

**CONTRACT: ID: U-4910**

NOTE: SEE SHEETS 3 & 3A FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

**CONTENTS**

LINE	STATION	PLAN	PROFILE	XSECT
-L1-	157+44.41 - 239+28.50	-	-	4-7
-L2-	115+05.55 - 157+44.41	-	-	8-16

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

**ROADWAY**  
**SUBSURFACE INVESTIGATION**

PROJ. REFERENCE NO. U-4910 F.A. PROJ. SAFETEA-LU  
 COUNTY CABARRUS  
 PROJECT DESCRIPTION SR 1445 DERITA ROAD WIDENING FROM  
NORTH OF SR 2894 CONCORD MILLS BOULEVARD  
TO SR 1394 POPLAR TENT ROAD

**RECOMMENDATIONS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4910	1	17
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
		P.E.	
		RW & UTIL.	

**CAUTION NOTICE**

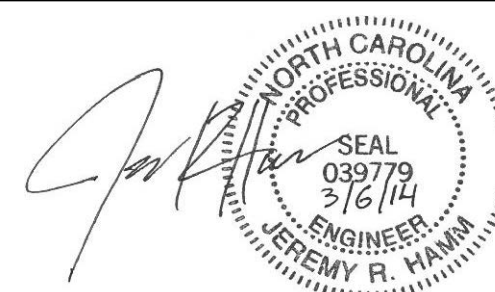
THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING, AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA ARE 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 THIS 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.

PERSONNEL  
NORVILLE, C. V.  
HAMM, J. R.  
EVANS, T. E.  
PAUL, A. S.  
SDS

INVESTIGATED BY EVANS, T. E.  
 CHECKED BY NORVILLE, C. V.  
 SUBMITTED BY FALCON  
 DATE MARCH 2014



DRAWN BY: EVANS, T. E.

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IT IS CONSIDERED TO BE PART OF THE PLANS, SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.

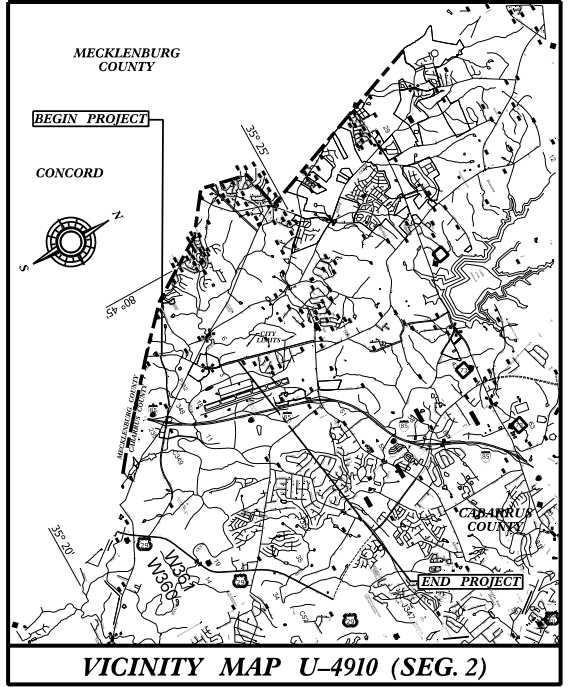
NOTE - BY HAVING REQUESTED THIS INFORMATION THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.



09/08/99

**TIP PROJECT: U-4910 (SEG. 2)**  
**108658**  
**P.O. NO.:**

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



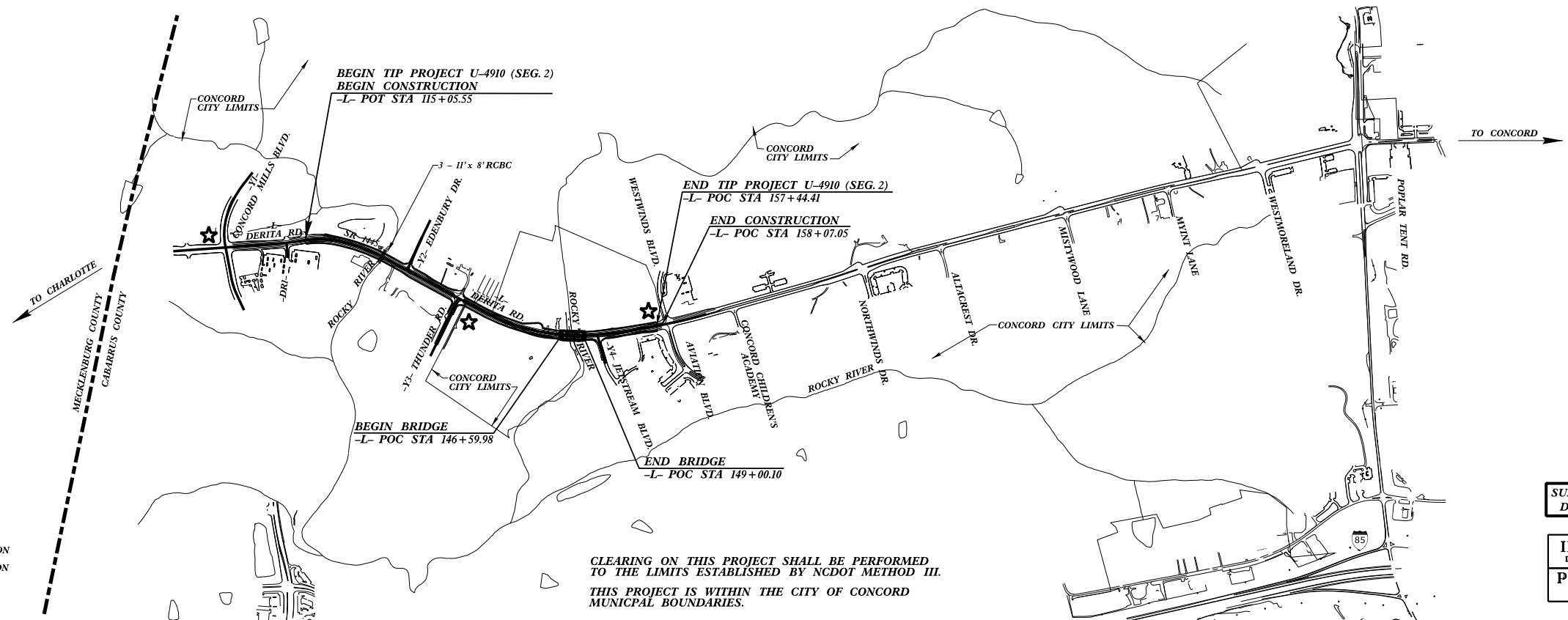
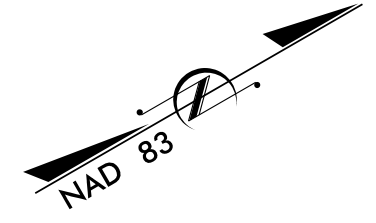
STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

**CABARRUS COUNTY**

**LOCATION: NORTH OF SR 2894 CONCORD MILLS BOULEVARD  
 TO AVIATION BOULEVARD.**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURES,  
 SIGNALS, & SIGNING**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4910 (SEG. 2)	3A	17
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
403732.1	SAFETEA-LU	RW	

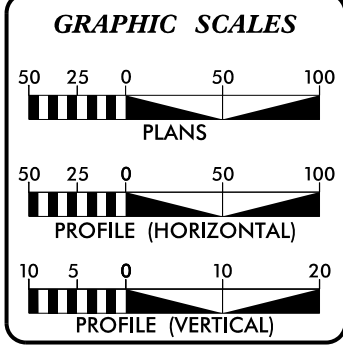


- ★ - EXISTING SIGNALIZED INTERSECTION
- ★ - PROPOSED SIGNALIZED INTERSECTION

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY NCDOT METHOD III.  
 THIS PROJECT IS WITHIN THE CITY OF CONCORD MUNICIPAL BOUNDARIES.

