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REFERENCE: R-5705B

PROJECT: 46377

SEE SHEET 3 FOR PLAN SHEET LAYOUT
AT TIME OF INVESTIGATION

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5705B	1	162

ROADWAY
SUBSURFACE INVESTIGATION

COUNTY HARNETT & WAKE
PROJECT DESCRIPTION NC 55 FROM NC 210 IN
HARNETT COUNTY TO SR 4809 (JICARILLA LANE)
IN WAKE COUNTY

INVENTORY

CONTENTS

LINE	STATION	PLAN
-L-	246+00 TO 485+57	4 TO 21
-Y6-	12+25 TO 18+00	7
-Y7-	10+80 TO 15+75	10
-Y8-	10+00 TO 22+38	14, 22
-Y9-	9+64 TO 15+25	15
-Y10-	10+00 TO 15+39	16
-Y11-	10+00 TO 14+88	16
-Y12REV-	10+00 TO 19+47	16, 23
-Y12AREV-	10+00 TO 12+56	23
-Y13-	10+00 TO 13+10	16
-Y13A-	10+00 TO 11+17	16
-Y14-	10+00 TO 12+70	17
-Y15-	10+00 TO 12+75	18
-Y16-	10+00 TO 11+25	19
-Y17-	7+75 TO 13+44	19, 20
-Y18-		21
-Y19-	11+00 TO 12+00	14
-Y20-	10+00 TO 12+00	14
-Y21-	10+00 TO 11+00	19
-Y22-	10+00 TO 18+29	14, 22
-Y23-	10+00 TO 12+62	14
-LDRVI-	9+95 TO 12+25	15

CROSS SECTIONS

LINE	STATION	SHEETS
-L-	246+00 TO 485+57	24-118
-Y6-	12+50 TO 17+50	119-120
-Y7-	11+25 TO 15+75	121-128
-Y8-	11+00 TO 22+00	129-135
-Y9-	10+25 TO 15+50	136-144
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-Y12AREV-	10+50	153
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CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

- NOTES:
1. THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
 2. BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

M. STANBURY

C. MCILROY

C. STEPHENS

M. SNYDER, PE

SUBTERRA EXP.

INVESTIGATED BY N. MOHS, LG

DRAWN BY C. STEPHENS, N. MOHS

CHECKED BY S. JOHNSON, PE, PG

SUBMITTED BY N. MOHS, LG

DATE NOVEMBER 2021



DocuSigned by:
Nathan Mohs 11/18/2021
35A8C1164EEA400...
SIGNATURE DATE

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

09/08/2019

See Sheet 1A For Index of Sheets

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5705B	3	162
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46377.1.3		PE	
46377.2.2		ROW	

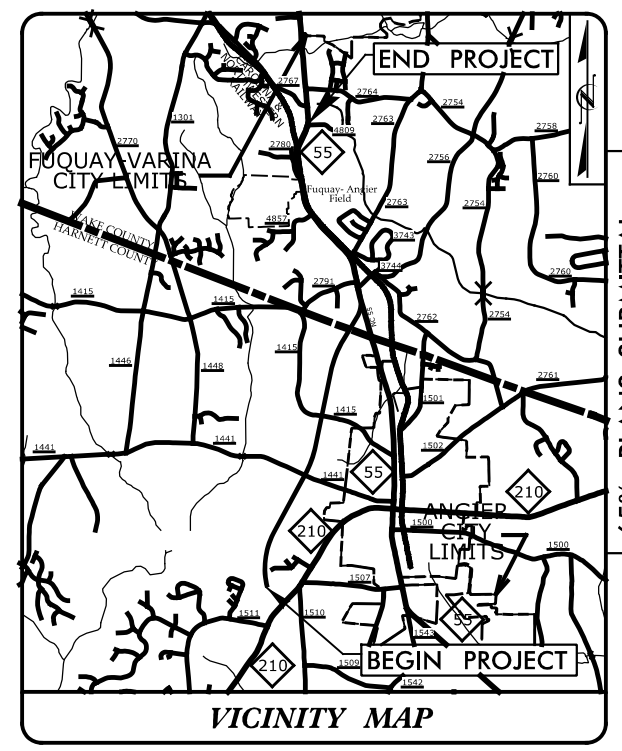
HARNETT & WAKE COUNTY

LOCATION: NC 55 FROM NC 210 TO SR 4809 (JICARILLA LANE)

TYPE OF WORK: PAVING, GRADING, DRAINAGE & CULVERT



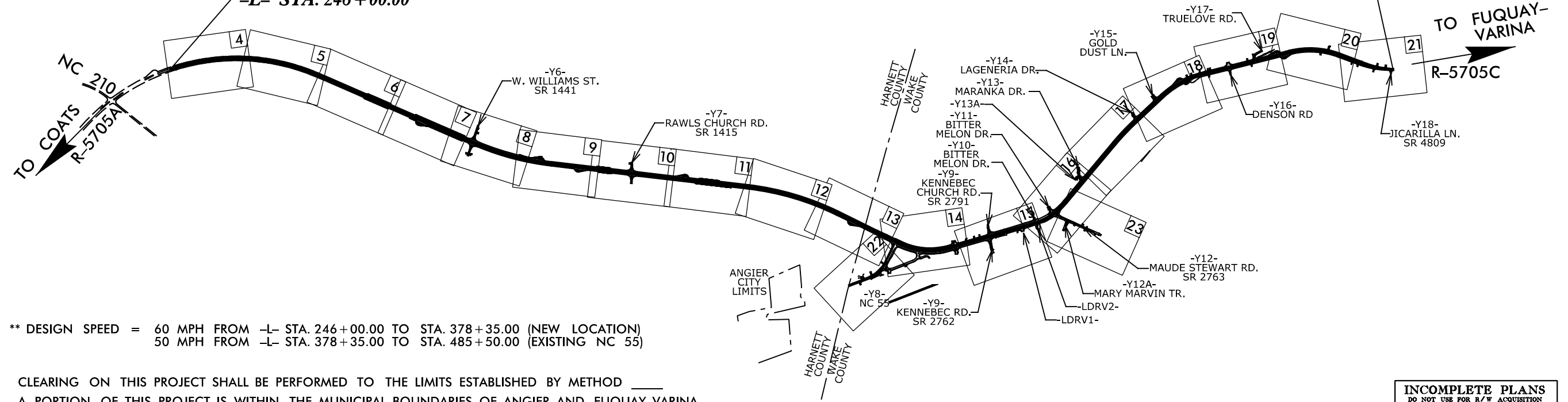
TIP PROJECT: R-5705B



VICINITY MAP

END TIP PROJECT R-5705B
-L- STA. 485 + 57.00

BEGIN TIP PROJECT R-5705B
-L- STA. 246 + 00.00

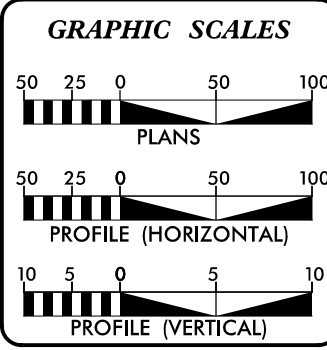


** DESIGN SPEED = 60 MPH FROM -L- STA. 246+00.00 TO STA. 378+35.00 (NEW LOCATION)
50 MPH FROM -L- STA. 378+35.00 TO STA. 485+50.00 (EXISTING NC 55)

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD ____
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF ANGIER AND FUQUAY-VARINA.
THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH FULL CONTROLLED ACCESS AT U-TURN BULBS.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL
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CONTRACT:



DESIGN DATA

ADT 2022 =	30,200
ADT 2042 =	44,400
K =	9 %
D =	60 %
T =	4 % *
**V =	50 & 60 MPH
* TTST =	1% DUAL 3%
FUNC CLASS =	MINOR ARTERIAL
REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY PROJECT R-5705B	=	4.537	MILES
LENGTH STRUCTURE PROJECT R-5705B	=	0.000	MILES
TOTAL LENGTH PROJECT	=	4.537	MILES

Prepared For:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

By:
TGS ENGINEERS
706 HILLSBOROUGH ST
SUITE 200
RALEIGH, NC 27603

PH (919) 773-8887
CORP. LICENSE NO.: C-0275

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 22, 2020

LETTING DATE:
OCTOBER 18, 2022

TOMMY REGISTER, P.E.
PROJECT ENGINEER

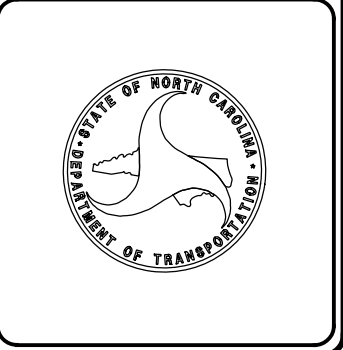
NICOLE M. HACKLER, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



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November 8, 2021

STATE PROJECT: 46377.1.3 (R-5705B)
PROJECT ID: 35270
COUNTY: Harnett & Wake
DESCRIPTION: NC 55 from NC 210 in Harnett County to SR 4809 (Jicarilla Lane) in Wake County
SUBJECT: Geotechnical Report – Inventory

Project Description

This project consists of the widening of NC 55 (-L-) in Angier. The existing roadway will be partially realigned to the west and widened from two to four lanes. The project begins 1.0 miles south of W. Williams St. (-Y6-) and continues for 4.4 miles to Jicarilla Ln. (-Y18-). A new intersection will be built at -L- Station 382+52 and NC 55 (-Y8-). Improvements will also be made to smaller intersecting streets (-Y6- through -Y21-).

The geotechnical field investigation was conducted from April to June of 2021. One hundred twenty-one (121) Standard Penetration Test borings were performed with track and trailer mounted Diedrich D-50 drill rigs. Ten (10) hand auger borings were also performed. Representative soil samples were collected for visual classification in the field and submitted for laboratory analysis by Terracon Inc. in Raleigh, NC.

The following alignments, totaling 5.6 miles, were investigated. Subsurface cross-sections of these alignments are included in this report:

<u>Line</u>	<u>Stations</u>		
-L-	246+00	to	485+57
-Y6-	12+25	to	18+00
-Y7-	10+80	to	15+00
-Y8-	10+00	to	22+38
-Y9-	9+64	to	15+25
-Y10-	10+00	to	15+39
-Y12REV-	12+25	to	14+06
-Y12AREV-	10+00	to	12+56
-Y14-	10+00	to	12+70
-Y15-	10+00	to	12+75
-Y16-	10+00	to	11+25
-LDRV1-	9+95	to	12+25

Physiography and Geology

The project is located in the gently rolling terrain of the eastern Piedmont area of North Carolina. A mixture of farmland, woods, and single-family homes are located along the project corridor.

Geologically, the project lies on the boundary between the Coastal Plain and Piedmont Physiographic Provinces of North Carolina. The Coastal Plain is a wedge of sedimentary material that thickens toward

the Atlantic Ocean and overlies crystalline basement rock. These soils were deposited in nearshore and marine environments during multiple transgression-regression cycles of the Atlantic Ocean over millions of years. A review of the Geologic Map of North Carolina 1985 shows the Coastal Plain sediments along the project corridor belong to the Cretaceous age Middendorf Formation (Km) as well as Terrace Deposits.

The Piedmont Physiographic Province contains soils that are derived from the in place weathering of parent rocks. Many times the soils retain the original rock fabric of the parent rock and are described as saprolitic. The project area is underlain by non-crystalline phyllite (CZph).

Soil Properties

Soils encountered at the project site include roadway embankment, artificial fill, Coastal Plain, and Residual soils.

Roadway embankment underlies the portions of the existing lanes of NC 55 and the project -Y- lines. Much of the existing roads are at or slightly cut into the natural ground surface, with little to no additional fill placed. Where encountered most of the embankment soil is 1 to 2 feet thick. Embankment heights increase leading up to -L- station 472+50 where there is a bridge over a farm road, where they are up to 27 feet in height. Where sampled, the embankment soil consists of dry to moist, stiff to very stiff, silty clay, sandy clay and sandy silt (AASHTO classifications of A-7-6, A-6, and A-4), with some loose to medium dense, dry to moist, silty sand (A-2-4). PI ranges from non-plastic to 28.

Artificial fill soils were also encountered. A large pile of fill material is located right of -L- from approximate station 163+75 to 165+20. This material appears to have been recently dumped on private property that is partially within current and proposed right-of-way. The fill material appears to be mostly sandy, however trash and other debris (bricks, concrete, rope, fabric) were observed with it. Other areas of artificial fill are noted along the project. These areas are associated with utility backfill, landscaping, and general grading of commercial properties, and consists of brown, loose, silty sand (A-2-4). PI ranges from 5 to 34.

Terrace Deposits of the Coastal Plain soils were encountered in two borings. The Terrace Deposit soils consist of orange, gray, and brown, moist, dense, silty sand (A-2-4), and silty clay and sandy clay (A-7-5, A-6) with trace gravel. PI ranges from 24 to 27.

Middendorf Formation soils were encountered along most of the project. These soils consist of moist to wet, loose, silty sand and clayey sand (A-2-4, A-2-6), and medium stiff, sandy clay and silty clay (A-6, A-7-6). Significant amounts of these soils have PI above 20 and are considered to be highly plastic. PI ranges from 3 to 40.

Residual soils were encountered at the ground surface in some locations and in deeper borings below some Coastal Plain soils. The residual soils consist mainly of gray and brown, very stiff to hard, sandy silt and clayey silt (A-4, A-5), and dense, silty sand (A-2-4). PI ranges from 6 to 38.

Groundwater

Groundwater was encountered in many borings at varying depths across this project. 0 hour ground water levels range from 1.0 to 22.7 feet below the ground surface. Stabilized ground water levels were measured 24 hours after boring completion with depths ranging from 1.0 to 18.2 feet below the ground surface. Areas of ground water within 6.0 feet of proposed grade are listed in "Areas of Special Geotechnical Interest".

Culvert

A proposed culvert is located at -L- Station 313+23. Three SPT borings were performed at along the culvert. Soils consist of very stiff to hard, residual, sandy silt (A-4). Groundwater was measured in all three borings ranging in depth from 1 to 2 feet below the existing ground surface.

Areas of Special Geotechnical Interest

1. **Cohesive Soils**: Soils that do not meet Coastal Plain Borrow Criteria; those with Plastic Indices (PI) greater than 20, more than 50% passing the #200 sieve, and soft or wet soils were encountered on the project at the following locations:


<u>Line</u>	<u>Stations</u>
-L-	247+50 to 267+50
-L-	277+50 to 296+50
-L-	302+50
-L-	311+33
-L-	315+00
-L-	320+00
-L-	330+00
-L-	335+00
-L-	340+00 to 342+50
-L-	350+00
-L-	357+50 to 360+00
-L-	362+50
-L-	367+50 to 375+00
-L-	380+00 to 397+70
-L-	406+49 to 407+50
-L-	410+00 to 432+50
-L-	437+50 to 452+50
-L-	457+50 to 462+50
-L-	470+00
-L-	482+50 to 848+90
-Y7-	11+50 to 14+25
-Y8-	11+00 to 21+00
-Y9-	10+50 to 15+50
-Y12REV-	10+85 to 13+75
-Y14-	12+50
-Y16-	10+75

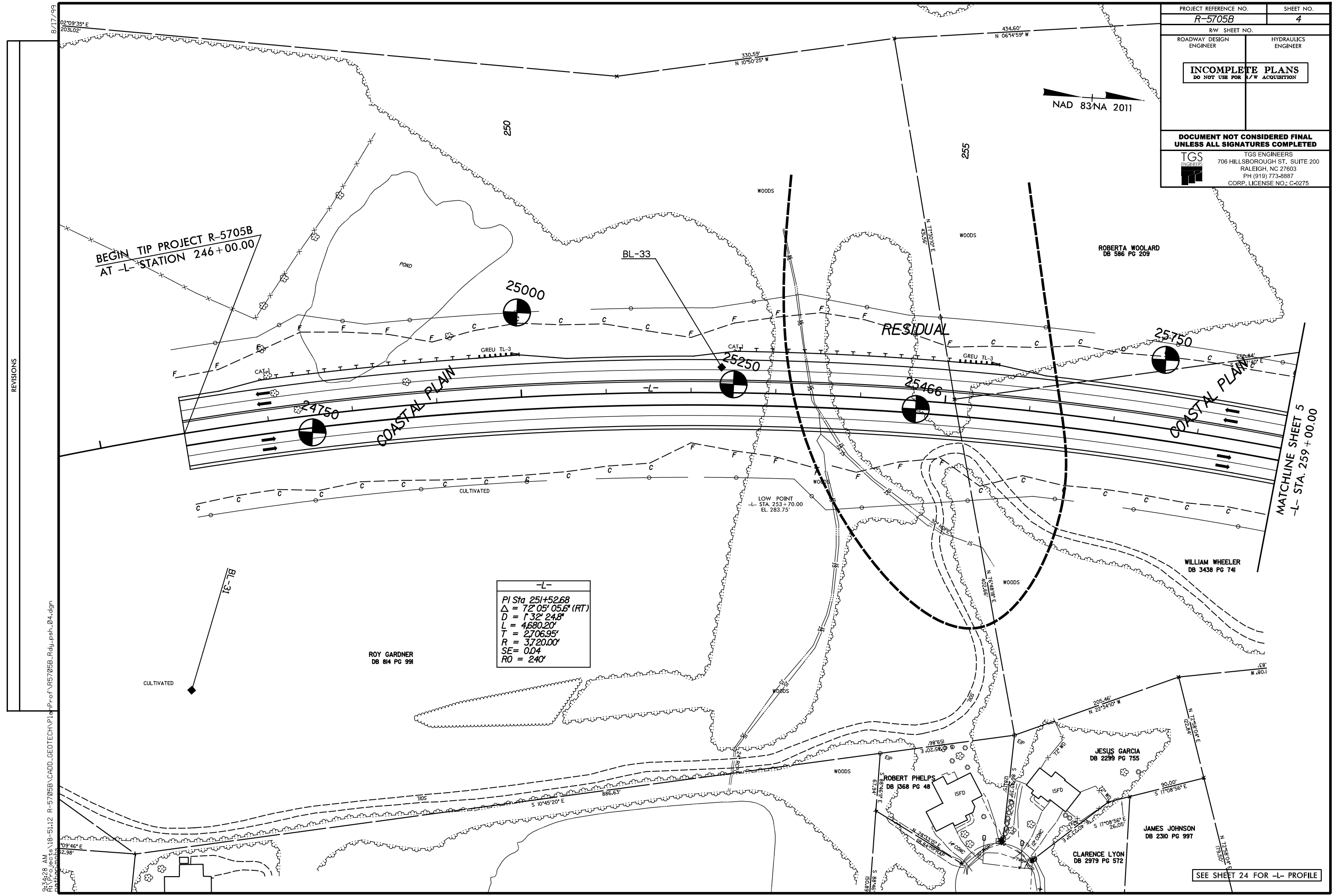
2. High Groundwater: The following areas exhibit groundwater within 6.0 feet of proposed grade:

<u>Line</u>	<u>Stations</u>
-L-	247+50 to 252+00
-L-	256+00 to 260+00
-L-	273+00 to 279+00
-L-	303+00 to 307+00
-L-	322+50 to 325+00
-L-	330+00 to 342+00
-L-	367+00 to 370+50
-L-	375+00
-L-	380+00
-L-	384+00 TO 389+00
-L-	400+00 to 406+00
-L-	428+00 to 432+00
-L-	441+00 to 447+00
-L-	451+00 to 458+00
-L-	467+00 to 472+00
-Y7-	11+25 to 12+75
-Y9-	10+25 to 11+50
-Y10-	14+25 to 15+00
-Y14-	11+25 to 12+25

3. Ponds: Ponds are located within the proposed construction limits at the following locations:

<u>Line</u>	<u>Stations +/-</u>
-L-	284+00 LT
-L-	328+00 RT
-L-	338+00 CL

PROJECT REFERENCE NO. R-5705B		SHEET NO. 4	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
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**BEGIN TIP PROJECT R-5705B
AT -L- STATION 246+00.00**

25000

BL-33

25250

RESIDUAL

25466

25750

COASTAL PLAN

COASTAL PLAN

**MATCHLINE SHEET 5
-L- STA. 259+00.00**

LOW POINT
-L- STA. 253+70.00
EL. 283.75'

-L-	
PI Sta	251+52.68
Δ	72° 05' 05.6" (RT)
D	1° 32' 24.8"
L	4680.20'
T	2706.95'
R	3720.00'
SE	0.04
RO	240'

ROY GARDNER
DB 814 PG 991

WILLIAM WHEELER
DB 3438 PG 741

JESUS GARCIA
DB 2299 PG 755

ROBERT PHELPS
DB 368 PG 48


JAMES JOHNSON
DB 2310 PG 997

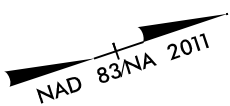
CLARENCE LYON
DB 2979 PG 572

SEE SHEET 24 FOR -L- PROFILE

REVISIONS

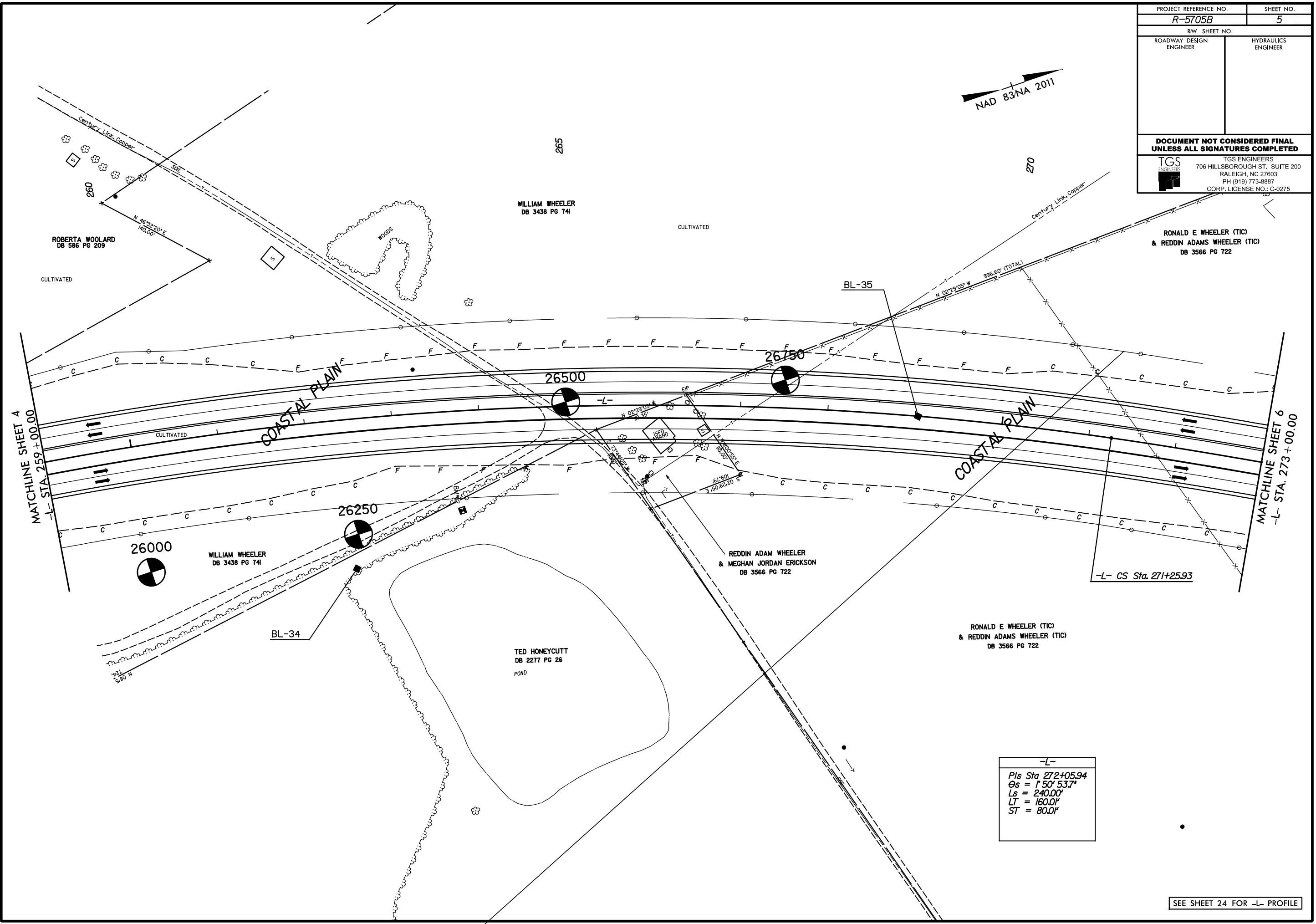
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 109° 46' E 2.98'

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RW SHEET NO.	
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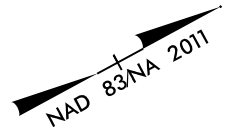
REVISIONS
 7-16-2021 (DRAFT) PARCEL 203 HAS BEEN SUBDIVIDED. REVISED PROPERTY LINES, OWNERS, DEED BOOK DATA AND EASEMENTS FOR PARCELS 203 & 203A.
 ADDED PARCEL NUMBER 203A(03E)

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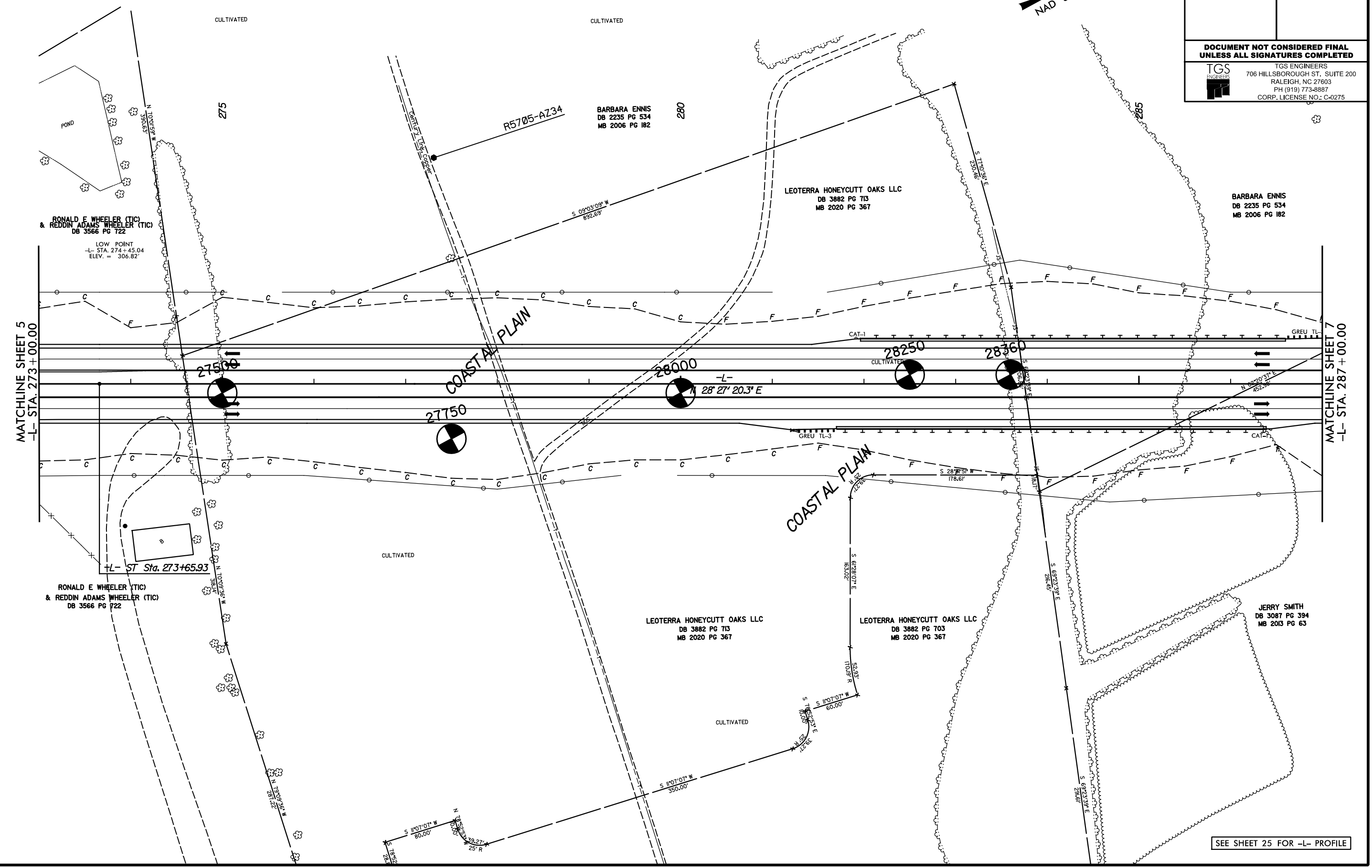
SEE SHEET 24 FOR -L- PROFILE

PROJECT REFERENCE NO. R-5705B	SHEET NO. 6
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
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REVISIONS
 7-16-2021 (DRAFT) REVISED PROPERTY LINES, OWNER & DEED BOOK DATA FOR PARCELS 203 & 205, ADDED PARCEL NUMBER 205A (DBE)

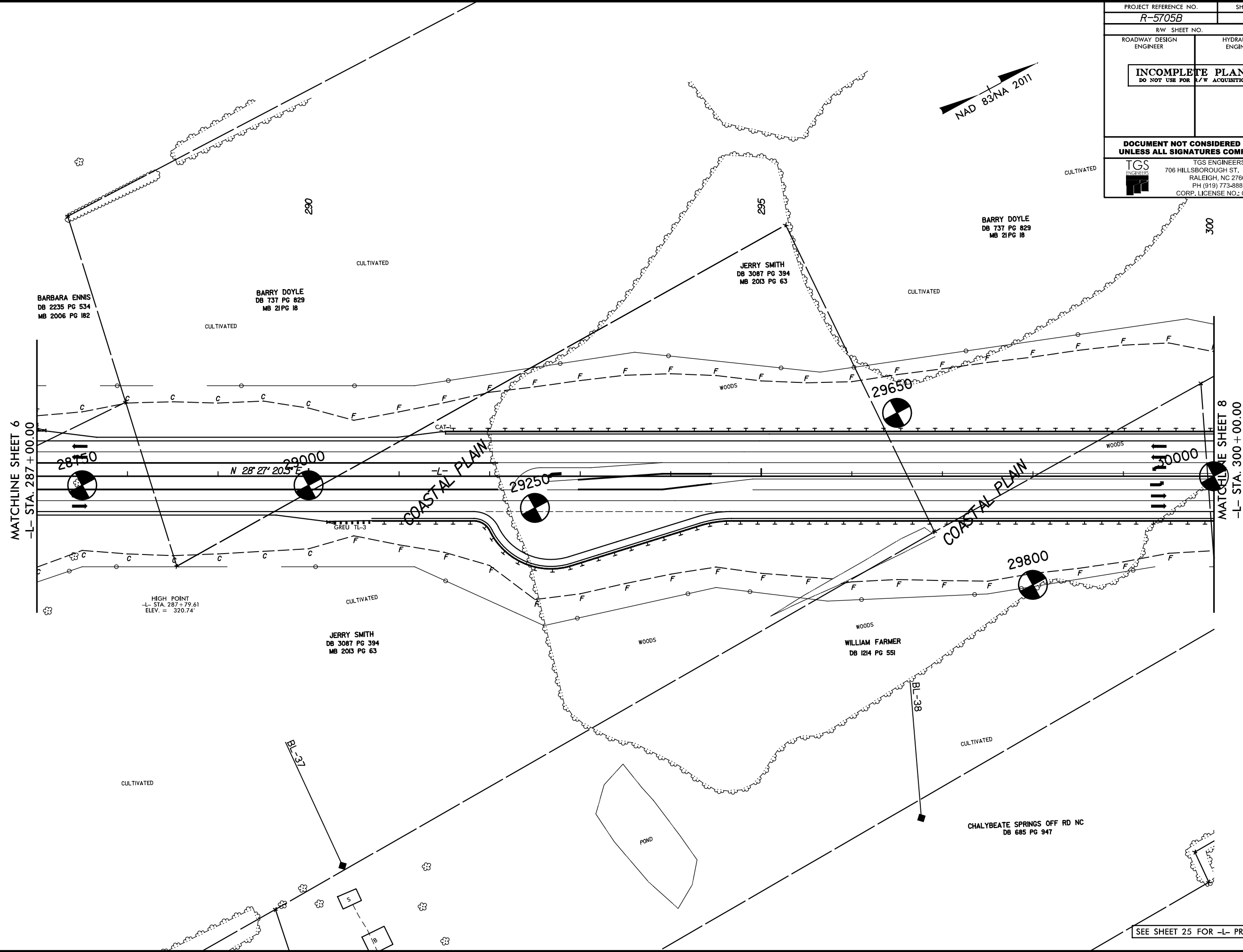
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 8/17/99



SEE SHEET 25 FOR -L- PROFILE

8/17/99


PROJECT REFERENCE NO. R-5705B		SHEET NO. 7	
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
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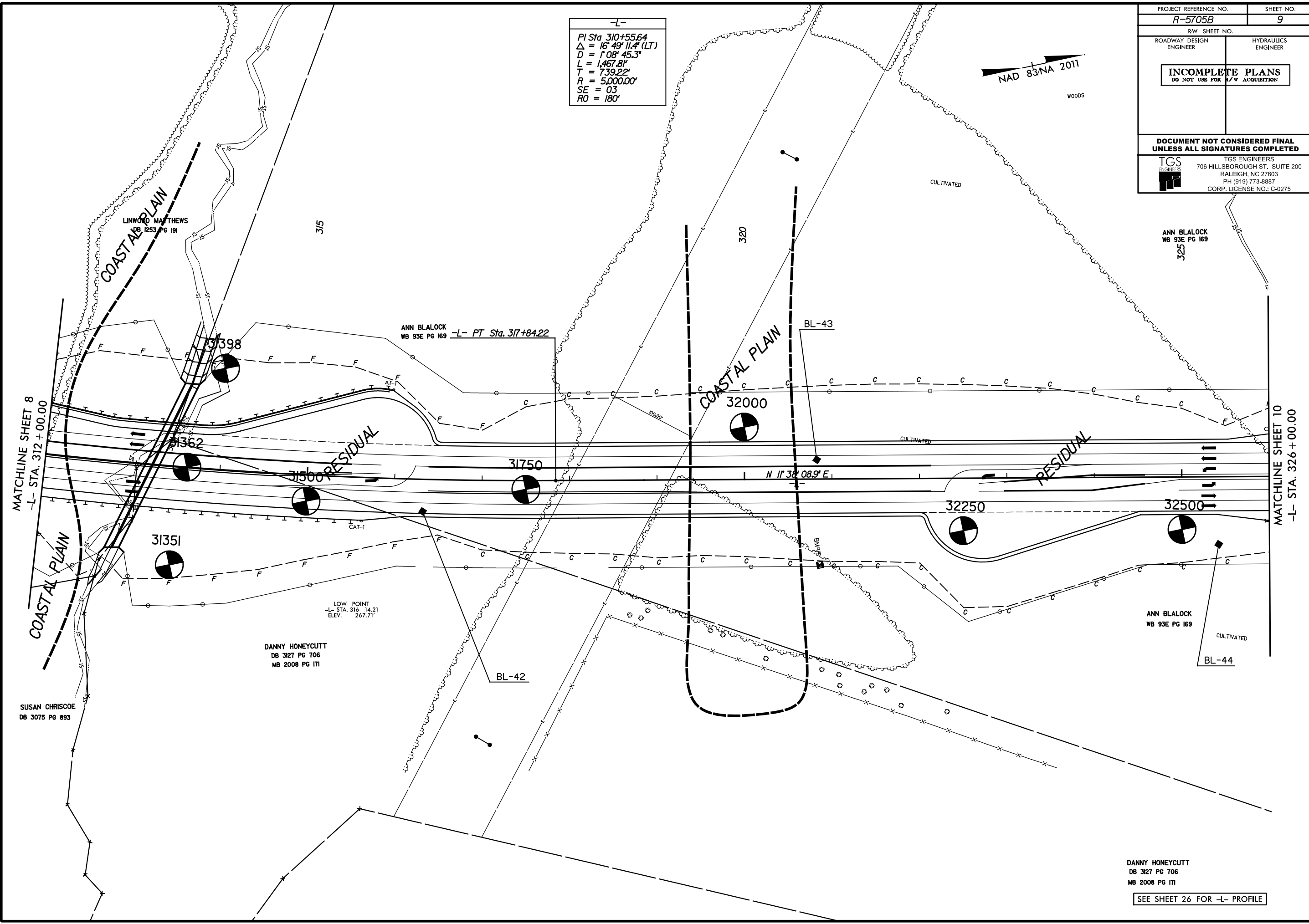
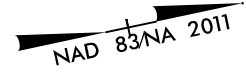
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SEE SHEET 25 FOR -L- PROFILE

8/17/99

PROJECT REFERENCE NO. R-5705B	SHEET NO. 9
RW SHEET NO.	
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 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

-L-
 PI Sta 310+55.64
 $\Delta = 16' 49'' 11.4'' (LT)$
 $D = 1' 08'' 45.3''$
 $L = 1,467.81'$
 $T = 739.22'$
 $R = 5,000.00'$
 $SE = 03$
 $RO = 180'$



MATCHLINE SHEET 8
-L- STA. 312 + 00.00

MATCHLINE SHEET 10
-L- STA. 326 + 00.00

LINWOOD MATTHEWS
DB 1253 PG 191

ANN BLALOCK
WB 93E PG 169 -L- PT Sta. 317+84.22

ANN BLALOCK
WB 93E PG 169


DANNY HONEYCUTT
DB 3127 PG 706
MB 2008 PG 171

SUSAN CHRISCOE
DB 3075 PG 893

DANNY HONEYCUTT
DB 3127 PG 706
MB 2008 PG 171

SEE SHEET 26 FOR -L- PROFILE

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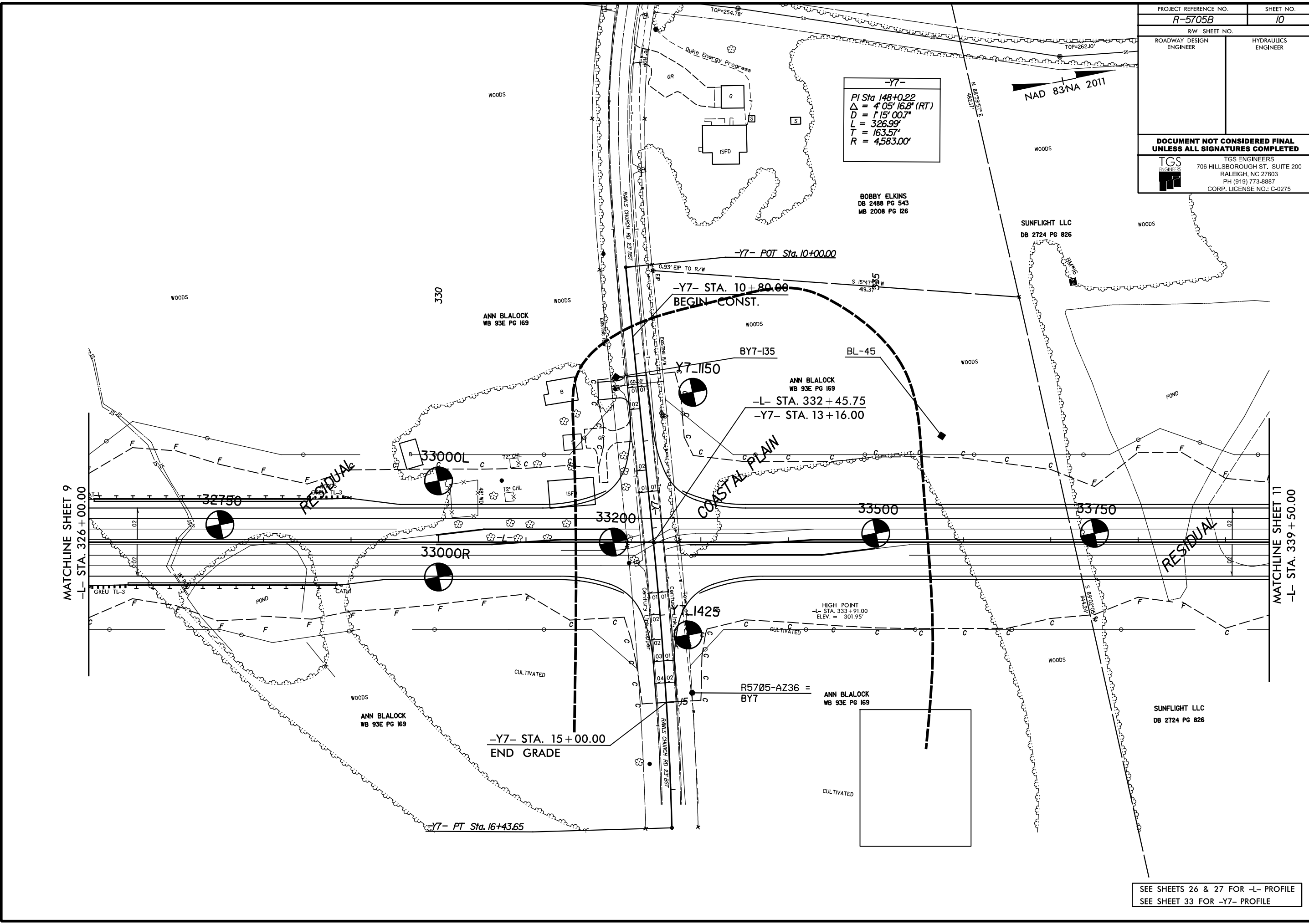
PROJECT REFERENCE NO. R-5705B	SHEET NO. 10
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

-Y7-
 PI Sta 148+0.22
 $\Delta = 4' 05" 16.8" (RT)$
 $D = 1' 15" 00.7"$
 $L = 326.99'$
 $T = 163.57'$
 $R = 4,583.00'$

BOBBY ELKINS
 DB 2488 PG 543
 MB 2008 PG 126


SUNLIGHT LLC
 DB 2724 PG 826

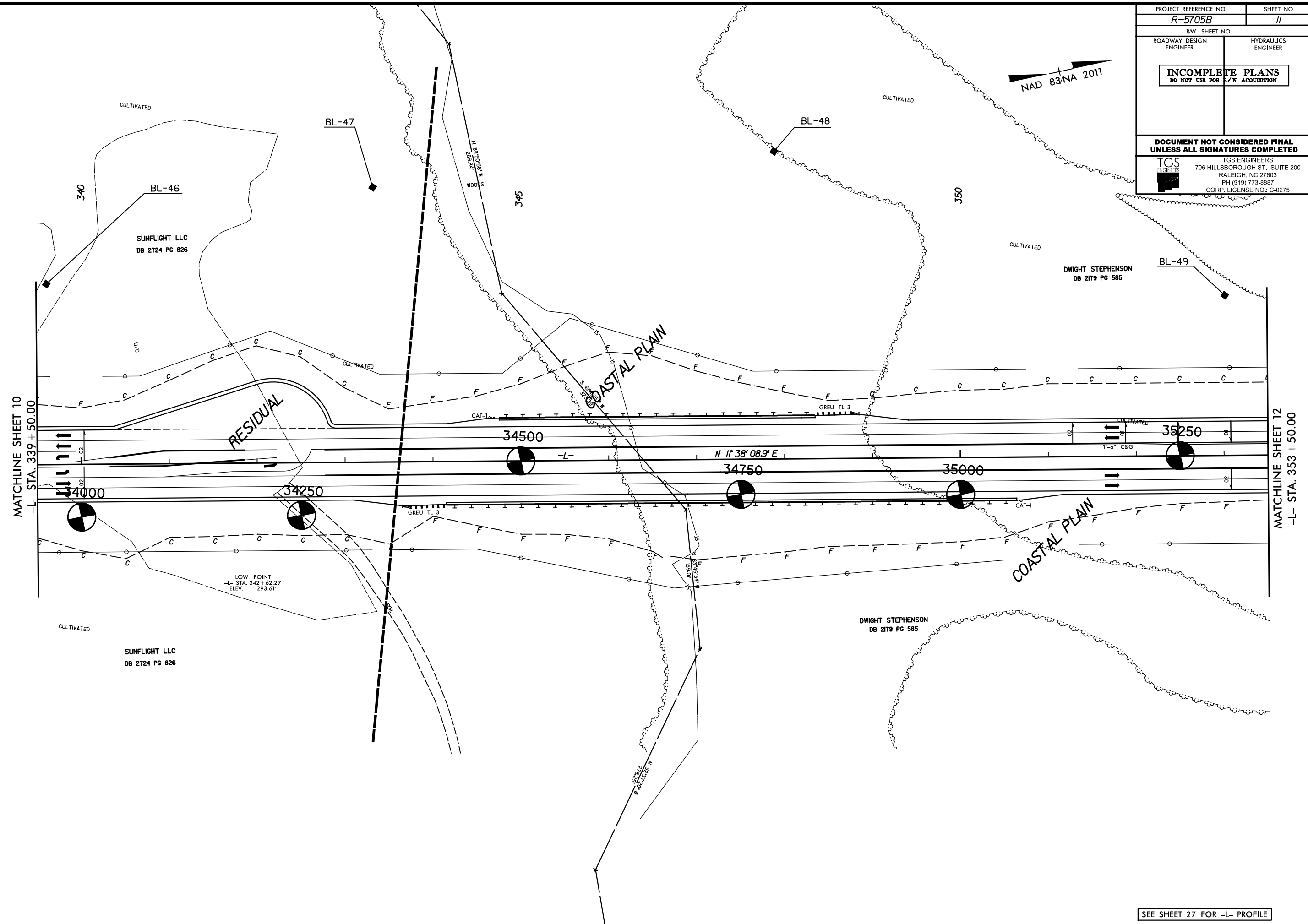
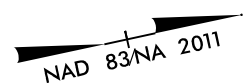
REVISIONS
 7-16-2021 (DRAFT) REVISED PUE ON PARCEL 218.(DBE)
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 R:\Projects\18-51112 R-5705B\CADD_GEO\TECH\Plan\Prof\185705B_Rdy_psh_10.dgn



SEE SHEETS 26 & 27 FOR -L- PROFILE
 SEE SHEET 33 FOR -Y7- PROFILE


8/17/99

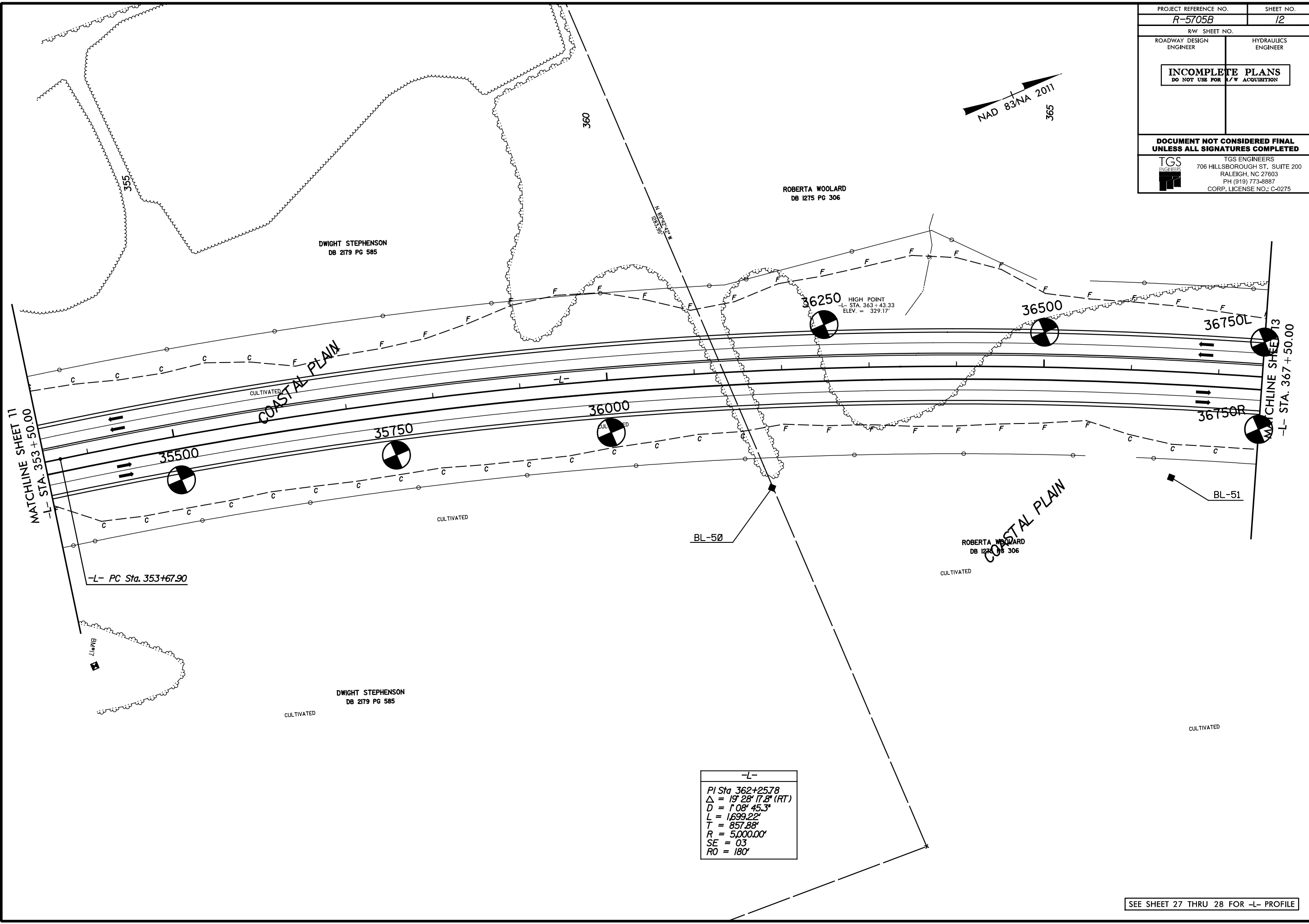
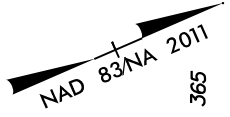
PROJECT REFERENCE NO. R-5705B	SHEET NO. 11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



SEE SHEET 27 FOR -L- PROFILE

8/17/99


PROJECT REFERENCE NO. R-5705B	SHEET NO. 12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



-L-
PI Sta. 362+2578 $\Delta = 19^{\circ} 28' 17.8''$ (RT) $D = 1^{\circ} 08' 45.3''$ $L = 1,699.22'$ $T = 857.88'$ $R = 5,000.00'$ $SE = 03$ $RO = 180'$

9:34:40 AM
 R:\Projects\18-5112 R-5705B\CADD_GEO\TECH\Plan\Prof\185705B_Rdy_psh_12.dgn
 8/17/99

SEE SHEET 27 THRU 28 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR L/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

-Y19-
 PI Sta 10+95.22
 $\Delta = 22^\circ 07' 54.7" (LT)$
 $D = 22^\circ 55' 05.9"$
 $L = 96.57'$
 $T = 48.89'$
 $R = 250.00'$

NAD 83/NA 2011

-L-
 PI Sta 387+98.92
 $\Delta = 42^\circ 06' 28.1" (LT)$
 $D = 4^\circ 35' 01.2"$
 $L = 918.65'$
 $T = 481.18'$
 $R = 1,250.00'$
 $SE = 04$
 $RO = 200'$

-Y23-
 PI Sta 10+51.42
 $\Delta = 49^\circ 52' 31.1" (LT)$
 $D = 95^\circ 29' 34.7"$
 $L = 52.23'$
 $T = 27.90'$
 $R = 60.00'$

-Y23-
 PI Sta 12+05.34
 $\Delta = 90^\circ 22' 50.2" (RT)$
 $D = 114^\circ 35' 29.6"$
 $L = 78.87'$
 $T = 50.33'$
 $R = 50.00'$

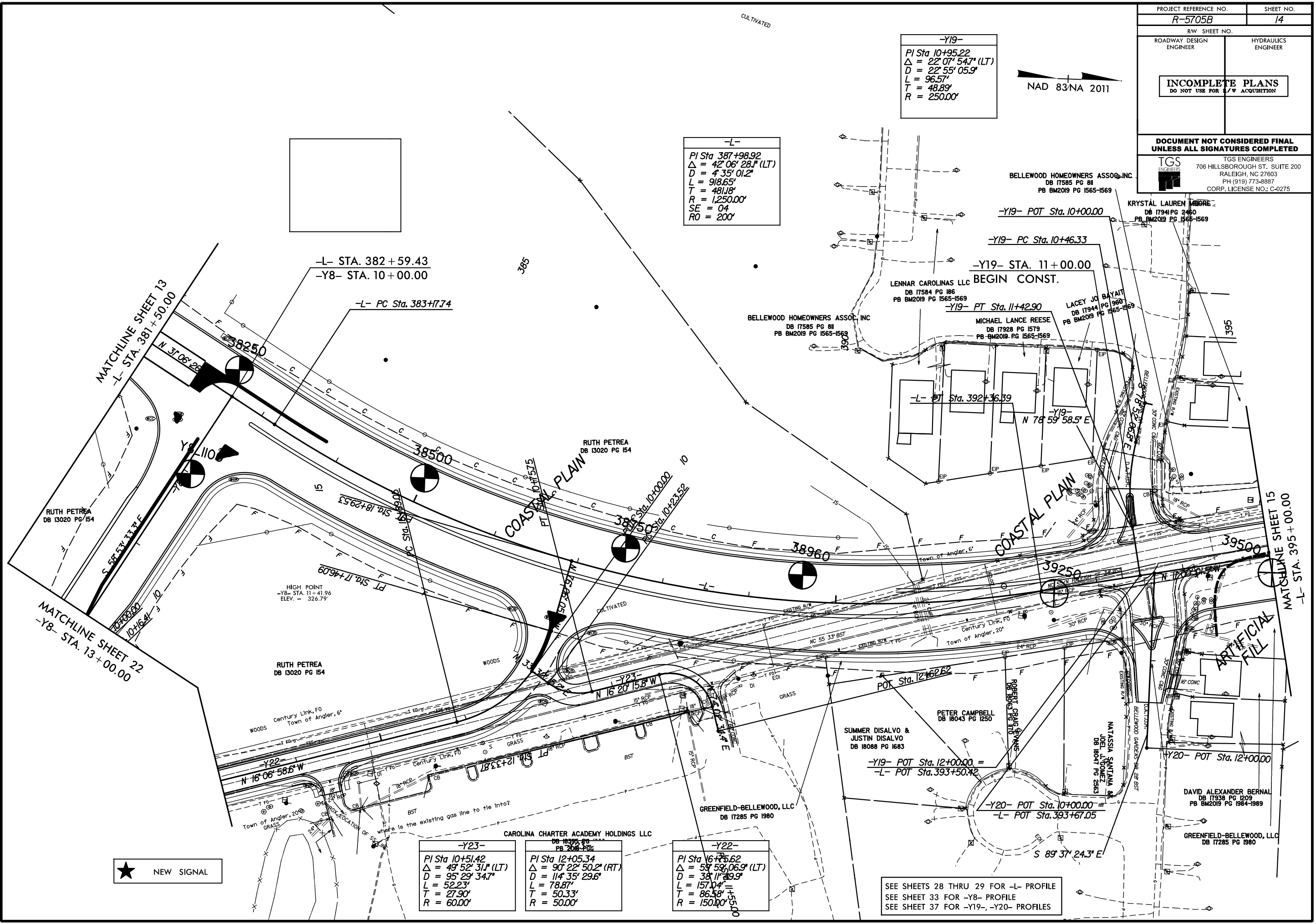
-Y22-
 PI Sta 16+35.62
 $\Delta = 59^\circ 59' 06.9" (LT)$
 $D = 38^\circ 11' 29.9"$
 $L = 157.04'$
 $T = 86.58'$
 $R = 150.00'$


SEE SHEETS 28 THRU 29 FOR -L- PROFILE
 SEE SHEET 33 FOR -Y8- PROFILE
 SEE SHEET 37 FOR -Y19-, -Y20- PROFILES

★ NEW SIGNAL

REVISIONS
 5-30-2021 DELETED PARCEL NUMBER 305, UPDATED SURVEYS AND ADDED PARCEL NUMBERS AND PROPERTY OWNER DATA FOR PARCELS 305A, 305B, 305C & 305D.
 7-16-2021 REVISED EASEMENTS ON PARCELS 304, 305A, 305B, 305C, 305D, 306 & 307, REMOVED PILE FROM PARCEL 308.
 8-17-2021 REMOVED C/A FENCE FROM -L- STA. 389+00 TO THE END OF THE SHEET (DBE)

9/31/24 AM
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 8/17/19

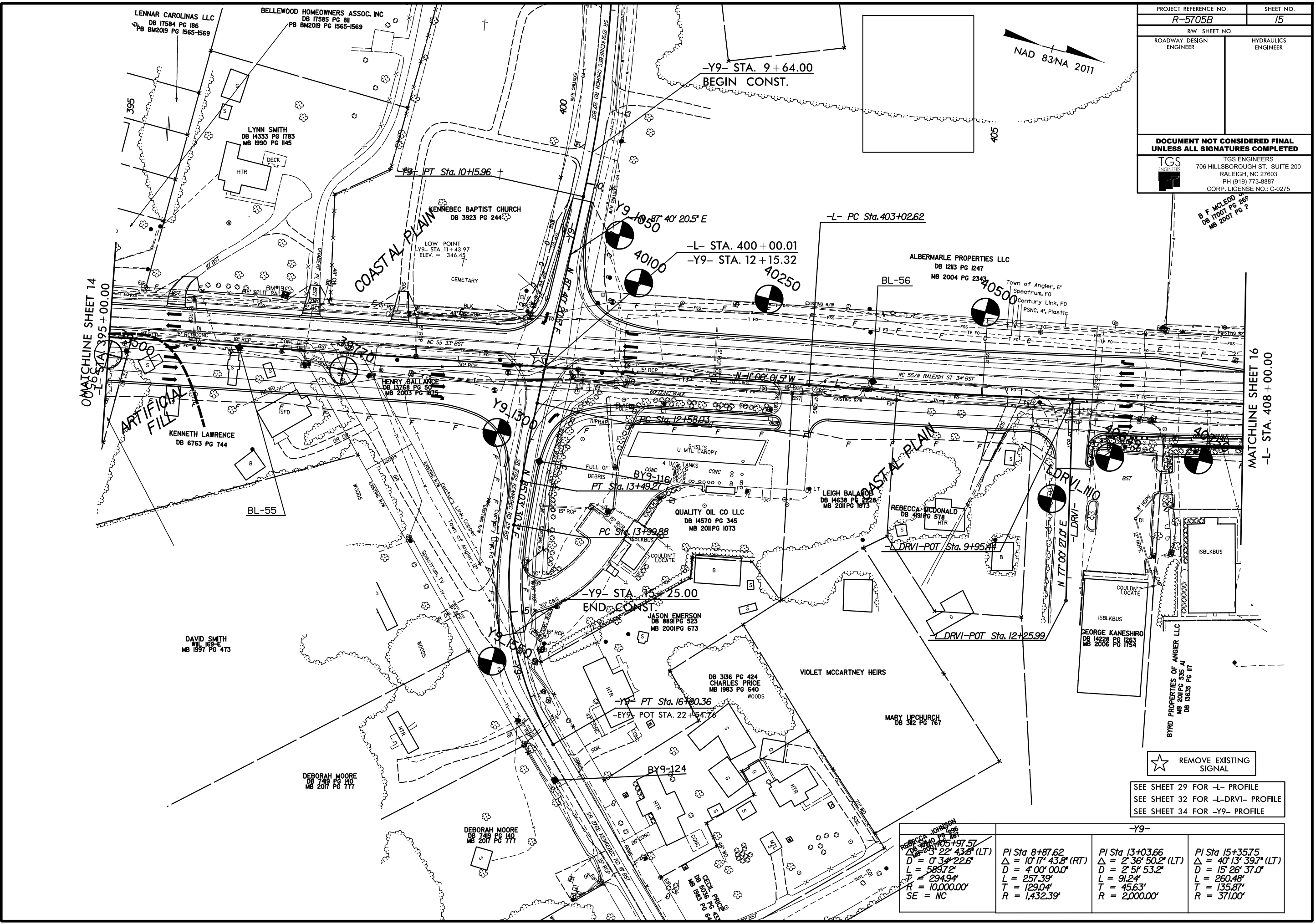


PROJECT REFERENCE NO.	SHEET NO.
R-5705B	15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



REVISIONS
 7-16-2021 (DRAFT) REVISED EASEMENTS ON PARCELS 232, 234, 236, 237, 238, 239, 240, 241 & 242. REMOVED PUE FROM PARCELS 233 & 308.
 UPDATED SURVEY ON PARCEL 240 TO SHOW GARAGE. REMOVED C/A FENCE FROM ENTIRE SHEET. (08E)

9:34:43 AM
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★ REMOVE EXISTING SIGNAL

SEE SHEET 29 FOR -L- PROFILE
 SEE SHEET 32 FOR -L-DRVI- PROFILE
 SEE SHEET 34 FOR -Y9- PROFILE

-Y9-			
PI Sta 8+87.62 $\Delta = 10' 17' 43.8''$ (RT) $D = 4' 00' 00.0''$ $L = 294.94'$ $T = 129.04'$ $R = 1,432.39'$ SE = NC	PI Sta 13+03.66 $\Delta = 2' 36' 50.2''$ (LT) $D = 2' 51' 53.2''$ $L = 91.24'$ $T = 45.63'$ $R = 2,000.00'$	PI Sta 15+35.75 $\Delta = 40' 13' 39.7''$ (LT) $D = 15' 26' 37.0''$ $L = 260.48'$ $T = 135.87'$ $R = 371.00'$	

MATCHLINE SHEET 14
-L- STA. 395+00.00

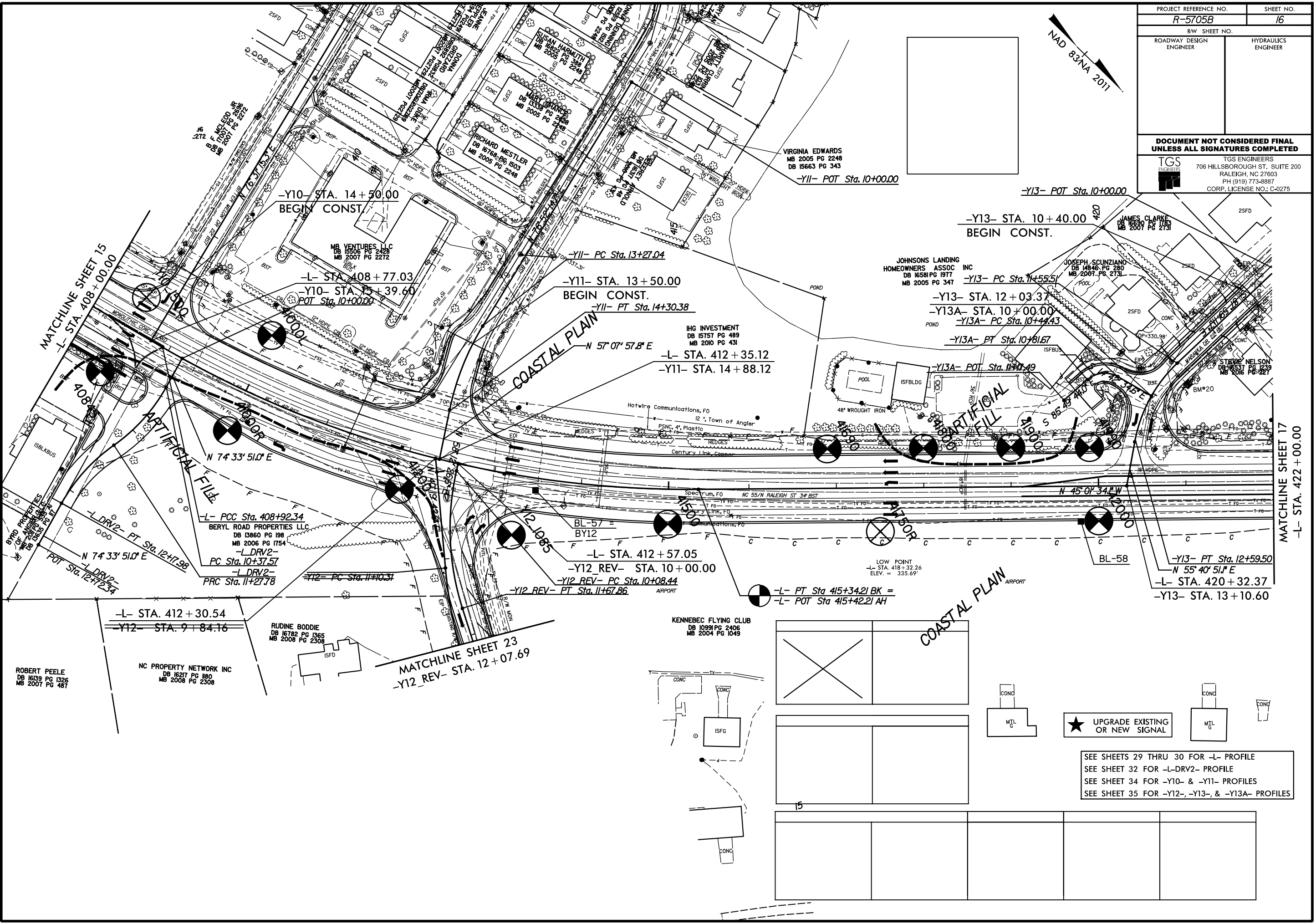
MATCHLINE SHEET 16
-L- STA. 408+00.00

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



REVISIONS
 6-23-2021 REVISED DESIGN FOR -Y12- REV- ALONG WITH PAV AND EASEMENTS FOR PARCELS 244,245 & 251 (DBE)
 7-16-2021 (DRAFT) REVISED EASEMENTS ON PARCELS 242,244,245 & 250, REMOVED C/A FENCE FROM ENTIRE SHEET (DBE)

8/17/99
 9:34:44 AM
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★ UPGRADE EXISTING OR NEW SIGNAL

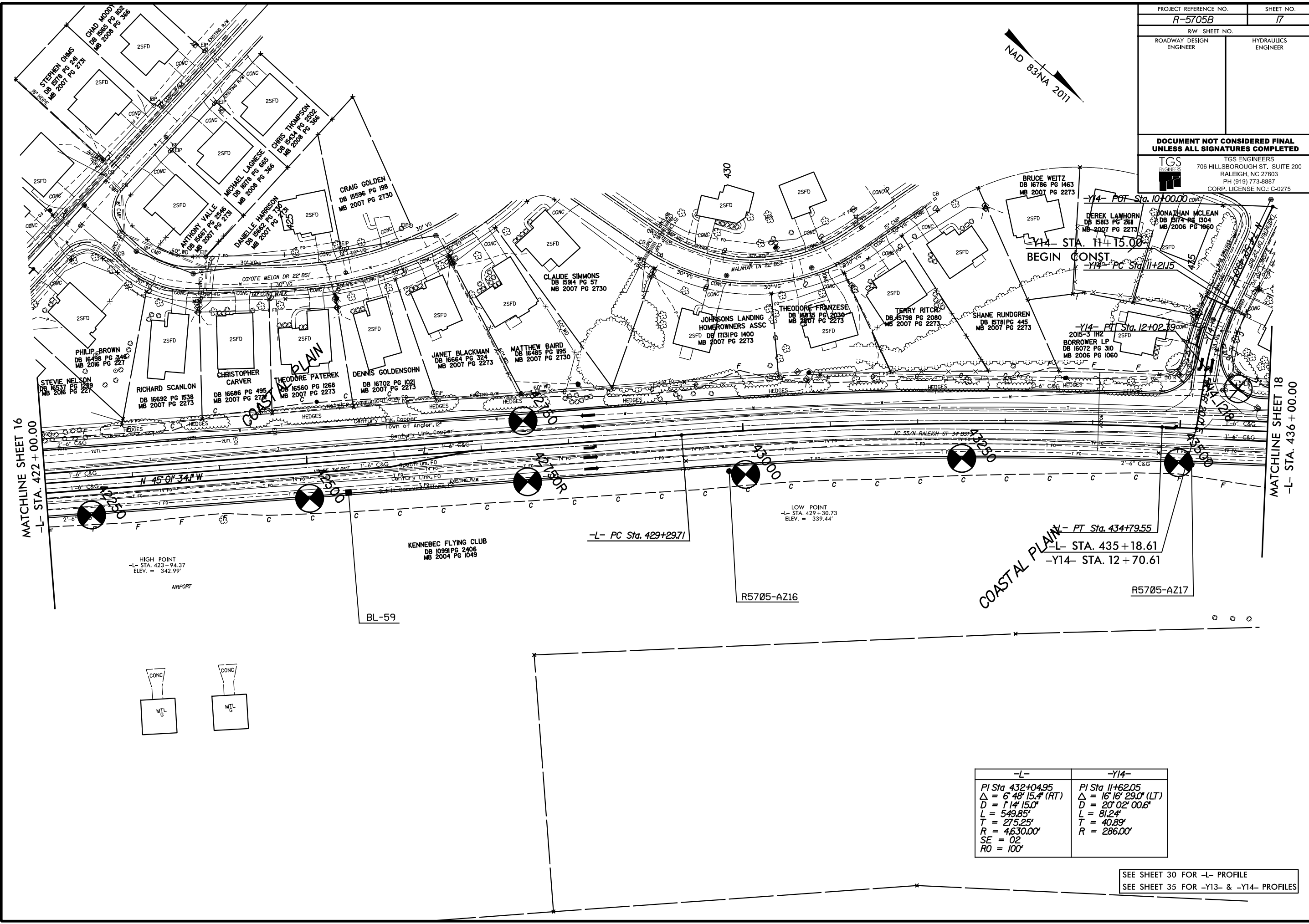
SEE SHEETS 29 THRU 30 FOR -L- PROFILE
 SEE SHEET 32 FOR -L-DRV2- PROFILE
 SEE SHEET 34 FOR -Y10- & -Y11- PROFILES
 SEE SHEET 35 FOR -Y12-, -Y13-, & -Y13A- PROFILES

MATCHLINE SHEET 15
 -L- STA. 408+00.00

MATCHLINE SHEET 23
 -Y12_REV- STA. 12+07.69

MATCHLINE SHEET 17
 -L- STA. 422+00.00

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



7-16-2021 (DRAFT) REMOVED C/A FENCE FROM ENTIRE SHEET (DBE)

8/17/99
9:34:46 AM
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HIGH POINT
-L- STA. 423+94.37
ELEV. = 342.99'

LOW POINT
-L- STA. 429+30.73
ELEV. = 339.44'

COASTAL PLAIN - PT Sta. 434+79.55
-L- STA. 435+18.61
-Y14- STA. 12+70.61

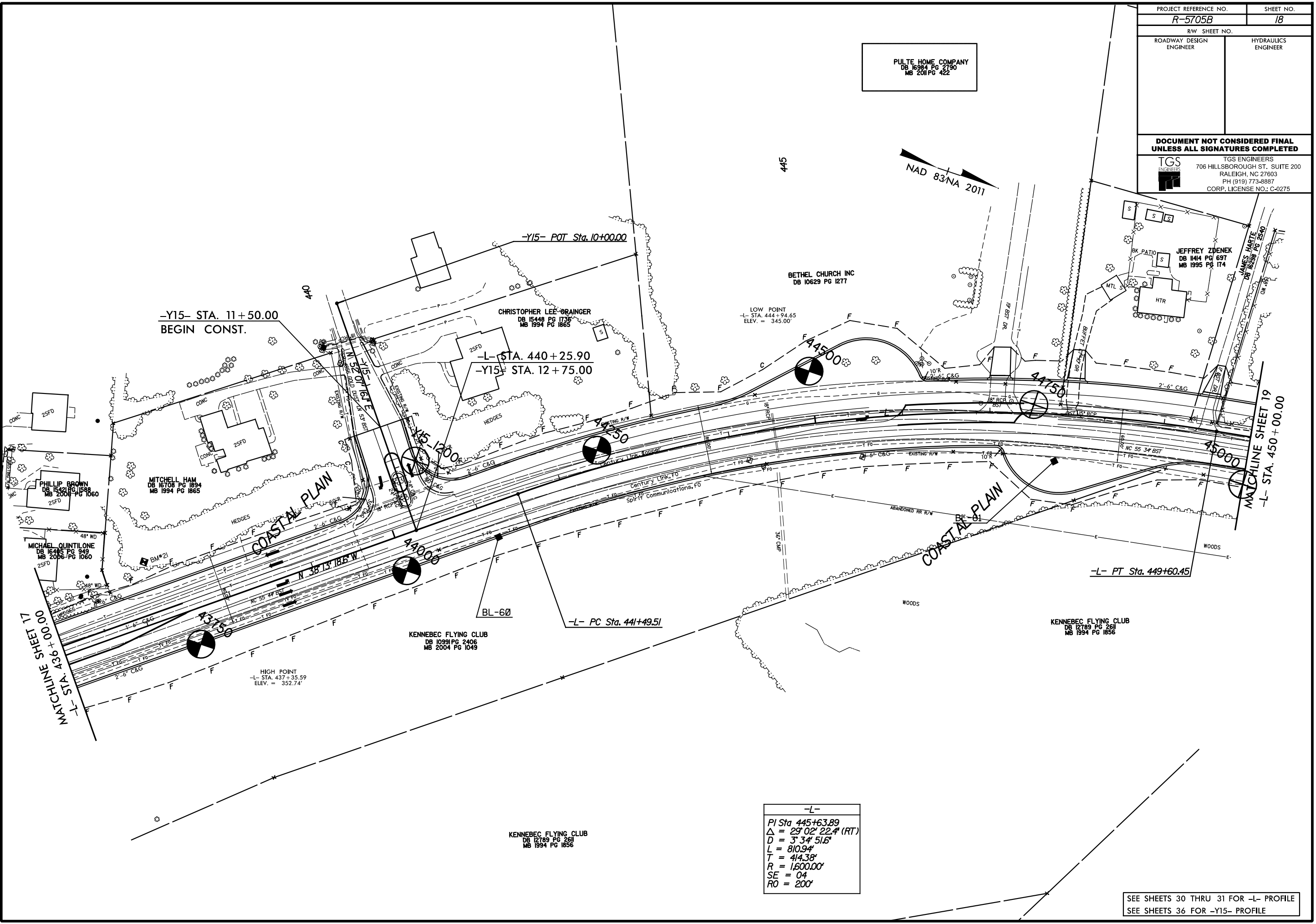
-L-	-Y14-
PI Sta 432+04.95	PI Sta 11+62.05
$\Delta = 6' 48" 15.4" (RT)$	$\Delta = 16' 16" 29.0" (LT)$
$D = 1' 14" 15.0"$	$D = 20' 02" 00.6"$
$L = 549.85'$	$L = 81.24'$
$T = 275.25'$	$T = 40.89'$
$R = 4630.00'$	$R = 286.00'$
$SE = 02$	
$RO = 100'$	

SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 35 FOR -Y13- & -Y14- PROFILES

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

PULTE HOME COMPANY
 DB 16984 PG 2790
 MB 2011 PG 422

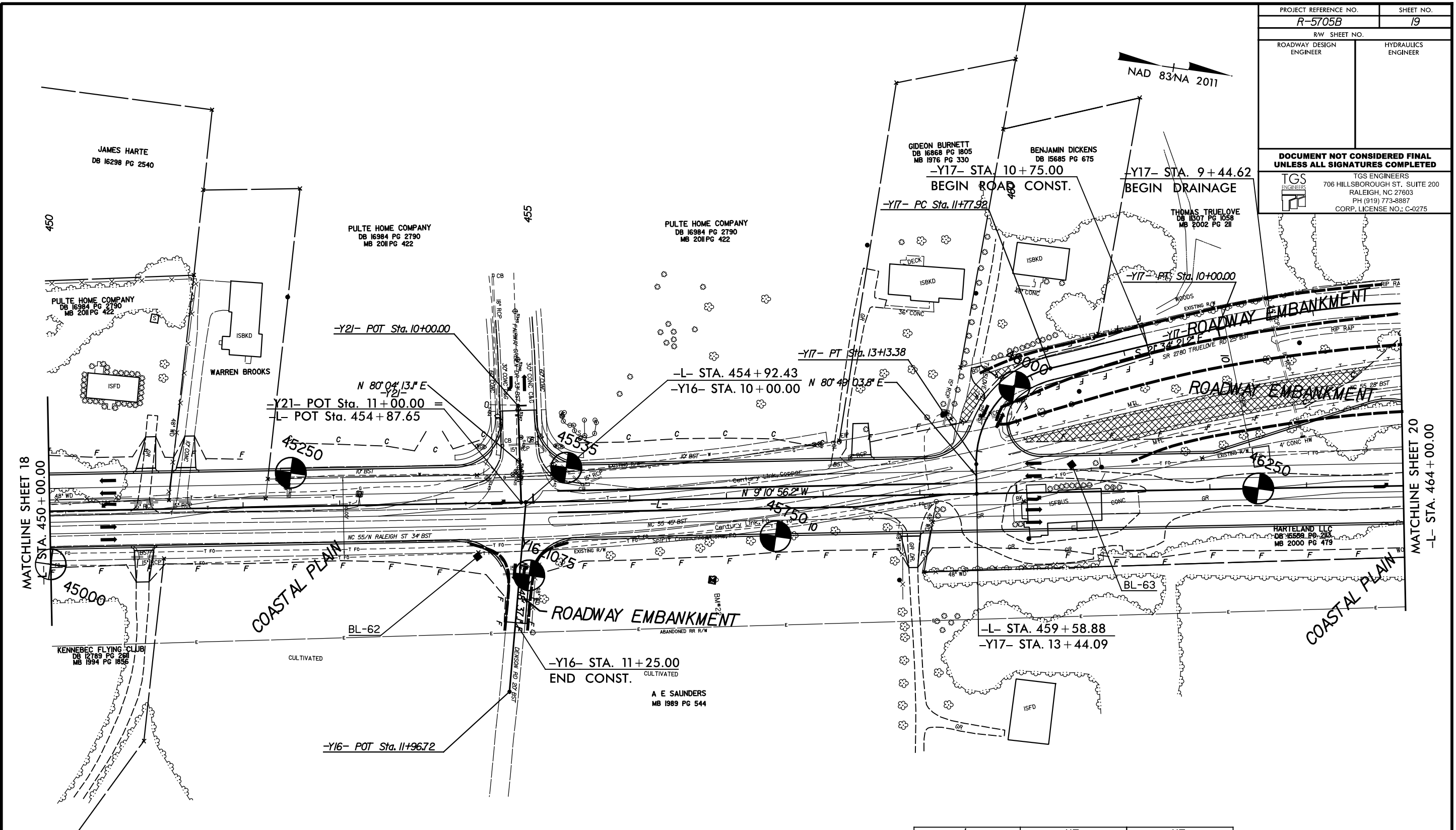
REVISIONS
 7-16-2021 (DRAFT) REMOVED C/A FENCE FROM ENTIRE SHEET (DBE)
 8/17/99
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-L-
PI Sta 445+63.89
$\Delta = 29^{\circ} 02' 22.4''$ (RT)
D = 3' 34" 51.6"
L = 810.94'
T = 414.38'
R = 1,600.00'
SE = 04
RO = 200'

