPUR- PC Sta. 12+95.61

-NC159_SPUR- PT Sta. 14+86.08

END CONSTRUCTION
-NC159_SPUR- POT Sta. 18+00.00

REMOVE AND RESET EXISTING GUARDRAIL

CAROLINA POWER & LIGHT EASEMENT

MATCHLINE -NC159- STA. 19+00 SEE SHEET INSET

MATCHLINE -Y9- STA. 77+00 SEE SHEET 87

MATCHLINE -SR_Q- STA. 38+50 SEE SHEET 88

MATCHLINE -SR_Q- STA. 44+00 SEE SHEET 88A

80+00

S 72° 53' 10.3" E

N 13° 26' 28" E 122.98'

30' RCP-II

15" RCP-III

18" RCP-III

CB RCP-III

R=75' GRASS

S 53° 57' 40.2" E

S 75° 47' 14.5" E

15+00

REMOVE 13' 18" RCP

-NC159_SPUR-

-BL-930

-BL-929

-BL-31

-BL-3.3' (TYP.)

GRAU 350 LT

GRAU 700

5 TONS CL B RIPRAP W/14 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL B

DB 12290 PG 441 30' EASEMENT

+64.00 70'

+39.72 25' EXIST R/W END FENCE

N 88°29'18" W 472.04'

LATERAL V DITCH SEE DETAIL D

STANDARD BASE DITCH SEE DETAIL T

+49.98 27.5' TYP.

+21.67 TYP.

+24.99 TYP.

+54.95 TYP.

-Y9R- PC Sta. 10+44.04

-Y9R- PT Sta. 12+64.43

-Y9R- POT Sta. 10+00.00=
-Y9RAB- POT Sta.12+61.62 (18.0' LT.)

END CONSTRUCTION
-Y9R- POT Sta. 13+00.00

-Y9R- POT Sta. 13+13.65

-SR_Q- PT Sta. 43+91.62

361D
EMMA H. THOMAS LIFE ESTATE
DB 1975 PG 865

8811

TOP=625.21'

72" CONC

4' P.S.

4 2GI

-SR_Q-
PI Sta 41+38.66
△ = 70° 00' 49.0" (RT)
D = 11° 48' 48.8"
L = 592.65'
T = 339.69'
R = 485.00'
SE = 0.06
V = 40 MPH

-Y9R- (ZOO CONNECTOR) -Y9- (NC159)

ADT 2015
ADT 2040

ZOO CONNECTOR
-Y9-
7,200
8,200

650
1,200

700
900

7,250
7,900

1,350
2,100

-Y9R- (NC159)

-Y9RAB-

PI Sta 9643+04.57	PI Sta 10426+12.83
△ = 180° 00' 24.4" (RT)	△ = 180° 00' 22.6" (RT)
D = 100° 31' 08.1"	D = 100° 31' 08.1"
L = 179.08'	L = 179.08'
T = 963,125.49'	T = 1,041,612.83'
R = 57.00'	R = 57.00'
SE = 0.02	SE = 0.02

-Y9R-

PI Sta 11+56.05
△ = 25° 15' 21.2" (LT)
D = 11° 27' 33.0"
L = 220.40'
T = 112.02'
R = 500.00'
SE = 0.08
V = 40 MPH

-NC159_SPUR-

PI Sta 13+92.02
△ = 21° 49' 34.2" (LT)
D = 11° 27' 33.0"
L = 190.47'
T = 96.40'
R = 500.00'
SE = 0.06
V = 40 MPH

PAVEMENT REMOVAL

FOR -Y9- PROFILE SEE SHT. 173
FOR -Y9R- PROFILE SEE SHT. 178
FOR -Y9RAB- PROFILE SEE SHT. 179
FOR -NC159_SPUR- PROFILE SEE SHT. 179
FOR -SR_Q- PROFILE SEE SHT. 180B

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	88A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83'95

MATCHLINE -SR_Q- STA. 44+00 SEE SHEET 88

-SR_Q- PC Sta. 46+39.65

-SR_Q- PT Sta. 47+64.63

-SR_Q- POT Sta. 48+01.55

END CONSTRUCTION
-SR_Q- POT Sta. 47+87.55

S 47° 06' 25.8" E

S 73°11'11" E
561.70'

S 75°22'10" E
425.12'

S 75°16'20" W
473.21'

N 85°50'27" W
429.59'

S 47°41'43" W
122.03'

S 07°51'52" W
240.90'

N 85°50'31" W
436.18' (TOTAL)

S 83°30'40" E
711.11'

-SR_Q-
PI Sta 47+08.48
△ = 59° 40' 23.1" (LT)
D = 47° 44' 47.3"
L = 124.98'
T = 68.83'
R = 120.00'
SE = 0.03
V = STOP CONDITION

2 TONS CL B RIPRAP W/7 SY GEO FAB CUTOFF TRANSITION

2 TONS CL B RIPRAP W/7 SY GEO FAB

2GI REMOVE SYSTEM

361D

+24.00
50'

+60.52
85.05
EXIST. R/W

PEGGY ANN YORK
SHOLAR LIFE ESTATE
DB 2306 PG 1067

EMMA H. THOMAS
LIFE ESTATE
DB 1975 PG 865

ANGELA MORALES
DB 2012 PG 2043

KENNETH NEAL COOPER
DB 1159 PG 1280

CLIFFORD & VIRGINIA HUNT
DB 1241 PG 72

-BY-935

CAROLINA POWER & LIGHT EASEMENT

EAGLE PASS RD

SR 2955

EXISTING R/W

60.00'

100.00'

10.65'

48" WW & ISBW

48" RCP

72" CONE

15" CONC HW

16" BST

24" BST

EOP

EOT

W/LT

ISFD

GR

CENTERPOINT CABLE

FOR -SR_Q- PROFILE SEE SHT. 180B

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	89
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

MATCHLINE NC 159
EXISTING
SEE SHEET 88

BEVERLEY A. SHELTON
DB 2E PG 651
DB 1128 PG 672
PB 21 PG 65

ERNEST & GERALDINE SHELTON
DB 1128 PG 670

FRED W. STOUT TRUSTEE
DB 2273 PG 820

ALFRED & EVANNA LAPRADE
DB 1161 PG 607
DB 21 PG 69

CLARIS H. VAUGHN
DB 1239 PG 956

JAMES DARRELL TEDDER
DB 1120 PG 408

EMMA H. THOMAS
LIFE ESTATE
DB 2049 PG 1778

EMMA H. THOMAS
LIFE ESTATE
DB 1975 PG 865

JAMES P. SHELTON
DB 1274 PG 984

RICKY & AMANDA WILLIAMSON
DB 2297 PG 254

PAVEMENT REMOVAL

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	90
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

–Y10– (NC 159) –Y10A–

ADT 2015 / ADT 2040

–Y10A–: 100/100 | –1/–1 | 100/100 | 2,550/3,100

NC 159 –Y10–: 2,450/3,000

NAD 83/95

–Y10A– POT Sta. 15+31.92

362B JAMES J. YOW DB 1672 PG 100 PB 39 PG 79

END CONSTRUCTION –Y10A– POT Sta. 15+30.00

362A WILLIAM T. MORRISON PB 39 PG 79 DB 1482 PG 296

HOWARD & CORA LEE DB 1349 PG 1463 PB 39 PG 79

363

AARON & TRACI JORDAN DB 2198 PG 1 PB 39 PG 79

364

–Y10A– PT Sta. 13+31.20

362 JOSEPH & JANICE LEE DB 1297 PG 655 PB 39 PG 79

357 REID A. SHAW PB 41 PG 43 DB 822 PG 435

SPECIAL CUT DITCH SEE DETAIL H

TDE FOR EROSION CONTROL DEVICE

REBECCA YOW DB 1819 PG 2909 PB 41 PG 20

366 RODNEY VICK DB 1897 PG 3344 PB 39 PG 55

END CONSTRUCTION –Y10– POT Sta. 23+50.00

365 THELMA MILLER DB 1568 PG 423 PB 36 PG 79

–Y10– CS Sta. 20+00.10

–Y10– ST Sta. 22+00.10

–Y10A– PC Sta. 11+00.20

GRADE TO DRAIN

–Y10– POT Sta. 27+93.00

351E JERRY HUNT DB 1040 PG 609 DB 1131 PG 335 PB 10 PG 114

MARY THOMAS DB 1835 PG 335 PB 10 PG 114

DIONISIO MORDAN DB 2065 PG 1404 PB 10 PG 114

370 STEPHANIE MABE DB 2062 PG 1115 PB 10 PG 114

368 MILDRED CROMER DB 1082 PG 346 PB 10 PG 114

368 MILDRED CROMER DB 892 PG 470 PB 10 PG 114

–Y10– POC Sta. 17+46.27 = –Y10A– POT Sta. 10+00.00

357 REID A. SHAW PB 41 PG 43 DB 822 PG 435

367 JERALDINE & SHARON COOPER DB 1386 PG 1587 PB 10 PG 114

20' PERPETUAL EASEMENT DB 1259 PG 83

MATCHLINE –Y10– STA. 15+50 SEE SHEET 83

PAVEMENT REMOVAL

–Y10–		–Y10A–
PIs Sta 13+23.13	PI Sta 17+06.10	PIs Sta 20+66.84
Θs = 6° 05' 43.1"	Δ = 37° 12' 15.3" (LT)	Θs = 6° 05' 43.1"
Ls = 200.00'	D = 6° 05' 43.1"	Ls = 200.00'
LT = 133.41'	L = 610.38'	LT = 133.41'
ST = 66.74'	T = 316.38'	ST = 66.74'
	R = 940.00'	
	SE = 0.08	
	V = 50 MPH	

–Y10A–
PI Sta 12+16.60
Δ = 17° 27' 36.8" (RT)
D = 7° 33' 31.7"
L = 230.99'
T = 116.40'
R = 758.00'
SE = 0.05
V = 50 MPH

FOR –Y10– PROFILE SEE SHT. 179
FOR –Y10A– PROFILE SEE SHT. 180

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	91
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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-Y8-
PI Sta. 8+54.89
△ = 16° 44' 53.1" (RT)
D = 5° 43' 46.5"
L = 292.31'
T = 147.20'
R = 1,000.00'

-Y8- PC Sta. 7+07.69

BEGIN CONSTRUCTION
-Y8- PT Sta. 10+00.00

MATCHLINE -Y8- STA. 14+50 SEE SHEET 34

N 47° 04' 08.0" W

1342.26'
N32°41'58"E

N 18°58'59" E
230.58'

S 02°52'16" W
443.51'

S 02°52'16" W
497.01'

S88°12'44"E
89.41'

S88°17'39"E
109.51'

S02°32'54"E
240.42'

S28°32'57"W
248.41'

S59°37'7"E
258.24'

-BY9- 627 POT Sta. 32+68.49

175
THOMAS P. FRAZIER
DB 1590 PG 751

171A
CLARENCE M. HARRELSON

374
ELIZABETH BODMAN
DB 1697 PG 2133
DB 2003 PG 1282
PB 45 PG 61

ROBY KIDD, JR.
DB 1115 PG 962

374A
RANDY BARKER
DB 1471 PG 1029
PB 46 PG 65

+00.00 60.11 EXIST. R/W BEGIN C/A BEGIN FENCE
+00.00 65'
+75.00 75'
+60.00 75'
+40.00 54.97' EXIST. R/W
+70.00 40.48' EXIST. R/W
+20.00 32.64' EXIST. R/W SPECIAL CUT DITCH SEE DETAIL H
26.67' TYP.
+50.00 45'
+80.00
+90.00
+00.00 27.62' EXIST. R/W
+35.56 59.67' EXIST. R/W
+00.00 56'
+25.00 78'
+55.00 61'
+00.00 64'
+90.00 55.29'
+17.00 54.74'
+96.00 71.37'
+40.00 72'
+75.00 88'
+11.41 55'

RETAIN
8:1
2:1
LATERAL V DITCH SEE DETAIL D
SPECIAL CUT DITCH SEE DETAIL H
REMOVE
15"
TDE
PUE
DUE
R/W
EIP
SSF
WOODS
GRASS
ISBKD
MTL CANOPY
BK WALL
ABAND HTR
HTR
48" WD RAIL
19" BST
18" BST
15" DIP
15" RCP
SR 2834 OLD COX RD

PAVEMENT REMOVAL

FOR -Y8- PROFILE SEE SHT. 168

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	92
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83/95

ANGLE IRON N60°16'42"W EIP 49.12'
N60°1'23"W ASHEBORO CITY LIMITS 224.59'
EIP N17°5'36"E 40.02'
EIP N74°40'13"E 13.39'
N54°36'11"E 173.07'
N23°5'48"E 212.52'
ASHEBORO CITY LIMITS
CITY LIMITS
ANGLE IRON EXISTING R/W
EIP N54°36'11"E 4.24'
N76°48'6"E ASHEBORO CITY LIMITS 344.05'
EIP N10°5'8"E 152.08'
EIP

JAY FERGUSON
DB 1861 PG 324

QUIDA BOWE
DB 1244 PG 518
DB 1139 PG 191

WALDEN RD SR 2931
SR 2834 OLD COX RD

-BY9- 624 POT 5+00.00

170
THE CROSS ROAD REST AND RETIREMENT CENTER, INC.
DB 1319 PG 1752
DB 1319 PG 1757
DB 1403 PG 263
DB 1598 PG 1179
DB 1648 PG 1469
DB 2152 PG 168
DB 2168 PG 308
PB 62 PG 6
PB 91 PG 28

-BY9- 625 PINC 12+10.76

371
LYNDA MARTIN
WB 00E PG 887
DB 1237 PG 183

TDE FOR EROSION CONTROL DEVICE
SPECIAL CUT DITCH SEE DETAIL H
30+00
N 61° 39' 57.8" W
26.67' TYP.
+22.89

372
OTEIA HILL
DB 1237 PG 170

372A
REBECCA WILLIAMS
DB 1237 PG 165

N86°9'59"W 180.47'
N86°13'15"W 275.59'
N86°9'59"W 239.25'
ACCESS EASEMENT (DB 1237 PG 170)
N27°21'10"E 295.24'
N29°31'16"E 409.17'
N34°59'2"E 406.49'
N14°30'22"E 239.90'
N86°28'51"W EIP 86.86'
N14°50'23"E 8.14'

BM 216 ELEVATION = 714.52'
N 696402 E 1766034
BL STATION 207+65 616 LEFT
RR SPIKE IN BASE OF REMC POLE # 1715
-Y8- STA. 24+91.07 65.54 RIGHT

-BY9- 626 PINC Sta. 18+34.78

-Y8- POT Sta. 30+59.99

END CONSTRUCTION
-Y8- POT Sta. 29+60.00

-Y8- PT Sta. 27+96.02

-Y8- PRC Sta. 23+79.48

MATCHLINE -Y8- STA. 23+00
SEE SHEET 34

2 TONS CL B RIPRAP W/7 SY GEO FAB CUT-FILL TRANSITION

TDE FOR EROSION CONTROL DEVICE

PAVEMENT REMOVAL

-Y8-
PI Sta 25+89.47
△ = 17° 56' 40.2" (LT)
D = 4° 18' 28.6"
L = 416.54'
T = 209.99'
R = 1,330.00'
SE = 0.06
V = 60 MPH

FOR -Y8- PROFILE SEE SHTS. 168-169

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	112

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-Y3-
(MACK RD.)
STRUCTURE

PI = 221+50.00
EL = 814.08'
VC = 1,940'
K = 421
V = >80 MPH

-Y3- STA. 14+21.88 =
-L- STA. 219+47.37

BEGIN GRADE
-L- Sta. 210+00.00
EL = 786.48'

EXISTING GROUND

PROPOSED GRADE

(+)2.4000%

(-)2.2043%

(-) 0.3467%

(-) 0.3305%

(-) 0.4305%

BEGIN SP.CUT DITCH LT
-L- STA.219+50.00
EL = 797.44

MEDIAN V DITCH
-L- STA.220+00.00
EL = 800.28

BEGIN SP.CUT DITCH RT
-L- STA.220+75.00
EL = 800.70

210+00 211+00 212+00 213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00

820 810 800 790 780 770 760

(-) 2.8807%

END BERM BASE GRADE RT
-L- STA.226+00.00
EL = 821.50

BEGIN BERM BASE GRADE RT
-L- STA.224+50.00
EL = 825.82

(-) 0.3467%

(-) 0.3305%

(-) 0.4305%

END SP.CUT DITCH RT
-L- STA.226+00.00
EL = 798.88

MEDIAN V DITCH
-L- STA.226+00.00
EL = 798.30

END SP.CUT DITCH LT
BEGIN.LAT. V DITCH LT
-L- STA.227+50.00
EL = 794.00

BEGIN SP.CUT DITCH RT
-L- STA.227+50.00
EL = 797.16

END SP.CUT DITCH RT
BEGIN LAT.BASE DITCH RT

(-)6.1600%

(+)7.8060%

END LAT.BASE DITCH RT
-L- STA.229+00.00
EL = 794.90

PI = 228+50.00
EL = 793.00

(-) 4.9050%

(-) 0.3295%

END LAT.V DITCH LT
-L- STA.229+74.28
EL = 784.11

PI = 229+50.00
EL = 784.19

PROPOSED GRADE

EXISTING GROUND

(-)2.2043%

(-)6.2800%

BEGIN LAT.BASE DITCH LT
-L- STA.234+25.00
EL = 774.50

END LAT.BASE DITCH RT
-L- STA.235+00.00
EL = 776.36

BEGIN LAT.BASE DITCH RT
-L- STA.234+50.00
EL = 779.50

BEGIN CHANNEL CHANGE RT
-L- STA.237+00.00
EL = 770.00

(-)1.7333%

PI = 238+00.00
EL = 768.00

224+00 225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00 236+00 237+00 238+00

820 810 800 790 780 770 760 750 740 730

FOR -L- PLAN SEE SHTS. 18-20

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	113
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

BM 201
ELEV=744.81'
-BL- STA. 5+00
180.14' RT
-L- STA 249+42.30
170.13' RT
RR SPIKE IN BASE
OF 15" OAK

PROPOSED GRADE

EXISTING GROUND

PI = 238+00.00
EL = 768.00

(-) 2.4286%

(-) 3.1429%

PI = 240+50.00
EL = 759.00

END LAT.BASE DITCH LT
-L- STA.241+50.00
EL = 759.50

(-) 0.8000%

END CHANNEL CHANGE RT
-L- STA.243+00.00
EL = 757.00

BEGIN LAT.V DITCH LT
-L- STA.244+00.00
EL = 756.74

(-) 1.4146%

END LAT.V DITCH LT
-L- STA.245+23.00
EL = 755.00

(-)12.2043%

PI = 249+30.00
EL = 752.80'
VC = 1,200'
K = 193
V = 70 MPH

BEGIN SP.CUT DITCH LT
-L- STA.247+50.00
EL = 756.53

(-) 2.8047%

END SP.CUT DITCH LT
BEGIN LAT.V DITCH LT

END LAT.V DITCH LT
-L- STA.249+65.00
EL = 750.50

(+)4.0000%

BEGIN BRIDGES
-L- Sta.251+45.61 (LT)
-L- Sta.251+50.95 (RT)

BEGIN LAT.V DITCH LT
-L- STA.252+50.00
EL = 732.98

238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00 246+00 247+00 248+00 249+00 250+00 251+00 252+00

BM 202
ELEV=762.03'
-BL- STA. 14+62
305' LT
-L- STA 259+54.82
298.80' LT
RR SPIKE IN BASE
OF 15" WHITE OAK

BRIDGE HYDRAULIC DATA
-L- 252+46

DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 2,100	CFS
DESIGN HW ELEVATION	= 742.7	FT
100 YEAR DISCHARGE	= 2,300	CFS
100 YEAR FREQUENCY	= 100	YRS
100 YEAR HW ELEVATION	= 743.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 2,900	CFS
OVERTOPPING ELEVATION	= 743.8	FT

PI = 249+30.00
EL = 752.80'
VC = 1,200'
K = 193
V = 70 MPH

END BRIDGES
-L- Sta.253+45.08 (LT)
-L- Sta.253+48.12 (RT)

-L- STRUCTURE

LITTLE RIVER

PROPOSED GRADE

(+)4.0000%

-Y4RPB- STA. 10+00.00 =
-L- STA. 261+71.40

-Y4RPC- STA. 10+00.00 =
-L- STA. 264+50.77

(+) 7.6000%

(+) 4.3333%

EXISTING GROUND

END LAT.BASE DITCH RT
-L- STA.261+50.00
EL = 784.00

PI = 257+50.00
EL = 758.50

PI = 259+00.00
EL = 765.00

END LAT.V DITCH LT
-L- STA.253+75.00
EL = 735.50

(+) 7.8000%

(+) 5.0000%

PI = 255+00.00
EL = 739.00

(+) 2.0160%

(+) 1.6971%

BEGIN LAT.BASE DITCH RT
-L- STA.252+75.00
EL = 733.53

END LAT.BASE DITCH RT
BEGIN LAT.BASE DITCH RT
-L- STA.254+50.00
EL = 736.50

FOR -L- PLAN SEE SHTS. 20-22

252+00 253+00 254+00 255+00 256+00 257+00 258+00 259+00 260+00 261+00 262+00 263+00 264+00 265+00 266+00

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NC LICENSE NO. F-0112 • (919) 878-9560

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kfaus

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
R-2536	114
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

PIPE HYDRAULIC DATA
-L- STA. 272+46

DRAINAGE AREA	= 16.89	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 67.9	CFS
DESIGN HW ELEVATION	= 813.56	FT
100 YEAR DISCHARGE	= 70.9	CFS
100 YEAR HW ELEVATION	= 813.73	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PROPOSED GRADE
(+)4.0000%
EXISTING GROUND
BEGIN LAT. BASE DITCH RT
-L- STA. 274+47.00
EL = 823.00
(+) 8.0660%
END LAT. BASE DITCH RT
-L- STA. 277+65.00
EL = 848.65
42" RCP
(+) 3.8400%
BEGIN LAT. BASE DITCH LT
-L- STA. 274+50.00
EL = 809.53
END LAT. BASE DITCH LT
-L- STA. 275+00.00
EL = 811.45

870 860 850 840 830 820 810 800 790 780

266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00 276+00 277+00 278+00

-Y4LPC- STA. 24+44.50=
-L- STA. 281+59.29
(+)4.0000%
(-)4.0000%
-Y4CD LT- STA. 34+63.05=
-L- STA. 281+96.33
-Y4LPA- STA. 24+44.50=
-L- STA. 283+94.95
PI = 282+75.00
EL = 886.60'
VC = 1,980'
K = 247
V = 70 MPH
PROPOSED GRADE
BEGIN BRIDGES
-L- Sta. 281+44.54 (LT)
-L- Sta. 281+54.89 (RT)
END BRIDGES
-L- Sta. 283+97.28 (LT)
-L- Sta. 284+09.70 (RT)
-Y4LPB- STA. 10+00.00=
-L- STA. 279+94.56
-L- STRUCTURE
-Y4- STA. 47+11.17=
-L- STA. 282+77.12
-Y4CD RT- STA. 32+64.77=
-L- STA. 283+57.92
-Y4-
(US 220 BYPASS)
-Y4LPD- STA. 10+00.00=
-L- STA. 285+95.65
EXISTING GROUND
(+)10.9538%
BEGIN LAT. BASE DITCH LT
-L- STA. 280+00.00
EL = 842.52
BEGIN LAT. BASE DITCH LT
-L- STA. 280+50.00
EL = 848.00
PROPOSED

BM 9
ELEV=842.92'
-BYII- STA. 50+77
202' LT
-L- STA 284+47.67
90.64' RT
RR SPIKE IN BASE
OF 16" PIN OAK

BM 2II
ELEV=752.45'
-BL- STA. 143+24
265' LT
-L- STA 286+92.88
264.16' LT
RR SPIKE IN BASE OF
CP&L POLE # 5878AD

880 870 860 850 840 830 820 810 800 790

278+00 279+00 280+00 281+00 282+00 283+00 284+00 285+00 286+00 287+00 288+00 289+00 290+00 291+00 292+00

FOR -L- PLAN SEE SHTS. 22-23

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-L-

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	115
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 400	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 790.6	FT
BASE DISCHARGE	= 440	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 791.00	FT
OVERTOPPING DISCHARGE	= 3295	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 798.4	FT

PI = 282+75.00
EL = 886.60'
VC = 1,980'
K = 247
V = 70 MPH

PROPOSED GRADE

EXISTING GROUND

–Y4RPA– STA. 10+00.00 =
–L– STA. 299+36.46

PI = 300+50.00
EL = 815.60'
VC = 800'
K = 182
V = 70 MPH

–Y4RPD– STA. 34+07.73 =
–L– STA. 304+31.29

(–)4.0000%
(+)0.3936%
(+) 2.2993%
(–) 0.3000%
(+) 0.3000%
(+) 0.3013%

UT to
BIG BRANCH
2@9'x7'

BEGIN LAT.V DITCH LT
–L– STA.299+36.46
EL = 807.50

END LAT.V DITCH LT
BEGIN SP.CUT DITCH LT
–L– STA.301+50.00
EL = 812.41

BEGIN SP.CUT DITCH RT
–L– STA.302+00.00
EL = 810.74

END SP.CUT DITCH RT
–L– STA.303+50.00
EL = 811.19

PI = 303+78.33
El = 813.09

292+00 293+00 294+00 295+00 296+00 297+00 298+00 299+00 300+00 301+00 302+00 303+00 304+00 305+00 306+00

EXISTING GROUND

–Y6–
(US 220 BUS.)
STRUCTURE

PROPOSED GRADE

–Y6– STA. 23+20.80 =
–L– STA. 311+50.43

(+)0.3936%
(–)0.8940%

PI = 316+45.00
EL = 821.88'
VC = 350'
K = 272
V = 70 MPH

(+) 0.3013%

END SP.CUT DITCH LT
–L– STA.307+50.00
EL = 814.21

306+00 307+00 308+00 309+00 310+00 311+00 312+00 313+00 314+00 315+00 316+00 317+00 318+00 319+00 320+00

FOR –L– PLAN SEE SHTS. 23–25

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	116
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L-

BM 207
ELEV=826.72'
-BL- STA. 82+77
141' LT
-L- STA 326+65.73
140.78' LT
RR SPIKE IN BASE
OF 18" WHITE OAK

PIPE HYDRAULIC DATA
-L- STA.329+42

DRAINAGE AREA	= 71.07	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 139.0	CFS
DESIGN HW ELEVATION	= 783.63	FT
100 YEAR DISCHARGE	= 149.0	CFS
100 YEAR HW ELEVATION	= 783.88	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 642.3	CFS
OVERTOPPING ELEVATION	= 813.43	FT

PI = 327+70.00
EL = 811.82'
VC = 520'
K = 182
V = 70 MPH

EXISTING GROUND

PROPOSED GRADE

(-)0.8940%

(+)1.9566%

BEGIN LAT.V DITCH LT
-L- STA.329+06.00
EL = 778.53

PI = 329+50.00
EL = 778.80

(+) 0.6136%

60" RCP

(+) 13.2000%

PI = 330+50.00
EL = 792.00

(+) 8.0000%

PI = 330+25.00
EL = 778.00

(+) 11.2326%

BEGIN LAT.V DITCH RT
-L- STA.329+82.00
EL = 773.17

(+) 13.4000%

PI = 331+50.00
EL = 800.00

(+) 10.2600%

PI = 332+50.00
EL = 808.15

(+) 16.3000%

END LAT.V DITCH LT & RT
-L- STA.333+00.00
EL = 816.29 LT
EL = 816.30 RT

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320+00 321+00 322+00 323+00 324+00 325+00 326+00 327+00 328+00 329+00 330+00 331+00 332+00 333+00 334+00

760 770 780 790 800 810 820 830

PI = 337+90.00
EL = 831.78'
VC = 1,490'
K = 250
V = 70 MPH

-Y7-
(PASTUREVIEW RD.)
STRUCTURE

EXISTING GROUND

(+)1.9566%

(-)4.0000%

BEGIN SP.CUT DITCH LT
-L- STA.336+50.00
EL = 817.84

(-) 3.9000%

(+) 1.6000%

(+) 0.3000%

BEGIN LAT.V DITCH RT
-L- STA.336+77.00
EL = 807.50

(+) 2.1739%

(+) 4.0000%

PI = 337+00.00
EL = 808.00

PI = 337+50.00
EL = 813.94 LT

END LAT.V DITCH RT
BEG.SP.CUT DITCH RT
EL = 815.00 RT

END SP.CUT DITCH LT & RT
-L- STA.339+00.00
EL = 814.39 LT
EL = 817.40 RT

-Y7- STA. 18+02.29 =
-L- STA. 339+18.07

PROPOSED GRADE

BEGIN LAT.BASE DITCH LT
-L- STA.346+00.00
EL = 786.00

PI = 346+37.00
EL = 783.50

(-) 6.7568%

(+) 1.7045%

END LAT.BASE DITCH LT
-L- STA.347+25.00
EL = 785.00

30"
RCP

FOR -L- PLAN SEE SHTS. 25-27

334+00 335+00 336+00 337+00 338+00 339+00 340+00 341+00 342+00 343+00 344+00 345+00 346+00 347+00 348+00

750 760 770 780 790 800 810 820 830 840

PLANS PREPARED BY :

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	117
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L-

BM 209
ELEV=741.99'
-BL- STA. 111+27
307' LT
-L- STA 355+31.00
304.57' RT
RR SPIKE IN BASE OF
CP&L POLE # 124M26

PROPOSED GRADE

EXISTING GROUND

PIPE HYDRAULIC DATA
-L- STA. 355+39

DRAINAGE AREA	= 22.44	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 76.2	CFS
DESIGN HW ELEVATION	= 724.46	FT
100 YEAR DISCHARGE	= 80.2	CFS
100 YEAR HW ELEVATION	= 724.62	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 361+95.00
EL = 735.58'
VC = 1,050'
K = 184
V = 70 MPH

(-)4.0000%

END LAT. BASE DITCH LT
BEGIN LAT. BASE DITCH LT
-L- STA. 357+00.00
EL = 731.50

(+) 0.5000%

(+) 5.2500%

(+) 3.3333%

BEGIN LAT. BASE DITCH LT
-L- STA. 353+82.00
EL = 720.50

(+) 0.4237%

END LAT. BASE DITCH LT
BEGIN LAT. BASE DITCH LT
-L- STA. 355+00.00
EL = 721.00

48" RCP

PI = 358+00.00
EL = 732.00

END LAT. BASE DITCH LT
-L- STA. 359+50.00
EL = 737.00

348+00 349+00 350+00 351+00 352+00 353+00 354+00 355+00 356+00 357+00 358+00 359+00 360+00 361+00 362+00

790 780 770 760 750 740 730 720 710 700

PIPE HYDRAULIC DATA
-L- STA. 362+37

DRAINAGE AREA	= 29.96	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 101.8	CFS
DESIGN HW ELEVATION	= 712.15	FT
100 YEAR DISCHARGE	= 107.2	CFS
100 YEAR HW ELEVATION	= 712.36	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 413.2	CFS
OVERTOPPING ELEVATION	= 741.80	FT

PIPE HYDRAULIC DATA
-L- STA. 364+22

DRAINAGE AREA	= 34.73	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 117.9	CFS
DESIGN HW ELEVATION	= 710.40	FT
100 YEAR DISCHARGE	= 124.2	CFS
100 YEAR HW ELEVATION	= 710.58	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 536.1	CFS
OVERTOPPING ELEVATION	= 741.80	FT

PI = 361+95.00
EL = 735.58'
VC = 1,050'
K = 184
V = 70 MPH

-Y9RPB- STA. 10+00.00 =
-L- STA. 374+11.81

PROPOSED GRADE

(+)1.7000%

BM 210
ELEV=774.61'
-BL- STA. 129+91
226' LT
-L- STA 373+78.32
221.37' LT
RR SPIKE IN BASE
OF 10" WHITE OAK

EXISTING GROUND

(+) 6.5000%

(+) 3.0000%

(+) 1.0000%

END LAT. BASE DITCH RT
-L- STA. 371+50.00
EL = 738.25

PI = 367+00.00
EL = 714.50

PI = 368+00.00
EL = 715.50

48" RCP

END LAT. BASE DITCH RT
-L- STA. 364+25.00
EL = 692.00

BEGIN LAT. BASE DITCH RT
-L- STA. 363+73.00
EL = 689.90

(+) 2.5974%

FOR -L- PLAN SEE SHTS. 27-29

362+00 363+00 364+00 365+00 366+00 367+00 368+00 369+00 370+00 371+00 372+00 373+00 374+00 375+00 376+00

780 770 760 750 740 730 720 710 700 690

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-L-

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	118
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PI = 378+95.00
EL = 764.48'
VC = 1,200'
K = 333
V = 75 MPH

EXISTING GROUND

(+)1.7000%

(−)1.9000%

–Y9RPC– STA. 10+00.00 =
–L– STA. 386+90.73

PROPOSED GRADE

800 790 780 770 760 750 740 730 720 710

376+00 377+00 378+00 379+00 380+00 381+00 382+00 383+00 384+00 385+00 386+00 387+00 388+00 389+00 390+00

760 750 740 730 720 710 700 690 680 670

–Y9LPB– STA. 10+00.00 =
–L– STA. 390+40.82

BEGIN LAT. BASE DITCH LT
–L– STA. 392+00.00
EL = 736.82

(−)7.3200%

PI = 393+00.00
EI = 729.50

(−)4.9315%

END LAT. BASE DITCH LT
–L– STA. 396+65.00
EL = 711.50

(−)1.9000%

–Y9FLY–
(ZOO CONNECTOR)
STRUCTURE

–Y9FLY– STA. 23+16.17 =
–L– STA. 400+30.35

PROPOSED GRADE

EXISTING GROUND

760 750 740 730 720 710 700 690 680 670

390+00 391+00 392+00 393+00 394+00 395+00 396+00 397+00 398+00 399+00 400+00 401+00 402+00 403+00 404+00

FOR –L– PLAN SEE SHTS. 29–30

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	119
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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-L-

PIPE HYDRAULIC DATA
-L- STA. 408+00

DRAINAGE AREA	= 59.09	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 184.0	CFS
DESIGN HW ELEVATION	= 691.17	FT
100 YEAR DISCHARGE	= 192.9	CFS
100 YEAR HW ELEVATION	= 691.44	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 275.0	CFS
OVERTOPPING ELEVATION	= 693.50	FT

PIPE HYDRAULIC DATA
-L- STA. 410+97

DRAINAGE AREA	= 11.40	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 42.0	CFS
DESIGN HW ELEVATION	= 692.85	FT
100 YEAR DISCHARGE	= 43.9	CFS
100 YEAR HW ELEVATION	= 693.00	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

760 750 740 730 720 710 700 690 680 670

PROPOSED GRADE

(-)1.9000%

EXISTING GROUND

36" RCP

404+00 405+00 406+00 407+00 408+00 409+00 410+00 411+00 412+00 413+00 414+00 415+00 416+00 417+00 418+00

730 720 710 700 690 680 670 660 650 640

BM 213
ELEV=712.84'
-BL- STA. 178+87
273' LT
-L- STA 422+54.97
272.70' LT
RR SPIKE IN BASE OF
CP&L POLE # A67AD

EXISTING GROUND

-Y9RPD- STA. 10+00.00 =
-L- STA. 418+11.85

PROPOSED GRADE

(-)1.9000%

BM 214
ELEV=663.50'
-BL- STA. 185+21
226' LT
-L- STA 428+84.59
221.80' LT
RR SPIKE IN BASE
OF 18" GUM

PI = 432+70.00
EL = 662.35'
VC = 1,590'
K = 437
V = >80 MPH

FOR -L- PLAN SEE SHTS. 30-33

418+00 419+00 420+00 421+00 422+00 423+00 424+00 425+00 426+00 427+00 428+00 429+00 430+00 431+00 432+00

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	120
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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-L-

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 900	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 643.2	FT
BASE DISCHARGE	= 950	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 643.56	FT
OVERTOPPING DISCHARGE	= 3200	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 670.0	FT

PI = 432+70.00
EL = 662.35'
VC = 1,590'
K = 437
V = >80 MPH

BEGIN BRIDGES
-L- Sta. 435+22.45 (LT)
-L- Sta. 435+19.25 (RT)

-Y10 END- STA. 17+19.59 =
-L- STA. 435+68.03

END BRIDGES
-L- Sta. 436+38.63 (LT)
-L- Sta. 435+35.61 (RT)

PROPOSED GRADE

(-)1.9000%

(+)1.7366%

-L- STRUCTURE

EXISTING GROUND

TANTRAUGH BRANCH

-Y10 END-
(NC 159)

3@9'x7' RCBC

(+) 6.8000%

(+) 6.1783%

(+) 0.9018%

PI = 437+50.00
EL = 650.00

END LAT. BASE DITCH RT
-L- STA. 439+00.00
EL = 664.00

BEGIN LAT. BASE DITCH RT
-L- STA. 433+37.00
EL = 636.53

END LAT. BASE DITCH RT
-L- STA. 435+00.00
EL = 638.00

BEGIN LAT. BASE DITCH RT
-L- STA. 435+93.00
EL = 640.50

432+00 433+00 434+00 435+00 436+00 437+00 438+00 439+00 440+00 441+00 442+00 443+00 444+00

620 630 640 650 660 670 680 690

-Y8-
(OLD COX RD.)
STRUCTURE

EXISTING GROUND

-Y8- STA. 18+62.41 =
-L- STA. 449+07.79

PROPOSED GRADE

PIPE HYDRAULIC DATA

-L- STA. 456+59

DRAINAGE AREA	= 27.67	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 79.3	CFS
DESIGN HW ELEVATION	= 659.58	FT
100 YEAR DISCHARGE	= 82.9	CFS
100 YEAR HW ELEVATION	= 659.70	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 454+95.00
EL = 700.99'
VC = 1,400'
K = 313
V = 75 MPH

(+)1.7366%

(-)2.7369%

(-) 0.5009%

(-) 0.5000%

BEGIN SP. CUT DITCH RT
-L- STA. 449+50.00
EL = 690.00

BEGIN SP. CUT DITCH LT
-L- STA. 451+50.00
EL = 687.23

END SP. CUT DITCH RT
-L- STA. 453+00.00
EL = 688.25

END SP. CUT DITCH LT
-L- STA. 455+00.00
EL = 685.48

END LAT. BASE DITCH RT
BEGIN LAT. BASE DITCH RT
-L- STA. 457+50.00
EL = 670.00

(+) 3.0000%

(+) 8.2717%

(-) 1.3514%

(+) 0.3158%

BEGIN LAT. V DITCH RT
-L- STA. 455+00.00
EL = 656.00

END LAT. V DITCH RT
BEGIN LAT. BASE DITCH RT
-L- STA. 455+37.00
EL = 655.50

48" RCP

END LAT. BASE DITCH RT
BEGIN LAT. BASE DITCH RT
-L- STA. 455+75.00
EL = 655.62

FOR -L- PLAN SEE SHTS. 33-35

444+00 445+00 446+00 447+00 448+00 449+00 450+00 451+00 452+00 453+00 454+00 455+00 456+00 457+00 458+00

620 630 640 650 660 670 680 690 700 710 720

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RLewis

BM 217
ELEV=702.40'
-BL- STA. 218+67
232' RT
-L- STA 462+34.35
236.41' RT
RR SPIKE IN BASE
OF 16" RED OAK

PI = 458+50.00
EI = 673.00

(+) 7.07.33%

(+) 3.0000%

END LAT.BASE DITCH RT
-L- STA.460+00.00
EL = 683.61

PROPOSED GRADE

EXISTING GROUND

END CONSTRUCTION SECTION 2
-L- POT 465+00.00 L.B. =
-L POT 465+09.27 L.A.
EL = 673.48'

-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	121
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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700
690
680
670
660
650
640
630
620
610

458+00 459+00 460+00 461+00 462+00 463+00 464+00 465+00 465+00 466+00 467+00 468+00 469+00 470+00 471+00

FOR -L- PLAN SEE SHT. 35

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-Y3-

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	149
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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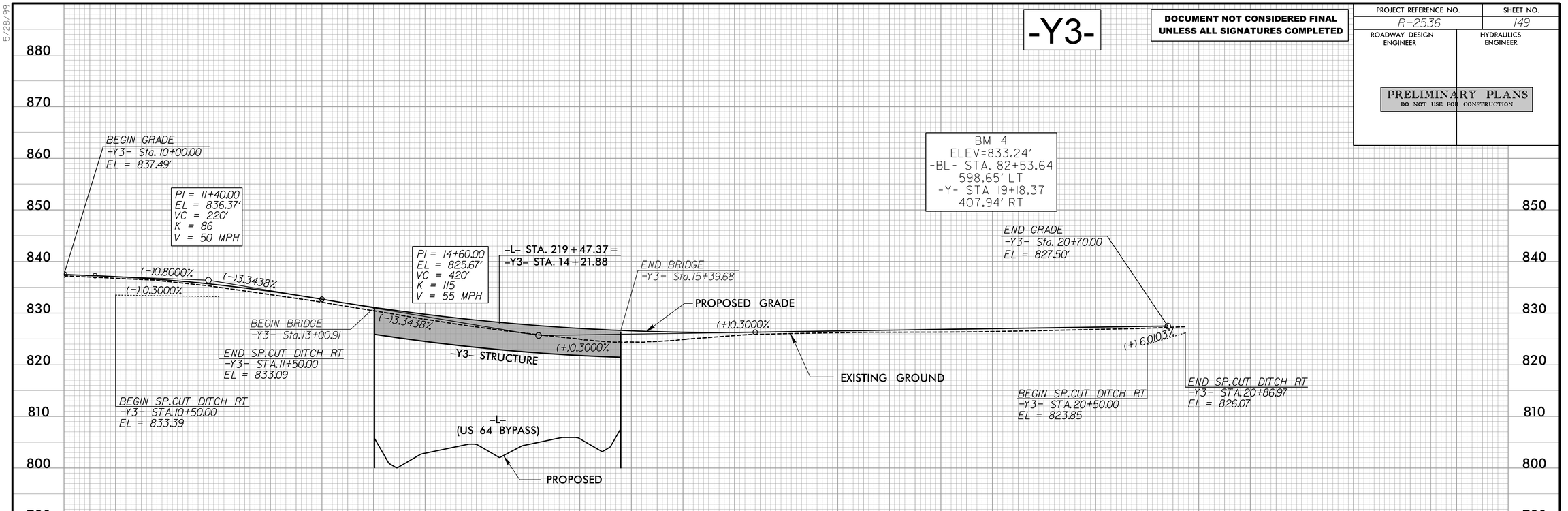
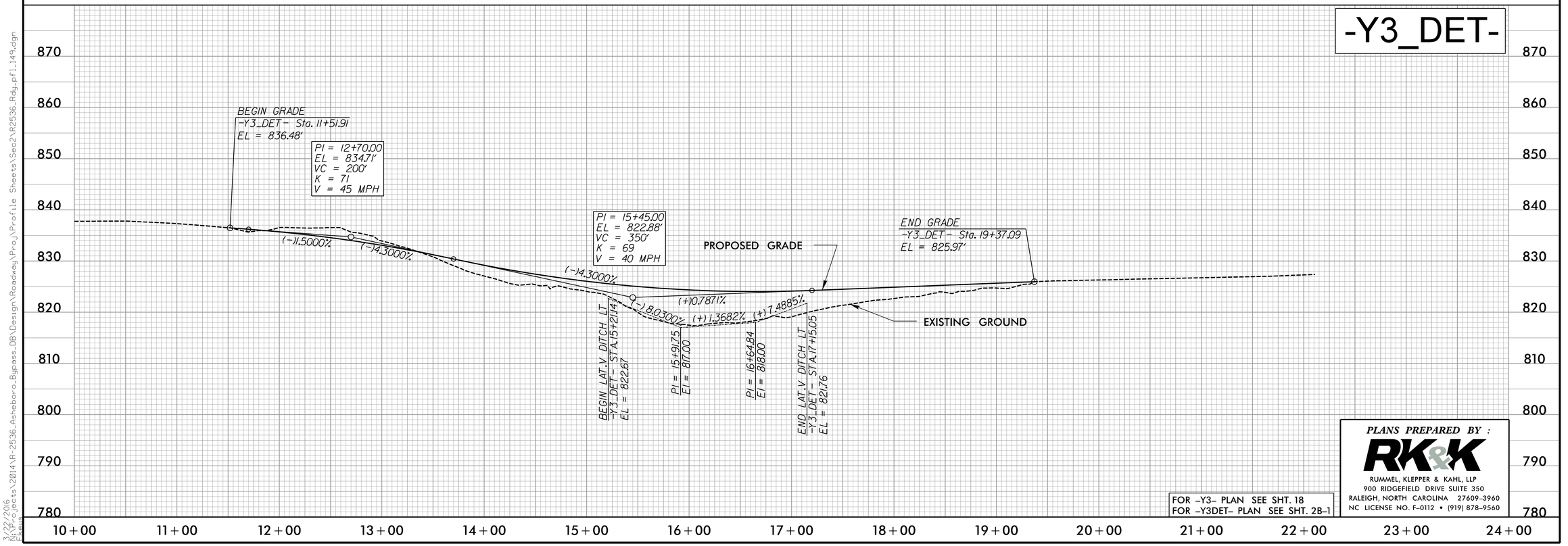


-Y3_DET-



FOR -Y3- PLAN SEE SHT. 18
FOR -Y3DET- PLAN SEE SHT. 2B-1

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	150
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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-Y4CD_RT-

–Y5–
(SOUTHMONT RD.)
STRUCTURE

BEGIN GRADE
–Y4CD_RT– Sta. 10+00.00=
–Y4– Sta. 24+50.00
EL = 797.13'

PI = 10+90.00
EL = 799.25'
VC = 180'
K = 1120
V = >80 MPH

PI = 13+50.00
EL = 805.77'
VC = 250'
K = 472
V = >80 MPH

(+)2.3500%
(+)2.5107%
(+)2.5107%
(+)1.9808%

–Y5– STA. 31+71.38 =
–Y4CD_RT– STA. 17+79.30

PROPOSED GRADE
EXISTING GROUND

860 850 840 830 820 810 800 790 780 770

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

-Y4CD_LT-

–Y5–
(SOUTHMONT RD.)
STRUCTURE

BEGIN GRADE
–Y4CD_LT– Sta. 10+00.00=
–Y4– Sta. 284+98.80
EL = 791.23'

PI = 10+90.00
EL = 793.14'
VC = 180'
K = 730
V = >80 MPH

PI = 13+50.00
EL = 798.01'
VC = 340'
K = 1140
V = >80 MPH

(+)2.1200%
(+)1.8734%
(+)1.8734%
(+)2.1715%

–Y5– STA. 30+13.80 =
–Y4CD_LT– STA. 19+28.58

PROPOSED GRADE
EXISTING GROUND

840 830 820 810 800 790 780 770 760 750

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

FOR –Y4CD_RT– PLAN SEE SHTS. 68–69
FOR –Y4CD_LT– PLAN SEE SHTS. 68–69

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	151
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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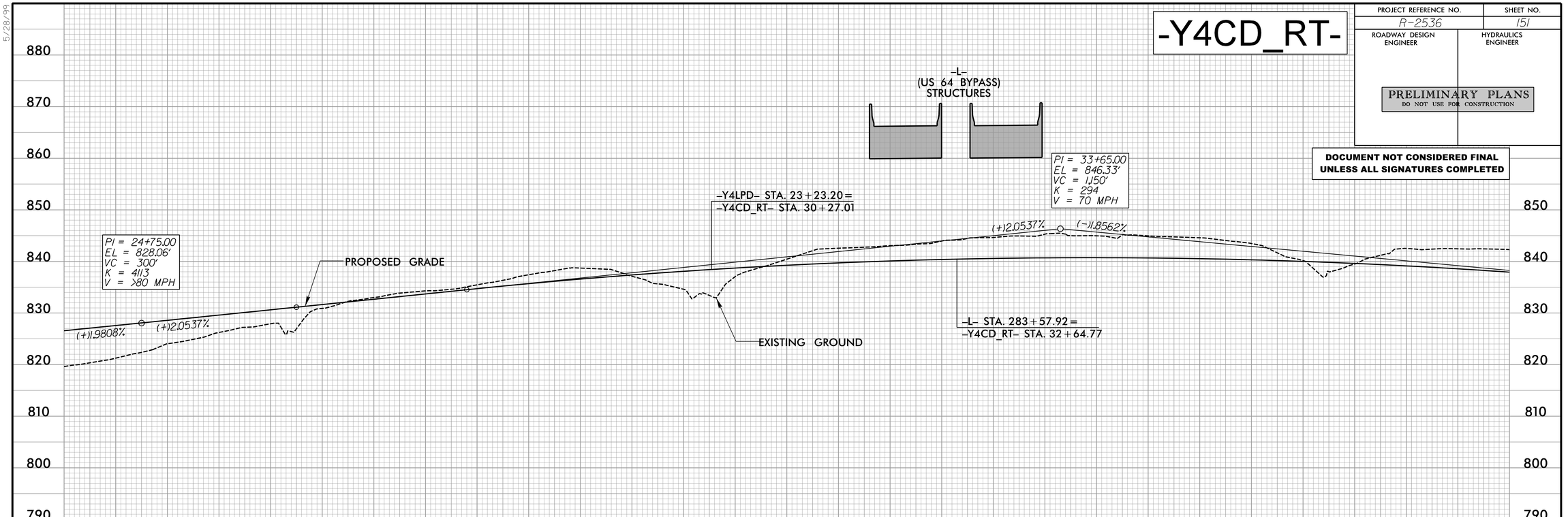
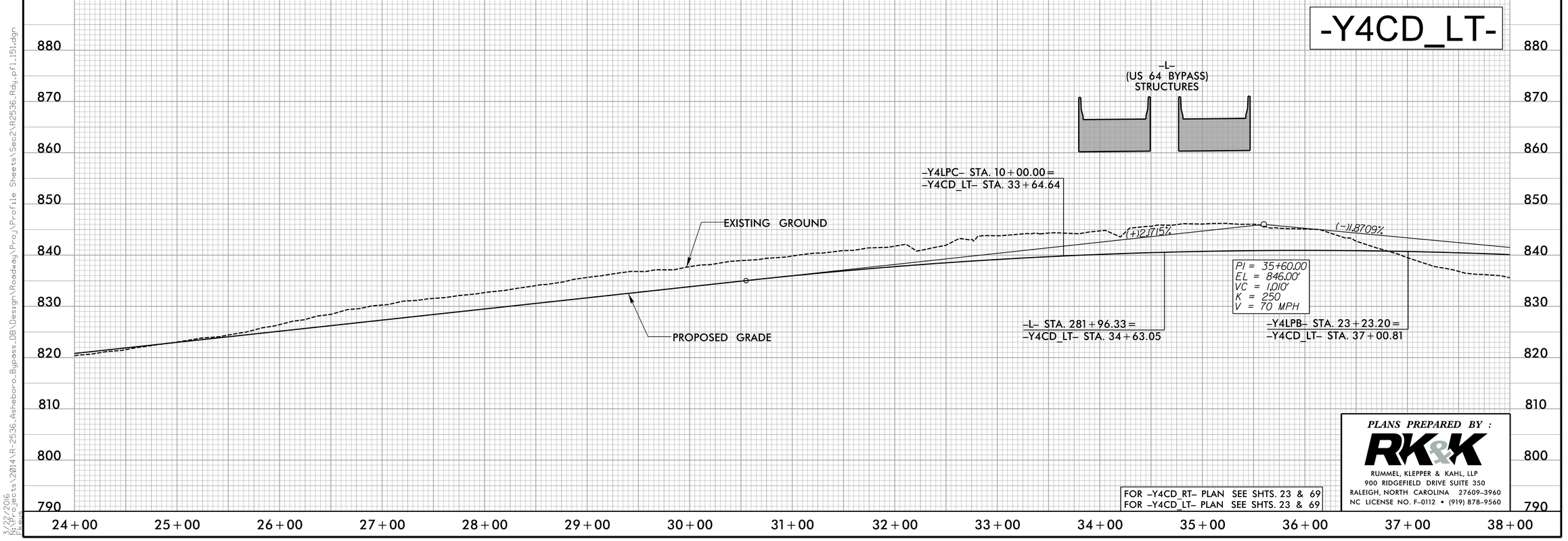
-Y4CD_RT-



-Y4CD_LT-



FOR -Y4CD_RT- PLAN SEE SHTS. 23 & 69
FOR -Y4CD_LT- PLAN SEE SHTS. 23 & 69

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	152
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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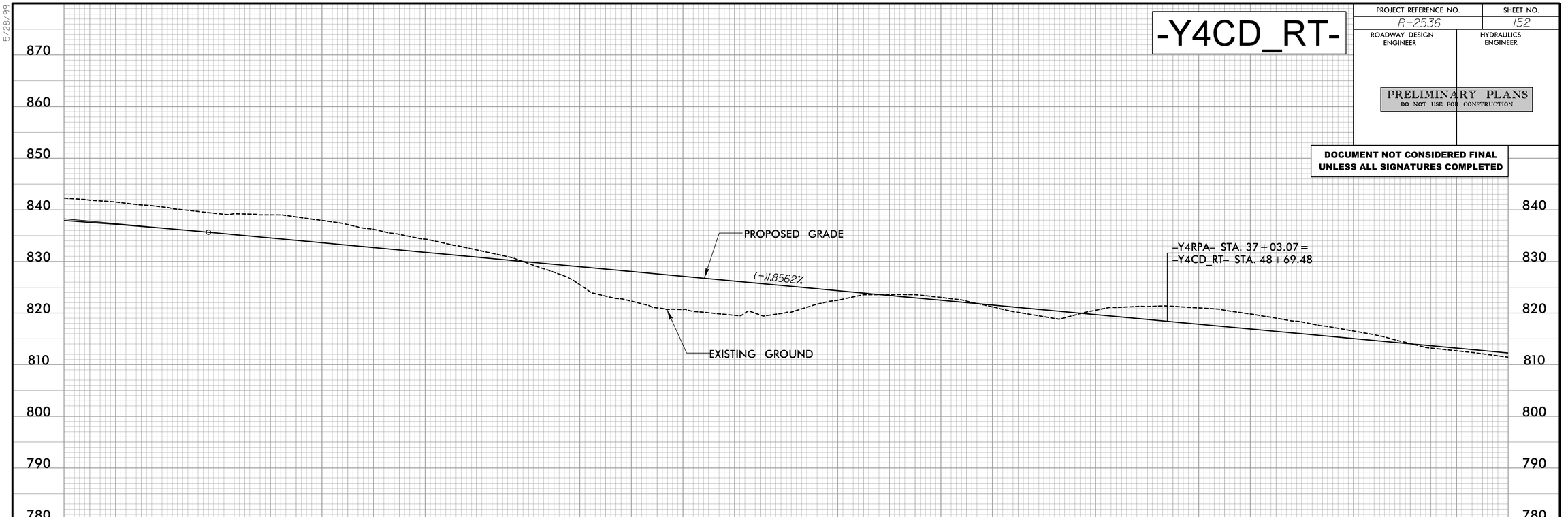
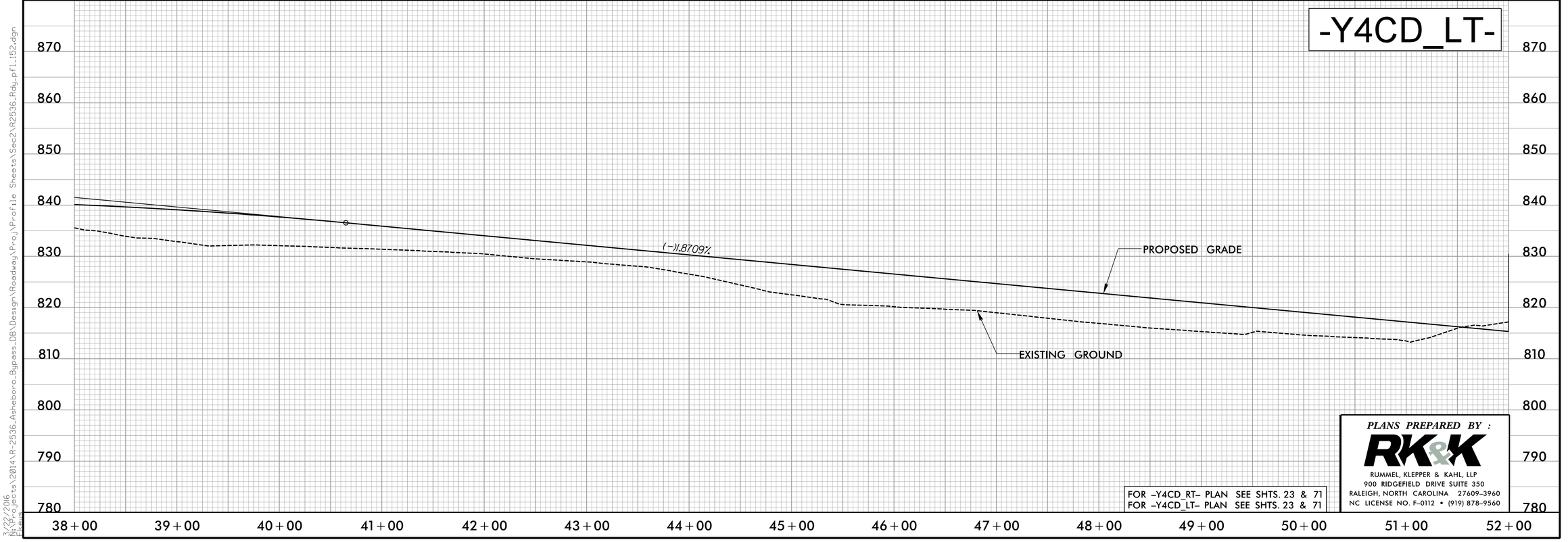
-Y4CD_RT-



-Y4CD_LT-



FOR –Y4CD_RT– PLAN SEE SHTS. 23 & 71
FOR –Y4CD_LT– PLAN SEE SHTS. 23 & 71

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-Y4CD_RT-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	153
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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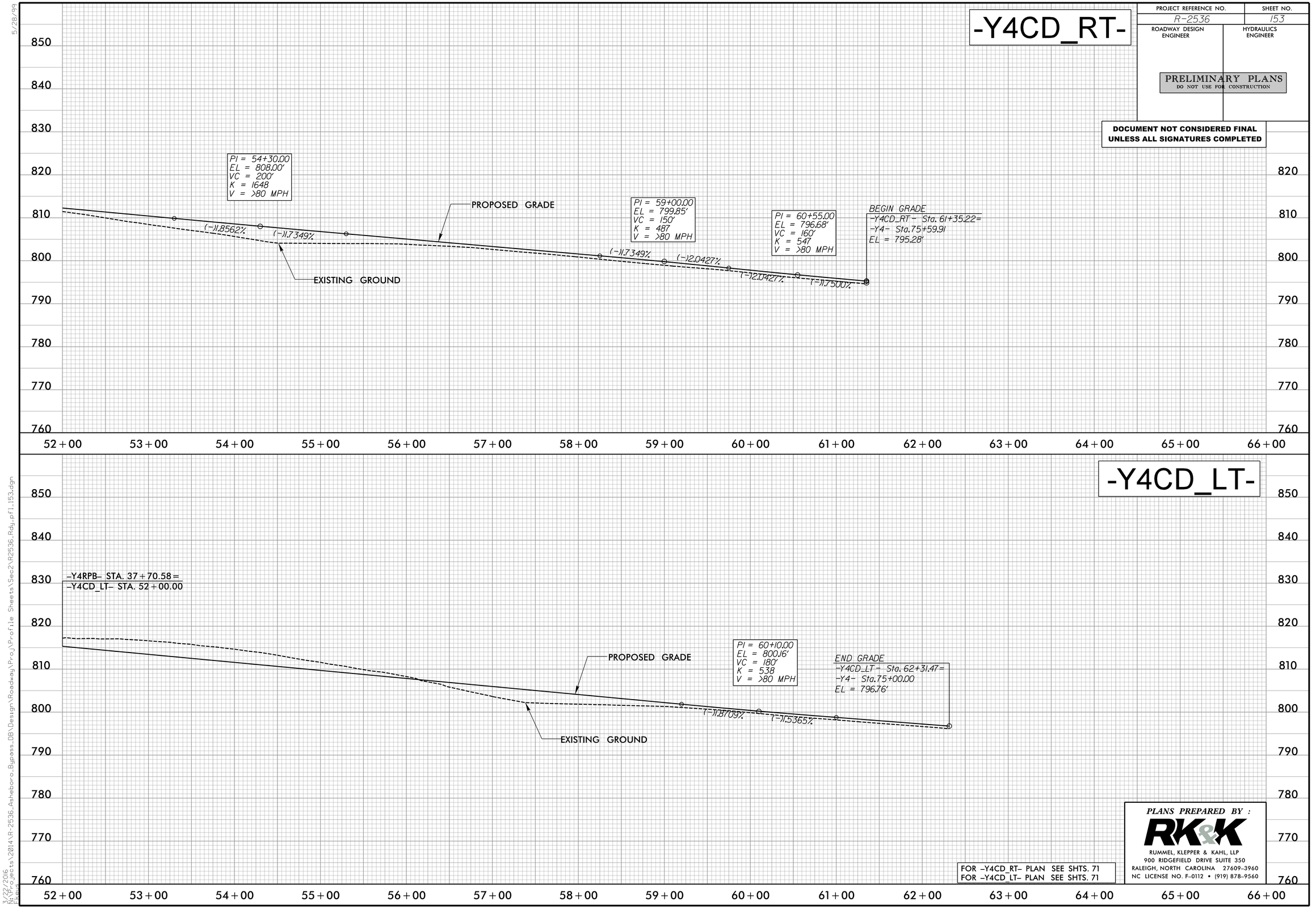

-Y4CD_LT-

FOR -Y4CD_RT- PLAN SEE SHTS. 71
FOR -Y4CD_LT- PLAN SEE SHTS. 71

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	154
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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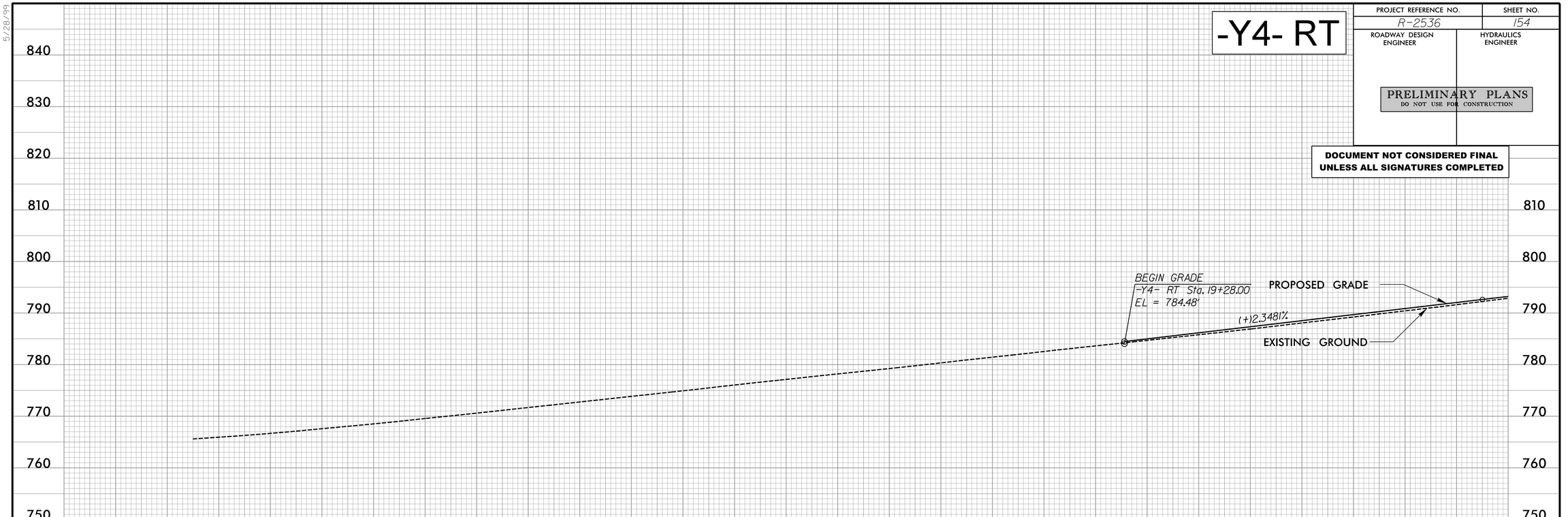
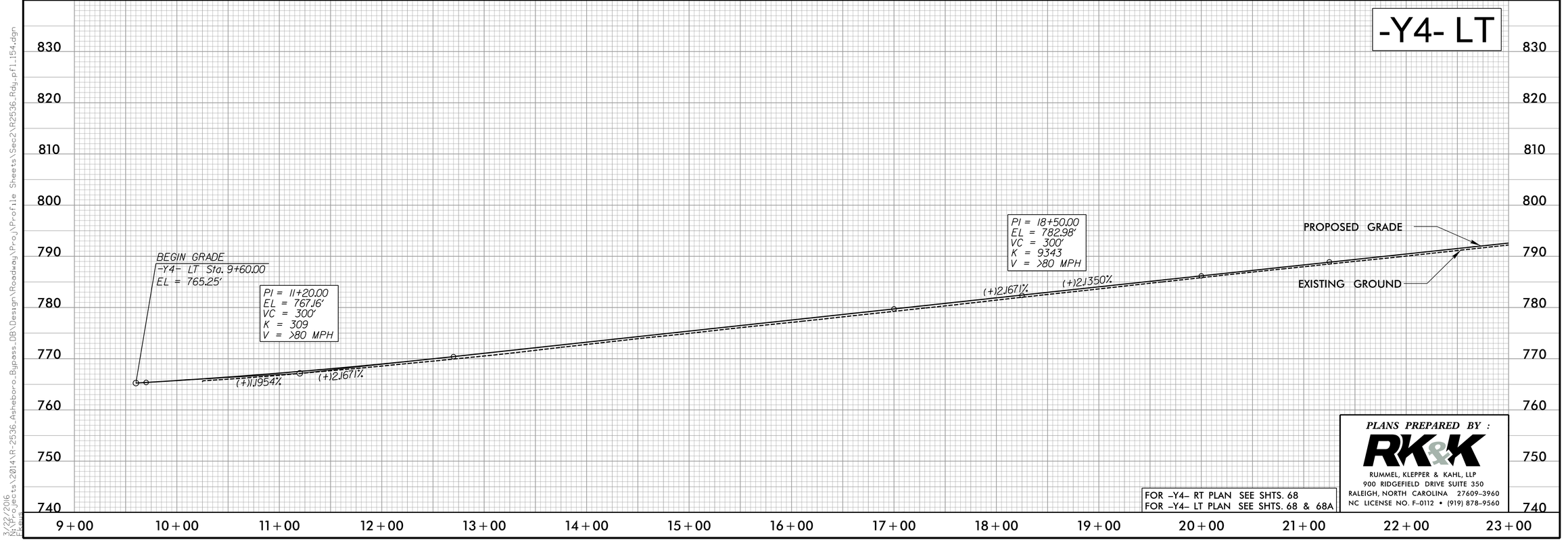
-Y4- RT



-Y4- LT



FOR –Y4– RT PLAN SEE SHTS. 68
FOR –Y4– LT PLAN SEE SHTS. 68 & 68A

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R-2536	155
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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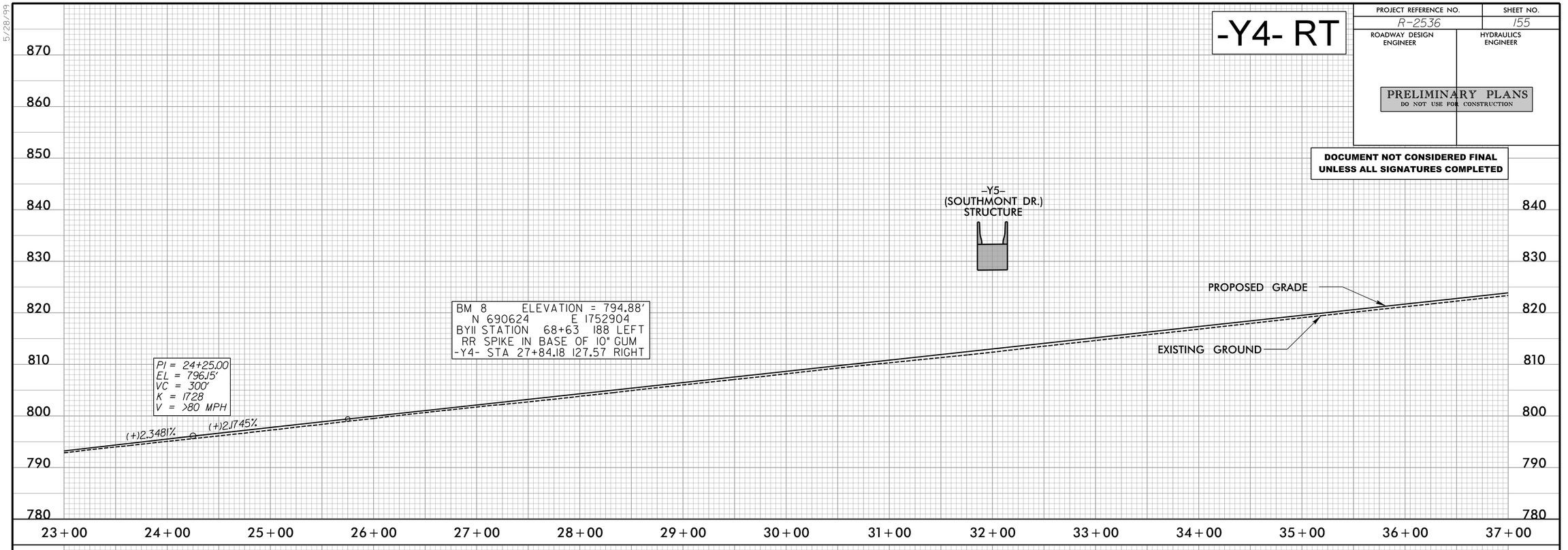
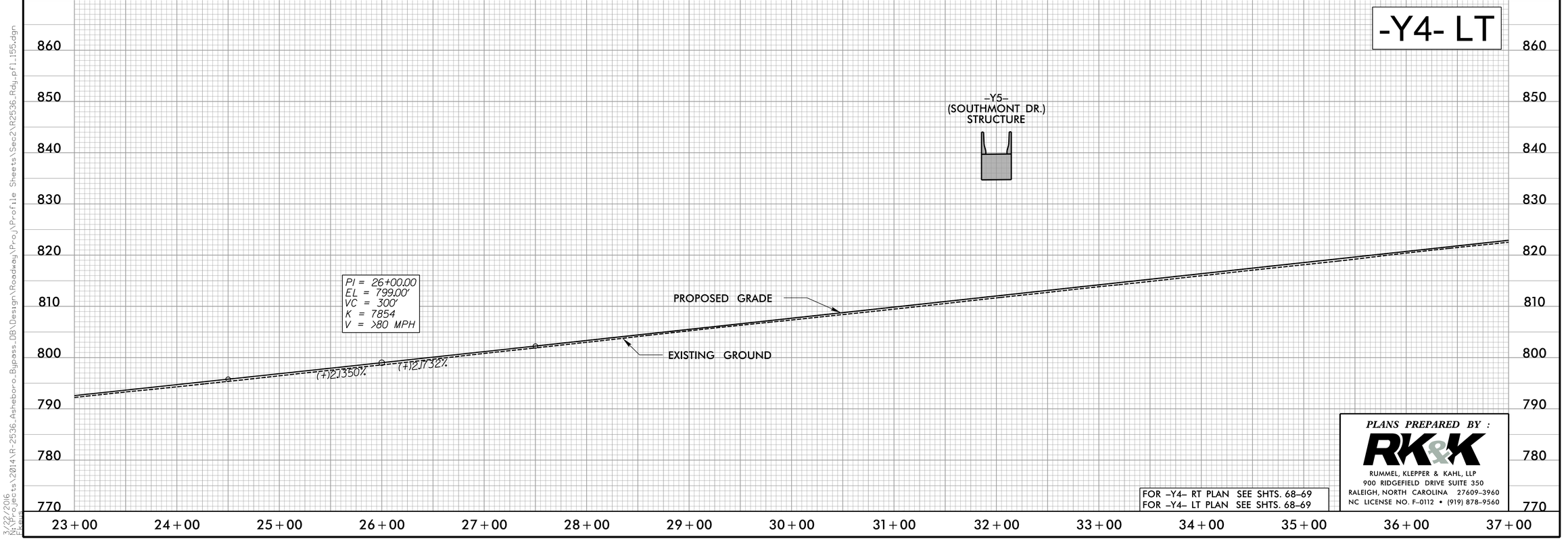
-Y4- RT



-Y4- LT



FOR –Y4– RT PLAN SEE SHTS. 68–69
FOR –Y4– LT PLAN SEE SHTS. 68–69

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-Y4- RT

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R-2536	156
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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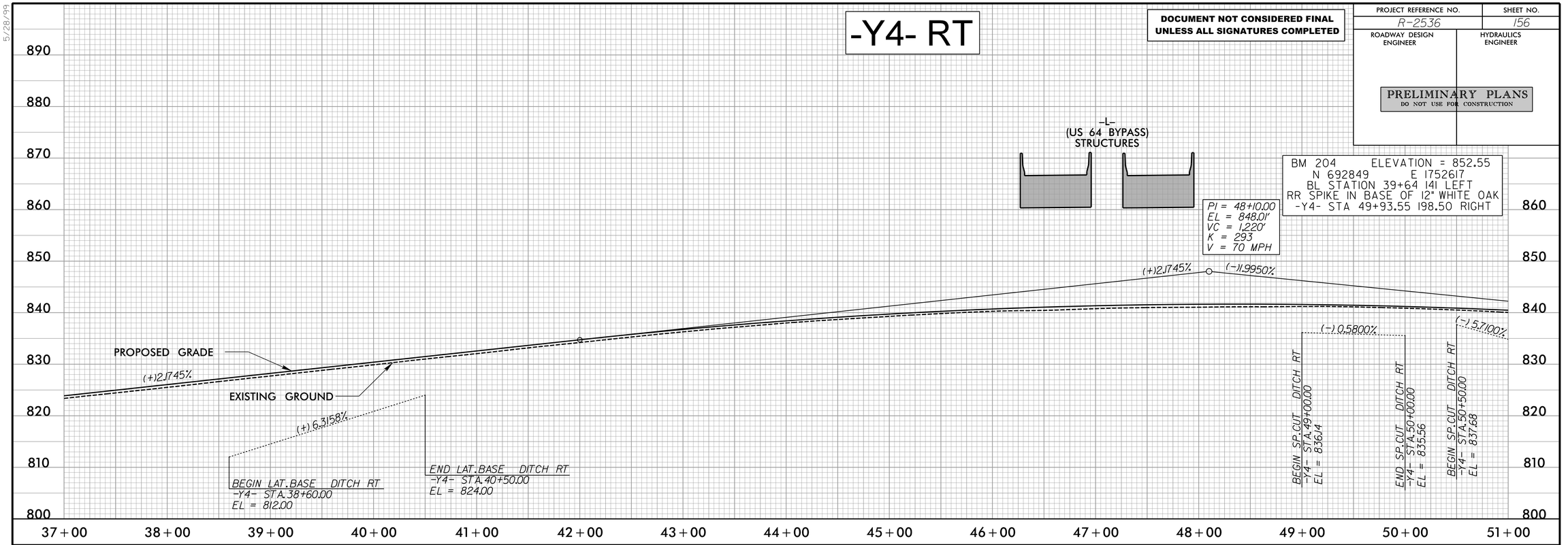
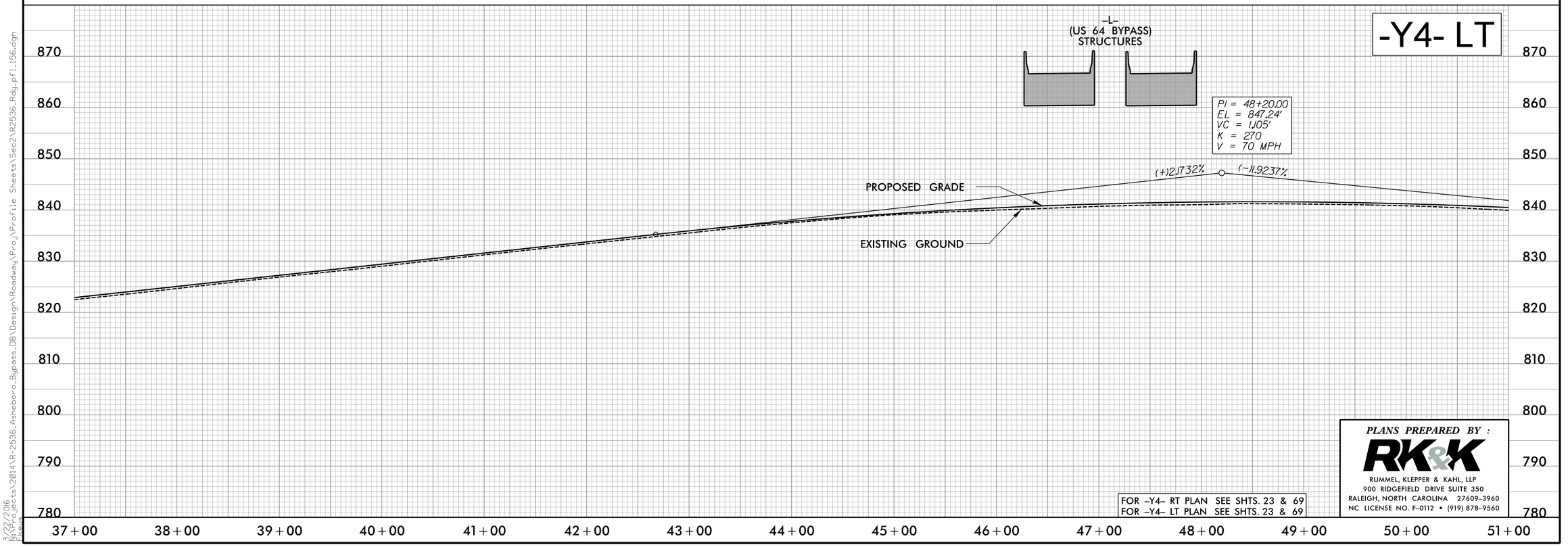


-Y4- LT



FOR –Y4– RT PLAN SEE SHTS. 23 & 69
FOR –Y4– LT PLAN SEE SHTS. 23 & 69

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-Y4- RT

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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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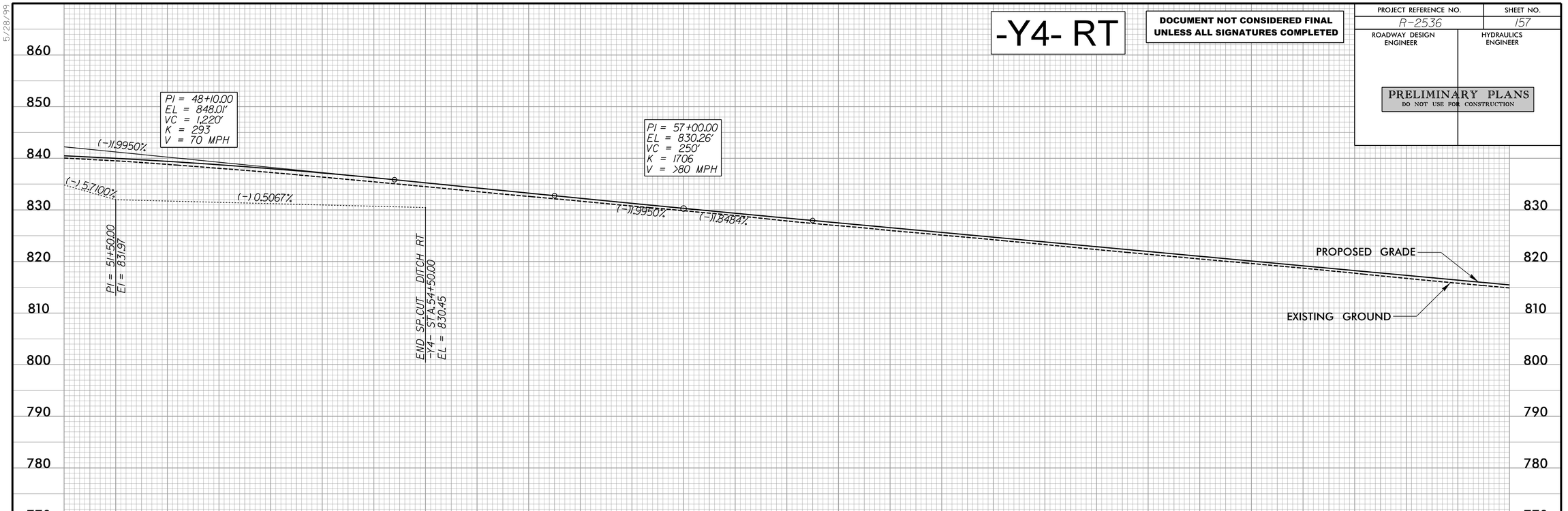
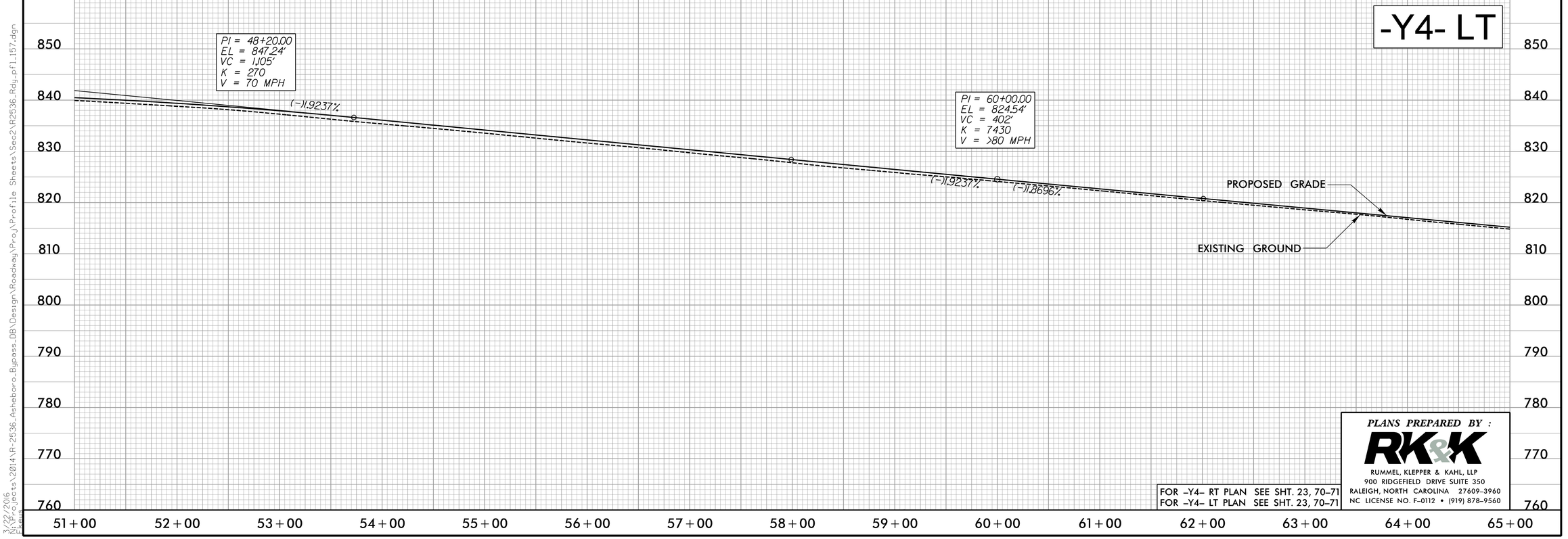


-Y4- LT



FOR –Y4– RT PLAN SEE SHT. 23, 70–71
FOR –Y4– LT PLAN SEE SHT. 23, 70–71

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	158
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-Y4- RT

BM 10 ELEVATION = 819.14'
N 694579 E 1752096
BYII STATION 28+64 193 LEFT
RR SPIKE IN BASE OF 16" WHITE OAK
-Y4- STA. 67+99.17 134.03 RIGHT

EXISTING PIPE HYDRAULIC DATA
-Y4- LT STA.75+34

DRAINAGE AREA	= 26.93	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 62.9	CFS
DESIGN HW ELEVATION	= 779.08	FT
100 YEAR DISCHARGE	= 65.9	CFS
100 YEAR HW ELEVATION	= 779.31	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 72+50.00
EL = 801.60'
VC = 250'
K = 1597
V = >80 MPH

PI = 78+15.00
EL = 790.28'
VC = 640'
K = 192
V = 70 MPH

(−)11.8484%
(−)11.8484%
(−)12.0049%
(−)12.0049%
(+)11.3370%
(−) 9.8500%
(−) 6.8919%
(−) 1.1317%
(+) 7.2877%
(−) 4.1862%

PROPOSED GRADE
EXISTING GROUND

BEGIN LAT. BASE DITCH RT
-Y4- STA.71+00.00
EL = 793.79

PI = 72+50.00
EI = 779.01

PI = 72+87.00
EI = 776.46

END LAT. BASE DITCH RT
BEGIN LAT.V DITCH RT
-Y4- STA.74+54.00
EL = 774.57

EXIST.
36" RCP

PI = 76+00.00
EI = 785.21

840 830 820 810 800 790 780 770 760 750

65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00

-Y4- LT

EXISTING PIPE HYDRAULIC DATA
-Y4- LT STA.75+34

DRAINAGE AREA	= 26.93	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 62.9	CFS
DESIGN HW ELEVATION	= 779.08	FT
100 YEAR DISCHARGE	= 65.9	CFS
100 YEAR HW ELEVATION	= 779.31	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 73+50.00
EL = 799.30'
VC = 300'
K = 896
V = >80 MPH

PI = 77+10.00
EL = 793.77'
VC = 250'
K = 202
V = 70 MPH

END GRADE
-Y4- LT Sta. 78+35.00
EL = 793.40'

(−)1.86967%
(−)1.53471%
(−)1.53471%
(−)0.30007%

PROPOSED GRADE
EXISTING GROUND

EXIST.
36" RCP

840 830 820 810 800 790 780 770 760 750

65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00

FOR –Y4– RT PLAN SEE SHTS. 71–72
FOR –Y4– LT PLAN SEE SHTS. 71–72

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-Y4- RT

PROJECT REFERENCE NO.	SHEET NO.
R-2536	158A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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CULVERT HYDRAULIC DATA
EXISTING 4' X 5' CULVERT EXTENSION

DESIGN DISCHARGE	= ???	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= ???.?	FT
BASE DISCHARGE	= ???	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= ???.??	FT
OVERTOPPING DISCHARGE	= ???	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= ???.?	FT

BM 11 ELEVATION = 796.94
N 696653 E 1751744
BYII STATION 6+92 183 LEFT
RR SPIKE IN BASE OF 12" WHITE OAK
-Y4- STA. 89+57.26 130.60 RIGHT

PI = 78+15.00
EL = 790.28'
VC = 640'
K = 192
V = 70 MPH

PI = 82+90.00
EL = 796.63'
VC = 300'
K = 1288
V > 80 MPH

END GRADE
-Y4- RT Sta. 86+20.00
EL = 800.27'

(+)1.3370%
(+)1.3370%
(+)1.1041%
(+) 4.0621%
(-) 4.1862%
(+) 0.8065%

UT to LITTLE RIVER
1@4'x5' RCBC

END CHANNEL CHANGE RT
-Y4- STA.80+66.00
EL = 767.25

END LAT.V DITCH RT
BEGIN CHANNEL CHANGE RT
-Y4- STA.80+35.00
EL = 767.00

BEGIN SP.CUT DITCH RT
-Y4- STA.86+00.00
EL = 796.00

END SP.CUT DITCH RT
-Y4- STA.86+41.85
EL = 797.70

840 830 820 810 800 790 780 770 760 750

79+00 80+00 81+00 82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00

FOR –Y4– RT PLAN SEE SHTS. 72

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-Y4RPA-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	159
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 400	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 790.6	FT
BASE DISCHARGE	= 440	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 791.00	FT
OVERTOPPING DISCHARGE	= 3295	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 798.4	FT

BEGIN GRADE
-Y4RPA- Sta. 10+00.00=
-L- Sta. 299+36.46
EL = 824.55'

PI = 11+20.00
EL = 827.47'
VC = 230'
K = 139
V = 60 MPH

PI = 14+05.00
EL = 839.11'
VC = 180'
K = 152
V = 60 MPH

PI = 20+15.00
EL = 856.80'
VC = 920'
K = 146
V = 55 MPH

(+)2.4300%
(+)4.0854%
(+)4.0854%
(+)2.9003%
(+)2.9003%
(−)3.4050%

PROPOSED GRADE

BM 205
ELEV=799.53'
-BL- STA. 51+51
321' LT
-Y4RPA- STA 14+21.25
272.94' RT
RR SPIKE IN BASE
OF 15" SWEET GUM

BEGIN LAT. BASE DITCH RT
-Y4RPA- STA.10+00.00
EL = 807.50

(−)8.8684%

PI = 11+90.00
EI = 790.65

(−)5.7883%

PI = 12+41.00
EI = 787.70

(−)2.3299%

UT to
BIG BRANCH
2@9'x7'
RCBC

PI = 13+38.00
EI = 785.44

EXISTING GROUND

(+)2.2804%

PI = 18+80.00
EI = 797.80

30" RCP

(+)5.2815%

(+)8.0450%

END LAT. BASE DITCH RT
BEGIN LAT. V. DITCH RT
-Y4RPA- STA.21+50.00
EL = 812.06

PI = 23+50.00
EI = 828.15

(+)8.5200%

END LAT. V. DITCH RT
-Y4RPA- STA.24+00.00
EL = 832.41

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EXISTING GROUND

PROPOSED GRADE

PI = 28+20.00
EL = 829.39'
VC = 310'
K = 137
V = 60 MPH

(−)3.4050%

(−)1.1471%

PI = 35+50.00
EL = 821.02'
VC = 180'
K = 252
V = 70 MPH

(−)1.1471%

(−)1.8600%

(−)0.3061%(−)3.3628%

BEGIN SP.CUT DITCH RT
-Y4RPA- STA.35+08.13
EL = 817.05

PI = 35+80.00
EI = 816.83

END SP.CUT DITCH RT
-Y4RPA- STA.36+08.25
EL = 815.88

END GRADE
-Y4RPA- Sta. 37+03.07=
-Y4CD_RT- Sta.48+69.48
EL = 818.17'

FOR -Y4RPA- PLAN SEE SHTS. 23-24, 70

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-Y4LPA-

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	160

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
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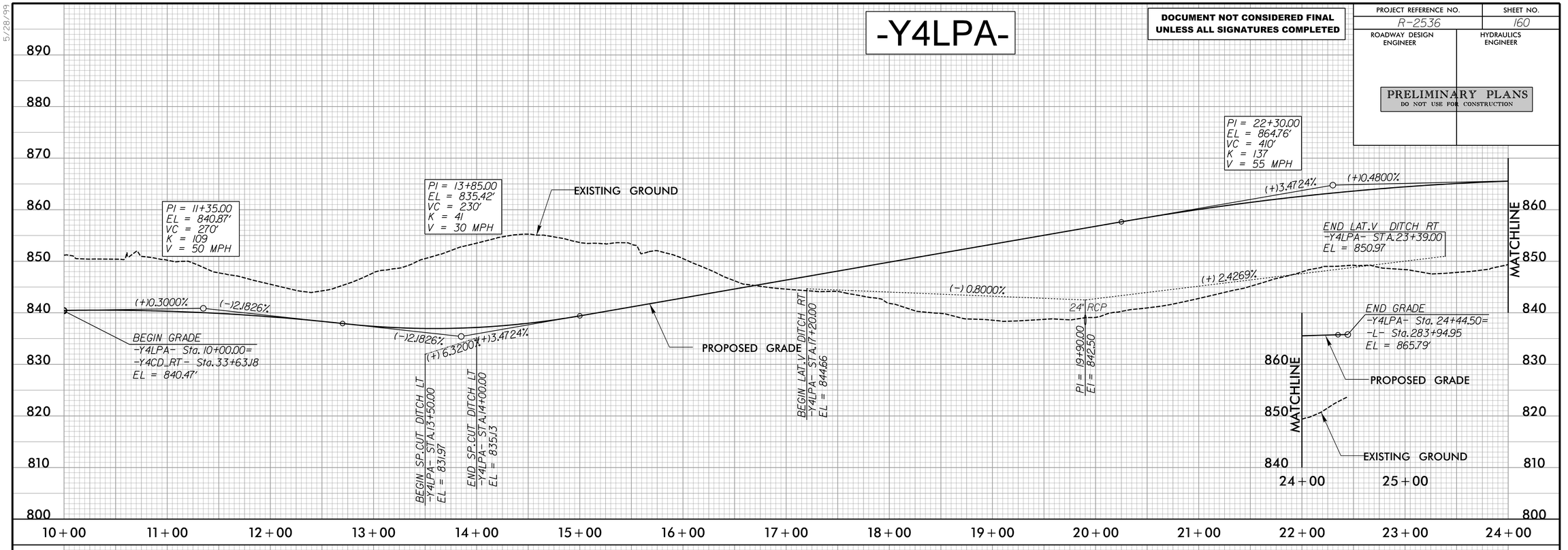

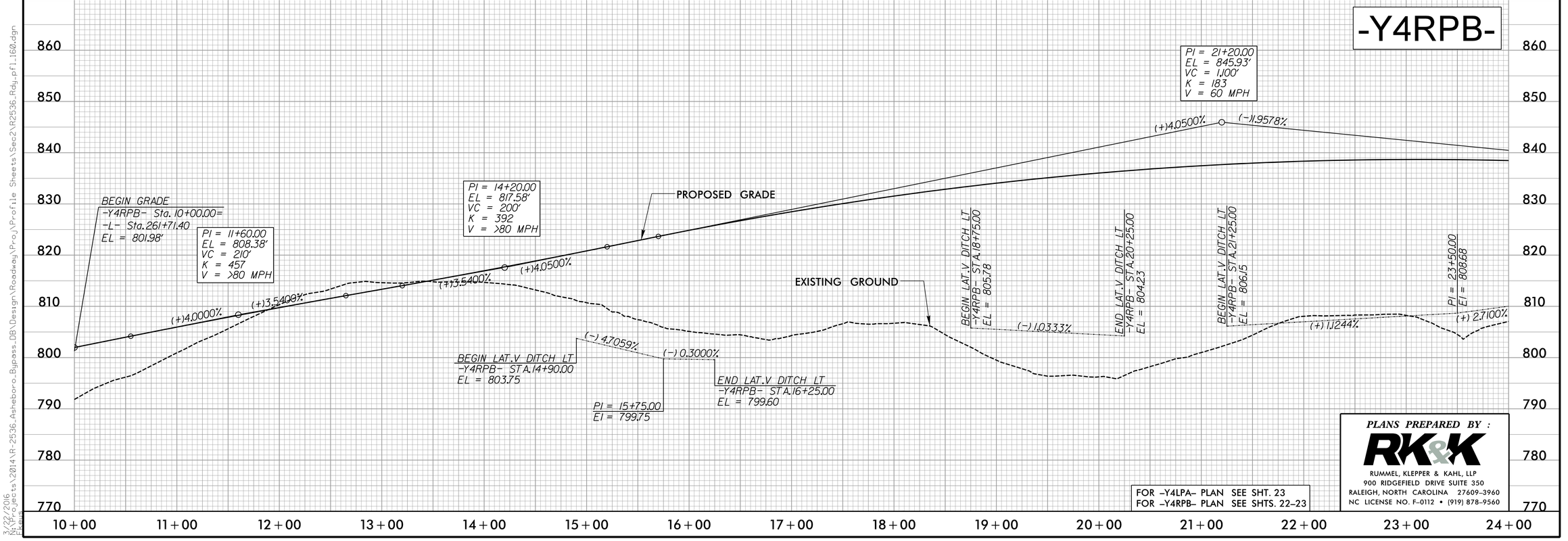

FOR –Y4LPA– PLAN SEE SHT. 23
FOR –Y4RPB– PLAN SEE SHTS. 22–23

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	161
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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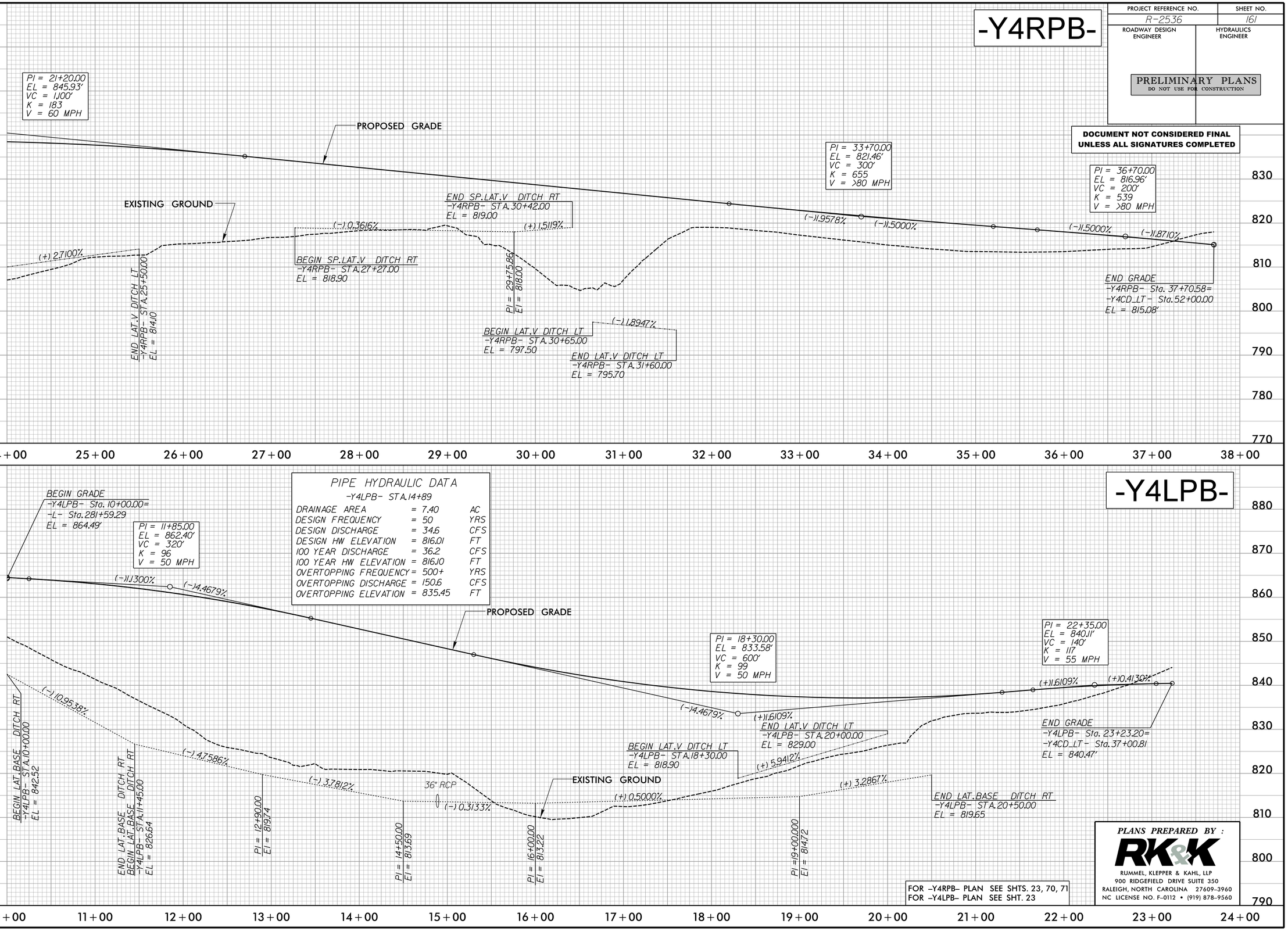
-Y4RPB-



-Y4LPB-

FOR -Y4RPB- PLAN SEE SHTS. 23, 70, 71
FOR -Y4LPB- PLAN SEE SHT. 23

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	162

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-Y4LPC-

EXISTING GROUND

PROPOSED GRADE

PI = 11+40.00
EL = 838.30'
VC = 240'
K = 116
V = 55 MPH

PI = 14+00.00
EL = 830.50'
VC = 280'
K = 40
V = 30 MPH

PI = 22+65.00
EL = 864.97'
VC = 300'
K = 85
V = 50 MPH

(-)10.9320%
(-)13.0000%
(-)13.0000%
(+)3.9851%
(+)3.9851%
(+)0.4700%
(+) 3.3612%
(-) 3.0833%

BEGIN GRADE
-Y4LPC- Sta. 10+00.00=
-Y4CD_LT- Sta. 33+64.64
EL = 839.60'

BM 203
ELEV=809.39'
-BL- STA. 21+14
274' RT
-Y4RPC- STA 11+65.73
211.93' RT
RR SPIKE IN BASE
OF 18" POPLAR

24" RCP

BEGIN LAT.V DITCH RT
-Y4LPC- STA.20+50.00
EL = 85.11

PI = 20+86.00
EI = 85.00

END LAT.V DITCH RT
-Y4LPC- STA.23+85.00
EL = 860.05

PROPOSED GRADE
END GRADE
-Y4LPC- Sta. 24+44.50
-L- Sta.281+59.29
EL = 865.81'

EXISTING GROUND

MATCHLINE

24+00 25+00

890 880 870 860 850 840 830 820 810 800

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

PIPE HYDRAULIC DATA
-Y4RPC- STA.16+85

DRAINAGE AREA	= 16.89	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 67.9	CFS
DESIGN HW ELEVATION	= 813.56	FT
100 YEAR DISCHARGE	= 70.9	CFS
100 YEAR HW ELEVATION	= 813.73	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

-Y4RPC-

PI = 21+25.00
EL = 853.81'
VC = 600'
K = 86
V = 50 MPH

BEGIN GRADE
-Y4RPC- Sta. 10+00.00=
-L- Sta.264+50.77
EL = 812.91'

PI = 11+00.00
EL = 816.91'
VC = 200'
K = 500
V = >80 MPH

(+)4.0000%
(+)3.6000%
(+)3.6000%
(-)13.3500%
(-) 8.0000%

PROPOSED GRADE

EXISTING GROUND

BEGIN LAT. BASE DITCH RT
-Y4RPC- STA.12+50.00
EL = 813.00

END LAT. BASE DITCH RT
-Y4RPC- STA.16+40.00
EL = 781.80

42" RCP

BEGIN SP.CUT DITCH RT
-Y4RPC- STA.21+00.00
EL = 835.93

(+) 0.3000%
(+) 0.3000%

BEGIN SP.CUT DITCH LT
-Y4RPC- STA.21+00.00
EL = 835.64

END SP.CUT DITCH LT
BEGIN STANDARD V DITCH LT
-Y4RPC- STA.22+50.00
EL = 836.09

870 860 850 840 830 820 810 800 790 780

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

FOR –Y4LPC– PLAN SEE SHT. 23
FOR –Y4RPC– PLAN SEE SHTS. 22–23

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R-2536	163
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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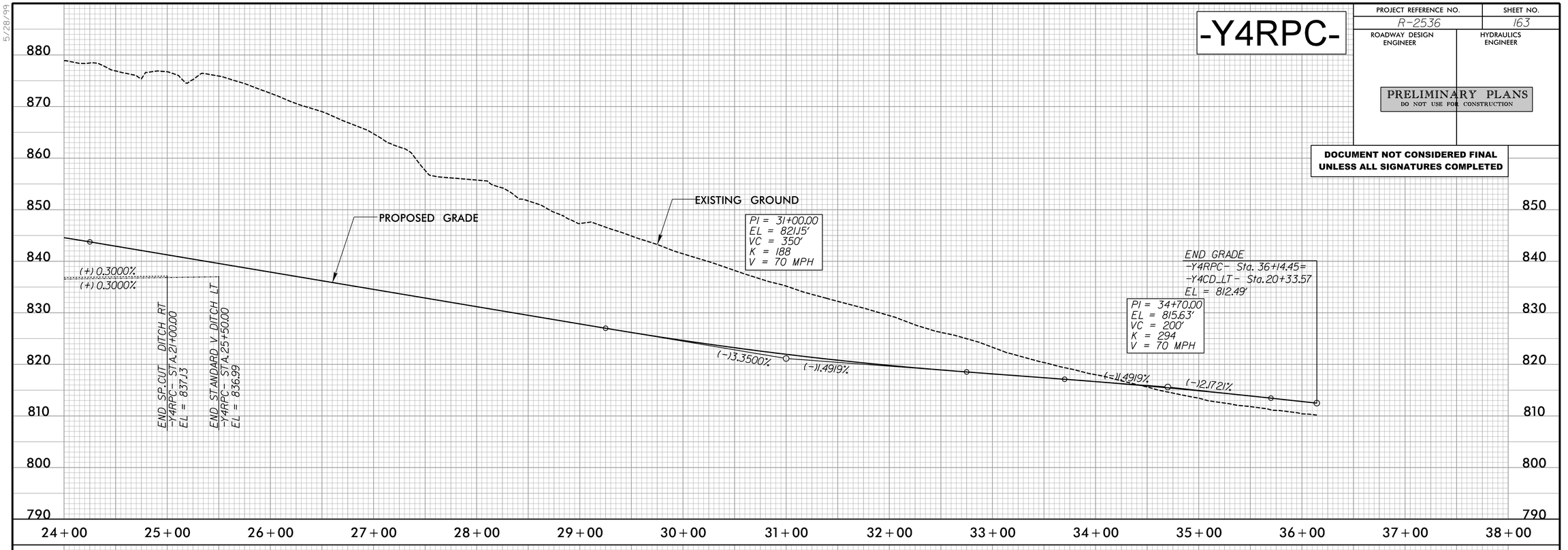
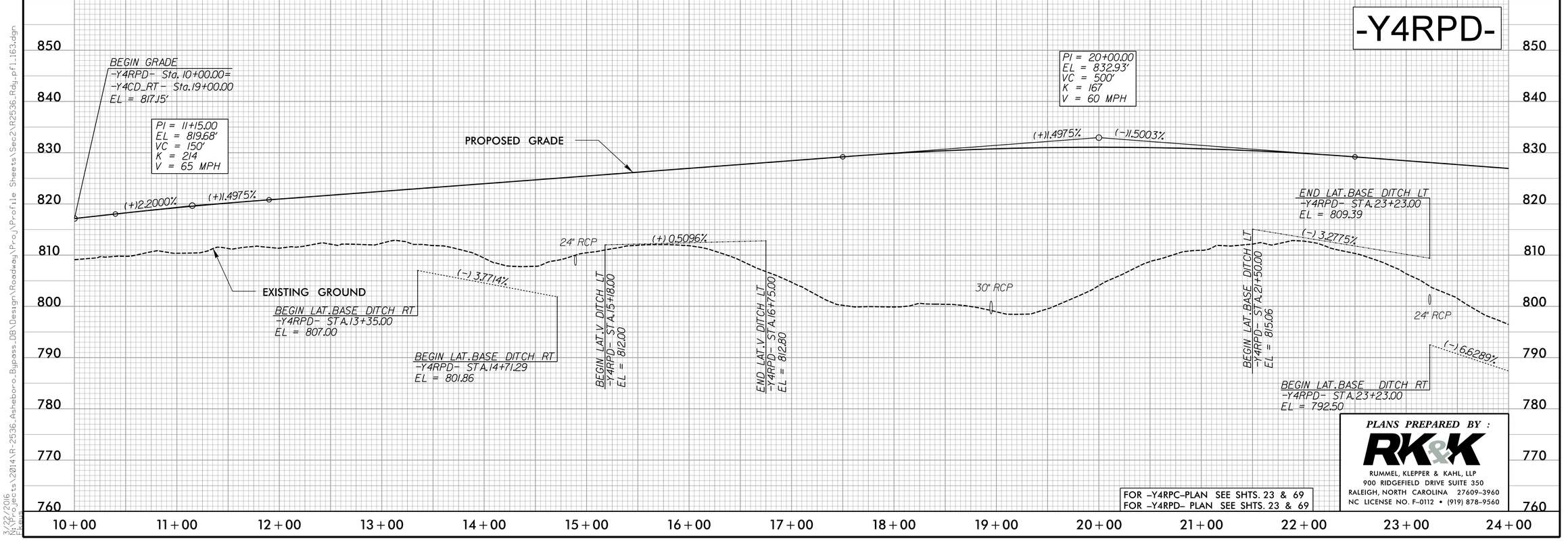
-Y4RPC-



-Y4RPD-



FOR –Y4RPC– PLAN SEE SHTS. 23 & 69
FOR –Y4RPD– PLAN SEE SHTS. 23 & 69

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R-2536	164
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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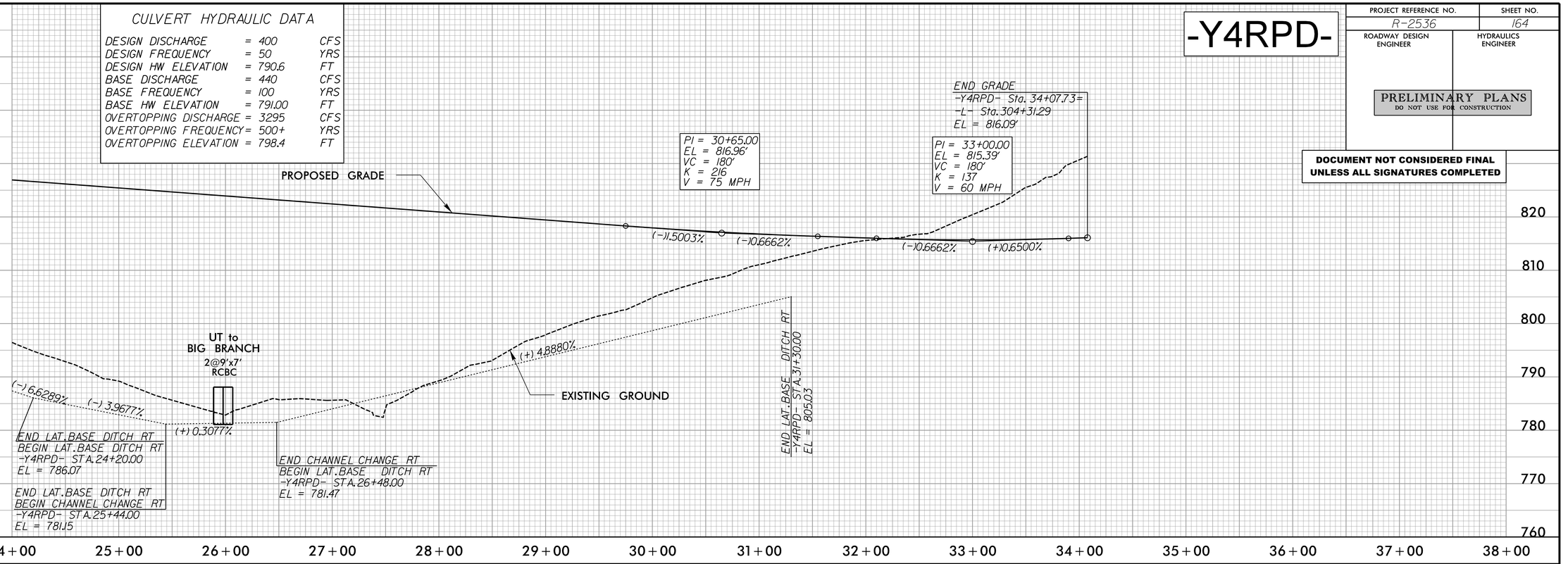
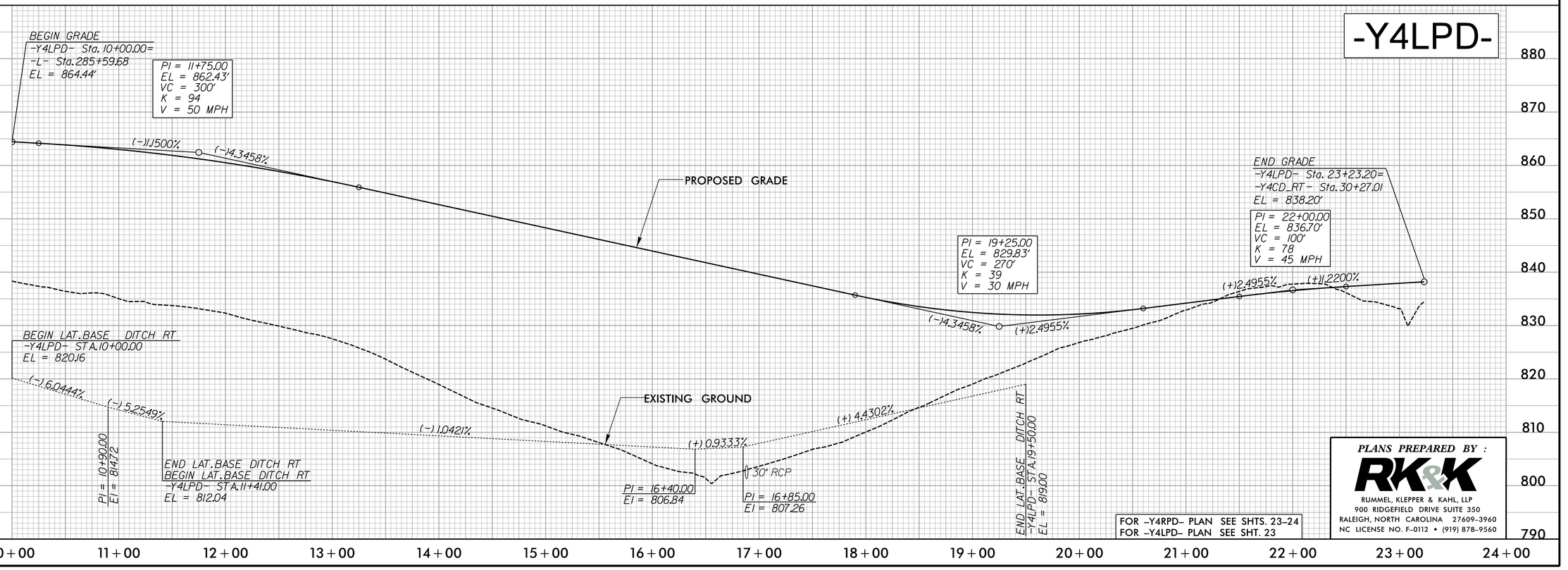
-Y4RPD-

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 400	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 790.6	FT
BASE DISCHARGE	= 440	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 791.00	FT
OVERTOPPING DISCHARGE	= 3295	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 798.4	FT



-Y4LPD-



FOR -Y4RPD- PLAN SEE SHTS. 23-24
FOR -Y4LPD- PLAN SEE SHT. 23

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-Y5-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	165
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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BM 224
ELEV=834.42'
-BY2- STA. 7+90
338' RT
-Y5- STA 17+92.12
333.83' RT
RR SPIKE IN BASE OF
CP&L POLE # 5588AD

EXISTING GROUND

PROPOSED GRADE

-Y5A- STA. 10+00.00 =
-Y5- STA. 15+74.25

PI = 12+10.00
EL = 798.37'
VC = 290'
K = 139
V = 60 MPH

PI = 17+80.00
EL = 827.35'
VC = 820'
K = 152
V = 60 MPH

PI = 24+40.00
EL = 825.23'
VC = 470'
K = 138
V = 60 MPH

BEGIN GRADE
-Y5- Sta. 10+50.00
EL = 793.57'

BEGIN SP.CUT DITCH LT
-Y5- STA.10+00.00
EL = 789.24

(+) 2.0100%
(+)3.0000%
(+)5.0839%
(+) 6.9385%
(+) 7.3160%
(+) 9.3600%
(-)10.3211%
(-) 5.9724%
(+) 5.67%

18" RCP
30" RCP

BEGIN LAT.BASE DITCH LT
-Y5- STA.12+21.00
EL = 790.92

END SP.CUT DITCH LT
-Y5- STA.11+00.00
EL = 791.25

PI = 12+50.00
EI = 787.17

BEGIN LAT.BASE DITCH RT
-Y5- STA.12+31.67
EL = 786.13

PI = 14+00.00
EI = 803.54

END LAT.BASE DITCH LT
-Y5- STA.14+50.00
EL = 808.02

END LAT.BASE DITCH LT
-Y5- STA.15+00.00
EL = 805.46

BEGIN LAT.V DITCH LT
-Y5- STA.23+00.00
EL = 819.31

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10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

770 780 790 800 810 820 830 840 850 860

PI = 31+20.00
EL = 846.25'
VC = 620'
K = 84
V = 50 MPH

BEGIN BRIDGE
-Y5- Sta. 29+68.46

END BRIDGE
-Y5- Sta. 32+10.13

(+)3.0920%
(-)4.2589%

PI = 24+40.00
EL = 825.23'
VC = 470'
K = 138
V = 60 MPH

(+)3.0920%

PROPOSED GRADE

-Y5- STRUCTURE
-Y4- STA. 32+01.85 =
-Y5- STA. 30+94.14

-Y4-
(US 220 BYPASS)

PROPOSED

EXISTING GROUND

30" RCP

(-) 5.9724%

(+) 0.5376%

END LAT.V DITCH LT
BEGIN LAT.BASE DITCH LT
-Y5- STA.24+81.00
EL = 808.50

END LAT.BASE DITCH LT
-Y5- STA.29+46.00
EL = 811.00

FOR -Y5- PLAN SEE SHTS. 69, 73-75

24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00

760 770 780 790 800 810 820 830 840 850

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R-2536	166
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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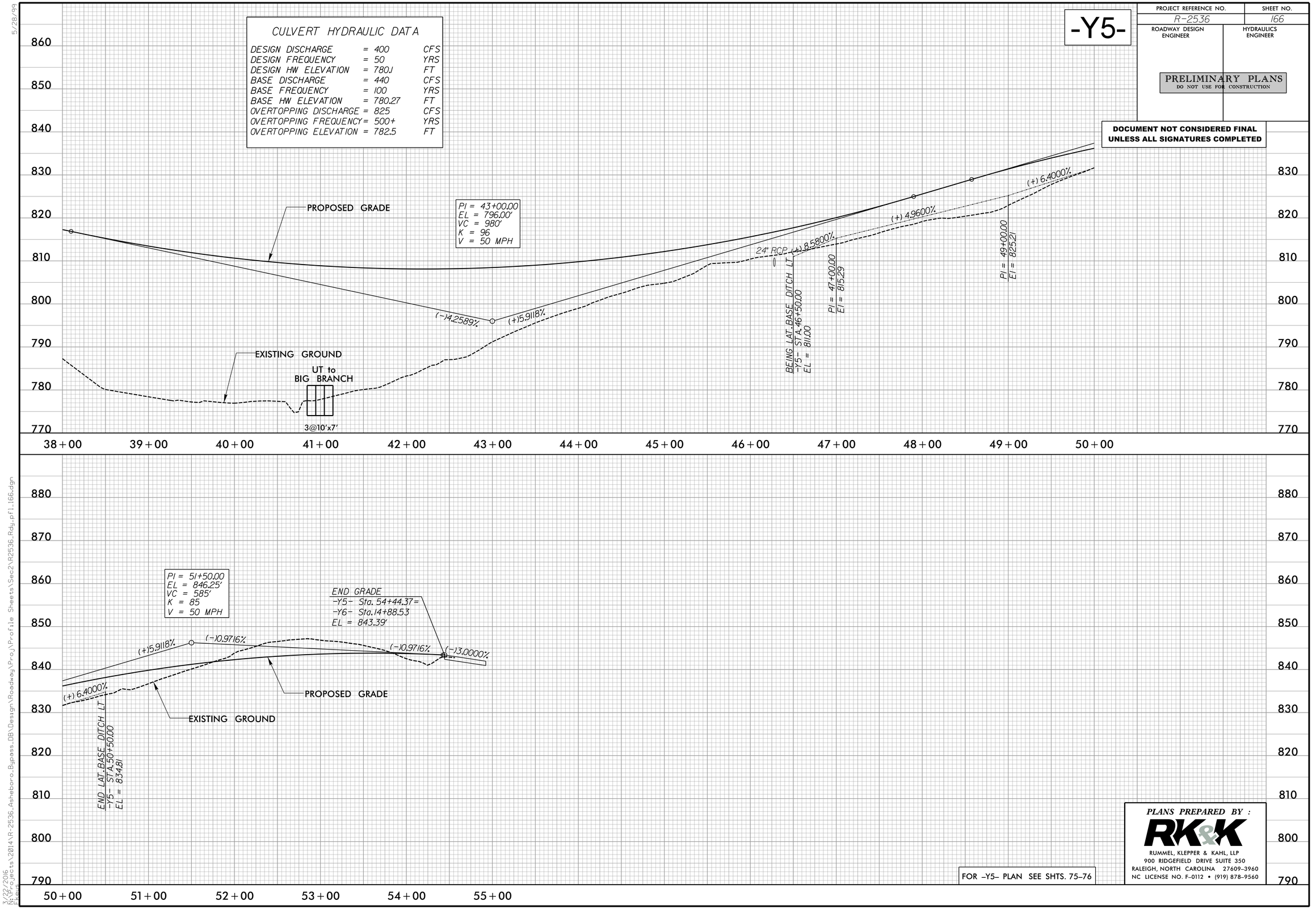
CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 400	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 780.1	FT
BASE DISCHARGE	= 440	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 780.27	FT
OVERTOPPING DISCHARGE	= 825	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 782.5	FT



FOR –Y5– PLAN SEE SHTS. 75–76

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R-2536	167
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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-Y5A-

BEGIN GRADE
-Y5A- Sta. 14+75.00
EL = 871.73'

PI = 13+90.00
EL = 865.52'
VC = 160'
K = 29
V = 35 MPH

(+)7.3000%
(+)12.8260%
(+)12.7200%

PROPOSED GRADE

BEGIN GRADE
-Y5A- Sta. 10+12.13=
-Y5- Sta.15+79.34
EL = 816.37'

PI = 10+60.00
EL = 821.64'
VC = 90'
K = 27
V = 25 MPH

(+)14.3845%
(+)12.8260%
(+)16.5200%
(+)14.7800%
(+)11.1800%
(+)11.0000%

EXISTING GROUND

BEGIN LAT.V DITCH LT
-Y5A- STA.13+00.00
EL = 850.26

BEGIN SP.CUT DITCH LT
-Y5A- STA.14+50.00
EL = 864.50

END SP.CUT DITCH LT
-Y5A- STA.15+00.00
EL = 870.86

PI = 11+60.00
EL = 836.02'
VC = 100'
K = 64
V = 45 MPH

PI = 12+50.00
El = 842.00

PI = 11+50.00
El = 827.22

BEGIN LAT.V DITCH LT
-Y5A- STA.11+00.00
EL = 821.63

-Y6-

BEGIN GRADE
-Y6- Sta. 13+50.00
EL = 839.50'

-Y5- STA. 54+57.13 =
-Y6- STA. 14+84.18

PROPOSED GRADE

EXISTING GROUND

(+)2.5500%
(+)1.8700%
(-)0.3000%
(+)5.3800%

BEGIN SP.CUT DITCH RT
-Y6- STA.13+00.00
EL = 836.21

END SP.CUT DITCH RT
-Y6- STA.14+00.00
EL = 838.08

BEGIN SP.CUT DITCH RT
-Y6- STA.15+00.00
EL = 839.37

PI = 15+50.00
El = 839.22

END SP.CUT DITCH RT
-Y6- STA.16+00.00
EL = 841.91

-Y6-

PI = 18+45.00
EL = 852.12'
VC = 460'
K = 287
V = 70 MPH

(+)2.5500%
(+)0.9452%

PI = 23+25.00
EL = 856.66'
VC = 460'
K = 314
V = 75 MPH

(+)0.9452%
(-)0.5182%

BEGIN BRIDGE
-Y6- Sta.21+92.80

-L- STA. 311+50.43 =
-Y6- STA. 23+20.80

PROPOSED

END BRIDGE
-L- Sta.24+43.80

PROPOSED GRADE

PI = 26+90.00
EL = 854.77'
VC = 230'
K = 169
V = 60 MPH

(-)0.5182%
(-)1.8810%

END GRADE
-Y6- Sta. 29+00.00
EL = 850.82'

BM 206
ELEV=856.83'
-BL- STA. 65+87
276' LT
-Y6- STA 26+27.06
111.32' LT
RR SPIKE IN BASE OF
CP&L POLE # R588AD

BEGIN LAT.V DITCH LT
-Y6- STA.27+00.00
EL = 850.45

(-)7.0600%

EXISTING GROUND

END LAT.V DITCH LT
-Y6- STA.29+00.00
EL = 836.33

FOR -Y5A- PLAN SEE SHT. 74
FOR -Y6- PLAN SEE SHTS. 24, 76

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	168
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-Y7-

PI = 23+60.00
EL = 866.00'
VC = 130'
K = 139
V = 55 MPH

BEGIN GRADE
-Y7- Sta. 10+00.00
EL = 835.47'

PI = 11+40.00
EL = 841.67'
VC = 280'
K = 69
V = 45 MPH

-Y7 DR5- STA. 10+00.00 =
-Y7- STA. 13+90.00

-Y7 DR4- STA. 10+00.00 =
-Y7- STA. 13+50.00

-Y7 DR2- STA. 10+00.00 =
-Y7- STA. 15+40.00

-L- STA. 339+18.07 =
-Y7- STA. 18+02.88

BEGIN BRIDGE
-Y7- Sta.17+03.48

-Y7 DR3- STA. 10+00.00 =
-Y7- STA. 20+16.55

PI = 20+65.00
EL = 844.91'
VC = 460'
K = 68
V = 40 MPH

PROPOSED GRADE

(+)4.4299%
(+)0.3500%
(+) 1.9000%
(+) 0.3000%
(-) 2.6467%
(+) 0.3000%
(+)0.3500%
(+)7.1494%
(+)11.6300%
(+)7.5333%
(+)6.2154%
(+)8.2576%
(+)8.6750%

EXISTING GROUND

BEGIN SP.CUT DITCH RT
-Y7- STA.11+00.00
EL = 836.47

END SP.CUT DITCH RT
-Y7- STA.10+50.00
EL = 834.31

BEGIN SP.CUT DITCH RT
-Y7- STA.10+00.00
EL = 833.36

END SP.CUT DITCH RT
BEGIN LAT.V DITCH RT
-Y7- STA.14+50.00
EL = 837.52

PI = 16+00.00
EL = 833.55

END LAT.V DITCH RT
-Y7- STA.16+50.00
EL = 833.70

-Y7- STRUCTURE

-L-
(US 64 BYPASS)

PROPOSED

END BRIDGE
-Y7- Sta.19+05.55

BEGIN LAT.BASE DITCH LT
-Y7- STA.20+85.00
EL = 833.63

PI = 21+00.00
EL = 834.76

END GRADE
-Y7- Sta. 24+25.00
EL = 870.04'

END LAT.BASE DITCH LT
-Y7- STA.24+30.00
EL = 868.68

END LAT.BASE DITCH RT
-Y7- STA.24+16.00
EL = 867.67

END LAT.BASE DITCH LT
-Y7- STA.23+00.00
EL = 858.02

BEGIN LAT.BASE DITCH RT
-Y7- STA.23+50.00
EL = 861.74 LT
EL = 862.22 RT

MATCHLINE

-Y8-

BEGIN GRADE
-Y8- Sta.10+00.00
EL = 744.38'

PI = 14+20.00
EL = 717.71'
VC = 820'
K = 137
V = 60 MPH

PROPOSED GRADE

-L- STA. 449+07.79 =
-Y8- STA. 18+62.41

BEGIN BRIDGE
-Y8- Sta.17+62.89

END BRIDGE
-Y8- Sta.19+69.91

PI = 24+10.00
EL = 714.25'
VC = 800'
K = 551
V = >80 MPH

(-)6.3280%
(-) 9.3350%
(-) 2.6667%
(-)6.3500%
(-)0.3488%
(-) 6.0000%

BEGIN SP.CUT DITCH LT & RT
-Y8- STA.9+75.00
EL = 743.67' LT
EL = 742.55' RT

END SP.CUT DITCH LT
BEGIN LAT.V DITCH LT

PI = 11+75.00
EI = 725.00

END SP.CUT DITCH RT
-Y8- STA.11+00.00
EL = 734.64

END LAT.V DITCH LT
BEGIN SP.CUT DITCH LT

END LAT.V DITCH LT
-Y8- STA.15+00.00
EL = 713.00

END SP.CUT DITCH LT
BEGIN LAT.V DITCH LT
-Y8- STA.14+00.00
EL = 719.00

EXISTING GROUND

-Y8- STRUCTURE

-L-
(US 64 BYPASS)

PROPOSED

EXISTING GROUND

FOR -Y7- PLAN SEE SHTS. 26, 77
FOR -Y8- PLAN SEE SHTS. 34, 91–92

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-Y8-

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	169
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

760 750 740 730 720 710 700 690 680 670

PI = 24+10.00
EL = 714.25'
VC = 800'
K = 551
V = >80 MPH

(−)10.3488%

(−)11.8010%

PROPOSED GRADE

END GRADE
-Y8- Sta. 29+60.00
EL = 704.91'

PI = 28+80.00
EL = 705.79'
VC = 100'
K = 143
V = 60 MPH

(−)11.8016%

(−)11.1000%

(−) 0.7734%

BM 216
ELEV=714.52'
-BL- STA. 207+65
616' LT
-Y8- STA 24+91.07
65.54' RT
RR SPIKE IN BASE OF
REMC POLE # 1738.5

BEGIN SP.CUT DITCH RT
-Y8- STA.28+50.00
EL = 703.50

END SP.CUT DITCH RT
-Y8- STA.29+54.73
EL = 702.69

23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00

-Y9FLY-

780 770 760 750 740 730 720 710 700 690

–L– STA. 400+30.35 =
–Y9FLY– STA. 23+16.17

PI = 22+20.00
EL = 758.00'
VC = 650'
K = 84
V = 50 MPH

END BRIDGE
-Y9FLY- Sta.23+99.78

(+)2.9872%

(−)4.7093%

BEGIN GRADE
-Y9FLY- Sta.10+00.00
EL. = 741.34'

BEGIN LAT.BASE DITCH RT
-Y9FLY- STA.10+00.00
EL = 731.30

PI = 14+40.00
EL = 734.70'
VC = 520'
K = 116
V = 55 MPH

PROPOSED GROUND

BEGIN BRIDGE
-Y9FLY- Sta.22+28.44

–Y9FLY– STRUCTURE

(−) 0.3333%

(+) 0.4880%

(−)1.5090%

(+)2.9872%

END LAT.BASE DITCH RT
BEGIN SP.CUT DITCH RT
-Y9FLY- 11+50.00
EI = 730.80

END SP.CUT DITCH RT
-Y9FLY- STA.14+00.00
EL = 732.02

BEGIN LAT.BASE DITCH LT
-Y9FLY- STA.16+50.00
EL = 724.00

BM 212
ELEV=700.74'
-BL- STA. 157+39
204' LT
-Y9FLY- STA 22+02.80
181.38' LT
RR SPIKE IN BASE
OF 15" ASH

–L–
(US 64 BYPASS)

PROPOSED

EXISTING GROUND

(−) 3.3333%

PI = 19+50.00
EI = 714.00

(−)14.0000%

PI = 21+00.00
EI = 697.00

END LAT.BASE DITCH LT
-Y9FLY- STA.22+80.00
EL = 700.00

PI = 20+50.00
EI = 700.00

(−) 6.0000%

(+) 1.6667%

FOR –Y8– PLAN SEE SHT. 92
FOR –Y9FLY– PLAN SEE SHT. 30

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

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-Y9FLY-

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	170

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PIPE HYDRAULIC DATA
-Y9FLY- STA. 28+94

DRAINAGE AREA	= 37.64	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 127.8	CFS
DESIGN HW ELEVATION	= 703.31	FT
100 YEAR DISCHARGE	= 134.6	CFS
100 YEAR HW ELEVATION	= 703.45	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 327.8	CFS
OVERTOPPING ELEVATION	= 715.78	FT

780 770 760 750 740 730 720 710 700 690

24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00

PROPOSED GROUND

PI = 30+80.00
EL = 717.50'
VC = 650'
K = 115
V = 55 MPH

(-)14.7093%

(+)0.9616%

-Y9RPC- STA. 30+94.70 =
-Y9FLY- STA. 34+55.56

BEGIN LAT. BASE DITCH LT
-Y9FLY- STA. 26+50.00
EL = 700.00

(-)6.9500%

PI = 27+50.00
EL = 693.05

(-)0.3000%

END LAT. BASE DITCH LT
-Y9FLY- STA. 28+00.00
EL = 692.9

54" RCP

EXISTING GROUND

BEGIN SP. CUT DITCH RT
-Y9FLY- STA. 33+00.00
EL = 714.50

(+)0.3030%

END SP. CUT DITCH RT
-Y9FLY- STA. 37+95.00
EL = 716.00

780 770 760 750 740 730 720 710 700 690

24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00

-Y9A-
(STALEY'S FARM RD.)
STRUCTURE

EXISTING GROUND

PI = 43+80.00
EL = 730.00'
VC = 870'
K = 152
V = 60 MPH

-Y9A- STA. 20+22.93 =
-Y9FLY- STA. 39+31.38

-Y9RPD- STA. 31+68.15 =
-Y9FLY- STA. 40+25.00

(+)0.9616%

(-)4.7500%

PROPOSED GROUND

END GRADE
-Y9FLY- Sta. 51+15.22 =
-Y9- Sta. 10+00.00
EL. = 695.08'

FOR -Y9FLY- PLAN SEE SHTS. 30, 81-82

780 770 760 750 740 730 720 710 700 690

38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00

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-Y9-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	171
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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PIPE HYDRAULIC DATA
-Y9- STA.15+72

DRAINAGE AREA	= 31.42	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 90.9	CFS
DESIGN HW ELEVATION	= 624.03	FT
100 YEAR DISCHARGE	= 95.6	CFS
100 YEAR HW ELEVATION	= 624.15	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 406.9	CFS
OVERTOPPING ELEVATION	= 656.13	FT

BM 1
ELEV=260.93'
-BL- STA. 30+00.36
260.93' RT
-Y9- STA 17+70.41
190.31' RT

BEGIN GRADE
-Y9- Sta.10+00.00
EL. = 695.08'

-Y9FLY- STA. 51+15.22 =
-Y9- STA. 10+00.00
EL = 695.08'

(-)14.7500%

PI = 10+50.00
EI = 655.00

(-)16.0000%

BEGIN LAT.BASE DITCH RT
-Y9- STA.10+00.00
EL = 663.00

(-) 6.2500%

-Y10- STA. 10+00.00 =
-Y9- STA. 19+12.65

PROPOSED GROUND

PI = 14+50.00
EI = 630.00

(-) 4.0000%

END LAT.BASE DITCH RT
-Y9- STA.15+75.00
EL = 625.00

END LAT.BASE DITCH LT
BEGIN LAT.BASE DITCH LT
PI = 16+50.00
EI = 620.00

END LAT.BASE DITCH LT
-Y9- STA.18+20.00
EL = 629.00

(+) 5.2941%

BEGIN LAT.V DITCH LT
-Y9- STA.19+90.00
EL = 635.00

(-) 0.3000%

EXISTING GROUND

(-) 0.9000%

BEGIN LAT.BASE DITCH LT
-Y9- STA.11+50.00
EL = 628.40

PI = 12+50.00
EI = 627.50

(-) 3.1800%

END LAT.BASE DITCH LT
BEGIN LAT.BASE DITCH LT
PI = 15+00.00
EI = 619.55

(+) 0.3000%

48" RCP

(+) 7.3333%

(+) 1.9081%

END LAT.V DITCH RT
-Y9- STA.20+00.00
L = 632.00

END LAT.V DITCH LT
BEGIN LAT.BASE DITCH LT
PI = 22+00.00
EI = 634.37

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00

690 680 670 660 650 640 630 620 610 600

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 2000	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 597.0	FT
BASE DISCHARGE	= 2300	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 597.80	FT
OVERTOPPING DISCHARGE	= 5900	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 616.0	FT

PI = 28+65.00
EL = 606.49'
VC = 1,020'
K = 141
V = 60 MPH

BM 2
ELEV=589.06'
-BL- STA. 45+31.45
87.76' LT
-Y9- STA 31+72.42
427.25' LT

EXISTING GROUND

PROPOSED GROUND

(-)19.3100%

END LAT.V DITCH LT
BEGIN LAT.BASE DITCH LT
PI = 22+00.00
EI = 634.37

END LAT.BASE DITCH LT
BEGIN LAT.BASE DITCH LT
PI = 24+00.00
EI = 615.75

(-) 0.3000%

(-) 0.3000%

END LAT.BASE DITCH LT
BEGIN SP.CUT BASE DITCH LT
-Y9- STA.26+00.00

END SP.CUT BASE DITCH LT
-Y9- STA.27+00.00
EL = 614.85

(-)4.7500%

(+)2.4608%

NORTH PRONG
RICHLAND CREEK

(+) 4.0000%

END LAT.BASE DITCH RT
-Y9- STA.31+50.00
EL = 608.00

(+) 0.3000%

BEGIN SP.CUT DITCH RT
-Y9- STA.34+50.00
EL = 616.77

(+) 0.9054%

2@14'x10' RCBC

BEGIN LAT.BASE DITCH RT
-Y9- STA.28+53.21
EL = 588.85

END LAT.BASE DITCH RT
-Y9- STA.29+25.00
EL = 589.50

BEGIN LAT.BASE DITCH RT
-Y9- STA.30+00.00
EL = 602.00

22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00

650 640 630 620 610 600 590 580 570 560

FOR -Y9- PLAN SEE SHTS. 82-84

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-Y9-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	172
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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PI = 42+10.00
EL = 639.59'
VC = 570'
K = 199
V = 65 MPH

PIPE HYDRAULIC DATA
-Y9- STA.45+52

DRAINAGE AREA	= 17.90	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 59.9	CFS
DESIGN HW ELEVATION	= 631.68	FT
100 YEAR DISCHARGE	= 62.4	CFS
100 YEAR HW ELEVATION	= 631.82	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 126.8	CFS
OVERTOPPING ELEVATION	= 635.62	FT

EXISTING GROUND
PROPOSED GROUND
(+)2.4608%
(−)0.4000%
(−) 0.3000%
(−)6.9333%
(−)9.3600%
(−) 0.3686%
(−)14.3000%
(−) 0.3133%
(+) 0.3000%
(+)11.1000%
42" RCP
24" RCP
30" RCP

BEGIN SP.CUT DITCH RT
-Y9- STA.42+50.00
EL = 633.80

END SP.CUT DITCH RT
BEGIN LAT.V DITCH RT
-Y9- STA.44+50.00
EL = 633.20

END LAT.V DITCH RT
-Y9- STA.45+25.00
EL = 628.00

BEGIN LAT.V DITCH LT
-Y9- STA.48+00.00
EL = 634.39

BEGIN LAT.V DITCH RT
-Y9- STA.48+00.00
EL = 633.11

PI = 48+50.00
EI = 628.43

PI = 49+00.00
EI = 620.09

END LAT.V DITCH RT
-Y9- STA.48+58.14
EL = 628.40

END LAT.V DITCH LT
-Y9- STA.49+28.73
EL = 620.00

END SP.CUT DITCH RT
BEGIN LAT.V DITCH RT
-Y9- STA.37+00.00
EL = 622.92

END SP.CUT DITCH RT
BEGIN SP.LAT.V DITCH RT
-Y9- STA.36+50.00
EL = 617.37

670 660 650 640 630 620 610 600 590 580

36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00

BM 3
ELEV=630.19'
-BL- STA. 65+76.11
163.26' LT
-Y9- STA 50+35.04
326.95' LT

PI = 53+50.00
EL = 635.03'
VC = 360'
K = 165
V = 65 MPH

PIPE HYDRAULIC DATA
-Y9- STA.53+33

DRAINAGE AREA	= 16.14	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 50.2	CFS
DESIGN HW ELEVATION	= 632.96	FT
100 YEAR DISCHARGE	= 52.4	CFS
100 YEAR HW ELEVATION	= 633.06	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 103.7	CFS
OVERTOPPING ELEVATION	= 635.62	FT

EXISTING GROUND
PROPOSED GROUND
(−)0.4000%
(+)1.7791%
(−) 1.7444%
(−) 4.7639%
(+) 4.6134%
(+) 6.0256%
(−) 0.4834%
42" RCP
42" RCP

BEGIN SP.CUT DITCH LT
-Y9- STA.52+00.00
EL = 632.65

BEGIN SP.CUT DITCH RT
-Y9- STA.52+00.00
EL = 632.02

END SP.CUT DITCH RT
BEGIN LAT.V DITCH RT
-Y9- STA.53+33.00
EL = 629.70

PI = 53+33.00
EI = 626.31

END LAT.V DITCH RT
-Y9- STA.54+00.00
EL = 632.79

END SP.CUT DITCH LT
-Y9- STA.54+50.00
EL = 633.36

BEGIN SP.CUT DITCH RT
-Y9- STA.58+50.00
EL = 640.29

END SP.CUT DITCH RT
BEG.LAT.V DITCH RT

END LAT.V DITCH RT
-Y9- STA.60+96.15
EL = 639.10

PIPE HYDRAULIC DATA
-Y9- STA.60+73

DRAINAGE AREA	= 18.06	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 56.2	CFS
DESIGN HW ELEVATION	= 642.64	FT
100 YEAR DISCHARGE	= 58.6	CFS
100 YEAR HW ELEVATION	= 642.74	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

670 660 650 640 630 620 610 600 590 580

50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00

FOR -Y9- PLAN SEE SHTS. 84-86

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	173

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-Y9-

PI = 67+70.00
EL = 660.29'
VC = 830'
K = 151
V = 60 MPH

(+)1.7791%

(−)3.7060%

BM 4
ELEV=659.02'
-BL- STA. 86+23.26
149.92' RT
-Y9- STA 68+86.15
153.77' RT

PROPOSED GROUND

EXISTING GROUND

BEGIN LAT.V DITCH LT
-Y9- STA.70+00.00
EL = 646.04

(−) 5.7700%

PI = 72+00.00
EL = 634.50

(−) 7.2269%

END LAT.V DITCH LT
BEG.LAT.V DITCH RLT
-Y9- STA.74+60.00
EL = 615.71

END LAT.V DITCH LT
BEG. CHANNEL CHANGE LT
-Y9- STA.75+25.00
EL = 615.50

(−) 0.3275%

END CHANNEL CHANGE LT
-Y9- STA.76+31.00
EL = 615.15

PI = 77+25.00
EL = 624.90'
VC = 655'
K = 115
V = 55 MPH

(−)3.7060%

(+)2.0000%

BEGIN LAT.V DITCH RT
-Y9- STA.78+00.00
EL = 620.36

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 98.81	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= XXX	FT
BASE DISCHARGE	= XXX	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= XXX	FT
OVERTOPPING DISCHARGE	= XXX	CFS
OVERTOPPING FREQUENCY	= XXX	YRS
OVERTOPPING ELEVATION	= XXX	FT

64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00

590 600 610 620 630 640 650 660 670 680

END GRADE
-Y9- Sta.80+52.98=
-Y9RAB- Sta.13+58.15
EL = 631.46'

PROPOSED GROUND

(−)2.0000%

(+)2.0000%

BEGIN LAT.BASE DITCH LT
-Y9- STA.78+50.00
EL = 612.99

END LAT.BASE DITCH
-Y9- STA.80+00.00
EL = 622.00

(−) 6.6620%

30" RCP (+) 0.3000%

(+) 9.3000%

(−) 3.200%

PI = 79+50.00
EL = 617.35

(−) 1.4613%

BEGIN LAT.V DITCH RT
-Y9- STA.78+00.00
EL = 620.36

END LAT.V DITCH RT
BEGIN LAT.BASE DITCH RT
-Y9- STA.78+50.00
EL = 617.05

END LAT.BASE DITCH LT
-Y9- STA.79+00.00
EL = 611.48

BEG.CHANNEL CHANGE LT
-Y9- STA.79+06.15
EL = 609.38

CHANNEL CHANGE CONTINUES ALONG -Y9RAB-

78+00 79+00 80+00 81+00

590 600 610 620 630 640 650 660 670 680

FOR -Y9- PLAN SEE SHTS. 87-88

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	174

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-Y9RPB-

BEGIN GRADE
-Y9RPB- Sta. 10+00.00=
-L- Sta. 374+11.81
EL = 755.58'

PI = 11+80.00
EL = 758.01'
VC = 300'
K = 160
V = 60 MPH

(+)1.3500%

(−)0.5193%

EXISTING GROUND

PROPOSED GRADE

PI = 22+16.99
EL = 752.62'
VC = 450'
K = 233
V = 65 MPH

(−)0.5193%

(−)2.4500%

END LAT. BASE DITCH RT
-Y9RPB- STA.23+00.00
EL = 740.50

(−) 4.3333%

(−) 2.2000%

(−) 0.8571%

(+) 1.3333%

BEGIN LAT. BASE DITCH RT
-Y9RPB- STA.18+90.00
EL = 745.80

PI = 19+50.00
EL = 743.20

PI = 20+50.00
EL = 741.00

30" CSP

PI = 22+25.00
EL = 739.50

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

710 720 730 740 750 760 770 780 790 800

-Y9RPB-

PI = 25+60.00
EL = 744.22'
VC = 180'
K = 191
V = 70 MPH

END GRADE
-Y9RPB- Sta. 26+97.26=
-Y9LPB- Sta.19+77.70=
-Y9FLY- Sta.10+00.00
EL = 742.15'

PROPOSED GRADE

(−)2.4500%

(−)1.5090%

EXISTING GROUND

-Y9LPB-

BEGIN GRADE
-Y9LPB- Sta. 10+00.00=
-L- Sta. 390+40.82
EL.= 742.23'

PI = 11+50.00
EL = 745.08'
VC = 200'
K = 152
V = 60 MPH

(+)1.9000%

(+)0.5884%

EXISTING GROUND

PI = 15+30.00
EL = 747.32'
VC = 500'
K = 238
V = 65 MPH

(+)0.5884%

(−)1.5090%

PROPOSED GRADE

END GRADE
-Y9LPB- Sta. 19+77.70=
-Y9RPB- Sta.26+97.26=
-Y9FLY- Sta.10+00.00
EL.= 740.56'

(−) 0.9375%

(−)6.4213%

BEGIN LAT. BASE DITCH RT
-Y9LPB- STA.16+90.00
EL = 741.00

PI = 18+50.00
EL = 739.50

END LAT. BASE DITCH RT
-Y9LPB- STA.19+77.70
EL = 731.30

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00

680 690 700 710 720 730 740 750 760 770

FOR –Y9RPB– PLAN SEE SHTS. 29–30
FOR –Y9LPB– PLAN SEE SHT. 30

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-Y9RPC-

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	175

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

BEGIN GRADE
-Y9RPC- Sta. 10+00.00=
-L- Sta. 386+90.73
EL = 748.88'

PI = 11+00.00
EL = 746.98'
VC = 200'
K = 400
V = >80 MPH

PI = 14+90.00
EL = 737.62'
VC = 230'
K = 153
V = 60 MPH

(-)11.9000%

(-)12.4000%

(-)12.4000%

(-)13.9000%

EXISTING GROUND

PROPOSED GRADE

BEGIN SP.CUT DITCH LT
-Y9RPC- STA.19+00.00
EL = 718.06

END SP.CUT DITCH LT
BEGIN LAT.BASE DITCH LT
-Y9RPC- STA.19+50.00
EL = 716.19

BEGIN SP.CUT DITCH RT
-Y9RPC- STA.20+00.00
EL = 713.69

END SP.CUT DITCH RT
BEGIN LAT.BASE DITCH RT
-Y9RPC- STA.20+50.00
EL = 712.00

PI = 21+75.00
EL = 710.91'
VC = 660'
K = 116
V = 55 MPH

END LAT.BASE DITCH LT
-Y9RPC- STA.23+50.00
EL = 703.00

(-) 3.7400%

(-) 3.3800%

(-)13.9000%

(+)11.8047%

(-) 3.6667%

(-) 3.2975%

(-) 2.0833%

PI = 23+50.00
EL = 701.00

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

780 770 760 750 740 730 720 710 700 690

PIPE HYDRAULIC DATA
-Y9RPC- STA.25+21

DRAINAGE AREA	= 37.64	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 127.8	CFS
DESIGN HW ELEVATION	= 703.31	FT
100 YEAR DISCHARGE	= 134.6	CFS
100 YEAR HW ELEVATION	= 703.45	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 327.8	CFS
OVERTOPPING ELEVATION	= 715.78	FT

END GRADE
-Y9RPC- Sta. 30+94.70=
-Y9FLY- Sta. 34+55.56
EL. = 720.33'

PI = 26+60.00
EL = 719.66'
VC = 250'
K = 114
V = 55 MPH

PI = 29+20.00
EL = 718.65'
VC = 230'
K = 170
V = 65 MPH

(+)11.8047%

(-)0.3876%

(-)0.3876%

(+)0.9616%

PROPOSED GRADE

54" RCP

(+) 4.7078%

(-) 2.0833%

(+) 1.4706%

EXISTING GROUND

PI = 24+94.00
EI = 698.00

PI = 26+30.00
EI = 700.00

END LAT BASE DITCH RT
-Y9RPC- STA.29+38.00
EL = 714.50

760 750 740 730 720 710 700 690 680 670

24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00

FOR -Y9RPC- PLAN SEE SHTS. 30 & 81

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-Y9RPD-

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HYDRAULICS ENGINEER

PRELIMINARY PLANS
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PIPE HYDRAULIC DATA
-Y9RPD- STA. 16+91

DRAINAGE AREA	= 9.51	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 35.0	CFS
DESIGN HW ELEVATION	= 696.35	FT
100 YEAR DISCHARGE	= 36.6	CFS
100 YEAR HW ELEVATION	= 696.44	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

760 750 740 730 720 710 700 690 680 670

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

BEGIN GRADE
-Y9RPD- Sta. 10+00.00=
-L- Sta. 418+11.65
EL. = 689.58'

PI = 11+40.00
EL = 692.24'
VC = 170'
K = 340
V = 75 MPH

(+)1.9000%

(+)1.4000%

PROPOSED GRADE

(+) 4.4000%

36" RCP

EXISTING GROUND

BEGIN SP.CUT DITCH LT
-Y9RPD- STA. 17+00.00
EL = 693.50

END SP.CUT DITCH LT
-Y9RPD- STA. 17+50.00
EL = 695.70

PI = 21+40.00
EL = 706.24'
VC = 150'
K = 187
V = 70 MPH

(+)1.4000%

(+)2.2028%

760 750 740 730 720 710 700 690 680 670

24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00

-Y9A-
(STALEY'S FARM RD.)
STRUCTURE

PI = 28+80.00
EL = 722.54'
VC = 180'
K = 178
V = 60 MPH

PI = 31+18.00
EL = 725.38'
VC = 100'
K = 132
V = 55 MPH

PROPOSED GRADE

(+)2.2028%

(+)1.1934%

(+)1.1934%

(+)0.4364%

-Y9A- STA. 20+72.92 =
-Y9RPD- STA. 31+02.53

END GRADE
-Y9RPD- Sta. 31+68.15=
-Y9FLY- Sta. 40+25.00
EL. = 725.60'

EXISTING GROUND

FOR -Y9RPD- PLAN SEE SHTS. 31 & 81

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-Y9A-

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R-2536	177
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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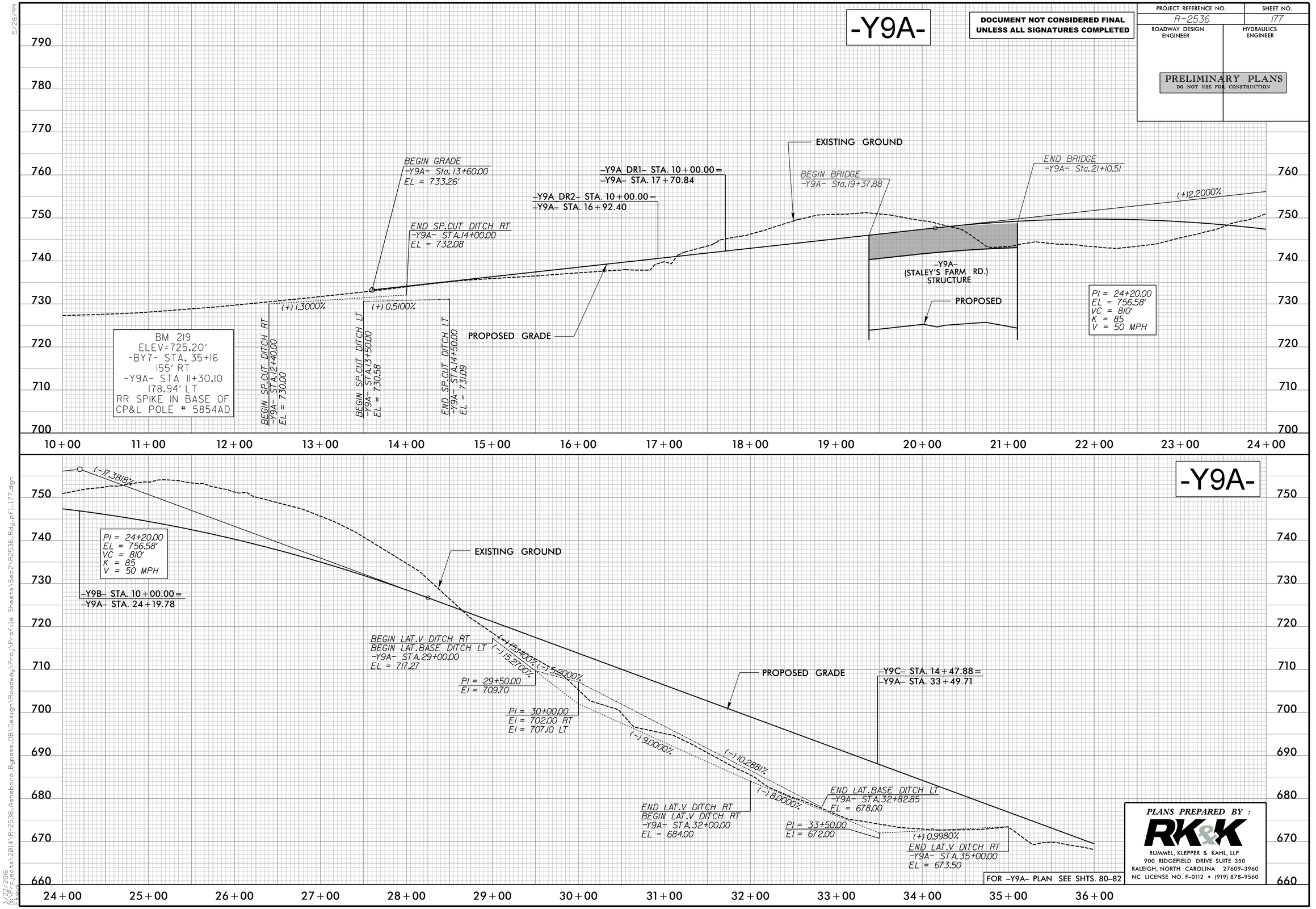

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ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
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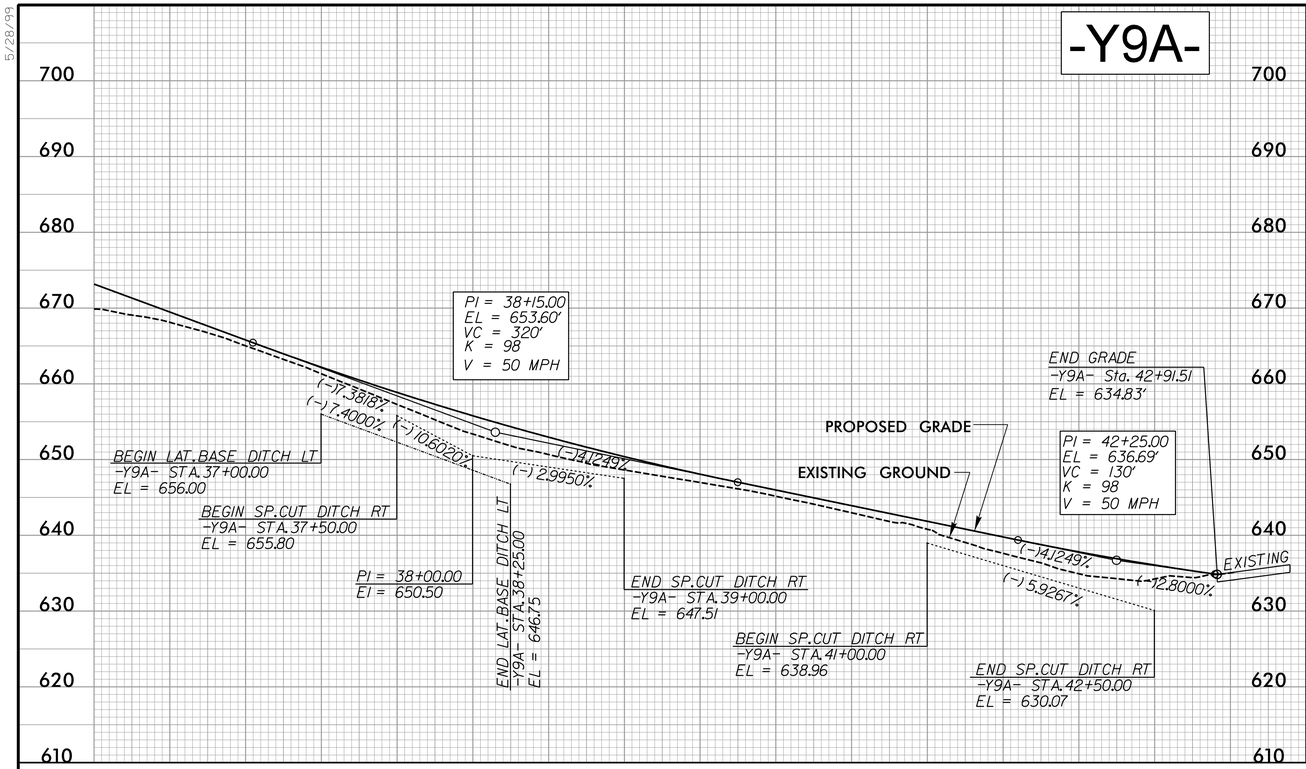
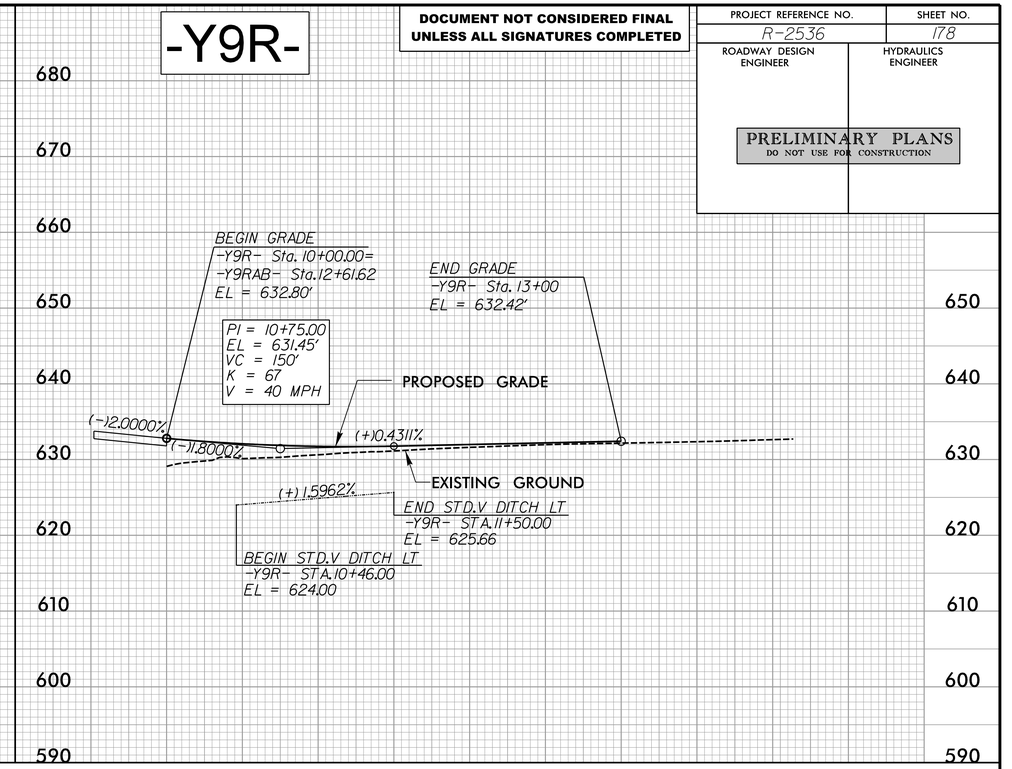
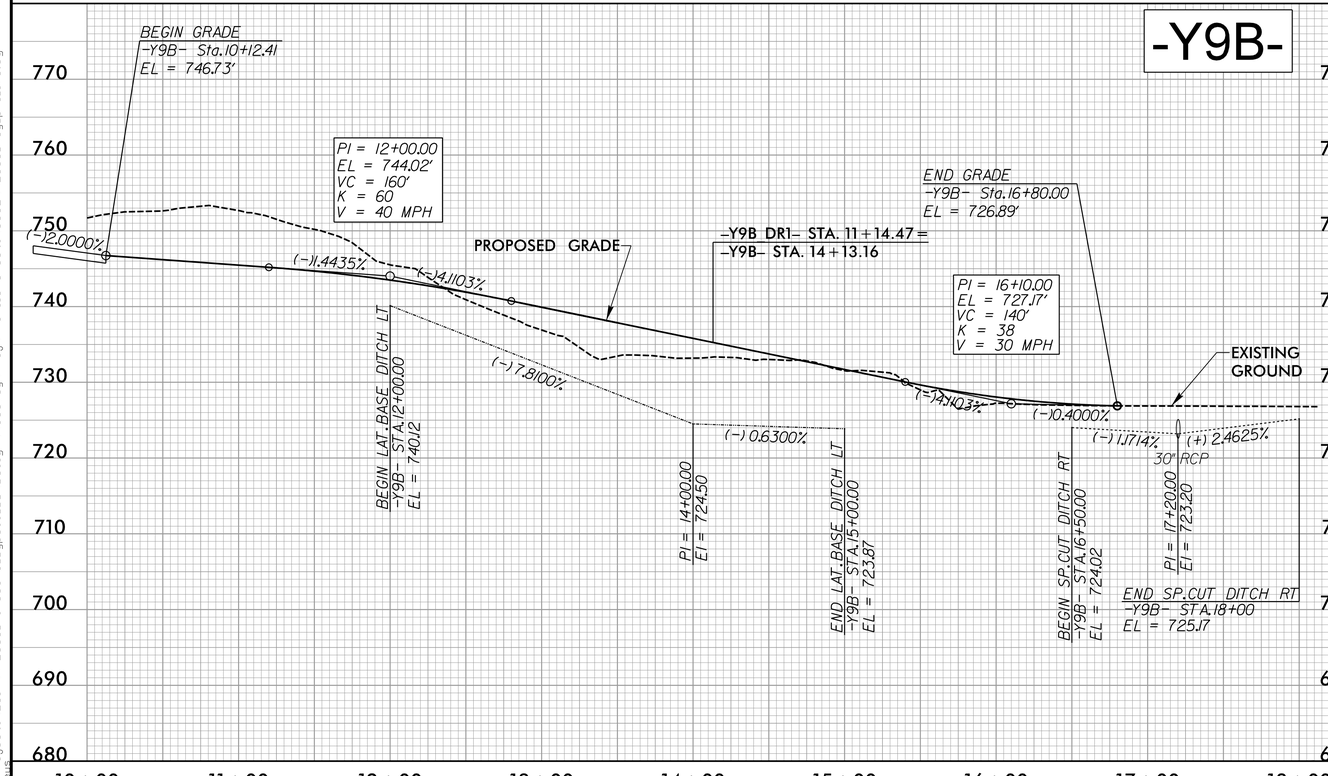
-Y9A-



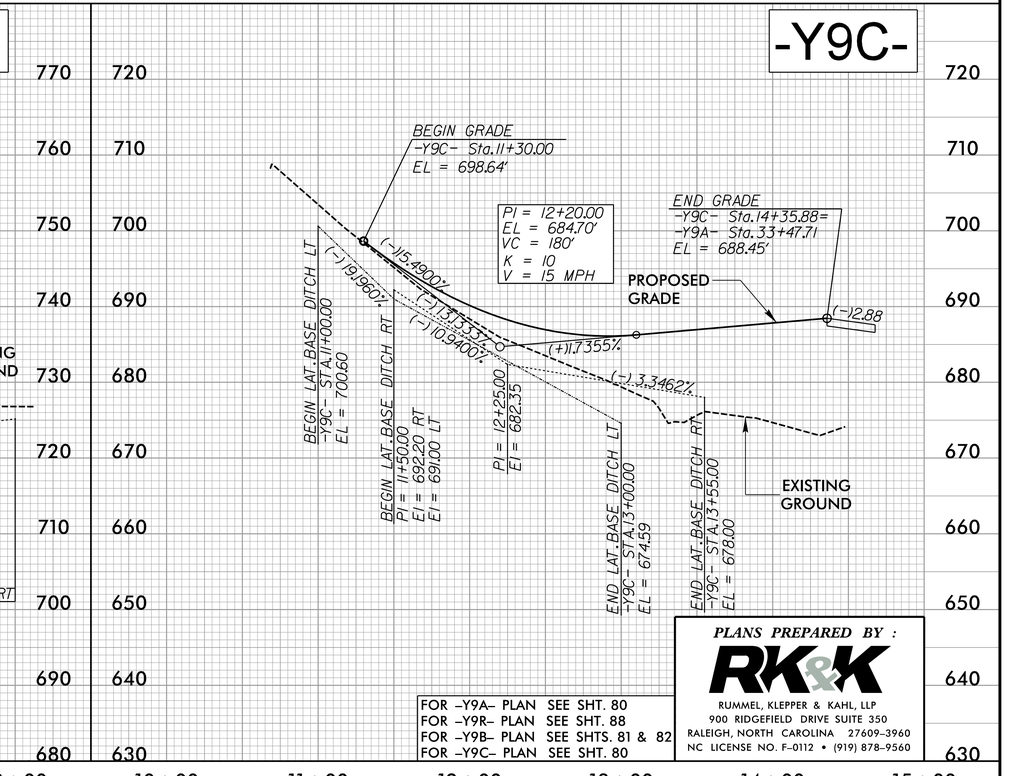
-Y9R-



-Y9B-



-Y9C-



FOR –Y9A– PLAN SEE SHT. 80
FOR –Y9R– PLAN SEE SHT. 88
FOR –Y9B– PLAN SEE SHTS. 81 & 82
FOR –Y9C– PLAN SEE SHT. 80

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R-2536	179
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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-NC159_SPUR-

BEGIN GRADE
-NC159_SPR- Sta.10+00.00=
-Y9RAB- Sta.11+87.92
EL = 631.83'

END GRADE
-NC159_SPR- Sta.15+75.00
EL = 621.26'

PROPOSED GRADE

EXISTING GROUND

(−)1.9709%

(−)1.0736%

PI = 14+90.00
EL = 622.17'
VC = 130'
K = 145
V = 60 MPH

-Y9RAB-

BEGIN GRADE
-Y9R- Sta. 10+00.00
EL = 631.82'

END GRADE
-Y9R- Sta. 13+58.15
EL = 631.82'

PI = 10+90.00
EL = 630.02'
VC = 160'
K = 38
V = 30 MPH

PI = 12+60.00
EL = 633.78'
VC = 120'
K = 28
V = 30 MPH

(−)2.0000%

(+)2.2135%

(+)2.2135%

(−)2.0000%

PROPOSED GROUND

EXISTING GROUND

-Y10-

PI = 15+70.00
EL = 679.88'
VC = 960'
K = 113
V = 50 MPH

−Y10A− STA. 10+00.00=
−Y10− STA. 17+46.27

(+)4.9361%

(−)3.5714%

BEGIN GRADE
-Y10- Sta. 10+21.00=
-Y9- Sta.19+12.65
EL = 652.78'

(+)4.9361%

(+)5.0%

PROPOSED GRADE

EXISTING GROUND

(+) 3.6000%

PI = 22+75.00
EL = 654.70'
VC = 150'
K = 278
V = 70 MPH

END GRADE
-Y10- Sta. 23+50.00
EL = 651.62'

(−)3.5714%

(−)4.1111%

(−) 3.4693%

BEGIN SP.CUT DITCH RT
-Y10- STA.23+00.00
EL = 649.71

END SP.CUT DITCH RT
-Y10- STA.23+98.78
EL = 646.28

BEGIN LAT.V DITCH RT
-Y10- STA.11+00.00
EL = 635.00

END LAT.V DITCH RT
-Y10- STA.13+50.00
EL = 644.00

FOR −Y9RAB− PLAN SEE SHT. 88
FOR −NC159_SPUR− PLAN SEE SHTS. 88
FOR −Y10− PLAN SEE SHTS. 83, 90

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-Y10_END-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	180
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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PIPE HYDRAULIC DATA
-Y10_END- STA.15+91

DRAINAGE AREA	= 11.50	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 44.4	CFS
DESIGN HW ELEVATION	= 642.30	FT
100 YEAR DISCHARGE	= 46.3	CFS
100 YEAR HW ELEVATION	= 642.45	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PIPE HYDRAULIC DATA
-Y10_END- STA.19+04

DRAINAGE AREA	= 29.10	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 110.6	CFS
DESIGN HW ELEVATION	= 644.99	FT
100 YEAR DISCHARGE	= 115.3	CFS
100 YEAR HW ELEVATION	= 645.13	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 142.7	CFS
OVERTOPPING ELEVATION	= 646.47	FT

-L-
(US 64 BYPASS)
STRUCTURES

-L- STA. 435+68.03 =
-Y10_END- STA. 17+19.59

PI = 17+65.00
EL = 645.14'
VC = 150'
K = 361
V = >80 MPH

PI = 20+40.00
EL = 647.23'
VC = 360'
K = 121
V = 50 MPH

BEGIN GRADE
-Y10_END- Sta. 14+20.00
EL = 643.95'

EXISTING GROUND

PROPOSED GRADE

BEGIN GRADE
-Y10_END- Sta. 22+20.00
EL = 653.97'

(+)0.3020%
(-)3.6000%
(+)0.3449%
(+)0.7609%
(-)1.6471%
(+)7.1033%
(+)0.7609%
(+)3.7409%
(+)4.5859%
(+)1.0567%
(+)3.2297%

PI = 15+00.00
EL = 642.60

36" RCP

(2) 30" RCP EXIST. 30" RCP

PI = 19+08.07
EL = 641.69

BEGIN SP.CUT DITCH RT
-Y10END- 14+00.00
EL = 642.30

END SP.CUT DITCH RT
-Y10END- 16+00.00
EL = 639.00

BEGIN SP.CUT DITCH RT
-Y10END- 18+00.00
EL = 643.47

BEGIN SP.CUT DITCH RT
-Y10END- 19+50.00
EL = 644.92

BEGIN SP.CUT DITCH LT
-Y10END- 21+25.00
EL = 646.82

BEGIN SP.CUT DITCH RT
-Y10END- 21+50.00
EL = 648.21

PI = 22+08.92
EL = 650.91

END SP.CUT DITCH RT
-Y10END- 22+34.00
EL = 651.72

END SP.CUT DITCH LT
-Y10END- STA.22+04.59
EL = 647.66

700 690 680 670 660 650 640 630 620 610

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

-Y10A-

BEGIN GRADE
-Y10A- Sta. 10+12.00=
-Y10- Sta.17+46.25
EL = 670.46'

PI = 11+00.00
EL = 673.30'
VC = 170'
K = 19
V = STOP CONDITION

PROPOSED GRADE

END GRADE
-Y10A- Sta. 15+30.00
EL = 649.56'

PI = 14+50.00
EL = 653.30'
VC = 150'
K = 144
V = 60 MPH

EXISTING GROUND

(+)8.0000%
(+)3.2322%
(-)5.7143%
(-)5.7143%
(-)4.6736%
(-)1.7490%

BEGIN SP.CUT DITCH RT
-Y10A- STA.15+00.00
EL = 647.30

END SP.CUT DITCH RT
-Y10A- STA.15+74.33
EL = 646.00

700 690 680 670 660 650 640 630 620 610

10+00 11+00 12+00 13+00 14+00 15+00 16+00

FOR -Y10_END- PLAN SEE SHTS. 33
FOR -Y10A- PLAN SEE SHT. 90

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-SR_Q-

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R-2536	180A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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PIPE HYDRAULIC DATA
-SR_Q- STA.13+33

DRAINAGE AREA	= 13.39	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 34.1	CFS
DESIGN HW ELEVATION	= 647.26	FT
100 YEAR DISCHARGE	= 35.6	CFS
100 YEAR HW ELEVATION	= 647.35	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 112.7	CFS
OVERTOPPING ELEVATION	= 653.96	FT

PIPE HYDRAULIC DATA
-SR_Q- STA.21+05

DRAINAGE AREA	= 15.85	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 40.4	CFS
DESIGN HW ELEVATION	= 649.32	FT
100 YEAR DISCHARGE	= 42.1	CFS
100 YEAR HW ELEVATION	= 649.44	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 133.4	CFS
OVERTOPPING ELEVATION	= 658.72	FT

BEGIN GRADE
-SR_Q- Sta. 11+00.00
EL = 653.95'

BEGIN SP.CUT DITCH RT
-SR_Q- STA.11+02.65
EL = 650.54

(-) 2.7287%

END SP.CUT DITCH RT
BEGIN LAT.BASE DITCH RT
-SR_Q- STA.11+98.76
EL = 647.92

(+) 1.3769%

PI = 13+24.00
EI = 644.50

36" CSP

(+) 4.4204%

PI = 13+98.76
EI = 645.53

END LAT.BASE DITCH RT
BEGIN SP.CUT DITCH RT
-SR_Q- STA.14+48.76
EL = 647.74

(+) 4.4204%

END SP.CUT DITCH RT
-SR_Q- STA.15+48.76
EL = 652.16

EXISTING GROUND

PROPOSED GRADE

PI = 20+38.00
EL = 657.23'
VC = 370'
K = 65
V = 40 MPH

(+)0.3500%

(+)6.0000%

BEGIN LAT.BASE DITCH RT
-SR_Q- STA.20+48.76
EL = 649.00

36" RCP

(-)17.3564%

END LAT.BASE DITCH RT
-SR_Q- STA.20+88.00
EL = 646.20

(+)6.0000%

(-)17.5000%

PI = 25+75.00
EL = 689.45'
VC = 600'
K = 44
V = 40 MPH

PROPOSED GRADE

EXISTING GROUND

PI = 34+20.00
EL = 626.08'
VC = 590'
K = 65
V = 40 MPH

(-)4.5000%

(+)1.6000%

(-) 4.1499%

(+) 10.5480%

(-) 3.8547%

BEGIN LAT.BASE DITCH RT
-SR_Q- STA.37+56.54
EL = 628.00

END LAT.BASE DITCH RT
-SR_Q- STA.37+04.00
EL = 628.10

BEGIN CHANNEL CHANGE RT
-SR_Q- STA.34+09.00
EL = 624.68

END CHANNEL CHANGE RT
BEGIN LAT.BASE DITCH RT
-SR_Q- STA.35+97.44
EL = 616.86

FOR -SR_Q- PLAN SEE SHTS. 85 – 87

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-SR_Q-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	180B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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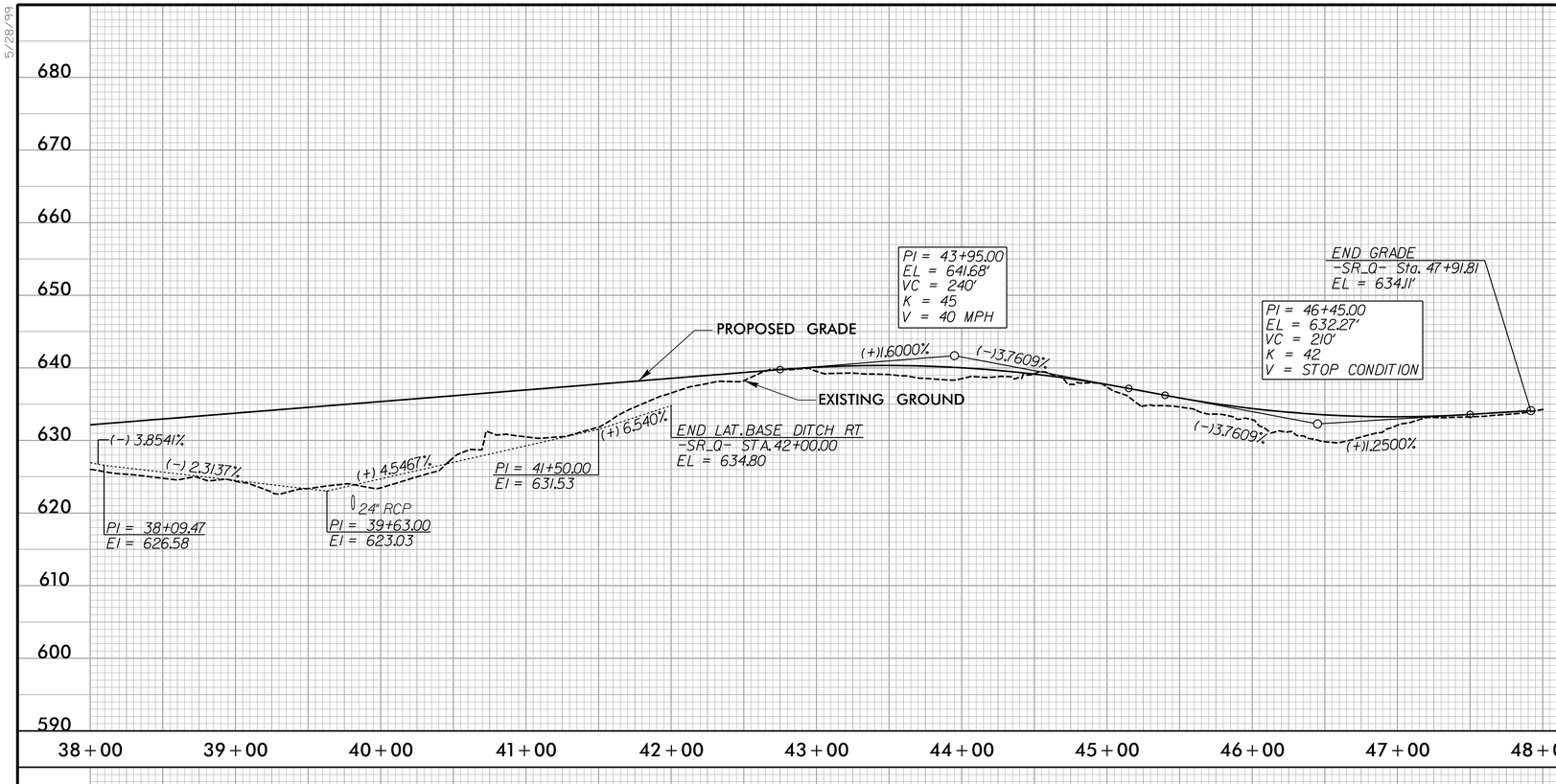

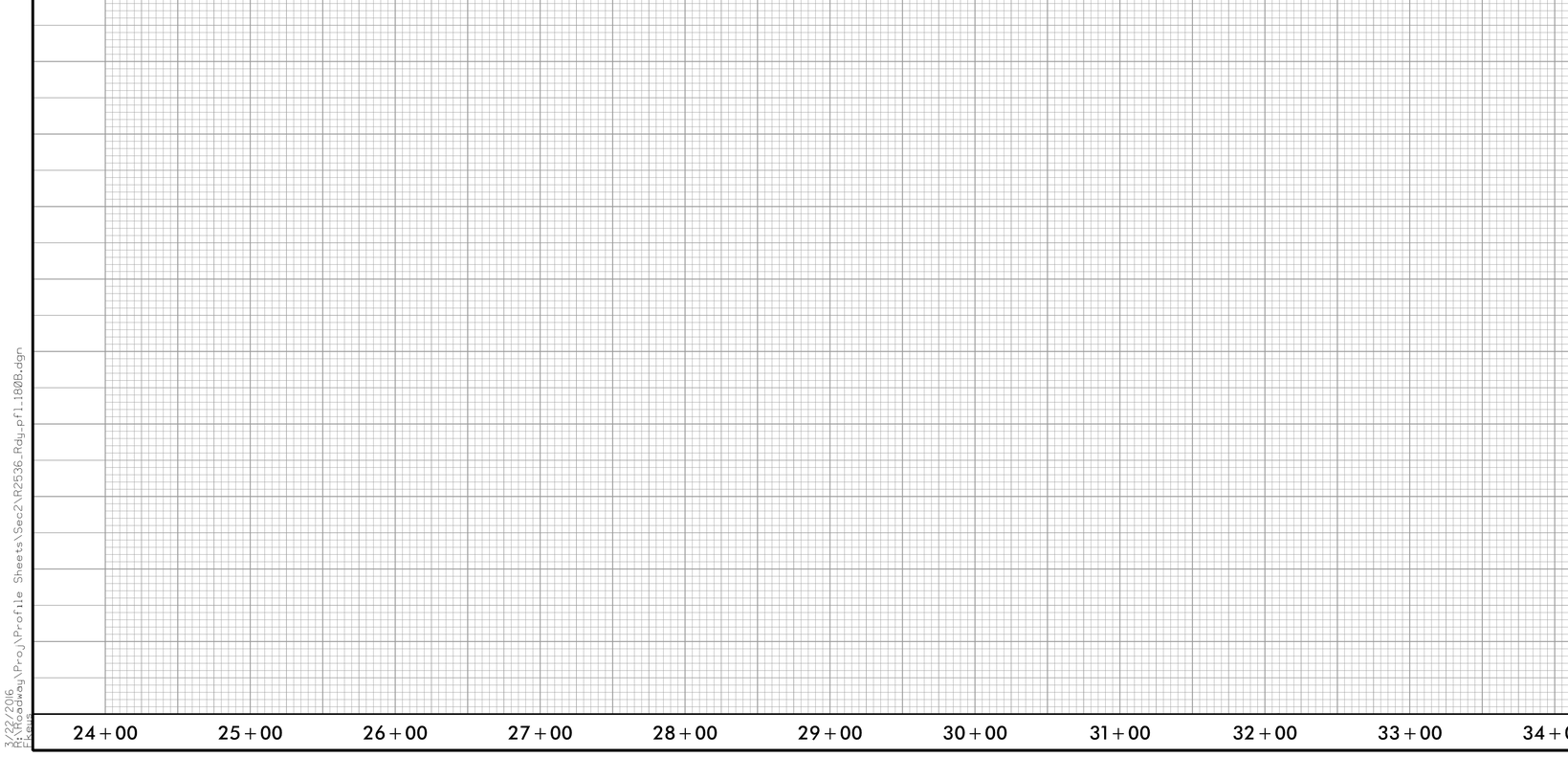

FOR –SR_Q– PLAN SEE SHTS. 87 – 88A

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-SERRD1-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	180C
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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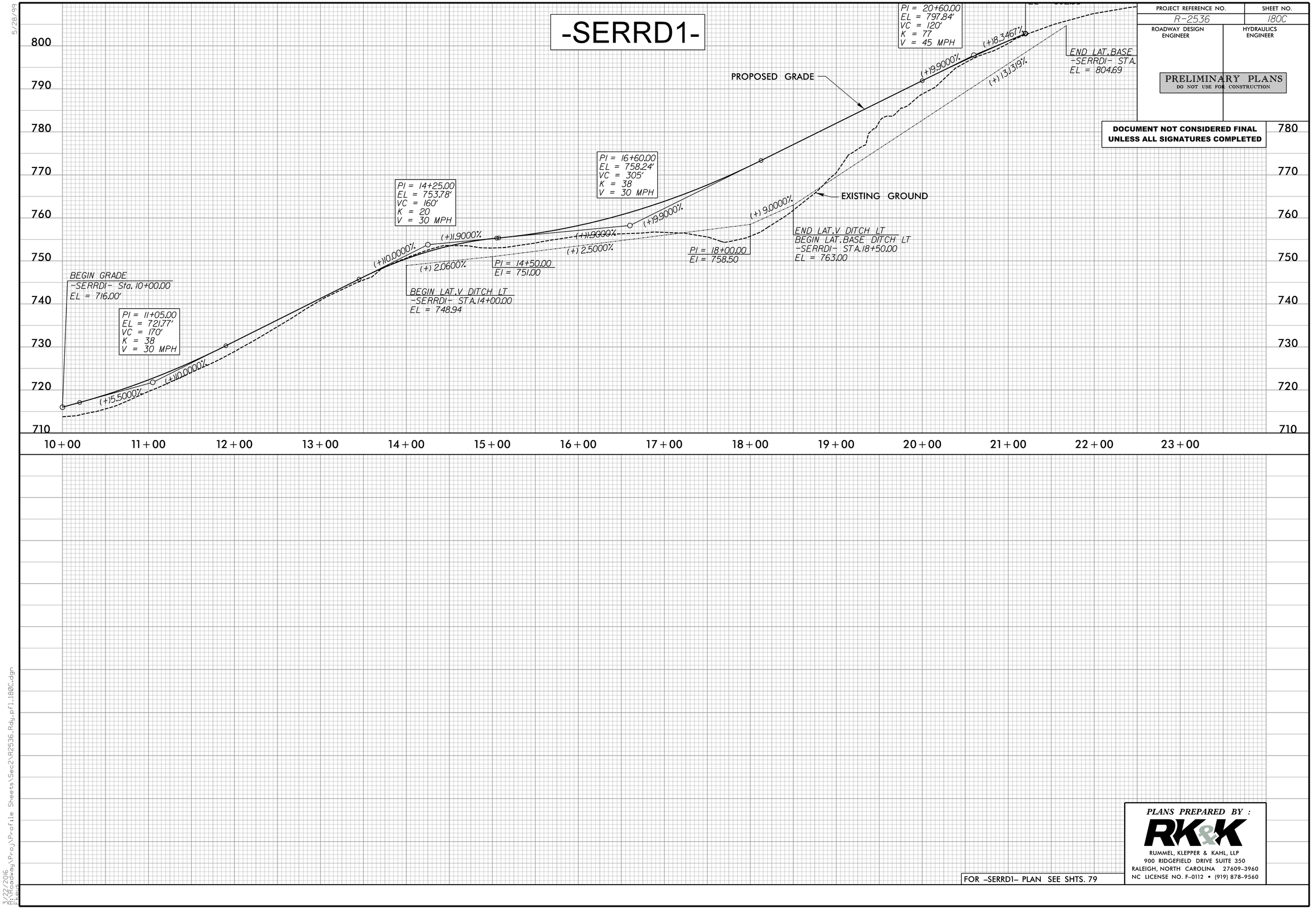

FOR -SERRD1- PLAN SEE SHTS. 79

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-SERRD3-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	181
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
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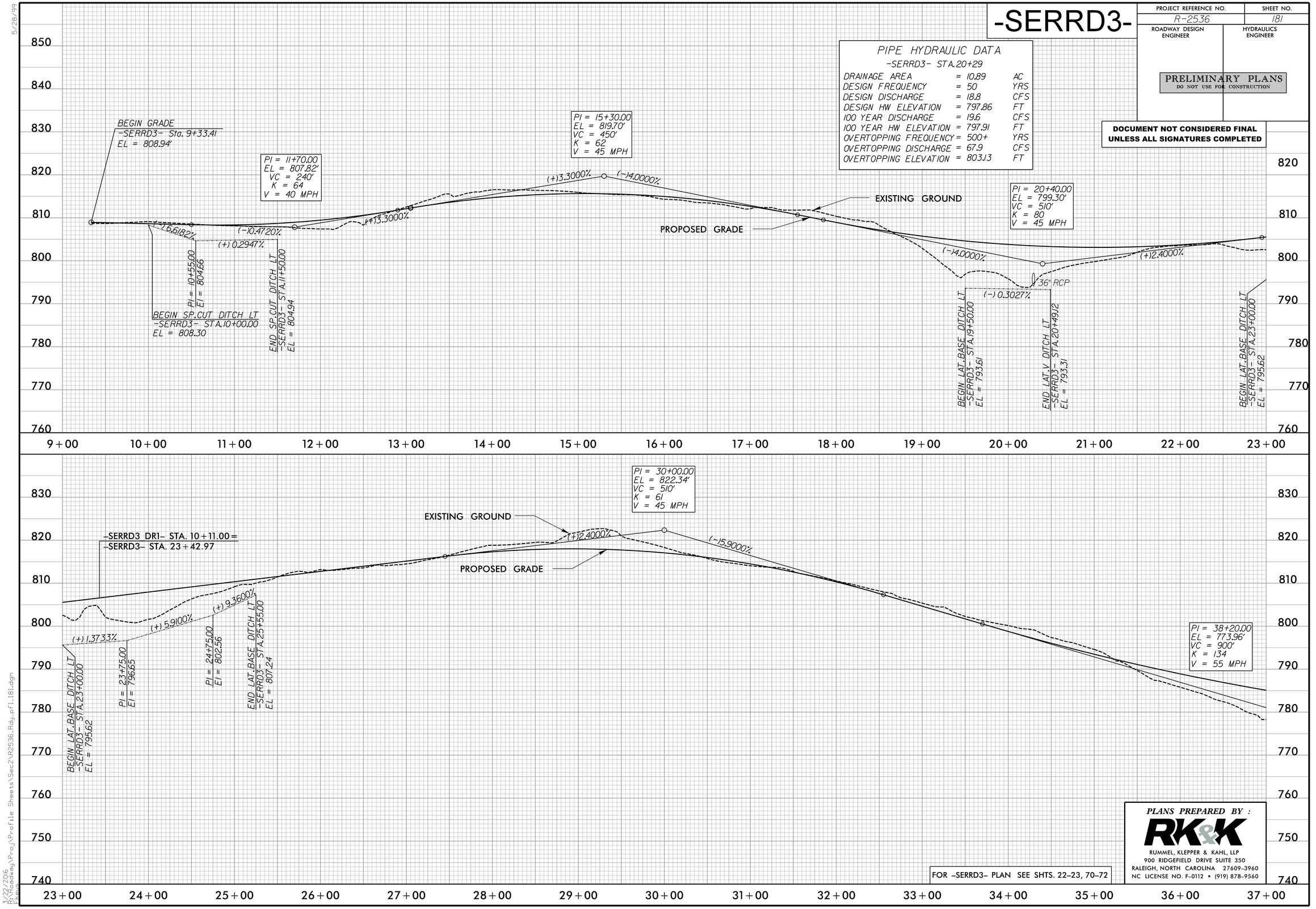
PIPE HYDRAULIC DATA
-SERRD3- STA. 20+29

DRAINAGE AREA	= 10.89	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 18.8	CFS
DESIGN HW ELEVATION	= 797.86	FT
100 YEAR DISCHARGE	= 19.6	CFS
100 YEAR HW ELEVATION	= 797.91	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 67.9	CFS
OVERTOPPING ELEVATION	= 803.13	FT



FOR -SERRD3- PLAN SEE SHTS. 22–23, 70–72

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-SERRD3-

PI = 38+20.00
EL = 773.96'
VC = 900'
K = 134
V = 55 MPH

PI = 40+32.00
EL = 772.90

BEGIN STD.V DITCH RT
-SERRD3- STA. 39+80.00
EL = 774.51

END STD.V DITCH LT
-SERRD3- STA. 41+35.00
EL = 773.18

EXISTING GROUND

PROPOSED GRADE

(−)5.9000%
(+)0.8000%
(−) 2.8786%
(+) 0.3000%
(−) 1.5660%
(−) 1.5660%
(+) 1.7429%
(+)0.8000%
(−)0.4786%
(+) 0.3226%

BEGIN LAT.BASE DITCH LT
-SERRD3- STA. 37+26.00
EL = 770.49

END LAT.BASE DITCH LT
-SERRD3- STA. 38+85.00
EL = 768.00

BEGIN LAT.V DITCH LT
-SERRD3- STA. 40+82.00
EL = 762.16

END LAT.V DITCH LT
-SERRD3- STA. 41+87.00
EL = 763.99

END GRADE
-SERRD3- Sta. 46+40.56
EL = 778.60'

PI = 44+90.00
EL = 779.32'
VC = 150'
K = 118
V = 55 MPH

BEGIN SP.CUT DITCH RT
-SERRD3- STA. 43+99.00
EL = 776.17

END SP.CUT DITCH RT
-SERRD3- STA. 45+85.00
EL = 776.77

820 810 800 790 780 770 760 750 740 730

37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00

-SERRD3_DR1-

BEGIN GRADE
-SERRD3_DR1- Sta. 10+11.00=
-SERRD3- Sta. 23+42.97
EL = 806.02'

PROPOSED GRADE

END GRADE
-SERRD3_DR1- Sta. 12+00.00
EL = 788.93'

PI = 11+70.00
EL = 790.40'
VC = 60'
K = 12
V = 15 MPH

(−)19.8239%

EXISTING GROUND

(−)4.9000%

820 810 800 790 780 770 760

840 830 820 810 800 790 780 770 760

10+00 11+00 12+00 13+00

PROJECT REFERENCE NO.	SHEET NO.
R-2536	182
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PRELIMINARY PLANS
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-Y6_DET-

PI = 16+60.00
EL = 857.12'
VC = 270'
K = 115
V = 55 MPH

EXISTING GROUND

BEGIN GRADE
-Y6_DET- Sta. 11+54.21
EL = 850.14'

(+)1.3800%
(−)0.9600%

PROPOSED GRADE

END GRADE
-Y6_DET- Sta. 21+12.08
EL = 852.78'

900 890 880 870 860 850 840 830 820 810

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

FOR –SERRD3– PLAN SEE SHT. 72
FOR –SERRD3_DR1– PLAN SEE SHT. 70
FOR –Y6_DET– PLAN SEE SHT. 2B–2

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-SERRD5-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	183
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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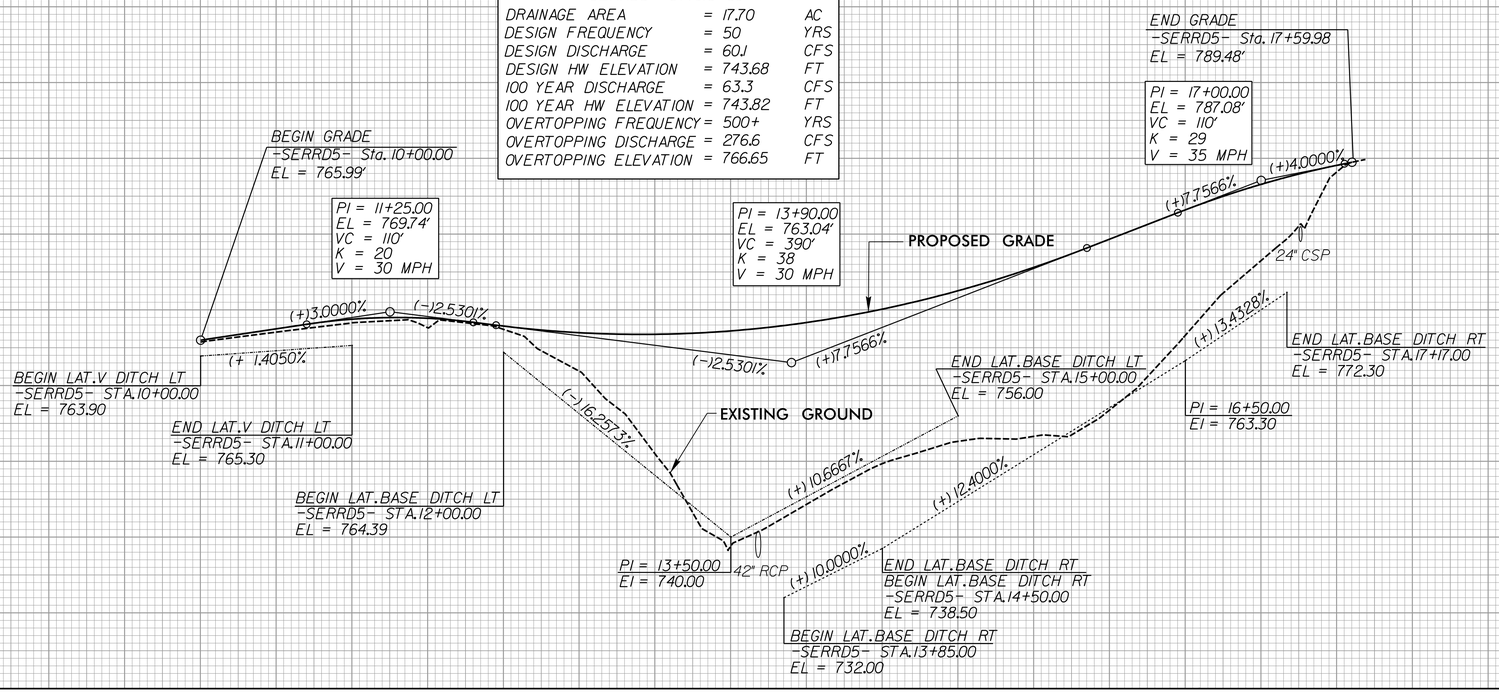
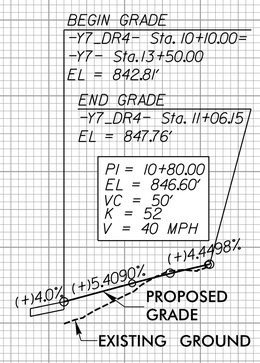
PIPE HYDRAULIC DATA
-SERRD5- STA.13+68

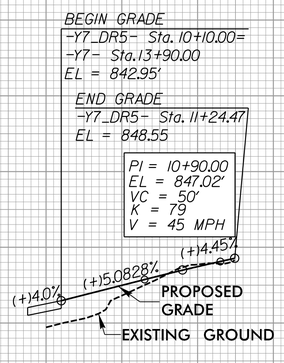
DRAINAGE AREA	= 17.70	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 601	CFS
DESIGN HW ELEVATION	= 743.68	FT
100 YEAR DISCHARGE	= 63.3	CFS
100 YEAR HW ELEVATION	= 743.82	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 276.6	CFS
OVERTOPPING ELEVATION	= 766.65	FT



-Y7_DR4-



-Y7_DR5-



FOR –Y7_DR4– PLAN SEE SHT. 77
FOR –Y7_DR5– PLAN SEE SHT. 77
FOR –SERRD5– PLAN SEE SHT. 79

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	184
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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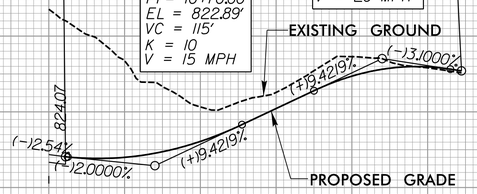
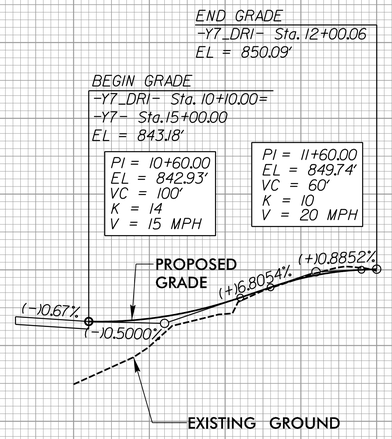
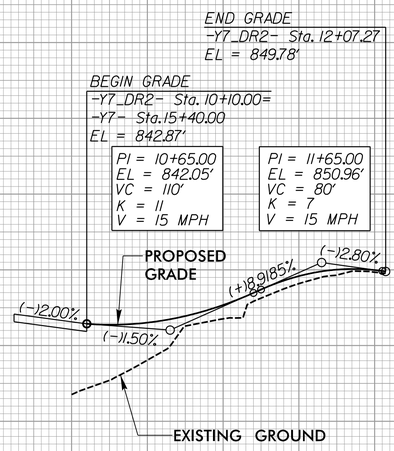
-Y5_DR1-



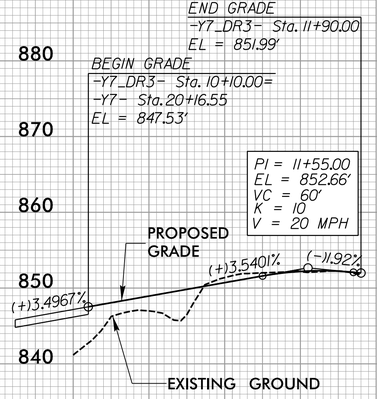
-Y7_DR1-



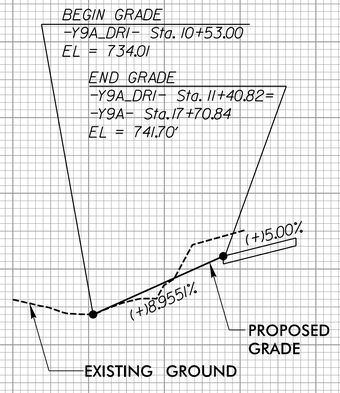
-Y7_DR2-



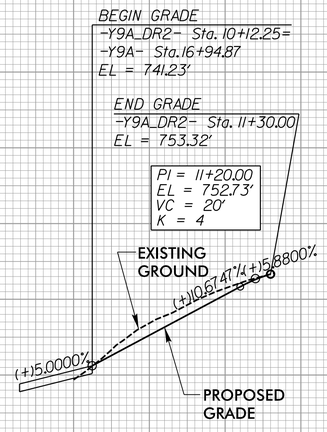
-Y7_DR3-



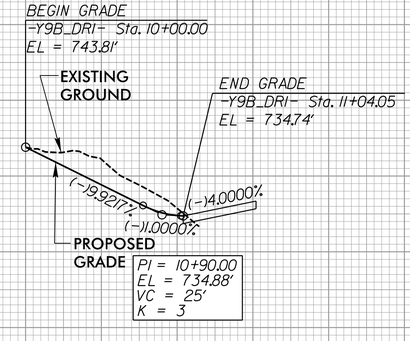
-Y9A_DR1-



-Y9A_DR2-



-Y9B_DR1-



FOR –Y5_DR1– PLAN SEE SHT. 74
FOR –Y7_DR1– PLAN SEET SHT. 77
FOR –Y7_DR2– PLAN SEE SHT. 77
FOR –Y7_DR3– PLAN SEE SHT. 26
FOR –Y9A_DR1– PLAN SEE SHT. 81
FOR –Y9A_DR2– PLAN SEE SHT. 81
FOR –Y9B_DR1– PLAN SEE SHT. 81

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PROJ. REFERENCE NO.	SHEET NO.
R-2536	X-0

US 64 BYPASS
RANDOLPH COUNTY

T.I.P. PROJECT R-2536

STATE PROJECT # 34450.3.S1

LINE	SHEET NO.	LINE	SHEET NO.
-L-	X-1 THRU X-149	-Y9RPC-	X-363 THRU X-366
-Y3-	X-150 THRU X-155	-Y9RPD-	X-367 THRU X-373
-Y4-	X-156 THRU X-189	-Y9R-	X-374 THRU X-375
-Y4RPA-	X-190 THRU X-196	-Y9RAB-	X-376 THRU X-377
-Y4LPA-	X-197	-Y10-	X-378 THRU X-383
-Y4RPB-	X-198 THRU X-202	-Y10_END-	X-384 THRU X-387
-Y4LPB-	X-203 THRU X-204	-Y10A-	X-388 THRU X-389
-Y4RPC-	X-205 THRU X-208	-NC159_SPUR-	X-390 THRU X-392
-Y4LPC-	X-209 THRU X-210	-Y5_DR1-	X-393 THRU X-394
-Y4RPD-	X-211 THRU X-216	-Y7_DR1-	X-395
-Y4LPD-	X-217	-Y7_DR2-	X-396
-Y5-	X-218 THRU X-240	-Y7_DR3-	X-397
-Y5A-	X-241 THRU X-242	-Y7_DR4-	X-398
-Y6-	X-243 THRU X-249	-Y7_DR5-	X-399
-Y7-	X-250 THRU X-256	-Y9A_DR1-	X-400
-Y8-	X-257 THRU X-264	-Y9A_DR2-	X-401
-Y9-	X-265 THRU X-304	-Y9B_DR1-	X-402
-Y9A-	X-305 THRU X-320	-SERRD1-	X-403 THRU X-407
-Y9B-	X-321 THRU X-324	-SERRD3-	X-408
-Y9C-	X-325 THRU X-326	-SERRD3_DR1-	X-409
-Y9D-	X-327	-SERRD5-	X-410 THRU X-413
-Y9FLY-	X-328 THRU X-354	-SR_Q-	X-414 THRU X-416
-Y9RPB-	X-355 THRU X-360	-Y3_DET-	X-417 THRU X-422
-Y9LPB-	X-361 THRU X-362	-Y6_DET-	X-423 THRU X-428

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	R-2536	X-1

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

820 815 810 805 800 795 790 785 780 775

2:1 799.61 6:1 0.020 6:1 6:1 0.020 6:1 5.11:1

785.00 785.00

D.P. 786.047

211 + 00.00

820 815 810 805 800 795 790 785 780 775

2:1 798.20 6:1 0.020 6:1 6:1 0.020 6:1 5.61:1

783.80 783.80

D.P. 784.847

210 + 50.00

820 815 810 805 800 795 790 785 780 775

2:1 797.15 6:1 0.020 6:1 6:1 0.020 6:1 2.19:1

782.60 782.60

D.P. 783.647

210 + 00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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	R-2536	X-2

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815 810 805 800 795 790 785 780

2:1 6:1 0.020 6:1 6.152:1 0.008 5:1 3:1

797.12

789.63 789.31

D.P. 790.676

213+00.00

810 805 800 795 790 785 780

2:1 6:1 0.020 6:1 6.010:1 0.019 6:1 2.13:1

800.36

788.54 788.56

D.P. 789.589

212+50.00

820 815 810 805 800 795 790 785 780

2:1 6:1 0.020 6:1 6:1 0.020 6:1 3.01:1

801.10

787.40 787.40

D.P. 788.442

212+00.00

820 815 810 805 800 795 790 785 780

2:1 6:1 0.020 6:1 6:1 0.020 6:1 5.62:1

800.12

786.20 786.20

D.P. 787.247

211+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-3

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

820 815 810 805 800 795 790 785

2:1 6:1 0.046 6:1 6.692:1 0.046 6:1 2:1

809.75

793.40 795.86

D.P. 795.378

215 + 50.00

815 810 805 800 795 790 785 780

2:1 6:1 0.035 6:1 6.961:1 0.035 5:1 6:1

801.77

792.96 794.11

D.P. 794.522

215 + 00.00

805 800 795 790 785 780

2:1 6:1 0.024 6:1 6.665:1 0.024 4:1

794.09

792.42

D.P. 793.607

214 + 50.00

800 795 790 785 780

2:1 6:1 0.020 6:1 6.456:1 0.013 3:1

791.63

D.P. 792.672

787.68

214 + 00.00

800 795 790 785

2:1 6:1 0.020 6:1 6.301:1 0.003 4:1

793.65

790.66

D.P. 791.704

213 + 50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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	R-2536	X-4

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

840 835 830 825 820 815 810 805 800 795 790 785 780

820.90

2:1 6:1 6:1 0.050 6:1 6.839:1 0.050 6:1 2:1

795.27 798.00

D.P. 797.418

217 + 00.00

830 825 820 815 810 805 800 795 790

819.20

2:1 6:1 6:1 0.050 6:1 6.839:1 0.050 6:1 2:1

794.66 797.39

D.P. 796.805

216 + 50.00

830 825 820 815 810 805 800 795 790

815.40

2:1 6:1 6:1 0.050 6:1 6.839:1 0.050 6:1 2:1

793.99 796.72

D.P. 796.133

216 + 00.00

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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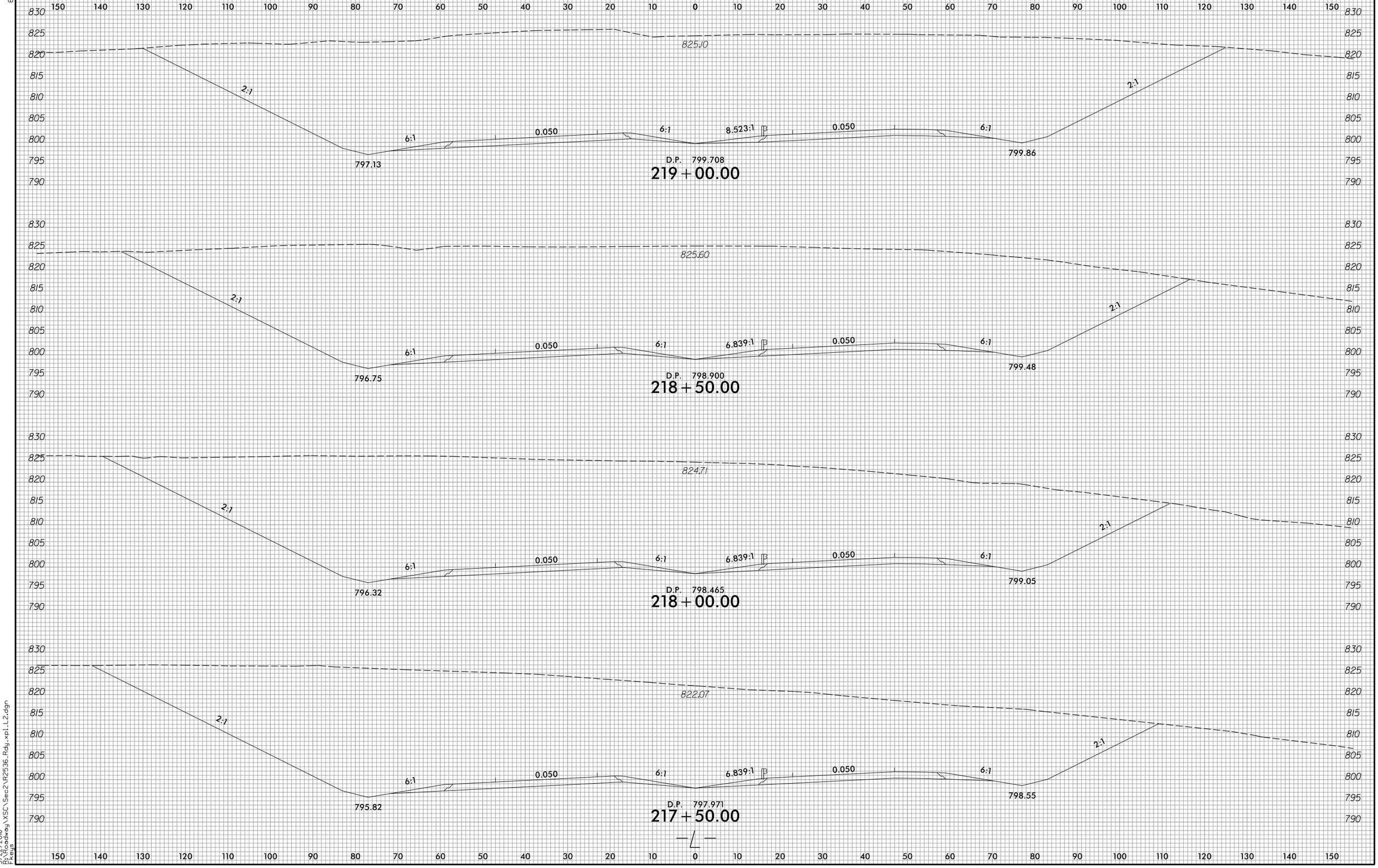
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-5



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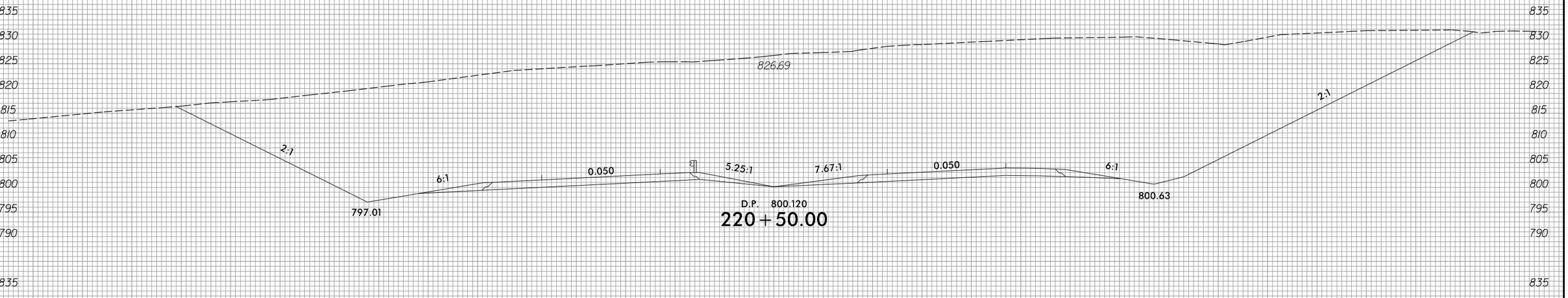
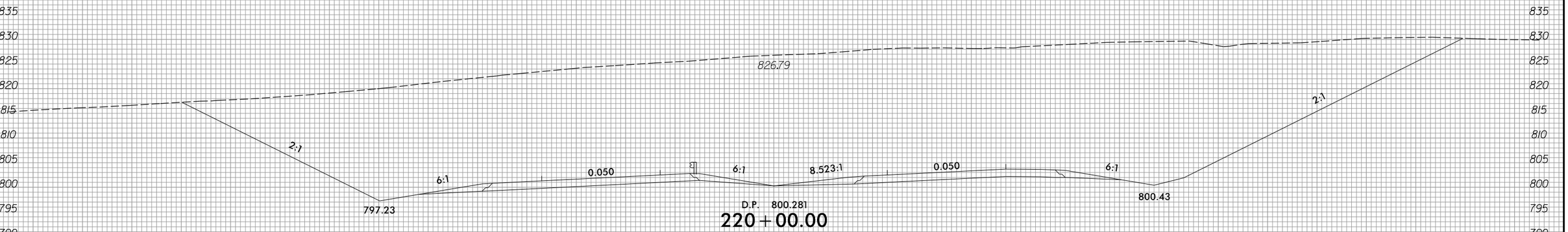
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-6

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



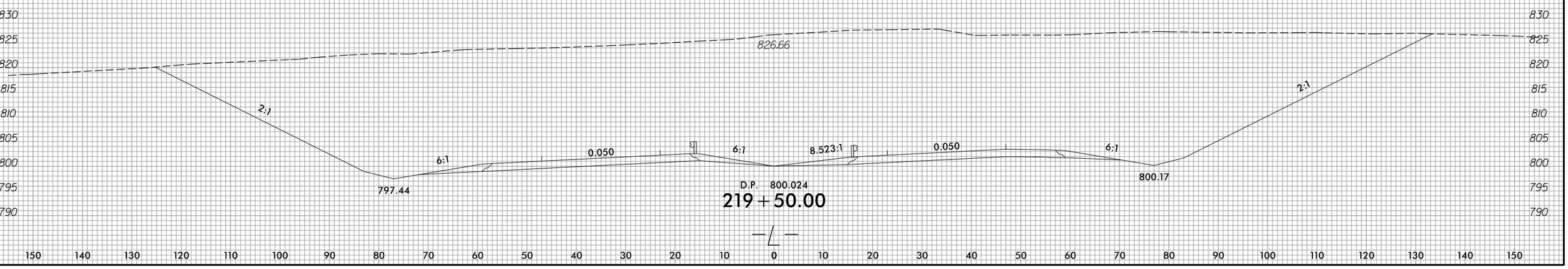
D.P. 800.120

220 + 50.00



D.P. 800.281

220 + 00.00



D.P. 800.024

219 + 50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-7

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

840 835 830 825 820 815 810 805 800 795 790

823.88

2:1 6:1 0.050 4.4:1 6.15:1 0.050 6:1 2:1

796.58 800.44

D.P. 799.790

221+50.00

835 830 825 820 815 810 805 800 795 790 785

825.09

2:1 6:1 0.050 4.74:1 6.73:1 0.050 6:1 2:1

796.80 800.61

D.P. 799.950

221+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-8

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

840 835 830 825 820 815 810 805 800 795 790

825.04

2:1 6:1 0.050 4:1 5.51:1 0.050 6:1 2:1

796.15 800.09

D.P. 799.450

222 + 50.00

840 835 830 825 820 815 810 805 800 795 790 785 780 775 770 765

825.07

2:1 6:1 0.050 4.17:1 5.76:1 0.050 6:1 2:1

796.37 800.26

D.P. 799.620

222 + 00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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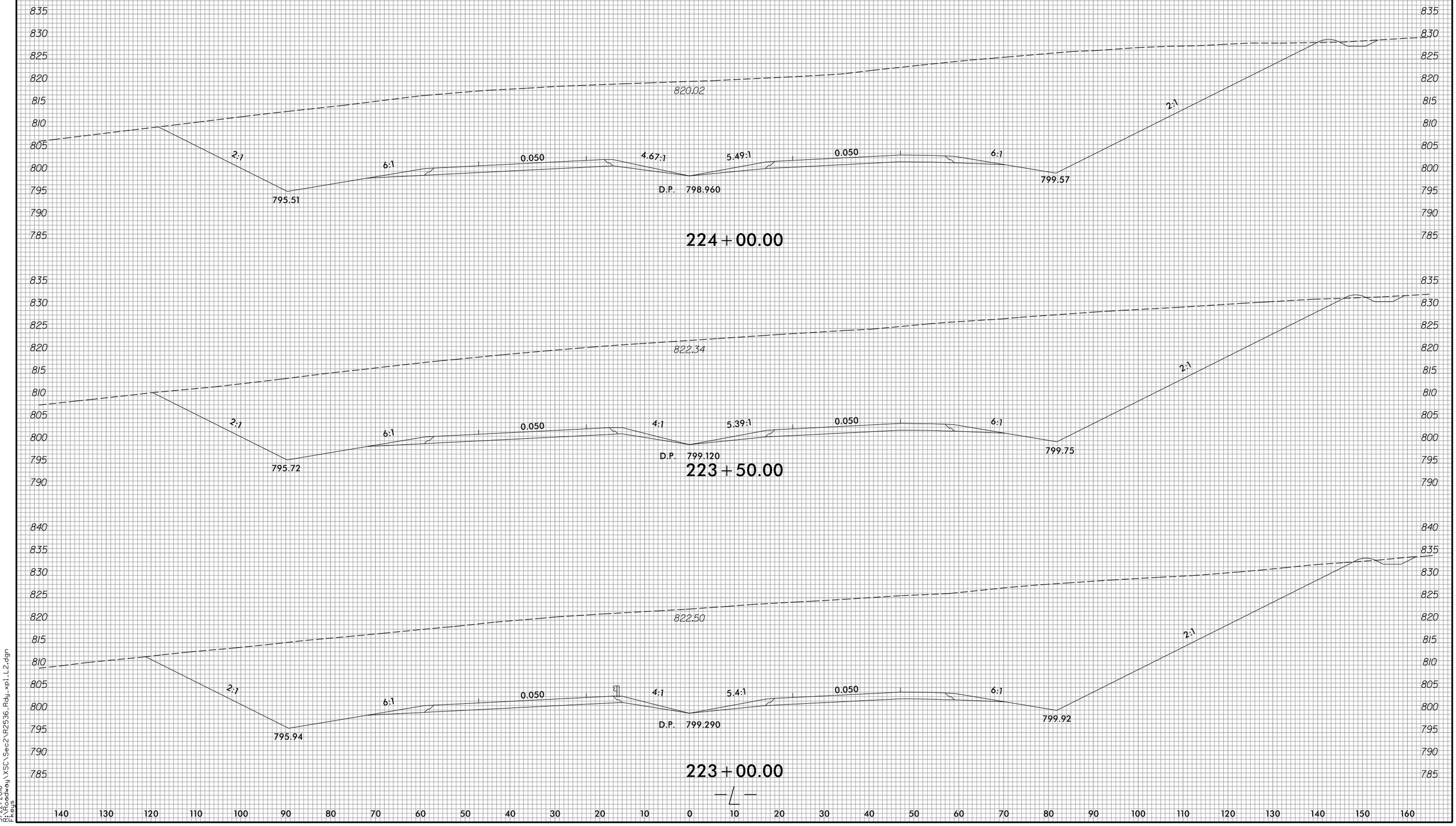
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-9



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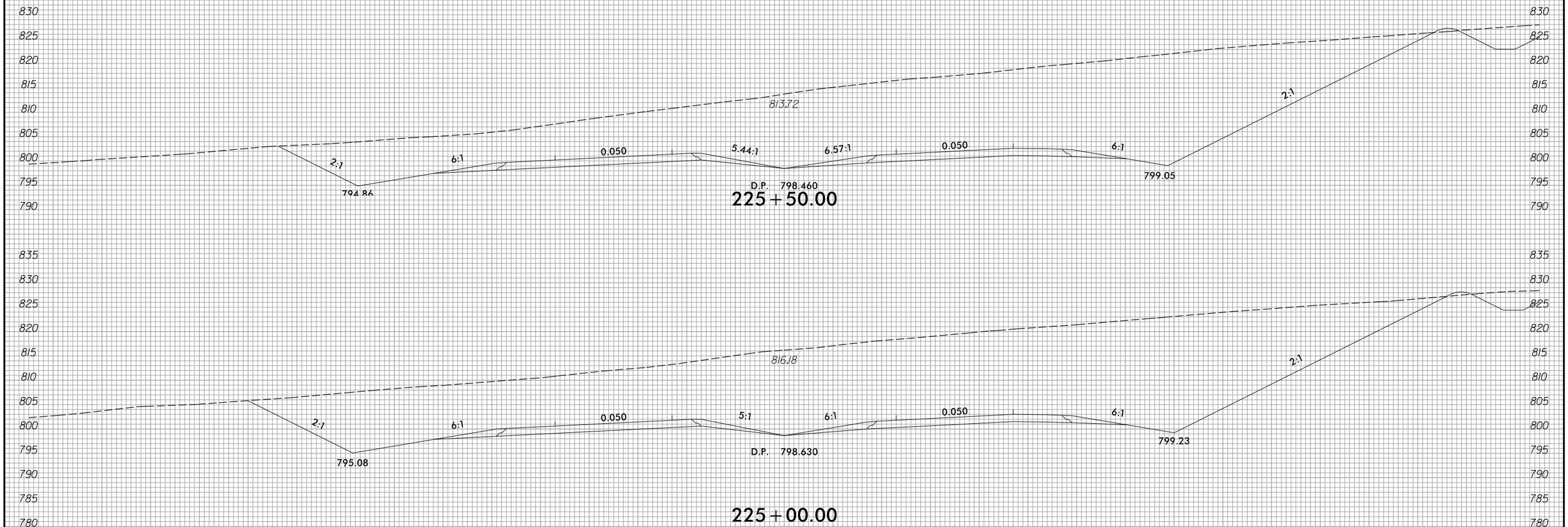
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-10

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



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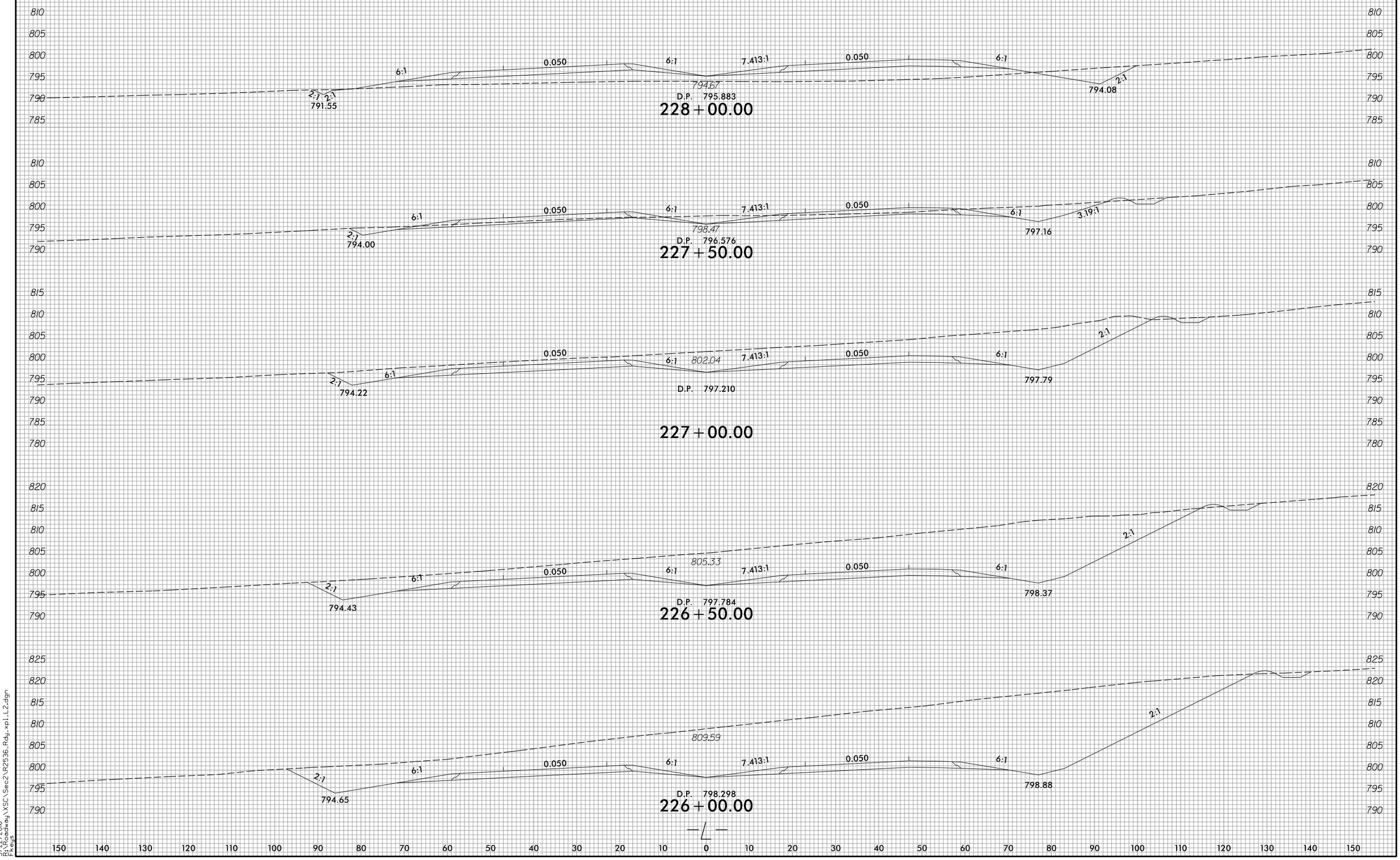
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-11



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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-12

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

805 800 795 790 785 780

3.81:1 | 0.050 | 6:1 | 7.413:1 | 0.050 | 6:1 | 2.31:1

790.20

D.P. 791.530

792.11

230+50.00

805 800 795 790 785 780 775 770

3.57:1 | 0.050 | 6:1 | 7.413:1 | 0.050 | 6:1 | 2.10:1

790.99

D.P. 792.519

793.10

230+00.00

810 805 800 795 790 785 780

3.45:1 | 0.050 | 6:1 | 7.413:1 | 0.050 | 6:1 | 3.45:1

D.P. 793.449

790.78

2:1 2:1

784.19

794.03

229+50.00

805 800 795 790 785 780

4.01:1 | 0.050 | 6:1 | 7.413:1 | 0.050 | 6:1

D.P. 794.320

789.35

2:1 2:1

786.64

794.90

229+00.00

805 800 795 790 785

5.48:1 | 0.050 | 6:1 | 7.413:1 | 0.050 | 6:1 | 2:1 | 2:1

D.P. 795.131

791.36

2:1 2:1

789.10

791.00

228+50.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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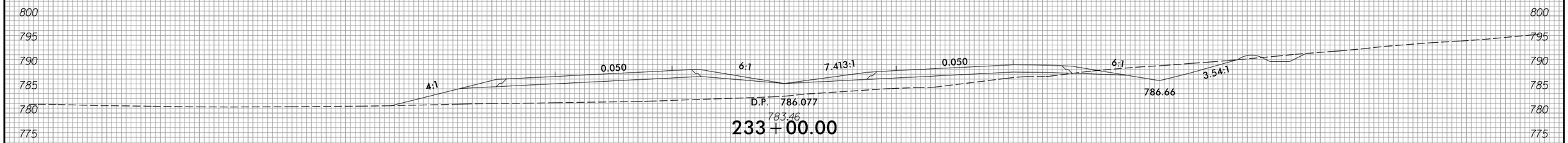
tkeys

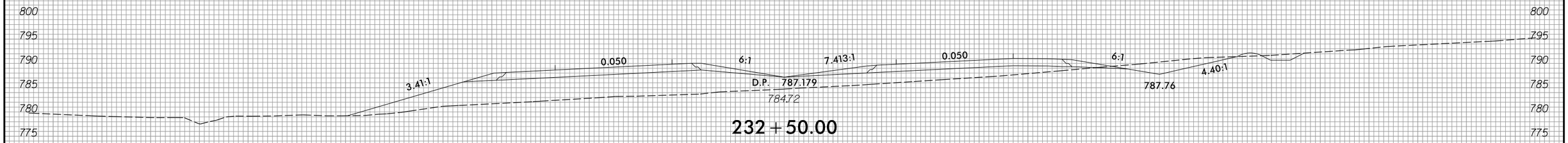
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-13

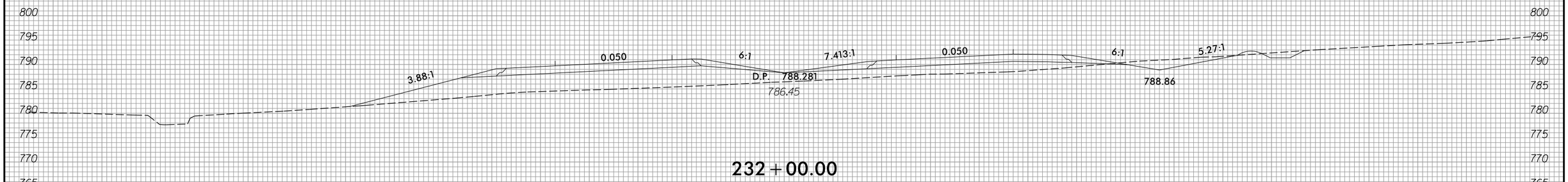
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



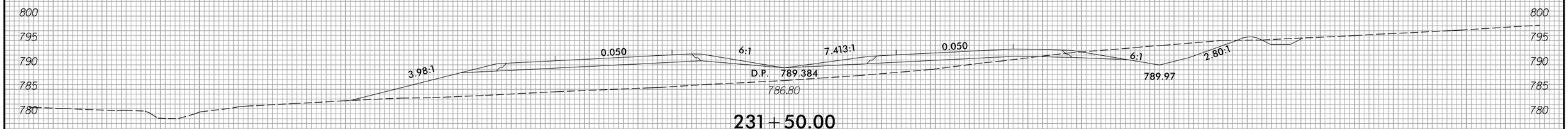
233 + 00.00



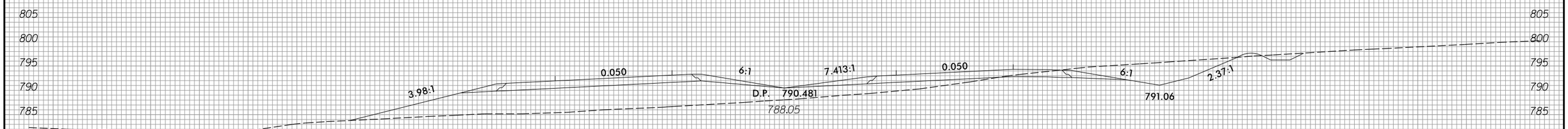
232 + 50.00



232 + 00.00



231 + 50.00



231 + 00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_L2.dgn
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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-14

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765

0.050 6:1 7.413:1 0.050

3.62:1 2:1 772.33 2:1 3:1

D.P. 780.566

773.08

235+50.00

790 785 780 775 770 765

0.050 6:1 7.413:1 0.050

3.59:1 2:1 773.20 2:1 4:1 2:1 776.36 2:1

D.P. 781.668

774.24

235+00.00

795 790 785 780 775 770

WETLAND

WETLAND

0.050 6:1 7.413:1 0.050

3.39:1 2:1 774.07 2:1 5:1 2:1 779.50 2:1

D.P. 782.771

776.30

234+50.00

795 790 785 780 775 770 765

WETLAND

0.050 6:1 7.413:1 0.050

3.48:1 6:1 3.99:1

D.P. 783.873 784.46

780.45

234+00.00

800 795 790 785 780 775

WETLAND

0.050 6:1 7.413:1 0.050

3.58:1 6:1 3.01:1

D.P. 784.975 785.56

781.75

233+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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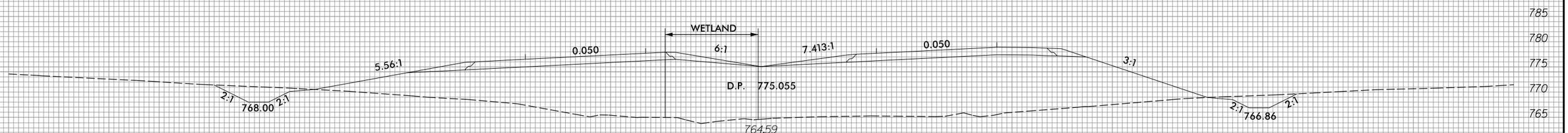
Fkeys

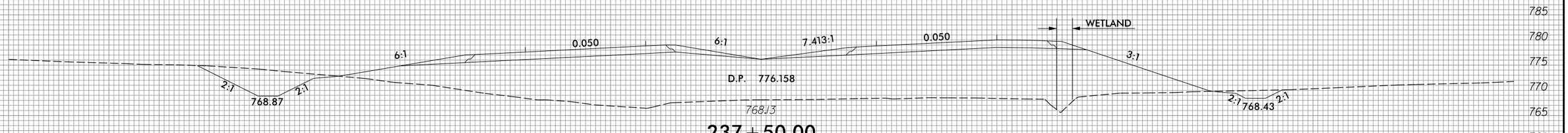
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-15

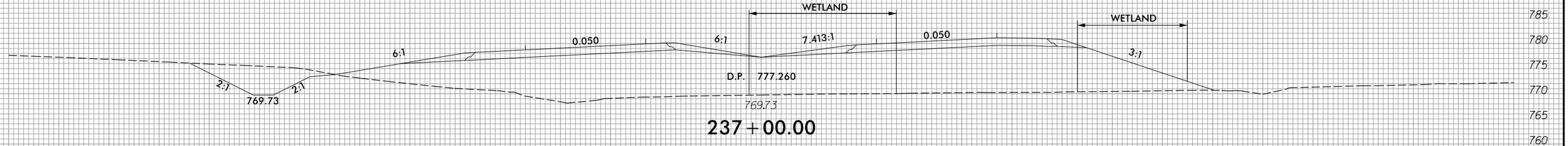
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



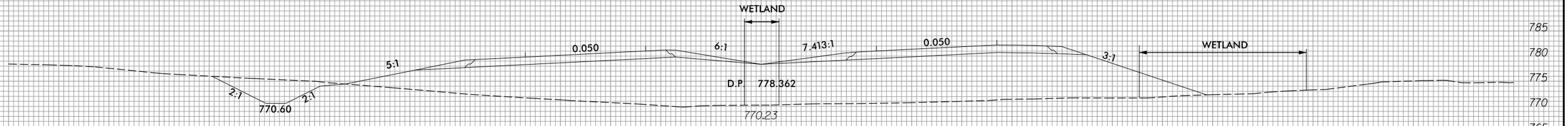
238 + 00.00



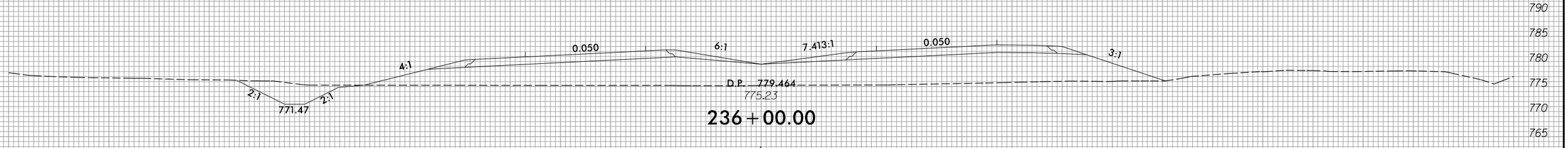
237 + 50.00



237 + 00.00



236 + 50.00



236 + 00.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-16

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780 775 770 765 760 755

2:1 761.93 2:1 6:1 0.050 6:1 7.413:1 0.050 3:1 2:1 759.00 2:1

D.P. 769.545

763.66

240+50.00

780 775 770 765 760 755

2:1 763.14 2:1 6:1 0.050 6:1 7.413:1 0.050 3:1 2:1 760.57 2:1

D.P. 770.647

763.61

240+00.00

780 775 770 765 760 755

2:1 764.36 2:1 5.12:1 0.050 6:1 7.413:1 0.050 3:1 2:1 762.14 2:1

D.P. 771.749

763.30

239+50.00

785 780 775 770 765 760 755 750

2:1 765.57 2:1 4.64:1 0.050 6:1 7.413:1 0.050 3:1 2:1 763.71 2:1

D.P. 772.851

766.04

239+00.00

785 780 775 770 765 760 755

2:1 766.79 2:1 4.62:1 0.050 6:1 7.413:1 0.050 3:1 2:1 765.29 2:1

D.P. 773.953

763.94

238+50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-17

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780 775 770 765 760 755 750 745

6:1 0.050 6:1 7.413:1 0.050 3.37:1

D.P. 764.034

761.71

243+00.00

775 770 765 760 755 750

6:1 0.050 6:1 7.413:1 0.050 3:1 2:1

D.P. 765.136

762.64

757.40

242+50.00

775 770 765 760 755

6:1 0.050 6:1 7.413:1 0.050 3:1 2:1 2:1

D.P. 766.238

762.94

757.80

242+00.00

780 775 770 765 760 755

2:1 2:1 6:1 0.050 6:1 7.413:1 0.050 3:1 2:1 2:1

759.50

D.P. 767.340

763.50

758.20

241+50.00

780 775 770 765 760 755 750 745

2:1 2:1 6:1 0.050 6:1 7.413:1 0.050 3:1 2:1 2:1

760.71

D.P. 768.442

764.17

758.60

241+00.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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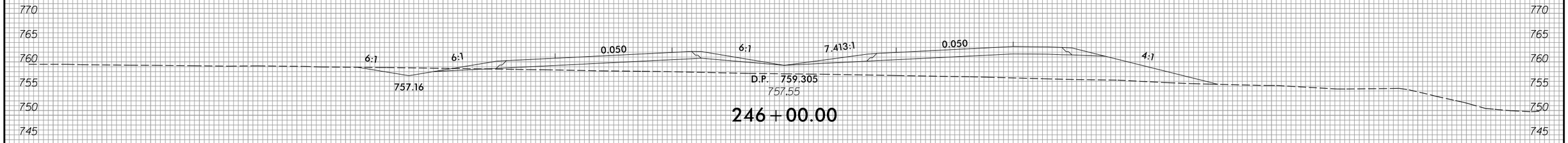
fkeys

8/23/99

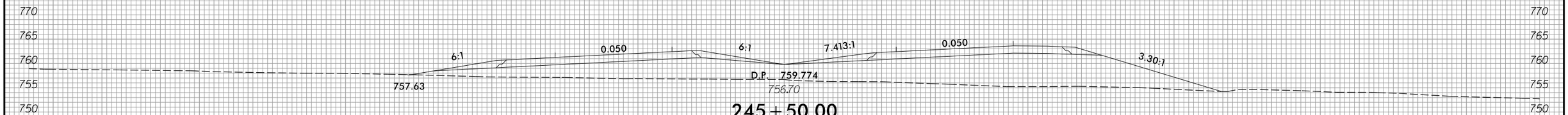
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-18

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

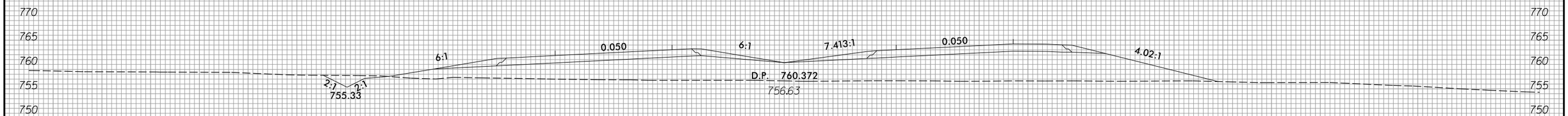
770 765 760 755 750 745



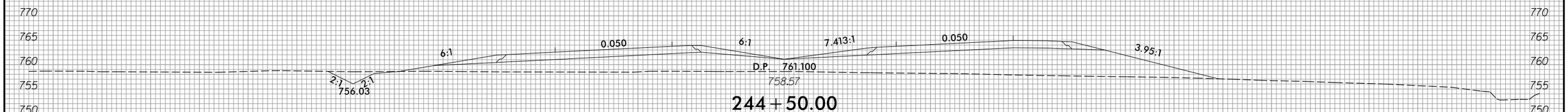
246+00.00



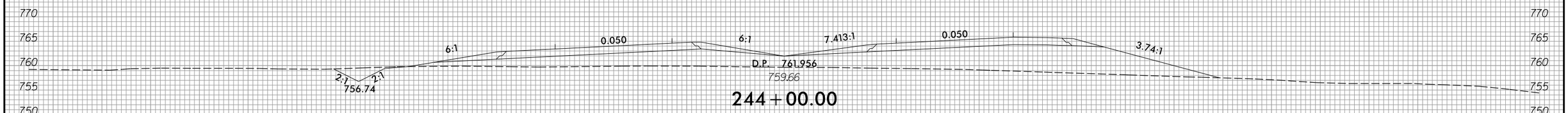
245+50.00



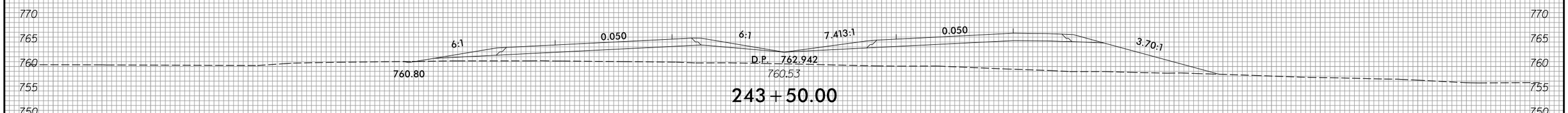
245+00.00



244+50.00



244+00.00



243+50.00

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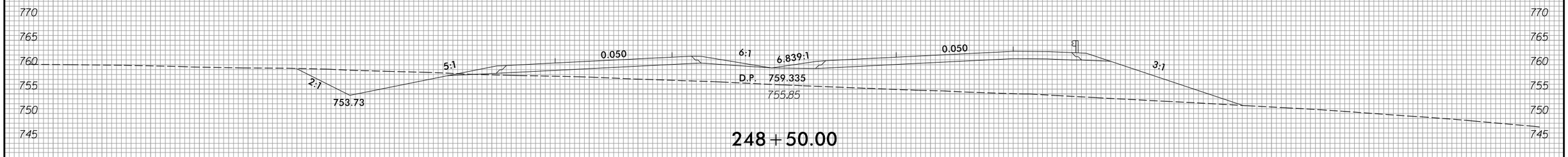
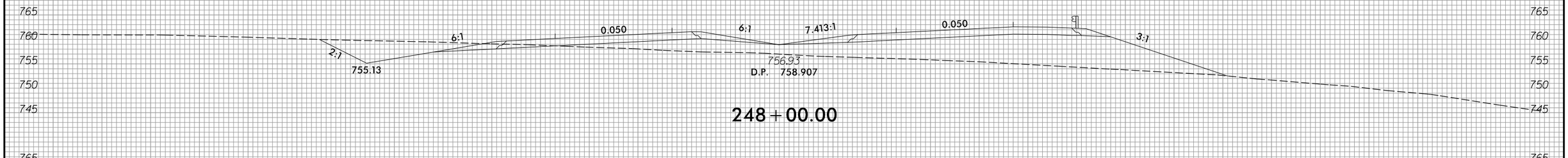
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-19

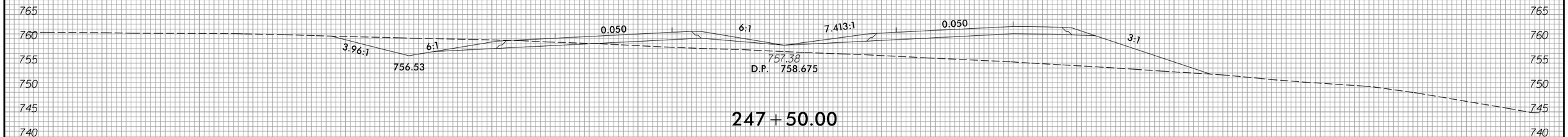
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



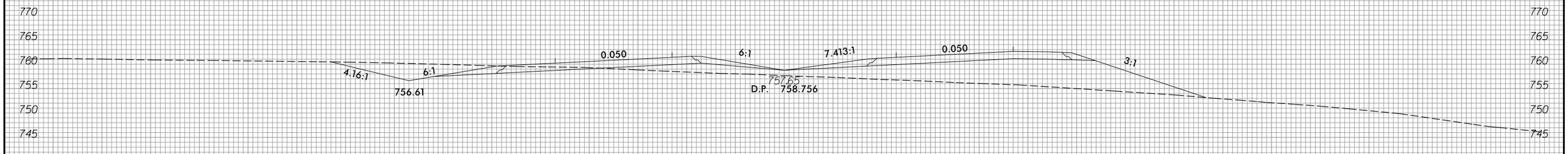
248+50.00



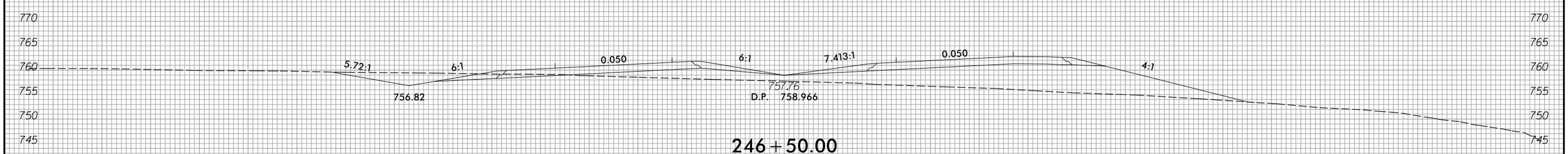
248+00.00



247+50.00



247+00.00



246+50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-20

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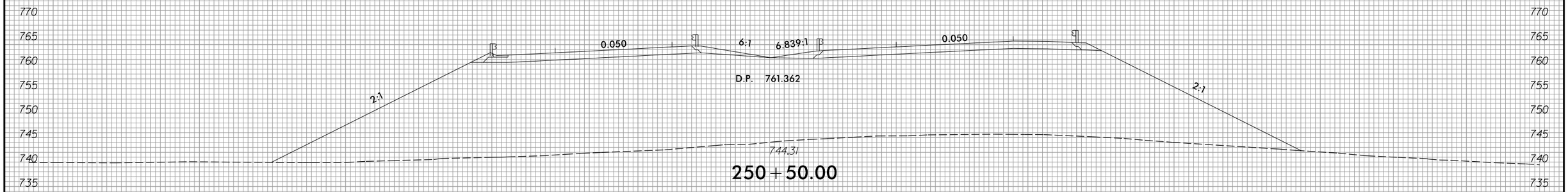
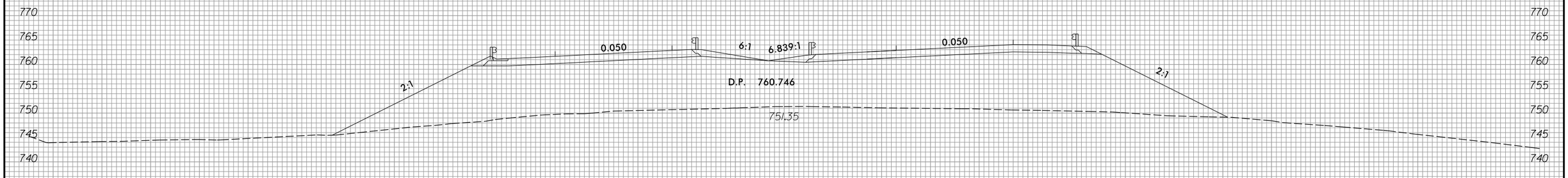
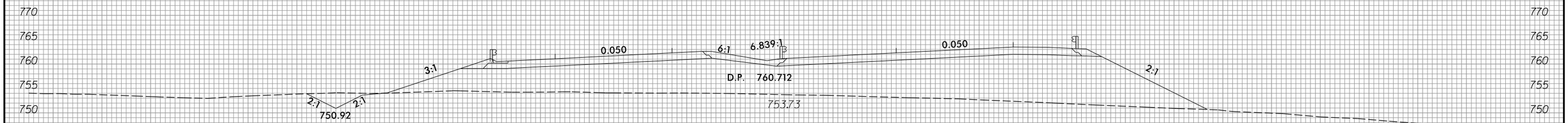
770 765 760 755 750 745 740 735



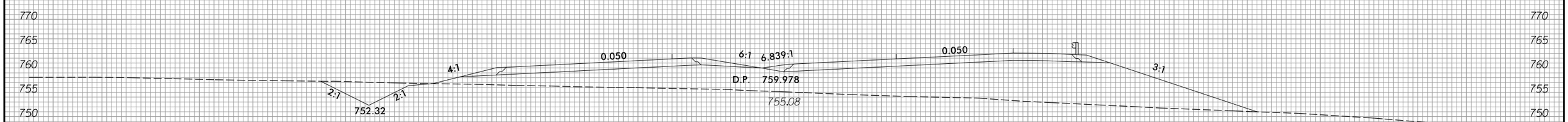
250+50.00



250+00.00



249+50.00



249+00.00

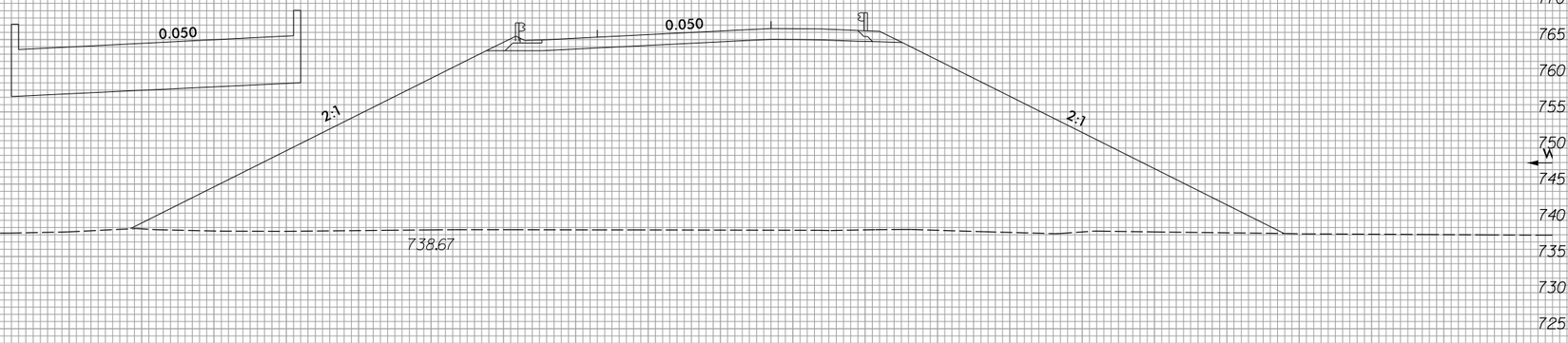
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_L2.dgn
Fkeys

8/23/99

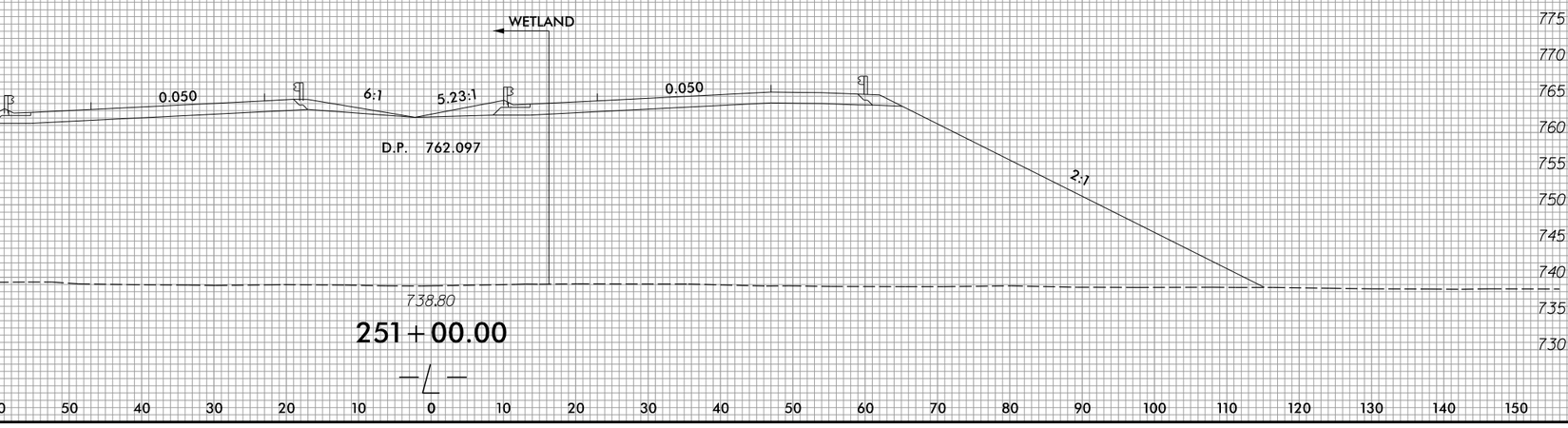
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-21

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775 770 765 760 755 750 745 740 735 730 725 720



251+50.00



251+00.00

—/—

775 770 765 760 755 750 745 740 735 730

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

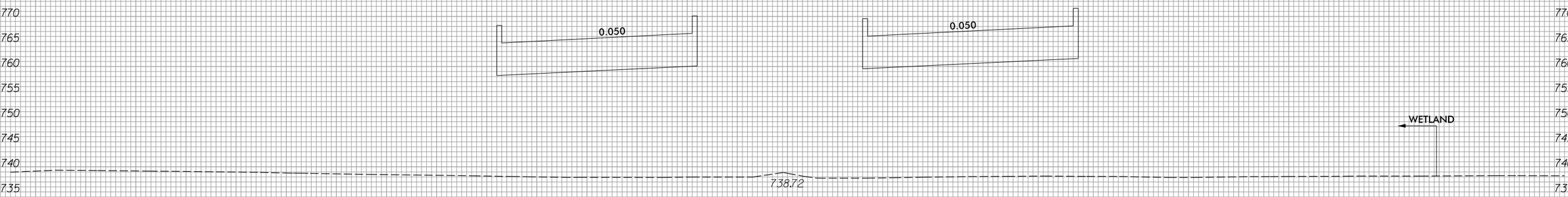
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-22

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775 770 765 760 755 750 745 740 735 730 725 720 715 710 705 700 695

252+50.00

775 770 765 760 755 750 745 740 735 730 725 720 715 710 705 700 695



252+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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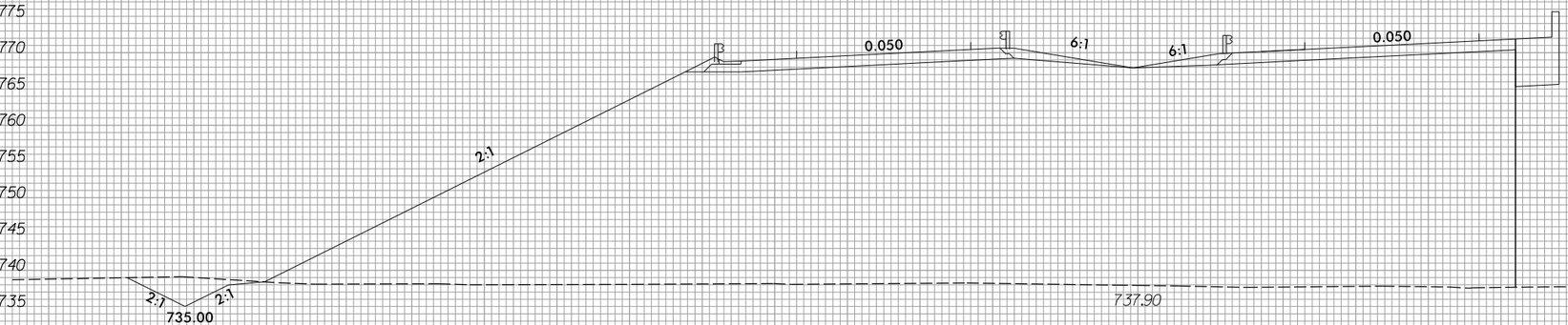
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-23

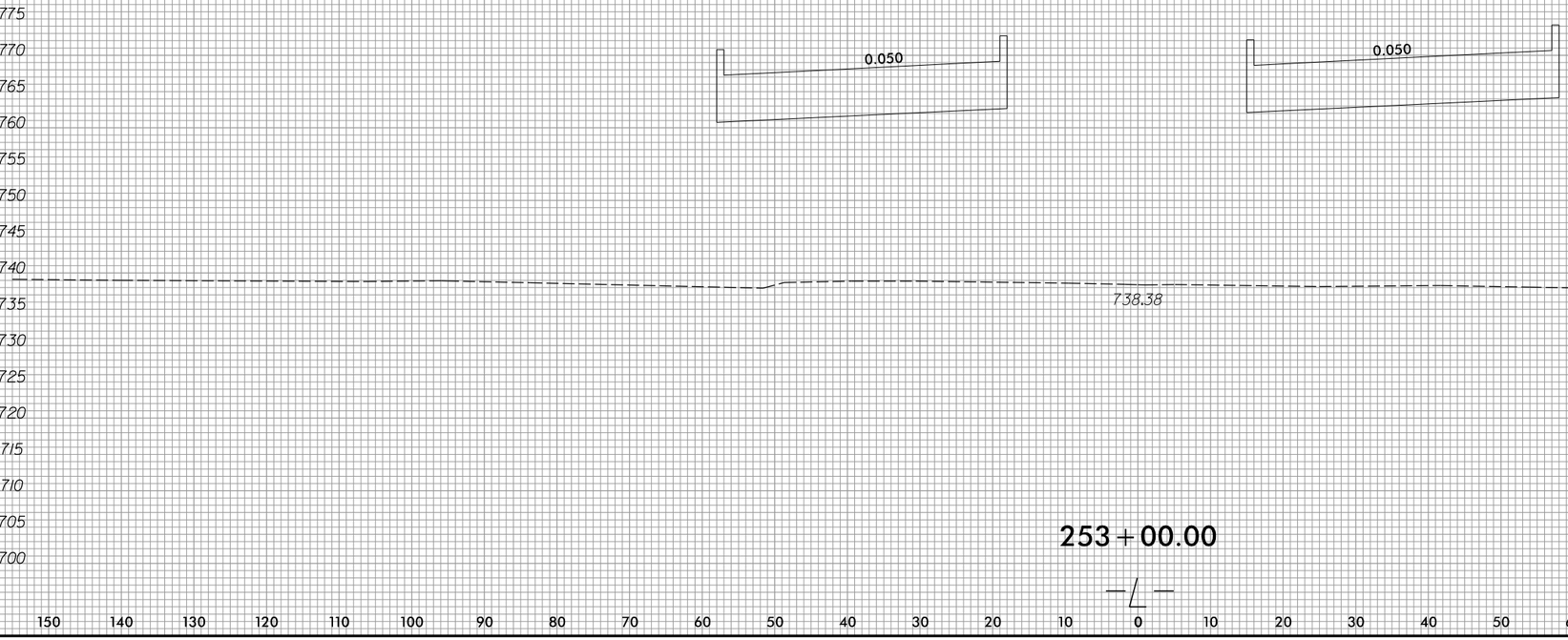
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

785 780 775 770 765 760 755 750 745 740 735 730 725 720 715



253+50.00

775 770 765 760 755 750 745 740 735 730 725 720 715 710 705 700



253+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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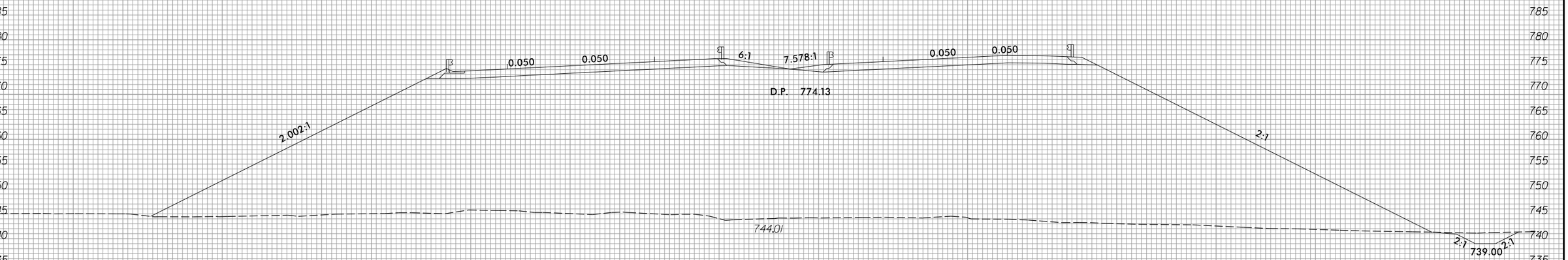
Fkeys

8/23/99

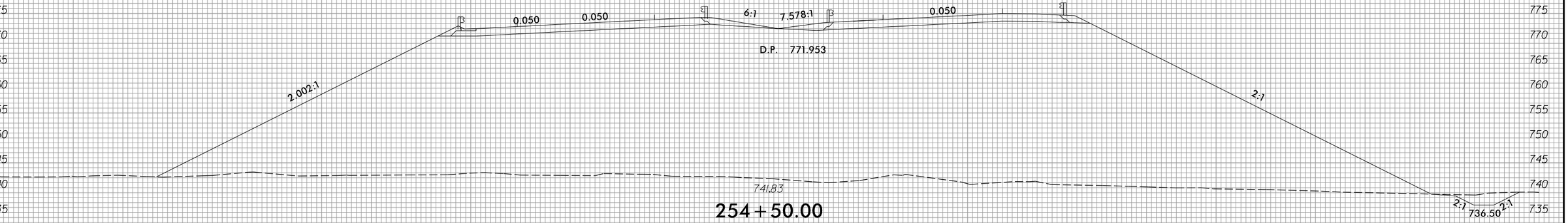
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-24

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

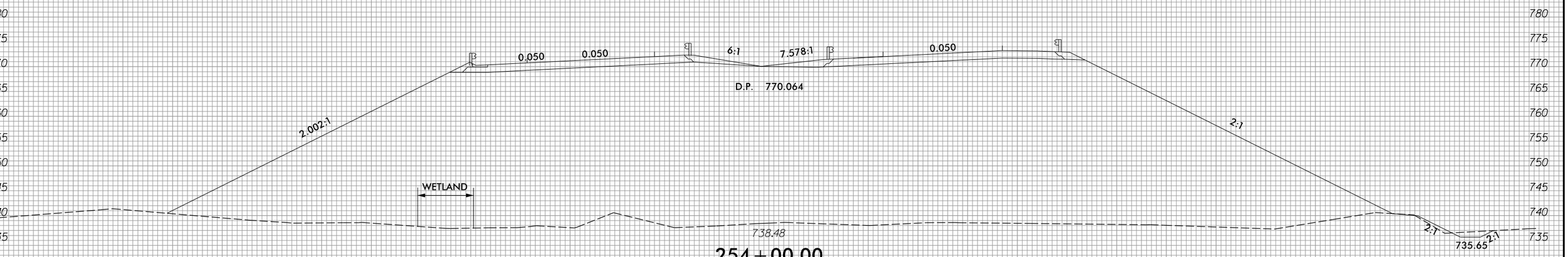
785 780 775 770 765 760 755 750 745 740 735 730 725



255 + 00.00



254 + 50.00



254 + 00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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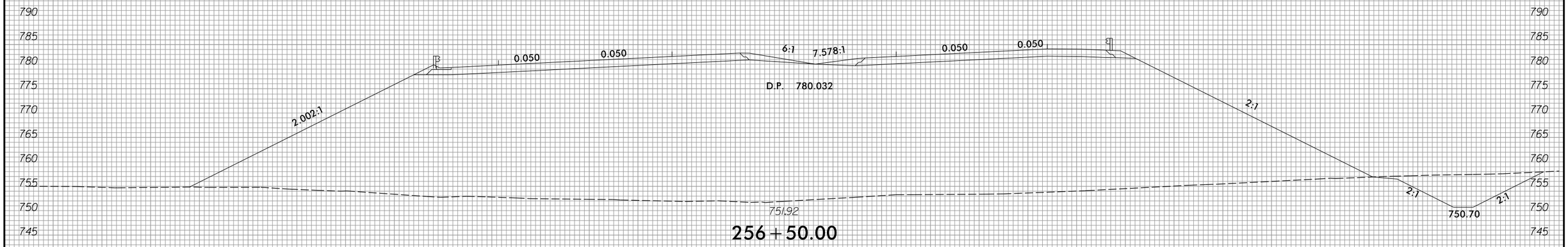
Fkeys

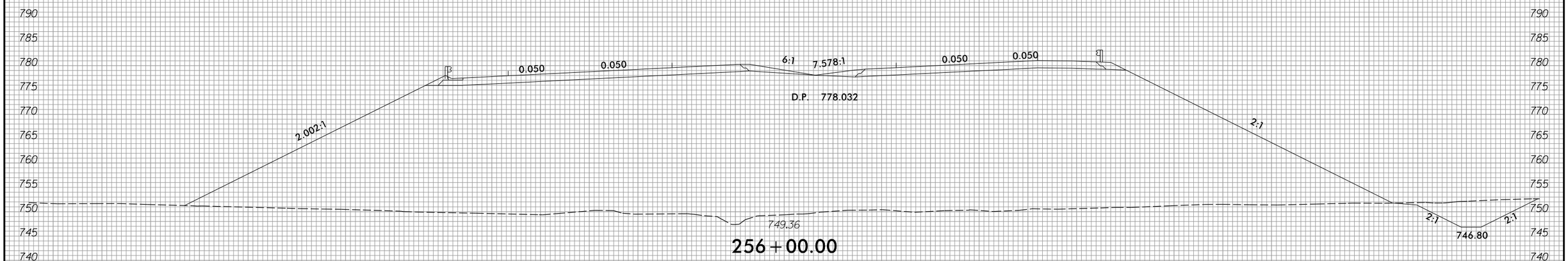
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-25

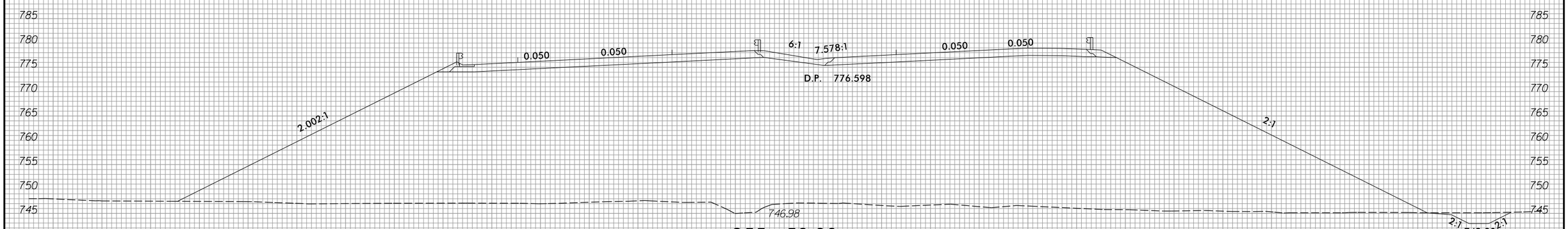
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



256+50.00



256+00.00



255+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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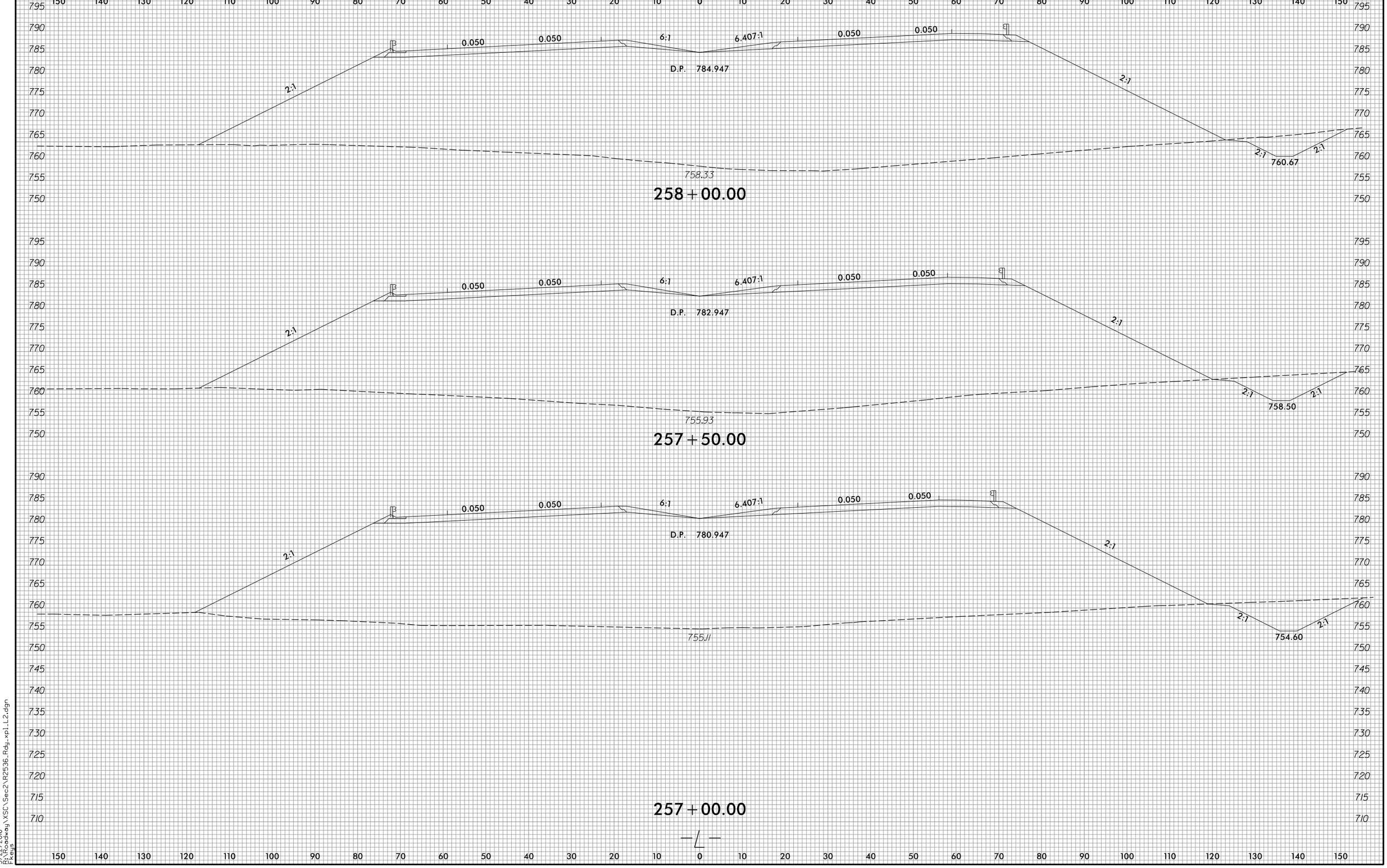
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-26



3/22/2016
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Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-27

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 795 790 785 780 775 770 765 760

0.037 6:1 6.151:1 0.037 0.037

2:1 2:1 2:1 2:1

D.P. 790.871

767.01 768.80

259+50.00

800 795 790 785 780 775 770 765 760 755

0.048 6:1 6.365:1 0.048 0.048

2:1 2:1 2:1 2:1

D.P. 788.936

763.73 765.00

259+00.00

800 795 790 785 780 775 770 765 760 755 750 745 740 735 730 725

0.050 0.050 6:1 6.407:1 0.050 0.050

2:1 2:1 2:1 2:1

D.P. 786.947

760.44 762.83

258+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xp1_L2.dgn
Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-28

3/22/2016
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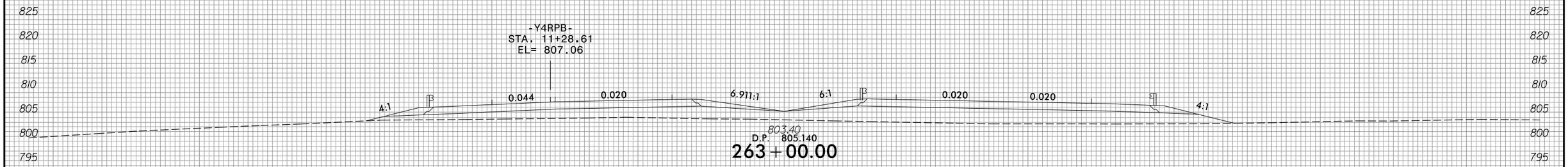
Fkeys

8/23/99

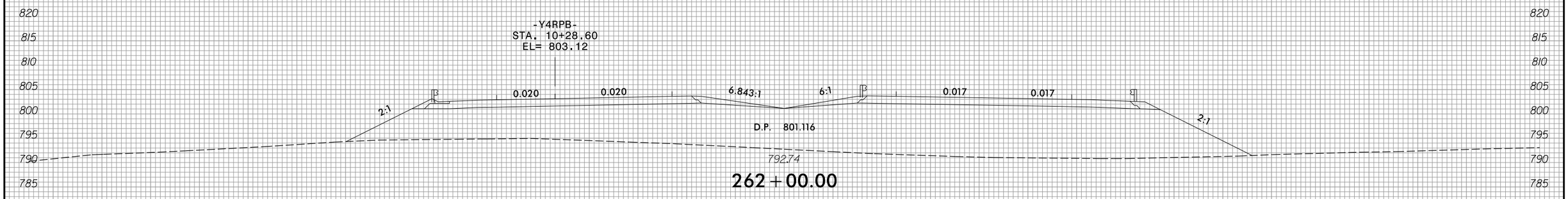
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-29

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

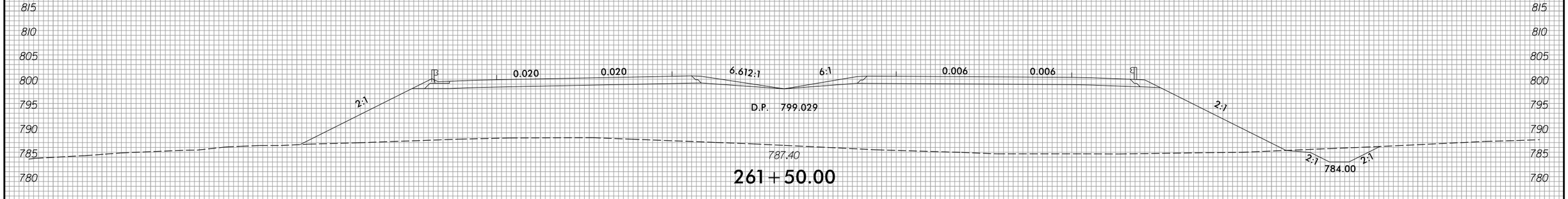


263+00.00

262+50.00



262+00.00



261+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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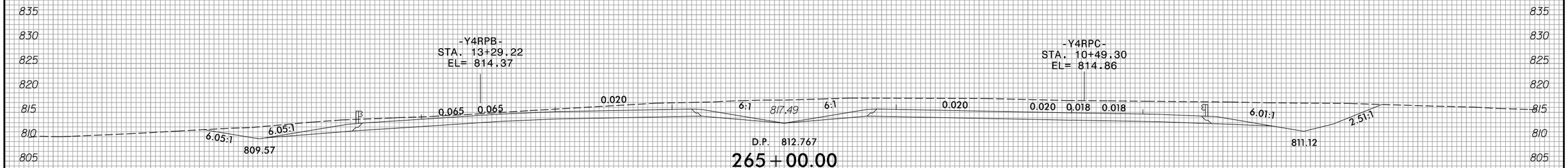
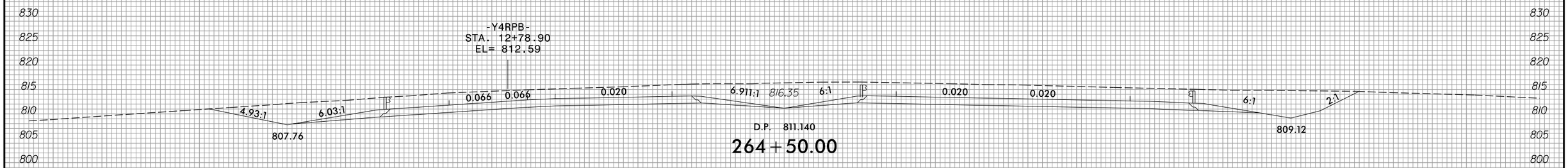
Fkeys

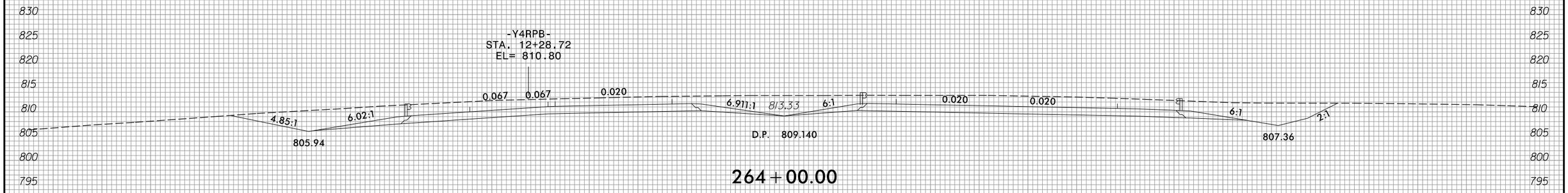
8/23/99

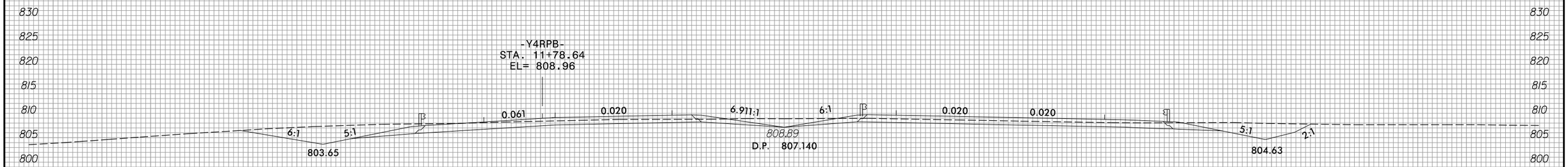
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-30

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150









150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xpLL2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-31

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

840 835 830 825 820 815 810 805 800 795 790 785

-Y4RPB-
STA. 14+77.00
EL= 819.92

B.P.

-Y4RPC-
STA. 11+99.51
EL= 820.49

0.070 0.070 6:1 6:1 0.020 6:1 6:1 0.020 0.020 0.018 0.018

3:1 5:1

817.27
D.P. 818.767

266+50.00

-Y4RPB-
STA. 14+30.42
EL= 818.11

-Y4RPC-
STA. 11+49.44
EL= 818.66

0.062 0.062 6:1 6:1 0.020 6:1 6:1 0.020 0.020 0.018 0.018 6.01:1 6.01:1

4:1

818.19
D.P. 816.767

814.93

266+00.00

-Y4RPB-
STA. 13+79.71
EL= 816.20

-Y4RPC-
STA. 10+99.37
EL= 816.79

0.063 0.064 0.020 6:1 6:1 0.020 0.020 0.018 0.018 6.01:1 3.55:1

5:1

818.40
D.P. 814.767

813.05

265+50.00

—℄—

3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xpLL2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-32

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

840 835 830 825 820 815 810 805 800 795 790

-Y4RPB-
STA. 15+25.00
EL= 821.84

B.P.

-Y4RPC-
STA. 12+49.58
EL= 822.29

0.070 0.070 5.98:1 6:1 0.020 6:1 6:1 0.020 0.020 0.018 0.018 4:1

2:1 2:1 2:1

D.P. 820.767
815.44

813.00

267+00.00

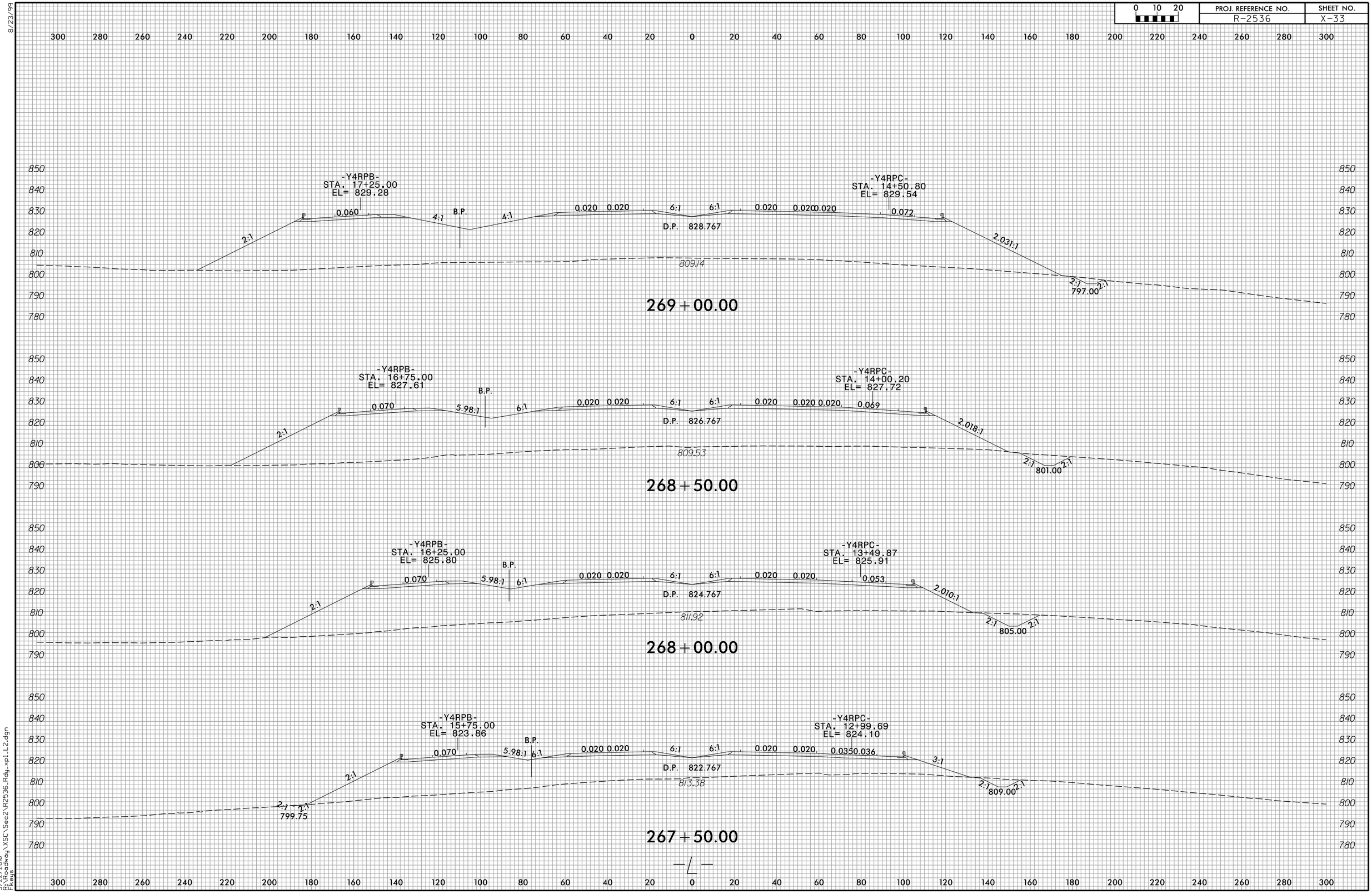
—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpLL2.dgn
Fkeys

8/23/99

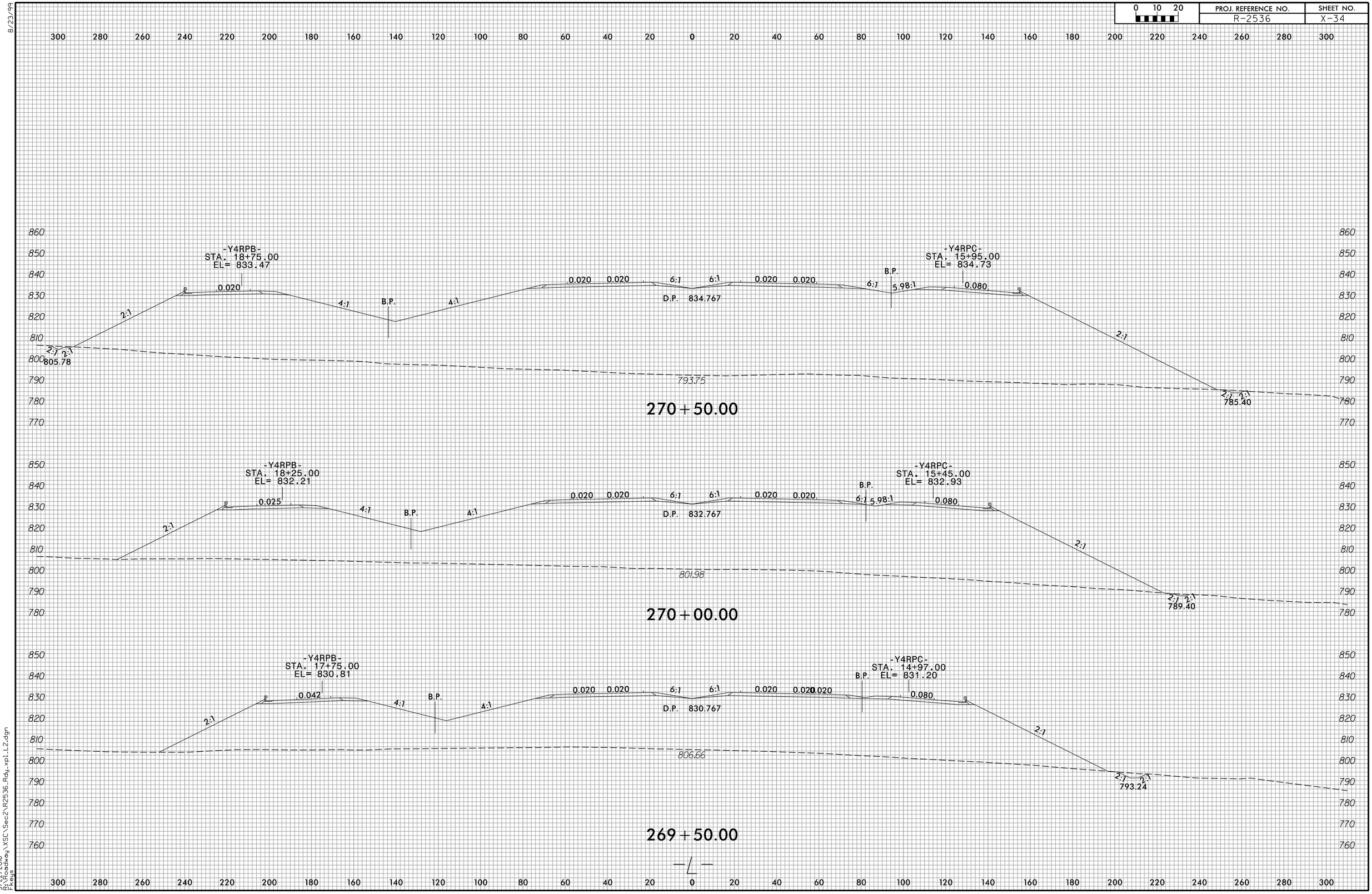
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-33



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_L2.dgn
Fkeys

8/23/99

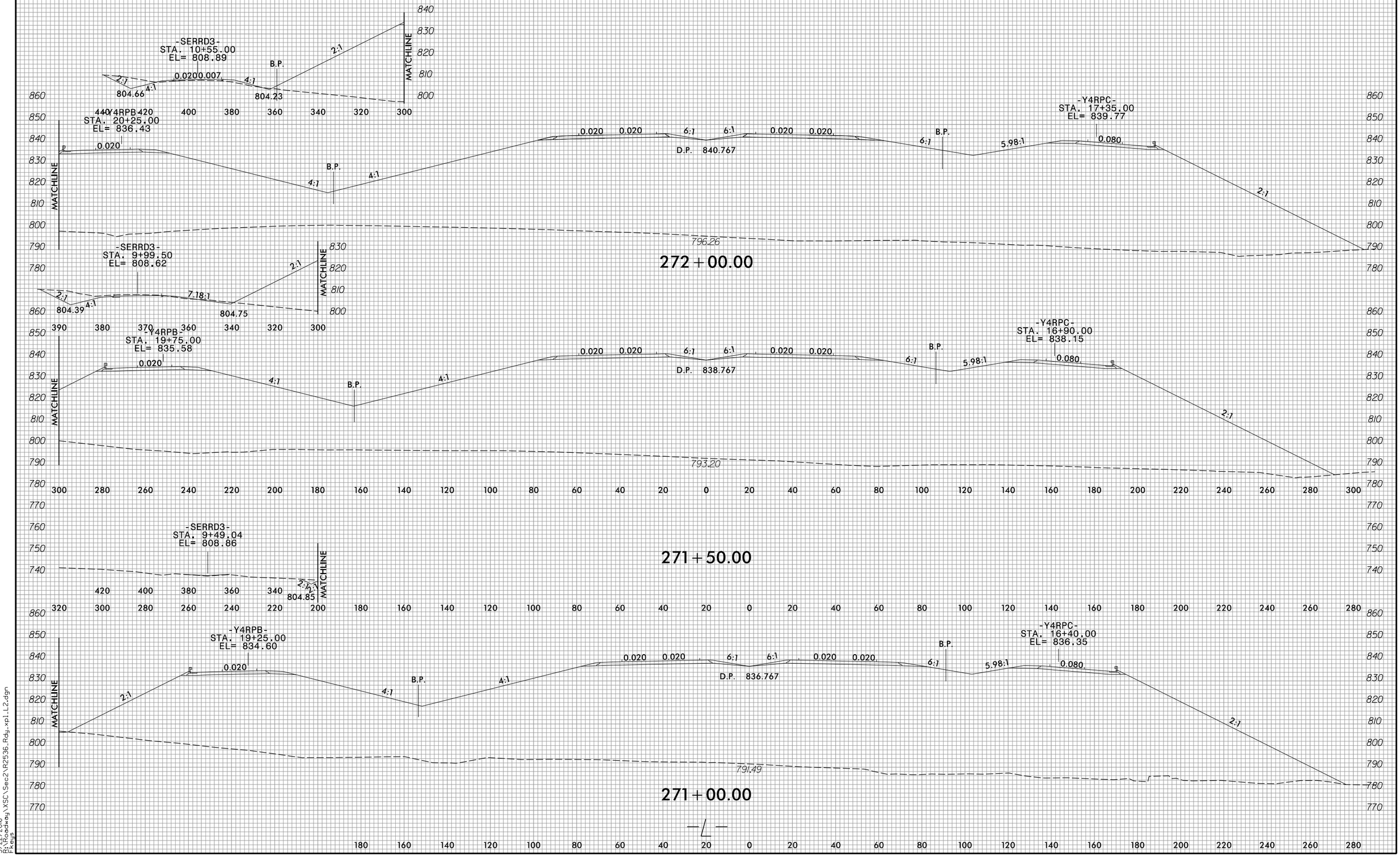
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-34



3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xpLL2.dgn
Fkeys

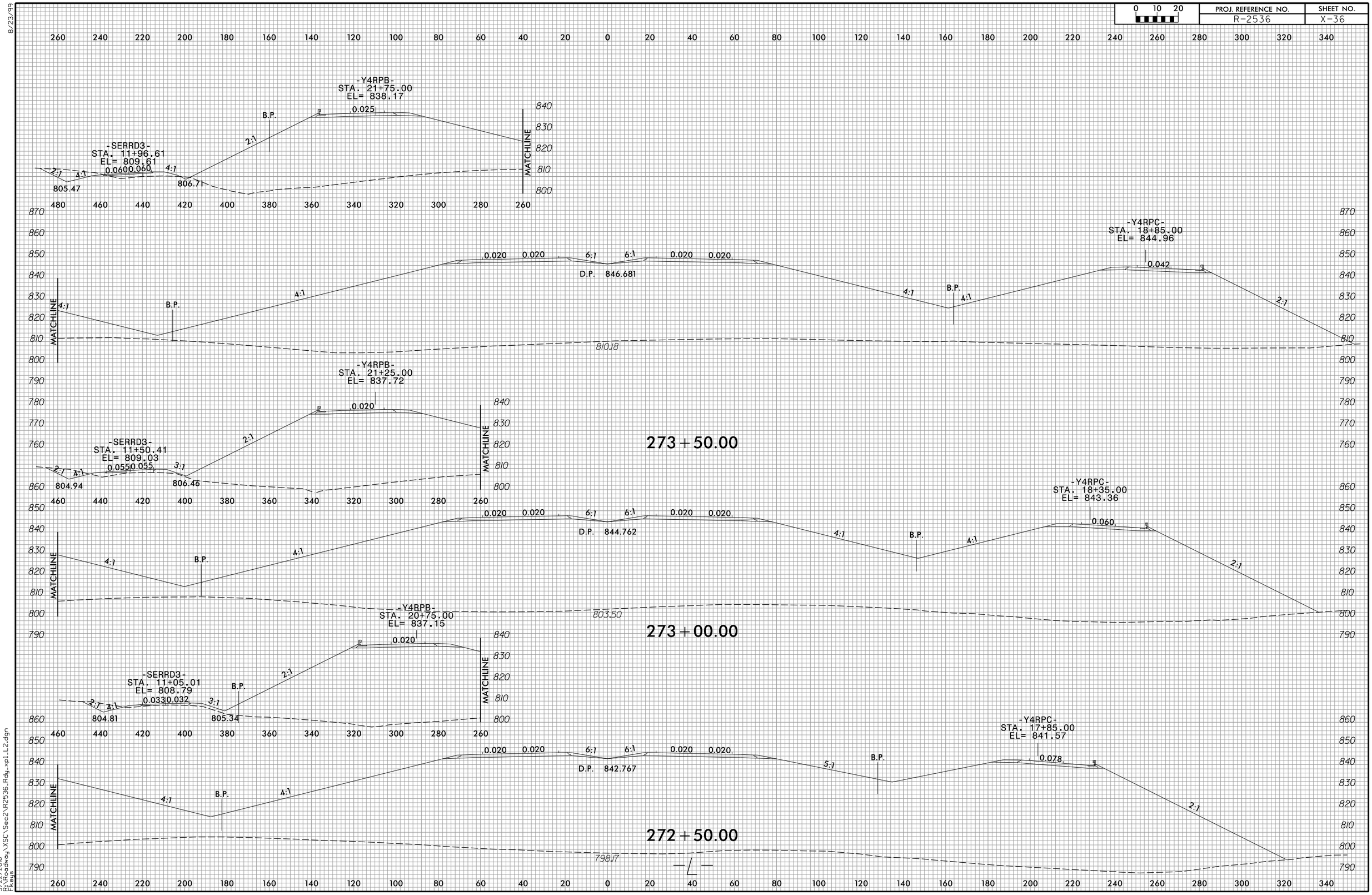
8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-35



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_L2.dgn
Fkeys

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-36



8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-37

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

860 850 840 830 820 810 800

S.P. #206
ELEV. 837.03

SP #01
ELEV. 836.64

SP #02
ELEV. 839.45

0.020 0.020 6:1 6:1 0.020 0.020

D.P. 853.254

4:1 2:1 2:1

831.31

833.36

275+50.00

0.020 0.020 6:1 6:1 0.020 0.020

D.P. 851.754

4:1 4:1 2:1 2:1

811.45

827.28

826.59

275+00.00

0.020 0.020 6:1 6:1 0.020 0.020

D.P. 850.154

4:1 4:1 2:1 2:1

809.53

823.24

820.30

-Y4RPB-
STA. 22+25.00
EL= 838.47

274+50.00

-SERRD3-
STA. 12+41.25
EL= 810.49

0.060 0.060 4.86:1 2:1 2:1 4:1

806.35

807.28

B.P.

0.045

MATCHLINE

MATCHLINE

2:1

-Y4RPC-
STA. 19+35.00
EL= 846.27

0.024

0.020 0.020 6:1 6:1 0.020 0.020

D.P. 848.499

4:1 4:1 4:1

B.P. B.P.

MATCHLINE MATCHLINE

274+00.00

815.03

—℄—

520 500 480 460 440 420 400 380 360 340 320 300

300 320 340 360 380

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_L2.dgn
tkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-38

380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220

880 870 860 850 840 830 820

-Y4LPB-
STA. 12+49.60
EL= 859.04

SP #208
ELEV. 848.83

0.077 0.020 0.020 6:1 6:1 0.020 0.020

D.P. 858.254

2:1 2:1
847.44

836.68

277+50.00

880 870 860 850 840 830 820 810 800

-Y4LPB-
STA. 12+90.00
EL= 857.55

B.P.

SP #208
ELEV. 848.94

0.077 5.98:1 0.020 0.020 6:1 6:1 0.020 0.020 4:1

D.P. 857.154

SP #207
ELEV. 827.17

4:1

2:1 2:1
819.74

2:1 2:1
843.41

840.39

277+00.00

880 870 860 850 840 830 820 810 800 790

-Y4LPB-
STA. 13+30.00
EL= 855.91

B.P.

0.080 5.98:1 0.020 0.020 6:1 6:1 0.020 0.020 4:1

D.P. 855.954

4:1

2:1 2:1
818.23

2:1 2:1
839.37

839.47

276+50.00

880 870 860 850 840 830 820 810

-Y4LPB-
STA. 13+65.00
EL= 854.36

B.P.

