

REFERENCE: I-5873

PROJECT: 53074

SEE SHEET 3 FOR PLAN SHEET LAYOUT  
AT TIME OF INVESTIGATION

**CONTENTS**

LINE	STATION	PLAN
-YIRPD-	13+00 TO 23+00	5
-YIRPB-	17+25 TO 26+75	6

**CROSS SECTIONS**

LINE	STATION	SHEETS
-YIRPD-	13+00 TO 23+00	7-35
-YIRPB-	17+25 TO 26+75	36-54

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

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**ROADWAY**  
**SUBSURFACE INVESTIGATION**

COUNTY WAKE  
PROJECT DESCRIPTION INTERCHANGE MODIFICATION  
AT I-40 AND NC 54

**INVENTORY**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5873	1	54

**CAUTION NOTICE**

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF PREPARING THE SCOPE OF WORK TO BE INCLUDED IN THE REQUEST FOR PROPOSAL. 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.

SOIL AND ROCK BOUNDARIES WITHIN A BOREHOLE ARE BASED ON GEOTECHNICAL INTERPRETATION UNLESS ENCOUNTERED IN A SAMPLE. INTERPRETED BOUNDARIES MAY NOT NECESSARILY REFLECT ACTUAL SUBSURFACE CONDITIONS BETWEEN SAMPLED STRATA AND BOREHOLE INFORMATION MAY NOT NECESSARILY REFLECT ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS. 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.

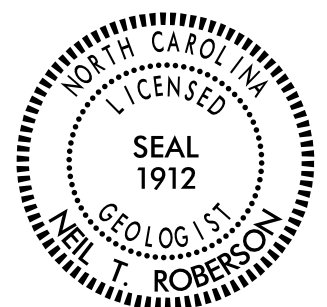
THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT 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:
- 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.
  - 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

N.O. MOORE  
D.G. PINTER  
R.E. CLARKE

INVESTIGATED BY N.O. MOORE  
DRAWN BY N.O. MOORE  
CHECKED BY J.L. LOVE  
SUBMITTED BY N.T. ROBERSON  
DATE JUNE 2018



DocuSigned by:  
Neil Roberson 6/15/2018  
4061D9A8C8C649C...  
SIGNATURE DATE

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

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Table with 4 main columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, and TERMS AND DEFINITIONS. Includes sub-sections like SOIL LEGEND AND AASHTO CLASSIFICATION, CONSISTENCY OR DENSENESS, TEXTURE OR GRAIN SIZE, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, COLOR, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, EQUIPMENT USED ON SUBJECT PROJECT, FRACTURE SPACING, BEDDING, and INDURATION.

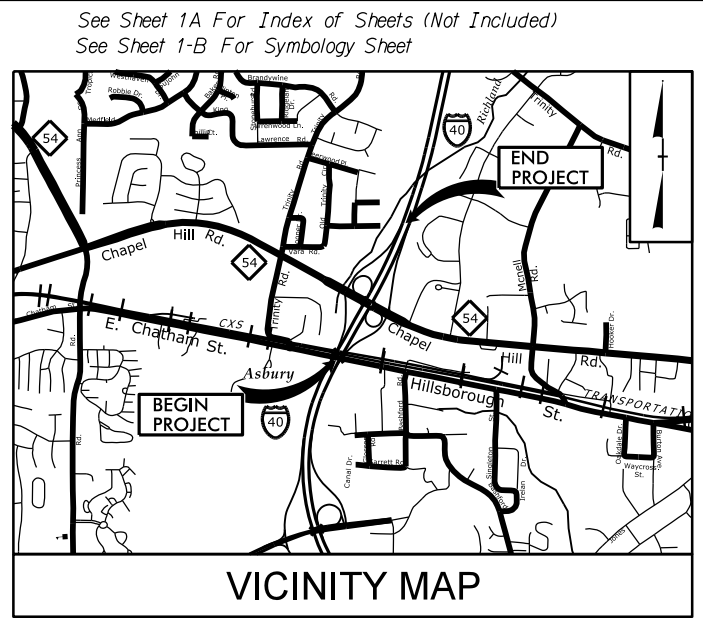
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	53074.1.1	3	54
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
53074.1.1	N/A	PE	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**WAKE**

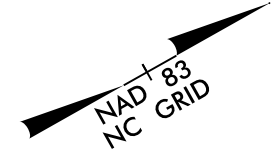
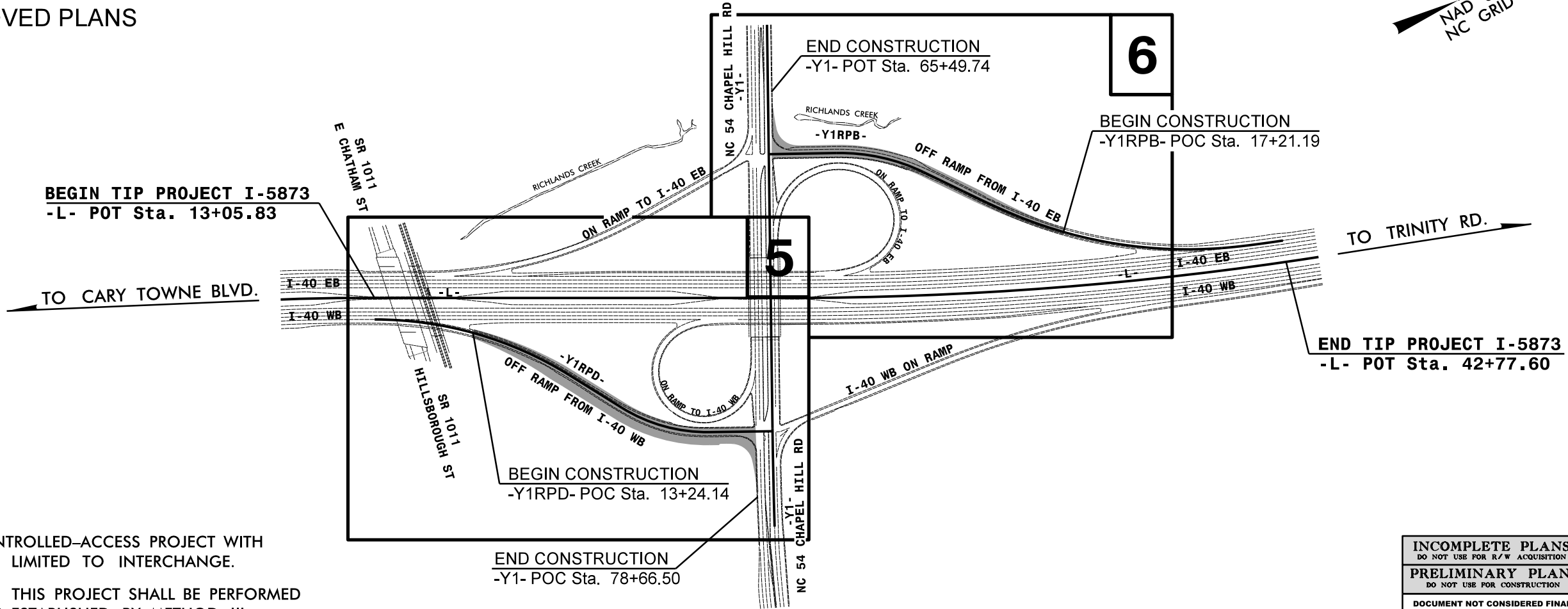
LOCATION: INTERCHANGE MODIFICATION AT I-40  
AND NC 54

TYPE OF WORK: GRADING, DRAINAGE AND PAVING



VICINITY MAP

15% APPROVED PLANS

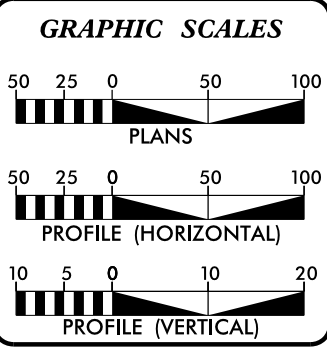


- NOTE:
1. THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGE.
  2. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION  
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

TIP PROJECT: I-5873

CONTRACT:



**DESIGN DATA**

ADT 2019	=	12,344
ADT 2040	=	17,300
K	=	8 %
D	=	55 %
T	=	7 % *
V	=	50 MPH
* (TTST 3%+ DUALS 4%)		
FUNC CLASS	=	RAMP

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT I-5873	=	0.563 MI
TOTAL LENGTH TIP PROJECT I-5873	=	0.563 MI

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
1000 Birch Ridge Dr., Raleigh NC, 27610

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
MARCH 05, 2018

LETTING DATE:  
JANUARY 8, 2019

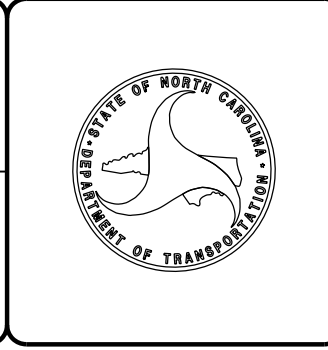
NCDOT CONTACT:

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.



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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

May 21, 2018

STATE PROJECT: 53074.1.1 (I-5873)  
FEDERAL PROJECT:  
COUNTY: WAKE  
DESCRIPTION: Interchange modification at I-40 and NC 54  
SUBJECT: Geotechnical Report – Inventory

The Geotechnical Engineering Unit has completed a subsurface investigation for this project and presents the following inventory.

**Project Description**

This project consists of widening existing I-40 eastbound and westbound off ramps to NC 54.

A geotechnical investigation was conducted during March of 2018. Eight hand auger and eight hollow-stem auger SPT borings were performed by the Geotechnical Engineering Unit. Representative soil samples were collected for visual classification in the field and selected samples were submitted for laboratory analysis by the Materials and Tests Unit.

The following alignments, totaling 0.37 miles, were investigated. Subsurface plans and cross sections of these alignments are included in this report.

<u>Line</u>	<u>Stations</u>
-Y1RPD-	13+00 to 23+00
-Y1RPB-	17+25 to 26+75

**Physiography and Geology**

The project is located within the city limits of the town of Cary, and within the Piedmont physiographic province of North Carolina. Cambrian-aged residual clays and silts of the Raleigh Belt overlay weathered and crystalline rock. The topography is gently rolling with a low-lying area along Richlands Creek to the north of -Y1RPB-. The widening project is mostly wooded with Richlands Creek to the north of -Y1RPB-.

**Soils Properties**

Soils encountered during this investigation are roadway embankment and residual.

Roadway Embankment soils are present along both exit ramps (-Y1RPB- and -Y1RPD-). These soils primarily consist of red, brown, and gray, moist, soft to medium stiff, silty clay (A-7) and sandy clay (A-6) along -Y1RPB- and gray and brown, moist, medium stiff, sandy silt (A-4) along -Y1RPD-. The plastic index for these soils is 14.

Residual soils of the Raleigh Belt are also present along both exit ramps (-Y1RPB- and -Y1RPD-). These soils are characterized by orange, gray, and brown, moist, soft to very stiff, silty clay (A-7), sandy silt (A-4), and silty sand (A-2-4). Plastic indices for these soils range from 2 to 25.

**Groundwater**

Groundwater measurements were taken in March 2018 during average rainfall conditions. Groundwater was absent in most borings; however, groundwater was present in 2 borings and ranged from 2.7 to 35.8 feet from the ground surface.

**Areas of Special Geotechnical Interest**

- 1) High Groundwater: The following areas exhibit groundwater within 6.0 feet of proposed grade:

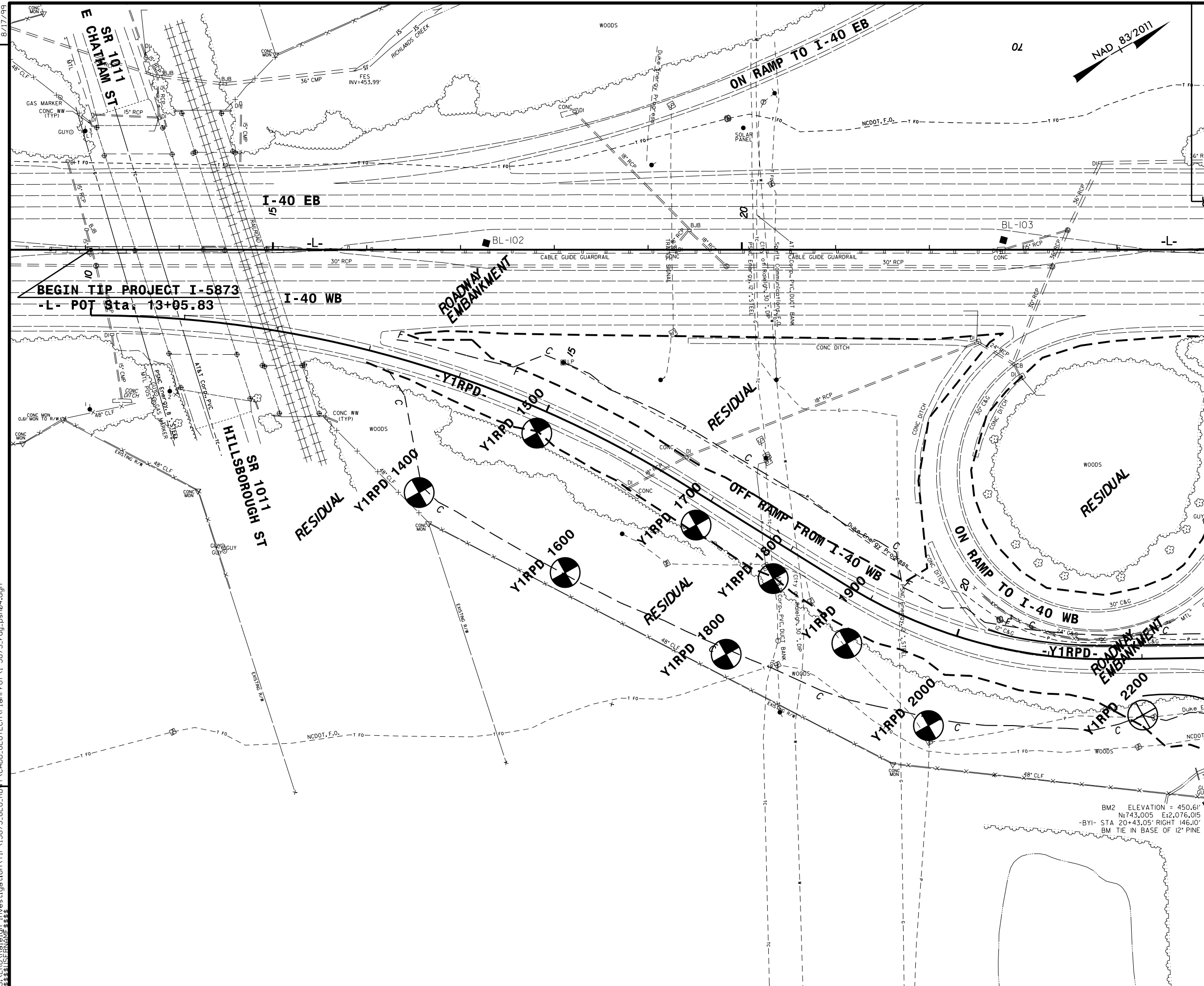
<u>Line</u>	<u>Stations</u>	<u>Offsets</u>
-Y1RPD-	18+00	35' RT


- 2) Crystalline Rock: The following areas exhibit crystalline rock above or within 6.0 of proposed grade:

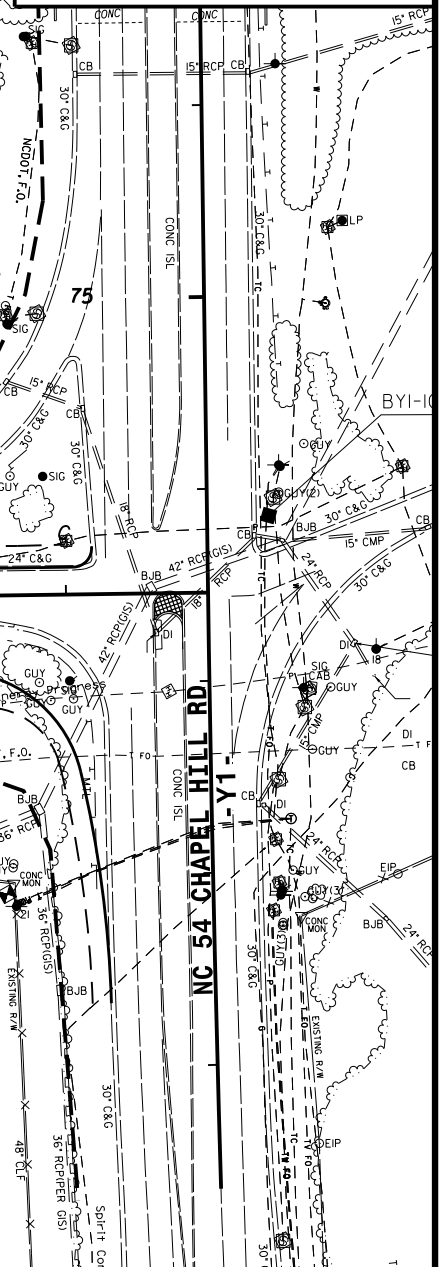
<u>Line</u>	<u>Stations</u>	<u>Offsets</u>
-Y1RPD-	13+50 to 17+75	45' LT to 65' RT

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 \$\$\$\$ STANDARD \$\$\$

REVISIONS



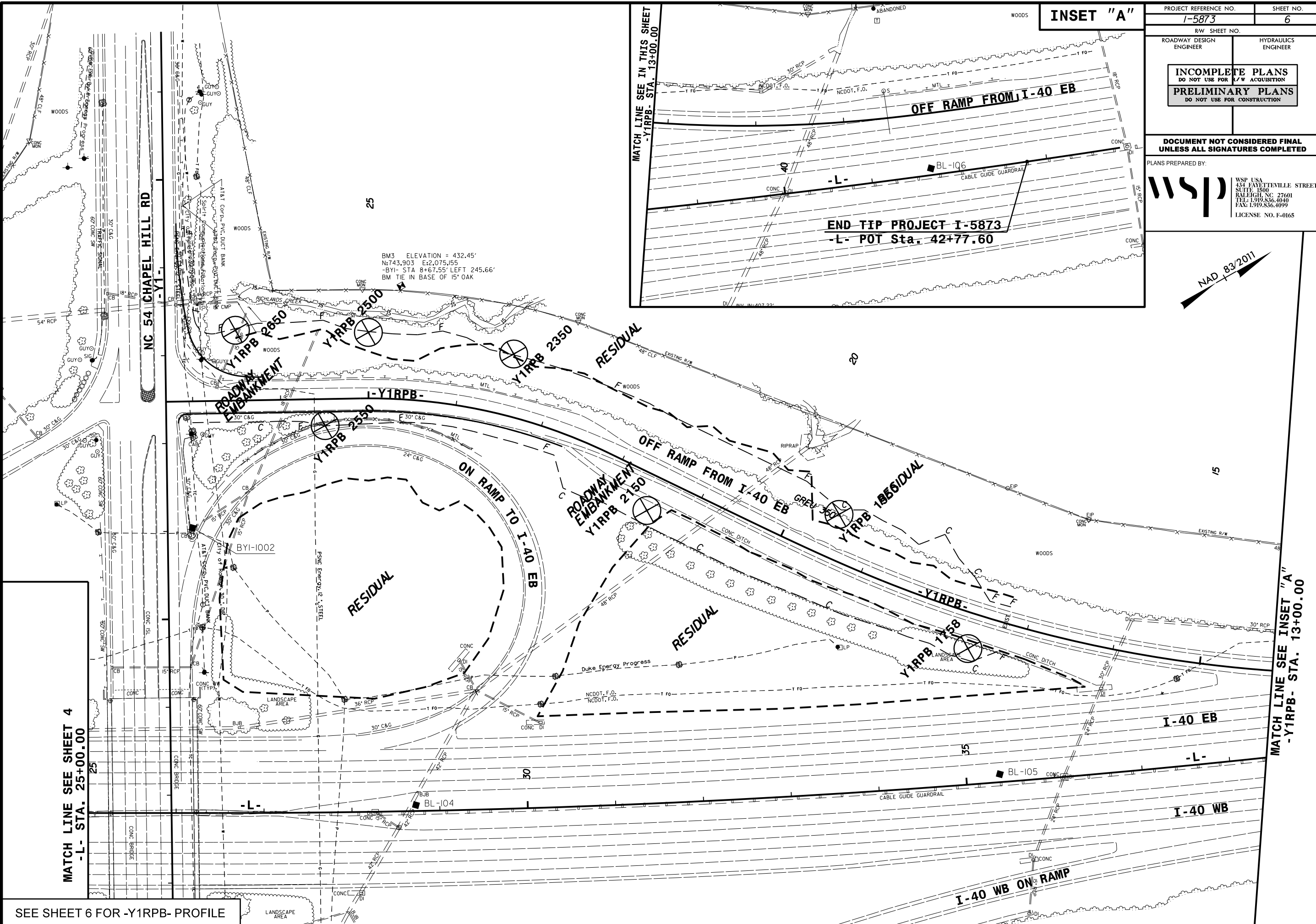
PROJECT REFERENCE NO. <b>1-5873</b>	SHEET NO. <b>5</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PLANS PREPARED BY: 	
WSP USA 434 FAYETTEVILLE STREET RAYLEIGH, NC 27601 TEL: 1.919.836.4040 FAX: 1.919.836.4099 LICENSE NO. F-0165	



BM2 ELEVATION = 450.61'  
 N:743.005 E:2,076.015  
 -BYI- STA 20+43.05' RIGHT 146.10'  
 BM TIE IN BASE OF 12" PINE

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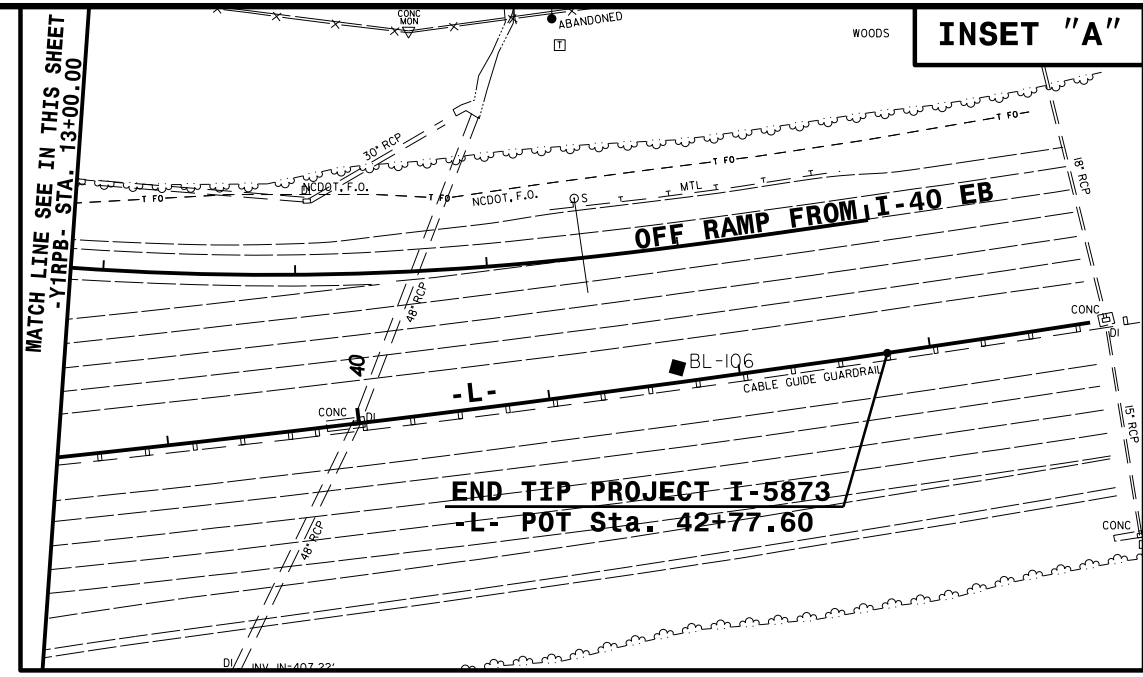
REVISIONS




MATCH LINE SEE SHEET 4  
-L- STA. 25+00.00

SEE SHEET 6 FOR -Y1RPB- PROFILE

MATCH LINE SEE IN THIS SHEET  
-Y1RPB- STA. 13+00.00

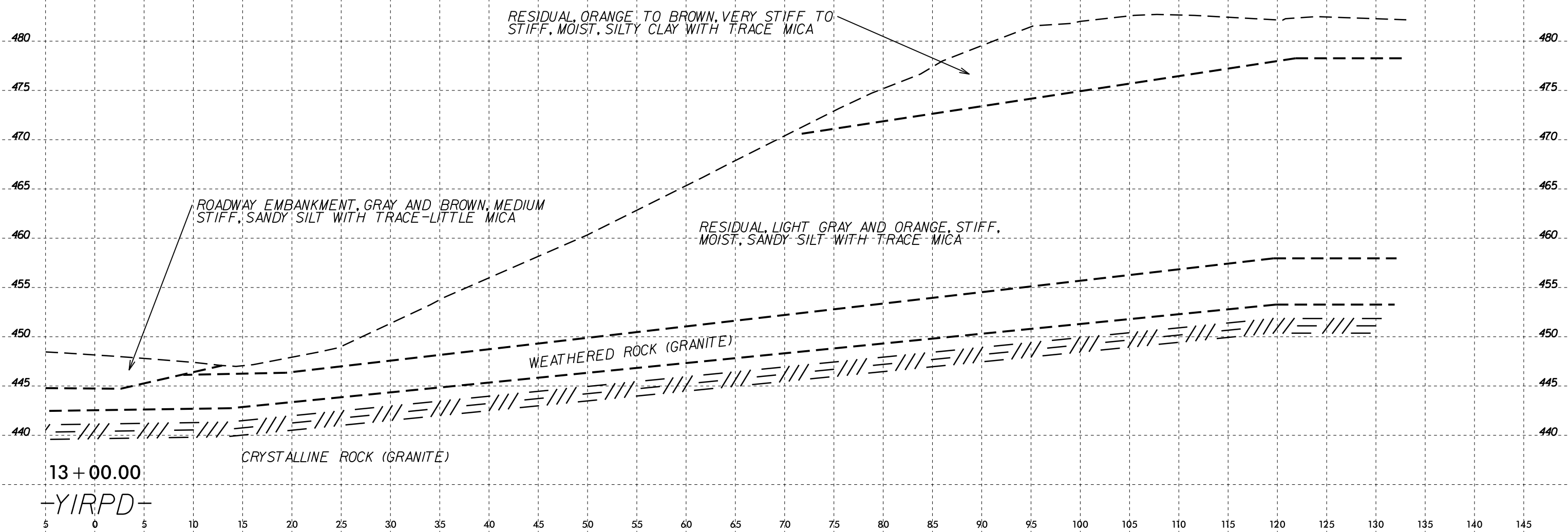


PROJECT REFERENCE NO. <b>1-5873</b>	SHEET NO. <b>6</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PLANS PREPARED BY:	
	
