

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

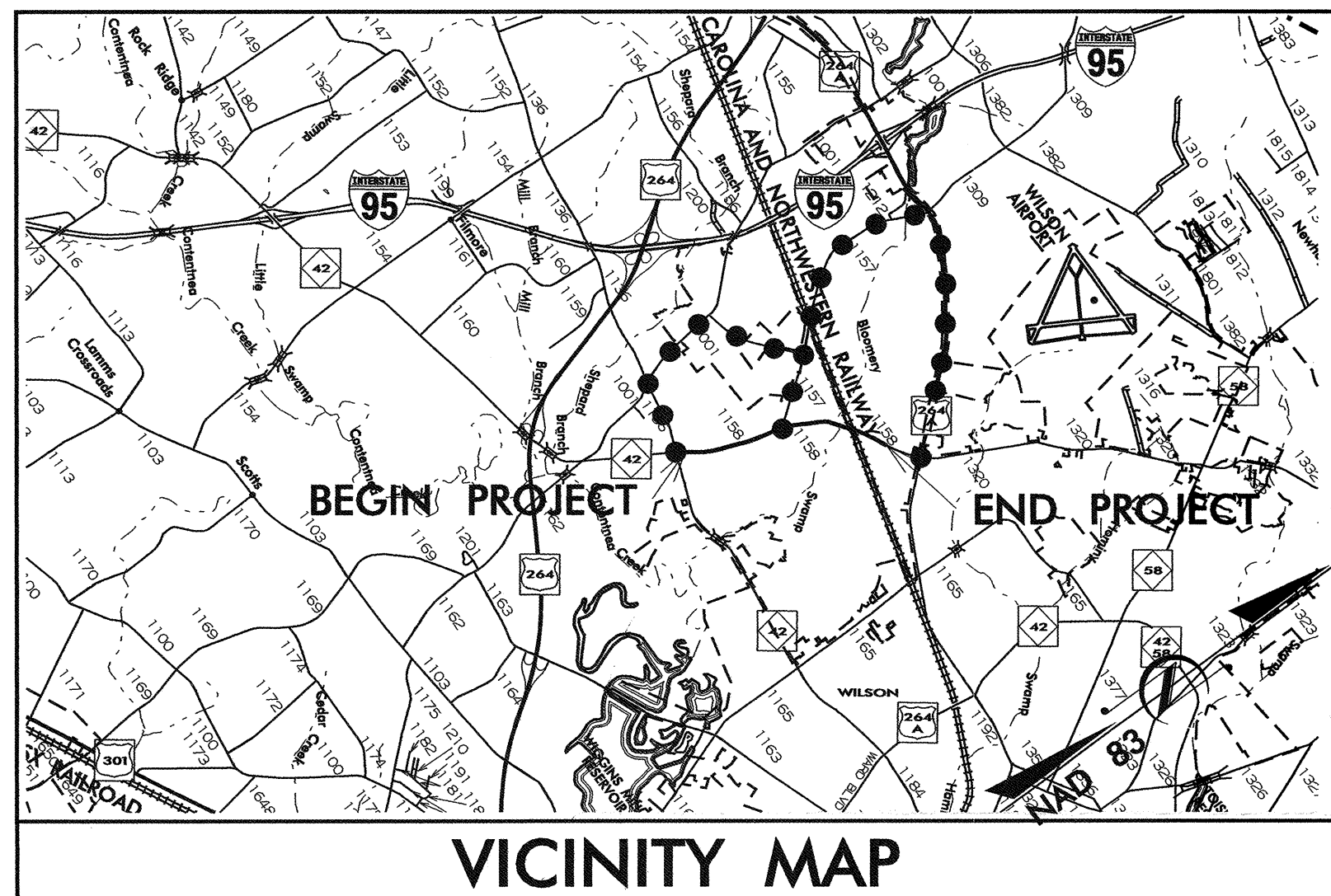
WILSON COUNTY

**LOCATION: SR 1158 (AIRPORT BLVD.) FROM 0.2 MILES
NORTHEAST OF NC 42 TO 0.4 MILES
SOUTHWEST OF US 264-A**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, TRAFFIC SIGNAL
AND STRUCTURE.**

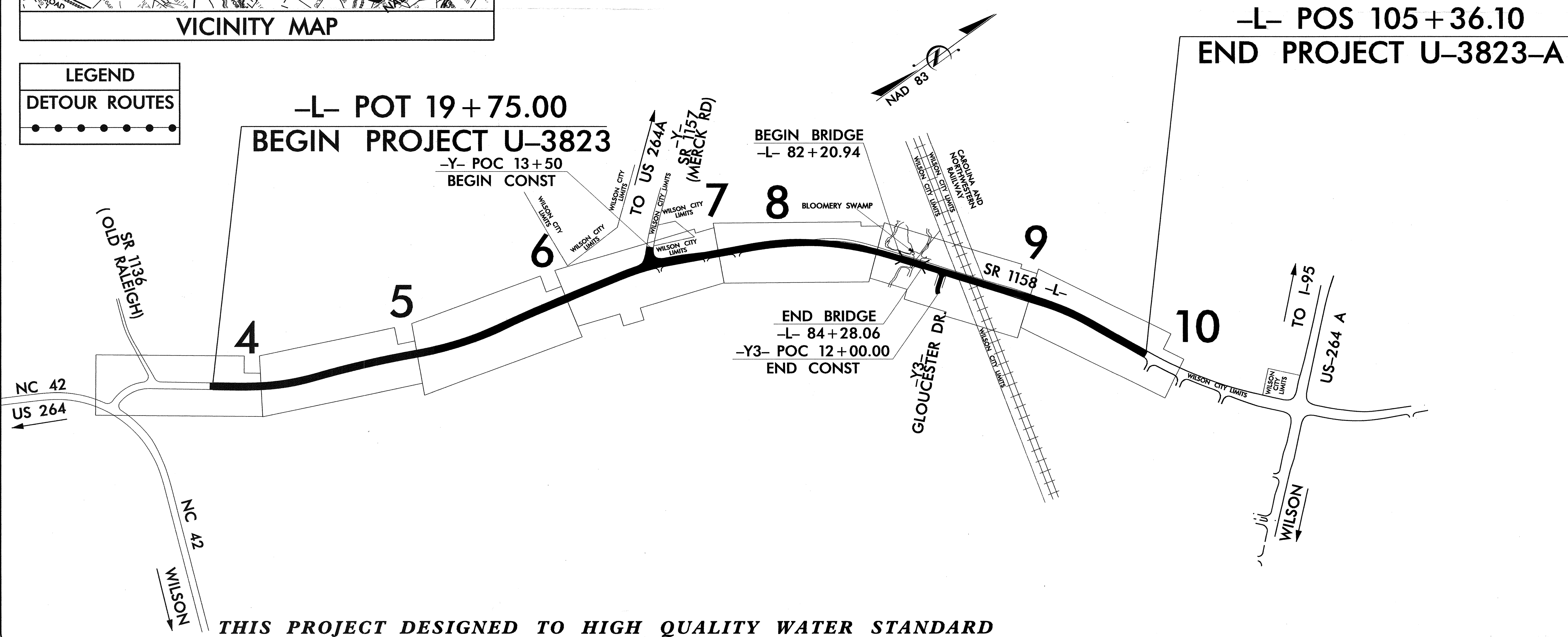
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3823 A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34981.1.1	STP-1158(2)	PE	
34981.2.3	STP-1158(2)	RW&UTILITY	
34981.3.3	STP-1158(4)	CONST.	

CONTRACT: C201568 TIP PROJECT: U-3823 A



LEGEND

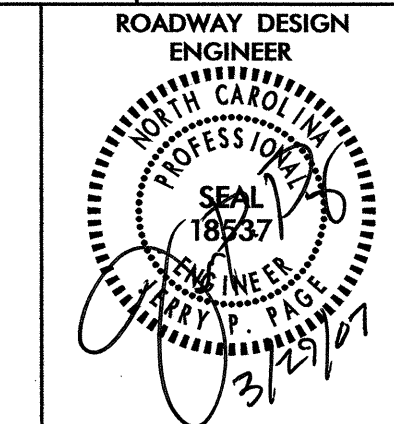
	DETOUR ROUTES
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THIS PROJECT DESIGNED TO HIGH QUALITY WATER STANDARD

<p>GRAPHIC SCALES</p> <p>50 25 0 50 100 PLANS</p> <p>50 25 0 50 100 PROFILE (HORIZONTAL)</p> <p>10 5 0 10 20 PROFILE (VERTICAL)</p>	<p>DESIGN DATA</p> <p>ADT 2007 = 9300 ADT 2025 = 21600 DHV = 11 % D = 55 % T = 3 % * V = 50 MPH * TTST 1 % DUAL 2 %</p> <p>FUNCTIONAL CLASSIFICATION RURAL MINOR COLLECTOR</p>	<p>PROJECT LENGTH</p> <p>LENGTH OF ROADWAY TIP PROJECT U-3823 A = 1.582 Miles LENGTH OF STRUCTURE TIP PROJECT U-3823 A = 0.039 Miles TOTAL LENGTH OF TIP PROJECT U-3823 A = 1.621 Miles</p>	<p>Prepared In the Office of: DIVISION OF HIGHWAYS Division 4 DDC 509 Ward Blvd., Wilson NC, 27895</p>	<p>HYDRAULICS ENGINEER</p> <p><i>R.C. Angus</i> SEAL 18600 4-9-07</p>	<p>DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA</p>
			<p>2006 STANDARD SPECIFICATIONS</p> <p>RIGHT OF WAY DATE: SEPTEMBER 30, 2004</p> <p>LETTING DATE: JUNE 19, 2007</p>	<p>R. E. GREENE, JR., PE PROJECT ENGINEER</p> <p>J. C. CAULEY, PLS PROJECT DESIGN ENGINEER</p>	<p>ROADWAY DESIGN ENGINEER</p> <p><i>J.P.</i> SEAL 18537 3/27/07 P.E.</p>

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SHEET	NUMBER SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARDS
1-B	CONVENTIONAL SYMBOLS
2 THRU 2-A	TYPICAL SECTIONS, PAVEMENT SCHEDULE, WEDGING DETAIL AND SHALLOW UNDERCUT TYPICAL
2-B	SPECIAL DITCH DETAILS, DETAILS OF HAZARDOUS SPILL-RETENTION BASINS DETAILS AND PREFORMED SCOUR HOLE DETAIL
2-C	DETAILS FOR LEVEL SPREADER
2-D	DETAILS FOR SPLITTER BOX
2-E	DETAIL FOR REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 60" PIPES AT 60 OR 120 DEGREE SKEW
2-F	DETAIL FOR PERMANENT ROCK SILT CHECK TYPE 'B'
3	SUMMARY OF QUANTITIES
3-A THRU 3-E	DRAINAGE SUMMARY
3-F	GUARDRAIL SUMMARY
3-G	PAVEMENT REMOVAL SUMMARY AND EARTHWORK SUMMARY
3-H	PARCEL INDEX SHEET
4 THRU 10	PLAN AND PROFILE SHEETS
TCP-1 THRU TCP-17	TRAFFIC CONTROL PLANS
PMP-1 THRU PMP-5	PAVEMENT MARKING PLANS
EC-1 THRU EC-17	EROSION CONTROL PLANS
RF-1	REFORESTATION PLAN
SIG-1 THRU SIG-11	SIGNAL PLANS
UC-1 THRU UC-11	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-7	UTILITIES BY OTHERS PLANS
X	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-60	CROSS-SECTIONS
S-1 THRU S-31	STRUCTURE PLANS

GENERAL NOTES: 2006 SPECIFICATIONS
EFFECTIVE: 07-18-06
REVISED: 07-18-06

GRADING AND SURFACING OR RESURFACING AND WIDENING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

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

SUPERELEVATION:
ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:
ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01.

SIDE ROADS:
THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

UNDERDRAINS:
UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

DRIVEWAYS:
DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3' RADIUS OR RADIUS AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:
STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADIUS NOTED ON PLANS.

GUARDRAIL:
THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:
NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

END BENTS:
THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE CITY OF WILSON, SPRINT, AND TIME WARNER CABLE
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:
ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

WHEELCHAIR RAMPS:
WHEELCHAIR RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. THE CONSTRUCTION OF ALL WHEELCHAIR RAMPS SHALL BE IN ACCORDANCE WITH DETAILS IN PLANS.

2006 ROADWAY STANDARD DRAWINGS
The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Super-elevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation - Method 'A'
DIVISION 4 - MAJOR STRUCTURES	
422.10	Reinforced Bridge Approach Fills
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Super-elevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.03	Pipe Underdrain and Blind Drain
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.02	Concrete Endwall and Sluice Gate - 15" thru 36" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.80	Precast Endwalls - 12" thru 72" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.45	Precast Drainage Structure
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Wheelchair Ramp - Curb Cut
852.01	Concrete Islands
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.02	Guide for Rip Rap at Pipe Outlets

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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 High Quality Wetland Boundary	----- HQ WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB

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	-----
River Basin Buffer	----- RBB
Flow Arrow	-----
Disappearing Stream	-----
Spring	-----
Swamp Marsh	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Points	◇
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	----- E
Proposed Temporary Construction Easement	----- E
Proposed Temporary Drainage Easement	----- TDE
Proposed Permanent Drainage Easement	----- PDE
Proposed Permanent Utility Easement	----- PUE
Proposed Permanent Aerial Utility Easement	----- AUE

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- C
Proposed Slope Stakes Fill	----- F
Proposed Wheel Chair Ramp	----- WCR
Curb Cut for Future Wheel Chair Ramp	----- CCFR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equaility 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	○
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊙
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	⊙
Telephone Booth	□
Telephone Pedestal	⊕
Telephone Cell Tower	⊗
U/G Telephone Cable Hand Hole	⊕
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	⊙
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	----- A/G Water

TV:

TV Satellite Dish	⊕
TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	⊕
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:

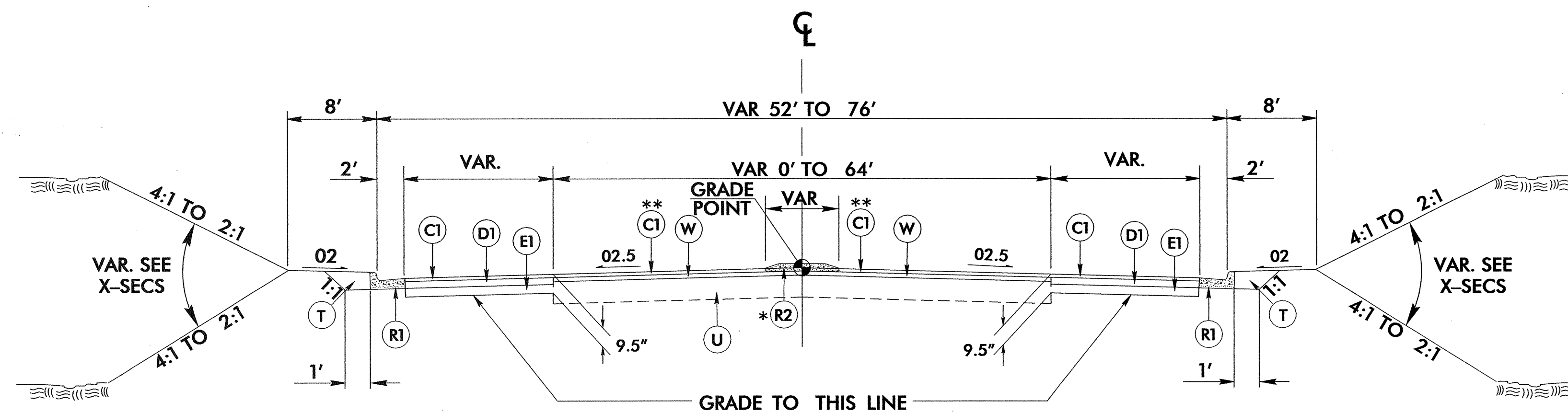
Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	----- G
Designated U/G Gas Line (S.U.E.*)	----- G
Above Ground Gas Line	----- A/G Gas

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:

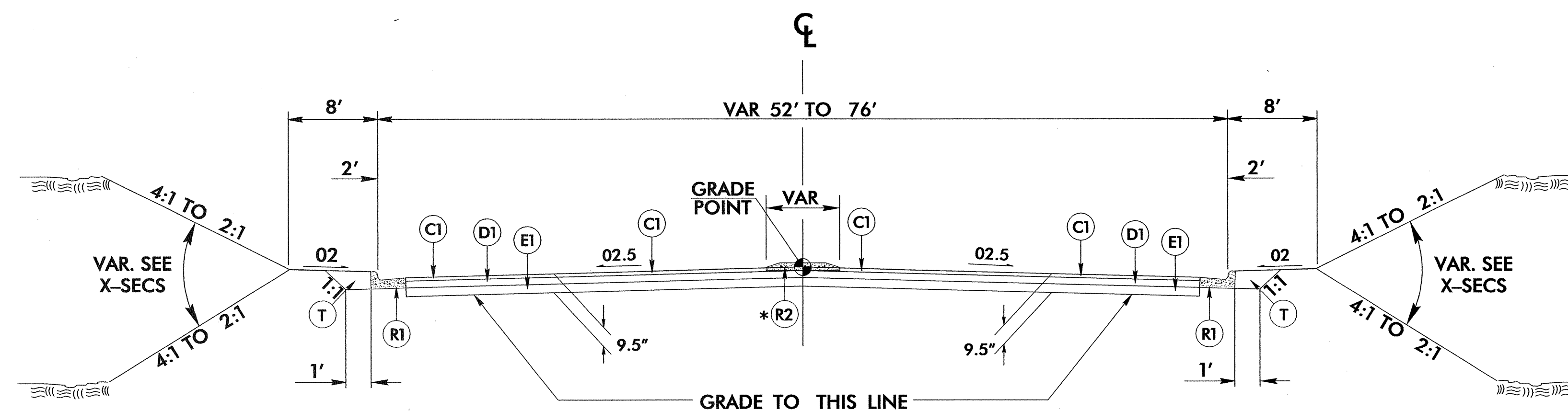
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	----- 2UTL
U/G Tank; Water, Gas, Oil	□
A/G Tank; Water, Gas, Oil	□
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1 AS FOLLOWS:

- L- STA 19+75 TO -L- STA 32+00
- L- STA 34+50 TO -L- STA 38+00
- L- STA 41+00 TO -L- STA 75+70
- L- STA 87+50 TO -L- STA 105+36.10
- * NOTE 5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)
- L- STA 87+50 TO 88+45
- L- STA 88+90 TO 89+90
- ** NOTE 1.5" OF S9.5B
- L- STA 101+00.00 TO -L- STA 105+36.10



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2 AS FOLLOWS:

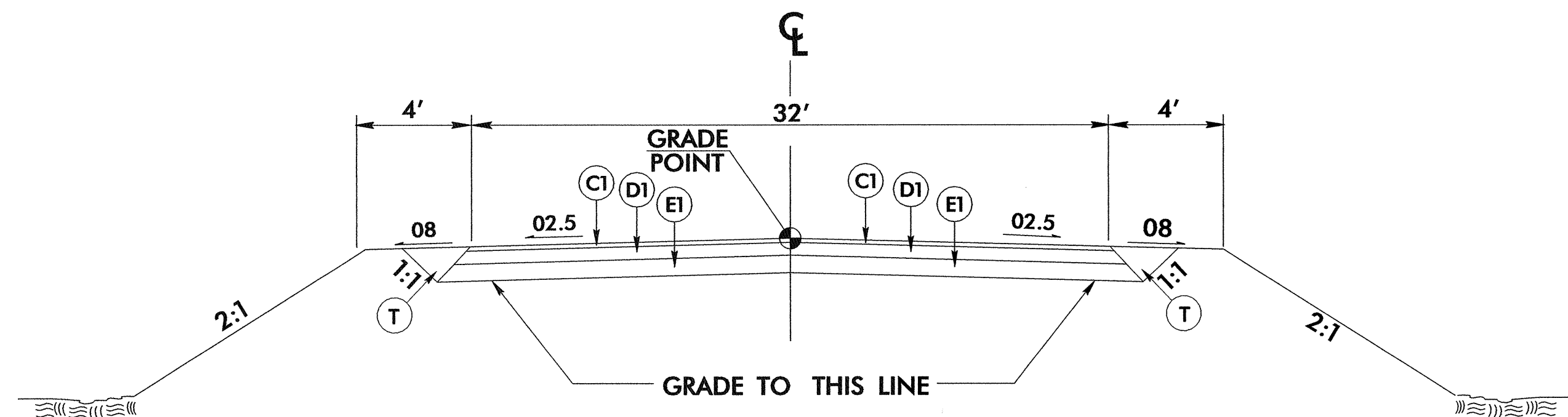
- L- STA 32+00 TO -L- STA 34+50
- L- STA 38+00 TO -L- STA 41+00
- L- STA 75+70 TO -L- STA 82+20.94
- L- STA 84+28.06 TO -L- STA 87+50
- * NOTE 5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)
- L- STA 84+45 TO 87+50

PAVEMENT SCHEDULE

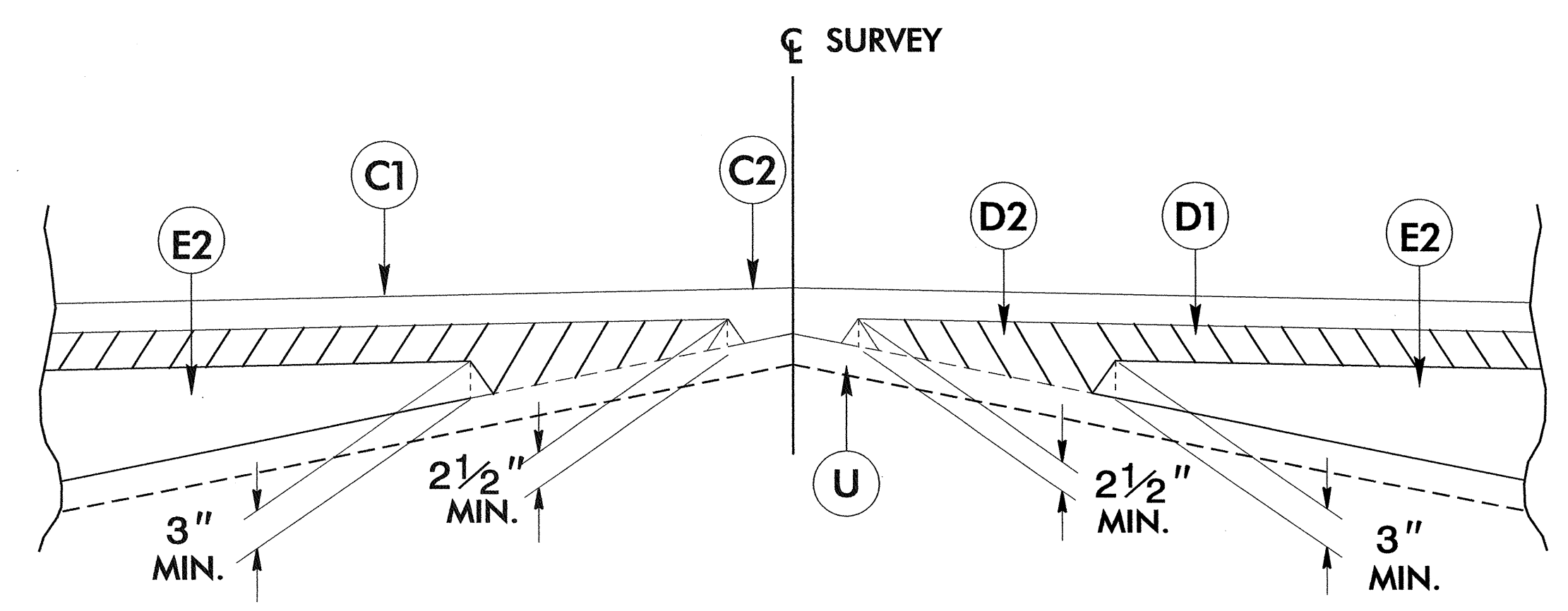
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R1	2'-6" CONCRETE CURB AND GUTTER.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.	R2	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
D2	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.	T	EARTH MATERIAL.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)
E2	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.		

