

REFERENCE: W-5701C

PROJECT: 44847

SEE SHEET 3 FOR PLAN SHEET LAYOUT  
AT TIME OF INVESTIGATION

CONTENTS

<u>LINE</u>	<u>STATION</u>	<u>PLAN</u>	<u>XSC</u>
-L-	I5+00 TO 27+10	4-5	6-15

SAMPLE TEST RESULTS

<u>SHEET</u>
16

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

**ROADWAY  
SUBSURFACE INVESTIGATION**

COUNTY PASQUOTANK  
PROJECT DESCRIPTION SR 1333 (WEST MAIN STREET  
EXTENSION) NORTH OF ELIZABETH CITY

INVENTORY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5701C	1	16

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 PERFORM INDEPENDENT SUBSURFACE INVESTIGATIONS AND MAKE INTERPRETATIONS AS NECESSARY TO CONFIRM CONDITIONS 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

S.N. ZIMARINO

C.M. WALKER

J.M. EDMONDSON

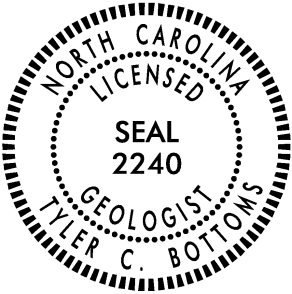
INVESTIGATED BY T. CBOTTOMS

DRAWN BY S.N. ZIMARINO

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE MAY 2024



DocuSigned by:  
Tyler Bottoms 05/20/2024  
48A2D3BD08CF4A6...  
SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

# GEOTECHNICAL ENGINEERING UNIT

## SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

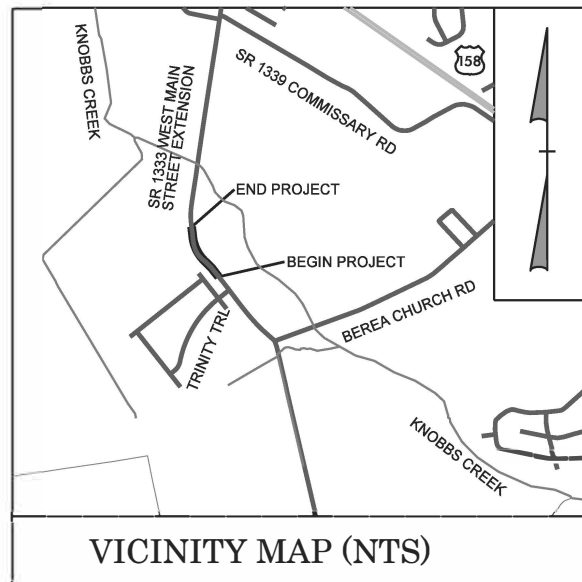
DATE: 8-15-14

09/08/09

TIP PROJECT: W-5701C

CONTRACT:

See Sheet 1A For Index of Sheets



VICINITY MAP (NTS)

25% PLAN SET

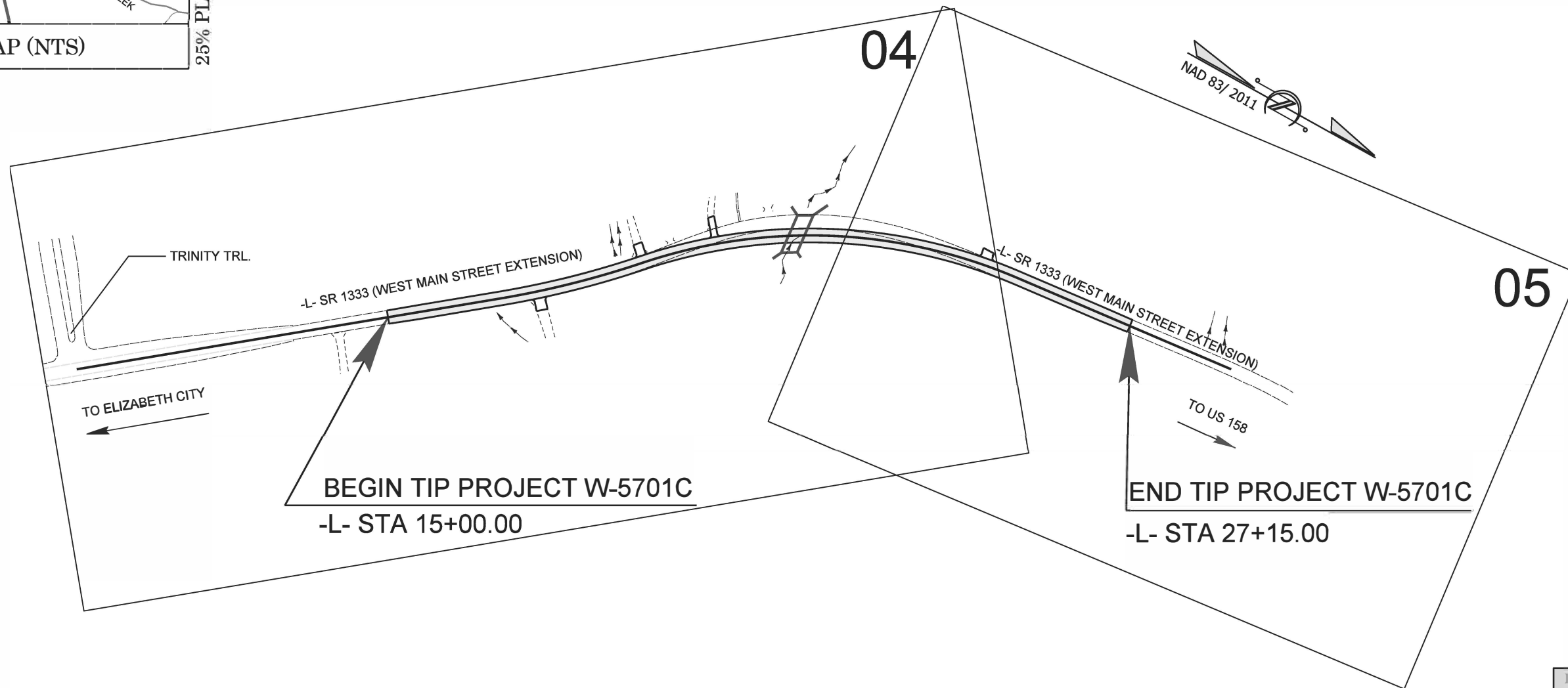
# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## PASQUOTANK COUNTY

LOCATION: *SR 1333 (WEST MAIN STREET EXTENSION)*  
*NORTH OF ELIZABETH CITY*

TYPE OF WORK: *WIDENING, GRADING, PAVING,  
DRAINAGE, AND CULVERT*

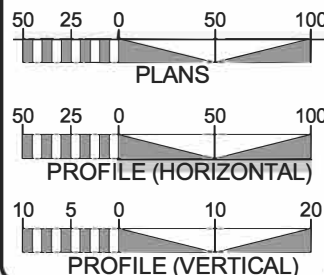
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5701C	3	16
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
WBS 44847.1.3	HSIP-1333(010)	PE	



NCDOT CONTACT: RYAN SHOOK, DIVISION 1 PROJECT MANAGER  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD \_\_\_\_

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

### GRAPHIC SCALES



### DESIGN DATA

ADT 2024 = 1810  
ADT 2044 = 1830  
K = %  
D = %  
T = % \*  
V = 50 MPH  
\* TTST = DUAL  
FUNC CLASS =  
MINOR COLLECTOR  
SUBREGIONAL TIER

### PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT W-5701C = 0.230 MILES  
LENGTH OF STRUCTURE TIP PROJECT W-5701C = 0.000 MILES  
TOTAL LENGTH TIP PROJECT W-5701C = 0.230 MILES

Prepared in the Office of:  
**ATKINS**  
1616 EAST MILLBROOK ROAD, SUITE 160  
RALEIGH, NORTH CAROLINA 27609  
(919) 876-6888 NCBES #F-0326

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
MARCH 5, 2024

LETTING DATE:  
AUGUST 21, 2024

VIRGINIA SCHAAR, P.E.  
PROJECT ENGINEER

CHRISTOPHER RESTREPO  
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.  
ROADWAY DESIGN ENGINEER

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





STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J.R. “JOEY” HOPKINS  
SECRETARY

May 6, 2024

State Project: 44847.1.10 (W-5701C)  
F.A. Project: HSIP-1333(010)  
County: Pasquotank  
Description: SR 1333 (West Main Street Extension) North of Elizabeth City  
  
Subject: Geotechnical Inventory Report

**Project Description**

This project begins in the town of Elizabeth City in Pasquotank County, 1800 feet northwest of the intersection of SR 1333 (West Main Street Extension) and SR 1338 (Berea Church Road) and extends north along SR 1333 (-L-) for approximately 1215 feet across a Tributary of Knobbs Creek. This geotechnical investigation was confined to the areas of proposed construction.