SUBMITTAL: STRUCTURE RECOMMENDATIONS  
 DATE:

**INCOMPLETE PLANS**  
 DO NOT USE FOR R/W ACQUISITION  
**PRELIMINARY PLANS**  
 DO NOT USE FOR CONSTRUCTION



**DESIGN DATA**

ADT 2011 =	11,000
ADT 2035 =	28,300
DHV =	12 %
D =	65 %
T =	XX % *
V =	50 MPH
* TTST =	1% DUAL 3%
FUNC CLASS - ARTERIAL	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT	=	0.758 MILES
LENGTH STRUCTURE TIP PROJECT	=	0.045 MILES
TOTAL LENGTH TIP PROJECT	=	0.803 MILES

Prepared in the Office of:

**AECOM**

2006 STANDARD SPECIFICATIONS

<b>RIGHT OF WAY DATE:</b>	KEVIN M. HAUGHEY, P.E. PROJECT ENGINEER
JANUARY 2014	
<b>LETTING DATE:</b>	KEVIN J. VAN METRE, P.E. PROJECT DESIGN ENGINEER
AUGUST 2014	

**HYDRAULICS ENGINEER**

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

**ROADWAY DESIGN ENGINEER**

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

**DIVISION OF HIGHWAYS**  
 STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

USER: \$\$USER\$\$  
 DATE: \$\$DATE\$\$  
 TIME: \$\$TIME\$\$  
 DGN: \$\$DGN\$\$

09/08/99

**TIP PROJECT: U-4910 (SEG. 1)**

**108658**

**P.O. NO.:**

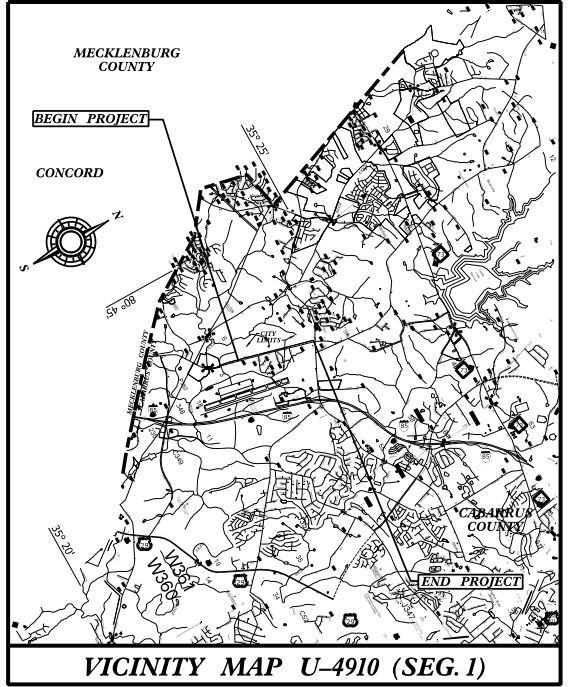
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**CABARRUS COUNTY**

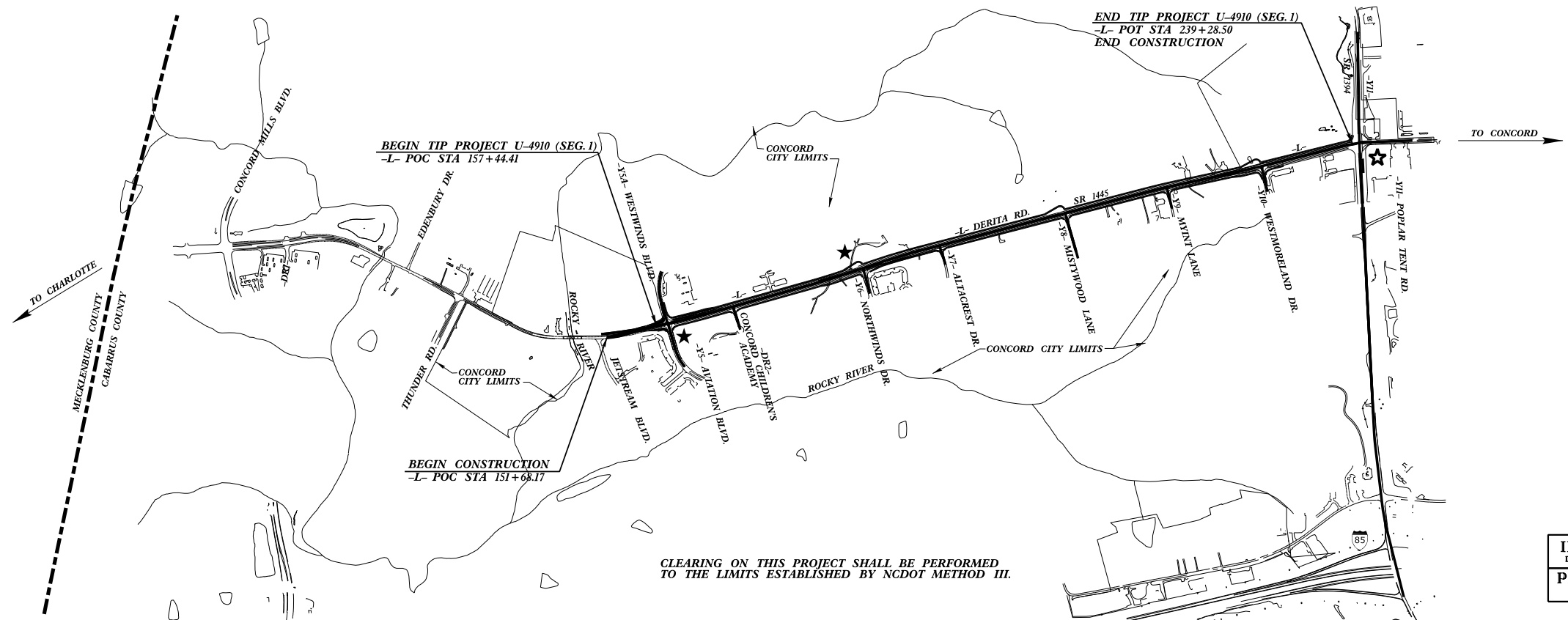
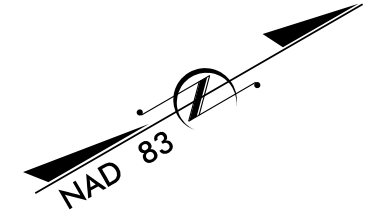
**LOCATION: FROM AVIATION BOULEVARD TO THE INTERSECTION OF SR 1394 POPLAR TENT ROAD.**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE, SIGNALS & SIGNING**

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



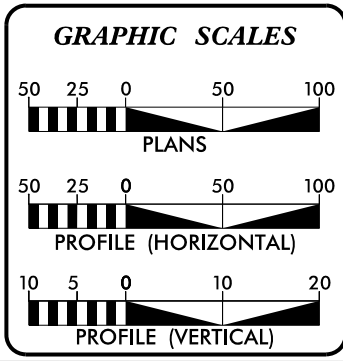
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4910 (SEG. 1)	3	17
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
403732.1	SAFETEA-LU	RW	



- ★ - EXISTING SIGNALIZED INTERSECTION
- ★ - PROPOSED SIGNALIZED INTERSECTION

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

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ACQUISITION  
**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION



**DESIGN DATA**

ADT 2011 =	11,000
ADT 2035 =	28,300
DHV =	12 %
D =	65 %
T =	% *
V =	50 MPH
* TTST =	1% DUAL 3%
FUNC CLASS - ARTERIAL	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT	=	1.561 MILES
LENGTH STRUCTURE TIP PROJECT	=	0.00 MILES
TOTAL LENGTH TIP PROJECT	=	1.561 MILES

Prepared in the Office of:

**AECOM**  
NC FIRM LICENSE No: F-0342  
701 Corporate Center Drive, Suite 475  
Raleigh, NC 27607  
(919) 854-6200 - (919) 854-6259(FAX)

2006 STANDARD SPECIFICATIONS

<b>RIGHT OF WAY DATE:</b>	KEVIN M. HAUGHEY, P.E. PROJECT ENGINEER
JANUARY 2014	
<b>LETTING DATE:</b>	KEVIN J. VAN METRE, P.E. PROJECT DESIGN ENGINEER
AUGUST 2014	

**HYDRAULICS ENGINEER**

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

**ROADWAY DESIGN ENGINEER**

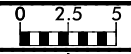
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**DIVISION OF HIGHWAYS**  
STATE OF NORTH CAROLINA

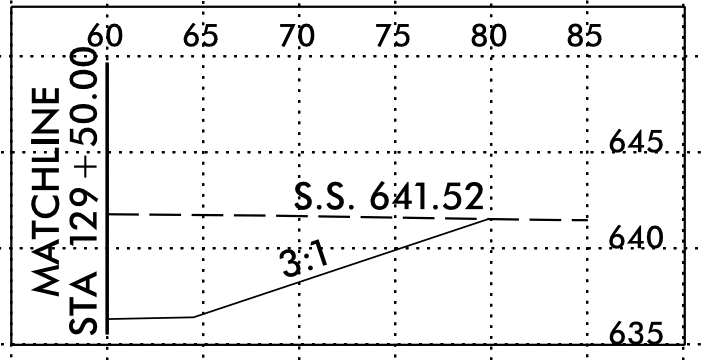
STATE HIGHWAY DESIGN ENGINEER

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DATE: \$\$DATE\$\$  
TIME: \$\$TIME\$\$  
DGN: \$\$DGN\$\$