SEE SHEETS 30 THRU 31 FOR -L- PROFILE
 SEE SHEETS 36 FOR -Y15- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
TGS ENGINEERS	TGS ENGINEERS
706 HILLSBOROUGH ST., SUITE 200	706 HILLSBOROUGH ST., SUITE 200
RALEIGH, NC 27603	RALEIGH, NC 27603
PH (919) 773-8887	PH (919) 773-8887
CORP. LICENSE NO.: C-0275	CORP. LICENSE NO.: C-0275




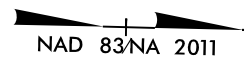
REVISIONS
 7-16-2021 (DRAFT) REMOVED C/A FENCE FROM ENTIRE SHEET (DBE)

-L-	-Y17-	-Y17-
PI Sta 445+63.89	PI Sta 12+58.34	PI Sta 8+95.42
$\Delta = 29^{\circ} 02' 22.4" (RT)$	$\Delta = 77^{\circ} 36' 35.0" (LT)$	$\Delta = 12^{\circ} 35' 58.8" (LT)$
D = 3' 34' 51.6"	D = 57' 17' 44.8"	D = 5' 59' 58.4"
L = 810.94'	L = 135.45'	L = 210.0'
T = 414.38'	T = 80.42'	T = 105.43'
R = 1600.00'	R = 100.00'	R = 955.00'
SE = 04		
RO = 200'		

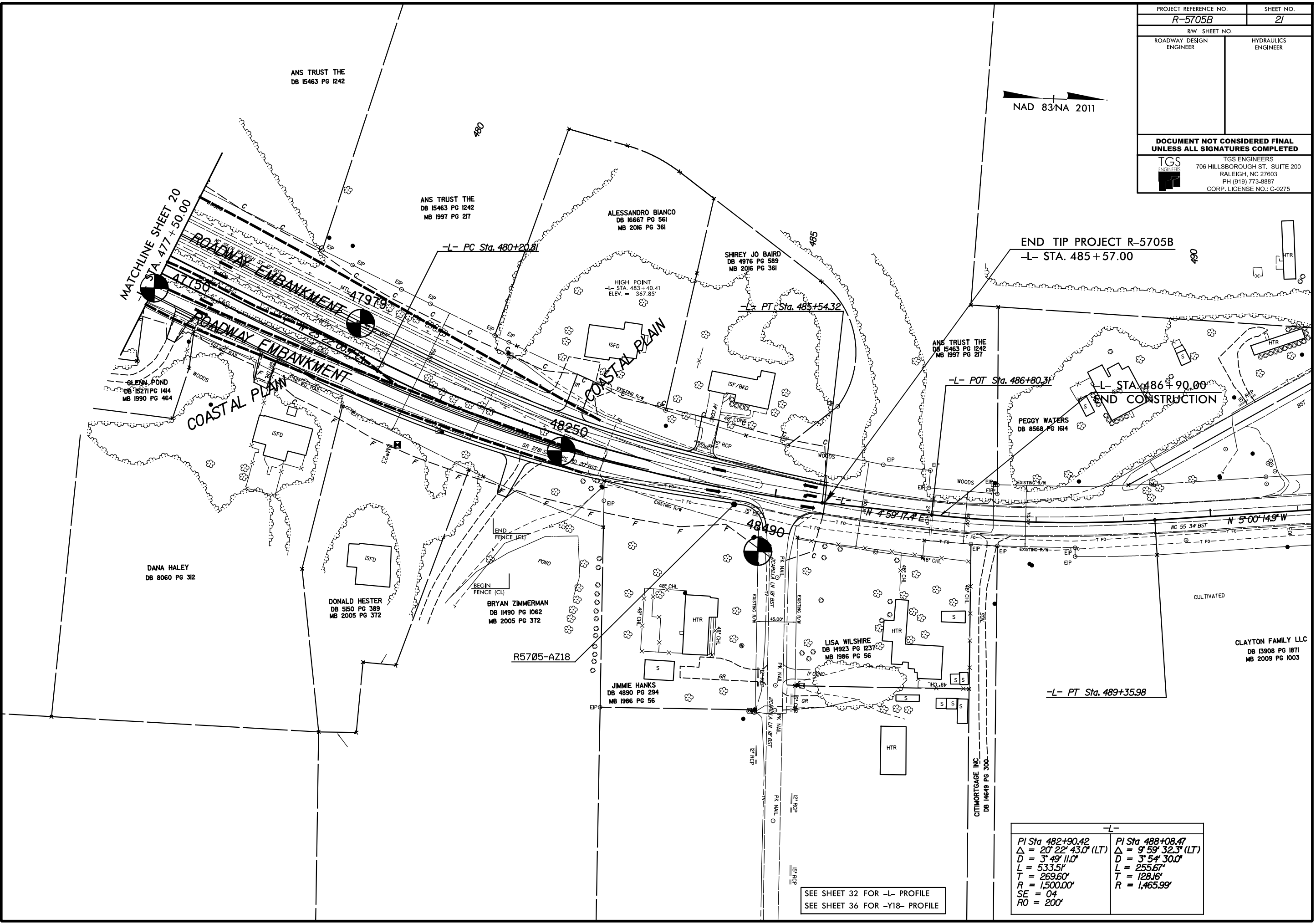
SEE SHEET 31 FOR -L- PROFILE
 SEE SHEET 36 FOR -Y16 & -Y17- PROFILES
 SEE SHEET 37 FOR -Y21- PROFILE

8/17/99
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PROJECT REFERENCE NO. R-5705B	SHEET NO. 21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	




REVISIONS
 7-16-2021 (DRAFT) REMOVED C/A FENCE FROM ENTIRE SHEET (DBE)
 8/17/99
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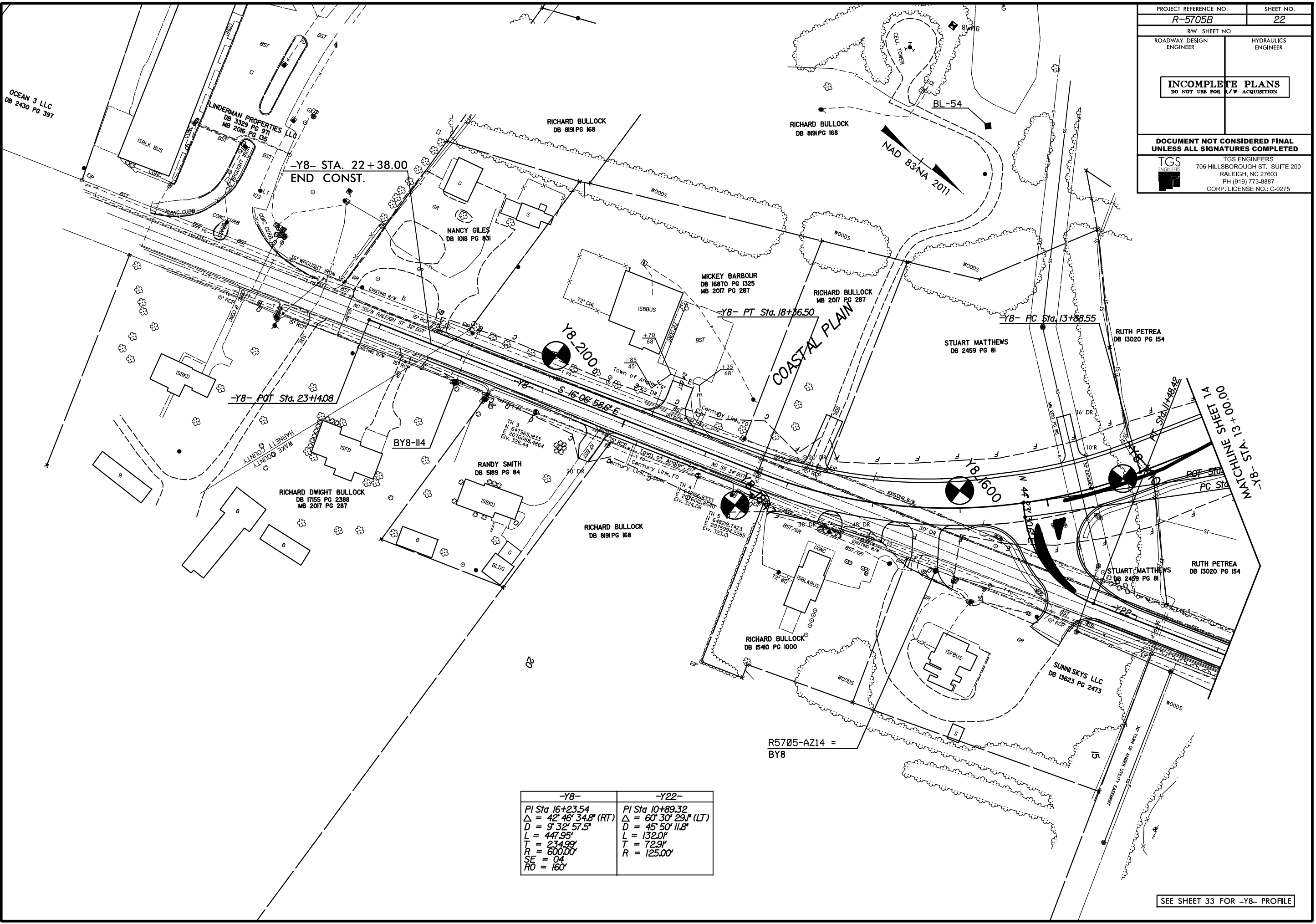
$PI\ Sta\ 482+90.42$ $\Delta = 20^\circ 22' 43.0" (LT)$ $D = 3^\circ 49' 11.0"$ $L = 533.51'$ $T = 269.60'$ $R = 1,500.00'$ $SE = 04$ $RO = 200'$	$PI\ Sta\ 488+08.47$ $\Delta = 9^\circ 59' 32.3" (LT)$ $D = 3^\circ 54' 30.0"$ $L = 255.67'$ $T = 128.16'$ $R = 1,465.99'$
--	---

SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 36 FOR -Y18- PROFILE

PROJECT REFERENCE NO. R-5705B	SHEET NO. 22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	


REVISIONS
 7-19-2021 ADDED OWNER, DEED BOOK DATA AND PARCEL NUMBER TO PARCEL 309.(DBE)
 8/17/99

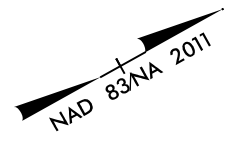
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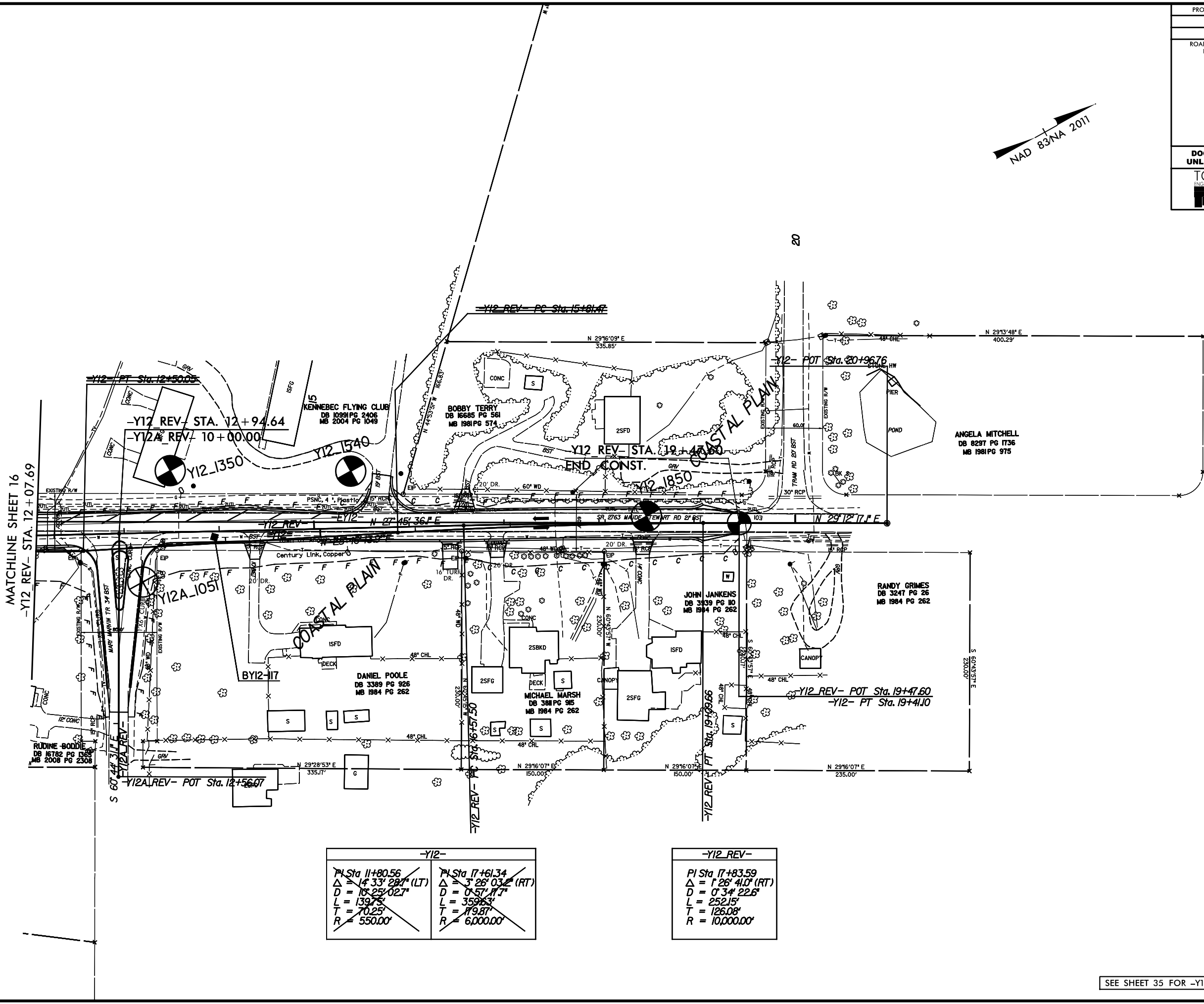
-Y8-	-Y22-
PI Sta 16+23.54	PI Sta 10+89.32
$\Delta = 42^\circ 46' 34.8''$ (RT)	$\Delta = 60^\circ 30' 29.1''$ (LT)
D = 9' 32' 57.5"	D = 45' 50' 11.8"
L = 447.95'	L = 132.0'
T = 234.99'	T = 72.9'
R = 600.00'	R = 125.00'
SE = 04	
RO = 160	

SEE SHEET 33 FOR -Y8- PROFILE

PROJECT REFERENCE NO. R-5705B	SHEET NO. 23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



REVISIONS
 6-23-2021 REVISED DESIGN FOR -Y12_REV- AND -Y12A_REV- ALONG WITH R/W AND EASEMENTS FOR PARCELS 246,247,248,249,251 & 301.(DBE)

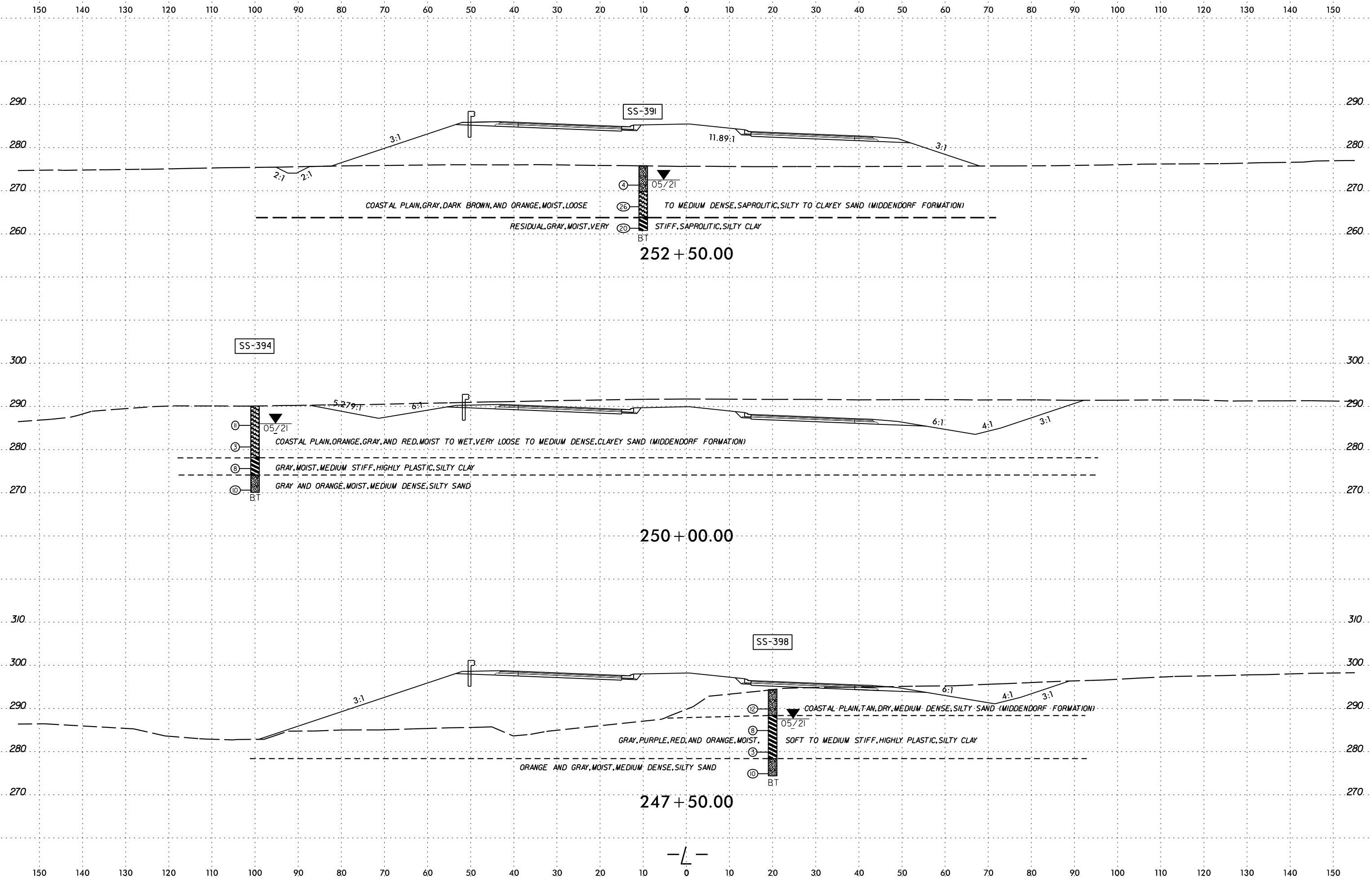


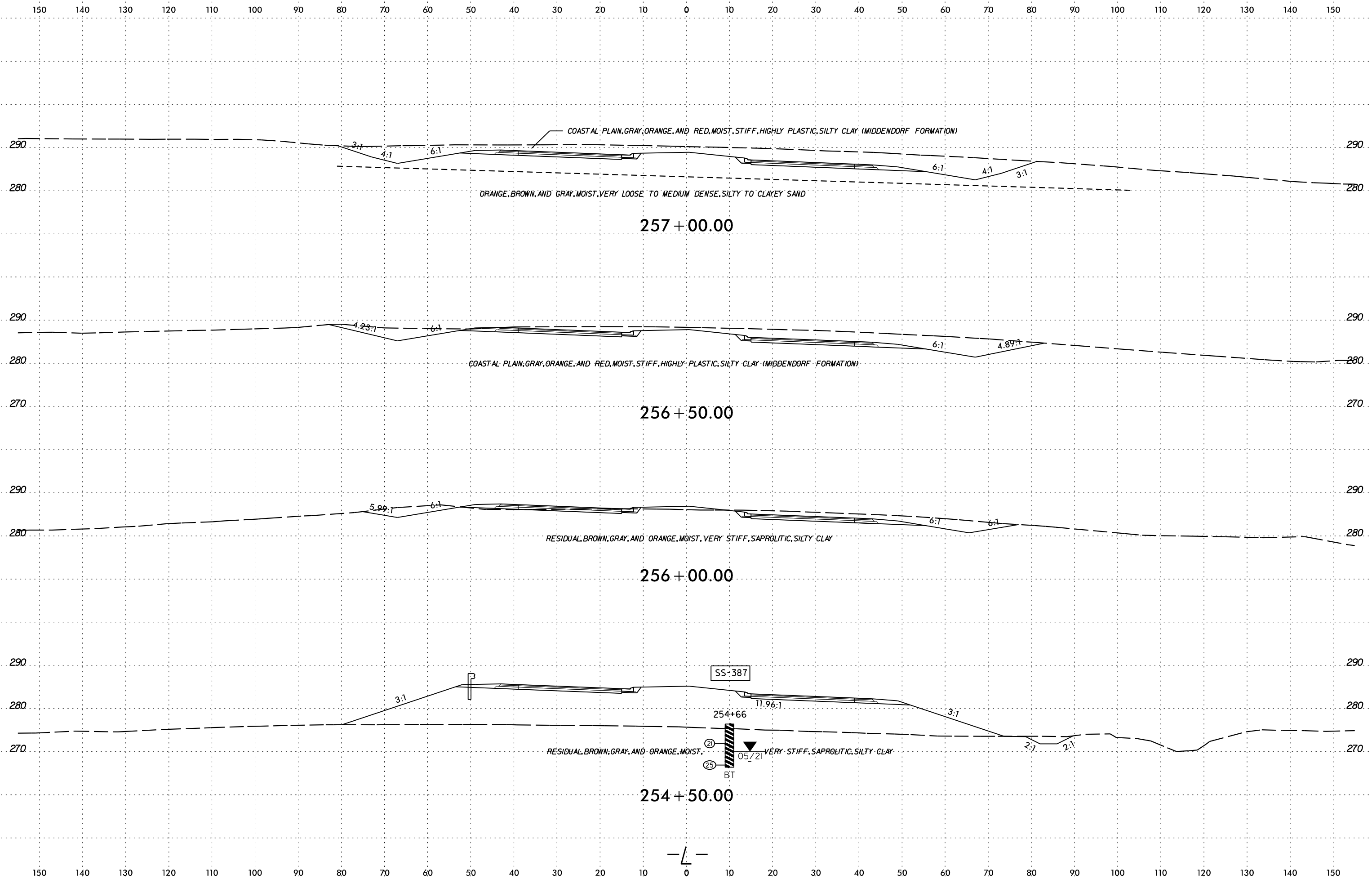
-Y12-	
PI Sta 11+80.56	PI Sta 17+61.34
$\Delta = 14' 33" 287" (LT)$	$\Delta = 3' 26" 03" (RT)$
$D = 16' 25" 027"$	$D = 0' 57" 177"$
$L = 139.75'$	$L = 359.83'$
$T = 70.25'$	$T = 119.87'$
$R = 550.00'$	$R = 6,000.00'$

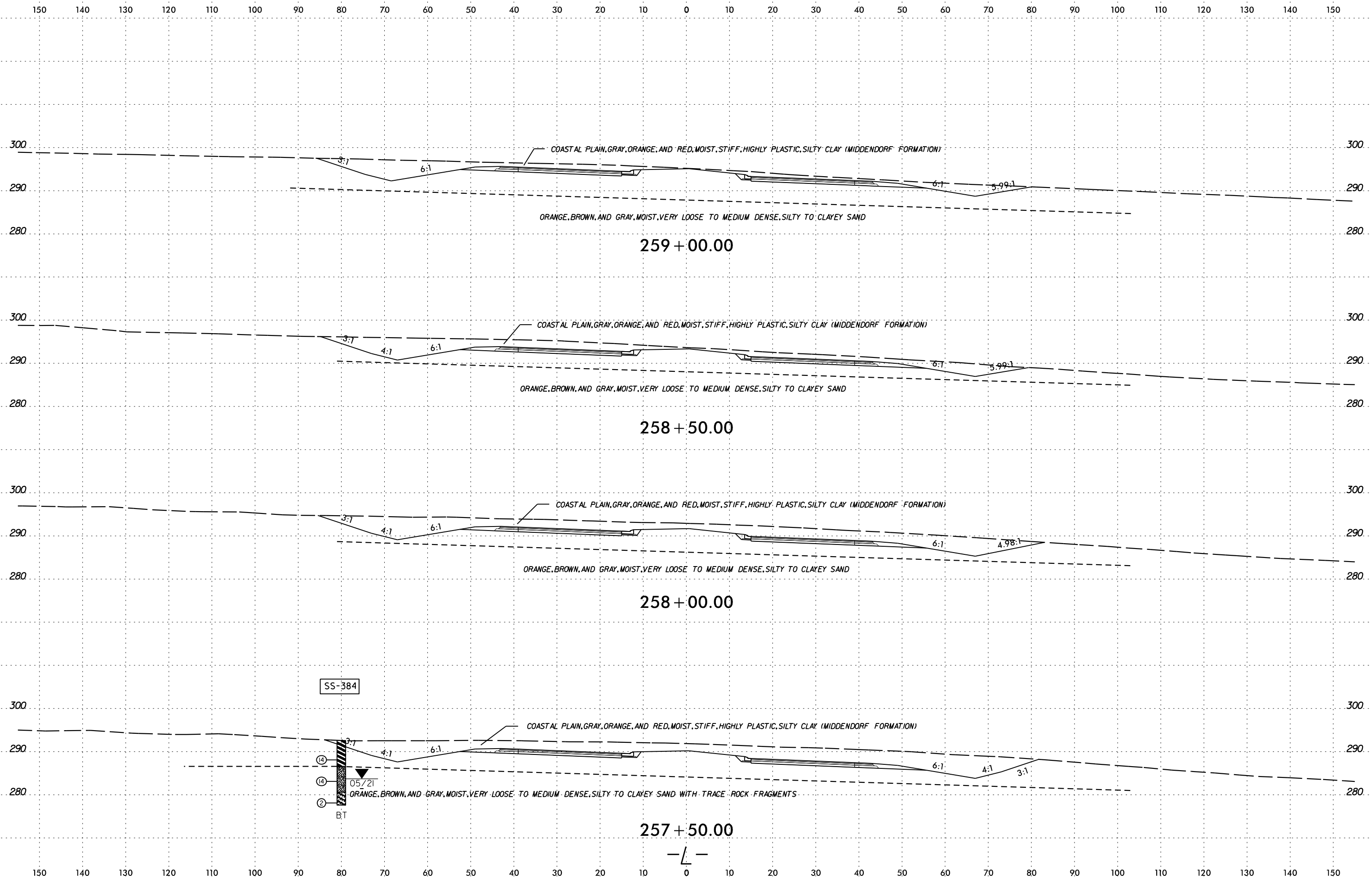
-Y12_REV-	
PI Sta 17+83.59	PI Sta 17+83.59
$\Delta = 1' 26" 410" (RT)$	$\Delta = 1' 26" 410" (RT)$
$D = 0' 34" 22.6"$	$D = 0' 34" 22.6"$
$L = 252.15'$	$L = 252.15'$
$T = 126.08'$	$T = 126.08'$
$R = 10,000.00'$	$R = 10,000.00'$

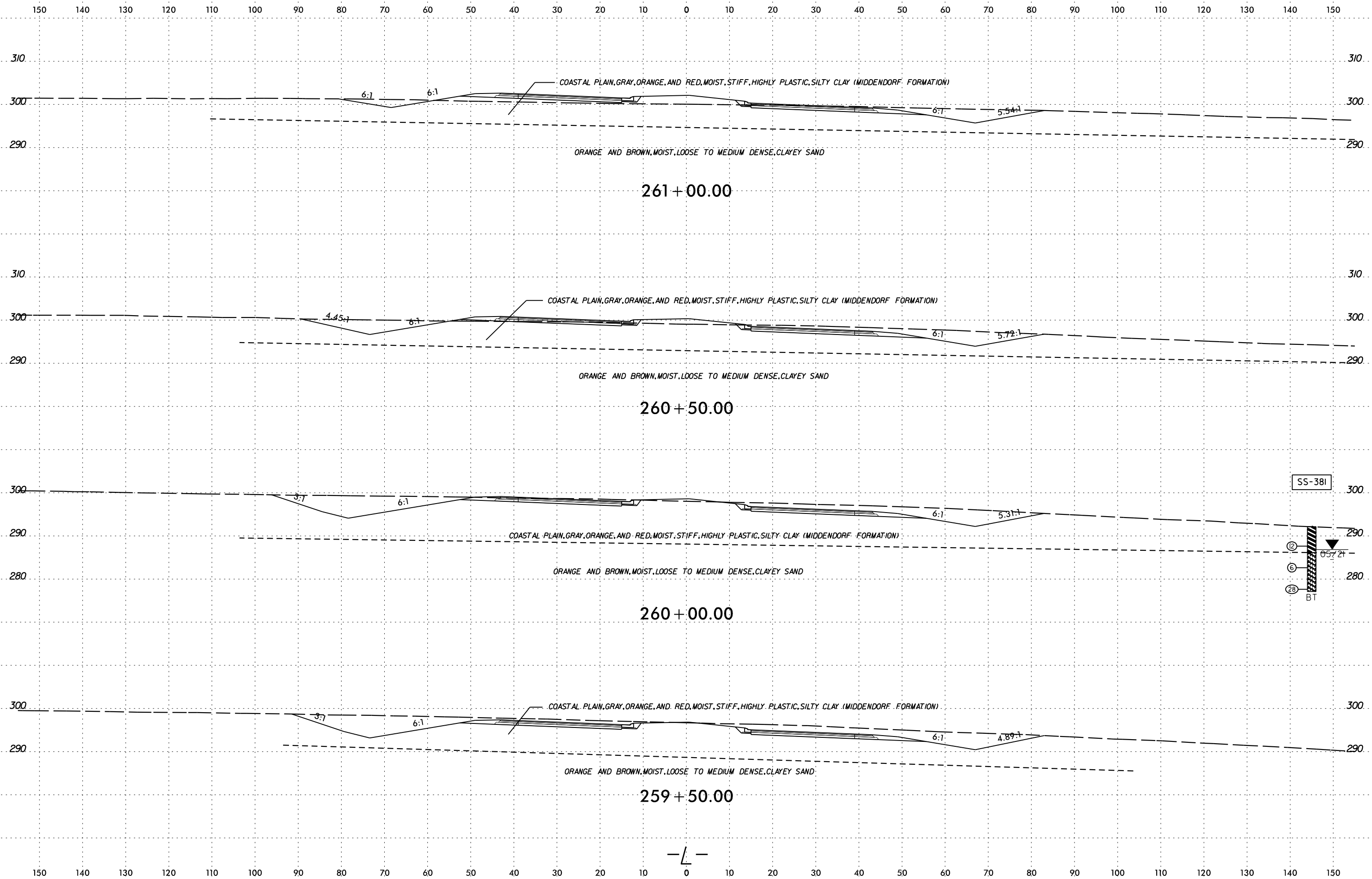
SEE SHEET 35 FOR -Y12_REV- & -Y12A_REV- PROFILES

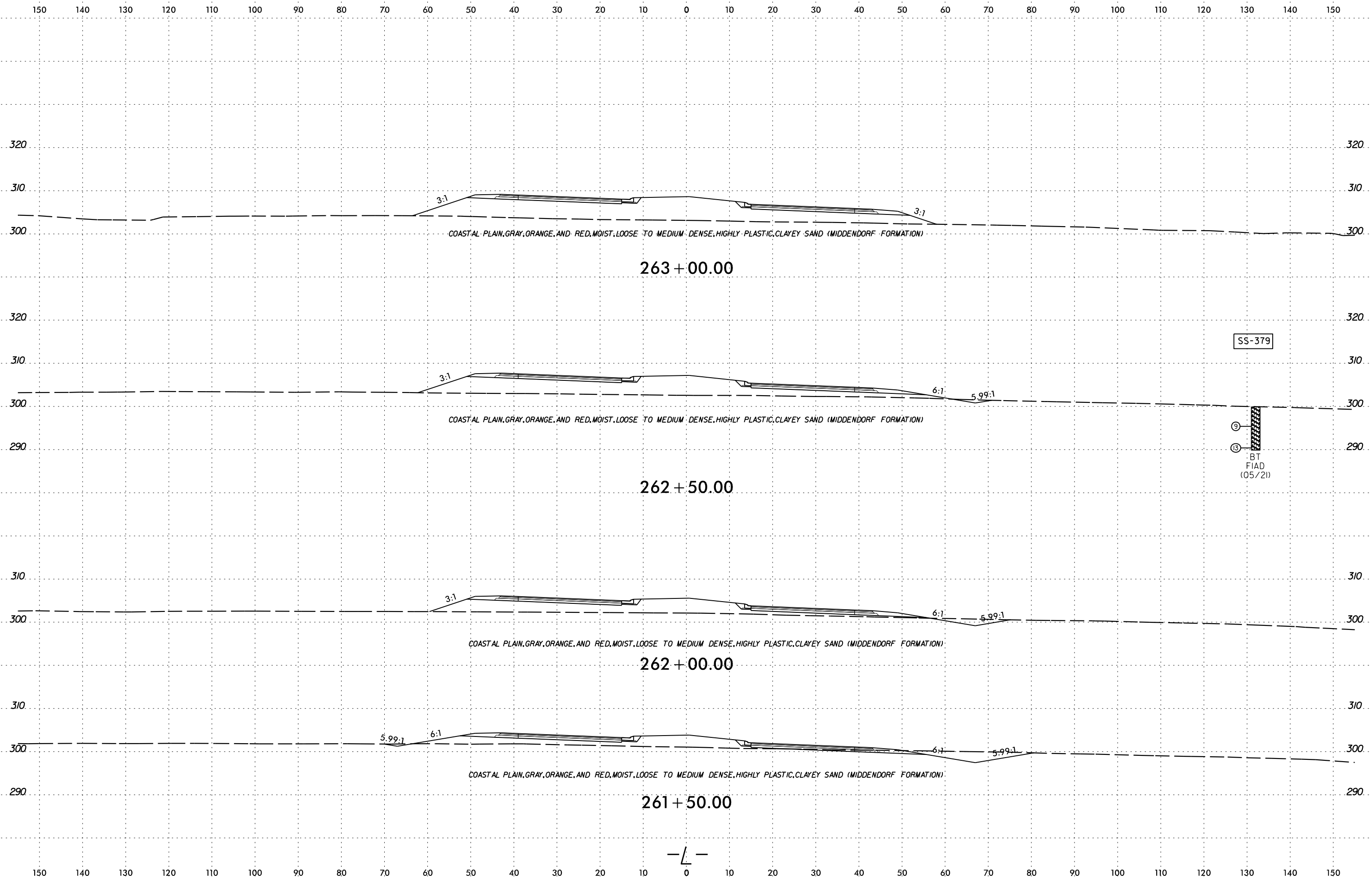
8/17/99
 8/47/12 AM
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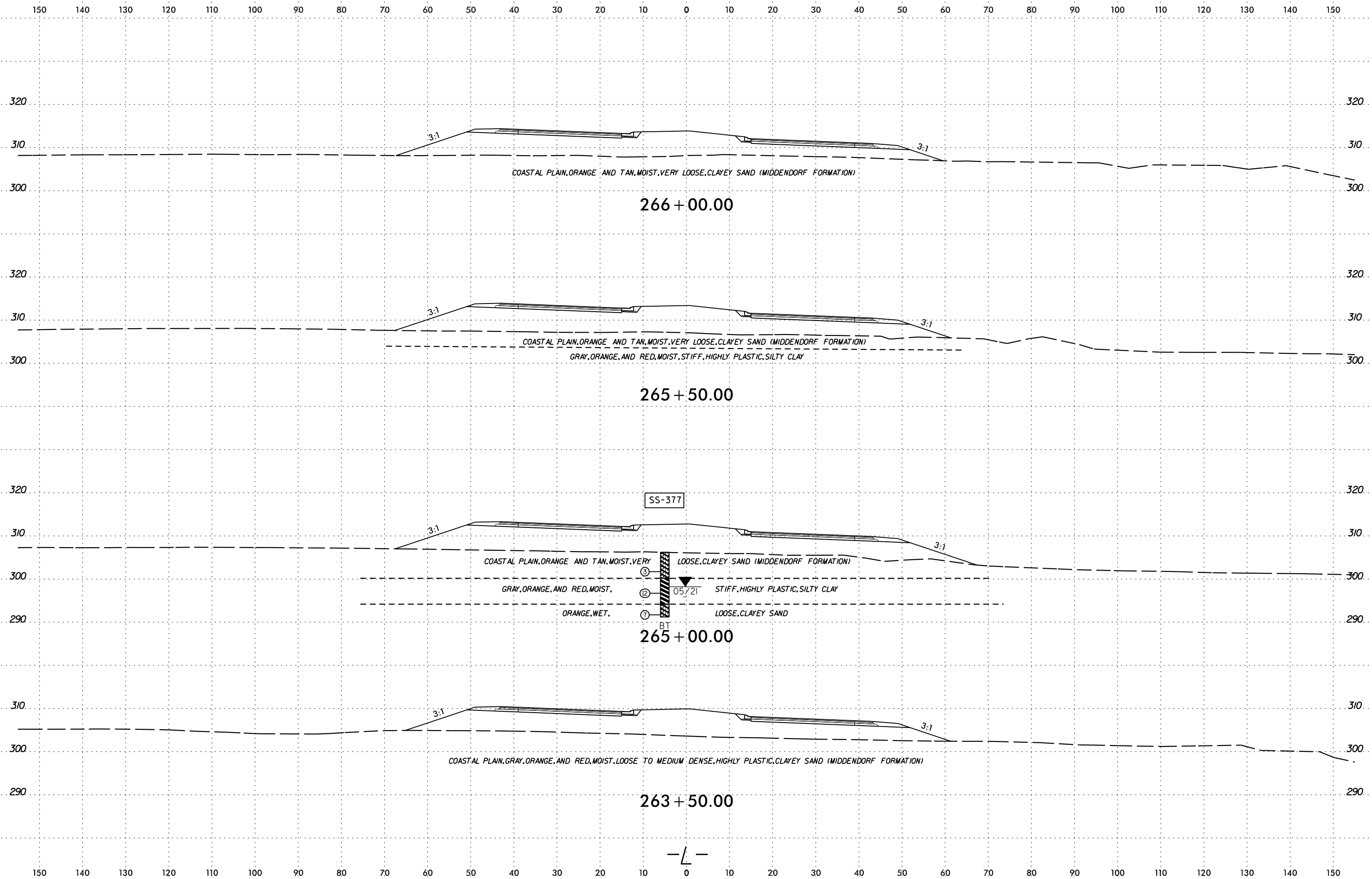




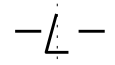


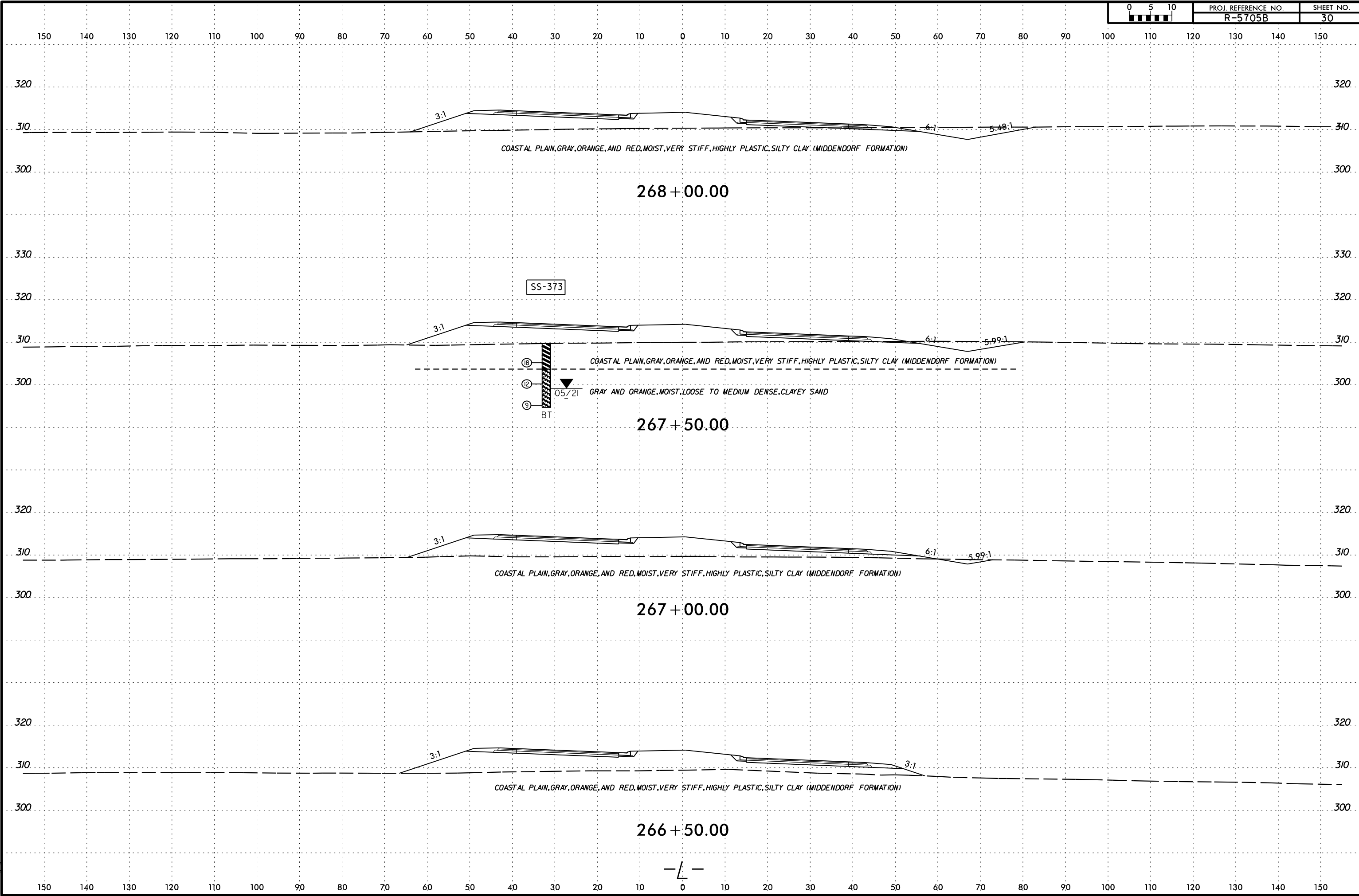


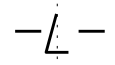
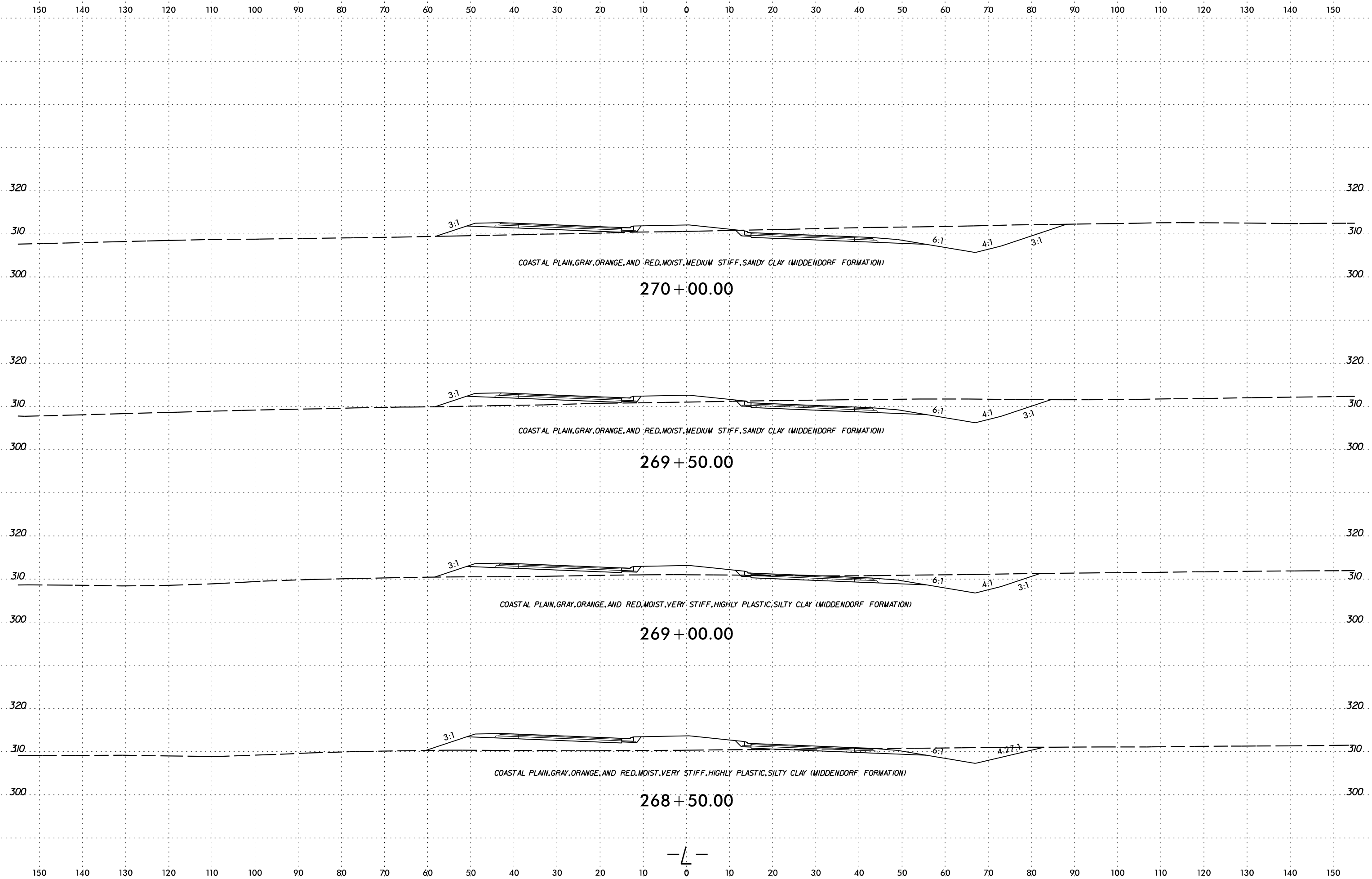




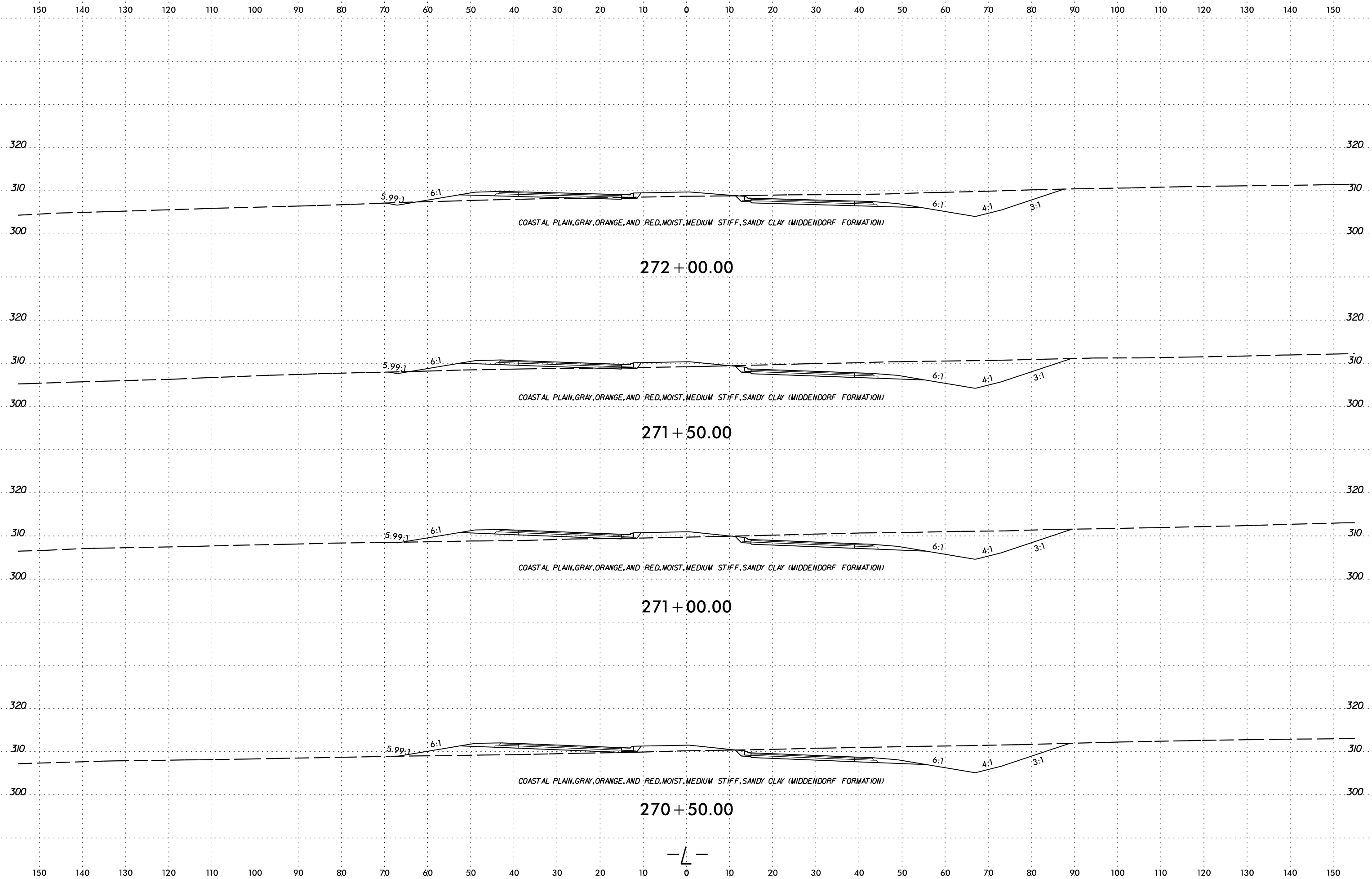
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david.jounes



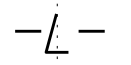




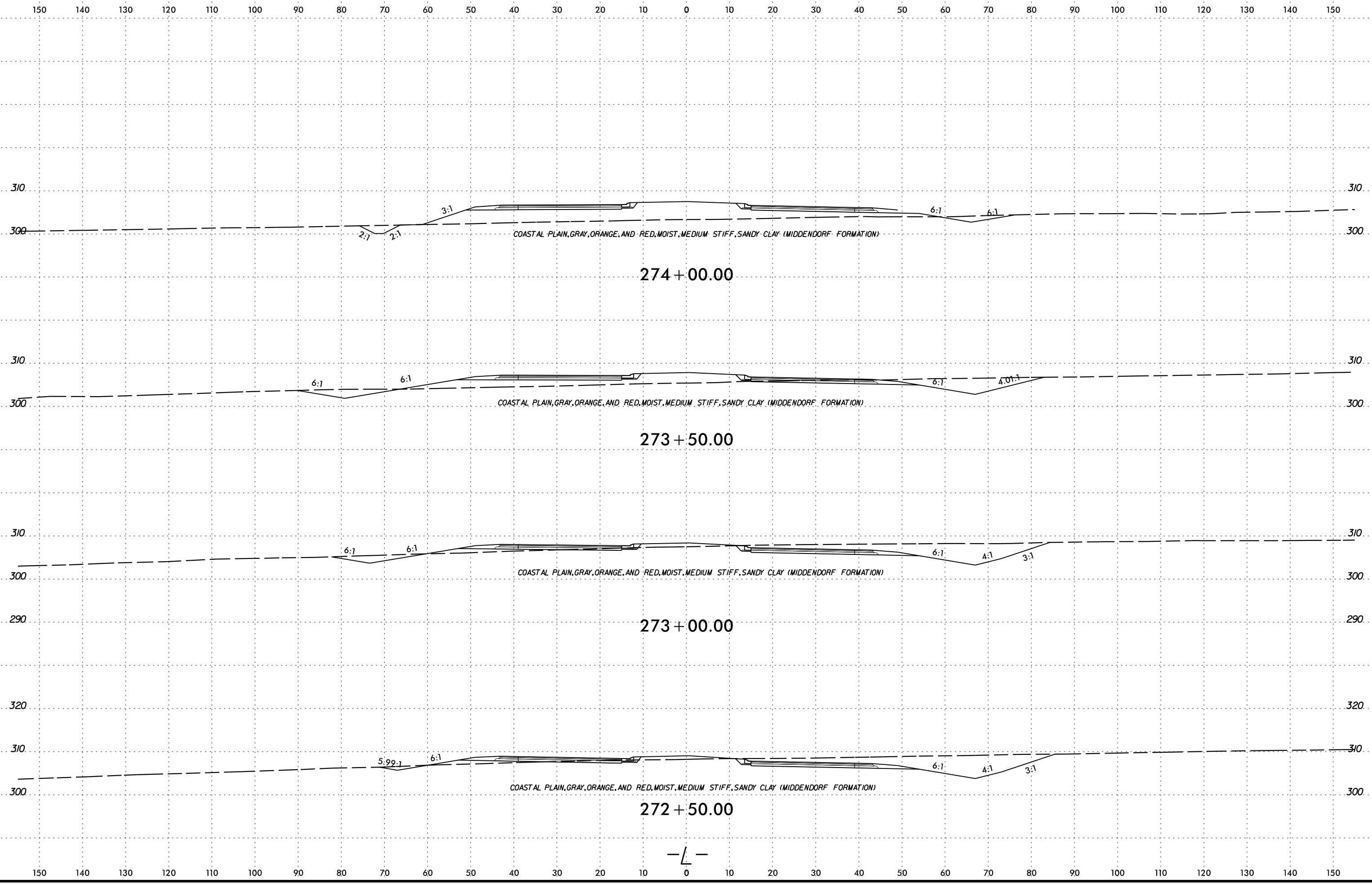
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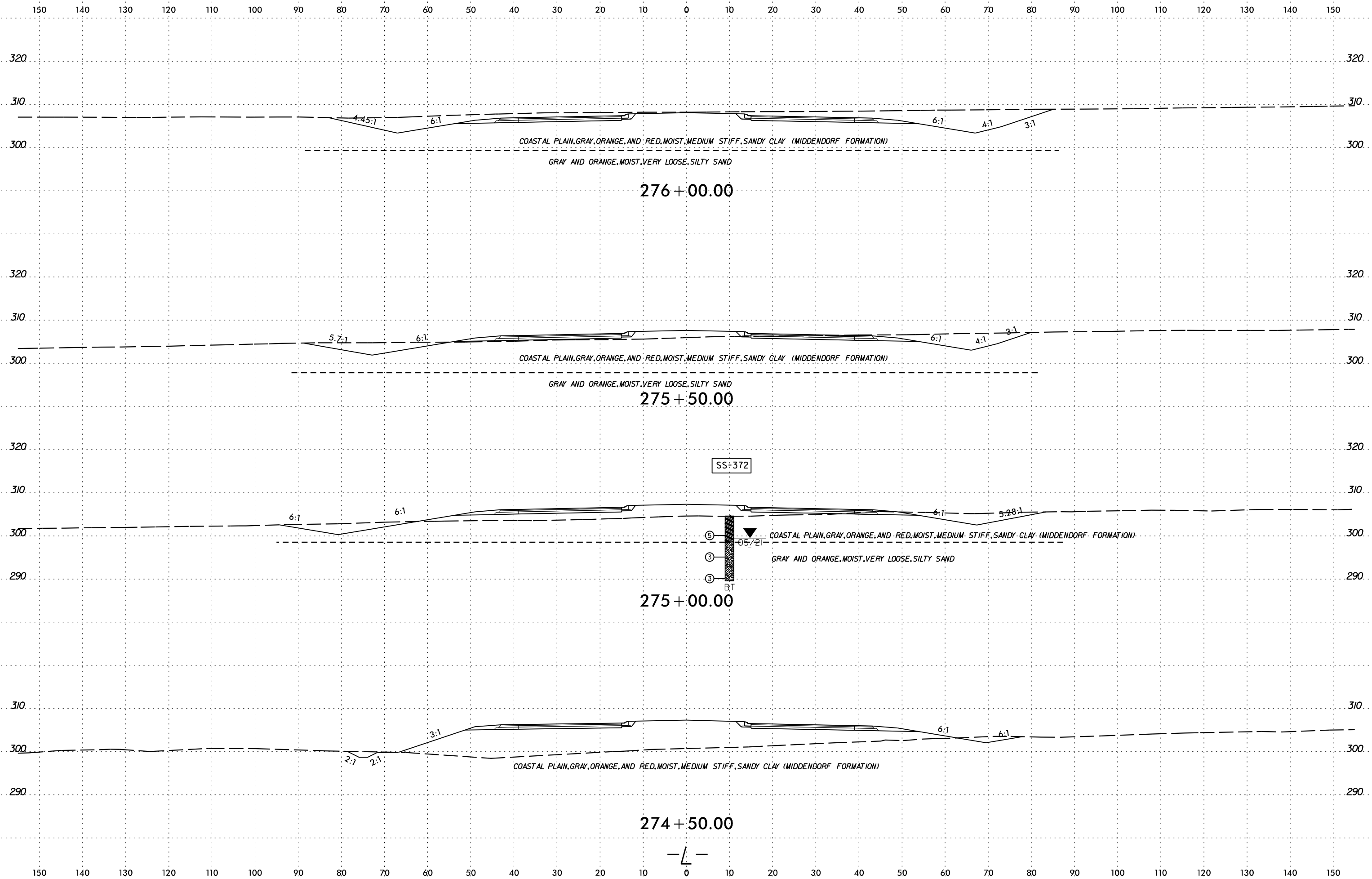
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david.jounes

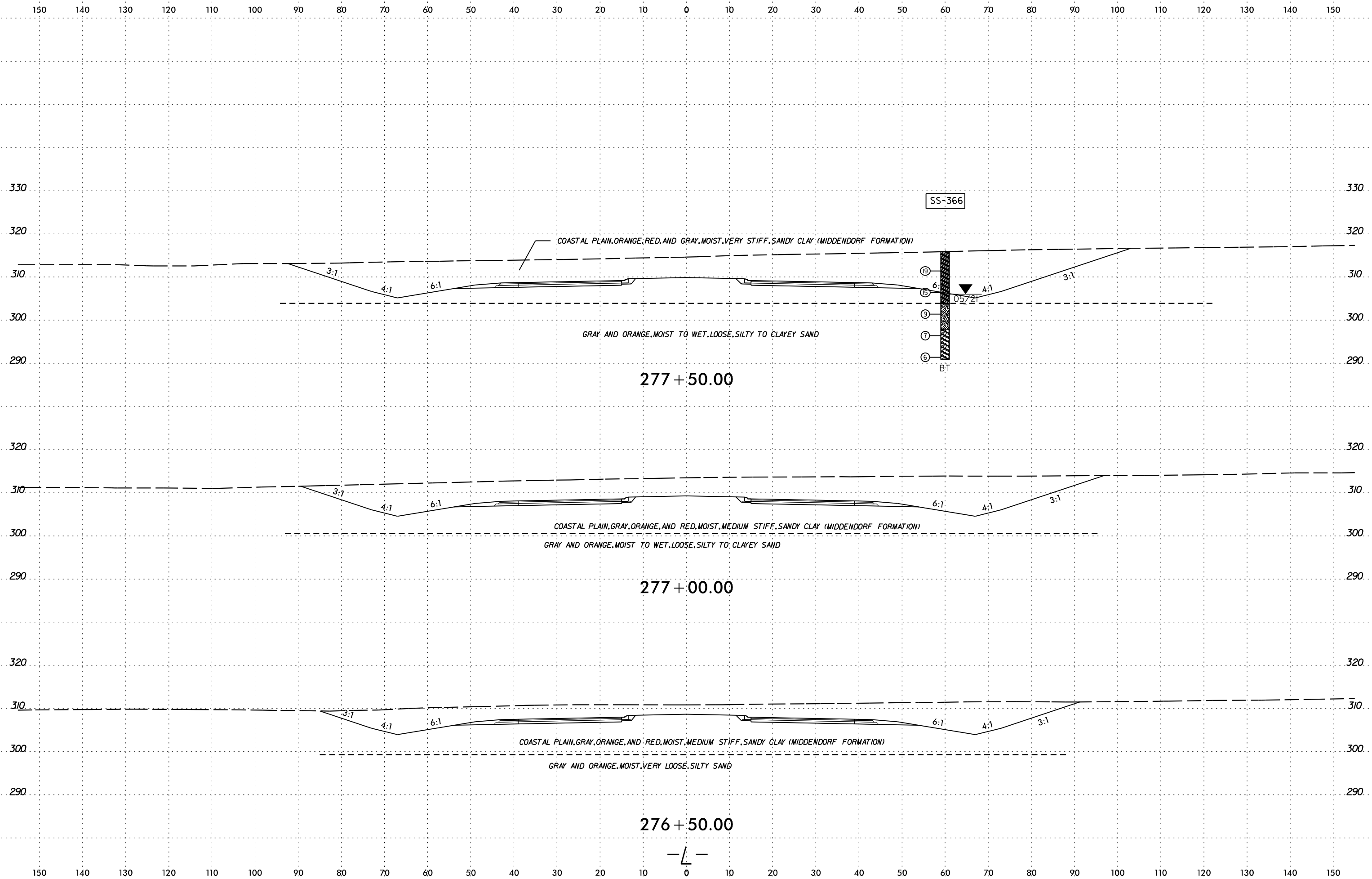


6/23/16



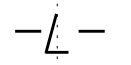
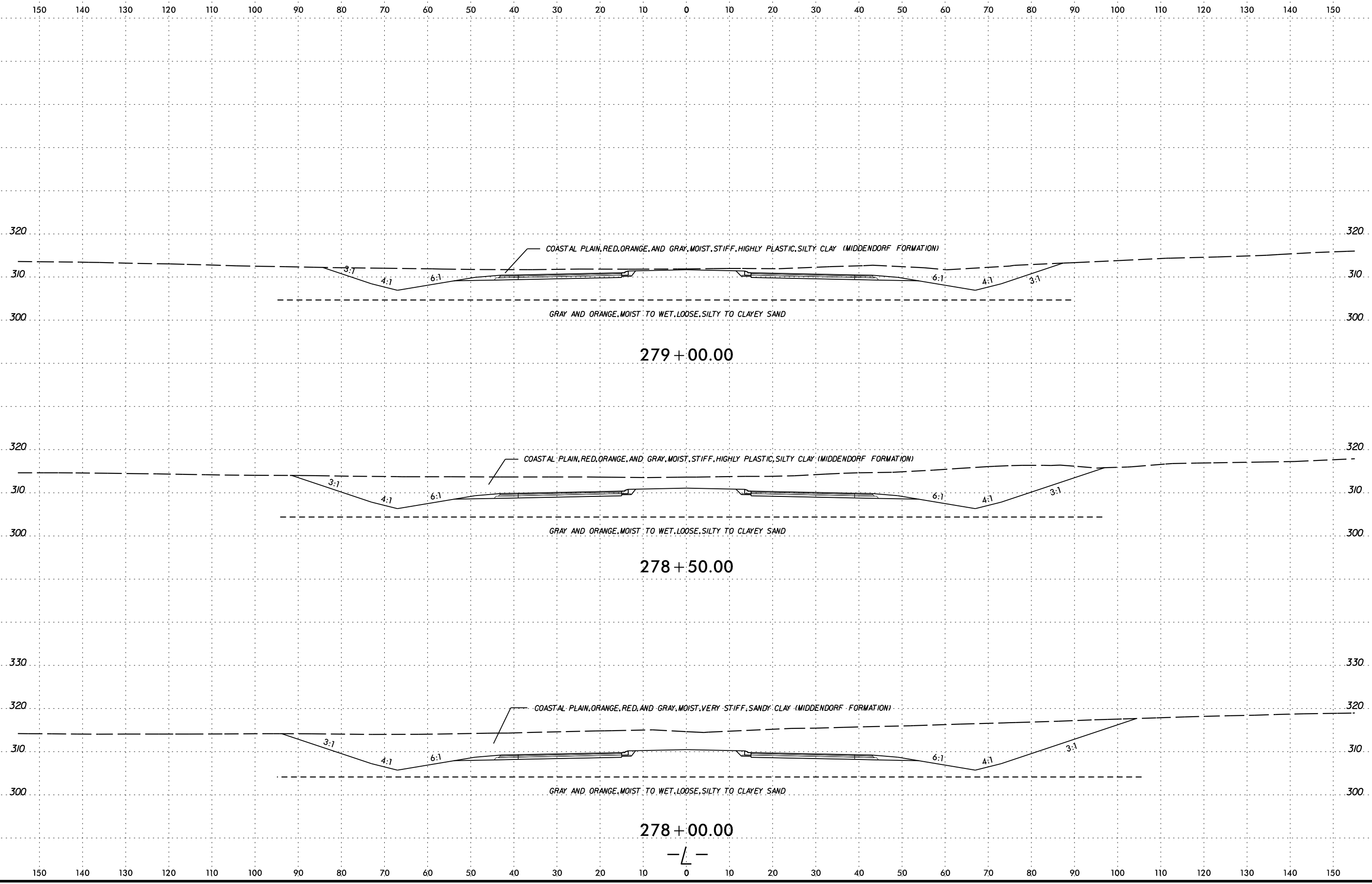
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david.jounes

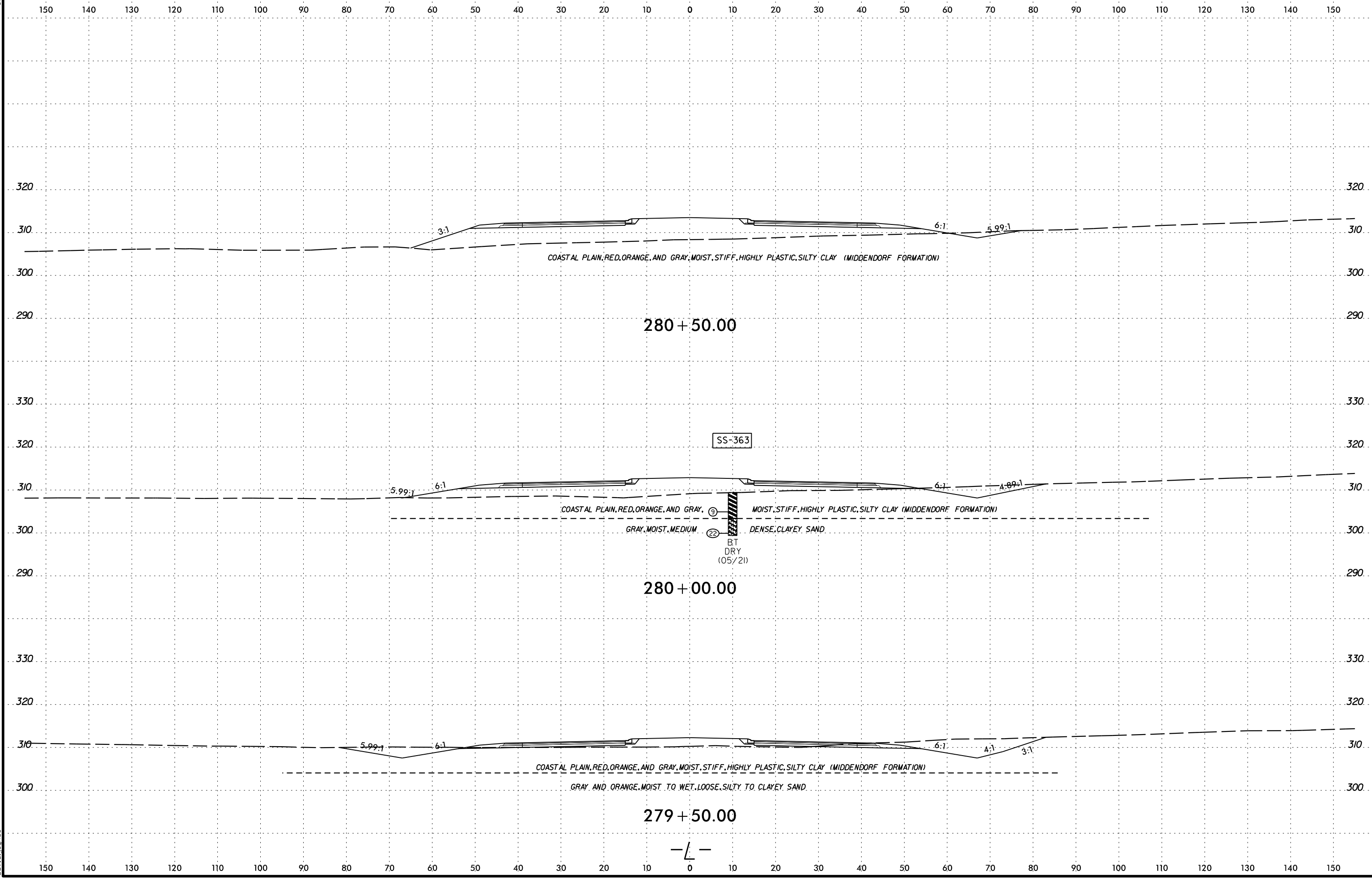




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 david.jounes





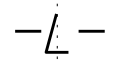


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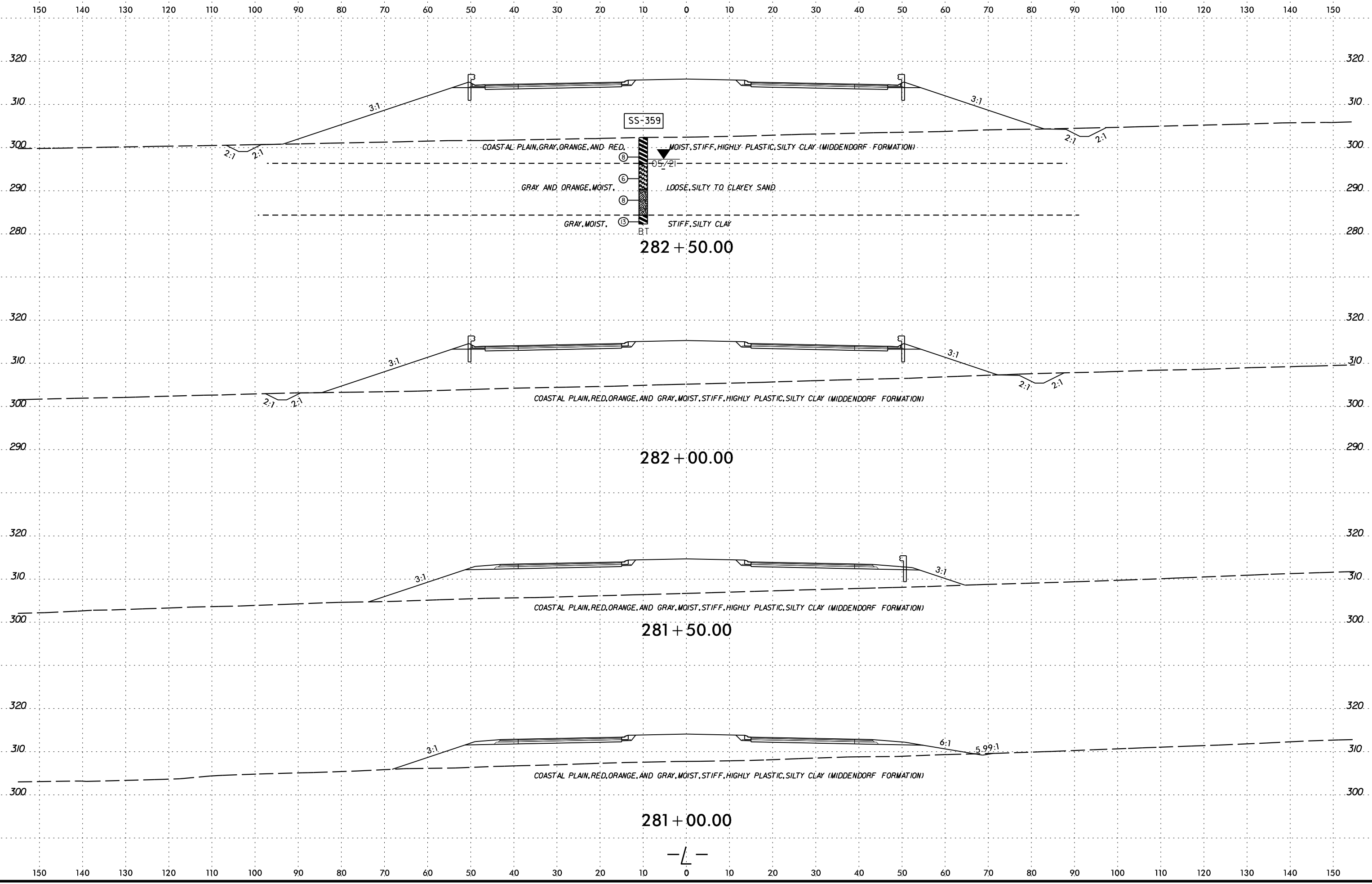
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280 + 00.00

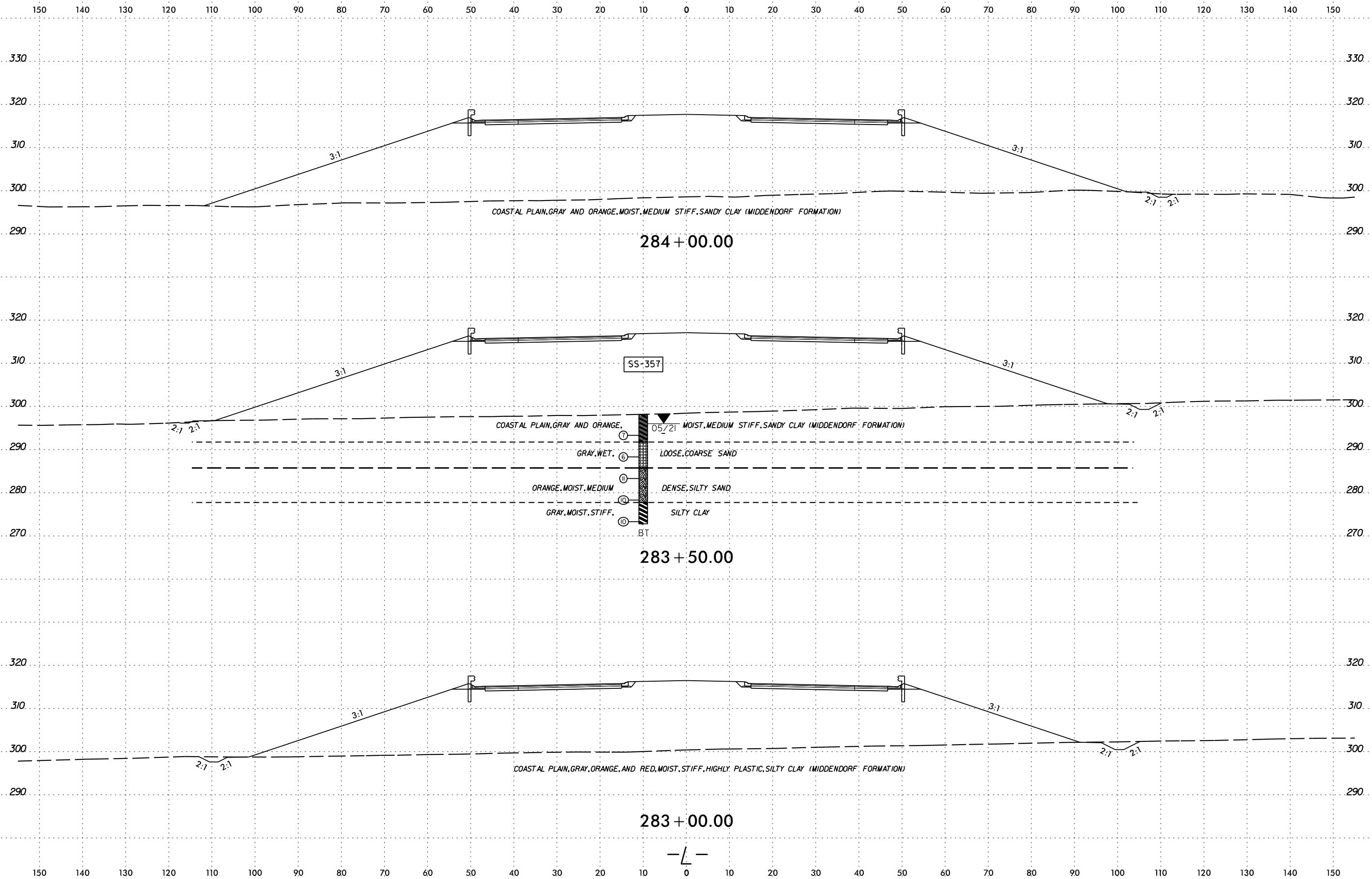
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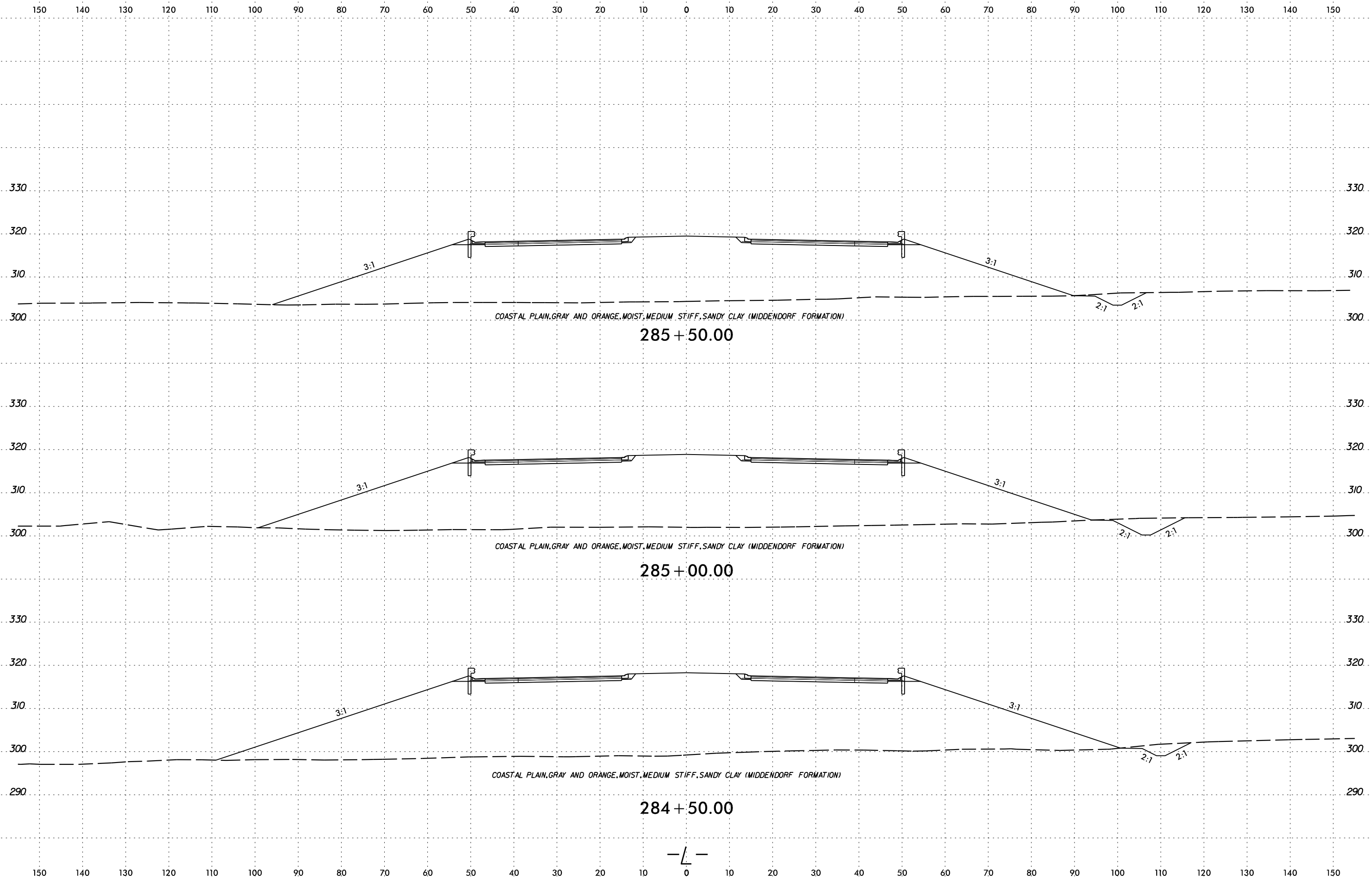