Fieldwork was conducted in March of 2024. Hand auger borings were completed at various offsets along the project corridor. Representative soil samples were collected for visual classification in the field and for laboratory analysis by the Materials and Tests unit.

The following alignment was investigated:

<u>Line</u>	<u>Station(±)</u>
-L-	15+00 to 27+15

**Areas of Special Geotechnical Interest**

- 1) The entire project was found to exhibit seasonal high ground water.
- 2) The following sections contain cohesive soils which have the potential to cause embankment/subgrade and or slope stability problems during construction:

<u>Line</u>	<u>Station(±)</u>
-L-	17+75 to 18+25
-L-	20+75 to 23+75
-L-	24+75 to 26+25

**Physiography and Geology**

This project corridor is located within the Coastal Plain Physiographic Province. Topography along the project is nearly flat to gently sloping. Natural ground elevations range from 4 to 11± feet above sea level. The roadway embankment elevations range from 8 to 12± feet above sea level.

Surficial soils in this area are generally classified as alluvial or undivided coastal plain sediments.

**Ground Water**

Ground water data was collected in March of 2024 while investigating the culvert approach. Ground water elevations ranged from 3 to 6± feet above sea level.

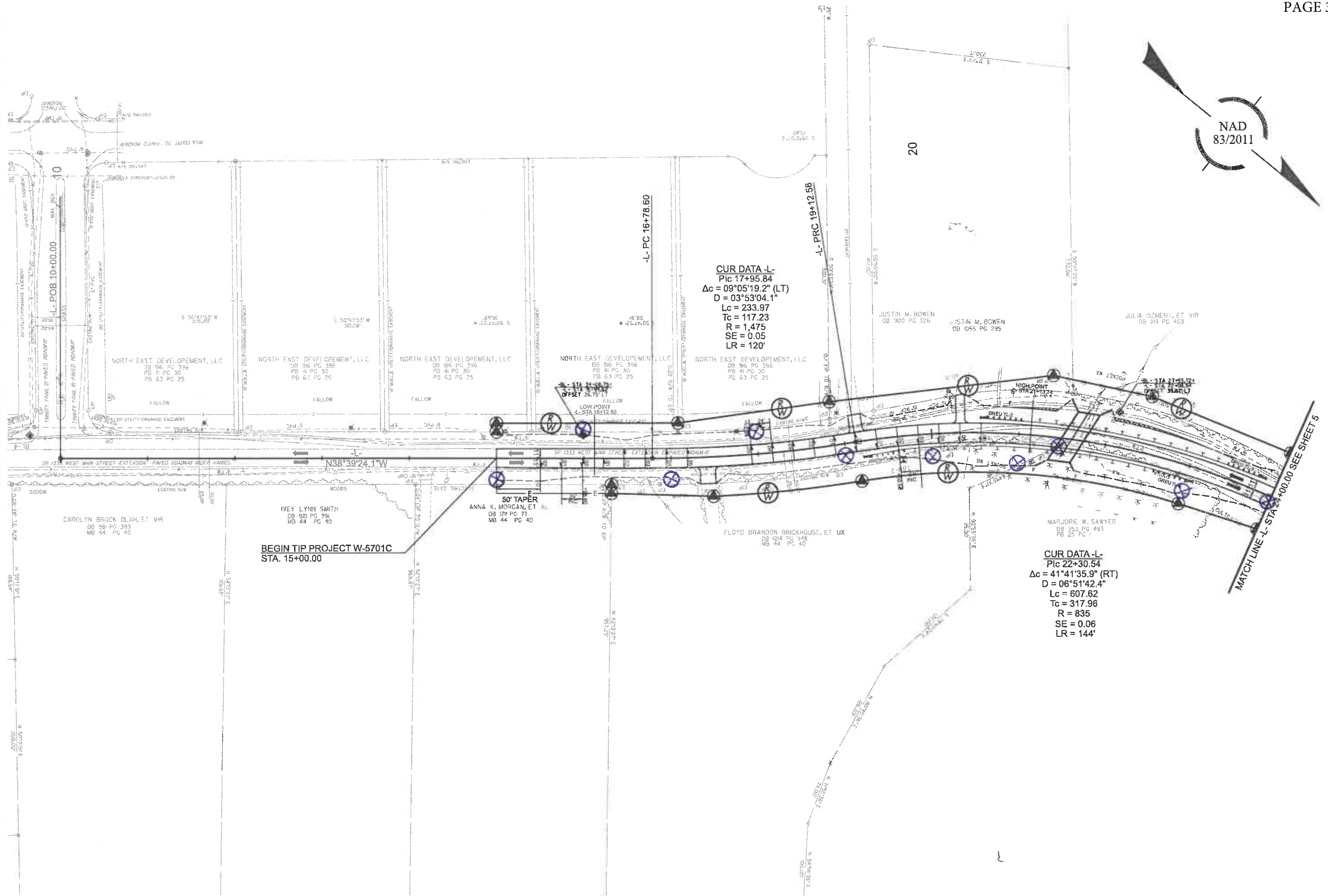
**Soils**

Soils encountered within this project area have been divided into three categories: Roadway embankment, alluvial, and undivided coastal plain.

Roadway embankment soils were found along the existing West Main Steet Extension corridor. Where encountered it was composed of 1.5± to 3.5± feet of very loose to loose sand (A-2-4).

Soils identified as alluvial are composed of 1± feet of loose sand (A-2-4) and 1± to 5.5± feet of soft silt (A-4) and sandy and silty clay (A-6, A-7-6).

Undivided coastal plain soils are comprised of 1± to 6± feet of loose sand (A-2-4).






W-5701C

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NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

PASQUOTANK COUNTY



ROADWAY DESIGN UNIT

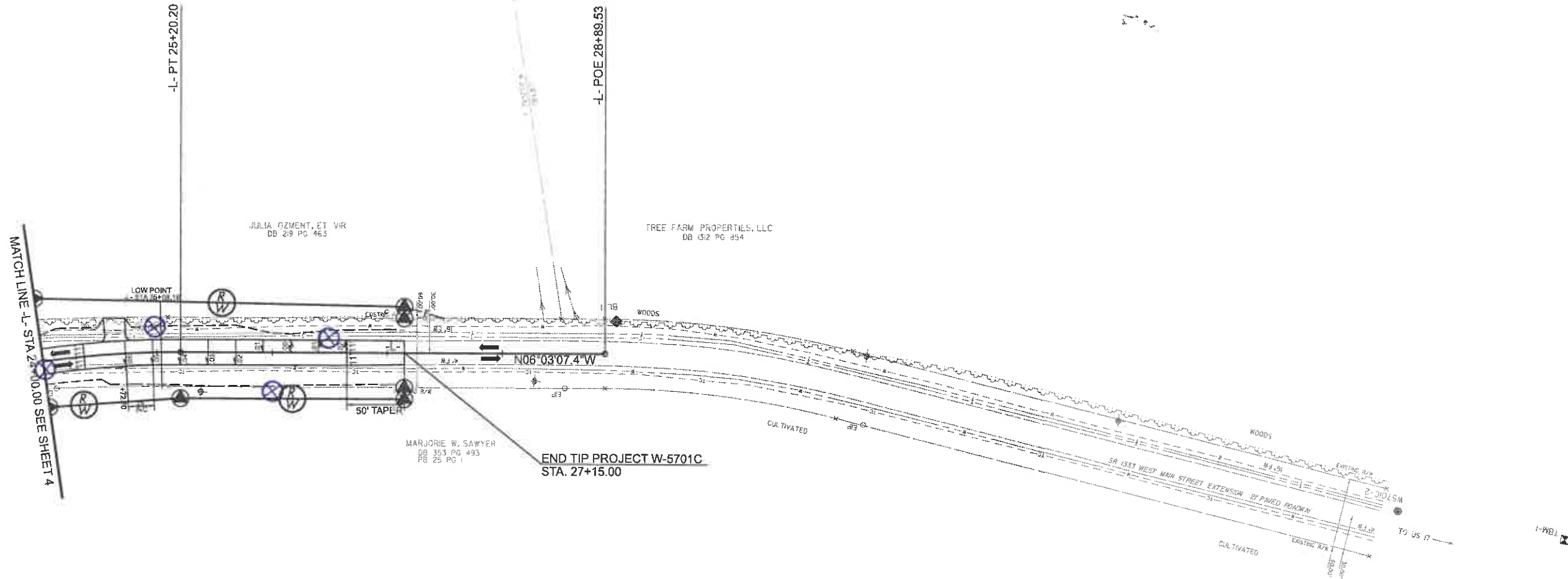
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PREPARED BY