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

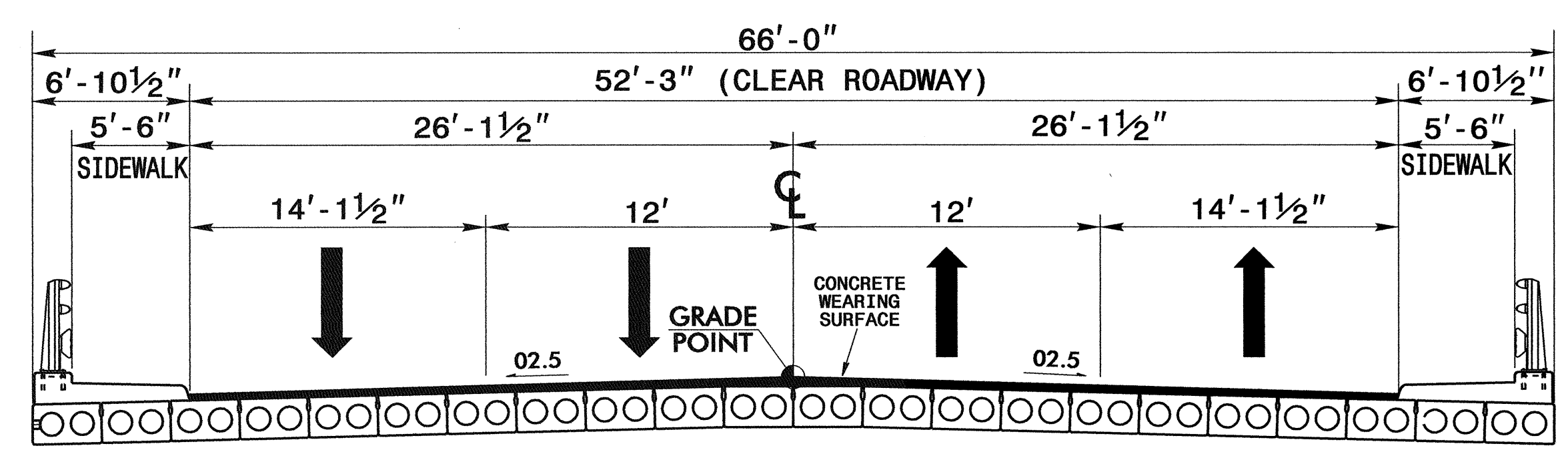
USE TYPICAL SECTION NO. 3 AS FOLLOWS:
 -Y3- STA 10+56 TO -Y3- STA 11+50
 NOTE RESURFACE WITH S9.5B
 -L- STA 11+50 TO -L- STA 12+00