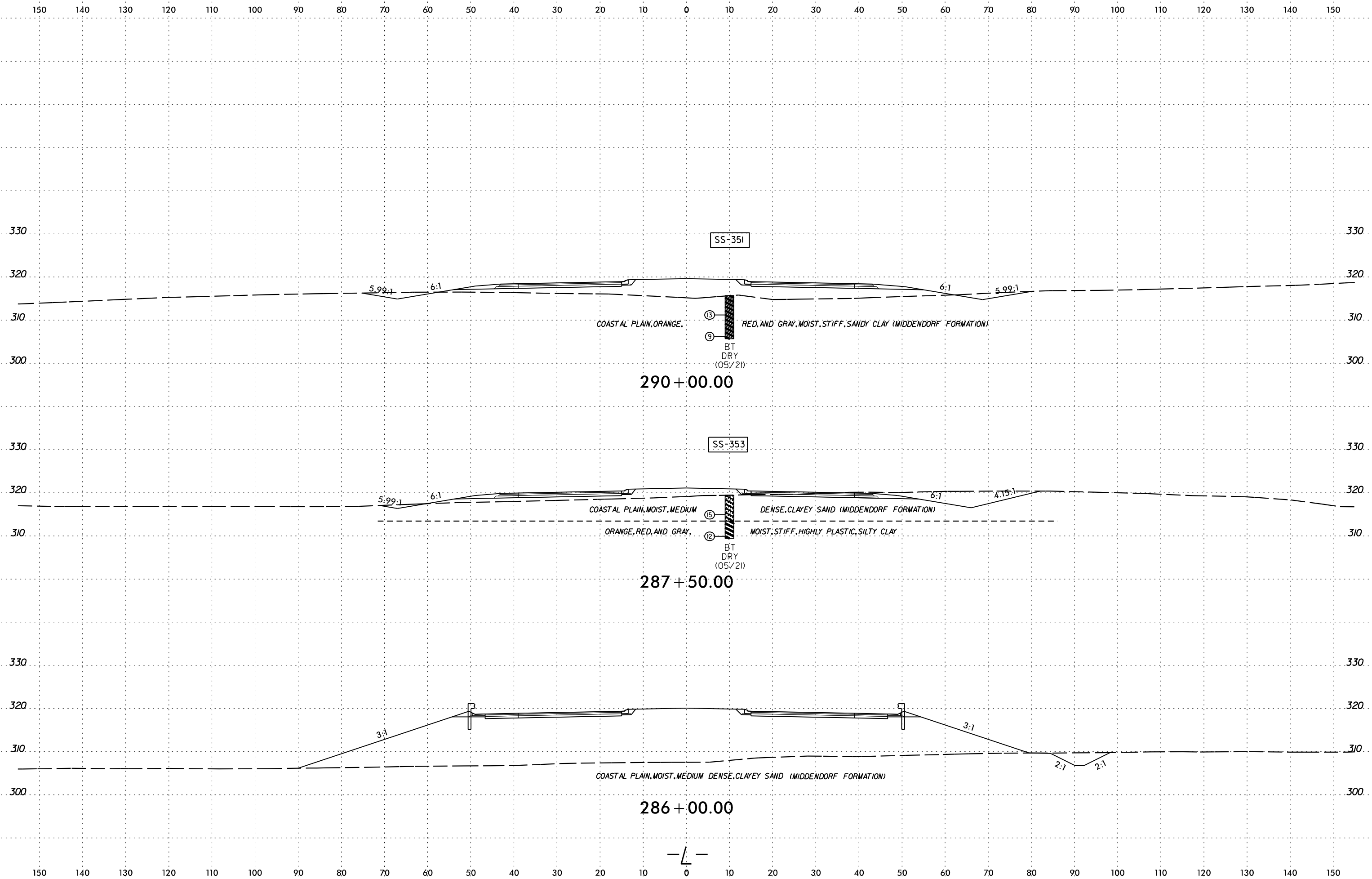
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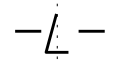
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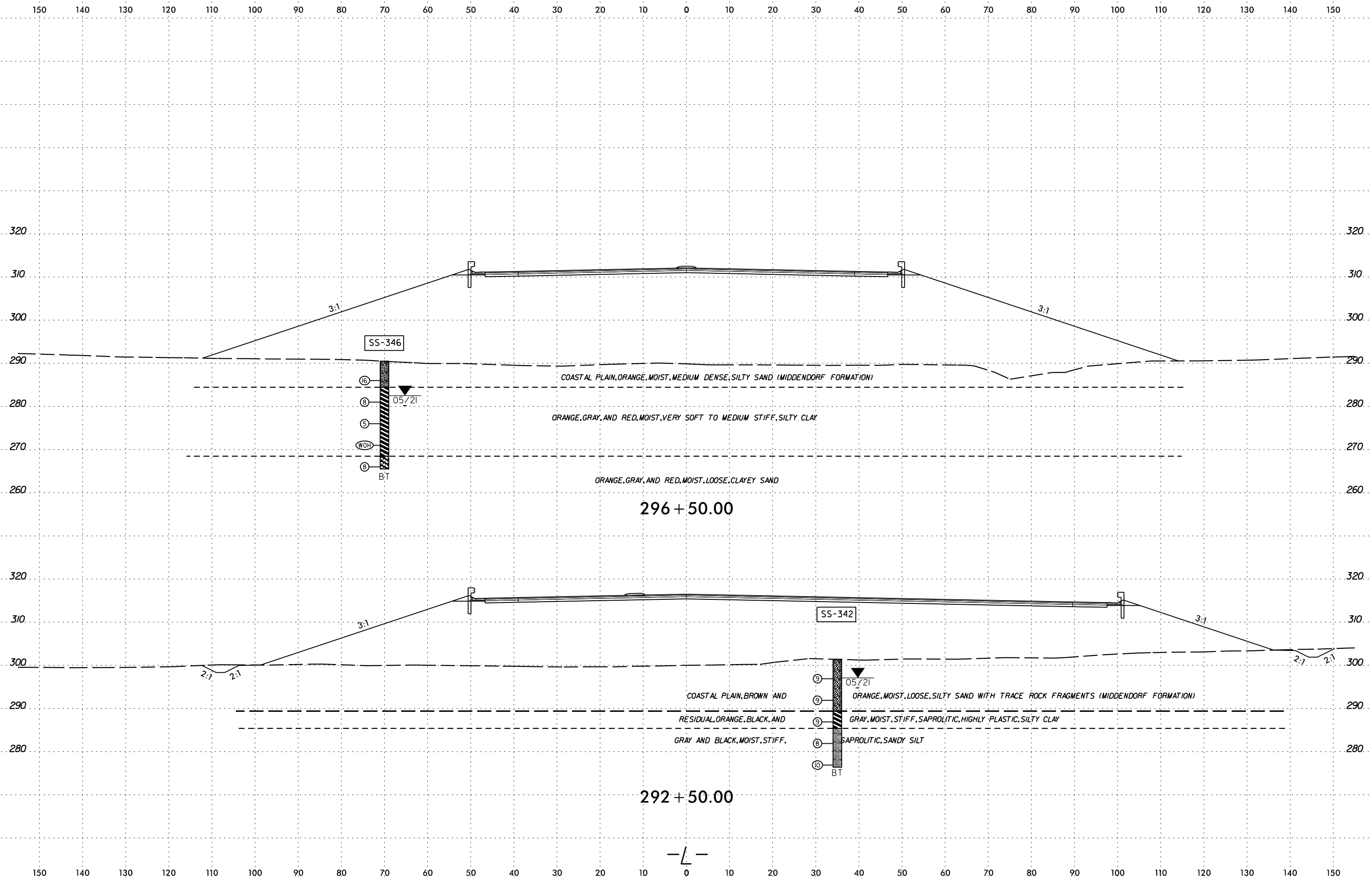


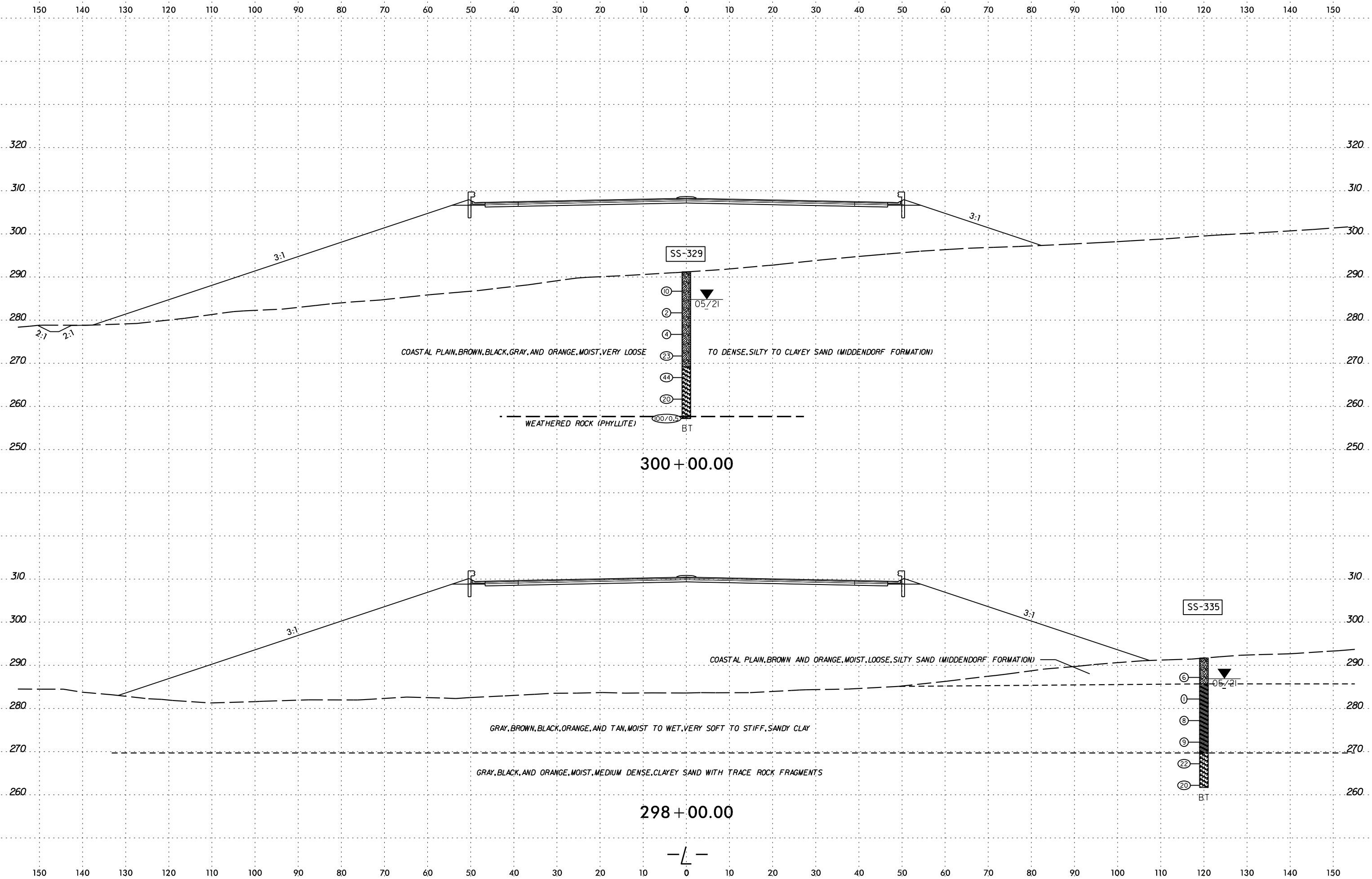




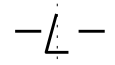
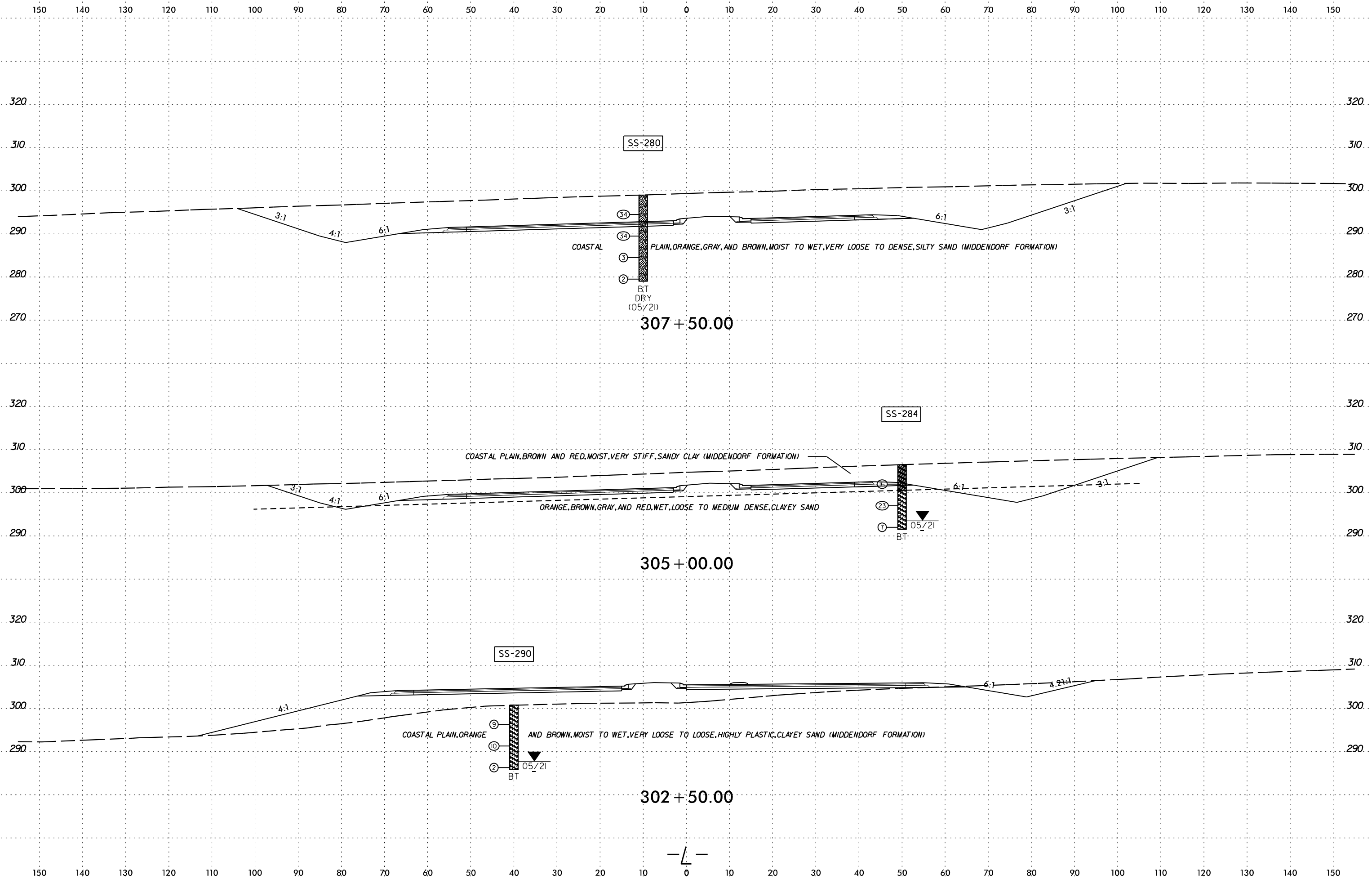
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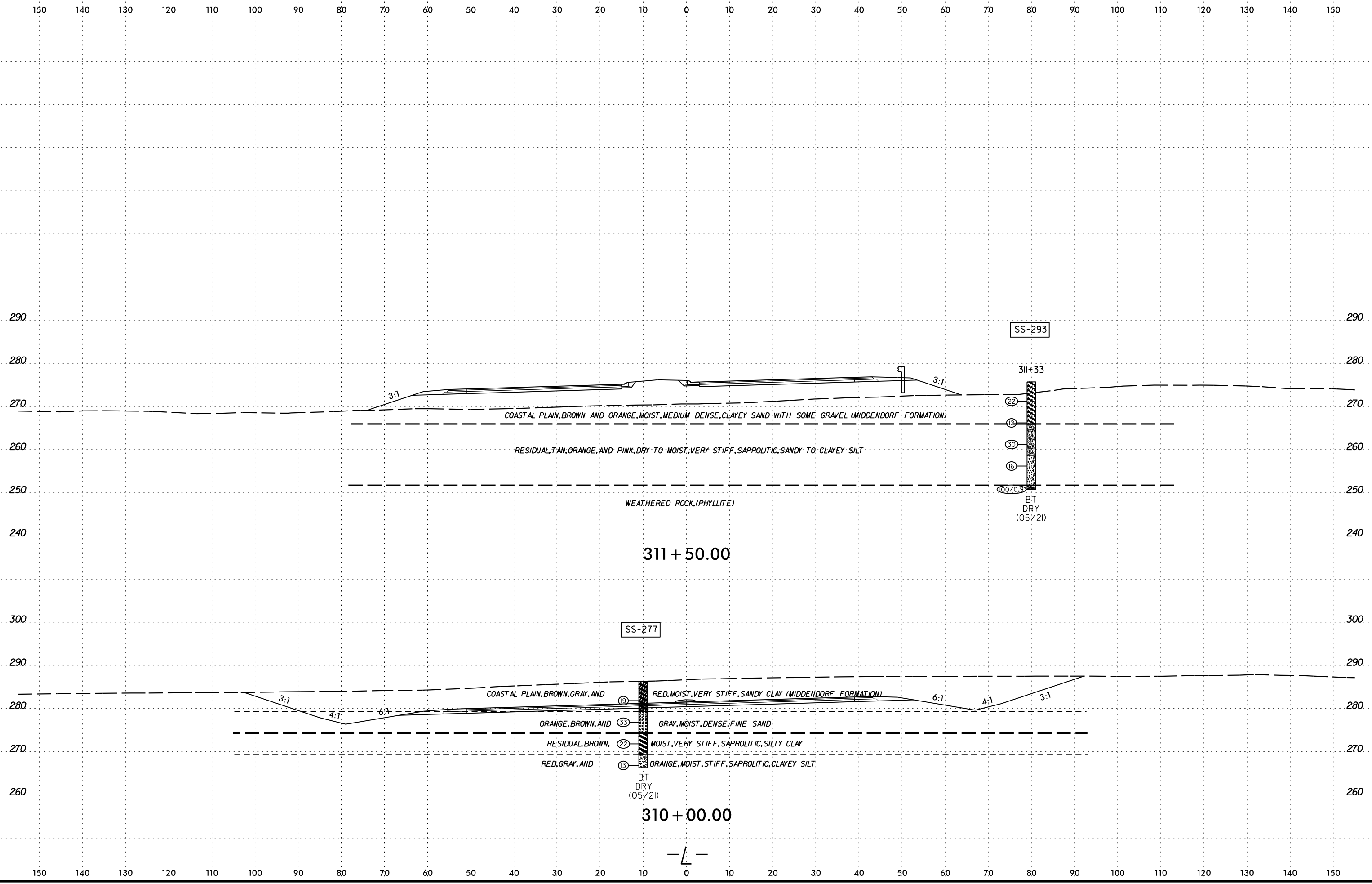


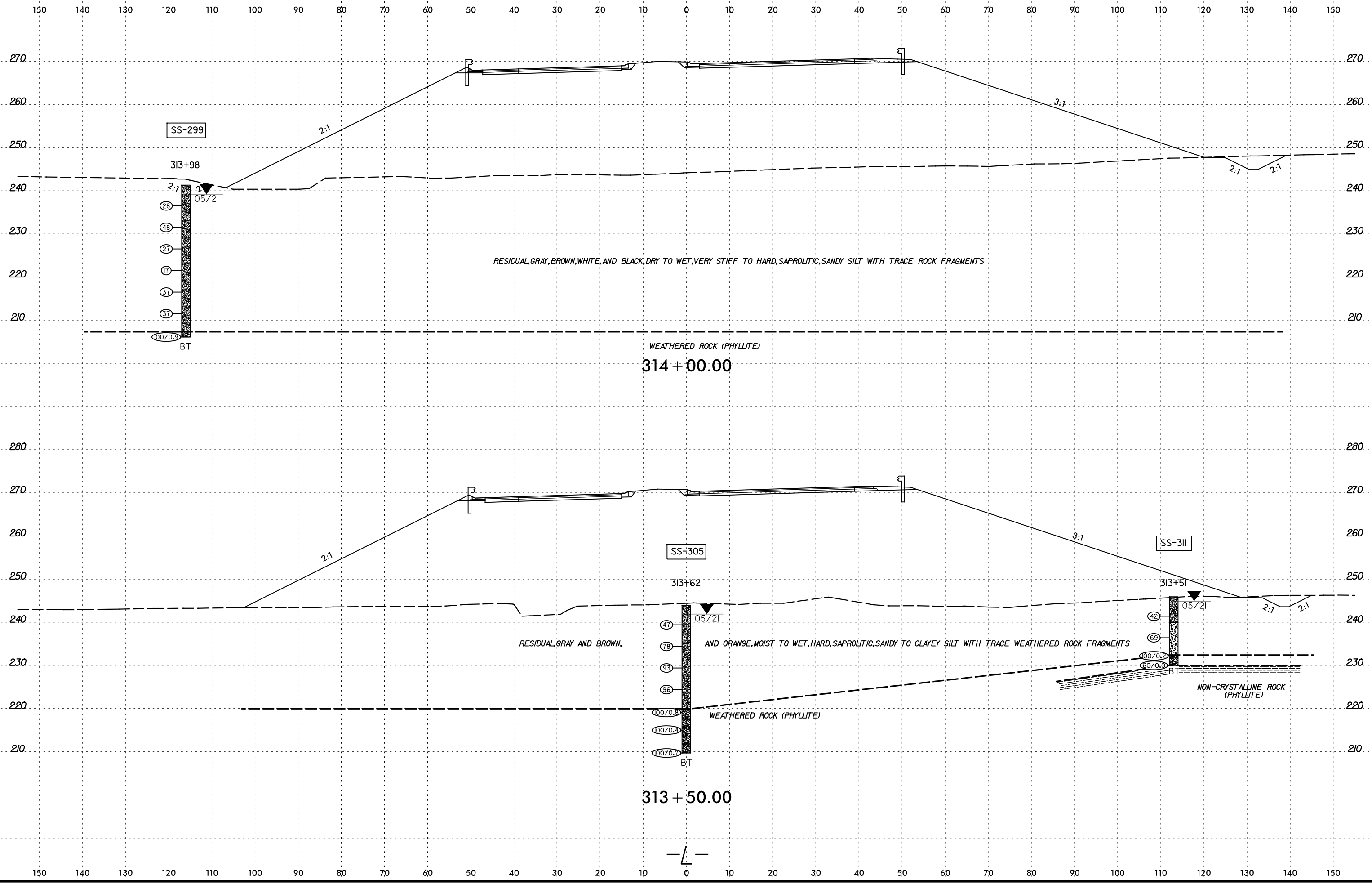


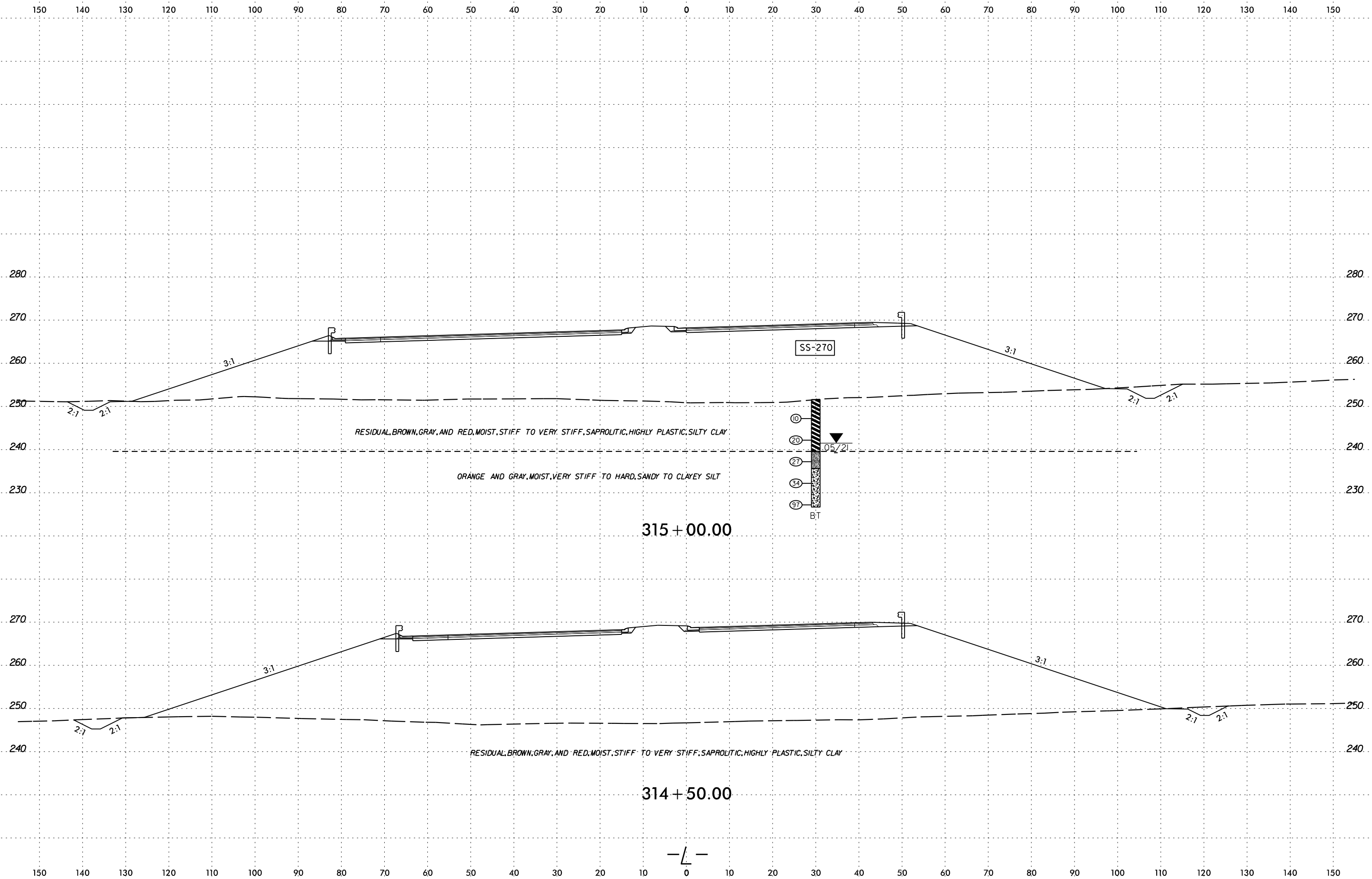


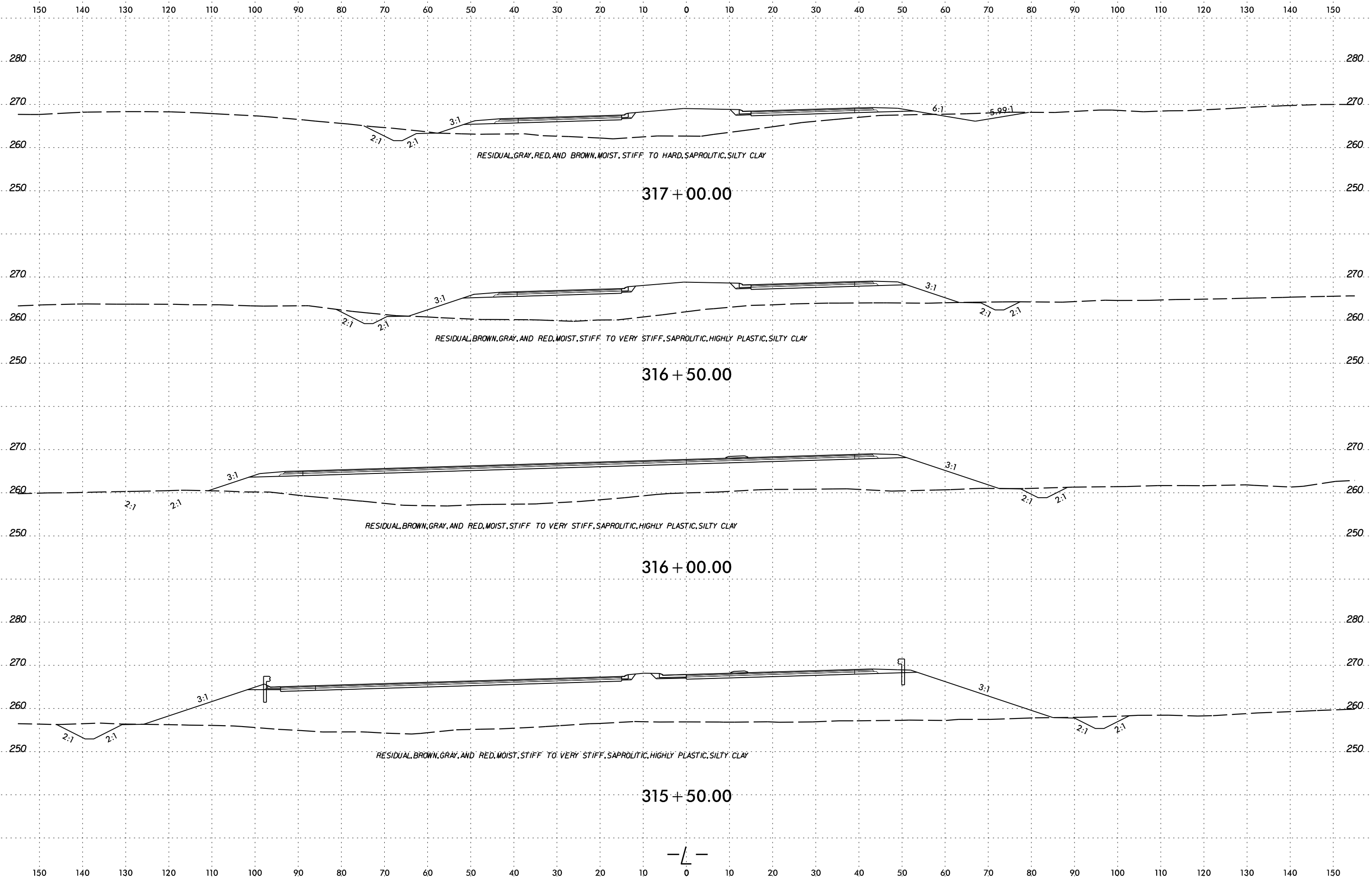
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David.Journe



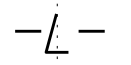


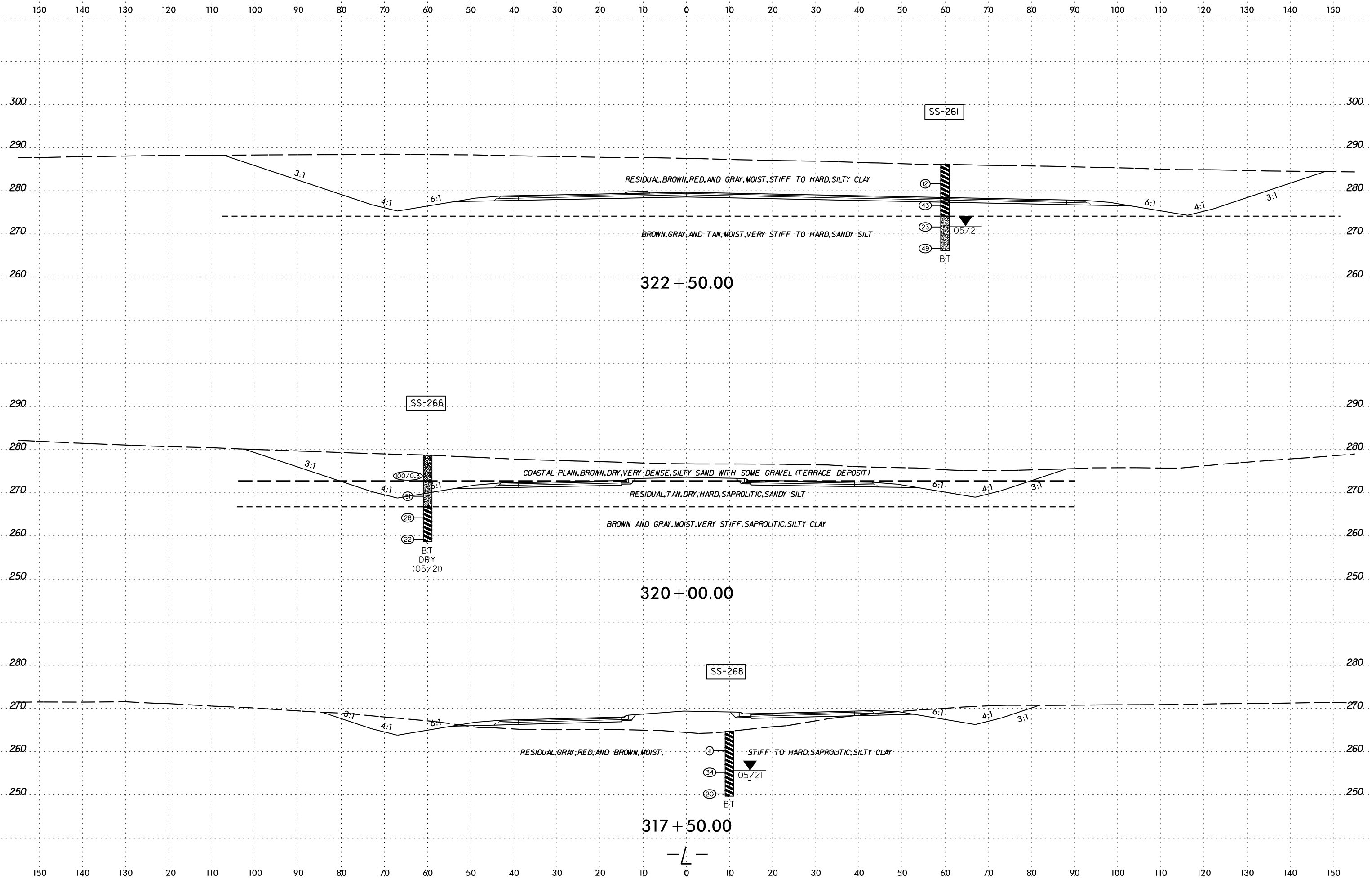


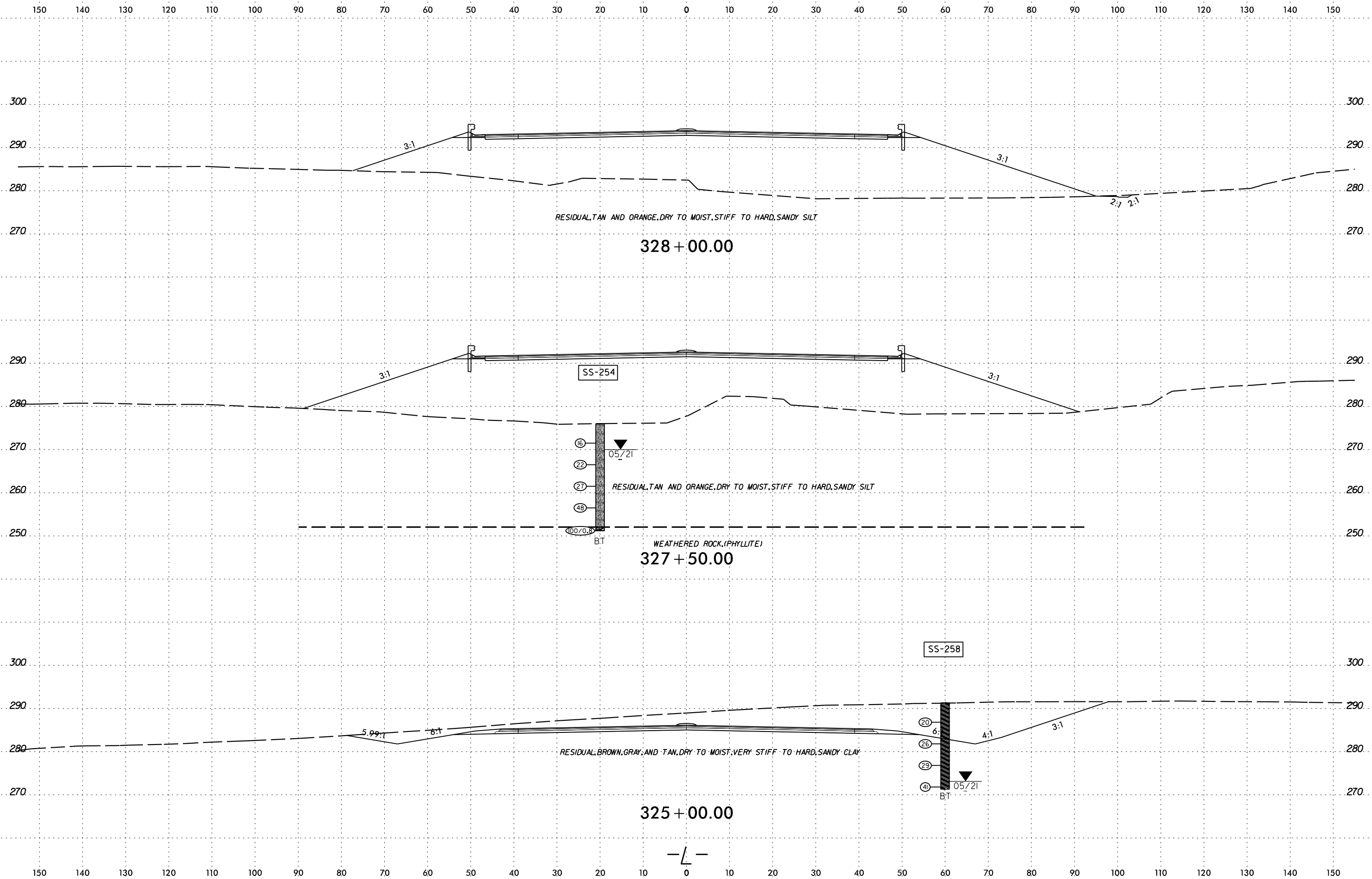




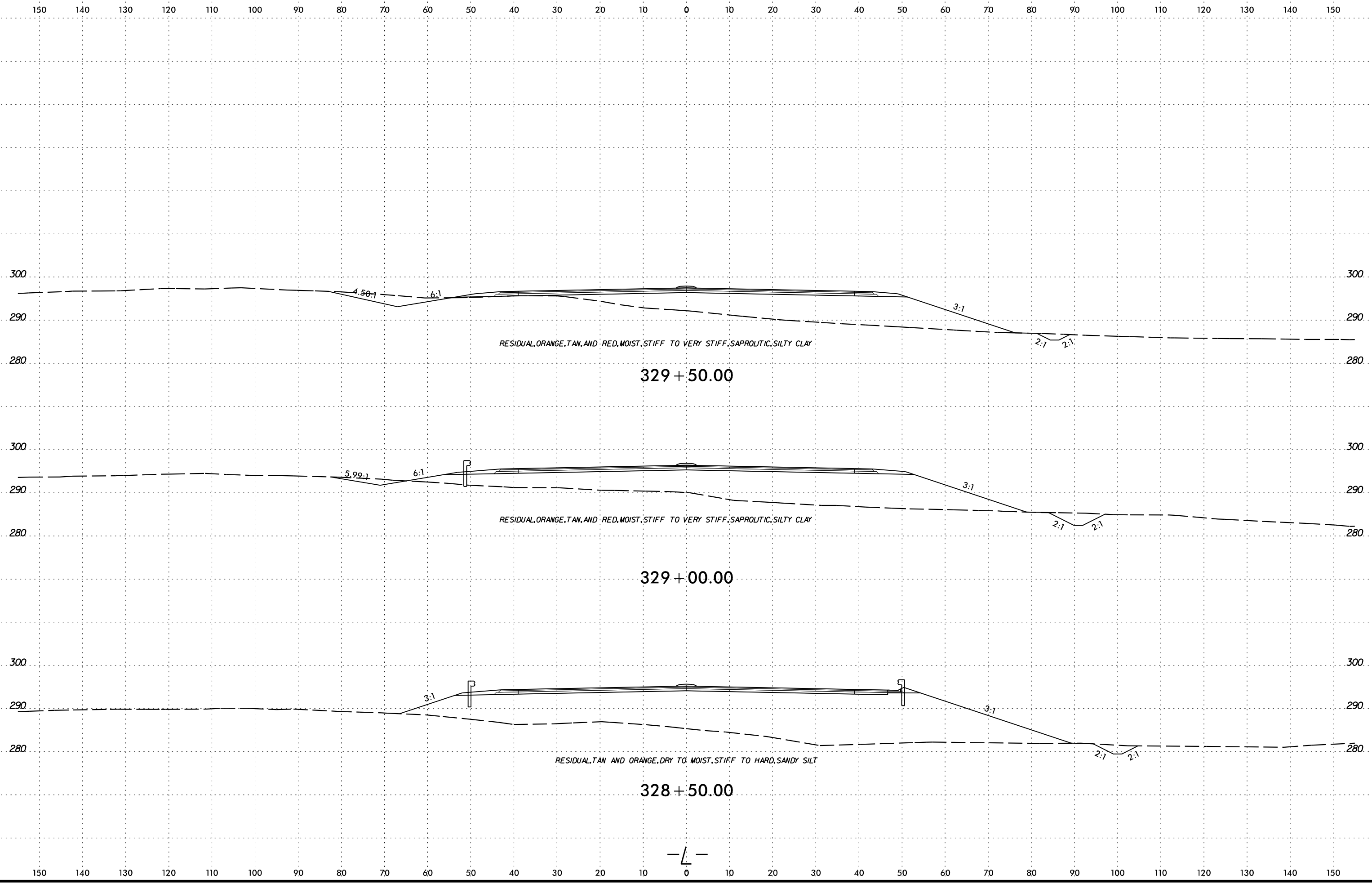
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David.Lounes



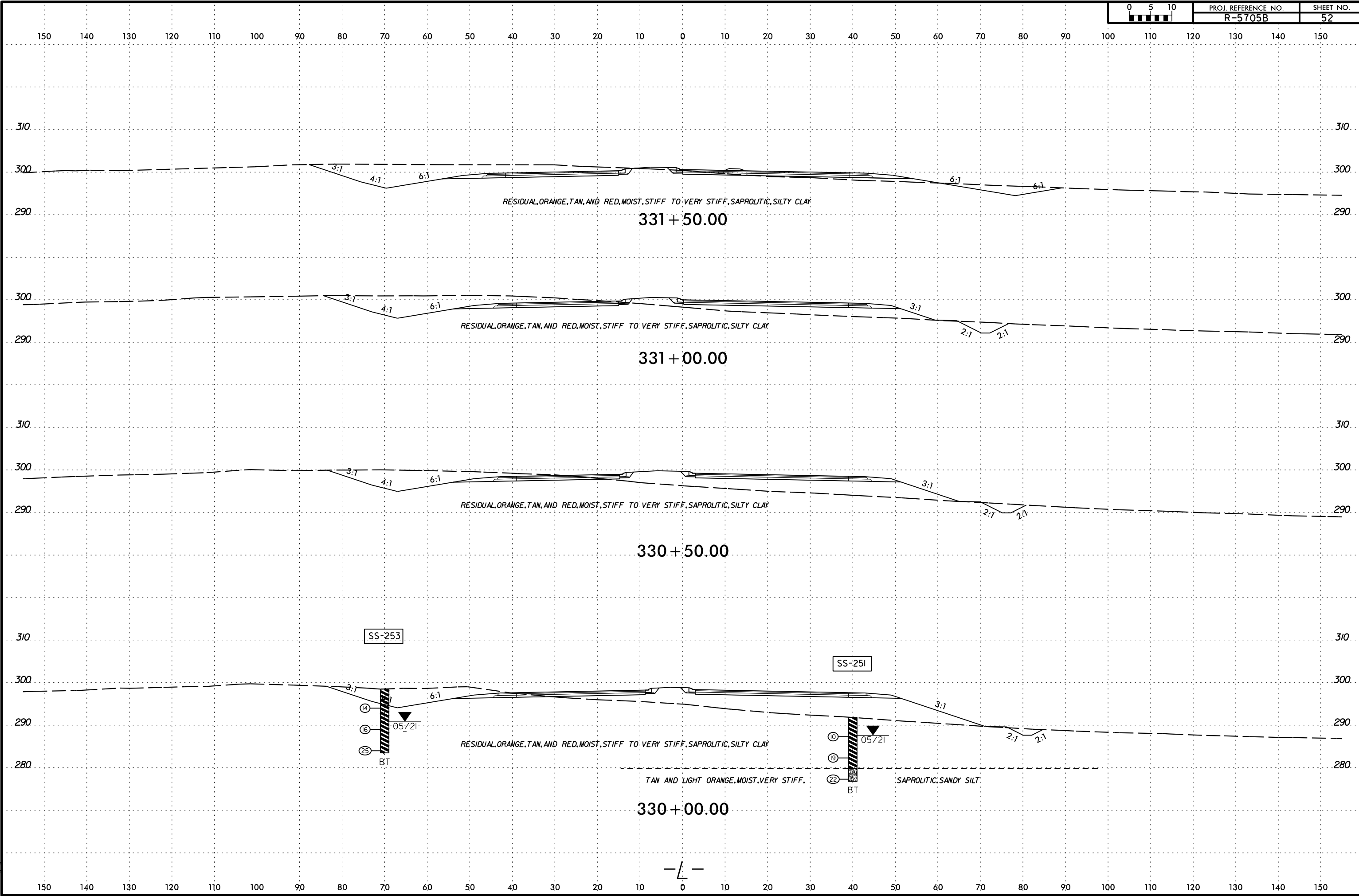




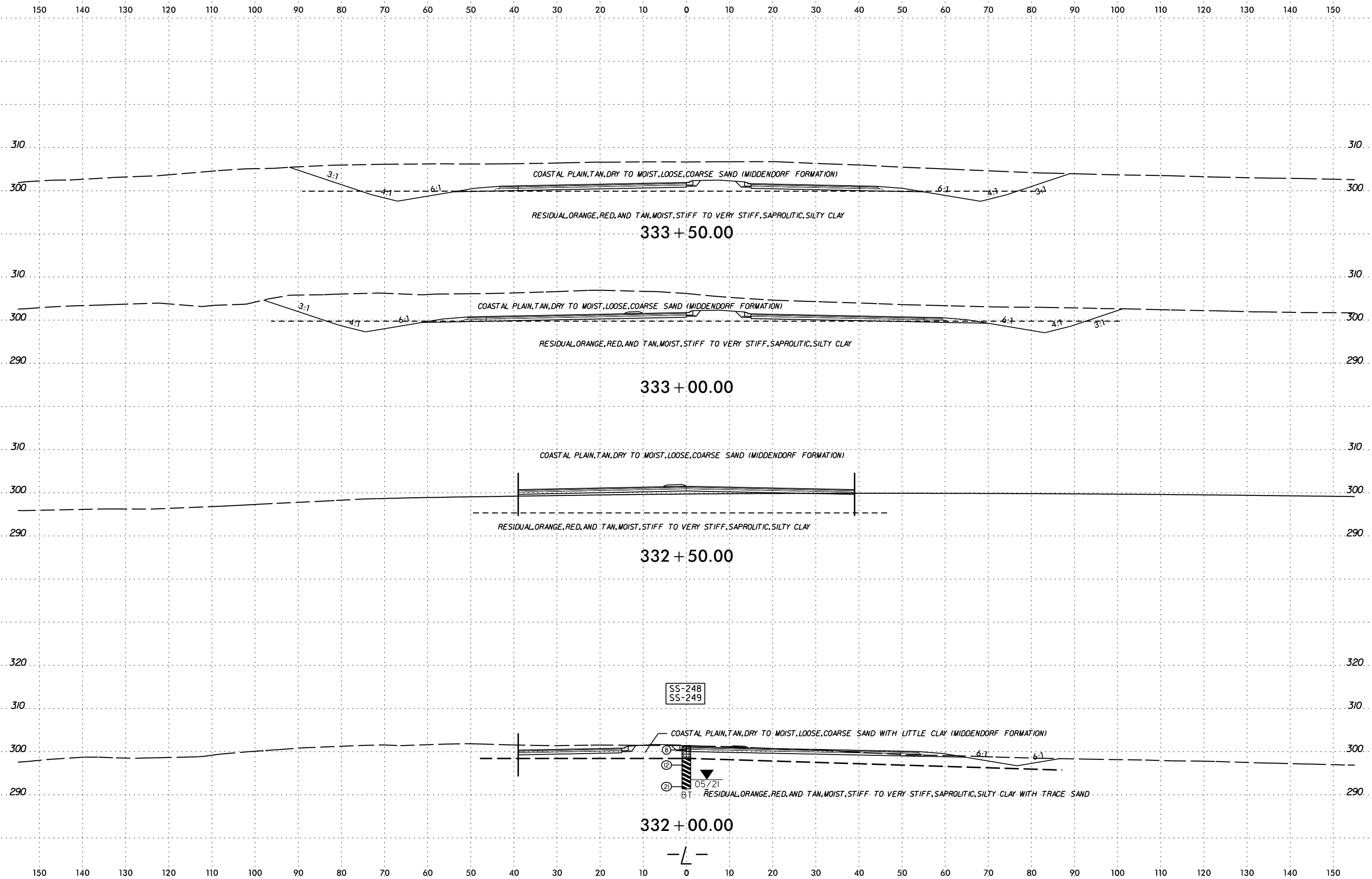
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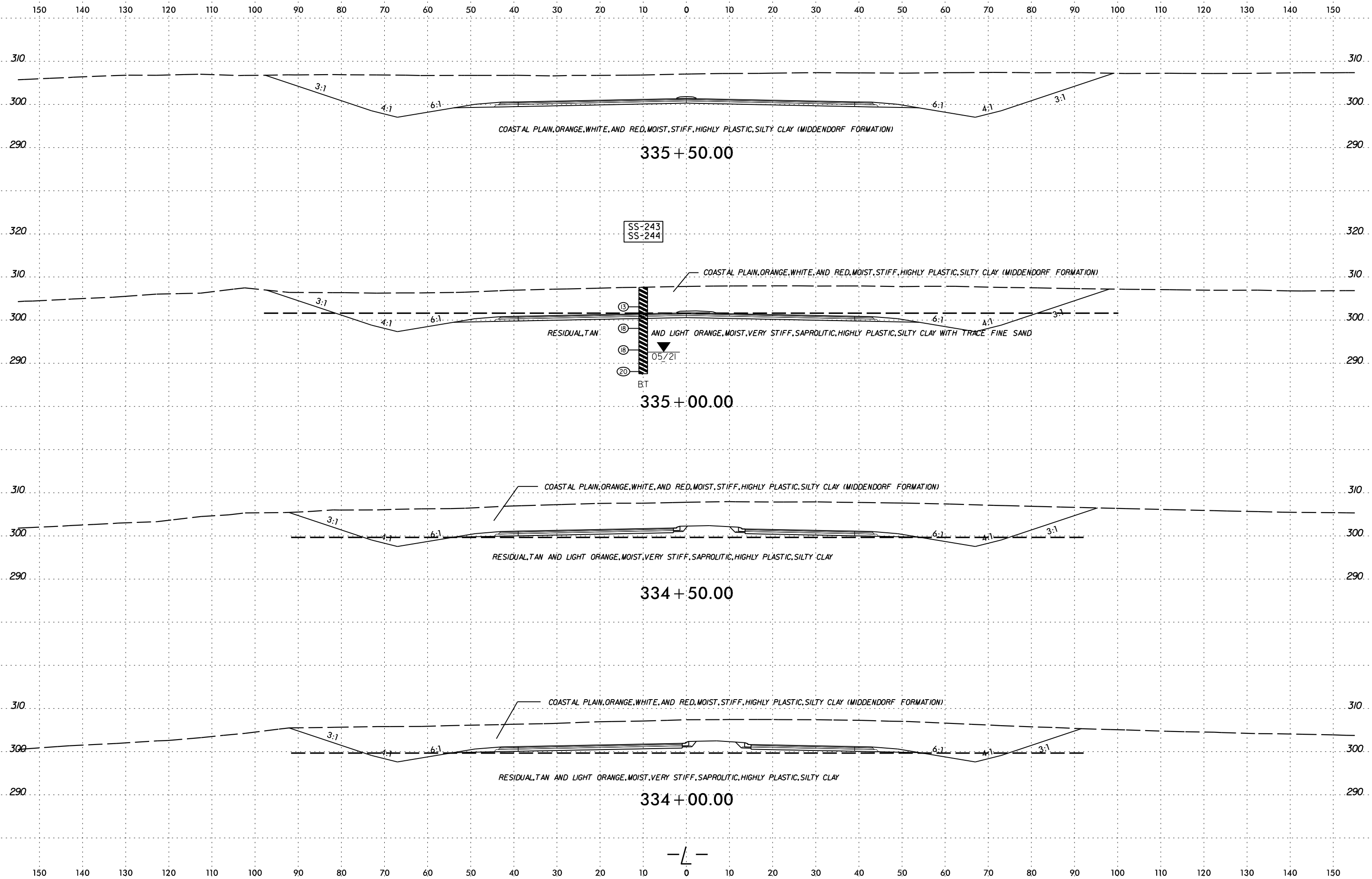


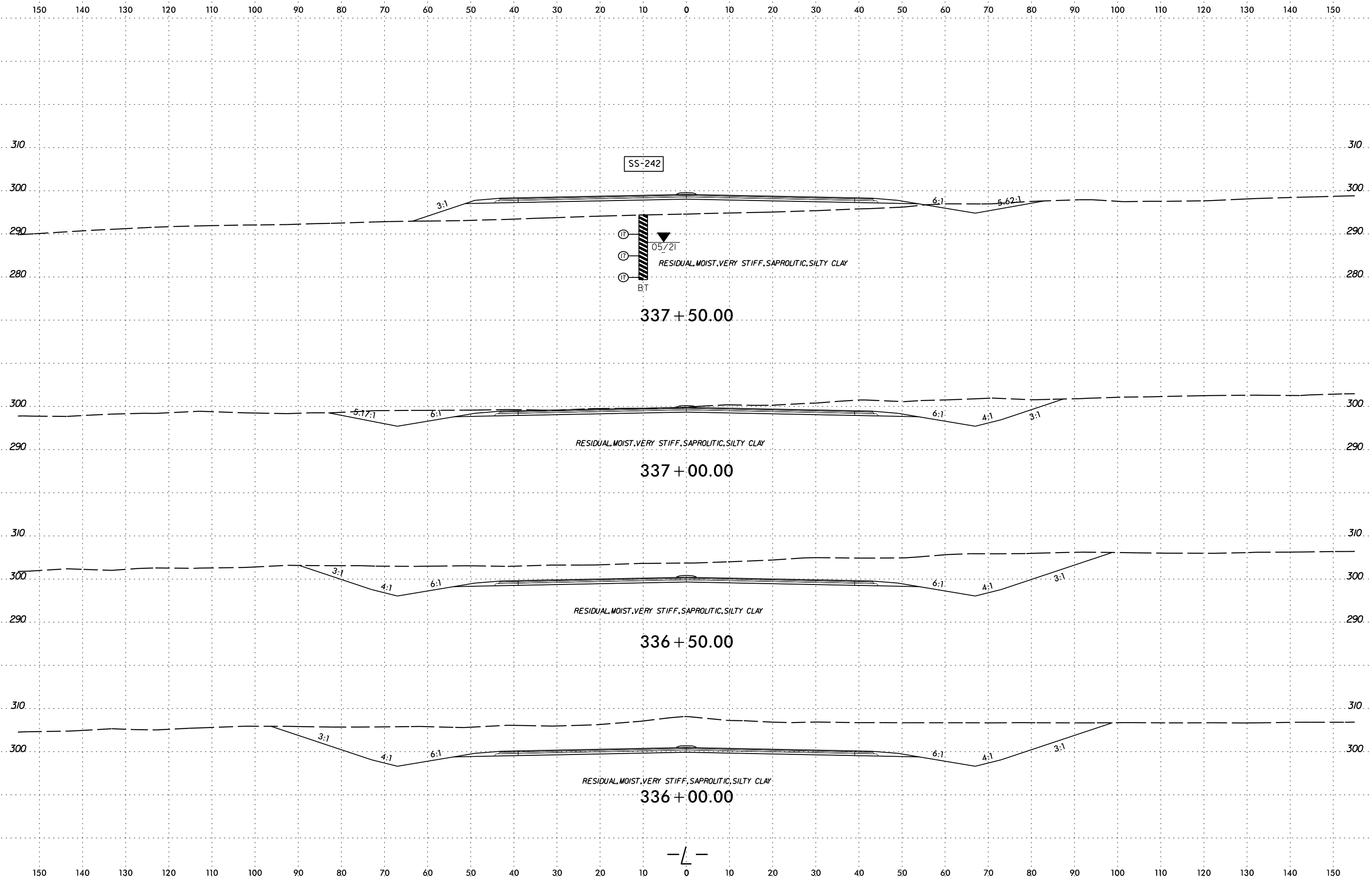
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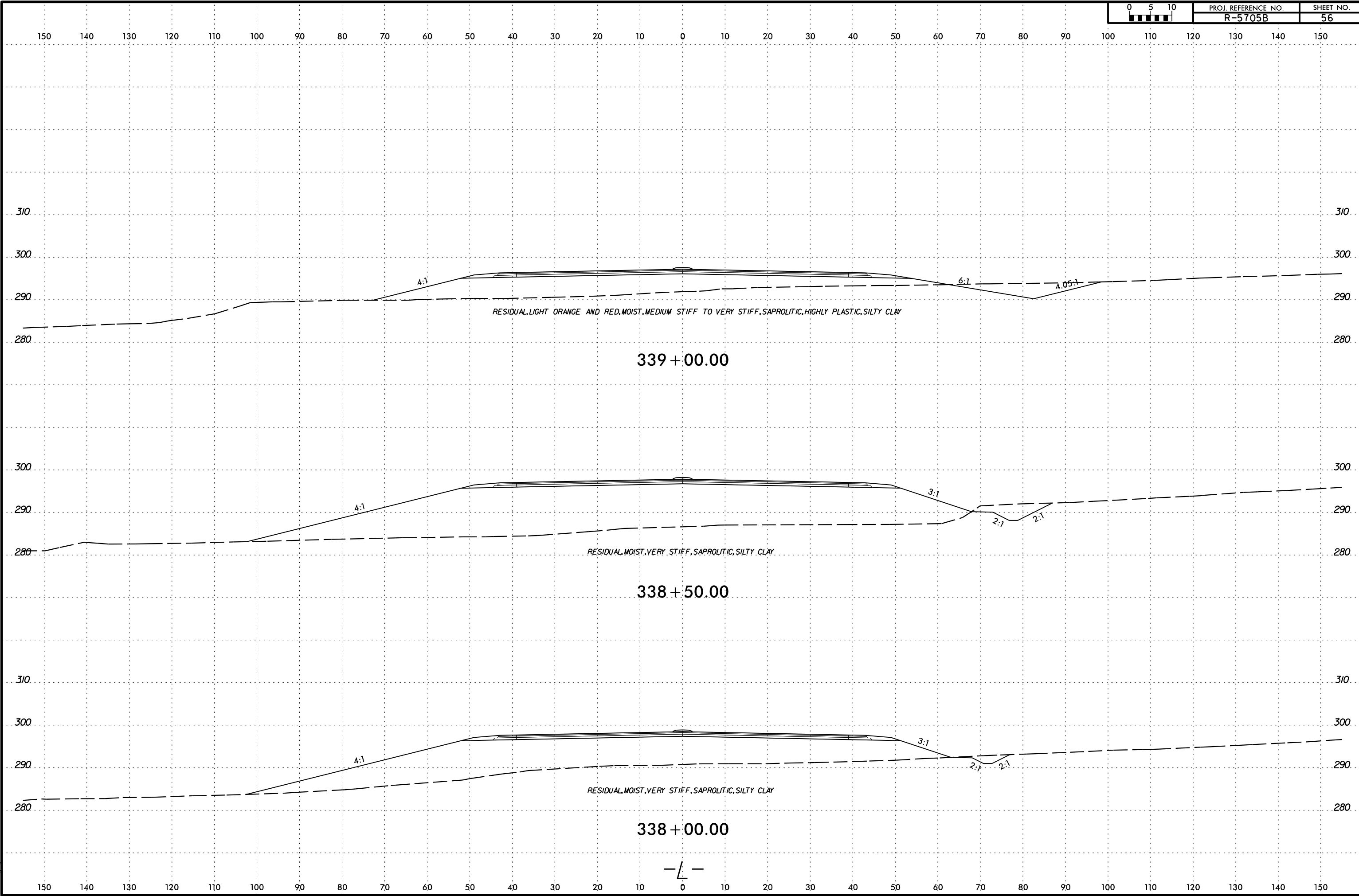


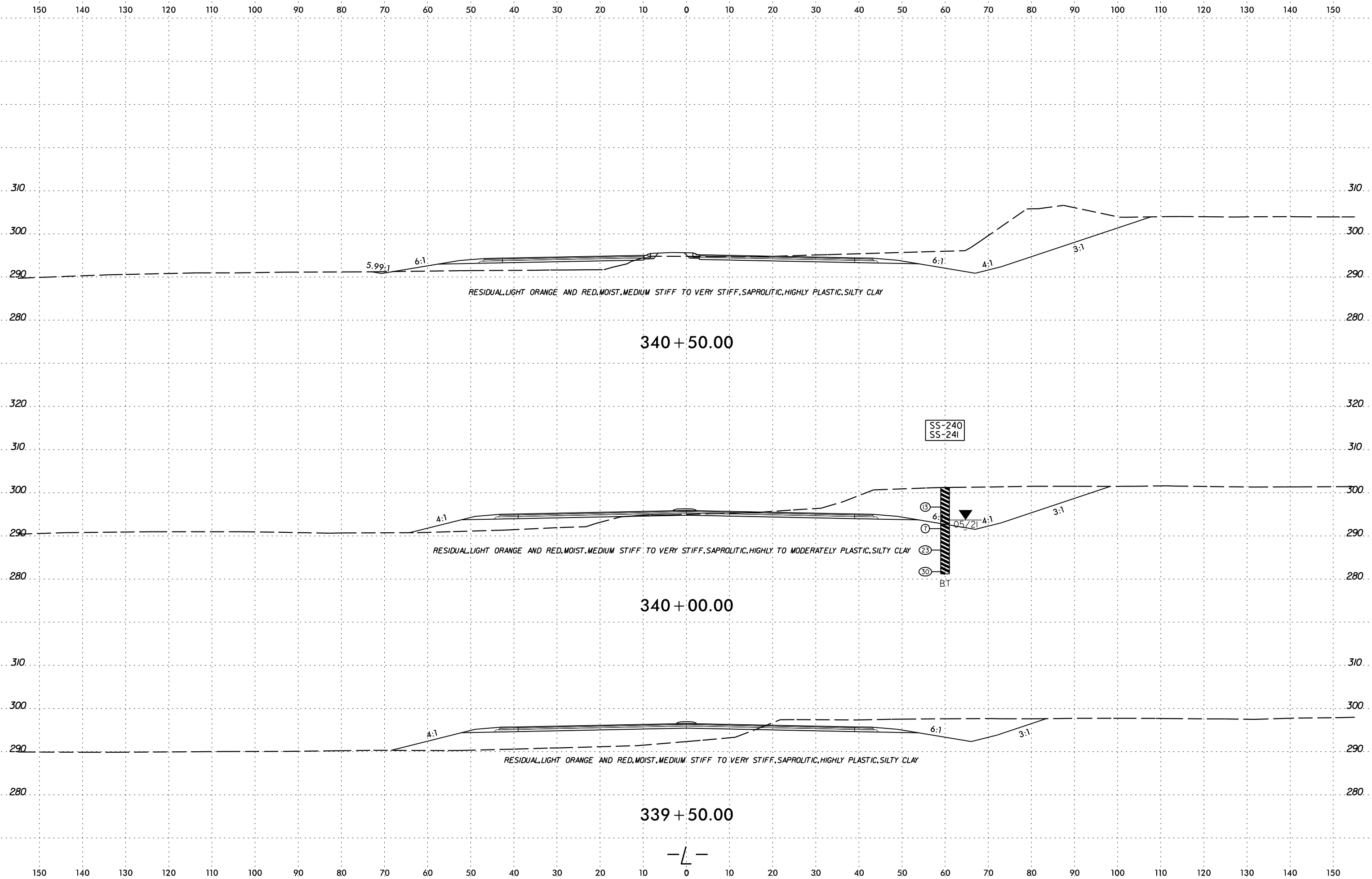


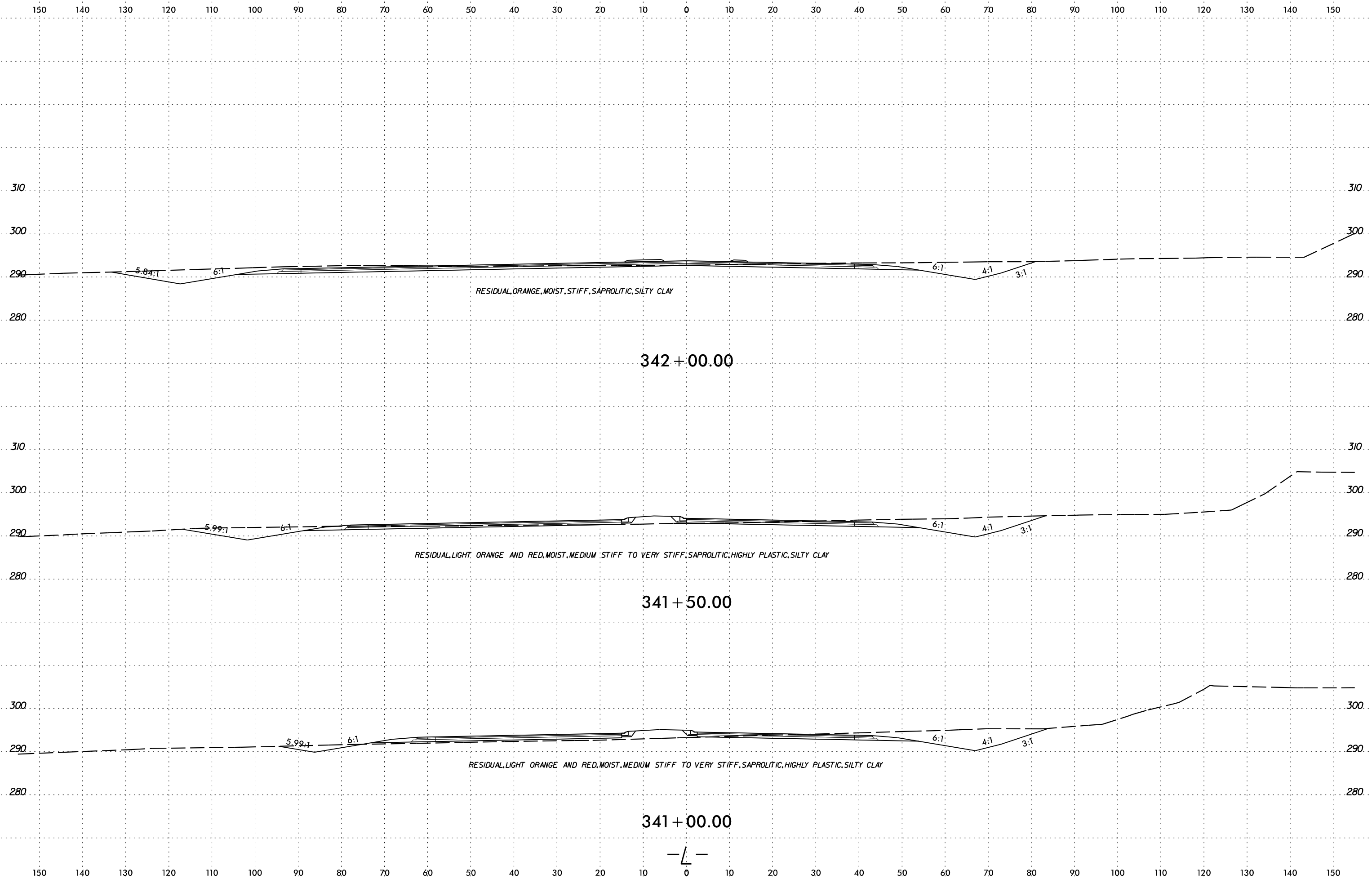


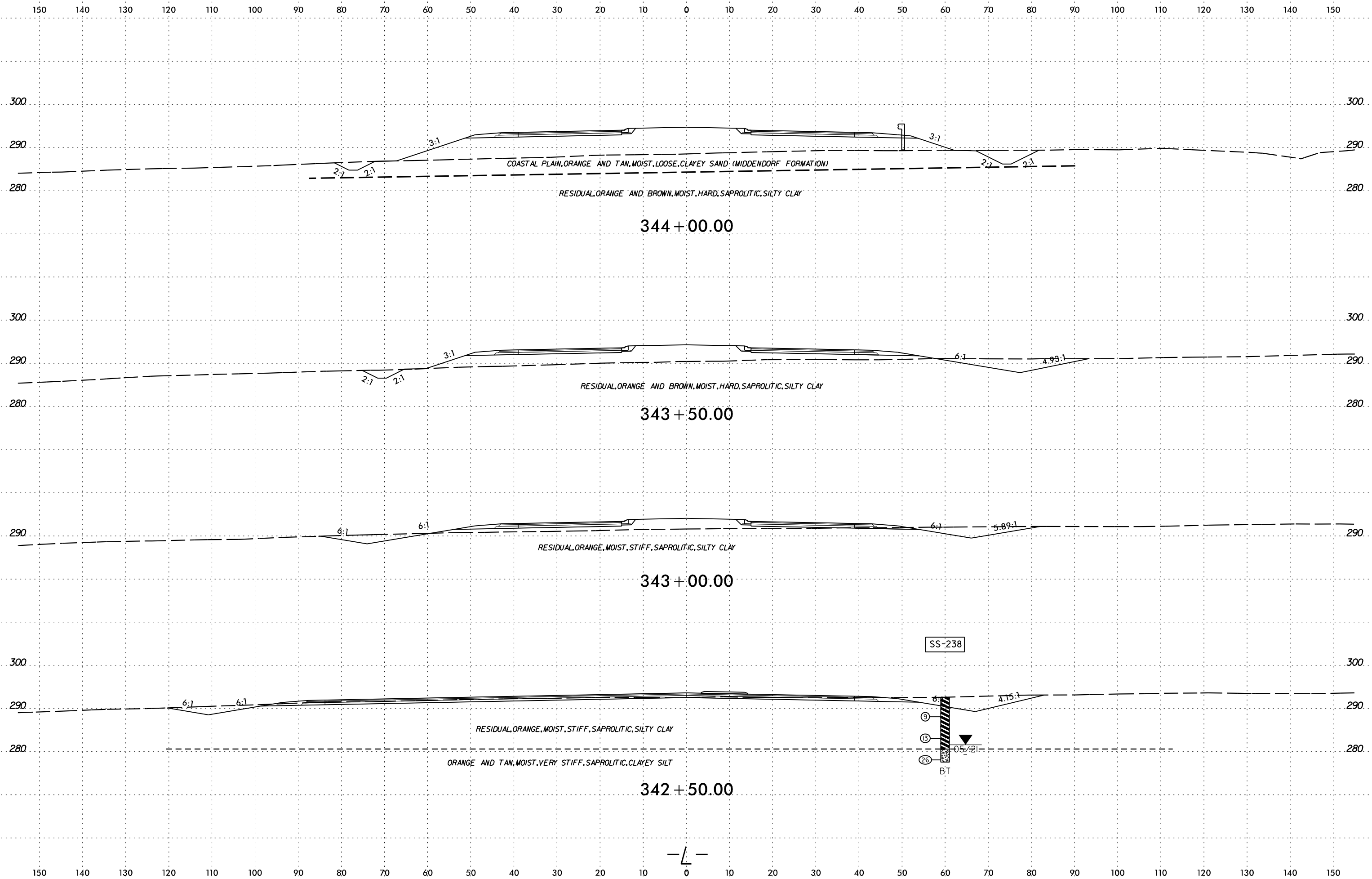
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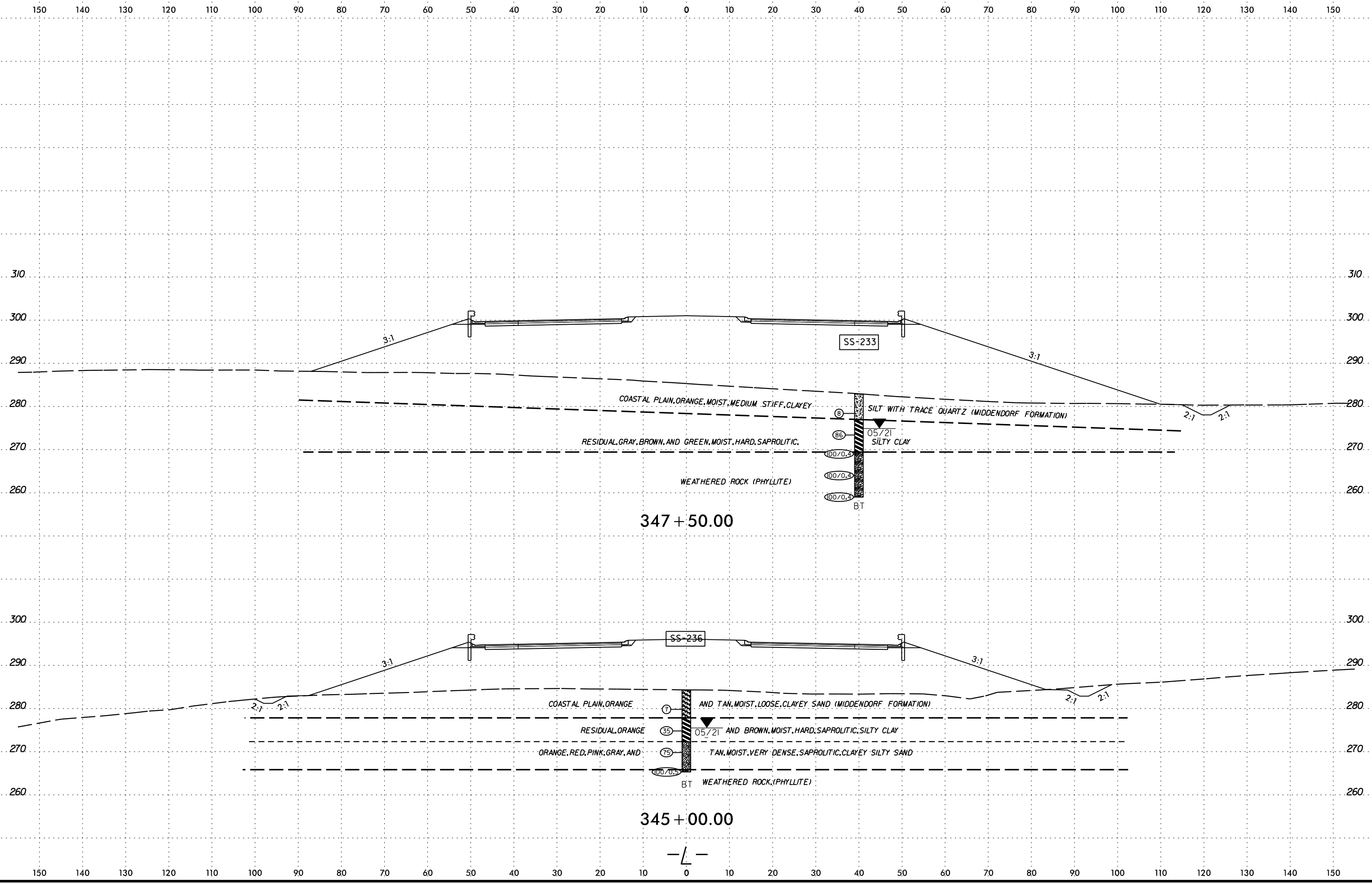