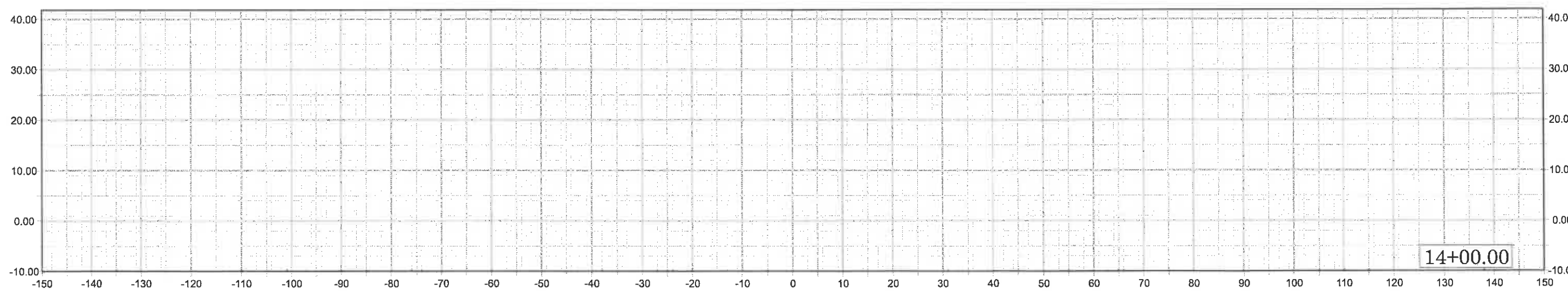
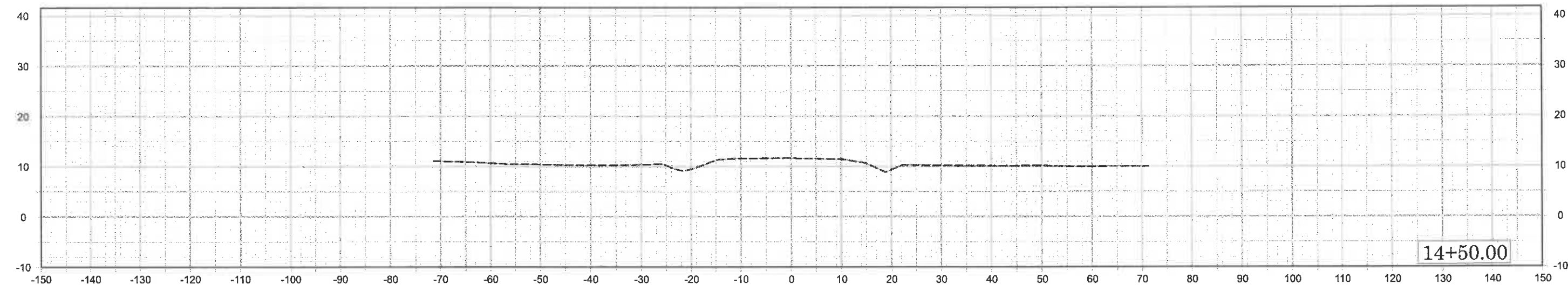
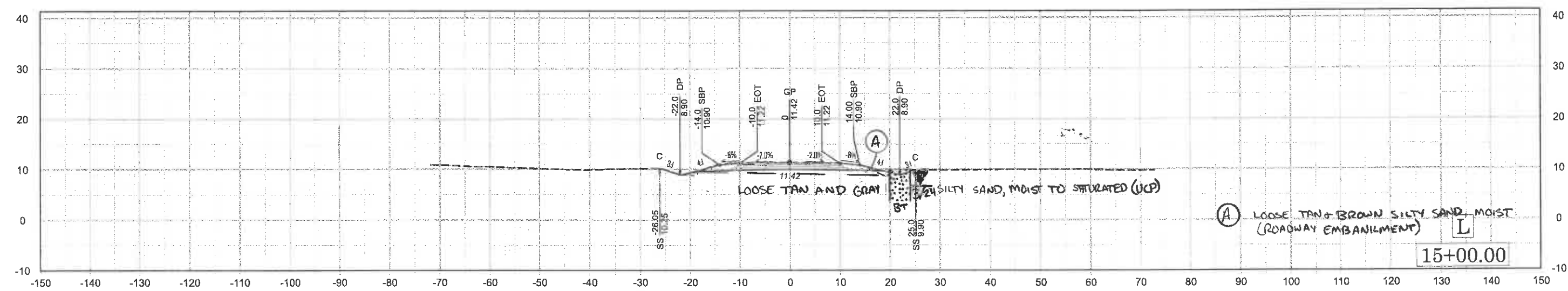
**ATKINS**

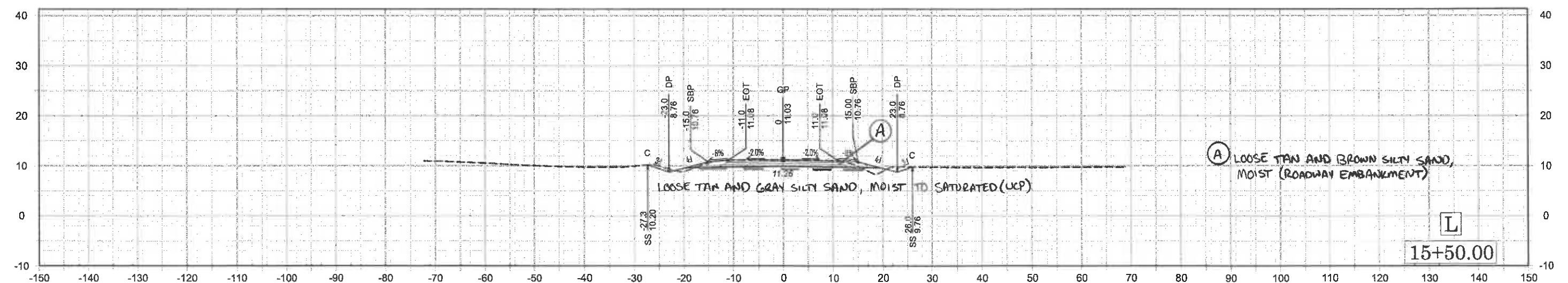
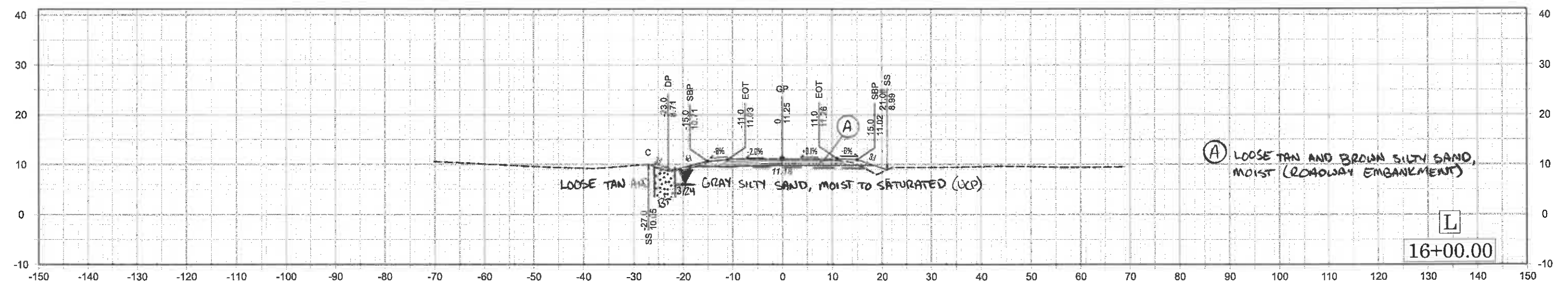
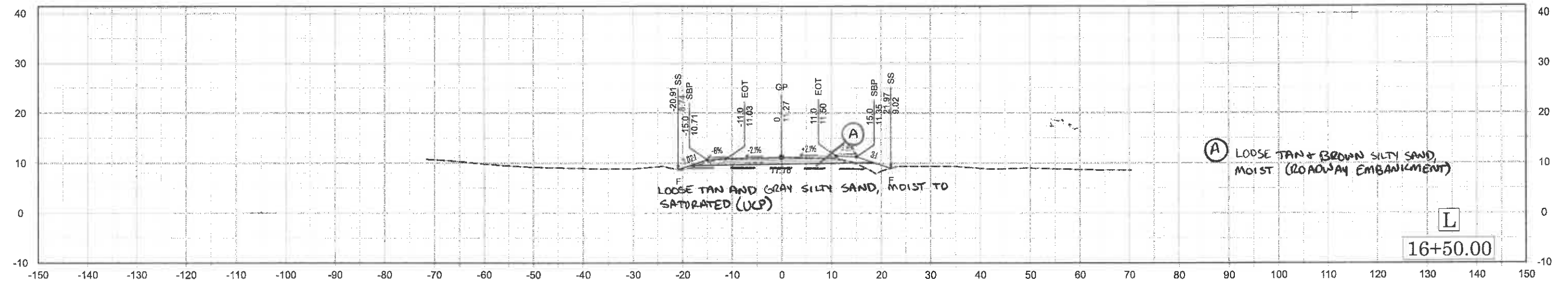
1616 EAST KILLAMORE ROAD, SUITE 100  
KUSTON, NORTH CAROLINA 27849  
(800) 546-0000    706.886.1100