0.080 5.98:1 4:1 0.020 0.020 6:1 6:1 0.020 0.020 4:1

D.P. 854.654

4:1

2:1 2:1
816.90

2:1 2:1
835.34

837.15

276+00.00

380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220

3/22/2016
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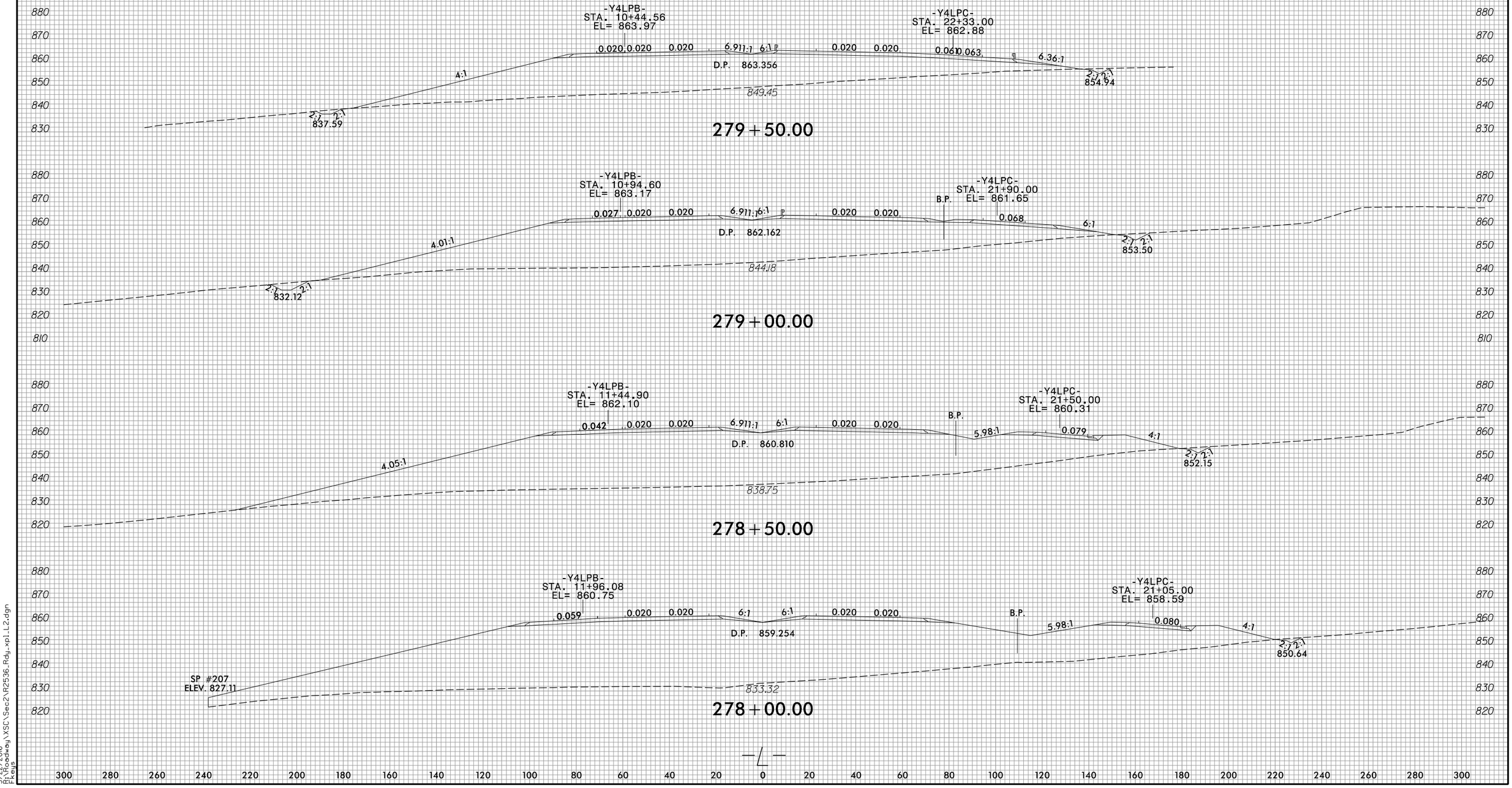
tkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-39

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



3/22/2016
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Fkeys

8/23/99

0 10 20

PROJ. REFERENCE NO.	SHEET NO.
R-2536	X-40

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

890 880 870 860 850 840 830 820 810 800 790 780 770

-Y4LPC-
STA. 24+35.21
EL= 865.77

0.020 0.020 6:1 6:1 0.020 0.020 0.020 4:1

859.84

SP #201
ELEV. 849.11

281+50.00

890 880 870 860 850 840 830

-Y4LPC-
STA. 23+85.21
EL= 865.48

SP #204
ELEV. 858.68

2:1 0.020 0.020 6.911:1 6:1 0.020 0.020 0.020 3:1 4:1 4:1

D.P. 863.707
858.58

860.05

SP #06
ELEV. 862.06

281+00.00

890 880 870 860 850 840 830

-Y4LPC-
STA. 23+35.13
EL= 864.92

2:1 0.020 0.020 6.911:1 6:1 0.020 0.020 0.031 6.02:1 2:1

D.P. 863.585
855.73

2:1 2:1
848.00

858.03

280+50.00

880 870 860 850 840 830 820

-Y4LPC-
STA. 22+84.66
EL= 864.06

3:1 0.020 0.020 6.911:1 6:1 0.020 0.020 0.045 0.046 6.11:1 2:1 2:1

D.P. 863.353
853.25

2:1 2:1
842.52

856.69

280+00.00

—L—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-41

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

880 870 860 850 840 830 820 810 800 790 780 770

0.020 0.020

0.020 0.020 0.020

840.68

283+00.00

880 870 860 850 840 830 820 810 800 790 780

0.020 0.020

0.020 0.020 0.020

840.73

282+50.00

880 870 860 850 840 830 820 810 800 790

0.020 0.020

0.020 0.020 0.020

844.15

282+00.00

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-42

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

890 880 870 860 850 840 830 820 810

-Y4LPA-
STA. 23+89.45
EL= 865.45

0.020 0.020 0.020 6:1 6.911:1 0.020 0.020 0.020

4:1

D.P. 863.694

2:1

SP #12
ELEV. 851.62

845.54

SP #203
ELEV. 846.53

284+50.00

890 880 870 860 850 840 830 820 810

-Y4LPA-
STA. 24+39.45
EL= 865.77

0.020 0.020 0.020 0.020 0.020 0.020

4:1

849.13

284+00.00

880 870 860 850 840 830 820 810 800 790

0.020 0.020 0.020 0.020 0.020

840.81

283+50.00

780 770

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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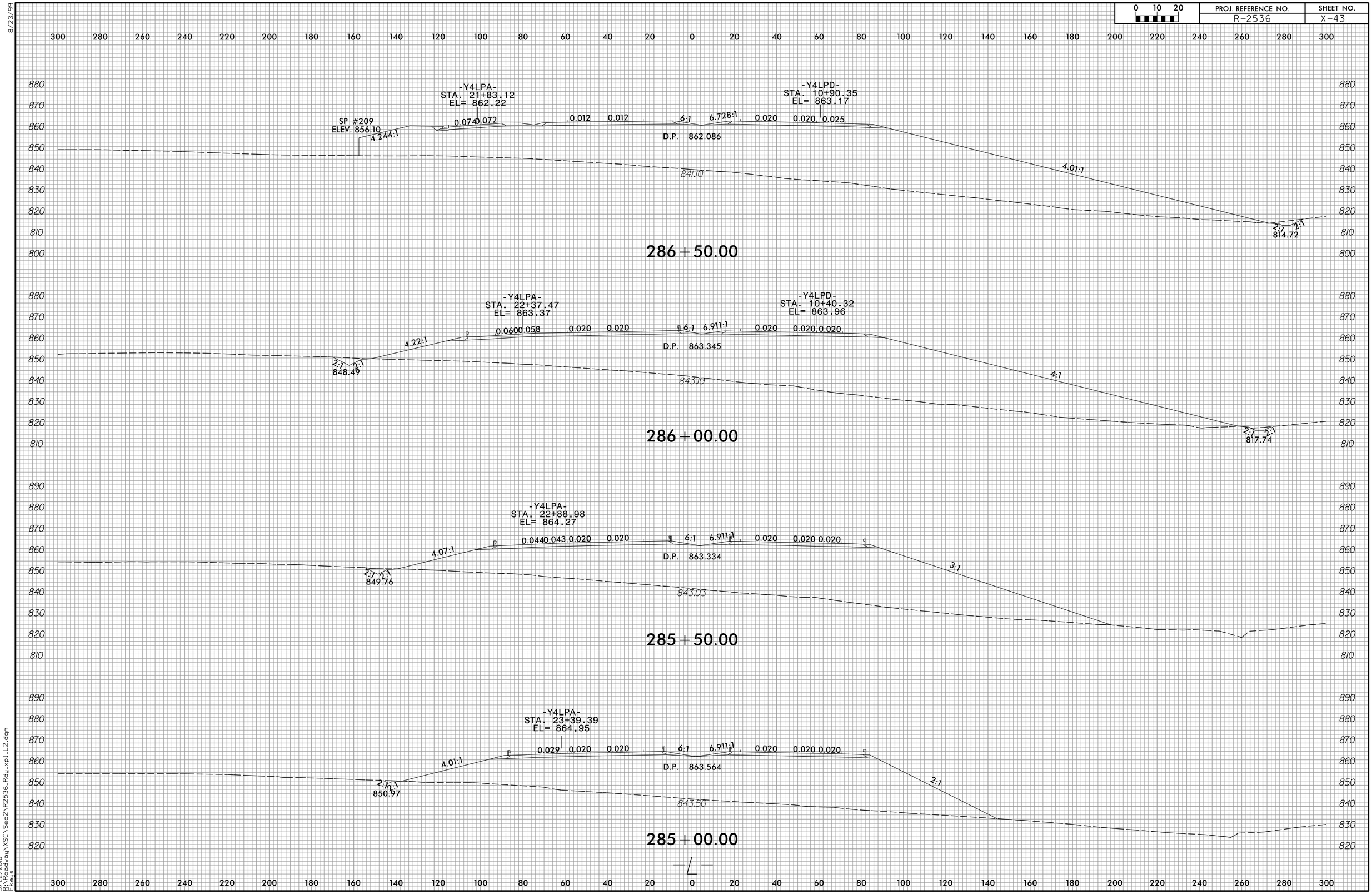
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-43



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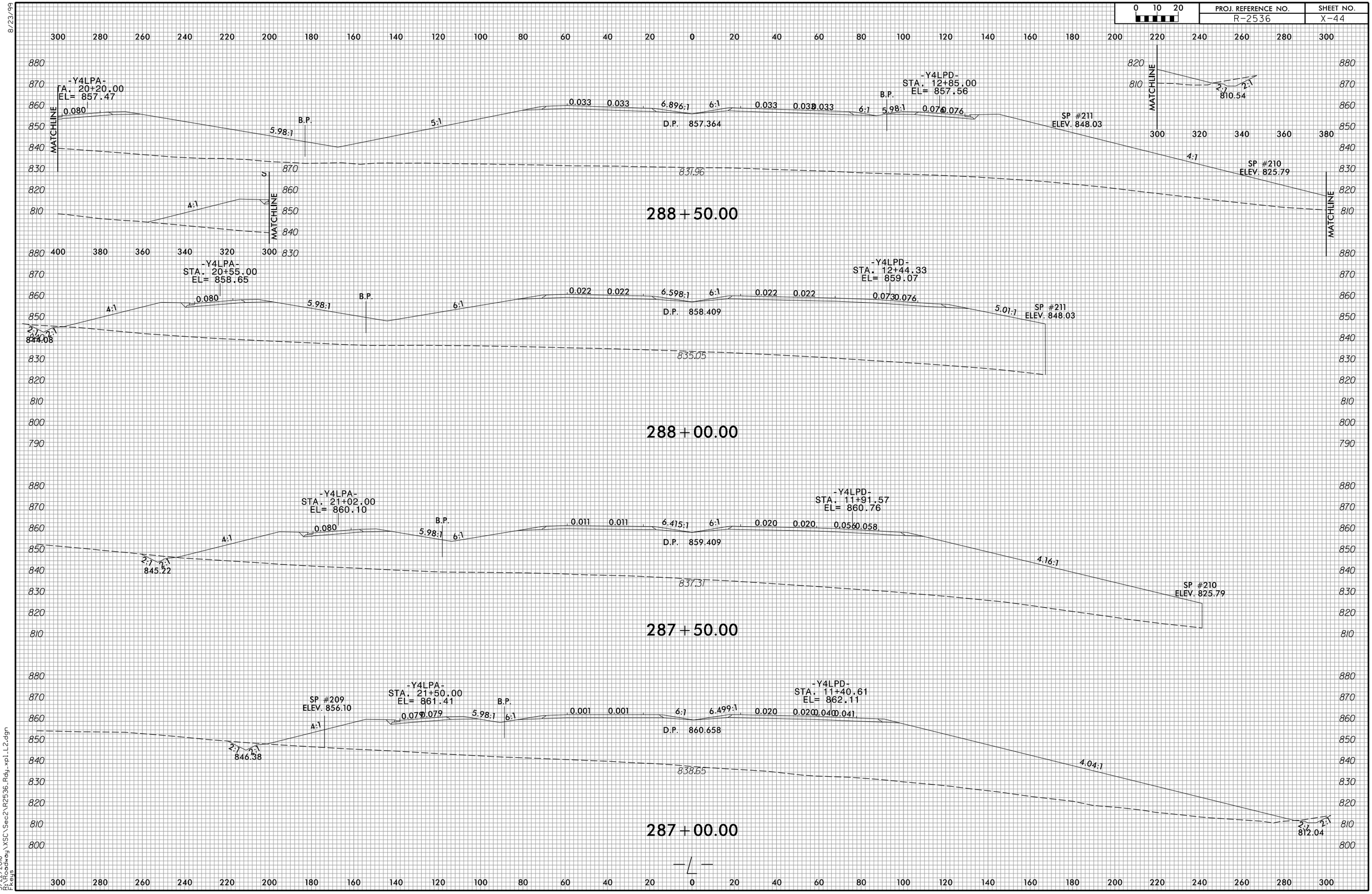
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-44



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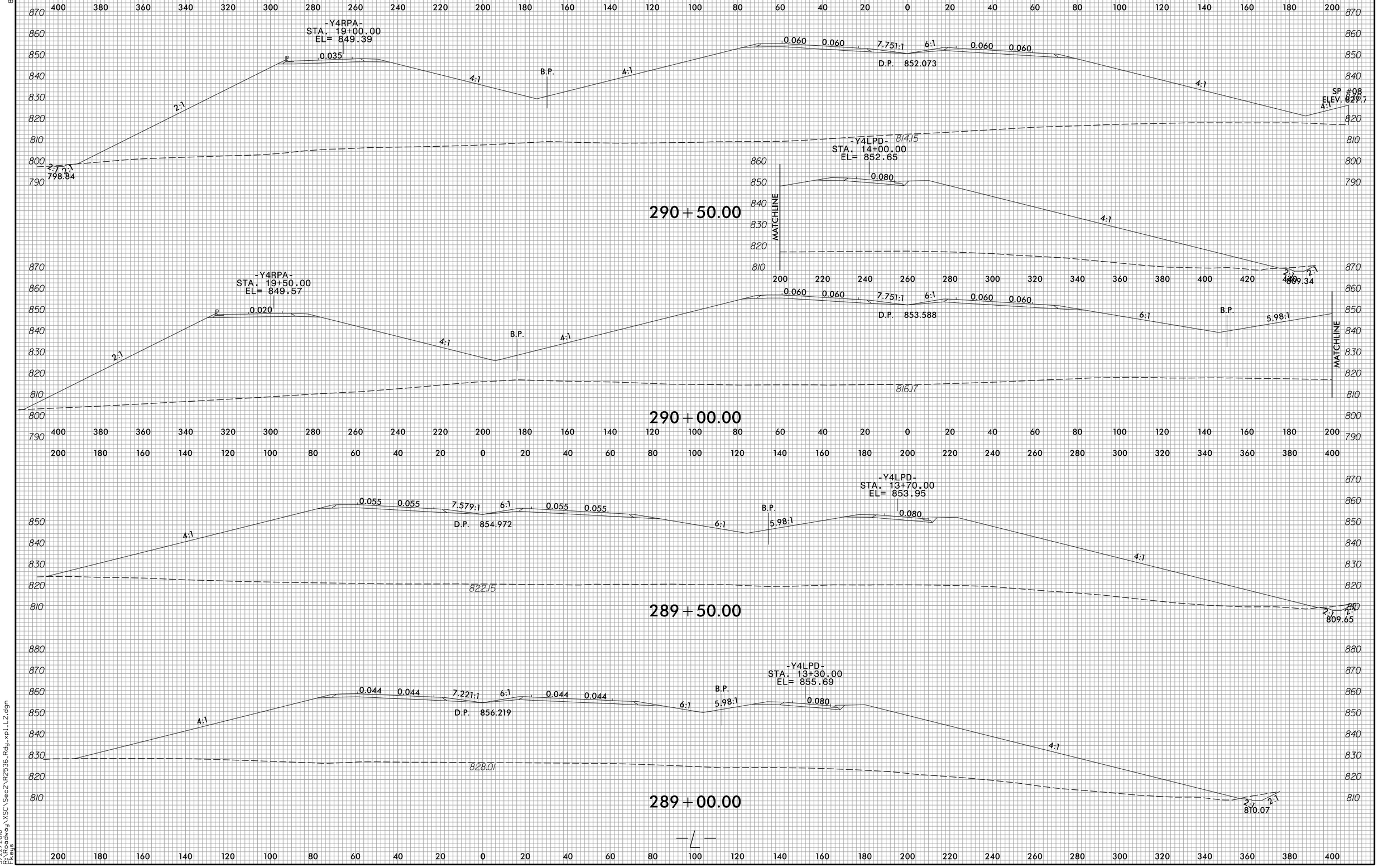
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-45



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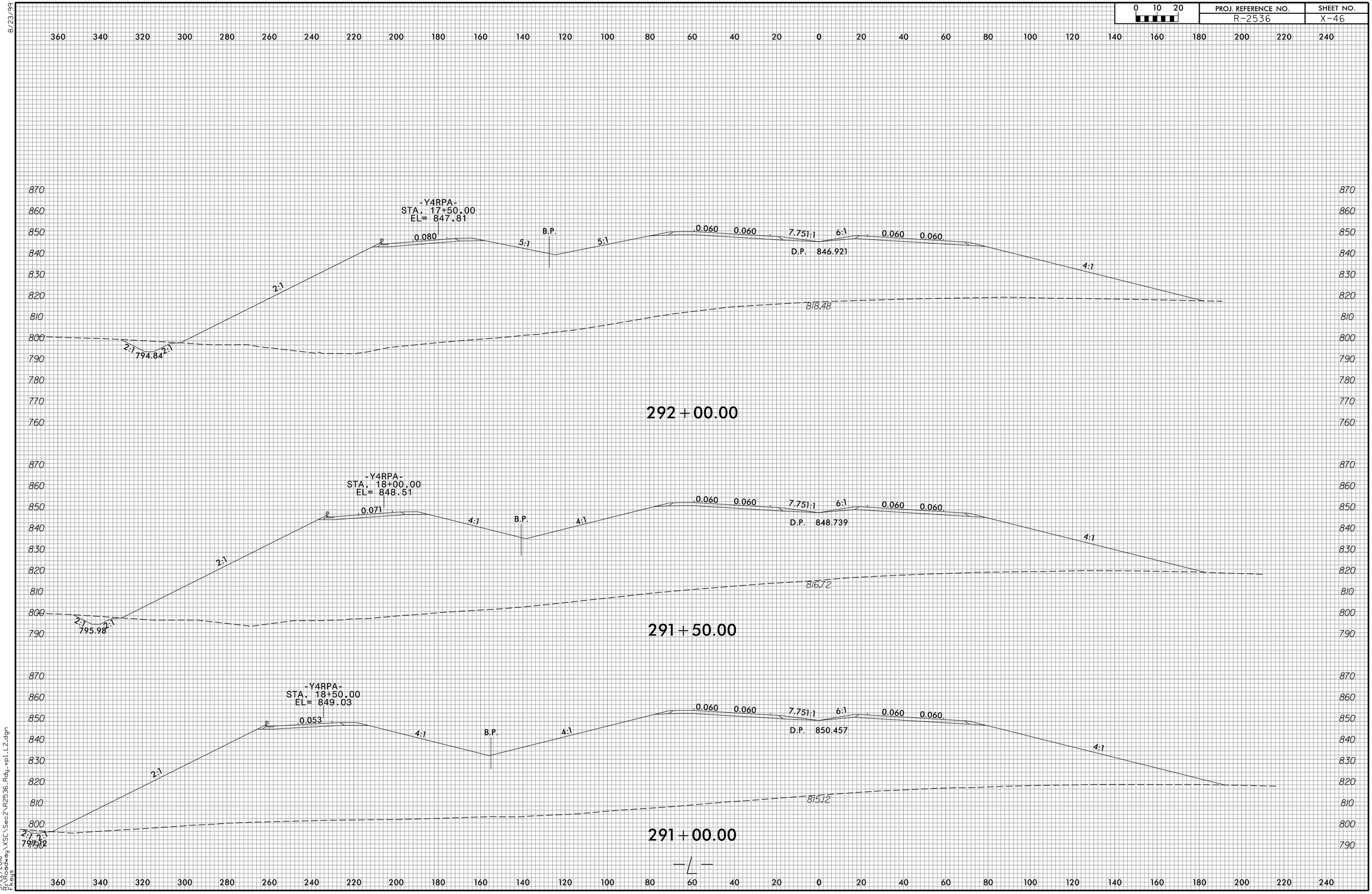
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-46



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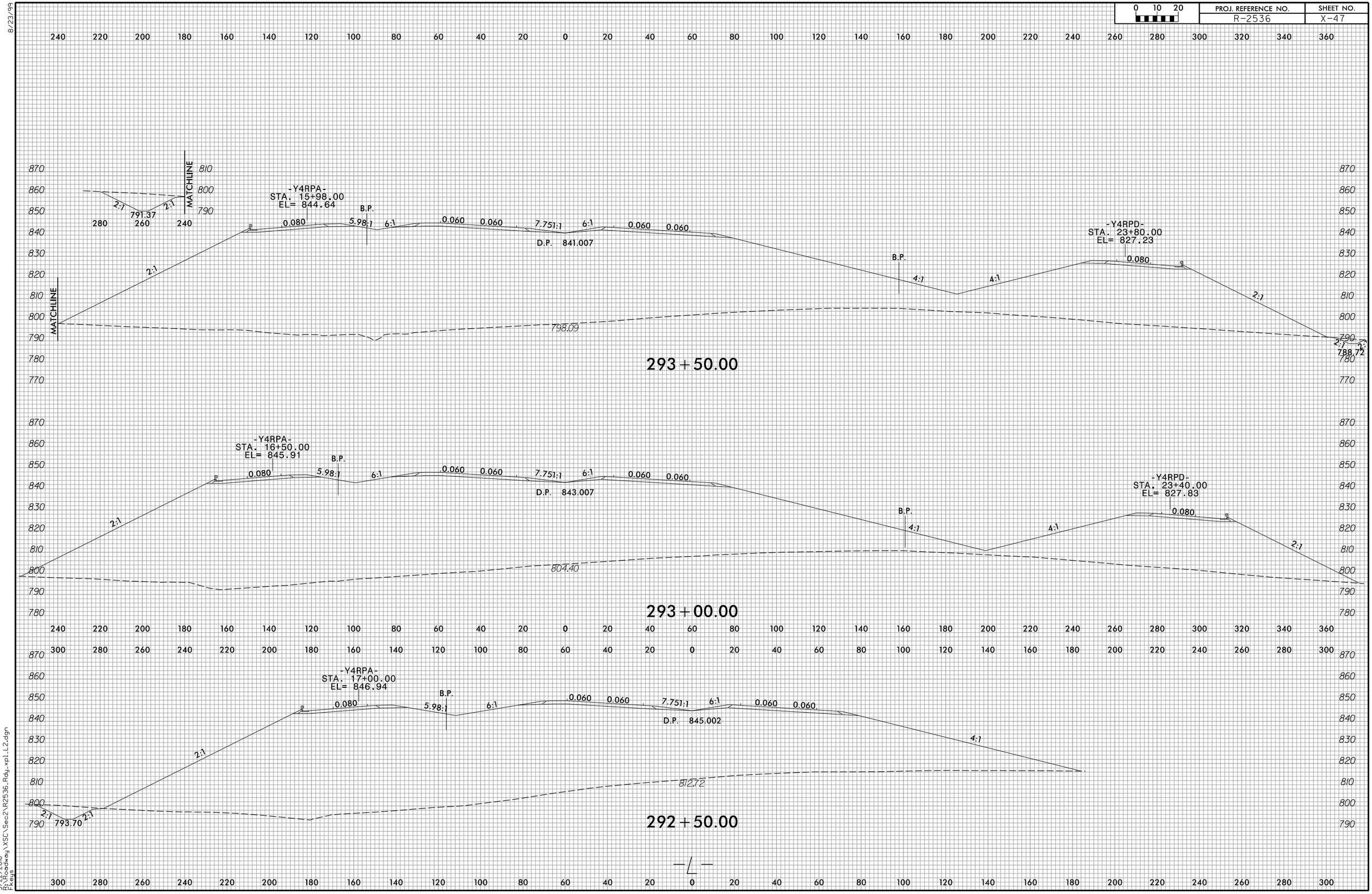
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-47



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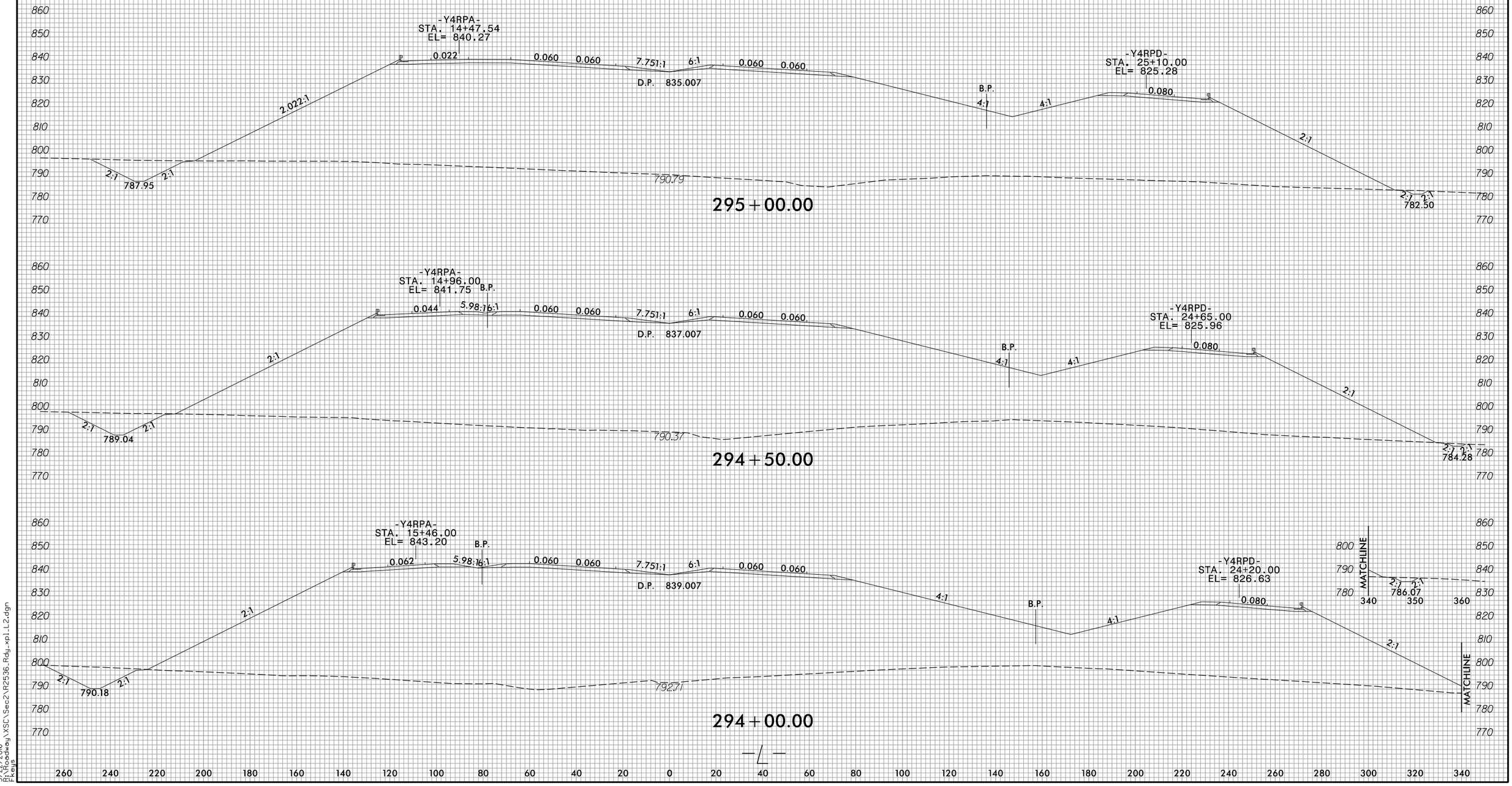
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-48



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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-49

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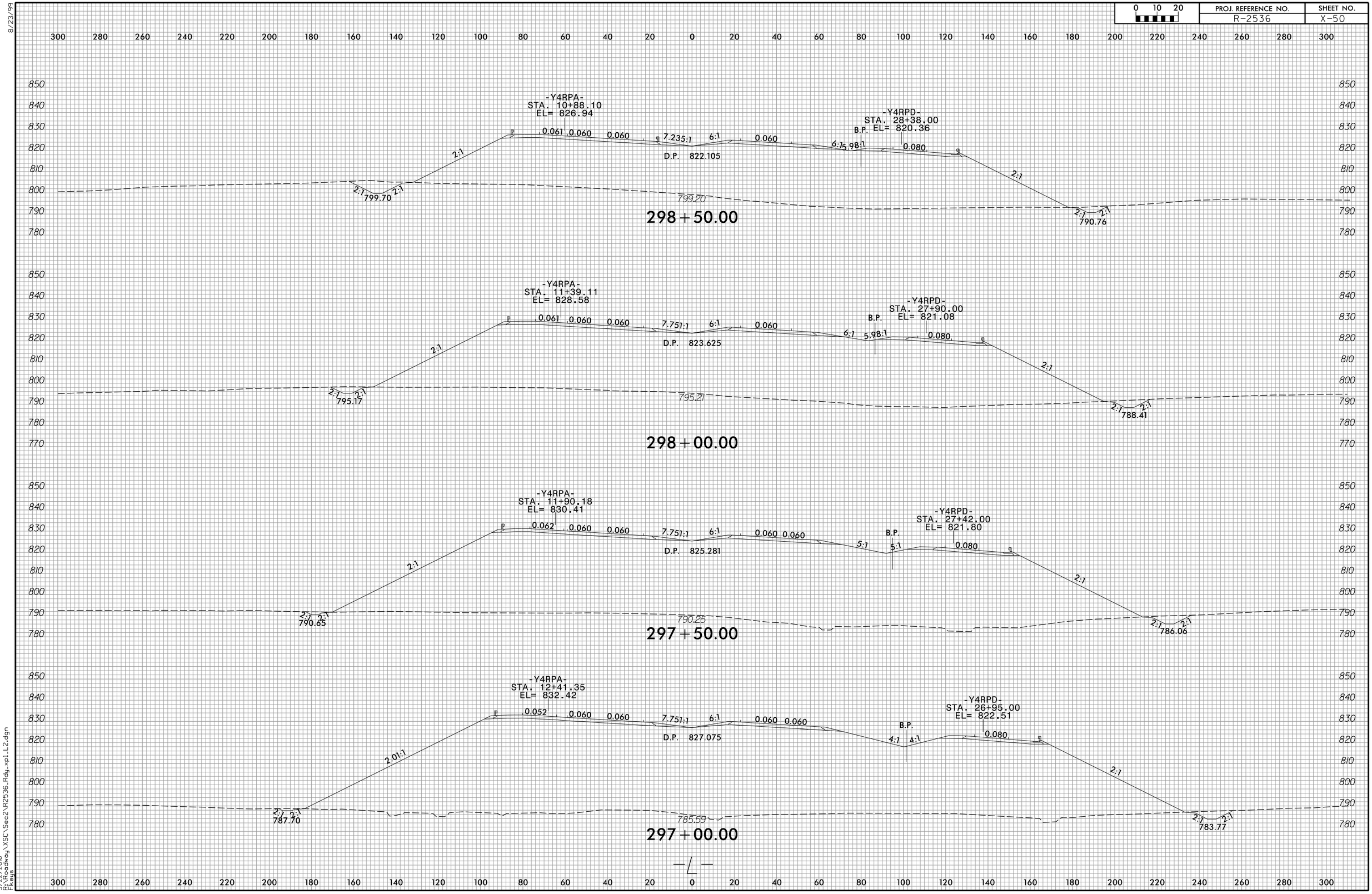
8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-50



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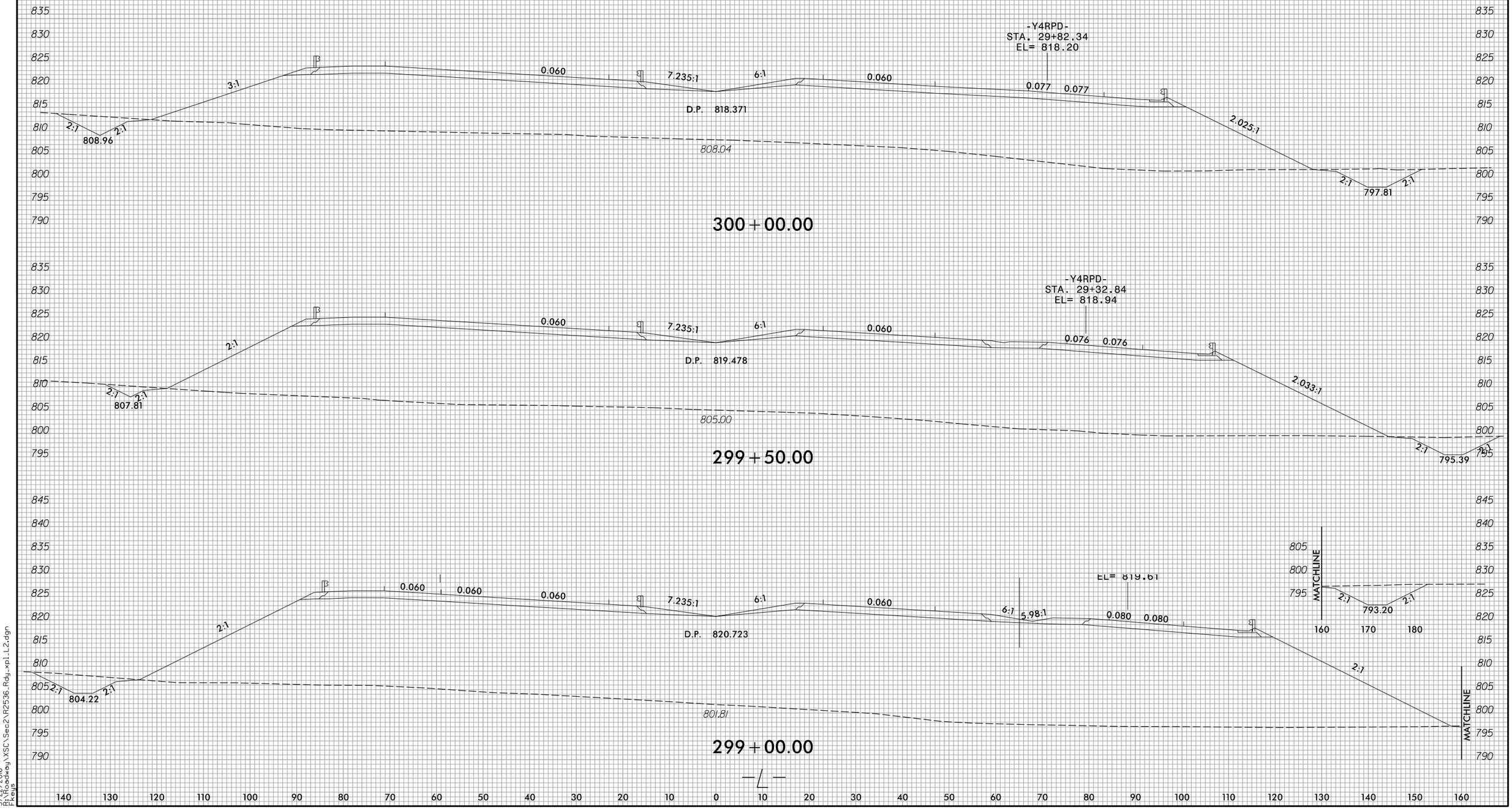
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-51



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-52

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

835 830 825 820 815 810 805 800

-Y4RPD-
STA. 31+30.44
EL= 816.53

6:1 2:1 812.41 0.060 7.235:1 6:1 0.060 0.079 0.079 6.02:1 2:1 805.03 2:1

815.51
D.P. 815.872

301+50.00

835 830 825 820 815 810 805 800

-Y4RPD-
STA. 30+81.13
EL= 816.97

5:1 2:1 811.26 2:1 0.060 7.235:1 6:1 0.060 0.079 0.079 3.71:1 2:1 802.64 2:1

D.P. 816.567
813.57

301+00.00

835 830 825 820 815 810 805 800 795

-Y4RPD-
STA. 30+31.76
EL= 817.53

4:1 2:1 810.11 2:1 0.060 7.235:1 6:1 0.060 0.078 0.078 2.47:1 2:1 800.23 2:1

D.P. 817.400
810.94

300+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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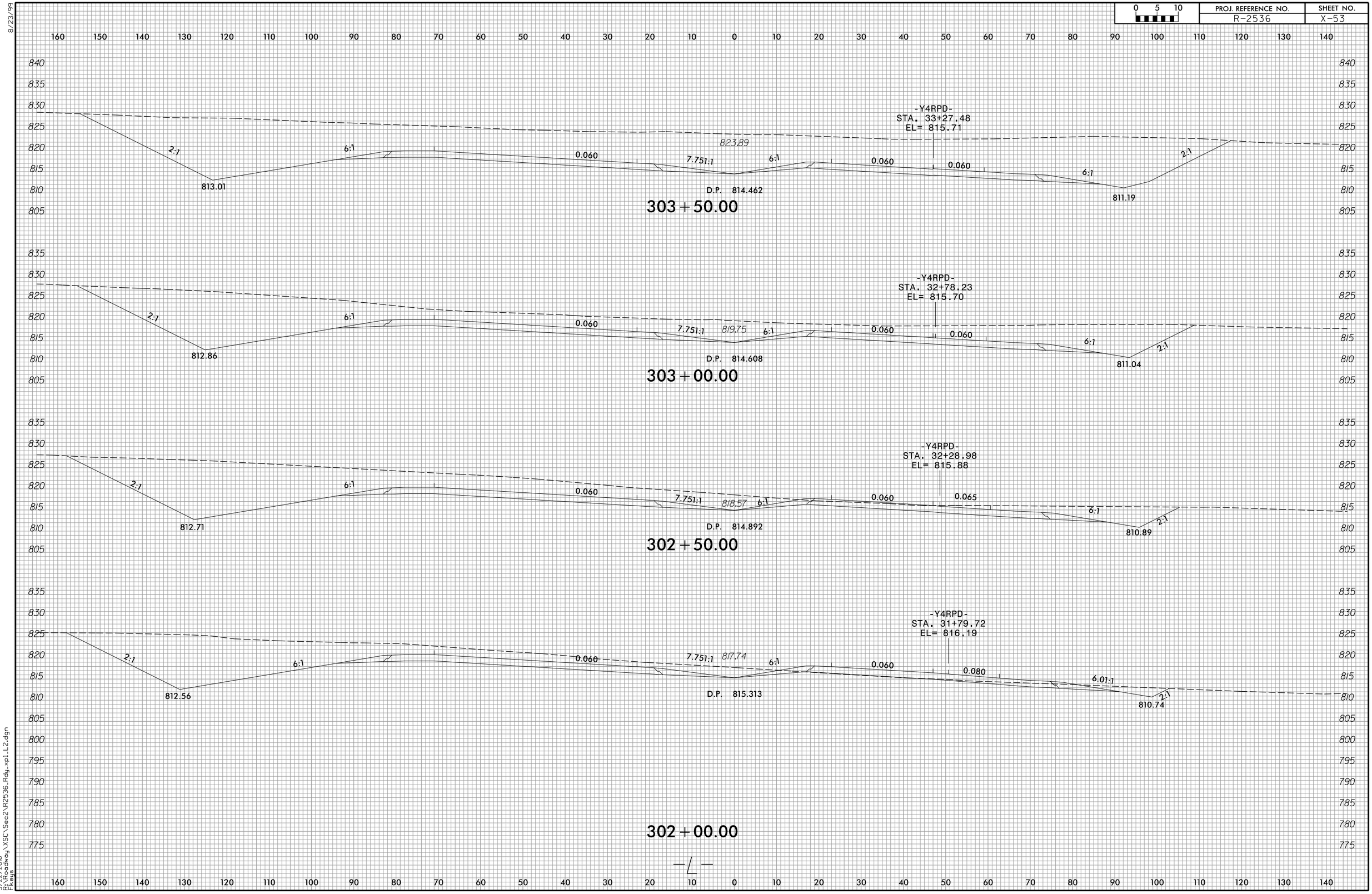
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-53



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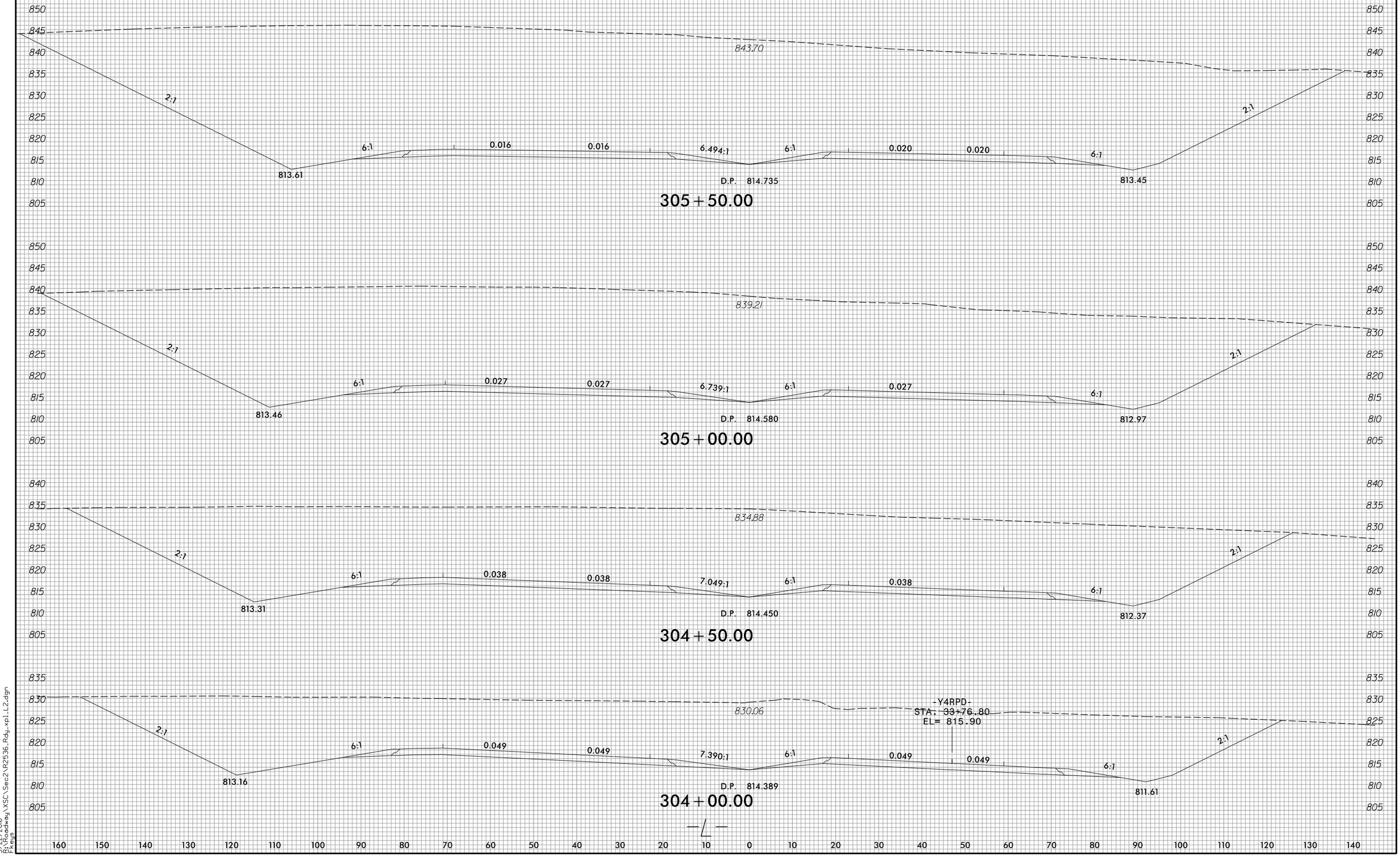
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-54



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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-55

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

870 860 850 840 830 820 810

854.88

2:1 6:1 0.020 0.020 6:1 6:1 0.020 0.020 6:1 2:1

814.44 D.P. 815.719 814.43

308 + 00.00

860 850 840 830 820 810

853.36

2:1 6:1 0.020 0.020 6:1 6:1 0.020 0.020 6:1 2:1

814.21 D.P. 815.522 814.24

307 + 50.00

860 850 840 830 820 810

851.79

2:1 6:1 0.017 0.017 6.034:1 6:1 0.020 0.020 6:1 2:1

814.06 D.P. 815.325 814.04

307 + 00.00

860 850 840 830 820 810 800

849.82

2:1 6:1 0.006 0.006 6.180:1 6:1 0.020 0.020 6:1 2:1

813.91 D.P. 815.128 813.84

306 + 50.00

860 850 840 830 820 810 800

847.15

2:1 6:1 0.005 0.005 6.333:1 6:1 0.020 0.020 6:1 2:1

813.76 D.P. 814.931 813.64

306 + 00.00

—℄—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-56

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

870 860 850 840 830 820 810

858.31

2:1 6:1 0.020 0.020 6:1 6:1 0.020 0.020 6:1 2:1

815.39 D.P. 816.506 815.23

310+00.00

870 860 850 840 830 820 810

851.64

2:1 6:1 0.020 0.020 6:1 6:1 0.020 0.020 6:1 2:1

815.15 D.P. 816.309 815.02

309+50.00

870 860 850 840 830 820 810

851.30

2:1 6:1 0.020 0.020 6:1 6:1 0.020 0.020 6:1 2:1

814.92 D.P. 816.112 814.83

309+00.00

870 860 850 840 830 820 810

853.86

2:1 6:1 0.020 0.020 6:1 6:1 0.020 0.020 6:1 2:1

814.68 D.P. 815.915 814.63

308+50.00

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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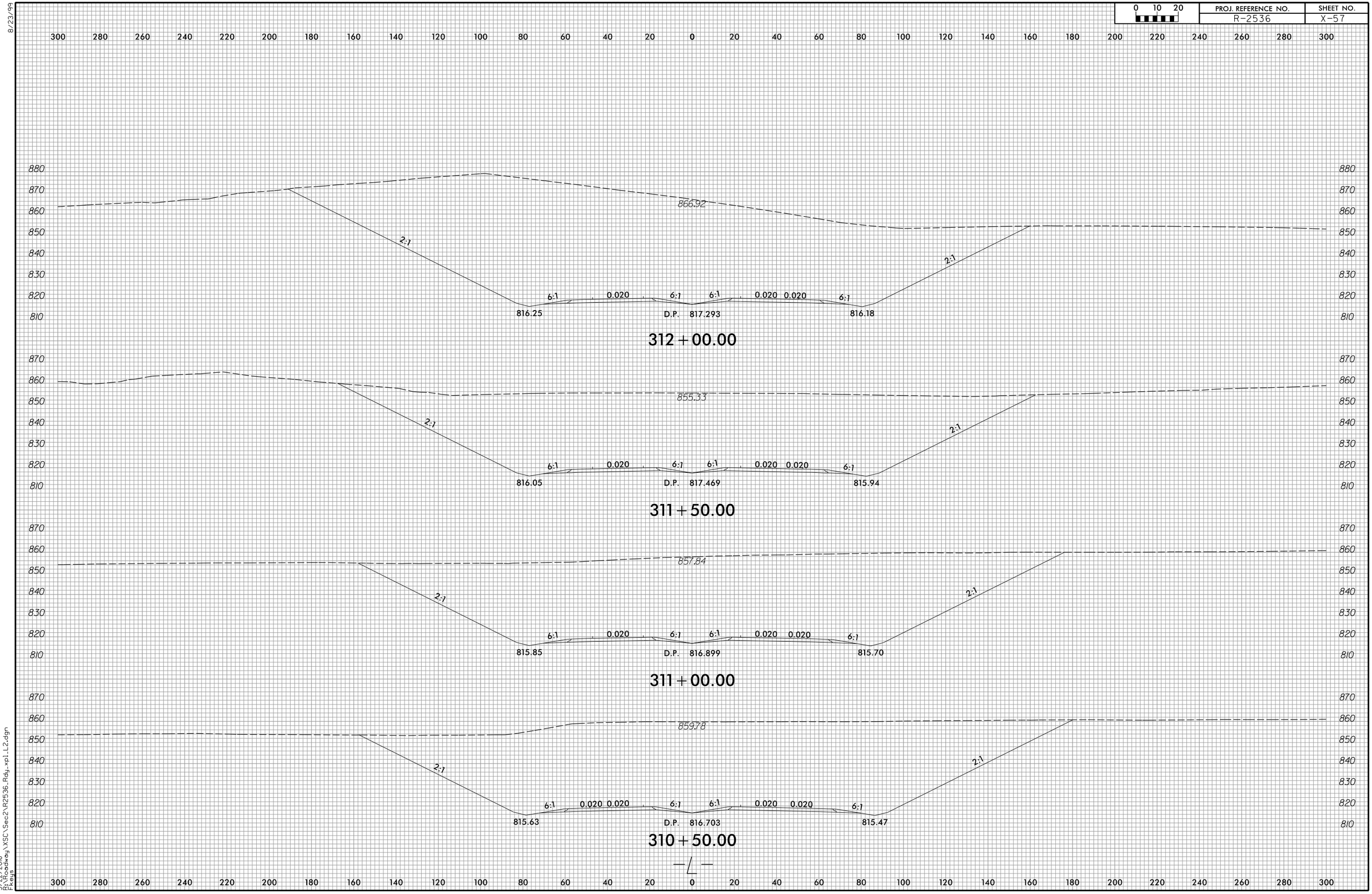
8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-57



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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-58

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

870 860 850 840 830 820 810

865.39

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

817.03 D.P. 818.080 817.03

314 + 00.00

880 870 860 850 840 830 820 810

874.70

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

816.84 D.P. 817.883 816.84

313 + 50.00

890 880 870 860 850 840 830 820 810

880.05

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

816.64 D.P. 817.687 816.64

313 + 00.00

890 880 870 860 850 840 830 820 810

883.10

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1

816.44 D.P. 817.490 816.41

312 + 50.00

—L—

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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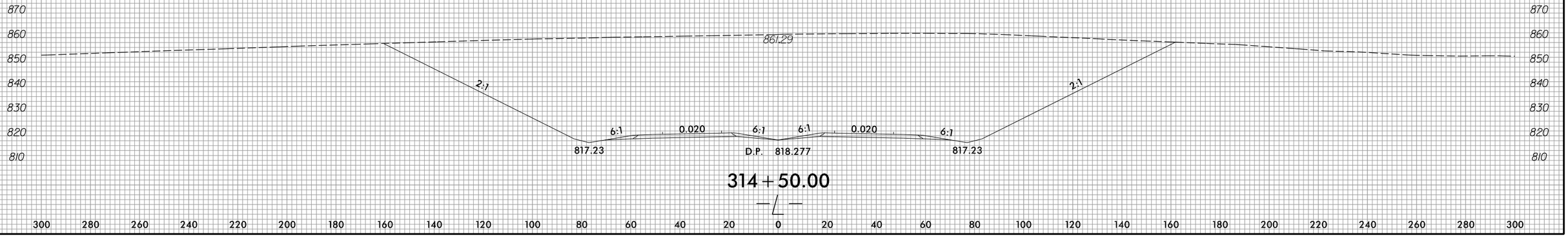
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-59

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-60

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

855 850 845 840 835 830 825 820 815 810

850.77

2:1

2:1

6:1 0.020 6:1 6:1 0.020 6:1

817.51 817.51

D.P. 818.553

315+50.00

870 865 860 855 850 845 840 835 830 825 820 815 810 805 800

857.39

2:1

2:1

6:1 0.020 6:1 6:1 0.020 6:1

817.41 817.41

D.P. 818.457

315+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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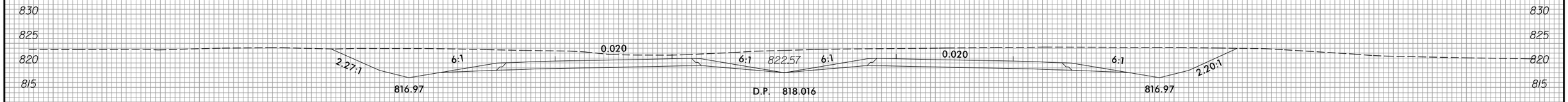
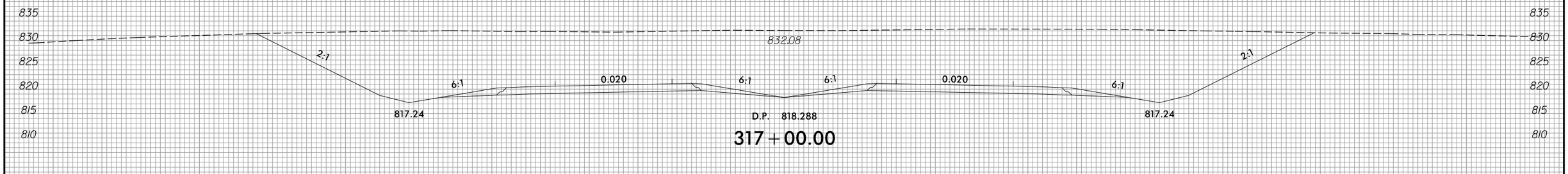
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-61

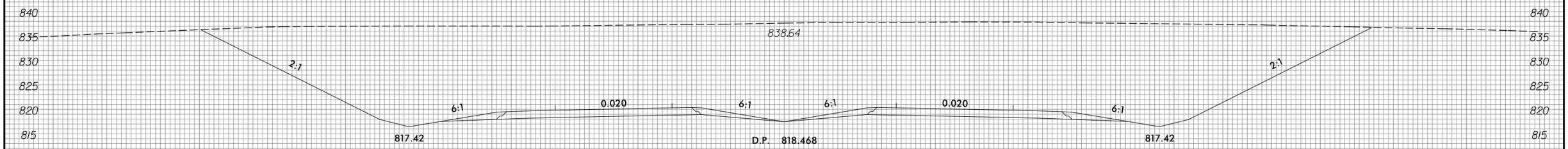
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



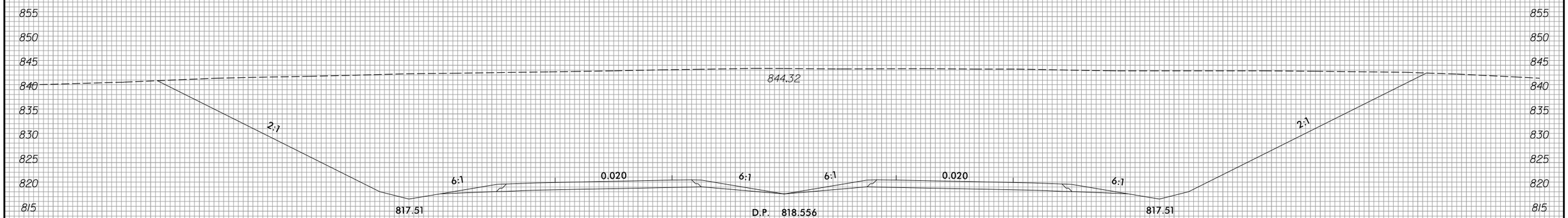
317 + 50.00



317 + 00.00



316 + 50.00



316 + 00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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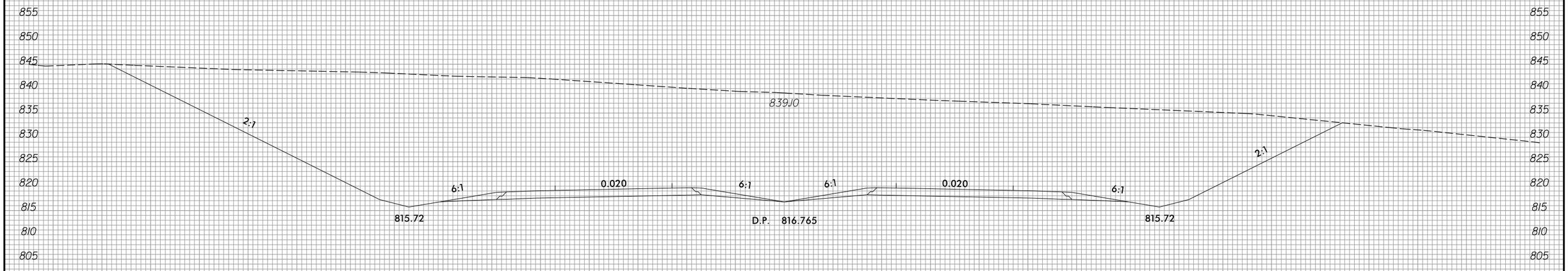
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-62

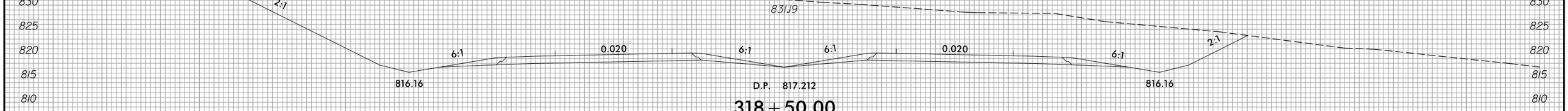
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

855 850 845 840 835 830 825 820 815 810 805 800 795



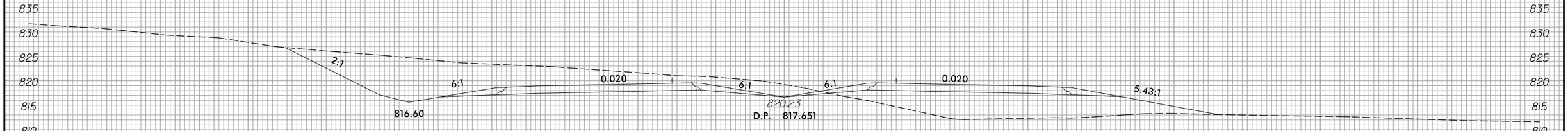
319+00.00

845 840 835 830 825 820 815 810



318+50.00

835 830 825 820 815 810 805 800



318+00.00

℄

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-63

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-64

170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

865 860 855 850 845 840 835 830 825 820 815 810 805

856.14

2:1

6:1 0.020 6:1 6:1 0.020 6:1

813.48 D.P. 814.529 813.48

321+50.00

2:1

870 865 860 855 850 845 840 835 830 825 820 815 810 805

859.04

2:1

6:1 0.020 6:1 6:1 0.020 6:1

813.93 D.P. 814.977 813.93

321+00.00

—℄—

170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

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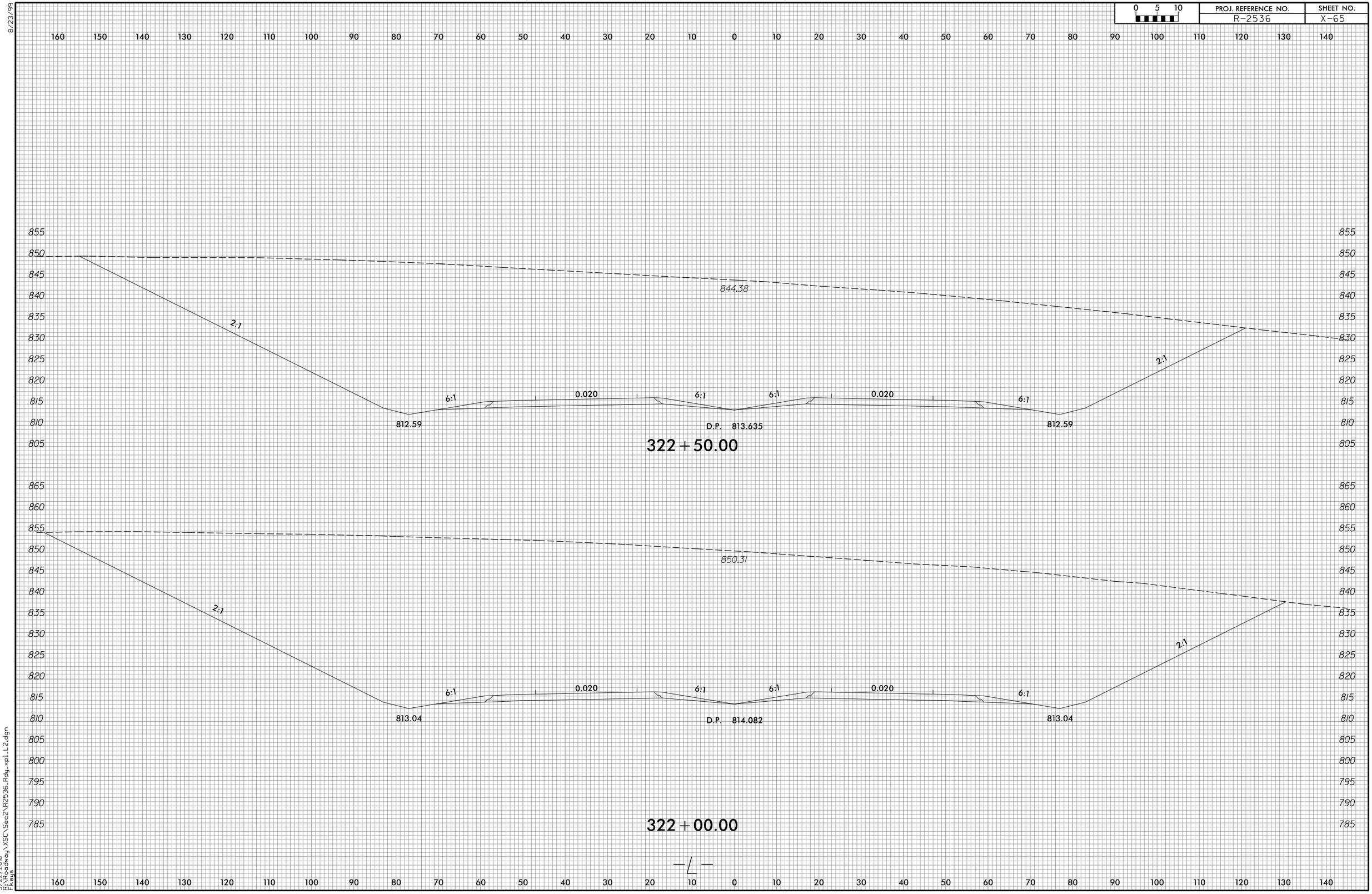
Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-65



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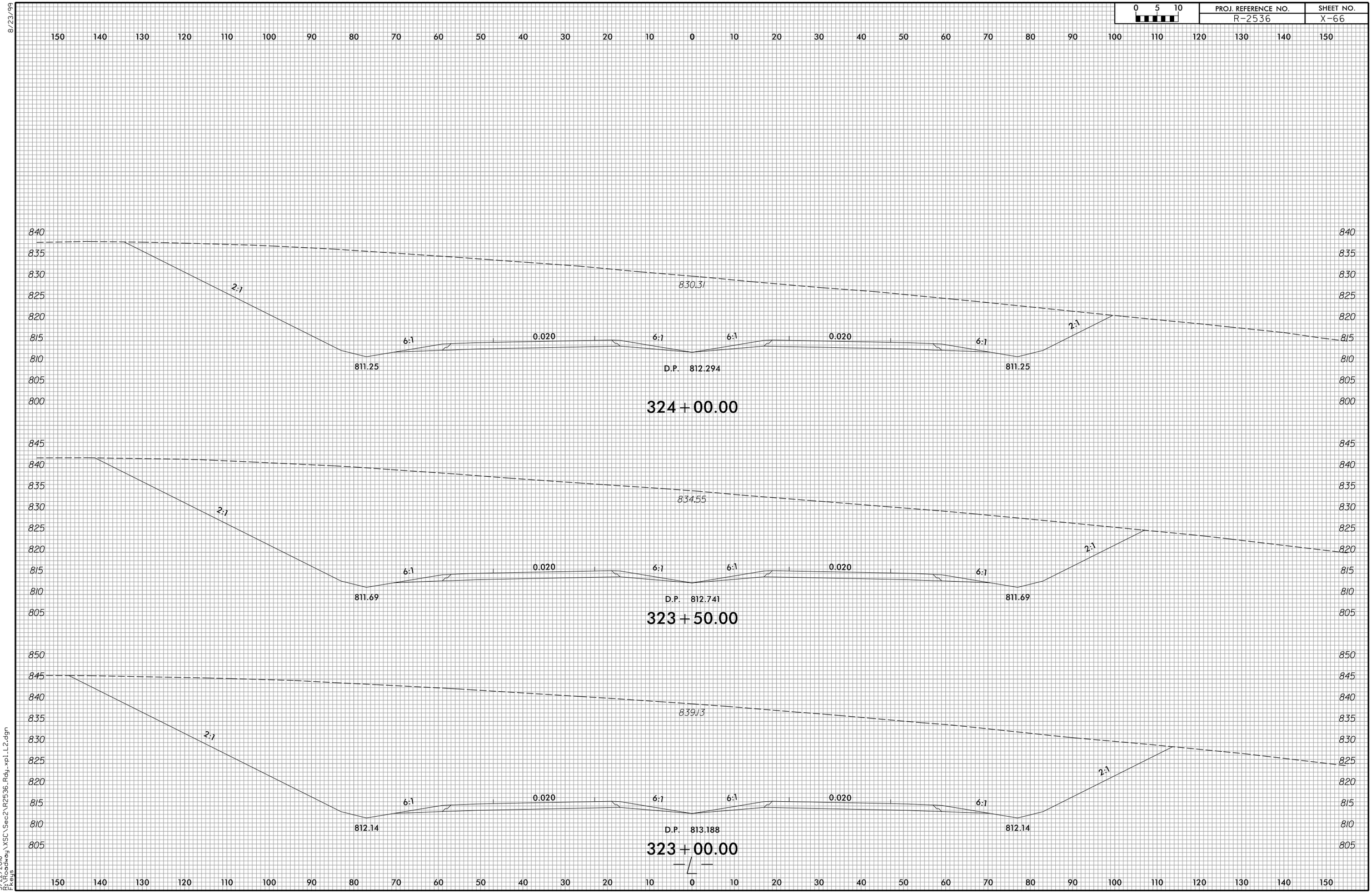
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-66



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-67

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

835 830 825 820 815 810 805

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

819.96

809.95 D.P. 810.997 809.95

325+50.00

840 835 830 825 820 815 810 805

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

823.74

810.35 D.P. 811.400 810.35

325+00.00

840 835 830 825 820 815 810 805 800 795 790 785

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1

827.03

810.80 D.P. 811.847 810.80

324+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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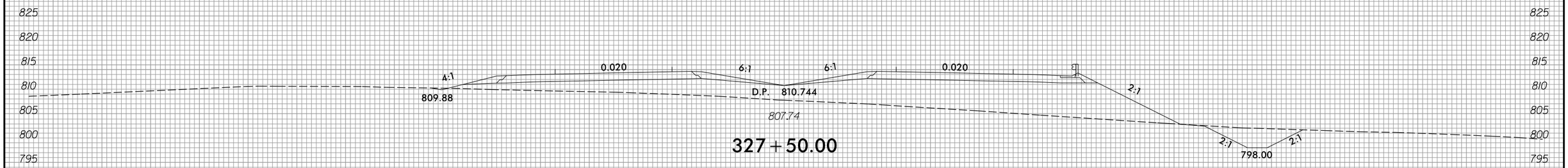
Fkeys

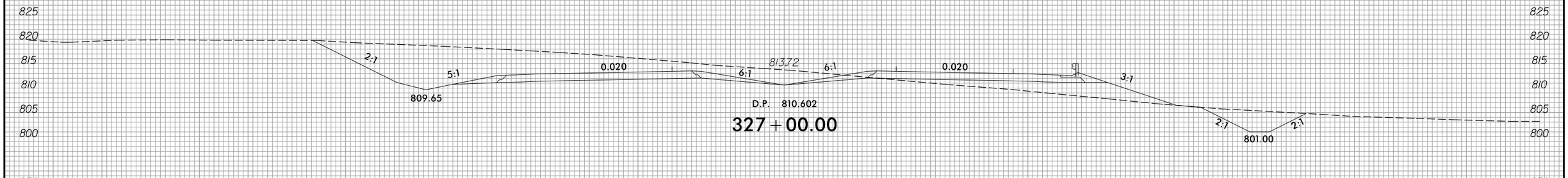
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-68

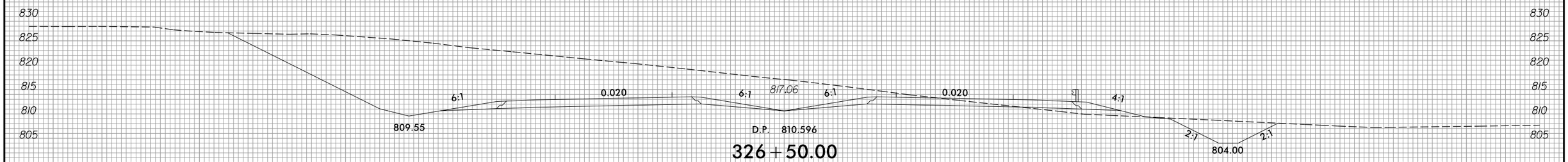
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



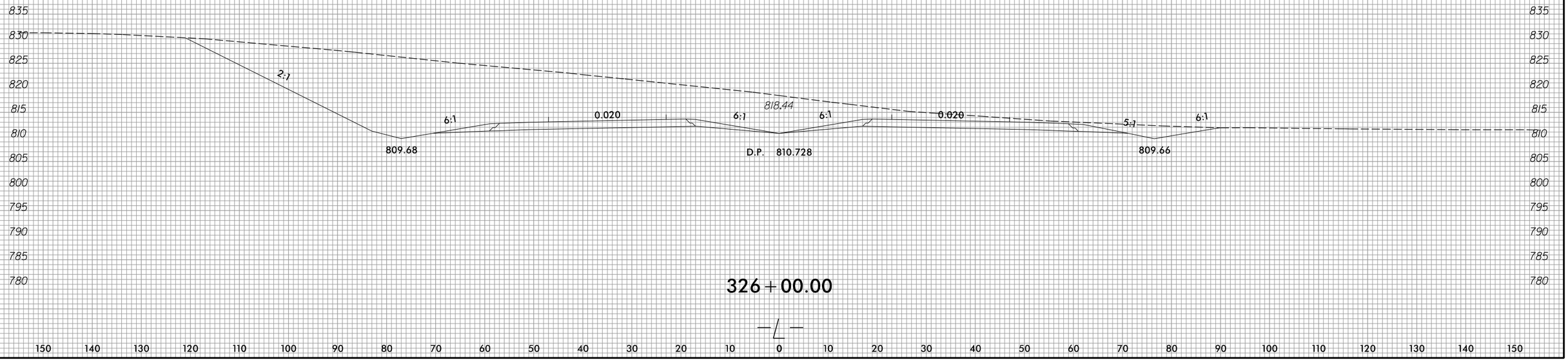
327 + 50.00



327 + 00.00



326 + 50.00



326 + 00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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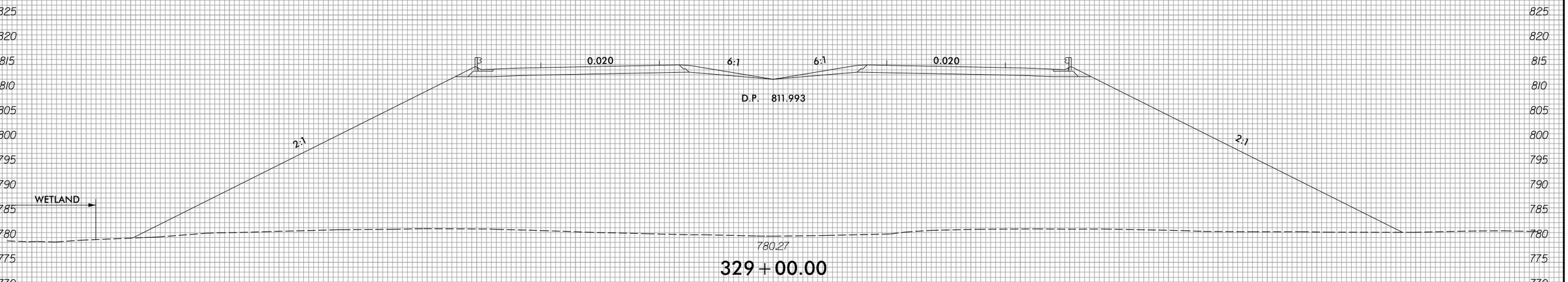
8/23/99

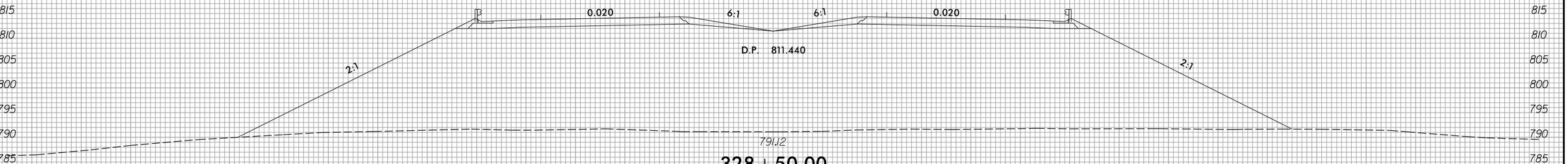
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-69

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

825 820 815 810 805 800 795 790 785 780 775 770



329+00.00



328+50.00

328+00.00

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-70

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

825 820 815 810 805 800 795 790 785 780

0.020 6:1 6:1 0.020

D.P. 814.464

2:1 2:1 2:1 2:1 2:1 2:1

785.40

788.73

781.35

330 + 50.00

825 820 815 810 805 800 795 790 785 780 775

0.020 6:1 6:1 0.020

D.P. 813.511

2:1 2:1 2:1 2:1 2:1 2:1

785.40

782.53

775.19

330 + 00.00

825 820 815 810 805 800 795 790 785 780 775 770 765

0.020 6:1 6:1 0.020

D.P. 812.684

2:1 2:1 2:1 2:1 2:1 2:1

778.80

777.26

329 + 50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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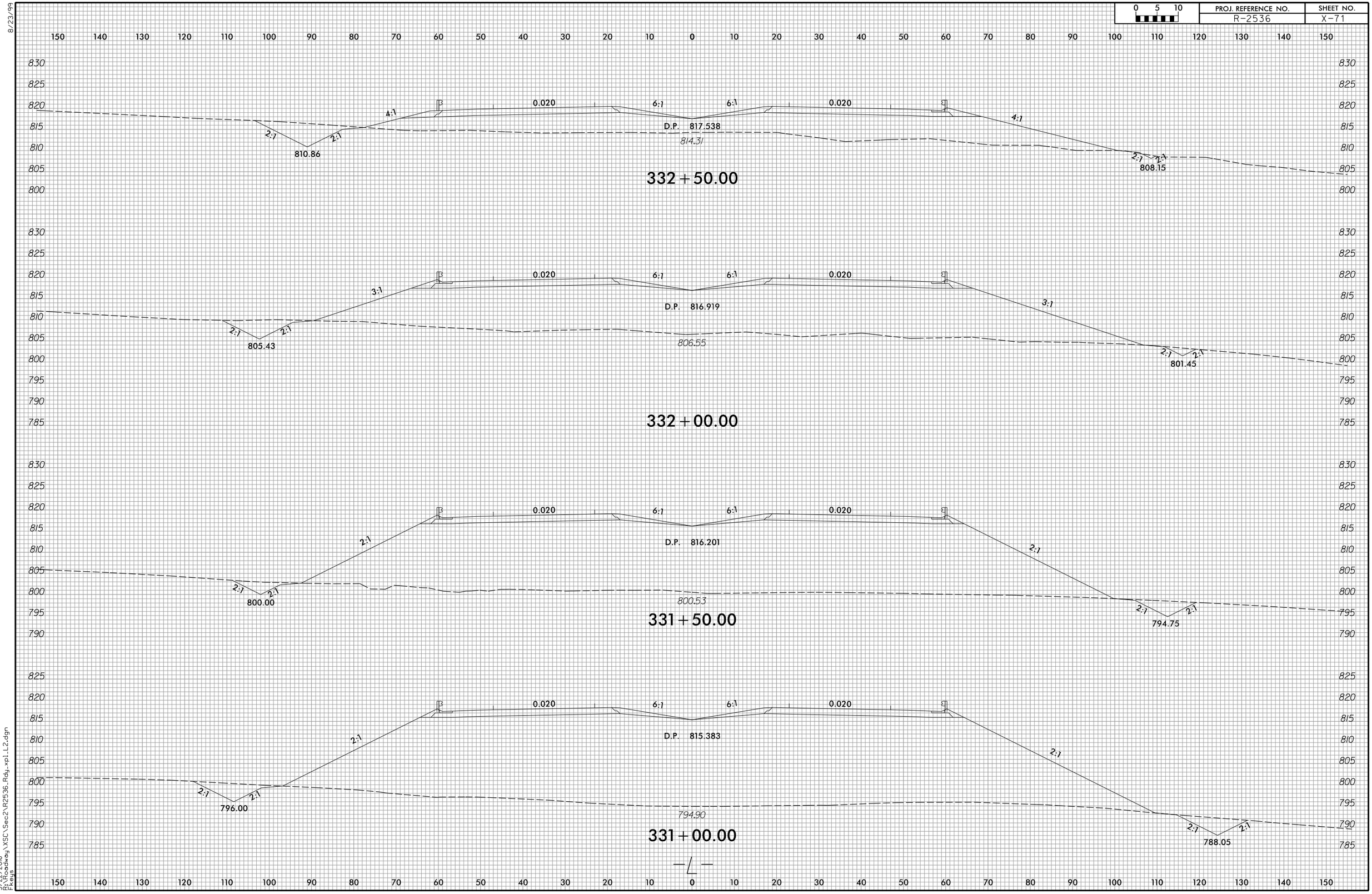
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-71



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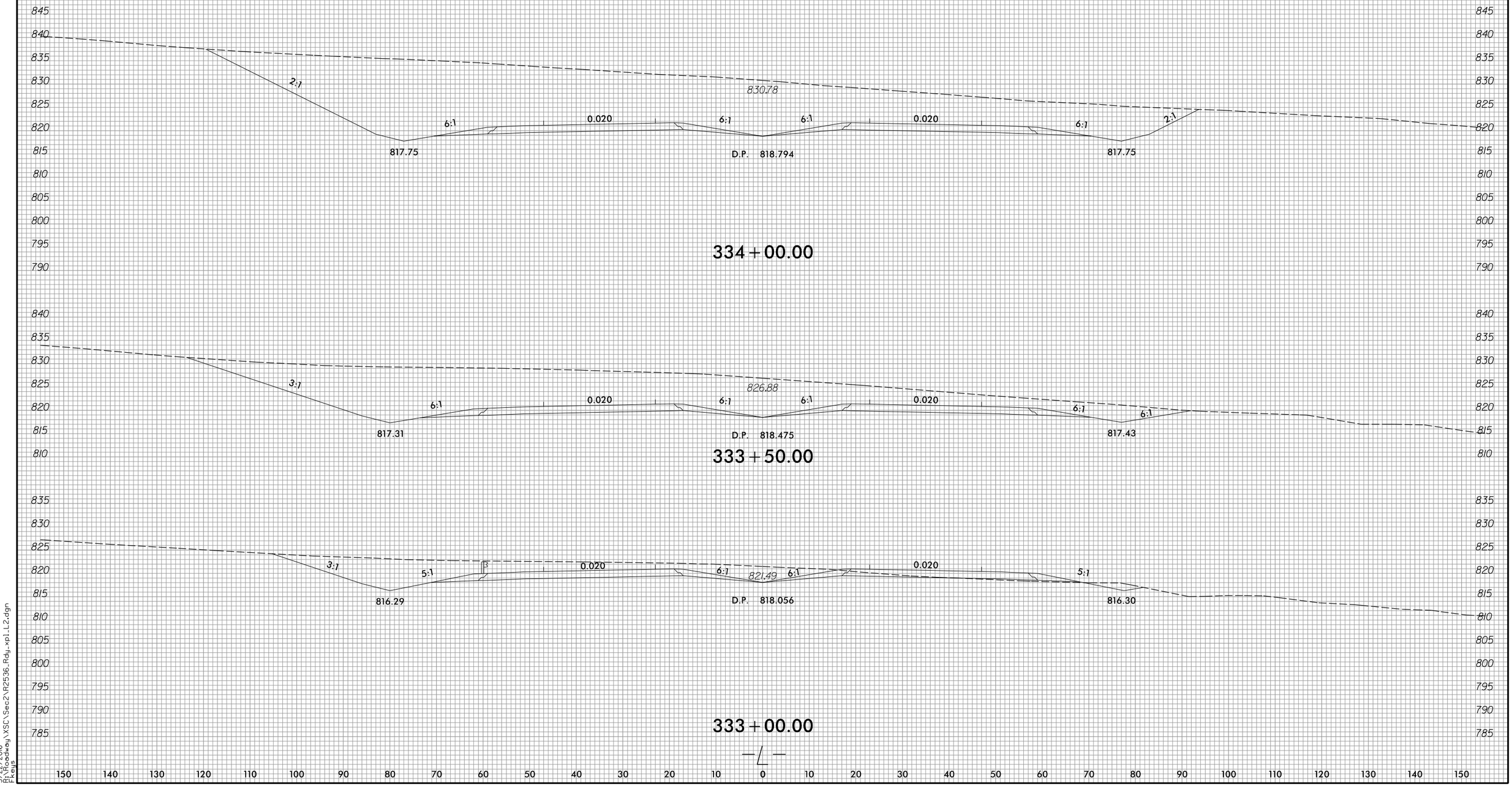
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-72



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Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-73

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

855 850 845 840 835 830 825 820 815 810 805 800 795 790 785

2:1

836.48

6:1 0.020 6:1 6:1 0.020 6:1

2:1

818.08 D.P. 819.131 818.08

335+00.00

850 845 840 835 830 825 820 815 810 805 800 795 790 785

2:1

832.80

6:1 0.020 6:1 6:1 0.020 6:1

2:1

817.97 D.P. 819.012 817.97

334+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-74

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

845 840 835 830 825 820 815 810 805

2:1 6:1 0.020 6.504:1 824.84 6:1 0.001 4:1

817.84 D.P. 819.107

336+50.00

850 845 840 835 830 825 820 815 810

2:1 830.62 6:1 0.020 6.733:1 6:1 0.012 5:1 6:1

818.02 D.P. 819.431 817.62

336+00.00

850 845 840 835 830 825 820 815 810 805 800 795 790 785

2:1 834.60 6:1 0.020 6:1 6:1 0.020 6:1 2:1

818.10 D.P. 819.150 818.10

335+50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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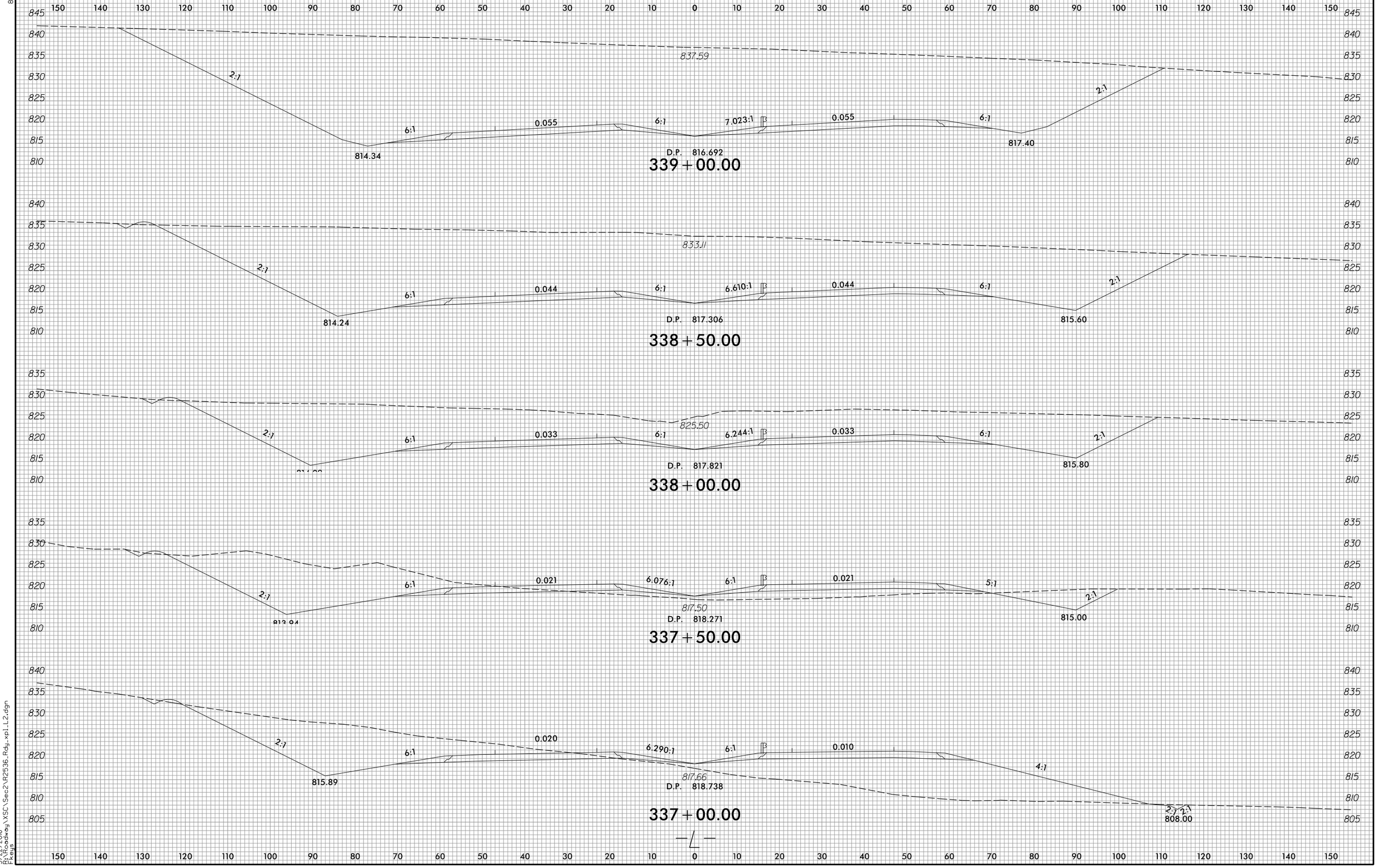
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-75



3/22/2016
P:\Roadway\XSC\Sec2\R2536_Rdy_xp1_L2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-76

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

850 845 840 835 830 825 820 815 810 805

844.12

2:1

6:1

0.080

6:1

0.088 FT./FT.

0.080

6:1

2:1

810.80

815.54

D.P. 814.695

340 + 50.00

855 850 845 840 835 830 825 820 815 810 805 800

843.04

2:1

6:1

0.077

6:1

0.090 FT./FT.

0.077

6:1

2:1

811.88

816.42

D.P. 815.652

340 + 00.00

850 845 840 835 830 825 820 815 810 805

841.47

2:1

6:1

0.066

6:1

9.756:1

0.066

6:1

2:1

813.16

816.96

D.P. 816.443

339 + 50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-77

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

855 850 845 840 835 830 825 820 815 810 805 800

846.81

2:1

6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1

807.25 811.99

2:1

D.P. 811.154

342+00.00

850 845 840 835 830 825 820 815 810 805 800

845.08

2:1

6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1

808.53 813.27

2:1

D.P. 812.434

341+50.00

855 850 845 840 835 830 825 820 815 810 805 800

843.74

2:1

6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1

809.71 814.45

2:1

D.P. 813.615

341+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-78

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

845 840 835 830 825 820 815 810 805 800 795 790 785 780

837.95

2:1

6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1

802.81 D.P. 806.713 807.55

2:1

343+50.00

845 840 835 830 825 820 815 810 805 800

842.58

2:1

6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1

804.39 D.P. 808.293 809.13

2:1

343+00.00

855 850 845 840 835 830 825 820 815 810 805 800

846.60

2:1

6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1

805.87 D.P. 809.773 810.61

2:1

342+50.00

—℄—

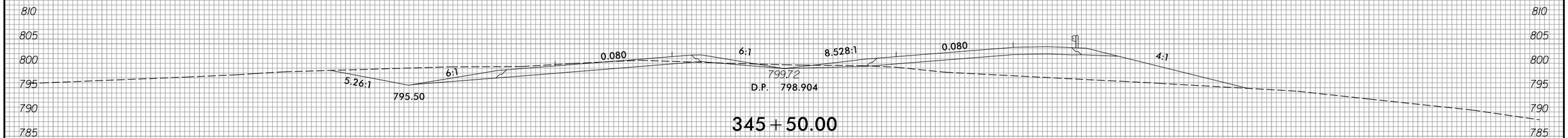
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xp1_L2.dgn
Fkeys

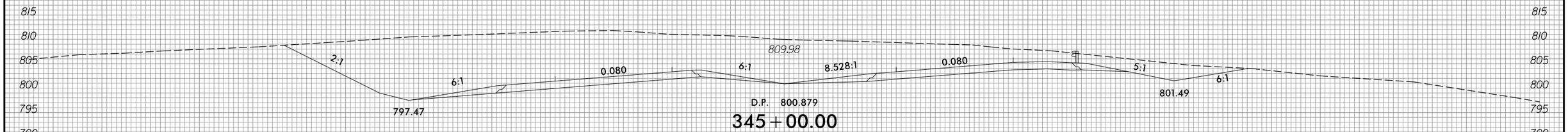
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-79

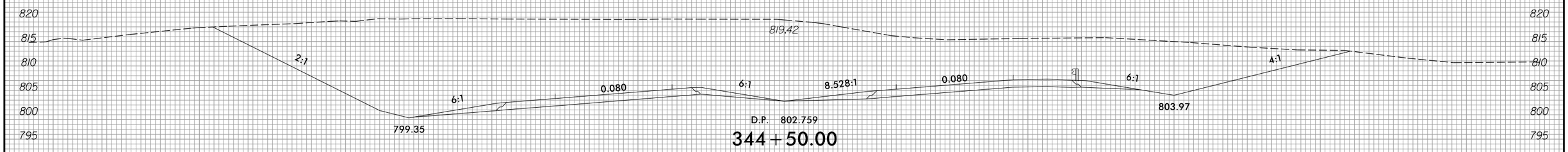
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



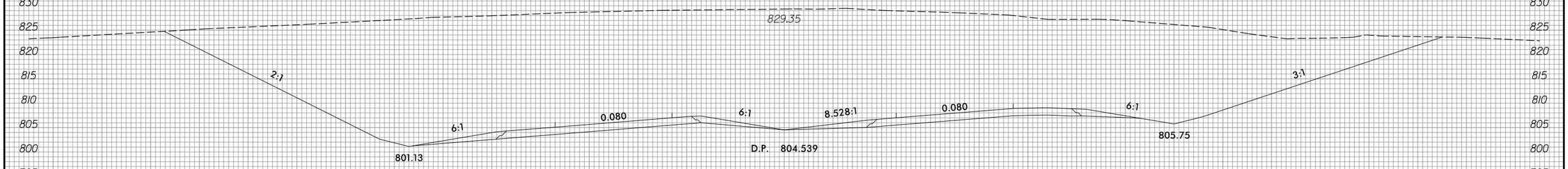
345 + 50.00



345 + 00.00



344 + 50.00



344 + 00.00

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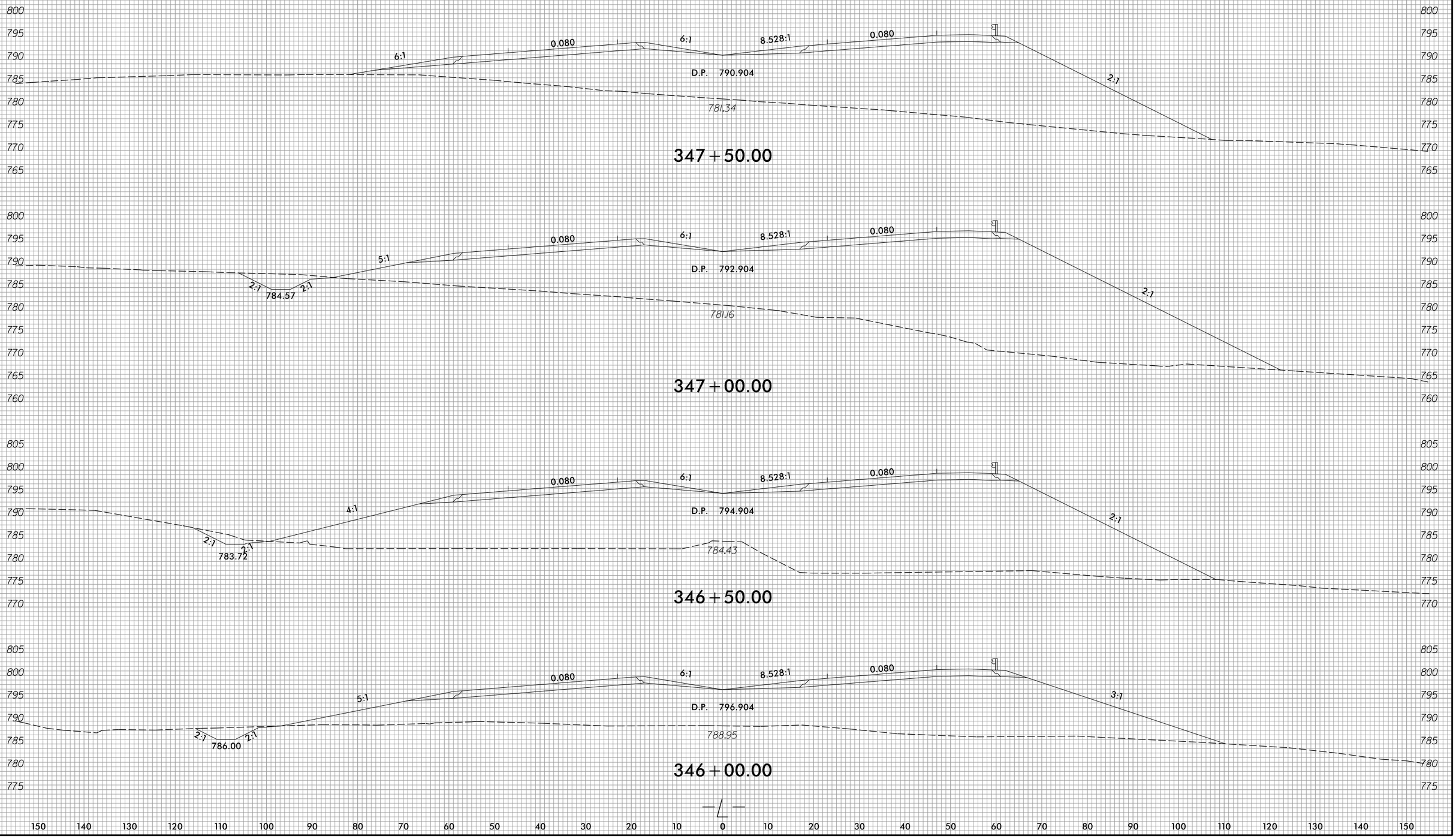
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-80

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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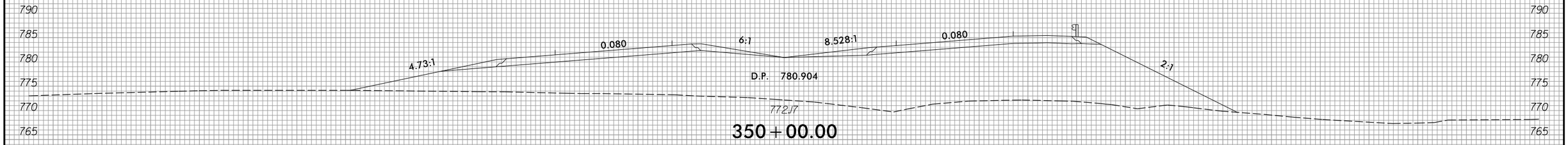
Fkeys

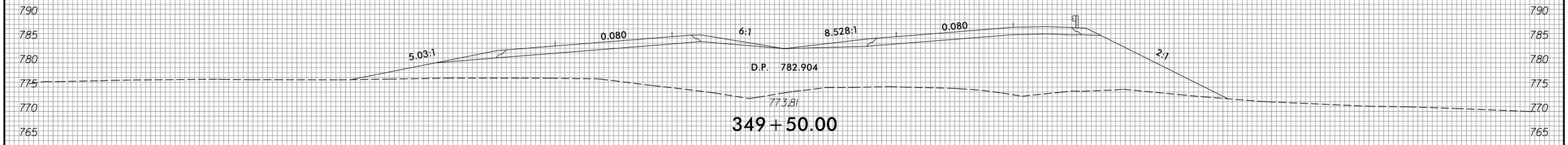
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-81

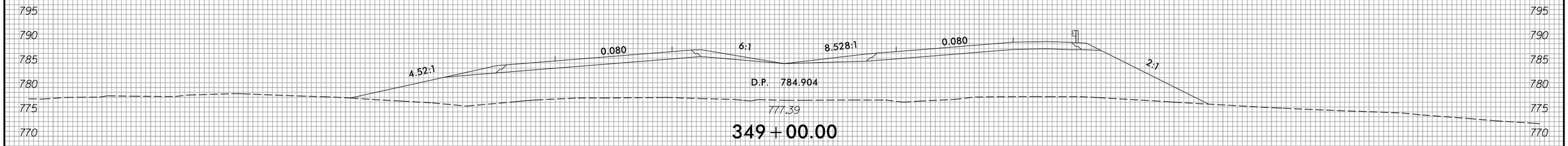
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



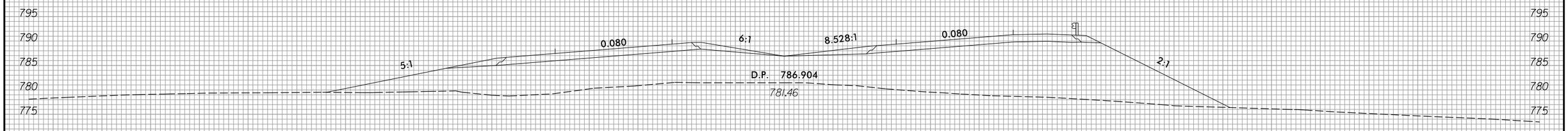
350 + 00.00



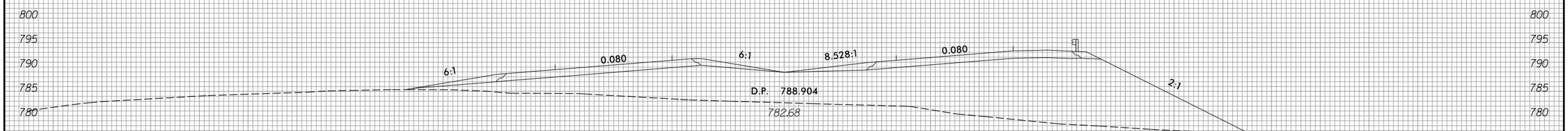
349 + 50.00



349 + 00.00



348 + 50.00



348 + 00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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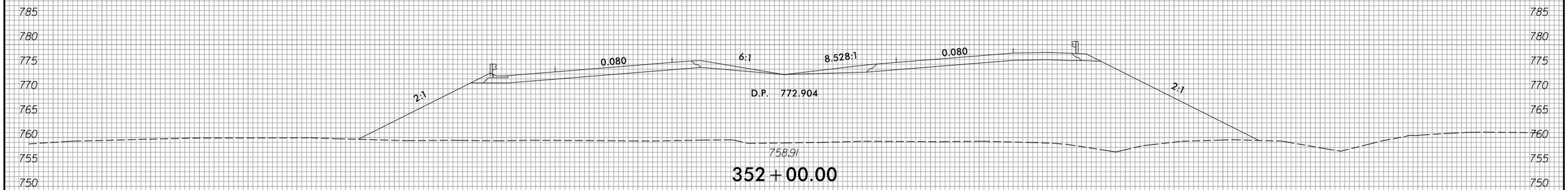
Fkeys

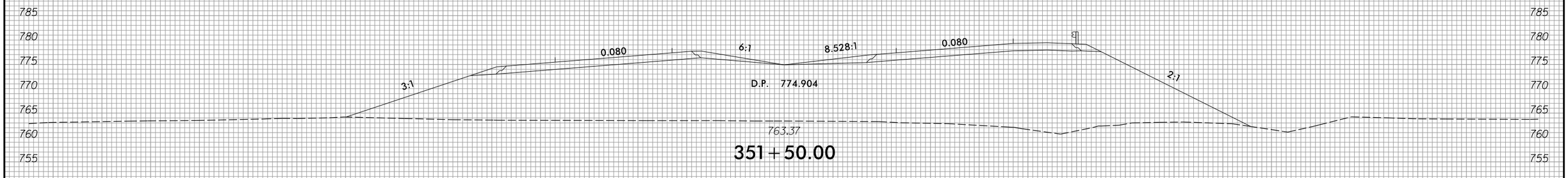
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-82

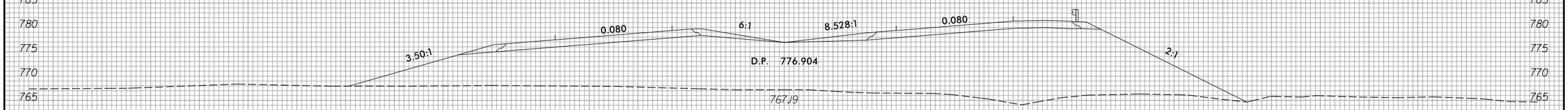
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



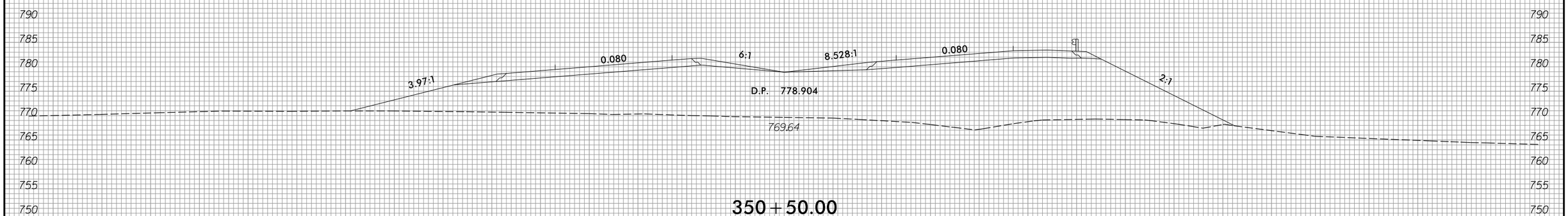
352 + 00.00



351 + 50.00



351 + 00.00



350 + 50.00

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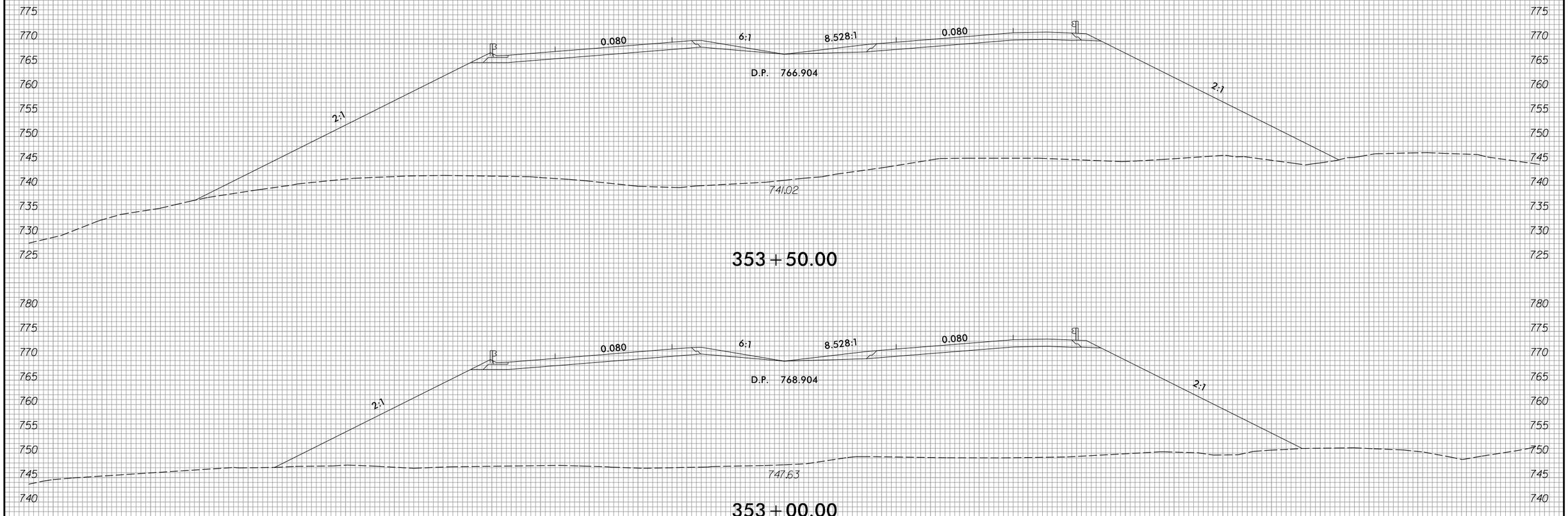
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-83



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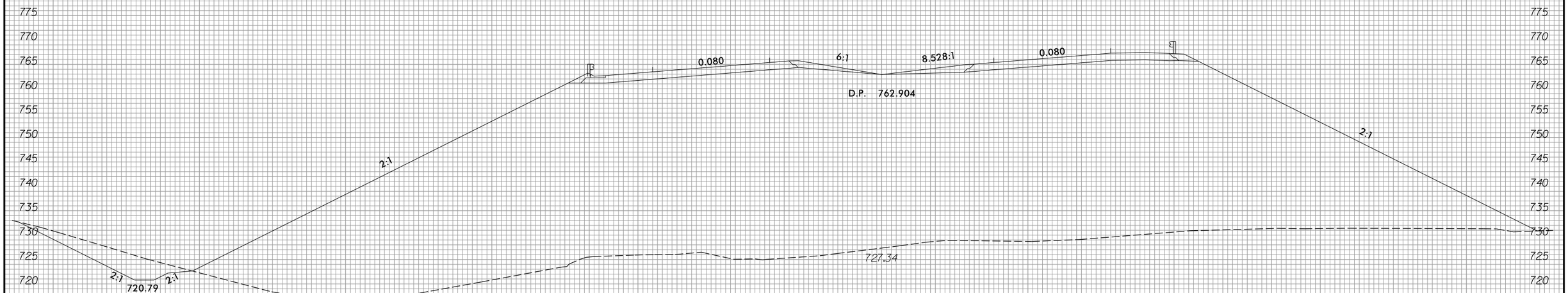
8/23/99

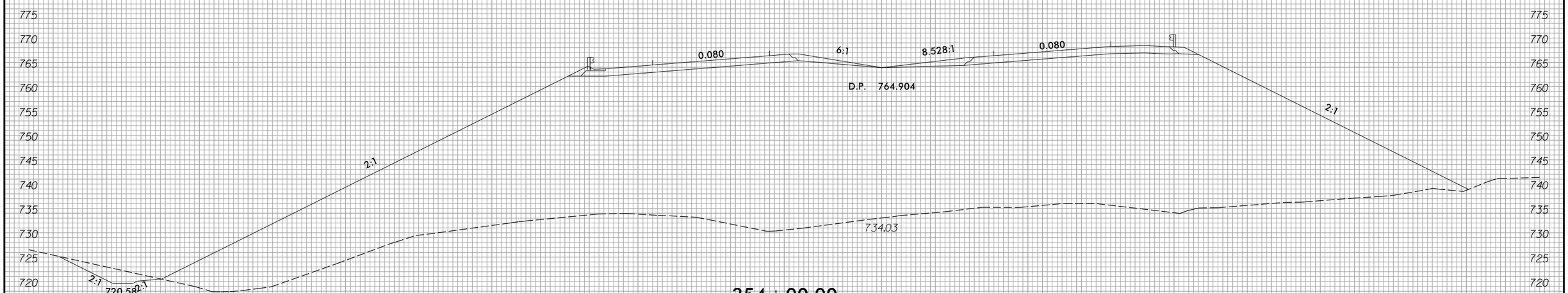
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-84

170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

775 770 765 760 755 750 745 740 735 730 725 720 715 710 705



354+50.00



354+00.00

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170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-85

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

770 765 760 755 750 745 740 735 730 725 720 715 710 705

0.080 6:1 8.528:1 0.080

D.P. 758.904

2:1 2:1 2:1 2:1 2:1

723.63

711.10

355+50.00

770 765 760 755 750 745 740 735 730 725 720 715 710

0.080 6:1 8.528:1 0.080

D.P. 760.904

2:1 2:1 2:1 2:1

721.00

721.12

355+00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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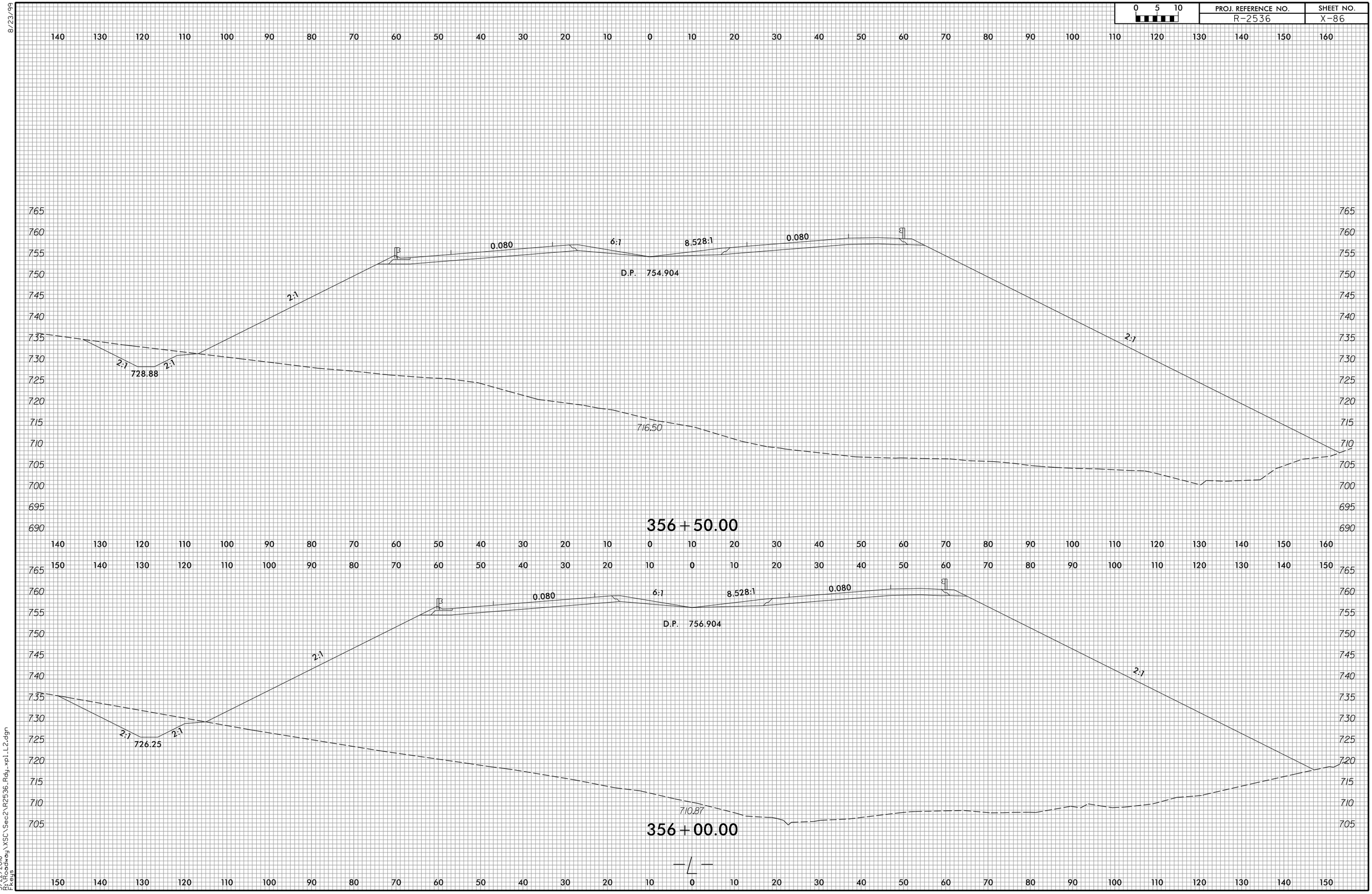
Keys

8/23/99

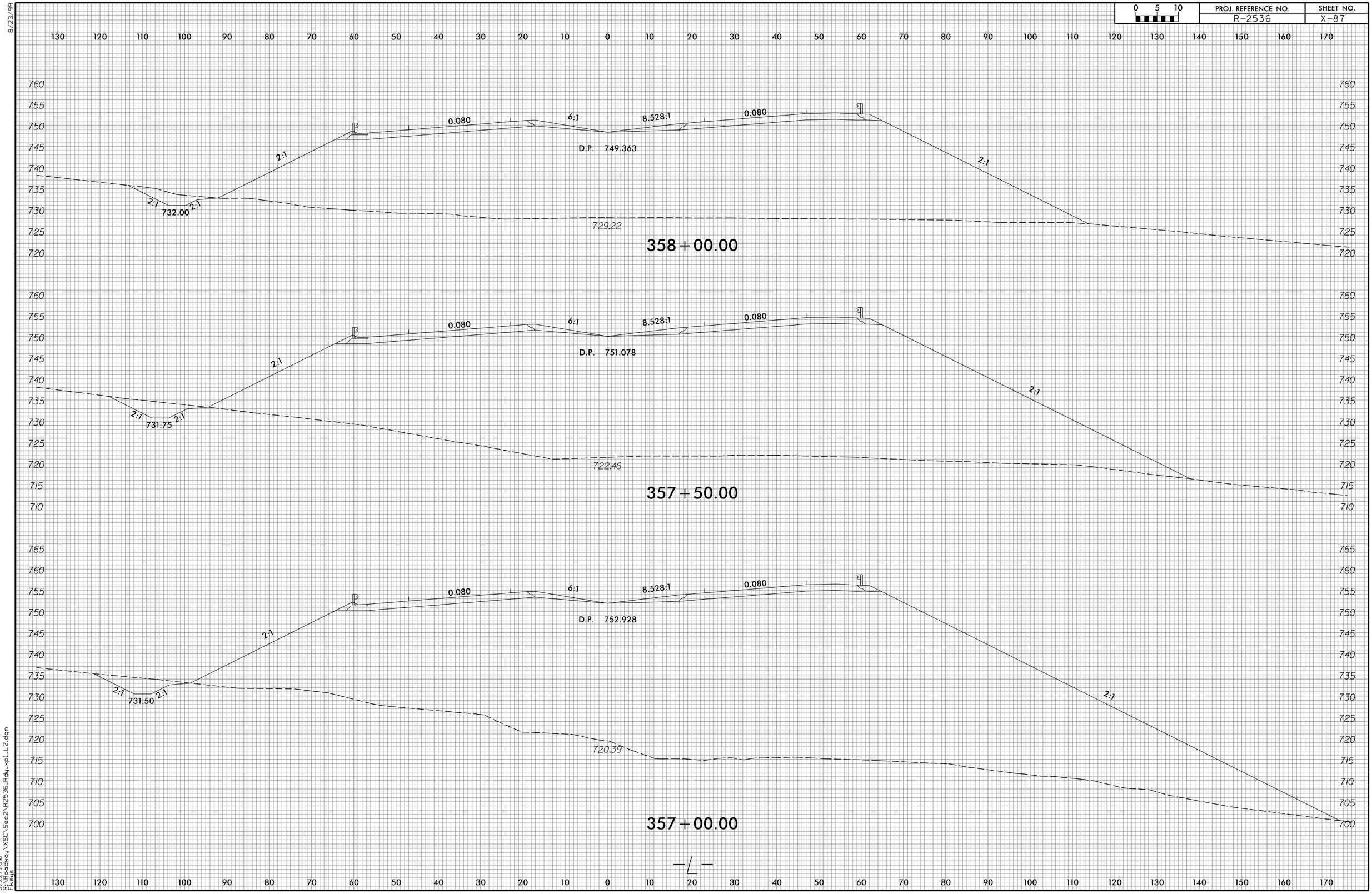
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-86



3/22/2016
P:\Roadway\XSC\Sec2\R2536_Rdy_xpl_L2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-87



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Fkeys

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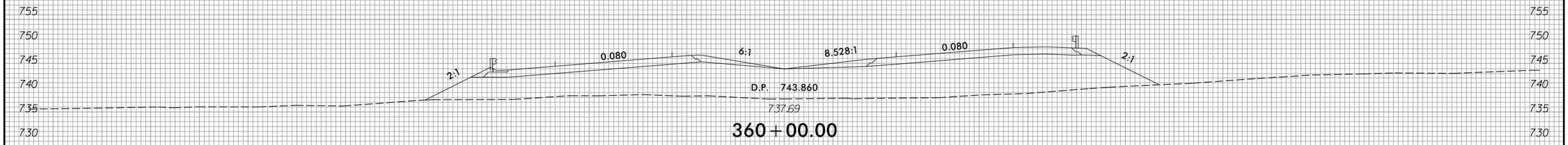
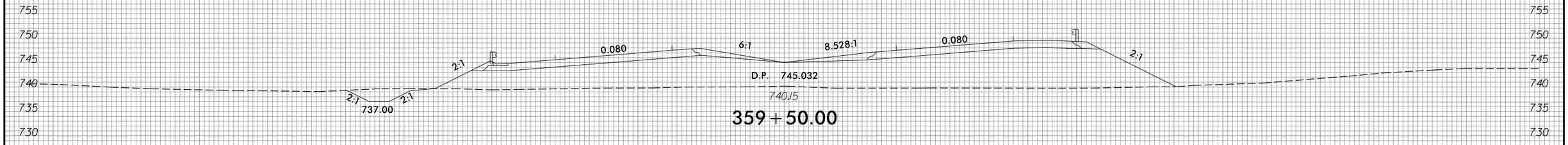
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-88

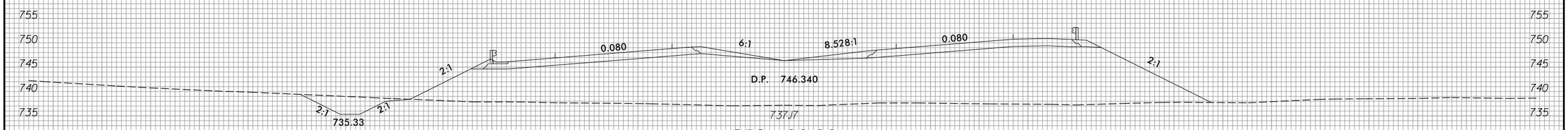
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



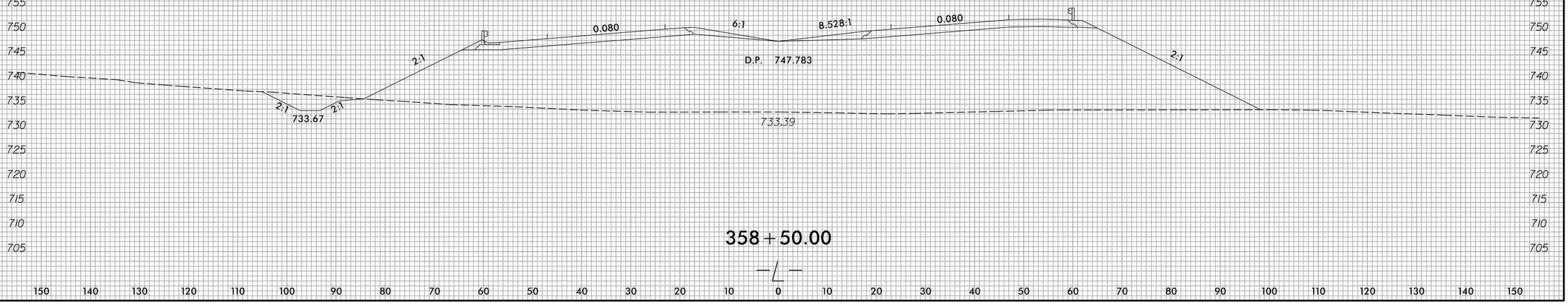
360 + 00.00



359 + 50.00



359 + 00.00



358 + 50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-89

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750 745 740 735 730 725 720 715 710 705 700 695

0.080 6:1 8.528:1 0.080

2:1 2:1

℄

D.P. 741.158

704.78

361+50.00

750 745 740 735 730 725 720 715 710 705

0.080 6:1 8.528:1 0.080

2:1 2:1

℄

D.P. 741.923

714.75

361+00.00

755 750 745 740 735 730 725 720 715 710 705 700

0.080 6:1 8.528:1 0.080

2:1 2:1

℄

D.P. 742.823

730.84

360+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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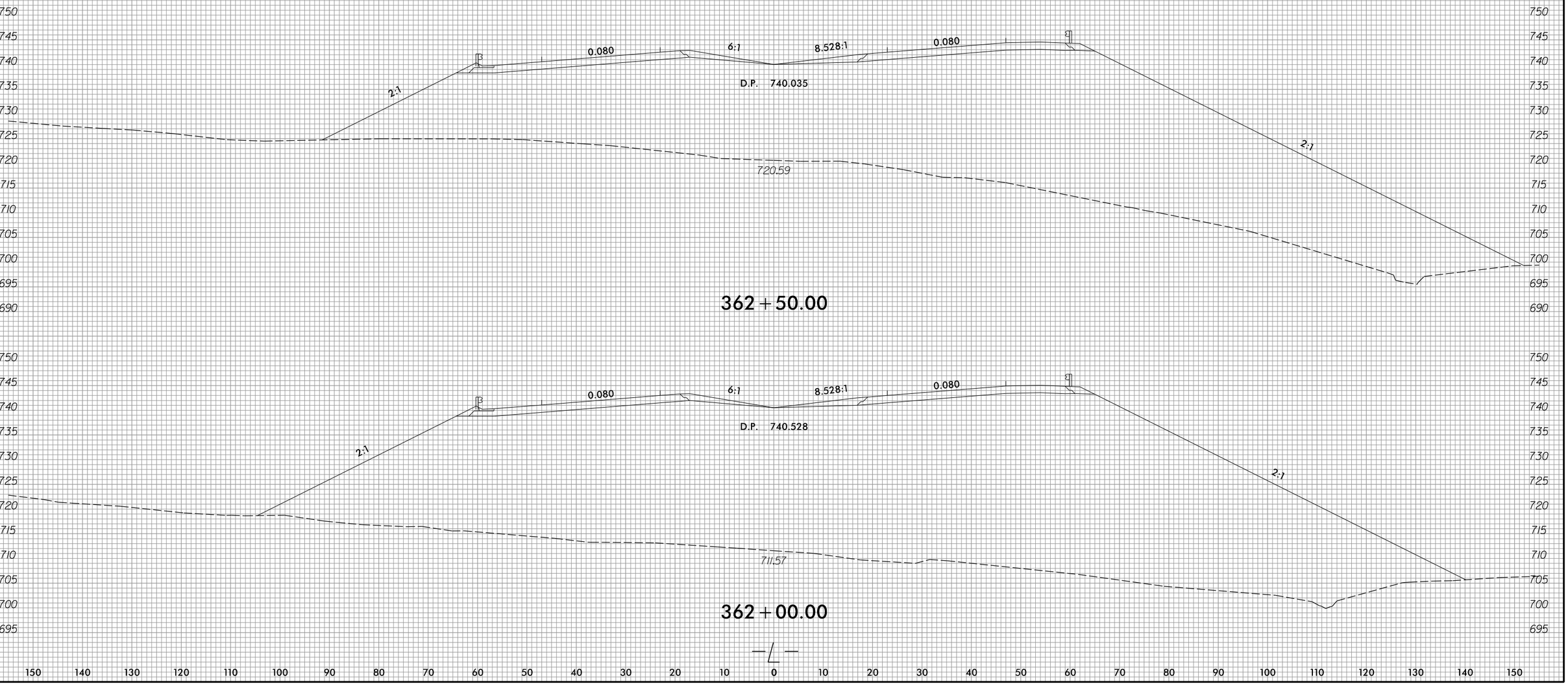
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-90

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750 745 740 735 730 725 720 715 710 705 700 695 690



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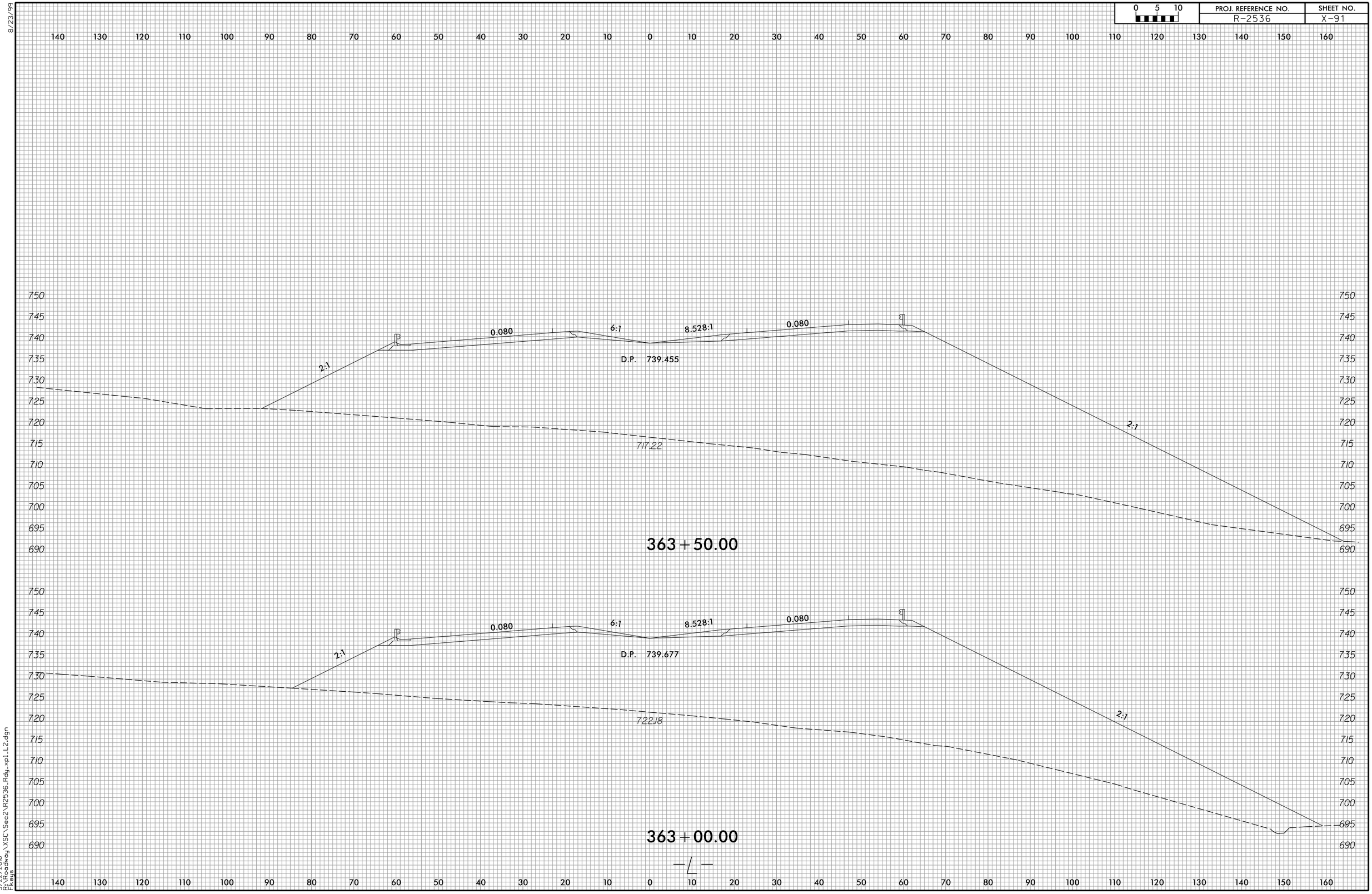
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-91



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-92

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

750 745 740 735 730 725 720 715 710 705 700 695 690 685 680

0.080 6:1 8.528:1 0.080

D.P. 739.418

2:1 2:1

701.06

2:1 2:1

692.00

364+50.00

750 745 740 735 730 725 720 715 710 705 700 695 690

0.080 6:1 8.528:1 0.080

D.P. 739.368

2:1 2:1

705.02

2:1 2:1

690.70

364+00.00

℄

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

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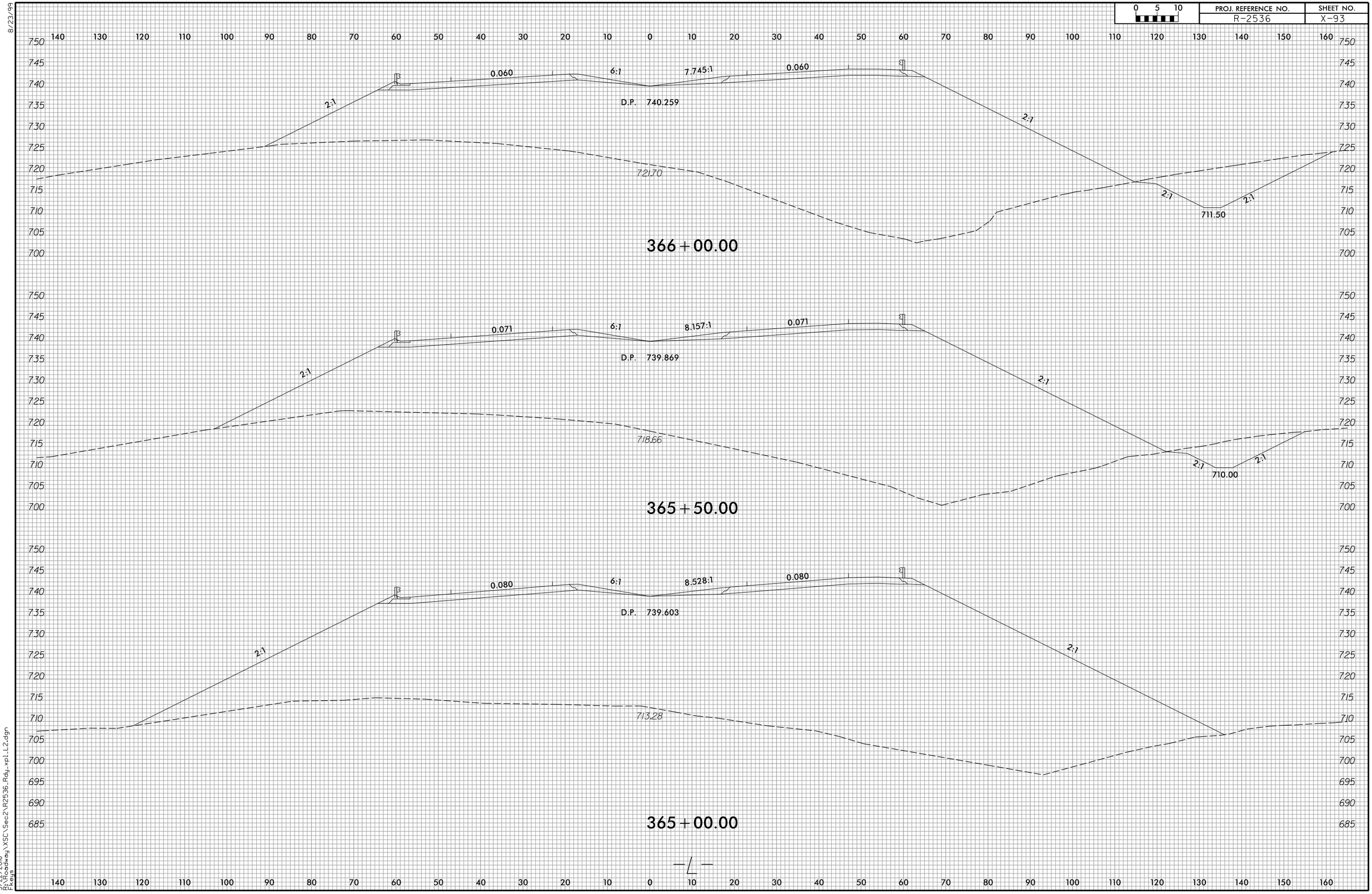
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-93



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-94

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

750 745 740 735 730 725 720 715 710

0.026 6:1 6.723:1 0.026

2:1 2:1 2:1 2:1

D.P. 742.218

732.71

715.00

367 + 50.00

755 750 745 740 735 730 725 720 715 710 705

0.038 6:1 7.033:1 0.038

2:1 2:1 2:1 2:1

D.P. 741.446

725.66

714.50

367 + 00.00

750 745 740 735 730 725 720 715 710 705 700 695

0.049 6:1 7.371:1 0.049

2:1 2:1 2:1 2:1

D.P. 740.784

724.15

713.00

366 + 50.00

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-95

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

760 755 750 745 740 735 730 725

6:1 6:1 0.020 0.020 6:1 6.026:1 0.018 2:1 2:1 2:1

744.29 749.56 D.P. 745.579 725.25

369+50.00

755 750 745 740 735 730 725 720

5:1 0.020 0.020 6:1 6.172:1 0.007 2:1 2:1 2:1

747.10 D.P. 744.729 722.00

369+00.00

755 750 745 740 735 730 725 720 715

4:1 0.020 6:1 6.325:1 0.004 2:1 2:1 2:1

742.81 D.P. 743.879 718.75

368+50.00

750 745 740 735 730 725 720 715 710

3:1 0.020 6:1 6.486:1 0.015 2:1 2:1 2:1

D.P. 743.029 738.33 715.50

368+00.00

—℄—

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

3/22/2016
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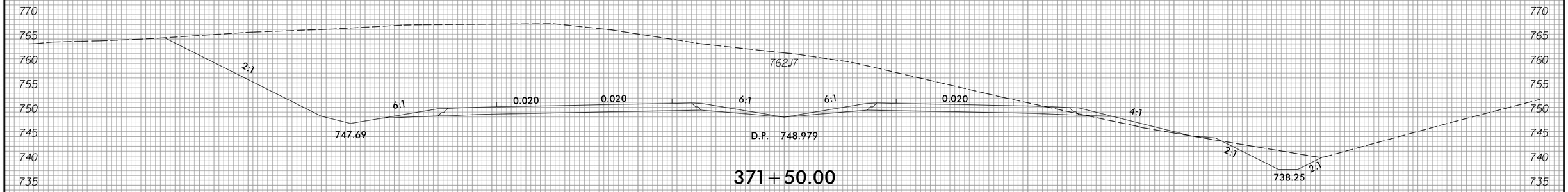
Fkeys

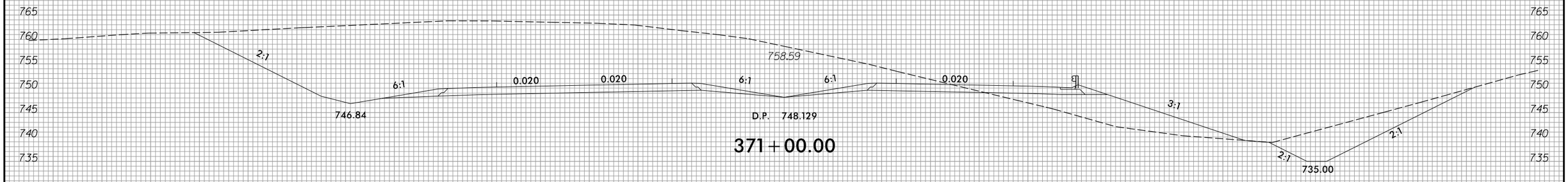
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-96

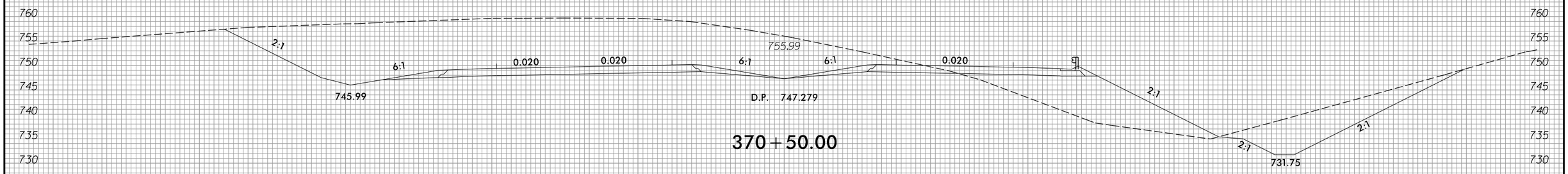
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



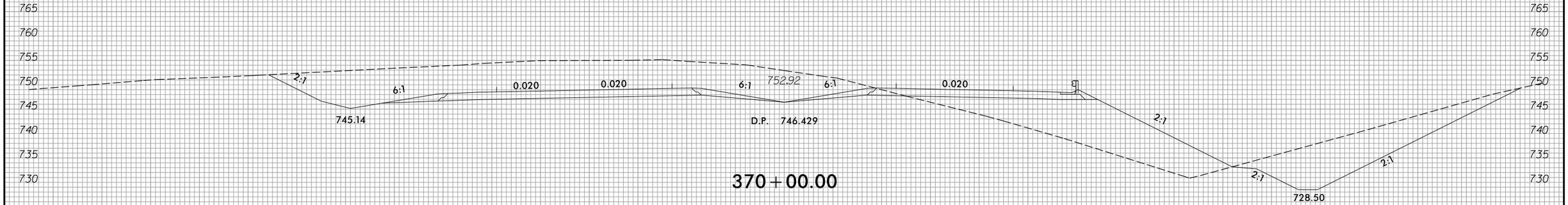
371 + 50.00



371 + 00.00



370 + 50.00



370 + 00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-97

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

785 780 775 770 765 760 755 750 745 740

776.18

2:1 6:1 0.020 0.020 6:1 6:1 0.020 6:1 2:1

751.05 D.P. 752.334 751.29

373+50.00

780 775 770 765 760 755 750 745

771.09

2:1 6:1 0.020 0.020 6:1 6:1 0.020 6:1 2.68:1

750.24 D.P. 751.529 750.48

373+00.00

780 775 770 765 760 755 750 745

767.98

2:1 6:1 0.020 0.020 6:1 6:1 0.020 6:1 2.37:1

749.39 D.P. 750.679 749.63

372+50.00

775 770 765 760 755 750 745 740

765.16

2:1 6:1 0.020 0.020 6:1 6:1 0.020 6:1

748.54 D.P. 749.829

372+00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-98

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765 760 755 750 745

785.37

–Y9RPB–
STA. 10+88.19
ELEV = 756.67

2:1 6:1 0.026 0.026 0.020 6:1 6:1 0.020 6:1 2:1

752.92 753.25

D.P. 754.299

375+00.00

790 785 780 775 770 765 760 755 750 745 740

782.99

–Y9RPB–
STA. 10+38.19
ELEV = 756.09

2:1 6:1 0.020 0.020 6:1 6:1 0.020 6:1 2:1

752.69 752.67

D.P. 753.719

374+50.00

785 780 775 770 765 760 755 750 745

781.96

2:1 6:1 0.020 0.020 6:1 6:1 0.020 6:1 2:1

751.78 752.02

D.P. 753.064

374+00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-99

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765 760 755 750 745 740

785.81

–Y9RPB–
STA. 12+38.44
ELEV = 757.45

2.01:1 6.03:1 0.060 0.060 0.020 6:1 6:1 0.020 6:1 2:1

753.01 D.P. 755.589 754.54

376+50.00

790 785 780 775 770 765 760 755 750 745

786.38

–Y9RPB–
STA. 11+88.27
ELEV = 757.34

2:1 6.01:1 0.056 0.056 0.020 6:1 6:1 0.020 6:1 2:1

752.99 D.P. 755.234 754.19

376+00.00

795 790 785 780 775 770 765 760 755 750 745 740 735

786.84

–Y9RPB–
STA. 11+38.21
ELEV = 757.08

2:1 6:1 0.041 0.041 0.020 6:1 6:1 0.020 6:1 2:1

753.09 D.P. 754.804 753.76

375+50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-100

3/22/2016
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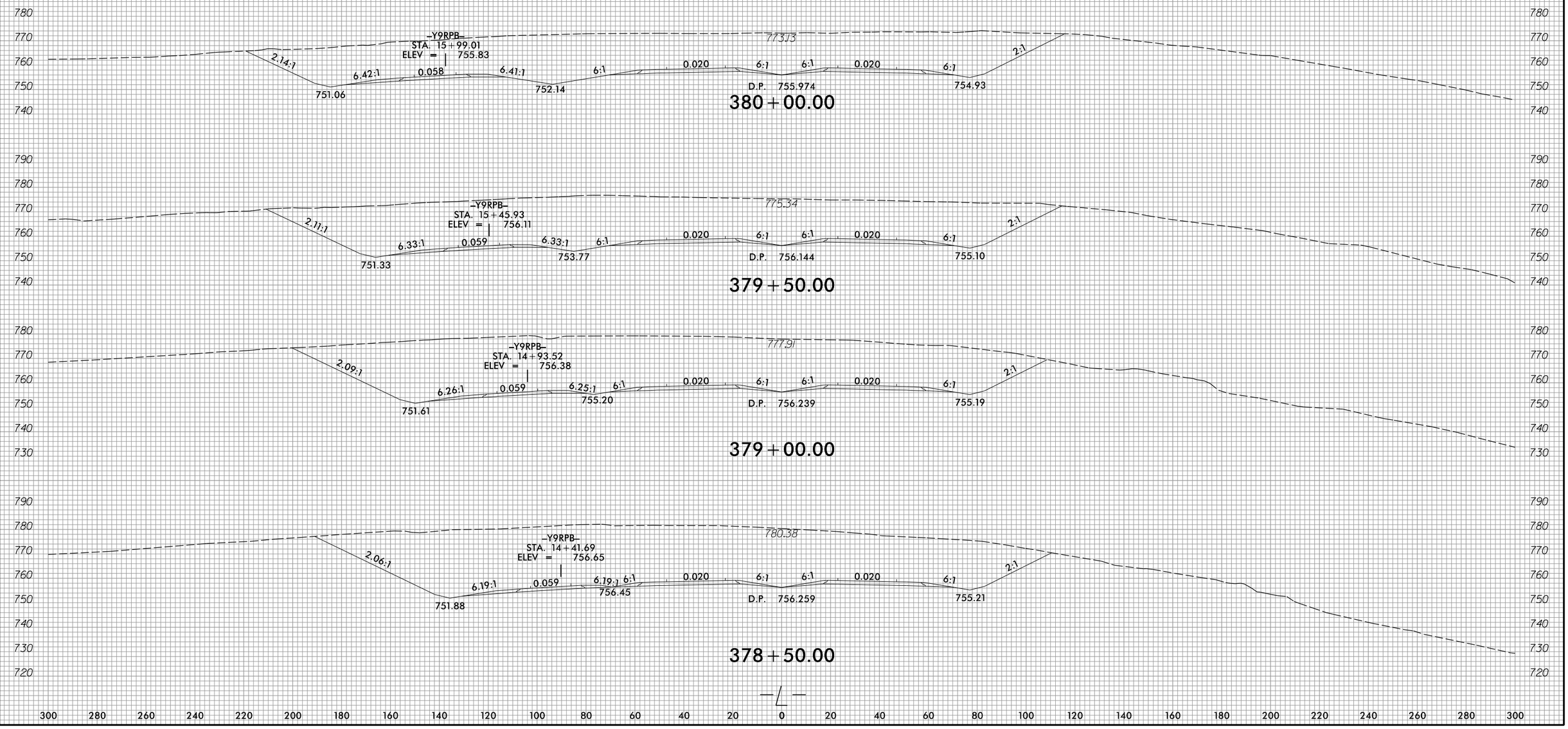
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-101

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



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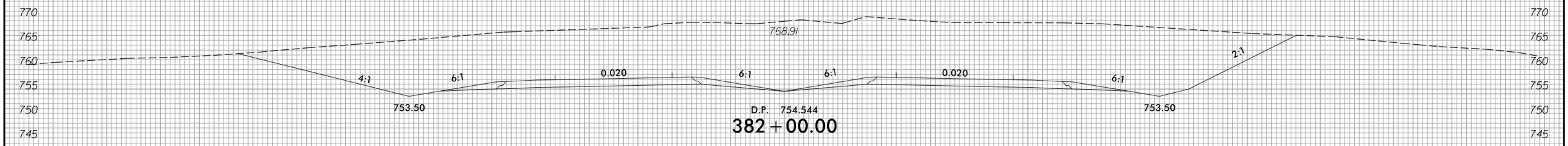
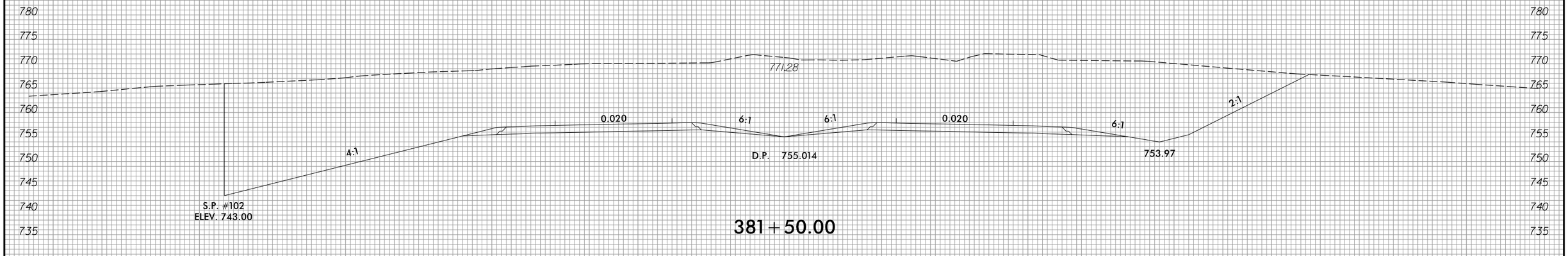
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-102

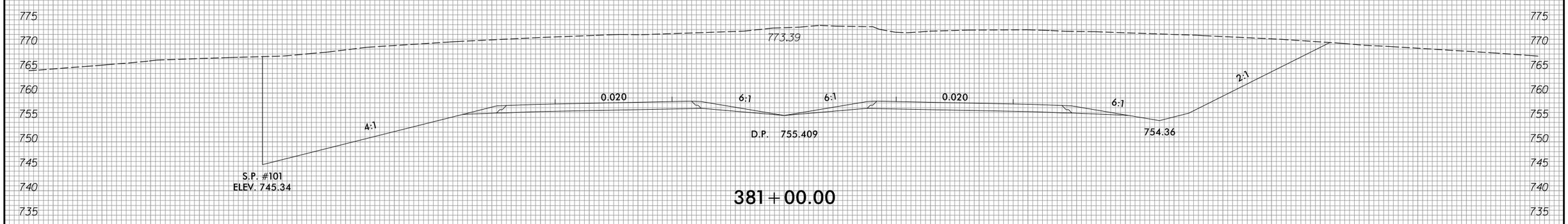
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



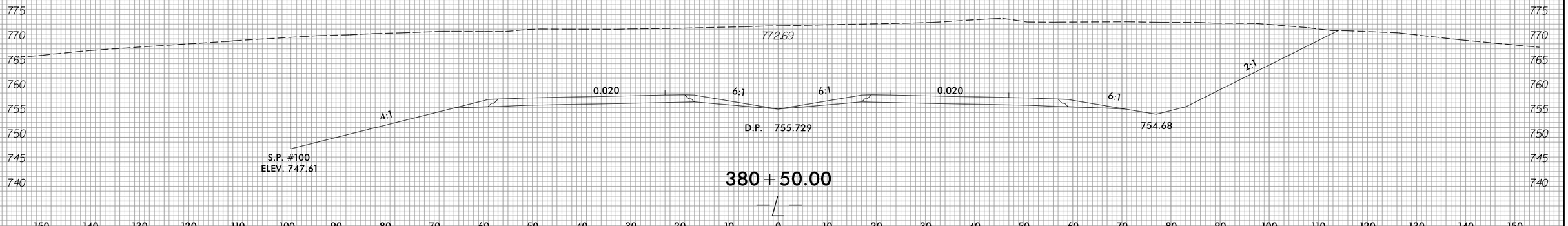
382 + 00.00



381 + 50.00



381 + 00.00



380 + 50.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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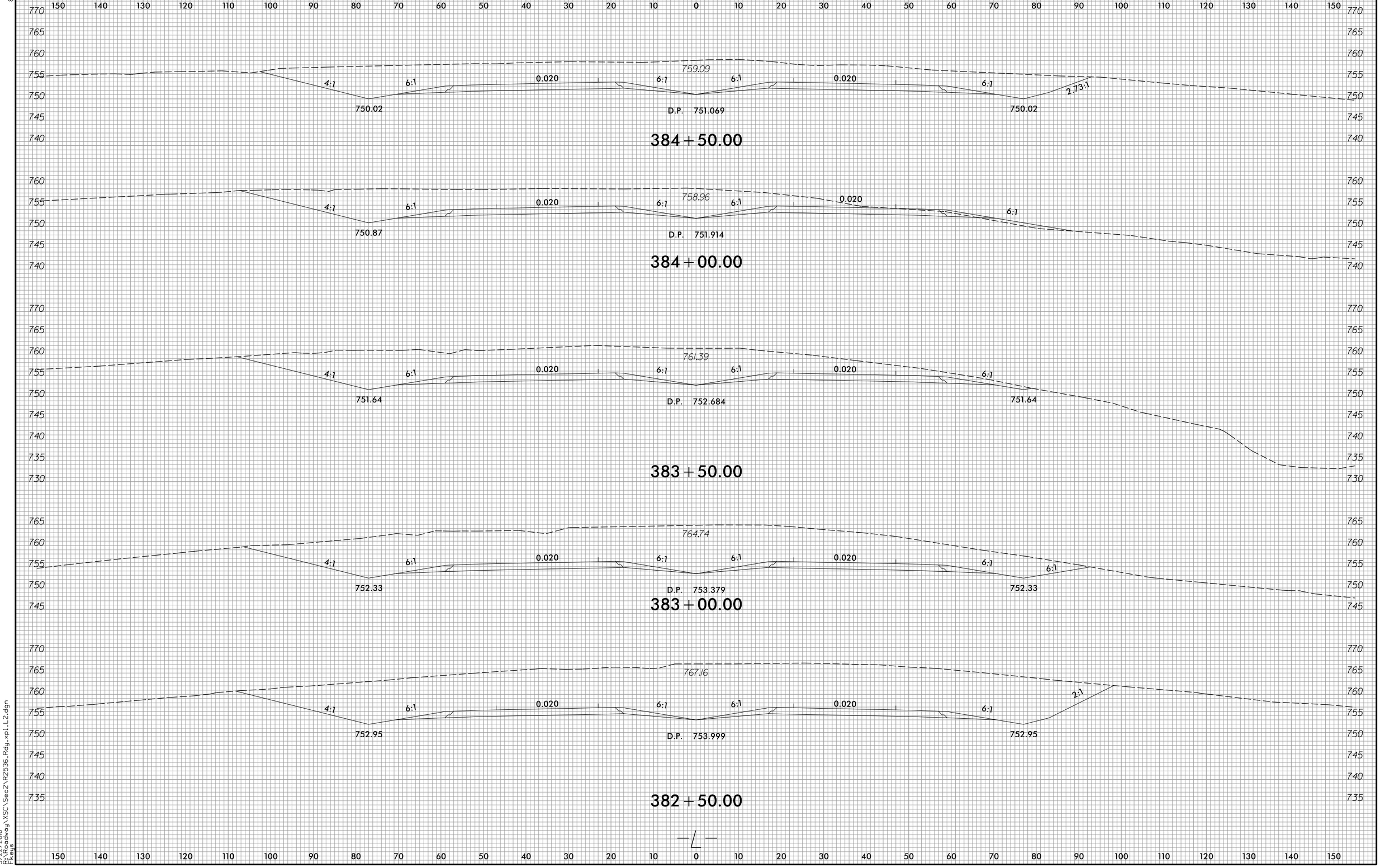
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-103



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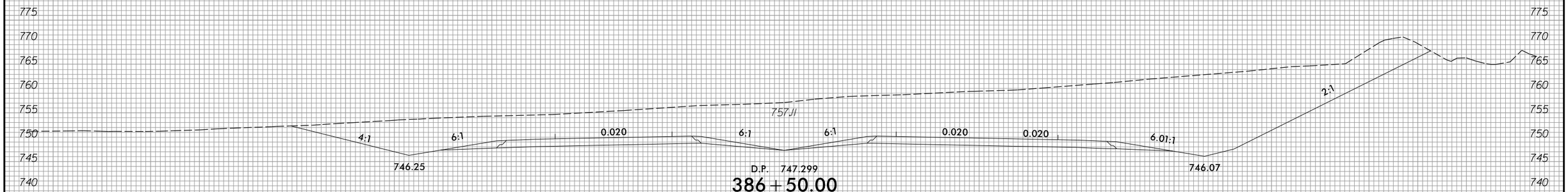
tkeys

8/23/99

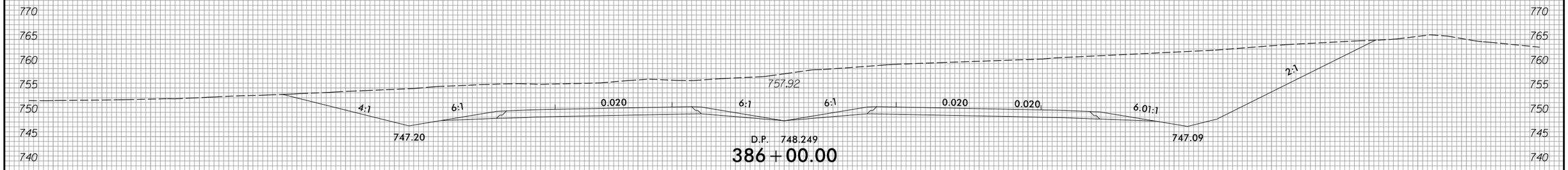
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-104

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



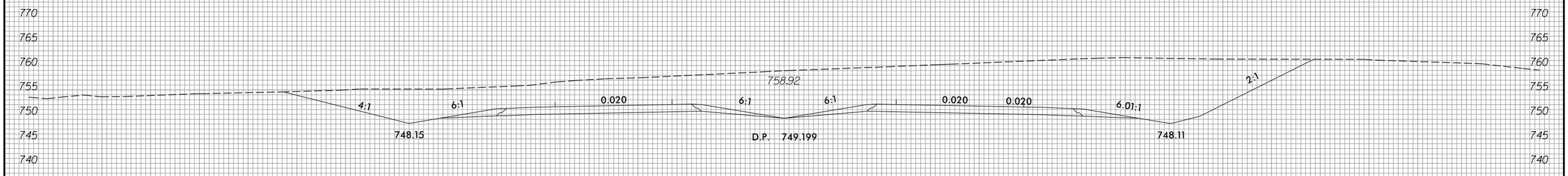
D.P. 747.299

386 + 50.00



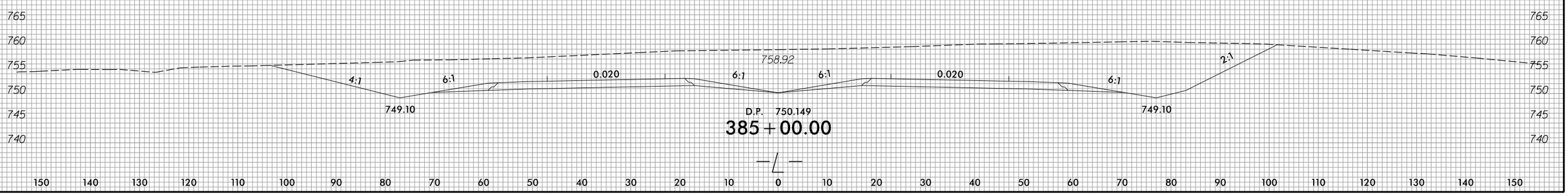
D.P. 748.249

386 + 00.00



D.P. 749.199

385 + 50.00



D.P. 750.149

385 + 00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-105

170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

765 760 755 750 745 740 735

Y9LPB
STA. 11+92.19
EL.= 745.22

Y9RPC
STA. 11+59.57
EL.= 757.53

753.50

4.16:1 6.24:1 0.048 0.046 0.020 6:1 6:1 0.020 0.021 0.021 6.01:1 2:1

741.08 D.P. 743.499 741.87

388+50.00

765 760 755 750 745 740 735

Y9LPB
STA. 12+45.46
EL.= 745.64

Y9RPC
STA. 11+09.48
EL.= 758.65

754.41

4.454:1 0.058 0.056 0.020 0.020 6:1 6:1 0.020 0.021 0.021 6.01:1 2:1

D.P. 744.449 742.99

388+00.00

765 760 755 750 745 740 735 730 725

S.P. #102C
ELEV. 749.47

Y9LPB
STA. 13+04.22
EL.= 745.98

Y9RPC
STA. 10+59.38
EL.= 759.71

755.82

6:1 0.058 0.060 6:1 6:1 0.020 0.020 6:1 6:1 0.020 0.021 0.021 6.01:1 2:1

744.90 D.P. 745.399 744.05

387+50.00

770 765 760 755 750 745 740 735

S.P. #102B
ELEV. 746.36

Y9RPC
STA. 10+09.29
EL.= 760.70

756.80

6:1 6:1 6:1 6:1 0.020 0.020 6:1 6:1 0.020 0.021 6.01:1 2:1

744.11 745.25 D.P. 746.349 745.04

387+00.00

—℄—

170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-106

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

760 755 750 745 740 735 730 725 720 715

Y9RPC
STA. 13+60.60
EL.= 752.73

747.98

4:1 6:1 0.018 6.02 6:1 0.020 0.083 0.083 6.07:1 2.02:1

738.48 D.P. 739.699 735.73

390+50.00

760 755 750 745 740 735 730

Y9LPB
STA. 10+40.82
EL.= 743.01

STA. 13+10.13
EL.= 753.94

750.04

4:1 6:1 0.020 0.020 6:1 6:1 0.020 0.069 0.070 6.04:1 2.01:1

739.37 D.P. 740.649 737.26

390+00.00

760 755 750 745 740 735 730

Y9LPB
STA. 10+90.85
EL.= 743.90

Y9RPC
STA. 12+59.85
EL.= 755.14

751.40

4.01:1 6.01:1 0.023 0.023 0.020 6:1 6:1 0.020 0.050 0.051 6.03:1 2.01:1

740.21 D.P. 741.599 738.92

389+50.00

765 760 755 750 745 740 735

Y9LPB
STA. 11+41.12
EL.= 744.64

Y9RPC
STA. 12+09.69
EL.= 756.35

752.60

4.04:1 6.07:1 0.036 0.035 0.020 6:1 6:1 0.020 0.032 0.032 6.02:1 2.01:1

740.74 D.P. 742.549 740.51

389+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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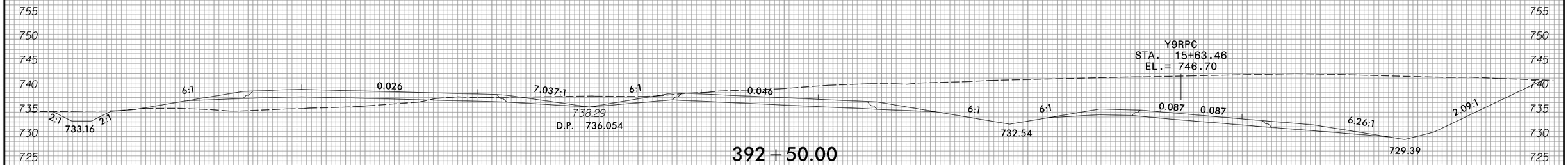
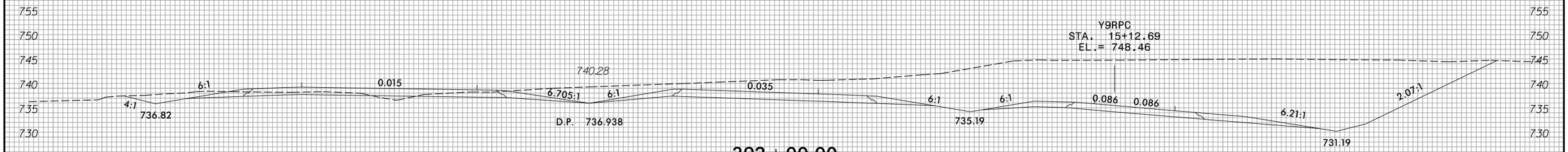
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-107

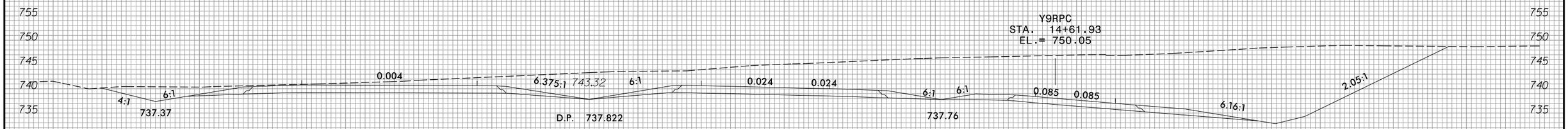
110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190



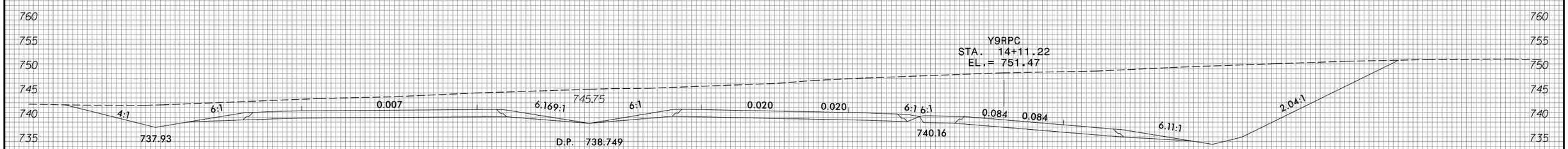
392+50.00



392+00.00



391+50.00



391+00.00

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-108

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

740 735 730 725 720

4:1 2:1 719.64 2:1 0.070 8.121:1 6:1 0.070 4:1

D.P. 731.449

726.72

395 + 00.00

740 735 730 725 720 715 710

4:1 2:1 722.10 2:1 0.070 8.113:1 6:1 0.070 4:1 4:1 727.91

D.P. 732.399

729.87

394 + 50.00

740 735 730 725 720

4:1 2:1 724.57 2:1 0.059 7.947:1 6:1 0.070 5:1 5:1 729.76

D.P. 733.349

732.69

394 + 00.00

745 740 735 730 725 720 715

4:1 2:1 727.03 2:1 0.048 7.737:1 6:1 0.068 6:1 727.38

S.P. #108
ELEV. 728.29

D.P. 734.285

735.16

393 + 50.00

750 745 740 735 730 725 720 715

5:1 2:1 729.50 2:1 0.037 7.371:1 6:1 0.057 6:1

S.P. #107
ELEV. 730.78

D.P. 735.169

736.14

393 + 00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

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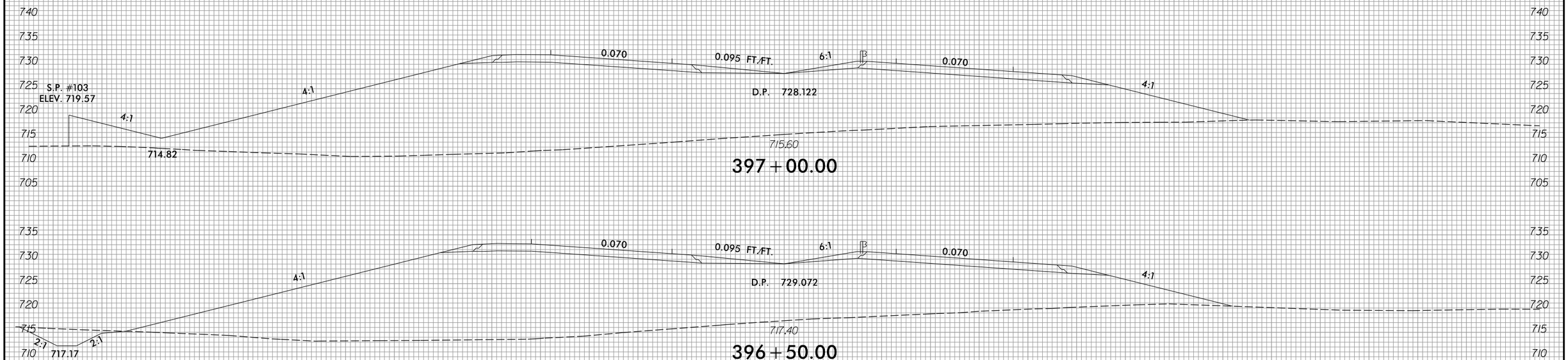
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-109

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-110

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

745 740 735 730 725 720 715 710 705 700

S.P. #106
ELEV. 735.10

2:1

721.09

4:1

0.070

0.095 FT./FT.

6:1

0.070

4:1

D.P. 725.272

711.53

398+50.00

740 735 730 725 720 715 710 705 700 695

S.P. #105
ELEV. 730.81

3:1

719.94

4:1

0.070

0.095 FT./FT.

6:1

0.070

4:1

D.P. 726.222

712.65

398+00.00

735 730 725 720 715 710 705 700 695 690 685 680 675

S.P. #104
ELEV. 727.84

4:1

719.08

4:1

0.070

0.095 FT./FT.

6:1

0.070

4:1

D.P. 727.172

714.38

397+50.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-111

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

745 740 735 730 725 720 715 710 705 700

S.P. #116
ELEV. 732.48

0.070 | 0.099 FT./FT. | 6:1 | 0.070 | 4:1 | 4:1

D.P. 722.422

707.54

400 + 00.00

745 740 735 730 725 720 715 710 705 700

0.070 | 0.095 FT./FT. | 6:1 | 0.070 | 4:1 | 4:1

S.P. #117
ELEV. 718.60

D.P. 723.372

708.48

399 + 50.00

755 750 745 740 735 730 725 720 715 710 705 700

S.P. #114
ELEV. 748.54

2:1

0.070 | 0.095 FT./FT. | 6:1 | 0.070 | 4:1

D.P. 724.322

709.68

399 + 00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-112

170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

745 740 735 730 725 720 715 710 705 700 695

S.P. #118
ELEV. 738.75

4:1

2:1

0.070

7.679:1

6:1

0.070

D.P. 719.099

708.19

401+50.00

735 730 725 720 715 710 705 700 695

0.070

7.679:1

6:1

0.070

D.P. 720.049

705.65

401+00.00

740 735 730 725 720 715 710 705 700 695 690 685 680

6.17:1

0.070

0.099 FT./FT.

6:1

0.070

D.P. 721.472

S.P. #115
ELEV. 707.85

705.26

400+50.00

℄

170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

3/22/2016
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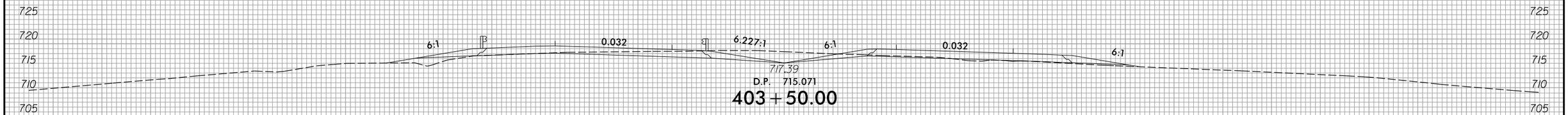
Pkeys

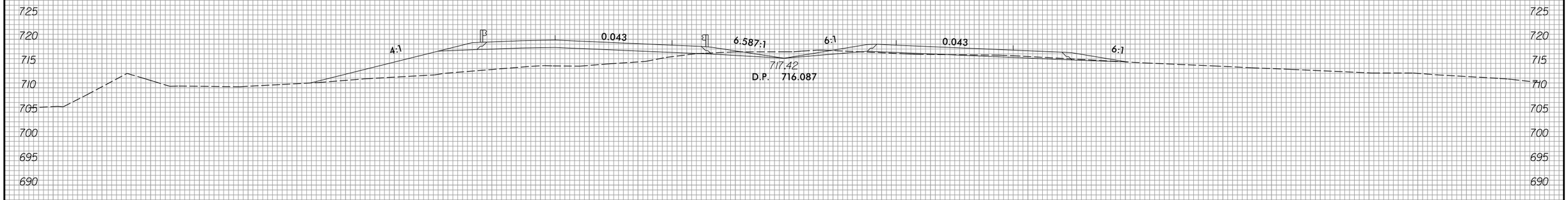
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-113

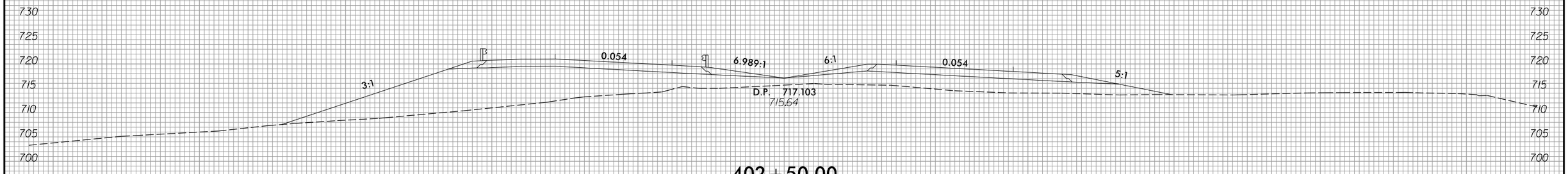
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



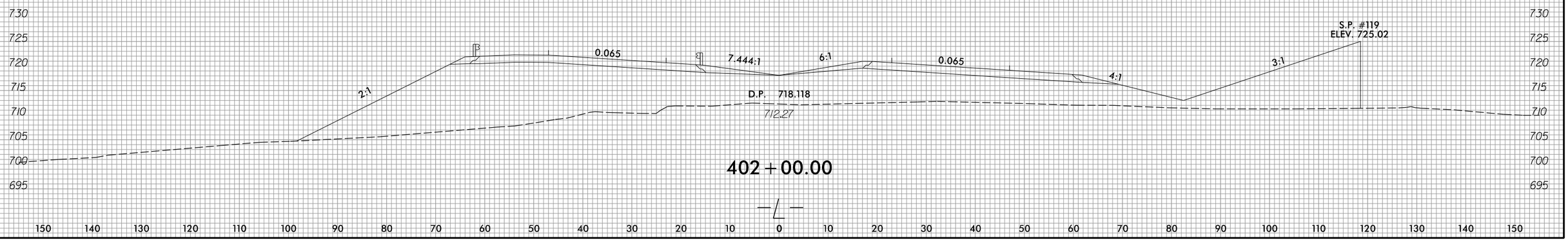
403 + 50.00



403 + 00.00



402 + 50.00



402 + 00.00

℄

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-114

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 715 710 705 700 695 690

4:1 | 0.012 | 6.108:1 | 6:1 | 0.020 | 4:1

D.P. 711.199

704.14

405 + 50.00

725 720 715 710 705 700 695

5:1 | 0.001 | 6.255:1 | 6:1 | 0.020 | 4:1

3:1 710.85

710.82

D.P. 712.149

405 + 00.00

730 725 720 715 710 705 700 695 690

4:1 | 6:1 | 0.010 | 6.410:1 | 6:1 | 0.020 | 5:1

712.66

714.46

D.P. 713.099

404 + 50.00

725 720 715 710 705

4:1 | 6:1 | 0.021 | 6.086:1 | 6:1 | 0.021 | 6:1

713.79

716.96

D.P. 714.096

404 + 00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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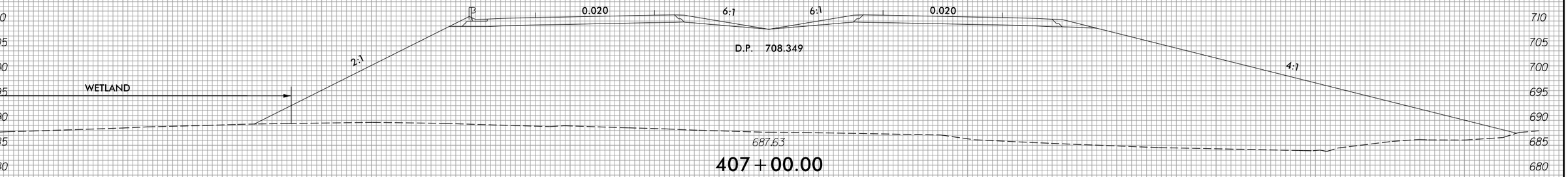
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-115

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 715 710 705 700 695 690 685 680

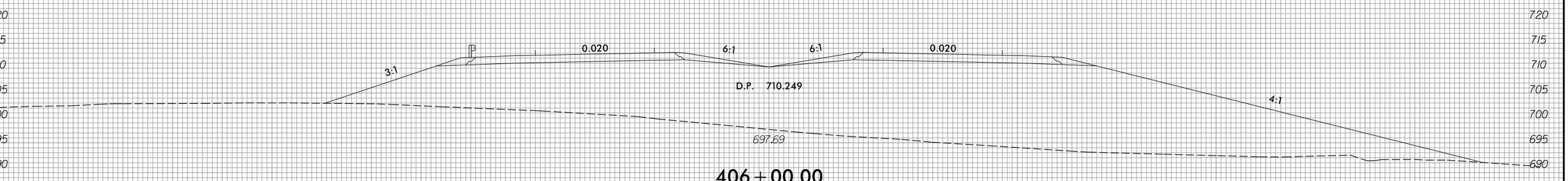


407 + 00.00

720 715 710 705 700 695 690 685 680 675 670 665 660

406 + 50.00

720 715 710 705 700 695 690 685



406 + 00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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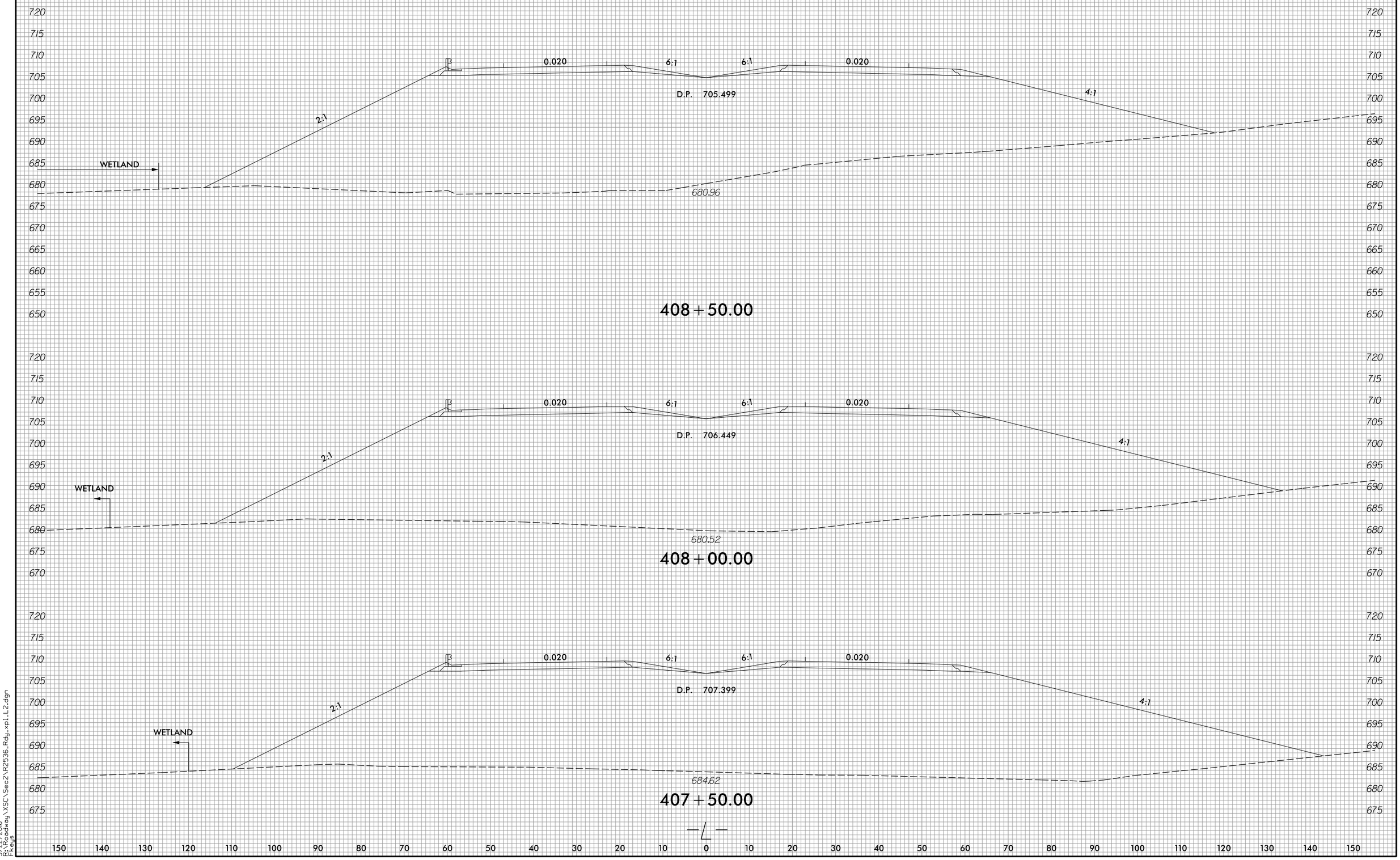
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-116



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_L2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-117

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

715 710 705 700 695 690 685 680 675

WETLAND

0.020 6:1 6:1 0.020

D.P. 702.649

2:1 4:1

686.34

410+00.00

715 710 705 700 695 690 685 680 675 670 665 660 655 650

0.020 6:1 6:1 0.020

D.P. 703.599

2:1 4:1

WETLAND

686.91

409+50.00

715 710 705 700 695 690 685 680 675

0.020 6:1 6:1 0.020

D.P. 704.549

2:1 4:1

WETLAND

686.83

409+00.00

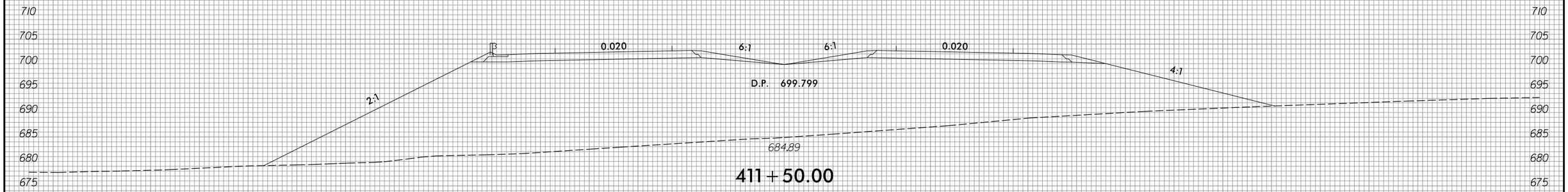
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_L2.dgn
Fkeys

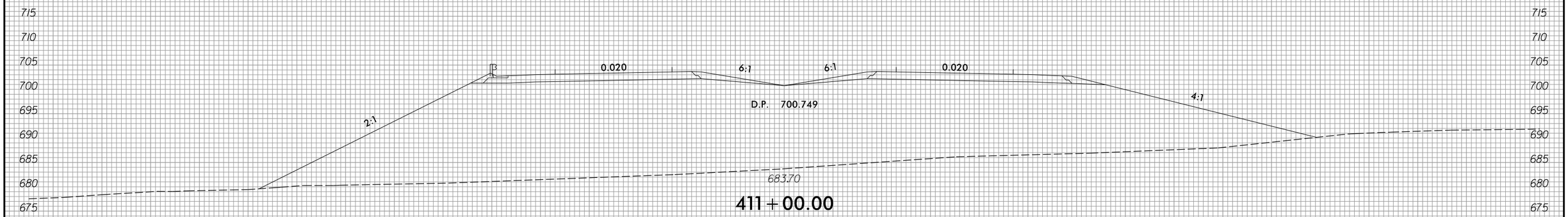
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-118

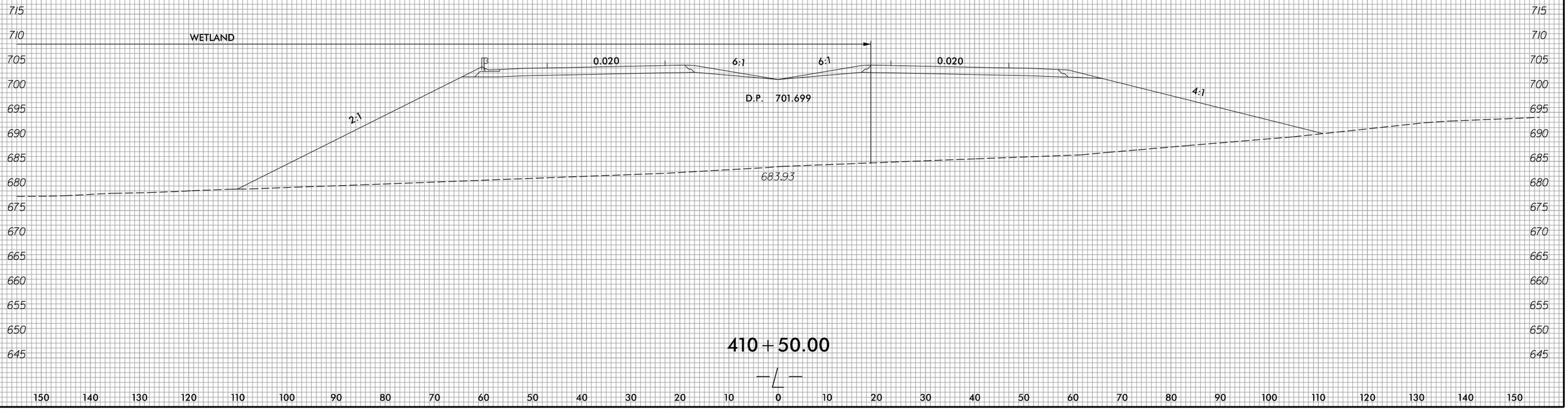
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



411 + 50.00



411 + 00.00



410 + 50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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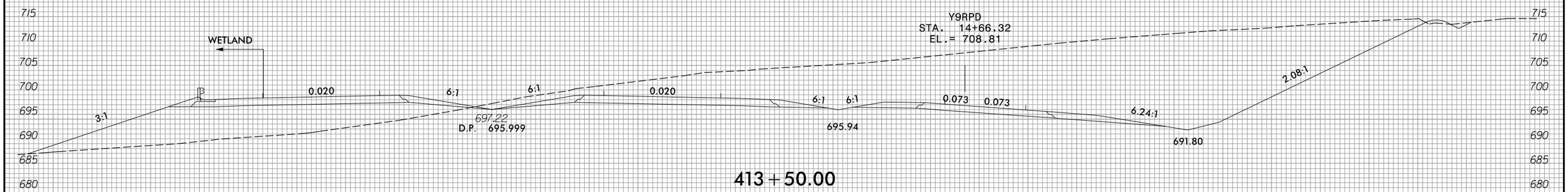
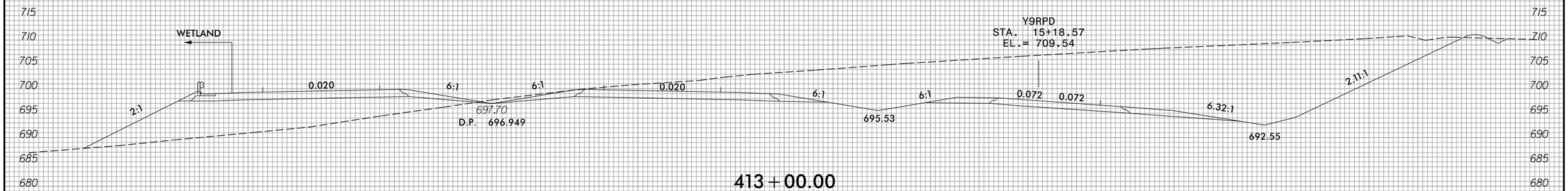
Fkeys

8/23/99

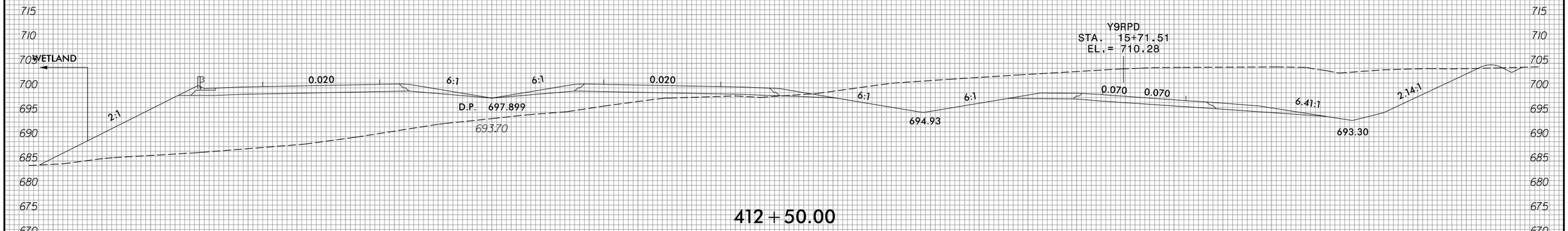
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-119



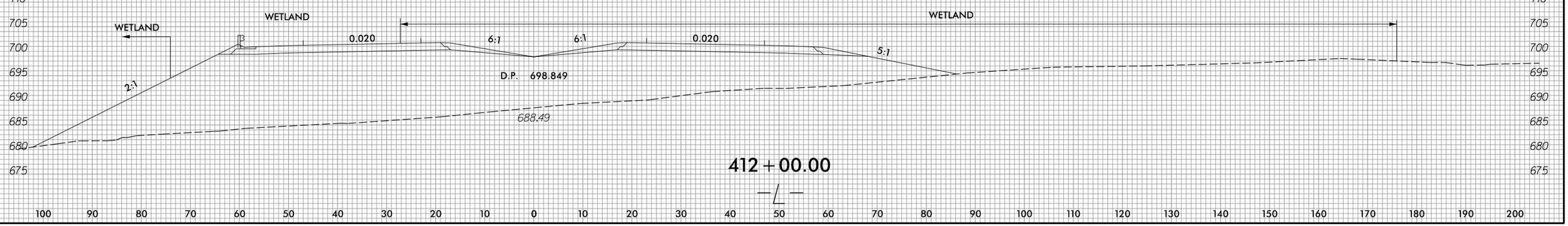
413+50.00



413+00.00



412+50.00



412+00.00

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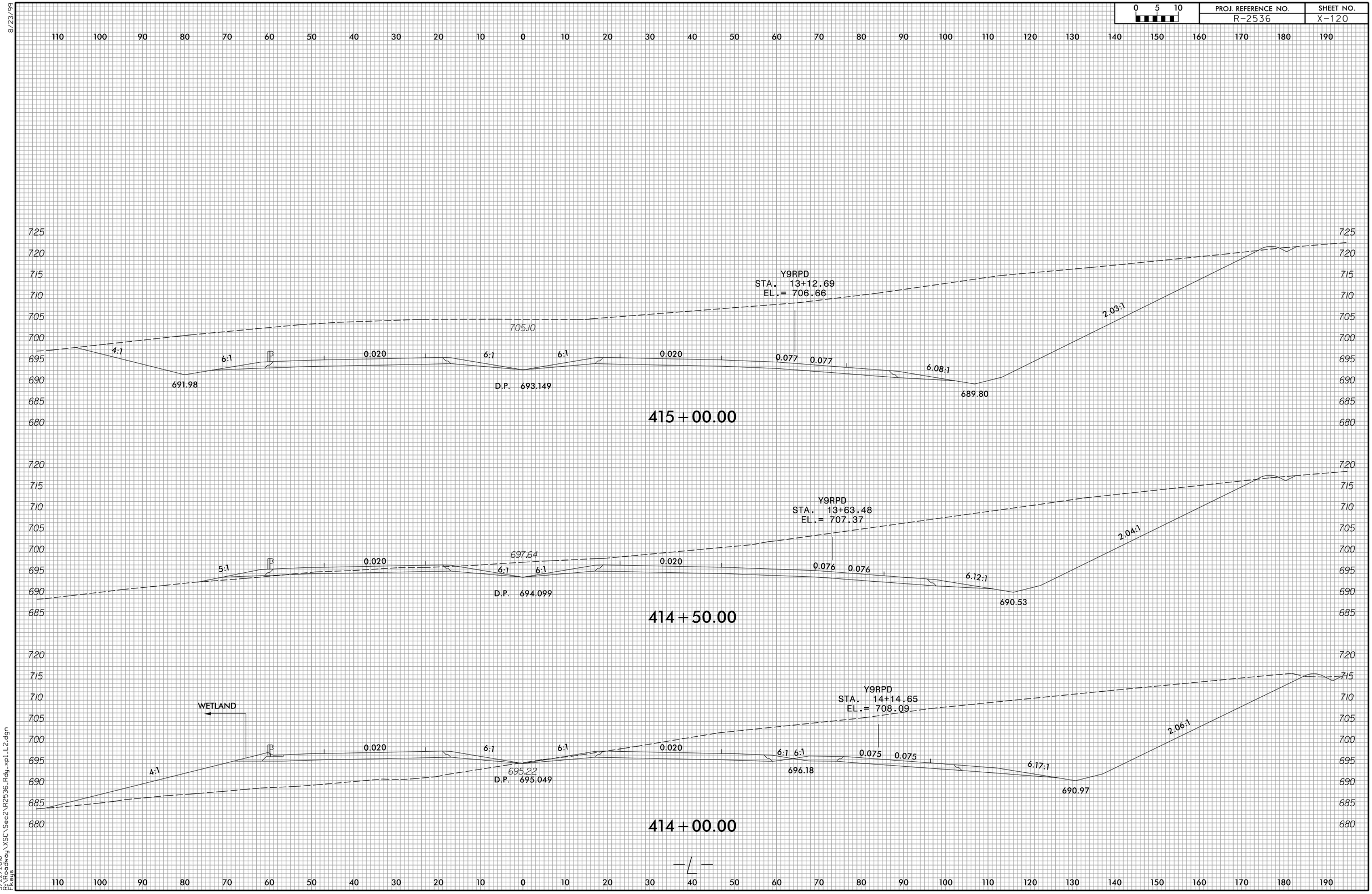
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-120

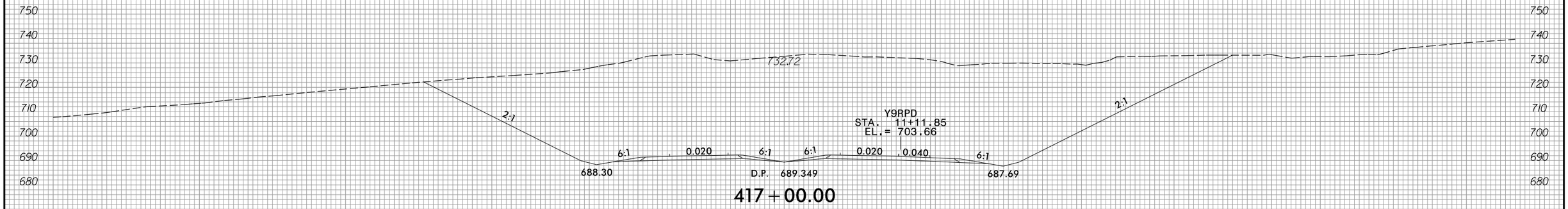


3/22/2016
P:\Roadway\XSC\Sec2\R2536_Rdy_xpLL2.dgn
Fkeys

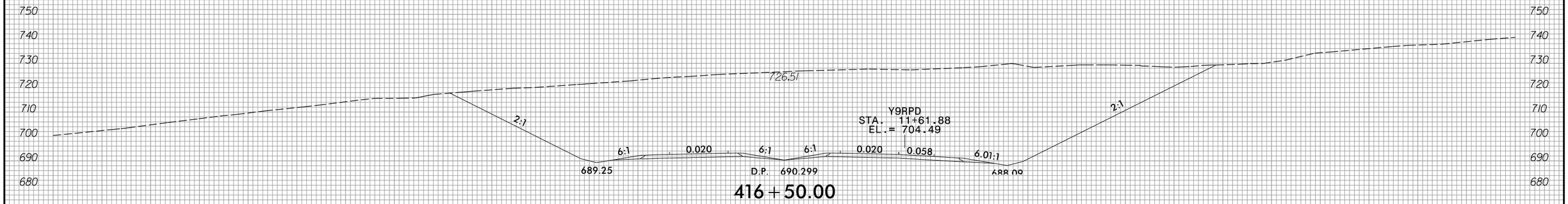
8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-121

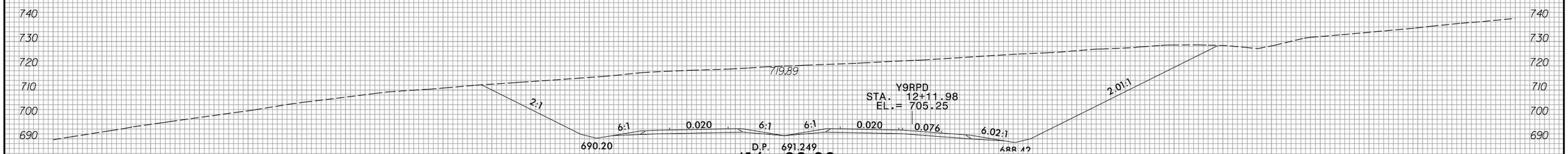
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



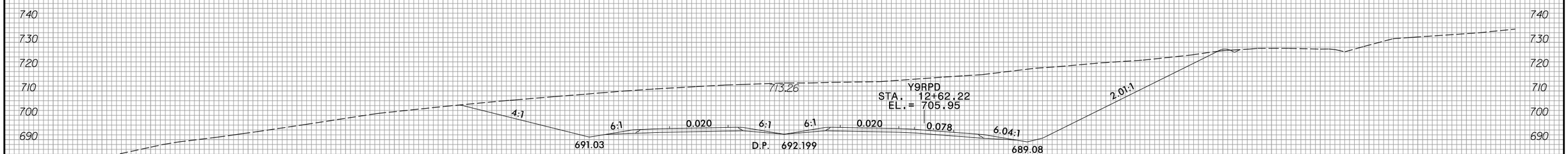
417+00.00



416+50.00



416+00.00



415+50.00

℄

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

3/22/2016
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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-122

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

740 730 720 710 700 690 680

728.73

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1

684.50 D.P. 685.549 684.26

419+00.00

730.73

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1

685.45 D.P. 686.499 685.21

418+50.00

729.64

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1

Y9RPD
STA. 10+11.85
EL.= 701.81

686.40 D.P. 687.449 686.17

418+00.00

735.27

2:1 6:1 0.020 6:1 6:1 0.020 0.022 6:1 2:1

Y9RPD
STA. 10+61.85
EL.= 702.75

687.35 D.P. 688.399 687.08

417+50.00

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3/22/2016
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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-123

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

730 720 710 700 690 680 670

713.17

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1

680.58 D.P. 681.749 680.46

421+00.00

730 720 710 700 690 680 670

719.30

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1

681.65 D.P. 682.699 681.41

420+50.00

740 730 720 710 700 690 680 670

723.63

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1

682.60 D.P. 683.649 682.36

420+00.00

740 730 720 710 700 690 680 670

726.04

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1

683.55 D.P. 684.599 683.31

419+50.00

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300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-124

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

720 710 700 690 680 670 660

2:1 — 696.17 — 2:1

6:1 ℄ 0.020 6:1 6:1 0.020 0.020 6:1 2.70:1

676.78 D.P. 677.949 676.66

423+00.00

720 710 700 690 680 670

2:1 — 700.22 — 2:1

6:1 ℄ 0.020 6:1 6:1 0.020 0.020 6:1

677.73 D.P. 678.899 677.61

422+50.00

720 710 700 690 680 670 660 650

2:1 — 704.81 — 2:1

6:1 ℄ 0.020 6:1 6:1 0.020 0.020 6:1

678.68 D.P. 679.849 678.56

422+00.00

730 720 710 700 690 680 670

2:1 — 709.58 — 2:1

6:1 ℄ 0.020 6:1 6:1 0.020 0.020 6:1

679.63 D.P. 680.799 679.51

421+50.00

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-125

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

690 685 680 675 670 665 660 655 650

2:1 6:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 6:1

681.12

672.99 D.P. 674.156 672.94

425+00.00

695 690 685 680 675 670 665

2:1 6:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 6:1

684.37

673.93 D.P. 675.099 673.84

424+50.00

700 695 690 685 680 675 670 665

2:1 6:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 6:1

688.77

674.88 D.P. 676.049 674.76

424+00.00

705 700 695 690 685 680 675 670

2:1 6:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2.75:1

693.00

675.83 D.P. 676.999 675.71

423+50.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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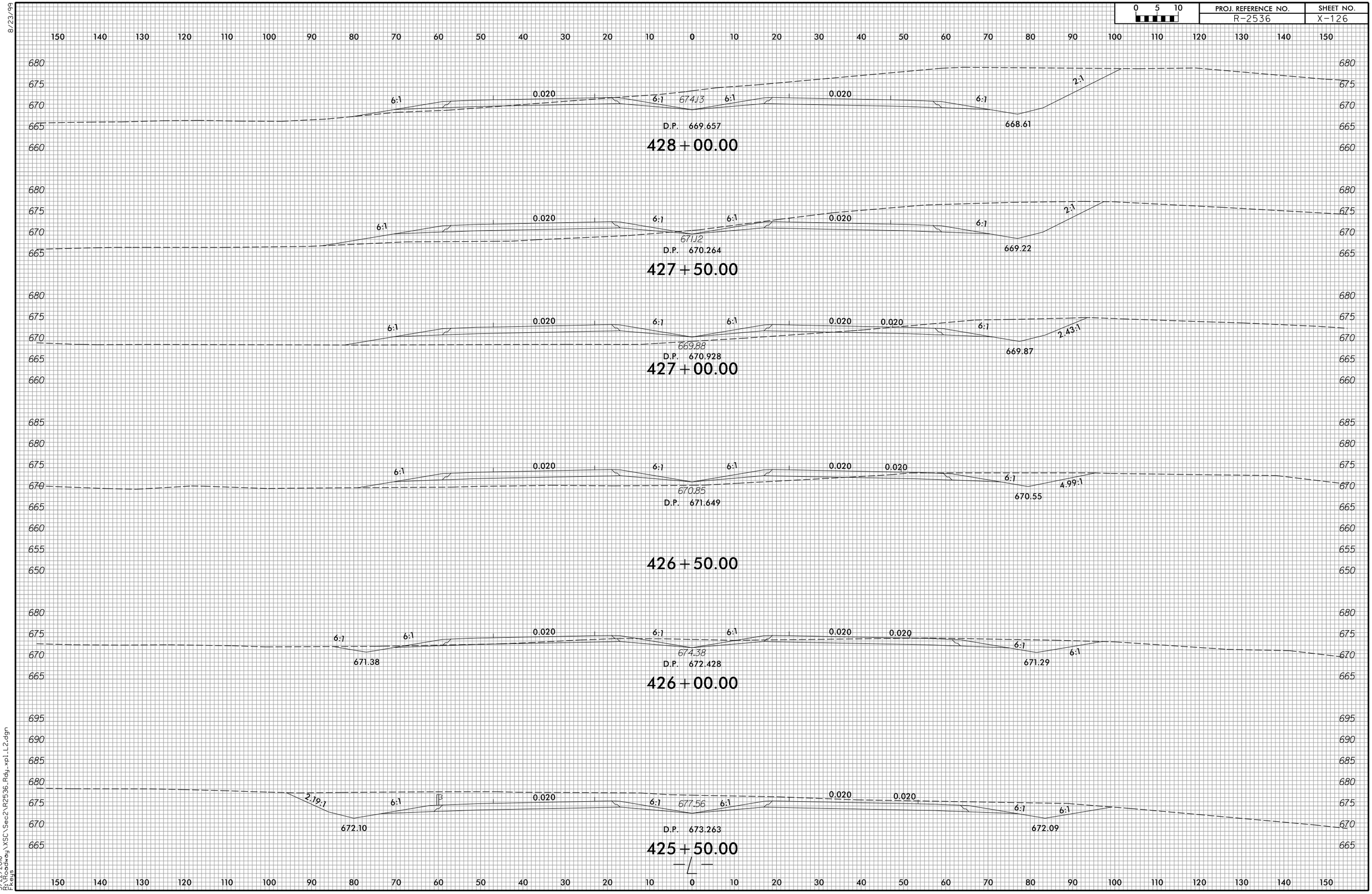
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-126



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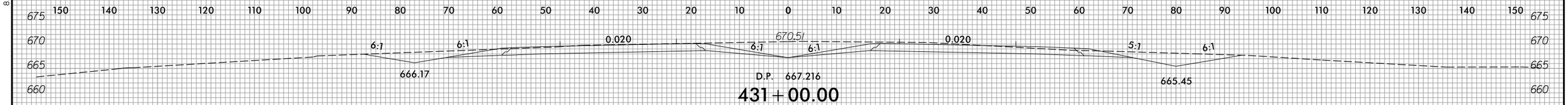
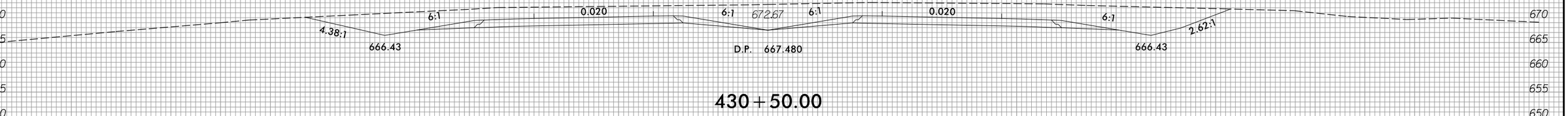
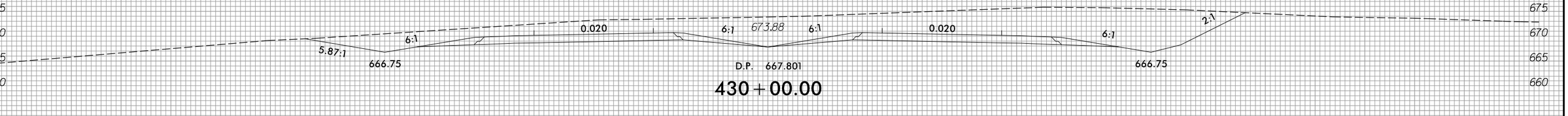
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-127



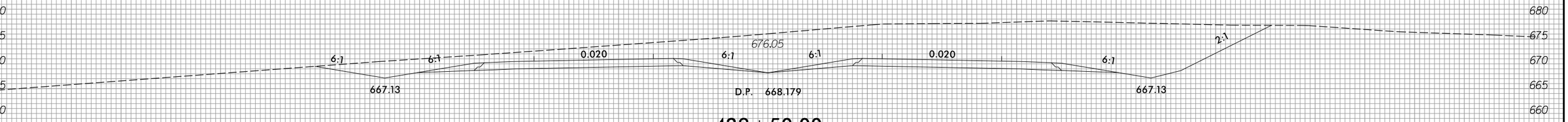
431 + 00.00



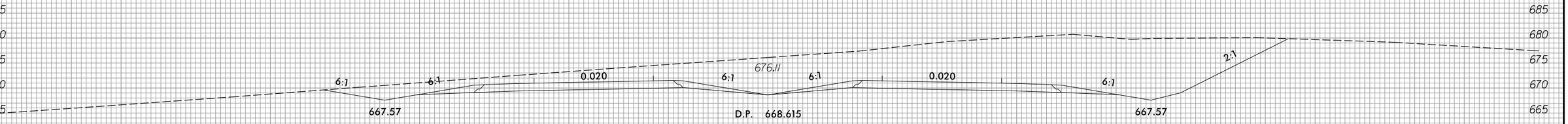
430 + 50.00



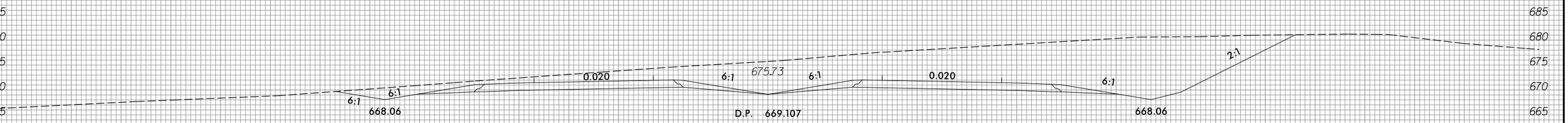
430 + 00.00



429 + 50.00



429 + 00.00



428 + 50.00

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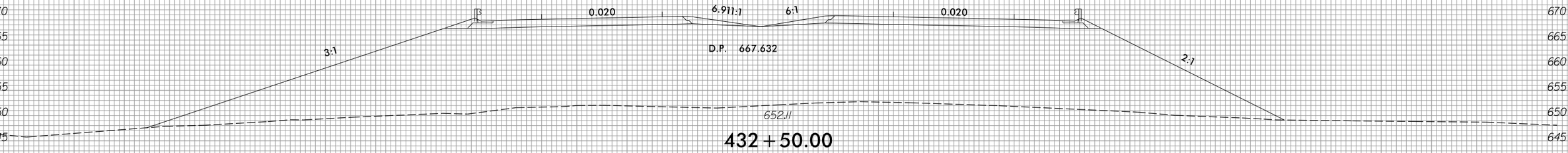
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-128

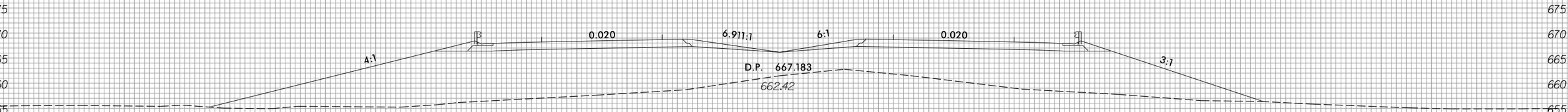
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

680 675 670 665 660 655 650 645



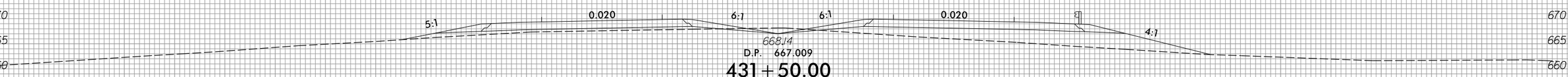
432 + 50.00

680 675 670 665 660 655 650 645 640 635 630 625 620 615 610



432 + 00.00

675 670 665 660



431 + 50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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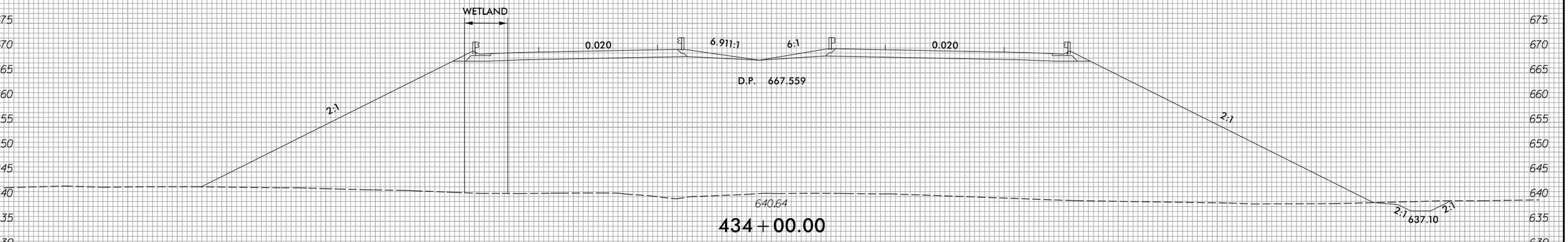
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-129

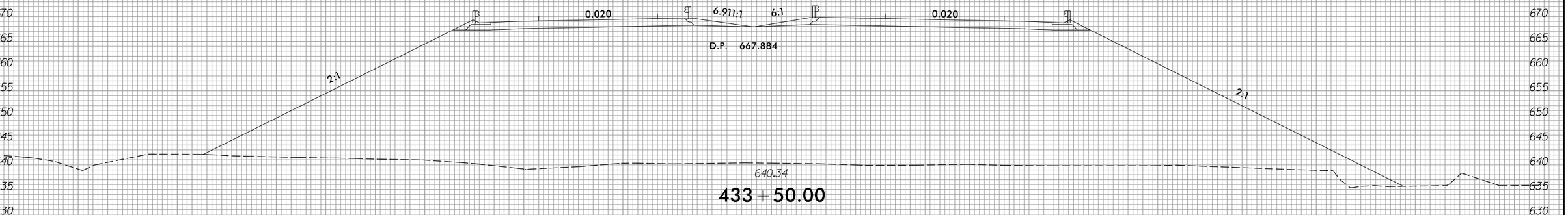
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

680 675 670 665 660 655 650 645 640 635 630



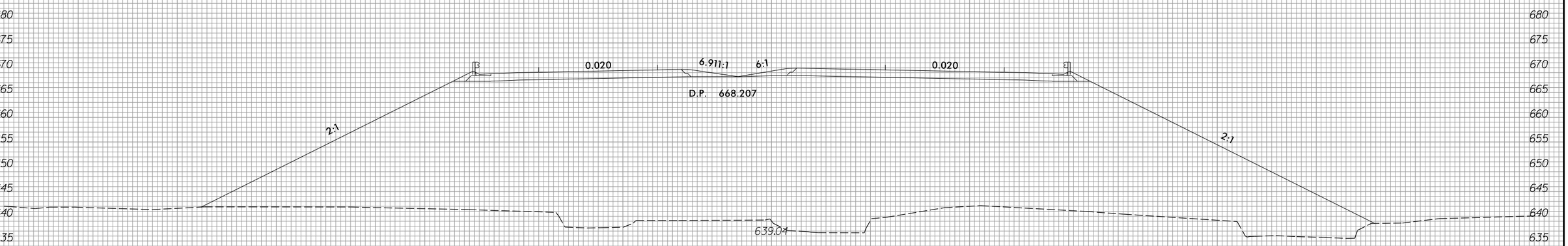
434 + 00.00

680 675 670 665 660 655 650 645 640 635 630



433 + 50.00

680 675 670 665 660 655 650 645 640 635 630 625 620



433 + 00.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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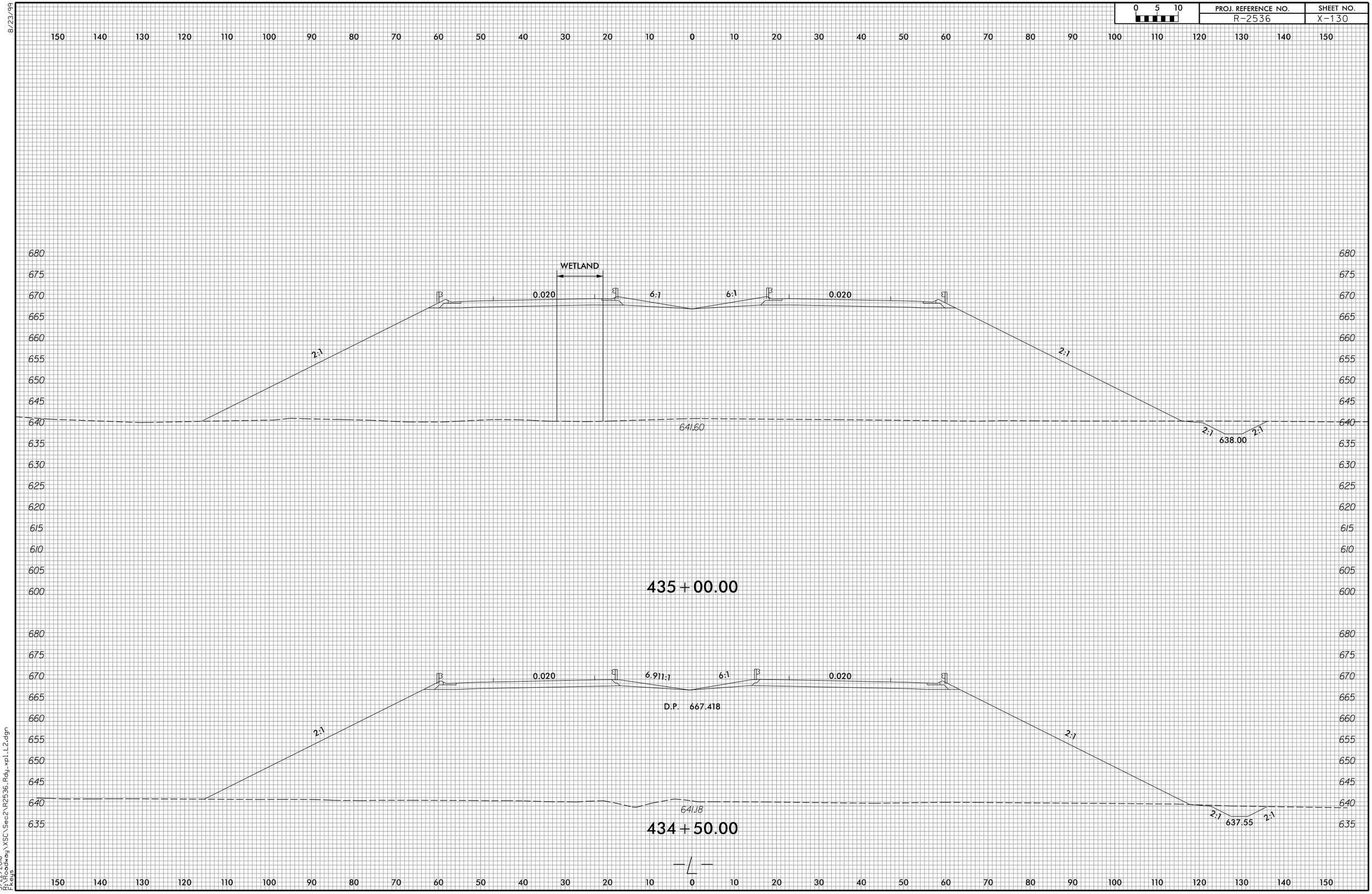
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-130



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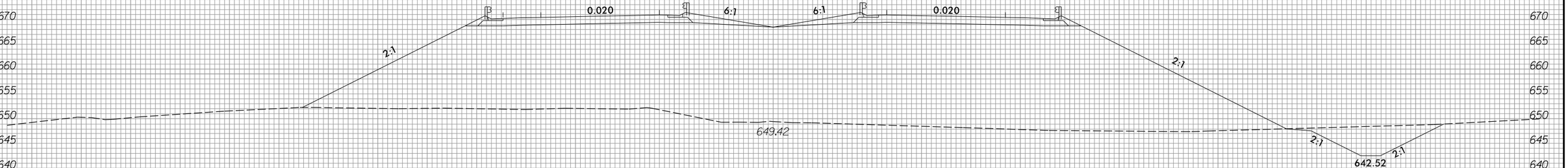
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-131

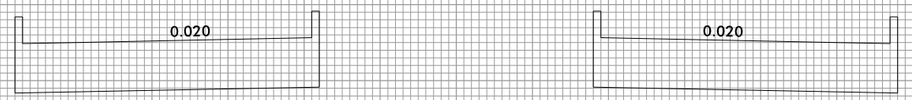
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

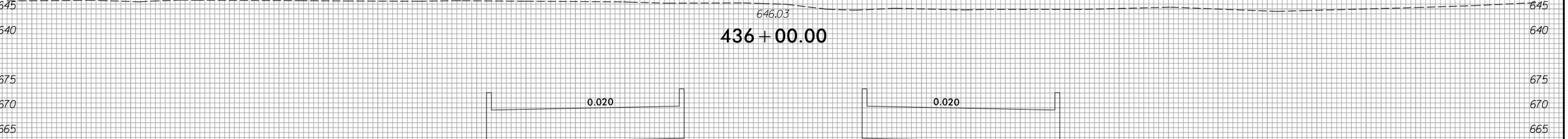
680 675 670 665 660 655 650 645 640 635 630 625 620



436+50.00

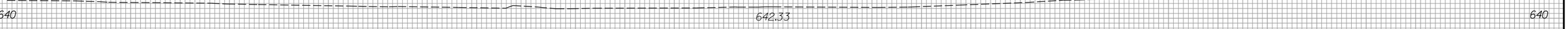
675 670 665 660 655 650 645 640





436+00.00

675 670 665 660 655 650 645 640 635 630 625 620 615 610



435+50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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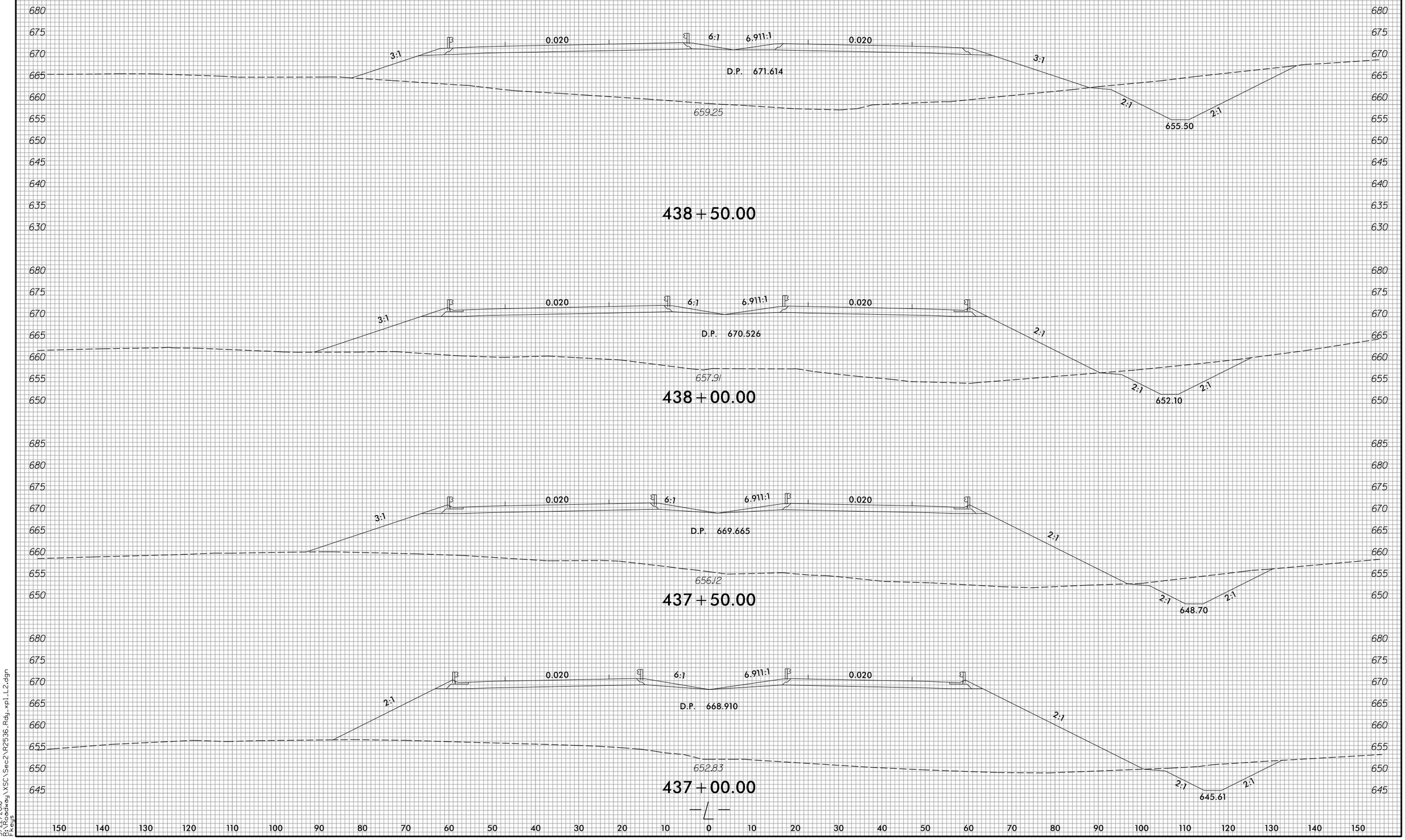
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-132



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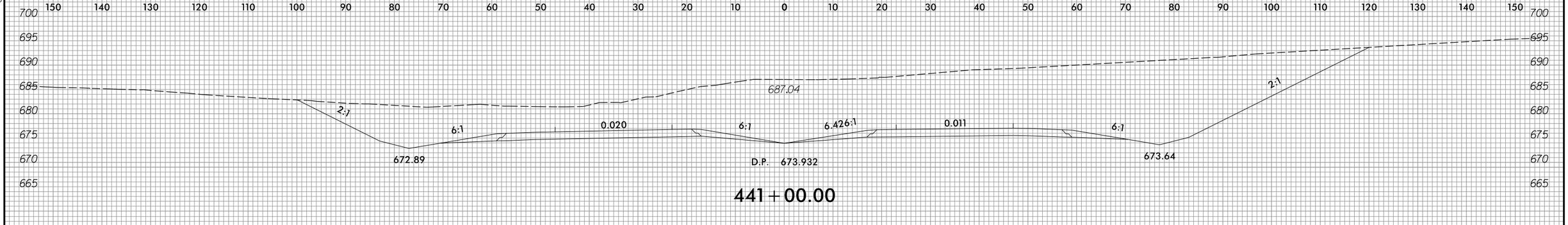
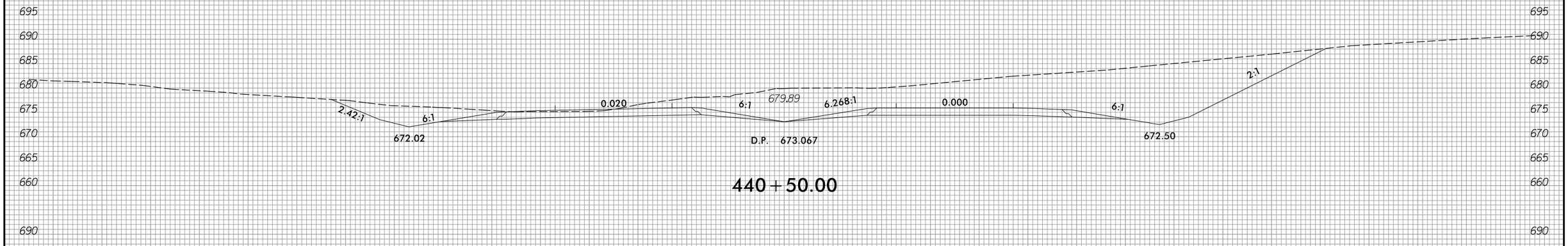
8/23/99

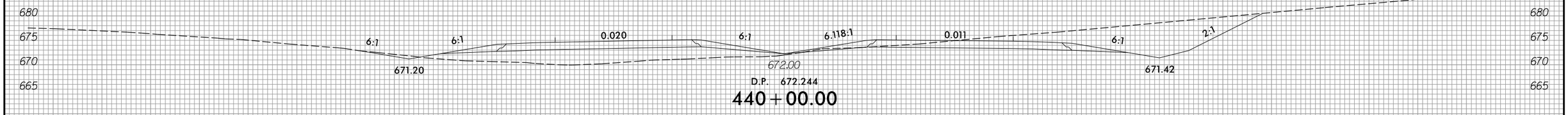
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-133



441 + 00.00

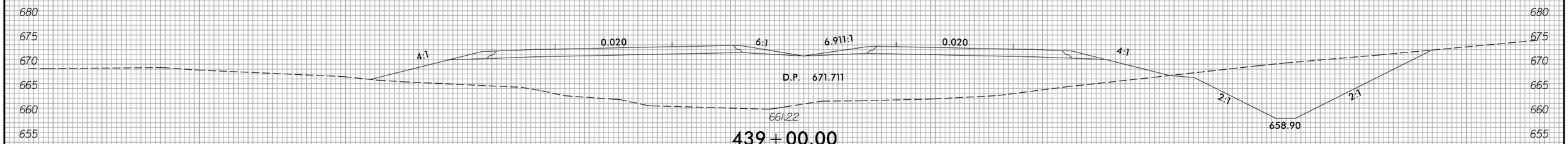


440 + 50.00



440 + 00.00

439 + 50.00



439 + 00.00

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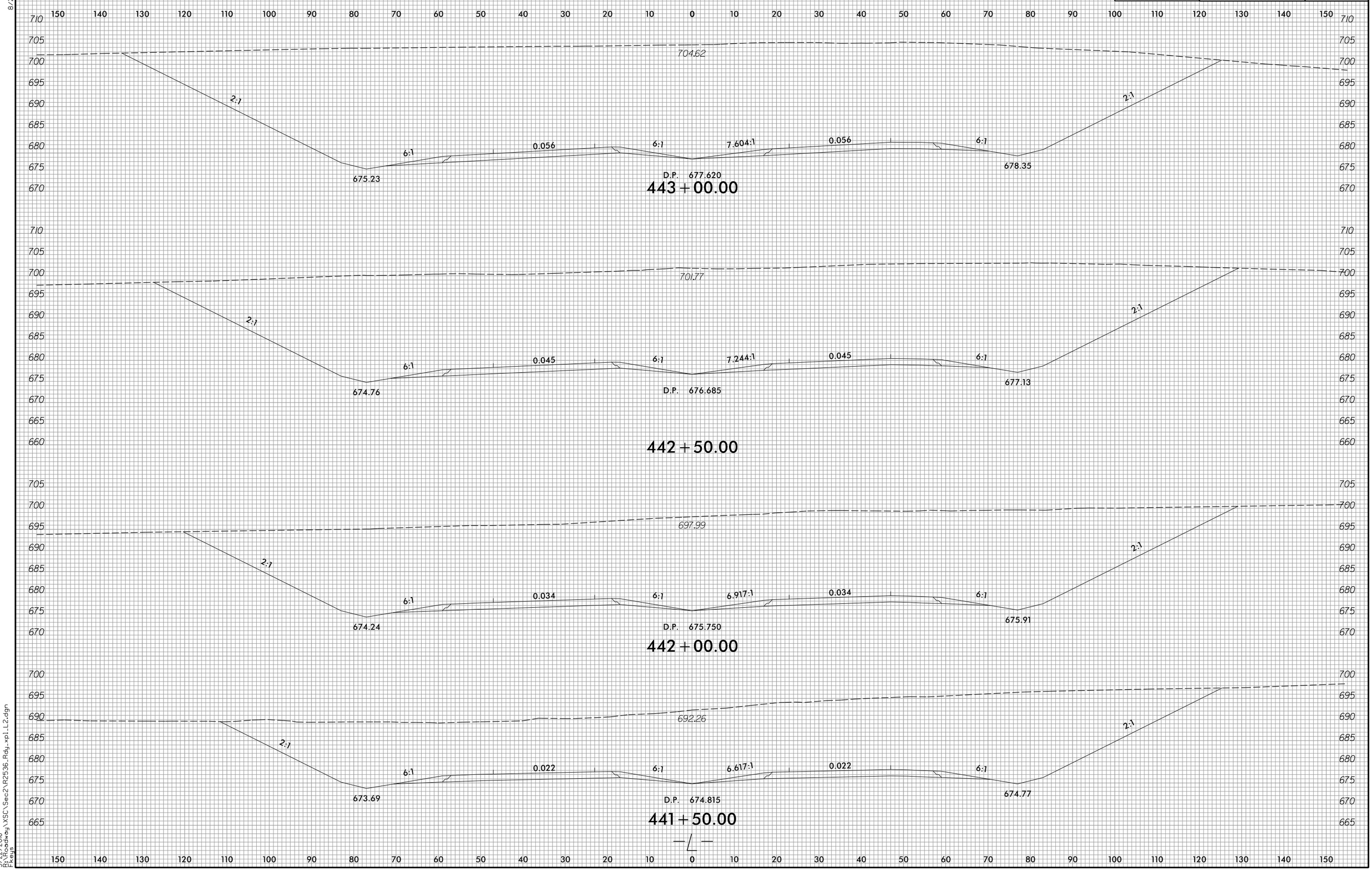
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-134



3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-135

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 715 710 705 700 695 690 685 680 675 670 665

709.11

2:1 6:1 6:1 0.080 6:1 8.528:1 0.080 6:1 2:1

676.72 D.P. 680.370 681.70

444+50.00

715 710 705 700 695 690 685 680 675 670

709.05

2:1 6:1 6:1 0.078 6:1 8.438:1 0.078 6:1 2:1

675.93 D.P. 679.489 680.77

444+00.00

710 705 700 695 690 685 680 675 670 665

707.64

2:1 6:1 6:1 0.067 6:1 8.001:1 0.067 6:1 2:1

675.50 D.P. 678.555 679.56

443+50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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P:\Roadway\XSC\Sec2\R2536_Rdy_xpl_L2.dgn
Pkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-136

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

715 710 705 700 695 690 685 680 675

705.72

2:1

6:1

0.080

6:1

8.528:1

0.080

6:1

2:1

679.33

684.31

D.P. 682.975

446+00.00

720 715 710 705 700 695 690 685 680 675 670

706.53

2:1

6:1

0.080

6:1

8.528:1

0.080

6:1

2:1

678.46

683.44

D.P. 682.107

445+50.00

720 715 710 705 700 695 690 685 680 675 670

708.26

2:1

6:1

0.080

6:1

8.528:1

0.080

6:1

2:1

677.59

682.57

D.P. 681.239

445+00.00

—℄—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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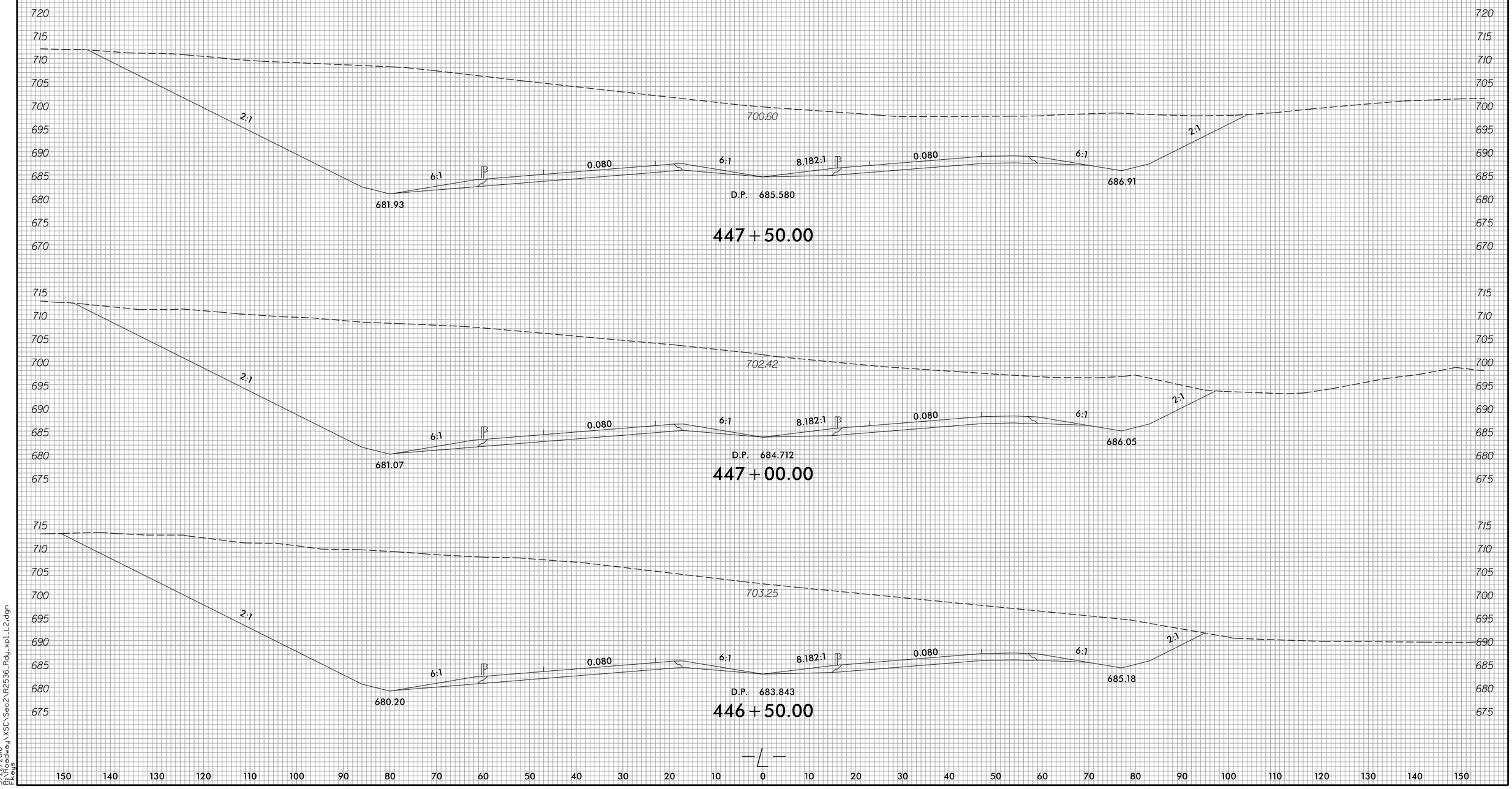
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-137



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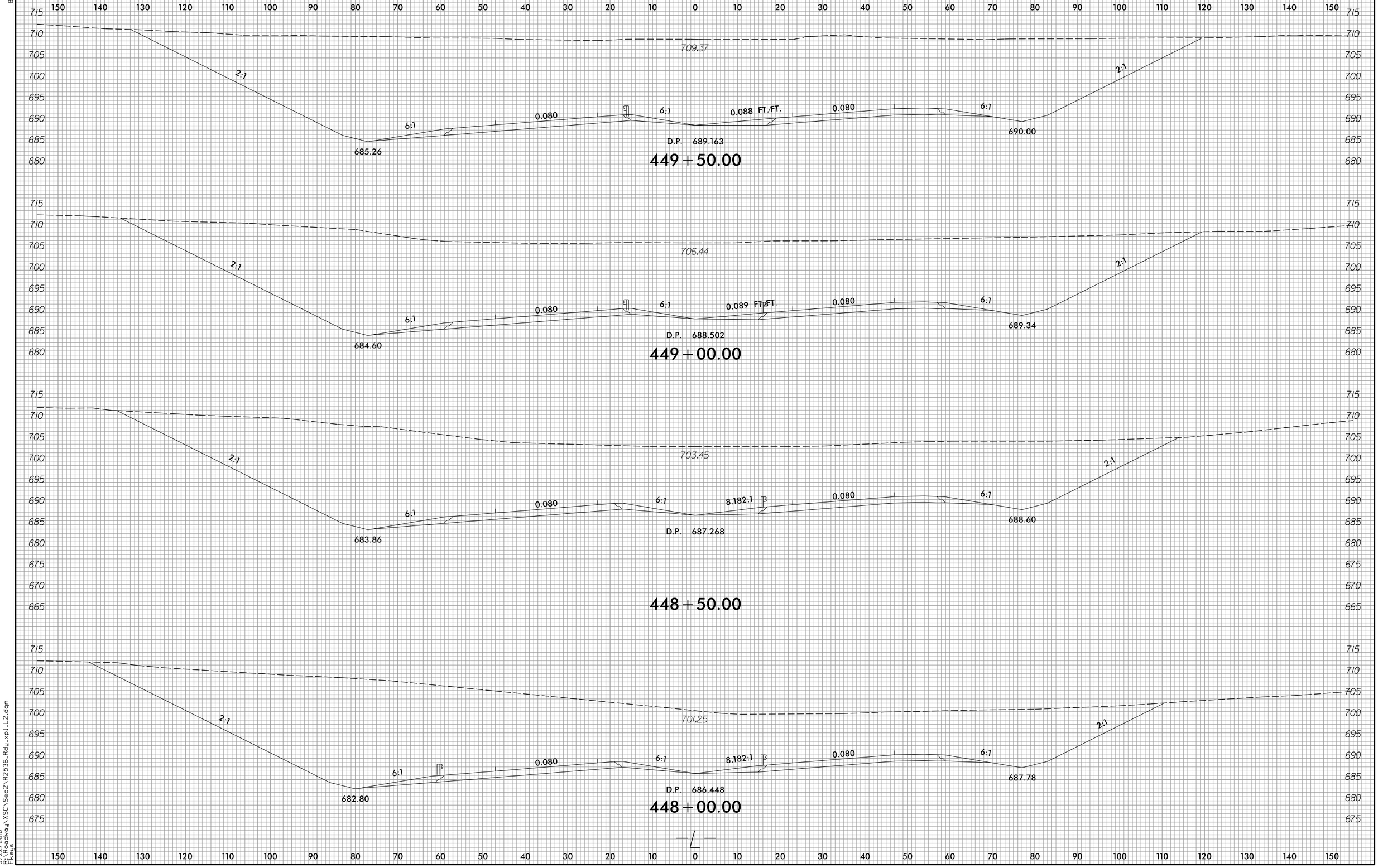
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-138



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Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-139

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 715 710 705 700 695 690 685 680

2:1 6:1 6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1 2:1

708.42

686.77

689.25

D.P. 690.665

451+00.00

720 715 710 705 700 695 690 685 680 675 670 665

2:1 6:1 6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1 2:1

710.07

686.34

689.50

D.P. 690.244

450+50.00

720 715 710 705 700 695 690 685 680

2:1 6:1 6:1 0.080 6:1 0.088 FT./FT. 0.080 6:1 2:1

711.02

685.84

689.75

D.P. 689.743

450+00.00

—L—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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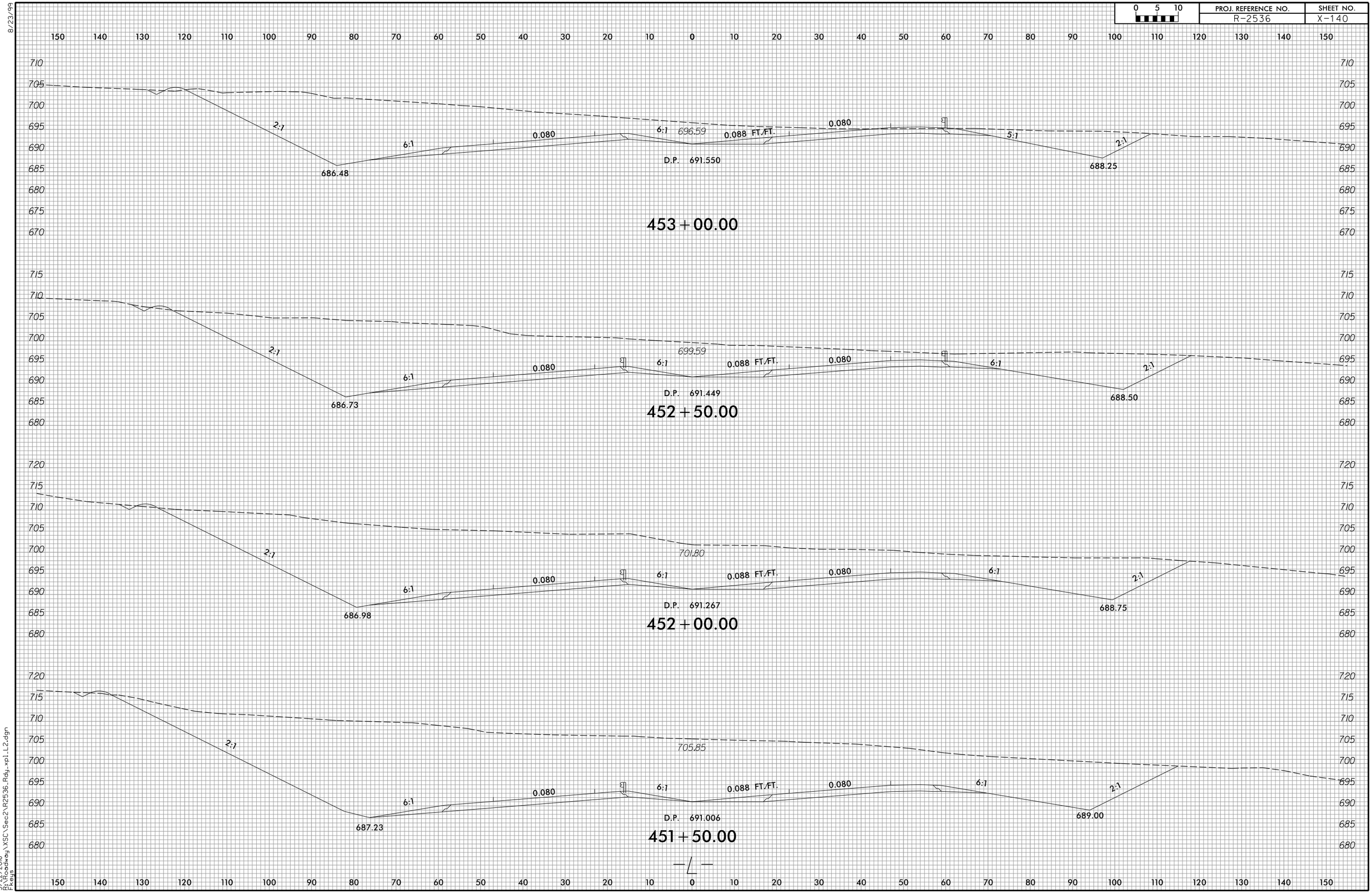
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-140



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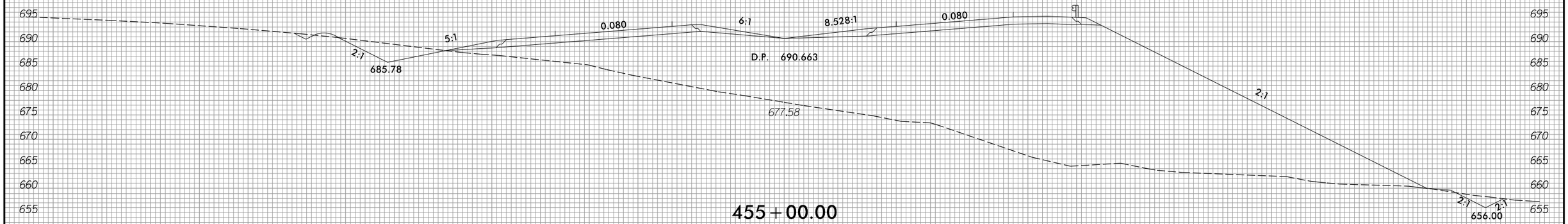
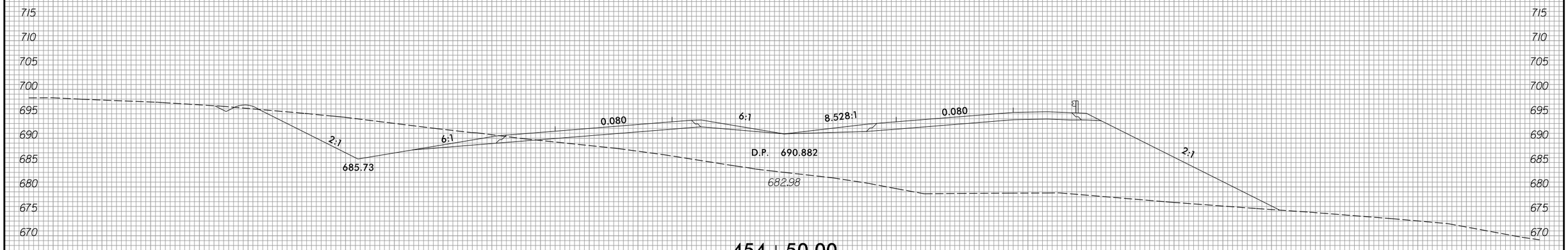
Fkeys

8/23/99

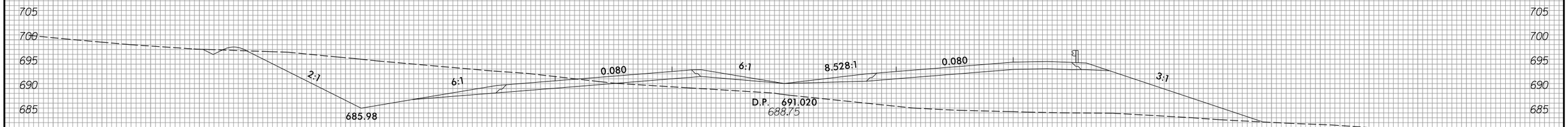
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-141



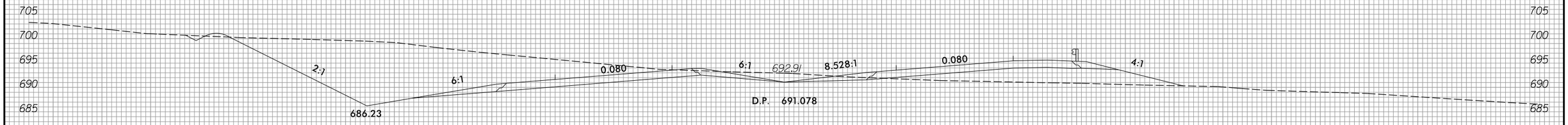
455 + 00.00



454 + 50.00



454 + 00.00



453 + 50.00

3/22/2016
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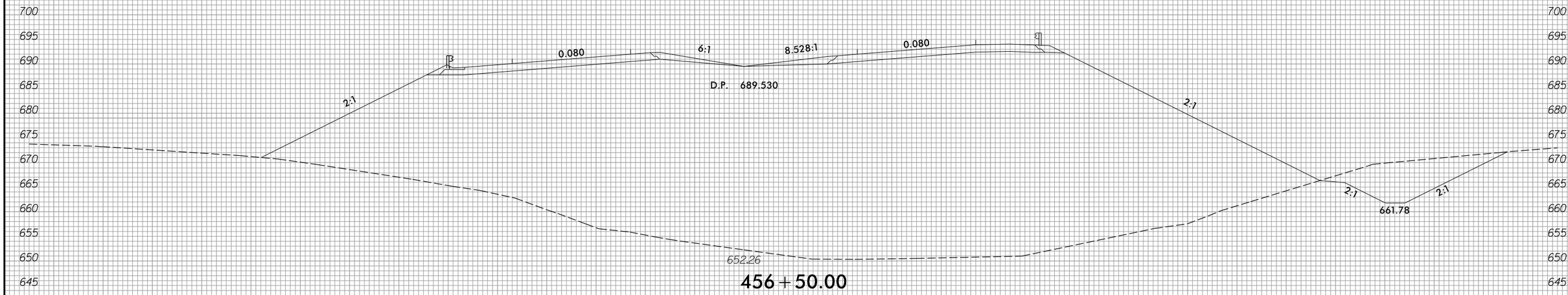
FKeys

8/23/99

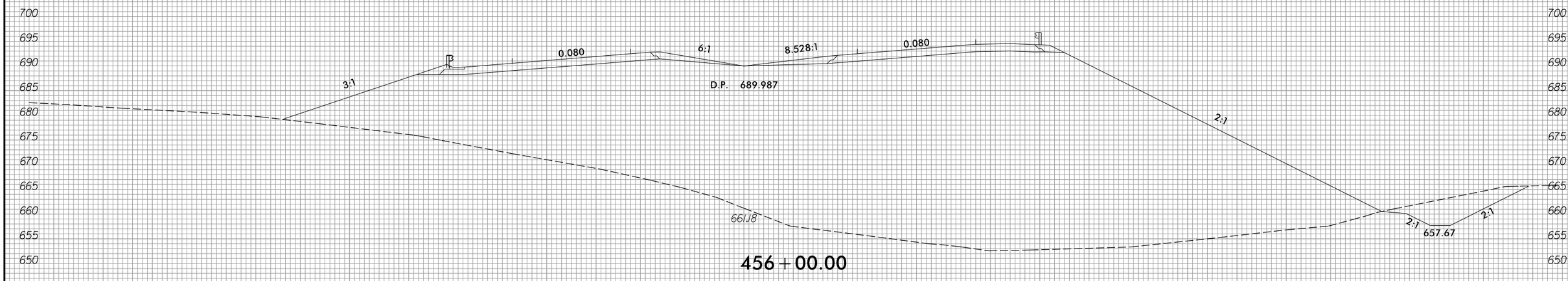
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-142

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

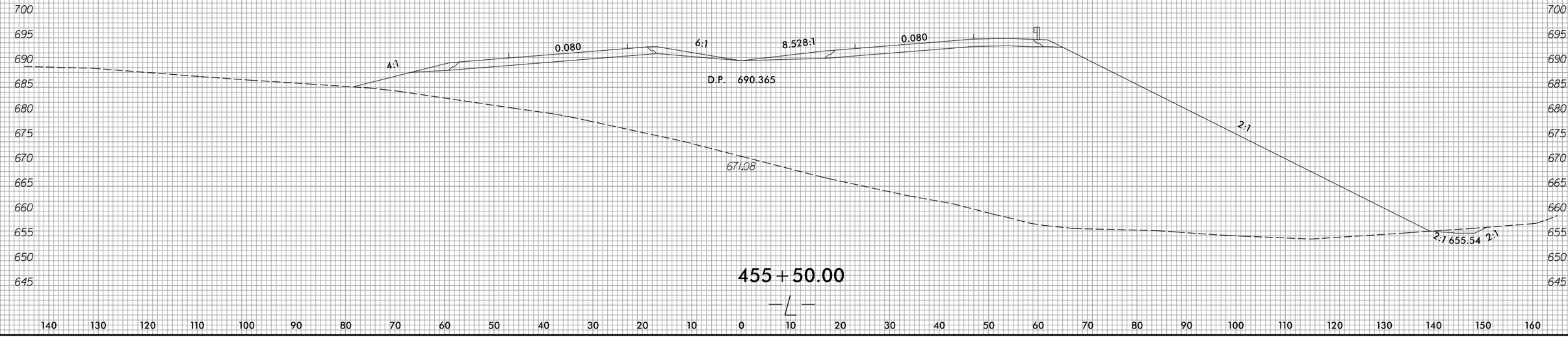
700 695 690 685 680 675 670 665 660 655 650 645



456 + 50.00



456 + 00.00



455 + 50.00

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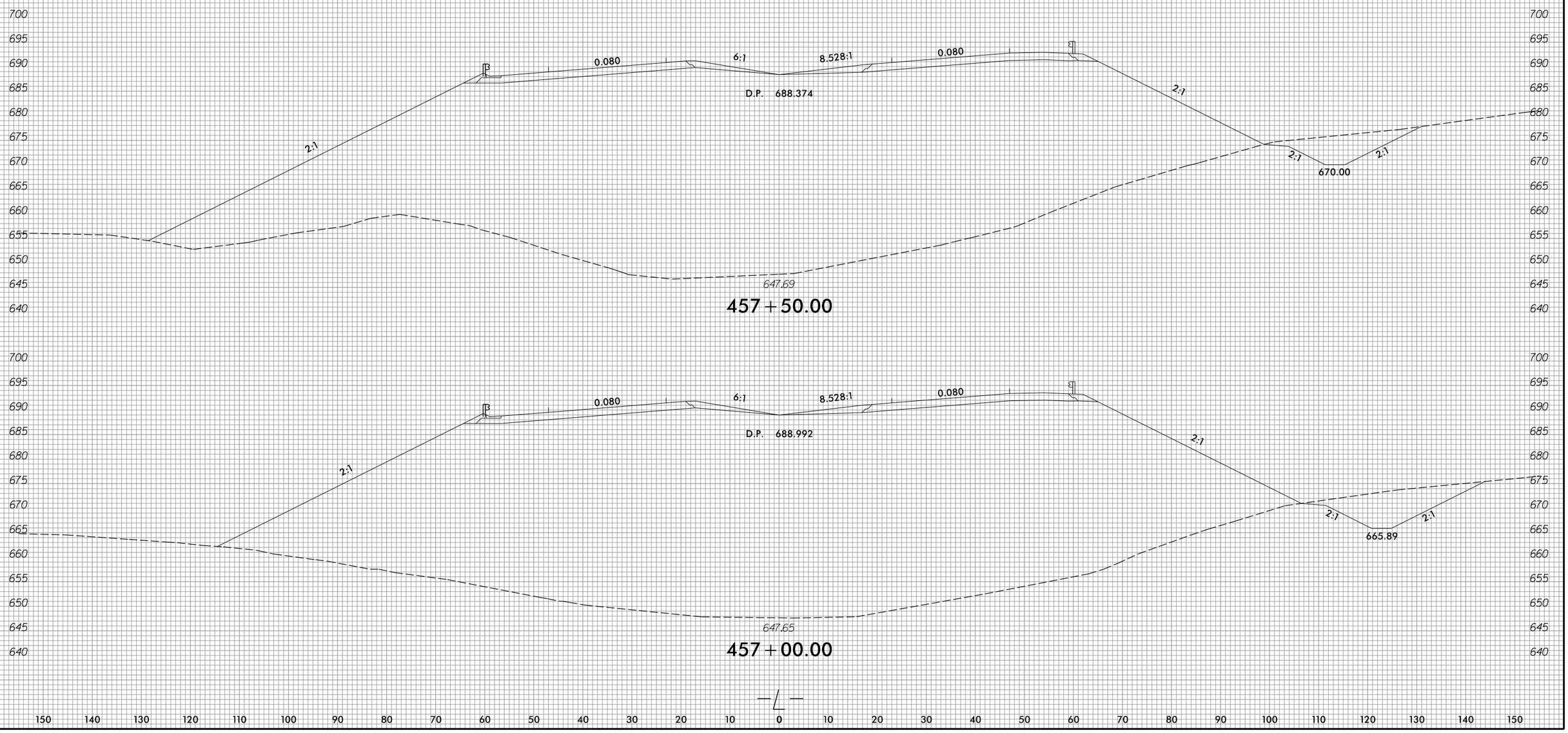
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-143

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 695 690 685 680 675 670 665 660 655 650 645 640



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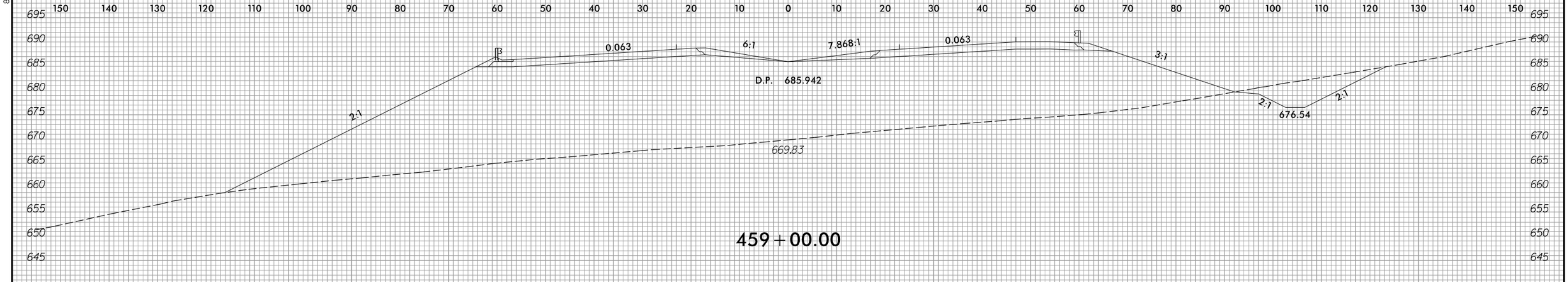
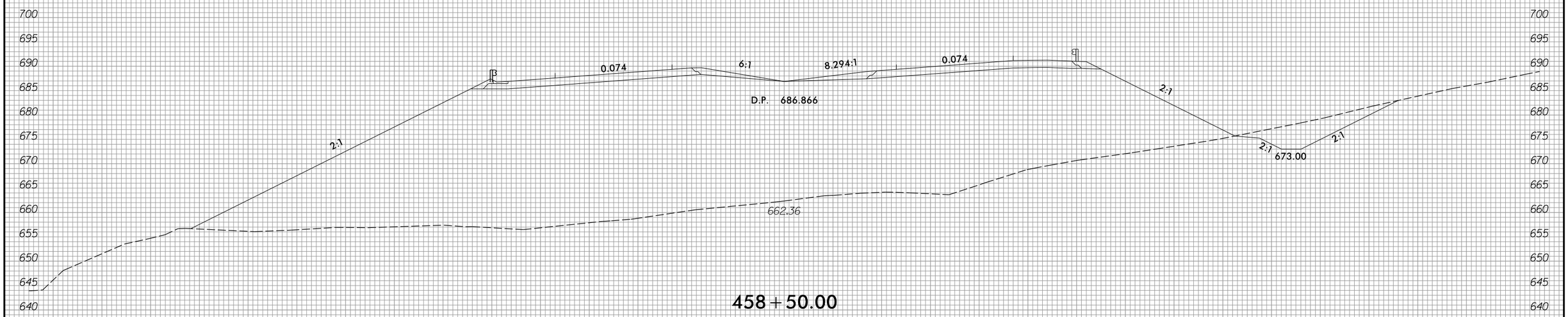
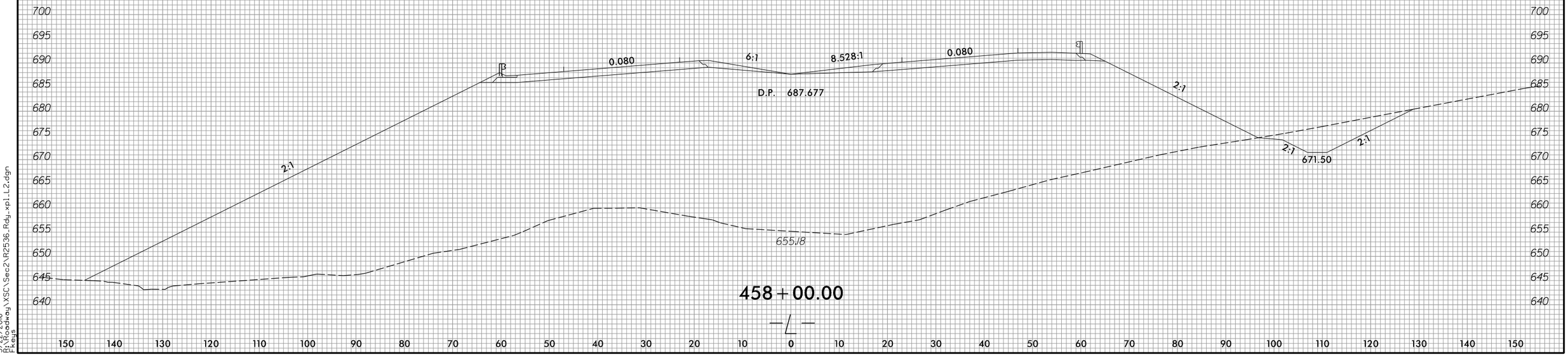
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-144



459+00.00



458+50.00



458+00.00

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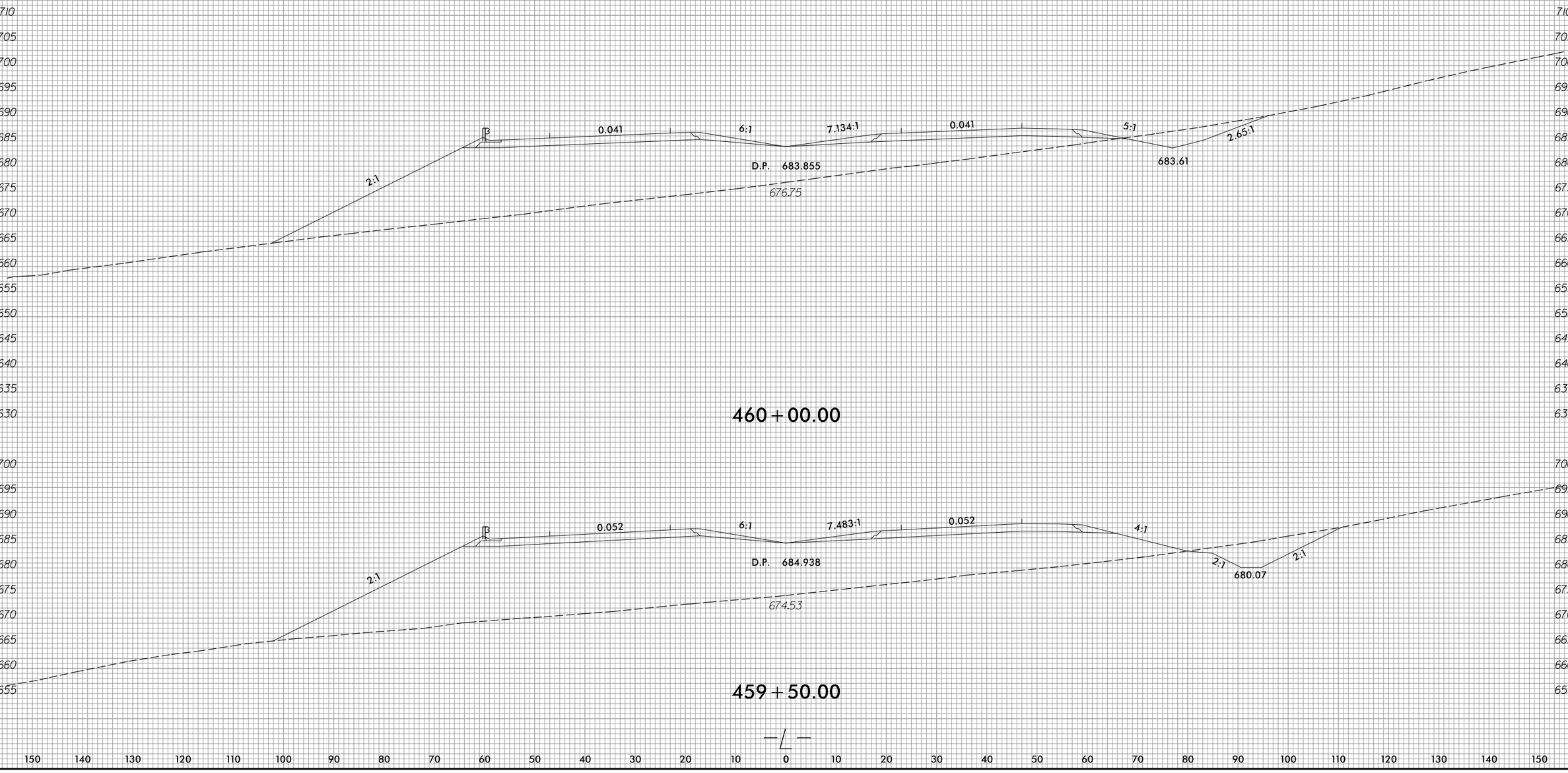
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-145

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

710 705 700 695 690 685 680 675 670 665 660 655 650 645 640 635 630



710 705 700 695 690 685 680 675 670 665 660 655 650 645 640 635 630

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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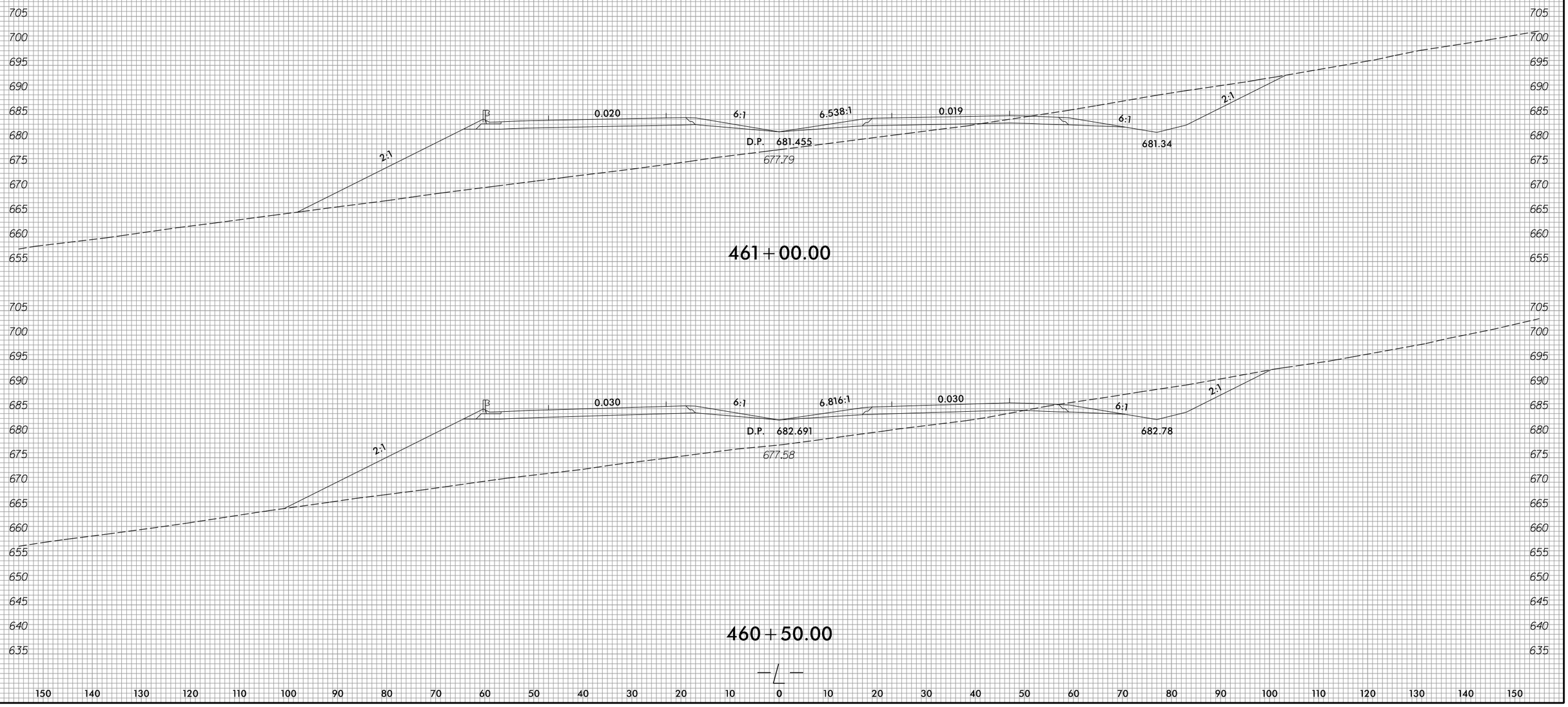
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-146

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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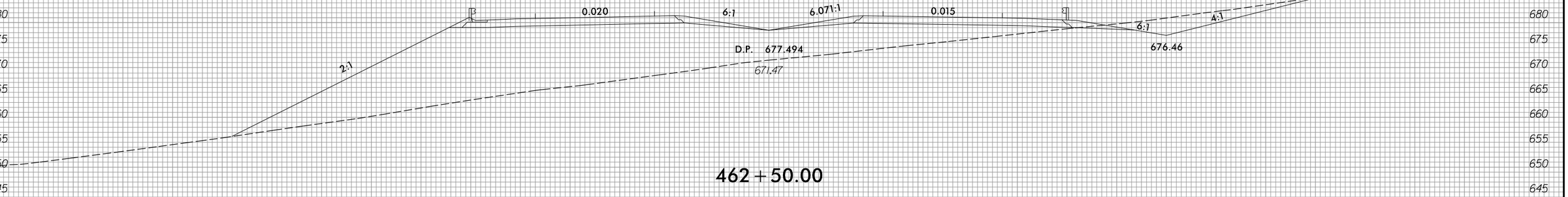
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-147

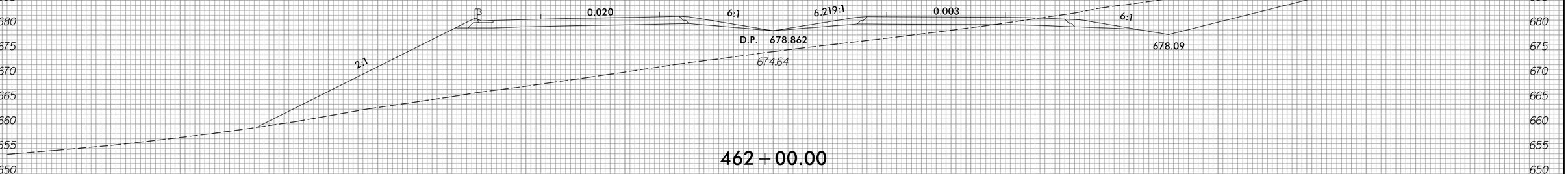
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

695 690 685 680 675 670 665 660 655 650 645



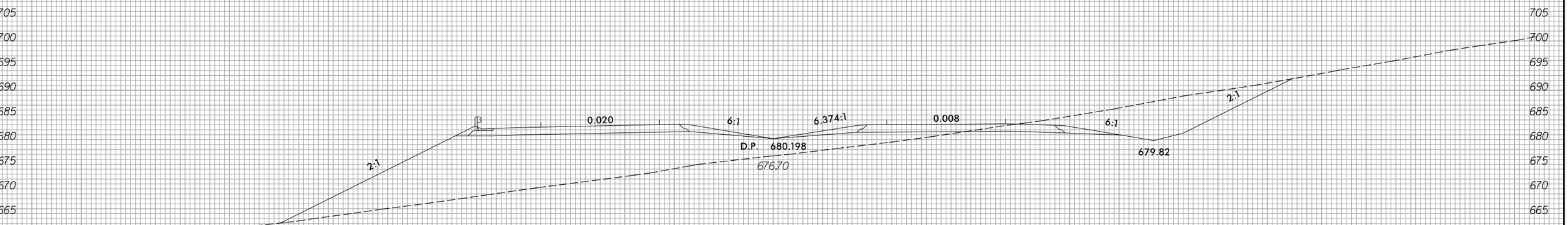
462 + 50.00

700 695 690 685 680 675 670 665 660 655 650



462 + 00.00

705 700 695 690 685 680 675 670 665 660 655 650



461 + 50.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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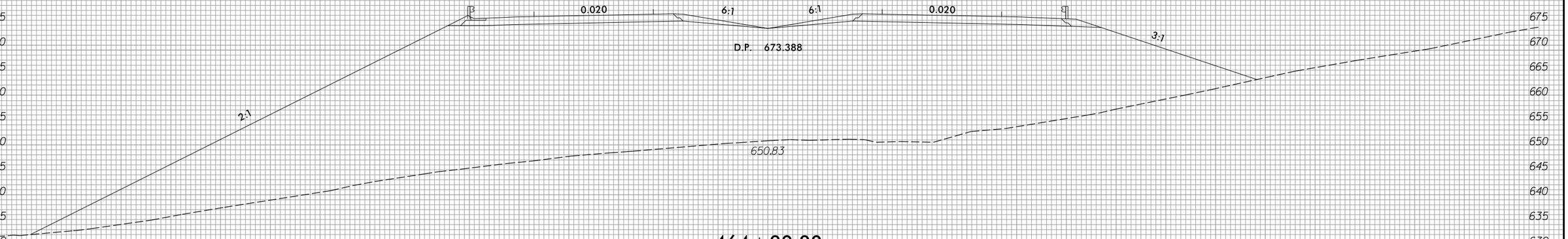
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-148

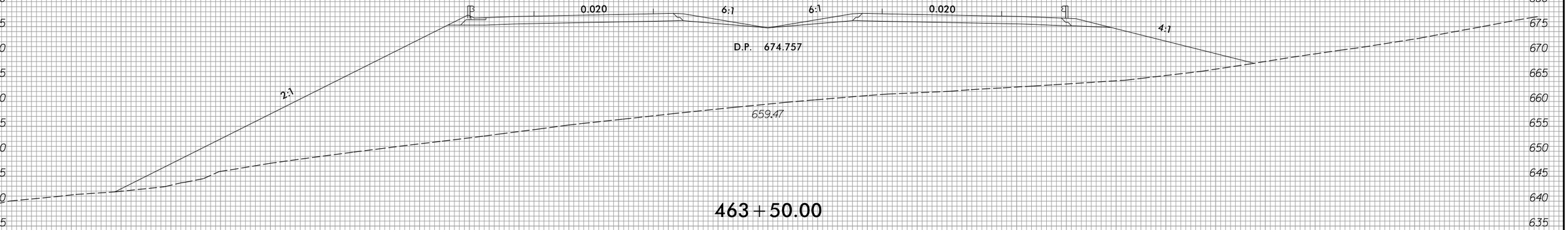
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

685 680 675 670 665 660 655 650 645 640 635 630



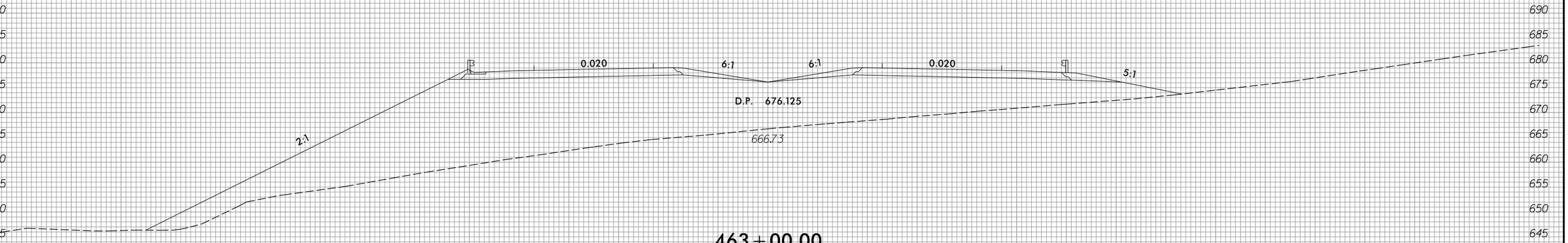
464+00.00

685 680 675 670 665 660 655 650 645 640 635



463+50.00

690 685 680 675 670 665 660 655 650 645 640 635



463+00.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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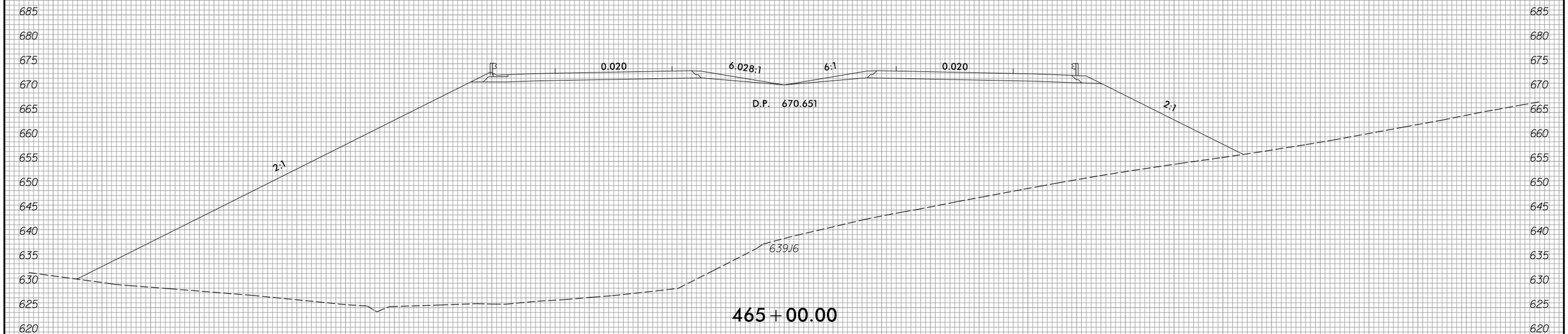
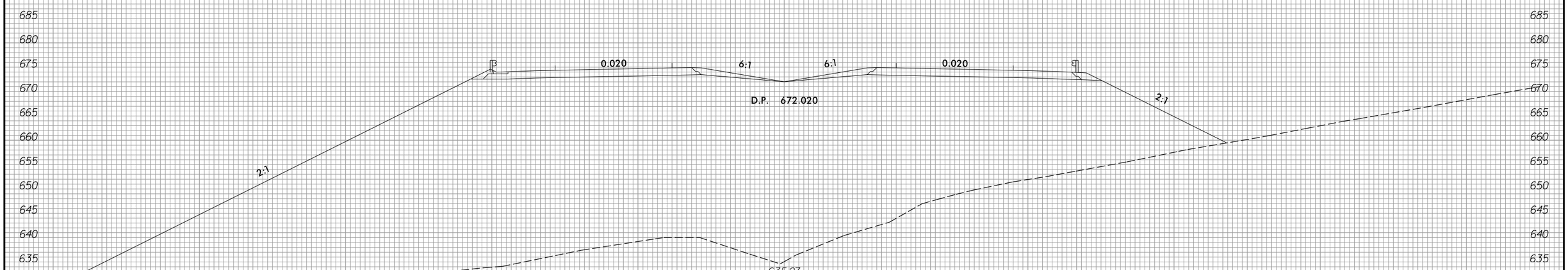
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-149

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

685 680 675 670 665 660 655 650 645 640 635 630 625 620



465+00.00



464+50.00

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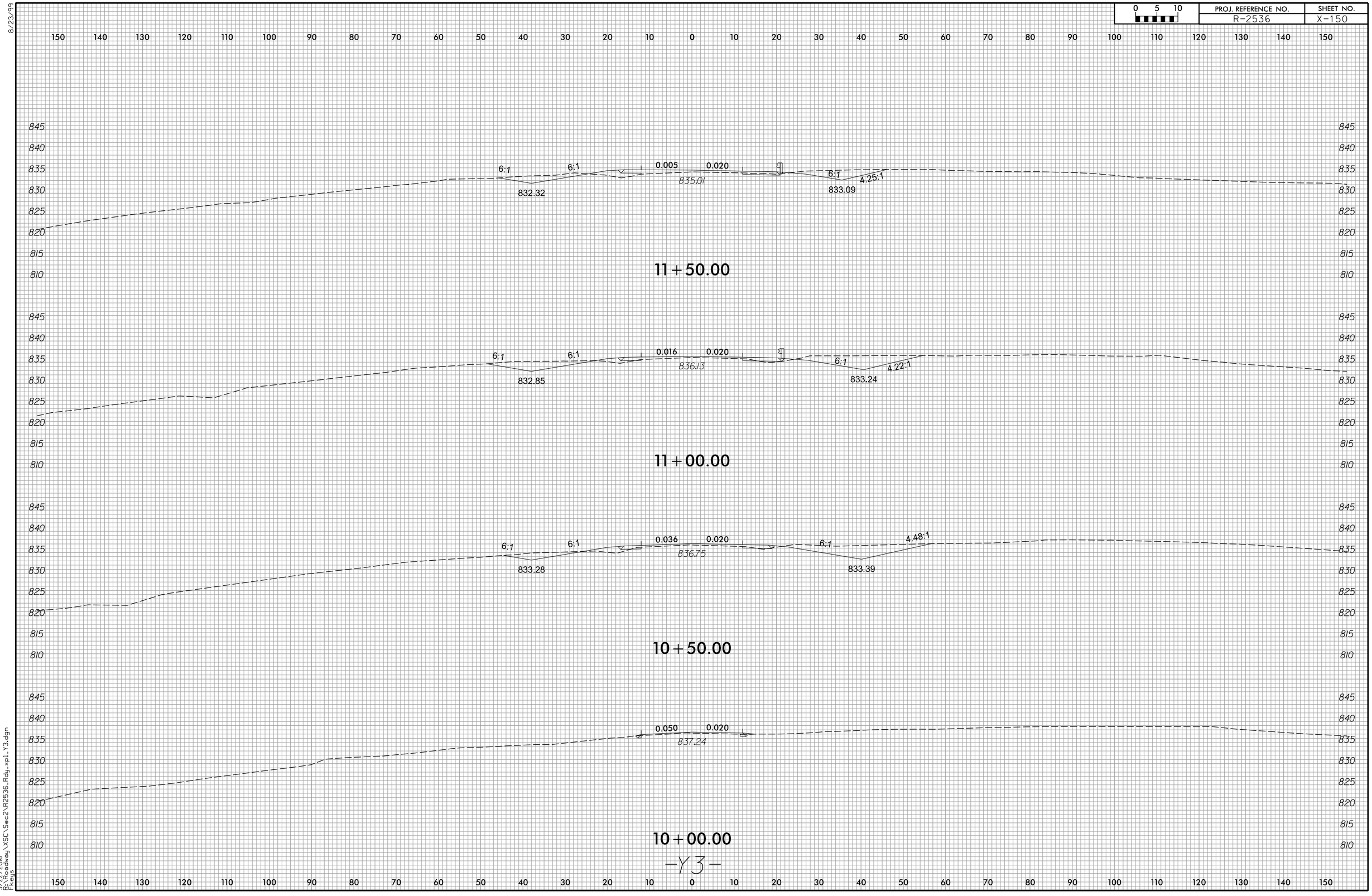
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-150



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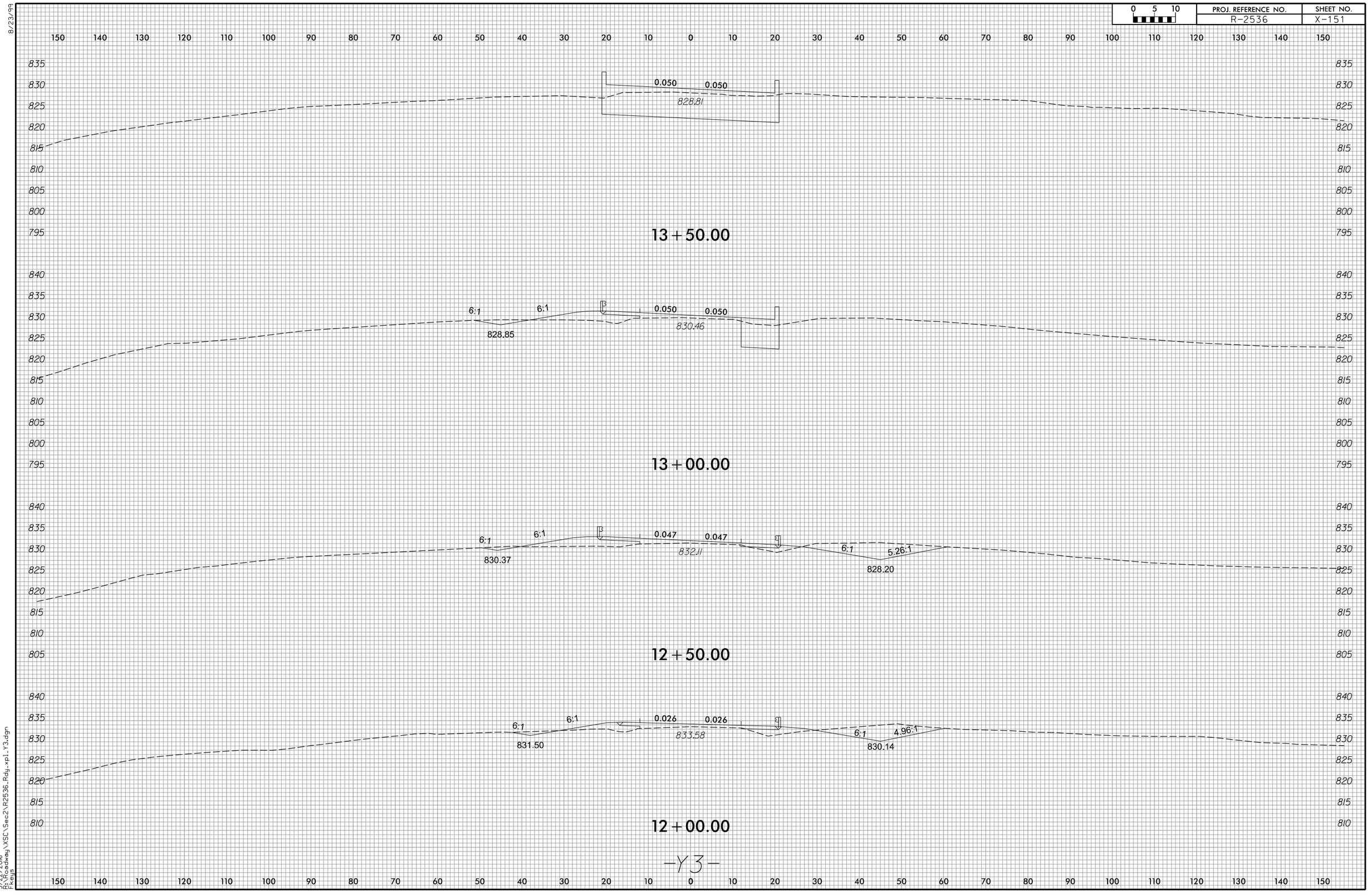
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-151



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Fkeys

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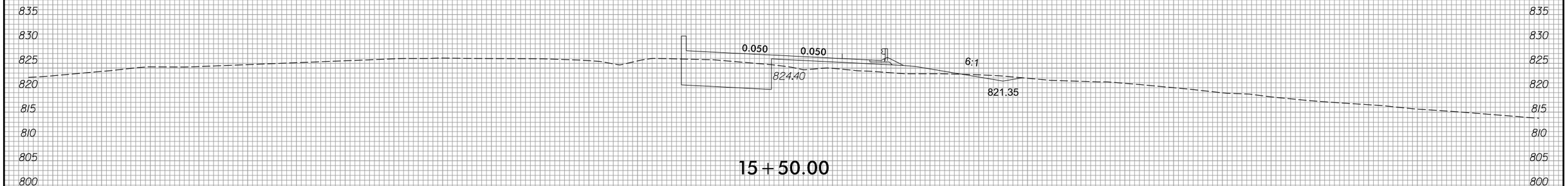
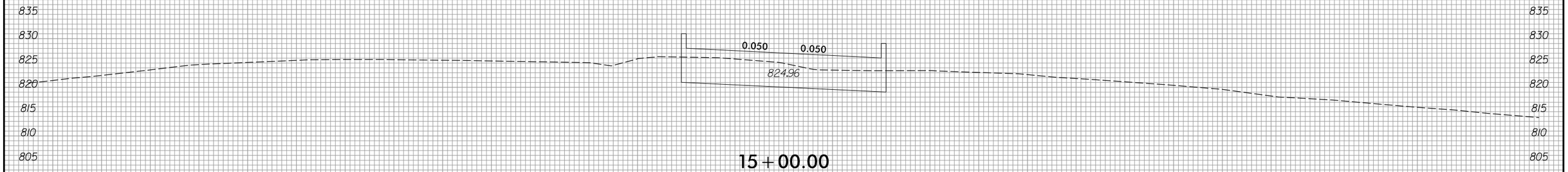
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-152

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

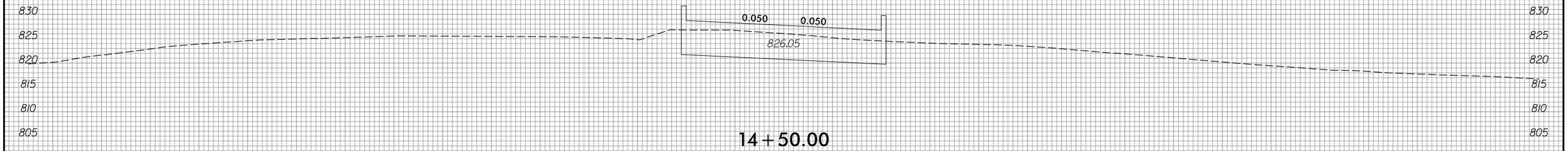
835 830 825 820 815 810 805 800



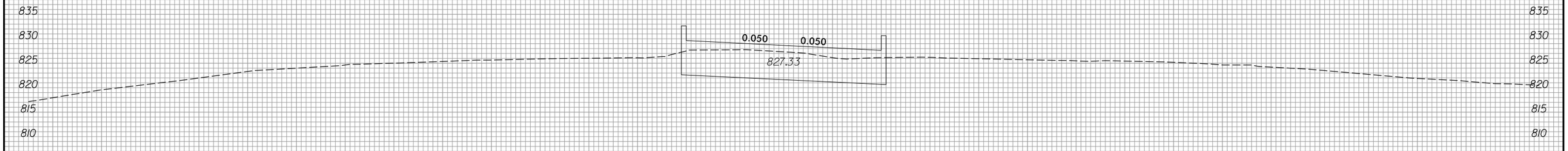
15+50.00



15+00.00



14+50.00



14+00.00

-Y3-

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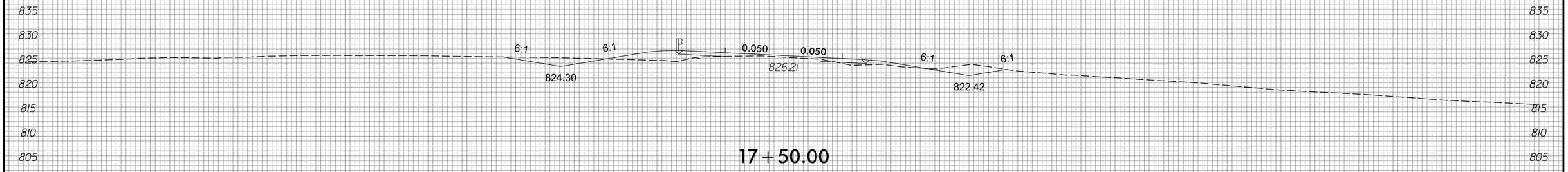
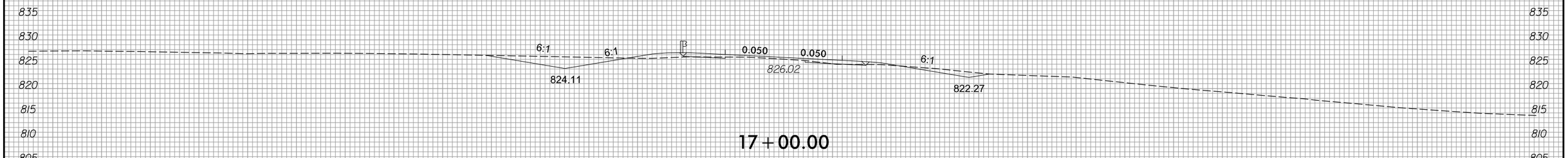
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-153

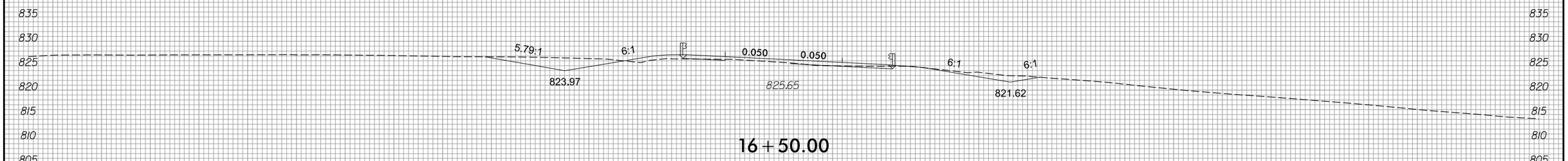
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



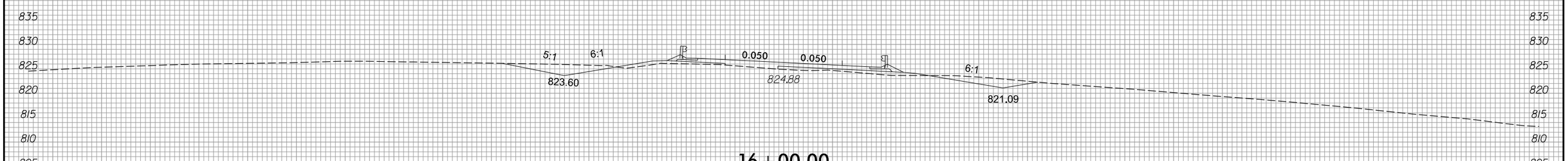
17+50.00



17+00.00



16+50.00



16+00.00

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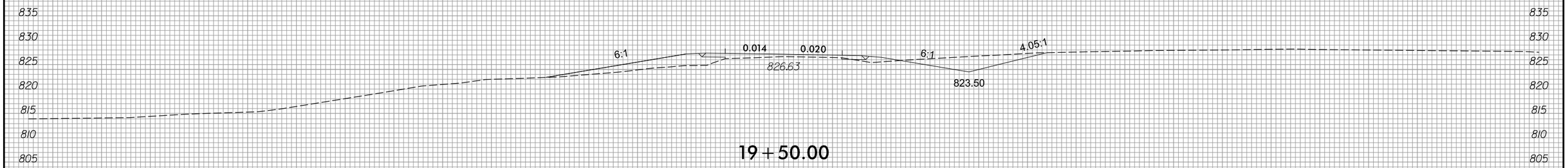
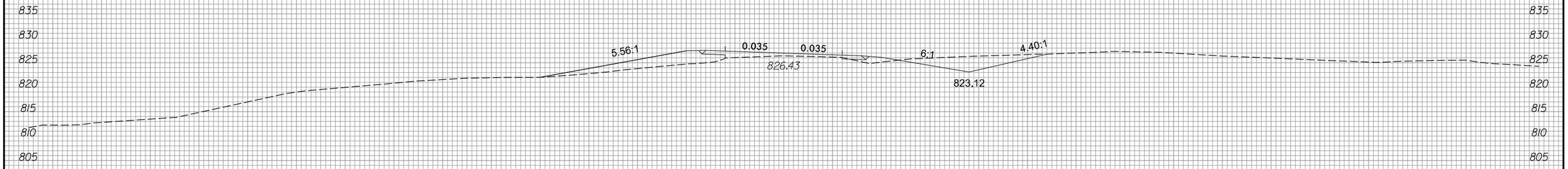
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-154

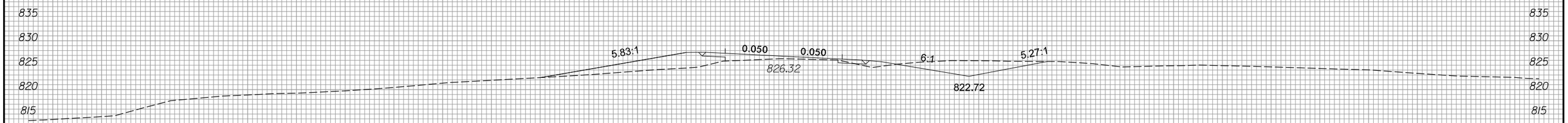
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



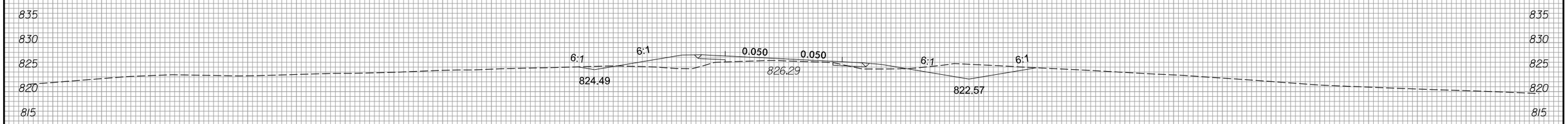
19+50.00



19+00.00



18+50.00



18+00.00

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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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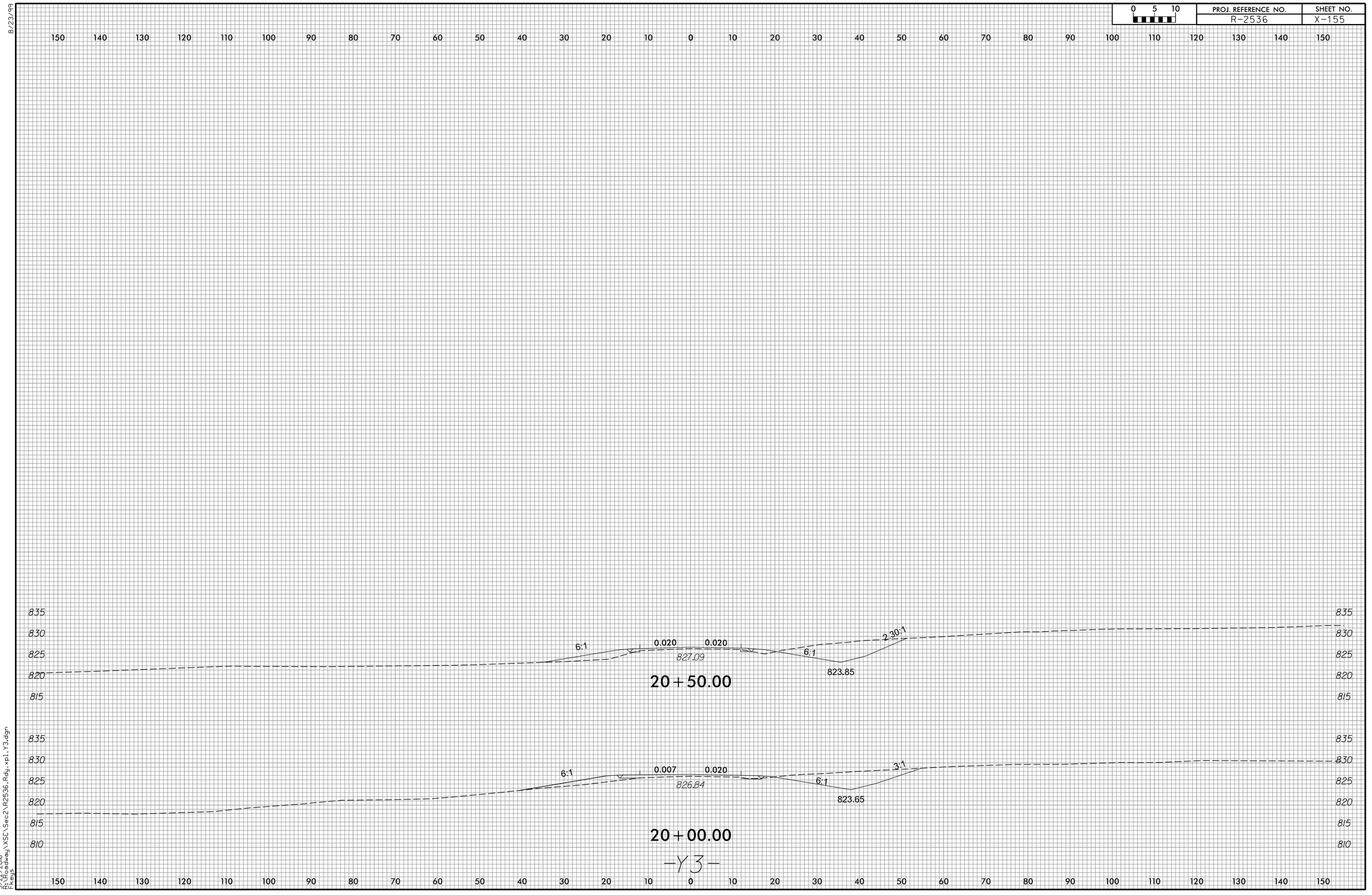
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-155



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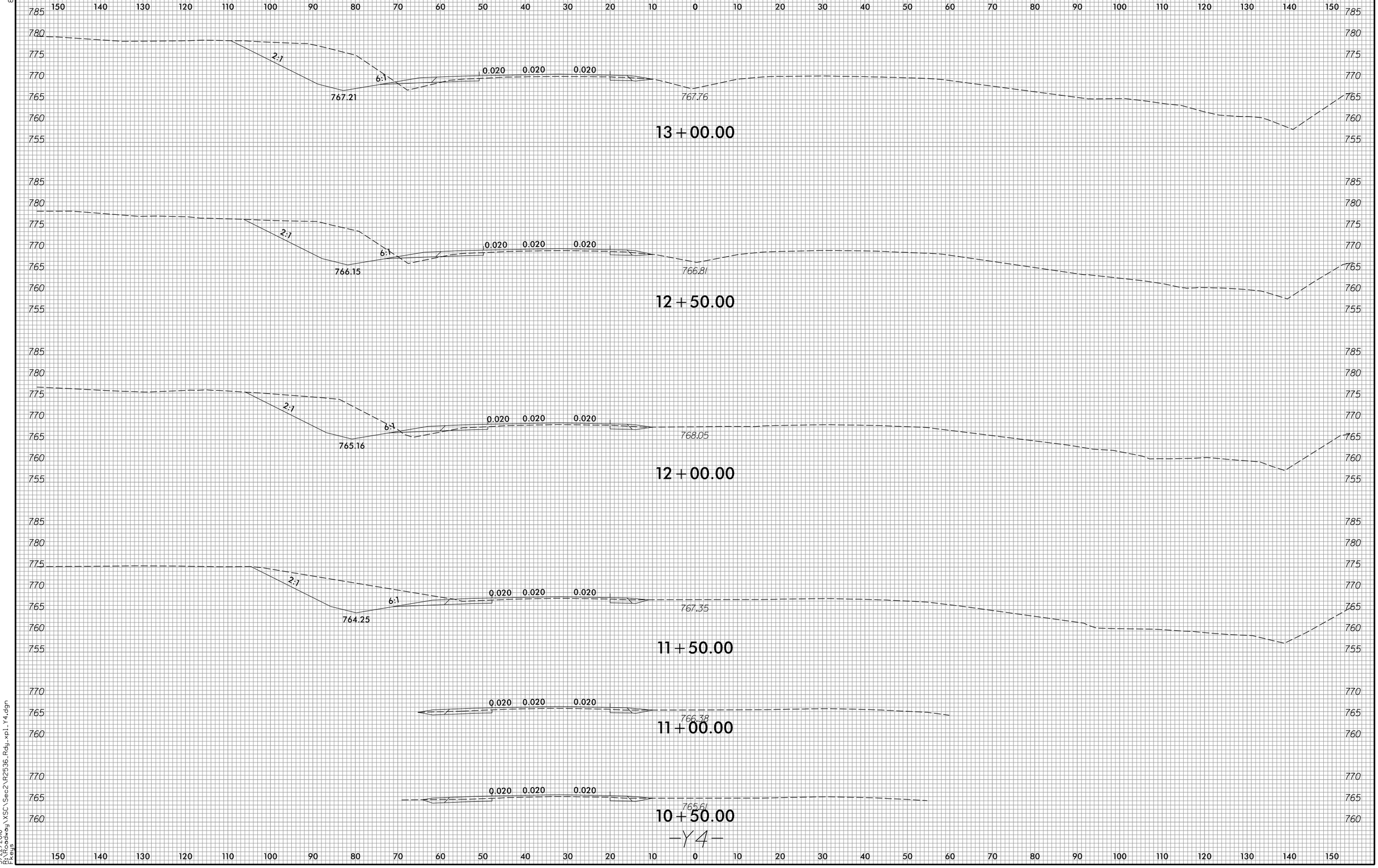
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-156



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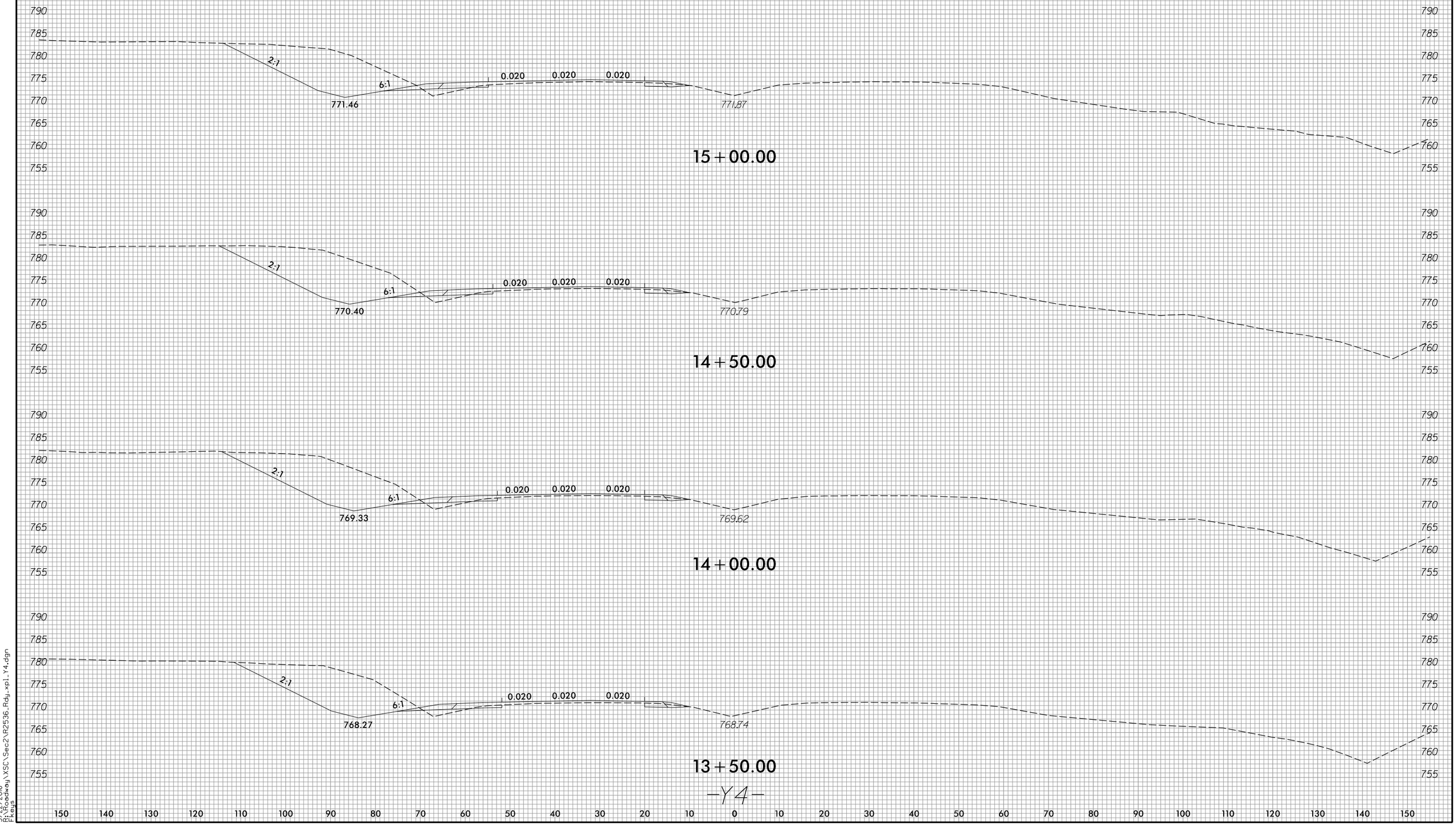
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-157



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-158

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790 785 780 775 770 765 760 755

2:1 6:1 0.020 0.020 0.020

773.60 773.45

16+00.00

790 785 780 775 770 765 760 755

2:1 6:1 0.020 0.020 0.020

772.53 773.22

15+50.00

-Y4-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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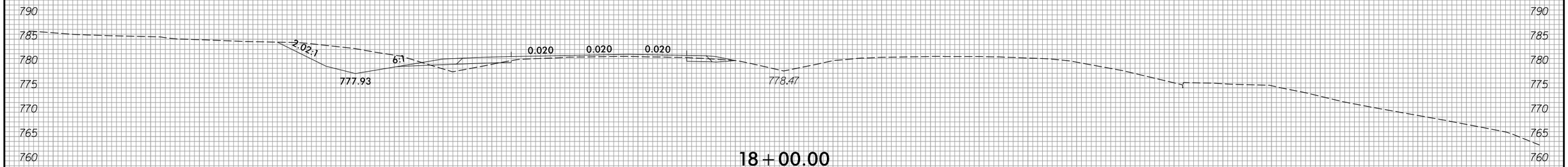
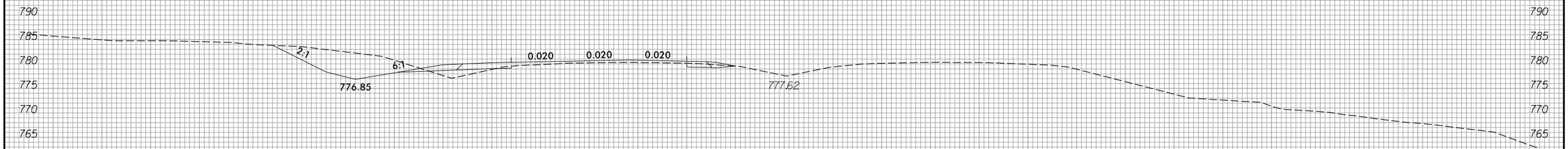
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-159

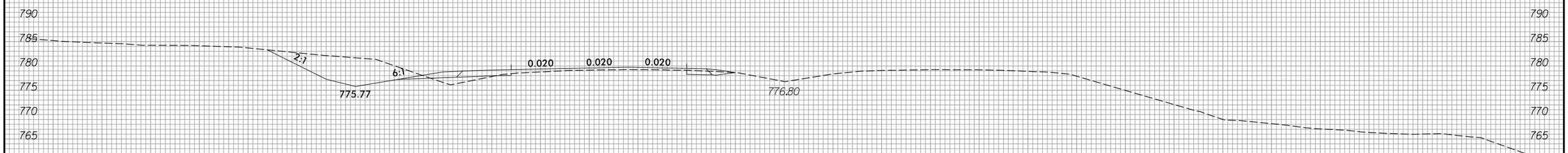
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



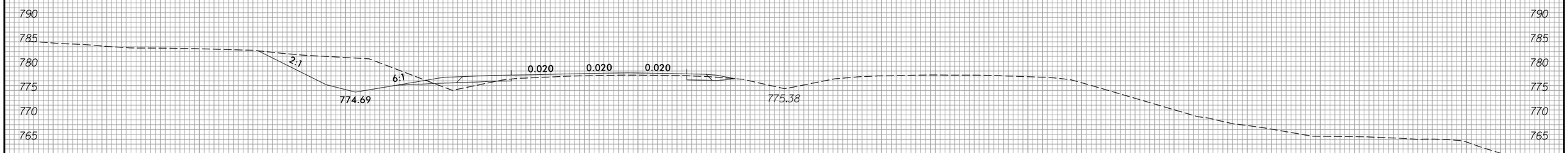
18+00.00



17+50.00



17+00.00



16+50.00

-Y4-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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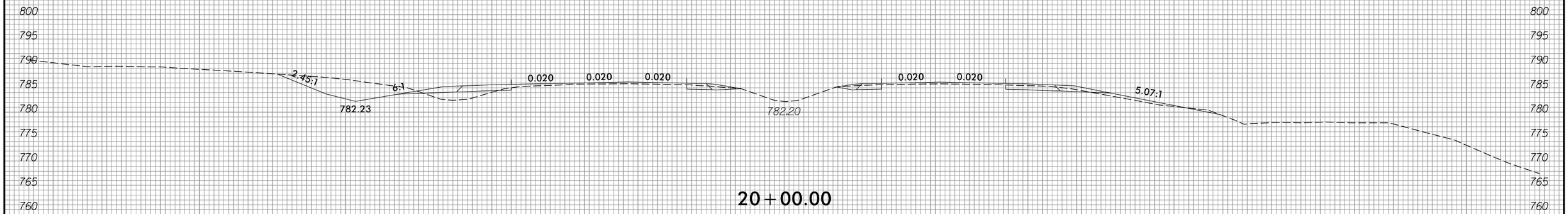
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-160

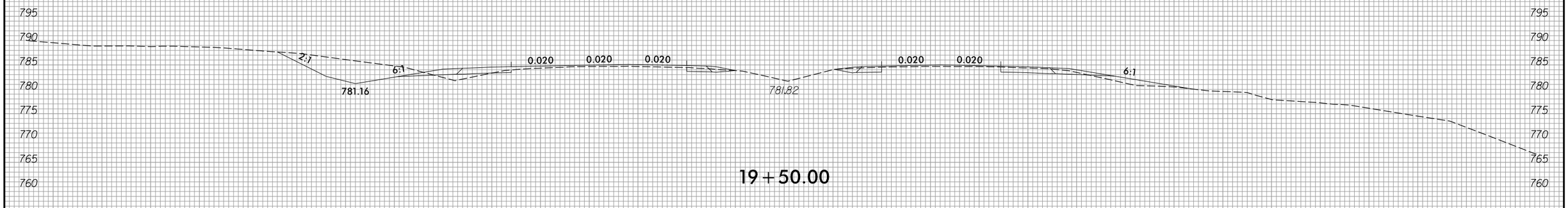
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

800 795 790 785 780 775 770 765 760



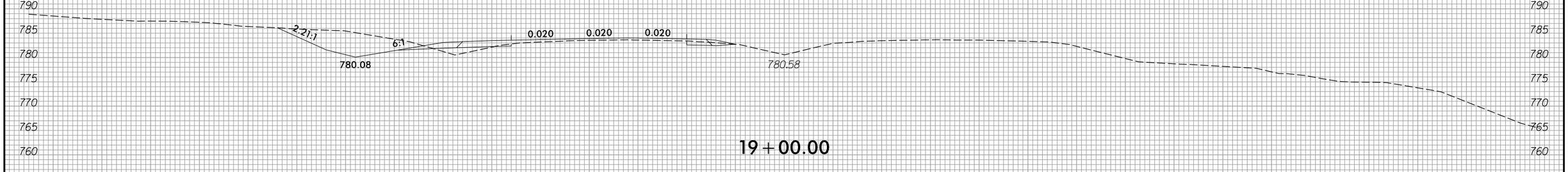
20+00.00

795 790 785 780 775 770 765 760



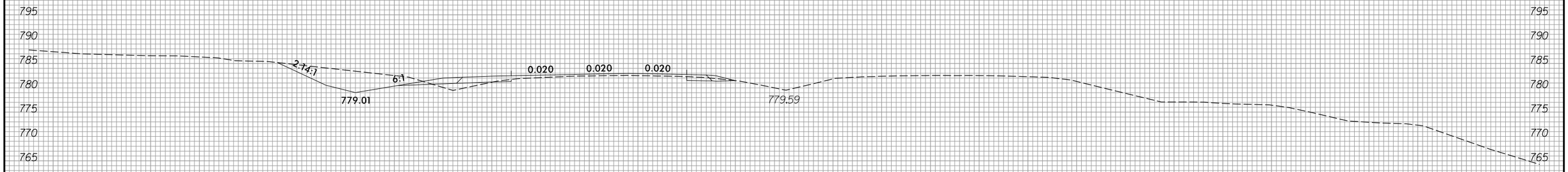
19+50.00

795 790 785 780 775 770 765 760



19+00.00

795 790 785 780 775 770 765 760



18+50.00

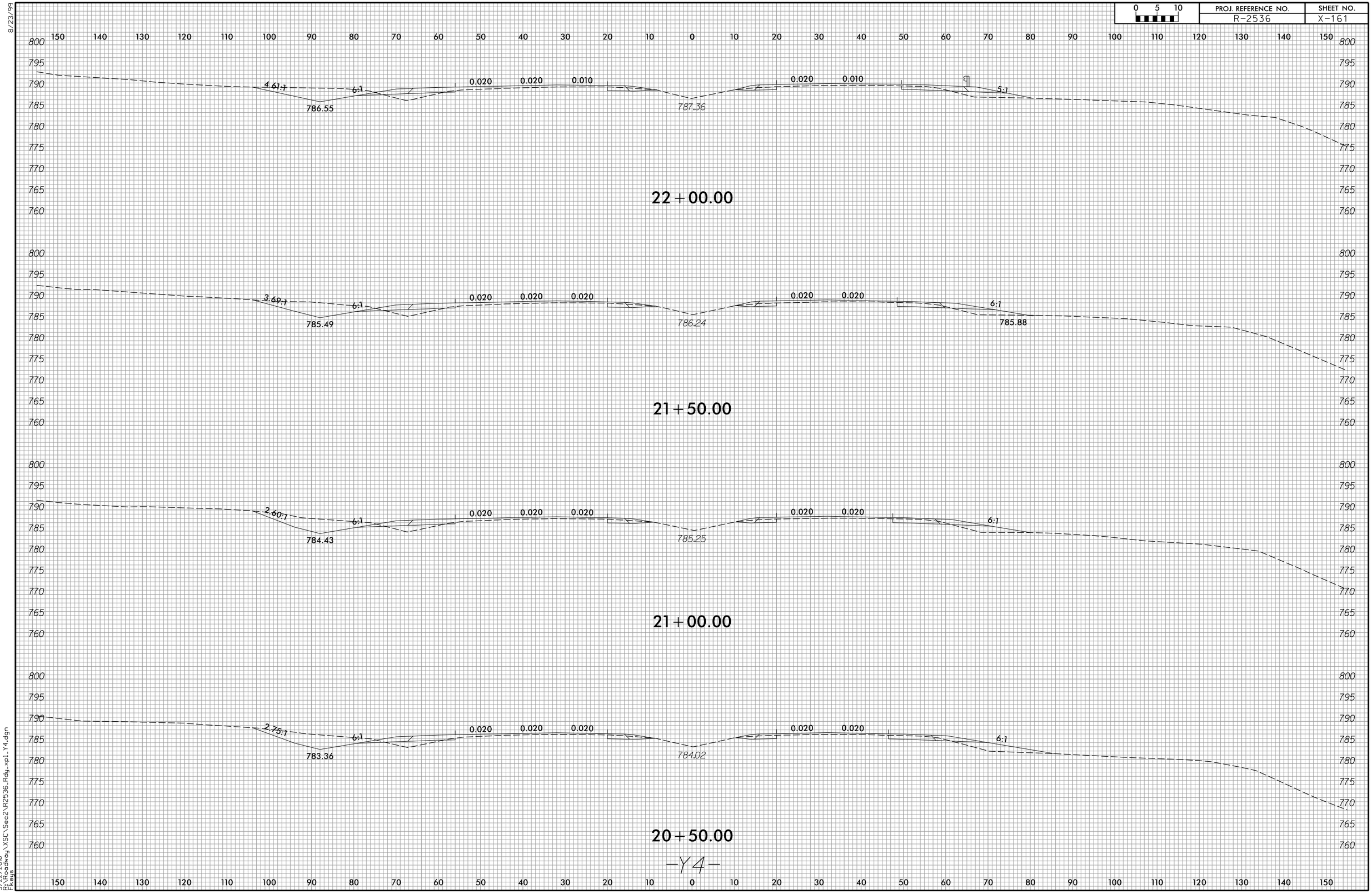
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

—Y4—

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-161



3/22/2016
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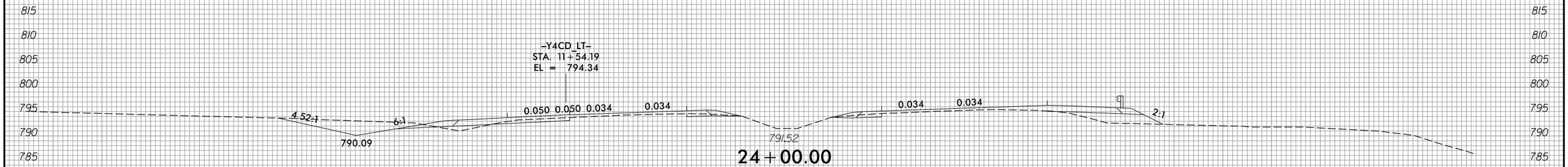
Keys

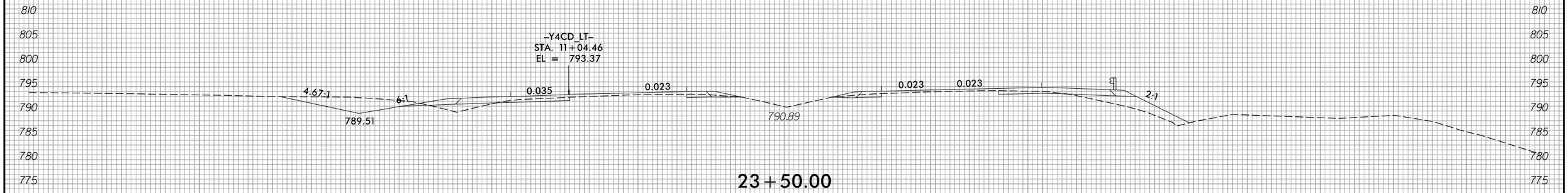
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-162

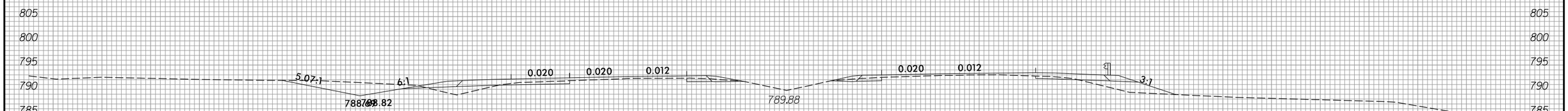
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



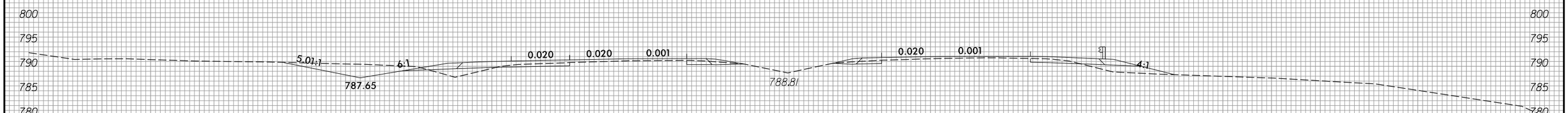
24+00.00



23+50.00



23+00.00



22+50.00

–Y4–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Pkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-163

3/22/2016
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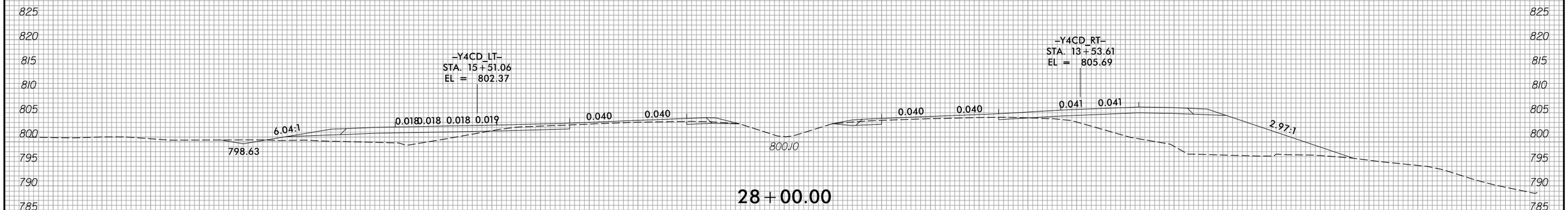
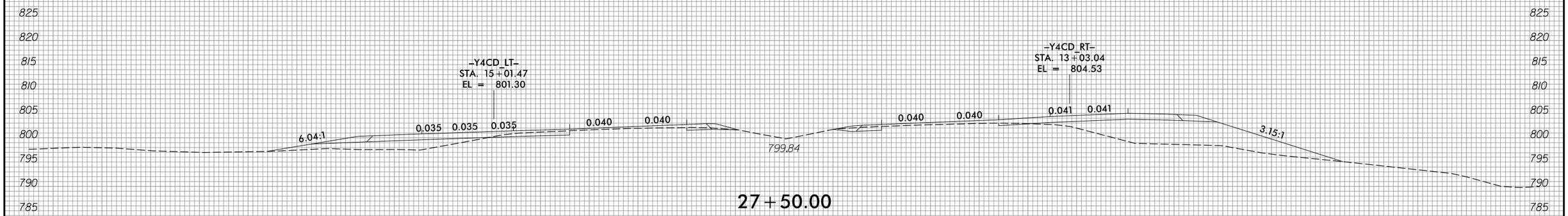
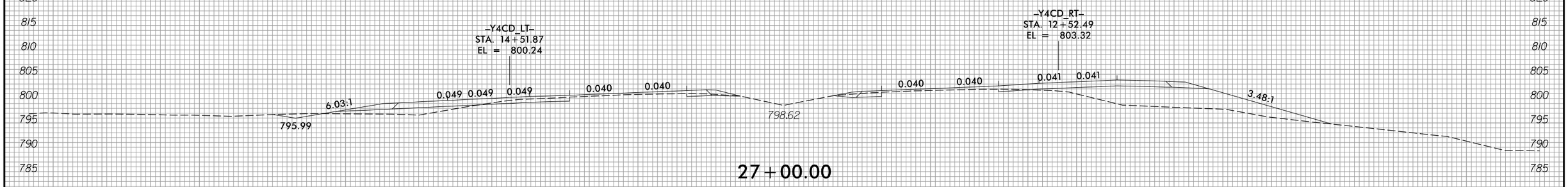
Pkeys

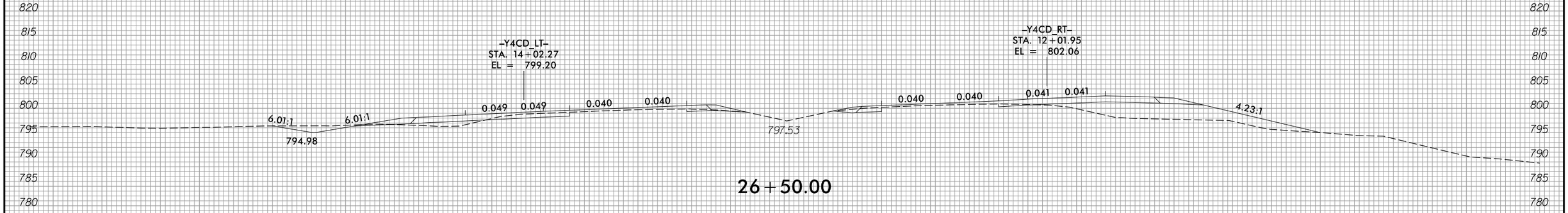
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-164









–Y4–

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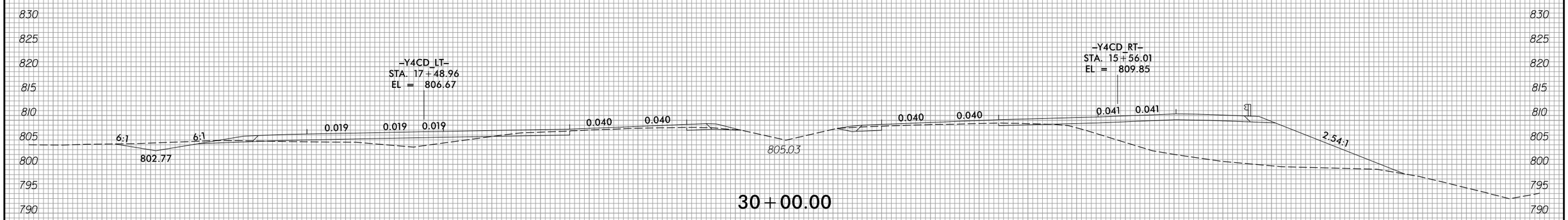
Pkeys

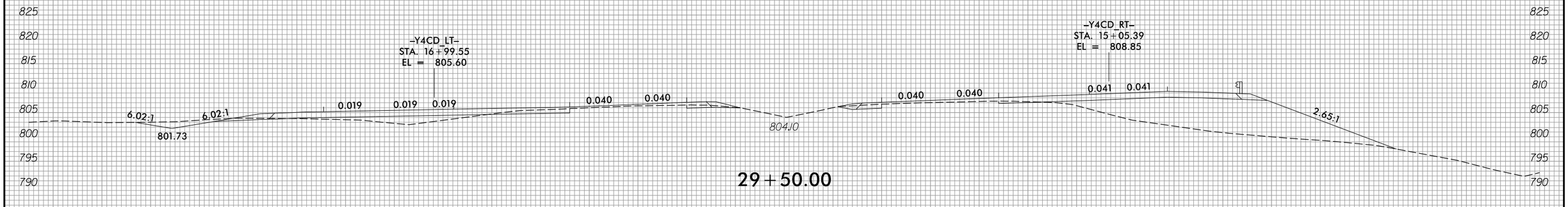
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-165

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

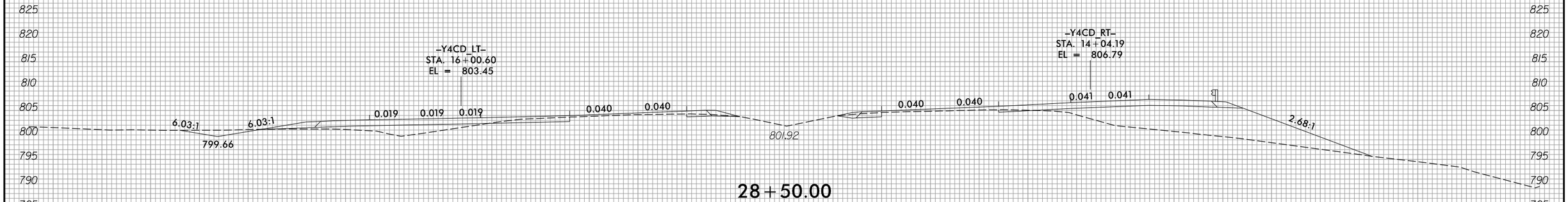


30+00.00



29+50.00

29+00.00



28+50.00

–Y4–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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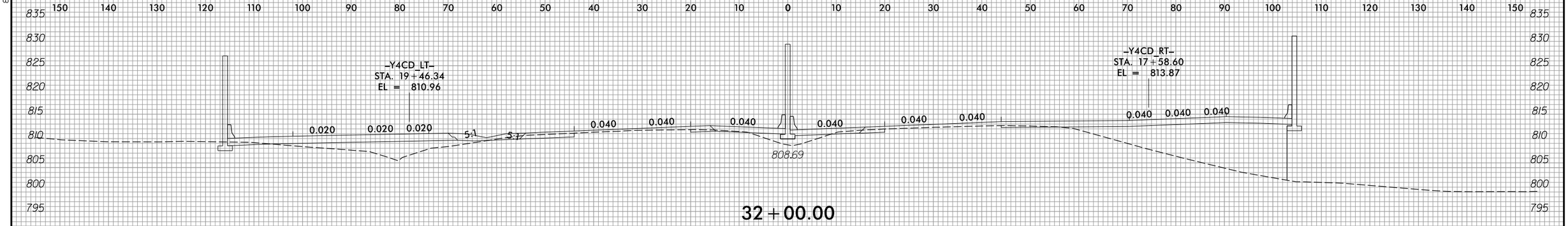
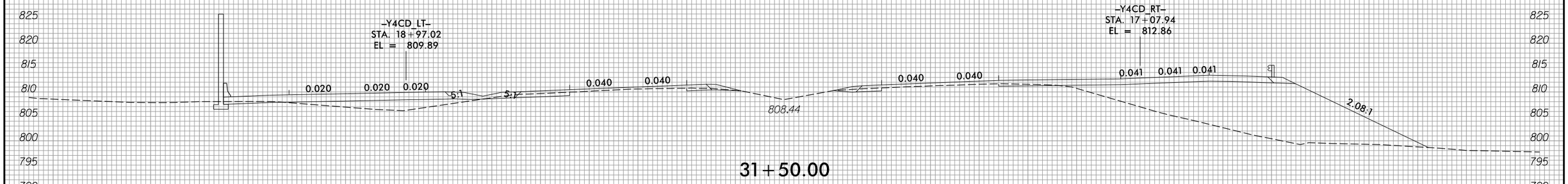
Fkeys

8/23/99

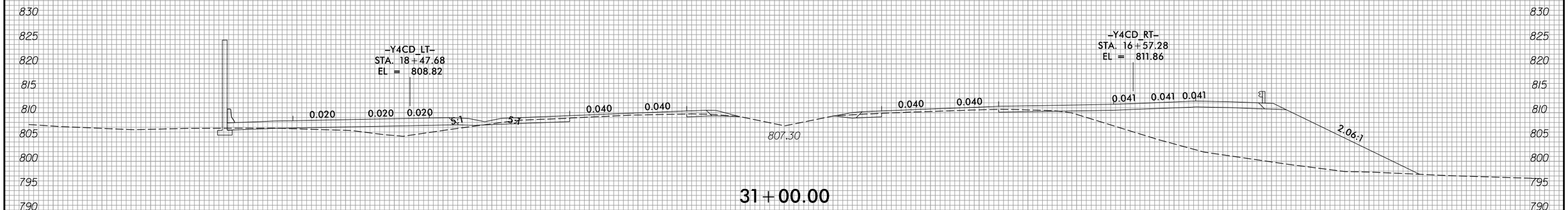
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-166



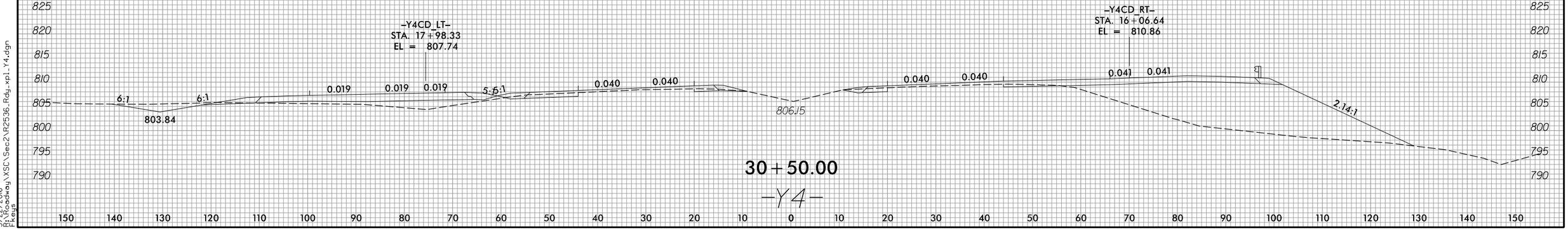
32+00.00



31+50.00



31+00.00



30+50.00

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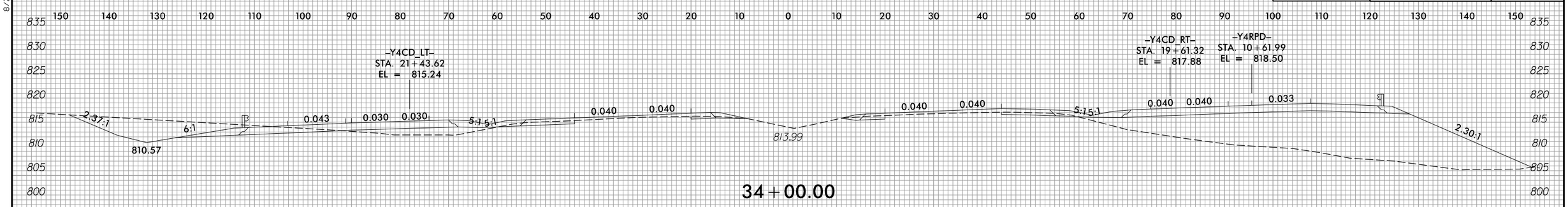
3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4.dgn
Keys

8/23/99

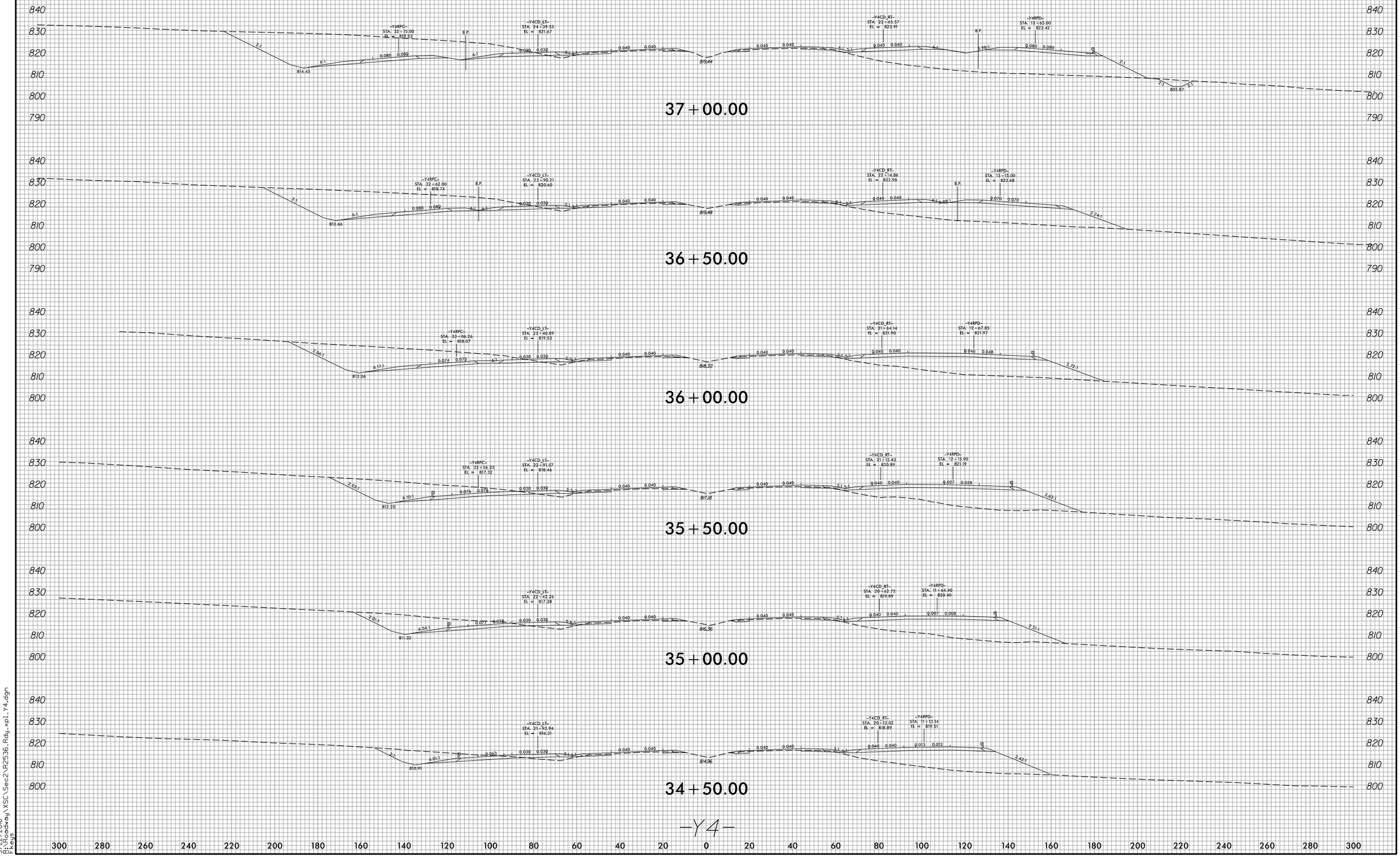
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-167



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4.dgn
Keys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-168



3/22/2016
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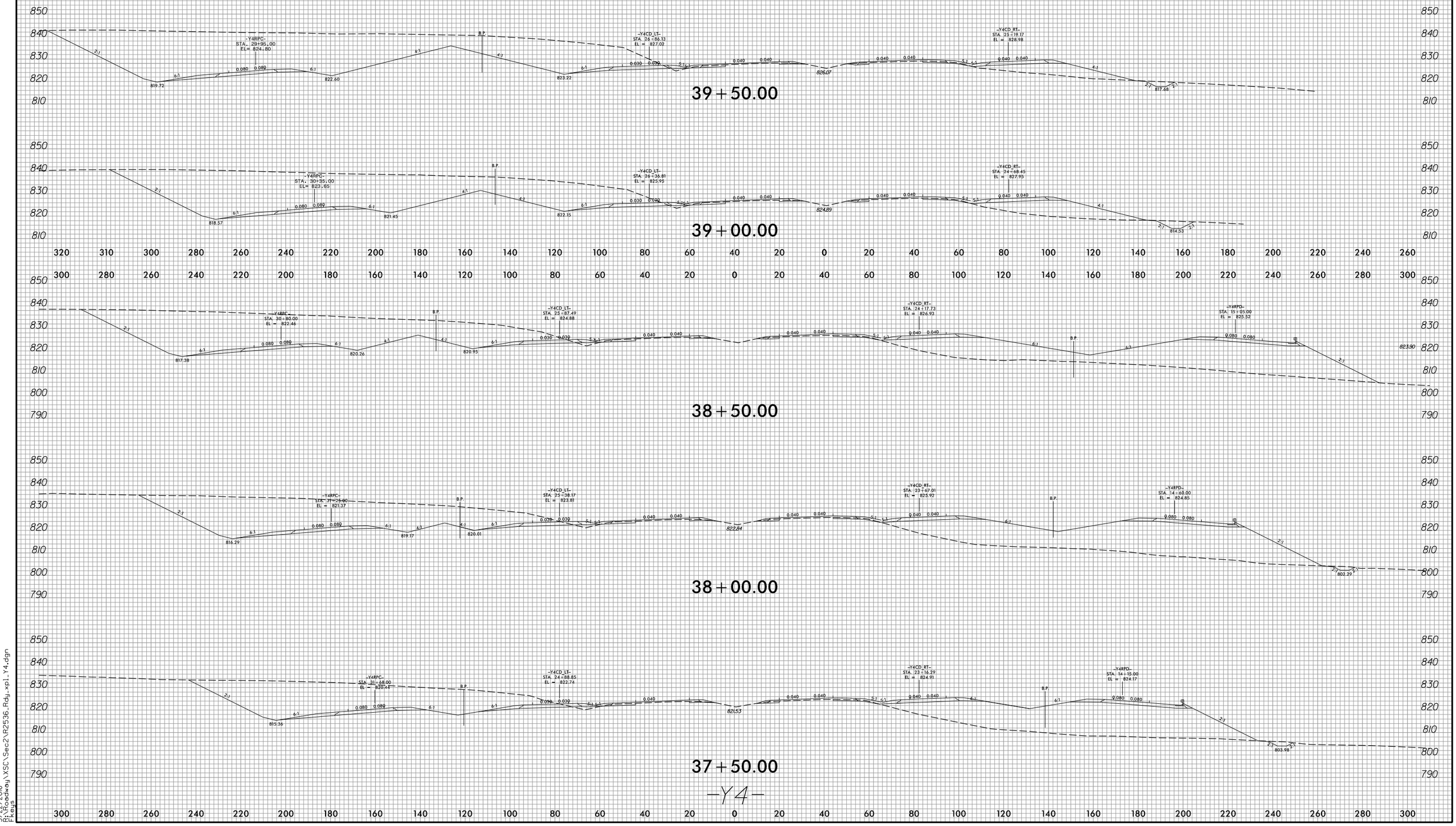
Fkeys

8/23/99

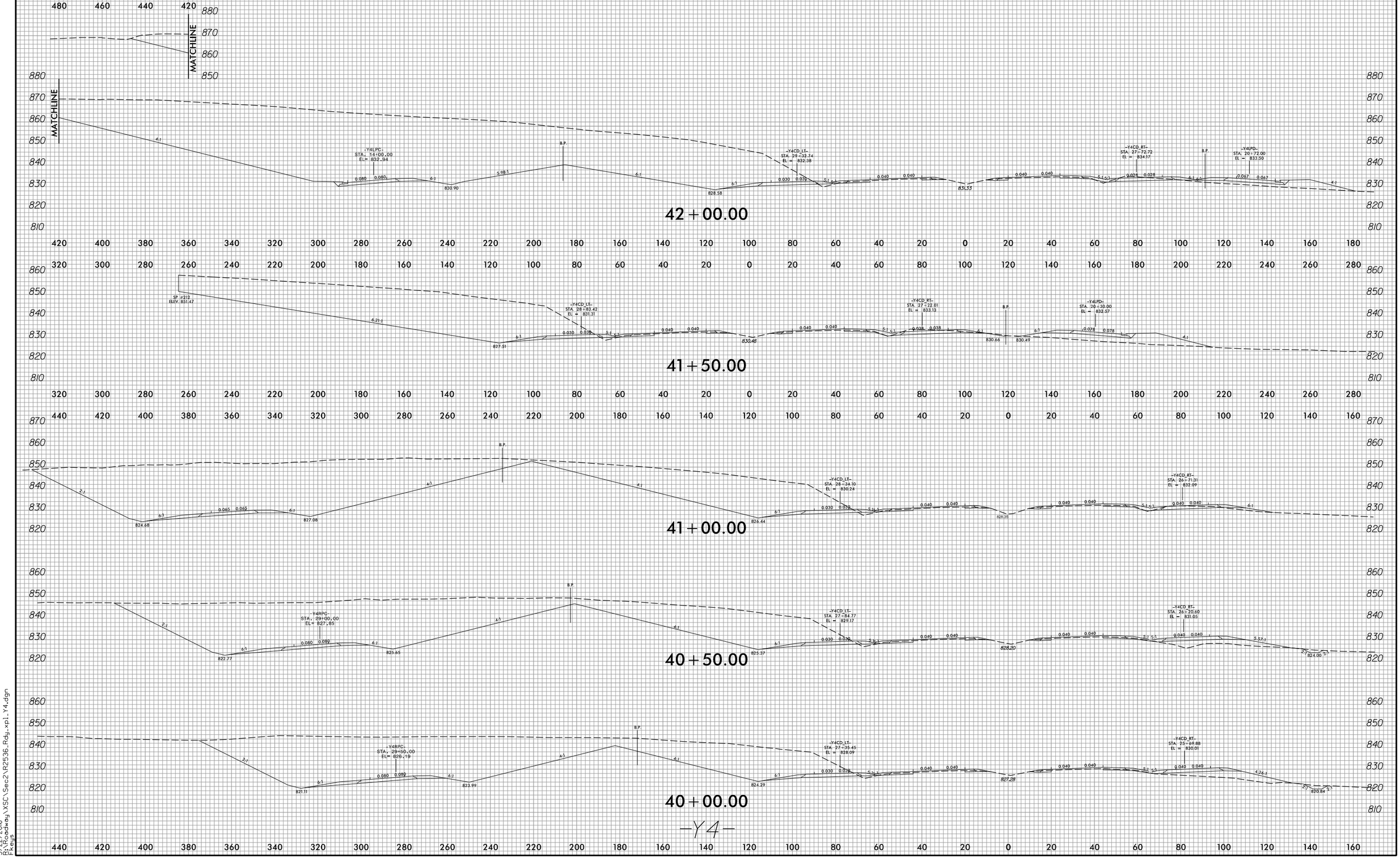
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-169



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4.dgn
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-170

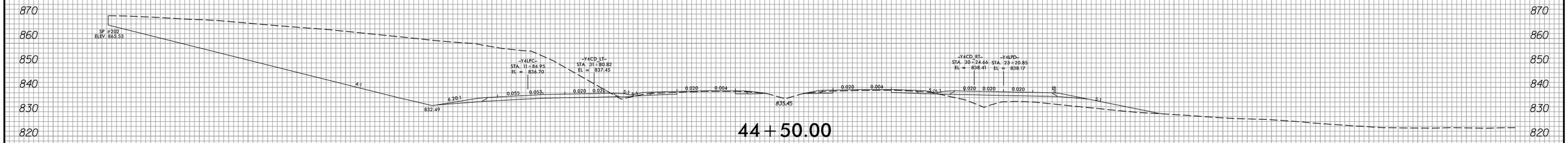


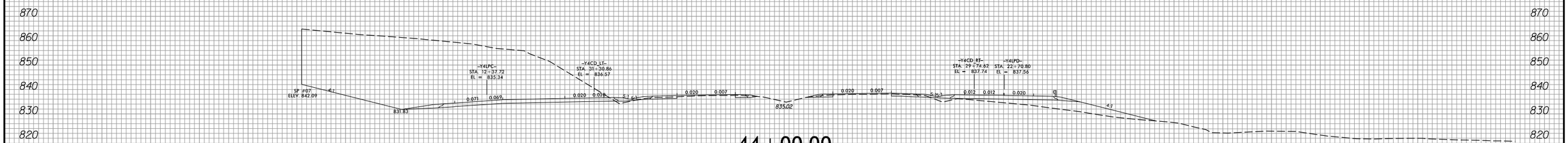
3/22/2016
P:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4.dgn
Fleys

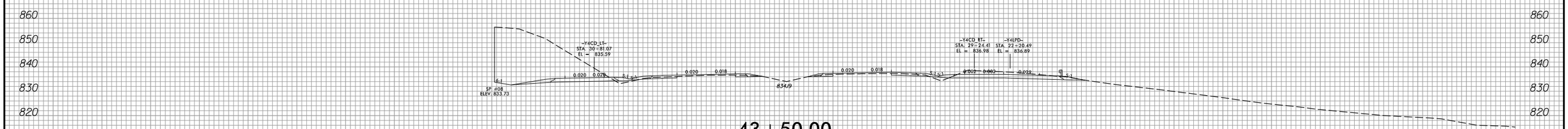
8/23/99

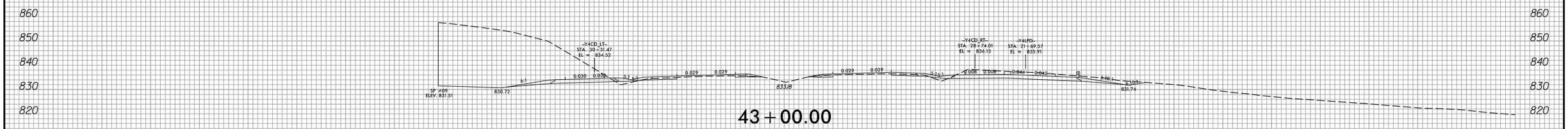
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-171

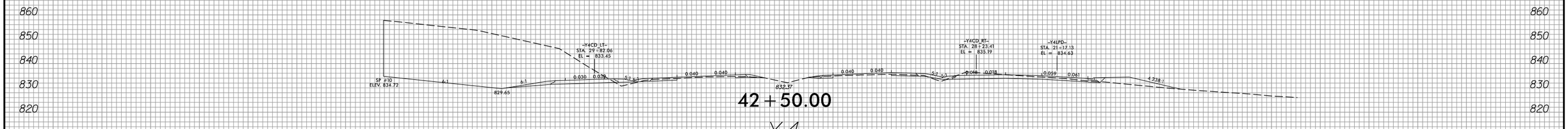
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300











–Y4–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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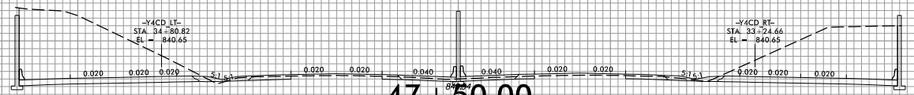
Keys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-172

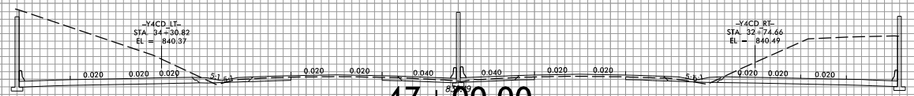
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

860 850 840 830



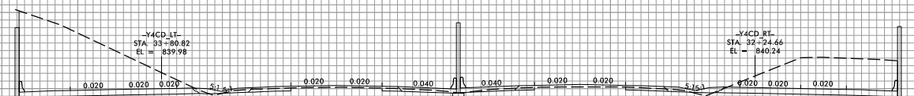
47+50.00

860 850 840 830



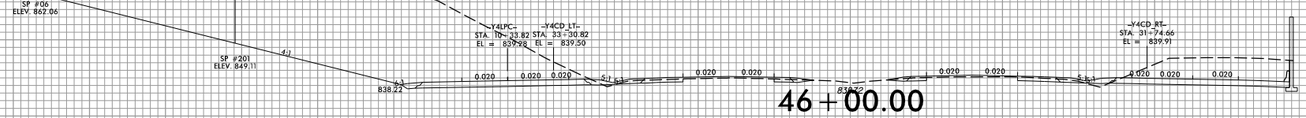
47+00.00

870 860 850 840 830



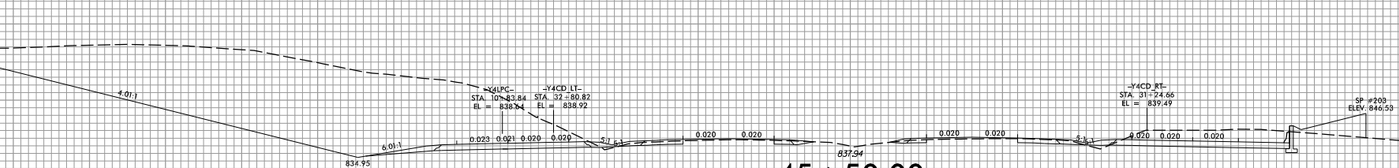
46+50.00

880 870 860 850 840 830 820



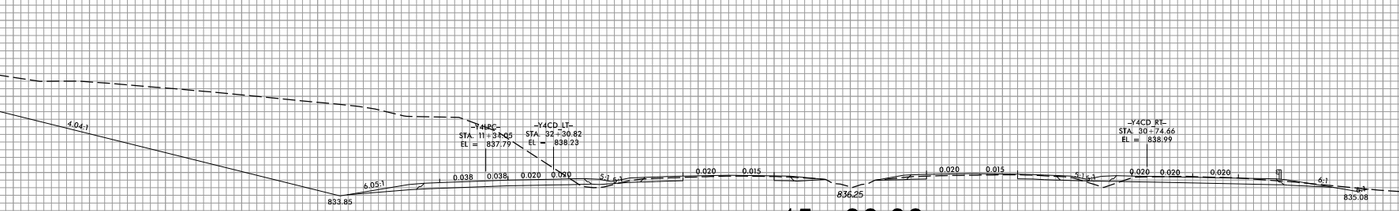
46+00.00

870 860 850 840 830



45+50.00

880 870 860 850 840 830 820



45+00.00

-Y4-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

3/22/2016
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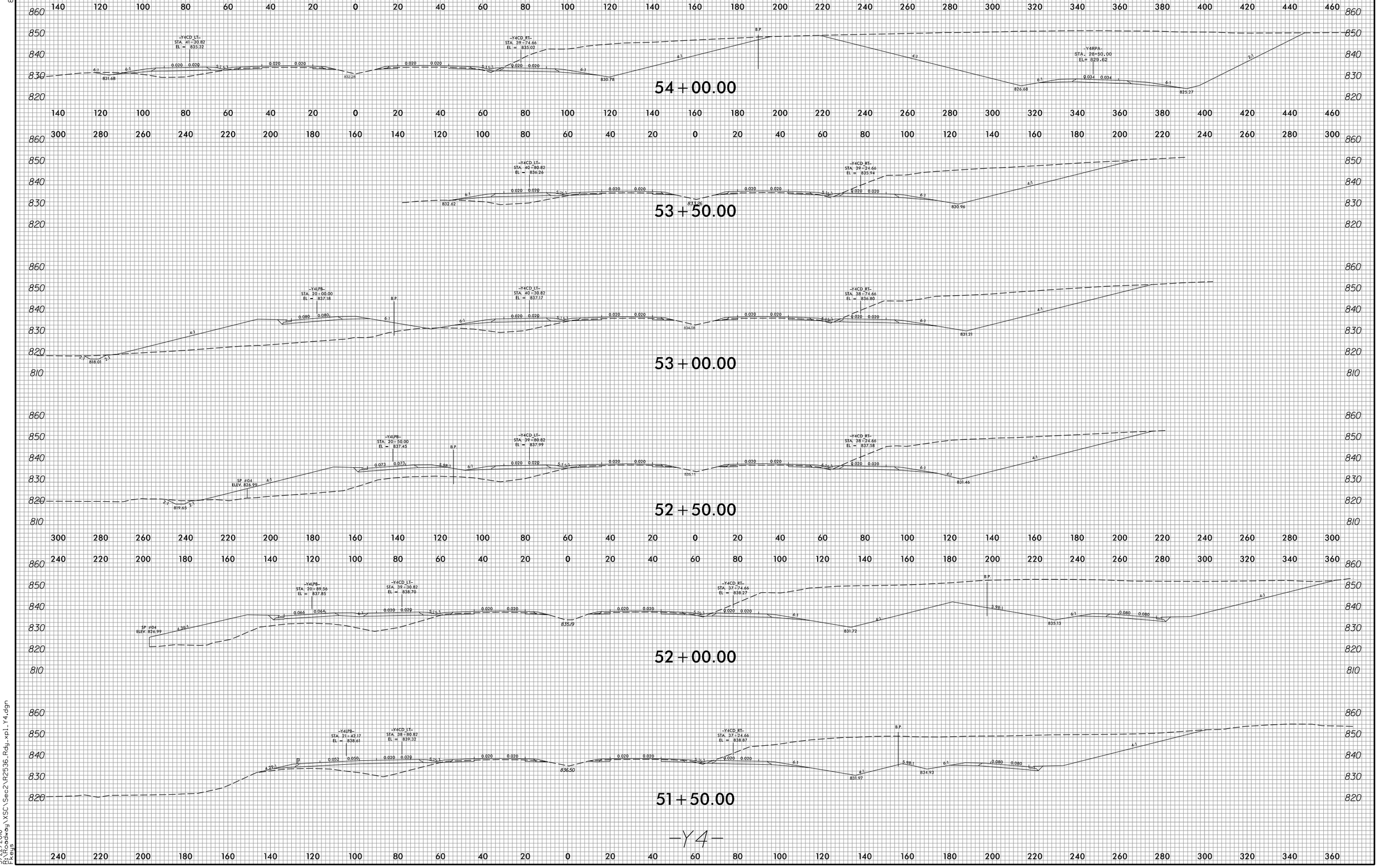
Keys

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-173

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-174



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D:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4.dgn
Keys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-175

180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420

870 860 850 840 830 820 810

-Y4CD_LT-
STA. 43+80.82
EL = 830.64

-Y4CD_RT-
STA. 42+24.66
EL = 830.38

B.P.