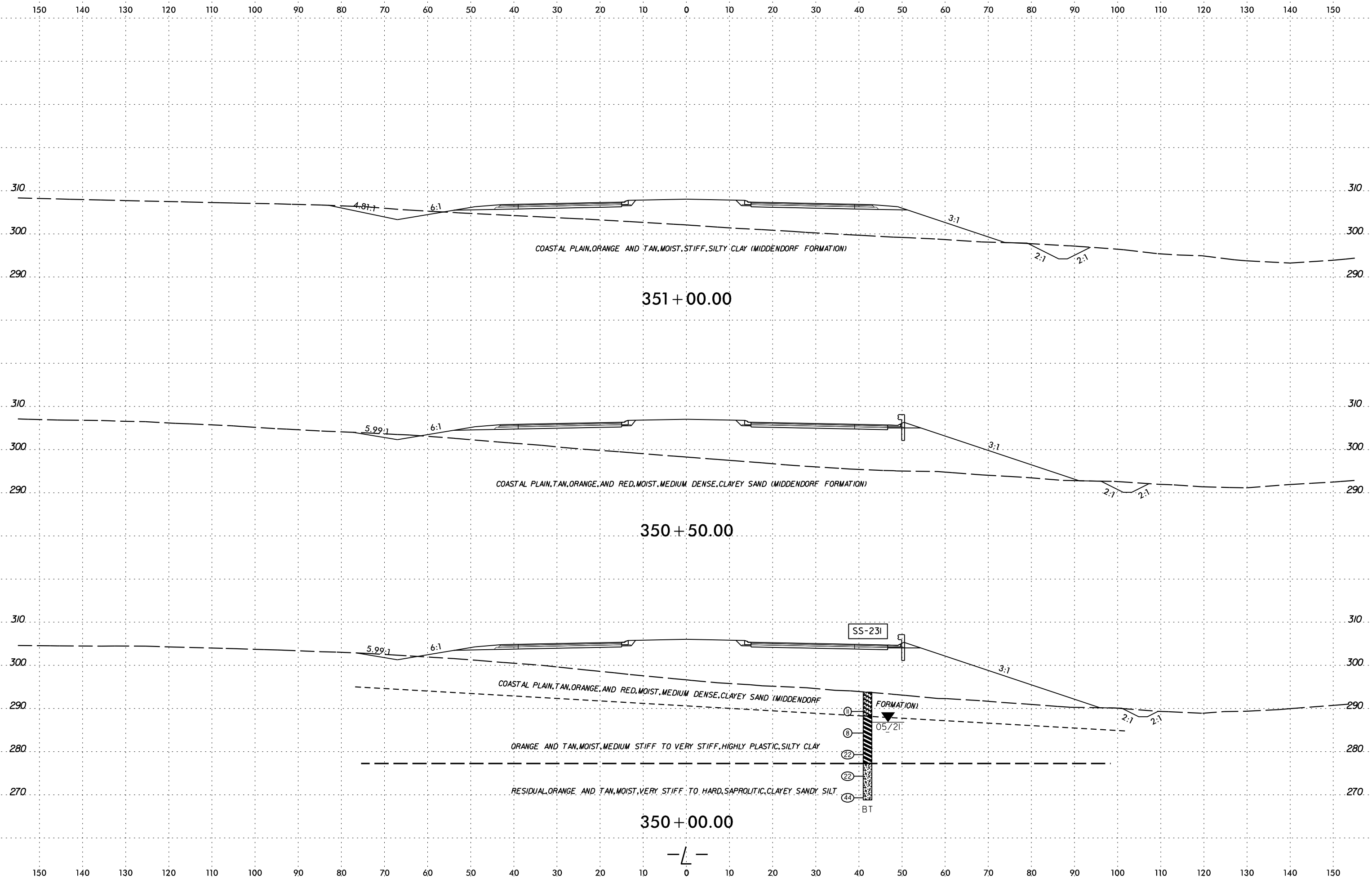




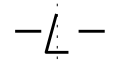




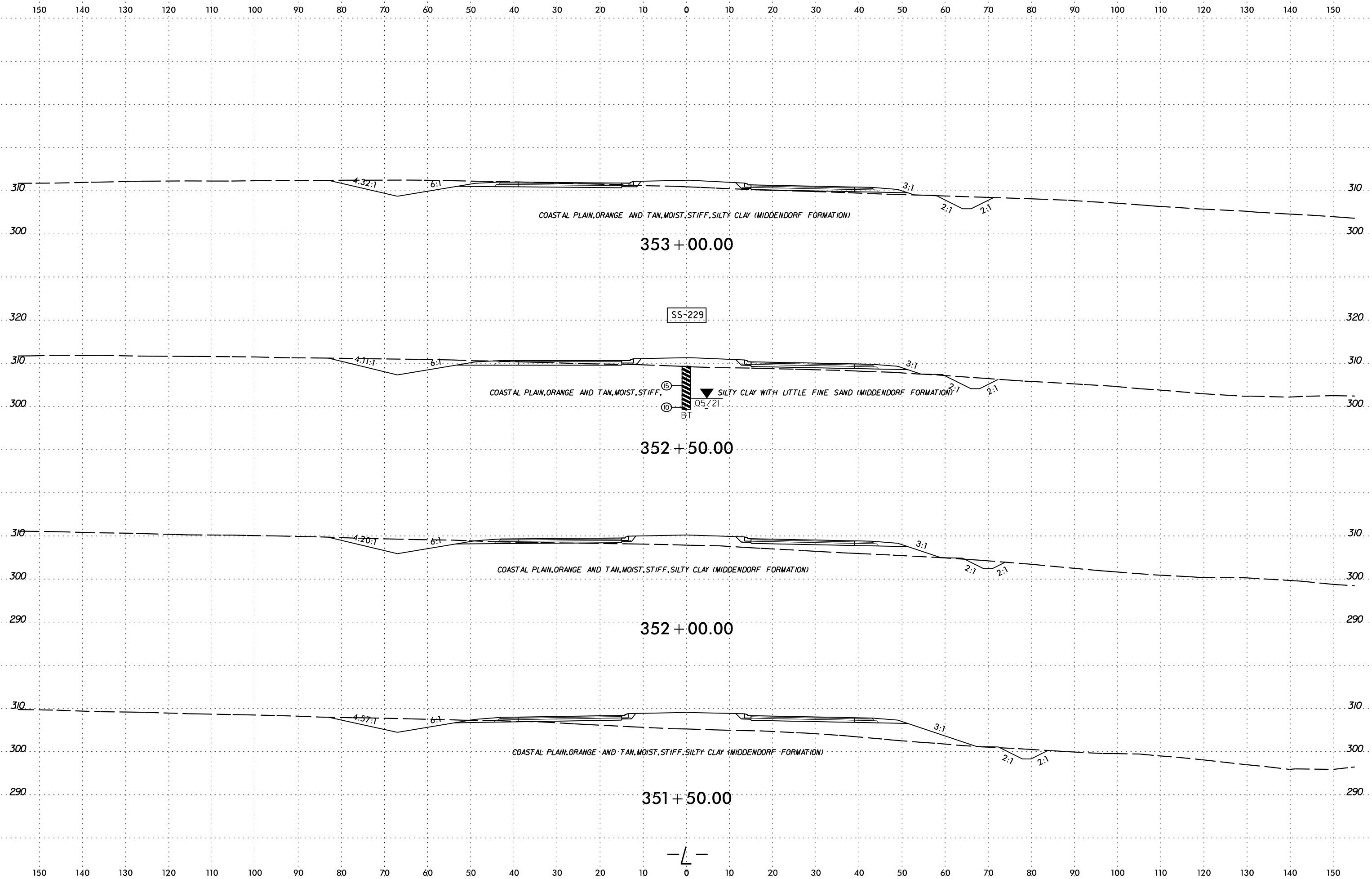




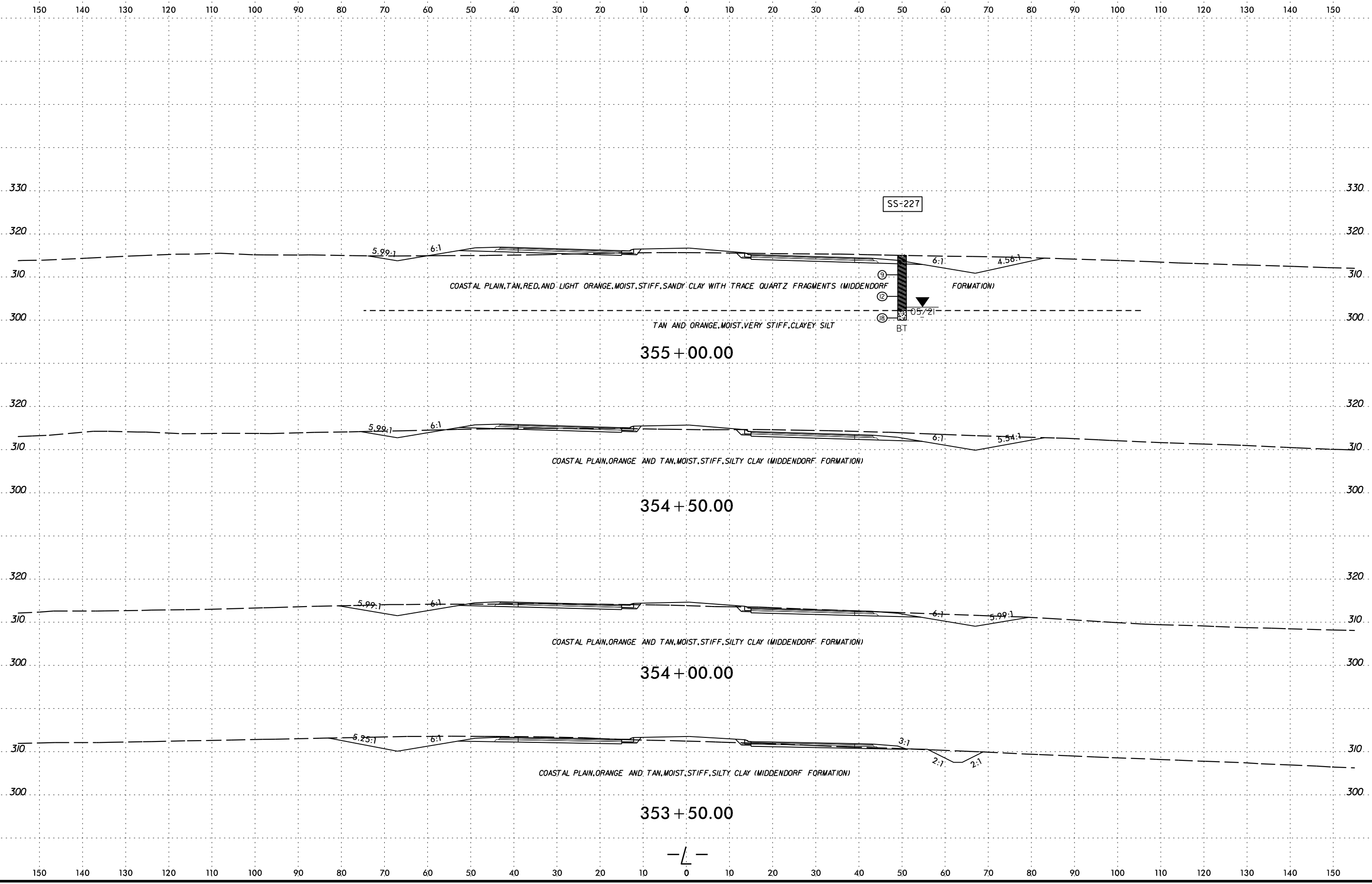
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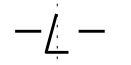
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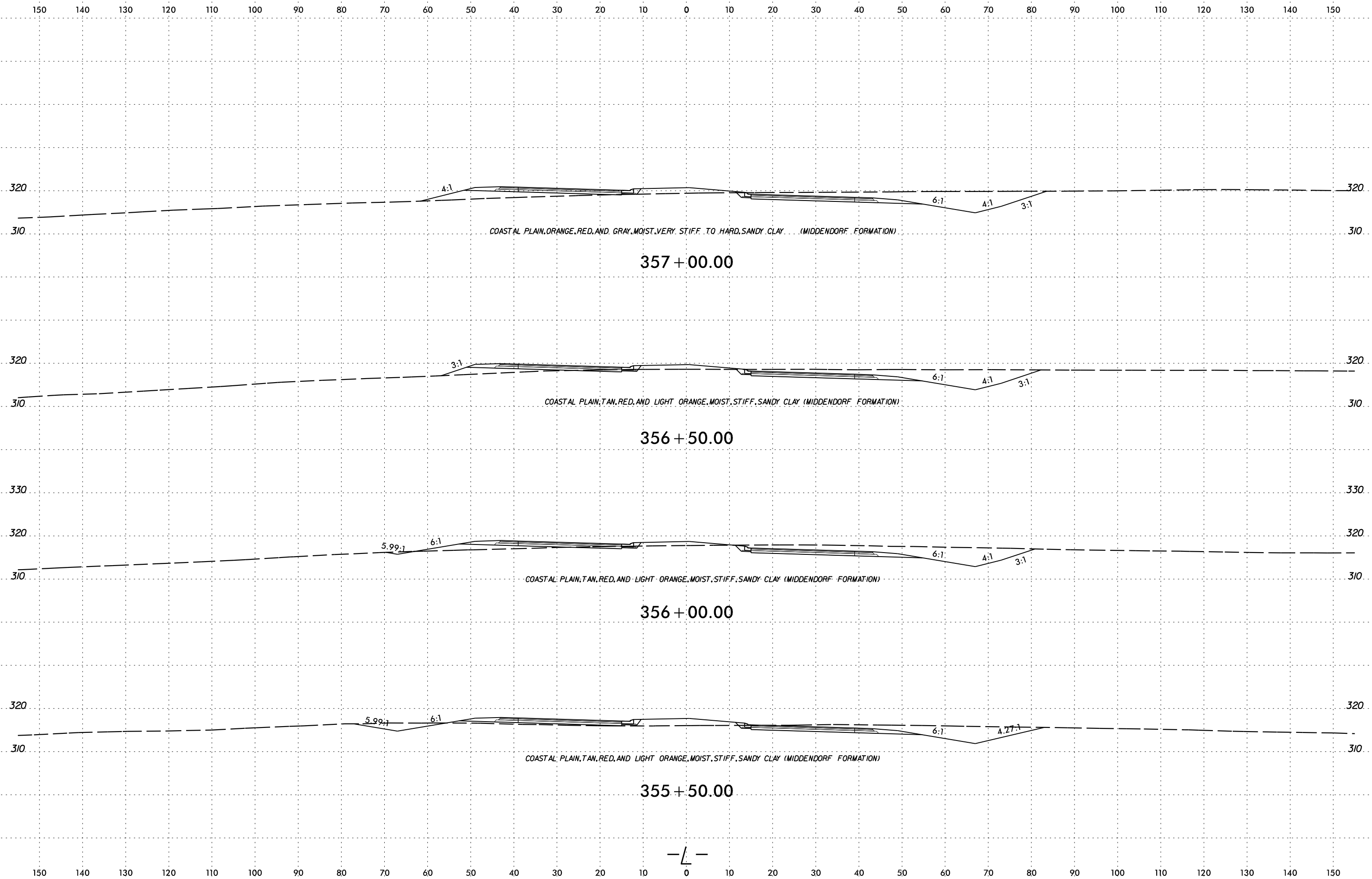


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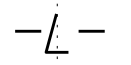


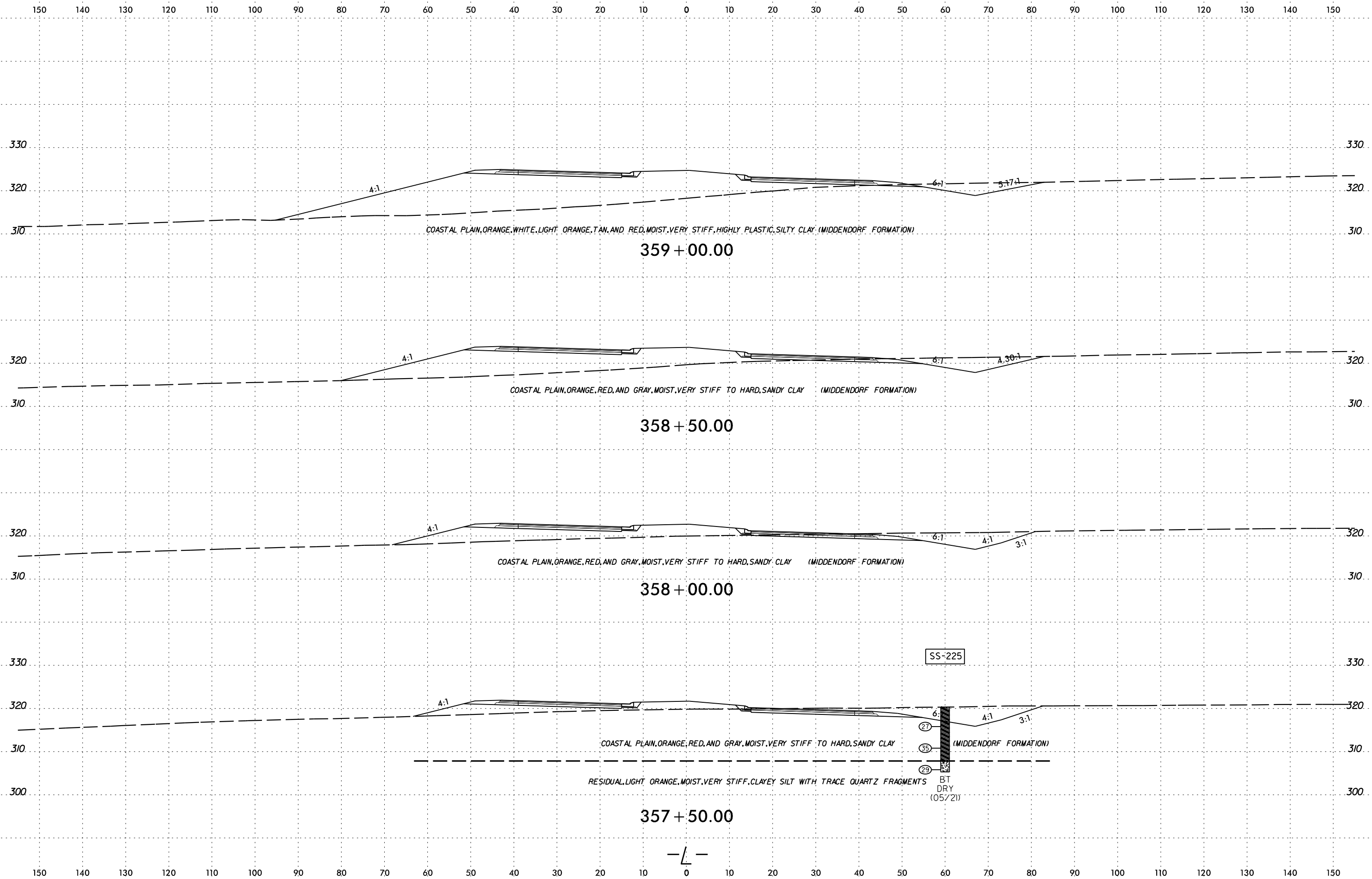
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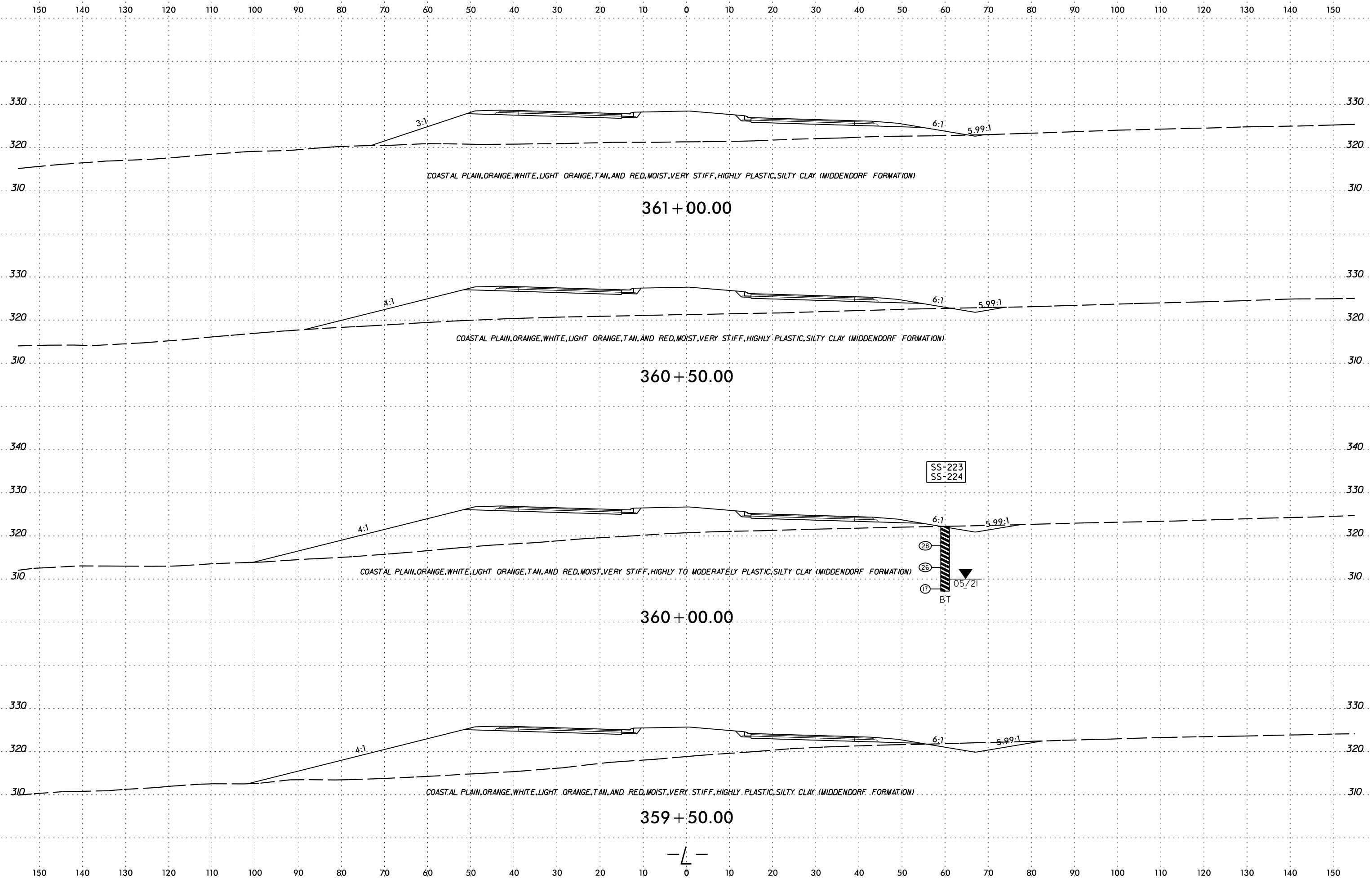


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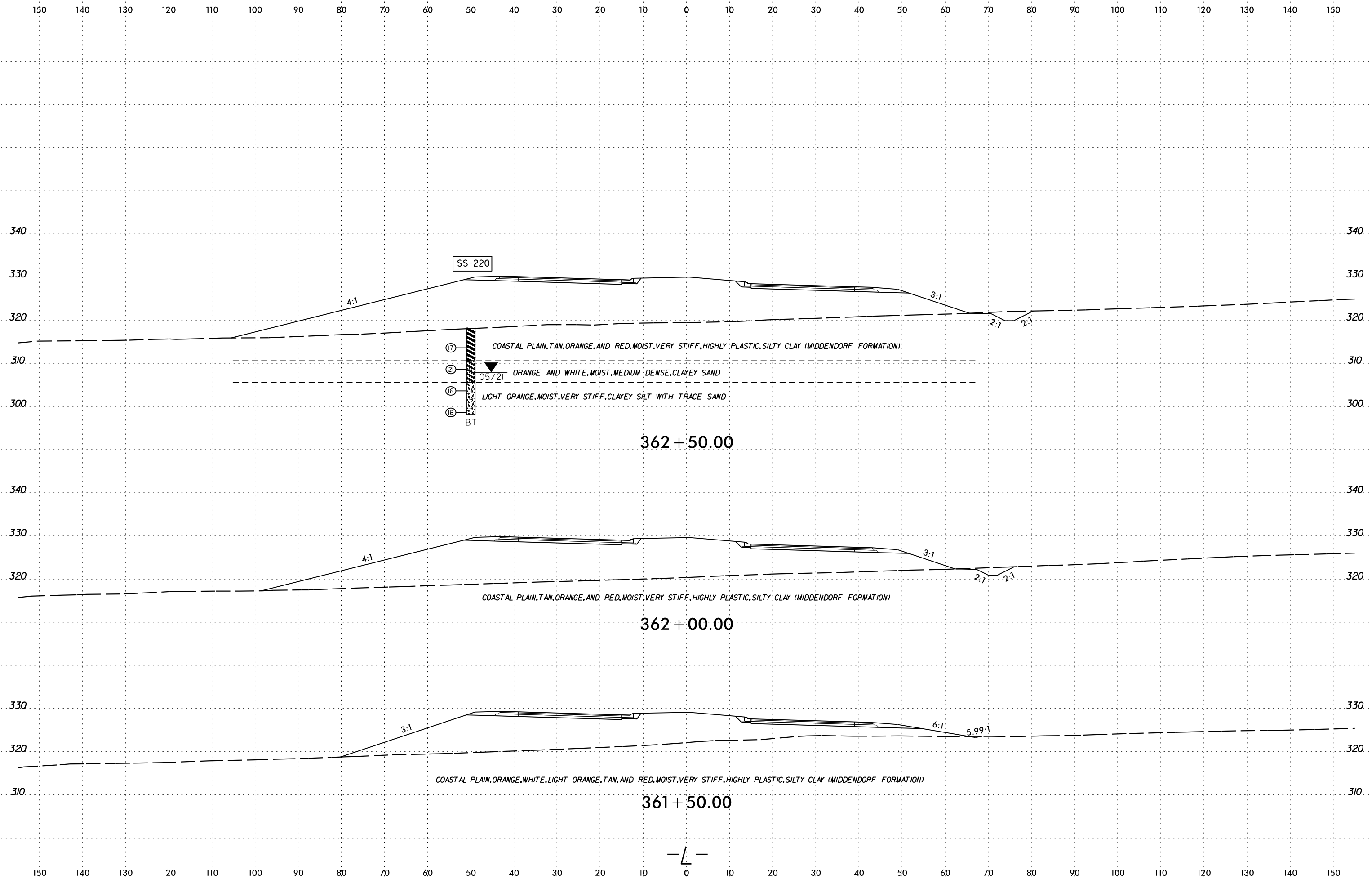
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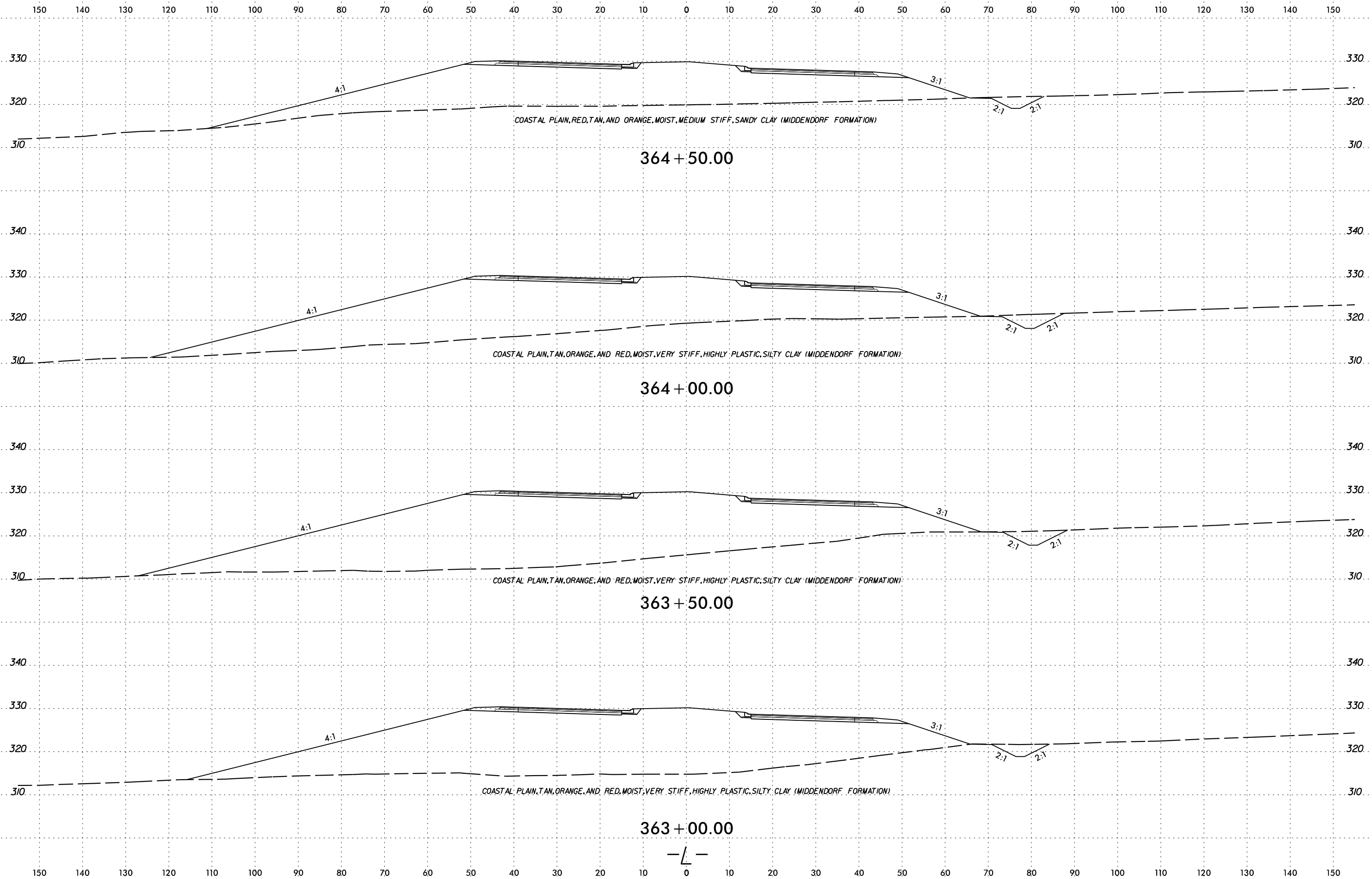
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R-5705B	66



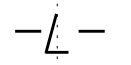
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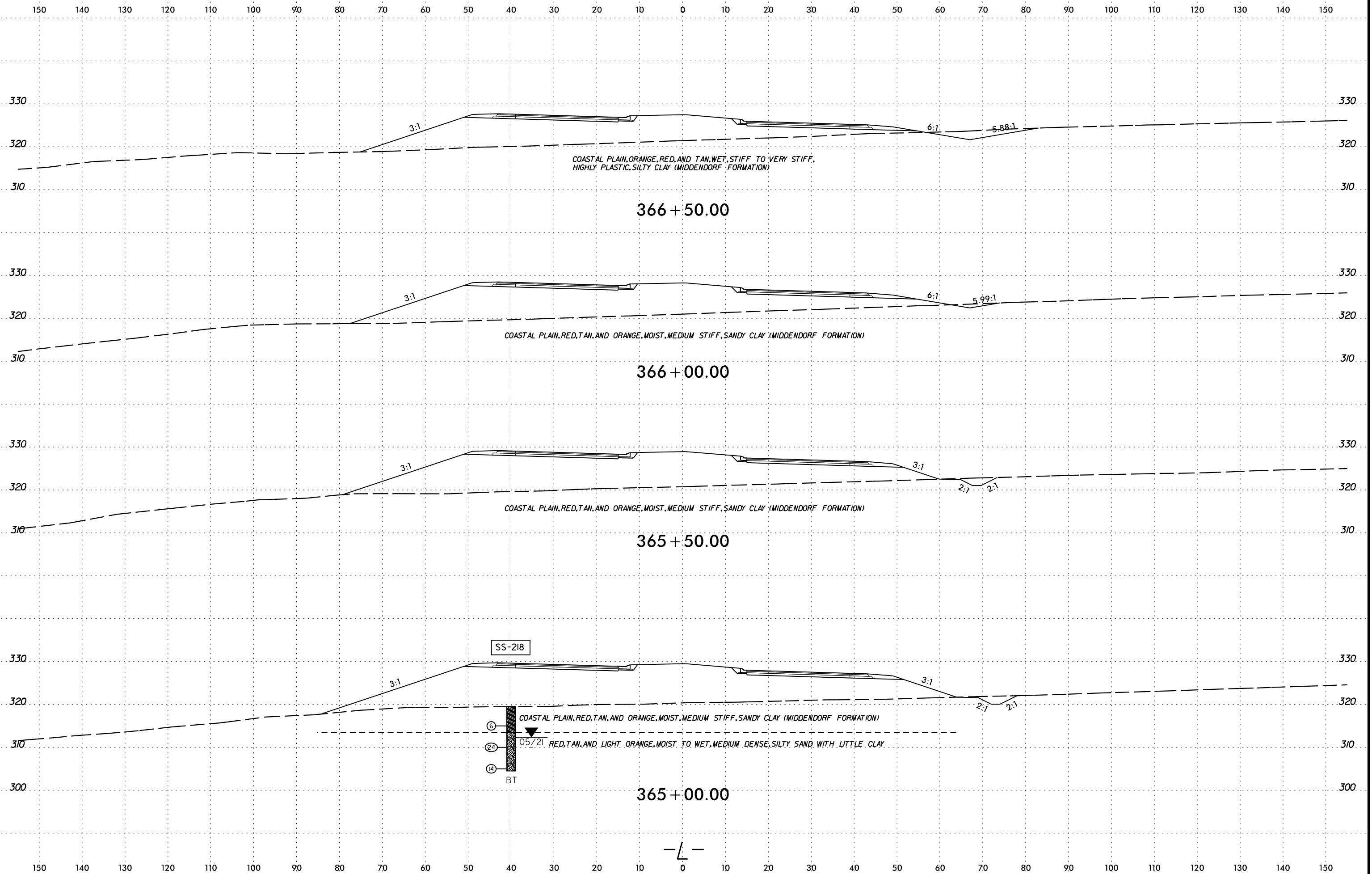


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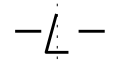


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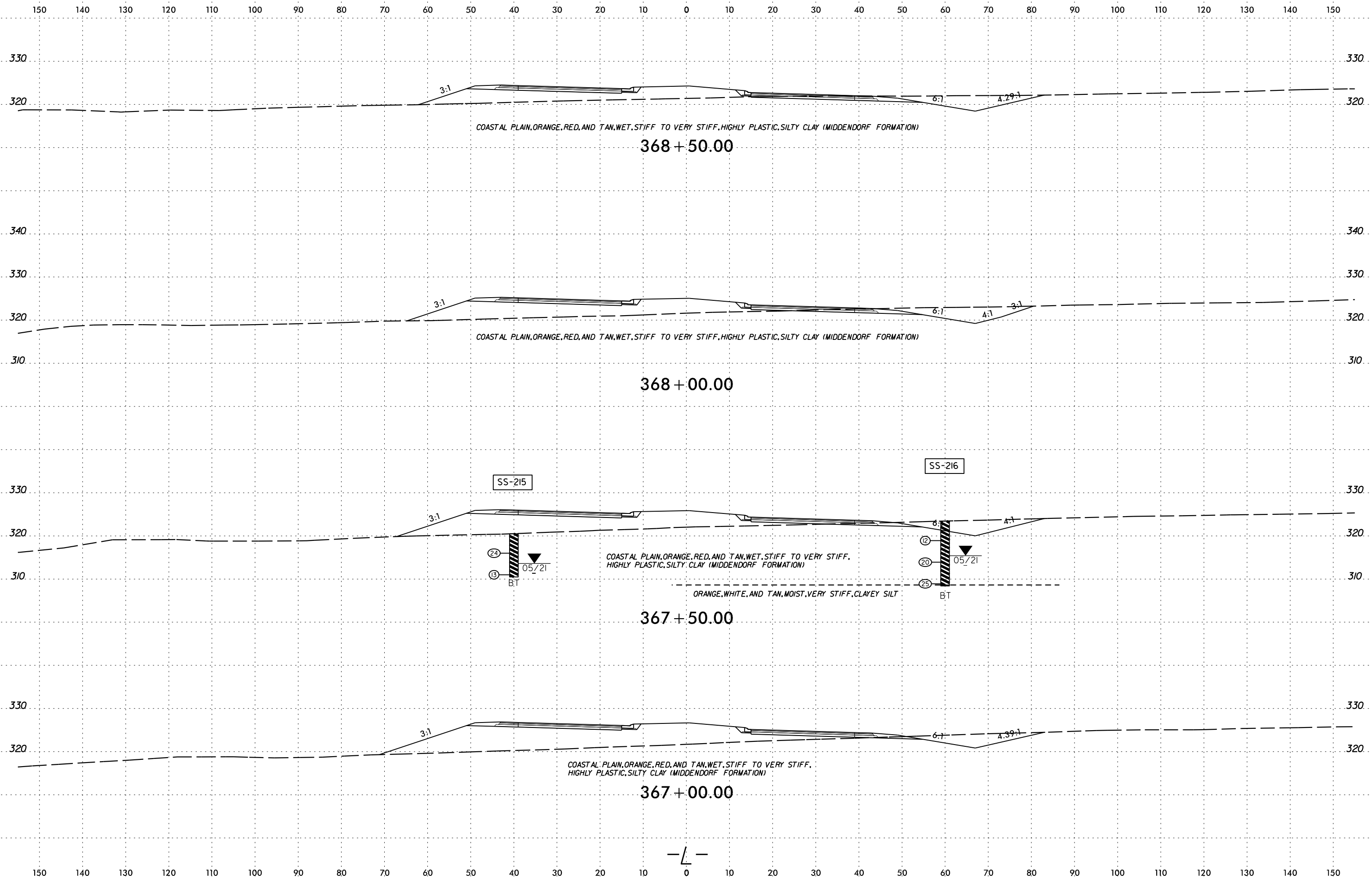




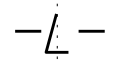
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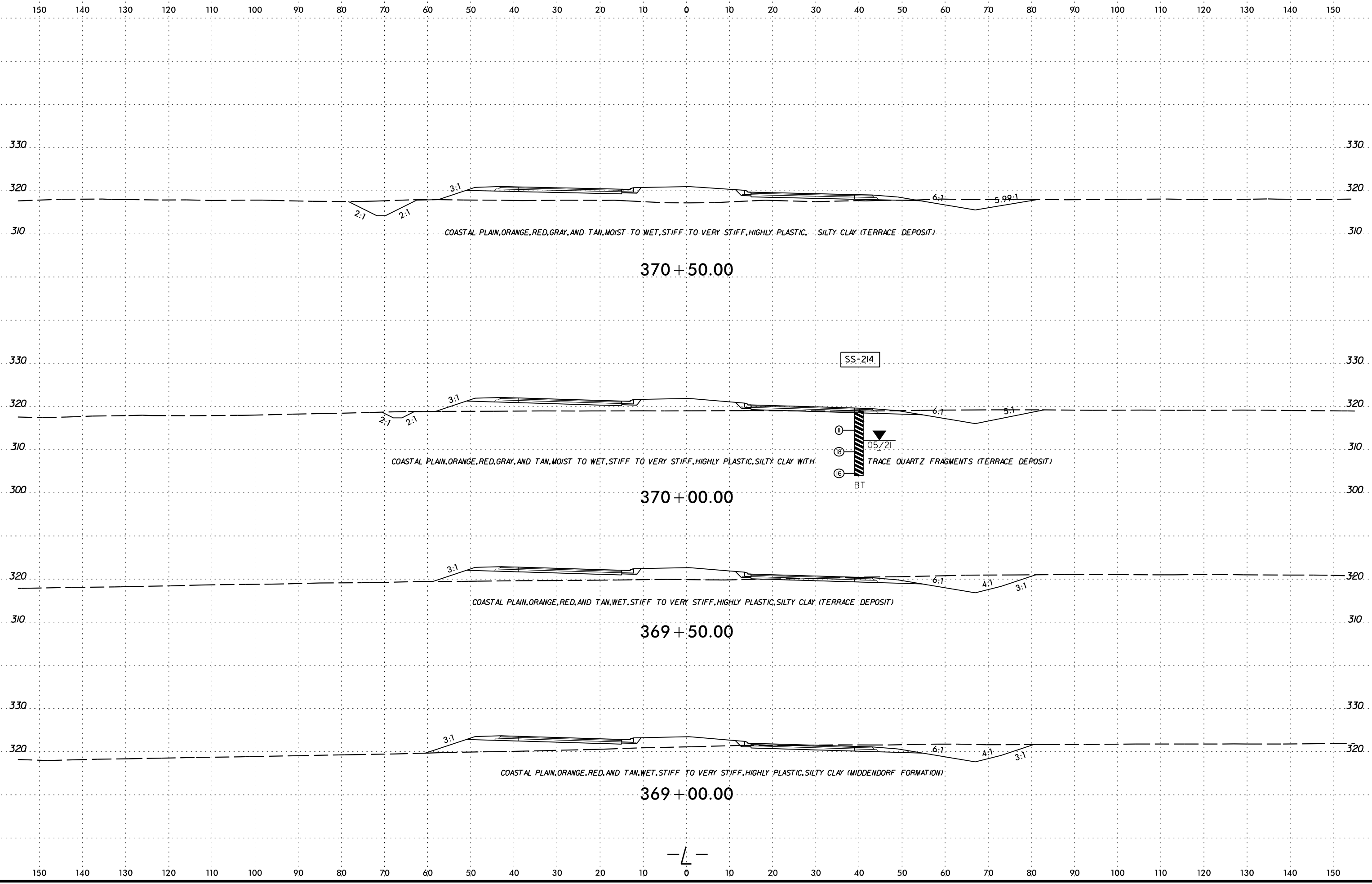


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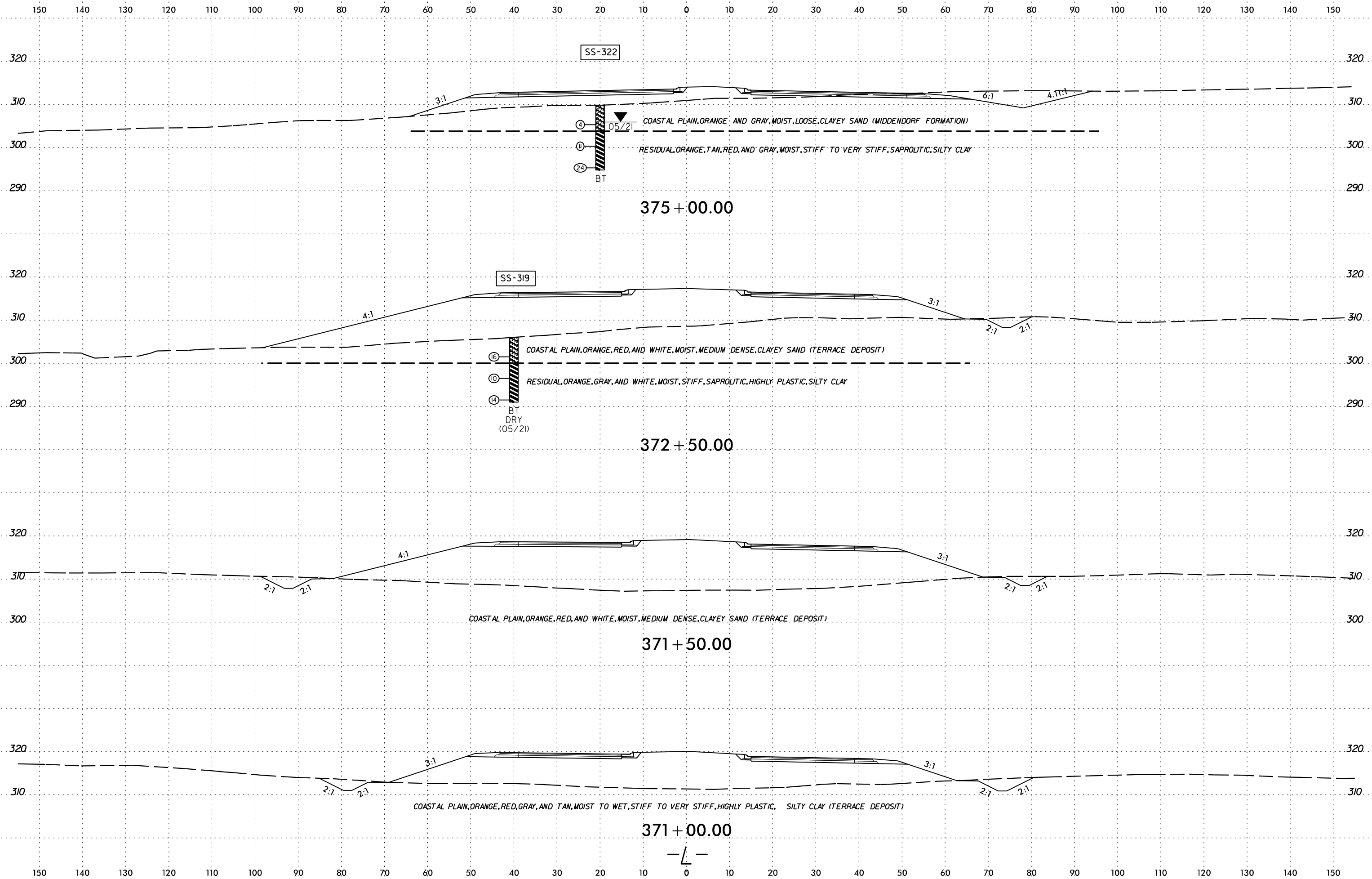


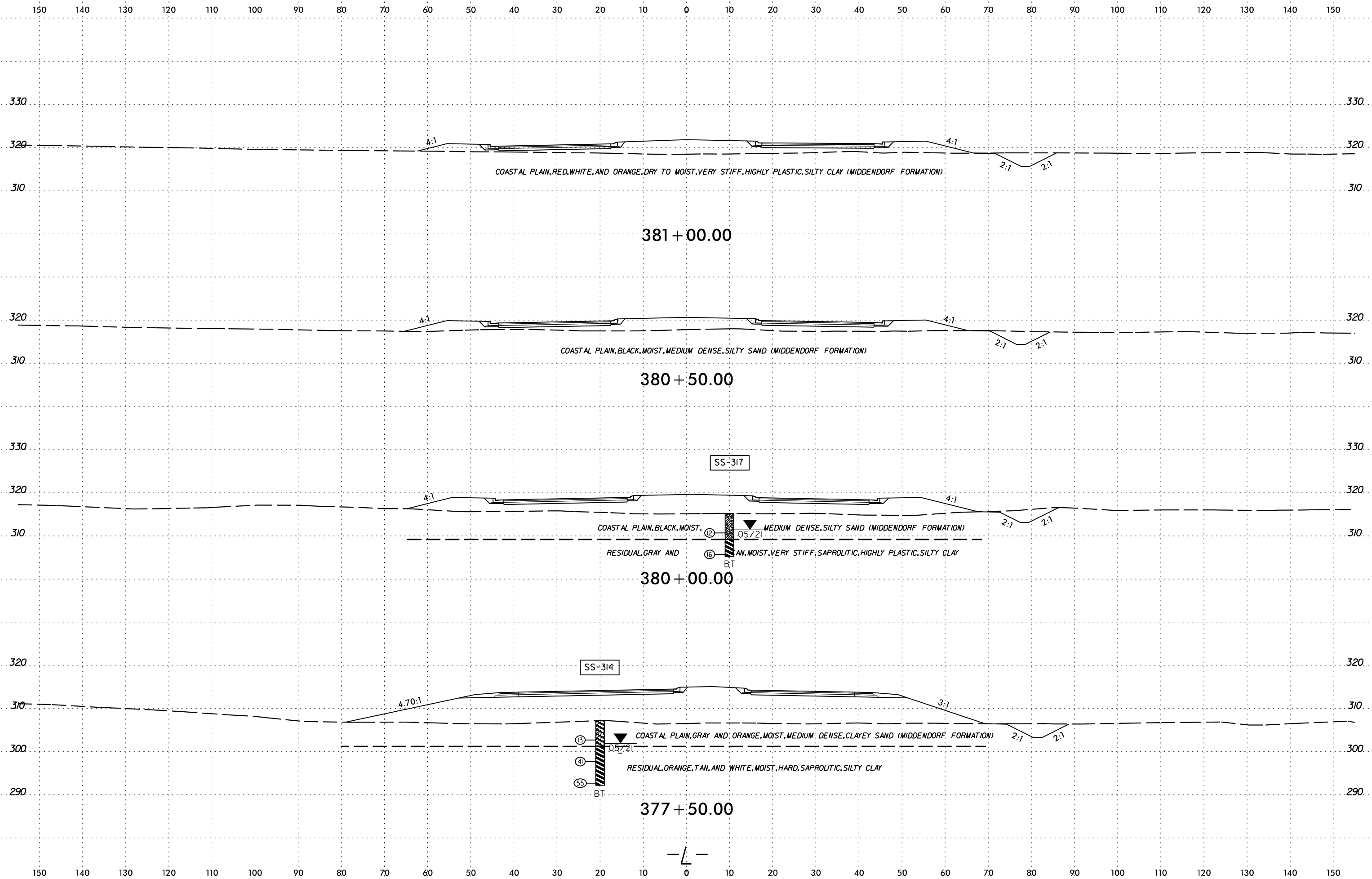
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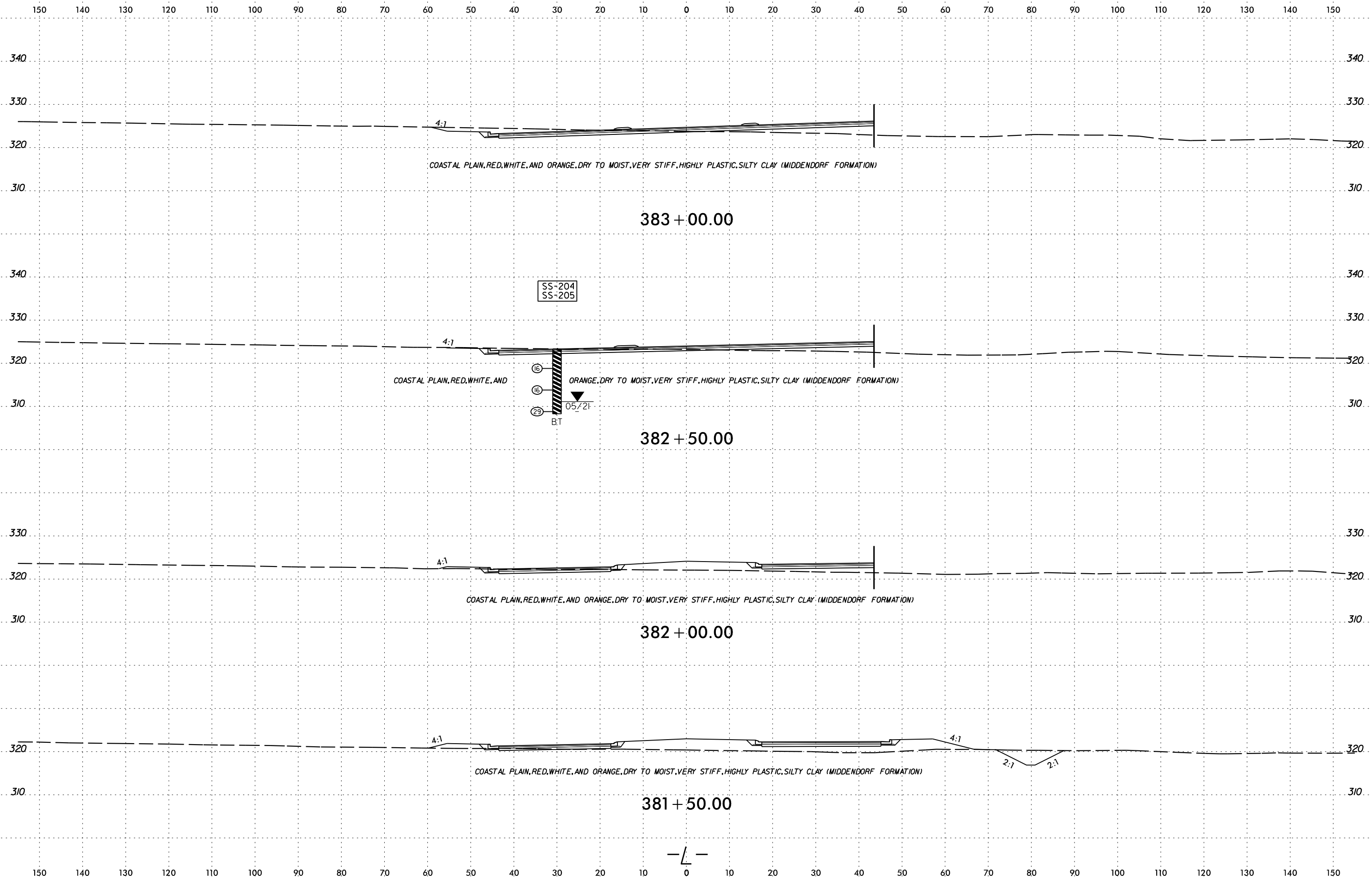


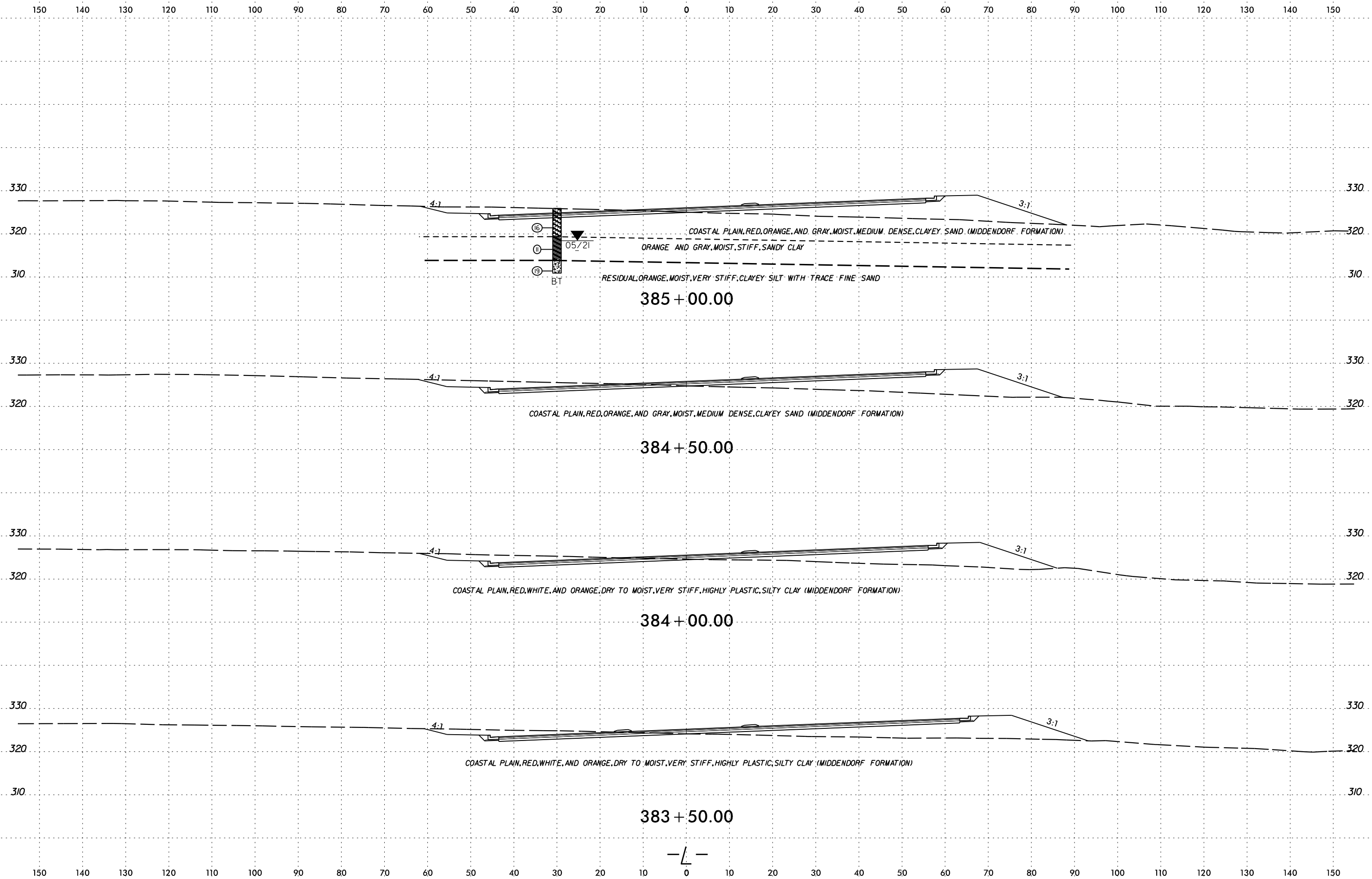


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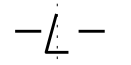


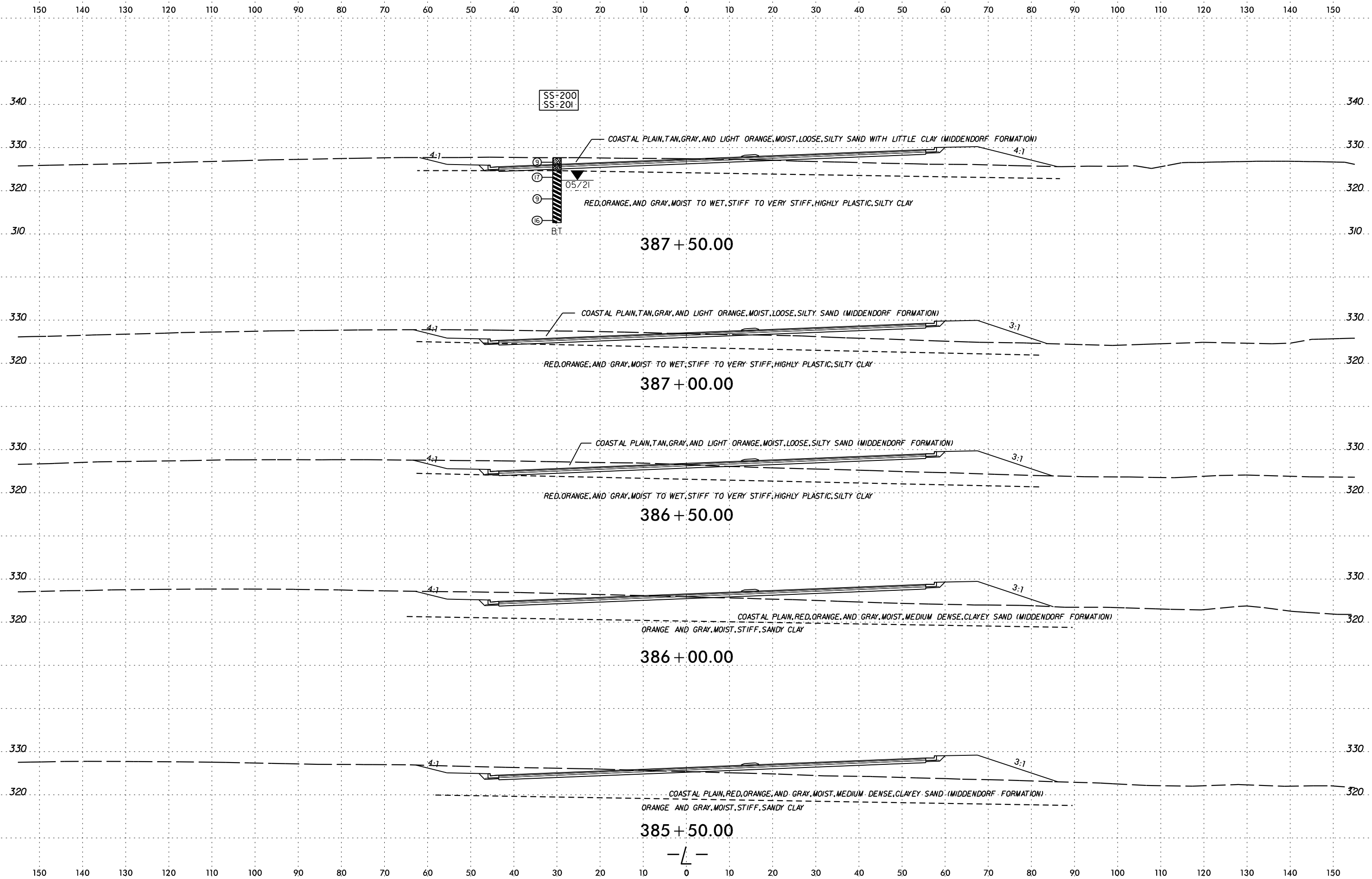






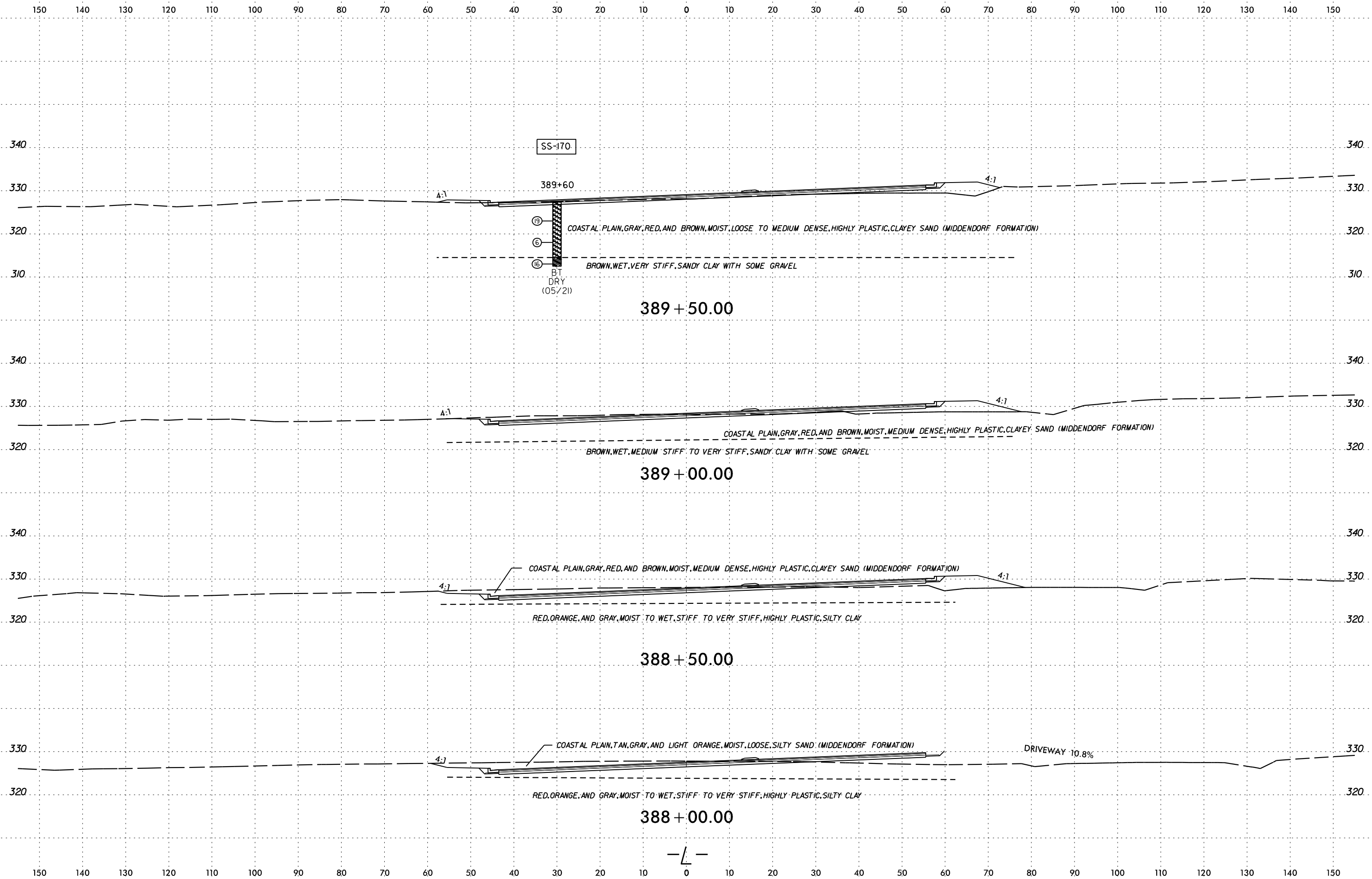
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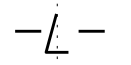
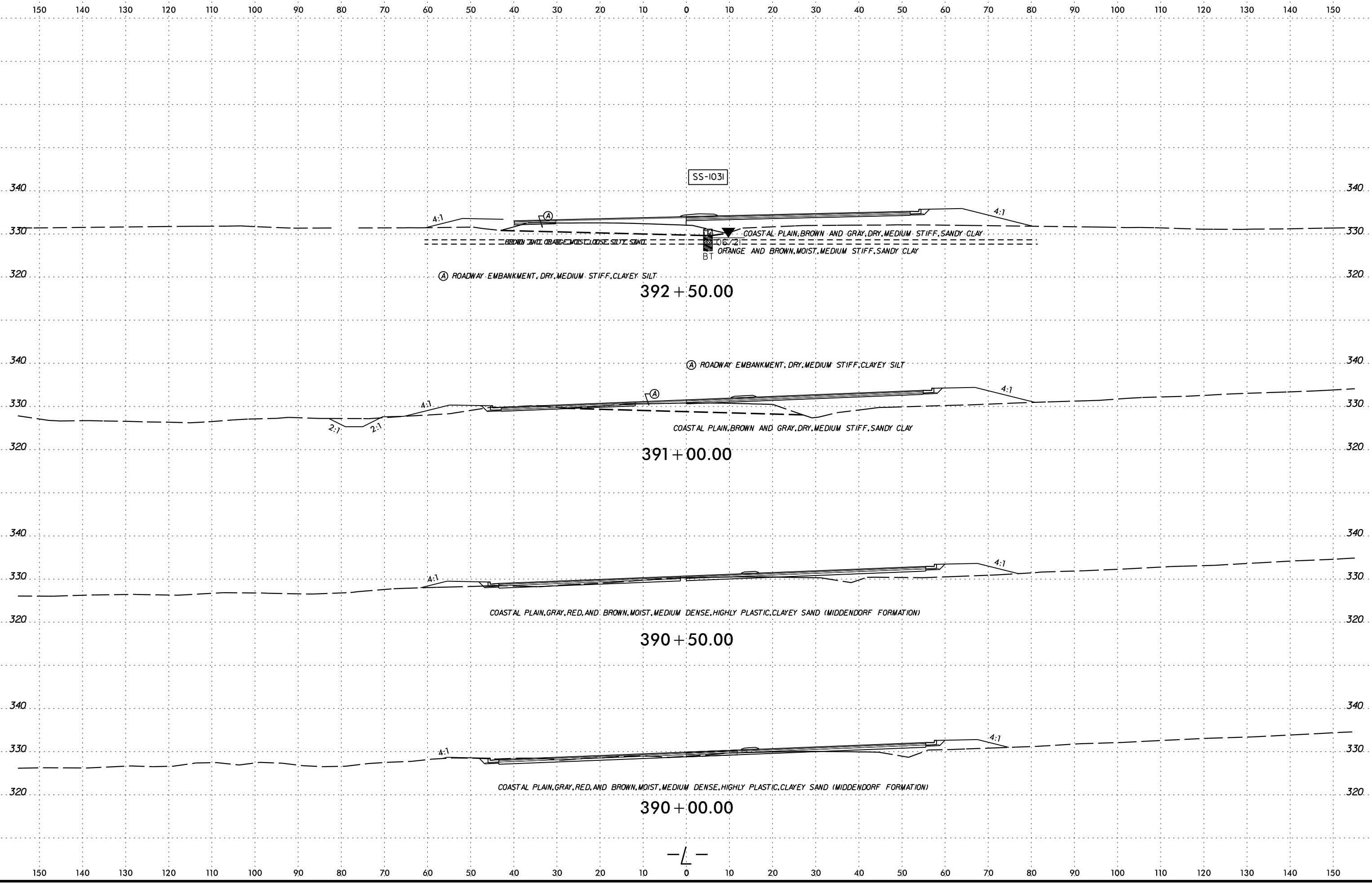


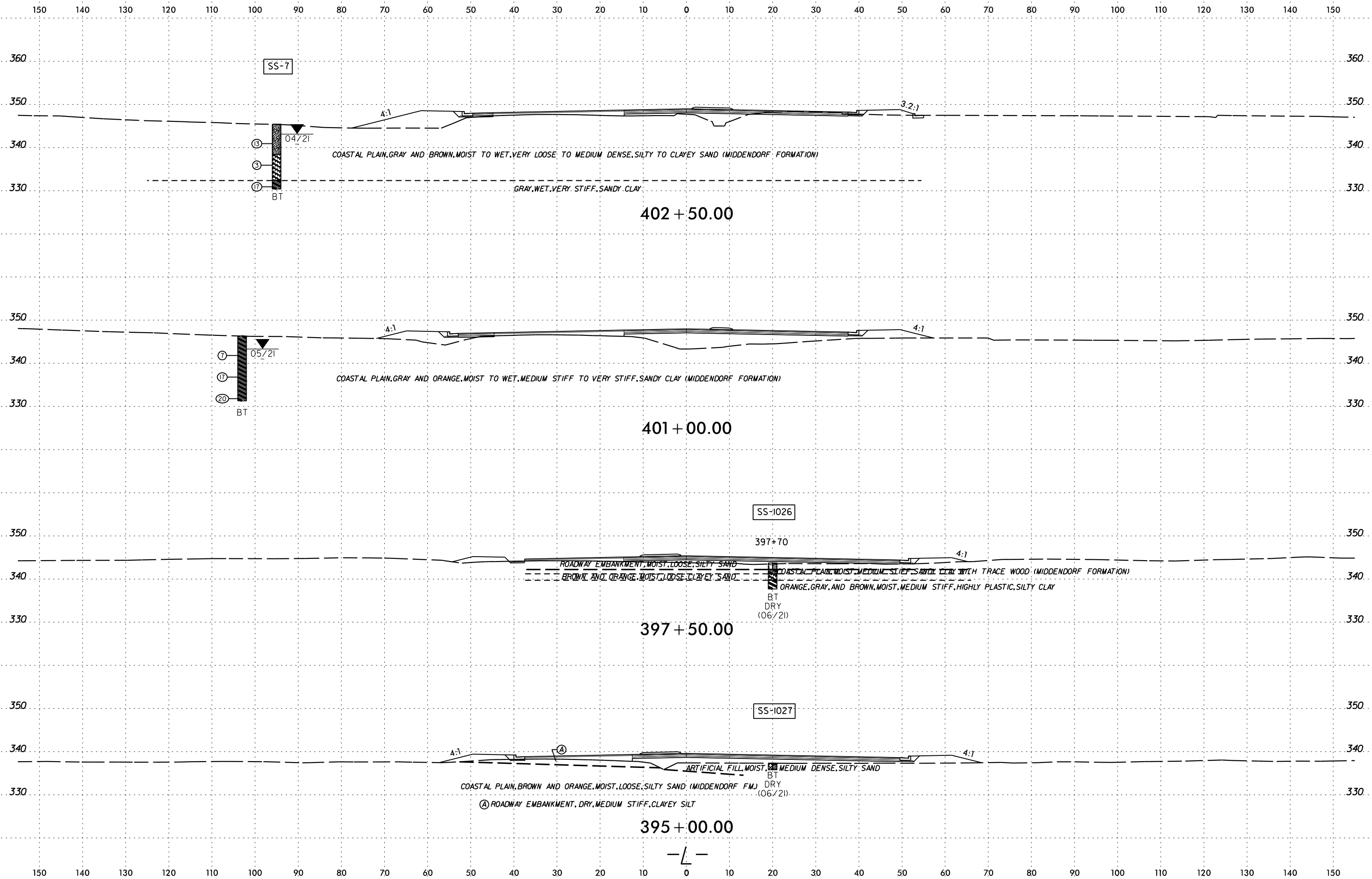
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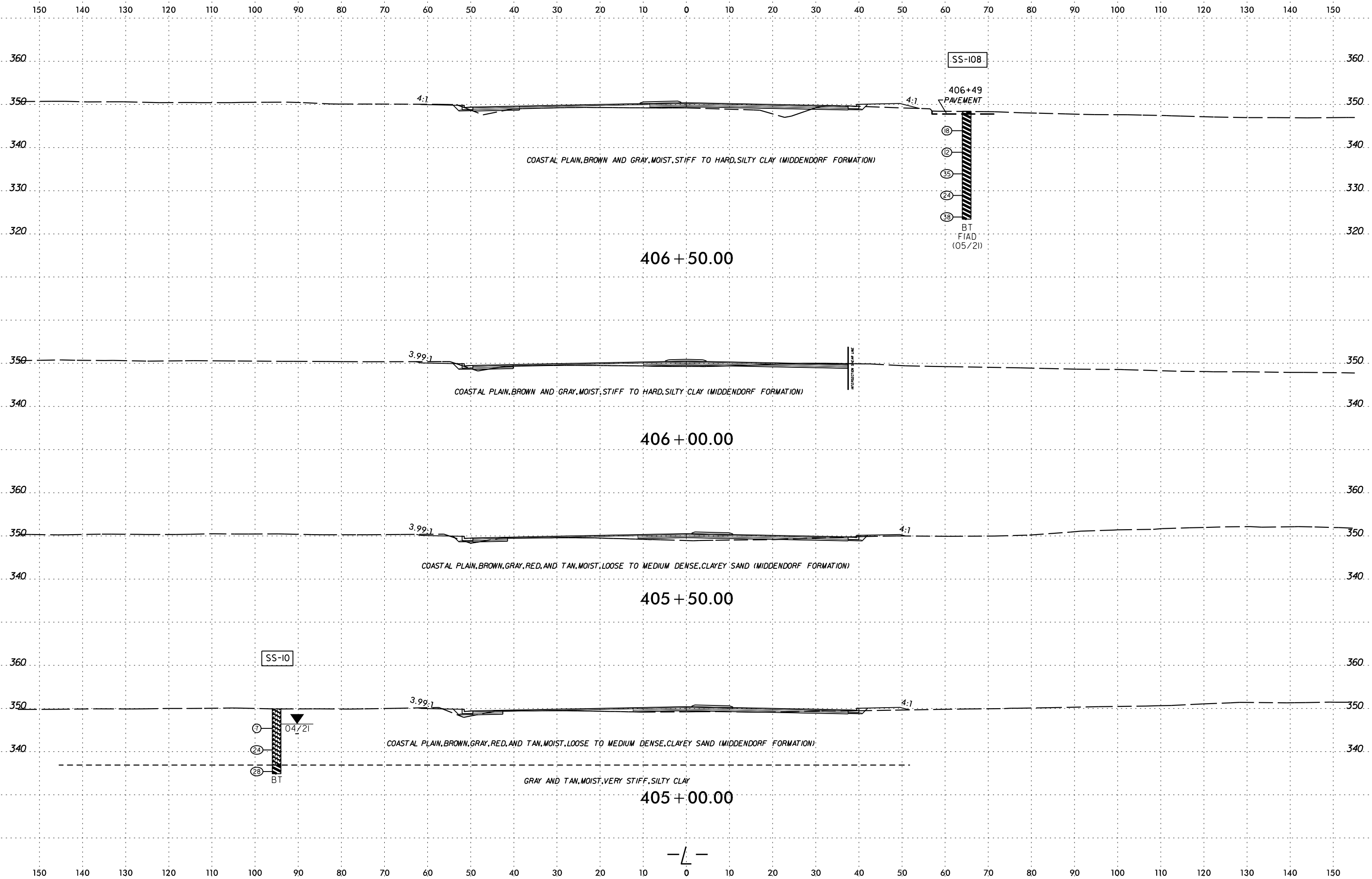
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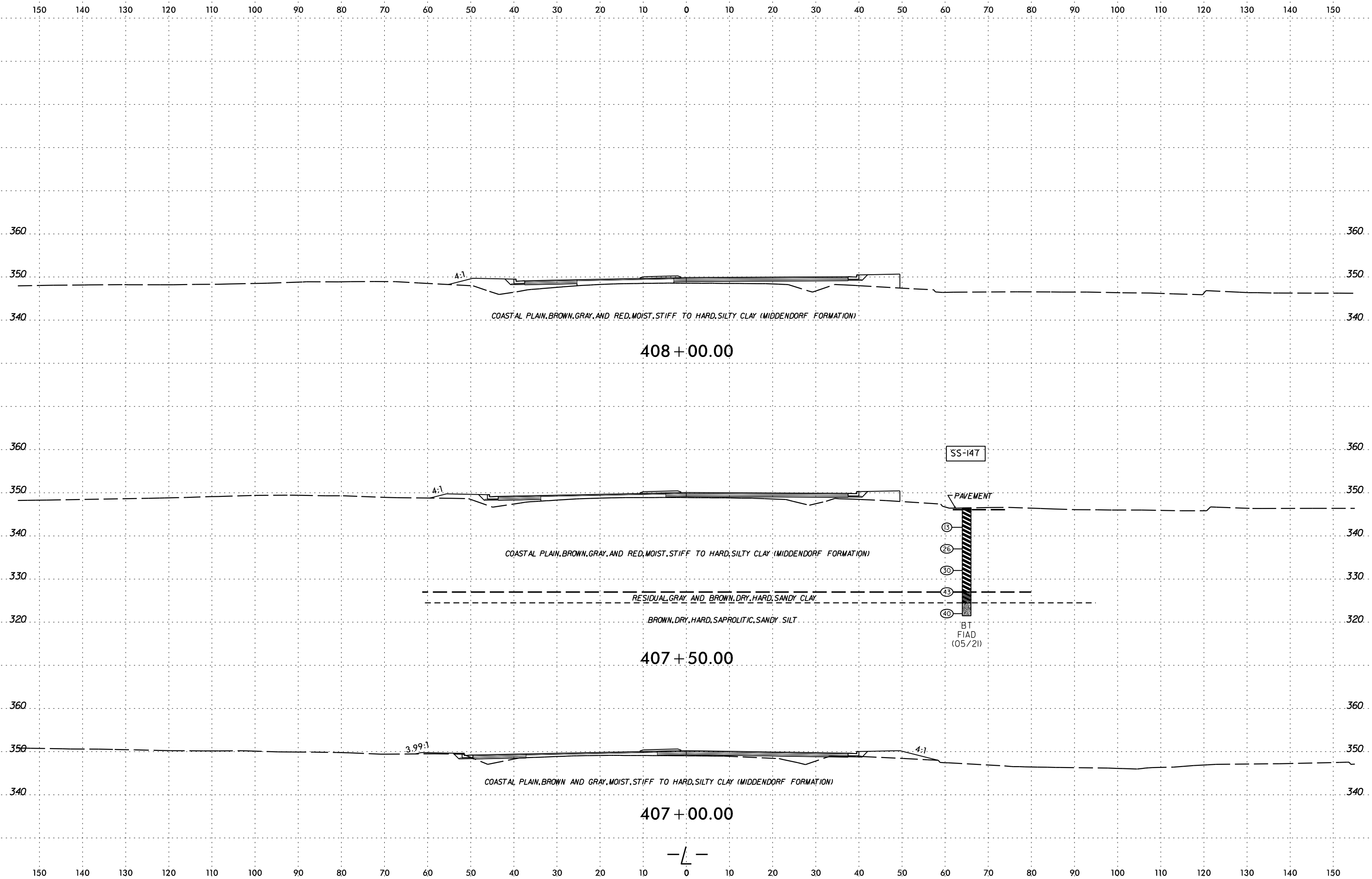