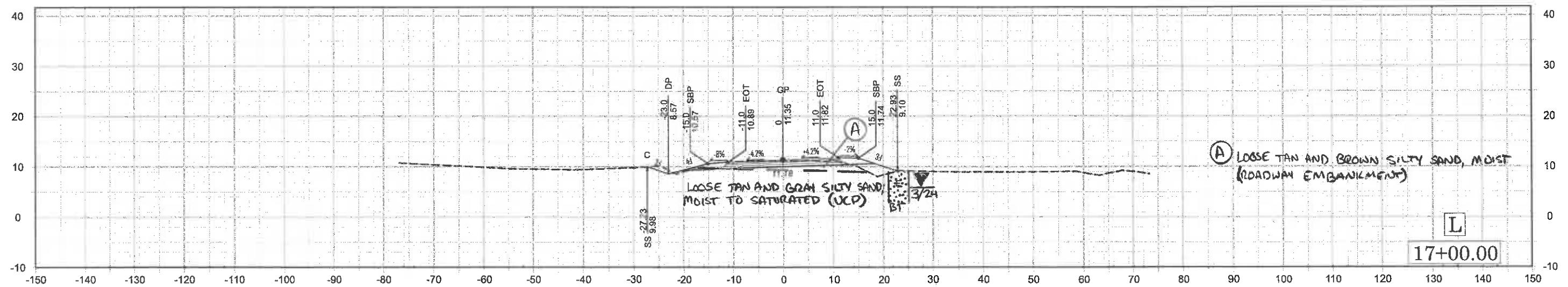
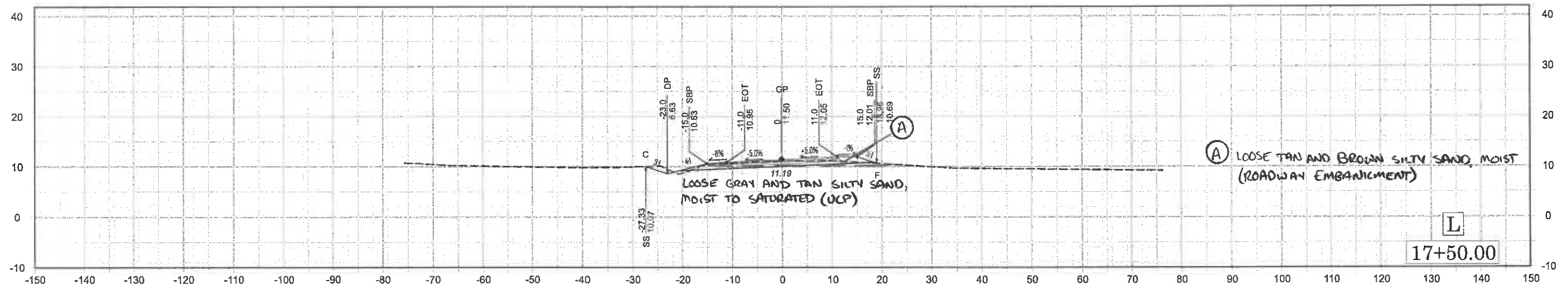
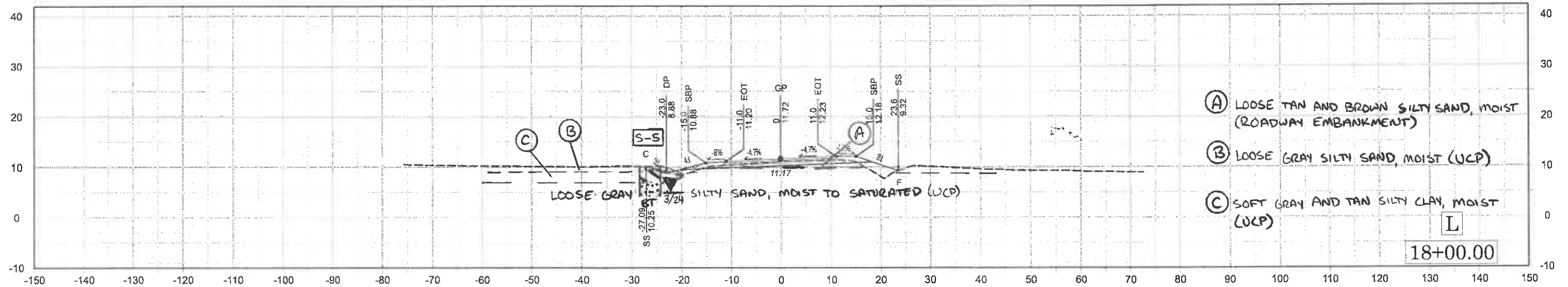
REVISIONS