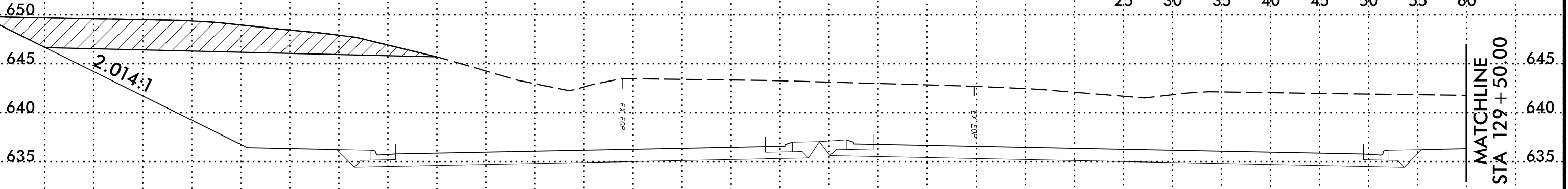
8/23/99



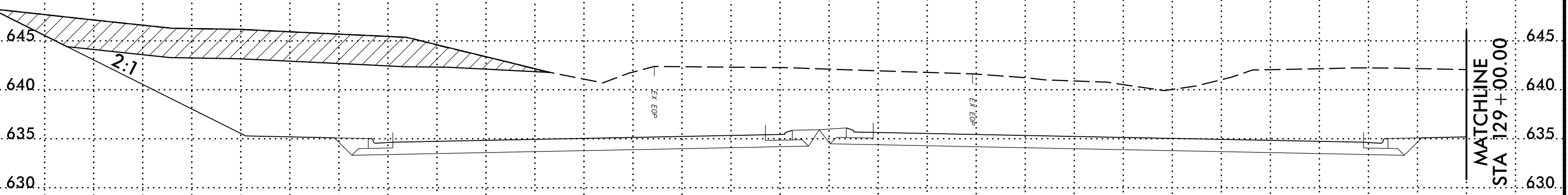
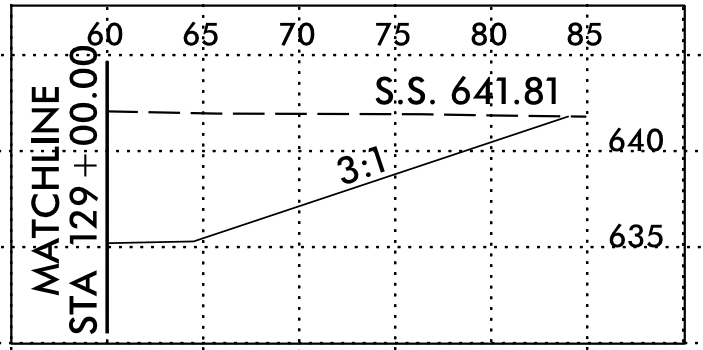
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25 30 35 40 45 50 55 60



DERITA ROAD  
L2  
129+50.00



DERITA ROAD  
L2  
129+00.00

- UNDERCUT EXCAVATION
- UNSUITABLE UNCLASSIFIED EXCAVATION

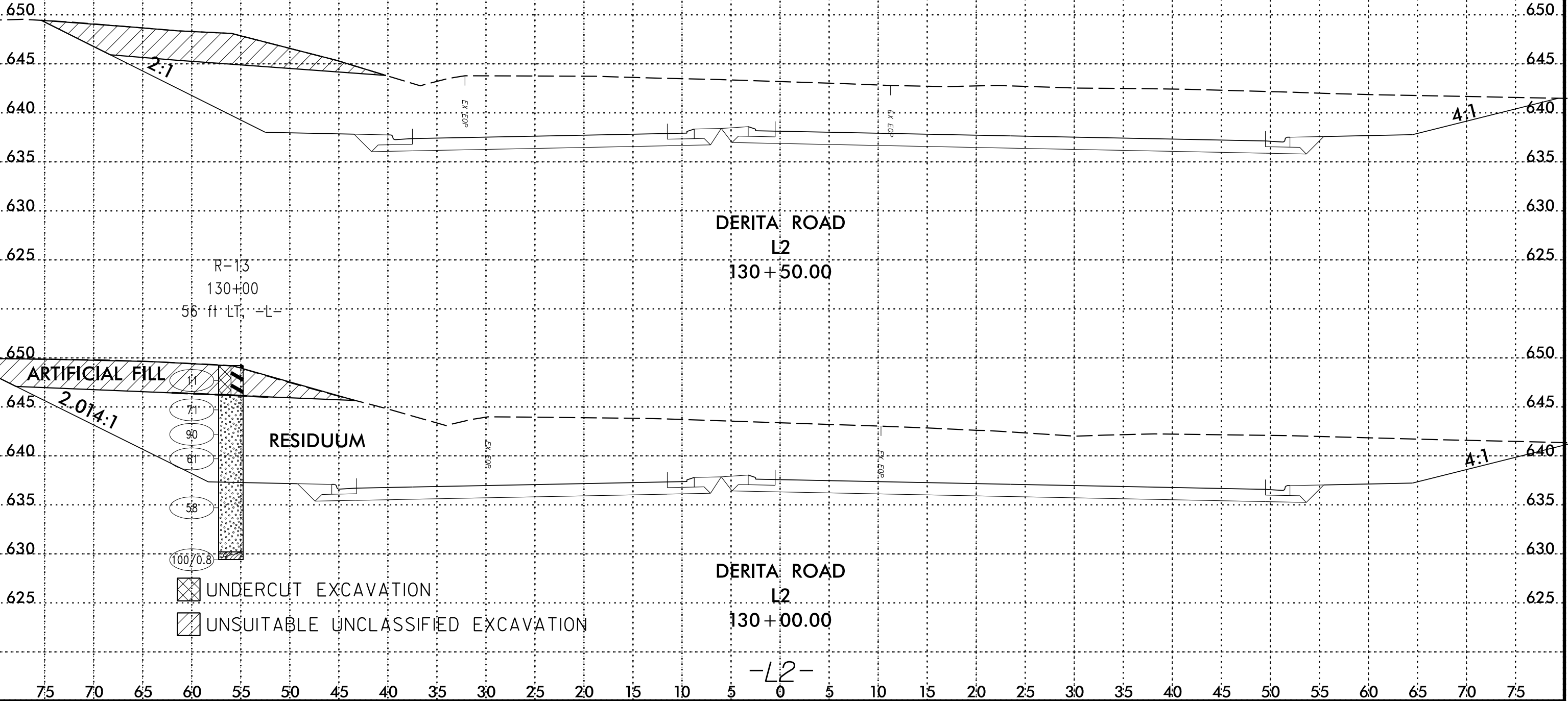
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CUTLINE  
SECTION  
USURANCE