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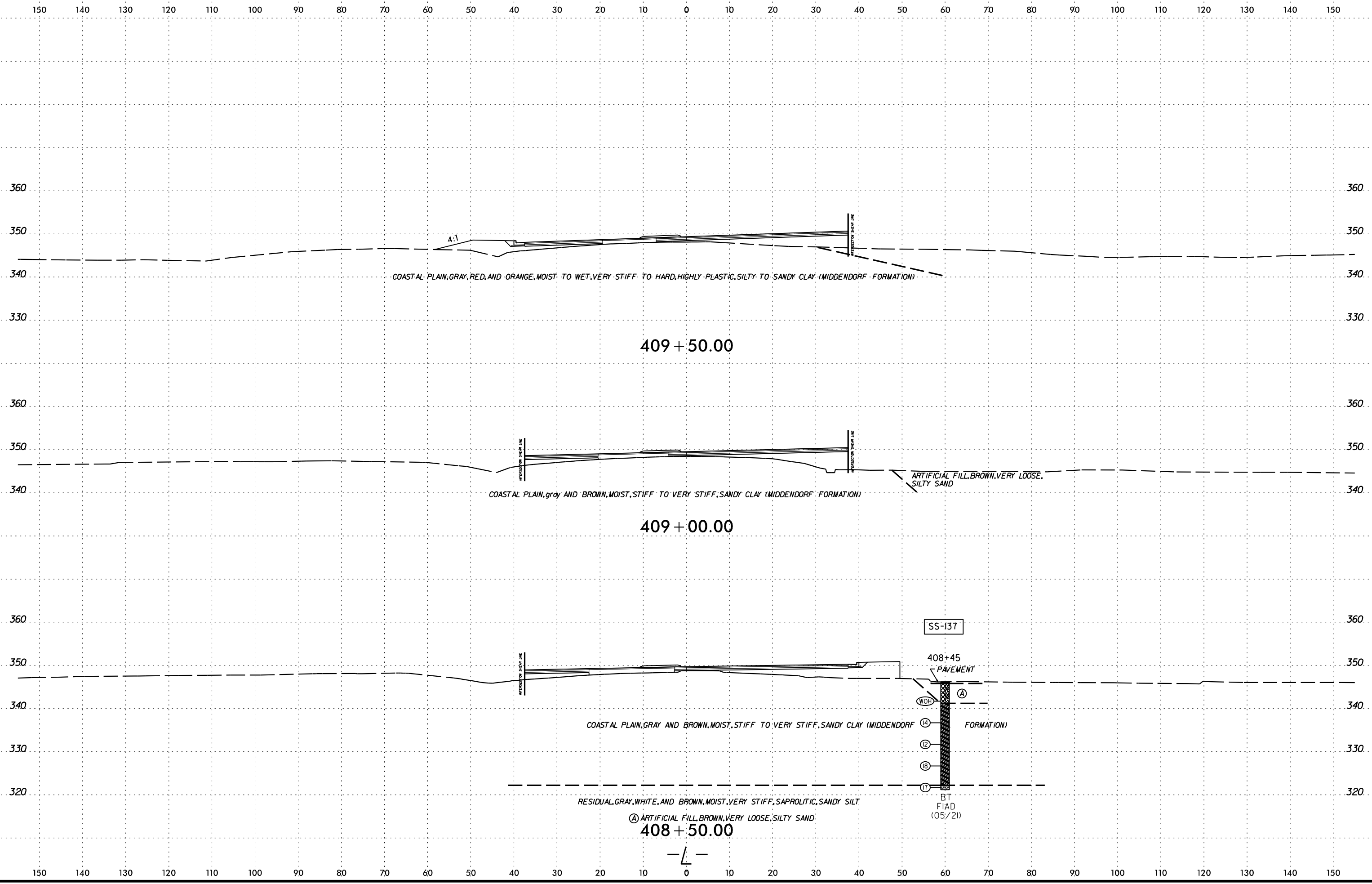


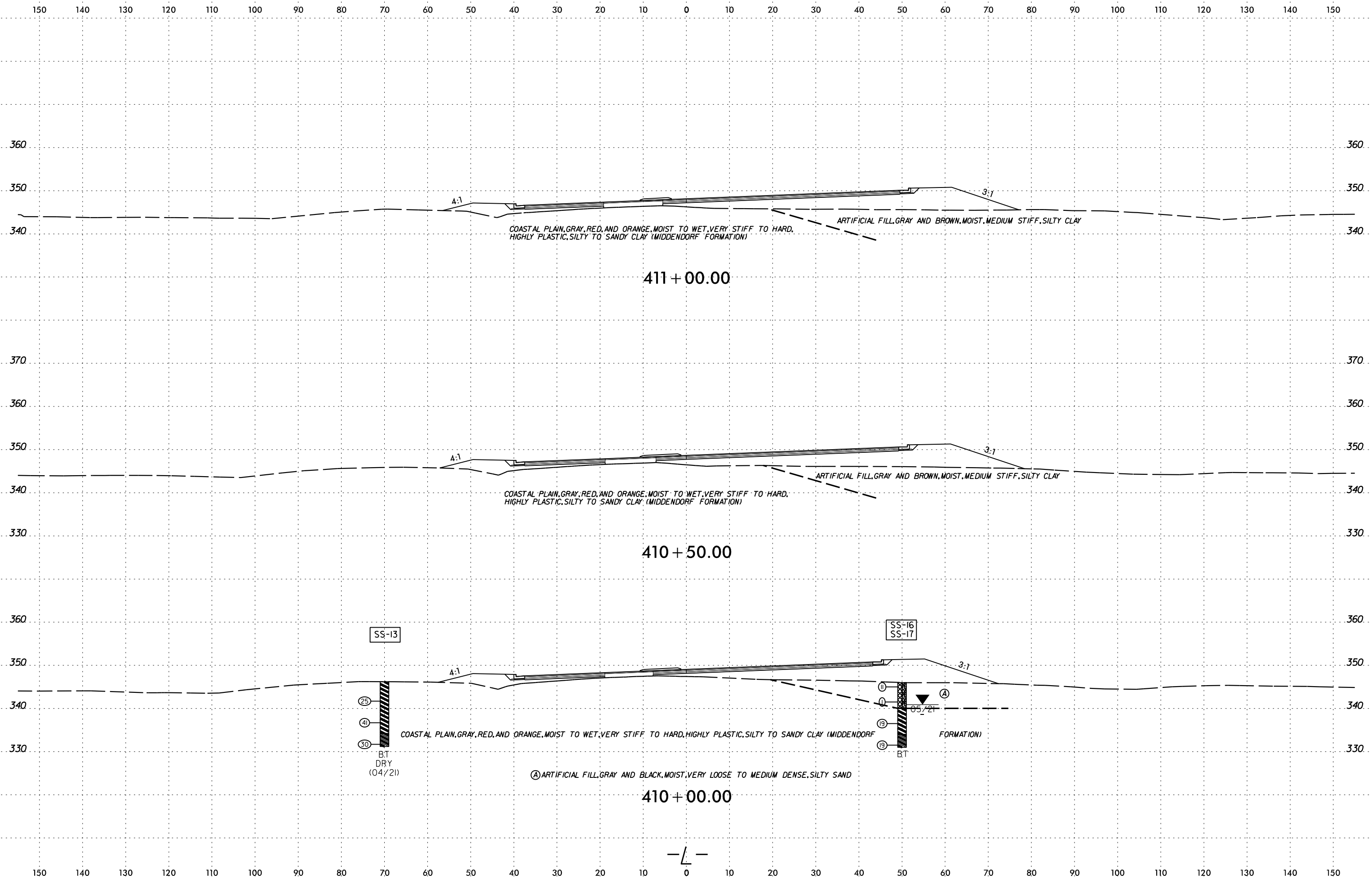


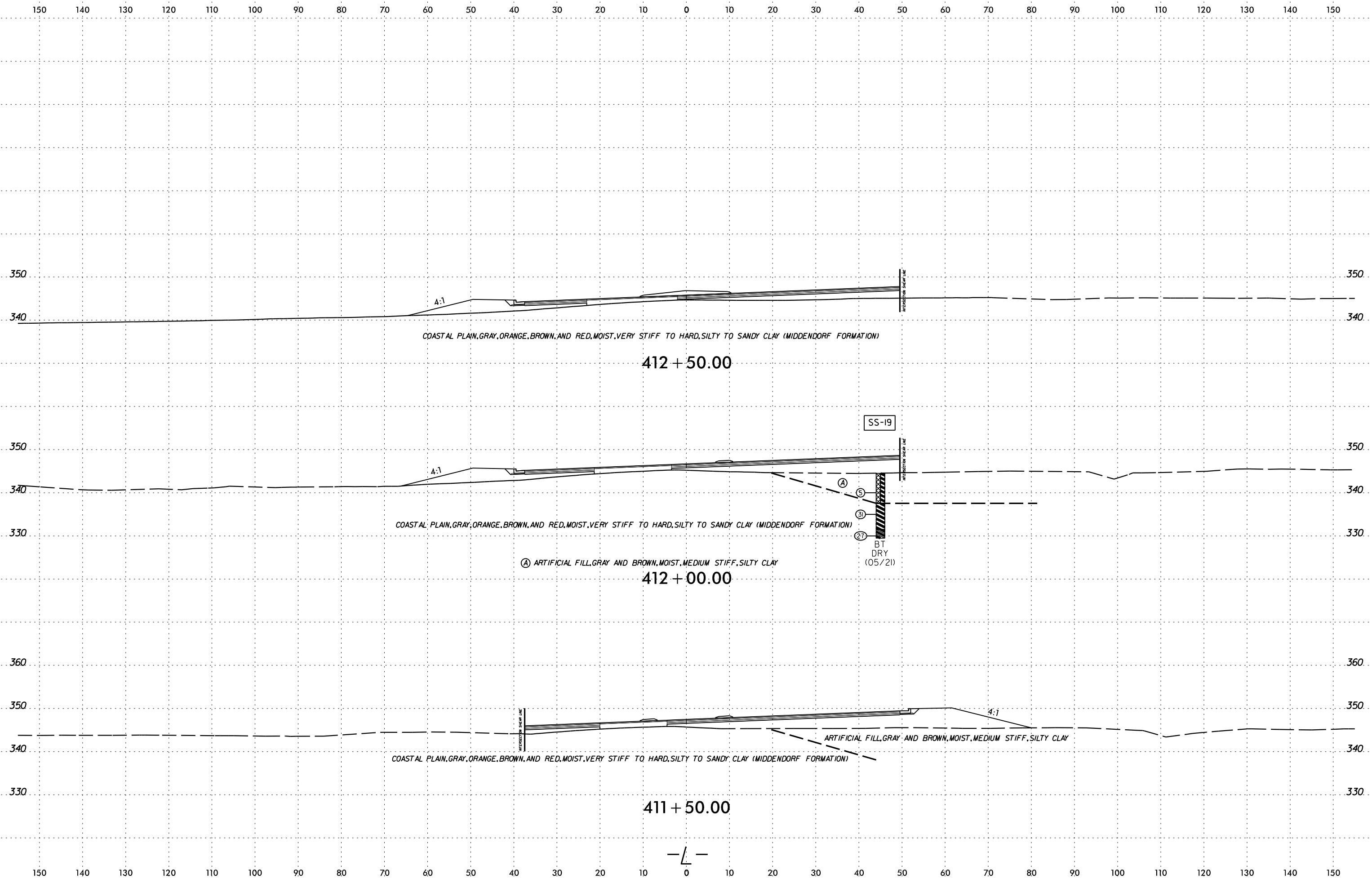


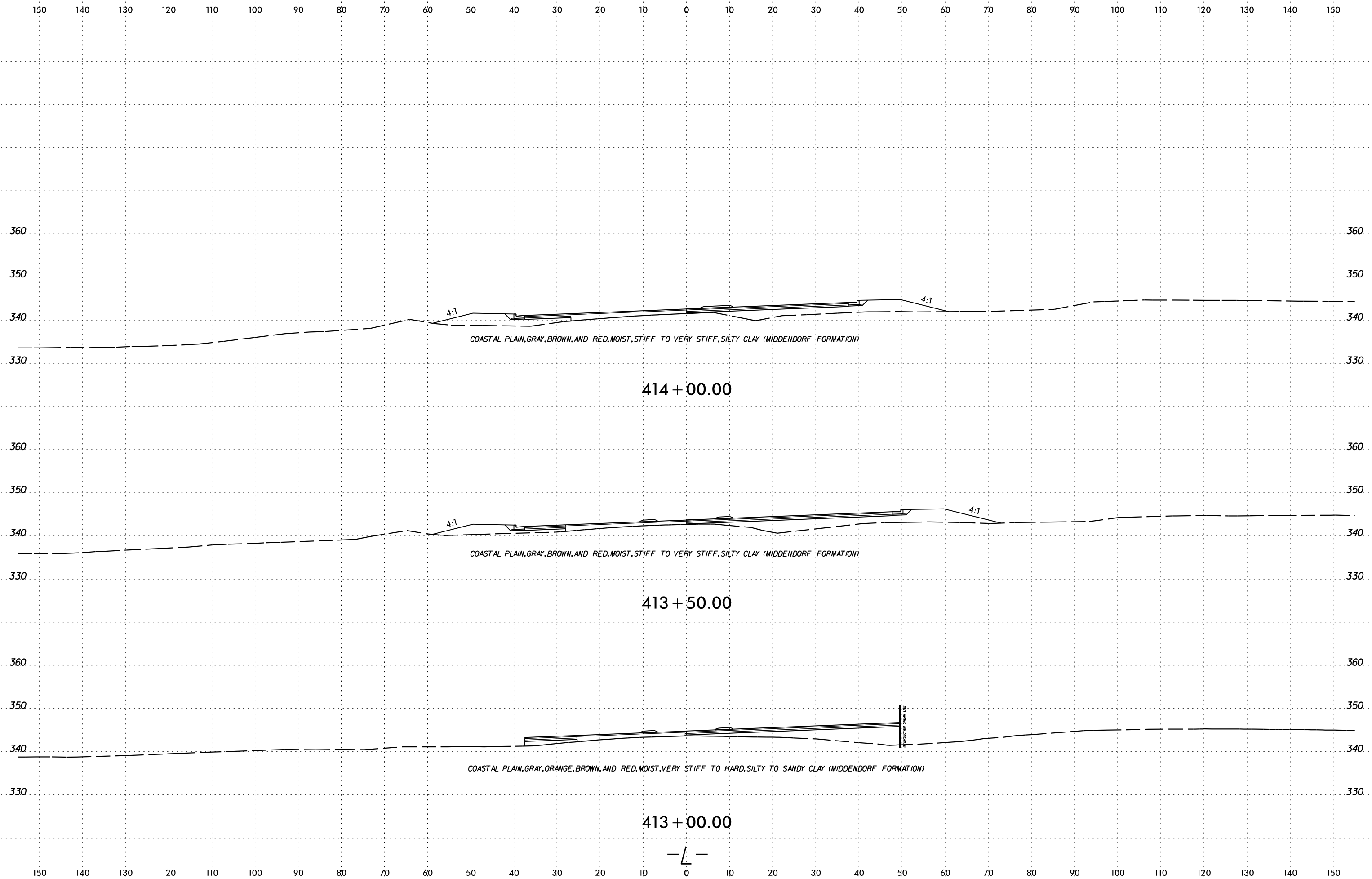
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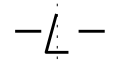


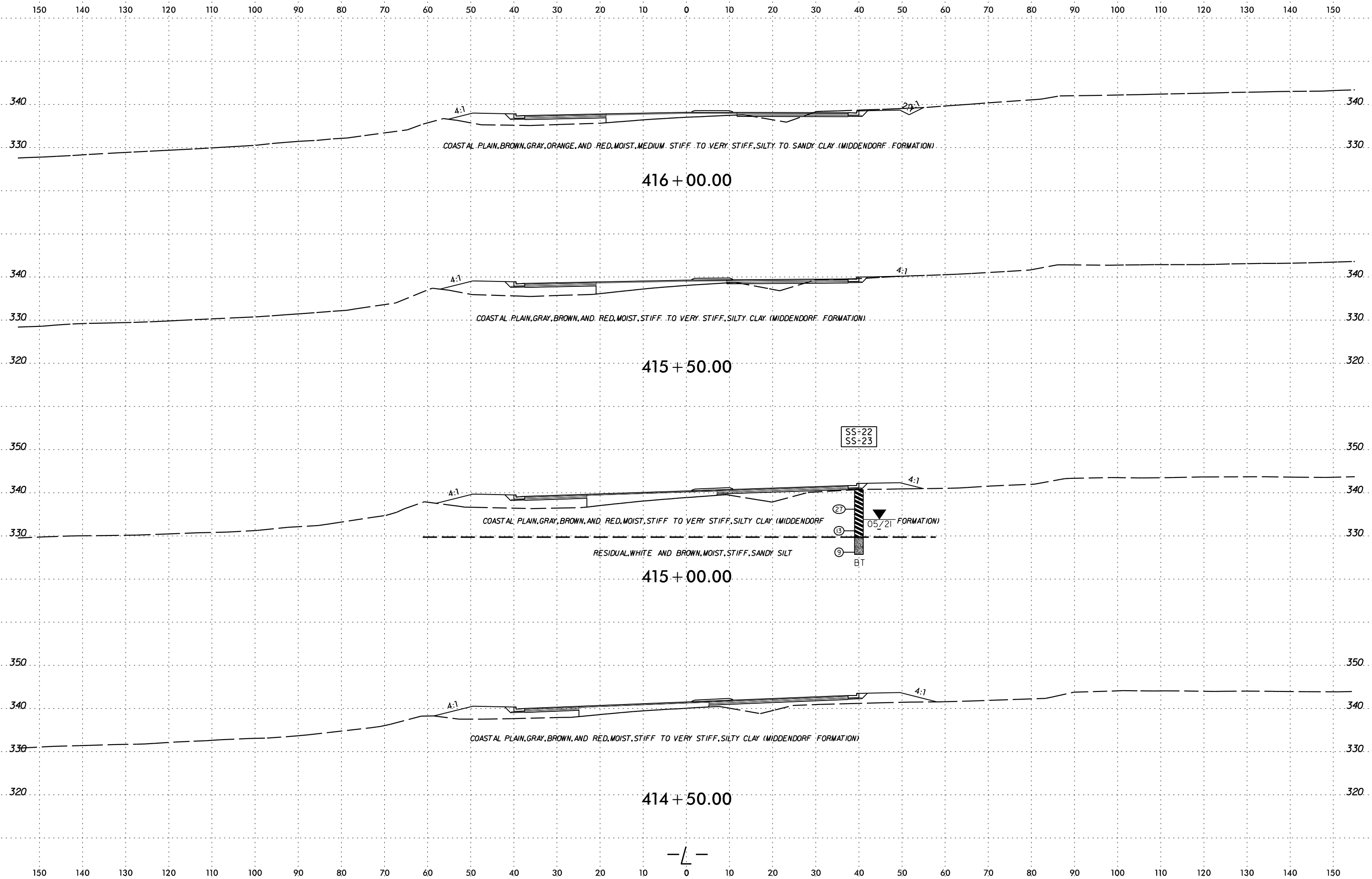




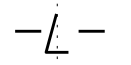


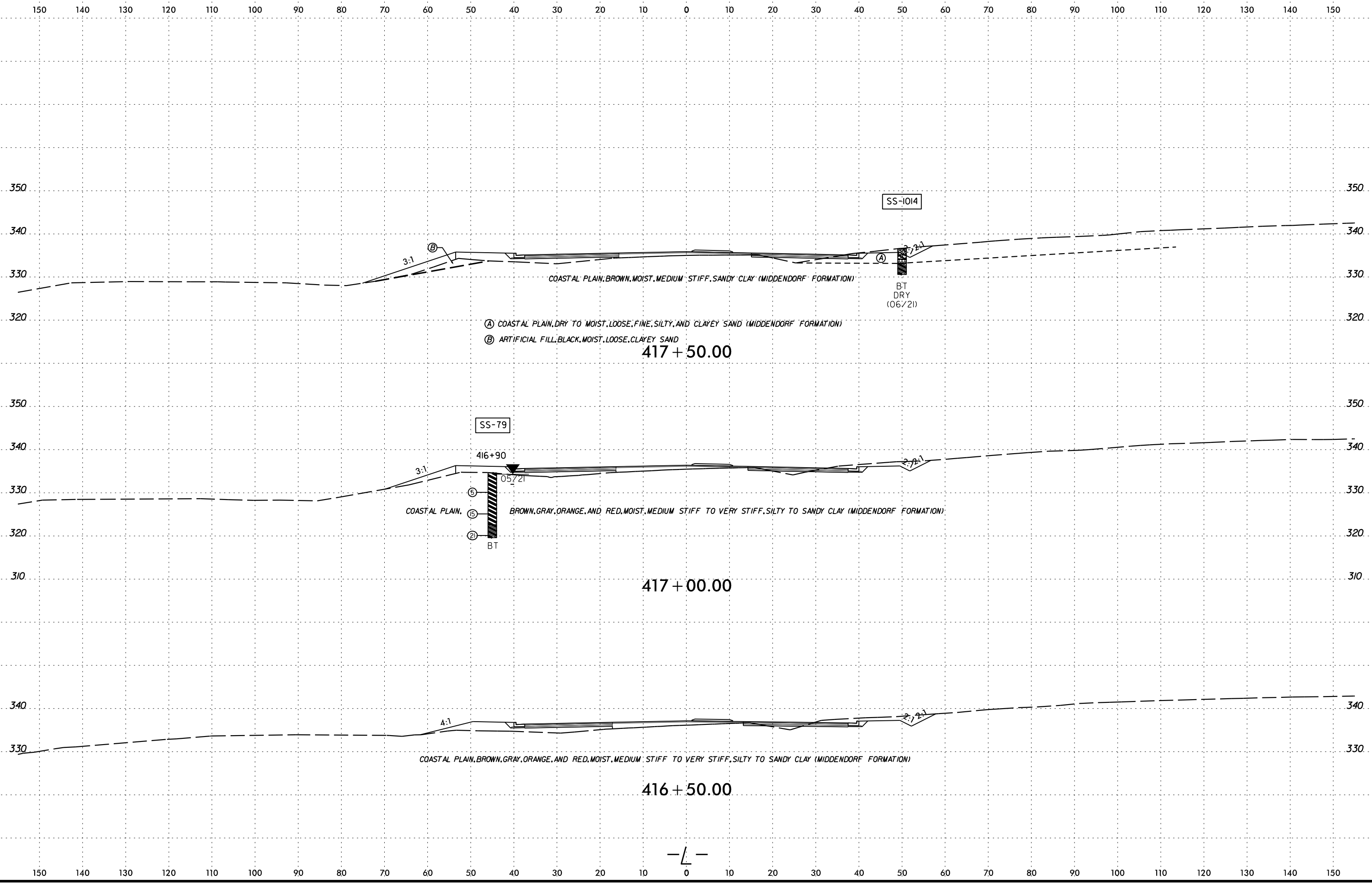
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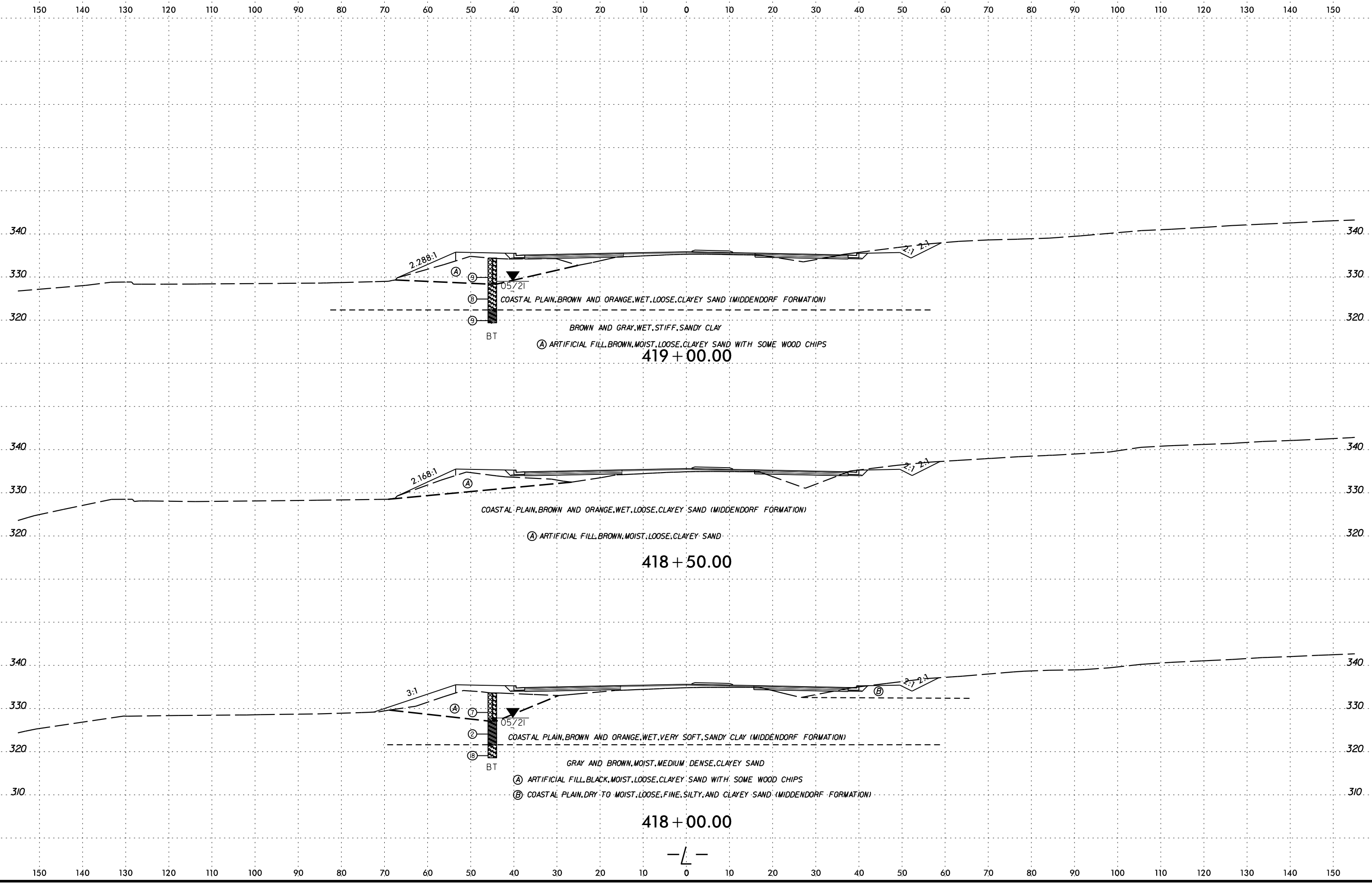




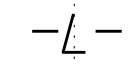
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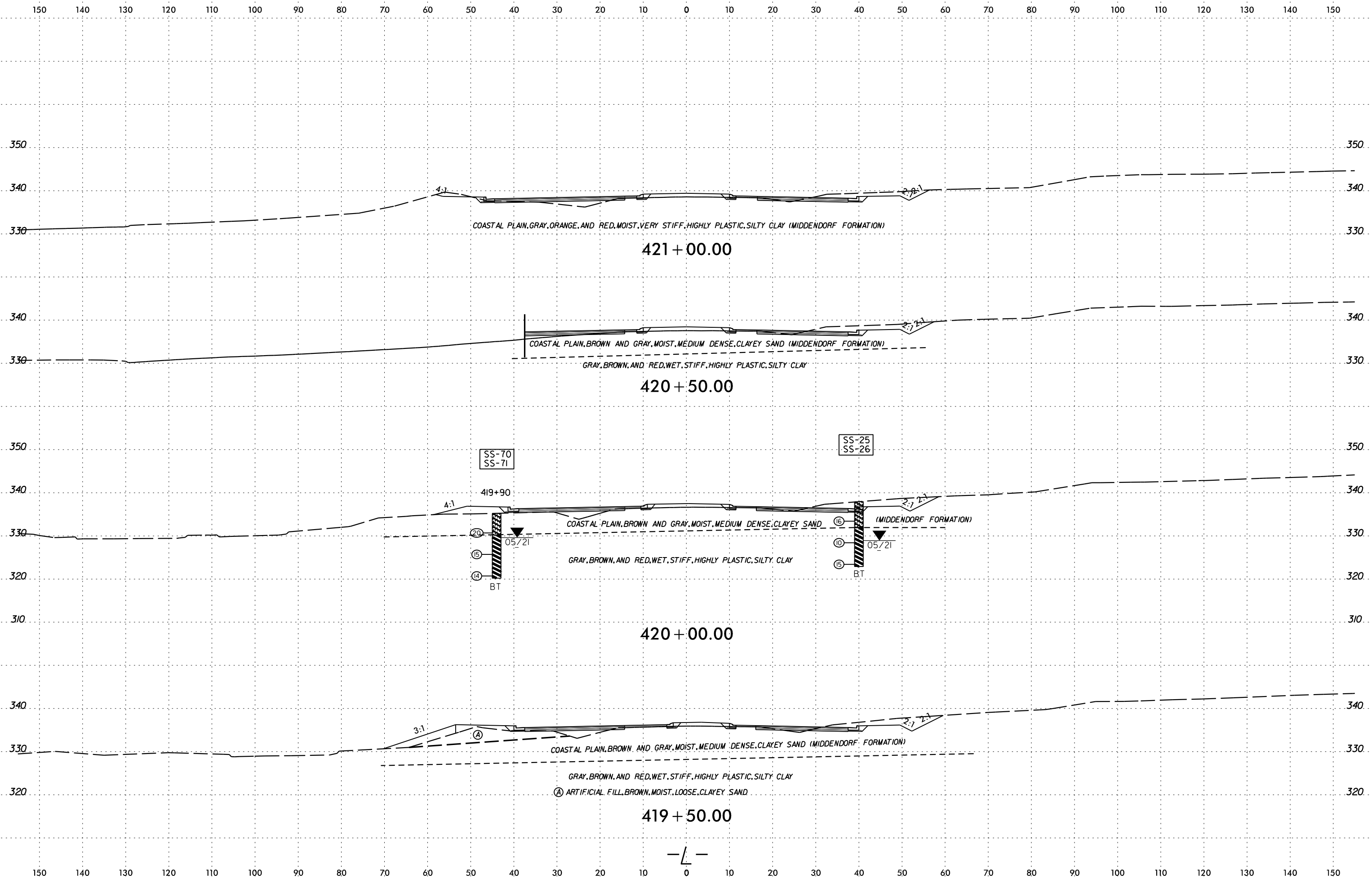


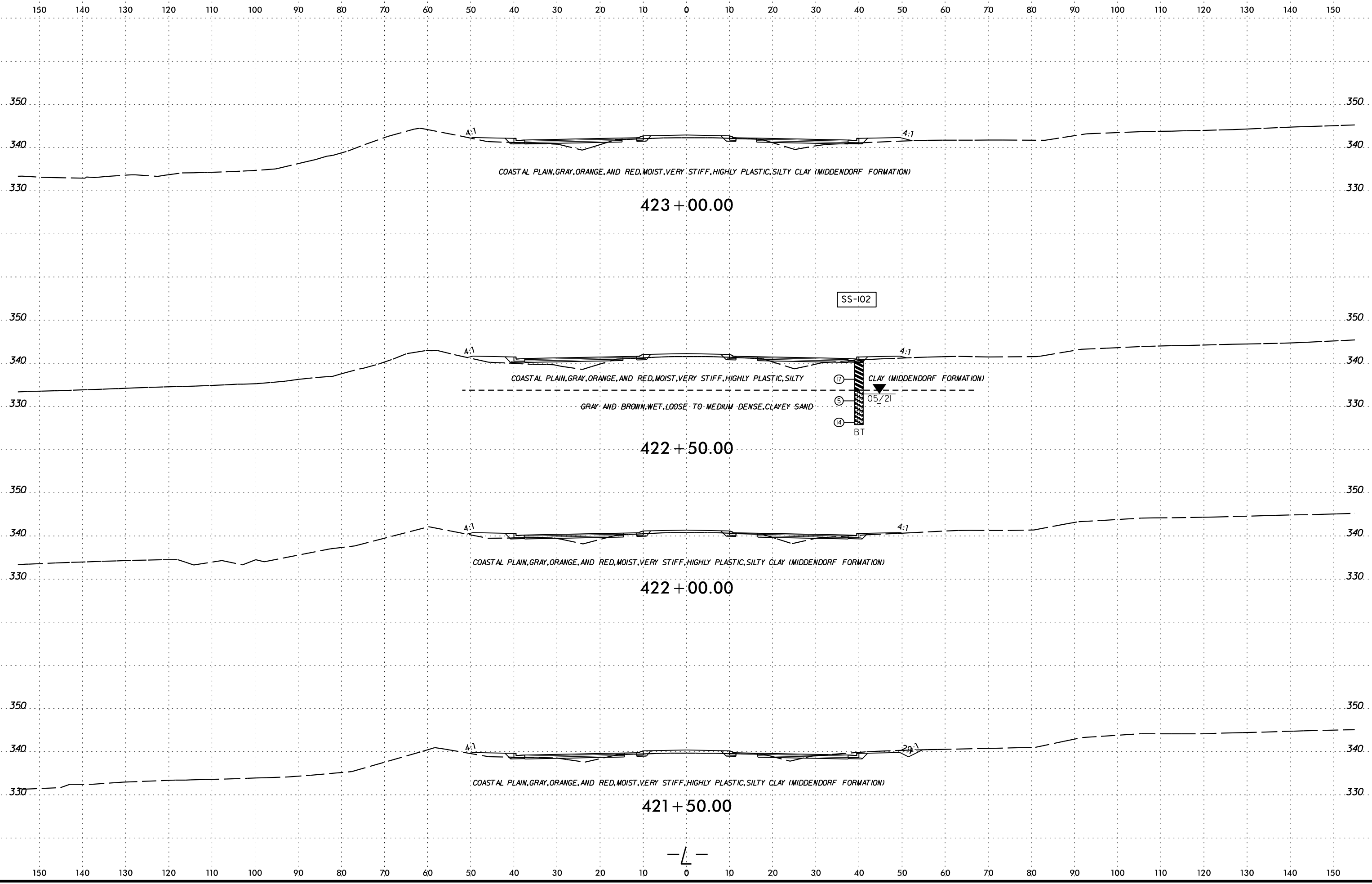




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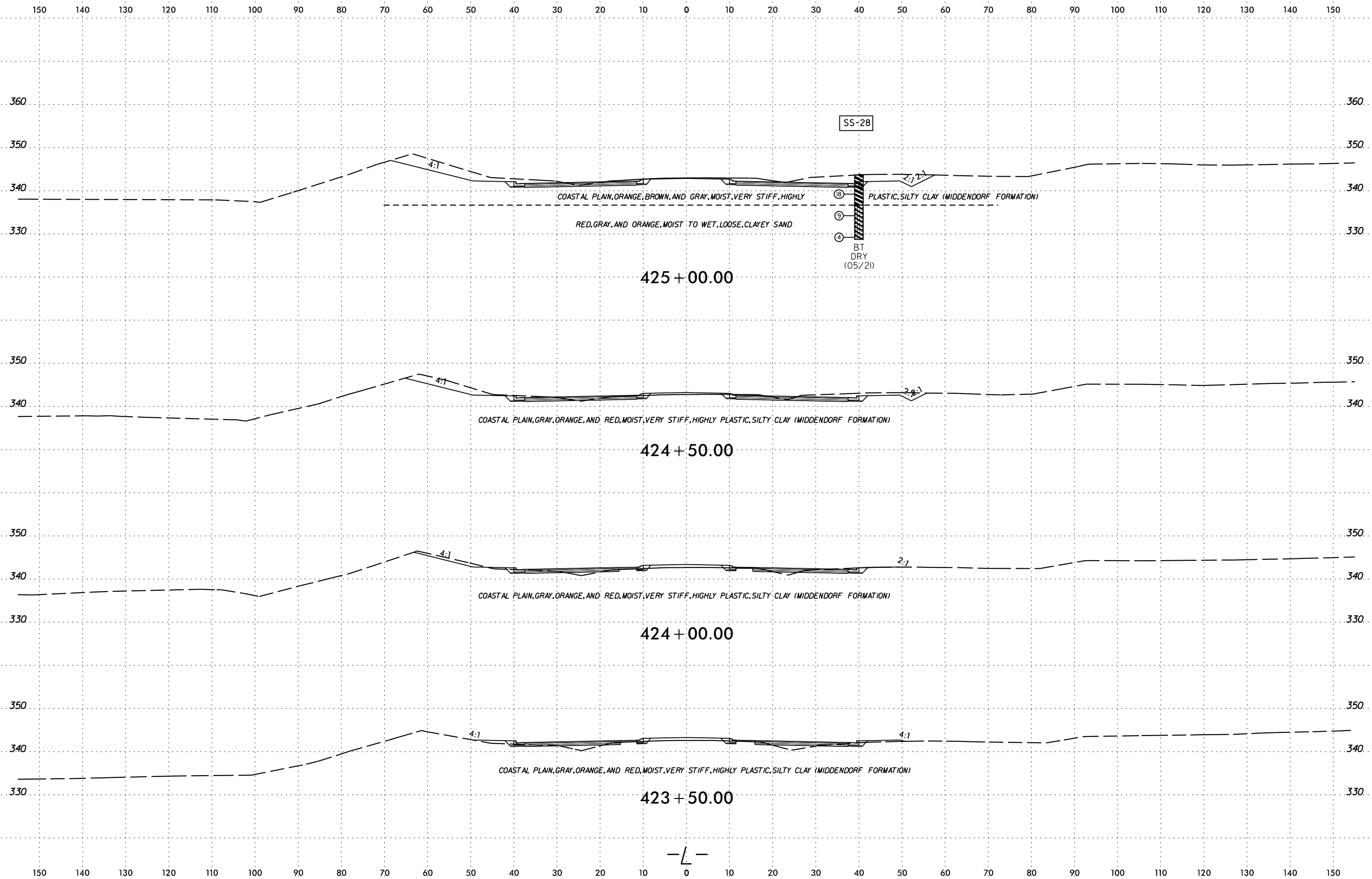


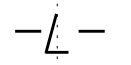
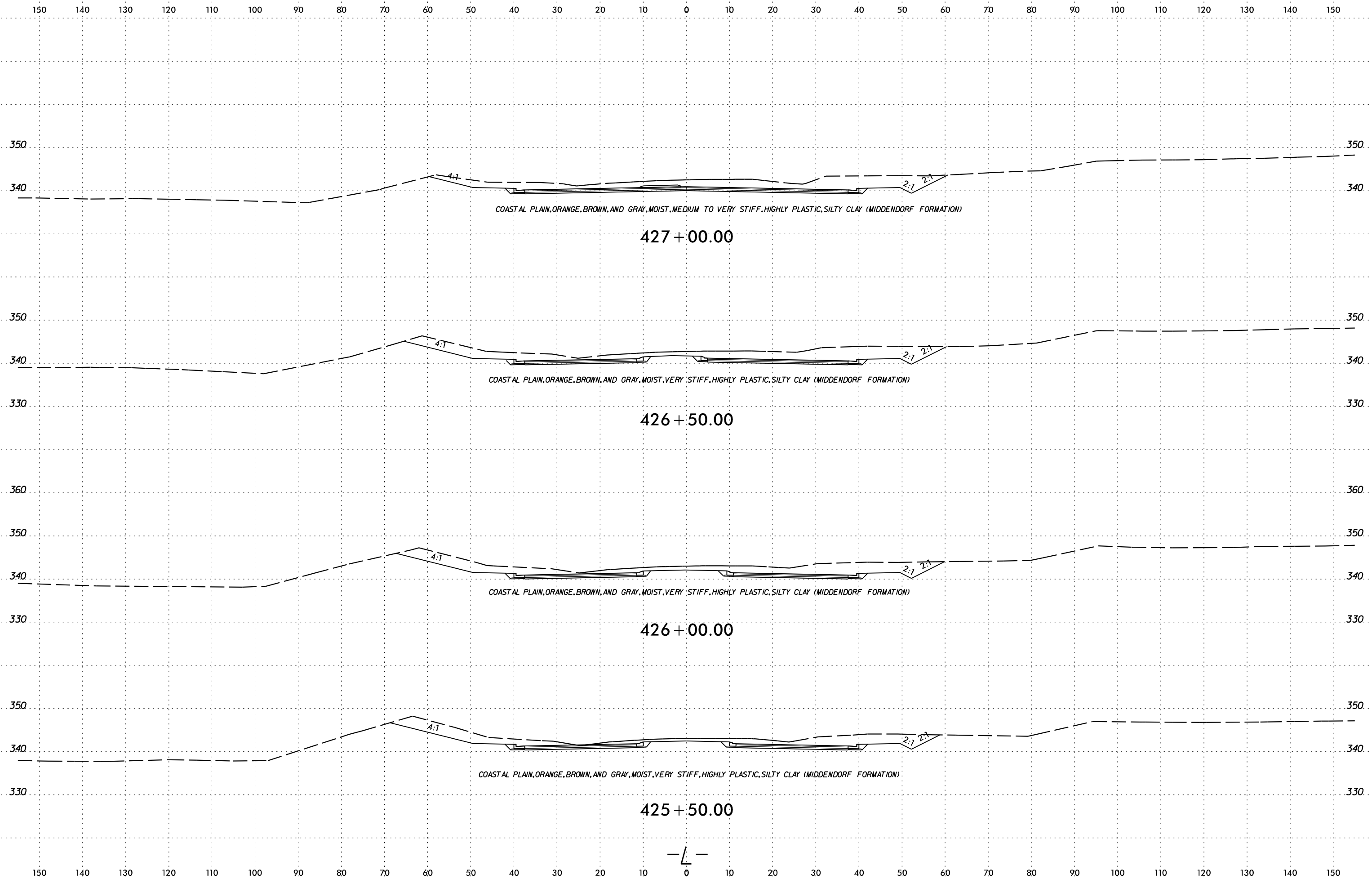


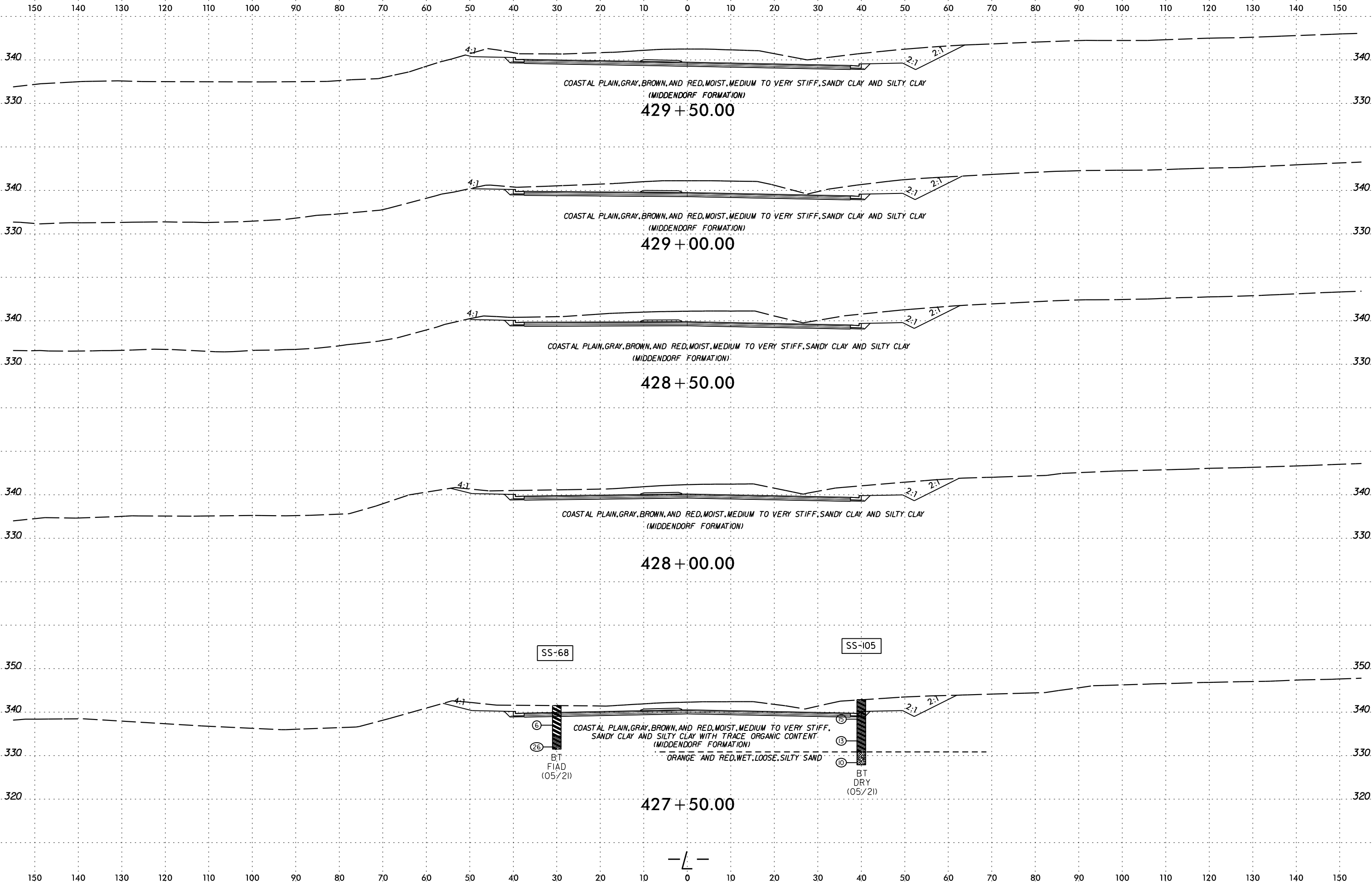


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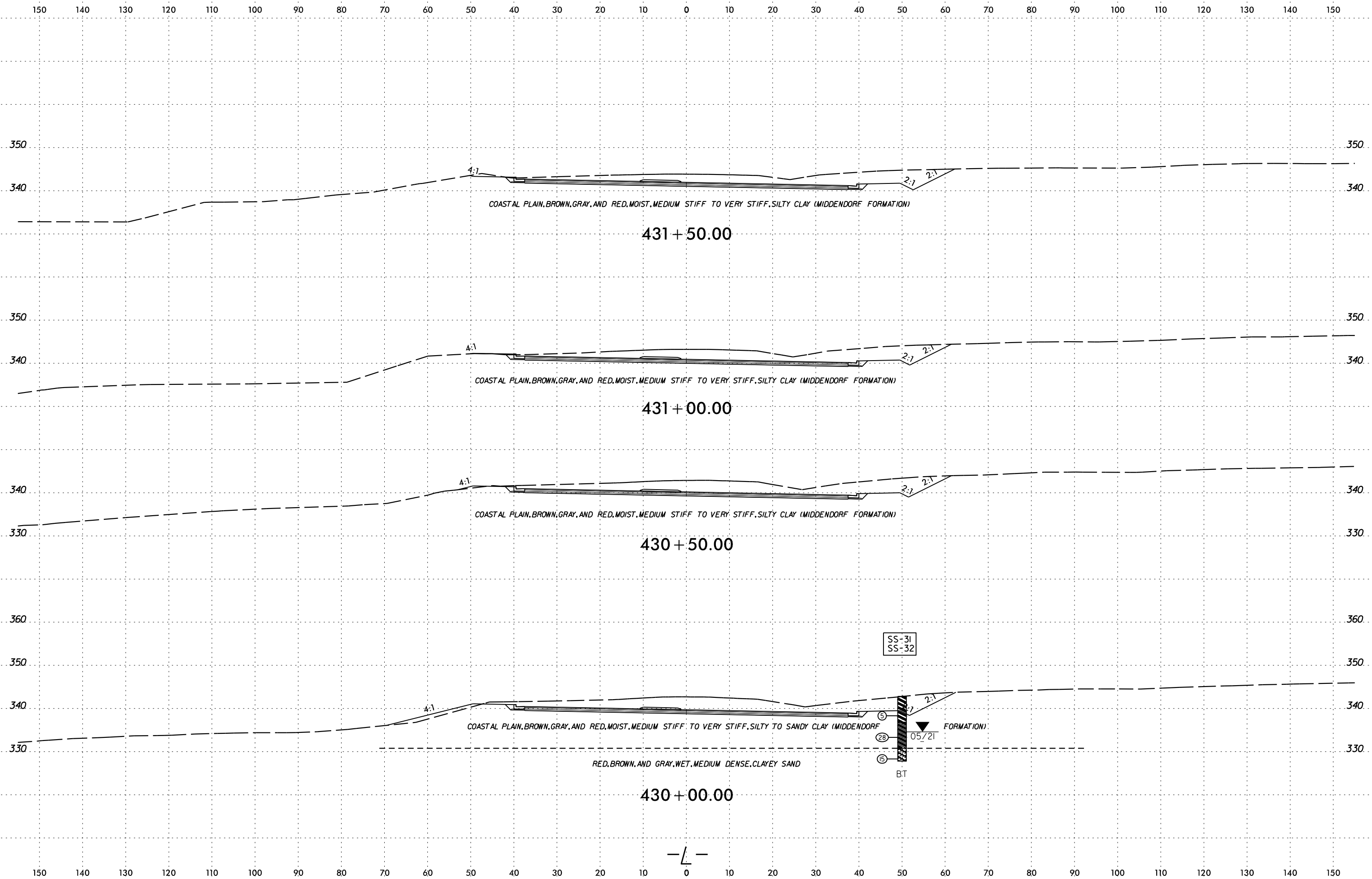


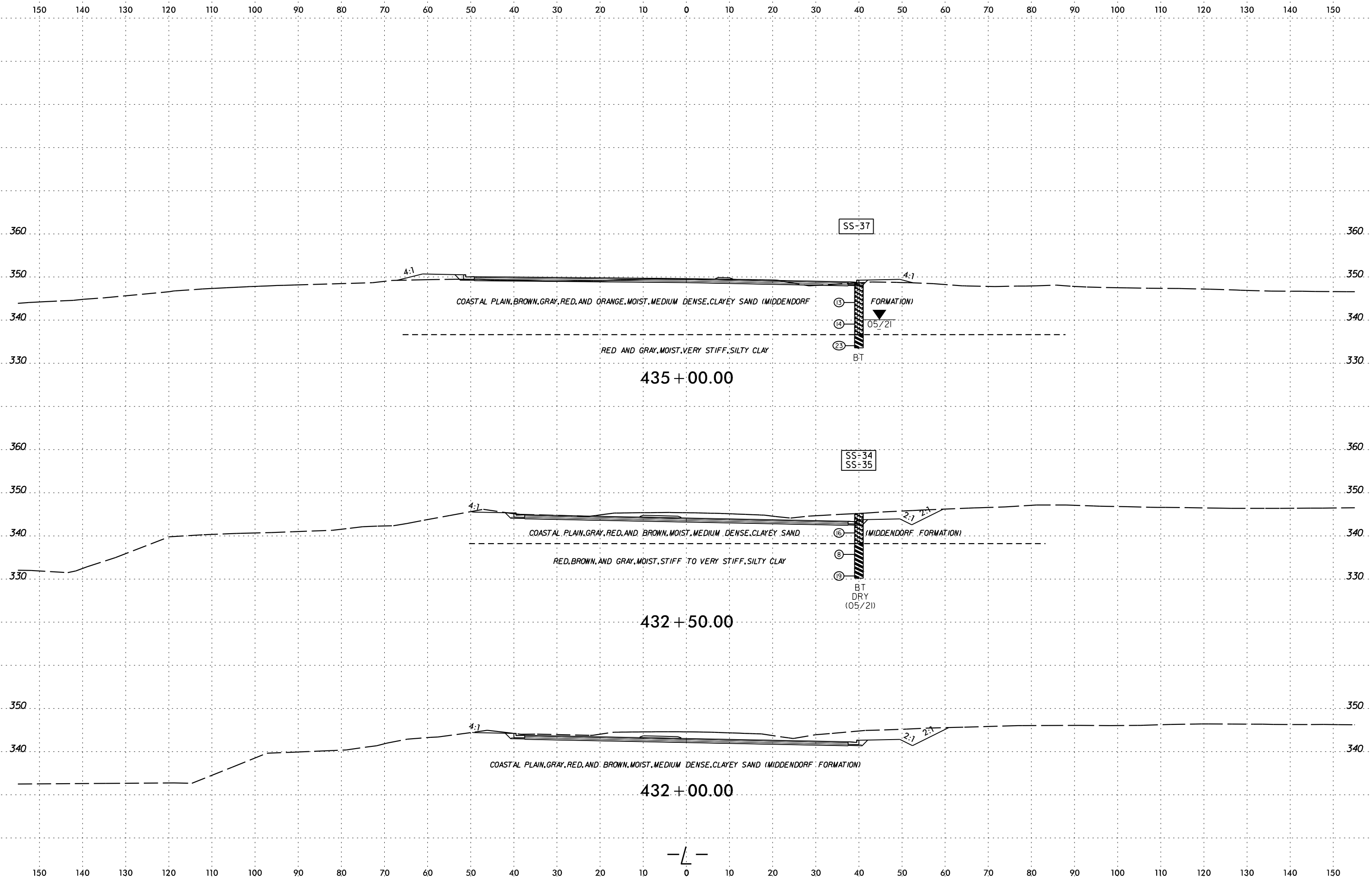




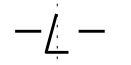
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 8:47:53 AM
 David.Lounes

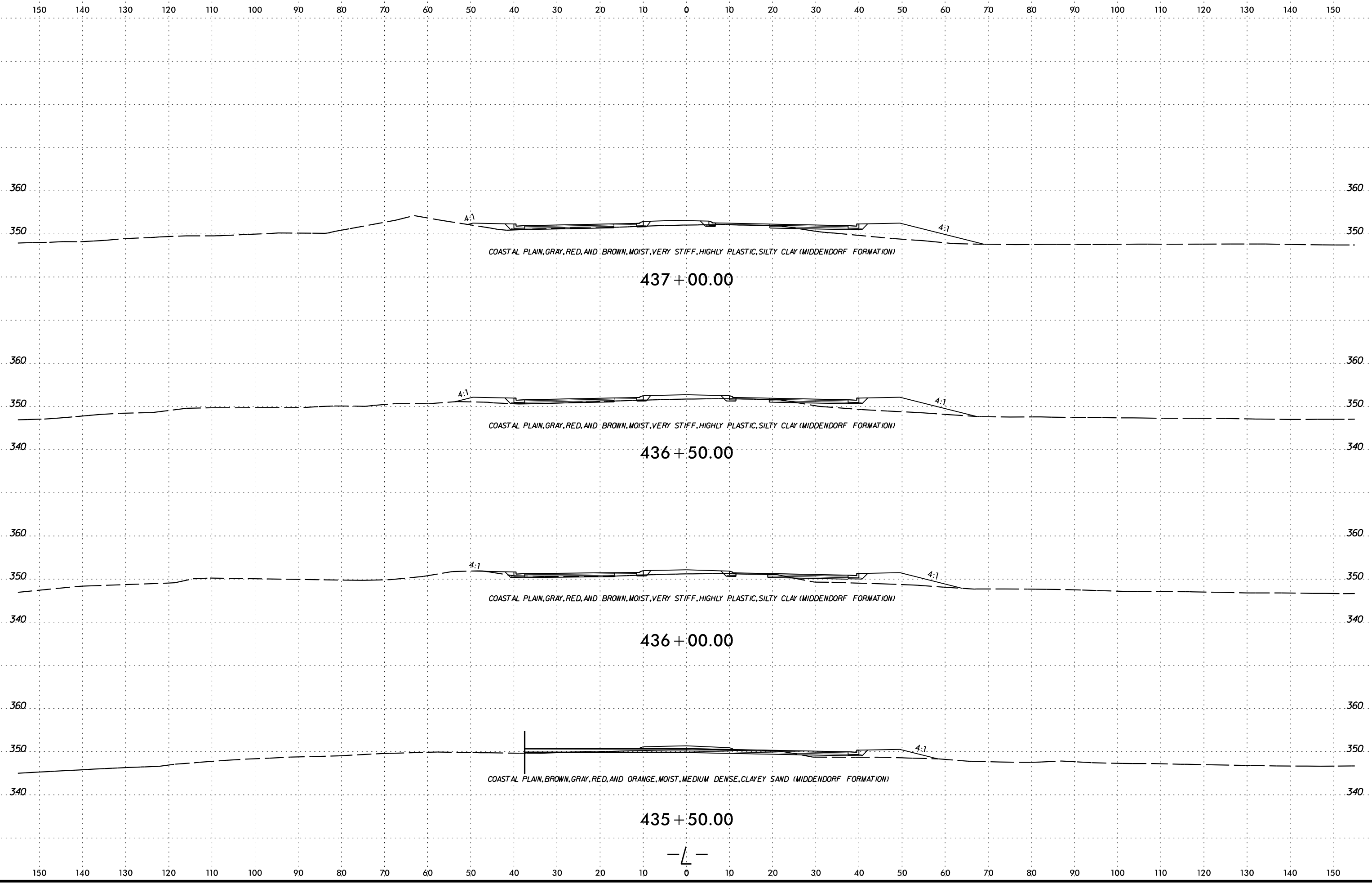
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 david.jounes





8:49:02 AM
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david.jounes

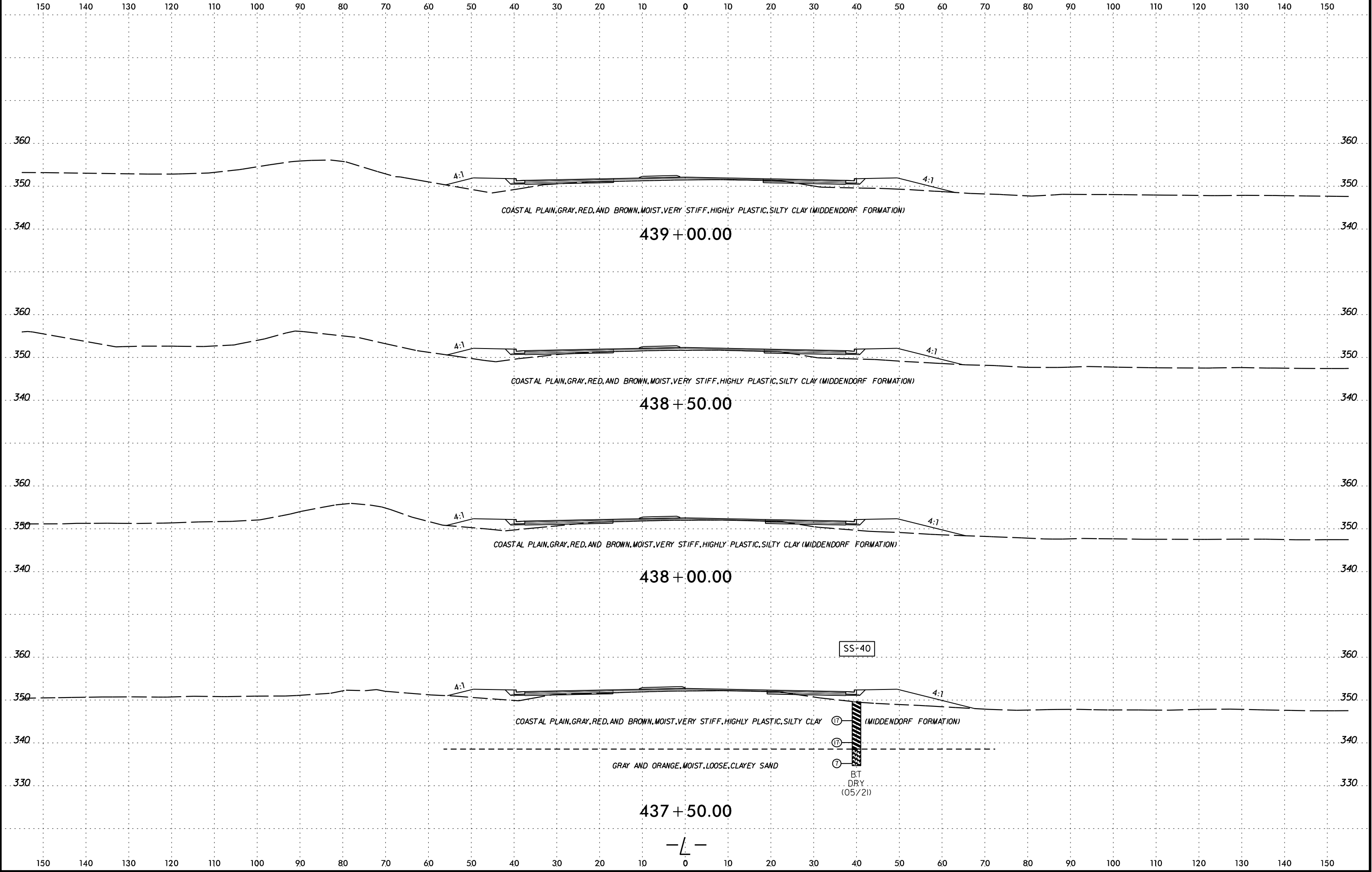
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6/23/16



PROJ. REFERENCE NO.
R-5705B

SHEET NO.
97



8:49:23 AM
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david.jounes

439 + 00.00

438 + 50.00

438 + 00.00

437 + 50.00

SS-40

T7

T8

T9

BT
DRY
(05/21)

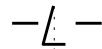
COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

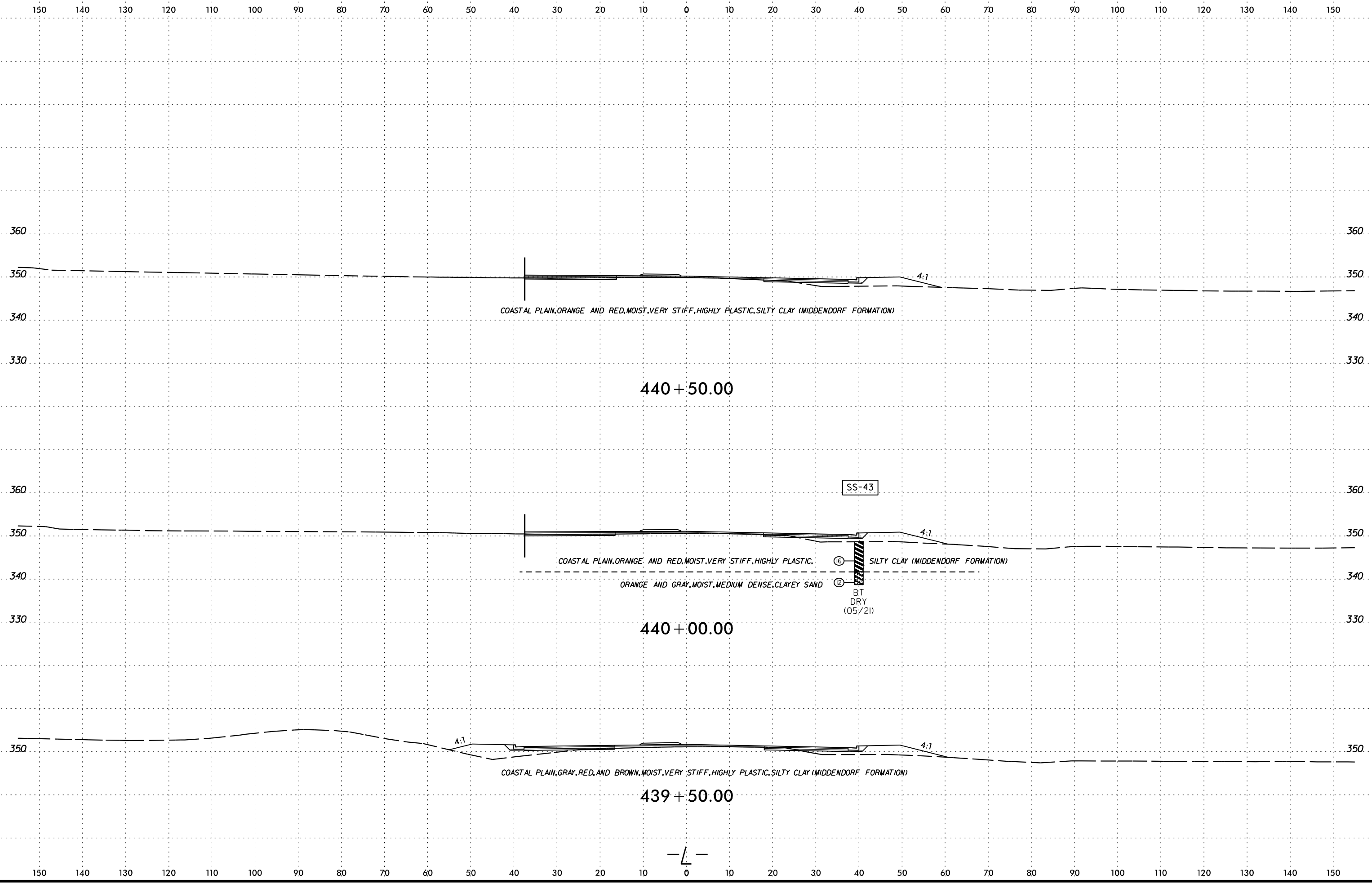
COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

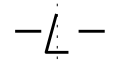
GRAY AND ORANGE, MOIST, LOOSE, CLAYEY SAND

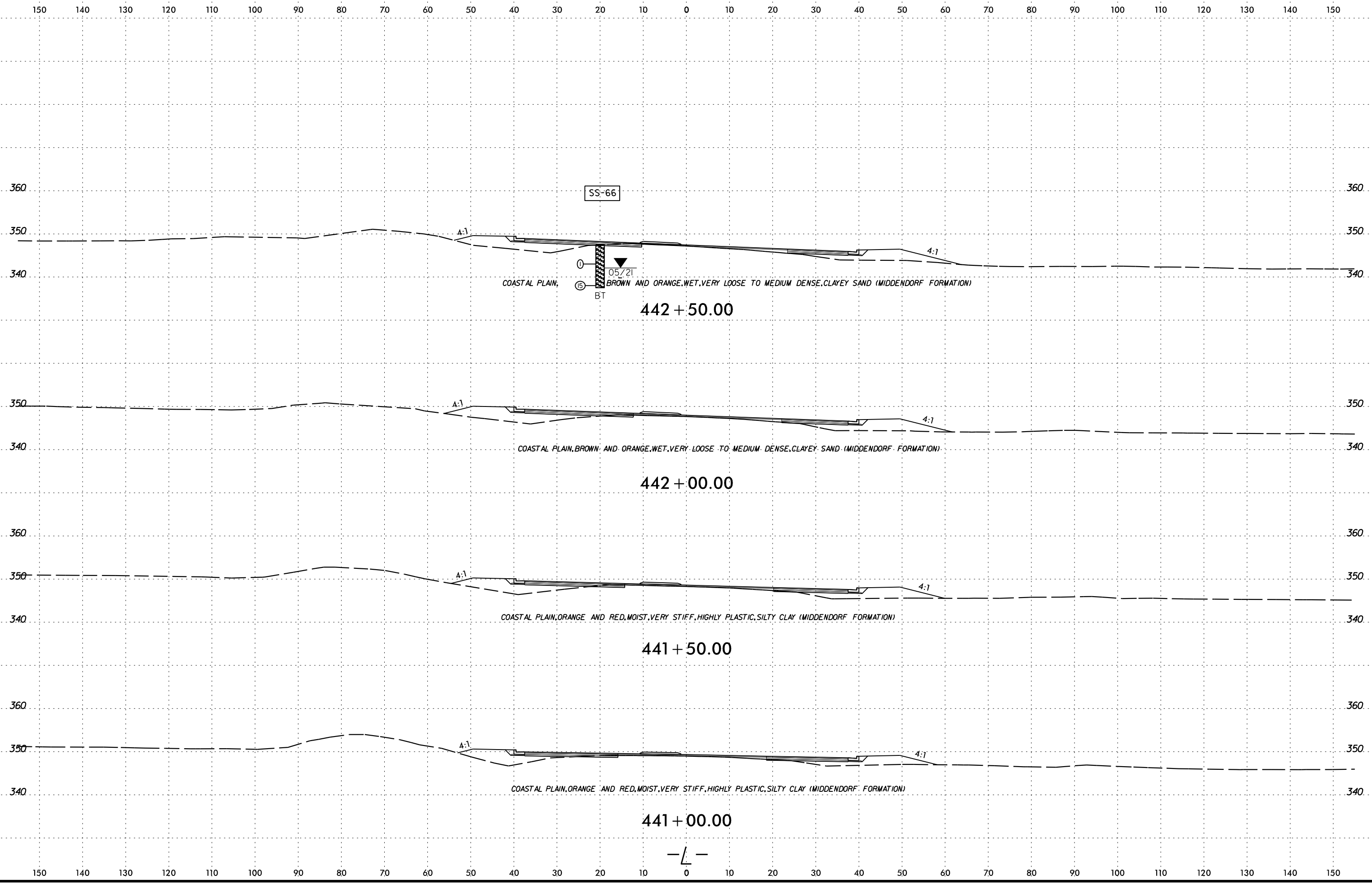


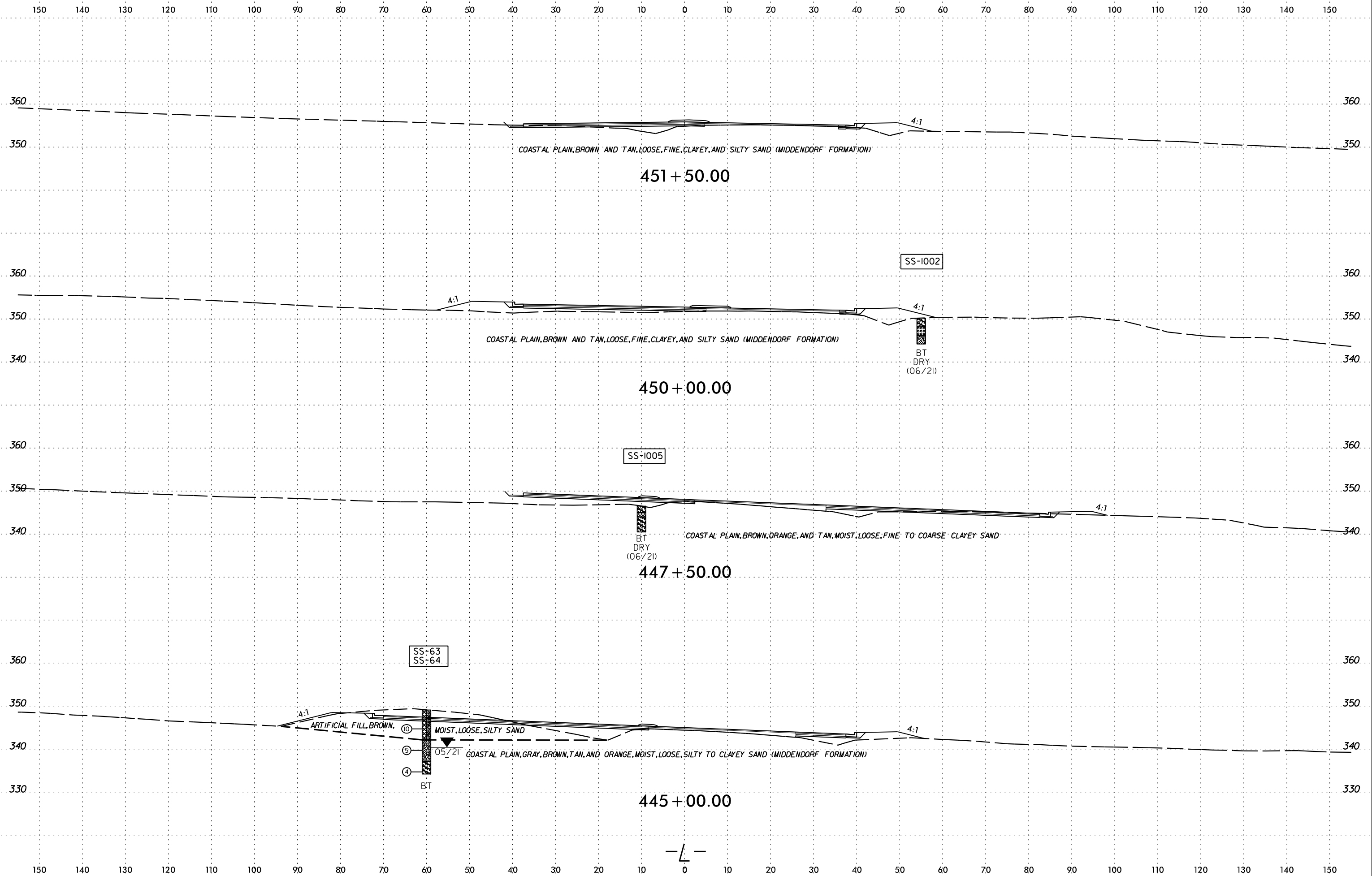
6/23/16

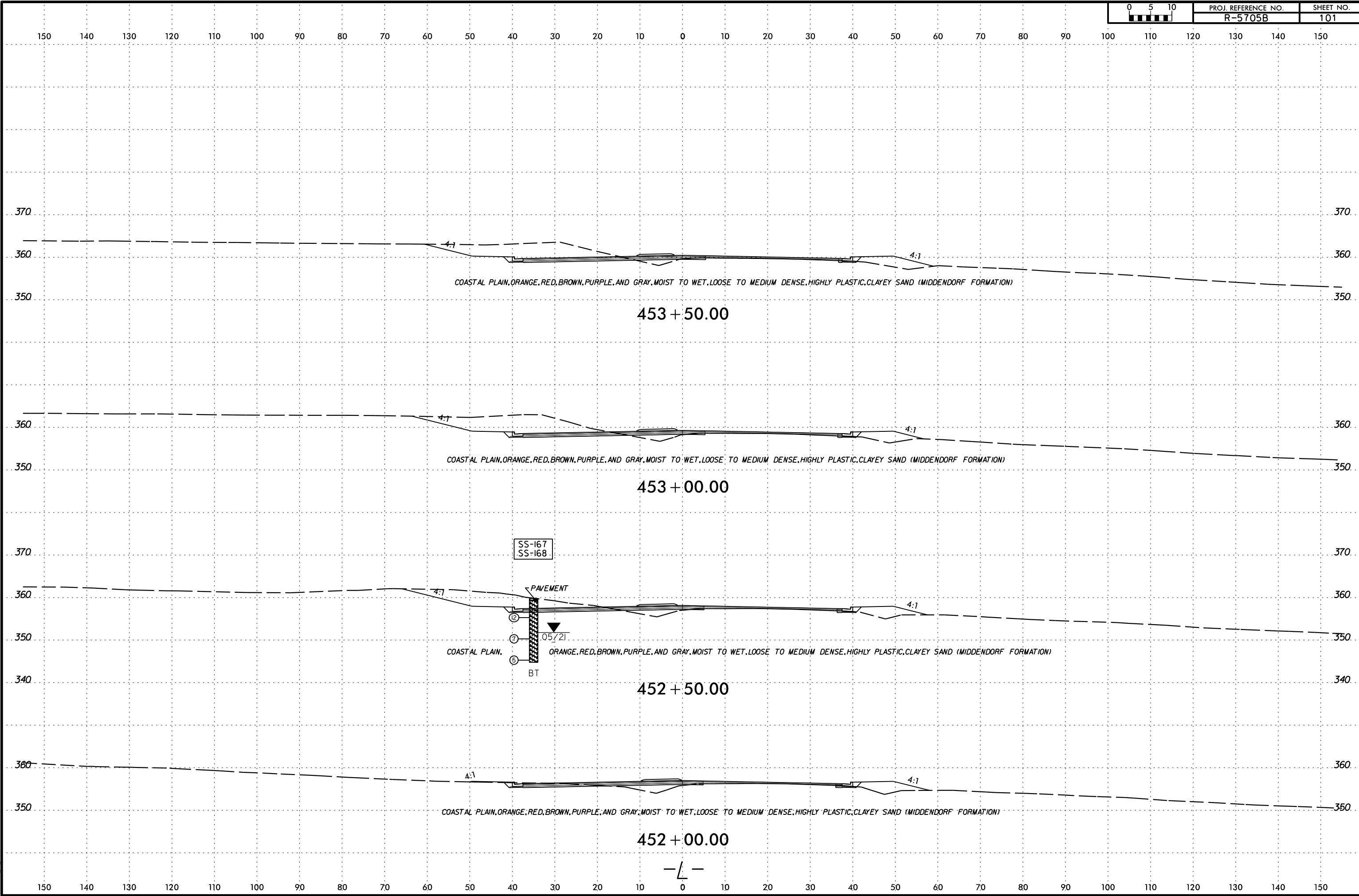


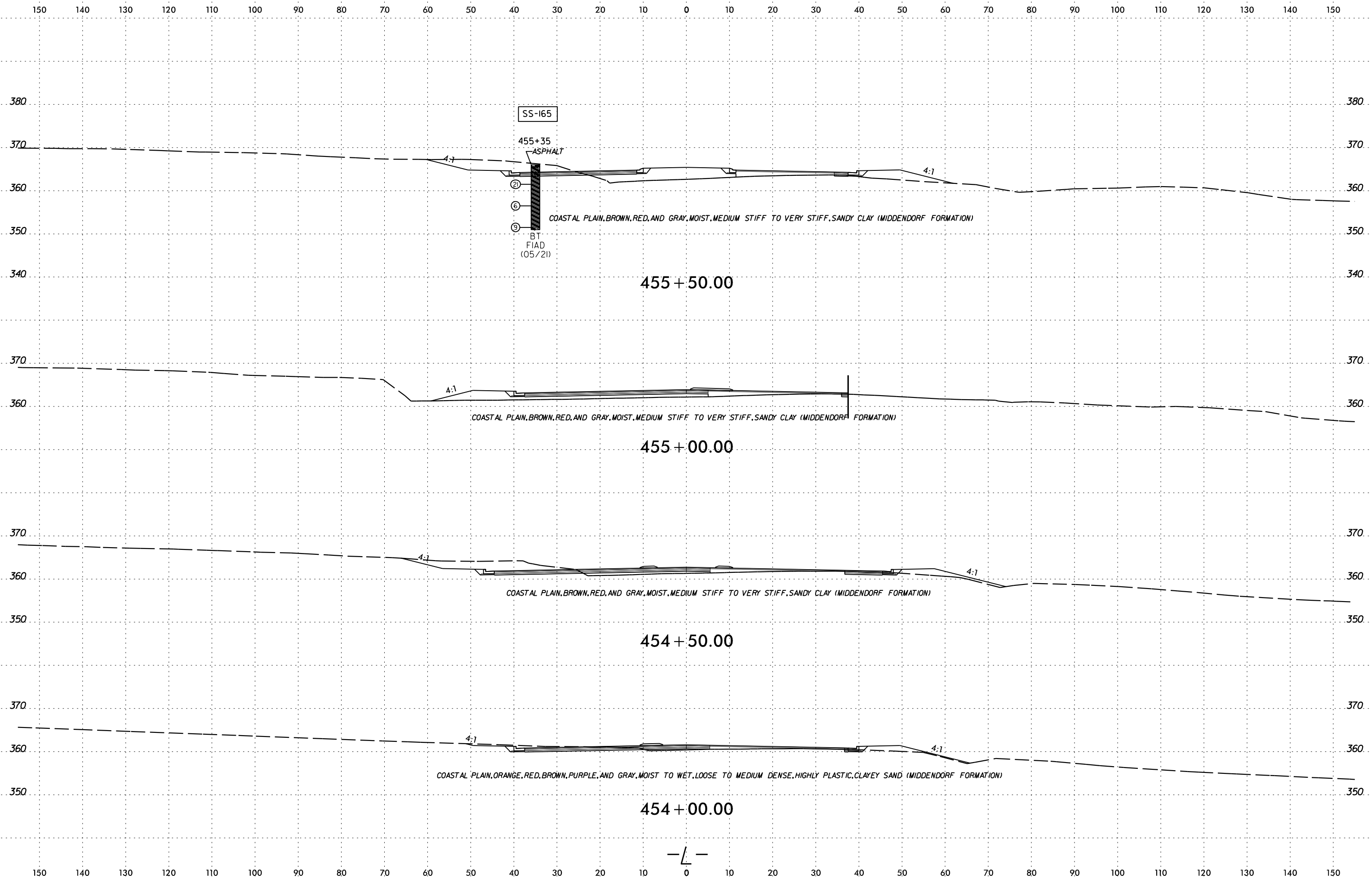
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David.Jounes