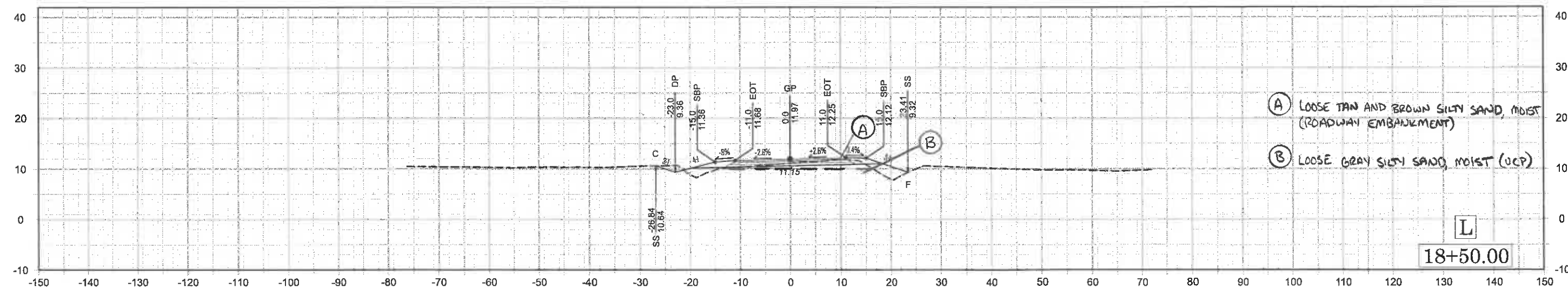
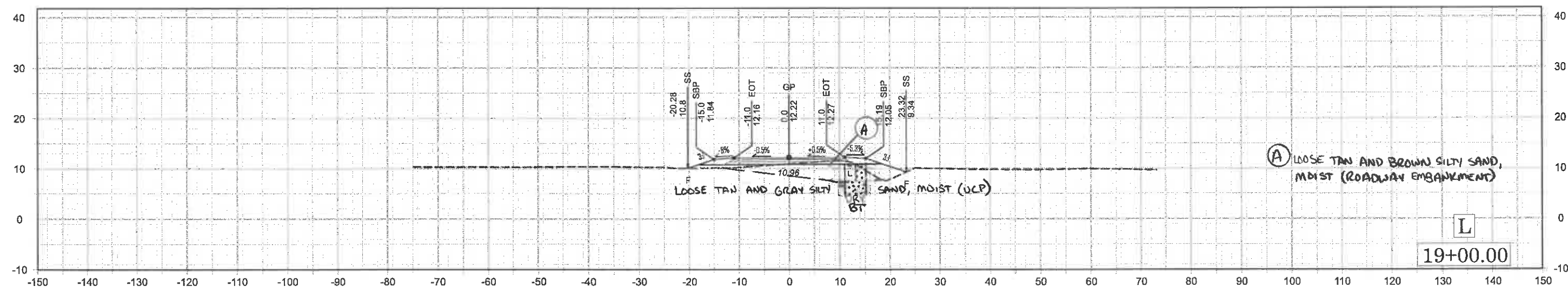
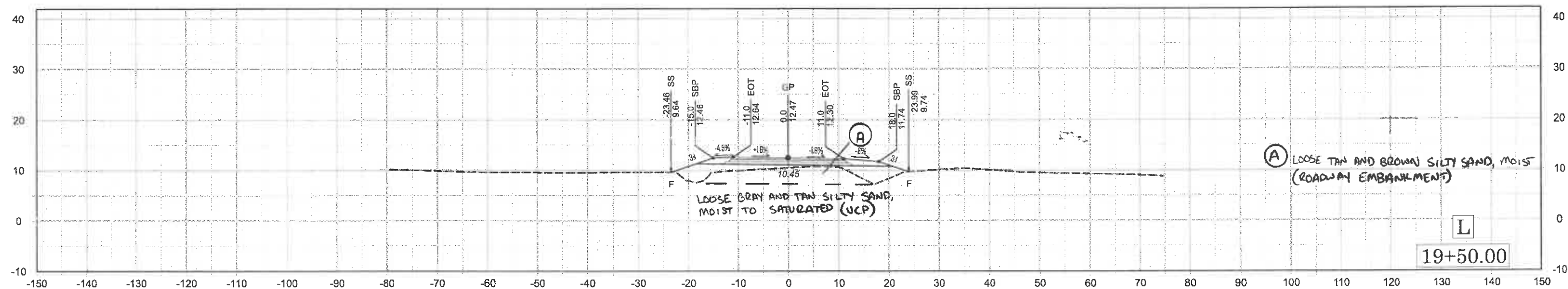
INCOMPLETE PLANS  
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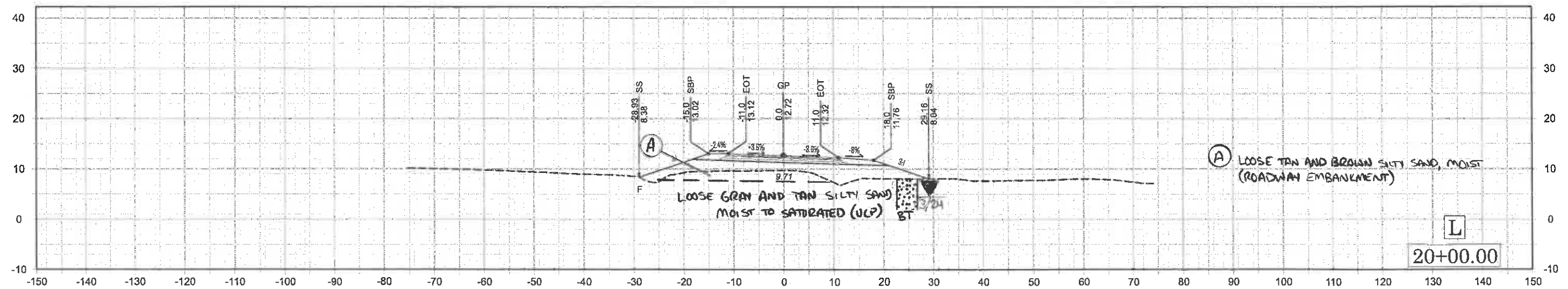
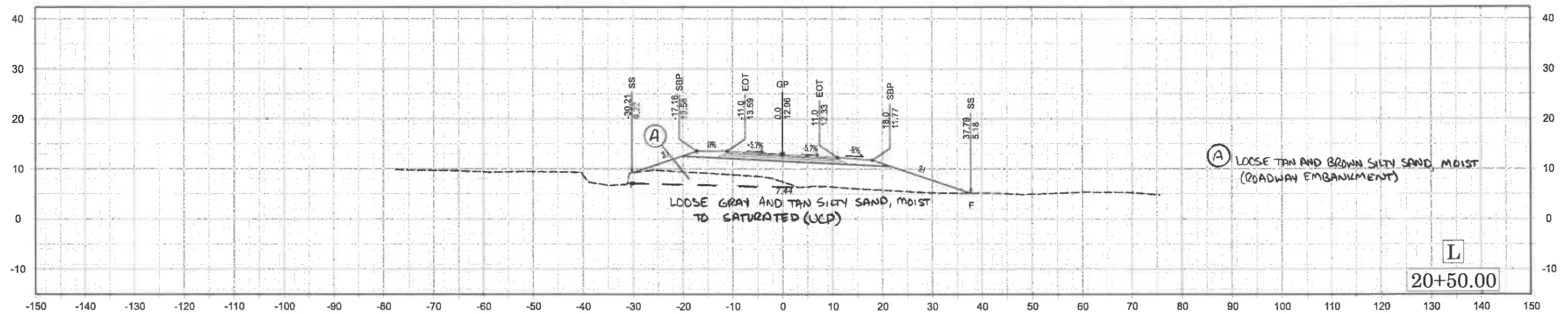
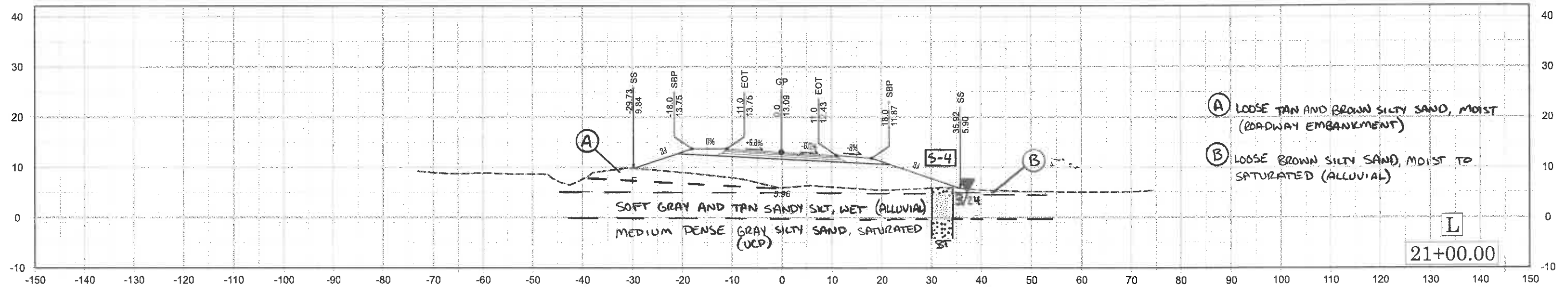