-Y4RPA-
STA. 30+65.00
EL= 826.58

827.00 827.59 826.74 824.22 821.66

0.020 0.020 0.070 0.070

6:1 4:1 2:1

56+50.00

-Y4CD_LT-
STA. 43+30.82
EL = 831.58

-Y4CD_RT-
STA. 41+74.66
EL = 831.31

B.P.

-Y4RPA-
STA. 30+20.00
EL= 827.10

827.94 828.07 827.67 824.74 822.18

56+00.00

-Y4CD_LT-
STA. 42+80.82
EL = 832.51

-Y4CD_RT-
STA. 41+24.66
EL = 832.23

B.P.

-Y4RPA-
STA. 29+75.00
EL= 827.61

828.87 829.63 828.59 825.25 822.69

55+50.00

-Y4CD_LT-
STA. 42+30.82
EL = 833.45

-Y4CD_RT-
STA. 40+74.66
EL = 833.16

B.P.

-Y4RPA-
STA. 29+30.00
EL= 828.20

829.81 830.61 829.52 825.72 823.41

0.062 0.062

55+00.00

-Y4CD_LT-
STA. 41+80.82
EL = 834.39

-Y4CD_RT-
STA. 40+24.66
EL = 834.09

B.P.

-Y4RPA-
STA. 28+90.00
EL= 828.85

830.75 831.06 830.45 826.14 824.28

0.048 0.048

54+50.00

-Y4-

180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420

3/22/2016
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Keys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-176

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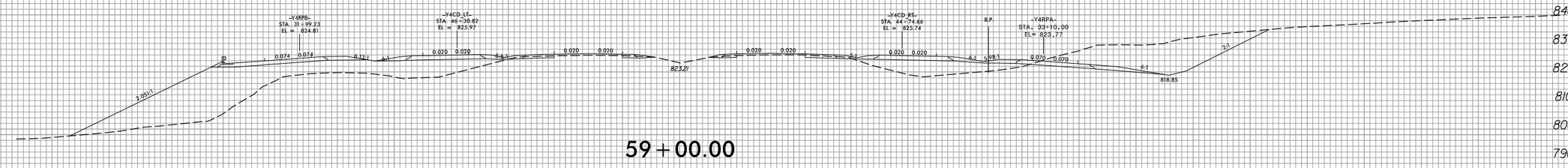
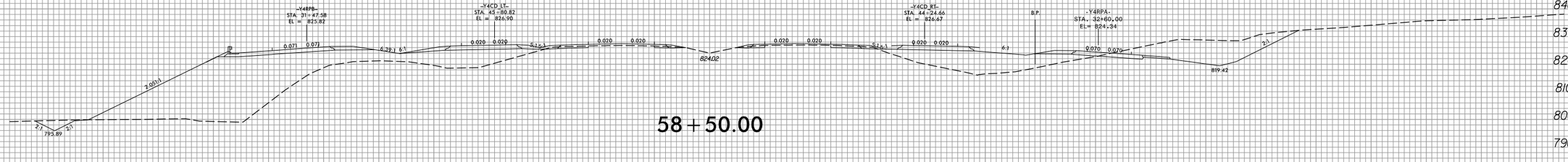
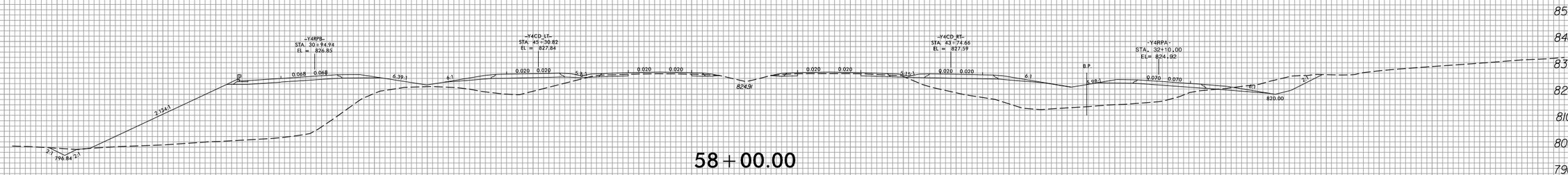
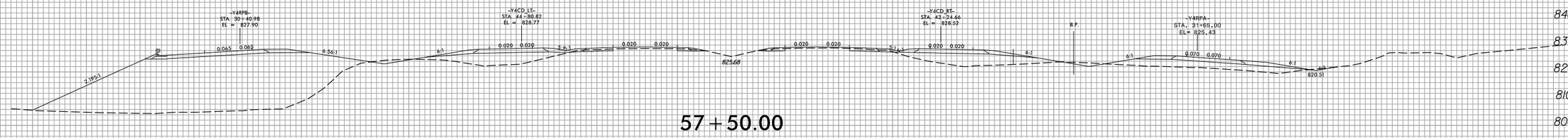
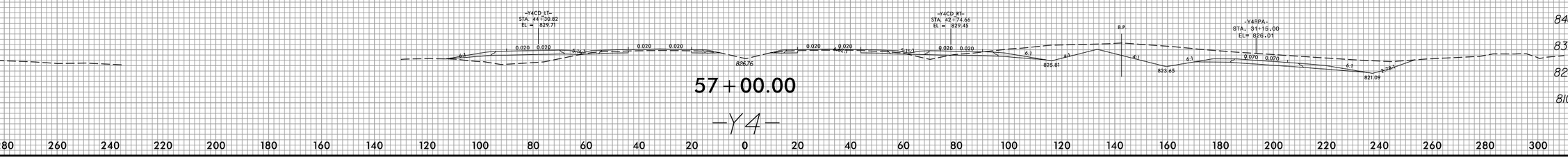
850 840 830 820 810 800 790











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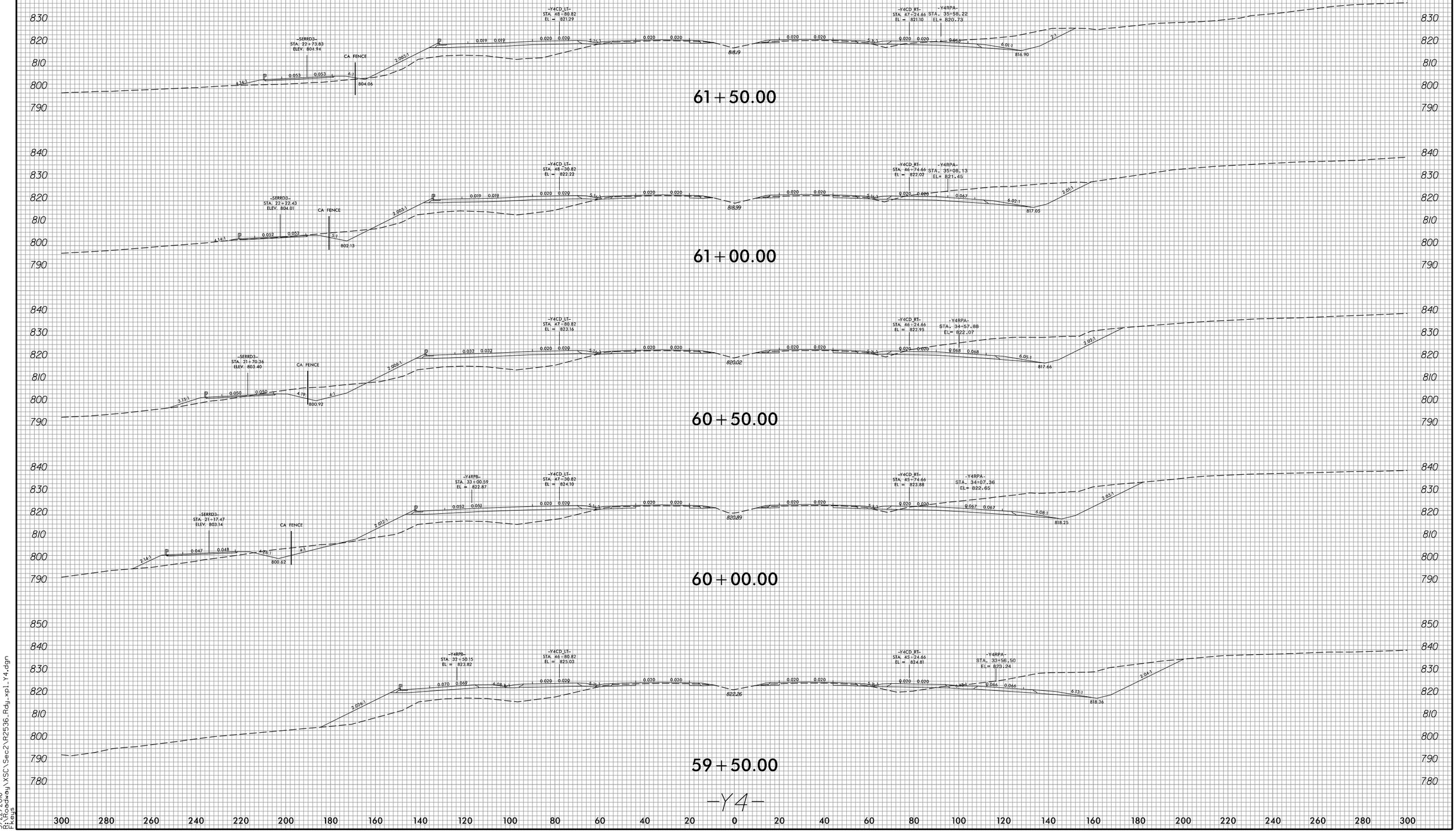
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4.dgn
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-177



3/22/2016
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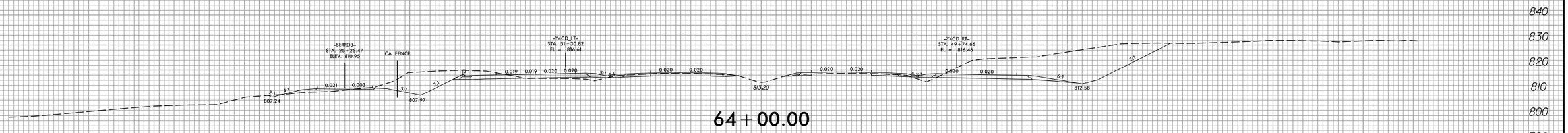
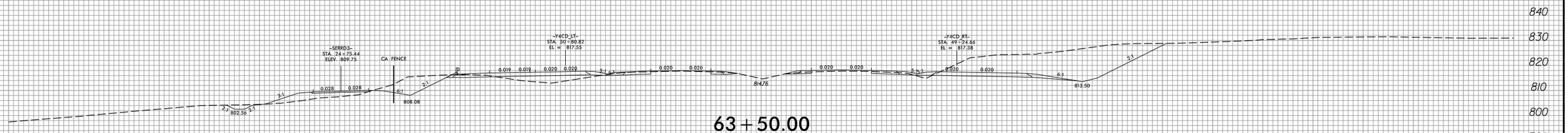
Fkeys

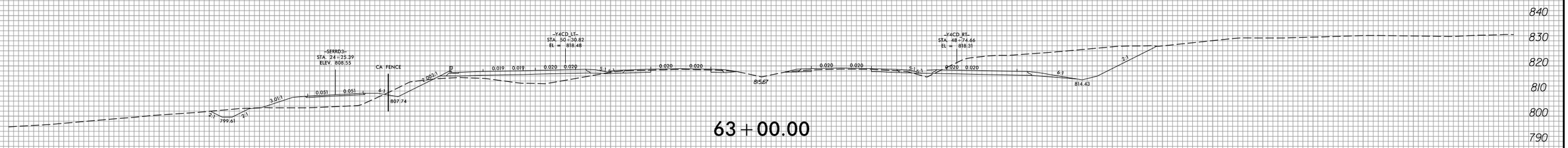
8/23/99

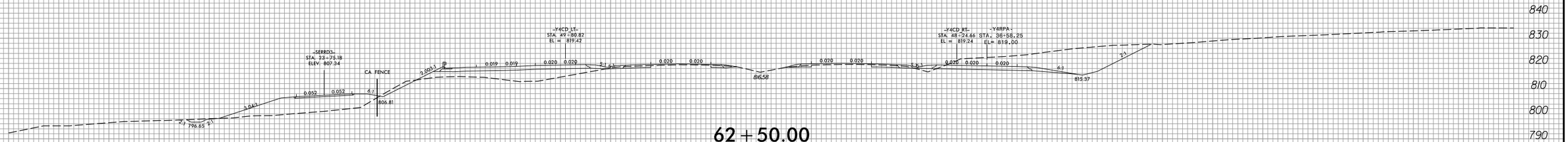
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-178

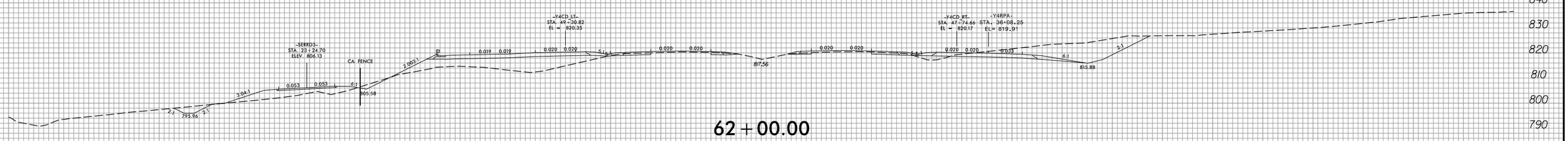
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300











-Y4-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

3/22/2016
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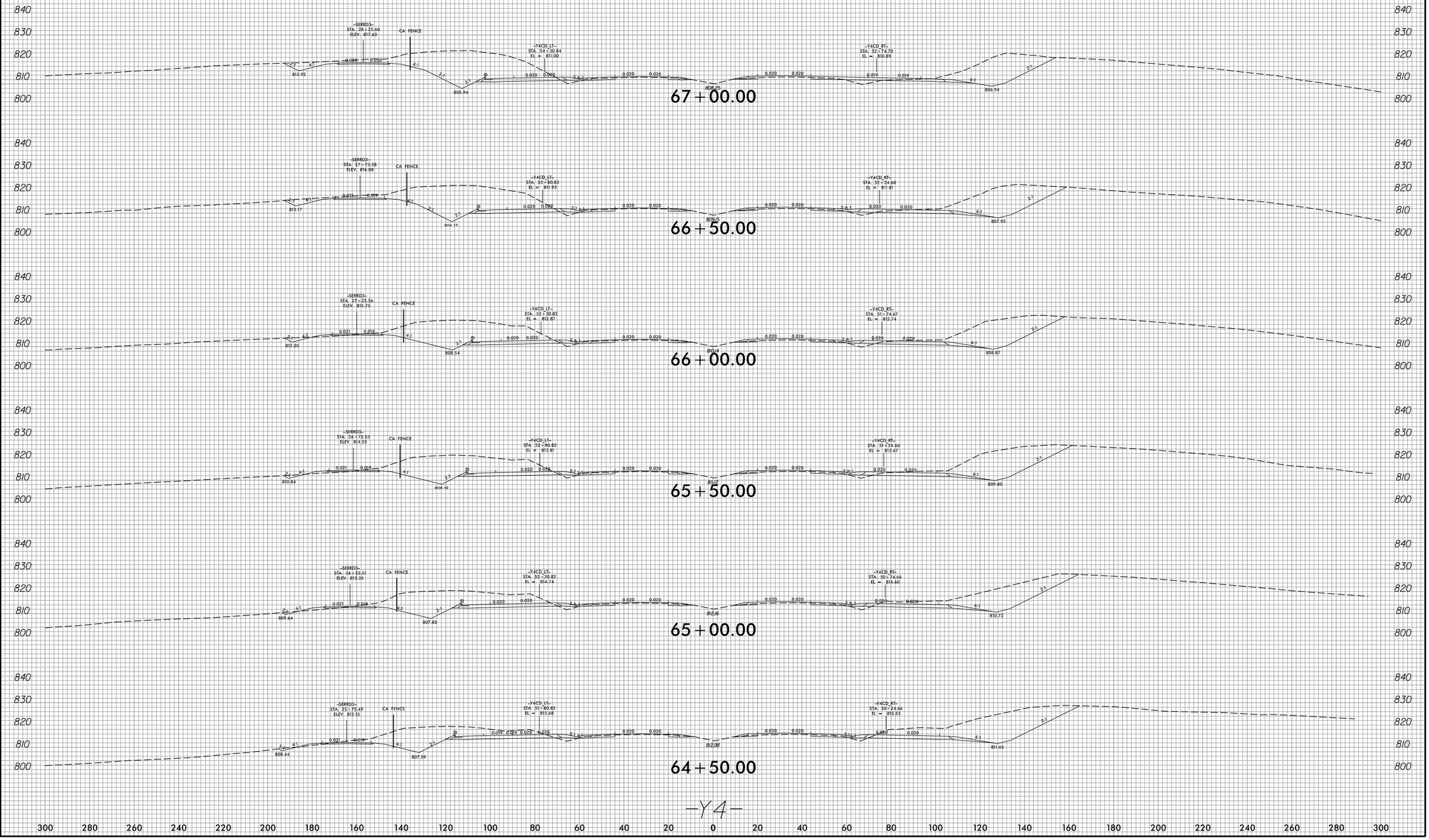
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-179



3/22/2016
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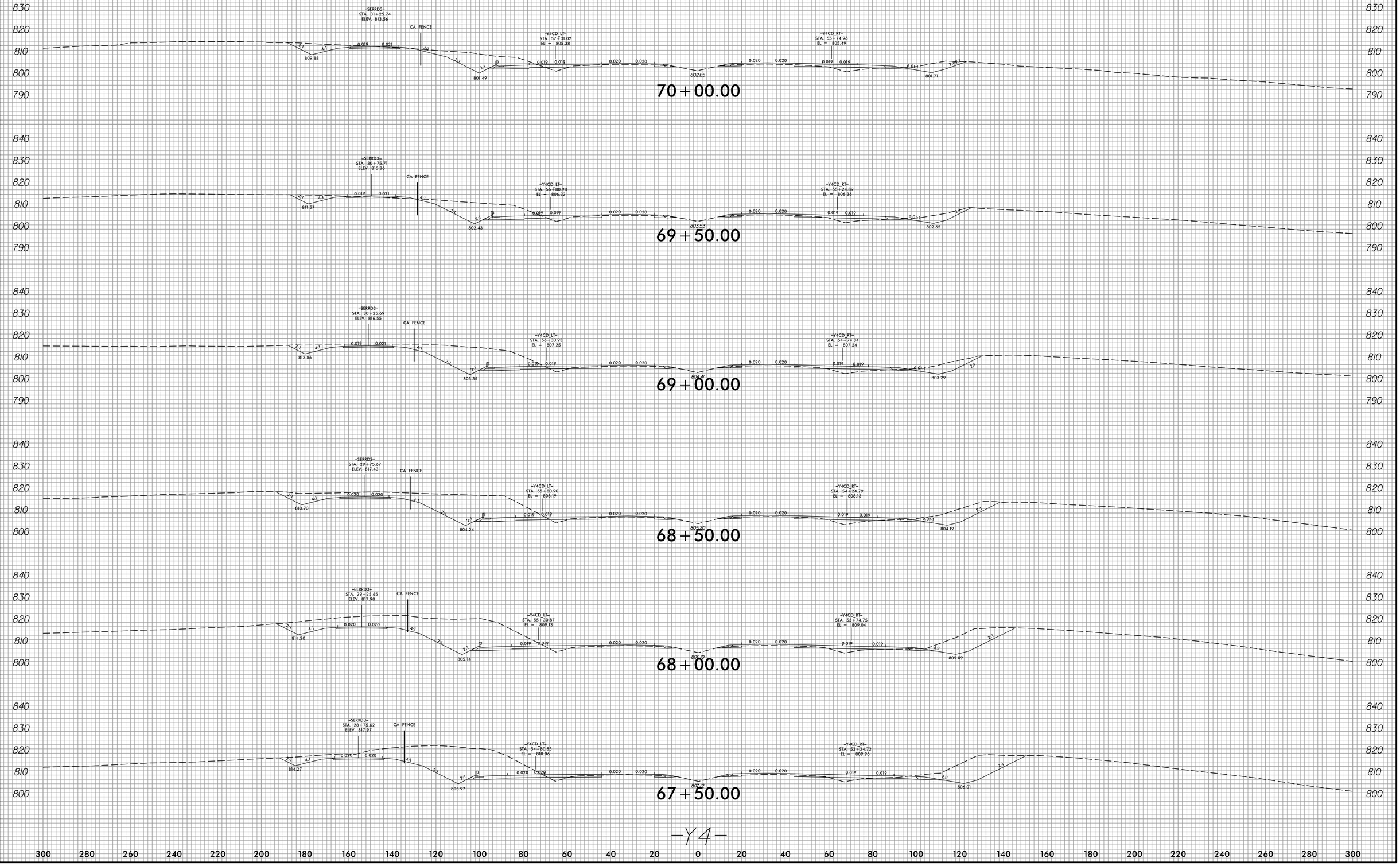
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-180



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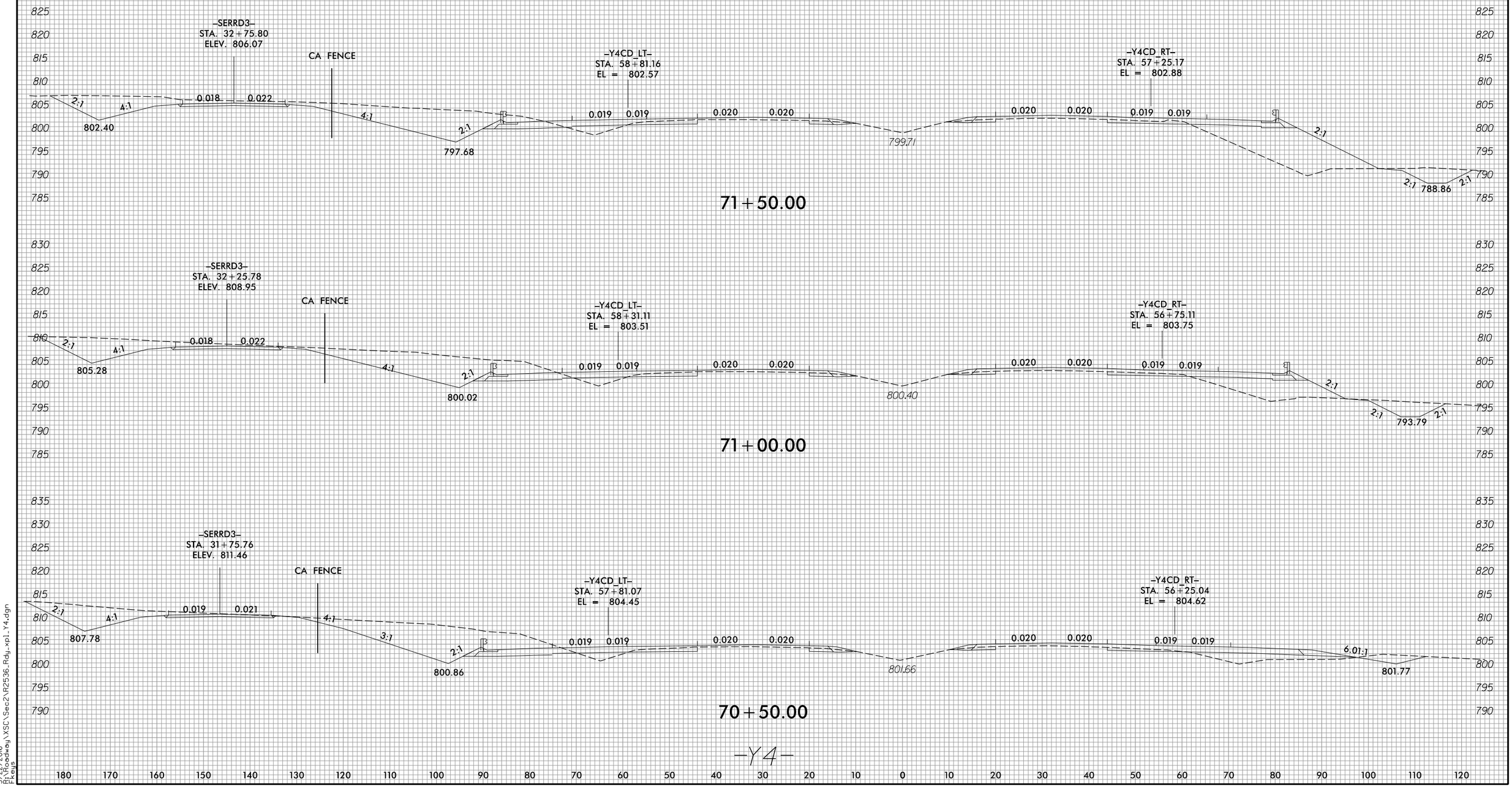
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-181



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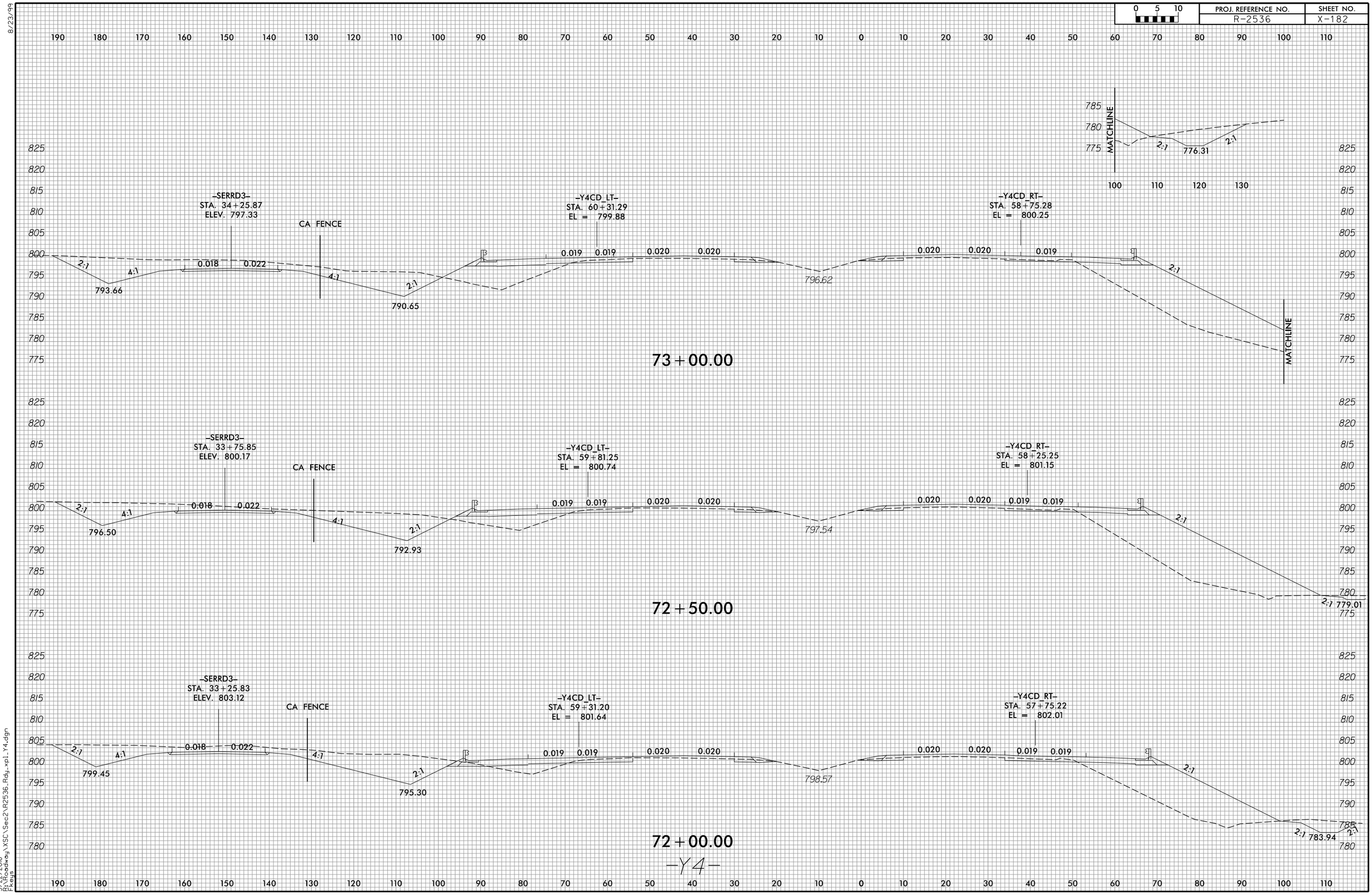
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-182



3/22/2016
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Pkeys

8/23/99

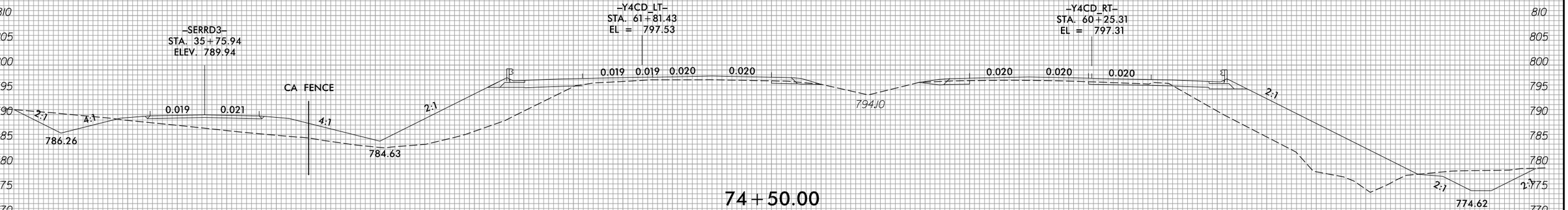
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-183

74+50.00

–SERRD3–
STA. 35+75.94
ELEV. 789.94

–Y4CD_LT–
STA. 61+81.43
EL = 797.53

–Y4CD_RT–
STA. 60+25.31
EL = 797.31



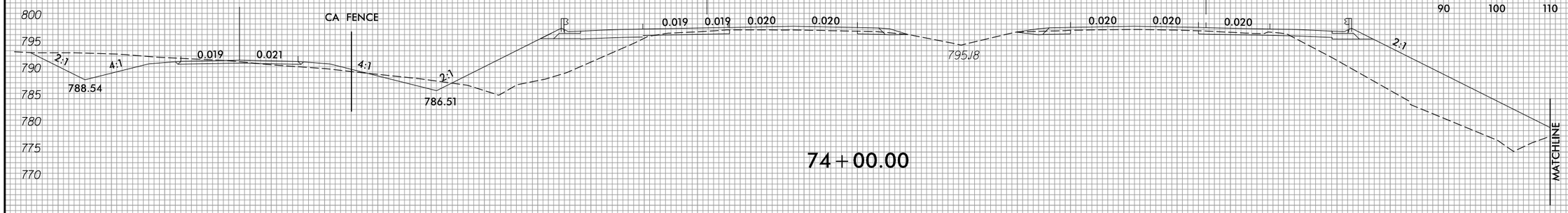
74+00.00

–SERRD3–
STA. 35+25.92
ELEV. 792.22

–Y4CD_LT–
STA. 61+31.38
EL = 798.30

–Y4CD_RT–
STA. 59+75.30
EL = 798.31

MATCHLINE
775.18



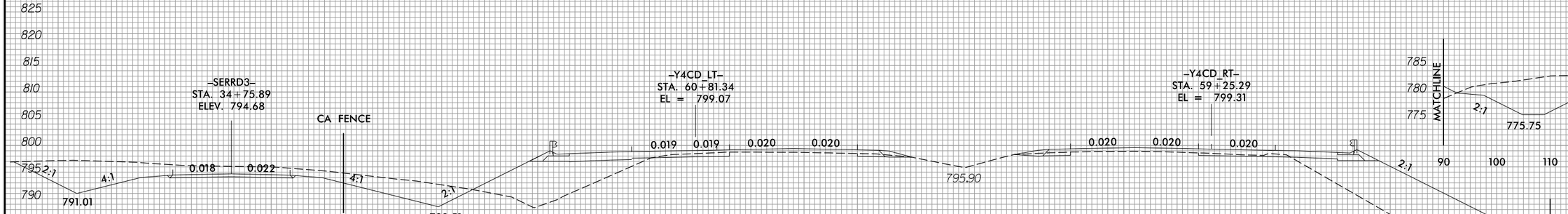
73+50.00

–SERRD3–
STA. 34+75.89
ELEV. 794.68

–Y4CD_LT–
STA. 60+81.34
EL = 799.07

–Y4CD_RT–
STA. 59+25.29
EL = 799.31

MATCHLINE
775.75



–Y4–

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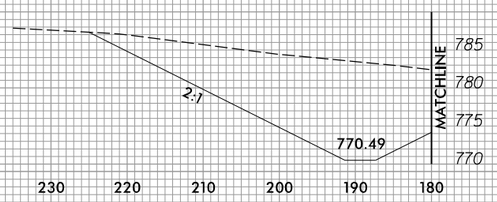
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-184



3/22/2016
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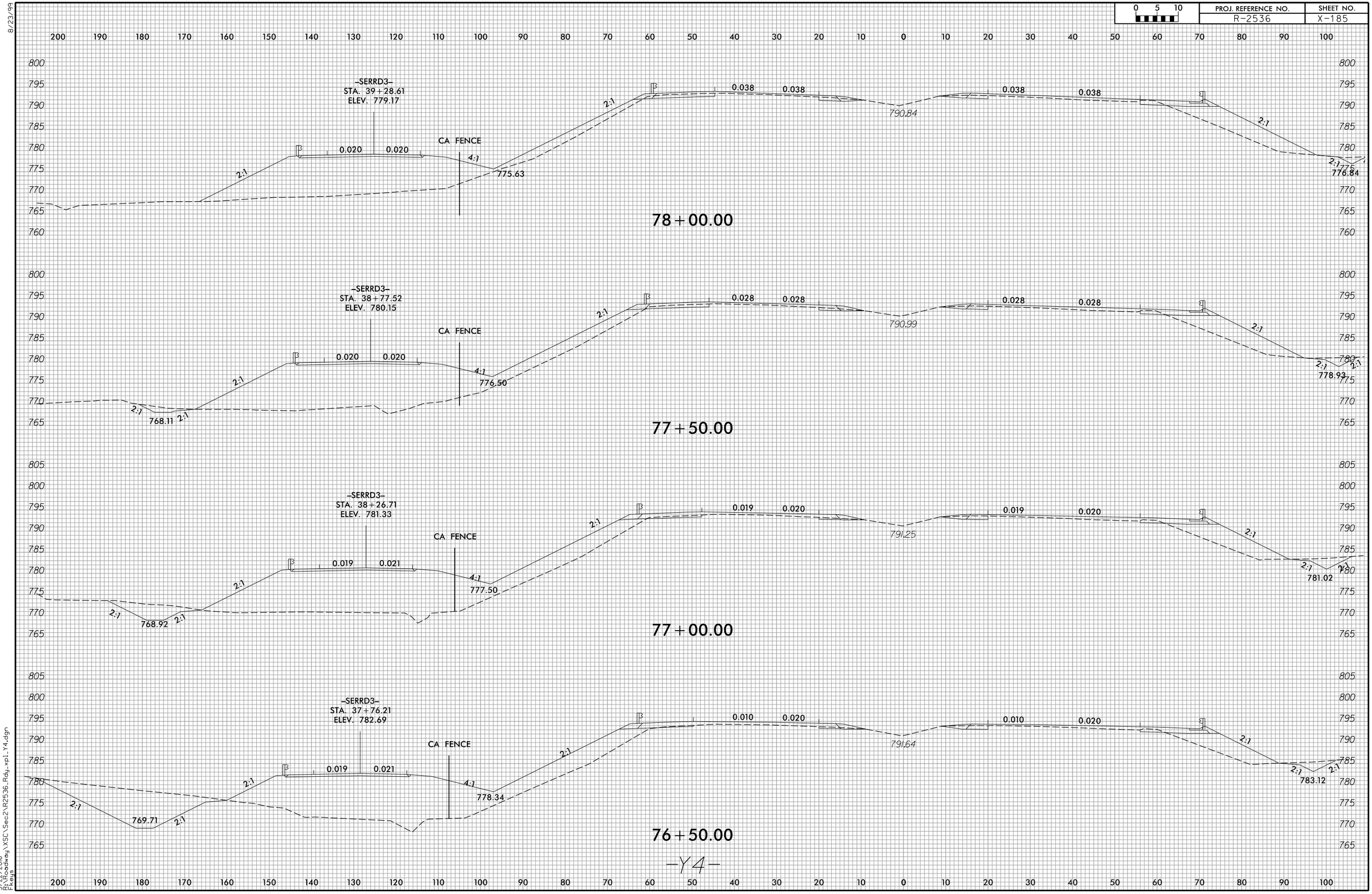
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-185



3/22/2016
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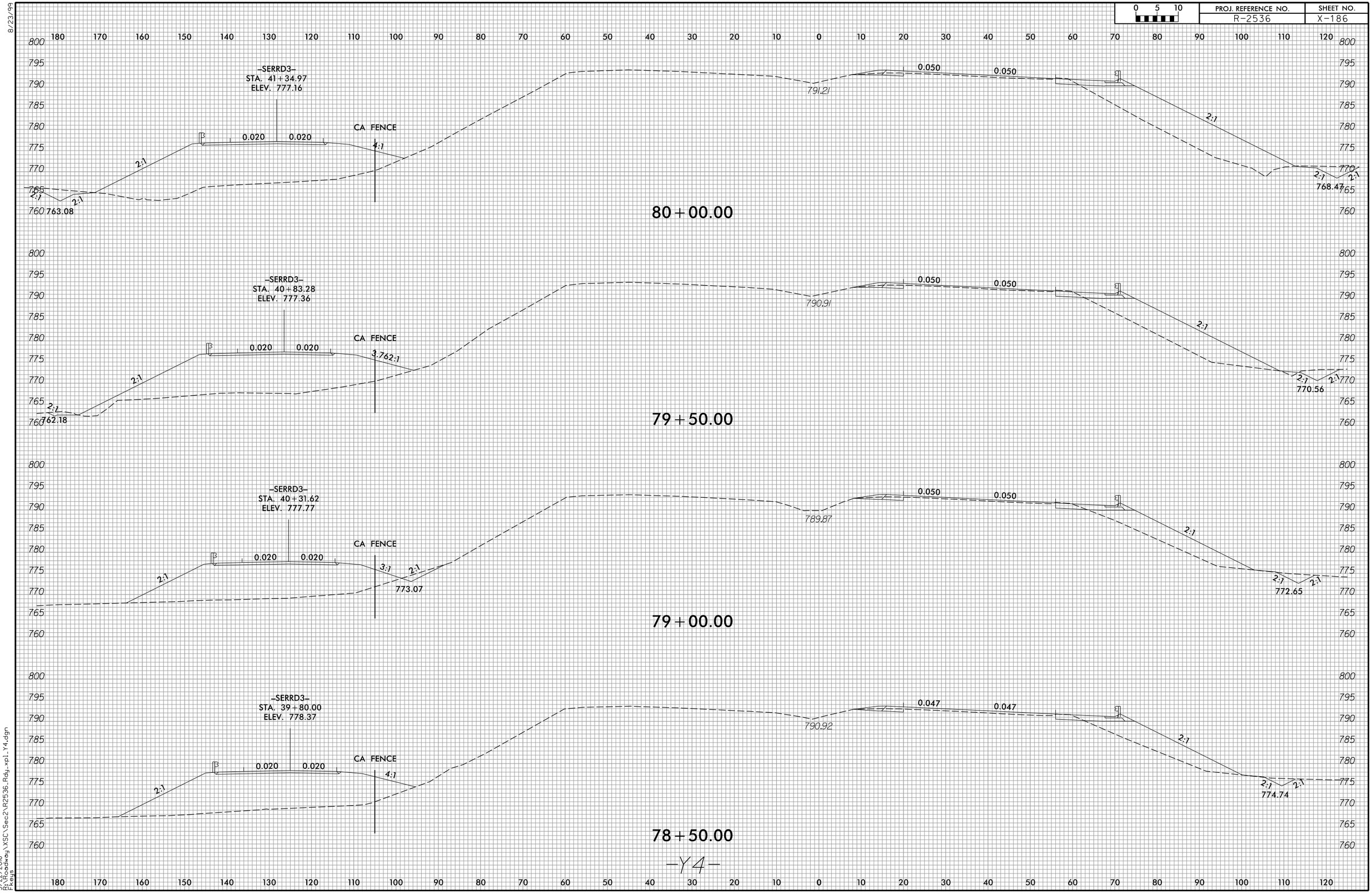
Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-186



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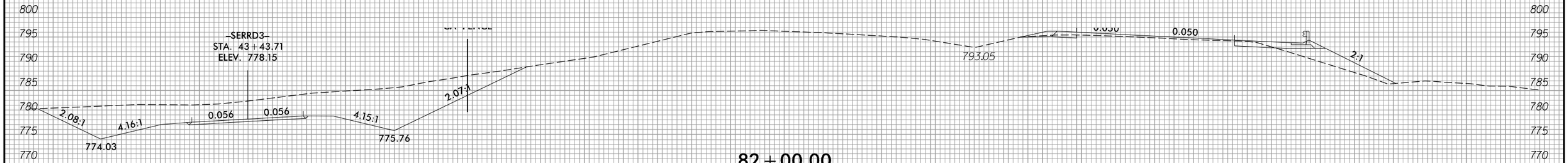
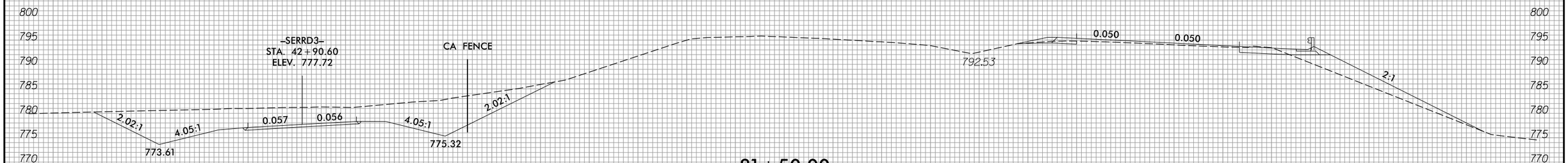
Fkeys

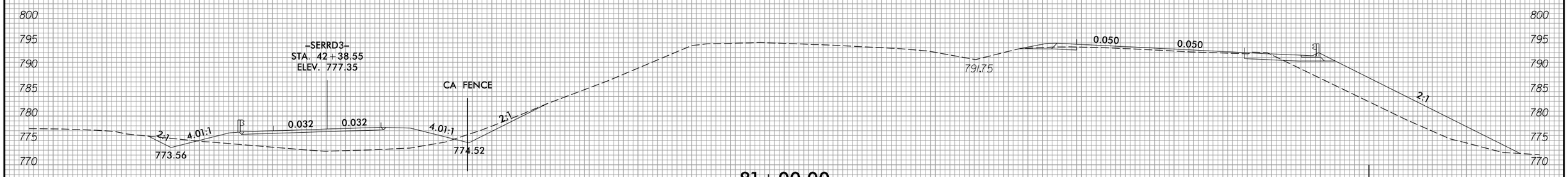
8/23/99

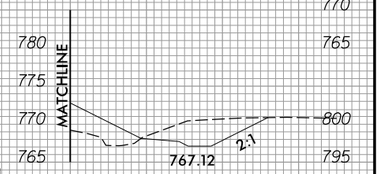
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-187

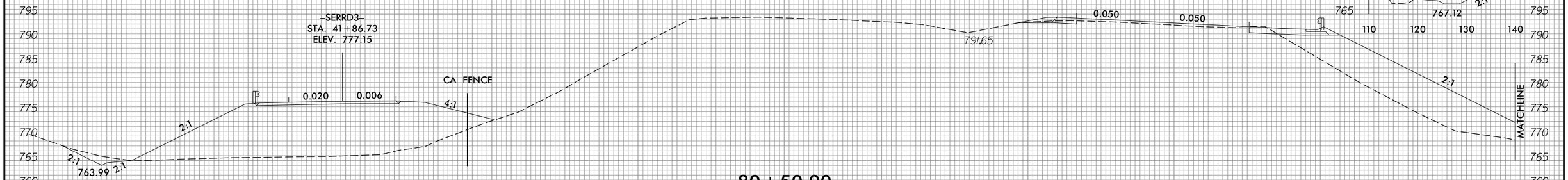
190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110











–Y4–

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

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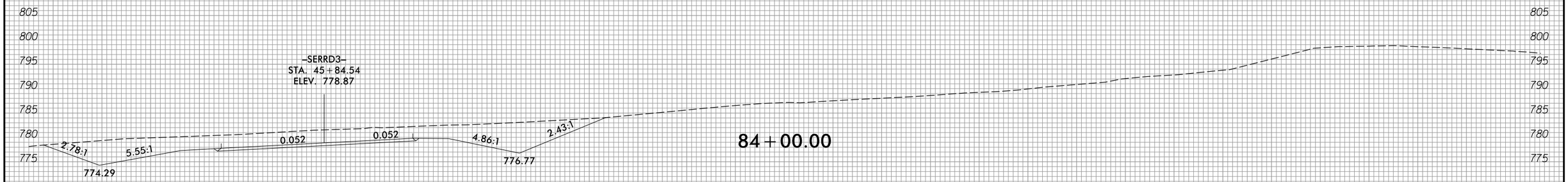
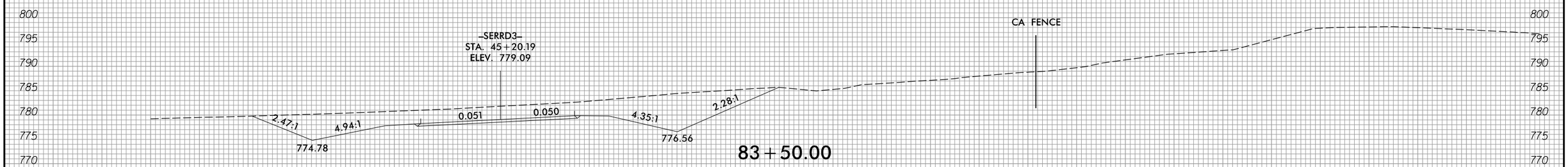
Fkeys

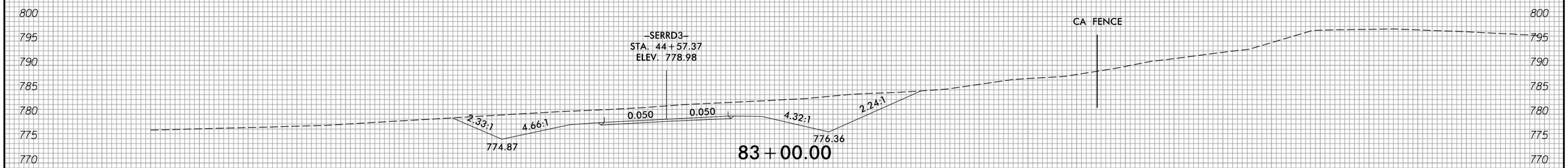
8/23/99

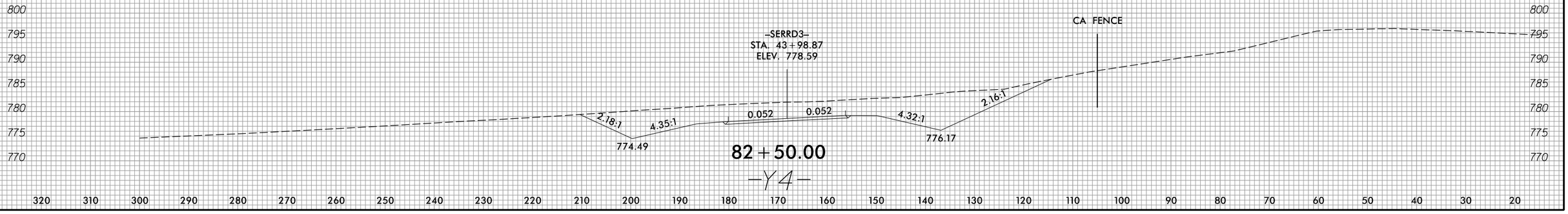
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-188

320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20









320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-189

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

805 800 795 790 785 780

798.00

0.040 0.040 6:1 4:1 796.00

86+00.00

810 805 800 795 790 785 780

797.40

0.049 0.049 6:1 2.7:1 795.18

85+50.00

810 805 800 795 790 785 780

796.54

0.050 0.050 6:1 2.4:1 794.56

85+00.00

810 805 800 795 790 785 780 775

796.19

0.050 0.050 6:1 2.2:1 793.95

84+50.00

-Y4-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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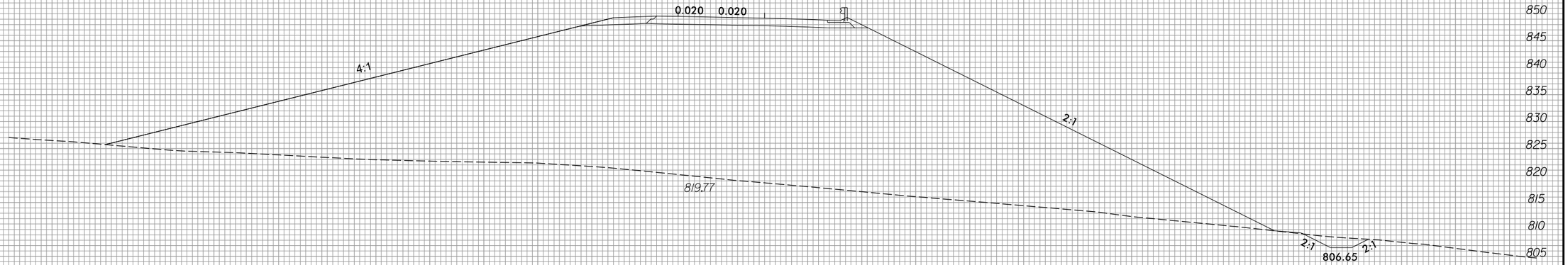
Keys

8/23/99

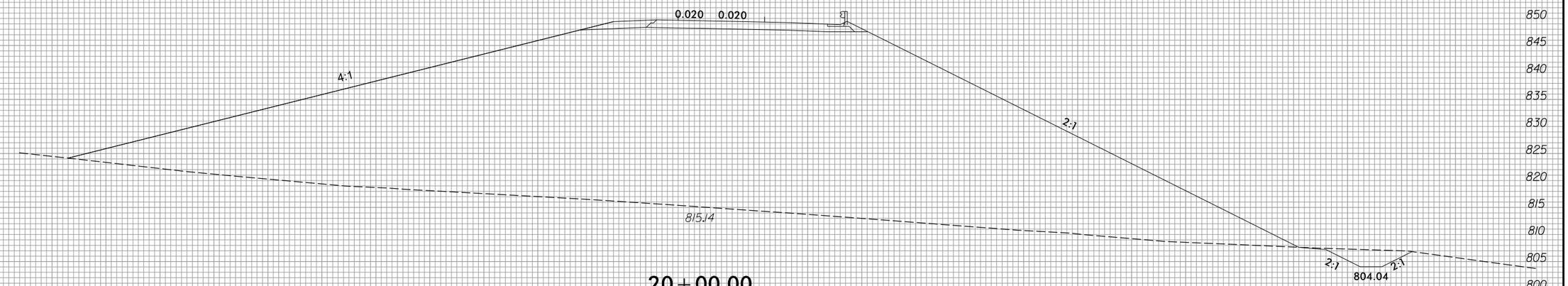
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-190

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

860 855 850 845 840 835 830 825 820 815 810 805 800



20+50.00



20+00.00

-Y4RPA-

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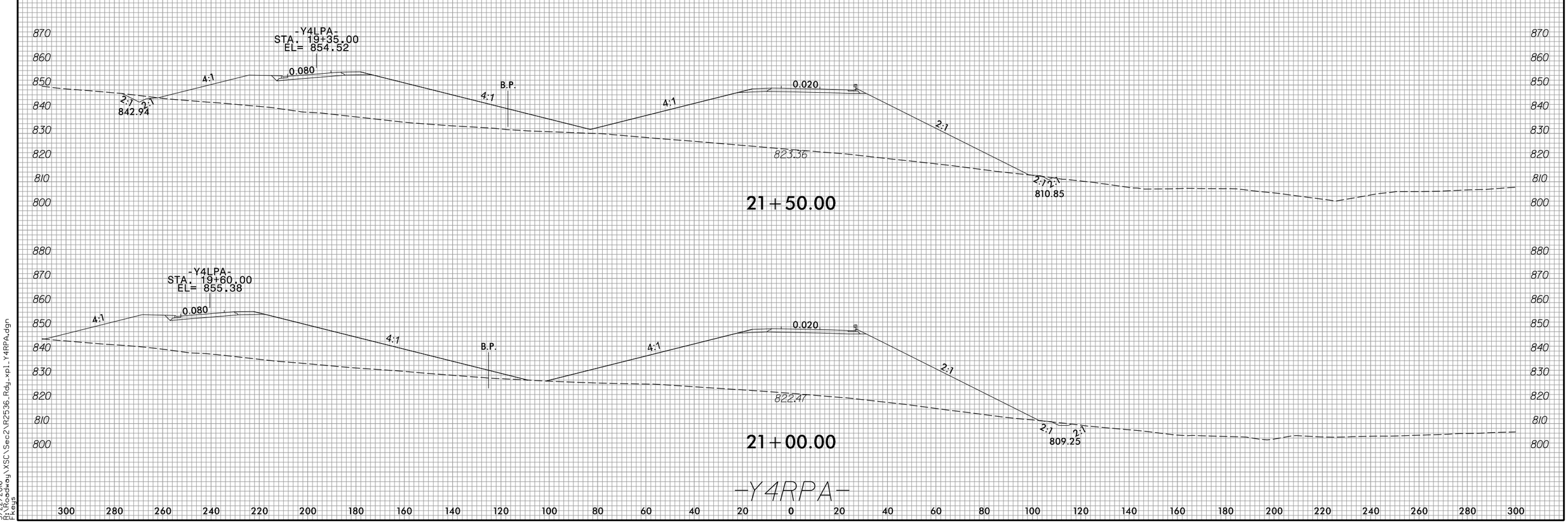
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-191

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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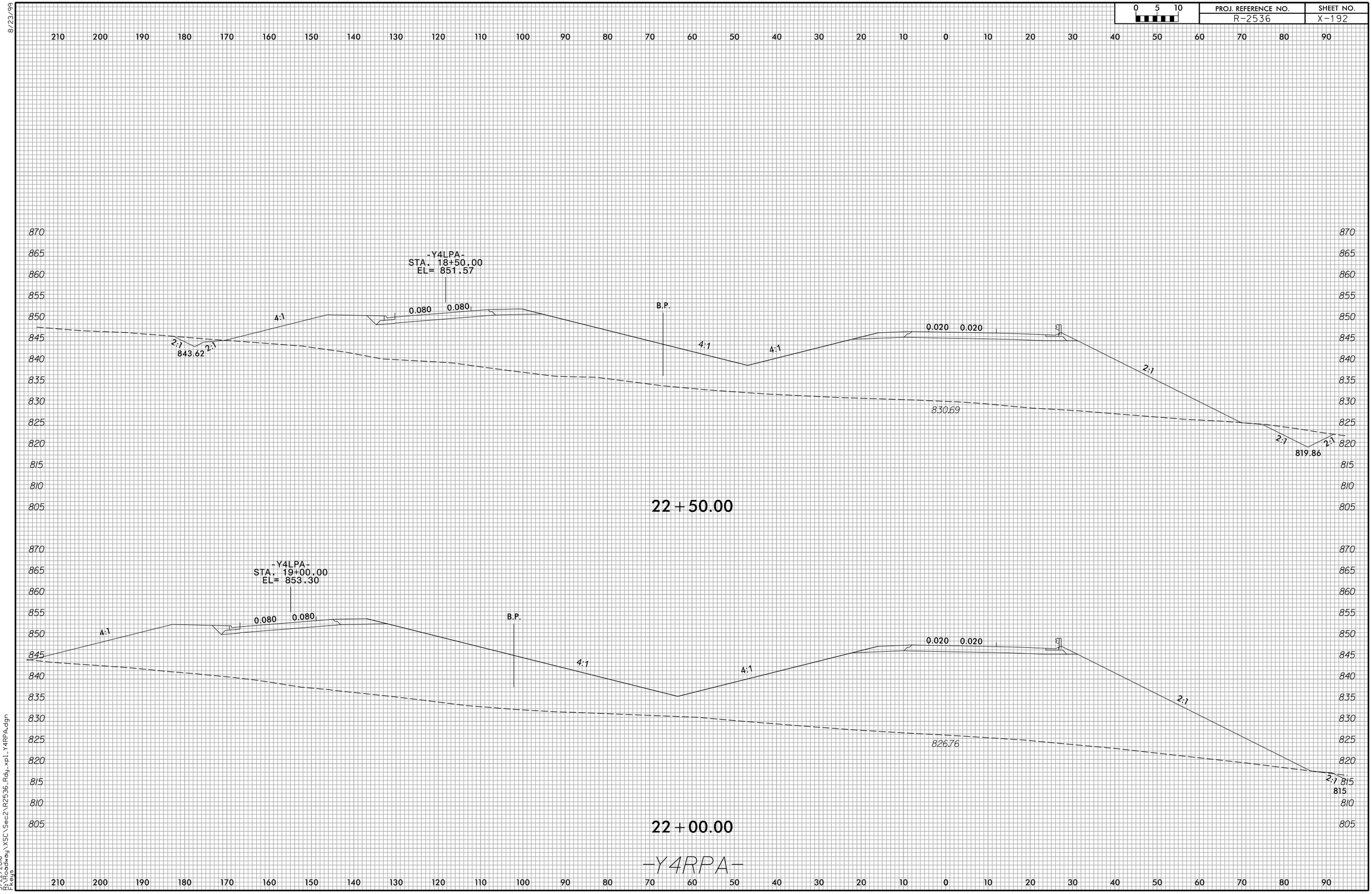
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-192



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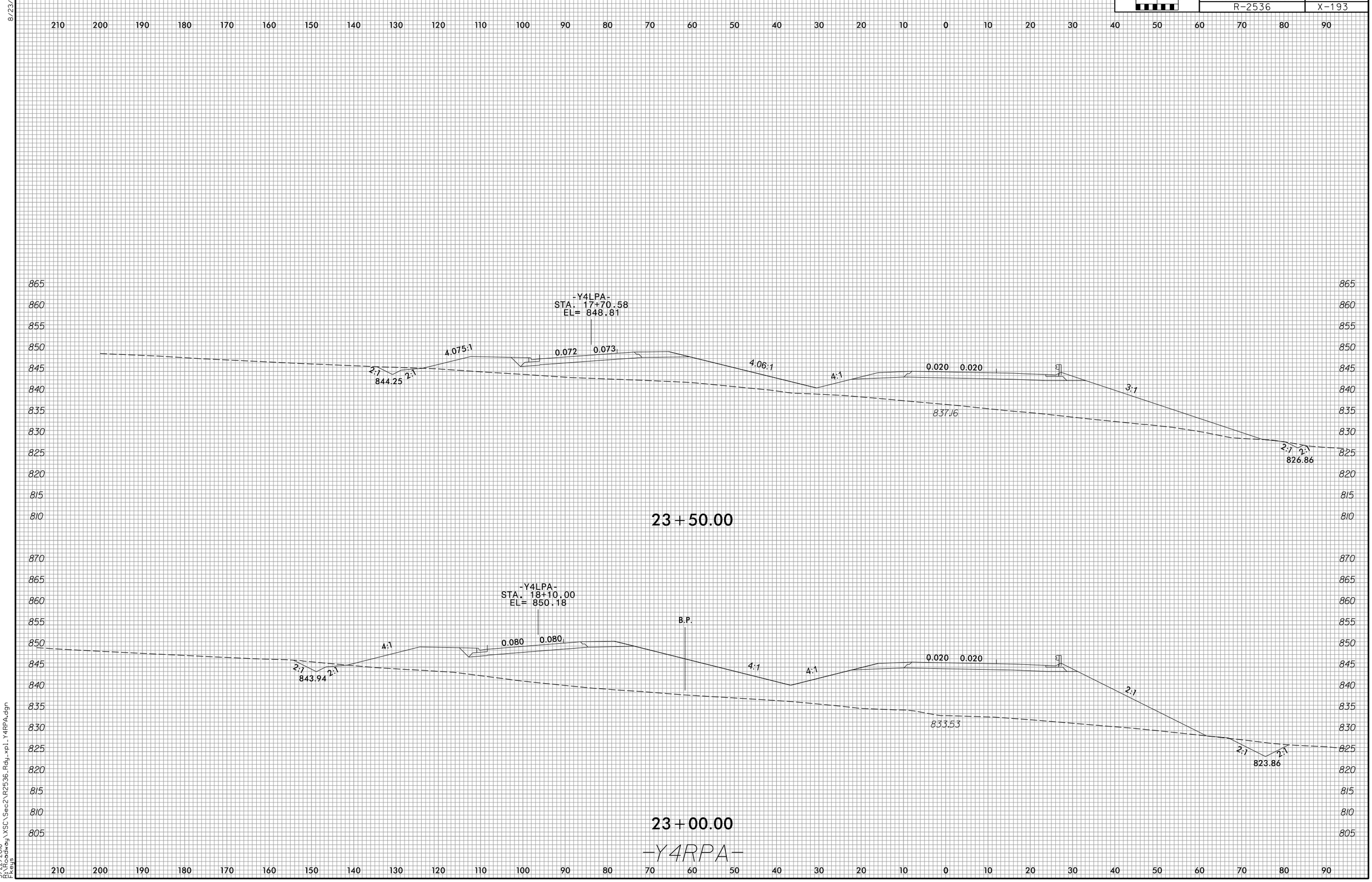
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-193



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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-194

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

860 855 850 845 840 835 830 825 820 815

-Y4LPA-
STA. 16+40.00
EL= 844.27

4:1 0.080 0.080 5:1 B.P. 844.00 6:1 0.020 0.020 6:1 6:1 836.17

25+00.00

865 860 855 850 845 840 835 830 825 820 815

-Y4LPA-
STA. 16+80.00
EL= 845.66

4:1 0.080 0.080 B.P. 4:1 5:1 0.020 0.020 5:1 841.00

24+50.00

865 860 855 850 845 840 835 830 825 820 815 810

-Y4LPA-
STA. 17+20.35
EL= 847.06

2:1 2:1 844.66 4.003:1 0.081 0.081 4.51:1 4:1 0.020 0.020 4:1 839.31 2:1 2:1 831.57

24+00.00

865 860 855 850 845 840 835 830 825 820 815 810

-Y4RPA-

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

3/22/2016
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Fkeys

8/23/99

0 10 20

PROJ. REFERENCE NO.	SHEET NO.
R-2536	X-195

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

860 850 840 830 820

-Y4LPA-

STA. 15+00.00
EL= 839.41

4:1 0.080 6:1 837.38 B.P. 4:1 4:1 848.90 6:1 832.02 0.020 6:1 831.06 3:1

26+50.00

STA. 15+50.00
EL= 841.15

4:1 0.080 6:1 839.12 B.P. 5:1 5:1 847.94 6:1 833.72 0.020 6:1 832.76 4:1

26+00.00

STA. 16+00.00
EL= 842.88

4:1 0.080 6:1 835.42 B.P. 846.54 6:1 0.020 6:1 834.46 5:1

25+50.00

-Y4RPA-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

3/22/2016
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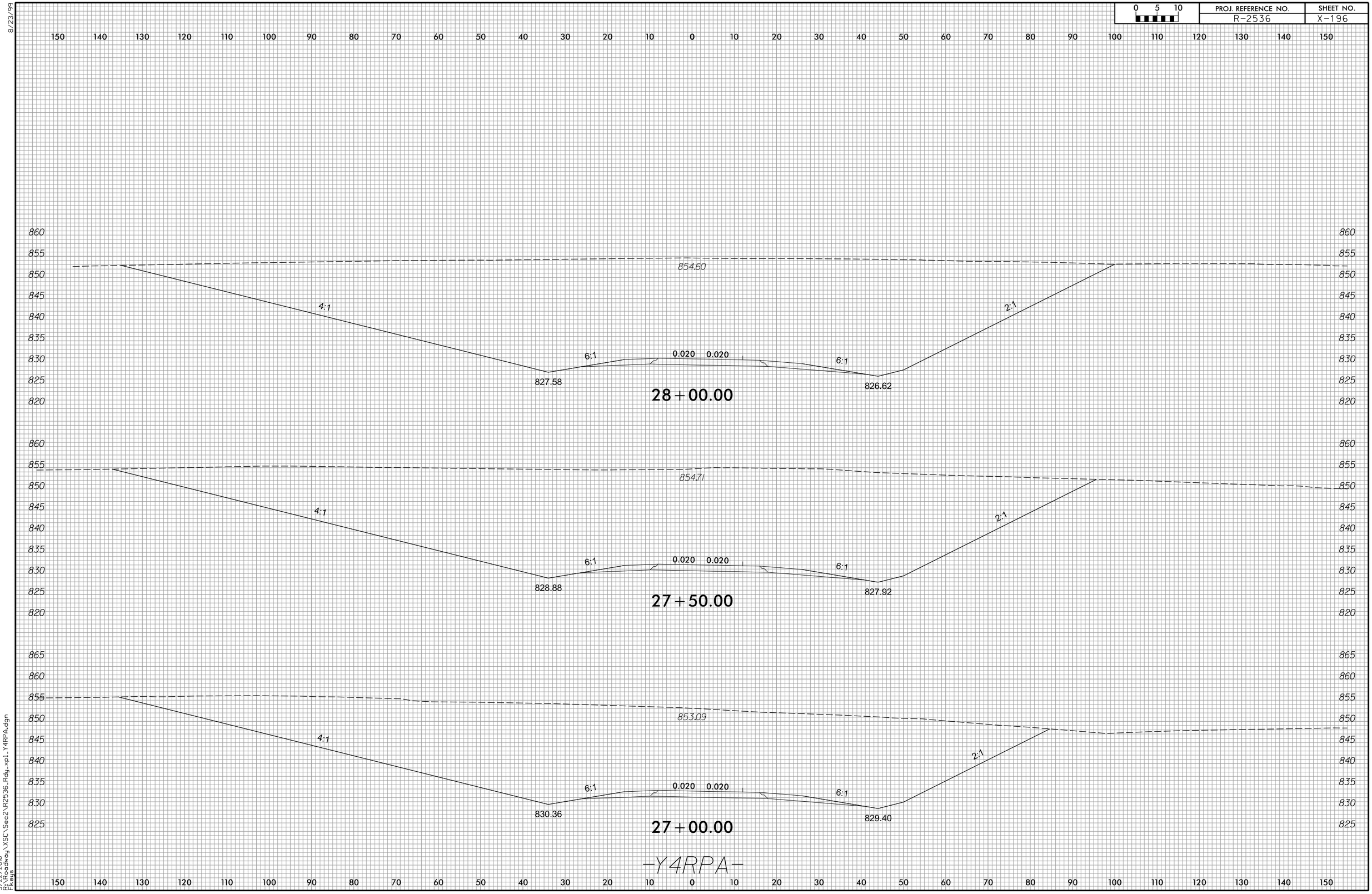
Pkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-196



3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-197

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

865 860 855 850 845 840 835 830 825

0.080 0.080

4:1

4:1

2:1

2:1

842.50

839.02

19+90.00

855.25

4:1

4:1

6:1

0.080 0.080

835.94

14+50.00

-Y4LPA-

3/22/2016
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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-198

200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400

870 860 850 840 830 820 810 800

-SERRD3-
STA. 13+83.52
EL= 814.37

2:1 4:1 0.061 0.061 4:1 2:1 2:1 2:1

810.22 812.04 810.04

B.P. 2:1 0.080 4:1 B.P. -Y4LPB- STA. 15+50.00 EL= 846.11 0.080 4:1 2:1 2:1

807.06 813.38

24+00.00

-SERRD3-
STA. 13+43.57
EL= 813.43

2:1 4:1 0.061 0.061 4:1 2:1 2:1

809.28 811.10 808.68

B.P. 2:1 0.080 4:1 B.P. 4:1 S.P. #206 ELEV. 837.03 -Y4LPB- STA. 15+00.00 EL= 848.33 0.080 4:1 2:1 2:1

804.51 813.53

23+50.00

-SERRD3-
STA. 13+03.78
EL= 812.23

2:1 4:1 0.061 0.061 3:1 2:1 2:1

808.09 808.12

B.P. 2:1 0.075 4:1

808.25

23+00.00

-SERRD3-
STA. 12+64.07
EL= 811.05

2:1 4:1 0.060 0.060 4:1 2:1 2:1

806.91 807.56

B.P. 2:1 0.055 4:1

808.31

22+50.00

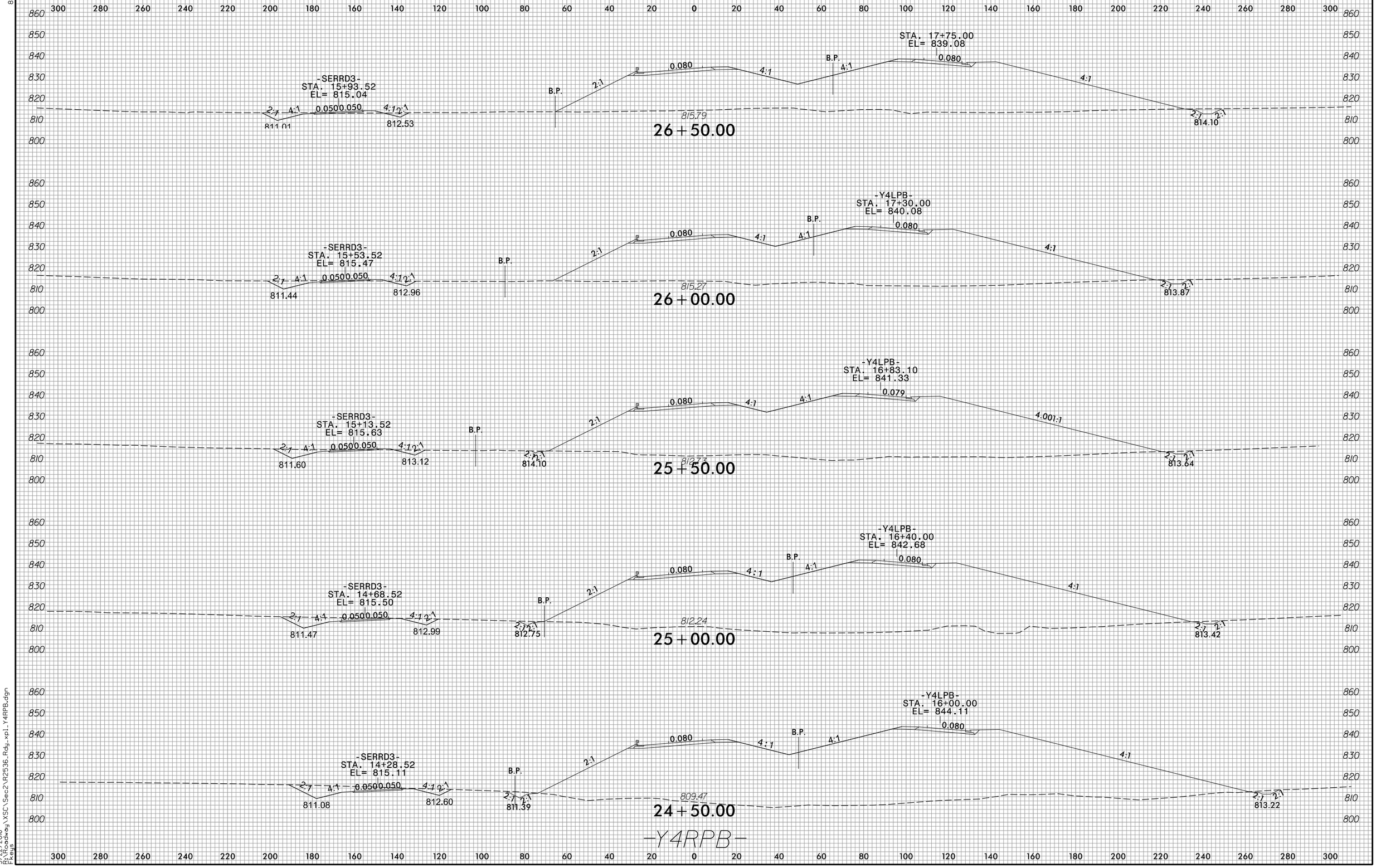
-Y4RPB-

200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4RPB.dgn
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-199



3/22/2016
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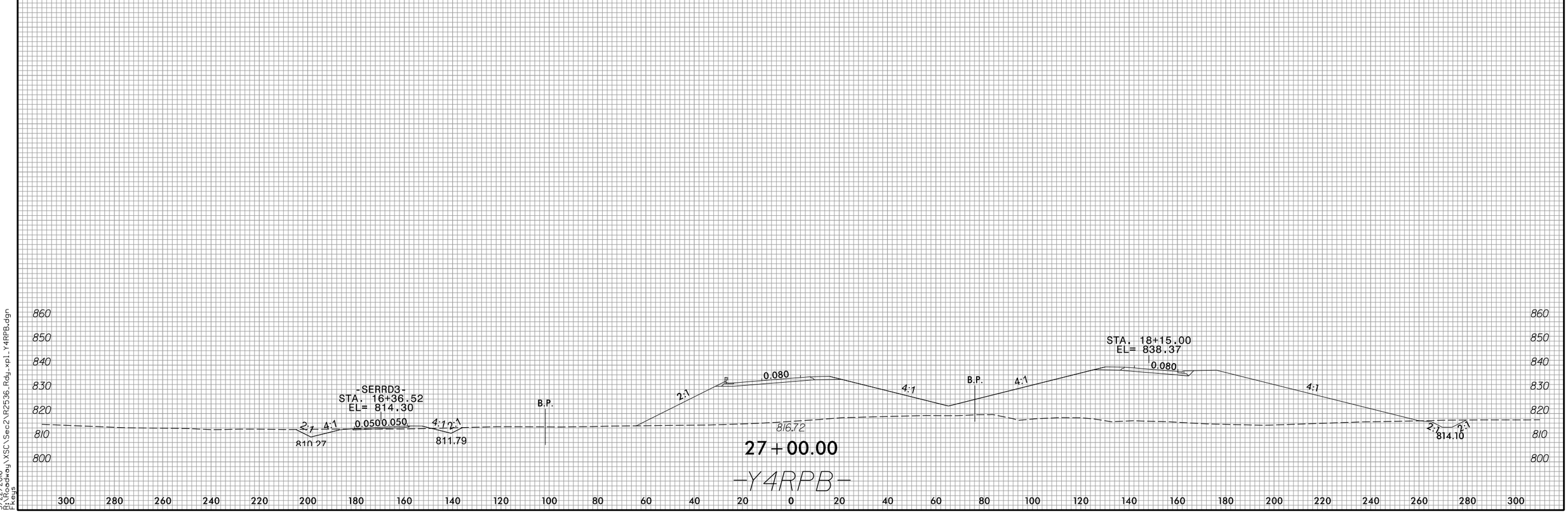
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-200



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Fkeys

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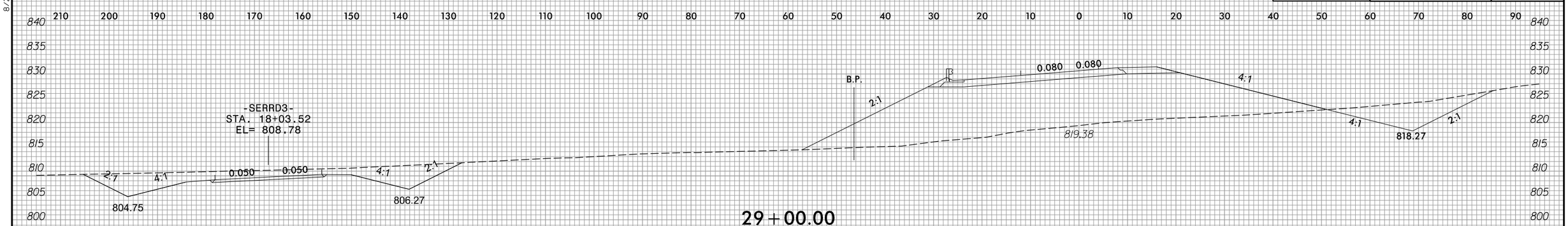
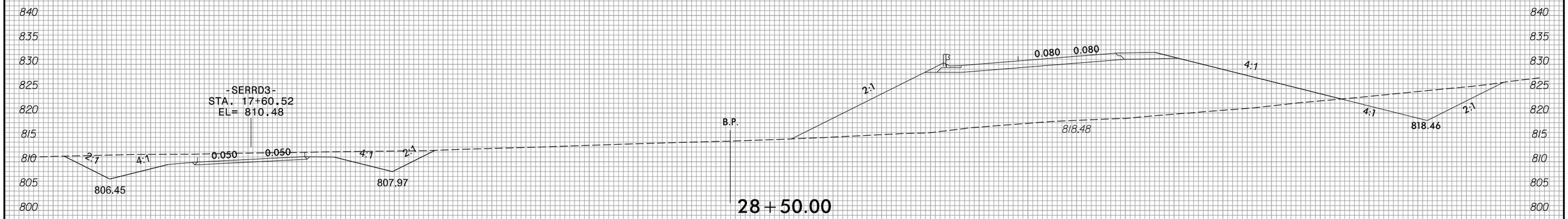
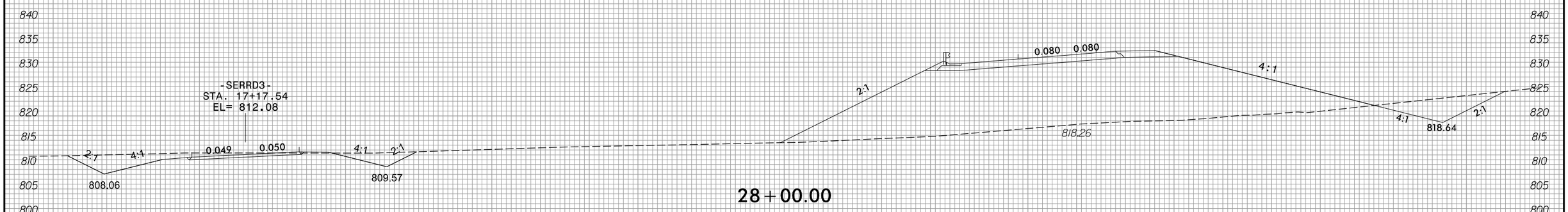
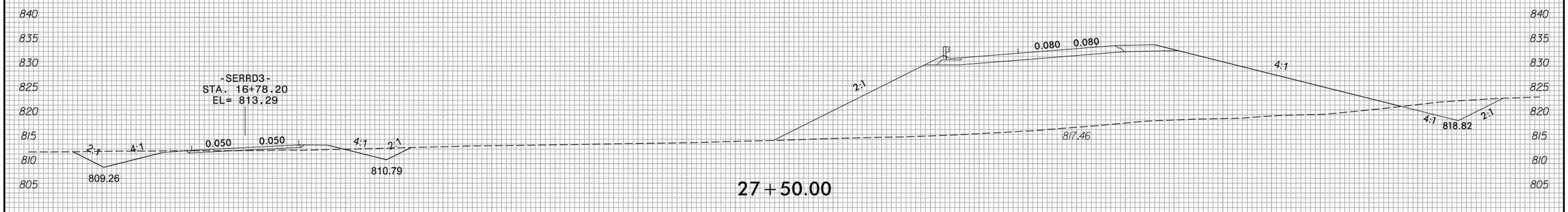
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-201









-Y4RPB-

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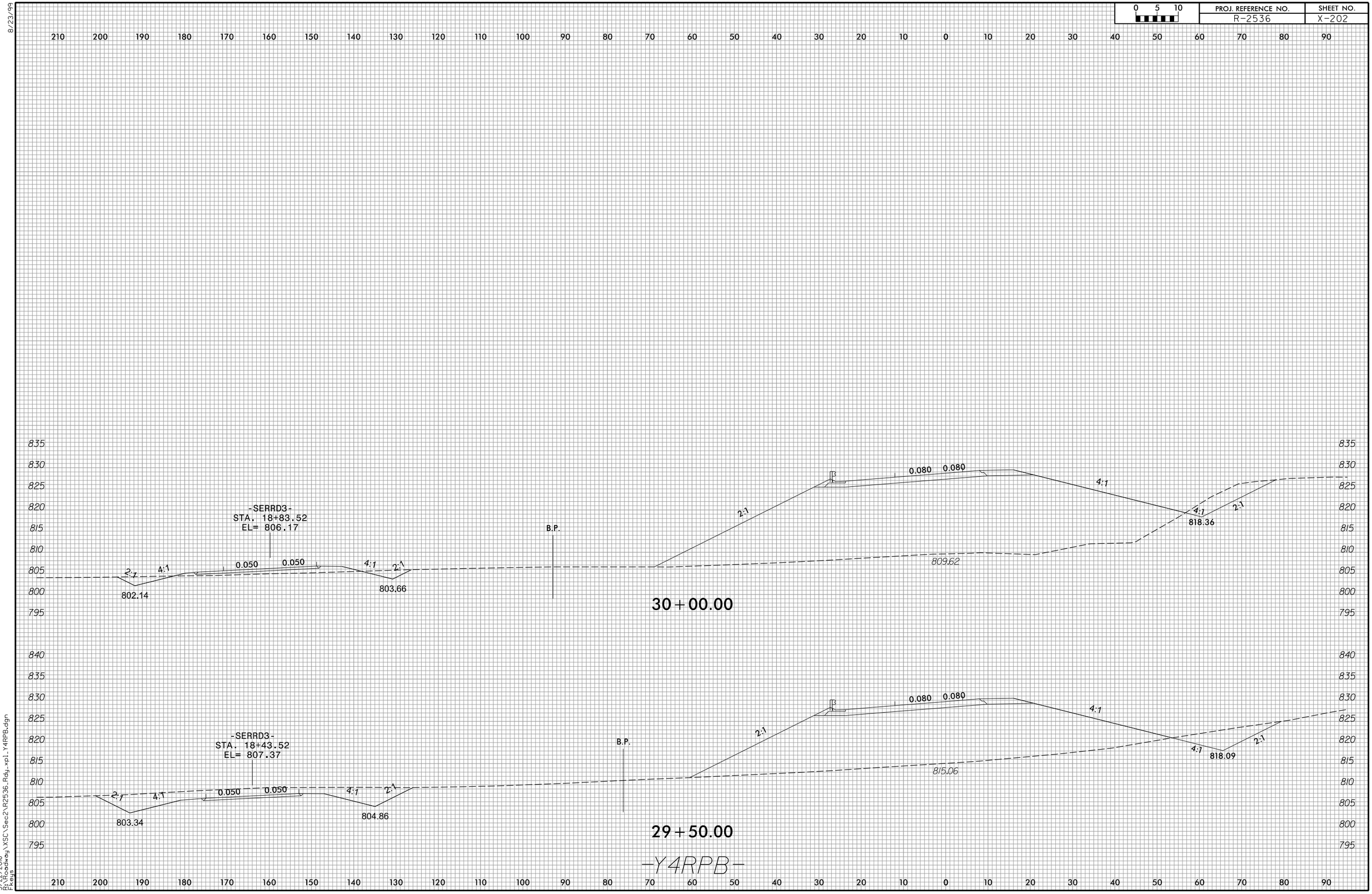
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-202



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Keys

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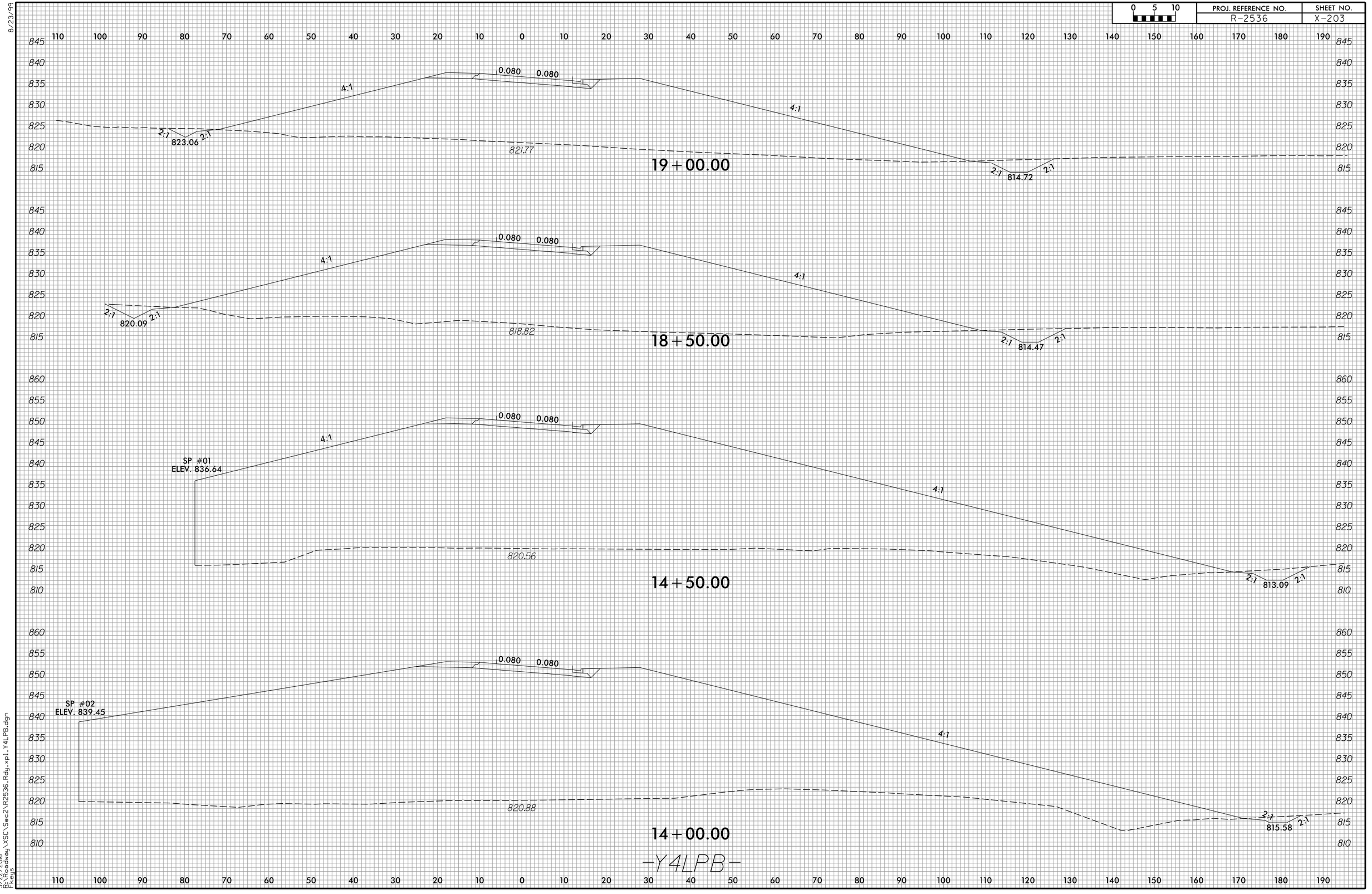
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-203



-Y4LPB-

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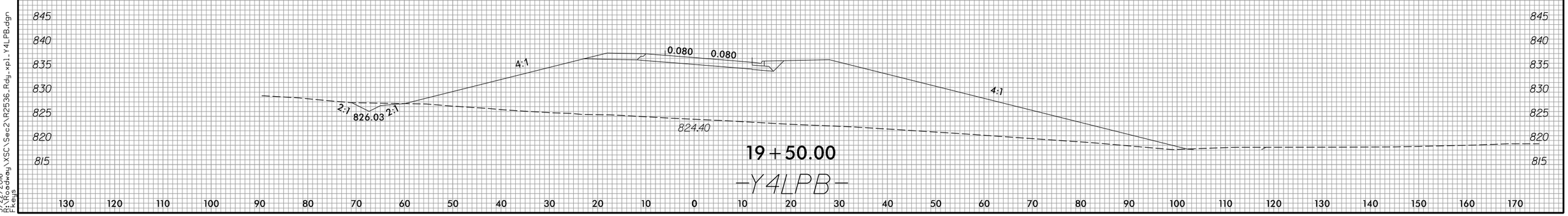
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-204

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170



19+50.00

-Y4LPB-

3/22/2016
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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-205

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

870 865 860 855 850 845 840

864.12

2:1 4:1 0.020 0.020 6:1 4:1 2:1

835.94 836.23

22+00.00

860 855 850 845 840

856.26

2:1 4:1 0.020 0.020 6:1 4:1 2:1

835.79 836.08

21+50.00

855 850 845 840 835

847.47

2:1 4:1 0.020 0.020 6:1 4:1 2:1

835.64 835.93

21+00.00

860 855 850 845 840 835 830 825

4:1 0.020 0.020 2:1

837.41

20+50.00

855 850 845 840 835 830 825 820

4:1 0.020 0.020 2:1

827.01

20+00.00

—Y4RPC—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-206

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

890 880 870 860 850 840 830

876.91
4:1
-Y4LPC-
STA. 17+58.00
EL= 844.76
0.080
4:1
B.P.
2:73:1
4:1
0.020
6:1
4:1
2:1
836.69
836.98
24+50.00

878.90
4:1
-Y4LPC-
STA. 18+00.00
EL= 846.44
0.080
6:1
B.P.
3:1 3:1
4:1
0.020
6:1
4:1
2:1
836.54
836.83
24+00.00

879.95
4:1
-Y4LPC-
STA. 18+50.00
EL= 848.43
0.080
6:1
846.29
B.P.
4:1
836.39
4:1
0.020
6:1
4:1
2:1
836.68
23+50.00

878.32
4:1
-Y4LPC-
STA. 19+00.00
EL= 850.42
0.080
6:1
848.27
B.P.
4:1
836.24
4:1
0.020
6:1
4:1
2:1
836.53
23+00.00

872.15
4:1
-Y4LPC-
STA. 19+50.00
EL= 852.41
0.080
6:1
850.25
B.P.
4:1
4:1
836.09
6:1
0.020
6:1
4:1
2:1
836.38
22+50.00

-Y4RPC-

3/22/2016
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FHWA Keys

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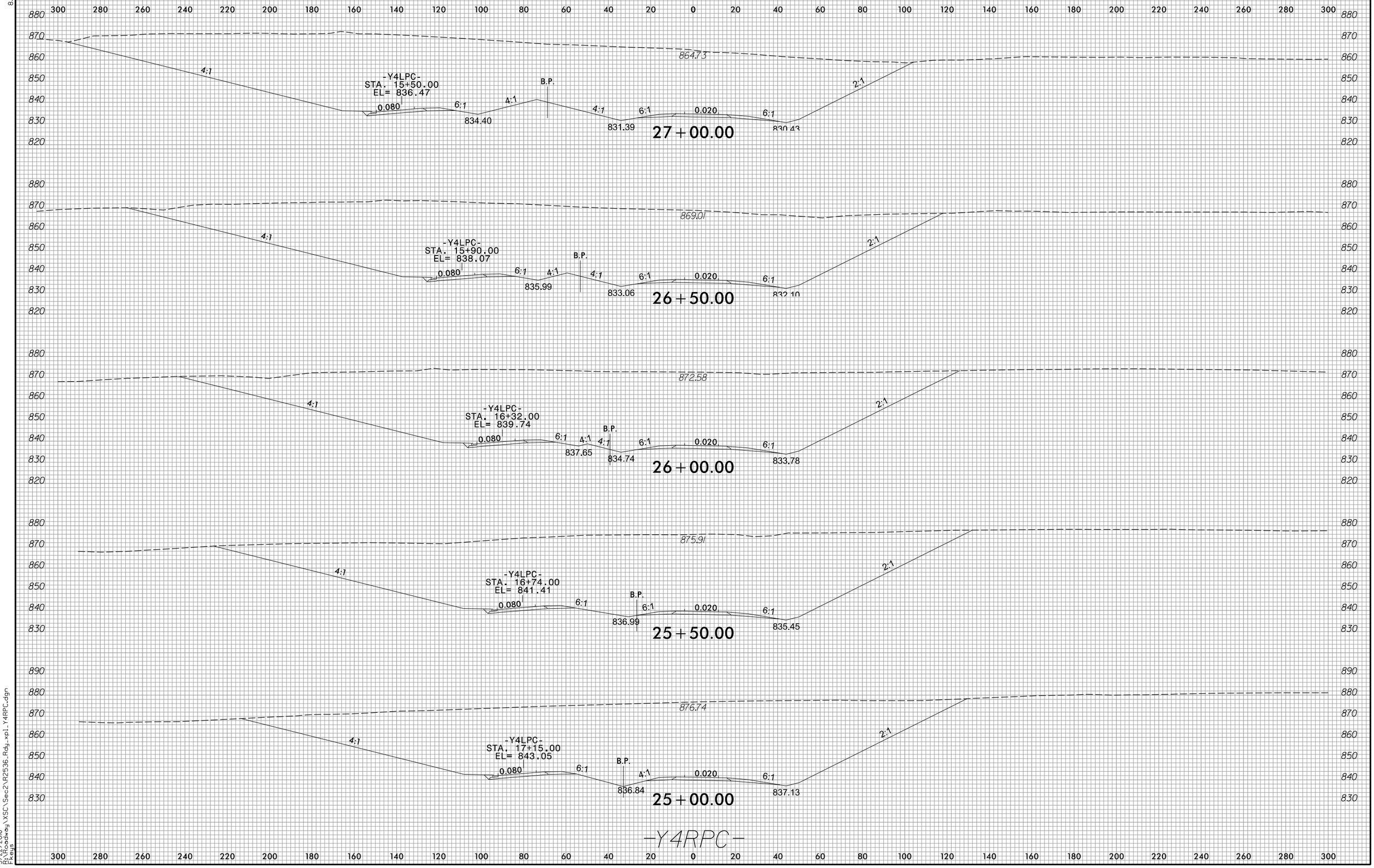
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-207



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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-208

420 400 380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180

880 870 860 850 840 830 820

4:1 4:1 0.080 6:1 6:1 4:1 4:1 6:1 0.045 6:1 2:1

B.P.

SP #212
ELEV. 851.47

831.44

855.74

828.44

826.67

28+00.00

880 870 860 850 840 830 820

4:1 4:1 0.080 6:1 6:1 4:1 4:1 6:1 0.025 6:1 2:1

-Y4LPC-
STA. 15+00.00
EL= 834.68

B.P.

832.62

857.62

829.79

828.67

27+50.00

-Y4RPC-

420 400 380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4RPC.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-209

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

875 870 865 860 855 850 845 840 835 830 825

862.36

4:1

6:1 6:1 0.080 0.080

SP #10
ELEV. 834.72

830.88

13+66.03

875 870 865 860 855 850 845 840 835 830 825 820

861.12

4:1

6:1 6:1 0.080 0.080

6:1

831.23

SP #09
ELEV. 831.51

13+25.18

875 870 865 860 855 850 845 840 835 830 825

859.85

4:1

SP #202
ELEV. 865.53

6:1 0.074 0.074

SP #08
ELEV. 833.73

SP #07
ELEV. 842.09

12+78.28

-Y4LPC-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4LPC.dgn
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-210

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

870 865 860 855 850 845

5.98:1 0.080 0.080 4:1 2:1 2:1

851.82

851.11

20+50.00

870 865 860 855 850 845

5.78:1 6:1 0.080 0.080 4:1

852.37

854.59

20+00.00

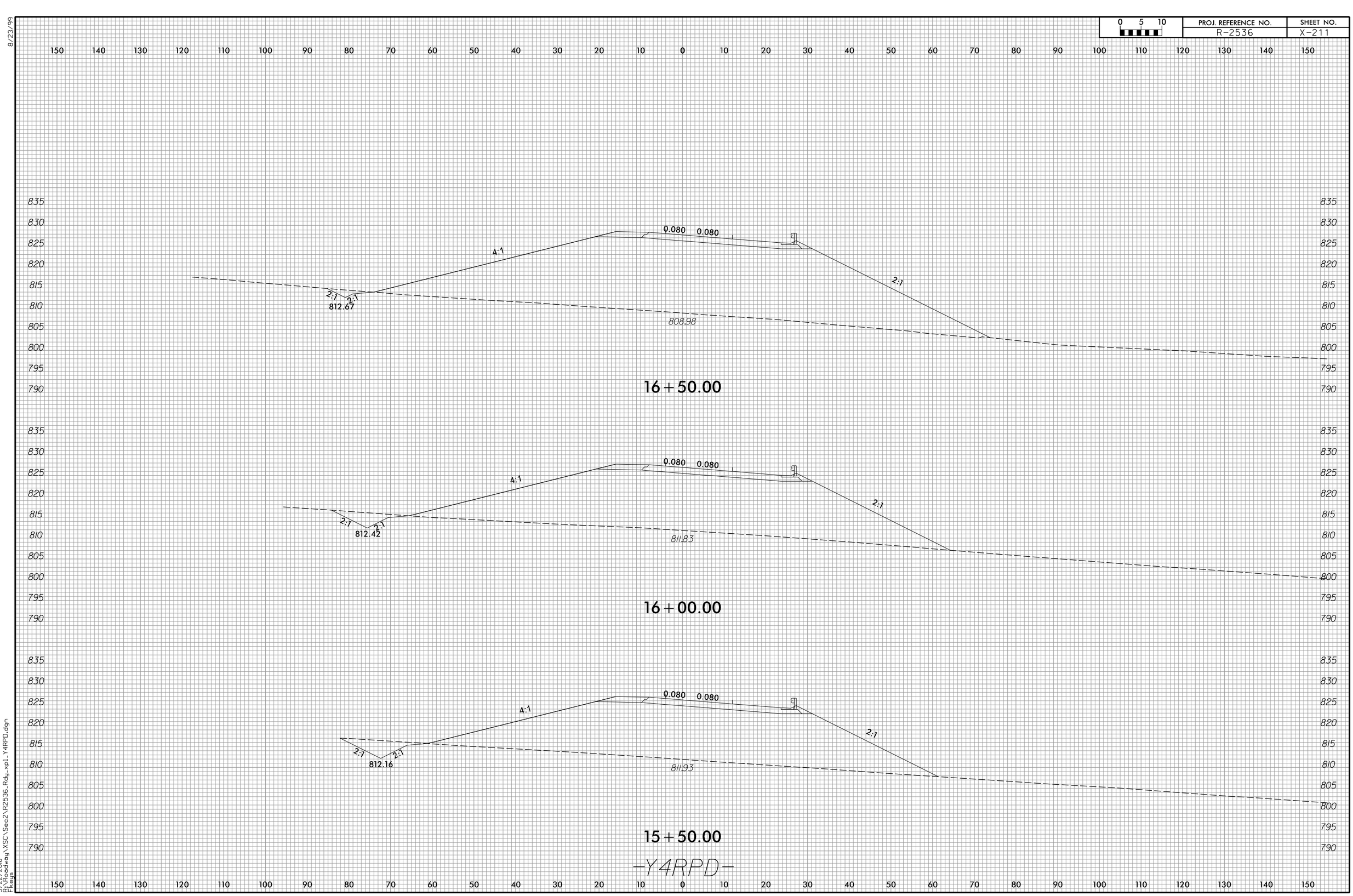
-Y4LPC-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4LPC.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-211



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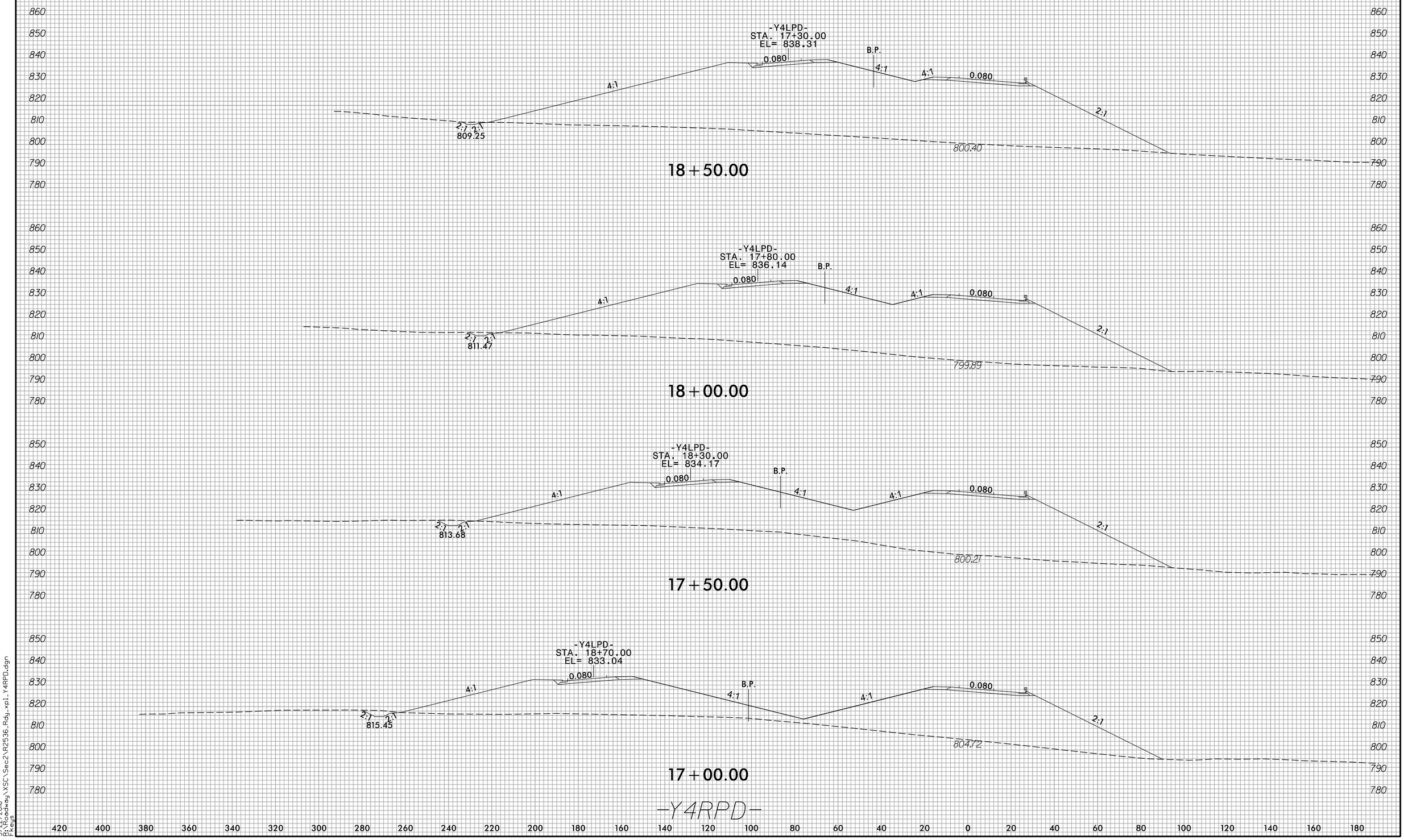
tkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-212



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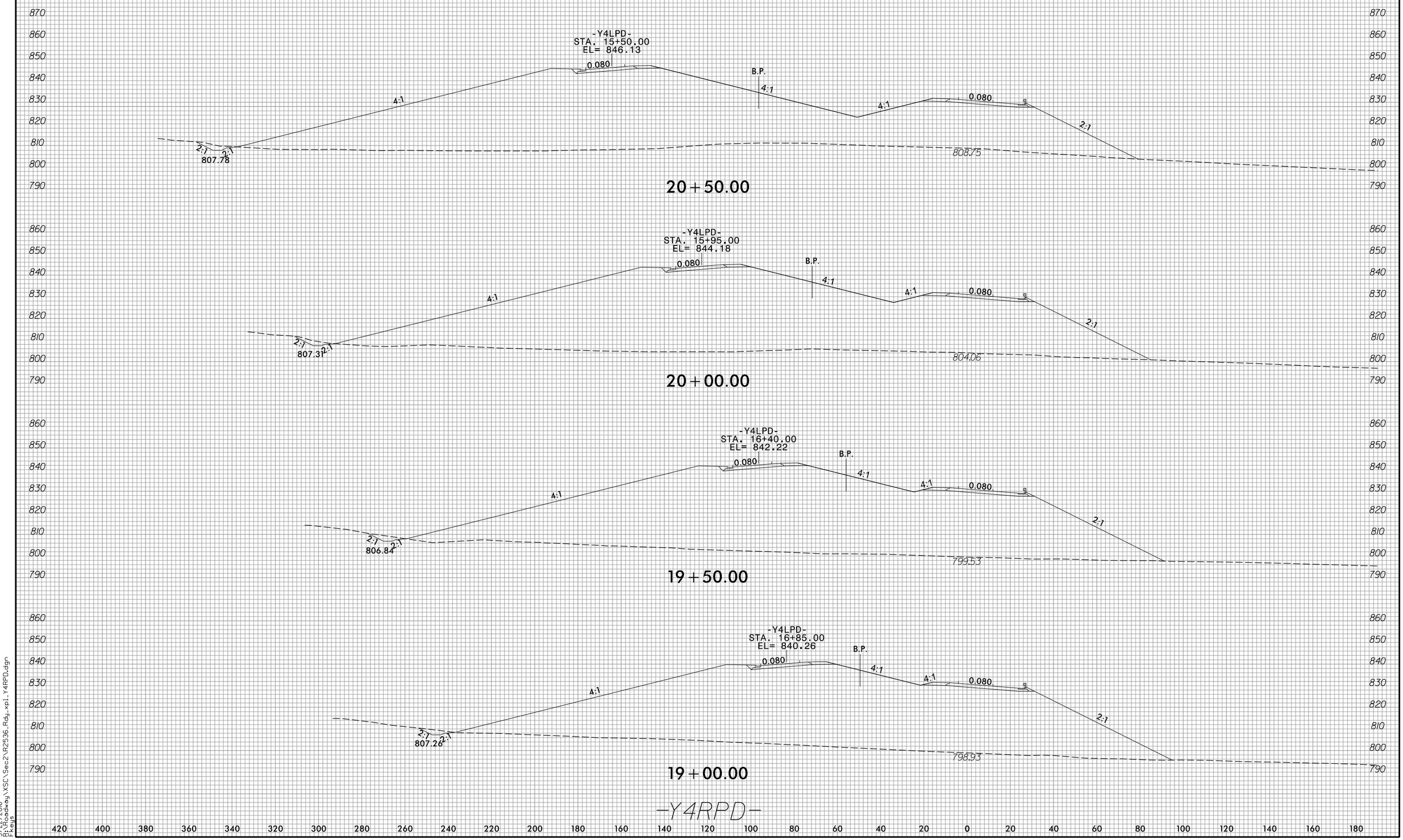
8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-213

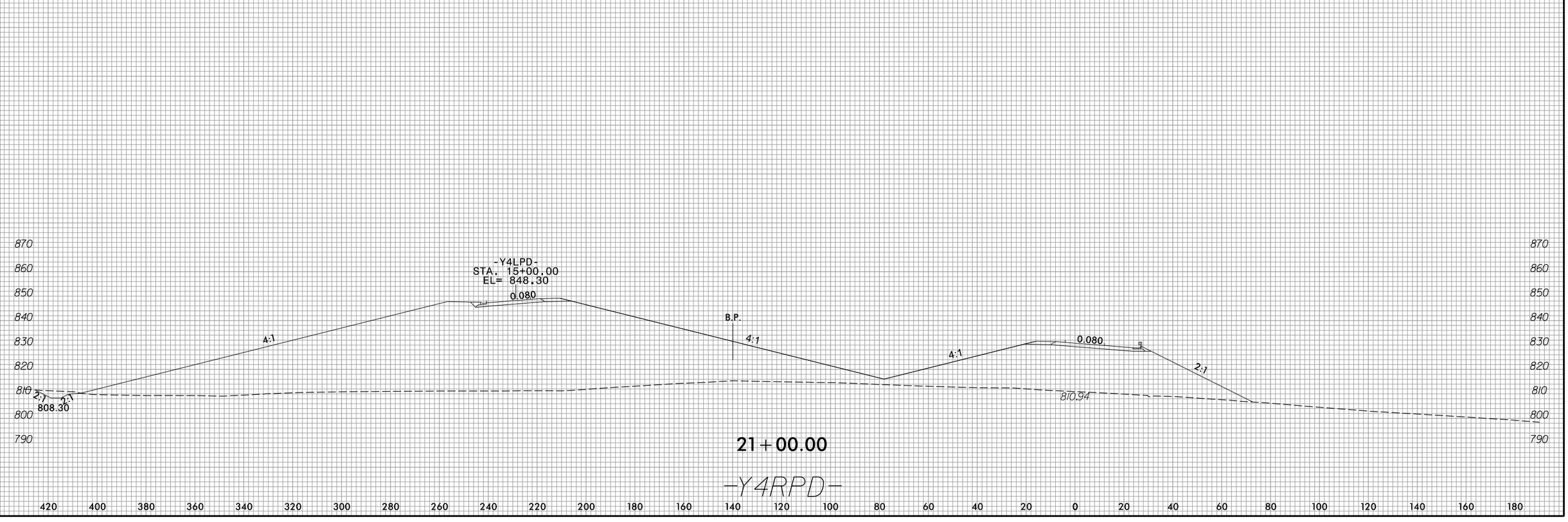


3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y4RPD.dgn
Pkeys

8/23/99

0 10 20

PROJ. REFERENCE NO.	SHEET NO.
R-2536	X-214



21+00.00

-Y4RPD-

3/22/2016
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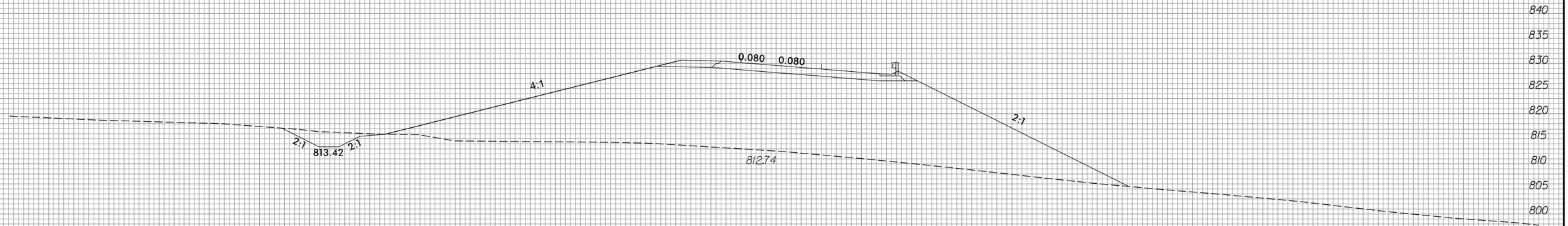
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-215

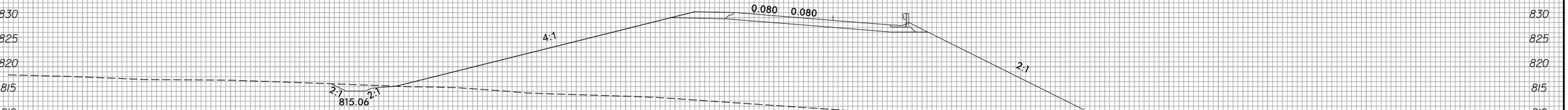
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

840 835 830 825 820 815 810 805 800 795 790 785 780



22+00.00

840 835 830 825 820 815 810 805 800 795 790 785 780



21+50.00

-Y4RPD-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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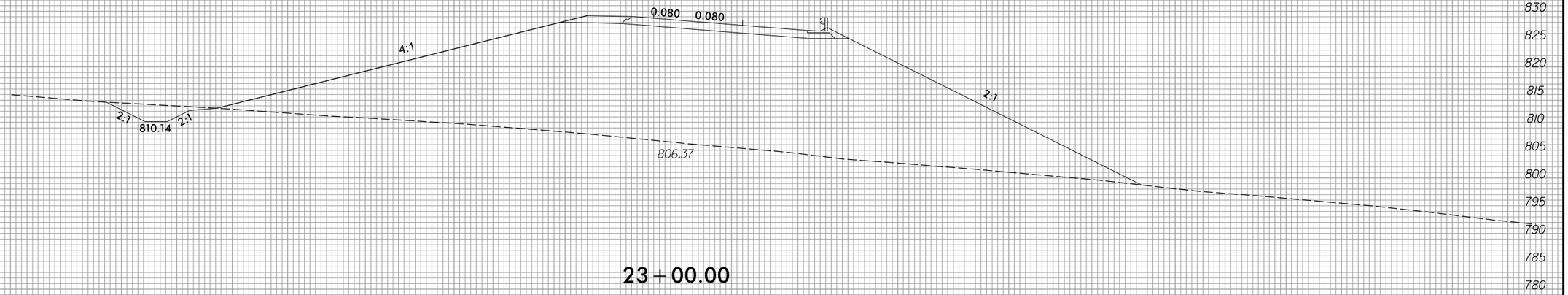
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-216

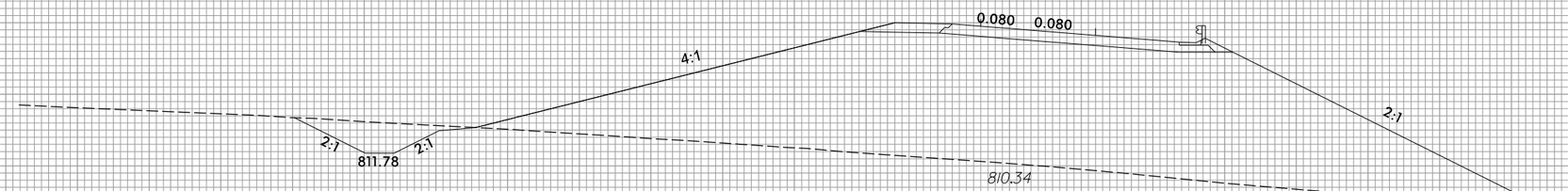
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

835 830 825 820 815 810 805 800 795 790 785 780



23+00.00

840 835 830 825 820 815 810 805 800 795 790 785 780



22+50.00

-Y4RPD-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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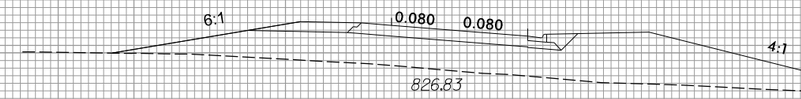
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-217

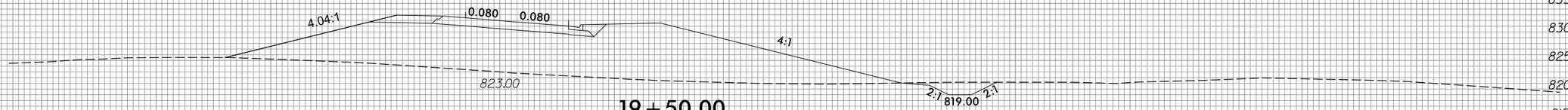
120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

840 835 830 825 820 815



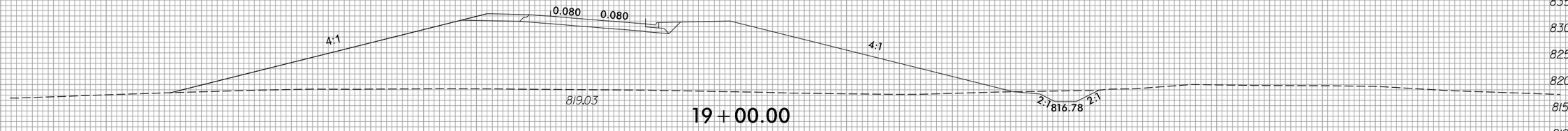
20+00.00

840 835 830 825 820 815



19+50.00

840 835 830 825 820 815 810



19+00.00

860 855 850 845 840 835 830 825 820 815 810 805

14+50.00

180 190 200 210

-Y4LPD-

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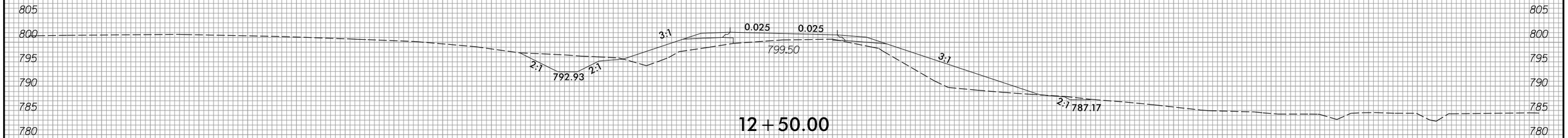
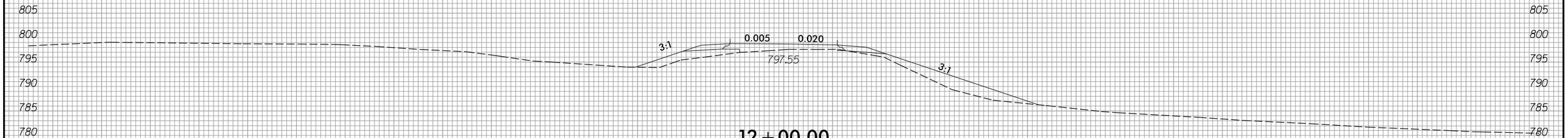
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-218

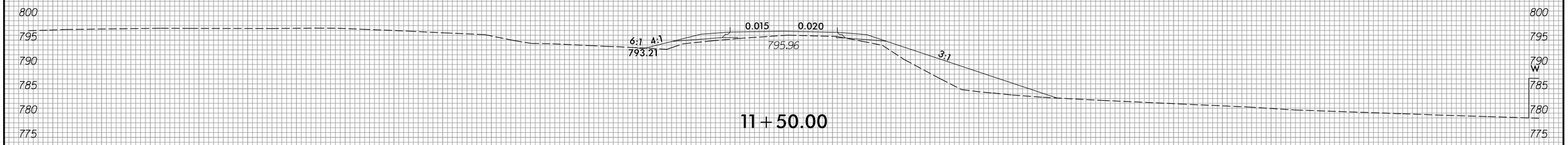
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



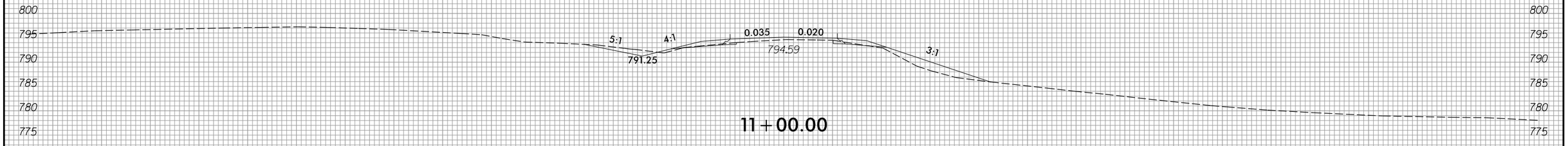
12 + 50.00



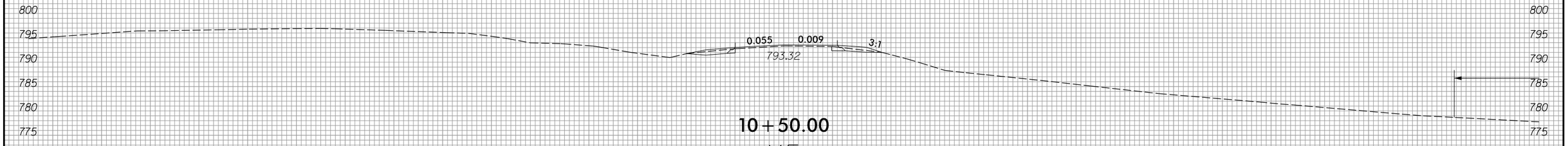
12 + 00.00



11 + 50.00



11 + 00.00



10 + 50.00

-Y5-

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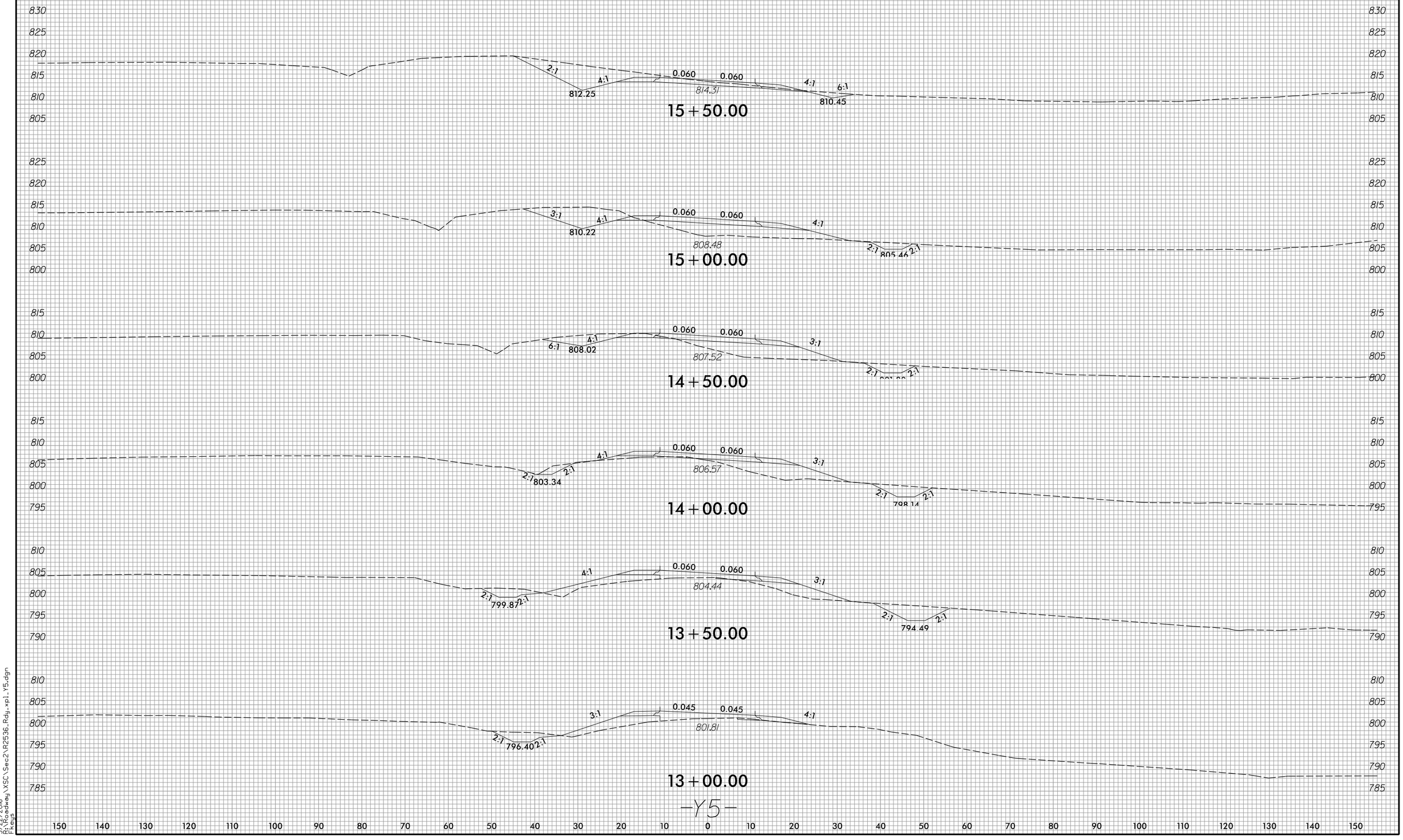
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-219

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-220

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

850 845 840 835 830 825 820 815 810

836.75

2:1

818.75

4:1 0.060 0.060 4:1

816.95

2:1

17 + 50.00

845 840 835 830 825 820 815 810

831.82

2:1

817.37

4:1 0.060 0.060 4:1

815.57

2:1

17 + 00.00

835 830 825 820 815 810

824.92

2:1

815.83

4:1 0.060 0.060 4:1

814.03

2:1

16 + 50.00

835 830 825 820 815 810 805 800

INTERSECTION W/ -Y5A-

817.39

0.060 0.060 4:1 4:1

812.32

16 + 00.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-221

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

860 855 850 845 840 835 830 825 820 815

843.93

2:1

4:1

0.029

0.029

4:1

2:1

821.37

820.43

19+00.00

865 860 855 850 845 840 835 830 825 820 815

843.40

2:1

4:1

0.049

0.049

4:1

2:1

820.83

819.33

18+50.00

860 855 850 845 840 835 830 825 820 815

840.00

2:1

4:1

0.060

0.060

4:1

2:1

819.96

818.16

18+00.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-222

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

845 840 835 830 825 820 815 810 805 800

2:1 4:1 0.031 0.031 3:1

827.09

822.09

20+50.00

850 845 840 835 830 825 820 815 810

2:1 4:1 0.011 0.011 4:1 3:1

831.43

821.97 822.33

20+00.00

860 855 850 845 840 835 830 825 820 815

2:1 4:1 0.009 0.009 4:1 2:1

837.95

821.76 821.44

19+50.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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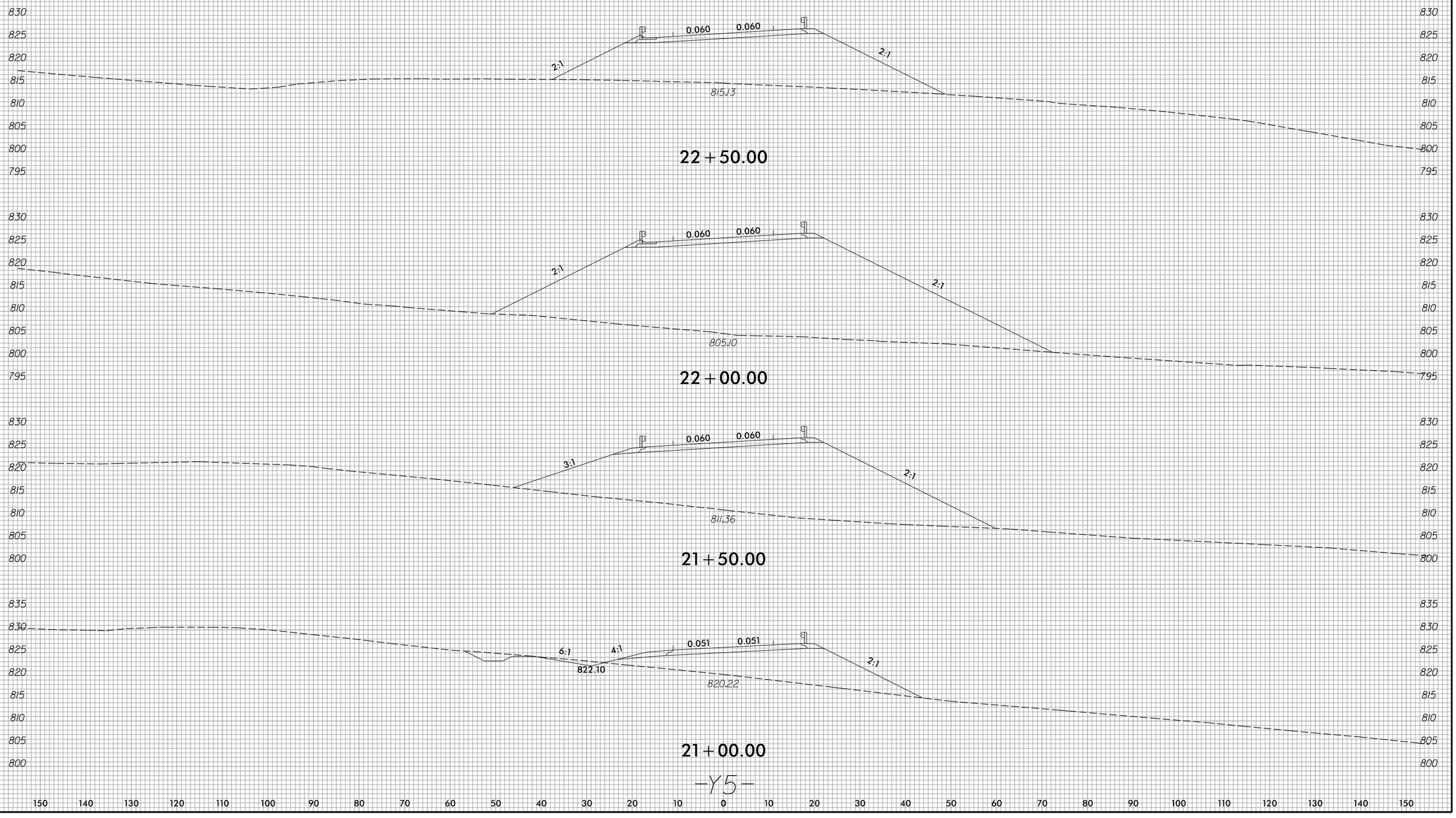
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-223

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



-Y5-

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Fkeys

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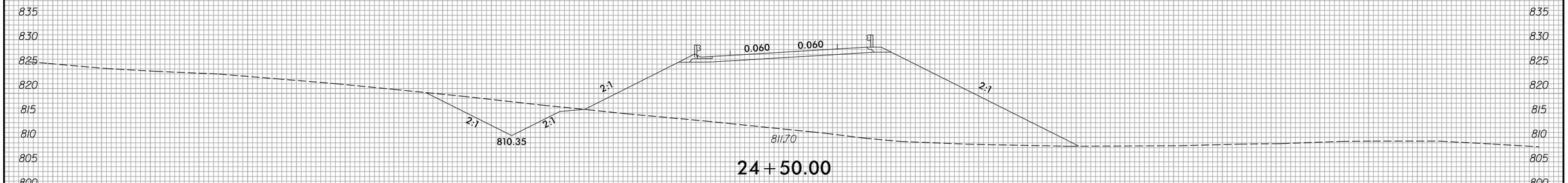
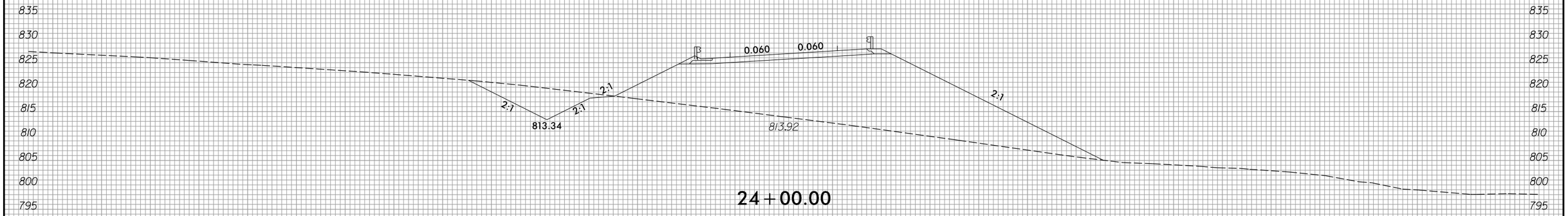
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-224

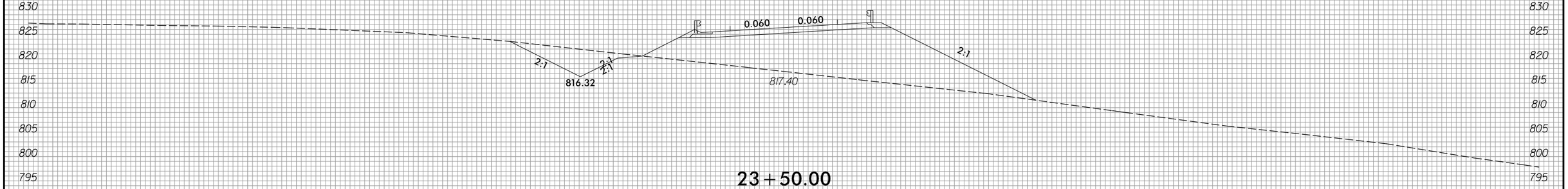
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



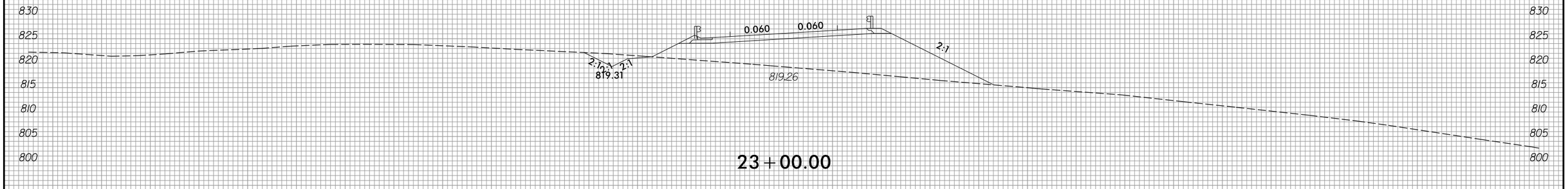
24+50.00



24+00.00



23+50.00



23+00.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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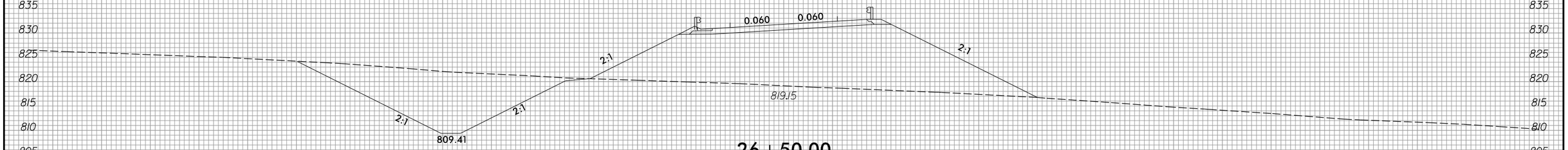
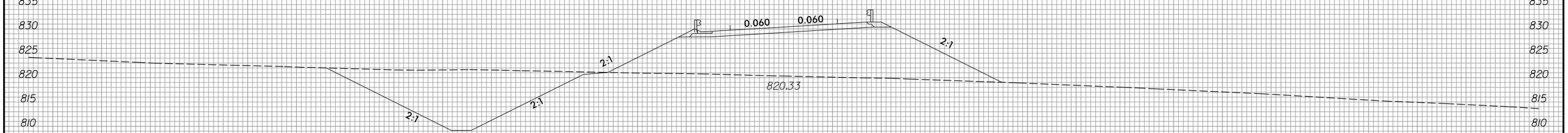
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-225

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

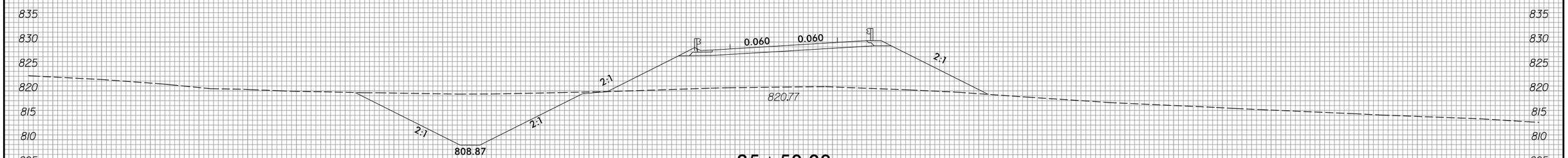
840 835 830 825 820 815 810 805



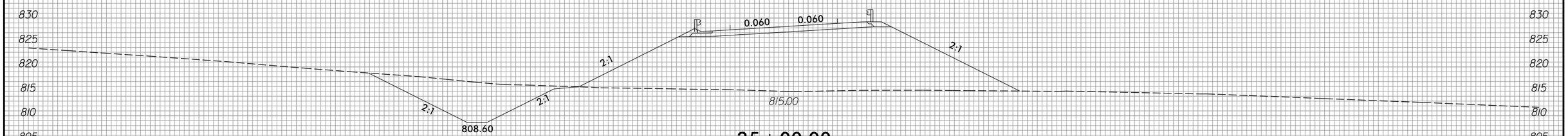
26+50.00



26+00.00



25+50.00



25+00.00

-Y5-

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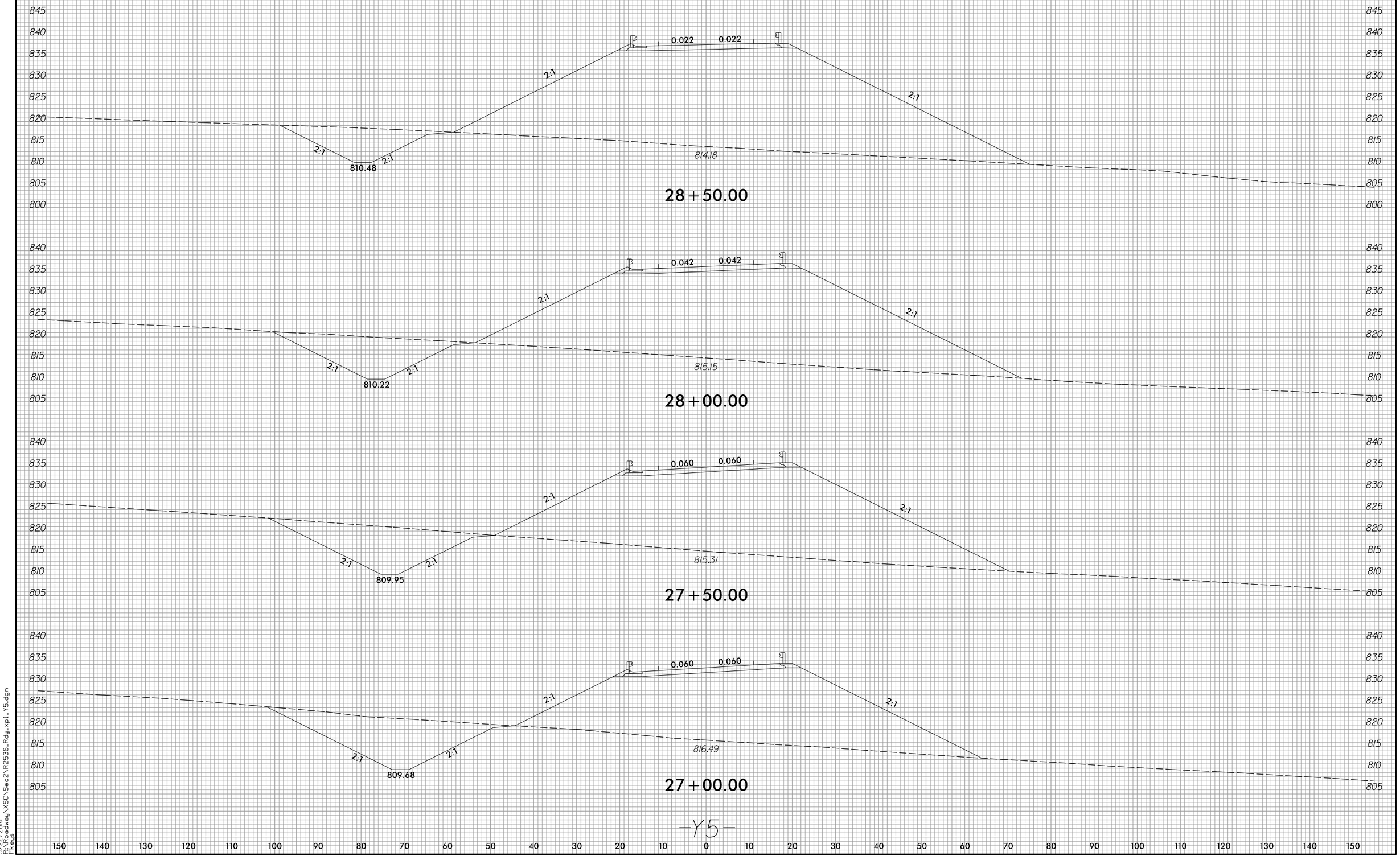
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-226



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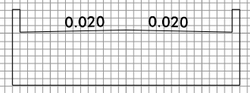
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-227

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

845 840 835 830 825 820 815 810 805 800



807.49

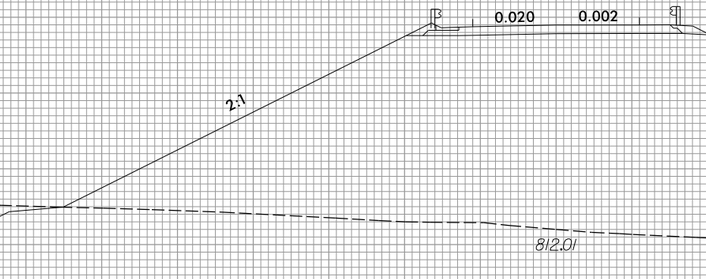
30+00.00

845 840 835 830 825 820 815 810 805 800

808.55

29+50.00

845 840 835 830 825 820 815 810 805 800



812.01

29+00.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-228

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

845 840 835 830 825 820 815 810 805 800 795

0.020 0.020

812.82

31+50.00

845 840 835 830 825 820 815 810 805

0.020 0.020

809.97

31+00.00

845 840 835 830 825 820 815 810 805

0.020 0.020

810.97

30+50.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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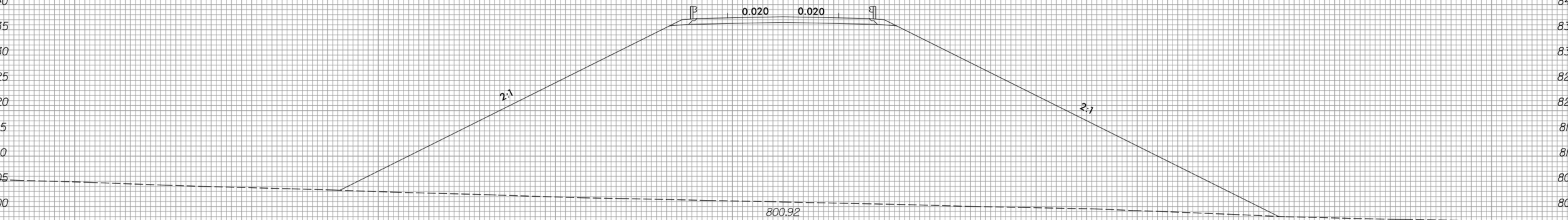
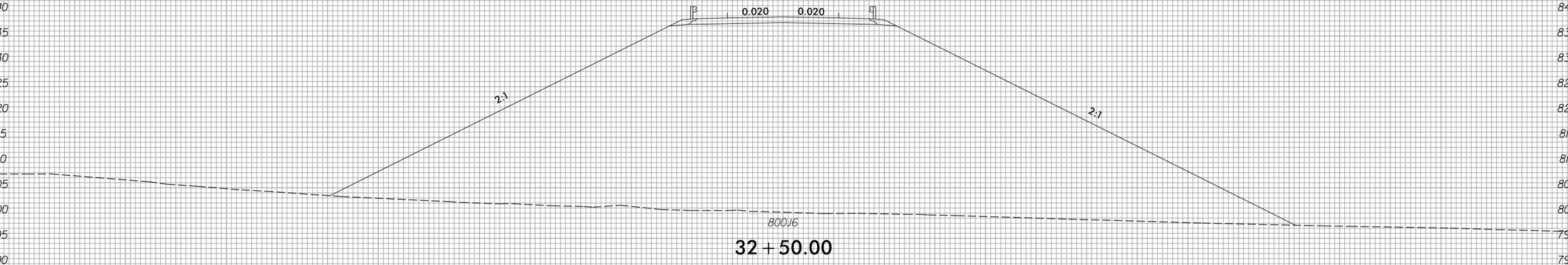
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-229

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

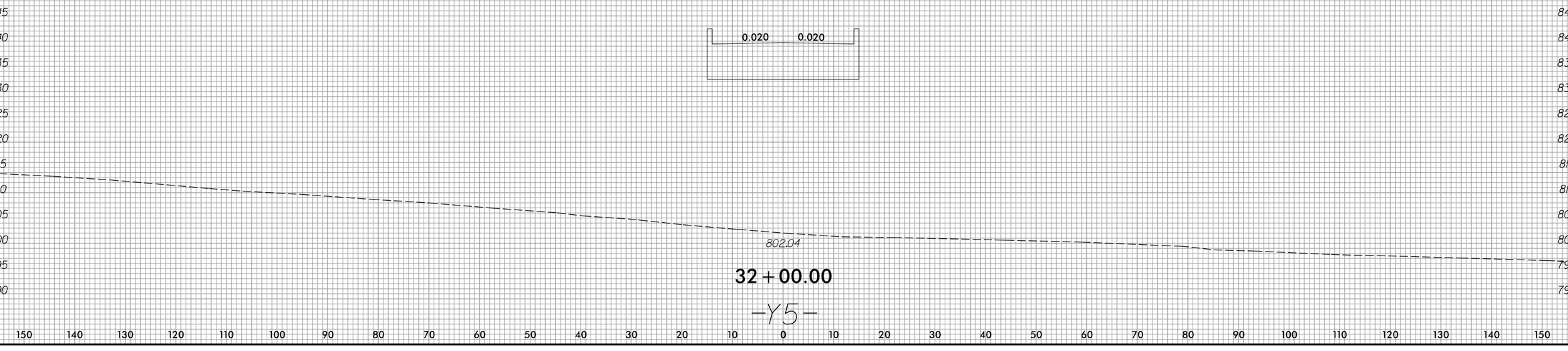
845 840 835 830 825 820 815 810 805 800 795 790



33+00.00



32+50.00



32+00.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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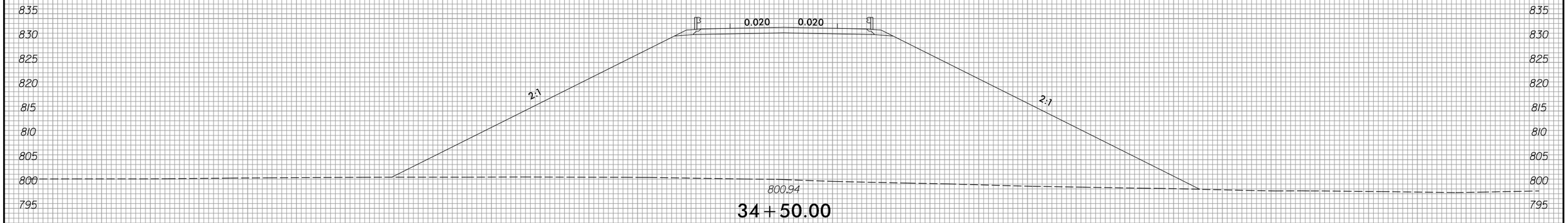
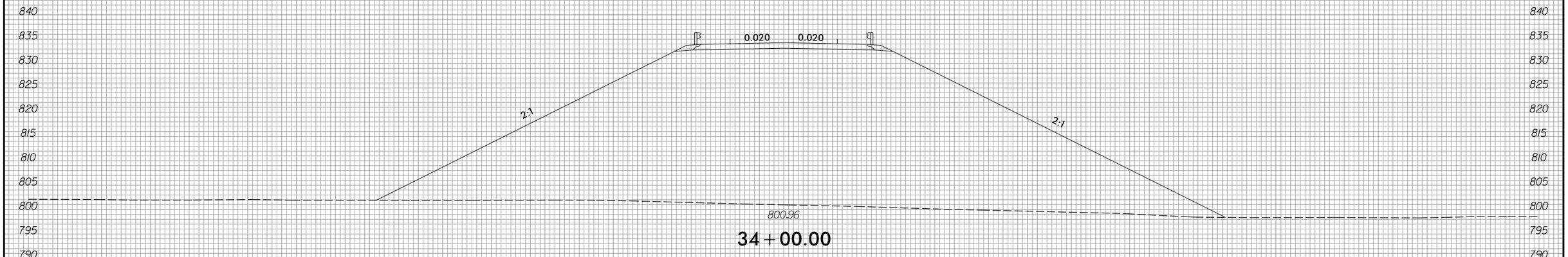
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-230

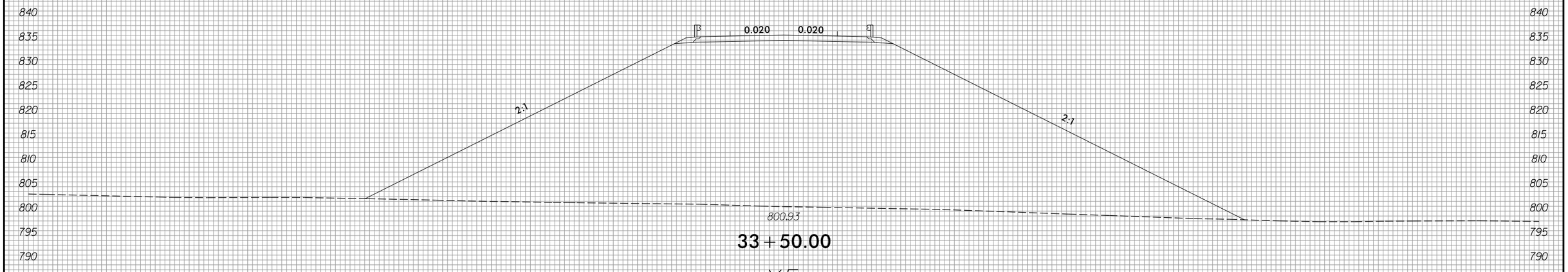
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



34+50.00



34+00.00



33+50.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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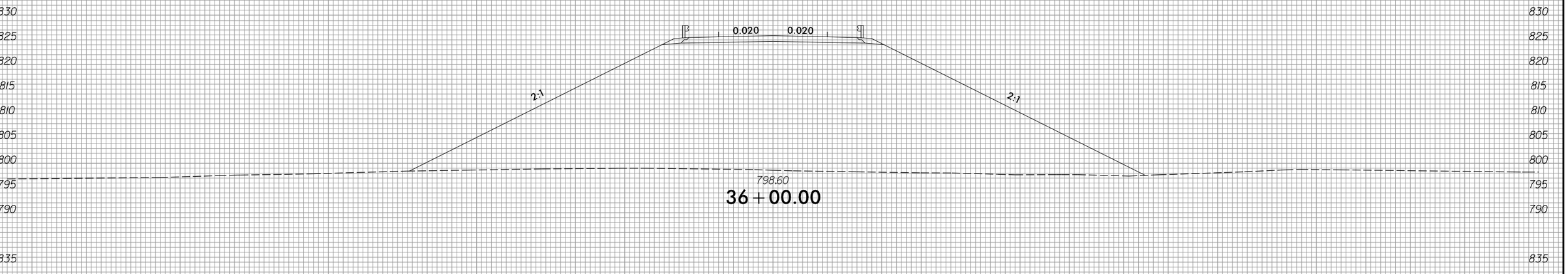
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-231

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

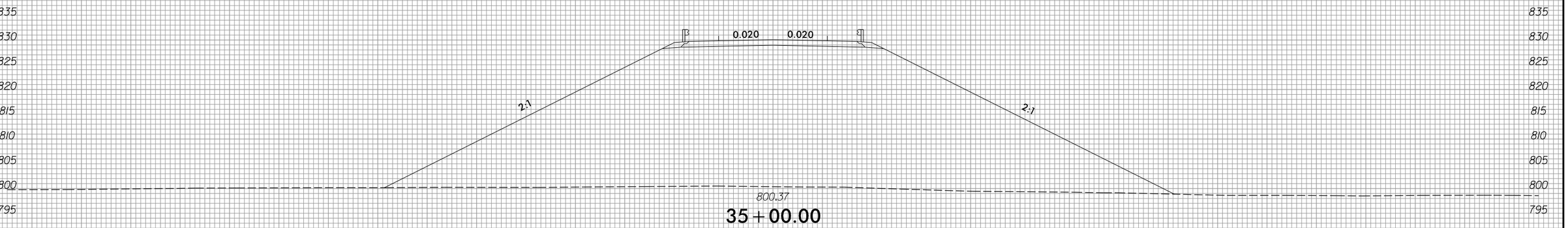


798.60

36+00.00

799.40

35+50.00



800.37

35+00.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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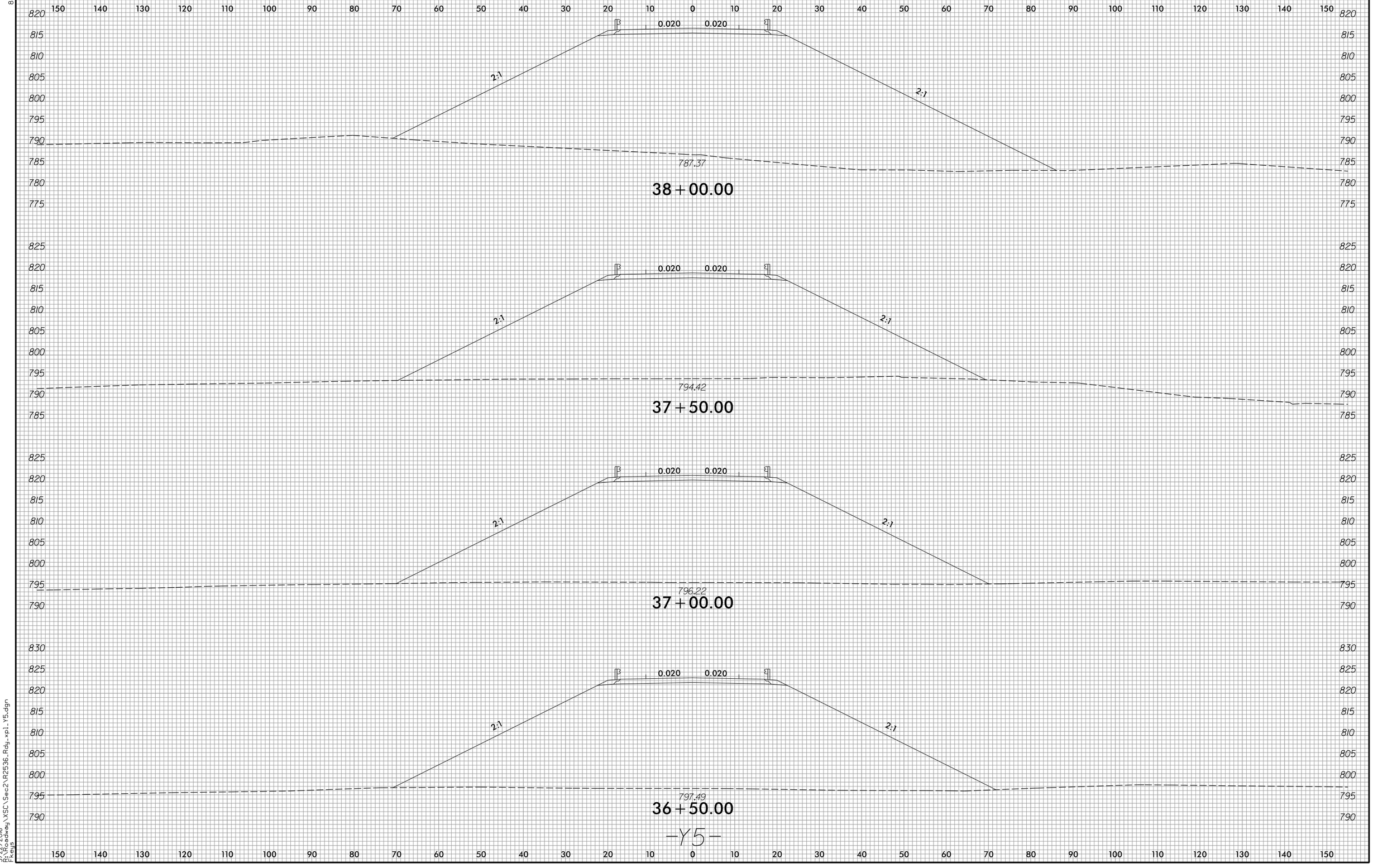
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-232



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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-233

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

815 810 805 800 795 790 785 780 775 770

WETLAND

0.020 0.020

2:1 2:1

777.23

39+50.00

WETLAND

WETLAND

820 815 810 805 800 795 790 785 780 775

0.020 0.020

2:1 2:1

778.44

39+00.00

820 815 810 805 800 795 790 785 780 775

0.020 0.020

2:1 2:1

WETLAND

780.12

38+50.00

-Y5-

3/22/2016
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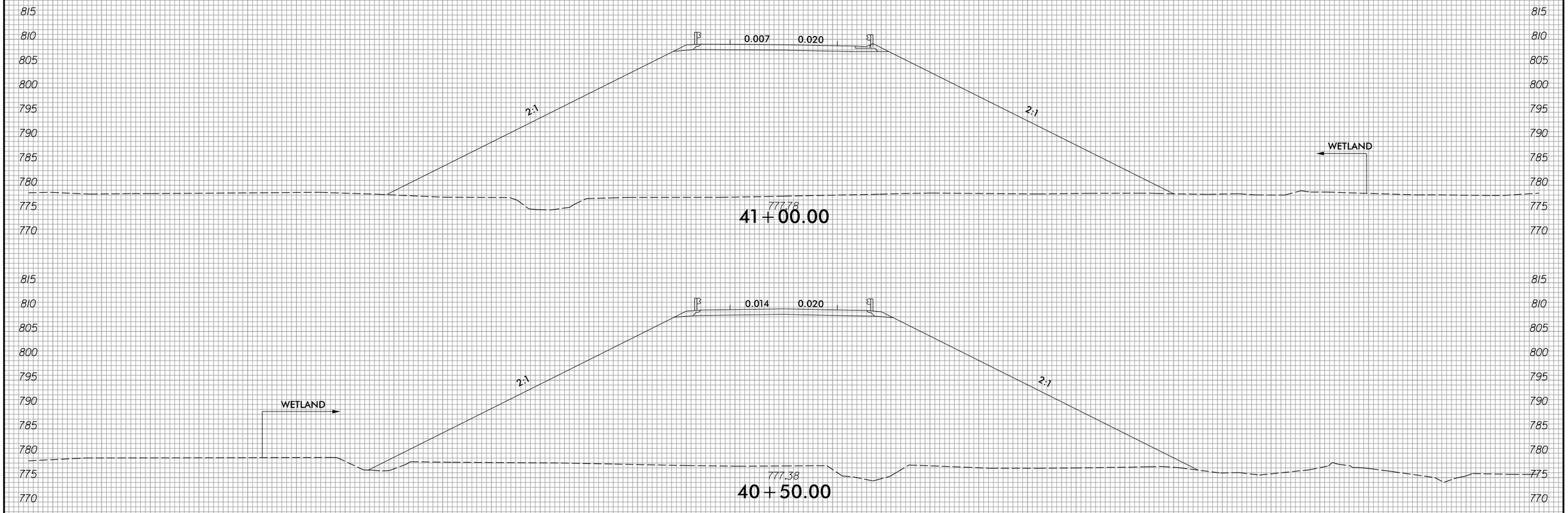
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-234

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



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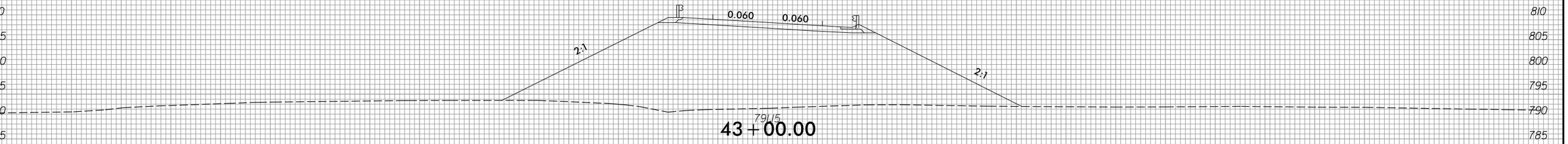
8/23/99

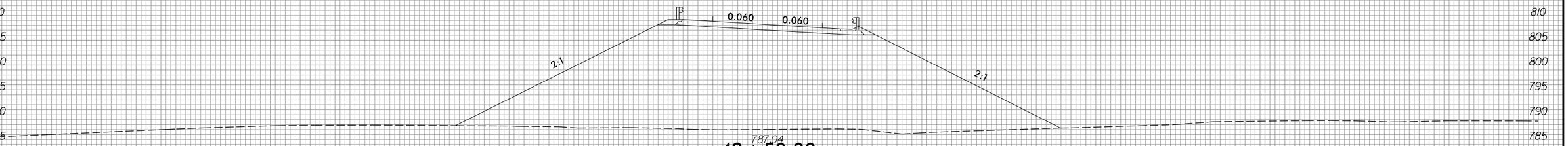
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-235

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

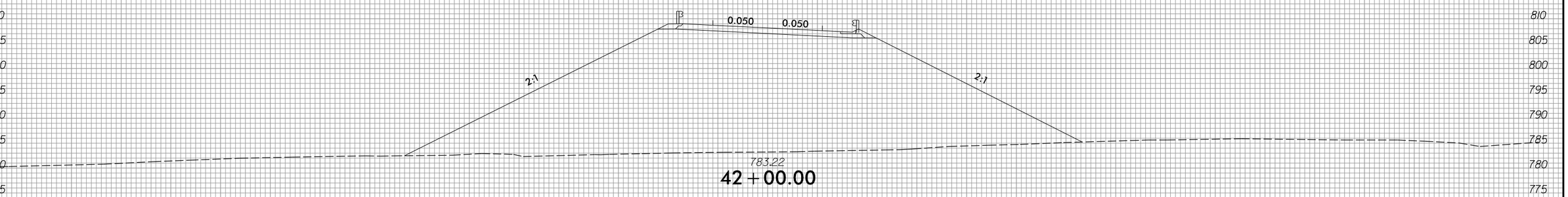
815 810 805 800 795 790 785



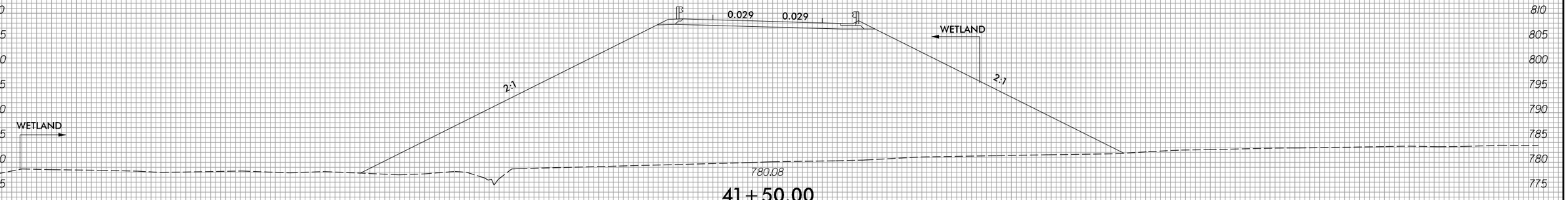
43+00.00



42+50.00



42+00.00



41+50.00

-Y5-

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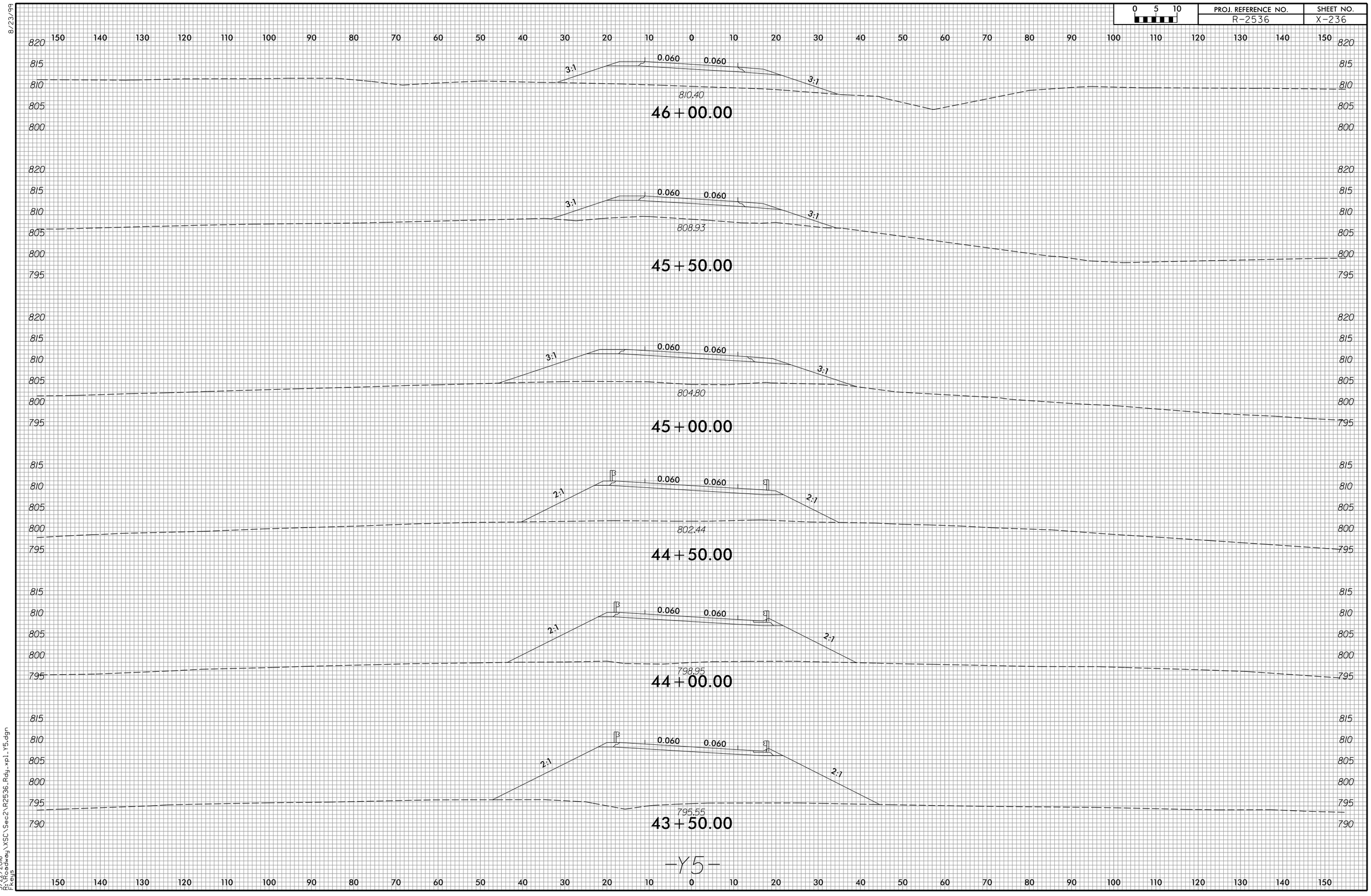
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-236



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-237

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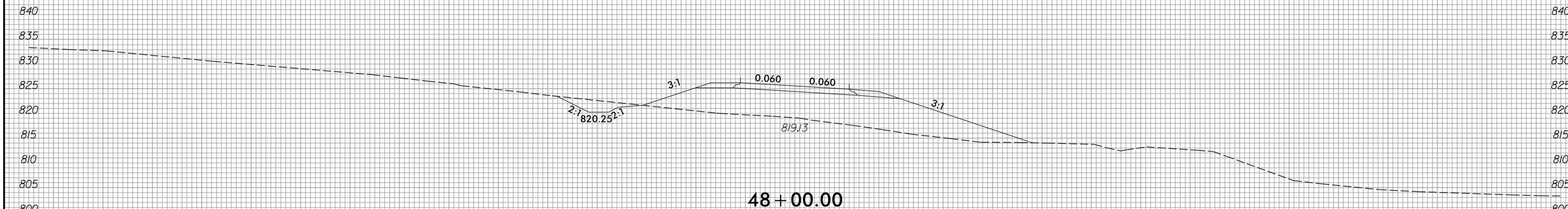
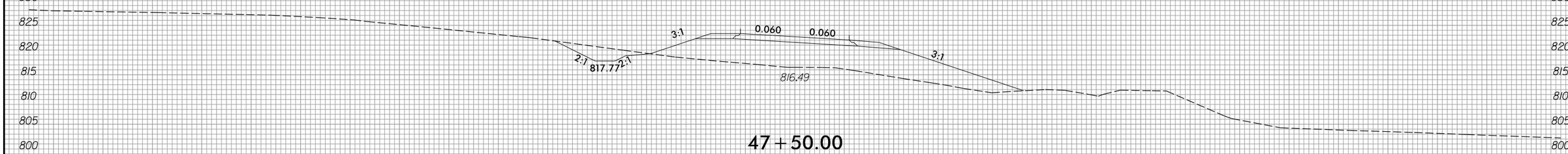
840 835 830 825 820 815 810 805 800



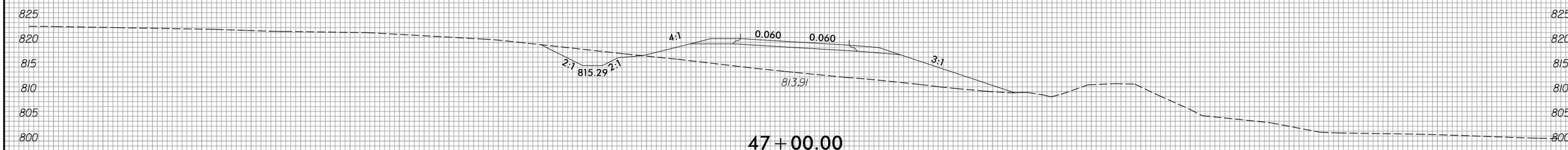
48+00.00

830 825 820 815 810 805 800



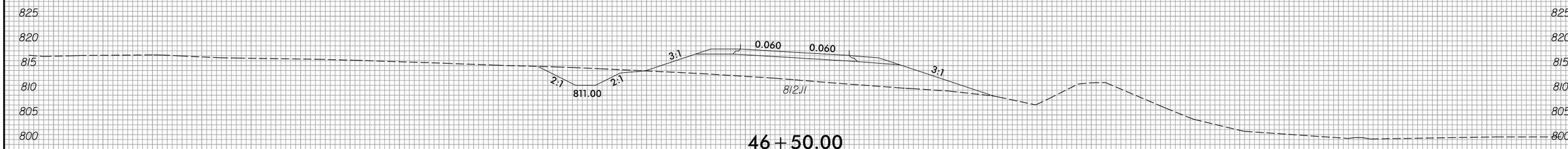
47+50.00

825 820 815 810 805 800



47+00.00

825 820 815 810 805 800



46+50.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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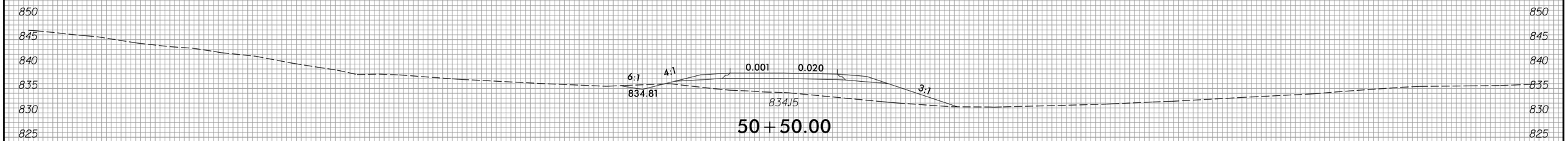
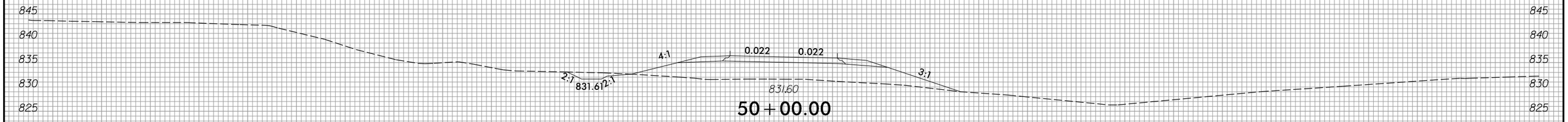
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-238

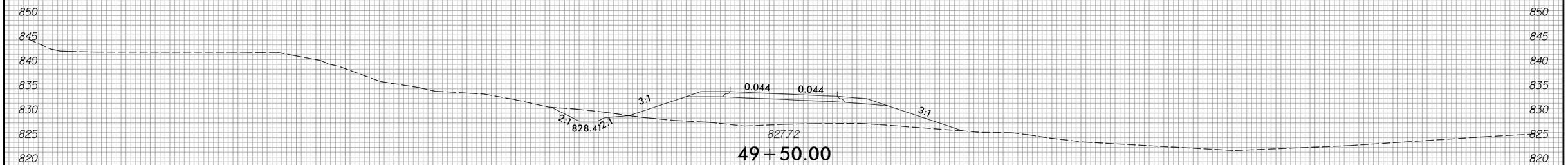
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



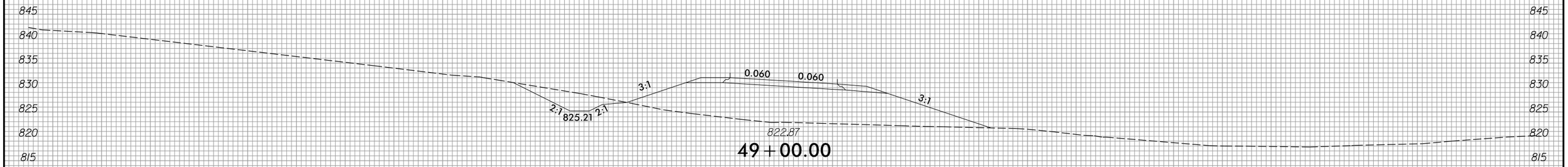
50+50.00



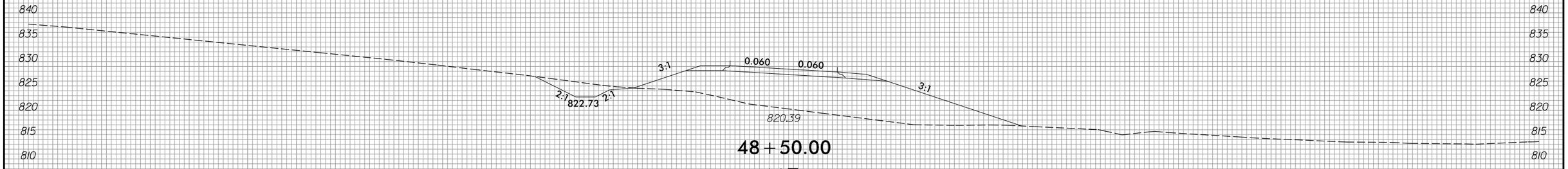
50+00.00



49+50.00



49+00.00



48+50.00

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-239

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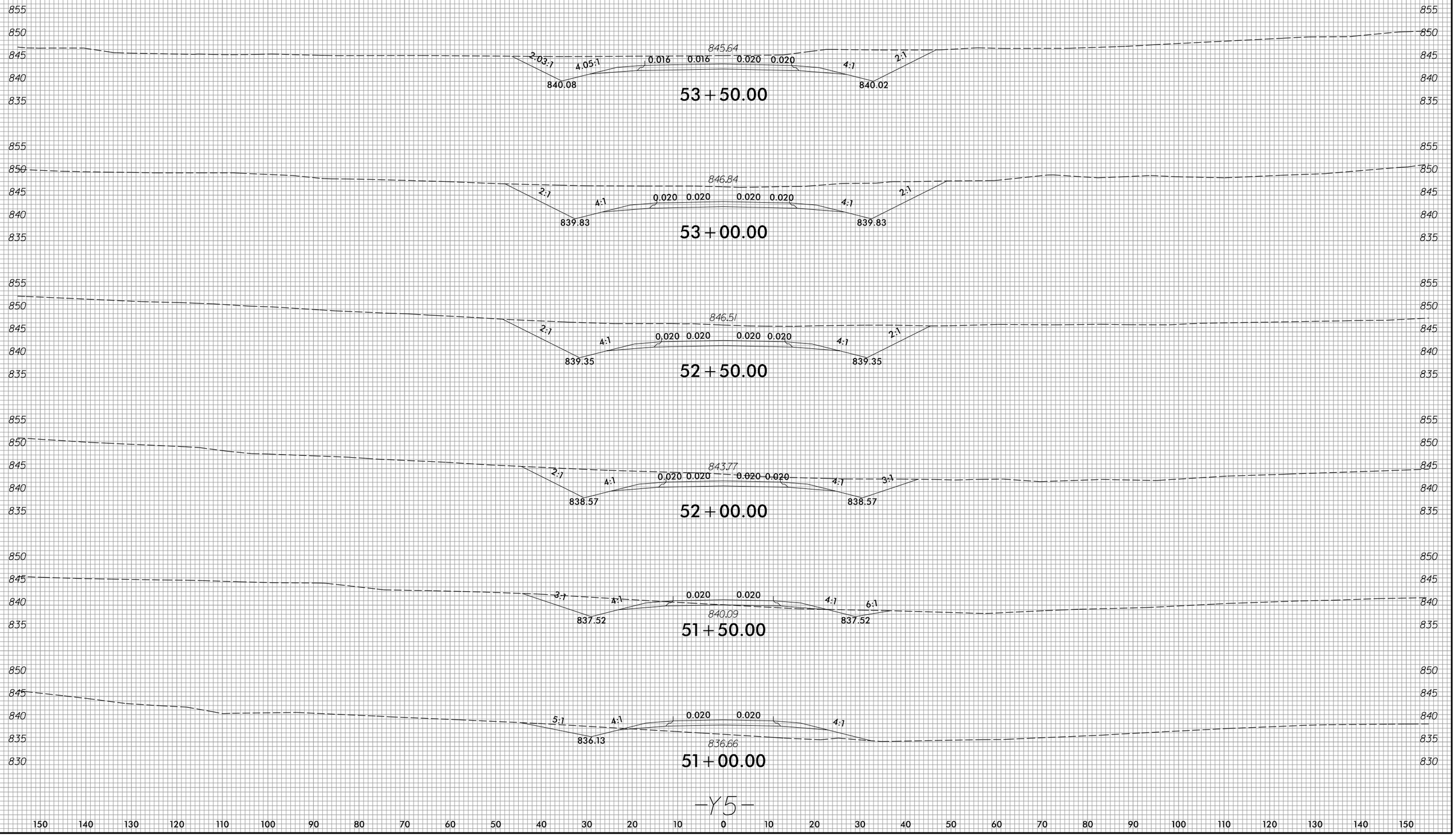

-Y5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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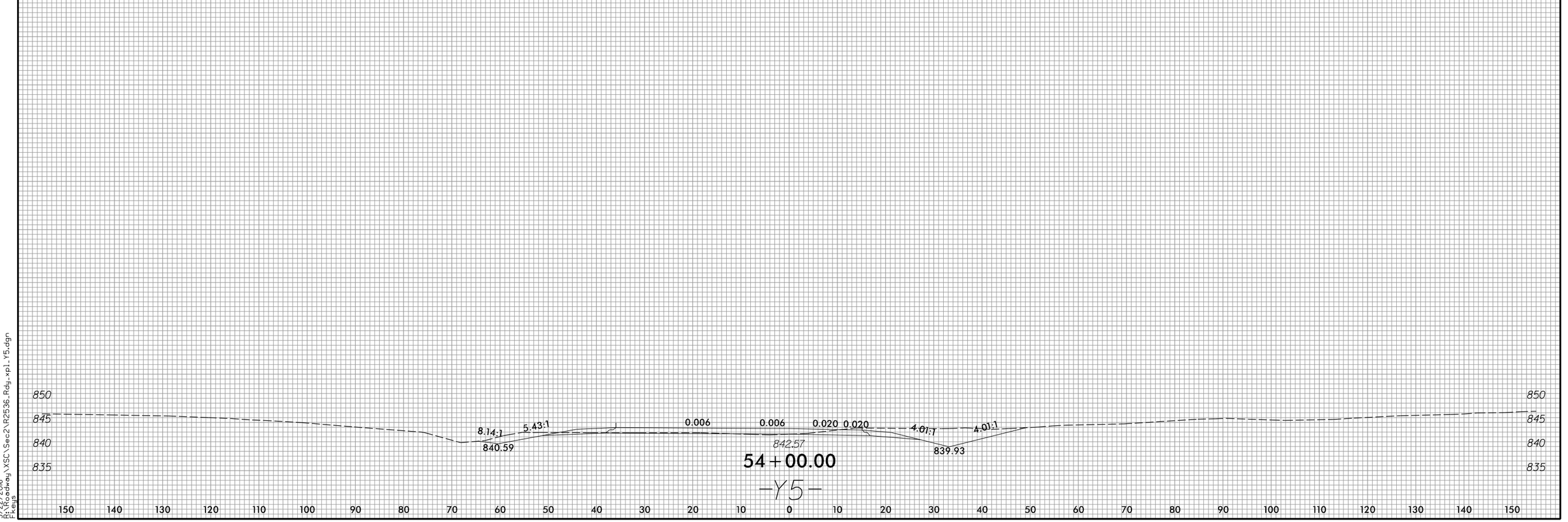
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-240

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

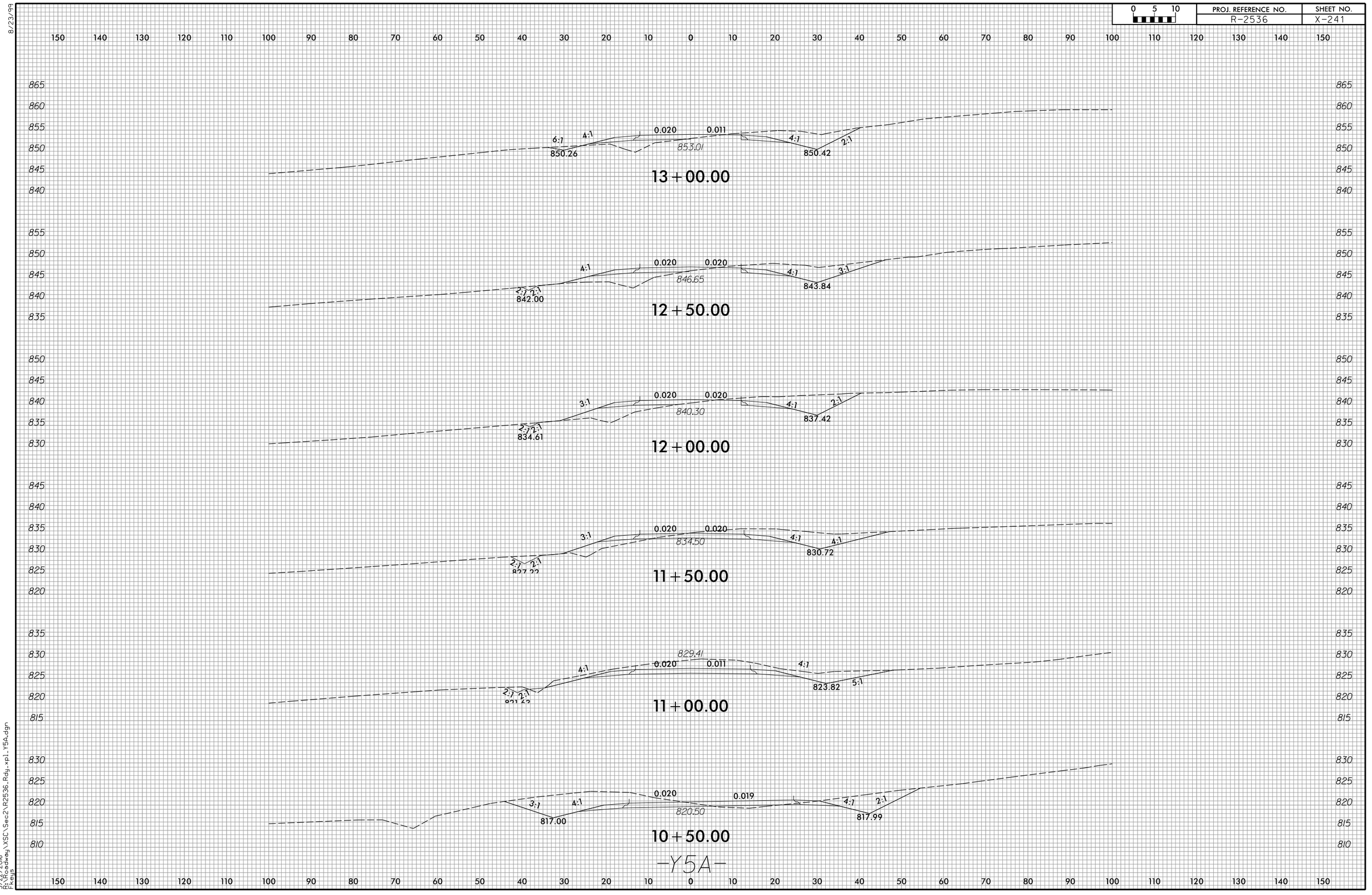


150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y5.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-241



3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-242

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

880 875 870 865 860

2:1 4:1 0.079 0.049 4:1 5:1

865.40 869.60 867.35

14+50.00

875 870 865 860 855

5:1 4:1 0.059 0.029 4:1 4:1

861.22 864.97 862.57

14+00.00

870 865 860 855 850

6:1 4:1 0.039 0.009 4:1 3:1

856.17 859.34 856.92

13+50.00

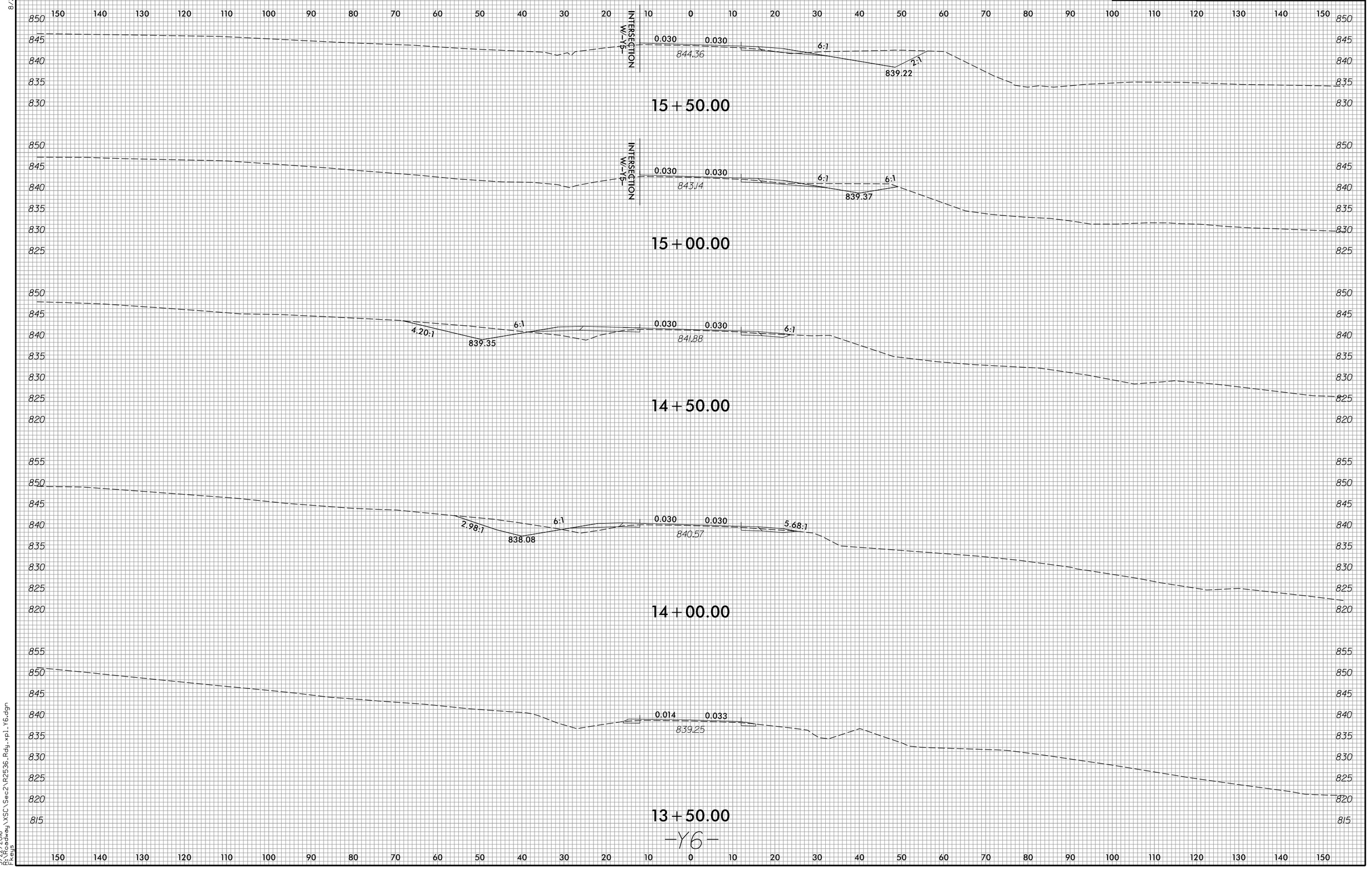
-Y5A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y5A.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-243



3/22/2016
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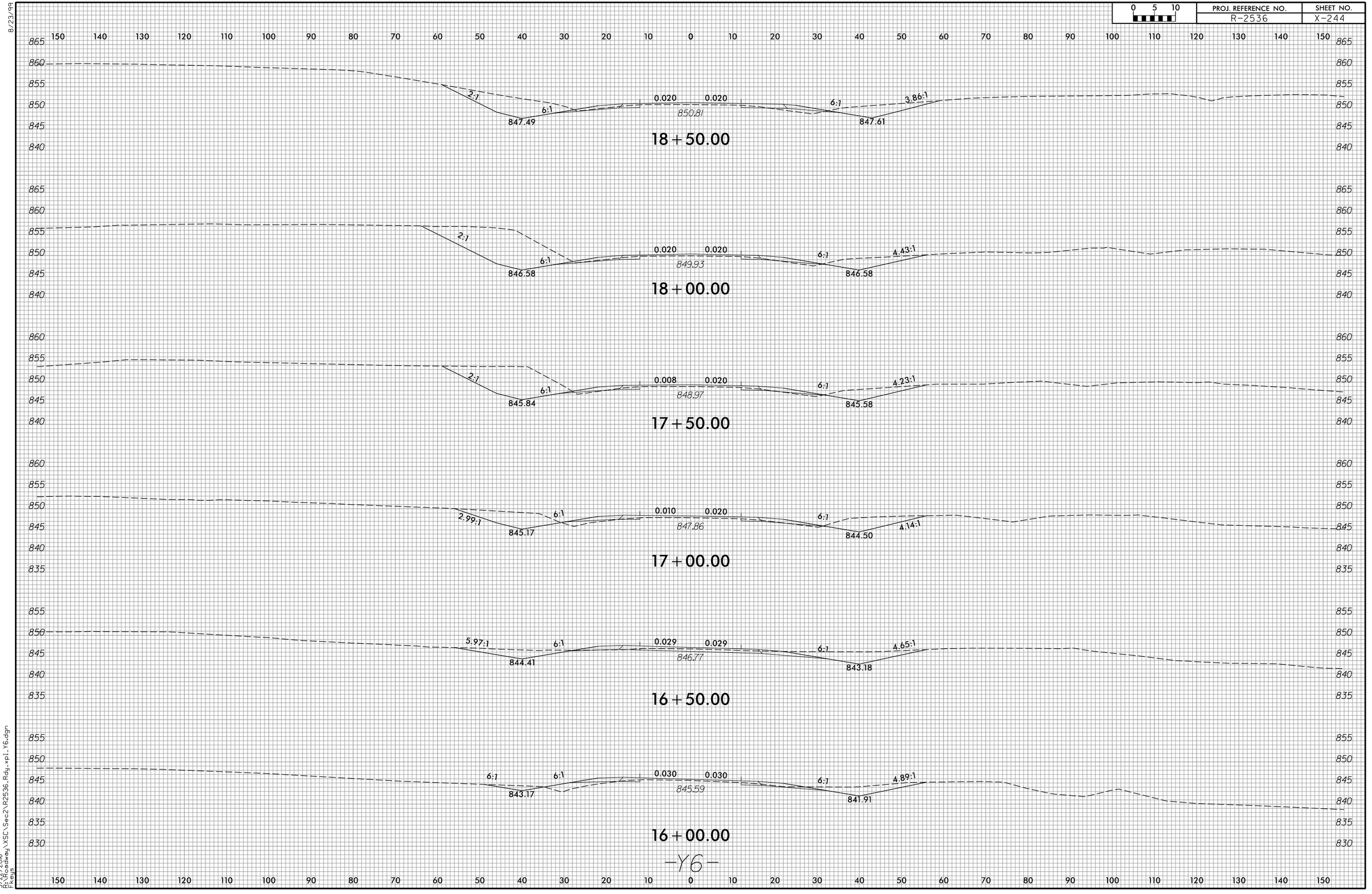
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-244

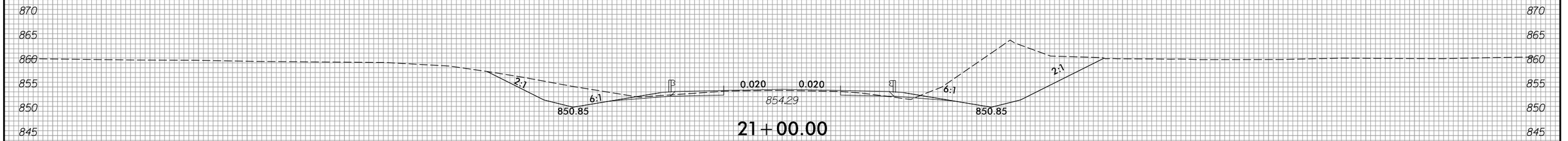


3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y6.dgn
Fkeys

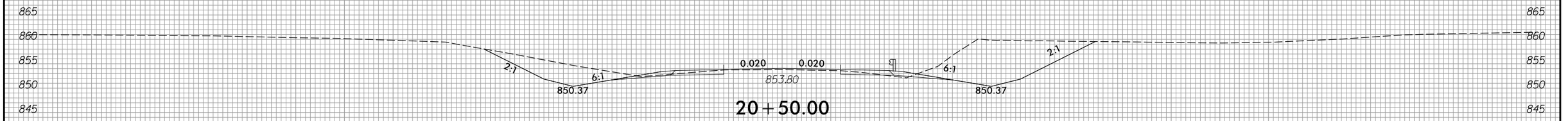
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-245

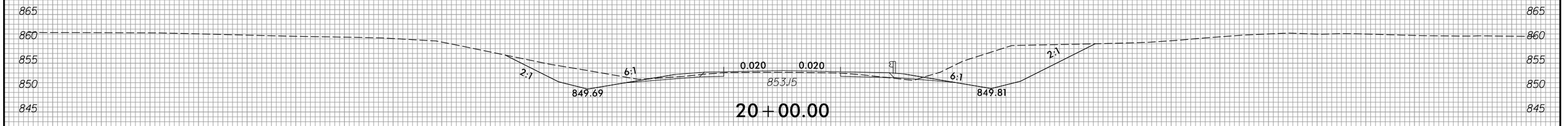
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



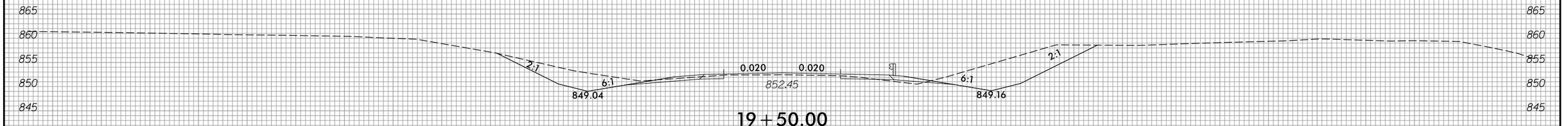
21+00.00



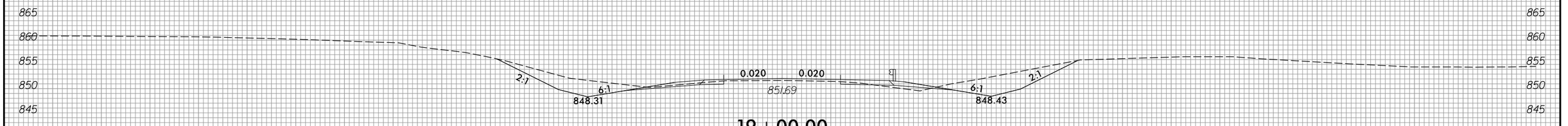
20+50.00



20+00.00



19+50.00



19+00.00

-Y6-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\R2536dwg\XSC\Sec2\R2536_Rdy_xpl_Y6.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-246

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

885 880 875 870 865 860 855 850 845

0.020 0.020
855.24
23+00.00

885 880 875 870 865 860 855 850 845

0.020 0.020
855.03
22+50.00

880 875 870 865 860 855 850 845

0.020 0.020
854.83
22+00.00

885 880 875 870 865 860 855 850 845

0.020 0.020
854.61
21+50.00

-Y6-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDdwg\XSC\Sec2\R2536_Rdy_xpl_Y6.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-247

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

880 875 870 865 860 855 850 845

6:1 6:1 0.020 0.020 6:1 2:1

852.02 855.26 852.02

25+00.00

885 880 875 870 865 860 855 850 845

0.020 0.020 6:1 2:1

855.45 852.16

24+50.00

880 875 870 865 860 855 850 845

0.020 0.020

855.52

24+00.00

885 880 875 870 865 860 855 850 845

0.020 0.020

855.43

23+50.00

-Y6-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\R2536dwg\XSC\Sec2\R2536_Rdy_xpl_Y6.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-248

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

860 855 850 845 840

2:1 2:1 843.39 — 4.20:1 — 0.020 0.020 852.38 — 5.04:1

28+00.00

860 855 850 845 840

2:1 2:1 846.92 — 6:1 — 0.020 0.020 853.14 — 6:1 — 849.75 — 5.03:1

27+50.00

865 860 855 850 845

850.45 — 6:1 — 0.020 0.020 853.80 — 6:1 — 850.45 — 4.66:1

27+00.00

860 855 850 845

5.24:1 — 851.13 — 6:1 — 0.020 0.020 854.26 — 6:1 — 851.01 — 5.13:1

26+50.00

870 865 860 855 850 845

6:1 6:1 851.54 — 0.020 0.020 854.58 — 6:1 — 851.54 — 2:1

26+00.00

875 870 865 860 855 850 845

6:1 6:1 851.81 — 0.020 0.020 854.94 — 6:1 — 851.81 — 2:1

25+50.00

-Y6-

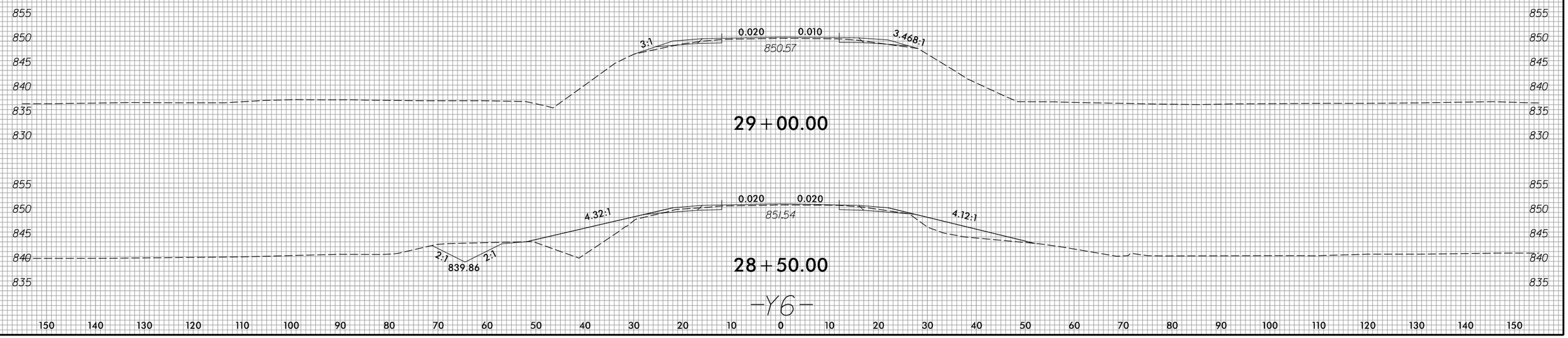
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y6.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-249

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



3/22/2016
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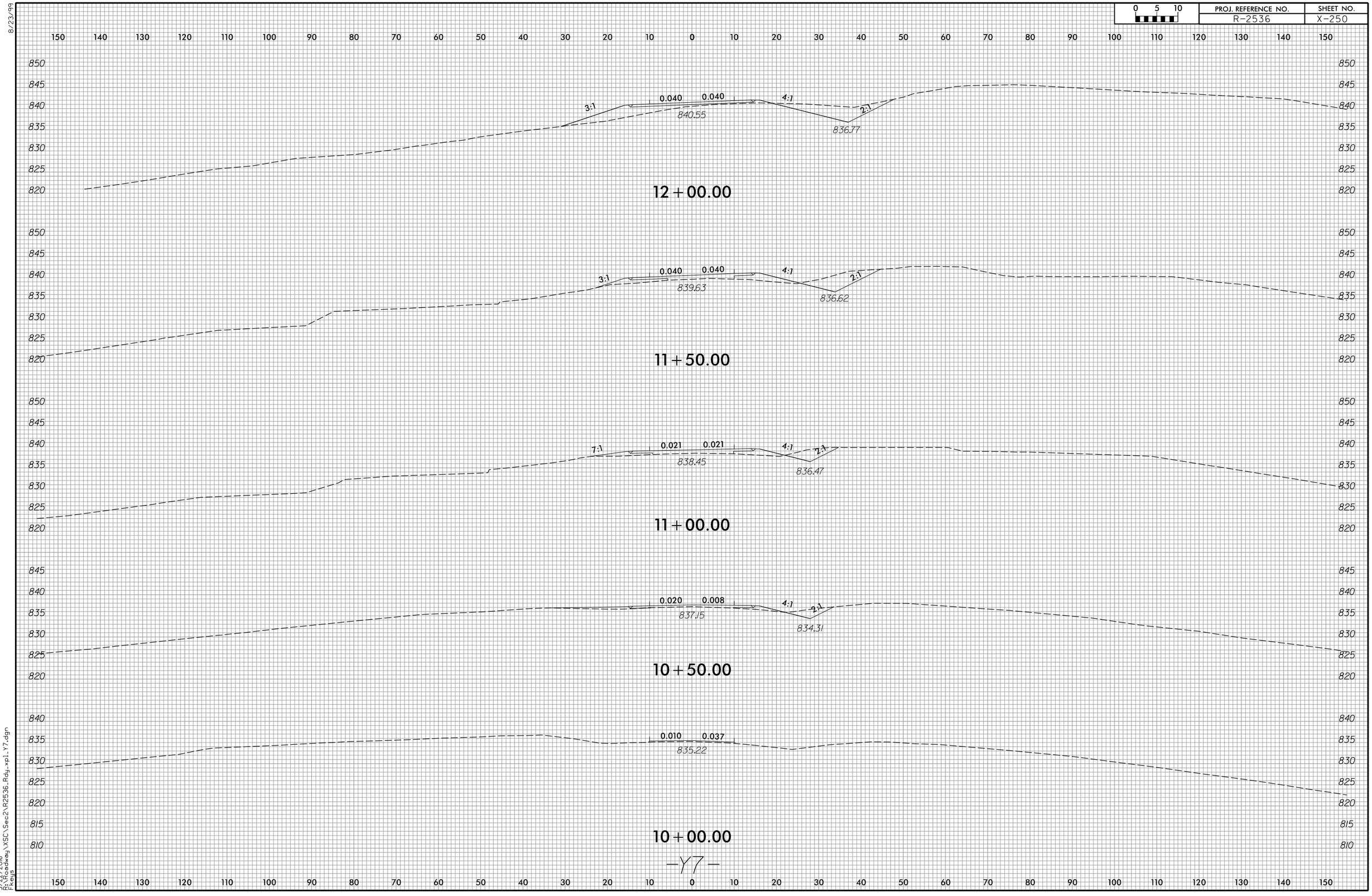
Fkeys

8/23/99

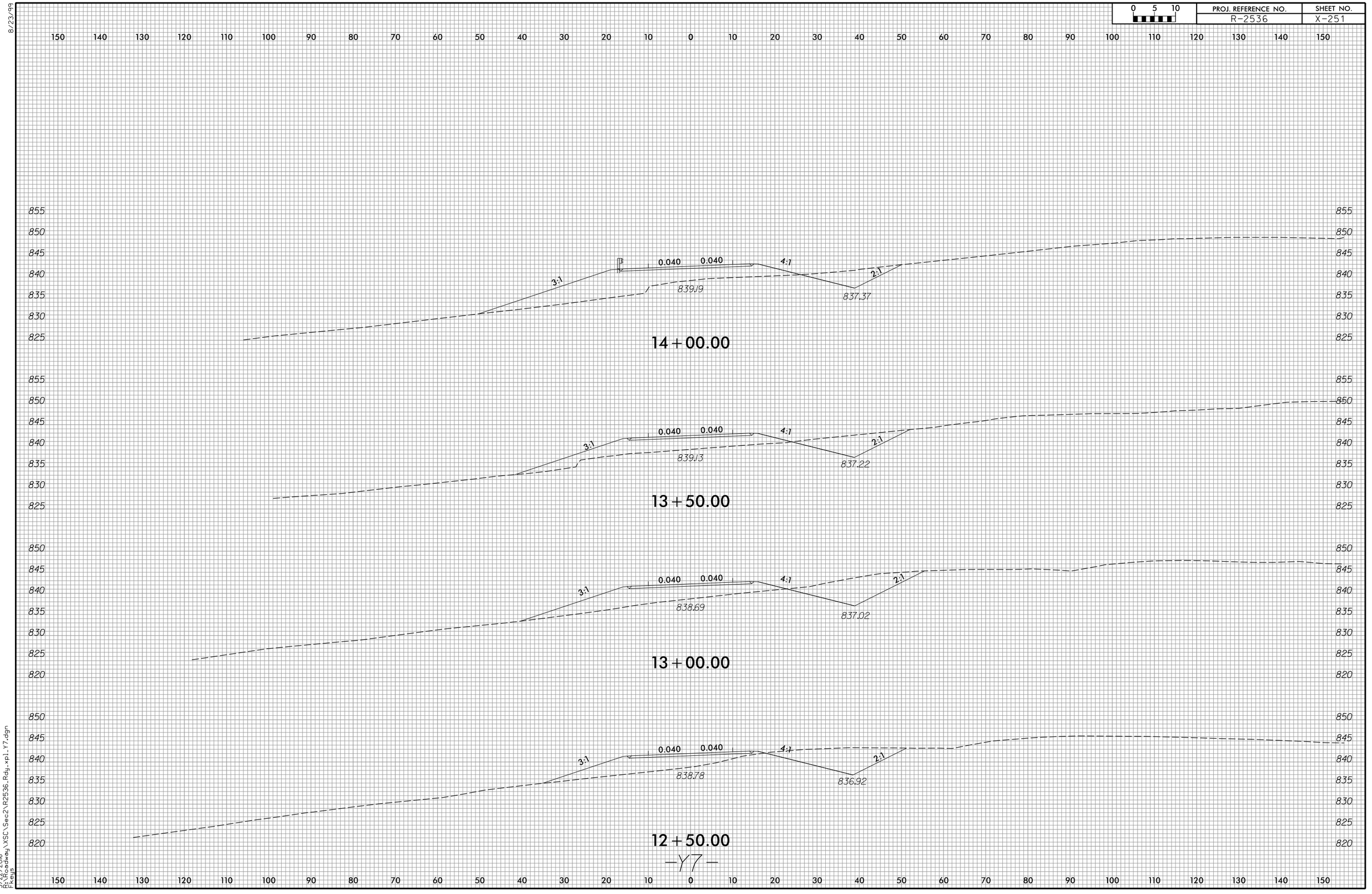
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-250



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y7.dgn
Fkeys

8/23/99

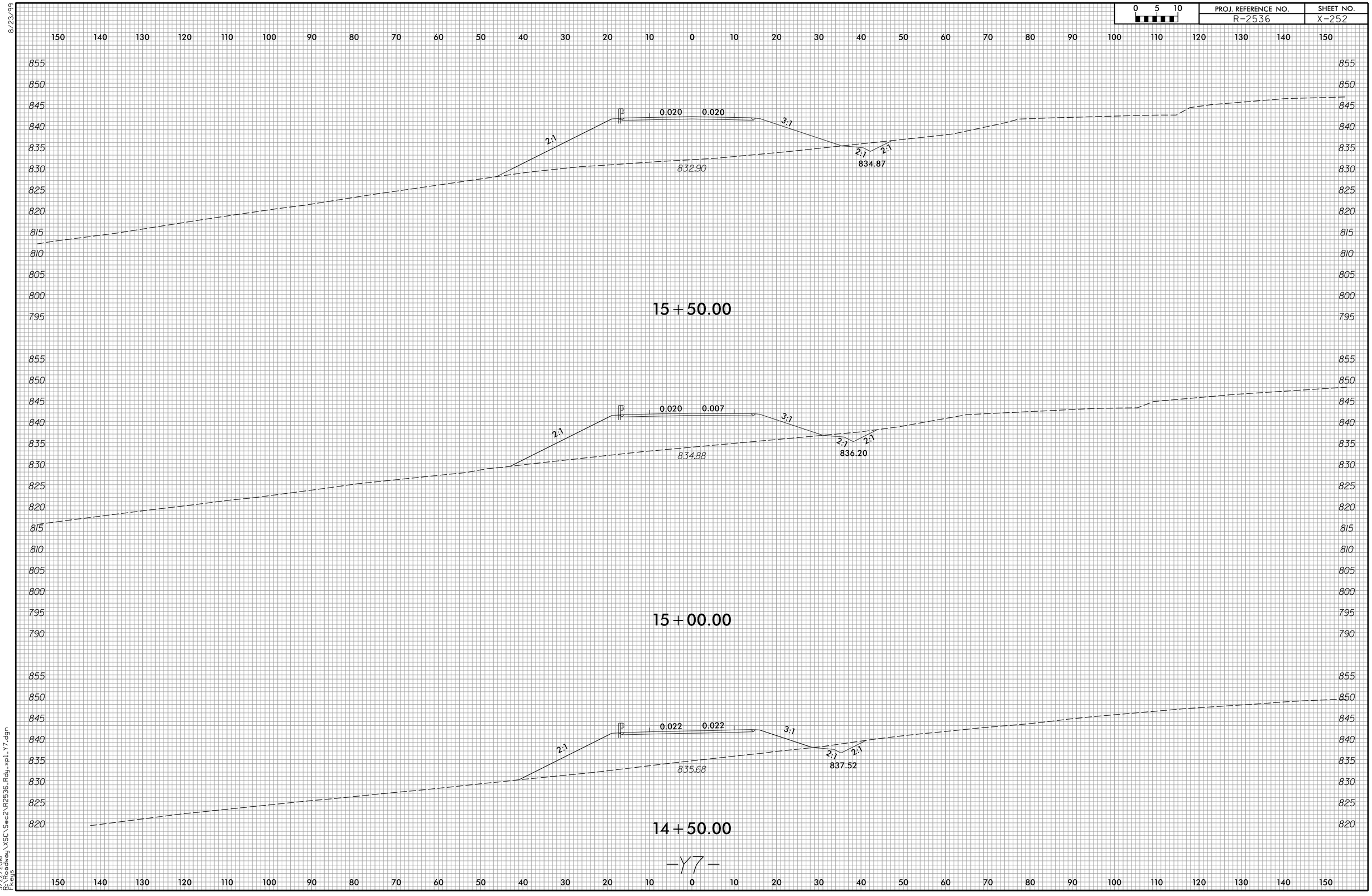
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-251



3/22/2016
R:\Projects\dwg\VSC\Sec2\R2536_Rdy_xpl_Y7.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-252



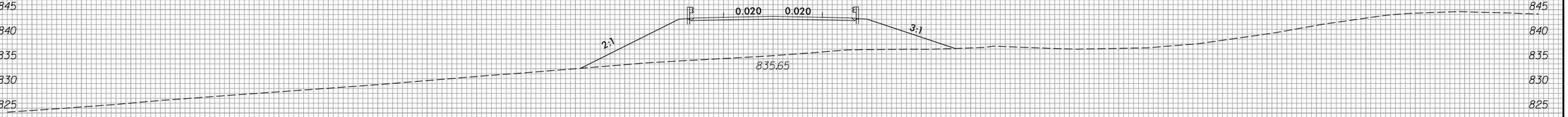
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y7.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-253

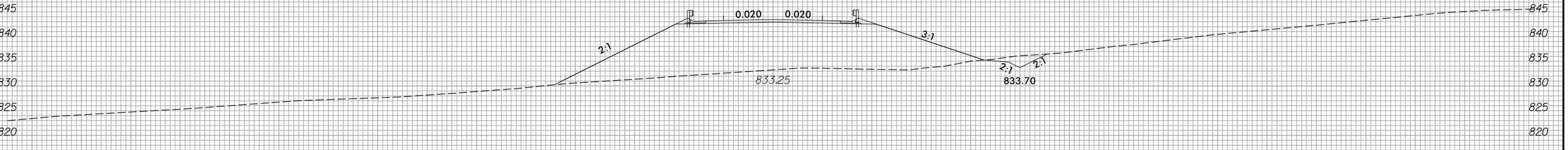
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

850 845 840 835 830 825 820 815 810 805 800



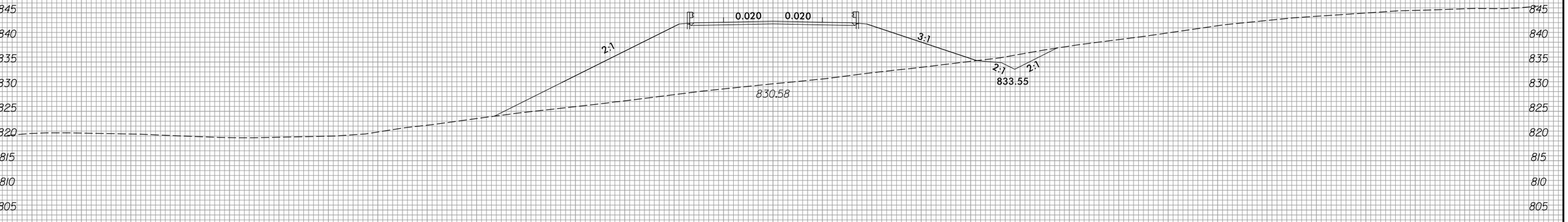
17+00.00

855 850 845 840 835 830 825 820 815 810 805 800



16+50.00

855 850 845 840 835 830 825 820 815 810 805 800



16+00.00

795

—Y7—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y7.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-254

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

850 845 840 835 830 825 820 815 810

0.020 0.020

840.03

18+50.00

850 845 840 835 830 825 820 815 810

0.020 0.020

839.05

18+00.00

850 845 840 835 830 825 820 815 810 805

0.020 0.020

837.88

17+50.00

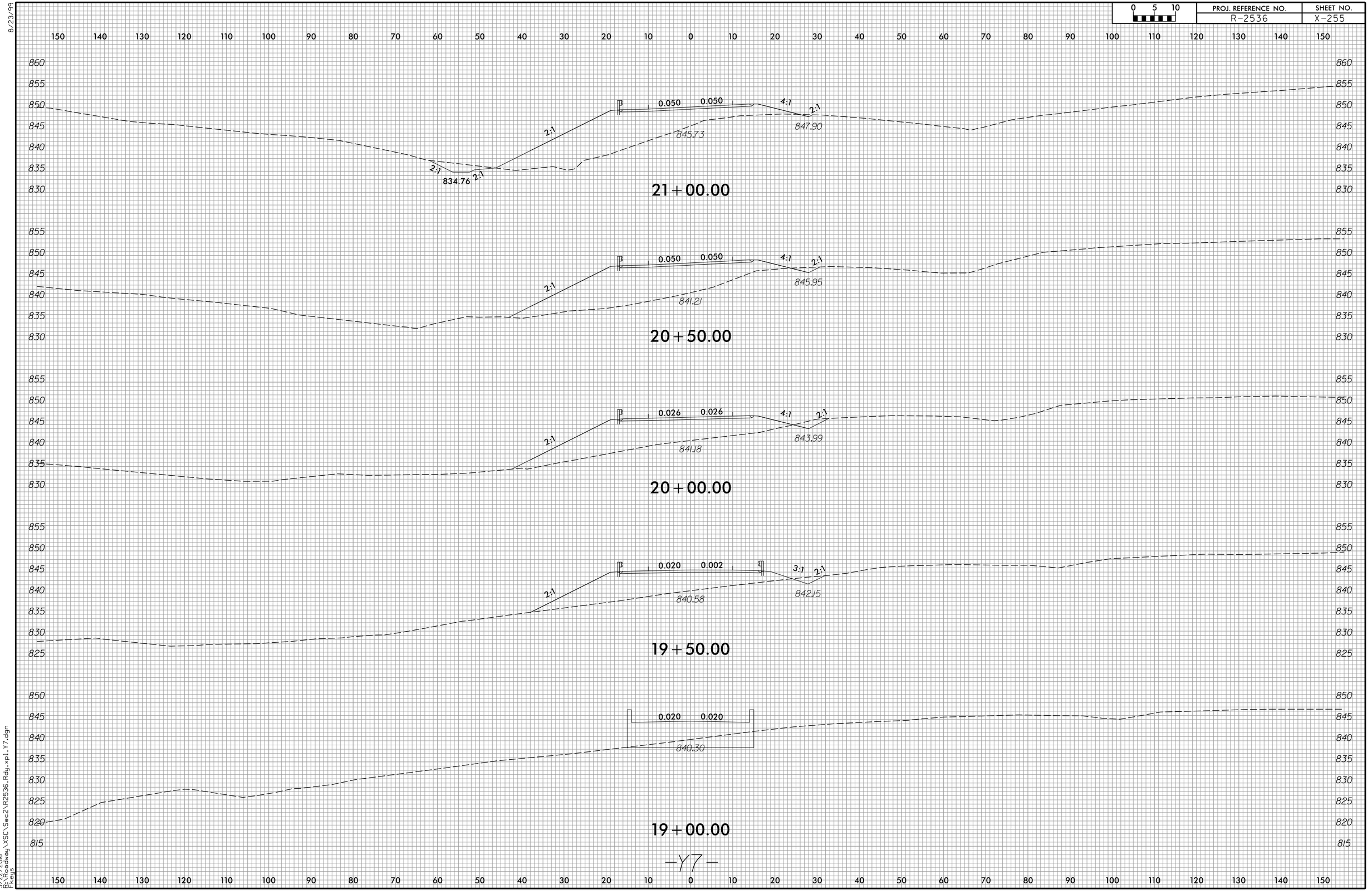
—Y7—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y7.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-255



3/22/2016
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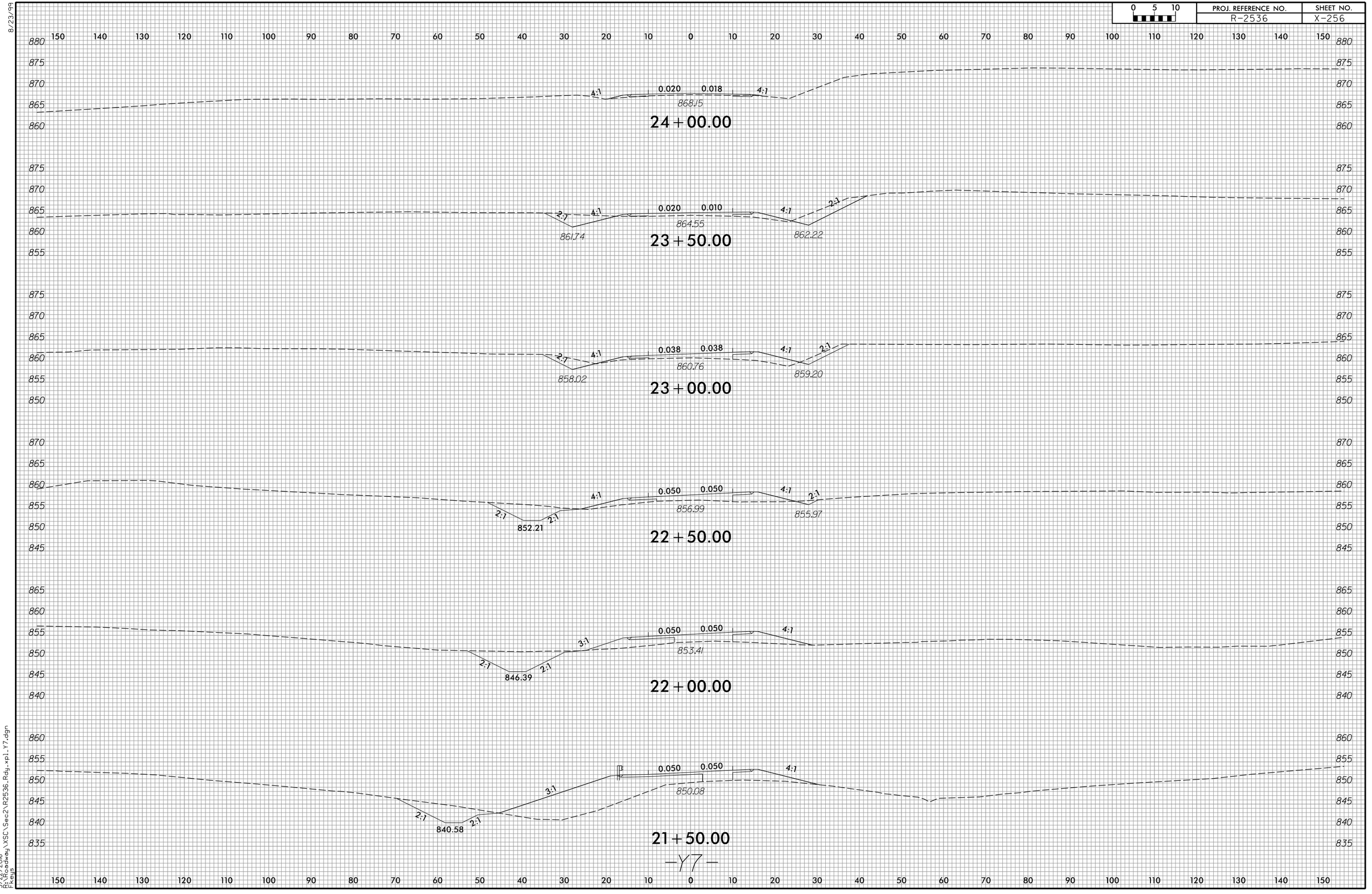
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-256



3/22/2016
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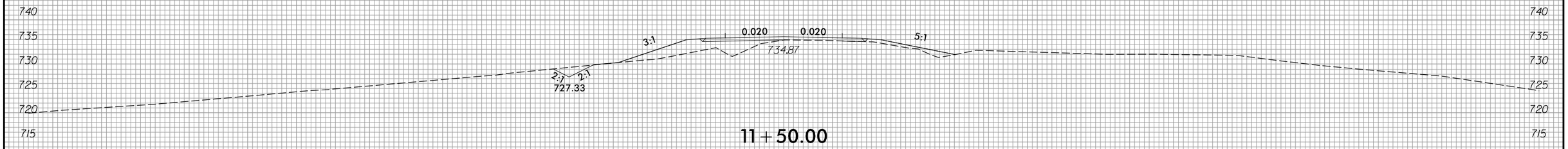
Fkeys

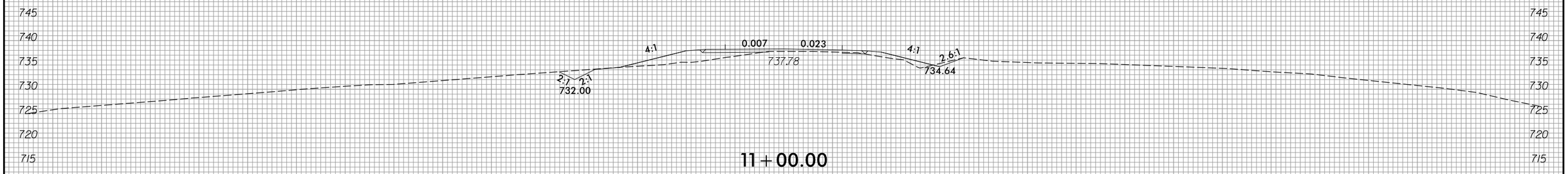
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-257

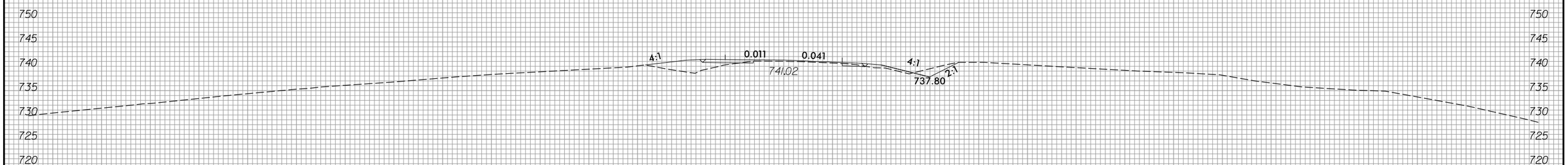
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



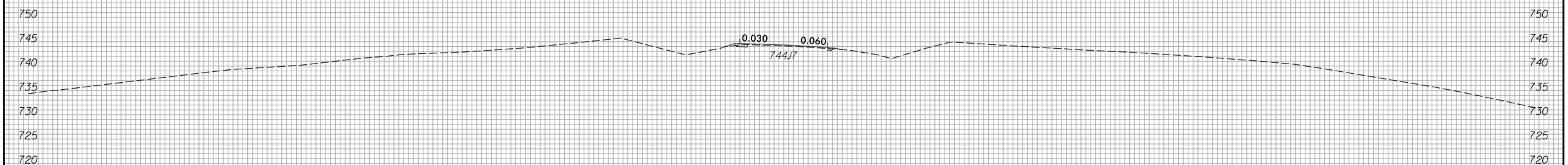
11+50.00



11+00.00



10+50.00



10+00.00

-Y8-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

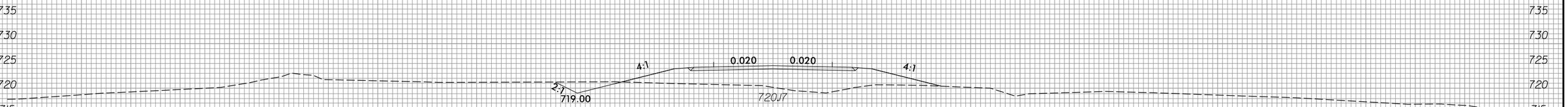
3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y8.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-258

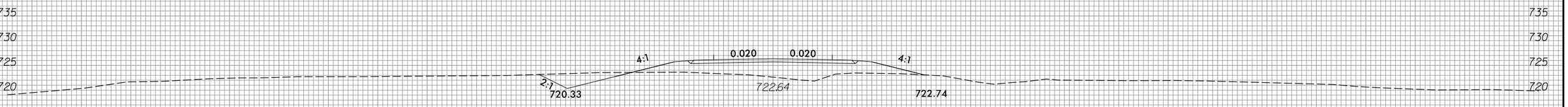
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

735 730 725 720 715 710



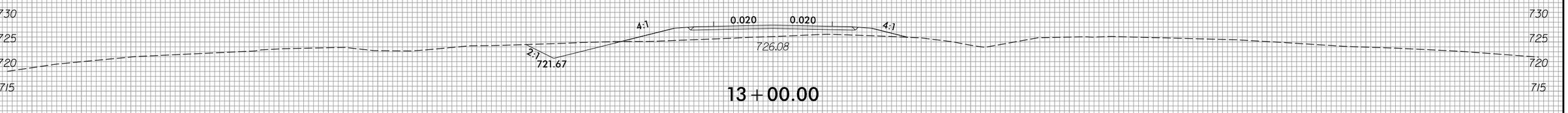
14 + 00.00

735 730 725 720 715



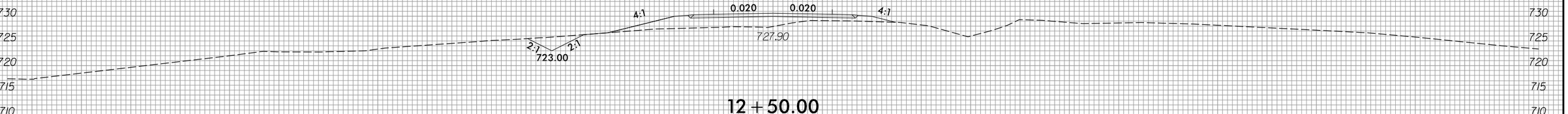
13 + 50.00

735 730 725 720 715 710



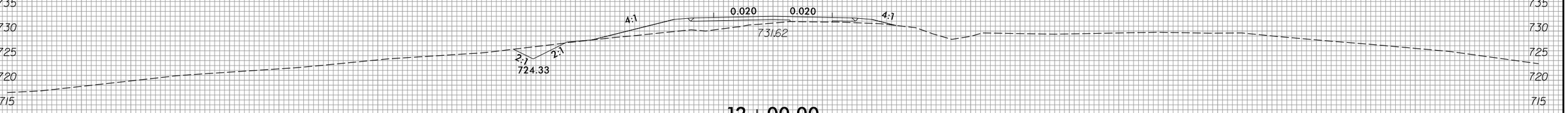
13 + 00.00

740 735 730 725 720 715 710



12 + 50.00

740 735 730 725 720 715 710



12 + 00.00

—Y8—

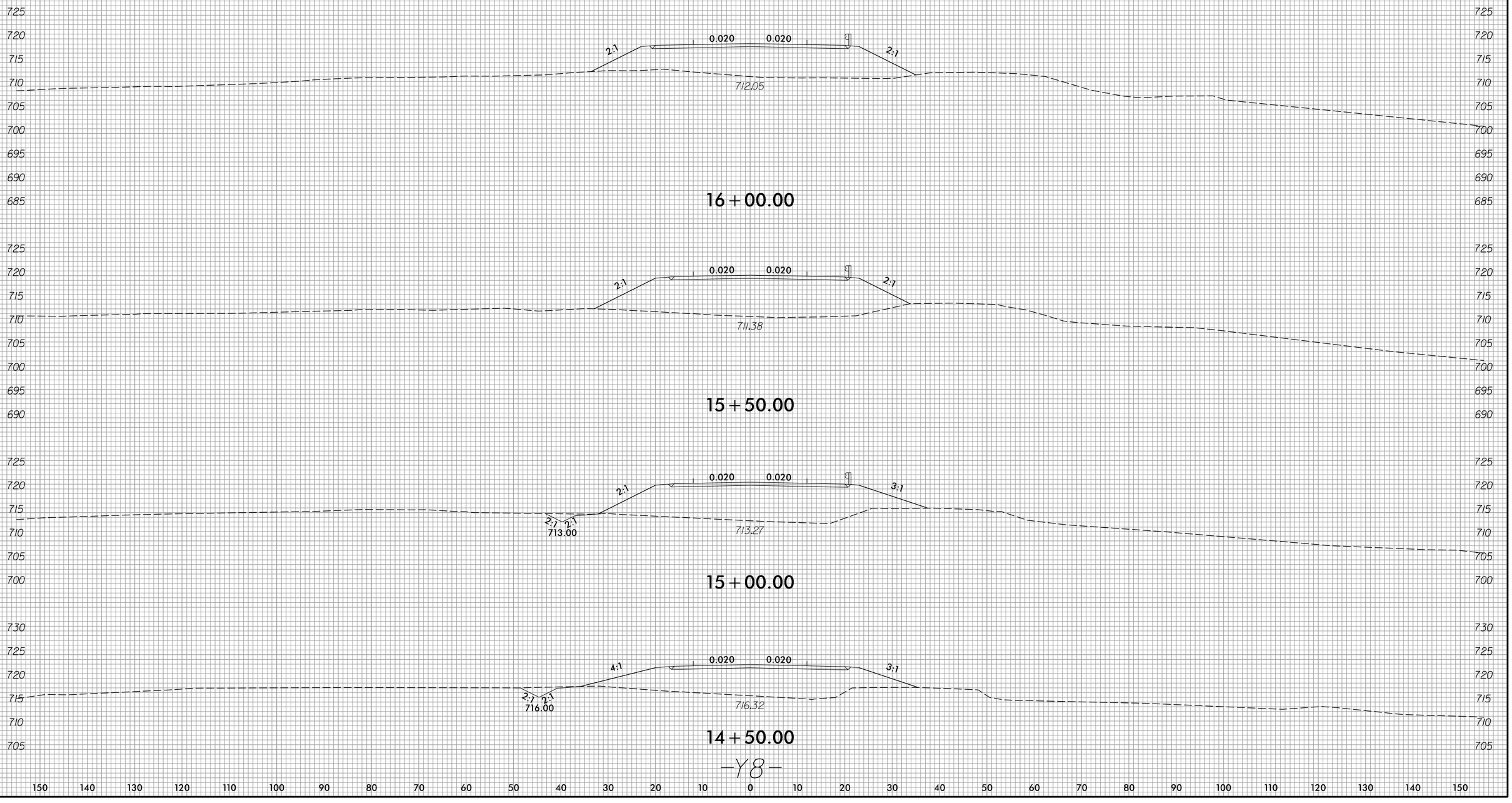
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y8.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-259

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



-Y8-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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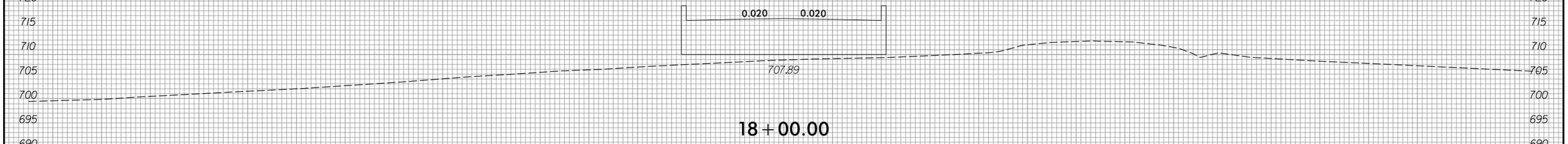
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y8.dgn
Ftehys

8/23/99

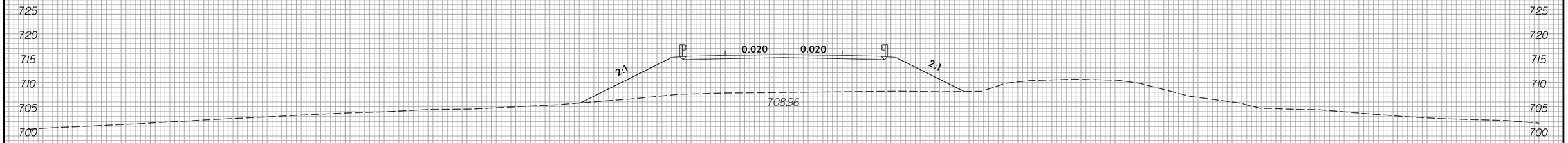
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-260

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

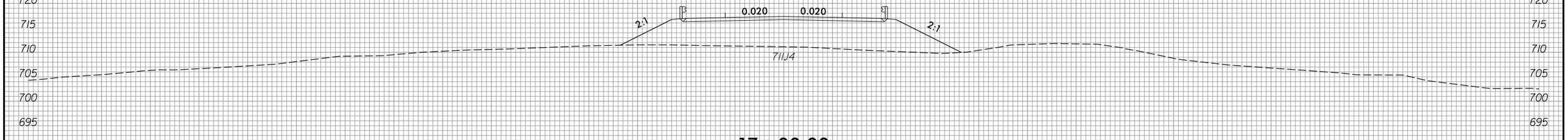
725 720 715 710 705 700 695 690



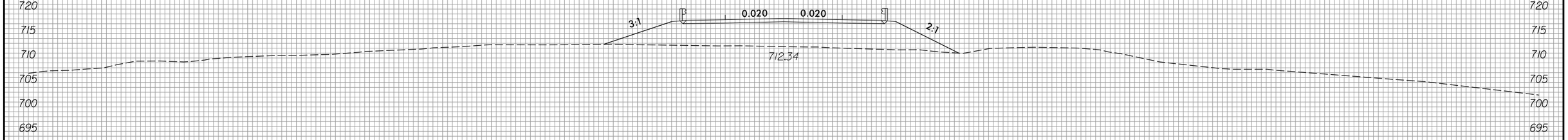
18+00.00



17+50.00



17+00.00



16+50.00

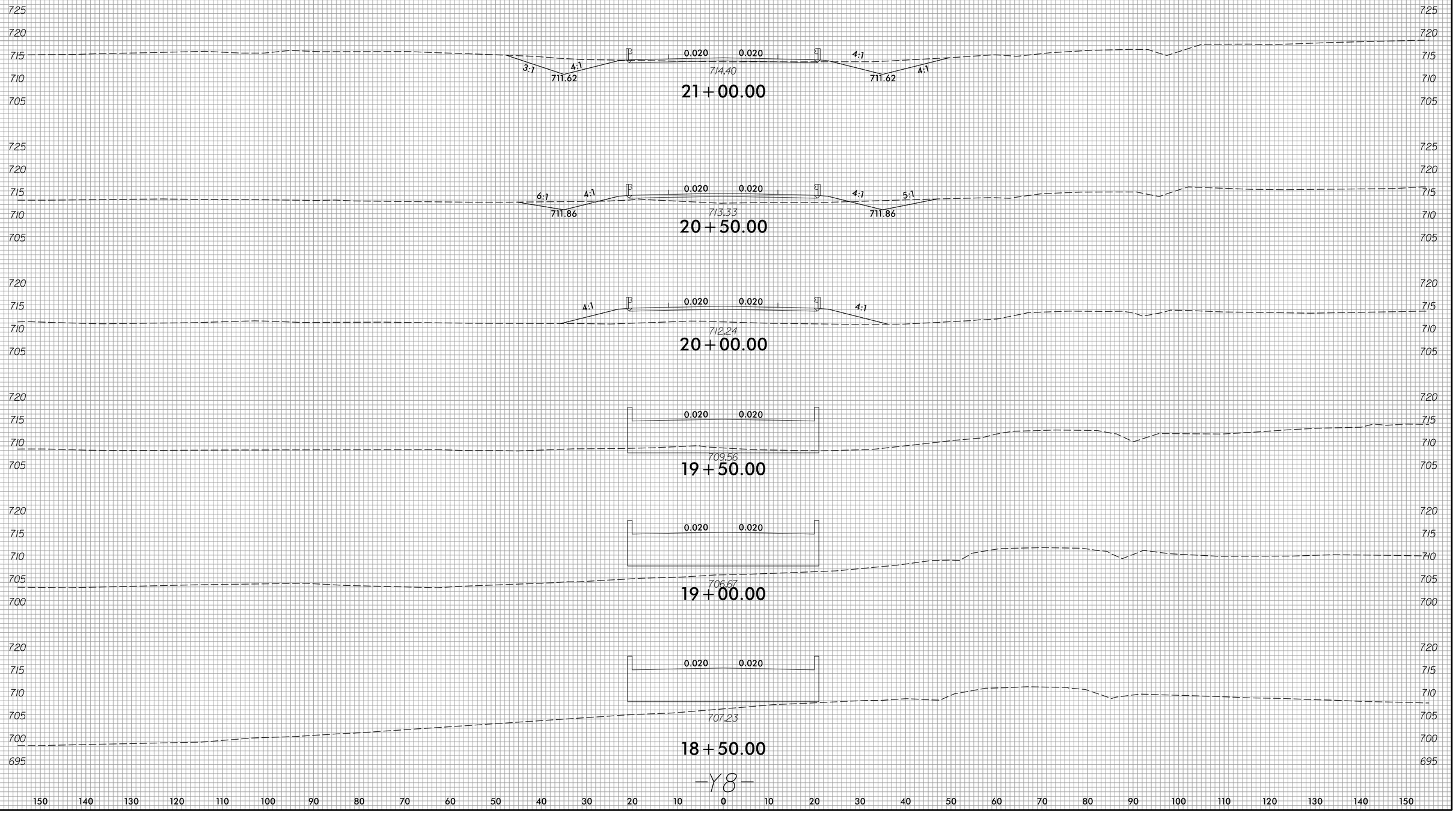
-Y8-

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y8.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-261

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



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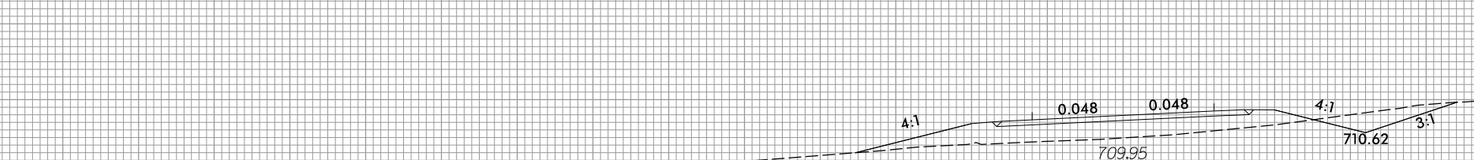
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-262

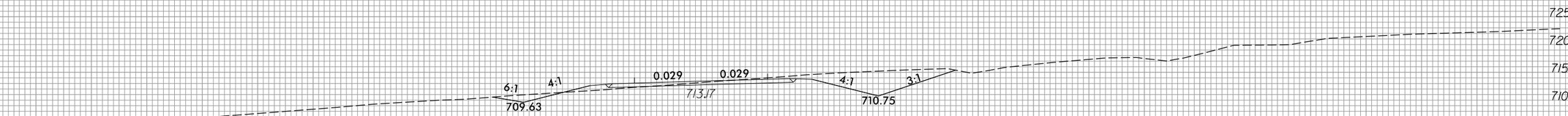
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

725 720 715 710 705 700 695



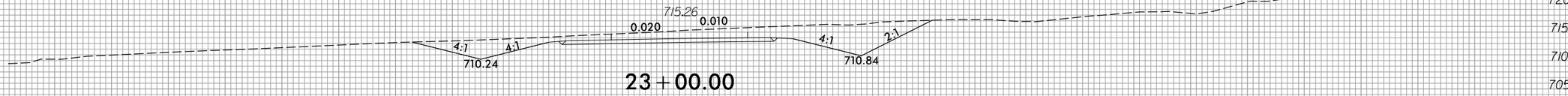
24+00.00

725 720 715 710 705



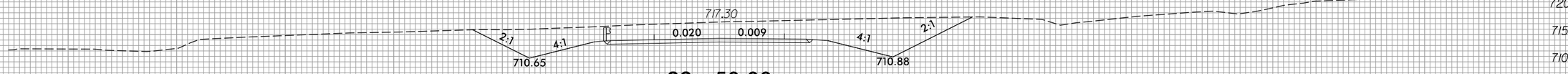
23+50.00

725 720 715 710 705



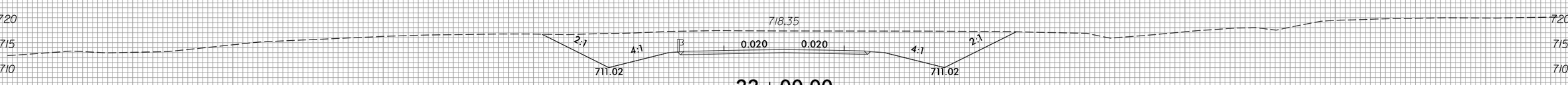
23+00.00

725 720 715 710 705



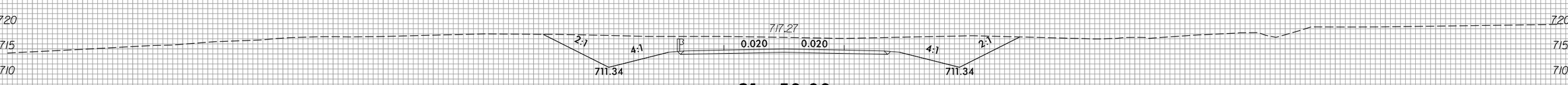
22+50.00

725 720 715 710 705



22+00.00

725 720 715 710 705



21+50.00

-Y8-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-263

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 715 710 705 700 695

3:1 0.060 0.060 4:1 5:1
709.11 707.66

26+50.00

720 715 710 705 700 695

13:1 0.060 0.060 4:1 5:1
708.50 708.39

26+00.00

720 715 710 705 700 695

4.8:1 0.060 0.060 4:1 6:1
710.06 709.08

25+50.00

725 720 715 710 705 700 695

4:1 0.060 0.060 4:1 4:1
710.31 709.72

25+00.00

725 720 715 710 705 700 695

4:1 0.060 0.060 4:1 4:1
710.35 710.32

24+50.00

-Y8-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-264

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

715 710 705 700 695 690

2:1 0.017 0.007 3.6:1
704.78

29+50.00

715 710 705 700 695

4:1 0.020 0.020 4:1 2:1
705.29
703.11

29+00.00

715 710 705 700 695

4:1 0.020 0.020 4:1 5:1
706.06
703.50

28+50.00

715 710 705 700 695

4:1 0.039 0.039 4:1 5:1
706.89
704.76

28+00.00

715 710 705 700

4:1 0.057 0.057 4:1 5:1
707.66
706.00

27+50.00

715 710 705 700

4:1 0.060 0.060 4:1 5:1
708.48
706.88

27+00.00

-Y8-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-265

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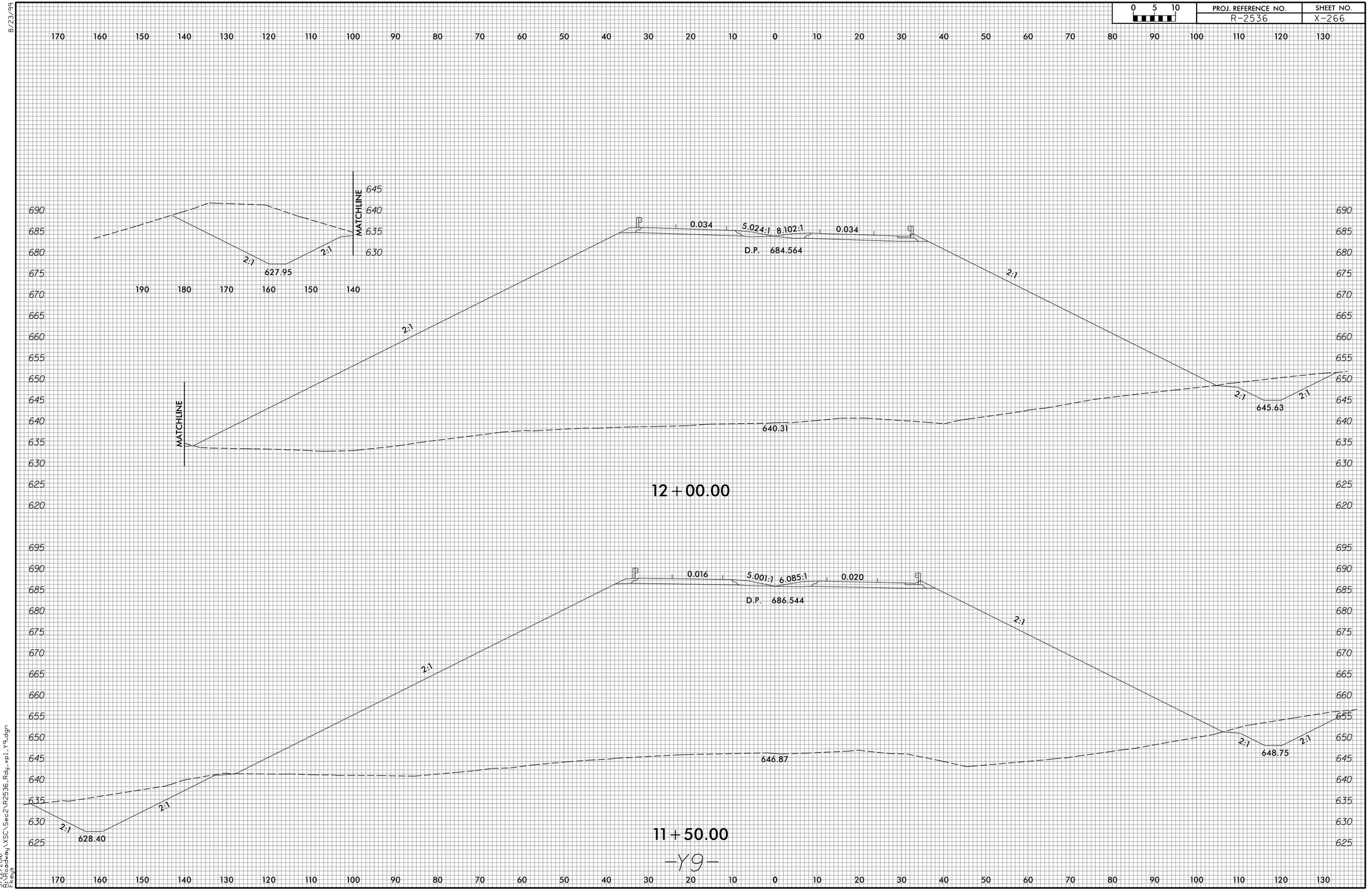
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-266



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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-267

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

685 680 675 670 665 660 655 650 645 640 635 630 625 620

0.050 0.050 0.050

2:1

2:1

639.49

2:1 2:1 625.91 2:1

2:1 639.38 2:1

13+00.00

690 685 680 675 670 665 660 655 650 645 640 635 630 625 620

0.050 5.02 4:1 0.046:1 0.050

D.P. 682.877

2:1

2:1

637.14

2:1 627.50 2:1

2:1 642.50 2:1

12+50.00

-Y9-

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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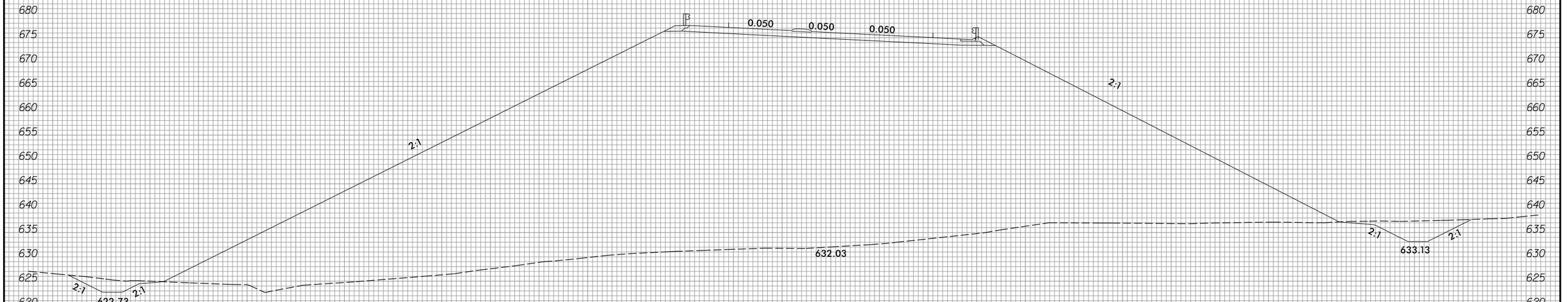
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-268

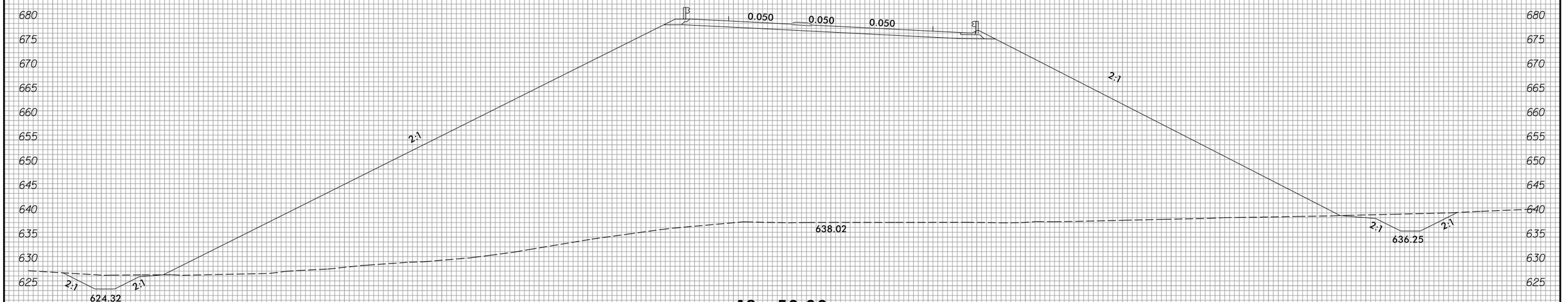
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

680 675 670 665 660 655 650 645 640 635 630 625 620 615



14+00.00

685 680 675 670 665 660 655 650 645 640 635 630 625 620



13+50.00

-Y9-

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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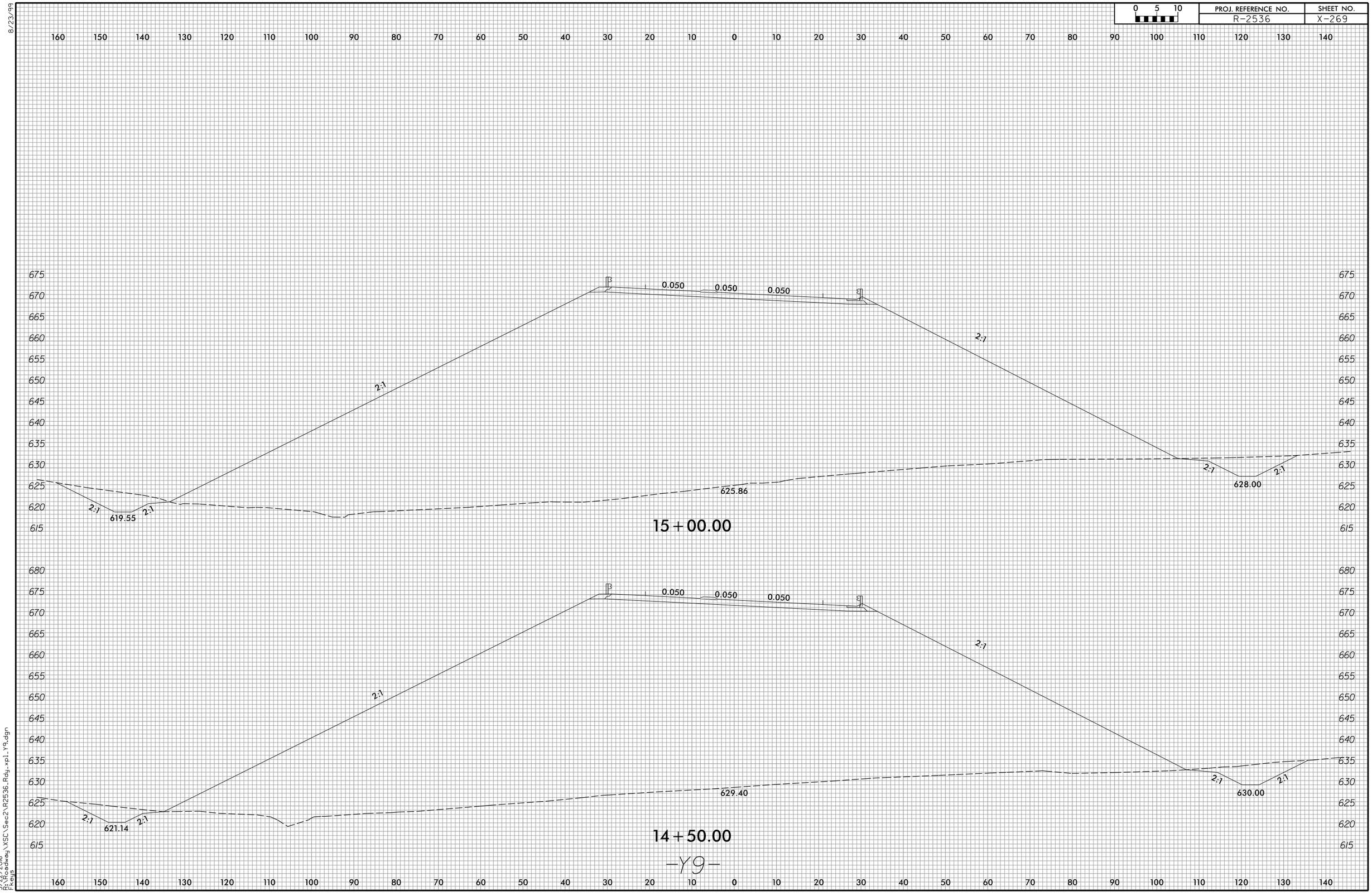
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-269



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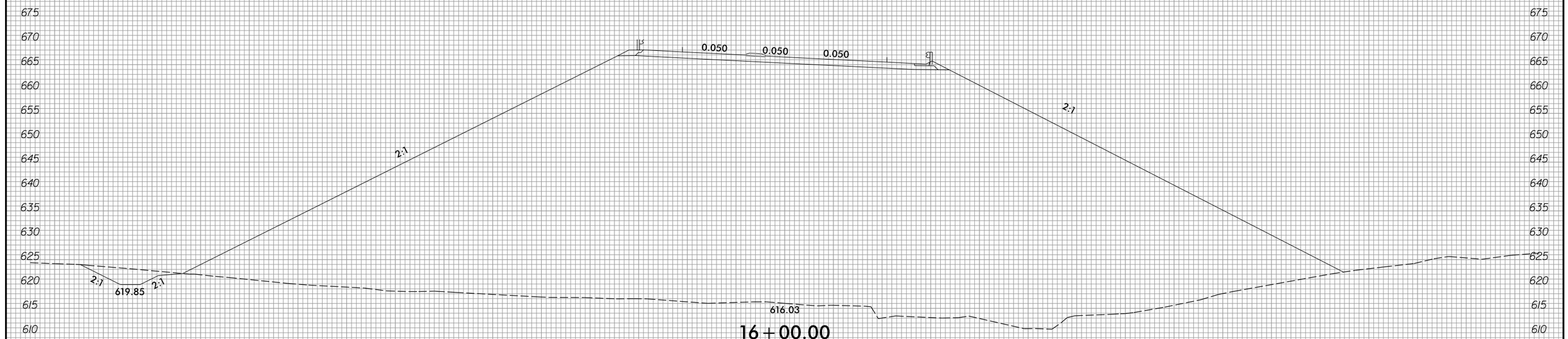
8/23/99

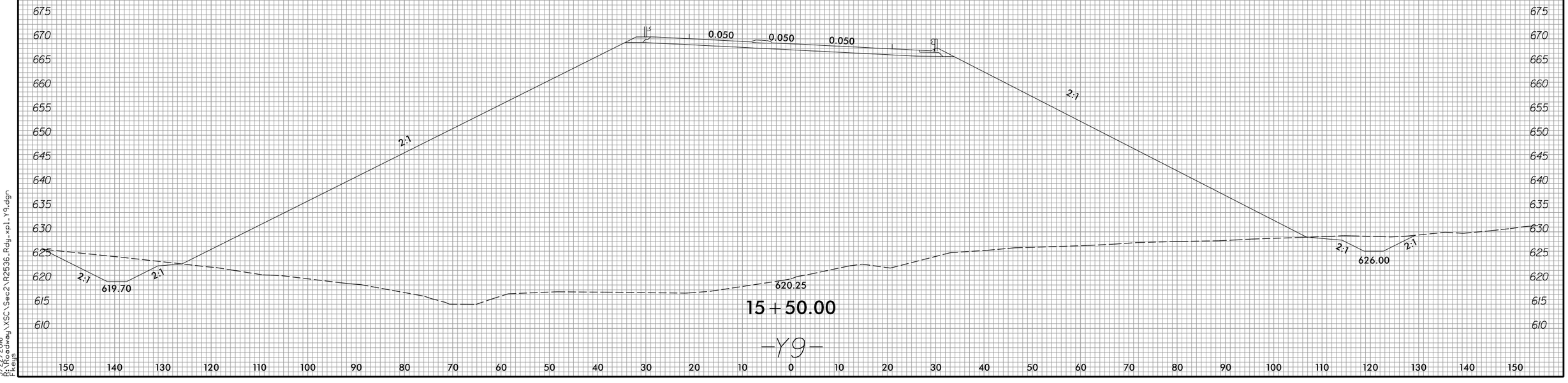
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-270

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

675 670 665 660 655 650 645 640 635 630 625 620 615 610



16+00.00



15+50.00

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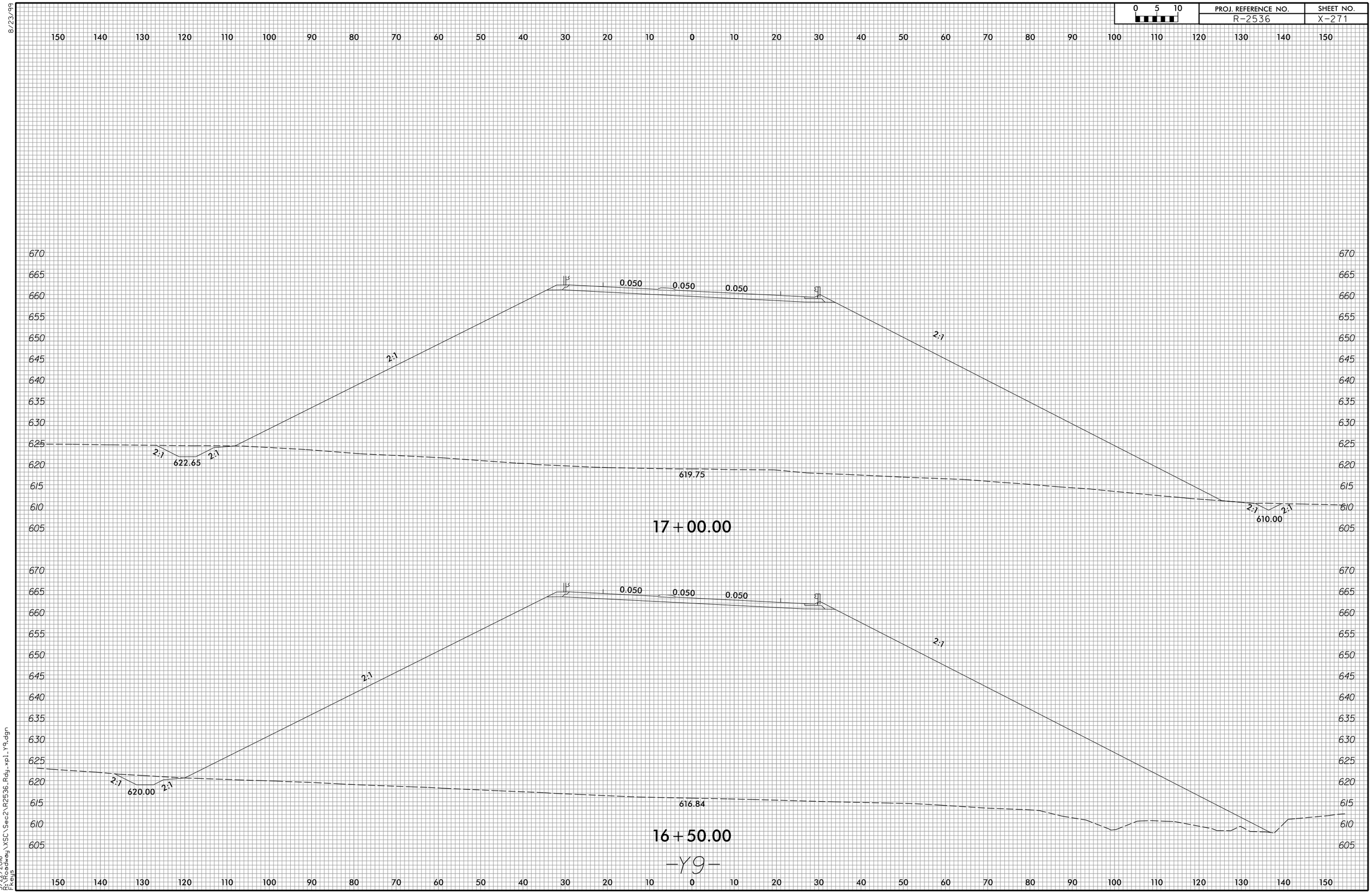
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-271



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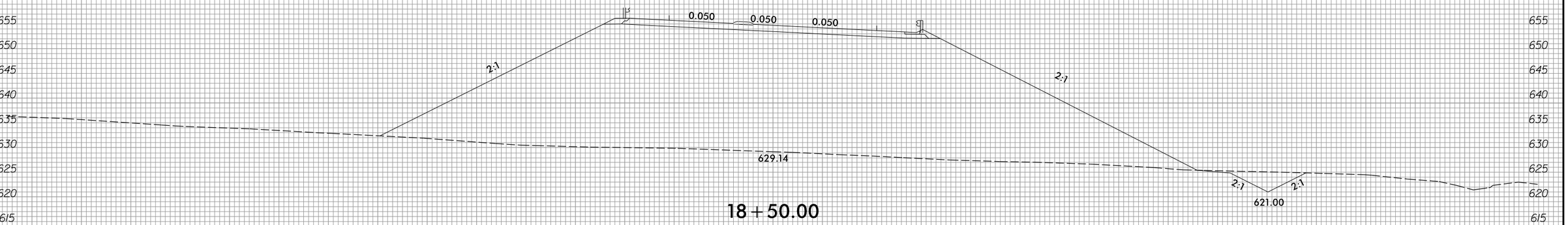
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-272

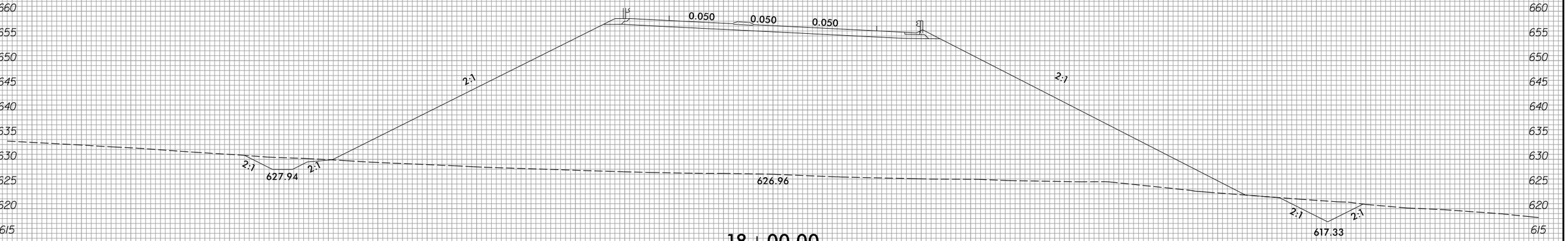
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

660 655 650 645 640 635 630 625 620 615



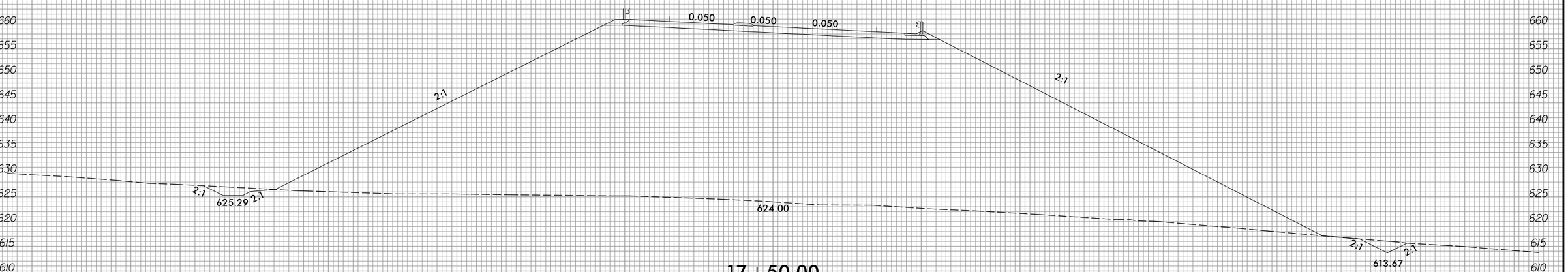
18+50.00

665 660 655 650 645 640 635 630 625 620 615 610



18+00.00

665 660 655 650 645 640 635 630 625 620 615 610



17+50.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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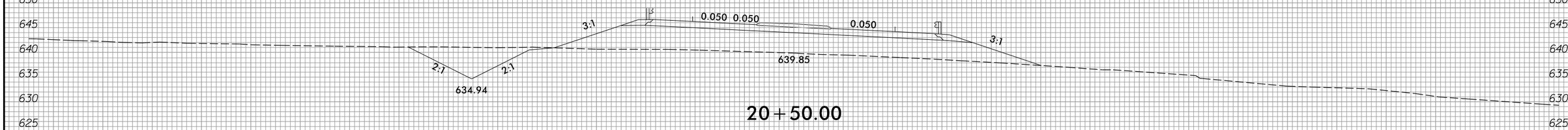
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-273

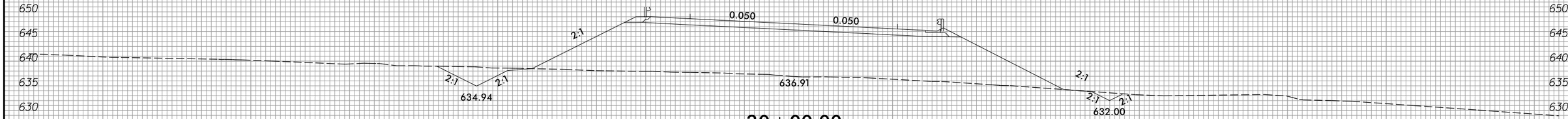
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

650 645 640 635 630 625



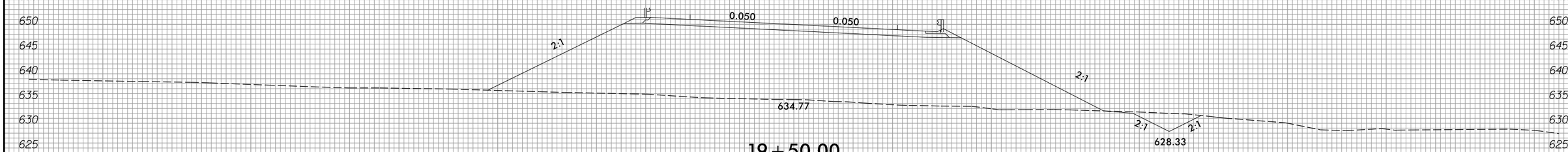
20+50.00

655 650 645 640 635 630 625



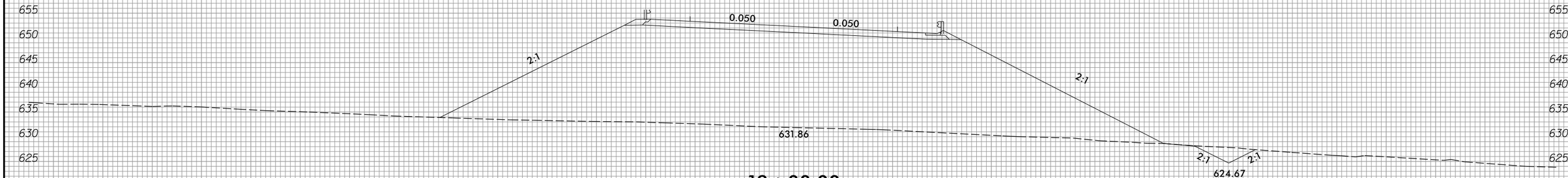
20+00.00

655 650 645 640 635 630 625



19+50.00

660 655 650 645 640 635 630 625 620



19+00.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-274

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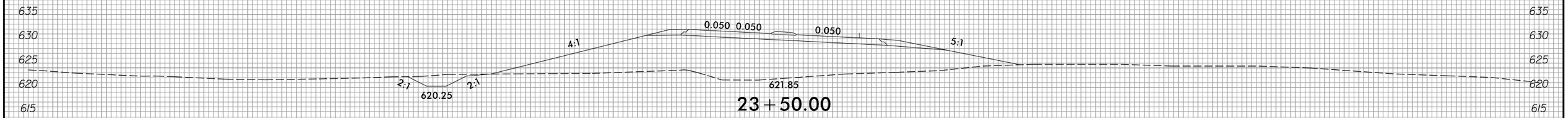
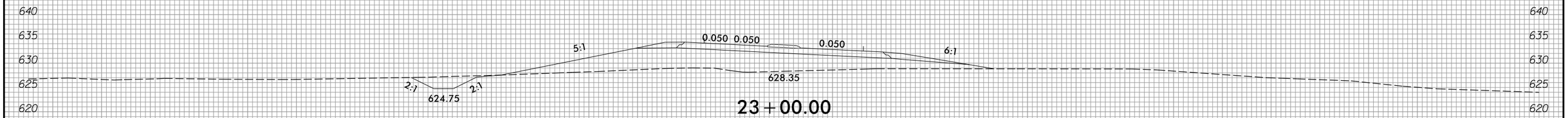
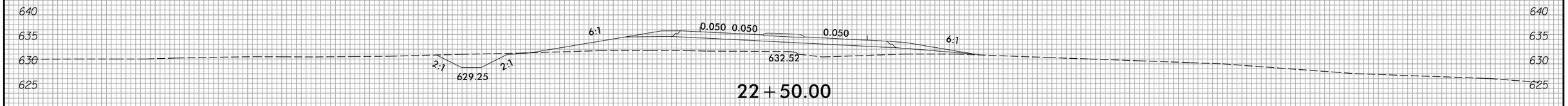


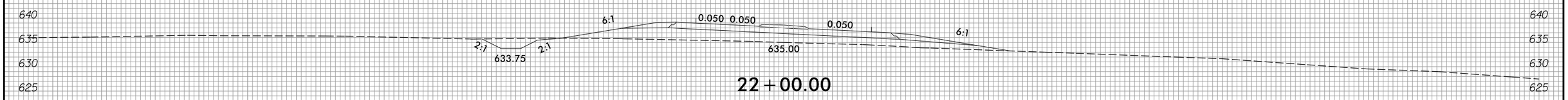
23+50.00



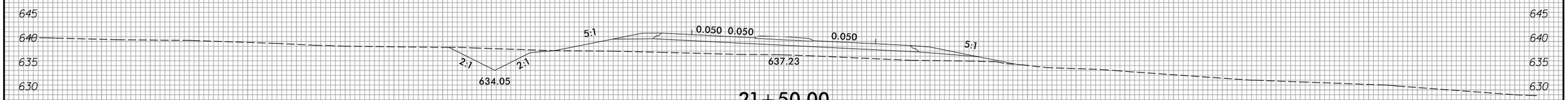
23+00.00



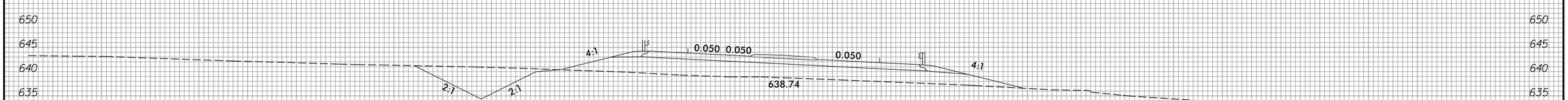
22+50.00



22+00.00



21+50.00



21+00.00

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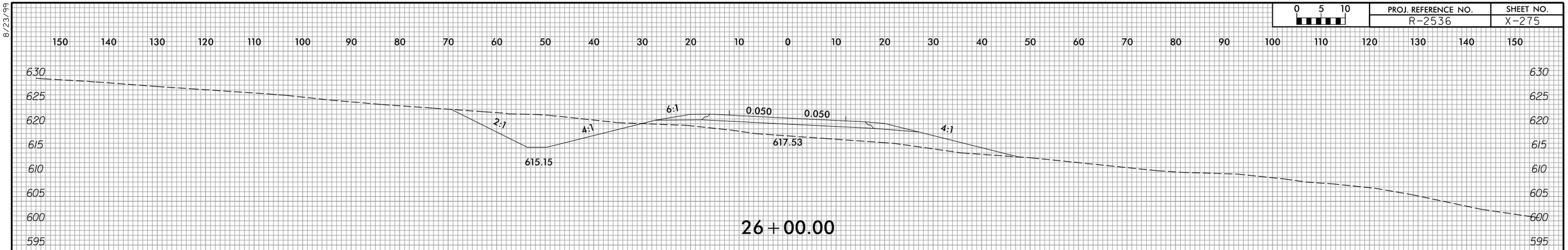
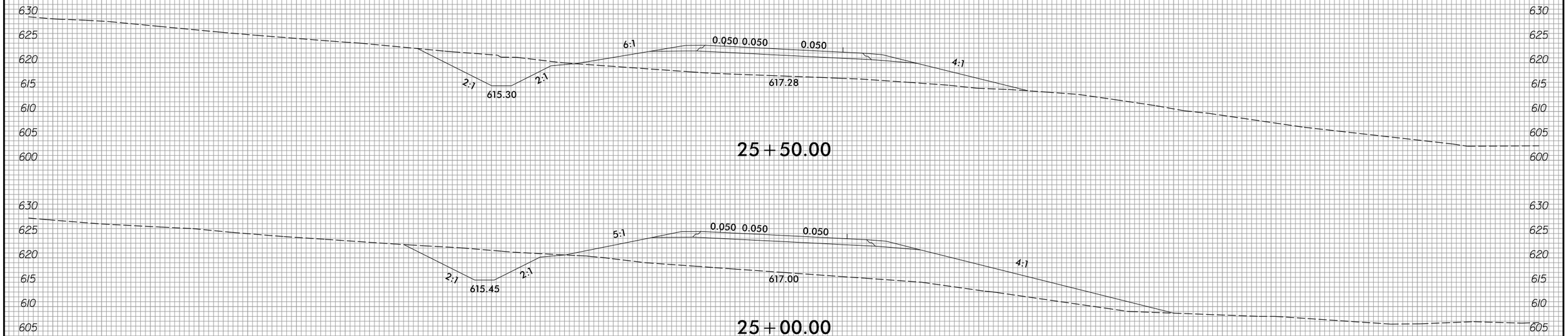
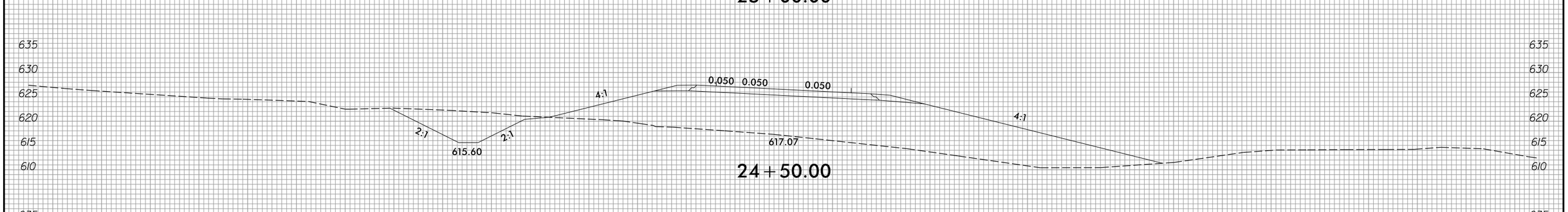
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-275







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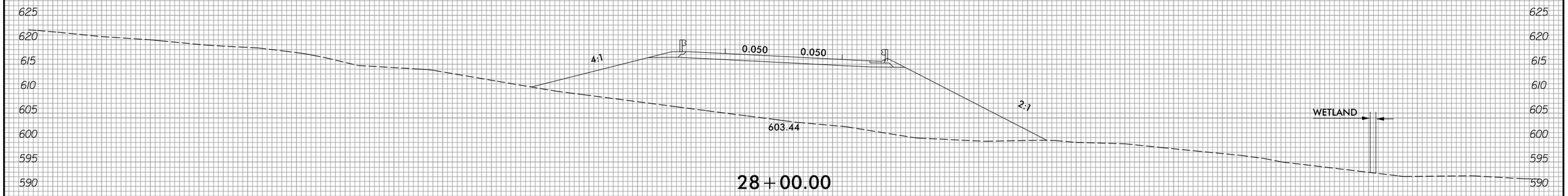
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-276

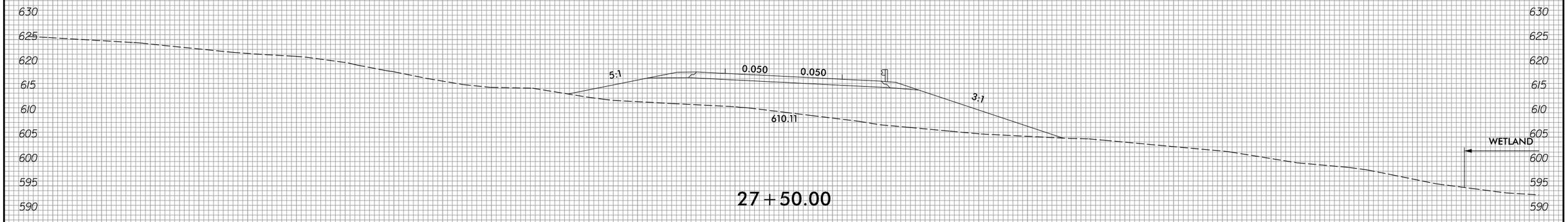
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

625 620 615 610 605 600 595 590



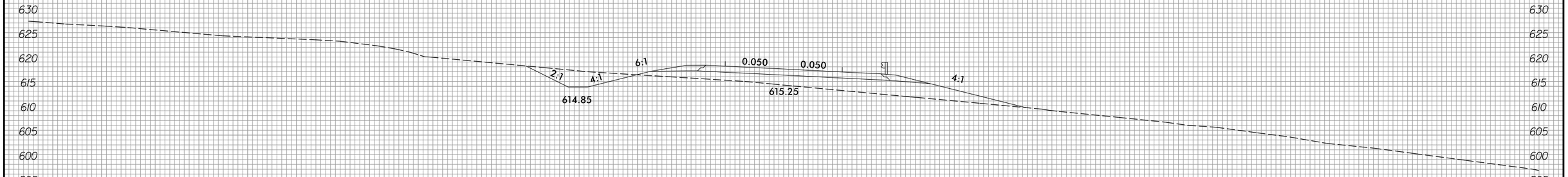
28+00.00

630 625 620 615 610 605 600 595 590



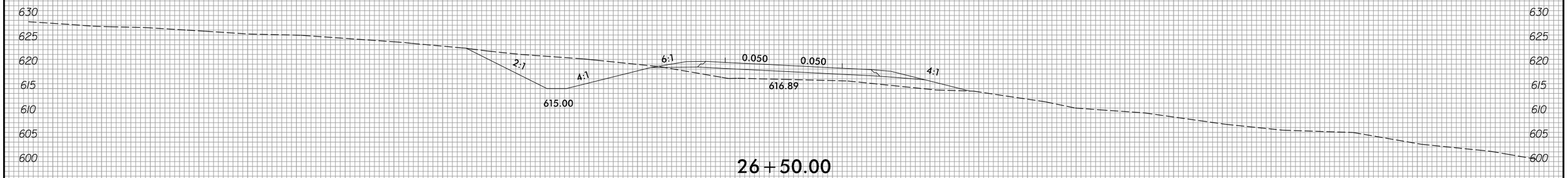
27+50.00

630 625 620 615 610 605 600 595



27+00.00

630 625 620 615 610 605 600 595



26+50.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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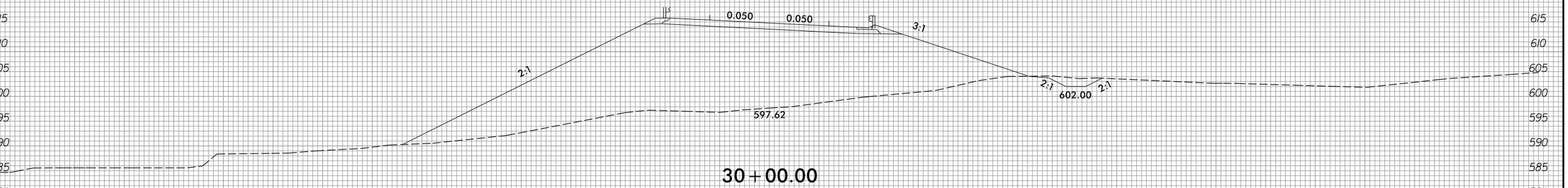
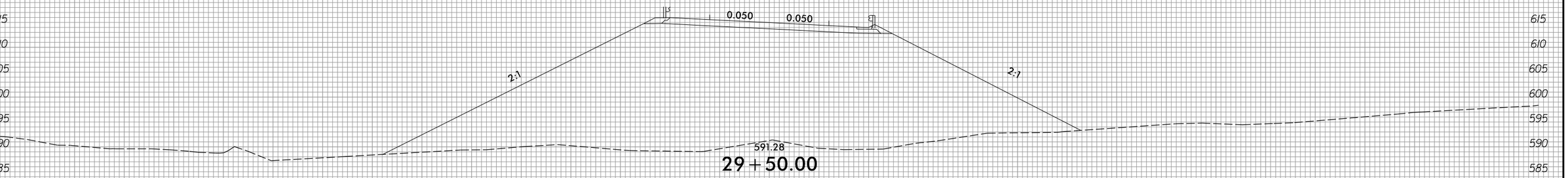
620 615 610 605 600 595 590 585 580