8/23/99

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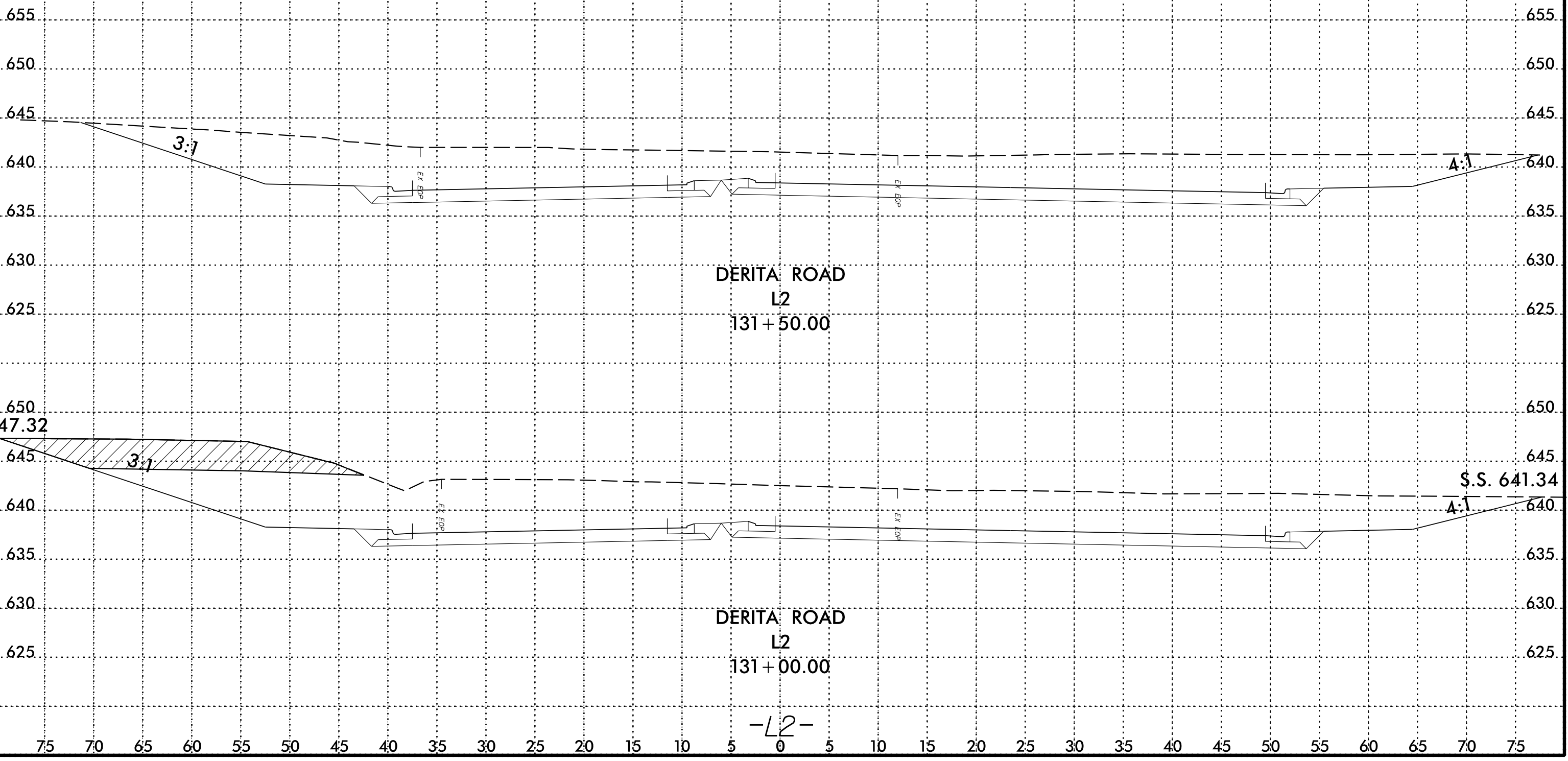
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 CUTLINE  
 SECTION  
 USERNAME