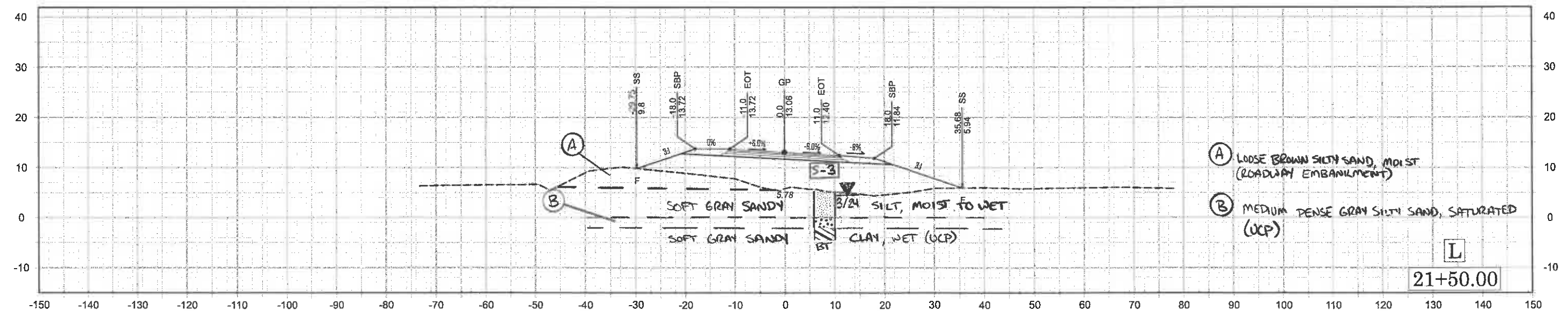
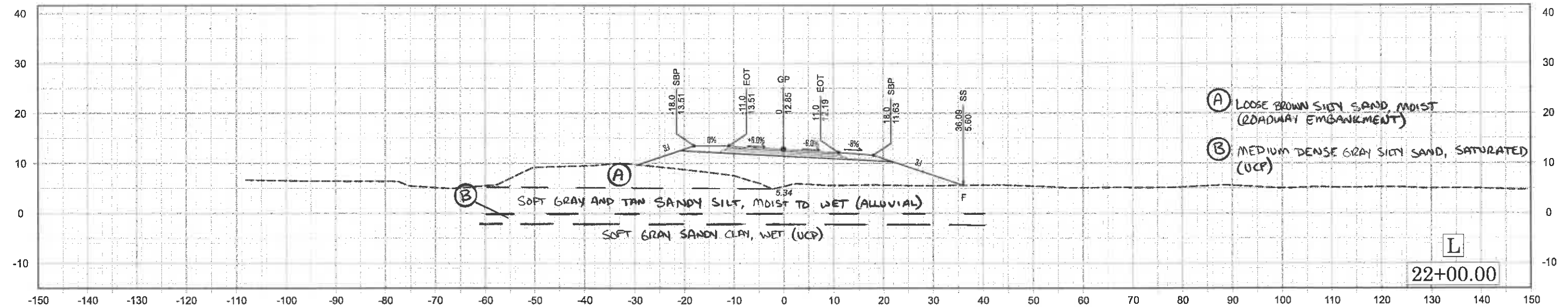
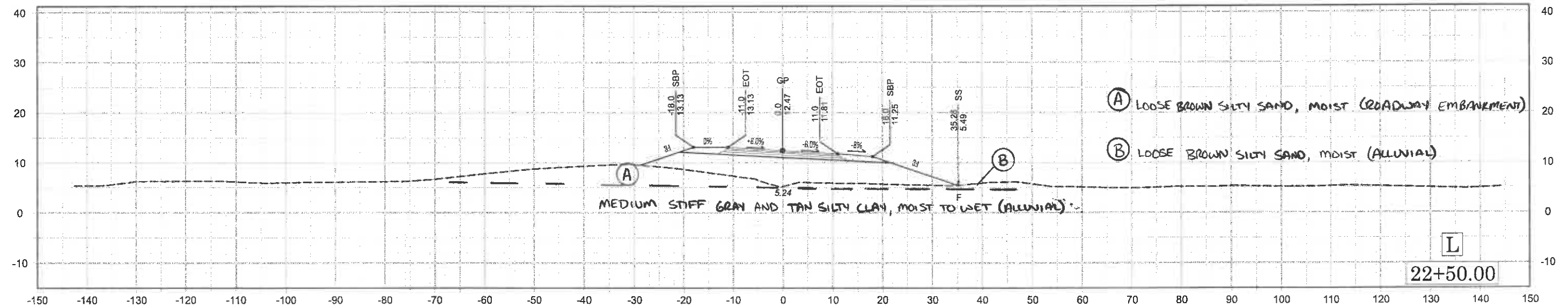




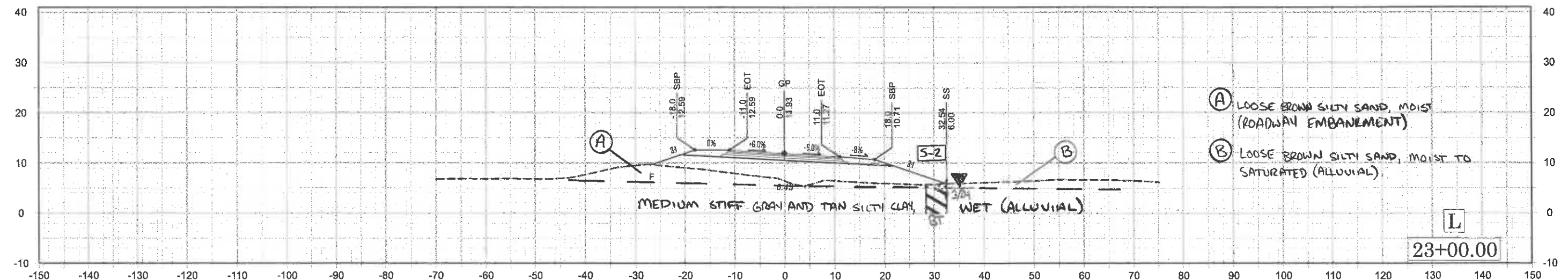
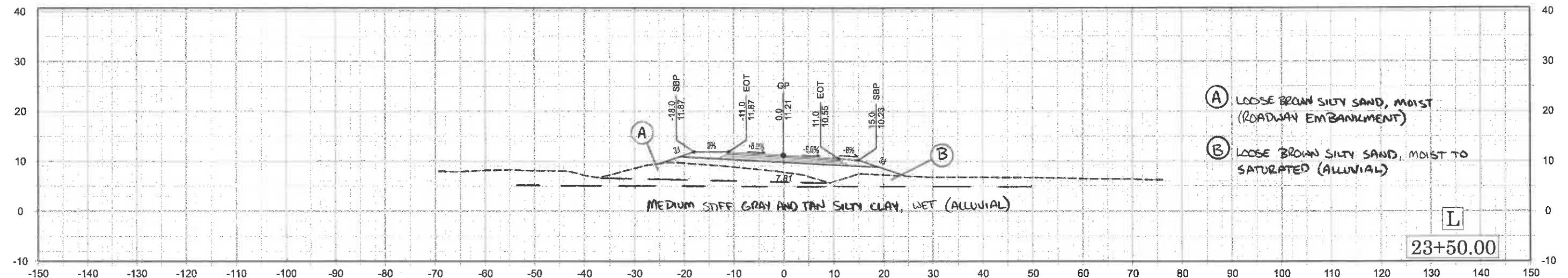
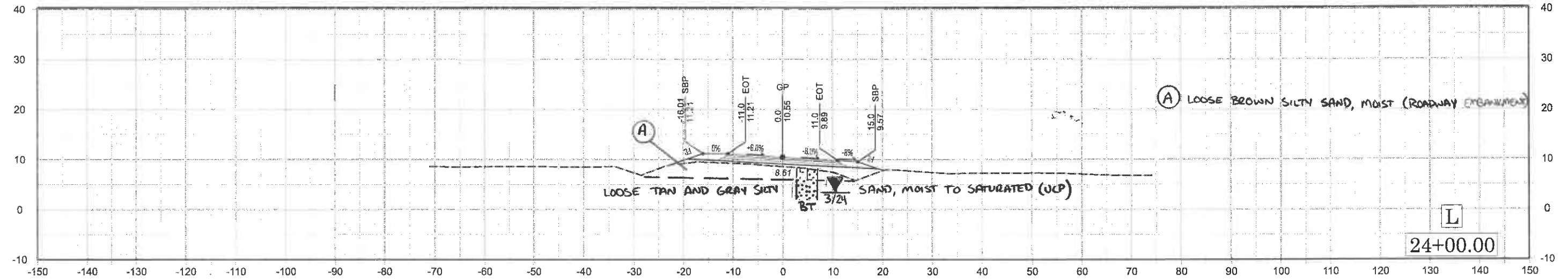