WSP USA 434 FAYETTEVILLE STREET SUITE 1500 RALEIGH, NC 27601 TEL: 1.919.836.4040 FAX: 1.919.836.4099 LICENSE NO. F-0165	



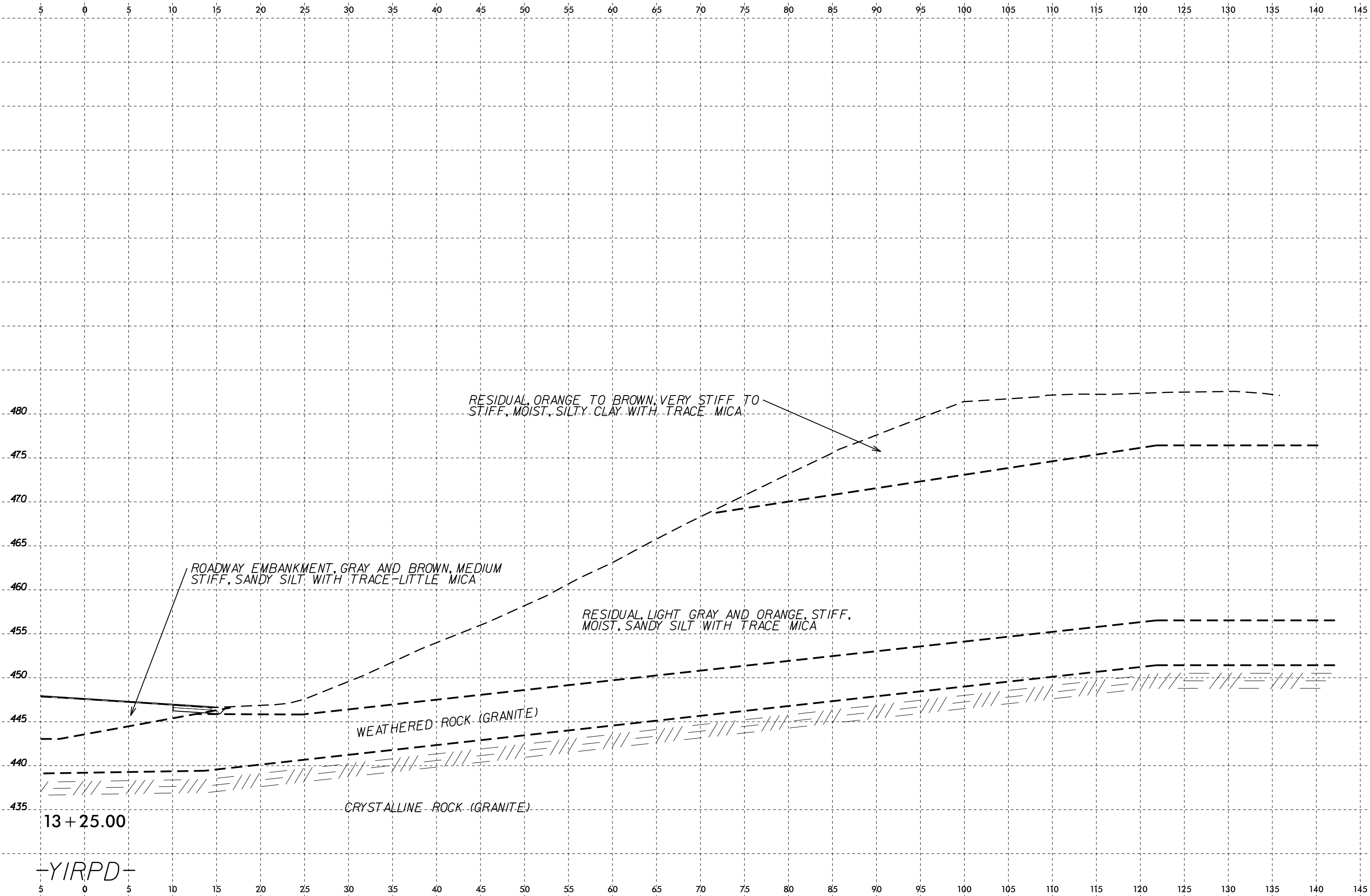
MATCH LINE SEE INSET "A"  
-Y1RPB- STA. 13+00.00

5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145



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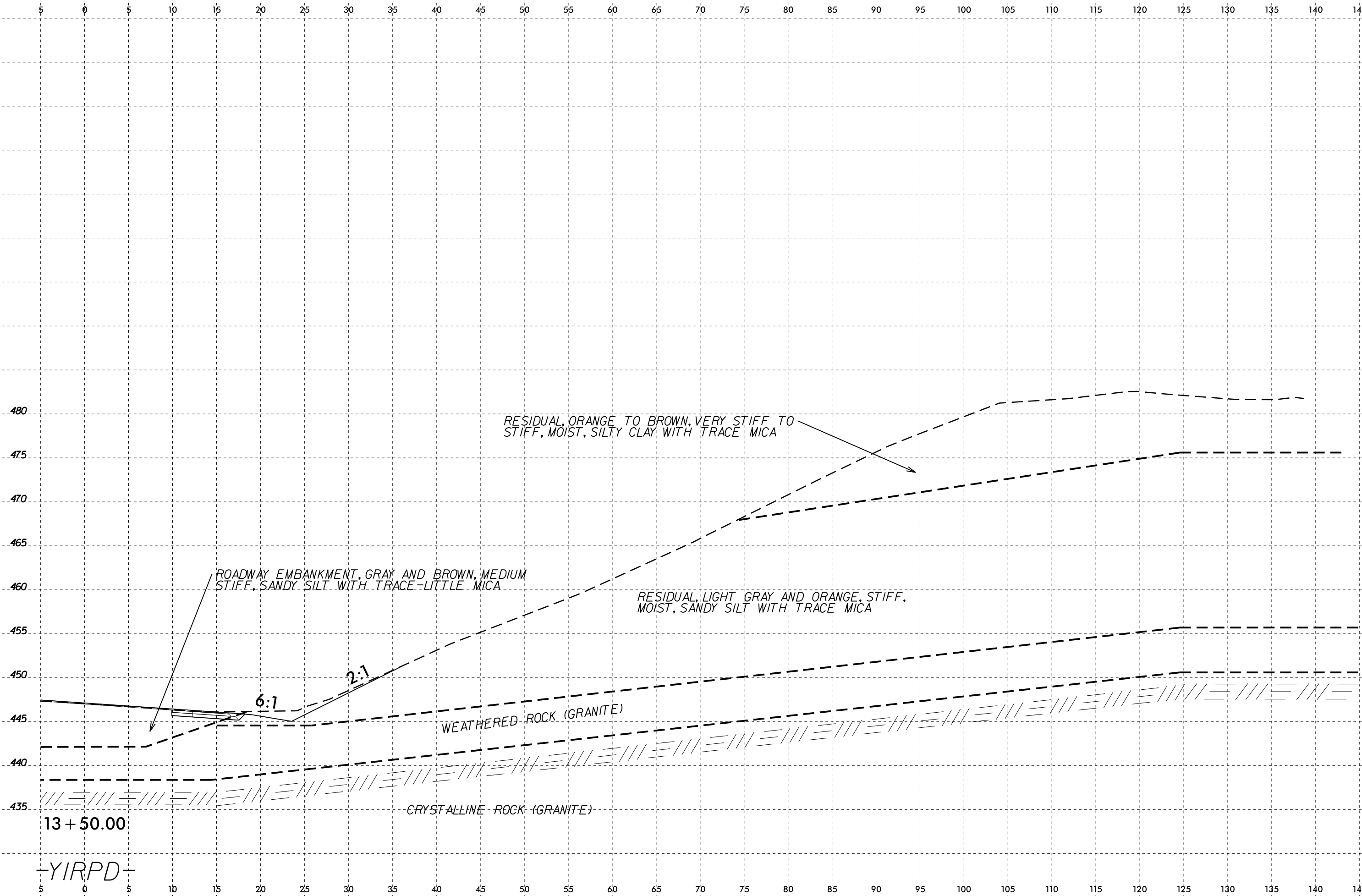


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13 + 25.00

-YIRPD-



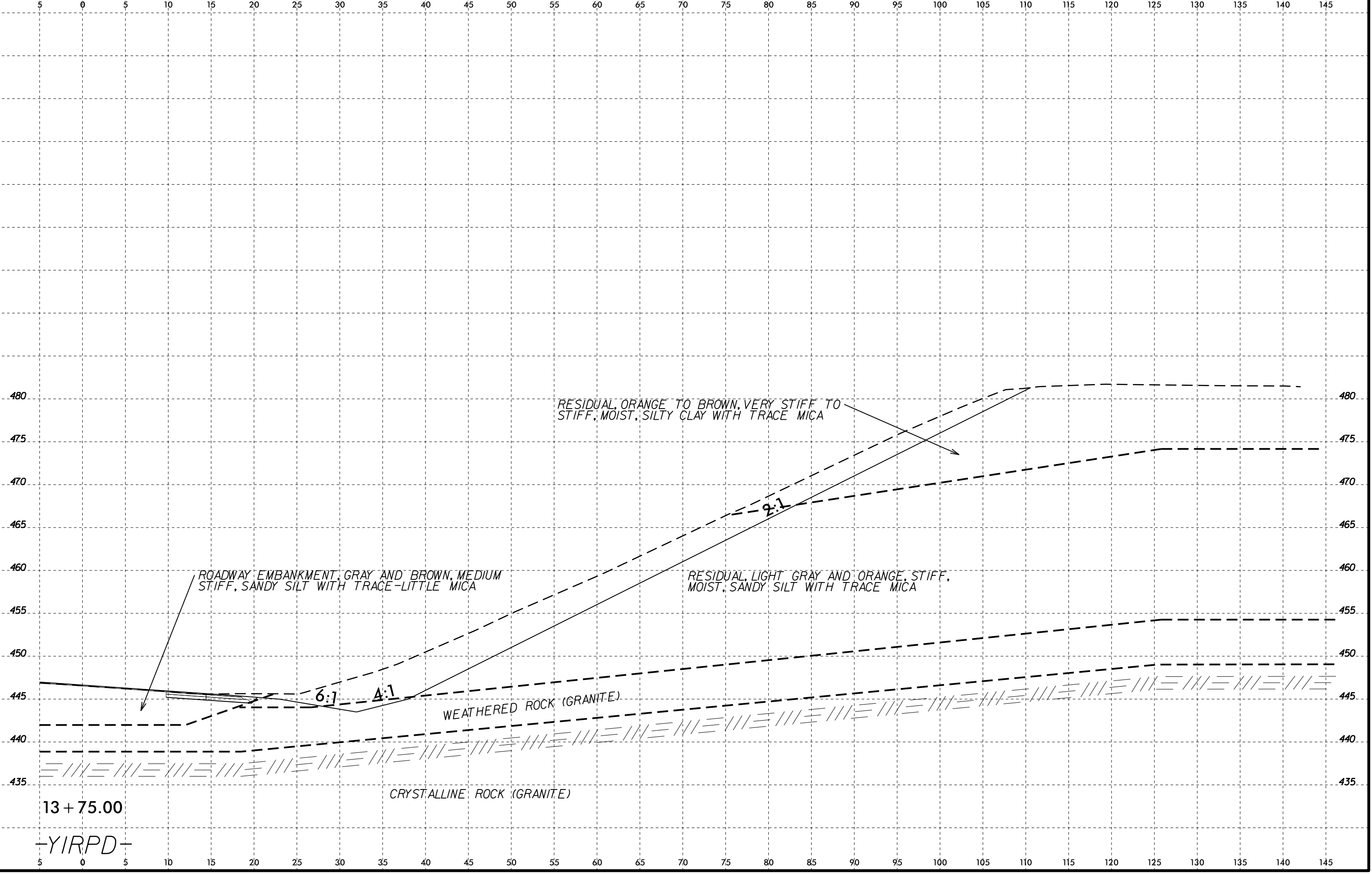


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13 + 50.00

YIRPD

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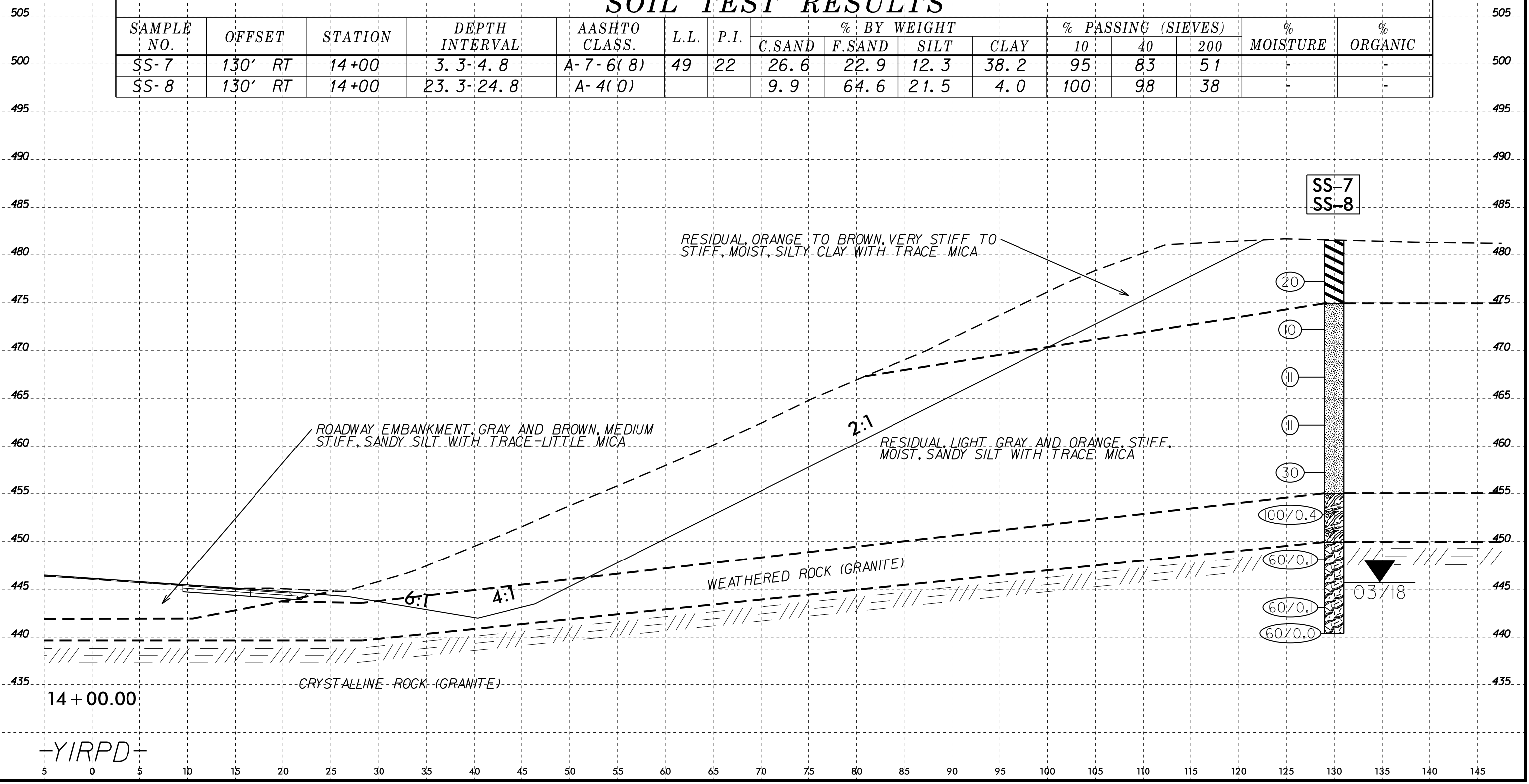


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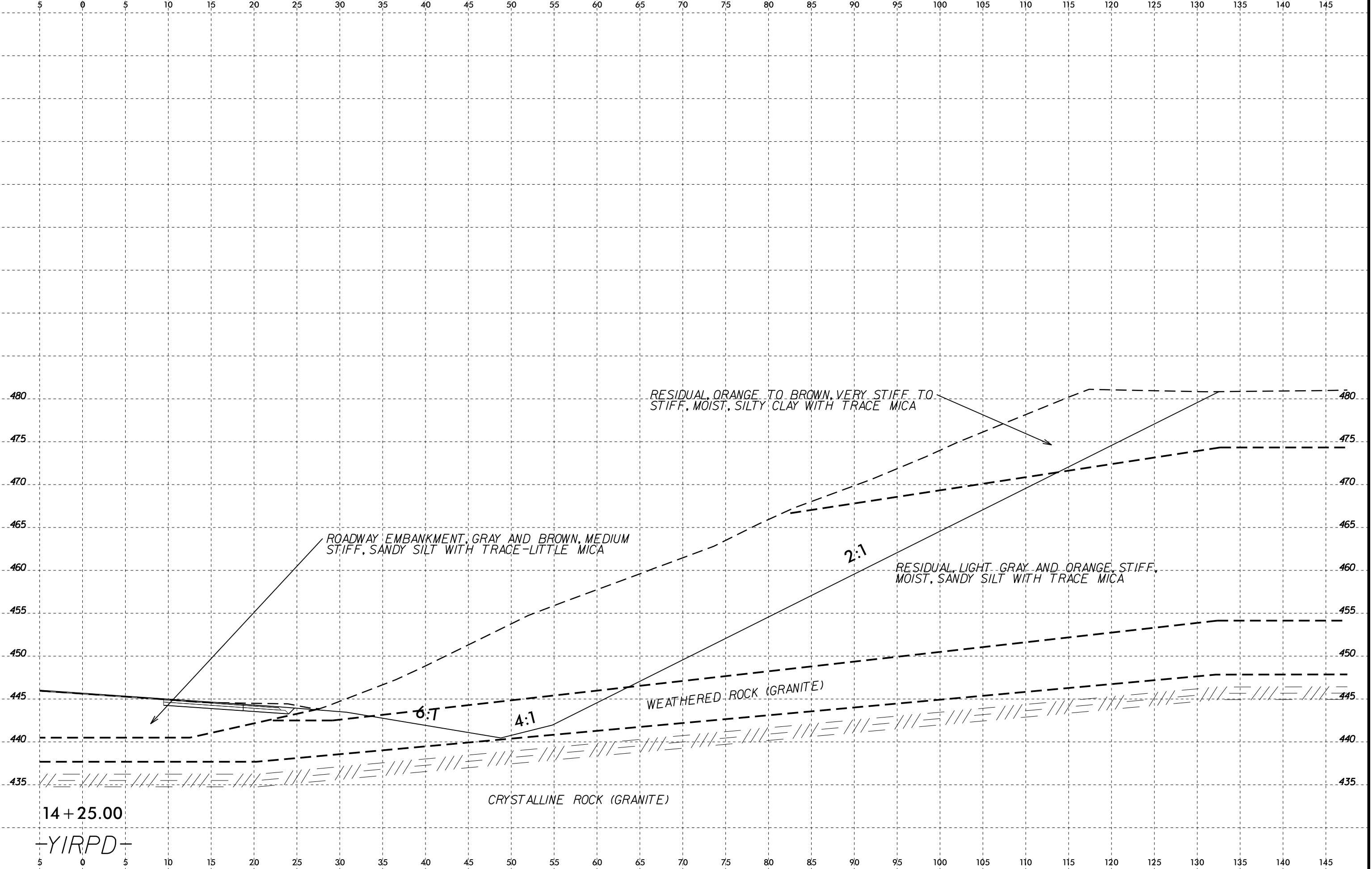
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### SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-7	130' RT	14+00	3.3-4.8	A-7-6(8)	49	22	26.6	22.9	12.3	38.2	95	83	51	-	-
SS-8	130' RT	14+00	23.3-24.8	A-4(0)			9.9	64.6	21.5	4.0	100	98	38	-	-

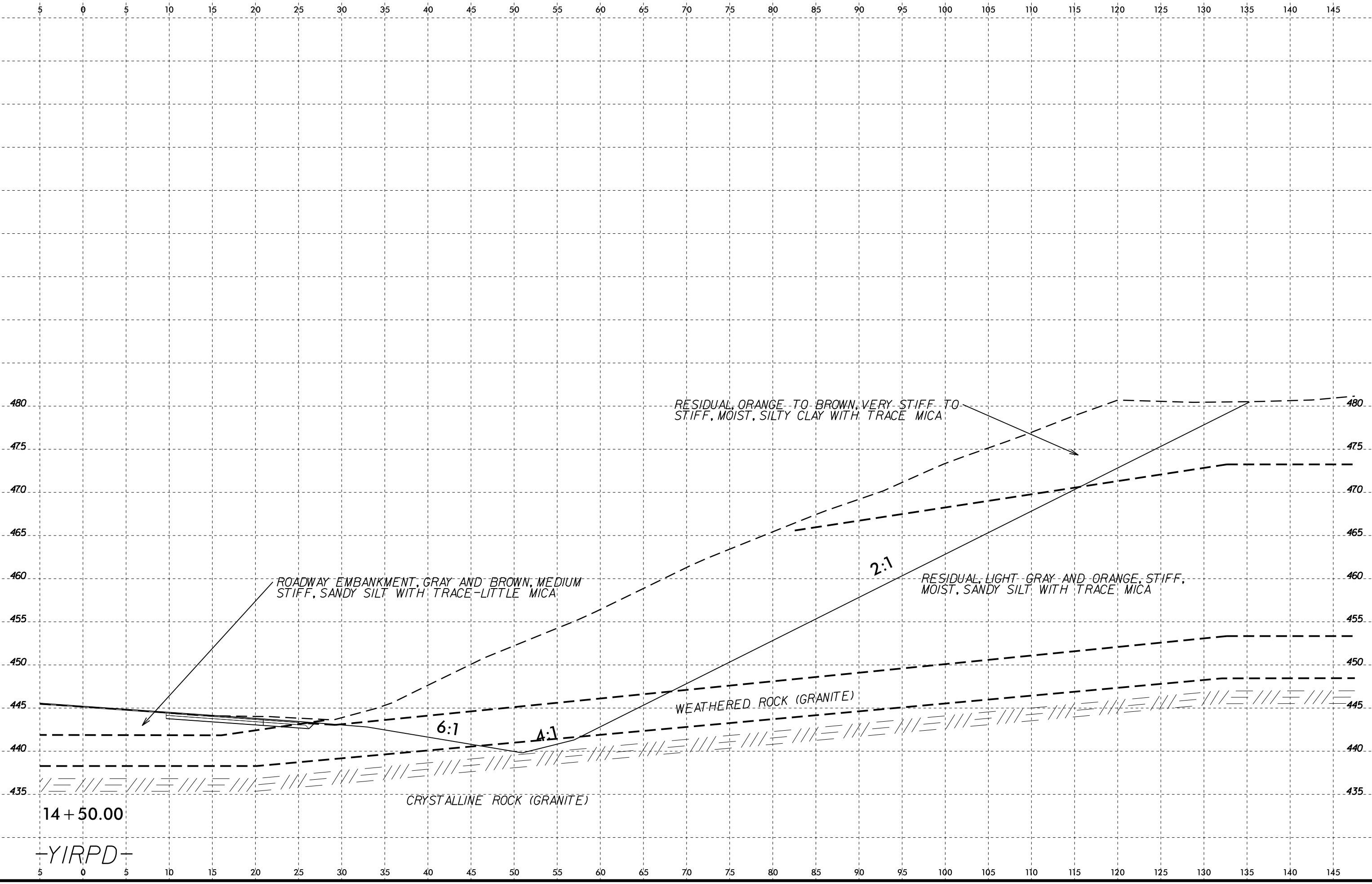


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-YIRPD-

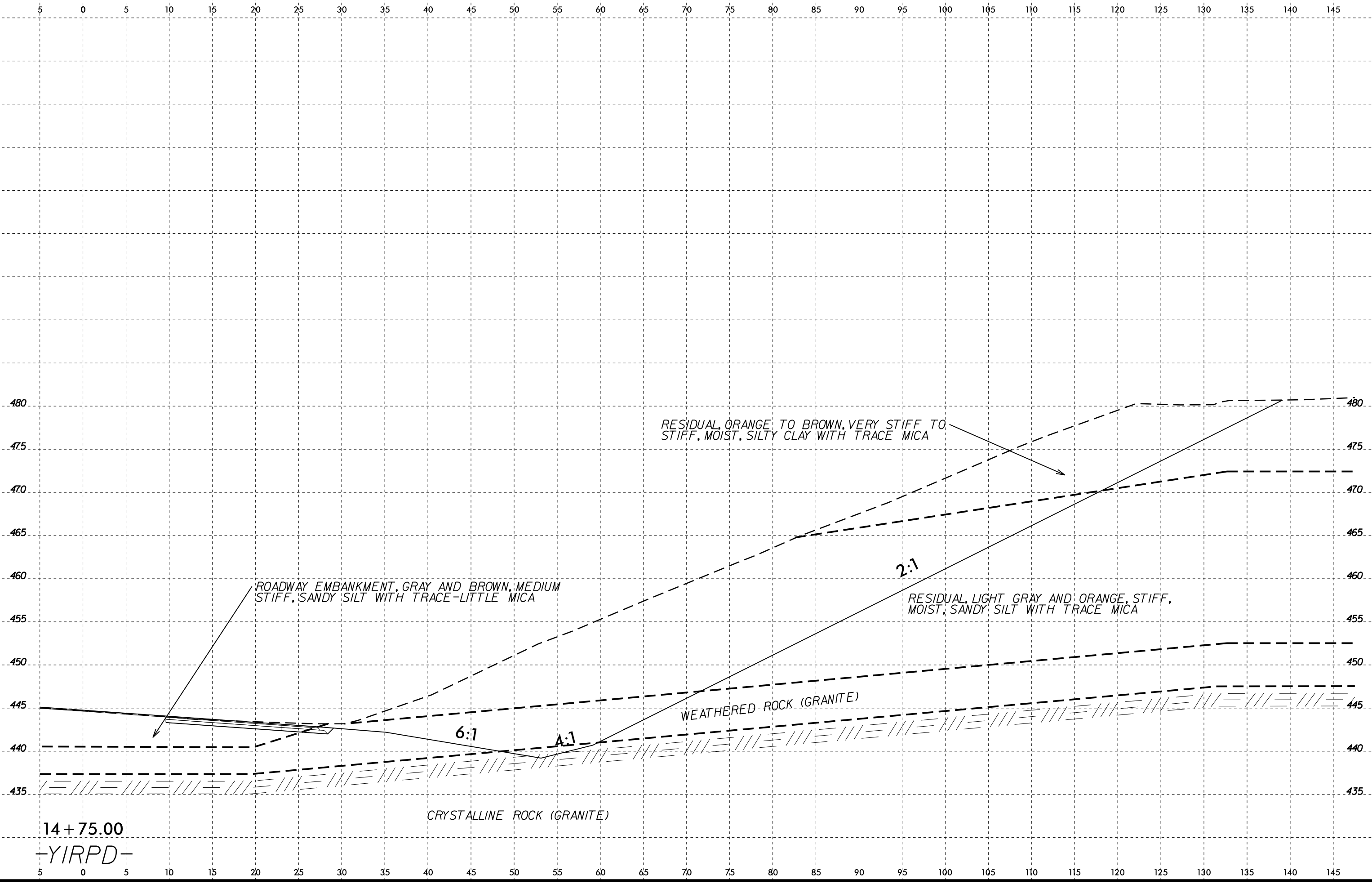
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14 + 50.00  
-YIRPD-