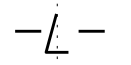


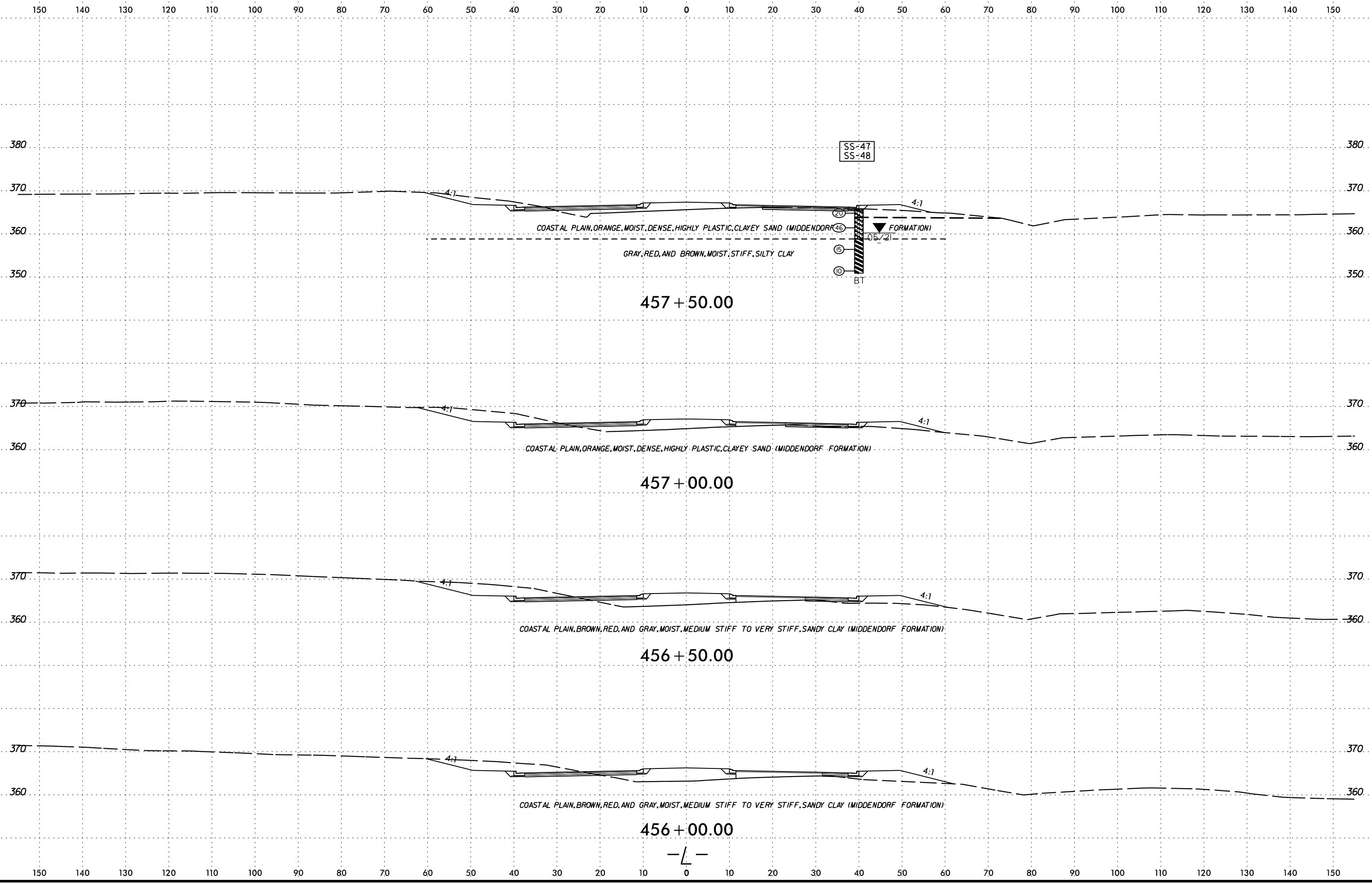


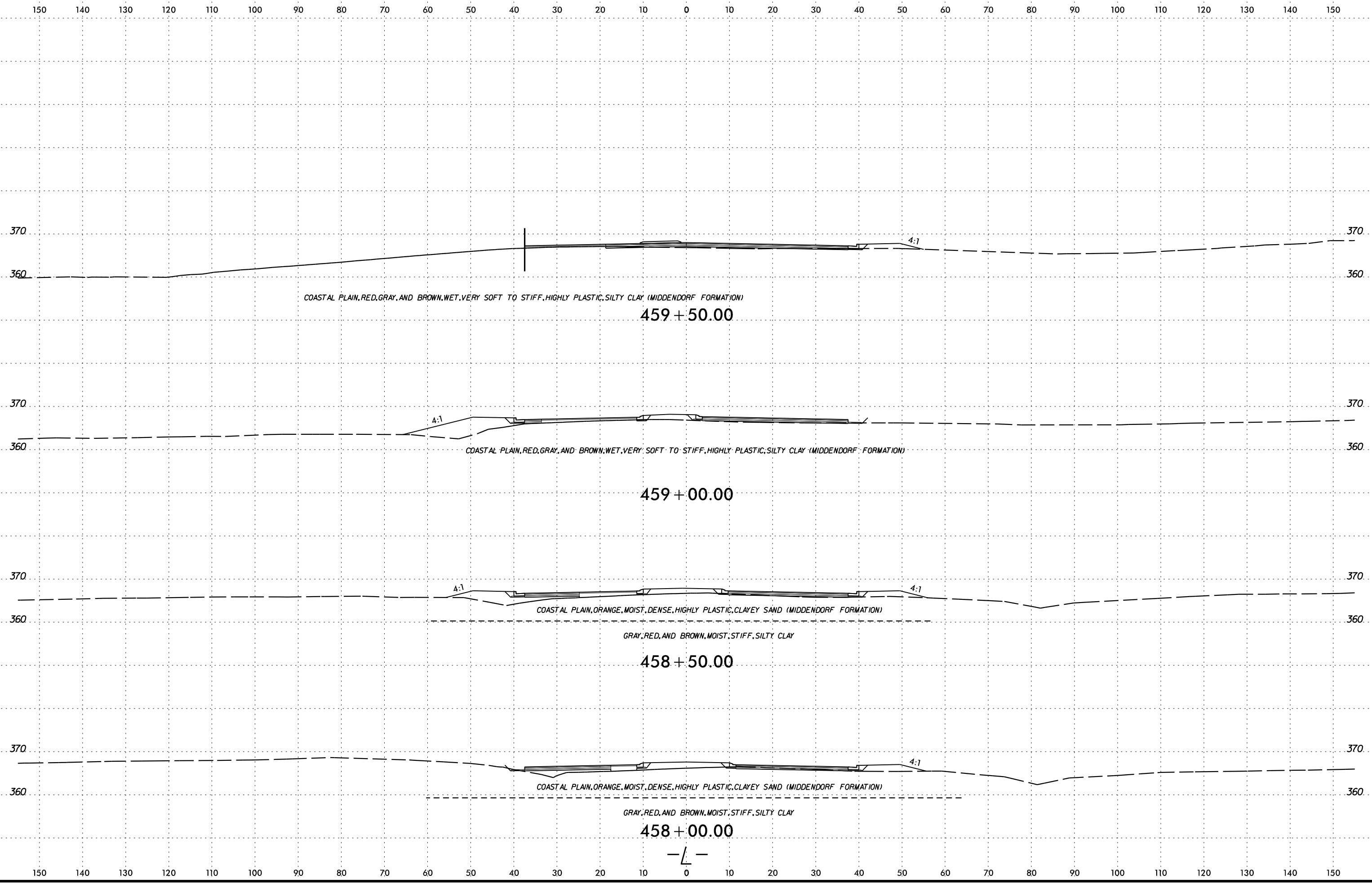


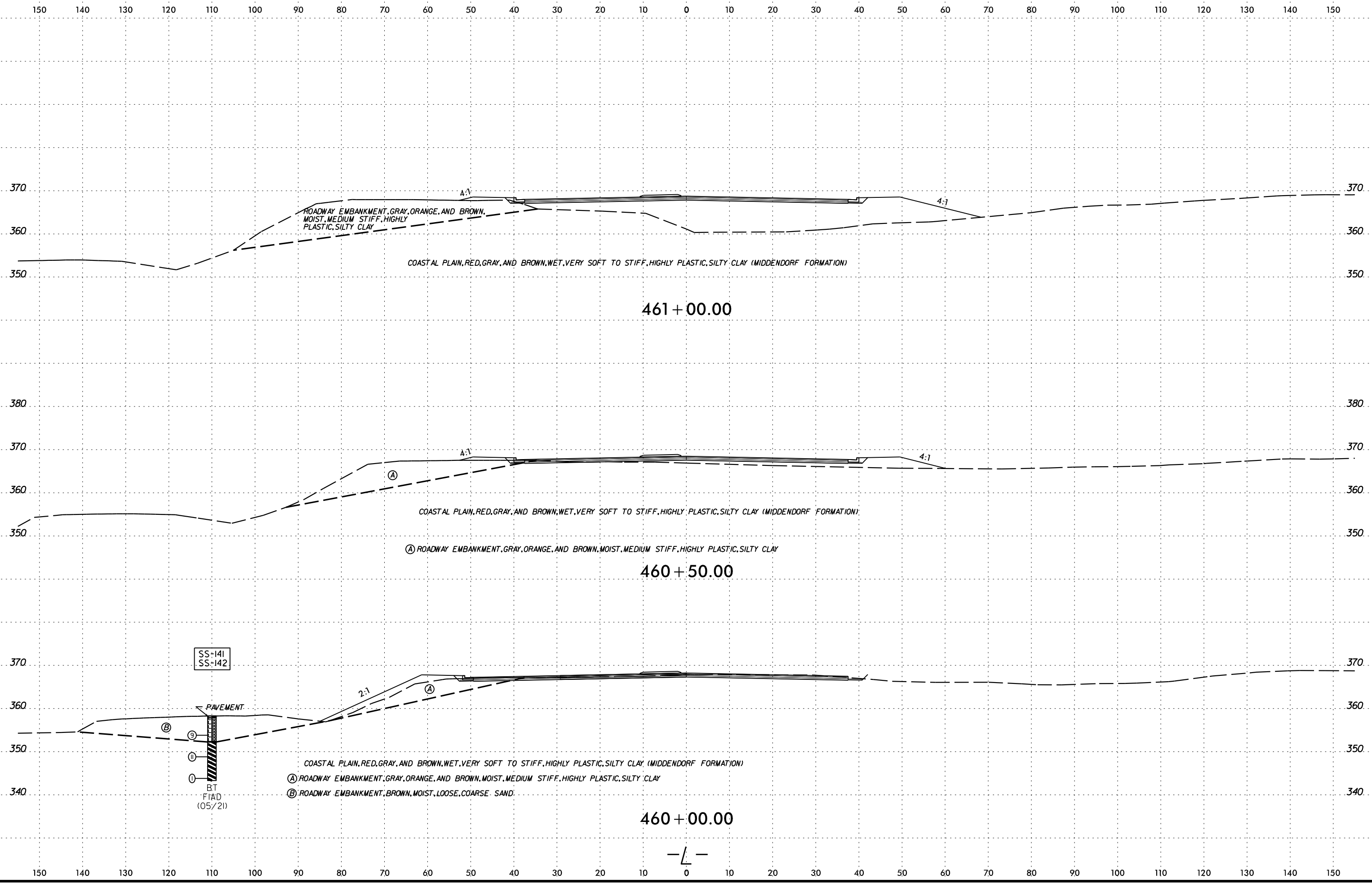


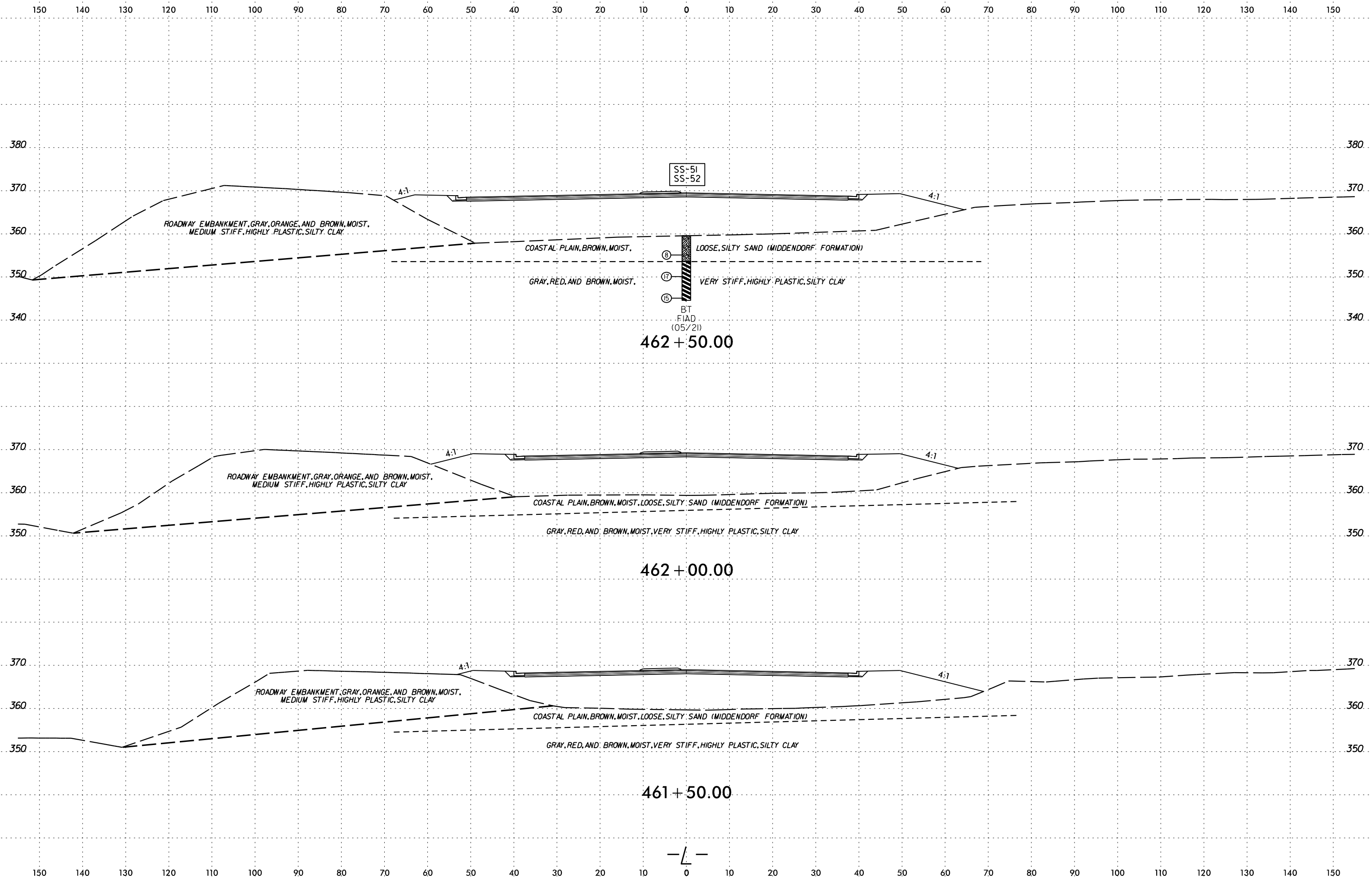
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 david.jounes











SS-51
SS-52

ROADWAY EMBANKMENT, GRAY, ORANGE, AND BROWN, MOIST,
MEDIUM STIFF, HIGHLY PLASTIC, SILTY CLAY

COASTAL PLAIN, BROWN, MOIST,

LOOSE, SILTY SAND (MIDDENDORF FORMATION)

GRAY, RED, AND BROWN, MOIST,

VERY STIFF, HIGHLY PLASTIC, SILTY CLAY

BT
FIAD
(05/21)

462 + 50.00

ROADWAY EMBANKMENT, GRAY, ORANGE, AND BROWN, MOIST,
MEDIUM STIFF, HIGHLY PLASTIC, SILTY CLAY

COASTAL PLAIN, BROWN, MOIST, LOOSE, SILTY SAND (MIDDENDORF FORMATION)

GRAY, RED, AND BROWN, MOIST, VERY STIFF, HIGHLY PLASTIC, SILTY CLAY

462 + 00.00

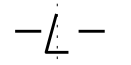
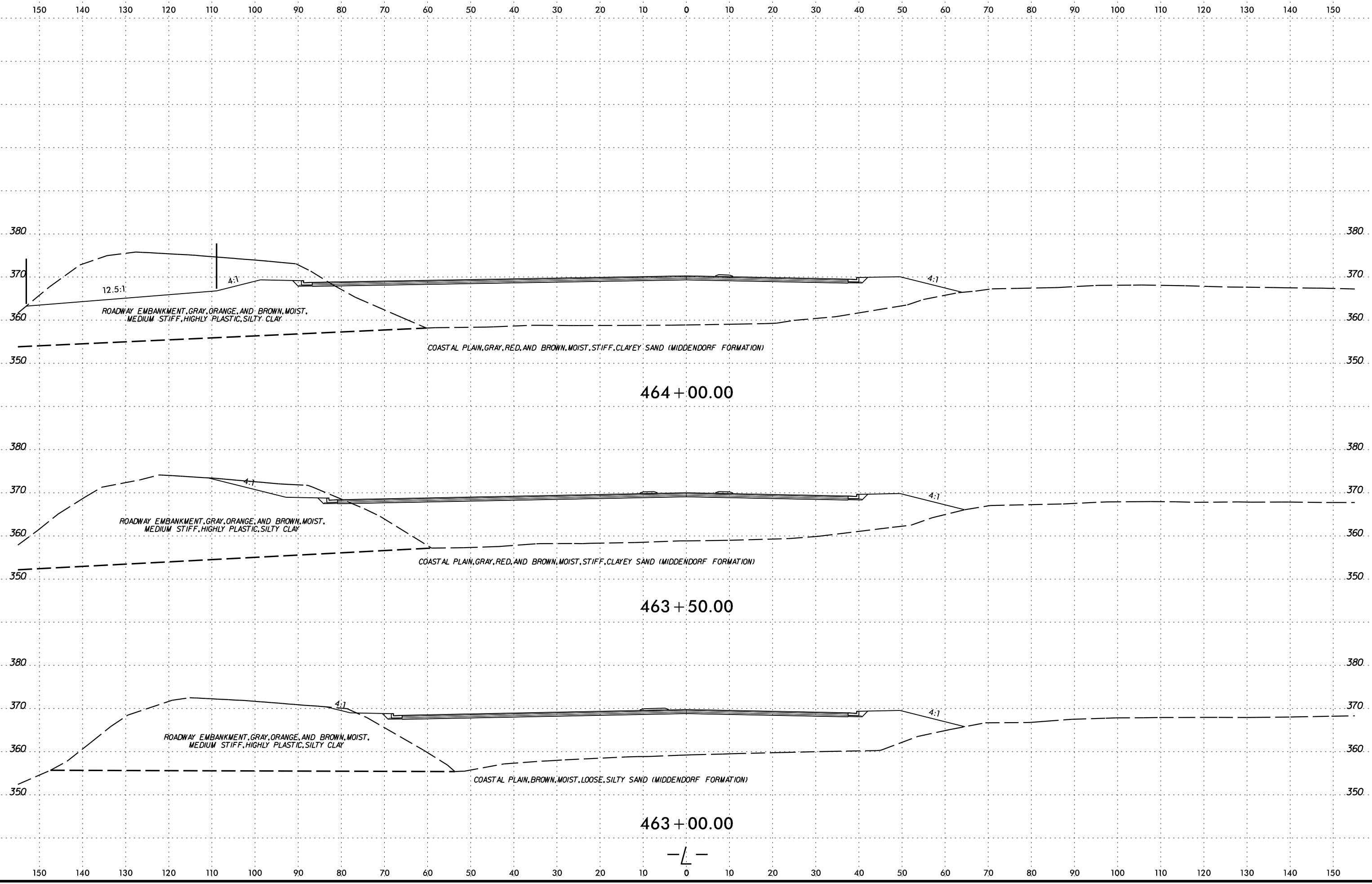
ROADWAY EMBANKMENT, GRAY, ORANGE, AND BROWN, MOIST,
MEDIUM STIFF, HIGHLY PLASTIC, SILTY CLAY

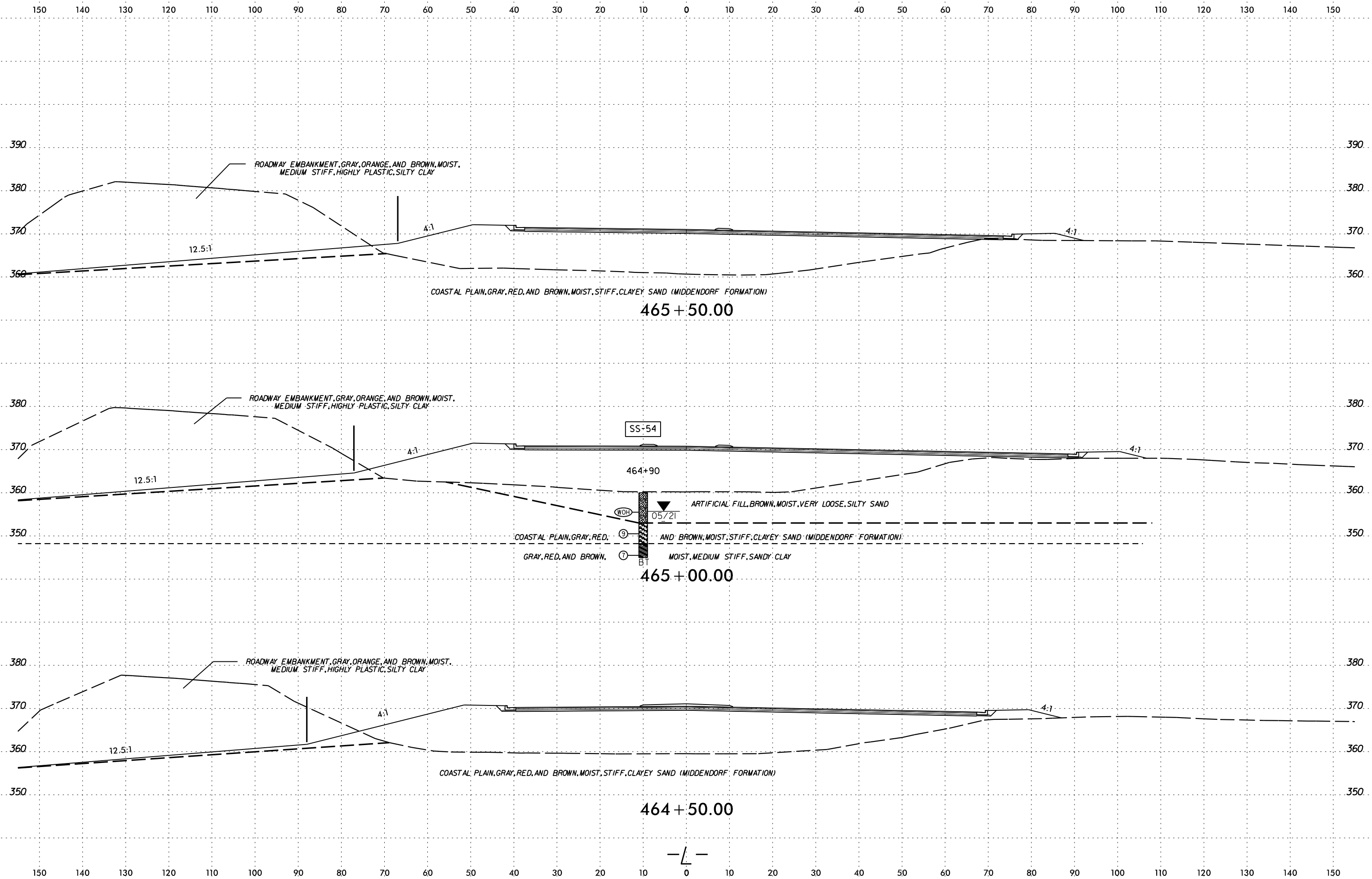
COASTAL PLAIN, BROWN, MOIST, LOOSE, SILTY SAND (MIDDENDORF FORMATION)

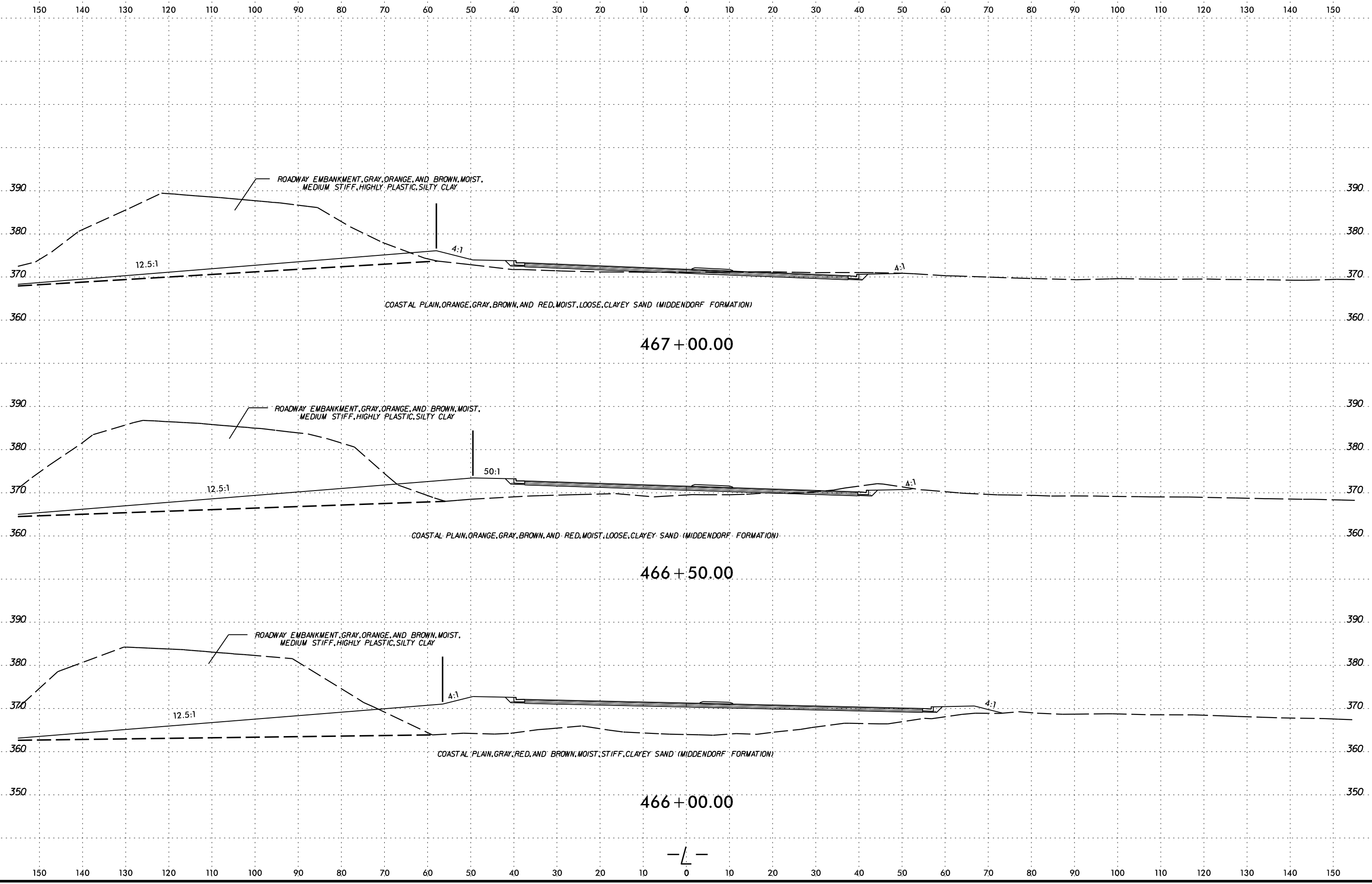
GRAY, RED, AND BROWN, MOIST, VERY STIFF, HIGHLY PLASTIC, SILTY CLAY

461 + 50.00

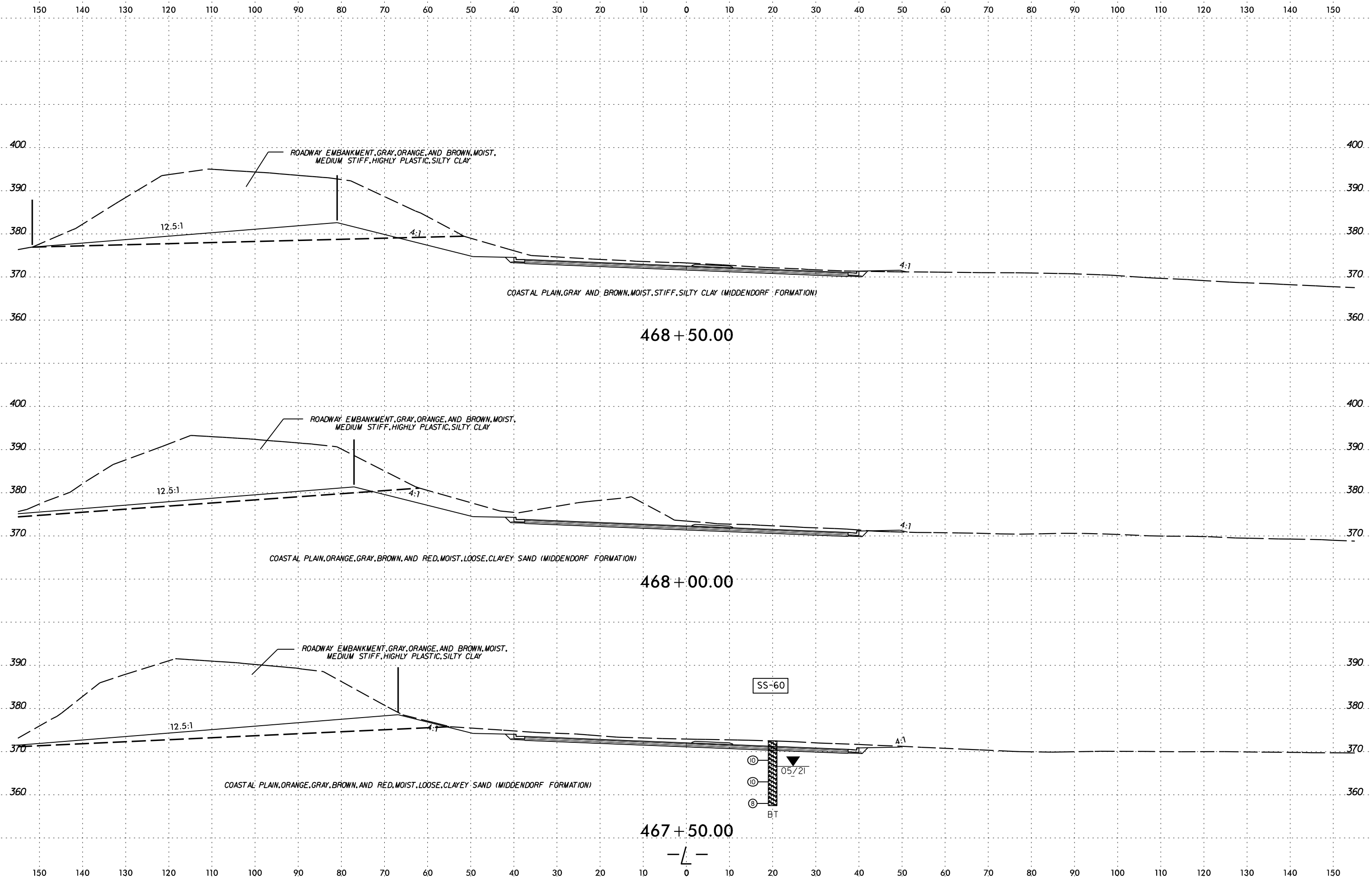
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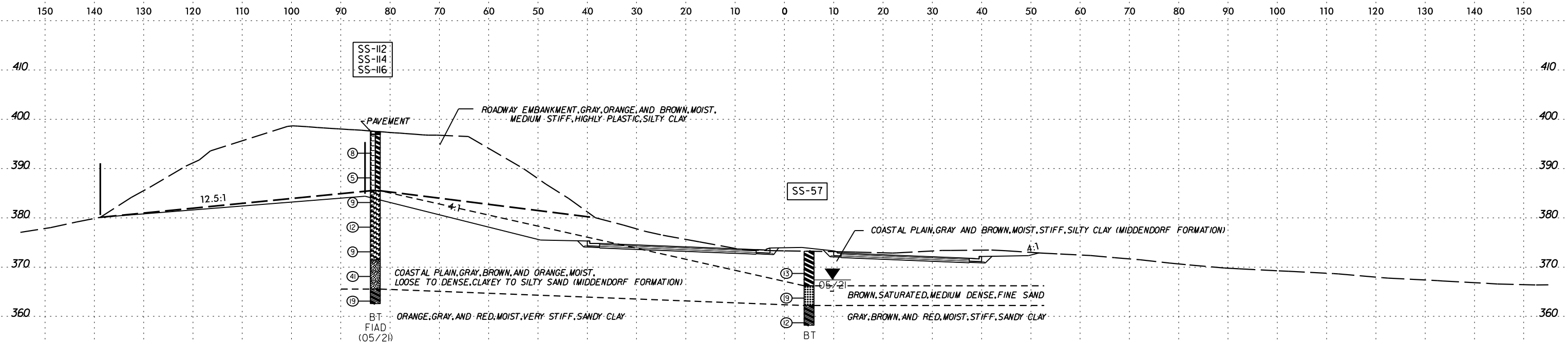


R5705B.dwg
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 david.jounes

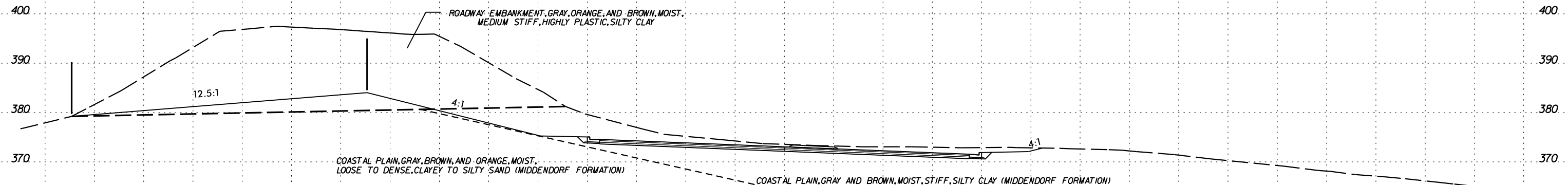


R55414 AM
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 david.jounes

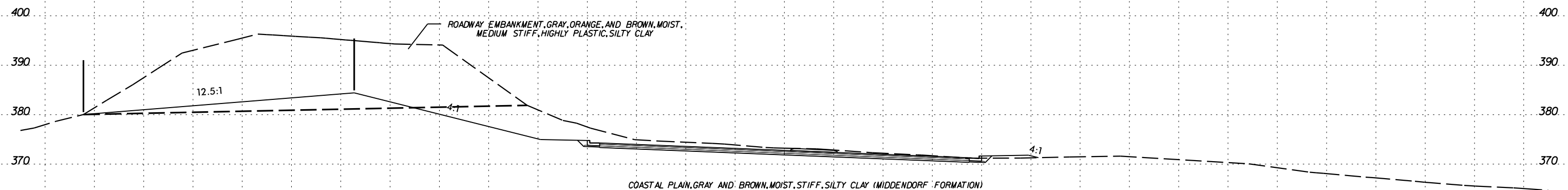
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470 + 00.00

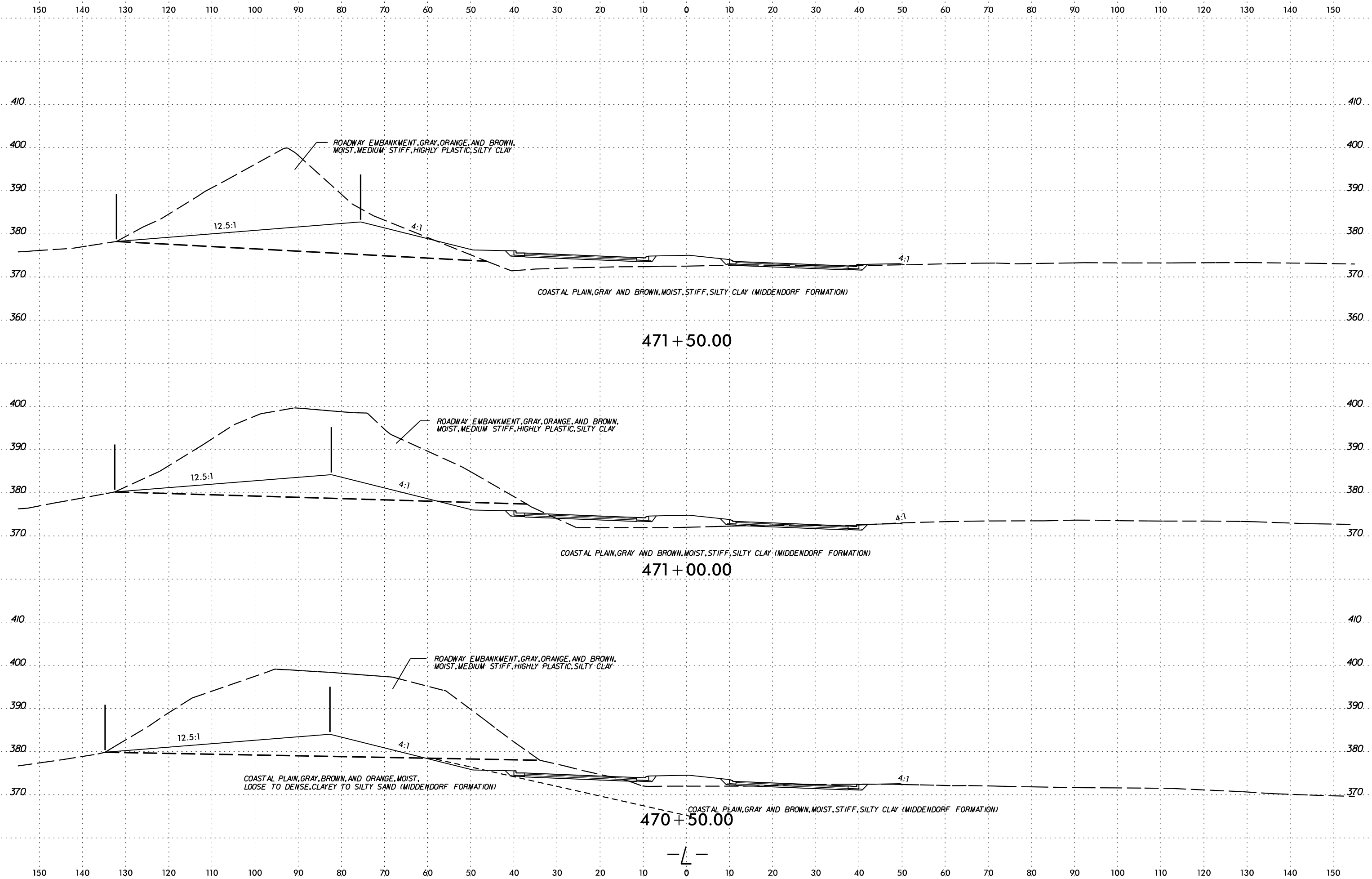


469 + 50.00

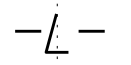


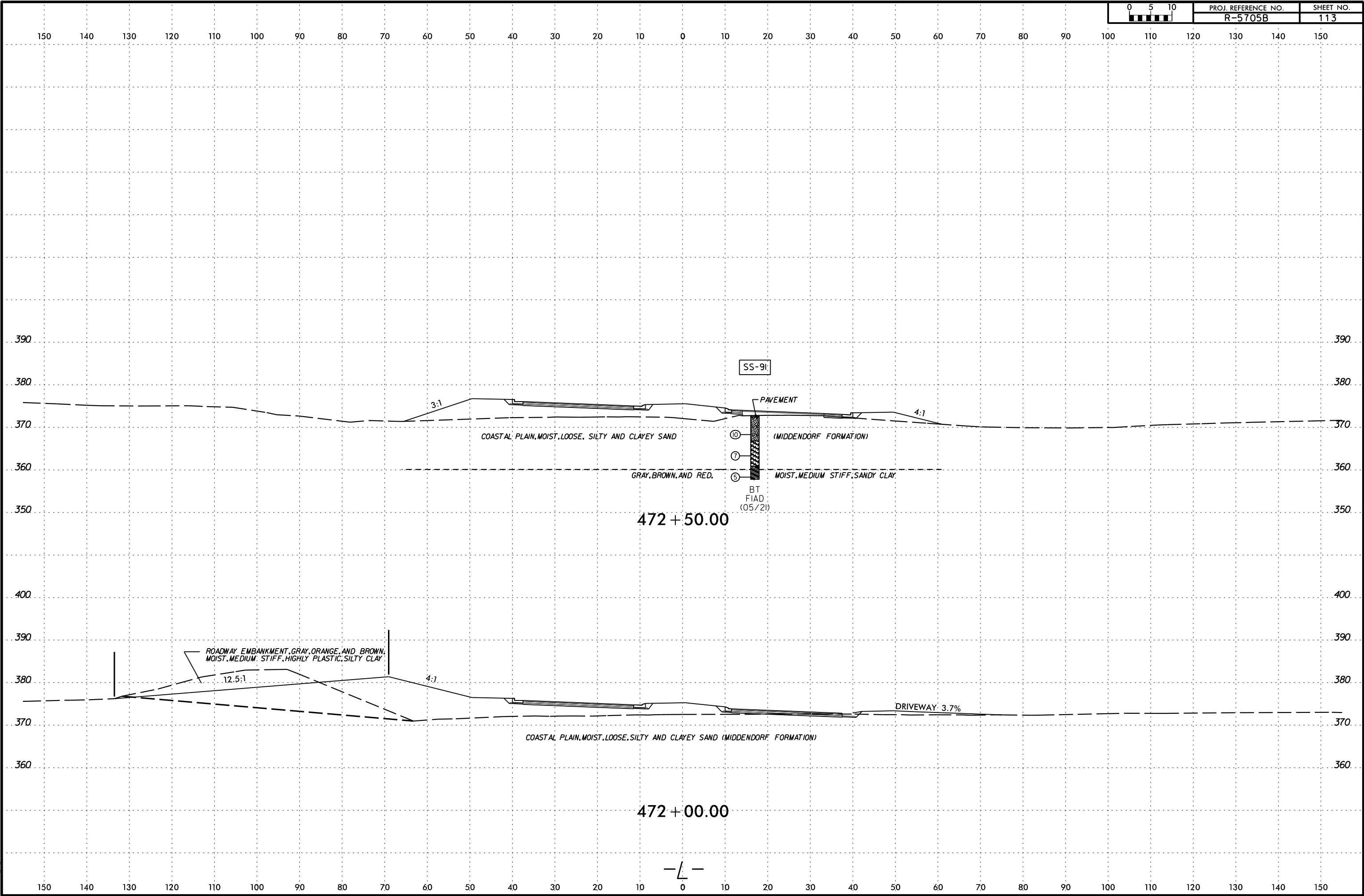
469 + 00.00



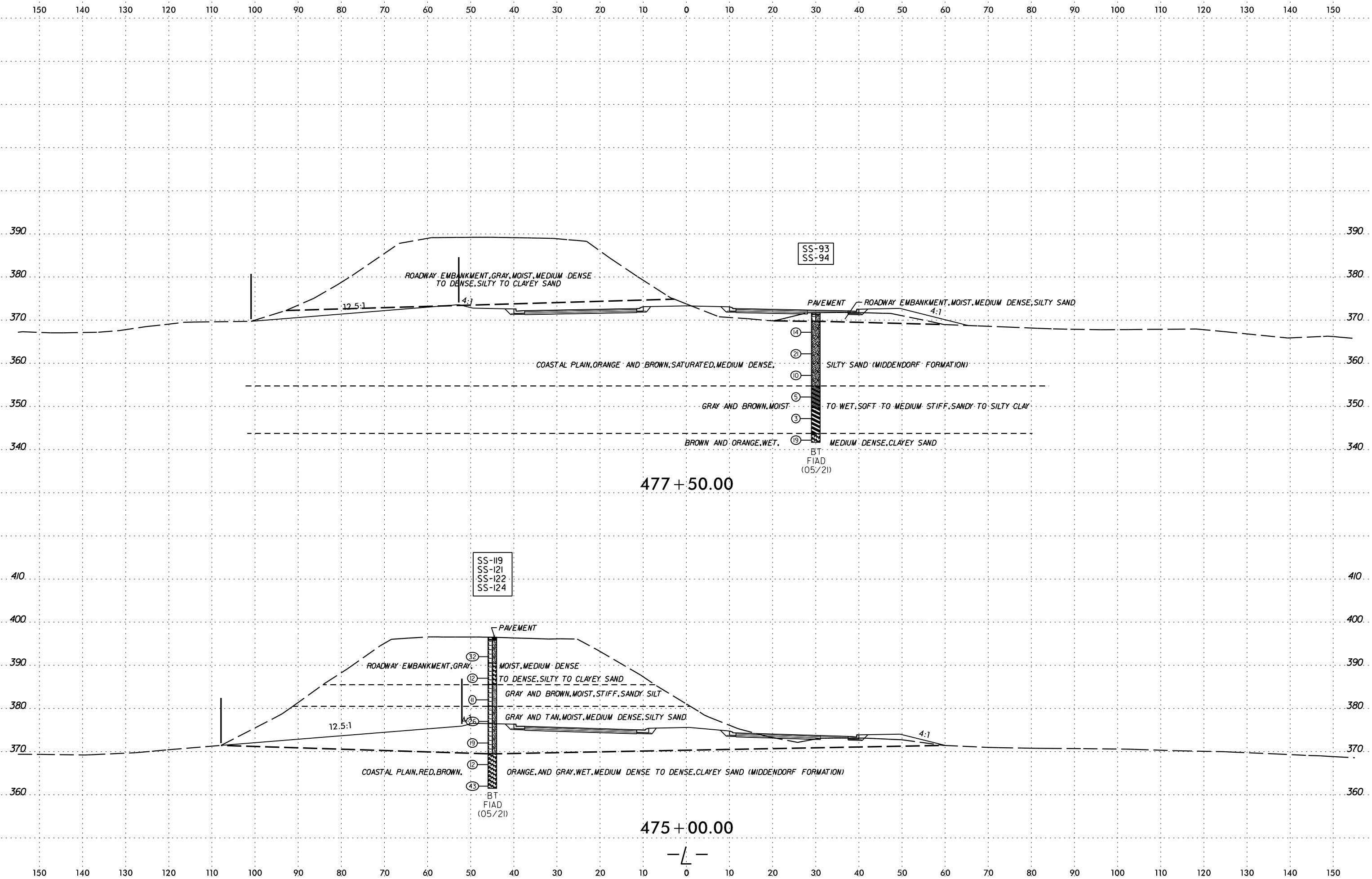


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 david.jounes

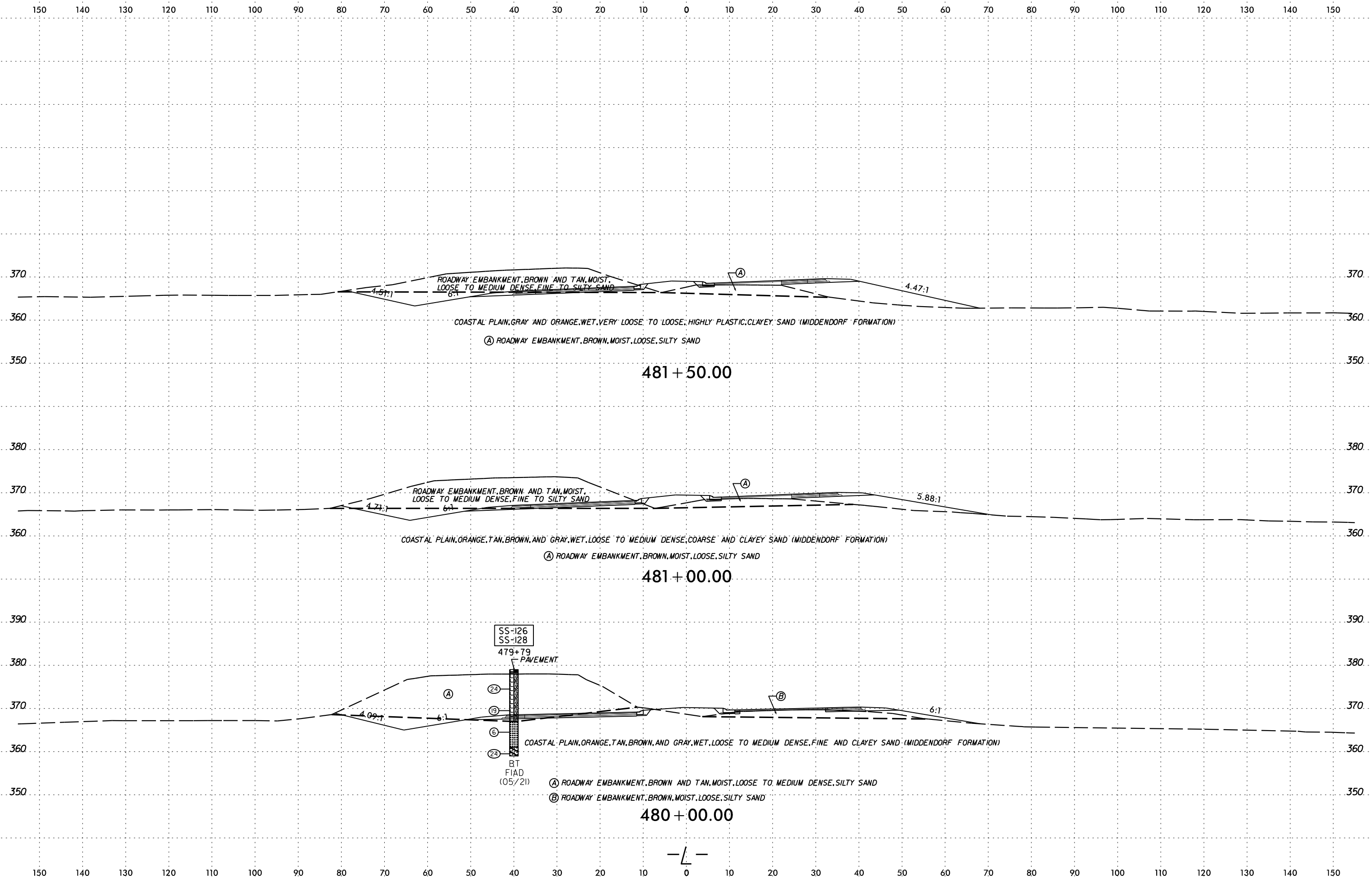


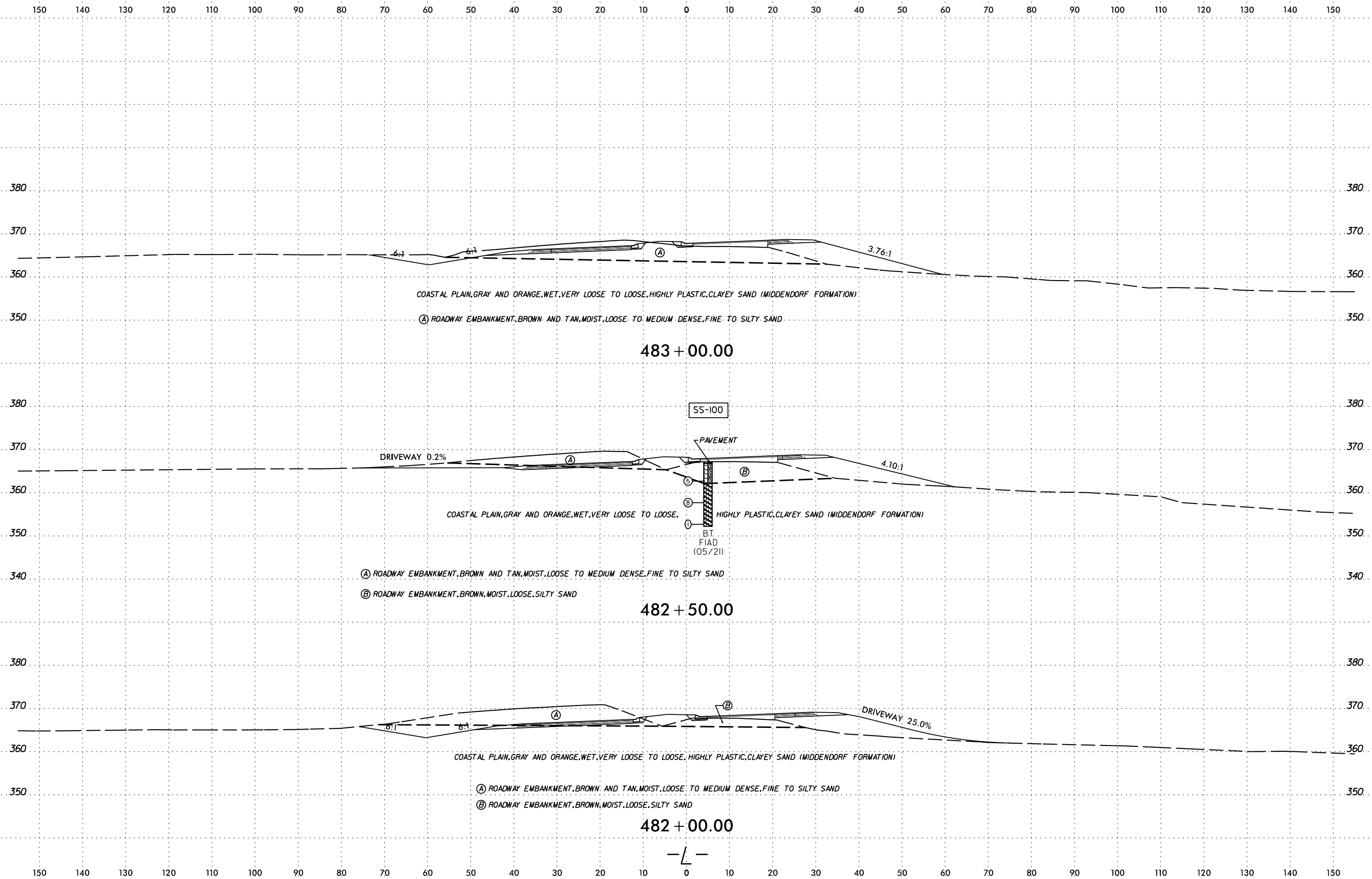


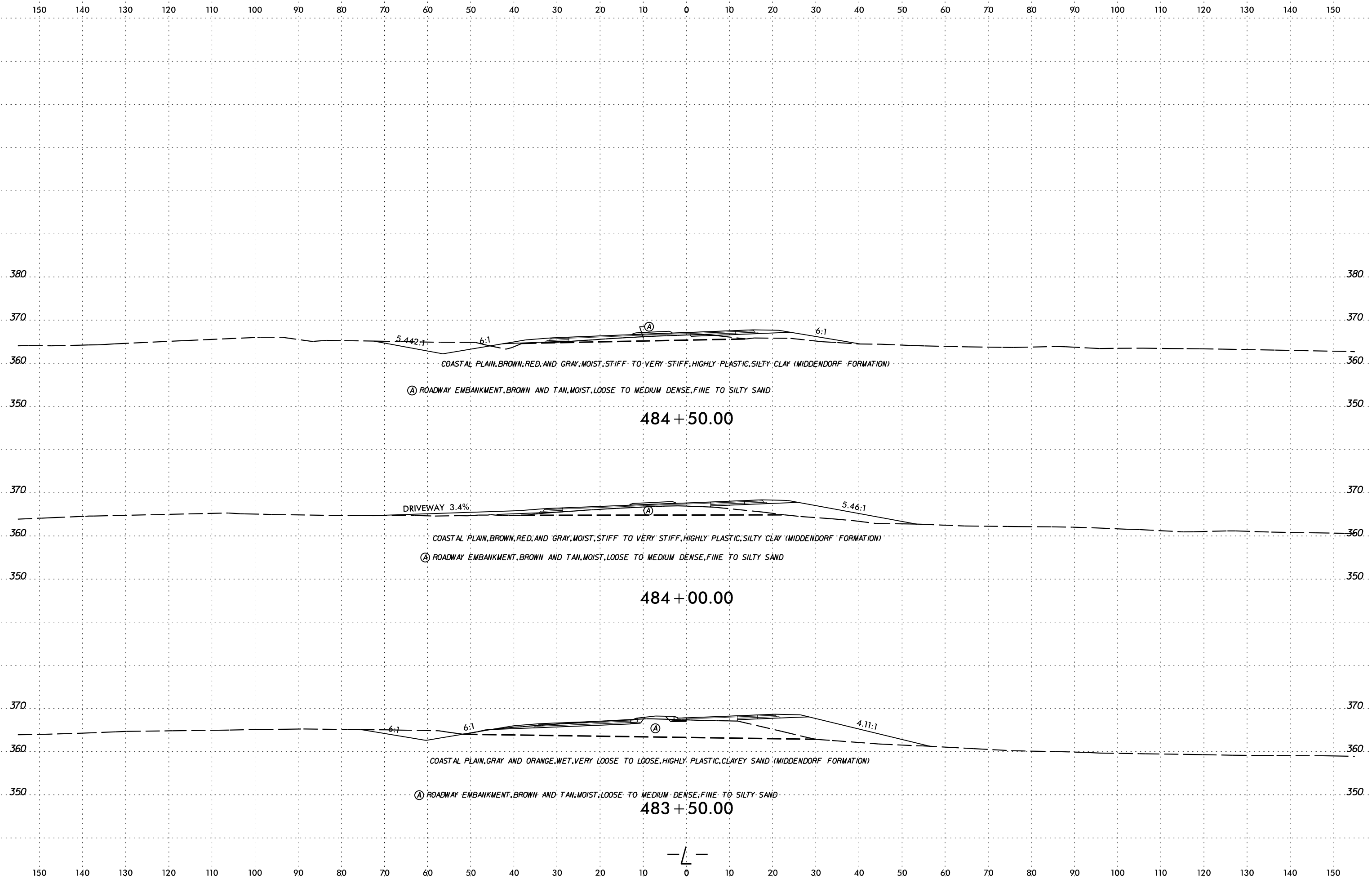
6/23/16



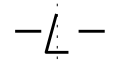
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David.Lounes

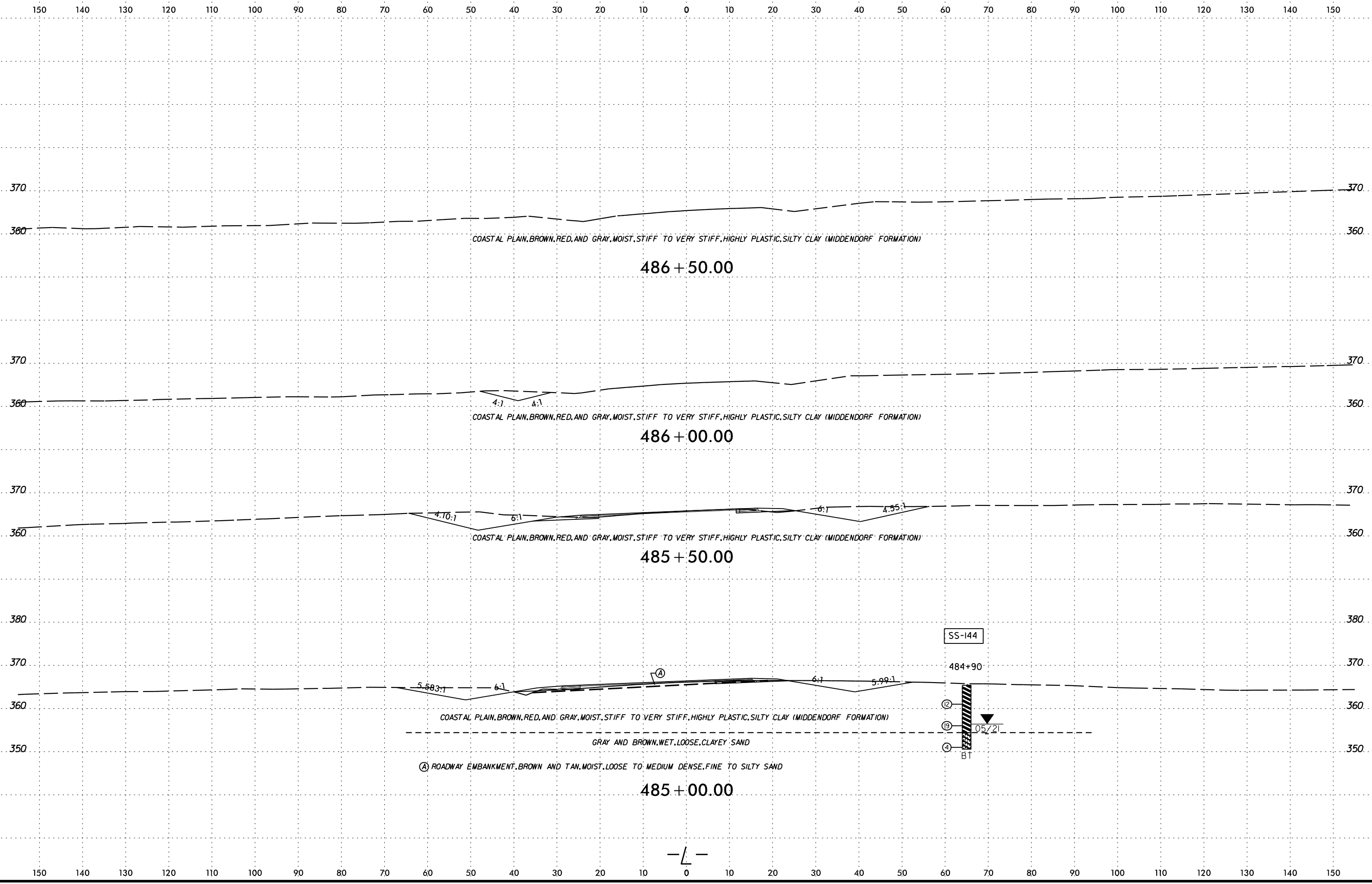




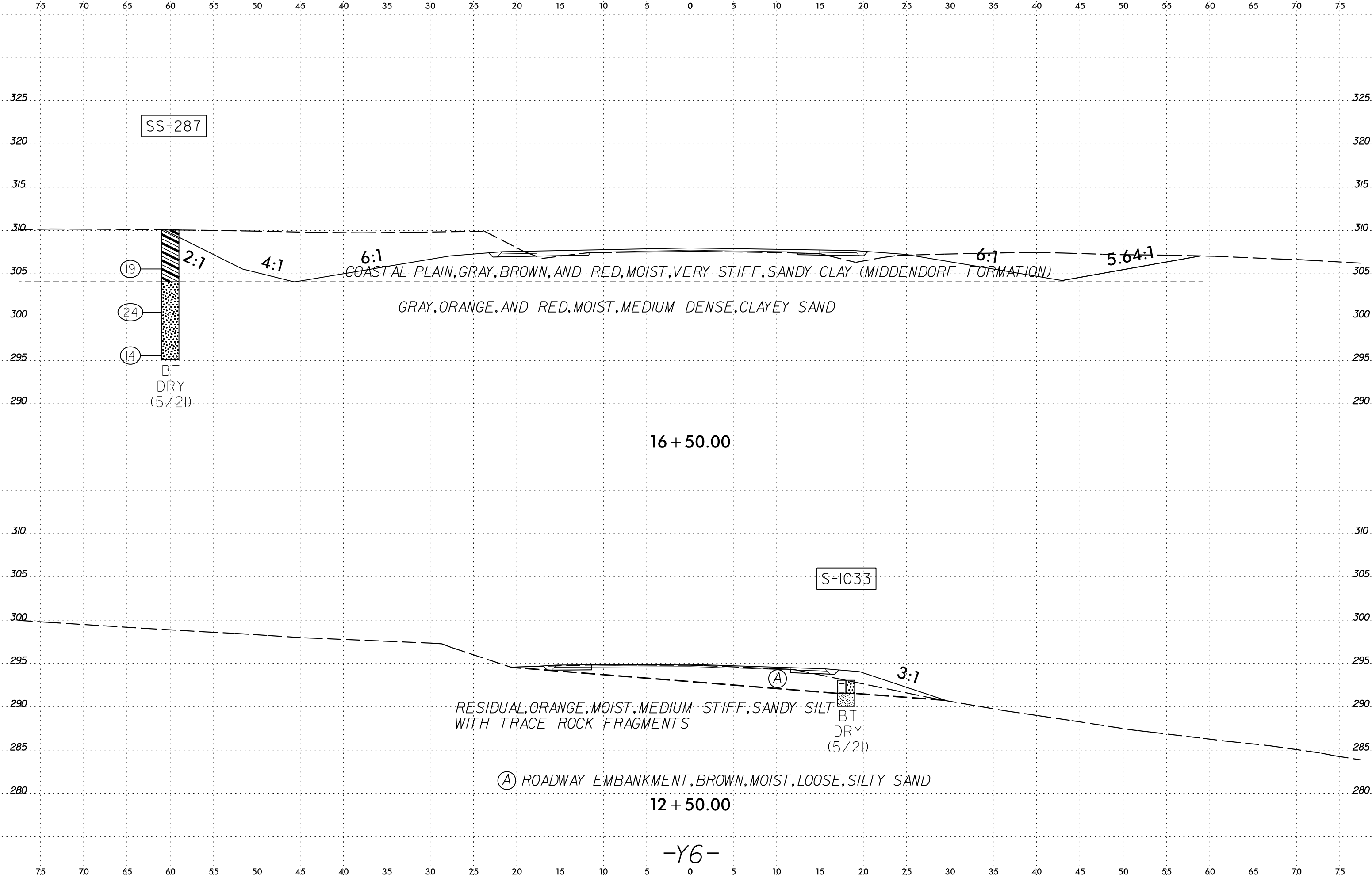


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 david.jounes





6/23/16



SS-287

19

24

14

BT
DRY
(5/21)

2:1

4:1

6:1

COASTAL PLAIN, GRAY, BROWN, AND RED, MOIST, VERY STIFF, SANDY CLAY (MIDDENDORF FORMATION)

6:1

5.64:1

GRAY, ORANGE, AND RED, MOIST, MEDIUM DENSE, CLAYEY SAND

16 + 50.00

S-1033

A

3:1

RESIDUAL, ORANGE, MOIST, MEDIUM STIFF, SANDY SILT
WITH TRACE ROCK FRAGMENTS

BT
DRY
(5/21)

A ROADWAY EMBANKMENT, BROWN, MOIST, LOOSE, SILTY SAND

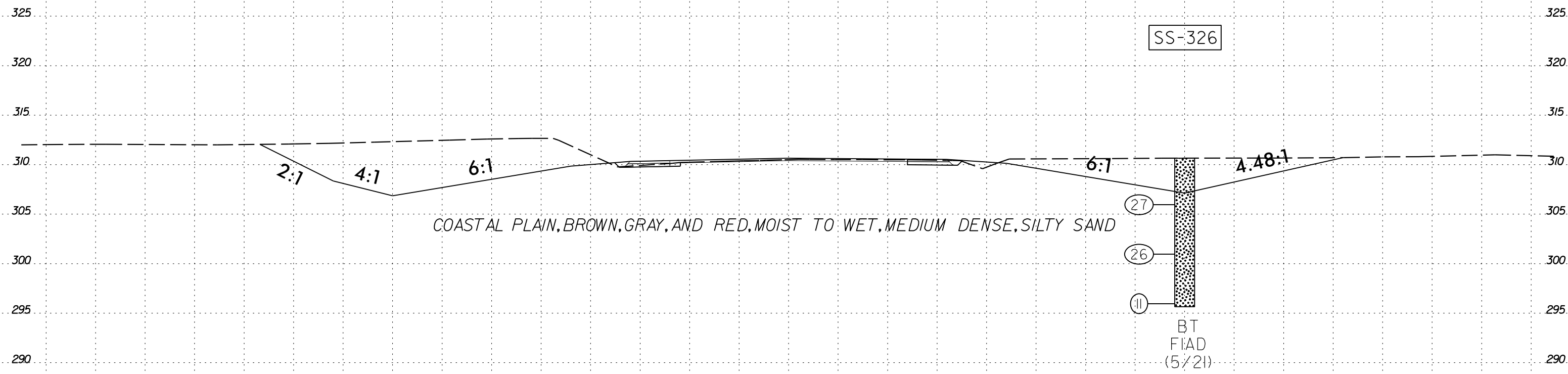
12 + 50.00

-Y6-

I:\0210 PM
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david.jones

6/23/16

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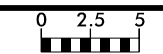
17 + 50.00

-Y6-

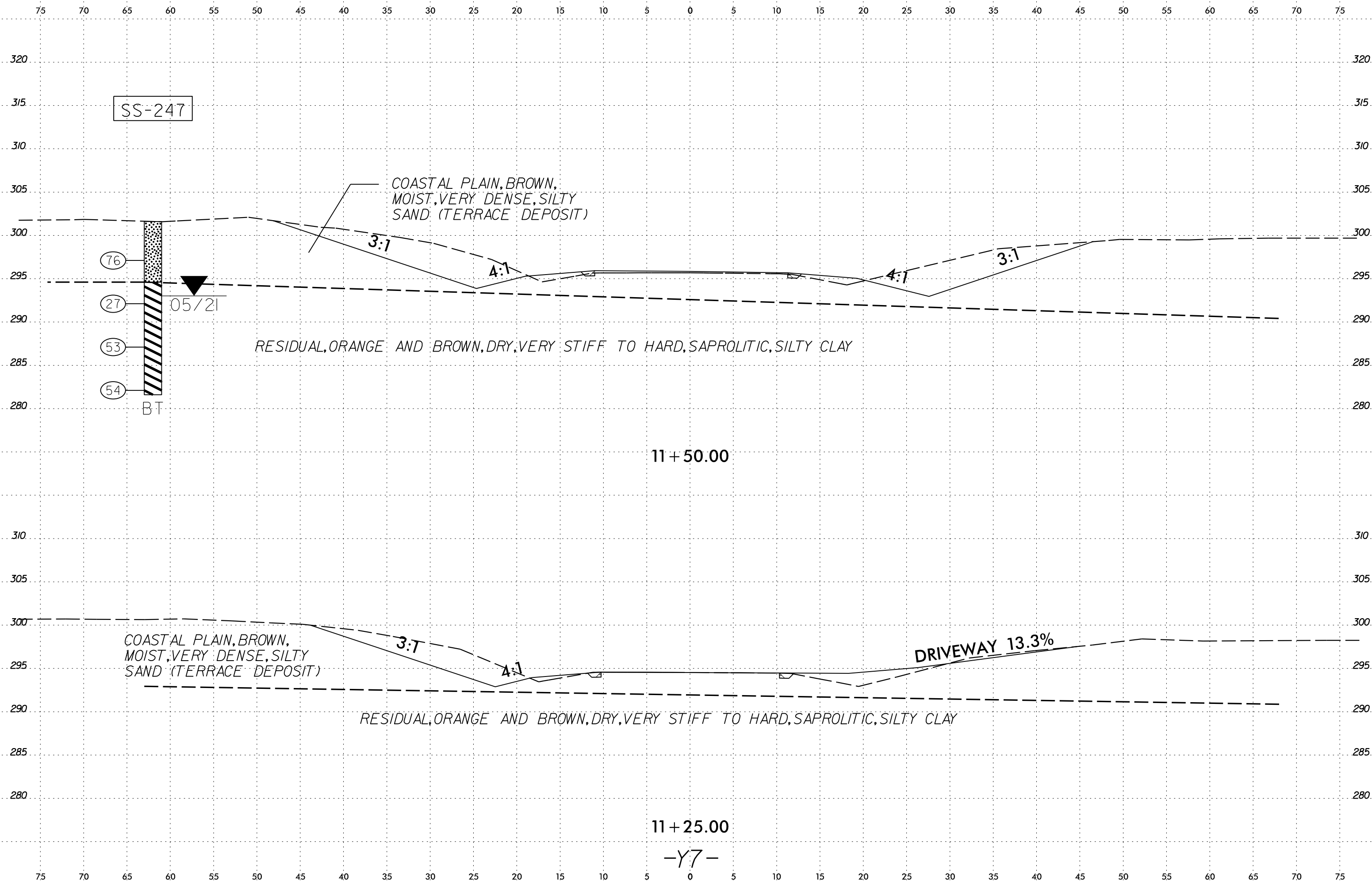
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 david.journe

6/23/16



PROJ. REFERENCE NO. R-5705B	SHEET NO. 121
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SS-247

76

27

53

54

BT

05/21

COASTAL PLAIN, BROWN, MOIST, VERY DENSE, SILTY SAND (TERRACE DEPOSIT)

RESIDUAL, ORANGE AND BROWN, DRY, VERY STIFF TO HARD, SAPROLITIC, SILTY CLAY

11+50.00

COASTAL PLAIN, BROWN, MOIST, VERY DENSE, SILTY SAND (TERRACE DEPOSIT)