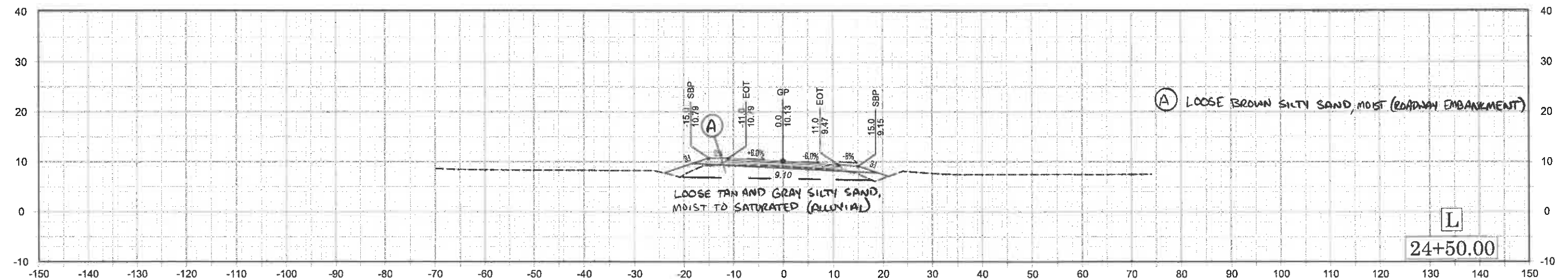
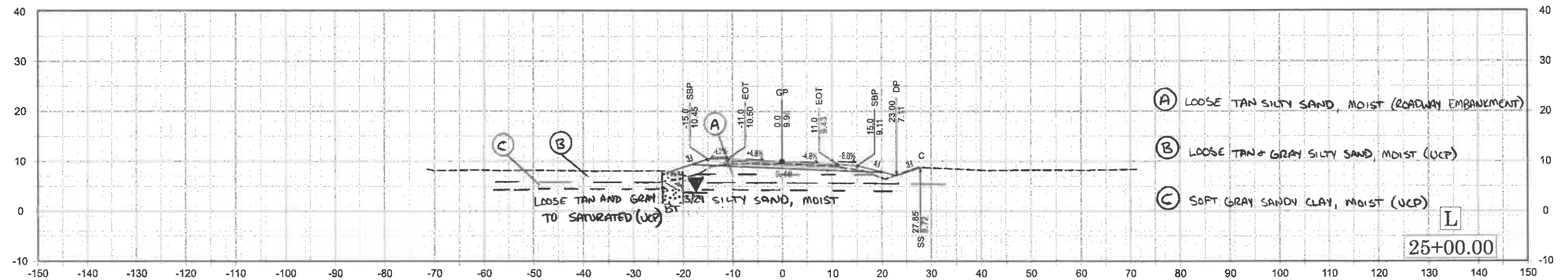
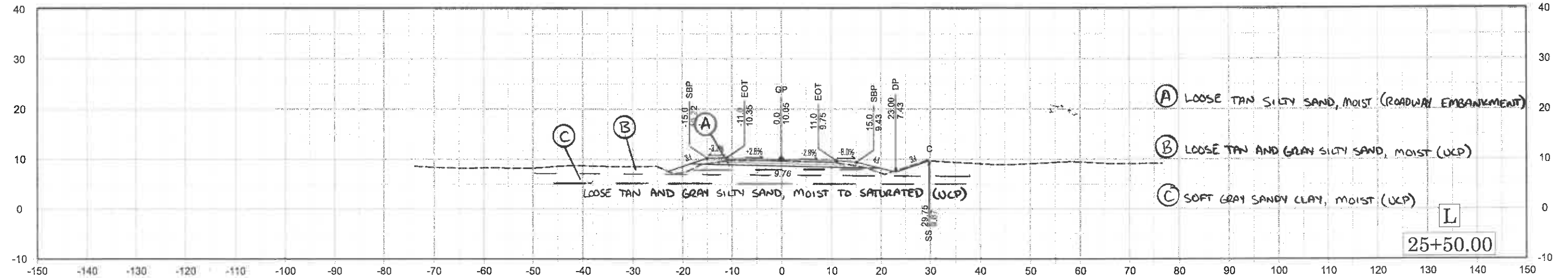


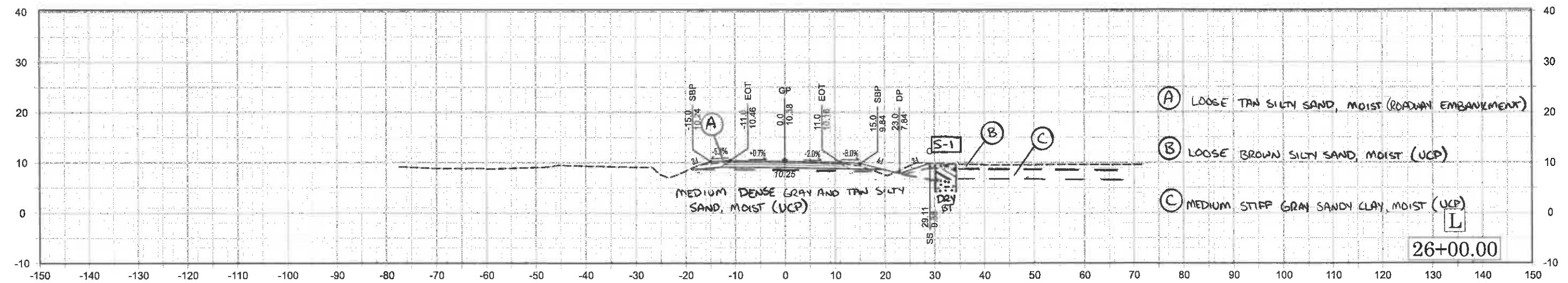
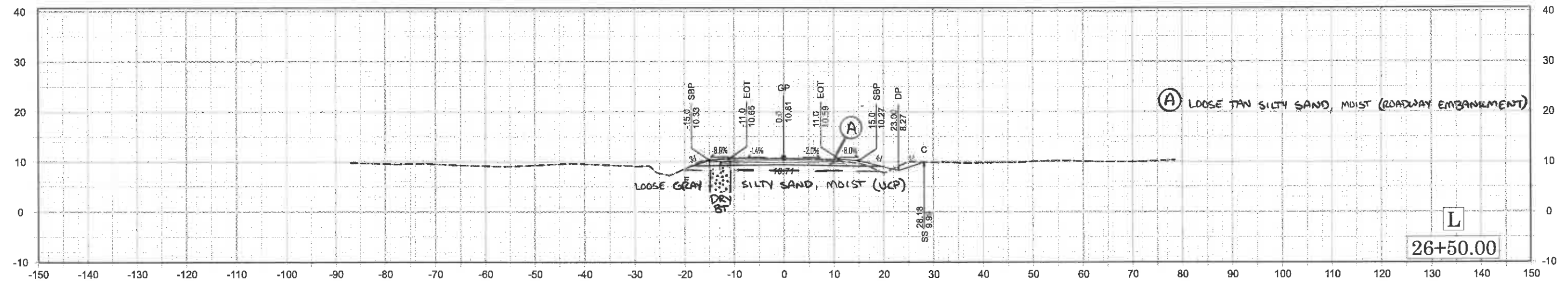
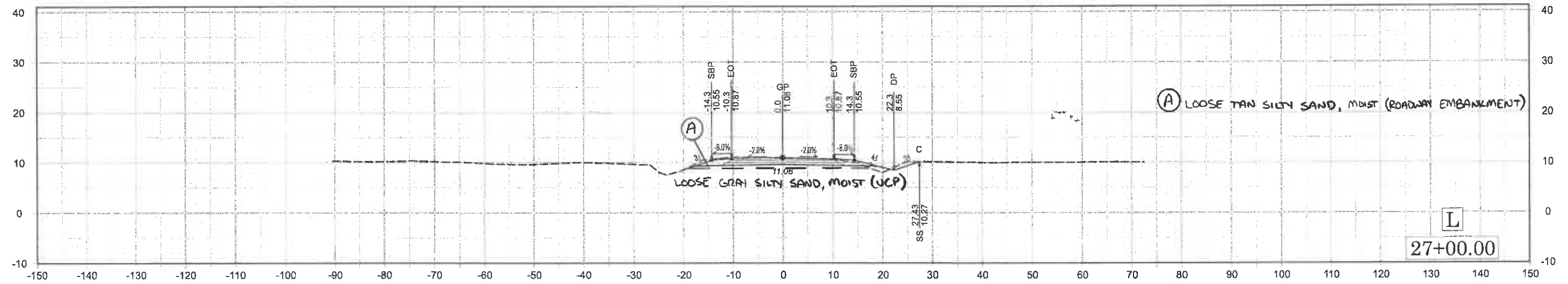