6/23/16



480

475

470

465

460

455

450

445

440

435

5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145

ROADWAY EMBANKMENT, GRAY AND BROWN, MEDIUM STIFF, SANDY SILT WITH TRACE-LITTLE MICA

RESIDUAL, ORANGE TO BROWN, VERY STIFF TO STIFF, MOIST, SILTY CLAY WITH TRACE MICA

RESIDUAL, LIGHT GRAY AND ORANGE, STIFF, MOIST, SANDY SILT WITH TRACE MICA

WEATHERED ROCK (GRANITE)

CRYSTALLINE ROCK (GRANITE)

6:1

4:1

2:1

14+75.00

YIRPD

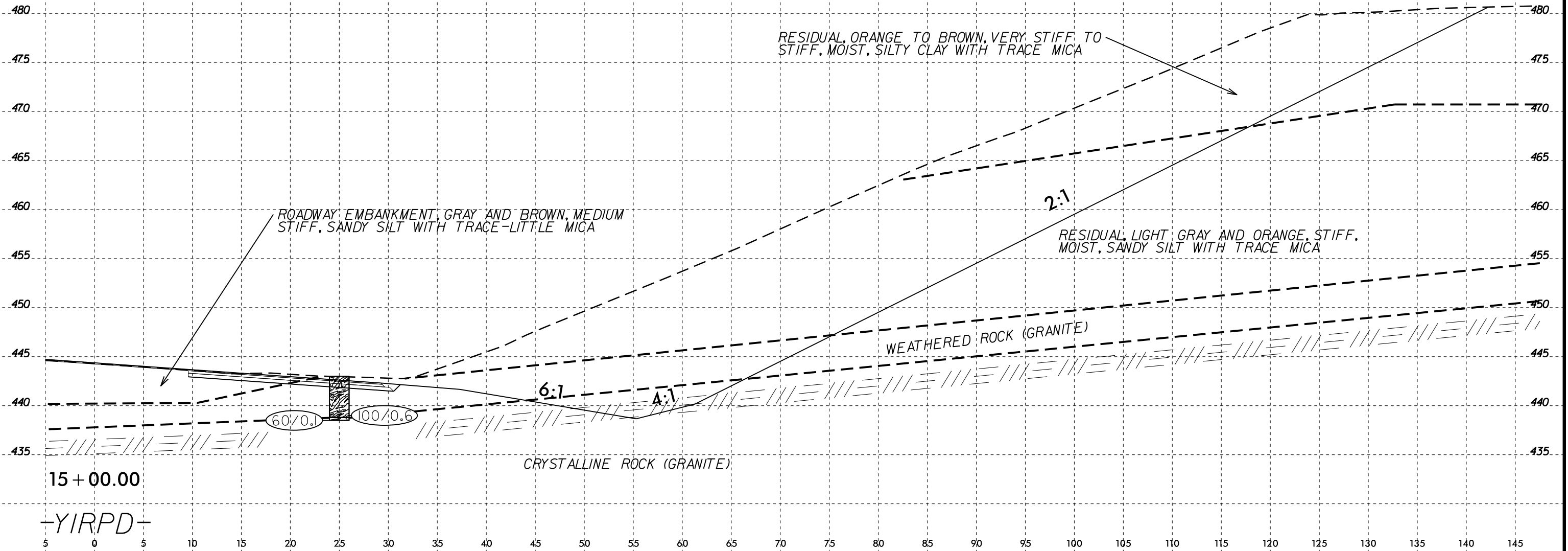
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PROJ. REFERENCE NO.	SHEET NO.
-5873	15

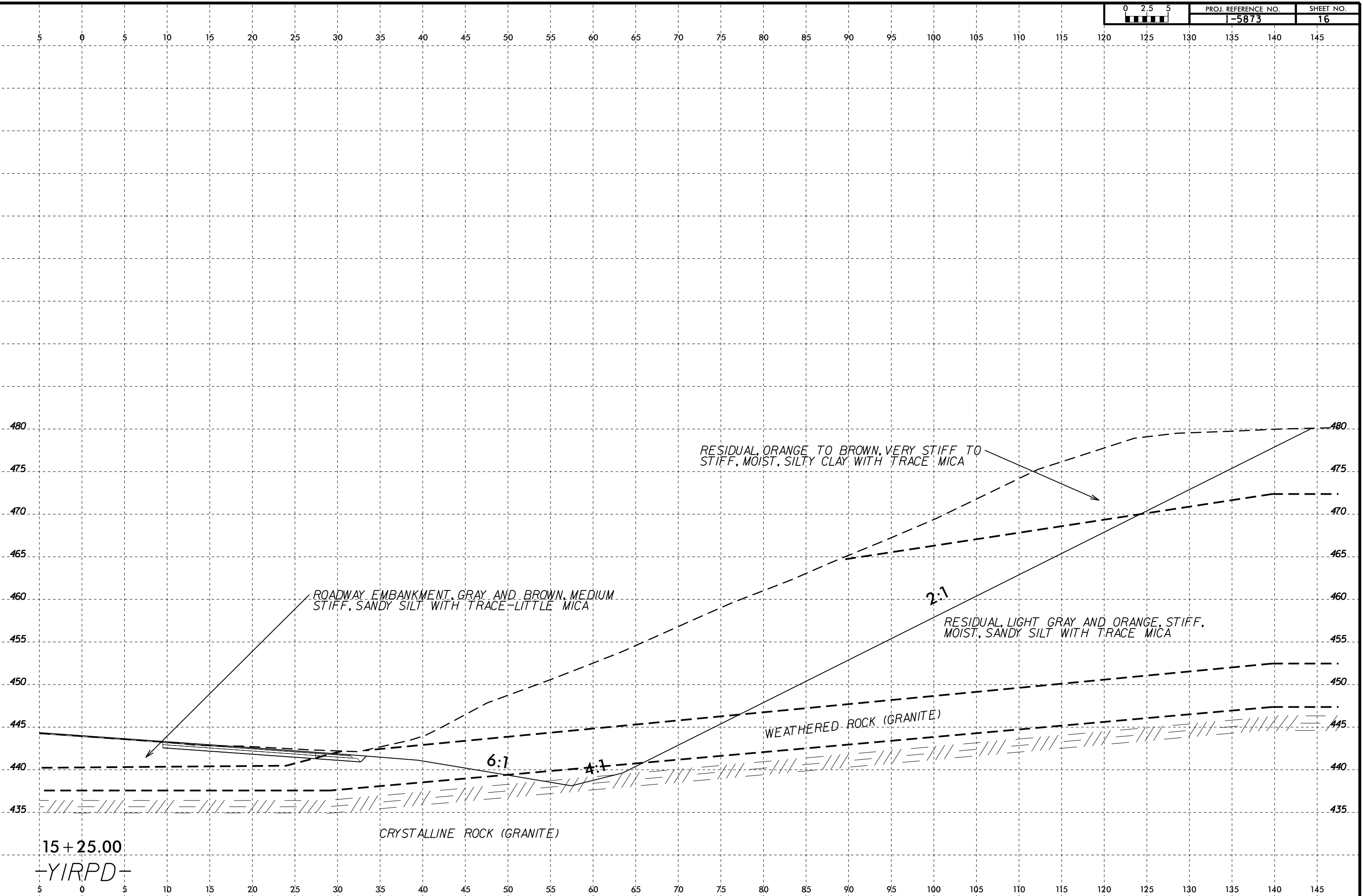
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15+25.00  
-YIRPD-

ROADWAY EMBANKMENT, GRAY AND BROWN, MEDIUM STIFF, SANDY SILT WITH TRACE-LITTLE MICA

RESIDUAL, ORANGE TO BROWN, VERY STIFF TO STIFF, MOIST, SILTY CLAY WITH TRACE MICA

RESIDUAL, LIGHT GRAY AND ORANGE, STIFF, MOIST, SANDY SILT WITH TRACE MICA

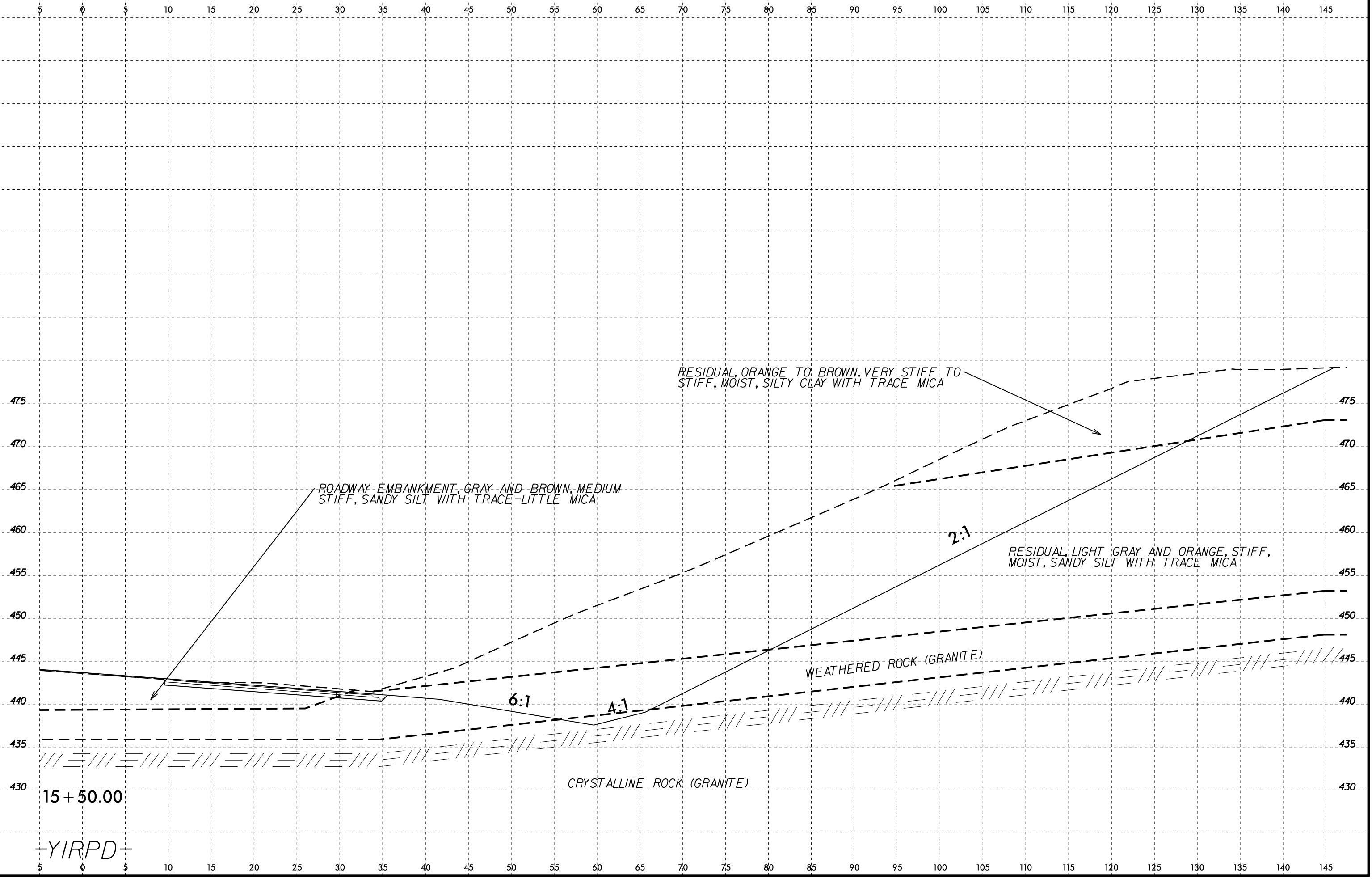
WEATHERED ROCK (GRANITE)

CRYSTALLINE ROCK (GRANITE)

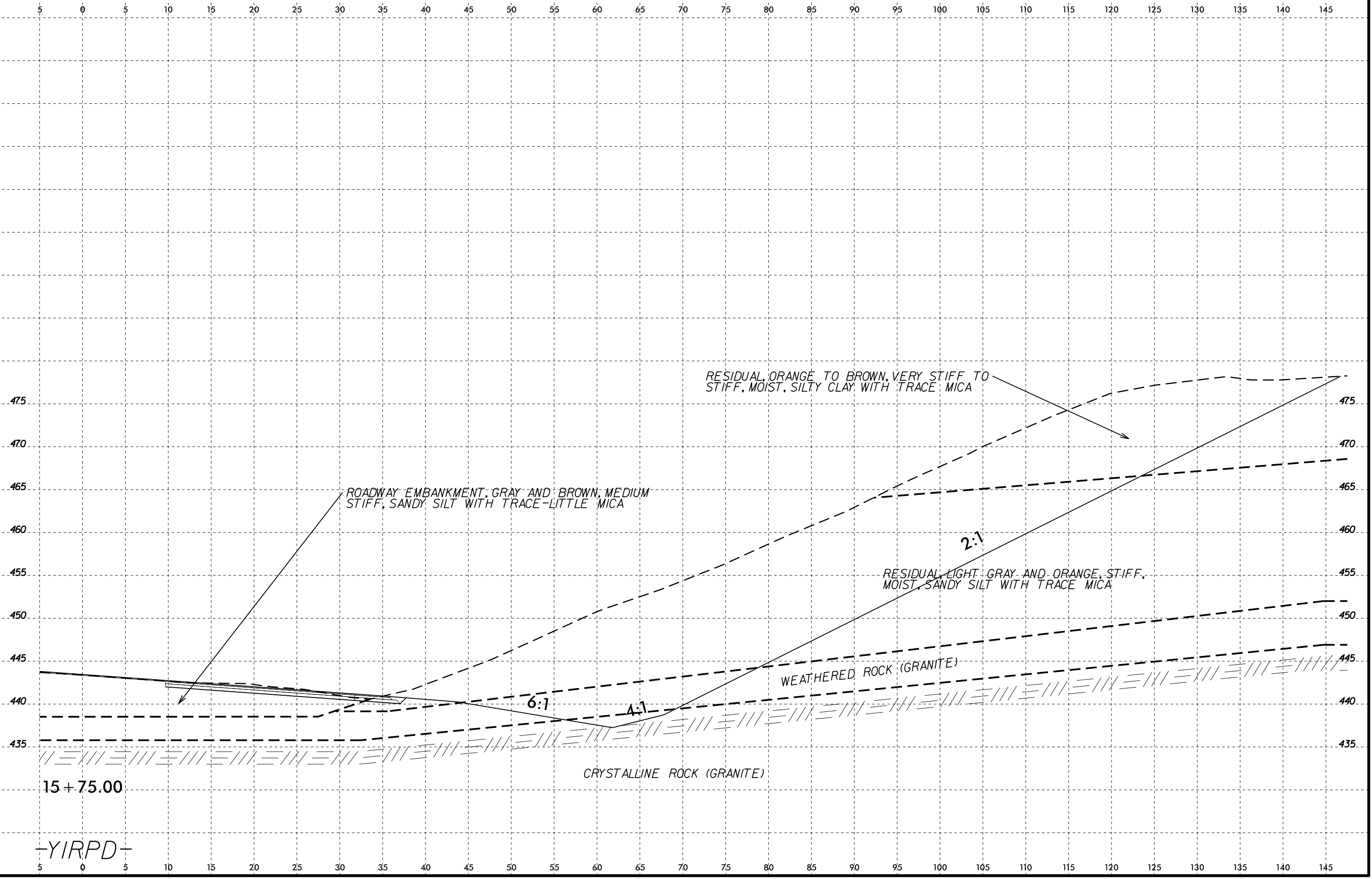
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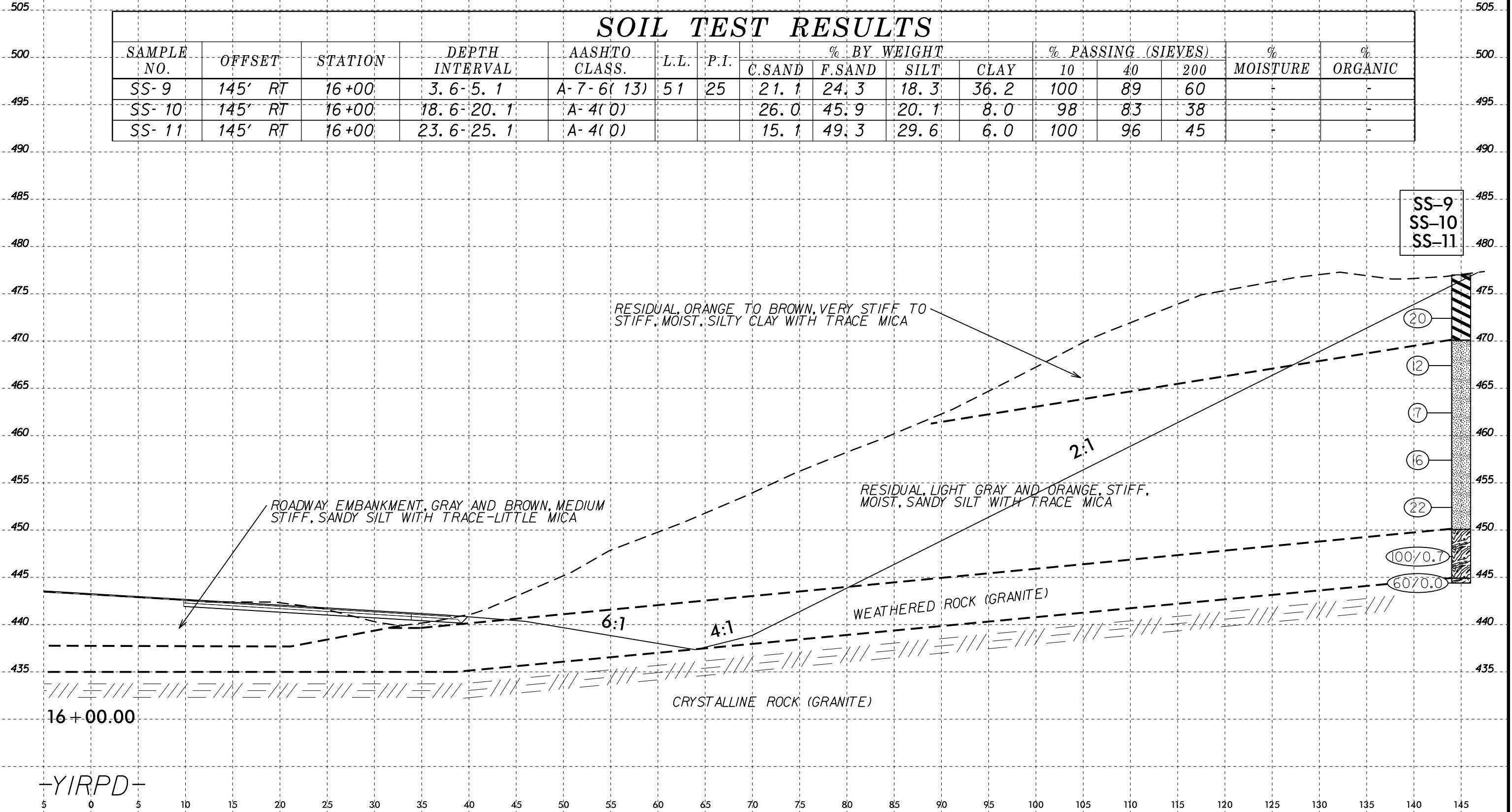


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 \$\$\$SUBPLOTNAME\$\$\$

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### SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-9	145' RT	16+00	3.6-5.1	A-7-6(13)	51	25	21.1	24.3	18.3	36.2	100	89	60	-	-
SS-10	145' RT	16+00	18.6-20.1	A-4(0)			26.0	45.9	20.1	8.0	98	83	38	-	-
SS-11	145' RT	16+00	23.6-25.1	A-4(0)			15.1	49.3	29.6	6.0	100	96	45	-	-

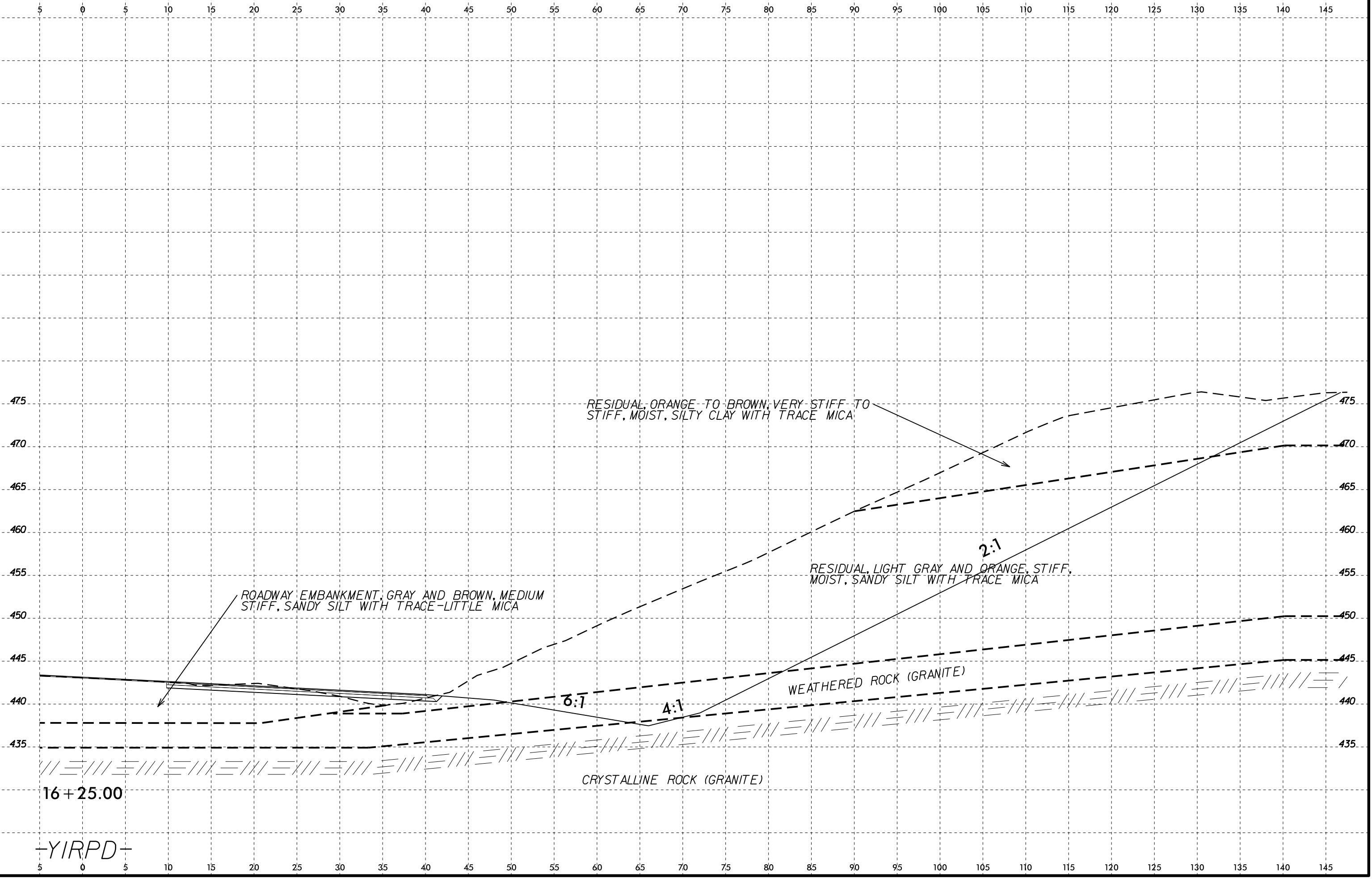


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16+00.00

YIRPD

6/23/16



RESIDUAL, ORANGE TO BROWN, VERY STIFF TO STIFF, MOIST, SILTY CLAY WITH TRACE MICA

RESIDUAL, LIGHT GRAY AND ORANGE, STIFF, MOIST, SANDY SILT WITH TRACE MICA

ROADWAY EMBANKMENT, GRAY AND BROWN, MEDIUM STIFF, SANDY SILT WITH TRACE-LITTLE MICA

WEATHERED ROCK (GRANITE)

CRYSTALLINE ROCK (GRANITE)