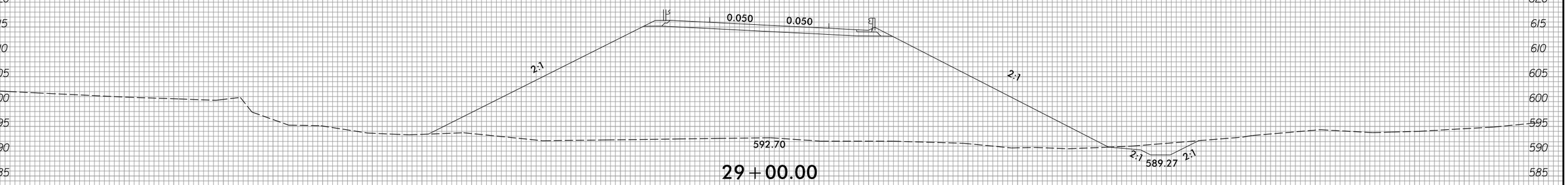
30+00.00

620 615 610 605 600 595 590 585



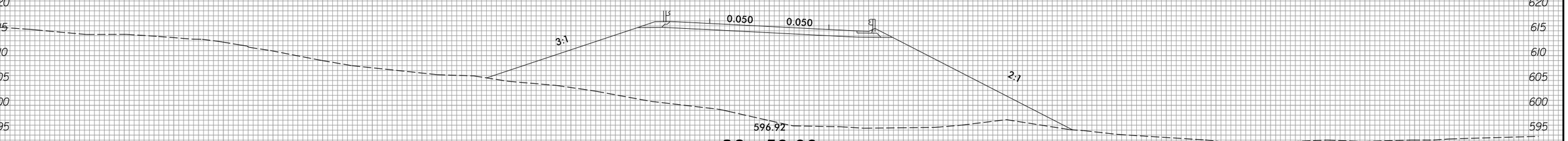
29+50.00

620 615 610 605 600 595 590 585



29+00.00

620 615 610 605 600 595 590



28+50.00

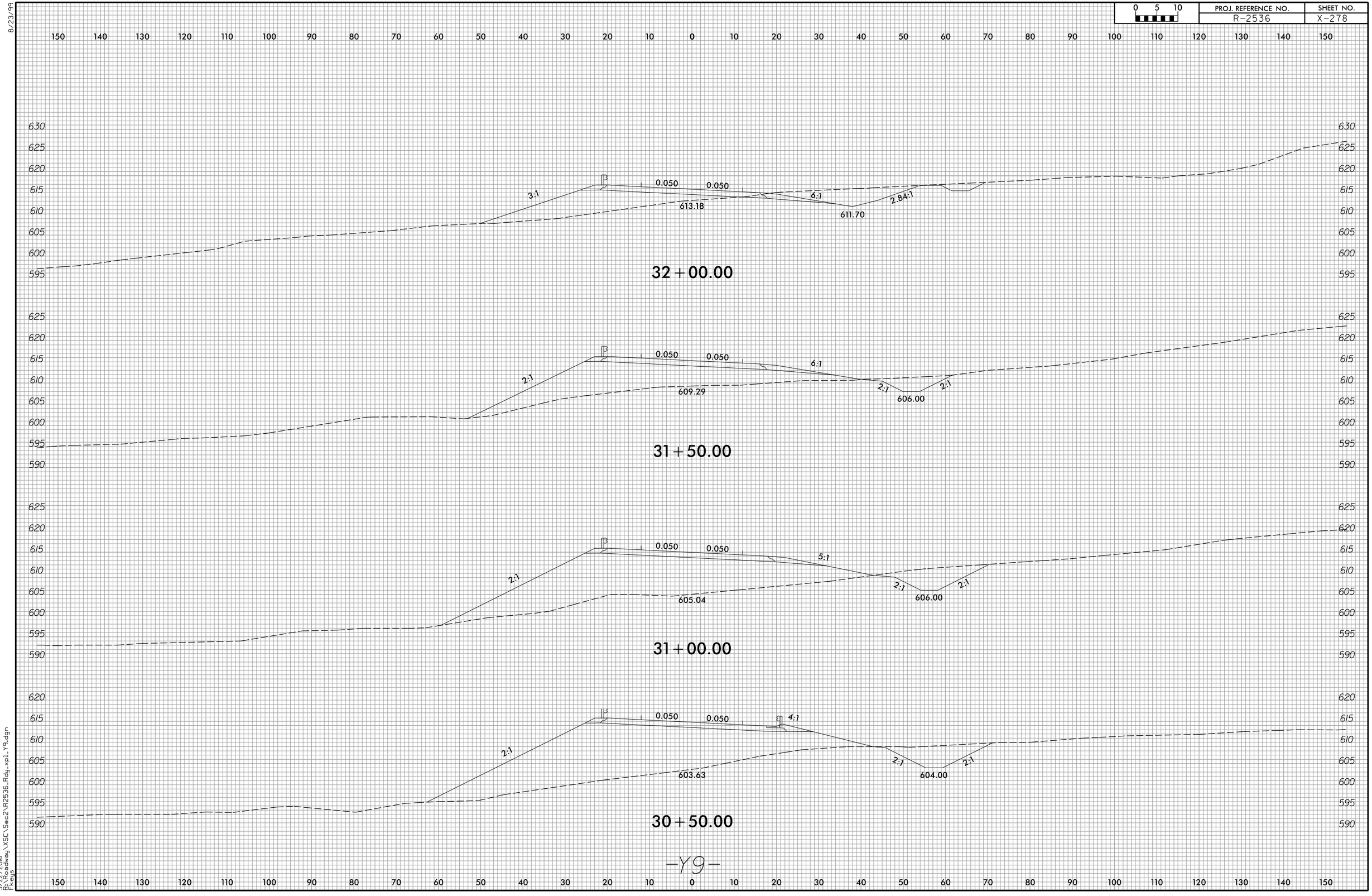
-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-278



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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-279

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

645 640 635 630 625 620 615 610

631.98
617.42
615.54
2:1
6:1
0.050
0.050
6:1
2:1

34+00.00

645 640 635 630 625 620 615 610

627.97
616.21
614.33
2:1
6:1
0.050
0.050
6:1
2:1

33+50.00

640 635 630 625 620 615 610

621.59
614.67
613.28
2:1
5:1
0.050
0.050
6:1
2:1

33+00.00

635 630 625 620 615 610 605 600

616.46
613.74
612.40
4:1
0.050
0.050
6:1
2:1

32+50.00

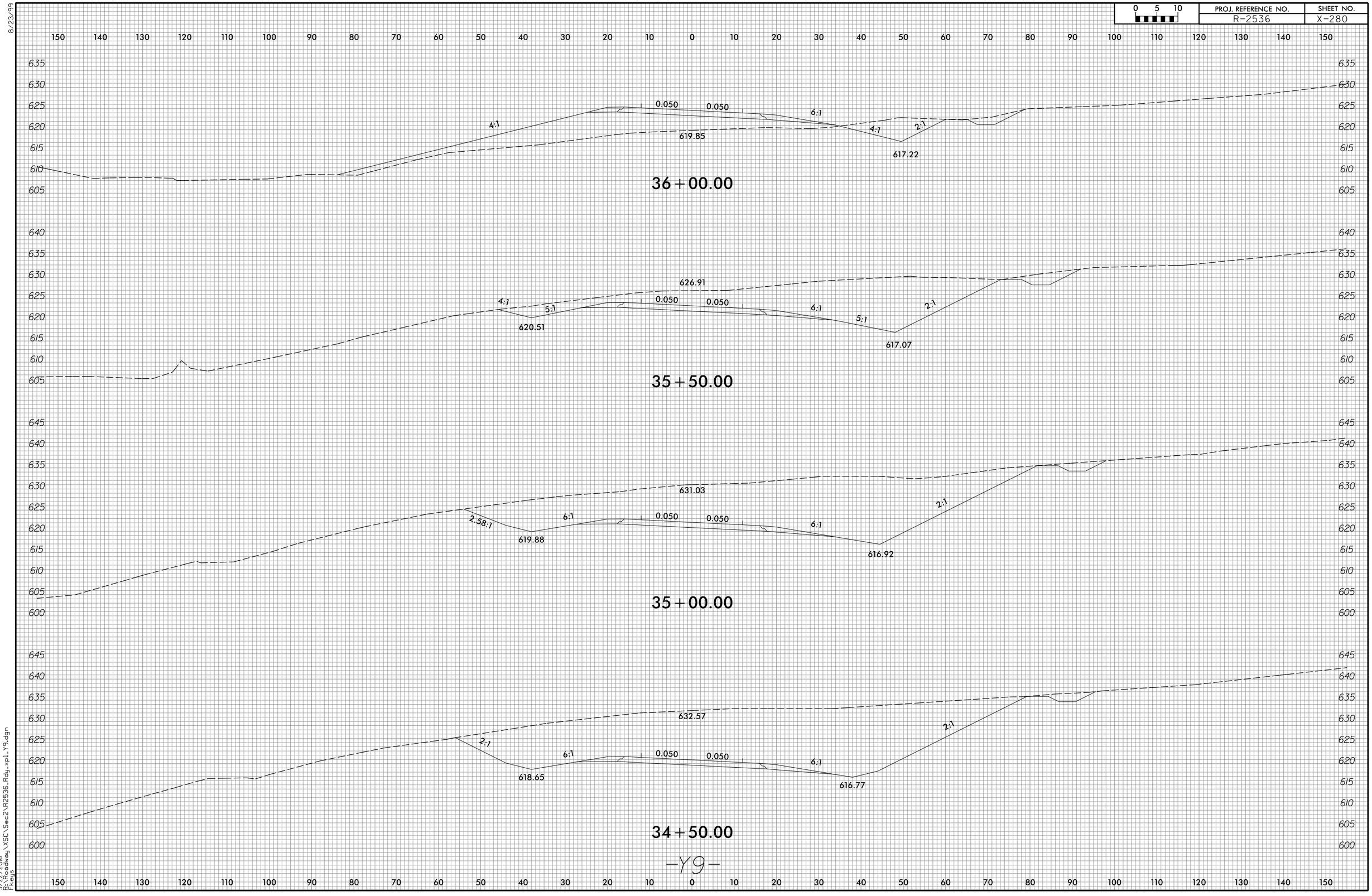
-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-280



3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-281

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

650 645 640 635 630 625 620

2:1 6:1 0.050 0.050 6:1 3.17:1

628.49 631.34 626.61

38+50.00

645 640 635 630 625 620

2.65:1 6:1 0.050 0.050 6:1 2.89:1

627.26 624.83 625.38

38+00.00

645 640 635 630 625 620 615

6:1 6:1 0.050 0.050 6:1 2.08:1

626.03 621.56 624.15

37+50.00

635 630 625 620 615

5:1 0.050 0.050 6:1 3.17:1

620.50 622.92

37+00.00

635 630 625 620 615 610

4:1 0.050 0.050 5:1 2:1

616.84 617.37

36+50.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

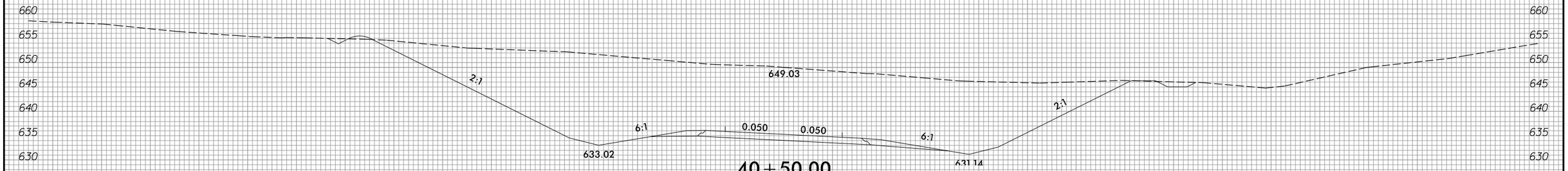
3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

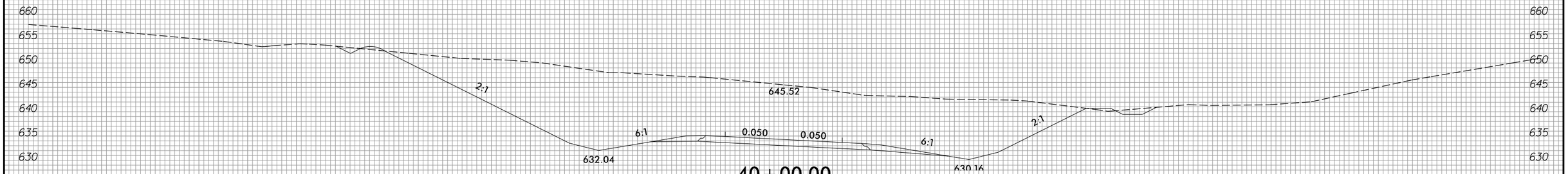
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-282

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

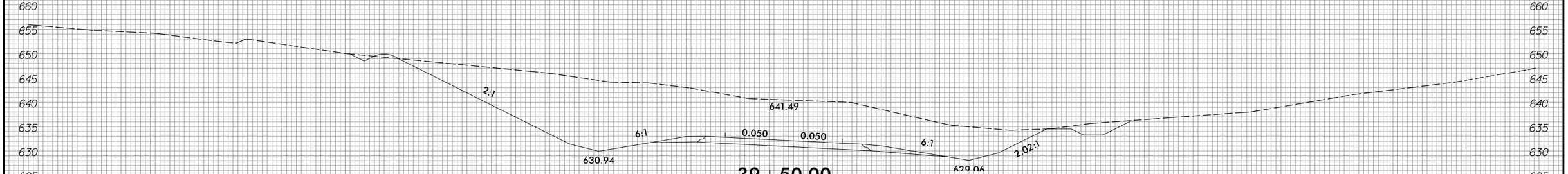
660 655 650 645 640 635 630 625



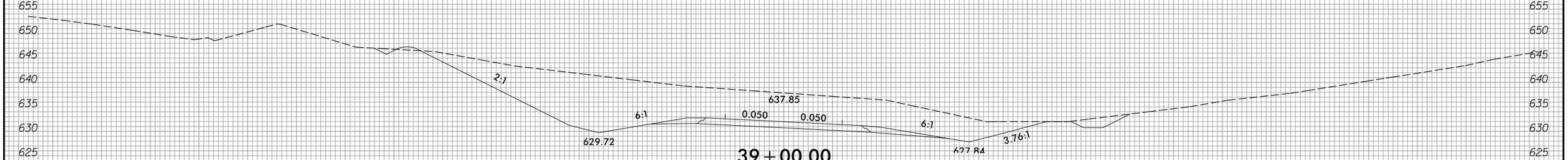
40 + 50.00



40 + 00.00



39 + 50.00



39 + 00.00

-Y9-

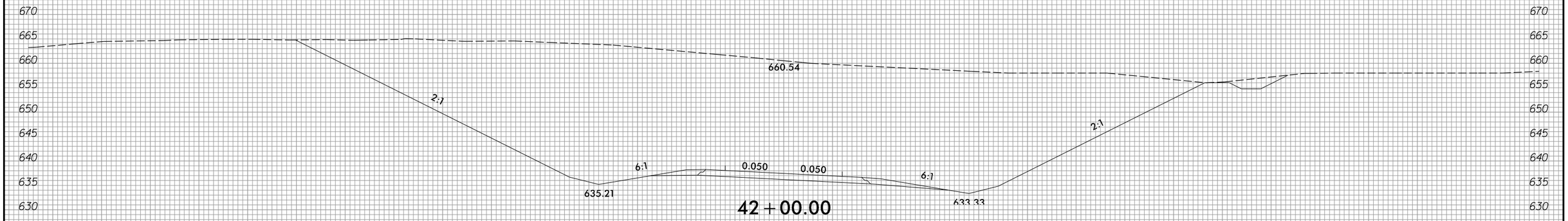
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

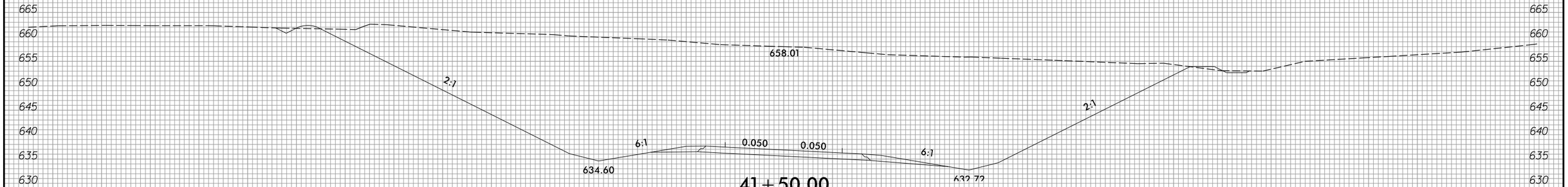
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-283

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

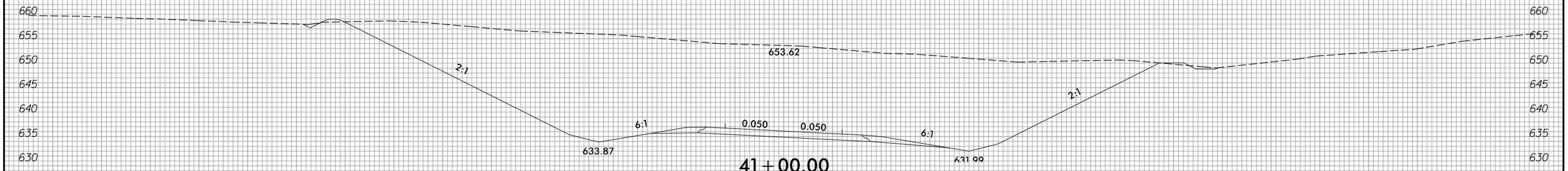
42 + 50.00



42 + 00.00



41 + 50.00



41 + 00.00

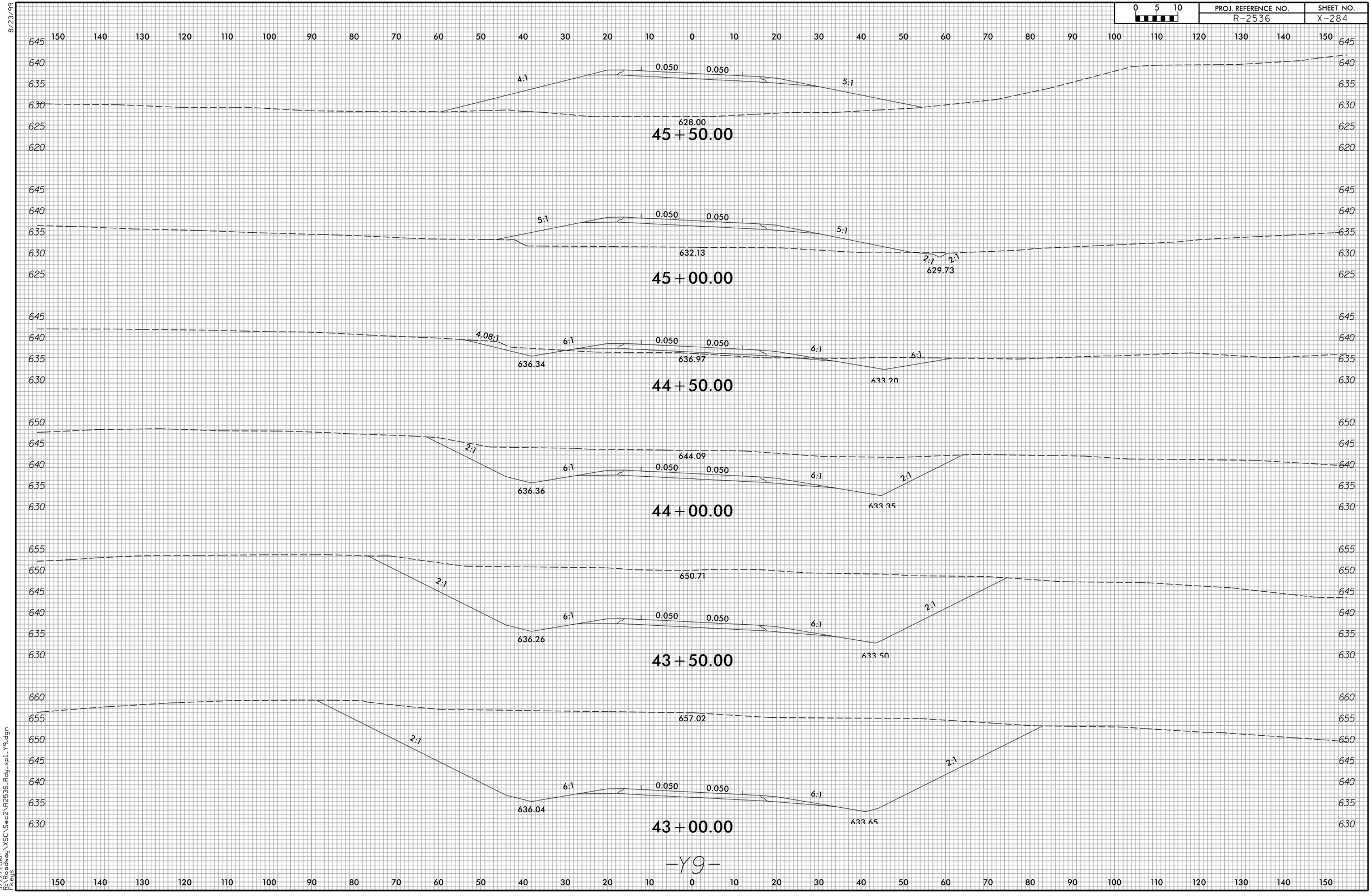
-Y9-

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
FKeys

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-284

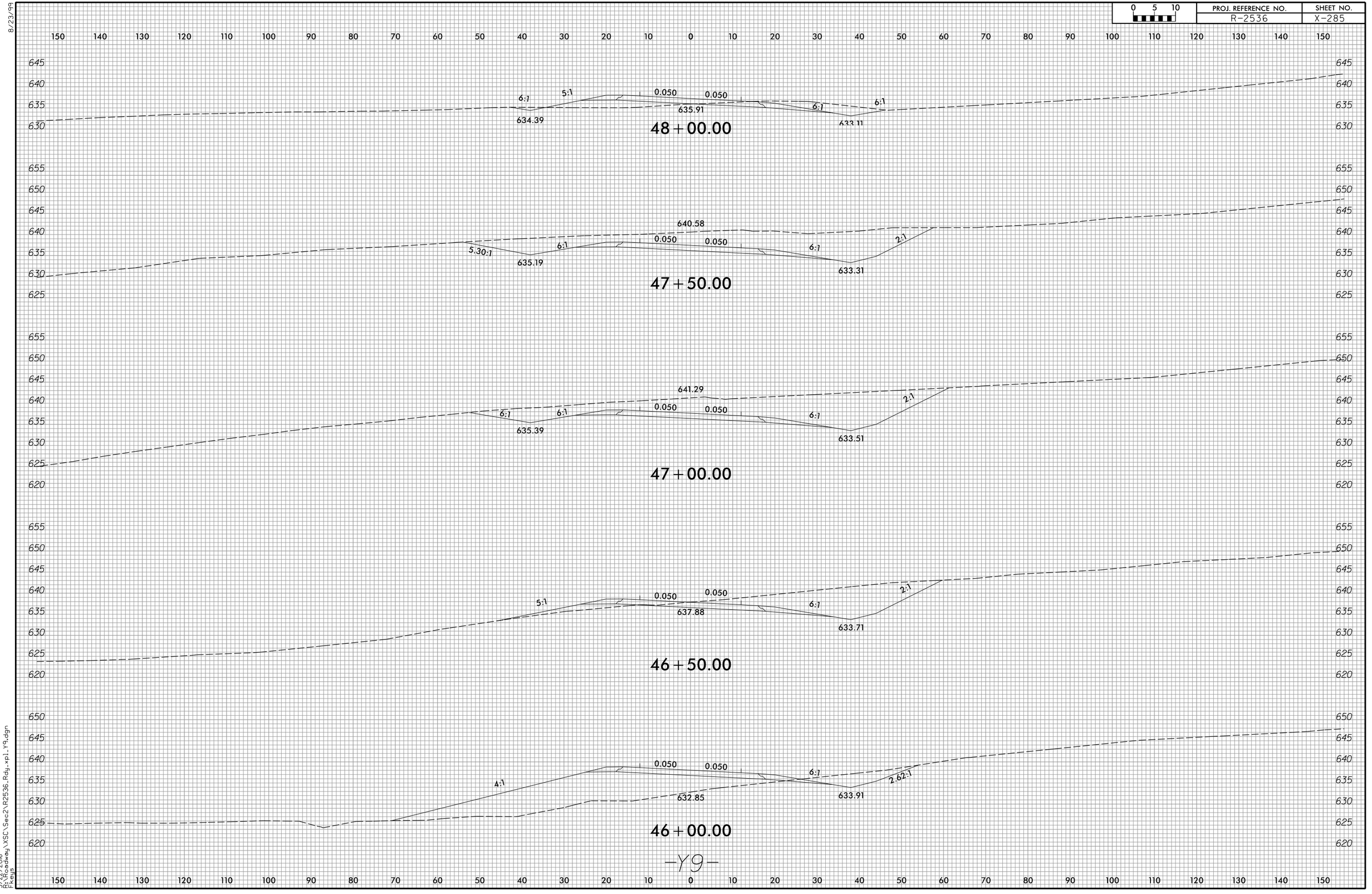


-Y9-

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fteys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-285



-Y9-

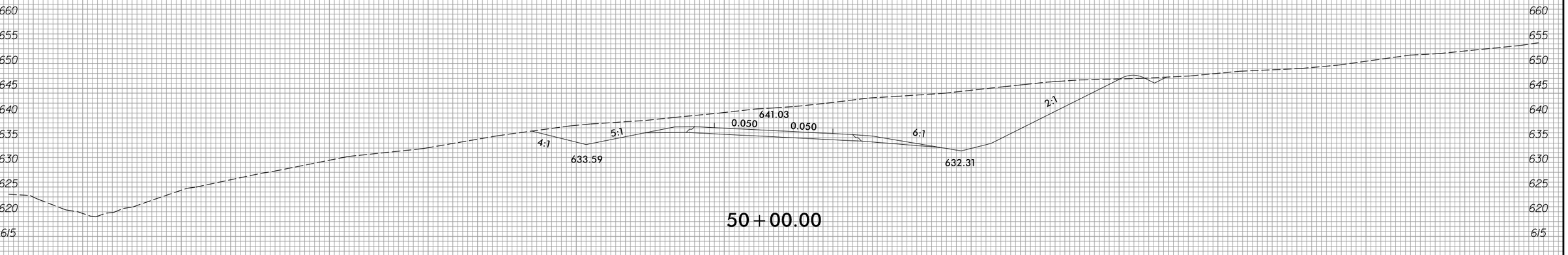
3/22/2016
R:\RDWAY\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-286

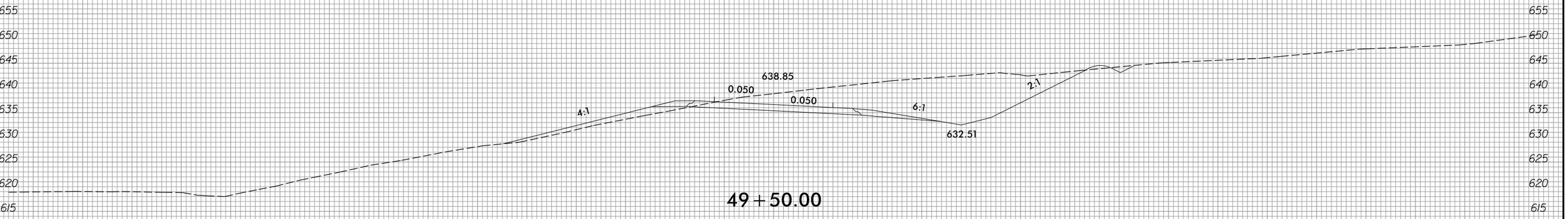
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

660 655 650 645 640 635 630 625 620 615



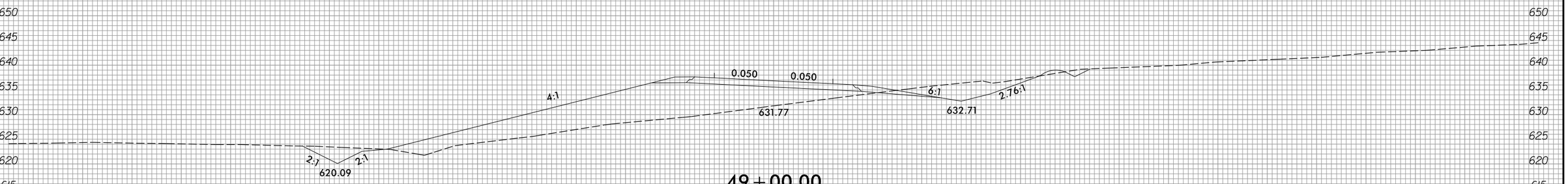
50+00.00

655 650 645 640 635 630 625 620 615



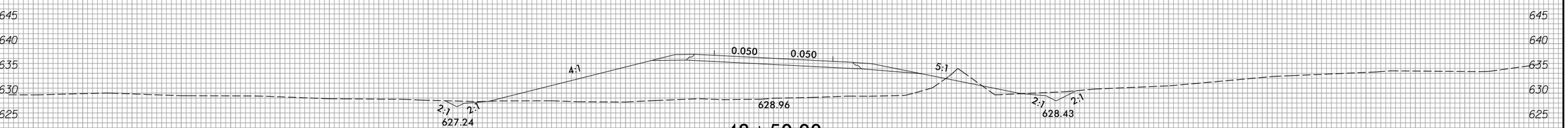
49+50.00

650 645 640 635 630 625 620 615



49+00.00

645 640 635 630 625 620



48+50.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

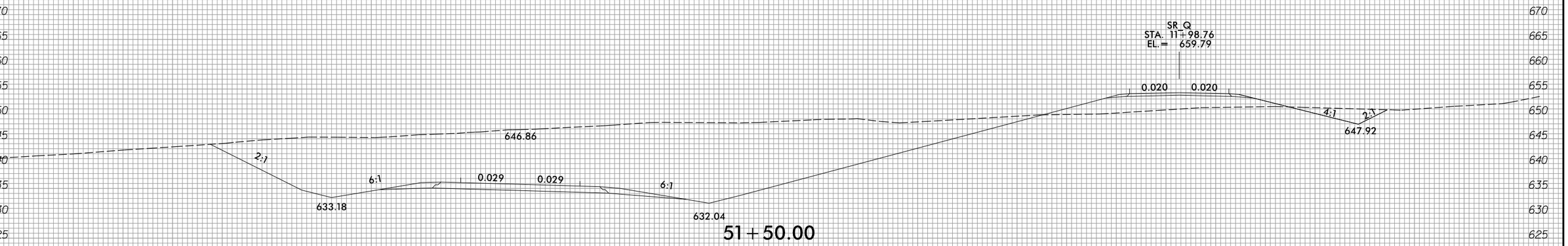
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
FKeys

8/23/99

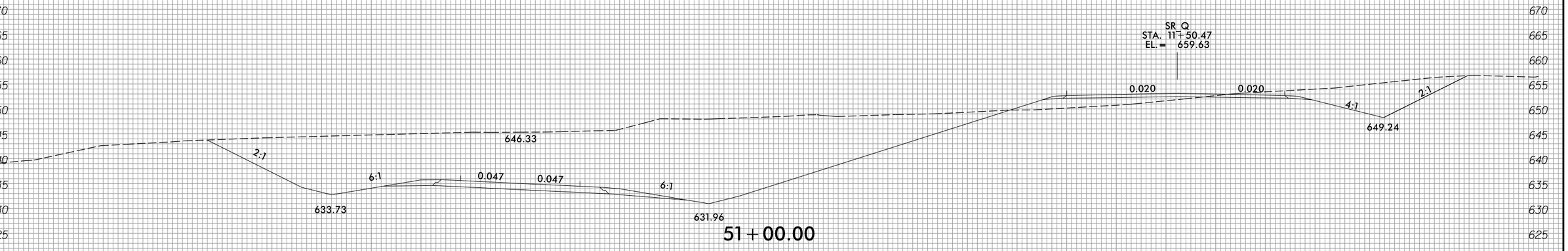
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-287

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

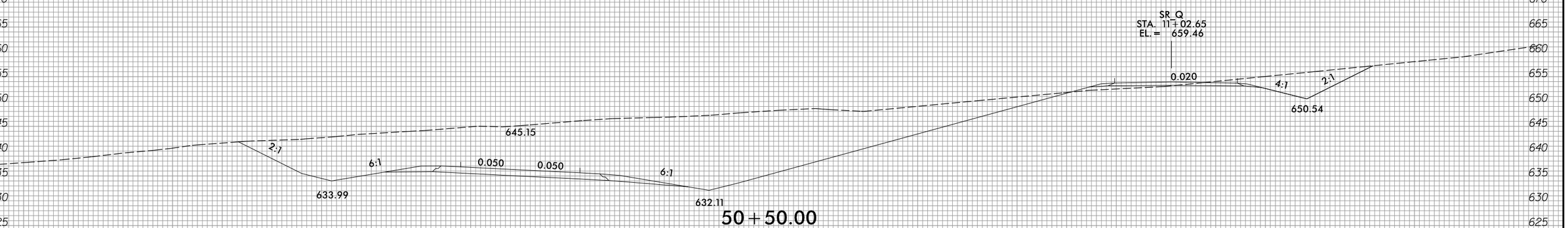
670 665 660 655 650 645 640 635 630 625



51+50.00



51+00.00



50+50.00

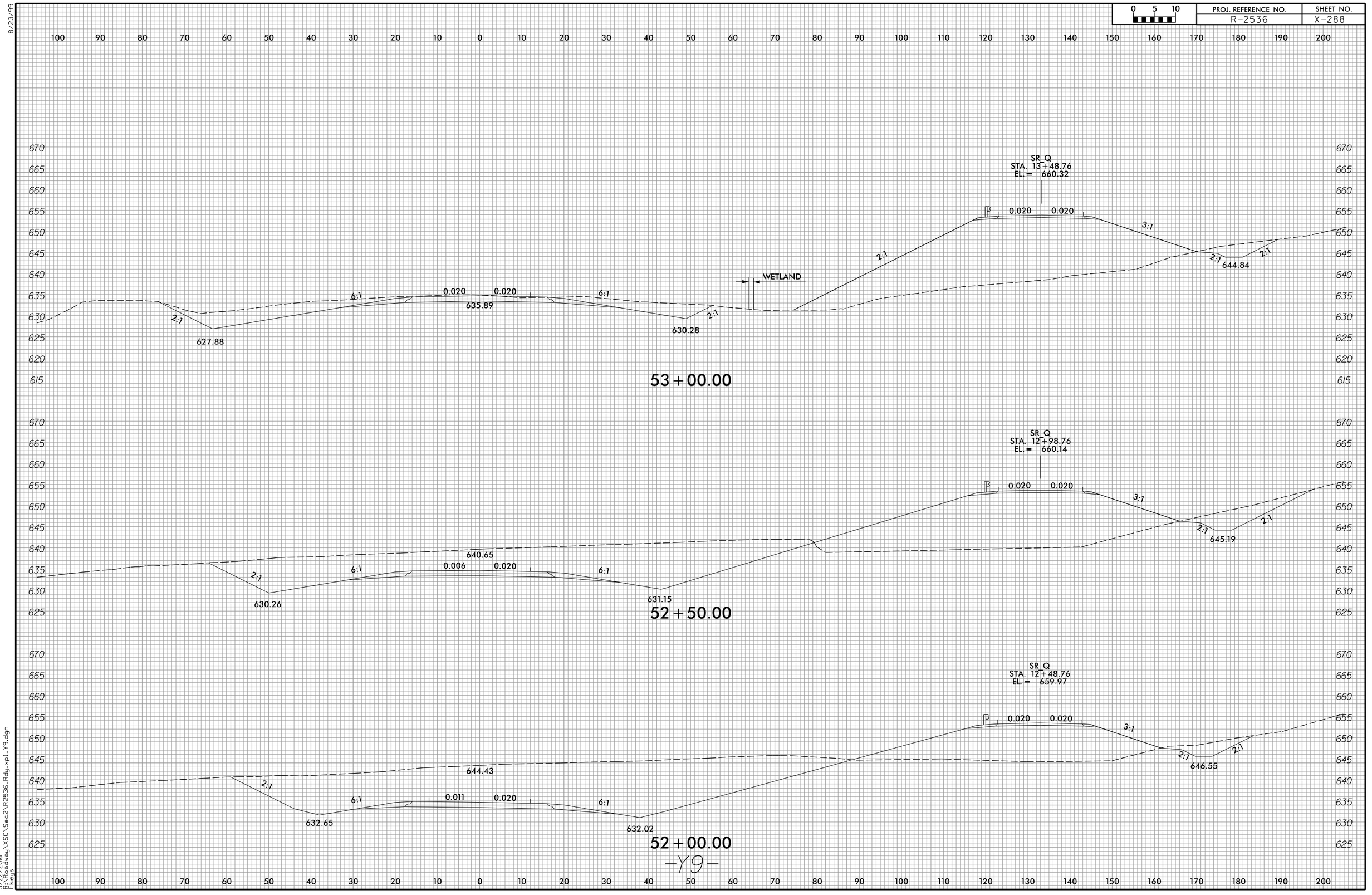
-Y9-

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

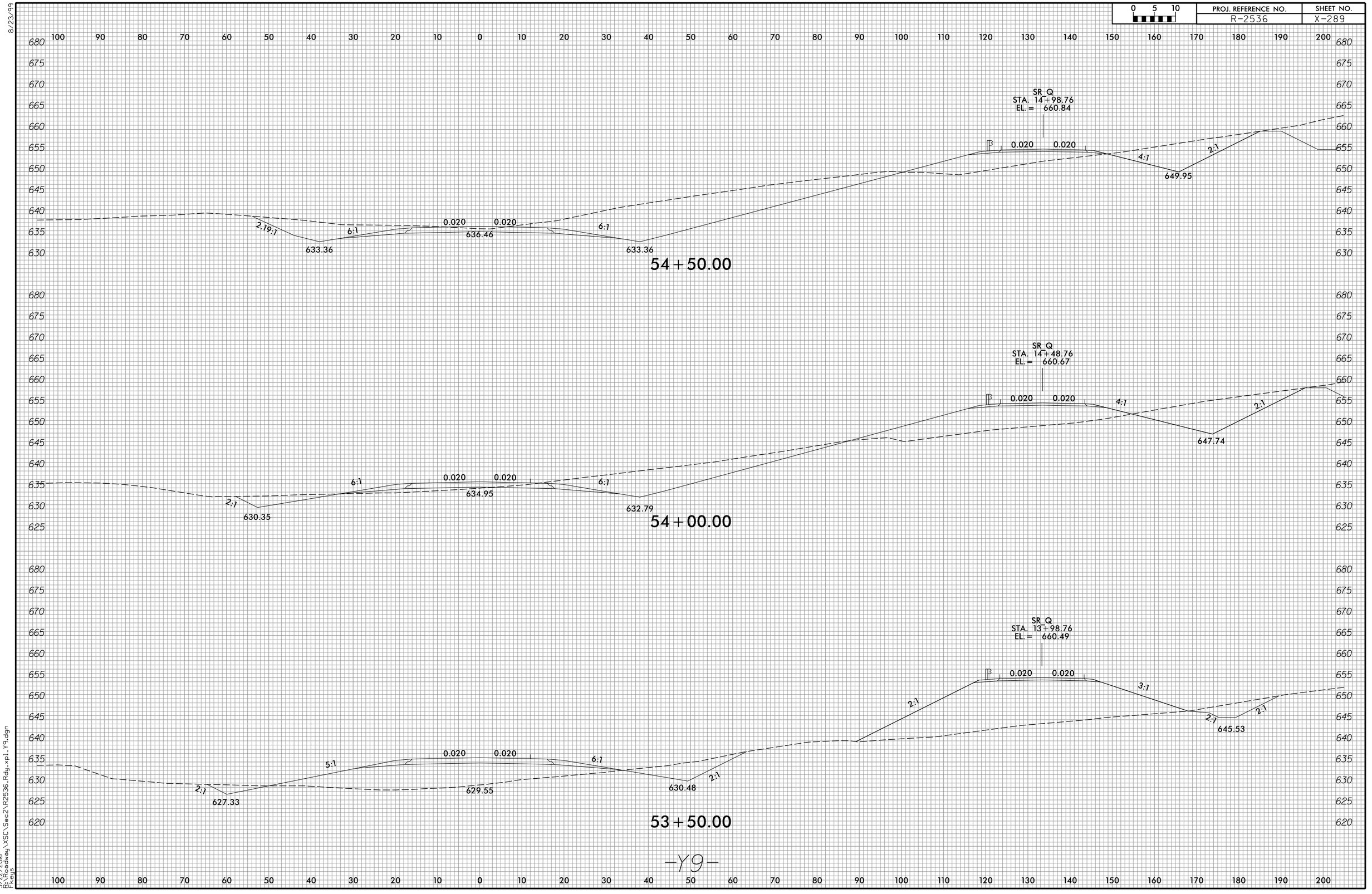
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-288



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-289



-Y9-

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-290

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

675 670 665 660 655 650 645 640 635 630

SR Q
STA. 16+48.76
EL. = 661.37

651.03 652.51 635.84 635.84

2:1 6:1 0.020 0.020 6:1 4:1 2:1

56+00.00

675 670 665 660 655 650 645 640 635 630

SR Q
STA. 15+98.76
EL. = 661.19

647.79 652.33 634.95 634.95

2:1 6:1 0.020 0.020 6:1 4:1 2:1

55+50.00

680 675 670 665 660 655 650 645 640 635 630

SR Q
STA. 15+48.76
EL. = 661.02

641.12 652.16 634.09 634.09

2:1 6:1 0.020 0.020 6:1 4:1 2:1

55+00.00

-Y9-

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

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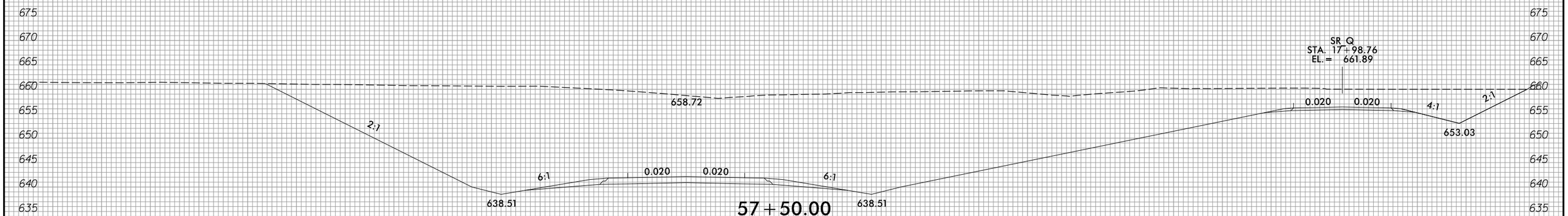
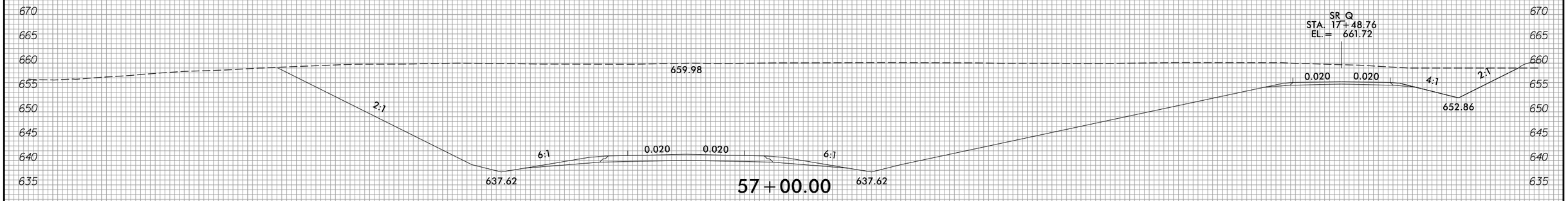
8/23/99

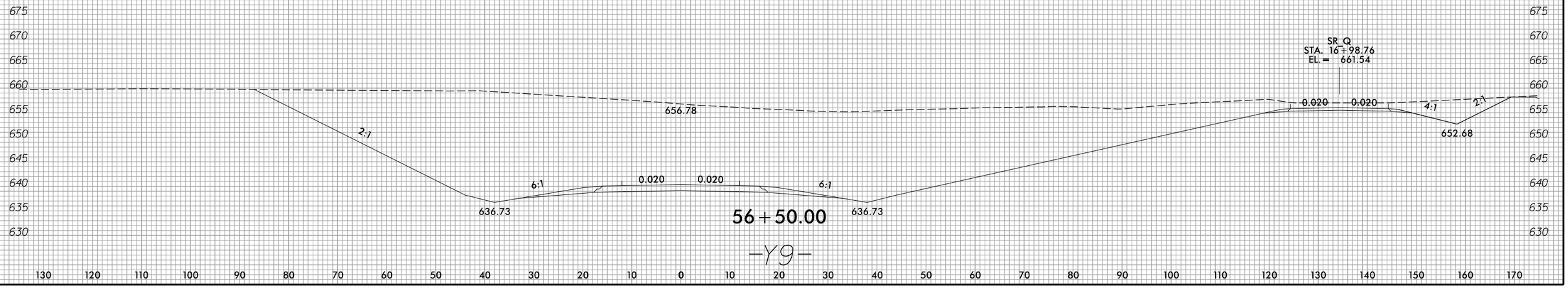
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-291

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

675 670 665 660 655 650 645 640 635







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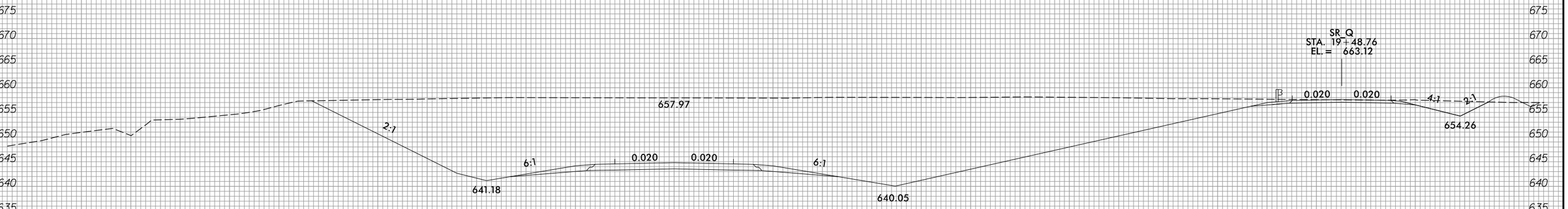
3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

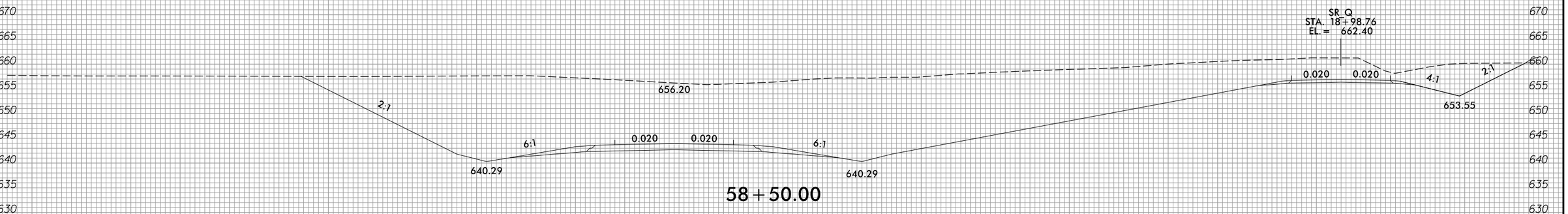
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-292

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

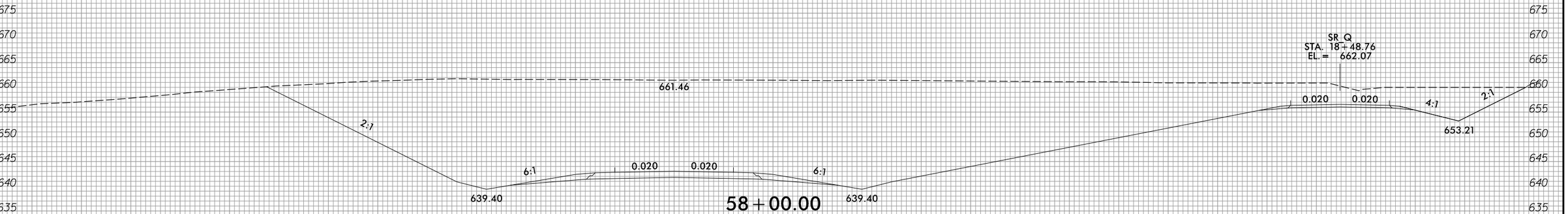
675 670 665 660 655 650 645 640 635 630 625



59+00.00



58+50.00



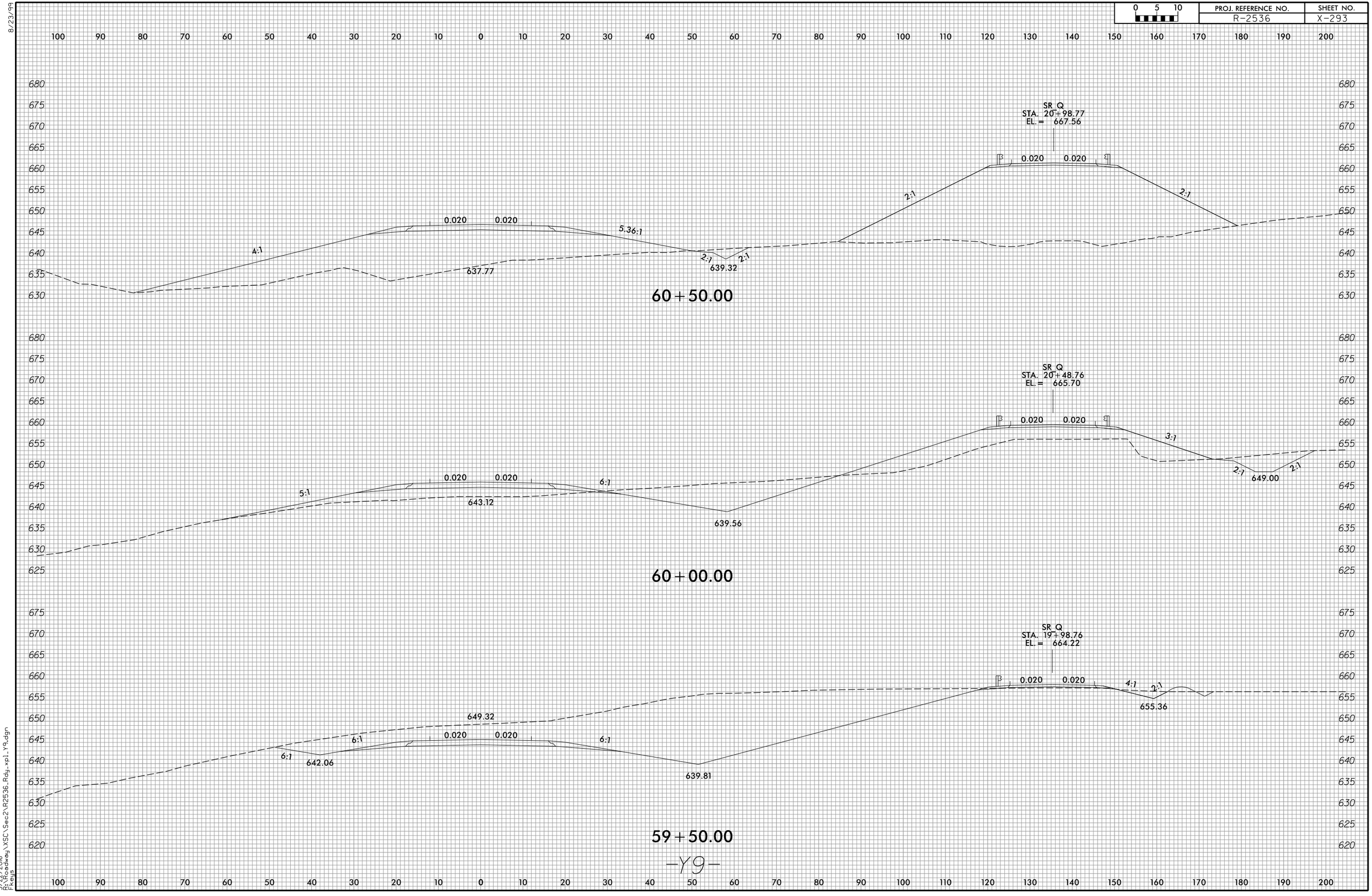
58+00.00

-Y9-

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-293

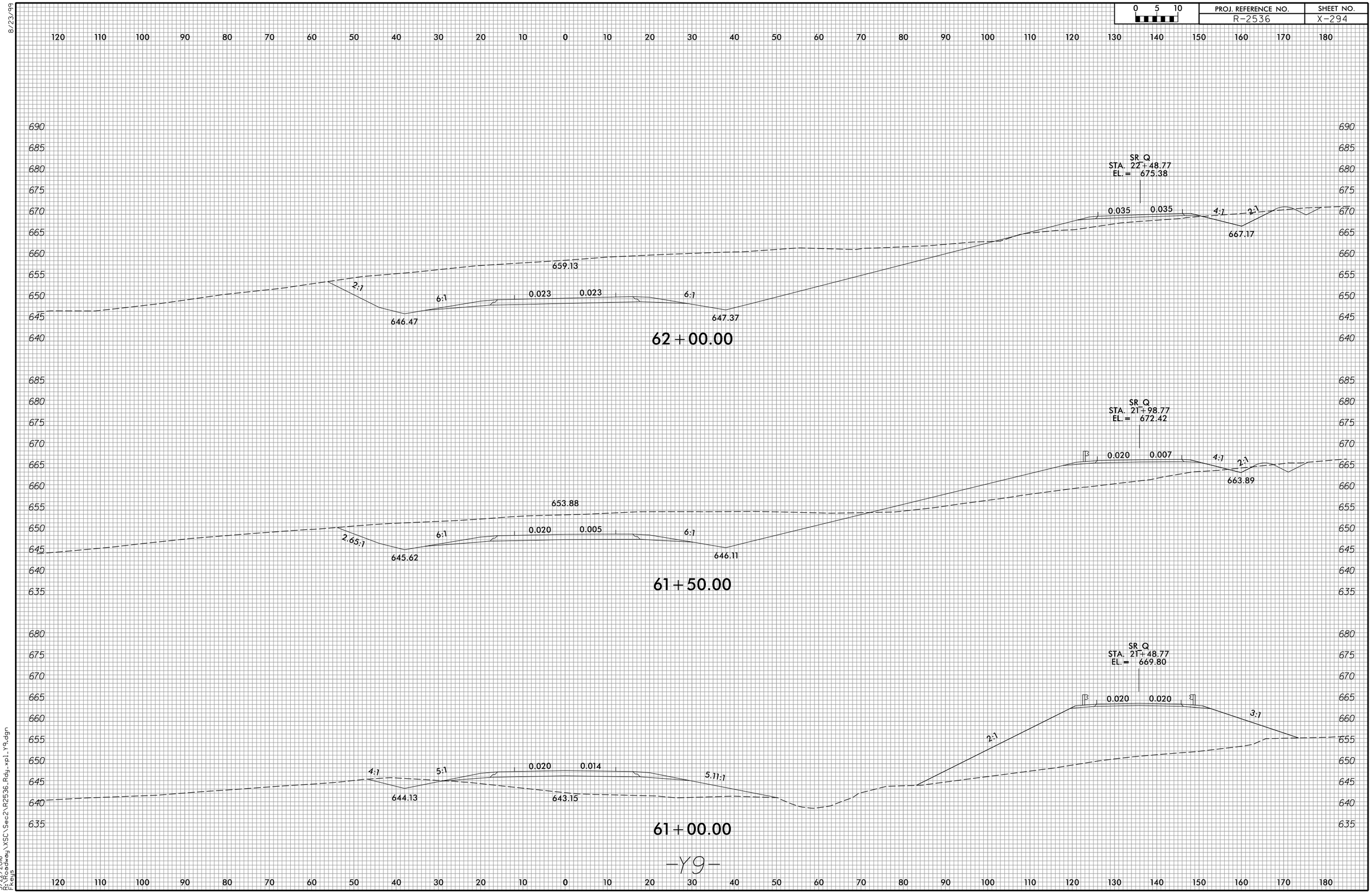


-Y9-

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-294



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3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_Y9.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-295

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

695 690 685 680 675 670 665 660 655 650 645

SR Q
STA. 24+06.18
EL.= 682.89

0.048 0.048 4.0:1 2:1

674.84

666.81

2:1 6:1 0.077 0.077 6:1 2.85:1

648.26 651.13

63+50.00

SR Q
STA. 23+50.62
EL.= 680.85

0.047 0.047 4.0:1 2:1

672.79

664.07

2:1 6:1 0.059 0.059 6:1

647.66 649.87

63+00.00

SR Q
STA. 22+98.78
EL.= 678.31

0.048 0.048 4:1 2:1

670.27

661.93

2:1 6:1 0.041 0.041 6:1

647.07 648.62

62+50.00

-Y9-

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-296

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

695 690 685 680 675 670 665 660 655 650 645

SR Q
STA. 25+72.00
EL.= 684.85

0.050 0.050 4.01:1 2:1

676.83

670.54

2:1

2.45:1

6:1 0.080 0.080 6:1

650.19 653.15

65+00.00

SR Q
STA. 25+16.86
EL.= 684.88

0.050 0.050 4.01:1 2:1

676.86

670.50

2:1

2.53:1

6:1 0.080 0.080 6:1

649.70 652.66

64+50.00

SR Q
STA. 24+61.59
EL.= 684.23

0.049 0.049 4.01:1 2:1

676.20

670.02

2:1

2.66:1

6:1 0.080 0.080 6:1

649.04 652.00

64+00.00

-Y9-

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-297

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

695 690 685 680 675 670 665 660 655 650 645

SR Q
STA. 27+36.61
EL.= 680.68

673.90 0.052 0.052 4.01:1 2:1 672.69

2:1 6:1 650.68 0.080 0.080 6:1 653.64 2.56:1

66+50.00

SR Q
STA. 26+81.87
EL.= 682.74

676.26 0.052 0.052 4.01:1 2:1 674.74

2:1 6:1 650.69 0.080 0.080 6:1 653.65 2.45:1

66+00.00

SR Q
STA. 26+27.00
EL.= 684.13

674.60 0.051 0.051 4.01:1 2:1 676.13

2:1 6:1 650.52 0.080 0.080 6:1 653.48 2.42:1

65+50.00

-Y9-

3/22/2016
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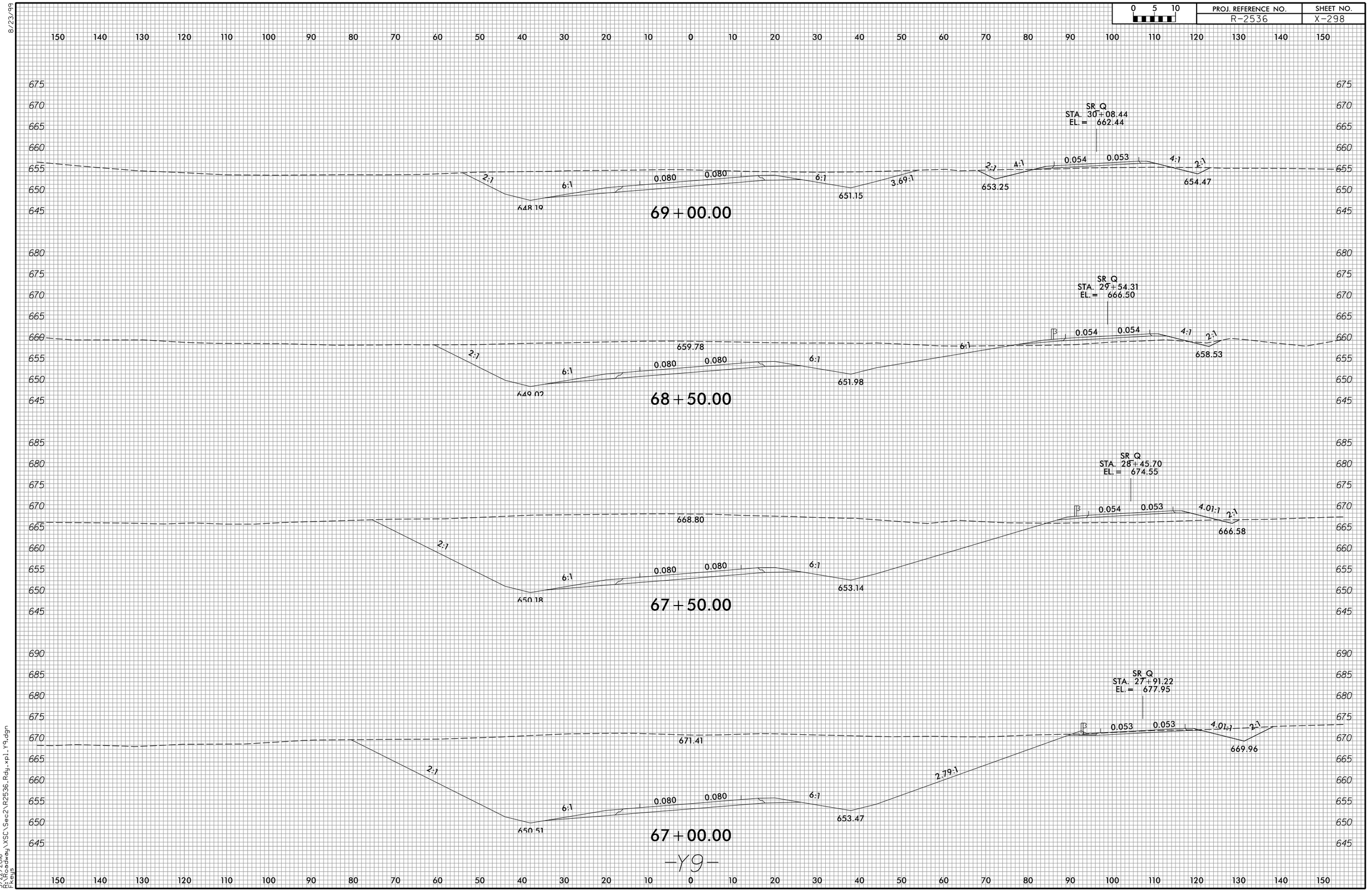
Ftelys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-298



3/22/2016
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Fkeys

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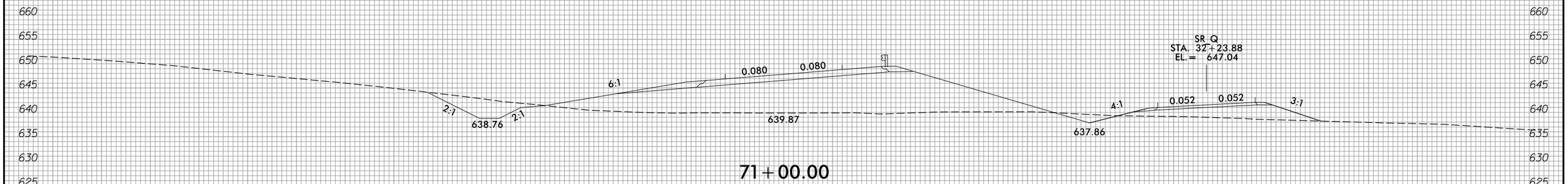
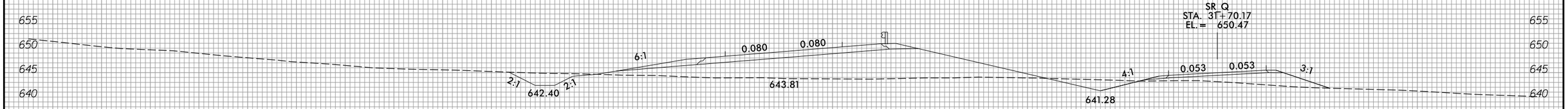
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-299

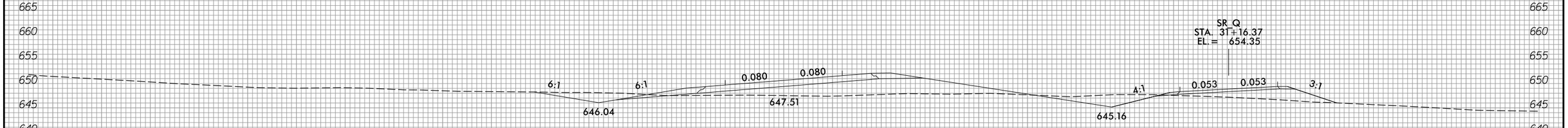
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



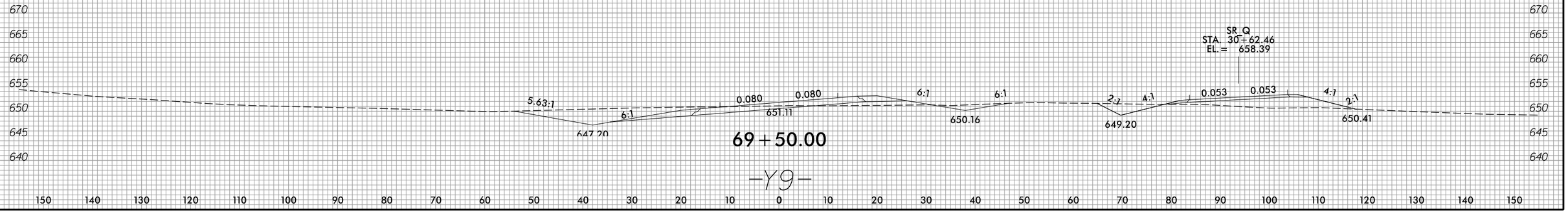
71+00.00



70+50.00



70+00.00



69+50.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-300

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

650 645 640 635 630 625 620

SR Q
STA. 34+37.80
EL.= 637.79

0.080 0.080 4:1 2:1 2:1 627.59 2:1 627.86 4:1 0.051 0.051 4:1 2:1 2:1

73+00.00

650 645 640 635 630 625 620

SR Q
STA. 33+84.45
EL.= 639.43

0.080 0.080 5:1 2:1 2:1 627.85 630.92 2:1 629.28 4:1 0.051 0.051 3:1

72+50.00

655 650 645 640 635 630 625

SR Q
STA. 33+31.01
EL.= 641.52

0.080 0.080 6:1 2:1 2:1 631.49 633.66 2:1 631.08 4:1 0.052 0.052 3:1

72+00.00

655 650 645 640 635 630 625

SR Q
STA. 32+77.49
EL.= 644.06

0.080 0.080 6:1 2:1 2:1 635.13 636.16 2:1 634.88 4:1 0.052 0.052 3:1

71+50.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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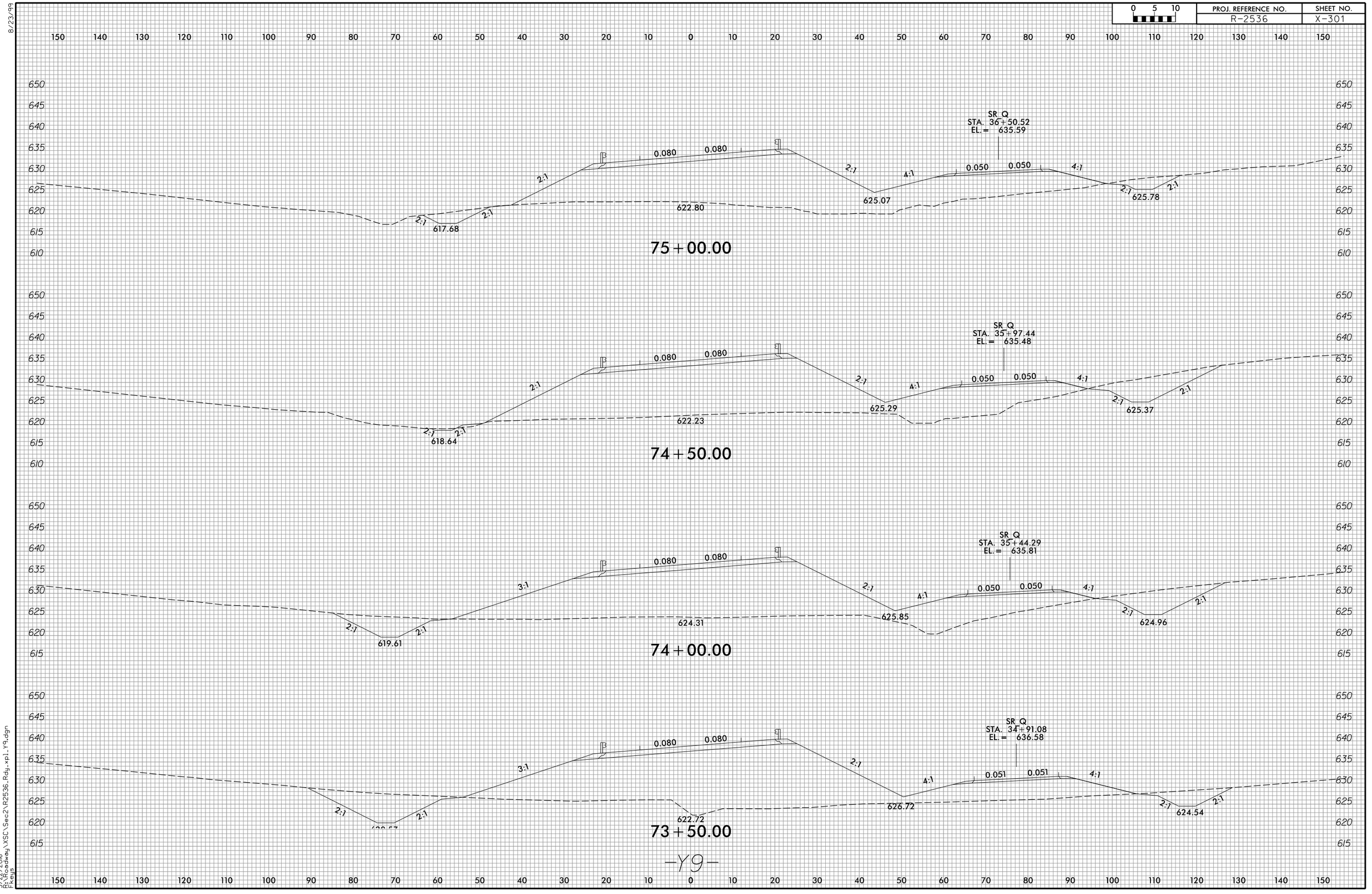
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-301



-Y9-

3/22/2016
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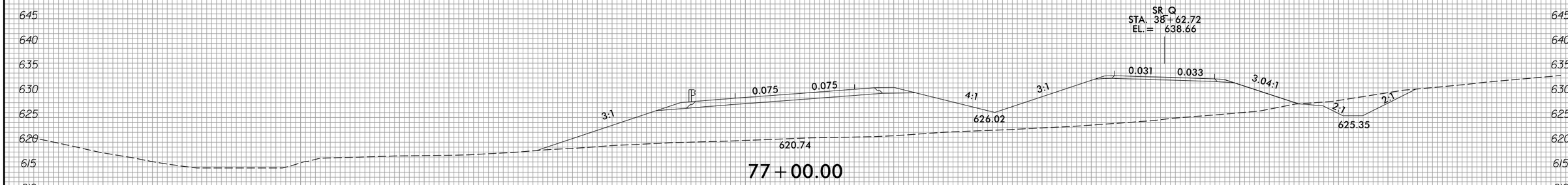
Fkeys

8/23/99

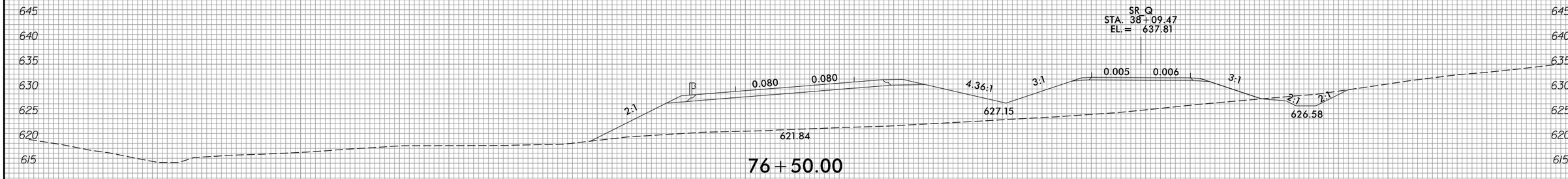
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-302

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

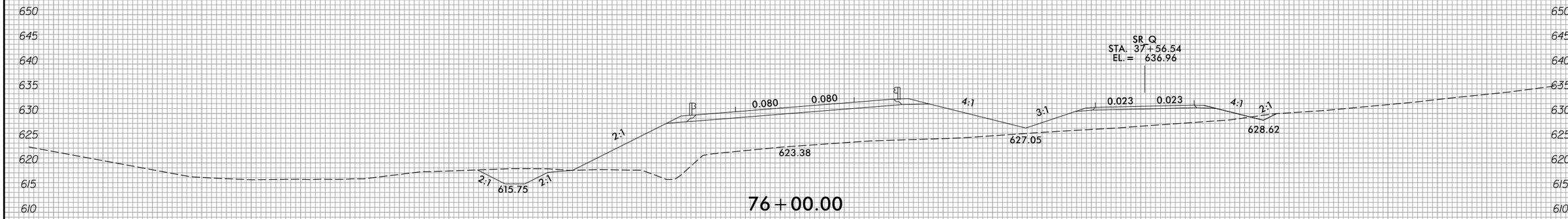
650 645 640 635 630 625 620 615 610



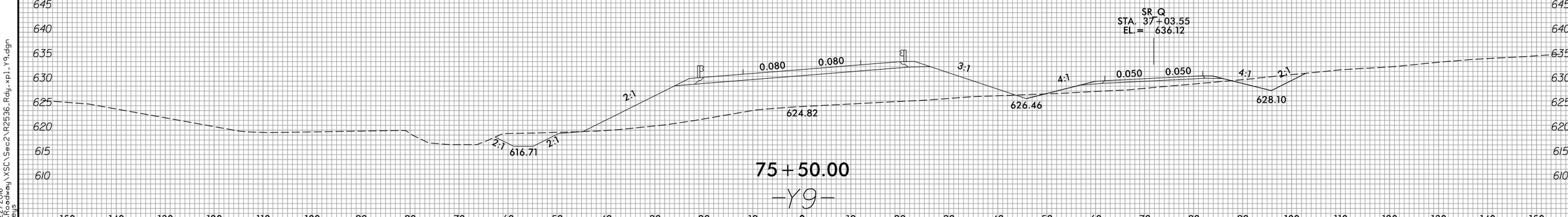
77+00.00



76+50.00



76+00.00



75+50.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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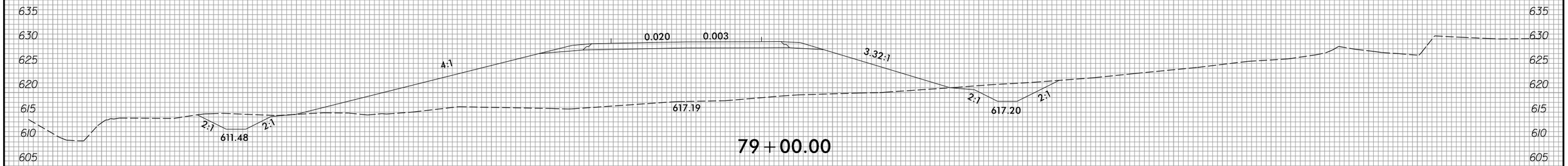
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-303

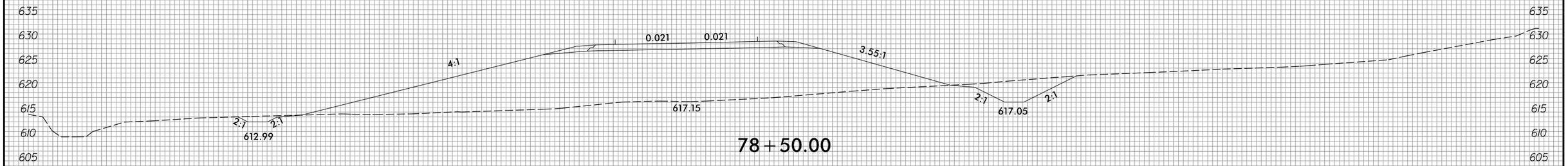
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

635 630 625 620 615 610 605



79+00.00

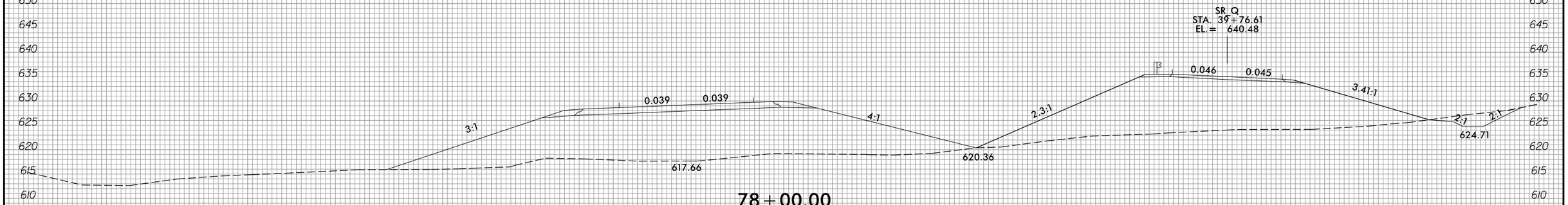
635 630 625 620 615 610 605



78+50.00

655 650 645 640 635 630 625 620 615 610

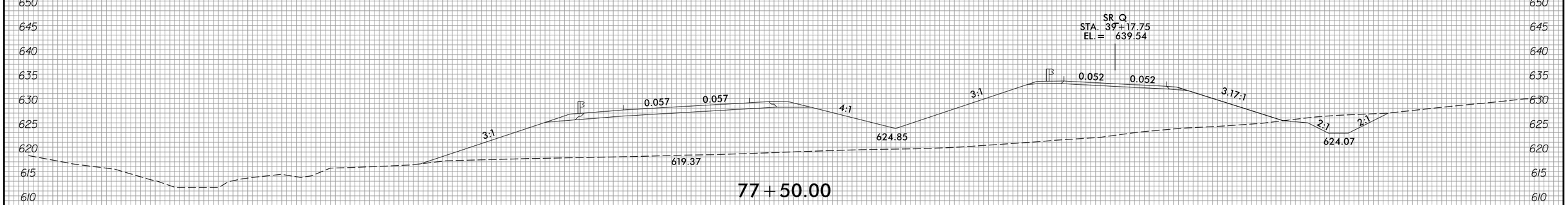
SR Q
STA. 39+76.61
EL. = 640.48



78+00.00

650 645 640 635 630 625 620 615 610

SR Q
STA. 39+17.75
EL. = 639.54



77+50.00

-Y9-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-304

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 635 630 625 620 615

SHEAR LINE -Y9RAD-

4:1 0.020 0.020 625.97

80+50.00

640 635 630 625 620 615

4:1 0.020 0.020 4.17 9:1 2:1 2:1 630.07 622.00

80+00.00

640 635 630 625 620 615 610

4:1 0.020 0.015 4:1 2:1 2:1 617.24 617.35

79+50.00

-Y9-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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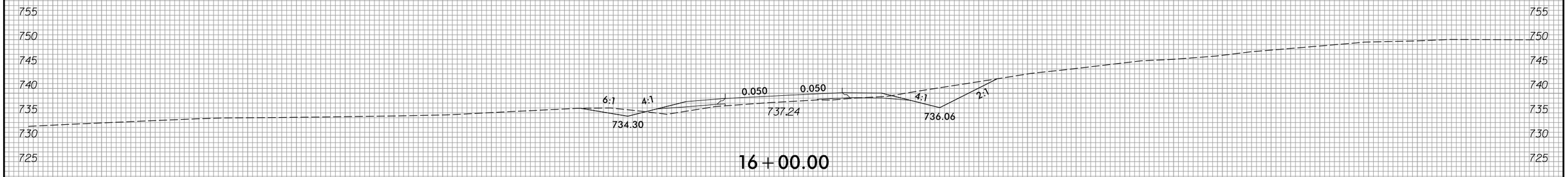
Fkeys

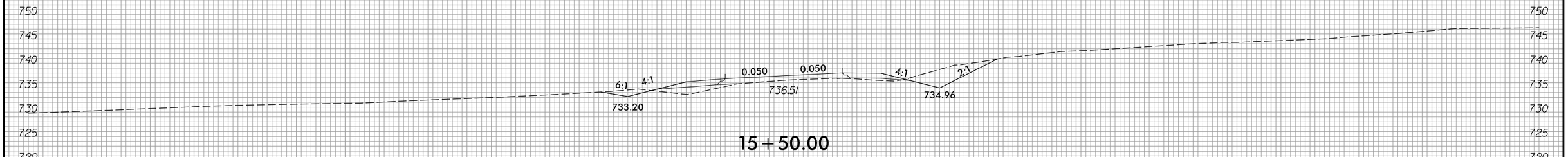
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-305

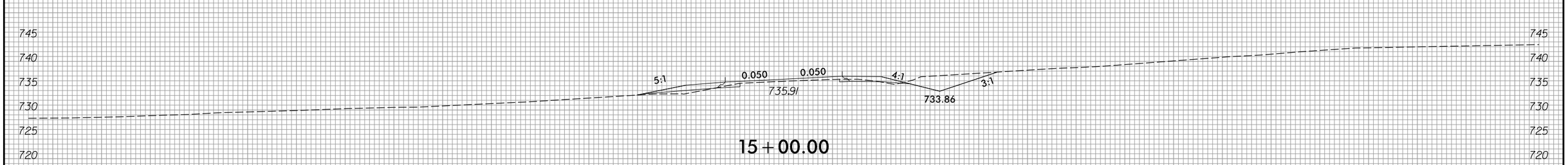
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



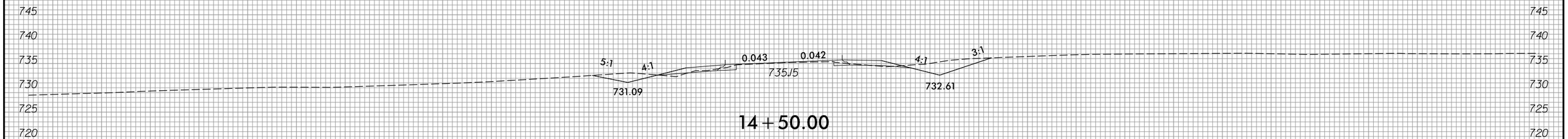
16 + 00.00



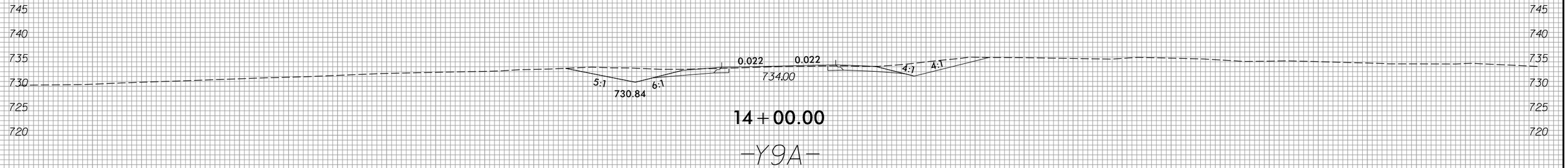
15 + 50.00



15 + 00.00



14 + 50.00



14 + 00.00

-Y9A-

3/22/2016
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Fkeys

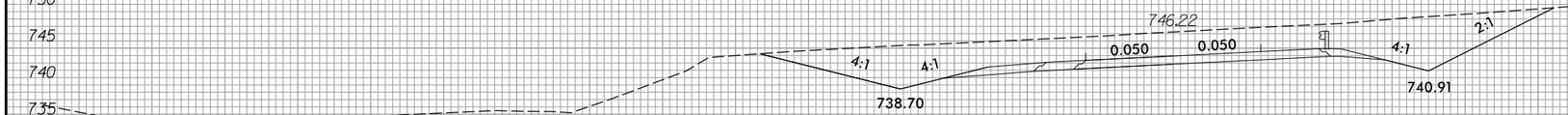
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-306

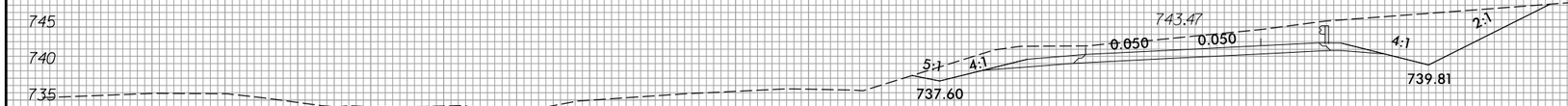
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

760 755 750 745 740 735 730 725 720



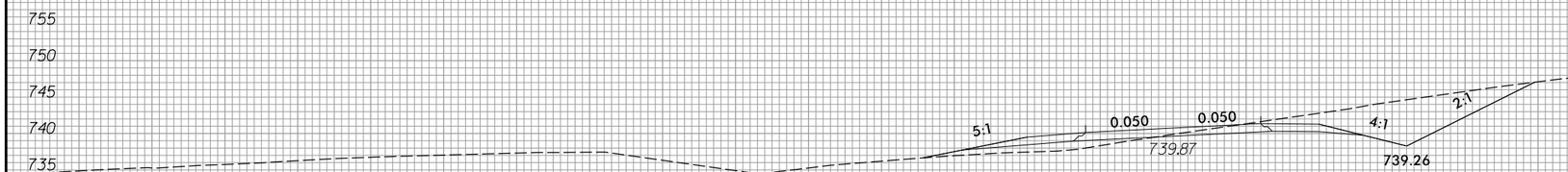
18+00.00

760 755 750 745 740 735 730 725 720



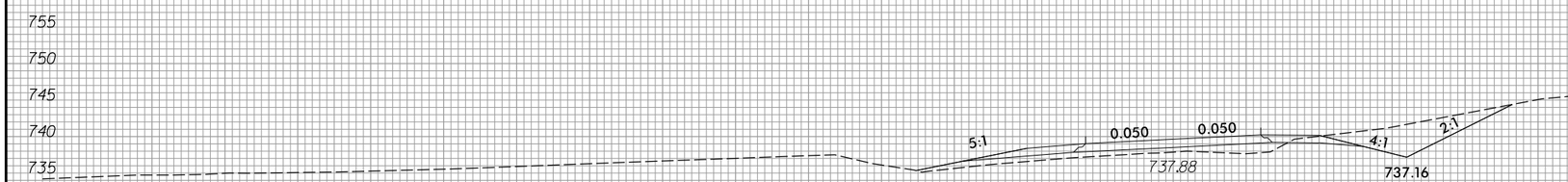
17+50.00

755 750 745 740 735 730 725 720



17+00.00

755 750 745 740 735 730 725



16+50.00

-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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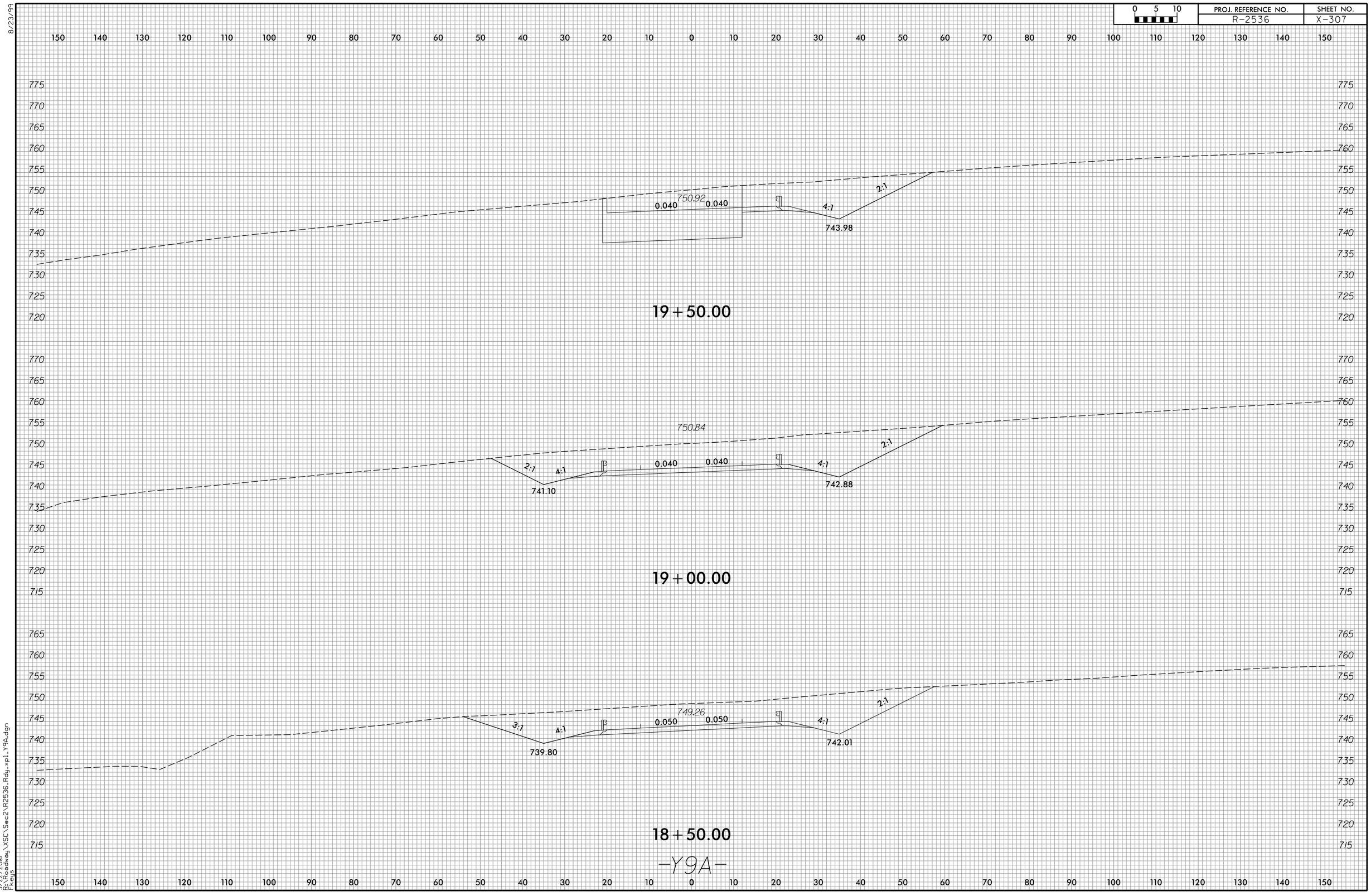
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-307



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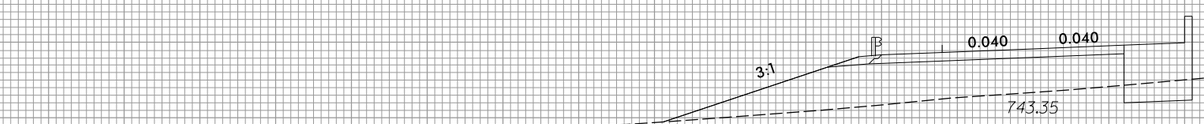
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-308

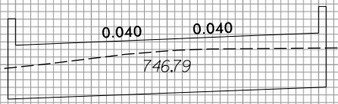
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

770 765 760 755 750 745 740 735 730 725



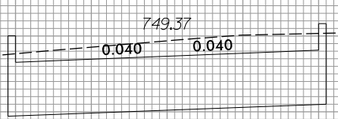
21+00.00

770 765 760 755 750 745 740 735 730 725 720



20+50.00

775 770 765 760 755 750 745 740 735 730 725 720



20+00.00

-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Plotted

8/23/99

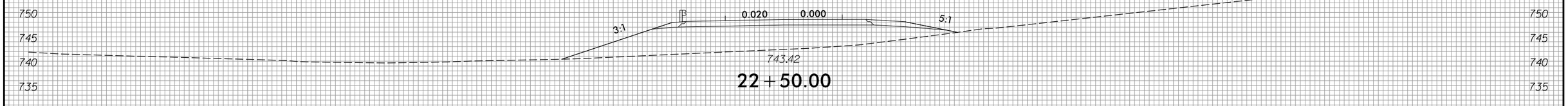
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-309

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

765 760 755 750 745 740

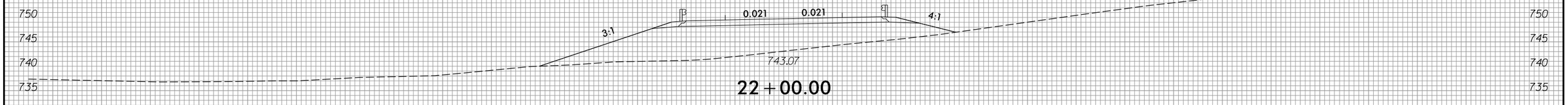
23+00.00

770 765 760 755 750 745 740 735



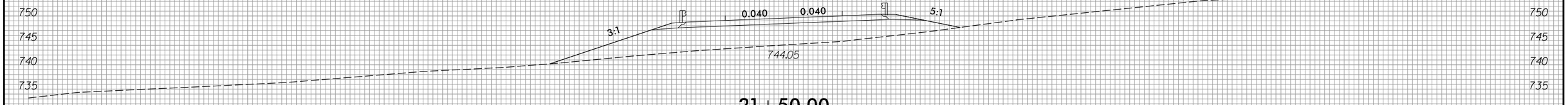
22+50.00

770 765 760 755 750 745 740 735



22+00.00

770 765 760 755 750 745 740 735



21+50.00

730

-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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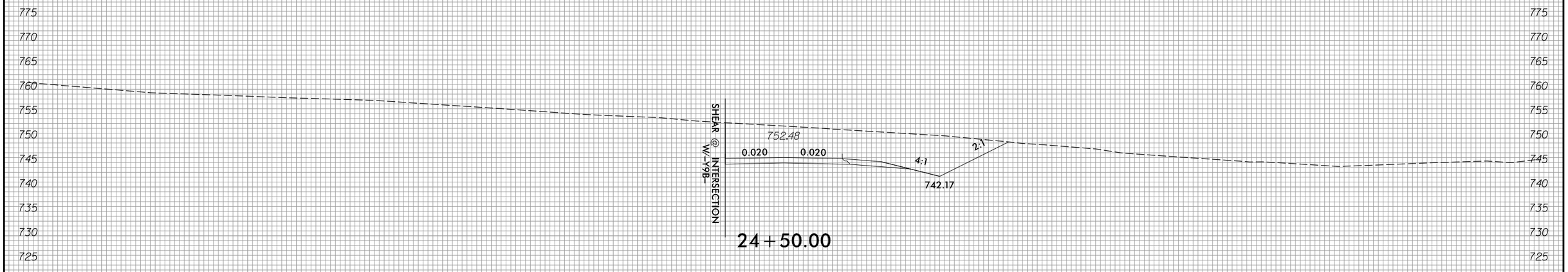
Fkeys

8/23/99

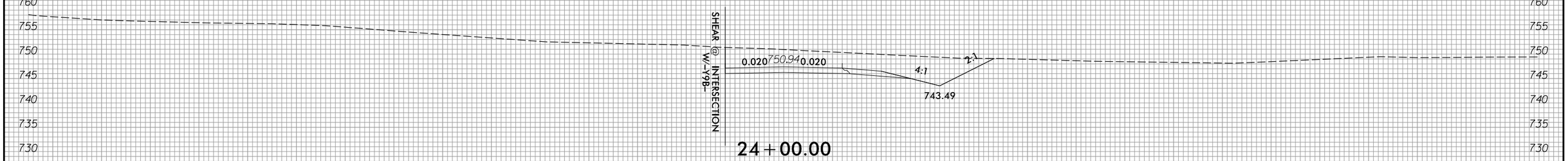
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-310

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

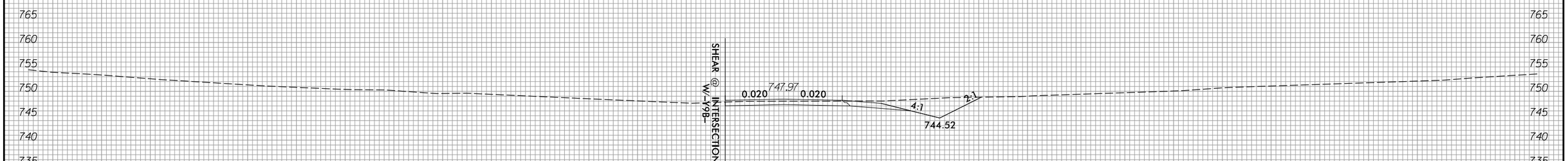
775 770 765 760 755 750 745 740 735 730 725



24+50.00



24+00.00



23+50.00

-Y9A-

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-311

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775 770 765 760 755 750 745 740 735 730 725 720

752J9

2:1 4:1 0.020 0.020 4:1 2:1

736.42 736.42

26+00.00

780 775 770

753.69

2:1 4:1 0.020 0.020 4:1 2:1

738.63 738.63

25+50.00

775 770 765 760 755 750 745 740 735 730

753.59

2:1 4:1 0.020 0.020 4:1 2:1

740.55 740.55

25+00.00

-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

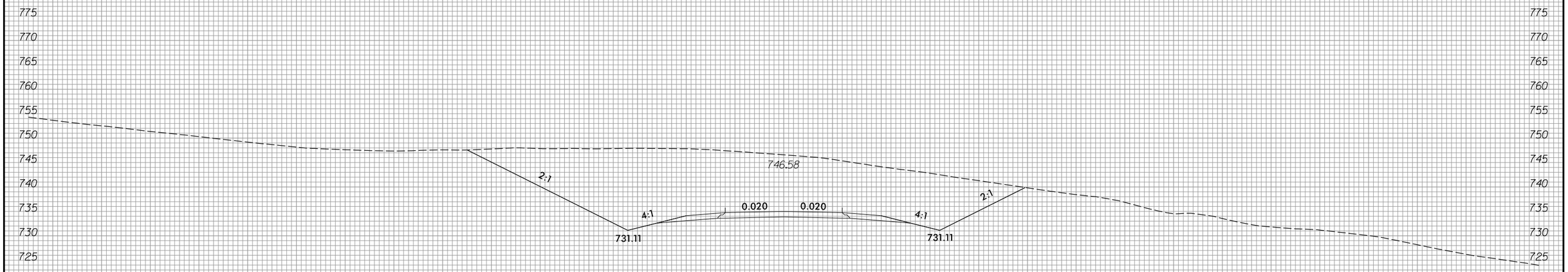
3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9A.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-312

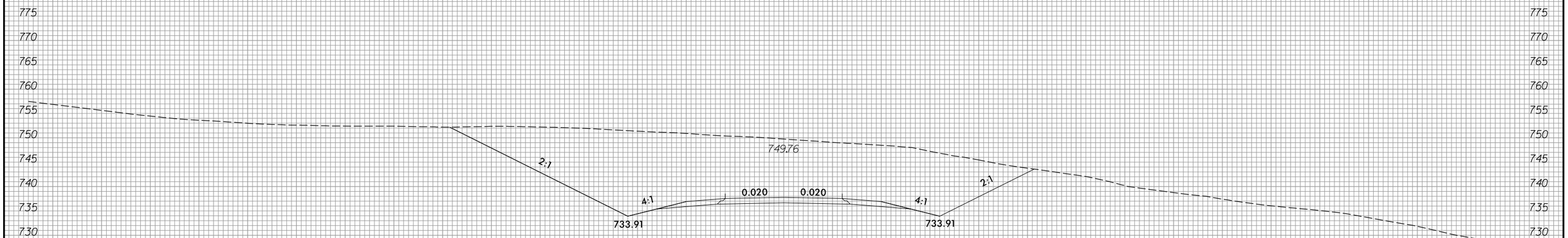
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775 770 765 760 755 750 745 740 735 730 725 720 715 710 705



27+00.00

775 770 765 760 755 750 745 740 735 730 725 720 715



26+50.00

-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

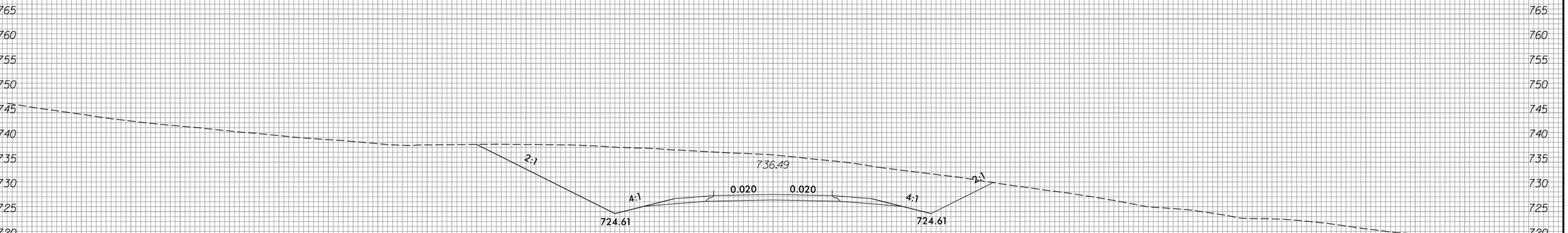
3/22/2016
R:\RDWAY\XSC\Sec2\R2536_Rdy_xpl_Y9A.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-313

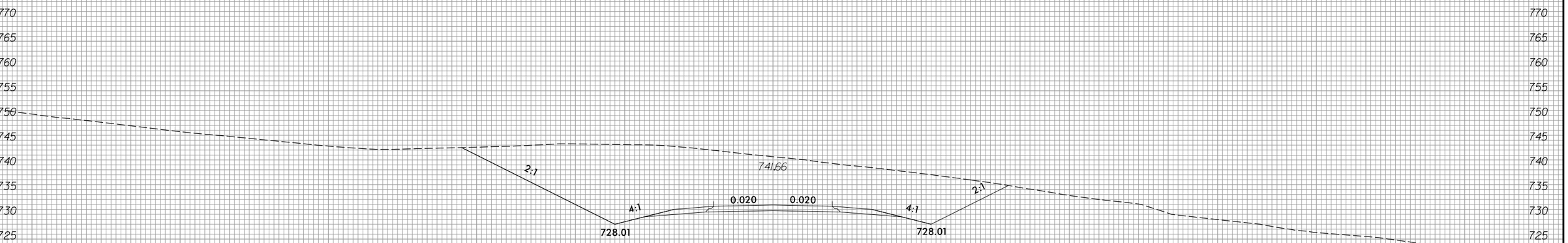
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

765 760 755 750 745 740 735 730 725 720 715 710 705 700 695 690



28+00.00

770 765 760 755 750 745 740 735 730 725 720 715 710 705 700 695



27+50.00

-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

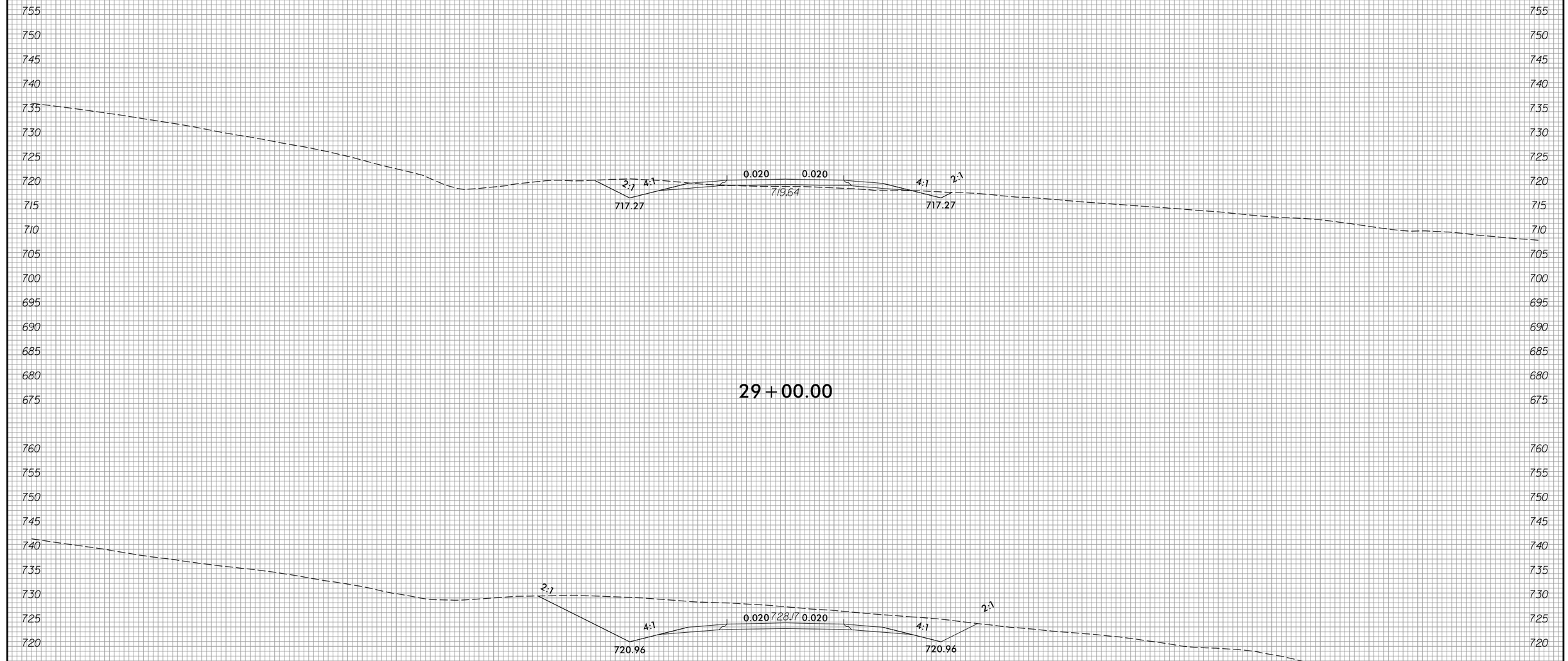
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9A.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-314

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675



29+00.00

760 755 750 745 740 735 730 725 720 715 710 705 700 695 690 685

28+50.00

-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-315

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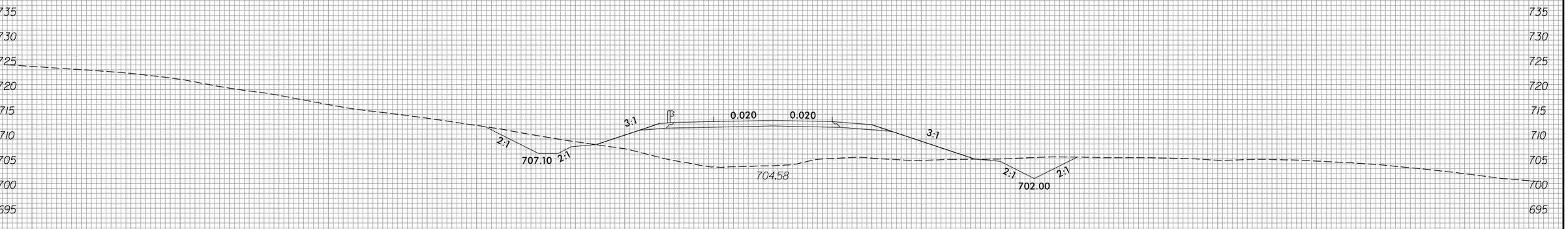
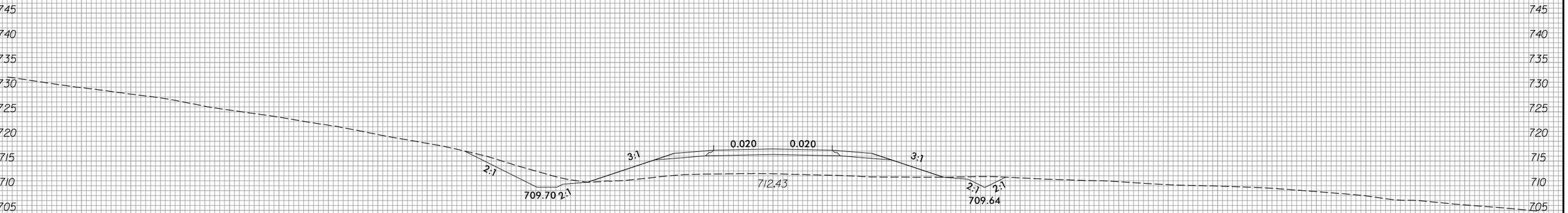
735 730 725 720 715 710 705 700 695 690 685 680



30+00.00

745 740 735 730 725 720 715 710 705 700 695 690 685 680



29+50.00

675

-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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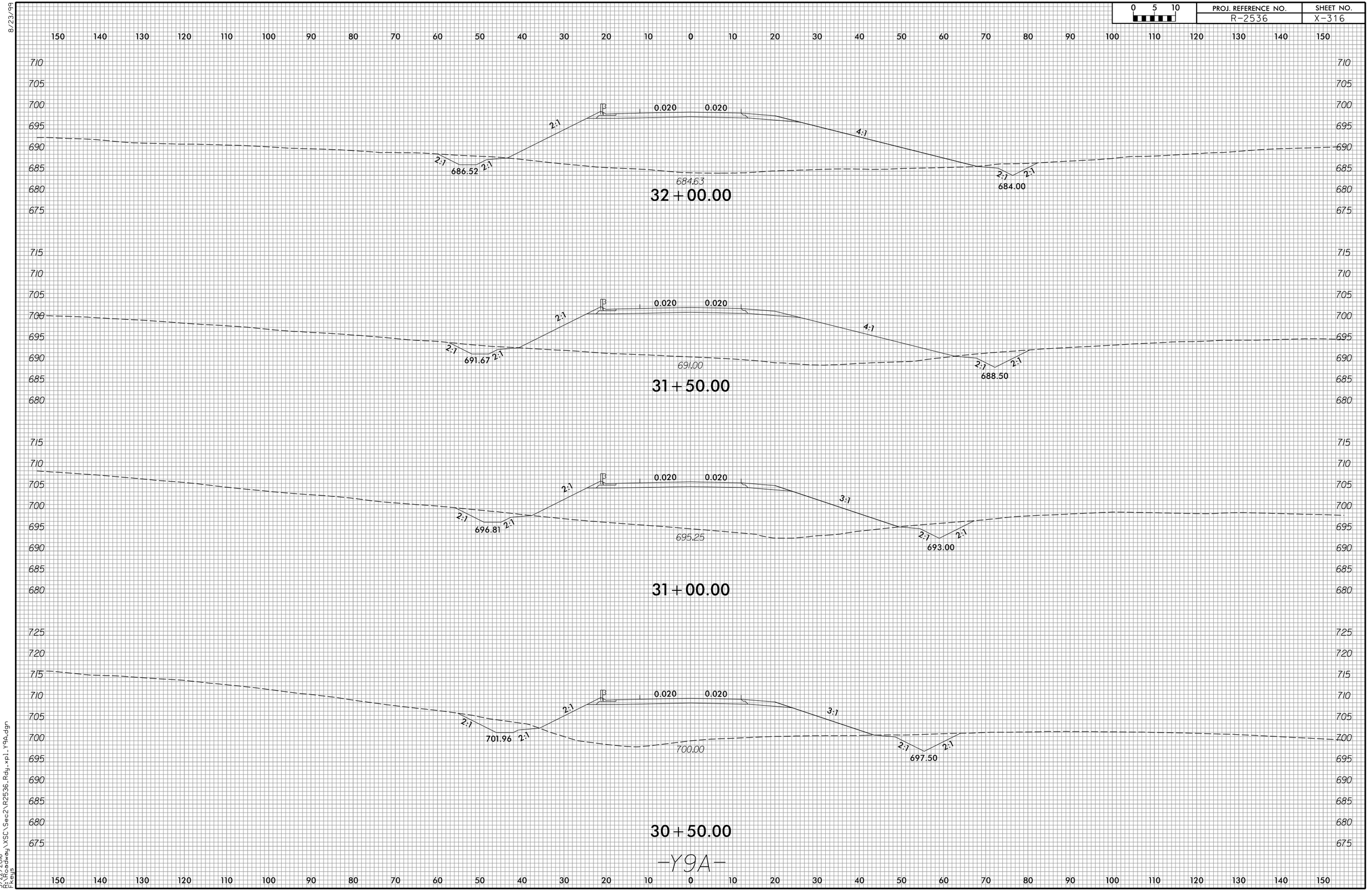
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-316



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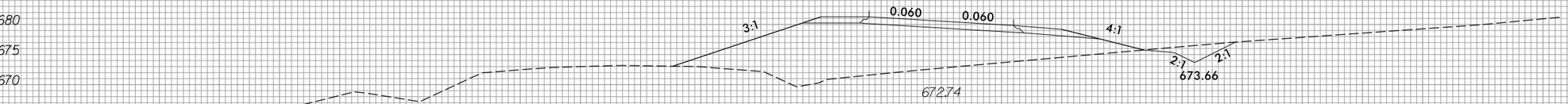
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-317

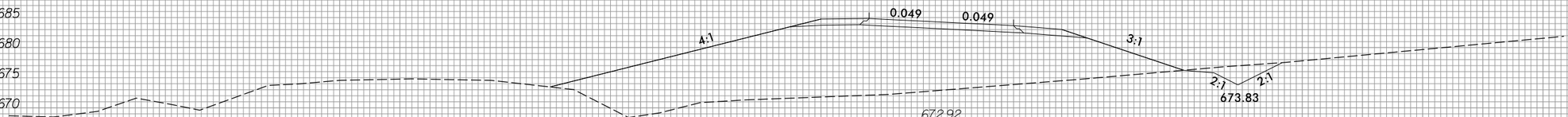
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

685 680 675 670 665 660



34+50.00

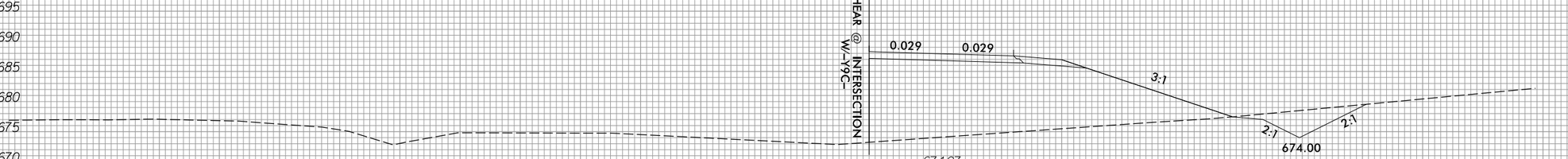
690 685 680 675 670 665



34+00.00

700 695 690 685 680 675 670 665

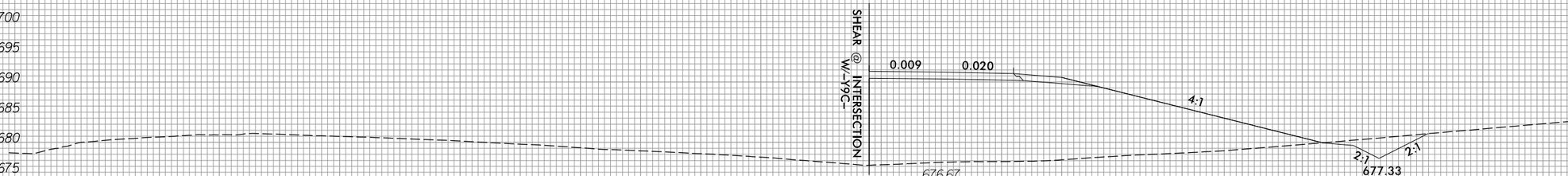
SHEAR @ INTERSECTION W/-Y9C-



33+50.00

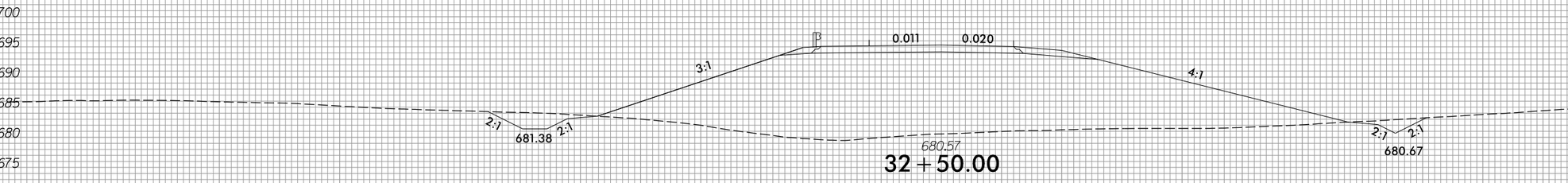
700 695 690 685 680 675 670

SHEAR @ INTERSECTION W/-Y9C-



33+00.00

700 695 690 685 680 675



32+50.00

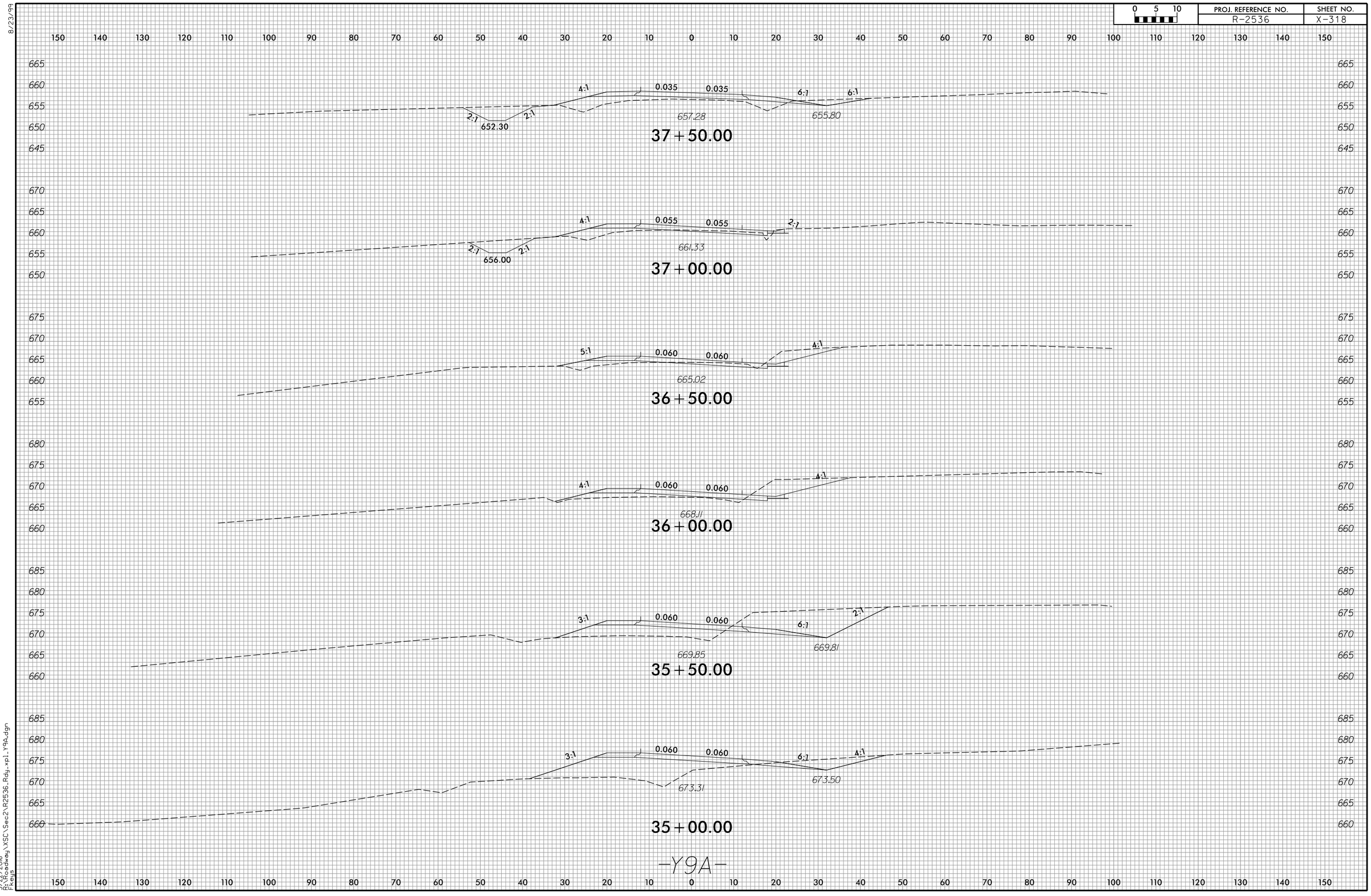
-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9A.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-318

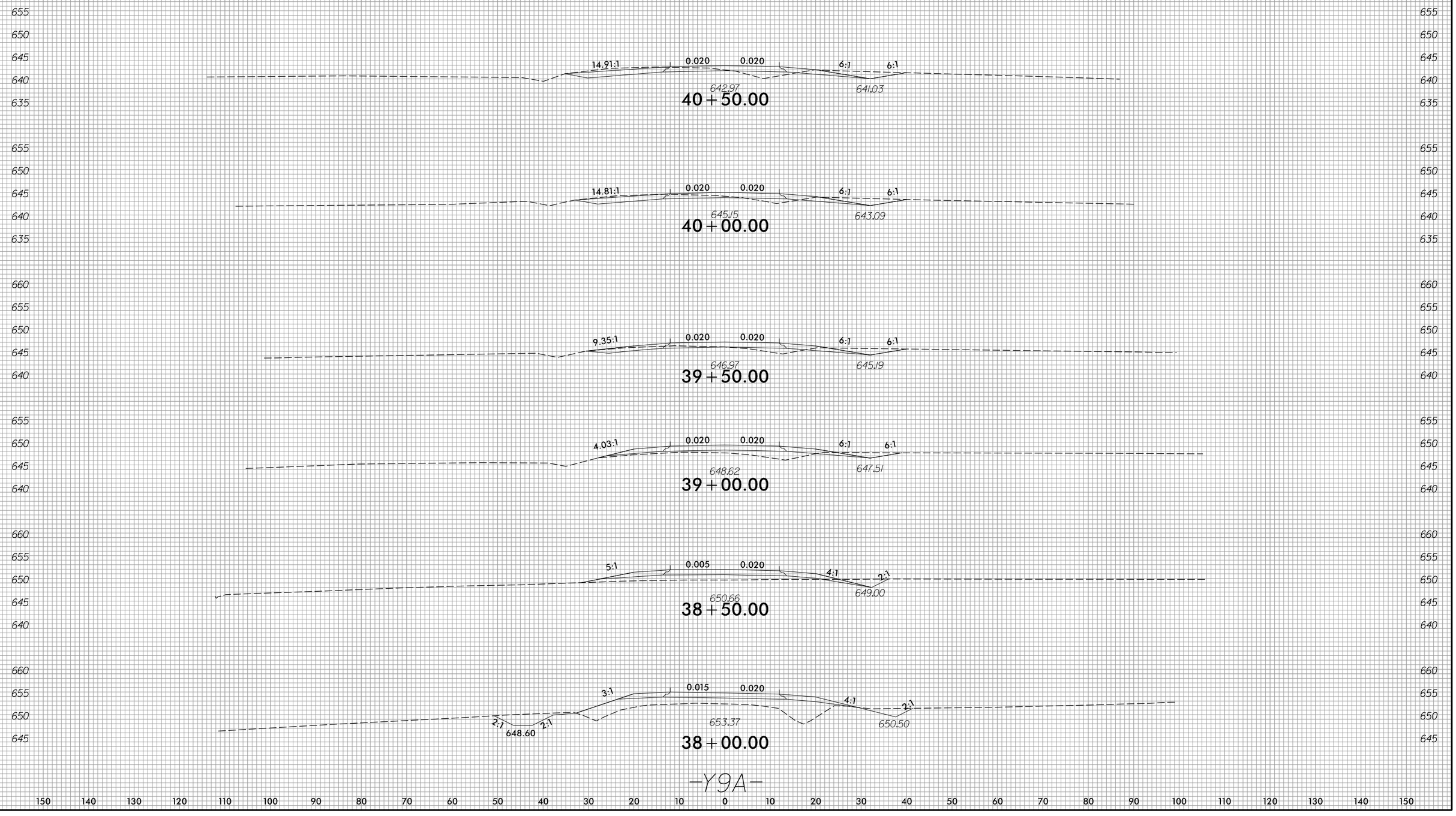


3/22/2016
R:\R-Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9A.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-319

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



-Y9A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-320

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

645 640 635 630 625

6:1 0.011 0.011 4:1 2:1

634.21 630.07

42+50.00

645 640 635 630 625

14.13:1 0.020 0.020 4:1 2:1

634.93 633.03

42+00.00

650 645 640 635 630

15.04:1 0.020 0.020 4:1 2:1

637.61 636.00

41+50.00

650 645 640 635 630

14.74:1 0.020 0.020 6:1 6:1

640.79 638.96

41+00.00

630

-Y9A-

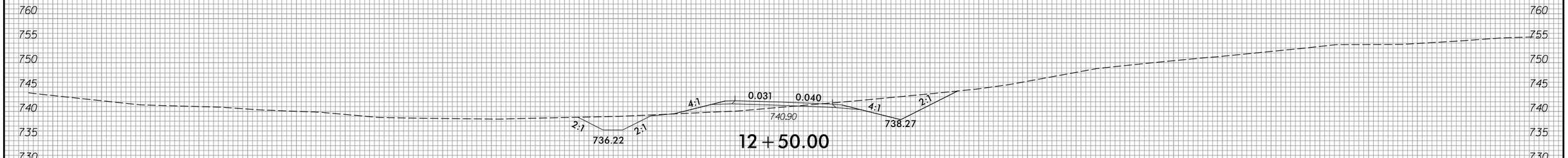
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Projects\XSC\Sec2\R2536_Rdy_xpl_Y9A.dgn
FKeys

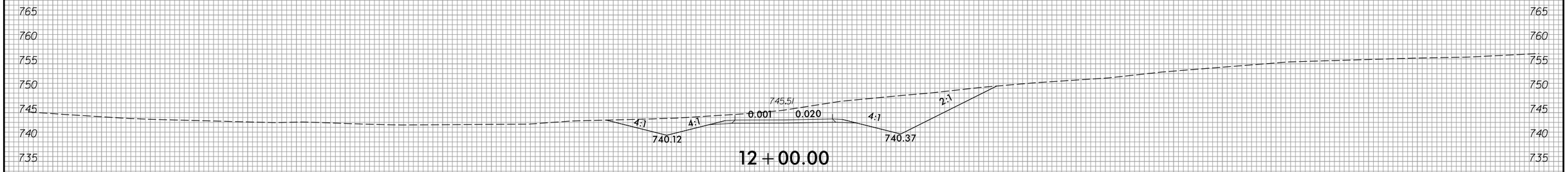
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-321

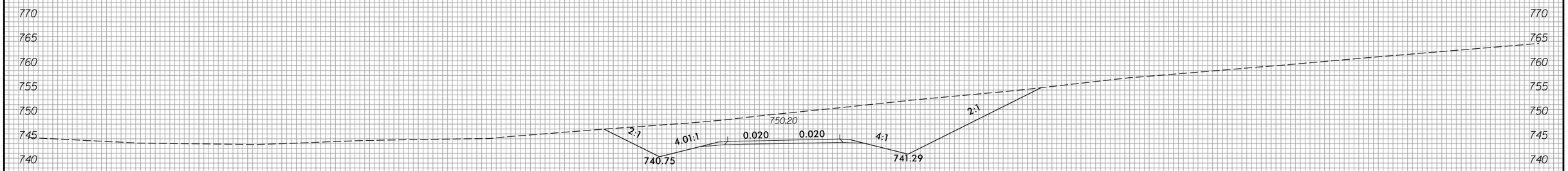
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



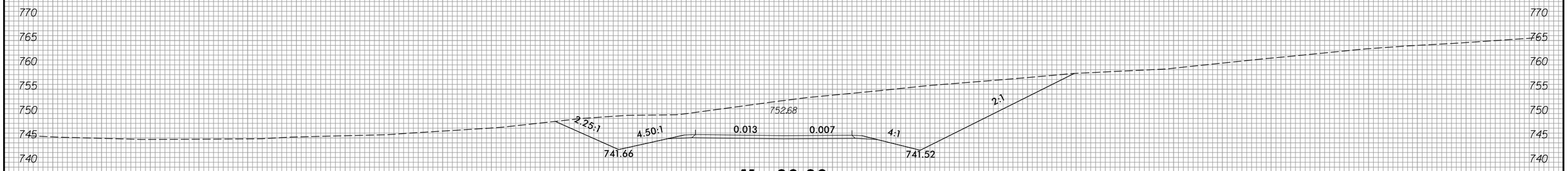
12 + 50.00



12 + 00.00



11 + 50.00



11 + 00.00

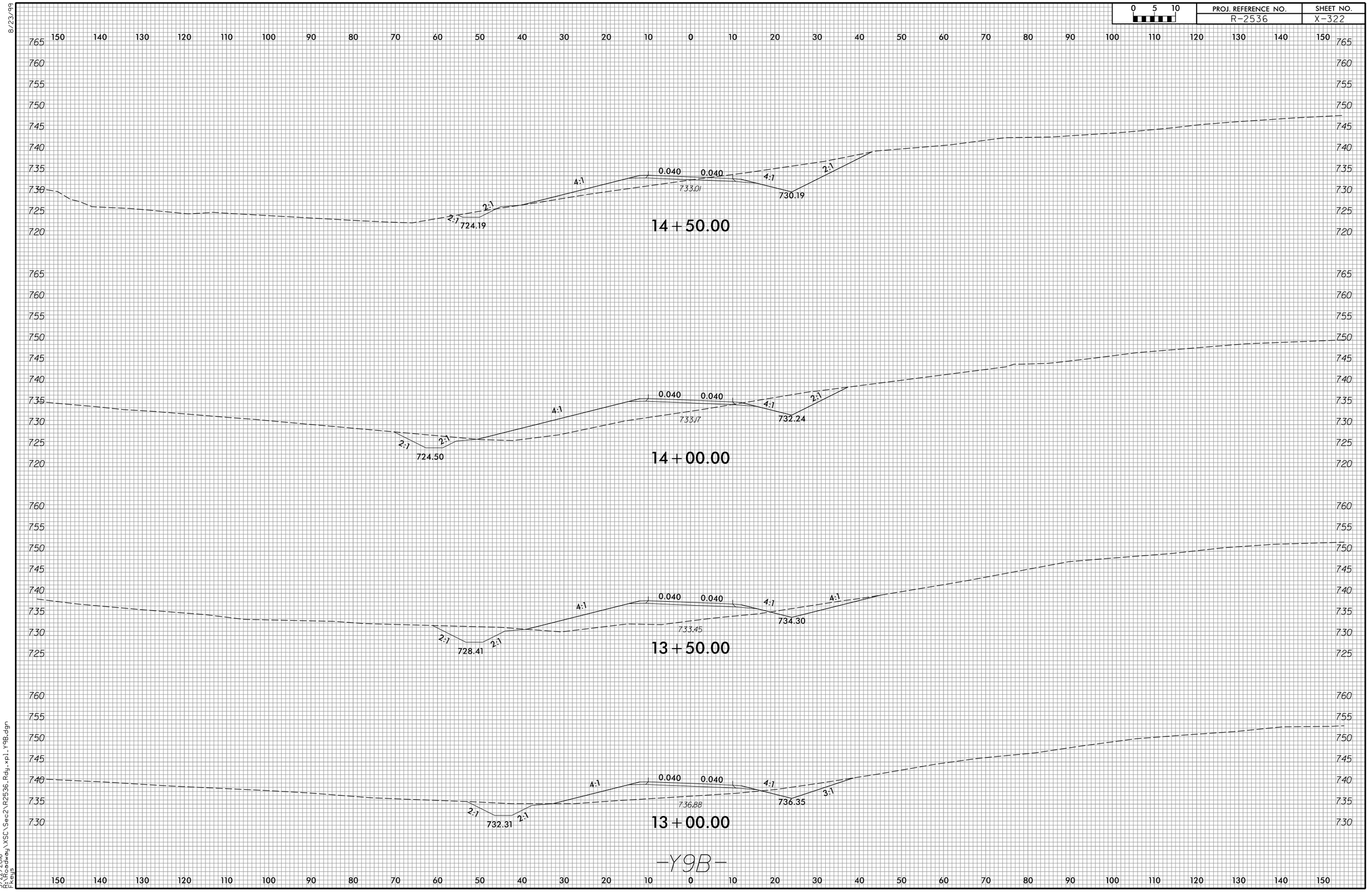
-Y9B-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9B.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-322



-Y9B-

3/22/2016
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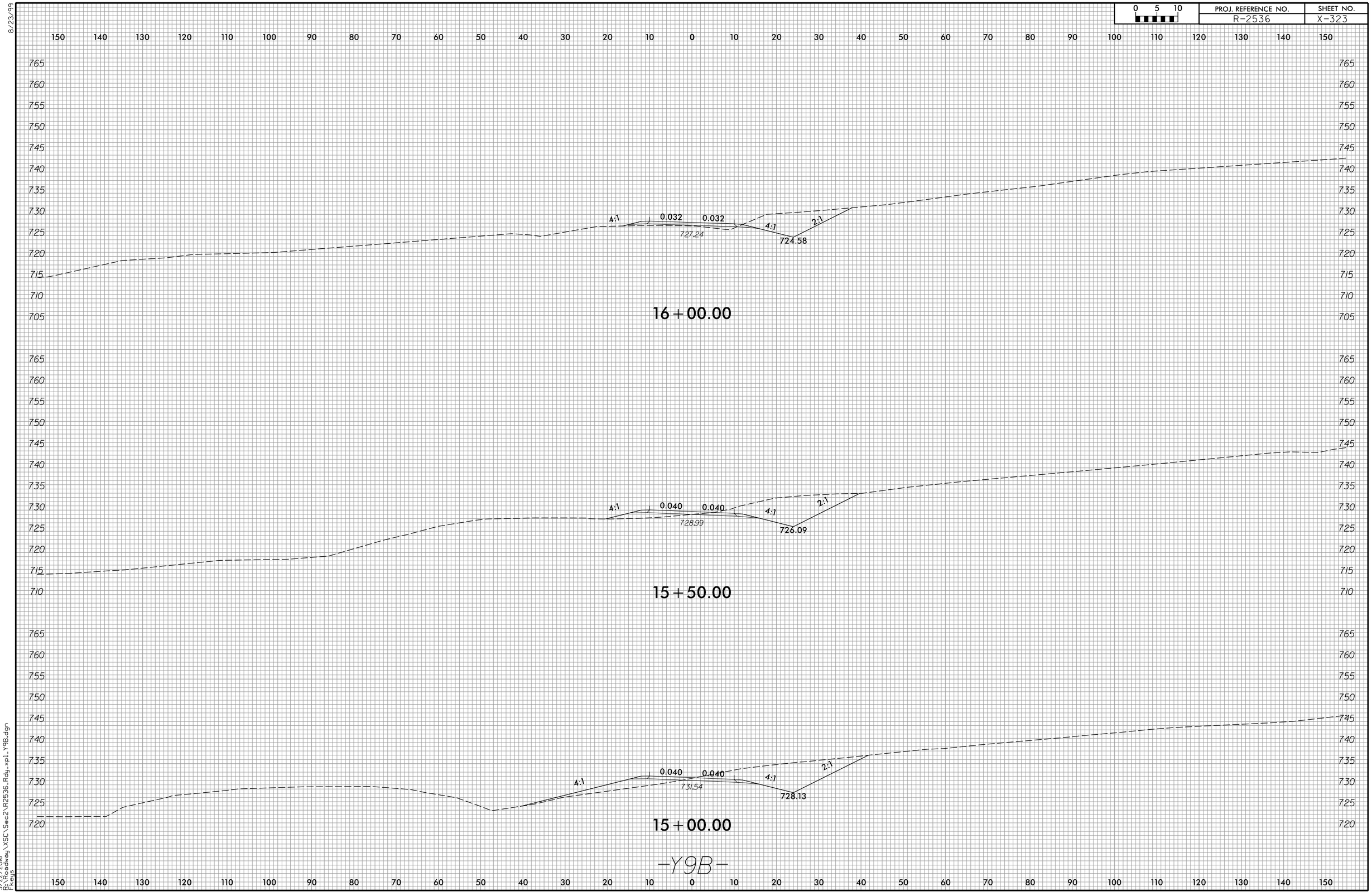
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-323



—Y9B—

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_Y9B.dgn
Fleyis

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-324

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

765 760 755 750 745 740 735 730 725 720 715 710 705

4:1 0.001 0.001 4:1 4:1

726.97

724.02

16+50.00

-Y9B-

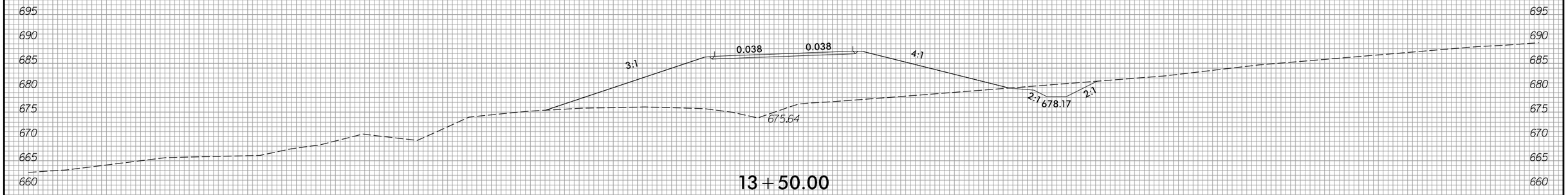
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\R-2536dwg\XSC\Sec2\R2536_Rdy_xpl_Y9B.dgn
Fkeys

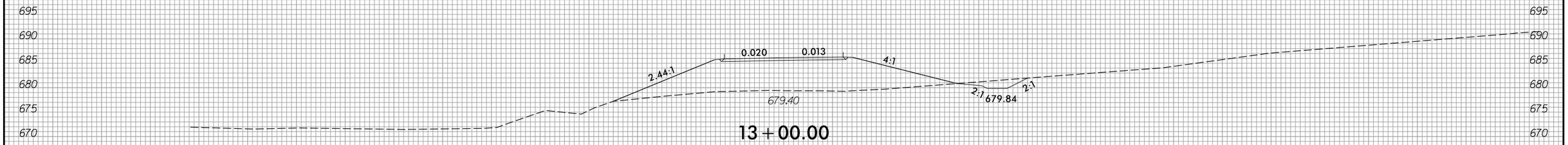
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-325

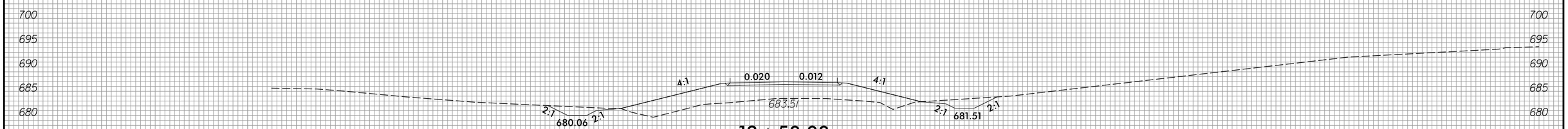
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



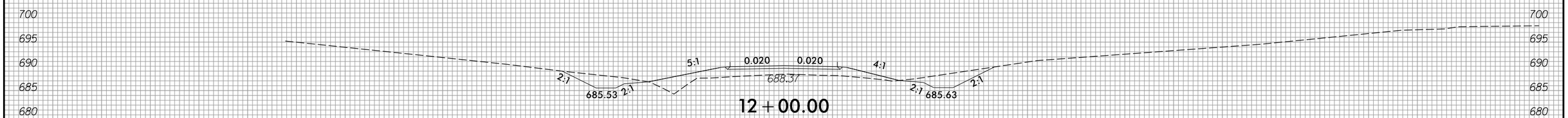
13 + 50.00



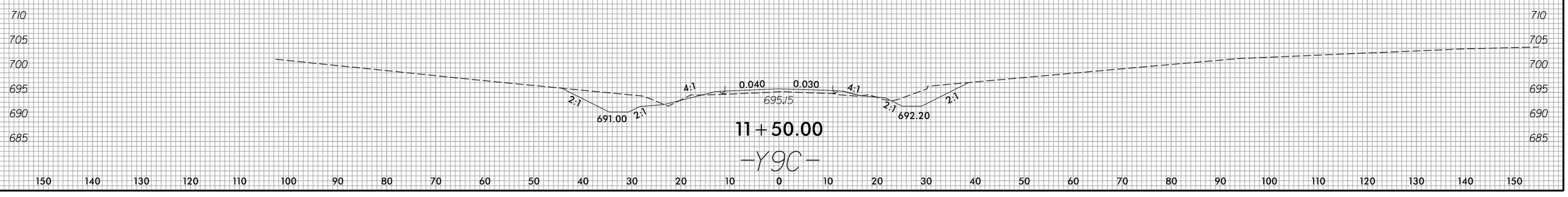
13 + 00.00



12 + 50.00



12 + 00.00



11 + 50.00

-Y9C-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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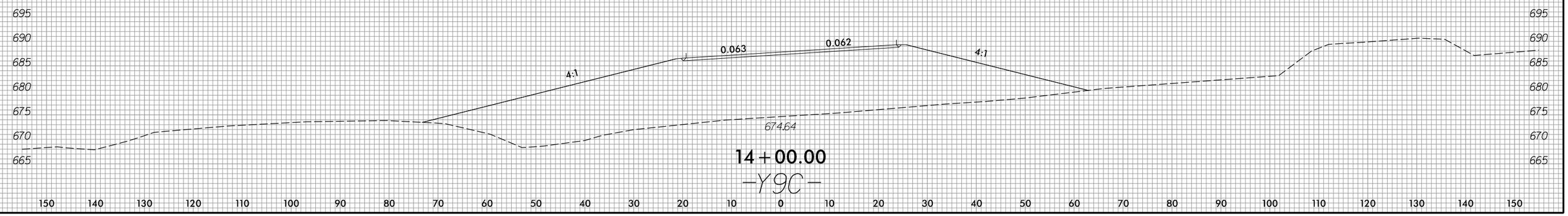
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-326

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



14+00.00

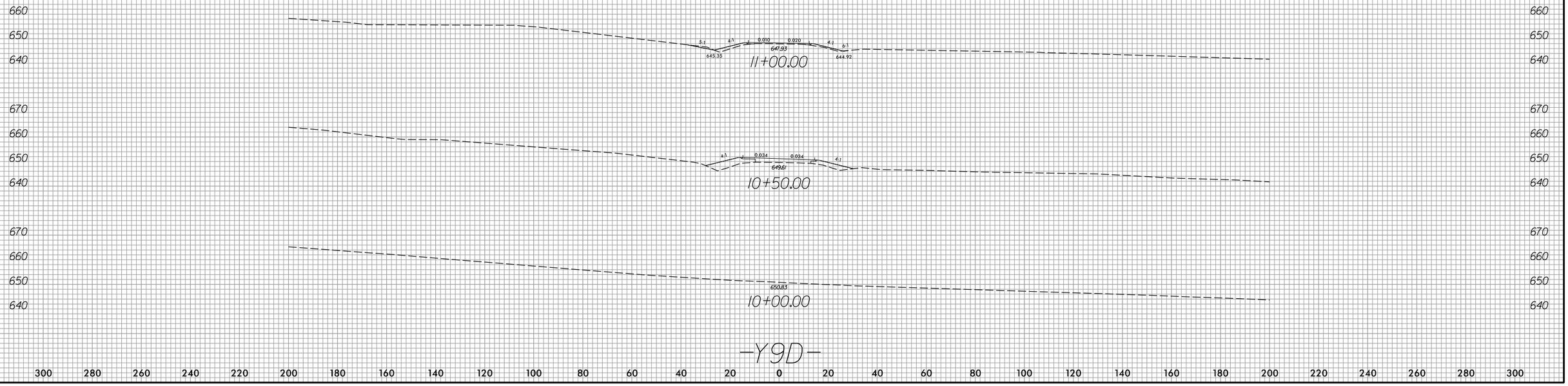
-Y9C-

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9C.dgn
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-327

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



-Y9D-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

3/22/2016
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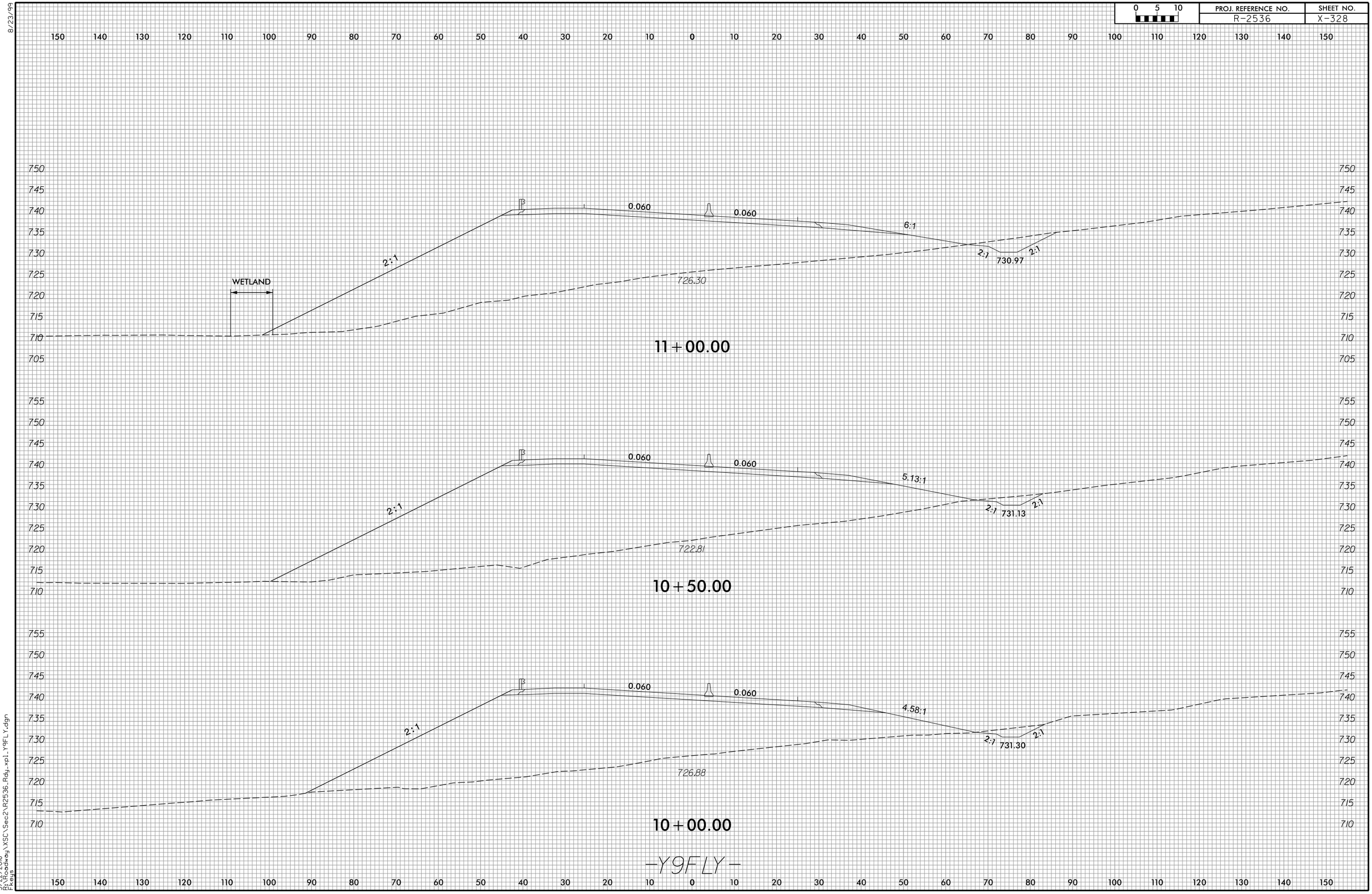
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-328



3/22/2016
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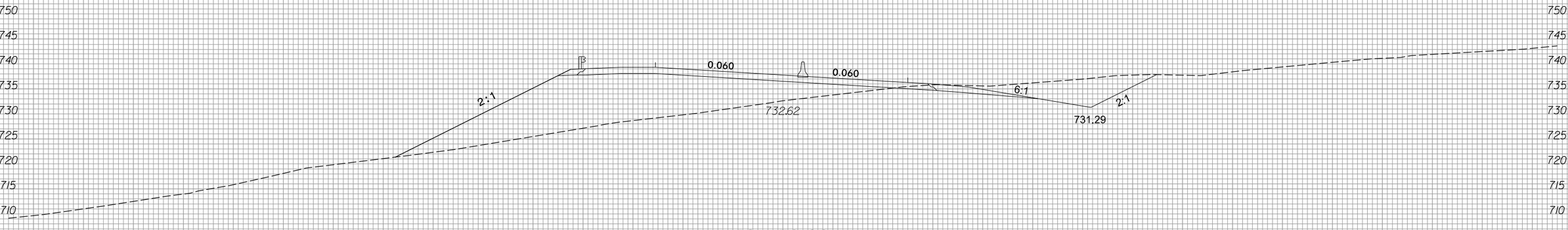
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-329

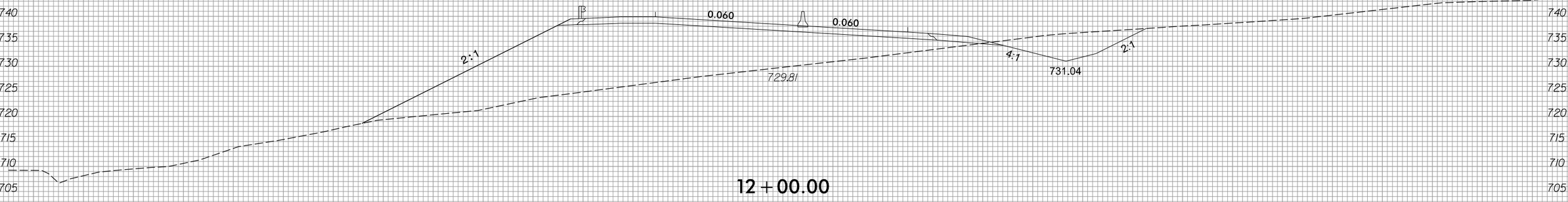
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750 745 740 735 730 725 720 715 710 705



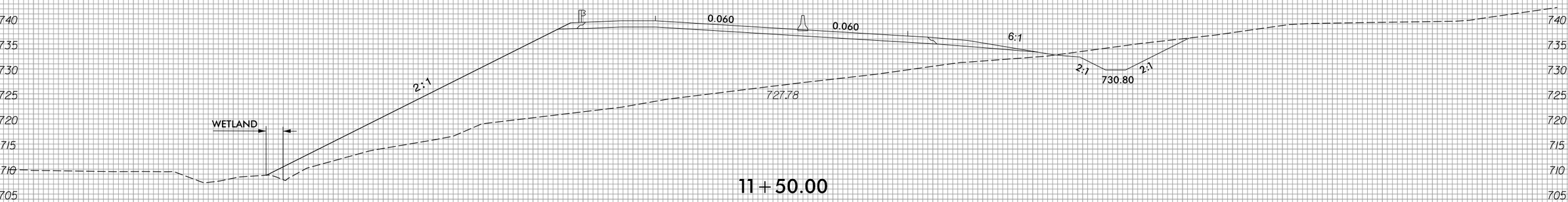
12 + 50.00

750 745 740 735 730 725 720 715 710 705



12 + 00.00

750 745 740 735 730 725 720 715 710 705



11 + 50.00

-Y9FLY-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

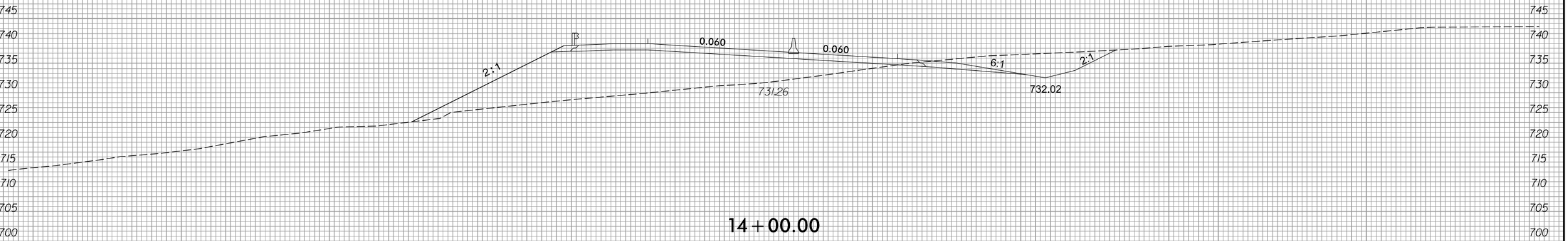
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-330

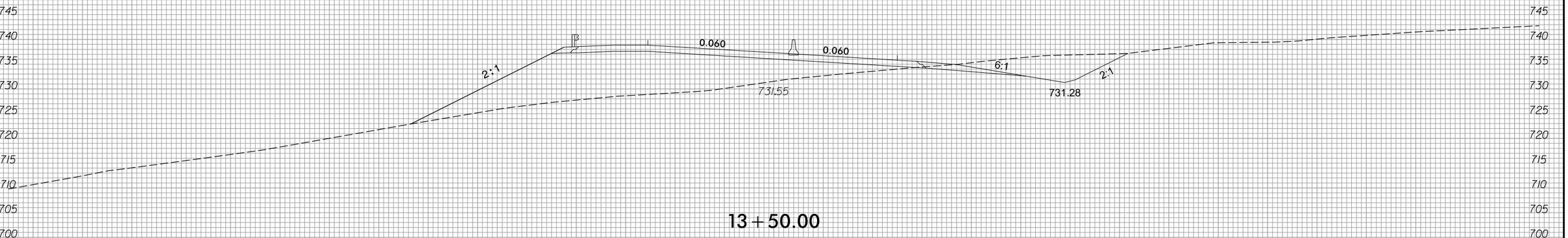
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

745 740 735 730 725 720 715 710 705 700



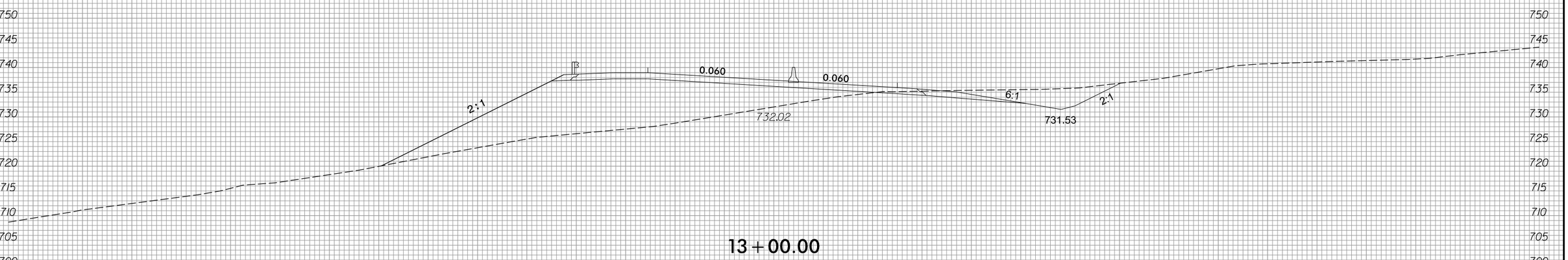
14 + 00.00

745 740 735 730 725 720 715 710 705 700



13 + 50.00

750 745 740 735 730 725 720 715 710 705 700



13 + 00.00

-Y9FLY-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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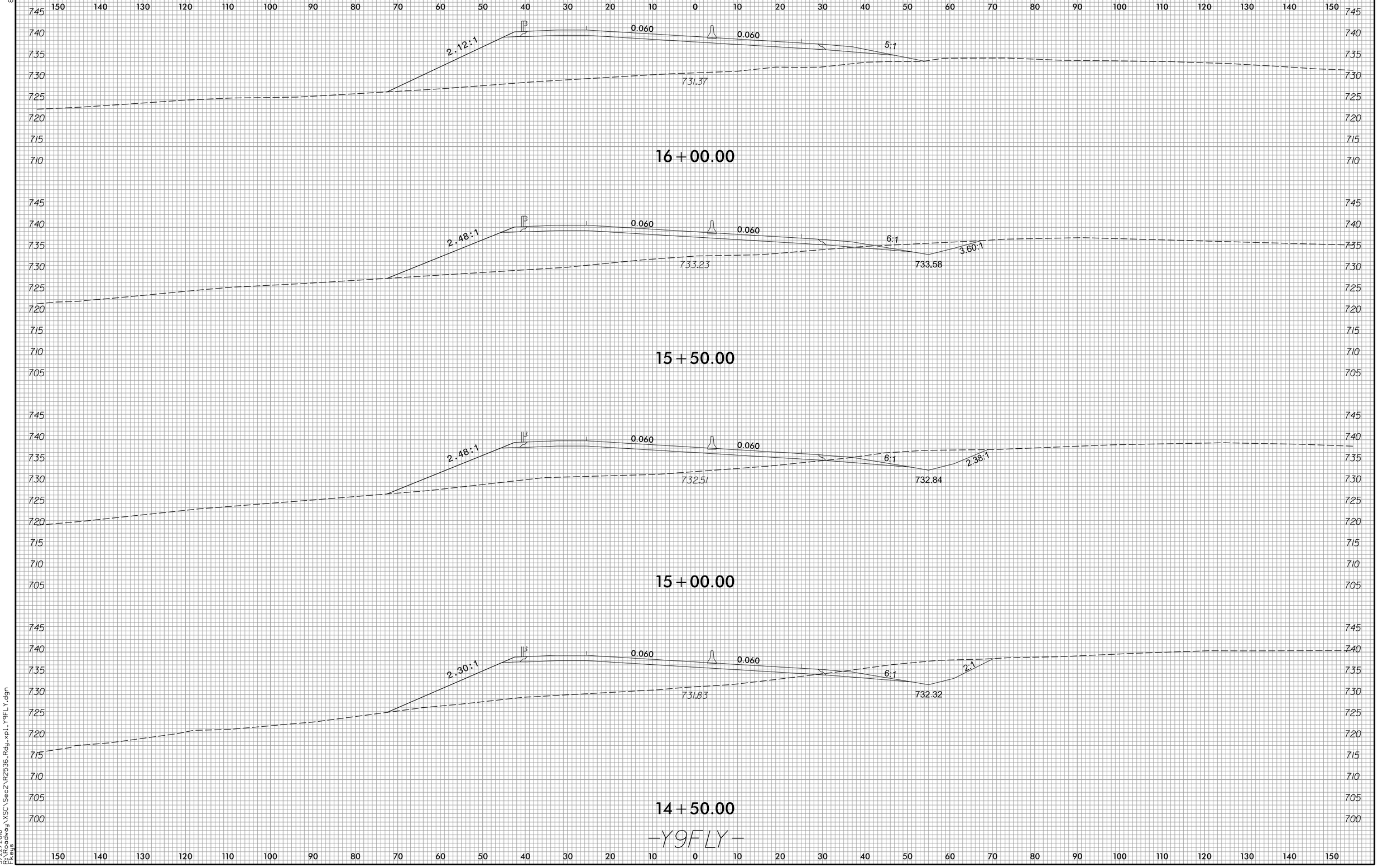
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-331



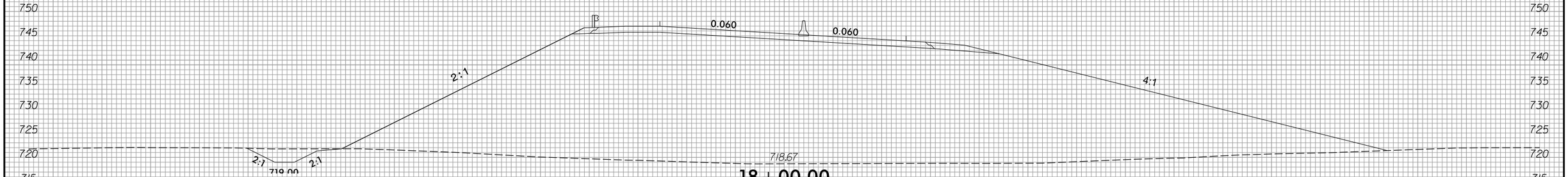
3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fkeys

8/23/99

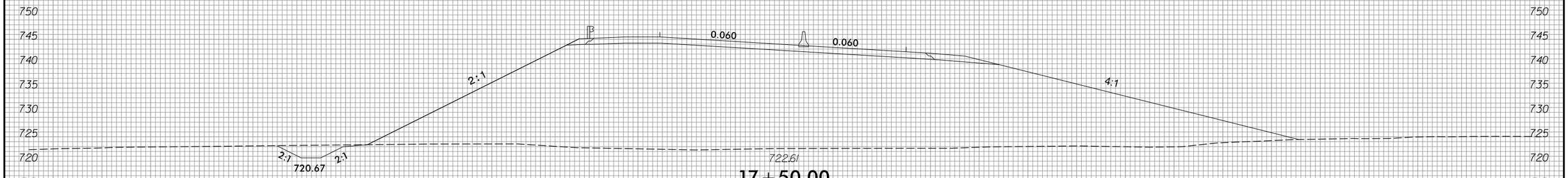
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-332

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

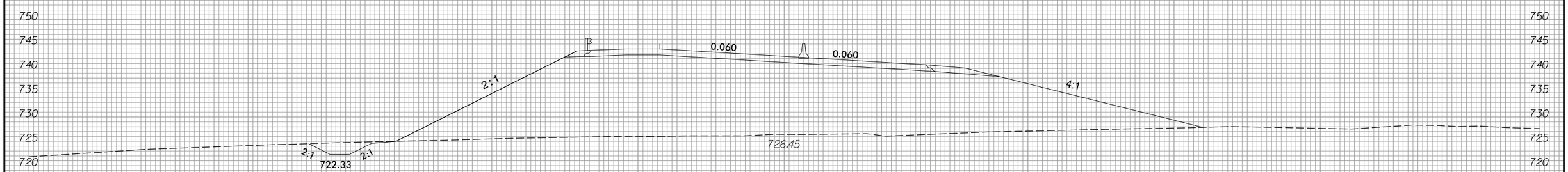
750 745 740 735 730 725 720 715



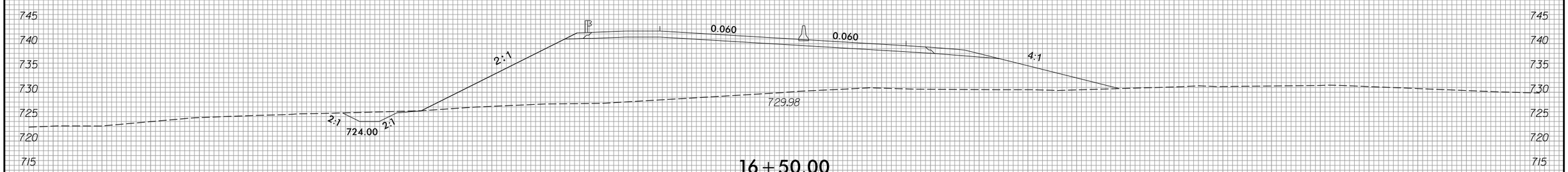
18+00.00



17+50.00



17+00.00



16+50.00

-Y9FLY-

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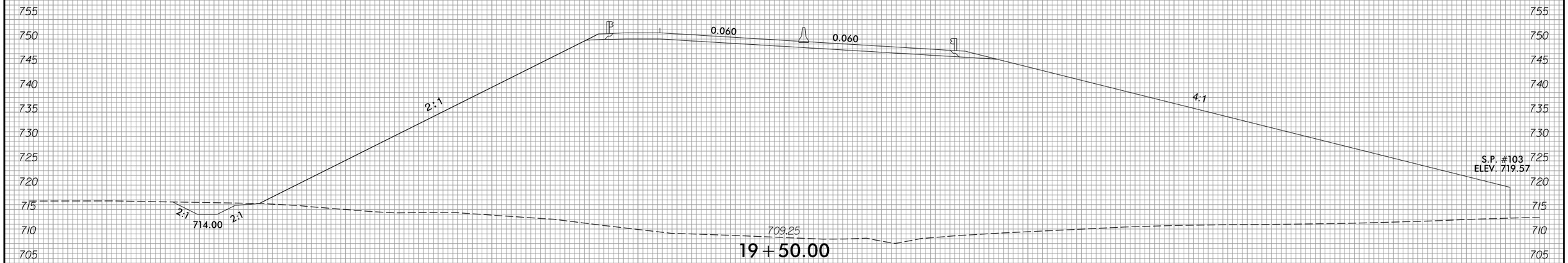
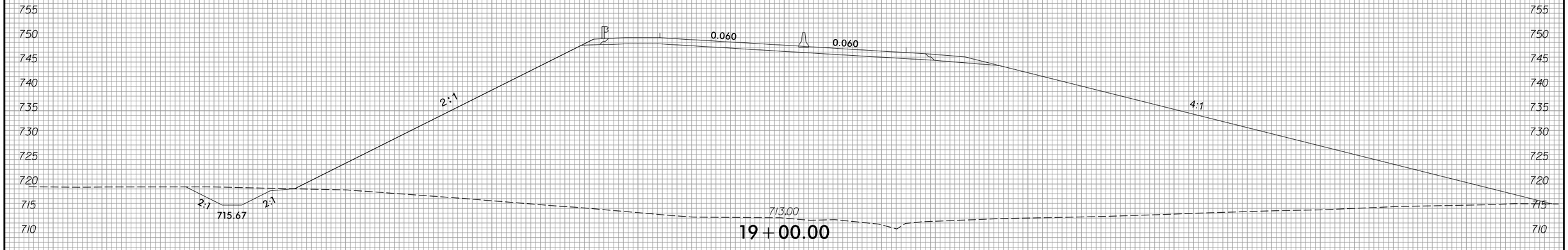
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-333

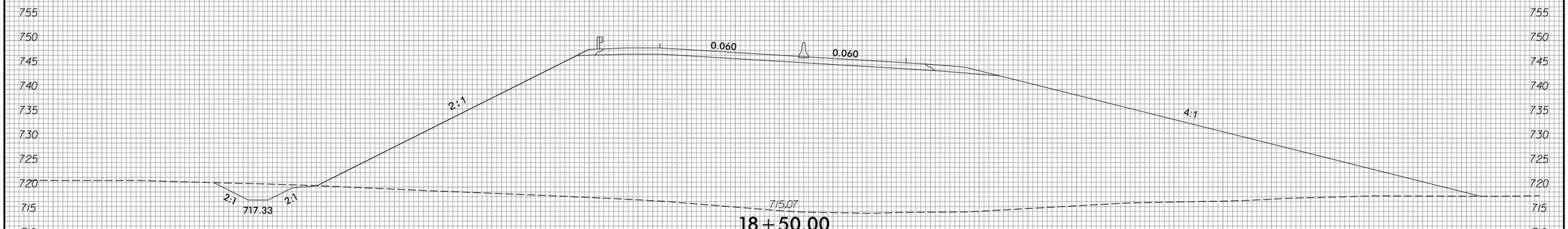
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



19 + 50.00



19 + 00.00



18 + 50.00

-Y9FLY-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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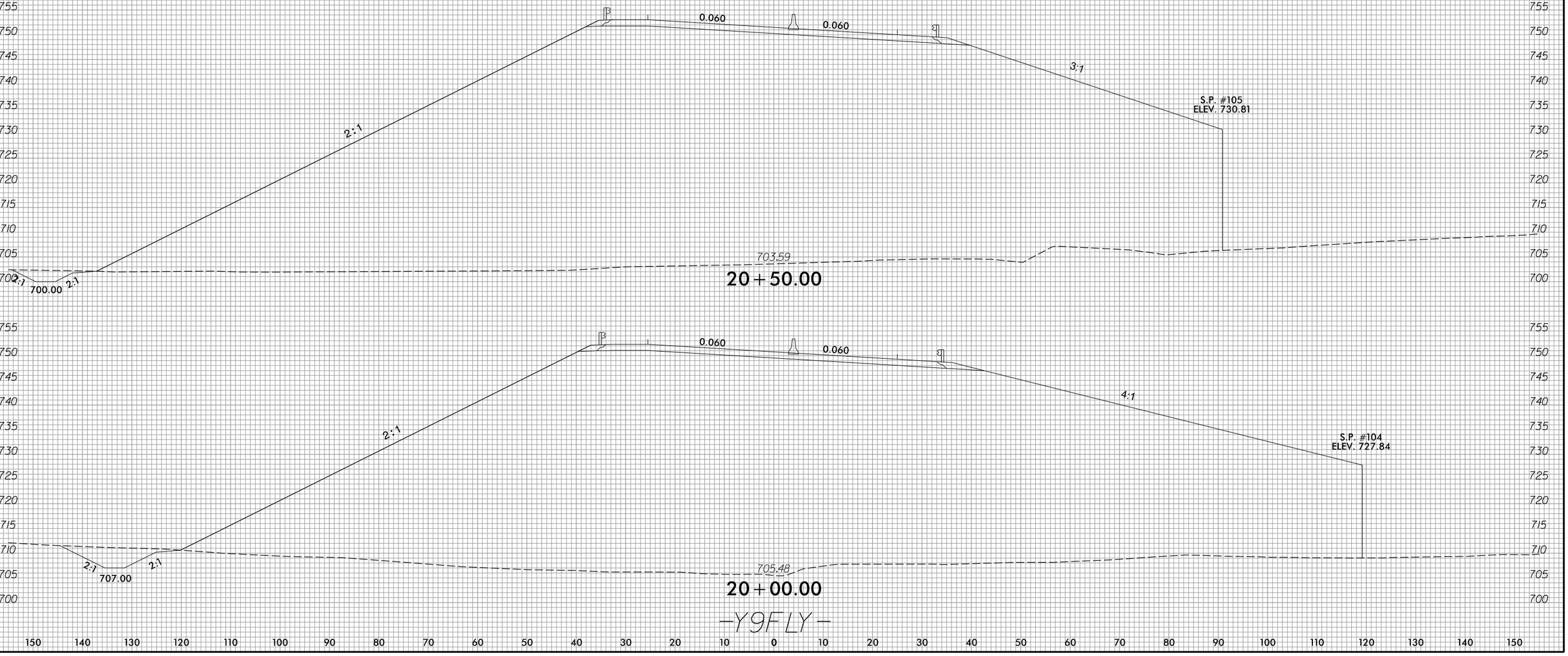
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-334

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

760 755 750 745 740 735 730 725 720 715 710 705 700



-Y9FLY-

3/22/2016
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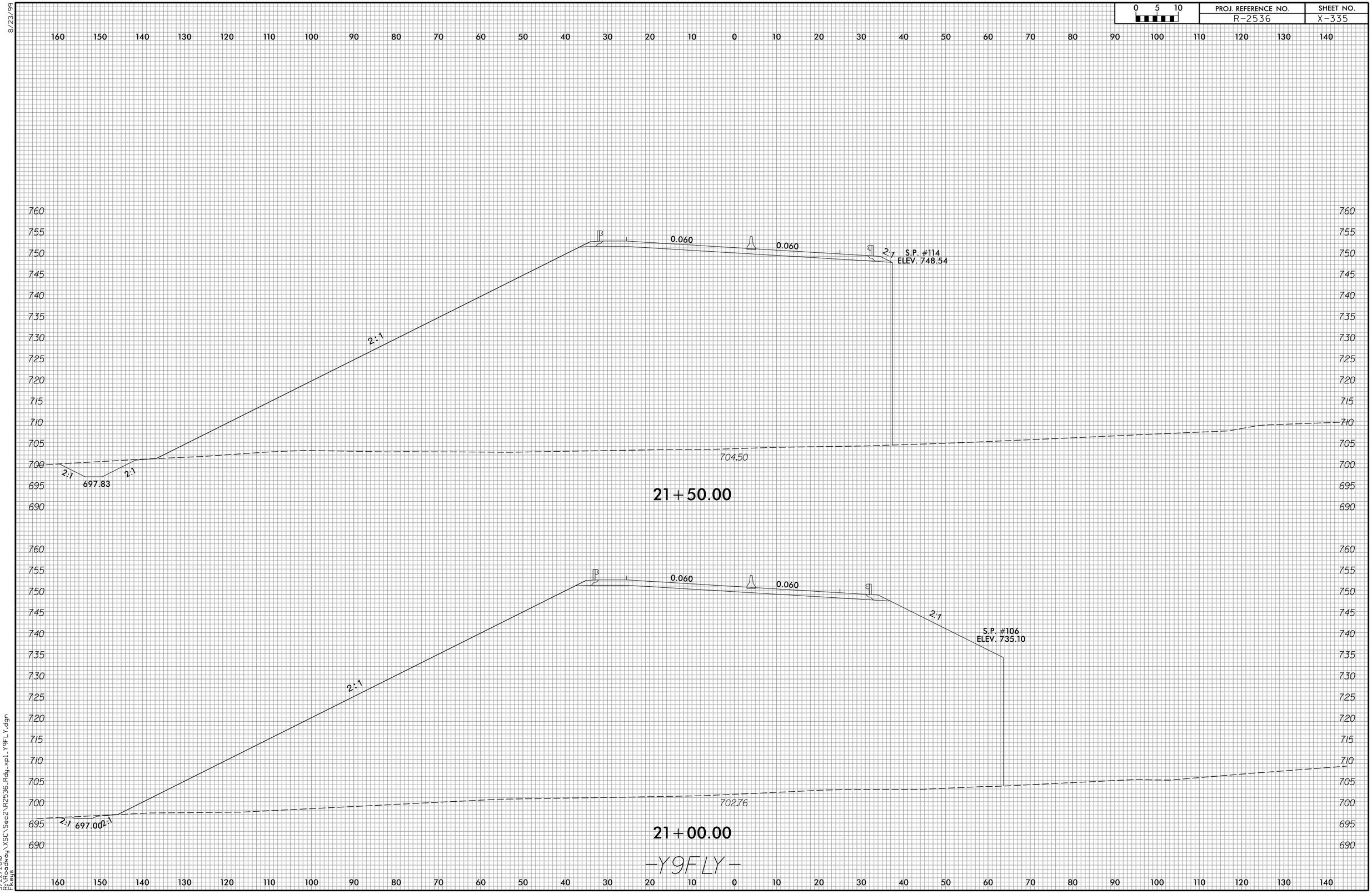
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-335



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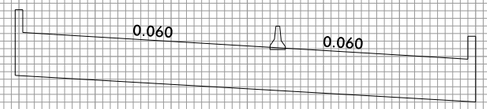
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-336

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

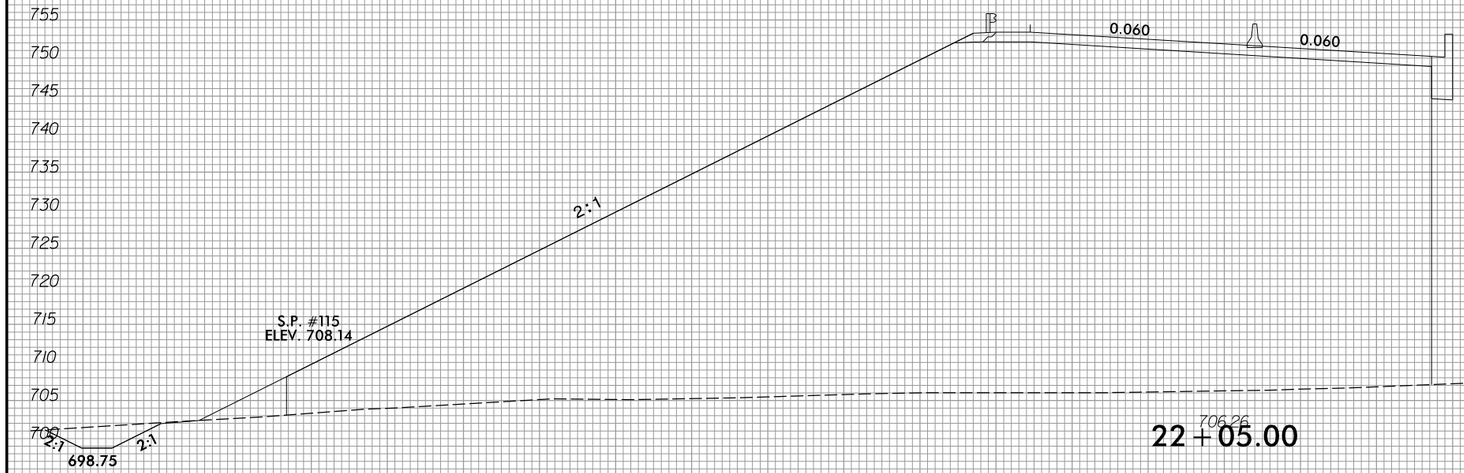
760 755 750 745 740 735 730 725 720 715 710 705 700 695



707.25

22+55.00

760 755 750 745 740 735 730 725 720 715 710 705 700



706.26

22+05.00

-Y9FLY-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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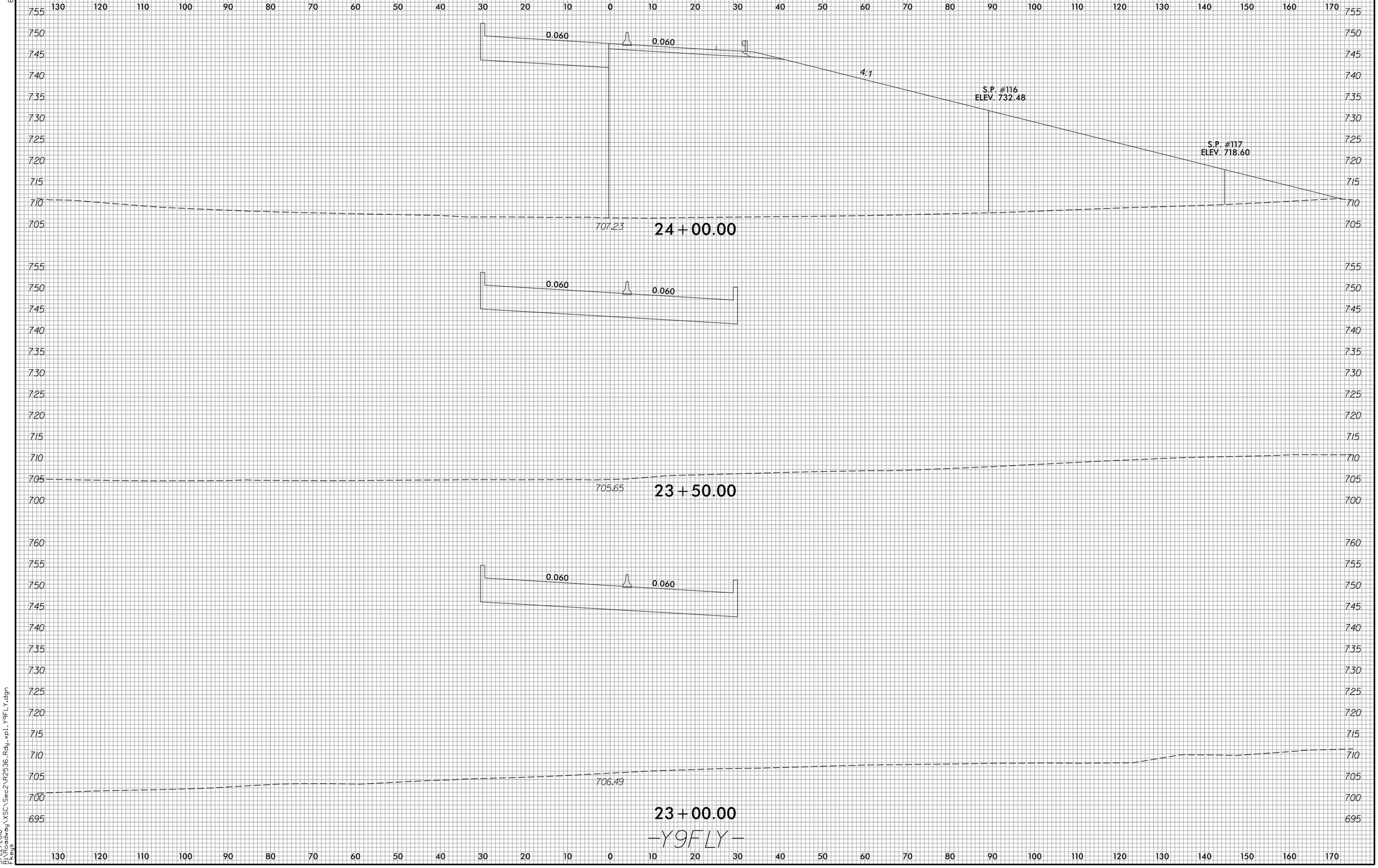
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-337



3/22/2016
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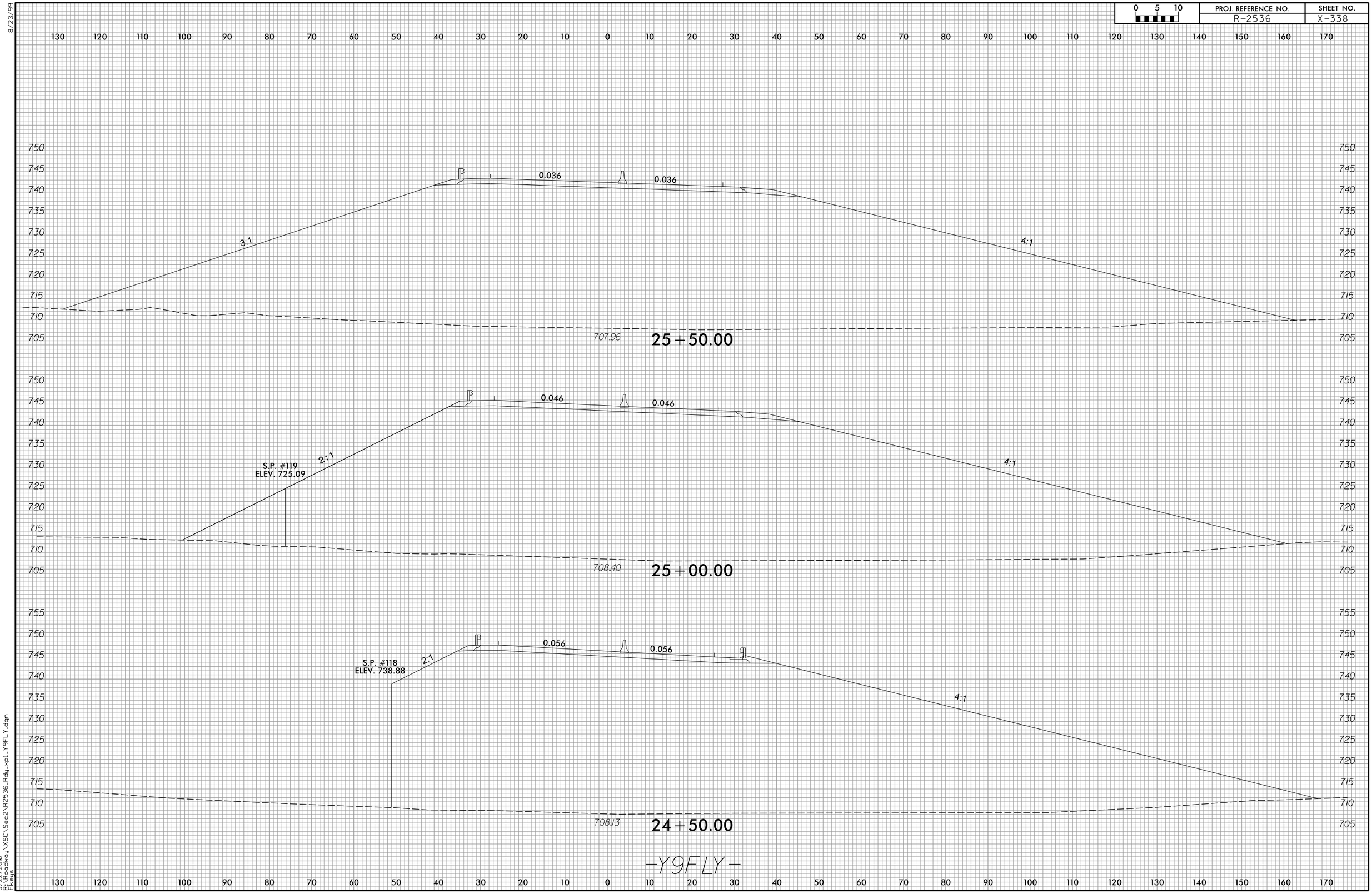
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-338



3/22/2016
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Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-339

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

740 730 720 710 700 690 680

0.014 6.001:1 6.204:1 0.020

D.P. 728.669

4:1

S.P. #110
ELEV. 710.43

4:1

2:1
692.90

698.75

28+00.00

740 730 720 710 700 690 680

0.004 6.001:1 6.615:1 0.020

D.P. 731.209

4:1

S.P. #109
ELEV. 706.11

4:1

2:1 2:1
396.05

699.03

27+50.00

740 730 720 710 700 690

0.006 0.020

4:1

4:1

2:1 2:1

701.48

27+00.00

750 740 730 720 710 700 690

0.016 0.020

4:1

4:1

2:1 2:1
700.00

704.10

26+50.00

750 740 730 720 710 700

0.026 0.026

4:1

4:1

706.48

26+00.00

-Y9FLY-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

3/22/2016
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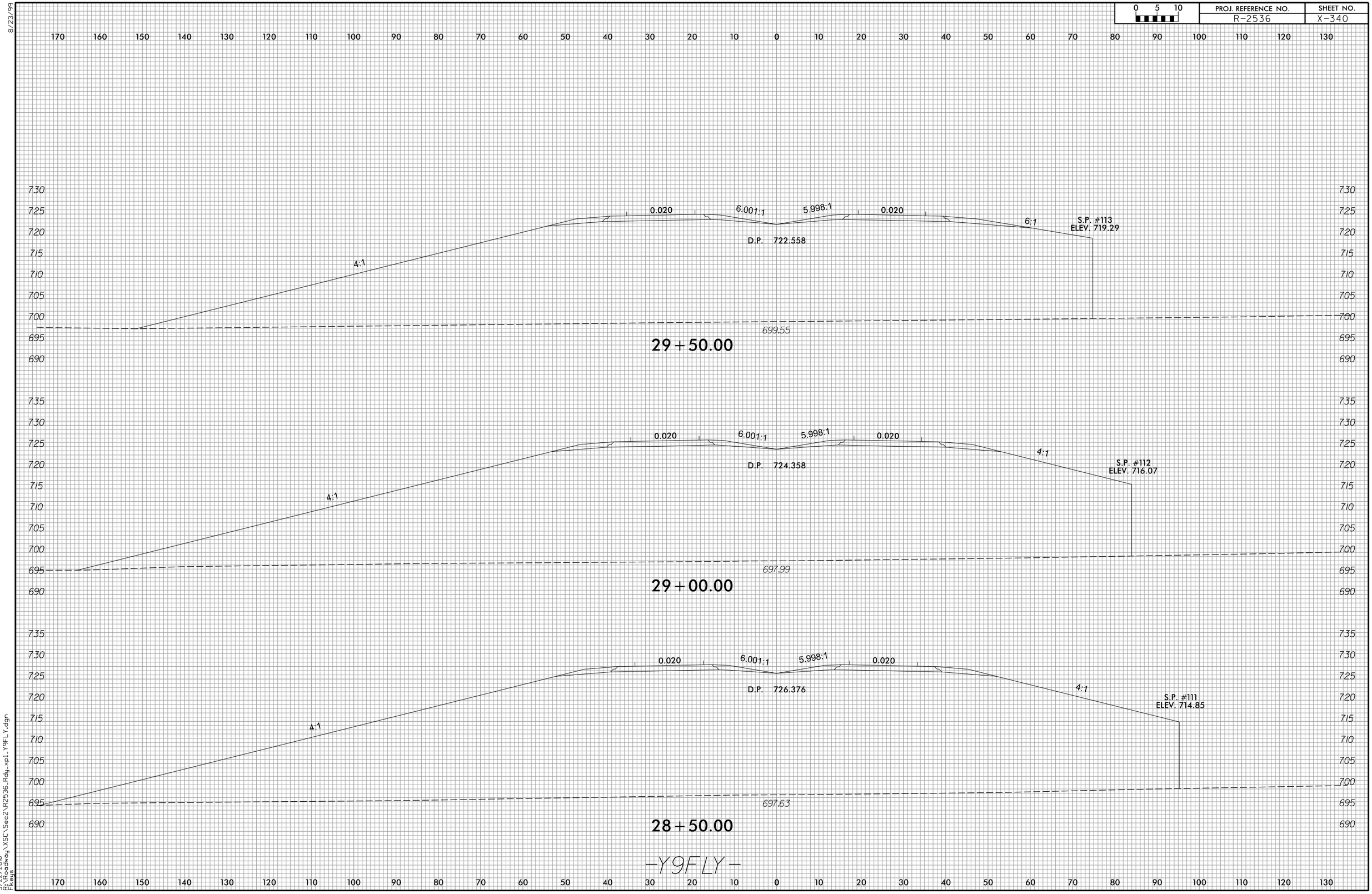
Fkeys

8/23/99

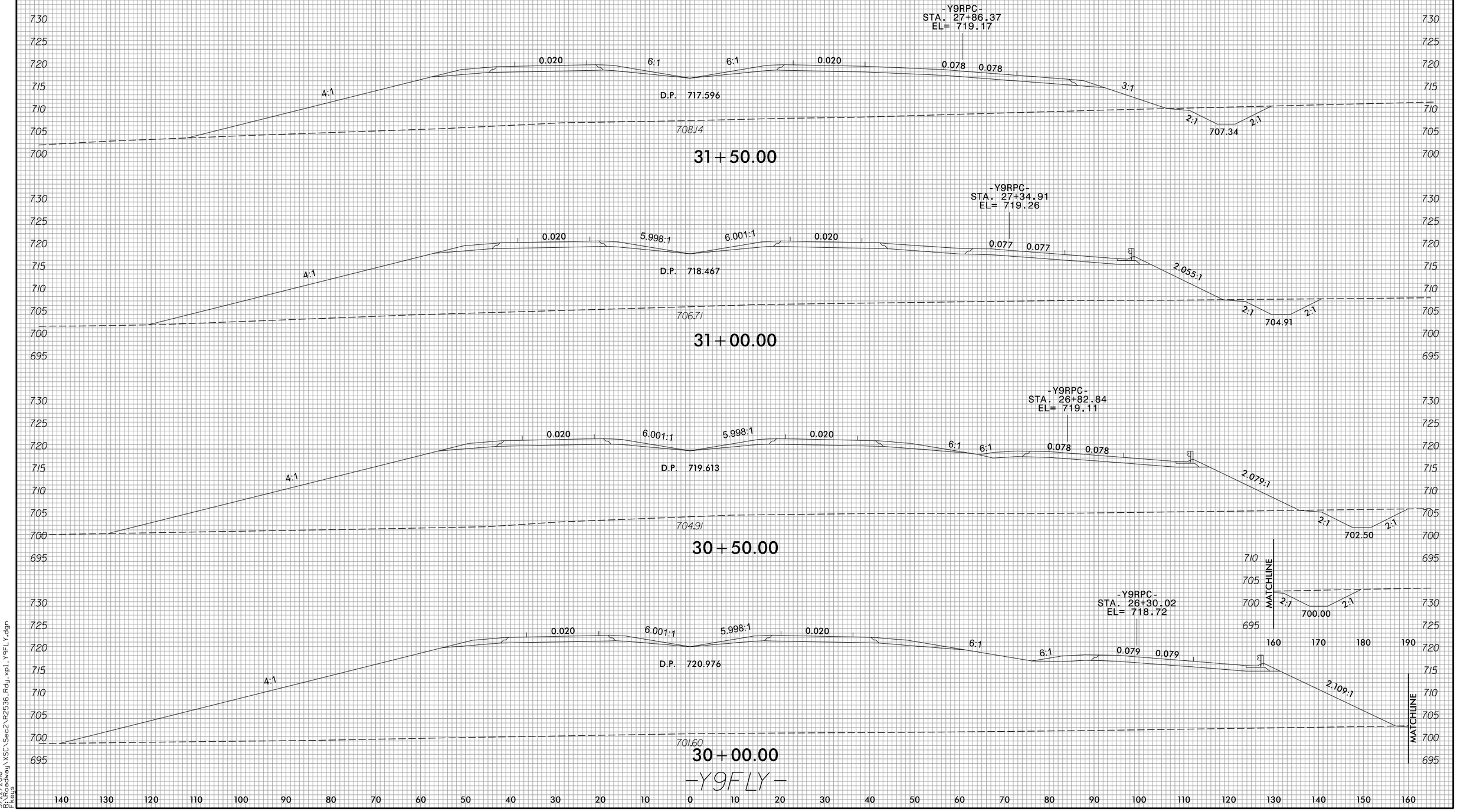
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-340



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-341



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R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fleug

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-342

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 725 720 715 710 705

-Y9RPC-
STA. 30+38.90
EL= 719.79

4:1 | 0.020 | 6:1 | 6:1 | 0.020 | 0.020 | 6:1 | 2:1

D.P. 717.164
715.14

714.80

34+00.00

730 725 720 715 710 705

-Y9RPC-
STA. 29+88.67
EL= 719.37

4:1 | 0.020 | 6:1 | 6:1 | 0.020 | 0.039 | 6:1 | 2:1

D.P. 716.815
714.57

714.65

33+50.00

730 725 720 715 710 705 700

-Y9RPC-
STA. 29+38.39
EL= 719.10

4:1 | 0.020 | 6:1 | 6:1 | 0.020 | 0.057 | 6:1 | 2:1

D.P. 716.683
712.24

714.50

33+00.00

730 725 720 715 710 705 700

-Y9RPC-
STA. 28+87.99
EL= 718.95

4:1 | 0.020 | 6:1 | 6:1 | 0.020 | 0.075 | 0.075 | 5:1 | 2:1 | 2:1

D.P. 716.769
710.55

712.15

32+50.00

730 725 720 715 710 705 700

-Y9RPC-
STA. 28+37.36
EL= 719.00

4:1 | 0.020 | 6:1 | 6:1 | 0.020 | 0.079 | 0.079 | 4:1 | 2:1 | 2:1

D.P. 717.074
708.14

709.75

32+00.00

-Y9FLY-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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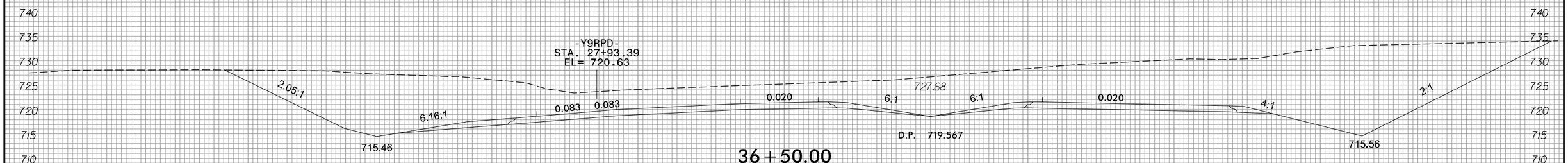
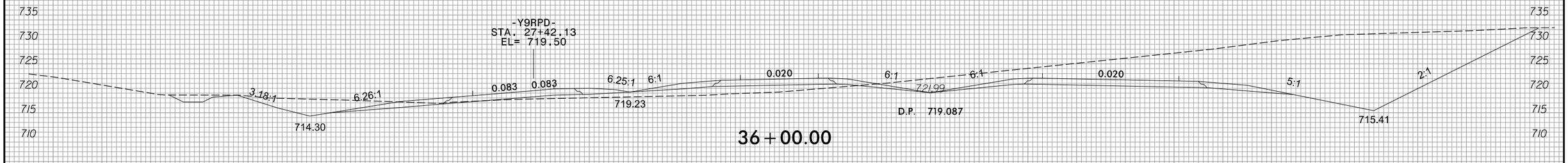
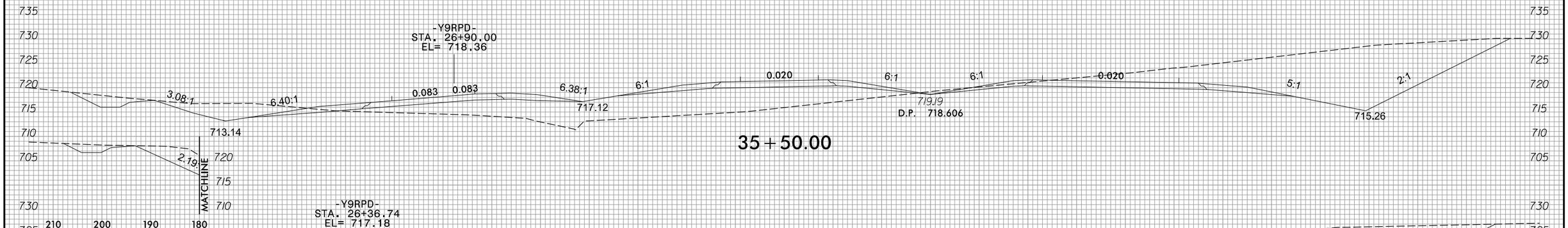
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-343

180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120







180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

3/22/2016
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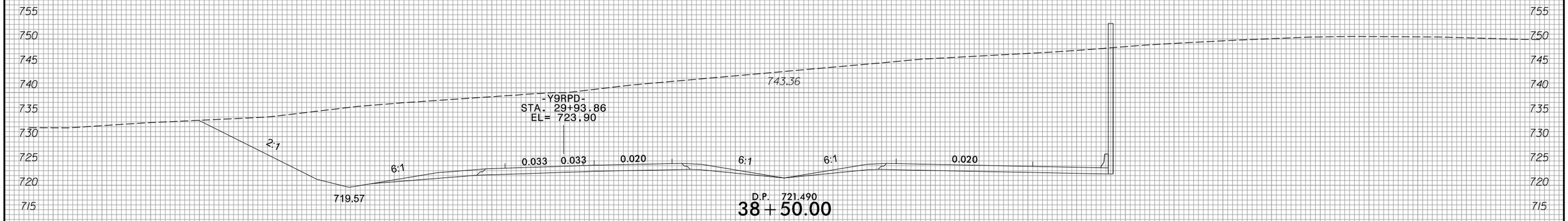
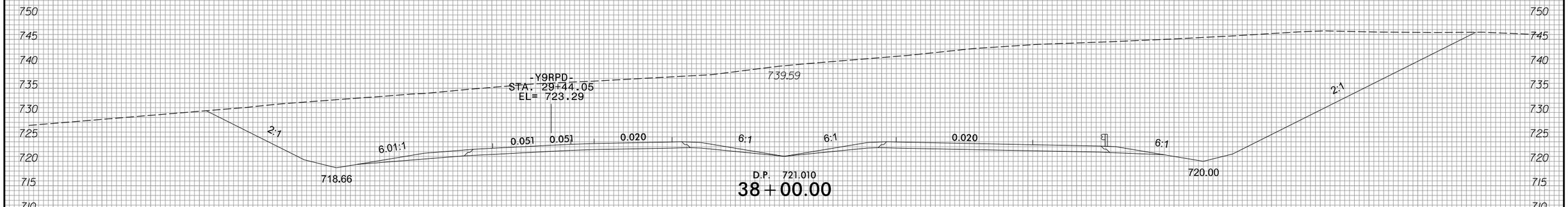
Fkeys

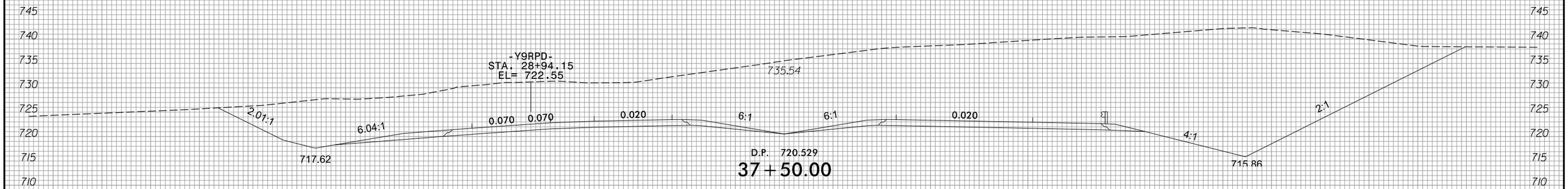
8/23/99

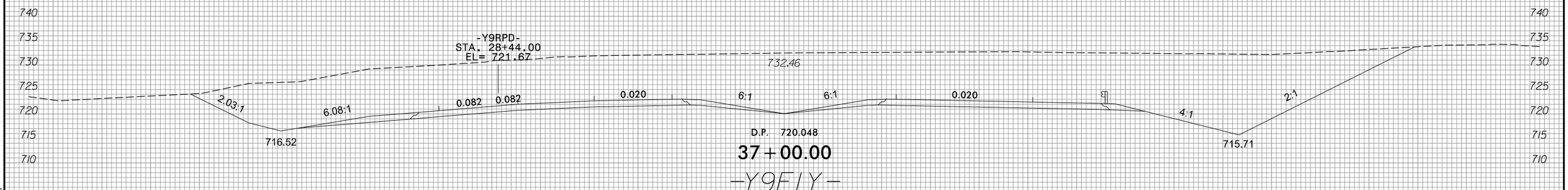
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-344

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150









150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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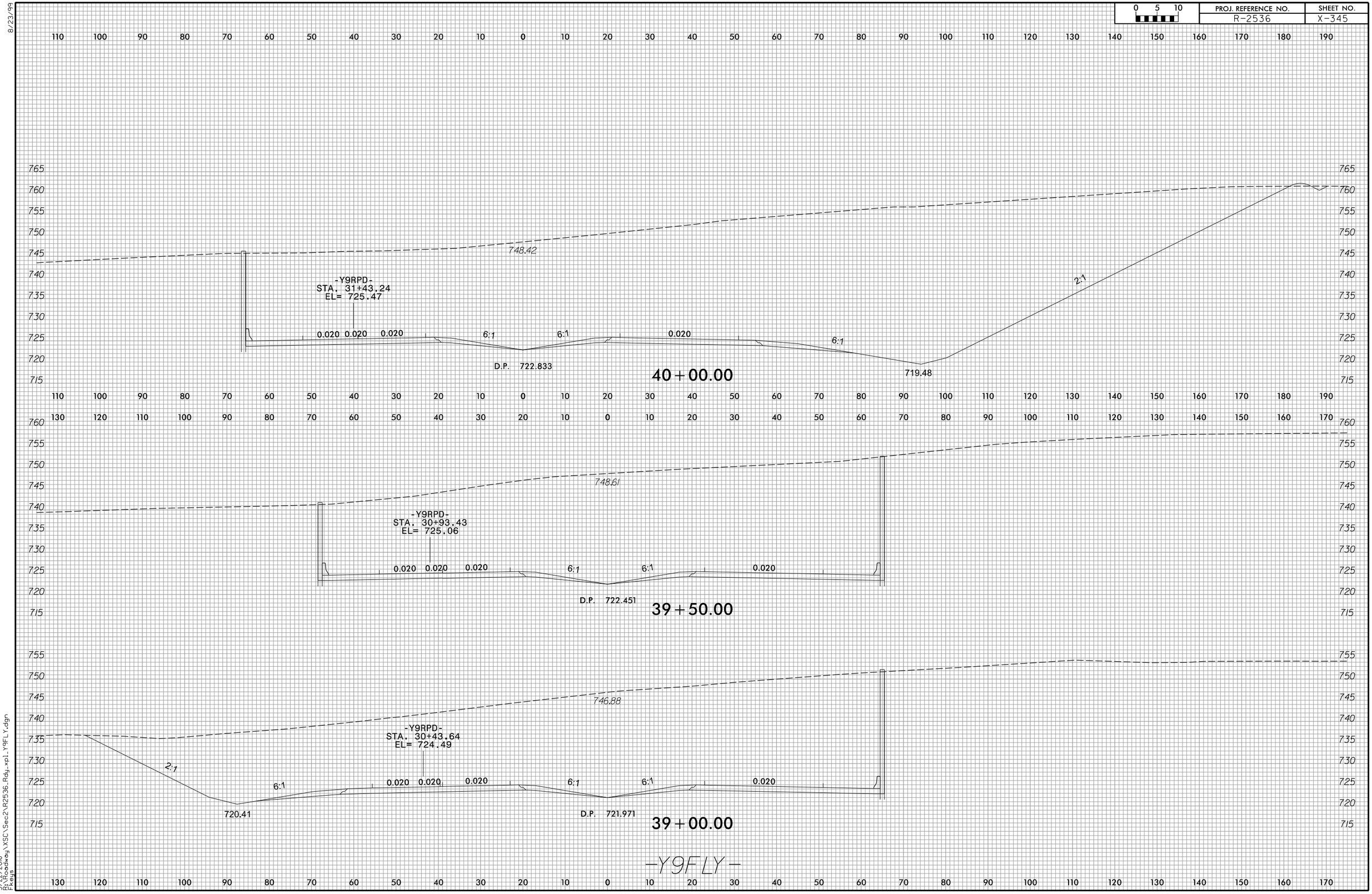
FLKeys

8/23/99

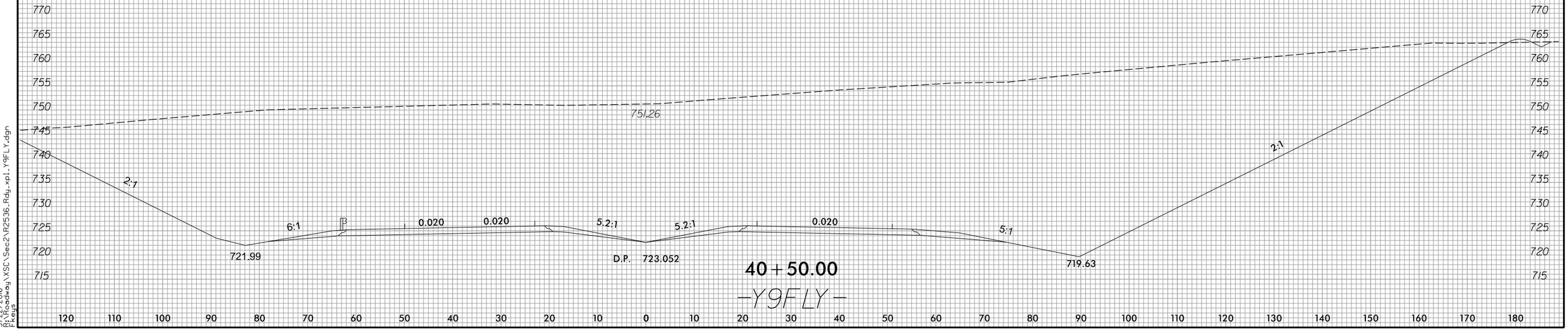
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-345



3/22/2016
P:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-346



3/22/2016
P:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-347

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

790 780 770 760 750 740 730 720 710

767.81

2:1 6:1 0.020 5.237:1 5.237:1 0.020 0.020 5:1 2:1

720.93 D.P. 721.87 720.24

42 + 50.00

780 770 760 750 740 730 720 710

765.24

2:1 6:1 0.020 0.020 4.865:1 4.865:1 0.020 0.020 4:1 2:1

721.78 D.P. 722.06 720.09

42 + 00.00

780 770 760 750 740 730 720 710

760.90

2:1 6:1 0.020 0.020 4.764:1 4.764:1 0.020 0.020 4:1 2:1

722.00 722.26 719.93

41 + 50.00

770 760 750 740 730 720 710

754.90

2:1 6:1 0.020 0.020 4.873:1 4.873:1 0.020 0.020 4:1 2:1

722.08 D.P. 722.45 719.78

41 + 00.00

-Y9FLY-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

3/22/2016
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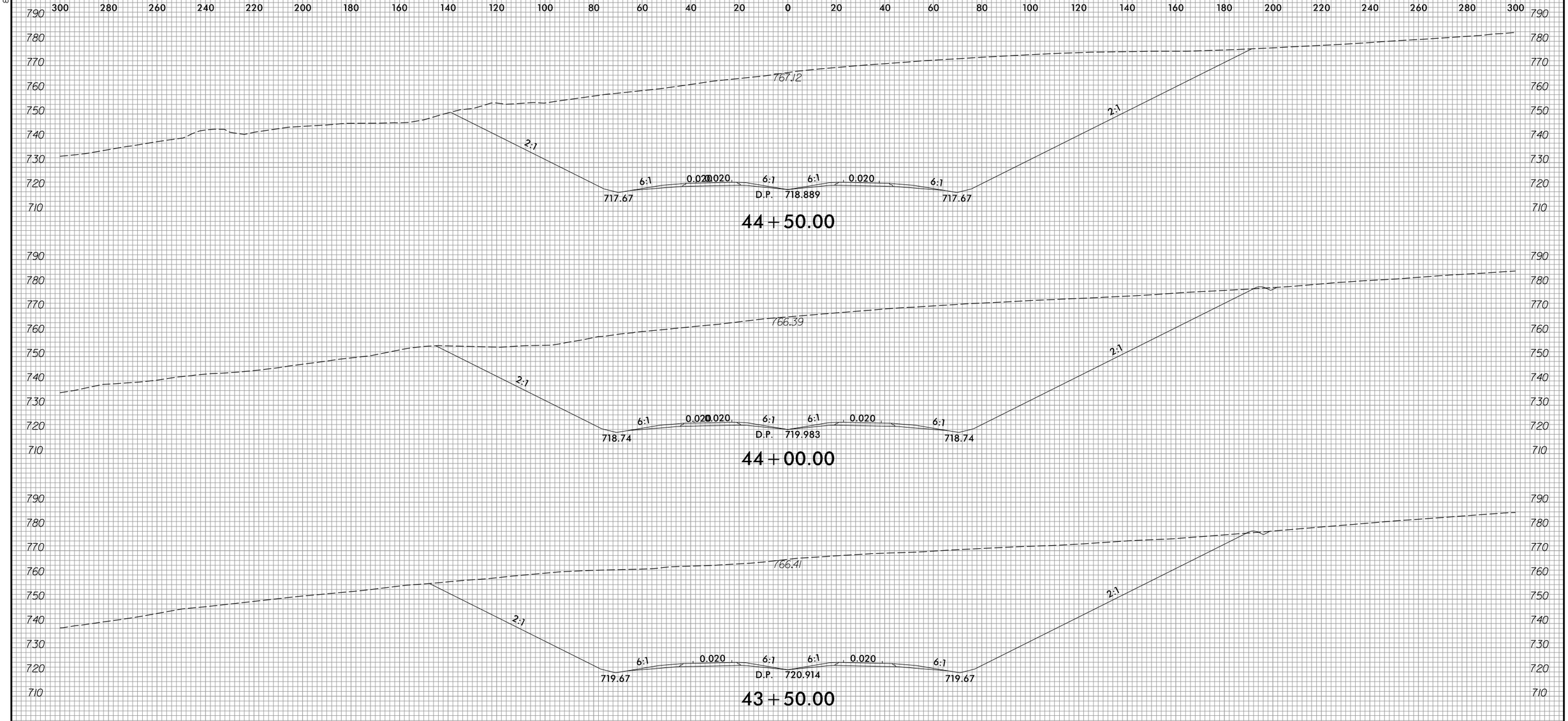
Fkeys

8/23/99

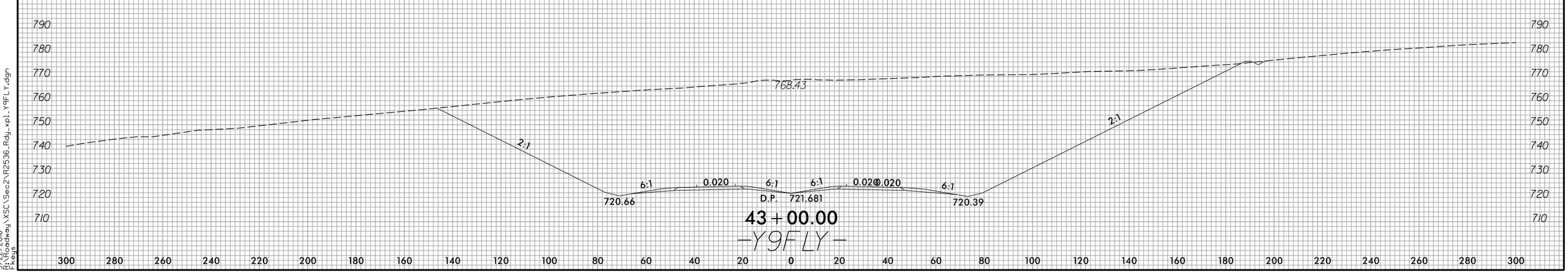
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-348



44+50.00

44+00.00

43+50.00



43+00.00

-Y9FLY-

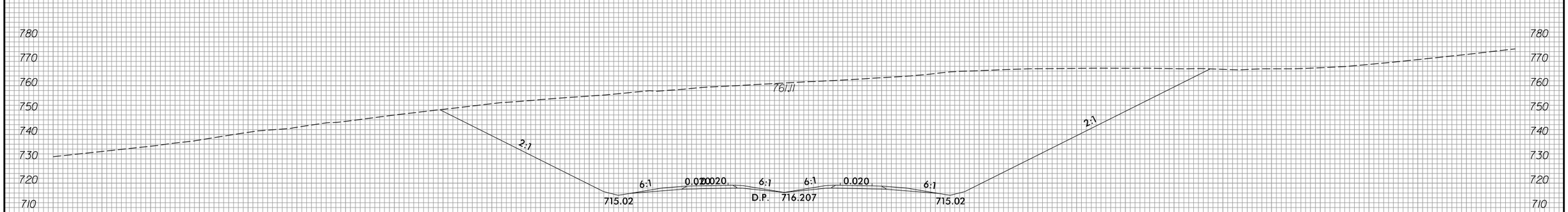
3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fkeys

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-349

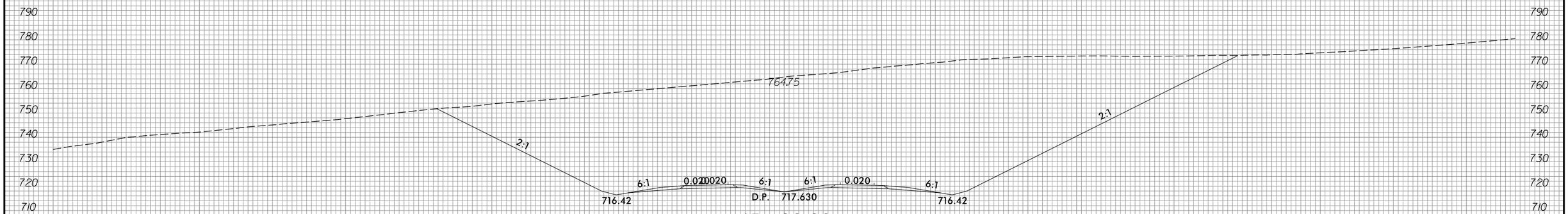
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

780 770 760 750 740 730 720 710



45+50.00

790 780 770 760 750 740 730 720 710



45+00.00

-Y9FLY-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

3/22/2016
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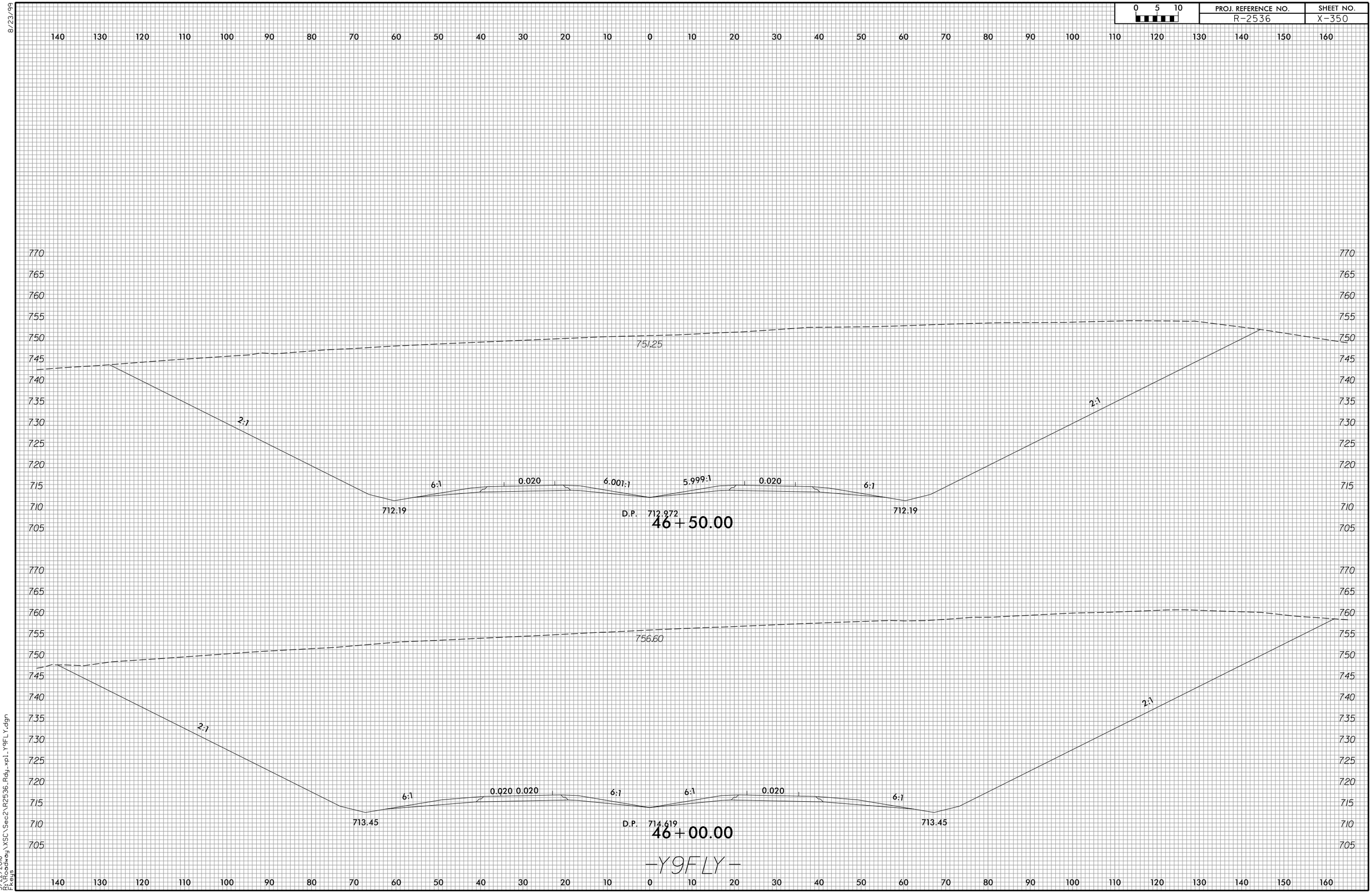
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-350



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Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-351

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

760 755 750 745 740 735 730 725 720 715 710 705 700

734.75

2:1

6:1 0.020 6.001:1 5.999:1 0.020 6:1

708.23 D.P. 709.276 708.23

47+50.00

765 760 755 750 745 740 735 730 725 720 715 710 705

743.86

2:1

6:1 0.020 6.001:1 5.999:1 0.020 6:1

710.29 D.P. 711.206 710.29

47+00.00

-Y9FLY-

3/22/2016
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tkeys

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-352

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 725 720 715 710 705 700 695 690

709.04

6:1 5:1 0.020 6.001:1 5.999:1 0.020 6:1 2:1

700.69 D.P. 702.737 701.29

49+00.00

740 735 730 725 720 715 710 705 700 695

718.45

2:1 6:1 0.020 6.001:1 5.999:1 0.020 6:1 2:1

703.65 D.P. 704.963 703.70

48+50.00

750 745 740 735 730 725 720 715 710 705 700

726.75

2:1 6:1 0.020 6.001:1 5.999:1 0.020 6:1 2:1

706.05 D.P. 707.181 706.00

48+00.00

-Y9FLY-

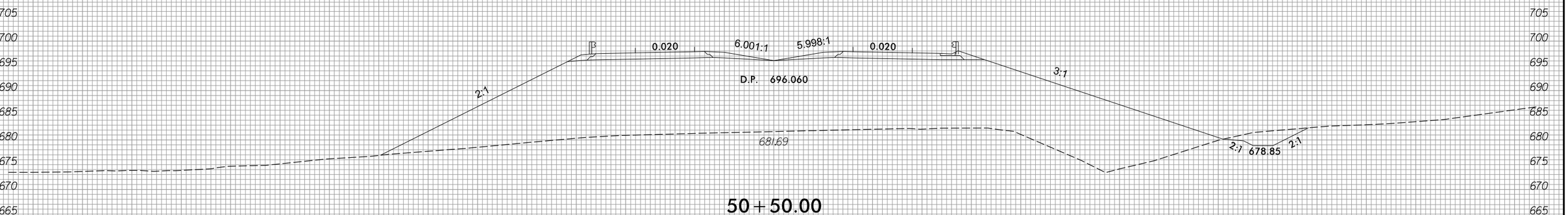
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fkeys

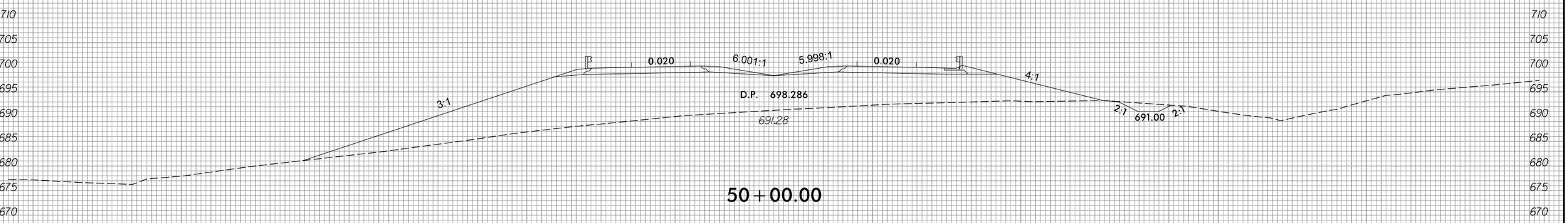
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-353

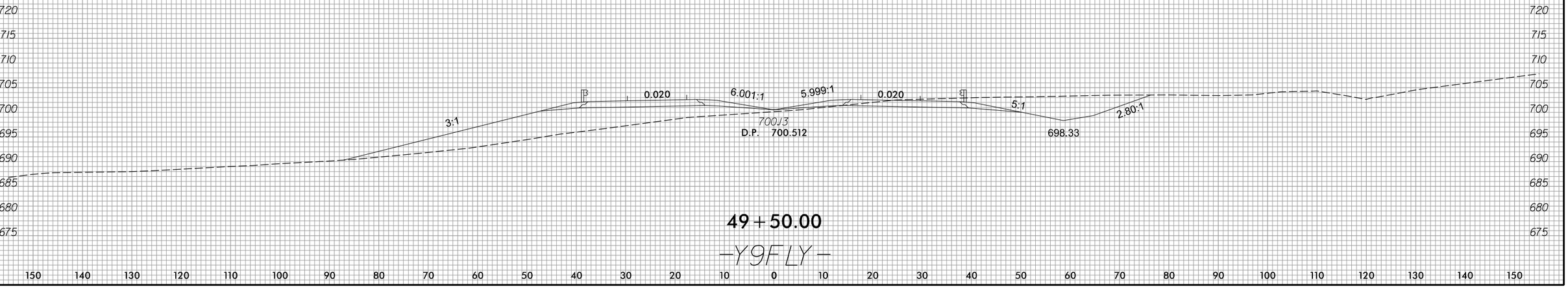
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



50+50.00



50+00.00



49+50.00

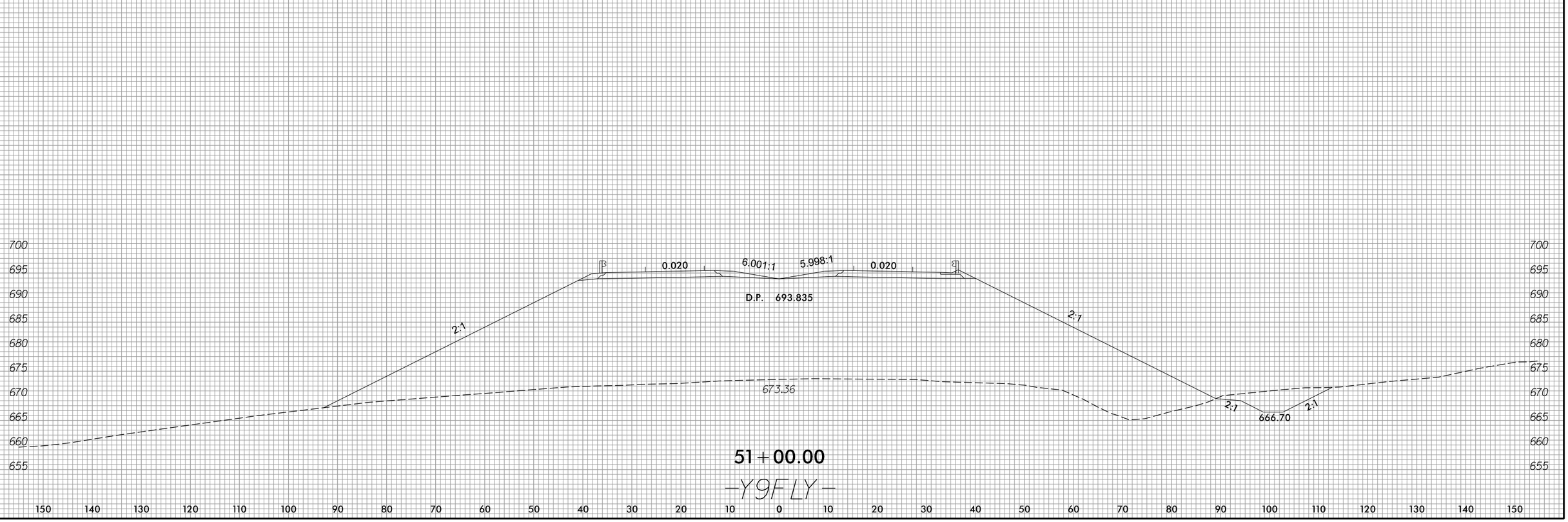
-Y9FLY-

3/22/2016
D:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-354

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

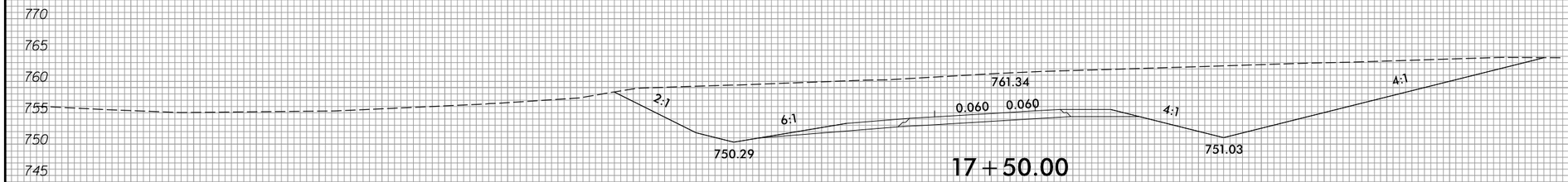


3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9FLY.dgn
Fkeys

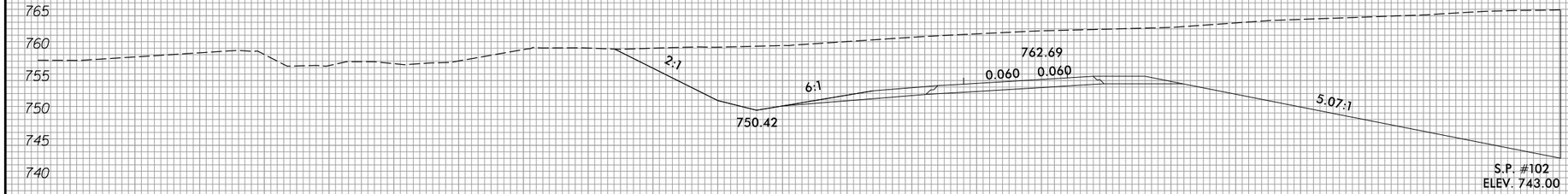
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-355

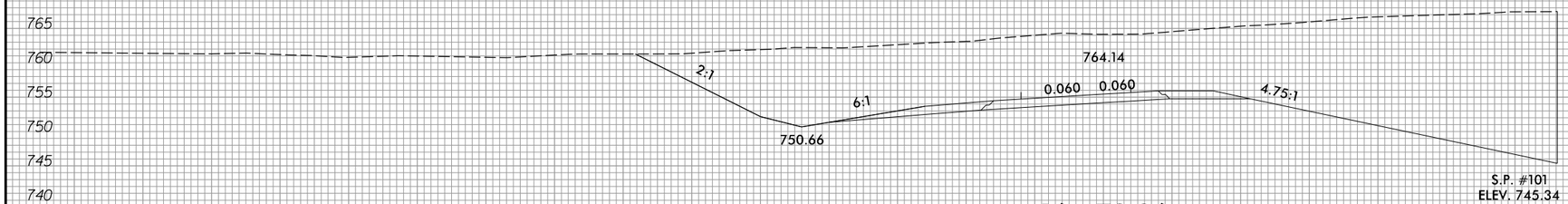
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



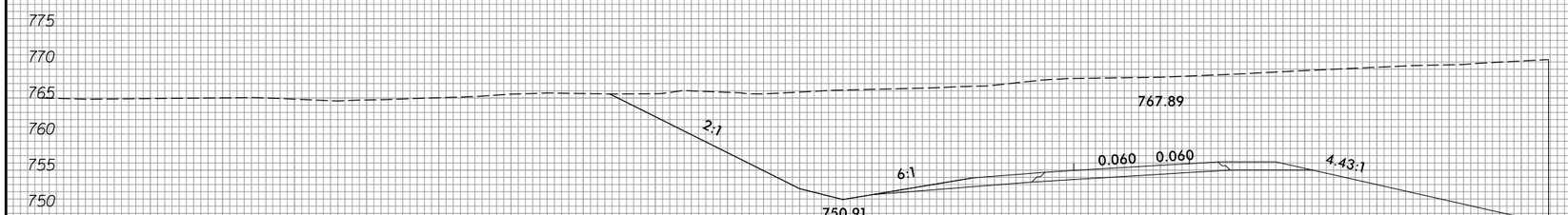
17+50.00



17+24.23



16+78.06



16+31.03

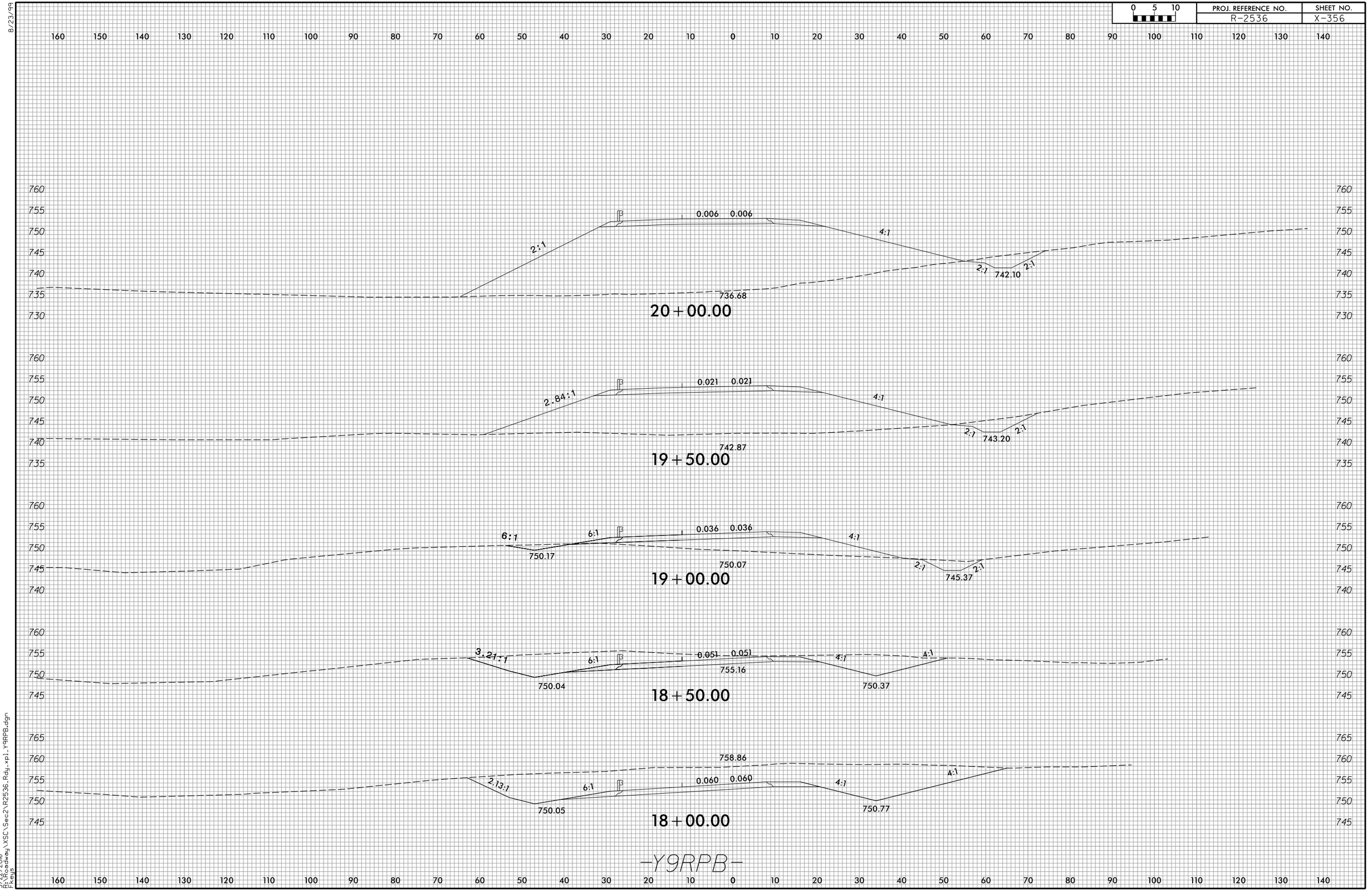
-Y9RPB-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536.Rdy_xpl_Y9RPB.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-356

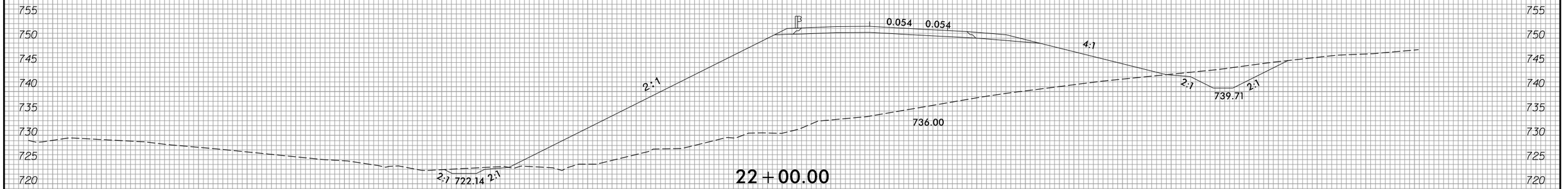


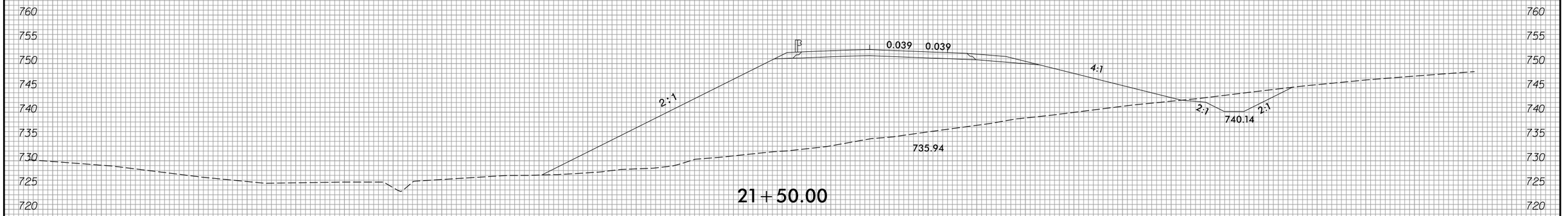
3/22/2016
R:\Projects\XSC\Sec2\R2536_Rdy_xpl_Y9RPB.dgn
FKeys

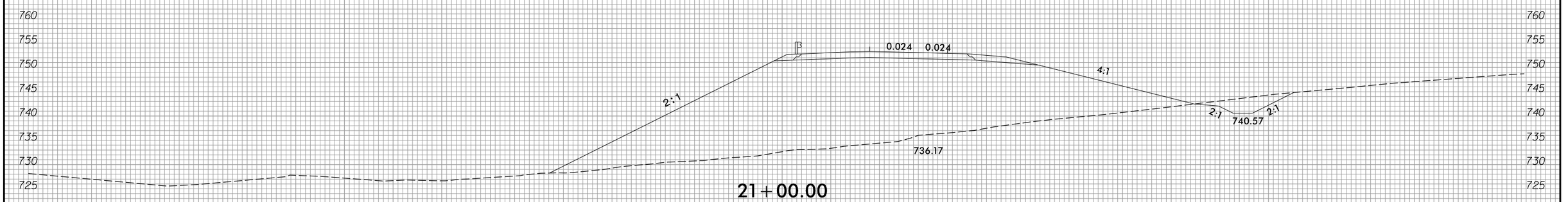
8/23/99

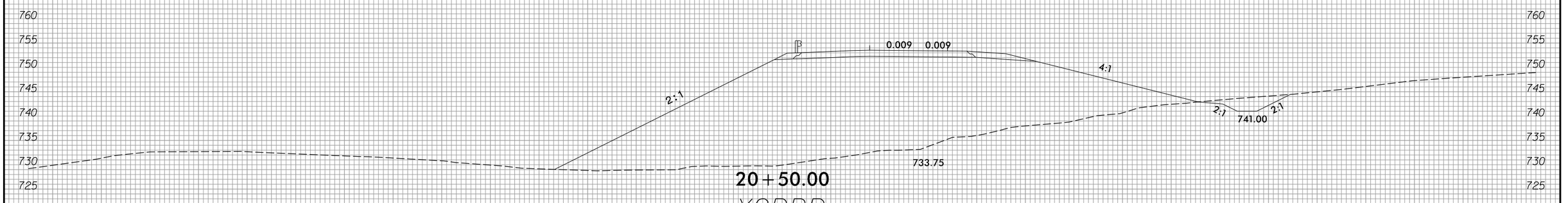
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-357

180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120









-Y9RPB-

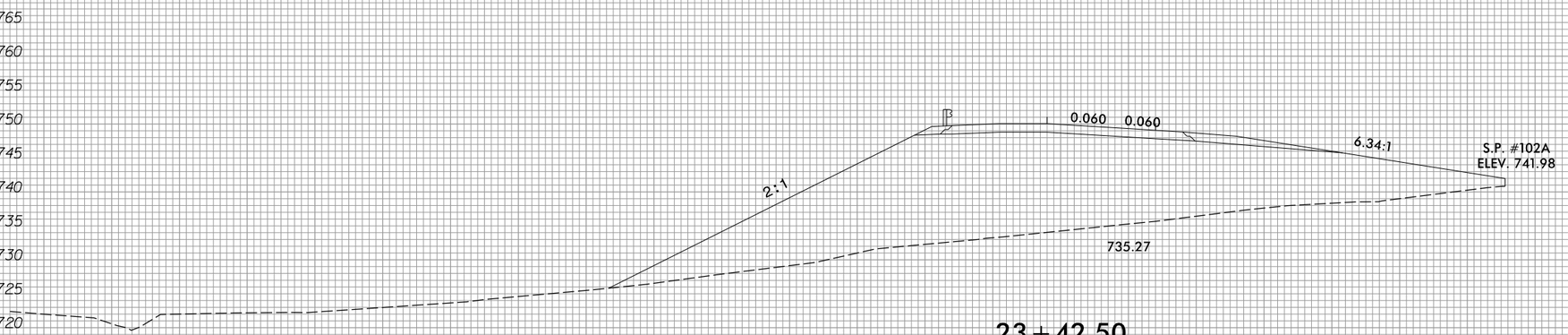
3/22/2016
R:\Projects\XSC\Sec2\R2536_Rdy_xpl_Y9RPB.dgn
FKeys

8/23/99

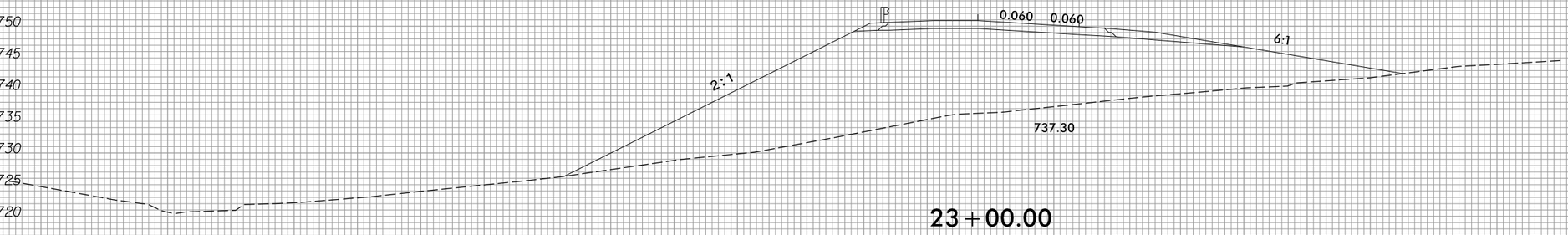
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-358

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

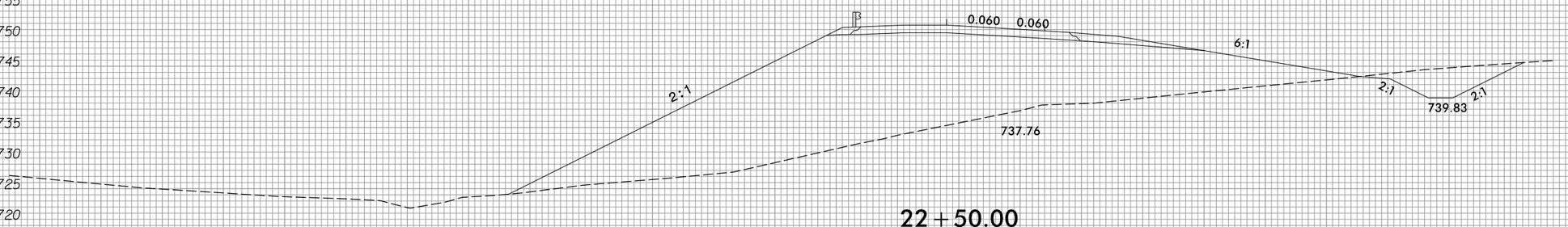
765 760 755 750 745 740 735 730 725 720 715



23+42.50



23+00.00



22+50.00

-Y9RPB-

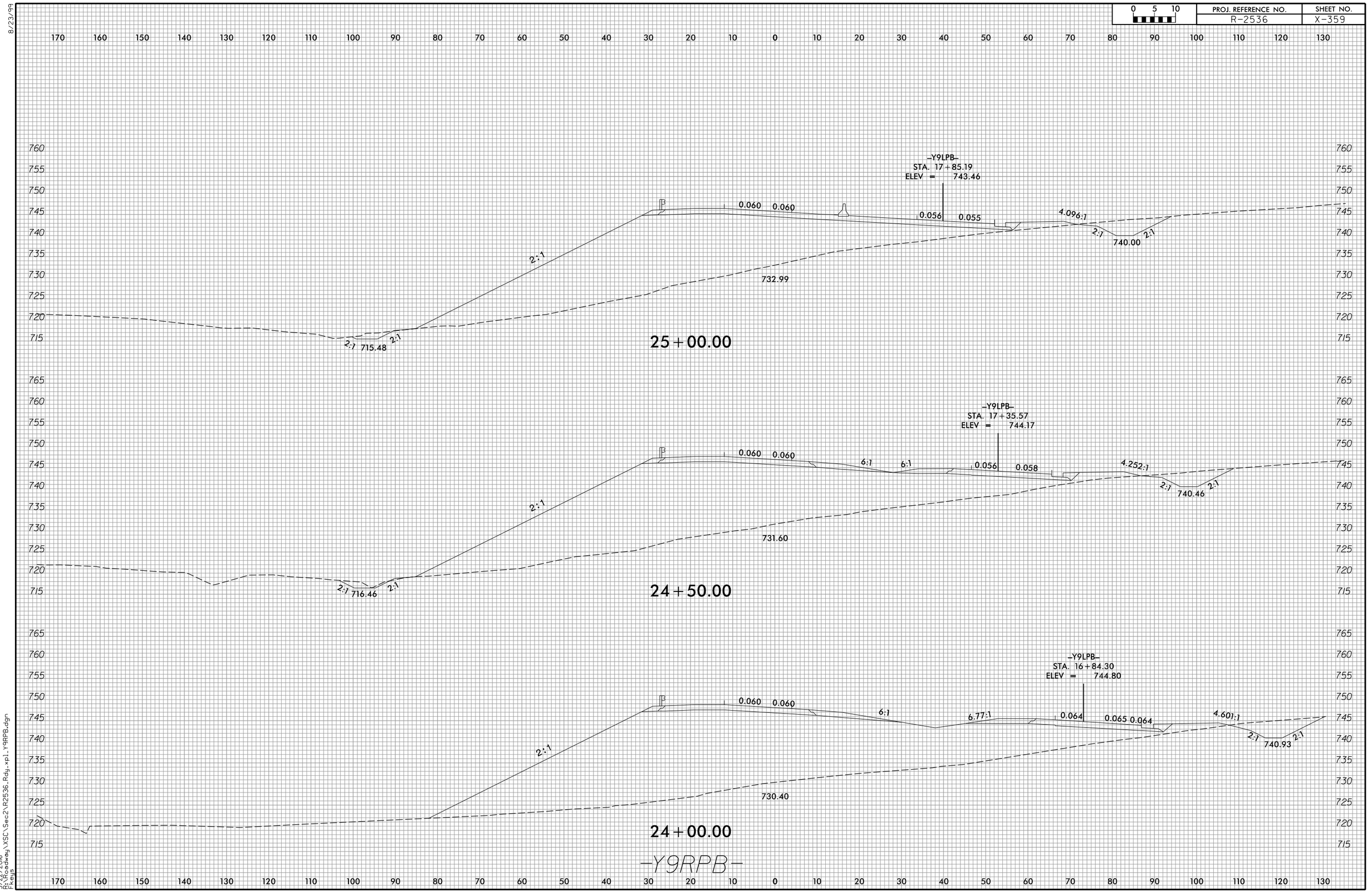
755 750 745 740 735 730 725 720

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

3/22/2016
R:\R2536dwg\XSC\Sec2\R2536_Rdy_xpl_Y9RPB.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-359



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9RPB.dgn
Ftelys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-360

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

760 755 750 745 740 735 730 725 720 715 710

–Y9LPB–
STA. 19+31.63
EL. = 741.26

0.060 0.060 0.060 0.060

2:1 4:1 2:1 2:1

730.20

733.46

26+50.00

760 755 750 745 740 735 730 725 720 715 710

–Y9LPB–
STA. 18+82.90
EL. = 741.99

0.060 0.060 0.059 0.059

2:1 4:1 2:1 2:1

733.30

736.61

26+00.00

760 755 750 745 740 735 730 725 720 715 710

–Y9LPB–
STA. 18+34.15
ELEV = 742.73

0.060 0.060 0.058 0.058

2:1 2:1 4:1 2:1 2:1

734.22

714.14 739.54

25+50.00

–Y9RPB–

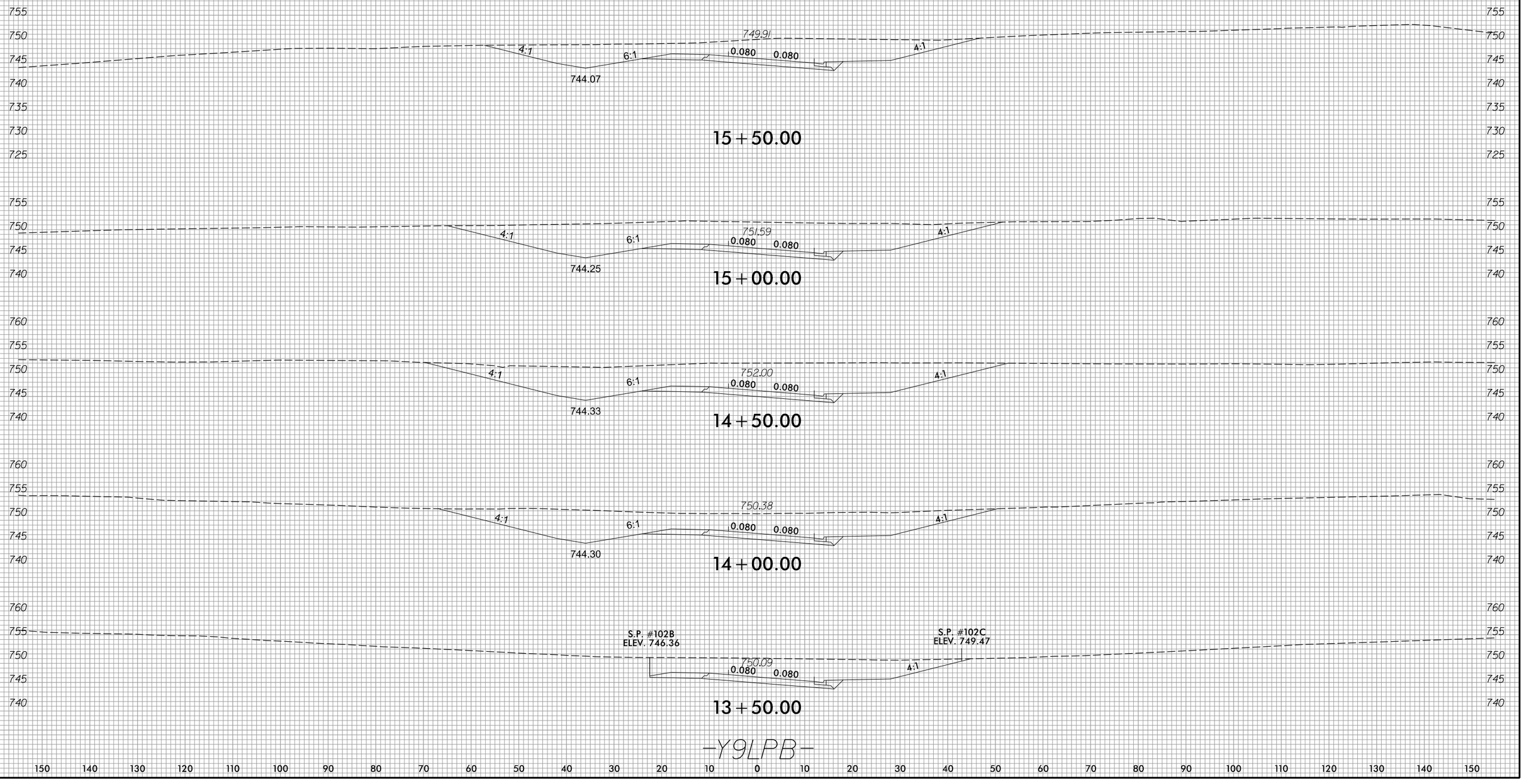
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_Y9RPB.dgn
Fleuis

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-361

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



-Y9LPB-

3/22/2016
R:\RDWAY\XSC\Sec2\R2536_Rdy_xpl_Y9LPB.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-362

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

755 750 745 740 735 730 725 720

S.P. #102A
ELEV. 741.98

6:1 0.080 0.080

742.21

16+50.00

755 750 745 740 735 730 725 720

6:1 6:1 0.080 0.080 4:1

743.79 746.23

16+00.00

-Y9LPB-

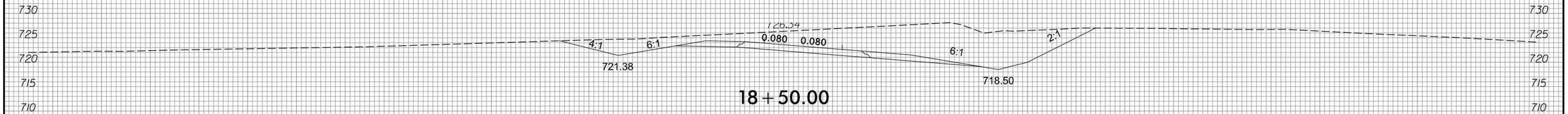
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9LPB.dgn
Fkeys

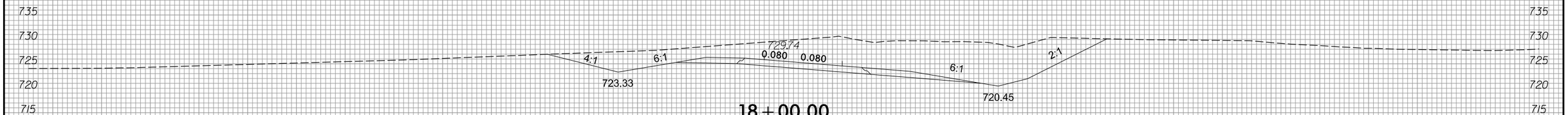
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-363

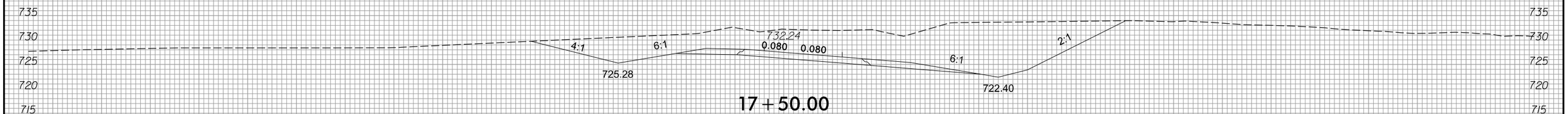
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



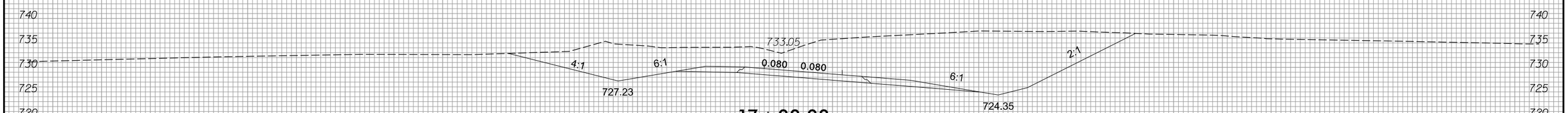
18+50.00



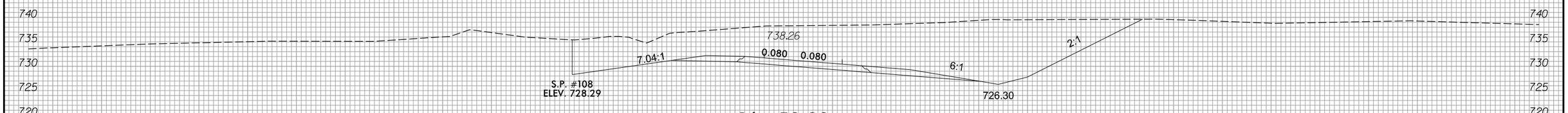
18+00.00



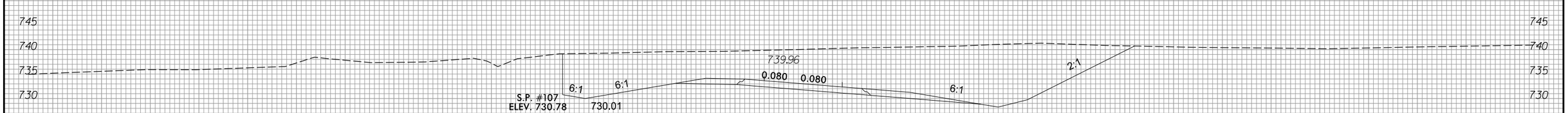
17+50.00



17+00.00



16+50.00



16+00.00

-Y9RPC-

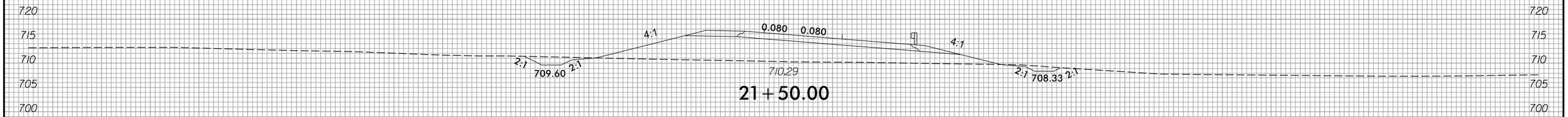
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9RPC.dgn
Fkeys

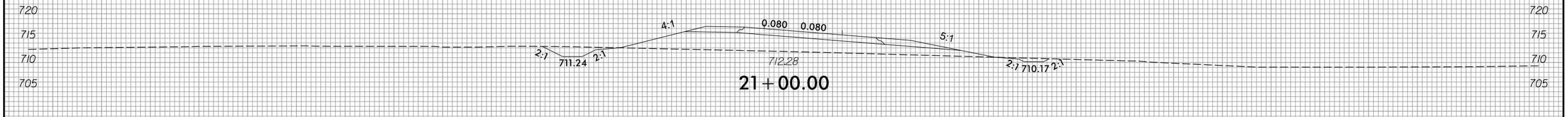
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-364

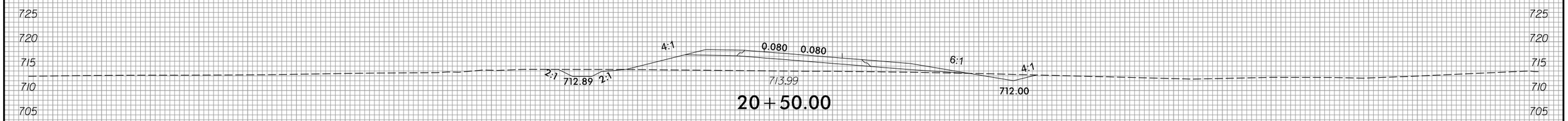
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



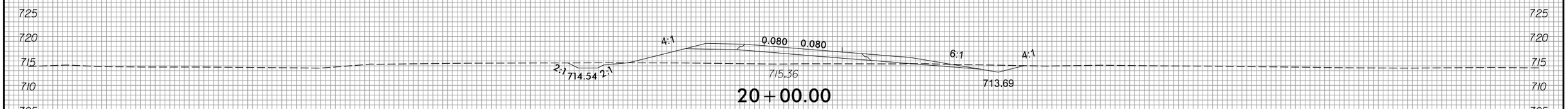
21+50.00



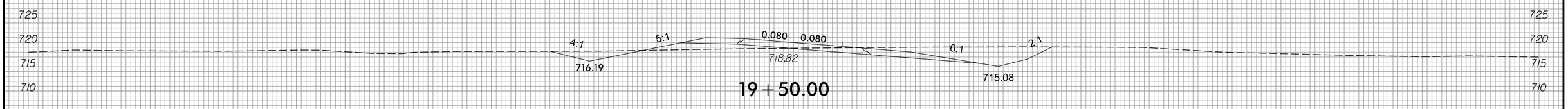
21+00.00



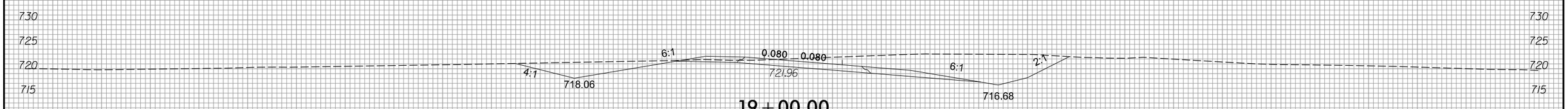
20+50.00



20+00.00



19+50.00



19+00.00

-Y9RPC-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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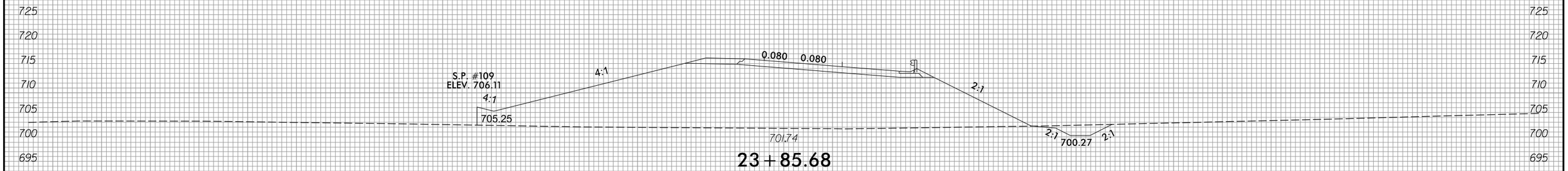
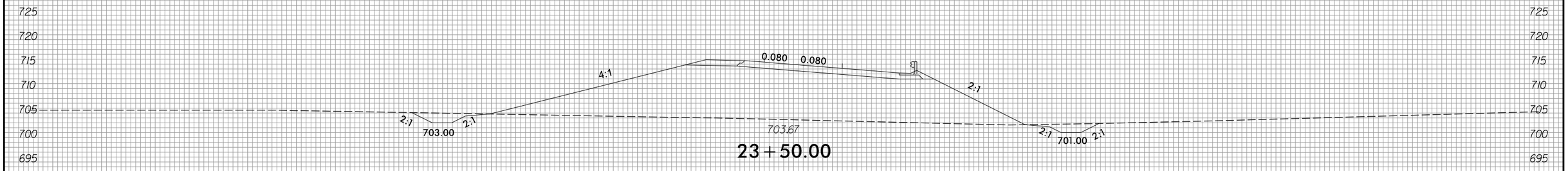
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-365

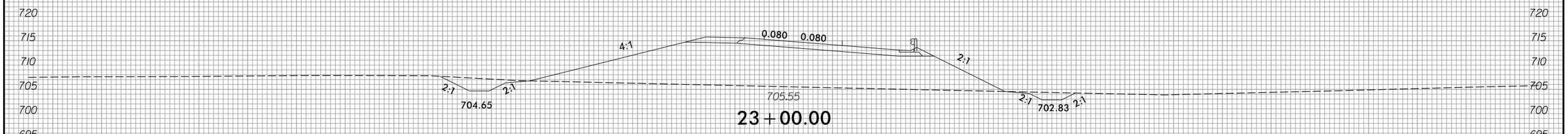
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



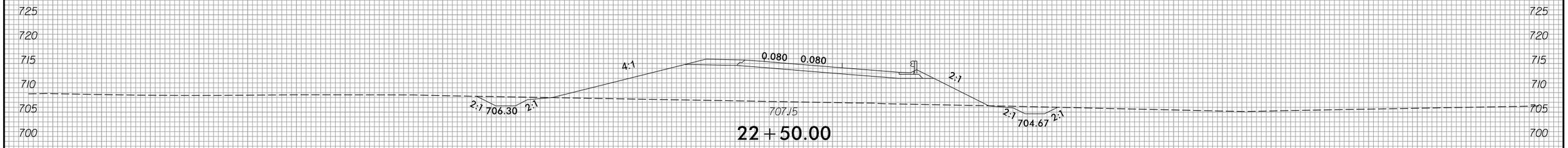
23+85.68



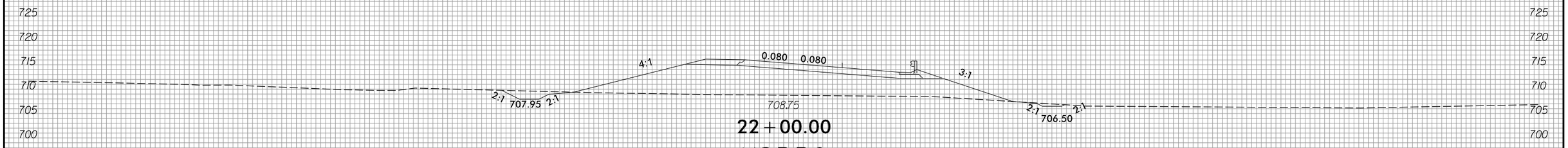
23+50.00



23+00.00



22+50.00



22+00.00

-Y9RPC-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-366

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

725 720 715 710 705 700 695

S.P. #113
ELEV. 719.29

6:1 6:1 0.080 0.080 2:1 2:1 2:1

717.17 699.43

701.21

25+91.18

725 720 715 710 705 700 695 690

S.P. #112
ELEV. 716.07

4:1 4:1 0.080 0.080 2:1 2:1 2:1

712.95 698.74

700.34

25+42.51

725 720 715 710 705 700 695 690

S.P. #111
ELEV. 714.85

4:1 4:1 0.080 0.080 2:1 2:1 2:1

710.63 698.00

700.38

24+93.81

725 720 715 710 705 700 695 690

S.P. #110
ELEV. 710.43

4:1 4:1 0.080 0.080 2:1 2:1 2:1

708.00 699.15

700.37

24+39.84

-Y9RPC-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

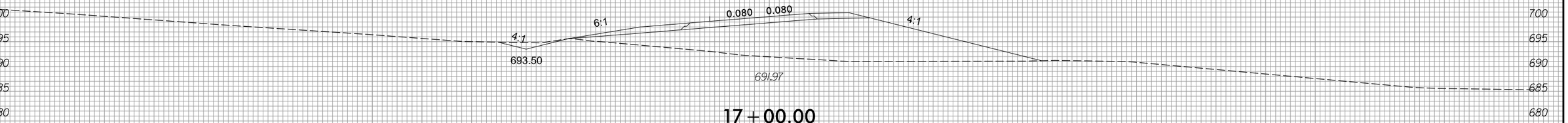
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9RPC.dgn
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-367

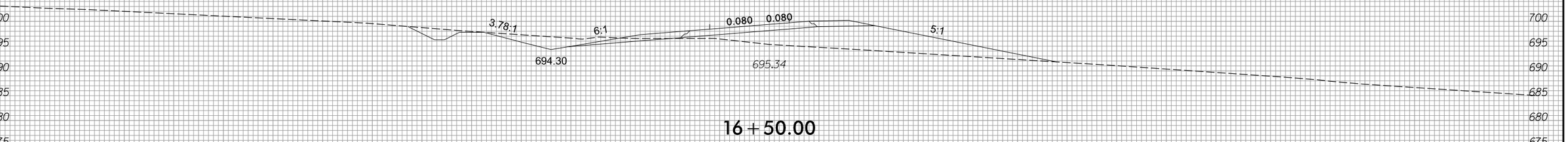
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

725 720 715 710 705 700 695 690 685 680



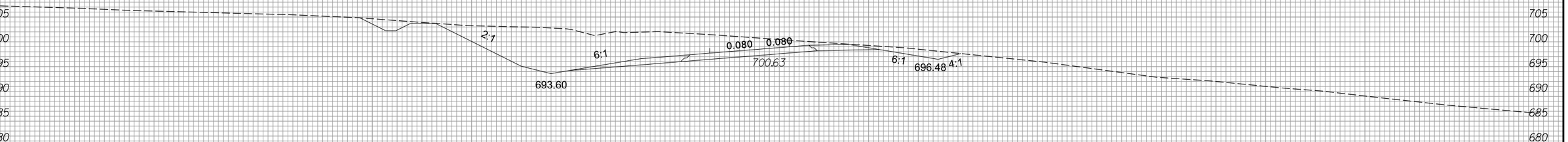
17 + 00.00

725 720 715 710 705 700 695 690 685 680 675



16 + 50.00

730 725 720 715 710 705 700 695 690 685 680 675



16 + 00.00

—Y9RPD—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

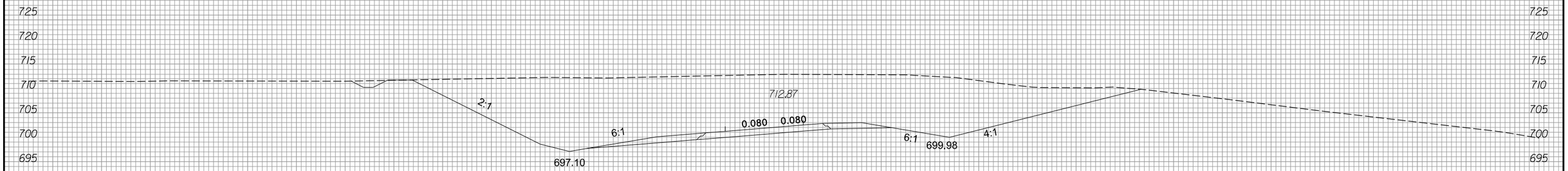
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_Y9RPD.dgn
Fkeys

8/23/99

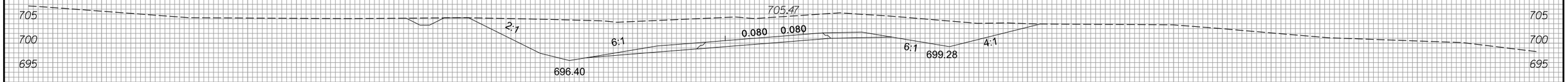
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-368

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

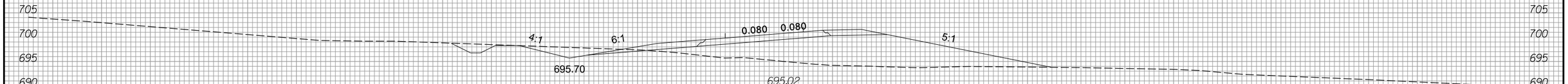
725 720 715 710 705 700 695 690 685 680



18+50.00



18+00.00



17+50.00

-Y9RPD-

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-369

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 725 720 715 710 705 700 695 690 685 680

717.68

2:1

6:1

0.080 0.080

6:1

4:1

699.20

702.08

20+00.00

725 720 715 710 705 700 695 690 685

718.36

2:1

6:1

0.080 0.080

6:1

4:1

698.50

701.38

19+50.00

725 720 715 710 705 700 695 690 685

716.50

2:1

6:1

0.080 0.080

6:1

4:1

697.80

700.68

19+00.00

-Y9RPD-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-370

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

735 730 725 720 715 710 705 700 695 690

720.79

2:1

6:1

0.080 0.080

6:1

4:1

701.49

704.37

21+50.00

735 730 725 720 715 710 705 700 695 690

718.87

2:1

6:1

0.080 0.080

6:1

4:1

700.63

703.51

21+00.00

730 725 720 715 710 705 700 695 690 685

716.82

2:1

6:1

0.080 0.080

6:1

4:1

699.90

702.78

20+50.00

-Y9RPD-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9RPD.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-371

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

735 730 725 720 715 710 705 700

714.41

2:1 6:1 0.080 0.080 6:1 4:1

705.79 708.67

23+50.00

730 725 720 715 710 705 700 695

716.59

2:1 6:1 0.080 0.080 6:1 4:1

704.68 707.56

23+00.00

730 725 720 715 710 705 700 695

719.04

2:1 6:1 0.080 0.080 6:1 4:1

703.58 706.46

22+50.00

730 725 720 715 710 705 700 695 690

720.95

2:1 6:1 0.080 0.080 6:1 4:1

702.49 705.37

22+00.00

-Y9RPD-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9RPD.dgn
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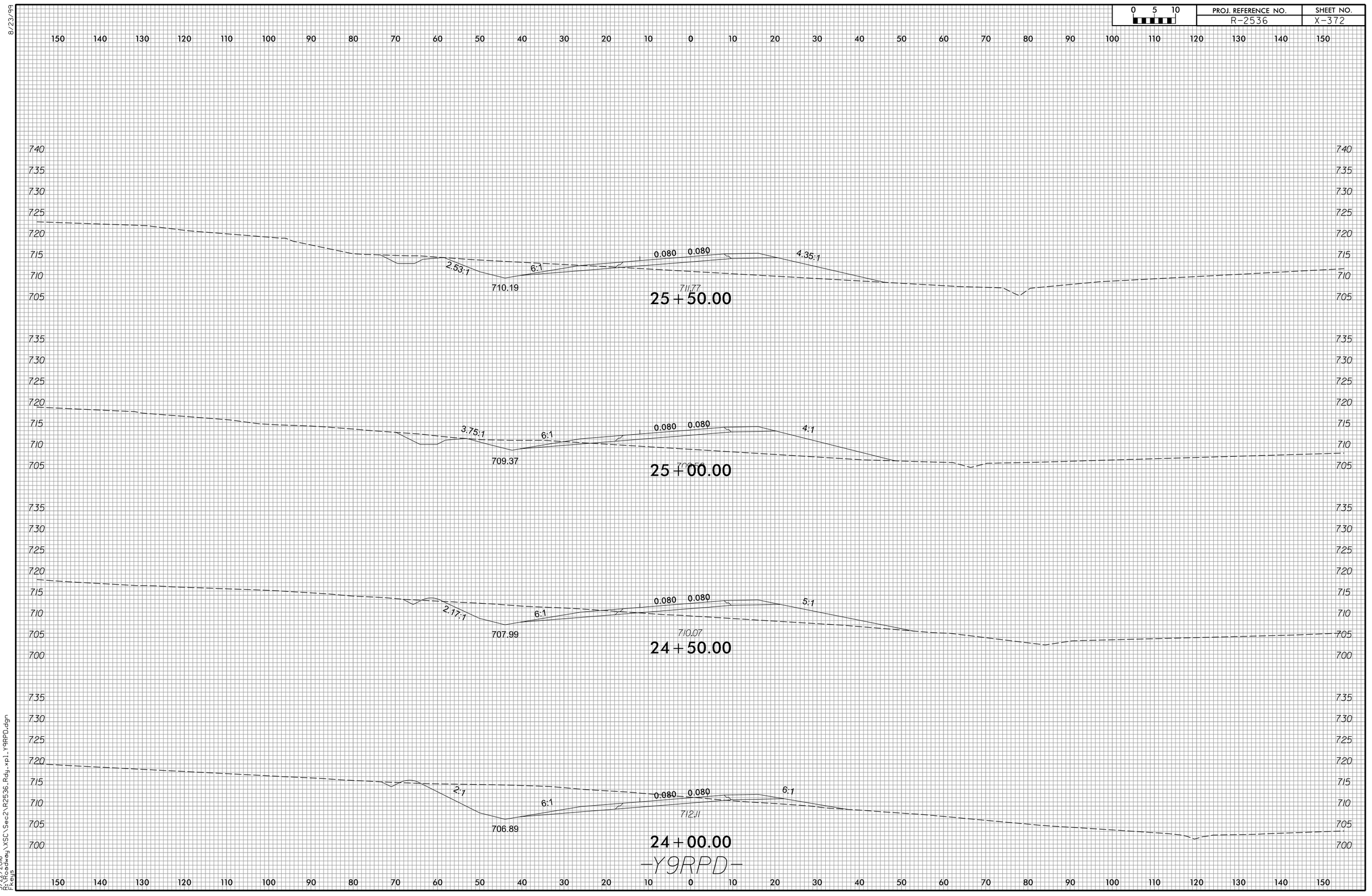
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-372



3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-373

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

740
735
730
725
720
715
710
705

2:1
6:1
0.080
0.080
4.88:1
S.P. #120
ELEV. 713.03
711.29
713.66

26+00.00

-Y9RPD-

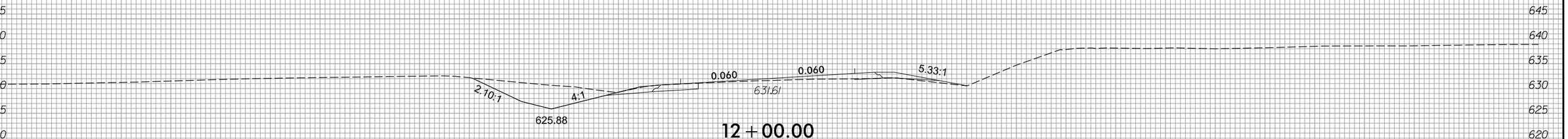
3/22/2016
R:\RDWAY\XSC\Sec2\R2536_Rdy_xpl_Y9RPD.dgn
Fkeys

8/23/99

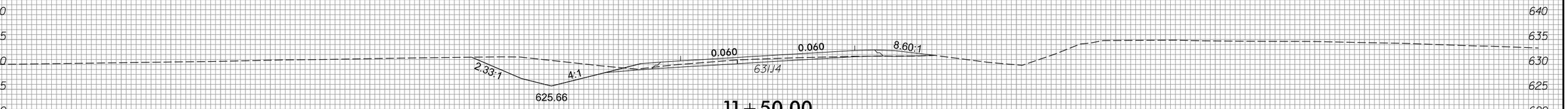
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-374

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

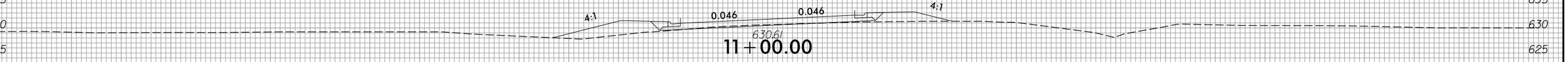
645 640 635 630 625 620



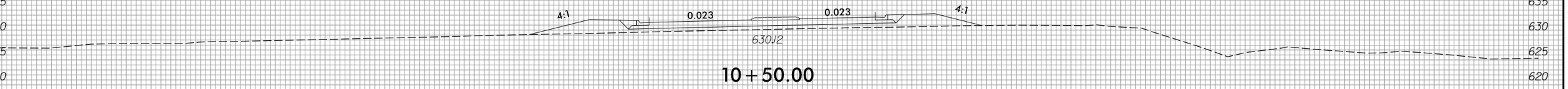
12+00.00



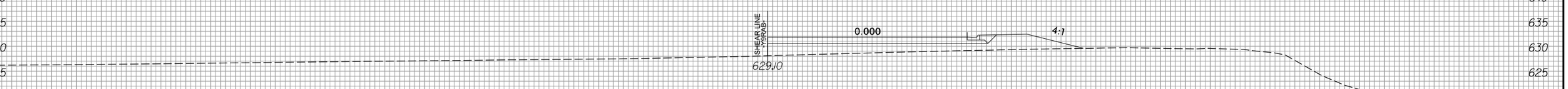
11+50.00



11+00.00



10+50.00



10+00.00

-Y9R-

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9R.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-375

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

650 645 640 635 630 625

0.039 0.024

632.17

13+00.00

650 645 640 635 630 625 620

2.65:1 4:1 0.047 0.047 4.52:1

626.37 631.96

12+50.00

-Y9R-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

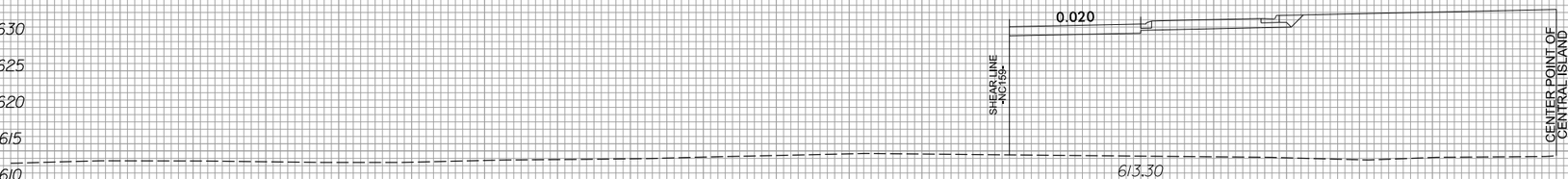
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9R.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-376

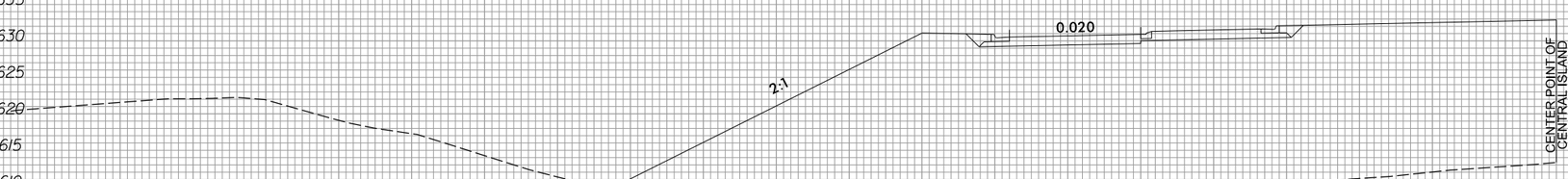
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 635 630 625 620 615 610 605



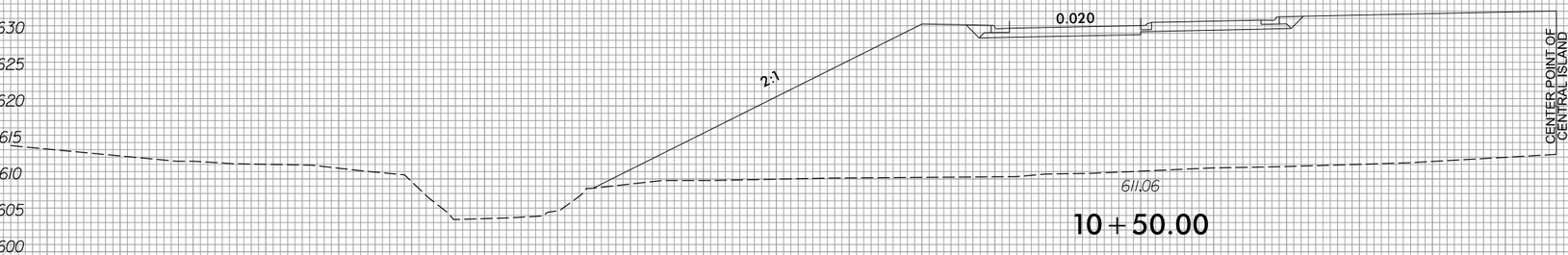
11+50.00

640 635 630 625 620 615 610 605 600



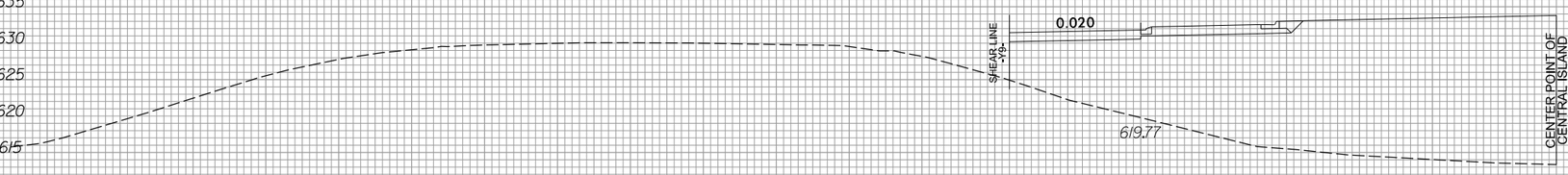
11+00.00

640 635 630 625 620 615 610 605 600



10+50.00

645 640 635 630 625 620 615 610



10+00.00

-Y9RAB-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

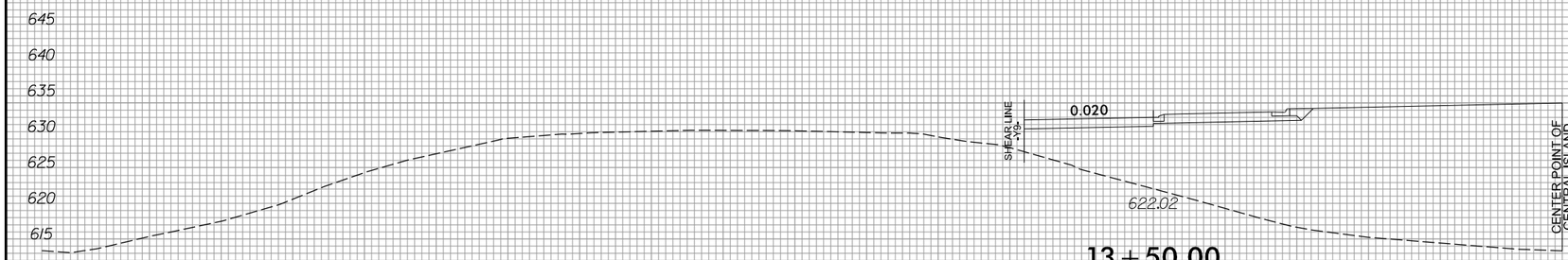
3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9RAB.dgn
Fkeys

8/23/99

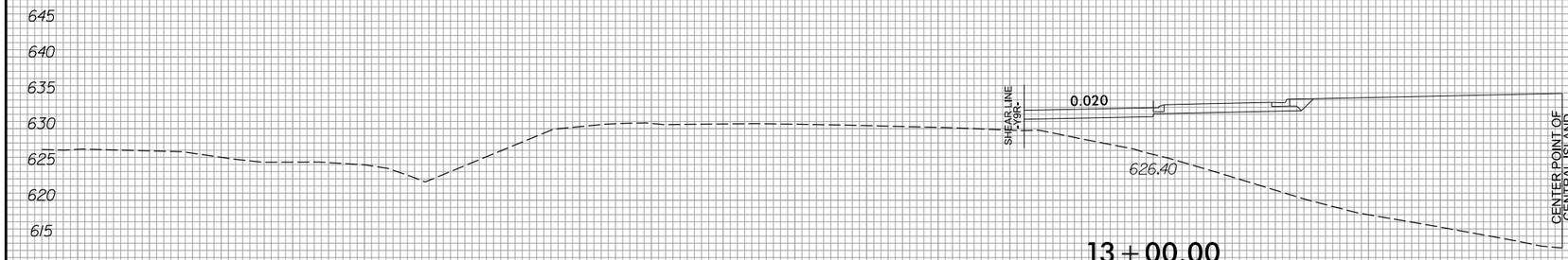
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-377

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

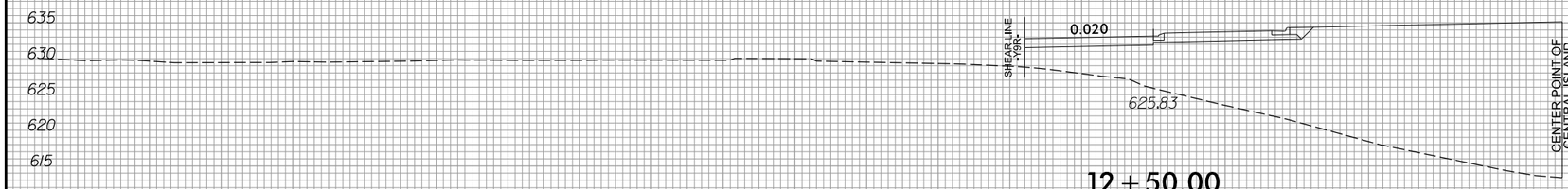
645 640 635 630 625 620 615 610



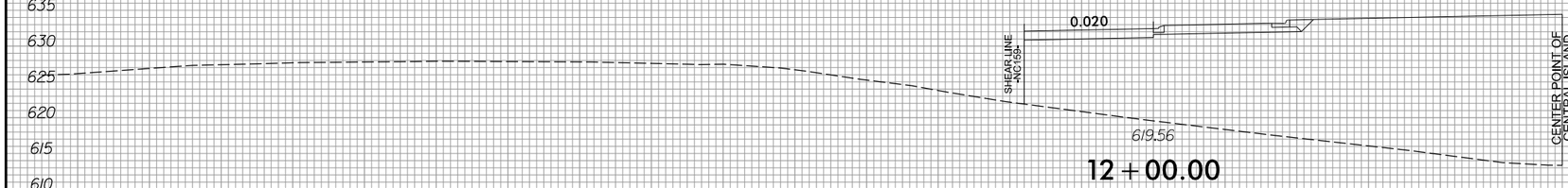
13+50.00



13+00.00



12+50.00



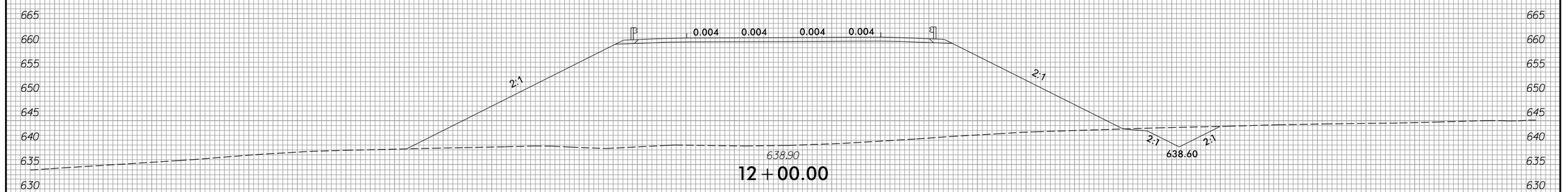
12+00.00

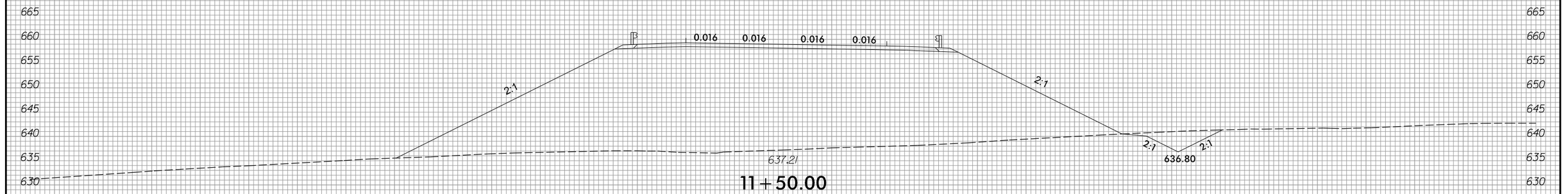
-Y9RAB-

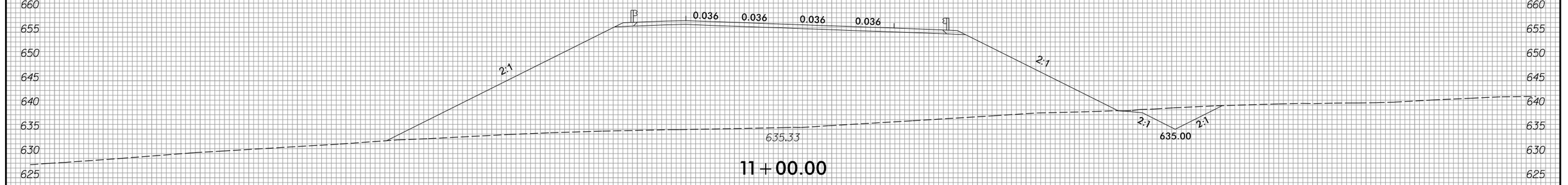
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9RAB.dgn
FKeys

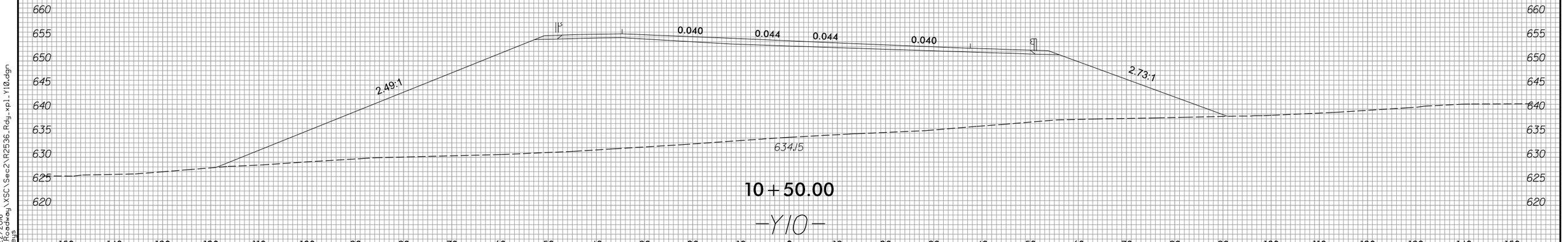
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-378





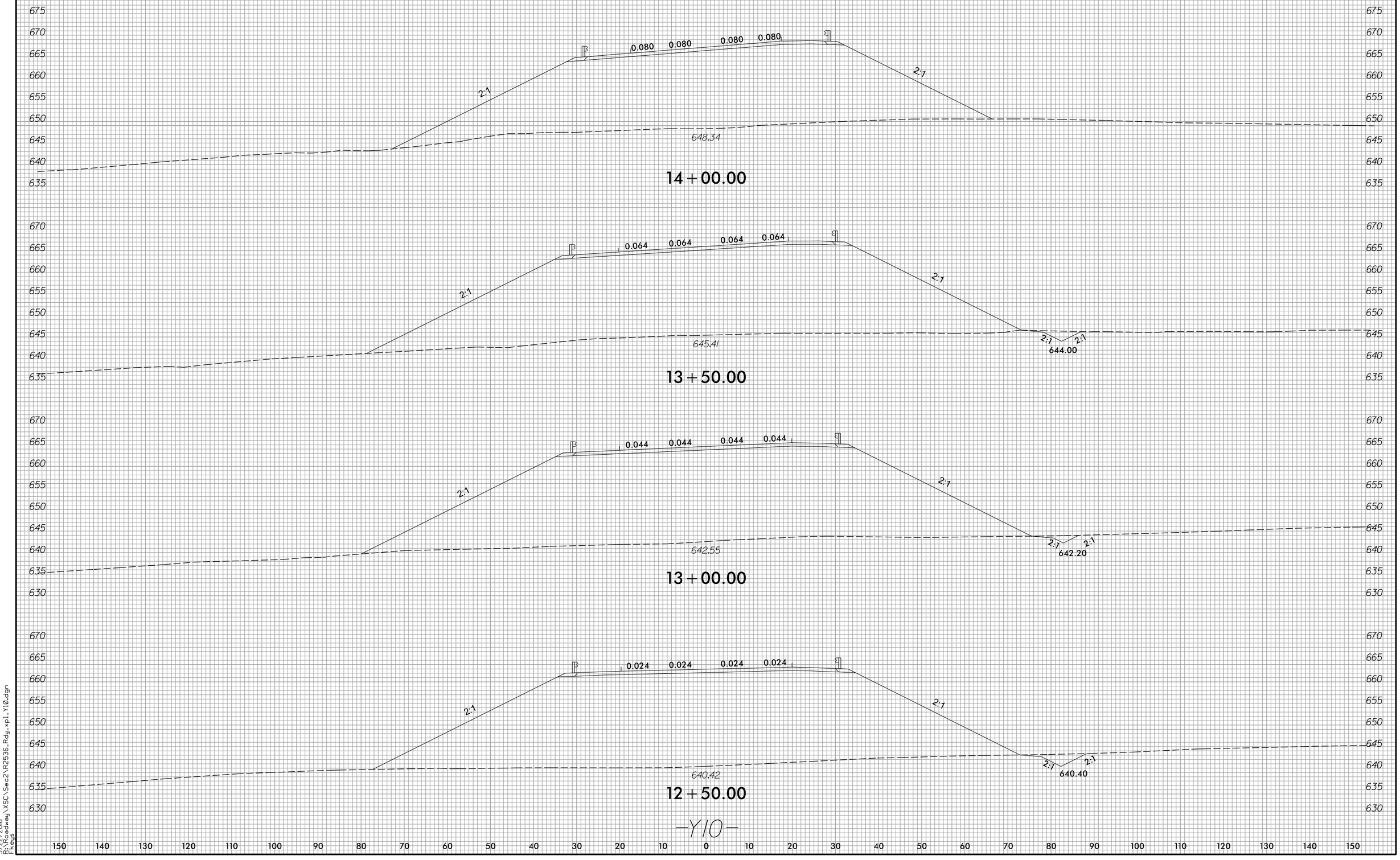




3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y10.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-379



-Y10-

3/22/2016
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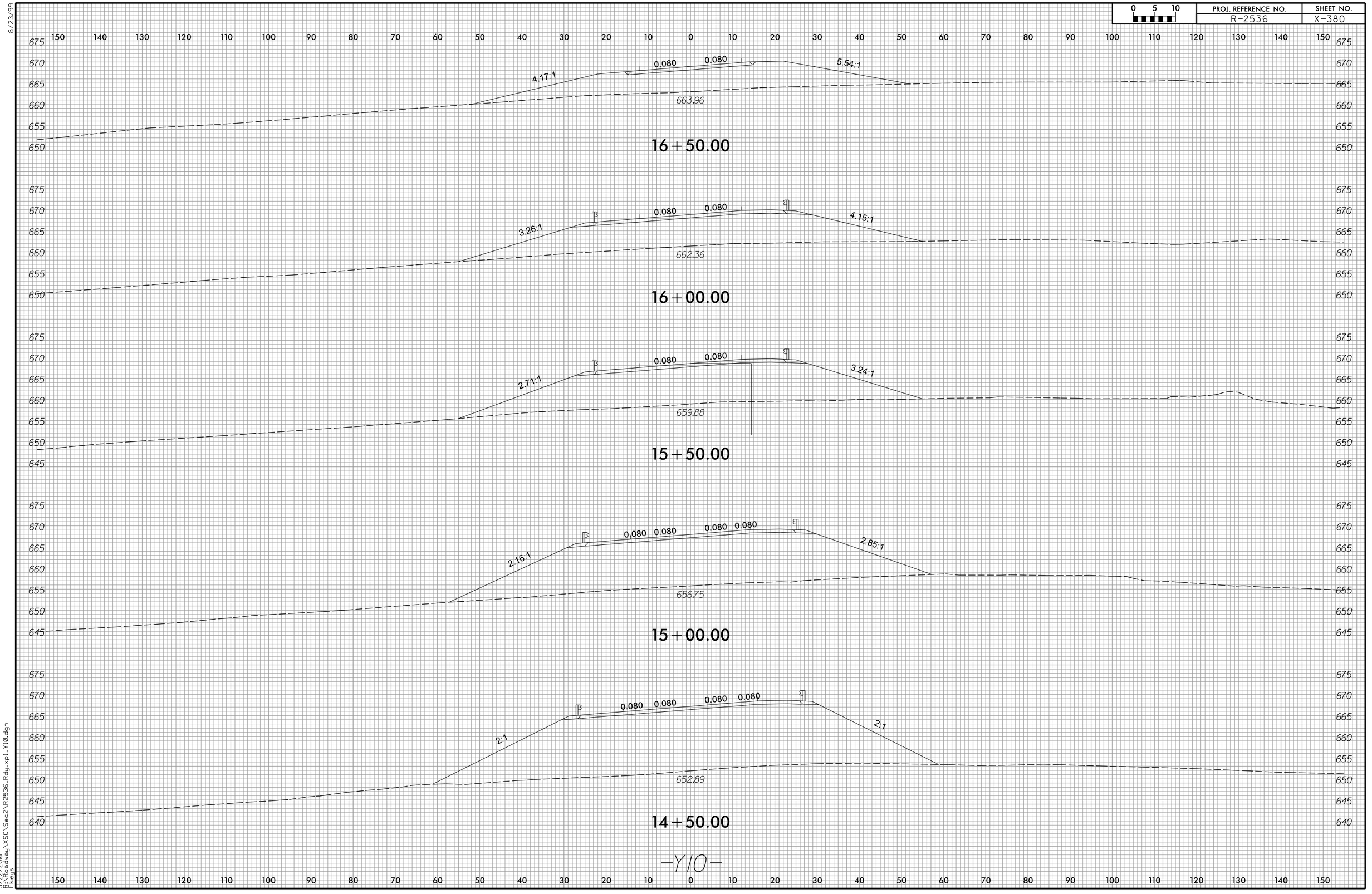
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-380



-Y10-

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-381

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

675 670 665 660 655 650

6:1 0.080 0.080 5.46:1

662.34 663.79

19+00.00

675 670 665 660 655 650

6:1 0.080 0.080 4.87:1

663.35 664.84

18+50.00

675 670 665 660 655 650

6:1 0.080 0.080 6:1

664.13 665.79

18+00.00

SHEAR @ INTERSECTION W/-Y10A-

675 670 665 660 655 650

6:1 0.080 0.080

666.07

17+50.00

675 670 665 660 655 650

5.15:1 0.080 0.080 6:1

665.14

17+00.00

-Y10-

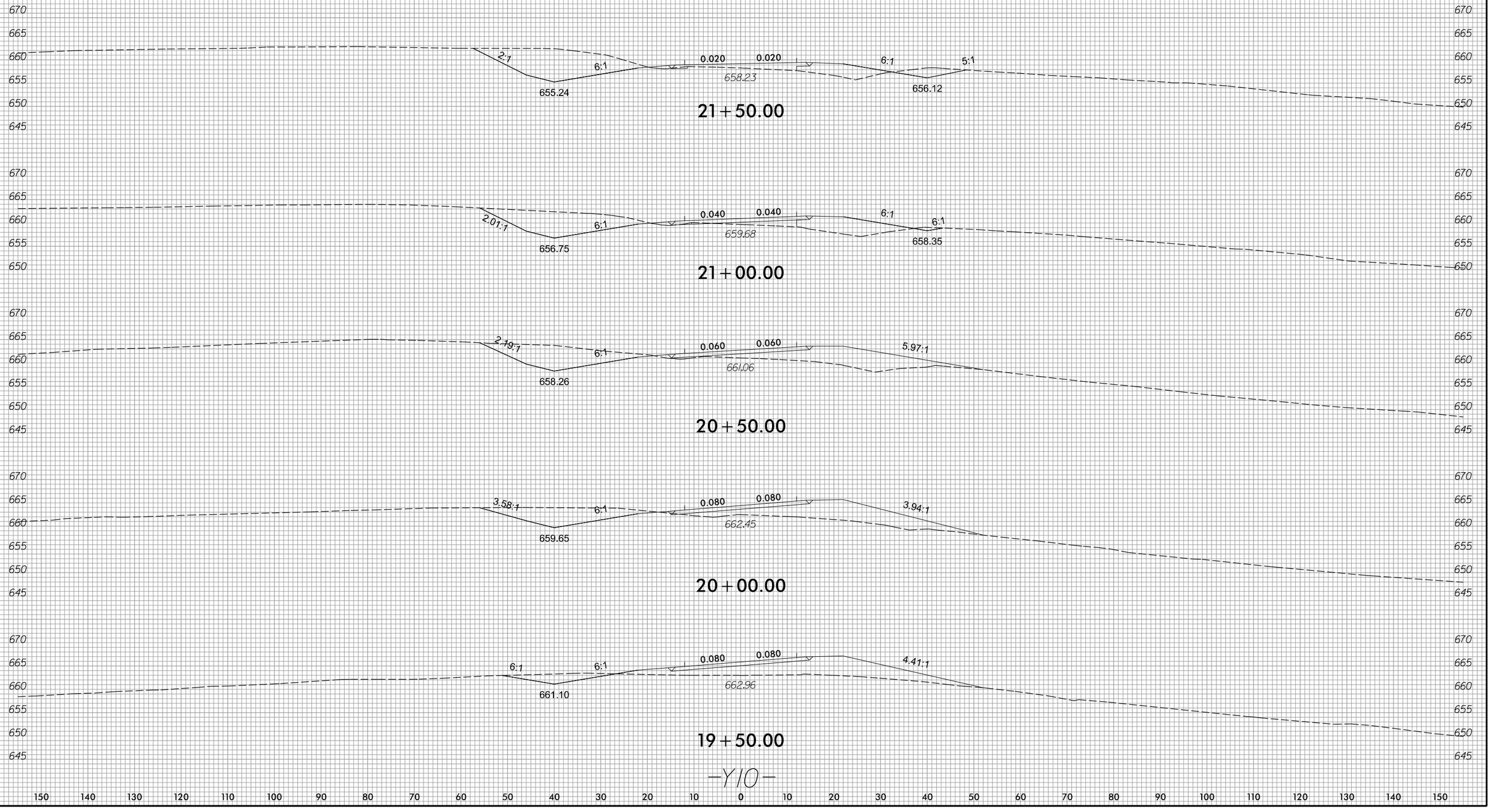
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWAY\XSC\Sec2\R2536_Rdy_xpl_Y10.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-382

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



-Y10-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-383

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

660 655 650 645 640

0.007 0.034

651.35

23+50.00

665 660 655 650 645 640

2.75:1 6:1 0.016 0.020 6:1 3:1

649.80 649.71

653.38

23+00.00

665 660 655 650 645

2:1 6:1 0.020 0.020 6:1 3:1

651.63 651.63

654.89

22+50.00

670 665 660 655 650 645

2:1 6:1 0.020 0.000 6:1 4:1

653.46 653.90

656.57

22+00.00

-Y10-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

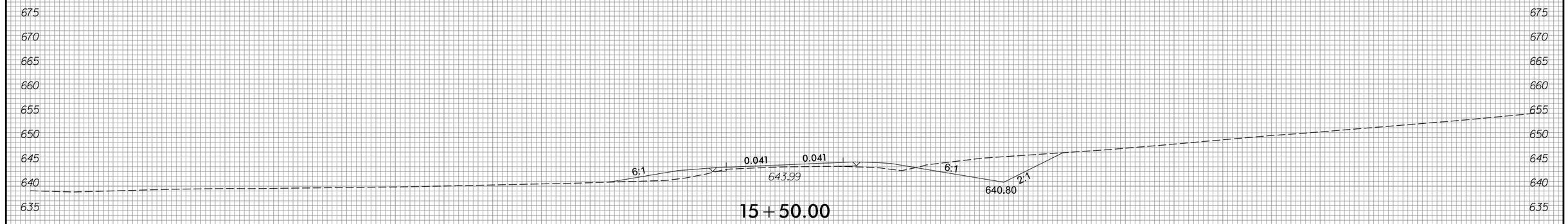
3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y10.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-384

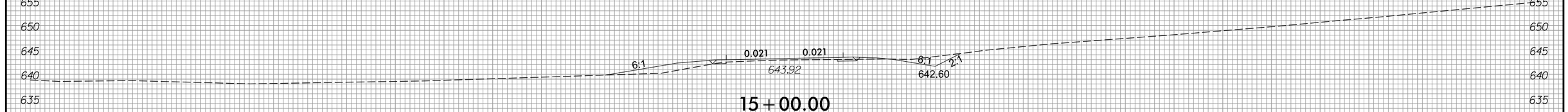
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

675 670 665 660 655 650 645 640 635



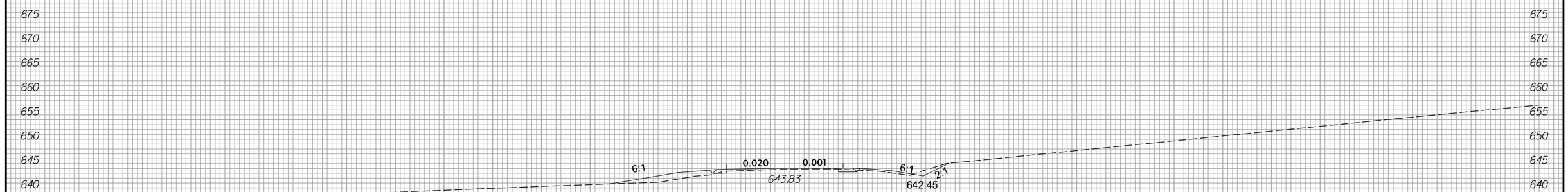
15+50.00

675 670 665 660 655 650 645 640 635



15+00.00

675 670 665 660 655 650 645 640 635 630



14+50.00

-YIO_END-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y10_END.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-385

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

665 660 655 650 645 640 635

6:1 0.080 0.080 6:1 2:1

644.64 643.18

17+50.00

665 660 655 650 645 640 635

6:1 0.080 0.080 6:1 2:1

644.52 642.96

17+00.00

670 665 660 655 650 645 640 635

6:1 0.080 0.080 6:1 2:1

644.32 642.78

16+50.00

675 670 665 660 655 650 645 640 635

6:1 0.061 0.061 6:1 2:1

644.11 639.00

16+00.00

-YIO_END-

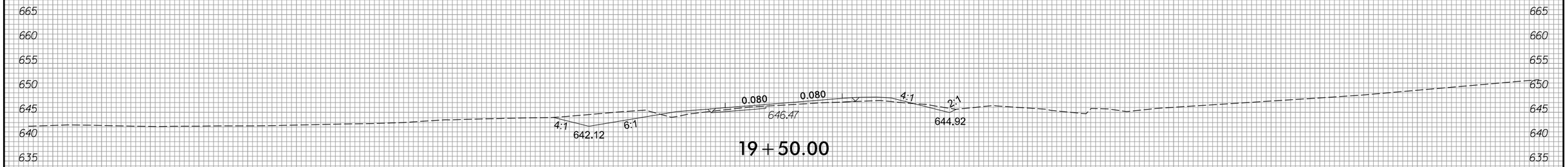
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\R-Roadway\XSC\Sec2\R2536_Rdy_xpl_Y10_END.dgn
Fkeys

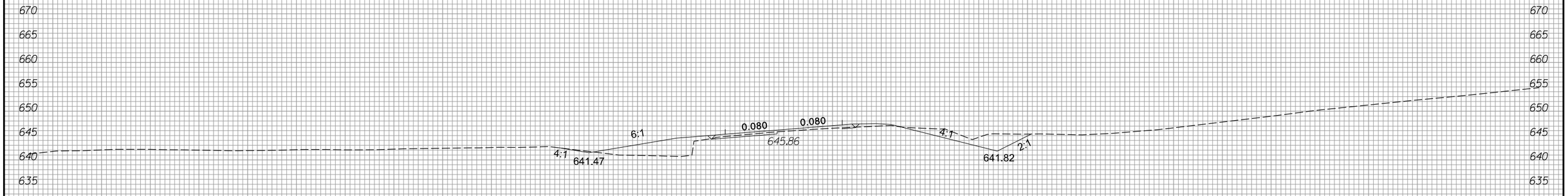
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-386

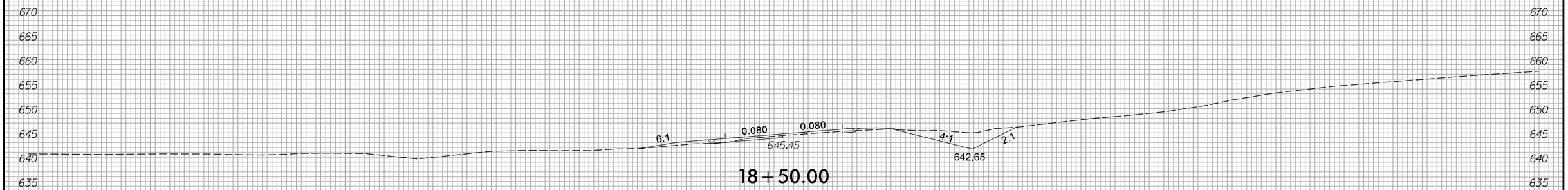
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



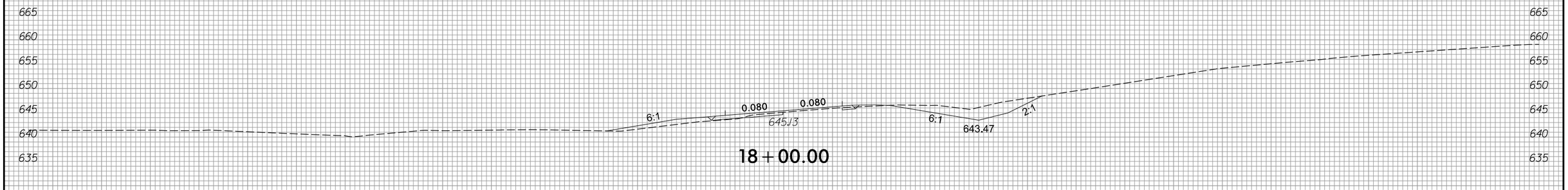
19+50.00



19+00.00



18+50.00



18+00.00

-Y10_END-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y10_END.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-387