-L2-

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
		6

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S.S. 647.32

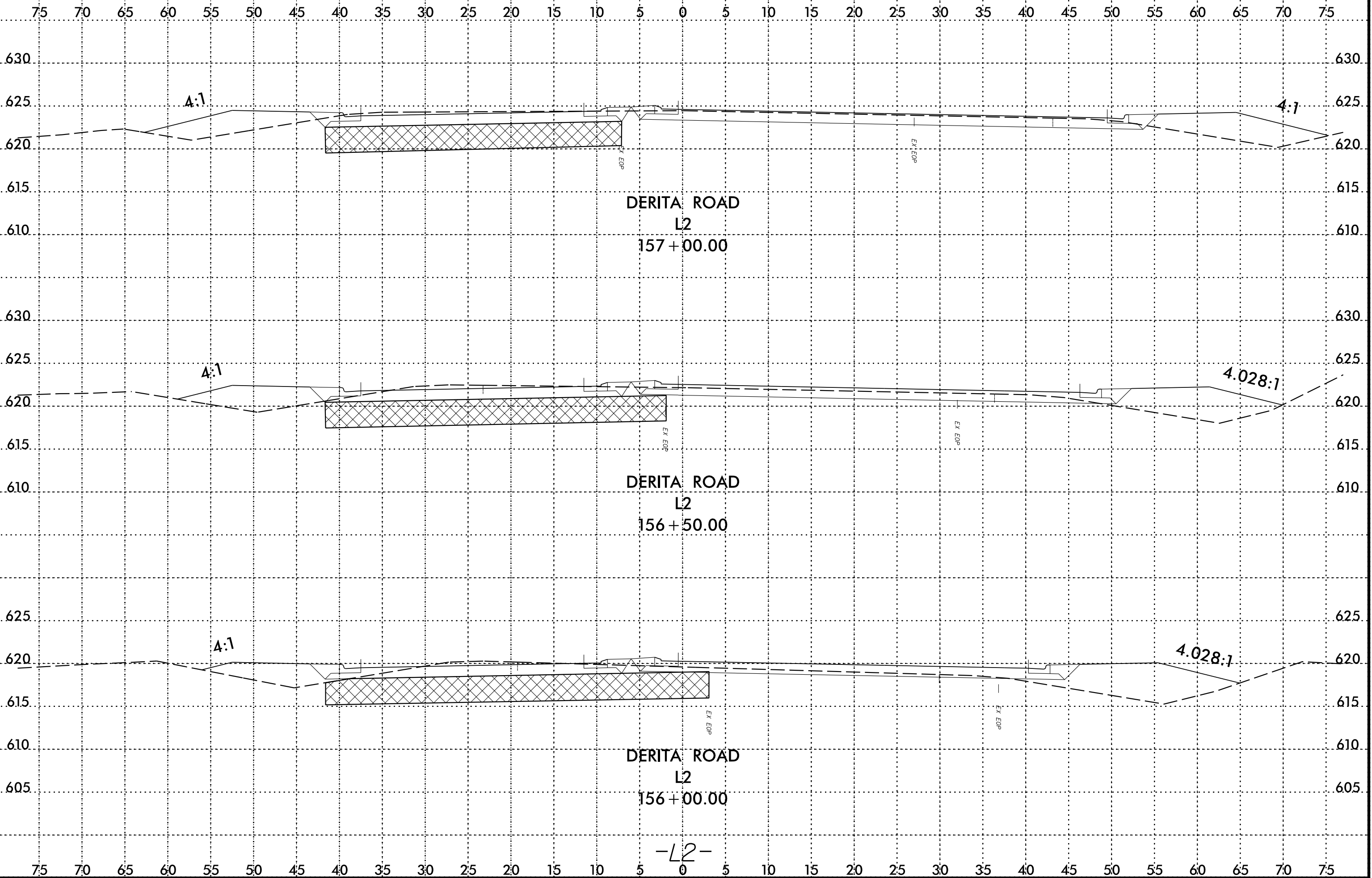
S.S. 641.34

DERITA ROAD  
L2  
131+50.00

DERITA ROAD  
L2  
131+00.00

-L2-

8/23/99

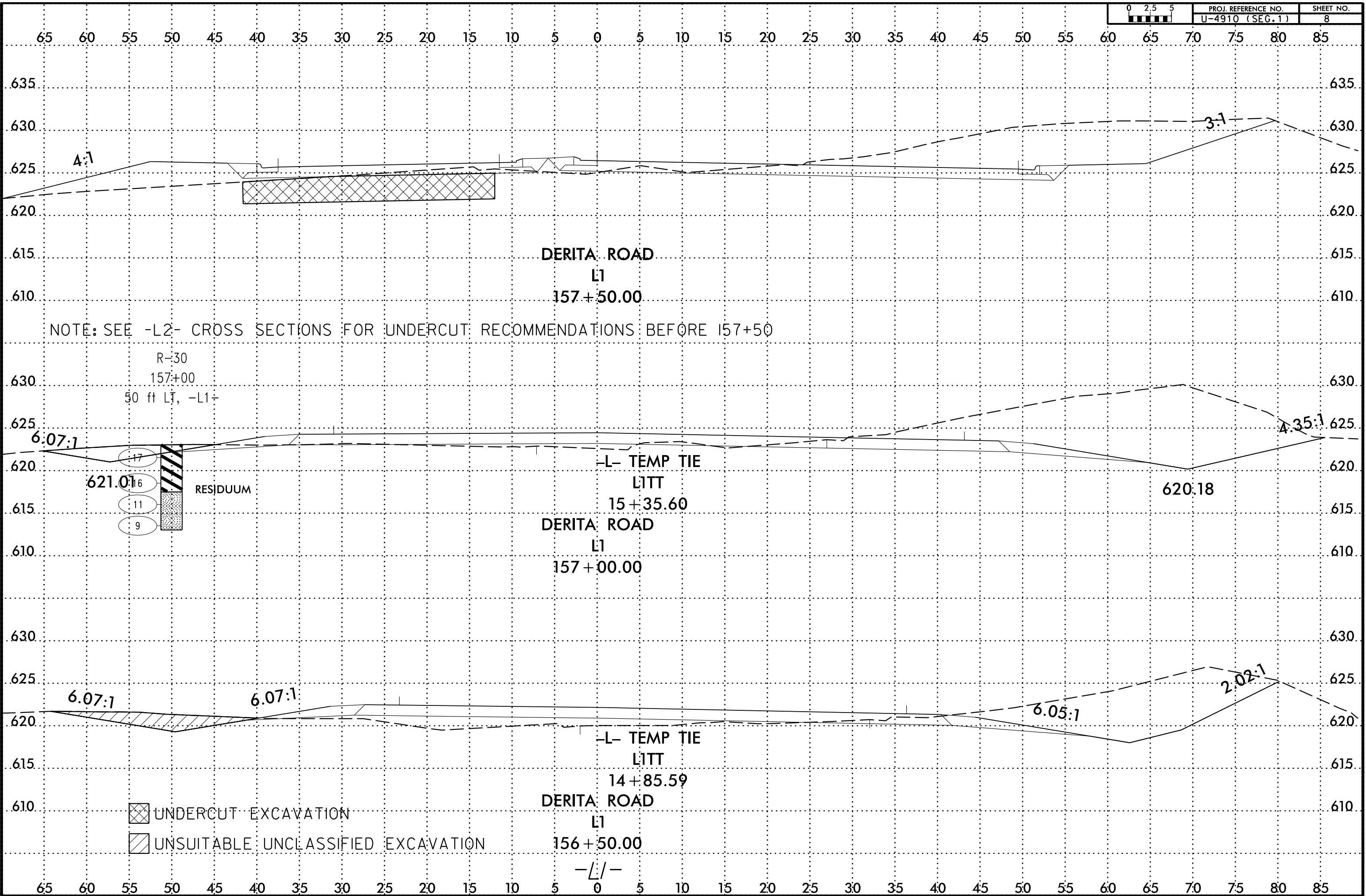


CUSTOMER: \$\$\$\$\$\$  
DESIGN: \$\$\$\$\$\$  
DATE: \$\$\$\$\$\$  
USER: NAME: \$\$\$\$\$\$

-L2-



8/23/99



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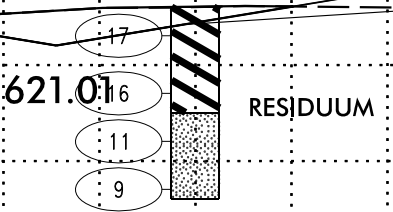
635  
630  
625  
620  
615  
610

DERITA ROAD  
L1  
157+50.00

NOTE: SEE -L2- CROSS SECTIONS FOR UNDERCUT RECOMMENDATIONS BEFORE 157+50

R-30  
157+00  
50 ft LT, -L1-

630  
625  
620  
615  
610



RESIDUUM

-L- TEMP TIE  
L1TT  
15+35.60

DERITA ROAD  
L1  
157+00.00

630  
625  
620  
615  
610

-L- TEMP TIE  
L1TT  
14+85.59

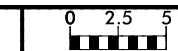
DERITA ROAD  
L1  
156+50.00

- UNDERCUT EXCAVATION
- UNSUITABLE UNCLASSIFIED EXCAVATION

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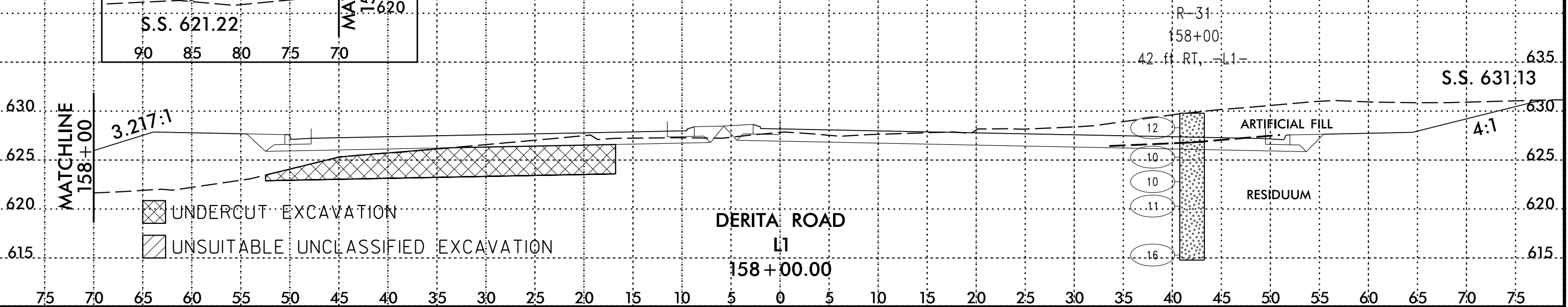
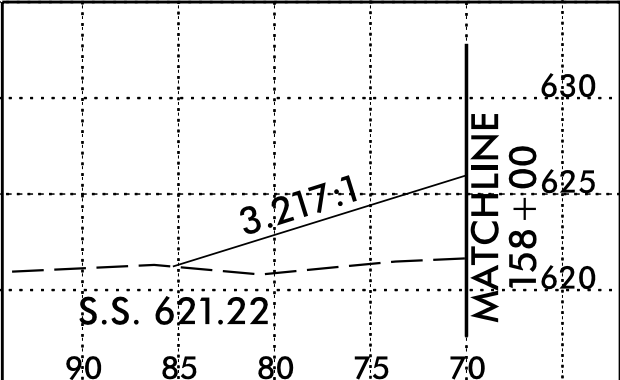
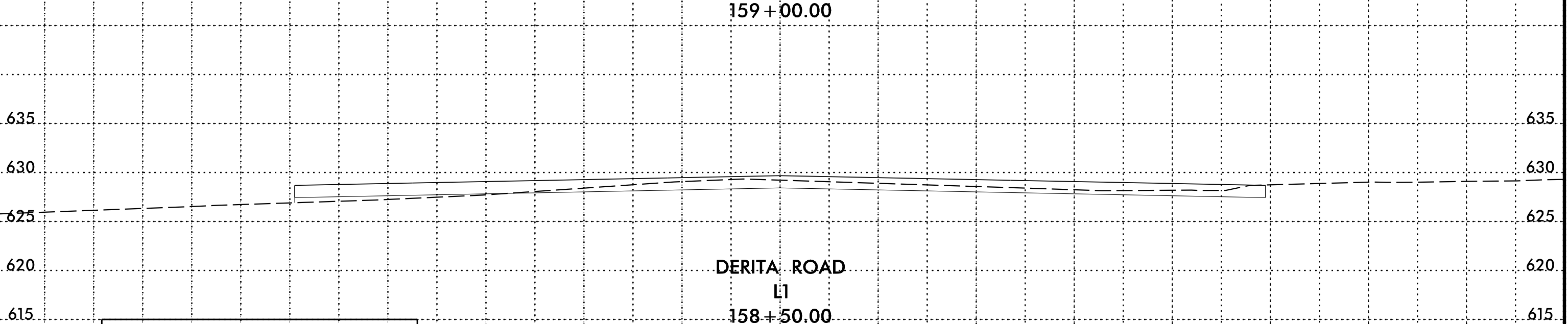
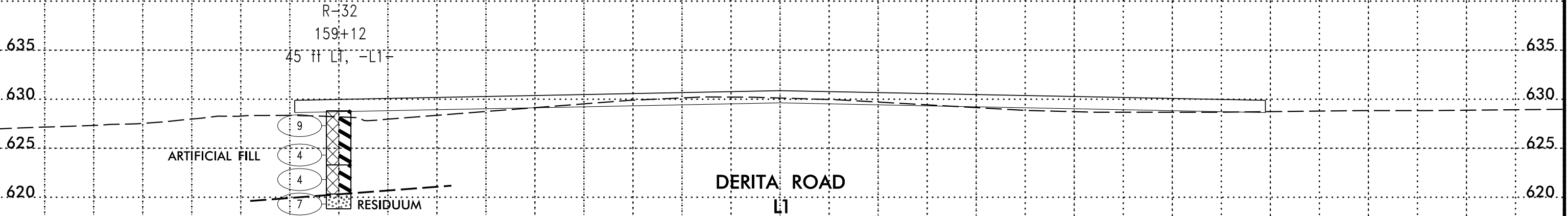
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PROJ. REFERENCE NO. U-4910 (SEG. 1) SHEET NO. 9