6:1

4:1

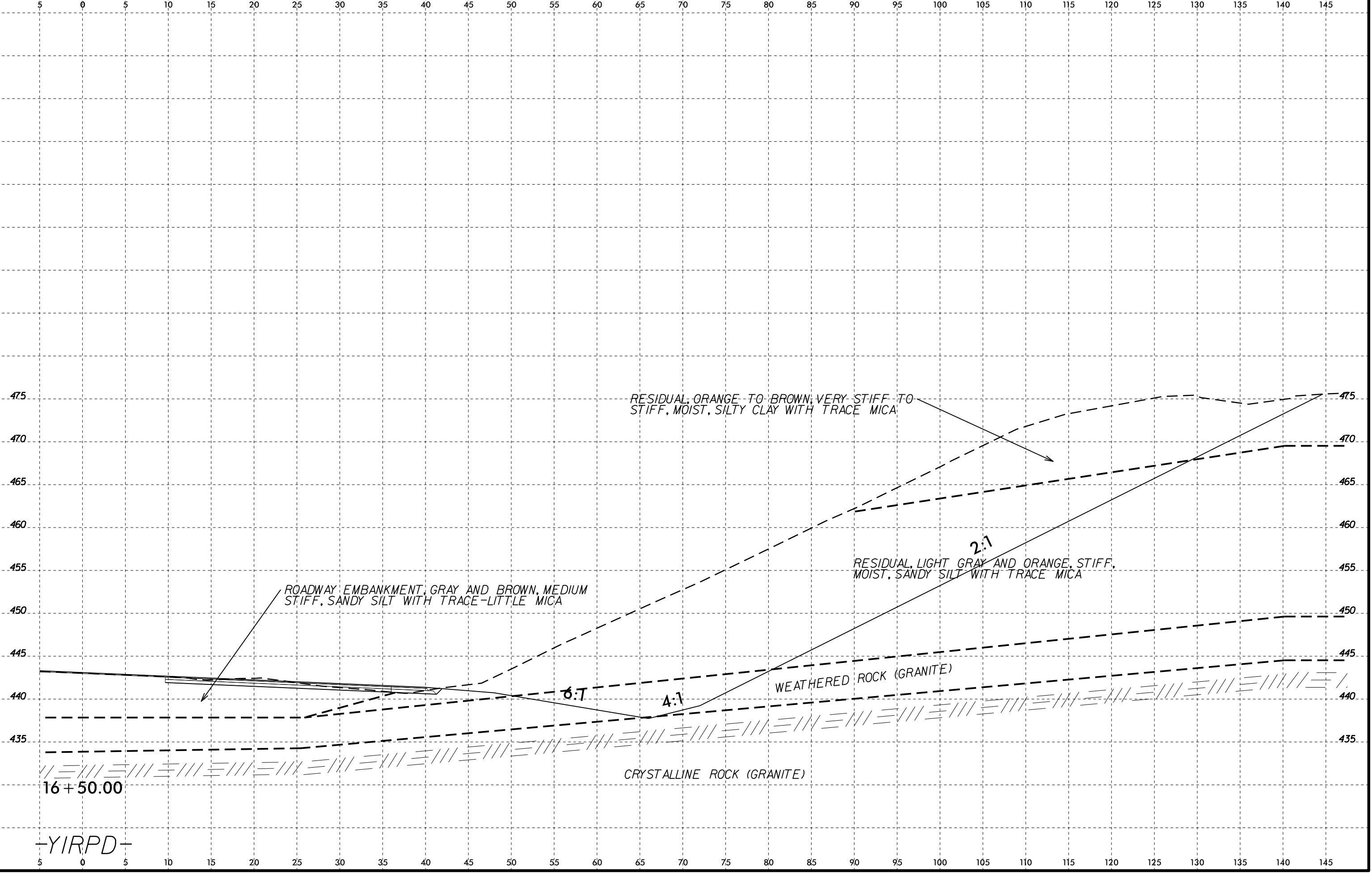
2:1

16+25.00

YIRPD

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\$\$\$FERRARI\$\$\$



RESIDUAL, ORANGE TO BROWN, VERY STIFF TO STIFF, MOIST, SILTY CLAY WITH TRACE MICA

RESIDUAL, LIGHT GRAY AND ORANGE, STIFF, MOIST, SANDY SILT WITH TRACE MICA

ROADWAY EMBANKMENT, GRAY AND BROWN, MEDIUM STIFF, SANDY SILT WITH TRACE-LITTLE MICA

WEATHERED ROCK (GRANITE)

CRYSTALLINE ROCK (GRANITE)

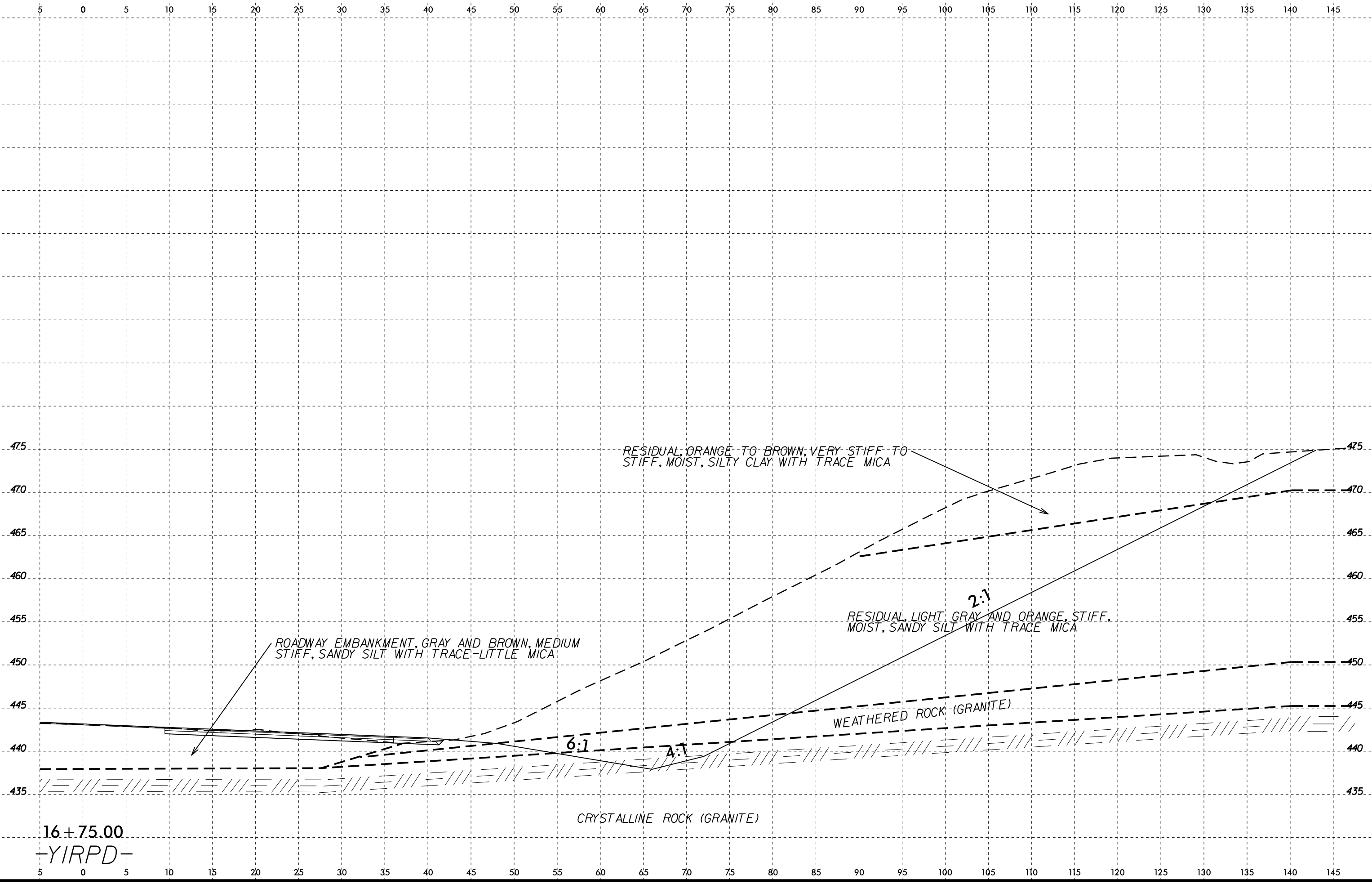
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4:1

2:1

16+50.00

YIRPD



RESIDUAL, ORANGE TO BROWN, VERY STIFF TO STIFF, MOIST, SILTY CLAY WITH TRACE MICA

ROADWAY EMBANKMENT, GRAY AND BROWN, MEDIUM STIFF, SANDY SILT WITH TRACE-LITTLE MICA

RESIDUAL, LIGHT GRAY AND ORANGE, STIFF, MOIST, SANDY SILT WITH TRACE MICA

WEATHERED ROCK (GRANITE)

CRYSTALLINE ROCK (GRANITE)

6:1

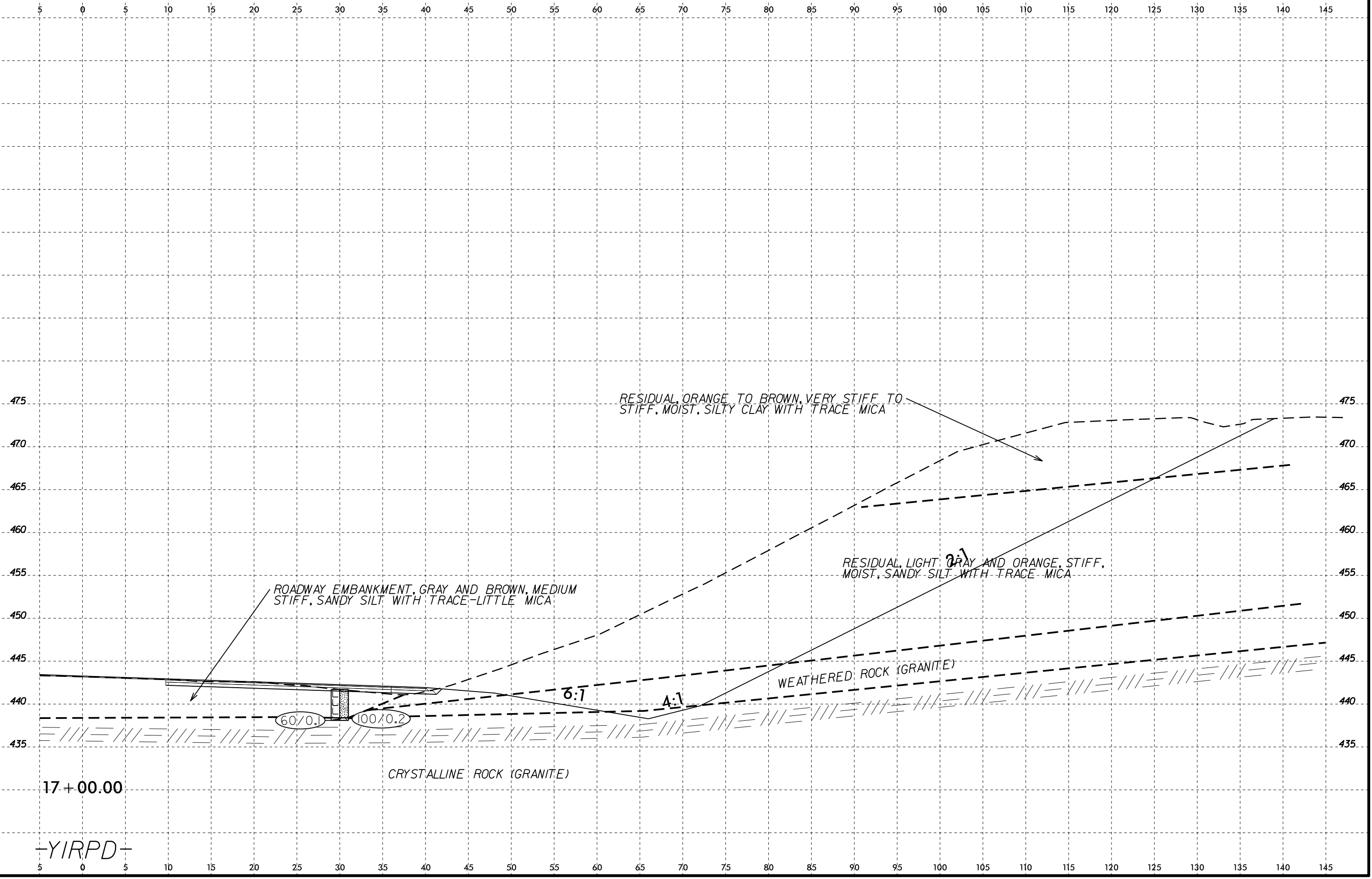
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-YIRPD-

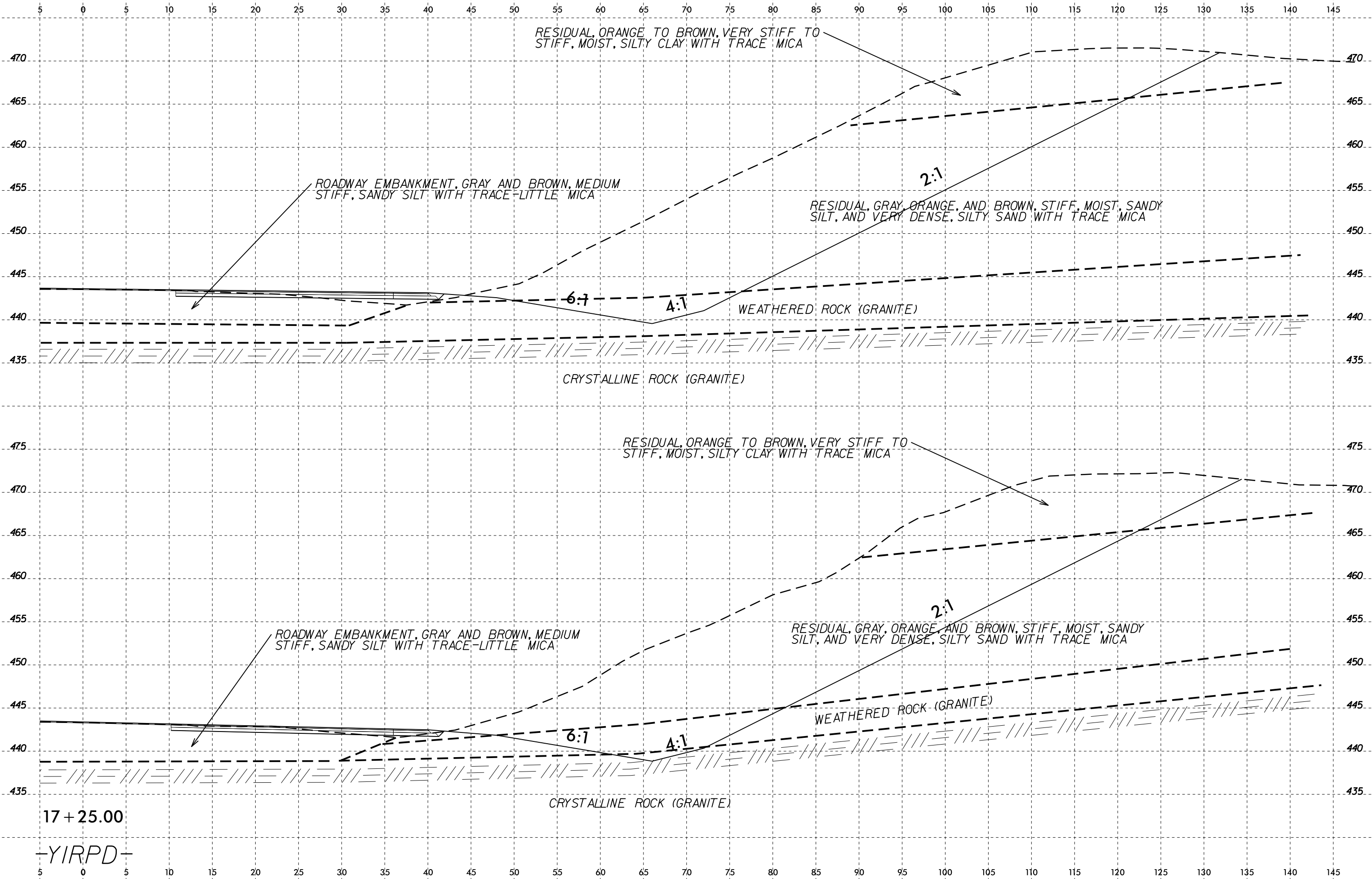


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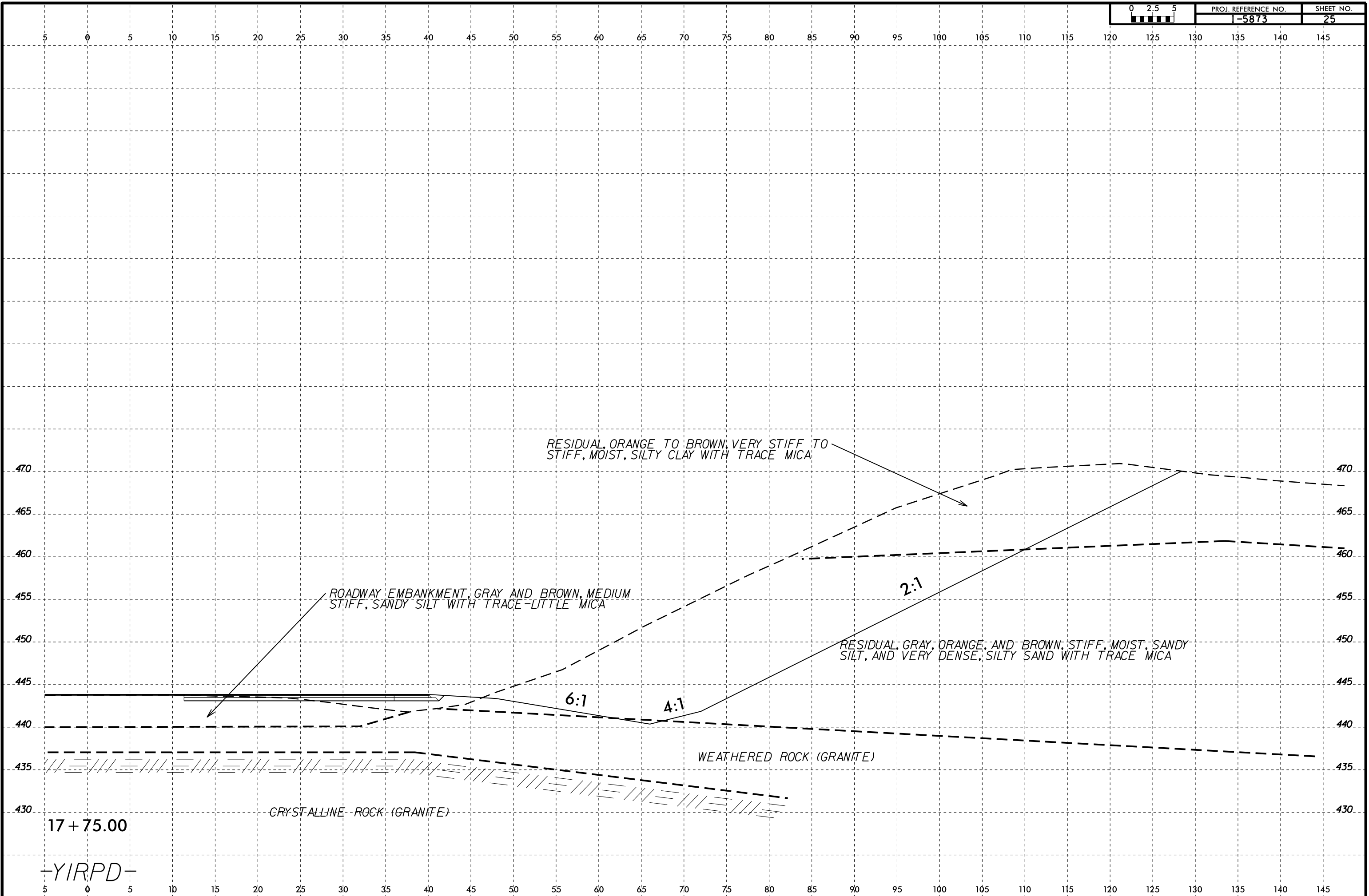
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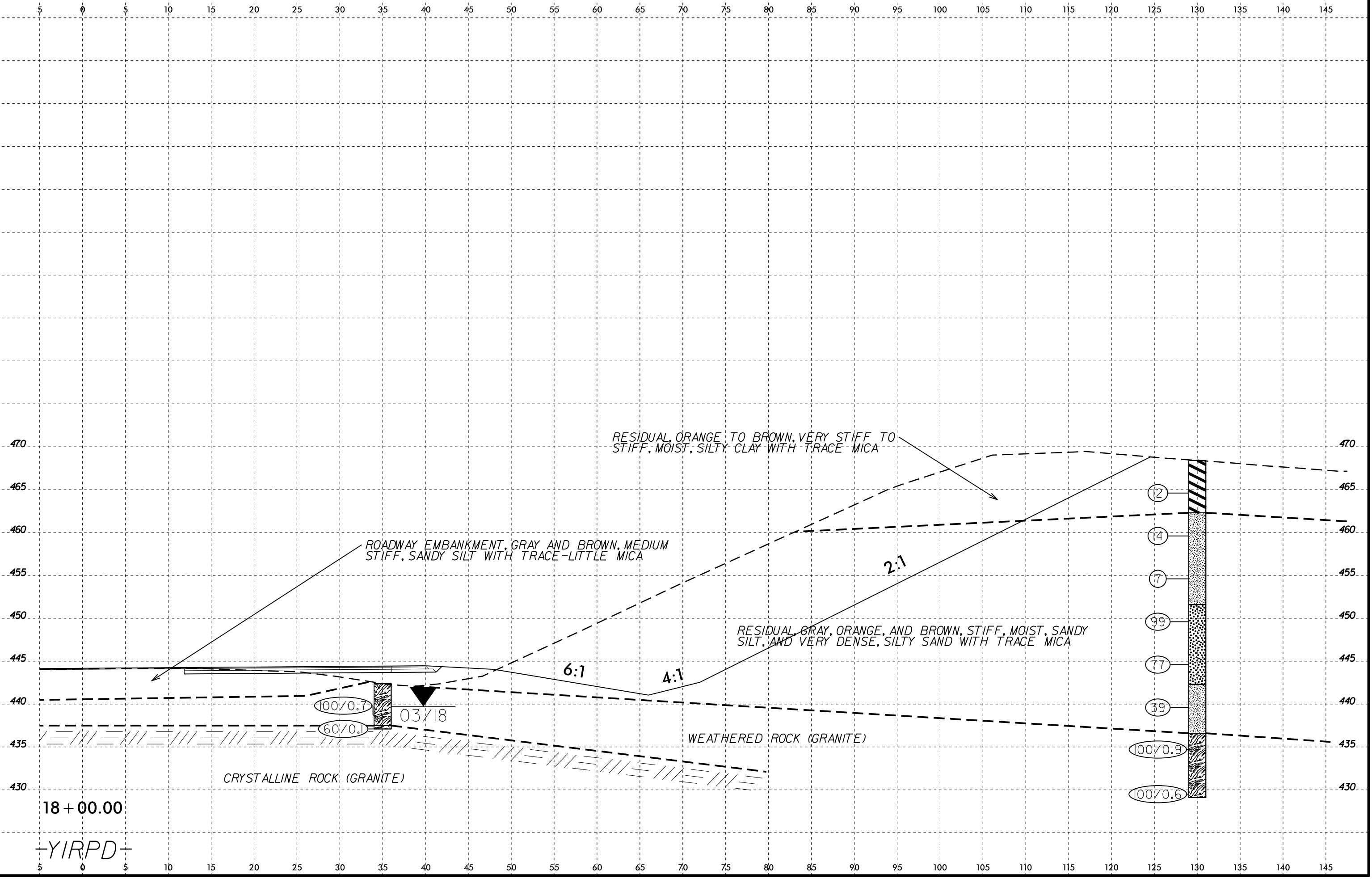
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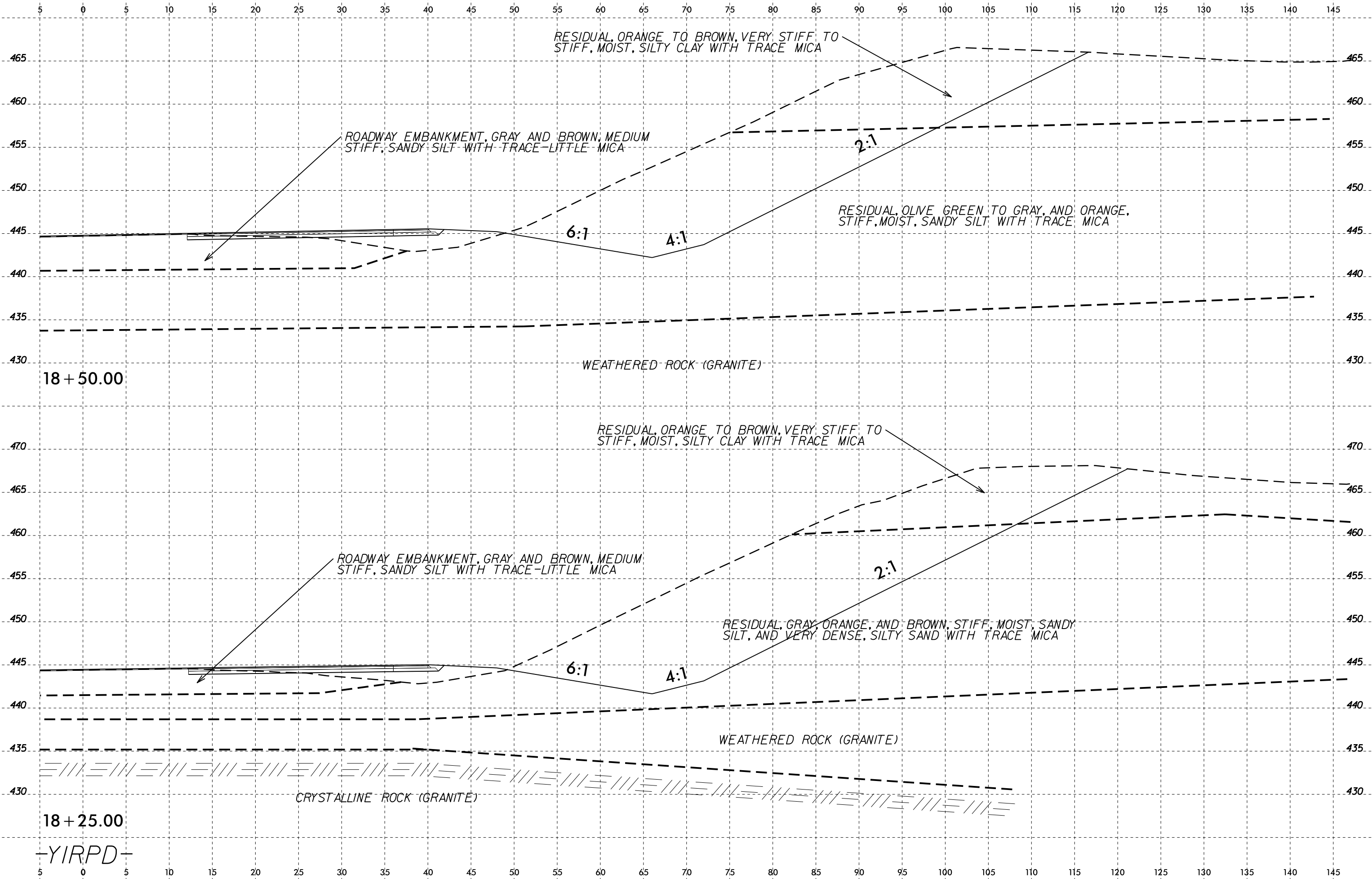
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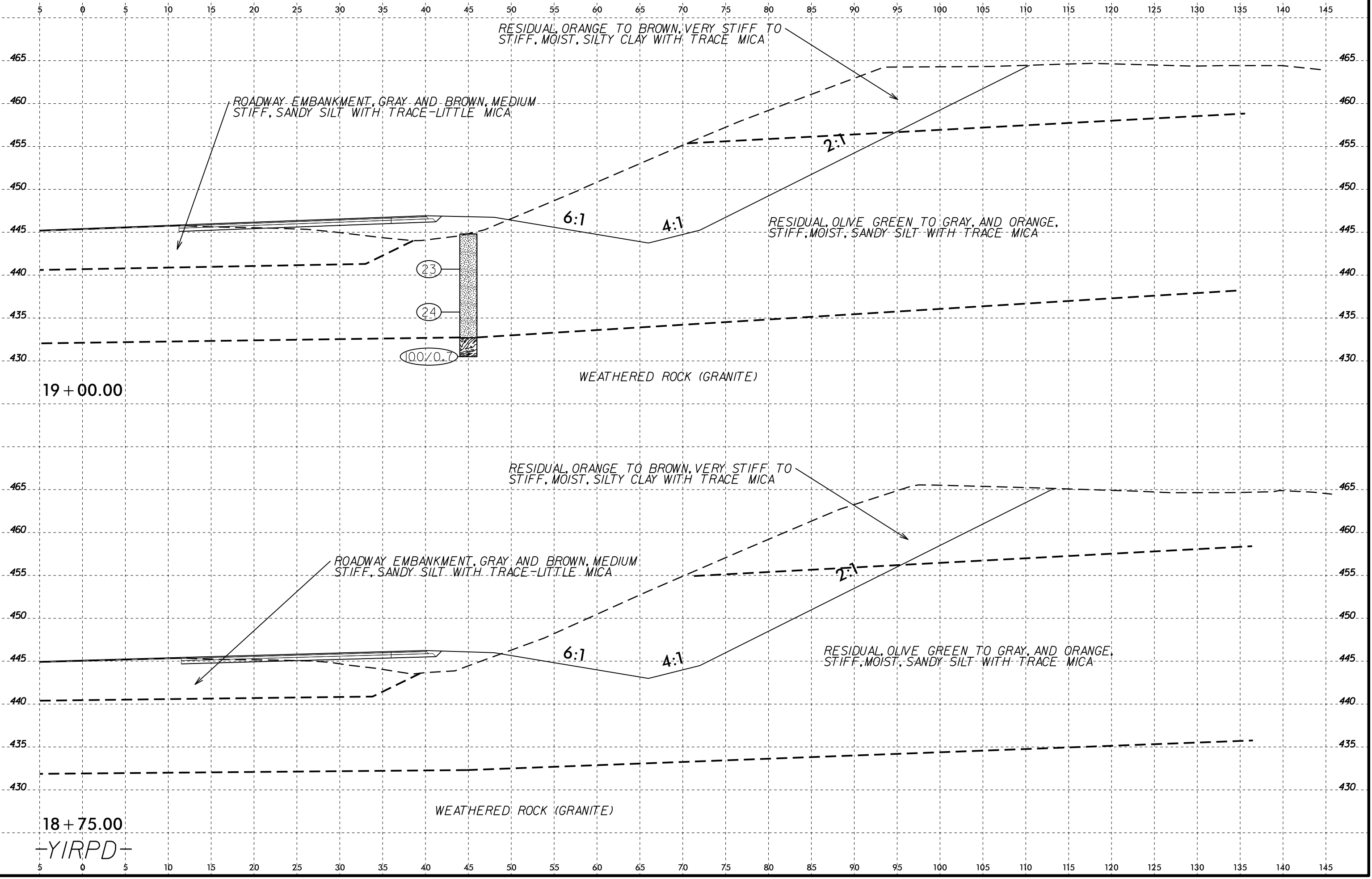
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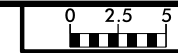
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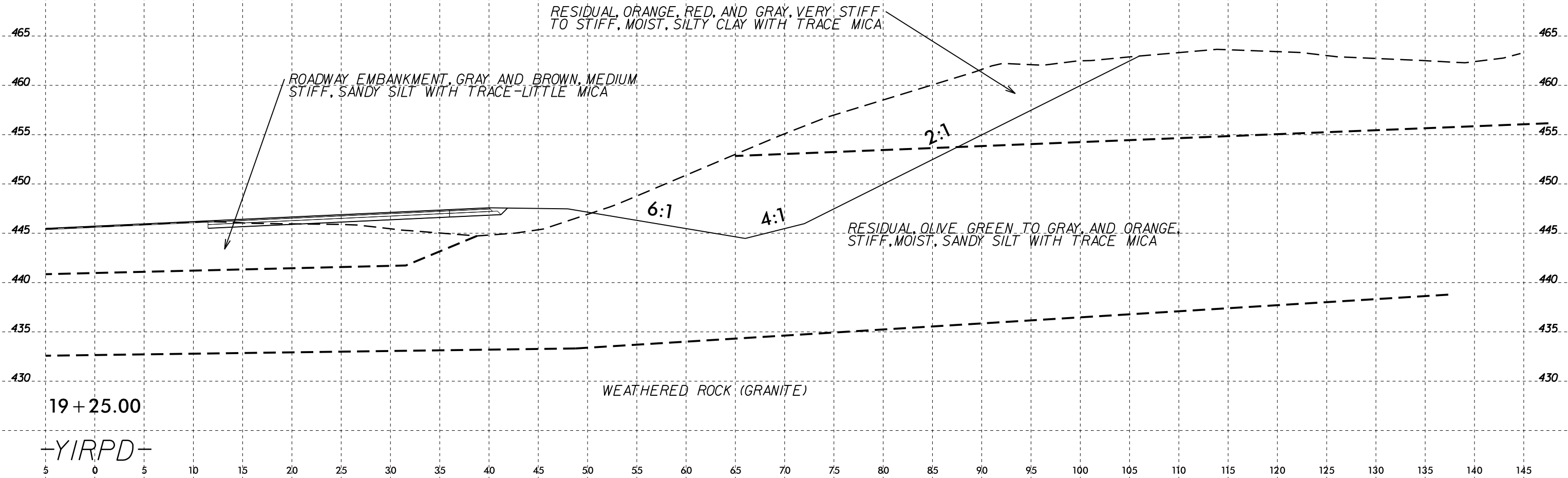
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6/23/16