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-388

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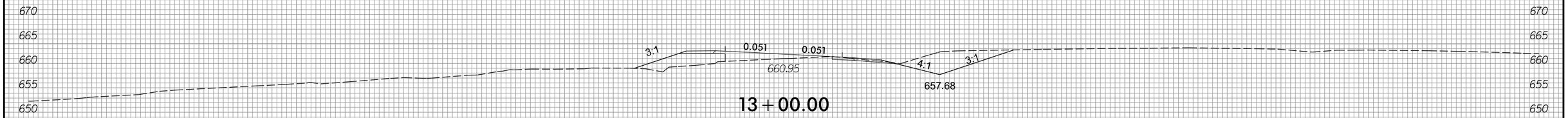
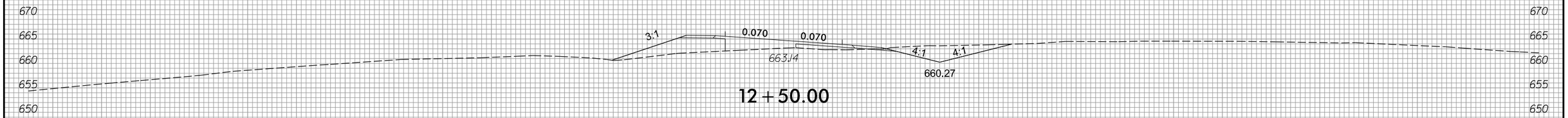
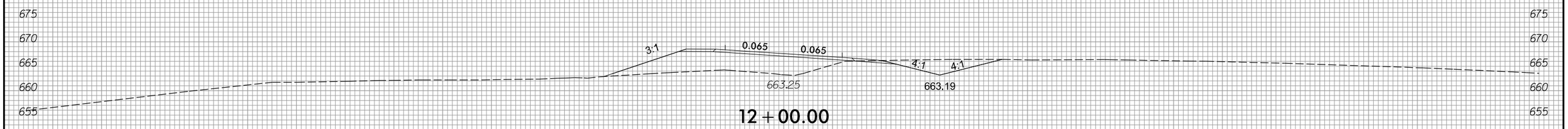


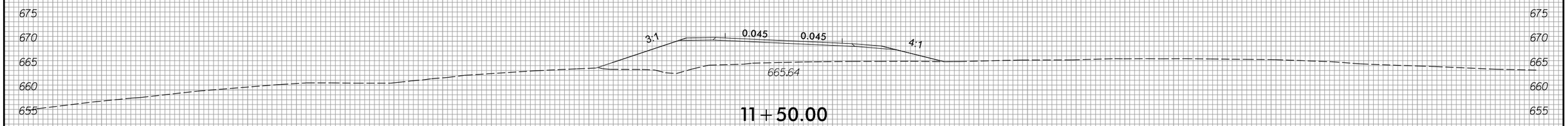
13 + 00.00



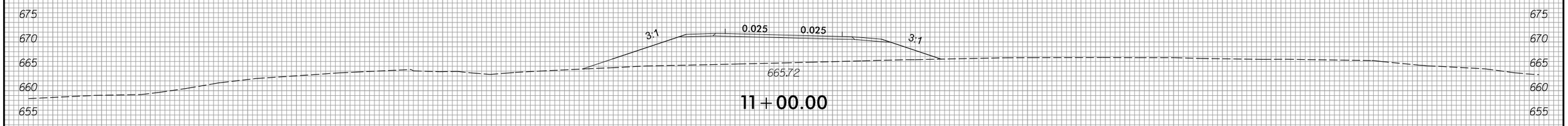
12 + 50.00



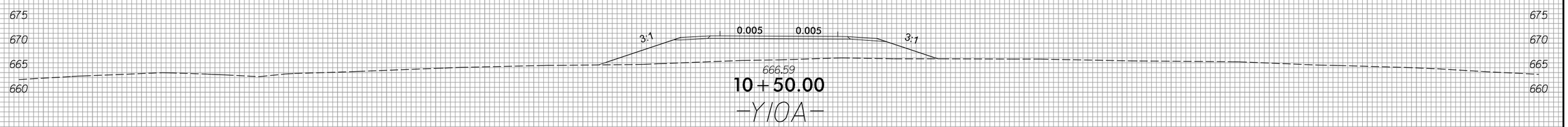
12 + 00.00



11 + 50.00



11 + 00.00



10 + 50.00

—Y10A—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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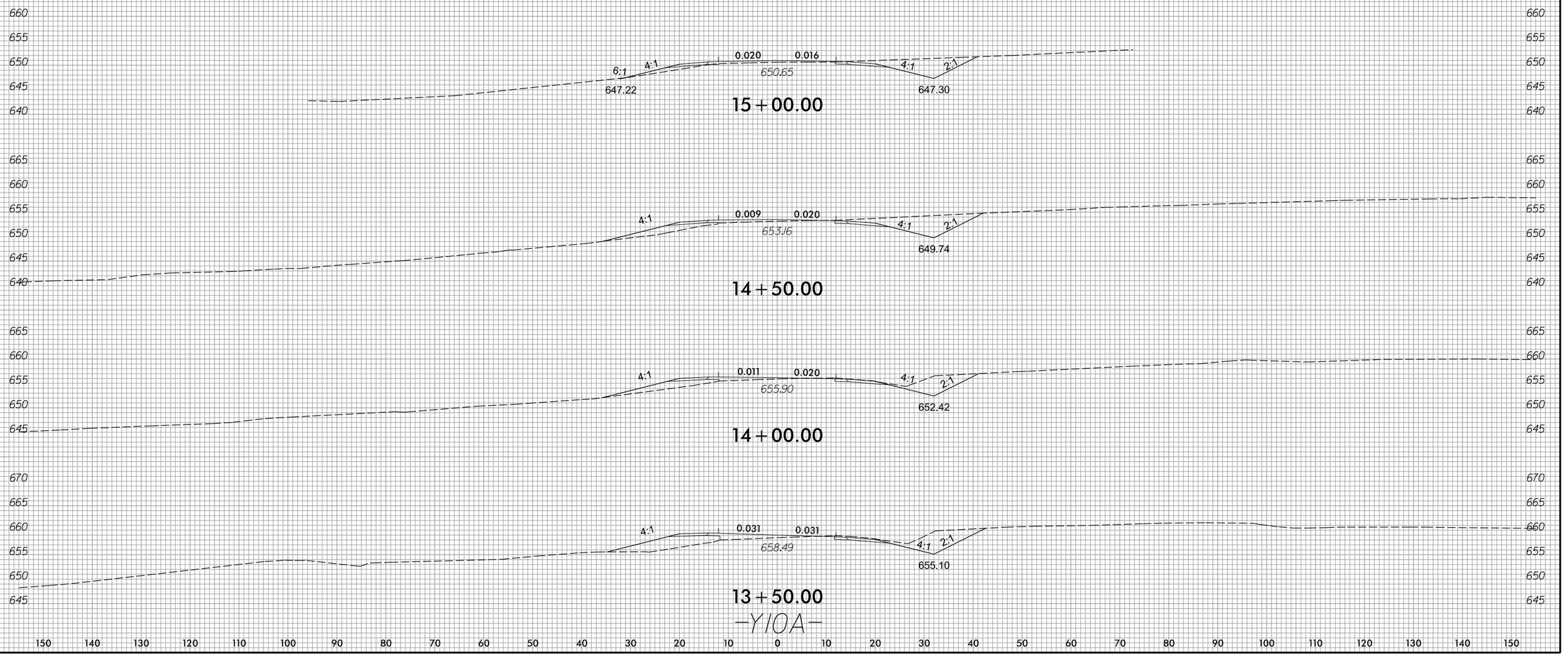
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-389

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

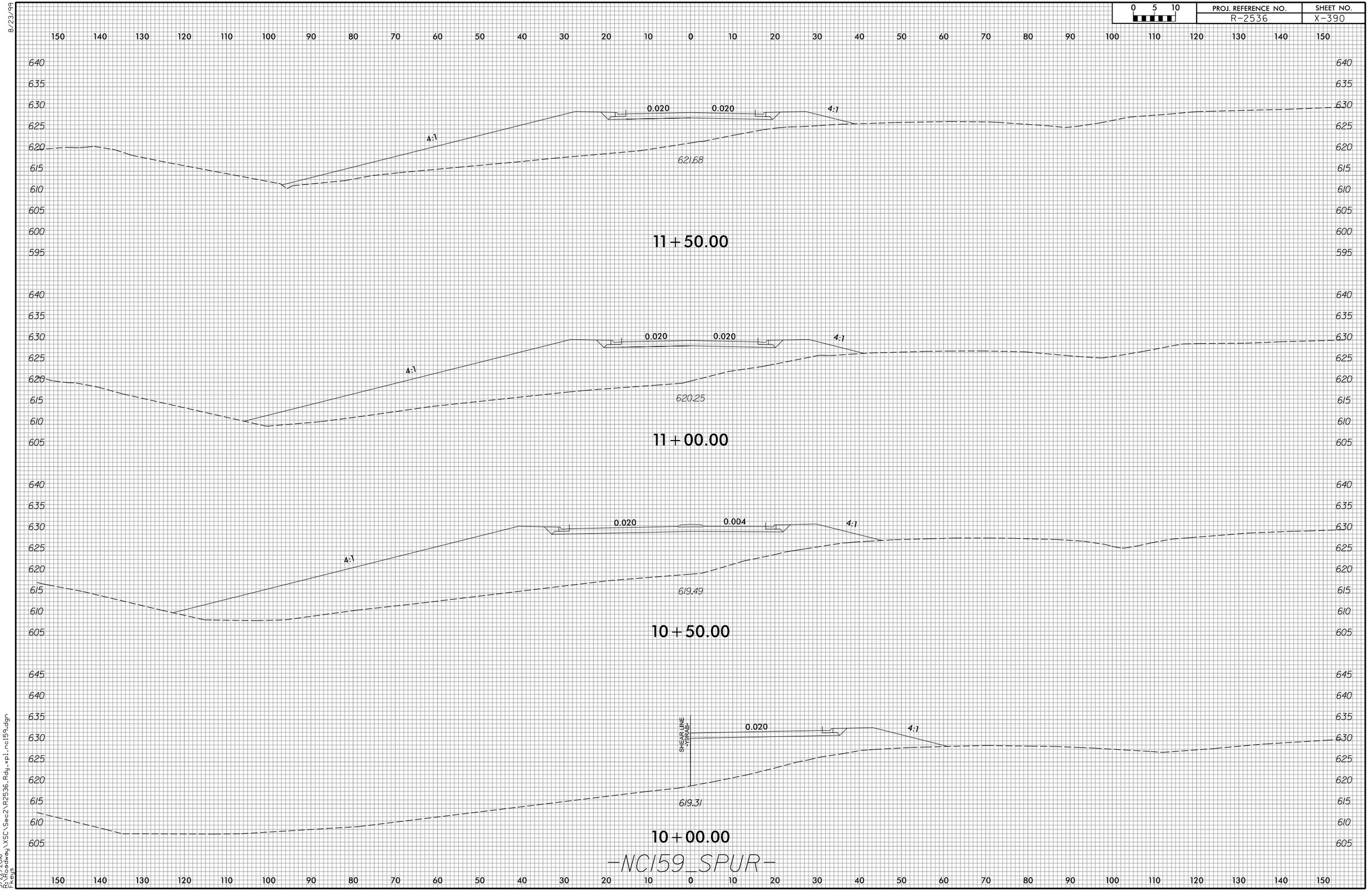


150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y10A.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-390

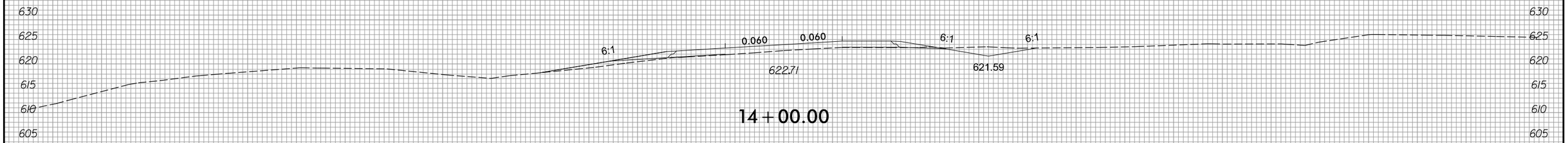


3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_nc159.dgn
Fkeys

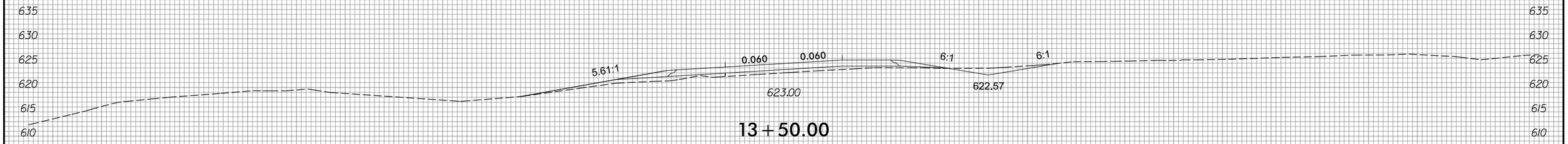
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-391

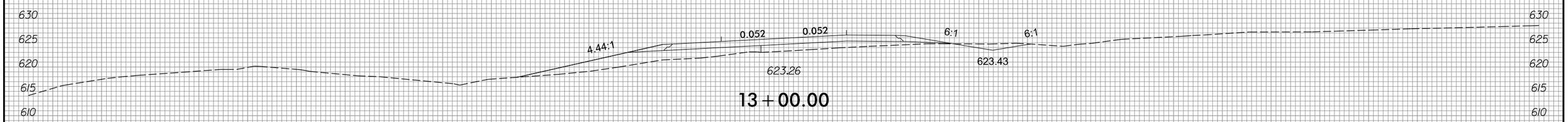
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



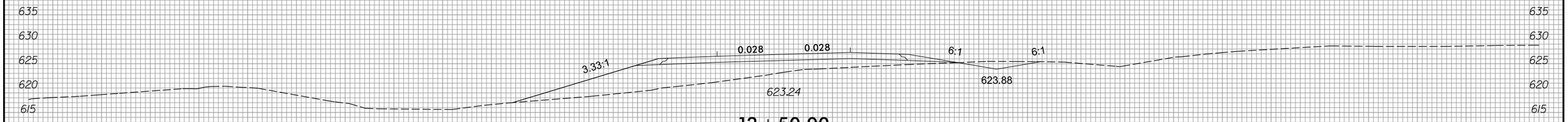
14 + 00.00



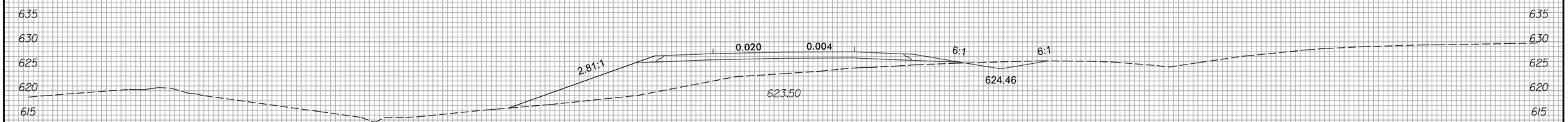
13 + 50.00



13 + 00.00



12 + 50.00



12 + 00.00

-NC159_SPUR-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-392

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

630 625 620 615 610 605 600

6:1 6:1 0.020 0.020 6:1 5.66:1

617.81 621.17 618.29

15+50.00

630 625 620 615 610 605 600

6:1 6:1 0.036 0.036 6:1 6:1

618.25 621.59 619.29

15+00.00

635 630 625 620 615 610 605

6:1 0.060 0.060 6:1

618.54 622.19 620.62

14+50.00

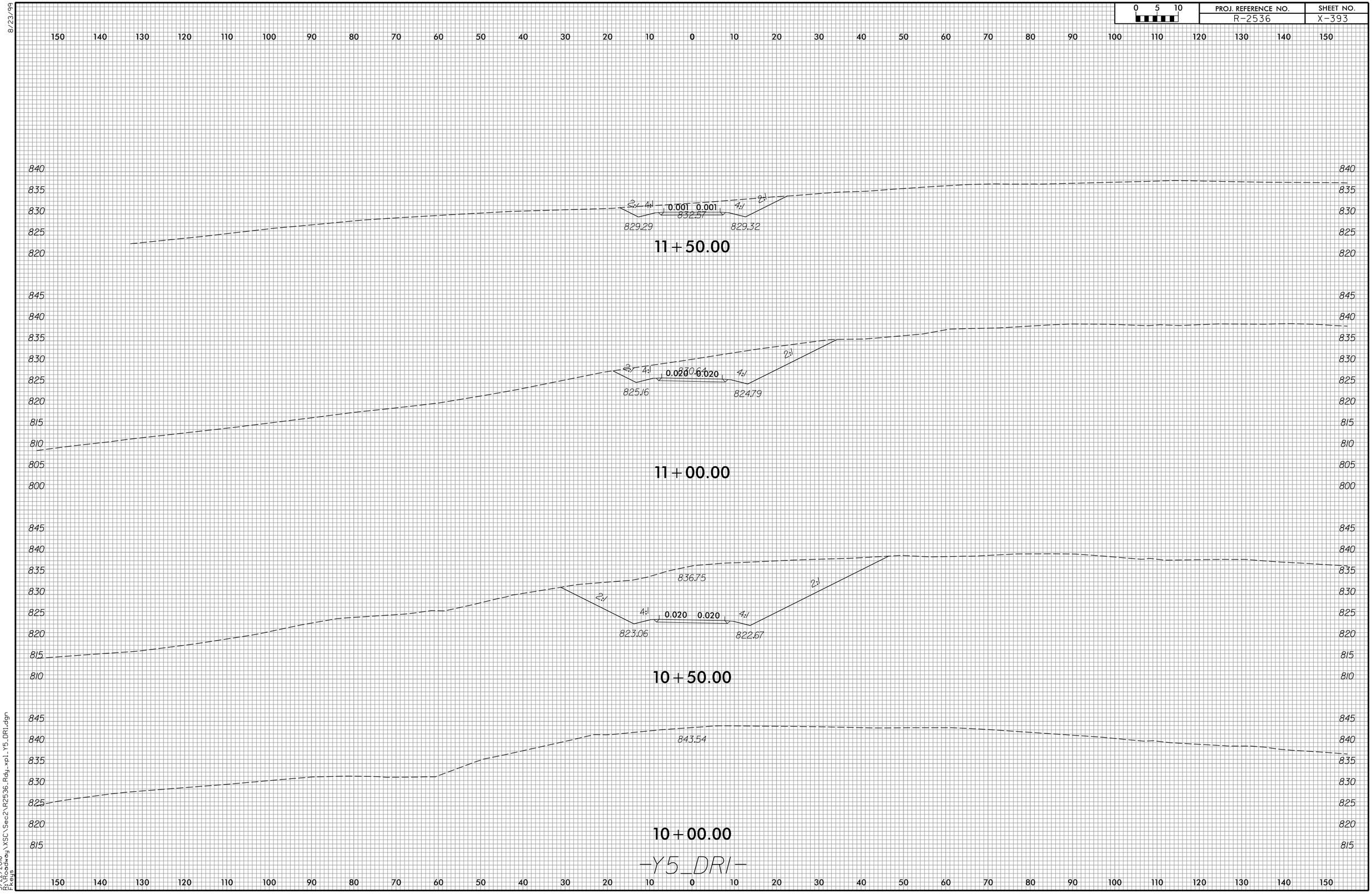
-NC159_SPUR-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_nc159.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-393



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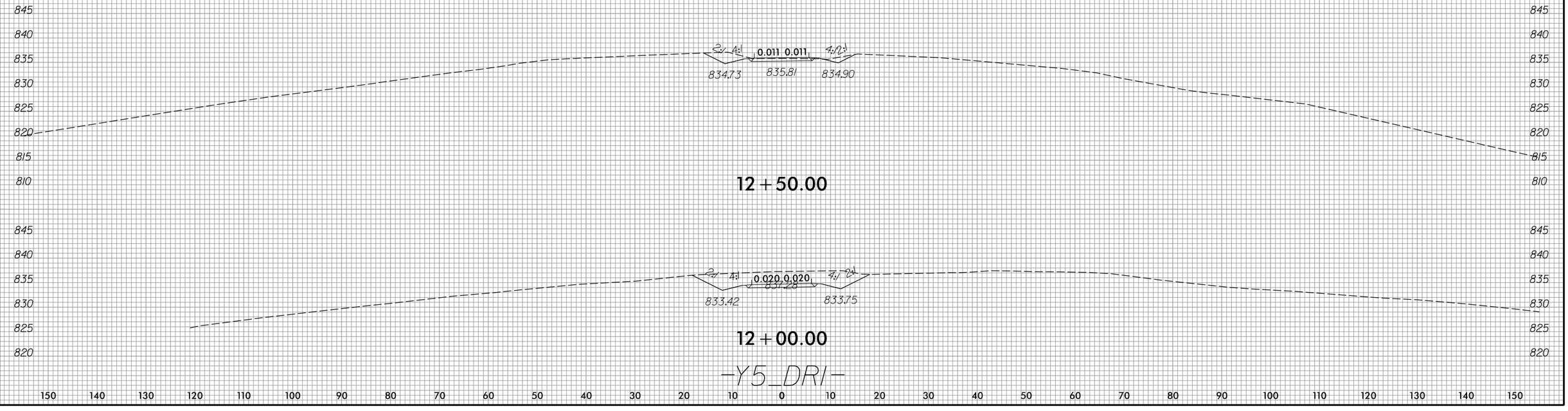
D:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y5_DRI.dgn
Keys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-394

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y5_DRI.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-395

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

860 855 850 845 840

4:1 0.020 0.020 4:1 2:1

849.84 848.77

12 + 00.00

855 850 845 840

2:1 4:1 0.020 0.020 4:1 2:1

847.54 848.92 847.54

11 + 50.00

850 845 840 835

6:1 0.020 0.020 4:1 2:1

844.17 844.37

11 + 00.00

850 845 840 835

3:1 0.020 0.020 5:1

839.89

10 + 50.00

845 840 835 830

834.88

10 + 00.00

—Y7_DRI—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y7_DRI.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-396

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

860 855 850 845 840

4:1 0.020 0.020 4:1 2:1

849.68 848.61

12+00.00

860 855 850 845 840

4:1 0.020 0.020 4:1 2:1

848.18 847.85

11+50.00

850 845 840 835

6:1 0.020 0.020 6:1

843.53

11+00.00

850 845 840 835 830

2:1 0.020 0.020 4:1

838.07

10+50.00

845 840 835 830 825

833.54

10+00.00

-Y7_DR2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_Y7_DR2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-397

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

865 860 855 850 845 840

2:1 4:1 0.020 0.020 4:1 2:1

850.88 852.20

11+50.00

865 860 855 850 845 840

2:1 4:1 0.020 0.020 4:1 2:1

849.40 851.38 849.40

11+00.00

865 860 855 850 845 840 835

6:1 0.020 0.020 6:1

846.99

10+50.00

865 860 855 850 845 840 835

841.16

10+00.00

-Y7_DR3-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y7_DR3.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-398

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

855
850
845
840
835

2:0 2:7 4:0 3:1 0.020 0.020 4:0 2:1

846.17 847.07

11+00.00

855
850
845
840
835

2:7 4:1 0.020 0.020 6:1

843.65 843.62

10+50.00

845
840
835
830

839.13

10+00.00

-Y7_DR4-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\R-Roadway\XSC\Sec2\R2536_Rdy_xpl_Y7_DR4.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-399

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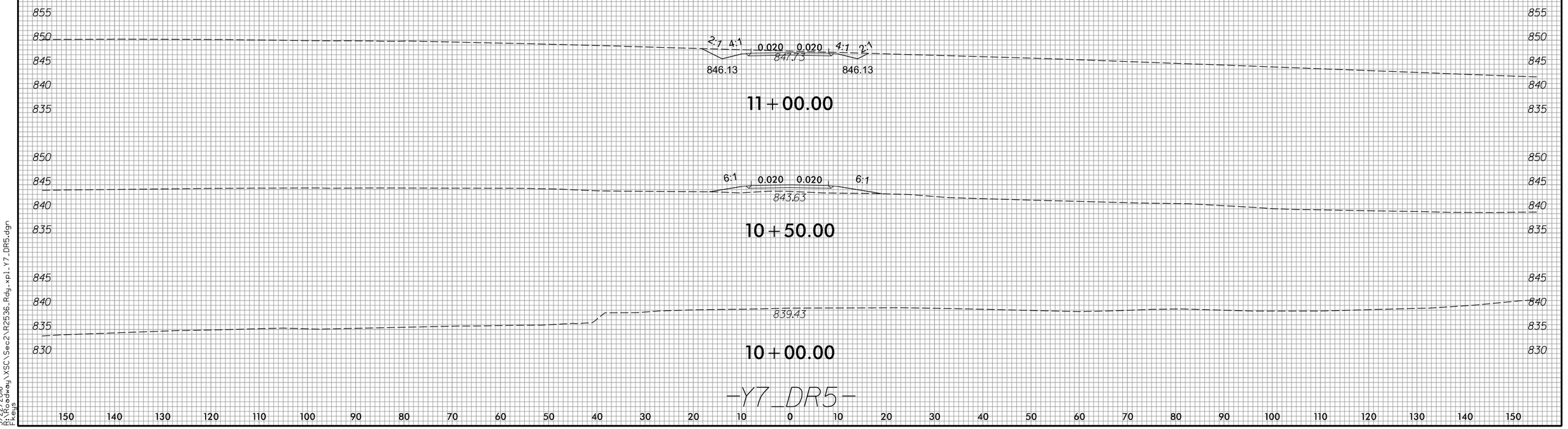

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3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y7_DR5.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-400

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750 745 740 735 730

2:1 4:1 0.020 0.020 6:1

737.21 738.22

11+00.00

750 745 740 735 730 725

10+50.00

-Y9A_DR1-

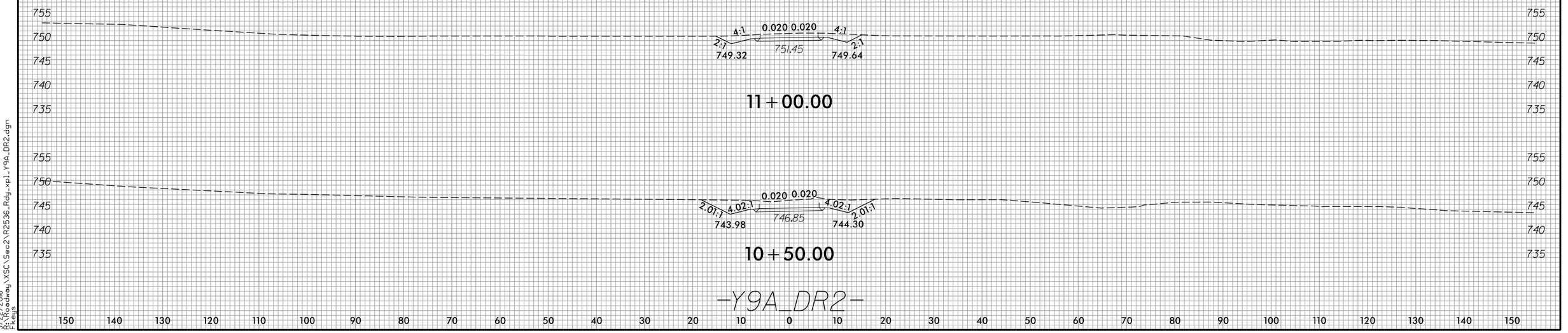
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\R-Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9A_DR1.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-401

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y9A_DR2.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-402

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

755 750 745 740 735 730 725 720 715 710

738.82
2:1 4:1 0.020 0.020 4:1 2:1
735.45 735.05

10+75.00

742.21
2:1 4:1 0.020 0.020 4:1 2:1
737.93 737.53

10+50.00

760 755 750 745 740 735 730 725 720 715 710

743.14
2:1 4.01:1 0.020 0.020 4:1 2:1
740.40 740.01

10+25.00

-Y9B_DRI-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y9B_DRI.dgn
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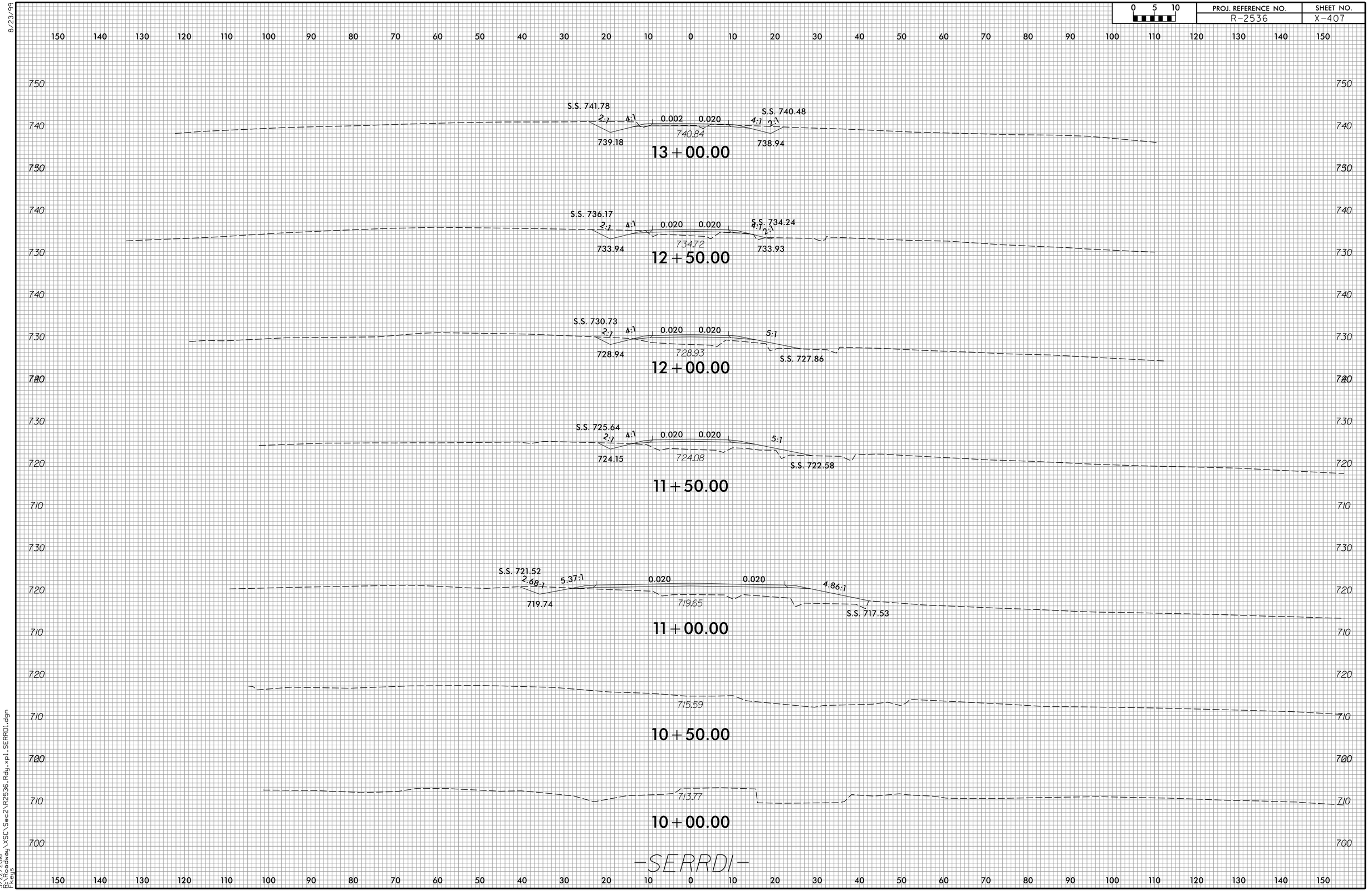
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-407



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-408

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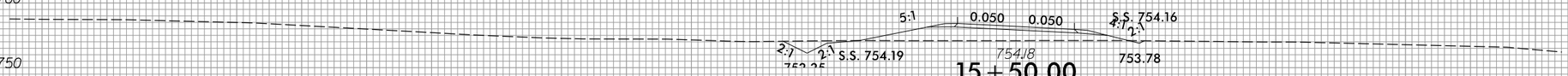
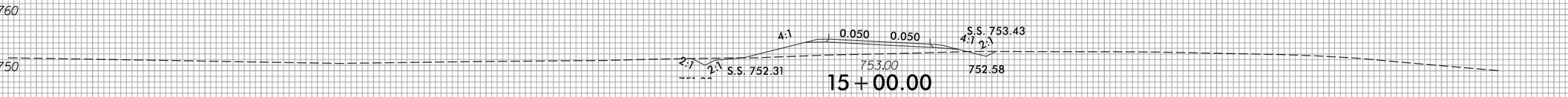
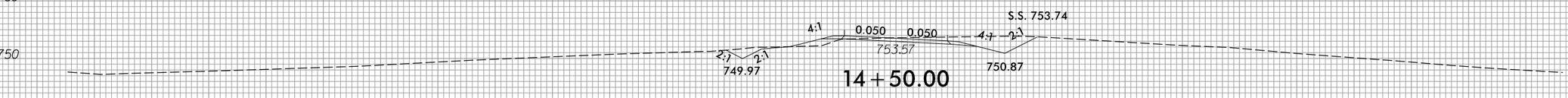
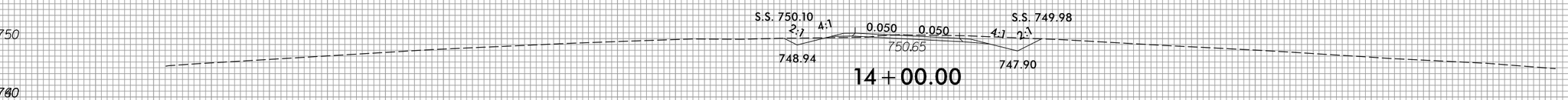
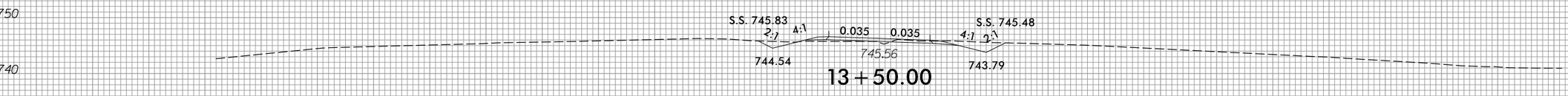
770 760 750 740











-SERRDI-

3/22/2016
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Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-409

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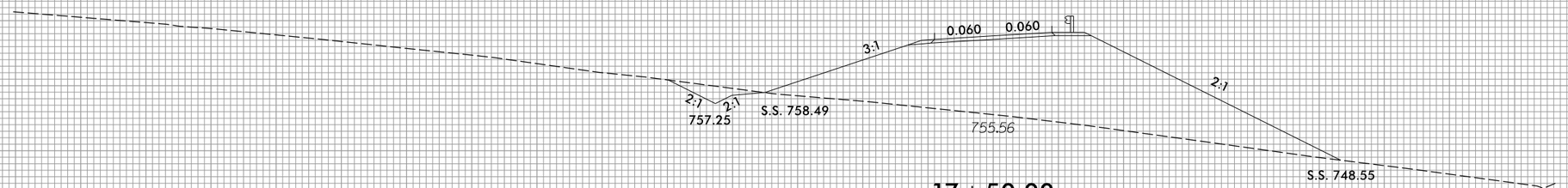
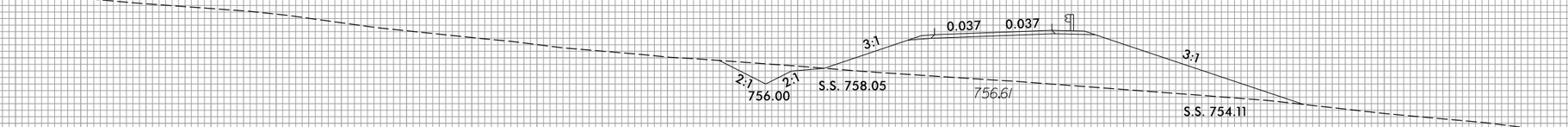
780
770
760
750



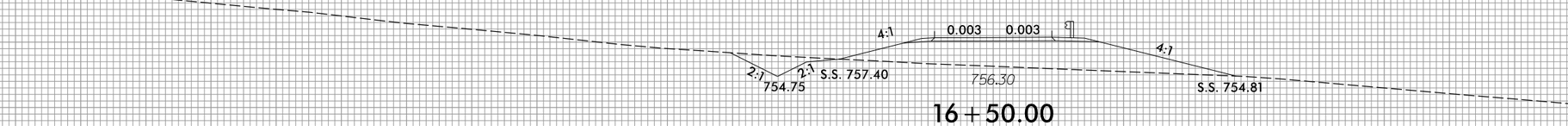
17+50.00

780
770
760
750



17+00.00

740
770
760
750



16+50.00

740

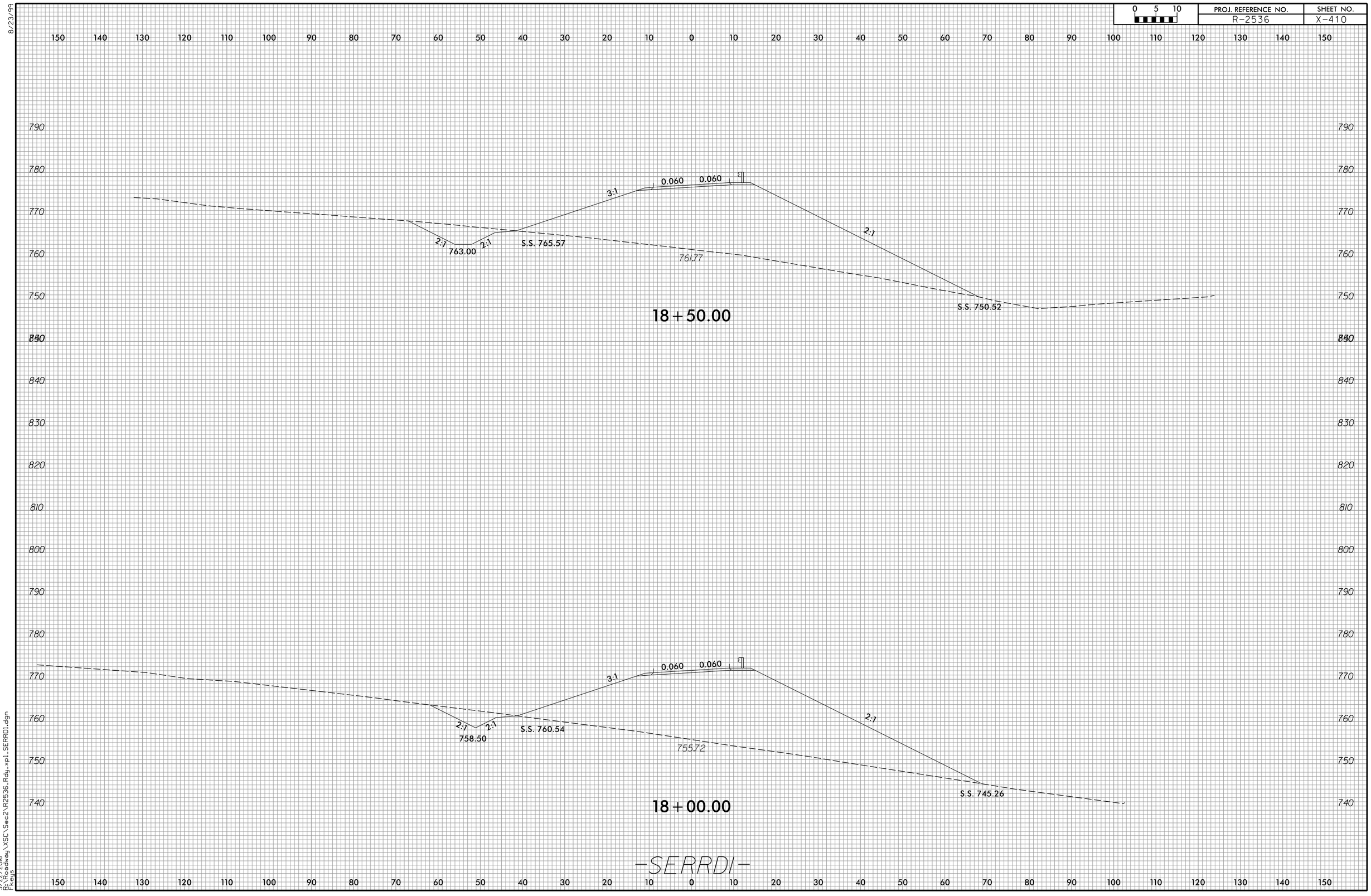
-SERRDI-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_SERRD1.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-410

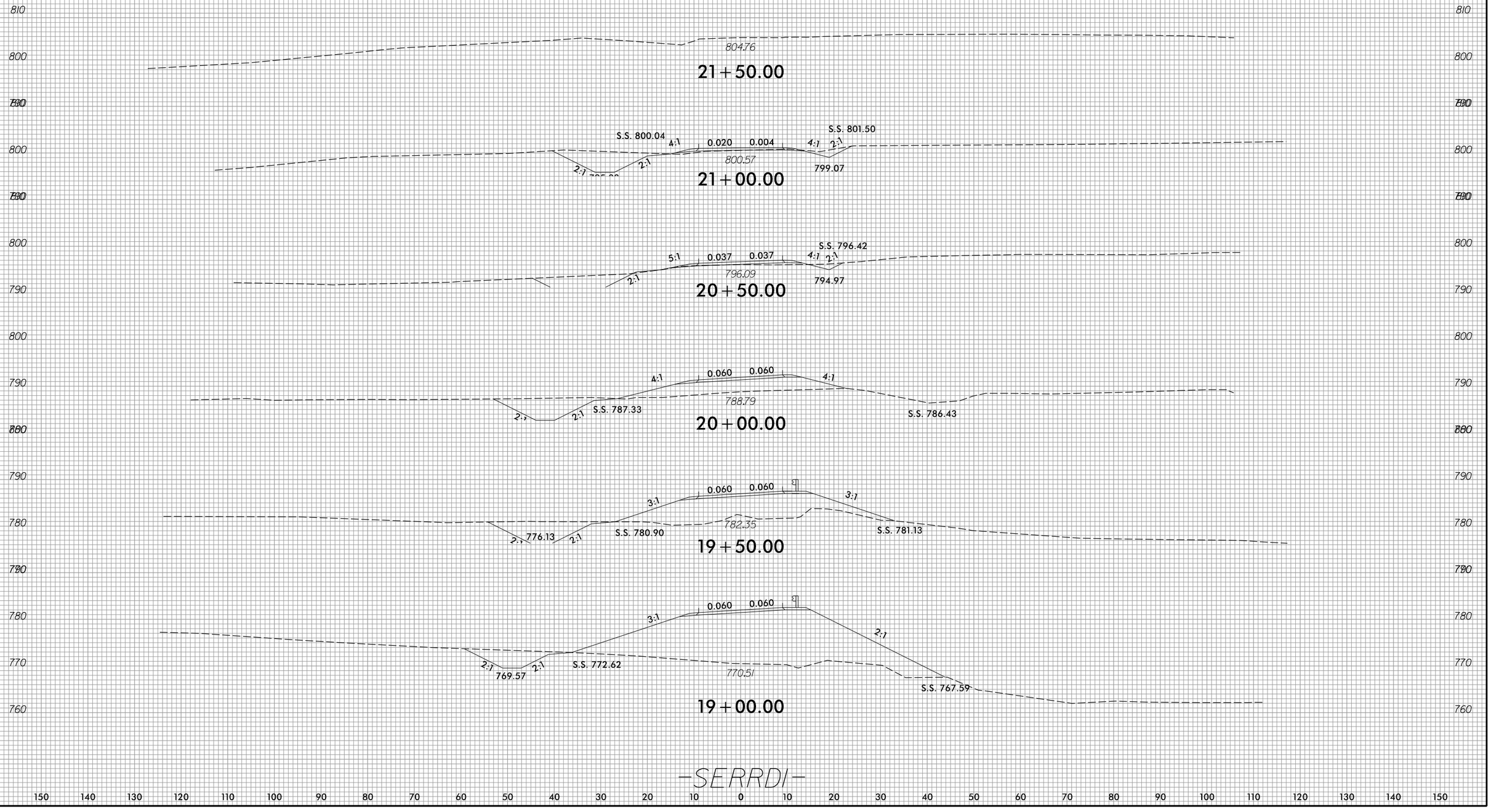


3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_SERRD1.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-411

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



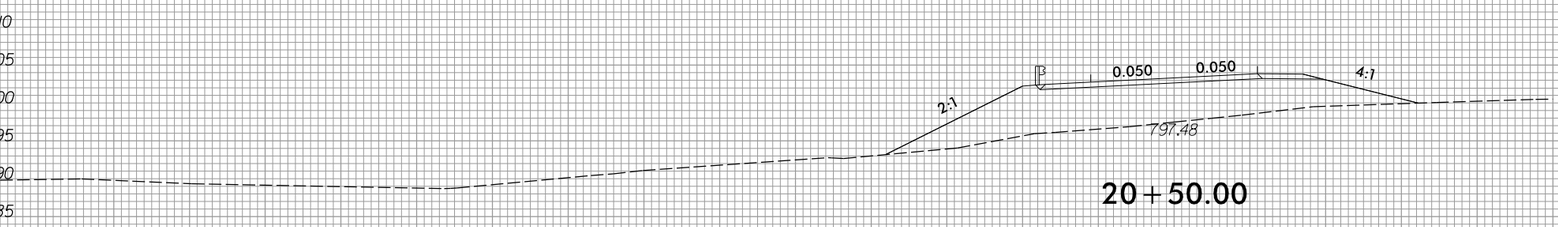
-SERRDI-

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xp1_SERRD1.dgn
Fkeys

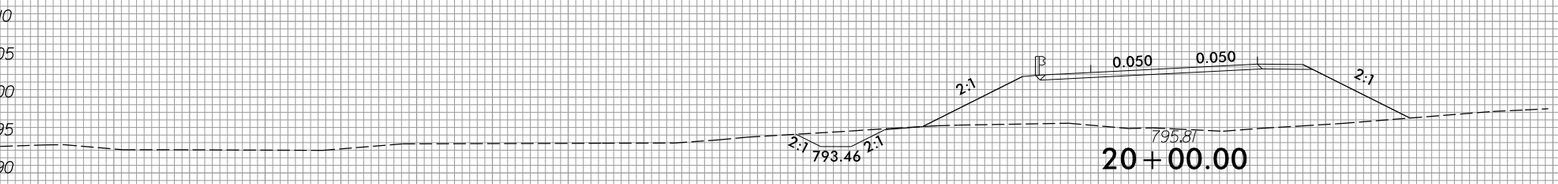
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-408

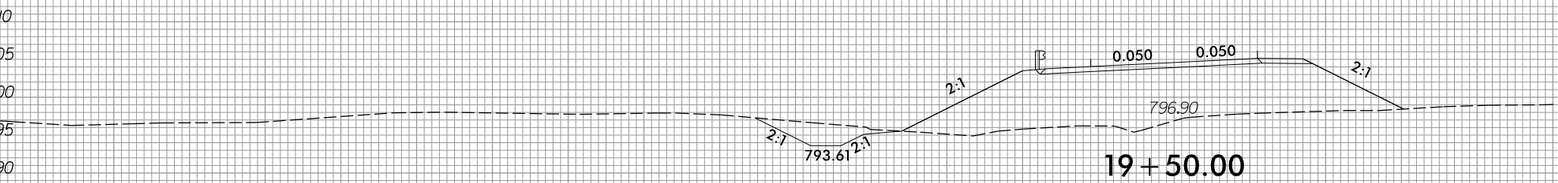
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



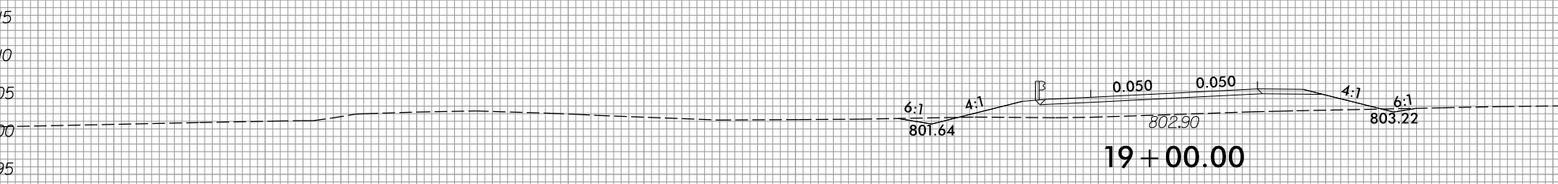
20+50.00



20+00.00



19+50.00



19+00.00

-SERRD3-

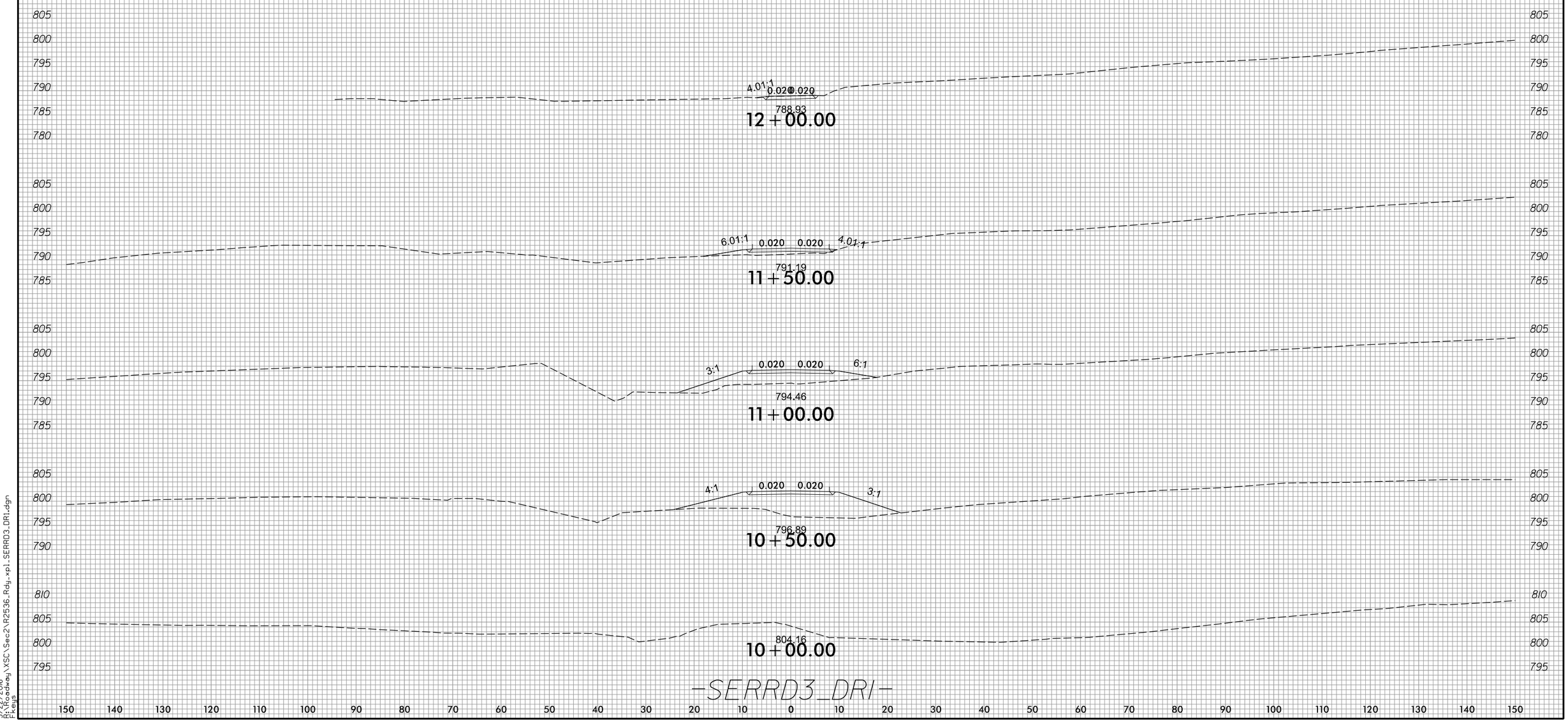
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_SERRD3.dgn
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-409

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



—SERRD3_DRI—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_SERRD3_DRI.dgn
Pkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-410

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

775 770 765 760 755 750 745 740

2:1 4:1 0.030 0.030 4:1
768.29
765.30

11+00.00

780 775 770 765 760 755 750 745 740 735 730

0.022 0.015 4:1
767.06
2:1 2:1
764.60

10+50.00

785 780 775 770 765 760 755 750 745 740 735 730 725 720

4:1 0.022 0.010 4:1
765.74

10+00.00

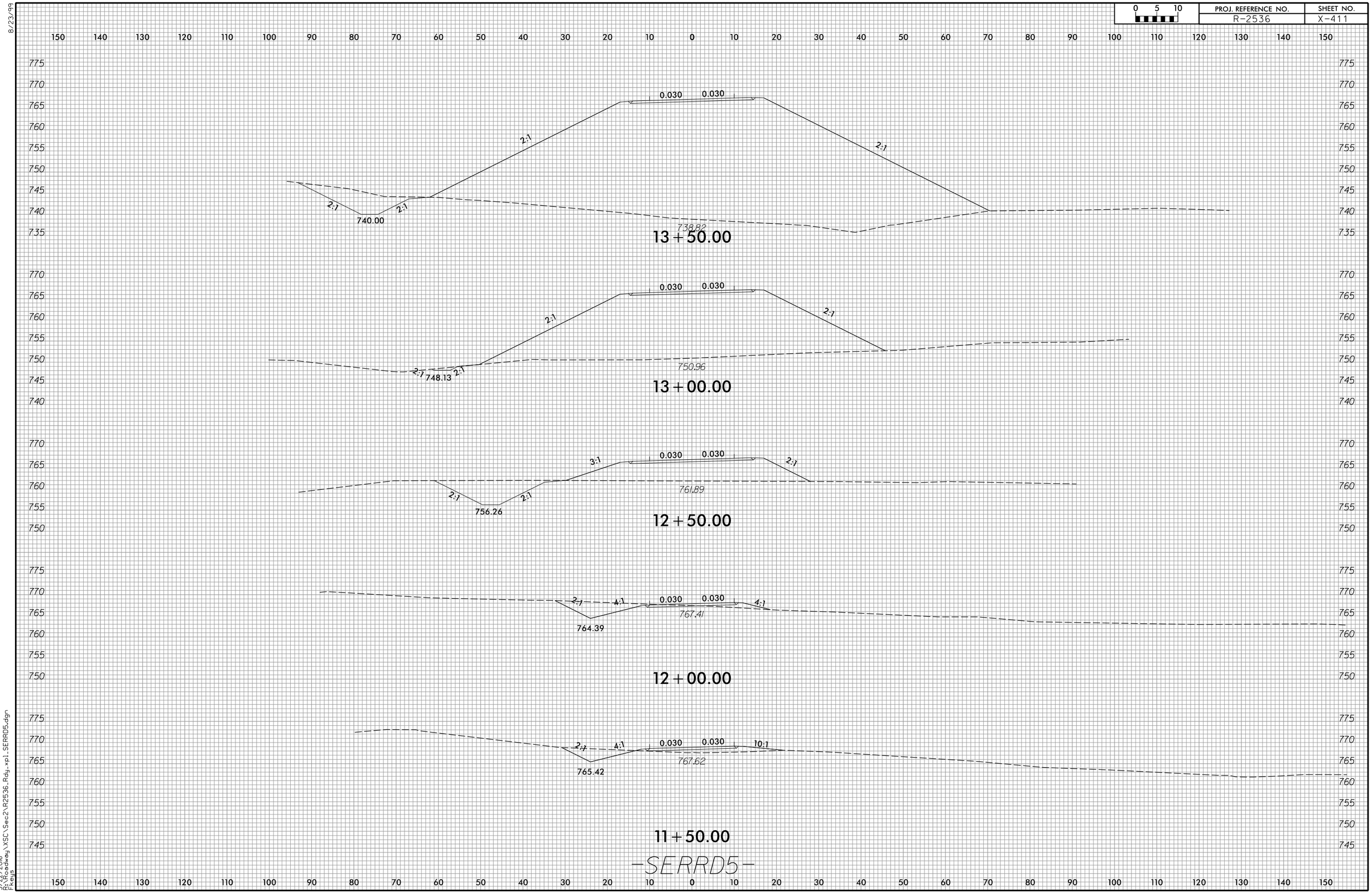
-SERRD5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_SERRD5.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-411



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_SERRD5.dgn
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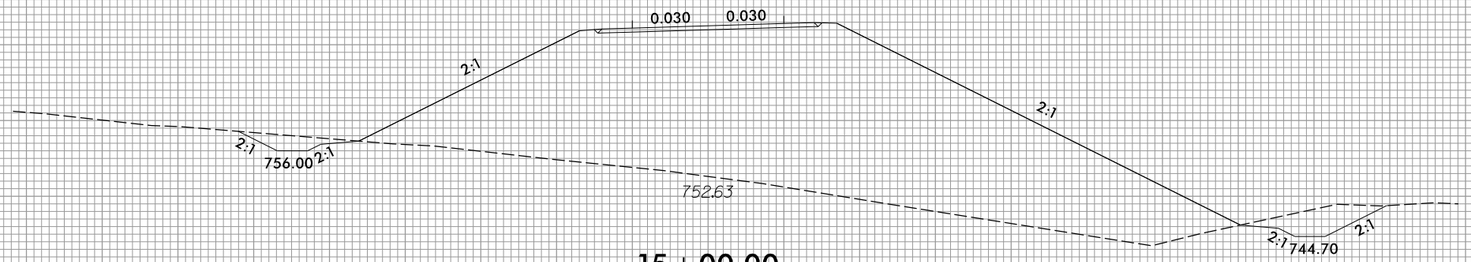
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-412

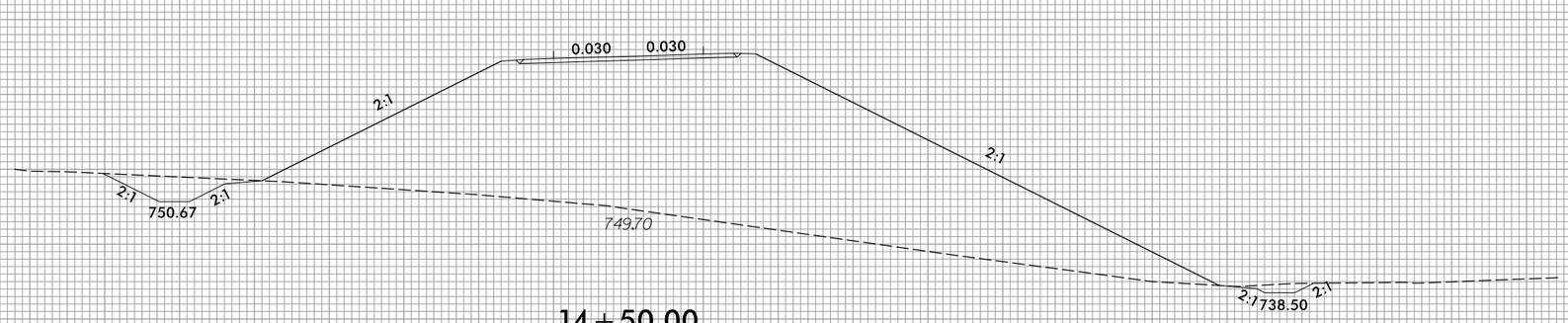
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780 775 770 765 760 755 750 745 740



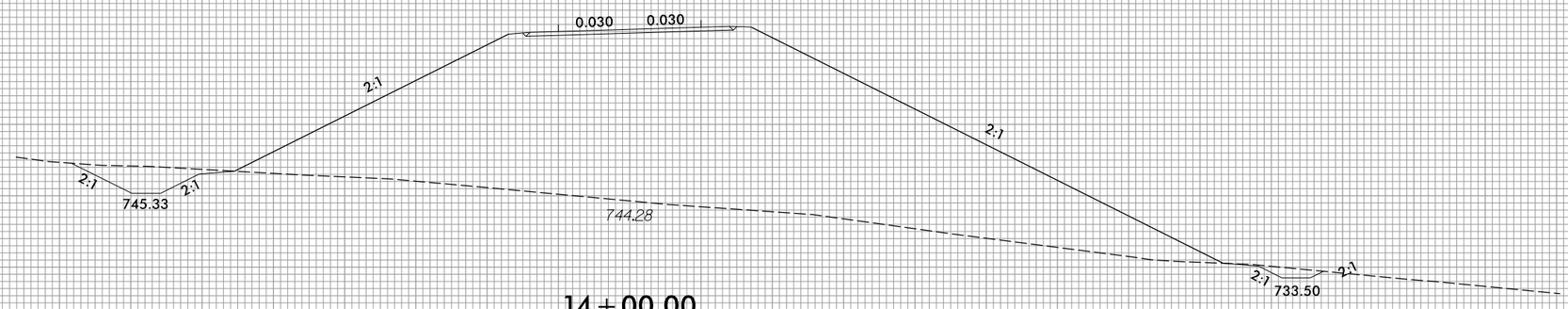
15+00.00

775 770 765 760 755 750 745 740 735



14+50.00

775 770 765 760 755 750 745 740 735 730



14+00.00

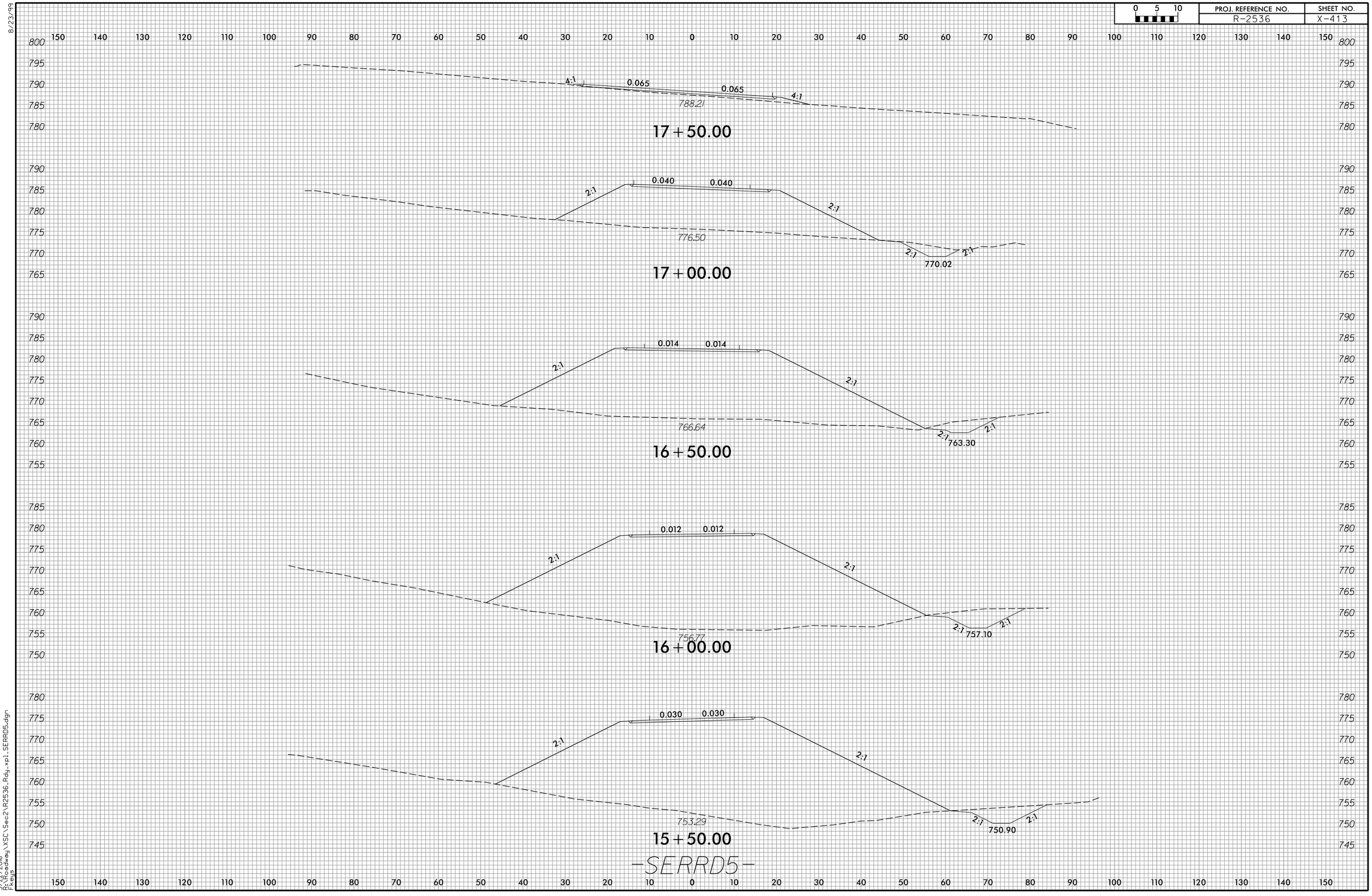
-SERRD5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_SERRD5.dgn
FKeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-413



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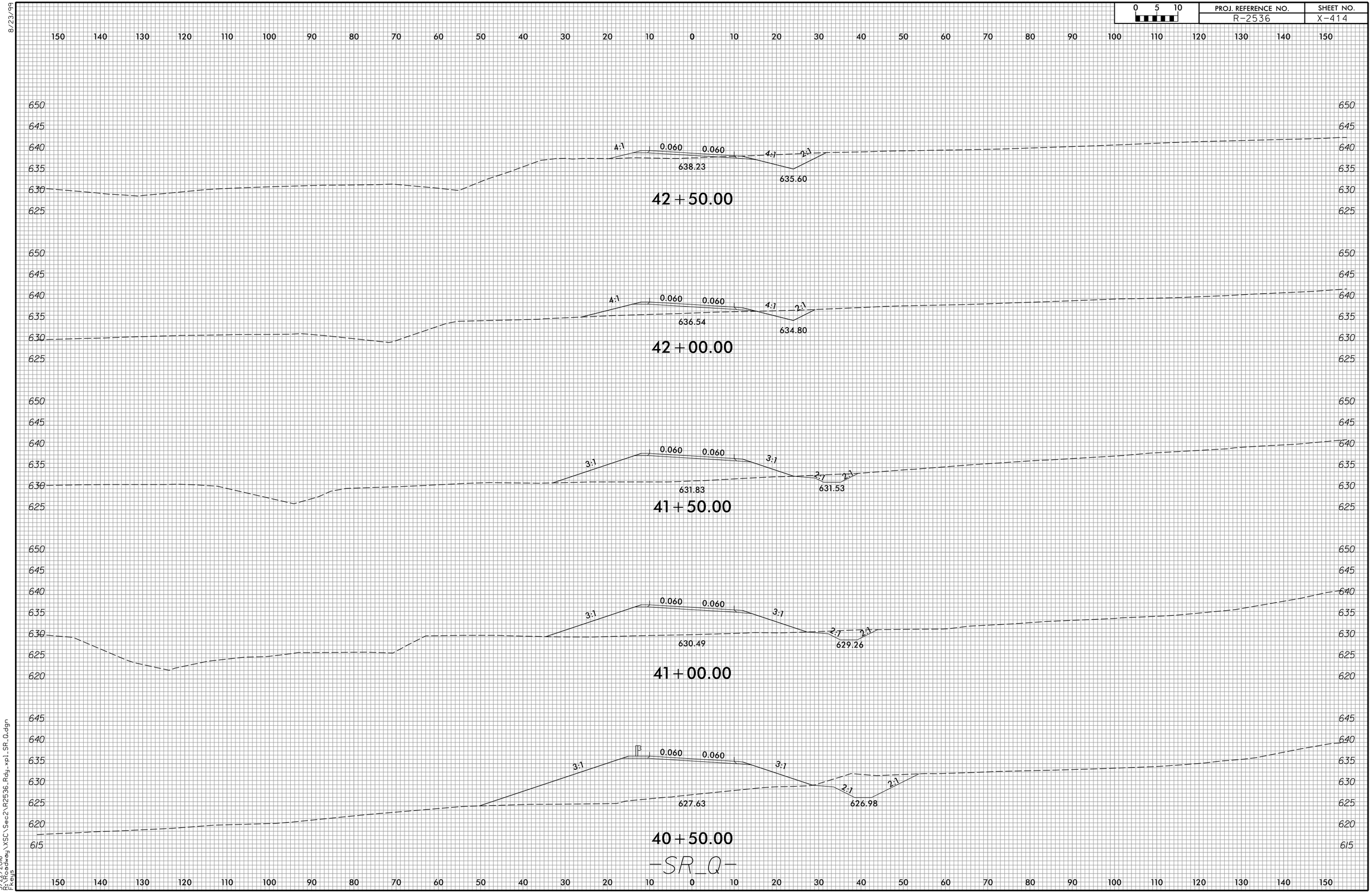
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-414



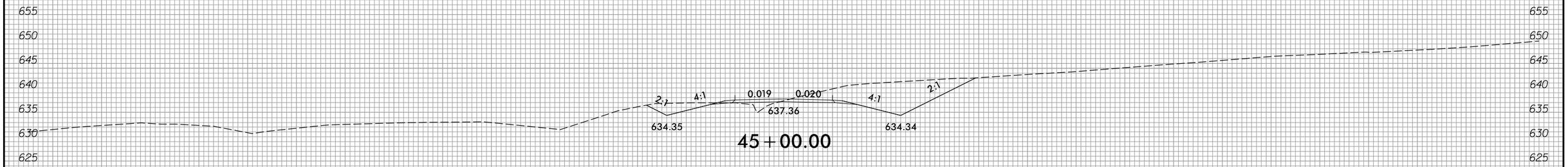
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_SR_Q.dgn
Fkeys

8/23/99

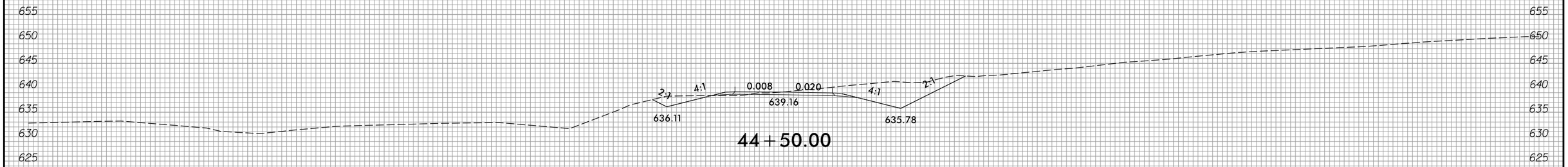
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-415

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

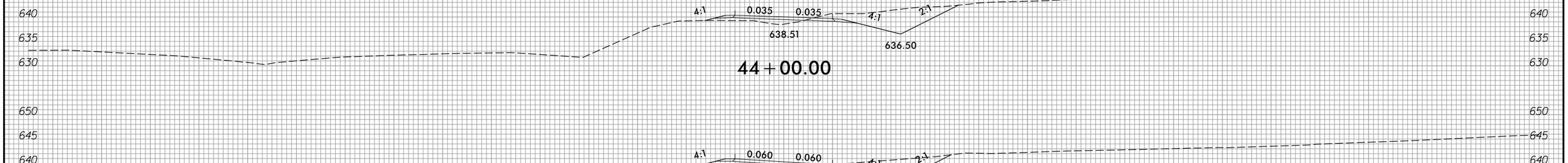
655 650 645 640 635 630 625



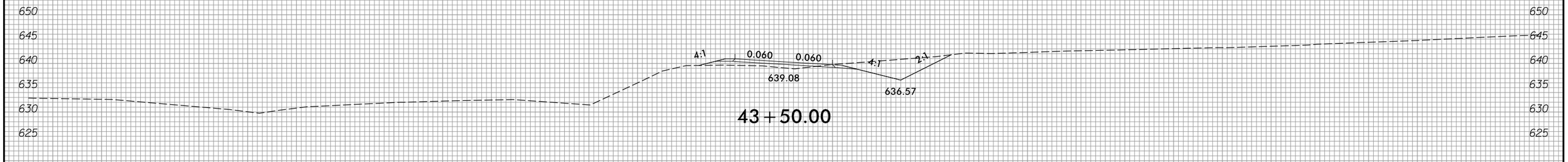
45+00.00



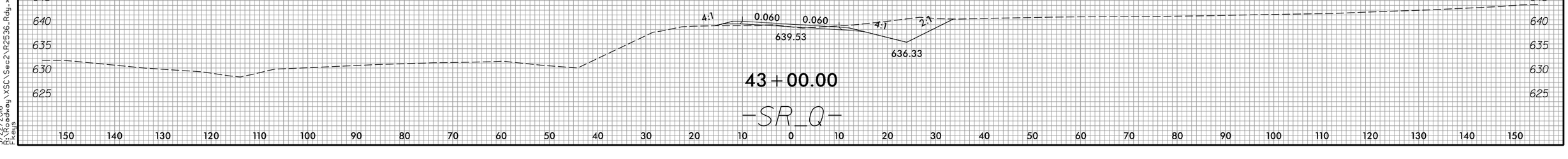
44+50.00



44+00.00



43+50.00



43+00.00

-SR_Q-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_SR_Q.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-416

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 635 630 625 620 615

0.023 0.023 0.023 0.023 4:1

633.26

47+50.00

640 635 630 625 620 615

0.030 0.030 0.030 3:1

632.09

47+00.00

640 635 630 625

2:0.5:1 4:1 0.030 0.030 0.030 3:1

629.97 629.80

46+50.00

645 640 635 630 625

2:1 4:1 0.020 0.014 4:1 2:1

631.04 632.85 631.44

46+00.00

650 645 640 635 630 625

2:1 4:1 0.020 0.020 4:1 2:1

632.50 634.61 632.50

45+50.00

-SR_Q-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_SR_Q.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-417

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

855 850 845 840 835 830 825 820 815 810

–Y3_DET–
Sta. 12+15.67
EL = 835.38

6:1 6:1 0.016 0.020 0.026 0.022 4.36:1 4.22:1 2.18:1

832.85 832.77 834.12

11+00.00

860 855 850 845 840 835 830 825 820 815 810

–Y3_DET–
Sta. 11+62.61
EL = 836.32

0.031 4.17:1 2.08:1

834.99

10+50.00

855 850 845 840 835 830 825 820 815 810

–Y3_DET–
Sta. 11+11.31

837.24 0.021 4.17:1 2.08:1

835.94

10+00.00

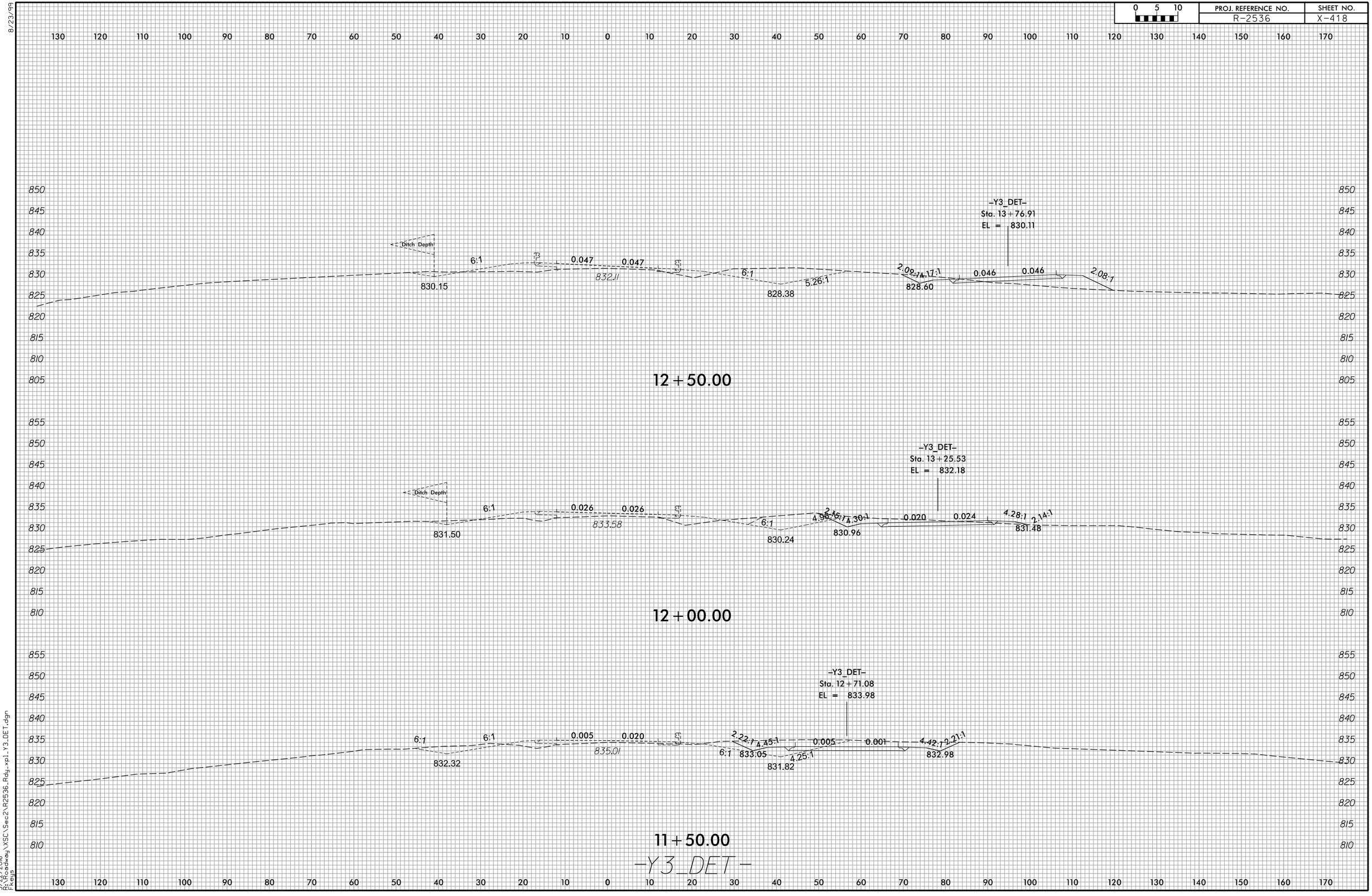
–Y3_DET–

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y3_DET.dgn
Fteys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-418



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y3_DET.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-419

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

845 840 835 830 825 820 815 810 805 800 795

–Y3_DET–
Sta. 15+21.14
EL = 825.57

0.050 0.050
827.33

2:1 4:1 0.060 0.060 2:1
823.92

14+00.00

850 845 840 835 830 825 820 815 810 805 800 795

–Y3_DET–
Sta. 14+73.79
EL = 826.73

0.050 0.050
828.81

2.01:1 4.02:1 0.057 0.057 2.01:1
825.11

13+50.00

850 845 840 835 830 825 820 815 810 805 800 795

–Y3_DET–
Sta. 14+25.89
EL = 828.23

6:1 6:1 0.050 0.050
828.80 830.46

2.04:1 4.08:1 0.052 0.052 2.04:1
826.66

13+00.00

–Y3_DET–

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

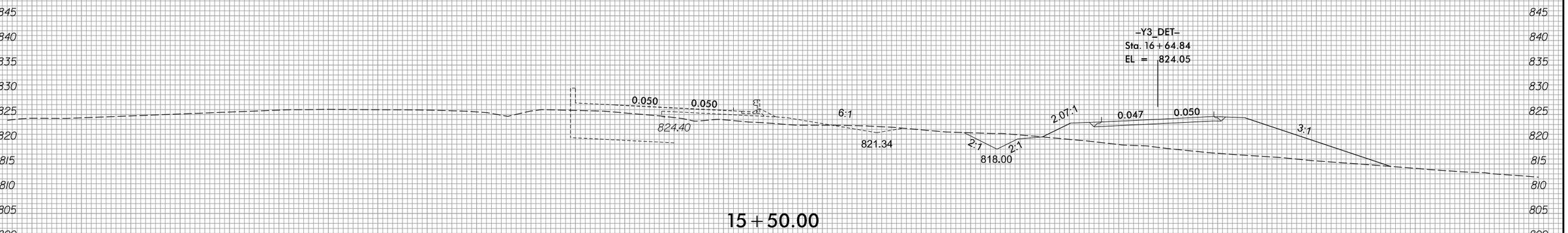
3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y3_DET.dgn
Fkeys

8/23/99

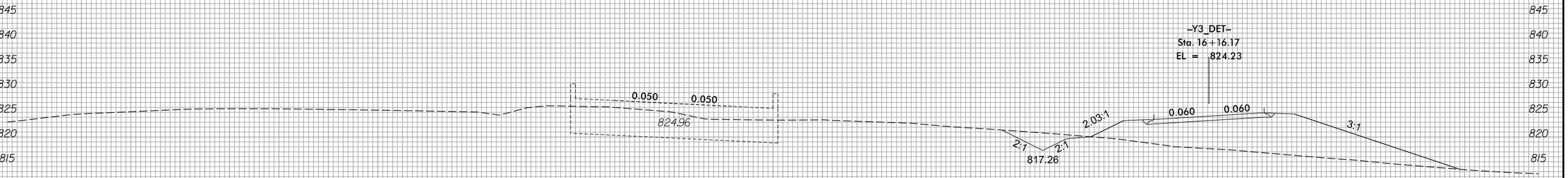
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-420

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

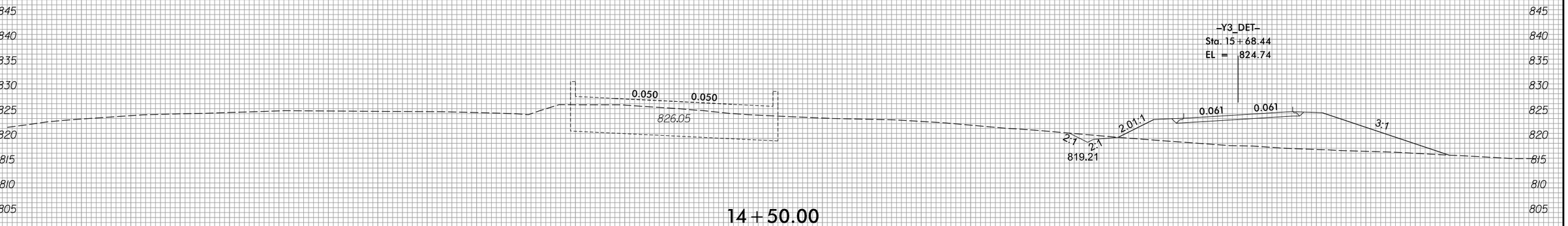
845 840 835 830 825 820 815 810 805 800



15+50.00



15+00.00



14+50.00

–Y3_DET–

3/22/2016
R:\RDWay\XSC\Sec2\R2536_Rdy_xpl_Y3_DET.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-421

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

845 840 835 830 825 820 815 810 805

–Y3_DET–
Sta. 18+20.50
EL = 825.05

Ditch Depth

6:1 6:1 0.050 0.050 4.26:1 0.031 0.027 2.14:1

823.91 826.02 2.7 2:1 6:1 823.79 822.27

17+00.00

845 840 835 830 825 820 815 810 805

–Y3_DET–
Sta. 17+67.52
EL = 824.64

5.79:1 6:1 0.050 0.050 2.20:1 0.007 0.003 2.27:1

823.76 825.65 6:1 2.7 2:1 6:1 821.82 821.88

16+50.00

845 840 835 830 825 820 815 810 805

–Y3_DET–
Sta. 17+15.05
EL = 824.22

6:1 0.050 0.050 6:1 4.27:1 0.019 0.023 3:1

824.22 824.88 2.7 2:1 821.16 819.87

16+00.00

–Y3_DET–

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-422

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

845 840 835 830 825 820 815 810 805 800 795

–Y3_DET–
Sta. 19+73.86

826.32 0.026 2.08:1 4.17:1 824.96

18+50.00

850 845 840 835 830 825 820 815 810 805 800

–Y3_DET–
Sta. 19+23.39
EL = 825.86

826.29 0.035 0.036 4.17:1 2.08:1 824.30

18+00.00

845 840 835 830 825 820 815 810 805

–Y3_DET–
Sta. 18+72.36
EL = 825.46

6:1 6:1 824.06 826.01 0.050 0.050 0.050 0.050 4.17:1 2.08:1 822.65

17+50.00

–Y3_DET–

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

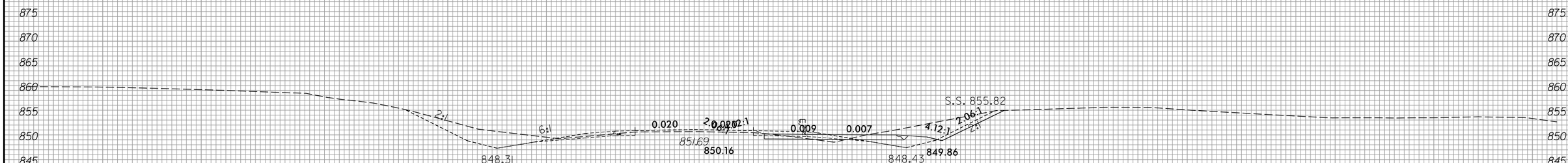
3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y3_DET.dgn
Ftenys

8/23/99

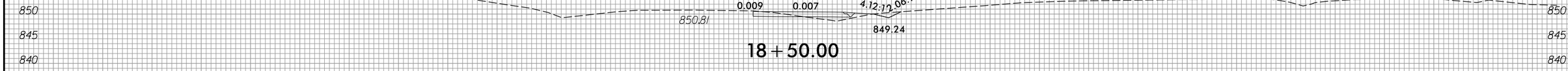
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-423

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

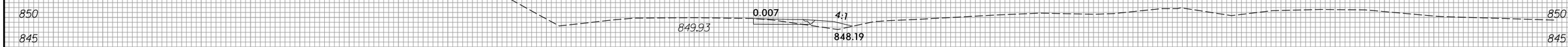
875 870 865 860 855 850 845 840



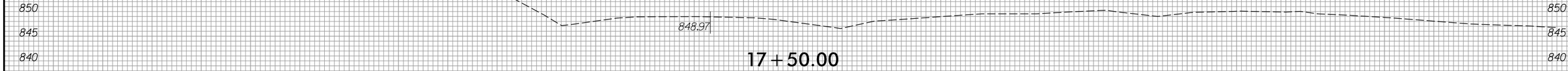
19+00.00



18+50.00



18+00.00



17+50.00

-Y6_DET-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\RDOadway\XSC\Sec2\R2536_Rdy_xpl_Y6_DET.dgn
Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-424

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

-Y6_DET-

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y6_DET.dgn
Ftenys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-425

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

885 880 875 870 865 860 855 850 845

0.020 0.020
855.03
22+50.00
29.24'
5.00'
S.S. 818.93
2:1
4:1
0.080 0.080
853.10
855.80
4:1
2:1
1.5:1

885 880 875 870 865 860 855 850 845

0.020 0.020
854.83
22+00.00
27.90'
5.00'
S.S. 820.00
1.5:1
4.02:1
0.081 0.081
852.51
855.23
4.02:1
2.01:1

880 875 870 865 860 855 850 845

2:1
6:1
0.020 0.020
854.61
851.28
21+50.00
851.28
6:1
2:1
2:1
4.04:1
0.081 0.081
851.90
854.63
4.04:1
2.02:1

-Y6_DET-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y6_DET.dgn
Fteys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-426

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

885 880 875 870 865 860 855 850 845

0.020 0.020

855.43

23+50.00

28.96'

5.00'

2:1

4.01:1

0.080 0.080

853.77

856.45

1.52:1

2:1

4:1

0.080 0.080

853.53

856.21

1.6:1

2:1

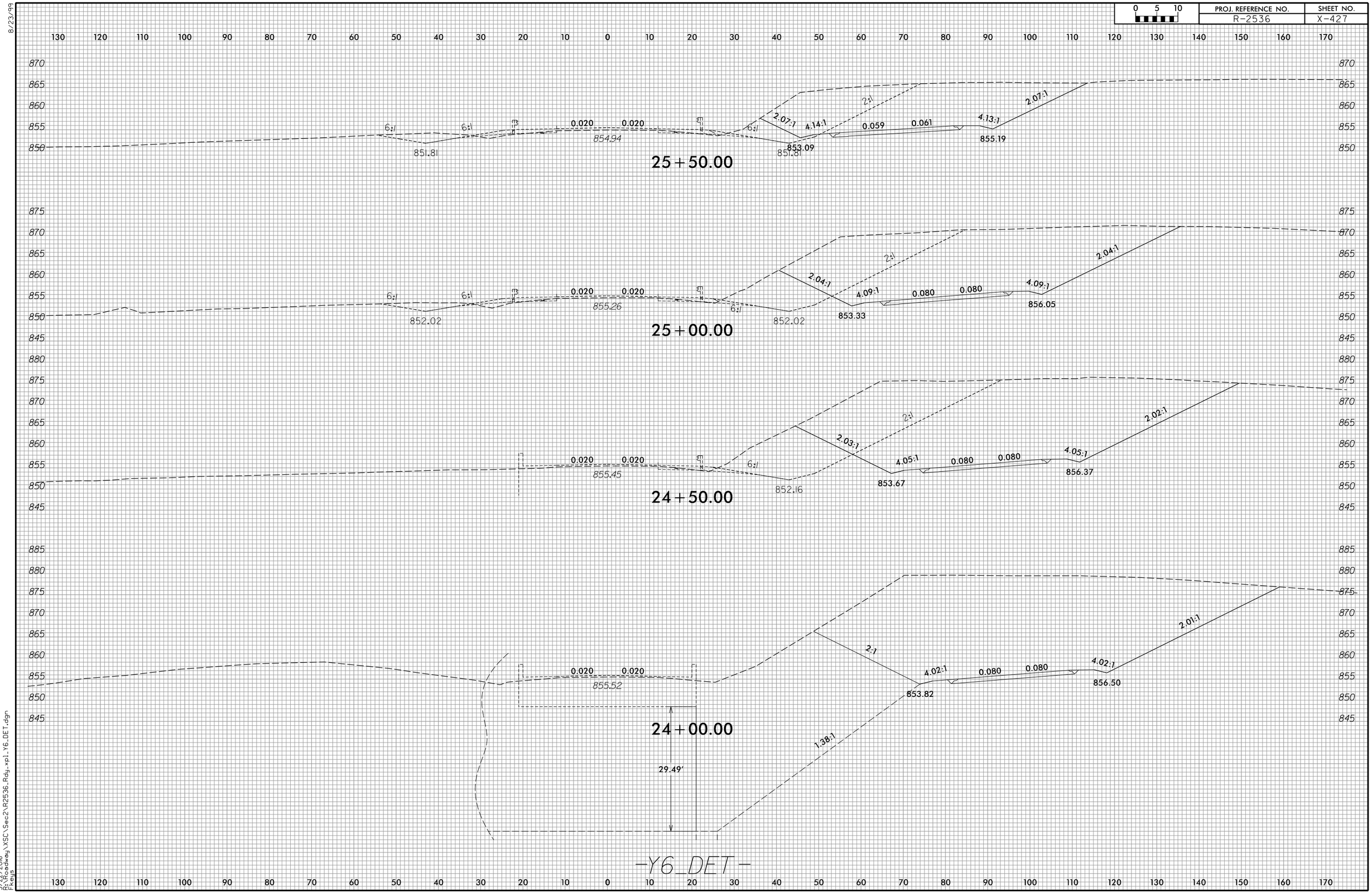
S.S. 868.11

-Y6_DET-

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_Y6_DET.dgn
FFeiss

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-427



3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xp1_Y6_DET.dgn
Fkeys

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-428

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

855 850 845 840

0.01 3.2:1

851.54

28+50.00

860 855 850 845 840

0.01 0.01 4.11:1

852.38 848.60

28+00.00

860 855 850 845

0.01 0.01 4.11:1 2.05:1

853.14 851.72

27+50.00

865 860 855 850

0.004 0.002 4.10:1

853.80 852.36

27+00.00

860 855 850

5.24:1 6:1 0.020 0.020 4.16:1 0.017 0.020 5.13:1 4.17:1 2.08:1

854.26 853.31

26+50.00

865 860 855 850 845

6:1 6:1 0.020 0.020 2.10:1 0.038 0.041 4.20:1 2.10:1

851.54 854.58 852.83 851.54 854.26

26+00.00

-Y6_DET-

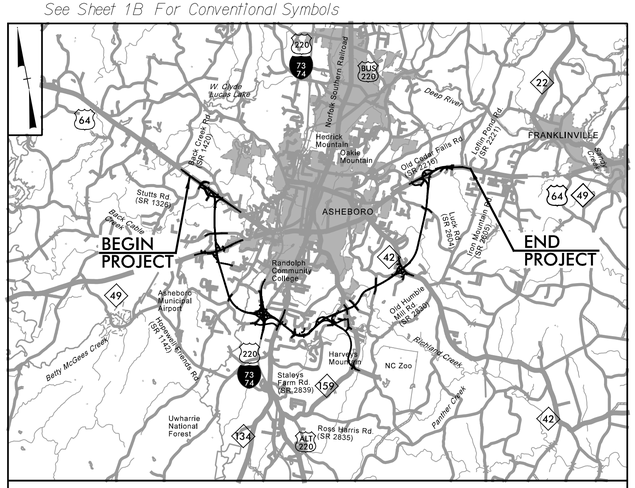
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roadway\XSC\Sec2\R2536_Rdy_xpl_Y6_DET.dgn
Fkeys

TIP PROJECT: R-2536

CONTRACT: C203617

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



VICINITY MAP (NTS)

FINAL PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

RANDOLPH COUNTY

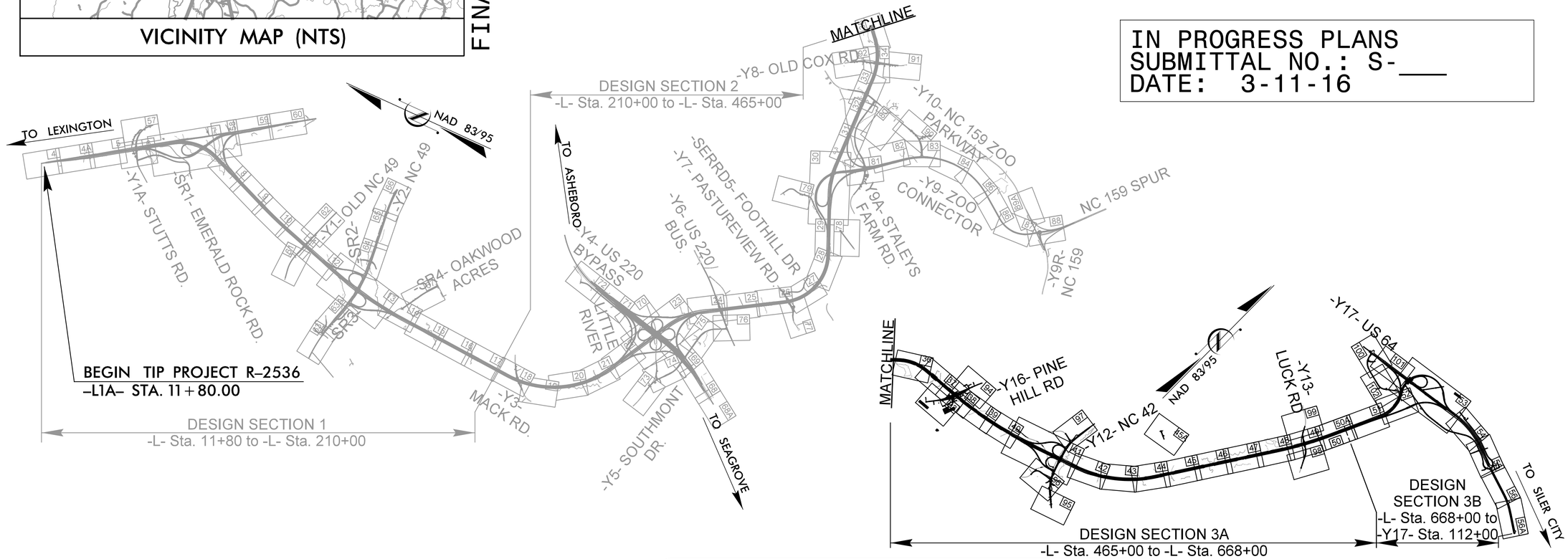
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2536	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34450.3.S1		PE

LOCATION: *US 64 BYPASS FROM EXISTING US 64 WEST OF ASHEBORO TO EXISTING US 64 EAST OF ASHEBORO AND THE ZOO CONNECTOR FROM EAST OF STALEYS FARM ROAD TO EXISTING NC 159/ZOO ENTRANCE*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, WIDENING, RESURFACING, CULVERTS, STRUCTURES, AND SIGNALS*

IN PROGRESS PLANS
SUBMITTAL NO.: S-___
DATE: 3-11-16



THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

DESIGN - BUILD TEAM

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2015 = 12,600
ADT 2040 = 18,800
DHV = 11 %
D = 60 %
T = 13 % *
V = 70 MPH
*(TTST = 8% + DUAL = 5%)

FUNCTIONAL CLASSIFICATION
FREEWAY

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2536.....	14.619 mi
LENGTH STRUCTURE TIP PROJECT R-2536.....	0.121 mi
TOTAL LENGTH TIP PROJECT R-2536.....	14.740 mi

NCDOT CONTACT

K. Zak Hamidi, P.E.
PROJECT ENGINEER - DESIGN-BUILD UNIT

ICA Engineering
ICA ENGINEERING
5121 KINGDOM WAY, SUITE 100
RALEIGH, NC 27607
NC LICENSE NO: F-0258
(919) 851-6066

FOR
DIVISION OF HIGHWAYS

2012 STANDARD SPECIFICATIONS

LETTING DATE:
JUNE 29, 2015

Stephen R. Whitley, P.E.
PROJECT ENGINEER

Henry W. Bare
PROJECT DESIGN ENGINEER

CONTRACTOR

ASHEBORO 64 BYPASS
Bypass Constructors, LLC
WRIGHT BROTHERS RK&K

HYDRAULICS ENGINEER

TRENTON J. CORMIER, *P.E.*
SIGNATURE:

ROADWAY DESIGN ENGINEER

STEPHEN R. WHITLEY, *P.E.*
SIGNATURE:

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA

3/22/2016
R2536_RDY_TSH_SEC3_ENTIRE.dgn
ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	1A

ROADWAY DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1 THRU 1C-	SURVEY CONTROL SHEETS
1D-1 THRU 1D-2	CENTERLINE COORDINATE LIST
2A-1 THRU 2A-8	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-8	ROADWAY DETAILS
2C-1 THRU 2C-	SPECIAL DETAILS
2D-1 THRU 2D-4	DRAINAGE DETAILS
2G-1 THRU 2G-	GEOTECHNICAL DETAILS
2H-1 THRU 2H-	GEOENVIRONMENTAL DETAILS
3B-1 THRU 3B-2	ROADWAY SUMMARIES
3P-1 THRU 3P-2	PARCEL INDEX SHEET
35A THRU 56A, 93 THRU 102	PLAN SHEETS
121 THRU 131, 185 THRU 189 195 THRU 196, 201 THRU 215	PROFILE SHEETS
TMP-3.1 THRU TMP-3.32	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-	PAVEMENT MARKING PLANS
E-1 THRU E-	ELECTRICAL PLANS
EC-1 THRU EC-	EROSION CONTROL PLANS
RF-1 THRU RF-	REFORESTATION PLANS
SIGN-1 THRU SIGN-	SIGNING PLANS
SIG-1 THRU SIG-	SIGNAL PLANS
ITS-1 THRU ITS-	ITS PLANS
UC-1 THRU UC-	UTILITIES CONSTRUCTION PLANS
UO-1 THRU UO-	UTILITIES BY OTHERS PLANS
X-1A THRU X-1F	CROSS-SECTION SUMMARY SHEET
X-2 THRU X-483	CROSS-SECTIONS
S-1 THRU S-	STRUCTURE PLANS

3/22/2016
R-2536 RDY PSH 01A.dgn
ICA ENGINEERING, INC.

ICA Engineering
5121 Kingdom Way,
Suite 100
Raleigh, NC 27607
NC License No: F-0258

04/06/15

PROJECT REFERENCE NO.	SHEET NO.
R-2536	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H–Frame Pole
- U/G Power Line LOS B (S.U.E.*) — P
- U/G Power Line LOS C (S.U.E.*) — P
- U/G Power Line LOS D (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- U/G Telephone Cable LOS B (S.U.E.*) — T
- U/G Telephone Cable LOS C (S.U.E.*) — T
- U/G Telephone Cable LOS D (S.U.E.*) — T
- U/G Telephone Conduit LOS B (S.U.E.*) — TC
- U/G Telephone Conduit LOS C (S.U.E.*) — TC
- U/G Telephone Conduit LOS D (S.U.E.*) — TC
- U/G Fiber Optics Cable LOS B (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS C (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS D (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E*) — W
- U/G Water Line LOS C (S.U.E*) — W
- U/G Water Line LOS D (S.U.E*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

3/23/2016
R-2536_PDY_PSH_01B.dgn
ICA ENGINEERING, INC.

PROJ. REFERENCE NO.	SHEET NO.
R-2536	1D-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CENTERLINE COORDINATE LIST

Point #	Chain	Station	Northing (Y)	Easting (X)
1	L	466+00.00	697381.1219	1767214.2241
2	L	467+00.00	697475.3236	1767247.7807
3	L	468+00.00	697569.3699	1767281.7688
4	L	469+00.00	697662.7709	1767317.4856
5	L	470+00.00	697754.9205	1767356.3063
6	L	471+00.00	697845.1029	1767399.4890
7	L	472+00.00	697932.8265	1767447.4697
8	L	473+00.00	698017.8296	1767500.1199
9	L	474+00.00	698099.8640	1767557.2856
10	L	475+00.00	698178.6900	1767618.8000
11	L	476+00.00	698254.0774	1767684.4834
12	L	477+00.00	698325.8060	1767754.1438
13	L	478+00.00	698393.6662	1767827.5778
14	L	479+00.00	698457.4599	1767904.5709
15	L	480+00.00	698517.1789	1767984.7693
16	L	481+00.00	698573.6730	1768067.2772
17	L	482+00.00	698628.1175	1768151.1554
18	L	483+00.00	698681.7417	1768235.5617
19	L	484+00.00	698735.3101	1768320.0036
20	L	485+00.00	698788.8785	1768404.4455
21	L	486+00.00	698842.4468	1768488.8874
22	L	487+00.00	698896.0152	1768573.3292
23	L	488+00.00	698949.5836	1768657.7711
24	L	489+00.00	699003.1520	1768742.2130
25	L	490+00.00	699056.7203	1768826.6548
26	L	491+00.00	699110.2887	1768911.0967
27	L	492+00.00	699163.8571	1768995.5386
28	L	493+00.00	699217.4254	1769079.9805
29	L	494+00.00	699270.9938	1769164.4223
30	L	495+00.00	699324.5650	1769248.8624
31	L	496+00.00	699378.4426	1769333.1072
32	L	497+00.00	699432.8297	1769417.0238
33	L	498+00.00	699487.7244	1769500.6094
34	L	499+00.00	699543.1247	1769583.8606
35	L	500+00.00	699599.0285	1769666.7746
36	L	501+00.00	699655.4338	1769749.3483
37	L	502+00.00	699712.3385	1769831.5786
38	L	503+00.00	699769.7406	1769913.4625
39	L	504+00.00	699827.6378	1769994.9971
40	L	505+00.00	699886.0281	1770076.1792
41	L	506+00.00	699944.9094	1770157.0060
42	L	507+00.00	700004.2794	1770237.4744
43	L	508+00.00	700064.1360	1770317.5816
44	L	509+00.00	700124.4771	1770397.3245
45	L	510+00.00	700185.3003	1770476.7002
46	L	511+00.00	700246.6034	1770555.7059
47	L	512+00.00	700308.3842	1770634.3385
48	L	513+00.00	700370.6405	1770712.5953
49	L	514+00.00	700433.3699	1770790.4734
50	L	515+00.00	700496.5701	1770867.9698
51	L	516+00.00	700560.2389	1770945.0818
52	L	517+00.00	700624.3738	1771021.8066
53	L	518+00.00	700688.9725	1771098.1412
54	L	519+00.00	700754.0327	1771174.0829
55	L	520+00.00	700819.5519	1771249.6289
56	L	521+00.00	700885.5278	1771324.7764
57	L	522+00.00	700951.9579	1771399.5227
58	L	523+00.00	701018.8398	1771473.8651
59	L	524+00.00	701086.1710	1771547.8007
60	L	525+00.00	701153.9491	1771621.3269
61	L	526+00.00	701222.1716	1771694.4409
62	L	527+00.00	701290.8359	1771767.1402
63	L	528+00.00	701359.9395	1771839.4220
64	L	529+00.00	701429.4800	1771911.2836
65	L	530+00.00	701499.4546	1771982.7225
66	L	531+00.00	701569.8610	1772053.7360
67	L	532+00.00	701640.6965	1772124.3214
68	L	533+00.00	701711.9584	1772194.4763
69	L	534+00.00	701783.6442	1772264.1980
70	L	535+00.00	701855.7512	1772333.4840
71	L	536+00.00	701928.2418	1772402.3687
72	L	537+00.00	702000.8049	1772471.1771
73	L	538+00.00	702073.3681	1772539.9854
74	L	539+00.00	702145.9312	1772608.7938
75	L	540+00.00	702218.4944	1772677.6021
76	L	541+00.00	702291.0575	1772746.4105
77	L	542+00.00	702363.6206	1772815.2189
78	L	543+00.00	702436.1838	1772884.0272
79	L	544+00.00	702508.7469	1772952.8356
80	L	545+00.00	702581.3101	1773021.6440
81	L	546+00.00	702653.8732	1773090.4523
82	L	547+00.00	702726.4363	1773159.2607
83	L	548+00.00	702798.9995	1773228.0691
84	L	549+00.00	702871.5626	1773296.8774
85	L	550+00.00	702944.1257	1773365.6858
86	L	551+00.00	703016.6889	1773434.4941
87	L	552+00.00	703089.2520	1773503.3025
88	L	553+00.00	703161.8167	1773572.1093
89	L	554+00.00	703234.5850	1773640.7003
90	L	555+00.00	703308.1506	1773708.4342
91	L	556+00.00	703382.9768	1773774.7721
92	L	557+00.00	703459.1018	1773839.6153
93	L	558+00.00	703536.4959	1773902.9386
94	L	559+00.00	703615.1286	1773964.7170
95	L	560+00.00	703694.9692	1774024.9263
96	L	561+00.00	703775.9863	1774083.5428
97	L	562+00.00	703858.1481	1774140.5437
98	L	563+00.00	703941.4225	1774195.9066
99	L	564+00.00	704025.7768	1774249.6097
100	L	565+00.00	704111.1779	1774301.6320
101	L	566+00.00	704197.5924	1774351.9531
102	L	567+00.00	704284.9863	1774400.5533
103	L	568+00.00	704373.3254	1774447.4135
104	L	569+00.00	704462.5750	1774492.5154
105	L	570+00.00	704552.7002	1774535.8411
106	L	571+00.00	704643.6656	1774577.3739
107	L	572+00.00	704735.4356	1774617.0973
108	L	573+00.00	704827.9741	1774654.9959
109	L	574+00.00	704921.2449	1774691.0546
110	L	575+00.00	705015.2113	1774725.2595
111	L	576+00.00	705109.8367	1774757.5971
112	L	577+00.00	705205.0838	1774788.0547
113	L	578+00.00	705300.9153	1774816.6204
114	L	579+00.00	705397.2936	1774843.2829
115	L	580+00.00	705494.1810	1774868.0318
116	L	581+00.00	705591.5394	1774890.8575
117	L	582+00.00	705689.3307	1774911.7509
118	L	583+00.00	705787.5165	1774930.7039
119	L	584+00.00	705886.0584	1774947.7090
120	L	585+00.00	705984.9176	1774962.7596
121	L	586+00.00	706084.0555	1774975.8498
122	L	587+00.00	706183.4311	1774986.9943
123	L	588+00.00	706282.9624	1774996.6600
124	L	589+00.00	706382.5479	1775005.7548
125	L	590+00.00	706482.1366	1775014.8163
126	L	591+00.00	706581.7252	1775023.8777
127	L	592+00.00	706681.3138	1775032.9392
128	L	593+00.00	706780.9024	1775042.0006
129	L	594+00.00	706880.4910	1775051.0620
130	L	595+00.00	706980.0796	1775060.1235
131	L	596+00.00	707079.6682	1775069.1849
132	L	597+00.00	707179.2568	1775078.2464
133	L	598+00.00	707278.8454	1775087.3078
134	L	599+00.00	707378.4340	1775096.3693
135	L	600+00.00	707478.0226	1775105.4307
136	L	601+00.00	707577.6112	1775114.4921
137	L	602+00.00	707677.1998	1775123.5536
138	L	603+00.00	707776.7884	1775132.6150
139	L	604+00.00	707876.3770	1775141.6765
140	L	605+00.00	707975.9656	1775150.7379
141	L	606+00.00	708075.5542	1775159.7993
142	L	607+00.00	708175.1428	1775168.8608
143	L	608+00.00	708274.7314	1775177.9222
144	L	609+00.00	708374.3201	1775186.9837
145	L	610+00.00	708473.9087	1775196.0451
146	L	611+00.00	708573.4973	1775205.1066
147	L	612+00.00	708673.0859	1775214.1680
148	L	613+00.00	708772.6745	1775223.2294
149	L	614+00.00	708872.2631	1775232.2909
150	L	615+00.00	708971.8517	1775241.3523
151	L	616+00.00	709071.4403	1775250.4138
152	L	617+00.00	709171.0289	1775259.4752
153	L	618+00.00	709270.6175	1775268.5367
154	L	619+00.00	709370.2061	1775277.5981
155	L	620+00.00	709469.7947	1775286.6595
156	L	621+00.00	709569.3833	1775295.7210
157	L	622+00.00	709668.9719	1775304.7824
158	L	623+00.00	709768.5605	1775313.8439
159	L	624+00.00	709868.1491	1775322.9053
160	L	625+00.00	709967.7377	1775331.9668
161	L	626+00.00	710067.3263	1775341.0282
162	L	627+00.00	710166.9149	1775350.0896
163	L	628+00.00	710266.5035	1775359.1511
164	L	629+00.00	710366.0922	1775368.2125
165	L	630+00.00	710465.6808	1775377.2740
166	L	631+00.00	710565.2694	1775386.3354
167	L	632+00.00	710664.8580	1775395.3968
168	L	633+00.00	710764.4466	1775404.4583
169	L	634+00.00	710864.0352	1775413.5197
170	L	635+00.00	710963.6238	1775422.5812
171	L	636+00.00	711063.2124	1775431.6426
172	L	637+00.00	711162.8010	1775440.7041
173	L	638+00.00	711262.3896	1775449.7655
174	L	639+00.00	711361.9963	1775458.6247
175	L	640+00.00	711461.6539	1775466.8901
176	L	641+00.00	711561.3599	1775474.5513
177	L	642+00.00	711661.1104	1775481.6081
178	L	643+00.00	711760.9019	1775488.0602
179	L	644+00.00	711860.7307	1775493.9074
180	L	645+00.00	711960.5930	1775499.1495
181	L	646+00.00	712060.4853	1775503.7862
182	L	647+00.00	712160.4039	1775507.8175
183	L	648+00.00	712260.3450	1775511.2431
184	L	649+00.00	712360.3051	1775514.0630
185	L	650+00.00	712460.2804	1775516.2770
186	L	651+00.00	712560.2674	1775517.8851
187	L	652+00.00	712660.2622	1775518.8871
188	L	653+00.00	712760.2612	1775519.2831
189	L	654+00.00	712860.2609	1775519.0731
190	L	655+00.00	712960.2574	1775518.2570
191	L	656+00.00	713060.2471	1775516.8348
192	L	657+00.00	713160.2264	1775514.8067
193	L	658+00.00	713260.1916	1775512.1728
194	L	659+00.00	713360.1389	1775508.9330
195	L	660+00.00	713460.0648	1775505.0875
196	L	661+00.00	713559.9655	1775500.6365
197	L	662+00.00	713659.8375	1775495.5801
198	L	663+00.00	713759.6824	1775490.0137
199	L	664+00.00	713859.5241	1775484.3888
200	L	665+00.00	713959.3657	1775478.7639
201	L	666+00.00	714059.2074	1775473.1391
202	L	667+00.00	714159.0491	1775467.5142
203	L	668+00.00	714258.8908	1775461.8894
204	L	669+00.00	714358.7325	1775456.2645
205	L	670+00.00	714458.5741	1775450.6396
206	L	671+00.00	714558.4158	1775445.0148
207	L	672+00.00	714658.2575	1775439.3899
208	L	673+00.00	714758.0992	1775433.7650
209	L	674+00.00	714857.9408	1775428.1402
210	L	675+00.00	714957.7825	1775422.5153
211	L	676+00.00	715057.6242	1775416.8904
212	L	677+00.00	715157.4659	1775411.2656
213	L	678+00.00	715257.3076	1775405.6407
214	L	679+00.00	715357.1492	1775400.0159
215	L	680+00.00	715456.9909	1775394.3910
216	L	681+00.00	715556.8326	1775388.7661
217	L	682+00.00	715656.6743	1775383.1413
218	Y17FLY	10+00.00	715727.8097	1775344.0782
219	Y17FLY	11+00.00	715827.6018	1775337.6717
220	Y17FLY	12+00.00	715926.9715	1775326.6362
221	Y17FLY	13+00.00	716025.2585	1775308.3345
222	Y17FLY	14+00.00	716121.8931	1775282.7015
223	Y17FLY	15+00.00	716216.3292	1775249.8821
224	Y17FLY	16+00.00	716308.0331	1775210.0615
225	Y17FLY	17+00.00	716396.4868	1775163.4650
226	Y17FLY	18+00.00	716481.1903	1775110.3557
227	Y17FLY	19+00.00	716561.6651	1775051.0337
228	Y17FLY	20+00.00	716637.4565	1774985.8343
229	Y17FLY	21+00.00	716708.1361	1774915.1259
230	Y17FLY	22+00.00	716773.3047	1774839.3080
231	Y17FLY	23+00.00	716832.7799	1774758.9399
232	Y17FLY	24+00.00	716888.6913	1774676.0331
233	Y17FLY	25+00.00	716945.3158	1774593.6191
234	Y17FLY	26+00.00	717008.1818	1774515.9144
235	Y17FLY	27+00.00	717079.3759	1774445.7671
236	Y17FLY	28+00.00	717158.0650	1774384.1451
237	Y17FLY	29+00.00	717243.2340	1774331.8432
238	Y17FLY	30+00.00	717333.7843	1774289.5362
239	Y17FLY	31+00.00	717428.5478	1774257.7697
240	Y17FLY	32+00.00	717526.3023	1774236.9535
241	Y17FLY	33+00.00	717625.7866	1774227.3561
242	Y17FLY	34+00.00	717725.7176	1774229.1013
243	Y17FLY	35+00.00	717824.8061	1774242.1667
244	Y17FLY	36+00.00	717921.7741	1774266.3836
245	Y17FLY	37+00.00	718015.3706	1774301.4398
246	Y17FLY	38+00.00	718104.3884	1774346.8829
247	Y17FLY	39+00.00	718187.6792	1774402.1268
248	Y17FLY	40+00.00	718264.1685	1774466.4589
249	Y17FLY	41+00.00	718332.8698	1774539.0494
250	Y17FLY	42+00.00	718392.8968	1774618.9619
251	Y17FLY	43+00.00	718443.4752	1774705.1655
252	Y17FLY	44+00.00	718483.9526	1774796.5484
253	Y17FLY	45+00.00	718513.8069	1774891.9316
254	Y17FLY	46+00.00	718532.6529	1774990.0849
255	Y17FLY	47+00.00	718540.2475	1775089.7422
256	Y17FLY	48+00.00	718536.4929	1775189.6178
257	Y17FLY	49+00.00	718522.4744	1775288.6029
258	Y17FLY	50+00.00	718504.2804	1775386.9334
259	Y17FLY	51+00.00	718489.5756	1775485.8221
260	Y17FLY	52+00.00	718485.2147	1775585.6672
261	Y17FLY	53+00.00	718492.8138	1775685.3181
262	Y17FLY	54+00.00	718512.2641	1775783.3474
263	Y17FLY	55+00.00	718543.2871	1775878.3507
264	Y17FLY	56+00.00	718585.4384	1775968.9670
265	Y17FLY	57+00.00	718637.8099	1776054.1022
266	Y17	10+00.00	715978.8318	1772439.3730
267	Y17	11+00.00	716037.5052	1772520.3510
268	Y17	12+00.00	716096.1787	1772601.3289
269	Y17	13+00.00	716154.8521	1772682.3069
270	Y17	14+00.00	716213.5256	1772763.2848
271	Y17	15+00.00	716272.1990	1772844.2628
272	Y17	16+00.00	716330.8724	1772925.2407
273	Y17	17+00.00	716389.5459	1773006.2187
274	Y17	18+00.00	716448.1325	1773087.2593
275	Y17	19+00.00	716506.1019	1773168.7423
276	Y17	20+00.00	716563.3607	1773250.7263
277	Y17	21+00.00	716620.1629	1773333.0275
278	Y17	22+00.00	716677.5649	1773414.9113
279	Y17	23+00.00	716735.6767	1773496.2928
280	Y17	24+00.00	716794.3153	1773577.2959
281	Y17	25+00.00	716852.9830	1773658.2780
282	Y17	26+00.00	716911.6507	1773739.2602
283	Y17	27+00.00	716970.3184	1773820.2423
284	Y17	28+00.00	717028.9861	1773901.2244
285	Y17	29+00.00	717087.6538	1773982.2065
286	Y17	30+00.00	717146.3215	1774063.1886
287	Y17	31+00.00	717204.9892	1774144.1707
288	Y17	32+00.00	717263.6568	1774225.1528
289	Y17	33+00.00	717322.3245	1774306.1349
290	Y17	34+00.00	717380.9922	1774387.1170
291	Y17	35+00.00	717439.6599	1774468.0991
292	Y17	36+00.00	717498.3276	1774549.0813
293	Y17	37+00.00	717556.9953	1774630.0634
294	Y17	38+00.00	717615.6630	1774711.0455
295	Y17	39+00.00	717674.3307	1774792.0276
296	Y17	40+00.00	717732.9984	1774873.0097
297	Y17	41+00.00	717791.6660	1774953.9918
298	Y17	42+00.00	717850.3337	1775034.9739
299	Y17	43+00.00	717909.0014	1775115.9560
300	Y17	44+00.00	717967.6691	1775196.9381
301	Y17	45+00.00	718026.3368	1775277.9202
302	Y17	46+00.00	718085.0045	1775358.9024
303	Y17	47+00.00	718143.6722	1775439.8845
304	Y17	48+00.00	718202.3399	1775520.8666
305	Y17	49+00.00	718261.0076	1775601.8487
306	Y17	50+00.00	718319.6753	1775682.8308
307	Y17	51+00.00	718378.3429	1775763.8129
308	Y17	52+00.00	718437.0106	1775844.7950
309	Y17	53+00.00	718495.6783	1775925.7771
310	Y17	54+00.00	718554.3460	1776006.7592
311	Y17	55+00.00	718613.0137	1776087.7414
312	Y17	56+00.00	718671.6810	1776168.7237
313	Y17	57+00.00	718730.1270	1776249.8657
314	Y17	58+00.00	718787.5283	1776331.7486
315	Y17	59+00.00	718842.9498	1776414.9817
316	Y17	60+00.00	718895.8334	1776499.8495
317	Y17	61+00.00	718946.1015	1776586.2923
318	Y17	62+00.00	718993.7070	1776674.2294
319	Y17	63+00.00	719038.6057	1776763.5789
320	Y17	64+00.00	719080.7556	1776854.2575
321	Y17	65+00.00	719120.1175	1776946.1806
322	Y17	66+00.00	719156.6546	1777039.2626
323	Y17	67+00.00	719190.3330	1777133.4167
324	Y17	68+00.00	719221.1212	1777228.5551
325	Y17	69+00.00	719248.9905	1777324.5891
326	Y17	70+00.00	719273.9149	1777421.4291
327	Y17	71+00.00	719295.8713	1777518.9850
328	Y17	72+00.00	719314.8390	1777617.1656
329	Y17	73+00.00	719330.8485	1777715.8724
330	Y17	74+00.00	719344.5593	1777814.9266
331	Y17	75+00.00	719357.0777	1777914.1398
332	Y17	76+00.00	719369.3710	1778013.3813
333	Y17	77+00.00	719381.6643	1778112.6228
334	Y17	78+00.00	719393.9575	1778211.8643
335	Y17	79+00.00	719406.2508	1778311.1058
336	Y17	80+00.00	719418.6220	1778410.3376
337	Y17	81+00.00	719431.7087	1778509.4773
338	Y17	82+00.00	719445.6506	1778608.5003
339	Y17	83+00.00	719460.4468	1778707.3993
340	Y17	84+00.00	719476.0961	1778806.1669
341	Y17	85+00.00	719492.5973	1778904.7957
342	Y17	86+00.00	719509.9291	1779003.2821
343	Y17	87+00.00	719527.5208	1779101.7226
344	Y17	88+00.00	719545.1125	1779200.1631
345	Y17	89+00.00	719562.7042	1779298.6035
346	Y17	90+00.00	719580.2959	1779397.0440
347	Y17	91+00.00	719597.8877	1779495.4845
348	Y17	92+00.00	719615.4794	1779593.9250
349	Y17	93+00.00	719633.0711	1779692.3655
350	Y17	94+00.00	719650.6628	1779790.8060
351	Y17	95+00.00	719668.1539	1779889.2644
352	Y17	96+00.00	719684.6279	1779987.8969
353	Y17	97+00.00	719698.7669	1780086.8884
354	Y17	98+00.00	719709.3398	1780186.3212
355	Y17	99+00.00	719715.9306	1780286.0971
356	Y17	100+00.00	719718.5261	1780386.0568
357	Y17	101+00.00	719717.1223	1780486.0402
358	Y17	102+00.00	719711.9081	1780585.8994
359	Y17	103+00.00	719703.9591	1780685.5811
360	Y17	104+00.00	719694.6081	1780785.1427
361	Y17	105+00.00	719684.9969	1780884.6798
362	Y17	106+00.00	719675.3858	1780984.2168
363	Y17	107+00.00	719665.7746	1781083.7539
364	Y17	108+00.00	719656.1635	1781183.2909
365	Y17	109+00.00	719646.5523	1781282.8280
366	Y17	110+00.00	719636.9412	1781382.3650
367	Y17	111+00.00	719627.3300	1781481.9021
368	Y17	112+00.00	719617.7189	1781581.4392
369	Y12RPB	10+00.00	701478.7526	1771894.4956
370	Y12RPB	11+00.00	701549.2396	1771965.4259
371	Y12RPB	12+00.00	701622.5790	1772033.3849
372	Y12RPB	13+00.00	701700.6882	1772095.7806
373	Y12RPB	14+00.00	701783.7171	1772151.4619
374	Y12RPB	15+00.00	701871.0926	1772200.0389
375	Y12RPB	16+00.00	701962.2084	1772241.1745
376	Y12RPB	17+00.00	702056.4319	1772274.5831
377	Y12RPB	18+00.00	702153.1092	1772300.0337
378	Y12RPB	19+00.00	702251.4313	1772318.1914
379	Y12RPB	20+00.00	702350.4339	1772332.2644
380	Y12RPB	21+00.00	702449.4364	1772346.3300
381	Y12RPB	22+00.00	702547.3924	1772366.2657
382	Y12RPB	23+00.00	702642.3090	1772397.5136
383	Y12RPB	24+00.00	702732.3057	1772440.9436
384	Y12RPB	25+00.00	702815.8266	1772495.8057
385	Y12RPB	26+00.00	702891.4276	1772561.1515
386	Y12RPB	27+00.00	702958.3214	1772635.4172
387	Y12RPB	28+00.00	703019.4470	1772714.5505
388	Y12RPB	29+00.00	703079.2607	1772794.6900
389	Y12RPC	10+00.00	701504.5003	1772054.6735
390	Y12RPC	11+00.00	701571.7535	1772128.6793
391	Y12RPC	12+00.00	701636.6381	1772204.7572
392	Y12RPC	13+00.00	701696.2137	1772285.0390
393	Y12RPC	14+00.00	701748.9268	1772369.9834
394	Y12RPC	15+00.00	701794.3865	1772459.0207
395	Y12RPC	16+00.00	701832.2772	1772551.5329
396	Y12RPC	17+00.00	701862.3370	1772646.8776
397	Y12RPC	18+00.00	701885.2246	1772744.2078
398	Y12RPC	19+00.00	701904.1199	1772842.4043
399	Y12RPC	20+00.00	701923.0799	1772940.5869
400	Y12RPC	21+00.00	701947.9447	1773037.4083
401	Y12RPC	22+00.00	701984.0065	1773130.6024
402	Y12RPC	23+00.00	702031.9831	1773218.2598
403	Y12RPC	24+00.00	702091.0419	1773298.8681
404	Y12RPC	25+00.00	702158.9437	1773372.2360
405	Y12RPC	26+00.00	702230.8037	1773441.7750

PROJ. REFERENCE NO.	SHEET NO.
R-2536	1D-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CENTERLINE COORDINATE LIST

Point #	Chain	Station	Northing (Y)	Easting (X)
406	Y12RPC	27+00.00	702303.1104	1773510.8527
407	Y17RPDA	10+00.00	715731.7787	1775413.7246
408	Y17RPDA	11+00.00	715831.5714	1775407.3265
409	Y17RPDA	12+00.00	715930.9465	1775396.3373
410	Y17RPDA	13+00.00	716029.2534	1775378.1406
411	Y17RPDA	14+00.00	716125.9314	1775352.6704
412	Y17RPDA	15+00.00	716220.4432	1775320.0683
413	Y17RPDA	16+00.00	716312.2633	1775280.5154
414	Y17RPDA	17+00.00	716400.8815	1775234.2317
415	Y17RPDA	18+00.00	716485.8052	1775181.4744
416	Y17RPDA	19+00.00	716566.5623	1775122.5367
417	Y17RPDA	20+00.00	716642.7040	1775057.7462
418	Y17RPDA	21+00.00	716713.8071	1774987.4630
419	Y17RPDA	22+00.00	716779.4763	1774912.0779
420	Y17RPDA	23+00.00	716839.3593	1774832.0186
421	Y17RPDA	24+00.00	716894.4312	1774748.5572
422	Y17RPDA	25+00.00	716948.3585	1774664.3455
423	Y17RPDA	26+00.00	717006.6929	1774583.1678
424	Y17RPDA	27+00.00	717073.7073	1774509.0247
425	Y17RPDA	28+00.00	717149.0765	1774443.3922
426	Y17RPDA	29+00.00	717231.7270	1774387.2050
427	Y17RPDA	30+00.00	717320.4822	1774341.2631
428	Y17RPDA	31+00.00	717414.0779	1774306.2208
429	Y17RPDA	32+00.00	717511.1814	1774282.5771
430	Y17RPDA	33+00.00	717610.4100	1774270.6686
431	Y17RPDA	34+00.00	717710.3506	1774270.6650
432	Y17RPC	10+00.00	716679.9314	1774927.4532
433	Y17RPC	11+00.00	716746.5260	1774852.8908
434	Y17RPC	12+00.00	716806.2848	1774772.7569
435	Y17RPC	13+00.00	716857.7789	1774687.0859
436	Y17RPC	14+00.00	716900.1846	1774596.5712
437	Y17RPC	15+00.00	716933.0503	1774502.1731
438	Y17RPC	16+00.00	716956.0269	1774404.8940
439	Y17RPC	17+00.00	716968.8706	1774305.7669
440	Y17RPC	18+00.00	716971.4448	1774205.8444
441	Y17RPC	19+00.00	716963.7223	1774106.1874
442	Y17RPC	20+00.00	716945.7851	1774007.8543
443	Y17RPC	21+00.00	716917.8237	1773911.8892
444	Y17RPC	22+00.00	716880.1349	1773819.3111
445	Y17RPC	23+00.00	716833.4261	1773730.9283
446	Y17RPC	24+00.00	716780.8895	1773645.8502
447	Y17RPC	25+00.00	716726.5161	1773561.9245
448	Y17RPC	26+00.00	716672.0896	1773478.0332
449	Y17RPD	10+00.00	715148.6217	1775446.8193
450	Y17RPD	11+00.00	715248.4820	1775441.5388
451	Y17RPD	12+00.00	715348.3763	1775436.9471
452	Y17RPD	13+00.00	715448.3000	1775433.0444
453	Y17RPD	14+00.00	715548.2481	1775429.8309
454	Y17RPD	15+00.00	715648.2161	1775427.3068
455	Y17RPD	16+00.00	715748.1990	1775425.4722
456	Y17RPD	17+00.00	715848.1905	1775424.1709
457	Y17RPD	18+00.00	715948.1825	1775422.9064
458	Y17RPD	19+00.00	716048.1745	1775421.6418
459	Y17RPD	20+00.00	716148.1628	1775420.1215
460	Y17RPD	21+00.00	716248.1297	1775417.5711
461	Y17RPD	22+00.00	716348.0597	1775413.8450
462	Y17RPD	23+00.00	716447.9389	1775408.9434
463	Y17RPD	24+00.00	716547.7535	1775402.8672
464	Y17RPD	25+00.00	716647.4898	1775395.6171
465	Y17RPD	26+00.00	716747.1338	1775387.1942
466	Y17RPD	27+00.00	716846.6719	1775377.5996
467	Y17RPD	28+00.00	716946.0902	1775366.8346
468	Y17RPD	29+00.00	717045.3754	1775354.9043
469	Y17RPD	30+00.00	717144.5646	1775342.1962
470	Y17RPD	31+00.00	717243.8912	1775330.6406
471	Y17RPD	32+00.00	717343.6408	1775323.8373
472	Y17RPD	33+00.00	717443.6069	1775324.8358
473	Y17RPD	34+00.00	717543.1430	1775334.1518
474	Y17RPD	35+00.00	717641.5582	1775351.7205
475	Y17RPD	36+00.00	717738.1695	1775377.4200
476	Y17RPD	37+00.00	717832.3064	1775411.0720
477	Y17RPD	38+00.00	717923.3156	1775452.4428
478	Y17RPD	39+00.00	718010.5653	1775501.2454
479	Y17RPD	40+00.00	718093.4501	1775557.1411
480	Y17RPD	41+00.00	718171.3947	1775619.7419
481	Y17RPD	42+00.00	718243.8581	1775688.6133
482	Y17RPD	43+00.00	718310.3670	1775763.2526
483	Y17RPD	44+00.00	718371.7392	1775842.1918

Point #	Chain	Station	Northing (Y)	Easting (X)
484	Y12LPB	10+00.00	702671.4351	1773042.3344
485	Y12LPB	11+00.00	702601.0078	1772971.3928
486	Y12LPB	12+00.00	702544.6676	1772889.1496
487	Y12LPB	13+00.00	702520.6124	1772792.8619
488	Y12LPB	14+00.00	702539.1597	1772695.3968
489	Y12LPB	15+00.00	702597.0350	1772614.8120
490	Y12LPB	16+00.00	702683.4691	1772566.1026
491	Y12LPB	17+00.00	702782.3785	1772558.3321
492	Y12LPB	18+00.00	702875.4431	1772592.8019
493	Y12LPB	19+00.00	702950.8266	1772658.0244
494	Y12LPB	20+00.00	703013.1387	1772736.1869
495	Y12LPB	21+00.00	703072.9495	1772816.3285
496	Y12LPC	10+00.00	702588.6145	1773093.3416
497	Y12LPC	11+00.00	702514.0345	1773026.7793
498	Y12LPC	12+00.00	702428.9166	1772974.8842
499	Y12LPC	13+00.00	702331.4879	1772955.9739
500	Y12LPC	14+00.00	702235.1446	1772979.6687
501	Y12LPC	15+00.00	702157.7456	1773041.7400
502	Y12LPC	16+00.00	702113.6929	1773130.6378
503	Y12LPC	17+00.00	702111.1837	1773229.8203
504	Y12LPC	18+00.00	702149.4336	1773321.5570
505	Y12LPC	19+00.00	702212.7967	1773398.6970
506	Y12LPC	20+00.00	702284.6080	1773468.2827
507	Y12LPC	21+00.00	702356.9147	1773537.3604
508	Y17LPDA	10+00.00	717769.4494	1774268.2352
509	Y17LPDA	11+00.00	717867.1041	1774289.0939
510	Y17LPDA	12+00.00	717956.3103	1774333.3548
511	Y17LPDA	13+00.00	718022.7057	1774407.1103
512	Y17LPDA	14+00.00	718051.9823	1774501.9066
513	Y17LPDA	15+00.00	718038.6056	1774600.2149
514	Y17LPDA	16+00.00	717985.0647	1774683.7424
515	Y17LPDA	17+00.00	717901.3223	1774736.9464
516	Y17LPDA	18+00.00	717802.9609	1774749.9270
517	Y17LPDA	19+00.00	717708.2665	1774720.3000
518	Y17LPDA	20+00.00	717630.9905	1774657.4375
519	Y17LPDA	21+00.00	717568.5038	1774579.4466
520	Y16	10+00.00	698169.2573	1769271.8143
521	Y16	11+00.00	698267.7328	1769289.2088
522	Y16	12+00.00	698366.2083	1769306.6034
523	Y16	13+00.00	698464.6839	1769323.9979
524	Y16	14+00.00	698563.2336	1769340.9652
525	Y16	15+00.00	698661.9322	1769357.0432
526	Y16	16+00.00	698761.2101	1769368.8411
527	Y16	17+00.00	698861.0938	1769373.1482
528	Y16	18+00.00	698961.0187	1769369.9401
529	Y16	19+00.00	699060.6838	1769361.7711
530	Y16	20+00.00	699160.2671	1769352.6554
531	Y16	21+00.00	699259.7775	1769342.7726
532	Y16	22+00.00	699359.2784	1769332.7941
533	Y16	23+00.00	699458.7793	1769322.8156
534	Y16	24+00.00	699558.2795	1769312.8298
535	Y16	25+00.00	699657.7664	1769302.7126
536	Y16	26+00.00	699757.2494	1769292.5573
537	Y16	27+00.00	699856.7322	1769282.4003
538	Y16	28+00.00	699956.1621	1769271.7405
539	Y16	29+00.00	700055.5260	1769260.4792
540	Y16	30+00.00	700154.9559	1769249.8202
541	Y16	31+00.00	700254.4779	1769240.0574
542	Y16	32+00.00	700354.0487	1769230.8024
543	Y16	33+00.00	700453.6700	1769222.1326
544	Y16	34+00.00	700553.5091	1769216.5380
545	Y12	13+00.00	701798.0504	1774894.7848
546	Y12	14+00.00	701818.3668	1774796.8707
547	Y12	15+00.00	701837.9986	1774698.8167
548	Y12	16+00.00	701857.9957	1774600.8369
549	Y12	17+00.00	701878.9678	1774503.0612
550	Y12	18+00.00	701900.9165	1774405.5001
551	Y12	19+00.00	701924.8644	1774308.4188
552	Y12	20+00.00	701953.8937	1774212.7381
553	Y12	21+00.00	701988.1338	1774118.7961
554	Y12	22+00.00	702027.4813	1774026.8763
555	Y12	23+00.00	702071.8173	1773937.2560
556	Y12	24+00.00	702121.0082	1773850.2057
557	Y12	25+00.00	702174.9055	1773765.9883
558	Y12	26+00.00	702233.3464	1773684.8579
559	Y12	27+00.00	702296.1545	1773607.0593
560	Y12	28+00.00	702362.7112	1773532.4318
561	Y12	29+00.00	702430.3401	1773458.7687

Point #	Chain	Station	Northing (Y)	Easting (X)
562	Y12	30+00.00	702498.6070	1773385.6963
563	Y12	31+00.00	702567.5068	1773313.2204
564	Y12	32+00.00	702637.0341	1773241.3463
565	Y12	33+00.00	702707.1838	1773170.0795
566	Y12	34+00.00	702777.9506	1773099.4254
567	Y12	35+00.00	702849.3290	1773029.3893
568	Y12	36+00.00	702921.3138	1772959.9765
569	Y12	37+00.00	702993.8994	1772891.1923
570	Y12	38+00.00	703068.1164	1772824.1875
571	Y12	39+00.00	703145.8514	1772761.3005
572	Y12	40+00.00	703226.9226	1772702.7775
573	Y12	41+00.00	703311.0854	1772648.7950
574	Y12	42+00.00	703398.0857	1772599.5160
575	Y12	43+00.00	703487.6611	1772555.0892
576	Y12	44+00.00	703579.5410	1772515.6487
577	Y12	45+00.00	703673.2427	1772480.7328
578	Y12	46+00.00	703767.2116	1772446.5300
579	Y12	47+00.00	703861.1806	1772412.3272
580	Y12	48+00.00	703955.1496	1772378.1244
581	Y12	49+00.00	704049.1185	1772343.9216
582	Y12	50+00.00	704143.0875	1772309.7187
583	Y12	51+00.00	704237.0565	1772275.5159
584	Y12	52+00.00	704331.0255	1772241.3131
585	Y12A	10+00.00	701399.3337	1773388.7739
586	Y12A	11+00.00	701486.7338	1773340.1815
587	Y12A	12+00.00	701581.7111	1773311.4735
588	Y12A	13+00.00	701679.9701	1773325.2566
589	Y12A	14+00.00	701763.3830	1773378.9883
590	Y12A	15+00.00	701825.2058	1773457.4931
591	Y12A	16+00.00	701885.3707	1773537.3691
592	Y12A	17+00.00	701945.5356	1773617.2452
593	Y12A	18+00.00	702005.7005	1773697.1212
594	Y12A	19+00.00	702065.8655	1773776.9972
595	Y12B	10+00.00	703242.2743	1772218.4231
596	Y12B	11+00.00	703273.7538	1772313.2132
597	Y12B	12+00.00	703298.5787	1772410.0828
598	Y12B	13+00.00	703323.4036	1772506.9524
599	Y12B	14+00.00	703348.2285	1772603.8220
600	Y13	10+00.00	712053.7495	1776427.6837
601	Y13	11+00.00	712111.2060	1776345.8378
602	Y13	12+00.00	712168.6626	1776263.9920
603	Y13	13+00.00	712226.1191	1776182.1461
604	Y13	14+00.00	712283.5757	1776100.3002
605	Y13	15+00.00	712341.0322	1776018.4544
606	Y13	16+00.00	712397.0139	1775935.6369
607	Y13	17+00.00	712437.0081	1775844.2072
608	Y13	18+00.00	712455.8681	1775746.2112
609	Y13	19+00.00	712463.5937	1775646.5101
610	Y13	20+00.00	712471.3187	1775546.8089
611	Y13	21+00.00	712479.0437	1775447.1078
612	Y13	22+00.00	712486.7687	1775347.4066
613	Y13	23+00.00	712494.7141	1775247.7248
614	Y13	24+00.00	712516.4731	1775150.3315
615	Y13	25+00.00	712559.1623	1775060.1287
616	Y13	26+00.00	712615.6956	1774977.6544
617	Y13	27+00.00	712672.6950	1774895.4896
618	Y17A	10+00.00	716229.2679	1772784.9654
619	Y17A	11+00.00	716150.3195	1772846.3425
620	Y17A	12+00.00	716071.5707	1772907.9699
621	Y17A	13+00.00	716002.5287	1772980.0384
622	Y17A	14+00.00	715950.6556	1773065.3019
623	Y17A	15+00.00	715918.3933	1773159.7468
624	Y17A	16+00.00	715907.2606	1773258.9271
625	Y17A	17+00.00	715913.0479	1773358.7263
626	Y17A	18+00.00	715926.5989	1773457.7797
627	Y17A	19+00.00	715947.5725	1773555.5323
628	Y17A	20+00.00	715971.5528	1773652.6145
629	Y17A	21+00.00	715995.5332	1773749.6966
630	Y17A	22+00.00	716019.5136	1773846.7788
631	Y17A	23+00.00	716043.4939	1773943.8609
632	Y17A	24+00.00	716067.4743	1774040.9430
633	Y17A	25+00.00	716091.8783	1774137.9129
634	Y17A	26+00.00	716134.3187	1774228.0624
635	Y17A	27+00.00	716201.0706	1774302.0374
636	Y17A	28+00.00	716286.2052	1774353.9113
637	Y17A	29+00.00	716376.3342	1774397.2328
638	Y17A	30+00.00	716466.4633	1774440.5543
639	Y17A	31+00.00	716556.5924	1774483.8759

Point #	Chain	Station	Northing (Y)	Easting (X)
640	Y17A	32+00.00	716646.7214	1774527.1974
641	Y17A	33+00.00	716736.8505	1774570.5189
642	Y17B	10+00.00	719248.4040	1777907.4344
643	Y17B	11+00.00	719148.6257	1777914.0893
644	Y17B	12+00.00	719048.8474	1777920.7441
645	Y17C	10+00.00	719294.5447	1778679.7807
646	Y17C	11+00.00	719211.6878	1778730.1070
647	ESR5	10+00.00	717149.5828	1774488.9135
648	ESR5	11+00.00	717185.9705	1774582.0512
649	ESR5	12+00.00	717218.7543	1774676.5192
650	ESR5	13+00.00	717250.3812	1774771.3861
651	ESR5	14+00.00	717282.0081	1774866.2531
652	ESR5	15+00.00	717313.6350	1774961.1201
653	ESR5	16+00.00	717345.2619	1775055.9870
654	ESR5	17+00.00	717376.8888	1775150.8540
655	ESR5	18+00.00	717408.5156	1775245.7209
656	ESR5	19+00.00	717440.1425	1775340.5879
657	ESR5	20+00.00	717471.7694	1775435.4549
658	ESR5	21+00.00	717503.3963	1775530.3218
659	ESR5	22+00.00	717535.0232	1775625.1888
660	ESR5	23+00.00	717567.4967	1775719.7622
661	ESR5	24+00.00	717605.8113	1775812.1080
662	ESR5	25+00.00	717650.6186	1775901.4839
663	ESR5	26+00.00	717701.6903	1775987.4341
664	ESR5	27+00.00	717757.9831	1776070.0774
665	ESR5	28+00.00	717814.9611	1776152.2571
666	ESR5	29+00.00	717871.9391	1776234.4368
667	ESR5	30+00.00	717928.9172	1776316.6165
668	ESR5	31+00.00	717985.8952	1776398.7962
669	ESR5	32+00.00	718042.8732	1776480.9759
670	ESR5	33+00.00	718099.8513	1776563.1556
671	ESR5	34+00.00	718160.5435	1776642.5797
672	ESR5	35+00.00	718228.8562	1776715.5526
673	ESR5	36+00.00	718304.1128	1776781.3410
674	ESR5	37+00.00	718385.5612	1776839.2877
675	ESR5	38+00.00	718471.0121	1776891.2272
676	ESR5	39+00.00	718556.6326	1776942.8908
677	ESR5	40+00.00	718642.2531	1776994.5544
678	SR5	10+00.00	718642.2531	1776994.5544
679	SR5	11+00.00	718727.8736	1777046.2180
680	SR5	12+00.00	718813.4941	1777097.8816
681	SR5	13+00.00	718898.9340	1777149.8376
682	SR5	14+00.00	718978.7350	1777209.9609
683	SR5	15+00.00	719049.1632	1777280.8331
684	SR5	16+00.00	719108.7838	1777361.0103
685	SR5	17+00.00	719156.3821	1777448.8591
686	SR5	18+00.00	719190.9884	1777542.5896
687	SR5	19+00.00	719211.8975	1777640.2923
688	SR5	20+00.00	719225.4401	1777739.3710
689	SR5	21+00.00	719238.9781	1777838.4504
690	SR5	22+00.00	719252.5162	1777937.5298
691	SR5	23+00.00	719266.0543	1778036.6091
692	SR5	24+00.00	719277.0877	1778135.9705
693	SR5	25+00.00	719278.5664	1778235.9179
694	SR5	26+00.00	719270.0596	1778335.5136
695	SR5	27+00.00	719251.6523	1778433.7625
696	SR5	28+00.00	719233.7392	1778531.7572
697	SR5	29+00.00	719257.3918	1778627.9942
698	SR5	30+00.00	719321.6967	1778703.3991
699	SR5	31+00.00	719412.9915	1778741.9513
700	SR6	11+00.00	719055.4570	1776510.9787
701	SR6	12+00.00	719093.0795	1776603.6315
702	SR6	13+00.00	719130.7021	1776696.2843
703	SR6	14+00.00	719168.3247	1776788.9371
704	SR6	15+00.00	719205.9472	1776881.5899
705	SR6	16+00.00	719243.0781	1776974.4390
706	SR6	17+00.00	719277.6827	1777068.2569
707	SR6	18+00.00	719309.5133	1777163.0519
708	SR6	19+00.00	719338.5425	1777258.7420
709	SR6	20+00.00	719364.7451	1777355.2443
710	SR6	21+00.00	719388.0985	1777452.4755
711	SR6	22+00.00	719408.5825	1777550.3513
712	SR6	23+00.00	719426.1193	1777648.7873
713	SR6	24+00.00	719440.8737	1777747.6981
714	SR6	25+00.00	719453.0810	1777846.9493
715	SR6	26+00.00	719464.9812	1777946.2387
716	SR6	27+00.00	719476.8813	1778045.5281

Point #	Chain	Station	Northing (Y)	Easting (X)
717	SR6	28+00.00	719488.7815	1778144.8175
718	SR6	29+00.00	719507.4395	1778242.9275
719	SR6	30+00.00	719543.8821	1778335.8933
720	SR6	31+00.00	719596.5135	1778420.7927
721	SR6	32+00.00	719628.8137	1778514.4822
722	SR6	33+00.00	719615.6603	1778612.7064
723	SR6	34+00.00	719559.8481	1778694.5967
724	SR6	35+00.00	719474.0684	1778744.8892
725	SRV	10+00.00	707018.3458	1773271.8643
726	SRV	11+00.00	707023.1064	1773371.7510
727	SRV	12+00.00	707027.8670	1773471.6376
728	SRV	13+00.00	707032.6275	1773571.5242
729	FB_SAC	10+00.00	701401.5029	1771455.1105
730	FB_SAC	11+00.00	701454.7227	1771539.7724
731	FB_SAC	12+00.00	701507.9426	1771624.4344
732	T1	10+00.00	717811.9081	1774854.6765
733	T1	11+00.00	717910.8271	1774869.3402
734	T1	12+00.00	718009.7462	1774884.0039
735	T1	13+00.00	718108.6652	1774898.6676
736	T1	14+00.00	718207.5843	1774913.3312
737	T1	15+00.00	718306.5033	1774927.9949
738	T1	16+00.00	718405.4223	1774942.6586
739	T1	17+00.00	718504.3414	1774957.3223
740	T1	18+00.00	718603.2604	1774971.9860

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	D6	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	J4	PROP. 10" AGGREGATE BASE COURSE.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E1	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J5	VARIABLE DEPTH ABC.
C3	PROP. APPROX. 2½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E2	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	N1*	GEOTEXTILE FOR SUBGRADE STABILIZATION, TYPE 4
C4	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A,AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 ½" IN DEPTH.	E3	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.	P	PRIME COAT.
C5	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B,AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E4	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.	R1	1'-6" CONCRETE CURB AND GUTTER.
C6	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E5	PROP. APPROX. 5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.	R2	2'-6" CONCRETE CURB AND GUTTER.
C7	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.	E6	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	R4	5" MONOLITHIC CONCRETE ISLAND (KEYED-IN).
C8	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E7	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R5	EXPRESSWAY GUTTER.
C9	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E8	PROP. APPROX. 7.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.C, AT AN AVERAGE RATE OF 427.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R6	DOUBLE FACED CONCRETE BARRIER TYPE T
C10	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.	E9	PROP. APPROX. 8.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.C, AT AN AVERAGE RATE OF 484.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R7	DOUBLE FACED CONCRETE BARRIER TYPE T1
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	E10	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	R8	SHOULDER BERM GUTTER
D2	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	G	PROP. 8.0" CEMENT TREATED BASE COURSE.	S	SPLIT SEAL
D3	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	J1	PROP. 6" AGGREGATE BASE COURSE.	T	EARTH MATERIAL.
D4	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	J2	PROP. 7" AGGREGATE BASE COURSE.	U	EXISTING PAVEMENT.
D5	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J3	PROP. 8" AGGREGATE BASE COURSE.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAILS).

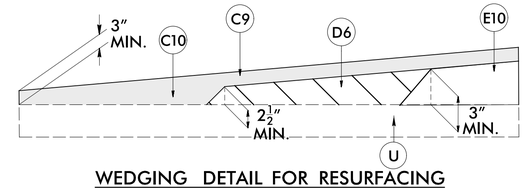
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

* TYPE 5 GEOTEXTILE SHALL REPLACE TYPE 4 GEOTEXTILE FOR ALL EMBANKMENTS THAT ARE A MINIMUM OF TEN FEET IN HEIGHT (AS MEASURED VERTICALLY FROM THE TOE OF THE EMBANKMENT TO THE ELEVATION OF OUTER EDGE OF PAVEMENT) AND 200 FEET IN LENGTH.

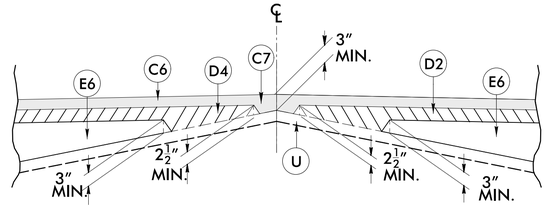
NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

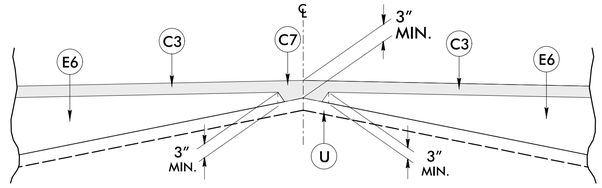
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



WEDGING DETAIL FOR RESURFACING
FOR –Y17–



DETAIL SHOWING METHOD OF WEDGING
FOR –Y12–



DETAIL SHOWING METHOD OF WEDGING
FOR –Y12A–, –Y12B–, –Y13–, –Y16–

ICA Engineering
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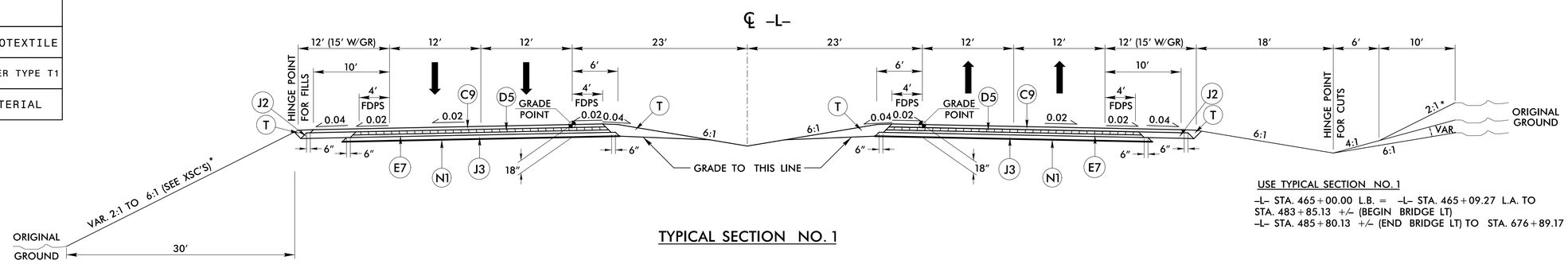
Raleigh, NC 27607
NC License No: F-0258

3/22/2016
R2536_DTY_TYP_SEC3.dgn
ICA ENGINEERING, INC.

PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
C9	3″ TYPE S9.5C
D3	4″ TYPE I19.0B
D5	3″ TYPE I19.0C
E7	4″ TYPE B25.0C
J2	7″ ABC
J3	8″ ABC
N1	TYPE 4 GEOTEXTILE
R7	CONC BARRIER TYPE T1
T	EARTH MATERIAL

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

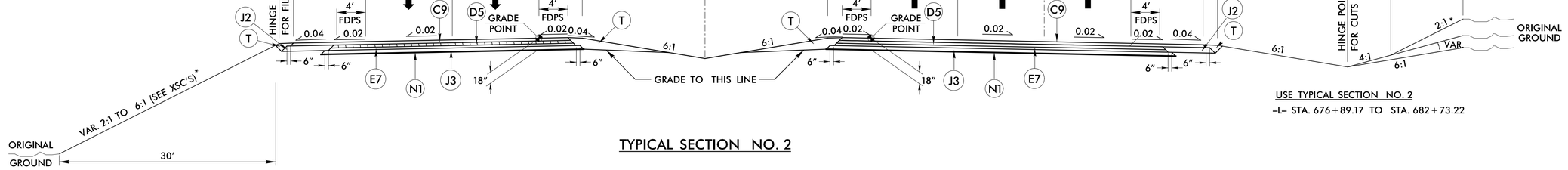


TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

–L– STA. 465+00.00 L.B. = –L– STA. 465+09.27 L.A. TO STA. 483+85.13 +/– (BEGIN BRIDGE LT)

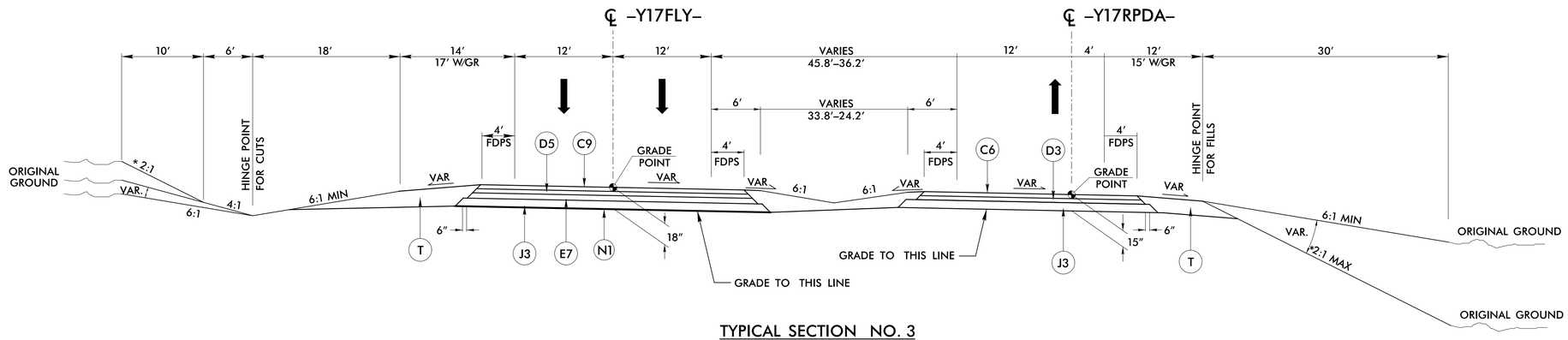
–L– STA. 485+80.13 +/– (END BRIDGE LT) TO STA. 676+89.17



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

–L– STA. 676+89.17 TO STA. 682+73.22



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

–Y17FLY– STA 10+00.00 TO STA 18+36.12

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

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USER:
ICA ENGINEERING, INC.

ICA Engineering
5121 Kingdom Way, Suite 100
Raleigh, NC 27607
NC License No: F-0258

PAVEMENT SCHEDULE	
C6	3" TYPE S9.5B
C9	3" TYPE S9.5C
D3	4" TYPE I19.0B
D5	3" TYPE I19.0C
E7	4" TYPE B25.0C
J2	7" ABC
J3	8" ABC
N1	TYPE 4 GEOTEXTILE
R7	CONC BARRIER TYPE T1
T	EARTH MATERIAL

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-3
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

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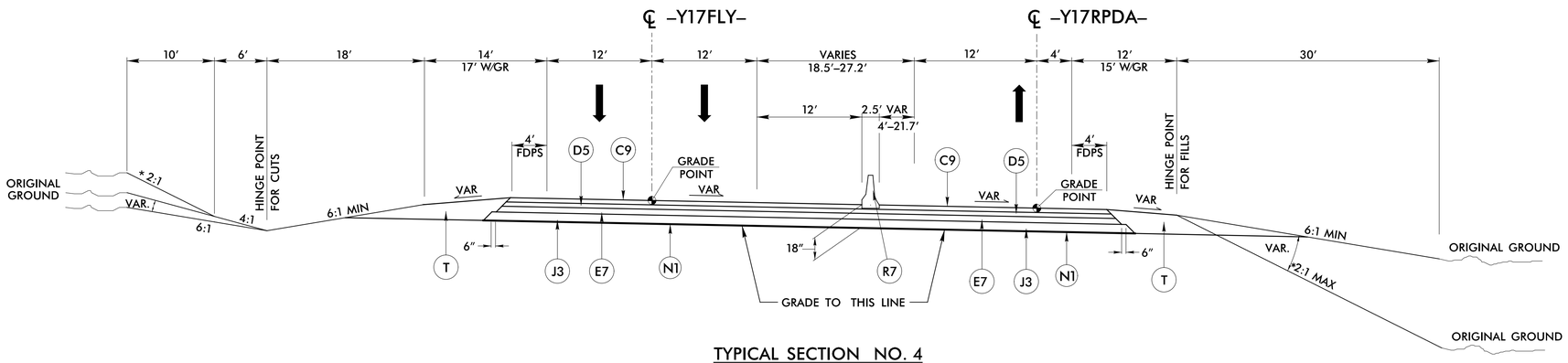
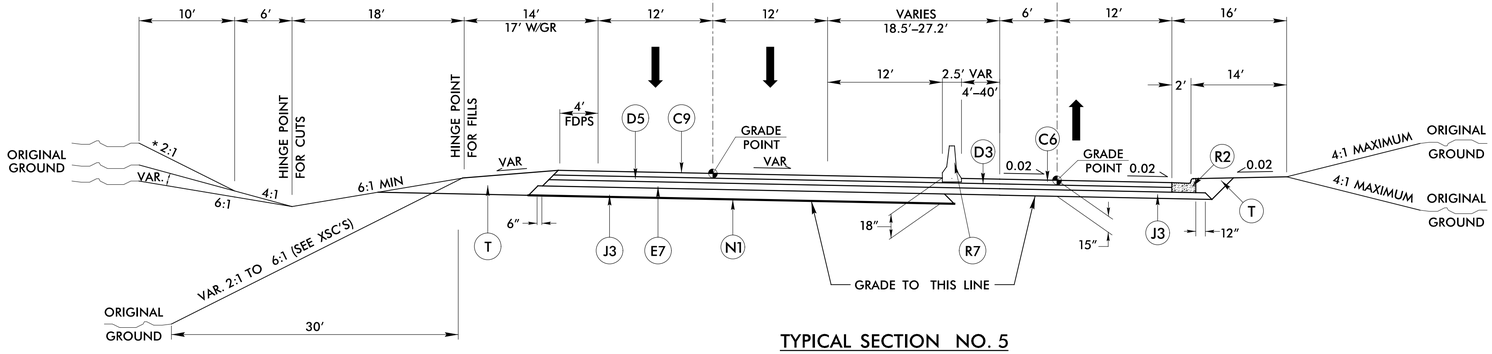


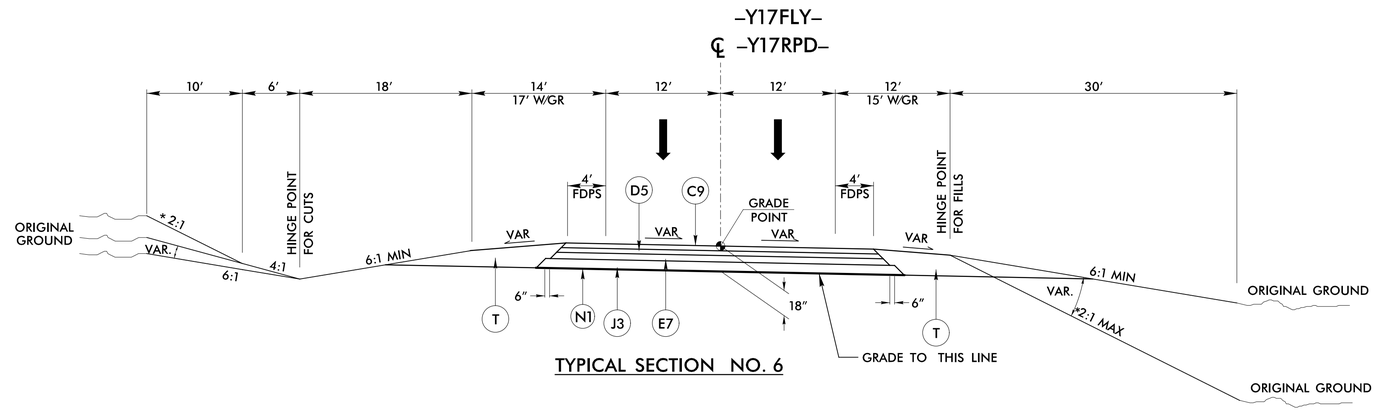
TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4
–Y17FLY– STA 18+36.12 TO STA 28+95.44 BEGIN BRIDGE
–Y17FLY– STA 30+82.44 END BRIDGE TO STA 34+58.34



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5
–Y17FLY– STA 34+58.34 TO STA 37+18.19



TYPICAL SECTION NO. 6

USE TYPICAL SECTION NO. 6
–Y17FLY– STA 37+18.19 TO STA 54+44.70
–Y17RPD– STA 18+97.79 TO STA 41+62.07

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

3/22/2016
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ICA ENGINEERING, INC.

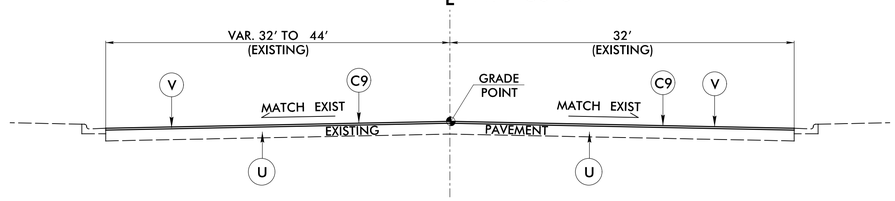
ICA Engineering
5121 Kingdom Way,
Suite 100
Raleigh, NC 27607
NC License No: F-0258

PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
C9	3″ TYPE S9.5C
D3	4″ TYPE I19.0B
D5	3″ TYPE I19.0C
E7	4″ TYPE B25.0C
J2	7″ ABC
J3	8″ ABC
N1	TYPE 4 GEOTEXTILE
R7	CONC BARRIER TYPE T1
T	EARTH MATERIAL

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-4
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

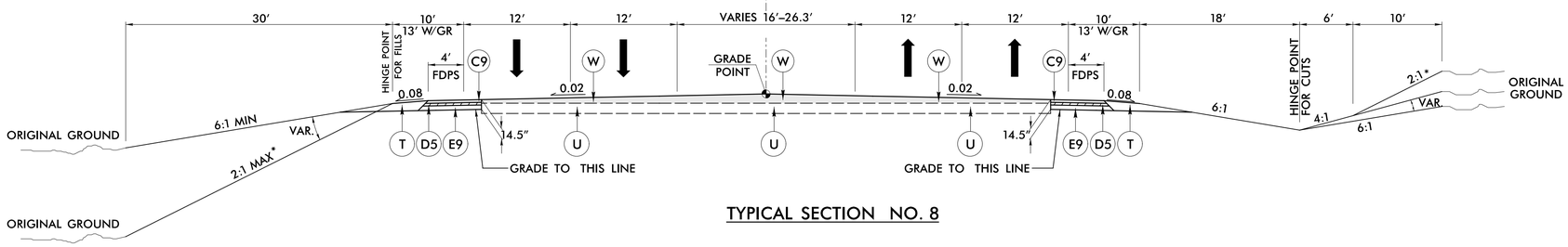
℄ –Y17– US–64



TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7
–Y17– STA 13+00.00 TO STA 17+00.00
–Y17– STA 84+60.00 TO STA 112+00.00

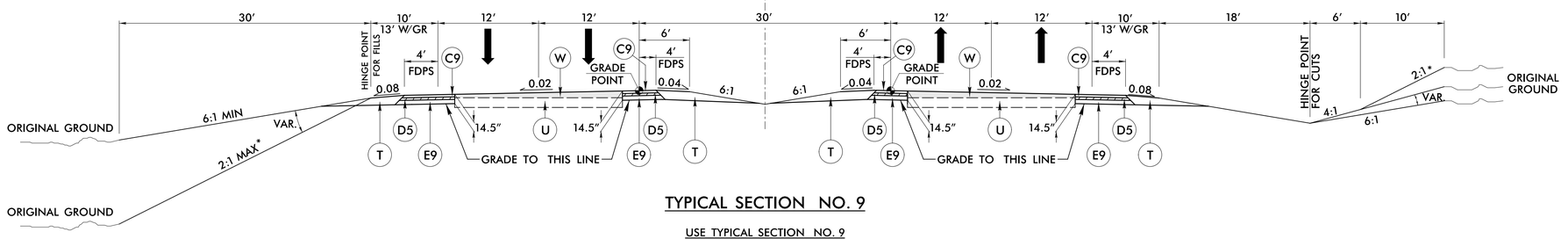
℄ –Y17– US–64



TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8
–Y17– STA 17+00.00 TO STA 20+55.94
–Y17– STA 78+50.00 TO STA 84+60.00

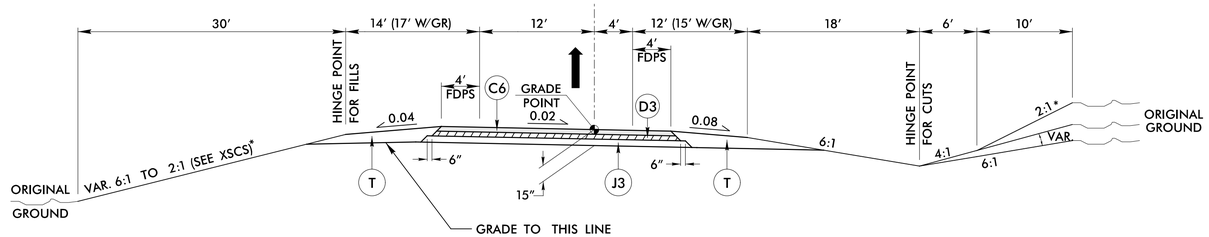
℄ –Y17– US–64



TYPICAL SECTION NO. 9

USE TYPICAL SECTION NO. 9
–Y17– STA 20+55.94 TO STA 78+50.00

℄ –Y17RPC–



TYPICAL SECTION NO. 10

USE TYPICAL SECTION NO. 10
–Y17RPC– STA 14+03.35 TO STA 21+98.01

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

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R2536_DIV_TYP_SEC3.dgn
ICA ENGINEERING, INC.

ICA Engineering
5121 Kingdom Way,
Suite 100
Raleigh, NC 27607
NC License No: F-0258

PAVEMENT SCHEDULE	
C6	3″ TYPE S9.5B
C9	3″ TYPE S9.5C
D3	4″ TYPE I19.0B
D5	3″ TYPE I19.0C
E7	4″ TYPE B25.0C
J2	7″ ABC
J3	8″ ABC
N1	TYPE 4 GEOTEXTILE
R7	CONC BARRIER TYPE T1
T	EARTH MATERIAL

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

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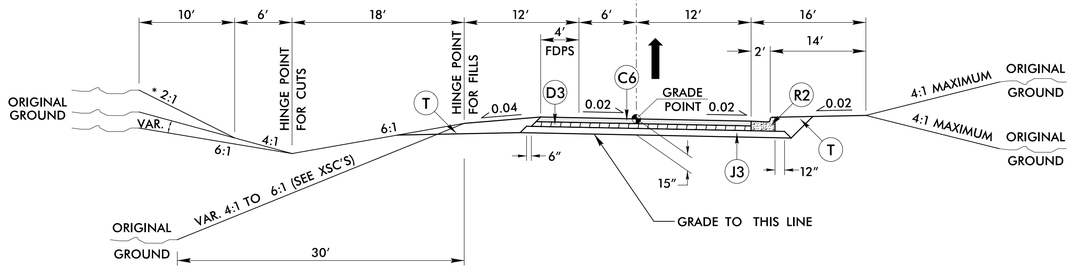
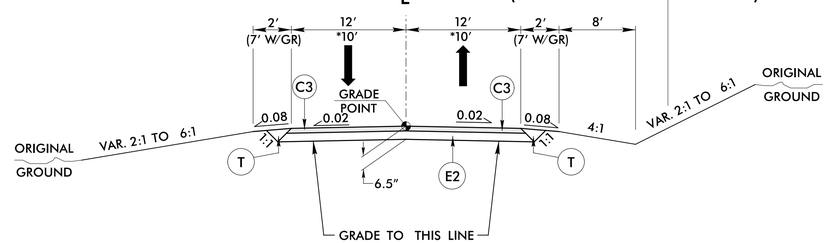
℄ –Y17LPDA–



TYPICAL SECTION NO. 11

USE TYPICAL SECTION NO. 11
–Y17LPDA– STA. 12+57.23 TO 19+13.46

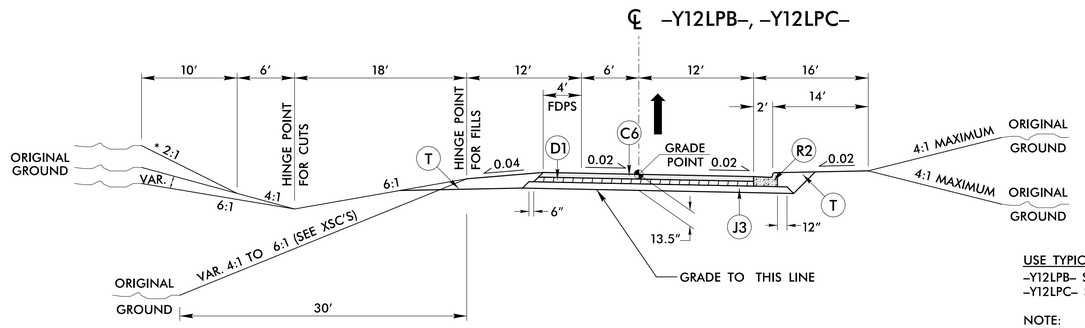
–SR5–
–SR6–
–Y17A– (SR 2679 MADISON CIRCLE)
* –Y17B– (SR 2666 ROCKY KNOLL RD)
℄ * –Y17C– (SR 2692 SOHOMEY RD)



TYPICAL SECTION NO. 12

USE TYPICAL SECTION NO. 12
–SR5– STA 12+50.00 TO 29+91.61
–SR6– STA 10+00.00 TO 34+27.50
–Y17A– STA 10+33.89 TO STA 28+70.00
–Y17B– STA 10+55.94 TO STA 12+50.00
–Y17C– STA 10+45.36 TO STA 11+06.79

℄ –Y12LPB–, –Y12LPC–

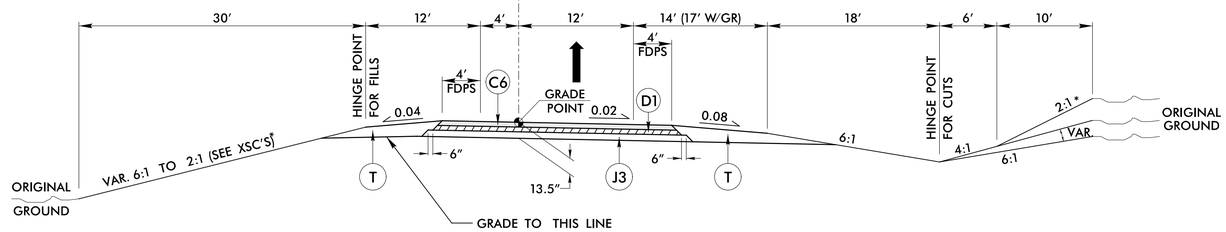


TYPICAL SECTION NO. 13

USE TYPICAL SECTION NO. 13
–Y12LPB– STA. 12+44.32 TO 20+01.85
–Y12LPC– STA. 12+18.50 TO 20+13.53

NOTE:
REVERSE TYPICAL FOR –Y12LPC–

℄ –Y12RPB–, –Y12RPC–

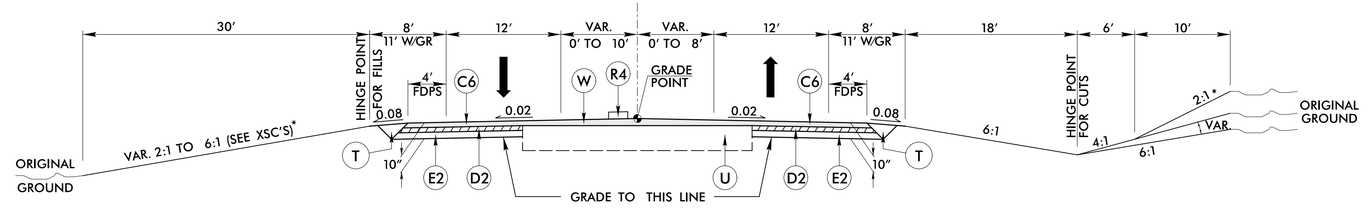


TYPICAL SECTION NO. 14

USE TYPICAL SECTION NO. 14
–Y12RPB– STA 13+80.98 TO STA 28+25.56
–Y12RPC– STA 13+46.51 TO STA 26+71.02

NOTE:
REVERSE TYPICAL FOR –Y12RPB–

℄ –Y12–



TYPICAL SECTION NO. 15

USE TYPICAL SECTION NO. 15
–Y12– STA 13+20.00 TO STA 24+35.00
–Y12– STA 40+25.00 TO STA 50+85.00

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

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5121 Kingdom Way, Suite 100
Raleigh, NC 27607
NC License No: F-0258

3/22/2016
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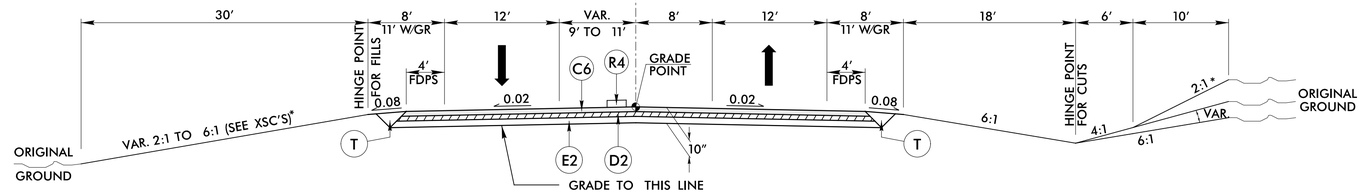
ICA ENGINEERING, INC.

PAVEMENT SCHEDULE	
C6	3" TYPE S9.5B
C9	3" TYPE S9.5C
D3	4" TYPE I19.0B
D5	3" TYPE I19.0C
E7	4" TYPE B25.0C
J2	7" ABC
J3	8" ABC
N1	TYPE 4 GEOTEXTILE
R7	CONC BARRIER TYPE T1
T	EARTH MATERIAL

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

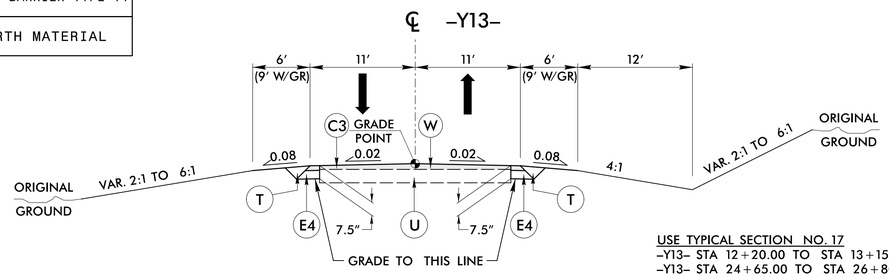
℄ –Y12–



TYPICAL SECTION NO. 16

USE TYPICAL SECTION NO. 16
–Y12– STA 24+35.00 TO STA 32+14.60 (BEGIN BRIDGE)
–Y12– STA 34+31.60 (END BRIDGE) TO STA 40+25.00

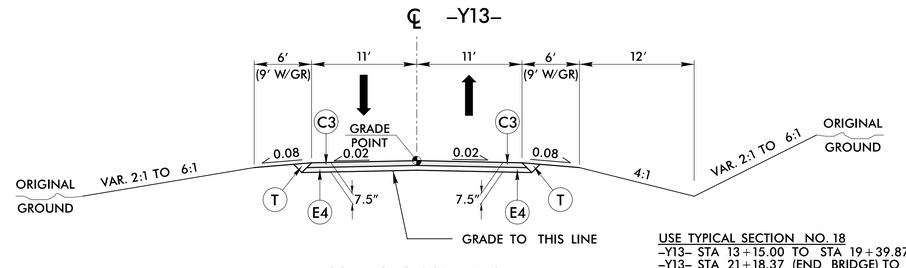
℄ –Y13–



TYPICAL SECTION NO. 17

USE TYPICAL SECTION NO. 17
–Y13– STA 12+20.00 TO STA 13+15.00
–Y13– STA 24+65.00 TO STA 26+80.00

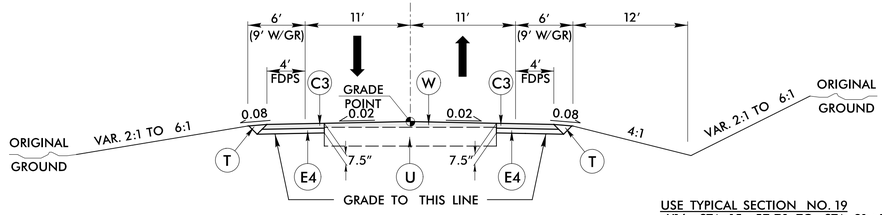
℄ –Y13–



TYPICAL SECTION NO. 18

USE TYPICAL SECTION NO. 18
–Y13– STA 13+15.00 TO STA 19+39.87 (BEGIN BRIDGE)
–Y13– STA 21+18.37 (END BRIDGE) TO STA 24+65.00

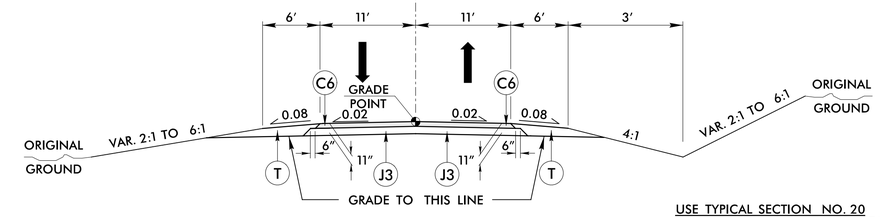
℄ –Y16–



TYPICAL SECTION NO. 19

USE TYPICAL SECTION NO. 19
–Y16– STA 15+57.70 TO STA 21+10.40 (BEGIN BRIDGE)
–Y16– STA 23+28.40 (END BRIDGE) TO STA 28+49.22

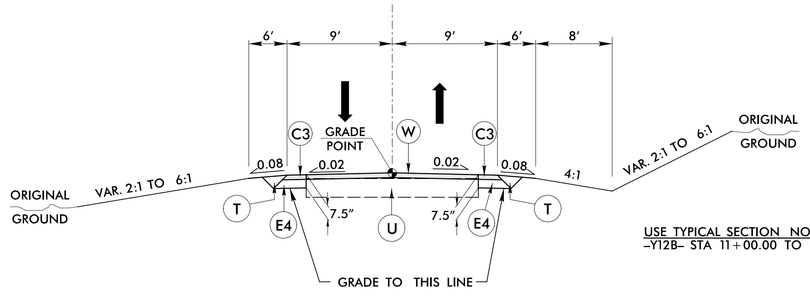
℄ –Y16_DET–



TYPICAL SECTION NO. 20

USE TYPICAL SECTION NO. 20
–Y16DET– STA 15+57.74 TO STA 28+69.47

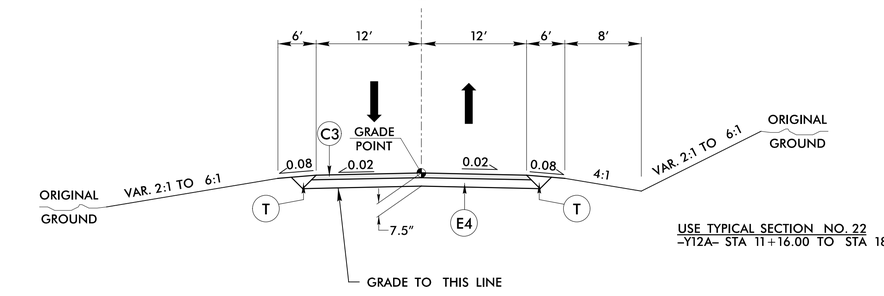
℄ –Y12B–



TYPICAL SECTION NO. 21

USE TYPICAL SECTION NO. 21
–Y12B– STA 11+00.00 TO STA 12+90.00

℄ –Y12A–



TYPICAL SECTION NO. 22

USE TYPICAL SECTION NO. 22
–Y12A– STA 11+16.00 TO STA 18+56.10

NOTES:
SEE PLANS FOR LOCATION OF CONCRETE ISLANDS, AUXILIARY LANES, AND TAPERS.
* 4:1 MAX INSIDE INTERCHANGE

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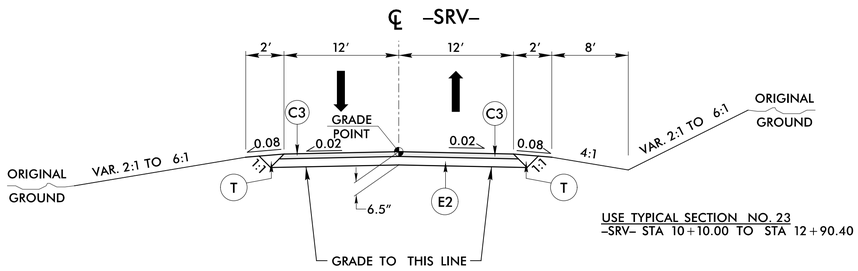
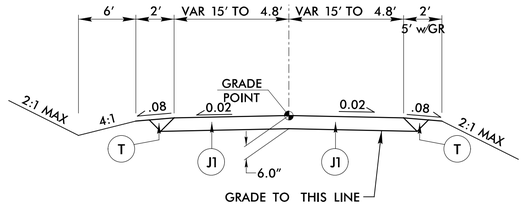
PAVEMENT SCHEDULE	
C6	3" TYPE S9.5B
C9	3" TYPE S9.5C
D3	4" TYPE I19.0B
D5	3" TYPE I19.0C
E7	4" TYPE B25.0C
J1	6" ABC
J2	7" ABC
J3	8" ABC
N1	TYPE 4 GEOTEXTILE
R7	CONC BARRIER TYPE T1
T	EARTH MATERIAL



TYPICAL SECTION NO. 23

USE TYPICAL SECTION NO. 23
–SRV– STA 10+10.00 TO STA 12+90.40



TYPICAL SECTION NO. 24

USE TYPICAL SECTION NO. 24
–Y12 DRRT– STA 10+27.75 TO STA 11+53.40
–Y12 DRLT– STA 10+26.17 TO STA 11+70.00
–Y16DET DRRT– STA 10+11.00 TO STA 11+71.42
–Y17ADRLT– STA 10+81.14 TO STA 13+09.99
–Y17ADRRT– STA 10+12.00 TO STA 11+15.00
–SR6DR1– STA 10+00.00 TO STA 12+55.90
–SR6DR2– STA 10+12.00 TO STA 11+33.92
–SR6DR3– STA 10+12.00 TO STA 11+31.98
–SR6DR4– STA 10+15.00 TO STA 11+25.00
–SR6DR5– STA 12+15.80 TO STA 11+44.02
–SRV– STA 10+10.00 TO STA 12+55.40

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

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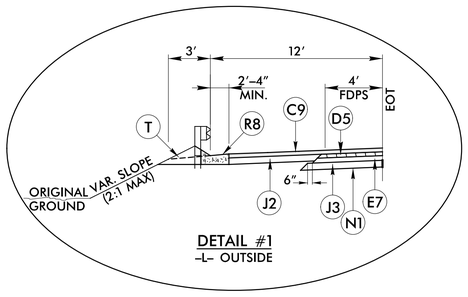
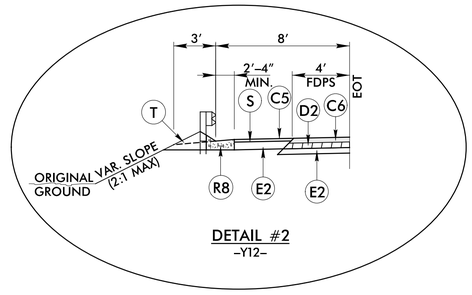
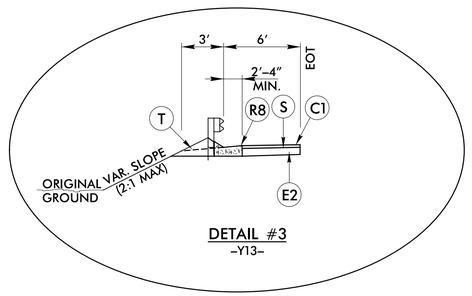
SHOULDER BERM GUTTER DETAILS



DETAIL #1
–L– OUTSIDE

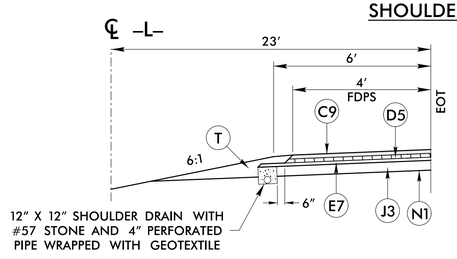


DETAIL #2
–Y12–



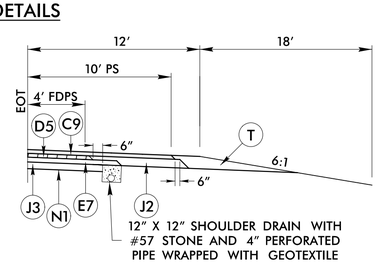
DETAIL #3
–Y13–

SHOULDER DRAIN DETAILS



–L– MEDIAN SHOULDER DRAIN DETAIL

DETAIL #4



–L– OUTSIDE
–L– OUTSIDE SHOULDER DRAIN DETAIL

NOTES:
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PAVEMENT SCHEDULE	
C6	3" TYPE S9.5B
C9	3" TYPE S9.5C
D3	4" TYPE I19.0B
D5	3" TYPE I19.0C
E7	4" TYPE B25.0C
J2	7" ABC
J3	8" ABC
N1	TYPE 4 GEOTEXTILE
R7	CONC BARRIER TYPE T1
T	EARTH MATERIAL

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2A-8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

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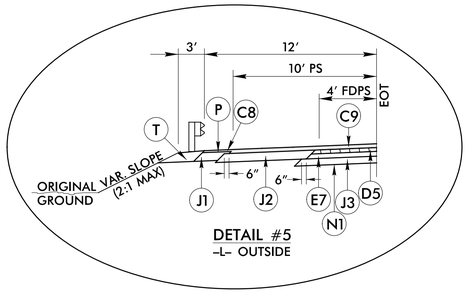
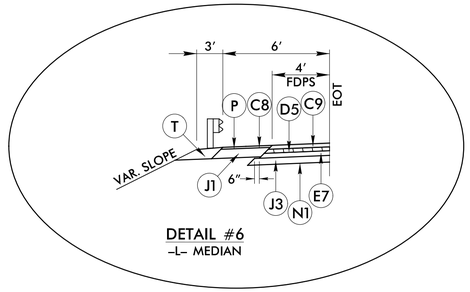
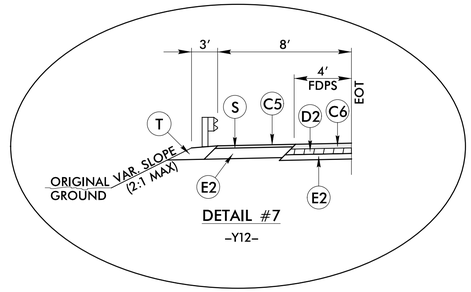
GUARDRAIL WIDENING DETAILS



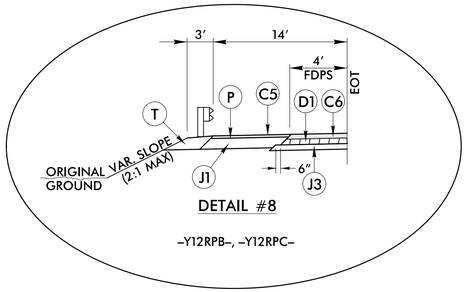
DETAIL #5
–L– OUTSIDE



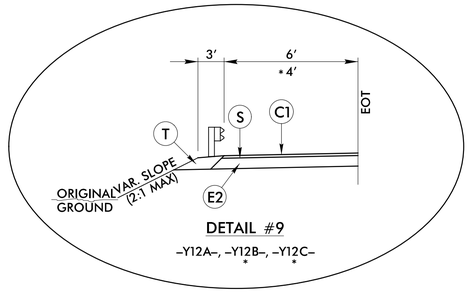
DETAIL #6
–L– MEDIAN



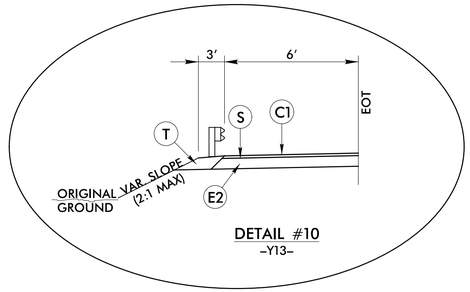
DETAIL #7
–Y12–



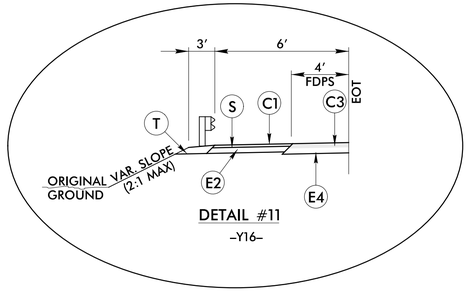
DETAIL #8
–Y12RPB–, –Y12RPC–



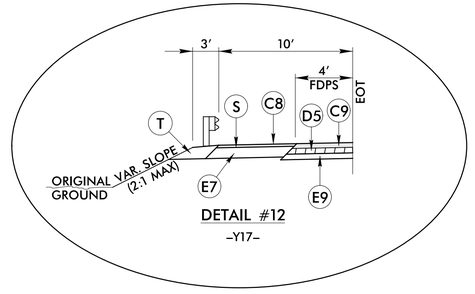
DETAIL #9
–Y12A–, –Y12B–, –Y12C–
*



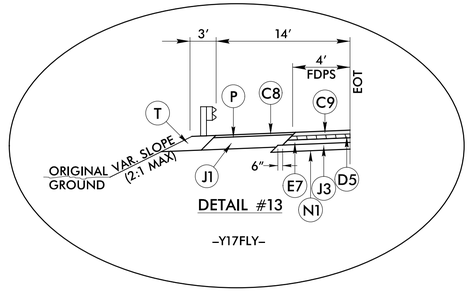
DETAIL #10
–Y13–



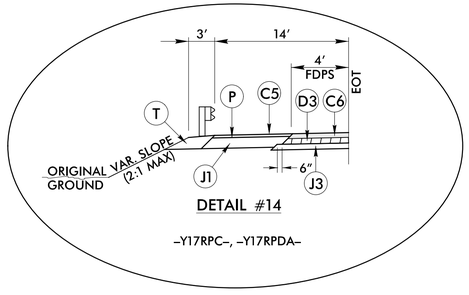
DETAIL #11
–Y16–



DETAIL #12
–Y17–



DETAIL #13
–Y17FLY–



DETAIL #14
–Y17RPC–, –Y17RPDA–

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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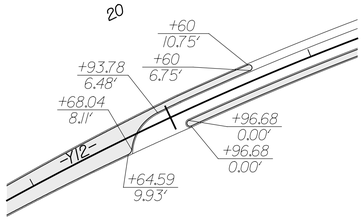
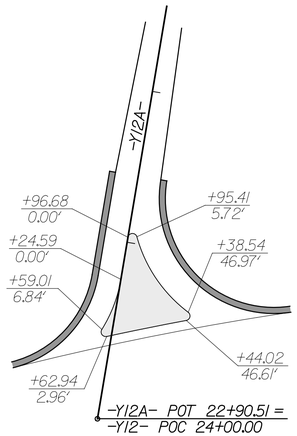


-Y12-



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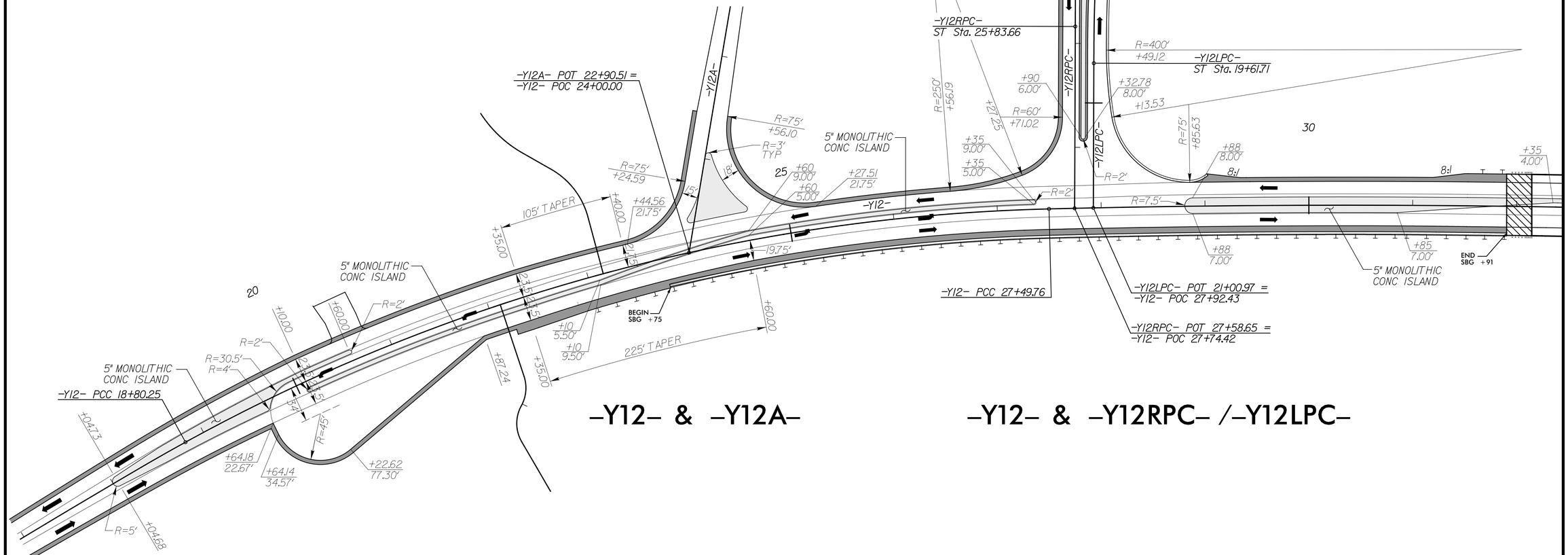

-Y12- & -Y12A-

-Y12- & -Y12RPC- /-Y12LPC-

INTERSECTION DETAILS

3/22/2016
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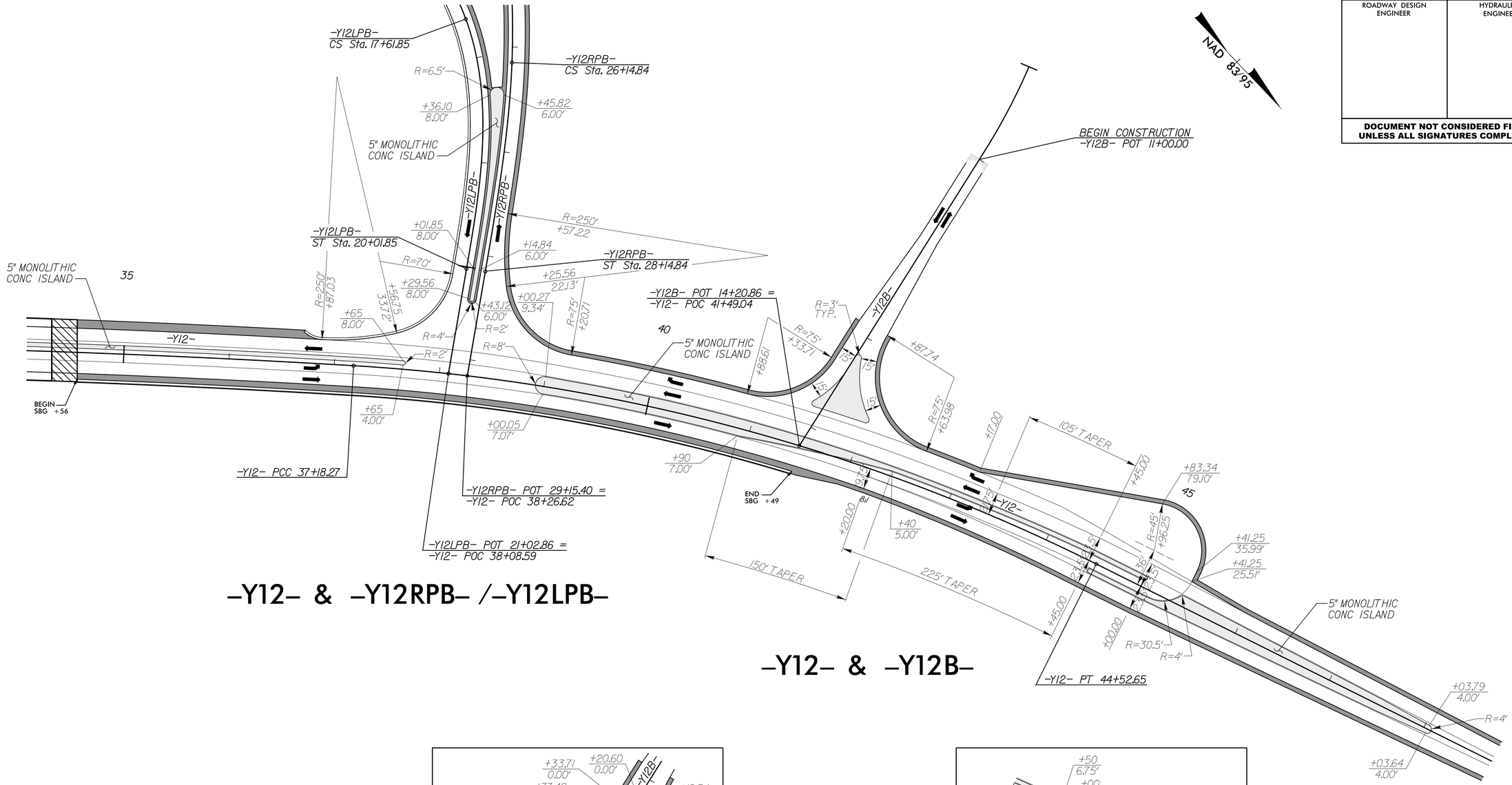
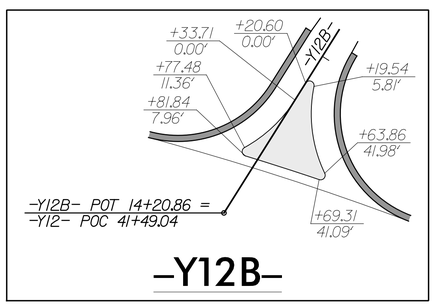
PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

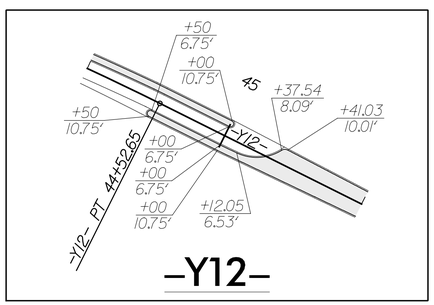


-Y12- & -Y12RPB- /-Y12LPB-

-Y12- & -Y12B-



-Y12B-



-Y12-

INTERSECTION DETAILS

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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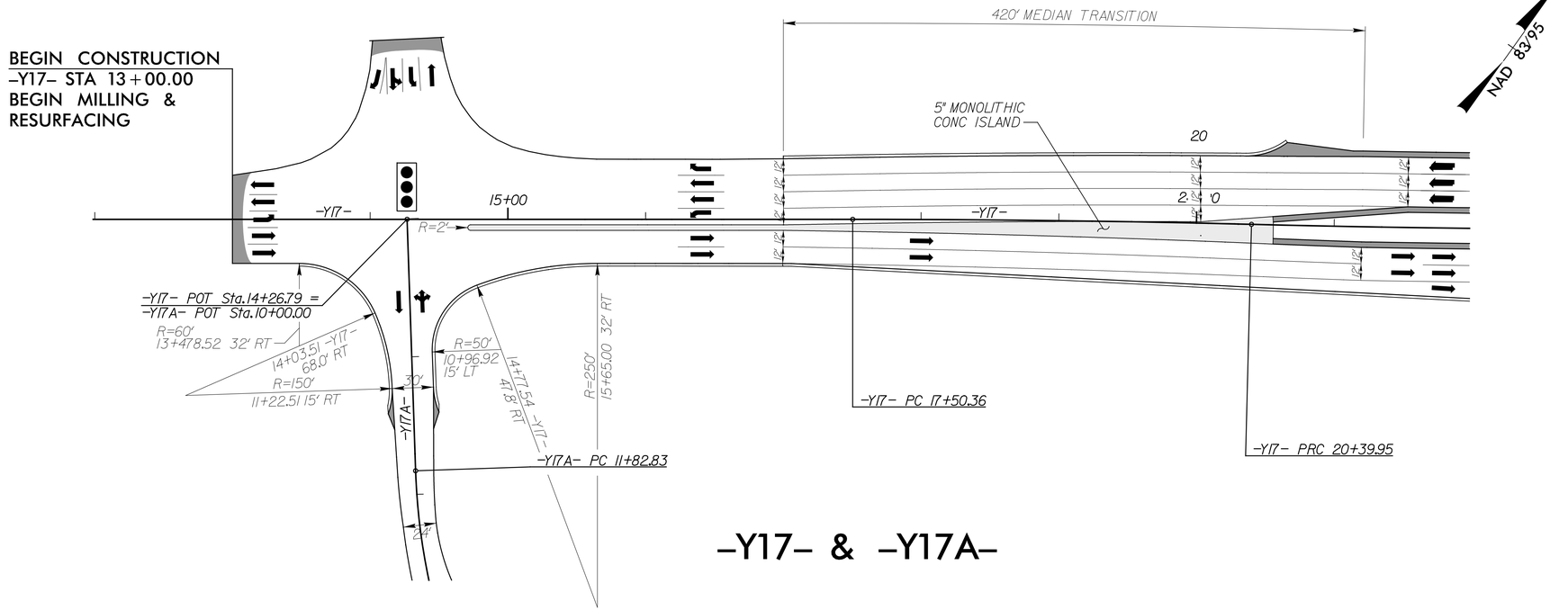
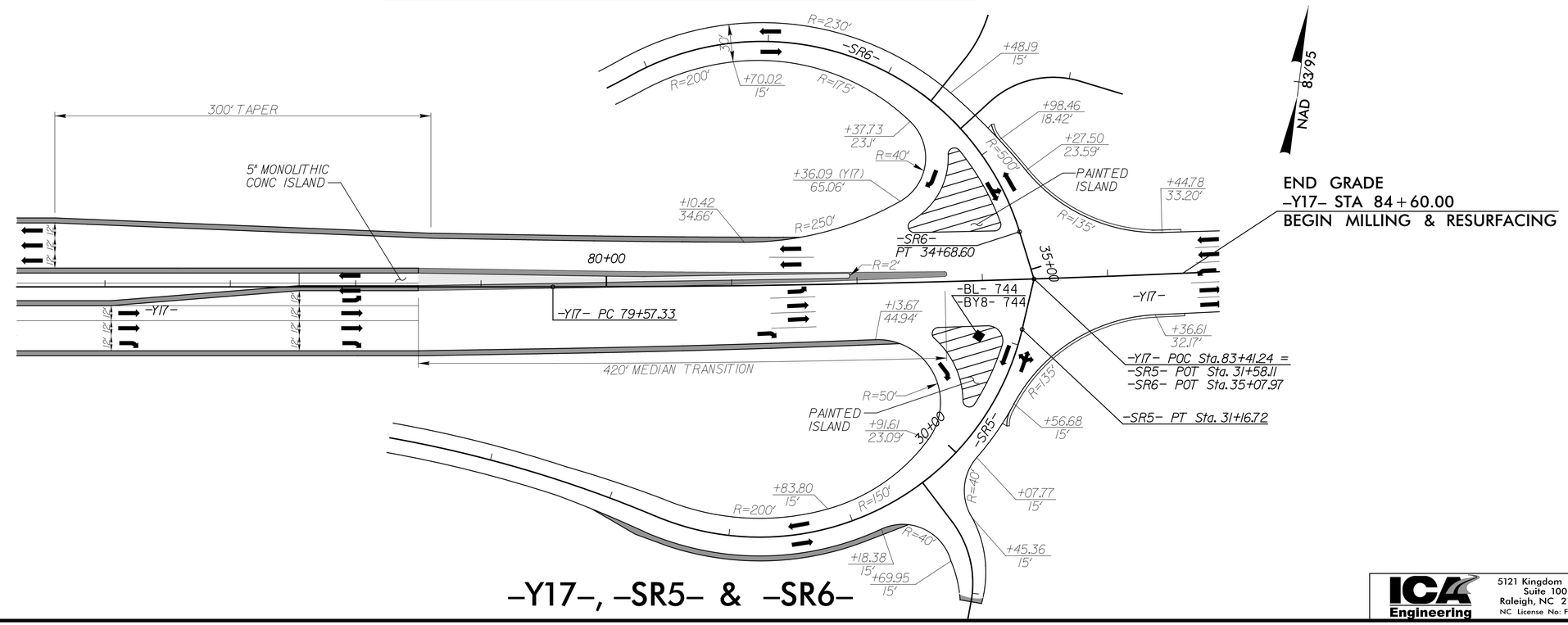


INTERSECTION DETAILS



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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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NAD 83/95

PC Sta. 10+35.87
PT Sta. 10+76.54
-Y16DET DRRT- POT 10+00.00 =
-Y16DET- POC 21+10.47
END DETOUR CONSTRUCTION
-Y16DET- STA 28+69.47
PC Sta. 28+98.09
20+00
25+00
REMOVE 14 LF EX. 24" RCP
24" RCP-III
TEMP GRAU-350
TEMP GUARDRAIL
2 TONS CL B RIPRAP W/7 SY GEO FAB
-Y16DET- PT 21+13.10
-Y16DET- PC 24+14.28
-Y16DET- PRC 26+46.21
BEGIN DETOUR CONSTRUCTION
-Y16DET- STA 15+57.74
-Y16DET- PCC 19+73.83
PT Sta. 11+71.42
END CONSTRUCTION
5 TONS CL B RIPRAP W/14 SY GEO FAB
2 TONS CL B RIPRAP W/7 SY GEO FAB
PC Sta. 11+07.58
POT Sta. 12+13.14
SPECIAL CUT DITCH SEE DETAIL H
SPECIAL LATERAL 'V' DITCH SEE DETAIL J
LATERAL 'V' DITCH SEE DETAIL D
PINE HILL ROAD SR 2824
20' PAVED ROADWAY
-Y16DET-
N 5° 43' 36.4" W
N 6° 29' 28.4" W
N 84° 16' 23.6" E
S 29° 09' 01.1" E
N 77° 41' 30.2" E
-Y16DET DRRT-
N 08°57'06" W 175.90'
N 09°00'15" W 100.19'
N 09°00'15" W 100.14'
30' ACCESS EASEMENT DB 1438, PG 893
ACCESS EASEMENT DB 131 PG 950
20' ACCESS EASEMENT
EXISTING R/W
22' (TYP)

-Y16DET DR RT-

PI Sta 10+58.85	PI Sta 11+44.68
△ = 66° 34' 35.4" (RT)	△ = 73° 09' 28.7" (LT)
D = 163° 42' 08.0"	D = 114° 35' 29.6"
L = 40.67'	L = 63.84'
T = 22.98'	T = 37.10'
R = 35.00'	R = 50.00'

-Y16DET-

PI Sta 16+37.96	PI Sta 20+43.73	PI Sta 25+31.49	PI Sta 27+58.95
△ = 3° 28' 06.5" (LT)	△ = 12° 16' 32.2" (LT)	△ = 20° 26' 38.2" (LT)	△ = 19° 40' 46.3" (RT)
D = 0° 30' 58.2"	D = 8° 48' 53.0"	D = 8° 48' 53.0"	D = 8° 48' 53.1"
L = 671.95'	L = 139.26'	L = 231.93'	L = 223.26'
T = 336.08'	T = 69.90'	T = 117.21'	T = 112.74'
R = 11,100.00'	R = 650.00'	R = 650.00'	R = 650.00'
SE = 0.02	SE = 0.06	SE = 0.06	SE = 0.06
V = 60mph	V = 45mph	V = 45mph	V = 45mph

FOR -Y16DET- PROFILE SEE SHT. 195
FOR -Y16DET DR LT- PROFILE SEE SHT. 128

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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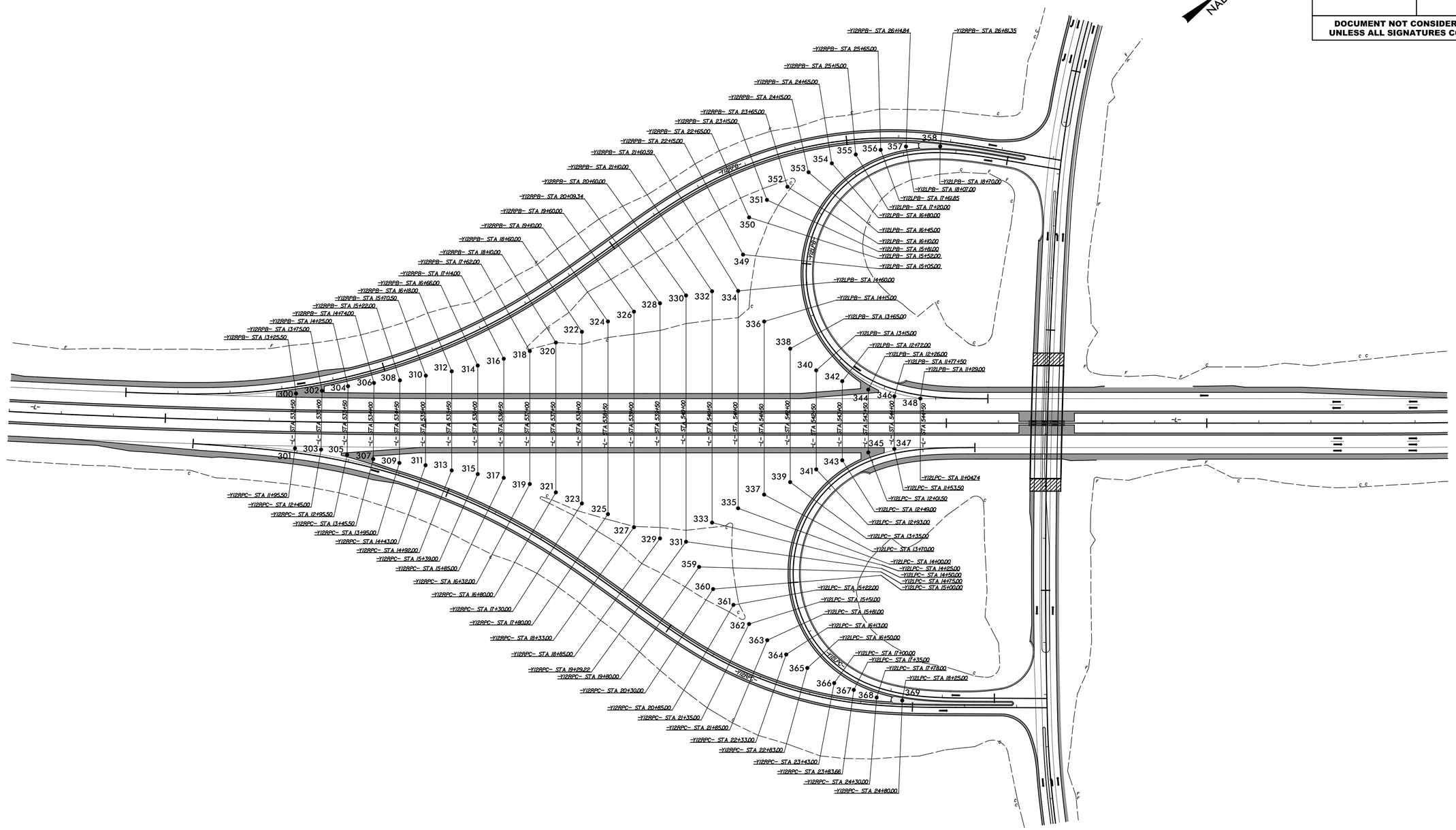
SHEAR POINT DIAGRAM

–L– & –Y12– INTERSECTION

NAD 83/95



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SHEAR POINT DIAGRAM

–L– & –Y17– INTERCHANGE

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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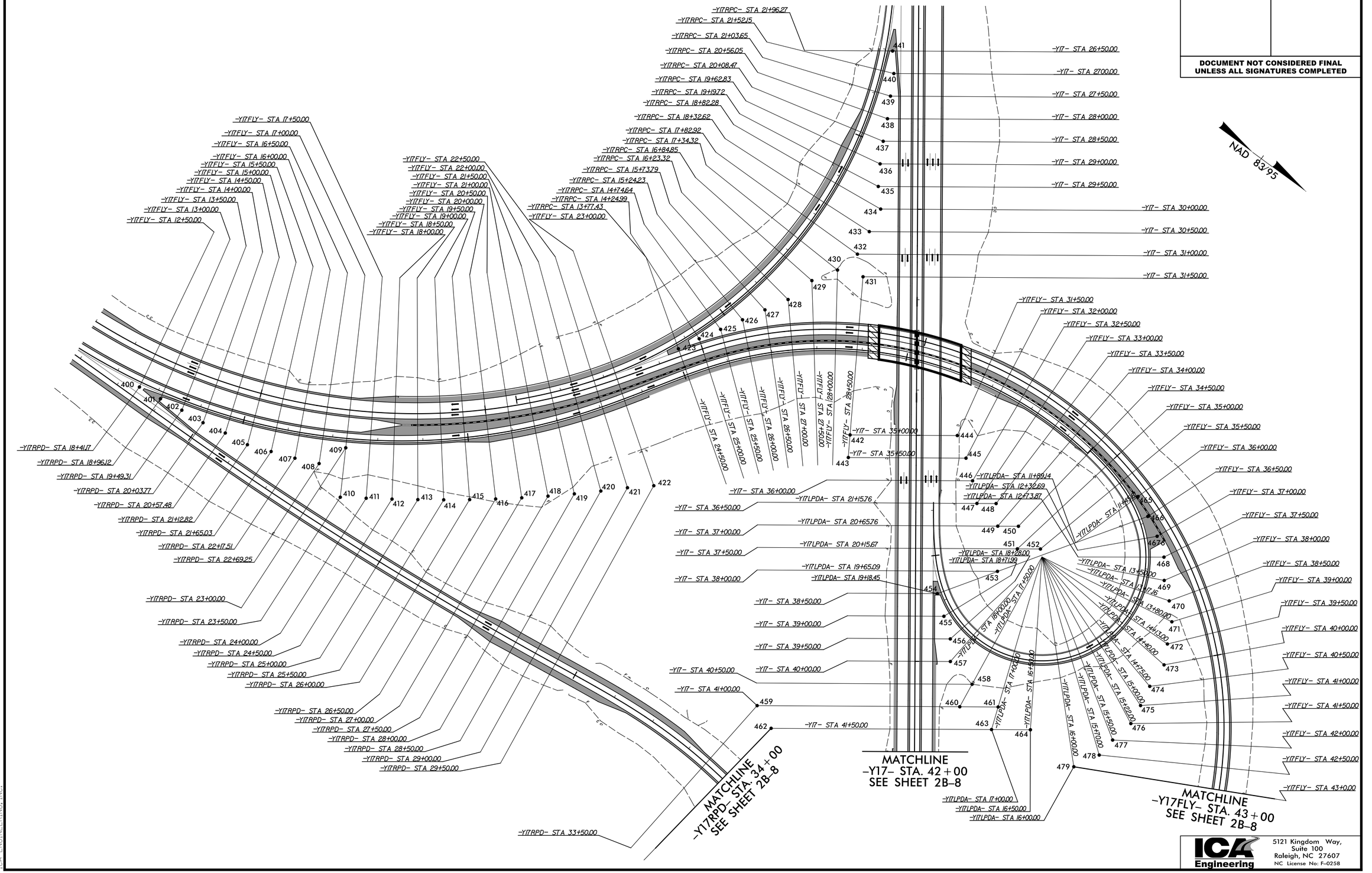

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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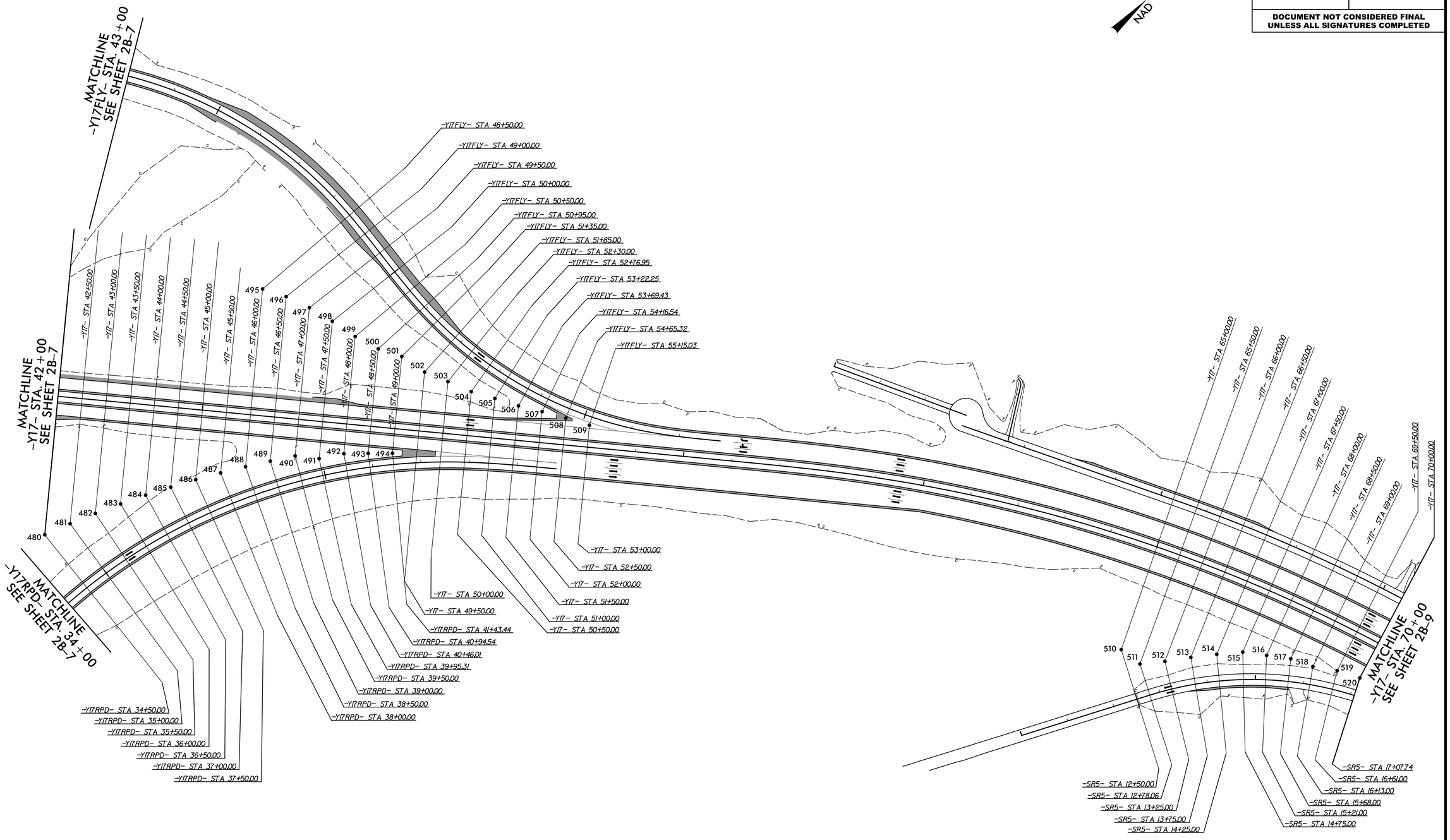
SHEAR POINT DIAGRAM

–L– & –Y17– INTERCHANGE

NAD 83/95



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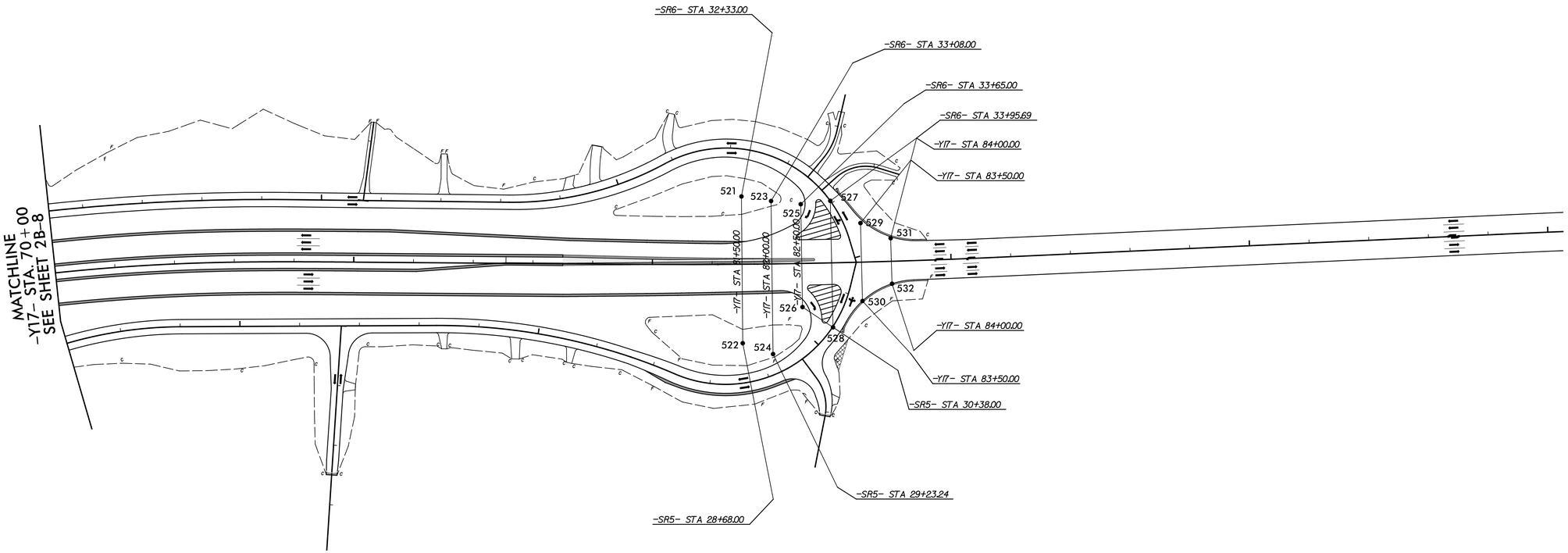
ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2B-8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

SHEAR POINT DIAGRAM

–Y17– & –SR5–/–SR6– INTERSECTION

NAD 83/95



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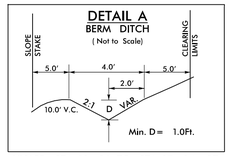
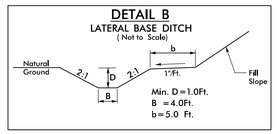
8/17/99

DETAIL A
BERM DITCH
(Not to Scale)



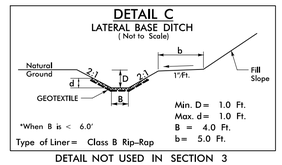
–Y12LPB– STA. 13+20 TO STA. 17+24 RT

DETAIL B
LATERAL BASE DITCH
(Not to Scale)



DETAIL NOT USED IN SECTION 3

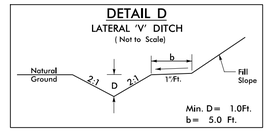
DETAIL C
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= Class B Rip–Rap

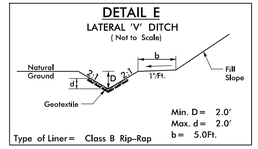
DETAIL NOT USED IN SECTION 3

DETAIL D
LATERAL 'V' DITCH
(Not to Scale)



–L– STA. 589+55 TO STA. 592+00 LT
–L– STA. 645+70 TO STA. 646+50 LT
–L– STA. 650+70 TO STA. 651+09 RT
–Y13– STA. 16+50 TO STA. 19+10 RT
–Y13– STA. 21+30 TO STA. 21+68 LT
–Y16DET– STA. 19+27 TO STA. 20+07 RT
–SR5– STA. 27+25 TO STA. 29+23 LT

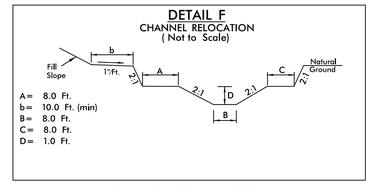
DETAIL E
LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= Class B Rip–Rap

DETAIL NOT USED IN SECTION 3

DETAIL F
CHANNEL RELOCATION
(Not to Scale)



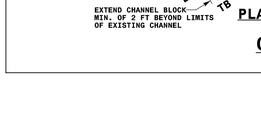
A= 8.0 Ft.
b= 10.0 Ft. (min)
B= 8.0 Ft.
C= 8.0 Ft.
D= 1.0 Ft.

DETAIL NOT USED IN SECTION 3

PROJECT REFERENCE NO.	SHEET NO.
R–2536	2D–1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

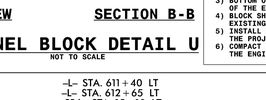
DETAIL G
LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= PSRM

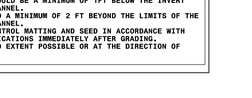
DETAIL NOT USED IN SECTION 3

DETAIL H
SPECIAL CUT DITCH
(Not to Scale)



–L– STA. 475+50 TO STA. 478+00 LT
–L– STA. 491+25 TO STA. 493+00 RT
–L– STA. 496+15 TO STA. 498+00 RT
–L– STA. 501+25 TO STA. 502+00 RT
–L– STA. 502+00 TO STA. 504+00 LT
–L– STA. 502+75 TO STA. 504+50 RT
–L– STA. 515+00 TO STA. 519+00 RT
–L– STA. 538+00 TO STA. 542+50 RT
–L– STA. 538+25 TO STA. 542+50 LT
–L– STA. 557+50 TO STA. 562+50 LT
–L– STA. 583+00 TO STA. 585+50 LT
–L– STA. 605+00 TO STA. 605+85 LT
–L– STA. 646+50 TO STA. 647+00 LT
–Y12LPB– STA. 10+00 TO STA. 11+60 RT
–Y12LPC– STA. 10+00 TO STA. 12+10 LT
–Y16– STA. 15+58 TO STA. 16+94 RT
–Y16– STA. 17+30 TO STA. 19+84 RT
–Y16– STA. 16+00 TO STA. 18+30 LT
–Y16– STA. 19+00 TO STA. 20+00 LT
–Y16– STA. 24+00 TO STA. 24+40 LT
–Y16– STA. 24+00 TO STA. 26+00 RT
–Y12– STA. 18+00 TO STA. 22+90 RT
–Y12– STA. 25+70 TO STA. 27+00 LT
–Y12– STA. 43+00 TO STA. 45+60 LT
–Y12– STA. 45+00 TO STA. 50+00 RT
–Y16DET– STA. 15+58 TO STA. 16+94 RT
–Y16DET– STA. 27+63 TO STA. 29+20 RT
–Y17FLY– STA. 50+95 TO STA. 52+77 LT
–Y17– STA. 58+00 TO STA. 58+50 LT
–SR5– STA. 12+50 TO STA. 15+21 LT
–Y17ADRLT– STA. 10+45 TO STA. 11+25 LT
–Y17A– STA. 23+15 TO STA. 23+75 LT
–Y17A– STA. 25+00 TO STA. 28+00 LT
–SRV– STA. 10+50 TO STA. 12+75 RT

DETAIL I
TOE PROTECTION
(Not to Scale)

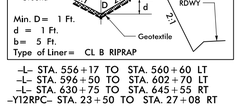


d= 1.0Ft.

Type of Liner= Class B Rip–Rap

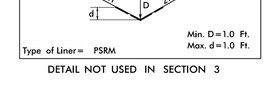
–L– STA. 464+50 TO STA. 474+50 LT
–L– STA. 482+75 TO STA. 483+60 RT
–L– STA. 487+52 TO STA. 488+57 LT
–L– STA. 505+24 TO STA. 507+65 LT
–L– STA. 506+76 TO STA. 509+45 RT
–L– STA. 519+50 TO STA. 520+00 RT
–L– STA. 521+75 TO STA. 523+91 LT
–L– STA. 562+75 TO STA. 563+65 LT
–L– STA. 563+73 TO STA. 565+75 LT
–L– STA. 577+75 TO STA. 580+50 LT
–L– STA. 593+85 TO STA. 594+50 LT
–L– STA. 594+59 TO STA. 596+00 LT
–L– STA. 607+70 TO STA. 609+65 RT
–L– STA. 666+00 TO STA. 668+75 LT
–L– STA. 666+20 TO STA. 669+35 RT
–Y13– STA. 15+27 TO STA. 16+71 LT
–Y17– STA. 65+00 TO STA. 67+00 RT
–Y17FLY– STA. 20+00 TO STA. 21+53 LT
–SR5– STA. 14+87 TO STA. 15+68 RT

DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



–L– STA. 474+70 TO STA. 475+50 LT
–L– STA. 491+82 TO STA. 493+00 LT
–L– STA. 489+75 TO STA. 491+25 RT
–L– STA. 536+00 TO STA. 538+00 RT
–L– STA. 536+00 TO STA. 538+25 LT
–L– STA. 635+08 TO STA. 636+00 LT
–Y16– STA. 26+00 TO STA. 28+49 RT
–Y12– STA. 28+50 TO STA. 31+75 LT
–Y12– STA. 34+88 TO STA. 37+50 LT
–Y12– STA. 42+28 TO STA. 43+00 LT
–Y12A– STA. 11+17 TO STA. 12+00 RT
–Y16DET– STA. 18+62 TO STA. 19+27 RT
–Y17– STA. 58+50 TO STA. 60+50 LT

DETAIL K
TOE PROTECTION
(Not to Scale)

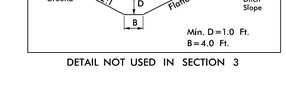


d = 2.0Ft.

Type of Liner= Class I Rip–Rap

–L– STA. 465+00 TO STA. 467+50 RT

DETAIL L
BERM BASE DITCH
(Not to Scale)



Type of Liner= Class B Rip–Rap

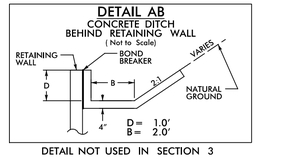
DETAIL NOT USED IN SECTION 3

DETAIL M
LATERAL BASE DITCH
(Not to Scale)

Type of Liner= Class I Rip–Rap

–L– STA. 664+00 TO STA. 665+68 LT

DETAIL N
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= Class B Rip–Rap

–Y17RPC– STA. 18+70 TO STA. 21+04 LT

DETAIL O
BERM DITCH
(Not to Scale)

Type of Liner= Class B Riprap

DETAIL NOT USED IN SECTION 3

DETAIL P
SPECIAL CUT DITCH
(Not to Scale)

Type of Liner= Class B Rip–Rap

DETAIL NOT USED IN SECTION 3

DETAIL Q
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

–SR6– STA. 33+89 TO STA. 34+85 LT

DETAIL R
STANDARD BASE DITCH
(Not to Scale)

Type of Liner= Class B Rip–Rap

–SRV– STA. 10+29 TO STA. 10+50 LT

DETAIL S
SPECIAL LATERAL BASE DITCH
(Not to Scale)

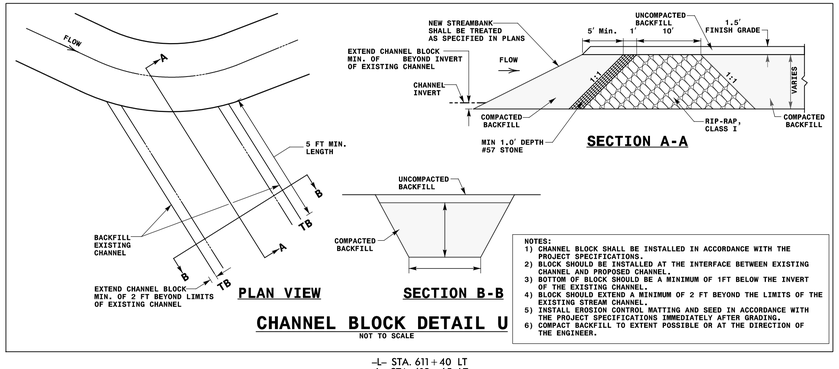
Type of Liner= Class B Rip–Rap

DETAIL NOT USED IN SECTION 3

DETAIL T
STANDARD BASE DITCH
(Not to Scale)

–L– STA. 471+22 TO STA. 471+50 RT, B=3'
–Y12– STA. 24+68 TO STA. 25+00 RT, B=4'
–Y12– STA. 25+02 TO STA. 25+47 RT, B=2
–Y13– STA. 17+25 TO STA. 18+07 LT, B=3'
–Y17– STA. 44+53 TO STA. 44+57 LT, B=3'
–Y17A– STA. 25+75 TO STA. 26+31 RT, B=2'
–Y17RPC– STA. 17+30 TO STA. 18+27 LT, B=2'
SR6DRI– STA. 10+20 TO STA. 10+40 LT, B=2'

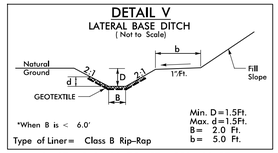
CHANNEL BLOCK DETAIL U
NOT TO SCALE



NOTES:
1) CHANNEL BLOCK SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2) BLOCK SHOULD BE INSTALLED AT THE INTERFACE BETWEEN EXISTING CHANNEL AND PROPOSED CHANNEL.
3) BOTTOM OF BLOCK SHOULD BE A MINIMUM OF 1FT BELOW THE INVERT OF THE EXISTING CHANNEL.
4) BLOCK SHOULD EXTEND A MINIMUM OF 2 FT BEYOND THE LIMITS OF THE EXISTING STREAM CHANNEL.
5) INSTALL EROSION CONTROL MATTING AND SEED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS IMMEDIATELY AFTER GRADING.
6) COMPACT BACKFILL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.

–L– STA. 611+40 LT
–L– STA. 612+65 LT
–SR6– STA. 15+10 LT
–SR5– STA. 26+25 LT

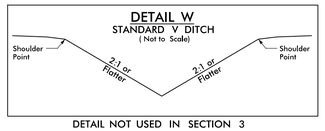
DETAIL V
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= Class B Rip–Rap

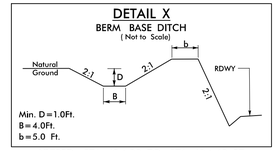
–L– STA. 549+08 TO STA. 550+00 RT
–L– STA. 594+02 TO STA. 596+10 RT

DETAIL W
STANDARD 'V' DITCH
(Not to Scale)



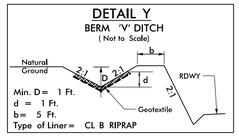
DETAIL NOT USED IN SECTION 3

DETAIL X
BERM BASE DITCH
(Not to Scale)



–Y17RPD– STA. 42+80 TO STA. 43+40 RT

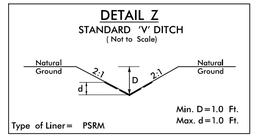
DETAIL Y
BERM 'V' DITCH
(Not to Scale)



Type of Liner= CL B RIPRAP

–L– STA. 556+17 TO STA. 560+60 LT
–L– STA. 596+50 TO STA. 602+70 LT
–L– STA. 630+75 TO STA. 645+55 RT
–Y12RPC– STA. 23+50 TO STA. 27+08 RT

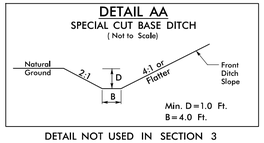
DETAIL Z
STANDARD 'V' DITCH
(Not to Scale)



Type of Liner= PSRM

DETAIL NOT USED IN SECTION 3

DETAIL AA
SPECIAL CUT BASE DITCH
(Not to Scale)



DETAIL NOT USED IN SECTION 3

DETAIL AB
CONCRETE DITCH
BEHIND RETAINING WALL
(Not to Scale)

DETAIL NOT USED IN SECTION 3

DETAIL AC
LATERAL BASE DITCH
(Not to Scale)

–L– STA. 507+65 TO STA. 508+30 LT
–L– STA. 522+30 TO STA. 525+50 RT
–SR5– STA. 26+04 TO STA. 28+40 RT

DETAIL AD
RIP RAP AT EMBANKMENT
(Not to Scale)

Type of Liner= CL 1 Rip–Rap

–Y17A– STA. 25+72 TO STA. 25+79 RT
–L– STA. 485+36 TO STA. 485+43 RT

DETAIL AE
BERM DITCH
(Not to Scale)

TYPE OF LINER= PSRM

DETAIL NOT USED IN SECTION 3

DETAIL AF
SPECIAL CUT DITCH
(Not to Scale)

–L– STA. 663+50 TO STA. 663+68 LT
–Y12– STA. 14+58 TO STA. 16+00 RT
–Y13– STA. 24+00 TO STA. 26+80 RT
–Y13– STA. 26+00 TO STA. 26+80 RT
–Y17RPD– STA. 35+50 TO STA. 39+00 LT
–SR5– STA. 26+44 TO STA. 27+25 LT

DETAIL AG
CHANNEL CHANGE
(Not to Scale)

Type of Liner= See Below

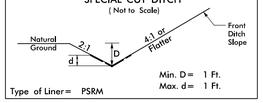
DETAIL NOT USED IN SECTION 3

3/22/2016
R:\25\2536\Std_Ditch\Det_SEC3.dgn
TCA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R–2536	2D–2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DETAIL AH
SPECIAL CUT DITCH
(Not to Scale)

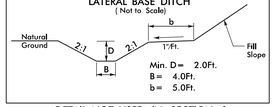


Min. D = 1 Ft.
Max. d = 1 Ft.

Type of Liner = PSRM

–L– STA. 512+00 TO STA. 512+50 LT
–L– STA. 588+00 TO STA. 591+00 RT
–L– STA. 663+00 TO STA. 664+00 RT
–Y12RPB– STA. 17+14 TO STA. 19+10 RT
–Y12RPC– STA. 15+85 TO STA. 17+80 LT
–Y12A– STA. 17+00 TO STA. 19+00 LT
–Y12A– STA. 18+00 TO STA. 19+60 RT
–Y12– STA. 24+80 TO STA. 25+70 LT
–Y12RPB– STA. 27+29 TO STA. 28+33 LT
–Y12– STA. 39+00 TO STA. 41+27 LT
–Y12B– STA. 11+50 TO STA. 13+12 LT
–SR5– STA. 12+78 TO STA. 14+04 RT
–Y17A– STA. 12+00 TO STA. 13+25 LT
–Y17A– STA. 14+35 TO STA. 16+00 LT
–Y17A– STA. 18+50 TO STA. 20+75 LT
–Y17A– STA. 22+50 TO STA. 23+15 LT

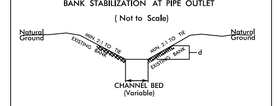
DETAIL AI
LATERAL BASE DITCH
(Not to Scale)



Min. D = 2.0Ft.
B = 4.0Ft.
b = 5.0Ft.

DETAIL NOT USED IN SECTION 3

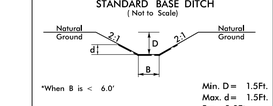
DETAIL AJ
BANK STABILIZATION AT PIPE OUTLET
(Not to Scale)



Class I Rip Rap

DETAIL NOT USED IN SECTION 3

DETAIL AK
STANDARD BASE DITCH
(Not to Scale)



*When B is < 6.0'

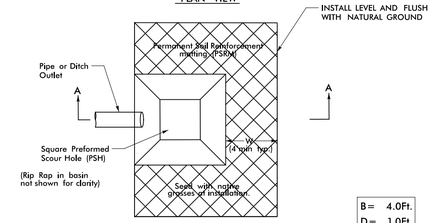
Min. D = 1.5Ft.
Max. d = 1.5Ft.
B = 3.0Ft.

Type of Liner = PSRM

–L– STA. 646+96 TO STA. 647+33 RT

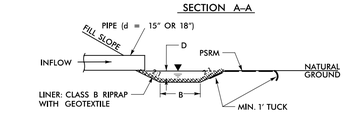
PREFORMED SCOUR HOLE DETAIL AP
*NOT TO SCALE

PLAN VIEW



B = 4.0Ft.
D = 1.0Ft.
W = 4.0Ft.

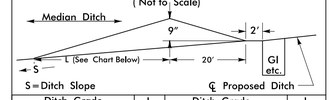
SECTION A–A



308

–L– STA. 488+33 RT
–L– STA. 488+67 LT
–L– STA. 505+70 RT
–L– STA. 520+20 RT
–L– STA. 548+28 RT
–L– STA. 609+74 RT
–L– STA. 642+54 LT
–Y17RPDA– STA. 24+15 RT
–Y17FLY– STA. 48+28 RT

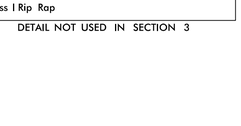
DETAIL
FALSE SUMP
(Not to Scale)



S = Ditch Slope

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

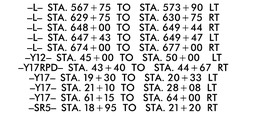
DETAIL AL
STANDARD 'V' DITCH
(Not to Scale)



Min. D = 1.0Ft.

–L– STA. 526+50 TO STA. 527+37 RT
–Y12– STA. 14+80 LT

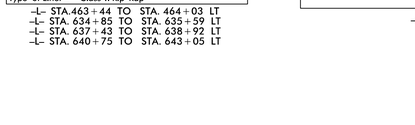
DETAIL AM
BERM BASE DITCH
(Not to Scale)



Min. D = 1.5Ft.
Max. d = 1.5Ft.
B = 2.0Ft.
b = 5 Ft.
Type of Liner = Class B Rip–Rap

–L– 651+09 STA. TO STA. 657+50 RT

DETAIL AN
CHANNEL CHANGE
(Not to Scale)



Min. D = 3 Ft.
Max. d = 3 Ft.
B = 5 Ft.
b = 5 Ft.

Type of Liner = PSRM

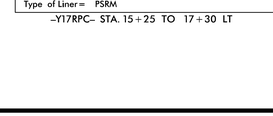
DETAIL NOT USED IN SECTION 3

DETAIL AO
LATERAL BASE DITCH
(Not to Scale)

Min. D = 3 Ft.
B = 5 FT.
b = 5 Ft.

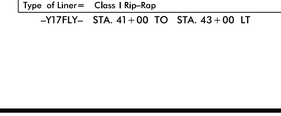
–L– STA. 591+50 TO STA. 594+00 RT

DETAIL AQ
FILL IN POND W/ROCK PLATING
(Not to Scale)



DETAIL NOT USED IN SECTION 3

DETAIL AR
STANDARD BASE GRASSED SWALE
(Not to Scale)

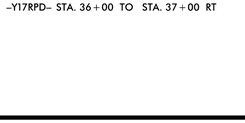


Min. D = 2.0Ft.
B = 3.0Ft.

*NOTES:
1) LONGITUDINAL SLOPES BETWEEN 0.3% AND 4.0%.
2) MODIFICATIONS MAY BE NEEDED, AS APPROVED BY ENGINEER.

–L– STA. 498+27 TO STA. 498+44 RT
–Y12– STA. 39+13 TO STA. 39+65 RT
–Y17LPDA– STA. 17+33 TO STA. 17+50 LT

DETAIL AS
STANDARD BASE DITCH
(Not to Scale)



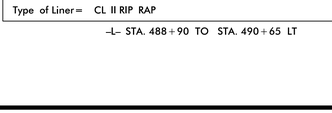
*When B is < 6.0'

Min. D = 1 Ft.
Max. d = 1 Ft.
B = 4 Ft.

Type of Liner = Class I Rip–Rap

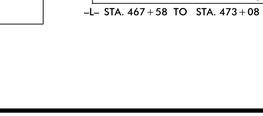
–Y17A– STA. 20+39 TO STA. 20+46 RT

DETAIL AT
MEDIAN V DITCH
(Not to Scale)



–Y17FLY– STA. 15+50 TO 17+00
–Y17– STA. 23+00 TO 24+00
–Y17– STA. 31+00 TO 32+00

DETAIL AU
RIPRAP TRANSITION AT JURISDICTIONAL STREAM
(Not to Scale)



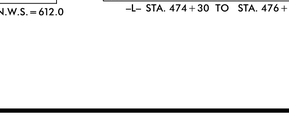
PLAN VIEW

D, d, and B will match incoming ditch

Type of Liner = Class B Rip Rap

–L– STA. 490+65 LT
–L– STA. 498+44 RT
–L– STA. 508+30 LT
–L– STA. 589+55 LT
–L– STA. 594+00 RT
–L– STA. 610+17 RT
–Y12– STA. 30+44 RT
–Y12– STA. 35+15 RT
–Y12– STA. 39+13 RT
–L– STA. 671+16 LT
–Y17– STA. 44+53 LT
–Y17FLY– STA. 46+77 LT
–Y17LPDA– STA. 17+33 LT

DETAIL AV
LATERAL BASE DITCH
(Not to Scale)



*When B is < 6.0'

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 4.0Ft.
b = 5.0Ft.

Type of Liner = Class B Rip–Rap

DETAIL NOT USED IN SECTION 3

DETAIL AW
LATERAL BASE DITCH
(Not to Scale)

*When B is < 6.0'

Min. D = 2.5Ft.
Max. d = 2.5Ft.
B = 4.0Ft.
b = 5.0Ft.

Type of Liner = Class B Rip–Rap

DETAIL NOT USED IN SECTION 3

DETAIL AX
LATERAL 'V' DITCH
(Not to Scale)

Min. D = 1.5Ft.
b = 5.0Ft.

DETAIL NOT USED IN SECTION 3

DETAIL AY
SPECIAL CUT DITCH
(Not to Scale)

Min. D = 2.0Ft.

DETAIL NOT USED IN SECTION 3

DETAIL AZ
LATERAL BASE DITCH
(Not to Scale)

*When B is < 6.0'

Min. D = 1.5Ft.
Max. d = 1.5Ft.
B = 4 Ft.
b = 5 Ft.

Type of Liner = Class I Rip–Rap

DETAIL NOT USED IN SECTION 3

DETAIL BA
STANDARD BASE DITCH
(Not to Scale)

*When B is < 6.0'

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 4.0Ft.

Type of Liner = Class B Rip–Rap

DETAIL NOT USED IN SECTION 3

DETAIL BB
BANK STABILIZATION AT PIPE OUTLET
(Not to Scale)

Class I Rip Rap

DETAIL NOT USED IN SECTION 3

DETAIL BC
BERM 'V' DITCH
(Not to Scale)

Min. D = 1 Ft.
b = 5 Ft.

–L– STA. 567+75 TO STA. 573+90 LT
–L– STA. 629+75 TO STA. 630+75 RT
–L– STA. 648+00 TO STA. 649+44 RT
–L– STA. 647+43 TO STA. 649+47 LT
–L– STA. 674+00 TO STA. 677+00 RT
–Y12– STA. 45+00 TO STA. 50+00 LT
–Y17RPD– STA. 43+40 TO STA. 44+67 RT
–Y17– STA. 19+30 TO STA. 20+33 LT
–Y17– STA. 21+10 TO STA. 28+08 LT
–Y17– STA. 61+15 TO STA. 64+00 RT
–SR5– STA. 18+95 TO STA. 21+20 RT

DETAIL BD
STANDARD BASE DITCH
(Not to Scale)

*When B is < 6.0'

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 4.0Ft.

Type of Liner = Class II Rip–Rap

–L– STA. 463+44 TO STA. 464+03 LT
–L– STA. 634+85 TO STA. 635+59 LT
–L– STA. 637+43 TO STA. 638+92 LT
–L– STA. 640+75 TO STA. 643+05 LT

DETAIL BE
STANDARD BASE DITCH W/BERM

b = 5 Ft.
B = 3 Ft.

–Y17RPD– STA. 36+88 LT

DETAIL BF
ROADWAY CUT DITCH
(Not to Scale)

Min. D = 1 Ft.
Max. d = 1 Ft.

Type of Liner = PSRM

–Y17– STA. 27+50 TO STA. 31+00 RT
–Y17RPC– STA. 15+24 TO STA. 17+37 RT
–Y17LPDA– STA. 12+74 TO STA. 15+22 LT
–Y17A– STA. 11+40 TO STA. 12+00 LT
–Y17A– STA. 16+00 TO STA. 18+50 LT
–Y17A– STA. 17+00 TO STA. 19+50 RT
–Y17A– STA. 20+50 TO STA. 23+00 RT
–Y17A– STA. 20+75 TO STA. 22+50 LT
–Y17B– STA. 10+50 TO STA. 10+85 LT
–Y17B– STA. 11+12 TO STA. 12+00 LT
–Y17B– STA. 10+50 TO STA. 12+00 RT

DETAIL BG
SPECIAL LATERAL BASE DITCH
(Not to Scale)

D = 1.0Ft.
B = 2.0 Ft.

–Y17LPDA– STA. 16+50 TO STA. 17+65 RT

DETAIL BH
LATERAL BASE DITCH
(Not to Scale)

Min. D = 1 Ft.
Max. d = 1 Ft.
B = 2 Ft.
b = 5 Ft.

Type of Liner = PSRM

–Y17RPC– STA. 15+25 TO 17+30 LT

DETAIL BI
BERM BASE DITCH
(Not to Scale)

Min. D = 1 Ft.
Max. d = 1 Ft.
B = 2 Ft.
b = 5 Ft.

Type of Liner = Class I Rip–Rap

–Y17FLY– STA. 41+00 TO STA. 43+00 LT

DETAIL BJ
SPECIAL CUT DITCH w/HINGE
(Not to Scale)

Min. D = 1 Ft.

–Y17RPD– STA. 36+00 TO STA. 37+00 RT

DETAIL BK
CHANNEL CHANGE
(Not to Scale)

Min. D = 1.0Ft.
Max. d = 1.0Ft.
B = 5Ft.
b = 5Ft.

Type of Liner = CL II RIP RAP

–L– STA. 488+90 TO STA. 490+65 LT

DETAIL BL
FILL IN POND
(Not to Scale)

–L– STA. 467+58 TO STA. 473+08 RT, N.W.S. = 612.0

DETAIL BM
STANDARD BASE DITCH
(Not to Scale)

*When B is < 6.0'

Min. D = 2.0Ft.
Max. d = 2.0Ft.
B = 6.0Ft.

Type of Liner = Class II Rip–Rap

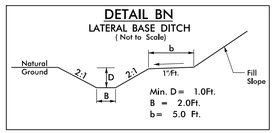
–L– STA. 474+30 TO STA. 476+43 RT

3/22/2016
R2536 Std DitchDet SEC3.dgn
TCA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	2D-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

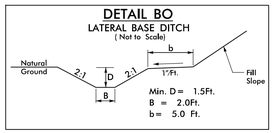
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DETAIL BN
LATERAL BASE DITCH
(Not to Scale)



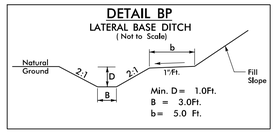
–L– STA. 473+24 TO STA. 476+00 RT
–L– STA. 483+72 TO STA. 485+42 RT
–L– STA. 500+80 TO STA. 502+00 LT
–L– STA. 673+00 TO STA. 674+12 LT

DETAIL BO
LATERAL BASE DITCH
(Not to Scale)



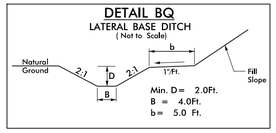
–L– STA. 610+17 TO STA. 611+50 RT

DETAIL BP
LATERAL BASE DITCH
(Not to Scale)



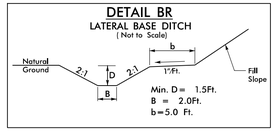
–L– STA. 669+34 TO STA. 669+83 RT

DETAIL BQ
LATERAL BASE DITCH
(Not to Scale)



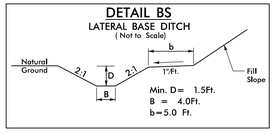
–Y17RPD– STA. 30+10 TO STA. 30+75 RT

DETAIL BR
LATERAL BASE DITCH
(Not to Scale)



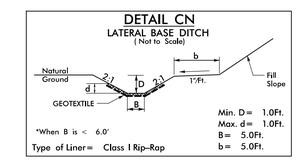
–SR5– STA. 14+04 TO STA. 14+80 RT

DETAIL BS
LATERAL BASE DITCH
(Not to Scale)



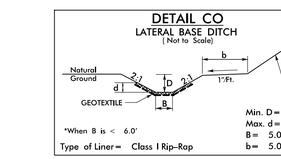
–Y12– STA. 23+77 TO STA. 24+68 RT

DETAIL BT
LATERAL BASE DITCH
(Not to Scale)



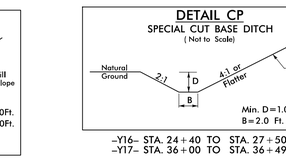
–Y13– STA. 15+65 TO STA. 16+50 RT

DETAIL BU
LATERAL BASE DITCH
(Not to Scale)



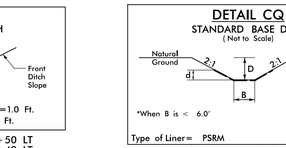
–Y17RPC– STA. 10+95 TO STA. 13+95 LT

DETAIL BV
STANDARD BASE DITCH
(Not to Scale)



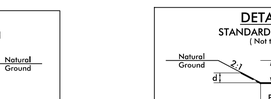
–L– STA. 560+45 to 560+60 RT
–L– STA. 622+73 to 623+50 RT
–L– STA. 630+21 to 630+41 LT
–Y12– STA. 46+55 to 46+69 RT

DETAIL BW
SPECIAL LATERAL BASE DITCH
(Not to Scale)



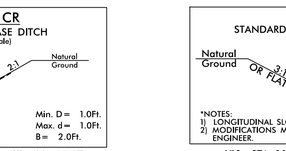
–Y17LPDA– STA. 17+65 TO STA. 21+17 RT

DETAIL BX
STANDARD BASE DITCH
(Not to Scale)



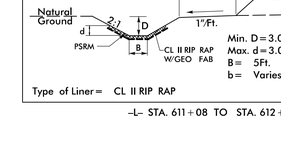
SR6– STA. 15+10 TO STA. 15+35 LT, B=2' D=1.5'

DETAIL BY
LATERAL BASE DITCH
(Not to Scale)



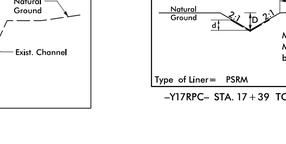
–L– STA. 499+03 TO STA. 501+25 RT
–L– STA. 579+02 TO STA. 580+95 RT
–L– STA. 580+87 TO STA. 583+00 LT
–L– STA. 581+28 TO STA. 582+34 RT
–L– STA. 592+00 TO STA. 593+85 LT
–L– STA. 605+85 TO STA. 609+00 LT
–L– STA. 623+50 TO STA. 626+05 RT
–L– STA. 668+75 TO STA. 670+37 LT
–Y17RPC– STA. 13+95 TO STA. 15+25 LT

DETAIL BZ
LATERAL BASE DITCH
(Not to Scale)



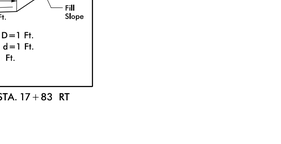
–L– STA. 609+00 TO STA. 610+50 LT
–Y17RPD– STA. 27+50 TO STA. 29+93 RT

DETAIL CA
BERM BASE DITCH
(Not to Scale)



–Y17RPD– STA. 10+11 TO STA. 25+50 RT
–Y17FLY– STA. 36+50 TO STA. 37+50 RT
–Y17– STA. 56+00 TO STA. 57+07 RT

DETAIL CB
BERM BASE DITCH
(Not to Scale)



–Y17RPD– STA. 32+50 TO STA. 42+80 RT

DETAIL CC
BERM BASE DITCH
(Not to Scale)

–Y17RPD– STA. 30+75 TO STA. 32+50 RT

DETAIL CD
LATERAL BASE DITCH
(Not to Scale)

–L– STA. 490+65 TO STA. 491+81 LT
–L– STA. 489+01 TO STA. 489+75 RT
–L– STA. 499+90 TO STA. 500+72 LT
–L– STA. 524+18 TO STA. 535+27 LT
–L– STA. 580+50 TO STA. 580+85 LT
–L– STA. 670+64 TO STA. 671+50 RT

DETAIL CE
LATERAL BASE DITCH
(Not to Scale)

–L– STA. 671+15 TO STA. 673+00 LT

DETAIL CF
LATERAL BASE DITCH
(Not to Scale)

–Y17FLY– STA. 46+77 TO STA. 50+50 LT

DETAIL CG
LATERAL BASE DITCH
(Not to Scale)

–L– STA. 524+18 TO STA. 535+27 LT

DETAIL CH
STANDARD 'V' DITCH
(Not to Scale)

–L– STA. 570+32 TO STA. 570+50 RT

DETAIL CI
BERM BASE DITCH
(Not to Scale)

–Y17– STA. 28+08 TO STA. 32+85 LT
–Y17– STA. 52+27 TO STA. 56+00 RT
–Y17– STA. 57+07 TO STA. 61+15 RT
–Y17FLY– STA. 31+00 TO STA. 36+50 LT
–Y17FLY– STA. 37+50 TO STA. 41+00 LT
–SR5– STA. 16+26 TO STA. 18+95 RT

DETAIL CJ
LATERAL 'V' DITCH
(Not to Scale)

–L– STA. 570+50 TO STA. 571+50 RT

DETAIL CK
LATERAL 'V' DITCH
(Not to Scale)

–Y17FLY– STA. 28+05 TO STA. 29+00 LT

DETAIL CL
TOE PROTECTION
(Not to Scale)

–L– STA. 508+32 TO STA. 510+00 LT

DETAIL CM
LATERAL BASE DITCH
(Not to Scale)

–Y17FLY– STA. 43+50 TO STA. 46+68 LT

DETAIL CN
LATERAL BASE DITCH
(Not to Scale)

–Y17RPDA– STA. 16+68 TO STA. 22+48 RT

DETAIL CO
LATERAL BASE DITCH
(Not to Scale)

–Y17RPDA– STA. 22+48 TO STA. 23+10 RT

DETAIL CP
SPECIAL CUT BASE DITCH
(Not to Scale)

–Y16– STA. 24+40 TO STA. 27+50 LT
–Y17– STA. 36+00 TO STA. 36+49 LT

DETAIL CQ
STANDARD BASE DITCH
(Not to Scale)

–Y17A– STA. 20+41 TO STA. 20+62 LT

DETAIL CR
STANDARD BASE DITCH
(Not to Scale)

–Y17A– STA. 23+00 TO STA. 23+15 LT

DETAIL CS
STANDARD BASE GRASSED SWALE
(Not to Scale)

*NOTES:
1) LONGITUDINAL SLOPES BETWEEN 0.3% AND 4.0%.
2) MODIFICATIONS MAY BE NEEDED, AS APPROVED BY ENGINEER.

–Y12– STA. 30+44 TO STA. 30+97 RT
–Y12– STA. 35+00 TO STA. 35+15 RT

DETAIL CT
CHANNEL CHANGE
(Not to Scale)

–L– STA. 611+08 TO STA. 612+58 LT

DETAIL CU
LATERAL 'V' DITCH
(Not to Scale)

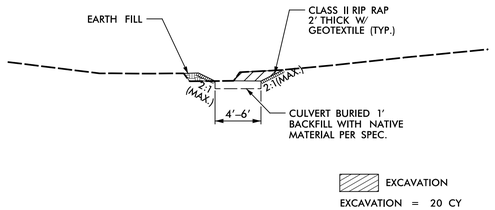
–Y17RPC– STA. 17+39 TO STA. 17+83 RT

3/22/2016
R-2536 Grd DitchDet-SEC3.dgn
TGA ENGINEERING, INC.

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R–2536	2D–4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

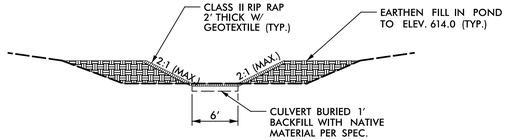
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



EXCAVATION = 20 CY

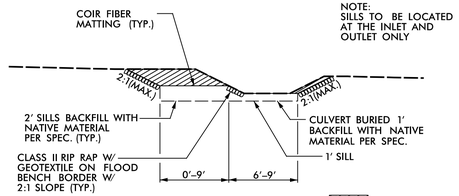
INLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.



OUTLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

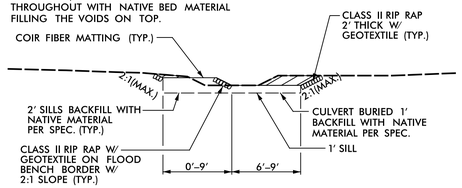
C550
1 @ 6' x 7' RCBC
STA. 466+00 –L–



EXCAVATION = 35 CY

INLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

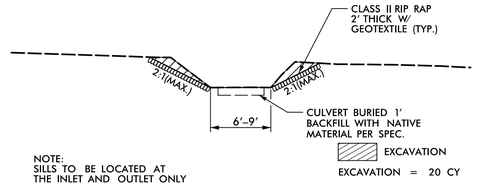
NOTE:
FOR CUT CONDITION, USE CLASS II RIP RAP FLOOD BENCH BORDER WITH NATURAL GROUND COVERED WITH COIR FIBER MAT INSIDE BORDER. IN FILL CONDITION, USE CLASS II RIP RAP FILL THROUGHOUT WITH NATIVE BED MATERIAL FILLING THE VOIDS ON TOP.



EXCAVATION = 15 CY

OUTLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

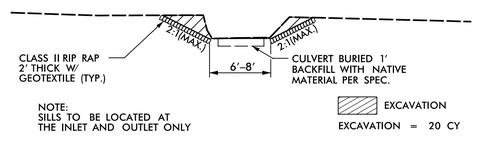
C600
2 @ 9' x 6' RCBC
STA. 500+00 –L–



EXCAVATION = 20 CY

INLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

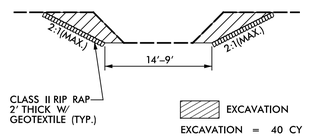
NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.



EXCAVATION = 20 CY

OUTLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

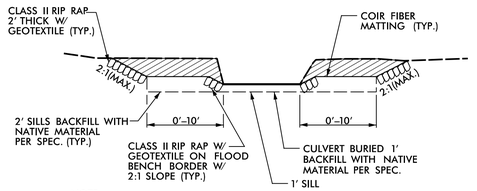
C650
1 @ 6' x 7' RCBC
STA. 523+16 –L–



EXCAVATION = 40 CY

OUTLET CHANNEL IMPROVEMENT
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

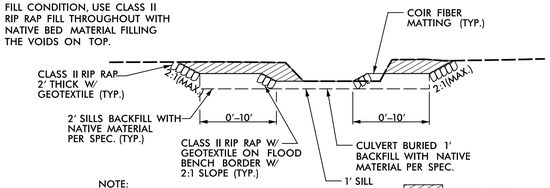
66" RCP–III OVERFLOW
STA. 488+14.55 –L–



EXCAVATION = 50 CY

INLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

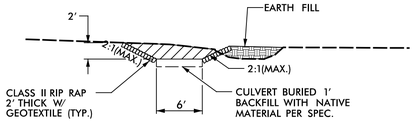
NOTE:
FOR CUT CONDITION, USE CLASS II RIP RAP FLOOD BENCH BORDER WITH NATURAL GROUND COVERED WITH COIR FIBER MAT INSIDE BORDER. IN FILL CONDITION, USE CLASS II RIP RAP FILL THROUGHOUT WITH NATIVE BED MATERIAL FILLING THE VOIDS ON TOP.



EXCAVATION = 35 CY

OUTLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

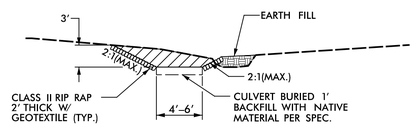
C700
3 @ 10' x 7' RCBC
STA. 610+42 –L–



EXCAVATION = 15 CY

INLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

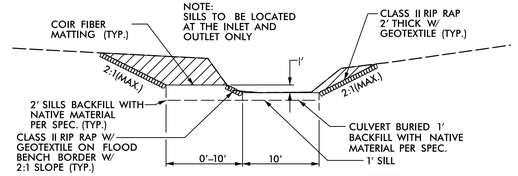
NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAMBED AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.



EXCAVATION = 25 CY

OUTLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

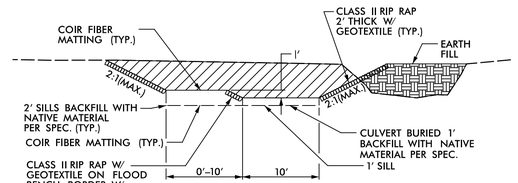
C750
1 @ 6' x 7' RCBC
STA. 30+09 –Y17RPD–



EXCAVATION = 75 CY

INLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

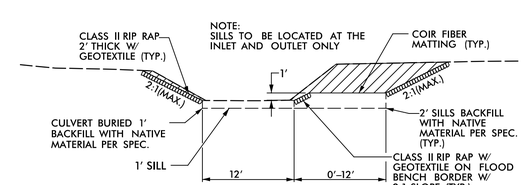
NOTE: FOR CUT CONDITION, USE CLASS II RIP RAP FLOOD BENCH BORDER WITH NATURAL GROUND COVERED WITH COIR FIBER MAT INSIDE BORDER. IN FILL CONDITION, USE CLASS II RIP RAP FILL THROUGHOUT WITH NATIVE BED MATERIAL FILLING THE VOIDS ON TOP.



EXCAVATION = 230 CY

OUTLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

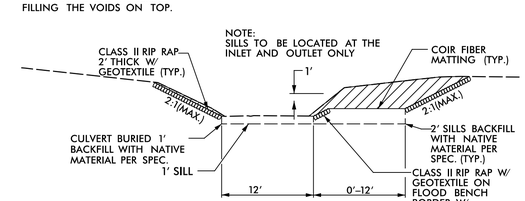
C800
2 @ 10' x 8' RCBC
STA. 22+13 –Y17FLY–



EXCAVATION = 80 CY

INLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

NOTE: FOR CUT CONDITION, USE CLASS II RIP RAP FLOOD BENCH BORDER WITH NATURAL GROUND COVERED WITH COIR FIBER MAT INSIDE BORDER. IN FILL CONDITION, USE CLASS II RIP RAP FILL THROUGHOUT WITH NATIVE BED MATERIAL FILLING THE VOIDS ON TOP.



EXCAVATION = 75 CY

OUTLET CHANNEL
(LOOKING DOWNSTREAM)
(SCALE 1" =10')

C801
2 @ 12' x 8' RCBC
STA. 46+76 –Y17FLY–

3/22/2016
R:\2536\Hyd_Ditch\Det_SEC3.dgn
TCA ENGINEERING, INC.

PROJ. REFERENCE NO.	SHEET NO.
R-2536	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SHOULDER DRAINS

LINE	STATION TO STATION	LOCATION	OUTLET STATION	OUTLET STRUCTURE	
				DRAINAGE STRUCT. & NO.	CONCRETE PAD
L	489+00 - 490+85	RT	490+85		1
L	490+85 - 492+70	RT	490+85		1
L	489+00 - 490+85	LT	490+85	3719	
L	490+85 - 492+70	LT	490+85	3719	
L	515+40 - 517+94	RT	515+40		1
L	517+94 - 520+45	RT	520+45		1
L	520+45 - 522+97	RT	522+97	4008	
L	522+97 - 524+80	RT	522+97	4008	
L	515+40 - 517+94	LT	515+40		1
L	517+94 - 520+45	LT	520+45		1
L	520+45 - 522+97	LT	522+97	4004	
L	522+97 - 524+80	LT	522+97		1
L	538+80 - 539+33	RT	538+80		1
L	539+33 - 541+85	RT	541+85		1
L	538+80 - 539+33	LT	538+80		1
L	539+33 - 541+85	LT	541+85		1
L	546+21 - 548+07	RT	548+07	4132	
L	548+07 - 549+85	RT	548+07	4132	
L	546+21 - 548+07	LT	548+07	4134	
L	548+07 - 549+85	LT	548+07	4134	
L	559+85 - 562+34	LT	559+85		1
L	562+34 - 565+15	LT	565+15		1
L	565+15 - 568+00	LT	568+00		1
L	568+00 - 570+98	LT	570+98		1
L	570+98 - 573+98	LT	573+98	4306	
L	573+98 - 576+45	LT	576+45		1
L	559+85 - 562+34	RT MED	559+85		1
L	562+34 - 565+15	RT MED	565+15		1
L	565+15 - 568+00	RT MED	568+00		1
L	568+00 - 570+98	RT MED	570+98		1
L	570+98 - 573+98	RT MED	573+98	4307	
L	573+98 - 576+45	RT MED	576+45		1
L	591+30 - 593+17	RT	593+17	4506	
L	593+17 - 595+05	RT	593+17	4506	
L	591+30 - 593+17	LT	593+17	4502	
L	593+17 - 595+05	LT	593+17	4502	
L	600+65 - 603+14	RT	600+65		1
L	603+14 - 605+65	RT	605+65		1
L	600+65 - 603+14	LT	600+65		1
L	603+14 - 605+65	LT	605+65		1
L	608+00 - 609+73	RT	609+73	4606	
L	609+73 - 611+95	RT	609+73	4606	
L	608+00 - 609+73	LT	609+73	4609	
L	609+73 - 611+95	LT	609+73	4609	
	COLUMN TOTALS				25

LINE	STATION TO STATION	LOCATION	OUTLET STATION	OUTLET STRUCTURE	
				DRAINAGE STRUCT. & NO.	CONCRETE PAD
L	631+45 - 634+20	RT	631+45		1
L	634+20 -636+95	RT	634+20		1
L	636+95 - 639+70	RT	636+95		1
L	639+70 - 642+41	RT	639+70		1
L	642+41 - 645+53	RT	642+41	4813	
L	645+53 - 648+10	RT	645+53		1
L	648+10 - 651+09	RT	648+10		1
L	651+09 - 653+45	RT	651+09	4907	
L	653+45 - 656+20	RT	653+45		1
L	656+20 - 658+70	RT	658+70		1
L	631+45 - 634+20	LT	631+45		1
L	634+20 -636+95	LT	634+20		1
L	636+95 - 639+70	LT	636+95		1
L	639+70 - 642+41	LT	639+70		1
L	642+41 - 645+53	LT	642+53	4818	
L	645+53 - 648+10	LT	645+53		
L	648+10 - 651+09	LT	648+10		1
L	651+09 - 653+45	LT	651+09	4903	
L	653+45 - 656+20	LT	653+45		1
L	656+20 - 658+70	LT	658+70		1
L	675+75 - 678+75	RT	678+75		1
Y17RPD	11+85 - 14+85	RT	14+85	5110	
Y17RPD	14+85 - 17+85	RT	17+85		1
Y17RPD	17+85 - 19+35	RT	19+35		1
L	675+75 - 678+75	LT	678+75		1
L	678+75 - 681+75	LT	681+75	5111	
L	681+75 - 11+82 (Y17FLY)	LT	11+82		1
Y12	13+20 - 15+20	LT	13+20		1
Y12	13+20 - 15+82	RT	13+20		1
Y12	15+82 - 18+82	RT	18+82		1
Y12	18+82 - 21+00	RT	21+00		1
Y12	21+00 - 22+90	RT	22+90	9608	
Y12	22+90 - 25+90	RT	22+90	9608	
Y12	25+90 - 28+70	RT	25+90		1
Y12	28+70 - 31+90	RT	28+70		1
Y12	34+57 - 37+10	RT	34+57	4162	
Y12	37+10 - 39+65	RT	37+10		1
Y12LPB	10+00 - 11+29	RT	10+00		1
Y12LPB	11+29 - 11+80	RT	11+80	4129	
Y12LPB	12+23 - 12+61	RT	12+61	4113	
Y12LPB	12+61 - 13+00	RT	12+61	4113	
Y12LPB	15+00 - 19+47	RT	15+00	4111	
Y12LPB	19+47 - 20+24	RT	20+24	4109	
Y12LPC	10+80 - 11+29	LT	10+80		1
Y12LPC	11+29 - 12+59	LT	12+59	4118	
Y12LPC	12+59 - 13+00	LT	12+59	4118	
	COLUMN TOTALS				29

PROJ. REFERENCE NO.	SHEET NO.
R-2536	3B-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SHOULDER DRAINS

LINE	STATION TO STATION	LOCATION	OUTLET STATION	OUTLET STRUCTURE	
				DRAINAGE STRUCT. & NO.	CONCRETE PAD
Y12LPC	13+90 - 18+85	LT	13+90	4116	
Y12LPC	18+85 - 20+25	LT	20+25	4147	
Y16	16+65 - 17+80	LT	16+65		1
Y16	17+80 - 19+02	LT	19+02		1
Y16	19+02 - 20+38	LT	19+02		1
Y16	19+37 - 20+38	RT	19+37		1
Y13	18+23 - 19+25	LT	19+09	4914	
Y13	18+75 - 19+26	RT	19+26		1
Y13	21+32 - 22+00	LT	22+00		1
Y13	21+33 - 22+56	RT	22+56		1
Y12A	11+16 - 12+29	RT	11+16		1
Y12A	12+29 - 13+20	RT	13+20		1
Y12A	11+16 - 11+63	LT	11+16		1
Y17FLY	16+99 - 18+37	LT	18+37	5207	
Y17FLY	18+37 - 19+75	LT	18+37	5207	
Y17FLY	47+30 - 48+31	RT	48+31	5362	
Y17FLY	48+31 - 49+32	RT	48+31	5362	
Y17RPD	35+15 - 36+51	RT	36+51		1
Y17RPD	36+51 - 37+88	RT	36+51		1
Y17RPC	15+46 - 17+83	LT	15+46		1
Y17	43+42 - 44+79	LT	44+79	5315	
Y17	44+79 - 46+15	LT	44+79	5315	
Y17	43+42 - 44+78	RT	44+78		1
Y17	44+78 - 46+14	RT	44+78		1
Y17	72+55 - 74+35	RT	72+55		1
Y17	74+35 - 76+18	RT	74+35		1
Y17	74+52 - 76+18	LT	74+52		1
Y17LPDA	16+96 - 17+33	RT	17+33	5354	
Y17LPDA	17+33 - 17+70	RT	17+33	5354	
Y17A	24+74 - 25+11	LT	25+11		1
Y17A	25+11 - 25+89	LT	25+11		1
Y17A	25+89 - 26+28	LT	26+28		1
SR5	13+57 - 14+21	RT	14+21		1
SR5	14+21 - 14+86	RT	14+21		1
SR5	21+24 - 21+69	LT	21+24		1
SR5	21+69 - 22+13	LT	22+13		1
	COLUMN TOTALS				25

LINE	STATION TO STATION	LOCATION	OUTLET STATION	OUTLET STRUCTURE	
				DRAINAGE STRUCT. & NO.	CONCRETE PAD
SR5	25+71 - 26+36	RT	26+36		1
SR5	26+36 - 27+00	RT	26+36		1
SR6	21+02 - 23+85	RT	21+02		1
SR6	23+85 - 26+73	RT	23+85		1
SR6	24+54 - 26+73	LT	24+54		1
	COLUMN TOTALS				5
	GRAND TOTAL				84

PROJ. REFERENCE NO.	SHEET NO.
R-2536	3P-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
176	35A	
177	35A, 36, 37	JAMES & SHARON SIDES
178	36, 37	EDWARD & EVE ARROYO
179	36, 37, 93	MARY GRAY
180	37, 38, 93	JACK HARRISON
181	37, 38, 93	JAMES DAVIS
182	37, 38	MARY LEE
183	37, 38	JOHN PRESNELL
184	37, 38, 94	JESSIE GRANT
185	94	FLOYD & MARY LYONS
186	94	HATTIE BEAN
187	38, 39, 94	GRIFFEN CRAVEN
188	38, 39, 94	CAROLYN WATKINS LUCK
189	38, 39, 94	FRANCES LEE
190	38, 39, 94	CAROLYN WATKINS LUCK
191	38, 39	FRANCES LEE
192A	38, 93	BENJAMIN PUGH
192	38, 93	RUBY BROWN
193	93	JAMES MURRAY
195	38, 39	KENNY YORK
196	38, 39, 40	ALLISON BRASWELL & BAILEY GREENE
197	39, 40	HENRY SALERS
198	39, 40, 41	SHELIA WINNINGHAM
199	40	BRIAN YOW
200	40, 41	FURMAN GREENE, JR
201	41	KENNETH REININGER
202	41	DAVIDSON AND NORRIS RENTALS, L.L.C.
203	41	SUSAN WILSON
204	41	DAVIDSON AND NORRIS RENTALS, L.L.C.
205	41	RICHARD HUNT
206	41	DANIELLE LUCK
207	41	TEENA BYRD
208	41, 97	SAMMY REGALBUTO
209	41, 97	MELANIE PROHONIAK
210	41, 97	DAWN RISHER
212	41, 97	ROBERT DAVIDSON
213	41, 97	KENYON DAVIDSON, JR.
215	41	NANCY SWARINGEN
216	41	EDGAR CARROLL
217	41	HENRY SALERS
916	41	NCDOT
219	41	CLINTON HURLEY
220	41, 96	BRENDA GRIER
221	41	ROBERT DAVIDSON
222	41, 96	BARRY WELCH
223	41, 96	JOSEPH BEANE
224	41, 96	KENNETH GRAY
226	41, 96, 42, 43, 44	THE McDOWELL FAMILY LIMITED PARTNERSHIP
227	42	GLENNIE HANCOCK
228	42	KENYON DAVIDSON, JR.
231	43	BRIAN BARLOW
232	43, 44	CHARLIE & PATTY WILLARD
233	44	PHILIP SMITH
234	44, 45, 45A, 46, 47, 48	JARRELL INVESTMENT PROPERTIES, LLC
234A	45A	BENNIE RAY NEEDHAM AND WIFE, LINDA H NEEDHAM
235	47, 48	MARY JOHNSON
236	47, 48	MARK WHITE
237	48	NORMAN LIVENGOOD, JR.
238	48	LOUNETTE BRIDGMAN

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
239	48, 49	VERONICA PANIADGUA MARTINEZ
240	48	MARIE VONCANNON
241	48, 49, 98	GREGORY CRAVEN
242	49, 98	THOMAS BRITT
243	49	STEVE HARRELL
244	49, 99	STEVE BATES, JR.
245	49, 50, 98	BRUCE TROGDON
246	49, 99	TIMOTHY HUSSEY
247	49, 50, 98	VICKIE COX
248	49, 50	DAVID KAMINSKI
249	49, 50	KEVIN COX
250	50, 51, 52	ADLETTA DELK
376	97	DAVID CRAVEN, SR.
377	97	DEE ANN NICHOLS
378	97	RANDALL ASBILL
380	96	JOEL CHALAS
381	96	CARLTON MOORE, JR.
382	96	ALFRED & DORIS COX
383	96	ROSS HOUSTON
384	96	SHERRILL LOWE
385	41, 96	JOYCE SMITH, LE
386	96	ADAM CAGLE
387	96	LARRY MANESS
388	95, 96	CHARLIE & PAMELA JONES
388B	95	DAVID HENRY LAMB
389	49, 99	ANGELA SPENCER
391	49, 98	JAMES WEAVER
393	98	MOZELLE PRICE
910	41, 96, 97	NCDOT
251	52, 53	HARMON TROGDON
252	53	CHARLES RAGAN
253	53	FRED STOUT
254	53	ADAMS OUTDOOR ADVERTISING, INC.
255	53	RICHARD MATTAR
256	53	FOX MOUNTAIN HOLDING LLC
257	53, 54	PROGRESS ENERGY CAROLINAS
258	53, 54	WAYNE TROGDON
259	54, 55	LARRY MCKENZIE
260	54, 55	MARTHA GOMEZ
261	55	A B D DEVELOPMENT, INC.
262	55	MARY COX
263	53	CAROLINA CONFERENCE ASSOC. OF THE SEVENTH DAY ADVENTIST INC.
264	53, 54	PROGRESS ENERGY CAROLINAS
275	54	STEVEN COLEMAN
276	54, 55	CAS INVESTMENTS, LLC
277	55	MATTHEW DOMBROWSKI, JR. SUSAN DOMBROWSKI
278	55	JAMES COBLE, JR.
279	55	JAMES COBLE, JR.
280	55	BETTY PACK
281	55	AURORA PEREZ
283	55	BRENDA MOORE
284	55, 56	CLICKS
286	55	HARRY & JUDY CHAMBERLIN
287	55	D & L MANAGEMENT
288	55	WILLIAM & INEZ BURROW
289	55, 56	TERRY VUNCANNON
394	100, 101	LYNN SULLIVAN
395	53, 100, 101	416 INVESTMENTS LLC
396	53, 100, 101, 102	WAYNE BRADY
397	102	GARY BARTON

PROJ. REFERENCE NO.	SHEET NO.
R-2536	3P-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
398	102	WAYNE BRADY
400	102	GARY BARTON
401	53	VERA HILL HEIRS
402	52, 53	JERRY TROTTER
403	52, 53	KENNETH SYMES
404	52, 53	TOMMY BARNES
405	53, 102	MARGARET DAVIS
406	53	CAROLYN MANESS
407	53	CHARLES NORRIS
408	53	SHARON M. WAY
409	100	WILLIAM UNDERWOOD
410	54, 55	JULIO ROMERO
411	52, 53	TANA SKIPPER
412	52, 53, 102	RAEFORD & MARY ROUTH (LIFE ESTATE)
413	53	NCDOT
915	54	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
414	100	JRE ASHEBORO, LLC
415	100, 101, 102	ADLETTA DELK
416	100	H. R. GALLIMORE, JR.
417	102	MARY HOWEY
418	53, 102	BARBARA TAYLOR
419	54	JOSEPH DOUB
420	55	JOSEPH MILLINER

PARCEL No.	SHEET No.	PROPERTY OWNER NAME

PROJECT REFERENCE NO.	SHEET NO.
R-2536	35A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ADDED TDE ON PARCELS 176 & 177 FROM -L- STA 458+24.74 TO -L- STA 464+10.00 LT
REVISED ROW ON PARCELS 176 & 177 FROM -L- 461+84.74 TO -L- STA 463+98.00 LT

A–A
12.0'
0.0"
2.0'
4.0'
OUTFALL

OUTFALL ANALYSIS 35–1

	PRE	POST
TOTAL AREA (AC)=	33.3	32.3
IMPERV. AREA (AC)=	0.7	2.1
C=	0.41	0.43
I10 (IN/HR)=	4.91	4.91
Q10 (CFS)=	67.3	68.4
IMPERV. AREA INCREASE (AC)= 1.4		
Q10 INCREASE (CFS)=	1.1, 1.6%	
CHANNEL DEPTH (FT.)=	2.0	
POST FLOW DEPTH (FT.)=	1.58	

Q50=4.5cfs HW/D=1.1
HW=1.4' HW50=691.4'
CONTROL ELEV.=691.6'

DRAIN POND. VERIFY BOTTOM OF POND ELEVATION TO TIE TO LATERAL BASE DITCH. COORDINATE WITH CONTRACTOR FOR A PERMANENT DITCH THROUGH POND IF NECESSARY.

-L- CS Sta. 458+24.74

-L- ST Sta. 461+84.74

MATCHLINE -L- STA. 455+00 SEE SHEET 34

MATCHLINE -L- STA. 468+00 SEE SHEET 36

MARY CATOE DB 1237 PG 157

THOMAS P. FRAZIER DB 1590 PG 751

JAMES & SHARON SIDES DB 2272 PG 853

BDO INV=690.0

15" CSP 2 ELBOWS ROD & LUG

TOE PROTECTION SEE DETAIL I

REVERSE SLOPE

BANK STABILIZATION AT PIPE OUTLET SEE DETAIL AJ

33 TONS CL I RIPRAP W/62 SY GEO FAB ON BANKS ONLY INV=642.6 (PIPE=641.7)

54" RCP CD (BORED OUT)

PERMANENTLY DRAIN POND

HW w/Sill See Detail (Sht.28-I) INV=655.5 (PIPE=654.6)

LATERAL BASE DITCH SEE DETAIL B

LATERAL BASE DITCH SEE DETAIL C

2 TONS CL B RIPRAP W/7 SY GEO FAB INV=680.1

STANDARD BASE DITCH SEE DETAIL AS

STANDARD BASE DITCH W/CL II RIPRAP EST 128 TONS EST 173 SY GEOTEXTILE SEE DETAIL BD SLOPE=4.4%

50 LF OF INLET CHANNEL IMPROVEMENT EST. 35 TONS CL II RIP RAP EST. 35 SY GEOTEXTILE

TOE PROTECTION W/CL B RIPRAP EST 415 TONS EST 1244 SY GEOTEXTILE SEE DETAIL I

GRADE TO DRAIN STA. 466+00 TO STA. 467+50 -L- LT

-L- TS 466+77.10

15" CSP 2 ELBOWS ROD & LUG

PROP. SLOPE STAKE LINE

END SBG +77

TOE PROTECTION W/CL I RIPRAP EST 192 TONS EST 391 SY GEOTEXTILE SEE DETAIL K

80 LF OF OUTLET EST. 170 TONS CL II RIP RAP EST. 175 SY GEOTEXTILE CHANNEL IMPROVEMENT

EARTHEN FILL IN POND SEE DETAIL BL

PROP. 47" WW FENCE

CHORD

-BL- 67

END CONSTRUCTION SECTION 2
BEGIN CONSTRUCTION SECTION 3
TIP PROJECT R-2536
-L- POT 465+00.00 L.B. =
-L- POT 465+09.27 L.A.

-L-
PI Sta 451+36.44
Δ = 32° 26' 42.5" (LT)
D = 2° 17' 30.6"
L = 1415.69'
T = 727.38'
R = 2,500.00'
SE = 0.08

-Y8-
PI Sta 19+99.85
Δ = 3° 20' 50.3" (RT)
D = 0° 26' 26.7"
L = 759.48'
T = 379.85'
R = 13,000.00'
SE = NC

-L-
PIs Sta 459+44.80
Θs = 4° 07' 31.1"
Ls = 360.00'
LT = 240.07'
ST = 120.06'

-L-
PIs Sta 469+17.22
Θs = 5° 34' 29.0"
Ls = 360.00'
LT = 240.12'
ST = 120.11'

FOR -L- PROFILE SEE SHT. 121

ICA Engineering
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ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	36
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ADDED ADDITIONAL TDE ON PARCEL 177 TO ENCOMPASS DITCH TO DRAIN POND

NAD 83/95

JAMES & SHARON SIDES
DB 2272 PG 853
177

PROP. 47" WW FENCE CHORD
+37.10
200'

PROP. SLOPE STAKE LINE

TOE PROTECTION
W/CL B RIPRAP
SEE DETAIL I

WOODS

200' R/W

SPECIAL LATERAL 'V' DITCH
SEE DETAIL J

20' X 10'
PSRM

SPECIAL CUT DITCH
SEE DETAIL H

+04.21
200'
CHORD
PROP 47" WW FENCE

N. 06°43'49" E
132.19'

EIP

BM #1 ELEVATION = 625.65'
N 698840 E 1767875
BL STATION 22+26.00 322' LEFT
RR SPIKE IN BASE OF 12" POPLAR

EDWARD & EVE ARROYO
DB 2351 PG 604
178

MATCHLINE -L- STA. 468+00
SEE SHEET 35A

-BL- 671
-BL- 672
-BL- 673
-BL- 674
-BL- 675
-L-

470+00
475+00
480+00
481+00

GRAU-350

15" RCP-III
15" RCP-IV
18" RCP-III
24" RCP-III
30" RCP-V

15" CSP
2 ELBOWS
ROD & LUG

45' TYP

END SBG +55

2 ELBOWS
ROD & LUG

26 TONS CL I RIPRAP
W/42 SY GEO FAB

2 TONS CL B RIPRAP
W/7 SY GEO FAB

STANDARD BASE DITCH
SEE DETAIL T

5 TONS CL B RIPRAP
W/14 SY GEO FAB

LATERAL BASE DITCH
SEE DETAIL BN

EARTHEN FILL IN POND
SEE DETAIL BL

CAT-1

2GI
2GI-A
FS

3601 3602 3603 3604 3606 3607 3609 3610 3611 3612 3613

+37.10
200'
CHORD
PROP. 47" WW FENCE

-L- SC 470+37.10

+45
200'

-L- CS 479+04.21

+04.21
200'
CHORD
PROP 47" WW FENCE

N. 56°52'22" W
865.68'

MATCHLINE -L- STA. 481+00
SEE SHEET 37

POND

DRAIN POND. VERIFY BOTTOM OF POND ELEVATION TO TIE TO LATERAL BASE DITCH.COORDINATE WITH CONTRACTOR FOR A PERMANENT DITCH THROUGH POND IF NECESSARY.

TDE

+75
275'
+00
330'
+90
430'
+20
520'
+60
660'
+00
660'
+05
425'
+80
520'
+75
590'

JAMES & SHARON SIDES
DB 2272 PG 853
177

STANDARD BASE DITCH
WITH CL II RIPRAP
EST 397 TONS
EST 524 SY GEOTEXTILE
SEE DETAIL BM
SLOPE = 0.5%

12" HDPE

-L-

PIs Sta 469+17.22	PI Sta 474+78.77	PIs Sta 480+24.32
θs = 5° 34' 29.0"	Δ = 26° 51' 18.1" (RT)	θs = 5° 34' 29.0"
Ls = 360.00'	D = 3° 05' 49.4"	Ls = 360.00'
LT = 240.12'	L = 867.11'	LT = 240.12'
ST = 120.11'	T = 441.67'	ST = 120.11'
	R = 1,850.00'	
	SE = 0.08	
	V = 70mph	

FOR -L- PROFILE SEE SHT. 121

3/22/2016
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	37
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE –L– STA. 481+00 SEE SHEET 36

MATCHLINE –L– STA. 492+00 SEE SHEET 38

182 MARY LEE DB 1070 PG 660

183 JOHN PRESNELL DB 2073 PG 1497 PB 58 PG 53

181 JAMES DAVIS 07E-259 DB 1539 PG 1246

180 JACK HARRISON DB 1155 PG 540

179 MARY GRAY DB 1351 PG 1699

CONSTRUCT PROPOSED FLOODPLAIN (HATCHED AREA) PER PROPOSED CONTOUR AND GRADING SLOPE. AT PROPOSED FLOODPLAIN BOUNDARY, USE 2:1 SLOPE TO TIE TO CUT LIMITS OR TIE TO EXIST. CONTOUR DIRECTLY AS SHOWN.

EIP N 06°39'12" E 67.00'

N 81°26'34" E 590.0'

S 86°02'42" W 1499.96'

S 17°56'55" E 305.62'

N 89°56'27" W 1855.25'

N 82°48'58" W 456.68'

NO DECK DRAINS REQUIRED

BEGIN BRIDGE –L– STA 483+85.13 +/-

BEGIN APPROACH SLAB –L– STA 483+61.19 +/-

–L– ST 482+64.21

END BRIDGE –L– STA 485+80.13 +/-

END APPROACH SLAB –L– STA 486+04.07 +/-

BEGIN APPROACH SLAB –L– STA 483+77.93 +/-

BEGIN BRIDGE –L– STA 484+01.87 +/-

END APPROACH SLAB –L– STA 486+20.81 +/-

END BRIDGE –L– STA 485+96.87 +/-

CHORD +64.21 200'

END FENCE +20.00 –L– 200' LT

BEGIN FENCE +15.00 –L– 200' LT

END FENCE +25.00 –L– 200' LT

BEGIN FENCE +20.00 –L– 200' LT

END FENCE +38.00 –L– 200' LT

+59.00 –L– 170' LT

+19.00 –L– 170' LT

+69.00 –L– 180' RT

END FENCE +70.00 –L– 200' RT

BEGIN FENCE +65.00 –L– 200' RT

+41.00 –L– 187' RT

END FENCE +30.00 –L– 200' RT

CHORD +64.21 200'

+95.26 200'

PROP. 47" WW FENCE

CUT LIMIT

2:1 SLOPE (TYP)

PROPOSED CONTOUR ELEV. 597.0

PROPOSED GRADING SLOPE 0.3%

PROPOSED CONTOUR ELEV. 596.0

CL II RIP RAP UP TO ELEV. 602.0 (TYP.) TIE TO EXIST. CONTOUR

GTD

TOE PROTECTION W/CL B RIPRAP EST 44 TONS EST 131 SY GEOTEXTILE SEE DETAIL I

TOE PROTECTION W/CL B RIPRAP EST 35 TONS EST 106 SY GEOTEXTILE SEE DETAIL I

5 TONS CL B RIPRAP W/14 SY GEO FAB

LATERAL BASE DITCH SEE DETAIL BN

TEMPORARY WORK /HAUL BRIDGE

TIE TO EXIST. CONTOUR

PROP. SLOPE STAKE LINE

PSH SEE DETAIL AP

3 TONS CL B RIPRAP W/10 SY GEO FAB LATERAL BASE DITCH SEE DETAIL CD

JURISDICTIONAL RIPRAP TRANSITION SEE DETAIL AU

CHANNEL CHANGE W/CL II RIPRAP EST 265 TONS EST 376 SY GEOTEXTILE SEE DETAIL BK

SPECIAL LATERAL 'V' DITCH SEE DETAIL J

SPECIAL CUT DITCH SEE DETAIL H

SPECIAL LATERAL 'V' DITCH SEE DETAIL J

3 TONS CL B RIPRAP W/10 SY GEO FAB SPECIAL LATERAL 'V' DITCH SEE DETAIL J

LATERAL BASE DITCH SEE DETAIL CD

30 LF OF OUTLET CHANNEL IMPROVEMENT EST. 60 SY CL B RIP RAP EST. 60 SY GEOTEXTILE SEE DETAIL BAPE-2D-2

CONCRETE ENDWALL

2 ELBOWS ROD & LUG

15" CSP

18" CSP

15" RCP-III

18" RCP-III

54" RCP-III OVERFLOW NOT BURIED

DDE = 92 SF

–BL– 676

–BL– 677

–BL– 678

–BL– 679

–L– 485+00

490+00

PROPOSED CONTOUR AT C BRIDGE ELEV. = 596.5

N 57° 36' 35.0" E

M-350

GRAU-350

DRAIN 8:1

WOODS

–L–

PIs Sta 480+24.32
Θs = 5° 34' 29.0"
Ls = 360.00'
LT = 240.12'
ST = 120.11'

EDWARD & EVE ARROYO DB 2351 PG 604

178

FOR –L– PROFILE SEE SHTS. 121 – 122

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NC License No: F-0258

3/22/2016
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ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	38
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : REVISED PUE ON PARCEL 183 FROM -Y16- 24+27.00 TO -Y16- 24+68.00 LT

MATCHLINE -L- STA 492+00 SEE SHEET 37

MATCHLINE -L- STA 503+00 SEE SHEET 39

MATCHLINE -Y16- STA 26+00 SEE SHEET 94

MATCHLINE -Y16- STA 18+50 SEE SHEET 93

NAD 83/95

-L-
PI Sta 515+34.61
△ = 14° 07' 52.0" (LT)
D = 0° 20' 50.1"
L = 4,069.47'
T = 2,045.11'
R = 16,500.00'
SE = NC
V = 75mph

-Y16-

PI Sta 19+29.21	PI Sta 24+17.34
△ = 1° 12' 28.1" (LT)	△ = 0° 06' 06.3" (LT)
D = 0° 30' 58.2"	D = 0° 06' 52.5"
L = 233.99'	L = 88.80'
T = 117.00'	T = 44.40'
R = 11,100.00'	R = 50,000.00'
SE = NC	SE = NC
V = 60mph	V = 80+mph

6" DECK DRAINS @ 12' O.C., -Y16-
FROM STA. 21+22 TO STA. 21+58 RT SHLD
STA. 22+96 TO STA. 23+32 RT SHLD.
STA. 21+06 TO STA. 21+42 LT SHLD.
STA. 22+80 TO STA. 23+16 LT SHLD.

-Y16- PT Sta. 24+61.75

-Y16- PC Sta. 23+72.94

-L- POC 495+97.50 = -Y16- POT 22+17.90

-L- PC 494+89.50

-Y16- PT Sta. 20+46.20

END APPROACH SLAB -Y16- STA 23+42.28

END BRIDGE -Y16- STA 23+28.40

BEGIN BRIDGE -Y16- STA 21+10.40

BEGIN APPROACH SLAB -Y16- STA 20+96.52

PROP. SLOPE STAKE LINE

183 JOHN PRESNELL DB 2073 PG 1497 PB 58 PG 53

184 JESSIE GRANT DB 1999 PG 440 PB 106 PG 41

188 CAROLYN WATKINS LUCK

189 FRANCES LEE DB 1855 PG 460 PB 64 PG 14

190 CAROLYN WATKINS LUCK

195 KENNY YORK DB 1638 PG 893

182 MARY LEE DB 1070 PG 660

181 JAMES DAVIS 07E-259 PB 1539 PG 1246

192 RUBY BROWN DB 1069 PG 398 90 E - 22

192A BENJAMIN PUGH DB 1954 PG 1366

191 FRANCES LEE 08E-1039

ROBERT WELSH DB 1438 PG 893

-BL- 680

-BL- 682

-BL- 683

-BL- 681=
-BYI- 681

N 57° 36' 35.0" E

N 5° 43' 36.4" W

N 83°41'37" E 462.13'

S 83°45'08" W 467.09'

N 83°48'10" E 472.64'

N 83°48'10" E 280.26'

N 79°21'54" E 659.66'

N 84°39'19" E 228.55'

N 08°57'06" W 175.30'

N 02°30'15" W 100.49'

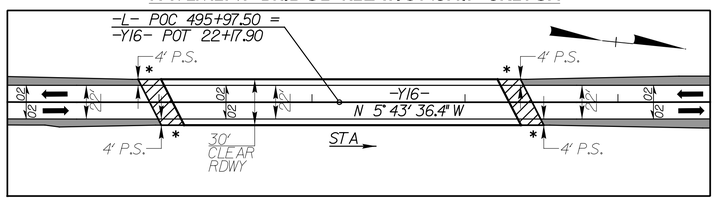
N 83°44'44" W 282.69'

S 35°42'21" E 95.34'

S 35°42'21" E 137.08'

BM #2 ELEVATION = 633.45'
N 699509 E 1769969
BL STATION 43+53.00 246' RIGHT
RR SPIKE IN BASE OF 18" OAK

PAVEMENT–BRIDGE RELATIONSHIP SKETCH



* GUARDRAIL ANCHOR UNIT REQUIRED

BRIDGE APPROACH SLAB

FOR -L- PROFILE SEE SHT. 122
FOR -Y16- PROFILE SEE SHT. 195
FOR -Y16DET- SEE SHT. 2B-5

3/22/2016
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	39
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE –L– STA. 503+00
SEE SHEET 38

MATCHLINE –L– STA. 514+00
SEE SHEET 40

187
GRIFFEN CRAVEN
DSE-110
DB 1069 PG 399

197
HENRY SALERS
DB 2205 PG 428

WILLIAM MALPASS
DB 1095 PG 555

198
SHELIA WINNINGHAM
DB 1383 PG 309
DB 1124 PG 326
PB 35 PG 46

195
KENNY YORK
DB 1438 PG 893

196
ALLISON BRASWELL & BAILEY GREENE
DB 2318 PG 1086

PROP. 47" WW FENCE

PROP. SLOPE STAKE LINE

200' R/W

-BL- 684

-BL- 685

-BL- 686

-L-

505+00

510+00

BEGIN FENCE +32.00 -L- 200' LT

END FENCE +00.00 -L- 200' LT

BEGIN FENCE +57.00 -L- 200' RT

END FENCE +90.00 -L- 200' RT

+65 200'

+95.24 193.51'

+25 200'

+55 200'

JURISDICTIONAL RIPRAP TRANSITION SEE DETAIL AU

LATERAL BASE DITCH SEE DETAIL AC

3 TONS CL B RIPRAP W/10 SY GEO FAB

TOE PROTECTION W/CL B RIPRAP EST 100 TONS EST 300 SY GEOTEXTILE SEE DETAIL I

TOE PROTECTION W/CL I RIPRAP EST 746 TONS EST 1174 SY GEOTEXTILE SEE DETAIL CL

TOE PROTECTION W/CL B RIPRAP EST 112 TONS EST 335 SY GEOTEXTILE SEE DETAIL I

SPECIAL CUT DITCH W/PSRM. EST 57 SY SEE DETAIL AH

SPECAIL CUT DITCH SEE DETAIL H

SPECIAL CUT DITCH SEE DETAIL H

100 TONS CL II RIPRAP W/150 SY GEO FAB ON BANKS ONLY

PSH SEE DETAIL AP

18" CSP 2 ELBOWS ROD & LUG

54" RCP-III NOT BURIED

15" CSP 2 ELBOWS ROD & LUG

BEGIN SBG +08

END SBG +52

END SBG +75

BEG SBG +45

GRAU-350

CAT-1

15" RCP-III

18" RCP-III

3901 3902 3903 3904 3905 3906 3908 3909 3910 3911 3912 3913 3914

HENRY SALERS
DB 2205 PG 428

N 80°00'30" E
1601.57'

FOR –L– PROFILE SEE SHT. 122

–L–
PI Sta 515+34.61
Δ = 14° 07' 52.0" (LT)
D = 0° 20' 50.1"
L = 4,069.47'
T = 2,045.11'
R = 16,500.00'
SE = NC
V = 75mph

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R2536 RDY PSH 039.dgn
ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	40
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE -L- STA 514+00
SEE SHEET 39

MATCHLINE -L- STA 525+00
SEE SHEET 41

WILLIAM MALPASS
DB 1095 PG 555

S 09°20'32" W
526.06'

S 07°40'36" W
134.47'

S 82°54'48" W
456.13'

N 73°25'58" E
286.18'

N 73°25'58" E
112.13'

EIP

BRIAN YOW
DB 1539 PG 1223
PB 52 PG 9

199

198
SHELIA WINNINGHAM
DB 1383 PG 309
DB 1124 PG 326
PB 35 PG 46

HTR

RECONNECT 10' GRAVEL DRIVE

S 08°40'01" E
300.74'

+60
200'
240'

+05
200'
240'

+27
200'

SHELIA WINNINGHAM
DB 1383 PG 309
DB 1124 PG 326
PB 35 PG 46
198

-BY2- 753

TO PINE HILL ROAD SR 2824

PROP. 47" WW FENCE

CUTOVER

200' R/W

PROP. SLOPE STAKE LINE

+22.41

300' TAPER

600' FULL LANE

22.41'

TOE PROTECTION
W/CL B RIPRAP
EST 90 TONS
EST 269 SY GEOTEXTILE
SEE DETAIL I

40 LF OF INLET
CHANNEL IMPROVEMENT
EST. 70 TONS CL II RIPRAP
EST. 70 SY GEOTEXTILE

BEGIN FENCE
+97.00 -L-
200' LT

PROP. 47" WW FENCE

LATERAL BASE DITCH
SEE DETAIL CG

END FENCE
+48.00 -L-
200' LT

-BL- 687

-BL- 688

-BL- 691

-BL- 690

-L-

515+00

520+00

4001 2GI FS

15" RCP-III

BEGIN SBG +06

4004 CAT-1

4005 2GI

1 @ 6' x 7' RCBC

4003 2GI

18" RCP-III

4006 2GI

24" RCP-III

4008 2GI

15" RSP-III

4009 2GI

24" CSP
2 ELBOWS
ROD & LUG

END SBG
+94

CUTOVER

SPECIAL CUT DITCH
SEE DETAIL H

4012 2GI FS

GRAU-350

BEGIN SBG
+00

15" CSP
2 ELBOWS
ROD & LUG

TOE PROTECTION
W/CL B RIPRAP
EST 21 TONS
EST 62 SY GEOTEXTILE
SEE DETAIL I

PSH
SEE DETAIL AP
4013

40 LF OF OUTLET
CHANNEL IMPROVEMENT
EST. 55 TONS CASS II RIPRAP
EST. 60 SY GEOTEXTILE

LATERAL BASE DITCH
SEE DETAIL AC
4010

5 TONS CL B RIPRAP
W/14 SY GEO FAB

BEGIN FENCE
+08.00 -L-
200' RT

END FENCE
+09.00 -L-
200' RT

PROP. 47" WW FENCE

N 87°22'16" W
91.18'

S 12°41'55" E
142.95'

N 14°19'24" E
120.02'

STONE

HENRY SALERS
DB 2205 PG 428
197

ALLISON BRASWELL & BAILEY GREENE
DB 2318 PG 1086
196

SHELIA WINNINGHAM
DB 1383 PG 309
DB 1124 PG 326
PB 35 PG 46
198

FURMAN GREENE, JR.
DB 1244 PG 1555
200

-L-
PI Sta 515+34.61
△ = 14° 07' 52.0" (LT)
D = 0° 20' 50.1"
L = 4,069.47'
T = 2,045.11'
R = 16,500.00'
SE = NC
V = 75mph

FOR -L- PROFILE SEE SHT. 123

3/22/2016
R2536_ROY_PSH_040.dgn
ICA ENGINEERING, INC.

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NC License No: F-0258

REVISIONS
RIGHT-OF-WAY REVISION 2-26-2016 : ADDED PUE ON PARCEL 224 FROM -Y12- 25+42.22 TO -Y12- 26+57.02 LT

PROJECT REFERENCE NO.	SHEET NO.
R-2536	47
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y12LPB-

PI's Sta 11+62.34	PI Sta 17+33.24	PI's Sta 18+43.99
Δs = 29° 53' 36.4"	Δ = 130° 00' 00.0" (RT)	Δs = 29° 53' 36.4"
Ls = 240.00'	D = 24° 54' 40.4"	Ls = 240.00'
L = 162.34'	L = 520.85'	LT = 162.34'
ST = 82.13'	T = 493.24'	ST = 82.13'
	R = 230.00'	
	SE = 0.08	
	V = 30mph	

-Y12LPC-

PI Sta 11+62.34	PI Sta 16+38.37	PI Sta 18+03.84
Δs = 29° 53' 36.4"	Δ = 120° 00' 00.0" (LT)	Δs = 29° 53' 36.4"
Ls = 240.00'	D = 24° 54' 40.4"	Ls = 240.00'
LT = 162.34'	L = 481.7'	LT = 162.34'
ST = 82.13'	T = 398.57'	ST = 82.13'
	R = 230.00'	
	SE = 0.08	
	V = 35mph	

-Y12RPB-

PI Sta 11+41.76	PI Sta 15+10.13	PI Sta 18+62.73	PI Sta 21+42.80	PI Sta 24+17.04
Δs = 12° 22' 57.6"	Δ = 27° 11' 00.7" (LT)	Δs = 5° 15' 01.8"	Δs = 7° 32' 20.1"	Δ = 30° 34' 12.7" (RT)
Ds = 5° 15' 09.0"	D = 4° 46' 28.7"	Ls = 220.00'	Ds = 7° 32' 20.1"	D = 7° 32' 20.1"
Ls = 220.00'	L = 569.34'	LT = 146.3'	Ls = 200.00'	L = 405.50'
LT = 147.76'	T = 290.13'	ST = 73.39'	LT = 133.45'	T = 207.70'
ST = 74.39'	R = 1,200.00'		ST = 66.78'	R = 760.00'
	SE = 0.08			SE = 0.08
	V = 60mph			V = 50mph

-Y12RPC-

PI Sta 11+63.72	PI Sta 14+65.19	PI Sta 17+61.25	PI Sta 20+41.32	PI Sta 22+41.30	PI Sta 24+50.44
Δs = 5° 15' 01.8"	Δ = 21° 37' 39.2" (RT)	Δs = 5° 15' 01.8"	Δs = 7° 32' 20.1"	Δ = 20° 47' 13.2" (LT)	Δs = 7° 32' 20.1"
Ls = 220.00'	D = 4° 46' 28.7"	Ls = 220.00'	Ls = 200.00'	D = 7° 32' 20.1"	Ls = 200.00'
LT = 146.3'	L = 452.38'	LT = 146.3'	LT = 133.45'	L = 275.80'	LT = 133.45'
ST = 73.39'	T = 228.13'	ST = 73.39'	ST = 66.78'	T = 139.43'	ST = 66.78'
	R = 1,200.00'			R = 760.00'	
	SE = 0.08			SE = 0.08	
	V = 60mph			V = 50mph	

-L- (US 64 BYPASS) -Y12- (NC 42)

ADT 2015			
ADT 2040			
	2,500 3,400	2,300 2,900	
US 64 BYPASS -L-			7,000 10,300
7,400 11,700	2,500 4,000	2,300 3,100	
	7,900 10,200		

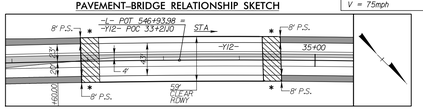
-Y12- (NC 42)

-L-

PI Sta 5+53.46	PIs Sta 55+15.80	PI Sta 23+00.60	PI Sta 32+34.30	PI Sta 40+90.65
Δ = 14° 01' 52.2" (LT)	Θs = 1° 1' 28.7"	Δ = 28° 54' 33.9" (RT)	Δ = 4° 49' 31.7" (RT)	Δ = 23° 01' 08.2" (RT)
D = 0° 30' 50.1"	Ls = 210.00'	D = 3° 08' 53.2"	D = 0° 29' 53.6"	D = 3° 08' 53.2"
L = 4,069.47'	LT = 140.00'	L = 918.31'	L = 968.5.5'	L = 734.38'
T = 2,045.31'	ST = 70.00'	T = 469.15'	T = 484.54'	T = 372.25'
R = 11,500.00'		R = 1,820.00'	R = 11,570.00'	R = 1,820.00'
SE = NC		SE = 0.07	SE = 0.02	SE = 0.07
V = 75mph		V = 60mph	V = 70mph	V = 60mph

-Y12-

PAVEMENT-BRIDGE RELATIONSHIP SKETCH



✱ GUARDRAIL ANCHOR UNIT REQUIRED

BRIDGE APPROACH SLAB

PAVEMENT REMOVAL

MATCHLINE -Y12- STA 40+50 SEE SHEET 97

MATCHLINE -L- STA. 525+00 SEE SHEET 40

MATCHLINE -L- STA. 553+00 SEE SHEET 42

MATCHLINE -Y12- STA 26+00 SEE SHEET 96

NAD 83-95

-Y12RPB- CS Sta. 26+14.84

-Y12RPB- SRS Sta. 20+09.34

-Y12RPB- SC Sta. 22+09.34

-Y12RPB- CS Sta. 17+89.34

-Y12RPB- CS Sta. 10+00.00 = -L- POC 529+22.41 (49° LT)

-Y12RPB- SC Sta. 12+20.00

-Y12LPB- ST Sta. 28+14.84

-Y12LPB- CS Sta. 17+61.85

-Y12LPB- SC Sta. 12+40.00

-Y12LPB- ST Sta. 20+10.85

-Y12LPB- POT 29+15.40 = -Y12- POC 38+26.62

-Y12LPB- POT 21+02.86 = -Y12- POC 38+08.59

-Y12- PCC 37+18.27

-Y12LPB- POC 10+00.00 = -L- POT 545+54.63 (49° LT)

-Y12LPC- POC 10+00.00 = -L- POT 545+54.63 (49° RT)

-Y12LPC- SC Sta. 12+40.00

-Y12LPC- CS Sta. 17+78.71

-Y12LPC- ST Sta. 19+68.71

-Y12LPC- ST Sta. 25+48.26

-Y12RPC- POT 10+00.00 = -L- POC 530+54.63 (49° RT) Δ = 3° 18' 30"

-Y12RPC- TS Sta. 10+16.99

-Y12RPC- SC Sta. 12+36.99

-Y12RPC- CS Sta. 16+87.86

-Y12RPC- SRS Sta. 19+07.86

-Y12RPC- SC Sta. 21+07.86

-Y12RPC- CS Sta. 23+83.66

-Y12- POC 27+49.76

-Y12- POC 27+92.43

-Y12RPC- POT 27+58.65 = -Y12- POC 27+74.82

-Y12- POC 27+49.76

-Y12LPC- POT 21+00.97 = -Y12- POC 27+92.43

-L- POT 546+93.98 = -Y12- POC 33+92.10

-L- PT 535+58.96

-BL- 692 = -BY2- 692

-BL- 693

-BL- 694

-BL- 695

-BL- 696

-BL- 697

-BL- 698

-BL- 699

-BL- 700

-BY3- 756

-BY3- 698

-BY3B- 761

-BY3B- 794

-FB SIC- POT 10+00.00

-FB SIC- POT 12+00.00

-Y12- POT 33+92.10 = -L- POC 546+93.98 (49° LT) Δ = 3° 18' 30"

N 47° 16' 47" E

N 43° 28' 43.0" E

N 43° 44' 30.2" E

N 43° 44' 30.2" E

N 43° 44' 30.2

PROJECT REFERENCE NO.	SHEET NO.
R-2536	42
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

DARRELL MILLER
DB 1284 PG 133

DAVID LAMB
DB 1750 PG 690

KENYON DAVIDSON, JR.
DB 2006 PG 1063
PB 110 PG 54

THE McDOWELL FAMILY
LIMITED PARTNERSHIP
DB 2141 PG 1484

JULIE H. KINNEY
& SCOTT HANCOCK
DB 2447 PG 1659

BM #5 ELEVATION = 716.12'
N 704010 E 1773907
BL STATION 105+65.00 306' LEFT
RR SPIKE IN BASE OF 16" HICKORY

-L- SC 554+85.80

CHORD

300' TAPER

525' TYP.