RESIDUAL, ORANGE AND BROWN, DRY, VERY STIFF TO HARD, SAPROLITIC, SILTY CLAY

DRIVEWAY 13.3%

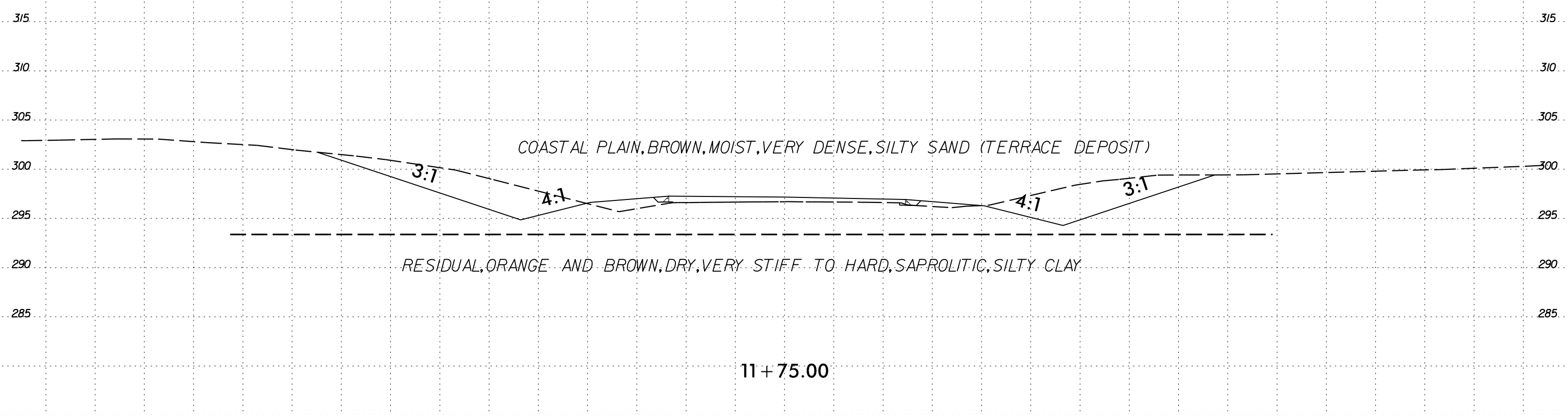
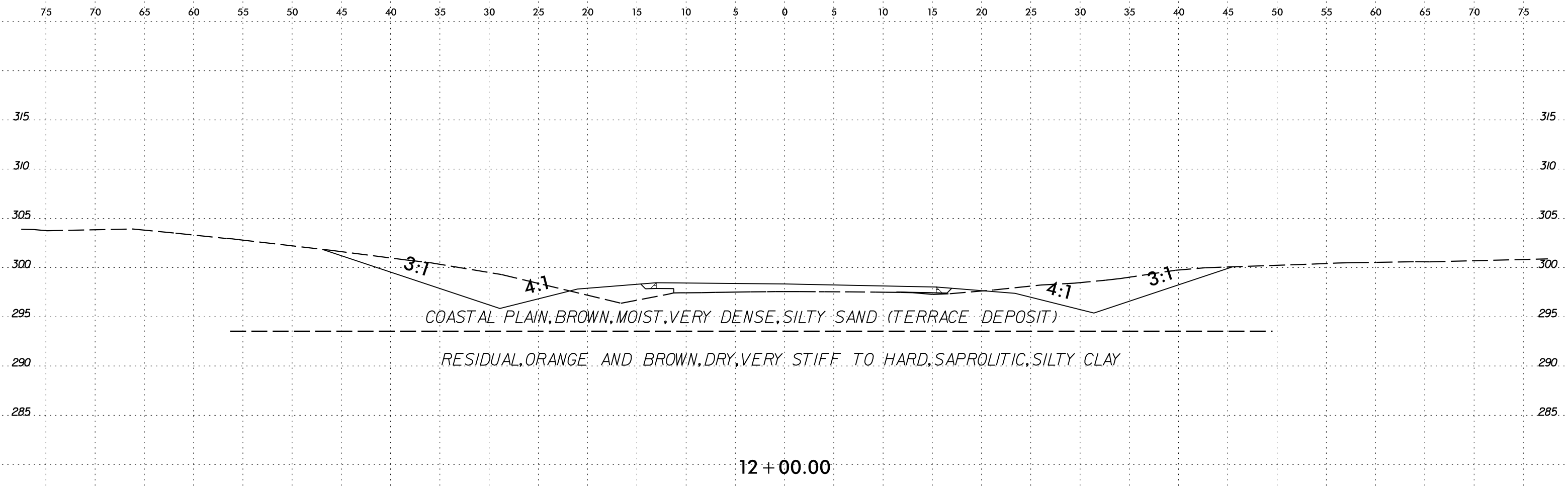
11+25.00

-Y7-

I:\0212 PM R-5705B\CADD_GEO\TECH\ssc\R-5705B_GEO_RDWY_XSI_YLINES.dgn

6/23/16

0 2.5 5	PROJ. REFERENCE NO. R-5705B	SHEET NO. 122
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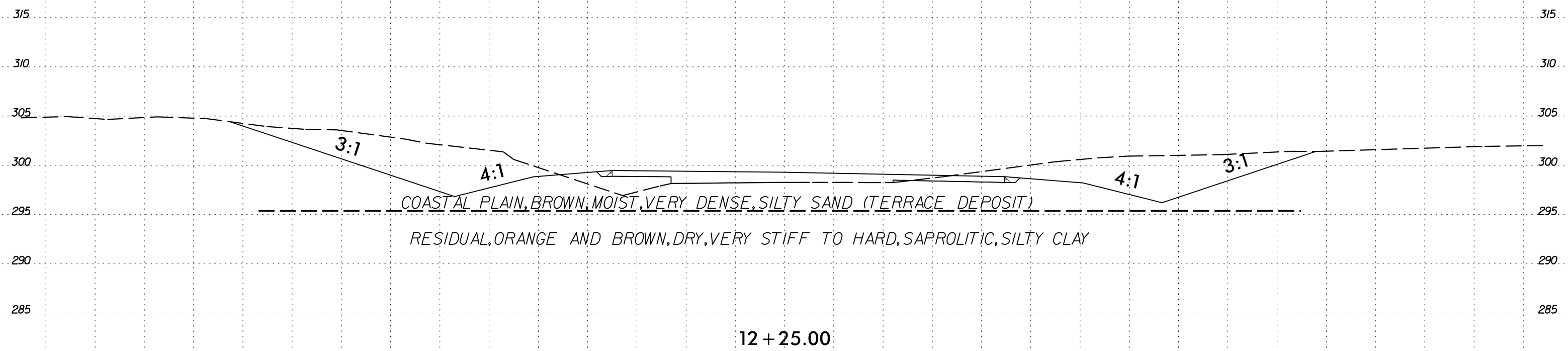
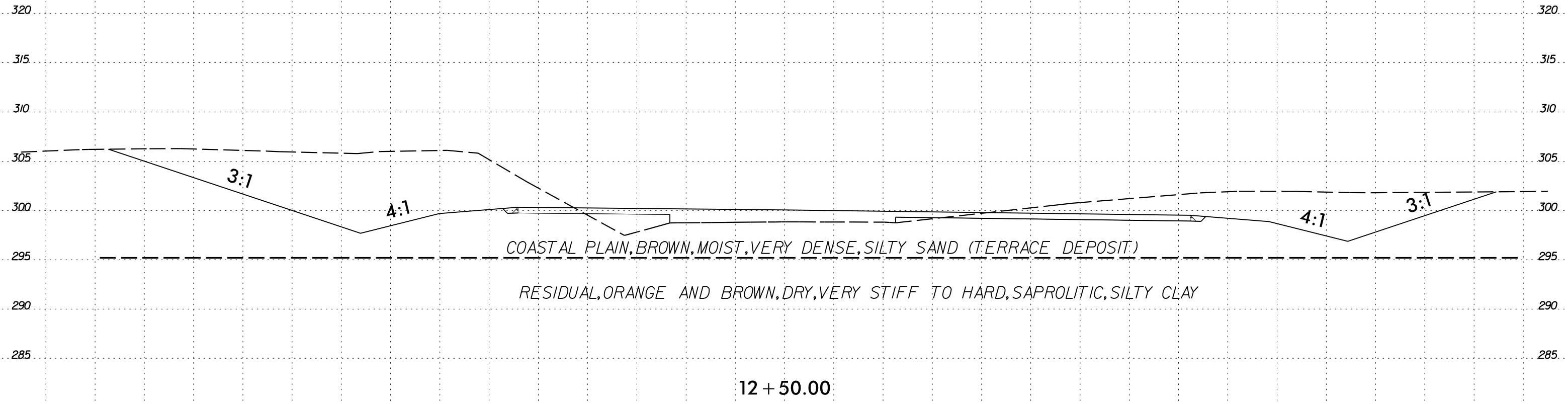


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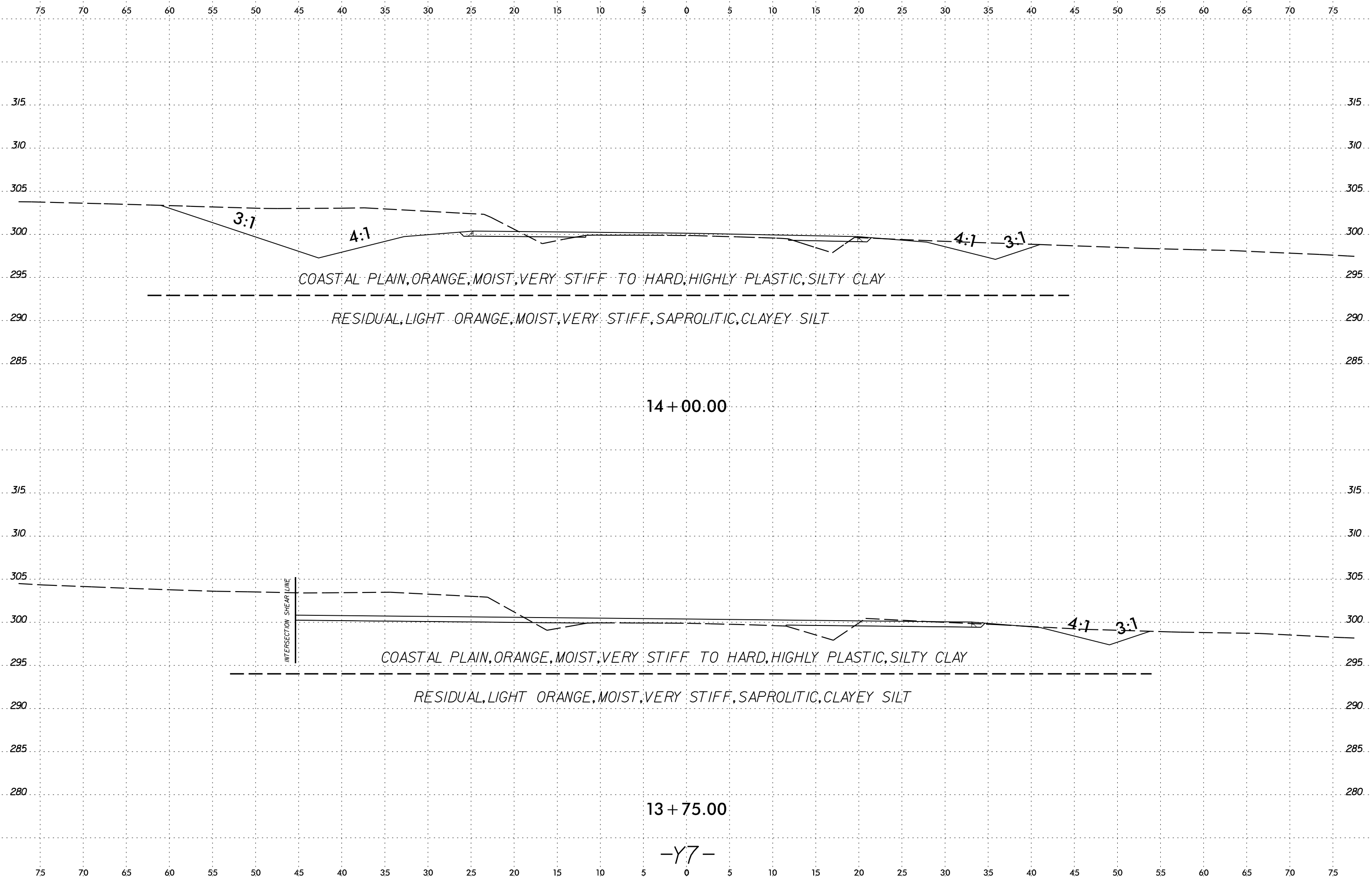
6/23/16

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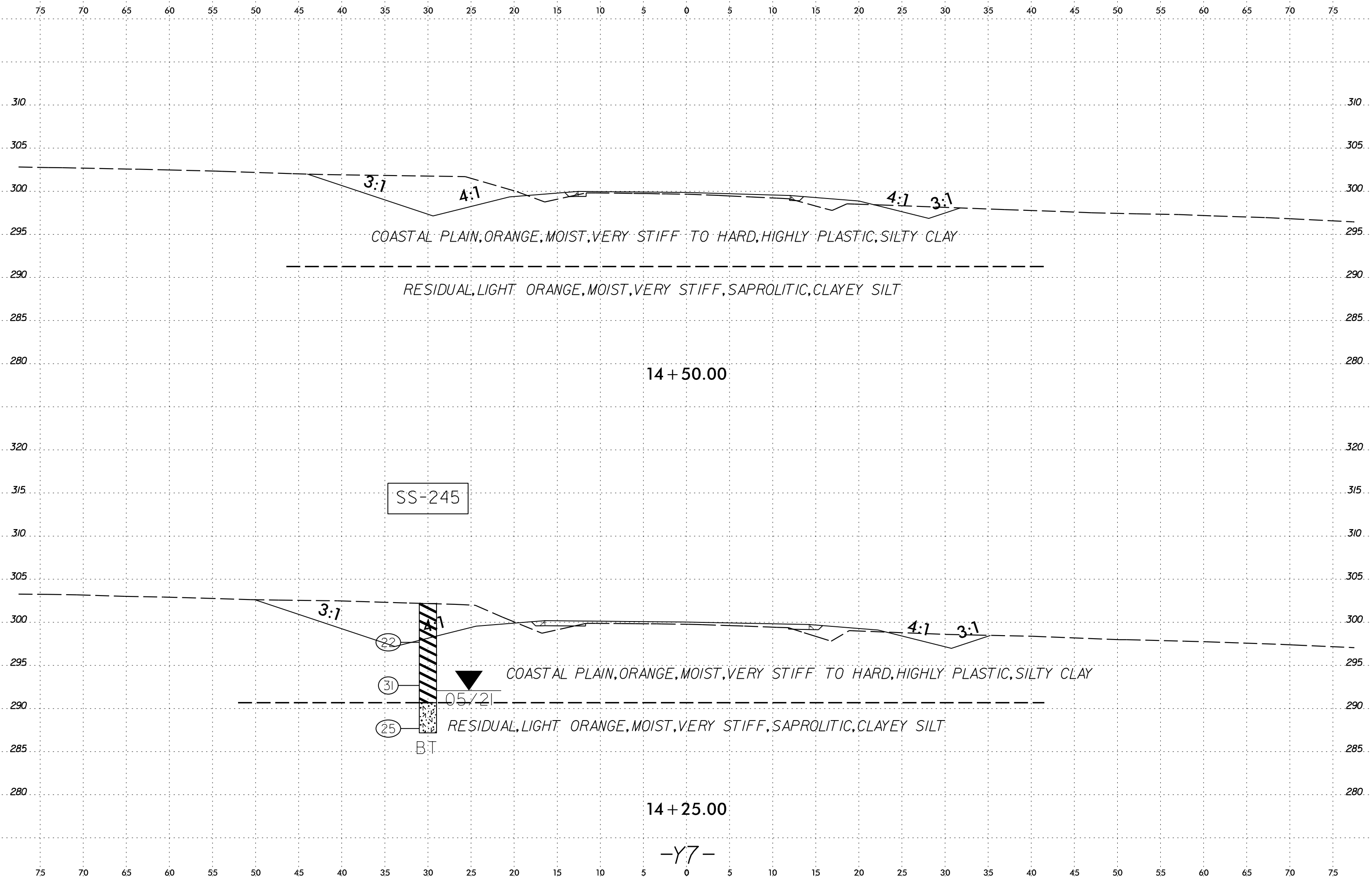
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davis\jones

6/23/16



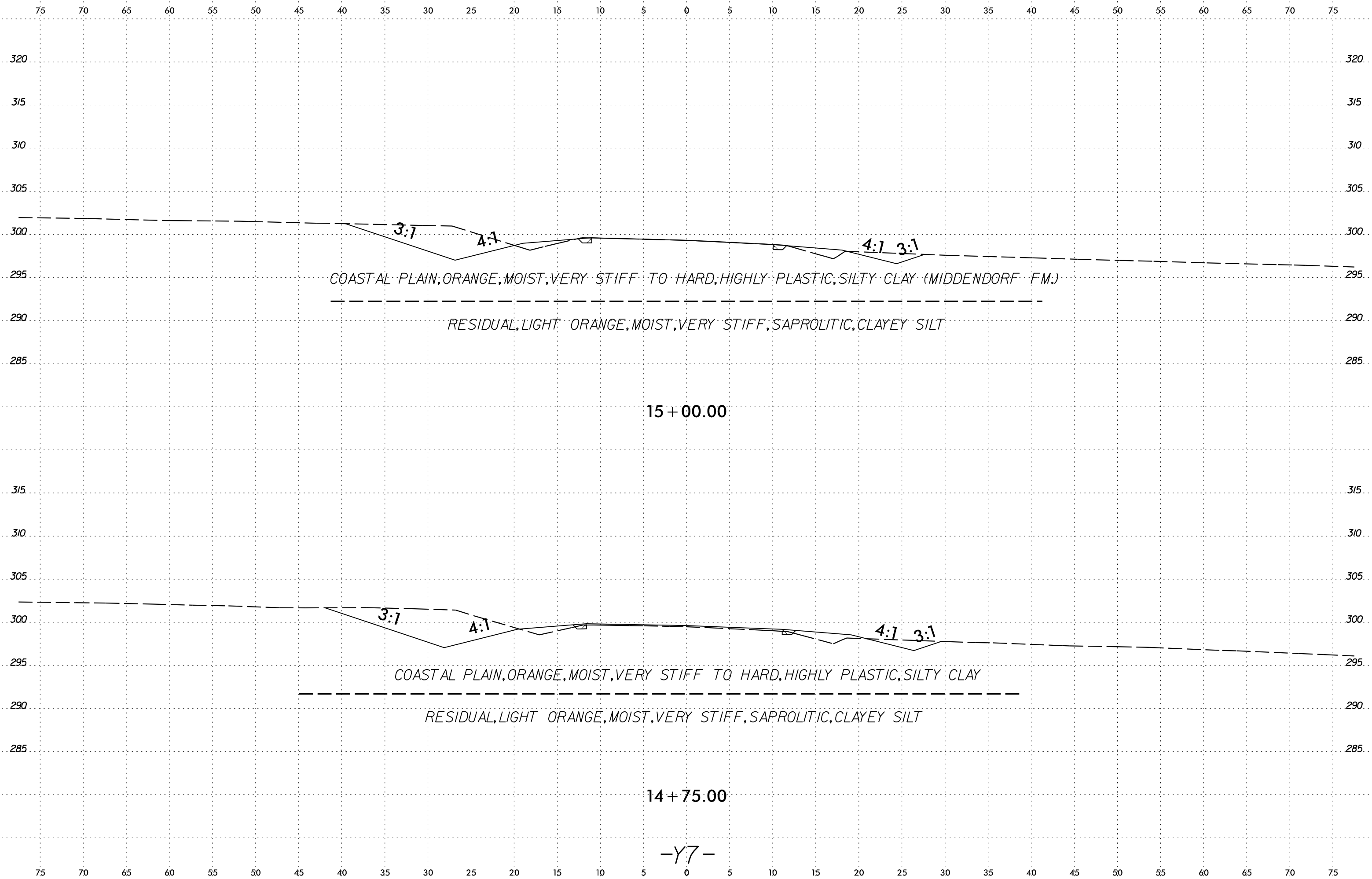
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6/23/16



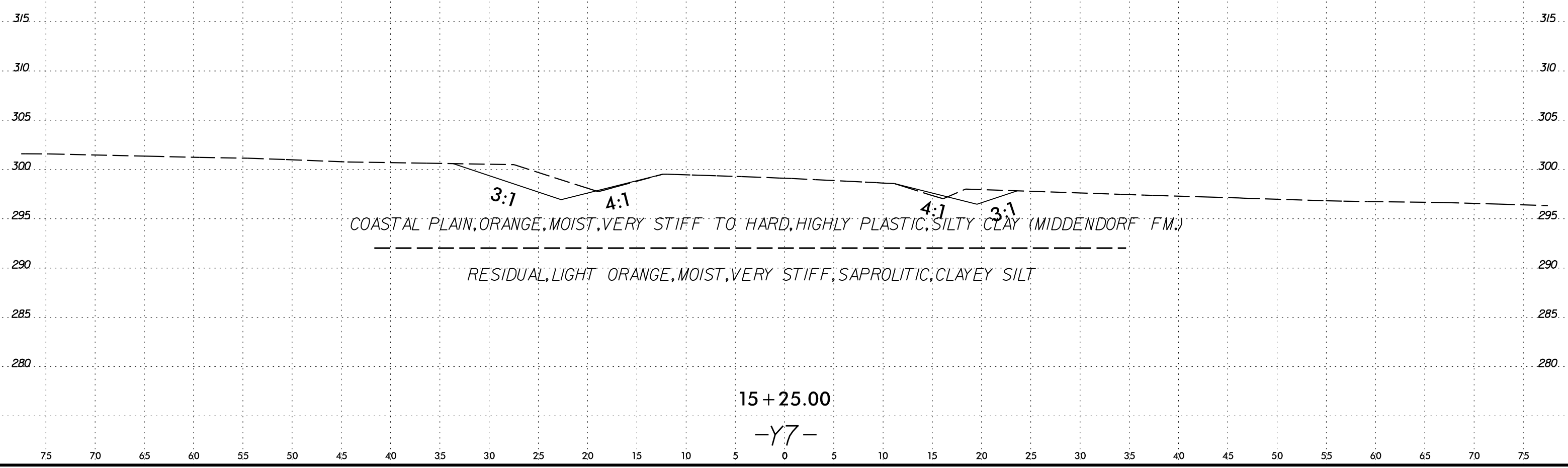
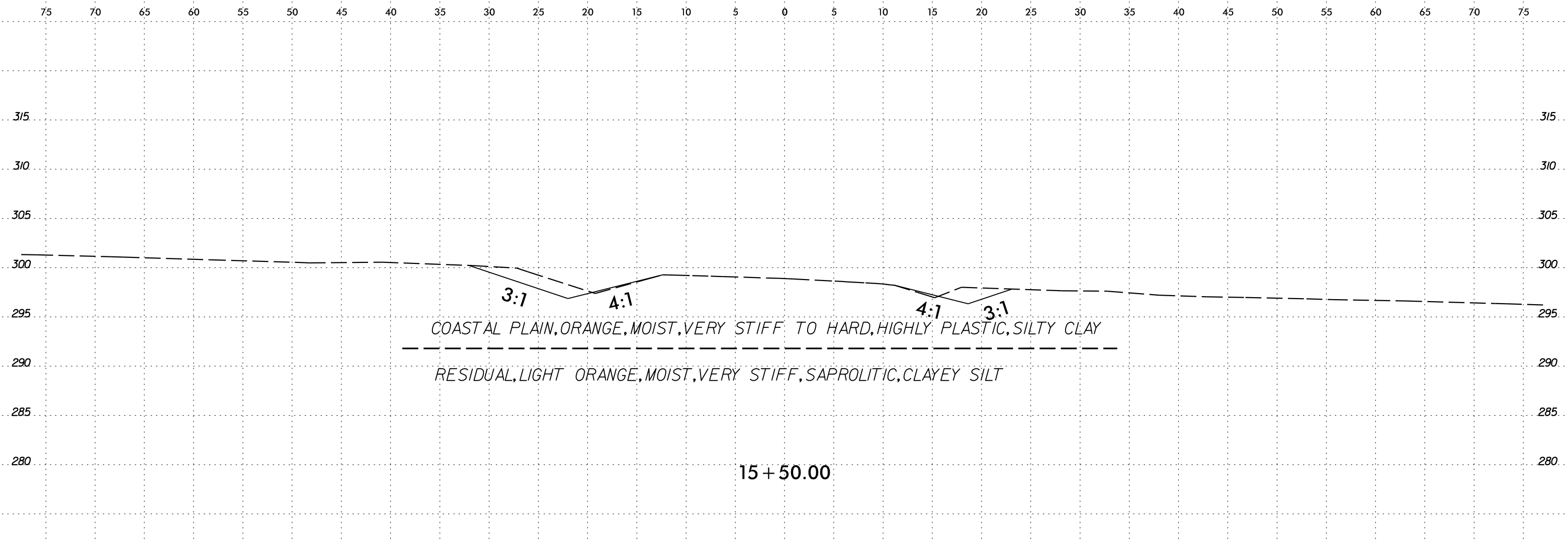
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6/23/16



1:02:16 PM
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david.jones

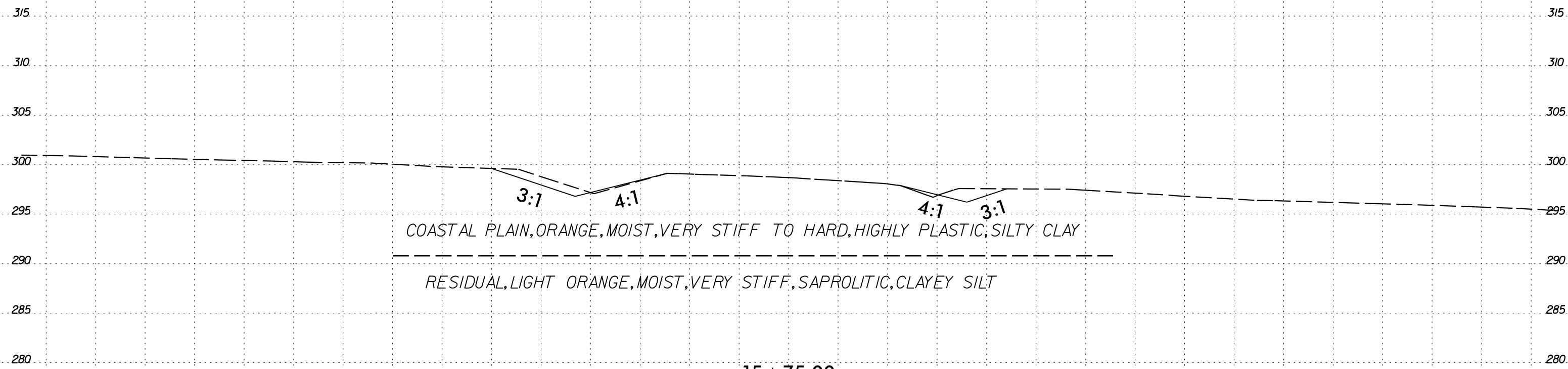
6/23/16



1:09:43 PM 6/23/16 R:\5705B\CADD_GEO\TECH\XSC\RS5705B_GEO\RDWY_XSI_YLINES.dgn david.jones

6/23/16

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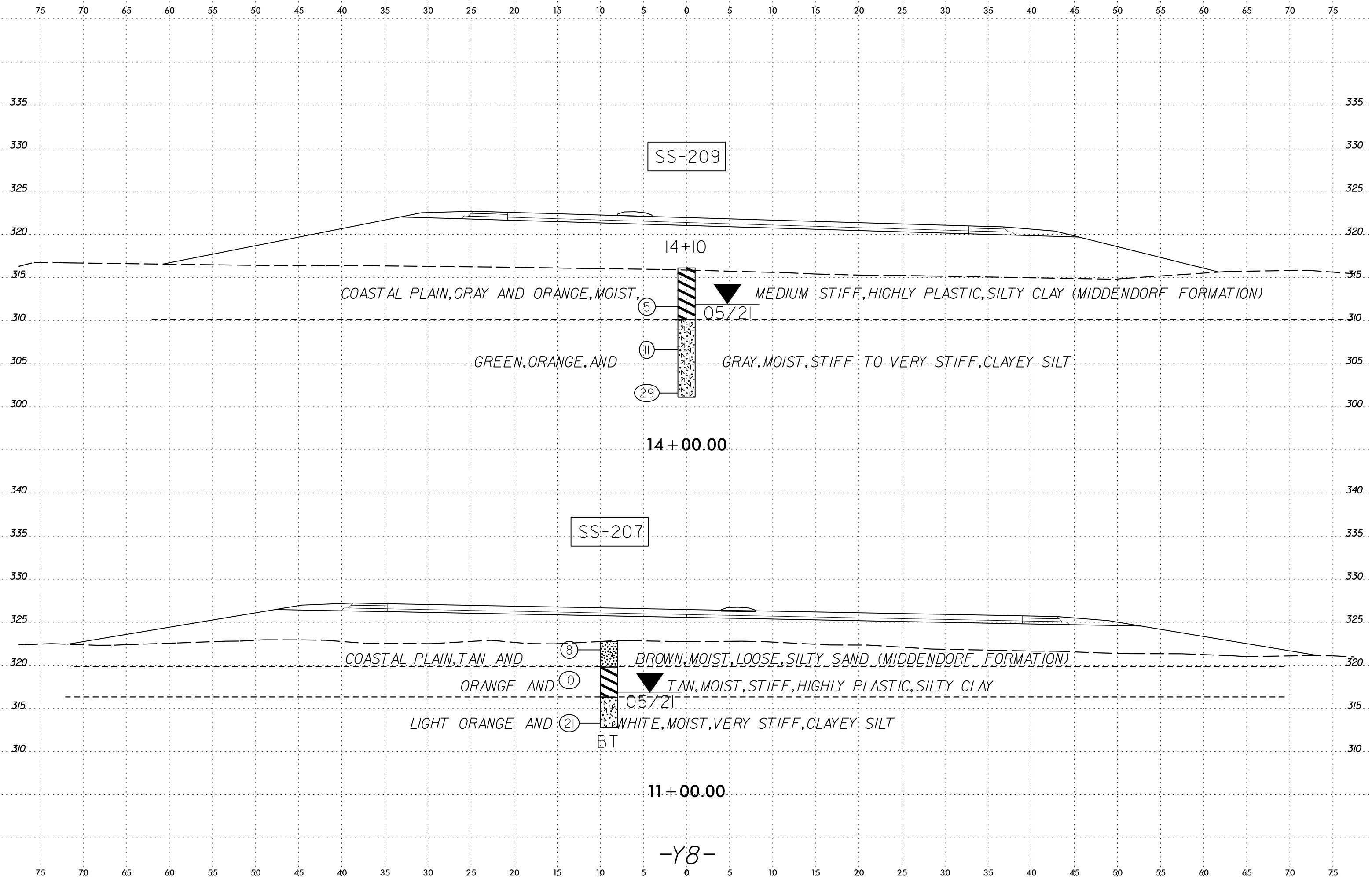


15 + 75.00

-Y7-

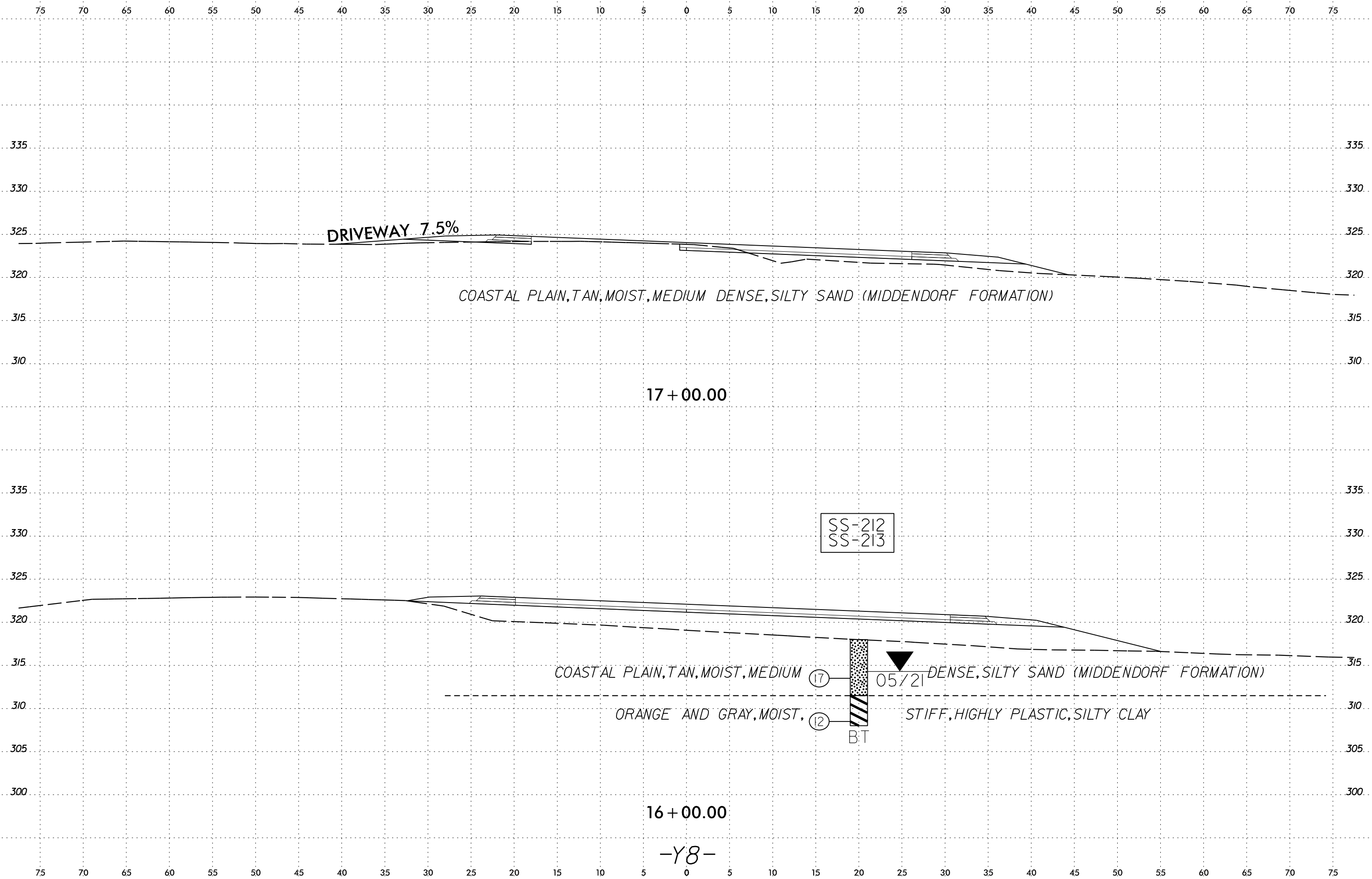
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david.jones

6/23/16



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6/23/16
1:02:18 PM
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david.jones

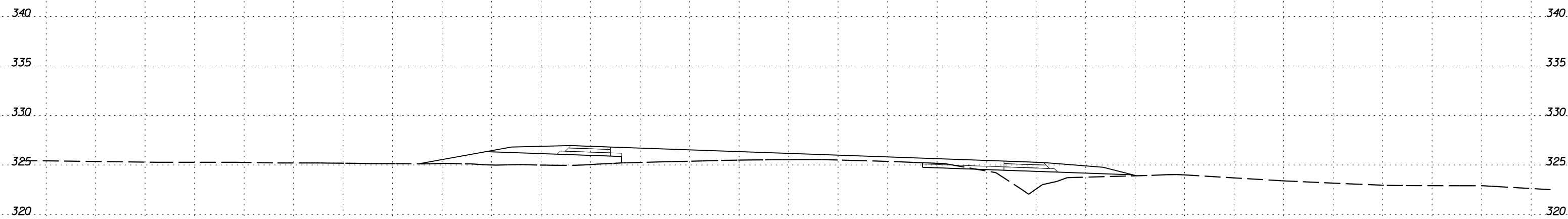


6/23/16



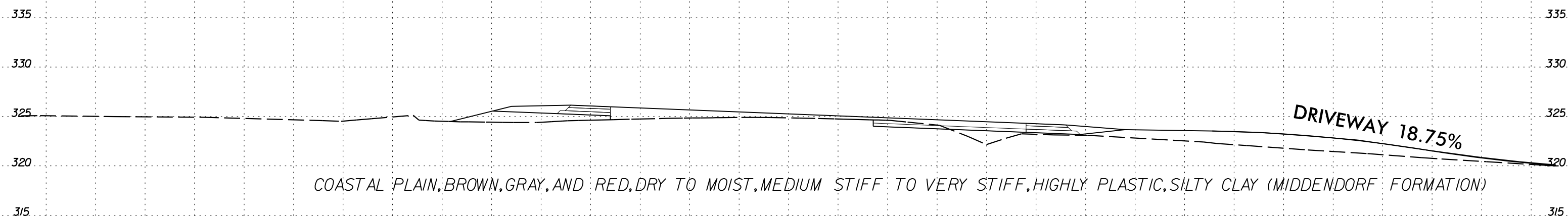
PROJ. REFERENCE NO. R-5705B	SHEET NO. 131
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75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75



COASTAL PLAIN, BROWN, GRAY, AND RED, DRY TO MOIST, MEDIUM STIFF TO VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

18 + 00.00



COASTAL PLAIN, BROWN, GRAY, AND RED, DRY TO MOIST, MEDIUM STIFF TO VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

DRIVEWAY 18.75%

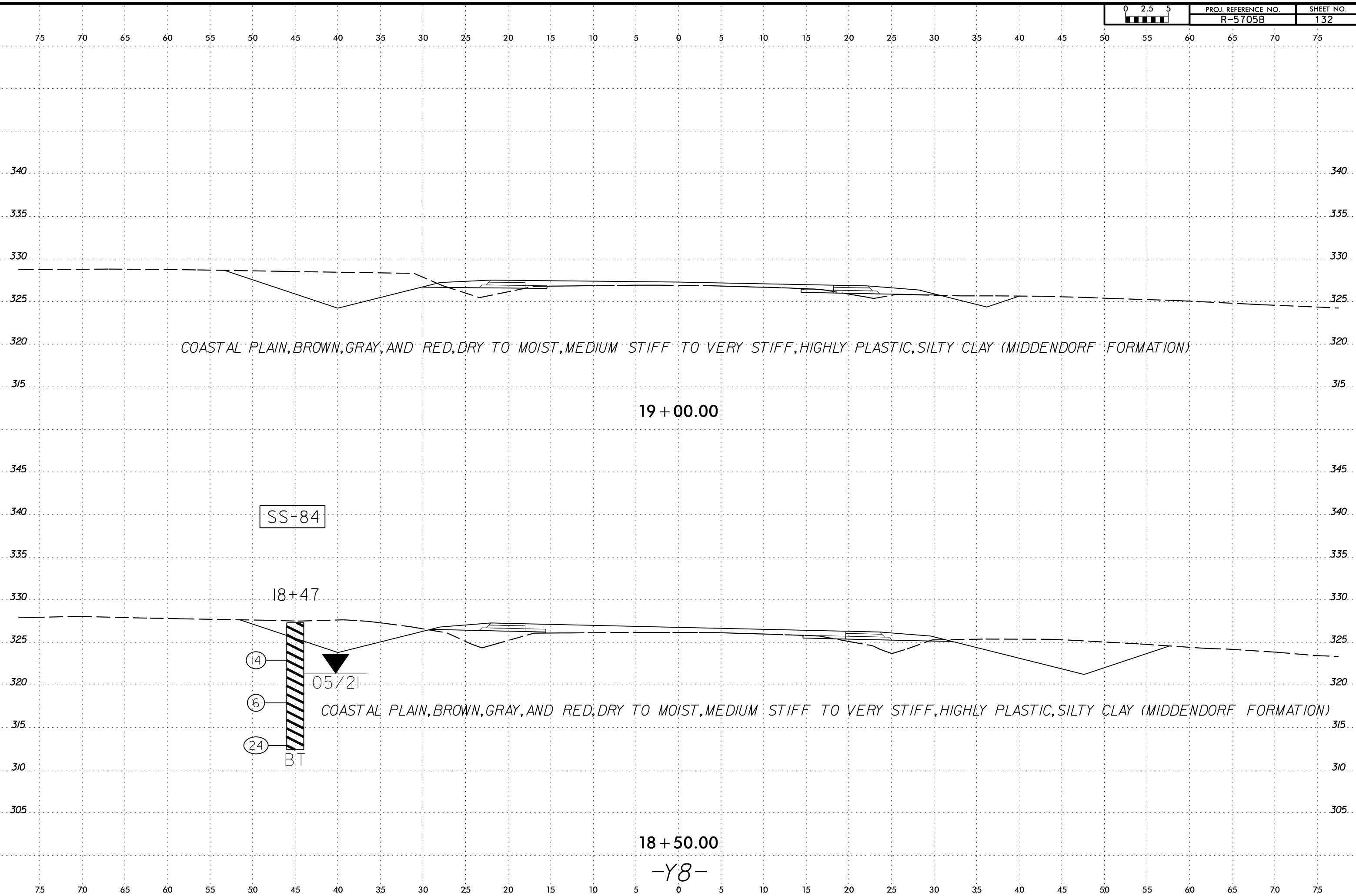
17 + 50.00

-Y8-

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

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 david.jones

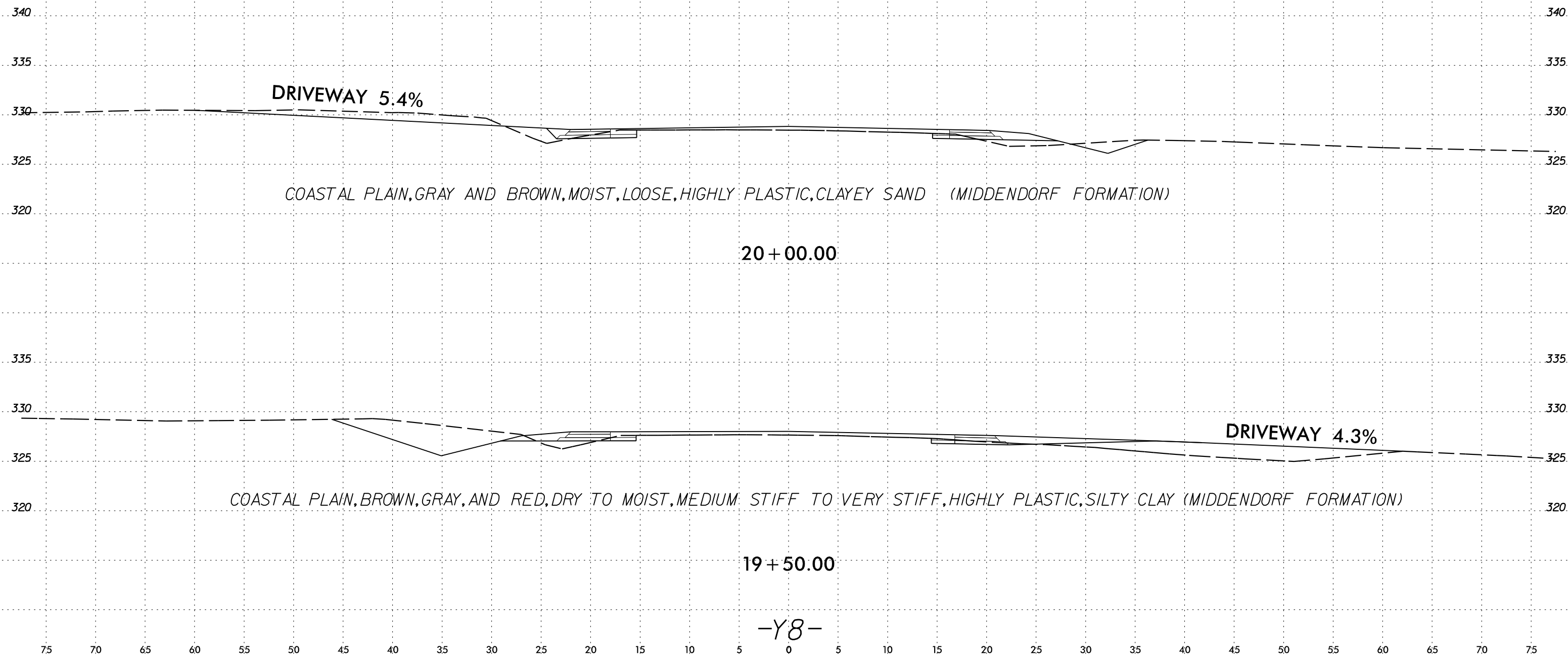
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david.jones



6/23/16

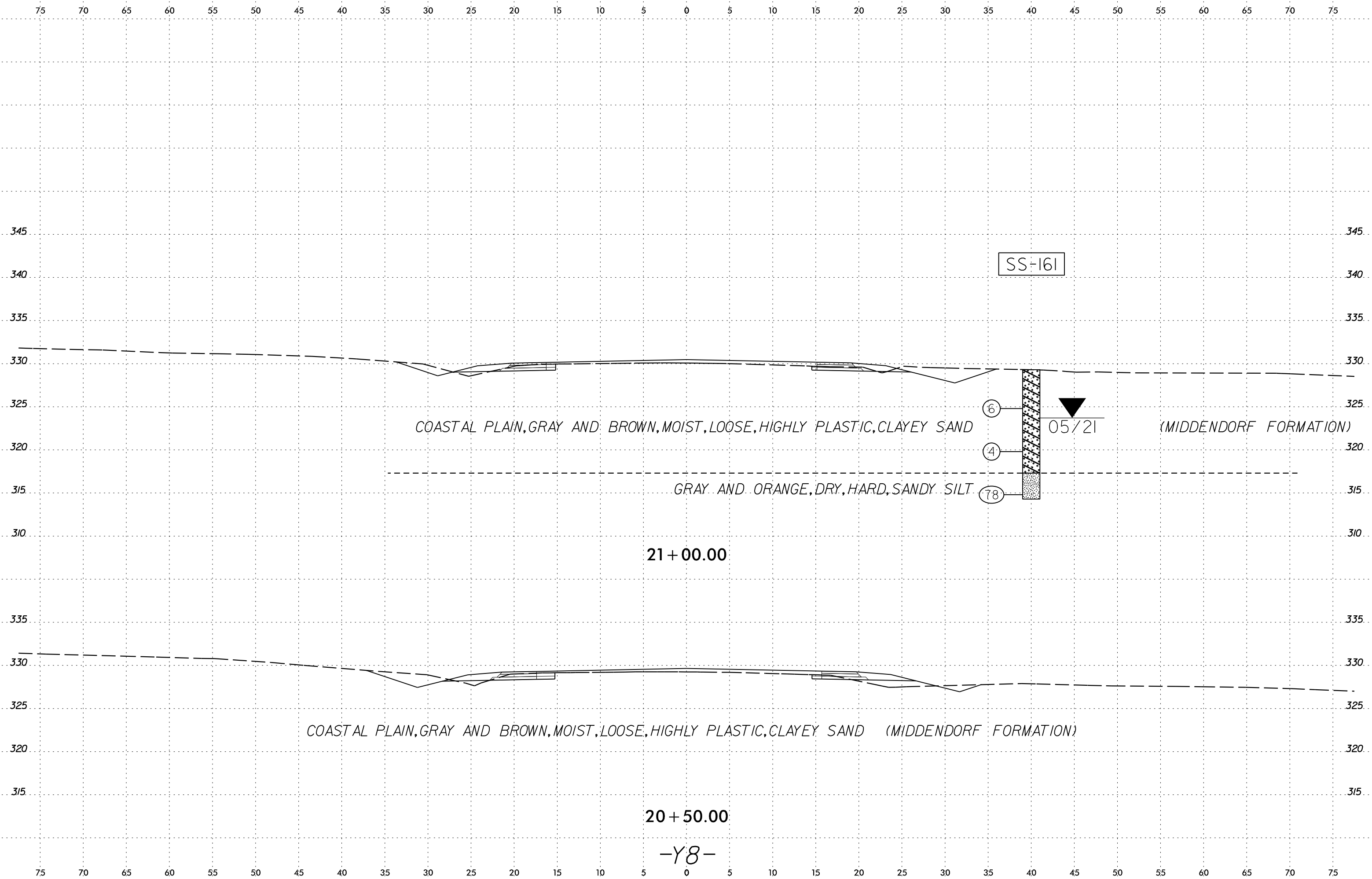
0 2.5 5	PROJ. REFERENCE NO. R-5705B	SHEET NO. 133
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I:\02\21\PM
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david.journe

6/23/16

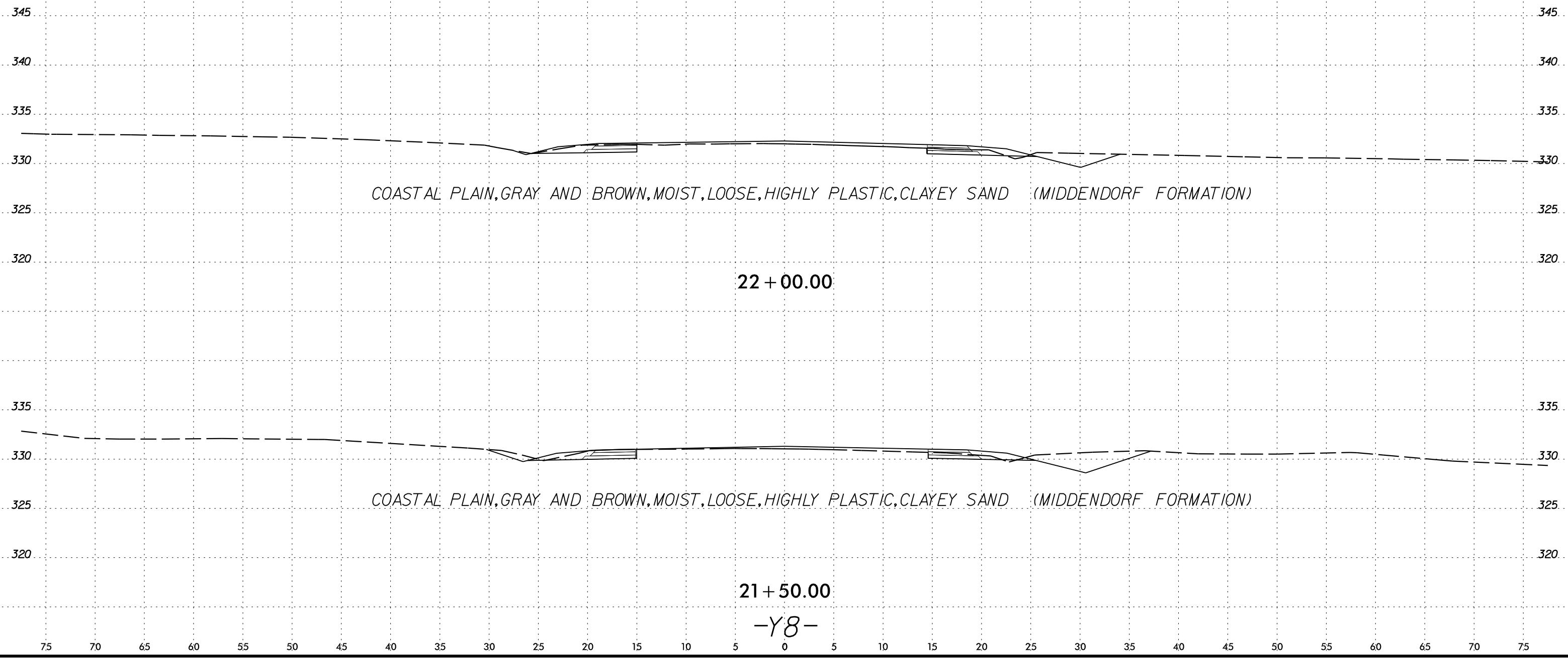


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6/23/16

0 2.5 5	PROJ. REFERENCE NO. R-5705B	SHEET NO. 135
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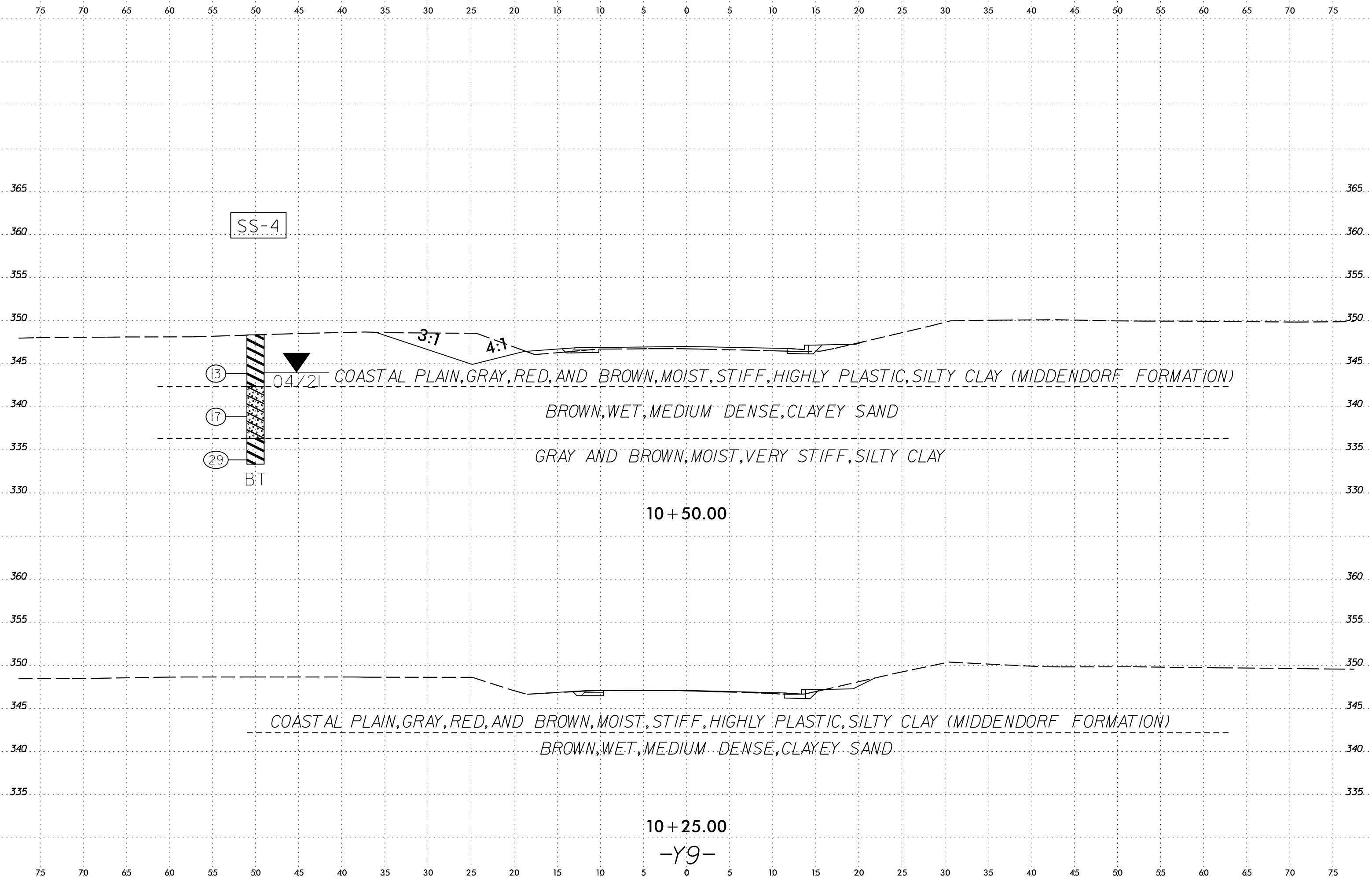
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 david.joune

22 + 00.00

21 + 50.00

-Y8-

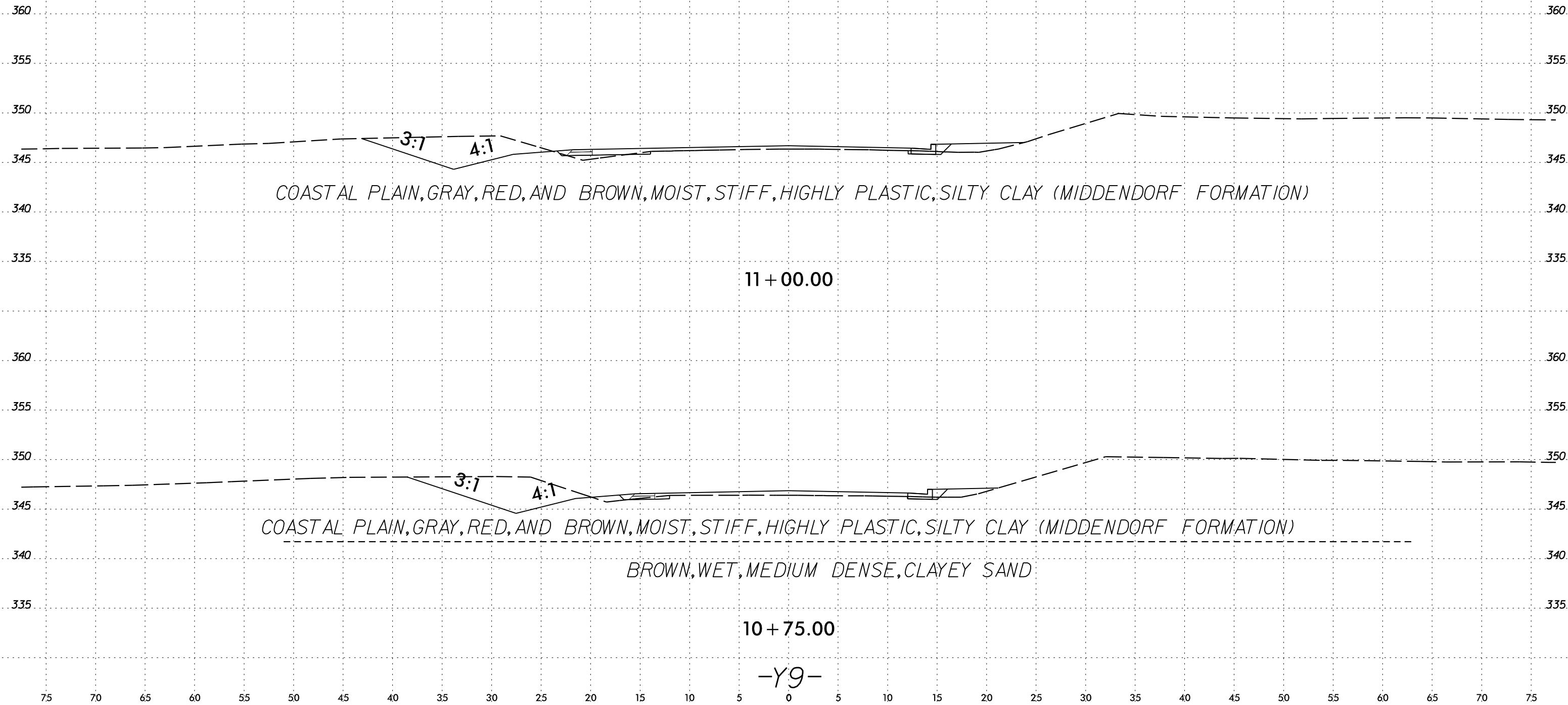
6/23/16



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6/23/16

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I:\0224 PM 18-51.12 R-5705B\CADD_GEO\TECH\XSC\RS5705B_GEO\RDWY_XSI_YLINES.dgn
 david.jones

11 + 00.00

10 + 75.00

-Y9-

COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

BROWN, WET, MEDIUM DENSE, CLAYEY SAND

3:1

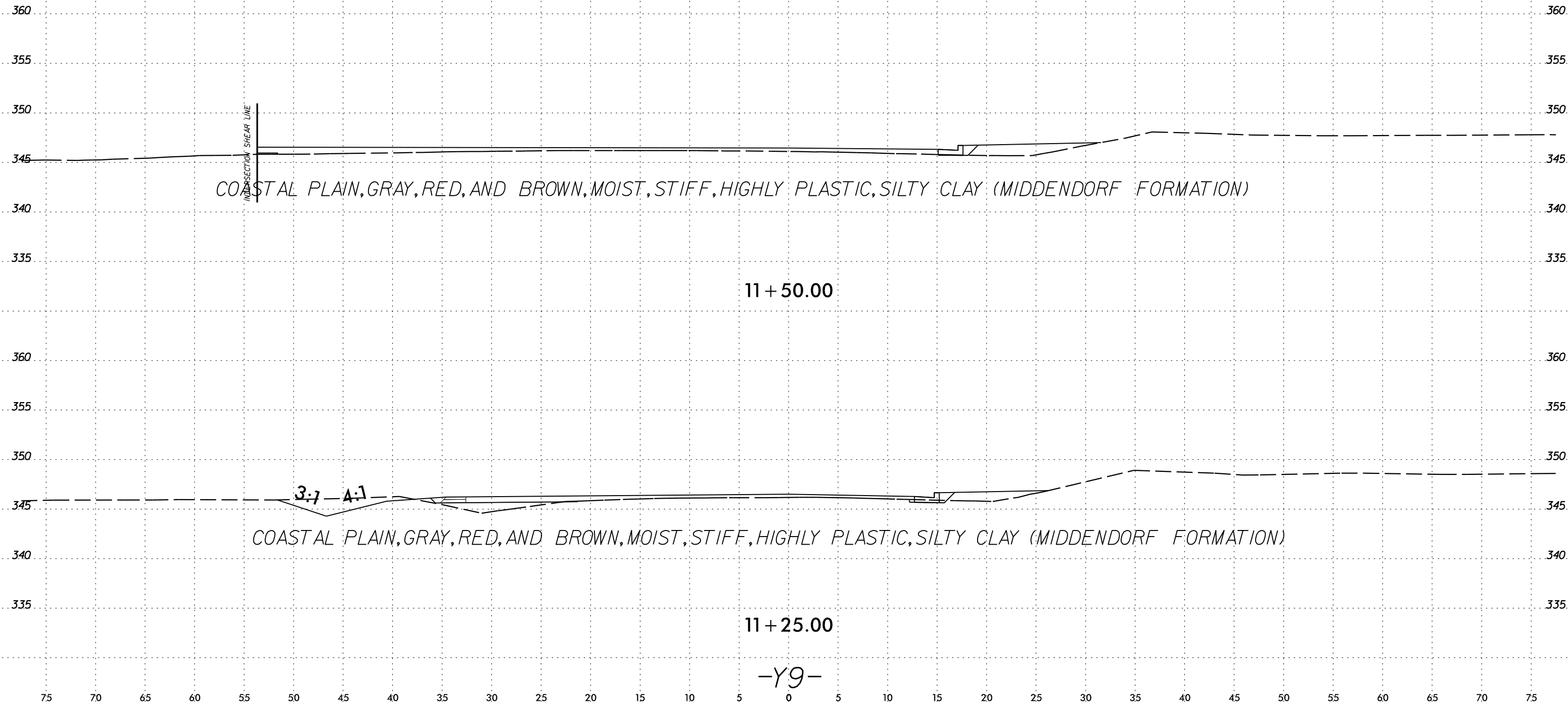
4:1

3:1

4:1

6/23/16

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COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

11 + 50.00

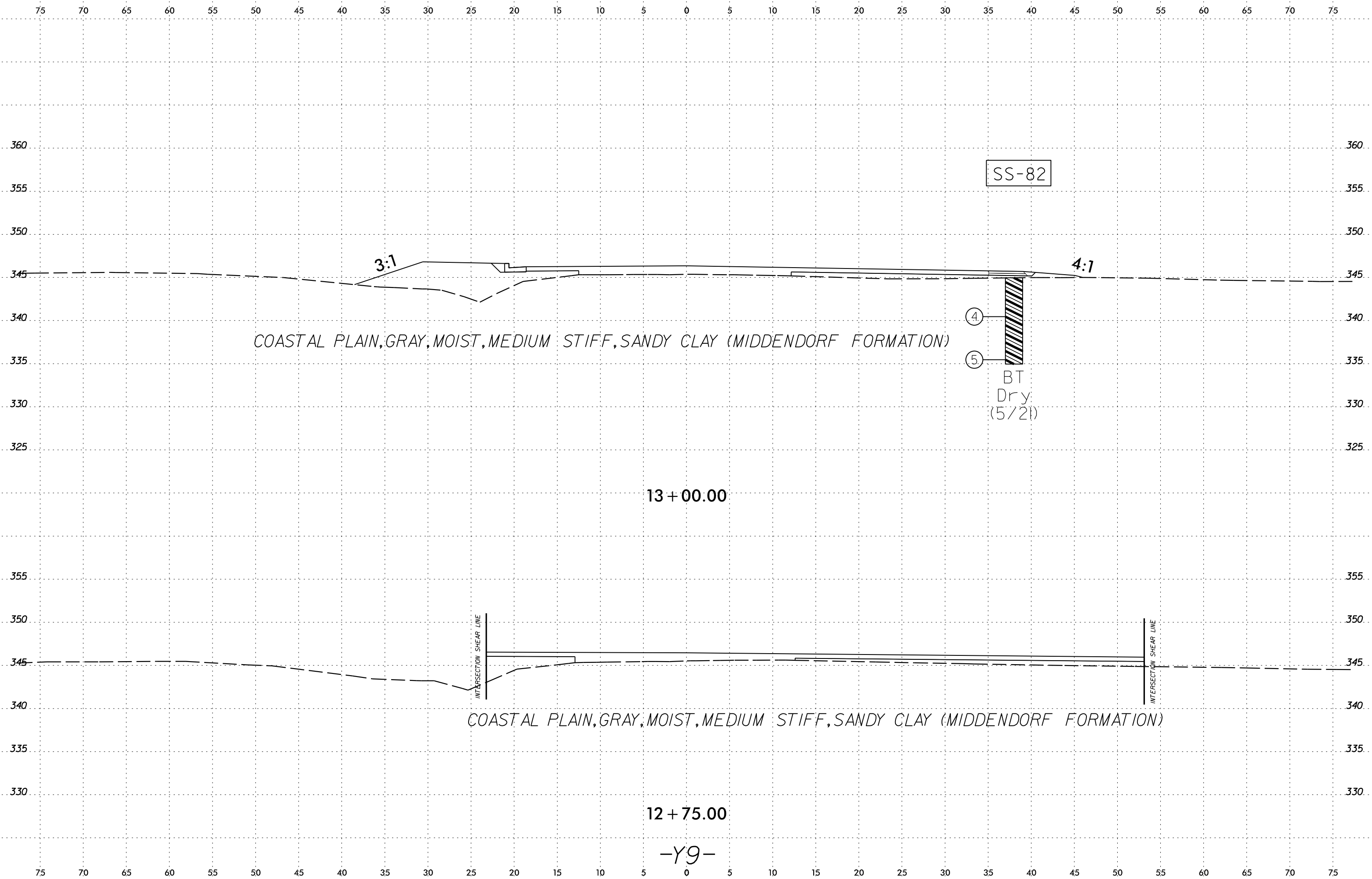
COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SILTY CLAY (MIDDENDORF FORMATION)

11 + 25.00

-Y9-

I:\02\25 PM 18-51.12 R-5705B\CADD_GEO\TECH\XSC\R5705B_GEO_RDWY_XSI_YLINES.dgn
 david.jones

6/23/16



I:\0226 PM\18-51.12 R-5705B\CADD_GEO\TECH\XSC\RS5705B_GEO_PD\DWG_XS1_YLINES.dgn
David Jones

13 + 00.00

12 + 75.00

-Y9-

COASTAL PLAIN, GRAY, MOIST, MEDIUM STIFF, SANDY CLAY (MIDDENDORF FORMATION)

COASTAL PLAIN, GRAY, MOIST, MEDIUM STIFF, SANDY CLAY (MIDDENDORF FORMATION)

SS-82

④
⑤

BT
Dry
(5/21)

3:1

4:1

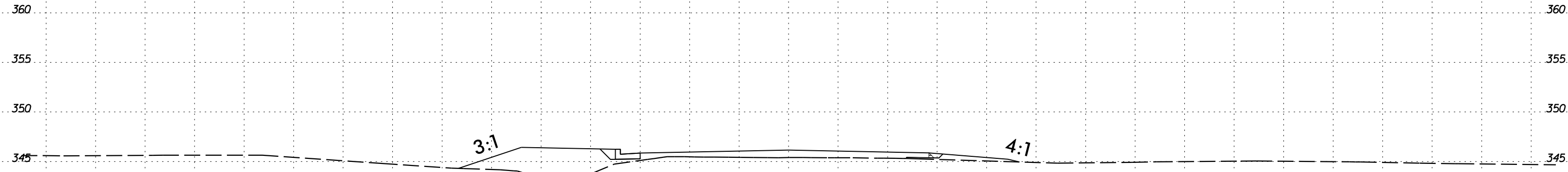
INTERSECTION SHEAR LINE

INTERSECTION SHEAR LINE

6/23/16

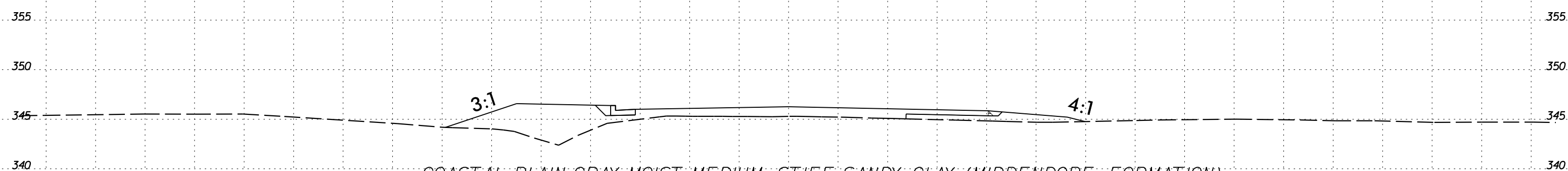
0 2.5 5	PROJ. REFERENCE NO. R-5705B	SHEET NO. 140
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COASTAL PLAIN, GRAY, MOIST, MEDIUM STIFF, SANDY CLAY (MIDDENDORF FORMATION)

13 + 50.00



COASTAL PLAIN, GRAY, MOIST, MEDIUM STIFF, SANDY CLAY (MIDDENDORF FORMATION)

13 + 25.00

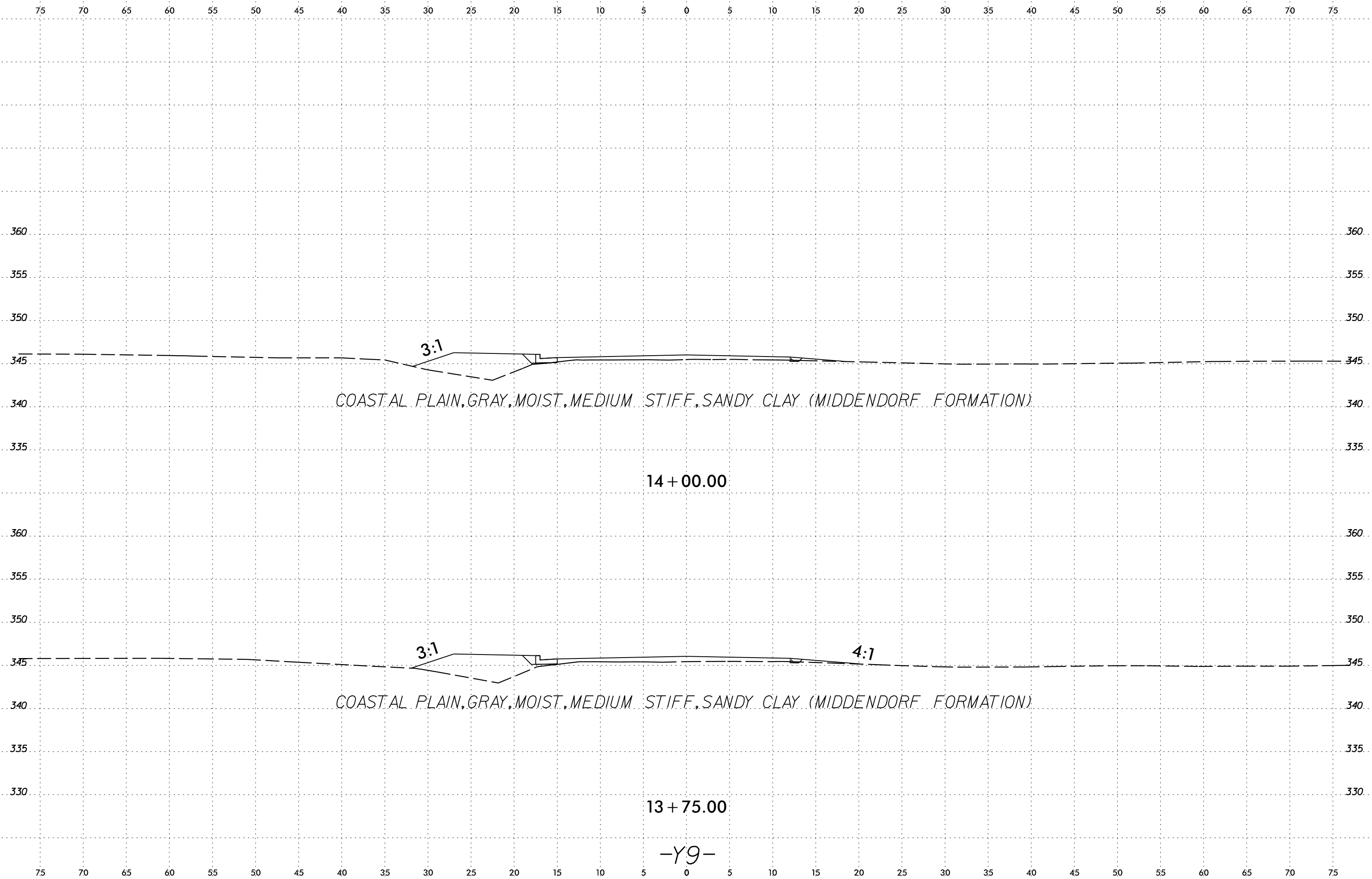
-Y9-

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6/23/16

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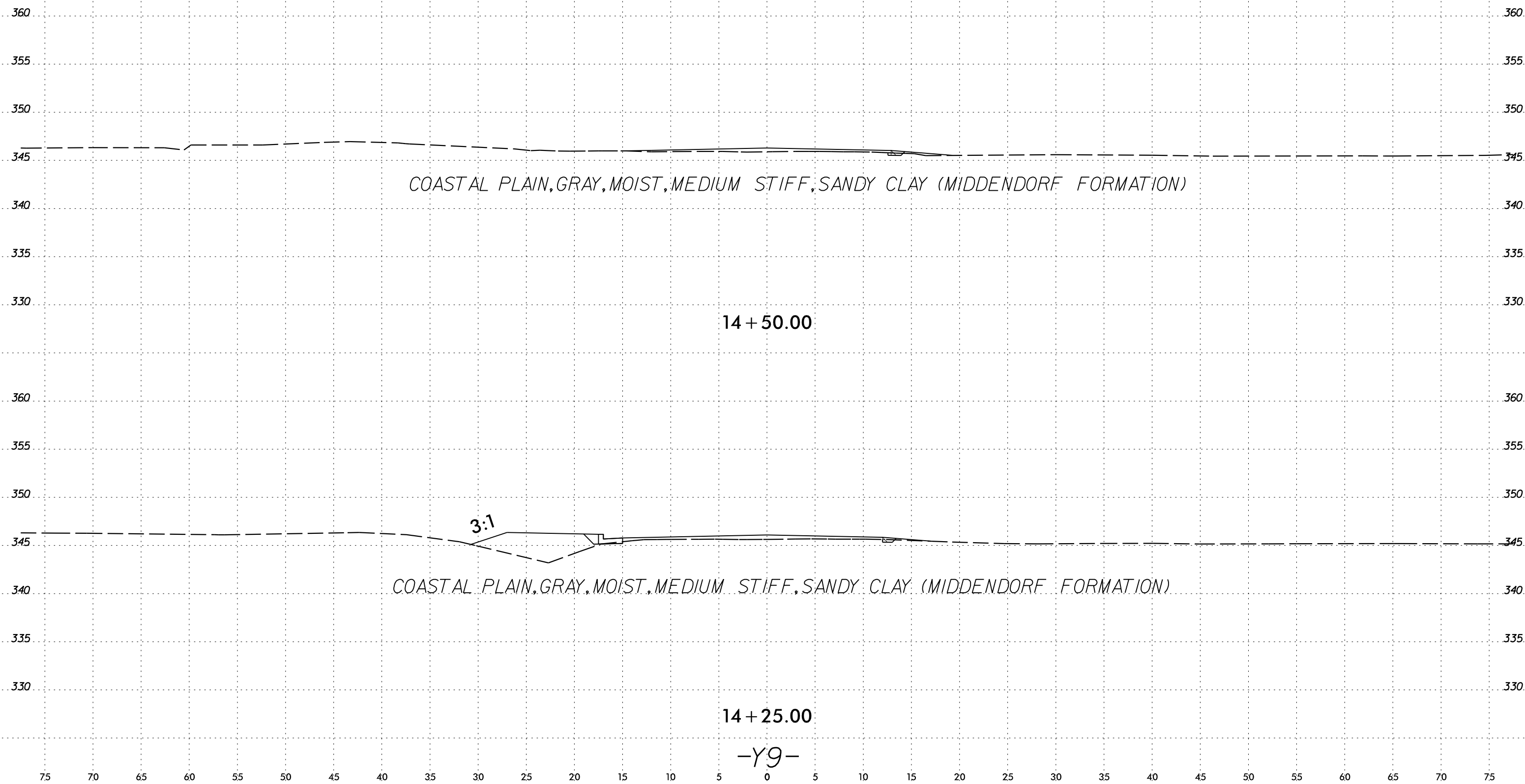
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-Y9-