PROJ. REFERENCE NO.	SHEET NO.
-5873	29

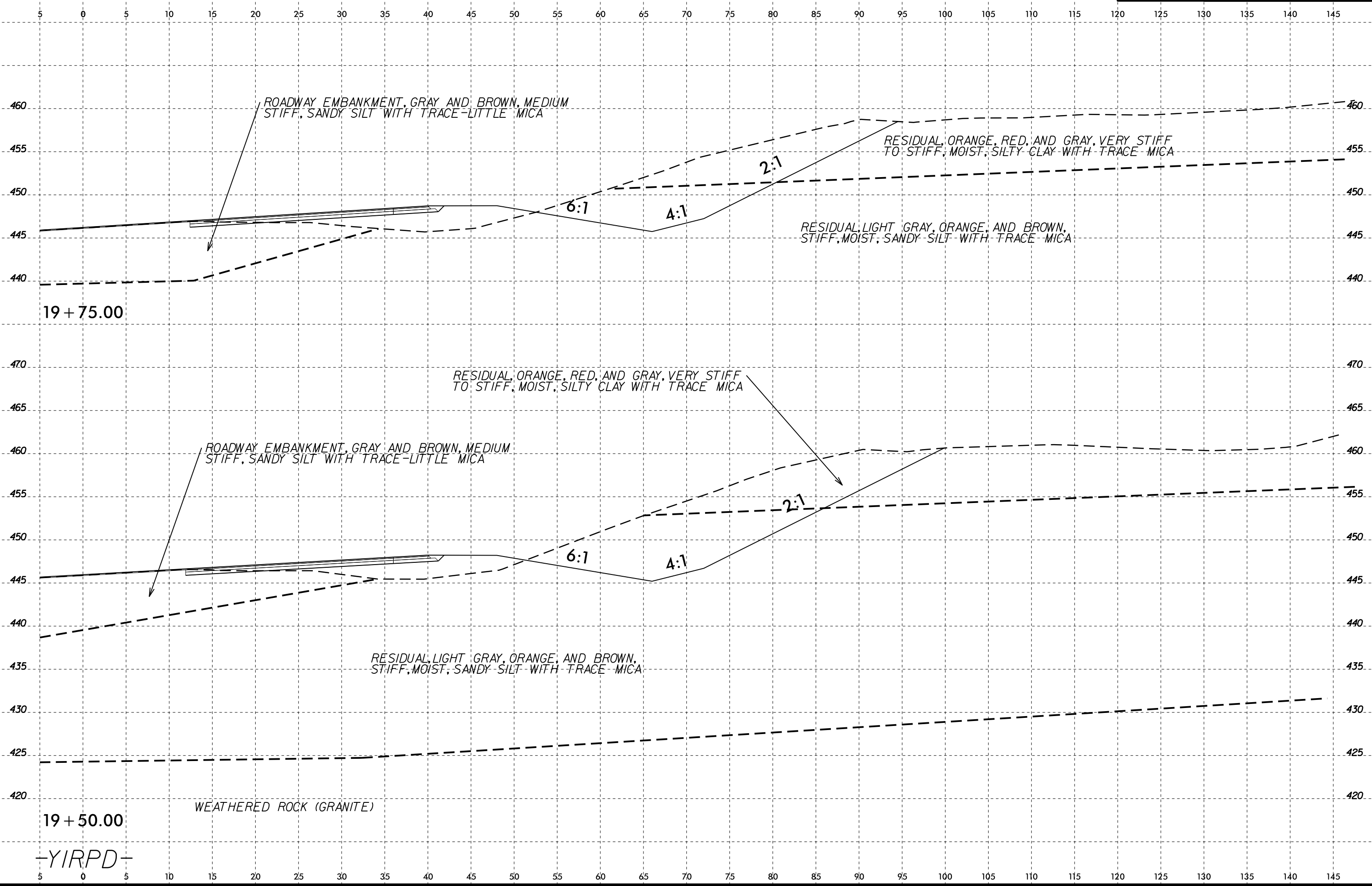
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 \$\$\$SUBERRAME\$\$\$



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19+75.00

19+50.00

YIRPD

WEATHERED ROCK (GRANITE)

ROADWAY EMBANKMENT, GRAY AND BROWN, MEDIUM STIFF, SANDY SILT WITH TRACE LITTLE MICA

ROADWAY EMBANKMENT, GRAY AND BROWN, MEDIUM STIFF, SANDY SILT WITH TRACE LITTLE MICA

RESIDUAL, ORANGE, RED, AND GRAY, VERY STIFF TO STIFF, MOIST, SILTY CLAY WITH TRACE MICA

RESIDUAL, LIGHT GRAY, ORANGE, AND BROWN, STIFF, MOIST, SANDY SILT WITH TRACE MICA

RESIDUAL, ORANGE, RED, AND GRAY, VERY STIFF TO STIFF, MOIST, SILTY CLAY WITH TRACE MICA

RESIDUAL, LIGHT GRAY, ORANGE, AND BROWN, STIFF, MOIST, SANDY SILT WITH TRACE MICA

6:1

4:1

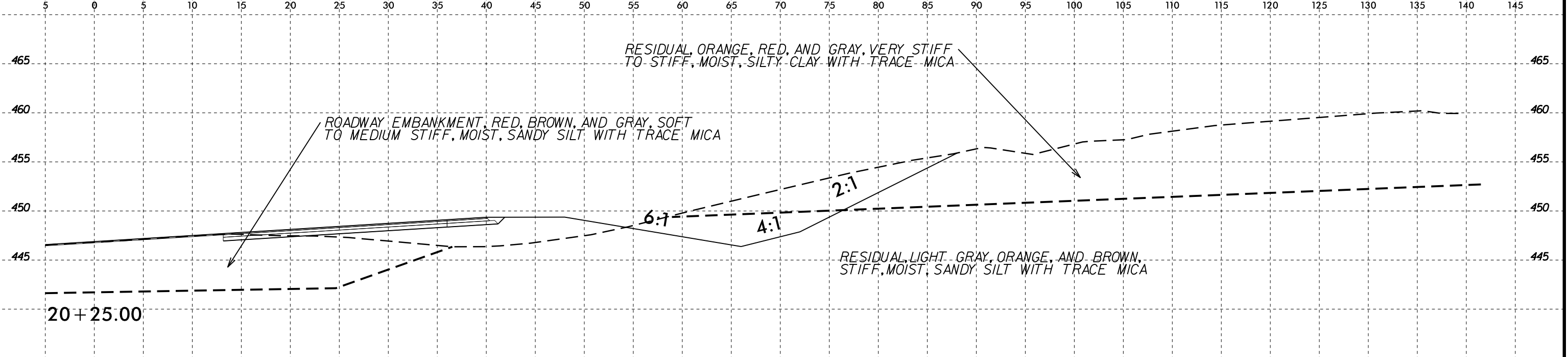
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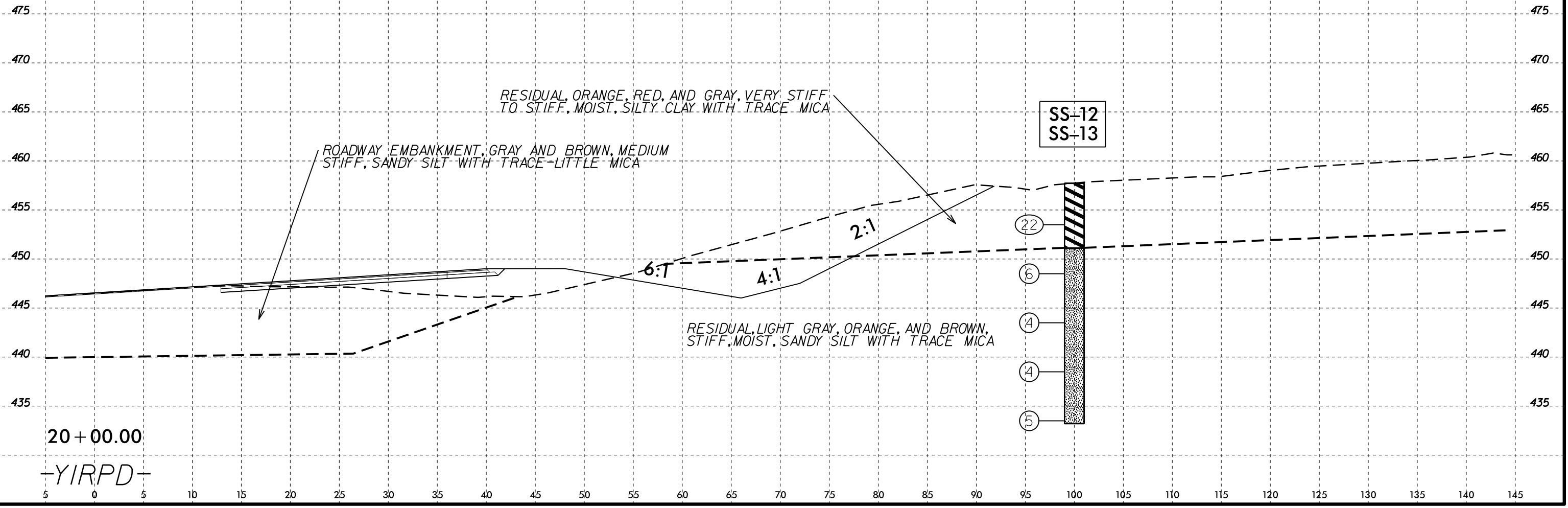
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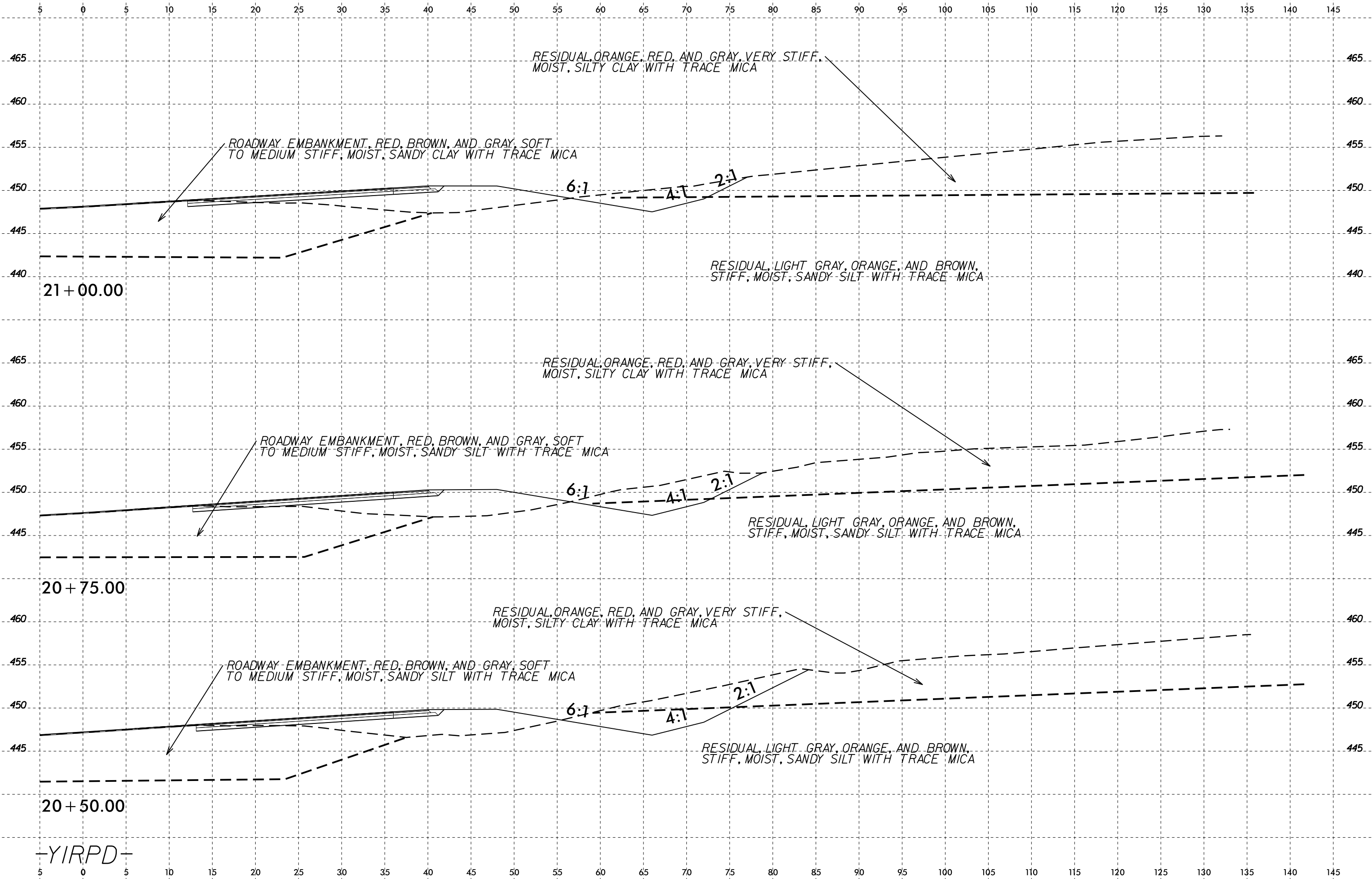


### SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-12	100' RT	20+00	13.2-14.7	A-4(0)			2.8	50.7	34.3	12.1	100	99	60	-	-
SS-13	100' RT	20+00	18.2-19.7	A-4(0)			5.9	49.1	32.9	12.1	100	98	57	-	-