BERM DITCH
W/CL B RIPRAP
EST 154 TONS
EST 464 SY GEOTEXTILE
SEE DETAIL Y

PROP. SLOPE STAKE LINE

SPECIAL CUT DITCH
SEE DETAIL H

TOE PROTECTION
W/CL B RIPRAP
EST 37 TONS
EST 112 SY GEOTEXTILE
SEE DETAIL I

TOE PROTECTION
W/CL B RIPRAP
EST 84 TONS
EST 251 SY GEOTEXTILE
SEE DETAIL I

PROP. 47" WW FENCE

-BL- 701

-BL- 702

-L- STA. 553+00
SEE SHEET 41

-L- STA. 566+00
SEE SHEET 43

555+00 560+00 565+00

15" RCP-III -L-

18" RCP-III

24" RCP-III

42" RCP-V NOT BURIED

42" RCP-III

GRAU-350

5 TONS CL B RIPRAP
W/14 SY GEO FAB

STANDARD BASE DITCH
W/CL B RIPRAP
SEE DETAIL BV
SLOPE = 6.25%
EST 30 TONS CL B RIPRAP
EST 65 SY GEO FAB
DDE=14 CY

72 TONS CL II RIPRAP
W/98 SY GEO FAB
ON BANKS ONLY

JB w/MH

1350' FULL LANE

300' TAPER

TDE

CUTOVER

WOODS

TREES

-L-	
PIs Sta 554+15.80	PI Sta 571+21.63
Θs = 1° 11' 28.7"	Δ = 35° 53' 49.4" (LT)
Ls = 210.00'	D = 1° 08' 04.5"
LT = 140.00'	L = 3,163.93'
ST = 70.00'	T = 1,635.83'
	R = 5,050.00'
	SE = 0.04
	V = 70mph

FOR -L- PROFILE SEE SHT. 124

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	43
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-1-2016 : REVISED RIGHT-OF-WAY ON PARCEL 232 FROM -L- 574+37.17 TO -L- 582+15.00 RT

-L-
PI Sta 571+21.63
△ = 35° 53' 49.4" (LT)
D = 1° 08' 04.5"
L = 3,163.93'
T = 1,635.83'
R = 5,050.00'
SE = 0.04
V = 70mph

NAD 83/95

MATCHLINE -L- STA. 566+00 SEE SHEET 42

MATCHLINE -L- STA. 579+00 SEE SHEET 44

226
THE McDOWELL FAMILY LIMITED PARTNERSHIP
DB 2141 PG 1484

PROP. 47" WW FENCE

PROP. SLOPE STAKE LINE

200' R/W

CUTOVER

SOIL

BERM DITCH SEE DETAIL BC

4315 END SBG +30

4302 BDO

18" CSP 2 ELBOW ROD & LUG

4303 2GI FS

4301 2GI FS

15" RCP-IV

15" RCP-III

24" RCP-III

-BL- 703

-BL- 704

-BL- 705

570+00 -L-

575+00

4304 2GI FS

4306 2GI FS

4307 2GI FS

4312 2GI FS

4313 2GI FS

4311 2GI FS

4308 2GI FS

18" RCP-III

10' P.S.

8d

04

23'

24'

TOE PROTECTION W/CL B RIPRAP EST 114 TONS EST 342 SY GEOTEXTILE SEE DETAIL I

4314 JB wMH

4305 24" RCP-III

5 TONS CL B RIPRAP W/14 SY GEO FAB

LATERAL 'V' DITCH SEE DETAIL CJ

2 TONS CL B RIPRAP W/7 SY GEO FAB

4310 18" RCP-III

4309 2GI

STANDARD 'V' DITCH SEE DETAIL CH SLOPE = 1.83% DDE = 10 CY

+00 200'

+37.17 150'

+56.67 200'

N 03°38'59" E 395.49'

N 03°38'59" E 105.28'

N 03°38'44" E 483.24'

N 03°40'44" E 180.00'

N 03°40'09" E 190.20'

N 03°38'59" E 181.45'

S 86°53'09" W 60.36'

EIP

WOODS

232
CHARLIE & PATTY WILLARD
DB 2374 PG 578
PB 79 PG 88

231
BRIAN BARLOW
DB 1894 PG 1979
PB 79 PG 88

SHANNON SMITH
DB 1607 PG 924
PB 52 PG 81

POOL

CONC

DK

2SBKO

FISH POOL

S. CONC.

FOR -L- PROFILE SEE SHTS. 124 – 125

3/22/2016
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ICA ENGINEERING, INC.

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5121 Kingdom Way, Suite 100
Raleigh, NC 27607
NC License No: F-0258

PROJECT REFERENCE NO.	SHEET NO.
R-2536	44
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-1-2016 : REVISED RIGHT-OF-WAY ON PARCEL 232 FROM -L- STA 574+37.17 TO 582+15.00 RT

-L-

PI Sta 571+21.63	PIs Sta 587+19.74
Δ = 35° 53' 49.4" (LT)	Θs = 1° 11' 28.7"
D = 1° 08' 04.5"	Ls = 210.00'
L = 3,163.93'	LT = 140.00'
T = 1,635.83'	ST = 70.00'
R = 5,050.00'	
SE = 0.04	
V = 70mph	

NAD 83/95

226
THE McDOWELL FAMILY LIMITED PARTNERSHIP
DB 2141 PG 1484

234
JARRELL INVESTMENT PROPERTIES, LLC
DB 2089 PG 564

MATCHLINE -L- STA. 579+00
SEE SHEET 43

MATCHLINE -L- STA. 592+00
SEE SHEET 45

END FENCE +78.00 -L- 200' LT

LATERAL BASE DITCH SEE DETAIL CD

PROP. 47" WW FENCE

WW FENCE

TOE PROTECTION W/CL B RIPRAP EST 114 TONS EST 342 SY GEOTEXTILE SEE DETAIL I

3 TONS CL B RIPRAP W/10 SY GEO FAB

LATERAL BASE DITCH W/CL B RIPRAP EST 95 TONS EST 270 SY GEOTEXTILE SEE DETAIL BY

CUTOVER

PROP. SLOPE STAKE LINE

200' R/W

CAT-1 BEGIN SBG +56

4403 18" CSP 2 ELBOWS ROD & LUG

HW

60" RCP-V NOT BURIED

3 TONS CL B RIPRAP W/10 SY GEO FAB

SPECIAL CUT DITCH SEE DETAIL H

4409 15" CSP

END SBG +07

GRAU-350

2 ELBOWS ROD & LUG

S 03°39'08" W 304.68'

S 03°41'37" W 158.79'

4402 18" RCP-III

4404

N 03°40'01" E 130.70'

580+00

15" RCP-III

4401

FS

-BL- 706

4406 15" RCP-III

4405

585+00

-L-

-BL- 707

CAT-1

LATERAL BASE DITCH W/CL B RIPRAP EST 86 TONS EST 245 SY GEOTEXTILE SEE DETAIL BY

BDO

4417 18" CSP 2 ELBOW ROD & LUG

3 TONS CL B RIPRAP W/10 SY GEO FAB

LATERAL BASE DITCH W/CL B RIPRAP EST 47 TONS EST 134 SY GEOTEXTILE SEE DETAIL BY

PROP. 47" WW FENCE

END FENCE +15.00 -L- 200' RT

60" RCP-V NOT BURIED

144 TONS CL II RIPRAP W/183 GEO FAB

BEGIN FENCE +73.00 -L- 200' RT

PROP. SLOPE STAKE LINE

200' R/W

ROCK WALK

N 05°17'48" W 251.20'

Find

ISMTLBUS

232
CHARLIE & PATTY WILLARD
DB 2374 PG 578
PB 79 PG 88

233
PHILIP SMITH
DB 1441 PG 709
PB 42 PG 60

+49.74 200'

-L- CS 586+49.74

CHORD

+52.40 200'

BEGIN FENCE +77.00 -L- 200' LT

PROP. 47" WW FENCE

END FENCE +57.91 -L- 201' LT

-L- ST 588+59.74

+42.00 160' LT

BM #6 ELEVATION = 669.57'
N 706602 E 1774834
BL STATION 135+18.00 196' LEFT
RR SPIKE IN BASE OF 15" PINE

JURISDICTIONAL RIPRAP TRANSITION SEE DETAIL AU

LATERAL 'V' DITCH SEE DETAIL D

WOODS

52.5' TYP

4410 2GI FS

4411 2GI FS

4412 2GI FS

4413 2GI FS

4414 BEGIN SBG +00

LATERAL BASE DITCH, SEE DETAIL AQ

JB w/MH

SPECIAL CUT DITCH W/PSRM EST 212 SY SEE DETAIL AH

GRAU 350

15" RCP-III

54" RCP-III NOT BURIED

4415

15" CSP 2 ELBOWS ROD & LUG

119 TONS CL II RIPRAP W/150 GEO FAB

4416 54" RCP-III

590+00

N 5° 11' 56.2" E

PROP. 47" WW FENCE

ARMOR 50' OF RIGHT BANK 3' HIGH FROM PIPE OUTFALL W/ EST 40 TONS CL I RIP RAP EST 55 SY GEO FAB

+52.41 200'

+49.74 200'

234
JARRELL INVESTMENT PROPERTIES, LLC
DB 2089 PG 564

FOR -L- PROFILE SEE SHT. 125

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3/22/2016
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ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	45
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ELIMINATED ROW MONUMENT ON PARCEL 234 AT -L- STA 595.00 LT

SEE SHEET NO. 45A FOR SERVICE ROAD TO ACCESS PARCEL 234

NAD 83/95

234
JARRELL INVESTMENT PROPERTIES, LLC
DB 2089 PG 564

MATCHLINE -L- STA. 592+00
SEE SHEET 44

MATCHLINE -L- STA. 605+00
SEE SHEET 46

END FENCE +57.00 -L- 200' LT

BEGIN FENCE +52.00 -L- 200' LT

PROP. 47" WW FENCE

+50 200'

WOODS

TOE PROTECTION W/CL B RIPRAP EST 27 TONS EST 81 SY GEOTEXTILE SEE DETAIL I

TOE PROTECTION W/CL B RIPRAP EST 58 TONS EST 175 SY GEOTEXTILE SEE DETAIL I

LATERAL BASE DITCH W/CL B RIPRAP EST 83 TONS EST 235 SY GEOTEXTILE SEE DETAIL BY

BERM DITCH W/CL B RIPRAP EST 215 TONS EST 649 SY GEOTEXTILE SEE DETAIL Y

200' R/W

PROP. SLOPE STAKE LINE

4500 4501 4502 4503 4504 4505 4506 4507 4508 4509 4510 4511 4512 4513 4514 4515

24" RCP-III

48" RCP-III

JB w/MH

HW

BDO

15" CSP 2 ELBOWS ROD & LUG

CAT-1

2GI

BEGIN SBG +81

END SBG +03

GRAU-350

FS

15" RCP-III

15" RCP-IV

18" RCP-III

595+00

600+00

-L-

-BL- 710

-BL- 711

-BL- 712

N 5° 11' 56.2" E

48" RCP-III NOT BURIED

15" CSP 2 ELBOWS ROD & LUG

END SBG +00

24" CSP 2 ELBOWS ROD & LUG

LATERAL BASE DITCH SEE DETAIL AO 2 TONS CL B RIPRAP W/7 SY GEO FAB

JURISDICTIONAL RIPRAP TRANSITION SEE DETAIL AU

94 TONS CL II RIPRAP W/123 SY GEO FAB ON BANKS ONLY

LATERAL BASE DITCH W/CL B RIPRAP EST 94 TONS EST 264 SY GEOTEXTILE SEE DETAIL V

5 TONS CL B RIPRAP W/14 SY GEO FAB

PROP. 47" WW FENCE

END FENCE +65.00 -L- 200' RT

BEGIN FENCE +55.00 -L- 200' RT

ROCKS

JS

SOIL

10' P.S.

12' P.S.

23' P.S.

4' P.S.

24"

02

FOR -L- PROFILE SEE SHTS. 125 – 126

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	45A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : REVISED -SRV- ALIGNMENT TO PARCEL 234A

MICHAEL PARTRICK McGINN
DB 2122 PG 270
LOTS 7-9, BLOCK B
PB 10 PG 51

DWIGHT HOOKER
DB 1821 PG 568
PB 80 PG 93

NAD 83/95

CHARLES EDWARD PLOGGER AND WIFE,
RUTH ELAINE PLOGGER
DB 2394 PG 540
LOTS 85-92, BLOCK A
PB 13 PG 50

JOHNNY F. HARRIS AND WIFE,
DIANNA CAROL HARRIS
DB 1355 PG 1266
DB 2132 PG 696
LOTS 1A, 1-8, BLOCK C
PB 13 PG 50

JARRELL INVESTMENT PROPERTIES, LLC
DB 2089 PG 564

HOWARD JOSEPH JARREL AND WIFE,
RITA M JARREL
DB 1297 PG 499
LOTS 8-11, BLOCK C
PB 13 PG 50

BENNIE RAY NEEDHAM
AND WIFE, LINDA H NEEDHAM
DB 1377 PG 1496
LOT 20
PB 40 PG 95

JASON K R MILLER AND WIFE,
KIMBERLY B MILLER
DB 2284 PG 1032
LOT 19
PB 40 PG 95

234

JARRELL INVESTMENT PROPERTIES, LLC
DB 2089 PG 564

STANDARD BASE DITCH
W/CL B RIPRAP
EST 19 TONS
EST 52 SY GEOTEXTILE
SEE DETAIL R

5 TONS CL B RIPRAP
W/14 SY GEO FAB

SPECIAL CUT
DITCH
SEE DETAIL H

GRADE TO
DRAIN

-SRV- POT 10+00.00

BEGIN CONSTRUCTION
-SRV- POT 10+10.00

END CONSTRUCTION
-SRV- POT 12+53.90

-SRV- POT 13+50.00

FOR -SRV- PROFILE SEE SHT. 188

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3/22/2016
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ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	46
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ELIMINATED TIDE ON PARCEL 234 FROM -L- STA 611+50 TO 611+50 RT
ELIMINATED ROW MONUMENTS ON PARCEL 234 AT -L- STA 606+00 LT & RT

NAD 83/95

234
JARRELL INVESTMENT PROPERTIES, LLC
DB 2089 PG 564

MATCHLINE -L- STA. 605+00
SEE SHEET 45

MATCHLINE -L- STA. 618+00
SEE SHEET 47

BM #7 ELEVATION = 647.98'
N 708468 E 1774966
BL STATION 153+87.00 232' LEFT
RR SPIKE IN BASE OF 20" POPLAR

PROP. 47" WW FENCE

BEGIN FENCE +90.00 -L- 200' LT

COIR FIBER MATTING (TYP.)

25 LF OF INLET CHANNEL IMPROVEMENT EST. 30 TONS CASS II RIP RAP EST. 30 SY GEOTEXTILE

END FENCE +66.95 -L- 200' LT

LATERAL BASE DITCH W/CL B RIPRAP EST 141 TONS EST 400 SY GEOTEXTILE SEE DETAIL BY

2 TONS CL B RIPRAP W/7 SY GEO FAB

SPECIAL CUT DITCH SEE DETAIL H

15" CSP 2 ELBOWS ROD & LUG

15" RCP-III

CHANNEL BLOCK SEE DETAIL U

BEGIN SBG +30

610+00

END FENCE +90.00 -L- 145' LT

BEGIN FENCE +90.00 -L- 130' LT

CHANNEL CHANGE W/CL II RIP RAP EST 368 TONS EST 472 SY GEOTEXTILE SEE DETAIL CT

CL II RIP RAP ON FLOOD BENCH BORDER (TYP.) EST. 15 TONS CL II RIP RAP EST. 15 SY GEOTEXTILE

CHANNEL BLOCK SEE DETAIL U

BEGIN FENCE

END SBG +63

20' x 10' PSRM

GRAU-350

CAT-1

PROP. SLOPE STAKE LINE

200' R/W

+50 200

615+00

-BL- 714

-L-

N 5° 11' 56.2" E

-BL- 715

-BL- 713

BEGIN SBG +00

END SBG +20

18" CSP 2 ELBOWS ROD & LUG

CL II RIP RAP ON FLOOD BENCH BORDER (TYP.) EST. 15 TONS CL II RIP RAP EST. 15 SY GEOTEXTILE

TOE PROTECTION W/CL B RIPRAP EST 81 TONS EST 243 SY GEOTEXTILE SEE DETAIL I

PSH SEE DETAIL AP

COIR FIBER MATTING (TYP.)

LATERAL BASE DITCH SEE DETAIL BO

3 TONS CL B RIPRAP W/10 SY GEO FAB

25 LF OF OUTLET CHANNEL IMPROVEMENT EST. 25 TONS CASS II RIP RAP EST. 25 SY GEOTEXTILE

3@ 10'W x 7' RCBC

WOODS

CUTOVER

END FENCE +72.00 -L- 200' RT

BEGIN FENCE +30.00 -L- 200' RT

+50 -L- 200' RT

N 07°15'02" W 299.99'

EIP

FOR -L- PROFILE SEE SHT. 126

ICA Engineering
5121 Kingdom Way, Suite 100
Raleigh, NC 27607
NC License No: F-0258

3/22/2016
R2536_RDY_PSH_046.dgn
ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	47
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

BM #8 ELEVATION = 698.29'
N 710594 E 1775047
BL STATION 175+05.00 344' LEFT
RR SPIKE IN BASE OF 14" OAK

MATCHLINE -L- STA. 618+00
SEE SHEET 46

MATCHLINE -L- STA. 631+00
SEE SHEET 48

234
JARRELL INVESTMENT PROPERTIES, LLC
DB 2089 PG 564

PROP. 47" WW FENCE

200' R/W

CUTOVER

PROP. SLOPE STAKE LINE

2 TONS CL B RIPRAP
W/7 SY GEO FAB

4713

4708

4712

CAT-1

2GI

15" RCP-III

GRAU-350

8d

20' x 10' PSRM

STANDARD BASE DITCH
W/CL B RIPRAP
SEE DETAIL BV
SLOPE = 6.25%
DDE = 12 CY
EST 23 TONS CL B RIPRAP
EST 32 SY GEO FAB

3 TONS CL B RIPRAP
W/10 SY GEO FAB

4717

623.32

10' P.S.

2.4' 0.2

2.3' 4' P.S.

-BL- 716

620+00

4701

FS

-L-

N 5° 11' 56.2" E

625+00

4705

-BL- 717

630+00

4716

18" RCP-III

4703

4702

4704

4706

4707

4715

4714

BDO

18" CSP
2 ELBOWS
ROD & LUG

LATERAL BASE DITCH
W/CL B RIPRAP
EST 114 TONS
EST 323 SY GEOTEXTILE
SEE DETAIL BY

STANDARD BASE DITCH
W/CL B RIPRAP
SEE DETAIL BV
SLOPE = 3.25%
DDE = 15 CY
EST 36 TONS CL B RIPRAP
EST 80 SY GEO FAB

234
JARRELL INVESTMENT PROPERTIES, LLC
DB 2089 PG 564

N 04°13'16" E
165.51'

BERM DITCH
SEE DETAIL BC

N 86°41'02" W
51.05'

BERM DITCH
W/CL B RIPRAP
EST 514 TONS
EST 1548 SY GEOTEXTILE
SEE DETAIL Y

+00
200'

+42.27
202.27'

+80.53
200'

+80.91
289.27'

N 07°15'28" W
299.93'

+73.78
224.57'

N 03°33'47" E
299.43'

+73.09
216.02'

+33.01
214.35'

N 03°30'28" E
409.44'

PROP. 47" WW FENCE

WOODS

NANCY CAUDLE
DB 1232 PG 1675
DB 1121 PG 373
PB 9 PG 40
PB 8 PG III

G. A. CAUDLE
DB 1136 PG 750
PB 8 PG III

235
MARY JOHNSON
DB 1891 PG 829
PB 8 PG III

TONY KIVETT
DB 1395 PG 771
PB 9 PG 40

S 87°59'43" E
239.76'

S 88°00'19" E
239.68'

S 86°17'40" E
300.07'

S 03°34'44" W
400.49'

S 03°35'42" W
299.58'

S 87°09'28" E
306.09'

EIP

FOR -L- PROFILE SEE SHTS. 126 - 127

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3/22/2016
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	48
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : REVISED PUE ON PARCEL 236 (ELIMINATED REMNANT) FROM -L- STA 635+00.96 TO -L- STA 637+32.08 LT, ADDED TDE ON PARCEL 238 (ELIMINATED TCE) FROM -L- STA 634+50.00 TO -L- STA 638+10.00 LT
ADDED TDE ON PARCELS 236 & 238 TO ENCOMPASS AND DRAIN POND
REVISED PDE AND ELIMINATED DUE ON PARCELS 236 & 238 FROM -L- STA 637+55.00 TO -L- STA 641+55.00 LT

RIGHT-OF-WAY REVISION 3-10-2016 : NAME CHANGE ON PARCELS 238 & 239

3/22/2016
R2536_RDY_PSH_Ø48.dgn
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NAD 83/95

MATCHLINE -L- STA. 631+00
SEE SHEET 47

MATCHLINE -L- STA. 644+00
SEE SHEET 49

-L- PC 638+18.15

-BL- 718

-BL- 719

-BL- 721

-BL- 722

635+00

640+00

N 5°11'56.2" E

PROP. SLOPE STAKE LINE

PROP. 47" WW FENCE

200' R/W

236 MARK WHITE
DB 1933 PG 1132
PB 92 PG 94

237 NORMAN LIVENGOOD, JR.
DB 2367 PG 1201
PB 75 PG 98

238 LOUNETTE BRIDGMAN
DB 1898 PG 2704

239 VERONICA PANIADGUA MARTINEZ
DB 2247 PG 672
PB 106 PG 56

240 MARIE VONCANNON
DB 1399 PG 402
PB 8 PG III

241 GREGORY CRAVEN
DB 1770 PG 1306
DB 2095 PG 417
PB 75 PG 98
PB 70 PG 9

235 MARY JOHNSON
DB 1891 PG 829
PB 8 PG III

STANDARD BASE DITCH
W/CL II RIPRAP
EST 207 TONS
EST 279 SY GEOTEXTILE
SEE DETAIL BD
SLOPE = 0.5%
DDE = 350 CY

STANDARD BASE DITCH
W/CL II RIPRAP
EST 451 TONS
EST 609 SY GEOTEXTILE
SEE DETAIL BD
SLOPE = 0.5%
DDE = 550 CY

STANDARD BASE DITCH
W/CL II RIPRAP
EST 460 TONS
EST 622 SY GEOTEXTILE
SEE DETAIL BD
SLOPE = 0.4%
DDE = 650 CY

DRAIN POND. VERIFY BOTTOM OF POND ELEVATION TO TIE TO LATERAL BASE DITCH.COORDINATE WITH CONTRACTOR FOR A PERMANENT DITCH THROUGH POND IF NECESSARY.

DRAIN POND. VERIFY BOTTOM OF POND ELEVATION TO TIE TO LATERAL BASE DITCH. COORDINATE WITH CONTRACTOR FOR A PERMANENT DITCH THROUGH POND IF NECESSARY.

SPECIAL LATERAL 'V' DITCH
SEE DETAIL J

5 TONS CL B RIPRAP
W/14 SY GEO FAB

2 TONS CL B RIPRAP
W/7 SY GEO FAB

24" CSP
2 ELBOWS
ROD & LUG

15" RCP-III

END SBG +00

CAT-1 2GI

BEG SBG +79

18" CSP
2 ELBOWS
ROD & LUG

BDO

BEG SBG +10

PSH
SEE DETAIL AP

BERM DITCH
W/CL B RIPRAP
EST 514 TONS
EST 1548 SY GEOTEXTILE
SEE DETAIL Y

PROP. 47" WW FENCE

FOR -L- PROFILE SEE SHT. 127

-L-
PI Sta 650+33.23
Δ = 8° 25' 24.5" (LT)
D = 0° 20' 50.1"
L = 2,425.78'
T = 1,215.08'
R = 16,500.00'
SE = NC
V = 75mph

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	49
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y13-		-L-
PI Sta 16+83.40	PI Sta 24+08.07	PI Sta 650+33.23
Δ = 30° 38' 19.3" (LT)	Δ = 30° 22' 50.5" (RT)	Δ = 8° 25' 24.5" (LT)
D = 12° 43' 56.6"	D = 12° 43' 56.6"	D = 0° 20' 50.1"
L = 240.64'	L = 238.61'	L = 2,425.78'
T = 123.27'	T = 122.18'	T = 1,215.08'
R = 450.00'	R = 450.00'	R = 16,500.00'
SE = 0.08	SE = 0.08	SE = NC
V = 40mph	V = 40mph	V = 75mph

NAD 83/95

MATCHLINE -Y13- STA. 24+00 SEE SHEET 99

MATCHLINE -L- STA. 644+00 SEE SHEET 48

MATCHLINE -L- STA. 657+00 SEE SHEET 50

MATCHLINE -Y13- STA. 17+00 SEE SHEET 98

389 ANGELA SPENCER DB 2017 PG 2182 PB 106 PG 56

243 STEVEN HARRELL DB 2233 PG 1236 PB 75 PG 98

VERONICA PANIADGUA MARTINEZ DB 2247 PG 672 PB 106 PG 56

239 BEGIN FENCE +40.00 -L- 192.65' LT

END FENCE +78.00 -L- 204.74' LT

62 TONS CL I RIPRAP W/98 SY GEO FAB ON BANKS ONLY

242 THOMAS BRITT DB 1985 PG 1261 PB 45 PG 28

244 STEVE BATES, JR. DB 2026 PG 2263

246 TIMOTHY HUSSEY DB 1472 PG 250 DB 1802 PG 46 PB 82 PG 1

245 BRUCE TROGDON DB 1062 PG 463 DB 953 PG 229 DB 1062 PG 463 DB 1060 PG 296 DB 1038 PG 544 DB 1703 PG 2457 PB 70 PG 9

247 VICKIE COX DB 1189 PG 1084

-BY4- 768

-Y13- PC 22+85.89

END APPROACH SLAB -Y13- STA 21+32.54

END BRIDGE -Y13- STA 21+18.37 -L- POC 650+13.39 = -Y13- POT 20+30.37

BEGIN BRIDGE -Y13- STA 19+39.87

BEGIN APPROACH SLAB -Y13- STA 19+25.70

-Y13- PT 18+00.76

-BL- 725

-BL- 724

-BL- 723= -BY4- 723

-L-

645+00 650+00 655+00

DRAIN POND

PROP. SLOPE STAKE LINE

PROP. 47" WW FENCE

LATERAL 'V' DITCH SEE DETAIL D

SPECIAL CUT DITCH SEE DETAIL H

BERM DITCH SEE DETAIL BC

48" RCP-III NOT BURIED

END SBG +00

15" CSP 2 ELBOWS ROD & LUG

15" RCP-IV

15" CPP-III

30" RCP-III

24" CSP 2 ELBOWS ROD & LUG

IMPACT ATTENUATOR

FILL IN & CAP WITH CONCRETE

GRADE TO DRAIN

STANDARD BASE DITCH W/PSRM EST 40 SY SEE DETAIL AK SLOPE = 10% DDE = 15 CY EST 40 SY PSRM

BERM DITCH W/CL B RIPRAP EST 514 TONS EST 1548 SY GEOTEXTILE SEE DETAIL Y

END FENCE +35.00 -L- 200' RT

2 TONS CL B RIPRAP W/7 SY GEO FAB

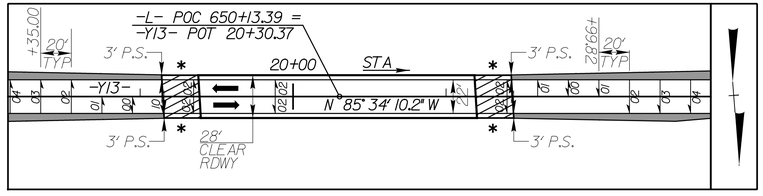
54 TONS CL II RIPRAP W/73 SY GEO FAB

BASE BERM DITCH W/CL B RIPRAP EST 287 TONS EST 813 SY GEOTEXTILE SEE DETAIL AM

PROPOSED SIGN

6" DECK DRAINS @ 6' O.C. LT AND RT SHLD FROM STA. 19+44 TO STA. 19+68
STA. 20+90 TO STA. 21+14
6" DECK DRAINS LT AND RT SHLD AT STA. 20+20 ND STA. 20+43

PAVEMENT-BRIDGE RELATIONSHIP SKETCH



* GUARDRAIL ANCHOR UNIT REQUIRED

BRIDGE APPROACH SLAB

PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHTS. 127 - 128
FOR -Y13- PROFILE SEE SHT. 196

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ADDED PUE ON PARCEL 242 FROM -L- 647+98.28 TO -L- 648+63.86 RT, REVISED TDE
ADDED PUE ON PARCEL 243 FROM -L- 648+23.60 TO -L- 648+88.09 LT
ADDED PUE ON PARCEL 244 FROM -Y13- 23+79.36 TO -Y13- 24+03.45 RT

RIGHT-OF-WAY REVISION 3-10-2016 : NAME CHANGE ON PARCEL 239

3/22/2016
R-2536 RDY_PSH_049.dgn
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NC License No: F-0258

PROJECT REFERENCE NO.	SHEET NO.
R-2536	50
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-
PI Sta 650+33.23
△ = 8° 25' 24.5" (LT)
D = 0° 20' 50.1"
L = 2,425.78'
T = 1,215.08'
R = 16,500.00'
SE = NC
V = 75mph

NAD 83/95

MATCHLINE -L- STA. 657+00
SEE SHEET 49

MATCHLINE -L- STA. 671+00
SEE SHEET 51

S 04°06'30" W
416.43'

S 85°53'29.4" E
317.42'

EIP

248
DAVID KAMINSKI
DB 2111 PG 344

250
ADLETTA DELK
DB 397 PG 113

BOOK WALL

BM #10 ELEVATION = 687.03'
N 714257 E 1775235
BL STATION 212+39.00 224' LEFT
RR SPIKE IN BASE OF 22" OAK

+43.93
200'

PROP. 47" WW FENCE

N 01°06'18" E
711.94'

249
KEVIN COX
DB 1919 PG 2907

PROP. SLOPE STAKE LINE

-L- PT 662+43.93

200' R/W

FIELD

WOODS

10' P.S.

-BL- 726

660+00

-BL- 727

24" RCP-III

2GI-A

FS

5001

24" RCP-III

2GI

5012

BASE BERM DITCH
W/CL B RIPRAP
EST 287 TONS
EST 813 SY GEOTEXTILE
SEE DETAIL AM

18" CSP
2 ELBOWS
ROD & LUG

BDO 5009

GRADE TO DRAIN

SPECIAL CUT DITCH
W/PSRM EST 113 SY
SEE DETAIL AH

5002

SPECIAL CUT DITCH C
W/PSRM EST 113 SY
SEE DETAIL AH

S 85°53'38.6" E
326.44'

36" RCP-III

2GI-A

FS

5003

-L-

665+00

-BL- 728

N 3°13'28.2" W

-BL- 729

36" RCP-III

36 TONS CL I RIPRAP
W/58 SY GEO FAB

5005

LATERAL BASE DITCH
W/CL I RIPRAP
EST 161 TONS
EST 343 SY GEOTEXTILE
SEE DETAIL M

36" RCP-III

2GI-A

5004

SPECIAL CUT DITCH
SEE DETAIL AF

FS

CAT-1

BEG SBG
+35

TOE PROTECTION
W/CL B RIPRAP
EST 114 TONS
EST 342 SY GEOTEXTILE
SEE DETAIL I

2 TONS CL B RIPRAP
W/7 SY GEO FAB
TOE PROTECTION
W/CL B RIPRAP
EST 114 TONS
EST 342 SY GEOTEXTILE
SEE DETAIL I

LATERAL BASE DITCH
w/CL B RIPRAP
EST 72 TONS
EST 242 SY GEOTEXTILE
SEE DETAIL BY

60 TONS CL I RIPRAP
W/113 SY GEO FAB
ON BANKS ONLY

5008

15" CSP
2 ELBOWS
ROD & LUG

2GI

5007

60" RCP-III

JB w/MH 5016

5011

12" P.S.

5013

60" RCP-III NOT BURIED

4' P.S.

2GI

5014

60" RCP-IV NOT BURIED

END SBG +99

2GI

5010

15" CSP CAT I
21 ELBOWS
ROD & LUG

5015

HW

GRAU-350

BEG SBG
+00

TOE PROTECTION
W/CL B RIPRAP
EST 131 TONS
EST 392 SY GEOTEXTILE
SEE DETAIL I

TOE PROTECTION
W/CL B RIPRAP
EST 131 TONS
EST 392 SY GEOTEXTILE
SEE DETAIL I

LATERAL BASE DITCH
SEE DETAIL BP

2 TONS CL B RIPRAP
W/7 SY GEO FAB

40 TONS CL I RIPRAP
W/75 SY GEO FAB
ON BANKS ONLY

+44.93
200'

N 78°54'41" E
185.20'

N 79°47'38" E
35.68'

N 01°06'47" E
569.73'

250
ADLETTA DELK
DB 397 PG 113

FOR -L- PROFILE SEE SHT. 128

ICA Engineering
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3/22/2016
R2536_BOX_PSH_050.dgn
ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	51
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

250
ADLETTA DELK
DB 397 PG 113

MATCHLINE –L– STA. 671+00
SEE SHEET 50

WOODS
PASTURE
TREES
MISC.

RIPRAP TRANSITION AT JURSDICTIONAL STREAM SEE DETAIL AU
LATERAL BASE DITCH SEE DETAIL CE
LATERAL BASE DITCH SEE DETAIL BN
5 TONS CL B RIPRAP W/14 SY GEO FAB
200' R/W
5108
5113 15" RCP-III
24" RCP-III GRAU 350
END SBG +25
5107 24" RCP-III
12' P.S.
24' P.S.
4' P.S.
8:1
720' LANE DROP
5104 2GI FS
5111 2GI FS
15" RCP-III
36" RCP-III
-BL- 730
N 3°13' 28.2" W
5106 2GI FS
675+00
15" RCP-III
2GI FS
5105
-BL- 731
-L-
680+00
2GI-A
N 3°13' 28.2" W
-BL- 732
5112 FS
30" RCP-III
-Y17FLY- SC 11+60.00
-Y17FLY- TS Sta. 10+00.00 =
-L- POT Sta. 682+73.22 35' LT
+73.22
200'
26.67' TYP
-Y17FLY-
-Y17RPDA- SC 11+60.00
-Y17RPD-
15+00
-Y17RPDA-
N 0°43' 28.2" W -Y17RPD-
-Y17RPD- PT 16+32.68
165' R/W
5102 2GI FS
18" CSP
2 ELBOWS
ROD & LUG
BDO
5101
5103 2GI FS
5110 2GI FS
24" CSP
2 ELBOWS
ROD & LUG
BDO
5109
LATERAL BASE DITCH SEE DETAIL CD
BERM DITCH SEE DETAIL BC
BERM DITCH SEE DETAIL CA
BERM DITCH SEE DETAIL CA
+89.17
200'
+45
165'
583.77' TAPER
+30
220'
+32.68
165'
+70
215'
-Y17RPD- PC Sta. 10+00.00 =
-L- POT Sta. 676+89.17 35' RT
-Y17RPDA- TS Sta. 10+00.00 =
-Y17RPD- POT Sta. 15+83.77, 12' LT
Δ = 2°18' 20.1"
250
ADLETTA DELK
DB 397 PG 113

MATCHLINE –Y17FLY– STA. 12+00
SEE SHEET 52
MATCHLINE –Y17RPD– STA. 18+00
SEE SHEET 52

250
ADLETTA DELK
DB 397 PG 113

–Y17RPD–	
PI Sta 13+16.39	
Δ = 2°30' 00.0" (RT)	
D = 0°23' 42.5"	
L = 632.68'	
T = 316.39'	
R = 14,500.00'	
SE = NC	
V = 70mph	

–Y17FLY–	
PIs Sta 11+06.69	PI Sta 17+28.09
Θs = 3°26' 46.9"	Δ = 46°15' 27.9" (LT)
Ls = 160.00'	D = 4°18' 28.6"
LT = 106.69'	L = 1,073.78'
ST = 53.35'	T = 568.09'
	R = 1,330.00'
	SE = 0.06
	V = 60mph

–Y17RPDA–
PIs Sta 11+06.69
Θs = 3°25' 05.1"
Ls = 160.00'
LT = 106.69'
ST = 53.35'

FOR –L– PROFILE SEE SHT. 129
FOR –Y17FLY– PROFILE SEE SHT. 129
FOR –Y17RPD– PROFILE SEE SHT. 209
FOR –Y17RPDA– PROFILE SEE SHT. 211

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R-2536 Rev PSH 051.dgn
ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	52
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE -Y17FLY- STA. 23+00 SEE SHEET 53

MATCHLINE -Y17FLY- STA. 12+00 SEE SHEET 51

MATCHLINE -Y17RPD- STA. 18+00 SEE SHEET 51

MATCHLINE -Y17RPD- STA. 31+00 SEE SHEET 53

-Y17FLY-

PI Sta 17+28.09	PIs Sta 22+87.13
△ = 46° 15' 27.9" (LT)	Θs = 3° 26' 46.9"
D = 4° 18' 28.6"	Ls = 160.00'
L = 1,073.78'	LT = 106.69'
T = 568.09'	ST = 53.35'
R = 1,330.00'	
SE = 0.06	
V = 60mph	

-Y17RPDA-

PI Sta 17+50.77	PIs Sta 23+26.28
△ = 47° 33' 04.0" (LT)	Θs = 3° 25' 05.1"
D = 4° 16' 21.4"	Ls = 160.00'
L = 1,112.93'	LT = 106.69'
T = 590.77'	ST = 53.35'
R = 1,341.00'	
SE = 0.06	
V = 60mph	

-Y17RPC-

PIs Sta 11+15.94	PI Sta 17+71.69
Θs = 4° 46' 45.1"	△ = 59° 15' 31.1" (LT)
Θs = 6° 30' 00.6"	D = 5° 54' 24.4"
Ls = 220.00'	L = 1,003.23'
LT = 115.94'	T = 551.69'
ST = 104.77'	R = 970.00'
	SE = 0.08
	V = 55mph

-Y17RPC- SC 12+20.00

-Y17FLY- CS 22+33.78

-Y17RPC- TS 10+00.00 =
-Y17FLY- POC 20+71.53 12' LT

-Y17RPDA- CS 22+72.93

-Y17RPD- CS 28+74.02

-Y17RPD- SC 19+90.68

-Y17RPD- TS 18+90.68

-Y17RPD- SRS 29+74.02

RAEFORD & MARY ROUTHLIFE ESTATE)
TONY & MARK ROUTH
DB 2151 PG 1024

411 LATERAL BASE DITCH W/CL B
RIPRAP EST 164 TONS
EST 314 SY GEOTEXTILE
SEE DETAIL BU

TANA SKIPPER
DB 1775 PG 1159

KENNETH SYMES
DB 2045 PG 1710

TOMMY BARNES
DB 1463 PG 65

BEGIN FENCE
+05
206.11'

END FENCE
+85
177.27'

GABRIELS CREEK

403

404

412

251
HARMON TROGDON
DB 1770 PG 837

TOE PROTECTION
W/CL B RIPRAP
EST 63 TONS
EST 190 SY
GEOTEXTILE
SEE DETAIL I

40 LF OF INLET
CHANNEL IMPROVEMENT
EST. 80 TONS CL II RIP RAP
EST. 80 SY GEOTEXTILE

+00
150'

402
JERRY TROTTER
DB 944 PG 19

55 LF OF INLET
CHANNEL IMPROVEMENT
EST. 110 TONS CL II RIP RAP
EST. 120 SY GEOTEXTILE

LATERAL BASE DITCH
W/CL I RIPRAP
EST 86 TONS
EST 147 SY GEOTEXTILE
SEE DETAIL CO

250
ADLETTA DELK
DB 397 PG 113

+00
150'

MEDIAN V DITCH
SEE DETAIL AT

BEG SBG
+06

IMPACT ATTENUATOR

LATERAL BASE DITCH
W/CL I RIPRAP
SEE DETAIL CN

8 TONS
CL B RIPRAP
W/21 SY
GEO FAB

3 TONS
CL B RIPRAP
W/10 SY
GEO FAB

LATERAL BASE DITCH
W/CL I RIPRAP
EST 602 TONS
EST 1088 SY GEOTEXTILE
SEE DETAIL CN

30 LF OF INLET
CHANNEL IMPROVEMENT
EST. 35 TONS CL II RIP RAP
EST. 35 SY GEOTEXTILE

BEG SBG
+50

END SBG
+74

BEG SBG
+68

END
SBG
+55

2 TONS
CL B RIPRAP
W/7 SY
GEO FAB

LATERAL BASE DITCH
SEE DETAIL BQ

BERM
DITCH
SEE
DETAIL CC

5 TONS CL B RIPRAP
W/14 SY GEO FAB

LATERAL BASE DITCH
W/CL B RIPRAP
EST 109 TONS
EST 308 SY GEOTEXTILE
SEE DETAIL BZ

22 LF OF OUTLET
CHANNEL IMPROVEMENT
EST. 25 TONS CASS II RIP RAP
EST. 25 SY GEOTEXTILE

BERM DITCH
SEE DETAIL CA

BERM DITCH
SEE DETAIL CA

HARMON TROGDON
DB 1770 PG 837

+90.68
150'

+05
157.70'

+74.02
150'

CHORD

BDO

18" CSP
2 ELBOWS
ROD & LUG

15" CSP
2 ELBOWS
ROD & LUG

10' X 8' RCBC
C800

GRAU 350

GRAU 350

GRAU 350

-BL- 733

-BL- 734

-BL- 735

-BL- 736

-Y17FLY-

-Y17RPDA-

-Y17RPD-

-Y17RPC-

20+00

15+00

25+00

30+00

150' R/W

PROGRESS ENERGY R/W
100.00'

PROGRESS ENERGY R/W
170.00'

MTL GATE

GUY WIRES

WOODS

PASTURE

5202 5203 5204 5205 5206 5207 5208 5209 5210 5211 5212 5213 5214 5215 5216 5217 5218 5219 5220

2GI

2GI-A

FS

15" RCP-III

18" RCP-III

24" RCP-III

30" RCP-III

36" RCP-III

CAT-1

-Y17RPD- W 0° 43' 28.2" W

N 75°49'03" W 186.42'

N 45°47'40" E 19.78'

N 43°30'40" E 82.80'

N 43°30'40" E 36.95'

N 14°32'40" E 66.06'

S 03°27'40" W 99.00'

S 14°32'40" W 8.40'

N 64°46'00" W 260.82'

N 38°30'25" E 41.57'

S 85°24'13" E 52.42'

N 14°29'47" E 129.12'

N 64°46'00" W 84.90'

N 64°46'00" W 226.25'

N 64°46'00" W 36.58'

8:1

26.67' TYP

14' P.S.

12' P.S.

MATCHLINE -Y17FLY- STA. 12+00 SEE SHEET 51

MATCHLINE -Y17RPD- STA. 18+00 SEE SHEET 51

MATCHLINE -Y17RPD- STA. 31+00 SEE SHEET 53

-Y17RPD-

PIs Sta 19+57.35	PI Sta 24+32.75	PIs Sta 29+07.35	PIs Sta 31+20.75
Θs = 0° 20' 13.3"	△ = 5° 57' 15.4" (LT)	Θs = 0° 20' 13.3"	Θs = 5° 15' 07.6"
Ls = 100.00'	D = 0° 40' 26.6"	Ls = 100.00'	Ls = 220.00'
LT = 66.67'	L = 883.33'	LT = 66.67'	LT = 146.73'
ST = 33.33'	T = 442.06'	ST = 33.33'	ST = 73.39'
	R = 8,500.00'		
	SE = RC		
	V = 60mph		

FOR -Y17FLY- PROFILE SEE SHT. 129-130
FOR -Y17RPC- PROFILE SEE SHT. 208
FOR -Y17RPD- PROFILE SEE SHT. 209-210
FOR -Y17RPDA- PROFILE SEE SHT. 211

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3/22/2016
R2536_RDY_PSH_052.dgn
ICA ENGINEERING, INC.

REVISIONS
RIGHT-OF-WAY REVISION 3-10-2016 : NAME, DEED BOOK AND PAGE CHANGE ON PARCEL 408

-Y1TFLY-					
PIs Sta 22+87.13	PIs Sta 24+93.81	PI Sta 55+44.79	PIs Sta 48+55.92	PIs Sta 50+55.93	PI Sta 53+79.64	PIs Sta 56+84.99
Θs = 3°26'46.9"	Θs = 4°52'59.4"	Δ = 147°16'59.6" (RT)	Θs = 4°52'59.4"	Θs = 5°08'46.8"	Δ = 152°19'12.4" (LT)	Θs = 5°08'46.8"
Ls = 160.00'	Ls = 150.00'	D = 6°30'39.2"	Ls = 150.00'	Ls = 150.00'	D = 6°57'42.4"	Ls = 150.00'
LT = 106.69'	LT = 100.04'	L = 2,262.01'	LT = 100.04'	LT = 100.04'	L = 529.01'	LT = 100.04'
ST = 53.35'	ST = 50.03'	T = 2,998.02'	ST = 50.03'	ST = 50.04'	T = 373.75'	ST = 50.04'
		R = 880.00'			R = 835.00'	
		SE = 0.06			SE = 0.06	
		V = 50mph			V = 50mph	

-Y1TLPDA-		
PIs Sta 11+47.34	PI Sta 24+92.03	PIs Sta 19+59.40
Θs = 1°54'47.3"	Δ = 158°44'59.3" (RT)	Θs = 29°53'36.4"
Ls = 240.00'	D = 24°54'40.4"	Ls = 240.00'
LT = 147.34'	L = 637.26'	LT = 162.54'
ST = 101.27'	R = 230.00'	ST = 82.13'
	SE = 0.08	
	V = 30mph	

-Y1TRPD-		
PIs Sta 37+65.45	PI Sta 43+34.02	
Δ = 50°55'37.5" (RT)	Θs = 5°15'01.6"	
D = 4°46'28.7"	Ls = 220.00'	
T = 1,066.61'	LT = 1467.3'	
R = 1,200.00'	ST = 73.39'	
SE = 0.08		
V = 60mph		

-Y1TRPDA-		
PIs Sta 23+26.28	PIs Sta 25+32.97	PI Sta 30+65.38
Θs = 3°25'05.2"	Θs = 5°01'51.5"	Δ = 59°53'21.3" (RT)
Ls = 160.00'	Ls = 150.00'	D = 6°50'28.8"
LT = 106.69'	LT = 100.04'	L = 875.40'
ST = 53.35'	ST = 50.04'	T = 482.45'
		R = 837.50'
		SE = 0.06
		V = 50mph

-ESR5-		
PI Sta 10+89.50	PI Sta 24+50.37	PI Sta 35+17.81
Δ = 4°01'46.4" (RT)	Δ = 16°17'50.9" (LT)	Δ = 24°05'29.8" (LT)
D = 2°15'04.7"	D = 4°09'33.2"	D = 5°43'46.5"
L = 178.93'	L = 398.22'	L = 401.64'
T = 89.50'	T = 200.46'	T = 214.00'
R = 2,545.00'	R = 1,400.00'	R = 1,000.00'

-Y1T-	-Y1TRPC-
PI Sta 57+66.76	PI Sta 17+71.89
Θs = 2°29'42.5"	Δ = 59°15'31.4" (LT)
Ls = 270.00'	D = 5°54'24.4"
LT = 180.02'	L = 1,003.23'
ST = 90.03'	T = 550.69'
	R = 970.00'
	SE = 0.08
	V = 55mph

FOR -Y17- PROFILE SEE SHT. 203–208
FOR -Y17FLY- PROFILE SEE SHT. 129–131
FOR -Y17RPC- PROFILE SEE SHT. 208
FOR -Y17TRPD- PROFILE SEE SHT. 209–210
FOR -Y17LPDA- PROFILE SEE SHT. 210
FOR -Y17RPDA- PROFILE SEE SHT. 211
FOR -Y17A PROFILE SEE SHT. 212
FOR -SR60R1- PROFILE SEE SHT. 215

NAD 83/95

PROJECT REFERENCE NO.	SHEET NO.
R-2536	5.3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVEMENT–BRIDGE RELATIONSHIP SKETCH

★ GUARDRAIL ANCHOR UNIT REQUIRED

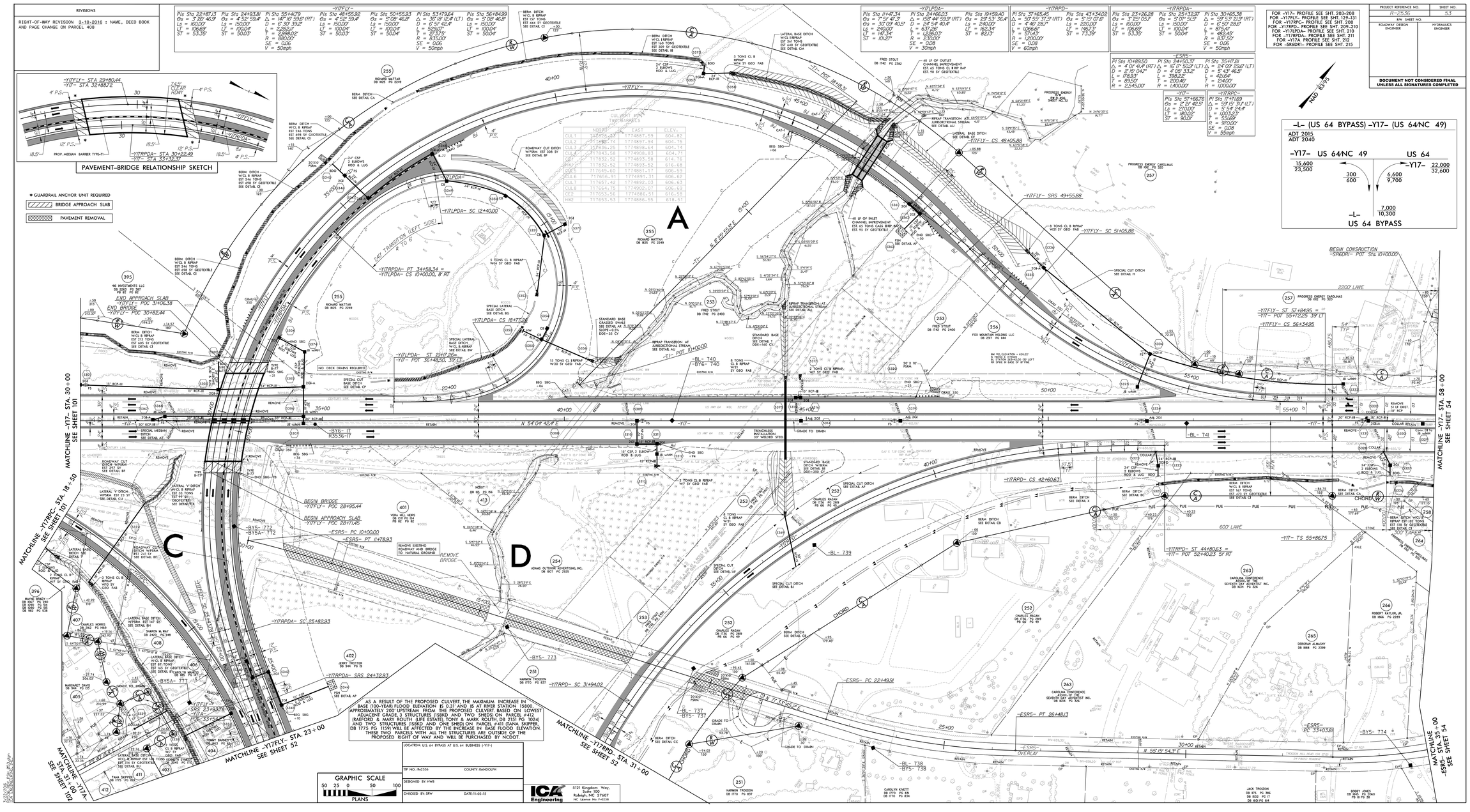
BRIDGE APPROACH SLAB

PAVEMENT REMOVAL

CULVERT PIPE TABULATIONS			
	NORTH	EAST	ELEV.
CUL1	717628.23	1774887.59	604.82
CUL2	717616.74	1774897.94	604.75
CUL3	717836.25	1774898.64	604.74
CUL4	717843.58	1774908.83	604.71
CUL5	717832.52	1774893.58	614.76
CUL6	717831.72	1774893.52	616.68
CUL7	717649.60	1774881.17	606.59
CUL8	717656.91	1774891.31	606.62
CUL9	717657.42	1774892.03	606.63
CUL8	717664.75	1774902.07	606.69
CE2	717653.56	1774886.51	616.58
HW2	717655.53	1774886.55	616.51

-L- (US 64 BYPASS) -Y17- (US 64/NC 49)

ADT 2015
ADT 2040



PROJECT REFERENCE NO.	SHEET NO.
R-2536	54
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83 95

MATCHLINE -Y17- STA. 58+00 SEE SHEET 53

MATCHLINE -Y17- STA. 71+00 -SR6- STA. 21+50 SEE SHEET 55

MATCHLINE -SR5- STA. 18+00 -Y17- STA. 71+00 SEE SHEET 55

MATCHLINE -ESR5- STA. 35+00 SEE SHEET 53

-SR6DR2-
PI Sta 11+26.68
△ = 62° 15' 04.8" (LT)
D = 381° 58' 18.7"
L = 16.30'
T = 9.06'
R = 15.00'

-ESR5-
PI Sta 35+17.81
△ = 24° 09' 29.6" (LT)
D = 5° 43' 46.5"
L = 421.64'
T = 214.00'
R = 1,000.00'

-Y17-
PIs Sta 57+66.76
θs = 2° 21' 42.5"
Ls = 270.00'
LT = 180.02'
ST = 90.01'

PI Sta 65+56.95
△ = 24° 08' 11.5" (RT)
D = 1° 44' 58.2"
L = 1,379.63'
T = 700.20'
R = 3,275.00'
SE = 0.05
V = 60mph

-SR6-
PI Sta 17+34.04
△ = 24° 21' 55.9" (RT)
D = 1° 41' 06.6"
L = 1,445.88'
T = 734.04'
R = 3,400.00'
SE = 0.02
V = 40mph

-SR5-
PI Sta 16+12.79
△ = 51° 06' 45.0" (RT)
D = 8° 11' 06.4"
L = 624.46'
T = 334.73'
R = 700.00'
SE = 0.04
V = 40mph

FOR -Y17- PROFILE SEE SHT. 205-206
FOR -SR5- PROFILE SEE SHT. 213
FOR -SR6- PROFILE SEE SHT. 214
FOR -SR6DR1- PROFILE SEE SHT. 215
FOR -SR6DR2- PROFILE SEE SHT. 215

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	55
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y17-

PI Sta 65+56.95	PIs Sta 73+26.39	PI Sta 82+67.84
Δ = 24° 08' 11.5" (RT)	Θs = 2° 21' 42.5"	Δ = 3° 04' 14.4" (LT)
D = 1° 44' 58.2"	Ls = 270.00'	D = 0° 29' 40.4"
L = 1,379.63'	LT = 180.02'	L = 620.88'
T = 700.20'	ST = 90.01'	T = 310.51'
R = 3,275.00'		R = 11,585.00'
SE = 0.05		SE = NC
V = 60mph		V = 60mph

-SR6-

PI Sta 19+95.64	PI Sta 29+53.32	PI Sta 33+51.27
Δ = 15° 15' 56.2" (RT)	Δ = 29° 12' 19.5" (LT)	Δ = 10° 55' 18.6" (RT)
D = 1° 41' 06.6"	D = 10° 44' 58.8"	D = 26° 38' 57.1"
L = 905.88'	L = 271.69'	L = 382.46'
T = 455.64'	T = 138.86'	T = 265.13'
R = 3,400.00'	R = 533.00'	R = 215.00'
SE = 0.02	SE = 0.04	SE = 0.04
V = 40mph	V = 40mph	V = 25mph

-SR6DR4-

PI Sta 10+67.65
Δ = 26° 12' 11.2" (LT)
D = 52° 05' 13.5"
L = 50.31'
T = 25.60'
R = 110.00'

-SR6DR5-

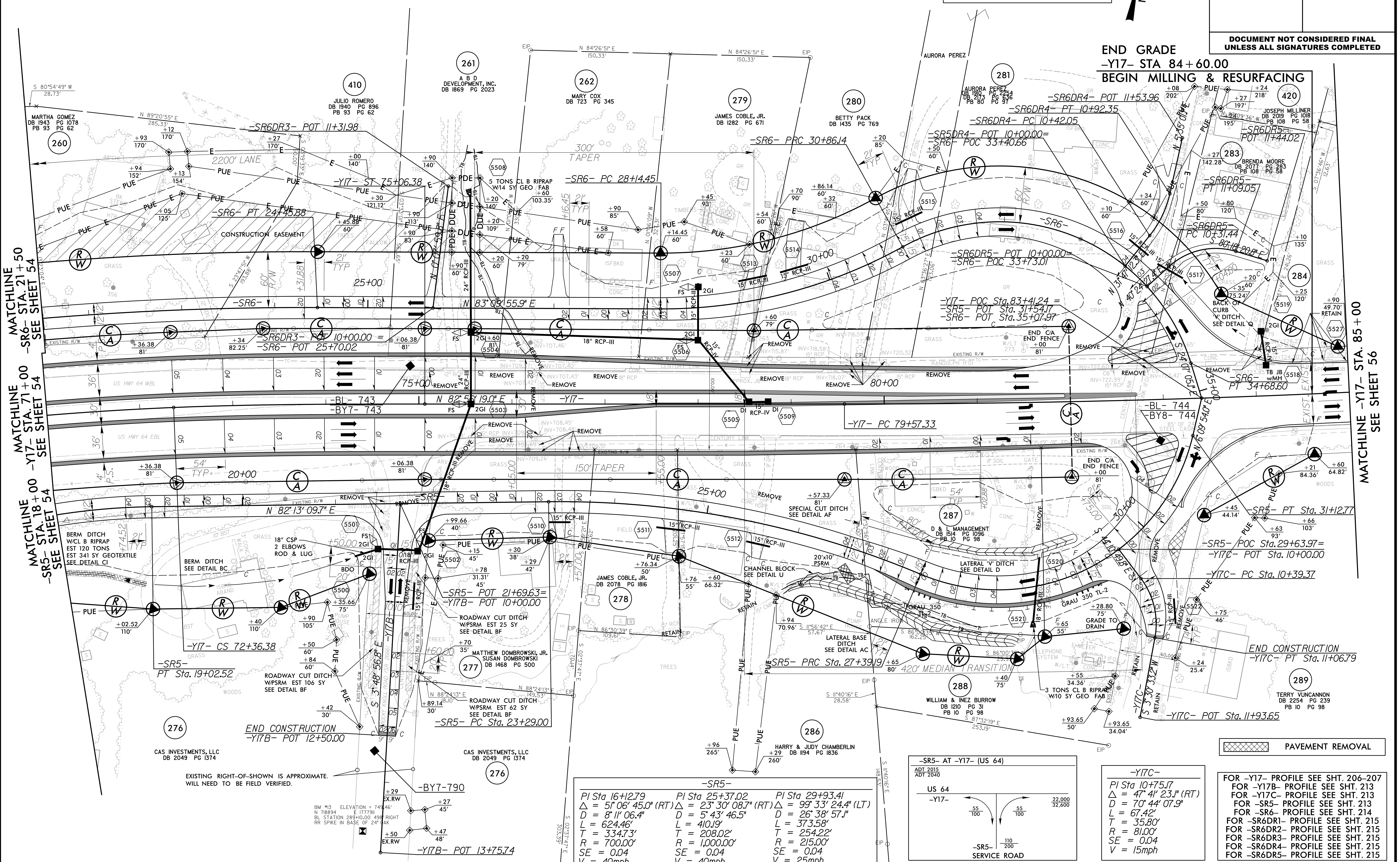
PI Sta 10+74.12
Δ = 59° 17' 11.7" (RT)
D = 76° 23' 39.7"
L = 77.61'
T = 42.68'
R = 75.00'

-SR6- AT -Y17- (US 64)

ADT 2015
ADT 2040

SERVICE ROAD -SR6- 50/100; 25/50; 25/50; 22,000 / 32,600 -Y17- US 64

NAD 83/95



-SR5-

PI Sta 16+12.79	PI Sta 25+37.02	PI Sta 29+93.41
Δ = 51° 06' 45.0" (RT)	Δ = 23° 30' 08.7" (RT)	Δ = 99° 33' 24.4" (LT)
D = 8° 11' 06.4"	D = 5° 43' 46.5"	D = 26° 38' 57.1"
L = 624.46'	L = 410.19'	L = 373.58'
T = 334.73'	T = 208.02'	T = 254.22'
R = 700.00'	R = 1,000.00'	R = 215.00'
SE = 0.04	SE = 0.04	SE = 0.04
V = 40mph	V = 40mph	V = 25mph

-SR5- AT -Y17- (US 64)

ADT 2015
ADT 2040

US 64 -Y17- 22,000 / 32,600; 55/100; 55/100; 110/200 -SR5- SERVICE ROAD

-Y17C-

PI Sta 10+75.17
Δ = 47° 41' 23.1" (RT)
D = 70° 44' 07.9"
L = 67.42'
T = 35.80'
R = 81.00'
SE = 0.04
V = 15mph

PAVEMENT REMOVAL

FOR -Y17- PROFILE SEE SHT. 206-207
FOR -Y17B- PROFILE SEE SHT. 213
FOR -Y17C- PROFILE SEE SHT. 213
FOR -SR5- PROFILE SEE SHT. 213
FOR -SR6- PROFILE SEE SHT. 214
FOR -SR6DR1- PROFILE SEE SHT. 215
FOR -SR6DR2- PROFILE SEE SHT. 215
FOR -SR6DR3- PROFILE SEE SHT. 215
FOR -SR6DR4- PROFILE SEE SHT. 215
FOR -SR6DR5- PROFILE SEE SHT. 215

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : REVISED TCE ON PARCELS 260 AND 410 FROM -SR6- 23+12.00 TO -SR6- 25+30.00 LT

3/22/2016
R2536_Rdy_psh_055.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2536	56
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-Y17-		
PI Sta 82+67.84	PIs Sta 96+22.84	PI Sta 99+14.56
△ = 3° 04' 14.4" (LT)	Θs = 3° 26' 15.9"	△ = 8° 46' 19.5" (RT)
D = 0° 29' 40.4"	Ls = 300.00'	D = 2° 17' 30.6"
L = 620.88'	LT = 200.04'	L = 382.75'
T = 310.51'	ST = 100.03'	T = 191.75'
R = 11,585.00'		R = 2,500.00'
SE = NC		
V = 60mph		

NAD 83/95

RETAIN EXISTING STORM DRAINAGE SYSTEMS

PROPOSED MILL AND FILL (RETAIN EXIST. CURB AND GUTTER)

MATCHLINE -Y17- STA. 85+00
SEE SHEET 55

MATCHLINE -Y17- STA. 99+00
SEE SHEET 56A

FOR -Y17- PROFILE SEE SHT. 207-208

BRENDA MOORE
DB 1099 PG 594

WAYNE TROGDON
WB 87E PG 63
DB 572 PG 490

PEGGY TROGDEN

CLICKS
DB 1037 PG 11

JEFFREY SCHWARZ
DB 1151 PG 637

DOROTHY GARNER
DB 434 PG 558
DB 474 PG 265
DB 643 PG 287
DB 682 PG 628
DB 1140 PG 257
PB 10 PG 98

JESSE PUGH
DB 401 PG 590

ARTHUR AUMAN
DB 1231 PG 109
DB 2234 PG 1010
PB 129 PG 77

-BL- 745

-Y17- PT 85+78.20

-Y17- TS 94+22.81

-Y17- SC 97+22.81

-BY9- 792

N 79° 52' 04.7" E 200.04'

N 83°10'45" W 199.66'

S 01°55'05" W 53.00'

N 01°35'01" E 200.32'

S 83°03'59" E 200.04'

N 01°35'01" E 193.53'

S 01°35'01" E 193.53'

S 02°43'25" E 220.81'

S 09°51'55" E 173.93'

N 08°47'06" E 279.42'

N 08°47'06" E 342.85' M+P0.00 N

S 06°03'31" W 552.71'

N 05°14'58" E 242.62'

S 03°32'34" W 209.39'

S 04°47'44" E 87.20'

S 04°17'05" W 145.12'

N 87°30'13" W 32.28'

N 82°46'26" W 41.53'

S 89°02'54" E 196.87'

N 08°05'58" E 37.20'

EXISTING R/W

US HWY 64

RANDOLPH (FO)

CENTURY LINK

CITY OF ASHEBORO

TO CEDAR FALLS ROAD

60' DRIVEWAY EASEMENT DB 1099 PG 594

TROGDEN POND RD

3/22/2016
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Raleigh, NC 27607
NC License No: F-0258

PROJECT REFERENCE NO.	SHEET NO.
R-2536	56A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y17-
PI Sta 99+14.56
Δ = 8° 46' 19.5" (RT)
D = 2° 17' 30.6"
L = 382.75'
T = 191.75'
R = 2,500.00'
PIs Sta 102+05.59
Θs = 3° 26' 15.1"
Ls = 299.98'
LT = 200.02'
ST = 100.03'

RETAIN EXISTING STORM DRAINAGE SYSTEMS

NAD 83/95

MATCHLINE -Y17- STA. 99+00
SEE SHEET 56

-BL- 747

-BL- 748
-BY10- 748

-BY10- 793

-Y17- POT 112+11.22

PROPOSED MILL AND FILL (RETAIN EXIST. CURB AND GUTTER)

S 84° 29' 04.9" E

-BL- 746
-BY9- 746

-Y17- ST 104+05.54

-Y17- CS 101+05.56

END CONSTRUCTION
-Y17- STA 112+00.00

FOR -Y17- PROFILE SEE SHT. 207-208

FPB INVESTMENTS LLC
DB 2277 PG 603

FPB INVESTMENTS LLC
DB 1828 PG 3960

PUGH OIL COMPANY, INC.
DB 1947 PG 1659

DONALD HILL, SR.
(LIFE ESTATE)
JENNIFER HILL
DB 2360 PG 817

JEFFREY & DEBORAH TROGDON
DB 2375 PG 45

JIMMY CARTER
DB 1152 PG 955

ATLANTIC COMMERCIAL PROPERTIES, LLC
DB 1711 PG 34

KAY BRADY
DB 1394 PG 905
WB 03E PG 835

EB ROUTH PROPERTIES LLC
DB 2323 PG 180

WILLIAM ROUTH
DB 822 PG 609

AVA ROUTH
DB 428 PG 646
DB 588 PG 190

CLAPP RENTAL PROPERTY FAMILY LIMITED PARTNERSHIP
DB 1640 PG 688

BM #14 ELEVATION = 675.33'
N 719817 E 1781499
BL STATION 325+99.00 147' LEFT
RR SPIKE IN BASE OF 30" OAK

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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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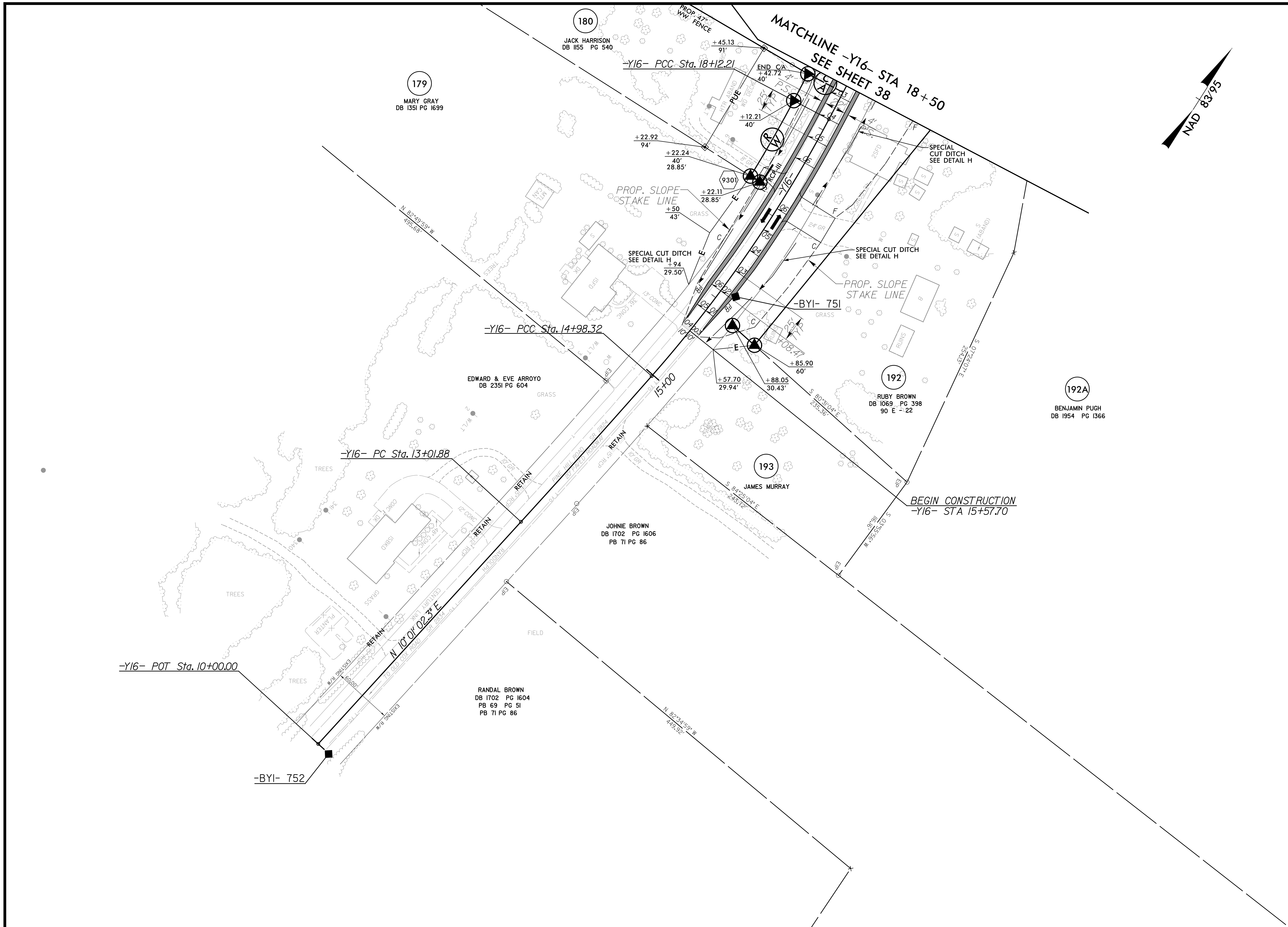

-Y16-		
PI Sta 14+00.11	PI Sta 16+56.00	PI Sta 19+29.21
Δ = 1° 00' 50.3" (LT)	Δ = 13° 31' 20.3" (LT)	Δ = 1° 12' 28.1" (LT)
D = 0° 30' 58.2"	D = 4° 18' 28.6"	D = 0° 30' 58.2"
L = 196.44'	L = 313.89'	L = 233.99'
T = 98.22'	T = 157.68'	T = 117.00'
R = 11,100.00'	R = 1,330.00'	R = 11,100.00'
	SE = 0.06	SE = NC
	V = 60mph	V = 60mph

FOR -Y16- PROFILE SEE SHT. 195
FOR -Y16DET- SEE SHT. 2B-5

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	94
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ADDED PUE ON PARCEL 186 FROM -Y16- 28+49.22 TO -Y16- 28+95.39 LT

-Y16-		
PI Sta 27+57.87	PI Sta 29+92.36	PI Sta 33+12.57
Δ = 0° 39' 45.6" (LT)	Δ = 1° 10' 55.7" (RT)	Δ = 2° 47' 13.3" (RT)
D = 0° 30' 58.2"	D = 0° 30' 58.2"	D = 1° 57' 43.9"
L = 128.38'	L = 229.02'	L = 142.04'
T = 64.19'	T = 114.51'	T = 71.03'
R = 11,100.00'	R = 11,100.00'	R = 2,920.00'
SE = NC		
V = 60mph		

NAD 83/95

-Y16- POT Sta. 34+28.17

-BYI- 750

-Y16- PT Sta. 33+83.57

N 2° 31' 18.4" W

-Y16- PC Sta. 32+41.54

-Y16- PT Sta. 31+06.86

-Y16- N 5° 18' 32.8" W 180.00'

END CONSTRUCTION
-Y16- STA 28+49.22

-Y16- PT Sta. 28+22.06

-Y16- PC Sta. 28+77.85

-Y16- PC Sta. 26+93.68

-Y16- N 5° 49' 42.8" W 180.00'

MATCHLINE -Y16- STA 26+00
SEE SHEET 38

RETAIN 30+00

ABANDONED SHEDS

TO BROWERS CHAPEL ROAD SR 2835

RANDOLPH

ROCK WALK

ISFD

WD TIMBERS

DWBG

NORMA CARTER
DB 1167 PG 804

HTR

PLANTER

GRAVEL DRIVE

GRASS

WOODS

N 84°50'26" E
432.27'

S 83°47'34" E
256.47'

187
GRIFFEN CRAVEN
09E-110
DB 1069 PG 399

HATTIE BEAN
DB 1474 PG 741
DB 1654 PG 1237
DB 1654 PG 1239
PB 47 PG 18
PB 64 PG 3

186

+89.49 51.49'

+95.39 30.01'

+49.22 40.42'

+49.22 50' 30'

PUE

+27.50

+22.06 50'
GRADE TO DRAIN

+70.00

+00 29.98'

+09.01 30.01'

+08.97 40'

185
FLOYD & MARY LYONS
DB 2310 PG 896
PB 106 PG 41

N 82°41'18" E
365.00'

N 84°25'50" E
210.28'

S 76°49'04" W
185.43'

N 84°50'50" W
410.17'

N 84°50'50.1" W
410.17'

PROP. SLOPE STAKE LINE

184
JESSIE GRANT
DB 1999 PG 440
PB 106 PG 41

S 84°35'02" E
182.23'

+93.68 50'
SPECIAL BASE CUT DITCH
SEE DETAIL CP

SPECIAL LATERAL 'V' DITCH
SEE DETAIL J

94" RCP REMOVE

94" RCP III REMOVE

94" RCP III REMOVE

ASPHALT REMOVE

+09.03 53'

+50 65'

+01.21 72'

+75 80'

+09.21 80'

+85 80'

+30.65 63'

+33.35 72'

+30 80'

END C/A
END FENCE

+09.36 45'

+02.07 82'

188
CAROLYN WATKINS LUCK

FRANCES LEE
DB 1855 PG 460
PB 64 PG 14

189

FOR -Y16- PROFILE SEE SHT. 195
FOR -Y16DET- SEE SHT. 2B-5

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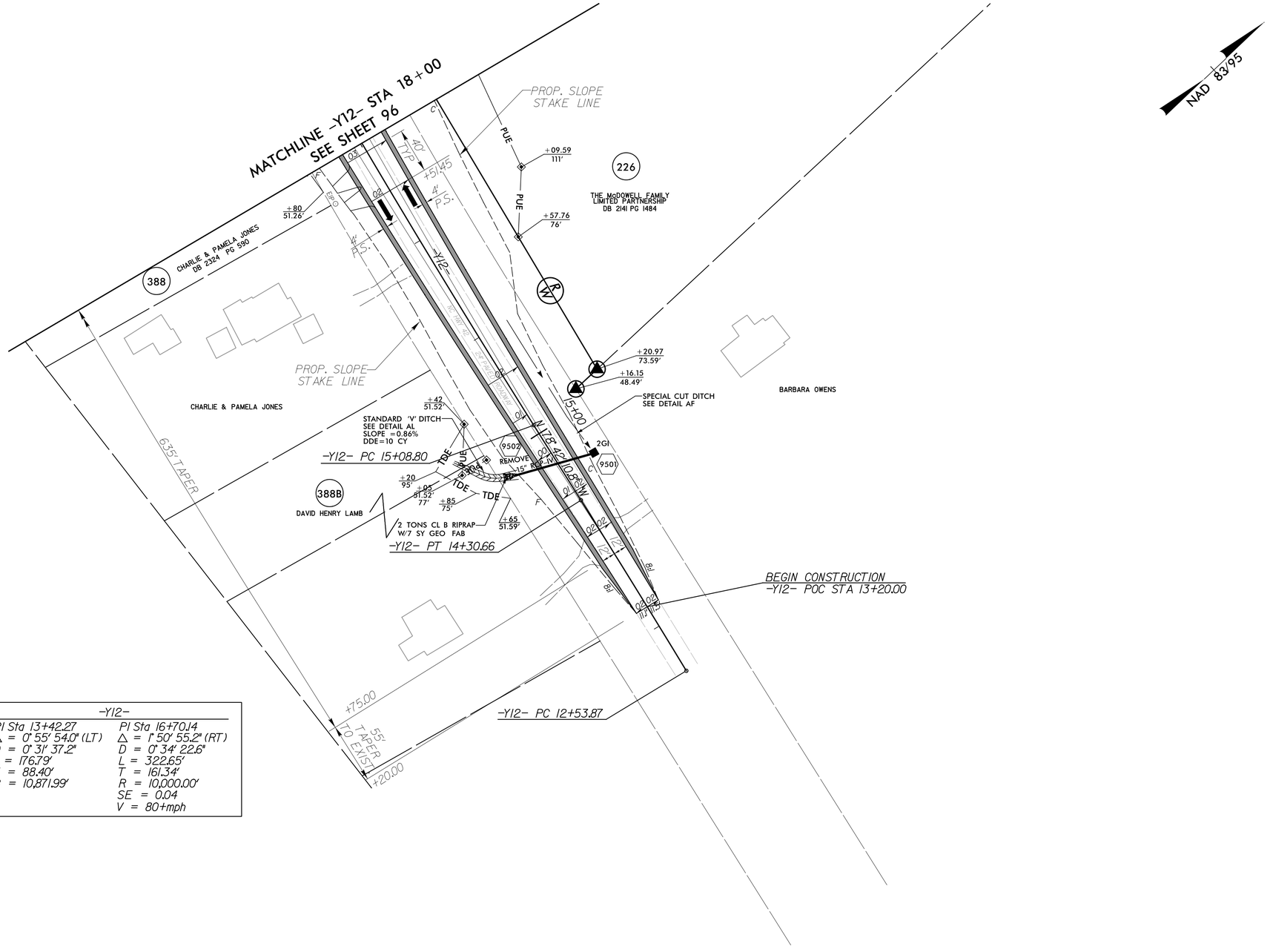
PROJECT REFERENCE NO.	SHEET NO.
R-2536	95
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ADDED PUE ON PARCEL 388B FROM -Y12- 15+05.00 TO -Y12- 15+42.00 LT



-Y12-	
PI Sta 13+42.27	PI Sta 16+70.14
△ = 0° 55' 54.0" (LT)	△ = 1° 50' 55.2" (RT)
D = 0° 31' 37.2"	D = 0° 34' 22.6"
L = 176.79'	L = 322.65'
T = 88.40'	T = 161.34'
R = 10,871.99'	R = 10,000.00'
	SE = 0.04
	V = 80+mph

FOR -Y12- PROFILE SEE SHT. 185

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	96
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE -Y12- STA 26+00
SEE SHEET 41

MATCHLINE -Y12- STA 18+00
SEE SHEET 95

-BY3B- 762

-BY3B- 763=
-BY3BI- 763

-BY3B- 764

-BY3- 757

-BY3- 14 =
R2536-14 (GPS)

-Y12A- POT 10+00.00

-Y12A- PC 11+00.59

BEGIN CONSTRUCTION
-Y12A- POT 11+16.00

-Y12A- PT 14+31.54

-Y12A- POT 19+91.65 =
-Y12- POC 24+00.00

-Y12DRLT- POT 10+00.00 =
-Y12- POC 23+15.00

-Y12DRRT- POT 10+00.00 =
-Y12- POC 22+11.42

PC Sta. 10+56.77

PT Sta. 11+16.05

PC Sta. 11+47.38

PT Sta. 12+03.54

POC Sta. 11+70.00
END CONSTRUCTION

POT Sta. 11+93.22

POT Sta. 11+53.40
END CONSTRUCTION

PT Sta. 11+38.09

PRC Sta. 11+01.89

-Y12- PCC 18+31.45

PROP. SLOPE STAKE LINE

PROP. SLOPE STAKE LINE

PROP. WW FENCE

REMOVE

RETAIN

GRADE TO DRAIN

20' X 10' PSRM

SPECIAL LATERAL 'V' DITCH SEE DETAIL J

SPECIAL CUT DITCH SEE DETAIL H

SPECIAL CUT DITCH W/PSRM EST 92 SY SEE DETAIL AH

SPECIAL CUT DITCH W/PSRM EST 141 SY SEE DETAIL AH

SPECIAL CUT DITCH W/PSRM EST 113 SY SEE DETAIL AH

END C/A, END FENCE +12.31 -Y12- 83.33'

END C/A END FENCE +12.31 75'

STANDARD BASE DITCH SEE DETAIL T SLOPE = 3.0% DDE= 50 CY

STANDARD BASE DITCH SEE DETAIL T SLOPE = 1.4% DDE= 50 CY

LATERAL BASE DITCH SEE DETAIL BS

7 TONS CL I RIPRAP W/15 SY GEO FAB

20 TONS CL I RIPRAP W/40 SY GEO FAB

11 TONS CL I RIPRAP W/22 SY GEO FAB

2 TONS CL B RIPRAP W/7 SY GEO FAB

24" CSP 2 ELBOWS ROD & LUG

18" CSP 2 ELBOWS ROD & LUG

24" RCP-III

18" RCP-III

15" RCP-IV

GABU-250

3GI-A

5' CONC WALK

5' MONOLITHIC CONC ISLAND

5' MONOLITHIC CONC ISLAND

635' TAPER

BEGIN C/A +80 75'

END C/A +95 75'

SPECIAL CUT DITCH SEE DETAIL H

PAVEMENT REMOVAL

FOR -Y12- PROFILE SEE SHT. 185
FOR -Y12A- PROFILE SEE SHT. 201
FOR -Y12DRRT- PROFILE SEE SHT. 128
FOR -Y12DRLT- PROFILE SEE SHT. 128

222 BARRY WELCH DB 2164 PG 1221 PB 27 PG 34

381A DWAYNE SWANEY DB 1812 PG 2582 PB 27 PG 34

381 CARLTON MOORE, JR. DB 1675 PG 960 DB 1889 PG 2853 PB 27 PG 34 PB 27 PG 35

382 ALFRED & DORIS COX DB 1238 PG 1811 PB 27 PG 34

383 ROSS HOUSTON DB 2127 PG 1580 PB 27 PG 34

380 JOEL CHALAS DB 2236 PG 831 PB 27 PG 34

223 JOSEPH BEANE DB 1188 PG 575 DB 1306 PG 1588 PB 27 PG 34

224 KENNETH GRAY DB 1193 PG 1170 PB 27 PG 34

384 SHERRILL LOWE DB 1156 PG 601

386 ADAM CAGLE DB 2145 PG 1415

387 LARRY MANESS DB 1155 PG 718

388 CHARLIE & PAMELA JONES DB 2324 PG 590

385 JOYCE SMITH, LE 96E/24

226 THE McDOWELL FAMILY LIMITED PARTNERSHIP DB 2141 PG 1484

MARK BRASWELL DB 1282 PG 382 PB 27 PG 35

-Y12- (NC 42) -Y12A- (SR 2828 MILES MOFFIT RD)

ADT 2015
ADT 2040

SR 2828 MILES MOFFIT RD
-Y12A-
700 / 1,200
400 / 1,000
300 / 200
7,900 / 10,200
7,700 / 9,400
-Y12- NC 42

-Y12-

PI Sta 16+70.14	PI Sta 23+00.60
△ = 1° 50' 55.2" (RT)	△ = 28° 54' 33.9" (RT)
D = 0° 34' 22.6"	D = 3° 08' 53.2"
L = 322.65'	L = 918.31'
T = 161.34'	T = 469.15'
R = 10,000.00'	R = 1,820.00'
SE = 0.04	SE = 0.07
V = 80+mph	V = 60mph

-Y12A-

PI Sta 13+01.70
△ = 82° 05' 05.8" (RT)
D = 24° 48' 12.1"
L = 330.94'
T = 201.11'
R = 231.00'
SE = 06
V = 30mph

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	97
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ADDED PUE ON PARCEL 376 FROM -Y12- 42+40.81 TO -Y12- 43+33.71 LT, REVISED TCE
ADDED PUE ON PARCEL 213 FROM -Y12- 44+95.39 TO -Y12- 51+91.31 RT, ELIMINATED TDE
REVISED ROW ON PARCEL 212 FROM -Y12- 41+15.00 LT TO -Y12B- 12+80.00 RT
REVISED ROW & TCE ON PARCEL 376 & 377 FROM -Y12- 43+15.00 TO -Y12- 45+90.00 LT
REVISED TCE ON PARCEL 378 FROM -Y12- 49+95.00 TO -Y12- 50+80.00 LT
RIGHT-OF-WAY REVISION 3-11-2016 : REVISED PUE ON PARCEL 213 FROM -Y12- 44+95.39 TO -Y12- 53+24 RT

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BEL
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-Y12-
PI Sta 40+90.52
Δ = 23° 07' 08.6" (RT)
D = 3° 08' 53.2"
L = 734.38'
T = 372.25'
R = 1,820.00'
SE = 0.07
V = 60mph

NAD 83/95

209 MELANIE PROHONIAK DB 2330 PG 1950 PB 43 PG 5
210 DAWN RISER DB 2209 PG 269 PB 43 PG 5
SHADE JOINES DB 1479 PG 324 PB 43 PG 5
MICHELLE HIGGINS DB 2363 PG 126 PB 43 PG 5
ROBERT DAVIDSON DB 1182 PG 464 DB 1467 PG 1359 — 212
DAVID CRAVEN, SR. DB 1998 PG 1306 PB 41 PG 53 — 376
DEE ANN NICHOLS DB 1421 PG 1626 — 377
RANDY ASBILL DB 2022 PG 904 PB 41 PG 53 — 378
CALVARY PENECOSTAL CHURCH DB 2082 PG 1752 PB 41 PG 53
KENYON DAVIDSON, JR. DB 1652 PG 1271 — 213
NCDOT DB 2369 PG 391 — 910

-BY3A- 759
-BY3- 755= -BY3A- 755
-BY3A- 758
-BY3- 754

-Y12B- PC 10+00.00
BEGIN CONSTRUCTION -Y12B- POT 11+00.00
-Y12B- PT 10+89.41
-Y12B- POT 14+20.86 = -Y12- POC 41+49.04
-Y12- PT 44+52.65
END CONSTRUCTION -Y12- STA 51+35.00
-Y12- POT 53+70.00

MATCHLINE -Y12- STA 40+50 SEE SHEET 41

FOR -Y12- PROFILE SEE SHTS. 185 – 186
FOR -Y12B- PROFILE SEE SHT. 201

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	98
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVEMENT REMOVAL

NAD 83/95

MATCHLINE -Y13- STA 17+00
SEE SHEET 49

241
GREGORY CRAVEN
DB 1770 PG 1306
DB 2095 PG 417
PB 75 PG 98
PB 70 PG 9

245
BRUCE TROGDON
DB 1062 PG 463
DB 953 PG 229
DB 1062 PG 463
DB 1060 PG 296
DB 1038 PG 544
DB 1703 PG 2457
PB 70 PG 9

391
JAMES WEAVER
DB 917 PG 347
DB 1138 PG 851

392
DAVID BECKHAM
DB 2187 PG 503
PB 127 PG 13

393
MOZELLE PRICE
DB 2104 PG 300

GREGORY CRAVEN
DB 1302 PG 767

2 TONS CL B RIPRAP
W/7 SY GEO FAB
TOE PROTECTION
W/CL B RIPRAP
EST 60 TONS
EST 179 SY GEOTEXTILE
SEE DETAIL I

END C/A
END FENCE
+94
112.58'

-Y13- PC 15+60.13

PROP. SLOPE STAKE LINE

BEG SBG
+55
61.84'

AT-1

+12.25
49.80'

GRADE TO DRAIN
+67
40.88'

-Y13- N 54°55'50.9" W
GRAU-350

-Y13- PI Sta 16+83.40

+51
65.24'

+38.89
75.58'

+15
55'

-BY4- 769

+54
136.69'

+20
50'
30'

GRADE TO DRAIN

BM #9 ELEVATION = 763.55'
N 712245 E 1776205
BY4 STATION 28+14.00 16' LEFT
RR SPIKE IN BASE OF 12" PINE

-Y13- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y13- STA 12+20.00

-BY4- 770

-Y13-
PI Sta 16+83.40
Δ = 30° 38' 19.3" (LT)
D = 12° 43' 56.6"
L = 240.64'
T = 123.27'
R = 450.00'
SE = 0.08
V = 40mph

FOR -Y13- PROFILE SEE SHT. 196

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	99
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

RIGHT-OF-WAY REVISION 2-26-2016 : ADDED PUE ON PARCEL 389 FROM -Y13- 24+25.86 TO -Y13- 24+48.11 LT
ADDED PUE ON PARCEL 244 FROM -Y13- 23+79.36 TO -Y13- 24+03.45 RT

NAD 83/95

-Y13-

PI Sta 24+08.07	PI Sta 26+82.21
△ = 30° 22' 50.5" (RT)	△ = 0° 20' 41.1" (LT)
D = 12° 43' 56.6"	D = 1° 00' 00.0"
L = 238.61'	L = 34.47'
T = 122.18'	T = 17.24'
R = 450.00'	R = 5,729.58'
SE = 0.08	
V = 40mph	

ERIC DAVIS
DB 2325 PG 381
PB 108 PG 6

RODOLFO MEDINA
DB 2144 PG 425

BARRY HELMS
DB 1593 PG 172

THOMAS JOYCE
DB 1990 PG 2606
PB 74 PG 38

IRENE DAVIS
DB 2016 PG 1874
PB 108 PG 6

GURNEY MOORE
DB 2096 PG 541
PB 70 PG 9

ANGELA SPENCER
DB 2017 PG 2182
PB 106 PG 56

TIMOTHY HUSSEY
DB 1472 PG 250
DB 1802 PG 416
PB 82 PG 1

WILLIAM DUNN
DB 2176 PG 229
PB 124 PG 85

-BY4- 766

-BY4- 767

-Y13- POT 27+59.29

-Y13- PT 26+99.44

-Y13- PC 26+64.97

-Y13- PT 25+24.49

END CONSTRUCTION
-Y13- STA 26+80.00

N 04°24'38" E 499.99'

N 04°25'18" E 313.65'

S 04°40'46" W 1637.26'

S 04°54'03" W 688.84'

S 04°54'03" W 337.95'

N 85°05'57" W 158.04'

S 04°53'47" W 249.63'

S 06°25'03" E 354.76'

S 51°06'39" W 163.59'

N 14°58'53" W 218.52'

N 02°42'31" E 273.39'

N 03°53'37" E 197.90'

N 04°19'35" E 416.25'

N 38°00'48" E 369.68'

S 86°39'28" E 147.39'

N 55°32'00" W 66.08'

N 55°11'19" W 99.71'

S 55°32'00" E 66.08'

PROGRESS ENERGY R/W

EXISTING R/W

RETAINING WALL

SPECIAL CUT DITCH SEE DETAIL AF

PROP. SLOPE STAKE LINE

REMOVE 15" RCP

PUE

+48.11 110.72'

+42.10 81.62'

+32.65 115.79'

+25.86 86.97'

+00 48.30'

+03.45 50'

+00 50'

+10 75'

+35 75'

+50 55'

+80 30'

+22 30'

+17 40'

+00 45'

+31.16

MATCHLINE -Y13- STA 24+00
SEE SHEET 49

FOR -Y13- PROFILE SEE SHT. 196

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	100
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS
RIGHT-OF-WAY REVISION 3-10-2016 : REVISED PUE ON PARCEL 396 FROM -Y17- 15+48.00 TO -Y17- 23+48.00 RT

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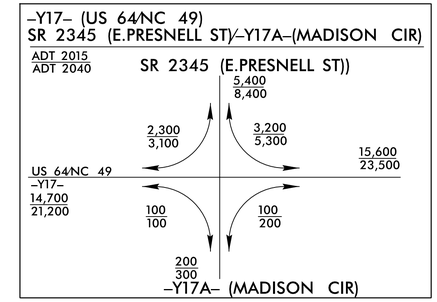
ICA ENGINEERING, INC.

NAD 83/95

FOR –Y17– PROFILE SEE SHT. 202
FOR –Y17A– PROFILE SEE SHT. 212
FOR –Y1YADRLT– PROFILE SEE SHT. 215

–Y17– (US 64/NC 49)
SR 2345 (E.PRESNELL ST)/–Y17A–(MADISON CIR)



–Y17–
PI Sta 18+95.16
△ = 1° 26' 34.0" (RT)
D = 0° 29' 53.6"
L = 289.58'
T = 144.80'
R = 11,500.00'
SE = NC
V = 60mph

END MILLING & RESURFACING
BEGIN GRADE
–Y17– STA 17+00.00

BEGIN CONSTRUCTION
–Y17– STA 13+00.00
BEGIN MILLING & RESURFACING

MATCHLINE SEE SHEET 101
–Y17– STA. 19+00.00

MATCHLINE –Y17A– STA. 20+00
SEE SHEET 102

PAVEMENT REMOVAL

–Y17–
PI Sta 14+18.20
△ = 54° 11' 42.5" (LT)
D = 12° 27' 20.2"
L = 435.11'
T = 235.37'
R = 460.00'
SE = 0.06
V = 35mph

PI Sta 17+54.55
△ = 11° 49' 01.9" (LT)
D = 4° 20' 26.1"
L = 272.25'
T = 136.61'
R = 1,320.00'
SE = 0.035
V = 35mph

–Y17ADRLT–
PI Sta 11+61.83
△ = 43° 57' 04.2" (LT)
D = 19° 05' 54.9"
L = 230.13'
T = 121.06'
R = 300.00'

PROJECT REFERENCE NO.	SHEET NO.
R-2536	101
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS
RIGHT-OF-WAY REVISION 3-10-2016 : : REVISED PUE ON PARCEL 396 FROM -Y17- 15+48.00 TO -Y17- 23+48.00 RT

-Y17-	
PI Sta 18+95.16	PI Sta 21+84.34
Δ = 1° 26' 34.0" (RT)	Δ = 1° 26' 19.3" (LT)
D = 0° 29' 53.6"	D = 0° 29' 53.6"
L = 289.58'	L = 288.77'
T = 144.80'	T = 144.39'
R = 11,500.00'	R = 11,500.00'
SE = NC	SE = NC
V = 60+mph	V = 60+mph

-Y17RPC-	
PI Sta 17+71.69	PIs Sta 22+96.65
Δ = 59° 15' 31.1" (LT)	Θs = 6° 29' 50.9"
D = 5° 54' 24.4"	Ls = 220.00'
L = 1,003.23'	LT = 146.77'
T = 551.69'	ST = 73.42'
R = 970.00'	
SE = 0.08	
V = 55mph	

NAD 83'95

MATCHLINE -Y17- STA. 19+00
SEE SHEET 100

MATCHLINE -Y17- STA. 30+00
SEE SHEET 53

MATCHLINE -Y17RPC- STA. 18+50
SEE SHEET 53

394 LYNN SULLIVAN DB 1434 PG 211 PB 87 PG 3 PB 82 PG 82

395 416 INVESTMENTS LLC DB 2263 PG 387 PB 82 PG 82

396 WAYNE BRADY DB 982 PG 538 DB 1397 PG 227 DB 1067 PG 240

420' MEDIAN TRANSITION

150' TAPER

-Y17- PT 23+28.71

-Y17- PRC 20+39.95

-Y17RPC- POT Sta.26+47.90 = -Y17- POC Sta.22+00.50 39' RT
Δ = 2° 18' 30.0"

-Y17RPC- CS 22+23.23

-Y17RPC- ST 24+43.23

-BY6- 788 25+00

-BY5- 771

-Y17- 20+00

-Y17- 25+00

2'-6" C&G

PROP 8"X18" CURB

5" MONOLITHIC CONC ISLAND

BERM DITCH SEE DETAIL BC

BERM DITCH W/CL B RIPRAP EST 213 TONS EST 605 SY GEOTEXTILE SEE DETAIL CI

SPECIAL MEDIAN DITCH SEE DETAIL AT

ROADWAY CUT DITCH W/PSRM EST 397 SY SEE DETAIL BF

SPECIAL LATERAL 'V' DITCH W/CL B RIPRAP EST 114 TONS EST 340 SY GEOTEXTILE SEE DETAIL N

PAVEMENT REMOVAL

FOR -Y17- PROFILE SEE SHT. 202-203
FOR -Y17RPC- PROFILE SEE SHT. 207

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3/22/2016
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ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	102
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/95

MATCHLINE -Y17A- STA. 31+00 SEE SHEET 53

MATCHLINE -Y17A- STA. 20+00 SEE SHEET 100

LAWRENCE HEIGHTS AVENUE SR 2680

18' PAVED ROADWAY

-BY5A- 778

-BY5A- 779

-BY5A- 780

-BY5A- 781

-Y17A-
PC Sta. 24+82.74

-Y17A- PT Sta. 27+82.13

END CONSTRUCTION
-Y17A- PT 28+70.00
BEGIN OVERLAY

-Y17ADRRT- PC 10+38.44

-Y17ADRRT- PT 11+12.72

-Y17ADRRT- POT 10+00.00 =
-Y17A- POC 25+98.42

-Y17ADRRT- POT 11+82.90

396 WAYNE BRADY
DB 1067 PG 240
DB 1090 PG 514
DB 1090 PG 515
DB 982 PG 538

396 WAYNE BRADY
DB 982 PG 538
DB 1397 PG 227
DB 1067 PG 240

400 GARY BARTON
DB 1629 PG 922
DB 1620 PG 1096

418 BARBARA TAYLOR
DB 1922 PG 2497

GEORGE THOMAS
DB 1045 PG 50

ROBERT HUBBARD
DB 1239 PG 1299

411 TANA SKIPPER
DB 1775 PG 1159

412 RAEFORD & MARY ROUTH (LIFE ESTATE)
TONY & MARK ROUTH
DB 2151 PG 1024

417 MARY HOWEY
DB 1778 PG 2474

398 WAYNE BRADY
DB 1067 PG 240

397 GARY BARTON
DB 1927 PG 2558

415 ADLETTA DELK
DB 401 PG 203
DB 397 PG 113

STANDARD BASE DITCH W/PSRM
SEE DETAIL CQ
SLOPE=11%
DDE=80 CY

SPECIAL CUT DITCH W/PSRM EST 159 SY
SEE DETAIL AH

ROADWAY CUT DITCH W/PSRM EST 124 SY
SEE DETAIL BF

SPECIAL CUT DITCH, W/PSRM EST 46 SY
SEE DETAIL AH

ROADWAY CUT DITCH W/PSRM EST 177 SY
SEE DETAIL BF

STANDARD BASE DITCH W/PSRM
SEE DETAIL CR
SLOPE=10.4%
DDE=5 CY

SPECIAL CUT DITCH
SEE DETAIL H

SPECIAL CUT DITCH
SEE DETAIL H

15 TONS CL I RIPRAP
W/30 SY GEO FAB
ON BANKS ONLY

STANDARD BASE DITCH
W/CL I RIPRAP
SEE DETAIL AS
SLOPE=0.5%
DDE=20 CY

STANDARD BASE DITCH
SEE DETAIL T
DDE=200 CY

3 TONS CL B RIPRAP
W/10 SY GEO FAB

CL I RIPRAP
AT EMBANKMENT
SEE DETAIL AD

GRADE TO DRAIN

JB w/MH

JB w/MH(10206)

15" CSP
2 ELBOWS
ROD & LUG

30" RCP-III

36" RCP-III

18" RCP-III

12" CMP

15" RCP

24" RCP

RETAIN

REMOVE

PUE

TDE

PDE

DDE

EXISTING R/W

ISBKD

ISFD

1½SFD

WELL

POND

WOODS

-Y17A-
PI Sta 26+42.92
△ = 50° 27' 11.8" (LT)
D = 16° 51' 06.1"
L = 299.40'
T = 160.18'
R = 340.00'
SE = 0.06
V = 35mph

-Y17ADRRT-
PI Sta 10+77.39
△ = 42° 33' 40.6" (RT)
D = 57° 17' 44.8"
L = 74.28'
T = 38.95'
R = 100.00'

AS A RESULT OF THE PROPOSED CULVERT, THE MAXIMUM INCREASE IN BASE (100-YEAR) FLOOD ELEVATION IS 0.31' AND IS AT RIVER STATION 15800, APPROXIMATELY 200' UPSTREAM FROM THE PROPOSED CULVERT. BASED ON LOWEST ADJACENT GRADE, 3 STRUCTURES (1SBKD AND TWO SHEDS) ON PARCEL #412 (RAEFORD & MARY ROUTH (LIFE ESTATE), TONY & MARK ROUTH, DB 2151 PG 1024) AND TWO STRUCTURES (1SBKD AND ONE SHED) ON PARCEL #411 (TANA SKIPPER, DB 1775 PG 1159) WILL BE AFFECTED BY THE INCREASE IN BASE FLOOD ELEVATION. THESE TWO PARCELS WITH ALL THE STRUCTURES ARE OUTSIDE OF THE PROPOSED RIGHT OF WAY AND WILL BE PURCHASED BY NCDOT.

FOR -Y17A- PROFILE SEE SHT. 212
FOR -Y17ADRRT- PROFILE SEE SHT. 215

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3/22/2016
R-2536 RDY_PSH_102.dgn
ICA ENGINEERING, INC.

PROJECT REFERENCE NO.	SHEET NO.
R-2536	121
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

BEGIN CONSTRUCTION SECTION 3A
TIP PROJECT R-2536
-L- POT 465+00.00 L.B. =
-L- POT 465+09.27 L.A.
EL = 673.48'

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	=	130	CFS
DESIGN FREQUENCY	=	50	YRS
DESIGN HW ELEVATION	=	629.9	FT
BASE DISCHARGE	=	140	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	630.14	FT
OVERTOPPING DISCHARGE	=	650	CFS
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING ELEVATION	=	639.0	FT

PROPOSED GRADE
(-)2.7369%
EXISTING GROUND

BEGIN DITCH STA. 474+70 - LT ELEV. 640.00
STA. 475+00 - LT ELEV. 638.90
STA. 475+50 - LT ELEV. 638.75
END DITCH STA. 478+00 - LT ELEV. 637.02
(-)13.67%
(+)0.30%
(-)0.69%
BEGIN DITCH STA. 473+24 - RT ELEV. 616.96
30" RCP-V
(+) 2.73%
END DITCH STA. 476+00 - RT ELEV. 624.50

BM #1.
RR SPIKE IN BASE OF 12" POPLAR
-L- STA. 480+87.96, OFFSET 328.24' LT,
ELEV = 625.65'

PIPE HYDRAULIC DATA
30" RCP-V Sta. 472+05 -L-

DRAINAGE AREA	=	7	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	19	CFS
DESIGN HW ELEVATION	=	631.9	FT
100 YEAR DISCHARGE	=	20	CFS
100 YEAR HW ELEVATION	=	632.0	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	87	CFS
OVERTOPPING ELEVATION	=	641.4	FT

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	2600	CFS
DESIGN FREQUENCY	=	50	YRS
DESIGN HW ELEVATION	=	600.8	FT
BASE DISCHARGE	=	2900	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	601.17	FT
OVERTOPPING DISCHARGE	=	12,000	CFS
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING ELEVATION	=	609.8	FT
DATE OF SURVEY	=	6-18-2015	
W.S. ELEVATION AT DATE OF SURVEY	=	593.5	FT

(-)12.7369%
CLASS II RIP RAP SLOPE 1.5:1 (2 FT. THICK) (NORMAL TO CAP) (TYP.)
(-)14.04%
(-)1.47%
STA. 484+50-RT ELEV. 594.85
END DITCH STA. 485+42-RT ELEV. 593.50
VESTAL CREEK
NORMAL WS ELEV. = 594.0
BEGIN DITCH STA. 483+72 - RT ELEV. 598.00

FOR -L- PLAN SEE SHTS. 35A, 36, 37

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3/22/2016
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PROJECT REFERENCE NO.	SHEET NO.
R-2536	122
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-L-

PI = 490+13.00
EL = 604.96'
VC = 850'
K = 182
DS = 70mph

-Y16-
(PINE HILL RD.)
STRUCTURE

EXISTING GROUND

PROPOSED GRADE

(-)12.7369%

(+)1.9440%

(-)0.50%

(+)2.41%

(+)1.79%

(+)1.33%

(+)0.91%

(+)3.40%

(+)3.75%

(+)3.75%

(+)2.43%

(+)1.43%

66" RCP-III OVERFLOW

54" RCP-III OVERFLOW

BEGIN CHANNEL CHANGE STA. 488+90 - LT ELEV. 595.00

BEGIN DITCH STA. 489+01 - RT ELEV. 594.81

STA. 489+75 - RT ELEV. 596.13

STA. 490+50 - LT ELEV. 589.85

END CHANNEL CHANGE
BEGIN DITCH STA. 490+65 - LT ELEV. 599.95

STA. 491+25 - LT ELEV. 600.50

STA. 492+00 - LT ELEV. 603.31

END DITCH STA. 493+00 - LT ELEV. 607.06

END DITCH STA. 493+00 - RT ELEV. 607.18

-L- STA. 496+97.50 = -Y16- STA. 22+17.90

BEGIN DITCH STA. 496+15 - RT ELEV. 612.68

END DITCH STA. 498+00 - RT ELEV. 611.75

BEGIN DITCH STA. 499+03 - RT ELEV. 607.00

STA. 499+50 - RT ELEV. 608.14

2@9'x6' RCBC

BEGIN DITCH STA. 499+90-LT ELEV. 611.20

STA. 500+00 - RT ELEV. 611.88

660 650 640 630 620 610 600 590 580 570

486+00 487+00 488+00 489+00 490+00 491+00 492+00 493+00 494+00 495+00 496+00 497+00 498+00 499+00 500+00

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 380	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 614.1	FT
BASE DISCHARGE	= 430	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 614.25	FT
OVERTOPPING DISCHARGE	= 1200	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 622.4	FT

PIPE HYDRAULIC DATA

54" RCP-IV Sta. 507+50 -L-

DRAINAGE AREA	= 72	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 130	CFS
DESIGN HW ELEVATION	= 619.5	FT
100 YEAR DISCHARGE	= 140	CFS
100 YEAR HW ELEVATION	= 619.8	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 355	CFS
OVERTOPPING ELEVATION	= 632.1	FT

PROPOSED GRADE

(+)1.9440%

EXISTING GROUND

(-)0.50%

(+)6.10%

(+)6.10%

(+)6.87%

(+)2.75%

(-)0.67%

(+)5.00%

54" RCP-IV

(-)0.77%

BEGIN DITCH STA. 500+80 - LT ELEV. 611.00

END DITCH STA. 502+00 - RT ELEV. 624.08

BEGIN DITCH STA. 512+00 - LT ELEV. 642.07

END DITCH STA. 512+50 - LT ELEV. 644.57

END DITCH STA. 500+72 - LT ELEV. 610.65

STA. 501+00 - RT ELEV. 617.98

STA. 502+00 - LT ELEV. 614.30

BEGIN DITCH STA. 502+75 - RT ELEV. 625.55

END DITCH STA. 504+00 - LT ELEV. 628.04

END DITCH STA. 504+50 - RT ELEV. 624.67

BEGIN DITCH STA. 507+65 - RT ELEV. 615.50

END DITCH STA. 508+30 - RT ELEV. 615.00

STA. 500+00 - RT ELEV. 611.88

BM #2
RR SPIKE IN BASE OF 18" OAK
-L- STA. 501+96.60, OFFSET 245.40' RT,
ELEV = 633.45'

660 650 640 630 620 610 600 590 580

500+00 501+00 502+00 503+00 504+00 505+00 506+00 507+00 508+00 509+00 510+00 511+00 512+00 513+00 514+00

FOR -L- PLAN SEE SHTS. 37-39

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3/22/2016
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-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	123
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PI = 516+90.00
EL = 657.00'
VC = 760'
K = 249
DS = 70mph

EXISTING GROUND

PROPOSED GRADE

(+)1.9440%

(-)0.50%

(-)1.1111%

PI = 525+00.00
EL = 648.00'
VC = 810'
K = 182
DS = 70mph

(+)3.3511%

BM #3,
RR SPIKE IN BASE OF 15" GUM
-L- STA. 525+24.09, OFFSET 189.40' LT,
ELEV = 638.09'

BEGIN DITCH
STA. 515+00 - RT
ELEV. 648.70

END DITCH
STA. 519+00 - RT
ELEV. 646.70

BEGIN DITCH
STA. 522+30 - RT
ELEV. 626.00

(+)1.04%

6'x7' RCBC

STA. 523+50 - RT
ELEV. 621.25

(+)4.75%

(+)5.50%

(+)0.30%

BEGIN DITCH
STA. 524+18 - LT
ELEV. 630.00

STA. 524+50 - RT
ELEV. 632.00

STA. 525+50 - LT
ELEV. 630.40

END DITCH
STA. 525+50 - RT
ELEV. 637.50

514+00 515+00 516+00 517+00 518+00 519+00 520+00 521+00 522+00 523+00 524+00 525+00 526+00 527+00 528+00

610 620 630 640 650 660 670 680 690 700

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	=	260	CFS
DESIGN FREQUENCY	=	50	YRS
DESIGN HW ELEVATION	=	634.8	FT
BASE DISCHARGE	=	290	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	635.32	FT
OVERTOPPING DISCHARGE	=	850	CFS
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING ELEVATION	=	651.6	FT

PI = 536+35.00
EL = 686.03'
VC = 1100'
K = 253
DS = 70mph

PROPOSED GRADE

EXISTING GROUND

(+)3.3511%

(-)0.9986%

-L- STA. 529+2241 =
-Y12PPB- STA. 10+00.00, 41' RT

-L- STA. 530+5463 =
-Y12PPC- STA. 10+00.00, 41' LT

(+)2.31%

(+)1.80%

(+)1.45%

(+)0.50%

(+)0.50%

END DITCH
STA. 535+27 - LT
ELEV. 653.00

BEGIN DITCH
STA. 536+00 - RT
ELEV. 670.34

BEGIN DITCH
STA. 536+00 - LT
ELEV. 667.70

STA. 537+00 - LT
ELEV. 669.50

STA. 538+00 - LT
ELEV. 670.95

528+00 529+00 530+00 531+00 532+00 533+00 534+00 535+00 536+00 537+00 538+00 539+00 540+00 541+00 542+00

620 630 640 650 660 670 680 690 700 710

FOR -L- PLAN SEE SHTS. 40-41

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-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	124
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PIPE HYDRAULIC DATA
66" RCP-III Sta.548+79 -L-

DRAINAGE AREA	=	105	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	160	CFS
DESIGN HW ELEVATION	=	670.7	FT
100 YEAR DISCHARGE	=	190	CFS
100 YEAR HW ELEVATION	=	671.5	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	295	CFS
OVERTOPPING ELEVATION	=	675.3	FT

BM #4,
RR SPIKE IN BASE OF 12" GUM
-L- STA. 544+13.33, OFFSET 494.73' RT,
ELEV = 715.96'

-Y12- (NC 42) STRUCTURE

-L- STA 545+79.63 = -Y12LPB- STA 10+00.00, 47' LT

-L- STA 545+64.63 = -Y12LPC- STA 10+00.00, 47' RT

-L- STA 546+93.92 = -Y12- STA 33+21.10

PROPOSED GRADE

EXISTING GROUND

PI = 549+58.00
EL = 672.82'
VC = 674'
K = 182
DS = 70mph

(-)0.9986%

(+)2.7044%

END DITCH STA. 542+50 - LT ELEV. 673.20

END DITCH STA. 542+50 - RT ELEV. 673.59

66" RCP-III

(+)0.88%

(+)4.25%

BEGIN DITCH STA. 549+08 - RT ELEV. 663.00

STA. 549+25 - RT ELEV. 663.15

END DITCH STA. 550+00 - RT ELEV. 666.34

730 720 710 700 690 680 670 660 650 640

542+00 543+00 544+00 545+00 546+00 547+00 548+00 549+00 550+00 551+00 552+00 553+00 554+00 555+00 556+00

BEGIN BERM DITCH STA. 556+17 - LT ELEV. 716.00

STA. 556+50 - LT ELEV. 713.93

(-) 6.27%

(-) 8.48%

PI = 559+50.00
EL = 699.65'
VC = 770'
K = 247
DS = 70mph

BM #5,
RR SPIKE IN BASE OF 16" HICKORY
-L- STA. 561+94.07, OFFSET 278.51' LT,
ELEV = 716.12'

PROPOSED GRADE

(-)0.4076%

(+)2.7044%

(-) 0.30%

(-) 2.26%

(+) 2.98%

EXISTING GROUND

BEGIN DITCH STA. 557+50 - LT ELEV. 689.11

STA. 559+15 - LT ELEV. 691.45

STA. 560+60 - LT ELEV. 688.18

END BERM DITCH STA. 560+60 - LT ELEV. 688.18

END DITCH DITCH STA. 562+50 - LT ELEV. 693.84

42" RCP-V

BEGIN BERM DITCH STA. 567+75 - LT ELEV. 703.80

STA. 568+00 - LT ELEV. 703.00

STA. 568+50 - LT ELEV. 700.70

STA. 569+00 - LT ELEV. 700.45

(-) 3.20%

(-) 4.60%

(-) 0.50%

(+) 2.25%

(-)0.4076%

PIPE HYDRAULIC DATA
42" RCP-V Sta.563+99 -L-

DRAINAGE AREA	=	17	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	54	CFS
DESIGN HW ELEVATION	=	669.1	FT
100 YEAR DISCHARGE	=	56	CFS
100 YEAR HW ELEVATION	=	669.1	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	294	CFS
OVERTOPPING ELEVATION	=	695.4	FT

720 710 700 690 680 670 660 650 640 630

556+00 557+00 558+00 559+00 560+00 561+00 562+00 563+00 564+00 565+00 566+00 567+00 568+00 569+00 570+00

FOR -L- PLAN SEE SHTS. 41-43

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3/22/2016
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-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	125
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PI = 577+50.00
EL = 692.31'
VC = 510'
K = 247
DS = 70mph

EXISTING GROUND

PROPOSED GRADE

(+) 1.12%

(−)0.4076%

(−)2.4719%

(+) 0.50%

BEGIN DITCH
STA. 570+50 – LT
ELEV. 703.83

END BERM DITCH
STA. 573+90 – LT
ELEV. 707.65

BEGIN DITCH
STA. 570+50 – RT
ELEV. 683.75

END DITCH
STA. 571+50 – RT
ELEV. 684.25

PIPE HYDRAULIC DATA
60" RCP-V Sta. 581+67 -L-

DRAINAGE AREA	=	43	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	138	CFS
DESIGN HW ELEVATION	=	657.8	FT
100 YEAR DISCHARGE	=	144	CFS
100 YEAR HW ELEVATION	=	657.9	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	490	CFS
OVERTOPPING ELEVATION	=	674.5	FT

(-) 12.23%
(-) 4.78%
(-) 1.00%
(-) 1.71%
(+) 1.51%
(-) 11.35%
(+) 5.50%
(-) 6.92%
(-) 1.67%

BEGIN DITCH
STA. 579+02 – RT
ELEV. 672.75

STA. 579+50 – RT
ELEV. 663.28

STA. 580+00 – RT
ELEV. 666.90

END DITCH
STA. 580+95 – RT
ELEV. 665.95

STA. 581+50 – LT
ELEV. 654.75

BEGIN DITCH
STA. 580+50 – LT
ELEV. 654.40

END DITCH
STA. 580+85 – LT
ELEV. 653.80

BEGIN DITCH
STA. 580+97 – LT
ELEV. 653.80

60" RCP-V

STA. 582+50 – LT
ELEV. 666.10

STA. 583+00 – LT
ELEV. 668.85

BEGIN DITCH
STA. 581+28 – RT
ELEV. 645.00

STA. 581+80-RT
ELEV. 641.40

END DITCH
STA. 582+34-RT
ELEV. 640.50

PIPE HYDRAULIC DATA
54" RCP-III Sta. 590+51 -L-

DRAINAGE AREA	=	38	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	128	CFS
DESIGN HW ELEVATION	=	654.1	FT
100 YEAR DISCHARGE	=	133	CFS
100 YEAR HW ELEVATION	=	654.3	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	246	CFS
OVERTOPPING ELEVATION	=	659.2	FT

PI = 593+00.00
EL = 654.00'
VC = 870'
K = 183
DS = 70mph

EXISTING GROUND

PROPOSED GRADE

(−)2.4719%

(+) 0.50%

(−) 5.00%

(+) 1.00%

(−) 6.83%

(−) 0.5%

(−) 0.93%

(−) 0.5%

(+) 1.00%

(+) 7.64%

(+) 7.61%

(+)2.2826%

END DITCH
STA. 585+50 – LT
ELEV. 668.10

BEGIN DITCH
STA. 588+00 – RT
ELEV. 663.23

BEGIN DITCH
STA. 589+55 – LT
ELEV. 649.14

54" RCP-III

END DITCH
STA. 591+00
ELEV. 648.23

BEGIN DITCH
STA. 591+50 – RT
ELEV. 639.50

STA. 592+00 – LT
ELEV. 651.60

STA. 593+50 – LT
ELEV. 641.35

STA. 593+50 – RT
ELEV. 637.65

END DITCH
STA. 593+85 – LT
ELEV. 641.18

END DITCH
STA. 594+00 – RT
ELEV. 637.40

48" RCP-III

BEGIN DITCH
STA. 594+02 – RT
ELEV. 637.30

STA. 594+50 – RT
ELEV. 637.55

BEGIN BERM DITCH
STA. 596+50 – LT
ELEV. 663.20

END DITCH
STA. 596+10 – RT
ELEV. 650.00

BM #6,
RR SPIKE IN BASE OF 15" PINE
-L- STA. 591+02.99, OFFSET 190.93' LT,
ELEV = 669.57'

PIPE HYDRAULIC DATA
48" RCP-III Sta. 594+33 -L-

DRAINAGE AREA	=	33	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	95	CFS
DESIGN HW ELEVATION	=	648.1	FT
100 YEAR DISCHARGE	=	100	CFS
100 YEAR HW ELEVATION	=	648.3	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	263	CFS
OVERTOPPING ELEVATION	=	659.2	FT

FOR -L- PLAN SEE SHTS. 43-45

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3/22/2016
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-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	126
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	=	900	CFS
DESIGN FREQUENCY	=	50	YRS
DESIGN HW ELEVATION	=	647.8	FT
BASE DISCHARGE	=	1000	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	648.50	FT
OVERTOPPING DISCHARGE	=	3000	CFS
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING ELEVATION	=	665.4	FT

BM #7
RR SPIKE IN BASE OF 20" POPLAR
-L- STA. 609+73.27, OFFSET 228.56' LT,
ELEV = 647.98'

PI = 602+20.00
EL = 675.00'
VC = 940'
K = 247
DS = 70mph

PI = 611+00.00
EL = 661.61'
VC = 800'
K = 195
DS = 70mph

STA. 598+75 - LT
ELEV. 680.32

(+)4.01%

(+) 0.50%

(+)2.2826%

EXISTING GROUND

PROPOSED GRADE

(-)1.5217%

(-) 3.77%

(-) 6.29%

(-)1.5217%

(+)2.5810%

STA. 602+00 - LT
ELEV. 693.35

END BERM DITCH
STA. 602+70 - LT
ELEV. 693.70

BEGIN DITCH
STA. 605+00 - LT
ELEV. 666.13

STA. 605+75 - LT
ELEV. 663.30

3 @ 10' x 7' RCBC

(-) 1.00%

(+) 0.56%

(+) 1.99%

STA. 609+00 - LT
ELEV. 642.85

BEGIN DITCH
STA. 6 10+17 - RT
ELEV. 641.00

END DITCH
STA. 610+50 - LT
ELEV. 641.35

BEGIN DITCH
STA. 6 11+08 - LT
ELEV. 642.46

END DITCH
STA. 6 11+50 - RT
ELEV. 641.75

598+00 599+00 600+00 601+00 602+00 603+00 604+00 605+00 606+00 607+00 608+00 609+00 610+00 611+00 612+00

710 700 690 680 670 660 650 640 630 620

720 710 700 690 680 670 660 650 640 630

612+00 613+00 614+00 615+00 616+00 617+00 618+00 619+00 620+00 621+00 622+00 623+00 624+00 625+00 626+00

EXISTING GROUND

PROPOSED GRADE

(+)2.5810%

(+)2.5810%

(+) 1.99%

END DITCH
STA. 6 12+58-LT
ELEV. 645.45

(+) 4.28%

(+) 6.63%

(+) 9.49%

BEGIN DITCH
STA. 623+50 - RT
ELEV. 674.69

STA. 624+00 - RT
ELEV. 676.83

STA. 625+15 - RT
ELEV. 684.46

FOR -L- PLAN SEE SHTS. 45-47

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	127
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-L-

BM #8,
RR SPIKE IN BASE OF 14" OAK
-L- STA. 630+97.86, OFFSET 340.54' LT,
ELEV = 698.29'

PI = 630+00.00
EL = 710.65'
VC = 670'
K = 306
DS = 70mph

(+)2.581%
(-) 3.00%
(+)0.3907%
(+) 5.68%
(-) 7.76%
(+) 0.50%
(+)0.3907%
(+) 8.55%
(-) 5.69%
(-) 12.00%
(+) 5.33%

PROPOSED GRADE
EXISTING GROUND

END DITCH
STA. 626+05 - RT
ELEV. 693.00

BEGIN BERM DITCH
STA. 629+75 - RT
ELEV. 714.00

STA. 630+75 - RT
ELEV. 711.00

STA. 634+05 - RT
ELEV. 729.75

STA. 635+50 - RT
ELEV. 718.50

STA. 636+50 - RT
ELEV. 719.00

STA. 638+05 - RT
ELEV. 732.25

STA. 639+50 - RT
ELEV. 724.00

BEGIN DITCH
STA. 635+08 - LT
ELEV. 696.60

END DITCH
STA. 636+00 - LT
ELEV. 701.50

626+00 627+00 628+00 629+00 630+00 631+00 632+00 633+00 634+00 635+00 636+00 637+00 638+00 639+00 640+00

670 680 690 700 710 720 730 740 750 760

PIPE HYDRAULIC DATA
48" RCP-III Sta.646+22 -L-

DRAINAGE AREA	=	20	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	67	CFS
DESIGN HW ELEVATION	=	713.2	FT
100 YEAR DISCHARGE	=	69	CFS
100 YEAR HW ELEVATION	=	713.3	FT
OVERTOPPING FREQUENCY	=	500-	YRS
OVERTOPPING DISCHARGE	=	78	CFS
OVERTOPPING ELEVATION	=	715.1	FT

PI = 646+00.00
EL = 716.90'
VC = 210'
K = 460
DS = 80mph

(+) 1.67%
(+)0.8475%
(+) 3.65%
(+)0.8475%
(+) 2.54%
(+) 3.67%
(+) 4.19%
0.5 1%
(+) 3.28%
(-) 12.00%
(+) 14.16%
(-) 8.00%
(+) 7.13%
(-) 6.70%
(+) 7.35%
(+)0.3907%
(+)0.3907%

BM #9,
RR SPIKE IN BASE OF 12" PINE
-L- STA. 648+06.07, OFFSET 693.90' RT,
ELEV = 763.55'

-Y13-
(LUCK RD.)
STRUCTURE

EXISTING GROUND
PROPOSED GRADE
48" RCP

STA. 640+50 - RT
ELEV. 712.00

STA. 641+45 - RT
ELEV. 722.60

STA. 642+40 - RT
ELEV. 715.00

STA. 643+55 - RT
ELEV. 723.20

STA. 644+70 - RT
ELEV. 715.50

END BERM DITCH
STA. 645+55 - RT
ELEV. 712.75

BEGIN DITCH
STA. 645+70 - LT
ELEV. 709.00

STA. 646+00 - LT
ELEV. 709.50

END DITCH
STA. 647+00 - LT
ELEV. 713.15

BEGIN BERM DITCH
STA. 647+43 - LT
ELEV. 714.05

BEGIN DITCH
STA. 648+00 - RT
ELEV. 716.90

STA. 648+00 - LT
ELEV. 715.50

END BERM DITCH
STA. 649+44 - RT
ELEV. 722.93

END BERM DITCH
STA. 649+47 - LT
ELEV. 720.90

-L- STA 650+13.39 =
-Y13- STA 20+30.37'

BEGIN BERM DITCH
STA. 650+70 - RT
ELEV. 728.90

STA. 651+09 - RT
ELEV. 728.70

STA. 653+55 - RT
ELEV. 736.78

626+00 627+00 628+00 629+00 630+00 631+00 632+00 633+00 634+00 635+00 636+00 637+00 638+00 639+00 640+00

640+00 641+00 642+00 643+00 644+00 645+00 646+00 647+00 648+00 649+00 650+00 651+00 652+00 653+00 654+00

670 680 690 700 710 720 730 740 750 760

FOR -L- PLAN SEE SHTS. 47-49

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	128
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-L-

EXISTING GROUND

PROPOSED GRADE

(+) 0.50%

(+)0.8475%

PI = 660+10.00
EL = 728.85'
VC = 1,200'
K = 248
DS = 70mph

END BERM DITCH
STA. 657+50 - RT
ELEV. 738.75

BEGIN DITCH
STA. 663+00 - RT
ELEV. 711.43

(-) 7.38%

(-) 4.11%

STA. 663+50 - RT
ELEV. 707.74

STA. 663+68 - RT
ELEV. 707.00

BEGIN DITCH
STA. 663+50 - LT
ELEV. 710.00

END DITCH
STA. 663+68 - LT
ELEV. 709.78

(-) 1.22%

36" RCP-III

(+) 4.31%

BEGIN DITCH
STA. 664+00 - LT
ELEV. 703.50

END DITCH
STA. 664+00 - RT
ELEV. 708.40

(-) 6.04%

(-)4.0000%

END DITCH
STA. 665+68 - LT
ELEV. 693.35

END GRADE SECTION 3A
-L- POT 668+00.00
EL = 697.25'

PIPE HYDRAULIC DATA
36" RCP-III Sta.663+68 -L-

DRAINAGE AREA	=	10	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	35	CFS
DESIGN HW ELEVATION	=	709.9	FT
100 YEAR DISCHARGE	=	37	CFS
100 YEAR HW ELEVATION	=	710.0	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	70	CFS
OVERTOPPING ELEVATION	=	712.4	FT

FOR -L- PLAN SEE SHTS. 49-50

654+00 655+00 656+00 657+00 658+00 659+00 660+00 661+00 662+00 663+00 664+00 665+00 666+00 667+00 668+00

750 740 730 720 710 700 690 680 670 660

-Y12DRRT-

-Y12DRRT- 10+19.75 =
-Y12- 22+11.42 19.75' LT
El = 689.45'

PI =11+30.00
El = 690.84'
VC = 30'

(+)1.9970%

(-)0.3000%

(-)2.0000%

PI =10+40.00
El = 689.04'
VC = 30'

PI =11+53.40
El = 690.77'

FOR -Y12DRRT- PLAN SEE SHT. 96

-Y12DRLT-

PI =11+50.00
El = 709.99'
VC = 30'

(+)12.3%

(+)16.9%

(+)5%

(+)12%

PI =10+40.00
El = 693.10'

PI =10+75.00
El = 697.30'
VC = 30'

PI =11+70.00
El = 712.46'

-Y12 DRLT- 10+21.75 =
-Y12- 23+15.00 21.75' RT
El = 692.19'

FOR -Y12DRLT- PLAN SEE SHT. 96

-Y16DETDRRT-

-Y16DET DRRT- 10+17.00 =
-Y16DET- 21+10.47 17' LT
El = 634.44'

PI =10+32.00
El = 633.84'

PI =10+50.00
El = 632.04'
VC = 20'

(-)4% (-)10%

(-)15.9%

PI =11+17.42
El = 613.55'

(-)19%

PI =11+60.00
El = 614.57'
VC = 20'

FOR -Y16DETDRRT- PLAN SEE SHT. 2B-5

10 11 12

750 740 730 720 710 700 690 680 670 660 650 640

720 710 700 690 680 670 660 650

640 630 620 610 600 590 580

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PROJECT REFERENCE NO.	SHEET NO.
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-L-

BEGIN GRADE SECTION 3B
–L– POT 668+00.00
EL = 697.25'

BM #10,
RR SPIKE IN BASE OF 22" OAK
–L3– STA. 668+10.87, OFFSET 226.64' LT,
ELEV = 687.03'

PIPE HYDRAULIC DATA
60" RCP–III Sta.670+09 –L–

DRAINAGE AREA	=	107	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	170	CFS
DESIGN HW ELEVATION	=	677.6	FT
100 YEAR DISCHARGE	=	190	CFS
100 YEAR HW ELEVATION	=	678.2	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	239	CFS
OVERTOPPING ELEVATION	=	680.7	FT

(–)4.0000%
(–) 16.92%
(–) 9.08%
(–) 0.89%
(+) 0.30%
(–) 0.51%
(+) 0.49%
(+) 3.66%
(–) 1.31%
(+) 1.70%
(+) 4.53%
(–)0.7954%

BEGIN DITCH
STA. 669+34 – RT
ELEV. 673.44

BEGIN DITCH
STA. 670+64 – RT
ELEV. 677.70

END DITCH
STA. 669+83 – RT
ELEV. 673.00

END DITCH
STA. 671+50 – RT
ELEV. 677.96

BEGIN DITCH
STA. 674+00 – RT
ELEV. 686.31

STA. 674+62 – RT
ELEV. 685.50

STA. 675+50 – RT
ELEV. 687.00

END DITCH
STA. 677+00 – RT
ELEV. 693.80

PI = 673+15.00
EL = 676.65'
VC = 600'
K = 187
DS = 70mph

EXISTING GROUND

PROPOSED GRADE

60" RCP

BEGIN DITCH
STA. 668+75 – LT
ELEV. 677.60

STA. 669+14 – LT
ELEV. 677.100

STA. 670+00 – LT
ELEV. 663.19

END DITCH
STA. 670+37 – LT
ELEV. 663.00

BEGIN DITCH
STA. 671+15 – LT
ELEV. 659.00

STA. 673+00 – LT
ELEV. 659.90

END DITCH
STA. 674+12 – LT
ELEV. 664.00

668+00 669+00 670+00 671+00 672+00 673+00 674+00 675+00 676+00 677+00 678+00 679+00 680+00

700 690 680 670 660 650 640

-L-

EXISTING GROUND

(–)0.7954%

PROPOSED GRADE

END GRADE SECTION 3B
–L– STA 682+73.22
EL =669.03'

680+00 681+00 682+00

700 690 680 670 660 650 640 630 620 610

-Y17FLY-

BEGIN GRADE
–Y17FLY– STA 10+00.00 =
–L– STA 682+73.22, 35' LT
EL =668.79'

PI = 13+00.00
EL = 666.40'
VC = 300'
K = 151
DS = 60mph

(–)0.7954%

(–)12.7799%

(–) 4.46%

(–) 0.28%

(+)3.5554%

PI = 18+90.00
EL = 650.00'
VC = 870'
K = 137
DS = 60mph

PROPOSED GRADE

EXISTING GROUND

BEGIN DITCH
STA. 15+50 – MED
ELEV. 658.68

STA. 16+00 – MED
ELEV. 656.45

END DITCH
STA. 17+00 – MED
ELEV. 656.17

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

700 690 680 670 660 650 640 630 620 610

FOR –L– PLAN SEE SHTS. 50A & 51
FOR –Y17FLY– PLAN SEE SHTS. 51–53

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R-2536	130
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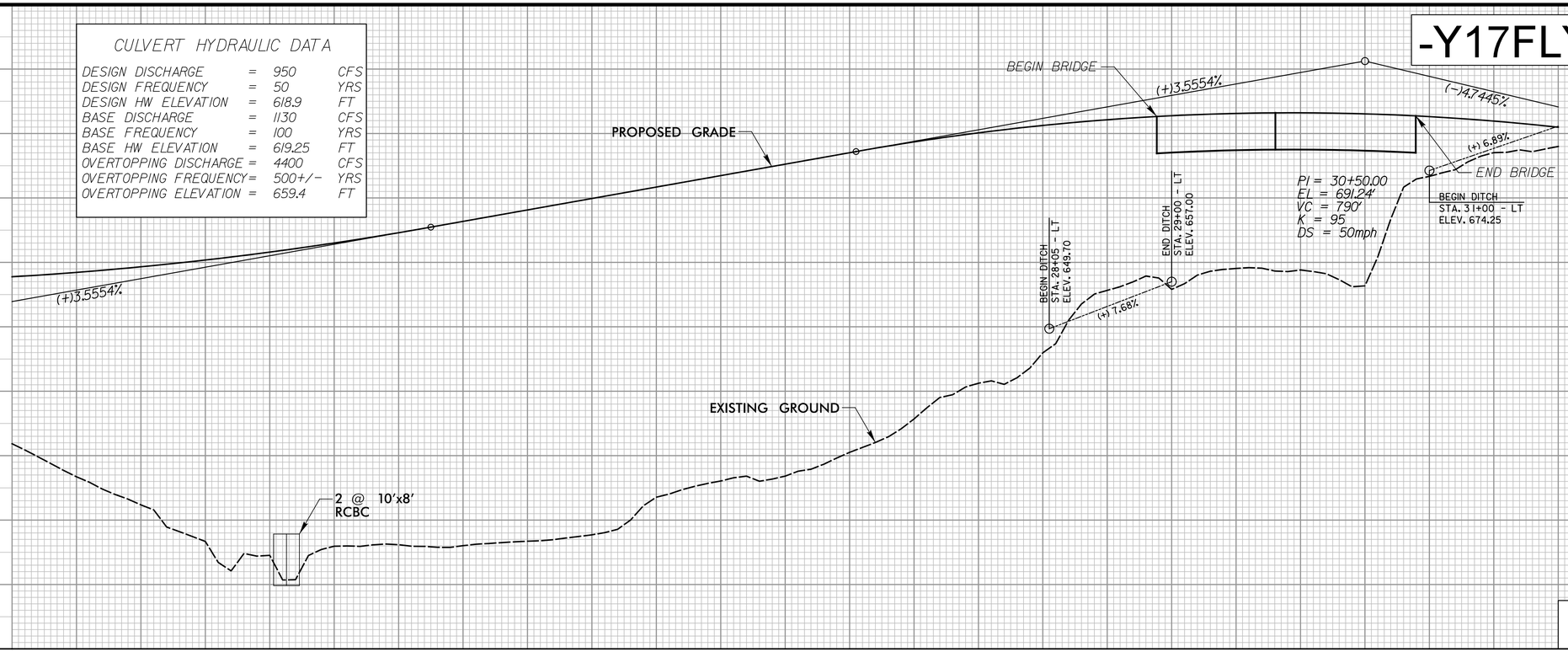
-Y17FLY-

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	=	950	CFS
DESIGN FREQUENCY	=	50	YRS
DESIGN HW ELEVATION	=	618.9	FT
BASE DISCHARGE	=	1130	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	619.25	FT
OVERTOPPING DISCHARGE	=	4400	CFS
OVERTOPPING FREQUENCY	=	500+/-	YRS
OVERTOPPING ELEVATION	=	659.4	FT



FOR -Y17FLY- PLAN SEE SHTS. 51-53

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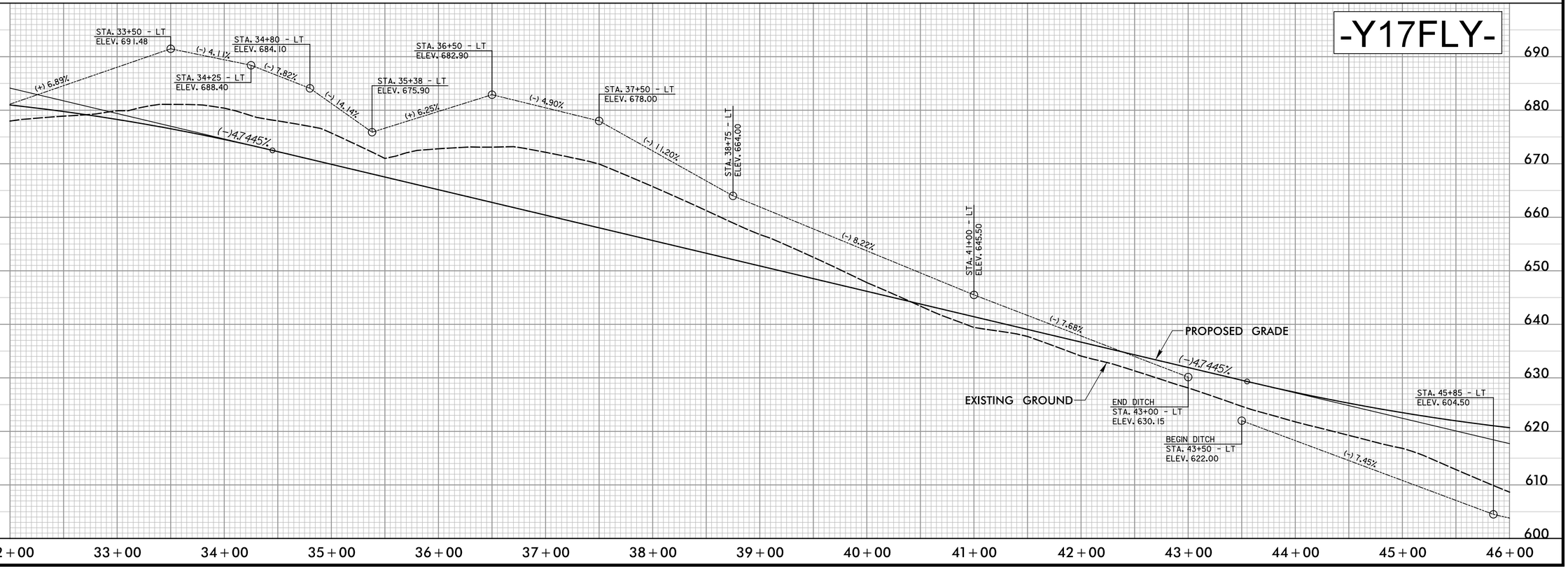

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-Y17FLY-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	131
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	=	1200	CFS
DESIGN FREQUENCY	=	50	YRS
DESIGN HW ELEVATION	=	606.9	FT
BASE DISCHARGE	=	1300	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	607.05	FT
OVERTOPPING DISCHARGE	=	3200	CFS
OVERTOPPING FREQUENCY	=	500+/-	YRS
OVERTOPPING ELEVATION	=	618.6	FT

PI = 48+55.00
EL = 605.60'
VC = 1,000'
K = 100
DS = 50mph

PI = 56+25.00
EL = 645.80'
VC = 120'
K = 253
DS = 70mph

PROPOSED GRADE

EXISTING GROUND

(−)4.7445%

2 @ 12' x 8' RCBC

(−) 4.66%

(−) 2.61%

(+) 0.64%

(+) 1.25%

(+) 1.79%

(+) 6.66%

(+)5.2202%

(+)4.7452%

BEGIN DITCH
STA. 46+77 - LT
ELEV. 601.00

STA. 46+50 - LT
ELEV. 601.47

END DITCH
STA. 46+68 - LT
ELEV. 601.00

STA. 48+50 - LT
ELEV. 602.10

STA. 49+30 - LT
ELEV. 603.10

END DITCH
STA. 50+50 - LT
ELEV. 605.25

BEGIN DITCH
STA. 50+95 - LT
ELEV. 611.05

END DITCH
STA. 52+77 - LT
ELEV. 623.17

END GRADE
-Y17FLY- STA 57+84.95 =
-Y17- STA 55+72.25, 39' LT
EL =653.39'

FOR -Y17FLY- PLAN SEE SHTS. 51-53

670 660 650 640 630 620 610 600 590 580

46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00

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-Y12-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	185
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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BEGIN GRADE
-Y12- STA 13+20.00
EL = 691.77'

PI = 15+20.00
EL = 692.91'
VC = 400'
K = 461
DS = 80mph

(+)0.5680%
(−)0.3000%
(+)0.30%

BEGIN DITCH
STA. 14+58 - RT
ELEV. 690.60

END DITCH
STA. 16+00 - RT
ELEV. 691.03

PROPOSED GRADE

BEGIN DITCH
STA. 18+00 - RT
ELEV. 687.98

(−)3.39%

EXISTING GROUND

STA. 20+00 - RT
ELEV. 681.20

(−)0.50%

PI = 23+35.00
EL = 690.46'
VC = 180'
K = 151
DS = 64mph

(−)0.3000%

END DITCH
STA. 22+90 - RT
ELEV. 679.75

BEGIN DITCH
STA. 23+77 - RT
ELEV. 674.50

-Y12- STA 24+00.00 =
-Y12A- STA 22+90.51

(−)0.55%

STA. 24+68 - RT
ELEV. 674.00

(−) 1.40%

END DITCH
STA. 25+00 - RT
ELEV. 673.00

BEGIN DITCH
STA. 24+80 - LT
ELEV. 690.07

(−)0.50%

(+)0.8939%

STA. 25+70 - LT
ELEV. 689.62

740 730 720 710 700 690 680 670 660 650

13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00

-Y12- STA 27+92.43 =
-Y12LPC- STA 21+00.97

-Y12- STA 27+74.42 =
-Y12RPC- STA 27+58.65

PROPOSED GRADE

(+)0.8939%

(+) 1.59%

END DITCH
STA. 27+00 - LT
ELEV. 691.69

(−) 1.45%

BEGIN DITCH
STA. 28+50 - LT
ELEV. 691.00

(+)0.40%

EXISTING GROUND

STA. 31+00 - LT
ELEV. 687.38

END DITCH
STA. 31+75 - LT
ELEV. 687.68

-Y12- STA 33+21.10 =
-L- STA 546+93.98

(US 64 BYPASS)

PROPOSED

(+)2.50%

BEGIN DITCH
STA. 34+88 - LT
ELEV. 692.95

-Y12- STA 38+08.59 =
-Y12LPB- STA 21+02.86

END DITCH
STA. 37+50 - LT
ELEV. 698.51

-Y12- STA 38+26.62 =
-Y12RPB- STA 29+15.40

(−)4.74%

BEGIN DITCH
STA. 39+00 - LT
ELEV. 698.65

STA. 39+77 - LT
ELEV. 695.00

740 730 720 710 700 690 680 670 660 650

26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00

FOR -Y12- PLAN SEE SHTS. 41, 95-97

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	186
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-Y12-

-Y12- STA 42+50.00 =
-Y12B- STA 18+75.18

PI = 40+33.00
EL = 705.64'
VC = 180'
K = 203
DS = 60mph

PI = 44+31.00
EL = 712.73'
VC = 180'
K = 557
DS = 70mph

PI = 49+09.00
EL = 719.69'
VC = 220'
K = 763
DS = 80mph

END GRADE
-Y12- STA 51+35.00
EL = 722.34'

PROPOSED GRADE

EXISTING GROUND

(+)0.8939%
(+)1.7806%
(+)3.66%
(+) 0.64%
(+)4.43%
(+)1.7806%
(+)1.4574%
(+)0.67%
(-)0.50%
(-)0.50%
(+)1.32%
(+)1.4574%
(+)1.1691%
(+)2.49%

END DITCH
STA. 41+21 - LT
ELEV. 700.49

BEGIN DITCH
STA. 42+28 - LT
ELEV. 705.10

STA. 43+00 - LT
ELEV. 706.16

STA. 44+00 - LT
ELEV. 710.59

BEGIN DITCH
STA. 45+00 - RT
ELEV. 709.59

END DITCH
STA. 45+60 - LT
ELEV. 711.66

STA. 46+68 - RT
ELEV. 708.75

BEGIN BERM DITCH
STA. 45+00 - LT
ELEV. 751.73

STA. 46+77 - LT
ELEV. 750.84

END BERM DITCH
STA. 50+00 - LT
ELEV. 755.11

END DITCH
STA. 50+00 - RT
ELEV. 717.03

760 750 740 730 720 710 700 690 680 670

40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00

-Y12RPB-

BEGIN GRADE
-Y12RPB- STA 10+00.00 =
-L- STA 529+22.41, 47' LT
EL = 661.68'

PI = 12+60.00
EL = 670.37'
VC = 320'
K = 163
DS = 60mph

PI = 19+25.00
EL = 679.53'
VC = 400'
K = 144
DS = 60mph

PROPOSED GRADE

EXISTING GROUND

(+)3.3430%
(+)1.3768%
(+)1.3768%
(+)4.24%
(+)4.1495%

BEGIN DITCH
STA. 17+14 - RT
ELEV. 668.60

END DITCH
STA. 19+10 - RT
ELEV. 676.92

720 710 700 690 680 670 660 650 640 630

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

FOR -Y12- PLAN SEE SHT. 97
FOR -Y12RPB- PLAN SEE SHT. 41

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R-2536	187
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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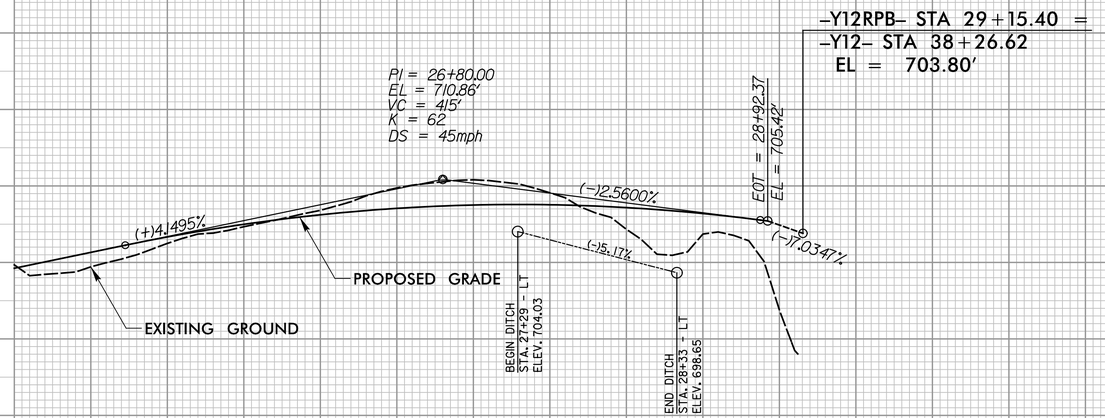
-Y12RPB-

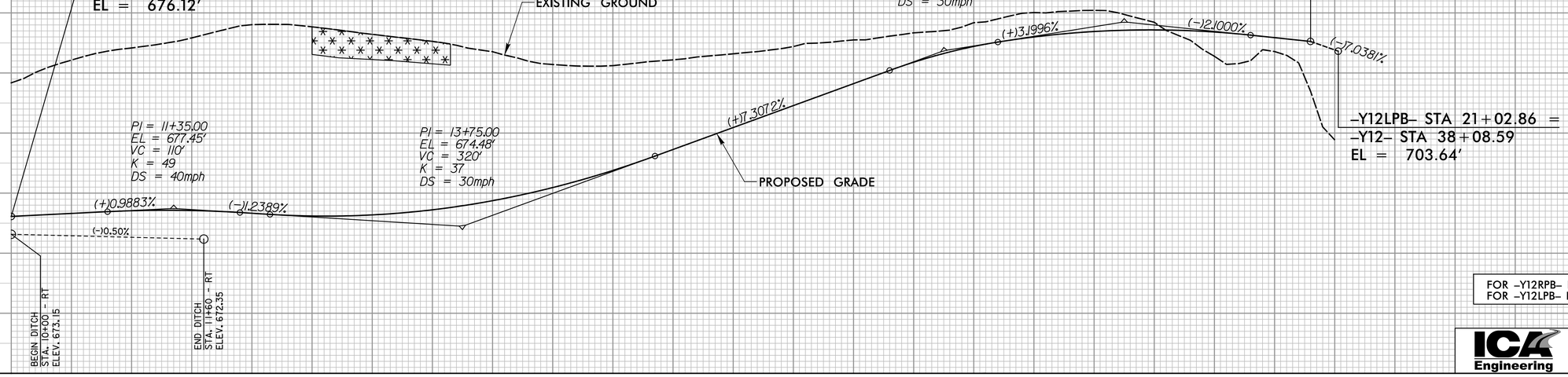


–Y12RPB– STA 29+15.40 =
–Y12– STA 38+26.62
EL = 703.80'

24+00 25+00 26+00 27+00 28+00 29+00

-Y12LPB-

BEGIN GRADE
–Y12LPB– STA 10+00.00 =
–L– STA 545+79.63, 47' LT
EL = 676.12'



–Y12LPC– STA 20+79.81 =
–Y12– STA 38+10.00, 23' LT

–Y12LPB– STA 21+02.86 =
–Y12– STA 38+08.59
EL = 703.64'

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

FOR –Y12RPB– PLAN SEE SHT. 41
FOR –Y12LPB– PLAN SEE SHT. 41

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	188
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-Y12RPC-

BEGIN GRADE
–Y12RPC– STA 10+00.00 =
–L– STA 530+54.63, 47' RT
EL = 666.11'

PI = 12+00.00
EL = 672.60'
VC = 335'
K = 151
DS = 60mph

(+)3.2439%

(+)1.0310%

PROPOSED GRADE

PI = 15+30.00
EL = 676.00'
VC = 240'
K = 149
DS = 60mph

(+)1.0310%

(+)2.6450%

EXISTING GROUND

BEGIN DITCH
STA. 15+85 - LT
ELEV. 670.59

(+)4.46%

END DITCH
STA. 17+80 - LT
ELEV. 679.28

BEGIN BERM DITCH
STA. 23+50 - RT
ELEV. 726.40

FOR –Y12RPC– PLAN SEE SHTS. 41

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

660 670 680 690 700 710 720 730 740 750 760 770 780 790

-Y12RPC-

PI = 25+15.00
EL = 702.05'
VC = 350'
K = 61
DS = 45mph

(-) 5.10%

(-) 8.90%

STA. 25+50 - RT
ELEV. 712.40

STA. 24+50 - RT
ELEV. 721.30

EXISTING GROUND

(+)2.6450%

(-)13.0527%

(-)14.83%

–Y12RPC– STA 27+58.65 =
–Y12– STA 27+74.42
EL = 694.39'

EOT = 27+36.89
EL = 695.28'

(-)14.0766%

PROPOSED GRADE

(-)17.66%

STA. 26+70 - RT
ELEV. 694.60

END BERM DITCH
STA. 27+08 - RT
ELEV. 691.69

FOR –Y12RPC– PLAN SEE SHTS. 41

24+00 25+00 26+00 27+00

650 660 670 680 690 700 710 720 730

-SRV-

END GRADE
–SRV– STA 12+53.90
EL = 786.15'

PI = 12+14.00
EL = 786.14'
VC = 78'
K = 10
DS = 20mph

PROPOSED GRADE

PI = 10+75.00
EL = 775.26'
VC = 80'
K = 12
DS = 15mph

BEGIN GRADE
–SRV– STA 10+10.00
EL = 774.61'

(+)11.0%

(+)17.83%

(+)10.03%

(+) 6.1%

END DITCH
STA. 12+50 - RT
ELEV. 784.90

24" RCP-IV

EXISTING GROUND

BEGIN DITCH
STA. 10+50 - RT
ELEV. 772.71

PIPE HYDRAULIC DATA
24" RCP–IV Sta.10+50 –SRV–

DRAINAGE AREA	=	6	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	17	CFS
DESIGN HW ELEVATION	=	774.9	FT
100 YEAR DISCHARGE	=	18	CFS
100 YEAR HW ELEVATION	=	775.1	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	23	CFS
OVERTOPPING ELEVATION	=	775.7	FT

FOR –SRV– PLAN SEE SHT. 45A

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10+00 11+00 12+00 13+00

720 730 740 750 760 770 780 790

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-Y12LPC-

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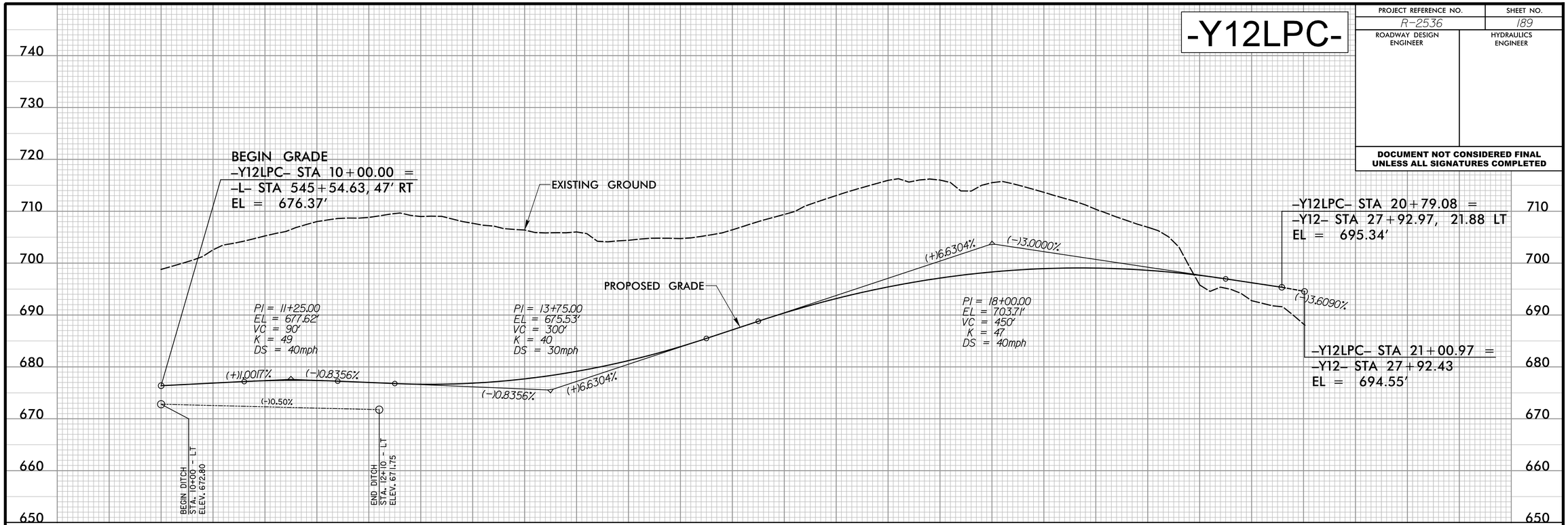

FOR -Y12LPC- PLAN SEE SHT. 41

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	195
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-Y16DET-

BEGIN GRADE
–Y16DET– 16+85.83 EL 636.83

END GRADE
–Y16DET– 27+60.04 EL 650.16

PI = 18+00.00
EL = 637.95'
VC = 170'
K = 64
DS = 45mph

PI = 21+50.00
EL = 632.12'
VC = 370'
K = 80
DS = 45mph

(+)0.975% (–)1.6660% (–)1.6660% (+)2.9570%

(+) 0.49% (–)6.35%

PROPOSED GRADE

EXISTING GROUND

(+)5.10% (+)6.30%

BEGIN DITCH
STA. 15+58 – RT
ELEV. 633.75

END DITCH
STA. 16+94 – RT
ELEV. 634.41

BEGIN DITCH
STA. 18+62 – RT
ELEV. 633.89

END DITCH
STA. 20+07 – RT
ELEV. 625.00

BEGIN DITCH
STA. 27+63 – RT
ELEV. 643.45

STA. 28+70 – RT
ELEV. 646.50

690 680 670 660 650 640 630 620 610 600

15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00

-Y16-

END GRADE
–Y16– 28+49.22 EL 653.20

PI = 16+95.00
EL = 637.70'
VC = 274'
K = 115
DS = 55mph

PI = 19+65.00
EL = 636.48'
VC = 250'
K = 136
DS = 60mph

PI = 24+18.00
EL = 642.77'
VC = 180'
K = 138
DS = 60mph

PI = 26+50.00
EL = 649.02'
VC = 180'
K = 305
DS = 60mph

–Y16– STA 22+17.90 = –L– STA 495+97.50

PROPOSED GRADE

EXISTING GROUND

(+)1.9361% (–)10.4529% (–)10.4529% (+)1.3900% (+)1.3900% (–)3.98% (+)2.6904% (+)2.6904% (+)2.1002%

(+)0.49% (+)0.30% (–)1.71% (–)12.26% (–)10.50% (+)3.57% (+)2.97% (+)2.57% (+)2.69%

BEGIN DITCH
STA. 15+58 – RT
ELEV. 633.75

BEGIN DITCH
STA. 16+00 – LT
ELEV. 633.10

END DITCH
STA. 16+94 – RT
ELEV. 634.41

BEGIN DITCH
STA. 17+30 – RT
ELEV. 635.14

END DITCH
STA. 18+30 – LT
ELEV. 635.79

BEGIN DITCH
STA. 19+00 – LT
ELEV. 633.39

END DITCH
STA. 19+84 – RT
ELEV. 630.80

END DITCH
STA. 20+00 – LT
ELEV. 631.13

BEGIN DITCH
STA. 24+00 – LT
ELEV. 640.44

BEGIN DITCH
STA. 24+00 – RT
ELEV. 638.91

STA. 24+40 – RT
ELEV. 638.71

STA. 24+40 – LT
ELEV. 638.85

STA. 25+00 – LT
ELEV. 640.99

STA. 26+00 – RT
ELEV. 643.47

END DITCH
STA. 27+50 – LT
ELEV. 647.42

END DITCH
STA. 28+49 – RT
ELEV. 650.17

–L–
(US 64 BYPASS)

PROPOSED

690 680 670 660 650 640 630 620 610 600

15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00

FOR –Y16DET– PLAN SEE SHT. 2B–5
FOR –Y16– PLAN SEE SHTS. 38, 93–94

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-Y13-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	196
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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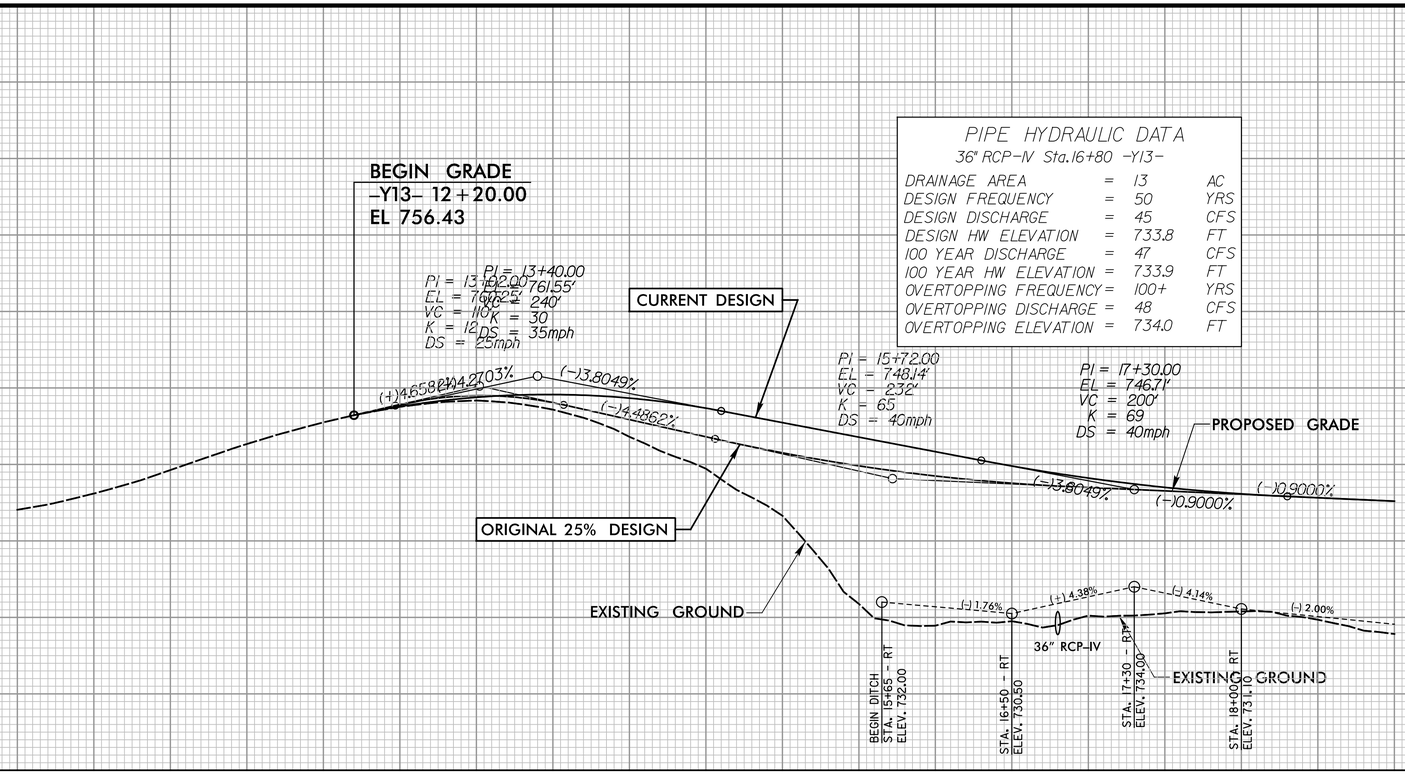

FOR –Y13– PLAN SEE SHTS. 49, 98–99

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	201
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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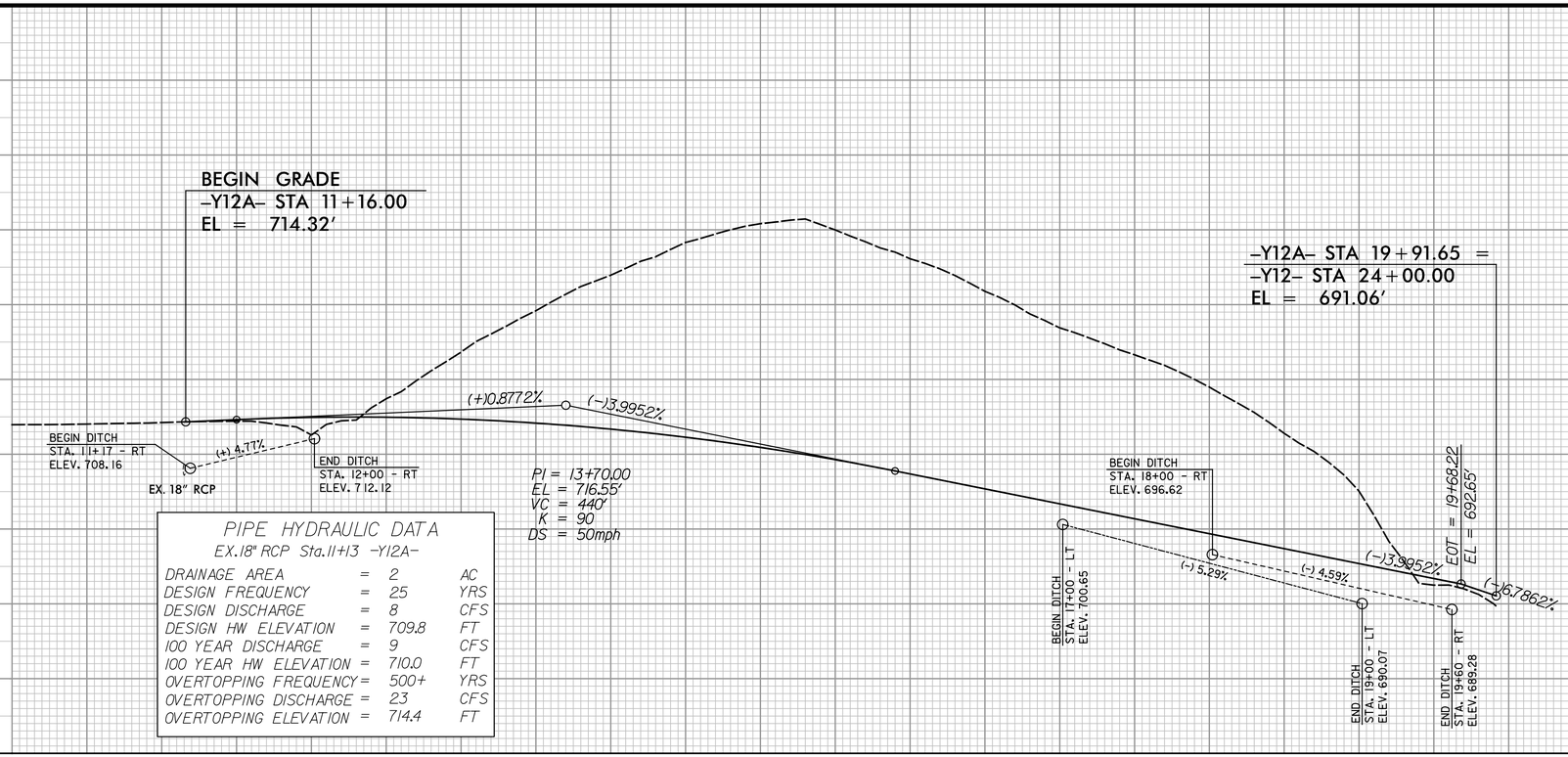
-Y12A-



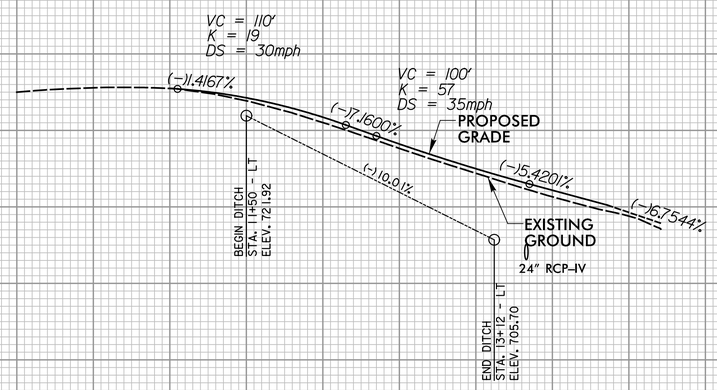
PIPE HYDRAULIC DATA
EX.18" RCP Sta.11+13 –Y12A–

DRAINAGE AREA	=	2	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	8	CFS
DESIGN HW ELEVATION	=	709.8	FT
100 YEAR DISCHARGE	=	9	CFS
100 YEAR HW ELEVATION	=	710.0	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	23	CFS
OVERTOPPING ELEVATION	=	714.4	FT

PIPE HYDRAULIC DATA
24" RCP–IV Sta.13+33 –Y12B–

DRAINAGE AREA	=	3	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	10	CFS
DESIGN HW ELEVATION	=	707.3	FT
100 YEAR DISCHARGE	=	11	CFS
100 YEAR HW ELEVATION	=	707.5	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	43	CFS
OVERTOPPING ELEVATION	=	712.8	FT

-Y12B-



FOR –Y12A– PLAN SEE SHT. 96
FOR –Y12B– PLAN SEE SHT. 97

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	202
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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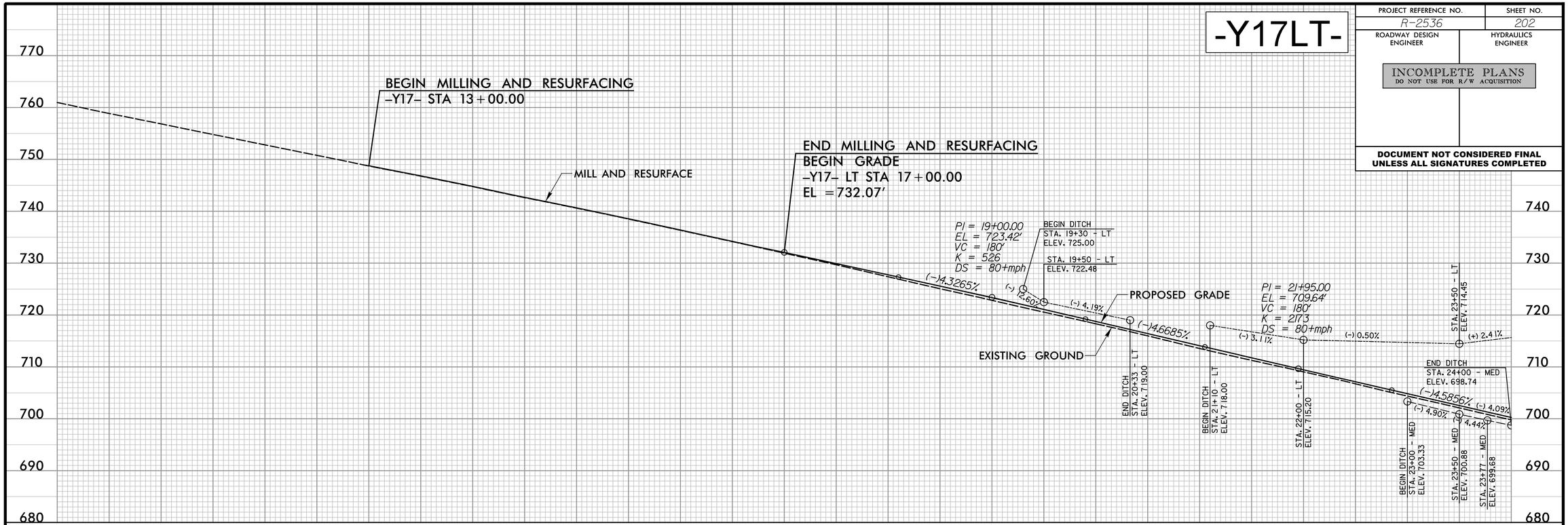
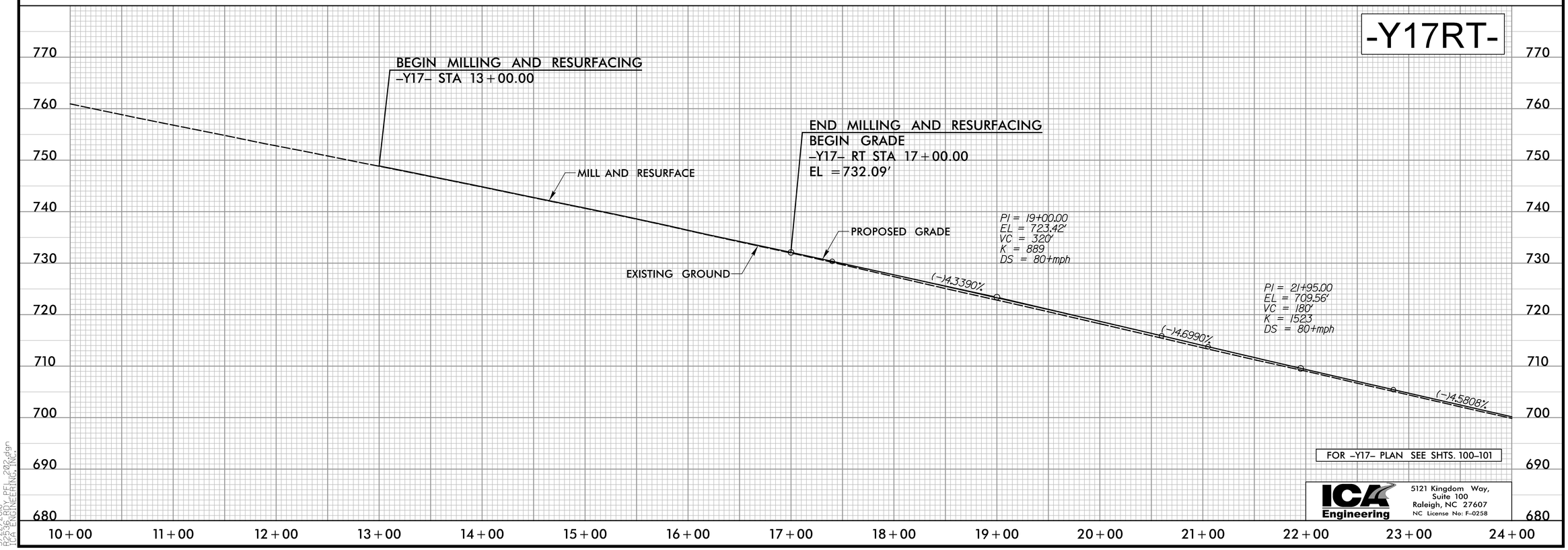
-Y17LT-



-Y17RT-



FOR –Y17– PLAN SEE SHTS. 100–101

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-Y17LT-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	203

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

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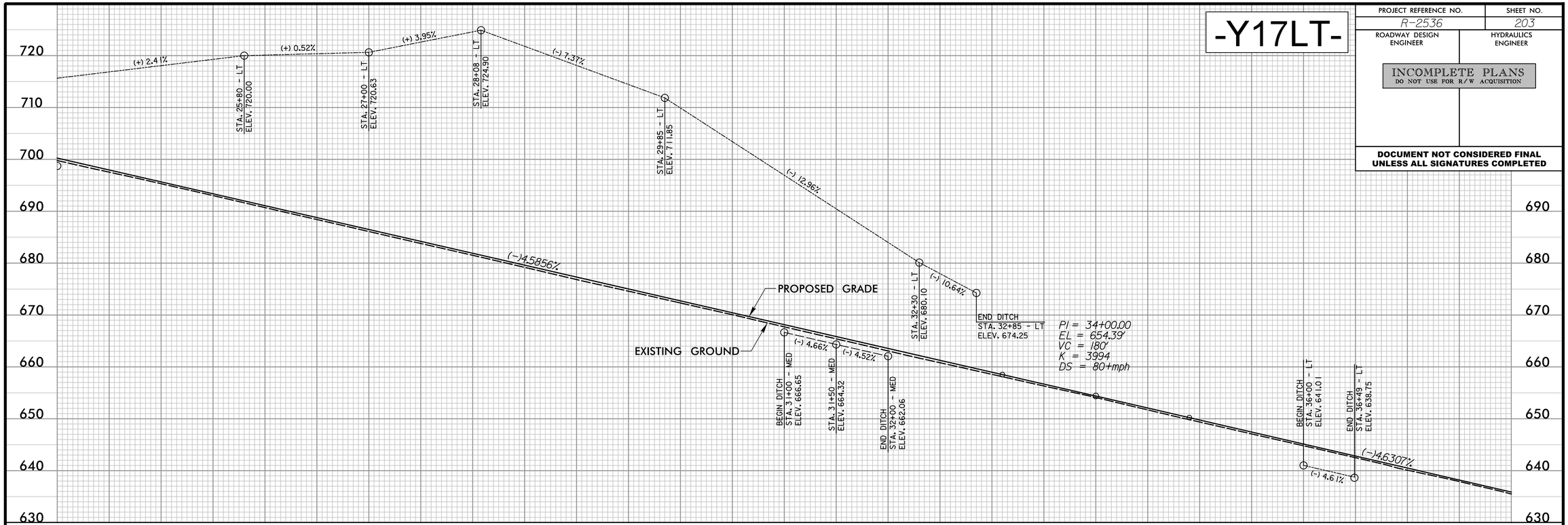
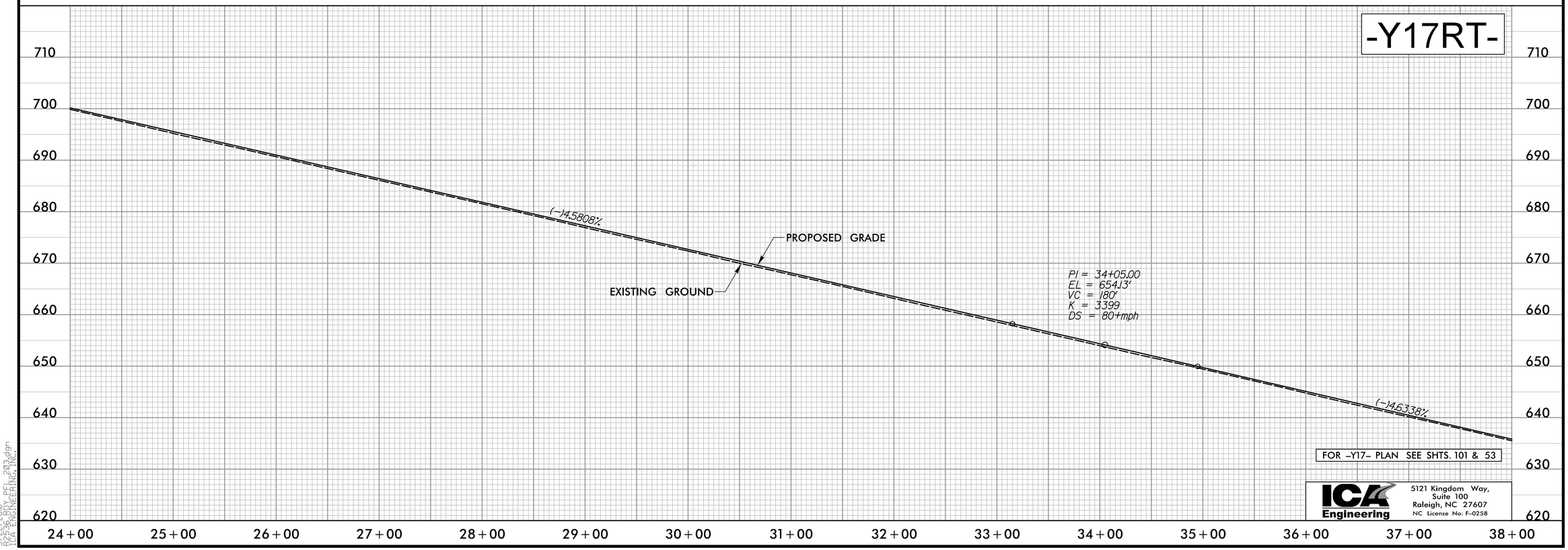


-Y17RT-



FOR –Y17– PLAN SEE SHTS. 101 & 53

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R-2536	204

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

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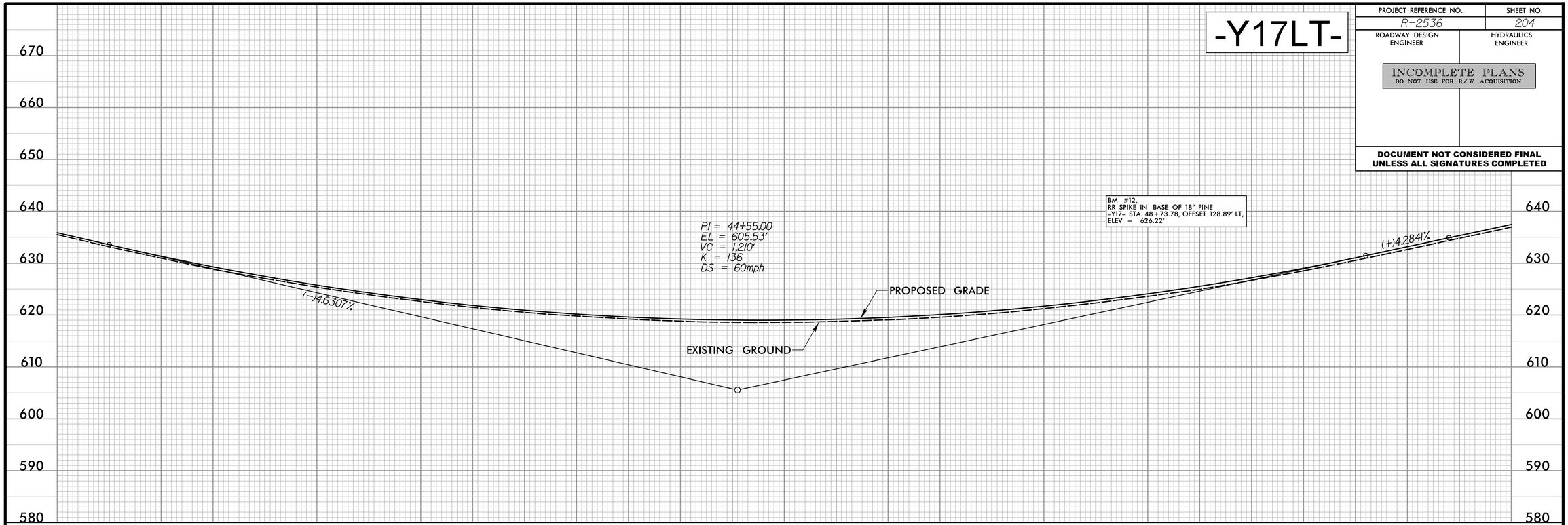
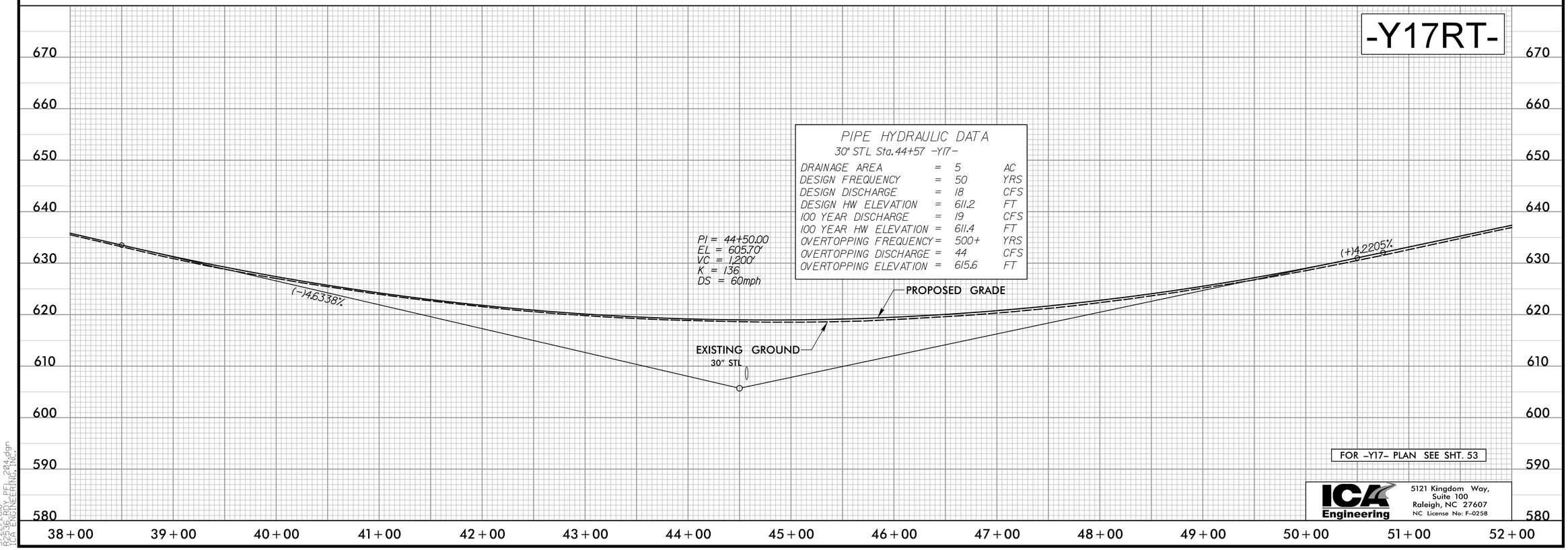
-Y17LT-



-Y17RT-



PIPE HYDRAULIC DATA
30" STL Sta.44+57 -Y17-

DRAINAGE AREA	=	5	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	18	CFS
DESIGN HW ELEVATION	=	611.2	FT
100 YEAR DISCHARGE	=	19	CFS
100 YEAR HW ELEVATION	=	611.4	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	44	CFS
OVERTOPPING ELEVATION	=	615.6	FT

FOR -Y17- PLAN SEE SHT. 53

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ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

-Y17LT-

720 710 700 690 680 670 660 650 640 630

52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00 66+00

PROPOSED GRADE

EXISTING GROUND

PI = 56+40.00
EL = 656.30'
VC = 1,000'
K = 153.39
DS = 80+mph

(+)4.2841%

(+)4.3492%

BEGIN DITCH
STA. 58+00 - LT
ELEV. 646.93

(+) 5.74%

STA. 58+50 - LT
ELEV. 649.80

(+) 4.35%

STA. 59+50 - LT
ELEV. 654.15

(+) 8.15%

END DITCH
STA. 60+50 - LT
ELEV. 662.30

-Y17RT-

PIPE HYDRAULIC DATA
36" STL Sta.65+42 -Y17-

DRAINAGE AREA	=	13	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	42	CFS
DESIGN HW ELEVATION	=	693.9	FT
100 YEAR DISCHARGE	=	44	CFS
100 YEAR HW ELEVATION	=	694.0	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	105	CFS
OVERTOPPING ELEVATION	=	702.2	FT

PROPOSED GRADE

EXISTING GROUND

PI = 54+05.00
EL = 646.01'
VC = 660'
K = 65.10
DS = 80+mph

(+)4.2205%

(+) 6.13%

STA. 54+50 - RT
ELEV. 650.00

(+) 6.00%

STA. 56+00 - RT
ELEV. 659.00

(-) 0.63%

STA. 57+07 - RT
ELEV. 658.33

(+) 8.99%

STA. 61+15 - RT
ELEV. 695.00

(-) 3.45%

STA. 63+25 - RT
ELEV. 687.75

(-) 5.07%

END DITCH
STA. 64+00 - RT
ELEV. 683.95

(+)4.3219%

BEGIN DITCH
STA. 52+27 - RT
ELEV. 636.32

PIPE HYDRAULIC DATA
24" RCP-IV Sta.64+90 -Y17-

DRAINAGE AREA	=	3	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	10	CFS
DESIGN HW ELEVATION	=	680.0	FT
100 YEAR DISCHARGE	=	11	CFS
100 YEAR HW ELEVATION	=	680.1	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	57	CFS
OVERTOPPING ELEVATION	=	689.9	FT

36" STL

24" RCP

FOR -Y17- PLAN SEE SHTS. 53-54

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ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
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-Y17LT-

760 750 740 730 720 710 700 690 680 670

PI = 69+70.00
EL = 714.14'
VC = 870'
K = 220
DS = 65mph

(+)4.3492%

EXISTING GROUND

PROPOSED GRADE

(+)0.4021%

PI = 77+05.00
EL = 717.10'
VC = 246'
K = 136
DS = 60mph

(+)2.2138%

END GRADE
–Y17– LT STA 78+50.00
EL = 720.31'

66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00

-Y17RT-

760 750 740 730 720 710 700 690 680 670

PI = 69+75.00
EL = 713.86'
VC = 800'
K = 233
DS = 65mph

(+)4.3219%

EXISTING GROUND

PROPOSED GRADE

(+)0.4146%

BM #13,
RR SPIKE IN BASE OF 24" OAK
–Y17– STA. 74+38.77, OFFSET 459.12' RT,
ELEV = 749.46'

PI = 76+60.00
EL = 716.70'
VC = 245'
K = 136
DS = 60mph

(+)2.2138%

END GRADE
–Y17– RT STA 78+50.00
EL = 720.91'

66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00

FOR –Y17– PLAN SEE SHTS. 54–55

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-Y17-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	207
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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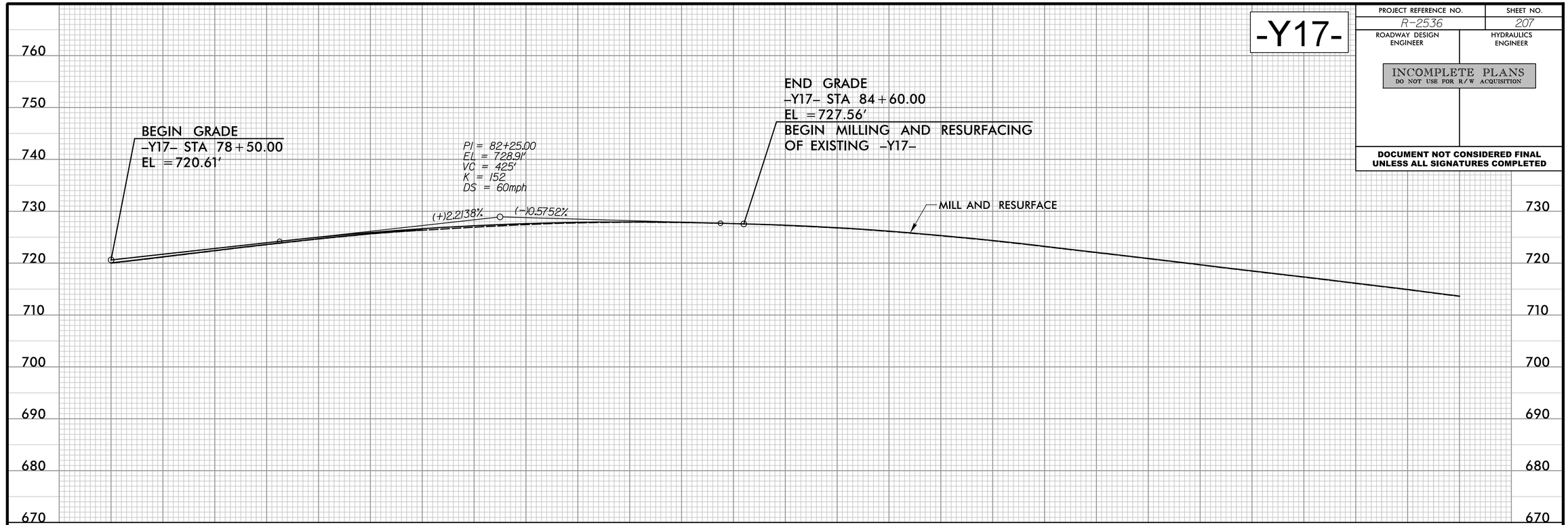
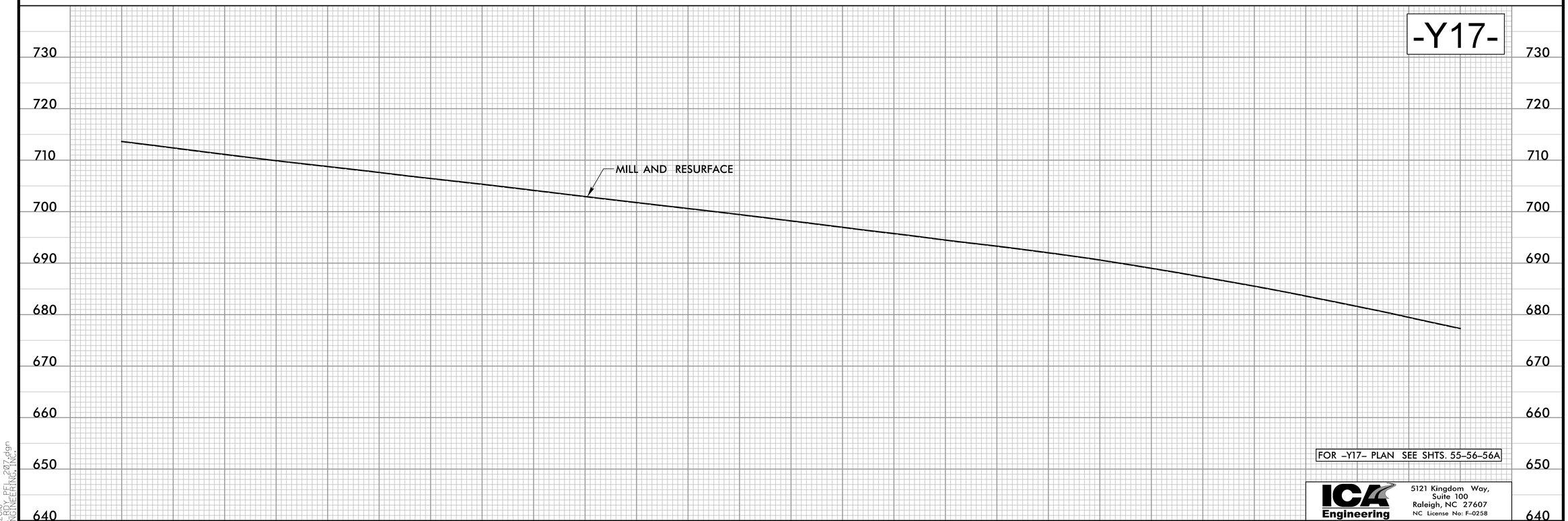


-Y17-



FOR -Y17- PLAN SEE SHTS. 55-56-56A

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	208
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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-Y17-

END MILLING AND RESURFACING OF EXISTING –Y17– STA 112+00

MILL AND RESURFACE

BM #14,
RR SPIKE IN BASE OF 30" OAK
–Y17– STA. 110+98.79, OFFSET 190.44' LT,
ELEV = 675.33'

FOR –Y17– PLAN SEE SHTS. 55-56-56A

-Y17RPC-

PI = 10+56.00
EL = 659.06'
VC = 100'
K = 136
DS = 55mph

PI = 11+67.00
EL = 661.84'
VC = 108'
K = 96
DS = 50mph

(+)1.767%

(+)2.504%

(+)3.627%

BEGIN GRADE
–Y17RPC– STA 10+00.00=
–Y17FLY– STA 20+71.53, 12' LT
EL =658.07'

BEGIN DITCH
STA. 10+95 - LT
ELEV. 612.60

STA. 11+75 - LT
ELEV. 613.00

STA. 12+75 - LT
ELEV. 616.00

(+) 0.50%

(+) 3.00%

PIPE HYDRAULIC DATA
18" RCP–IV Sta.17+34 –Y17RPC–

DRAINAGE AREA	=	3	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	8	CFS
DESIGN HW ELEVATION	=	651.4	FT
100 YEAR DISCHARGE	=	8	CFS
100 YEAR HW ELEVATION	=	651.4	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	25	CFS
OVERTOPPING ELEVATION	=	661.2	FT

PI = 14+65.00
EL = 672.65'
VC = 280'
K = 84
DS = 50mph

(+)0.301%

PROPOSED GRADE

(+)4.953%

PI = 19+40.00
EL = 674.08'
VC = 450'
K = 97
DS = 50mph

(+)4.649%

PI = 25+50.00
EL = 704.30'
VC = 110'
K = 362
DS = 75mph

PROPOSED GRADE

EXISTING GROUND

END GRADE
–Y17RPC– STA 26+47.90=
–Y17– STA 22+00.05, 39' RT
EL =708.85'

EXISTING GROUND

18" RCP

BEGIN DITCH
STA. 17+39 - RT
ELEV. 649.70

END DITCH
STA. 17+83 - RT
ELEV. 651.26

BEGIN DITCH
STA. 18+70 - LT
ELEV. 661.00

END DITCH
STA. 18+27 - LT
ELEV. 653.00

STA. 17+00 - LT
ELEV. 644.40

(+) 3.55%

(+) 6.77%

(+) 6.32%

(+) 7.11%

STA. 19+55 - LT
ELEV. 666.37

(+) 7.81%

STA. 20+86 - LT
ELEV. 673.55

END DITCH
STA. 21+04 - LT
ELEV. 677.30

STA. 13+50 - LT
ELEV. 617.15

(+) 1.53%

(+) 0.98%

STA. 13+95 - LT
ELEV. 617.59

(+) 3.39%

(+) 12.80%

STA. 15+25 - LT
ELEV. 622.00

-Y17RPC-

FOR –Y17RPC– PLAN SEE SHTS. 52, 53 & 101

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-Y17RPD-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	209
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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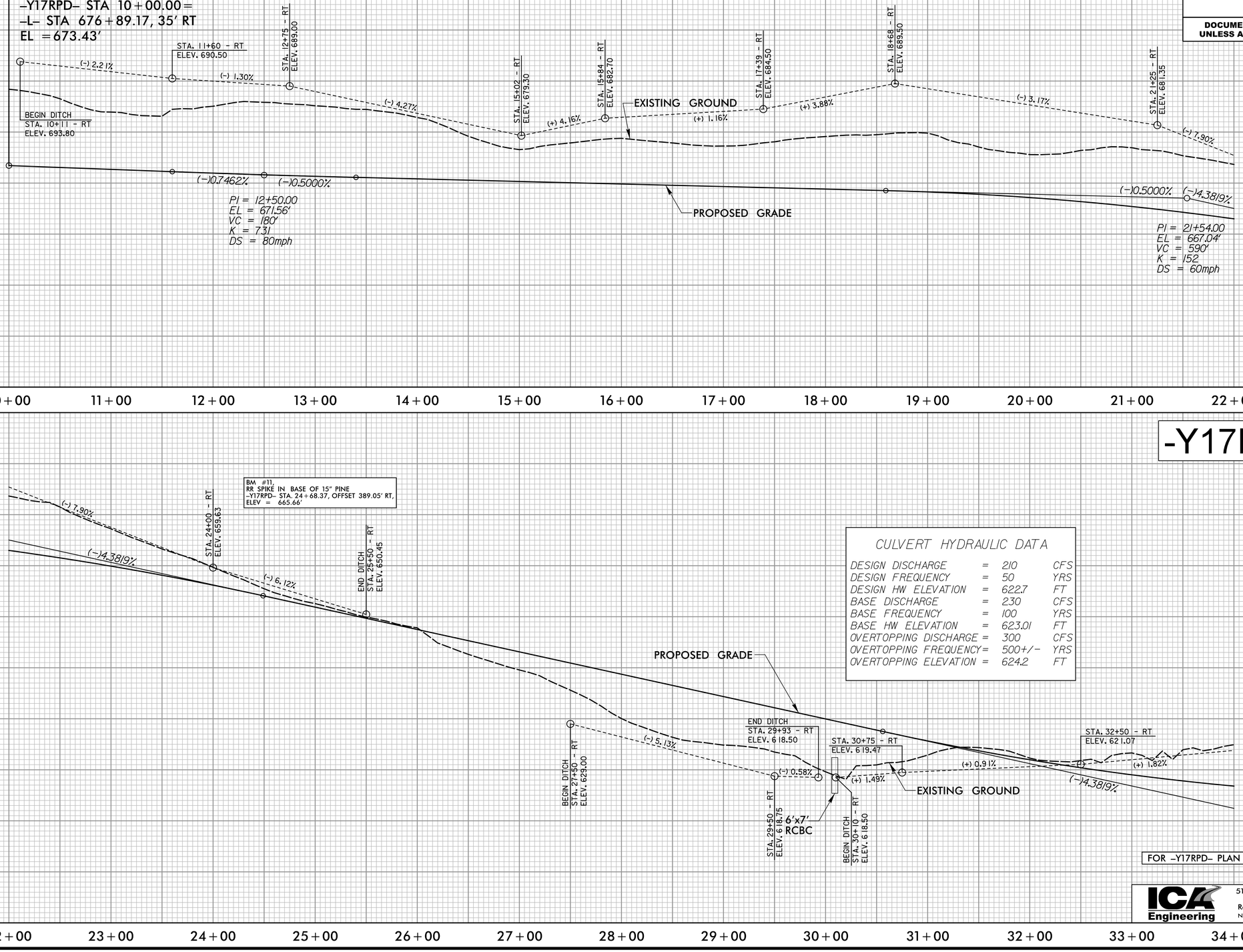

FOR –Y17RPD– PLAN SEE SHTS. 51–53

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	210
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-Y17RPD-

PIPE HYDRAULIC DATA
30" RCP–IV Sta. 36+70 –Y17RPD–

DRAINAGE AREA	=	3	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	14	CFS
DESIGN HW ELEVATION	=	611.5	FT
100 YEAR DISCHARGE	=	14	CFS
100 YEAR HW ELEVATION	=	611.6	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	47	CFS
OVERTOPPING ELEVATION	=	615.6	FT

EXISTING GROUND
STA. 37+00 – RT
ELEV. 629.25

PROPOSED GRADE

PI = 36+87.00
EL = 599.87'
VC = 1,262'
K = 136
DS = 60mph

BEGIN DITCH
STA. 35+50 – LT
ELEV. 612.67

BEGIN DITCH
STA. 36+00 – RT
ELEV. 609.50

END DITCH
STA. 37+00 – RT
ELEV. 609.50

END DITCH
STA. 39+00 – LT
ELEV. 612.10

30" RCP
STA. 36+88 – LT
ELEV. 608.38

STA. 36+50 – RT
ELEV. 608.90

(+) 1.82%
(+) 0.71%
(-) 3.11%
(-) 1.20%
(+) 1.20%
(+) 1.75%
(-)4.38197%
(+)4.9086%

END GRADE
–Y17RPD– STA 44+80.63=
–Y17– STA 52+40.23, 51' RT
EL =638.36'

PI = 44+10.00
EL = 635.36'
VC = 105'
K = 159
DS = 60mph

STA. 42+80 – RT
ELEV. 633.34

STA. 43+40 – RT
ELEV. 637.15

END DITCH
STA. 44+67 – RT
ELEV. 636.32

(+) 6.35%
(-) 0.65%
(+)4.2475%
(+)4.9086%

SAG IN CUT HAS BEEN REVIEWED BY HYDRAULICS ENGINEER TO ASSURE POSITIVE DRAINAGE

FOR –Y17RPD– PLAN SEE SHTS. 51–53

690 680 670 660 650 640 630

34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00

-Y17LPDA-

PI = 11+30.00
EL = 663.98'
VC = 260'
K = 87
DS = 50mph

(-)5.02157%

BEGIN GRADE
–Y17LPDA– STA 10+00.00=
–Y17RPDA– STA 34+58.34, 8' LT
EL =670.51'

(-)7.9966%

PI = 16+92.00
EL = 619.04'
VC = 504'
K = 37
DS = 30mph

PROPOSED GRADE

(+)5.7587%

(-) 3.00%

(+) 2.46%

(+) 11.26%

(+)4.6548%

(+) 4.88%

END GRADE
–Y17LPDA– STA 21+17.26=
–Y17– STA 36+48.50, 39' LT
EL =642.40'

PI = 20+15.00
EL = 637.64'
VC = 60'
K = 54
DS = 40mph

BEGIN DITCH
STA. 16+50 – RT
ELEV. 622.15

STA. 17+65 – RT
ELEV. 618.70

EXISTING GROUND

STA. 19+50 – RT
ELEV. 623.25

STA. 20+65 – RT
ELEV. 636.20

END DITCH
STA. 21+17 – RT
ELEV. 638.15

FOR –Y17LPDA– PLAN SEE SHTS. 53

680 670 660 650 640 630 620 610 600 590

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

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-Y17RPDA-

PROJECT REFERENCE NO.	SHEET NO.
R-2536	211
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PI = 10+70.00
EL = 669.73'
VC = 100'
K = 397
DS = 80mph

PI = 13+10.00
EL = 667.73'
VC = 150'
K = 122
DS = 55mph

PI = 18+00.00
EL = 657.60'
VC = 335'
K = 97
DS = 50mph

(−)0.5831%
(−)0.8350%
(−)0.8350%
(−)2.0667%
(−)2.0667%
(+)1.3899%
(+)1.3899%

PROPOSED GRADE

BEGIN GRADE
–Y17RPDA– STA 10+00.00=
–Y17RPD– STA 15+83.77, 12' LT
EL =670.14'

EXISTING GROUND

BEGIN DITCH
STA. 16+78 - RT
ELEV. 648.90

STA. 17+29 - RT
ELEV. 645.15

STA. 18+74 - RT
ELEV. 636.38

(-) 7.33%
(-) 6.05%
(-) 7.24%

690 680 670 660 650 640 630 620 610 600

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00

-Y17RPDA-

BEGIN BRIDGE
END BRIDGE

PI = 24+76.00
EL = 667.00'
VC = 280'
K = 140
DS = 60mph

PROPOSED GRADE

(+)1.3899%
(+)3.3906%
(−)5.0236%

UTILIZE –Y17FLY– GRADE FOR CONSTRUCTION OF BRIDGE ON –Y17FLY– OVER –Y17–

PI = 30+95.66
EL = 688.01'
VC = 725'
K = 86
DS = 50mph

END GRADE
–Y17RPDA– STA 34+58.33
EL =669.79'

EXISTING GROUND

2 @ 10'x8' RCBC

END DITCH
STA. 23+10 - RT
ELEV. 609.00

(-) 0.50%

STA. 22+48 - RT
ELEV. 609.31

690 680 670 660 650 640 630 620 610 600

22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00

FOR –Y17RPDA– PLAN SEE SHTS. 51–53

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	2I2
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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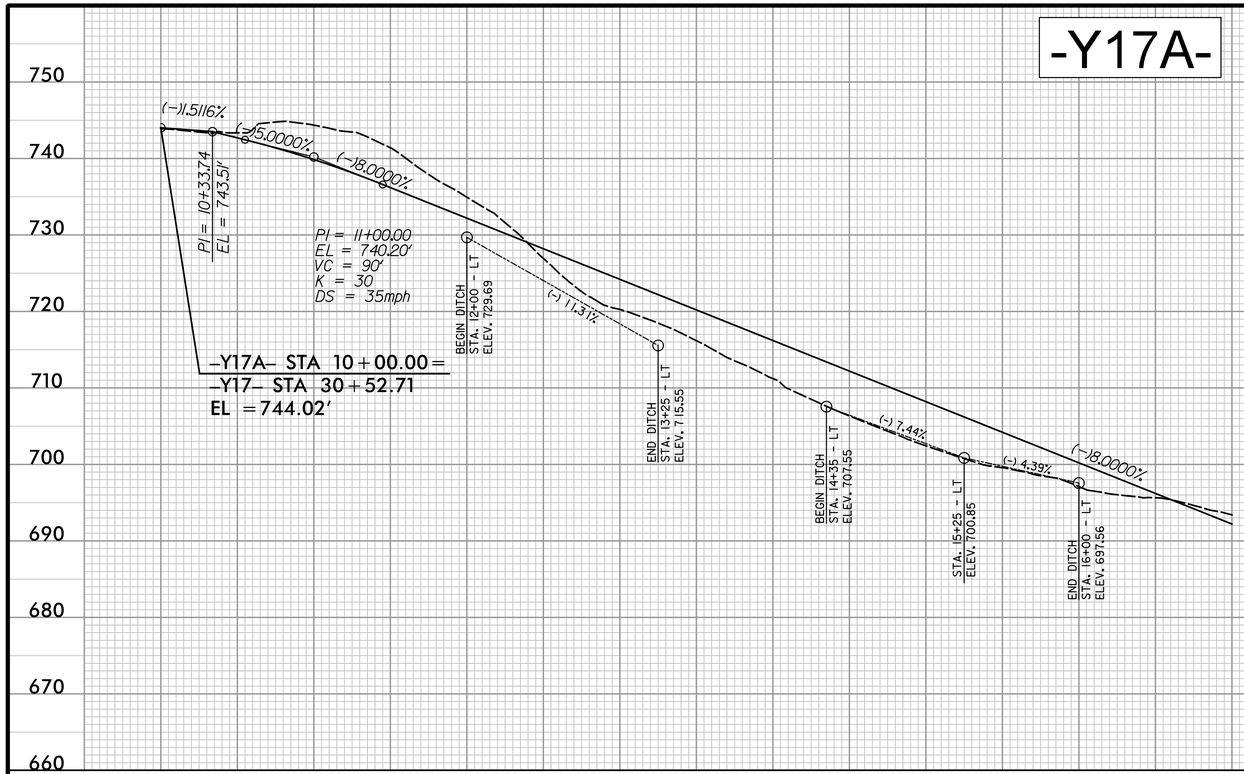
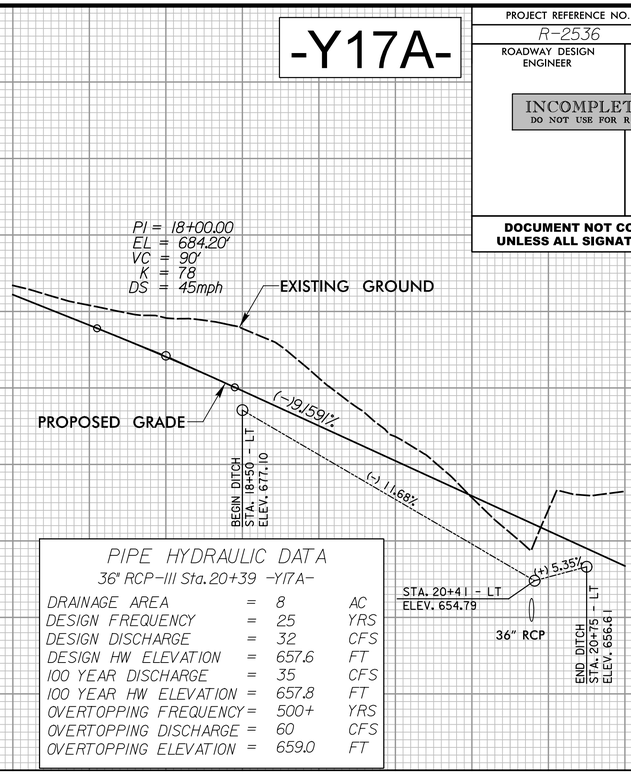
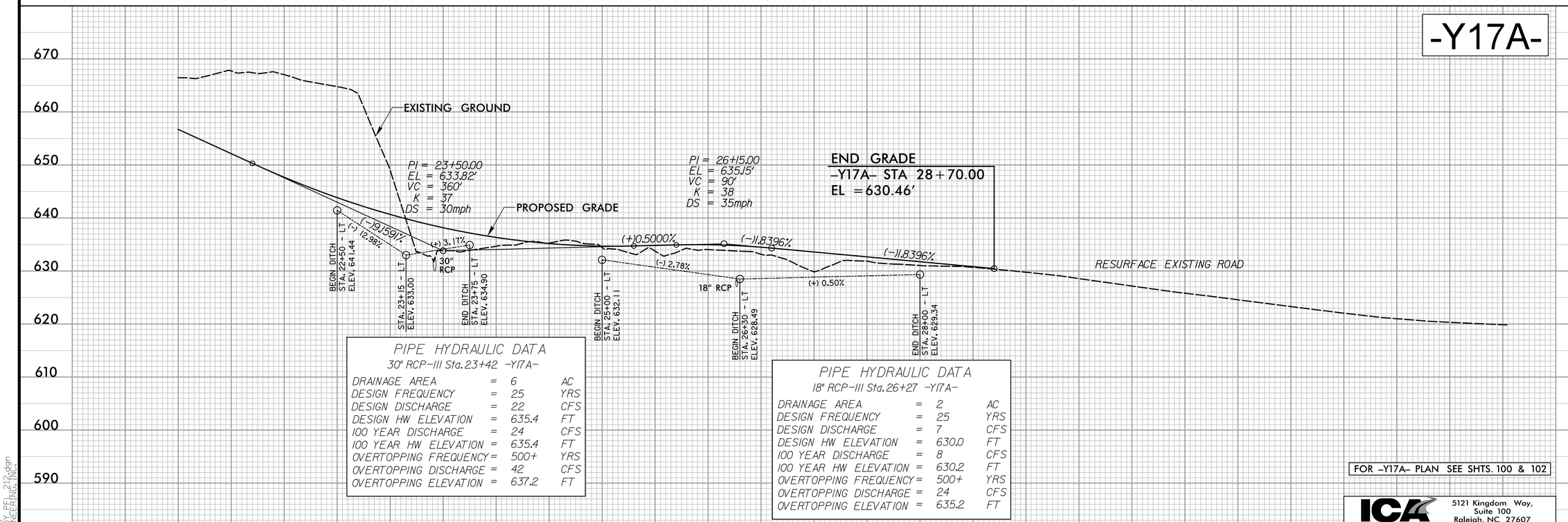
-Y17A-





PIPE HYDRAULIC DATA
36" RCP–III Sta. 20+39 –YI7A–

DRAINAGE AREA	=	8	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	32	CFS
DESIGN HW ELEVATION	=	657.6	FT
I00 YEAR DISCHARGE	=	35	CFS
I00 YEAR HW ELEVATION	=	657.8	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	60	CFS
OVERTOPPING ELEVATION	=	659.0	FT



PIPE HYDRAULIC DATA
30" RCP–III Sta. 23+42 –YI7A–

DRAINAGE AREA	=	6	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	22	CFS
DESIGN HW ELEVATION	=	635.4	FT
I00 YEAR DISCHARGE	=	24	CFS
I00 YEAR HW ELEVATION	=	635.4	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	42	CFS
OVERTOPPING ELEVATION	=	637.2	FT

PIPE HYDRAULIC DATA
18" RCP–III Sta. 26+27 –YI7A–

DRAINAGE AREA	=	2	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	7	CFS
DESIGN HW ELEVATION	=	630.0	FT
I00 YEAR DISCHARGE	=	8	CFS
I00 YEAR HW ELEVATION	=	630.2	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	24	CFS
OVERTOPPING ELEVATION	=	635.2	FT

FOR –Y17A– PLAN SEE SHTS. 100 & 102

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	213
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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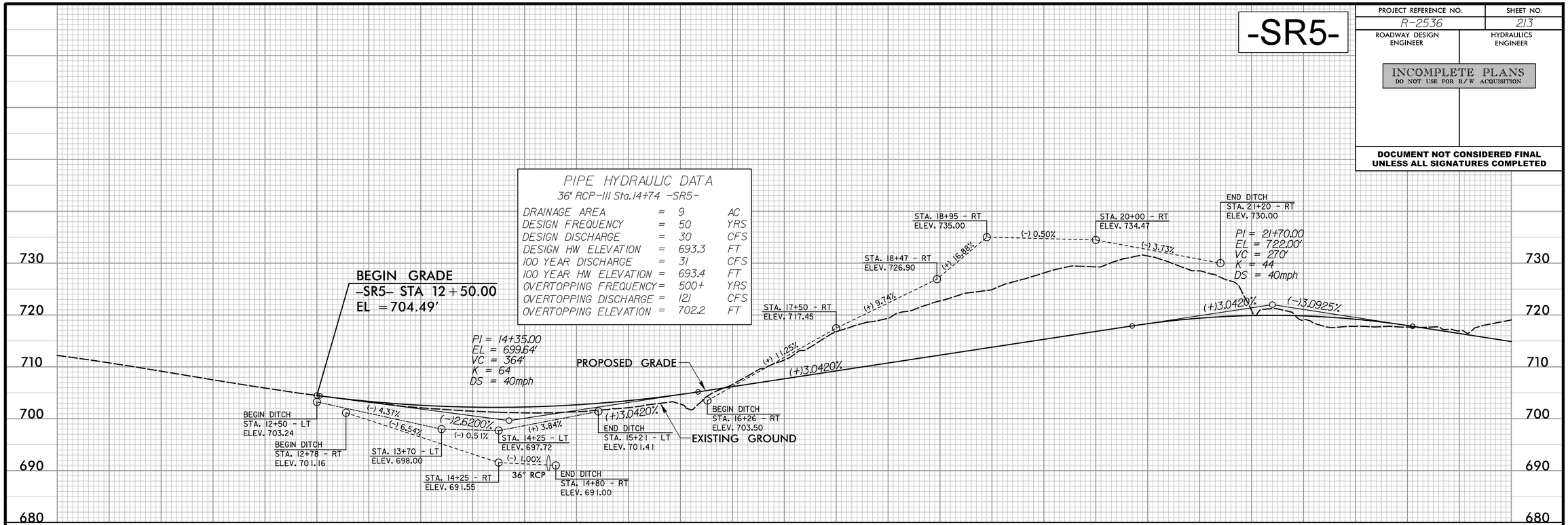
-SR5-

PIPE HYDRAULIC DATA
36" RCP-III Sta.14+74 -SR5-

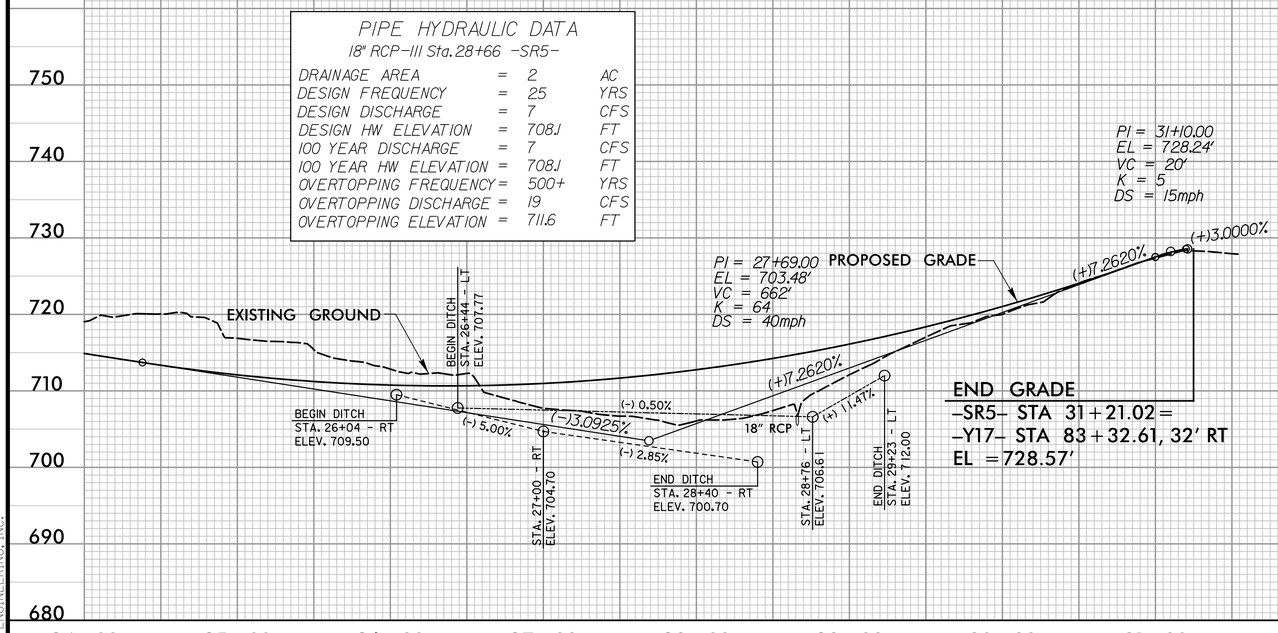
DRAINAGE AREA	=	9	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	30	CFS
DESIGN HW ELEVATION	=	693.3	FT
100 YEAR DISCHARGE	=	31	CFS
100 YEAR HW ELEVATION	=	693.4	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	121	CFS
OVERTOPPING ELEVATION	=	702.2	FT



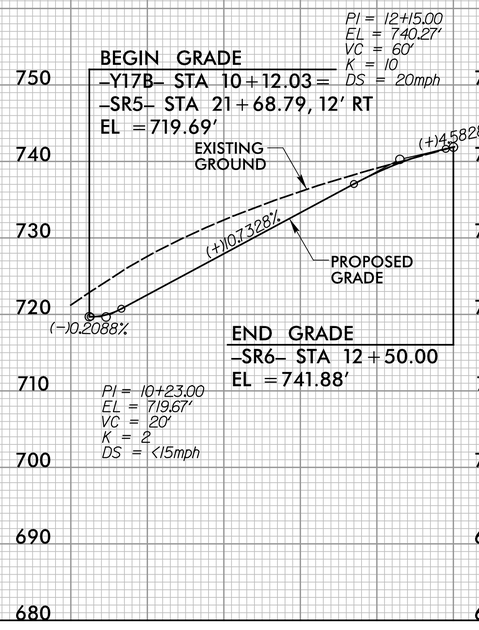
-SR5-

PIPE HYDRAULIC DATA
18" RCP-III Sta.28+66 -SR5-

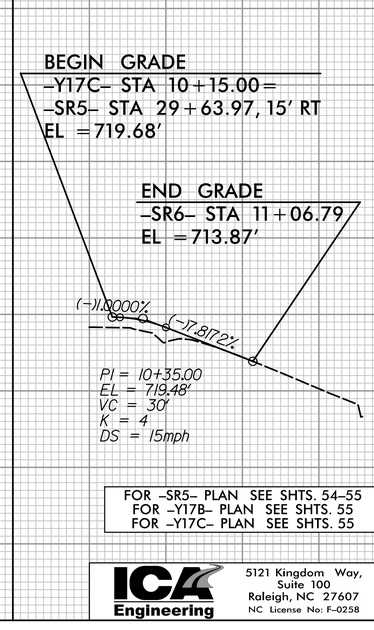
DRAINAGE AREA	=	2	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	7	CFS
DESIGN HW ELEVATION	=	708.1	FT
100 YEAR DISCHARGE	=	7	CFS
100 YEAR HW ELEVATION	=	708.1	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	19	CFS
OVERTOPPING ELEVATION	=	711.6	FT



-Y17B-



-Y17C-



FOR -SR5- PLAN SEE SHTS. 54-55
FOR -Y17B- PLAN SEE SHTS. 55
FOR -Y17C- PLAN SEE SHTS. 55

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	214
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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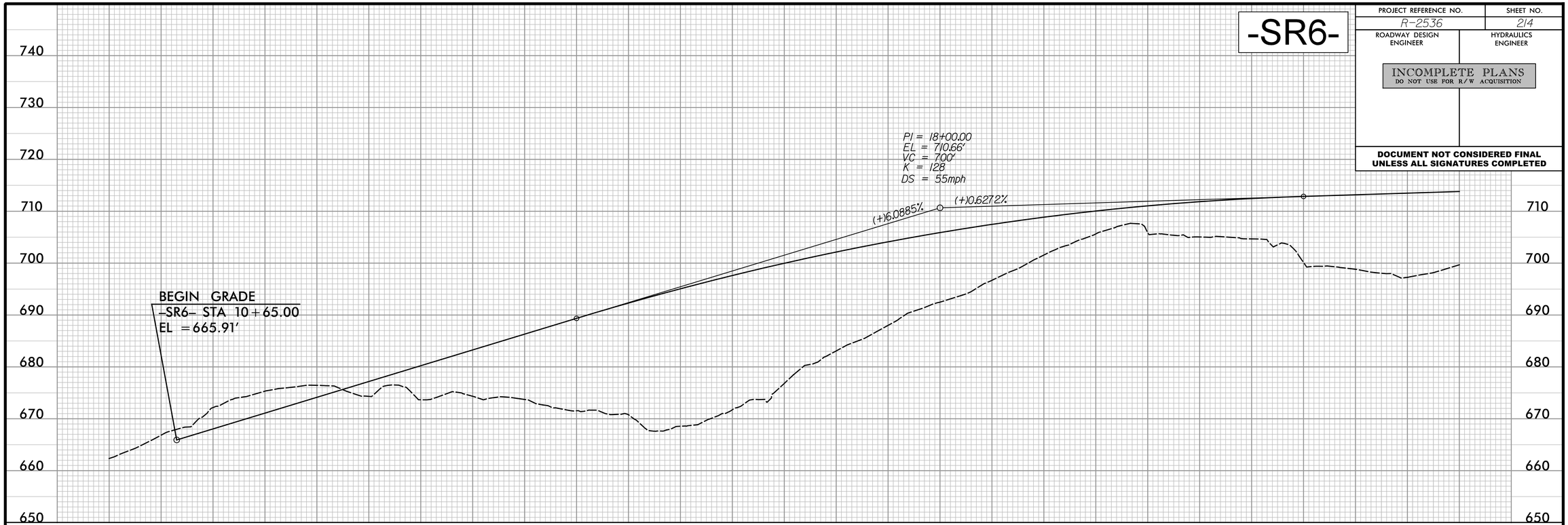
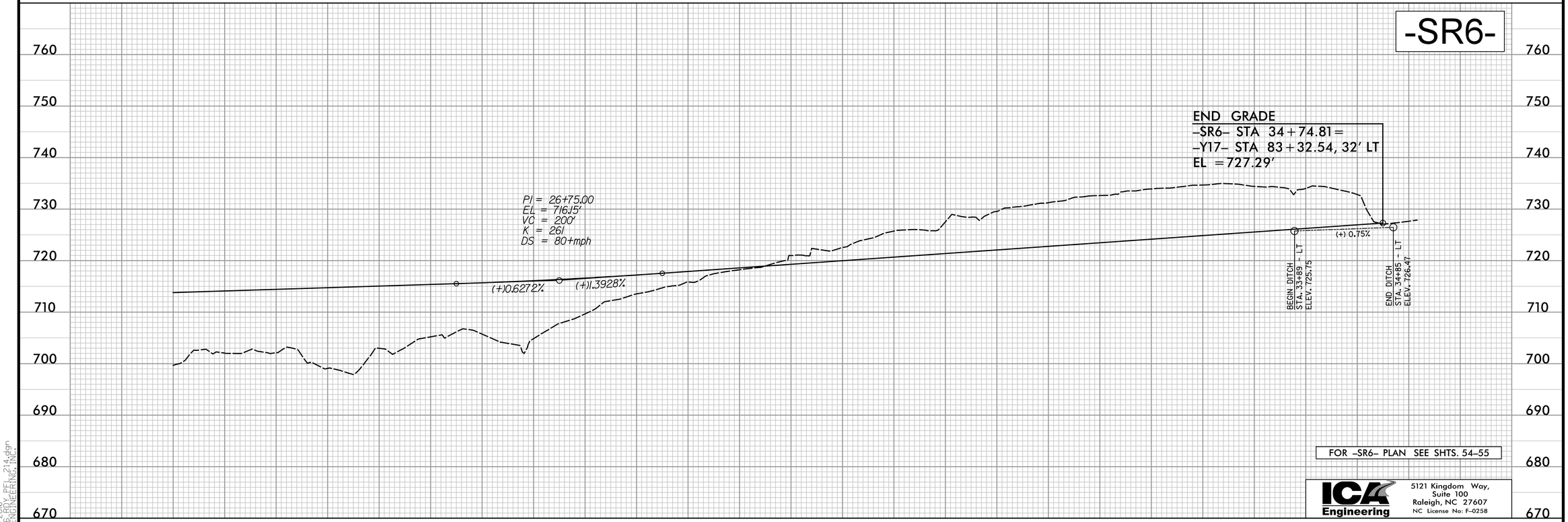
-SR6-



-SR6-



FOR -SR6- PLAN SEE SHTS. 54-55

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PROJECT REFERENCE NO.	SHEET NO.
R-2536	215
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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-SR6DR1-

–SR6DR1– STA 12+55.90
EOT CUL–DE–SAC, EL 664.75′

BEGIN GRADE
–SR6DR1– STA 10+00.00
EL = 648.92′

PI = 12+05.00
EL = 662.21′
VC = 100′
K = 51

PI = 10+50.00
EL = 651.42′
VC = 100′
K = 51

(+)5.0000%
(+)16.9595%
(+)5.0000%
(+)2.0000%
18" RCP

–SR6DR1– STA 12+90.90 =
–SR6– STA 10+65.00, 23′ LT
EL = 665.45′

PIPE HYDRAULIC DATA
18" RCP–IV Sta.10+20 –SR6DR1–

DRAINAGE AREA	=	2	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	6	CFS
DESIGN HW ELEVATION	=	648.3	FT
100 YEAR DISCHARGE	=	7	CFS
100 YEAR HW ELEVATION	=	648.4	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	15	CFS
OVERTOPPING ELEVATION	=	650.0	FT

FOR –SR6DR1– PLAN SEE SHTS. 53 & 54

-SR6DR2-

–SR6DR2– STA 10+12.07 =
–SR6– EOT STA 11+63.23, 12′ LT
EL 671.65′

PI =10+30.00
EL = 670.22′
VC = 20′
(–)18%
(–)16.9%
PI =11+33.92
EL = 653.75′
END CONSTRUCTION
PI =11+20.00
EL = 655.04′
VC = 20′
(–)9.2%

FOR –SR6DR2– PLAN SEE SHT. 54

-SR6DR3-

–SR6DR3– STA 10+12.09 =
–SR6– EOT STA 25+71.48, 12′ LT
EL 715.26′

PI =10+28.00
EL = 713.51′
VC = 20′
(–)17.1%
(–)12.1%
(–)24.1%
PI = 10+16.12
EL = 714.95′
(–)12%
PI =11+20.00
EL = 690.75′
VC = 20′
PI =11+30.00
EL = 690.56′
END CONSTRUCTION

FOR –SR6DR3– PLAN SEE SHT. 55

-SR6DR4-

–SR6DR4– STA 10+15.00 =
–SR6– EOT STA 33+40.66, 15′ LT
EL 726.02′

PI =11+05.00
EL = 739.47′
VC = 30′
(+)2.4%
(+)1.8%
(+)1.7%
PI =10+40.00
EL = 727.77′
VC = 40′
PI =11+25.00
EL = 739.95′
END CONSTRUCTION

FOR –SR6DR4– PLAN SEE SHT. 55

-SR6DR5-

–SR6DR5– STA 10+14.95 =
–SR6– EOT STA 33+73.01, 15′ LT
EL 726.24′

PI = 10+27.00
EL = 726.32′
VC = 20′
PI = 11+30.00
EL = 740.28′
VC = 20′
(–)12.3%
(+)13.6%
(–)13.5%
(+)11.5%
PI = 10+16.95
EL = 726.17′
PI =11+44.00
EL = 739.96′
END CONSTRUCTION

FOR –SR6DR5– PLAN SEE SHT. 55

-Y17ADRLT-

PIPE HYDRAULIC DATA
18" RCP–IV Sta.10+52 –Y17ADRLT–

DRAINAGE AREA	=	2	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	5	CFS
DESIGN HW ELEVATION	=	716.8	FT
100 YEAR DISCHARGE	=	6	CFS
100 YEAR HW ELEVATION	=	717.0	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	11	CFS
OVERTOPPING ELEVATION	=	717.6	FT

PI =12+75.00
EL = 724.51′
VC = 50′
–Y17ADRLT– 13+09.99
EL = 724.82
(+)10.9%
(+)4.9%
(–)1%
(+) 0.53%
18" RCP
END DITCH
STA. 11+25 - LT
ELEV. 715.97
–Y17ADRLT– 10+12.44 =
–Y17A– 13+53.30
EL = 719.45′
BEGIN DITCH
STA. 10+45 - LT
ELEV. 715.55
PI =11+00.00
EL = 715.95′
VC = 150′

FOR –Y17ADRLT– PLAN SEE SHT. 100

-Y17ADRRT-

–Y17A– EOT STA 25+97.87, 12′ RT, EL 635.44′ =
–Y17ADRRT– STA 10+12.01

PI =10+30.00
EL = 635.53′
VC = 20′
PI =11+15.00
EL = 627.46′
END CONSTRUCTION
(+)0.5%
(–)11.3%
(–)1%
PI =11+00.00
EL = 627.61′
VC = 20′

FOR –Y17ADRRT– PLAN SEE SHT. 102

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-2

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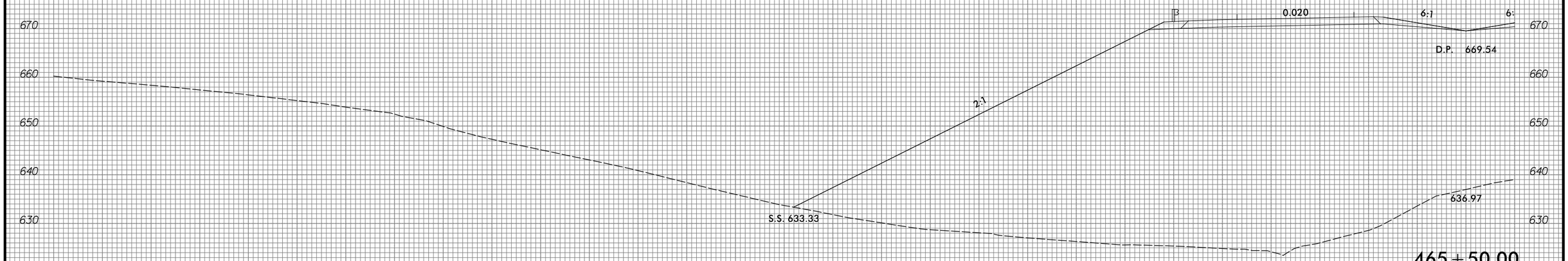
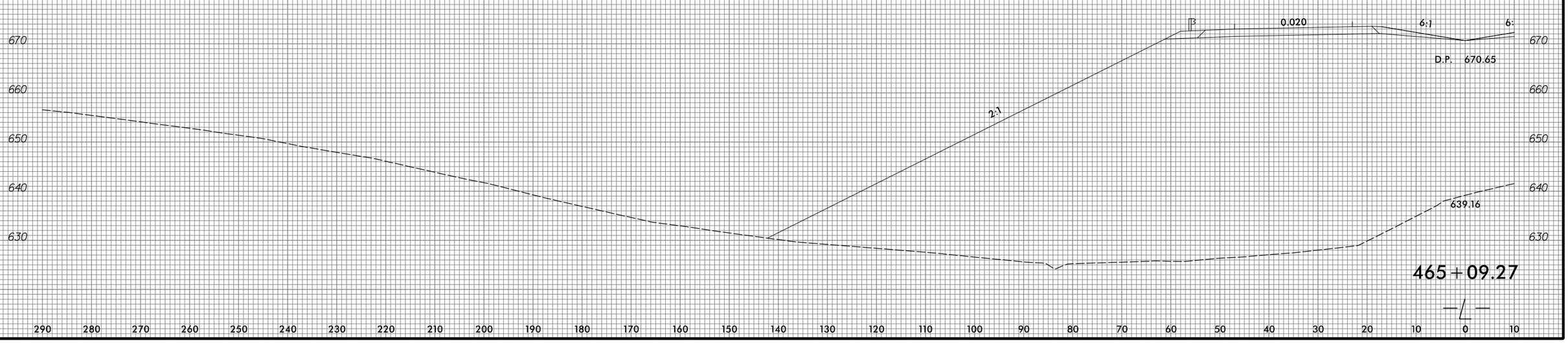
680 670 660 650 640 630



465+50.00

680 670 660 650 640 630



465+09.27

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-3

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650 640 630

B 0.006 6.183:1 6:

D.P. 666.80

2:1

S.S. 635.55

626.29

466+50.00

670 660 650 640 630

B 0.017 6.037:1 6:

D.P. 668.17

2:1

S.S. 635.53

632.86

466+00.00

—L—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

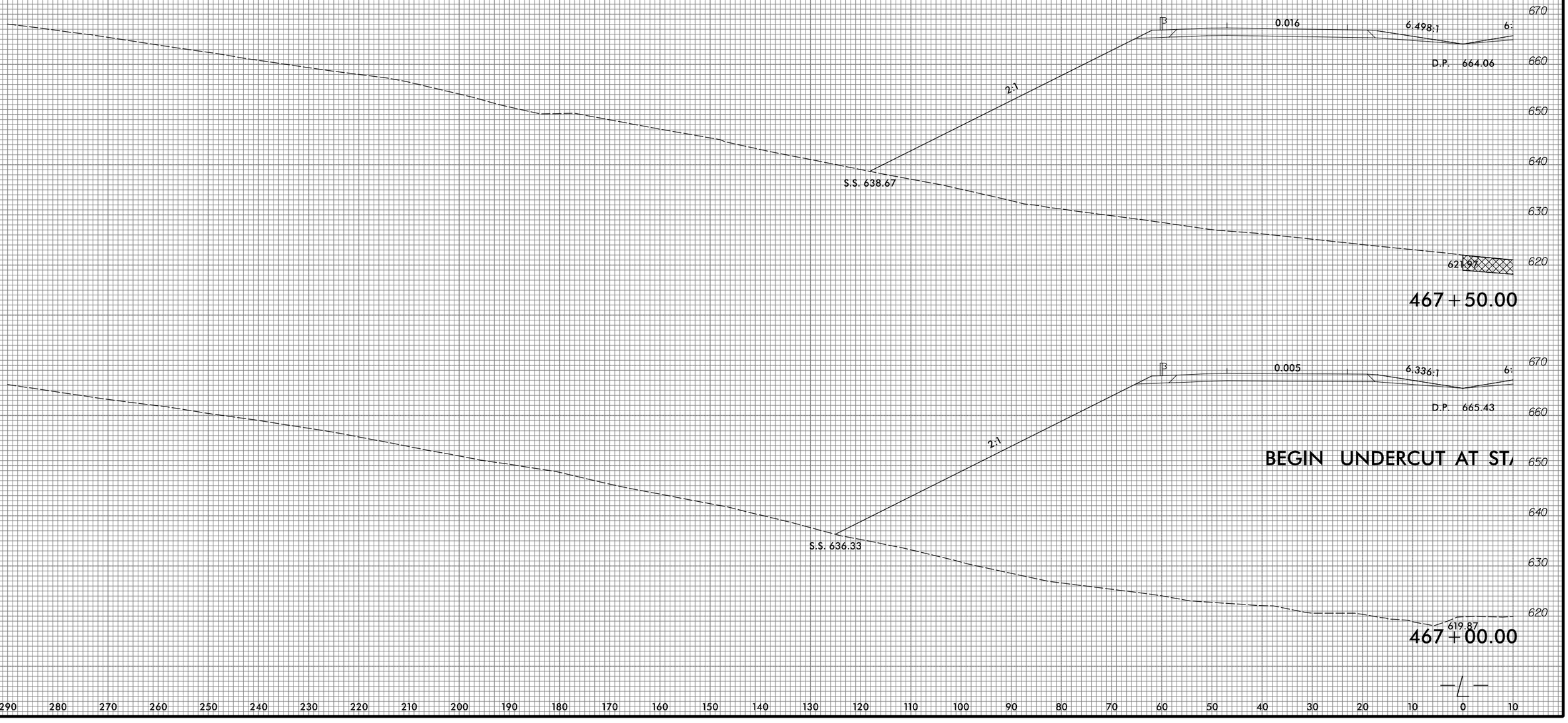
3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-4

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650 640 630 620



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3/22/2016
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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-5

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650 640 630 620

S.S. 647.41

2:1

0.038

7.057:1

6:

D.P. 661.44

635.07

468+50.00

670 660 650 640 630 620

S.S. 642.95

2:1

0.027

6.745:1

6:

D.P. 662.74

629.80

468+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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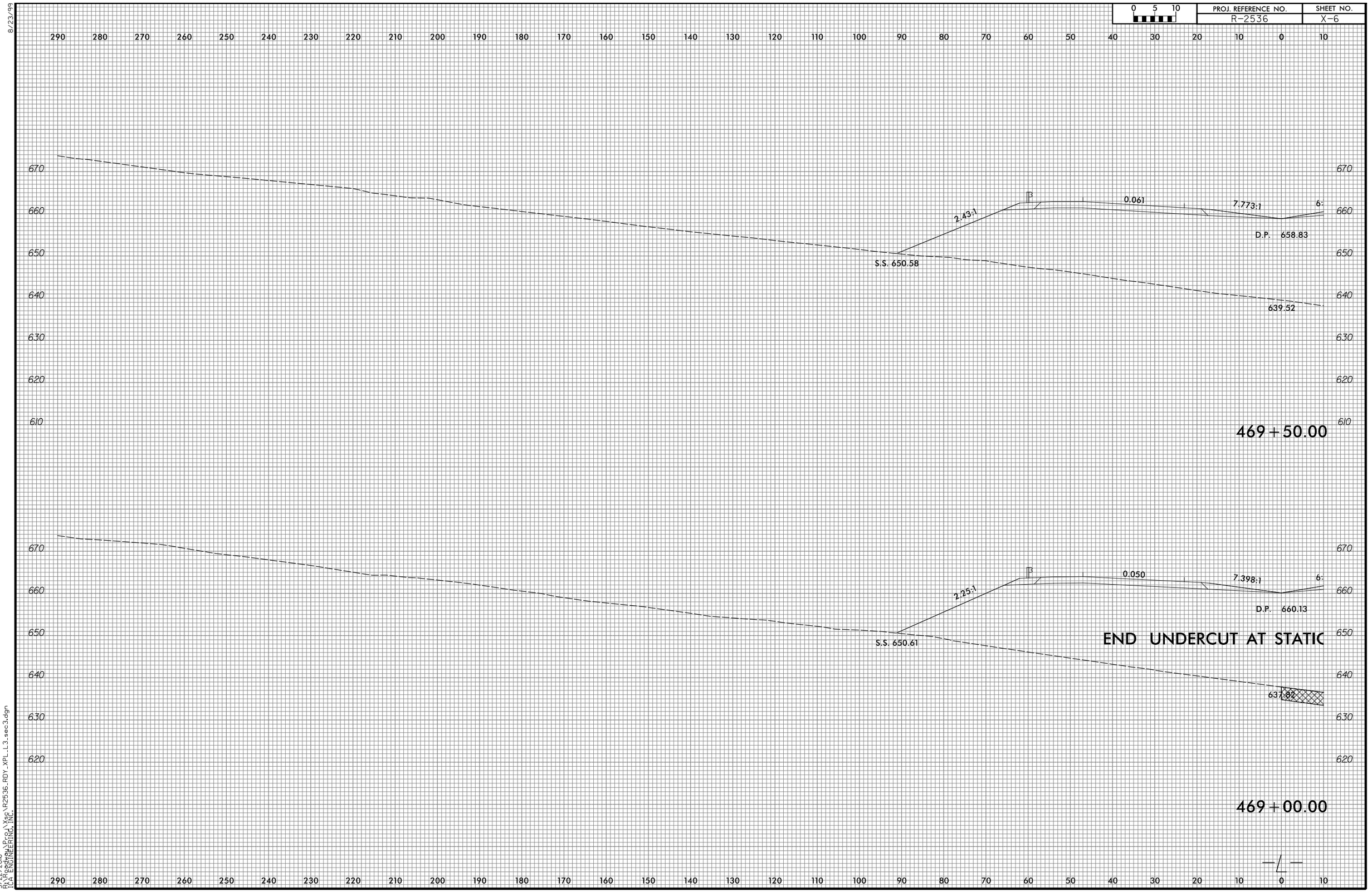
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-6



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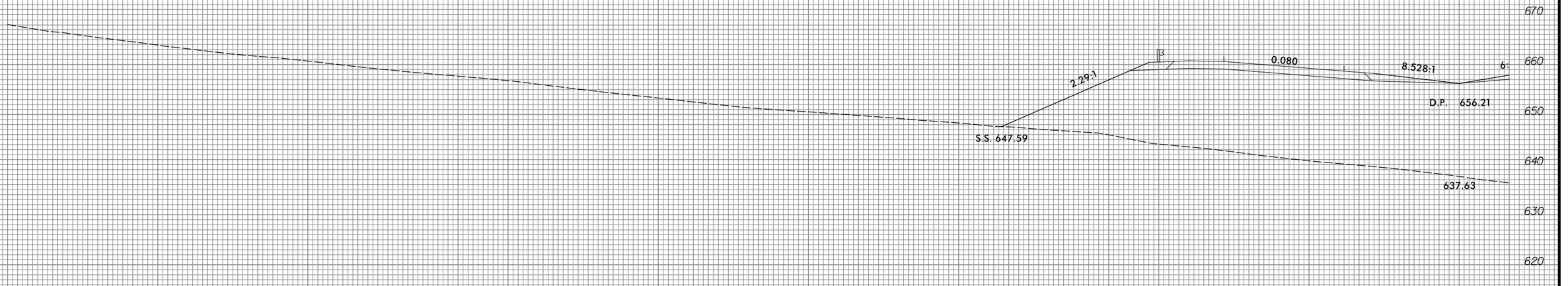
ECA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-7

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650 640 630 620 610



470+50.00

470+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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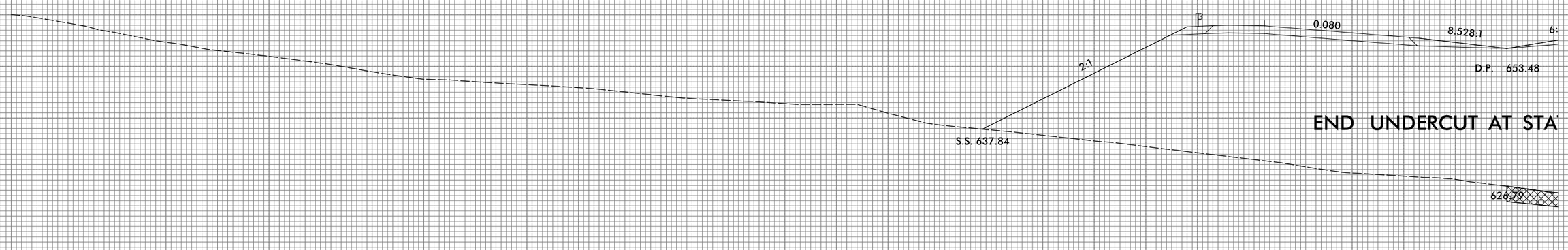
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-8

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630 620 610



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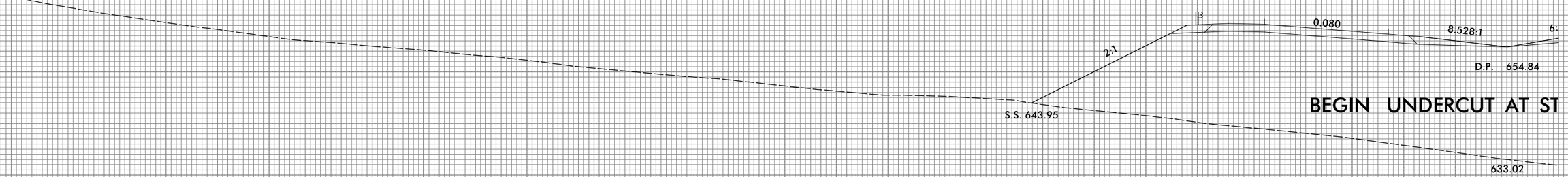
471+50.00



BEGIN UNDERCUT AT ST

471+00.00

660 650 640 630 620 610

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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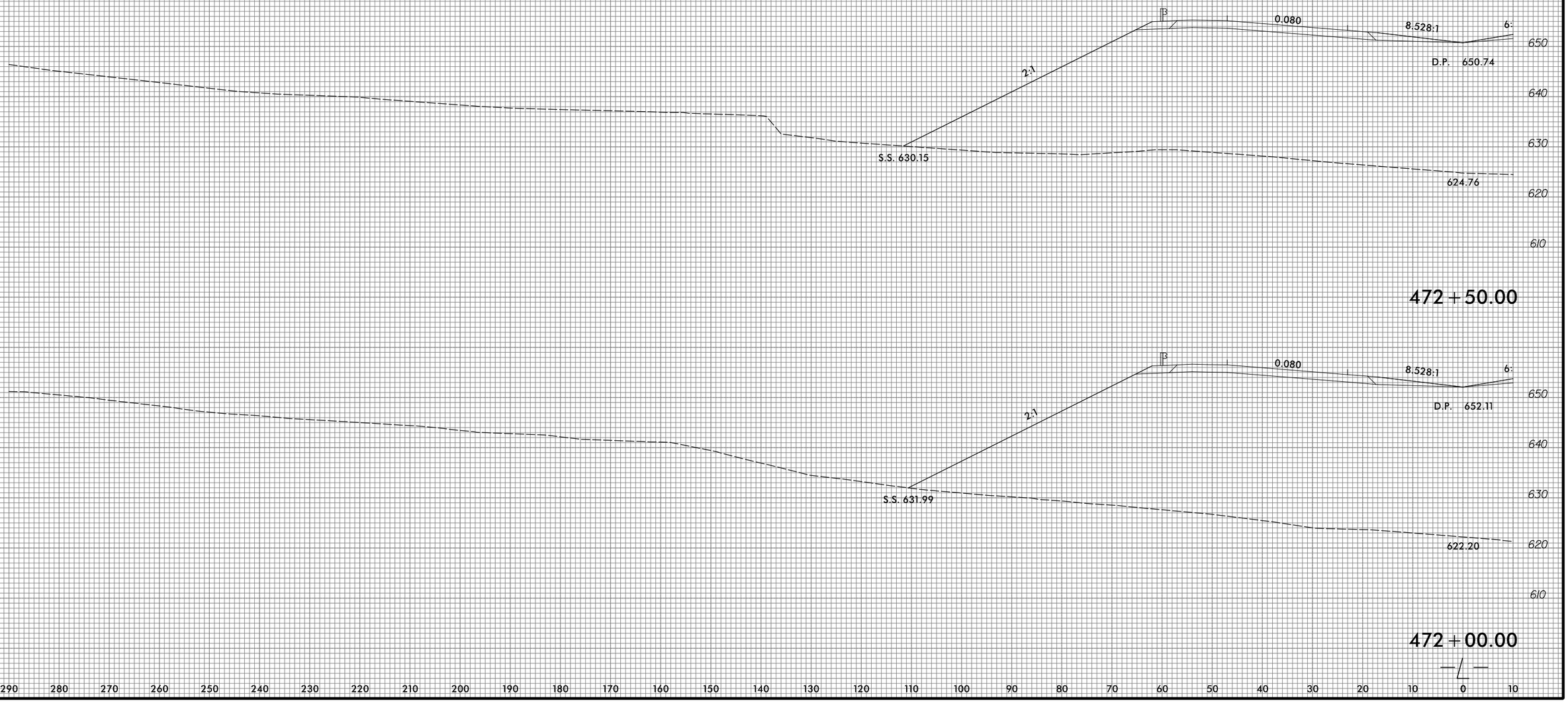
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650
640
630
620
610



472+50.00

472+00.00

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-10

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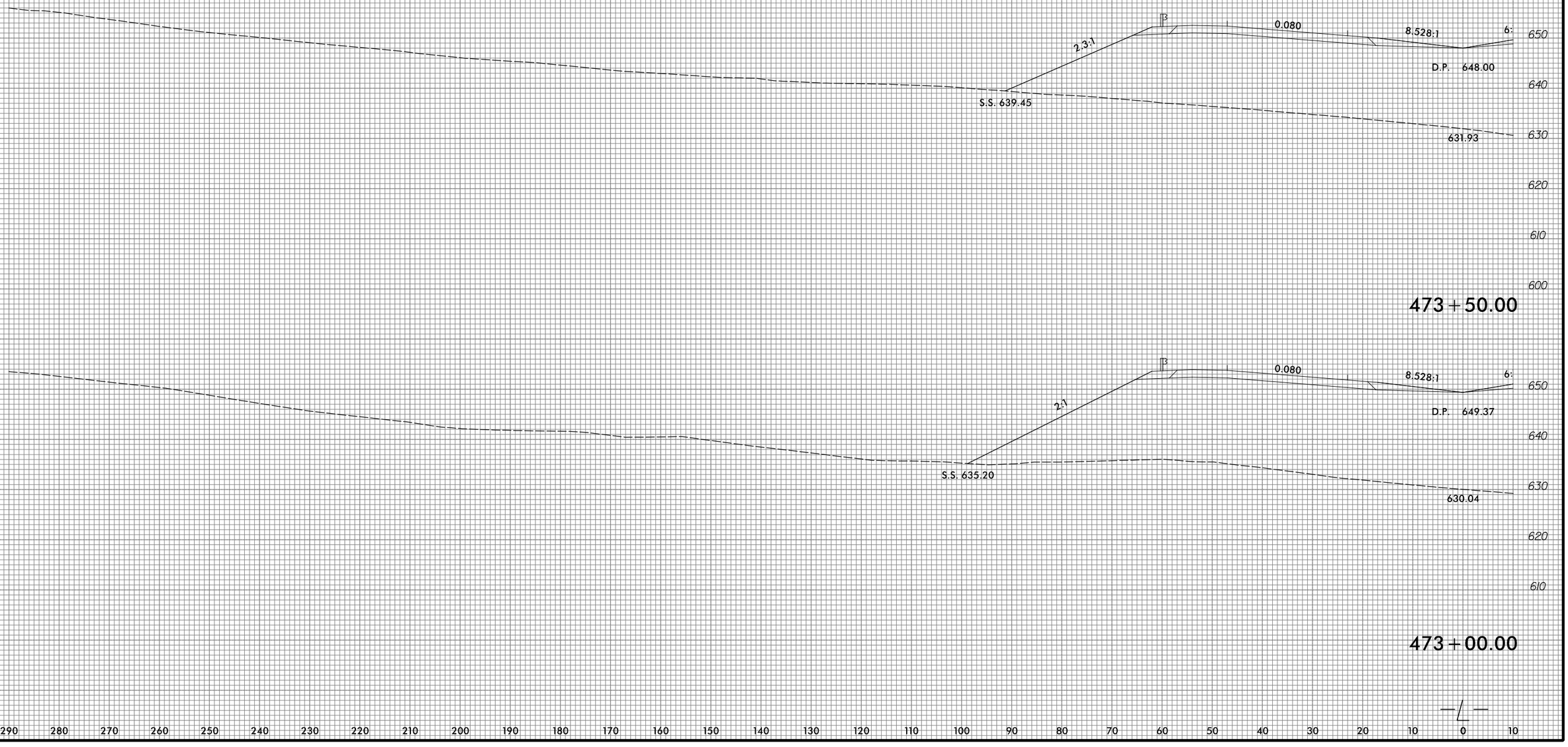
650 640 630 620 610 600



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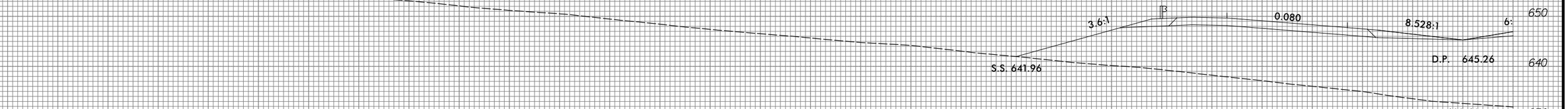
TCA ENGINEERING, INC.

8/23/99

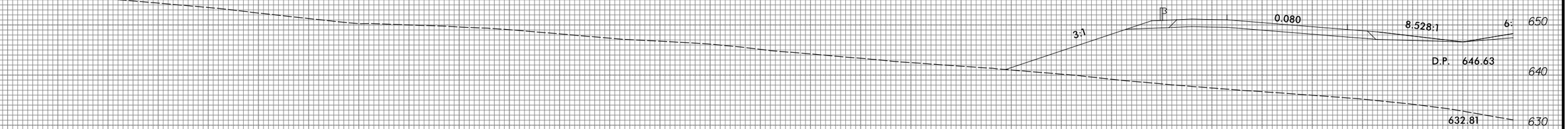
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-11

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630 620 610 600



474+50.00



474+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630 620 610 600

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-12

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630

0.080 8.528:1 6:

6:1

D.P. 639.70

641.16

476+00.00

660 650 640 630

5:1 0.080 8.528:1 6:

D.P. 642.53

636.95

475+50.00

660 650 640 630 620

3.7:1 0.080 8.528:1 6:

D.P. 643.90

632.36

475+00.00

—L—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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ECA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-13

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650 640 630

S.S. 646.07

2:1

6:1

0.080

8.528:1

641.81

6:

637.02

D.P. 635.69

478+00.00

650 640 630

6:1

0.080

8.528:1

642.82

6:

D.P. 637.05

477+50.00

650 640 630

6:1

0.080

8.528:1

642.21

6:

D.P. 638.42

477+00.00

650 640 630

0.080

8.528:1

6:

641.75

D.P. 639.79

476+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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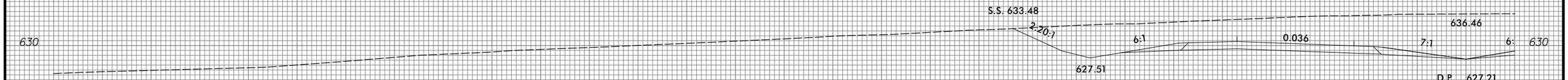
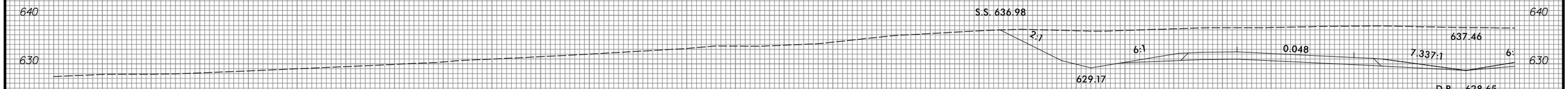
TGA ENGINEERING, INC.

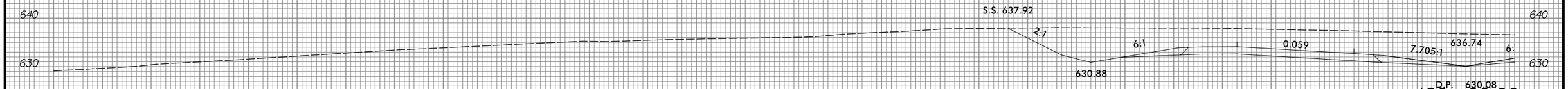
8/23/99

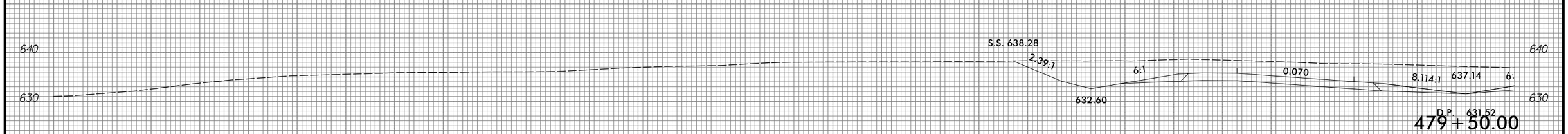
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-14

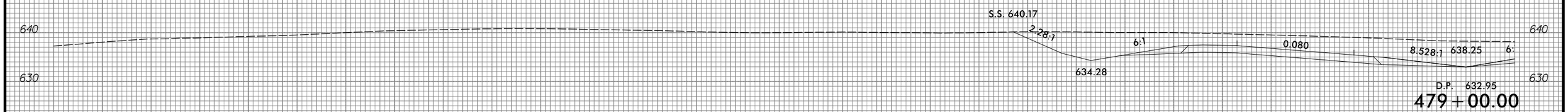
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

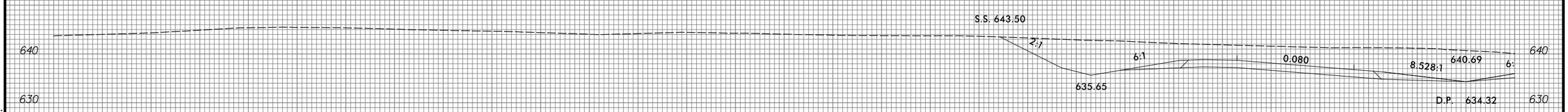












290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-15

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

620
610
600

0.019
6.012:1
6:
2:1
D.P. 620.27
614.55
S.S. 603.56

483+50.00

620
610

0.008
6.157:1
6:
2.80:1
621.56
D.P. 621.64
S.S. 613.17

483+00.00

620

0.003
6.309:1
6:
3.89:1
625.63
D.P. 623.01
S.S. 617.81

482+50.00

630
620

0.014
6.469:1
6:
6:1
628.96
D.P. 624.38
S.S. 622.19

482+00.00

630

S.S. 627.81
6:1
6:1
0.025
633.14
6.694:1
6:
625.79
D.P. 625.78

481+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-16

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

620 610 600 590

0.020

BEGIN UNDERCUT AT STA

596.96

485+50.00

620 610 600 590

0.020

591.88

485+00.00

620 610 600

0.020

598.26

484+50.00

620 610 600

0.020

604.38

484+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

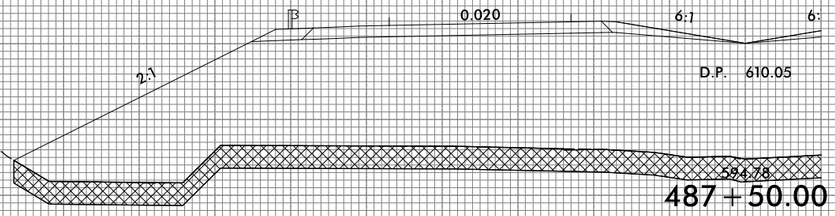
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-17

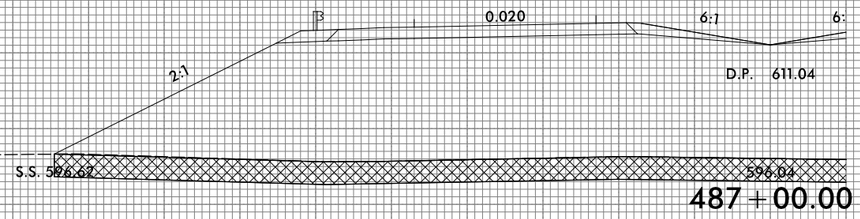
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

610
600

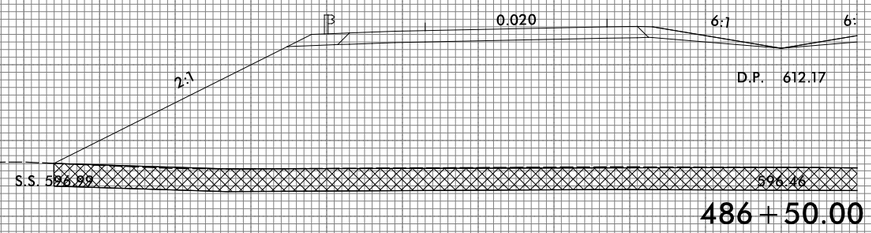
610
600



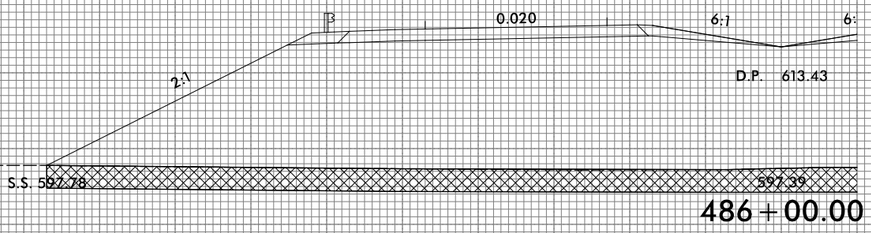
610
600



610
600



610
600



290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-18

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

610
600

2:1 B 0.020 6:1 6: 610

D.P. 606.99

601.24

600

490+50.00

610
600

2:1 B 0.020 6:1 6: 610

D.P. 607.16

599.88

600

490+00.00

END UNDERCUT AT STATIC

610
600

2:1 B 0.020 6:1 6: 610

D.P. 607.46

597.09

600

489+50.00

610
600

2:1 B 0.020 6:1 6: 610

D.P. 607.90

597.27

600

489+00.00

610
600

2:1 B 0.020 6:1 6: 610

D.P. 608.48

596.41

600

488+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-19

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

630 620 610

615.65
0.020
6:1
6:
5:1
605.19
D.P. 607.71
492+50.00

630 620 610

0.020
6:1
6:
611.78
4:1
D.P. 607.32
492+00.00

630 620 610 600

3:1
0.020
6:1
6:
606.76
D.P. 607.07
491+50.00

610 600

2:1
0.020
6:1
6:
D.P. 606.96
603.10
491+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-20

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

640 630 620 610

S.S. 627.61

627.72

2:1

6:1

0.020

6:1

6:

608.64

D.P. 609.69

494+00.00

640 630 620 610

S.S. 624.05

624.51

2:1

6:1

0.020

6:1

6:

607.84

D.P. 608.89

493+50.00

630 620 610

620.04

2:1

6:1

0.020

6:1

6:

607.06

D.P. 608.23

493+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-21

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

640 630 620 610

S.S. 637.42

634.89

2:1

6:1 0.020 6:1 6:

611.52

D.P. 612.57

495+50.00

640 630 620 610

S.S. 634.85

633.11

2:1

6:1 0.020 6:1 6:

610.55

D.P. 611.59

495+00.00

640 630 620 610

S.S. 632.80

630.58

2:1

6:1 0.020 6:1 6:

609.57

D.P. 610.62

494+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-22

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650
640
630
620

S.S. 641.87

2:1

634.94

6:1 0.020 6:1 6:

614.43

D.P. 615.48

497+00.00

640
630
620
610

S.S. 640.77

637.85

2:1

6:1 0.020 6:1 6:

613.46

D.P. 614.51

496+50.00

640
630
620
610

S.S. 639.22

638.75

2:1

6:1 0.020 6:1 6:

612.49

D.P. 613.54

496+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-23

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650 640 630 620 610

S.S. 635.08

2:1

627.37

6:1 0.020 6:1 6:

617.35

D.P. 618.40

498+50.00

650 640 630 620 610

S.S. 638.12

2:1

629.79

6:1 0.020 6:1 6:

616.38

D.P. 617.43

498+00.00

650 640 630 620 610

S.S. 640.15

2:1

632.22

6:1 0.020 6:1 6:

615.41

D.P. 616.45

497+50.00

BEGIN UNDERCUT AT STA

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-24

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650 640 630 620 610

S.S. 623.23

4.07:1

6:1

619.29

0.020

6:1

6:

D.P. 620.34

614.97

END UNDERCUT AT STATI

499+50.00

650 640 630 620 610

S.S. 630.36

2:1

6:1

618.32

0.020

6:1

6:

622.64

D.P. 619.37

499+00.00

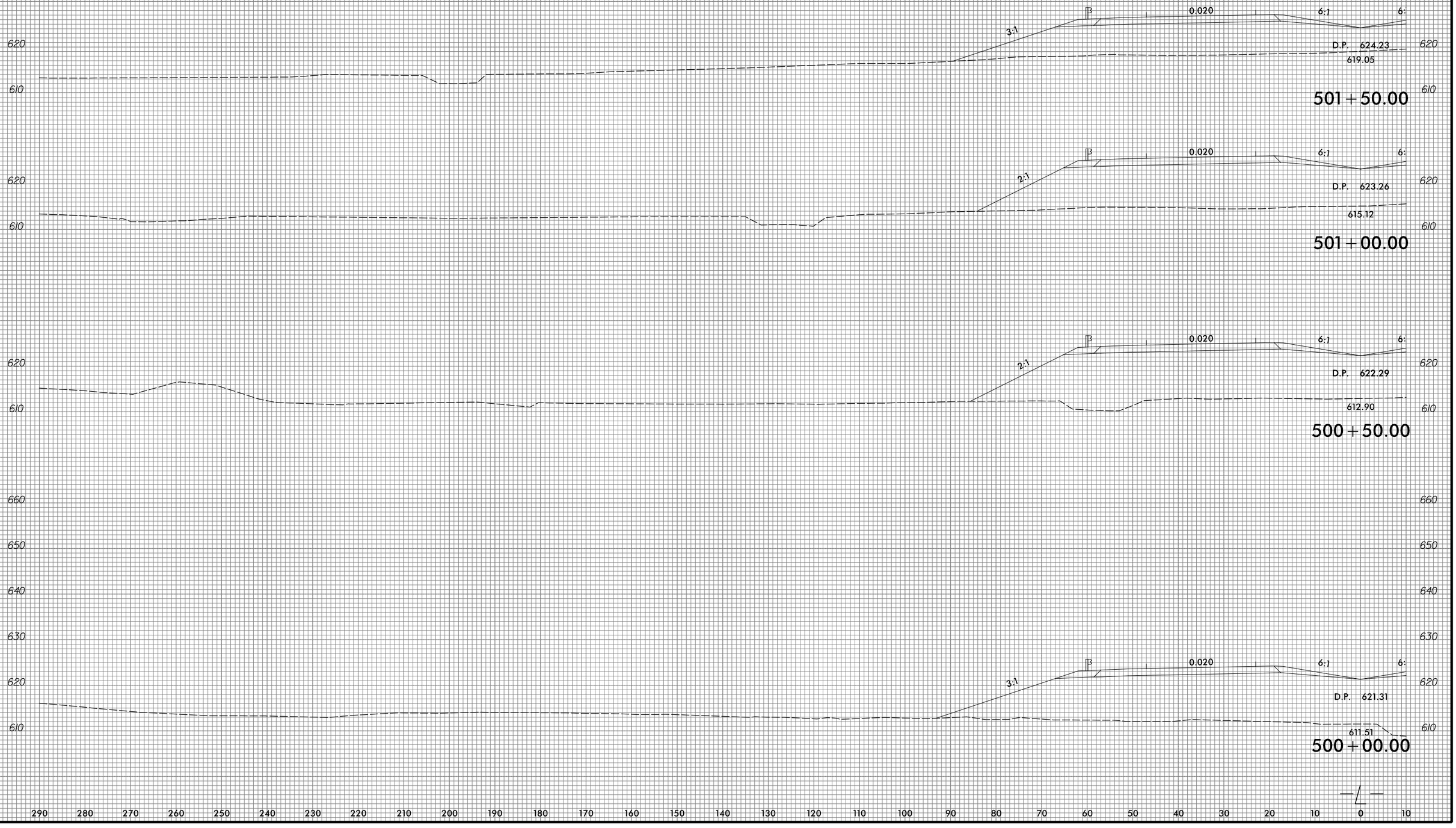
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-25

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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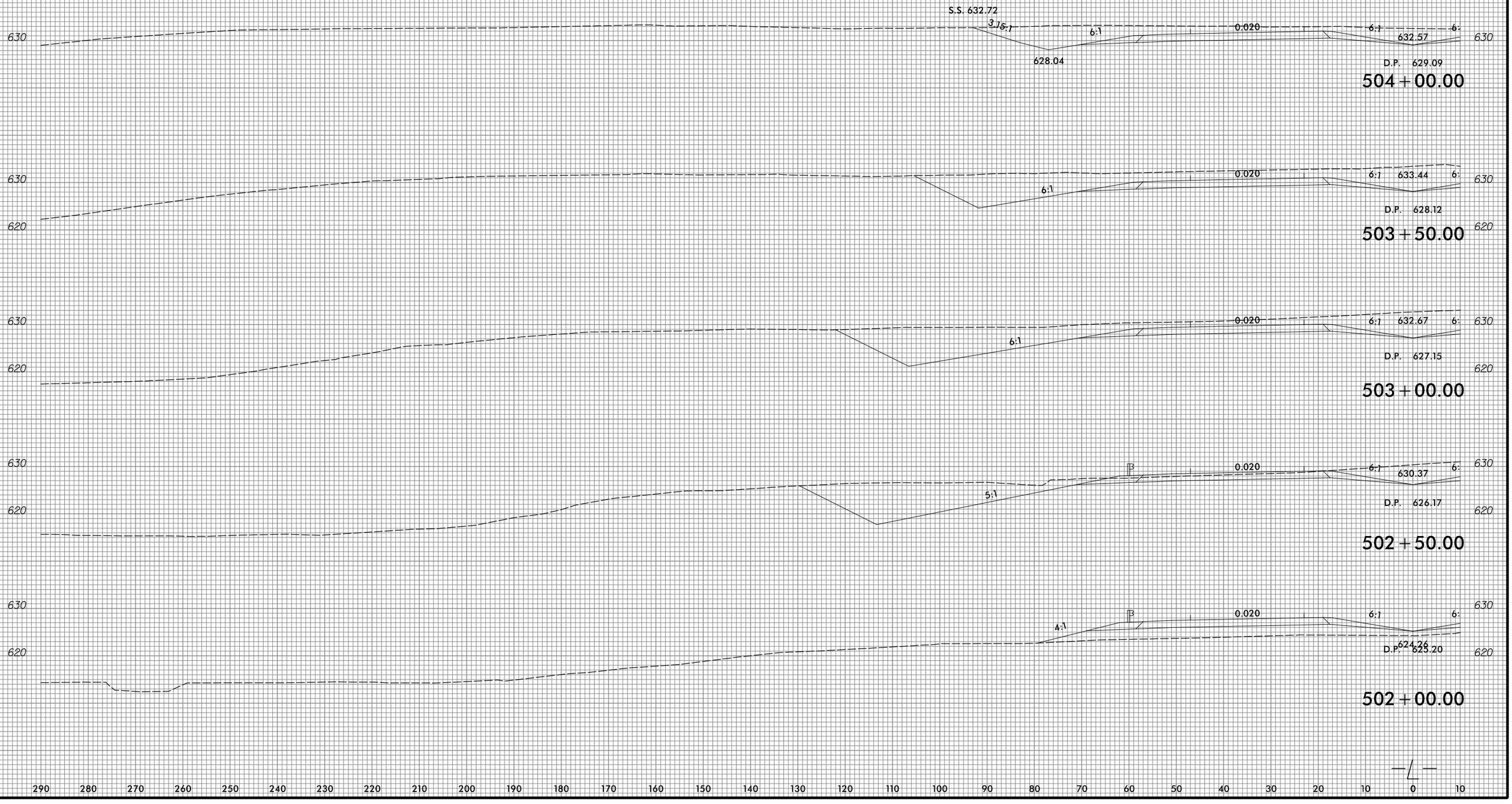
Ft.Rodgers\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
[C] ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-26

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-27

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

630
620
610

0.020 6:1 6:

4:1

D.P. 632.98

617.98

506+00.00

630
620
610

0.020 6:1 6:

5.17:1

S.S. 628.16

D.P. 632.01

623.81

505+50.00

630
620
610

S.S. 630.90

6:1

0.020 6:1 6:

629.99

D.P. 631.03

626.38

505+00.00

630
620
610

S.S. 633.11

3.85:1

6:1

0.020 6:1 6:

629.01

630.06

D.P. 630.06

504+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-28

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

640 630 620 610

0.020 6:1 6:

2:1

D.P. 636.87

S.S. 615.73

614.53

508+00.00

640 630 620

0.020 6:1 6:

3:1

D.P. 635.89

613.55

507+50.00

640 630 620

0.020 6:1 6:

4:1

D.P. 634.92

613.35

507+00.00

640 630 620 610

0.020 6:1 6:

4:1

D.P. 633.95

614.20

506+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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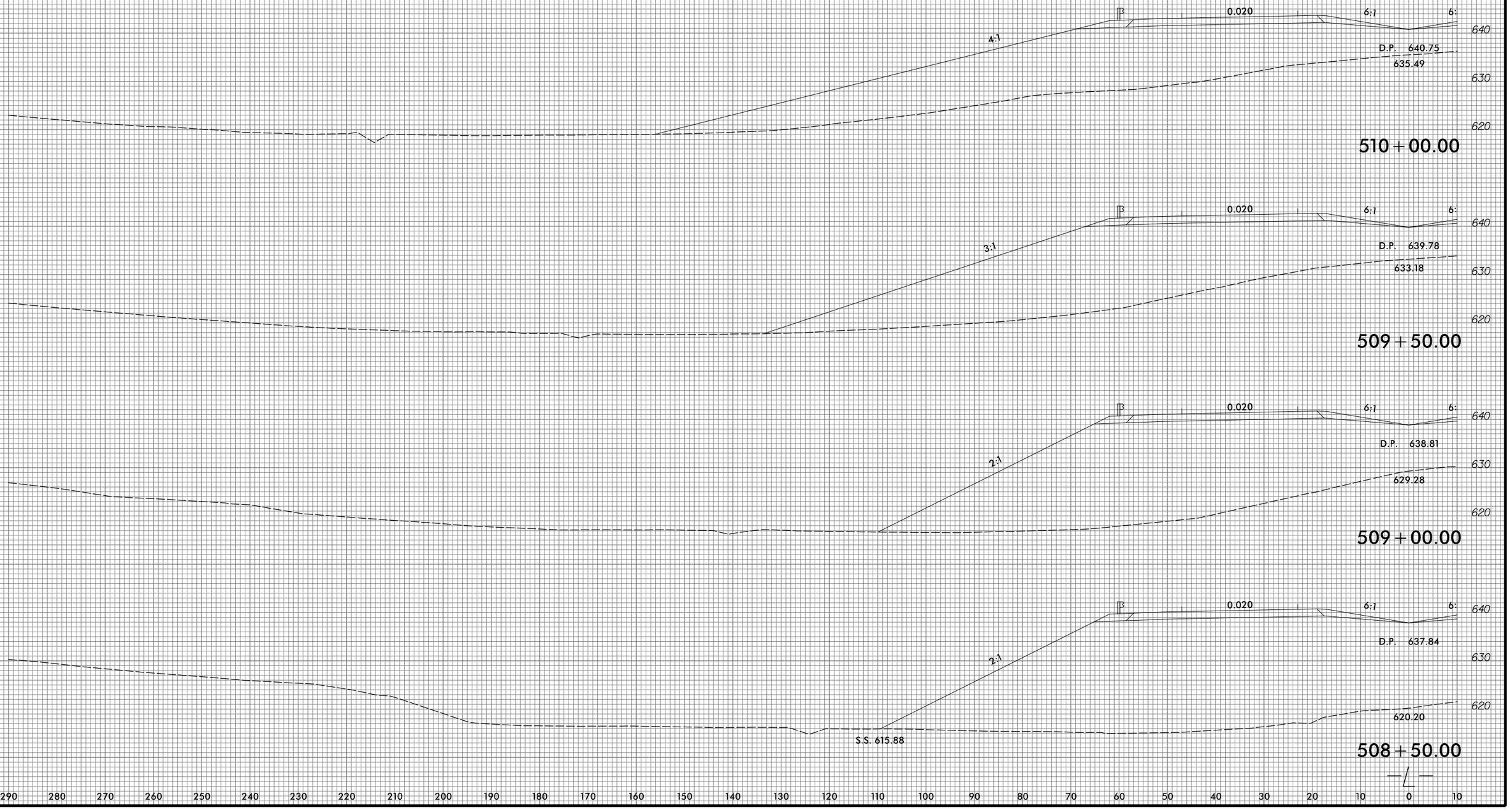
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-29

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

640
630
620



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Program Prod \ Xse \R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-30

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650 640 630

0.020 6:1 6:1 6:

647.83

D.P. 644.64

512+00.00

650 640 630 620

0.020 6:1 6:

5:1

645.04

D.P. 643.67

511+50.00

650 640 630 620

0.020 6:1 6:

4:1

641.22

D.P. 642.70

511+00.00

650 640 630 620

0.020 6:1 6:

4:1

D.P. 641.73

638.06

510+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Program: LRFD
PW:\Projects\R2536.RDY_XPL_L3_sec3.dgn
ECA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-31

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660
650

S.S. 656.35
661.60
2:1
6:1
0.020
6:1
6:
648.06
D.P. 649.11
514+50.00

660
650

S.S. 654.59
660.09
2:1
6:1
0.020
6:1
6:
647.32
D.P. 648.37
514+00.00

650
640

S.S. 651.84
657.43
2.59:1
6:1
0.020
6:1
6:
646.48
D.P. 647.52
513+50.00

650
640

S.S. 649.00
654.14
4.62:1
6:1
0.020
6:1
6:
645.54
D.P. 646.59
513+00.00

650
640
630

S.S. 646.51
6:1
6:1
0.020
6:1
650.89
6:
644.57
D.P. 645.61
512+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-32

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 / 660 / 650

S.S. 666.01

665.98

2:1

6:1

0.020

6:1

650.26

D.P. 651.30

517+00.00

S.S. 665.17

666.63

2:1

6:1

0.020

6:1

650.02

D.P. 651.07

516+50.00

S.S. 663.69

666.18

2:1

6:1

0.020

6:1

649.68

D.P. 650.73

516+00.00

S.S. 661.75

664.86

2:1

6:1

0.020

6:1

649.24

D.P. 650.29

515+50.00

S.S. 658.69

662.92

2:1

6:1

0.020

6:1

648.70

D.P. 649.75

515+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-33

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650 640 630

S.S. 669.48

2:1

662.58

6:1 0.020 6:1 6:

650.21

D.P. 651.25

519+00.00

670 660 650 640

S.S. 668.79

2:1

664.55

6:1 0.020 6:1 6:

650.37

D.P. 651.42

518+50.00

670 660 650 640

S.S. 667.96

2:1

665.66

6:1 0.020 6:1 6:

650.43

D.P. 651.48

518+00.00

670 660 650

S.S. 666.97

2:1

665.79

6:1 0.020 6:1 6:

650.40

D.P. 651.44

517+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-34

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650 640 630

S.S. 668.55

2:1

6:1

0.020

0.020

6:1

6:1

651.95

649.09

D.P. 650.16

520+50.00

S.S. 668.63

2:1

6:1

0.020

6:1

6:1

657.71

649.58

D.P. 650.62

520+00.00

S.S. 669.99

2:1

6:1

0.020

6:1

6:1

660.70

649.94

D.P. 650.99

519+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-35

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630

6:1 0.020 0.020 6:1 6:

S.S. 646.70

D.P. 648.80

632.98

522+00.00

660 650 640 630

BEGIN UNDERCUT AT ST.

S.S. 655.27

2:1 6:1 0.020 0.020 6:1 6:

647.99

D.P. 649.14

637.68

521+50.00

660 650 640 630

S.S. 662.82

2:1 6:1 0.020 0.020 6:1 6:

648.50

D.P. 649.61

645.08

521+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536.RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-36

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650 640 630

0.020 0.020 6:1 6:

D.P. 648.84

2:1

633.34

S.S. 629.80

524+00.00

650 640 630

0.020 0.020 6:1 6:

D.P. 648.62

3:1

630.81

523+50.00

650 640 630

0.020 0.020 6:1 6:

D.P. 648.55

4:1

629.82

523+00.00

℄

650 640 630

0.020 0.020 6:1 6:

D.P. 648.61

5:1

630.53

522+50.00

℄

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

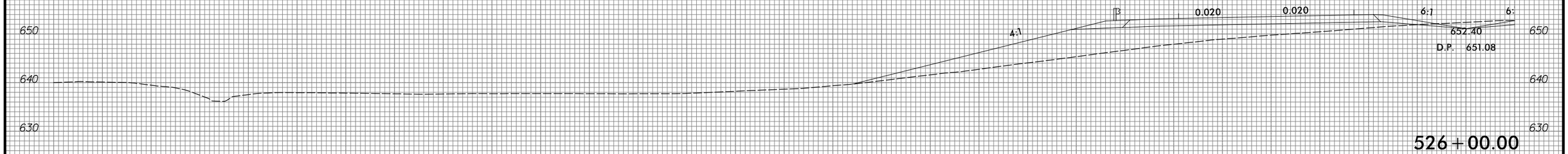
3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-37

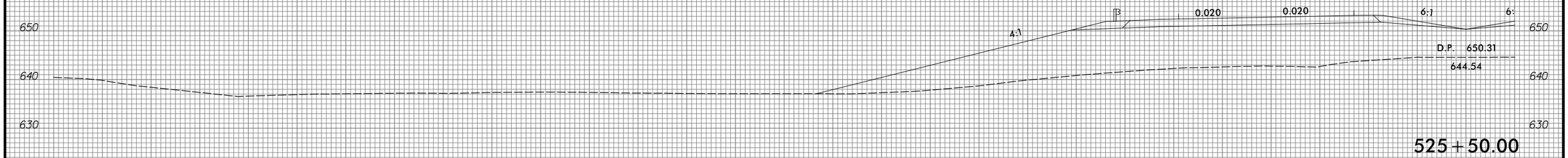
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650 640 630

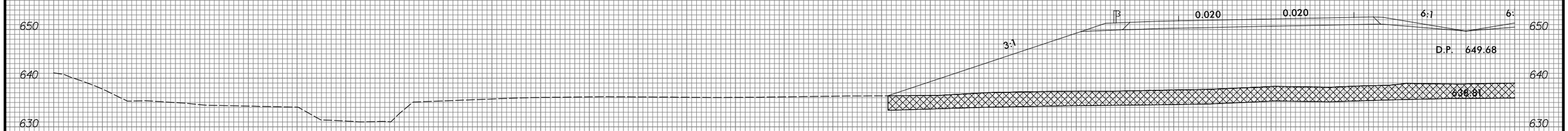


526+00.00

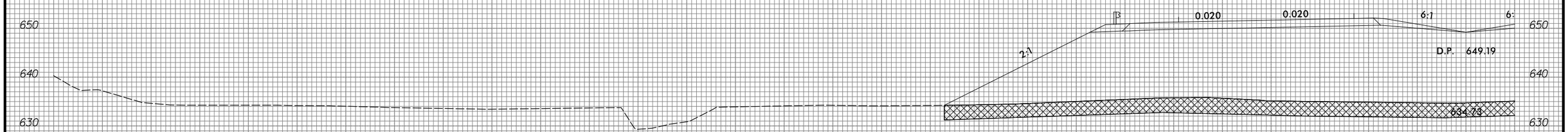
END UNDERCUT AT STA



525+50.00



525+00.00



524+50.00

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-38

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640

4:1 0.020 0.020 6:1 661.40 6:

D.P. 655.52

528+00.00

660 650 640

4:1 0.020 0.020 6:1 661.11 6:

D.P. 654.21

527+50.00

650 640

4:1 0.020 0.020 6:1 659.18 6:

D.P. 653.03

527+00.00

650 640 630

4:1 0.020 0.020 6:1 6: 655.21

D.P. 651.98

526+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-39

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640

4:1 0.028 0.020 6:1 6:1 664.25

D.P. 661.92

–Y12RPB–
10+77.37

530+00.00

660 650 640

4:1 0.020 0.020 6:1 6:1 664.47

D.P. 660.25

–Y12RPB–
10+27.51

529+50.00

660 650 640

4:1 0.020 0.020 6:1 6:1 663.22

D.P. 658.57

529+00.00

660 650 640

4:1 0.020 0.020 6:1 6:1 662.46

D.P. 656.98

528+50.00

—L—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-40

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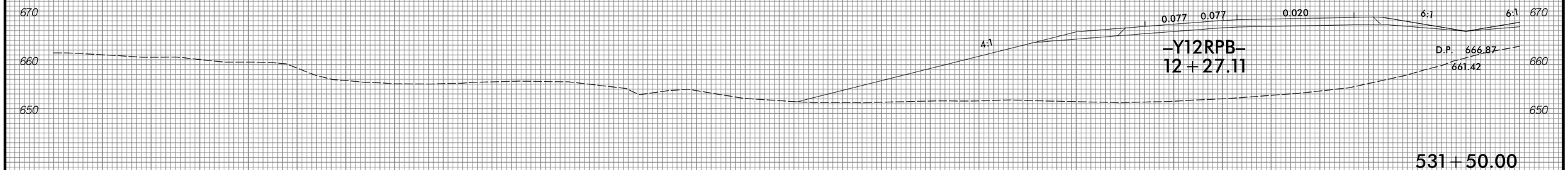
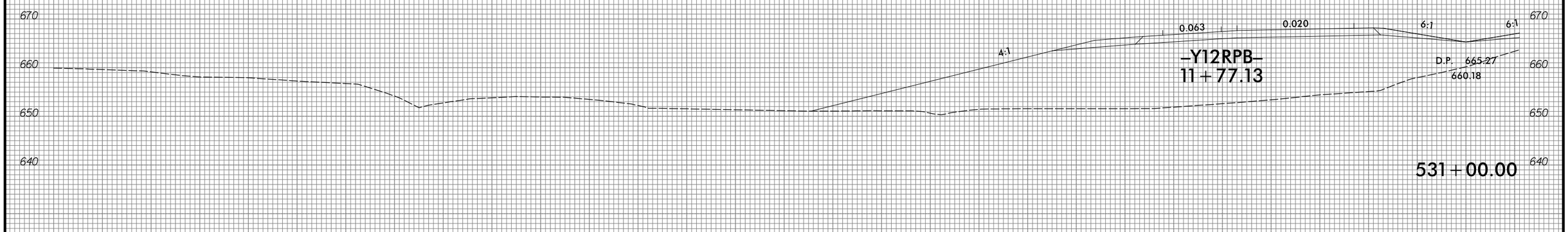
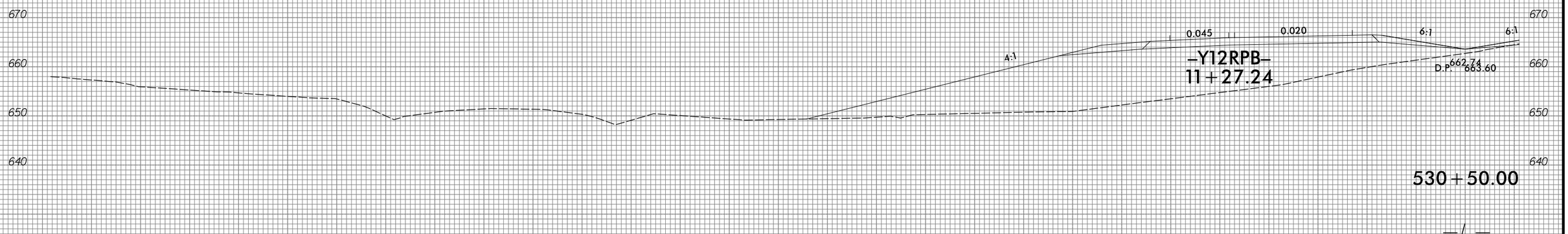






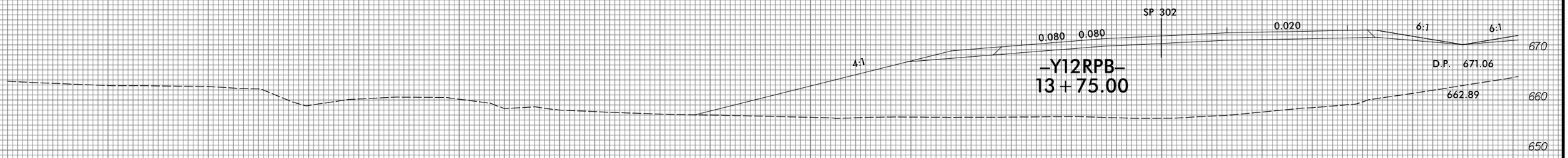
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Projects\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

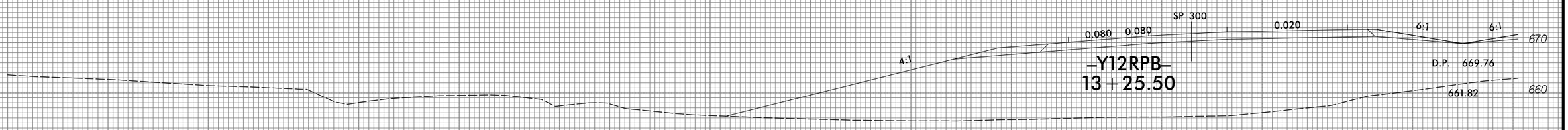
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-41

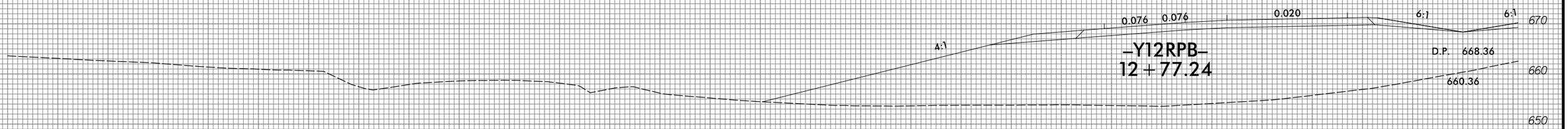
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



533+00.00



532+50.00



532+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Geopak\Proj\Xsec\R2536.RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-42

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

680 670 660 650

SP 308

0.080 0.080 6:1 6:1 0.020 6:1 6:

4:1

671.87

D.P. 674.37

662.25

–Y12RPB–
15+22.00

534+50.00

680 670 660 650

SP 306

0.080 0.080 6:1 6:1 0.020 6:1 6:1

4:1

672.28

D.P. 673.36

660.29

–Y12RPB–
14+74.00

534+00.00

680 670 660 650

SP 304

0.080 0.080 6:1 6:1 0.020 6:1 6:1

4:1

672.49

D.P. 672.26

661.77

–Y12RPB–
14+25.00

533+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-43

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

680
670

SP 316
0.020
6:1
6:
D.P. 677.39
668.47
536+50.00

680
670

SP 314
0.020
6:1
6:
D.P. 676.78
666.39
536+00.00

680
670

0.080 0.080
4:1
–Y12RPB–
16+18.00
SP 312
0.020
6:1
6:
D.P. 676.08
665.53
535+50.00

680
670
660
650

0.080 0.080
4:1
–Y12RPB–
15+70.50
6:1
SP 310
671.25
6:1
0.020
6:1
6:
D.P. 675.27
663.19
535+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-44

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690
680
670

SP 326

0.020
6:1
684.69
6:
6:1
D.P. 678.95

539+00.00

690
680
670

SP 324

0.020
6:1
6:
D.P. 678.84

538+50.00

680
670

SP 322

0.020
6:1
6:
6:1
D.P. 678.62
674.74

538+00.00

680
670

SP 320

0.020
6:1
6:
D.P. 678.31
671.69

537+50.00

680
670

SP 318

0.020
6:1
6:
D.P. 677.90
668.55

537+00.00

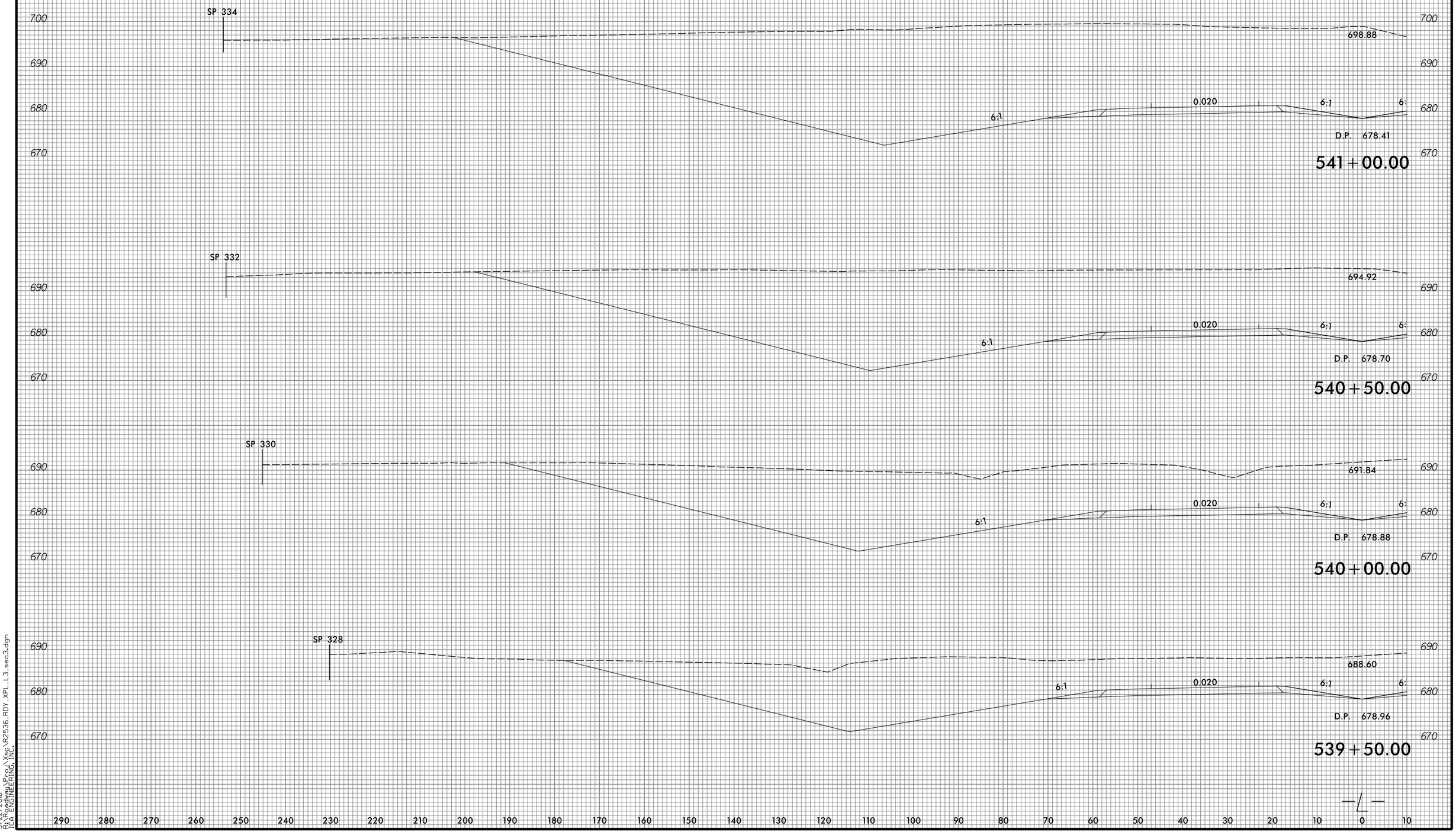
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-45

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-46

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

710 700 690 680 670

SP 340

707.01

0.020

6:1

6:

D.P. 677.06

542+50.00

SP 338

705.64

0.020

6:1

6:

D.P. 677.56

542+00.00

SP 336

701.91

4:1

6:1

676.91

0.020

6:1

6:

D.P. 678.03

541+50.00

3/22/2016
Pw:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-47

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

710
700
690
680
670

S.S. 707.33

SP 344

709.03

4:1

675.21

0.075 0.075

0.020

6:1 6:

D.P. 676.06

–Y12LPB–
12+26.00

543+50.00

S.S. 707.82

SP 342
S.S. 707.72

709.14

4:1

674.99

0.080 0.080

674.52

0.020

6:1 6:

D.P. 676.56

–Y12LPB–
12+72.00

543+00.00

—L—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-48

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

700
690
680
670

703.46

6:1 0.026 0.020 6:1 6:1

–Y12LPB–
10+79.66

D.P. 674.56

545+00.00

710
700
690
680
670

SP 348

705.04

6:1 0.043 0.043 0.020 6:1 6:1

–Y12LPB–
11+29.00

D.P. 675.06

544+50.00

710
700
690
680
670

SP 346

S.S. 706.58

707.81

4:1

676.00

0.059 0.059 0.020 6:1 6:1

–Y12LPB–
11+77.50

D.P. 675.56

544+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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P:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-49

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690
680
670

2:1
684.64
0.020
0.020
6:1
6:
674.70
D.P. 672.74
547+00.00

690
680
670

692.12
2:1
0.020
0.020
6:1
6:
675.05
D.P. 673.09
546+50.00

700
690
680
670

698.03
2:1
6:1
0.020
0.020
6:1
6:
674.05
D.P. 673.56
546+00.00

700
690
680
670

700.21
2:1
6:1
0.020
0.020
6:1
6:
673.00
D.P. 674.06
545+50.00

–Y12LPB–
10+29.63

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

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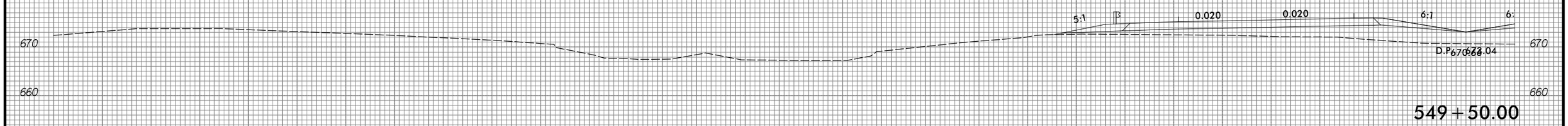
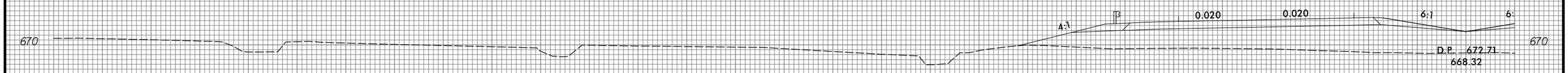
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-50

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

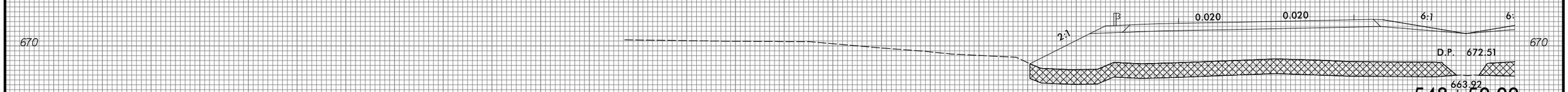


549+50.00

END UNDERCUT AT ST

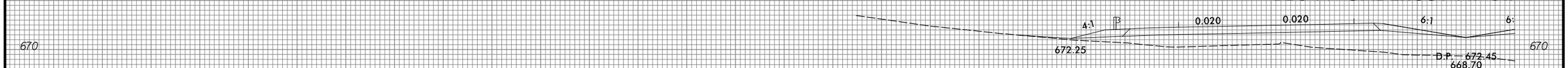


549+00.00

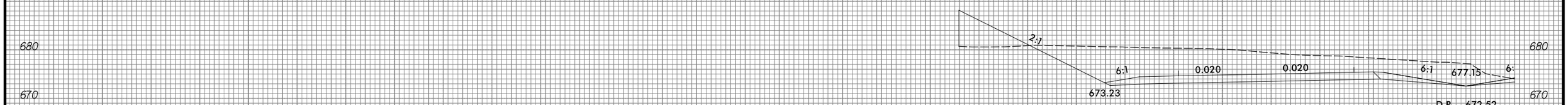


548+50.00

BEGIN UNDERCUT AT ST/



548+00.00



547+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-51

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690 / 680 / 670 / 660

S.S. 686.06
2:1
6:1
0.020
0.020
6:1
6:
686.02
674.47
D.P. 675.76

551+50.00

680 / 670 / 660

S.S. 681.52
2:1
6:1
0.020
0.020
6:1
6:
679.45
673.59
D.P. 674.87

551+00.00

680 / 670 / 660

S.S. 677.34
3:1
6:1
0.020
0.020
6:1
6:
676.83
672.72
D.P. 674.13

550+50.00

680 / 670 / 660

5:1
6:1
0.020
0.020
6:1
6:
673.46
672.11
D.P. 673.52

550+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-52

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

700
690
680

S.S. 703.16

2:1

697.63

6:1 0.020 6:1 6:

679.54

D.P. 680.59

553+50.00

700
690
680

S.S. 698.99

2:1

696.10

6:1 0.020 6:1 6:

678.19

D.P. 679.24

553+00.00

700
690
680

S.S. 695.16

2:1

693.45

6:1 0.020 6:1 6:

676.90

D.P. 677.94

552+50.00

690
680
670

S.S. 690.81

2:1

691.07

6:1 0.020 6:1 6:

675.74

D.P. 676.78

552+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Pa:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-53

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

710 700 690 680

S.S. 712.10

2:1

703.74

6:1

0.040

6:1

7.1

683.04

D.P. 684.77

555+00.00

S.S. 710.07

2:1

701.51

6:1

0.033

6:1

6.9

681.88

D.P. 683.37

554+50.00

S.S. 706.95

2:1

699.91

6:1

0.024

6:1

6.6

680.79

D.P. 681.97

554+00.00

—/—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Prjs\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-54

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700 690

S.S. 716.11

2:1

705.66

6:1

0.040

6:1

7:

686.95

D.P. 688.68

556+50.00

720 710 700 690

S.S. 716.50

2:1

704.14

6:1

0.040

6:1

7:

685.72

D.P. 687.45

556+00.00

720 710 700 690

S.S. 715.19

2:1

704.29

6:1

0.040

6:1

7:

684.39

D.P. 686.12

555+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-55

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700 690

699.98

6:1 0.040 6:1 7:

D.P. 691.77

558+00.00

720 710 700 690

S.S. 708.58

2:1

702.56

6:1 0.040 6:1 7:

689.11

D.P. 690.84

557+50.00

720 710 700 690

S.S. 713.19

2:1

703.93

6:1 0.040 6:1 7:

688.08

D.P. 689.81

557+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-56

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700 690 680

6:1 0.040 6:1 7:

D.P. 693.94

684.72

559+50.00

720 710 700 690

6:1 0.040 6:1 7:

D.P. 691.98

688.32

559+00.00

720 710 700 690

6:1 0.040 6:1 7:

696.62

D.P. 692.59

558+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-57

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700 690 680 670

6:1 0.040 6:1 7:

D.P. 694.89

683.49

560+50.00

720 710 700 690 680 670

6:1 0.040 6:1 7:

D.P. 694.47

686.57

560+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-58

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

710
700
690
680
670

6:1
0.040
6:1
7.
D.P. 695.43
689.93

561+50.00

710
700
690
680
670

6:1
0.040
6:1
7.
D.P. 695.21
689.51

561+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-59

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

710
700
690
680
670
660

S.S. 696.84
5.34:1
693.84
6:1
0.040
6:1
7.
D.P. 695.57
688.20

562+50.00

710
700
690
680
670

6:1
0.040
6:1
7.
D.P. 695.55
689.42

562+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-60

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

700
690
680
670
660

0.040
6:1
7.
D.P. 695.31
2:1
S.S. 675.66
665.24

563+50.00

BEGIN UNDERCUT AT ST.

0.040
6:1
7.
5.14:1
D.P. 695.49
S.S. 690.93
684.93

563+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-61

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

700 690 680 670 660

0.040 6:1 7.

2:1

D.P. 694.70

S.S. 680.91

672.47

END UNDERCUT AT STAT

565+00.00

700 690 680 670 660

0.040 6:1 7.

2:1

D.P. 694.90

S.S. 675.45

662.30

564+50.00

700 690 680 670 660 650

0.040 6:1 7.