TYPICAL SECTION NO. 3



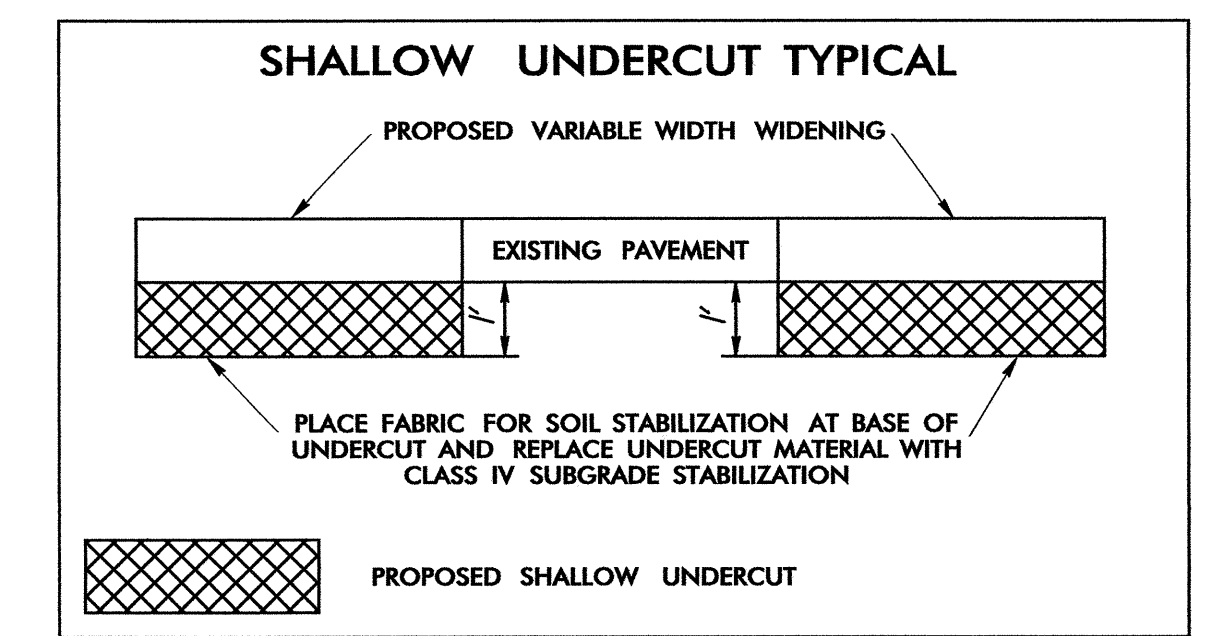
Detail Showing Method of Wedging



TYPICAL SECTION ON STRUCTURE

-L- STA 82+20.94 TO -L- STA 84+28.06

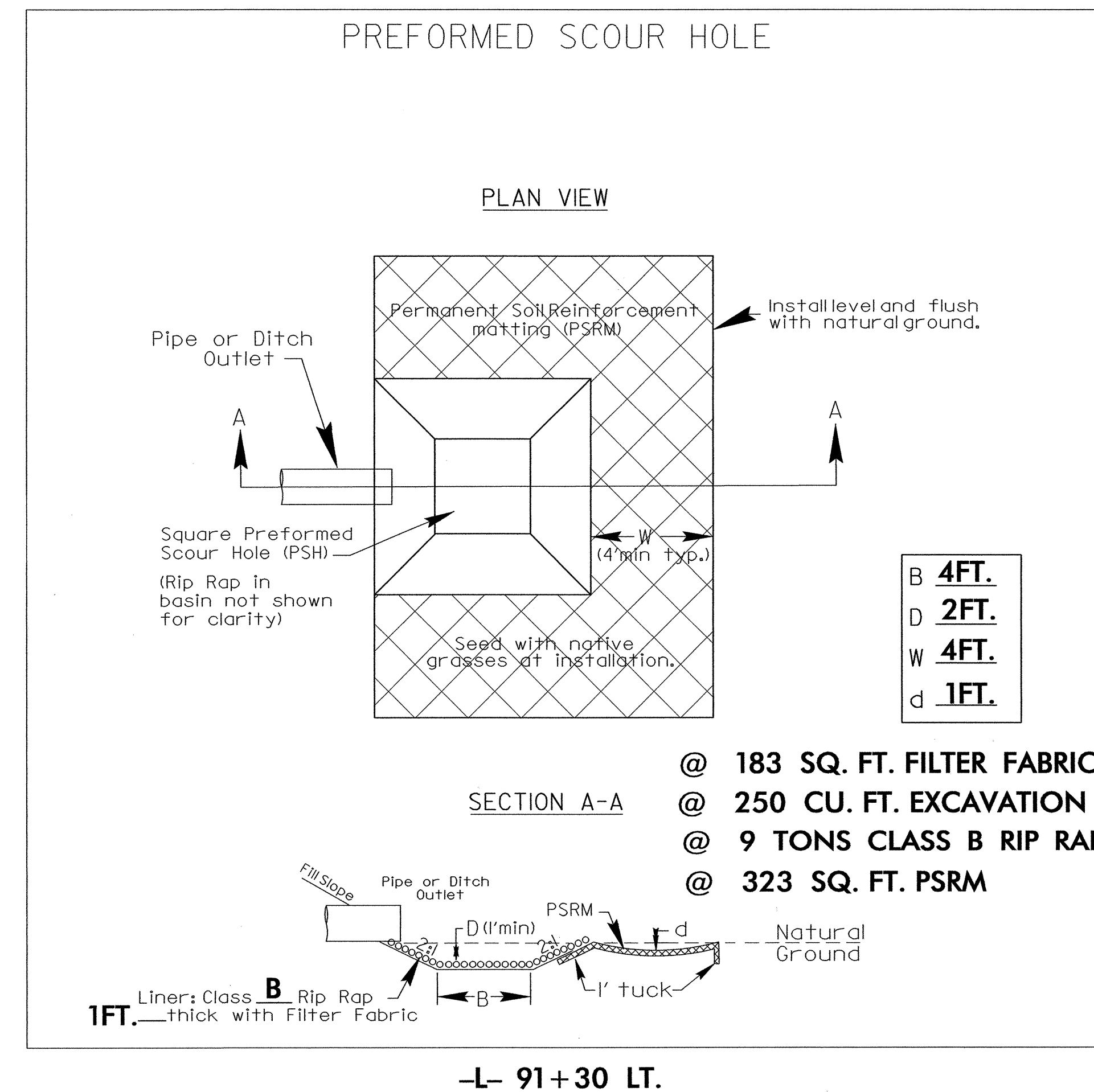
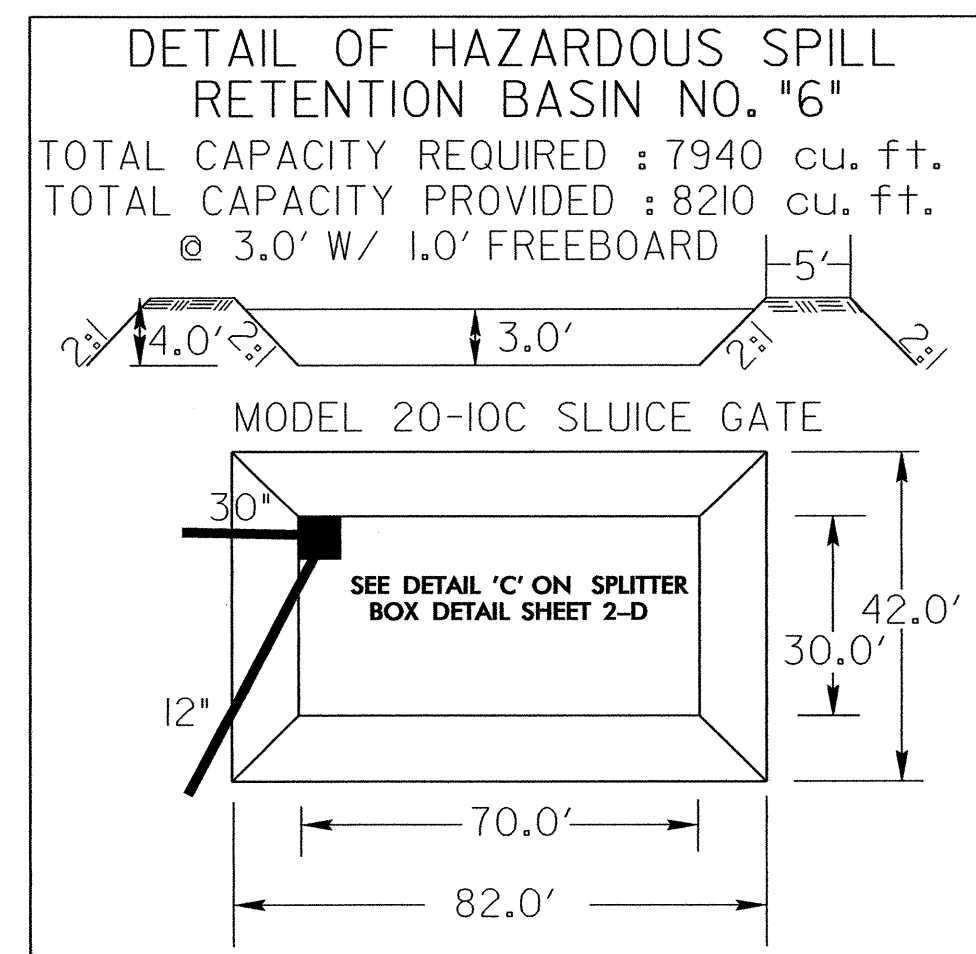
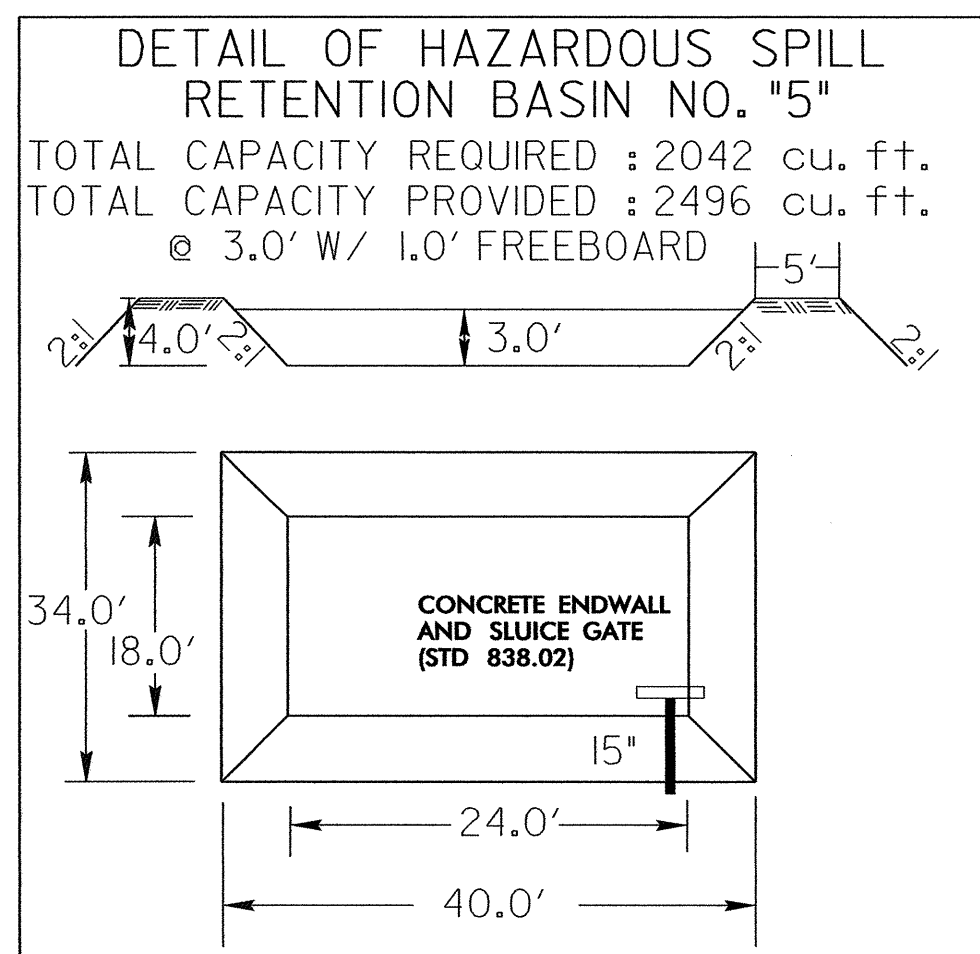
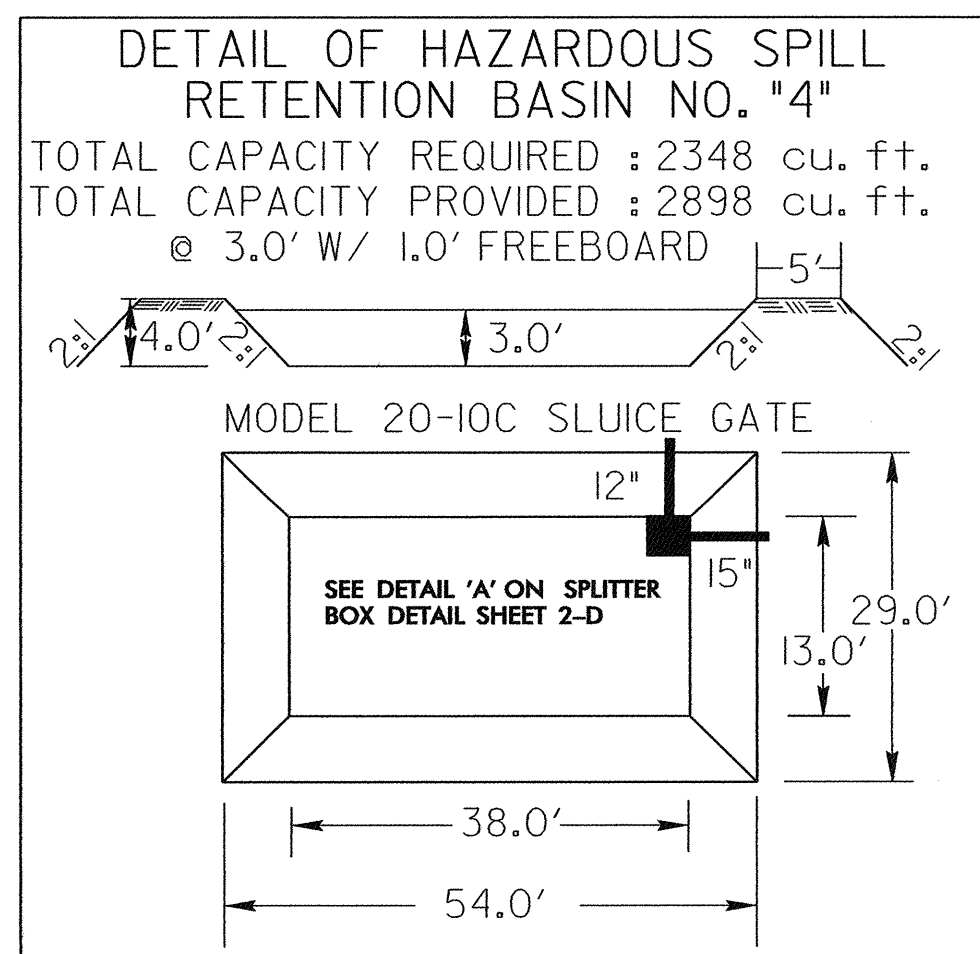
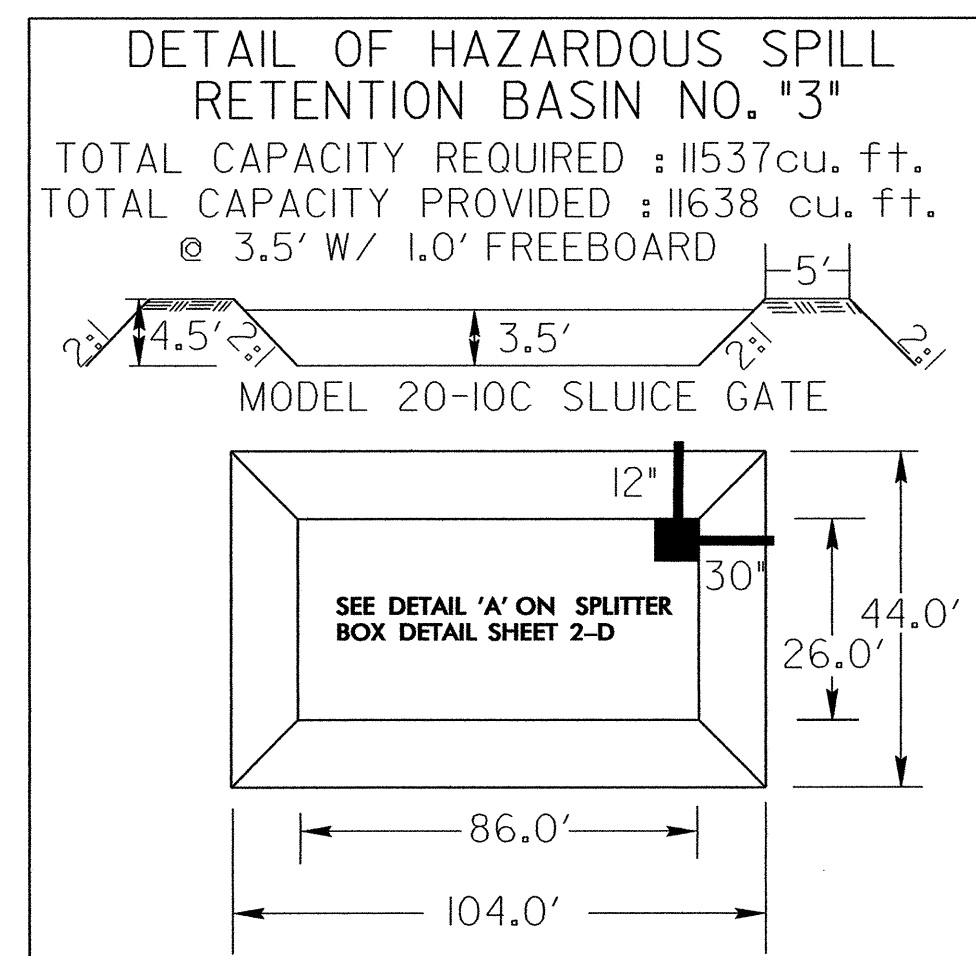
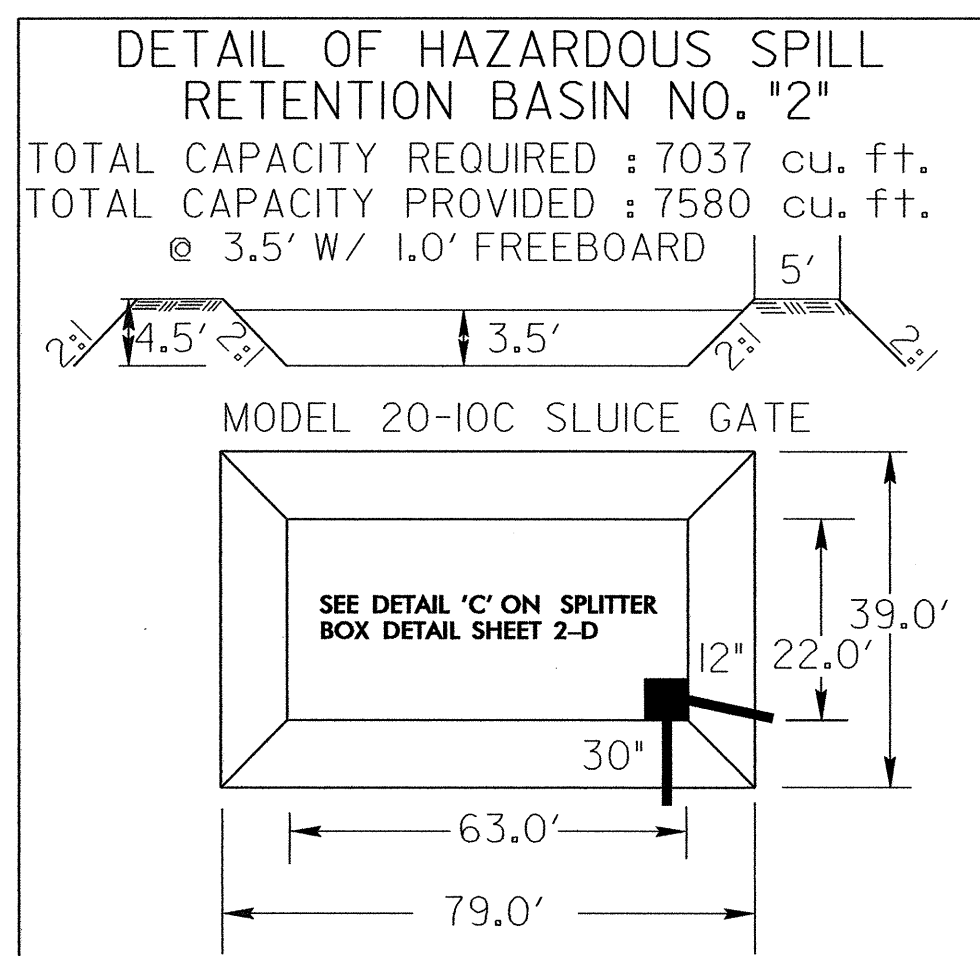
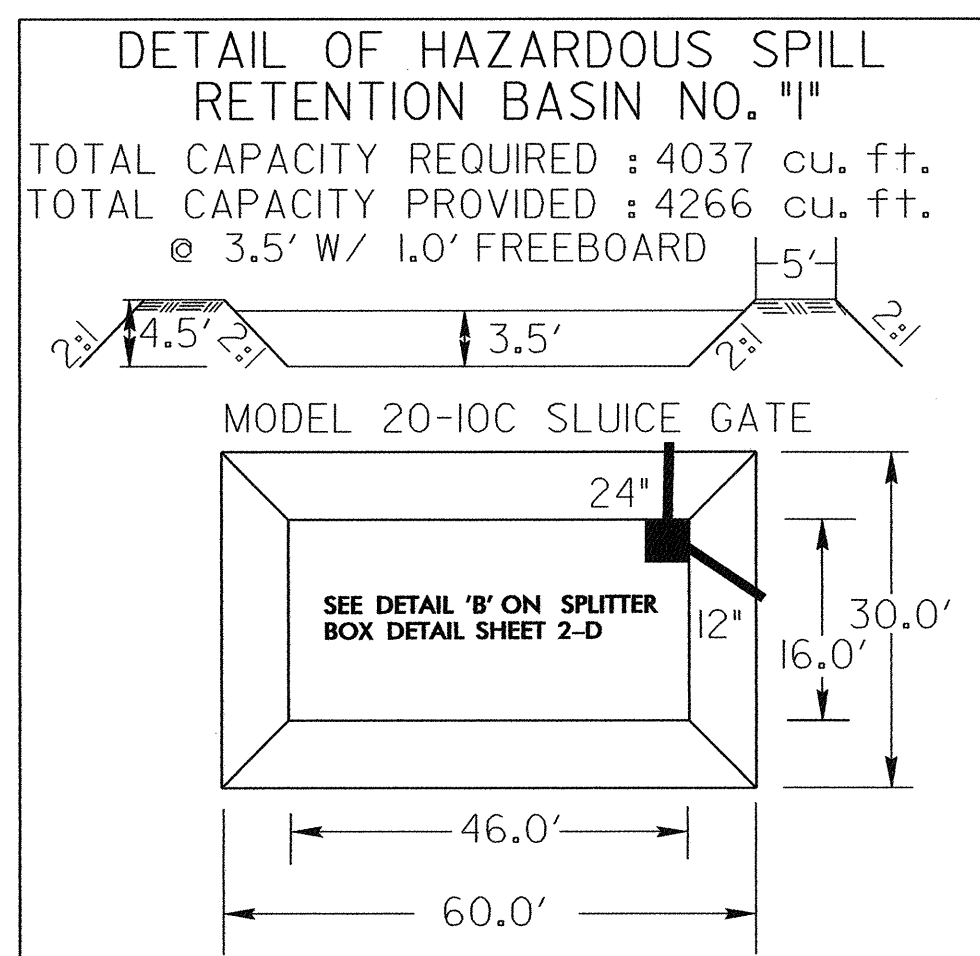
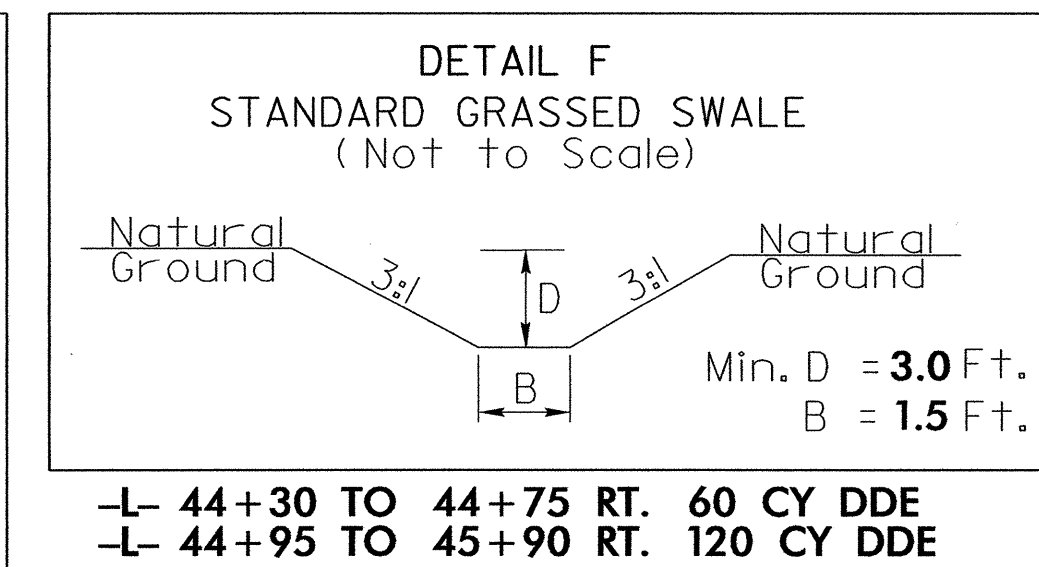
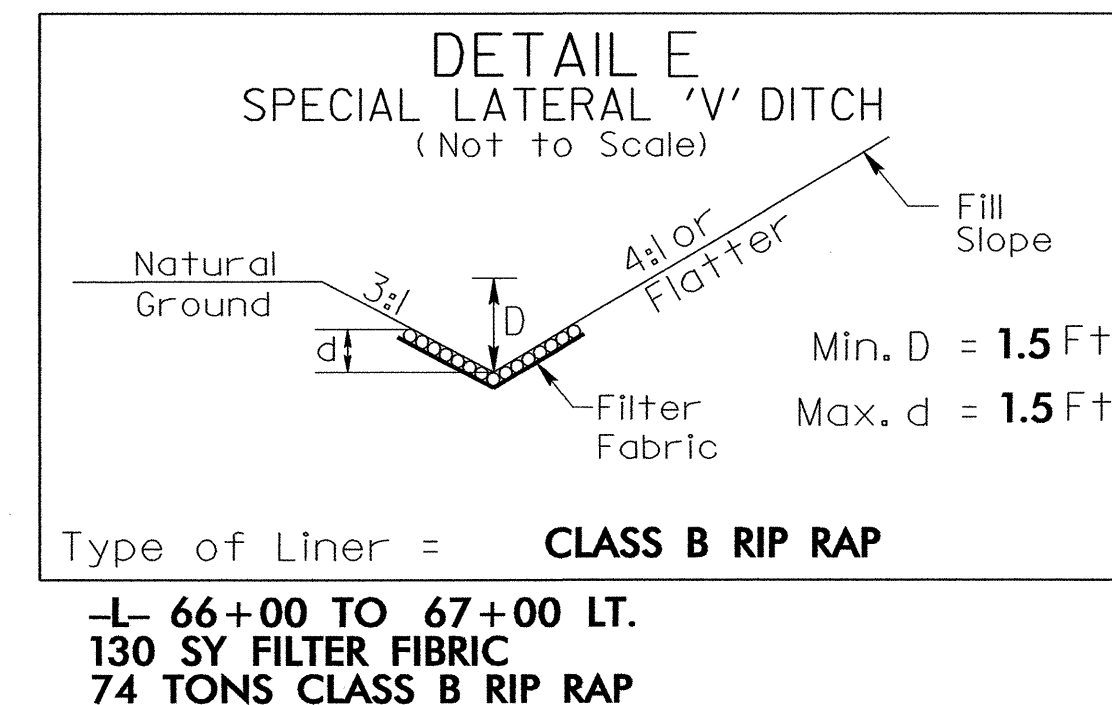
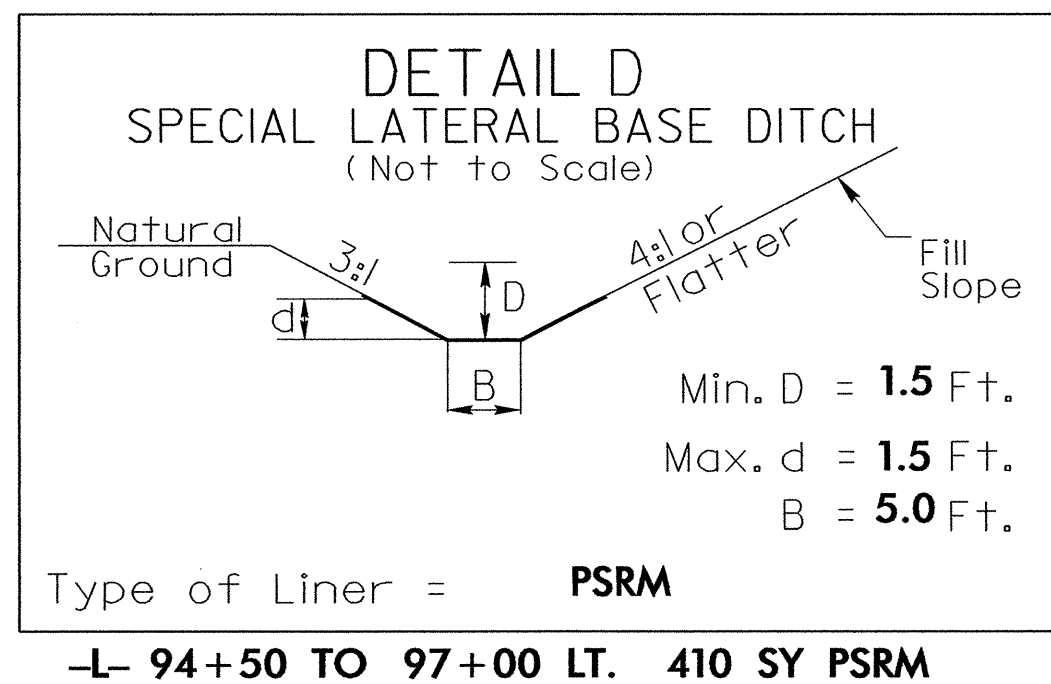
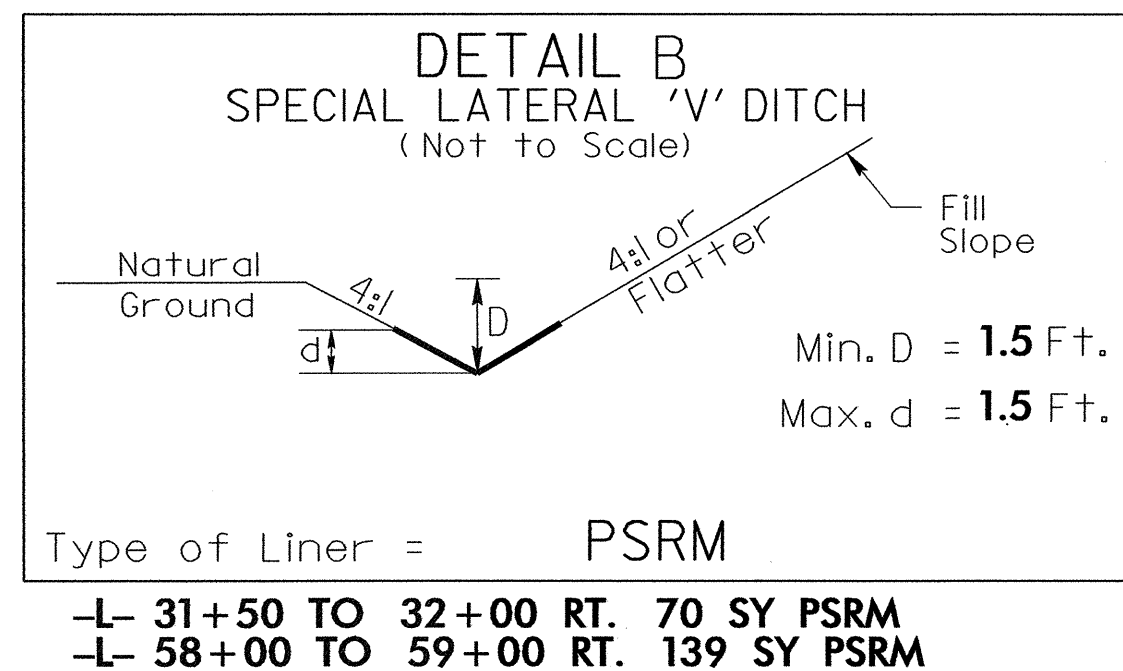
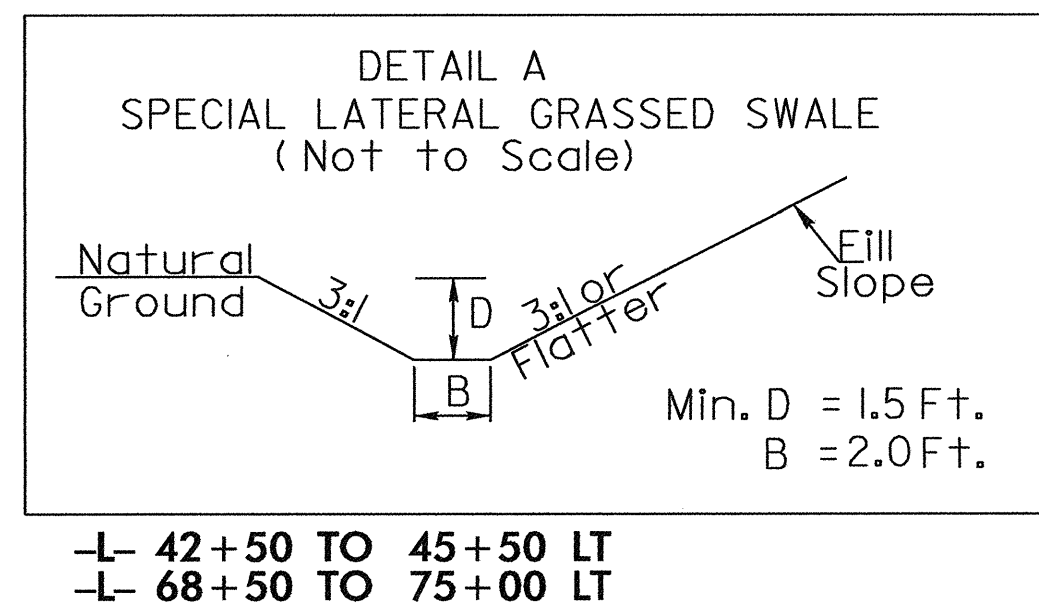
PAVEMENT SCHEDULE	
C1	3" S9.5B
C2	VAR DEPTH S9.5B
D1	2 1/2" 119.0B
D2	VAR DEPTH I19.0B
E1	4" B25.0B
E2	VAR DEPTH B25.0B
R1	2'-6" CONC C&G
R2	5" CONC ISLANDS
U	EXIST PAVEMENT.
T	EARTH MATERIAL.
W	WEDGING