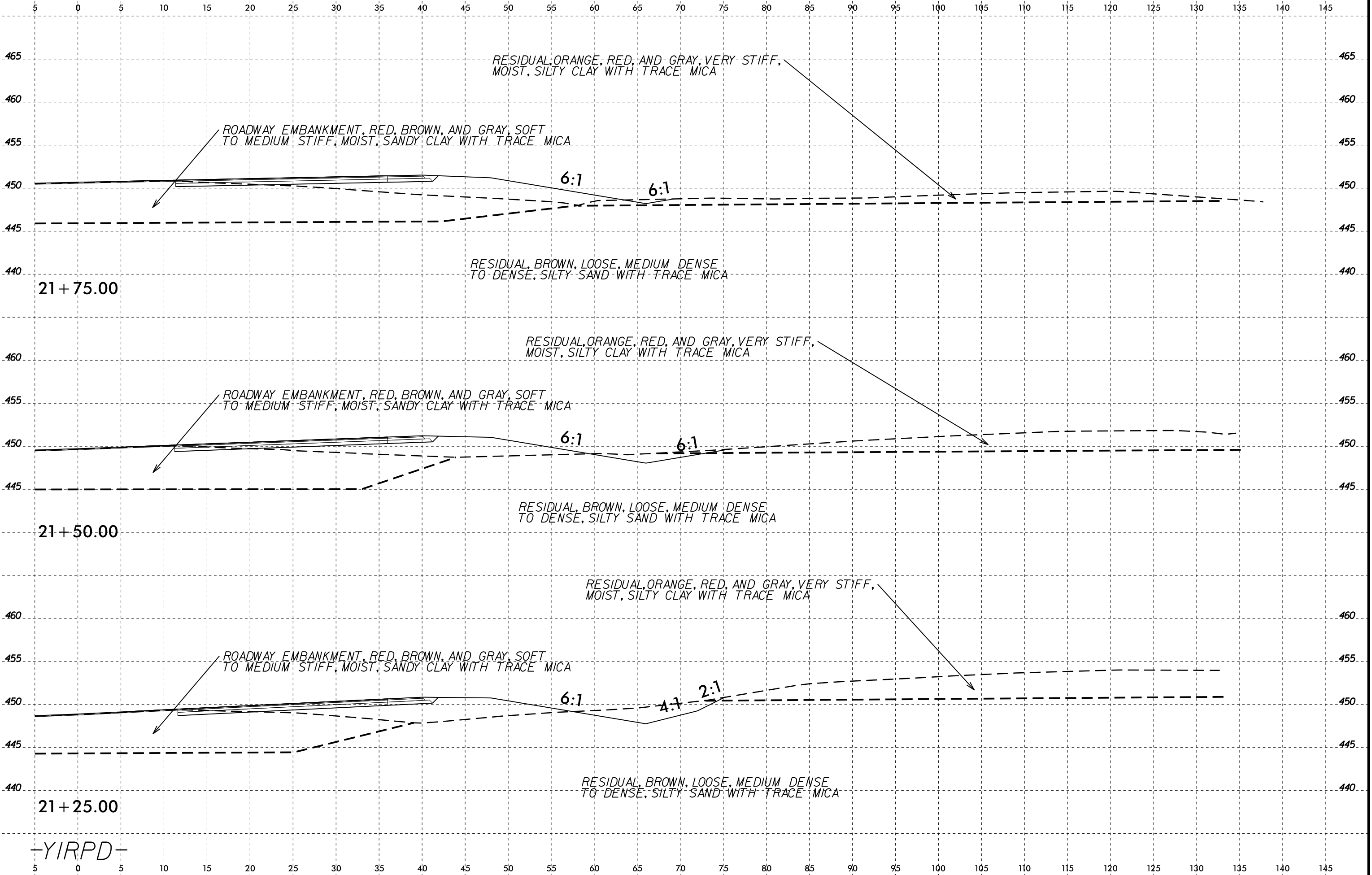


20+00.00  
-YIRPD-



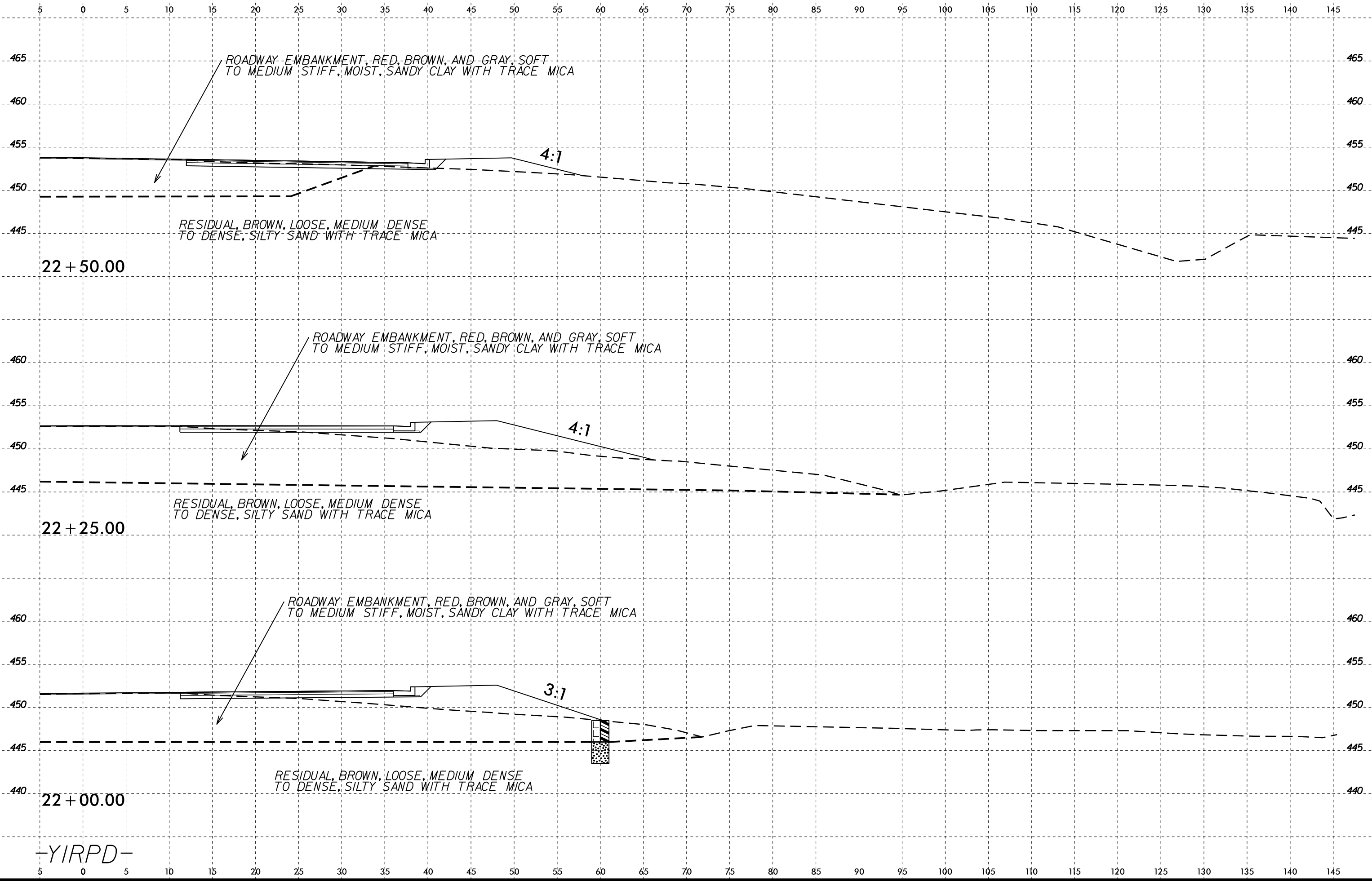
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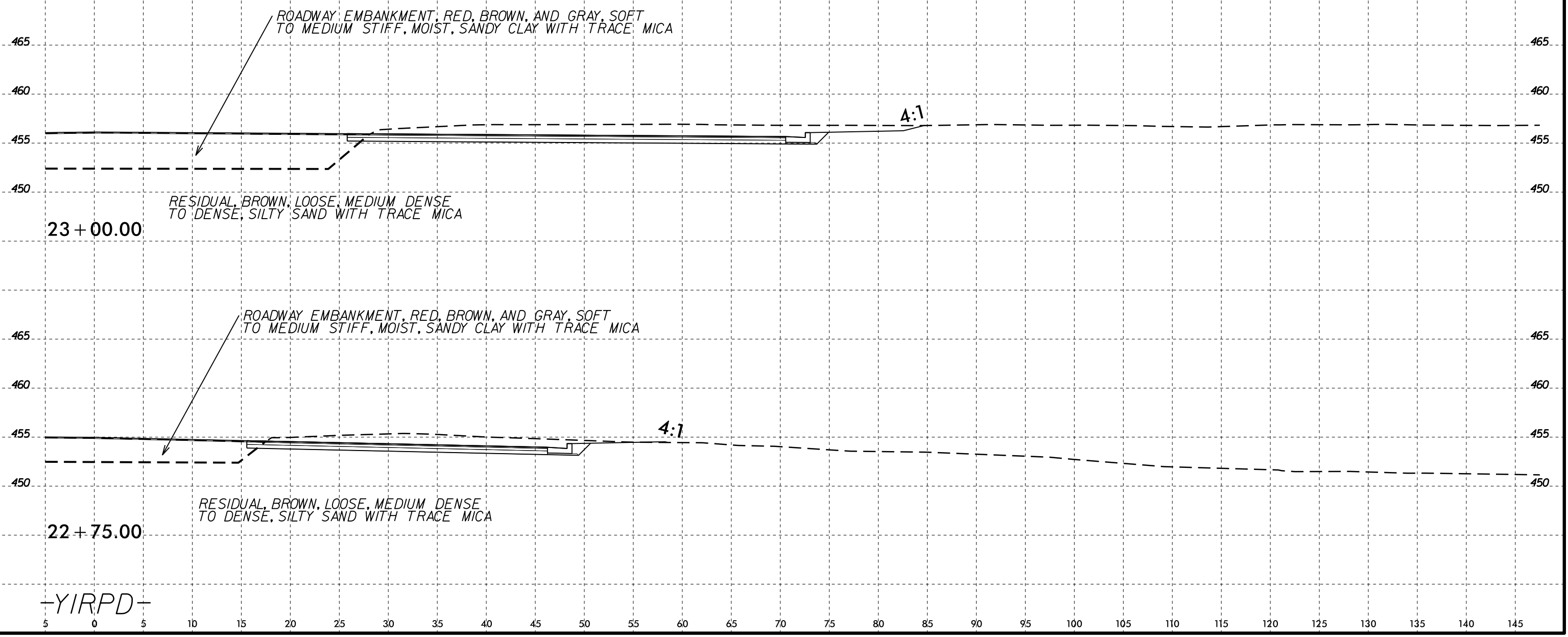


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 \$\$\$GERRIT\$\$\$

-YIRPD-

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

### SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
S-1	40' LT	17+50	1.0-2.0	A-4(0)			3.7	33.4	46.9	6.0	99	98	74	-	-

YIRPB\_1758

S-1

5.59:1

6:1

ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

RESIDUAL, BROWN AND LIGHT GRAY, SOFT TO MEDIUM STIFF, MOIST, SANDY SILT WITH LITTLE MICA  
17 + 50.00

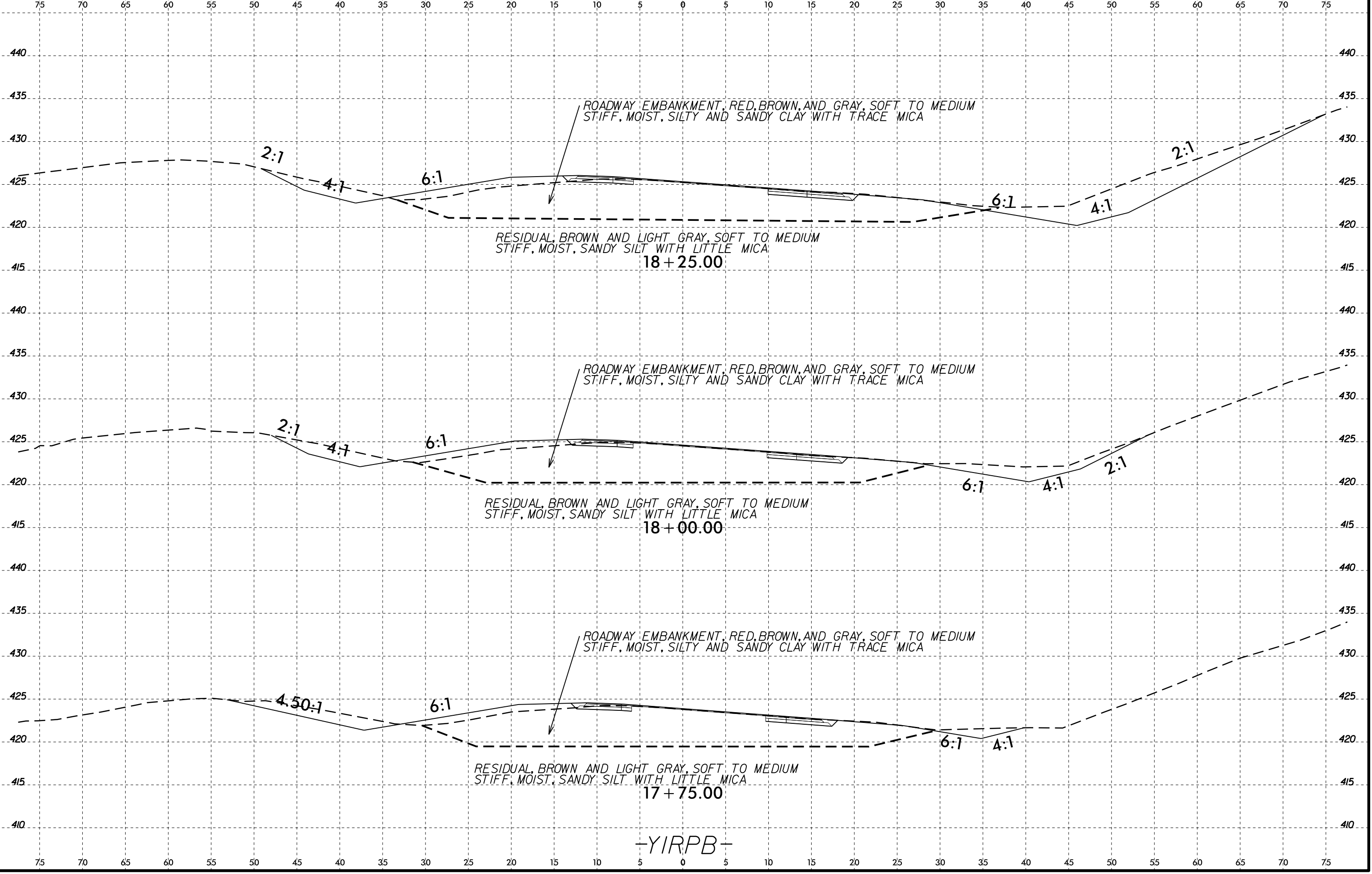
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RESIDUAL, BROWN AND LIGHT GRAY, SOFT TO MEDIUM STIFF, MOIST, SANDY SILT WITH LITTLE MICA  
17 + 25.00

-YIRPB-

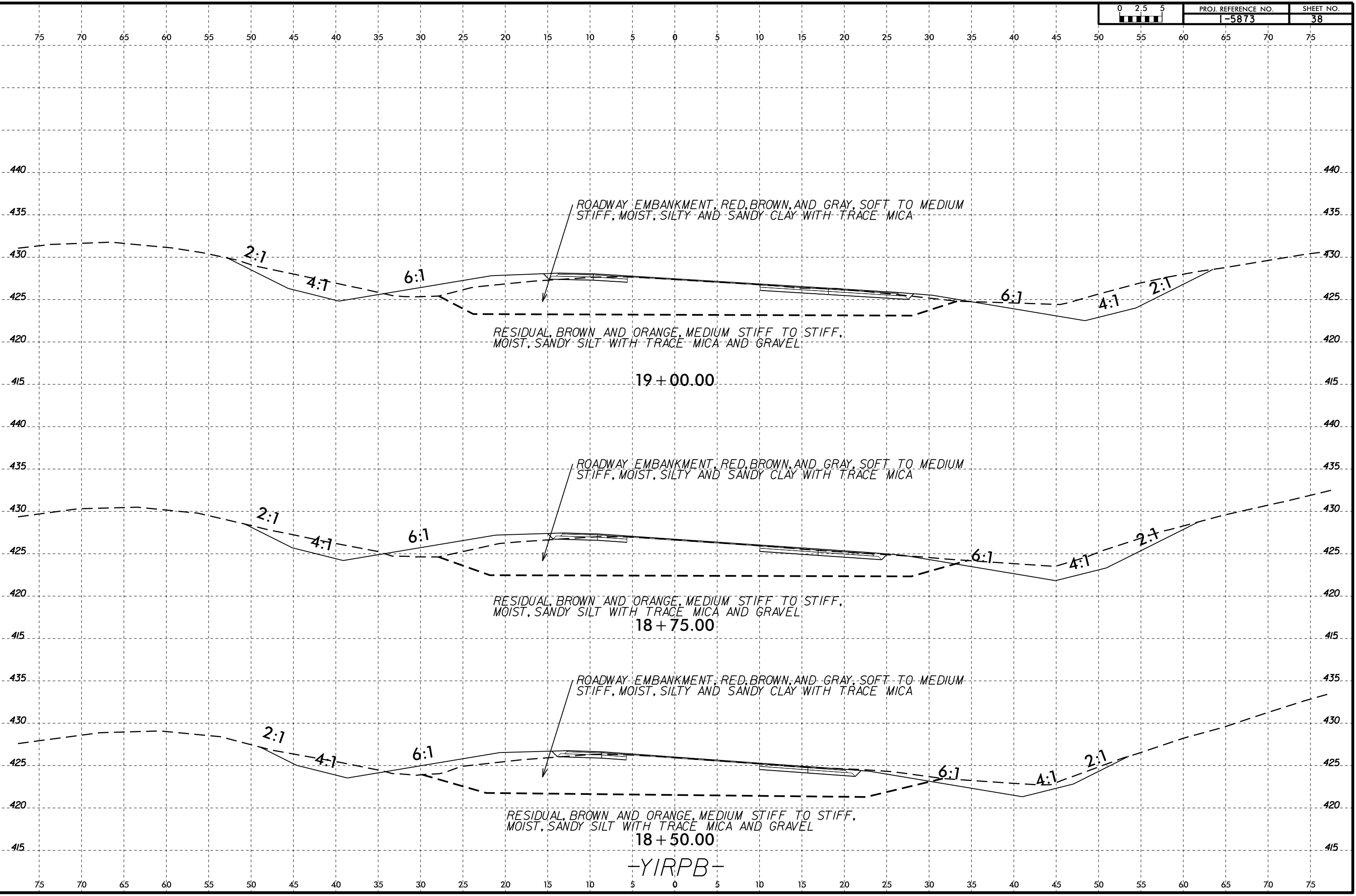
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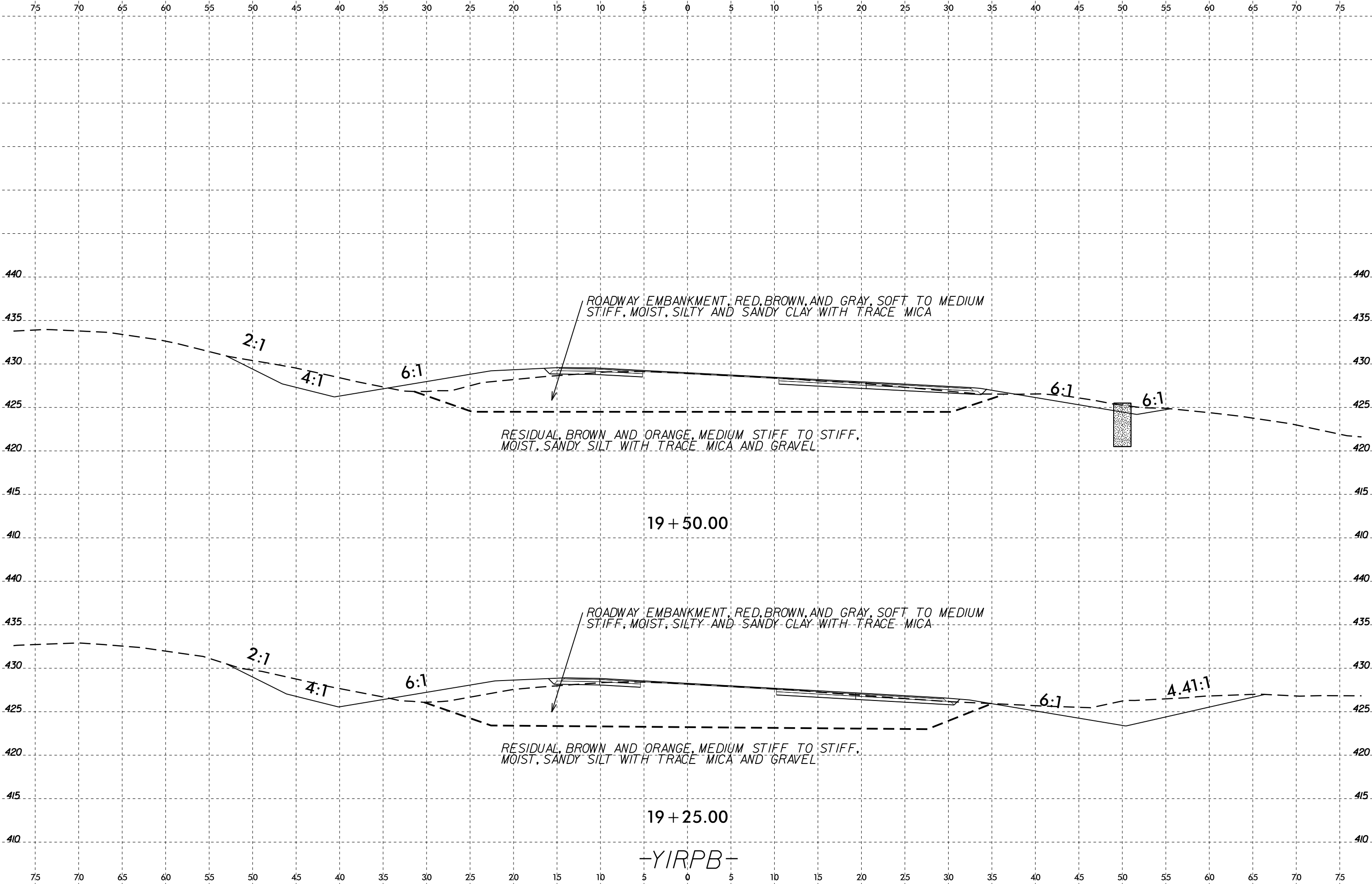
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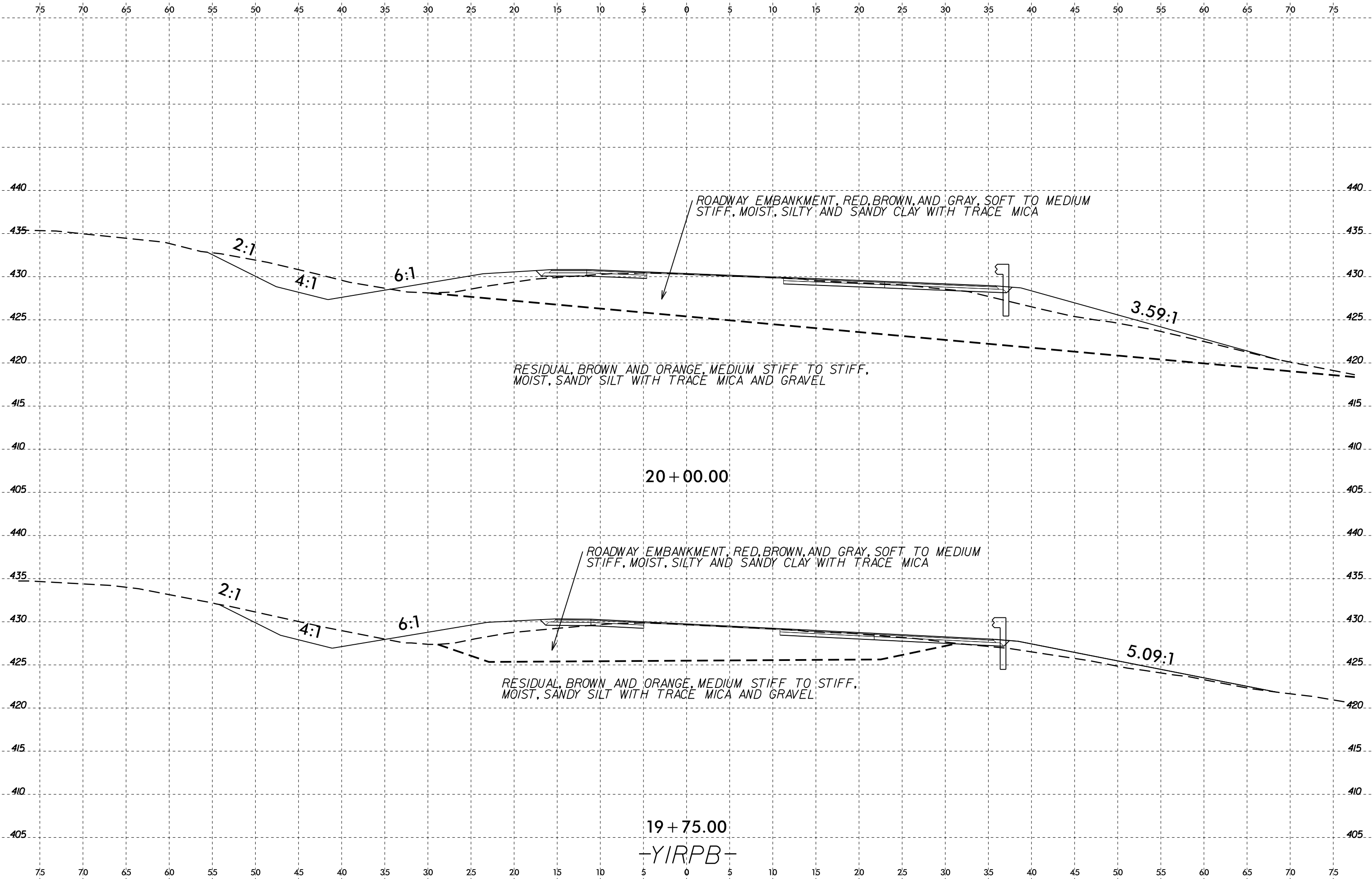




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\$\$\$\$SUBERRAME\$\$\$\$





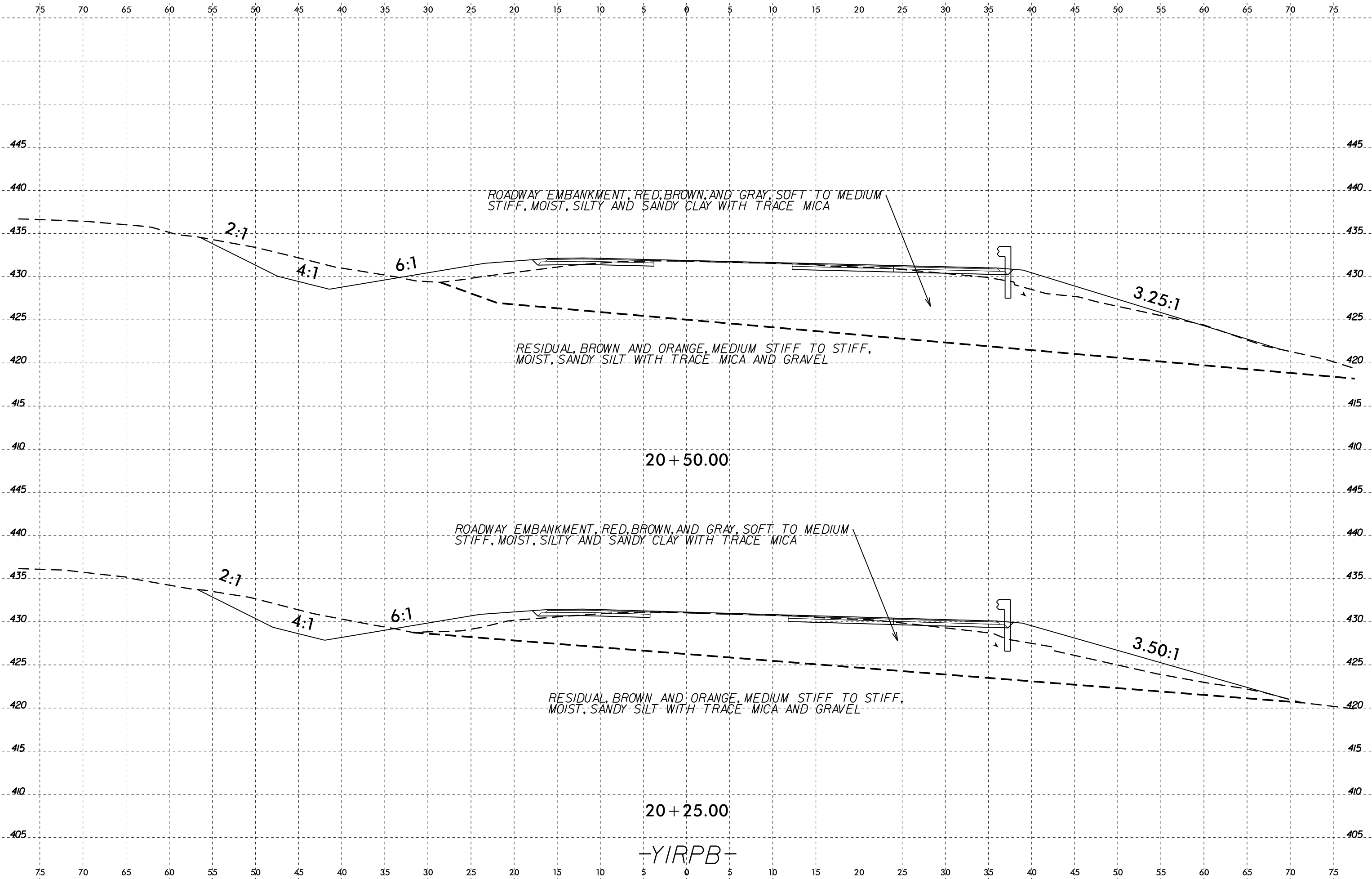


ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

RESIDUAL, BROWN AND ORANGE, MEDIUM STIFF TO STIFF, MOIST, SANDY SILT WITH TRACE MICA AND GRAVEL

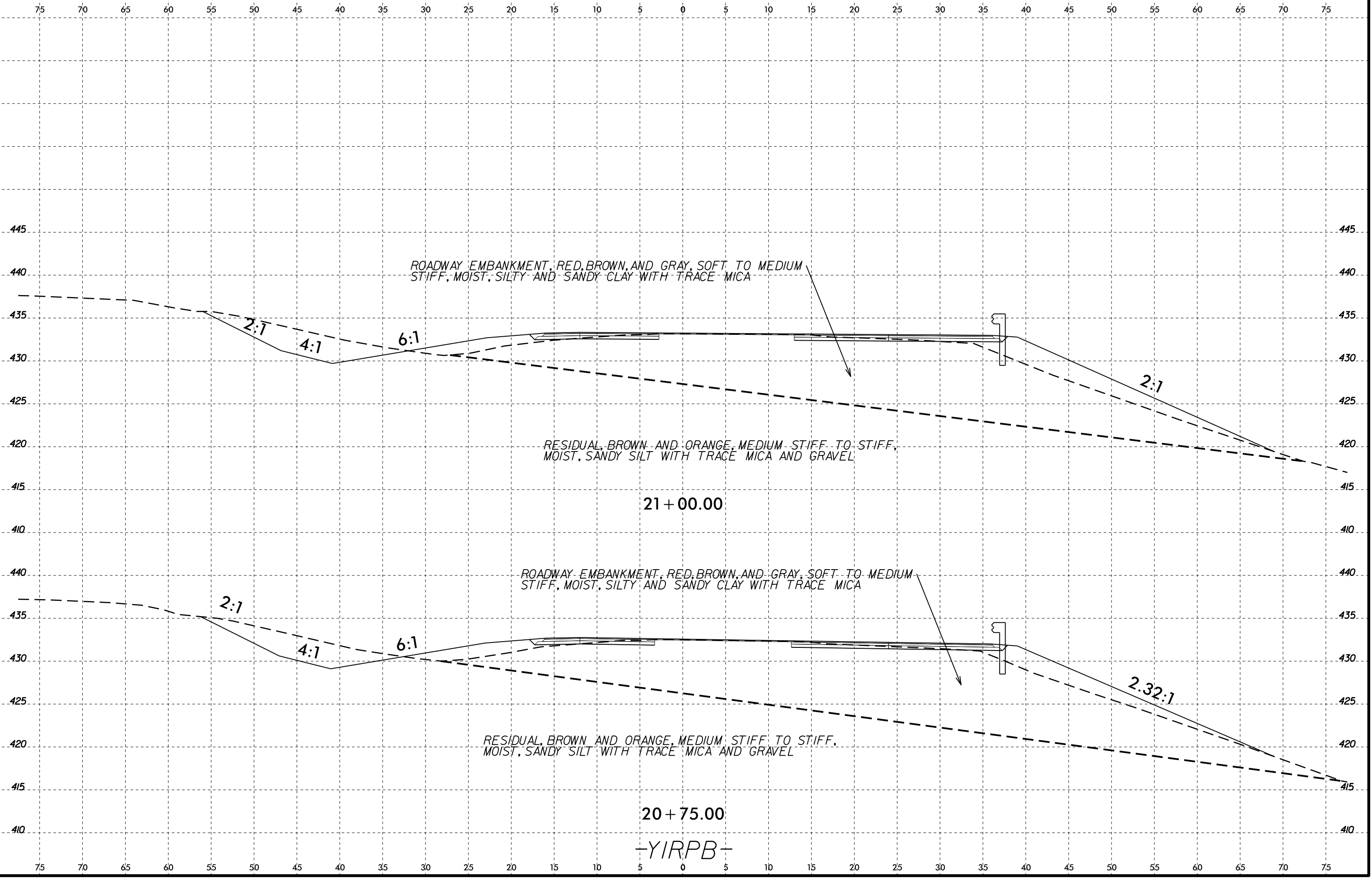
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RESIDUAL, BROWN AND ORANGE, MEDIUM STIFF TO STIFF, MOIST, SANDY SILT WITH TRACE MICA AND GRAVEL