2:1

D.P. 695.10

S.S. 670.04

669.38

564+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-62

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

710
700
690
680

2:1
6:1
0.040
6:1
7:
692.36
D.P. 691.12 694.08

566+50.00

700
690
680
670

6:1
0.040
6:1
7:
692.44
D.P. 694.29
686.40

566+00.00

700
690
680
670

3.75:1
0.040
6:1
7:
D.P. 694.49
679.32

565+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-63

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720
710
700
690
680
670

S.S. 704.55
2:1
691.95
6:1
0.040
6:1
7.
695.57
D.P. 693.68

567+50.00

710
700
690
680

S.S. 702.31
2:1
692.15
6:1
0.040
6:1
7.
693.48
D.P. 693.88

567+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-64

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720
710
700
690
680
670

S.S. 702.03
2:1
6:1
0.040
6:1
7:
691.54
693.71
D.P. 693.27

568+50.00

720
710
700
690
680
670

S.S. 704.36
2:1
6:1
0.040
6:1
7:
691.75
695.89
D.P. 693.47

568+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-65

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700 690

S.S. 704.27

2:1

6:1

691.14

0.040

6:1

7:

694.71

D.P. 692.86

720 710 700 690 680

569+50.00

720 710 700 690 680 670

S.S. 701.53

2:1

6:1

691.34

0.040

6:1

7:

690.88

D.P. 690.07

569+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-66

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700 690

S.S. 706.64

2:1

6:1

0.040

6:1

697.43

7:

690.52

D.P. 692.25

571+00.00

720 710 700 690

S.S. 707.23

2:1

6:1

0.040

6:1

696.96

7:

690.73

D.P. 692.45

680

570+50.00

720 710 700 690

S.S. 706.25

2:1

6:1

0.040

6:1

695.88

7:

690.93

D.P. 692.66

680

570+00.00

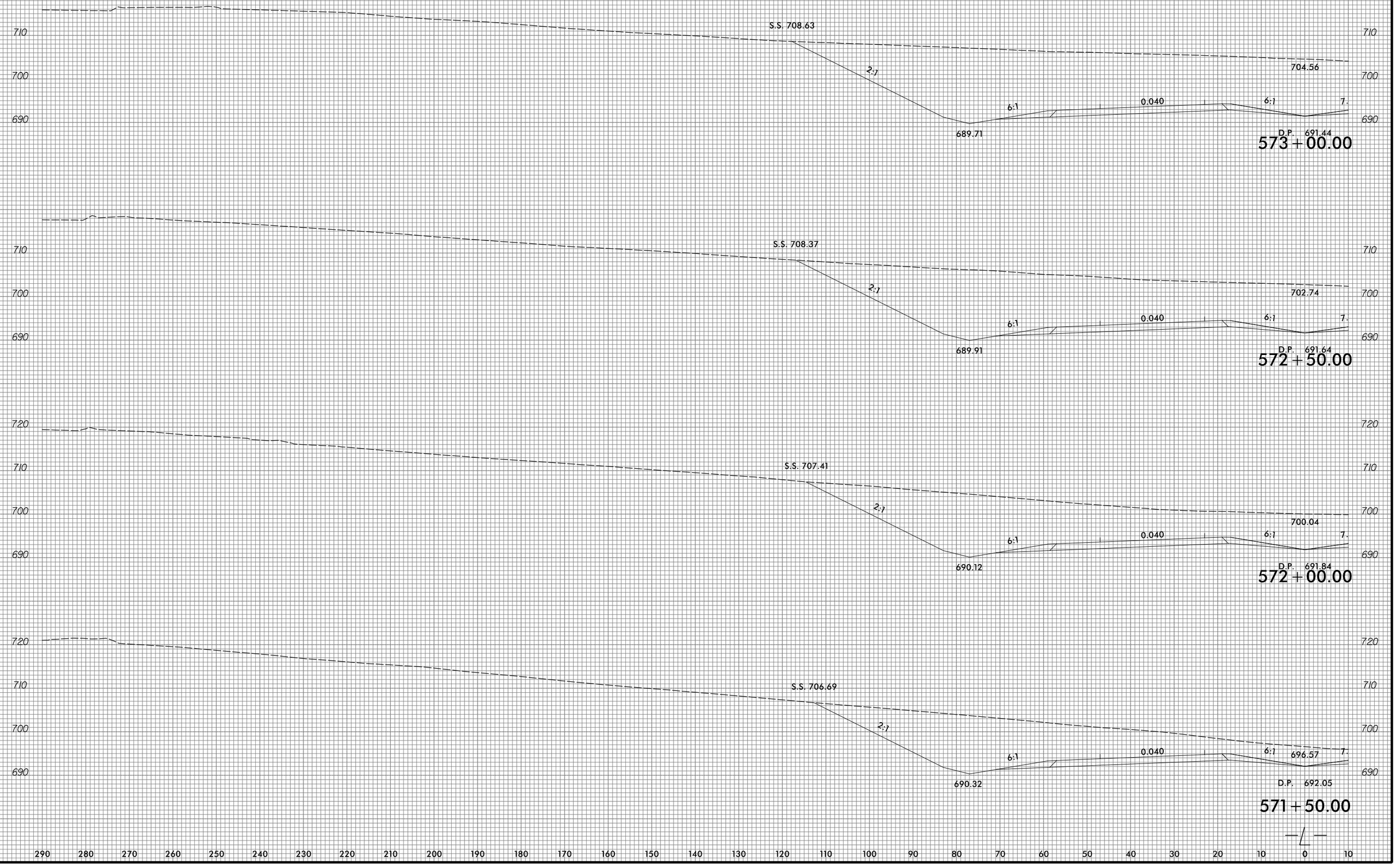
—L—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway Proj\Xsec\R2536_RDY_XPLL3-sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-67



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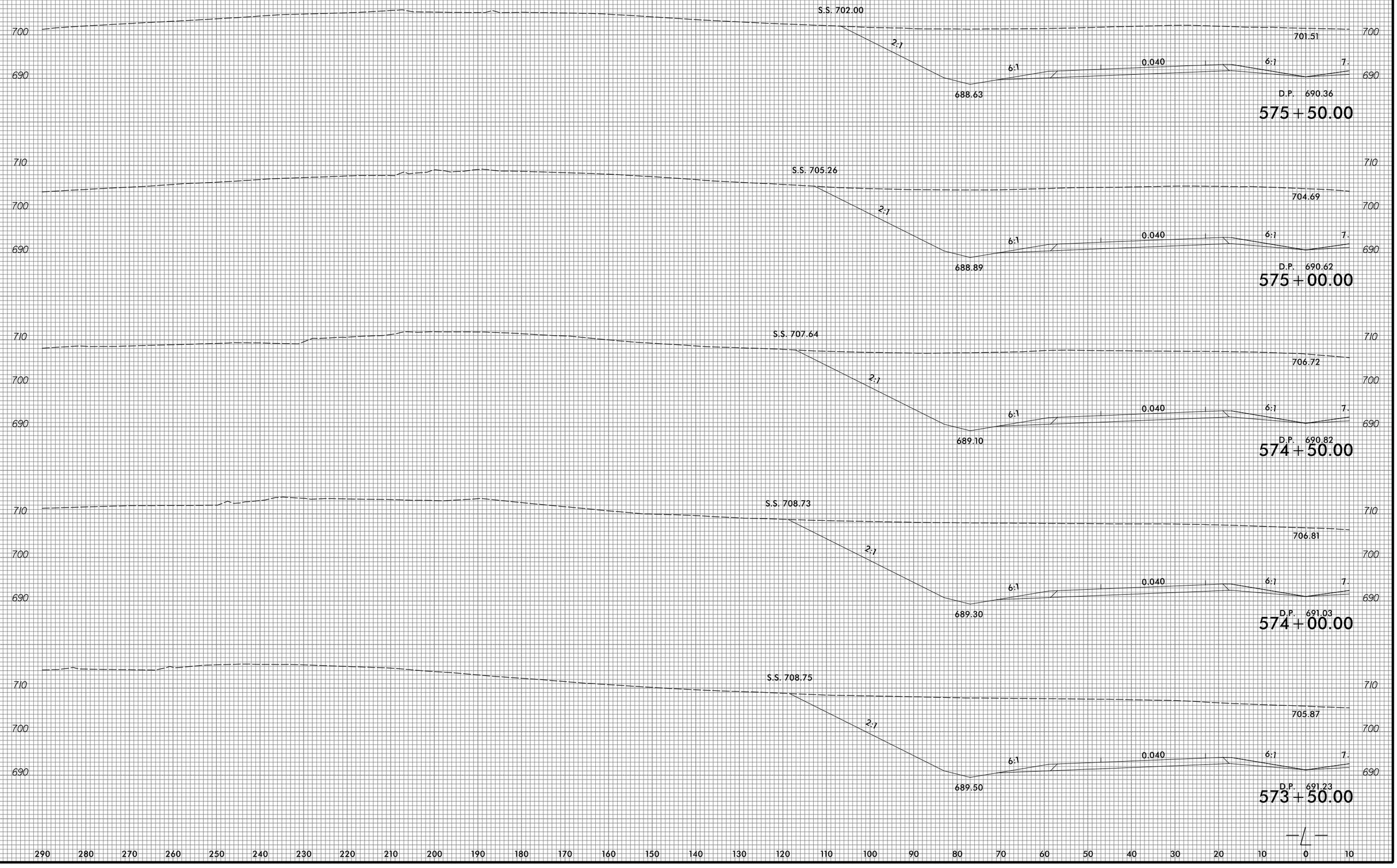
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-68

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

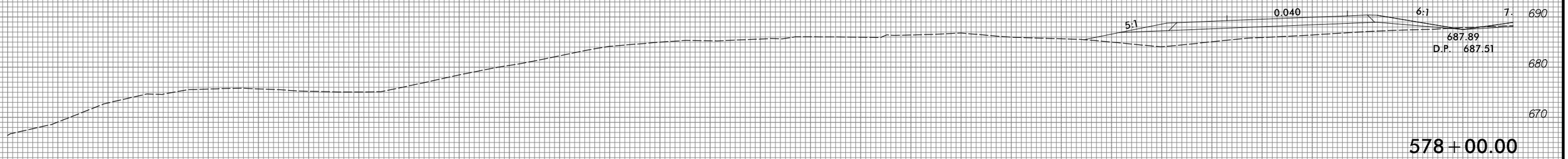
3/22/2016
R:\Roadway\Prjcts\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

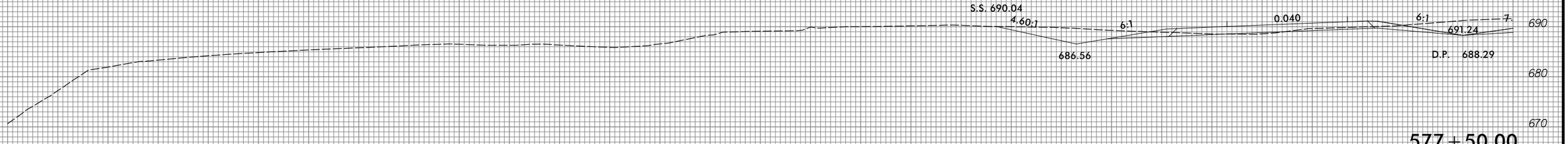
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-69

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

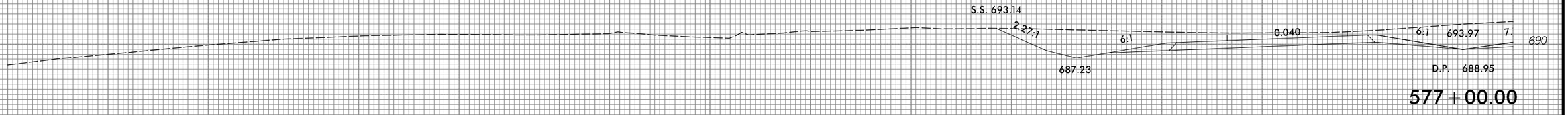
690
680
670



578+00.00

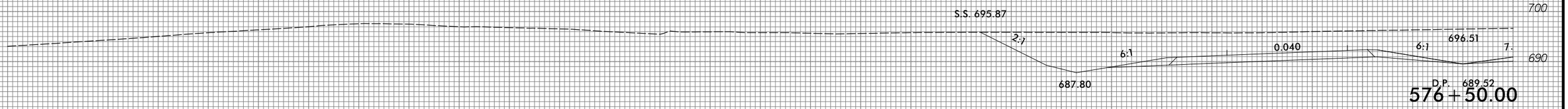


577+50.00

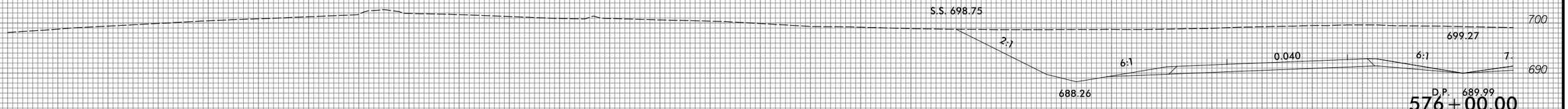


577+00.00

700
690



576+50.00



576+00.00

—/—

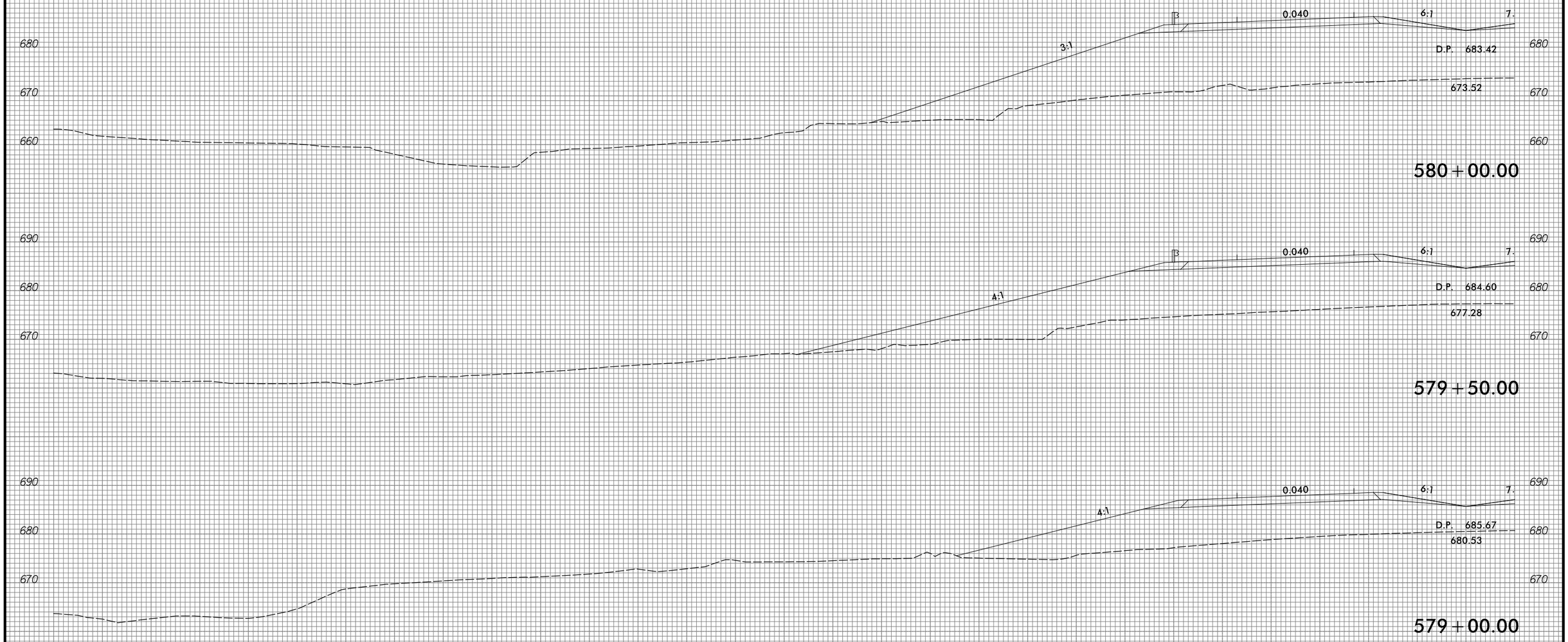
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-70

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xse\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-71

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

680
670
660
650

0.040 6:1 7:

D.P. 679.71

2:1

648.16

581+50.00

680
670
660

0.040 6:1 7:

D.P. 680.95

2:1

656.42

581+00.00

680
670
660

0.040 6:1 7:

D.P. 682.19

2:1

667.05

580+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-72

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

680 670 660 650 640

5:1 0.040 6:1 7:1

D.P. 676.01

664.72

583+00.00

680 670 660 650 640

4:1 0.040 6:1 7:1

D.P. 677.24

656.24

582+50.00

680 670 660 650 640

3:1 0.040 6:1 7:1

D.P. 678.48

648.16

582+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-73

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

680
670
660
650

0.040
6:1
7:
6:1
673.75
D.P. 672.30

584 + 50.00

680
670
660
650

0.040
6:1
7:
6:1
673.30
D.P. 673.53

584 + 00.00

680
670
660
650
640

0.040
6:1
7:
6:1
D.P. 674.77
670.78

583 + 50.00

—/—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-74

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

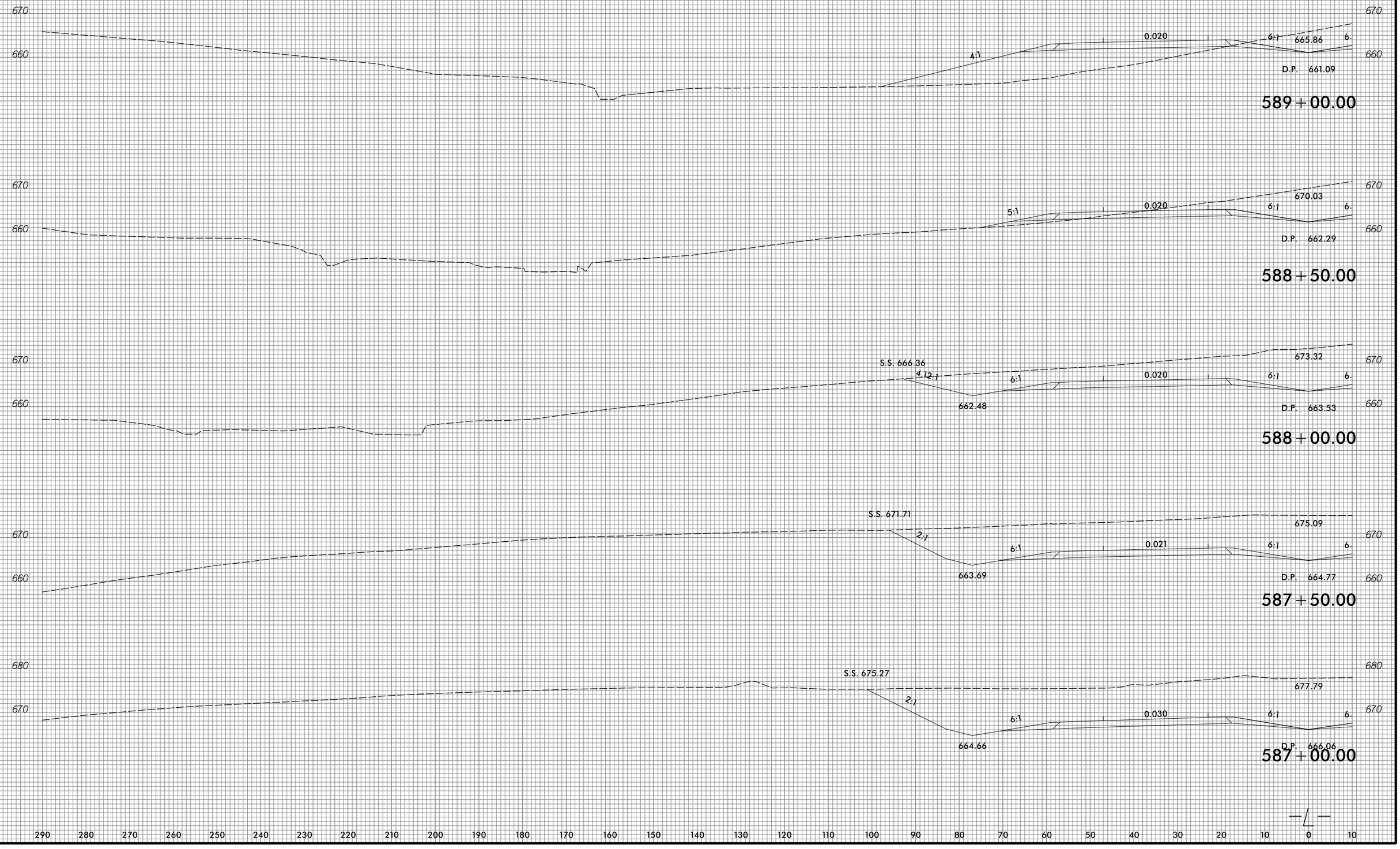
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-75

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-76

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670
660
650

0.020 6:1 6:
4:1
D.P. 657.62
646.74
591+00.00

670
660
650

0.020 6:1 6:
4:1
D.P. 658.28
649.97
590+50.00

670
660
650

0.020 6:1 6:
4:1
D.P. 659.08
653.38
590+00.00

670
660
650

0.020 6:1 6.
4:1
661.01
D.P. 660.02
589+50.00

—/—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-77

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650 640 630

4:1 0.020 6:1 6:

D.P. 656.45

645.38

592+50.00

670 660 650 640

5:1 0.020 6:1 6:

D.P. 656.71

647.92

592+00.00

670 660 650

5:1 0.020 6:1 6:

D.P. 657.09

648.32

591+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-78

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630

0.020 6:1 6:

2:1

D.P. 656.52

641.61

594+00.00

670 660 650 640 630

0.020 6:1 6:

2:1

D.P. 656.36

641.75

593+50.00

670 660 650 640 630

0.020 6:1 6:

3:1

D.P. 656.34

642.83

593+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

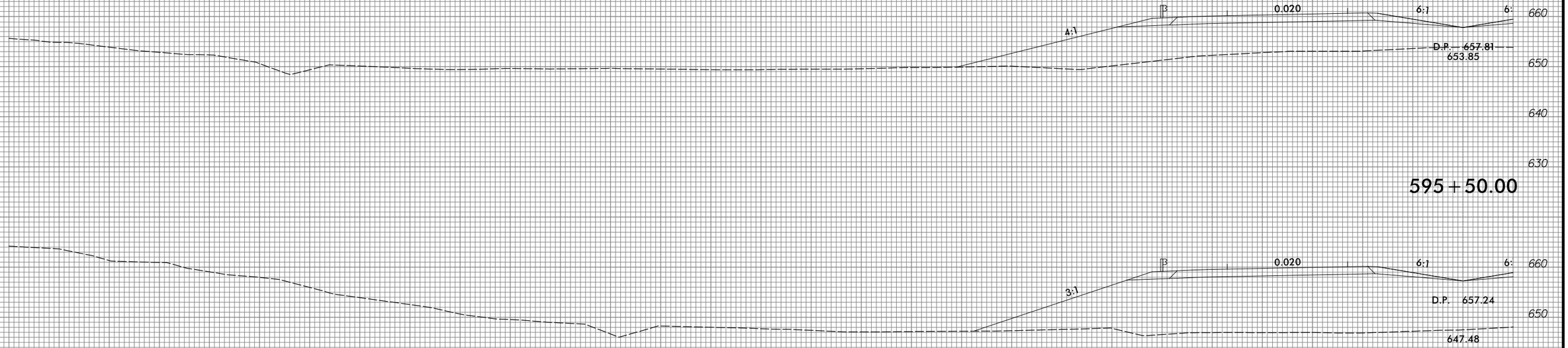
3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-79

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630



3/22/2016
Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-80

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650 640 630

S.S. 668.93
2:1
6:1
659.28
0.020
6:1
667.30
6:
D.P. 660.33

597+00.00

660 650 640 630

2:1
6:1
658.19
B
0.020
6:1
663.28
6:
D.P. 659.35

596+50.00

660 650 640 630

5:1
B
0.020
6:1
6:
658.84
D.P. 658.51

596+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-81

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

680 670 660 650 640 630

S.S. 676.71

2:1

6:1

0.020

6:1

6:

671.35

661.48

D.P. 662.53

598+00.00

S.S. 673.05

2:1

6:1

0.020

6:1

6:

669.49

660.39

D.P. 661.44

597+50.00

—/—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Program: PROJ Xse \R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-82

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

680
670
660
650
640
630

S.S. 682.98

2:1

674.02

6:1

0.020

6:1

6:

663.36

D.P. 664.41

599+00.00

S.S. 680.37

2:1

673.00

6:1

0.020

6:1

6:

662.47

D.P. 663.52

598+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-83

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690 680 670 660 650 640 630

S.S. 687.41

2:1

676.30

6:1 0.020 6:1 6:

664.83

D.P. 665.88

600+00.00

S.S. 685.16

2:1

675.29

6:1 0.020 6:1 6:

664.15

D.P. 665.19

599+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-84

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690 680 670 660 650 640 630

S.S. 690.64

2:1

680.62

6:1 0.020 6:1 6:

665.90

D.P. 666.95

601+00.00

S.S. 689.39

2:1

678.75

6:1 0.020 6:1 6:

665.42

D.P. 666.47

600+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Roadway Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-85

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

700 690 680 670 660 650 640

S.S. 695.01

2:1

683.12

6:1 0.020 6:1 6:

666.57

D.P. 667.61

602+00.00

700 690 680 670 660 650 640

S.S. 692.94

2:1

681.77

6:1 0.020 6:1 6:

666.28

D.P. 667.33

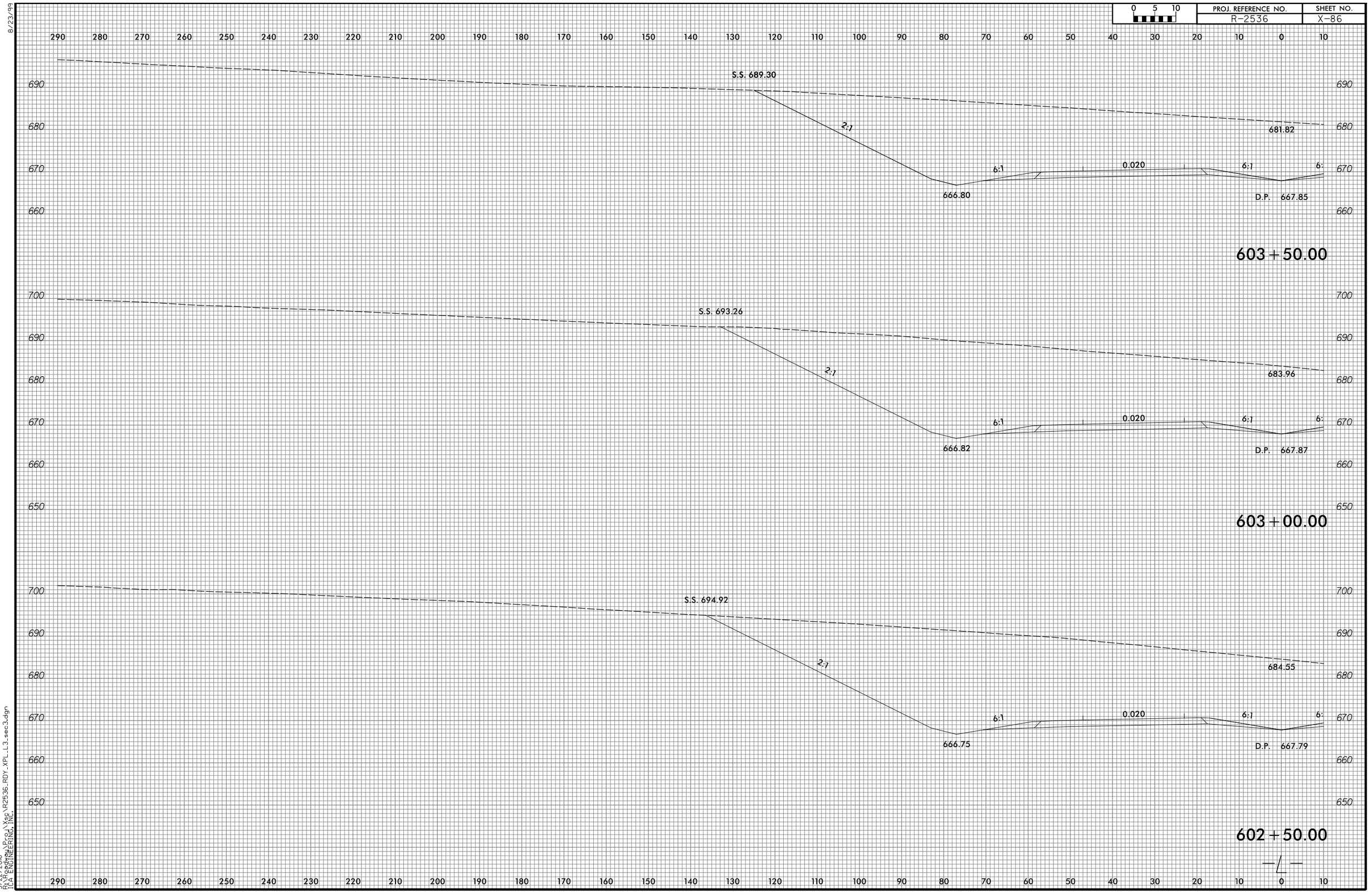
601+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-86

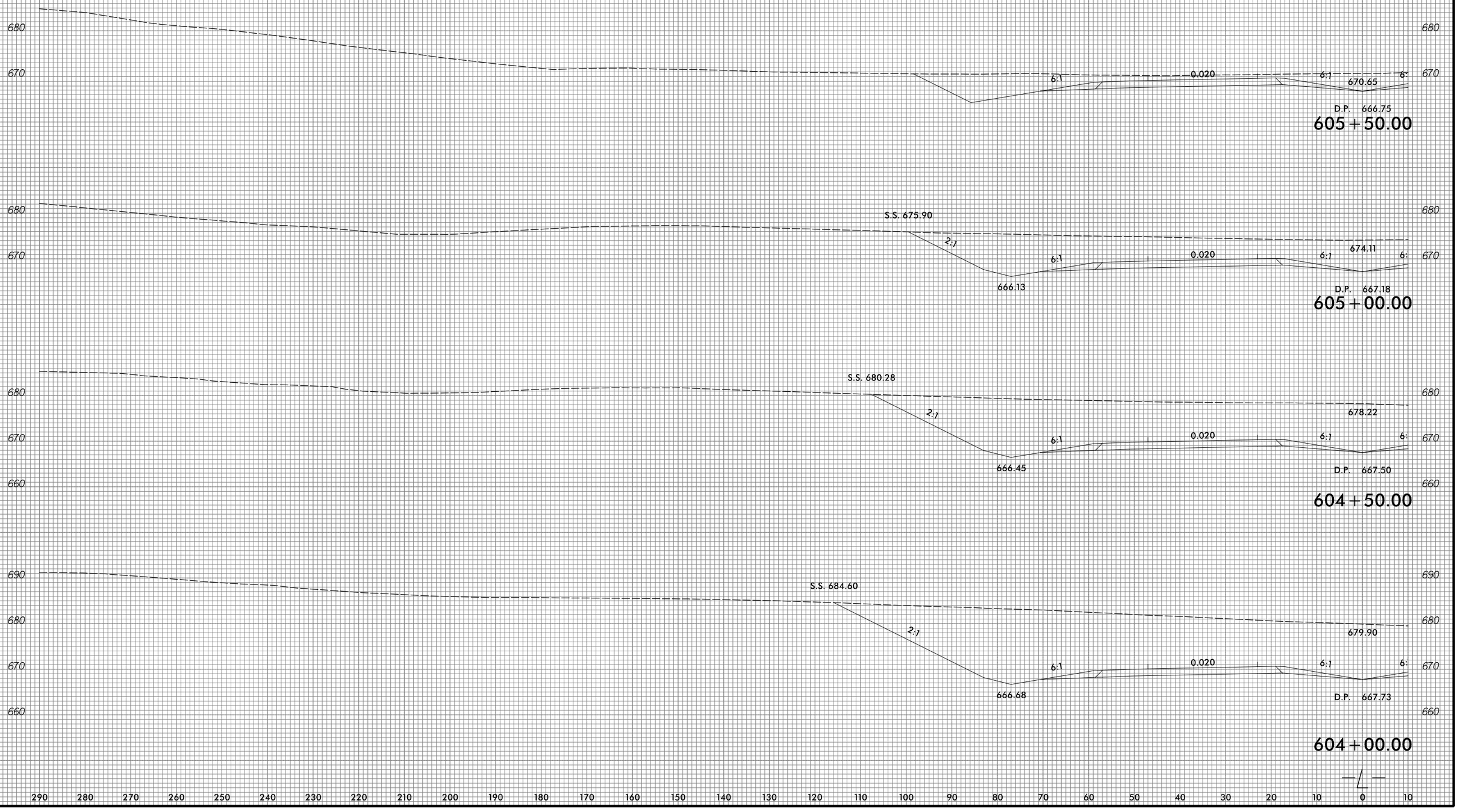


3/22/2016
Roadway Prod \ Xse \ R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-87

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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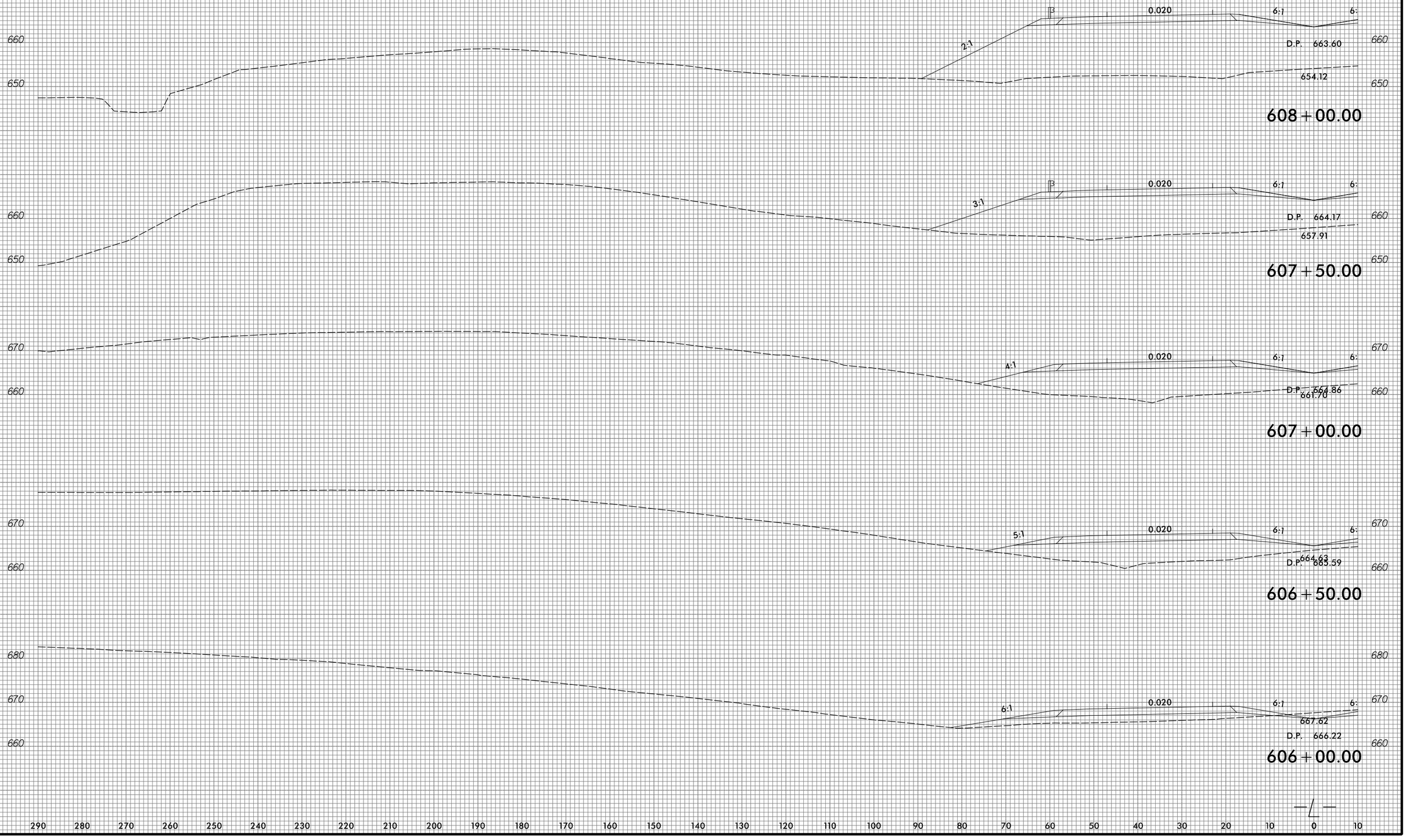
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-88

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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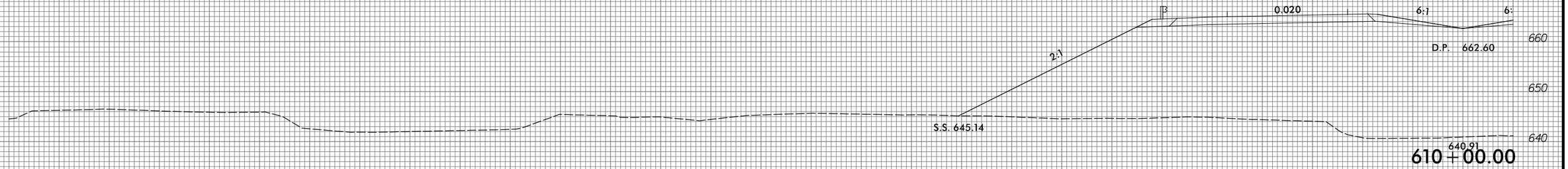
TGA ENGINEERING, INC.

8/23/99

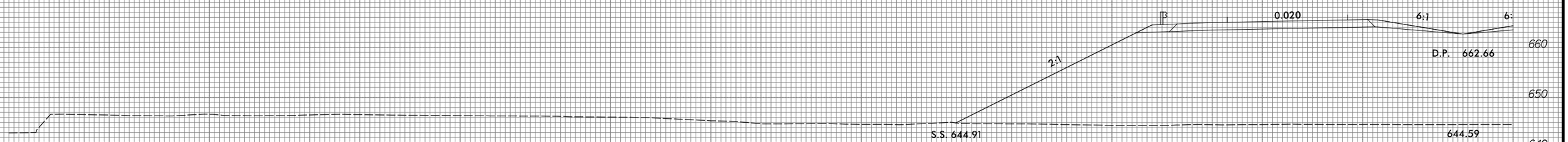
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-89

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

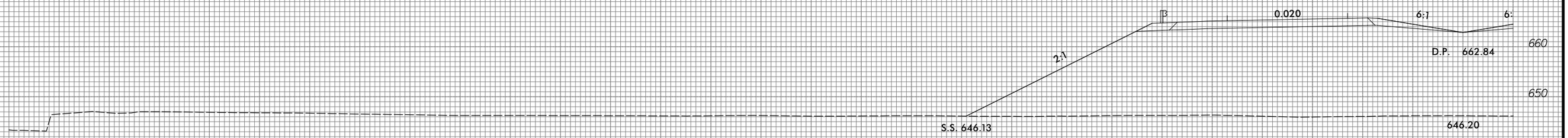
660
650
640



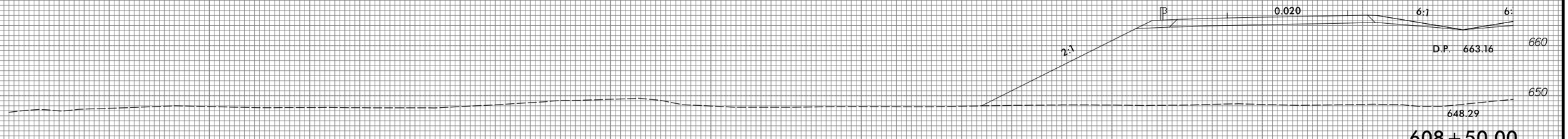
610+00.00



609+50.00



609+00.00



608+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

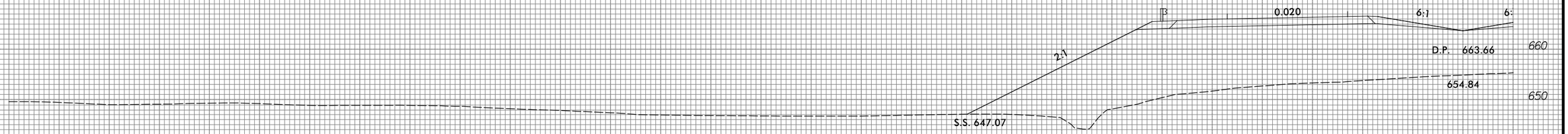
3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-90

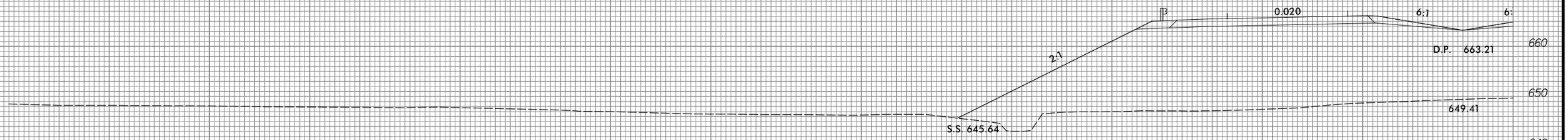
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660
650



612 + 00.00

660
650
640

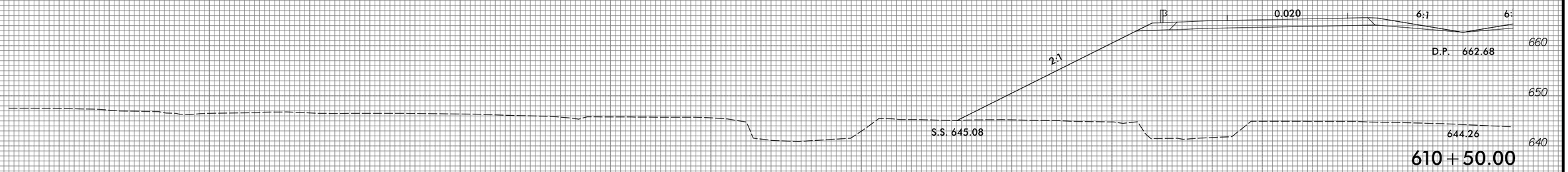


611 + 50.00

660
650
640

611 + 00.00

660
650
640



610 + 50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-91

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670 660 650

S.S. 667.37
6:1
6:1
0.020
6:1
672.30
6:
665.73
D.P. 666.77

614+00.00

670 660 650

6:1
0.020
6:1
669.78
6:
D.P. 665.80

613+50.00

670 660 650

3.72:1
0.020
6:1
6:
666.27
D.P. 664.96
S.S. 658.85

613+00.00

670 660 650

0.020
6:1
6:
2:1
D.P. 661.44
664.25
S.S. 646.65

612+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-92

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670
660

S.S. 674.56
4.07:1
670.63
6:1
0.020
6:1
676.18
6:
D.P. 671.68

616+00.00

670
660

6:1
0.020
6:1
673.59
6:
D.P. 670.39

615+50.00

670
660

5.65:1
S.S. 665.75
0.020
6:1
672.54
6:
D.P. 669.10

650

615+00.00

670
660

S.S. 667.52
6:1
666.83
0.020
6:1
672.82
6:
D.P. 667.87

650

614+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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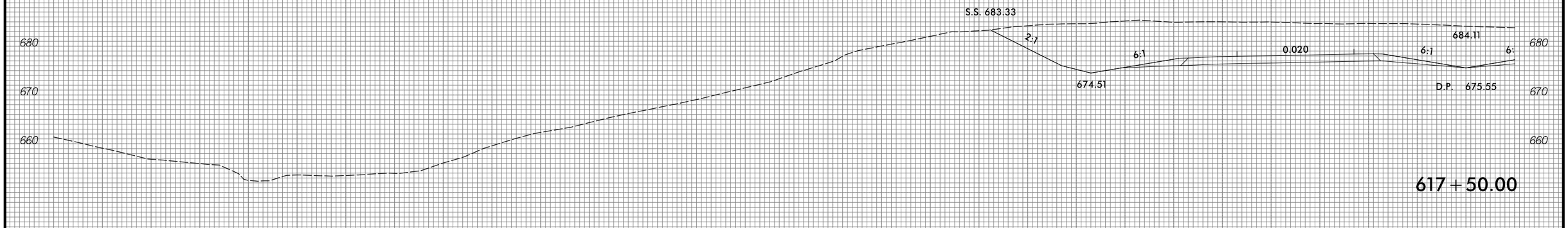
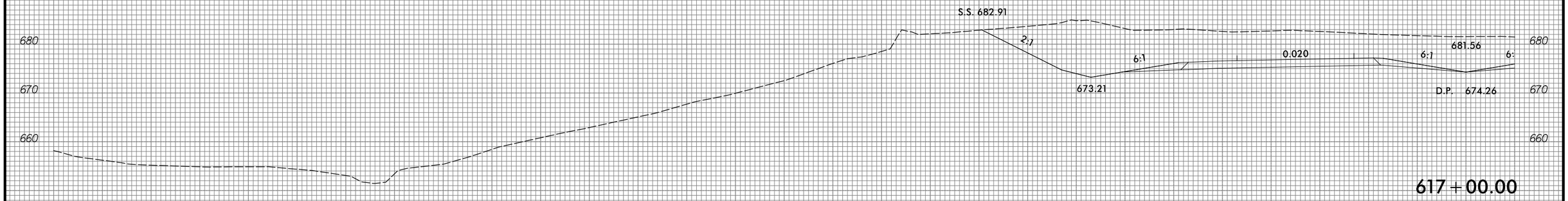
TCA ENGINEERING, INC.

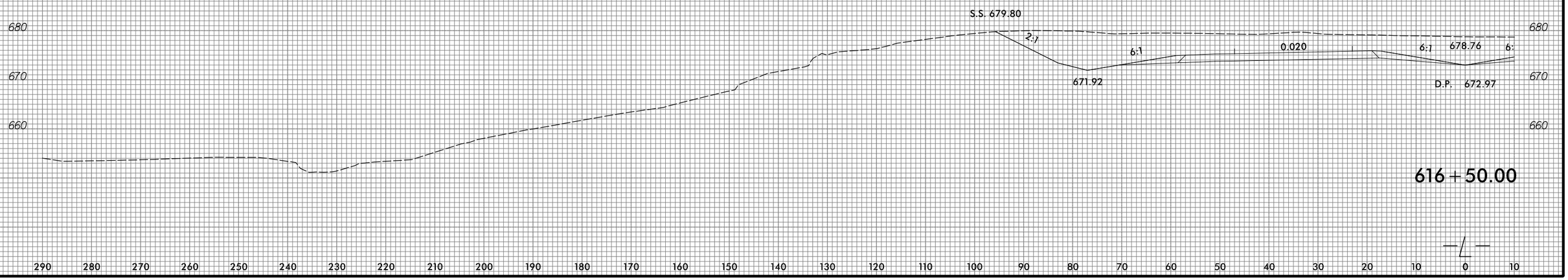
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-93

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10







290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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[C] ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-94

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690 680 670 660

S.S. 685.25
2:1
6:1
0.020
6:1
6:
689.77
678.38
D.P. 679.42

619+00.00

690 680 670 660

S.S. 684.28
2:1
6:1
0.020
6:1
6:
687.83
677.09
D.P. 678.13

618+50.00

680 670 660

S.S. 683.12
2:1
6:1
0.020
6:1
6:
686.23
675.80
D.P. 676.84

618+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-95

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690 680 670 660

S.S. 684.47
6:1
6:1
0.020
6:1
6:
690.82
682.25
D.P. 683.30

620+50.00

690 680 670 660

S.S. 684.35
4.71:1
6:1
0.020
6:1
6:
691.51
680.96
D.P. 682.00

620+00.00

690 680 670 660

S.S. 684.41
3.08:1
6:1
0.020
6:1
6:
690.93
679.67
D.P. 680.71

619+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-96

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690 680 670 660

2.83:1 B 0.020 6:1 6:

686.00 D.P. 687.17

622+00.00

690 680 670 660

4:1 0.020 6:1 6:

687.30 D.P. 685.88

621+50.00

690 680 670 660

S.S. 684.27 6:1 0.020 6:1 6:

683.54 689.18 D.P. 684.59

621+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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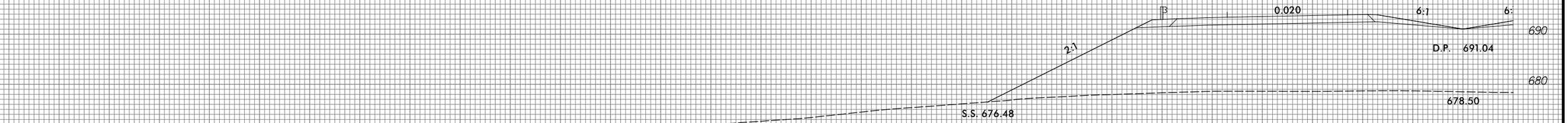
Program: PROJ \Xse \R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

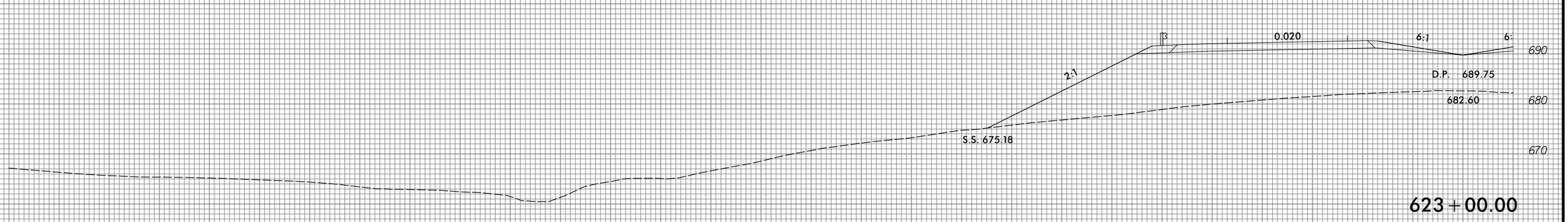
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-97

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

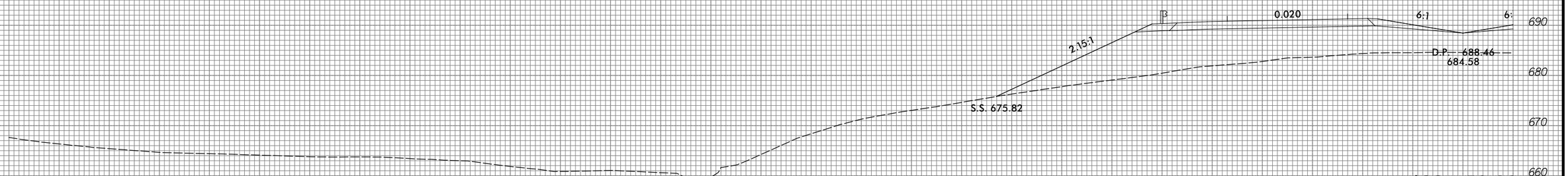
690
680
670



623+50.00



623+00.00



622+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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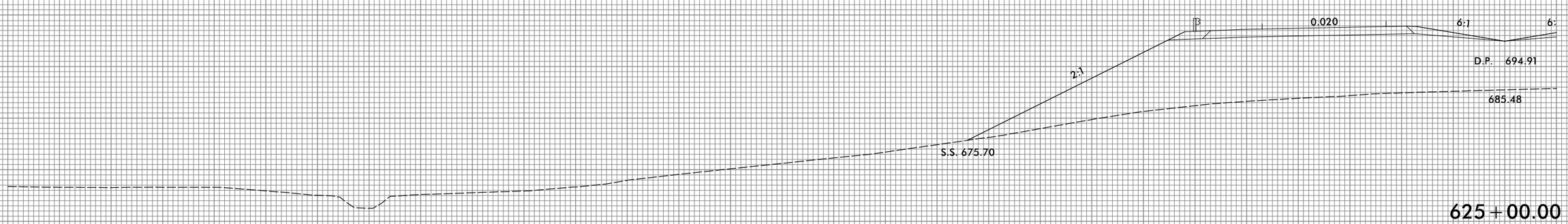
Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-98

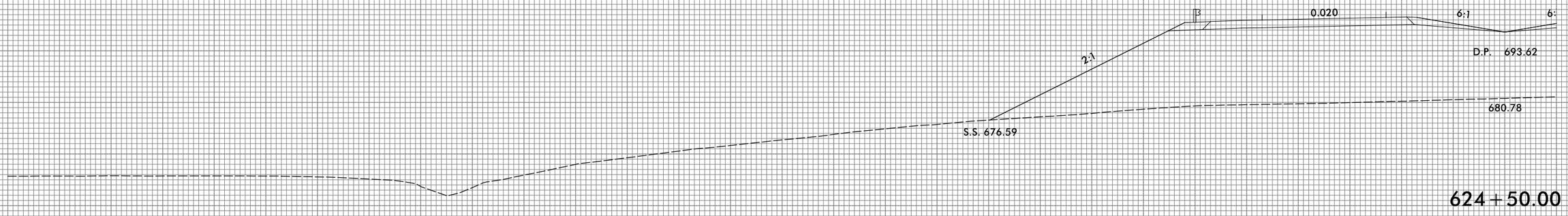
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

700
690
680
670



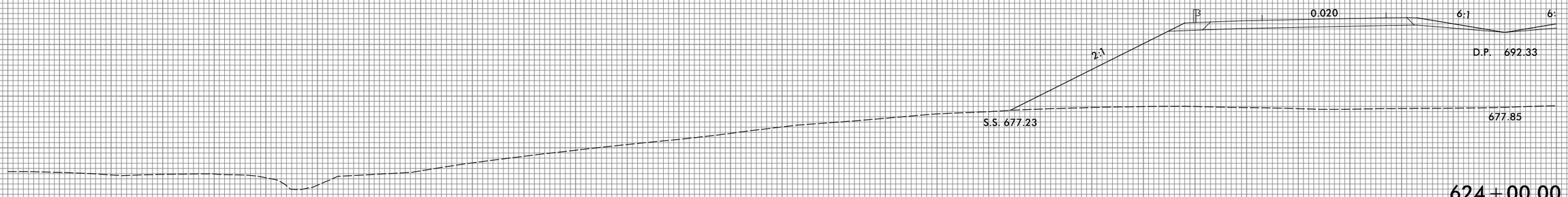
625+00.00

690
680
670



624+50.00

690
680
670



624+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-99

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

700
690
680

4.94:1
3
0.020
6:1
6:
700.21
D.P. 698.78
S.S. 694.66

626+50.00

700
690
680
670

3.27:1
3
0.020
6:1
6:
D.P. 695.39
697.49
S.S. 690.26

626+00.00

700
690
680
670

2.20:1
3
0.020
6:1
6:
D.P. 696.20
690.59
S.S. 683.99

625+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-100

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

710 / 700 / 690 / 680

S.S. 703.30 — 6:1 — 0.020 — 6:1 — 708.42 — 6: — 702.34 — D.P. 703.38

628+50.00

S.S. 700.14 — 6:1 — 0.020 — 6:1 — 706.11 — 6: — D.P. 702.36

628+00.00

S.S. 699.00 — 6:1 — 0.020 — 6:1 — 704.87 — 6: — D.P. 701.24

627+50.00

6:1 — B — 0.020 — 6:1 — 6: — 703.18 — D.P. 700.05

627+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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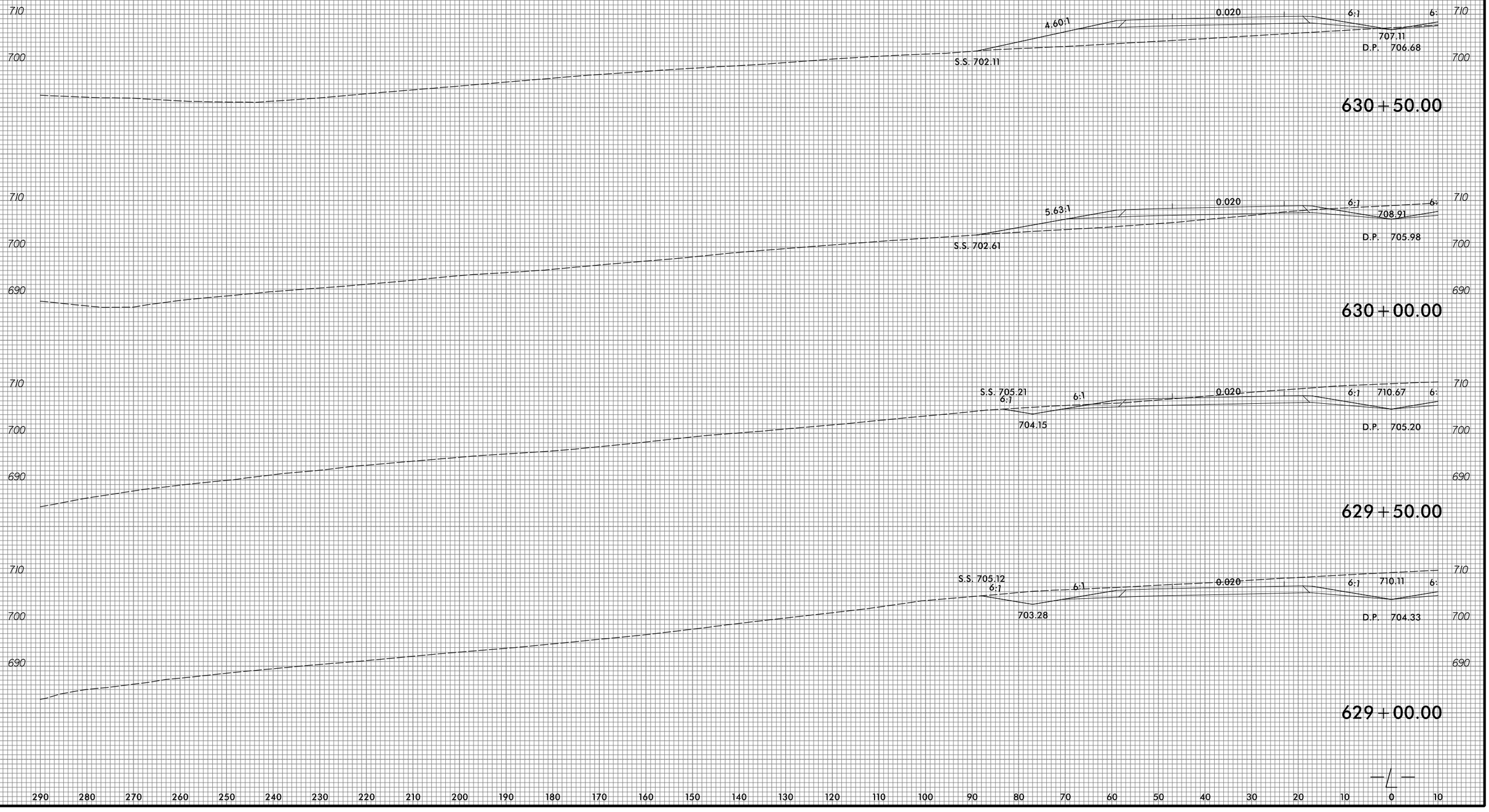
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-101

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



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P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-102

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720
710

S.S. 711.17
4.51:1
6:1
707.63
718.98
0.020
6:1
6:
D.P. 708.67

632+50.00

720
710

S.S. 710.51
4.92:1
6:1
707.25
717.83
0.020
6:1
6:
D.P. 708.30

632+00.00

720
710
700

S.S. 708.41
6:1
6:1
706.80
714.43
0.020
6:1
6:
D.P. 707.84

631+50.00

720
710
700

6:1
0.020
6:1
6:
709.59
D.P. 707.30

631+00.00

—/—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-103

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

730 720 710 700

718.10
6:1
0.020
6:1
6:
D.P. 709.38

634+00.00

730 720 710 700

720.48
S.S. 709.89
6:1
6:1
0.020
6:1
6:
708.14
D.P. 709.18

633+50.00

720 710 700

719.80
S.S. 710.92
5.33:1
6:1
0.020
6:1
6:
707.92
D.P. 708.97

633+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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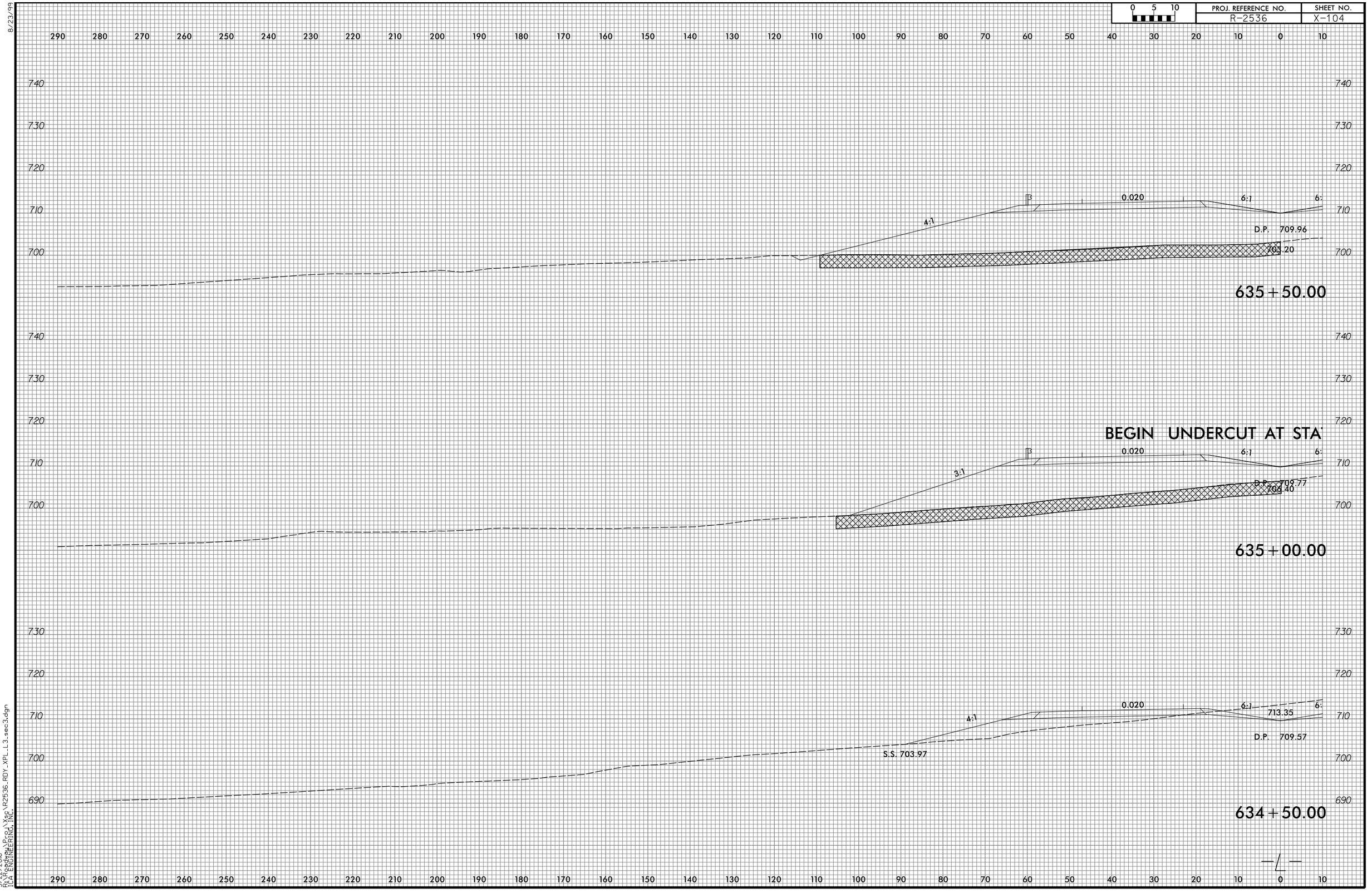

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-105

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

740 730 720 710 700

S.S. 712.96
4.63:1
6:1
709.50
0.020
718.56
6:1
6:
D.P. 710.55

637+00.00

740 730 720 710 700

6:1
709.31
0.020
713.87
6:1
6:
D.P. 710.35

636+50.00

740 730 720 710 700

END UNDERCUT AT STAT
5:1
0.020
6:1
6:
D.E. 710.16
707.08

636+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-106

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

740
730
720
710
700

721.97
S.S. 712.16
6:1
6:1
0.020
6:1
6:
709.89
D.P. 710.94

638+00.00

740
730
720
710
700

720.77
S.S. 712.93
4.95:1
6:1
0.020
6:1
6:
709.70
D.P. 710.75

637+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
Rt Roddy\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
[C] ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-107

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

750
740
730
720
710
700

720.45
0.020
6:1
6:
5:1
S.S. 707.23
D.P. 711.33

639+00.00

750
740
730
720
710
700

721.78
S.S. 711.34
6:1
6:1
0.020
6:1
6:
710.09
D.P. 711.14

638+50.00

—/—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-108

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

750
740
730
720
710
700

3.59:1
0.020
6:1
6:
715.35
D.P. 711.72
S.S. 705.31

640+00.00

750
740
730
720
710
700

4.05:1
0.020
6:1
6:
718.67
D.P. 711.53
S.S. 706.08

639+50.00

—L—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

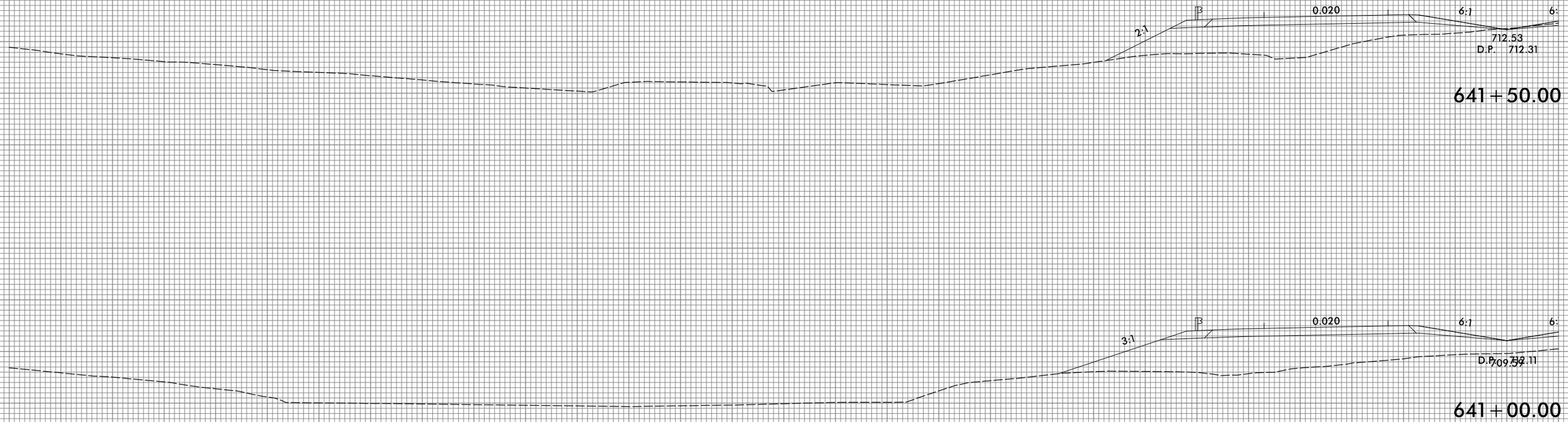
3/22/2016
Ft.Reading\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-109

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

740 730 720 710 700



641+50.00

641+00.00

640+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

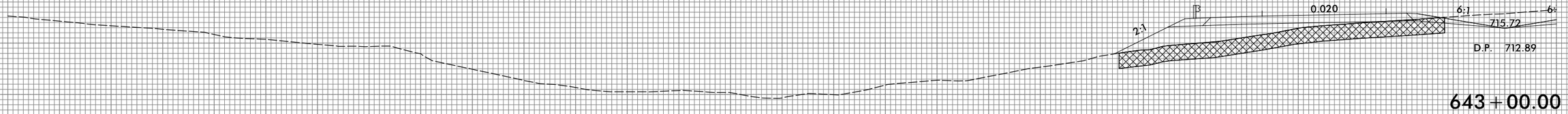
3/22/2016
R:\Geopak\Proj\Xsec\R2536.RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-110

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

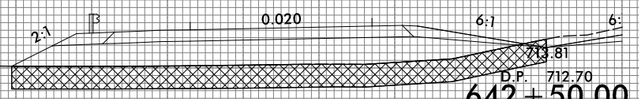
740
730
720
710
700



643+00.00

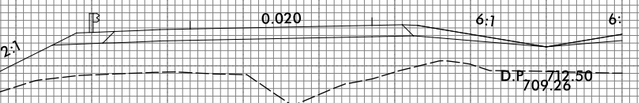
740
730
720
710

BEGIN UNDERCUT AT STA



642+50.00

740
730
720
710



642+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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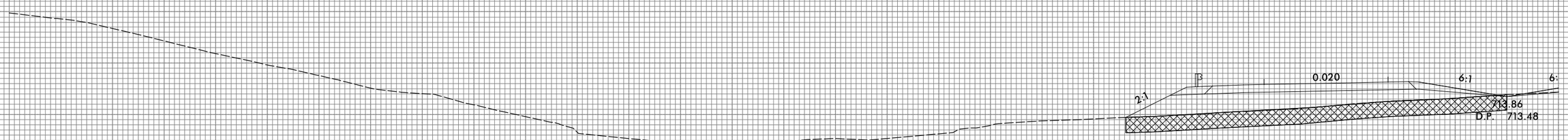
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-111

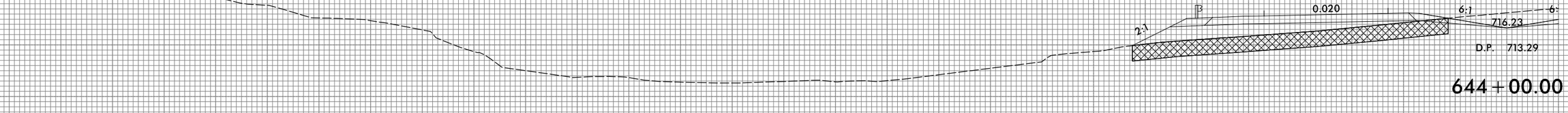
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

740
730
720
710



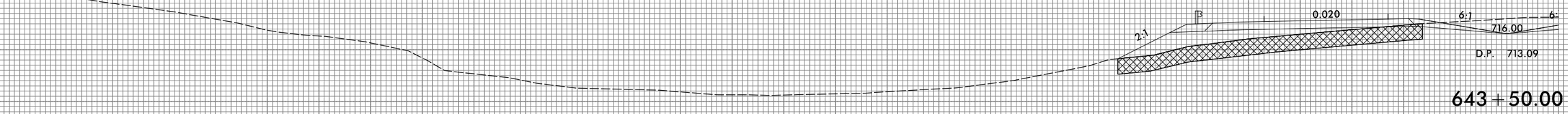
644+50.00

740
730
720
710



644+00.00

740
730
720
710



643+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
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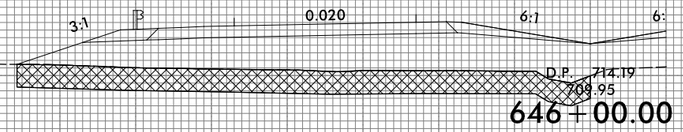
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-112

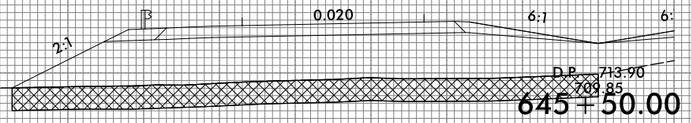
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

740
730
720
710



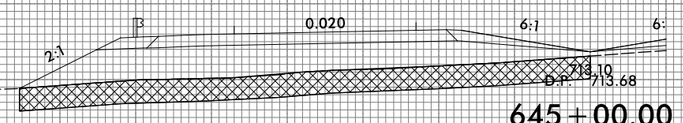
646+00.00

740
730
720
710



645+50.00

740
730
720
710



645+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-113

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

760
750
740
730
720
710

6:1 5:1 0.020 6:1 6:

713.15

718.25

D.P. 714.91

647+00.00

END UNDERCUT AT STAT

4:1 0.020 6:1 6:

D.P. 710.52

646+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-114

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

760
750
740
730
720

S.S. 716.86
6:1
6:1
0.020
6:1
6:1
719.91
714.72
D.P. 715.76
648+00.00

760
750
740
730
720

6:1
6:1
0.020
6:1
6:1
719.44
714.17
D.P. 715.34
647+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-115

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

770 760 750 740 730 720

S.S. 721.69

2:1 6:1 6:1 0.020 6:1 721.89 6:

715.56

D.P. 716.61

649+00.00

770 760 750 740 730 720

S.S. 719.74

3.22:1 6:1 0.020 6:1 719.57 6:

715.14

D.P. 716.19

648+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-116

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

740
730
720

S.S. 724.90

2.09:1 6:1 0.020 6:1 6:1

716.83

D.P. 717.88

650+50.00

750
740
730
720

BEGIN UNCLASSIFIED EXCAVATION – ACCEP
BEGIN UNDERCUT AT STATI

S.S. 722.69

2.09:1 6:1 0.020 6:1 723.47 6:1

716.41

D.P. 717.46

650+00.00

770
760
750
740
730
720

S.S. 722.42

2.03:1 6:1 0.020 6:1 722.04 6:1

715.99

D.P. 717.03

649+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536.RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-117

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

740 730 720

S.S. 728.26

2:1

6:1

718.53

0.020

6:1

6:

733.66

D.P. 719.58

652+50.00

740 730 720

S.S. 727.29

2:1

6:1

718.11

0.020

6:1

6:

732.36

D.P. 719.15

652+00.00

740 730 720

S.S. 726.49

2:1

6:1

717.68

0.020

6:1

6:

728.75

D.P. 718.73

651+50.00

740 730 720

S.S. 725.93

2:1

6:1

717.26

0.020

6:

728.60

D.P. 718.30

651+00.00

END UNDERCUT AT STATI(

—L—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-118

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

750
740
730
720

734.51
2:1
6:1
0.020
6:1
6:
719.80
D.P. 720.85
654+00.00

750
740
730
720

735.13
2:1
6:1
0.020
6:1
6:
719.38
D.P. 720.42
653+50.00

750
740
730
720

S.S. 728.21
734.75
2:1
6:1
0.020
6:1
6:
718.95
D.P. 720.00
653+00.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-119

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

750
740
730
720

END UNCLASSIFIED EXCAVATION –

732.86
2:1
6:1
0.020
6:1
6:
720.68
D.P. 721.72

655+50.00

732.71
720.48
D.P. 721.53

655+00.00

733.31
720.19
D.P. 721.24

654+50.00

—/—

3/22/2016
Roadway Prod \ Xsec \ R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-120

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

750
740
730
720

S.S. 731.28
735.87
2:1
6:1
0.020
6:1
6:
720.64
D.P. 721.69

657+00.00

750
740
730
720

S.S. 730.64
735.22
2:1
6:1
0.020
6:1
6:
720.76
D.P. 721.80

656+50.00

750
740
730
720

S.S. 729.09
734.14
2:1
6:1
0.020
6:1
6:
720.77
D.P. 721.81

656+00.00

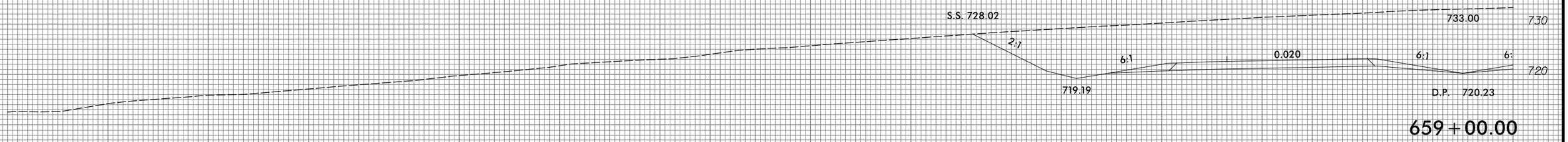
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

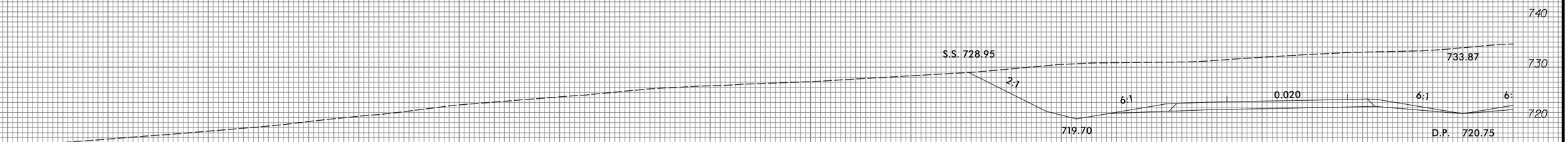
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-121

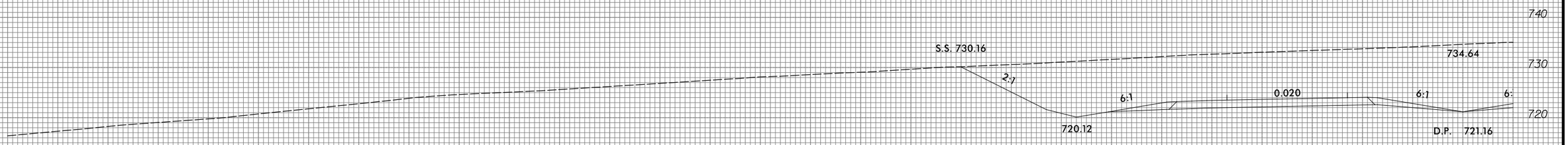
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



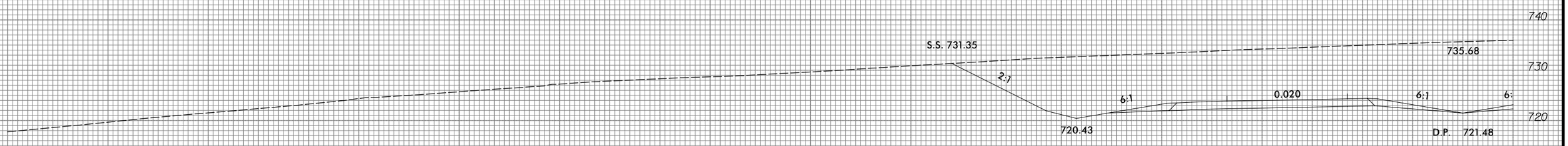
659 + 00.00



658 + 50.00



658 + 00.00



657 + 50.00

—/—

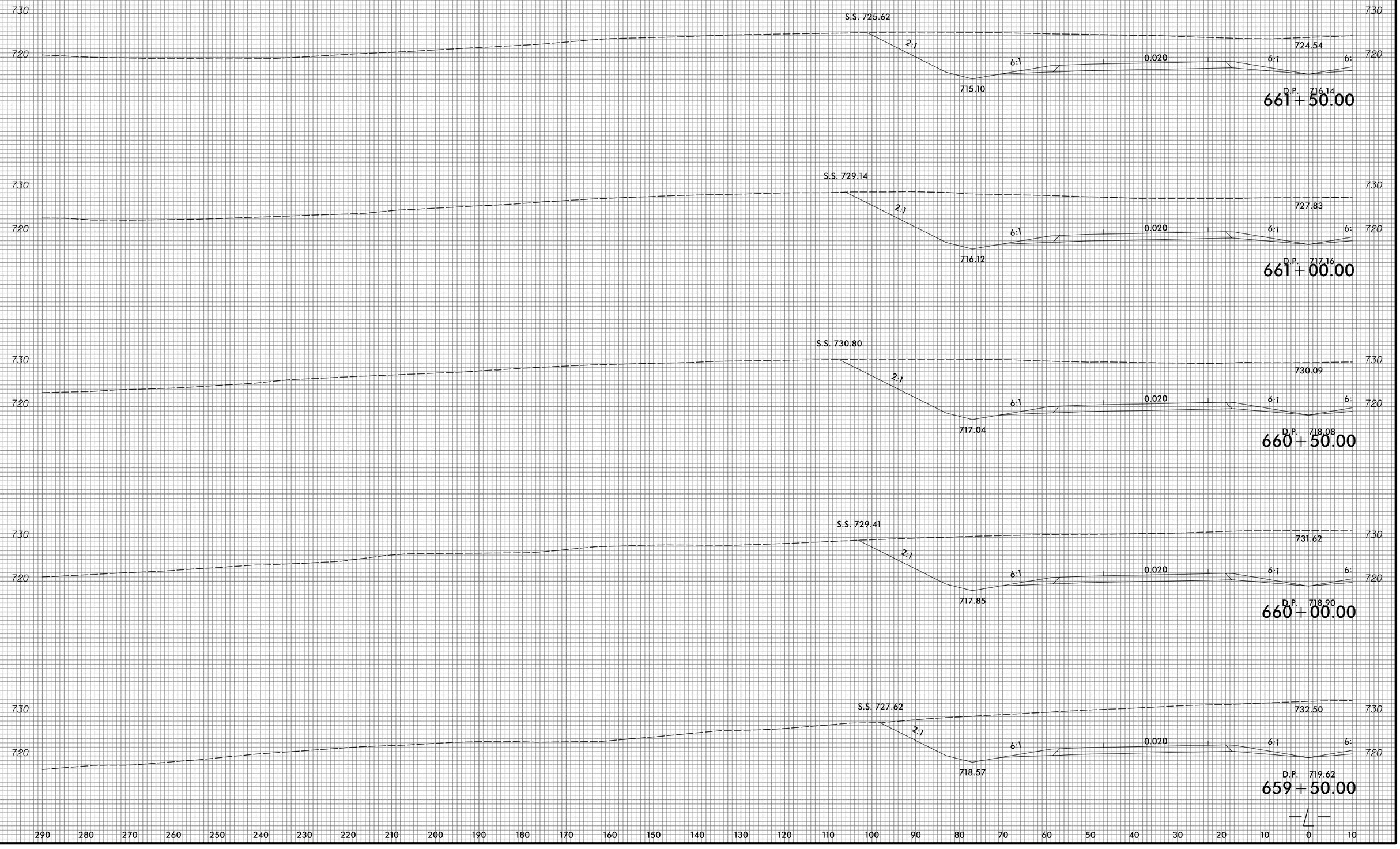
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-122

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-123

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 / 710

6:1 0.020 6:1 6:

D.P 707.53

664+00.00

720 / 710

S.S. 712.06 6:1 6:1 0.020 6:1 6:

710.00

D.P. 711.05 707.44

663+50.00

720 / 710

S.S. 714.87 4.66:1 6:1 0.020 6:1 6:

711.43 715.25

D.P. 712.48

663+00.00

720 / 710

S.S. 717.66 2.93:1 6:1 0.020 6:1 6:

712.75 718.85

D.P. 713.80

662+50.00

720 / 710

S.S. 721.80 2:1 6:1 0.020 6:1 6:

713.97 722.39

D.P. 715.02

662+00.00

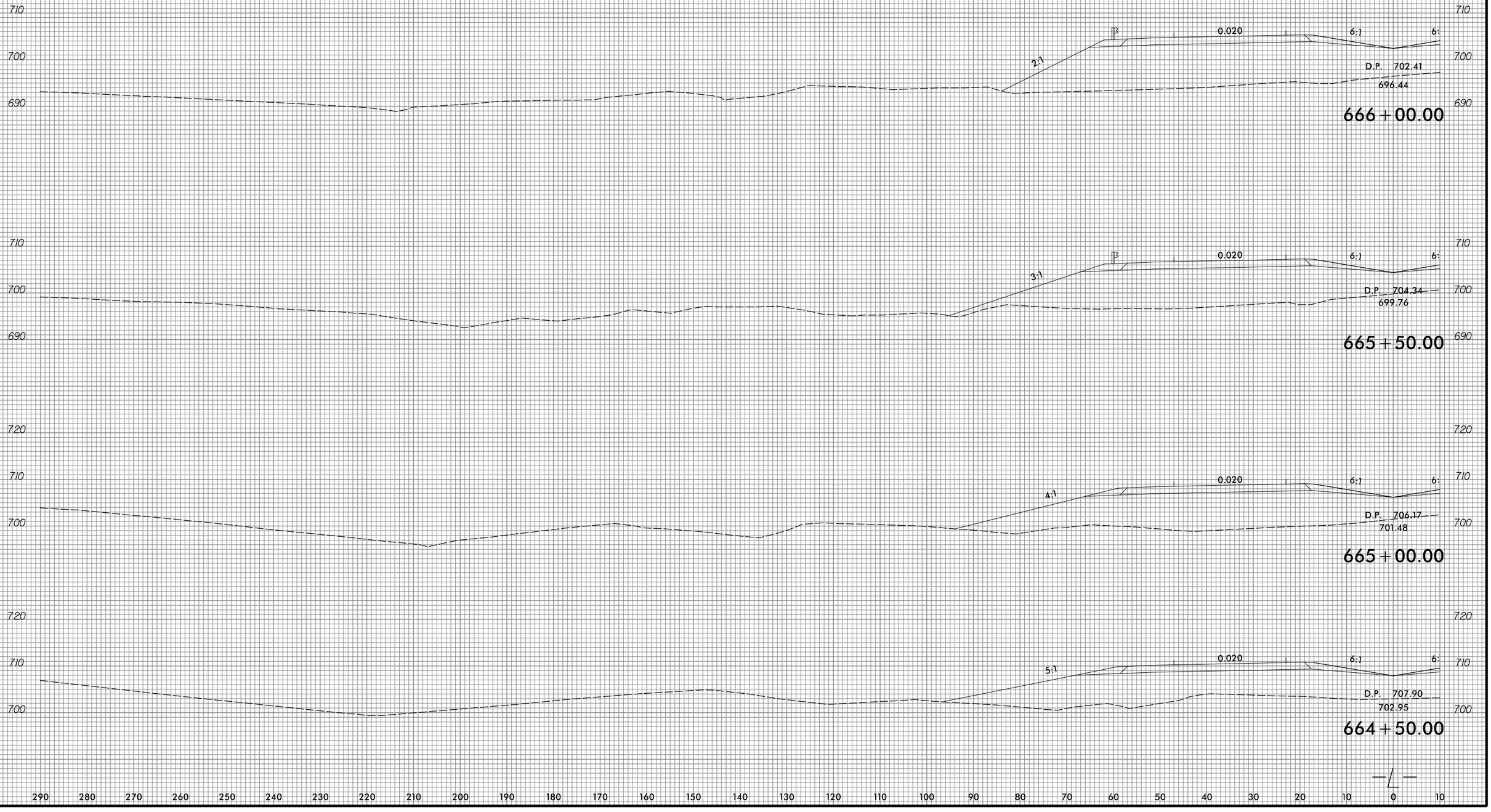
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-124

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10



290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-125

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-126

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

680
670
660
650
640
630

6:1 6:1 0.020 ℄ 2:1

D.P. 669.54

S.S. 653.08

636.97

465+50.00

680
670
660
650
640
630

6:1 6:1 0.020 ℄ 2:1

D.P. 670.65

639.16

465+09.27

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-127

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650
640
630

183:1 6:1 0.020 ℄

D.P. 666.80

2:1

S.S. 640.06

626.29

466 + 50.00

037:1 6:1 0.020 ℄

D.P. 668.17

2:1

S.S. 648.43

632.86

466 + 00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-128

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650
640
630
620

498:1 6:1 0.020 2:1

D.P. 664.06

621.97

S.S. 615.19

467+50.00

336:1 6:1 0.020 2:1

D.P. 665.43

S.S. 627.61

619.87

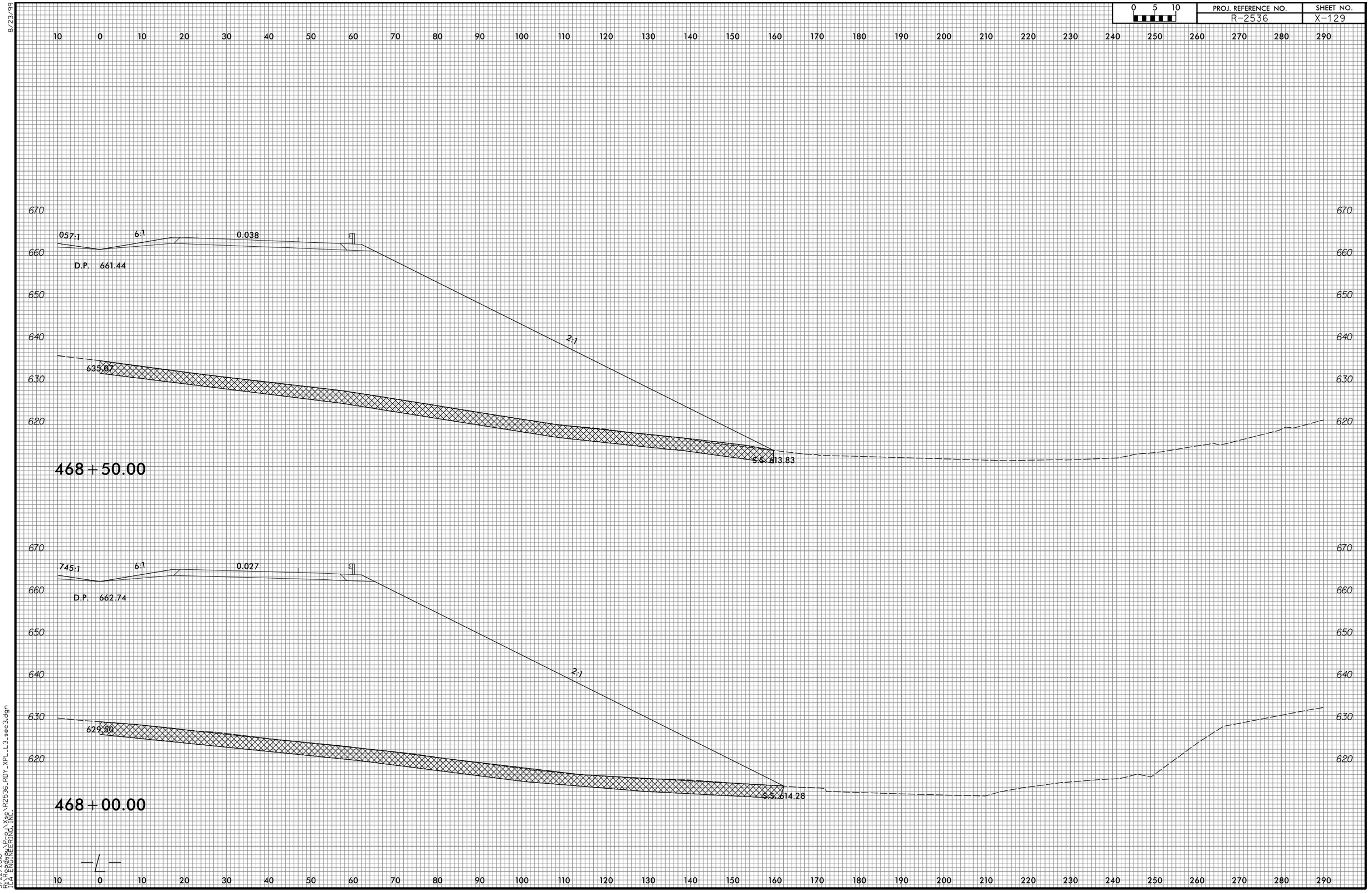
467+00.00

CUT AT STATION 467+50.00

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-129



3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
FCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-130

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650
640
630
620
610

773:1
6:1
0.061
℄
D.P. 658.83
639.52
2:1

469+50.00

670
660
650
640
630
620

398:1
6:1
0.050
℄
D.P. 660.13

AT STATION 469+00.00

637.82
2:1

469+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-131

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650
640
630
620
610

528:1
6:1
0.080
D.P. 656.21
637.63
2:1

470+50.00

670
660
650
640
630
620
610

189:1
6:1
0.072
D.P. 657.53
639.63
2:1

470+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-132

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660
650
640
630
620
610

528:1 6:1 0.080 ℄

D.P. 653.48

UT AT STATION 471+90.00

2:1

626.79

471+50.00

528:1 6:1 0.080 ℄

D.P. 654.84

CUT AT STATION 471+10.00

2:1

633.02

471+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-133

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

650
640
630
620
610

528:1 6:1 0.080

D.P. 650.74

2:1

624.76

472 + 50.00

528:1 6:1 0.080

D.P. 652.11

2:1

622.20

472 + 00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-134

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

650 640 630 620 610 600

528:1 6:1 0.080

D.P. 648.00

631.93

2:1

473+50.00

528:1 6:1 0.080

D.P. 649.37

630.04

2:1

473+00.00

650 640 630 620 610

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-135

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650 640 630 620 610

528:1 6:1 0.080 2:1

D.P. 645.26

632.60

600

474+50.00

650 640 630 620 610

528:1 6:1 0.080 2:1

D.P. 646.63

632.81

600

474+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-136

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660
650
640
630

528:1 6:1 0.080 5:1

D.P. 639.70
641.16

476+00.00

660
650
640
630
620

528:1 6:1 0.080 4:1

D.P. 642.53
636.95

475+50.00

660
650
640
630
620

528:1 6:1 0.080 3:1

D.P. 643.90
632.36

475+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-137

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

640
630

528:1 641.81 6:1 0.080 6:1 3.88:1

D.P. 635.69

632.28

478+00.00

650
640
630

528:1 642.82 6:1 0.080 6:1 4.25:1

D.P. 637.05

633.65

477+50.00

650
640
630

528:1 642.21 6:1 0.080 6:1 6:1 S.S. 637.61

D.P. 638.42

635.02

477+00.00

650
640
630

528:1 641.75 6:1 0.080 6:1 S.S. 637.07

D.P. 639.79

636.14

476+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
JCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-138

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

640 / 630

636.46 — 7:1 — 6:1 — 0.036 — 6:1 — 2:1 — S.S. 637.23

D.P. 627.21

625.61

481 + 00.00

640 / 630

637.46 — 337:1 — 6:1 — 0.048 — 6:1 — 2:1 — S.S. 637.19

D.P. 628.65

626.60

480 + 50.00

636.74 — 705:1 — 6:1 — 0.059 — 6:1 — 2:1

630

D.P. 630.08

627.57

480 + 00.00

640 / 630

637.14 — 114:1 — 6:1 — 0.070 — 6:1 — 2:1 — S.S. 635.15

D.P. 631.52

628.54

479 + 50.00

640 / 630

638.25 — 528:1 — 6:1 — 0.080 — 6:1 — 3.09:1 — S.S. 634.40

D.P. 632.95

629.54

479 + 00.00

640 / 630

640.69 — 528:1 — 6:1 — 0.080 — 6:1 — 3.69:1

D.P. 634.32

630.91

478 + 50.00

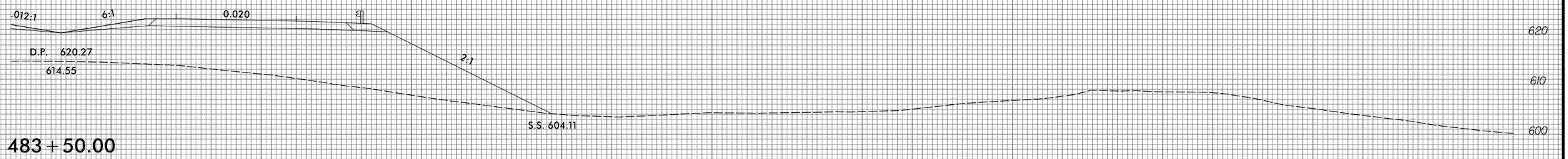
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

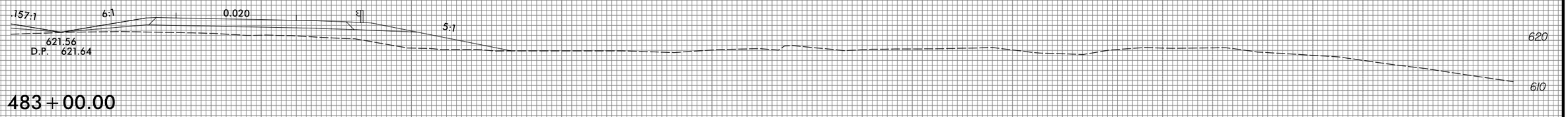
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-139

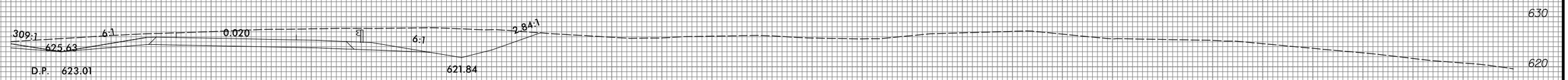
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



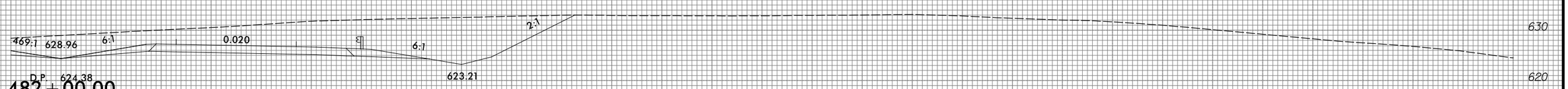
483 + 50.00



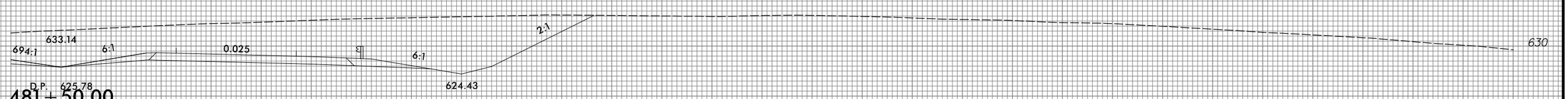
483 + 00.00



482 + 50.00



482 + 00.00



481 + 50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ECA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-140

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

620
610
600
590

0.020

UT AT STATION 485+75.00

596.96

485+50.00

0.020

591.88

485+00.00

0.020

598.26

484+50.00

0.020

604.38

484+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-141

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

610
600
590

6:1 6:1 0.020 2:1

D.P. 609.19

596.60

S.S. 592.31

488+00.00

610
600

6:1 6:1 0.020 2:1

D.P. 610.05

594.78

S.S. 595.34

487+50.00

610
600

6:1 6:1 0.020 2:1

D.P. 611.04

596.04

S.S. 595.22

487+00.00

610
600

6:1 6:1 0.020 2:1

D.P. 612.17

596.46

S.S. 596.35

486+50.00

610
600

6:1 6:1 0.020 2:1

D.P. 613.43

597.39

S.S. 596.91

486+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-142

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

610 6:1 6:1 0.020 4:1 610
D.P. 606.99
600 601.24 600
490+50.00

610 6:1 6:1 0.020 4:1 610
D.P. 607.16
600 599.88 600
490+00.00
AT STATION 489+50.00

610 6:1 6:1 0.020 3:1 610
D.P. 607.46
600 597.09 600
489+50.00

610 6:1 6:1 0.020 2:1 610
D.P. 607.90
600 597.27 S.S. 594.94 600
489+00.00

610 6:1 6:1 0.020 2:1 610
D.P. 608.48
600 596.41 S.S. 594.90 600
488+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
Ft. Rodman
TCA ENGINEERING, INC.
P:\Projects\Proj\Xsc\R2536.RDY_XPL_L3_sec3.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-143

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

630
620
610

6:1 6:1 0.020 6:1 2:1

615.65

D.P. 607.71

605.48

492+50.00

630
620
610

6:1 6:1 0.020 6:1 2:1

611.78

D.P. 607.32

603.78

492+00.00

630
620
610
600

6:1 6:1 0.020 6:1

606.76

D.P. 607.07

491+50.00

610
600

6:1 6:1 0.020 5:1

D.P. 606.96

603.10

491+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Projects\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-144

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

640
630
620
610

627.72

6:1 6:1 0.020 6:1 2:1

S.S. 629.96

608.64

D.P. 609.69

494+00.00

640
630
620
610

624.51

6:1 6:1 0.020 6:1 2:1

S.S. 628.68

607.84

D.P. 608.89

493+50.00

630
620
610

620.04

6:1 6:1 0.020 6:1 2:1

S.S. 624.14

607.18

D.P. 608.23

493+00.00

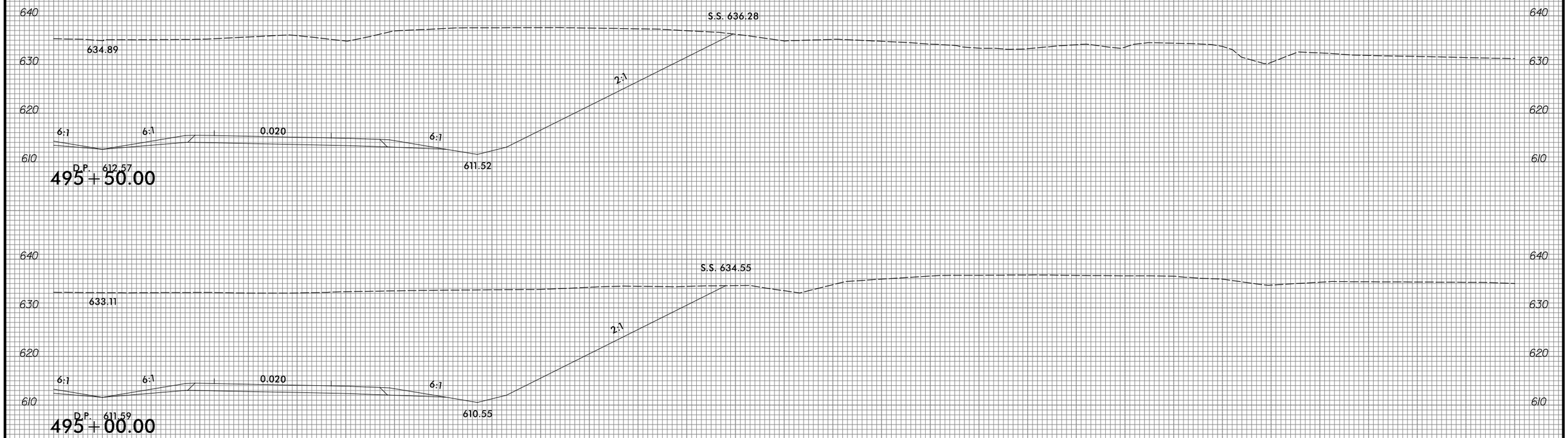
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-145

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-146

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

650
640
630
620
610

634.94

6:1 6:1 0.020 6:1

D.P. 615.48

497+00.00

640
630
620
610

637.85

6:1 6:1 0.020 6:1

D.P. 614.51

496+50.00

640
630
620
610

638.75

S.S. 633.61

2:1

6:1 6:1 0.020 6:1

D.P. 613.54

612.49

496+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-147

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

650 640 630 620 610

627.37

6:1 6:1 0.020 ℄ 3:1 12%

D.P. 618.40

498+50.00

650 640 630 620 610

629.79

6:1 6:1 0.020 ℄ 4:1

D.P. 617.43

498+00.00

650 640 630 620 610

JT AT STATION 497+25.00

632.22

6:1 6:1 0.020 ℄ 5:1

D.P. 616.45

497+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

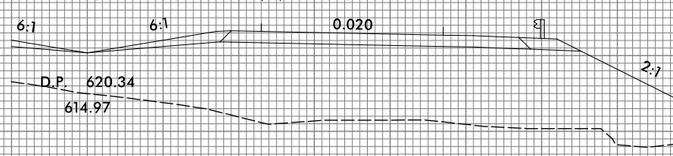
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-148

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

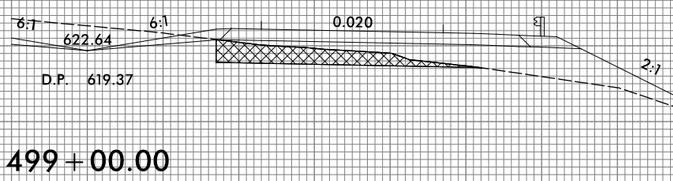
650 640 630 620 610

T AT STATION 499+50.00



499+50.00

650 640 630 620 610



499+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
Program Prod \ Xse \ R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-149

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

620

6:1 6:1 0.020 6:1

D.P. 624.23

619.05

501+50.00

620

6:1 6:1 0.020 5:1

D.P. 623.26

615.12

501+00.00

620

6:1 6:1 0.020 4:1

D.P. 622.29

612.90

500+50.00

620 610 660 650 640 630

6:1 6:1 0.020 3:1

D.P. 621.31

611.51

500+00.00

620 610

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
Ryan Godwin
[CA ENGINEERING, INC.
P:\Projects\R2536\Xsc\R2536_RDY_XPL_L3_sec3.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-150

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

630 620

6:1 632.57 6:1 0.020 6:1

D.P. 629.09

504+00.00

630 620

6:1 633.44 6:1 0.020 6:1

D.P. 628.12

503+50.00

630 620

6:1 632.67 6:1 0.020 6:1

D.P. 627.15

503+00.00

630 620

S.S. 633.93

6:1 630.37 6:1 0.020 6:1 2:1

625.13

D.P. 626.17

502+50.00

630 620

S.S. 630.37

6:1 6:1 0.020 6:1 2.12:1

624.26 624.15

D.P. 625.20

502+00.00

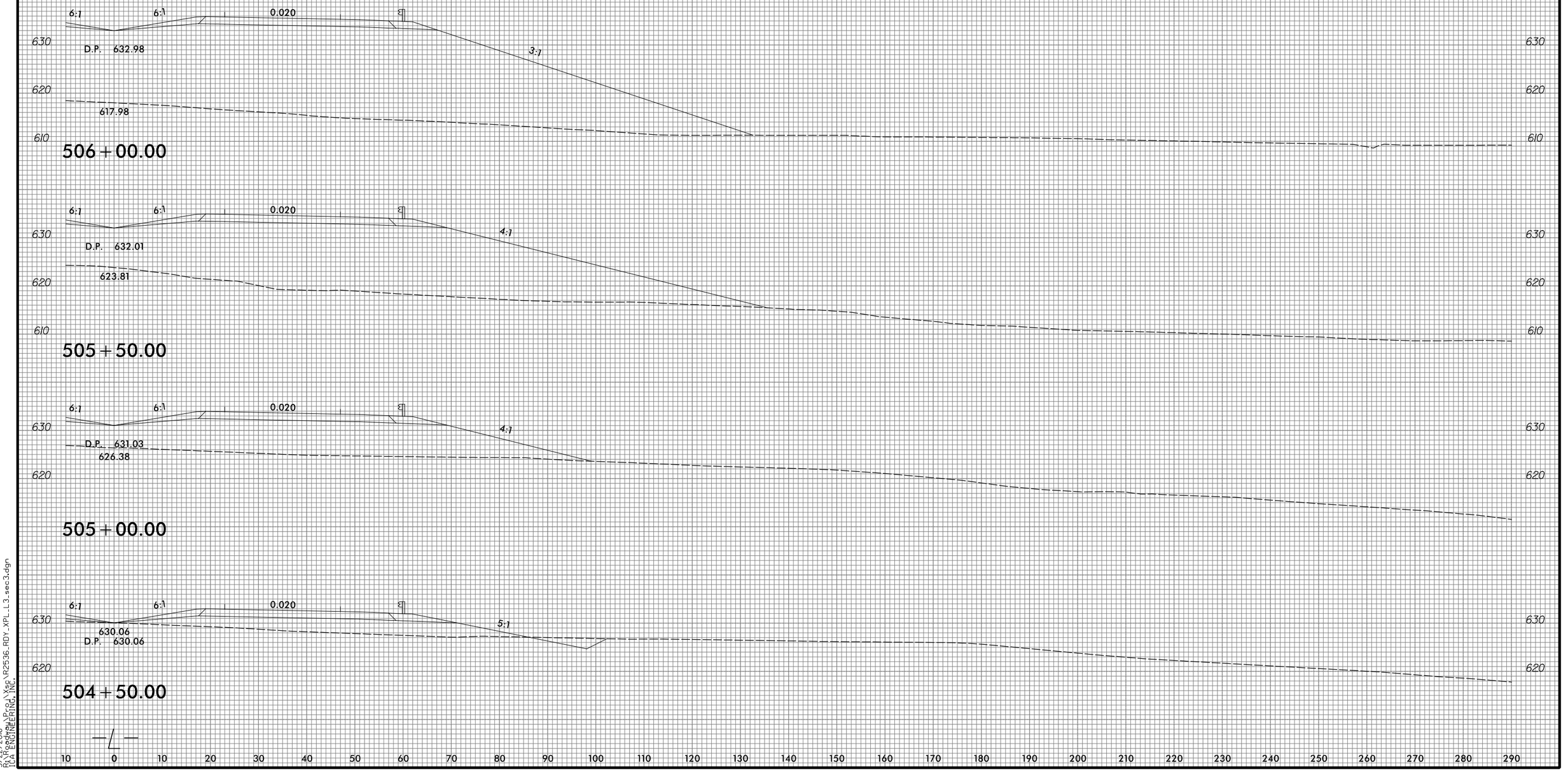
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
JCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-151

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-152

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

640
630
620

6:1 6:1 0.020

D.P. 635.89

2:1

613.55

S.S. 615.13

507+50.00

640
630
620
610

6:1 6:1 0.020

D.P. 634.92

2:1

613.35

S.S. 612.01

507+00.00

630
620
610

6:1 6:1 0.020

D.P. 633.95

2:1

614.20

S.S. 611.74

506+50.00

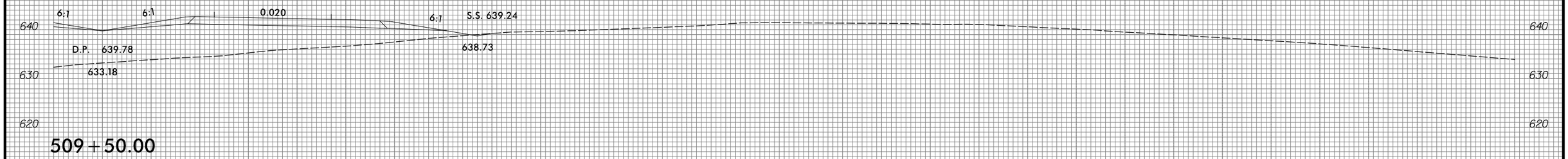
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Projects\Prod\Xse\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

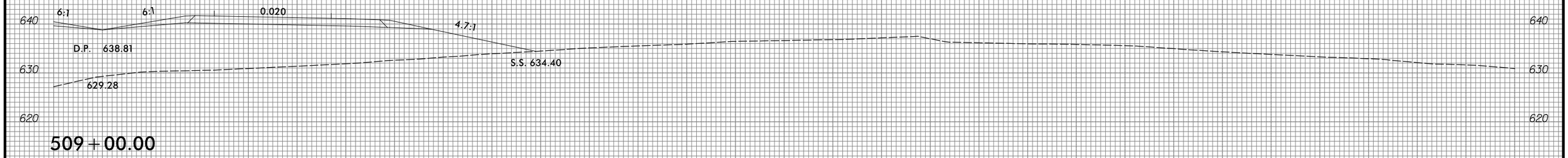
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-153

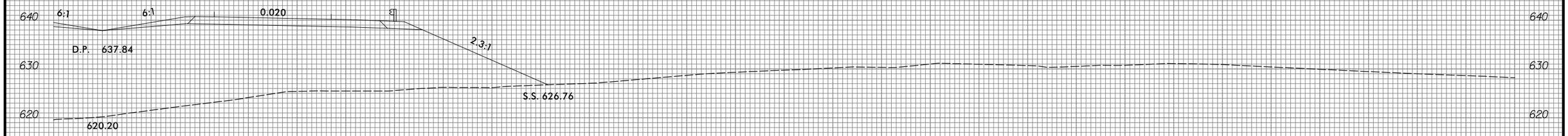
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



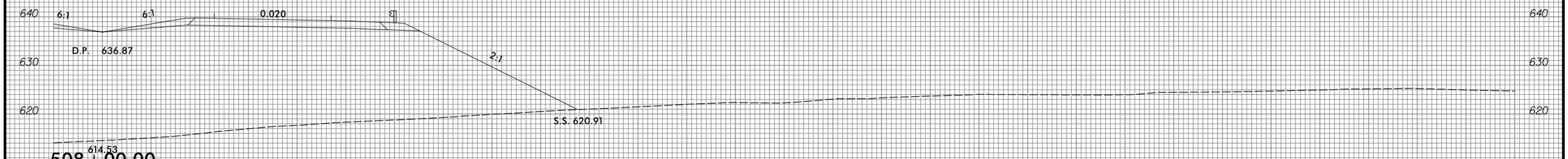
509 + 50.00



509 + 00.00



508 + 50.00



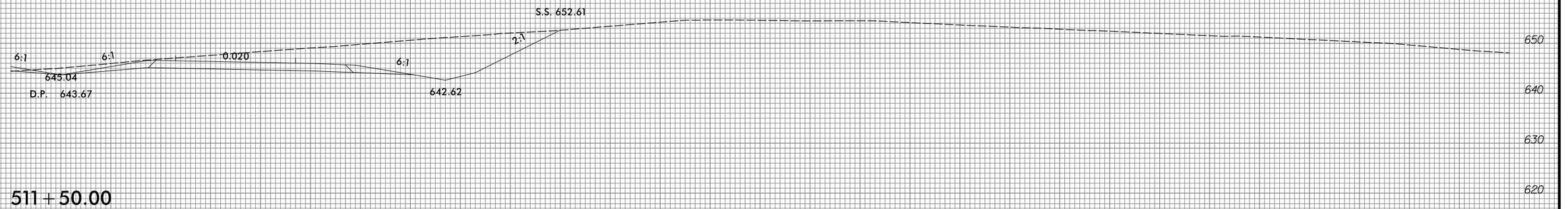
508 + 00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

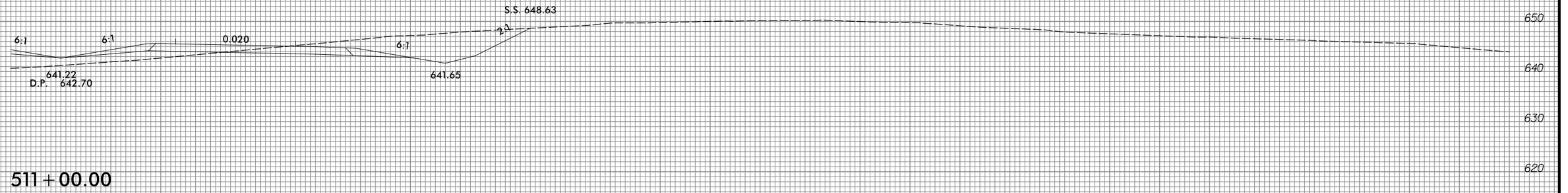
3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

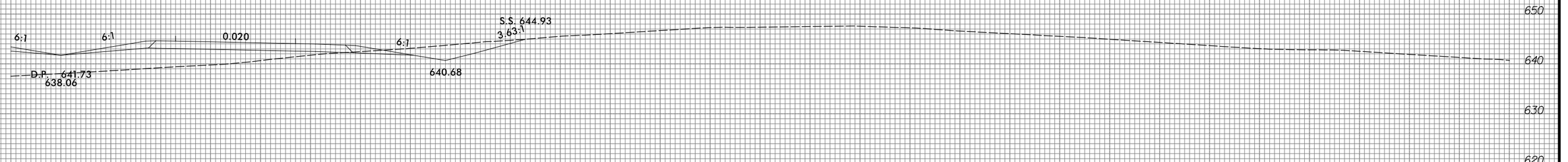
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-154



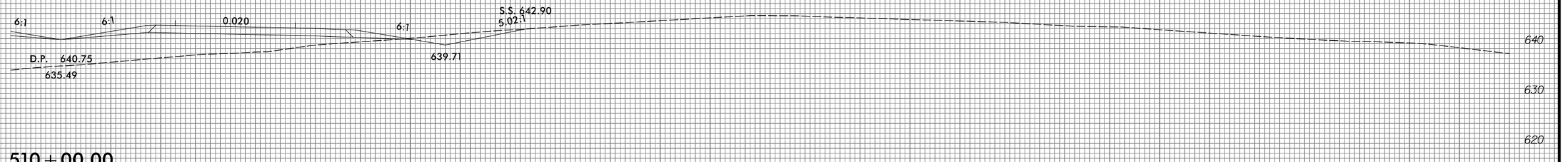
511 + 50.00



511 + 00.00



510 + 50.00



510 + 00.00

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-155

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 / 650 / 640

S.S. 659.17

657.43

6:1 6:1 0.020 6:1 2:1

D.P. 647.52

646.48

513+50.00

660 / 650 / 640

S.S. 657.21

654.14

6:1 6:1 0.020 6:1 2:1

D.P. 646.59

645.54

513+00.00

660 / 650 / 640 / 630

S.S. 656.34

650.89

6:1 6:1 0.020 6:1 2:1

D.P. 645.61

644.57

512+50.00

660 / 650 / 640 / 630

S.S. 655.03

647.83

6:1 6:1 0.020 6:1 2:1

D.P. 644.64

643.59

512+00.00

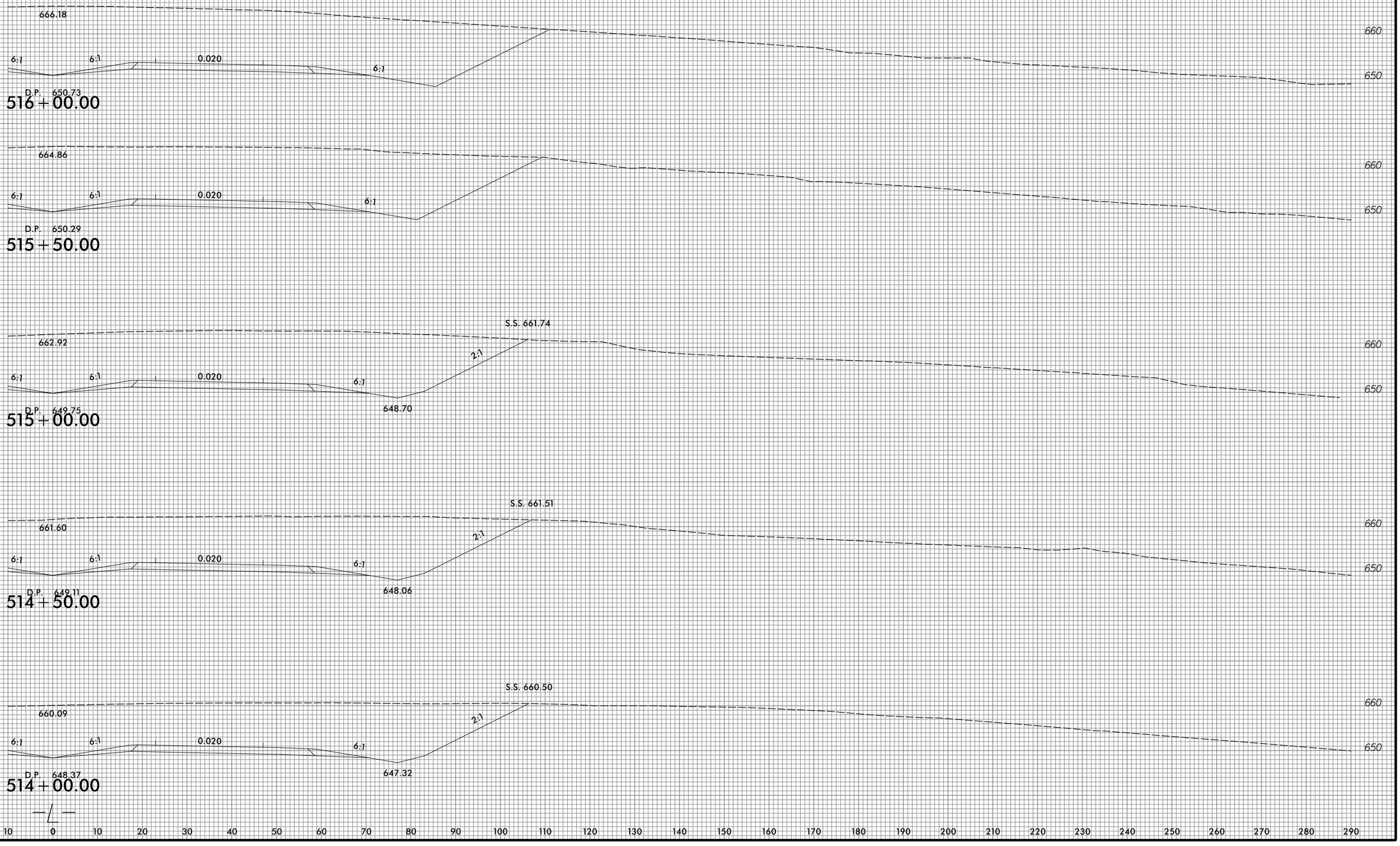
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-156

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-157

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

665.66

660 660

6:1 6:1 0.020 6:1

650 650

D.P. 651.48

518+00.00

665.79

660 660

6:1 6:1 0.020 6:1

650 650

D.P. 651.44

517+50.00

665.98

660 660

6:1 6:1 0.020 6:1

650 650

D.P. 651.30

517+00.00

666.63

660 660

6:1 6:1 0.020 6:1

650 650

D.P. 651.07

516+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
JCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-158

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650
640
630

660.70

6:1 6:1 0.020 6:1

D.P. 650.99

519+50.00

662.58

6:1 6:1 0.020 6:1

D.P. 651.25

519+00.00

664.55

6:1 6:1 0.020 6:1

D.P. 651.42

518+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Ll3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-159

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660
650
640
630

6:1 6:1 0.020 4:1

D.P. 649.61
645.08

521+00.00

660
650
640
630

6:1 6:1 0.020 4:1

651.95

D.P. 650.16

520+50.00

670
660
650
640
630

6:1 6:1 0.020 5:1

657.71

D.P. 650.62

520+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
[C&A ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-160

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

650 640 630

6:1 6:1 0.020

D.P. 648.61

2:1

630.53

S.S. 629.83

522+50.00

660

650 640 630

6:1 6:1 0.020

D.P. 648.80

2:1

632.98

S.S. 628.16

522+00.00

660

CUT AT STATION 522+00

650 640 630

6:1 6:1 0.020

D.P. 649.14

3:1

637.68

521+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-161

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

650 640 630

6:1 6:1 0.020 ℄ 3:1

D.P. 649.19

634.73

524+50.00

650 640 630

6:1 6:1 0.020 ℄ 2:1

D.P. 648.84

633.54

524+00.00

650 640 630

6:1 6:1 0.020 ℄ 2:1

D.P. 648.62

630.81 S.S. 631.43

523+50.00

650 640 630

6:1 6:1 0.020 ℄ 2:1

D.P. 648.55

629.82 S.S. 629.97

523+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-162

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650 640

6:1 659.18 6:1 0.020 6:1 S.S. 657.70 2.3:1

D.P. 653.03 651.98

527+00.00

6:1 6:1 0.020 6:1 S.S. 653.44 6:1

655.21

D.P. 651.98 650.94

526+50.00

6:1 6:1 0.020 6:1

652.40

D.P. 651.08

526+00.00

UT AT STATION 525+00

6:1 6:1 0.020 5:1

D.P. 650.31

644.54

525+50.00

6:1 6:1 0.020 4:1

D.P. 649.68

636.81

525+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-163

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650

S.S. 665.30

6:1 663.22 6:1 0.020 6:1 2:1

D.P. 658.57 657.52

529+00.00

S.S. 664.05

6:1 662.46 6:1 0.020 6:1 2:1

D.P. 656.98 655.93

528+50.00

S.S. 662.15

6:1 661.40 6:1 0.020 6:1 2:1

D.P. 655.52 654.48

528+00.00

S.S. 660.57

6:1 661.11 6:1 0.020 6:1 2:1

D.P. 654.21 653.16

640

527+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prjcts\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-164

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670 / 660

6:1 6:1 0.020 0.027 0.027 6.01:1 2:1

D.P. 666.87
661.42

664.85

–Y12RPC–
10+95.75

531+50.00

670 / 660

6:1 6:1 0.020 0.019 6.01:1 2:1

D.P. 665.27
660.18

663.48

–Y12RPC–
10+45.54

531+00.00

670 / 660

6:1 6:1 0.020 6:1 2:1

D.P. 663.60
662.74

662.43

530+50.00

650 / 660

6:1 6:1 0.020 6:1 2:1

664.26

D.P. 661.92

660.76

530+00.00

650 / 660

6:1 6:1 0.020 6:1 2:1

664.47

D.P. 660.25

659.08

529+50.00

650

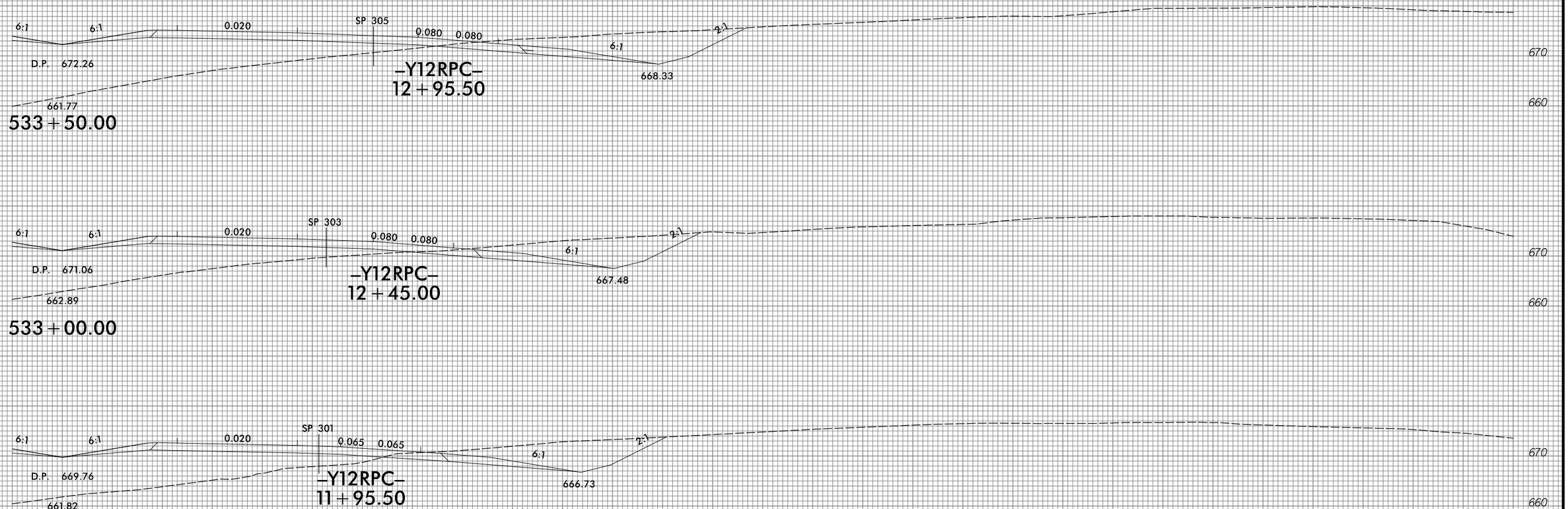
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Projects\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-165

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



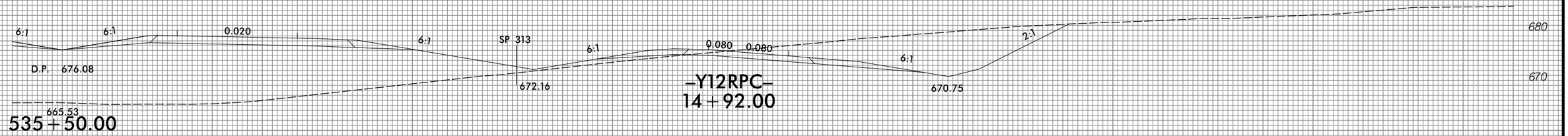
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

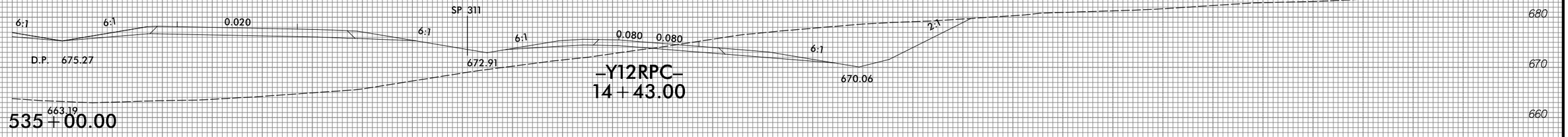
3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

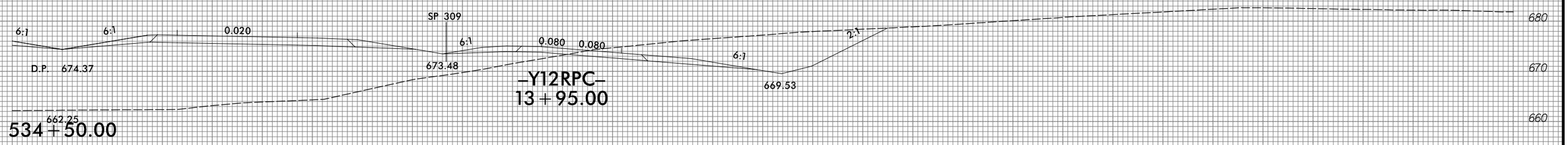
8/23/99

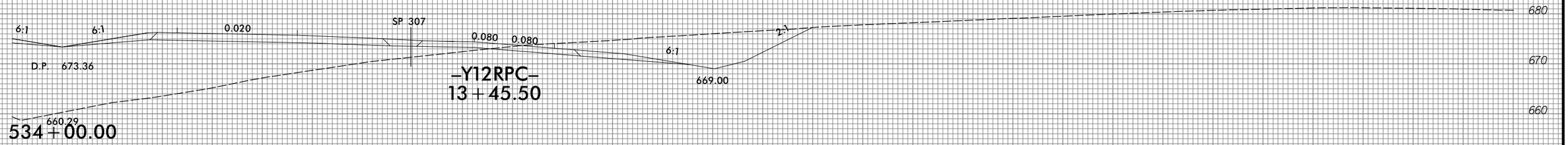
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-166

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290









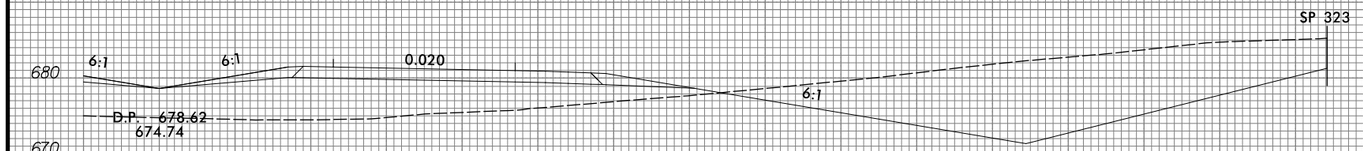
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

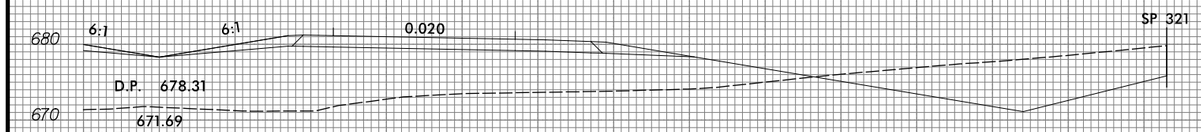
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-167

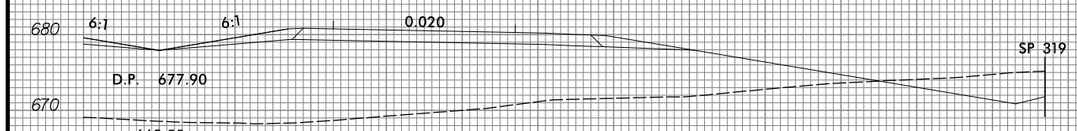
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



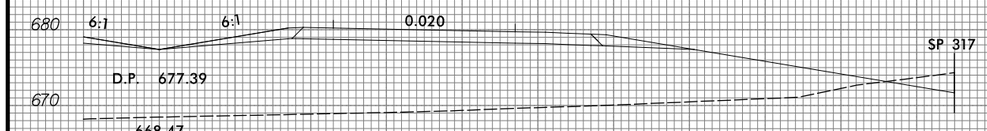
538+00.00



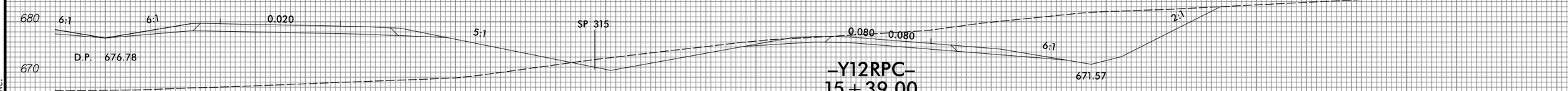
537+50.00



537+00.00



536+50.00



536+00.00

–Y12RPC–
15+39.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-168

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700 690 680 670

SP 331

691.84

6:1 6:1 0.020 6:1

D.P. 678.88

540+00.00

SP 329

688.60

6:1 6:1 0.020 6:1

D.P. 678.96

539+50.00

SP 327

684.69

6:1 6:1 0.020 6:1

D.P. 678.95

539+00.00

SP 325

6:1 6:1 0.020 6:1

D.P. 678.84

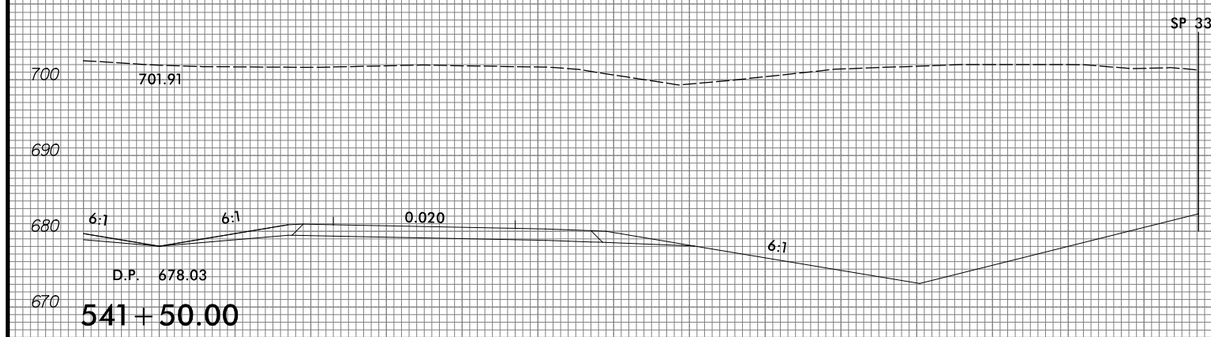
538+50.00

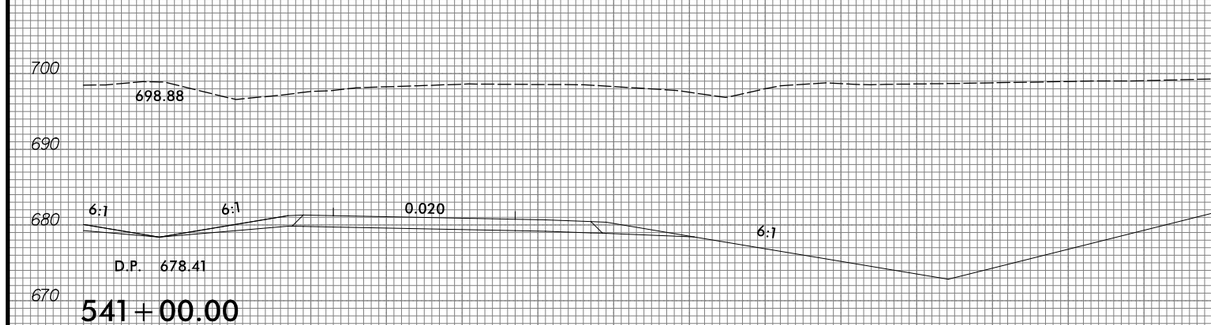
3/22/2016
R:\Geopak\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

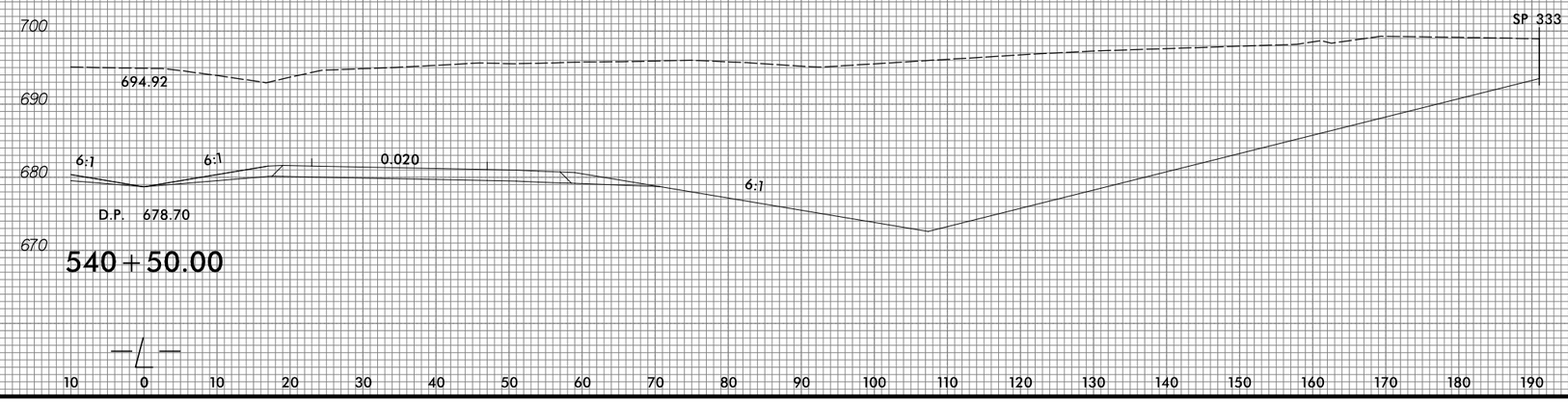
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-169

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290







10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xse\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-170

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710
700
690
680
670

SP 343

709.14

S.S. 707.13

4:1

6:1 6:1 0.020 6:1 6:1 080.0 080.0 675.46

D.P. 676.56

676.13

–Y12LPC–
12+49.00

543+00.00

SP 341

707.01

6:1 6:1 0.020 6:1

D.P. 677.06

542+50.00

SP 339

705.64

6:1 6:1 0.020 6:1

D.P. 677.56

542+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xse\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-171

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

705.04

700 690 680 670

6:1 6:1 0.020 0.035 6:1

D.P. 675.06

–Y12LPC–
11+04.74

544+50.00

SP 347

707.81

710 700 690 680 670

6:1 6:1 0.020 0.051 0.051 6:1

D.P. 675.56

–Y12LPC–
11+53.50

544+00.00

SP 345

709.03

710 700 690 680 670

6:1 6:1 0.020 0.067 0.067 6:1

D.P. 676.06

–Y12LPC–
12+01.50

543+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
Projects\Proj\Xse\R2536_RDY_XPL_L3_sec3.dgn
JCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-172

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700 690 680 670

698.03

6:1 6:1 0.020 0.020 6:1 2:1

D.P. 673.56

674.14

546+00.00

700 690 680 670

700.21

6:1 6:1 0.020 0.020 6:1 2:1

D.P. 674.06

672.78

–Y12LPC–
10+04.63

545+50.00

700 690 680 670

703.46

6:1 6:1 0.020 0.020 6:1

D.P. 674.56

–Y12LPC–
10+54.64

545+00.00

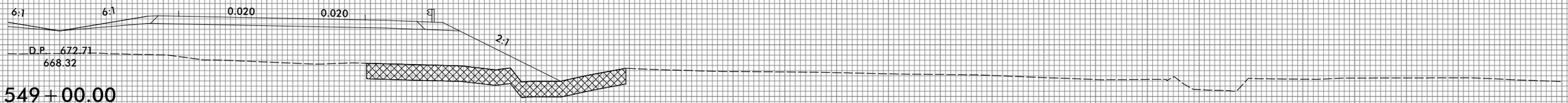
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

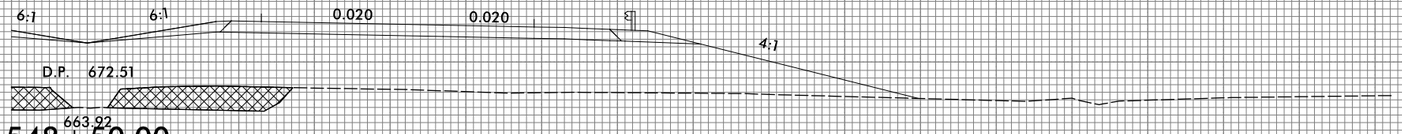
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-173

CUT AT STATION 549+00

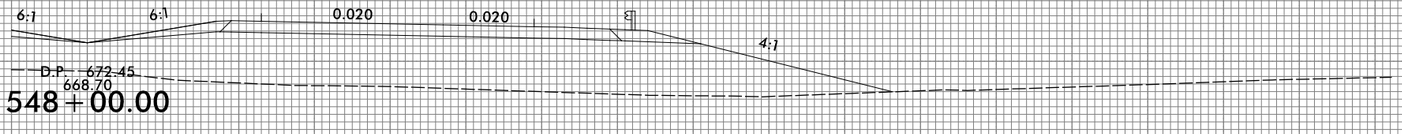


549+00.00

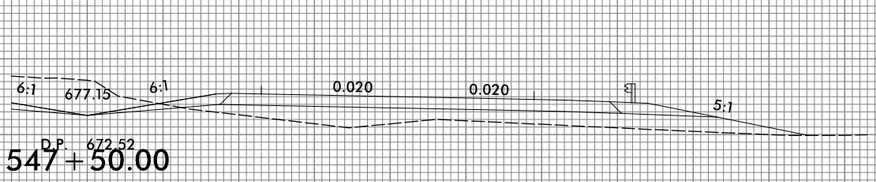


548+50.00

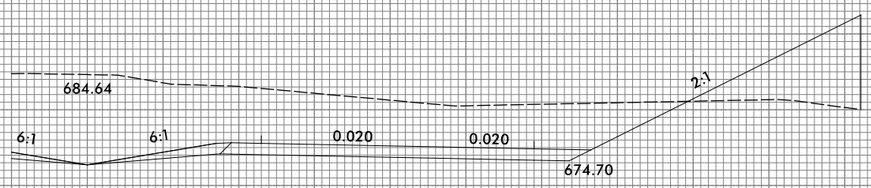
CUT AT STATION 548+25



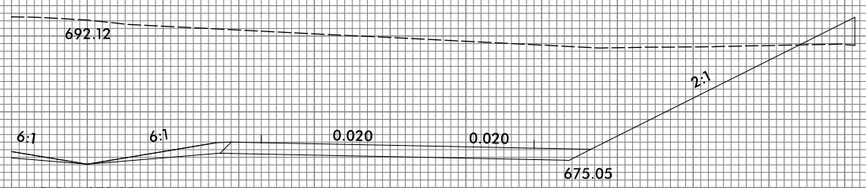
548+00.00



547+50.00



547+00.00



546+50.00

3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
[C] ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-174

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

680 670 660

S.S. 681.04

6:1 679.45 6:1 0.020 0.020 6:1 2:1

D.P. 674.87 673.59

551+00.00

680 670 660

6:1 676.03 6:1 0.020 0.020 5:1 3.8:1

D.P. 674.13 671.35

550+50.00

680 670 660

6:1 673.46 6:1 0.020 0.020 4:1

D.P. 673.52

550+00.00

680 670 660

6:1 6:1 0.020 0.020 3:1

D.P. 673.04 670.66

549+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-175

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700
690
680

696.10
S.S. 694.01
6:1
6.330:1
0.005
0.005
6:1
2:1
D.P. 679.24
678.84

553+00.00

690
680

693.45
S.S. 693.29
6:1
6.198:1
0.005
0.005
6:1
2:1
D.P. 677.94
677.20

552+50.00

690
680
670

691.07
S.S. 690.15
6:1
6.072:1
0.014
0.014
6:1
2:1
D.P. 676.78
675.70

552+00.00

690
680
670
660

686.02
S.S. 686.09
6:1
6:1
0.020
0.020
6:1
2:1
D.P. 675.76
674.47

551+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-176

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710 / 700 / 690 / 680

703.74

S.S. 695.46

2:1

6:1 7.103:1 0.040 0.040 6:1

685.52

D.P. 684.77

555+00.00

710 / 700 / 690 / 680

701.51

S.S. 694.46

2:1

6:1 6.906:1 0.033 0.033 6:1

683.92

D.P. 683.37

554+50.00

700 / 690 / 680

699.91

S.S. 694.62

2:1

6:1 6.649:1 0.024 0.024 6:1

682.23

D.P. 681.97

554+00.00

700 / 690 / 680

697.63

S.S. 694.11

2:1

6:1 6.468:1 0.014 0.014 6:1

680.53

D.P. 680.59

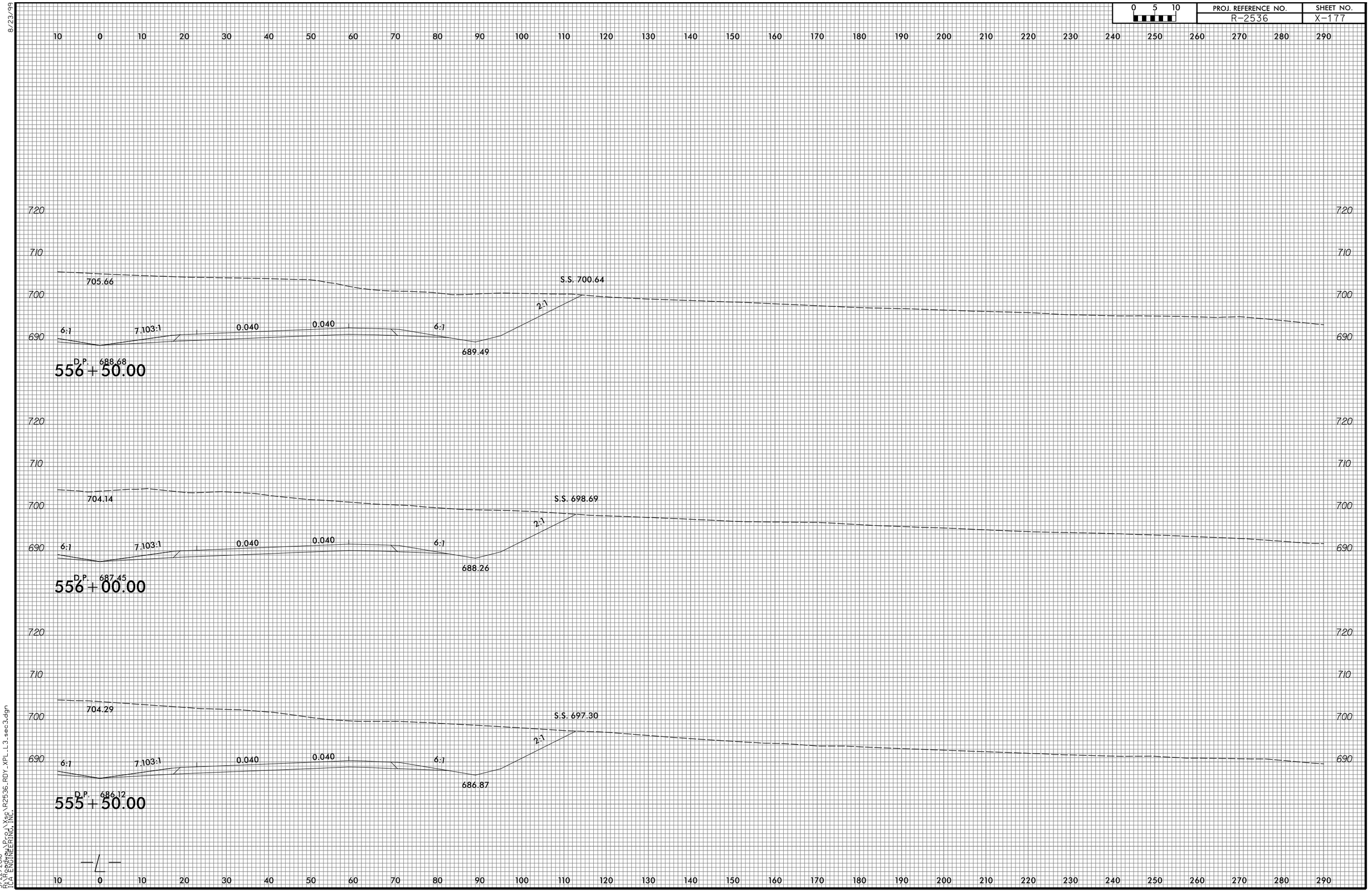
553+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-177



3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-178

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720
710
700
690

699.98
6:1
7.103:1
0.040
0.040
6:1
2.5:1
692.40
D.P. 691.77
558+00.00

720
710
700
690

702.56
6:1
7.103:1
0.040
0.040
6:1
S.S. 701.99
2:1
691.65
D.P. 690.84
557+50.00

720
710
700
690

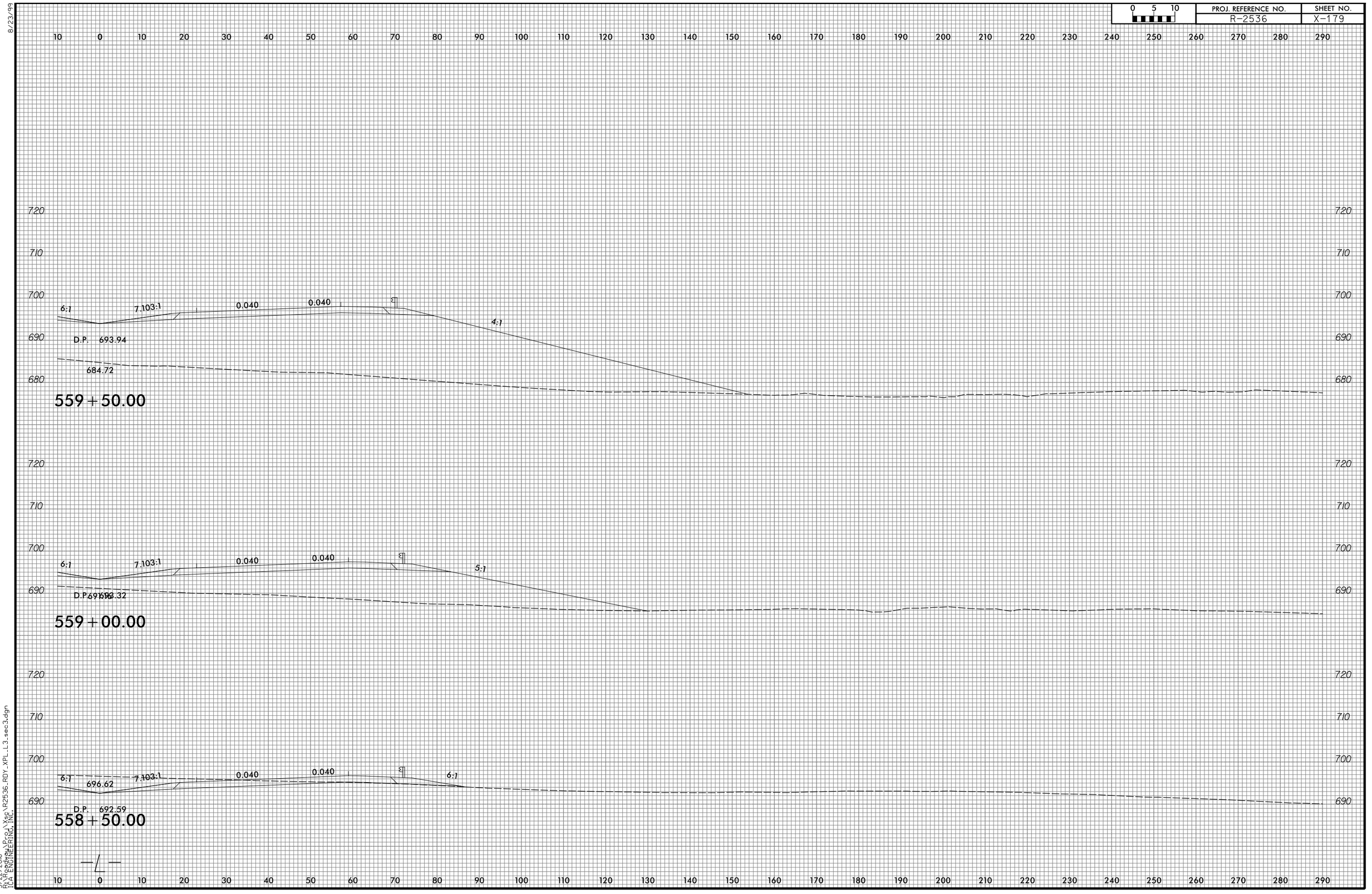
703.93
6:1
7.103:1
0.040
0.040
6:1
S.S. 702.53
2:1
690.62
D.P. 689.81
557+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prjs\Xse\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-179



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R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-180

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720
710
700
690
680
670

6:1 7.103:1 0.040 0.040 2:1

D.P. 694.89

683.49

S.S. 674.86

560+50.00

720
710
700
690
680
670

6:1 7.103:1 0.040 0.040 3:1

D.P. 694.47

686.57

560+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

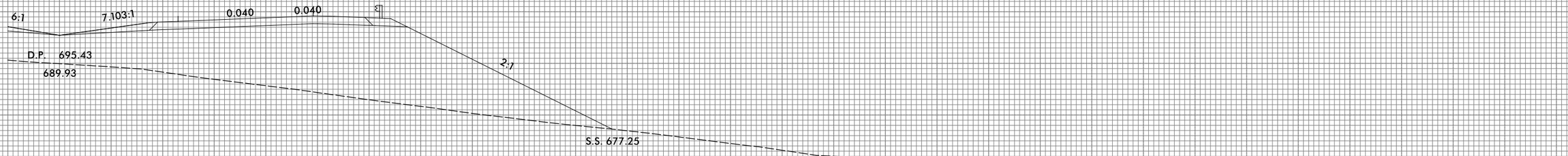
3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-181

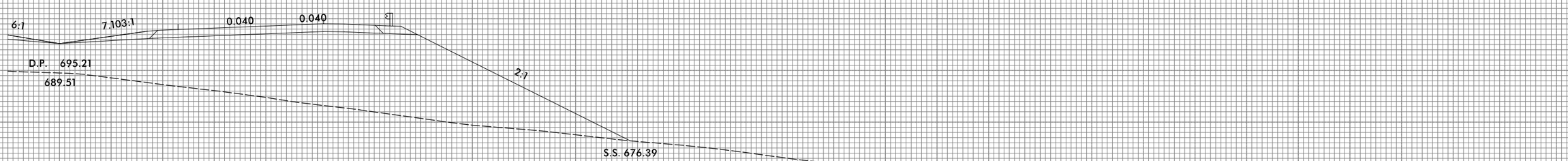
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710
700
690
680
670



561+50.00

710
700
690
680
670



561+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-182

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710
700
690
680
670
660

562+50.00

6:1 7.103:1 0.040 ℄ 2:1

D.P. 695.57

688.20

S.S. 676.20

710
700
690
680
670

562+00.00

6:1 7.103:1 0.040 0.040 ℄ 2:1

D.P. 695.55

689.42

S.S. 677.32

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-183

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700 690 680 670 660

6:1 7.103:1 0.040 ℄ 2:1

D.P. 695.31

665.24

S.S. 669.51

563+50.00

CUT AT STATION 563+00

6:1 7.103:1 0.040 ℄ 2:1

D.P. 695.49

684.69

S.S. 675.95

563+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-184

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700 690 680 670 660

6:1 7.103:1 0.040 ℄

D.P. 694.70

IT AT STATION 564+75.00

3:1

672.47

565+00.00

700 690 680 670 660

6:1 7.103:1 0.040 ℄

D.P. 694.90

2:1

662.30

S.S. 660.23

564+50.00

700 690 680 670 660 650

6:1 7.103:1 0.040 ℄

D.P. 695.10

2:1

669.38

S.S. 658.82

564+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-185

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710
700
690
680

6:1 7.103:1 0.040 4:1

D.P. 694.08
691.12

566+50.00

700
690
680
670

6:1 7.103:1 0.040 4:1

D.P. 694.29
686.40

566+00.00

700
690
680
670

6:1 7.103:1 0.040 4:1

D.P. 694.49
679.32

565+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
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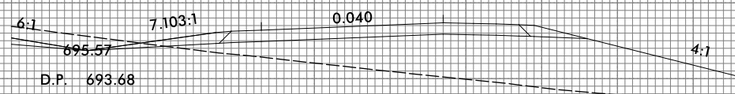
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-186

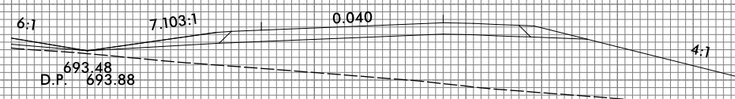
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720
710
700
690
680
670



567+50.00

710
700
690
680



567+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

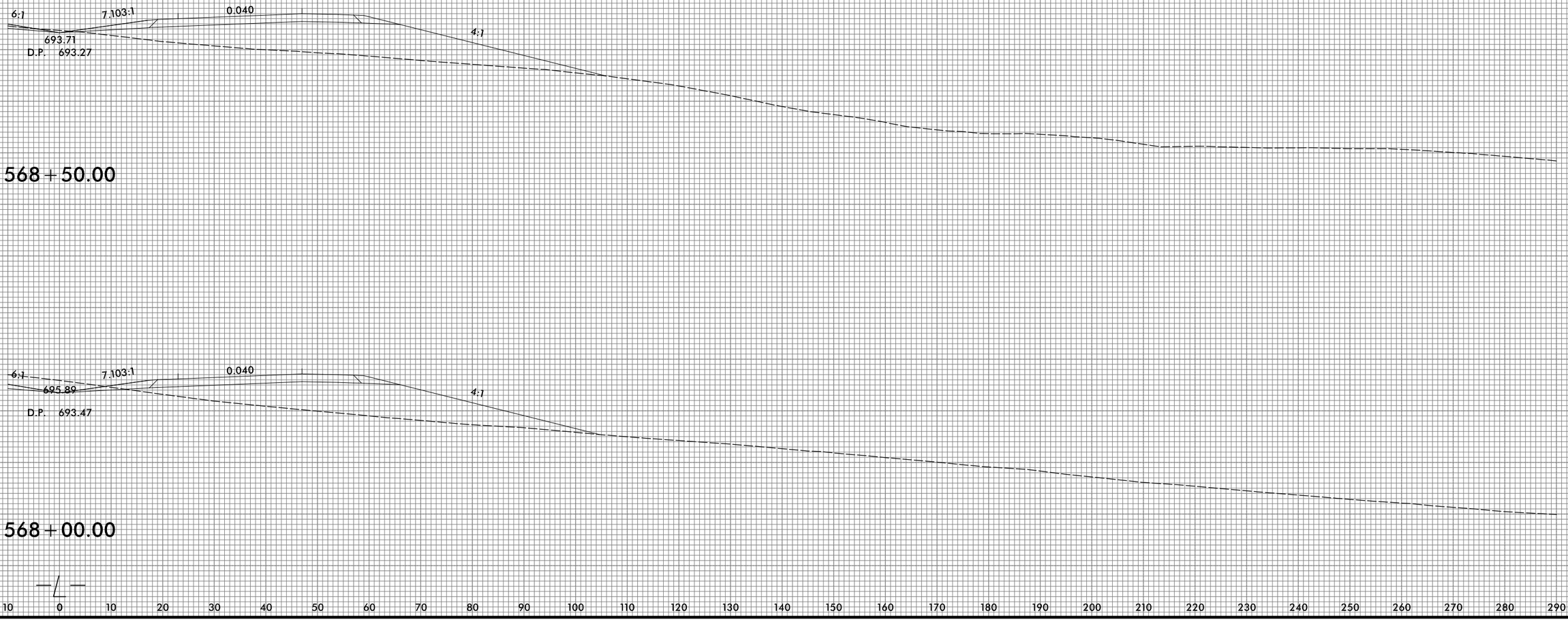
3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-187

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720
710
700
690
680
670



720
710
700
690
680
670

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-188

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720
710
700
690
680

6:1
7.103:1
0.040
4:1
694.71
D.P. 692.86

569+50.00

720
710
700
690
680
670

6:1
7.103:1
0.040
4:1
D.P. 690.07

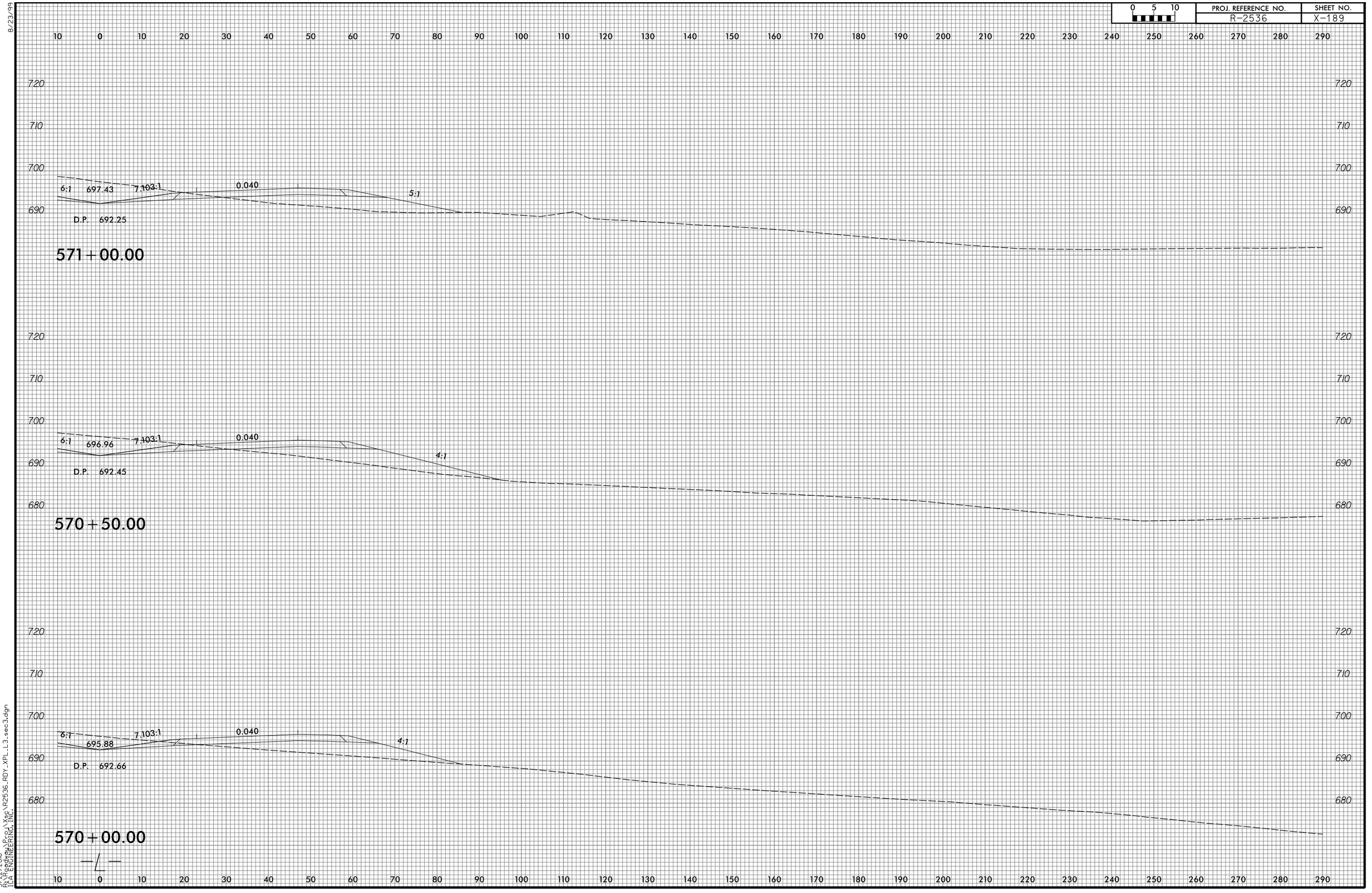
569+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-189



3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
[C] ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-190

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710
700
690
720

702.74
6:1
7.10
3:1
0.040
6:1
S.S. 694.97
5.24:1
691.91
D.P. 691.64

572+50.00

700.04
6:1
7.10
3:1
0.040
6:1
S.S. 693.80
6:1
692.12
D.P. 691.84

572+00.00

6:1
696.57
7.10
3:1
0.040
6:1
D.P. 692.05

571+50.00

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-191

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710 / 700 / 690

706.72

S.S. 698.90

2:1

6:1 7.10 3:1 0.040 6:1

691.10

D.P. 690.82

574+50.00

710 / 700 / 690

706.81

S.S. 698.81

2:1

6:1 7.10 3:1 0.040 6:1

691.30

D.P. 691.03

574+00.00

710 / 700 / 690

705.87

S.S. 698.24

2:1

6:1 7.10 3:1 0.040 6:1

691.50

D.P. 691.23

573+50.00

710 / 700 / 690

704.56

S.S. 697.10

2.5:1

6:1 7.10 3:1 0.040 6:1

691.71

D.P. 691.44

573+00.00

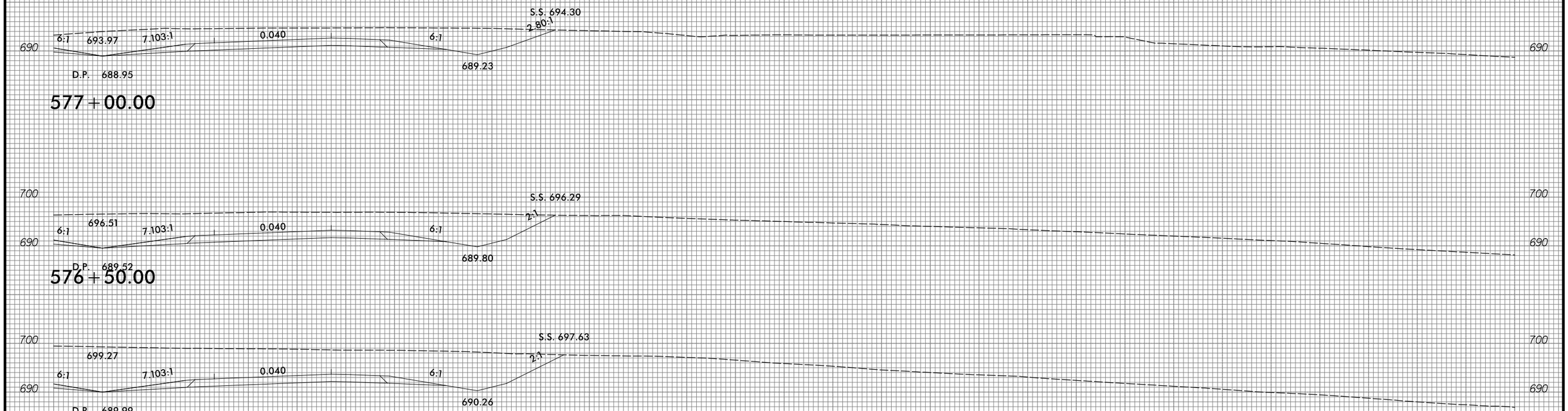
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

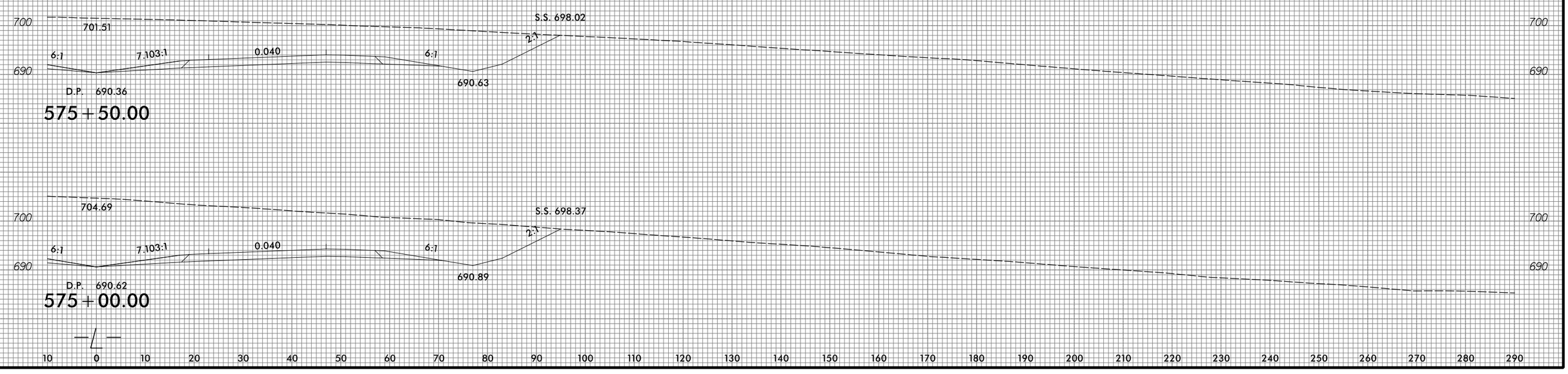
3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-192

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290





10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-193

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690
680
670

6:1 7.103:1 0.040 4:1

D.P. 685.67
680.53

579+00.00

690
680
670

6:1 7.103:1 0.040 5:1

D.P. 686.64
684.18

578+50.00

690
680
670

6:1 7.103:1 0.040 6:1

687.89
D.P. 687.51

578+00.00

690
680
670

6:1 7.103:1 0.040 6:1 S.S. 691.92 4.76:1

691.24
D.P. 688.29
688.56

577+50.00

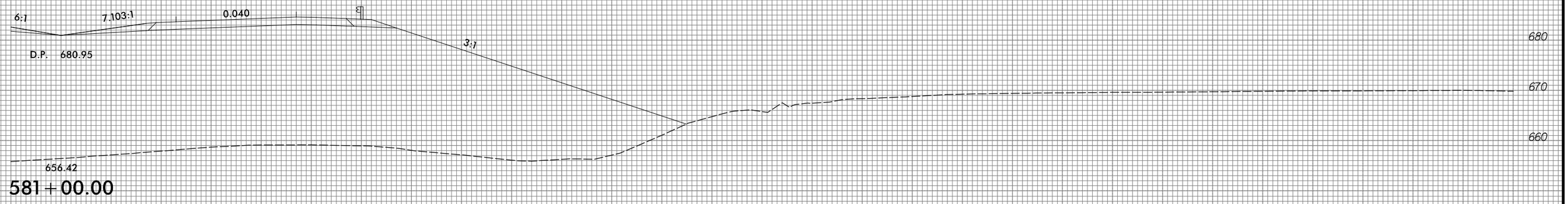
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

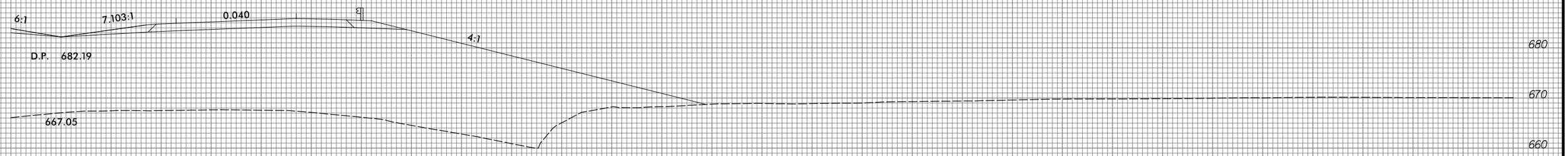
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-194

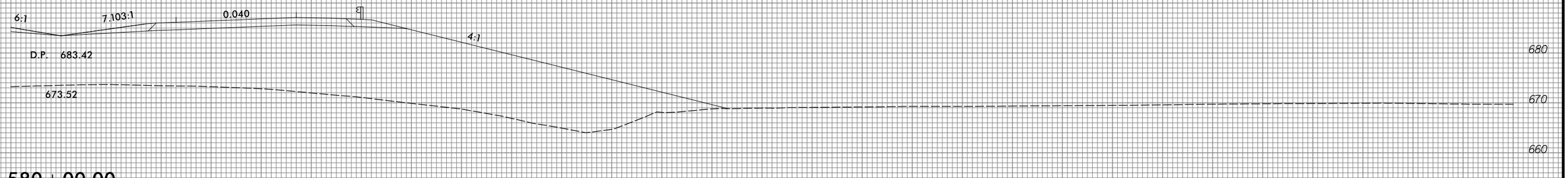
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



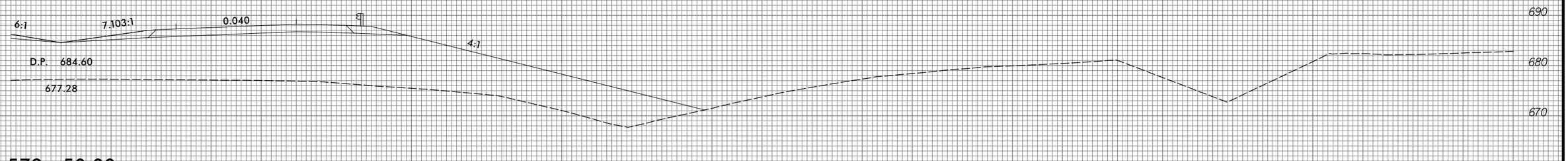
581+00.00



580+50.00



580+00.00



579+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-195

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

680 670 660 650 640

6:1 7.103:1 0.040 ℄

D.P. 677.24

2:1

656.24

S.S. 645.90

582 + 50.00

6:1 7.103:1 0.040 ℄

D.P. 678.48

2:1

648.16

582 + 00.00

6:1 7.103:1 0.040 ℄

D.P. 679.71

2:1

648.16

S.S. 648.64

581 + 50.00

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-196

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

680 670 660 650 640

6:1 7.103:1 0.040 4:1

673.30
D.P. 673.53

584+00.00

680 670 660 650 640

6:1 7.103:1 0.040 ℄ 3:1

D.P. 674.77
670.78

583+50.00

680 670 660 650 640

6:1 7.103:1 0.040 ℄ 2:1

D.P. 676.01

664.72

S.S. 656.55

583+00.00

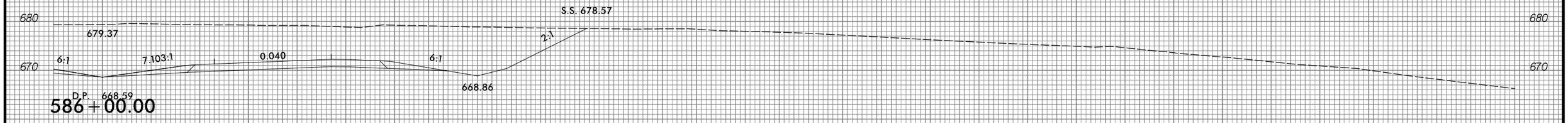
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

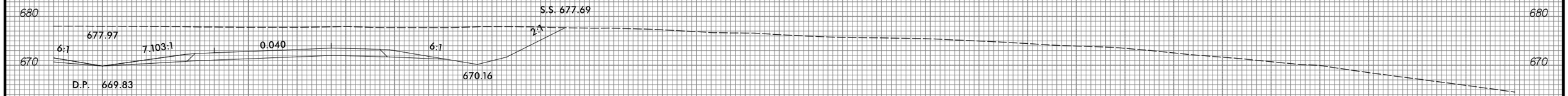
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-197

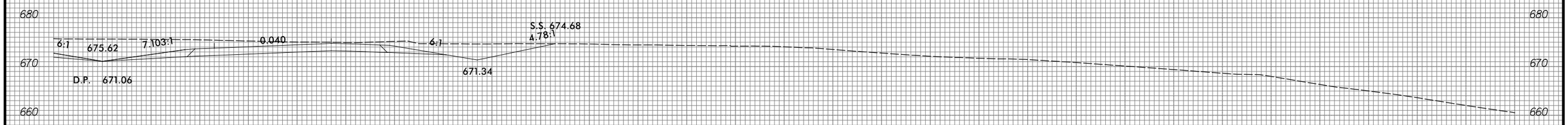
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



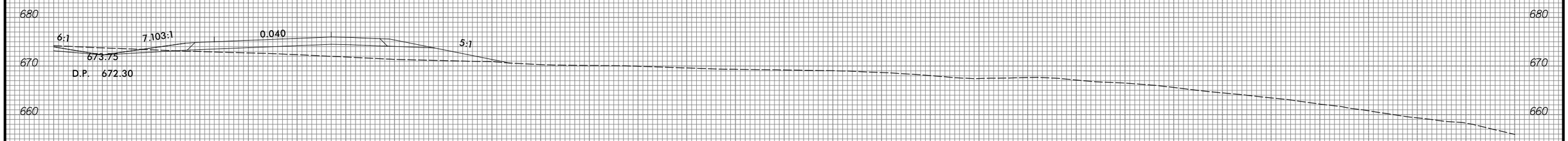
586+00.00



585+50.00



585+00.00



584+50.00

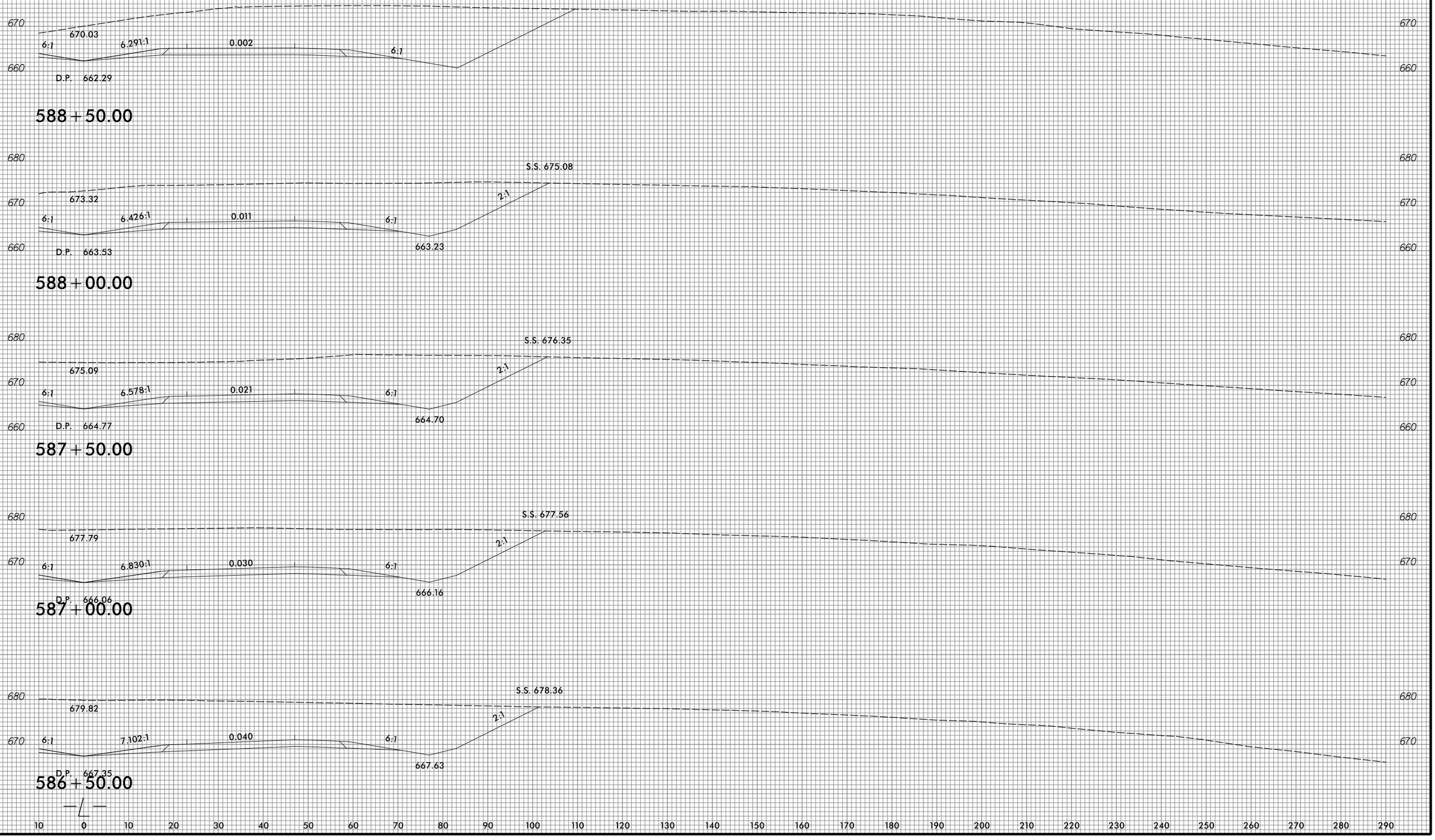
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-198

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
[LA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-199

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650

6:1 6:1 0.020

D.P. 658.28

649.97

590+50.00

670
660
650

6:1 6:1 0.020

D.P. 659.08

653.38

590+00.00

670
660
650

6:1 6.036:1 0.017

661.01

D.P. 660.02

589+50.00

670
660

6:1 665.86 6.161:1 0.008 6:1

D.P. 661.09

589+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-200

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

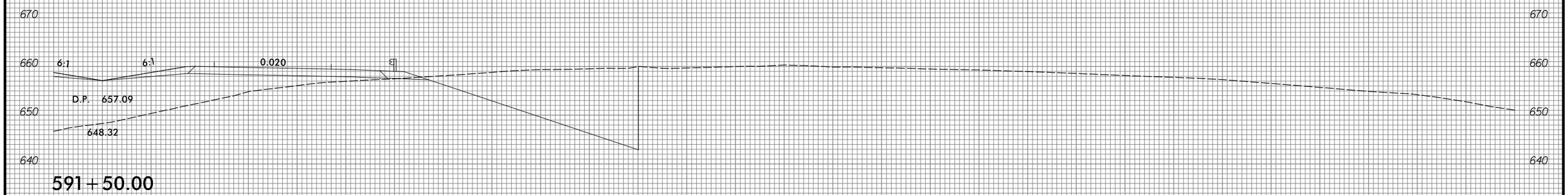
670
660
650
640

6:1 6:1 0.020

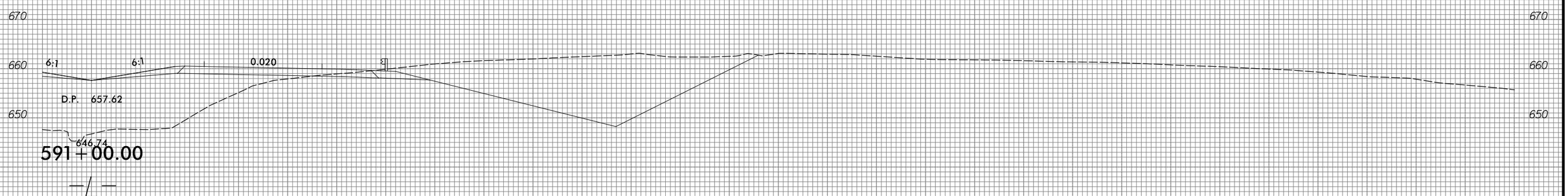
D.P. 656.71

647.92

592+00.00



591+50.00



591+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Projects\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-201

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650
640
630

6:1 6:1 0.020

D.P. 656.36

641.75

593+50.00

670
660
650
640
630

6:1 6:1 0.020

D.P. 656.34

642.83

593+00.00

670
660
650
640
630

6:1 6:1 0.020

D.P. 656.45

645.38

592+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
Ft. Roads\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-202

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650 640 630

6:1 6:1 0.020 ℄ 3:1

D.P. 657.24

647.48

595+00.00

660 650 640 630

6:1 6:1 0.020 ℄ 2:1

D.P. 656.81

644.49

594+50.00

660 650 640 630

6:1 6:1 0.020 ℄ 2:1

D.P. 656.52

641.61

S.S. 638.47

594+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-203

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650 640 630

6:1 6:1 0.020 6:1 S.S. 660.00 6:1

663.28

D.P. 659.35

658.31

596+50.00

6:1 6:1 0.020 5:1

658.84

D.P. 658.51

596+00.00

6:1 6:1 0.020 4:1

D.P. 657.81

653.85

595+50.00

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-204

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670 660 650 640 630

671.35
6:1 6:1 0.020 6:1 S.S. 662.76 6:1
D.P. 662.53
661.48

598+00.00

669.49
6:1 6:1 0.020 6:1 S.S. 662.55 6:1
D.P. 661.44
660.39

597+50.00

667.30
6:1 6:1 0.020 6:1 S.S. 661.63 6:1
D.P. 660.33
659.28

597+00.00

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-205

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

680
670
660
650
640
630

674.02

6:1 6:1 0.020 6:1 S.S. 664.07

D.P. 664.41 663.36

599+00.00

680
670
660
650
640
630

673.00

6:1 6:1 0.020 6:1 S.S. 663.43

D.P. 663.52 662.47

598+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-206

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690
680
670
660
650
640
630

676.30

6:1 6:1 0.020 6:1 S.S. 666.12 6:1

D.P. 665.88

664.83

600+00.00

680
670
660
650
640
630

675.29

6:1 6:1 0.020 6:1 S.S. 665.23 6:1

D.P. 665.19

664.15

599+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Projects\Proj\Xsec\R2536.RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-207

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690 680 670 660 650 640 630

680.62

6:1 6:1 0.020 6:1 S.S. 668.99 5:1 8:1

D.P. 666.95 665.90

601+00.00

690 680 670 660 650 640 630

678.75

6:1 6:1 0.020 6:1 S.S. 667.03 6:1

D.P. 666.47 665.42

600+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-208

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700 690 680 670 660 650 640

683.12

S.S. 673.66

2:1

6:1 6:1 0.020 6:1

D.P. 667.61

666.57

602+00.00

700 690 680 670 660 650 640

681.77

S.S. 672.16

2.28:1

6:1 6:1 0.020 6:1

D.P. 667.33

666.28

601+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-209

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690 680 670 660

681.82

S.S. 674.73

2:1

6:1 6:1 0.020 6:1

D.P. 667.85

666.80

603+50.00

700 690 680 670 660

683.96

S.S. 674.70

2:1

6:1 6:1 0.020 6:1

D.P. 667.87

666.82

603+00.00

700 690 680 670 660 650

684.55

S.S. 674.38

2:1

6:1 6:1 0.020 6:1

D.P. 667.79

666.75

602+50.00

650

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-210

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

680 / 670

6:1 670.65 6:1 0.020 6:1 665.70 2:1 S.S. 671.53

D.P. 666.75

605+50.00

680 / 670

674.11 6:1 6:1 0.020 6:1 666.13 2:1 S.S. 673.80

D.P. 667.18

605+00.00

680 / 670 / 660

678.22 6:1 6:1 0.020 6:1 666.45 2:1 S.S. 674.87

D.P. 667.50

604+50.00

690 / 680 / 670 / 660

679.90 6:1 6:1 0.020 6:1 666.68 2:1 S.S. 674.90

D.P. 667.73

604+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xse\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-211

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650

6:1 6:1 0.020 6:1

D.P. 663.60

S.S. 660.96

654.12

608+00.00

6:1 6:1 0.020 5:1

D.P. 664.17

657.91

607+50.00

670 660

6:1 6:1 0.020 6:1 S.S. 666.70 5.55:1

D.P. 656.86 661.70

607+00.00

670

6:1 6:1 0.020 6:1 S.S. 668.36 4.20:1

D.P. 664.63 663.59

664.54

606+50.00

680 670

6:1 6:1 0.020 6:1 S.S. 669.88 3.12:1

667.62

D.P. 666.22

665.17

606+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-212

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660
650
640

6:1 6:1 0.020 ℄ 2:1

D.P. 662.60

640.91

610+00.00

S.S. 642.77

660
650

6:1 6:1 0.020 ℄ 2:1

D.P. 662.66

644.59

609+50.00

S.S. 646.00

660
650

6:1 6:1 0.020 ℄ 3.01:1

D.P. 662.84

646.20

609+00.00

S.S. 654.84

660
650

6:1 6:1 0.020 ℄ 5.33:1

D.P. 663.16

648.29

608+50.00

S.S. 659.48

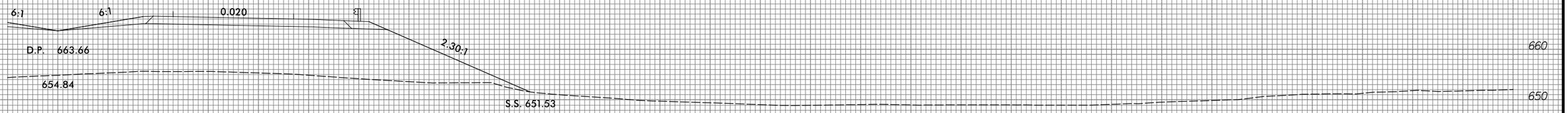
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
JCA ENGINEERING, INC.

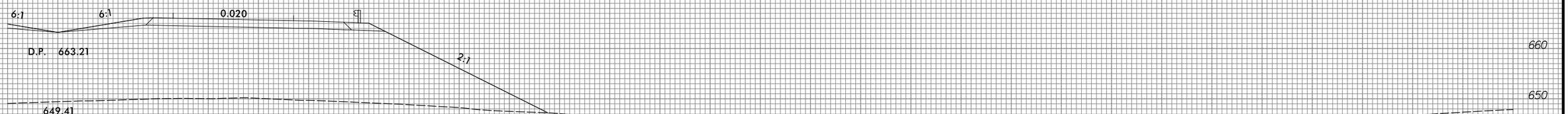
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-213

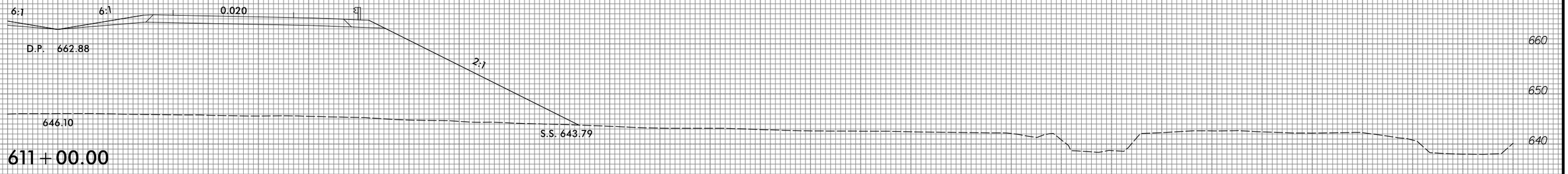
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



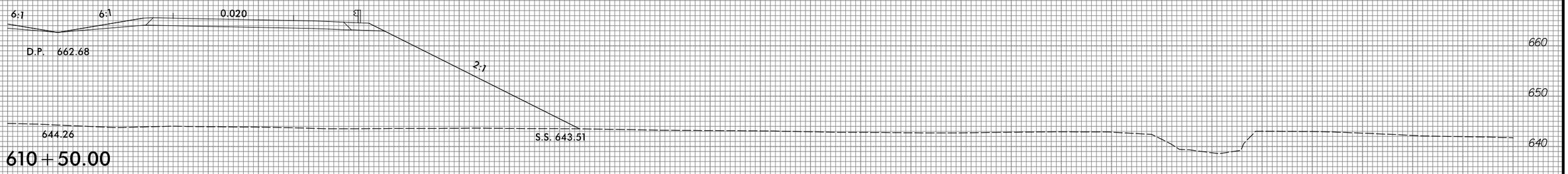
612 + 00.00



611 + 50.00



611 + 00.00



610 + 50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-214

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650

6:1 672.30 6:1 0.020 6:1 S.S. 669.68 4.05:1
D.P. 666.77 665.73

614+00.00

670
660
650

6:1 669.78 6:1 0.020 6:1 S.S. 667.72 5.40:1
D.P. 665.80 664.76

613+50.00

670
660
650

6:1 666.27 6:1 0.020 6:1 S.S. 665.40 6:1
D.P. 664.96 663.92

613+00.00

660
650

6:1 661.44 6:1 0.020 4.10:1
D.P. 664.25 S.S. 658.88

612+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
JCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-215

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

680 / 670 / 660

S.S. 676.70
2.19:1
6:1 676.18 6:1 0.020 6:1
D.P. 671.68
670.63

616+00.00

680 / 670 / 660

S.S. 674.83
2.51:1
6:1 673.59 6:1 0.020 6:1
D.P. 670.39
669.34

615+50.00

670 / 660

S.S. 672.50
3.39:1
6:1 672.54 6:1 0.020 6:1
D.P. 669.10
668.05

650

615+00.00

670 / 660

S.S. 670.42
4.45:1
6:1 672.82 6:1 0.020 6:1
D.P. 667.87
666.83

650

614+50.00

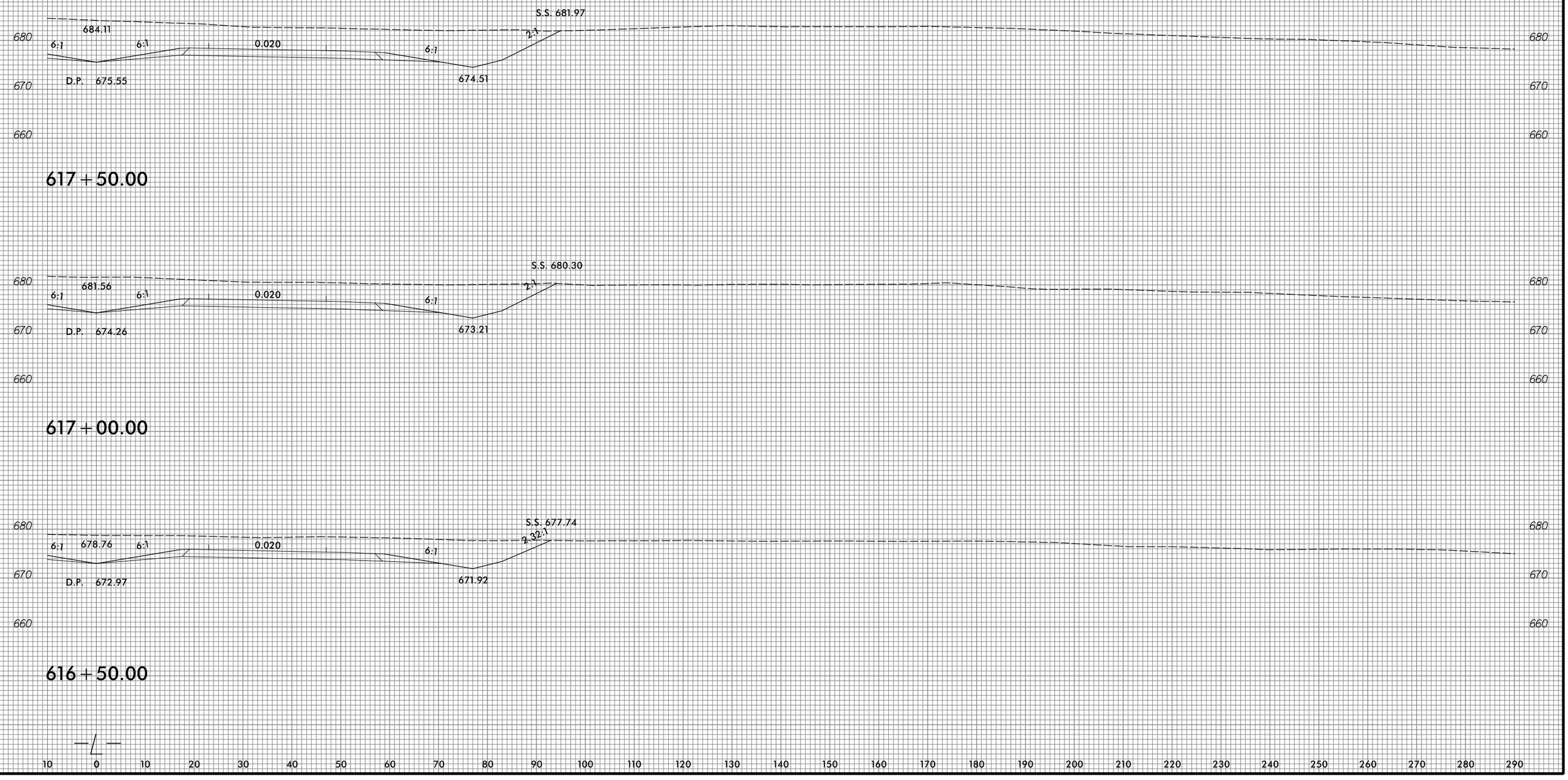
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-216

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



3/22/2016
R:\Roadway\Proj\Xsec\R2536.RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-217

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690
680
670
660

689.77
6:1
6:1
0.020
6:1
2:1
S.S. 689.40
D.P. 679.42
678.38

619+00.00

690
680
670
660

687.83
6:1
6:1
0.020
6:1
2:1
S.S. 686.39
D.P. 678.13
677.09

618+50.00

686.23
6:1
6:1
0.020
6:1
2:1
S.S. 684.11
D.P. 676.84
675.80

690
680
670
660

618+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-218

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690 680 670 660

S.S. 689.44

690.82

6:1 6:1 0.020 6:1 2:1

D.P. 683.30 682.25

620+50.00

S.S. 689.68

691.51

6:1 6:1 0.020 6:1 2:1

D.P. 682.00 680.96

620+00.00

S.S. 690.07

690.93

6:1 6:1 0.020 6:1 2:1

D.P. 680.71 679.67

619+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-219

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690
680
670
660

6:1 6:1 0.020 4.1:1

686.00
D.P. 687.17

S.S. 682.43

622+00.00

690
680
670
660

6:1 6:1 0.020 4.8:1

687.30
D.P. 685.88

621+50.00

690
680
670
660

6:1 6:1 0.020 6:1 2:1

689.18
D.P. 684.59

683.42

621+00.00

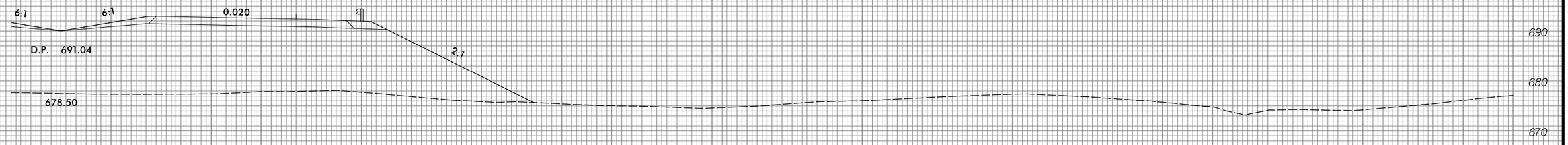
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
Roadway Prod \Xse \R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

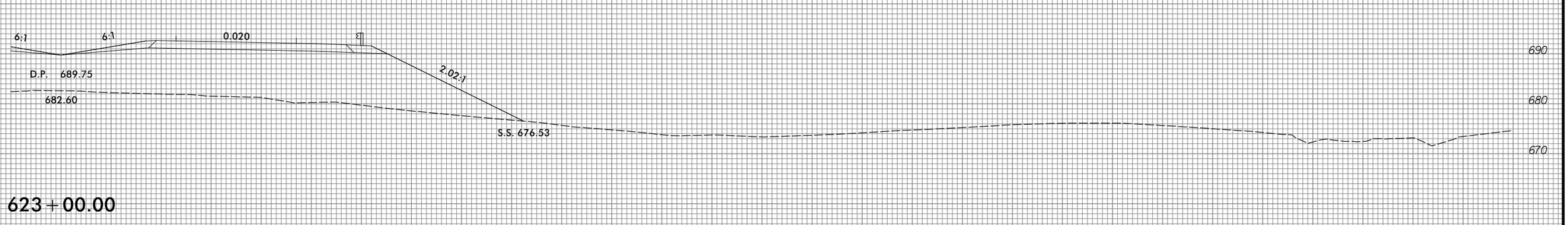
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-220

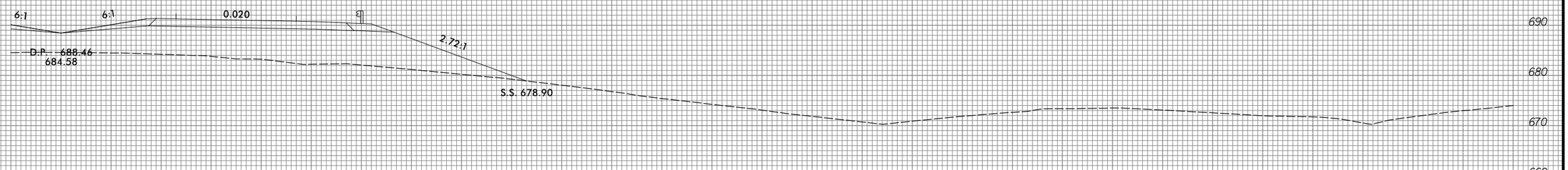
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



623 + 50.00



623 + 00.00



622 + 50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536.RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-221

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700
690
680
670

6:1 6:1 0.020 ℄ 2.61:1

D.P. 694.91

685.48

625+00.00

6:1 6:1 0.020 ℄ 2.17:1

D.P. 693.62

680.78

624+50.00

6:1 6:1 0.020 ℄ 2:1

D.P. 692.33

677.85

624+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-222

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700
690
680

6:1 6:1 0.020 6:1 S.S. 699.88 6:1

700.21

D.P. 698.78

697.73

626+50.00

700
690
680
670

6:1 6:1 0.020 5.84:1

D.P. 695.79 697.49

626+00.00

700
690
680
670

6:1 6:1 0.020 3.38:1

D.P. 696.20

690.59

625+50.00

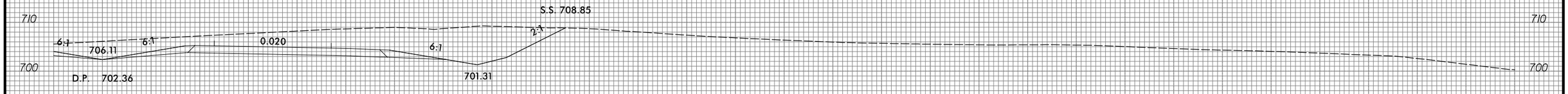
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prjs\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

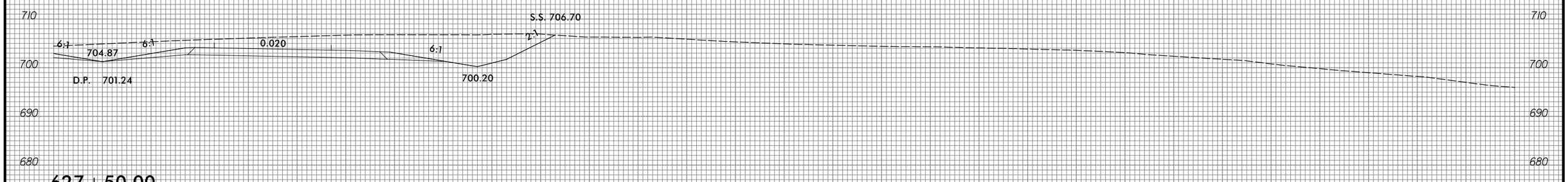
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-223

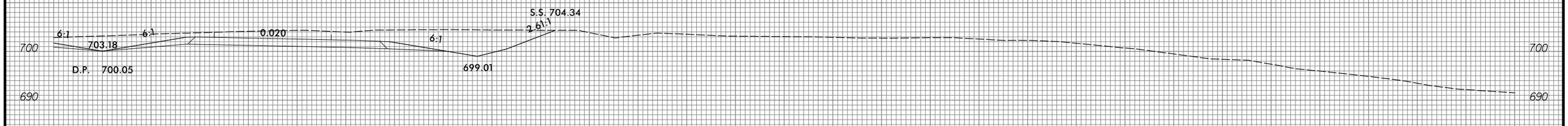
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



628+00.00



627+50.00



627+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-224

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710
700
690

S.S. 714.52

6:1 710.67 6:1 0.020 6:1 2:1

D.P. 705.20 704.15

629+50.00

S.S. 712.77

6:1 710.11 6:1 0.020 6:1 2:1

D.P. 704.33 703.28

629+00.00

S.S. 710.75

6:1 708.42 6:1 0.020 6:1 2:1

D.P. 703.38 702.34

628+50.00

680

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-225

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720 / 710 / 700

S.S. 717.24

714.43 6:1 6:1 0.020 6:1 2:1 715.26

D.P. 707.84 706.80

631+50.00

720 / 710 / 700

S.S. 713.54

6:1 6:1 0.020 6:1 2:1 712.42

709.59

D.P. 707.30 706.26

631+00.00

710 / 700

S.S. 713.11

6:1 6:1 0.020 6:1 2:1 711.75

707.11

D.P. 706.68 705.64

630+50.00

710 / 700 / 690

S.S. 714.73

6:1 6:1 0.020 6:1 2:1 713.25

708.91

D.P. 705.98 704.93

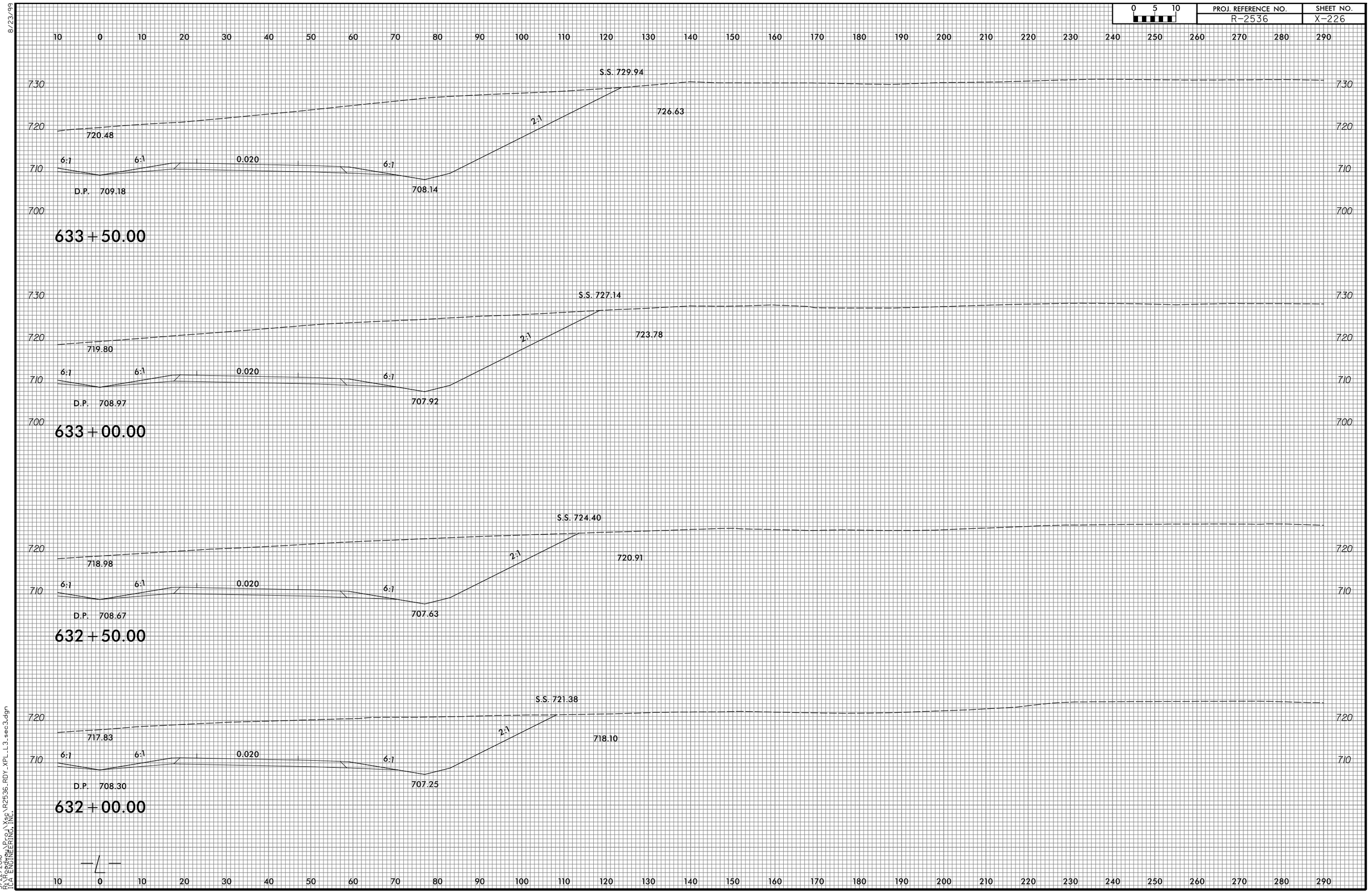
630+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-226



3/22/2016
R:\Roadway\Proj\Xse\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

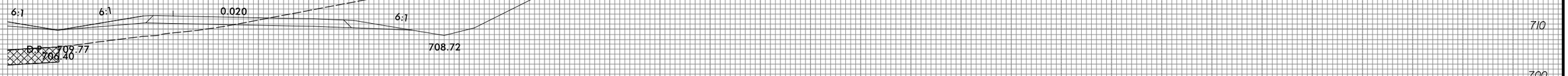
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-227

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

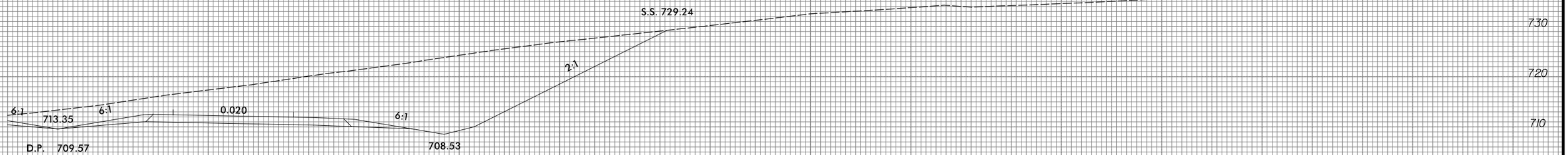
740
730
720
710
700

JT AT STATION 635+00.00

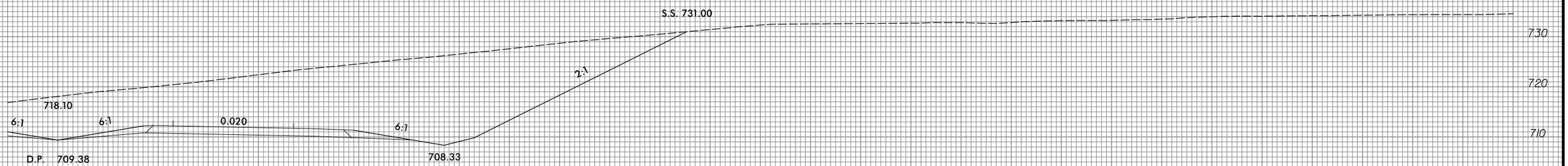


635+00.00

740
730
720
710
700
690



634+50.00



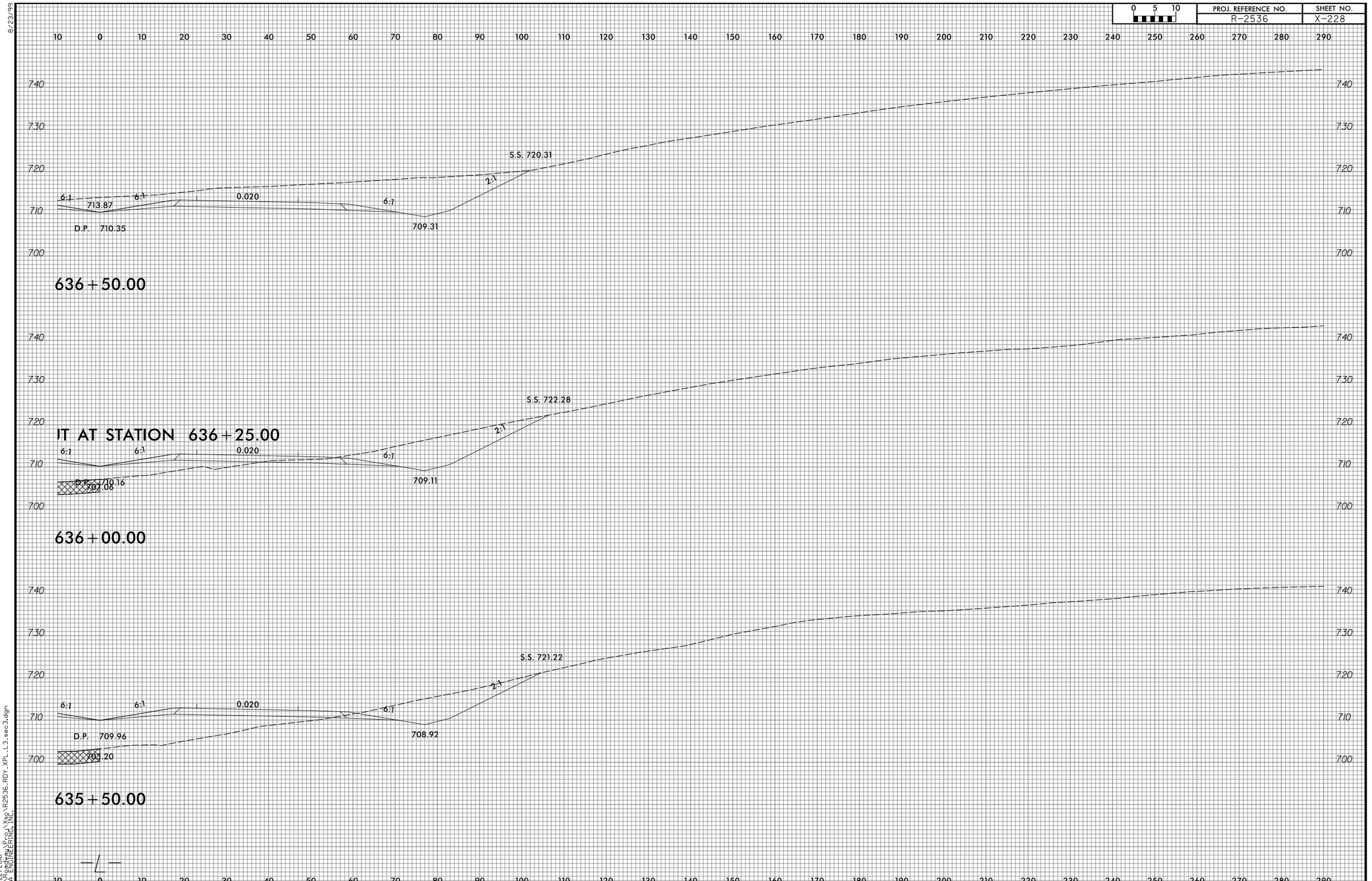
634+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536.RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-228



3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-229

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740
730
720
710
700

S.S. 732.01

720.77

6:1 6:1 0.020 6:1 2:1

D.P. 710.75

709.70

637+50.00

740
730
720
710
700

S.S. 727.27

718.56

6:1 6:1 0.020 6:1 2:1

D.P. 710.55

709.50

637+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prjcts\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-230

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

750
740
730
720
710
700

S.S. 732.99

721.78

2:1

6:1 6:1 0.020 6:1

D.P. 711.14

710.09

638+50.00

740
730
720
710
700

S.S. 733.57

721.97

2:1

6:1 6:1 0.020 6:1

D.P. 710.94

709.89

638+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-231

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

750
740
730
720
710
700

S.S. 728.06

718.67

6:1 6:1 0.020 6:1 2:1

D.P. 711.53

710.48

639+50.00

750
740
730
720
710
700

S.S. 731.40

720.45

6:1 6:1 0.020 6:1 2:1

D.P. 711.33

710.28

639+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-232

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

750
740
730
720
710
700

6:1 6:1 0.020 6:1 S.S. 713.17 6:1

D.P. 709.92 710.87

640+50.00

750
740
730
720
710
700

S.S. 724.23 2:1

6:1 6:1 0.020 6:1

715.35

D.P. 711.72 710.68

640+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-233

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740
730
720
710

S.S. 721.92
2:1
6:1
6:1
0.020
6:1
D.P. 712.50
709.28
711.46

642 + 00.00

740
730
720
710

S.S. 723.81
2:1
6:1
6:1
0.020
6:1
712.53
D.P. 712.31
711.26

641 + 50.00

750
740
730
720
710
700

S.S. 722.19
2:1
6:1
6:1
0.020
6:1
D.P. 712.11
709.32
711.07

641 + 00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

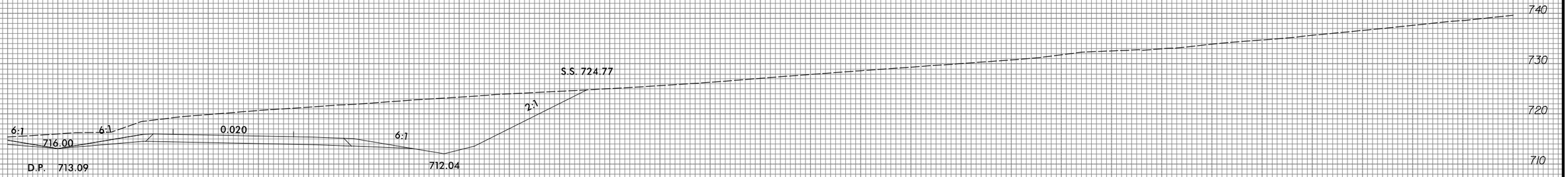
3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-234

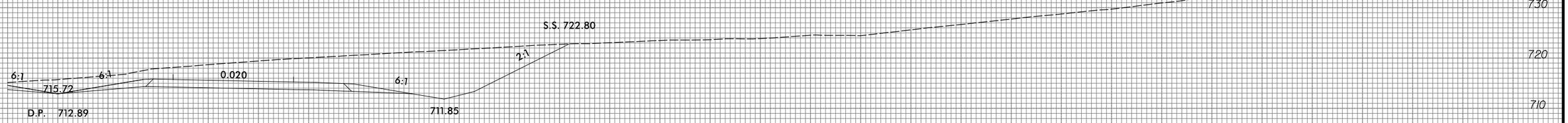
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740 730 720 710



643+50.00

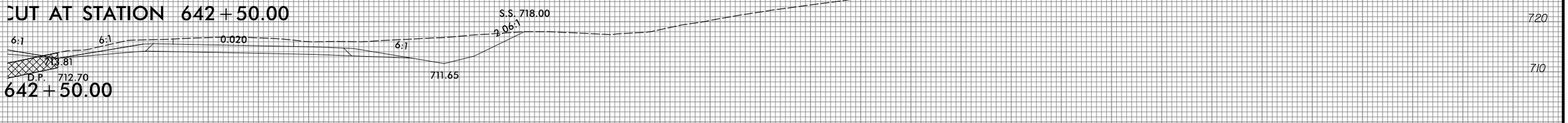
740 730 720 710 700



643+00.00

740 730 720 710

CUT AT STATION 642+50.00



642+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
JCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-235

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740
730
720
710

6:1 6:1 0.020 6:1 2:1

S.S. 720.22

713.10
D.P. 713.68
712.63

645+00.00

740
730
720
710

6:1 6:1 0.020 6:1 2:1

S.S. 719.32

713.86
D.P. 713.48
712.43

644+50.00

740
730
720
710

6:1 6:1 0.020 6:1 2:1

S.S. 723.58

716.23
D.P. 713.29
712.24

644+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

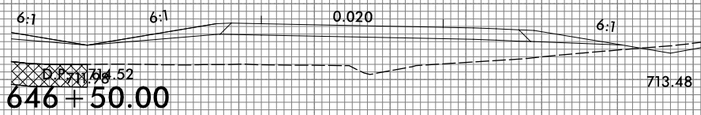
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-236

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

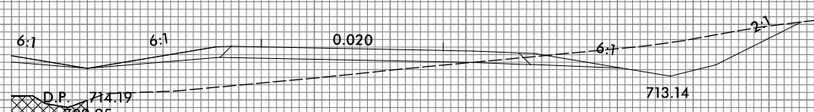
750 740 730 720 710

T AT STATION 646+50.00



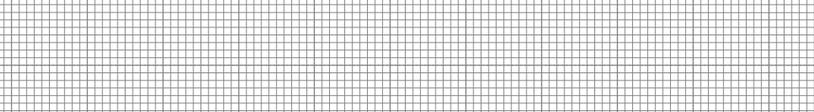
646+50.00

750 740 730 720 710



646+00.00

750 740 730 720 710



645+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-237

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

760
750
740
730
720

6:1 719.44 6:1 0.020 6:1

D.P. 715.34

647+50.00

760
750
740
730
720

6:1 718.25 6:1 0.020 6:1

D.P. 714.91

710

647+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-238

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

770 760 750 740 730 720

6:1 6:1 719.57 0.020 6:1 715.14 S.S. 722.03 2:1

D.P. 716.19

648+50.00

760 750 740 730 720

6:1 6:1 719.91 0.020 6:1 714.72 S.S. 718.76 3.93:1

D.P. 715.76

648+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPLL3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-239

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

770
760
750
740
730
720

S.S. 723.76

6:1 722.04 6:1 0.020 6:1 2:1

715.99

D.P. 717.03

649+50.00

770
760
750
740
730
720

S.S. 722.42

6:1 721.89 6:1 0.020 6:1 2:1

715.56

D.P. 716.61

649+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-240

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740 730 720

AT STATION 651+00.00

728.80 6:1 6:1 0.020 6:1 S.S. 733.04 2:1

D.P. 718.30 717.26

651+00.00

740 730 720

S.S. 728.80

728.24 6:1 6:1 0.020 6:1 2:1

D.P. 717.88 716.83

650+50.00

750 740 730 720

I – ACCEPTABLE AT STATION 650+10.00

T AT STATION 650+10.00

S.S. 725.86

6:1 723.47 6:1 0.020 6:1 2:1

D.P. 717.46 716.41

650+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-241

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740
730
720

S.S. 737.65

733.66

6:1 6:1 0.020 6:1

D.P. 719.58

718.53

652+50.00

740
730
720

S.S. 736.57

732.36

6:1 6:1 0.020 6:1

D.P. 719.15

718.11

652+00.00

740
730
720

S.S. 735.88

728.75

6:1 6:1 0.020 6:1

D.P. 718.73

717.68

651+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-242

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

750
740
730
720

734.51

6:1 6:1 0.020 6:1

D.P. 720.85

719.68

654+00.00

750
740
730
720

735.13

6:1 6:1 0.020 6:1

D.P. 720.42

719.38

653+50.00

750
740
730
720

S.S. 739.55

734.75

6:1 6:1 0.020 6:1

D.P. 720.00

718.95

653+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

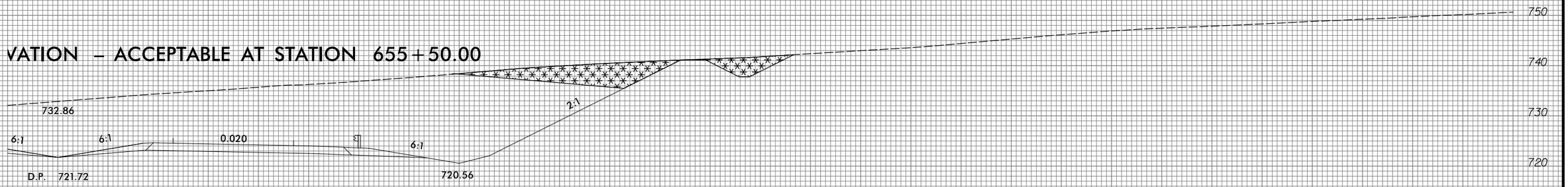
3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

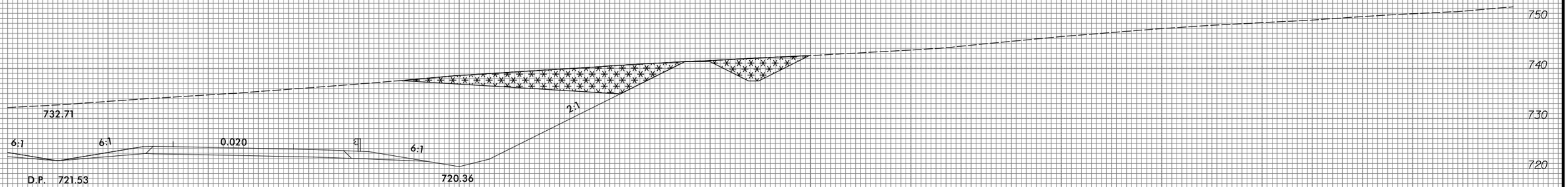
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-243

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

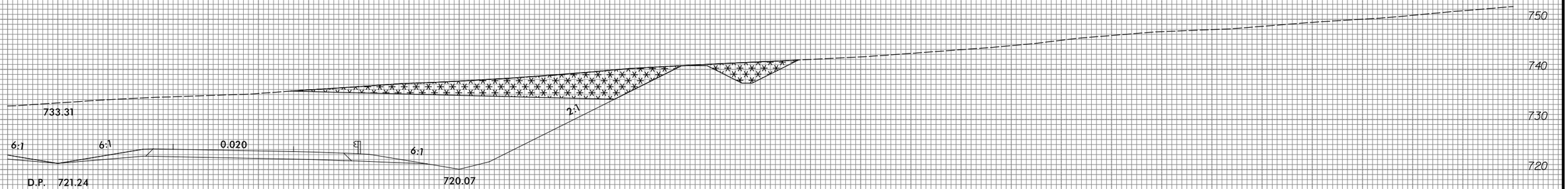
VATION – ACCEPTABLE AT STATION 655+50.00



655+50.00



655+00.00



654+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
[C&A ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-244

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

750
740
730
720

S.S. 740.43

735.87

2:1

6:1 6:1 0.020 6:1

D.P. 721.69

720.64

657+00.00

750
740
730
720

735.22

2:1

6:1 6:1 0.020 6:1

D.P. 721.80

720.64

656+50.00

750
740
730
720

734.14

2:1

6:1 6:1 0.020 6:1

D.P. 721.81

720.65

656+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-245

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740 730 720

S.S. 735.98

733.00

6:1 6:1 0.020 6:1 2:1

D.P. 720.23 719.19

659+00.00

740 730 720

S.S. 737.56

733.87

6:1 6:1 0.020 6:1 2:1

D.P. 720.75 719.70

658+50.00

740 730 720

S.S. 738.80

734.64

6:1 6:1 0.020 6:1 2:1

D.P. 721.16 720.12

658+00.00

740 730 720

S.S. 739.79

735.68

6:1 6:1 0.020 6:1 2:1

D.P. 721.48 720.43

657+50.00

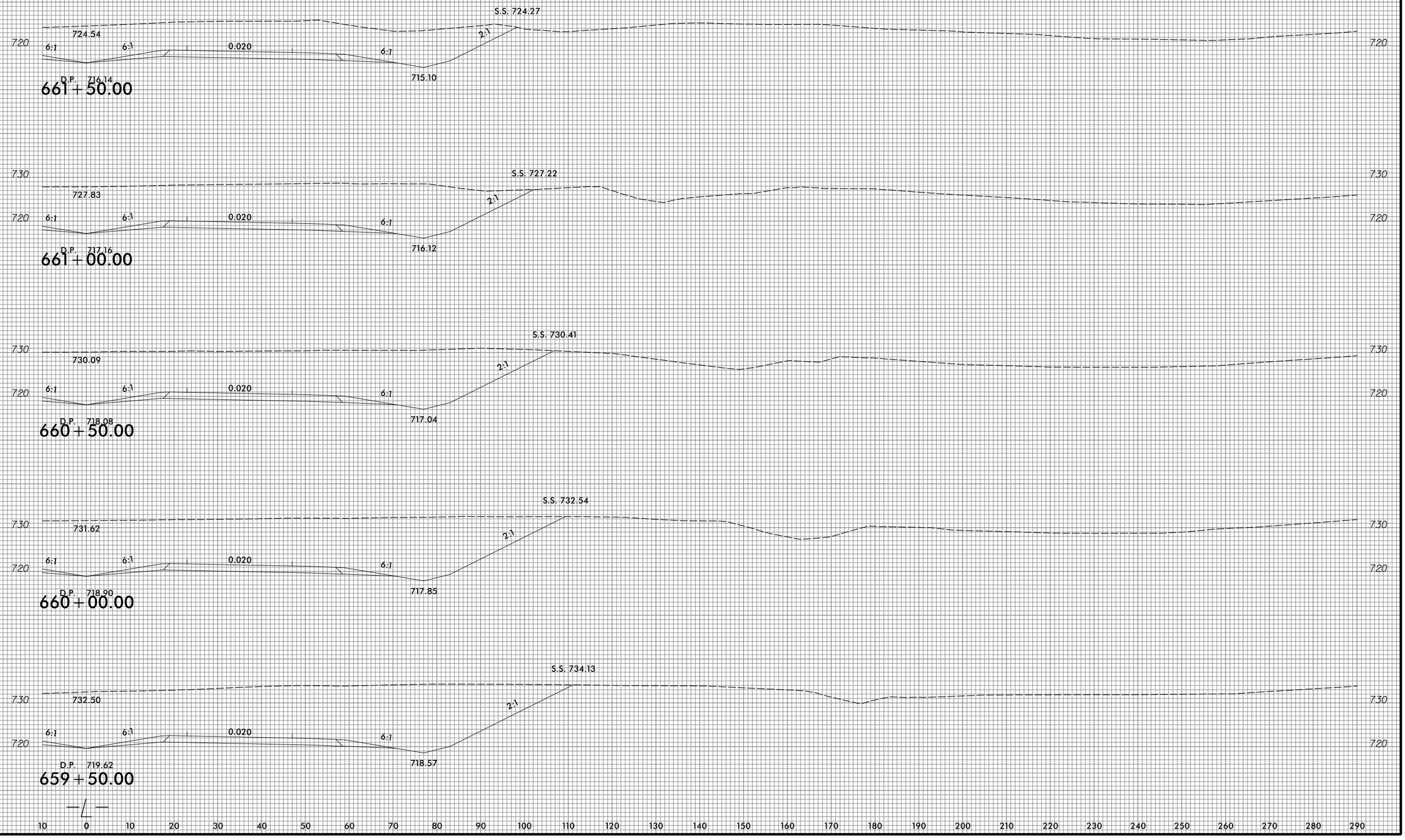
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-246

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-247

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720 / 710

6:1 6:1 0.020 6:1

D.P 707.09 707.53

S.S. 708.40

664+00.00

720 / 710

6:1 6:1 0.020 6:1

D.P. 711.05 707.44

663+50.00

720 / 710

6:1 6:1 0.020 6:1

715.25

D.P. 712.48

711.43

S.S. 715.26

4:1 18:1

663+00.00

720 / 710

6:1 718.85 6:1 0.020 6:1

D.P. 713.80

712.75

S.S. 719.81

2:1

662+50.00

720 / 710

722.39

6:1 6:1 0.020 6:1

D.P. 715.02

713.97

S.S. 721.86

2:1

662+00.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-248

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

710
700
690

6:1 6:1 0.020 6:1 6:1

S.S. 703.32

D.P. 702.41

696.44

701.37

666+00.00

710
700

6:1 6:1 0.020 6:1 4.74:1

S.S. 706.67

D.P. 704.34

699.76

703.30

665+50.00

720
710
700

6:1 6:1 0.020 6:1 4.52:1

S.S. 708.67

D.P. 706.17

701.48

705.13

665+00.00

720
710
700

6:1 6:1 0.020 6:1 4.61:1

S.S. 710.32

D.P. 707.90

702.95

706.85

664+50.00

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_L3_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-249

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

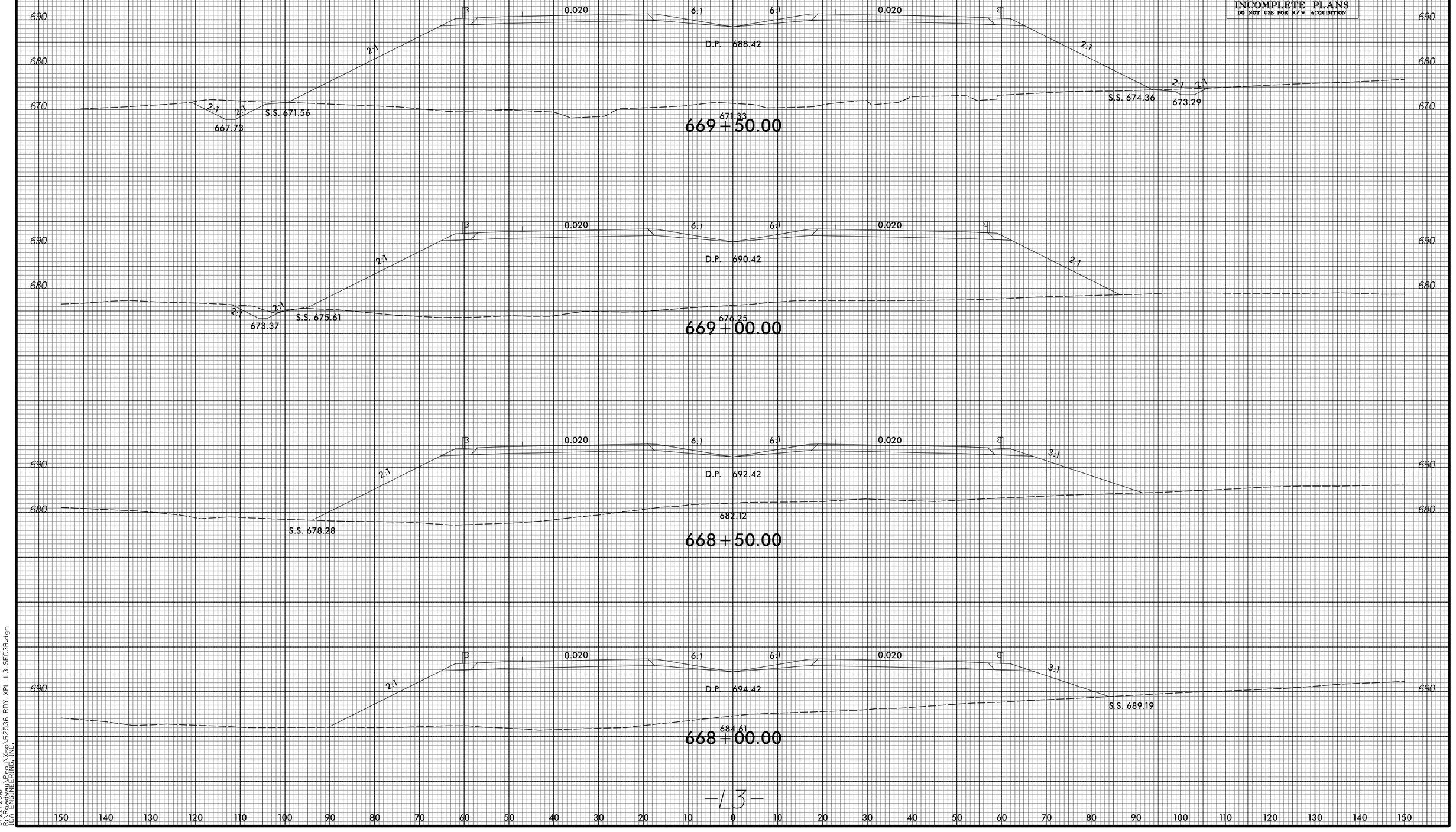
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-250

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



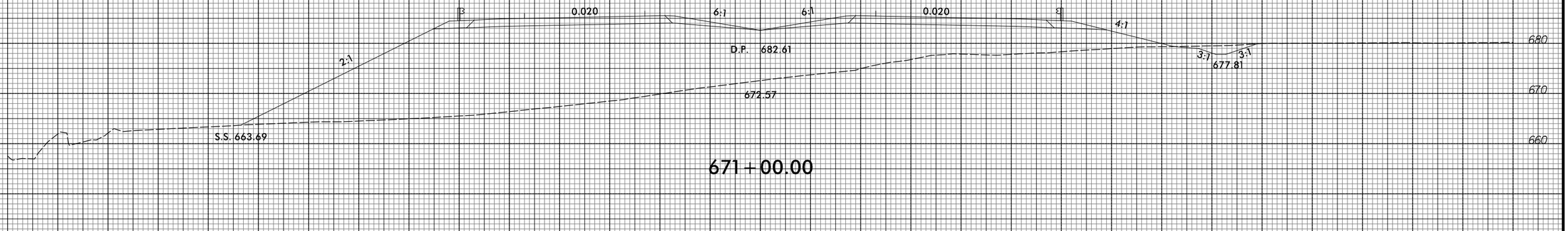
-L3-

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_SEC3B.dgn
TGA ENGINEERING, INC.

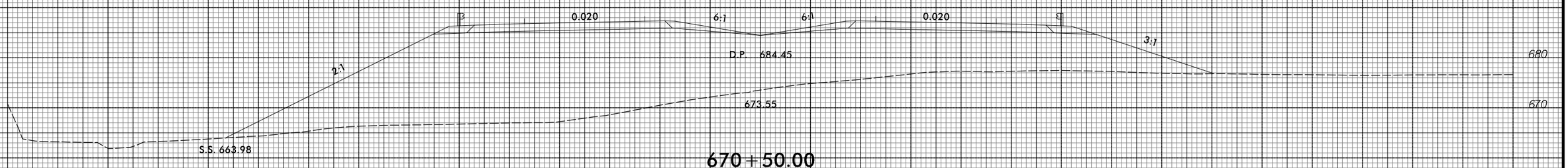
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-251

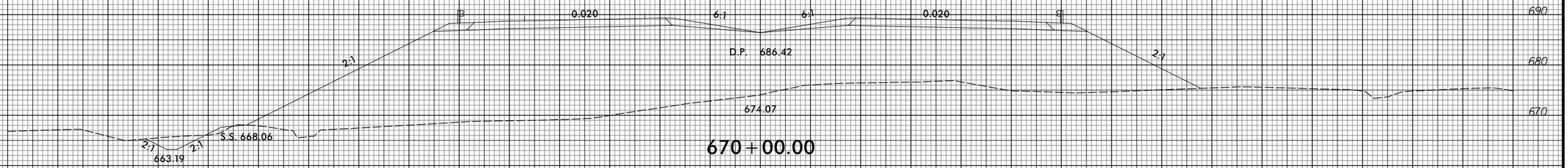
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



671+00.00



670+50.00



670+00.00

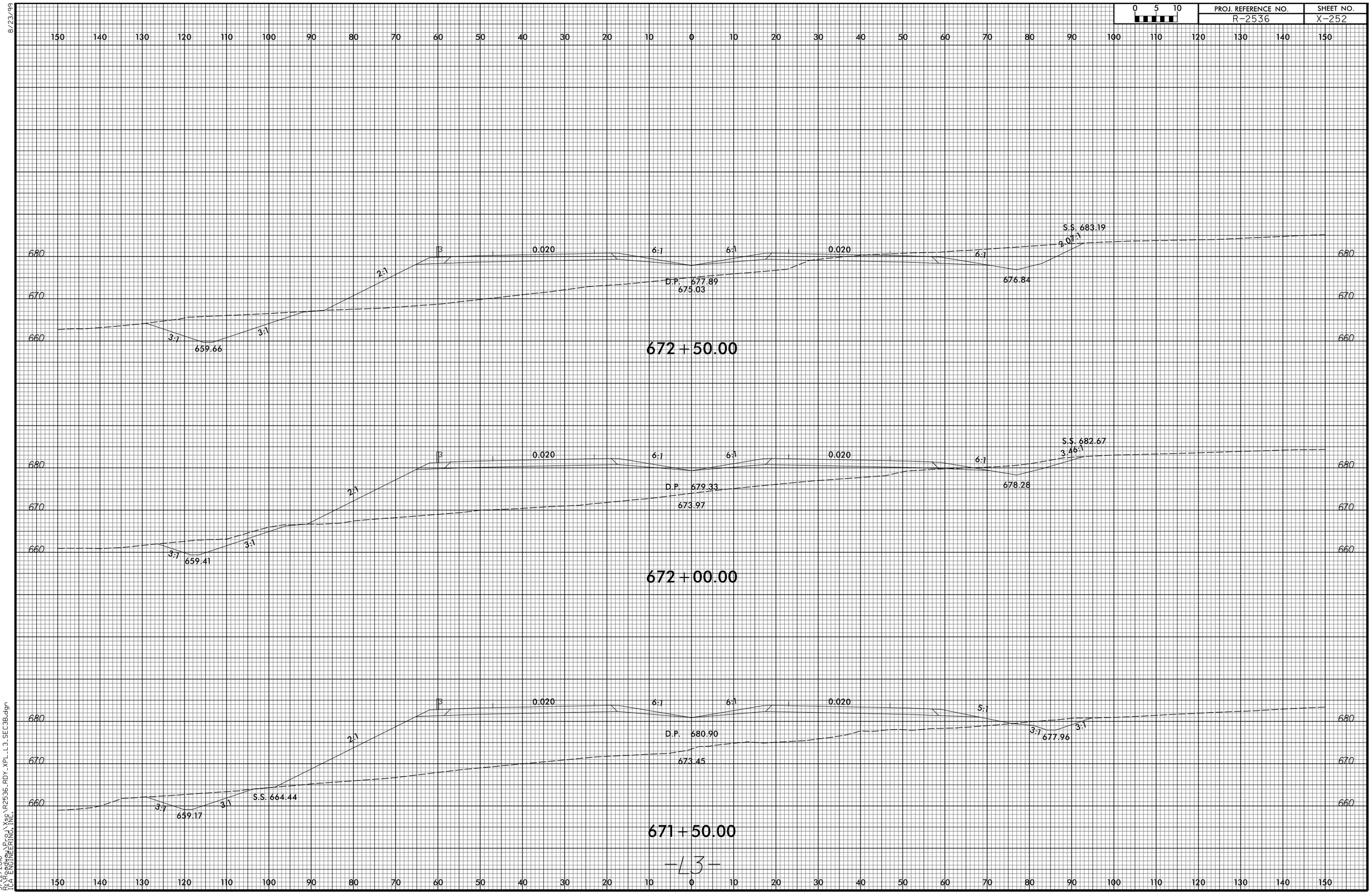
-L3-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPLL3_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-252



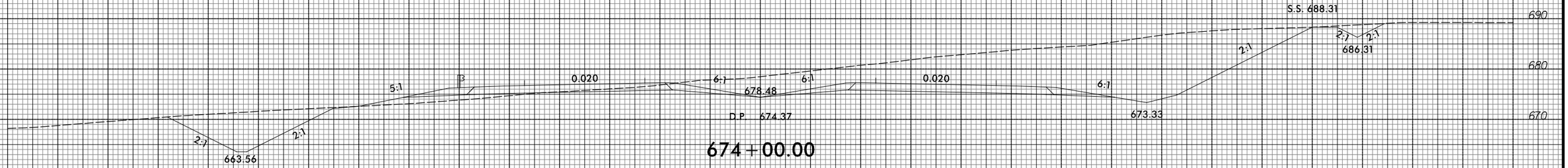
3/22/2016
R:\Roads\Proj\Xsec\R2536_RDY_XPL_L3_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-253

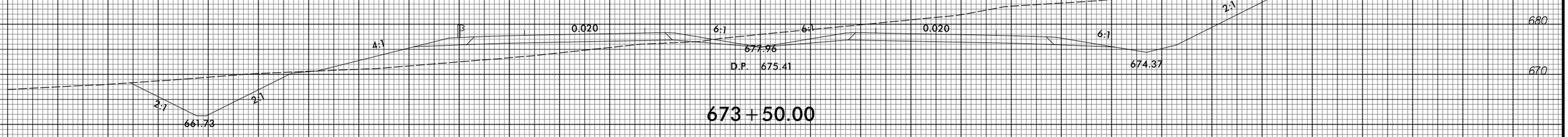
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

690 680 670



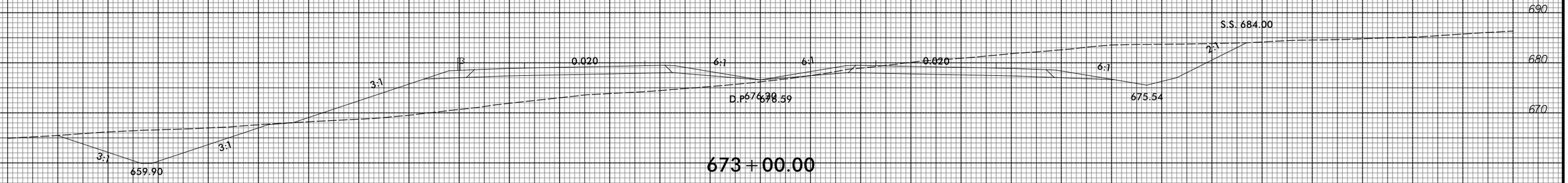
674+00.00

690 680 670



673+50.00

690 680 670



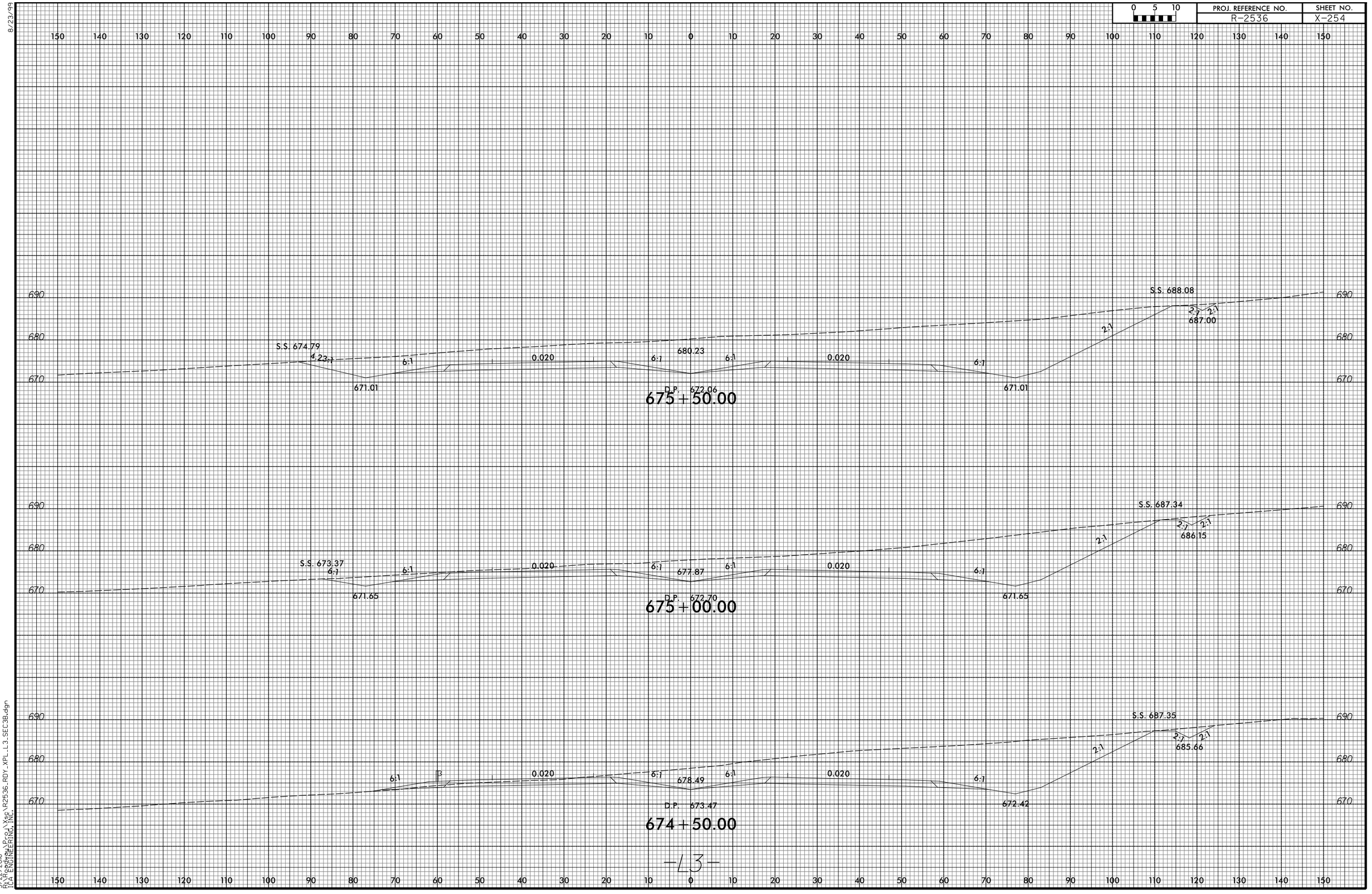
673+00.00

-43-

3/22/2016
R:\Roads\Proj\Xsec\R2536_RDY_XPL_L3_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-254



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-255

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 690 680 670

684.74

2:1 6:1 0.020 6:1 6:1 0.020 0.020 6:1 2:1 2:1 2:1

693.80

669.71 669.71

-Y17RPD-
10+10.83

677+00.00

700 690 680 670

S.S. 694.59

685.43

S.S. 676.64

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1 2:1 2:1

691.53

Not Available

670.11 670.11

D.P. 671.15

676+50.00

700 690 680 670

S.S. 691.31

684.31

S.S. 676.62

2:1 6:1 0.020 6:1 6:1 0.020 6:1 2:1 2:1 2:1

689.27

670.51 670.51

D.P. 671.56

676+00.00

-43-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_L3_SEC3B.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-256

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690
680
670
660

S.S. 671.71
5.71:1
6:1
668.91
0.020
679.72
6.1:1
6:1
0.020 0.020
0.020
6:1
668.96
S.S. 692.74
2:1
691.59
2:1
2:1

D.P. 670.02

–Y17RPD–
11+10.83

678+00.00

700
690
680
670
660

S.S. 673.69
3.47:1
6:1
669.31
0.020
682.08
6.1:1
6:1
0.020 0.020
0.020
6:1
669.34
S.S. 694.34
2:1
692.70
2:1
2:1

D.P. 670.39

–Y17RPD–
10+60.83

677+50.00

–43–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_L3_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-257

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

700
690
680
670
660

S.S. 673.79
2.39:1
6:1
668.12
0.020
6.3:1
682.25
6:1
0.020 0.020
0.020
6:1
668.23
2:1
689.84
2:1
2:1

D.P. 669.32

–Y17RPD–
12+10.84

679+00.00

700
690
680
670
660

S.S. 671.55
5.27:1
6:1
668.51
0.020
6.2:1
680.56
6:1
0.020 0.020
0.020
6:1
668.59
2:1
690.49
2:1
2:1

D.P. 669.66

–Y17RPD–
11+60.83

678+50.00

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_L3_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-258

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

700 690 680 670 660

S.S. 673.60

2:1 6:1 0.020 7.4:1 6:1 0.020 0.020 0.020 6:1 2:1 2:1 2:1

680.86 666.92 D.P. 668.52 667.37 685.33

–Y17RPD–
13+60.87

680+50.00

S.S. 674.48

2:1 6:1 0.020 6.9:1 6:1 0.020 0.020 0.020 6:1 2:1 2:1 2:1

682.22 667.32 D.P. 668.75 667.62 687.47

Not Available

–Y17RPD–
13+10.85

680+00.00

S.S. 674.42

2:1 6:1 0.020 6.6:1 6:1 0.020 0.020 0.020 6:1 2:1 2:1 2:1

683.11 667.72 D.P. 669.02 667.91 689.18

–Y17RPD–
12+60.84

679+50.00

–L3–

3/22/2016
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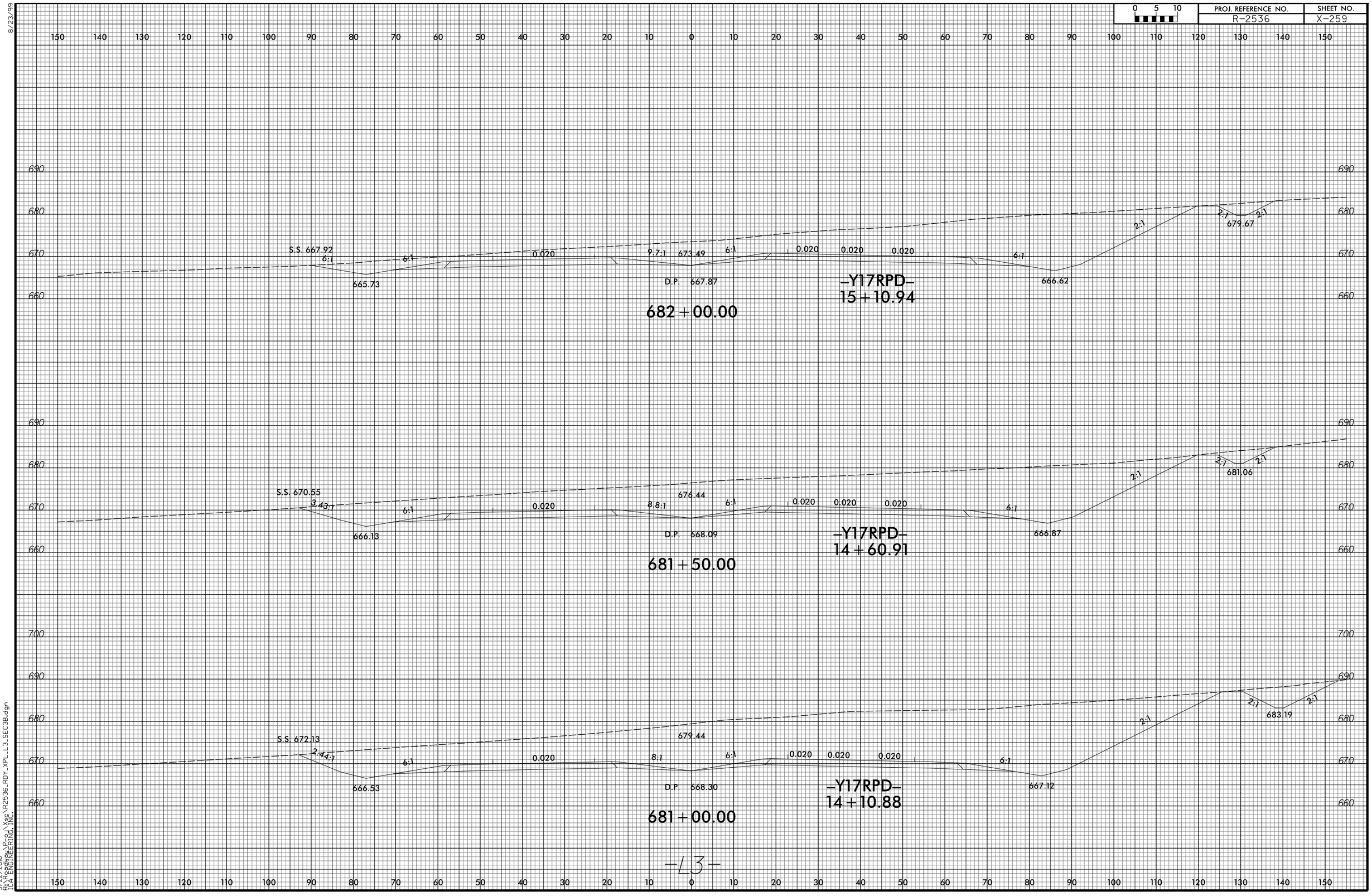
[C]A ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-259



–L3–

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_L3_SEC3B.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-260

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

690 680 670 660 650

S.S. 684.23

2:1 2:1 2:1 682.70

2:1

S.S. 667.61 5.03:1 6:1 0.020 0.020 0.020 6:1 674.26 6:1 0.000 0.020 0.020 6:1

664.43 666.79 665.77

–Y17FLY–
10+00.00

–Y17RPD–
15+83.77

–Y17RPDA–
10+00.00

682+73.22

690 680 670 660 650

S.S. 668.24 5.51:1 6:1 0.020 9.7:1 674.50 6:1 0.009 0.020 0.020 6:1

2:1 2:1 2:1 681.75

665.33 D.P. 667.47 666.37

–Y17RPD–
15+60.97

682+50.00

–L3–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_L3_SEC38.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-261

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690
680
670
660

S.S. 665.09
6:1
6:1
0.038
0.038
0.038
663.14

11+00.00

680
670
660

S.S. 666.40
6:1
6:1
0.020
0.020
0.020
664.03

10+50.00

680
670

S.S. 667.61
5:1
6:1
0.020
0.020
0.020
664.43

10+00.00

-Y17FLY-

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17FLY_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-262

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690
680
670
660

S.S. 662.15
6:1
6:1
0.060
0.060
0.060
660.99

12+50.00

690
680
670
660

S.S. 662.88
6:1
6:1
0.060
0.060
0.060
661.63

12+00.00

690
680
670
660

S.S. 663.46
6:1
6:1
0.056
0.056
0.056
662.22

11+50.00

-YI7FLY-

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_YI7FLY_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-263

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690 680 670 660 650

6:1 0.060 0.060 0.060

6:1 658.23

14+00.00

6:1 0.060 0.060 0.060

6:1 659.20

13+50.00

S.S. 661.52

6:1 0.060 0.060 0.060

660.18

13+00.00

—Y17FLY—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17FLY_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-264

230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50

680 670 660 650

4:1 6:1 654.30 0.060 0.060 0.060 8:1 6:1 D.P. 658.68

Y17FLY
15+50.00
SEE SHEET
X-27

15+50.00

S.S. 657.54 5:1 6:1 655.44 0.060 0.060 0.060 8.3:1 6:1 D.P. 659.70

Y17FLY
15+00.00
SEE SHEET
X-27

15+00.00

S.S. 658.51 6:1 6:1 656.75 0.060 0.060 0.060 7.4:1 6:1 D.P. 660.73

Y17FLY
14+50.00
SEE SHEET
X-27

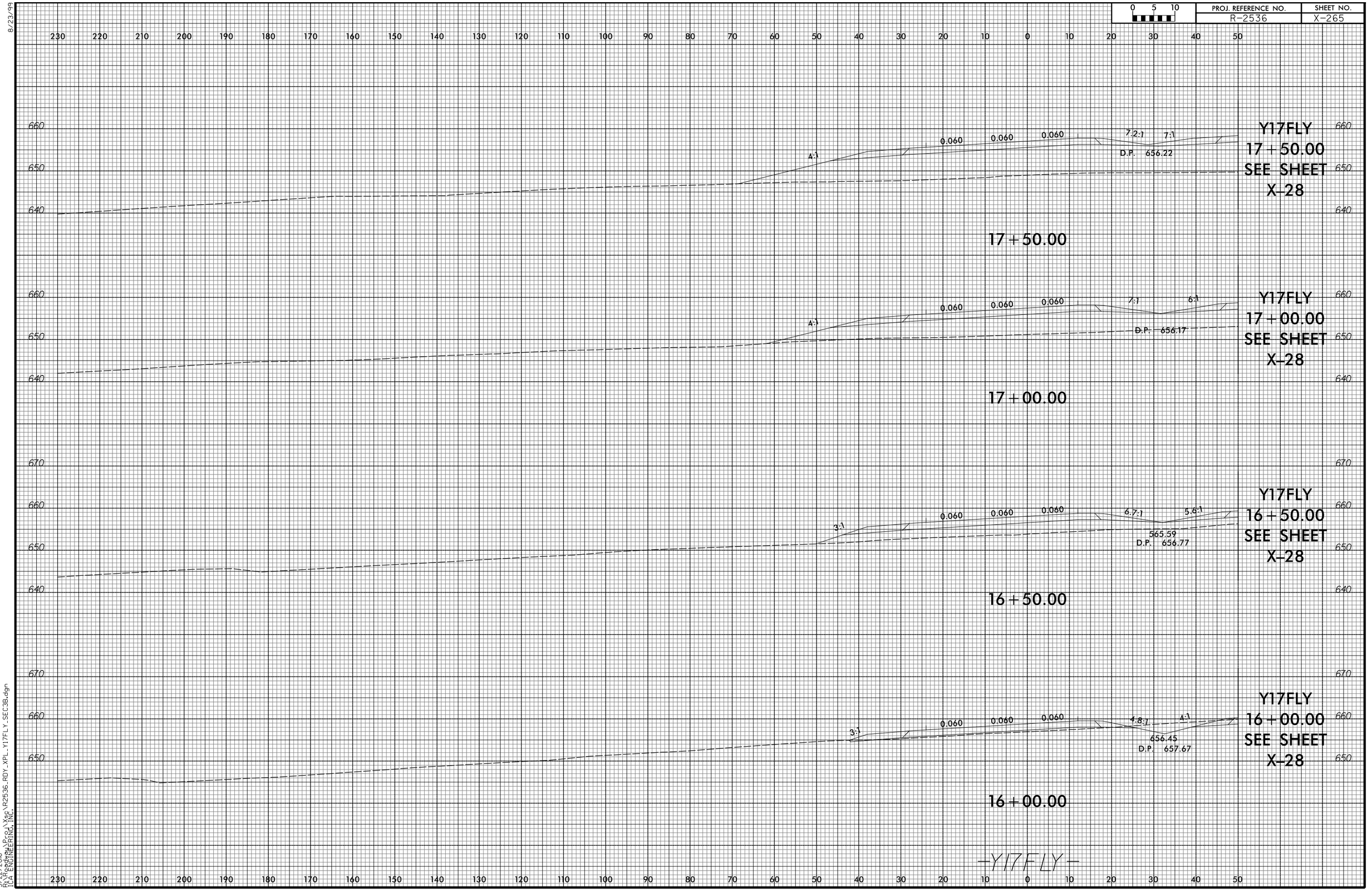
14+50.00

-Y17FLY-

3/22/2016
R:\Roadway\Prod\Xse\R2536_RDY_XPL_Y17FLY_SEC38.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-265



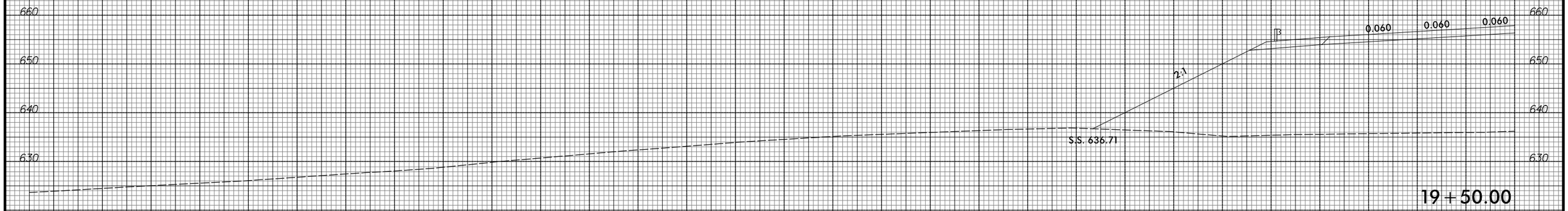
3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17FLY_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-266

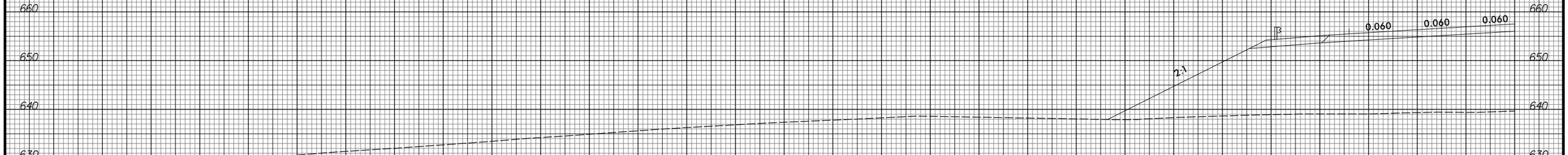
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630



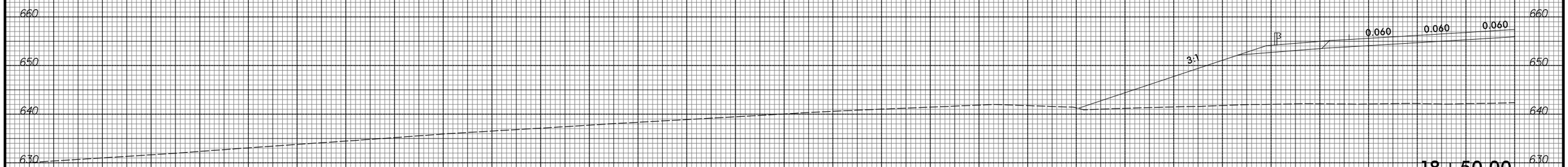
19+50.00

660 650 640 630



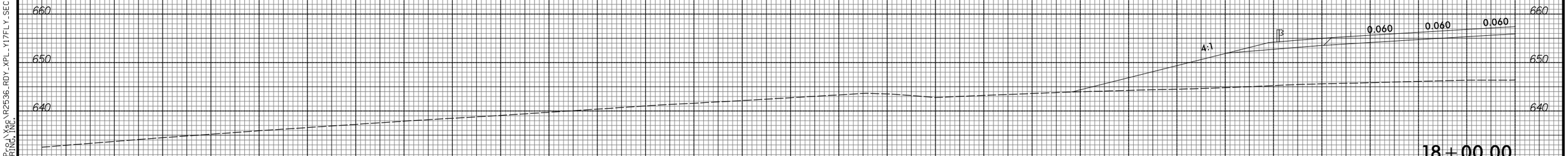
19+00.00

660 650 640 630



18+50.00

660 650 640



18+00.00

—Y17FLY—

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17FLY_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-267

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630 620

0.060 0.060 0.060

3

2:1

–Y17RPC–
10+28.22

21+00.00

660 650 640 630 620

0.060 0.060 0.060

3

2:1

S.S. 627.63

20+50.00

660 650 640 630 620

0.060 0.060 0.060

3

2:1

S.S. 632.85

20+00.00

–Y17FLY–

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17FLY_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-268

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630 620 610

0.060 0.060 0.060

–Y17RPC–
11+27.31

2:1 2:1 2:1

612.75

22+00.00

0.060 0.060 0.060

–Y17RPC–
10+77.77

2:1

21+50.00

–Y17FLY–

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
R:\Roads\Proj\Xsec\R2536_RDY_XPL_Y17FLY_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-269

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

660 650 640 630 620 610

0.078 0.035 0.035

–Y17RPC–
12+26.48

2:1 2:1 2:1

614.54

23+00.00

0.062 0.054 0.054

–Y17RPC–
11+76.84

2:1 2:1 2:1

613.06

22+50.00

–Y17FLY–

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17FLY_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-270

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

670
660
650
640
630
620

0.075 0.075 0.002 0.002

–Y17RPC–
13+26.49

2.03:1

2:1 616.79 2:1

24+00.00

0.077 0.077 0.016 0.016

–Y17RPC–
12+76.31

2.01:1

2:1 616.02 2:1

23+50.00

–Y17FLY–

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17FLY_SEC3B.dgn
TCA ENGINEERING, INC.

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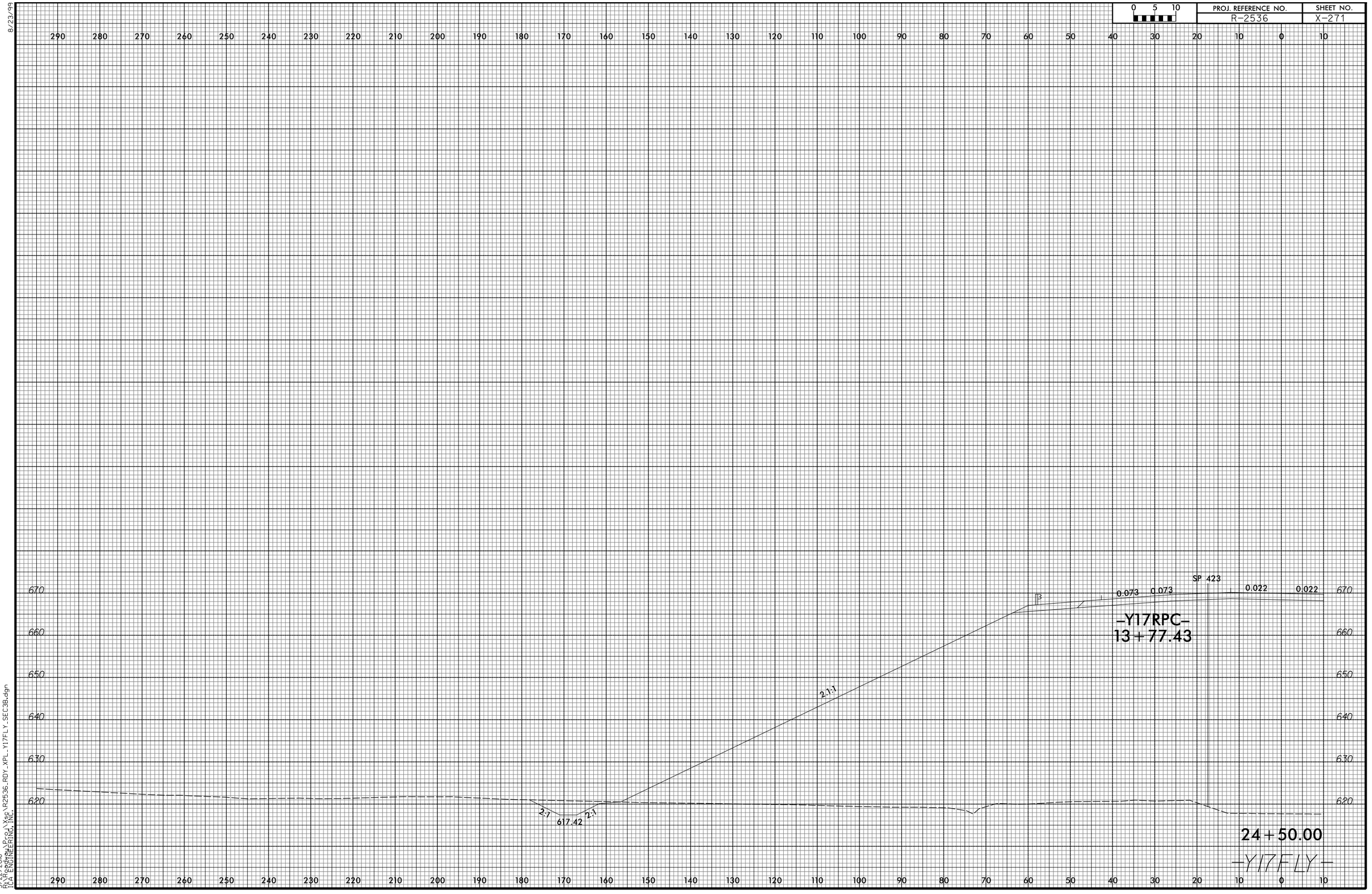
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-271



3/22/2016
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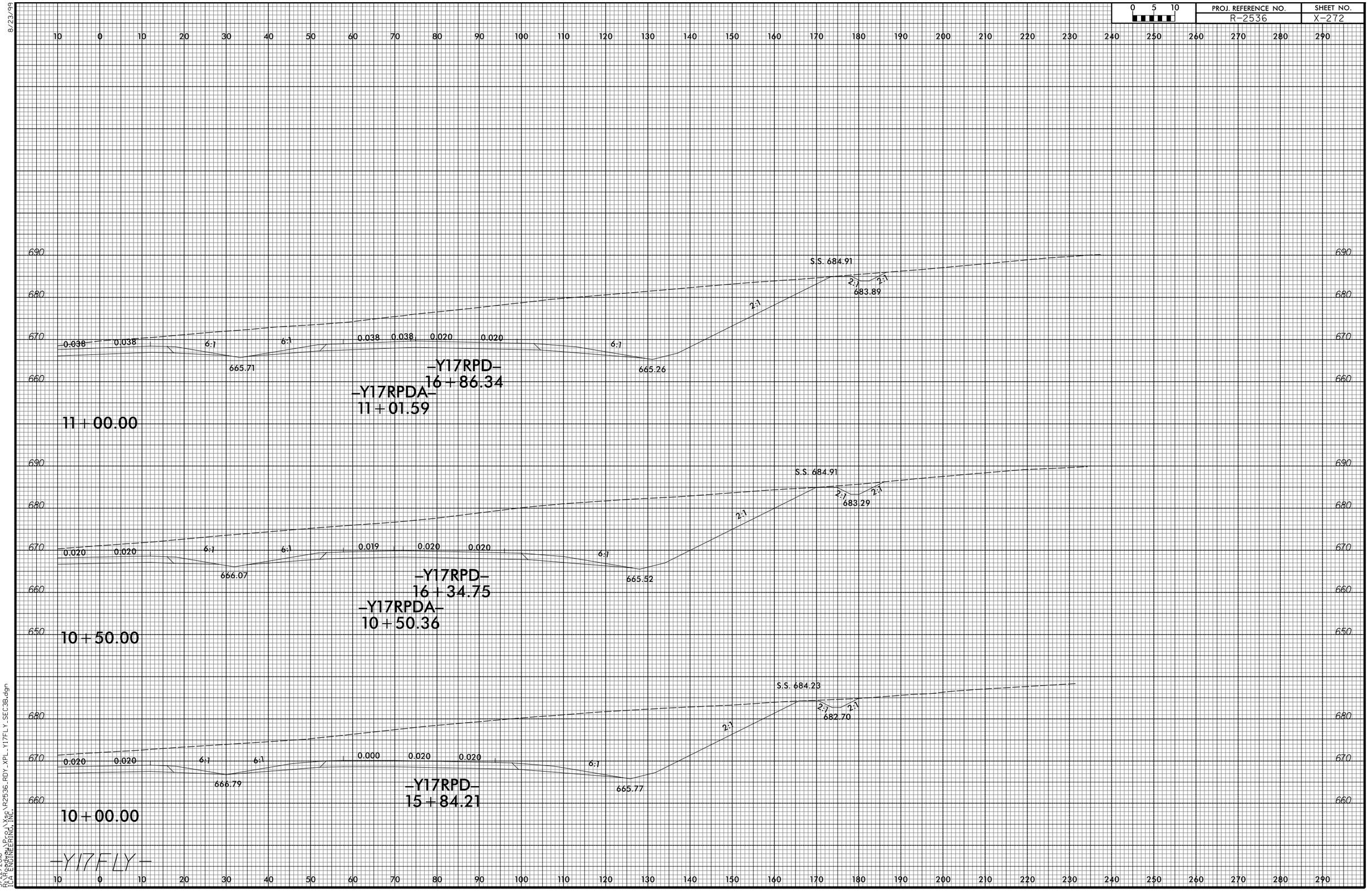
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-272



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-273

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690 680 670 660

SP 400

0.060 0.060 6:1 6:1 0.060 0.060 0.020 0.020 6:1 2:1 2:1 2:1

D.P. 664.34 664.48 688.53

–Y17RPDA–
12+58.85

–Y17RPD–
18+42.89

12+50.00

690 680 670 660

0.060 0.060 6:1 6.6:1 0.060 0.060 0.021 0.021 6.1:1 2:1 2:1 2:1

D.P. 664.96 664.71 686.59

–Y17RPDA–
12+06.24

–Y17RPD–
17+93.01

12+00.00

690 680 670 660

S.S. 685.97

0.056 0.056 6:1 6.4:1 0.058 0.058 0.020 0.020 6:1 2:1 2:1 2:1

D.P. 665.37 664.99 684.51

–Y17RPDA–
11+53.64

–Y17RPD–
17+39.13

11+50.00

–Y17FLY–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-274

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690 680 670 660 650

0.060 0.060 6:1 6:1 0.060 0.060 6:1 6:1 0.020 0.020 6:1 2:1 2:1 2:1

661.73 663.19 661.83 685.19

SP 403

–Y17RPDA–
14+16.61

–Y17RPD–
20+03.77

14+00.00

690 680 670 660 650

0.060 0.060 6:1 6:1 0.060 0.060 6:1 6:1 0.020 0.020 6:1 2:1 2:1 2:1

662.71 665.29 662.85 686.92

SP 402

–Y17RPDA–
13+64.04

–Y17RPD–
19+49.31

13+50.00

690 680 670 660 650

0.060 0.060 6:1 6:1 0.060 0.060 0.020 0.020 6:1 2:1 2:1 2:1

D.P. 663.60 664.17 688.61

SP 401

–Y17RPDA–
13+11.45

–Y17RPD–
18+96.12

13+00.00

–Y17FLY–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
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[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-275

50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330

680 670 660 650

Y17FLY
15+50.00
SEE SHEET X-16

-Y17RPDA-
15+74.19

SP 406
655.16
0.060 0.060
6:1 6:1

-Y17RPD-
21+65.03

0.020 0.020
6:1
660.27
2:1
S.S. 680.70
2:1 2:1
678.19

Y17FLY
15+00.00
SEE SHEET X-16

-Y17RPDA-
15+21.68

SP 405
657.97
0.060 0.060
6:1 6:1

-Y17RPD-
21+12.82

0.020 0.020
6:1
661.49
2:1
S.S. 684.65
2:1 2:1
681.74

690 680 670 660 650

Y17FLY
14+50.00
SEE SHEET X-16

-Y17RPDA-
14+69.16

SP 404
660.60
0.060 0.060
6:1 6:1

-Y17RPD-
20+57.48

0.020 0.020
6:1
661.11
2:1
S.S. 685.46
2:1 2:1
683.49

-Y17FLY-

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-276

50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330

660 650 640

Y17FLY
17+50.00
SEE SHEET
X-17

0.060 0.060 4:1 4:1 2:1 2:1 642.00

–Y17RPDA–
17+83.88

SP 411

660 650 640

SP 409

Y17FLY
17+00.00
SEE SHEET
X-17

0.060 0.060 6:1 6:1 2:1 2:1 645.15

–Y17RPDA–
17+31.51

SP 410

660 650 640

670 660 650 640

Y17FLY
16+50.00
SEE SHEET
X-17

SP 408

0.060 0.060 6:1

–Y17RPDA–
16+79.10

670 660 650 640

SP 407

Y17FLY
16+00.00
SEE SHEET
X-17

0.060 0.060 6:1 6:1 652.11

0.020 0.020 6:1 2:1 2:1 2:1 674.04 658.86

–Y17RPDA–
16+26.66

–Y17RPD–
22+17.51

670 660 650

50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330

3/22/2016
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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-277

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650 640 630

0.060 0.060 0.060 0.060

–Y17RPDA–
19 + 92.93

4:1

SP 415

4:1

2:1

19 + 50.00

0.060 0.060 0.060 0.060

–Y17RPDA–
19 + 40.73

4:1

SP 414

4:1

2:1 2:1

631.55

19 + 00.00

0.060 0.060 0.060 0.060

–Y17RPDA–
18 + 88.49

4:1

SP 413

4:1

2:1 2:1

635.33

18 + 50.00

0.060 0.060 7.6:1 6:1 0.060 0.060

D.P. 655.83

–Y17RPDA–
18 + 36.21

4:1

SP 412

4:1

2:1 2:1

638.85

18 + 00.00
–Y17FLY–

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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-278

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650 640 630 620

0.060 0.060 0.059 0.059

–Y17RPDA–
21+49.20

PC–
3.22

4:1

SP 418

21+00.00

0.060 0.060 0.060 0.060

–Y17RPDA–
20+97.16

4:1

SP 417

20+50.00

0.060 0.060 0.060 0.060

–Y17RPDA–
20+45.07

4:1

SP 416

4:1

20+00.00

–Y17FLY–

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17FLY_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-279

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650 640 630 620 610

0.060 0.060 0.060 0.060

–Y17RPDA–
22+53.09

PC–
7.31

2:1

SP 420

2:1 2:1

609.28

22+00.00

0.060 0.060 0.059 0.059

–Y17RPDA–
22+01.18

PC–
7.77

3:1

SP 419

2:1

21+50.00

–Y17FLY–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-280

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

660 650 640 630 620 610

0.035 0.035 0.028 0.028

–C–
48

–Y17RPDA–
23+56.26

2:1

SP 422

23+00.00

0.054 0.054 0.047 0.048

–C–
.84

–Y17RPDA–
23+04.92

2:1

SP 421

2:1 609.03 2:1

22+50.00

–Y17FLY–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17FLY_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-281

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

670
660
650
640
630
620

0.002 0.002 0.010 0.010

–Y17RPDA–
24+57.22

2:1

24+00.00

0.016 0.016 0.009 0.009

–Y17RPDA–
24+07.01

2:1

23+50.00

–Y17FLY–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
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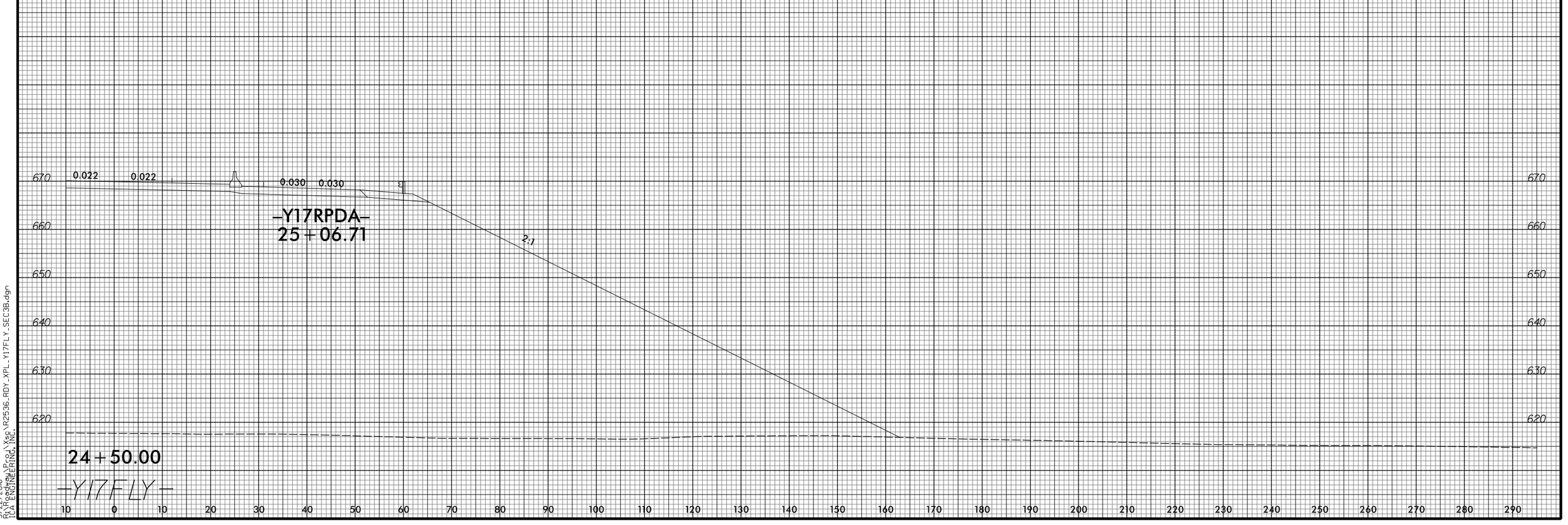
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-282



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-283

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

670
660
650
640
630
620

SP 425
6:1
0.060 0.060 0.060 0.060
2:1
–Y17RPDA–
26+03.29

25+50.00

SP 424
0.042 0.042 0.049 0.049
2:1
–Y17RPDA–
25+55.40

25+00.00

–Y17FLY–

3/22/2016
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[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-284

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

680
670
660
650
640
630
620

SP 427

6:1 0.060 0.060 0.060 0.060 2:1

-Y17RPDA-
26+98.46

26+50.00

SP 426

6:1 0.060 0.060 0.060 0.060 2:1

-Y17RPDA-
26+50.88

26+00.00

-Y17FLY-

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

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[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-285

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

680 670 660 650 640 630 620

SP 429

4:1

0.060 0.060 0.060 0.060

-Y17RPDA-
27+93.63

2:1

27+50.00

SP 428

5:1

0.060 0.060 0.060 0.060

-Y17RPDA-
27+46.05

2:1

27+00.00

-Y17FLY-

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TCA ENGINEERING, INC.

8/23/99

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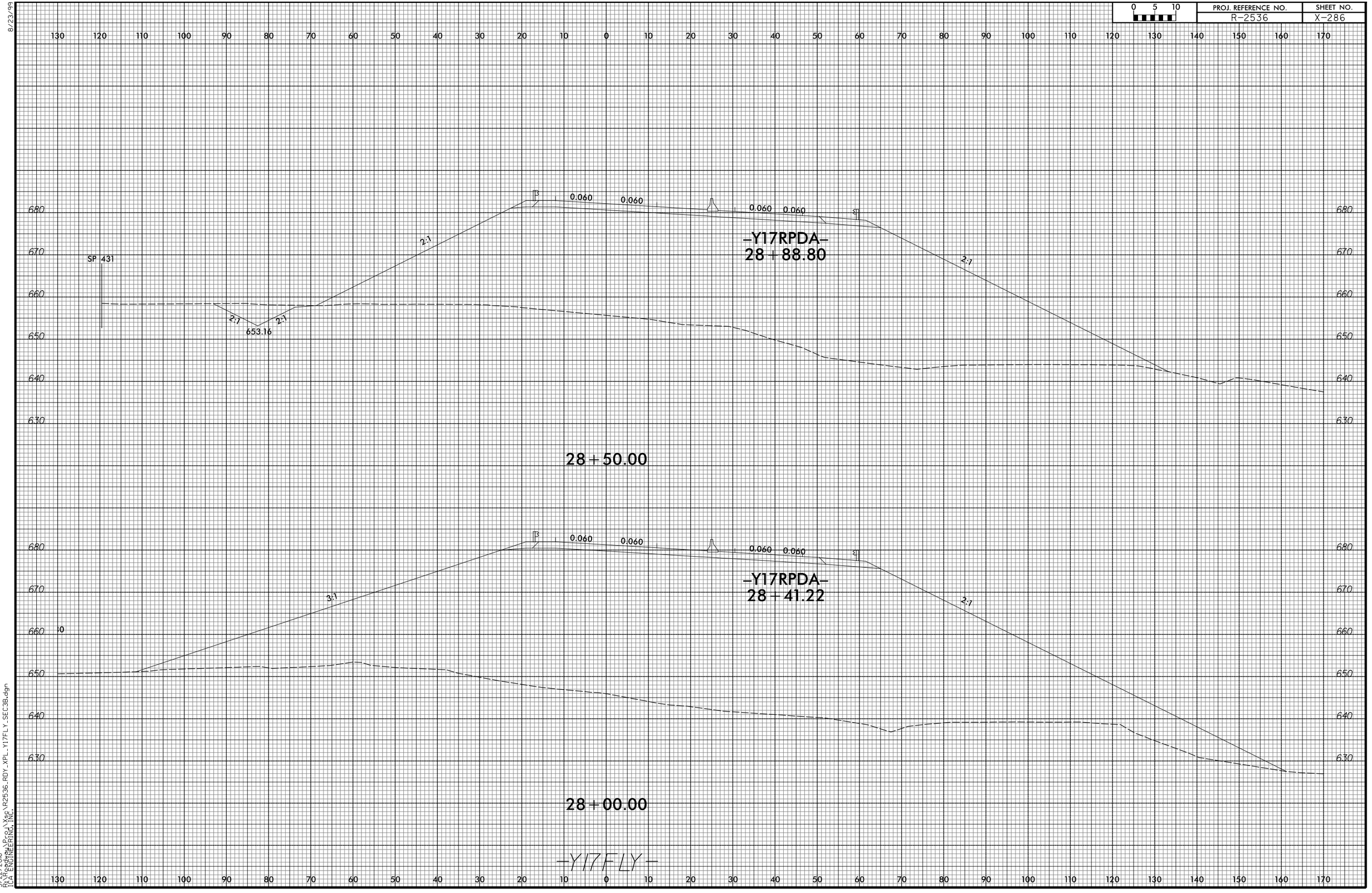
	R-2536	X-286



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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-287

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

680 670 660 650 640 630

0.060 0.060 0.060 0.060

29+50.00

0.060 0.060 0.060 0.060

2:1 2:1 657.00

29+00.00

0.060 0.060 0.060 0.060

2:1 2:1 2:1 2:1 656.11

-Y17RPDA-
29+30.51

28+88.44

-Y17FLY-

3/22/2016
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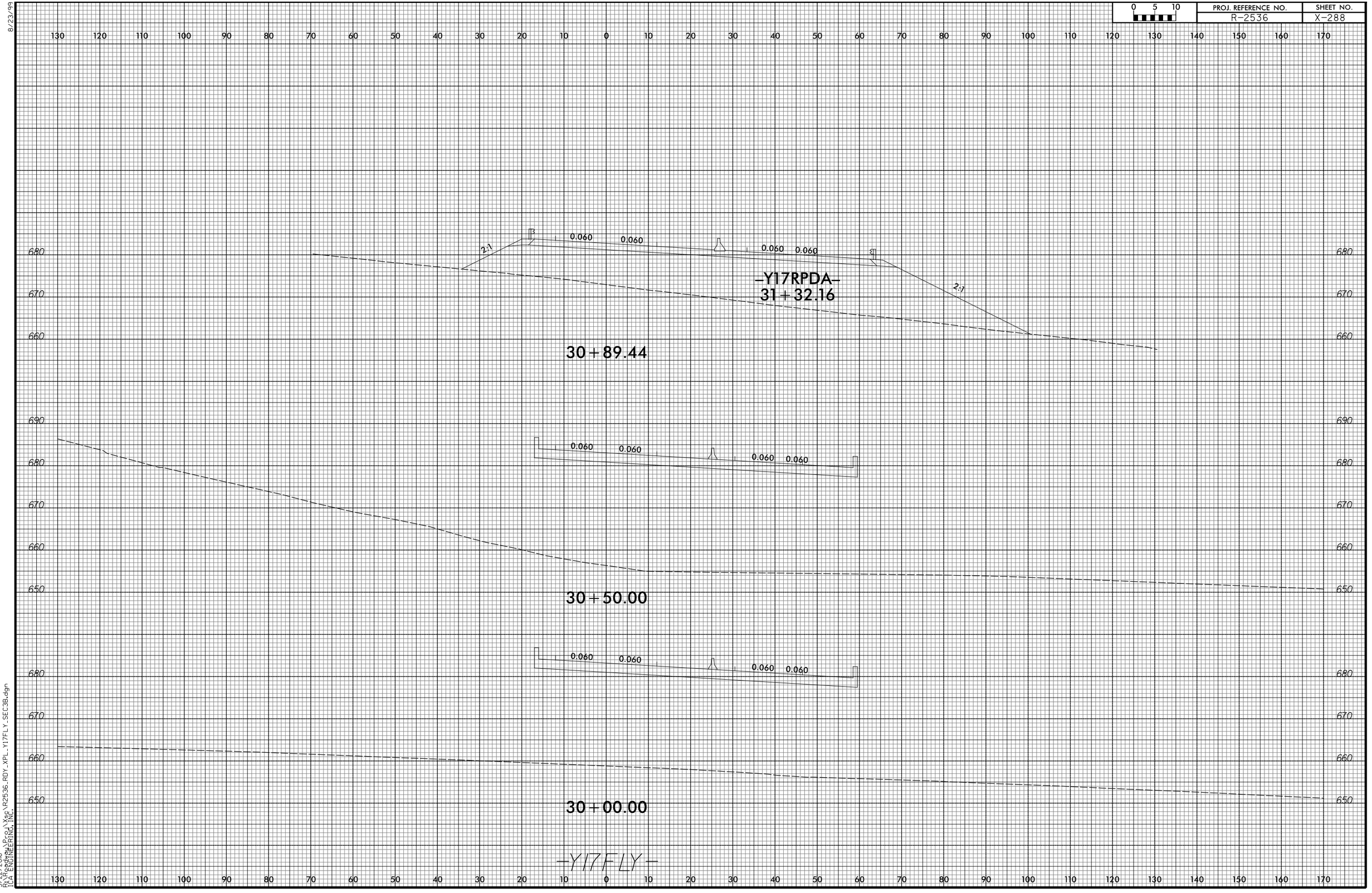
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-288



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[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-289

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

700
690
680
670
660
650

2:1
2:1
2:1
6:1
681.14
678.69
3
0.060
0.060
0.060
0.060
4:1
S

-Y17RPDA-
32 + 21.90

32 + 00.00

2:1
2:1
3:1
677.70
3
0.060
0.060
0.060
0.060
3:1
S

-Y17RPDA-
31 + 74.31

31 + 50.00

-Y17FLY-

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17FLY_SEC3B.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-290

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

700
690
680
670
660
650

2:1
688.03
2:1
2:1
675.68
6:1
0.060
0.060
0.060
0.060
4:1

–Y17RPDA–
33+17.07

33+00.00

700
690
680
670
660
650

2:1
684.59
2:1
2:1
677.48
6:1
0.060
0.060
0.060
0.060
4:1

–Y17RPDA–
32+69.48

32+50.00

–Y17FLY–

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y17FLY_SEC38.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-291

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

690 680 670 660 650

2:1 2:1 2:1 689.43 671.69 6:1 0.060 0.060 0.060 0.060 5.9:1

-Y17RPDA-
34+12.24

34+00.00

700 690 680 670 660 650

2:1 2:1 2:1 691.48 673.70 6:1 0.060 0.060 0.060 0.060 4.6:1

-Y17RPDA-
33+64.66

33+50.00

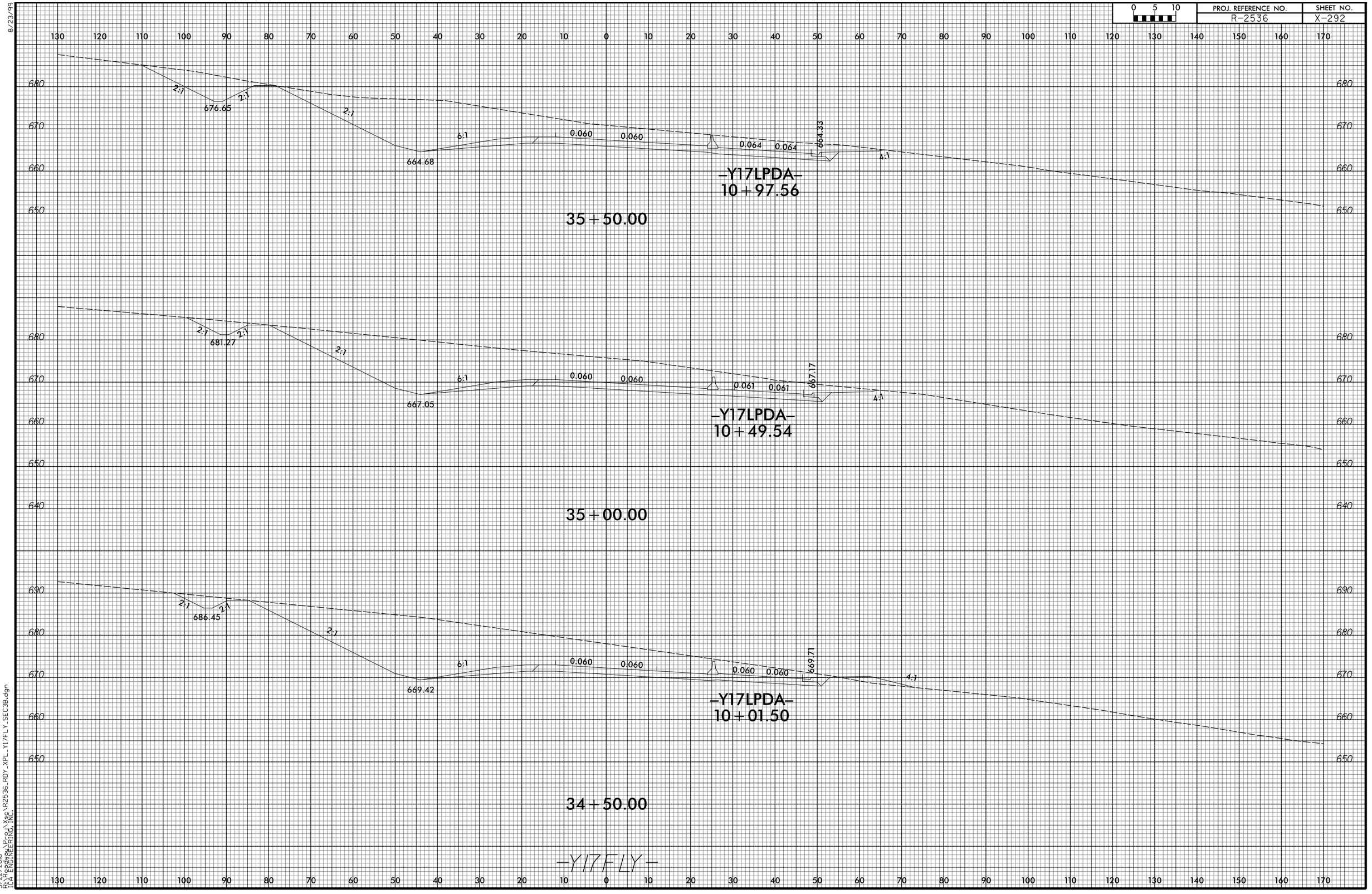
-Y17FLY-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17FLY_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-292



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-293

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

680 670 660 650

2:1 2:1 680.45 2:1 657.56 6:1 0.060 0.060 SP 467 0.077 0.077 654.86 4:1

–Y17LPDA–
12+32.61

37+00.00

2:1 2:1 682.90 2:1 659.94 6:1 0.060 0.060 SP 466 0.064 0.064 658.24 4:1

–Y17LPDA–
11+89.14

36+50.00

2:1 2:1 679.78 2:1 662.31 6:1 0.060 0.060 SP 465 0.069 0.069 661.99 4:1

–Y17LPDA–
11+45.61

36+00.00

–Y17FLY–

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[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-294

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

670 660 650 640

2:1 2:1 666.80 2:1 650.45 6:1 0.060 0.060 6:1 648.69 4:1 SP 470 4:1 643.71 6:1 0.080 0.080 645.27 4:1

–Y17LPDA–
13+50.00

38+50.00

670 660 650 640

2:1 2:1 672.40 2:1 652.82 6:1 0.060 0.060 6:1 646.00 SP 469 6:1 0.080 0.080 648.14 4:1

–Y17LPDA–
13+17.16

38+00.00

680 670 660 650

2:1 2:1 678.00 2:1 655.19 6:1 0.060 0.060 6:1 651.16 SP 468 6:1 0.080 0.080 651.59 4:1

–Y17LPDA–
12+73.87

37+50.00

–Y17FLY–

110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

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[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-295

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

660 650 640

2:1 649.61 2:1 2:1 640.96 6:1 0.060 0.060 5:1 SP 474

40+50.00

660 650 640

2:1 653.72 2:1 2:1 643.33 6:1 0.060 0.060 6:1 641.57 5:1 SP 473

40+00.00

660 650

2:1 657.83 2:1 2:1 645.70 6:1 0.060 0.060 6:1 6:1 643.94 SP 472

39+50.00

660 650

2:1 661.94 2:1 2:1 648.07 6:1 0.060 0.060 6:1 6:1 646.31 SP 471

39+00.00

-YI7FLY-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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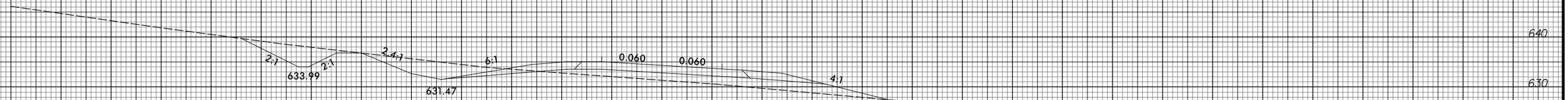
R:\Roads\Proj\Xsc\R2536_RDY_XPL_YI7FLY_SEC3B.dgn
[CA ENGINEERING, INC.

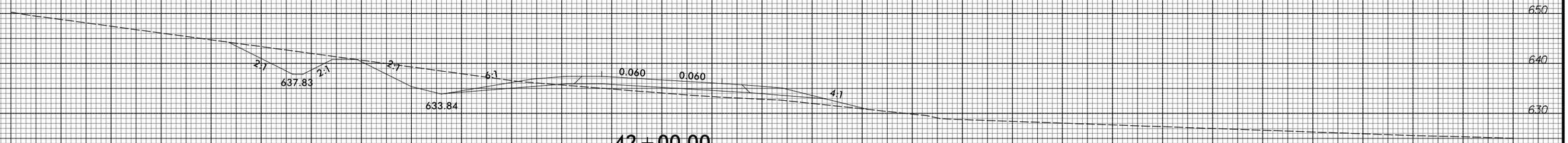
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-296

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

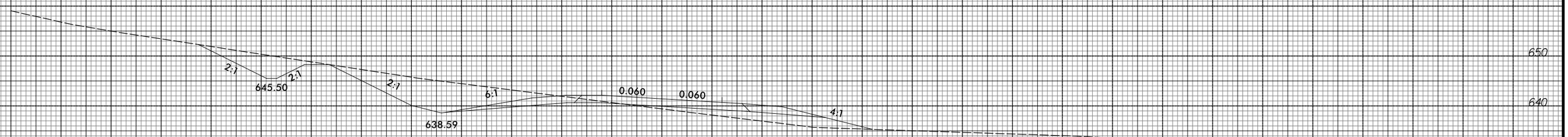


42+50.00



42+00.00

41+50.00



41+00.00

-Y17FLY-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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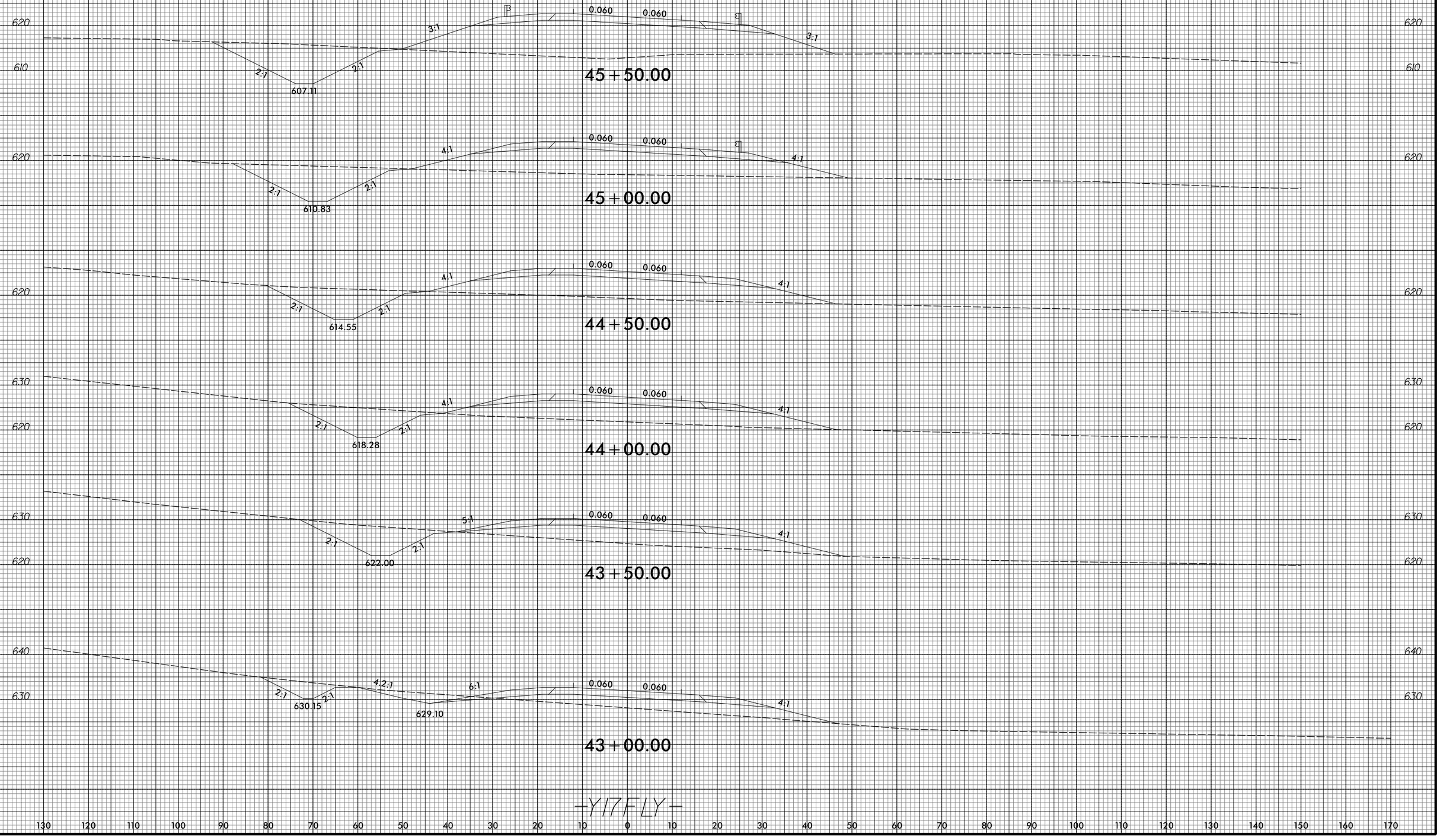
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-297

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170



130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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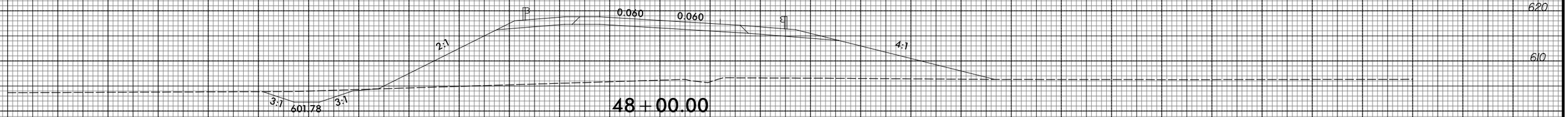
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17FLY_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

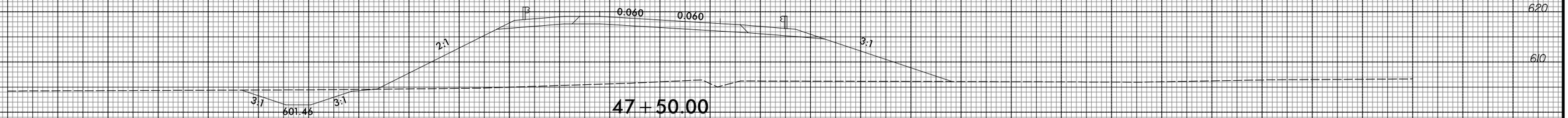
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-298

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

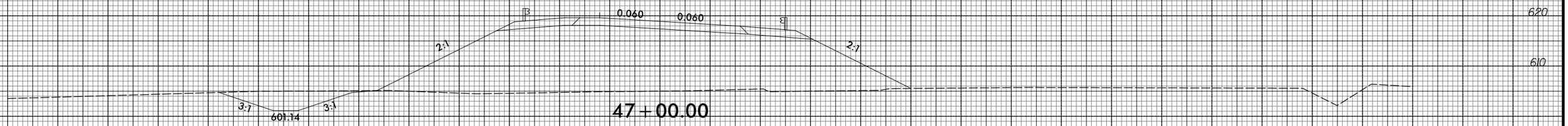
620
610



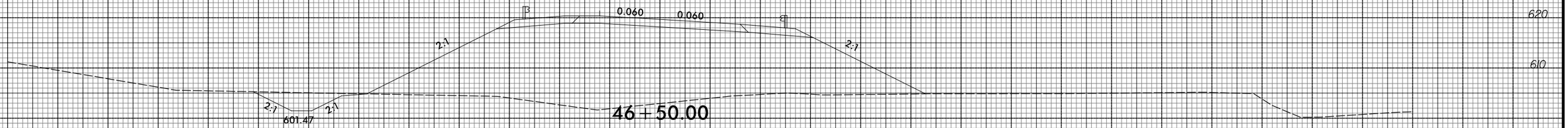
48+00.00



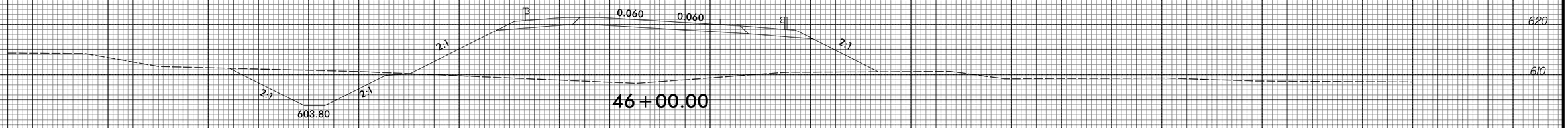
47+50.00



47+00.00



46+50.00



46+00.00

—Y17FLY—

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-299

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

620
610

SP 500

0.056 0.056

2:1 6:1 6:1

611.05

50+95.00

620
610

SP 499

0.038 0.038

5:1 5:1

3:1 3:1

605.25

S.S. 614.12

50+50.00

620
610

SP 498

0.018 0.018

4:1 4:1

3:1 3:1

604.35

S.S. 610.98

50+00.00

620
610

0.002 0.002

3:1 4:1

3:1 3:1

603.46

49+50.00

620
610

0.022 0.022

2:1 4:1

3:1 3:1

602.73

49+00.00

620
610

0.042 0.042

2:1 4:1

3:1 3:1

602.10

48+50.00

-Y17FLY-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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[CA ENGINEERING, INC.

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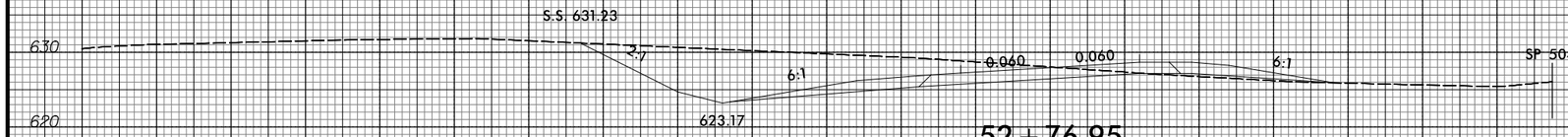
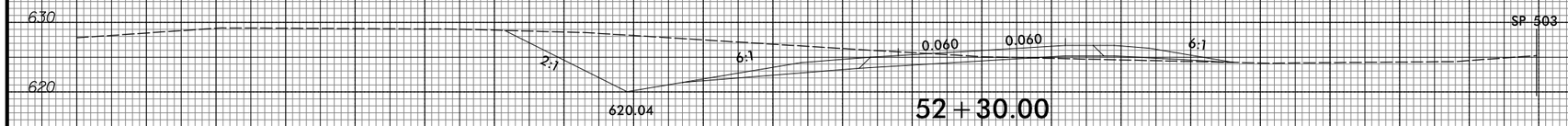
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-300

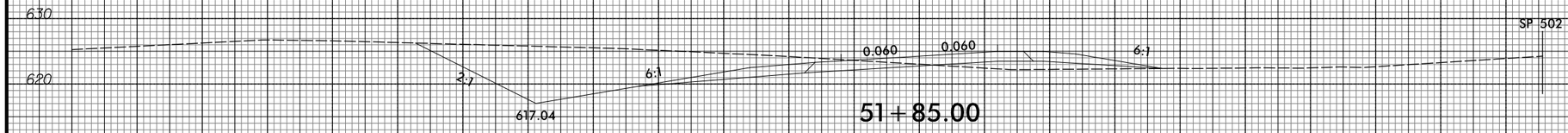
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170



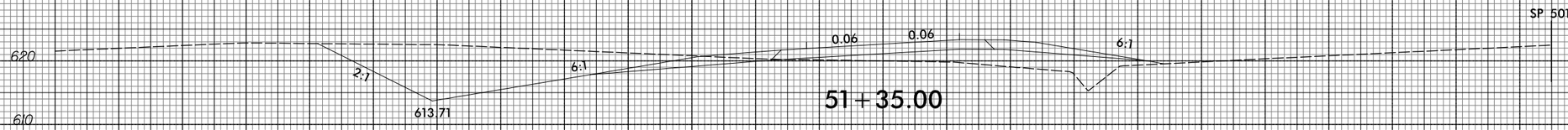
52 + 76.95



52 + 30.00



51 + 85.00



51 + 35.00

-Y17FLY-

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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TGA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-301

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750
740
730

737.19
17+00.00

4:1

750
740

734.37
16+50.00

4:1

750
740

736.59
16+00.00

4:1

750
740

738.77
15+50.00

4:1

750
740

740.85
15+00.00

2:1

-Y17-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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TGA ENGINEERING, INC.