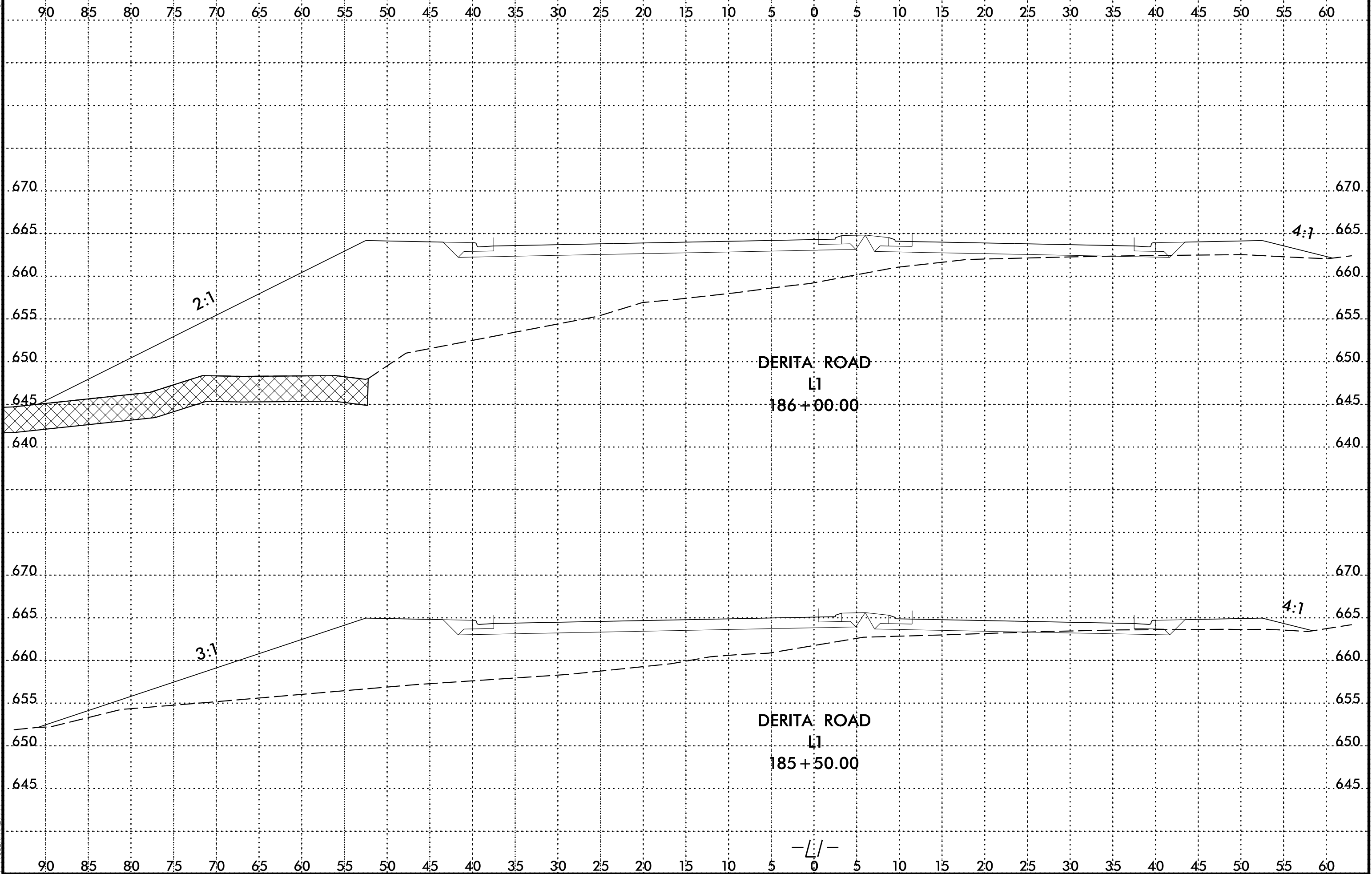
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- UNDERCUT EXCAVATION
- UNSUITABLE UNCLASSIFIED EXCAVATION

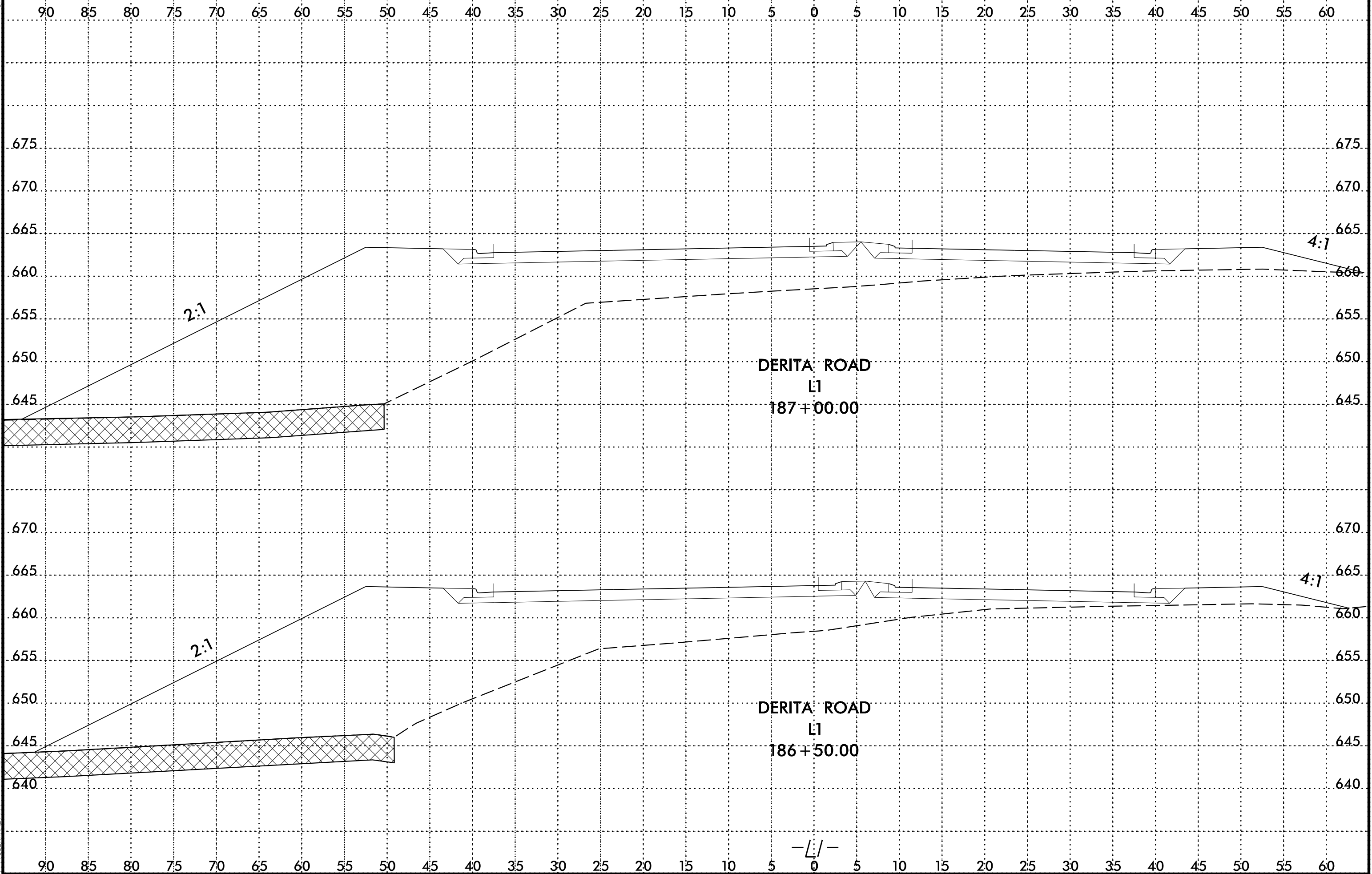
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8/23/99