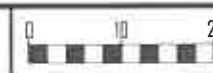




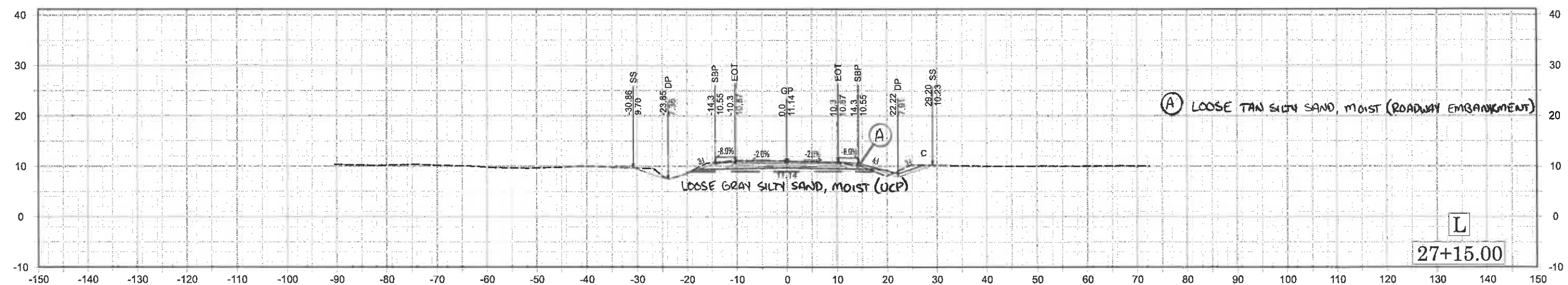
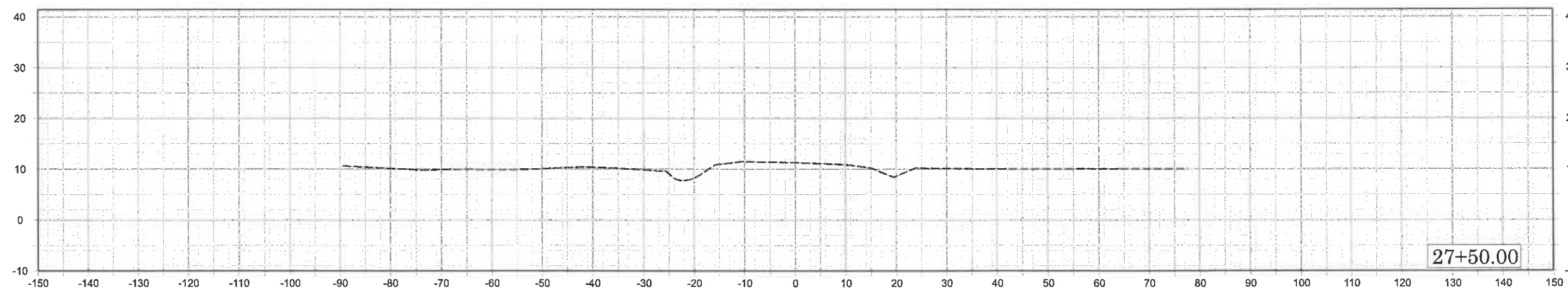
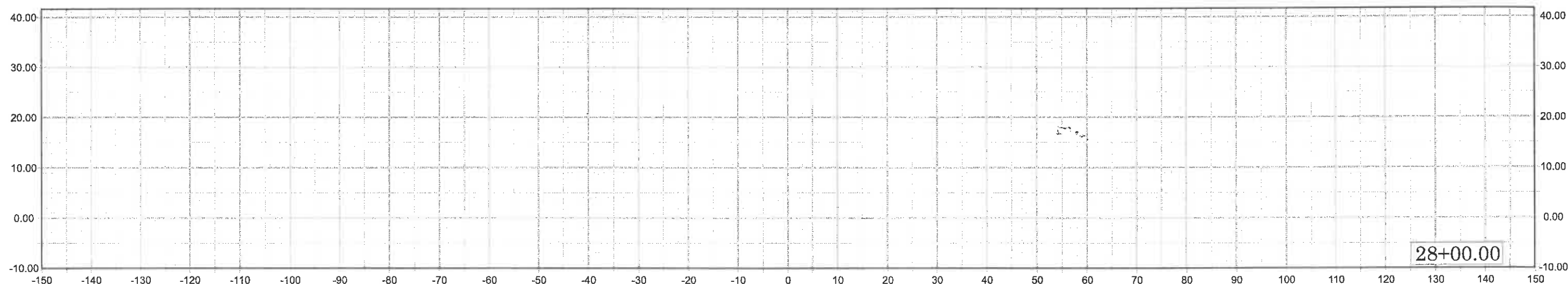




5/25/08



W-5701C  
X 1 000



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAY  
MATERIALS & TESTS UNIT  
SOILS LABORATORY

T. I. P. No. W-5701C

REPORT ON SAMPLES OF SOILS FOR QUALITY

Project 44847.1.10 County PASQUOTANK Owner  
Date: Sampled 3/18/24 Received 4/8/24 Reported 4/17/24  
Sampled from ROADWAY By T.C BOTTOMS  
Submitted by MATT ALEXANDER 2012 Standard Specifications

819590 TO 819596  
5/6/24

TEST RESULTS

Proj. Sample No.		S-1	S-2	S-3	S-4	S-5	
Lab. Sample No.		819590	819592	819594	819596	819595	
Retained #4 Sieve	%	-	-	-	-	-	
Passing #10 Sieve	%	100	100	100	100	100	
Passing #40 Sieve	%	100	100	100	100	100	
Passing #200 Sieve	%	94	97	83	90	97	

MINUS NO. 10 FRACTION

SOIL MORTAR - 100%						
Coarse Sand Ret - #60	%	0.8	0.4	2.0	0.6	0.0
Fine Sand Ret - #270	%	20.7	14.4	40.1	34.9	16.6
Silt 0.05 - 0.005 mm	%	48.0	44.7	37.6	38.2	46.9
Clay < 0.005 mm	%	30.5	40.5	20.3	26.3	36.5
Passing #40 Sieve	%	-	-	-	-	-
Passing #200 Sieve	%	-	-	-	-	-

L. L.	29	42	25	27	41	
P. I.	12	26	6	9	24	
AASHTO Classification	A-6(10)	A-7-6(26)	A-4(3)	A-4(7)	A-7-6(24)	
Station	26+00	23+00	21+50	21+00	18+00	
Offset	32' RT	30'RT	8'RT	32'RT	26'LT	
Alignment	-L-	-L-	-L-	-L-	-L-	
Location						
Depth (Ft)	1.0'	1.0'	0.0'	1.0'	1.0'	
to	3.0'	6.0'	5.5'	6.0'	3.0'	
% Moisture	26.1	15.7	28.9	27.9	19	

cc: T.C BOTTOMS

Soils Engineer