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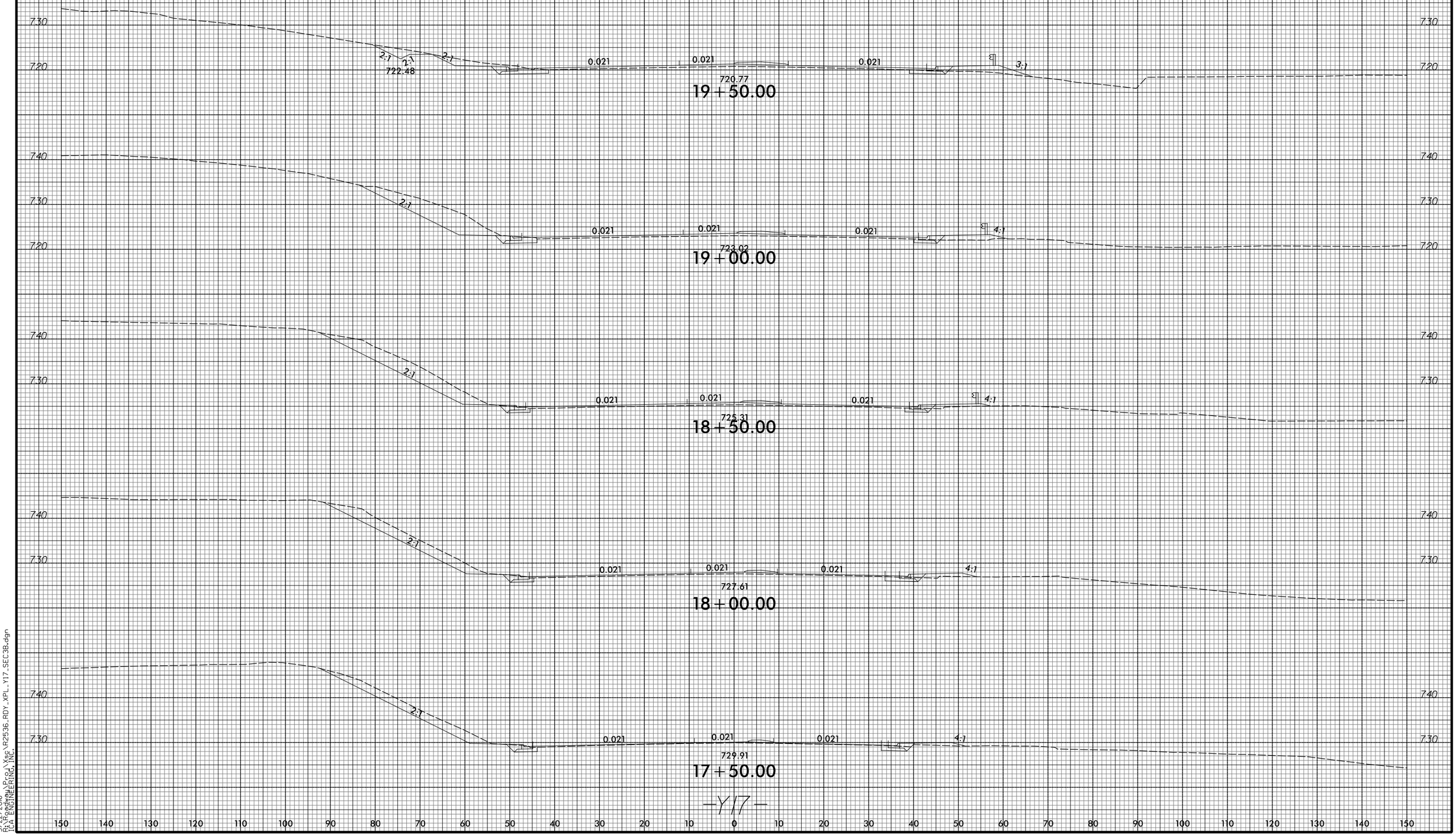
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-302

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



—Y17—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-303

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 / 710 / 700

2:1 2:1 2:1 6:1

716.76

707.63

0.020 6:1 6.3:1 0.020

711.51

D.P. 710.28

2:1

21+50.00

720 / 710 / 700

2:1 0.020 6:1 6.2:1 0.021

713.82

D.P. 713.06

2:1

21+00.00

720 / 710 / 700

2:1 0.021 6:1 6.2:1 0.021

716.02

D.P. 715.90

2:1

20+50.00

730 / 720 / 710

2:1 2:1 2:1 0.021 0.021 0.021

720.38

718.45

2:1

20+00.00

—Y17—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-304

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 710 700 690

2:1 2:1 2:1 2:1 6:1 4:1 7.25:1 4:1

714.45 698.42 701.24 D.P. 700.88 701.31

0.020 0.020 0.023 0.023

–Y17RPC–
24+97.77

23+50.00

720 710 700

2:1 2:1 2:1 2:1 6:1 6:1 6.4:1 3:1

714.70 700.71 703.71 D.P. 703.33 703.76

0.020 0.020 0.022 0.022

–Y17RPC–
25+47.95

23+00.00

720 710 700

2:1 2:1 2:1 2:1 6:1 6:1 6.4:1 2:1

714.95 703.01 706.88 D.P. 705.39 706.15

0.020 0.020 0.022

–Y17RPC–
25+98.19

22+50.00

720 710 700

2:1 2:1 2:1 2:1 6:1 6:1 6.4:1 2:1

715.20 705.31 709.18 D.P. 707.93

0.020 0.020 0.020

22+00.00

–Y17–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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TGA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-305

180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

720 710 700 690

2:1 2:1 718.07 2:1 691.54 6:1 0.020 6:1 6.3:1 693.69 D.P. 691.16 0.020 0.038 0.039 693.65 4:1

–Y17RPC–
23+47.53

25+00.00

2:1 2:1 716.86 2:1 693.83 6:1 0.020 6:1 6.3:1 696.26 D.P. 698.45 0.020 0.023 0.023 696.35 4:1

–Y17RPC–
23+97.64

24+50.00

2:1 2:1 715.66 2:1 696.12 6:1 0.020 6:1 6.3:1 698.96 D.P. 698.74 0.020 0.023 0.023 698.83 4:1

–Y17RPC–
24+47.71

24+00.00

–Y17–

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Roadway
ICA ENGINEERING, INC.
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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-306

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

730 720 710 700 690 680

2:1 2:1 720.11 2:1 6:1 686.95 0.020 6:1 6.2 96:1 689.13 D.P. 689.57 0.020 0.077 0.078 688.10 4:1

–Y17RPC–
22+46.98

26+00.00

2:1 2:1 719.28 2:1 6:1 689.25 0.020 6:1 6.3:1 691.36 D.P. 690.87 0.020 0.058 0.058 690.88 4:1

–Y17RPC–
22+97.35

25+50.00

–Y17–

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-307

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

730
720
710
700
690
680

2:1
720.63
2:1
2:1
6:1
682.37
0.020
6:1
6.3:1
684.84
D.P. 684.99
0.020
SP 440
6:1

27+00.00

730
720
710
700
690
680

2:1
720.37
2:1
2:1
6:1
684.66
0.020
6:1
6.3:1
686.70
D.P. 687.28
0.020
SP 441
0.088
0.088
685.44
4:1:1

26+50.00

–Y17–

–Y17RPC–
21+96.27

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-308

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

730
720
710
700
690
680

2:1
2:1
724.58
2:1
6:1
677.78
0.020
6:1
6.3:1
0.020
6:1
SP 438
D.P. 680.22 680.40
28+00.00

740
730
720
710
700
690
680

2:1
2:1
722.61
2:1
6:1
680.07
0.020
6:1
6.3:1
0.020
6:1
SP 439
D.P. 682.43 682.69
27+50.00

-Y17-

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

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[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-309

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

730 720 710 700 690 680 670

2:1 2:1 718.12 2:1 673.45 6:1 0.020 6:1 6.2:1 0.020 6:1 SP 436

D.P67483.82

29+00.00

730 720 710 700 690 680 670

2:1 721.80 2:1 2:1 675.49 6:1 0.020 6:1 6.2:1 0.020 6:1 675.67 SP 437

D.P677.71 678.11

28+50.00

—Y17—

210 20 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

3/22/2016
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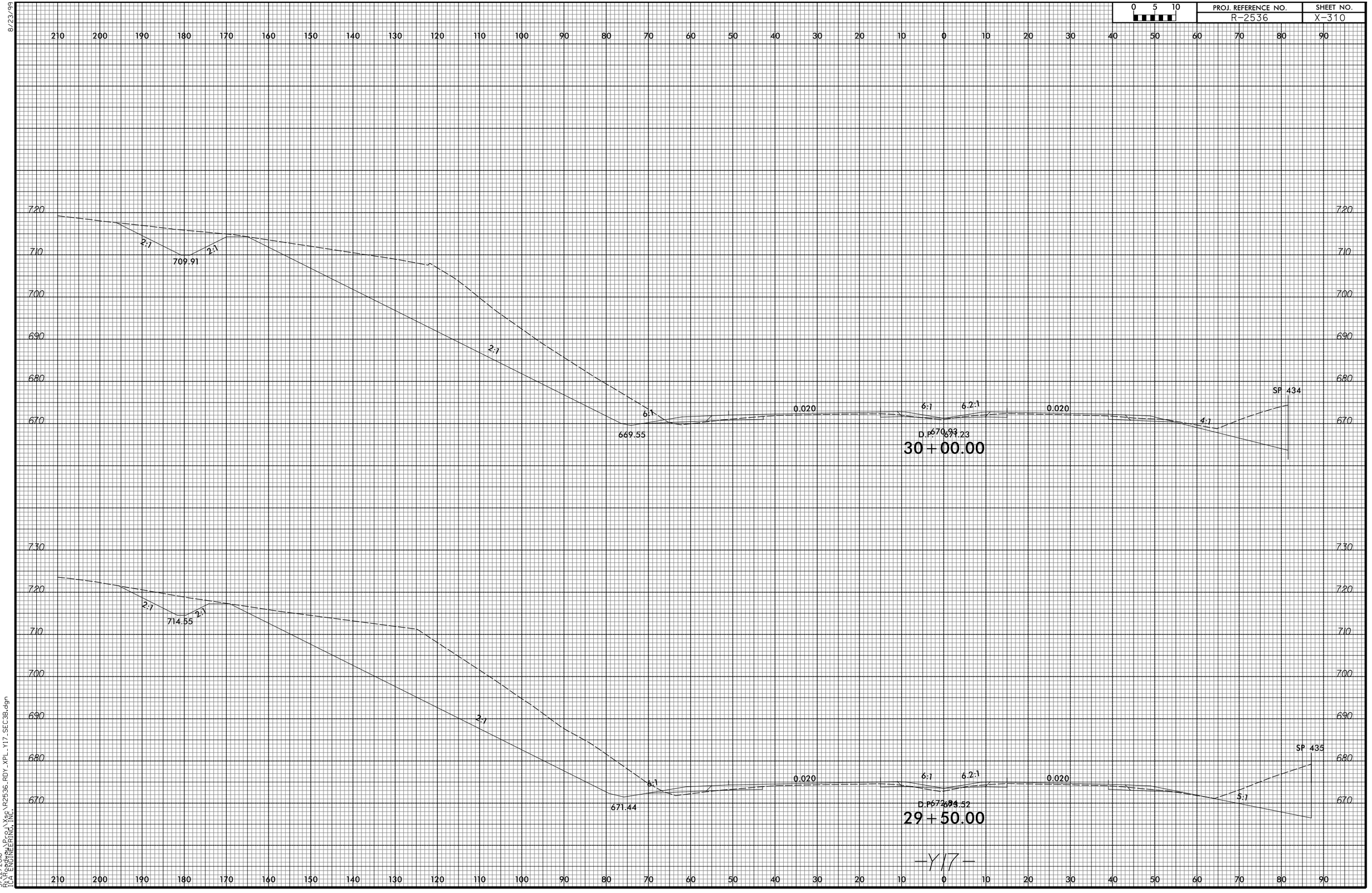
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-310



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N:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-311

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700 690 680 670 660

2:1 2:1 696.95 2:1 666.63 0.020 6:1 6.2:1 666.45 D.P. 666.65

31+00.00

730 720 710 700 690 680 670 660 650

2:1 2:1 703.43 2:1 668.32 6:1 0.020 6:1 6.2:1 30+50.00 D.P. 668.94

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

—Y17—

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-312

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690 680 670 660 650 640 630

6:1 6.2:1 0.020 5:1 5:1

666.45

D.P. 666.65

SP 432

31+00.00

648.74

700 690 680 670 660 650 640 630

6:1 6.2:1 0.020 5:1

D.P. 666.94

SP 433

30+50.00

-Y17-

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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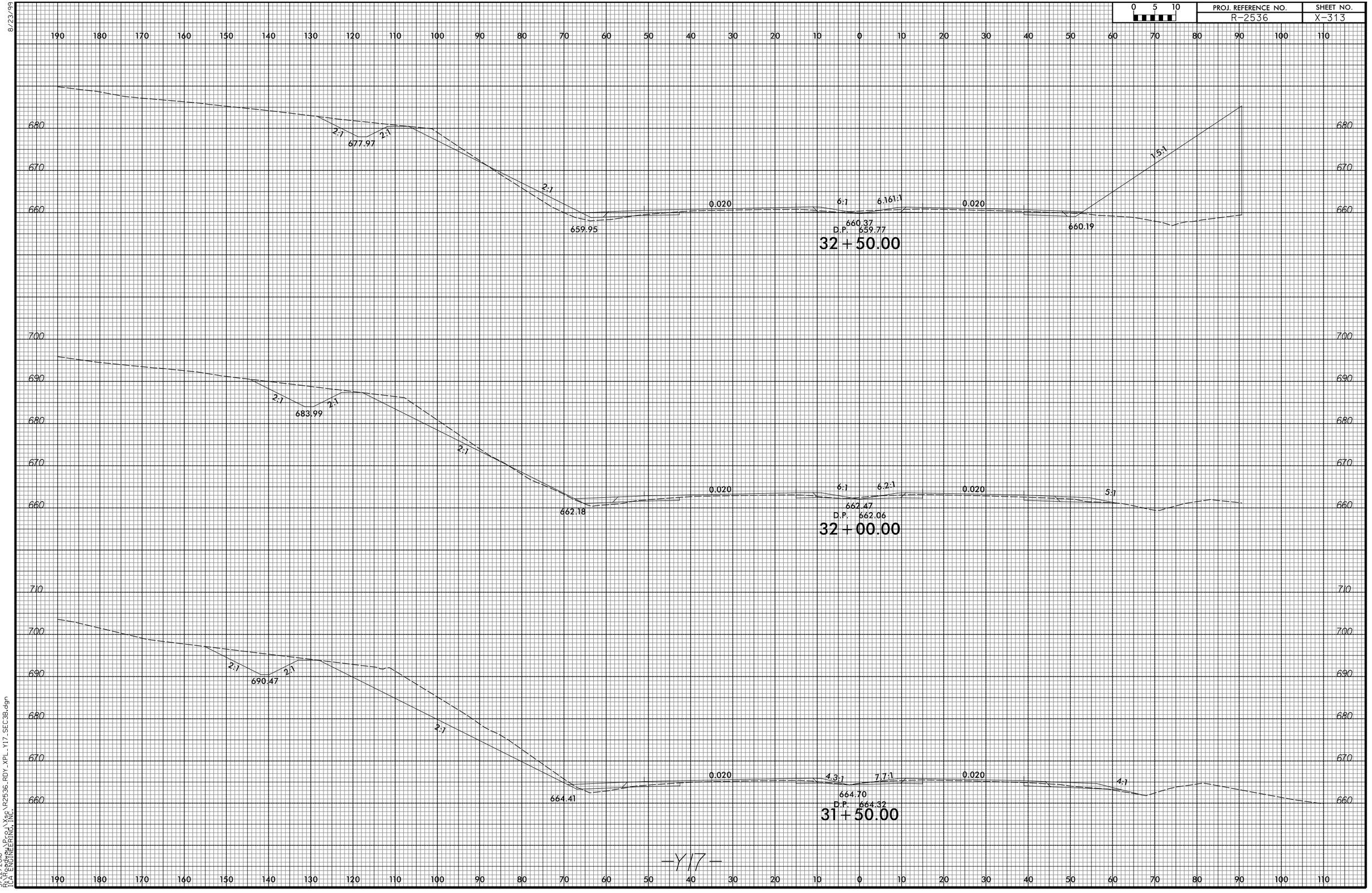
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-313



-Y17-

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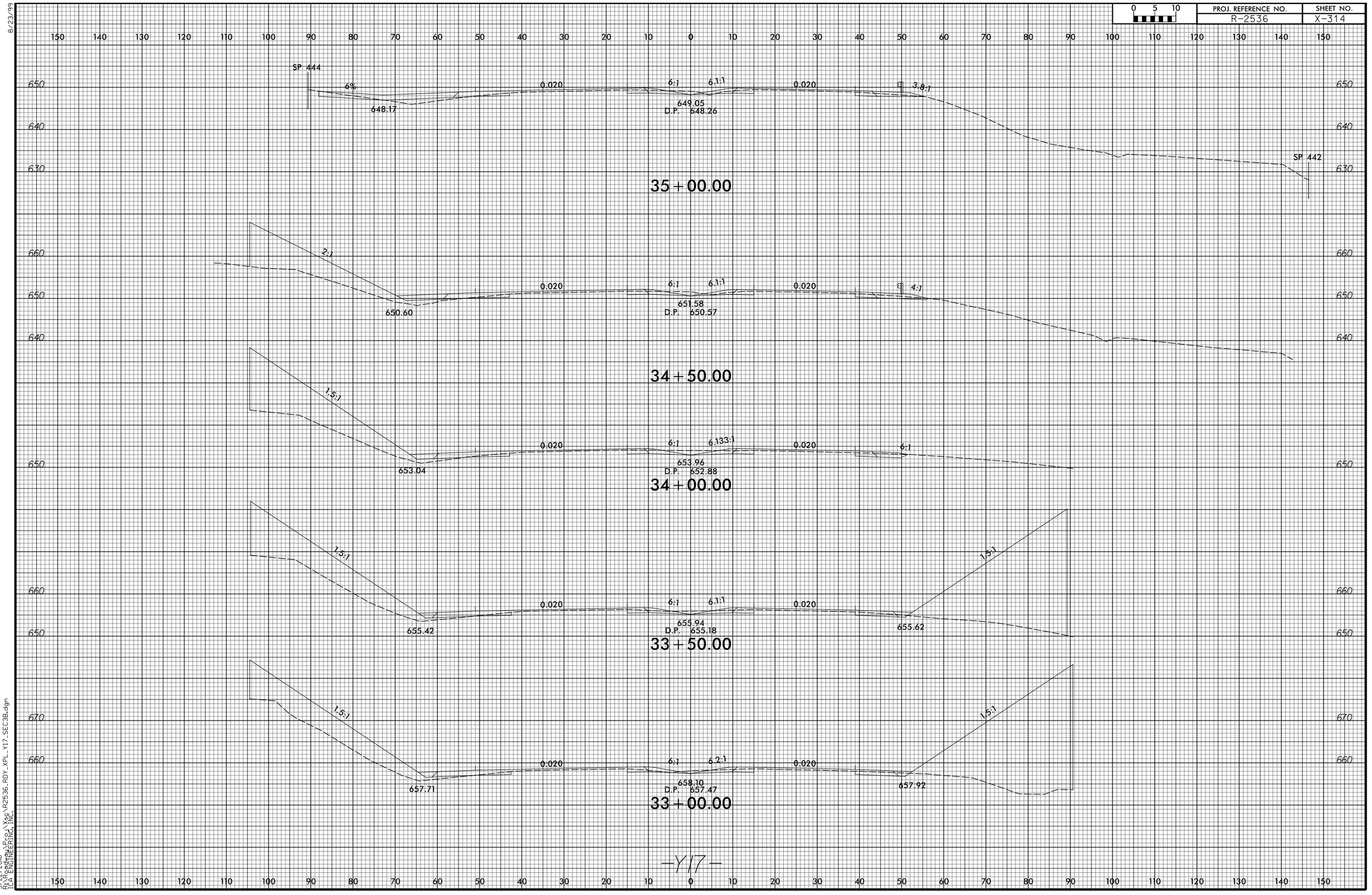
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17_SEC3B.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-314



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R:\Projects\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-315

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 630 620

639.63 0.021 0.020 6:1 6.2:1 0.020 2:1

4:1 2:1 636.24

D.P. 638.77 639.00

–Y17LPDA–
20+65.76

37+00.00

SP 447

639.63 0.021 0.020 6:1 6.2:1 0.020 2:1

4:1 2:1 638.68

D.P. 641.32 641.31

–Y17LPDA–
21+15.76

36+50.00

650 640 630

SP 446

4:1 6:1 0.020 6:1 6.1:1 0.020 2:1

641.01

D.P. 643.89 643.63

36+00.00

SP 445

6:1 0.020 6:1 6.1:1 0.020 3:1

644.59

D.P. 646.50 645.94

SP

35+50.00

–Y17–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-316

180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

630 620 610

628.90 0.085 0.069 SP 455 6:1 6:1 628.69 0.020 6:1 6.2:1 0.020 2% 2:1

4:1 2:1 621.30

–Y17LPDA–
18+70.70

D.P. 629.83

39+00.00

631.17 0.069 0.060 SP 454 0.020 6:1 6.2:1 0.020 2% 2:1

4:1 2:1 622.48

–Y17LPDA–
19+18.49

D.P. 632.05

38+50.00

640 630 620

633.77 0.064 0.058 0.020 6:1 6.2:1 0.020 2% 2:1

4.097:1 2:1 624.95

–Y17LPDA–
19+65.09

D.P. 634.37

38+00.00

636.96 0.039 0.020 6:1 6.2:1 0.020 2% 2:1

4.019:1 2:1 630.65

–Y17LPDA–
20+15.67

D.P. 636.68

37+50.00

–Y17–

180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

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P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-317

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

620 610

SP 463

2:1 0.020 6:1 6.2:1 0.020 2:1

621.01
D.P. 621.47

41+50.00

SP 461 SP 460

2:1 0.020 6:1 6.2:1 0.020 2:1

D.P. 622.45 622.78

41+00.00

SP 458

2:1 0.020 6:1 6.2:1 0.020 2:1

D.P. 623.86 624.26

40+50.00

630 620 610

SP 457

4:1 0.020 6:1 6.2:1 0.020 2:1

D.P. 625.36 625.93

40+00.00

630 620 610

4:1 0.080 0.080 6:1 SP 456 6:1 0.020 6:1 6.2:1 0.020 2:1

2:1
620.25

624.27

D.P. 627.29 627.79

–Y17LPDA–
18+28.00

39+50.00

–Y17–

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

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R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17_SEC3B.dgn
TCA ENGINEERING, INC.

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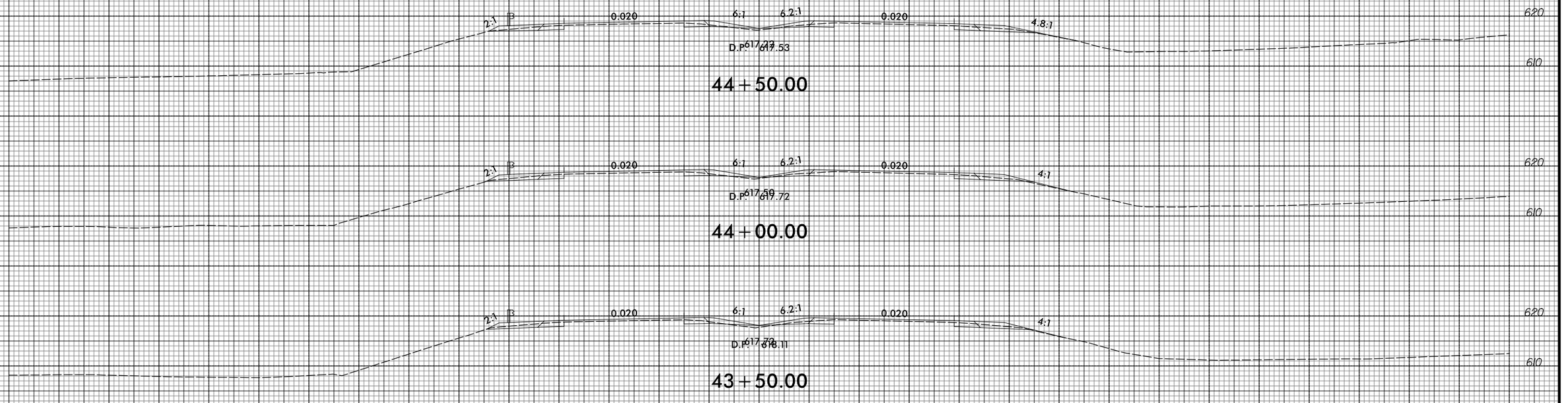
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-318

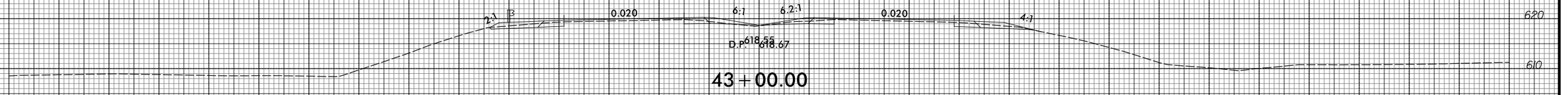
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



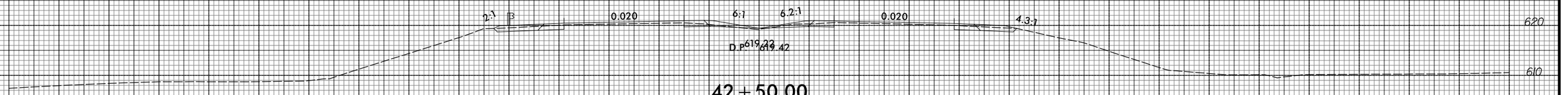
44 + 50.00

44 + 00.00

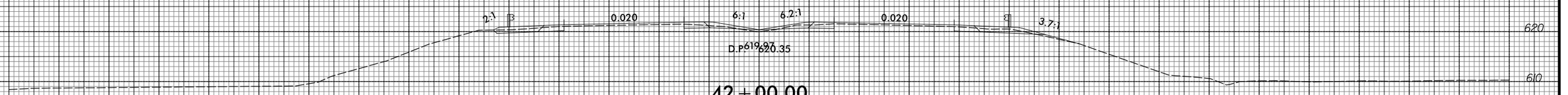
43 + 50.00



43 + 00.00



42 + 50.00



42 + 00.00

—Y17—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-319

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220

640 630 620 610

3:1 B 0.020 6:1 6.1:1 0.020 6:1 SP 490 6:1 0.080 0.080 6:1 2:1 47+00 210' RT

618.64
D.P. 619.30

614.57

612.69

47+00.00

–Y17RPD–
39+50.00

S.S. 636.95

47+00 210' RT 2:1 2:1 2:1 631.01

4:1 B 0.020 6:1 6.1:1 0.020 6:1 SP 489

618.14
D.P. 618.58

612.10

46+50.00

3:1 B 0.020 6:1 6.1:1 0.020 6:1 SP 488 5:1

617.74
D.P. 618.04

46+00.00

2:1 B 0.020 6:1 6.2:1 0.020 6:1 SP 487 4:1

617.15
D.P. 617.69

45+50.00

2:1 B 0.020 6:1 6.2:1 0.020 5.8:1 SP 486 4:1

617.03
D.P. 617.51

45+00.00

–Y17–

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220

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P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-320

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

630 620 610 600

SP 501

S.S. 626.43

3.0:1

621.66

6:1

0.020

6:1 6.1:1

D.P. 623.56 624.04

49+00.00

SP 500

S.S. 625.88

2.4:1

620.20

6:1

0.020

6:1 6.1:1

D.P. 622.39 622.58

48+50.00

SP 499

S.S. 623.02

3.85:1

618.92

6:1

0.020

6:1 6.1:1

D.P. 620.97 621.30

48+00.00

SP 498

5:1

0.020

6:1 6.1:1

D.P. 619.82 620.21

47+50.00

-Y17-

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-321

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

640 / 630

S.S. 634.36
2:1
6:1
627.70
0.060
0.060
–Y17FLY–
53+69.43
6:1
SP 506
630.36
6:1
0.020
6:1
6.2:1
D.P. 633.06
633.81

51+50.00

640 / 630 / 620

S.S. 633.31
2:1
6:1
625.29
0.060
0.060
–Y17FLY–
53+22.25
6:1
SP 505
6:1
0.020
6:1
6.1:1
D.P. 631.08
631.67

51+00.00

630 / 620

S.S. 631.23
2:1
6:1
623.17
0.060
0.060
–Y17FLY–
52+76.95
6:1
SP 504
S.S. 627.71
627.15
6:1
0.020
6:1
6:1
D.P. 629.08
629.53

50+50.00

630

SP 503
S.S. 627.06
6:1
625.13
6:1
0.020
6:1
6:1
D.P. 627.21
627.51

50+00.00

630 / 620

SP 502
S.S. 626.87
4.48:1
623.31
6:1
0.020
6:1
6:1
D.P. 625.28
625.69

49+50.00

–Y17–

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-322

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

650 640 630

635.30 6:1 3:1 0.060 0.060 SP 509 0.020 6:1 6.5:1 D.P. 639.71 640.24

–Y17FLY–
55+15.03

53+00.00

650 640 630

S.S. 636.91 3.7 0.1 6:1 632.70 0.060 0.060 SP 508 0.020 6:1 6.4:1 D.P. 637.98 638.10

–Y17FLY–
54+65.32

52+50.00

640 630

2:1 6:1 630.16 0.060 0.060 SP 507 6:1 634.25 0.020 6:1 6.3:1 635.61 D.P. 635.95

–Y17FLY–
54+16.54

52+00.00

–Y17–

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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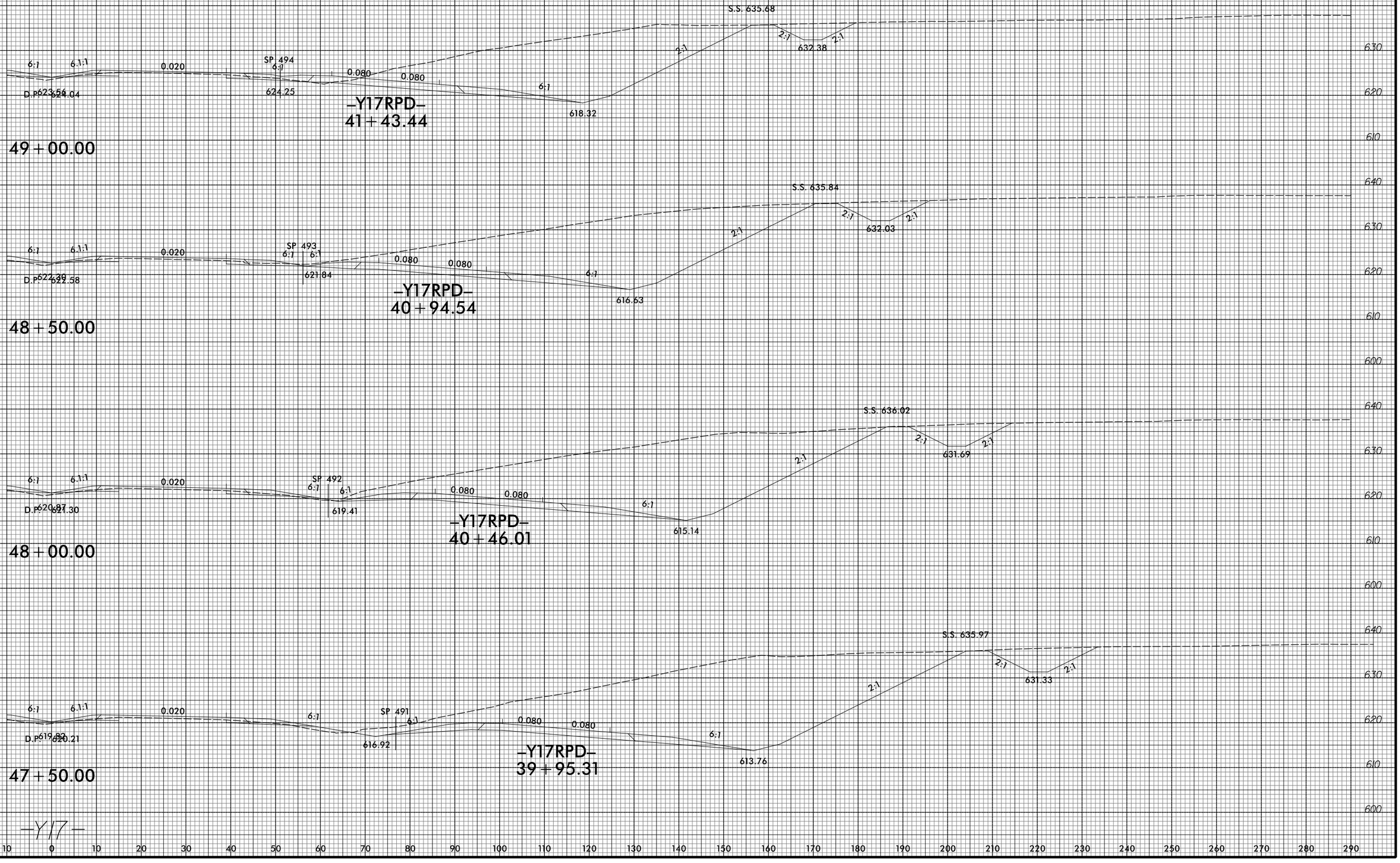
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-323

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

630 620 610 640 630 620 610 600 640 630 620 610 600 640 630 620 610 600



–Y17–

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P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-324

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

640 / 630 / 620

6:1 6:1 0.020 0.053 0.053 6:1 2:1 2:1 2:1

D.P. 631.08 628.67 627.29 S.S. 641.59 637.15

–Y17RPD–
43+40.38

51+00.00

6:1 6:1 0.020 0.072 0.073 6:1 2:1 2:1 2:1

D.P. 629.09 625.53 624.55 S.S. 637.17 633.99

–Y17RPD–
42+90.31

50+50.00

6:1 6:1 0.020 0.084 0.084 6:1 2.01:1 2:1 2:1

D.P. 627.21 627.51 622.05 S.S. 636.38 633.06

–Y17RPD–
42+40.11

50+00.00

6:1 6:1 0.020 0.085 0.085 6:1 2.02:1 2:1 2:1

D.P. 625.28 625.69 619.93 S.S. 635.81 632.70

–Y17RPD–
41+89.69

49+50.00

–Y17–

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TCA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-325

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

650
640

6:1 6.5:1 0.020 6:1 2:1 2:1 2:1

S.S. 644.61

640.80

637.26

D.P. 638.70 638.24

53+00.00

650
640

6:1 6.4:1 0.020 6:1 2:1 2:1 2:1

S.S. 643.47

637.73

635.13

D.P. 637.68 638.10

52+50.00

640
630

6:1 6.3:1 0.020 0.020 0.020 6:1 2:1 2:1 2:1

S.S. 642.43

636.49

632.51

635.61

D.P. 635.95

–Y17RPD–
44+40.40

52+00.00

640
630

6:1 6.2:1 0.020 0.033 0.034 6:1 2:1 2:1 2:1

S.S. 642.06

636.82

630.03

D.P. 633.86 633.81

–Y17RPD–
43+90.40

51+50.00

–Y17–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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TCA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-326

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

660 650 640

0.020 0.007 6:1 6.5:1 0.020 2:1 2:1 2:1 6:1

4:1

651.55

D.P. 650.91

656.00

648.18

–Y17FLY–
57+62.70

55+50.00

660 650 640

S.S. 654.88

0.030 0.015 6:1 6.7:1 0.020 2:1 2:1 2:1 6:1

5:1

649.08

D.P. 648.82

653.00

645.80

–Y17FLY–
57+12.70

55+00.00

650 640

S.S. 651.19

0.052 0.020 6:1 6.8:1 0.020 2:1 2:1 2:1 6:1

6.3:1

640.12

646.62

D.P. 646.69

650.00

643.66

–Y17FLY–
56+62.66

54+50.00

650 640

S.S. 649.15

0.066 0.020 6:1 6.7:1 0.020 2:1 2:1 2:1 6:1

S.S. 639.14

6.8:1

644.25

D.P. 644.54

646.93

641.52

–Y17FLY–
56+12.46

54+00.00

650 640

S.S. 647.06

0.068 0.068 0.020 6:1 6.6:1 0.020 2:1 2:1 2:1 6:1

S.S. 638.44

6.1:1

641.93

D.P. 642.39

643.87

637.60

639.39

–Y17FLY–
55+61.91

53+50.00

–Y17–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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TCA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-327

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

670 660 650

4:1 0.031 6.6:1 6:1 0.030 6:1 2:1 2:1 2:1

660.20
D.P. 659.48

656.43

662.29

57+50.00

670 660 650

4:1 0.022 6.2:1 6:1 0.021 6:1 2:1 2:1 2:1

658.42
D.P. 657.27

654.61

658.37

57+00.00

660 650

4:1 0.014 6:1 6:1 0.020 6:1 2:1 2:1 2:1

655.93
D.P. 655.11

652.48

658.69

56+50.00

660 650

3:1 0.005 6:1 6.2:1 0.020 6:1 2:1 2:1 2:1

S.S. 644.41

653.65
D.P. 653.01

650.33

659.00

56+00.00

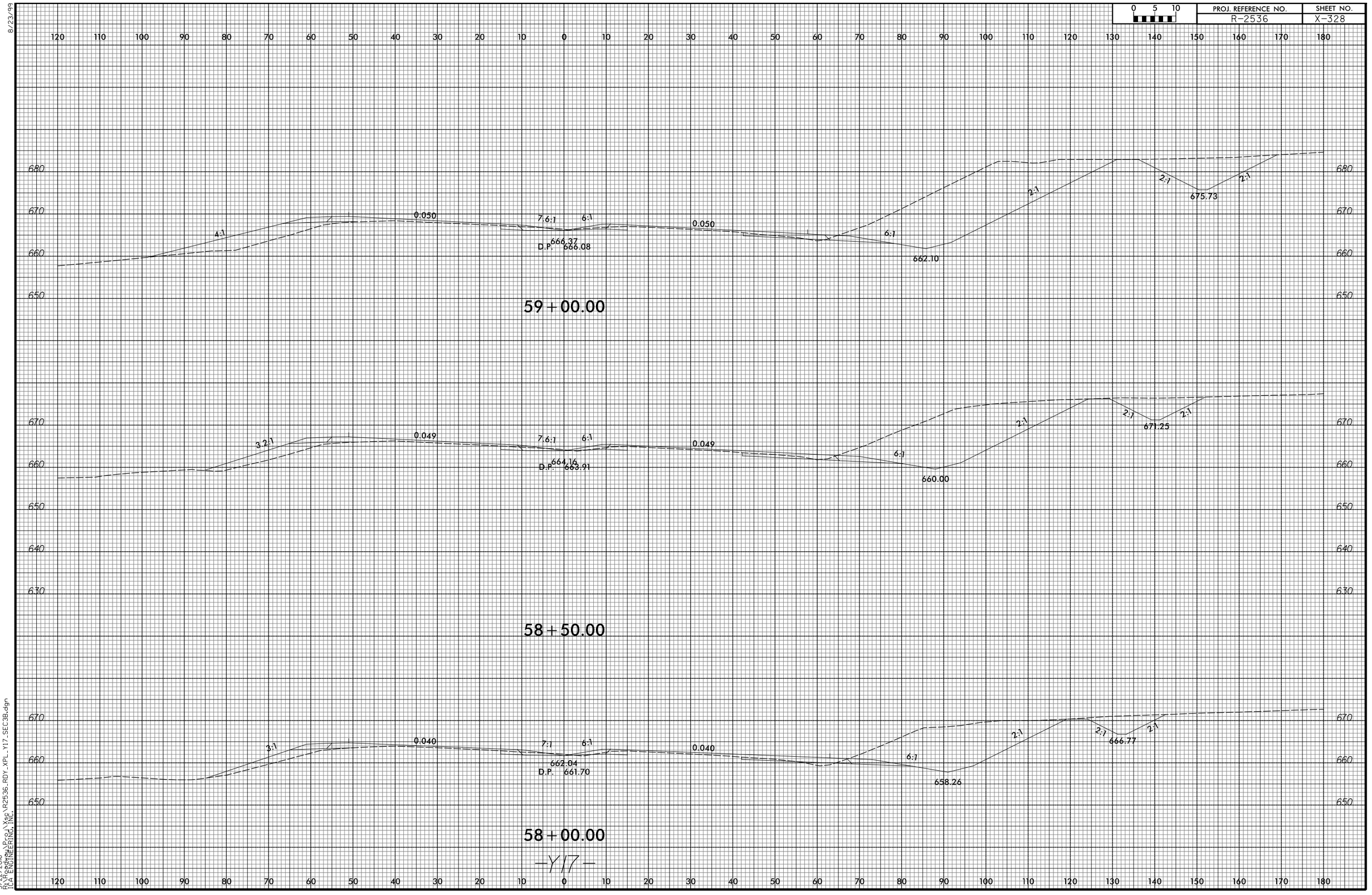
—Y17—

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-328



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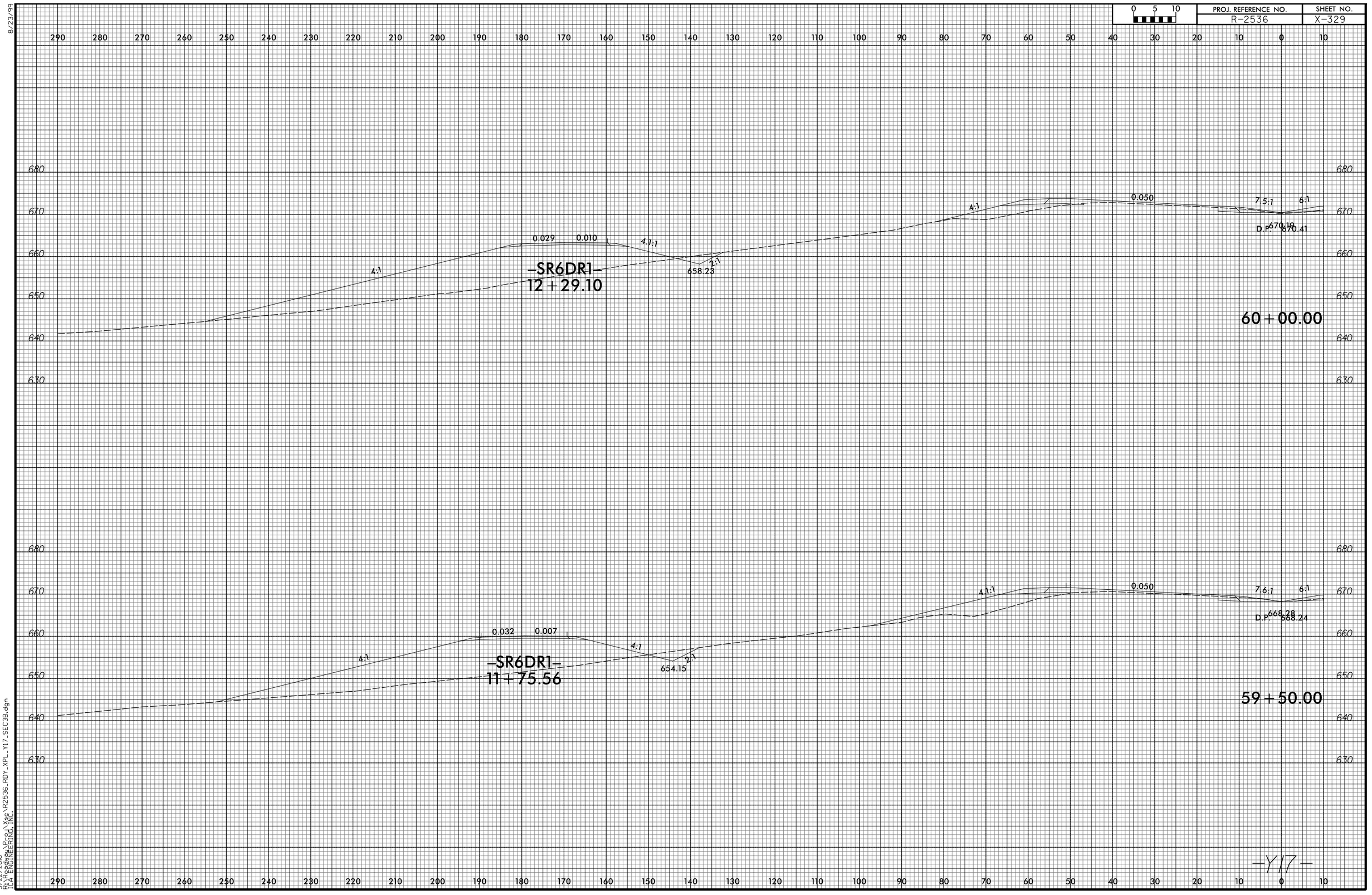
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-329



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-330

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

700 690 680 670 660

20% 18% 12% 4:1 0.027 0.013 4:1 4:1 0.050 7.3:1 6:1

669.66

D.P. 676.77 676.89

-SR6-
11+64.56

61+50.00

A:1 0.027 0.012 4:1 4:1 0.050 7.4:1 6:1

666.22

674.37
D.P. 674.73

-SR6-
11+12.25

61+00.00

A:1 0.016 0.015 4:1 4:1 0.050 7.4:1 6:1

662.30

672.12
D.P. 672.57

60+50.00

-Y17-

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TGA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-331

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

690 680 670

0.024 0.016 4:1 4:1 0.050 7.1:1 6:1

679.35 D.P. 683.17 683.37

–SR6–
13+20.54

63+00.00

690 680 670

4:1 0.025 0.015 4:1 4:1 0.050 7.1:1 6:1

676.22 D.P. 681.32 681.21

–SR6–
12+68.68

62+50.00

700 690 680 670

3:1 0.026 0.014 4:1 4:1 0.050 7.2:1 6:1

S.S. 668.46 672.99 D.P. 679.94 679.05

–SR6–
12+16.70

62+00.00

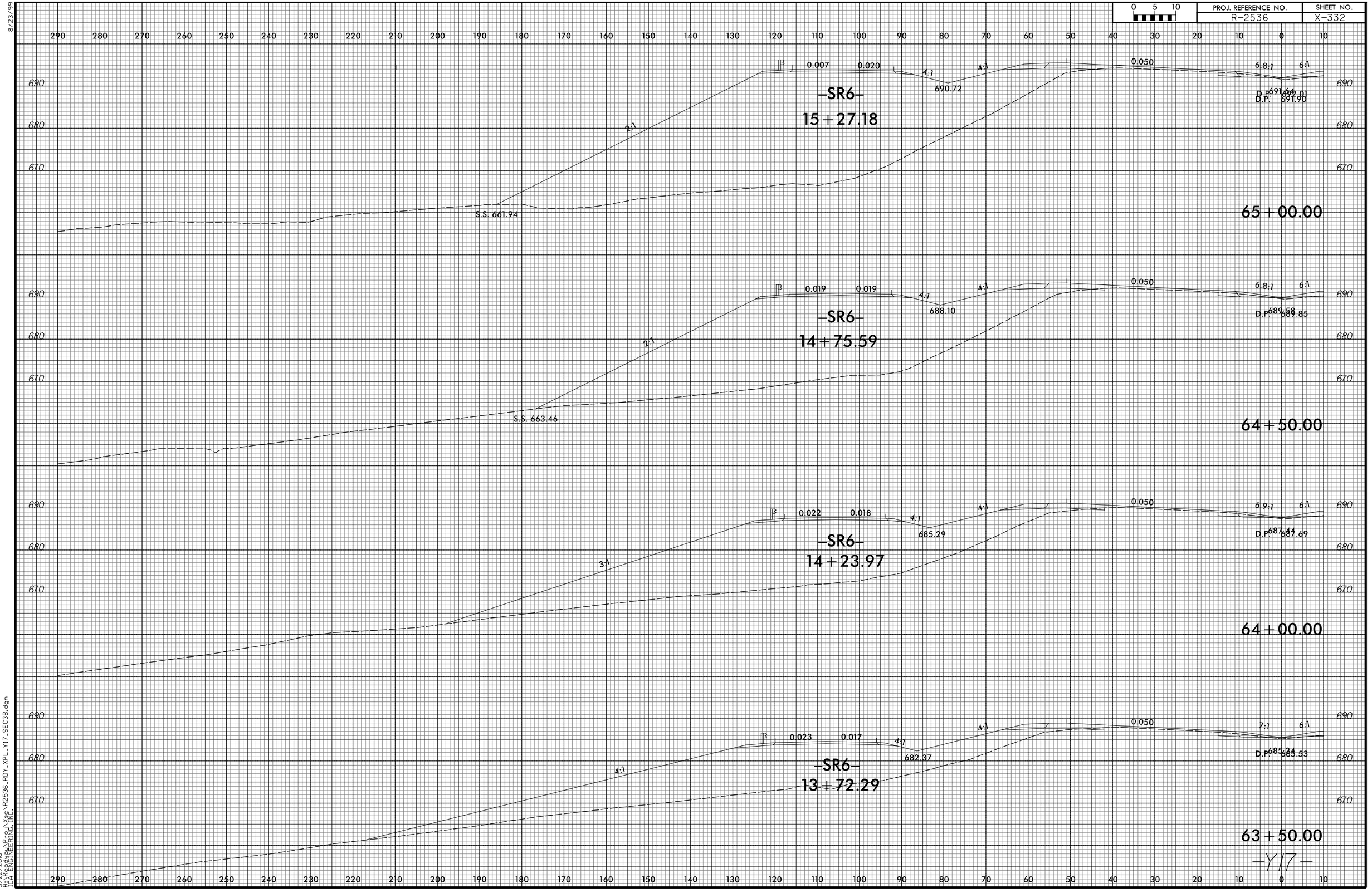
–Y17–

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-332



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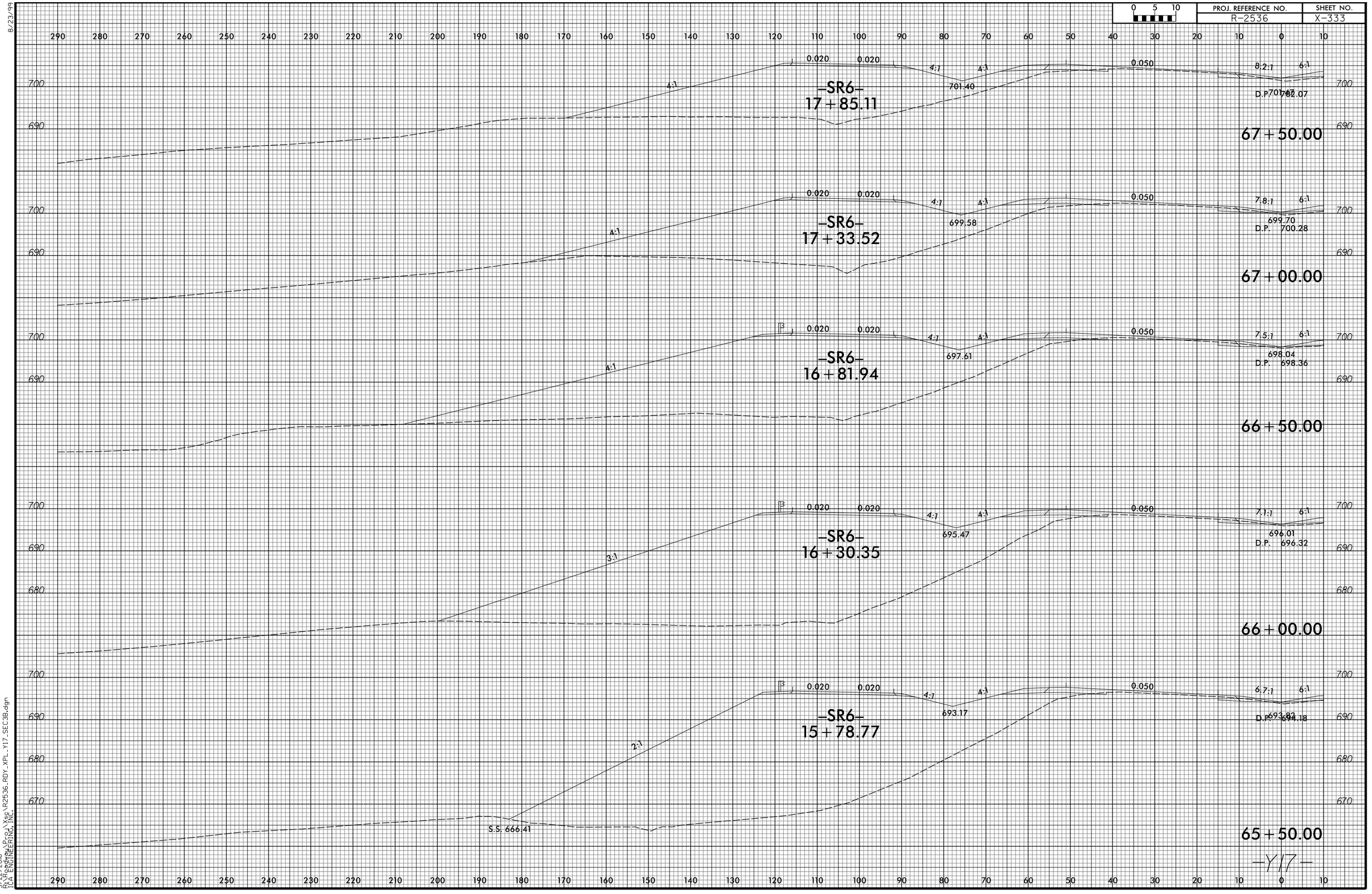
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-333



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-334

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700

12% 18% 12% 3:1 0.020 0.020 4:1 4:1 0.050 8.4:1 6:1

708.06 708.94 D.P. 709.17

–SR6–
20 + 43.17

70 + 00.00

3:1 0.020 0.020 4:1 4:1 0.050 9.2:1 6:1

S.S. 706.74 707.05 707.65 D.P. 708.03

–SR6–
19 + 91.46

69 + 50.00

3:1 0.020 0.020 4:1 4:1 0.050 9:1 6:1

705.88 706.27 D.P. 706.72

–SR6–
19 + 39.87

69 + 00.00

A:1 0.020 0.020 4:1 4:1 0.050 8.8:1 6:1

704.55 705.29 D.P. 706.75

–SR6–
18 + 88.28

68 + 50.00

A:1 0.020 0.020 4:1 4:1 0.050 8.5:1 6:1

703.05 703.74 D.P. 704.84

–SR6–
18 + 36.69

68 + 00.00

–Y17–

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-335

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

730
720
710
700

4:1
0.020
0.020
4:7
4:1
0.050
9:1
6:1
710.17
711.71
D.P. 712.03

–SR6–
21+97.82

71+50.00

720
710
700

4:1
0.020
0.020
4:7
4:1
0.050
9.2:1
6:1
709.60
710.83
D.P. 711.22

–SR6–
21+46.23

71+00.00

720
710
700

4:1
0.020
0.020
4:7
4:1
0.050
9.3:1
6:1
708.91
710.05
D.P. 710.28

–SR6–
20+94.64

70+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

–Y17–

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TCA ENGINEERING, INC.

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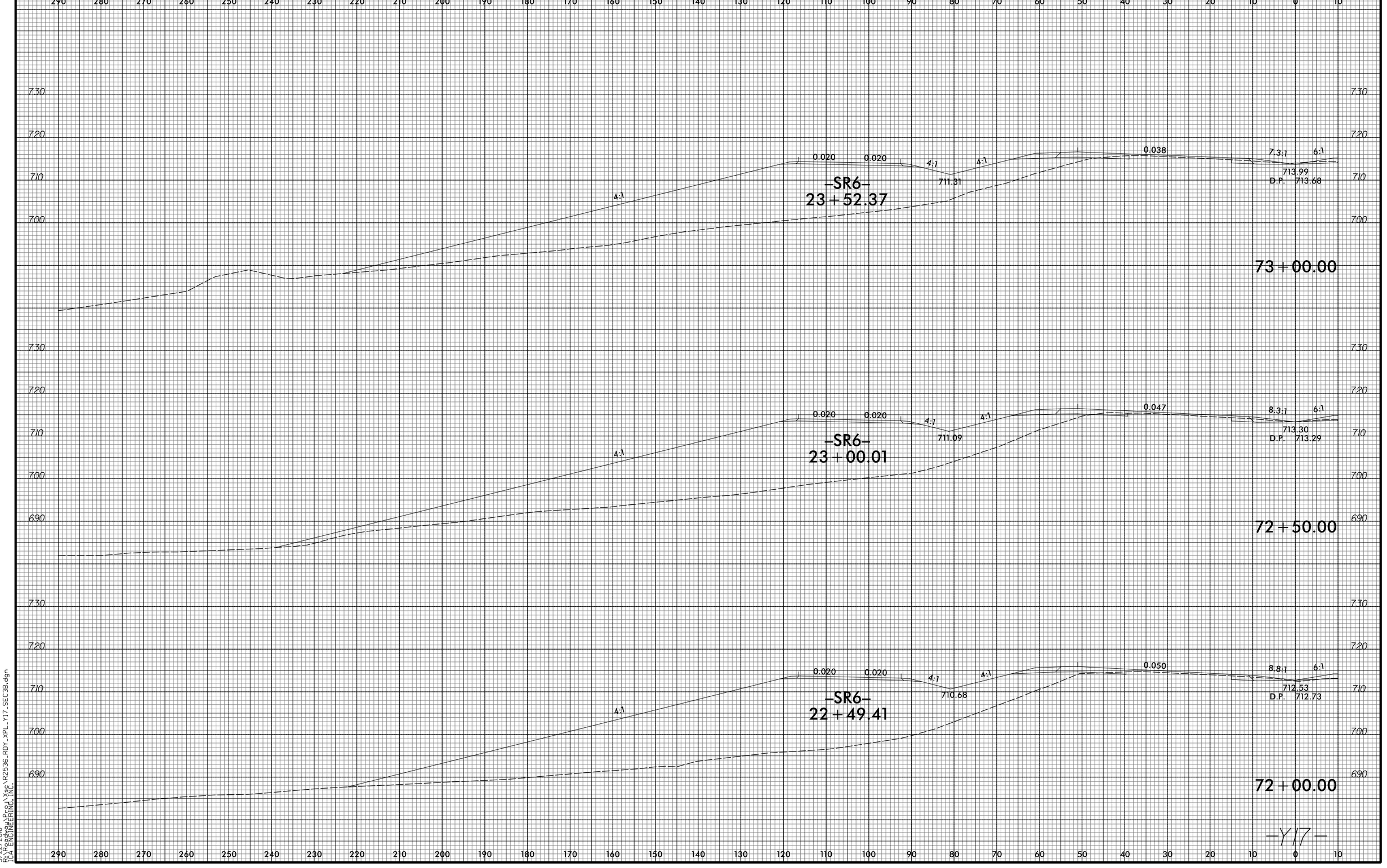
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-336



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[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-337

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

730 720 710 700 690

0.015 0.020 4:1 4:1 0.010 6:1 6.5:1

711.80 715.53 D.P. 714.39

4:1

–SR6–
25+04.69

74+50.00

0.009 0.020 4:1 4:1 0.020 6:1 6:1

711.66 715.15 D.P. 714.13

4:1

–SR6–
24+54.21

74+00.00

0.020 0.020 4:1 4:1 0.029 6.6:1 6:1

711.49 714.42 D.P. 713.96

4:1

–SR6–
24+03.44

73+50.00

–Y17–

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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[CA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-338

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

720 710 700 690 730

-SR6-
27+04.88

18% 25% 18% 4:1 12% 0.020 0.020 5:1 713.00 5:1 0.020 6:1 6:1
716.79
D.P. 715.70

76+50.00

-SR6-
26+54.88

4:1 0.020 0.020 5:1 712.76 5:1 0.017 6:1 7.5:1
716.55
D.P. 715.17

76+00.00

-SR6-
26+04.88

4:1 0.020 0.020 4:1 712.04 4:1 0.008 6:1 7.6:1
716.18
D.P. 714.91

75+50.00

-SR6-
25+54.88

0.020 0.020 4:1 711.92 4:1 0.001 6:1 7:1
715.80
D.P. 714.65

75+00.00

-Y17-

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-339

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

730 720 710

10% 12% 6% 2:0 3:1 2% 4% 0.035 0.035 5:1 4:1 4:1 6:1 0.020

717.42 4.16:1 718.91 717.55 721.17

–SR6–
29+56.48

79+00.00

730 720 710

3:1 4:1 0.039 0.039 6:1 6:1 0.020

716.71 715.71 719.99

–SR6–
29+05.29

78+50.00

730 720 710

4% 4:1 2% 4% 0.039 0.039 6:1 6:1 0.020 6:1 6:1

716.01 4.01:1 715.54 718.96 D.P. 718.59

–SR6–
28+54.91

78+00.00

720 710

4:1 0.022 0.022 6:1 6:1 0.020 6:1 10.2:1

714.83 718.09 D.P. 717.52

–SR6–
28+04.88

77+50.00

720 710

3:1 0.020 0.002 5:1 5:1 0.020 6:1 8:1

713.54 717.36 D.P. 716.67

–SR6–
27+54.88

77+00.00

–Y17–

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-340

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

730 720 710

2:1 4:1 0.041 0.040 4:1 2:1

721.61 720.26

-SR6-
31+68.35

S.S. 729.13 2:1 6:1 0.020 725.63 721.80

81+00.00

730 720 710

2:1 4:1 0.021 0.017 4.3:1 2.2:1

720.57 719.90

-SR6-
31+17.70

S.S. 727.61 2:1 6:1 0.020 724.65 720.88

80+50.00

730 720 710

12% 18% 12% 6% 2.3:1 2% 4% 0.000 0.007 4.4:1 2.2:1 4.5:1

719.43 719.56

-SR6-
30+62.98

S.S. 725.87 2:1 6:1 0.020 723.55 719.80

80+00.00

730 720 710

2.2:1 4.3:1 0.027 0.032 4.2:1 3.2:1

718.24 719.23

-SR6-
30+09.04

S.S. 723.38 3.12:1 6:1 0.020 722.38 718.68

79+50.00

-Y17-

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

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TCA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-341

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

730
720
710
700

S.S. 737.78
12%
18%
2:1
12%
6% 4:1
724.13
0.028
0.028
SP 525
0.020
727.42
-SR6-
33+65.00

82+50.00

S.S. 736.74
2:1
4:1
723.53
0.040
0.040
4:1
721.98
2:1
SP 523
2:1
722.82
6:1
0.020
726.92
-SR6-
33+08.00

82+00.00

S.S. 734.38
2:1
4:1
722.48
0.040
0.040
4:1
721.12
2:1
SP 521
2:1
722.49
6:1
0.020
726.33
-SR6-
32+33.00

81+50.00

-Y17-

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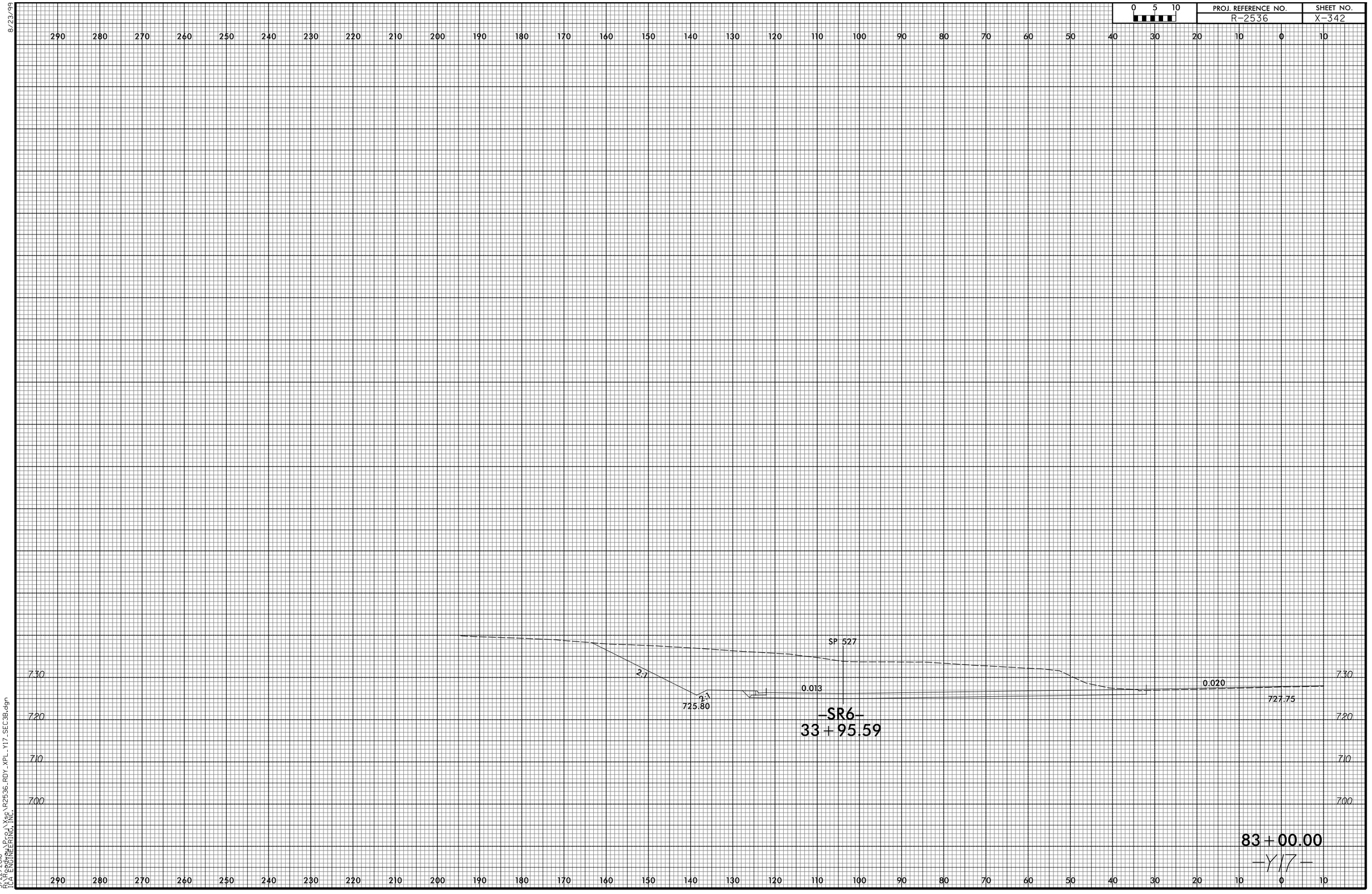
R:\Projects\Proj\Xsc\R2536_RDY_XPL_Y17_SEC3B.dgn
[C]A ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-342



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-343

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700 690 680 670 660 650

7.5:1 6:1 0.050 6:1 2:1 2:1 2:1

S.S. 694.87

684.70

666.43

D.P. 670.19 670.41

60+00.00

7:6:1 6:1 0.050 6:1 2:1 2:1 2:1

680.21

664.26

D.P. 668.28 668.24

59+50.00

—Y17—

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-344

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700 690 680 670 660

S.S. 696.32
2:1 2:1
693.79
2:1
7:3:1 6:1
0.050
6:1
676.77
D.P. 676.89
672.91

61+50.00

S.S. 697.39
2:1 2:1
693.66
2:1
7.4:1 6:1
0.050
6:1
674.37
D.P. 674.73
670.75

61+00.00

S.S. 696.80
2:1 2:1
689.18
2:1
7.4:1 6:1
0.050
6:1
672.12
D.P. 672.57
668.59

60+50.00

-Y17-

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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[CA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-345

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

690 680 670

7.1:1 6:1 0.050 D.P. 683.17 683.37 6:1 679.39 2:1 S.S. 693.68 2:1 688.61 2:1

63+00.00

700 690 680 670

7.1:1 6:1 0.050 D.P. 681.32 681.21 6:1 677.23 2:1 S.S. 695.71 2:1 690.34 2:1

62+50.00

700 690 680 670

7.2:1 6:1 0.050 D.P. 679.04 679.05 6:1 675.07 2:1 S.S. 695.66 2:1 692.07 2:1

62+00.00

—Y17—

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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[CA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-346

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

SP 510

690 680 670

6.8:1 6:1 0.050 3.5:1

D.P. 691.66 691.01 691.90

65+00.00

690 680 670

6.8:1 6:1 0.050 4.3:1

D.P. 689.58 689.85

64+50.00

690 680 670

6.9:1 6:1 0.050 9.6:1

D.P. 687.44 687.69

64+00.00

690 680 670

7:1 6:1 0.050 6:1 S.S. 688.04 2:1 2:1 2:1 686.48 681.55

D.P. 685.24 685.53

63+50.00

—Y17—

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-347

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

700
690

8.2:1 6:1 0.050 2.9:1
D.P. 701.07 702.07
SP 515
S.S. 690.62
67+50.00

7.8:1 6:1 0.050 3:1
699.70
D.P. 700.28
SP 514
S.S. 688.58
67+00.00

7.5:1 6:1 0.050 3.2:1
698.04
D.P. 698.36
SP 513
S.S. 688.10
66+50.00

700
690
680

7.1:1 6:1 0.050 3.6:1
696.01
D.P. 696.32
SP 512
S.S. 687.02
66+00.00

6.7:1 6:1 0.050 3.8:1
693.82
D.P. 694.18
SP 511
S.S. 685.39
65+50.00

670

—Y17—

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-348

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720 / 710 / 700

9.3:1 6:1 0.050 6:1 4:1 0.044 0.044 4:1 2:1 2:1 2:1

710.05
D.P. 710.28
705.69
706.53
717.42

70+50.00

–SR5–
17+49.76

8.4:1 6:1 0.050 6:1 6:1 SP 520 0.040 0.040 4:1 2:1 2:1 2:1

708.94
D.P. 709.17
704.56
705.30
712.70

70+00.00

–SR5–
17+07.74

9.2:1 6:1 0.050 6:1 6:1 SP 519

707.65
D.P. 708.03
704.01

69+50.00

9:1 6:1 0.050 6:1 S.S. 703.20 SP 518

706.27
D.P. 706.72
702.70

69+00.00

8.8:1 6:1 0.050 6:1 SP 517

D.P. 708.29
S.S. 699.32

68+50.00

8.5:1 6:1 0.050 4:1 SP 516

D.P. 703.74
S.S. 693.77

68+00.00

–Y17–

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[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-349

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740
730
720
710
700
690

S.S. 737.16
2:1
2:1
735.00
2:1
8.8:1
6:1
0.050
712.53
D.P. 712.73
6:1
709.59
4:1
0.029
0.029
4:1
711.13

–SR5–
18+95.21

72+00.00

730
720
710
700

9:1
6:1
0.050
711.71
D.P. 712.03
6:1
708.65
4:1
0.041
0.041
4:1
709.52
2:1
2:1
2:1
726.88
2:1

–SR5–
18+46.80

71+50.00

720
710
700

9.2:1
6:1
0.050
710.83
D.P. 711.22
6:1
707.34
4:1
0.042
0.042
4:1
708.03
2:1
2:1
2:1
722.16

–SR5–
17+98.35

71+00.00

–Y17–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-350

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740 730 720 710 700

S.S. 738.80

7.3:1 6:1 0.038 6:1 4:1 0.016 0.020 4:1 2:1 2:1 2:1

713.99
D.P. 713.68
711.22
714.20
734.51

–SR5–
19+92.23

73+00.00

740 730 720 710 700

S.S. 738.60

8.3:1 6:1 0.047 6:1 4:1 0.006 0.019 4:1 2:1 2:1 2:1

713.30
D.P. 713.29
710.32
712.72
734.75

–SR5–
19+43.62

72+50.00

690

–Y17–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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TGA ENGINEERING, INC.

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-351

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

730 720 710 700

S.S. 729.78

6:1 6.5:1 0.010 6:1 4:1 0.020 0.020 4:1 2:1

715.53
D.P. 714.39

713.61

717.43

–SR5–
21+39.83

74+50.00

S.S. 733.84

6:1 6:1 0.020 6:1 4:1 0.020 0.020 4:1 2:1 2:1 2:1

715.15
D.P. 714.13

712.99

731.11

716.83

–SR5–
20+90.32

700 690

74+00.00

S.S. 737.66

740 730 720 710 700 690

6.6:1 6:1 0.029 6:1 4:1 0.020 0.020 4:1 2:1 2:1 2:1

714.42
D.P. 713.96

712.17

732.94

715.68

–SR5–
20+41.12

73+50.00

–Y17–

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-352

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720 710 700 690 730

76+50.00

6:1 6:1 716.79 D.P. 715.70 — 0.020 — 6:1 714.26 — 4:1 — 0.032 — 0.032 — 4:1 714.21 — 2:1 — S.S. 720.80

–SR5–
23+39.65

76+00.00

6:1 7.5:1 716.55 D.P. 715.17 — 0.017 — 6:1 714.37 — 4:1 — 0.008 — 0.020 — 4:1 715.88 — 2:1 — S.S. 720.99

–SR5–
22+89.65

75+50.00

6:1 7.6:1 716.18 D.P. 714.91 — 0.008 — 6:1 714.23 — 4:1 — 0.016 — 0.020 — 4:1 716.96 — 3:1 — S.S. 721.34

–SR5–
22+39.64

75+00.00

6:1 7:1 715.80 D.P. 714.65 — 0.001 — 6:1 714.04 — 4:1 — 0.020 — 0.020 — 4:1 717.48 — 2:1 — S.S. 723.93

–SR5–
21+89.64

–Y17–

3/22/2016
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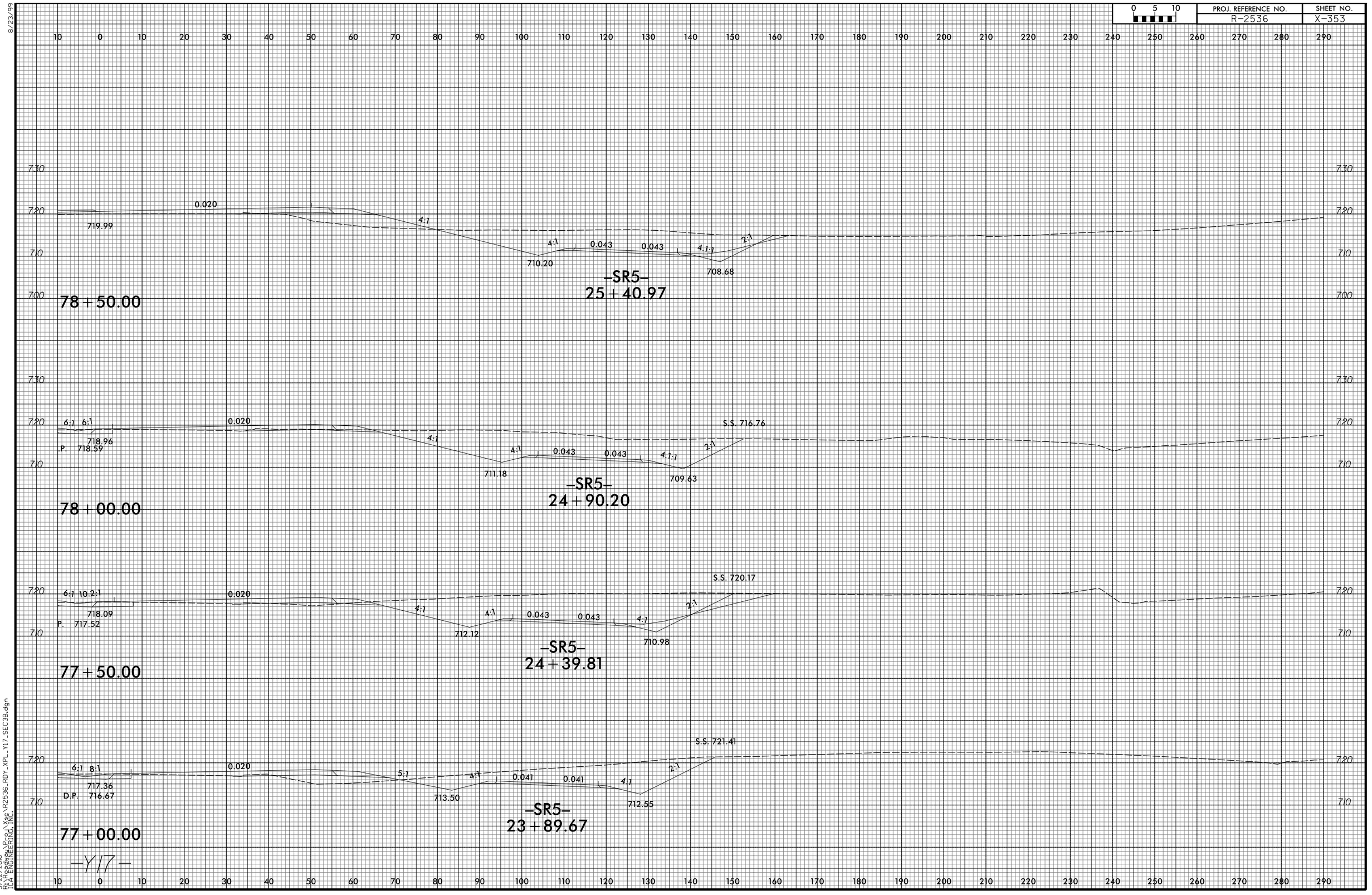
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-353



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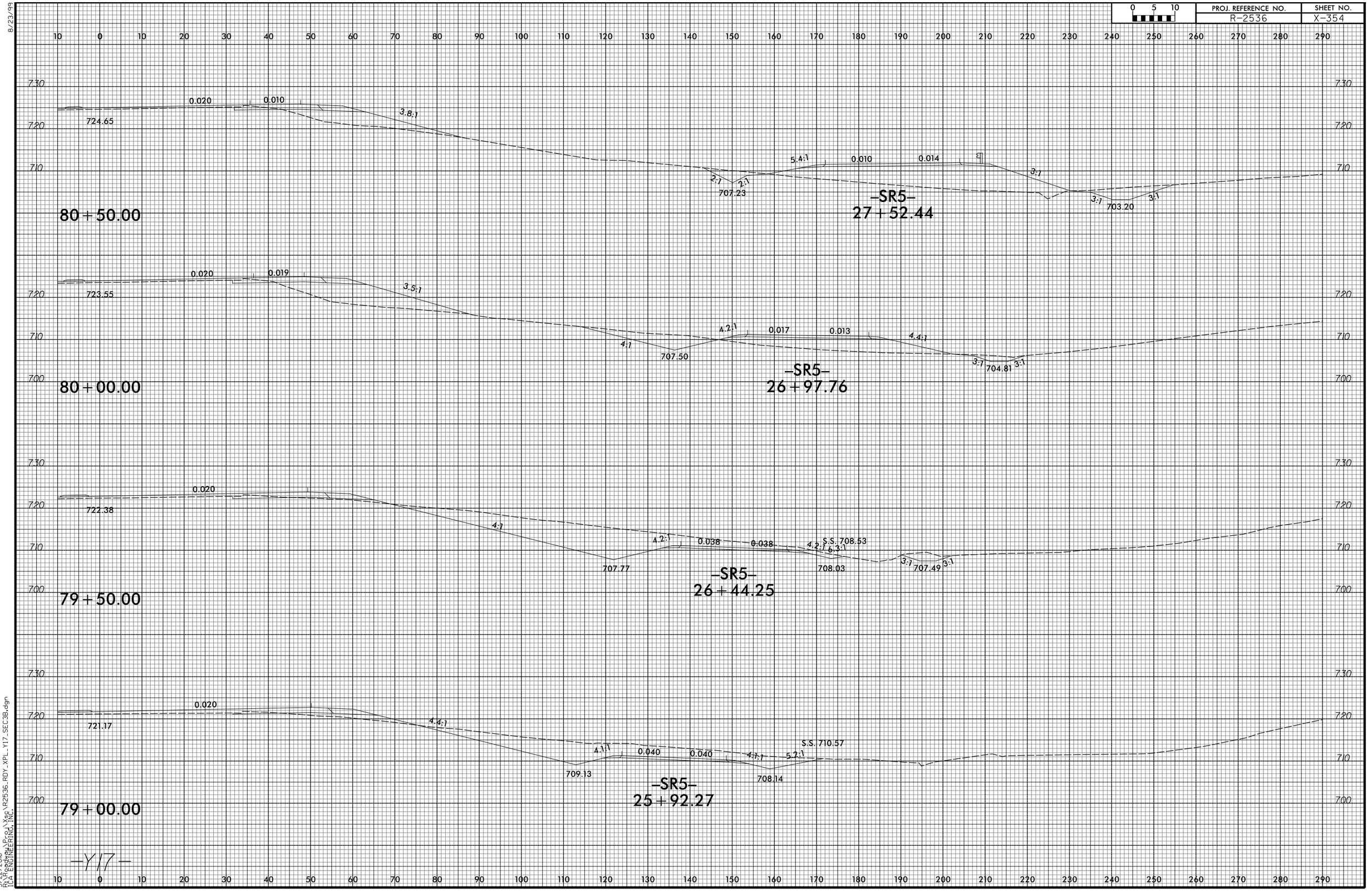
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-354



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-355

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

730 720 710 700

0.020 0.018 726.92 4:1 SP 524 2:1 2:1 712.00

82+00.00

730 720 710 700

0.020 009 726.33 4:1 SP 522

81+50.00

730 720 710 700

0.020 0.001 725.63 3.7:1 2:1 2:1 706.97 4:1 0.033 0.034 2:1 3:1 701.71 3:1

81+00.00

—SR5—
28+04.71

—Y17—

730 720 710 700

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-356

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

730
720
710
700

0.020
727.75
SP 528

83+00.00

730
720
710
700

0.020
727.42
0.020
SP 526

82+50.00

-Y17-

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-357

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730
720

3:1 0.020 0.020 3:1

727.62

720

84+50.00

740
730
720

2:1 SP 531 0.020 0.020 SP 532 3:1

727.82

84+00.00

740
730
720

SP 529

2:1 2:1

726.20

0.020 0.020 SP 530 2:1

727.88

83+50.00

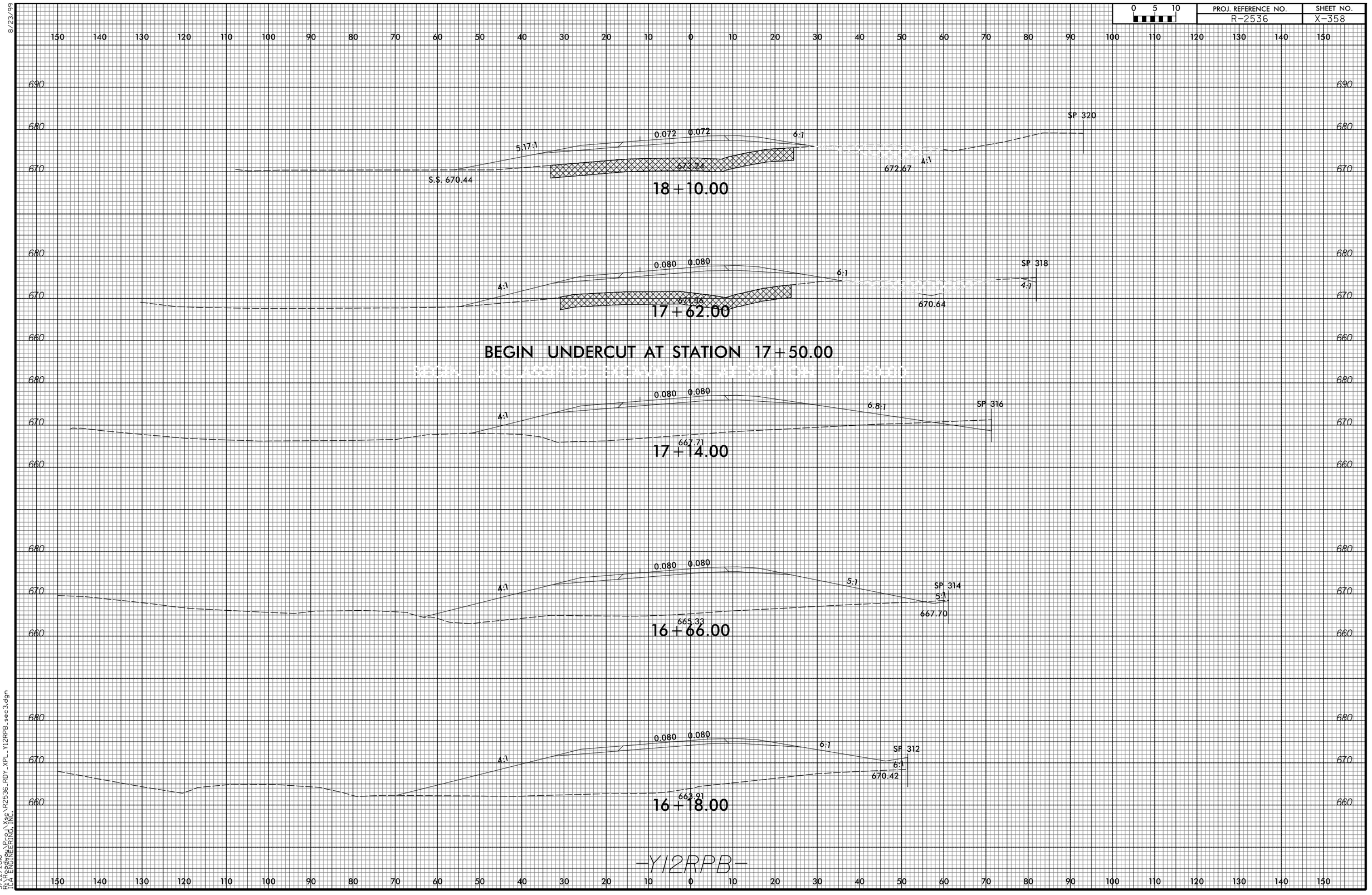
—Y17—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
H:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-358



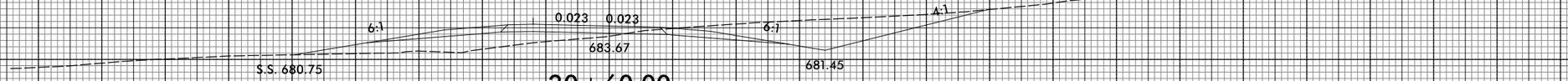
3/22/2016
R:\Roads\Proj\Xsec\R2536_RDY_XPL_Y12RPB_sec3.dgn
[CA ENGINEERING, INC.]

8/23/99

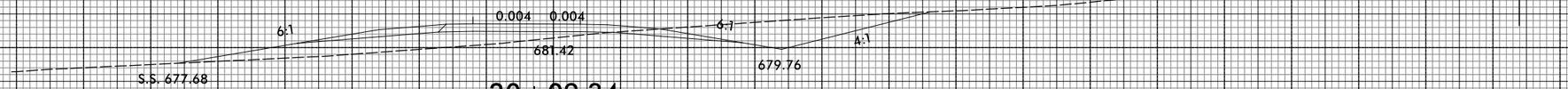
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-359

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 690 680 670

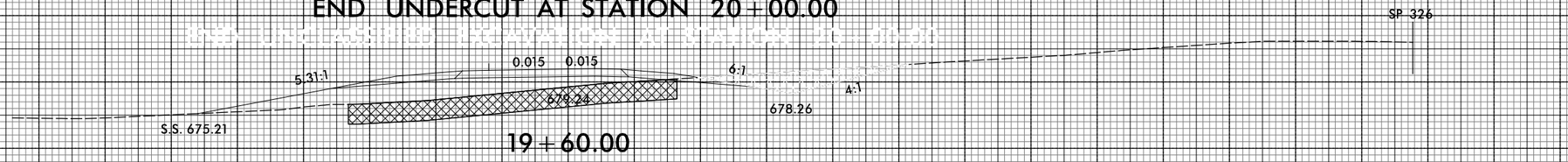


20+60.00

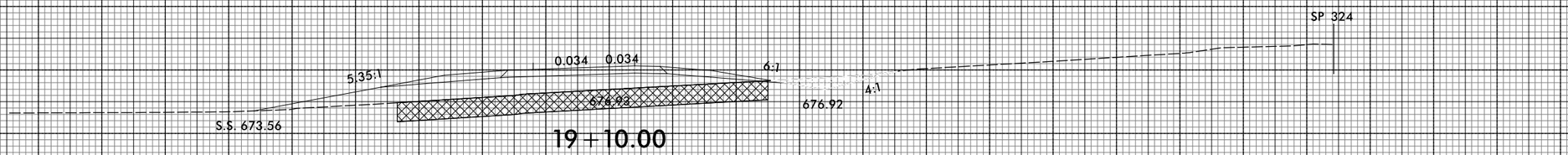


20+09.34

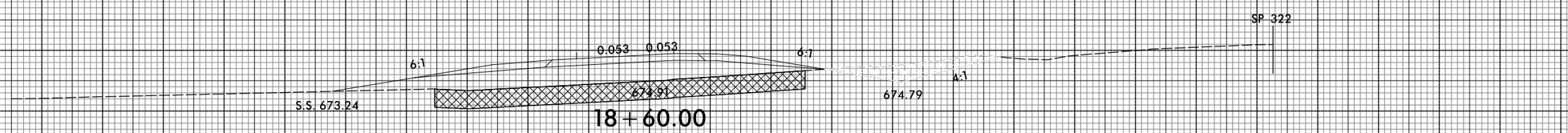
END UNDERCUT AT STATION 20+00.00



19+60.00



19+10.00



18+60.00

660

-Y12RPB-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-360

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690
680

SP 350

6:1 0.080 0.080 6:1 4:1

S.S. 691.02 692.89 689.36

22+65.00

700
690
680

6:1 0.080 0.080 6:1 4:1

690.27 687.28

22+15.00

700
690
680

6:1 0.061 0.061 6:1 4:1

688.38 685.17

21+60.59

700
690
680
670

6:1 0.042 0.042 6:1 4:1

686.43 683.24

21+10.00

-Y12RPB-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
FLAGSTAFF
FCA ENGINEERING, INC.
C:\Projects\Proj\Xsec\R2536_RDY_XPL_Y12RPB_sec3.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-361

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

710 700 690

6:1 0.080 0.080

700.18

S.S. 698.87

24+65.00

710 700 690

6:1 0.080 0.080

698.24

24+15.00

710 700 690 680

6:1 0.080 0.080

696.68

S.S. 695.00

23+65.00

710 700 690 680

6:1 0.080 0.080

694.81

S.S. 692.93

23+15.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

—Y12RPB—

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12RPB_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-362

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

720 710 700 690

SP 354
S.S. 707.53
0.080 0.080
700.18
6:1
694.36
6:1
0.080 0.080
695.57
4:1
–Y12LPB–
16+80.00
24+65.00

SP 353
S.S. 706.94
0.080 0.080
698.24
6:1
695.58
4:1
4:1
6:1
691.53
0.080 0.080
693.01
4:1
–Y12LPB–
16+45.00
24+15.00

SP 352
S.S. 698.85
S.S. 706.51
0.080 0.080
696.68
6:1
693.51
4:1
4:1
6:1
688.97
0.080 0.080
690.45
4:1
–Y12LPB–
16+10.00
23+65.00

SP 351
S.S. 698.39
S.S. 706.12
0.080 0.080
694.81
6:1
691.43
4:1
4:1
6:1
686.85
0.080 0.080
688.33
4:1
–Y12LPB–
15+81.00
23+15.00

680

–Y12RPB–

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12RPB_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-363

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 710 700 690

SP 358

S.S. 709.90

2:1 6:1 0.053 710.58 0.044 0.044 705.74 4:1

704.37

-Y12LPB-

26+81.35 18+70.00

720 710 700 690

SP 357

S.S. 709.36

4:1 6:1 0.080 0.080 707.62 0.065 0.065 703.71 4:1

704.17 704.97

-Y12LPB-

26+14.84 18+07.00

720 710 700 690

SP 356

S.S. 705.02 S.S. 707.58 S.S. 708.55

6:1 6:1 0.080 0.080 705.33 6:1 6:1 0.080 0.080 701.32 4:1 4:1

708.06 702.51

-Y12LPB-

25+65.00 17+61.85

720 710 700 690

SP 355

S.S. 702.23 S.S. 708.08

6:1 0.080 0.080 703.40 6:1 6:1 0.080 0.080 698.49 4:1

701.54 698.79

-Y12LPB-

25+15.00 17+20.00

-Y12RPB-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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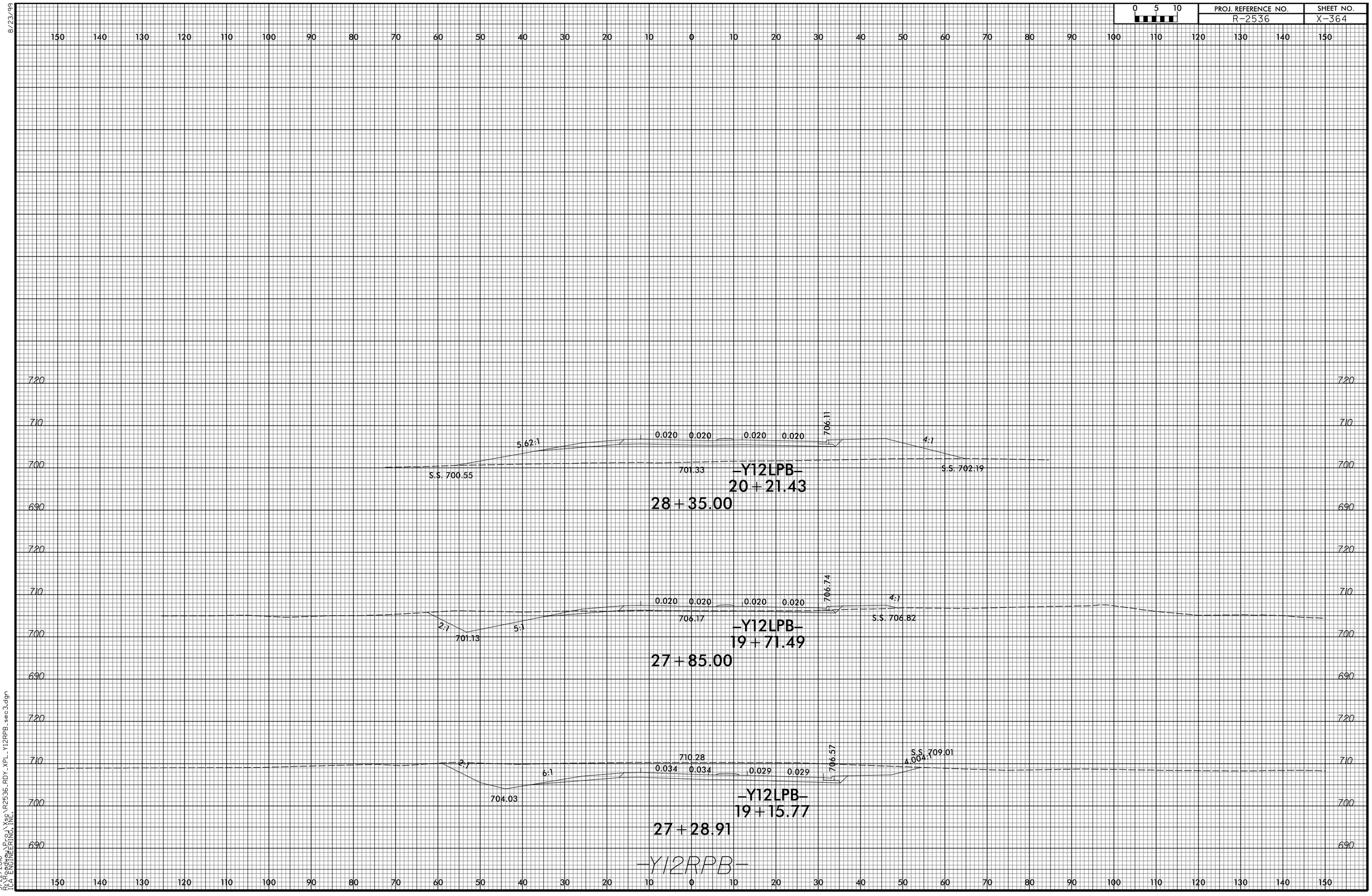
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y12RPB_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-364



3/22/2016
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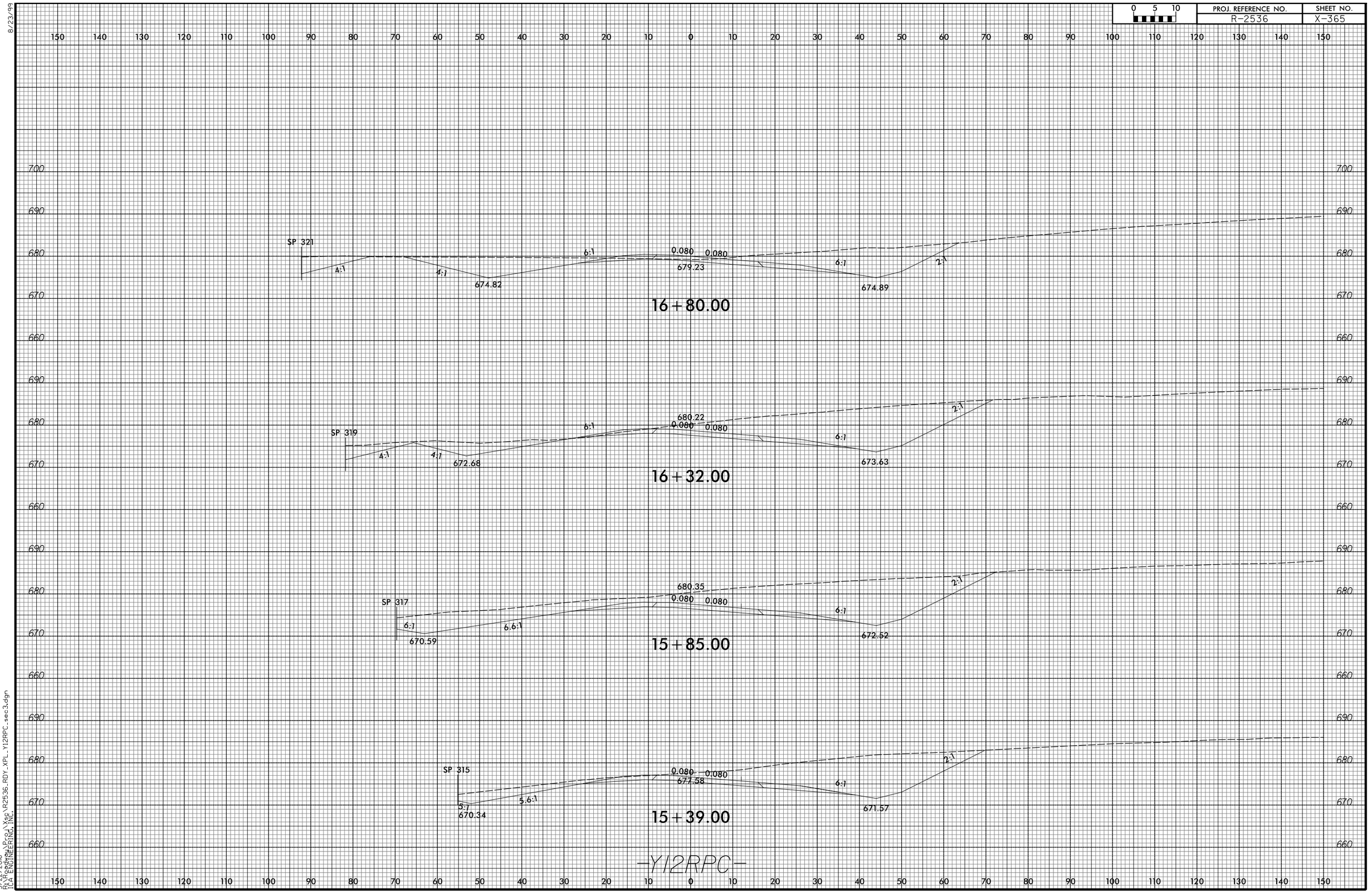
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-365



3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12RPC_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-366

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 690 680 670

SP 329

4:1 6:1 6:1 2:1

689.84 0.005 0.005

681.69 681.45

18+85.00

700 690 680 670

SP 327

4:1 6:1 6:1 2:1

686.62 0.025 0.025

680.39 679.82

18+33.00

700 690 680 670

SP 325

4:1 4:1 6:1 6:1 2:1

685.96 0.045 0.045

679.28 678.09

17+80.00

700 690 680 670

SP 323

4:1 4:1 6:1 6:1 2:1

684.15 0.064 0.064

677.05 676.47

17+30.00

-Y12RPC-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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R:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y12RPC_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-367

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

710 700 690 680

SP 361

4:1 703.10 2:1

6:1 0.071 0.071 6:1

686.47 688.13

20+85.00

710 700 690 680

SP 360

4:1 697.71 2:1

6:1 0.050 0.050 6:1

685.18 686.20

20+30.00

700 690 680 670

SP 359

4:1 693.92 2:1

6:1 0.031 0.031 6:1

684.01 684.40

19+80.00

700 690 680 670

4:1 690.67 2:1

6:1 0.012 0.012 6:1

682.79 682.82

19+29.22

-Y12RPC-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12RPC_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-368

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

730 720 710 700 690 680

S.S. 710.60

4:1

689.96

0.080 0.080

6:1

688.48

SP 364

5:1

5:1

6:1

713.59

690.31

0.080 0.080

–Y12LPC–
16+13.00

22+33.00

S.S. 709.95

4:1

687.99

0.080 0.080

6:1

686.51

SP 363

4:1

4:1

6:1

710.26

689.05

0.080 0.080

–Y12LPC–
15+81.00

21+85.00

SP 362

706.72

4:1

687.72

6:1

0.080 0.080

21+35.00

–Y12RPC–

3/22/2016
R:\Roadway\Prod\Xse\R2536_RDY_XPL_Y12RPC_sec3.dgn
ICA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-369

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

730
720
710
700
690
680

713.59
2:1
0.080 0.080 6:1
692.27

22+33.00

710.26
2:1
0.080 0.080 6:1
691.01

21+85.00

706.72
2:1
0.080 0.080 6:1
689.68

21+35.00

-Y12RPC-

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

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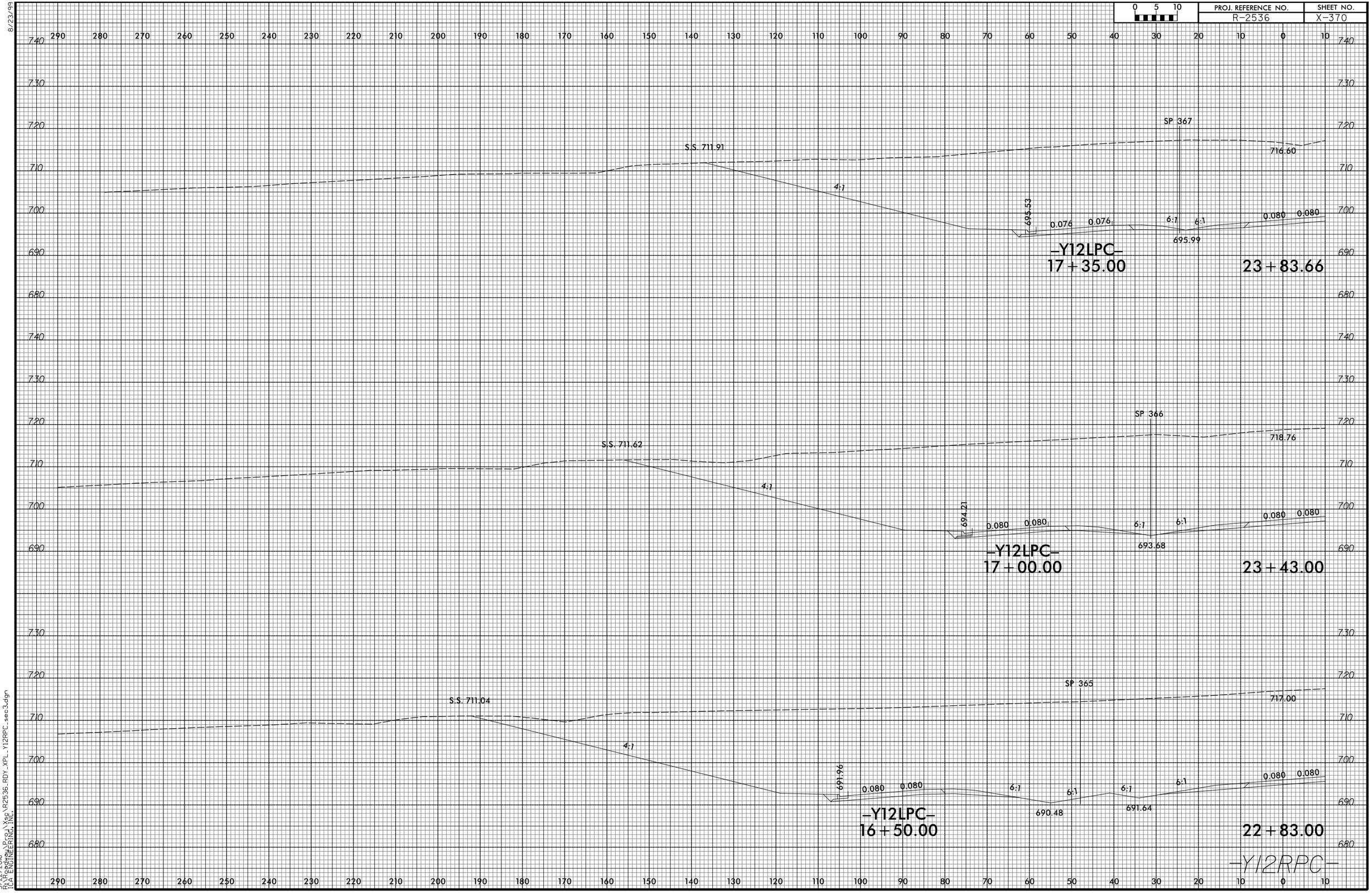
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12RPC_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-370



3/22/2016
R:\Roads\Proj\Sec\R2536_RDY_XPL_Y12RPC_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-371

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

740 730 720 710 700 690

716.60

0.080 0.080 6:1

696.10

2:1

2:1 2:1

724.68

23+83.66

718.76

0.080 0.080 6:1

695.18

4:1 2:1

23+43.00

717.00

0.080 0.080 6:1

693.60

2:1

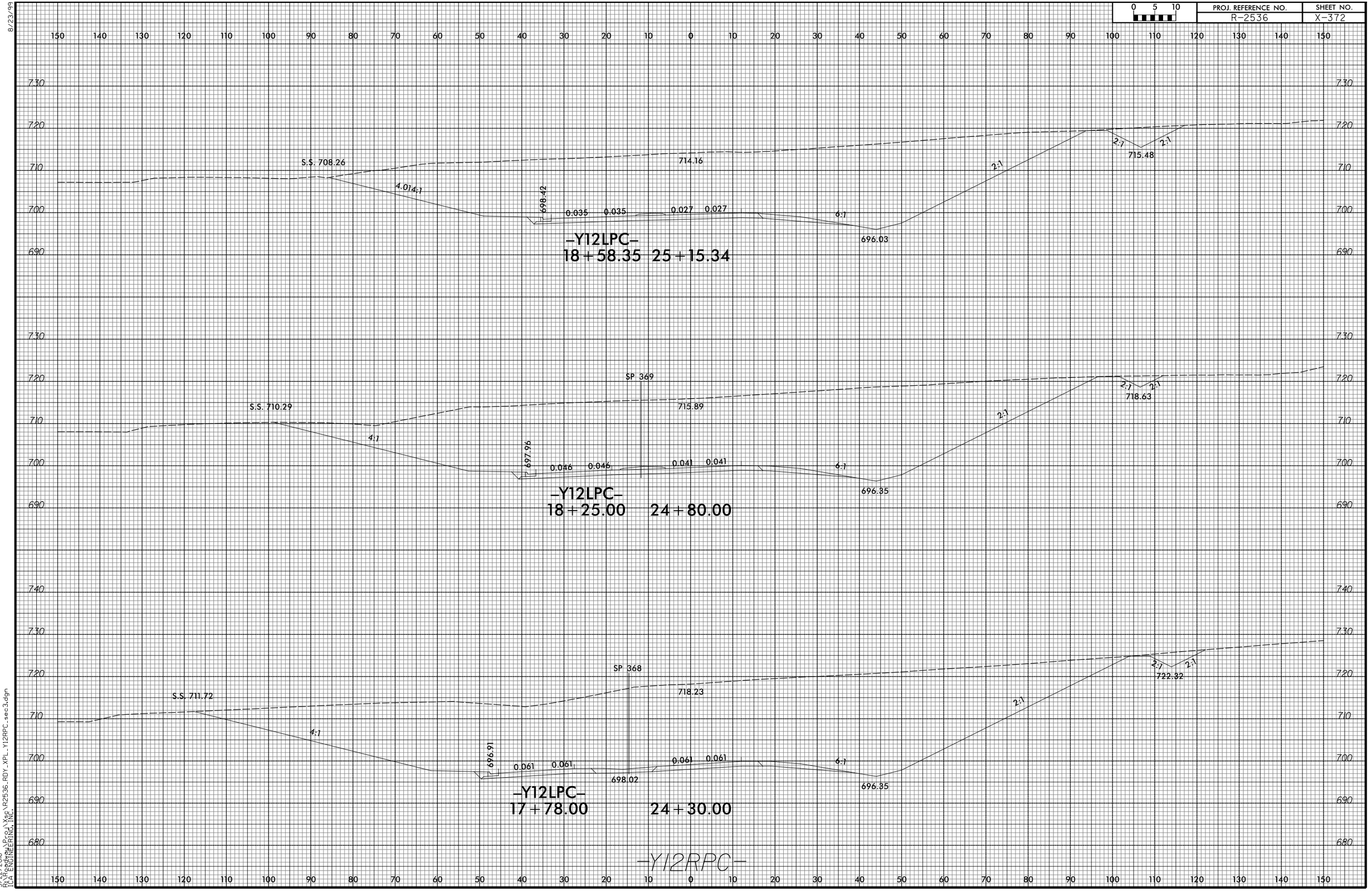
22+83.00

-Y12RPC-

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12RPC_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-372



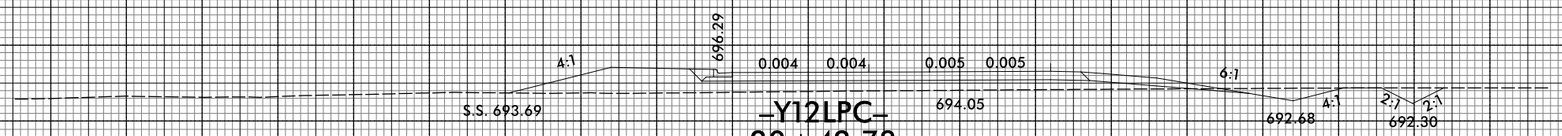
3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12RPC_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-373

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

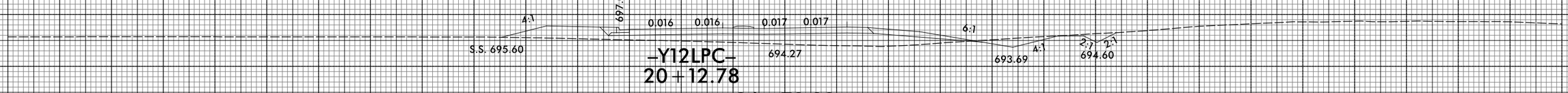
710 700 690 680



–Y12LPC–
20+42.78

27+00.00

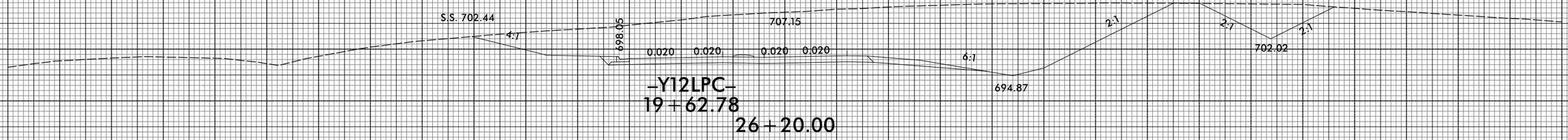
710 700 690 680



–Y12LPC–
20+12.78

26+70.00

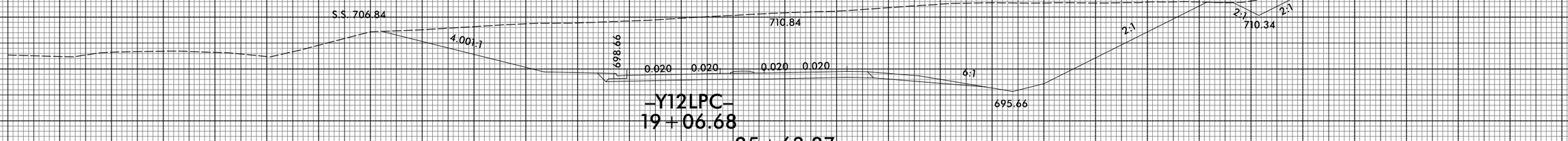
720 710 700 690 680



–Y12LPC–
19+62.78

26+20.00

720 710 700 690 680



–Y12LPC–
19+06.68

25+63.87

–Y12RPC–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12RPC_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-374

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

670
660
650
640
630
620
610

SP 424
0.080 0.080
2:1
2:1
2:1
618.61
620.83
14+24.99

SP 423
0.073 0.073
2:1
2:1
2:1
617.42
620.75
13+77.43

—Y17RPC—

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17RPC_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-375

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

670 660 650 640 630 620 610

SP 426

0.080 0.080 6:1 6:1

2:1 2:1 2:1

621.97

627.82

15+24.23

SP 425

0.080 0.080 6:1 6:1

2:1 2:1 2:1

620.29

623.45

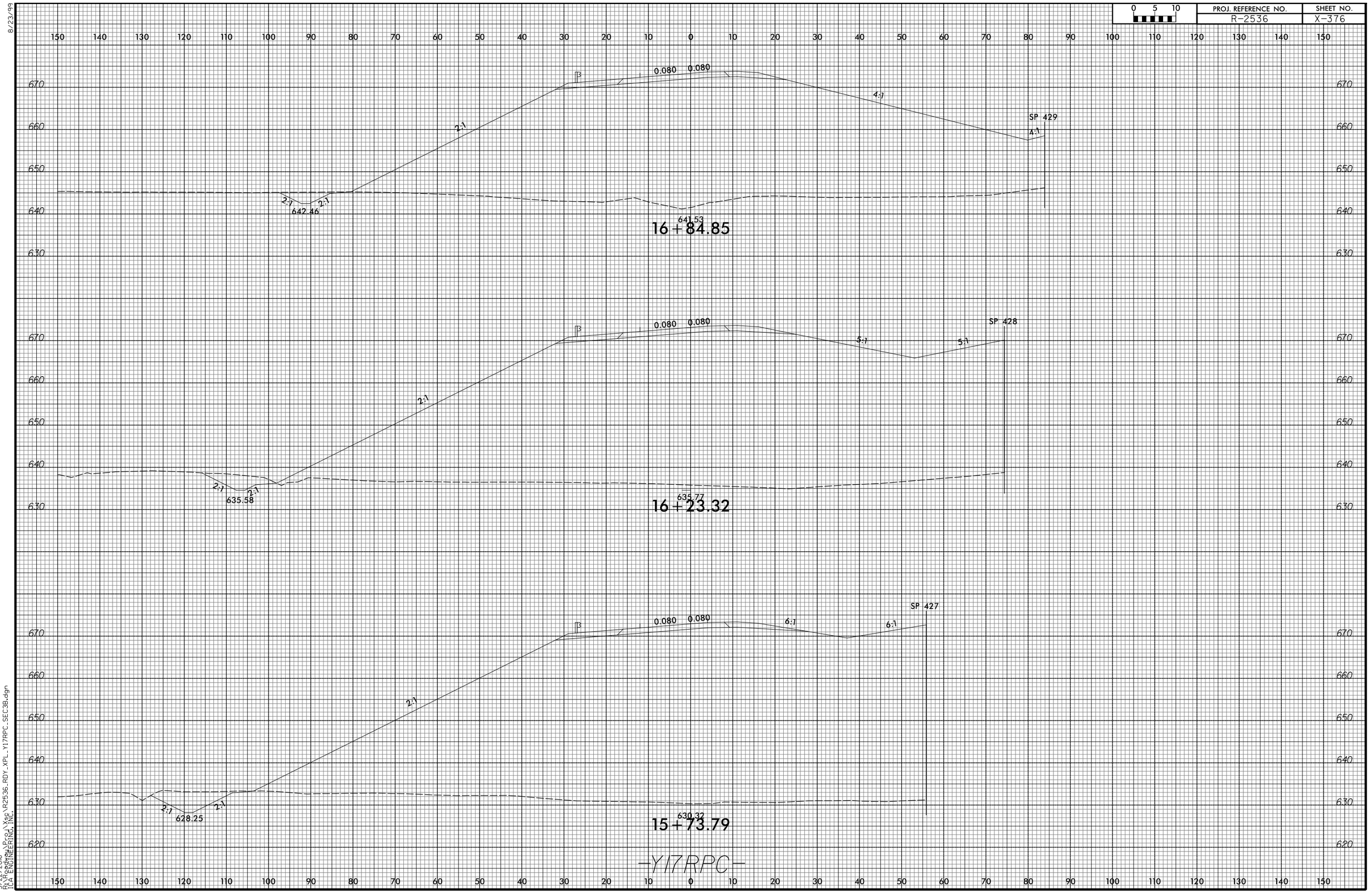
14+74.64

—Y17RPC—

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17RPC_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

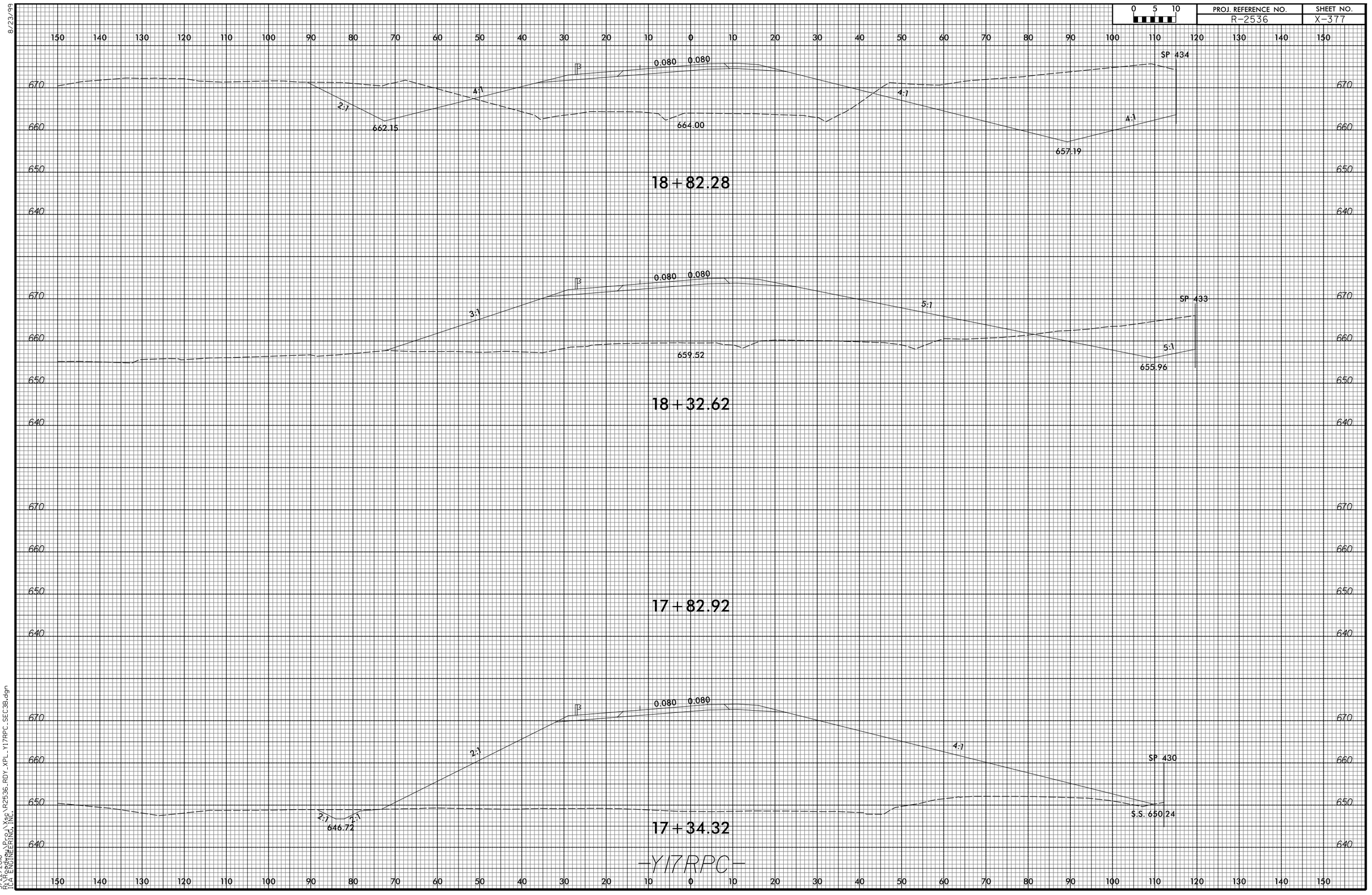
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-376



3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17RPC_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-377



3/22/2016
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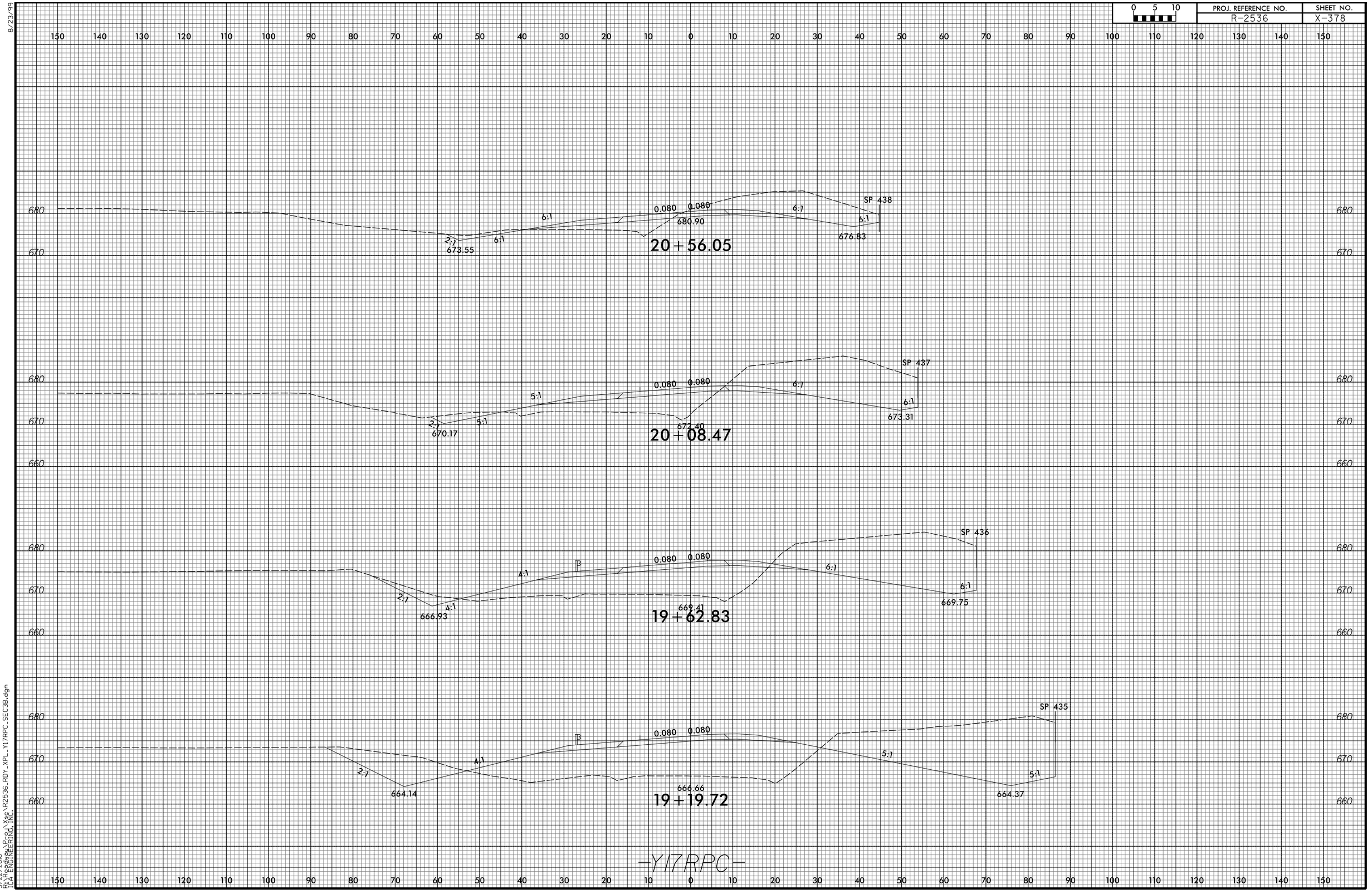
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-378



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17RPC_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-379

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

690
680
670

4:1 685.44 880.0 880.0 686.78 SP 441

21+96.27

6:1 6:1 679.52 0.080 0.080 685.53 6:1 6:1 683.61 SP 440

21+52.15

6:1 6:1 677.30 0.080 0.080 679.48 6:1 6:1 680.25 SP 439

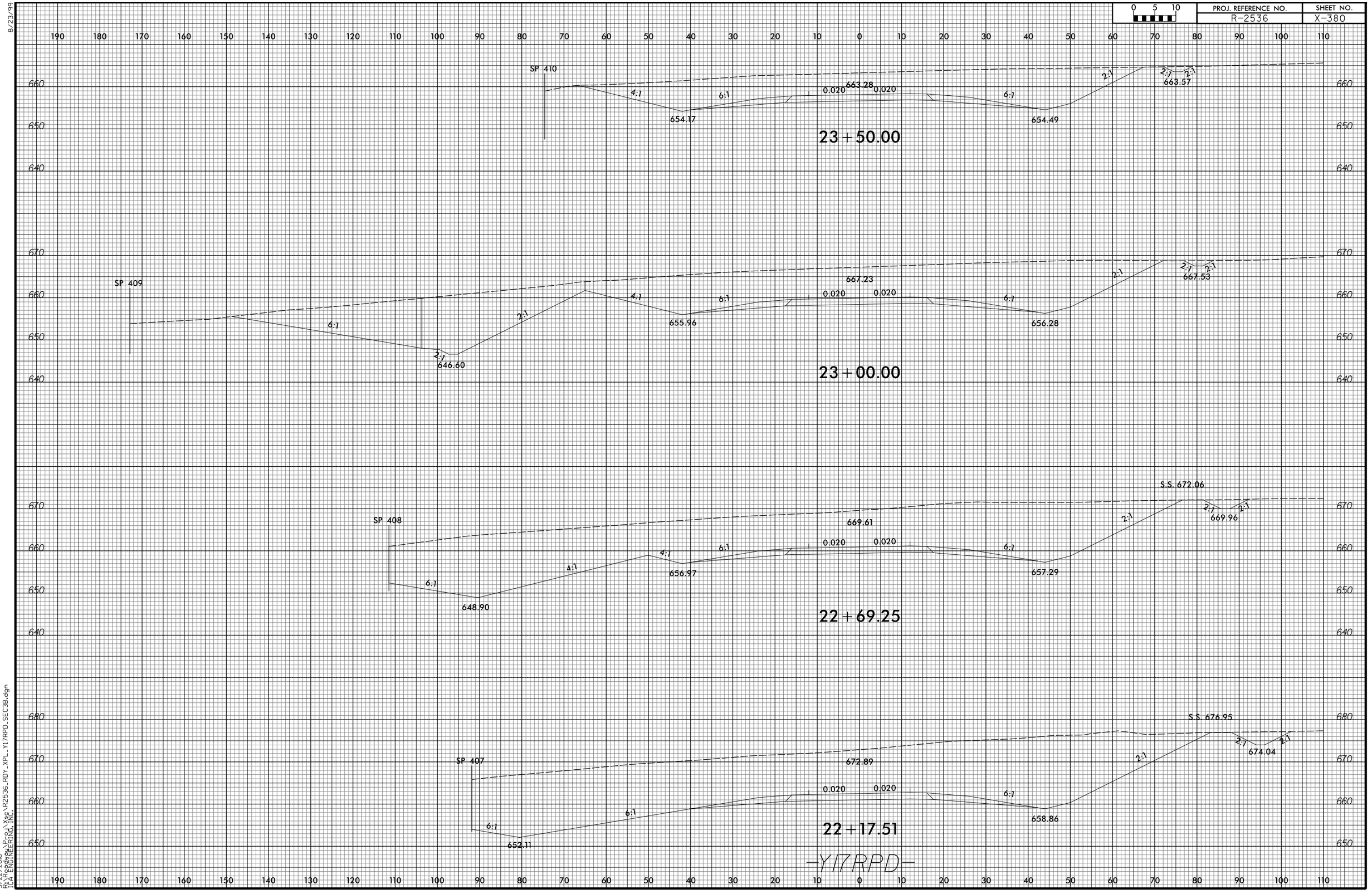
21+03.62

—Y17RPC—

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17RPC_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-380



—Y17RPD—

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y17RPD_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-381

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

660 650 640 630

SP 413

2:1

4:1 647.92 6:1 0.020 652.58 0.020 6:1 648.24 2:1 S.S. 655.93 2:1 653.51 2:1

660 650 640

25+00.00

660 650 640

SP 412

4:1 650.11 6:1 0.020 655.48 0.020 6:1 650.43 2:1 2:1 656.57 2:1

660 650 640

24+50.00

660 650 640

SP 411

4:1 652.23 6:1 0.020 659.69 0.020 6:1 652.55 2:1 2:1 659.63 2:1

660 650 640

24+00.00

-Y17RPD-

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17RPD_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-382

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

640
630
620

SP 417

4:1
2:1
2:1
620.23

27+00.00

4:1
0.020
0.020
639.57

640
630

SP 416

4:1
2:1
2:1
624.00

26+50.00

4:1
0.020
0.020
642.63

640
630

650
640
630

SP 415

2:1
2:1
627.80

26+00.00

5:1
0.020
0.020
647.82

650
640

SP 414

2:1

25+50.00

6:1
4:1
645.73
0.020
0.020
649.93

650
640

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

—Y17RPD—

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17RPD_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-383

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

640 / 630 / 620

0.020 0.020

4:1

624.84

29+00.00

640 / 630 / 620

0.020 0.020

4:1

626.37

28+50.00

640 / 630 / 620

0.020 0.020

4:1

630.05

28+00.00

640 / 630 / 620

SP 418

4:1 4:1 2:1 2:1

616.46

310 300 290 280 270 260 250

27+50.00

640 / 630 / 620

0.020 0.020

4:1

635.61

27+50.00

290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10

—Y17RPD—

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17RPD_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-384

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

640
630

0.020 0.020 4:1 2:1 2:1
635.61
629.00

27+50.00

640
630

0.020 0.020 5:1 5.7:1
639.57
638.88

27+00.00

650
640

0.020 0.020 6:1 S.S. 645.03 4.89:1
642.63
641.67

26+50.00

650
640

0.020 0.020 6:1 2.41:1
647.82
643.86

26+00.00

650
640

0.020 0.020 6:1 2:1 2:1 2:1
649.93
646.05
650.45

25+50.00

-Y17RPD-

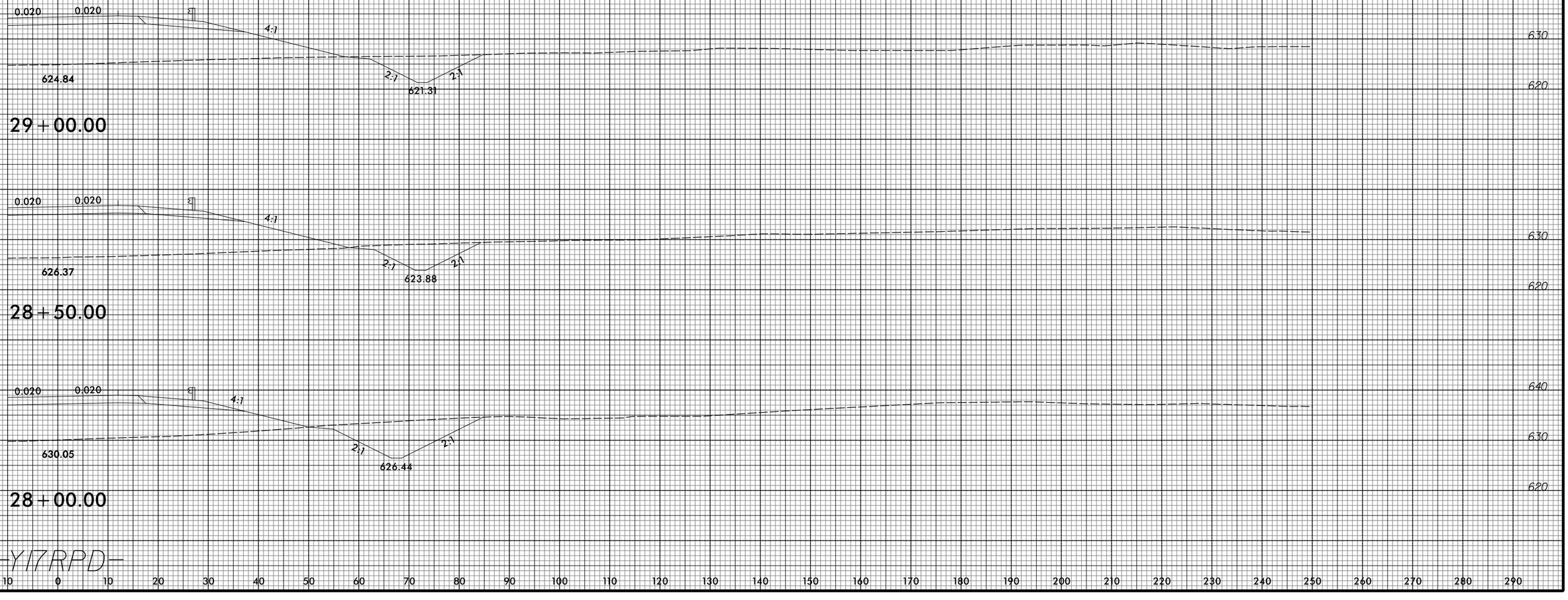
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17RPD_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-385

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290



-Y17RPD-

10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290

3/22/2016
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TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-386

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

630 / 620

5:1 0.064 0.064 5:1 4:1 2:1 2:1 2:1

620.54 624.36 618.33 620.16

31+50.00

630 / 620

4:1 0.046 0.046 0.04 2:1 2:1

622.87 624.13 619.70

31+00.00

630 / 620

3:1 0.028 0.028 3:1 2:1 2:1

620.97 619.10

30+50.00

630 / 620

2:1 0.009 0.009 2:1

619.61

30+00.00

630 / 620 / 610

3:1 0.009 0.009 3:1 2:1 2:1

623.48 618.75

29+50.00

—Y17RPD—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

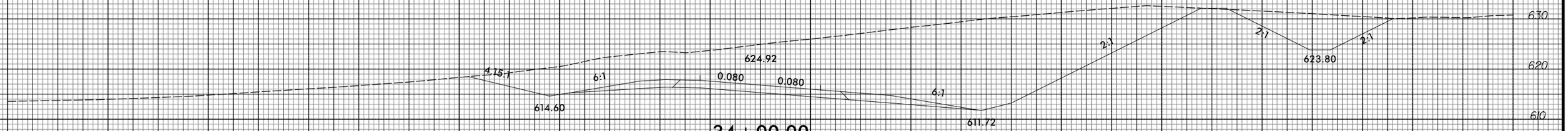
3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17RPD_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

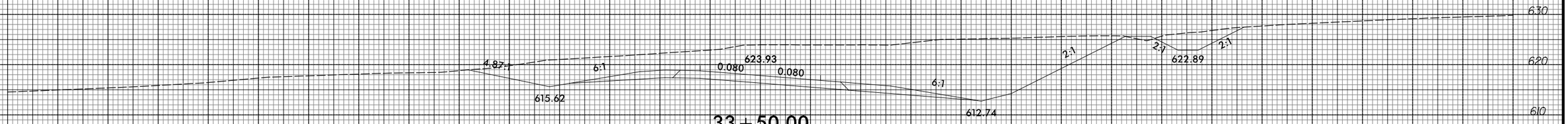
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-387

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

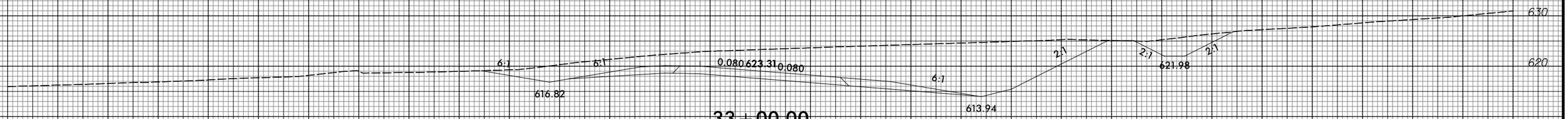
630 620 610



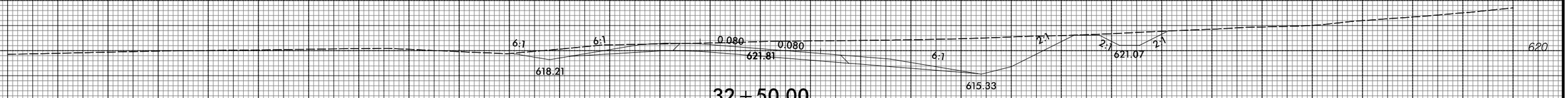
34+00.00



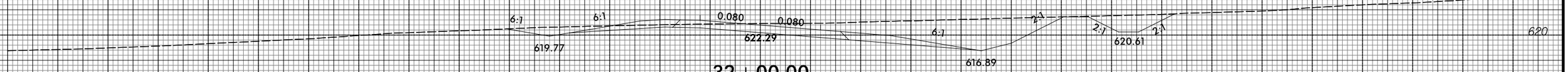
33+50.00



33+00.00



32+50.00



32+00.00

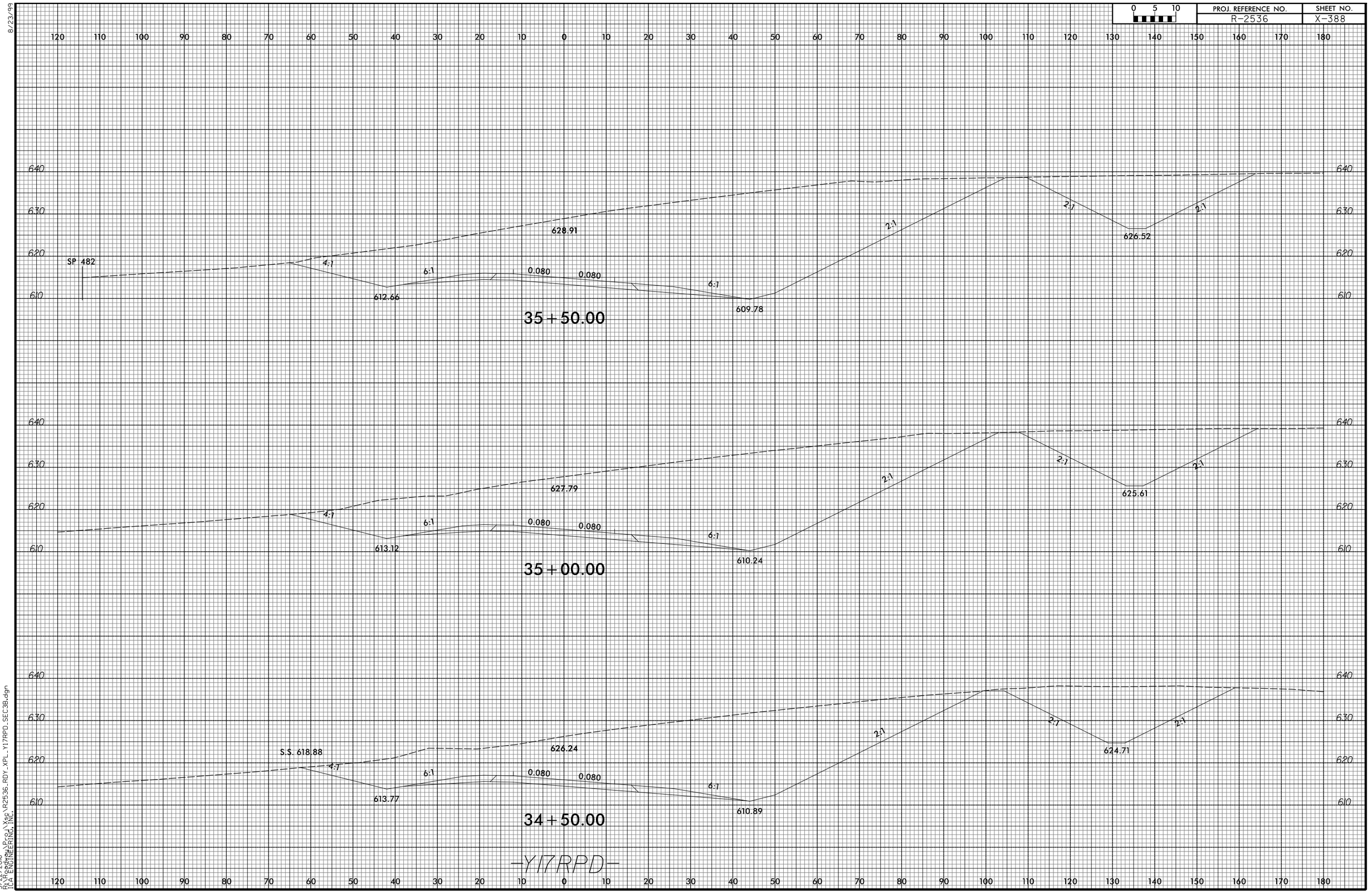
-Y17RPD-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17RPD_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-388

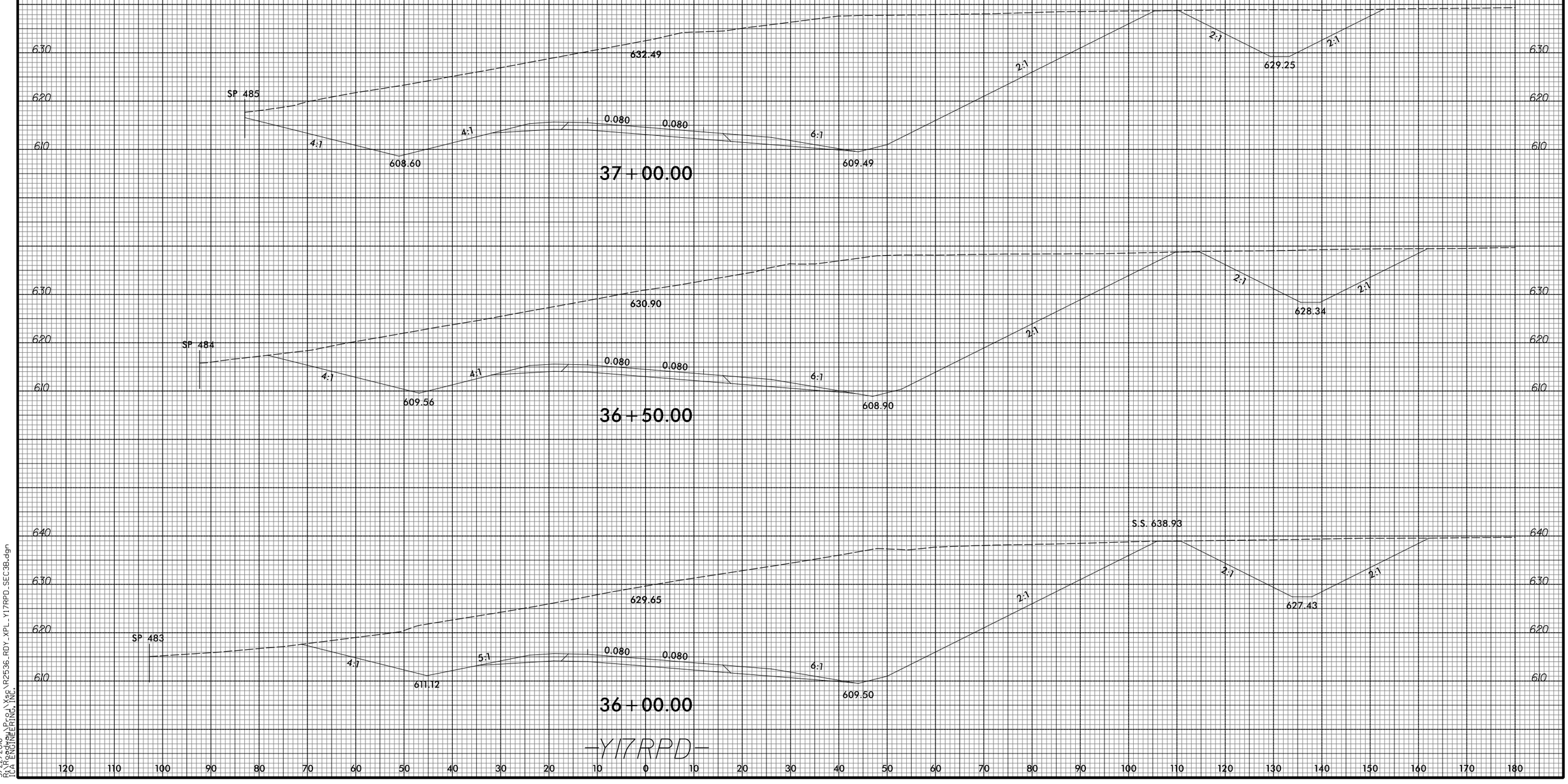


3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17RPD_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-389

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

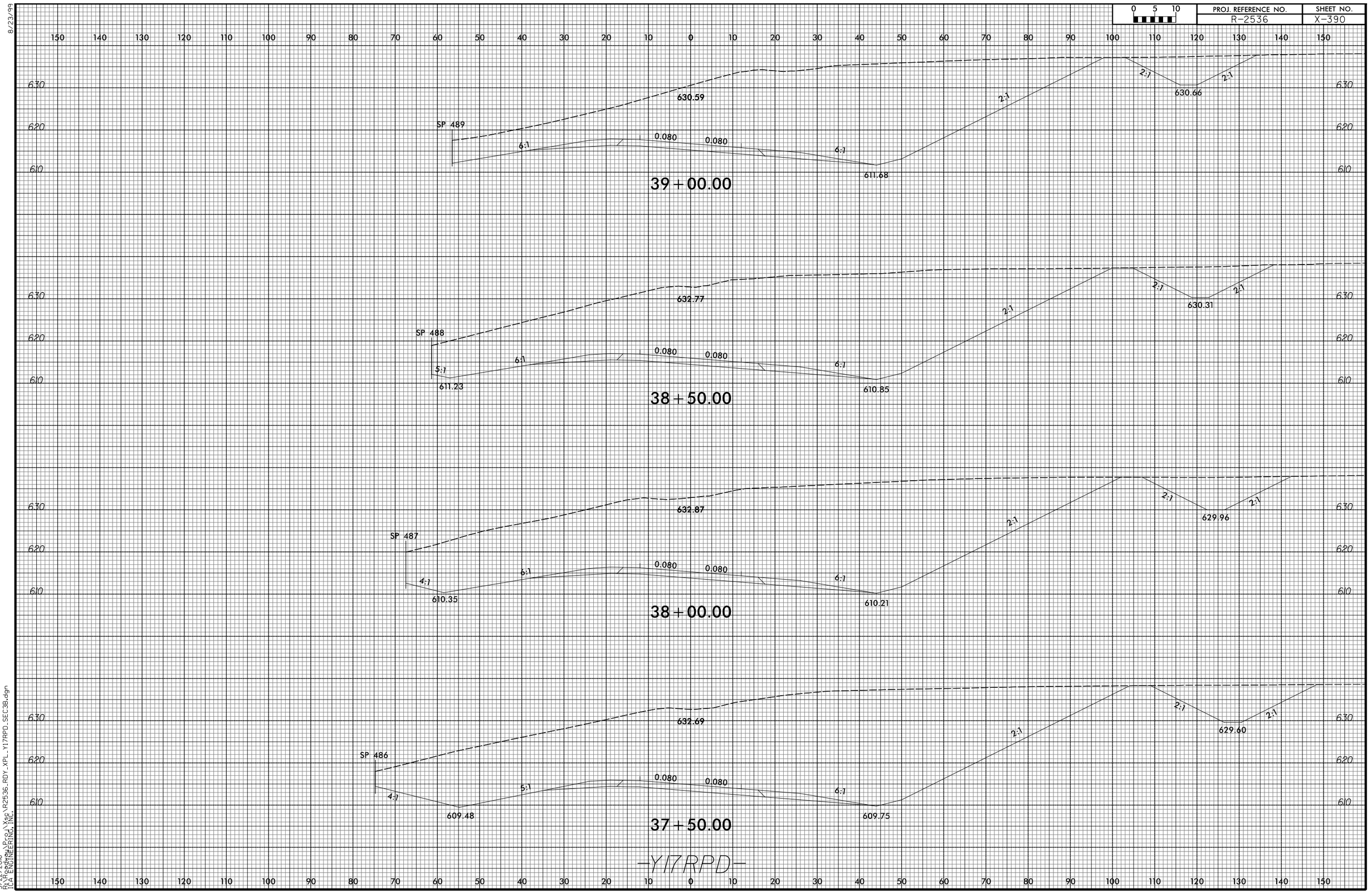


-Y17RPD-

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17RPD_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

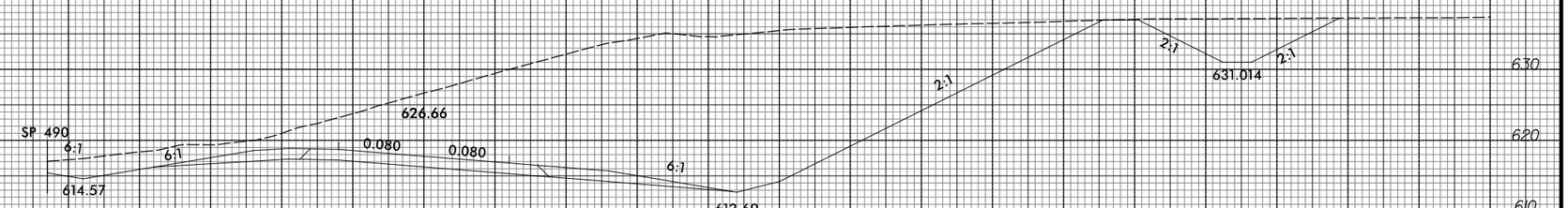
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-390



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17RPD_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-391



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17RPD_SEC38.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-392

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

720
710
700
690
680
670

SP 340

706.08

S.S. 707.62

4:1

675.36

8.2:1

0.080 0.080

7.9:1

673.20

13+15.00

SP 342

707.16

S.S. 707.82

4:1

674.99

8:1 8:1

0.080 0.080

674.52

12+72.00

-YI2LPB-

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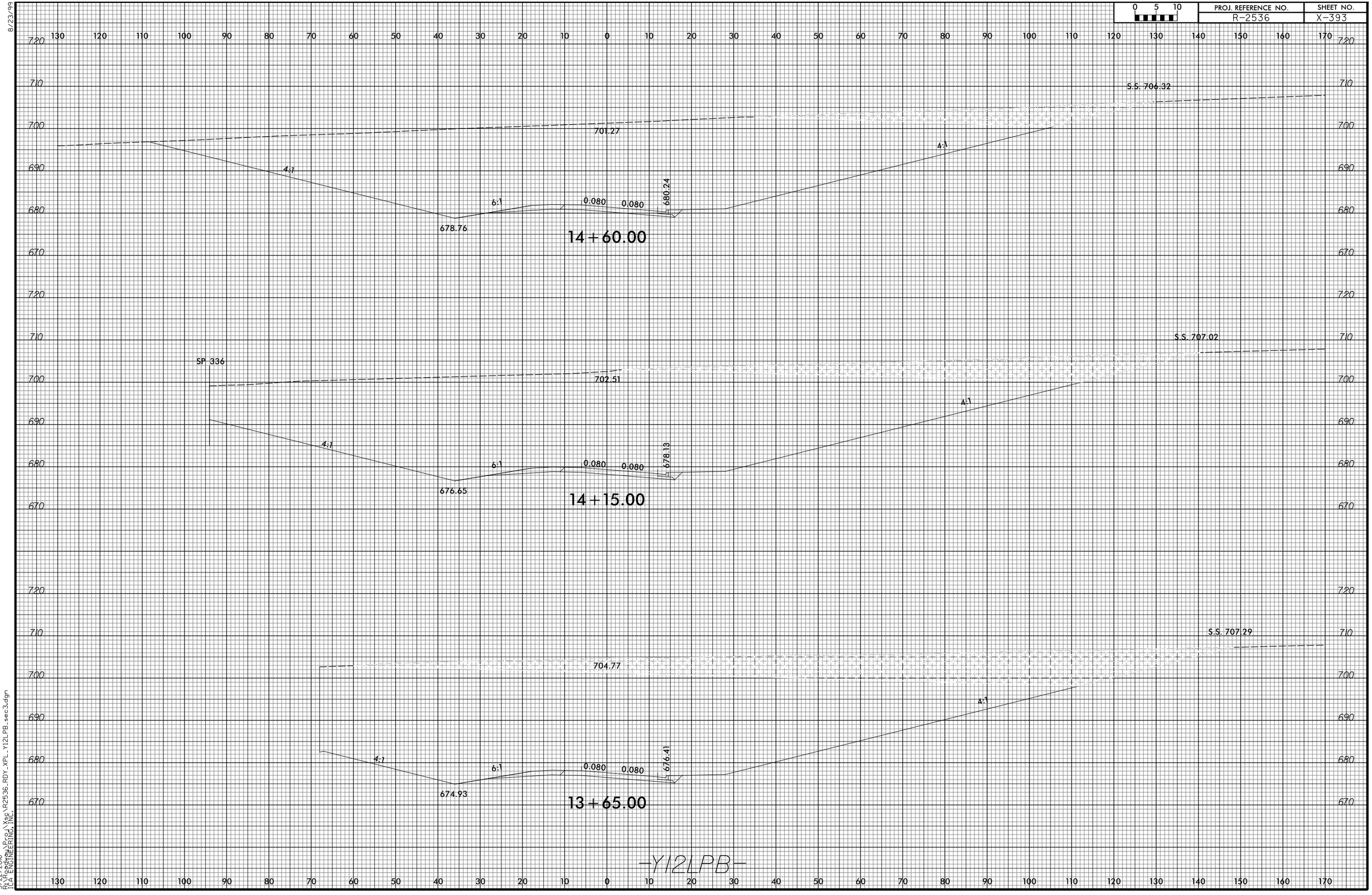
3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_YI2LPB_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-393



3/22/2016
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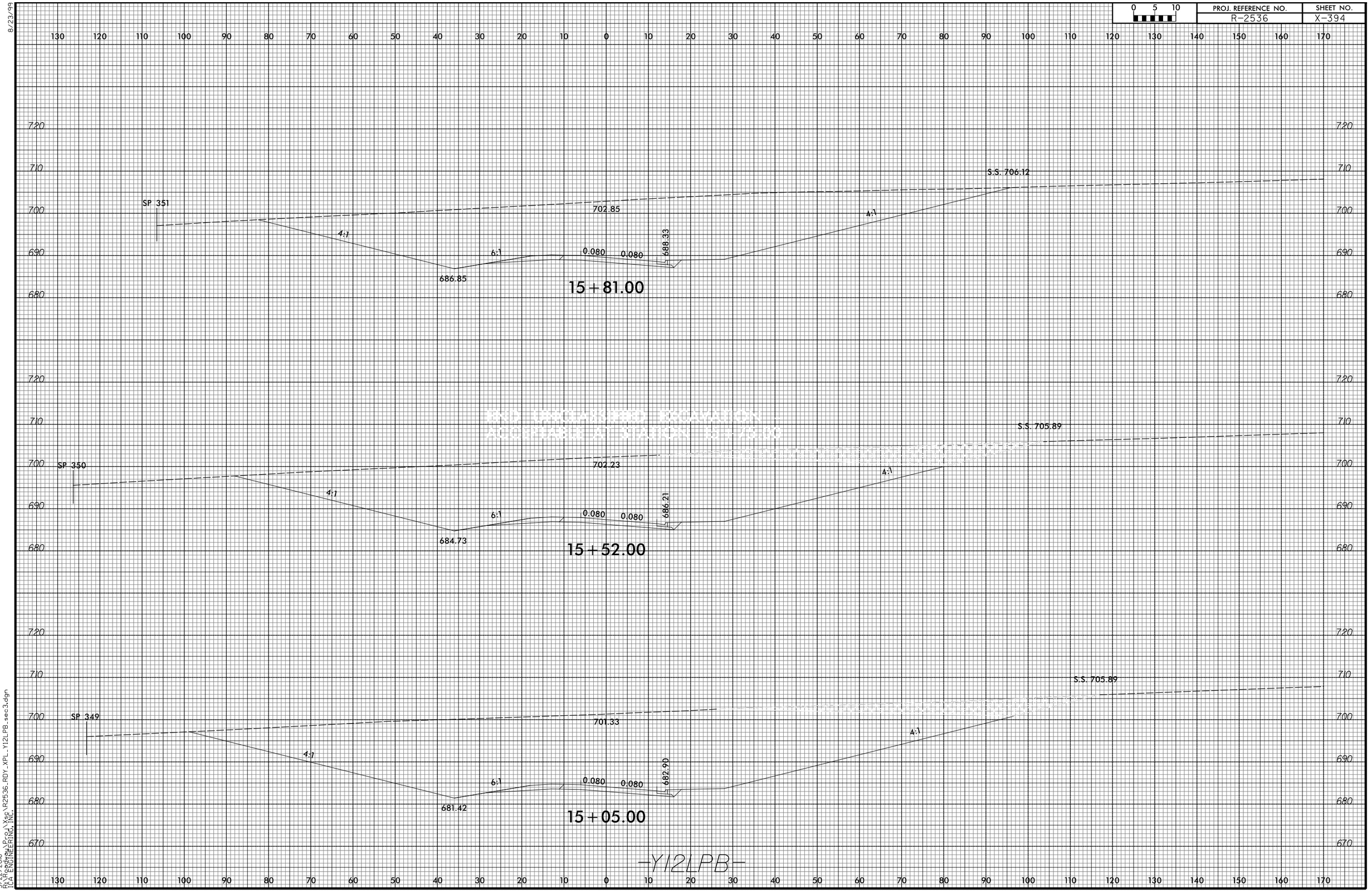
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-394



NO UNAUTHORIZED EXCAVATION
ADDITIONAL AT STATION 15+52.00

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12LPB_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-395

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

720 710 700 690 680 670

S.S. 707.93

SP 339

706.55

4:1

676.17

0.080 0.080

6:1 6:1 4:1

674.69

13+35.00

S.S. 707.57

SP 341

707.93

4:1

675.59

0.080 0.080

6:1 6:1

673.59

12+93.00

S.S. 707.13

SP 343

709.01

4:1

675.46

0.080 0.080

6:1 6:1

676.13

12+49.00

-Y12LPC-

3/22/2016
R:\Roads\Proj\Sec\R2536_RDY_XPL_Y12LPC_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-396

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

720 710 700 690 680 670

S.S. 708.00

706.02

SP 335

4:1

4:1

4:1

677.98

0.080 0.080

6:1

675.45

14+00.00

S.S. 707.97

705.82

SP 337

4:1

676.99

0.080 0.080

6:1

5:1

4:1

675.51

13+70.00

-Y12LPC-

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12LPC_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-397

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

720 710 700 690 680 670

S.S. 708.57

704.78

4:1

681.27

0.080 0.080

6:1

679.79

4:1

14+75.00

S.S. 708.47

704.39

4:1

680.01

0.080 0.080

6:1

678.53

4:1

14+50.00

S.S. 708.14

703.46

4:1

678.89

0.080 0.080

6:1

677.41

4:1

14+25.00

-Y12LPC-

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12LPC_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-398

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

720 710 700 690 680 670

S.S. 708.70

706.48

SP 362

4:1

686.00

0.080 0.080

6:1

4:1

684.52

15 + 51.00

S.S. 708.76

705.22

SP 361

4:1

684.08

0.080 0.080

6:1

4:1

682.60

15 + 22.00

S.S. 708.67

704.74

4:1

682.70

0.080 0.080

6:1

4:1

681.22

15 + 00.00

-Y12LPC-

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12LPC_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-399

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

720
710
700
690
680

S.S. 709.95

4:1

687.99

0.080 0.080

6:1

708.36

SP 363

686.51

15+81.00

-Y12LPC-

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12LPC_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-400

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 630

SP 474

S.S. 636.72

5.62:1

6:1

633.88

0.080 0.080

638.83

S.S. 639.74

4:1

640 630

14+75.00

640

SP 473

S.S. 640.69

4:1

6:1

636.51

0.080 0.080

642.09

S.S. 642.28

4:1

640

14+40.00

650 640

SP 472

S.S. 645.15

4:1

6:1

638.67

0.080 0.080

645.29

S.S. 644.38

4:1

650 640

14+13.00

650 640

SP 471

S.S. 650.31

4:1

6:1

641.31

0.080 0.080

649.16

S.S. 647.62

4:1

650 640

13+80.00

650 640

SP 470

4:1

6:1

643.71

0.080 0.080

652.90

S.S. 650.39

4:1

650 640

13+50.00

-Y17LPDA-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Projects\Proj\Xsc\R2536-RDY_XPL-Y17LPDA_SEC38.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-401

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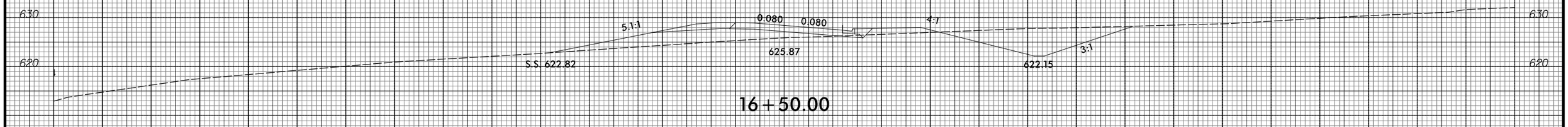
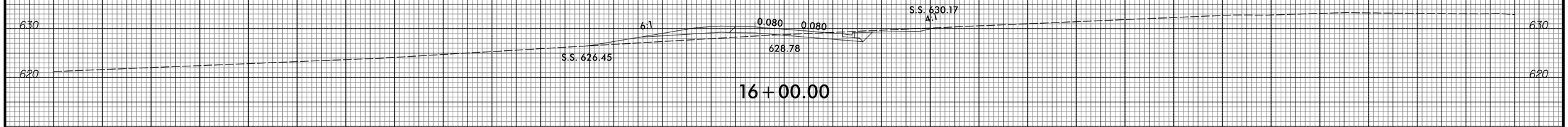
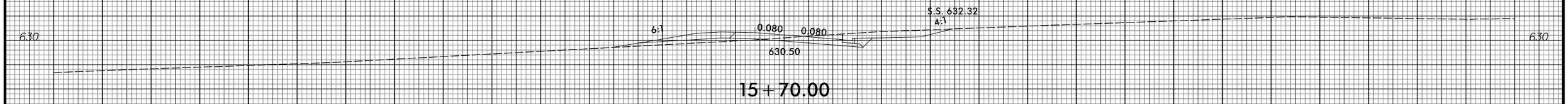


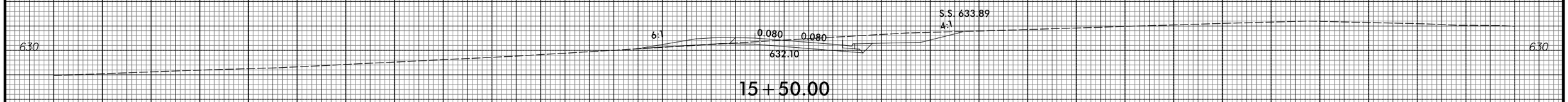
16+50.00



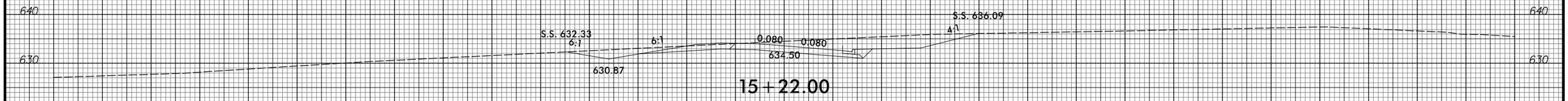
16+00.00



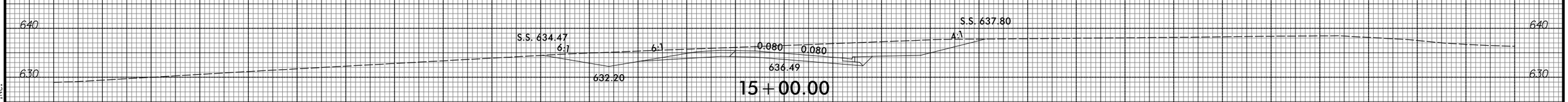
15+70.00



15+50.00



15+22.00



15+00.00

-Y17LPDA-

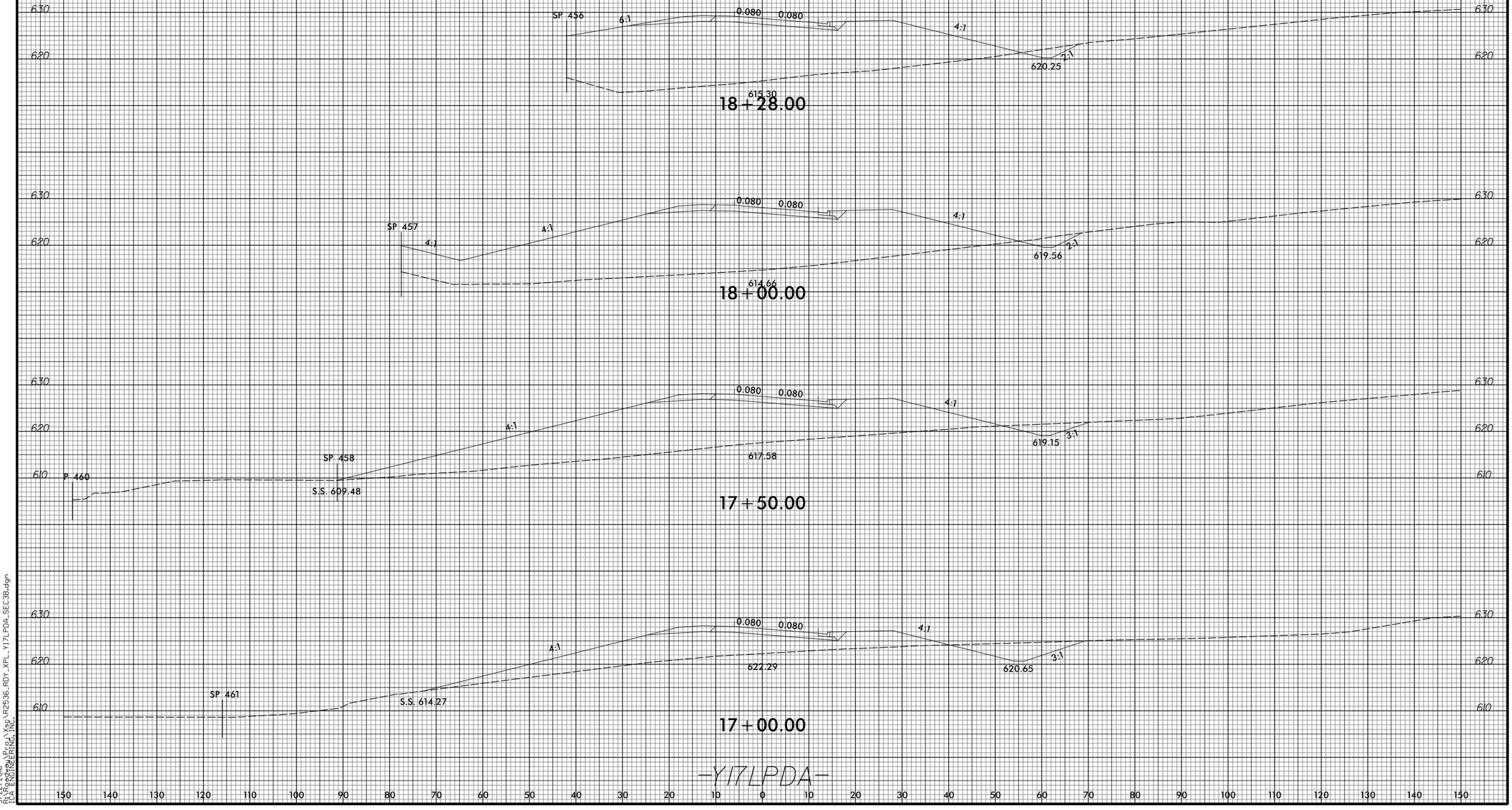
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17LPDA_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-402

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



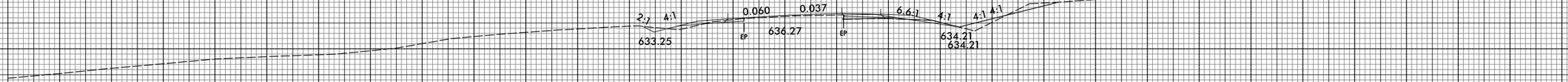
3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17LPDA_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

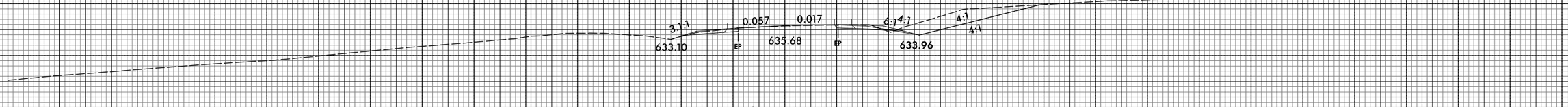
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-403

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

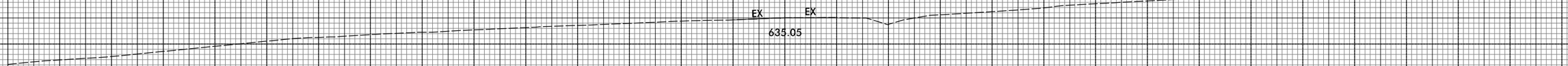
650 640 630 620 610



16+50.00



16+00.00



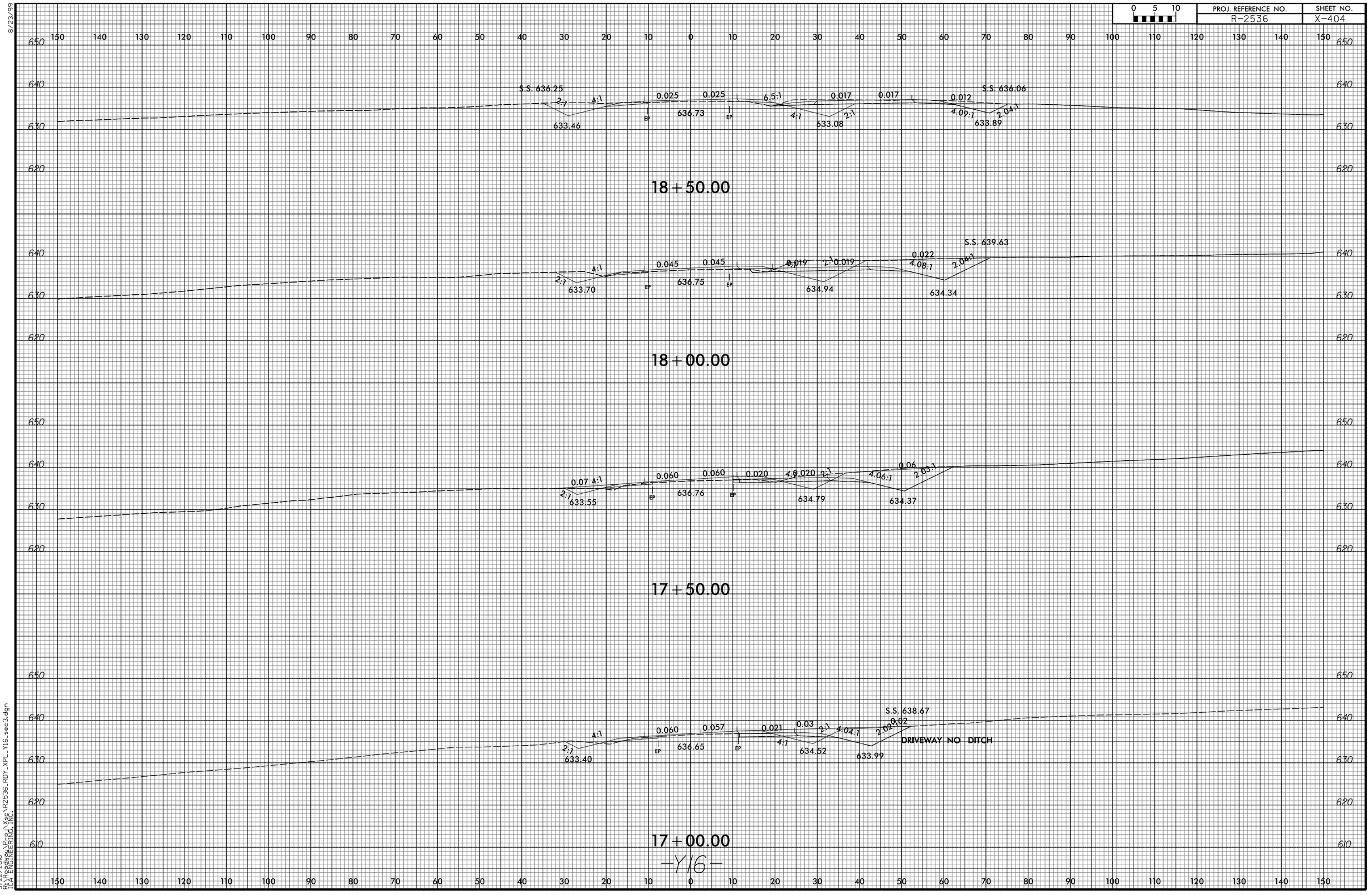
15+57.70

-Y16-

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y16_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

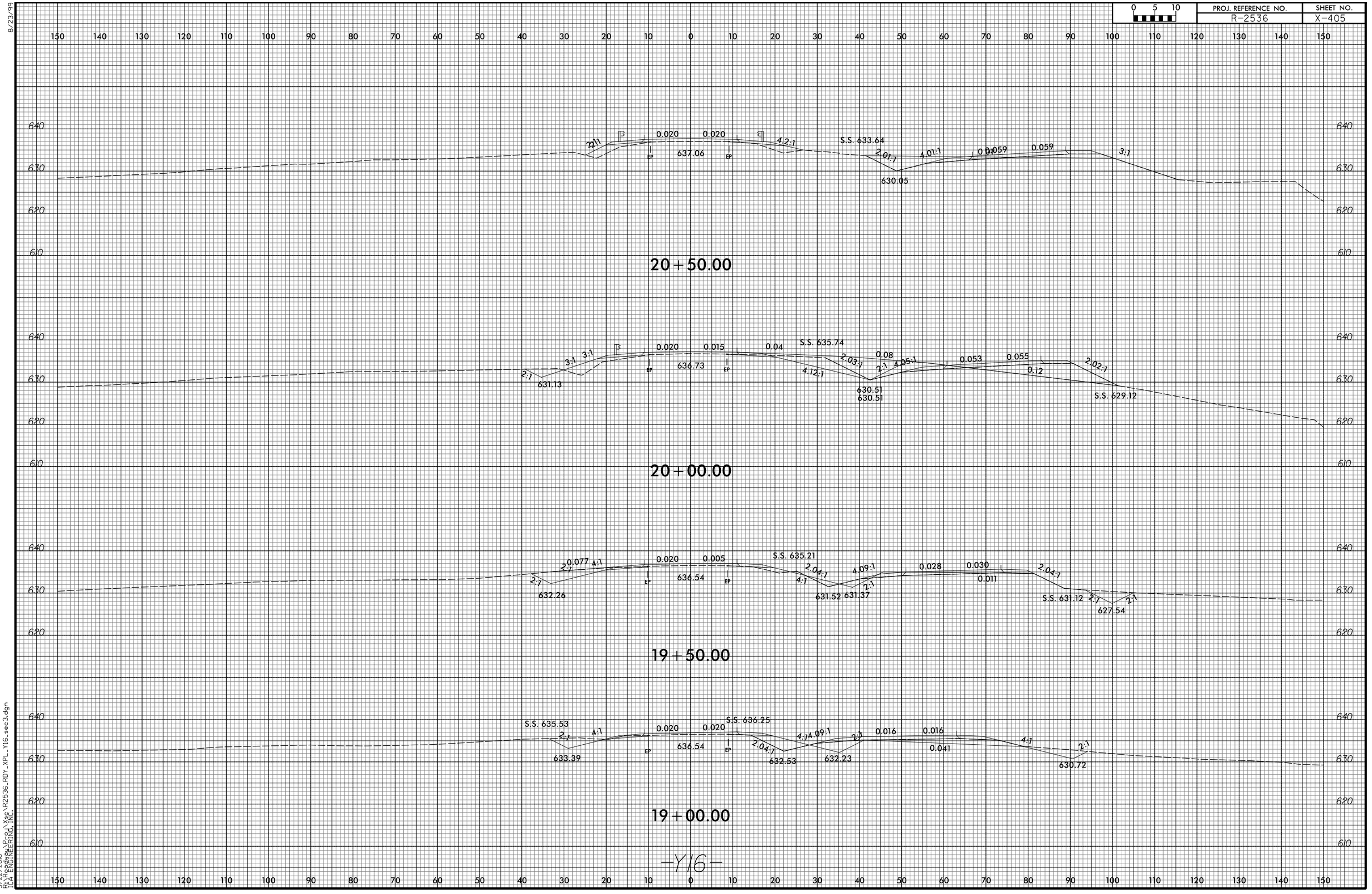
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-404



3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y16_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-405



3/22/2016
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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-406

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 630 620

0.020 0.020 S.S. 637.31 2:1 4:1 0.020 0.020 2:1

EP 638.55 EP 631.18 S.S. 631.63

22+00.00

0.020 0.020 S.S. 635.67 2:1 4:1 0.020 0.020 2:1

EP 637.97 EP 630.64 S.S. 630.41

21+50.00

2:1 3 0.020 0.020 2 3:1 S.S. 634.10 2:1 4:1 0.009 0.041 0.041 2:1

EP 637.46 EP 630.17 S.S. 628.84

21+00.00

-Y16-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y16_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-407

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

650
640
630

2:1 0.020 0.020 2:1 2:1 S.S. 641.21 3:1 0.01 4:1 0.020 0.020 4:1
EP 641.14 EP 634.65

23+50.00

640
630

0.020 0.020 S.S. 639.77 2:1 4:1 0.020 0.020 5:1
EP 640.06 EP 633.21

23+00.00

640
630
620

0.020 0.020 S.S. 638.13 2:1 4:1 0.020 0.020 4:1
EP 639.25 EP 632.04

22+50.00

-Y16-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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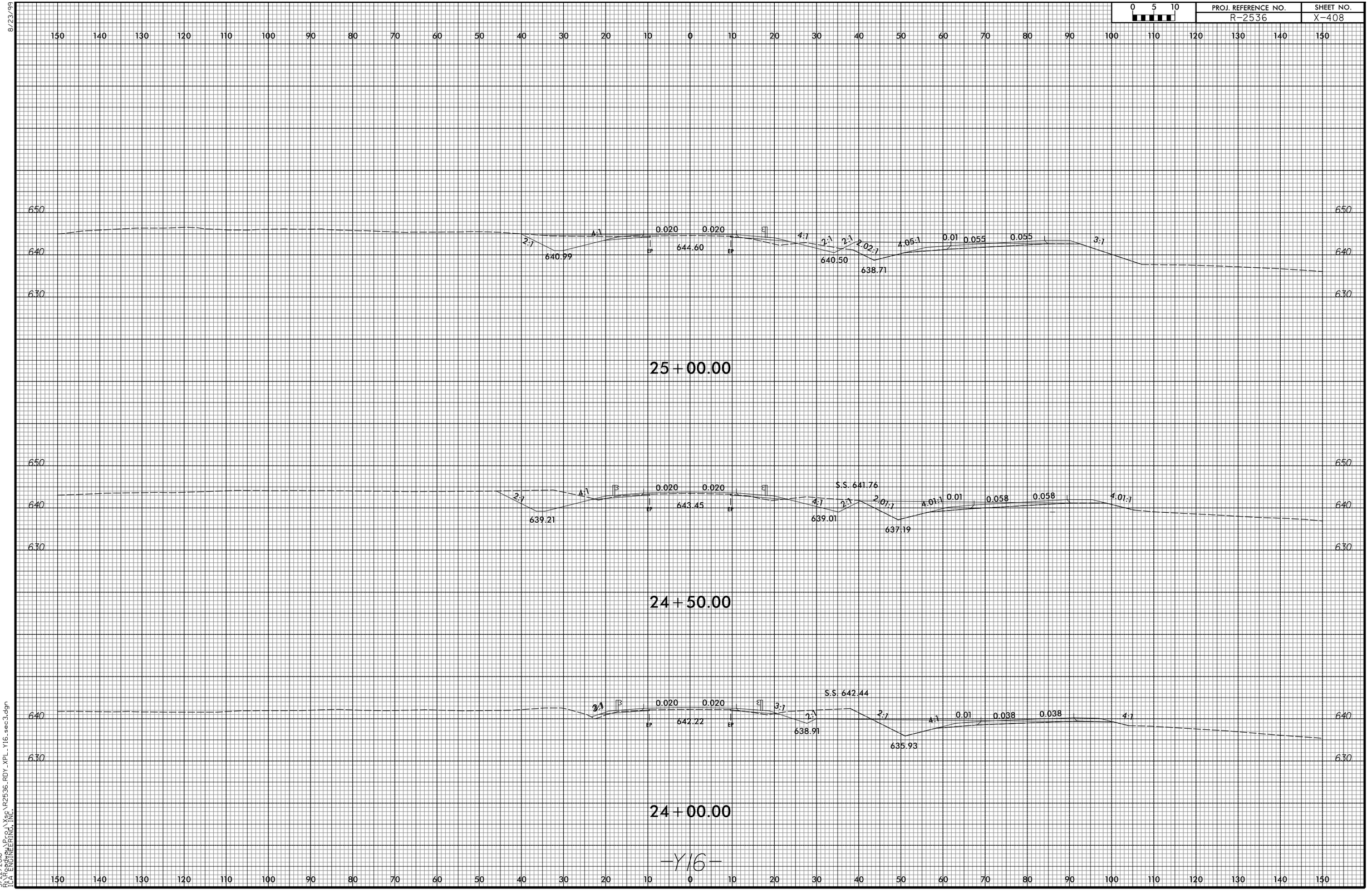
R:\Roads\Proj\Xsec\R2536_RDY_XPL_Y16_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-408



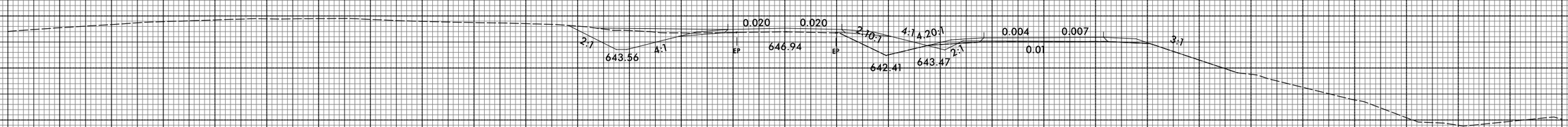
3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y16_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

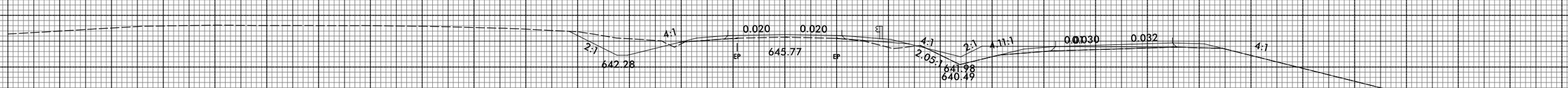
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-409

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

650
640
630
620



26+00.00



25+50.00

-Y16-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

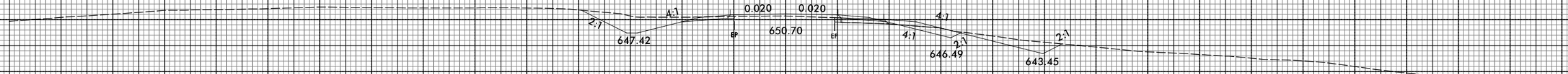
3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y16_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-410

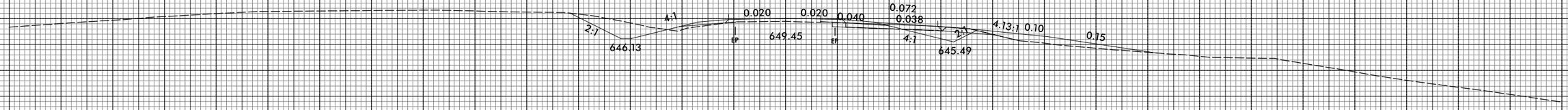
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

650
640
630



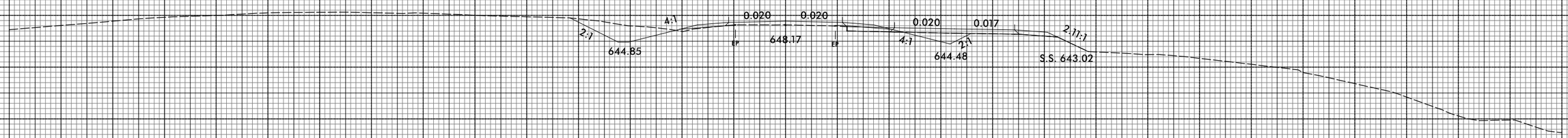
27+50.00

650
640
630



27+00.00

650
640
630
620



26+50.00

-Y16-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y16_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-411

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

660 650 640 630

EX EX

653.20

650.17

648.5

4:1 2:1

28+49.22

4:1 0.008 0.020 4:1 4:1 2:1 2:1

EP EP

651.93

647.5

646.00

28+00.00

-Y16-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y16_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-412

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690

4:1 0.020 0.020 4:1
692.00 691.03
16+00.00

700
690

4:1 0.018 0.020 4:1
692.09 690.88
15+50.00

690

4:1 0.005 0.020 6:1
692.09 690.73
15+00.00

690

3:1 0.008 0.020 4:1
692.07
14+50.00

690

3:1 0.020 0.020 3:1
EP EP
692.04
14+00.00

690

0.01 0.02
EP EP
691.92
13+50.00

690

0.02 0.02
EP EP
691.77
13+20.00

-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

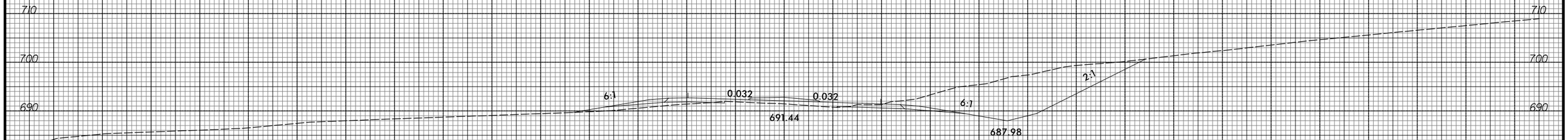
3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

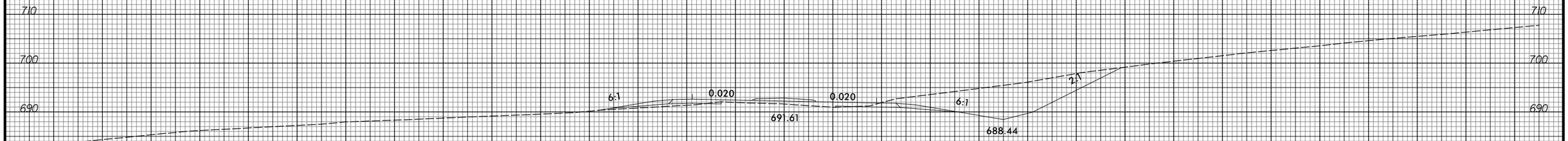
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-413

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

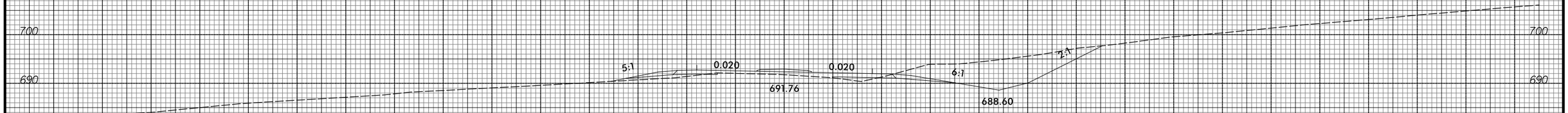
710 700 690 680



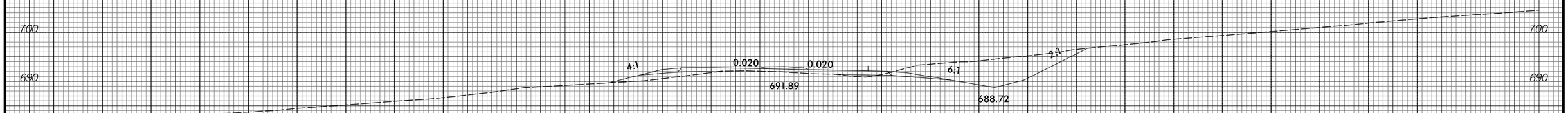
18+00.00



17+50.00



17+00.00



16+50.00

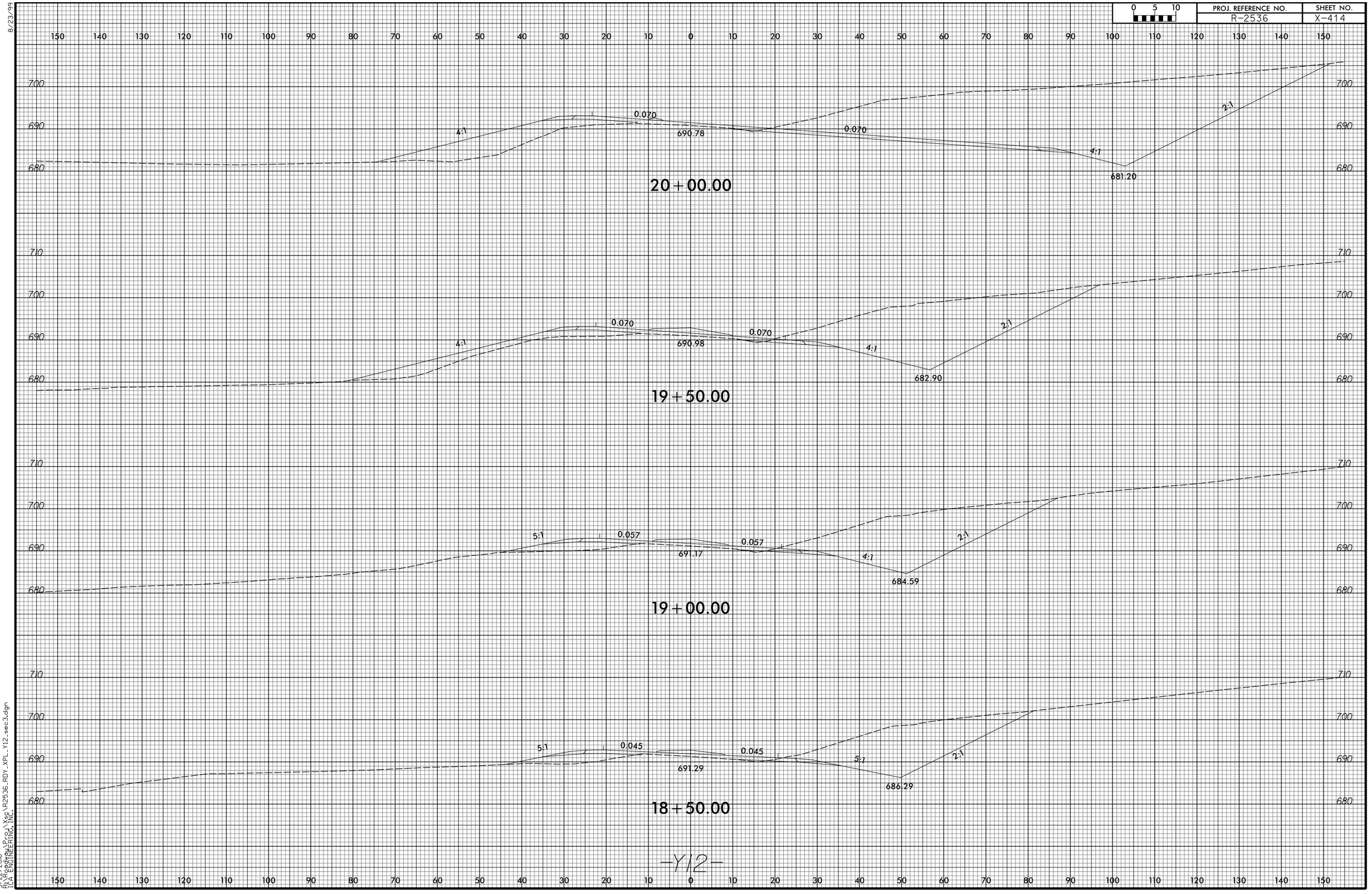
-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-414



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-415

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

710
700
690
680

5:1 0.070 0.070 690.57 4:1 2:1 680.20

22+00.00

700
690
680

4:1 0.070 0.070 690.69 4:1 2:1 680.45

21+50.00

690
680

4:1 0.070 0.070 690.78 4:1 2:1 680.7

21+00.00

700
690
680

0.20 0.15 5:1 0.10 0.070 0.070 690.74 0.070 4:1 2:1 680.95

20+50.00

-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-416

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 710 700 690 680

2:1 6.2:1 0.070 0.070 4:1

689.15 690.28

23+50.00

720 710 700 690 680

5.4:1 0.070 0.070 4.8:1

690.25

23+00.00

710 700 690 680

0.096 0.070 0.070 4:1 2:1

690.43 679.95

22+50.00

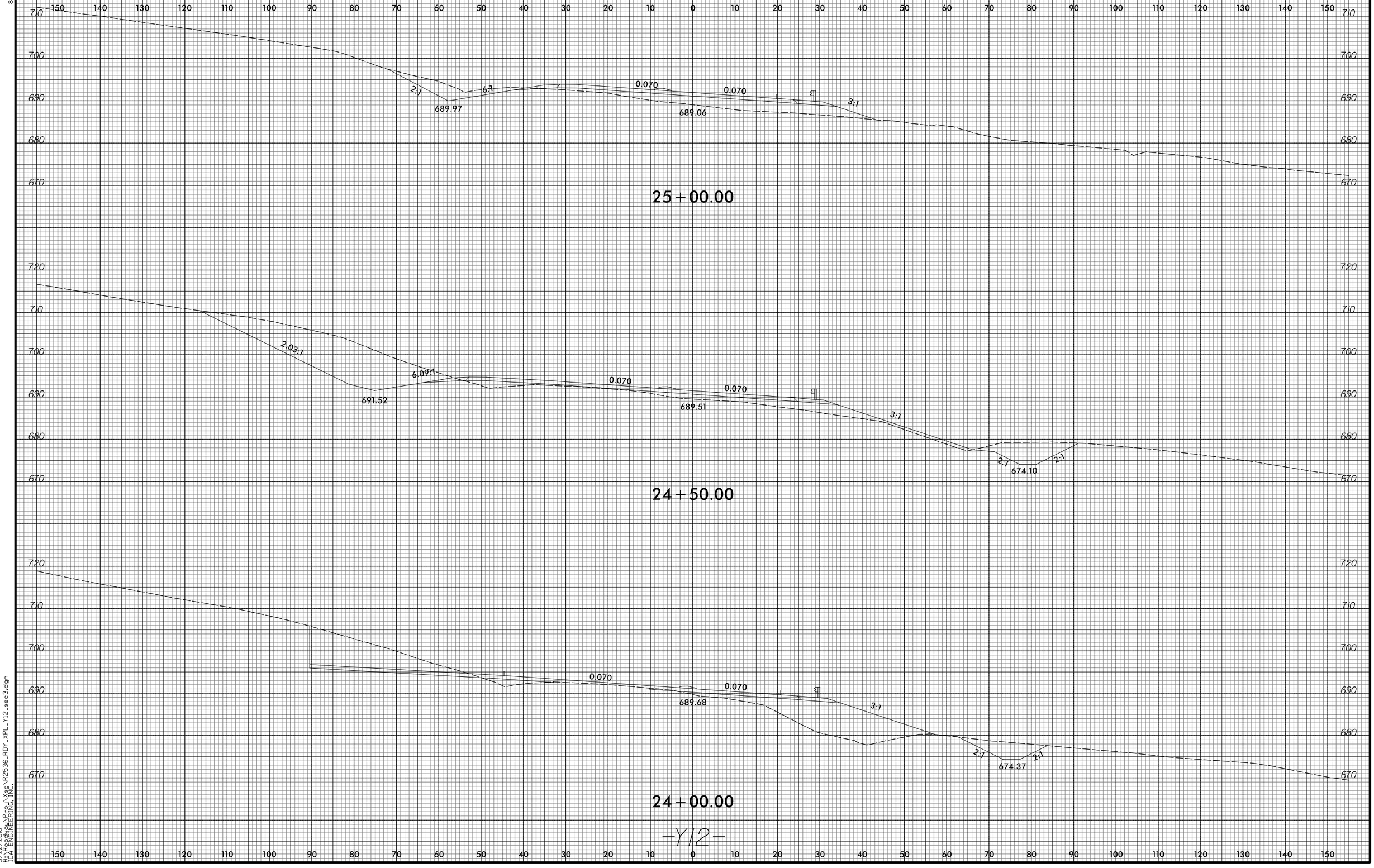
-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-417



3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-418

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690
680
670
660

BEGIN UNDERCUT AT STATION 26+50.00

8.5:1
6:1
690.89
0.070
0.070
693.02
2:1

26+50.00

700
690
680
670

5.5:1
6:1
690.10
0.070
0.070
688.30
2:1
S.S. 683.45

26+00.00

710
700
690
680
670

3:1
6:1
689.72
0.070
0.070
687.57
2:1
S.S. 683.49

25+50.00

-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.

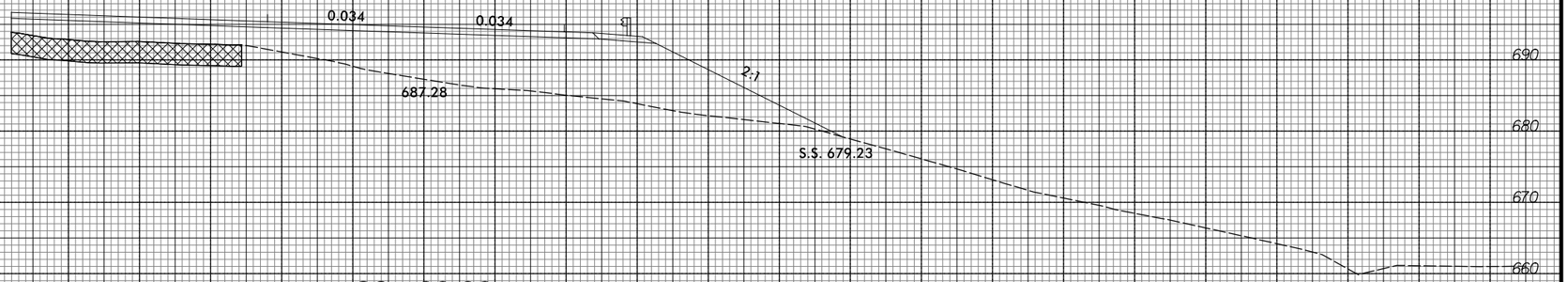
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-419

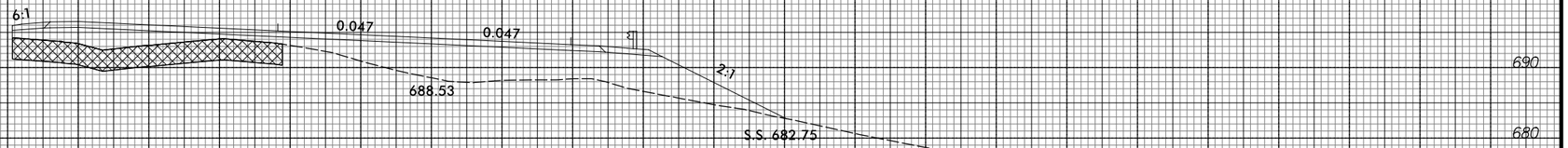
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 690 680 670 660

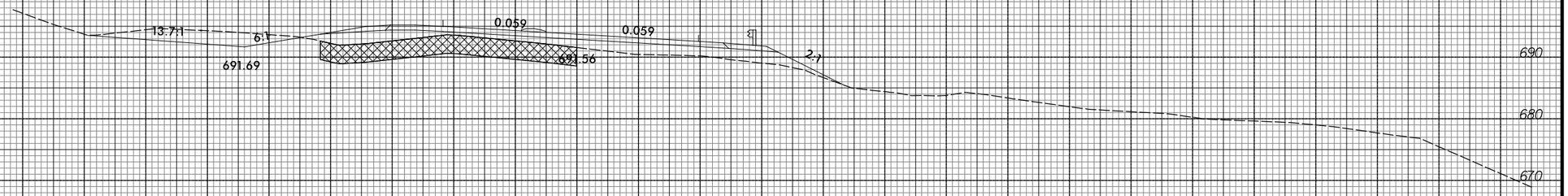
END UNDERCUT AT STATION 28+00.00



28+00.00



27+50.00



27+00.00

-Y12-

3/22/2016
R:\Roads\Projects\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-420

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

690
680
670
660

30:1
4:1
689.55
4:1
0.020
0.020
682.15
2:1
S.S. 666.63

29+50.00

690
680
670
660

4:1
690.28
4:1
0.020
0.020
681.94
2:1
S.S. 666.06

29+00.00

700
690
680
670
660

4:1
691.00
4:1
0.022
0.022
684.92
2:1
S.S. 668.70

28+50.00

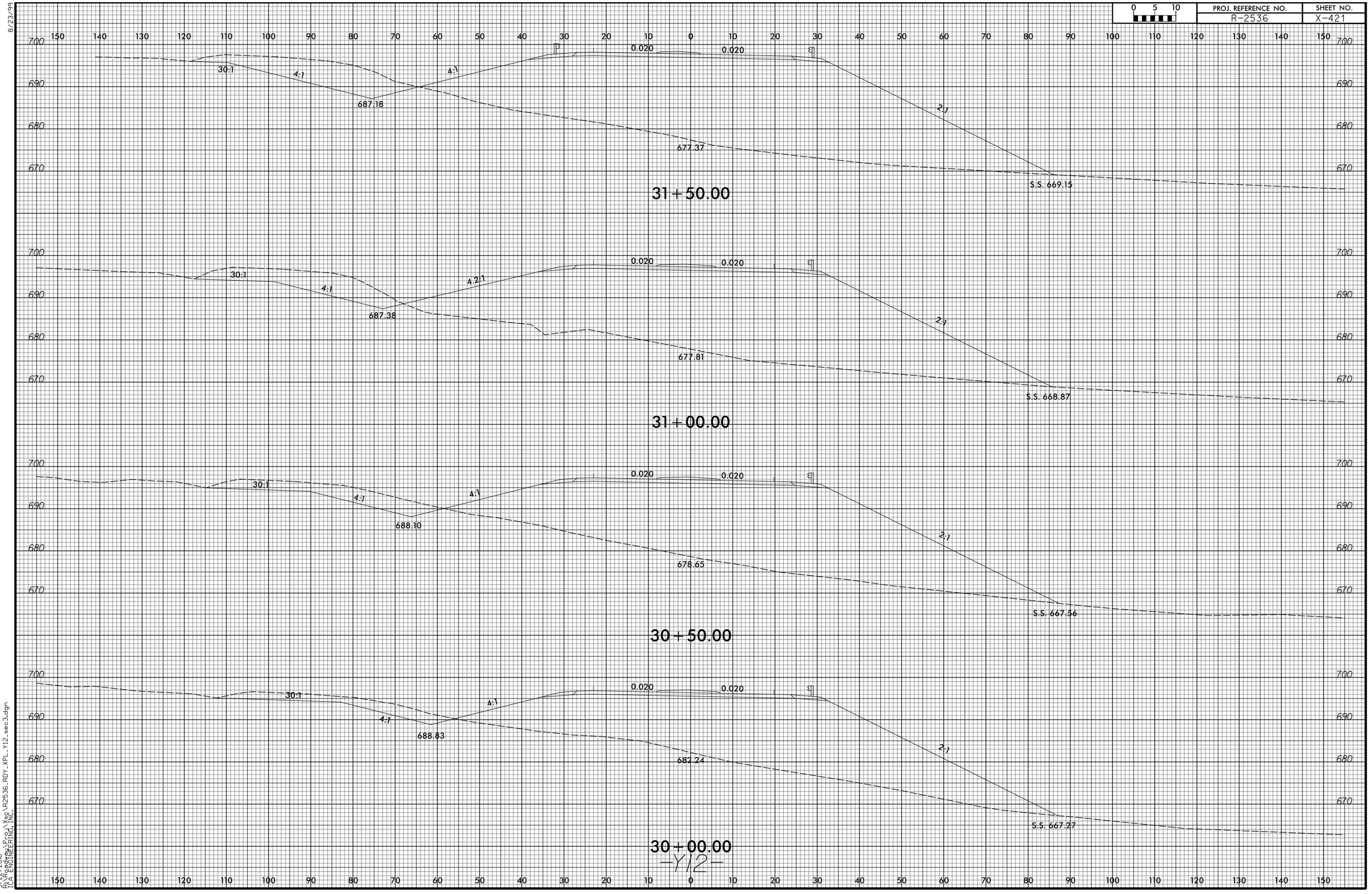
-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

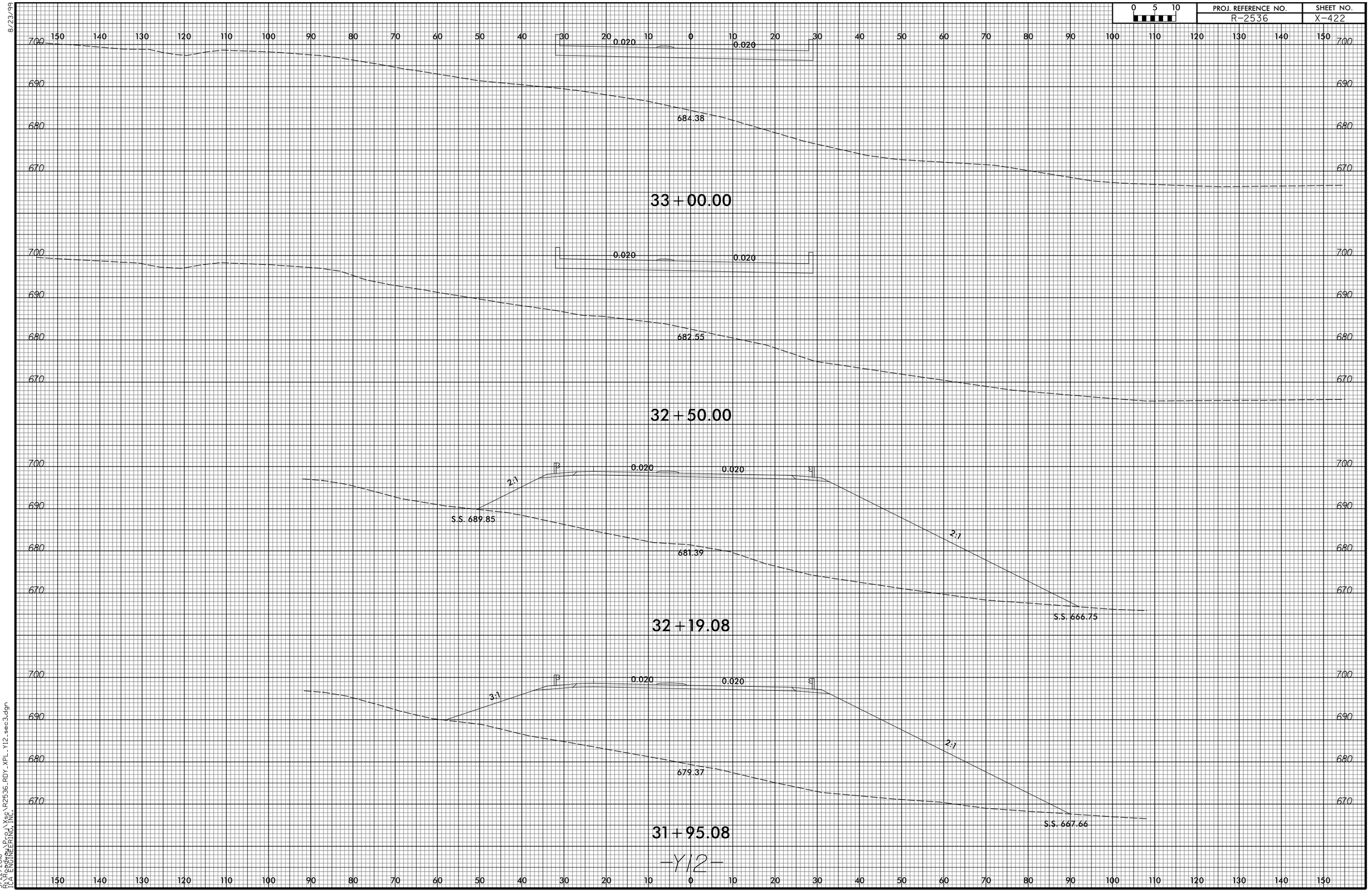
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-421



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-422



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-423

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 690 680

0.020 0.020

2:1 2:1

689.04

S.S. 678.10

34+27.08

700 690 680 670

0.020 0.020

688.39

34+00.00

700 690 680 670

0.020 0.020

686.07

33+50.00

700 690 680 670

0.020 0.020

685.84

33+21.00

-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-424

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690
680

30:1
4:1
695.75
4:1
0.020
0.020
2:1
692.35
S.S. 682.81

36+00.00

700
690
680
670

30:1
4:1
694.50
4:1
0.020
0.020
2:1
689.23
S.S. 678.09

35+50.00

700
690
680

19.3:1
4:1
693.25
3:1
0.020
0.020
2:1
688.52
S.S. 676.09

35+00.00

700
690
680

S.S. 694.46
2:1
0.020
0.020
2:1
689.46
S.S. 679.23

34+50.00

-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-425

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700 690 680

0.067 0.067 2:1 688.59 S.S. 677.75

38+00.00

700 690 680

4:1 6.6:1 699.51 0.055 0.055 2:1 691.54 S.S. 678.17

37+50.00

700 690 680

4:1 7.6:1 698.26 0.042 0.042 2:1 693.83 S.S. 680.69

37+00.00

700 690 680 670

4:1 30:1 4:1 697.01 0.030 0.030 2:1 694.52 S.S. 682.55

36+50.00

700 690 680

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

-Y12-

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-426

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690
680

0.070
0.070
4:1
2:1
695.84
696.20
2:1

40+00.00

0.070
0.070
4:1
2.27:1
696.28
691.93
2:1
S.S. 681.66

39+50.00

0.070
7.88:1
4:1
698.65
686.96
2:1
S.S. 679.79

39+00.00

0.070
0.070
686.33
2:1
S.S. 678.42

38+50.00

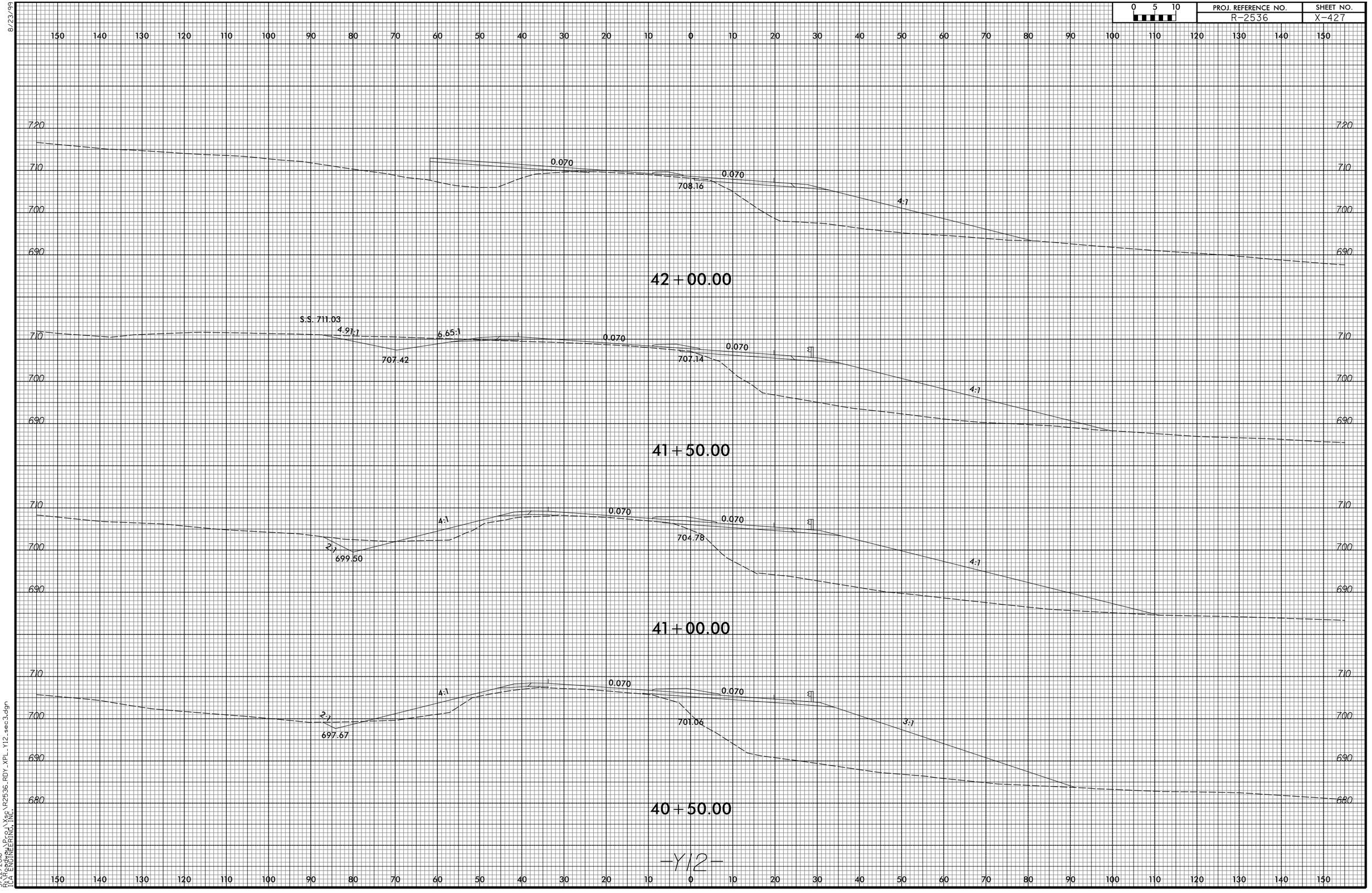
-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-427



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[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-428

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730
720
710
700
690

2:1
4:1
708.38
0.070
710.97
0.070
4:1

43+50.00

730
720
710
700
690

2:1
4:1
706.16
0.070
709.92
0.070
4:1

43+00.00

720
710
700
690

2:1
6:1
705.84
0.070
709.03
0.070
4:1

42+50.00

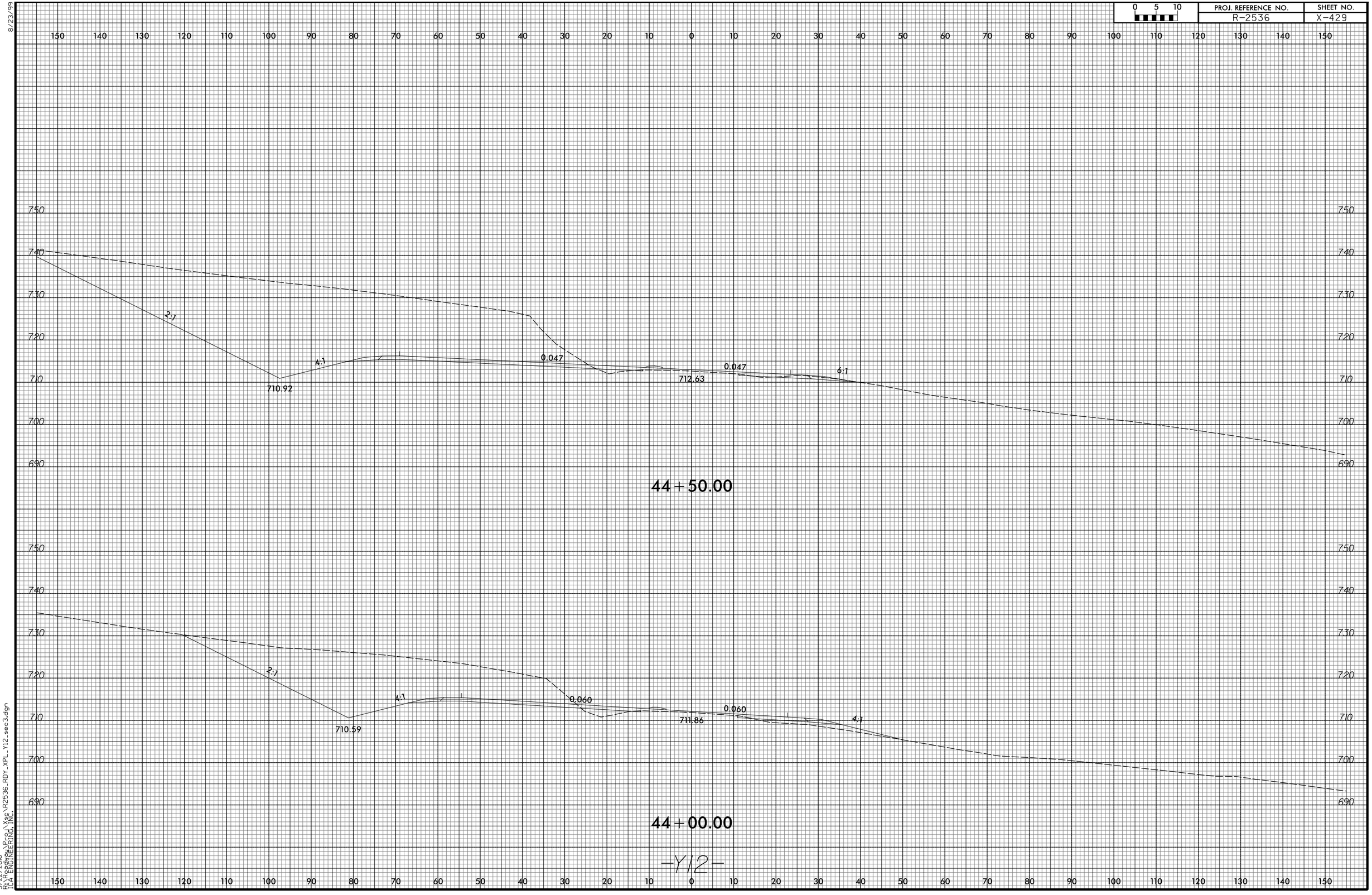
-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-429



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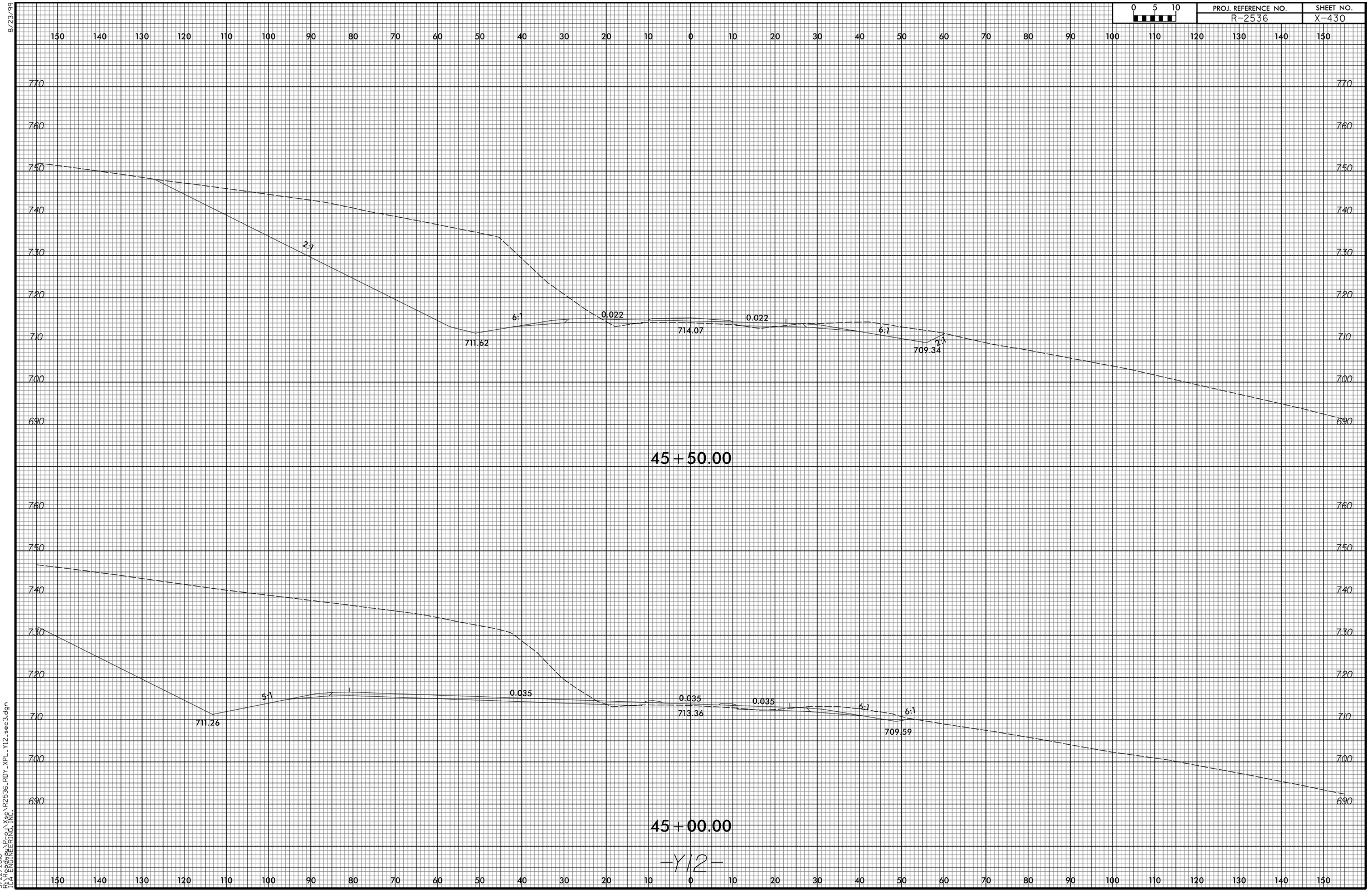
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-430



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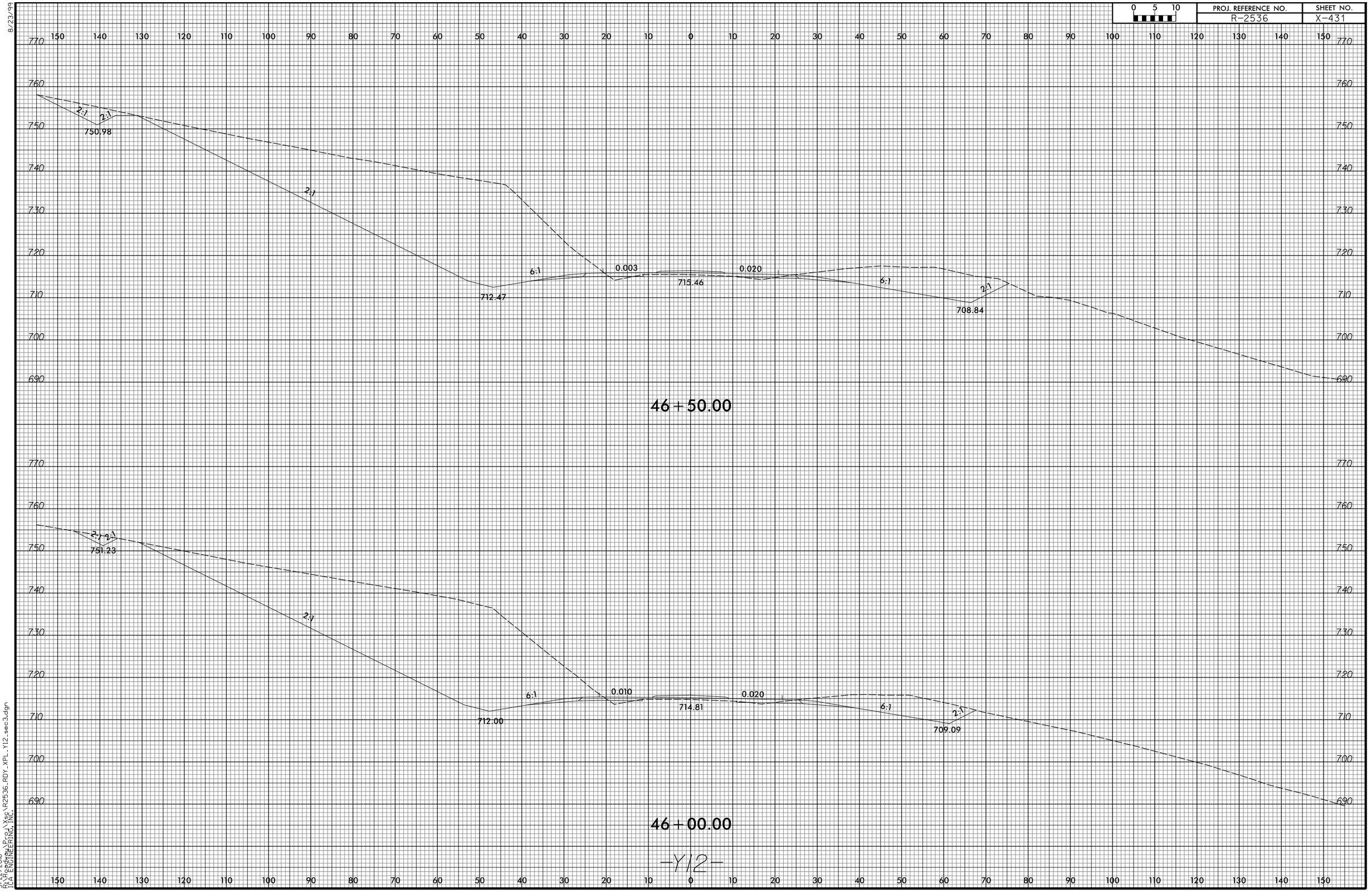
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-431



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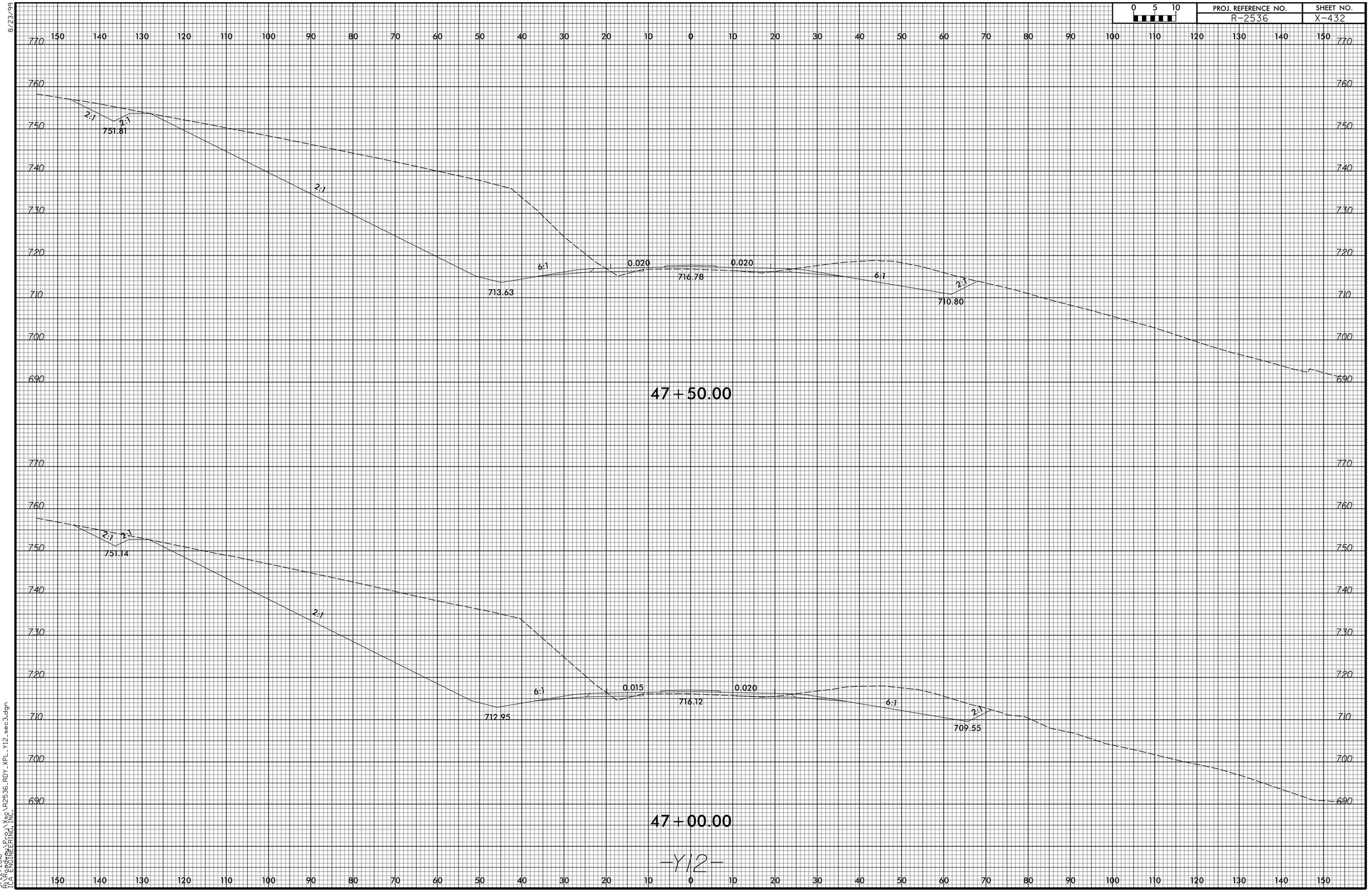
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-432



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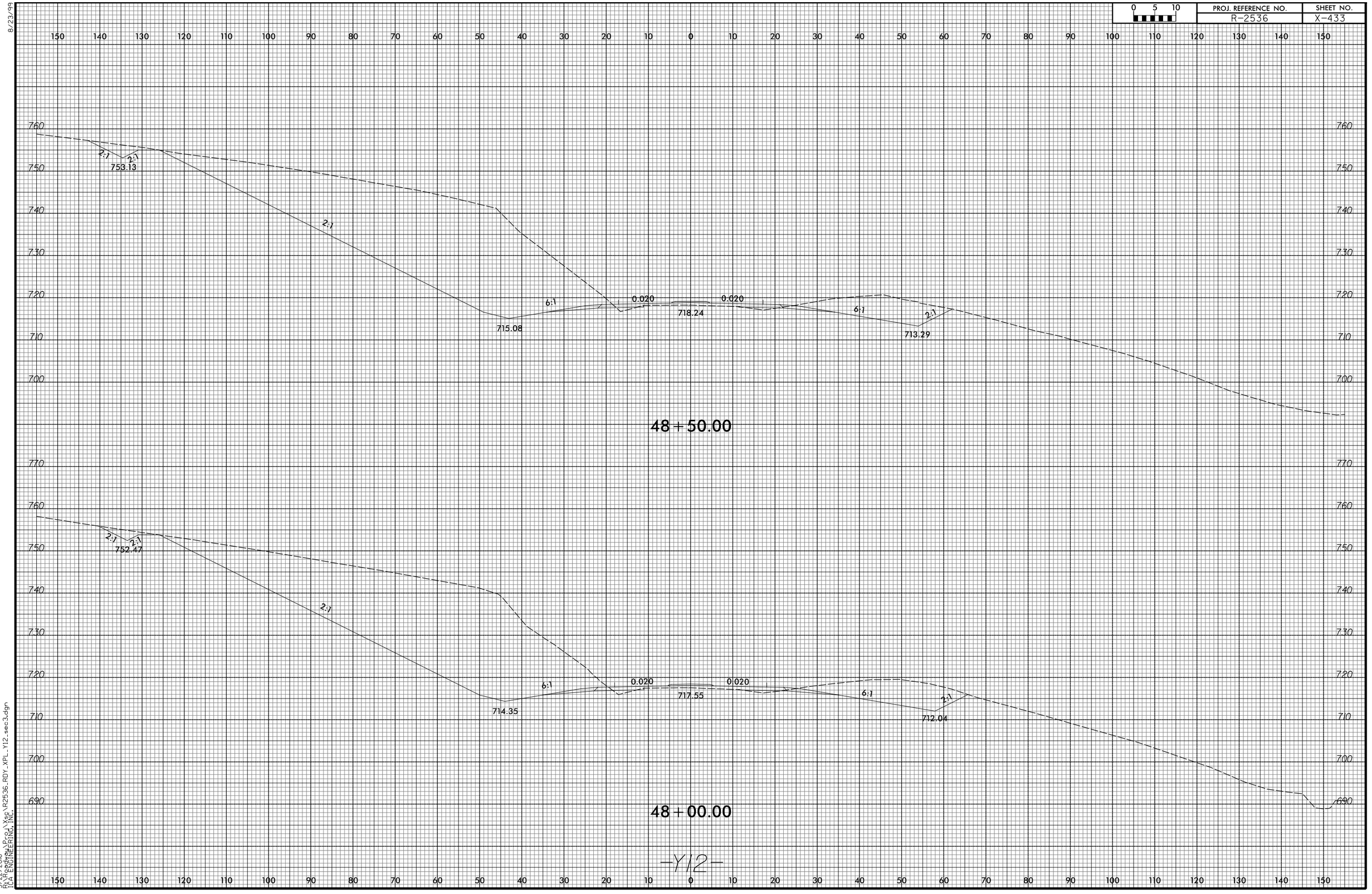
3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

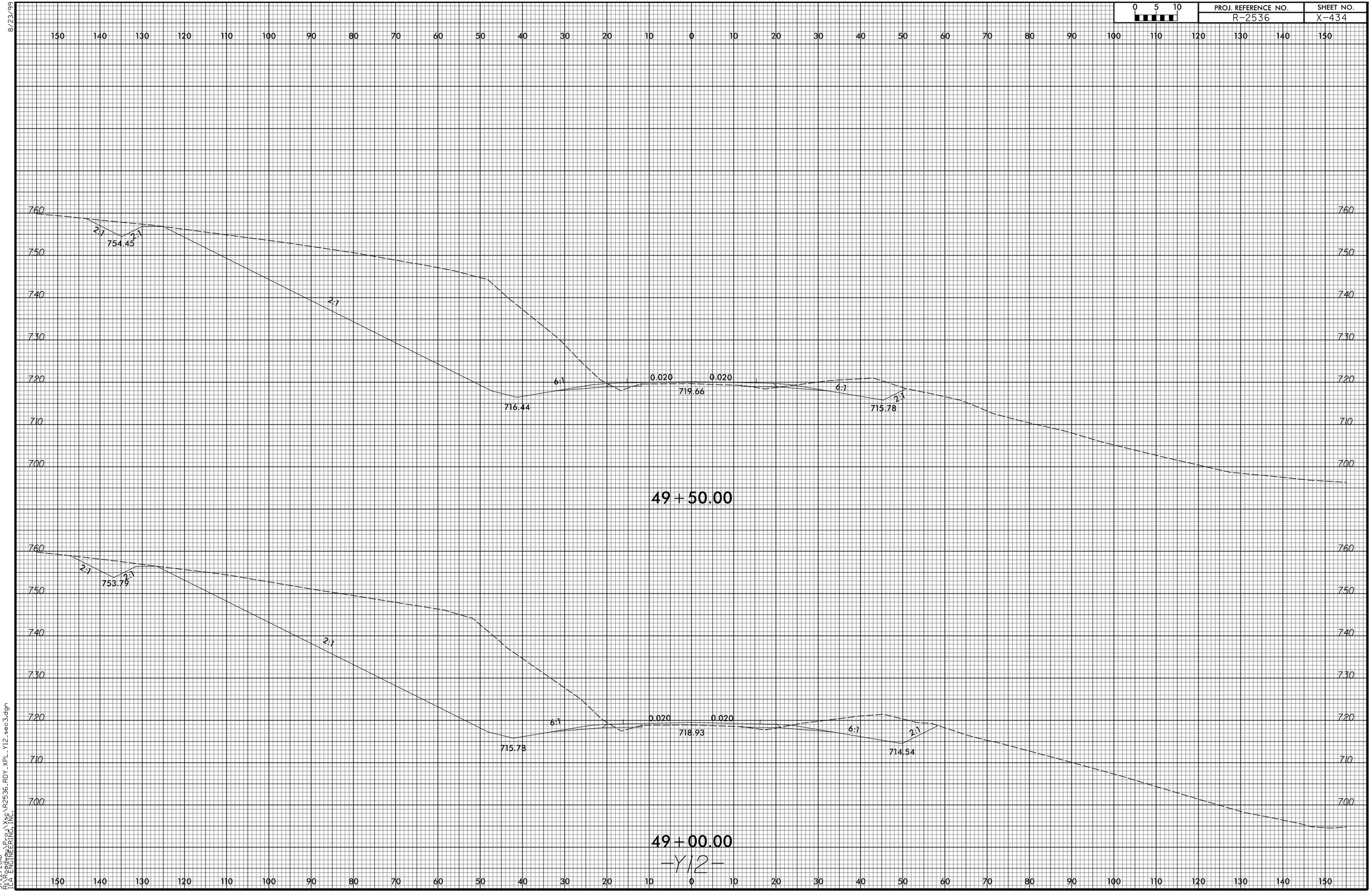
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-433



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-434



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R:\Roads\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-435

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

760 750 740 730 720 710 700

2:1

6:1

0.020

0.020

6:1

717.67

72 .14

760 750 740 730 720 710 700

50+50.00

760 750 740 730 720 710 700

2:1 2:1

755.11

2:1

6:1

0.020

0.020

6:1 6:1

717.07

720.41

717.03

760 750 740 730 720 710 700

50+00.00

-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-436

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750
740
730
720
710
700

0.025 0.033
722.35

51+35.00

750
740
730
720
710
700

2:1
6:1
719.96
0.020 0.020
721.85
5:1

51+00.00

-Y12-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-437

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730
720
710
700
690

714.23

11+00.00

730
720
710
700
690

714.03

10+50.00

730
720
710
700
690

713.95

10+00.00

-Y12A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12A_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-438

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 720 710 700

S.S. 714.78
6:1
713.05
0.028
712.57
0.028
712.12
4:1
S.S. 715.79

12+00.00

730 720 710 700 690

0.004
714.42
0.020
4:1
2:1
709.73

11+50.00

730 720 710 700 690

0.01
714.32
0.02

11+16.00

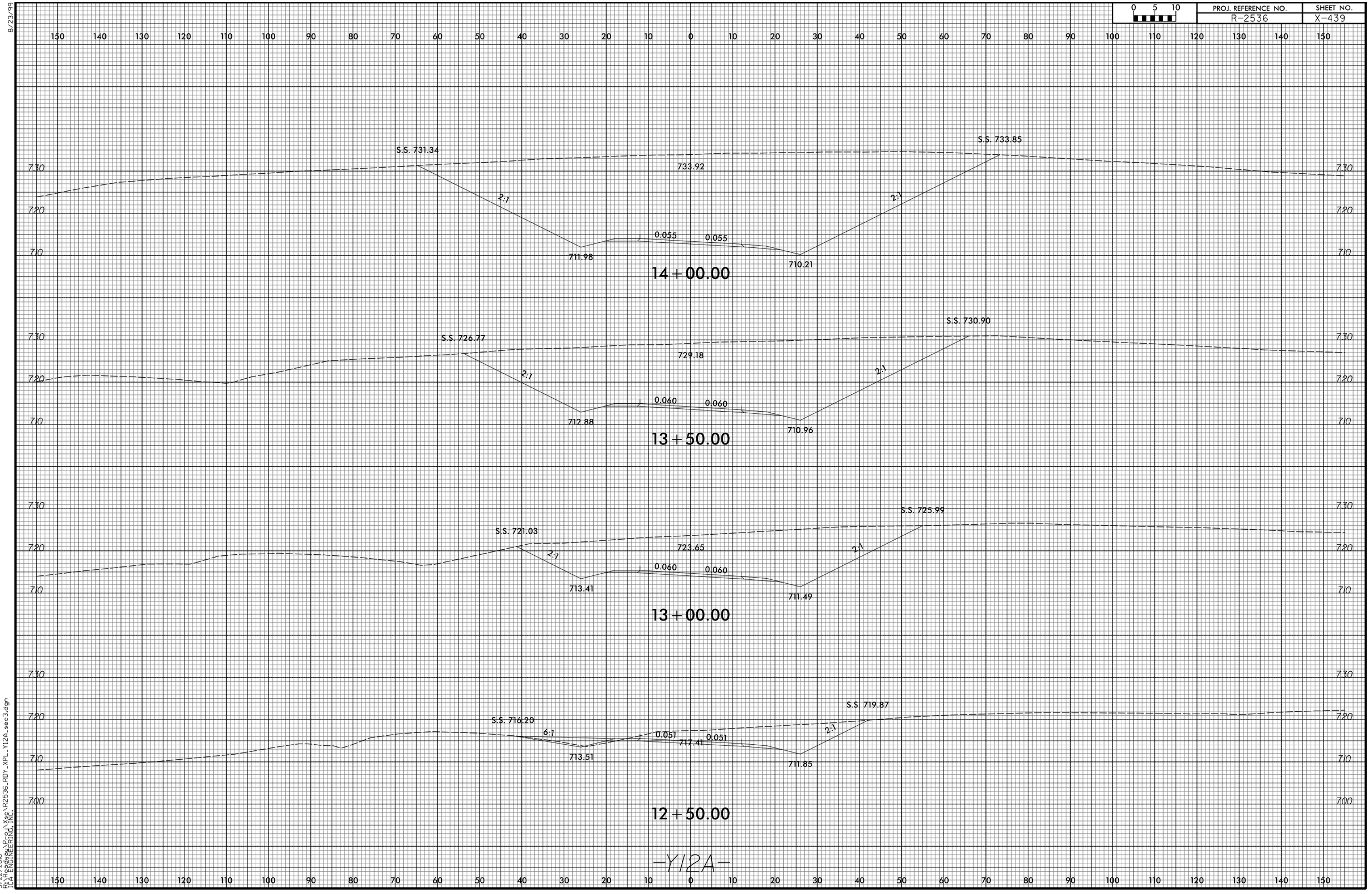
-Y12A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12A_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

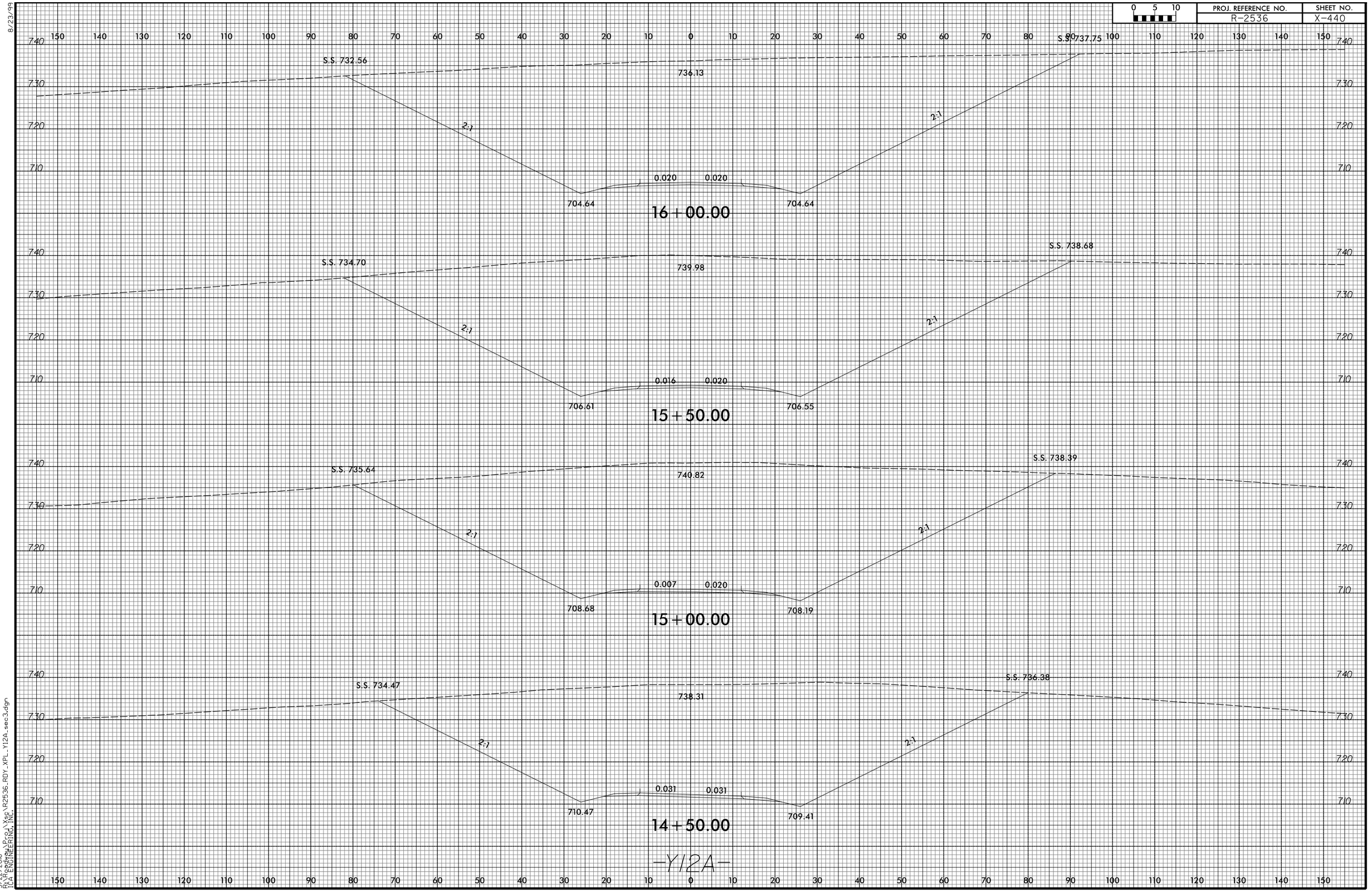
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-439



3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12A_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-440



3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y12A_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-441

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 720 710 700

S.S. 732.47

723.29

2:1

2:1

0.020 0.020

698.01 698.65

17+50.00

740 730 720 710 700

S.S. 734.91

S.S. 723.20

726.88

2:1

2:1

0.020 0.020

700.65 700.65

17+00.00

740 730 720 710 700

S.S. 736.24

S.S. 728.59

731.77

2:1

2:1

0.020 0.020

702.64 702.64

16+50.00

-Y12A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y12A_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-442

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690

692.50

19+50.00

710
700
690

705.05

2:1

0.010 0.010 0.010 0.010

690.07

692.03

2:1

19+00.00

720
710
700
690

712.79

2:1

2:1

0.014 0.014 0.020 0.020

692.72

694.33

18+50.00

730
720
710
700
690

S.S. 728.00

718.96

2:1

2:1

0.020 0.020 0.020 0.020

695.36

696.62

18+00.00

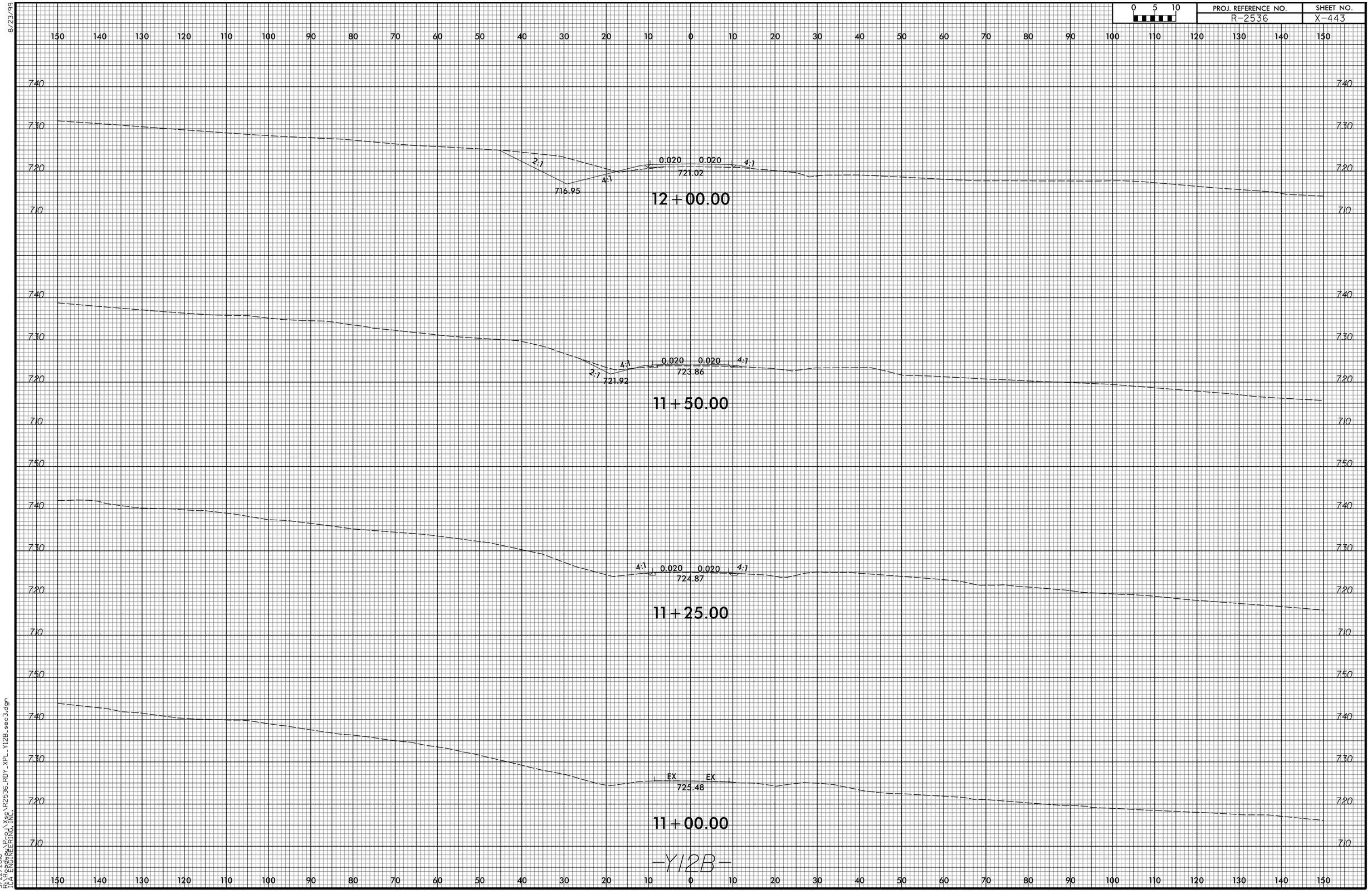
-Y12A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
Plotted by: Prod\Xsc\R2536_RDY_XPL_Y12A_sec3.dgn
FLATIRON ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-443



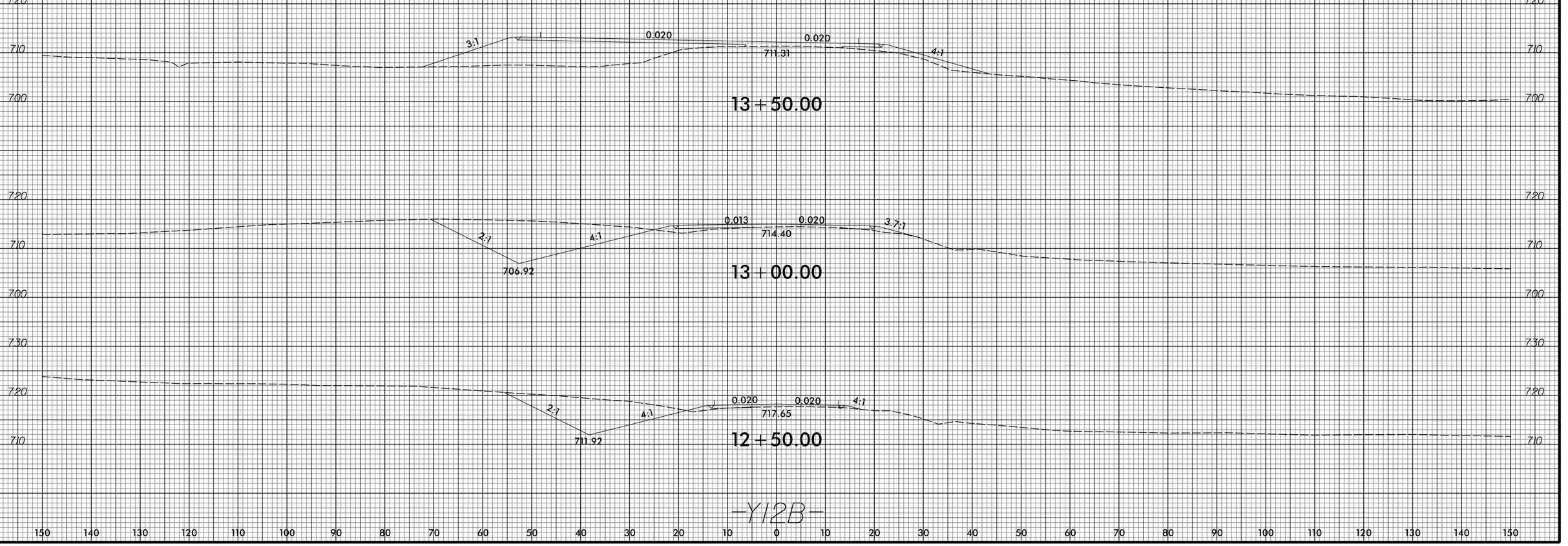
3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y12B_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-444

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720



720

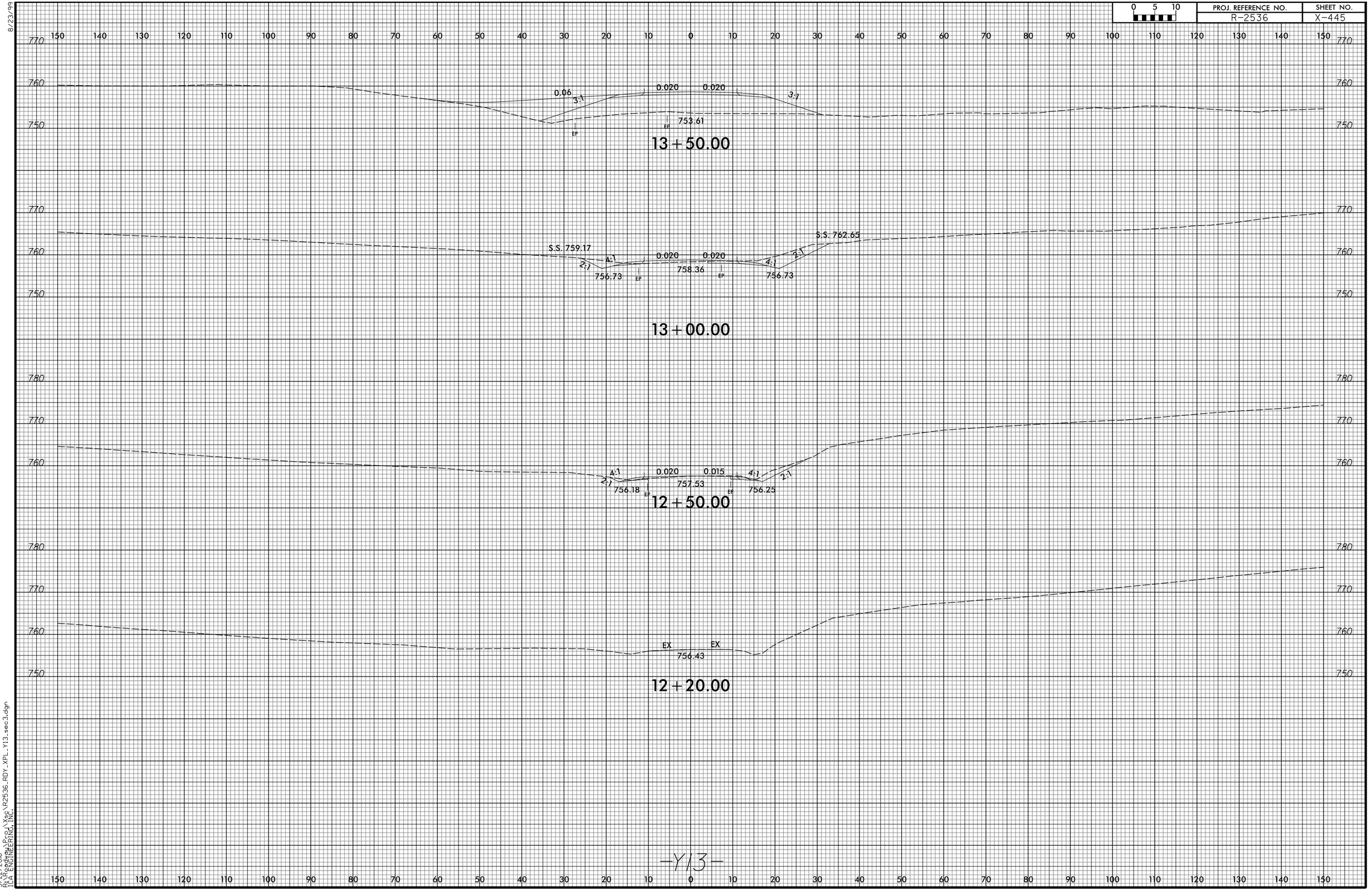
-Y12B-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_Y12B_sec3.dgn
TCA ENGINEERING, INC.

8/23/99

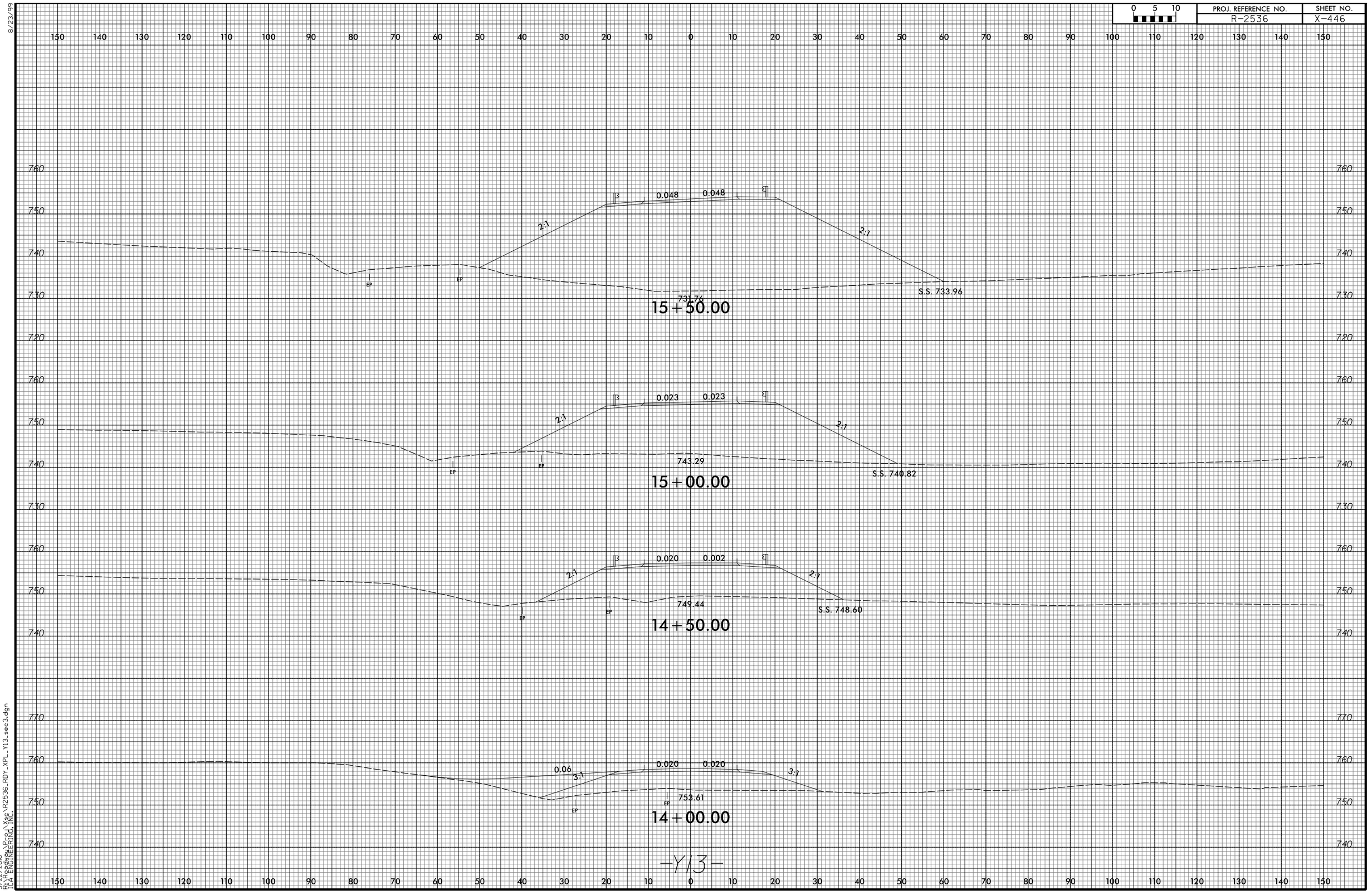
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-445



3/22/2016
R:\Roads\Proj\Xsec\R2536_RDY_XPL_Y13_sec3.dgn
[CA ENGINEERING, INC.]

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-446



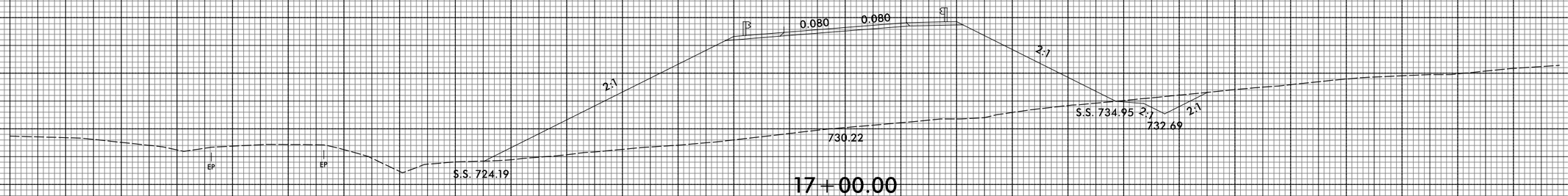
3/22/2016
R:\Roads\Proj\Xsec\R2536_RDY_XPL_Y13_sec3.dgn
[CA ENGINEERING, INC.

8/23/99

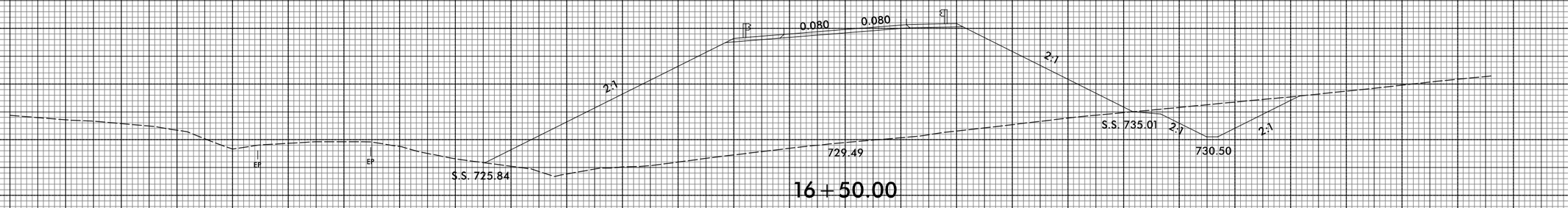
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-447

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

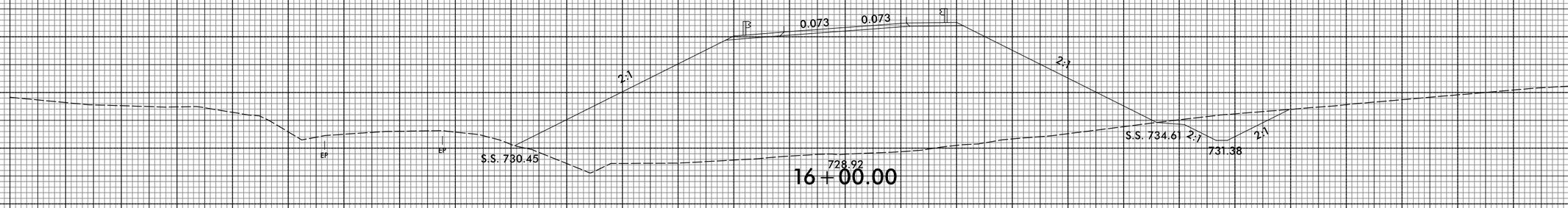
760 750 740 730 720



17+00.00



16+50.00



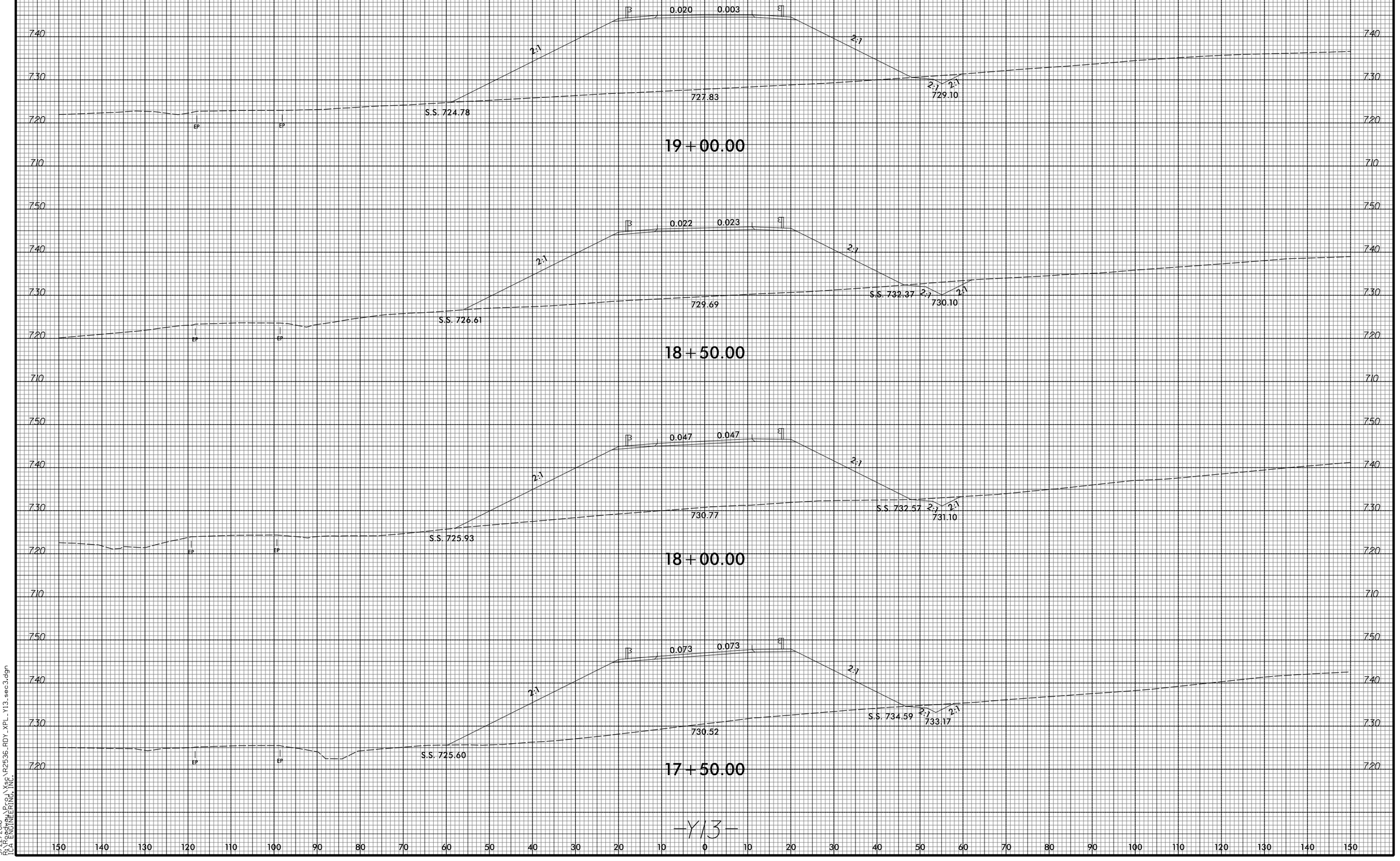
16+00.00

-Y13-

3/22/2016
R:\Roadway\Prod\Xsec\R2536_RDY_XPL_Y13_sec3.dgn
JCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-448

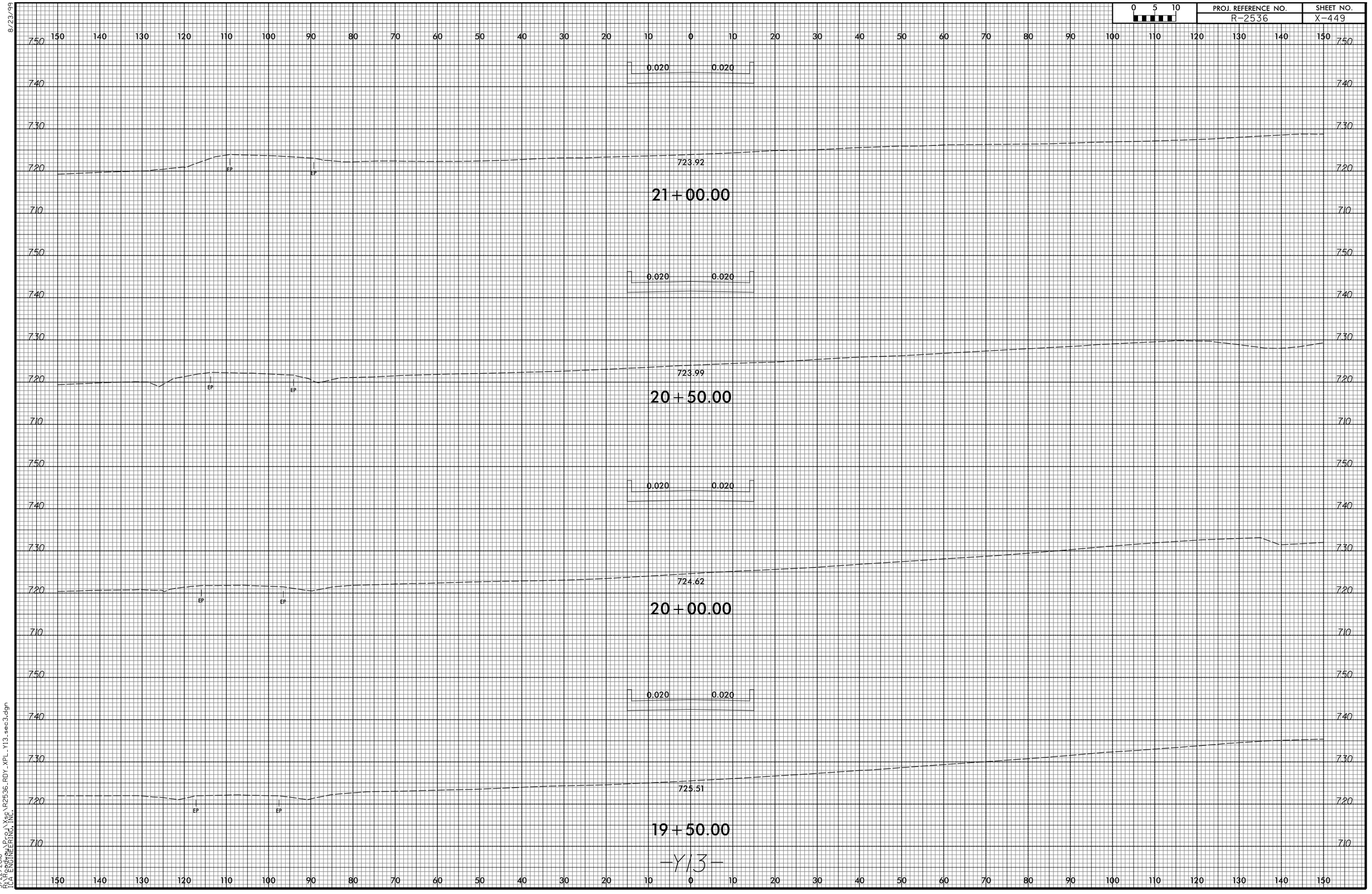


-Y13-

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y13_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-449



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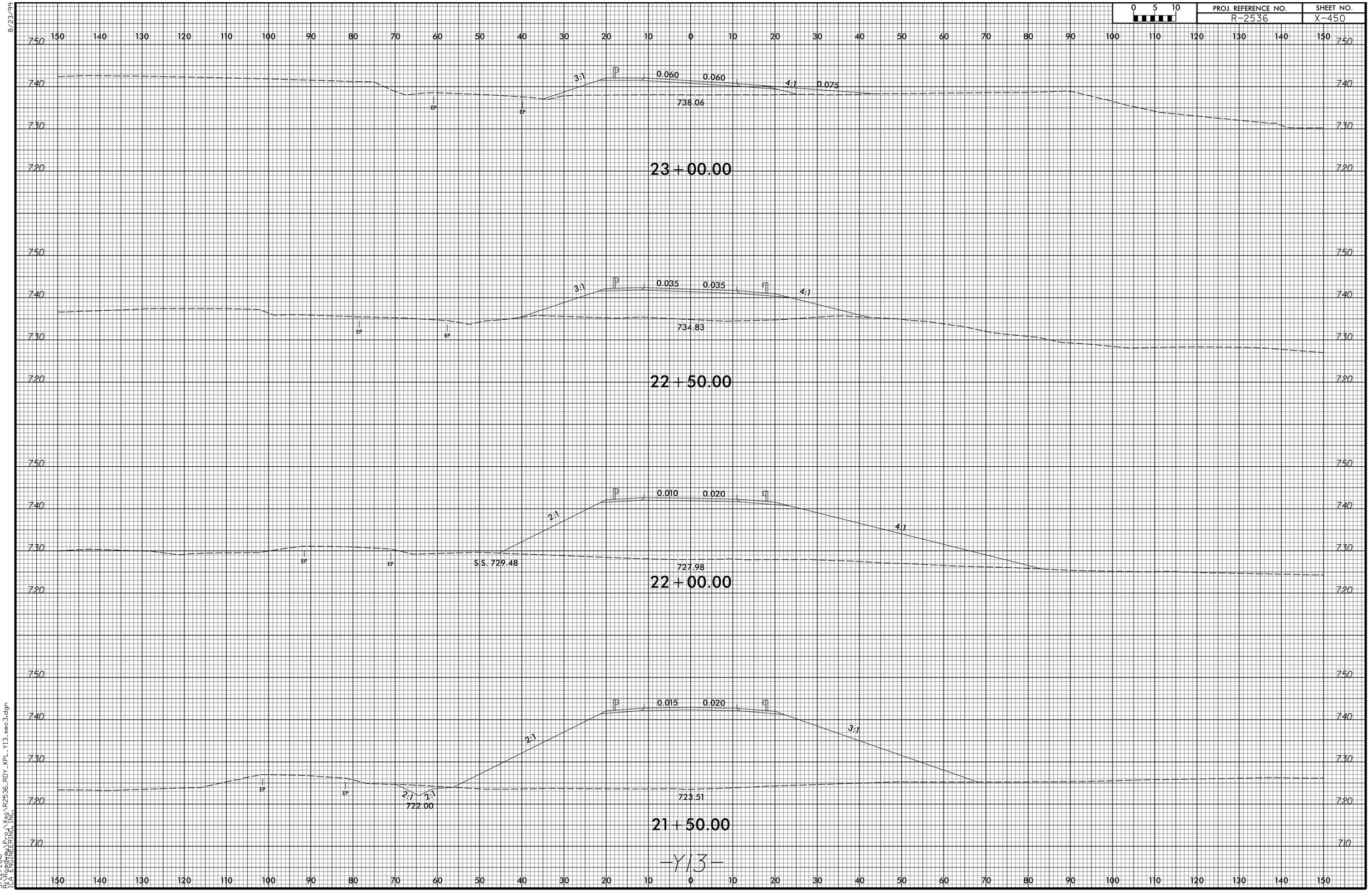
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-450



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R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y13_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-451

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

750 740 730 720

S.S. 735.98
4:1 731.25 4:1 0.066 733.90 0.066 4:1 730.31 2:1
EP EP
25 + 00.00

750 740 730 720

S.S. 738.28
4:1 734.13 4:1 0.080 735.94 0.080 4:1 732.50 2:1
EP EP
24 + 50.00

750 740 730 720

S.S. 740.17
19.9:1 737.00 4:1 0.080 737.33 0.080 4:1 734.43 2:1
EP EP
24 + 00.00

750 740 730 720

0.04 S.S. 739.11 2:1 738.29 4:1 0.080 739.07 0.080 4:1 735.93 S.S. 738.96 2:1
EP EP
23 + 50.00

-Y13-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y13_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-452

760 750 740 730 720

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

725.78 727.59 725.48

26+80.00

4:1 4:1 726.69 EP 0.009 728.23 0.020 EP 4:1 4:1 725.81

26+50.00

4:1 4:1 728.21 EP 0.016 729.83 0.020 EP 4:1 4:1 726.37

26+00.00

4:1 4:1 729.73 EP 0.041 731.77 0.041 EP 4:1 4:1 728.17

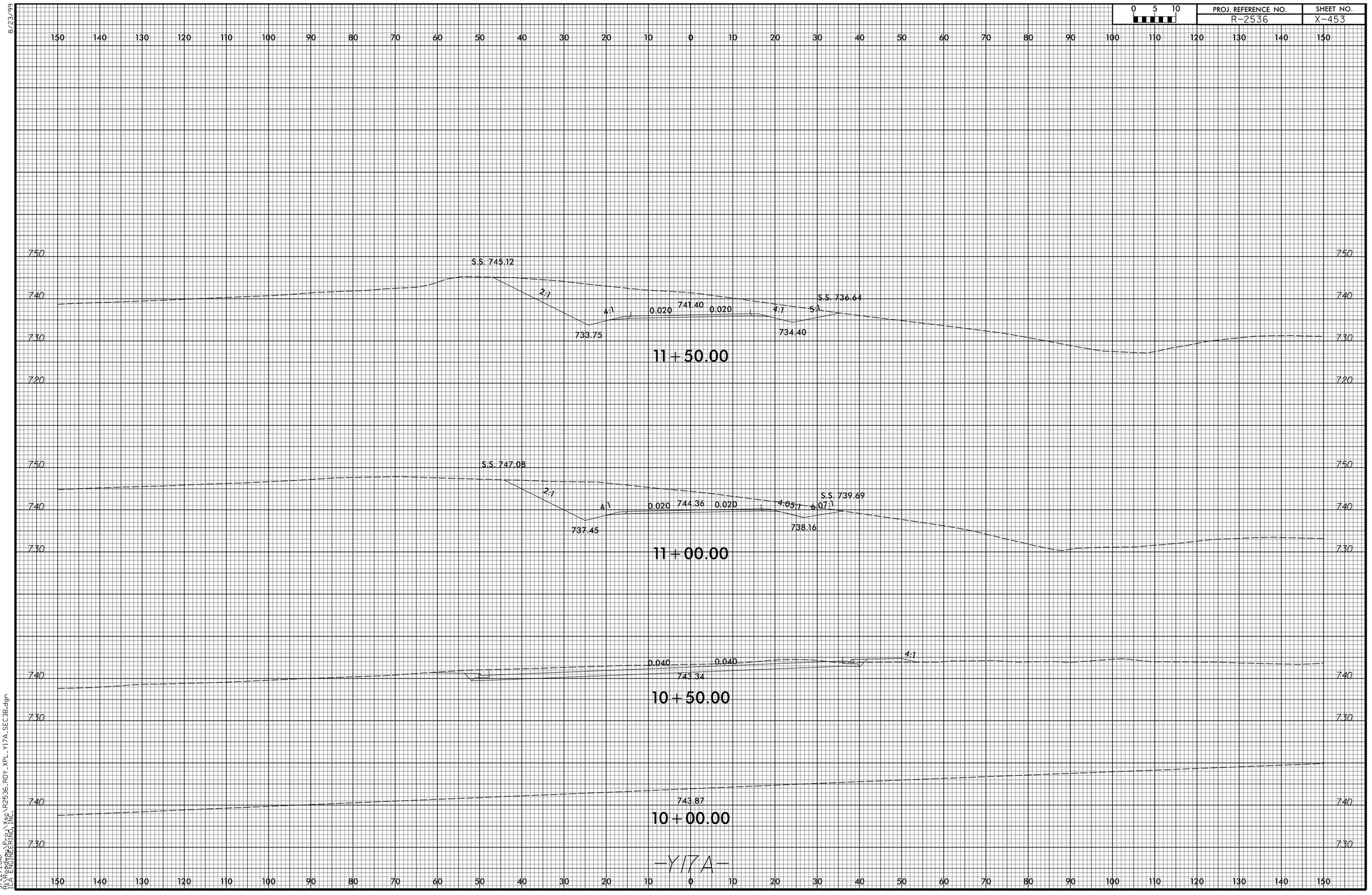
25+50.00

-Y13-

3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y13_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-453

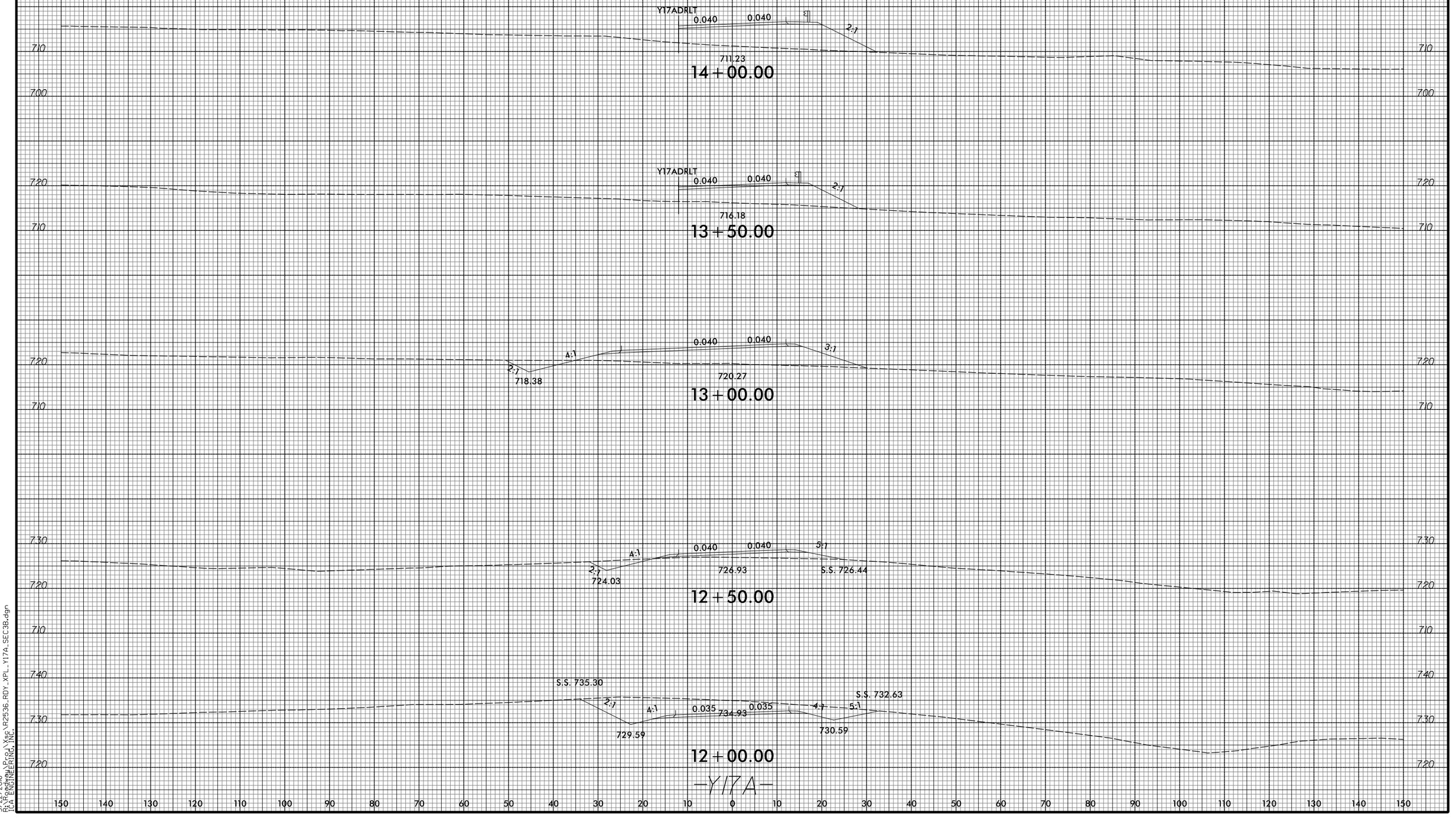


3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y17A_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-454

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



710 720 730 740

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17A_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-455

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690
680

3:1 4:1 0.040 0.040 2:1
697.56 697.09

16+00.00

700
690

0.040 0.040 4:1 2:1 2:1
699.75 699.57

15+50.00

710
700
690

0.040 0.040 4:1 2:1 2:1
702.71 702.43

15+00.00

710
700

0.040 0.040 4:1 2:1 2:1
706.43 706.34

14+50.00

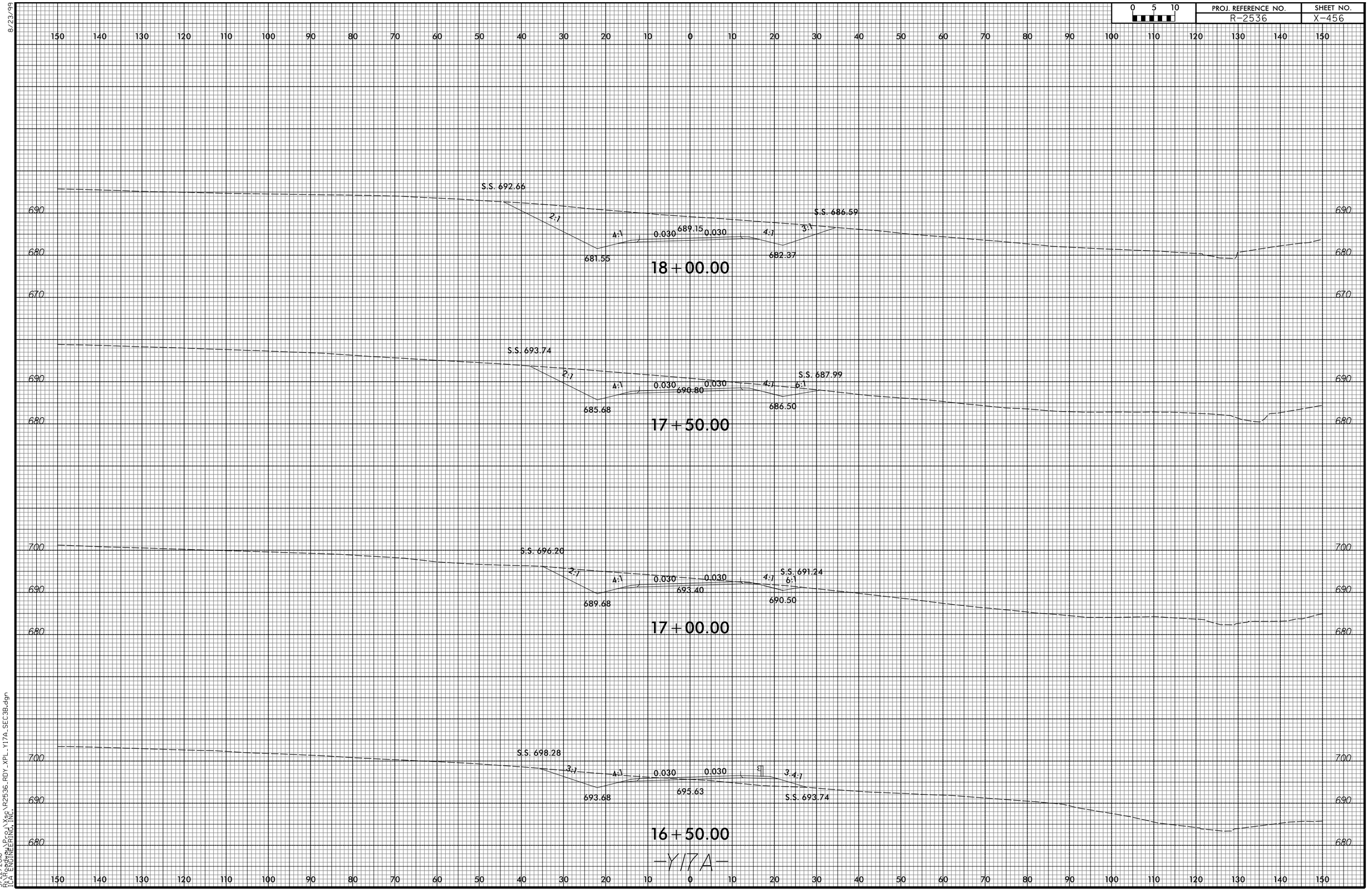
-Y17A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17A_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-456



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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-457

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

680 670 660 650

0.020 0.020 4:1 2:1 4:1 665.64 659.58

20+00.00

680 670 660 650

S.S. 670.58 2:1 4:1 0.020 673.63 0.020 4:1 5:1 665.42 668.06

19+50.00

680 670 660 650

S.S. 679.17 2:1 681.29 4:1 0.020 0.005 4:1 2:1 671.26 672.99

19+00.00

690 680 670 660 650

S.S. 690.12 S.S. 685.00 2:1 687.77 4:1 0.030 0.030 4:1 2:1 677.10 677.92

18+50.00

—Y17A—

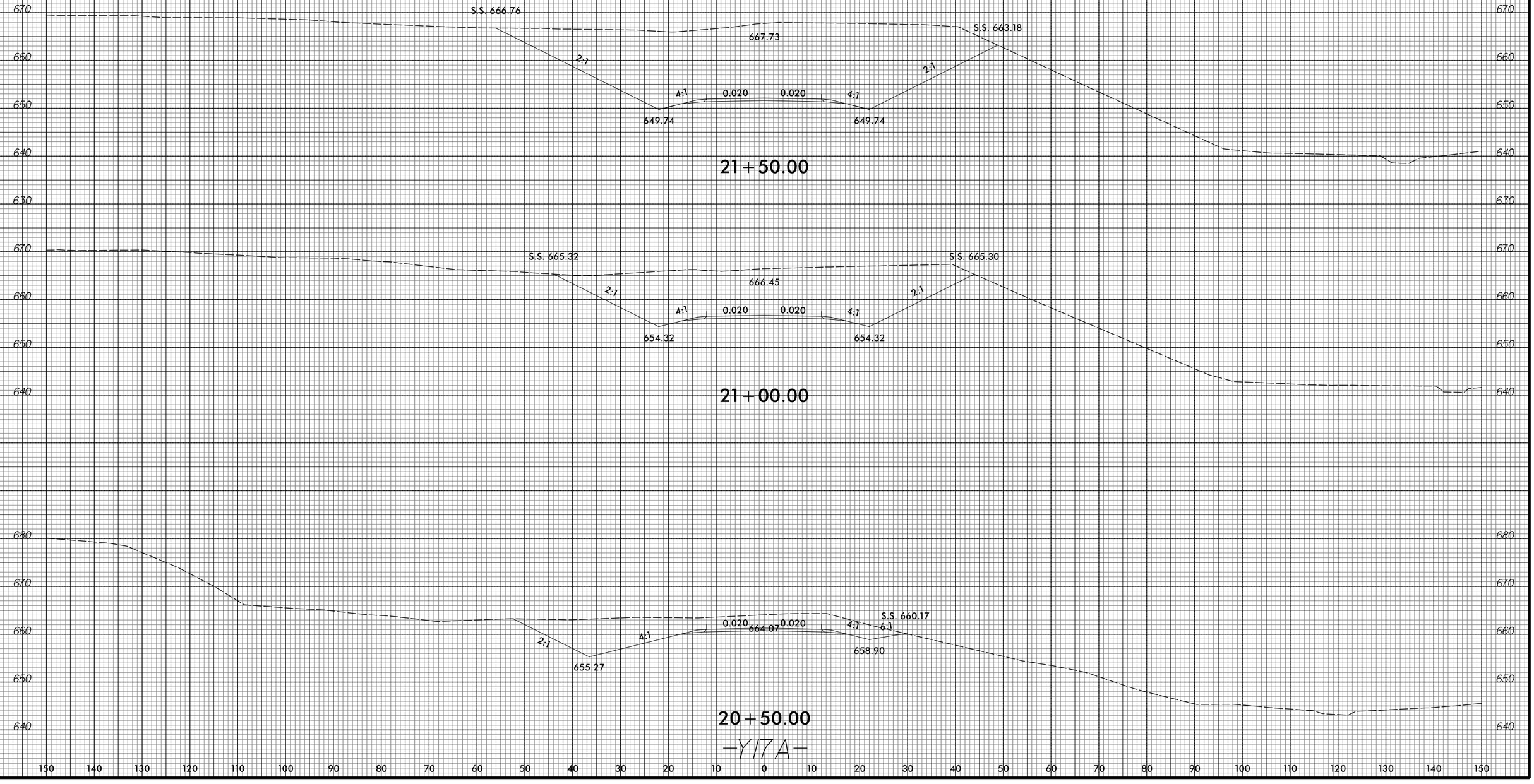
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17A_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-458

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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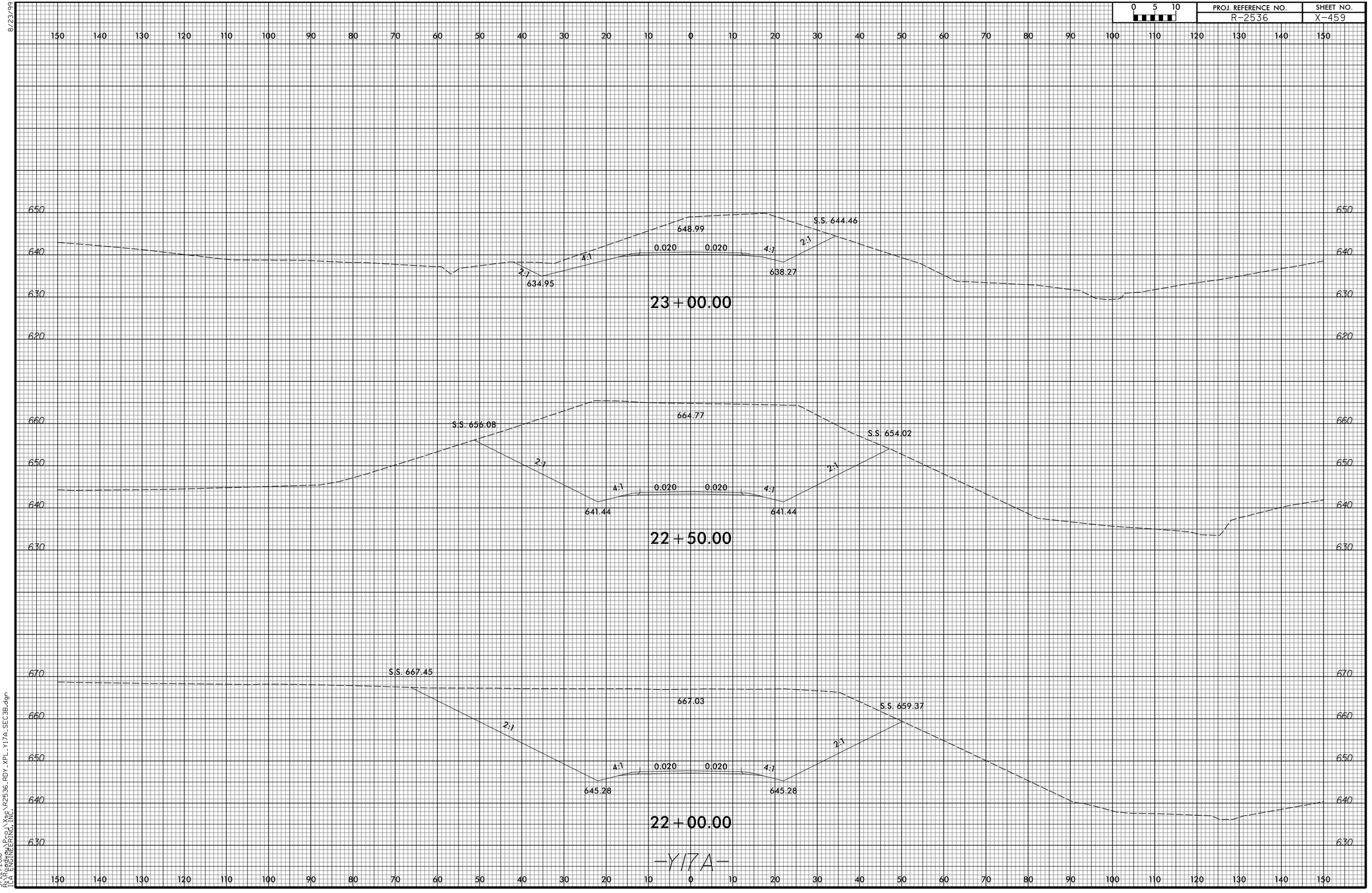
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-459



3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_Y17A_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-460

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 630 620

S.S. 639.87

2:1 4:1 0.035 0.033 4:1

634.43

632.11

25+00.00

640 630 620

S.S. 638.16

3:1 4:1 0.020 0.005 4:1

635.27

632.78

24+50.00

640 630 620

S.S. 636.96

5:1 4:1 0.020 0.020 3:1

633.94 634.68

24+00.00

640 630 620

4:1 0.020 0.020 2:1

2:1

634.11 633.84

23+50.00

640 630 620

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

-Y17A-

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R:\Roadway\Proj\Xsec\R2536_RDY_XPL_Y17A_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-461

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640 630 620 610

0.040 0.040 4:1 2:1 4:1 628.84 629.84 S.S. 630.51

27+00.00

640 630 620

0.040 0.040 2:1 4:1 2:1 628.59 633.17 S.S. 630.92

26+50.00

640 630 620

0.040 0.040 2:1 4:1 2:1 629.33 634.04 S.S. 630.35

26+00.00

640 630 620

0.040 0.040 2:1 4:1 5:1 630.72 633.75 S.S. 632.71

25+50.00

-Y17A-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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[C]A ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-462

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

630
620

4:1 4:1 0.010 0.010 4:1

630.10 630.69

28+50.00

S.S. 633.54

3:1 4:1 0.017 0.017 4:1

629.34 631.03

28+00.00

640
630
620
610

2:1 4:1 0.040 0.040 3:1

629.09 631.85

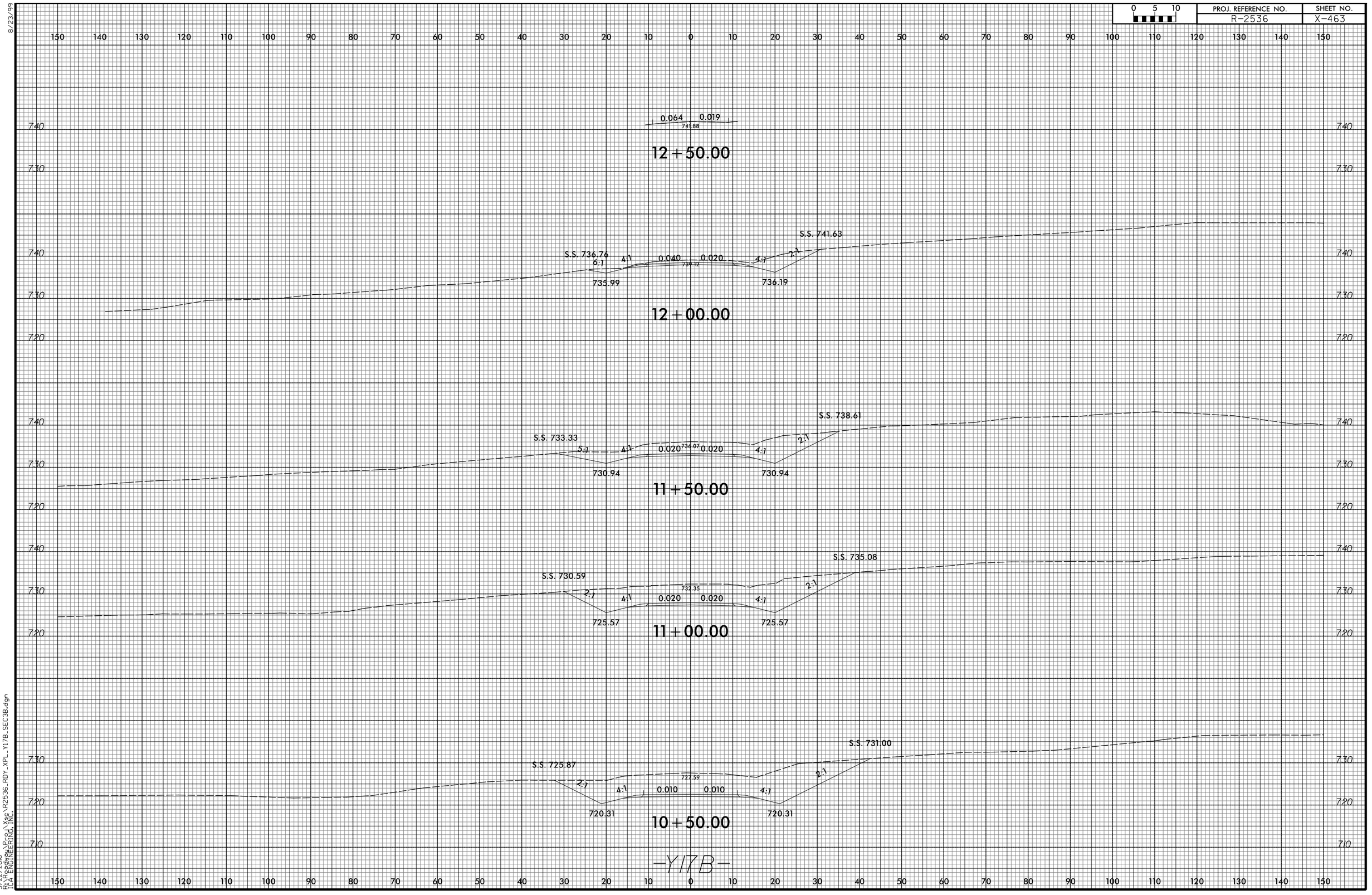
27+50.00

-Y17A-

3/22/2016
P:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y17A_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-463



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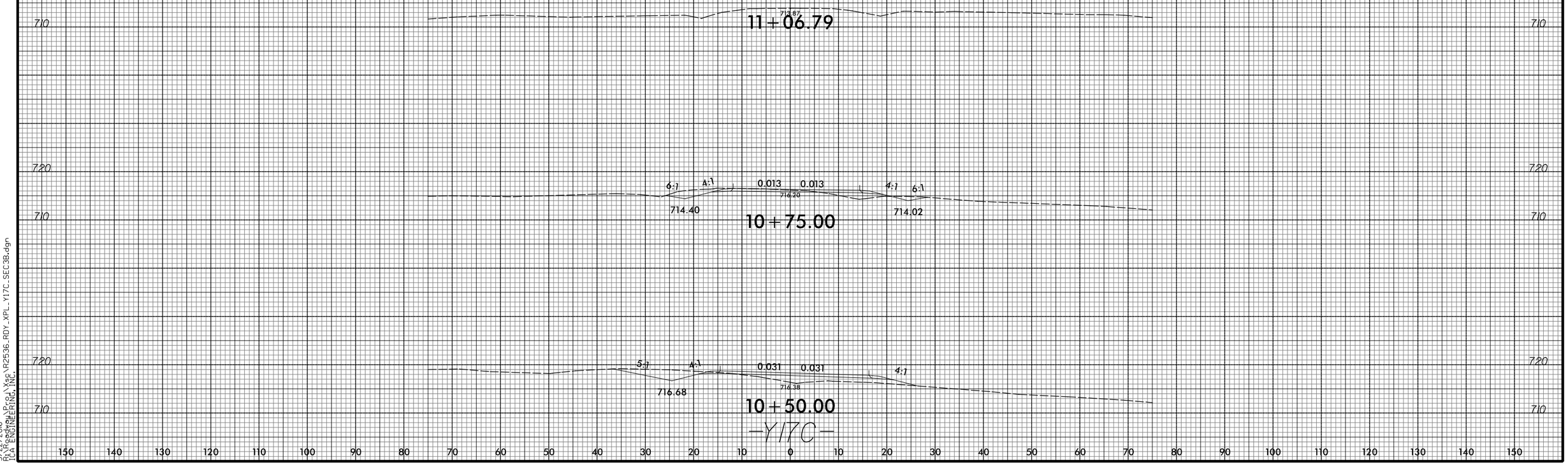
R:\Projects\Proj\Xsc\R2536_RDY_XPL_Y17B_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-464

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



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R:\Roadway\Proj\Xsc\R2536_RDY_XPL_Y17C_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-465

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

620

622.00

0.5%

12+50.00

623.84

1.7%

12+00.00

626.27

4%

11+50.00

628.97

14%

11+00.00

632.05

10+50.00

635.48

10+00.00

-ESR5-

640

630

650

3/22/2016
R:\Roads\Proj\Xsec\R2536_RDY_XPL_ESR5_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-466

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3% 619.16

17+00.00

2.7% 618.73

16+50.00

1.2% 618.63

16+00.00

610 610

1.5% 609.02

15+50.00

618.47 0.8%

610 610

15+00.00

618.58 2.5%

610 610

14+50.00

618.94 0.02%

14+00.00

619.54 0.18%

13+50.00

620 620

620.57 0.09%

13+00.00

-ESR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\Proj\Xsec\R2536_RDY_XPL_ESR5_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-467

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

630

EX. 632.66

EX.

0.02

2:1

629.35

630

21+00.00

630

630

630.29

20+50.00

630

630

628.07

20+00.00

630

625.83

19+50.00

620

623.81

19+00.00

620

620

622.15

18+50.00

620

1.4%

620.83

620

18+00.00

620

3.3%

619.83

620

17+50.00

-ESR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_ESR5_SEC3B.dgn
TCA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-468

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640

646.16

24+00.00

640

644.06

23+50.00

640

641.86

630

23+00.00

640

639.63

630

22+50.00

640

637.36

22+00.00

630

EX. EX. 0.02

635.03

632.30

2:1

21+50.00

630

EX. EX. 0.02

633.84

630.53

2:1

21+25.00

—ESR5—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
Roadway
ICA ENGINEERING, INC.
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_ESR5_SEC3B.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-469

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

660

661.75

660

27+50.00

659.37

27+00.00

650

657.02

650

26+50.00

650

654.83

650

640

26+00.00

650

652.64

650

640

640

25+50.00

650

650.49

650

640

640

25+00.00

650

648.31

650

640

640

24+50.00

-ESR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_ESR5_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-470

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

680

684.95

31+50.00

680

680

682.02

31+00.00

680

670

679.04

30+50.00

670

670

676.05

30+00.00

670

670

673.07

29+50.00

670

670

670.13

29+00.00

670

667.20

28+50.00

660

664.34

28+00.00

660

-ESR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_ESR5_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-471

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

700
690

703.02

34+50.00

699.97

34+00.00

696.92

33+50.00

693.96

33+00.00

691.00

32+50.00

688.00

32+00.00

-ESR5-

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_ESR5_SEC3B.dgn
[C]A ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-472

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 / 710

714.24

38 + 00.00

720 / 710

713.82

37 + 50.00

710

712.98

37 + 00.00

710

711.72

36 + 50.00

710

710.12

36 + 00.00

710 / 700

708.18

35 + 50.00

710 / 700

705.79

35 + 00.00

-ESR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roadway\Proj\Xsc\R2536_RDY_XPL_ESR5_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-473

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730 720 710

712.21

40+00.00

730 720 710

713.25

39+50.00

730 720 710

713.92

39+00.00

730 720 710

714.29

38+50.00

-ESR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_ESR5_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-474

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

710
700
690

SP 513

4:1 2:1 0.040 0.040 4:1 2:1

701.76

697.97

694.82

13+75.00

SP 512

4:1 2:1 0.040 0.040 4:1 2:1

702.60

699.97

698.09

13+25.00

S.S. 707.62

SP 511

4:1 2:1 0.040 0.040 4:1 2:1

703.75

702.01

701.16

12+78.06

S.S. 708.44

SP 510

4:1 2:1 0.030 0.050 4:1 2:1

704.49

703.24

701.73

12+50.00

-SR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
R:\Roads\Proj\Xsc\R2536_RDY_XPL_SR5_1_SEC3B.dgn
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-475

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

710
700
690

SP 517
S.S. 704.61
5:1
4:1
0.040
0.040
4:1
S.S. 701.91
6:1
702.66
702.31
701.23

15+68.00

SP 516
S.S. 703.20
6:1
4:1
0.040
0.040
701.66
3:1
701.41

15+21.00

SP 515
0.040
0.040
2:1
4:1
701.13
2:1
699.64
2:1
2:1
691.05

14+75.00

SP 514
0.040
0.040
701.26
2:1
4:1
3:1
697.72
2:1
2:1
691.55

14+25.00

-SR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY.XPL_SR5_1_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-476

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

710

700

SP 519

6:1 4:1 0.040 707.83 0.040 4:1 2:1 2:1 2:1

704.96

703.88

S.S. 709.93

707.44

16+61.00

710

700

SP 518

6:1 4:1 0.040 0.040 4:1 6:1

703.50

701.98

S.S. 704.15

702.42

16+13.00

690

-SR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_SR5_1_SEC3B.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-477

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

730

720

SP 526 SP 528

0.040 0.020 0.020 4:1 6:1 S.S. 722.39

723.06 720.85

30+38.00

720

0.012 0.012 0.012 4:1 6:1 S.S. 720.56

4:1 720.02 718.71

30+00.00

720

Y17C

4:1 0.005 0.005

718.32

29+63.97

720

SP 524

4:1 0.025 0.025 4:1

2:1 714.46

710

29+23.24

710

SP 522

2:1 0.040 0.040 2:1

2:1 2:1 706.65 708.02 S.S. 706.44

700

28+68.00

-SR5-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
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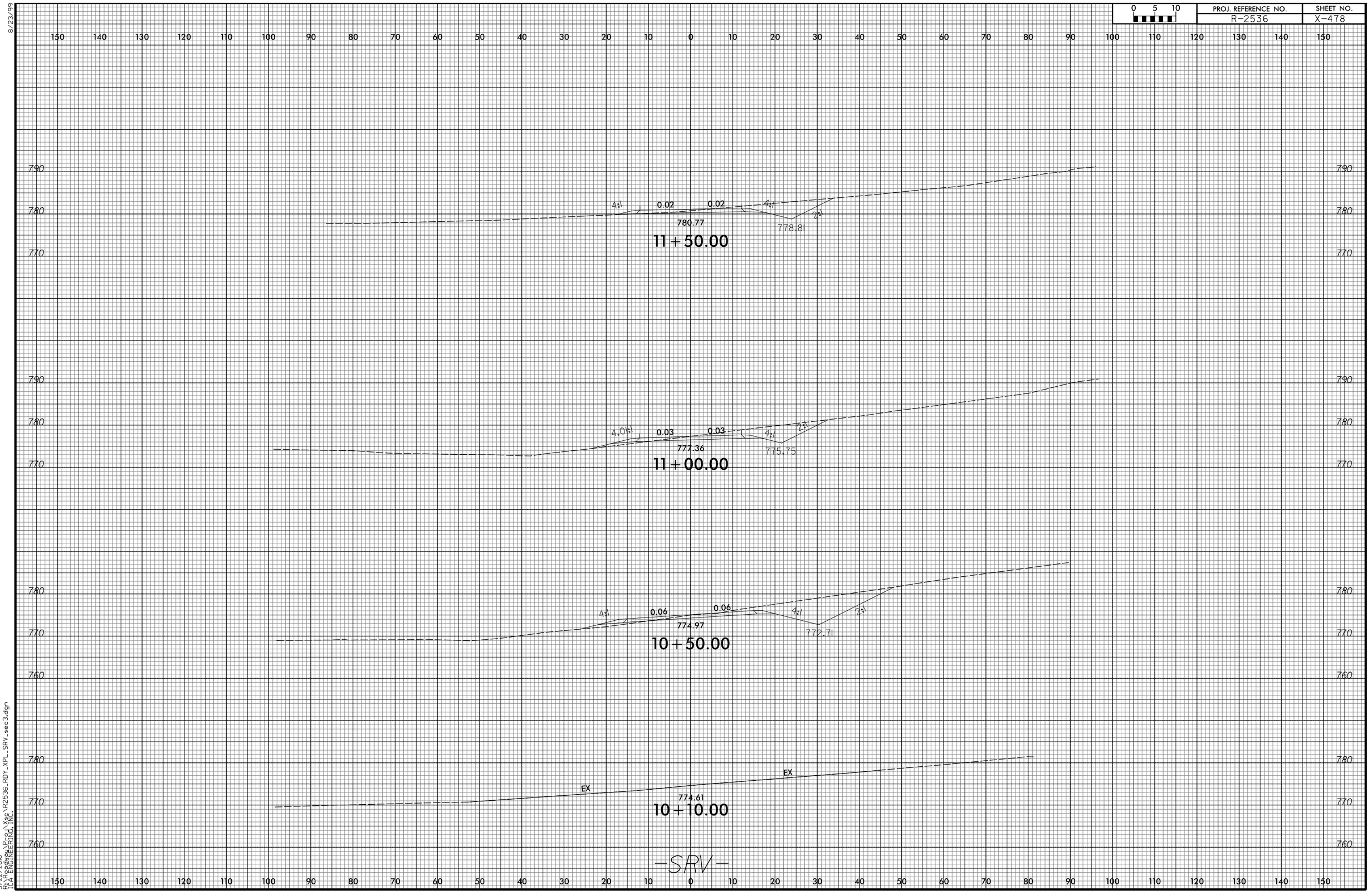
[CA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-478



3/22/2016
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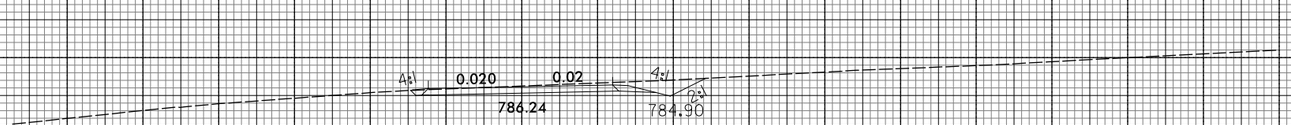
[CA ENGINEERING, INC.

8/23/99

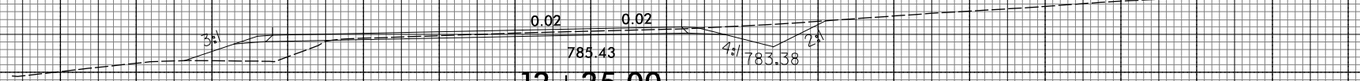
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-479

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

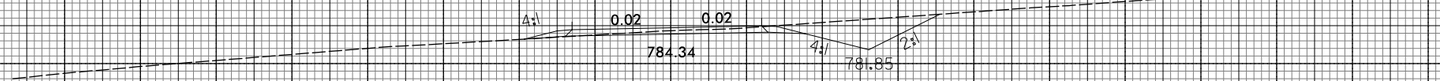
790
780
770



12+50.00



12+25.00



12+00.00

—SRV—

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_SRV_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-480

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

640
630

641.14
11+50.00

640
630

EX. EX. 0.02 4:1
640.69
11+25.00

640
630

EX. EX. 0.02 4:1
640.42
11+00.00

640
630

EX. EX. 0.02 4:1
640.26
10+75.00

640
630

640.23
10+50.00

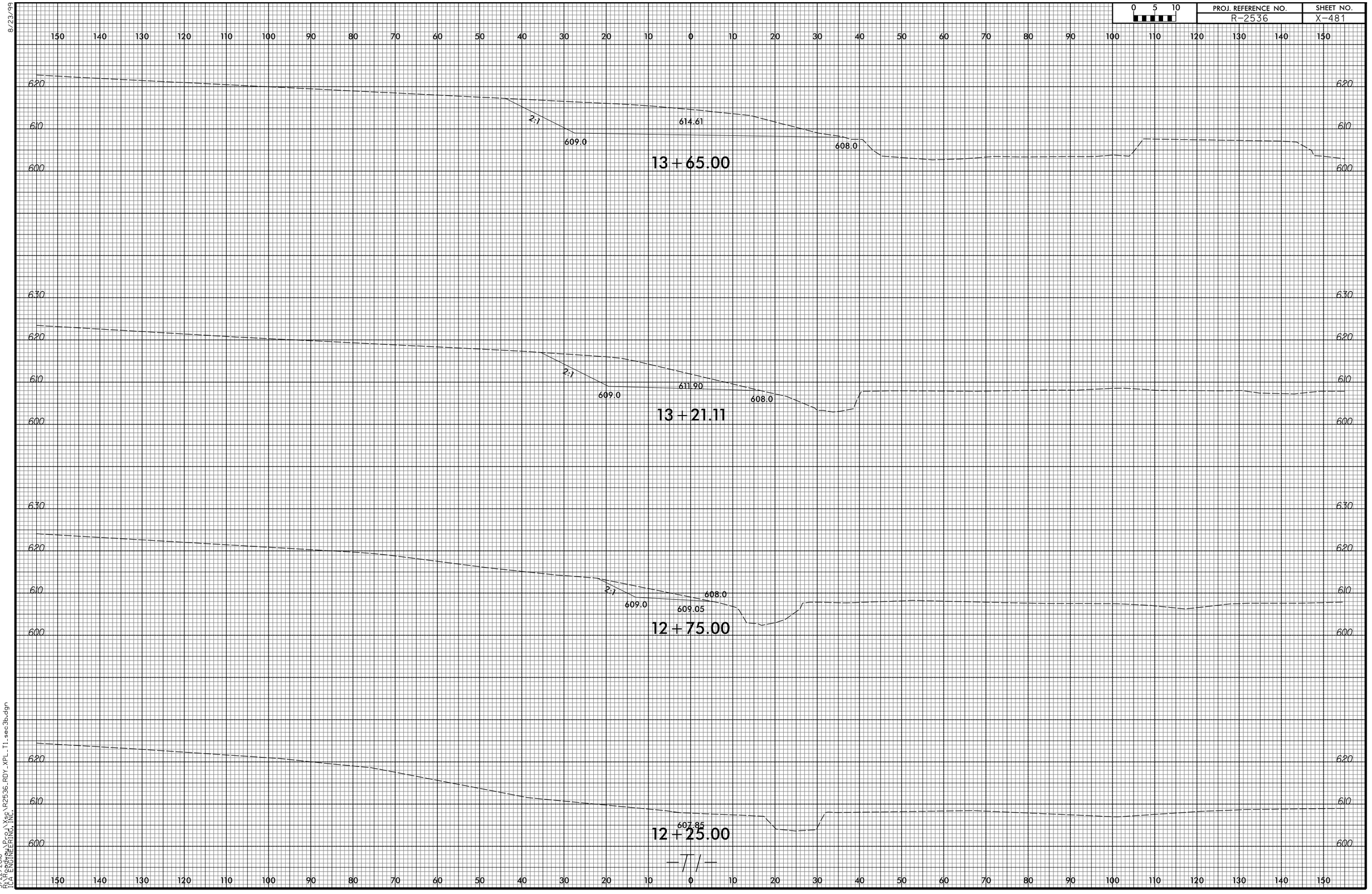
-FB_SAC-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_FB_SAC_sec3.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-481



3/22/2016
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TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-482

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

620 610 600

2:1 609.0 613.25 608.0

15+42.68

620 610 600

2:1 609.0 613.24 608.0

14+92.34

620 610 600

2:1 609.0 613.61 608.0

14+50.00

620 610 600

2:1 609.0 613.93 608.0

14+06.72

—T/—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

3/22/2016
P:\Roadway\Proj\Xsec\R2536_RDY_XPL_T1-sec3b.dgn
TGA ENGINEERING, INC.

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2536	X-483

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

610
600

613.19
2:1
609.0
608.0

16+85.00

610
600

2:1
614.08
609.0
608.0

16+46.61

610
600

2:1
614.31
609.0
608.0

16+35.00

620
610
600

2:1
613.66
609.0
608.0

15+93.03

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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TCA ENGINEERING, INC.