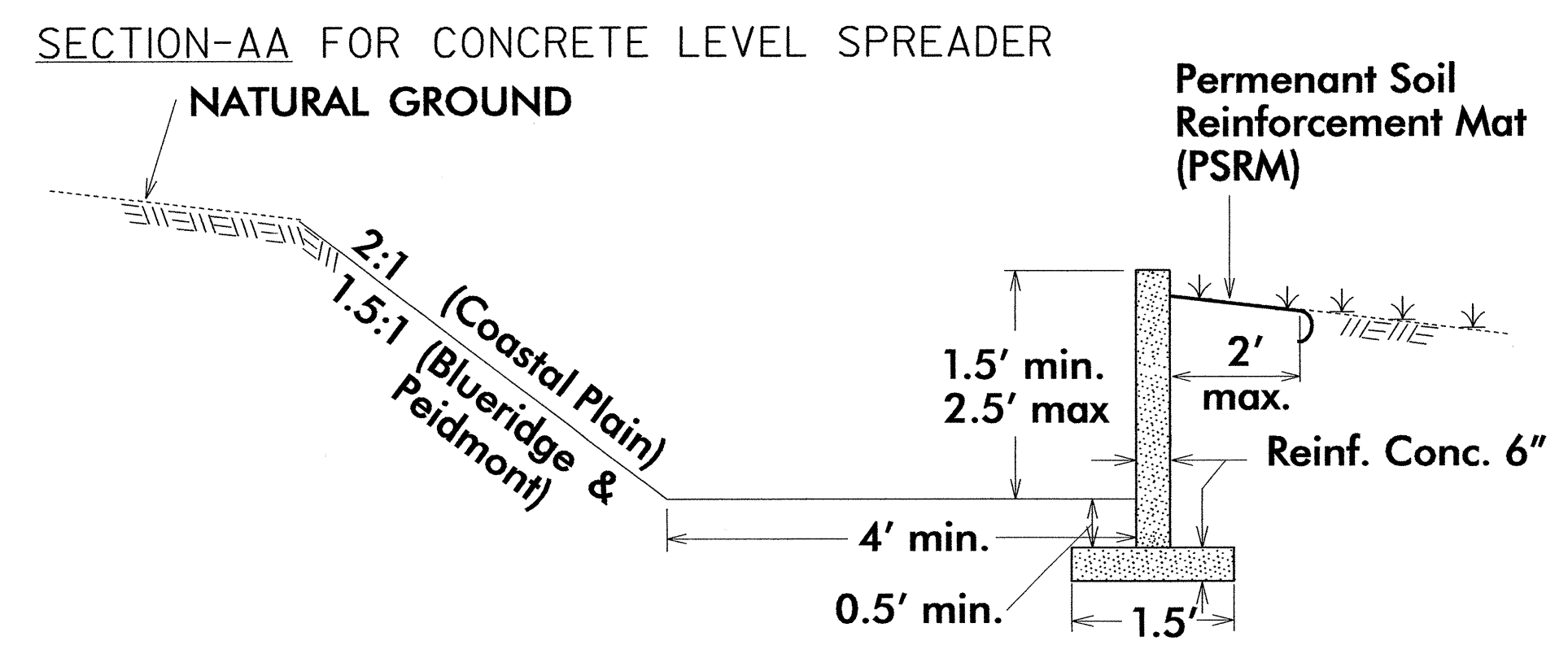
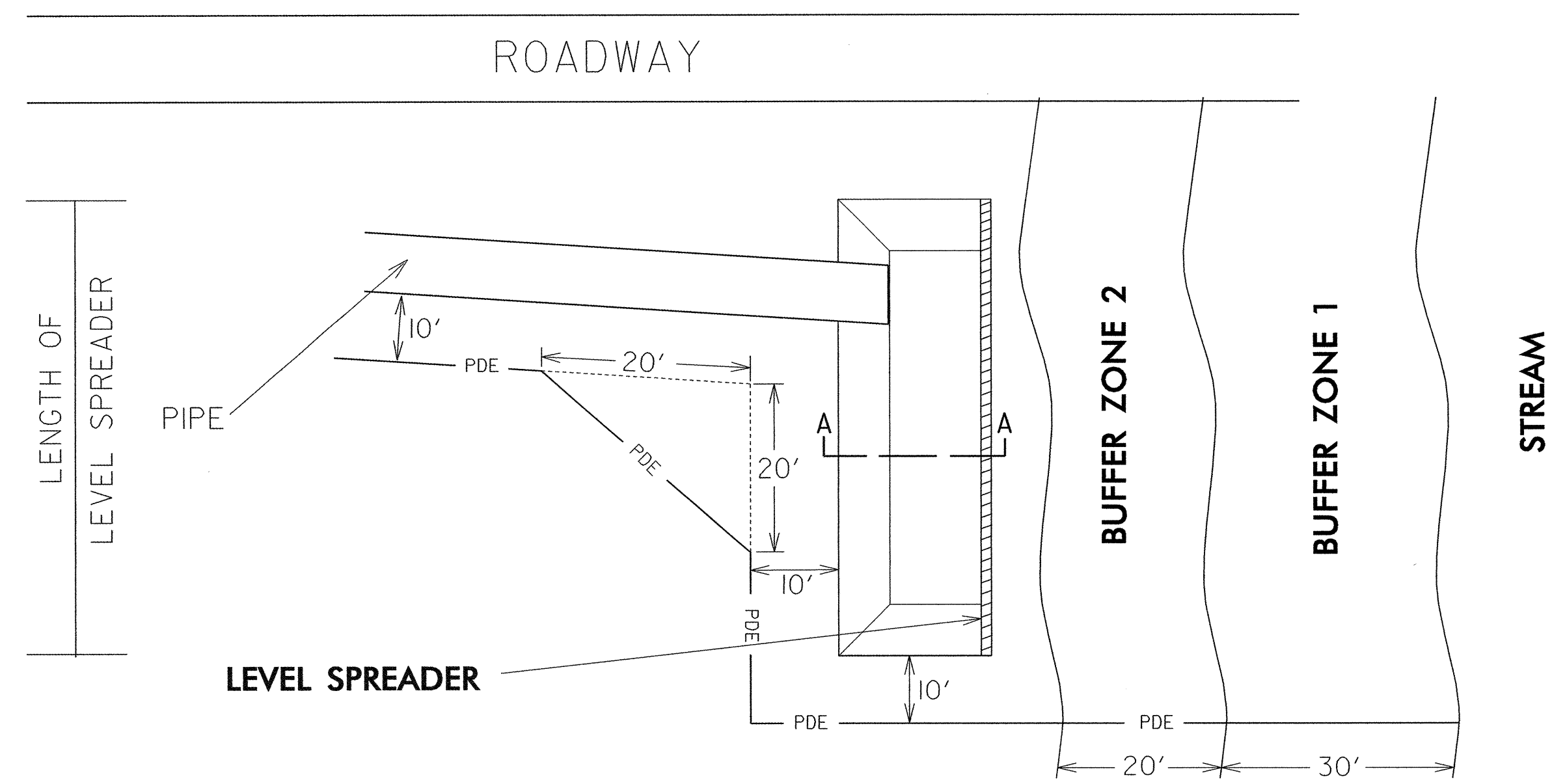
PROJECT REFERENCE NO. U-3823-A	SHEET NO. 2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

3/23/07

4-4-07



LEVEL SPREADER (NOT TO SCALE)

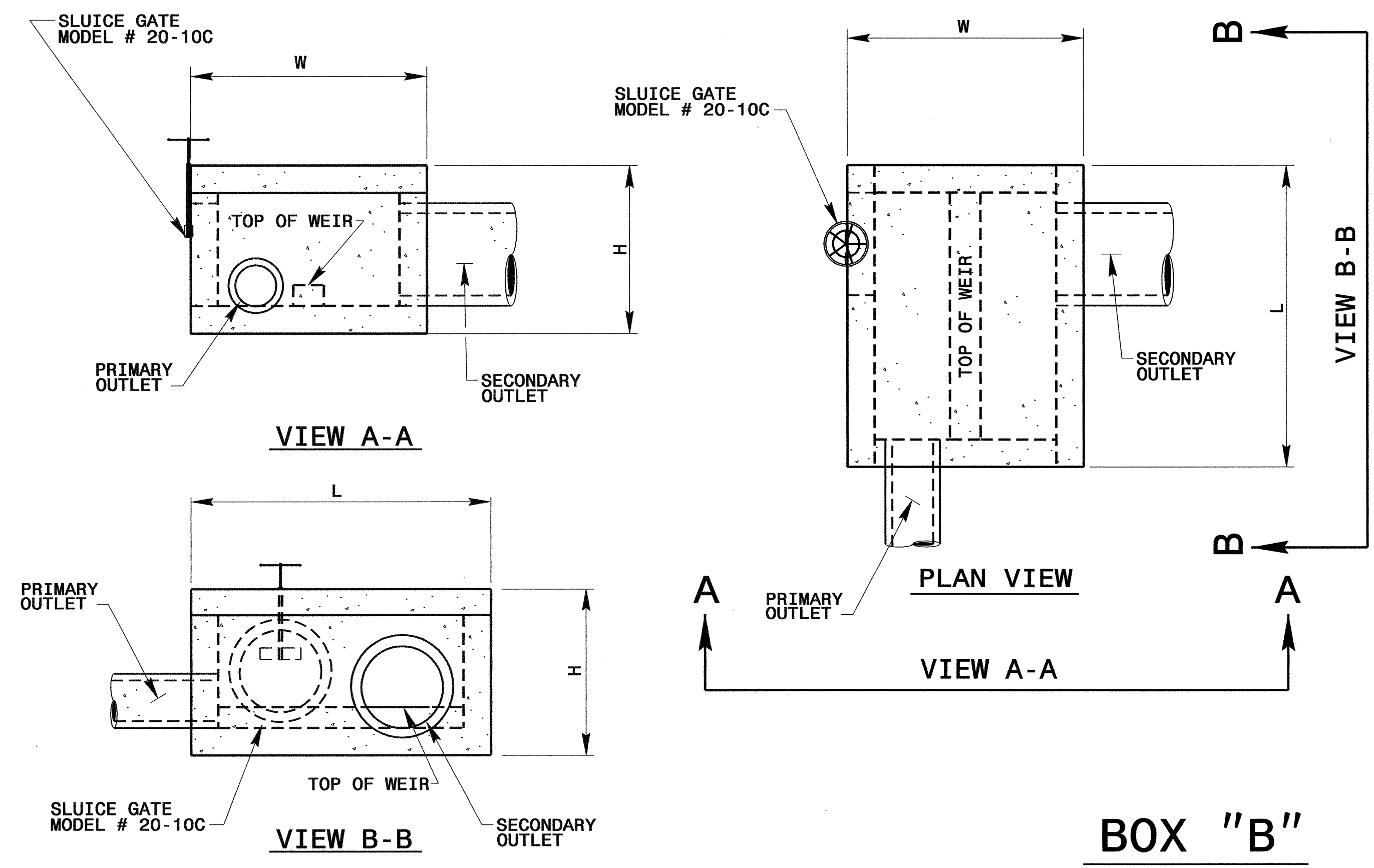
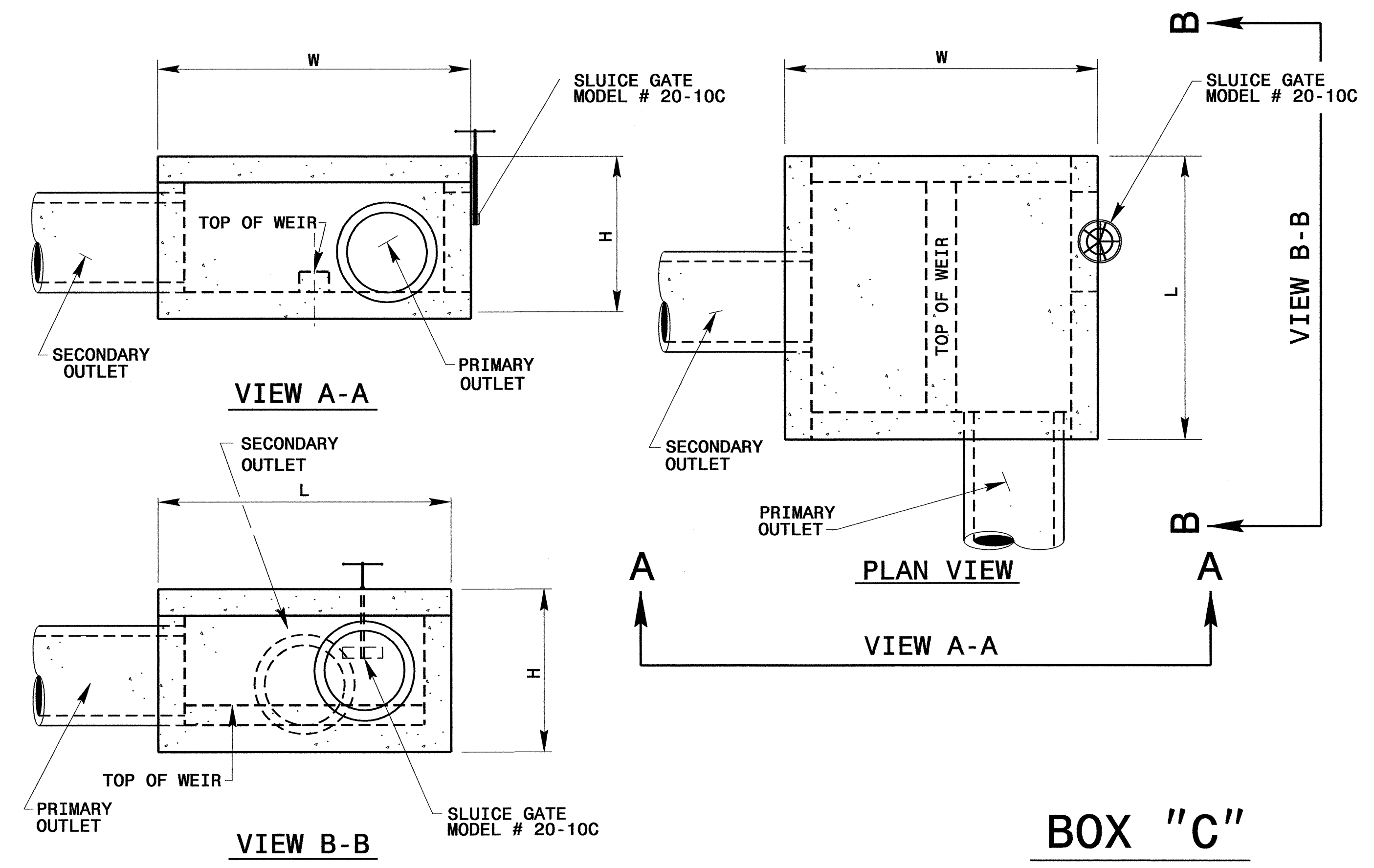
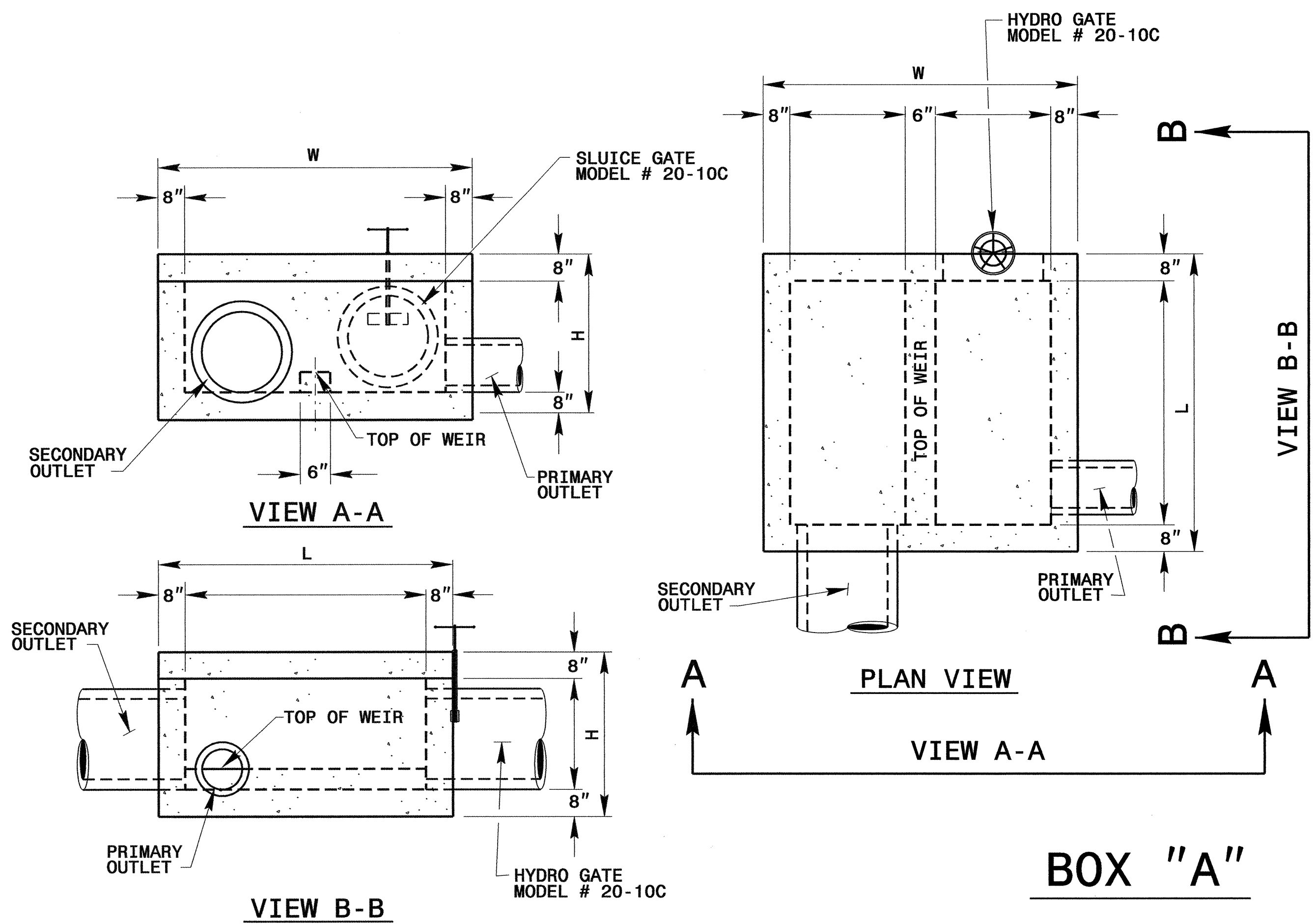


NOTES:
 USE #4 REBAR IN EACH DIRECTION @ 8 INCHES O.C. FOR THE VERTICAL PORTION OF THE WALL.
 PLACE THE WALL REBAR ON THE FACE OPPOSITE THE FILL WITH A MINIMUM COVER OF 2 INCHES.
 USE #4 REBAR AND 8 INCHES O.C. SPACING FOR THE FOOTER DOWEL.
 BEND FOOTER DOWEL TO EXTEND A MINIMUM OF 8 INCHES INTO THE VERTICAL WALL.

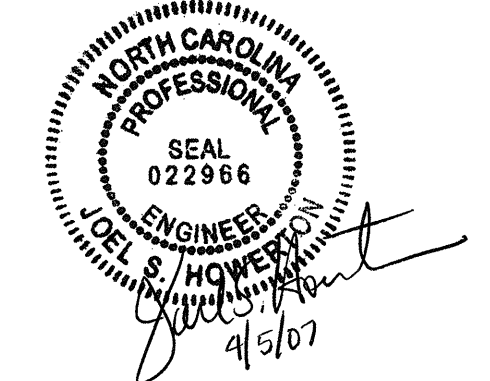
STATION	LENGTH OF LEVEL SPREADER
43+80 -L-	55 FT.
46+30 -L-	70 FT.
76+30 -L-	105 FT.
77+50 -L-	25 FT.
85+00 -L-	35 FT.
92+00 -L-	80 FT.
TOTAL	370 FT.

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 de vhr1dgc HT NDD01-C7487E3A





STRUCTURE NUMBER	STATION	DETAIL	PRIMARY OUTLET	SECONDARY OUTLET	SLUICE DIAMETER	WEIR WIDTH	WEIR HEIGHT	WEIR LENGTH	H	W	L
17	43+88 -L-	B	12"	24"	24"	0.5'	0.65'	6.0'	3.0'	8.0'	7.5'
20	46+22 -L-	C	12"	30"	30"	0.5'	0.96'	6.0'	3.4'	9.0'	7.5'
44	76+48 -L-	A	12"	30"	30"	0.5'	1.93'	6.0'	3.4'	9.0'	7.5'
45	77+52 -L-	A	12"	15"	15"	0.5'	0.33'	6.0'	3.0'	6.5'	7.5'
61	92+02 -L-	C	12"	30"	30"	0.5'	1.11'	6.0'	3.4'	9.0'	7.5'