6/23/16

0 2.5 5	PROJ. REFERENCE NO. R-5705B	SHEET NO. 142
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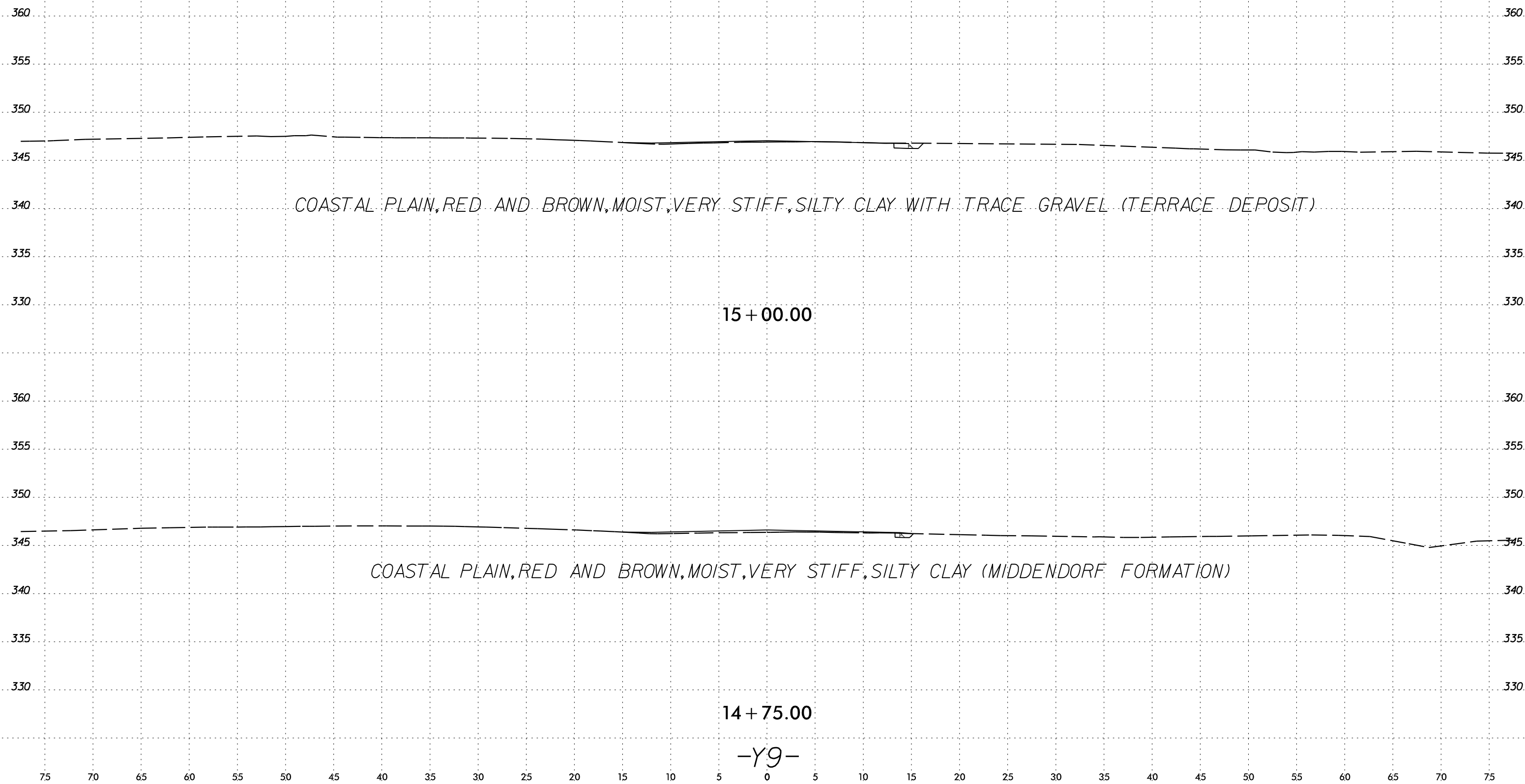
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I:\0228 PM 18-51.12 R-5705B\CADD_GEO\TECH\XSC\RS5705B_GEO_PD\XY_XSI_YLINES.dgn
 david.jones

6/23/16

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I:\0228 PM 18-51.12 R-5705B\CADD_GEO\TECH\XSC\RS5705B_GEO_PD\DWG_XS1_YLINES.dgn
David Jones

14 + 75.00

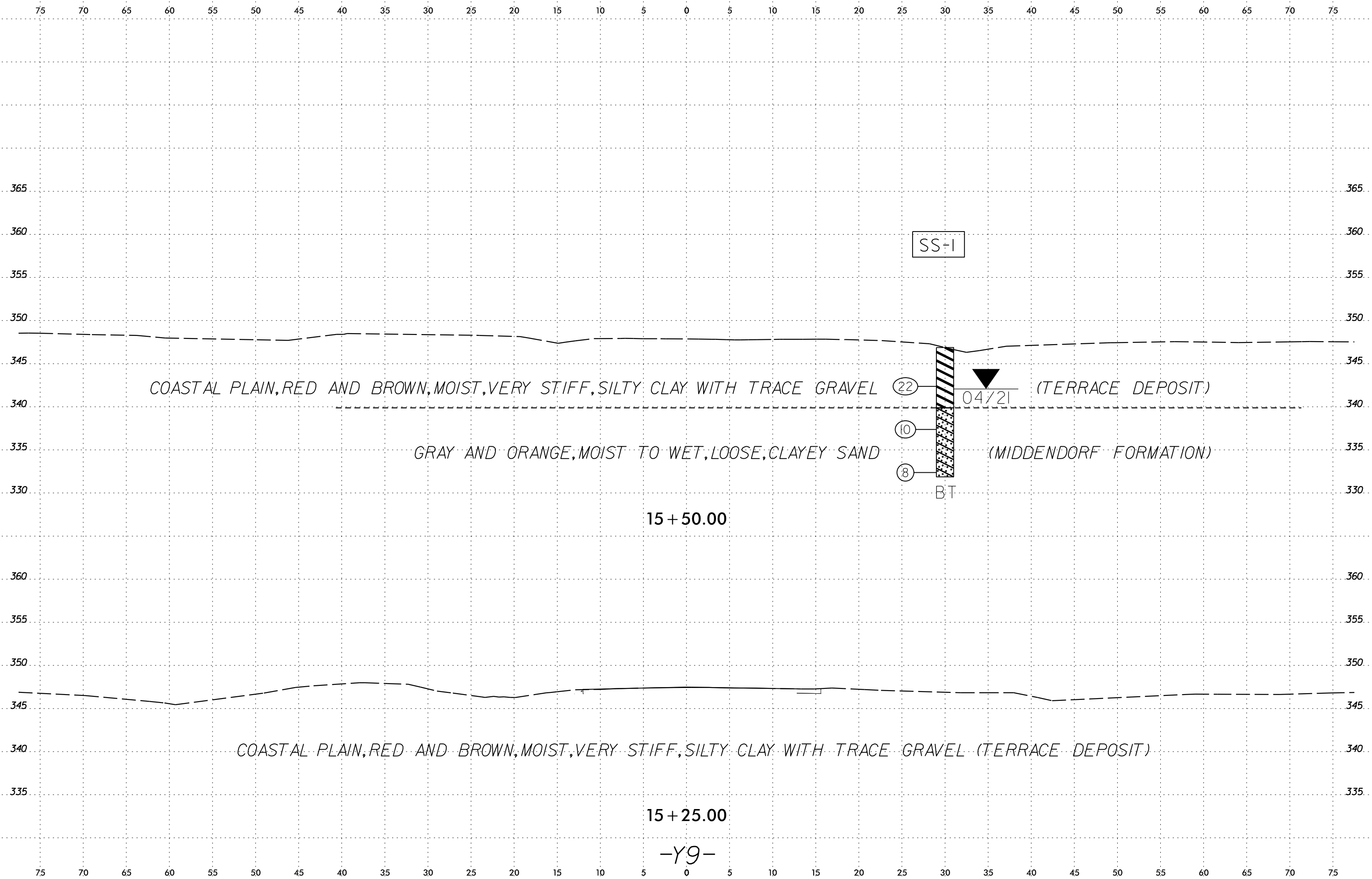
15 + 00.00

-Y9-

COASTAL PLAIN, RED AND BROWN, MOIST, VERY STIFF, SILTY CLAY WITH TRACE GRAVEL (TERRACE DEPOSIT)

COASTAL PLAIN, RED AND BROWN, MOIST, VERY STIFF, SILTY CLAY (MIDDENDORF FORMATION)

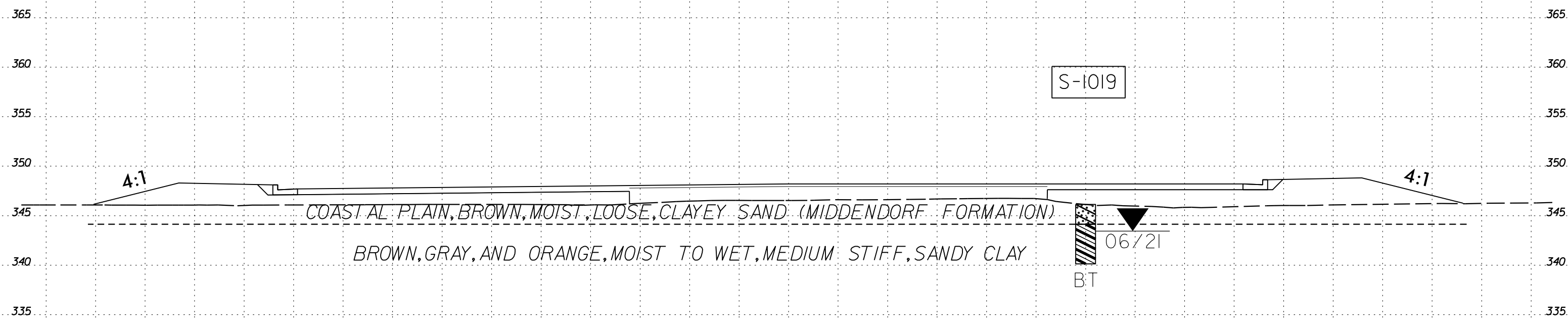
6/23/16



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dwg:ljones

6/23/16

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75



15 + 00.00
-Y10-

I:\03_21 PM
 R-5705B\CADD_GEO\TECH\XSC\R-5705B_GEO_PD.WY_XS1.YLINES.dgn
 david.journe

6/23/16

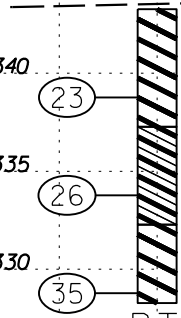
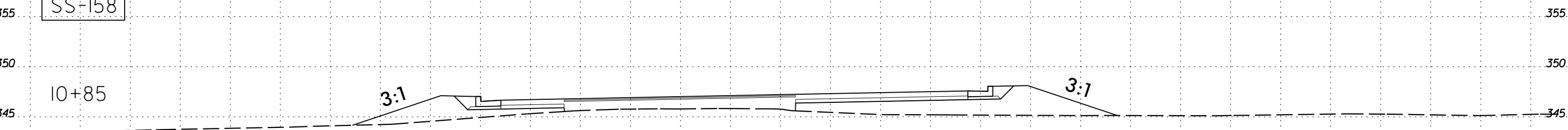
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SS-158

10+85

3:1

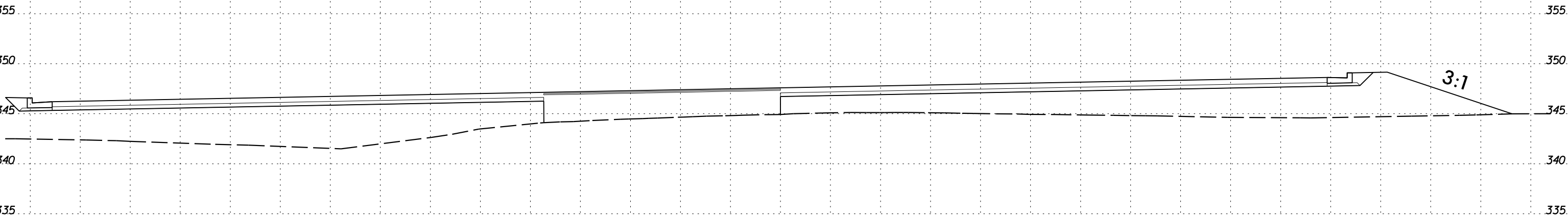
3:1



B:T
DRY
05/21

COASTAL PLAIN, GRAY, BROWN, AND RED, MOIST, VERY STIFF TO HARD, SANDY TO SILTY CLAY (MIDDENDORF FORMATION)

11+00.00



3:1

COASTAL PLAIN, GRAY, BROWN, AND RED, MOIST, VERY STIFF TO HARD, SANDY TO SILTY CLAY (MIDDENDORF FORMATION)

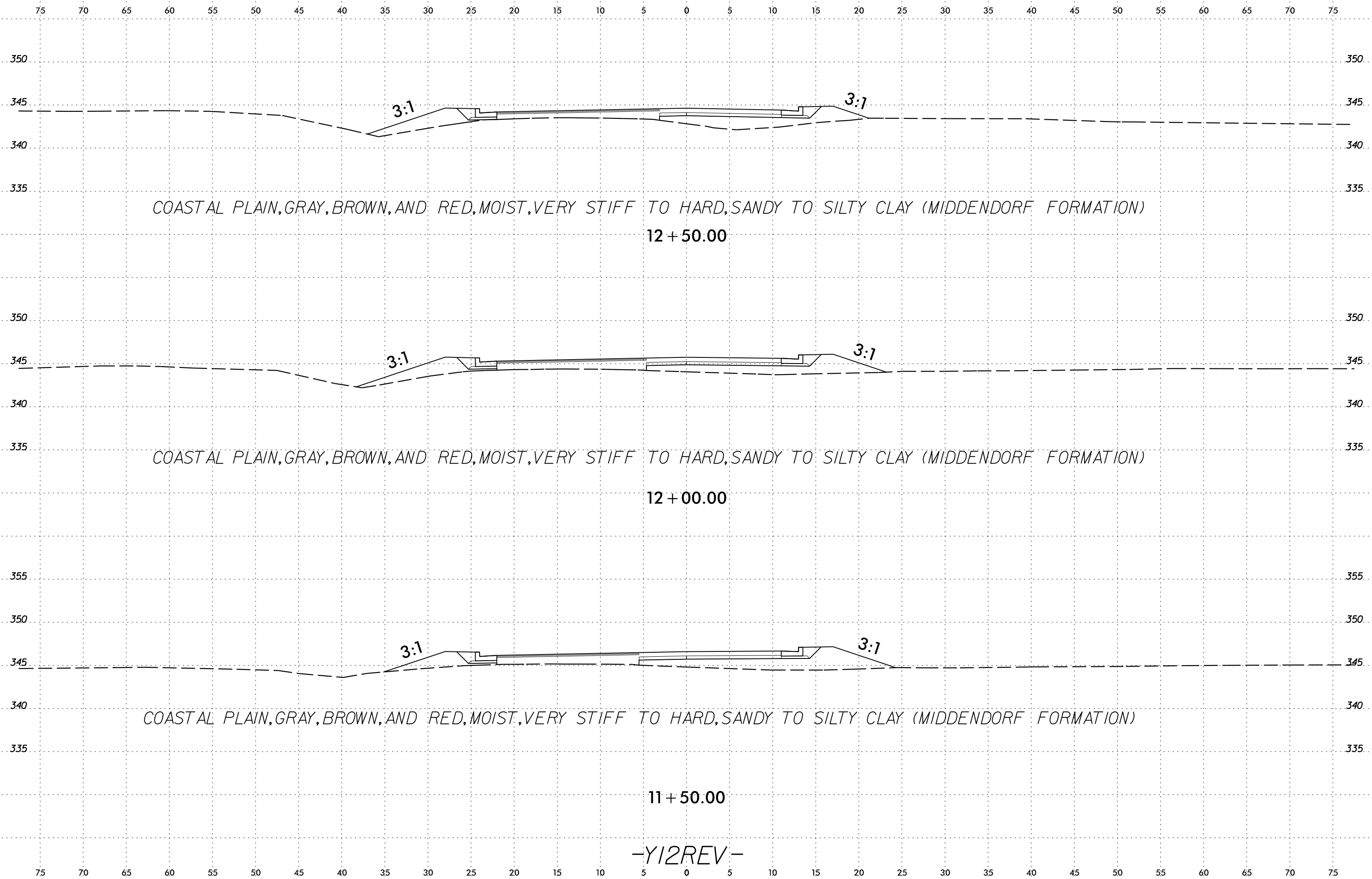
10+50.00

-Y12REV-

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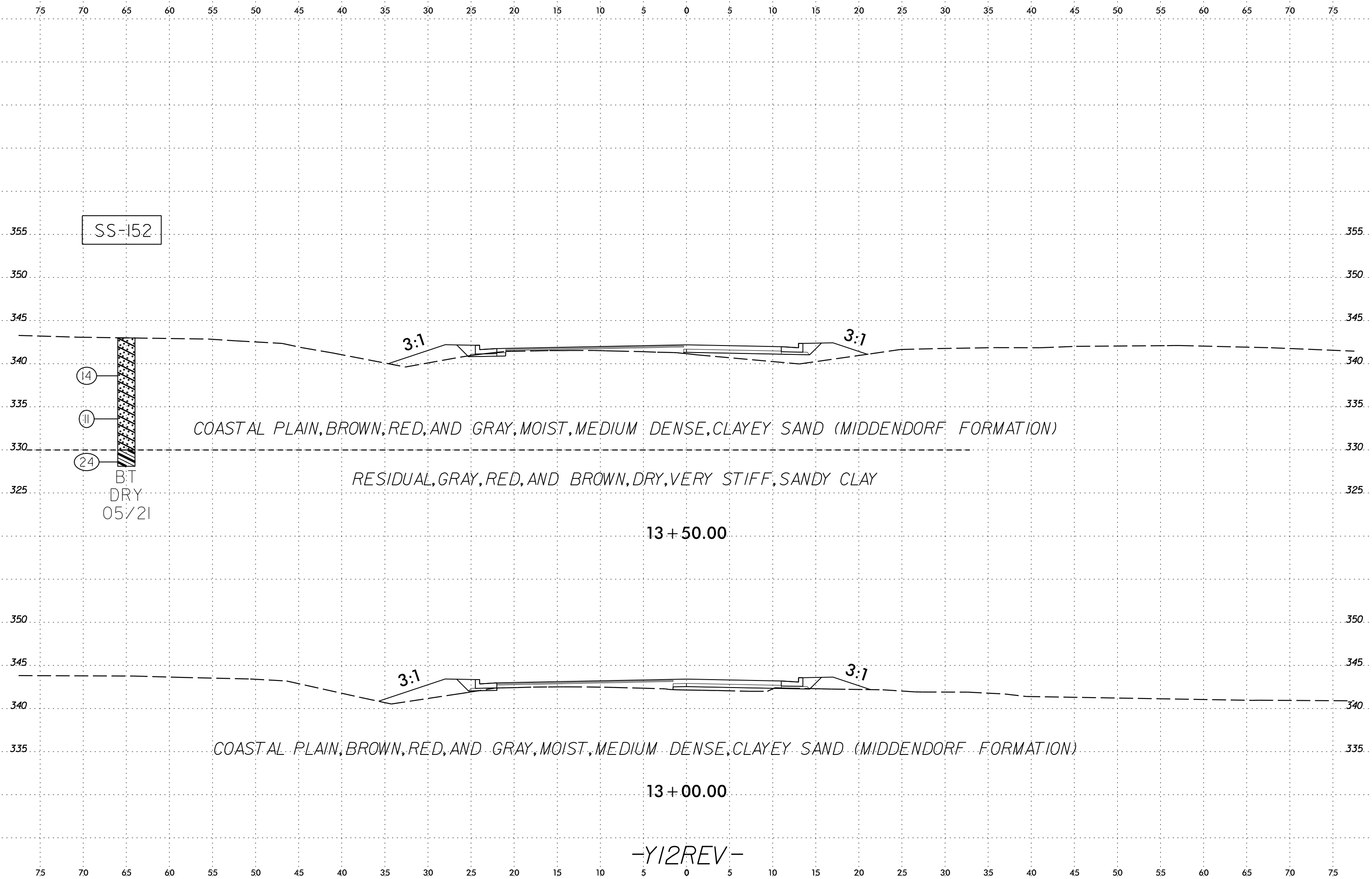
6/23/16



I:\0333 PM 18-51.12 R-5705B\CADD_GEO\TECH\XSC\RS5705B_GEO\RDWY_XSI_YLINES.dgn
David.Lourea

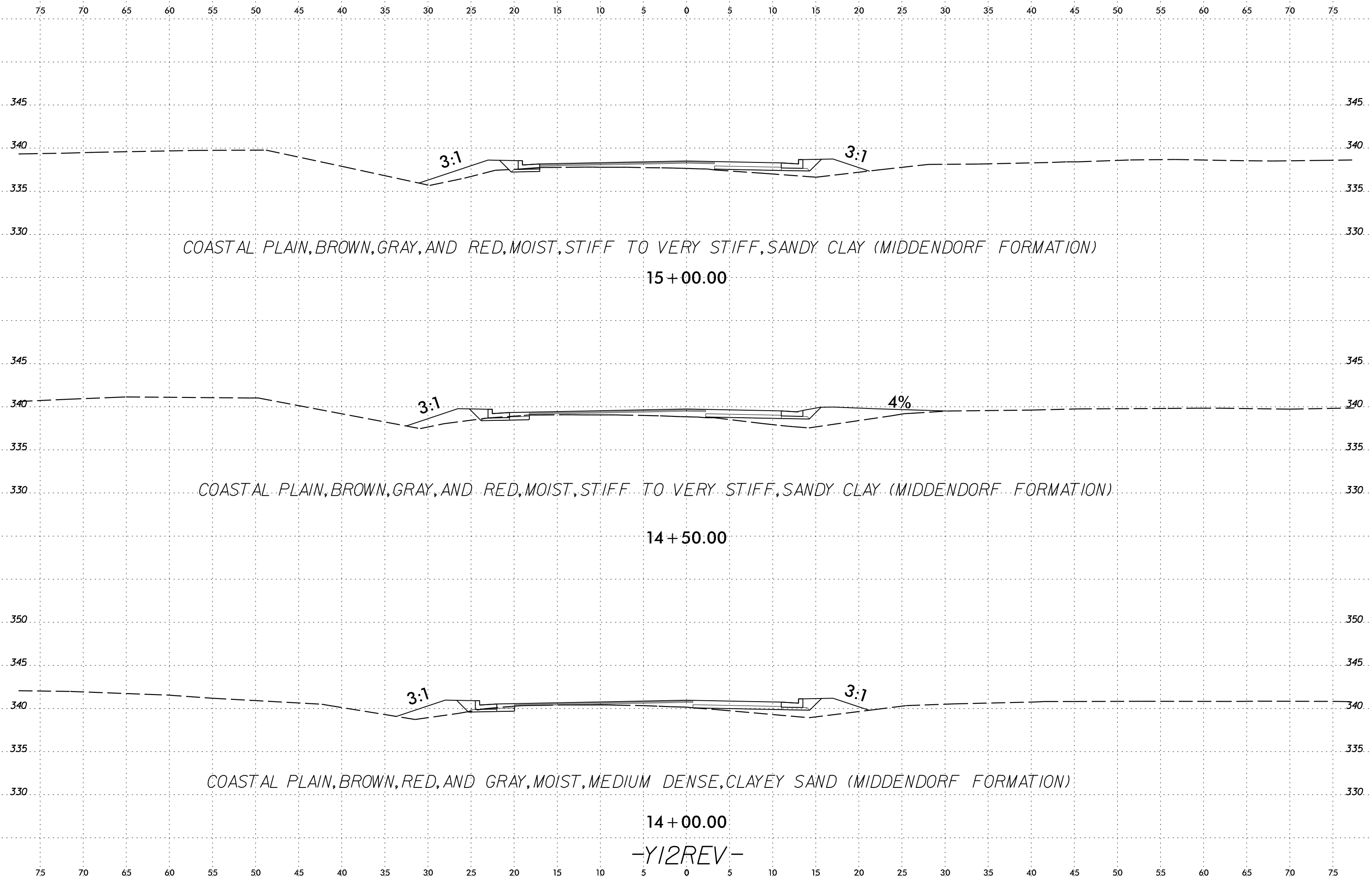
-Y12REV-

6/23/16



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d:\d\j\jones

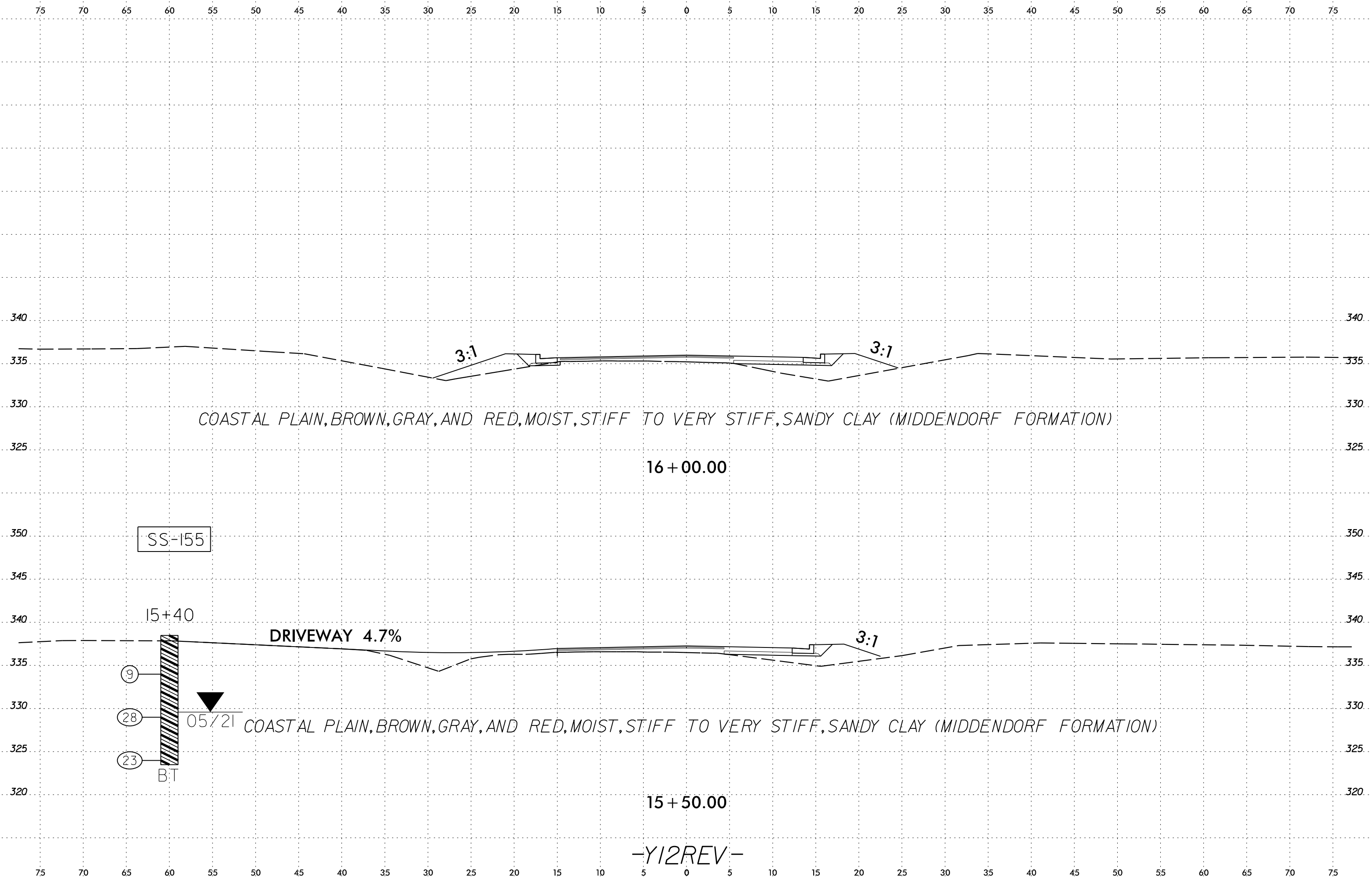
6/23/16



-Y12REV-

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6/23/16
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david.jones



SS-155

15+40

DRIVEWAY 4.7%

9

28

23

BT

05/21

COASTAL PLAIN, BROWN, GRAY, AND RED, MOIST, STIFF TO VERY STIFF, SANDY CLAY (MIDDENDORF FORMATION)

16+00.00

3:1

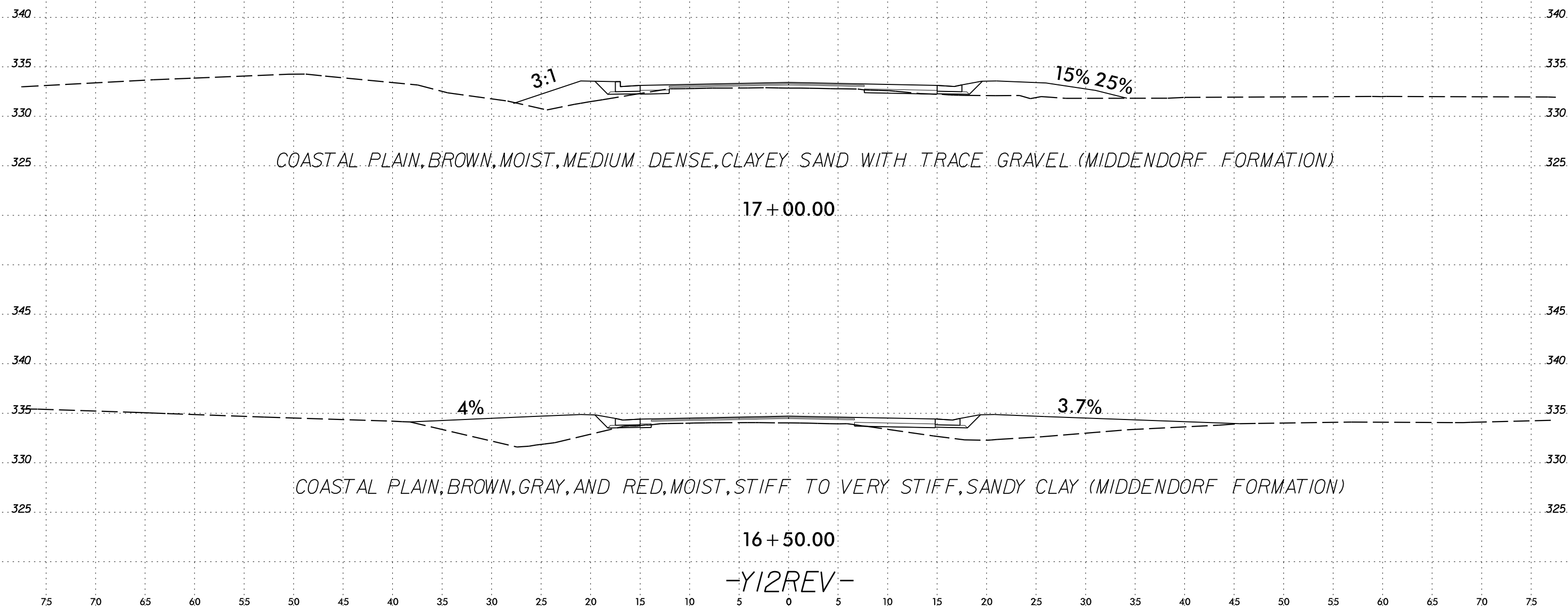
3:1

15+50.00

-Y12REV-

6/23/16

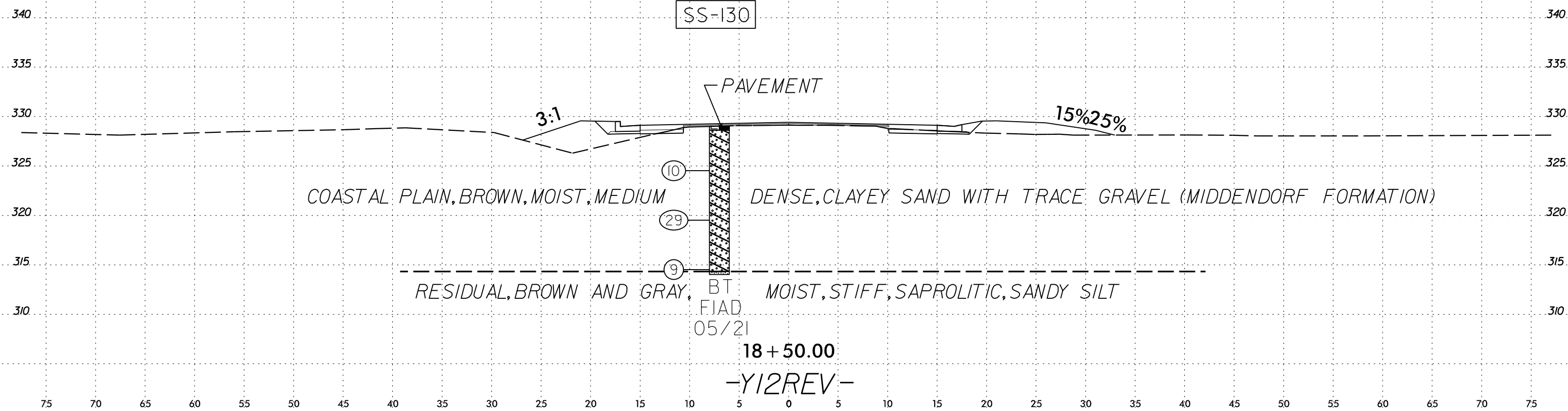
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 david.jones

6/23/16

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75



I:\03-17 PM 18-51-12 R-5705B\CADD_GEO\TECH\XSC\RS5705B_GEO\RDWY_XSI_YLINES.dgn
 david.joune

SS-130

PAVEMENT

3:1

15% 25%

COASTAL PLAIN, BROWN, MOIST, MEDIUM

DENSE, CLAYEY SAND WITH TRACE GRAVEL (MIDDENDORF FORMATION)

RESIDUAL, BROWN AND GRAY, BT

MOIST, STIFF, SAPROLITIC, SANDY SILT

10

29

9

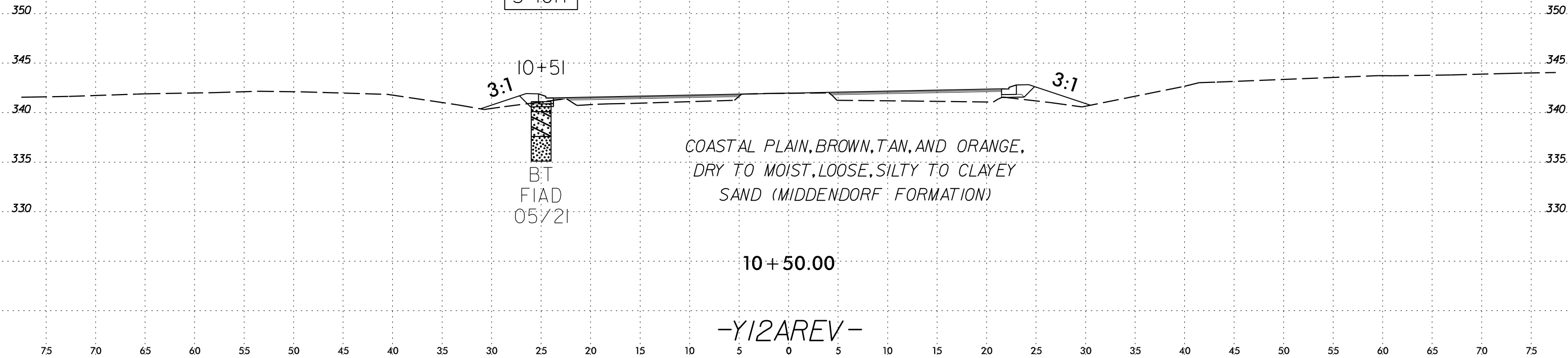
FIAD
05/21

18+50.00

-Y12REV-

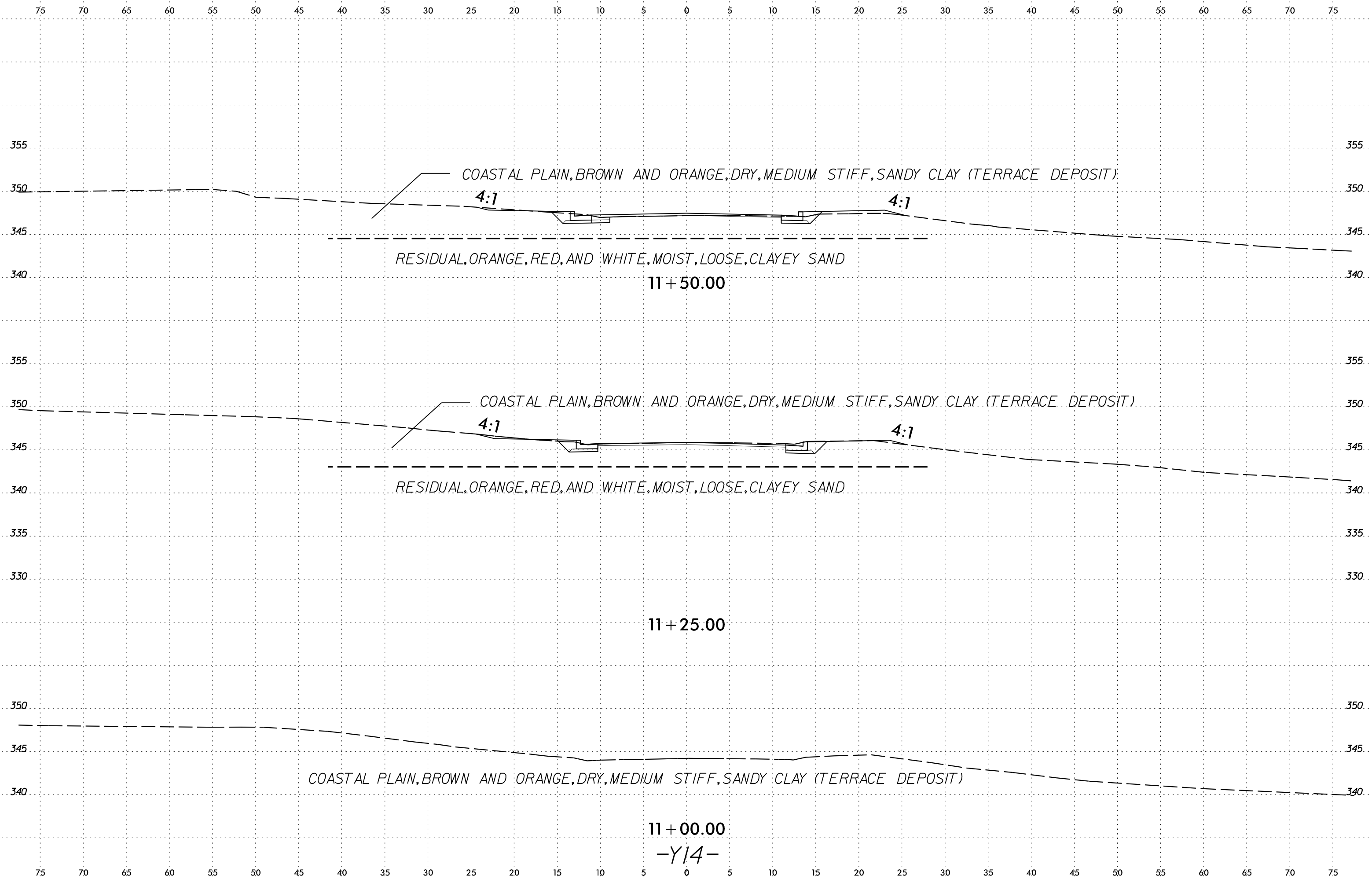
6/23/16

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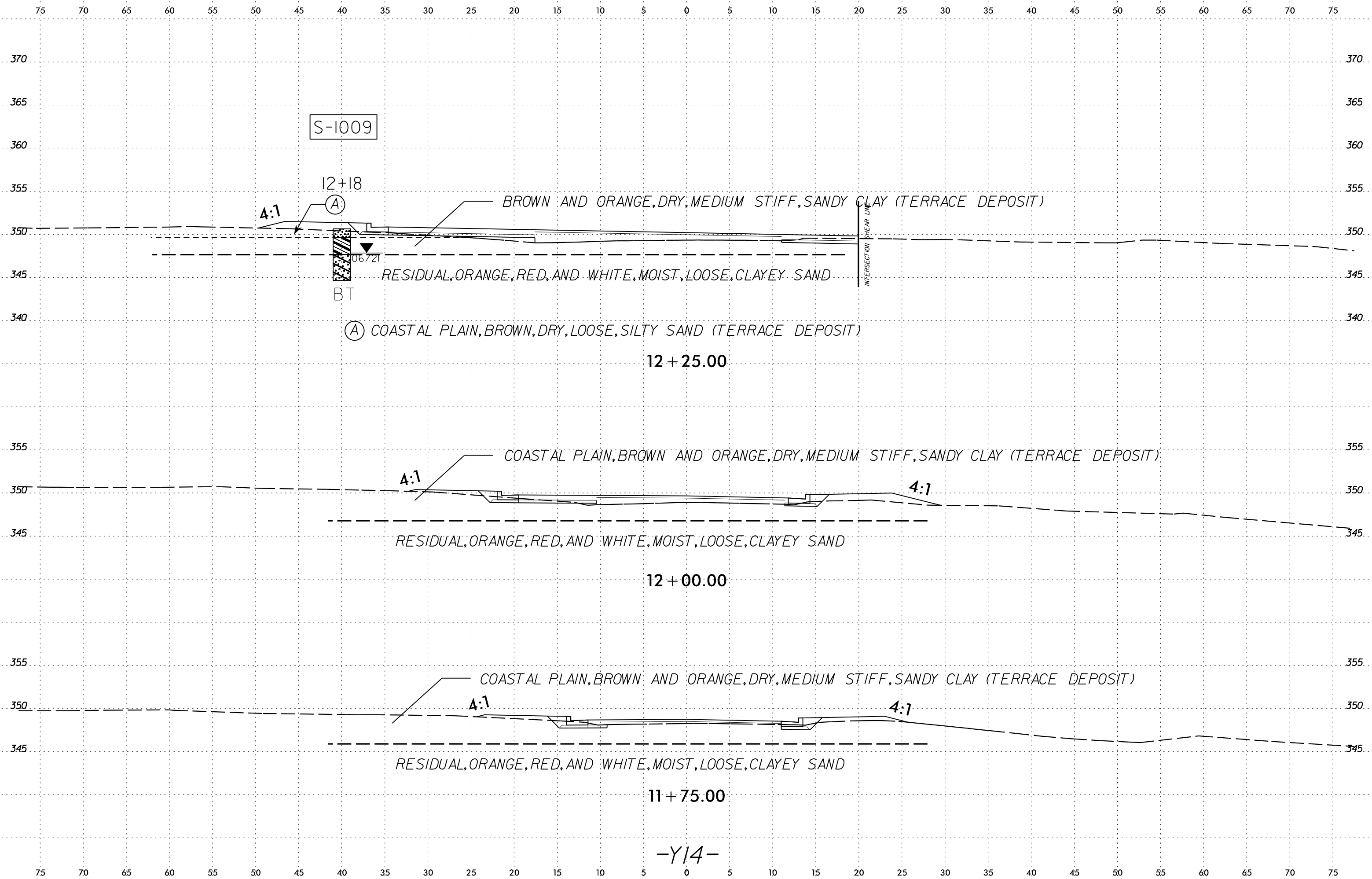
6/23/16



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-Y14-

6/23/16



-Y14-

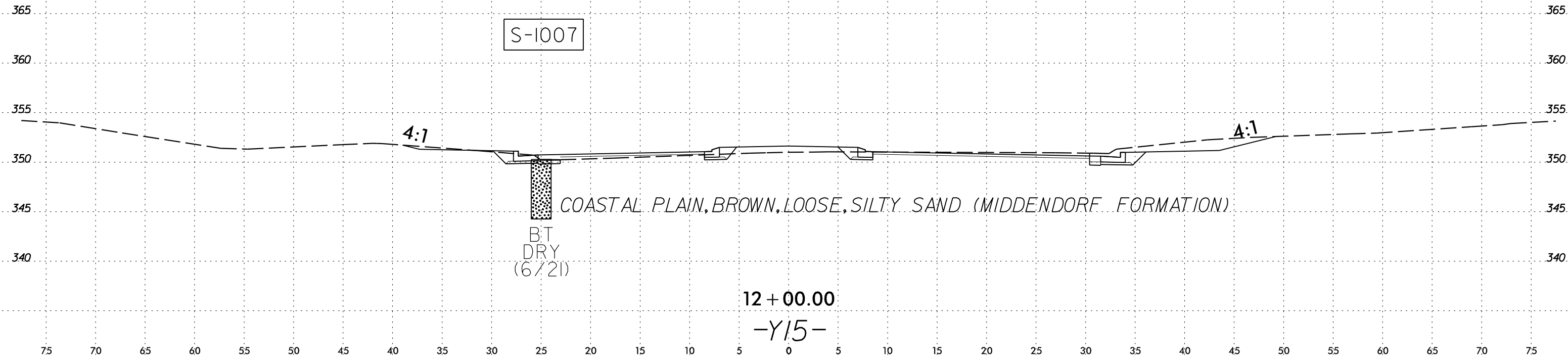
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6/23/16



PROJ. REFERENCE NO.	SHEET NO.
R-5705B	156

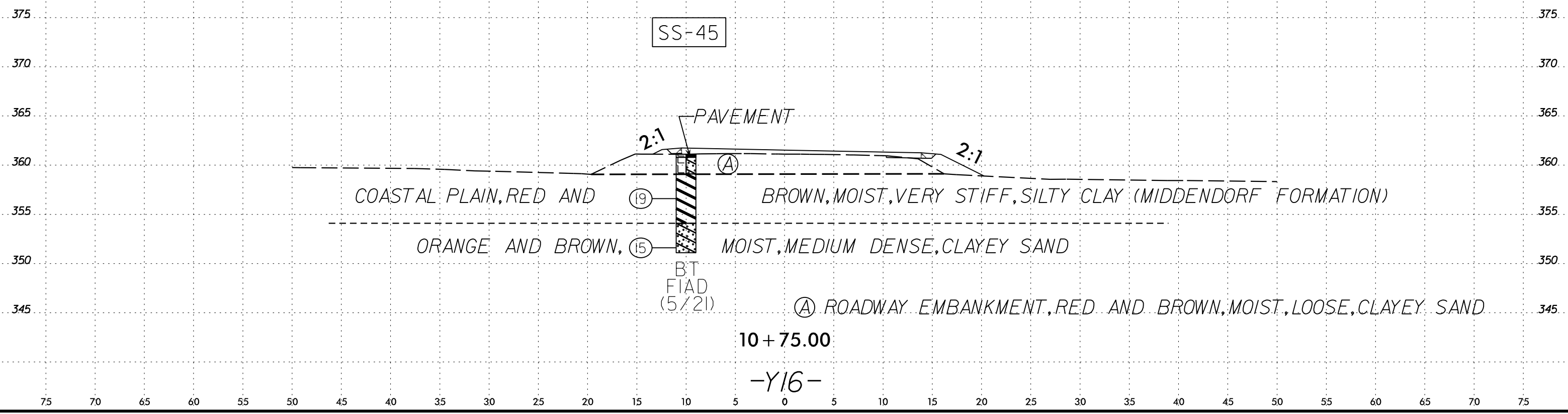
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David Jones

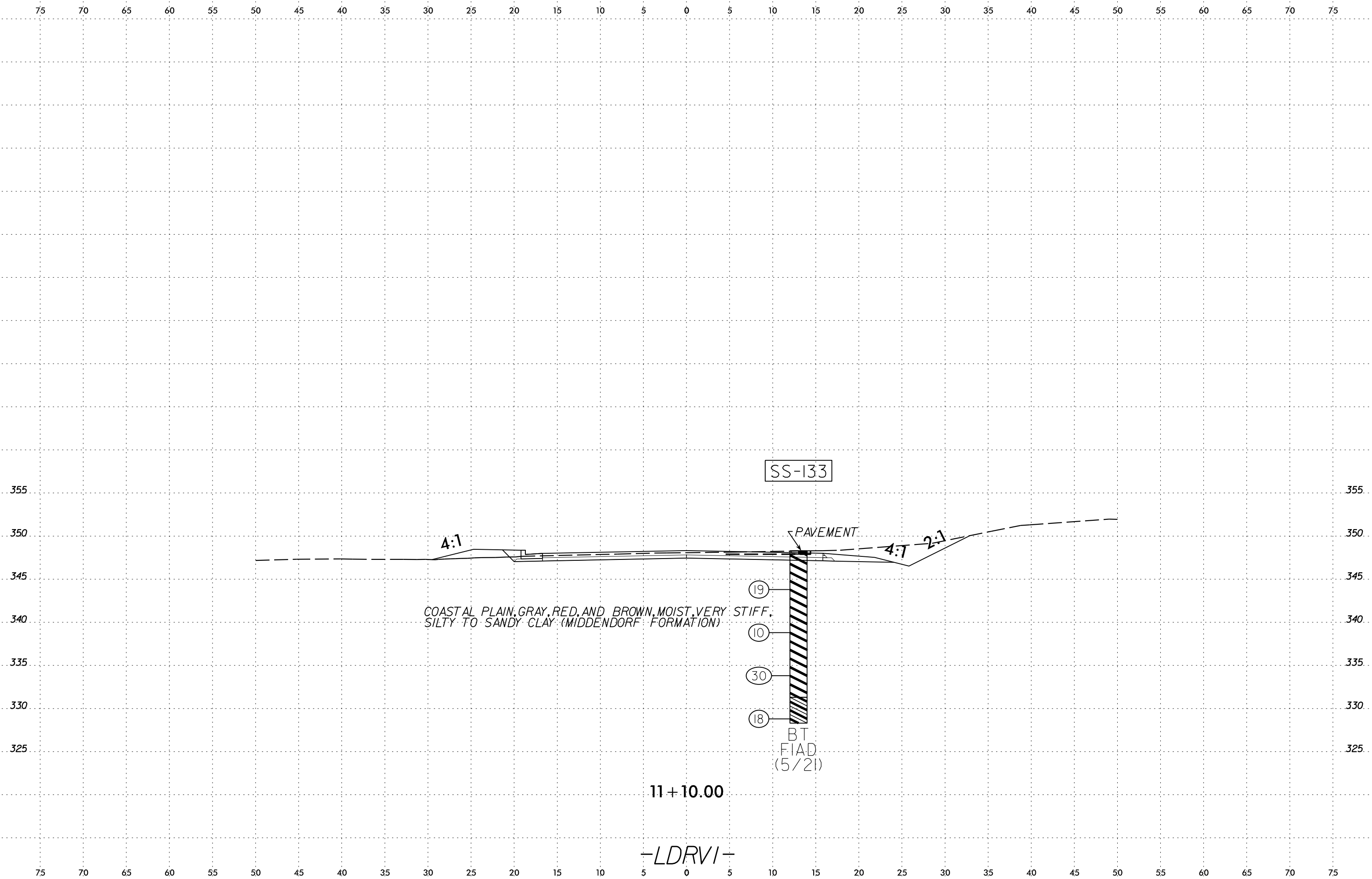
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 david.journe

6/23/16
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David Jones



SS-133

4:1

PAVEMENT

4:1

2:1

COASTAL PLAIN, GRAY, RED, AND BROWN, MOIST, VERY STIFF,
SILTY TO SANDY CLAY (MIDDENDORF FORMATION)

19

10

30

18

BT
FIAD
(5/21)

11+10.00

-LDRVI-

LABORATORY TESTING SUMMARY

PROJECT NUMBER: 46377.1.3

TIP: R-5705B

COUNTY: Harnett and Wake

DESCRIPTION: NC55 from NC210 in Harnett Co. to SR 4809 (Jicarilla Ln.) in Wake County

Sample No.	Station	Alignment	Offset (feet)	Depth Interval (feet)	AASHTO Class.	L.L.	P.I.	% by Weight				% Retained #4 Sieve	% Passing (sieves)			% Moisture	% Organic
								Coarse Sand	Fine Sand	Silt	Clay		#10	#40	#200		
SS-398	-L-	247+50	20 RT	13.5-15.0	A-7-6 (25)	49	32	10.1	13.8	33.0	43.1	0	100	97	79	34.8	--
SS-394	-L-	250+00	100 LT	13.5-15.0	A-7-6 (28)	54	35	2.1	25.4	25.5	47.0	0	100	99	79	34.1	--
SS-391	-L-	252+50	10 LT	13.5-15.0	A-7-5 (13)	56	21	10.7	41.4	36.3	11.6	0	100	95	63	22.2	--
SS-387	-L-	254+66	10 RT	3.5-5.0	A-7-5 (1)	47	12	43.1	22.4	22.2	12.3	3	96	65	38	18.8	--
SS-384	-L-	257+50	80 LT	3.5-5.0	A-7-6 (16)	49	27	7.5	34.2	14.0	44.3	0	100	96	66	21.7	--
SS-381	-L-	260+00	145 RT	3.5-5.0	A-7-6 (8)	50	32	42.1	16.6	9.0	32.3	0	99	72	43	16.4	--
SS-379	-L-	262+50	132 RT	3.5-5.0	A-2-7 (3)	44	27	42.2	25.8	2.9	29.1	0	100	82	34	18.4	--
SS-377	-L-	265+00	5 LT	8.5-10.0	A-7-6 (8)	62	40	48.2	13.6	2.9	35.3	0	98	68	38	17.6	--
SS-373	-L-	267+50	32 LT	3.5-5.0	A-7-6 (24)	58	39	24.9	12.1	22.0	41.0	0	100	81	66	-	--
SS-372	-L-	275+00	10 RT	13.5-15.0	A-2-4 (0)	28	4	82.5	6.5	0.2	10.8	0	100	55	11	27.6	--
SS-366	-L-	277+50	60 RT	8.5-10.0	A-6 (20)	40	22	0.0	19.8	44.4	35.8	0	100	100	89	17.1	--
SS-363	-L-	280+00	10 RT	3.5-5.0	A-7-6 (17)	54	36	23.6	22.2	11.1	43.1	0	100	90	57	21.6	--
SS-359	-L-	282+50	10 LT	3.5-5.0	A-7-6 (16)	51	32	24.0	18.8	17.3	39.9	0	100	87	60	19.9	--
SS-357	-L-	283+60	10 LT	18.7-20.2	A-2-4 (0)	35	3	21.0	55.1	19.6	4.3	0	100	83	35	26.9	--
SS-353	-L-	287+50	10 RT	8.5-10.0	A-7-5 (33)	63	33	2.8	18.7	27.5	51.0	0	100	98	87	29.2	--
SS-351	-L-	290+00	10 RT	8.5-10.0	A-6 (1)	35	14	32.0	36.9	7.1	24.0	0	100	82	36	19.5	--
SS-342	-L-	292+50	35 RT	13.5-10.0	A-7-6 (23)	51	33	0.0	41.6	23.0	35.4	0	100	100	72	31.3	--
SS-346	-L-	296+50	70 LT	8.5-10.0	A-7-6 (9)	43	22	10.4	44.3	14.2	31.1	1	98	91	54	25.3	--
SS-335	-L-	298+00	120 RT	8.5-10.0	A-6 (3)	39	14	1.5	60.7	14.0	23.8	0	100	100	43	32.6	--
SS-329	-L-	300+00	0	13.5-15.0	A-2-4 (0)	34	8	1.6	69.7	7.9	20.8	0	100	100	32	33.3	--
SS-290	-L-	302+50	40 LT	8.5-10.0	A-2-7 (0)	45	25	76.2	9.1	0.2	14.5	0	90	28	14	12.6	--
SS-284	-L-	305+00	50 RT	8.5-10.0	A-2-6 (0)	29	12	46.1	36.0	2.9	15.0	0	99	77	20	12.4	--
SS-280	-L-	307+50	10 LT	8.5-10.0	A-2-4 (0)	25	8	57.6	25.2	2.8	14.4	0	99	69	19	11.1	--
SS-277	-L-	310+00	10 LT	13.5-15.0	A-7-5 (13)	52	16	11.9	30.3	43.1	14.7	0	100	93	72	15.6	--
SS-293	-L-	311+33	80 RT	8.5-10.0	A-2-7 (0)	48	27	38.3	25.0	5.3	31.4	28	60	42	25	8.4	--
SS-311	-L-	313+51	113 RT	3.5-5.0	A-4 (1)	39	8	32.4	29.6	27.6	10.4	0	98	74	45	10.8	--
SS-305	-L-	313+62	0	8.5-10.0	A-4 (6)	38	8	10.2	27.5	52.7	9.6	0	100	94	75	10.0	--
SS-299	-L-	313+98	116 LT	13.8-15.3	A-4 (2)	32	7	20.4	27.3	40.4	11.9	1	95	82	58	19.7	--
SS-270	-L-	315+00	30 RT	3.4-4.9	A-7-6 (29)	46	31	2.4	16.0	58.5	23.1	0	100	99	91	18.2	--
SS-268	-L-	317+50	10 RT	8.5-10.0	A-7-5 (16)	49	15	3.4	20.5	61.6	14.5	0	100	98	86	16.4	--
SS-266	-L-	320+00	60 LT	18.5-20.0	A-7-5 (24)	61	22	5.8	15.1	53.9	25.2	0	100	97	86	20.3	--
SS-261	-L-	322+50	60 RT	8.5-10.0	A-7-5 (14)	44	12	2.6	10.7	59.1	27.6	0	100	98	92	14.6	--
SS-258	-L-	325+00	60 RT	13.5-15.0	A-6 (12)	39	12	3.6	14.7	58.6	23.1	0	99	97	89	21.5	--
SS-254	-L-	327+50	20 LT	3.5-5.0	A-4 (6)	37	6	6.3	20.0	57.5	16.2	3	94	90	79	17.1	--
SS-251	-L-	330+00	40 RT	3.5-5.0	A-7-6 (18)	50	22	11.3	17.2	33.7	37.8	0	99	90	77	26.6	--
SS-253	-L-	330+00	70 LT	3.5-5.0	A-7-5 (27)	60	24	1.9	16.8	43.9	37.4	0	100	99	90	24.5	--
SS-248	-L-	332+00	0	0.0-1.5	A-1-b (0)	NP	NP	49.0	25.5	15.3	10.2	18	63	38	20	3.7	--
SS-249	-L-	332+00	0	3.5-5.0	A-7-5 (13)	51	20	19.1	15.4	17.4	48.1	5	91	77	66	29.0	--
SS-243	-L-	335+00	10 LT	3.5-5.0	A-7-6 (38)	66	37	1.2	17.1	27.2	54.5	0	100	99	89	20.7	--
SS-244	-L-	335+00	10 LT	8.5-10.0	A-7-5 (30)	62	27	2.9	10.6	45.0	41.5	0	99	97	91	21.1	--

NP - NON-PLASTIC

Stephanie H. Huffman

Certified Lab Technician Signature

114-01-1203

Certification Number

LABORATORY TESTING SUMMARY

PROJECT NUMBER: 46377.1.3

TIP: R-5705B

COUNTY: Harnett and Wake

DESCRIPTION: NC55 from NC210 in Harnett Co. to SR 4809 (Jicarilla Ln.) in Wake County

Sample No.	Station	Alignment	Offset (feet)	Depth Interval (feet)	AASHTO Class.	L.L.	P.I.	% by Weight				% Retained #4 Sieve	% Passing (sieves)			% Moisture	% Organic
								Coarse Sand	Fine Sand	Silt	Clay		#10	#40	#200		
SS-242	-L-	337+50	10 LT	3.5-5.0	A-7-5 (19)	57	19	9.2	16.6	46.9	27.3	2	97	91	80	25.0	--
SS-240	-L-	340+00	60 RT	3.5-5.0	A-7-5 (32)	67	28	2.3	18.1	54.5	25.1	0	100	98	90	29.5	--
SS-241	-L-	340+00	60 RT	13.5-15.0	A-7-5 (20)	59	22	8.2	24.3	49.7	17.8	0	100	95	78	24.7	--
SS-238	-L-	342+50	60 RT	3.5-5.0	A-7-5 (18)	58	23	14.9	15.1	19.0	51.0	3	95	85	71	25.6	--
SS-236	-L-	345+00	0	8.5-10.0	A-7-5 (9)	51	19	28.2	20.3	35.5	16.0	0	98	76	57	21.2	--
SS-233	-L-	347+50	40 RT	8.5-10.0	A-7-5 (2)	47	17	38.9	19.7	26.4	15.0	8	79	55	36	8.8	--
SS-231	-L-	350+00	42 RT	8.5-10.0	A-7-5 (23)	62	26	12.5	14.8	48.6	24.1	0	100	91	78	27.2	--
SS-229	-L-	352+50	0	3.5-5.0	A-7-5 (13)	53	16	17.8	15.6	37.6	29.0	0	100	86	72	24.5	--
SS-227	-L-	355+00	50 RT	3.5-5.0	A-6 (7)	33	18	20.3	31.2	21.5	27.0	1	98	86	56	15.0	--
SS-225	-L-	357+50	60 RT	3.5-5.0	A-6 (13)	39	21	11.1	27.3	23.0	38.6	0	100	94	70	14.9	--
SS-223	-L-	360+00	60 RT	3.5-5.0	A-7-6 (7)	48	28	36.7	20.4	2.2	40.7	0	100	89	44	18.3	--
SS-224	-L-	360+00	60 RT	13.5-15.0	A-7-6 (16)	43	19	6.9	19.0	43.5	30.6	0	98	94	81	15.2	--
SS-220	-L-	362+50	50 LT	3.5-5.0	A-7-6 (23)	49	31	5.0	25.8	19.4	49.8	0	100	97	76	18.9	--
SS-218	-L-	365+00	40 LT	3.5-5.0	A-6 (8)	40	19	17.6	30.7	11.6	40.1	0	100	90	57	17.3	--
SS-216	-L-	367+50	60 RT	3.5-5.0	A-7-6 (9)	57	29	46.5	8.5	3.0	42.0	0	100	73	46	23.2	--
SS-215	-L-	367+50	40 LT	3.5-5.0	A-7-6 (5)	59	31	57.6	7.0	4.8	30.6	0	100	63	36	14.5	--
SS-214	-L-	370+00	40 RT	3.5-5.0	A-7-6 (9)	44	27	25.1	27.5	13.2	34.2	0	98	85	50	15.9	--
SS-319	-L-	372+50	40 LT	8.5-10.0	A-7-6 (35)	65	38	2.8	17.7	29.6	49.9	1	98	97	84	28.6	--
SS-322	-L-	375+00	20 LT	8.5-10.0	A-7-5 (23)	63	28	10.2	21.9	41.8	26.1	0	100	94	75	23.7	--
SS-314	-L-	377+50	20 LT	8.5-10.0	A-7-5 (4)	46	14	40.6	18.9	17.4	23.1	0	93	61	48	16.6	--
SS-317	-L-	380+00	10 RT	8.5-10.0	A-7-5 (26)	62	29	5.4	23.6	40.1	30.9	0	98	95	80	24.7	--
SS-204	-L-	382+50	30 LT	3.5-5.0	A-7-6 (10)	42	24	23.8	24.1	15.7	36.4	2	98	83	56	15.9	--
SS-205	-L-	382+50	30 LT	8.5-10.0	A-7-5 (24)	61	26	6.2	20.4	33.8	39.6	0	99	95	80	25.2	--
SS-200	-L-	387+50	30 LT	0.0-1.5	A-2-4 (0)	18	4	44.1	31.3	9.6	15.0	1	99	76	27	10.6	--
SS-201	-L-	387+50	30 LT	3.5-5.0	A-7-6 (9)	57	39	37.1	22.4	1.4	39.1	0	100	84	41	17.3	--
SS-170	-L-	389+60	30 LT	3.5-5.0	A-2-7 (3)	60	40	55.6	13.2	0.8	30.4	0	96	62	30	13.4	--
S-1031	-L-	392+50	5 RT	3.5-4.0	A-6 (1)	28	13	33.6	34.5	8.8	23.1	0	100	84	36	16.4	--
S-1027	-L-	395+00	20 RT	0.0-0.5	A-2-4 (0)	26	7	32.9	37.2	14.5	15.4	1	99	82.0	34	9.8	--
S-1026	-L-	397+70	20 RT	4.0-4.5	A-7-6 (13)	48	30	24.2	24.0	6.9	44.9	0	100	87	55	23.4	--
SS-7	-L-	402+50	95 LT	3.5-5.0	A-2-4 (0)	23	10	52.5	27.5	5.2	14.8	0	99	70	23	10.9	--
SS-10	-L-	405+00	95 LT	3.5-5.0	A-2-6 (0)	35	18	39.0	34.2	4.2	22.6	0	100	87	29	19.0	--
SS-108	-L-	406+49	65 RT	8.5-10.0	A-7-6 (9)	43	25	19.1	32.2	6.1	42.6	0	100	96	51	19.5	--
SS-147	-L-	407+50	65 RT	3.5-5.0	A-7-6 (4)	42	21	37.6	24.8	7.6	30.0	0	99	78	40	14.1	--
SS-137	-L-	408+45	60 RT	8.5-10.0	A-6 (10)	32	18	15.3	21.5	29.2	34.0	0	100	92	68	14.0	--
SS-16	-L-	410+00	50 RT	3.5-5.0	A-2-4 (0)	18	5	36.3	38.5	9.5	15.7	2	97	82	29	8.5	--
SS-17	-L-	410+00	50 RT	8.5-10.0	A-7-6 (28)	56	36	10.7	15.2	18.8	55.3	0	100	95	78	20.3	--
SS-13	-L-	410+00	70 LT	3.5-5.0	A-7-6 (38)	62	38	2.9	12.2	18.5	66.4	0	100	98	89	21.0	--
SS-19	-L-	412+00	45 RT	3.5-5.0	A-7-6 (11)	57	34	36.9	18.4	2.7	42.0	0	99	76	46	20.0	--
SS-22	-L-	415+00	40 RT	3.5-5.0	A-7-6 (17)	57	36	24.6	22.6	2.2	50.6	0	99	83	56	16.4	--
SS-23	-L-	415+00	40 RT	8.5-10.0	A-7-6 (37)	57	38	2.6	12.9	28.7	55.8	0	100	98	90	19.6	--

NP - NON-PLASTIC

Stephanie H. Huffman

Certified Lab Technician Signature

114-01-1203

Certification Number

LABORATORY TESTING SUMMARY

PROJECT NUMBER: 46377.1.3

TIP: R-5705B

COUNTY: Harnett and Wake

DESCRIPTION: NC55 from NC210 in Harnett Co. to SR 4809 (Jicarilla Ln.) in Wake County

Sample No.	Station	Alignment	Offset (feet)	Depth Interval (feet)	AASHTO Class.	L.L.	P.I.	% by Weight				% Retained #4 Sieve	% Passing (sieves)			% Moisture	% Organic
								Coarse Sand	Fine Sand	Silt	Clay		#10	#40	#200		
SS-79	-L-	416+90	45 LT	3.5-5.0	A-7-6 (13)	49	29	19.1	29.0	14.3	37.6	0	100	89	57	19.2	--
S-1014	-L-	417+50	50 RT	3.5-4.0	A-6 (1)	31	14	39.8	28.1	11.0	21.1	0	99	76	36	12.6	--
SS-70	-L-	419+90	44 LT	3.5-5.0	A-2-6 (0)	37	20	49.6	23.8	3.6	23.0	0	99	70	29	14.5	--
SS-71	-L-	419+90	44 LT	8.5-10.0	A-7-6 (22)	63	37	32.8	5.6	16.8	44.8	0	100	73	63	22.7	--
SS-25	-L-	420+00	40 RT	3.5-5.0	A-2-6 (0)	36	19	46.3	25.6	6.1	22.0	0	99	70	29	14.0	--
SS-26	-L-	420+00	40 RT	8.5-10.0	A-7-6 (17)	49	28	4.9	34.4	10.7	50.0	0	100	97	67	22.7	--
SS-102	-L-	422+50	40 RT	3.5-5.0	A-7-6 (7)	51	34	35.1	25.6	2.1	37.2	0	100	83	40	16.4	--
SS-28	-L-	425+00	40 RT	3.5-5.0	A-7-6 (10)	55	34	38.6	16.5	6.0	38.9	1	95	70	45	16.1	--
SS-68	-L-	427+50	30 LT	3.5-5.0	A-7-6 (5)	46	23	33.8	26.2	5.9	34.1	0	99	81	43	19.4	--
SS-105	-L-	427+50	40 RT	3.5-5.0	A-6 (6)	38	24	25.0	35.3	10.4	29.3	0	99	89	44	13.9	--
SS-31	-L-	430+00	50 RT	3.5-5.0	A-7-6 (3)	44	23	43.7	21.6	0.7	34.0	0	99	74	36	17.5	--
SS-32	-L-	430+00	50 RT	8.5-10.0	A-6 (7)	31	16	5.7	35.7	27.5	31.1	7	91	87	62	15.5	--
SS-34	-L-	432+50	40 RT	3.5-5.0	A-2-6 (2)	39	24	29.3	38.7	0.7	31.3	0	100	95	33	16.8	--
SS-35	-L-	432+50	40 RT	8.5-10.0	A-7-6 (22)	42	22	0.0	14.2	49.5	36.3	0	100	100	93	19.2	--
SS-37	-L-	435+00	40 RT	3.5-5.0	A-2-6 (0)	39	19	45.7	29.5	0.1	24.7	0	99	74	26	14.8	--
SS-40	-L-	437+50	40 RT	3.4-4.9	A-7-6 (8)	53	31	40.7	19.5	4.8	35.0	0	99	72	42	20.5	--
SS-43	-L-	440+00	40 RT	3.4-5.0	A-7-6 (6)	48	27	50.0	8.5	5.5	36.0	0	97	66	41	14.1	--
SS-66	-L-	442+50	20 LT	3.5-5.0	A-2-6 (0)	30	14	50.6	25.2	3.8	20.4	0	100	70	26	19.6	--
SS-63	-L-	445+00	60 LT	3.4-4.9	A-2-4 (0)	NP	NP	53.2	32.3	7.9	6.6	0	100	72	18	9.8	--
SS-64	-L-	445+00	60 LT	8.4-9.9	A-2-4 (0)	NP	NP	54.7	32.3	0.8	12.2	0	99	69	15	15.7	--
S-1005	-L-	447+50	10 LT	3.0-3.5	A-2-6 (0)	24	11	42.4	30.8	8.2	18.6	0	99	74	30	14.8	--
S-1002	-L-	450+00	55 RT	4.0-4.5	A-2-4 (0)	24	7	45.4	31.3	4.1	19.2	0	99	73	26	11.5	--
SS-167	-L-	452+50	35 LT	3.5-5.0	A-2-7 (1)	43	26	55.6	15.9	2.4	26.1	0	93	51	28	10.9	--
SS-168	-L-	452+50	35 LT	8.5-10.0	A-2-6 (0)	29	12	70.9	12.4	0.6	16.1	0	100	58	17	18.8	--
SS-165	-L-	455+35	35 LT	8.5-10.0	A-6 (9)	36	19	3.1	46.2	16.6	34.1	0	100	97	63	21.5	--
SS-47	-L-	457+50	40 RT	0.0-1.5	A-2-6 (0)	34	17	45.6	26.5	0.9	27.0	1	98	74	30	9.3	--
SS-48	-L-	457+50	40 RT	3.4-4.9	A-2-7 (0)	55	30	74.0	8.1	0.5	17.4	0	100	34	19	11.7	--
SS-141	-L-	460+00	110 LT	3.5-5.0	A-1-b (0)	NP	NP	71.9	14.0	4.6	9.5	0	99	44	16	6.1	--
SS-142	-L-	460+00	110 LT	8.5-10.0	A-7-6 (9)	42	26	31.4	23.9	13.7	31.0	0	100	77	51	14.8	--
SS-51	-L-	462+50	0	3.5-5.0	A-2-4 (0)	NP	NP	56.2	22.8	7.7	13.3	0	99	64	23	11.3	--
SS-52	-L-	462+50	0	8.5-10.0	A-7-6 (23)	45	30	7.8	16.5	31.9	43.8	0	99	95	80	16.3	--
SS-54	-L-	464+90	10 LT	3.5-5.0	A-2-4 (0)	25	9	53.8	25.0	4.1	17.1	0	100	68	23	22.1	--
SS-60	-L-	467+50	20 RT	3.5-5.0	A-2-6 (0)	36	18	59.7	15.7	0.4	24.2	0	100	75	25	17.4	--
SS-112	-L-	470+00	83 LT	3.4-4.9	A-7-6 (13)	43	28	23.9	20.0	17.9	38.2	0	100	86	59	16.5	--
SS-114	-L-	470+00	83 LT	13.4-14.9	A-2-6 (1)	34	19	48.6	23.4	2.8	25.2	0	99	73	30	12.4	--
SS-116	-L-	470+00	83 LT	23.4-24.9	A-2-6 (0)	26	12	39.9	31.7	6.1	22.3	0	100	79	32	12.7	--
SS-57	-L-	470+00	5 RT	3.5-5.0	A-7-6 (6)	42	23	33.8	25.2	6.7	34.3	0	100	84	44	16.6	--
SS-91	-L-	472+50	17 RT	8.5-10.0	A-2-6 (1)	32	16	53.7	15.0	4.3	27.0	0	100	71	33	16.3	--
SS-119	-L-	475+00	45 LT	3.5-5.0	A-2-4 (0)	NP	NP	42.3	41.5	4.3	11.9	0	100	84	19	9.2	--
SS-121	-L-	475+00	45 LT	13.5-15.0	A-4 (0)	26	8	36.8	25.2	18.7	19.3	0	100	81	40	15.1	--

NP - NON-PLASTIC

Stephanie H. Huffman

Certified Lab Technician Signature

114-01-1203

Certification Number

LABORATORY TESTING SUMMARY

PROJECT NUMBER: 46377.1.3

TIP: R-5705B

COUNTY: Harnett and Wake

DESCRIPTION: NC55 from NC210 in Harnett Co. to SR 4809 (Jicarilla Ln.) in Wake County

Sample No.	Station	Alignment	Offset (feet)	Depth Interval (feet)	AASHTO Class.	L.L.	P.I.	% by Weight				% Retained #4 Sieve	% Passing (sieves)			% Moisture	% Organic
								Coarse Sand	Fine Sand	Silt	Clay		#10	#40	#200		
SS-122	-L-	475+00	45 LT	18.5-20.0	A-2-4 (0)	NP	NP	54.2	31.2	5.0	9.6	0	99	66	18	7.5	--
SS-124	-L-	475+00	45 LT	28.5-30.0	A-2-6 (0)	29	13	49.3	31.7	0.0	19.0	0	100	83	20	16.5	--
SS-93	-L-	477+50	30 RT	3.5-5.0	A-2-4 (0)	NP	NP	43.7	45.7	2.0	8.6	0	100	86	13	8.9	--
SS-94	-L-	477+50	30 RT	8.5-10.0	A-2-4 (0)	NP	NP	38.4	51.0	0.0	10.6	0	100	92	12	17.4	--
SS-126	-L-	479+79	40 LT	3.5-5.0	A-2-4 (0)	NP	NP	42.7	41.2	4.3	11.8	0	100	84	19	11.1	--
SS-128	-L-	479+79	40 LT	13.5-15.0	A-3 (0)	NP	NP	47.9	46.3	0.9	4.9	0	100	83	8	14.9	--
SS-100	-L-	482+50	5 RT	8.5-10.0	A-2-7 (4)	52	33	51.0	15.0	0.7	33.3	0	99	66	34	16.2	--
SS-144	-L-	484+90	65 RT	3.4-4.9	A-7-6 (11)	58	37	40.7	15.4	1.1	42.8	0	100	82	45	18.5	--
SS-133	-LDRV1-	11+10	20 RT	3.5-5.0	A-7-6 (9)	42	24	25.4	27.2	11.6	35.8	0	100	89	52	16.1	--
S-1033	-Y6-	12+50	18 RT	1.5-2.0	A-4 (0)	26	7	29.7	36.2	9.1	25.0	8	89	71	36	14.8	--
SS-287	-Y6-	16+50	60 LT	8.5-10.0	A-2-4 (0)	28	9	65.6	20.6	2.0	11.8	0	100	65	15	10.6	--
SS-326	-Y6-	17+50	40 RT	13.7-15.2	A-2-5 (0)	57	10	53.8	21.8	17.4	7.0	16	82	52	22	72.2	--
SS-247	-Y7-	11+50	62 LT	8.5-10.0	A-7-5 (15)	57	19	16.8	17.8	37.4	28.0	1	97	85	70	24.8	--
SS-245	-Y7-	14+25	30 LT	3.5-5.0	A-7-6 (6)	50	28	35.1	21.0	9.3	34.6	6	83	61	40	13.8	--
SS-207	-Y8-	11+00	9 LT	3.5-5.0	A-7-6 (15)	50	30	29.3	16.1	14.5	40.1	0	99	82	58	17.9	--
SS-209	-Y8-	14+10	0	3.5-5.0	A-7-6 (16)	58	33	20.2	20.4	14.7	44.7	6	91	80	57	20.2	--
SS-212	-Y8-	16+00	20 RT	3.5-5.0	A-2-4 (0)	22	9	43.4	28.6	10.2	17.8	0	100	74	32	14.3	--
SS-213	-Y8-	16+00	20 RT	8.5-10.0	A-7-5 (43)	75	40	2.7	11.7	26.2	59.4	0	100	98	90	34.6	--
SS-84	-Y8-	18+47	45 LT	3.4-4.9	A-7-6 (16)	56	37	27.1	21.3	7.2	44.4	0	100	85	54	19.5	--
SS-161	-Y8-	21+00	40 RT	3.5-5.0	A-2-7 (2)	47	30	52.0	19.0	0.5	28.5	0	100	67	30	20.2	--
SS-4	-Y9-	10+50	50 LT	3.5-5.0	A-7-6 (20)	51	32	12.1	27.0	16.6	44.3	0	100	93.0	68	21.4	--
SS-82	-Y9-	13+00	38 RT	3.5-5.0	A-6 (2)	29	16	34.8	28.8	9.1	27.3	0	100	82	40	20.9	--
SS-1	-Y9-	15+50	30 RT	3.5-5.0	A-7-6 (5)	44	24	29.4	31.1	7.9	31.6	0	98	83	42	17.2	--
S-1019	-Y10-	15+00	30 RT	2.0-2.5	A-6 (1)	24	12	32.8	35.3	10.8	21.1	0	100	87	36	15.0	--
SS-158	-Y12REV-	10+85	70 LT	3.5-5.0	A-7-6 (6)	44	24	30.2	30.3	7.9	31.6	0	100	83	43	17.8	--
SS-152	-Y12REV-	13+50	65 LT	3.4-4.9	A-2-7 (0)	42	21	41.9	26.0	2.3	29.8	0	100	42	21	18.7	--
SS-155	-Y12REV-	15+40	60 LT	3.5-5.0	A-6 (2)	35	20	34.8	33.3	4.9	27.0	0	100	85	36	16.7	--
SS-130	-Y12REV-	18+50	7 LT	8.5-10.0	A-2-6 (0)	31	16	51.2	20.5	5.8	22.5	9	86	61	27	11.8	--
S-1017	-Y12AREV-	10+51	25 LT	3.5-4.0	A-2-4 (0)	31	3	39.6	35.3	2.5	22.6	0	100	87	27	15.0	--
S-1009	-Y14-	12+18	40 LT	1.0-1.5	A-6 (3)	38	21	45.0	18.2	4.6	32.2	0	98	68	39	4.3	--
S-1007	-Y15-	12+00	25 LT	2.5-3.0	A-2-4 (0)	17	3	52.3	28.7	3.1	15.9	0	100	73	21	8.7	--
SS-45	-Y16-	10+75	10 LT	3.5-5.0	A-7-6 (3)	43	24	35.7	30.3	0.4	33.6	1	98	83	36	18.0	--

NP - NON-PLASTIC

Stephanie H. Huffman

Certified Lab Technician Signature

114-01-1203

Certification Number