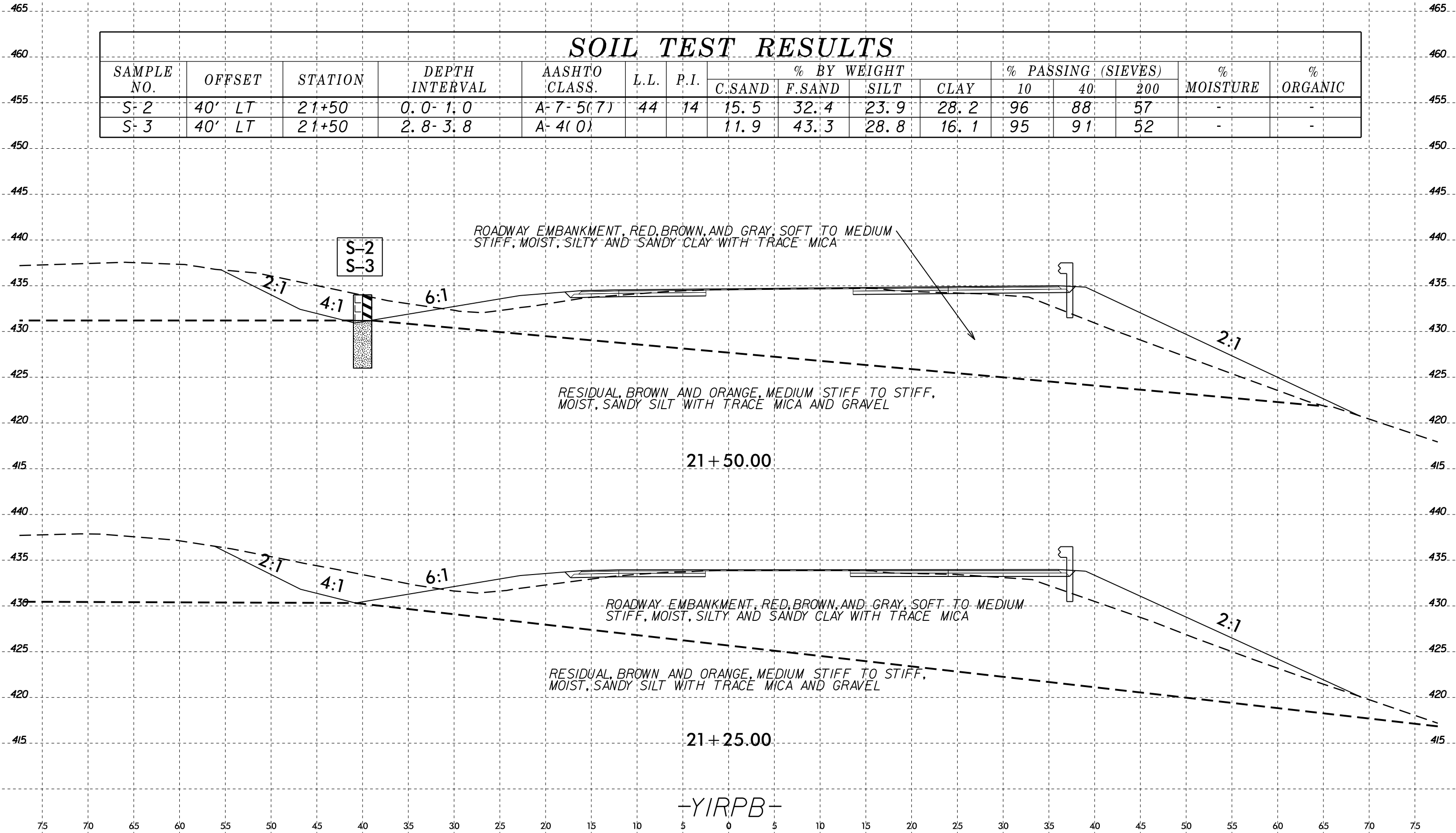
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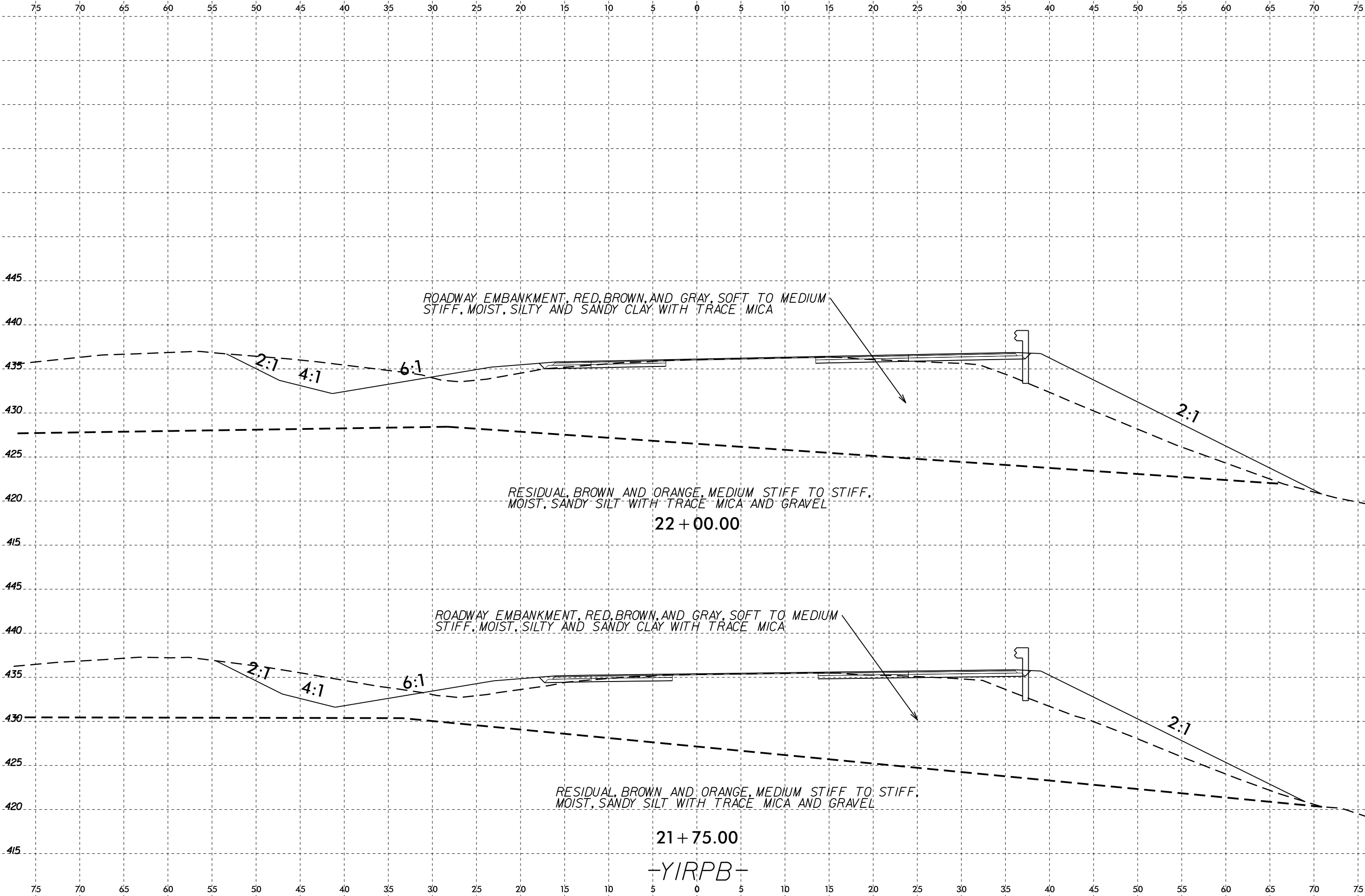
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<b>SOIL TEST RESULTS</b>															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
S-2	40' LT	21+50	0.0-1.0	A-7-5(7)	44	14	15.5	32.4	23.9	28.2	96	88	57	-	-
S-3	40' LT	21+50	2.8-3.8	A-4(0)			11.9	43.3	28.8	16.1	95	91	52	-	-

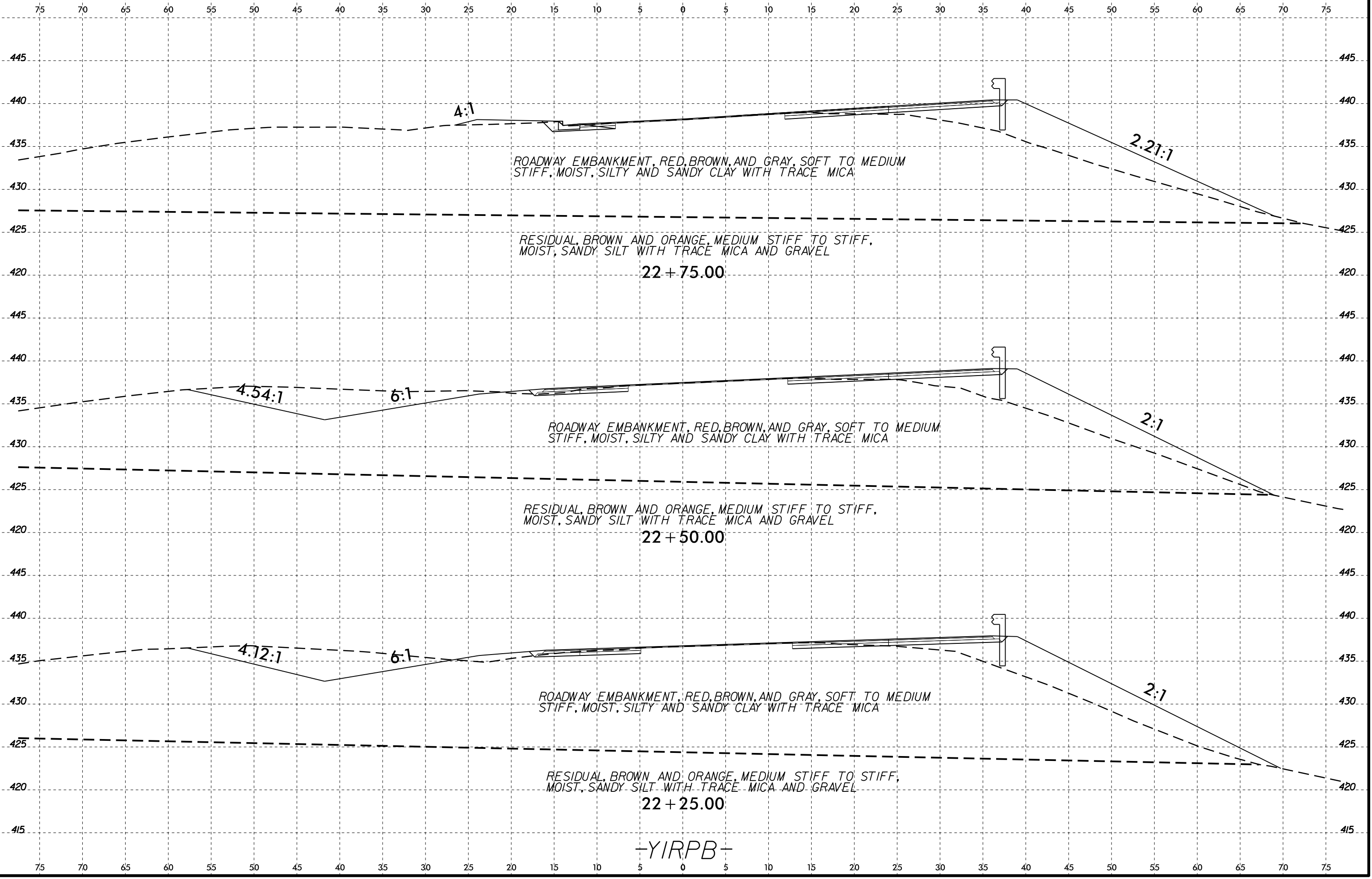


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\$\$\$\$SERIALNAME\$\$\$\$



ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

RESIDUAL, BROWN AND ORANGE, MEDIUM STIFF TO STIFF, MOIST, SANDY SILT WITH TRACE MICA AND GRAVEL

22 + 75.00

ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

RESIDUAL, BROWN AND ORANGE, MEDIUM STIFF TO STIFF, MOIST, SANDY SILT WITH TRACE MICA AND GRAVEL

22 + 50.00

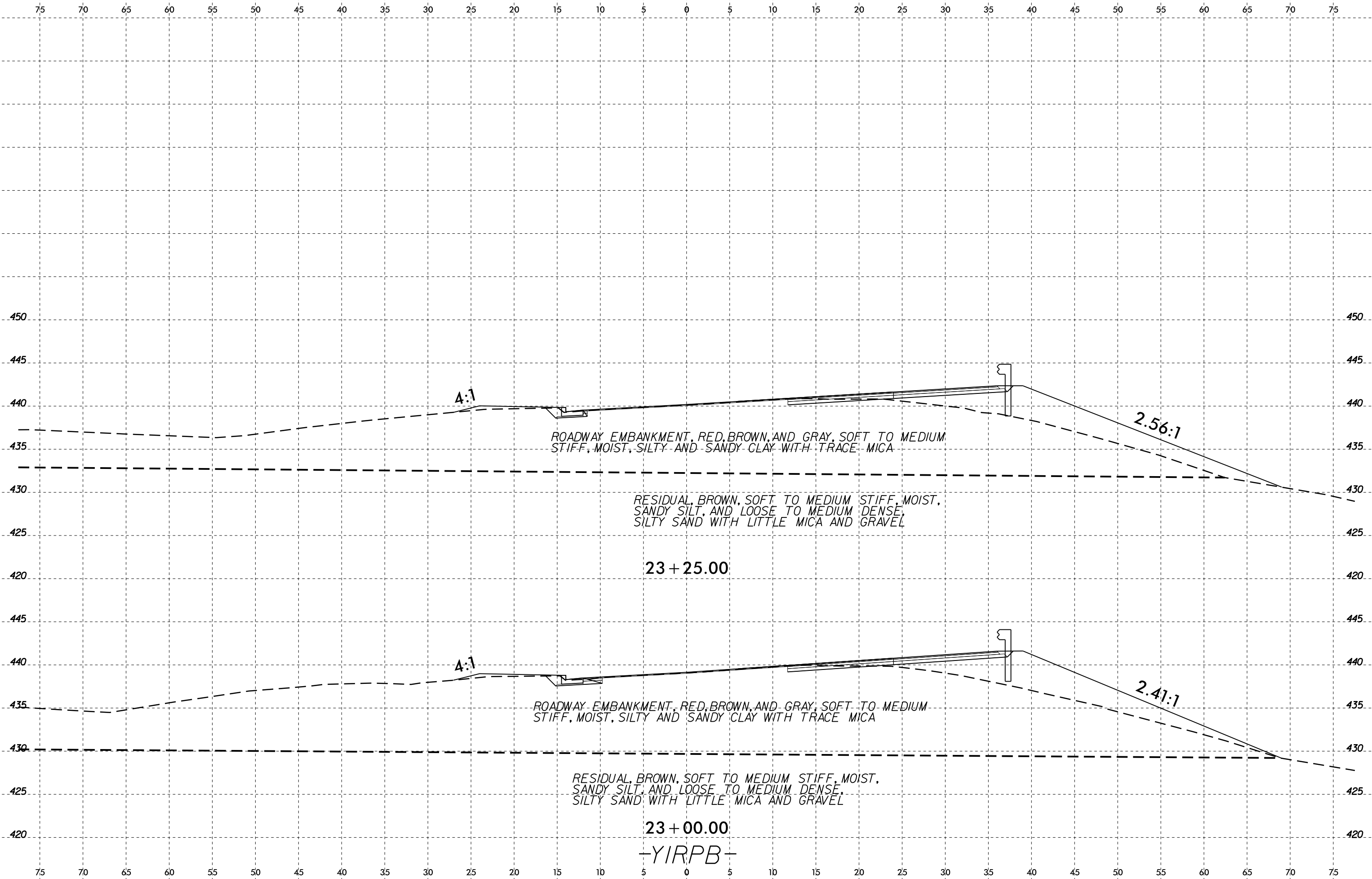
ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

RESIDUAL, BROWN AND ORANGE, MEDIUM STIFF TO STIFF, MOIST, SANDY SILT WITH TRACE MICA AND GRAVEL

22 + 25.00

-YIRPB-





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23 + 25.00  
 -YIRPB-

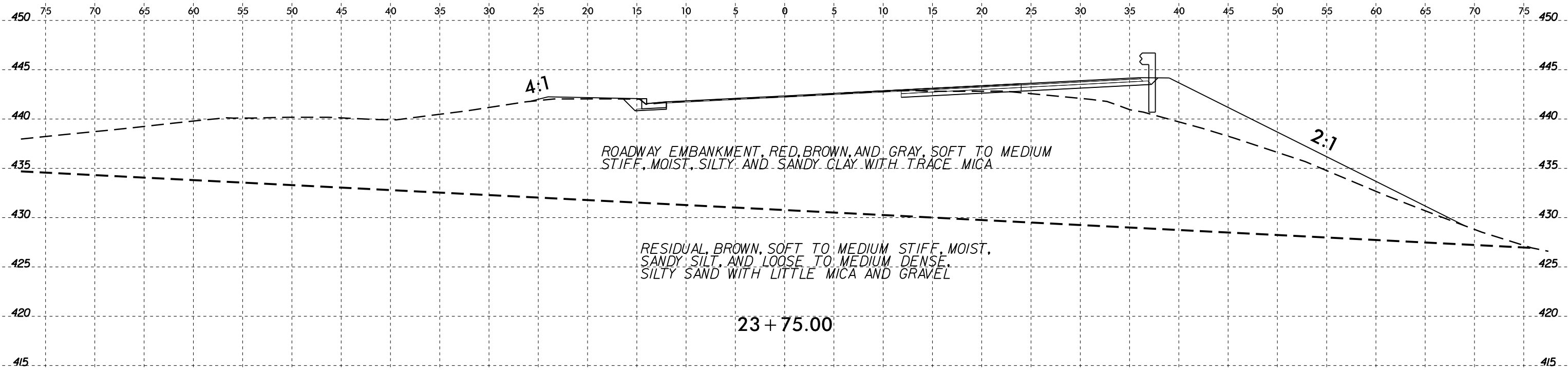
ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM  
 STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

RESIDUAL, BROWN, SOFT TO MEDIUM STIFF, MOIST,  
 SANDY SILT, AND LOOSE TO MEDIUM DENSE,  
 SILTY SAND WITH LITTLE MICA AND GRAVEL

23 + 00.00

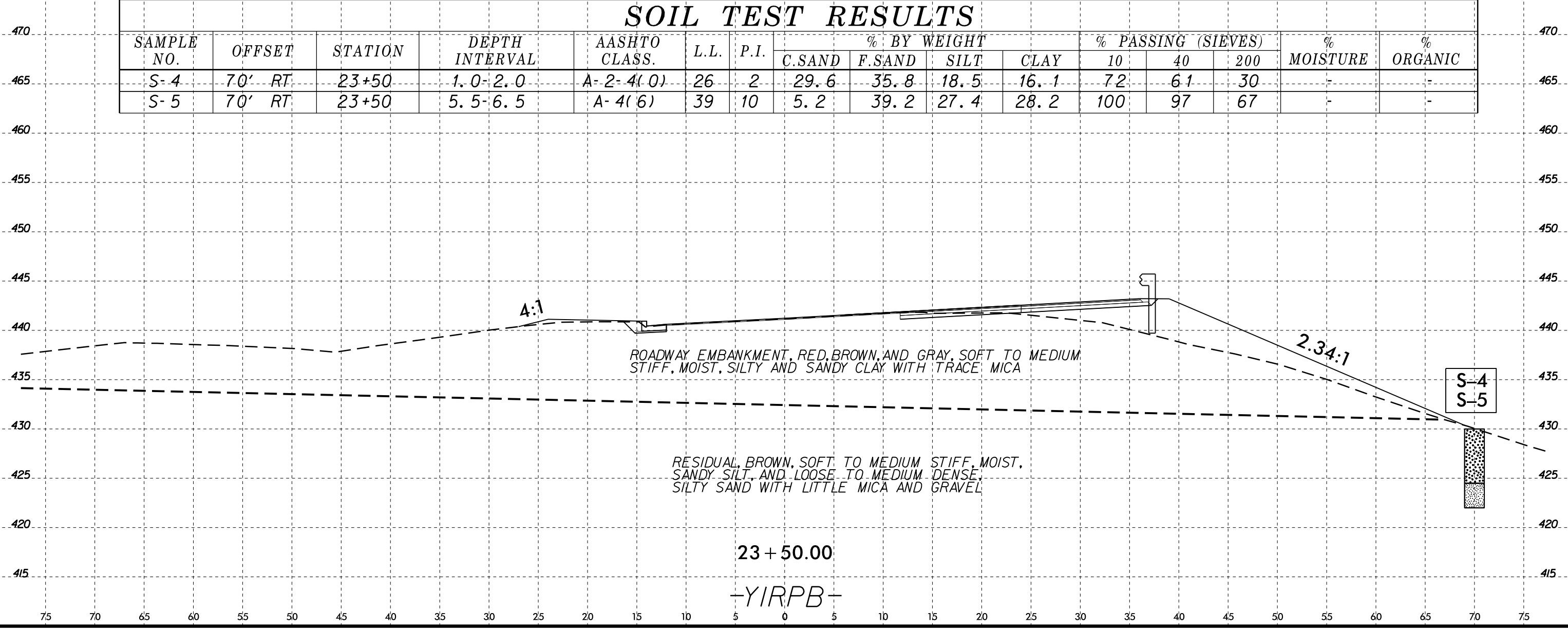
ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM  
 STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

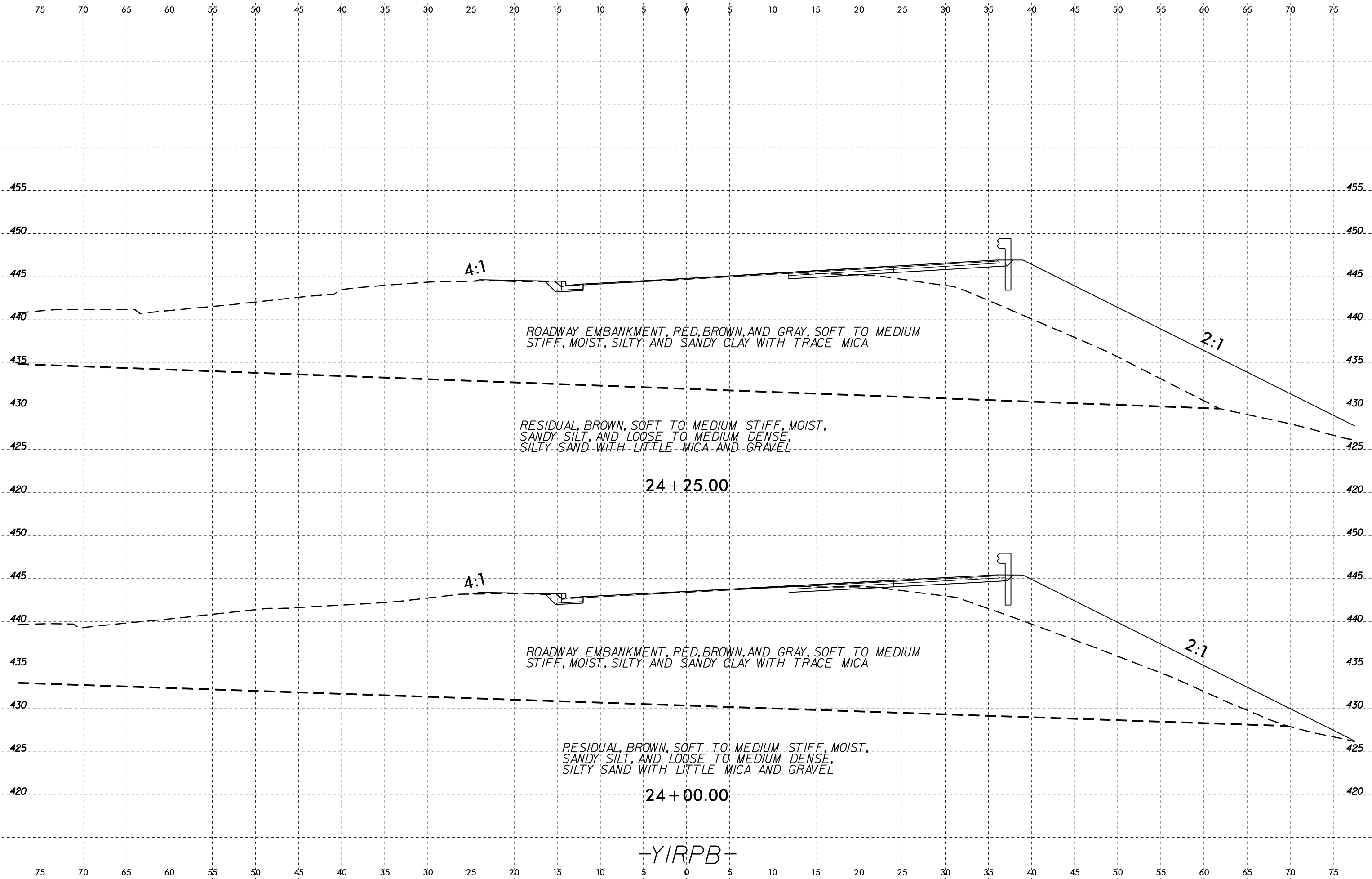
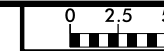
RESIDUAL, BROWN, SOFT TO MEDIUM STIFF, MOIST,  
 SANDY SILT, AND LOOSE TO MEDIUM DENSE,  
 SILTY SAND WITH LITTLE MICA AND GRAVEL



### SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
S-4	70' RT	23+50	1.0-2.0	A-2-4(0)	26	2	29.6	35.8	18.5	16.1	72	61	30	-	-
S-5	70' RT	23+50	5.5-6.5	A-4(6)	39	10	5.2	39.2	27.4	28.2	100	97	67	-	-



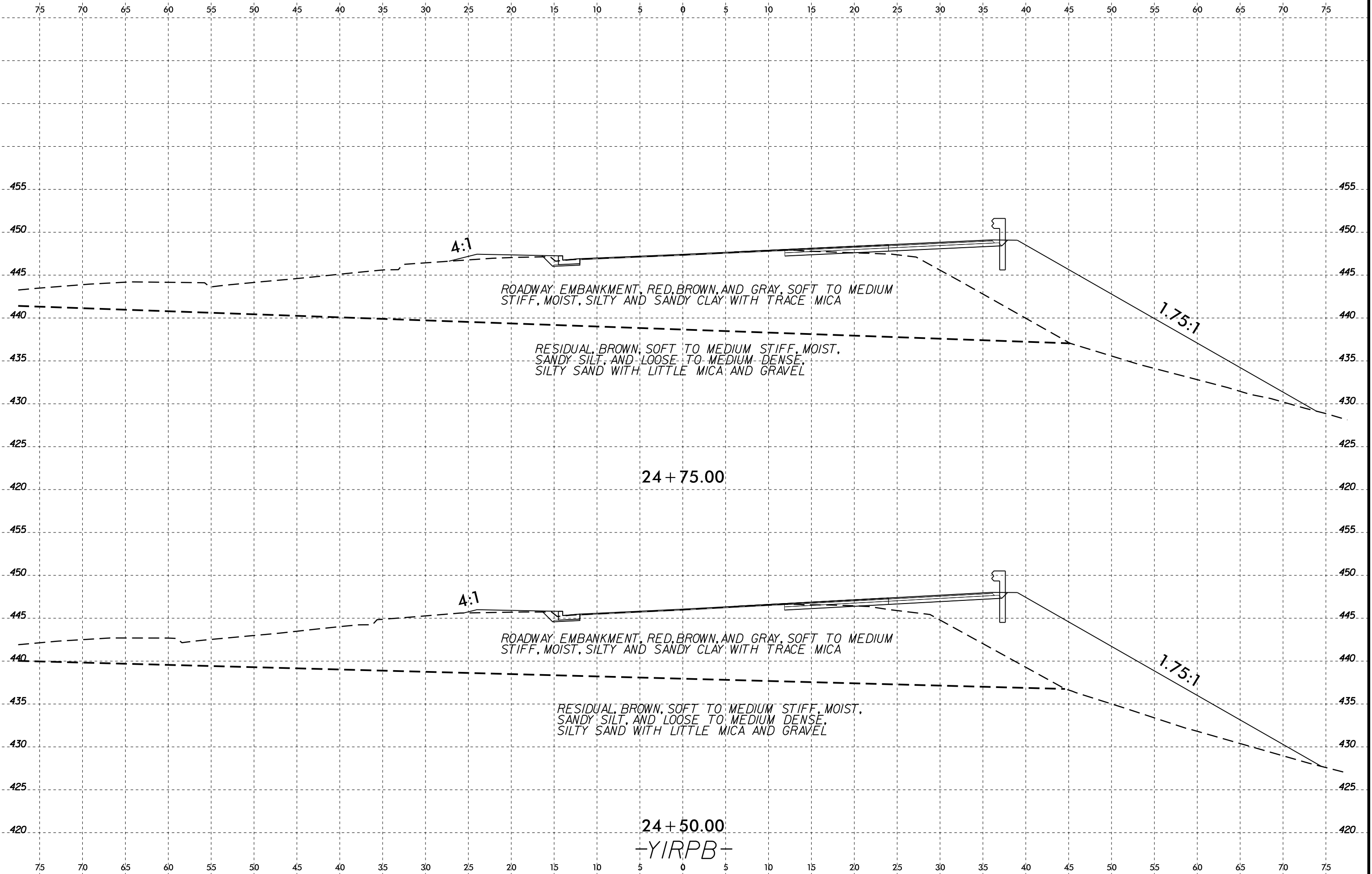


-YIRPB-

6/23/16



PROJ. REFERENCE NO.	SHEET NO.
-5873	49



ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

RESIDUAL, BROWN, SOFT TO MEDIUM STIFF, MOIST, SANDY SILT, AND LOOSE TO MEDIUM DENSE, SILTY SAND WITH LITTLE MICA AND GRAVEL

24 + 75.00

ROADWAY EMBANKMENT, RED, BROWN, AND GRAY, SOFT TO MEDIUM STIFF, MOIST, SILTY AND SANDY CLAY WITH TRACE MICA

RESIDUAL, BROWN, SOFT TO MEDIUM STIFF, MOIST, SANDY SILT, AND LOOSE TO MEDIUM DENSE, SILTY SAND WITH LITTLE MICA AND GRAVEL

24 + 50.00

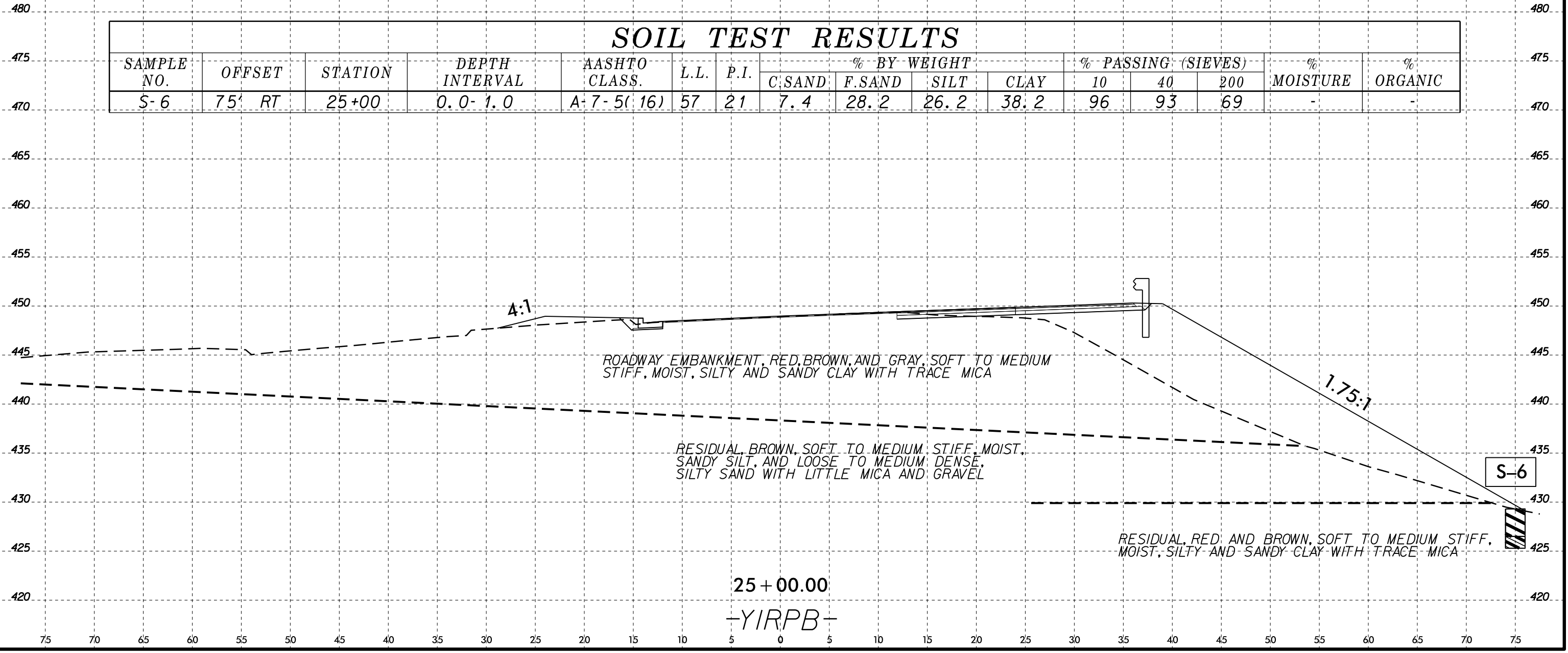
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 \$\$\$SUBERRAME\$\$\$

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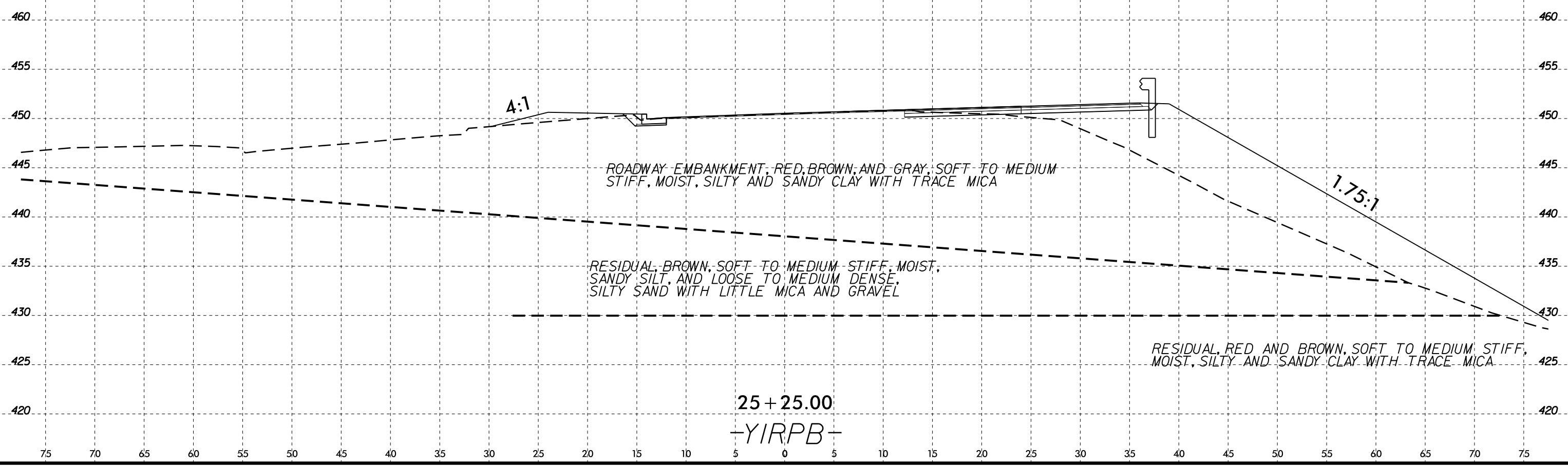
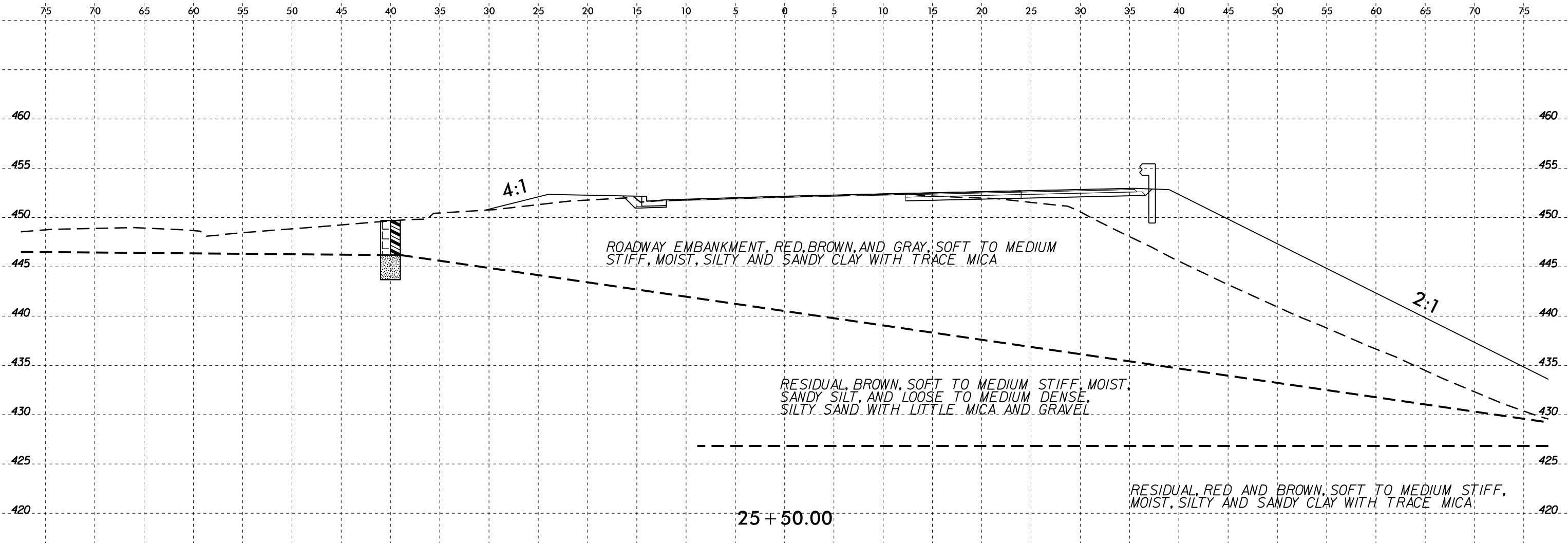
## SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-6	75' RT	25+00	0.0-1.0	A-7-5(16)	57	21	7.4	28.2	26.2	38.2	96	93	69	-	-

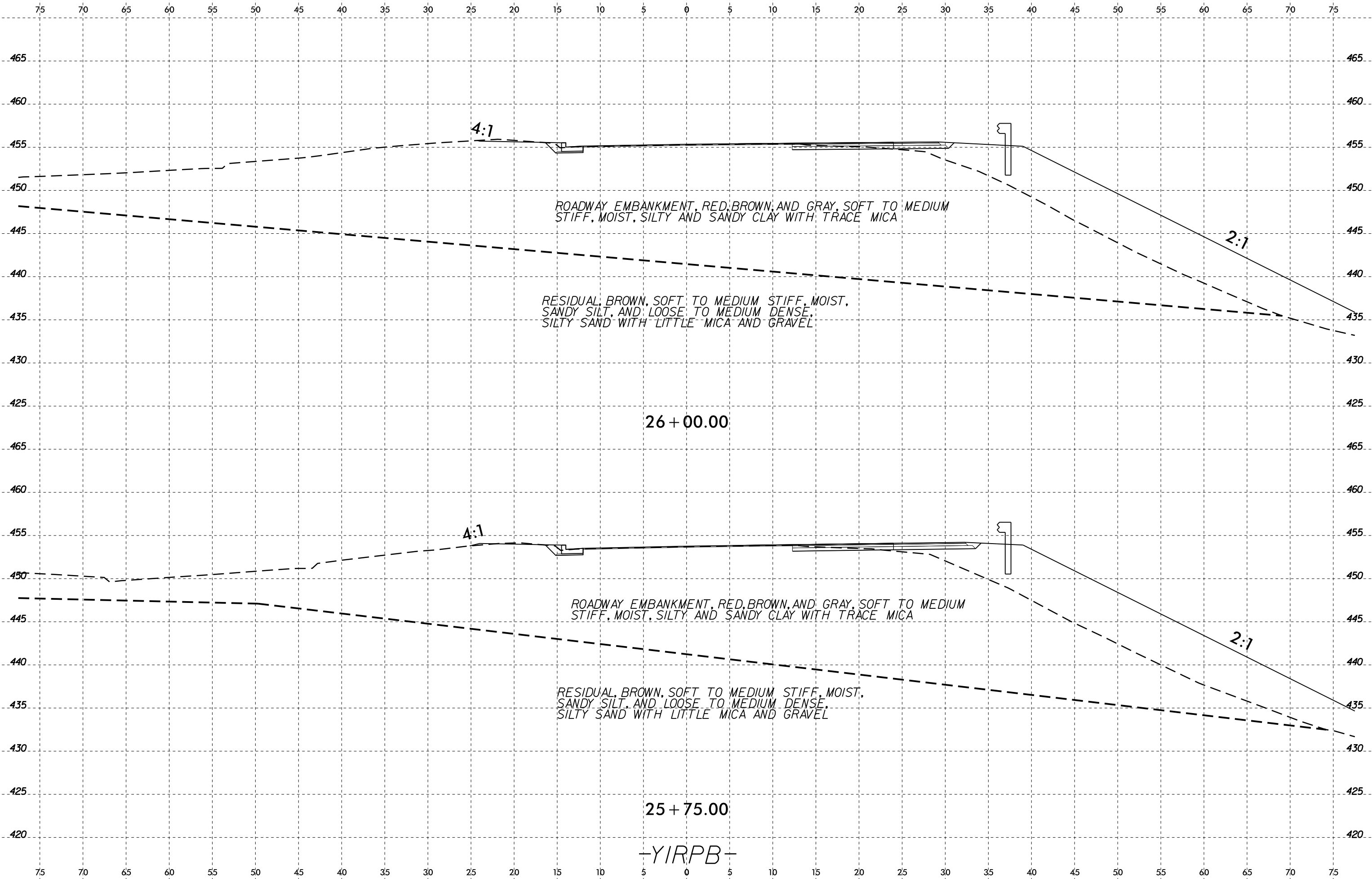


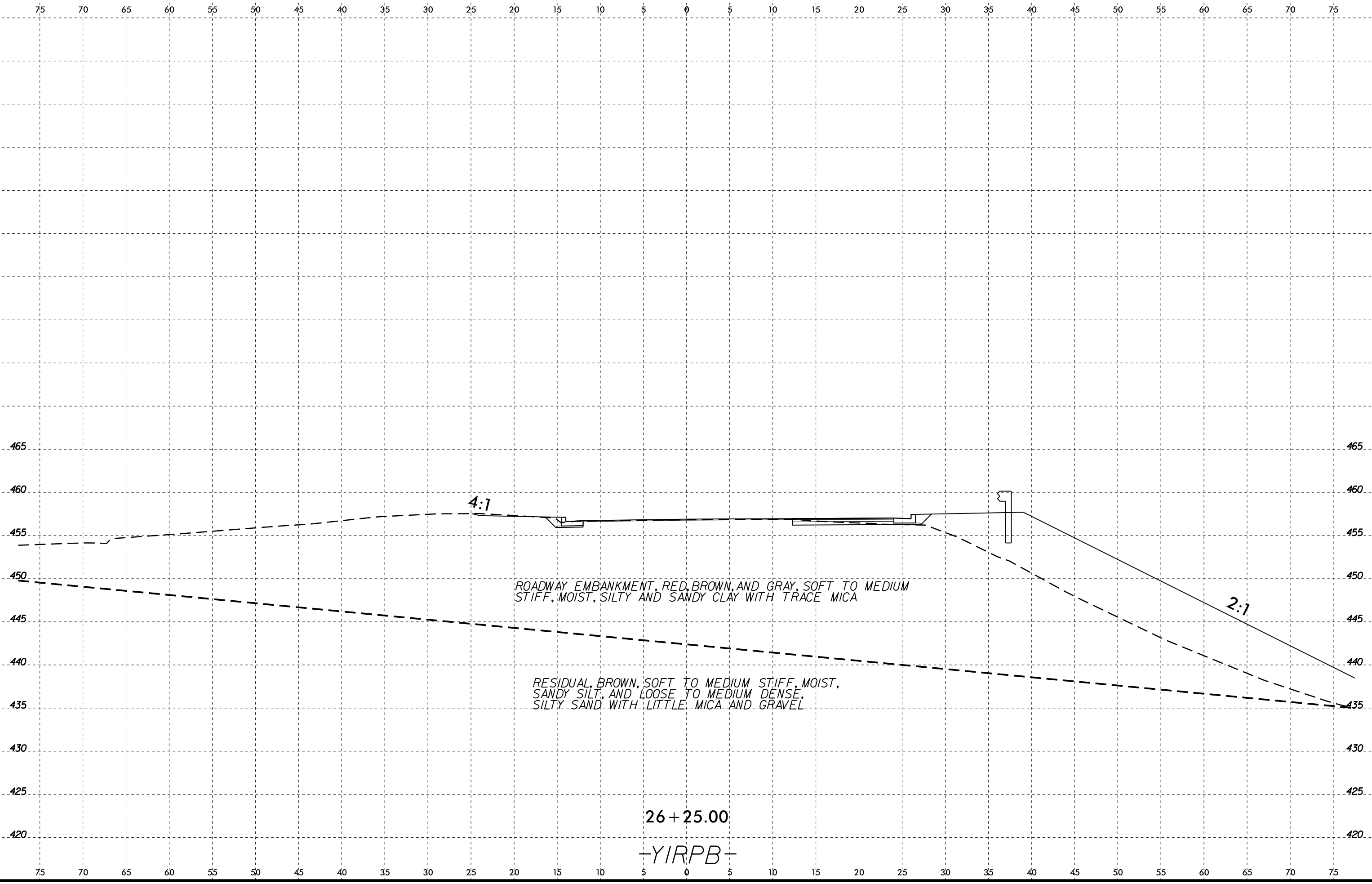
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6/23/16



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 \$\$\$SUBERRAME\$\$\$



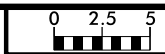


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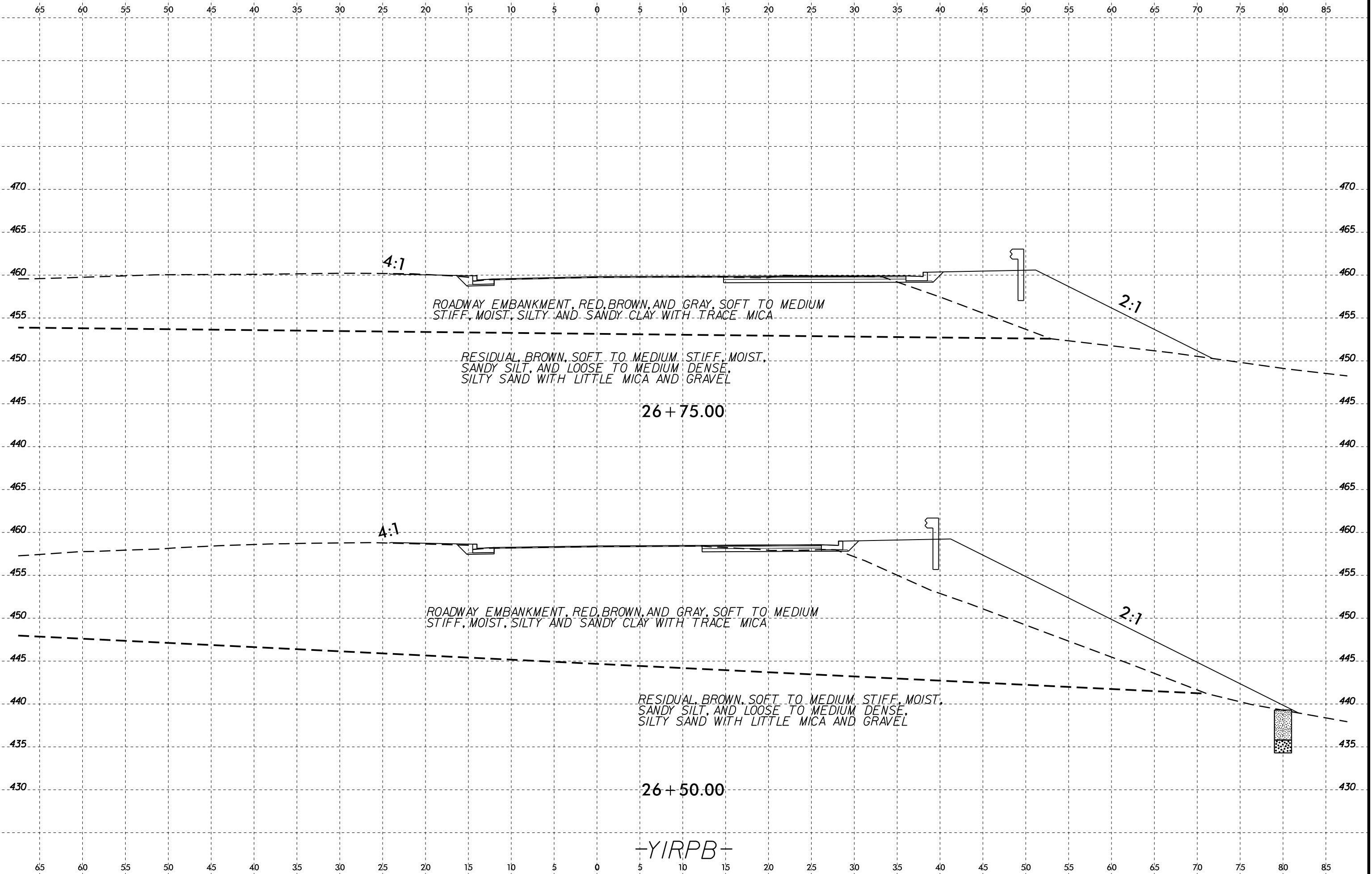
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