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SPLITTER BOX DETAILS

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 CHECKED BY: _____ DATE: _____
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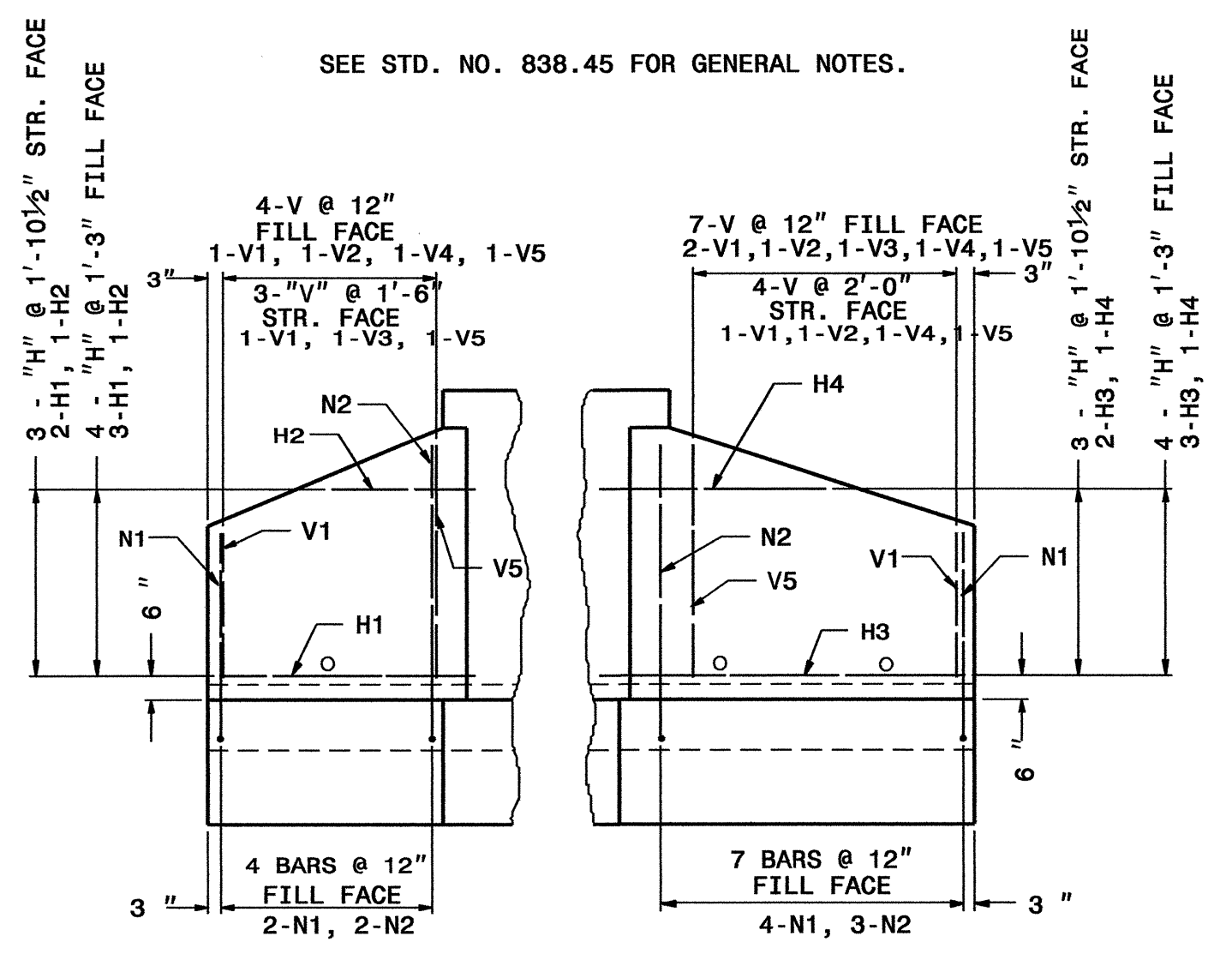
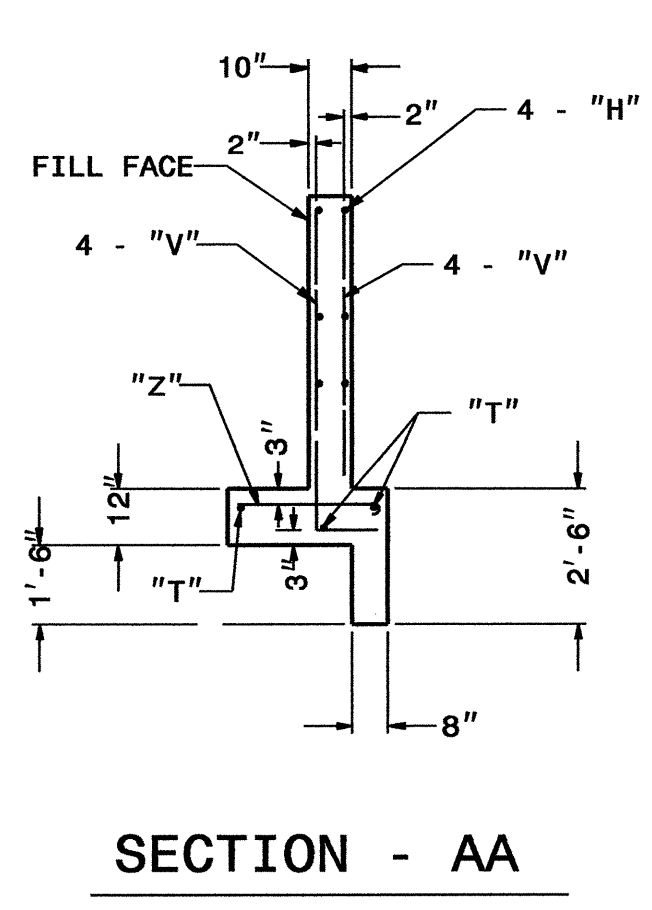
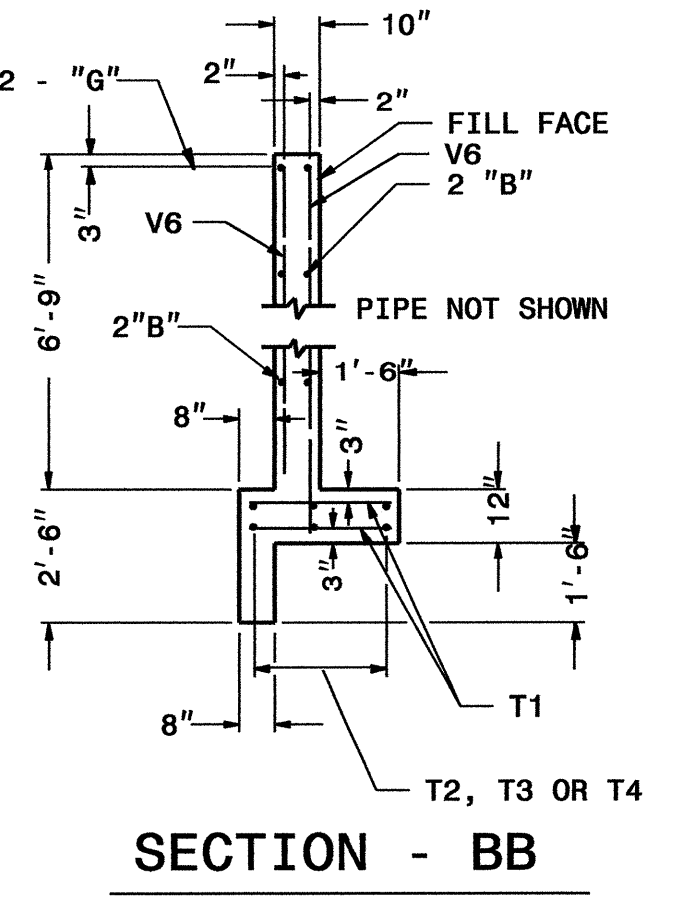
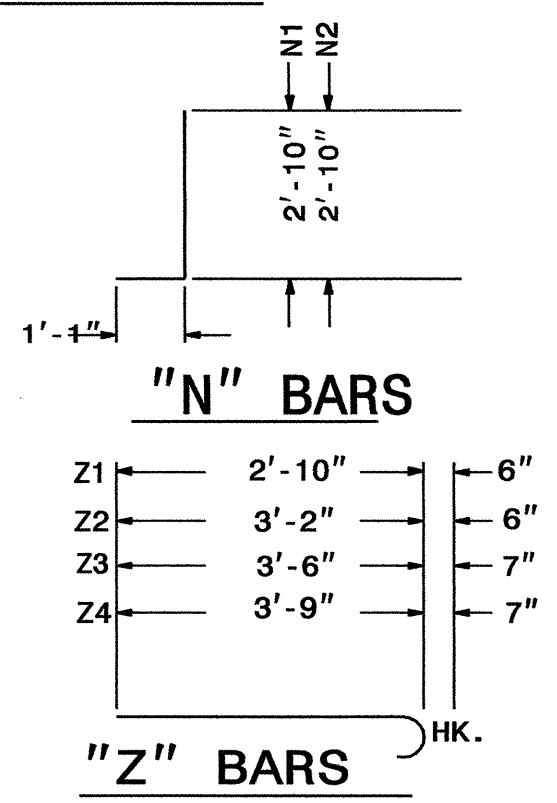
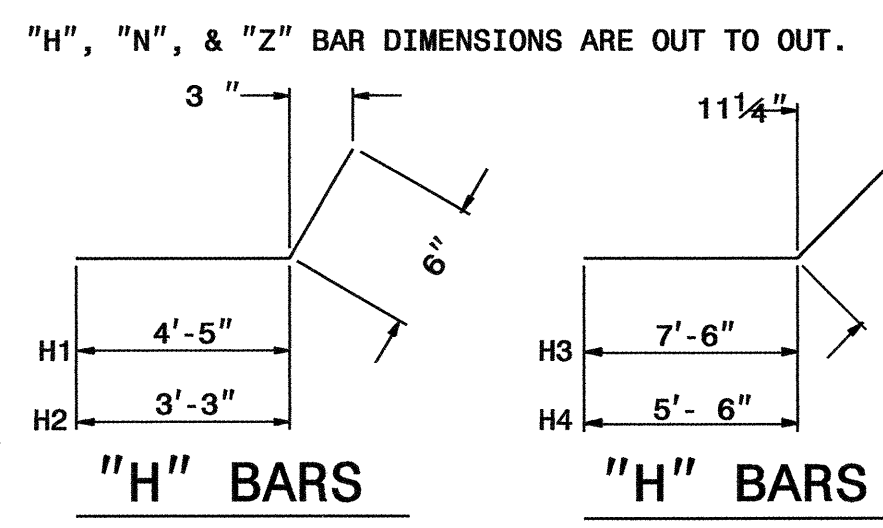
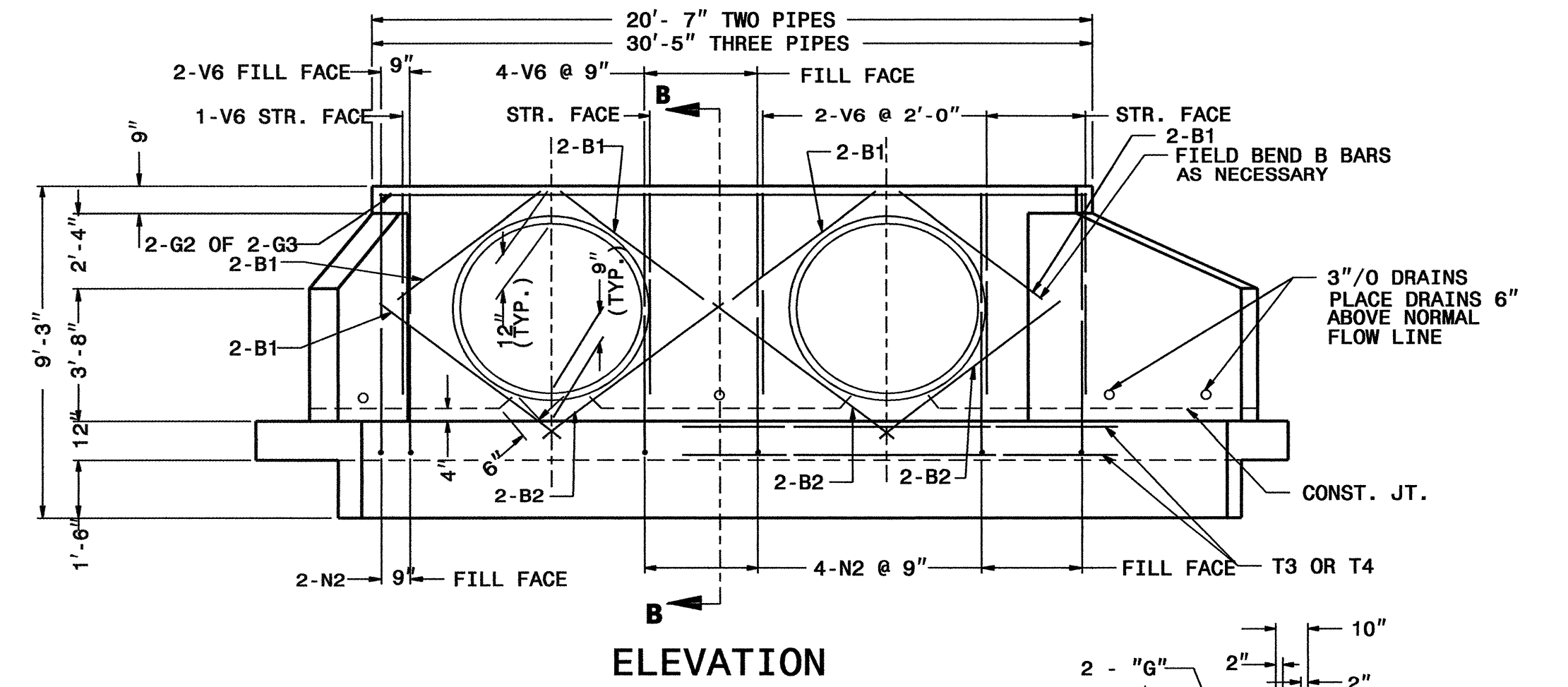
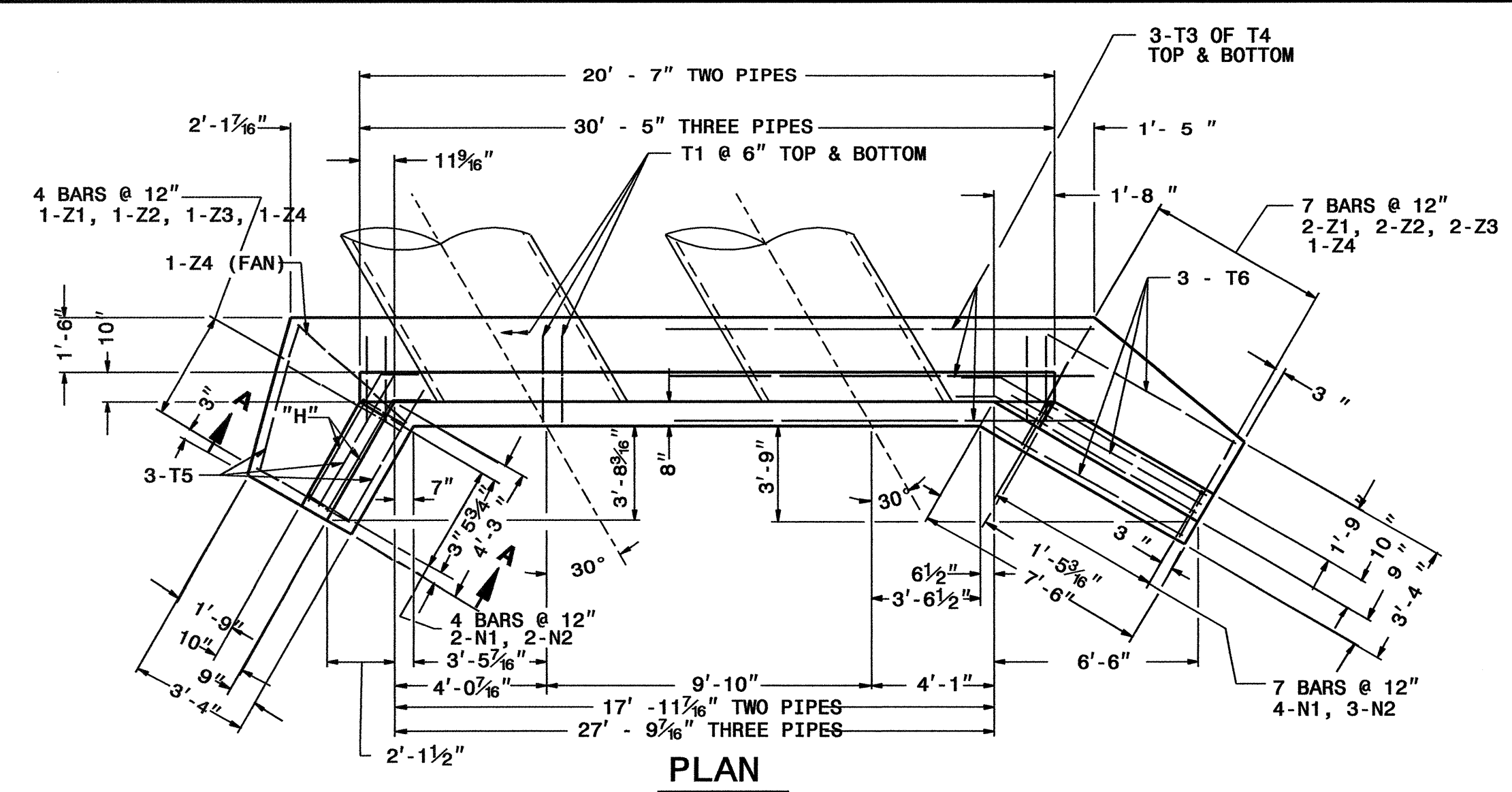
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5/14/99

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
REINFORCED CONCRETE ENDWALL
FOR DOUBLE & TRIPLE 60" PIPE 60° OR 120° SKEW

SHEET 1 OF 1
838D30



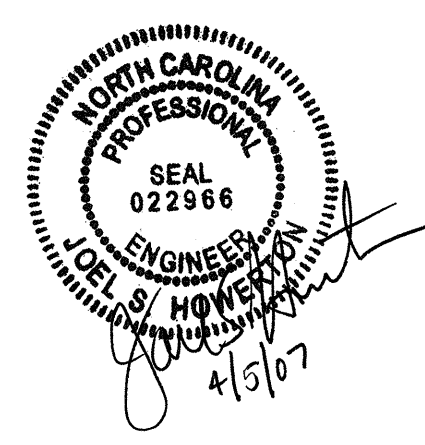
SEE STD. NO. 838.45 FOR GENERAL NOTES.

BILL OF MATERIAL FOR ENDWALLS						
REIN. BAR	STEEL SIZE	LENGTH	2 - PIPES NO.	2 - PIPES WEIGHT	3 - PIPES NO.	3 - PIPES WEIGHT
Z1	#4	3'-4"	3	7	3	7
Z2	#4	3'-7"	3	7	3	7
Z3	#5	4'-1"	2	9	2	9
Z4	#5	4'-4"	4	18	4	18
N1	#4	3'-5"	6	14	6	14
N2	#4	3'-11"	15	61	19	78
V1	#4	3'-3"	5	11	5	11
V2	#4	3'-11"	3	8	3	8
V3	#4	4'-3"	2	6	2	6
V4	#4	4'-6"	3	9	3	9
V5	#4	5'-1"	5	17	5	17
V6	#4	6'-3"	15	63	21	88
H1	#4	4'-11"	5	16	5	16
H2	#4	3'-9"	2	5	2	5
H3	#4	8'-7"	5	29	5	29
H4	#4	6'-7"	2	9	2	9
G2	#7	20'-3"	2	83	-	-
G3	#7	30'-1"	-	-	2	123
T1	#4	2'-6"	82	137	122	204
T3	#4	23'-9"	6	95	-	-
T4	#4	17'-5"	-	-	12	140
T5	#4	4'-6"	3	9	3	9
T6	#4	7'-0"	3	14	3	14
B1	#4	5'-0"	10	33	14	47
B2	#4	6'-6"	6	26	10	43
REIN. STEEL LBS.			686	911		
CONC./C.M. CU. YDS.			9.5	12.3		
CONC./R.C. CU. YDS.			8.9	11.4		

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
REINFORCED CONCRETE ENDWALL
FOR DOUBLE & TRIPLE 60" PIPE 60° OR 120° SKEW

SHEET 1 OF 1
838D30



PROJECT SERVICES UNIT
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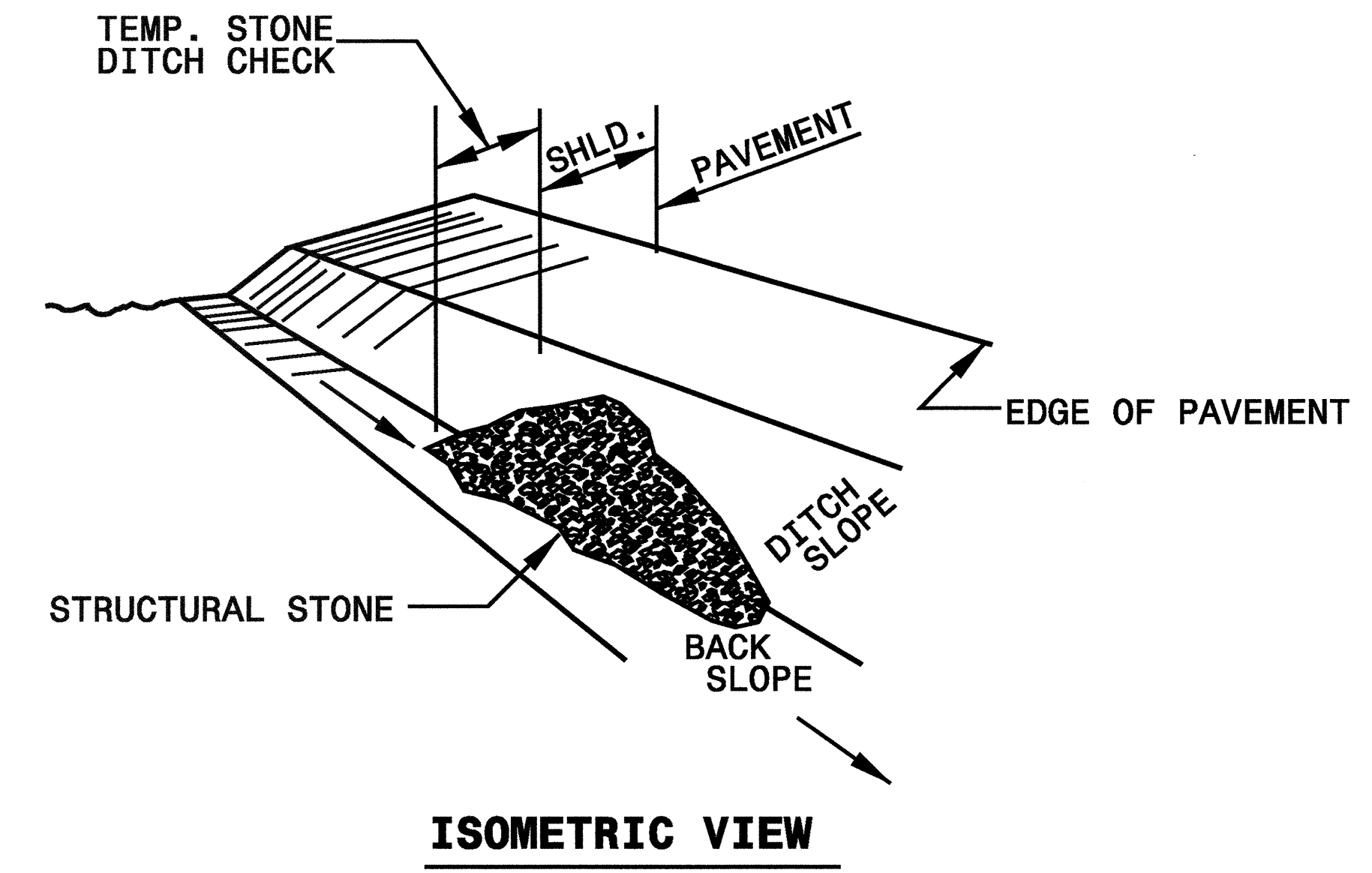
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MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH DETAIL DRAWING FOR
PERMANENT ROCK SILT CHECK TYPE 'B'