CUSTOMER'S USE ONLY

8/23/99

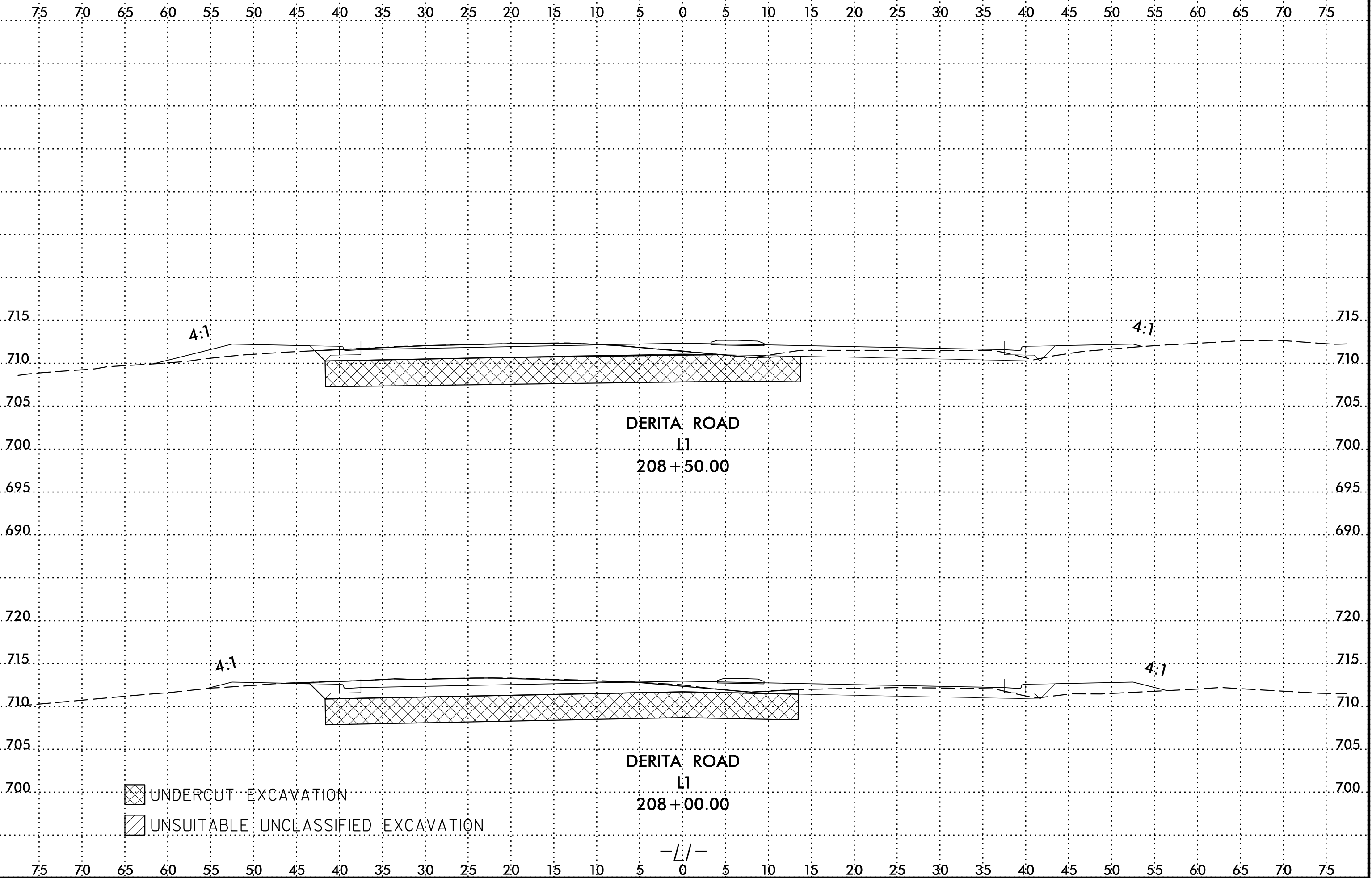


CUSTOMER'S USE ONLY

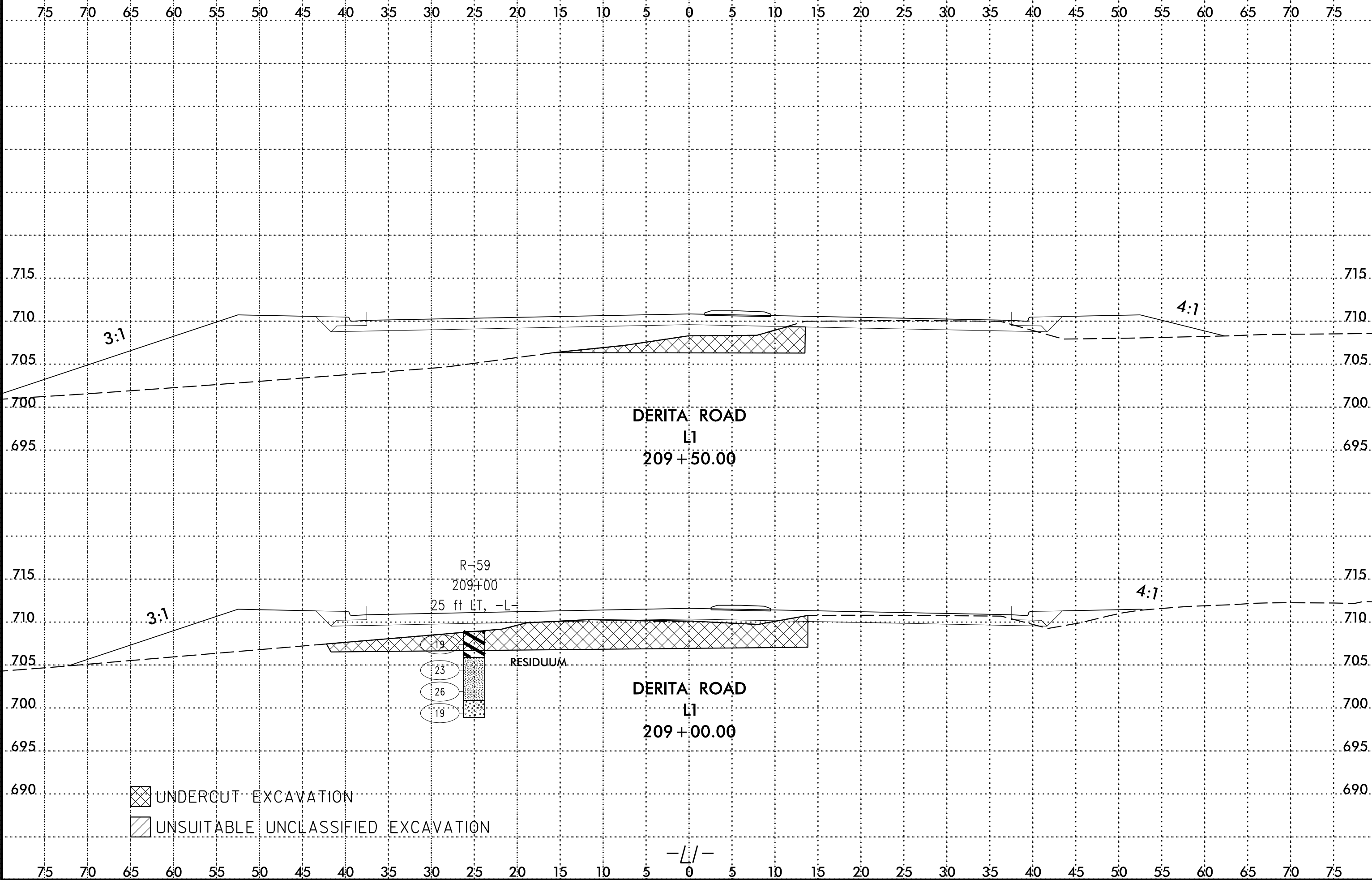
-L/-

8/23/99  
 C:\TIMES\DESIGN\UNCLAS\UNCLAS\UNCLAS

0 2.5 5 	PROJ. REFERENCE NO. U-4910 (SEG. 1)	SHEET NO. 12
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8/23/99

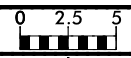


UNDERCUT EXCAVATION  
 UNSUITABLE UNCLASSIFIED EXCAVATION

-L/-

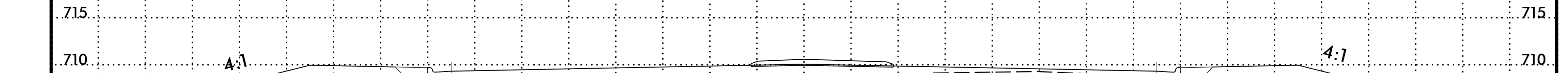
CUTLINE  
SECTION  
USURANCE

8/23/99

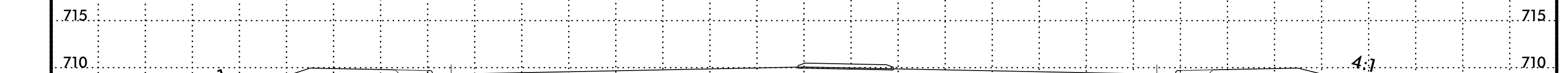


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SHEET NO. 14

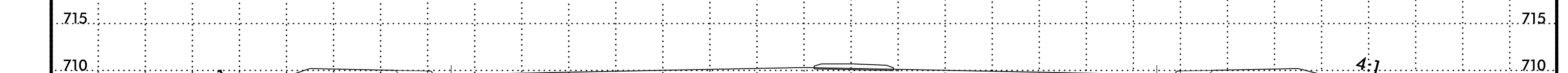
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DERITA ROAD  
L1  
211+00.00