SHEET 1 OF 1
1633D02

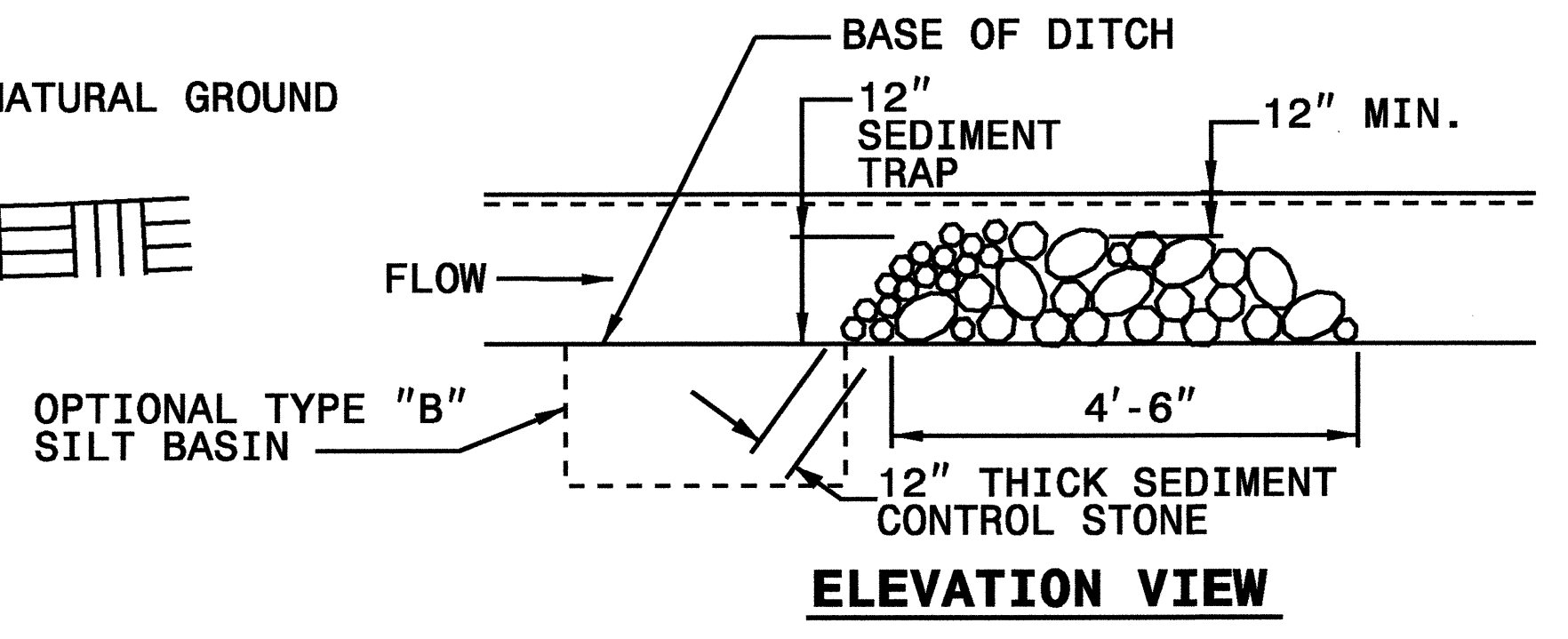
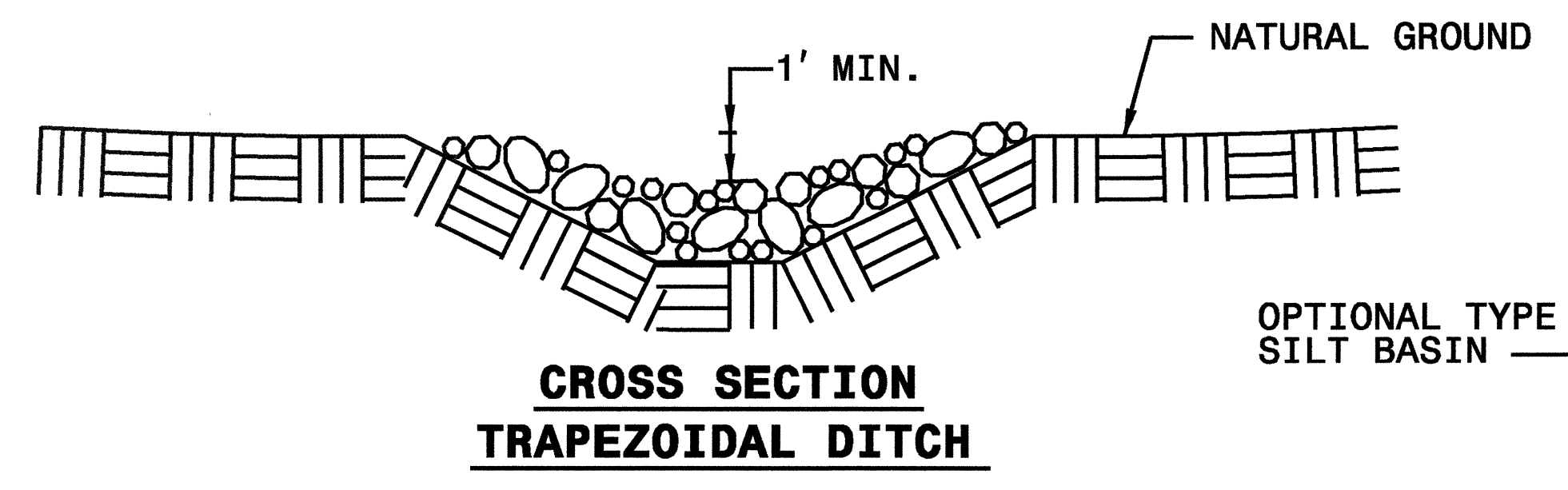
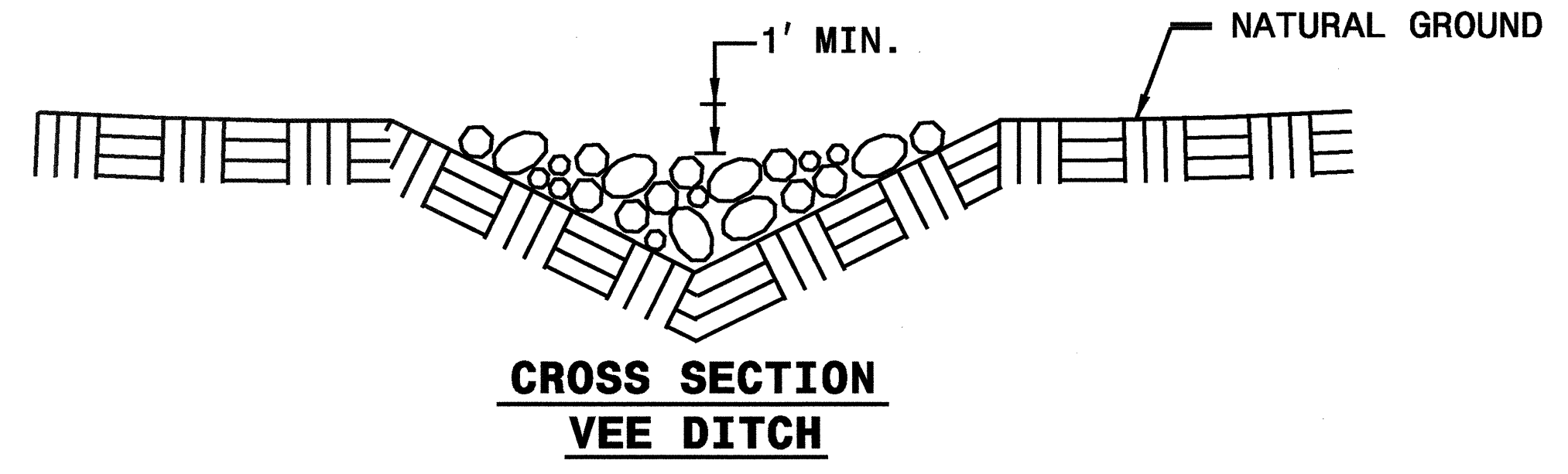


NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL. PLACE SEDIMENT CONTROL STONE AS DIRECTED BY THE ENGINEER.

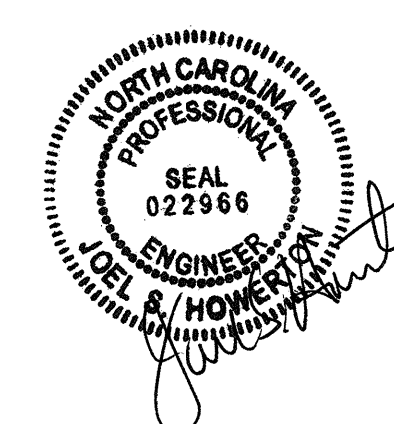


STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH DETAIL DRAWING FOR
PERMANENT ROCK SILT CHECK TYPE 'B'

SHEET 1 OF 1
1633D02



DESIGN SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: _____	DATE: _____
MODIFIED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201568														
ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION	2474000000-N	SP	Lump Sum		GENERIC DRAINAGE ITEM HAZARDOUS SPILL BASIN W/ LEVEL SPREADER	5546000000-E	1515	1	EA	8" VALVE
0001000000-E	200	Lump Sum		CLEARING & GRUBBING .. ACRE(S)	5558000000-E	1515	2	EA	12" VALVE	5648000000-N	1515	6	EA	RELOCATE WATER METER
0008000000-E	200	1	ACR	SUPPLEMENTARY CLEARING & GRUBBING	2549000000-E	846	16,300	LF	2'-6" CONCRETE CURB & GUTTER	5666000000-E	1515	1	EA	FIRE HYDRANT
0022000000-E	225	5,400	CY	UNCLASSIFIED EXCAVATION	2612000000-E	848	370	SY	6" CONCRETE DRIVEWAY	5672000000-N	1515	3	EA	RELOCATE FIRE HYDRANT
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (83+24.50)	2655000000-E	852	170	SY	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	5691500000-E	1520	755	LF	12" SANITARY GRAVITY SEWER
0036000000-E	225	6,312	CY	UNDERCUT EXCAVATION	2830000000-N	858	11	EA	ADJUSTMENT OF MANHOLES	5691600000-E	1520	346	LF	16" SANITARY GRAVITY SEWER
0080000000-E	SP	9,000	TON	CLASS IV SUBGRADE STABILIZATION	2845000000-N	858	14	EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES	5691900000-E	1520	104	LF	24" SANITARY GRAVITY SEWER
0106000000-E	230	47,000	CY	BORROW EXCAVATION	3030000000-E	862	1,350	LF	STEEL BM GUARDRAIL	5776000000-E	1525	6	EA	5' DIA UTILITY MANHOLE
0134000000-E	240	180	CY	DRAINAGE DITCH EXCAVATION	3150000000-N	862	10	EA	ADDITIONAL GUARDRAIL POSTS	5782000000-E	1525	14	LF	UTILITY MANHOLE WALL, 5' DIA
0156000000-E	250	6,200	SY	REMOVAL OF EXISTING ASPHALT PAVEMENT	3210000000-N	862	6	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1	5804000000-E	1530	2,466	LF	ABANDON 12" UTILITY PIPE
0195000000-E	265	500	CY	SELECT GRANULAR MATERIAL	3215000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III	5828000000-N	1530	4	EA	REMOVE UTILITY MANHOLE
0196000000-E	270	20,700	SY	FABRIC FOR SOIL STABILIZATION	3270000000-N	SP	6	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	5836000000-E	1540	145	LF	24" ENCASMENT PIPE
0318000000-E	300	1,204	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS	3360000000-E	863	870	LF	REMOVE EXISTING GUARDRAIL	5875000000-N	SP	2	EA	CONCRETE PIERS
0396000000-E	310	36	LF	42" RC PIPE CULVERTS, CLASS III	3628000000-E	876	20	TON	RIP RAP, CLASS I	5888000000-E	SP	395	LF	GENERIC UTILITY ITEM 14" HDPE WATER PIPE BY DIRECT ONAL BORE
0414000000-E	310	240	LF	60" RC PIPE CULVERTS, CLASS III	3649000000-E	876	100	TON	RIP RAP, CLASS B	6000000000-E	1605	7,050	LF	TEMPORARY SILT FENCE
0995000000-E	340	932	LF	PIPE REMOVAL	3656000000-E	876	1,750	SY	FILTER FABRIC FOR DRAINAGE	6006000000-E	1610	460	TON	STONE FOR EROSION CONTROL, CLASS A
1011000000-N	500	Lump Sum		FINE GRADING	3659000000-N	SP	1	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON	6009000000-E	1610	1,380	TON	STONE FOR EROSION CONTROL, CLASS B
1110000000-E	510	500	TON	STABILIZER AGGREGATE	4400000000-E	1110	458	SF	WORK ZONE SIGNS (STATIONARY)	6012000000-E	1610	1,280	TON	SEDIMENT CONTROL STONE
1220000000-E	545	500	TON	INCIDENTAL STONE BASE	4405000000-E	1110	131	SF	WORK ZONE SIGNS (PORTABLE)	6015000000-E	1615	10	ACR	TEMPORARY MULCHING
1297000000-E	607	500	SY	MILLING ASPHALT PAVEMENT, **** DEPTH (2-1/2")	4410000000-E	1110	173	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)	6018000000-E	1620	350	LB	SEED FOR TEMPORARY SEEDING
1489000000-E	610	11,900	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B	4415000000-N	1115	2	EA	FLASHING ARROW PANELS, TYPE C	6021000000-E	1620	1.5	TON	FERTILIZER FOR TEMPORARY SEEDING
1498000000-E	610	8,700	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE 119.0B	4420000000-N	1120	2	EA	CHANGEABLE MESSAGE SIGN	6024000000-E	1622	215	LF	TEMPORARY SLOPE DRAINS
1519000000-E	610	10,600	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	4430000000-N	1130	416	EA	DRUMS	6027000000-N	1622	6	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
1560000000-E	620	1,560	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	4445000000-E	1145	192	LF	BARRICADES (TYPE III)	6029000000-E	SP	2,900	LF	SAFETY FENCE
1693000000-E	654	500	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR	4455000000-N	1150	600	MD	FLAGGER	6030000000-E	1630	10,990	CY	SILT EXCAVATION
2022000000-E	815	30	CY	SUBDRAIN EXCAVATION	4480000000-N	1165	1	EA	TMIA	6036000000-E	1631	3,550	SY	MATting FOR EROSION CONTROL
2033000000-E	815	20	CY	SUBDRAIN FINE AGGREGATE	4510000000-N	SP	80	HR	POLICE	6037000000-E	SP	70	SY	COIR FIBER MAT
2044000000-E	815	100	LF	6" PERFORATED SUBDRAIN PIPE	4650000000-N	1251	155	EA	TEMPORARY RAISED PAVEMENT MARKERS	6038000000-E	SP	1,405	SY	PERMANENT SOIL REINFORCEMENT MAT
2055000000-E	815	3	EA	6" SUBDRAIN PIPE WYES, TEES, & ELBOWS	4685000000-E	1205	16,699	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	6042000000-E	1632	1,250	LF	1/4" HARDWARE CLOTH
2066000000-N	815	1	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET	4686000000-E	1205	26,894	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)	6070000000-N	SP	12	EA	SPECIAL STILLING BASINS
2077000000-E	815	6	LF	6" OUTLET PIPE (SUBDRAINS)	4695000000-E	1205	1,710	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	6071030000-E	SP	1,250	LF	COIR FIBER BAFFLES
2209000000-E	838	5.2	CY	ENDWALLS	4705000000-E	1205	172	LF	THERMOPLASTIC PAVEMENT MARKING LINES (16", 120 MILS)	6071050000-E	SP	3	EA	*** SKIMMER (2")
2220000000-E	838	17.8	CY	REINFORCED ENDWALLS	4710000000-E	1205	12	EA	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)	6071050000-E	SP	5	EA	*** SKIMMER (2-1/2")
2253000000-E	840	1	CY	PIPE COLLARS	4725000000-E	1205	45	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	6071050000-E	SP	1	EA	*** SKIMMER (3")
2264000000-E	840	1	CY	PIPE PLUGS	4810000000-E	1205	158,961	LF	PAINT PAVEMENT MARKING LINES (4")	6084000000-E	1660	13	ACR	SEEDING & MULCHING
2286000000-N	840	62	EA	MASONRY DRAINAGE STRUCTURES	4820000000-E	1205	1,736	LF	PAINT PAVEMENT MARKING LINES (8")	6087000000-E	1660	6	ACR	MOWING
2308000000-E	840	2.3	LF	MASONRY DRAINAGE STRUCTURES	4825000000-E	1205	1,692	LF	PAINT PAVEMENT MARKING LINES (12")	6090000000-E	1661	100	LB	SEED FOR REPAIR SEEDING
2364000000-N	840	1	EA	FRAME WITH TWO GRATES, STD 840.16	4830000000-E	1205	516	LF	PAINT PAVEMENT MARKING LINES (16")	6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
2374000000-N	840	7	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)	4835000000-E	1205	844	LF	PAINT PAVEMENT MARKING LINES (24")	6096000000-E	1662	250	LB	SEED FOR SUPPLEMENTAL SEEDING
2374000000-N	840	24	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	4840000000-N	1205	22	EA	PAINT PAVEMENT MARKING CHARACTER	6108000000-E	1665	9.75	TON	FERTILIZER TOPDRESSING
2374000000-N	840	30	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	4845000000-N	1205	36	EA	PAINT PAVEMENT MARKING SYMBOL	6111000000-E	SP	200	LF	IMPERVIOUS DIKE
2462000000-E	SP	2	EA	*** SLUICE GATE (22")	4850000000-E	1205	4,595	LF	REMOVAL OF PAVEMENT MARKING LINES (4")	6114000000-N	SP	2.5	HR	SPECIALIZED HAND MOWING
2462000000-E	SP	1	EA	*** SLUICE GATE (32")	4860000000-E	1205	247	LF	REMOVAL OF PAVEMENT MARKING LINES (8")	6117000000-N	SP	24	EA	RESPONSE FOR EROSION CONTROL
2462000000-E	SP	3	EA	*** SLUICE GATE (38-3/4")	4875000000-N	1205	5	EA	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS	6123000000-E	1670	0.1	ACR	REFORESTATION
2473000000-N	SP	5	EA	GENERIC DRAINAGE ITEM SPECIAL SPLITTER BOX	4900000000-N	1251	570	EA	PERMANENT RAISED PAVEMENT MARKERS	7060000000-E	1705	940	LF	SIGNAL CABLE
					5325800000-E	1510	75	LF	8" WATER LINE	7120000000-E	1705	5	EA	VEHICLE SIGNAL HEAD (12", 3 SECTION)
					5326200000-E	1510	3,108	LF	12" WATER LINE	7144000000-E	1705	3	EA	VEHICLE SIGNAL HEAD (12", 5 SECTION)
										7180000000-N	1706	2	EA	BACKPLATE
										7264000000-E	1710	690	LF	MESSENGER CABLE (3/8")
										7288000000-E	1715	30	LF	PAVED TRENCHING (***** (1 CONDUIT, 2")

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STATE OF NORTH CAROLINA SUMMARY OF QUANTITIES

ItemNumber	Sec #	Quantity	Unit	Description
730000000-E	1715	1,010	LF	UNPAVED TRENCHING (*****) (1 CONDUIT, 2")
732400000-N	1716	5	EA	JUNCTION BOX (STANDARD SIZE)
736000000-N	1720	1	EA	WOOD POLE
737200000-N	1721	1	EA	GUY ASSEMBLY
740800000-E	1722	1	EA	1" RISER WITH WEATHERHEAD
742000000-E	1722	2	EA	2" RISER WITH WEATHERHEAD
744400000-E	1725	800	LF	INDUCTIVE LOOP SAWCUT
745600000-E	1726	1,600	LF	LEAD-IN CABLE (*****) (18-2)
757600000-N	SP	4	EA	METAL STRAIN SIGNAL POLE
761300000-N	SP	4	EA	SOIL TEST
761410000-E	SP	28	CY	DRILLED PIER FOUNDATION
763600000-N	1745	2	EA	SIGN FOR SIGNALS
768400000-N	1750	1	EA	SIGNAL CABINET FOUNDATION
775600000-N	1751	1	EA	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)
778000000-N	1751	5	EA	DETECTOR CARD (TYPE 2070L)
790100000-N	1753	1	EA	CABINET BASE EXTENDER

***** BEGIN SCHEDULE AA ***** ***** (3 ALTERNATES) *****				
036000000-E AA1	310	208	LF	12" RC PIPE CULVERTS, CLASS III
036600000-E AA1	310	4,168	LF	15" RC PIPE CULVERTS, CLASS III
037200000-E AA1	310	1,632	LF	18" RC PIPE CULVERTS, CLASS III
037800000-E AA1	310	1,468	LF	24" RC PIPE CULVERTS, CLASS III
038400000-E AA1	310	1,360	LF	30" RC PIPE CULVERTS, CLASS III
*** OR ***				
036600000-E AA2	310	3,980	LF	15" RC PIPE CULVERTS, CLASS III
037200000-E AA2	310	1,540	LF	18" RC PIPE CULVERTS, CLASS III

ItemNumber	Sec #	Quantity	Unit	Description
037800000-E AA2	310	1,396	LF	24" RC PIPE CULVERTS, CLASS III
038400000-E AA2	310	1,172	LF	30" RC PIPE CULVERTS, CLASS III
053600000-E AA2	SP	208	LF	**** HDPE PIPE CULVERTS (12")
053600000-E AA2	SP	188	LF	**** HDPE PIPE CULVERTS (15")
053600000-E AA2	SP	92	LF	**** HDPE PIPE CULVERTS (18")
053600000-E AA2	SP	72	LF	**** HDPE PIPE CULVERTS (24")
053600000-E AA2	SP	188	LF	**** HDPE PIPE CULVERTS (30")
*** OR ***				
036600000-E AA3	310	3,980	LF	15" RC PIPE CULVERTS, CLASS III
037200000-E AA3	310	1,540	LF	18" RC PIPE CULVERTS, CLASS III
037800000-E AA3	310	1,396	LF	24" RC PIPE CULVERTS, CLASS III
038400000-E AA3	310	1,172	LF	30" RC PIPE CULVERTS, CLASS III
054000000-E AA3	SP	208	LF	**** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (12", 0.064")
054000000-E AA3	SP	188	LF	**** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (15", 0.064")
054000000-E AA3	SP	92	LF	**** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (18", 0.064")
054000000-E AA3	SP	72	LF	**** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (24", 0.064")
054000000-E AA3	SP	188	LF	**** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (30", 0.079")

***** END SCHEDULE AA *****

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJ. REFERENCE NO.	SHEET NO.
U-3823-A	3G

SUMMARY OF EARTHWORK

Volumes in Cubic Yards

STATION TO STATION	Uncl. Excav.	Undercut	Embank +%	Borrow	Waste
-L- 19+75.00 TO 40+00.00	1274	1631	6272	6223	2856
-L- 40+00.00 TO 59+60.29	1459	728	10980	10148	1355
-L- 59+60.29 TO 82+20.94	1541	913	12740	12616	2330
-Y3- 10+50.00 TO 11+50.00	24		334	312	2
-L- 82+20.94 TO 84+28.06	BRIDGE				
-L- 84+28.06 TO 88+68.00	4		7064	7061	1
-L- 88+68.00 TO 105+36.10	1002	540	5638	5390	1294
TOTAL	5304	3812	43028	41750	7838
ADDITIONAL UNDERCUT		2500	3125	3125	2500
PROJECT TOTAL	5304	6312	46153	44875	10338
ESTIMATE TO REPLACE TOPSOIL ON BORROW PIT				2088	
GRAND TOTAL	5304			46963	
SAY	5400			47000	

REMOVAL OF EXISTING ASPHALT PAVEMENT

STATION TO STATION	SY
-L- 29+47.58 TO 34+50.00	666
-L- 38+00.00 TO 42+09.93	696
-L- 55+14.50 TO 58+67.45	63
-L- 74+26.68 TO 94+79.64	3694
-Y3- 10+00.00 TO 11+50.00	809
TOTAL	5928
SAY	6200

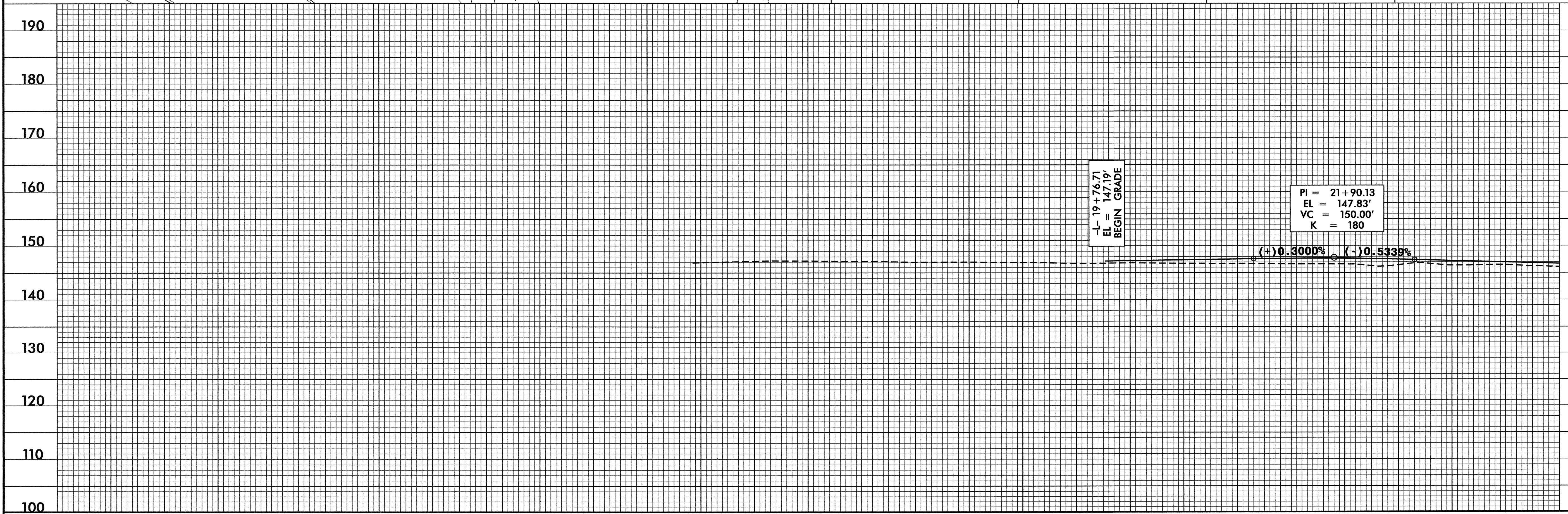
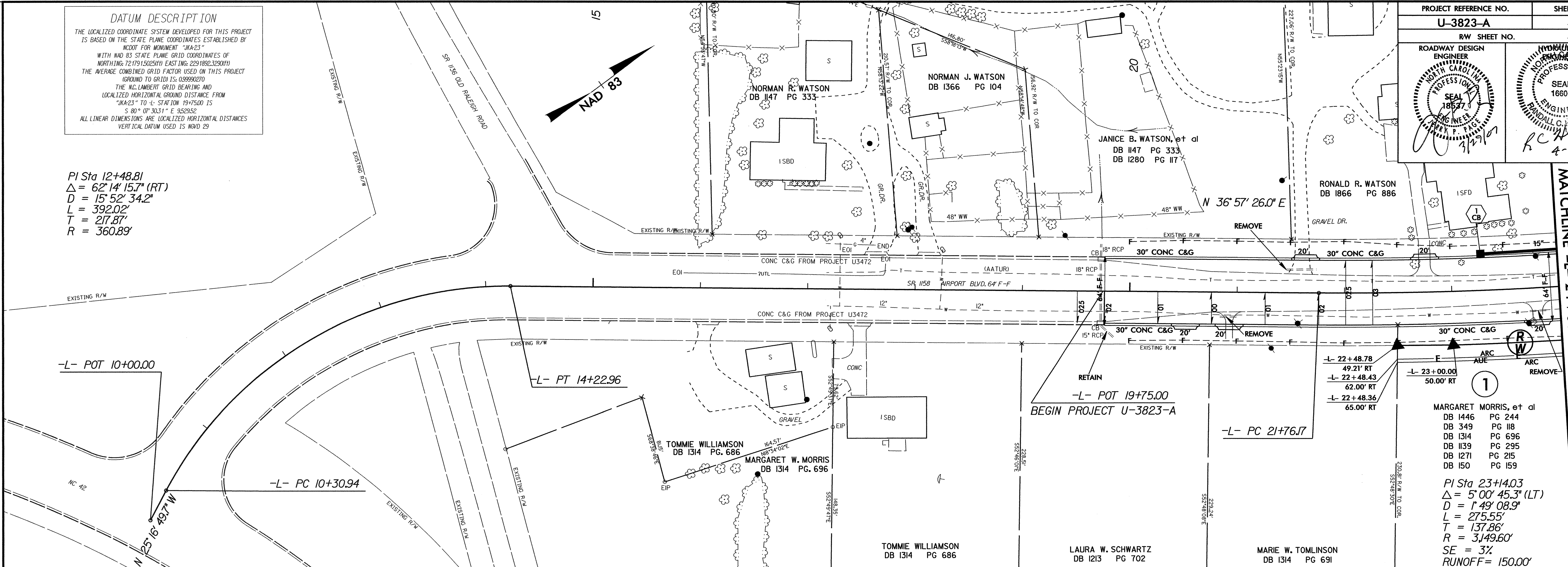
-L- CUT PAVEMENT STRUCTURE VOLUME 1943 CY

Quantities are approximate only. The Resident Engineer will recross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "JKA-23" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 7217915025(5H) EASTING: 2291892329(4H) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99999270 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "JKA-23" TO -L- STATION 19+75.00 IS S 80° 07' 30.31" E 9529.52' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS MVD 29

PI Sta 12+48.81
 $\Delta = 62' 14' 15.7" (RT)$
 $D = 15' 52' 34.2"$
 $L = 392.02'$
 $T = 217.87'$
 $R = 360.89'$

PROJECT REFERENCE NO. U-3823-A	SHEET NO. 4
R/W SHEET NO. 4	
ROADWAY DESIGN ENGINEER SEAL 18577	HYDRAULIC ENGINEER SEAL 16600



MATCHLINE -L- 24+00.00 SEE SHEET 5

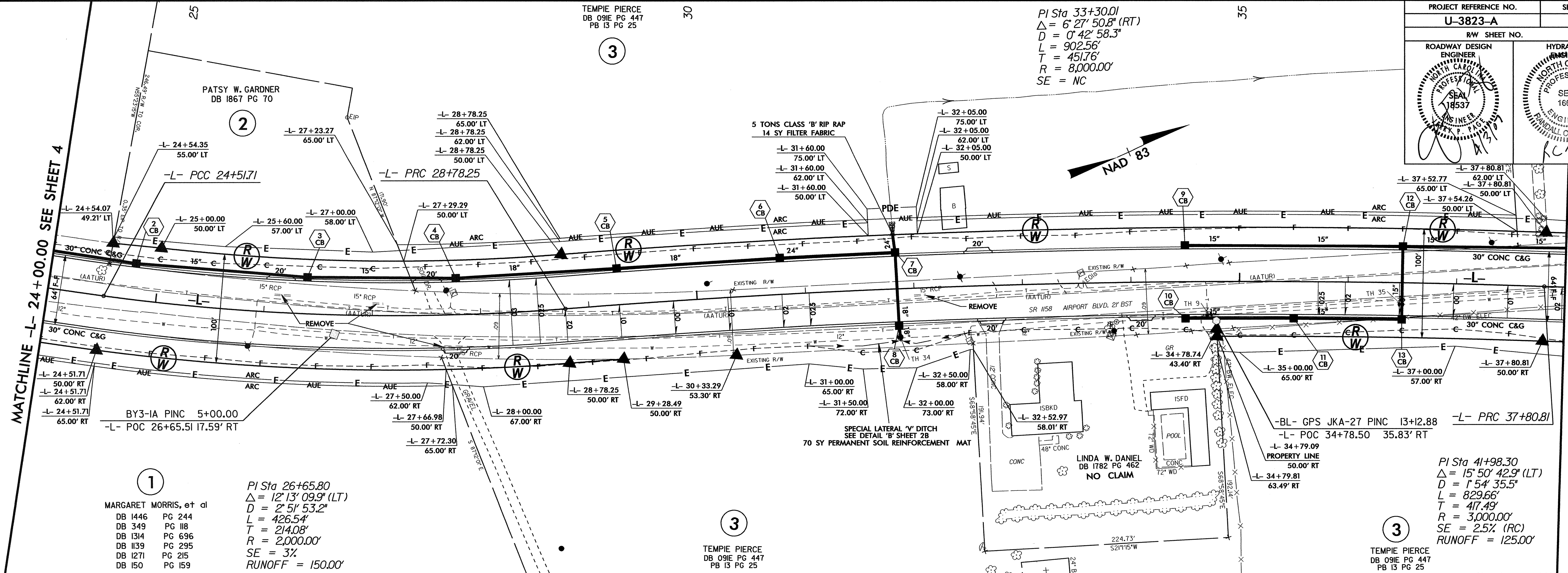
REVISIONS

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HP-4500

PROJECT REFERENCE NO. U-3823-A	SHEET NO. 5
R/W SHEET NO. 4&5	
ROADWAY DESIGN ENGINEER CARDINAL ENGINEERING PROFESSIONAL SEAL 18537	HYDRAULICS ENGINEER CARDINAL ENGINEERING PROFESSIONAL SEAL 16800

PI Sta 33+30.01
 $\Delta = 6' 27" 50.8" (RT)$
 $D = 0' 42" 58.3"$
 $L = 902.56'$
 $T = 451.76'$
 $R = 8,000.00'$
 $SE = NC$



1
 MARGARET MORRIS, et al
 DB 1446 PG 244
 DB 349 PG 118
 DB 1314 PG 696
 DB 1139 PG 295
 DB 1271 PG 215
 DB 150 PG 159

PI Sta 26+65.80
 $\Delta = 12' 13" 09.9" (LT)$
 $D = 2' 51" 53.2"$
 $L = 426.54'$
 $T = 214.08'$
 $R = 2,000.00'$
 $SE = 3\%$
 $RUNOFF = 150.00'$

3
 TEMPIE PIERCE
 DB 091E PG 447
 PB 13 PG 25

3
 TEMPIE PIERCE
 DB 091E PG 447
 PB 13 PG 25

PI Sta 41+98.30
 $\Delta = 15' 50" 42.9" (LT)$
 $D = 1' 54" 35.5"$
 $L = 829.66'$
 $T = 417.49'$
 $R = 3,000.00'$
 $SE = 2.5\% (RC)$
 $RUNOFF = 125.00'$

BM #1 ELEV. 144.54'
 -BL- STA 12+16 12' RT
 -L- STA 33+86 52' RT

PI = 34+50.00
 EL = 141.10'
 VC = 200.00'
 K = 169

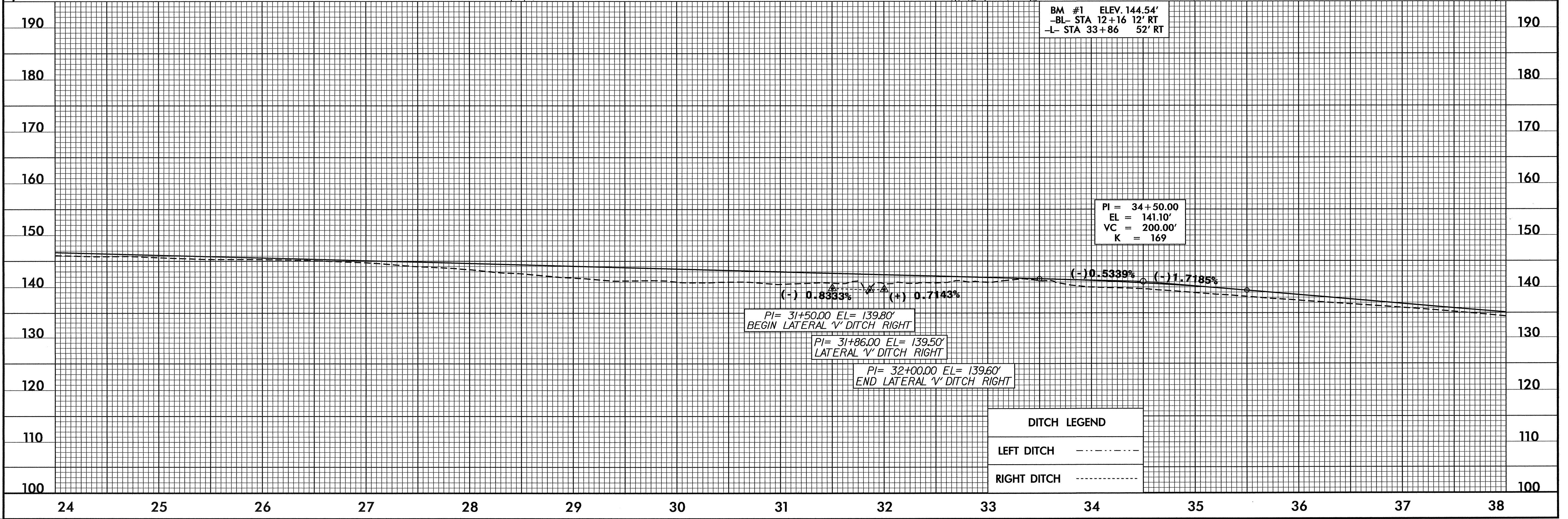
(-) 0.8333% (+) 0.7143%

PI= 31+50.00 EL= 139.80'
 BEGIN LATERAL V DITCH RIGHT

PI= 31+86.00 EL= 139.50'
 LATERAL V DITCH RIGHT

PI= 32+00.00 EL= 139.60'
 END LATERAL V DITCH RIGHT

DITCH LEGEND	
LEFT DITCH	-----
RIGHT DITCH	-----



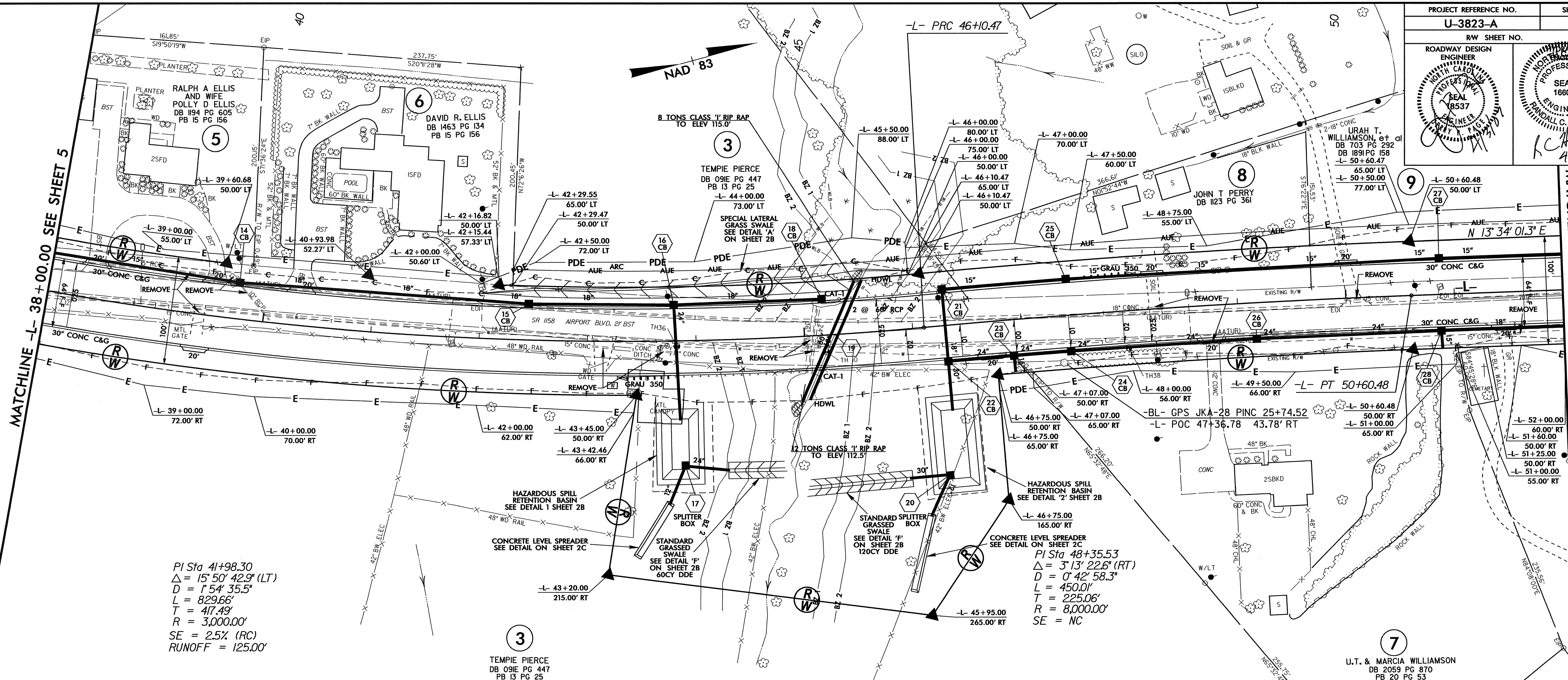
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REVISIONS

MATCHLINE -L- 24+00.00 SEE SHEET 4

MATCHLINE -L- 38+00.00 SEE SHEET 6

PROJECT REFERENCE NO. U-3823-A	SHEET NO. 6
R/W SHEET NO. 5&6	
ROADWAY DESIGN ENGINEER	PROFESSIONAL ENGINEER SEAL 16800
	PROFESSIONAL ENGINEER SEAL 18537

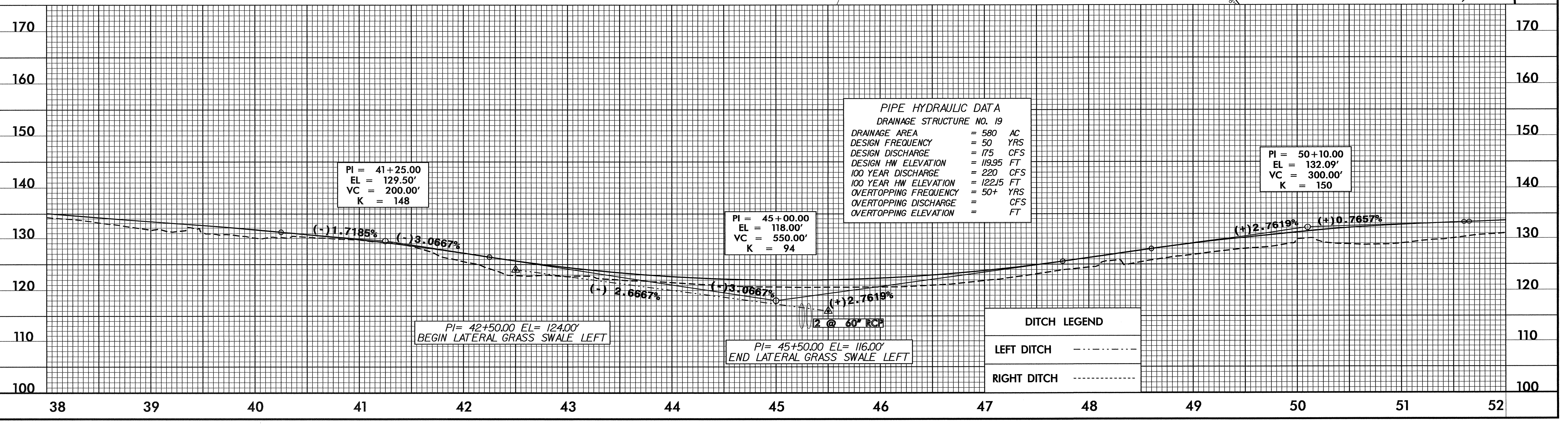


$PI\ Sta\ 41+98.30$
 $\Delta = 15^\circ 50' 42.9" (LT)$
 $D = 1,54' 35.5"$
 $L = 829.66'$
 $T = 417.49'$
 $R = 3,000.00'$
 $SE = 2.5\% (RC)$
 $RUNOFF = 125.00'$