DERITA ROAD  
L1  
210+50.00



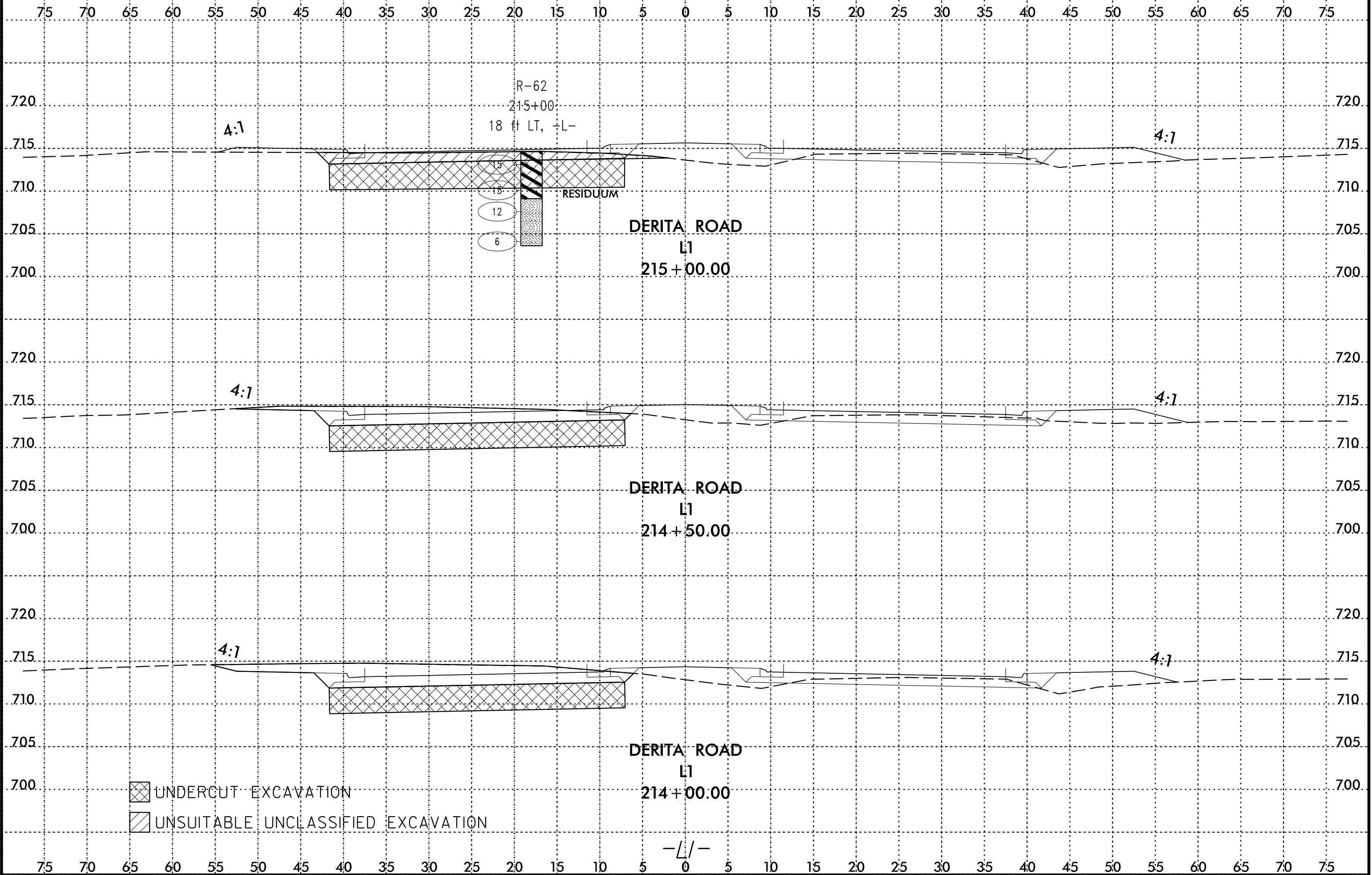
DERITA ROAD  
L1  
210+00.00

-L/-

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

CUSTOMER'S PROPERTY  
NOT TO BE USED FOR ANY OTHER PROJECT  
WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER

8/23/99

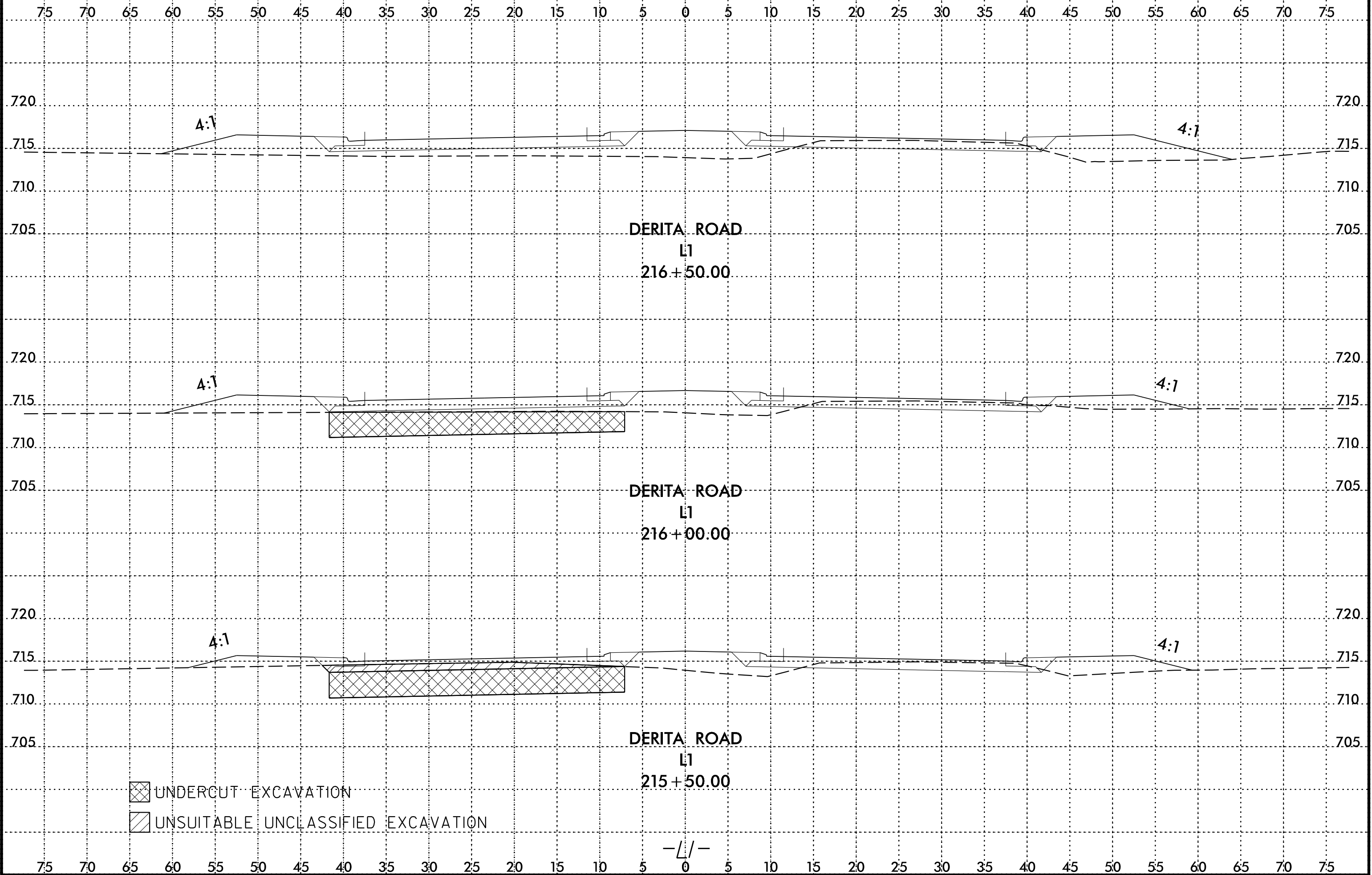




UNDERCUT EXCAVATION  
 UNSUITABLE UNCLASSIFIED EXCAVATION

-L/-



8/23/99



-  UNDERCUT EXCAVATION
-  UNSUITABLE UNCLASSIFIED EXCAVATION

-L/-

CUSTOMER: \$\$\$\$\$\$  
DESIGN: \$\$\$\$\$\$  
DATE: \$\$\$\$\$\$  
DRAWN: \$\$\$\$\$\$  
CHECKED: \$\$\$\$\$\$  
APPROVED: \$\$\$\$\$\$  
SCALE: \$\$\$\$\$\$  
SHEET: \$\$\$\$\$\$  
PROJECT: \$\$\$\$\$\$  
LOCATION: \$\$\$\$\$\$  
DESCRIPTION: \$\$\$\$\$\$  
REVISIONS: \$\$\$\$\$\$  
REVISION 1: \$\$\$\$\$\$  
REVISION 2: \$\$\$\$\$\$  
REVISION 3: \$\$\$\$\$\$  
REVISION 4: \$\$\$\$\$\$  
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