$PI\ Sta\ 48+35.53$
 $\Delta = 3^\circ 13' 22.6" (RT)$
 $D = 0^\circ 42' 58.3"$
 $L = 450.01'$
 $T = 225.06'$
 $R = 8,000.00'$
 $SE = NC$

3
 TEMPIE PIERCE
 DB 091E PG 447
 PB 13 PG 25

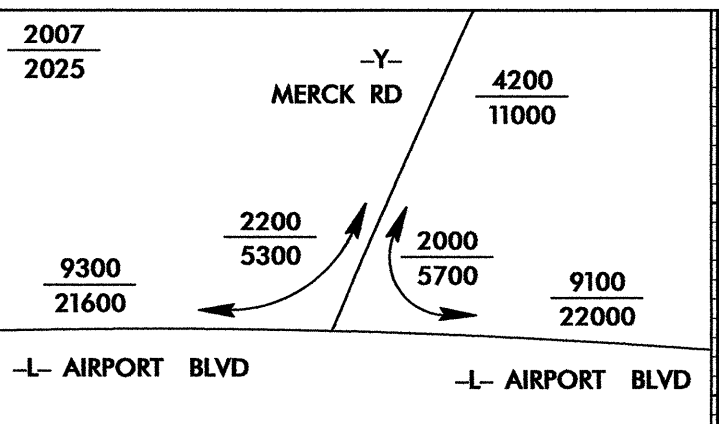
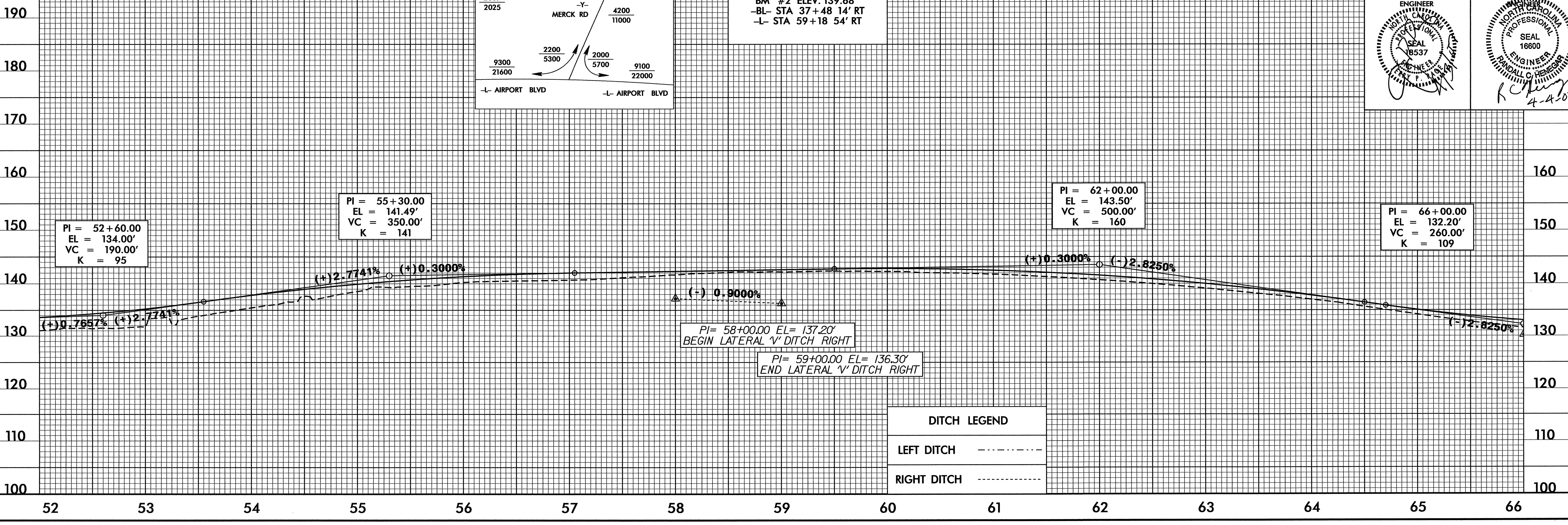
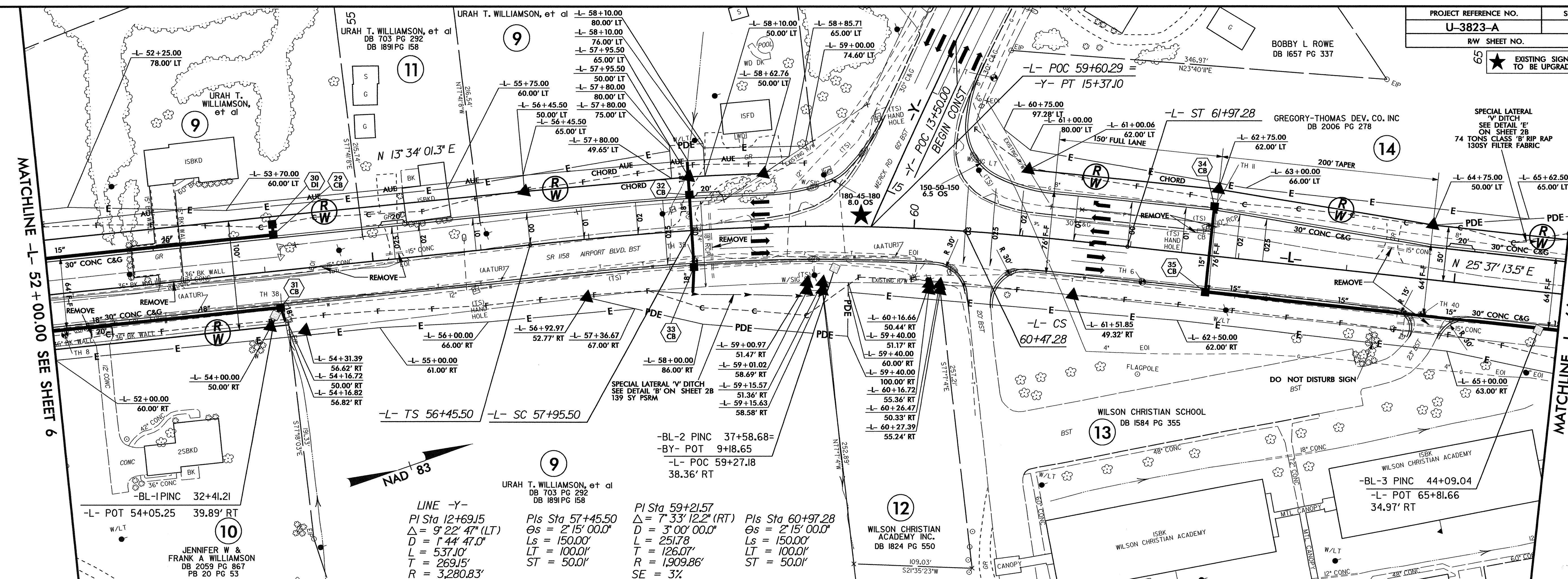
7
 U.T. & MARCIA WILLIAMSON
 DB 2059 PG 870
 PB 20 PG 53



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REVISIONS

EXISTING SIGNAL TO BE UPGRADED



BM #2 ELEV. 139.68'
 -BL- STA 37+48 14' RT
 -L- STA 59+18 54' RT

DITCH LEGEND

LEFT DITCH	-----
RIGHT DITCH	-----

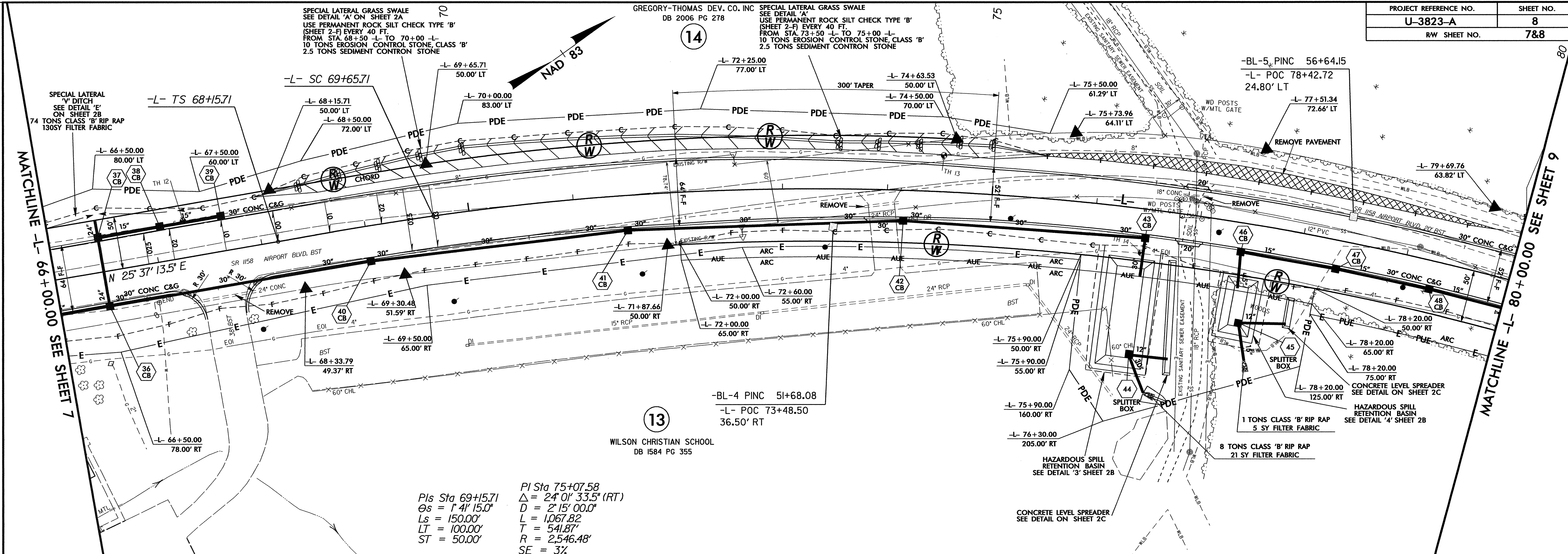
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

190
180
170
160
150
140
130
120
110
100

160
150
140
130
120
110
100

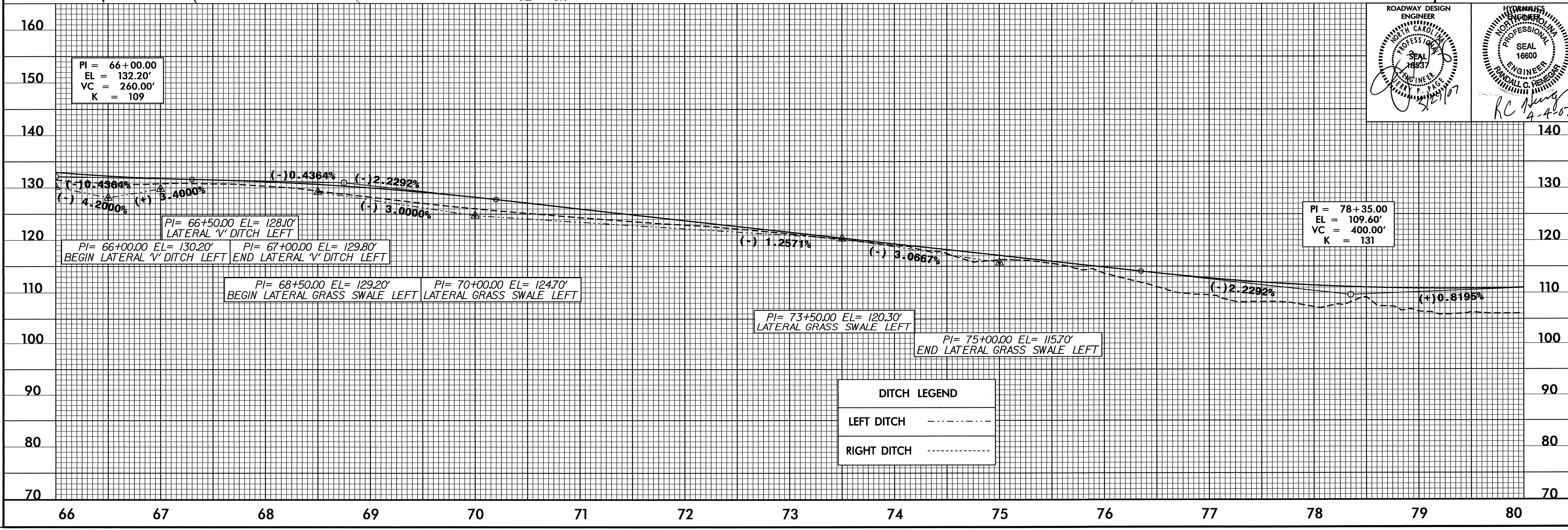
52 53 54 55 56 57 58 59 60 61 62 63 64 65 66



PI Sta 69+15.71
 $\Delta s = 1' 41.15.0"$
 $L_s = 150.00'$
 $LT = 100.00'$
 $ST = 50.00'$

PI Sta 75+07.58
 $\Delta = 24' 01.33.5" (RT)$
 $D = 2' 15.00.0"$
 $L = 1,067.82'$
 $T = 541.87'$
 $R = 2,546.48'$
 $SE = 3\%$

REVISIONS



PI = 66+00.00
 EL = 132.20'
 VC = 260.00'
 K = 109

PI = 66+50.00 EL = 128.10'
 LATERAL V' DITCH LEFT

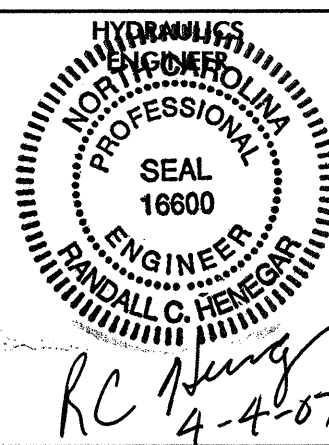
PI = 66+00.00 EL = 130.20' PI = 67+00.00 EL = 129.80'
 BEGIN LATERAL V' DITCH LEFT END LATERAL V' DITCH LEFT

PI = 68+50.00 EL = 129.20' PI = 70+00.00 EL = 124.70'
 BEGIN LATERAL GRASS SWALE LEFT LATERAL GRASS SWALE LEFT

PI = 73+50.00 EL = 120.30'
 LATERAL GRASS SWALE LEFT

PI = 75+00.00 EL = 115.70'
 END LATERAL GRASS SWALE LEFT

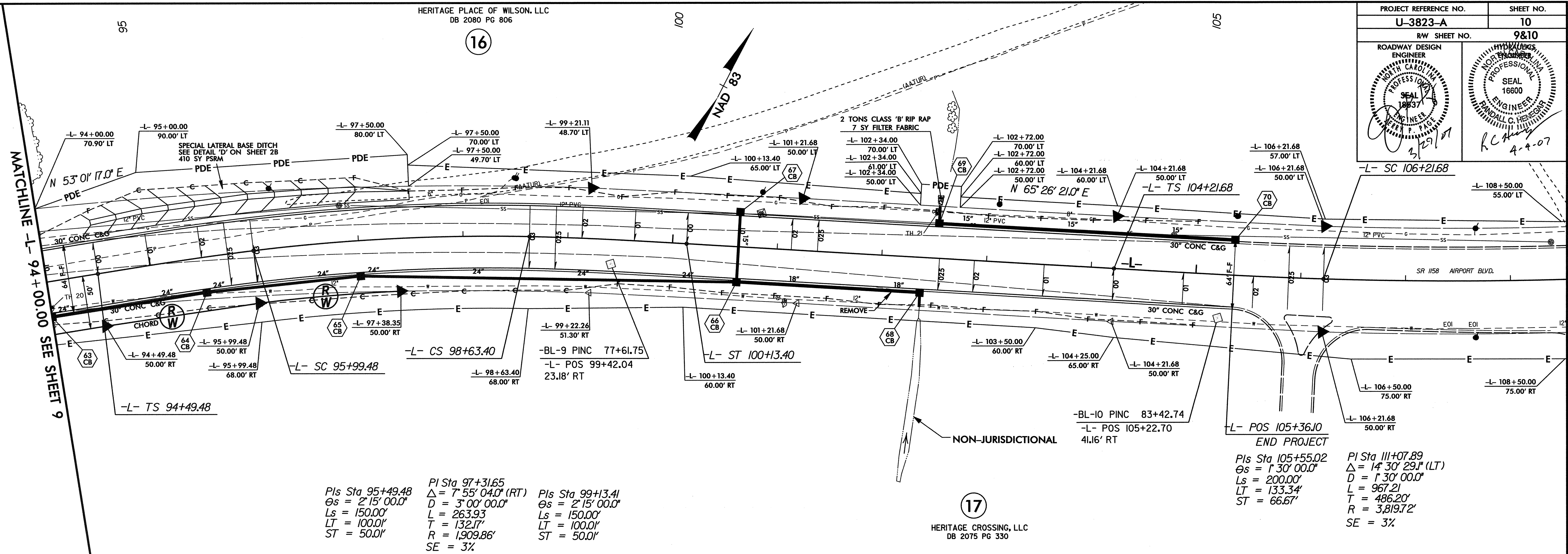
PI = 78+35.00
 EL = 109.60'
 VC = 400.00'
 K = 131



HP4500

HERITAGE PLACE OF WILSON, LLC
DB 2080 PG 806

PROJECT REFERENCE NO. U-3823-A	SHEET NO. 10
RW SHEET NO. 9&10	
ROADWAY DESIGN ENGINEER	HYDRAULIC DESIGN ENGINEER



Pls Sta 95+49.48
 $\Delta s = 2' 15'' 00.0''$
 $L_s = 150.00'$
 $LT = 100.01'$
 $ST = 50.01'$

PI Sta 97+31.65
 $\Delta = 7' 55'' 04.0'' (RT)$
 $D = 3' 00'' 00.0''$
 $L = 263.93$
 $T = 132.17'$
 $R = 1,909.86'$
 $SE = 3\%$

Pls Sta 99+13.41
 $\Delta s = 2' 15'' 00.0''$
 $L_s = 150.00'$
 $LT = 100.01'$
 $ST = 50.01'$

17
HERITAGE CROSSING, LLC
DB 2075 PG 330

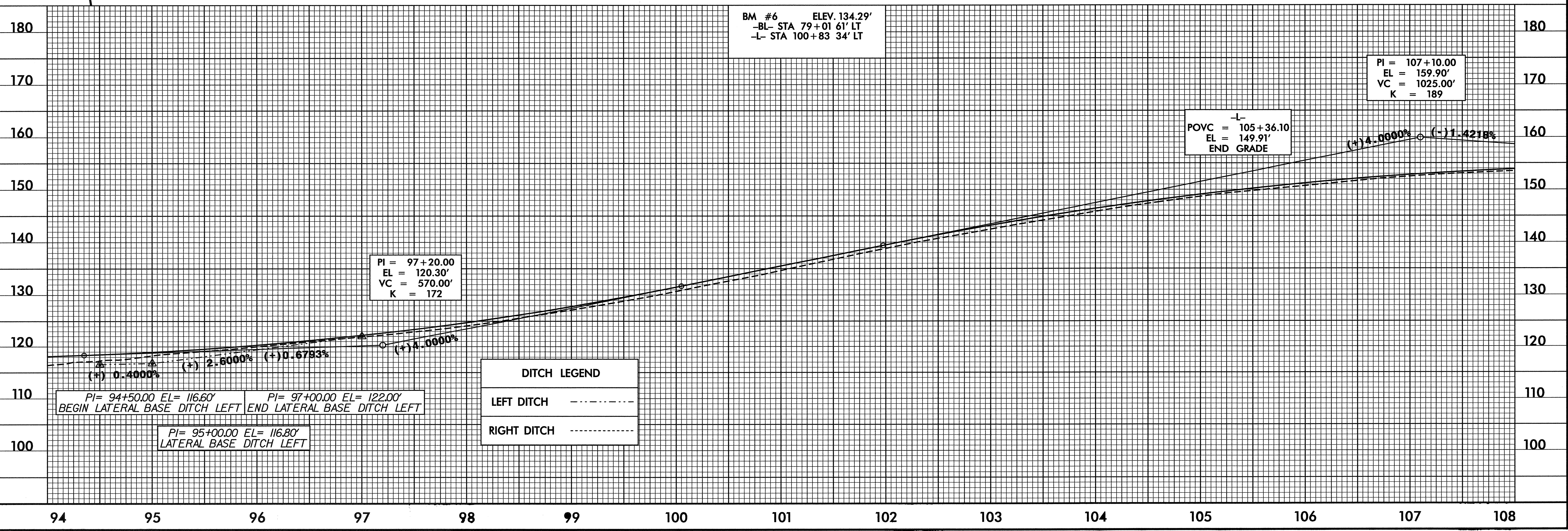
PI Sta 105+36.10
 $\Delta s = 1' 30'' 00.0''$
 $D = 1' 30'' 00.0''$
 $L_s = 200.00'$
 $LT = 133.34'$
 $ST = 66.67'$

PI Sta 107+07.89
 $\Delta = 1' 30'' 29.1'' (LT)$
 $D = 1' 30'' 00.0''$
 $L_s = 967.21$
 $T = 486.20'$
 $R = 3,819.72'$
 $SE = 3\%$

BM #6 ELEV. 134.29'
 -BL- STA 79+01 61' LT
 -L- STA 100+83 34' LT

PI = 107+10.00
 EL = 159.90'
 VC = 1025.00'
 K = 189

-L-
 POVC = 105+36.10
 EL = 149.91'
 END GRADE



DITCH LEGEND	
LEFT DITCH	-----
RIGHT DITCH	-----

PI= 94+50.00 EL= 116.60'
 BEGIN LATERAL BASE DITCH LEFT END LATERAL BASE DITCH LEFT

PI= 97+00.00 EL= 122.00'
 END LATERAL BASE DITCH LEFT

PI= 95+00.00 EL= 116.80'
 LATERAL BASE DITCH LEFT

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