

REFERENCE: SF-630037

PROJECT: 17BP.4.R.68

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY NASH
PROJECT DESCRIPTION BRIDGE NO. 37 ON -L-
(SR 1501) OVER CROOKED SWAMP AT STA. 13 + 26.5

CONTENTS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	LEGEND
3	SITE PLAN
4	PROFILE(S)
5-6	CROSS SECTION(S)
7-9	BORE LOG(S)
10	SITE PHOTOGRAPH(S)

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SF-630037	1	10

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

O. B. OTI

D. G. PINTER

R. E. SMITH

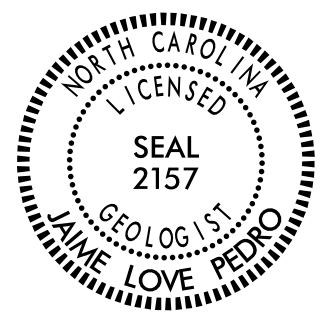
INVESTIGATED BY J. L. PEDRO

DRAWN BY J. L. PEDRO

CHECKED BY N. T. ROBERSON

SUBMITTED BY N. T. ROBERSON

DATE MARCH 2016



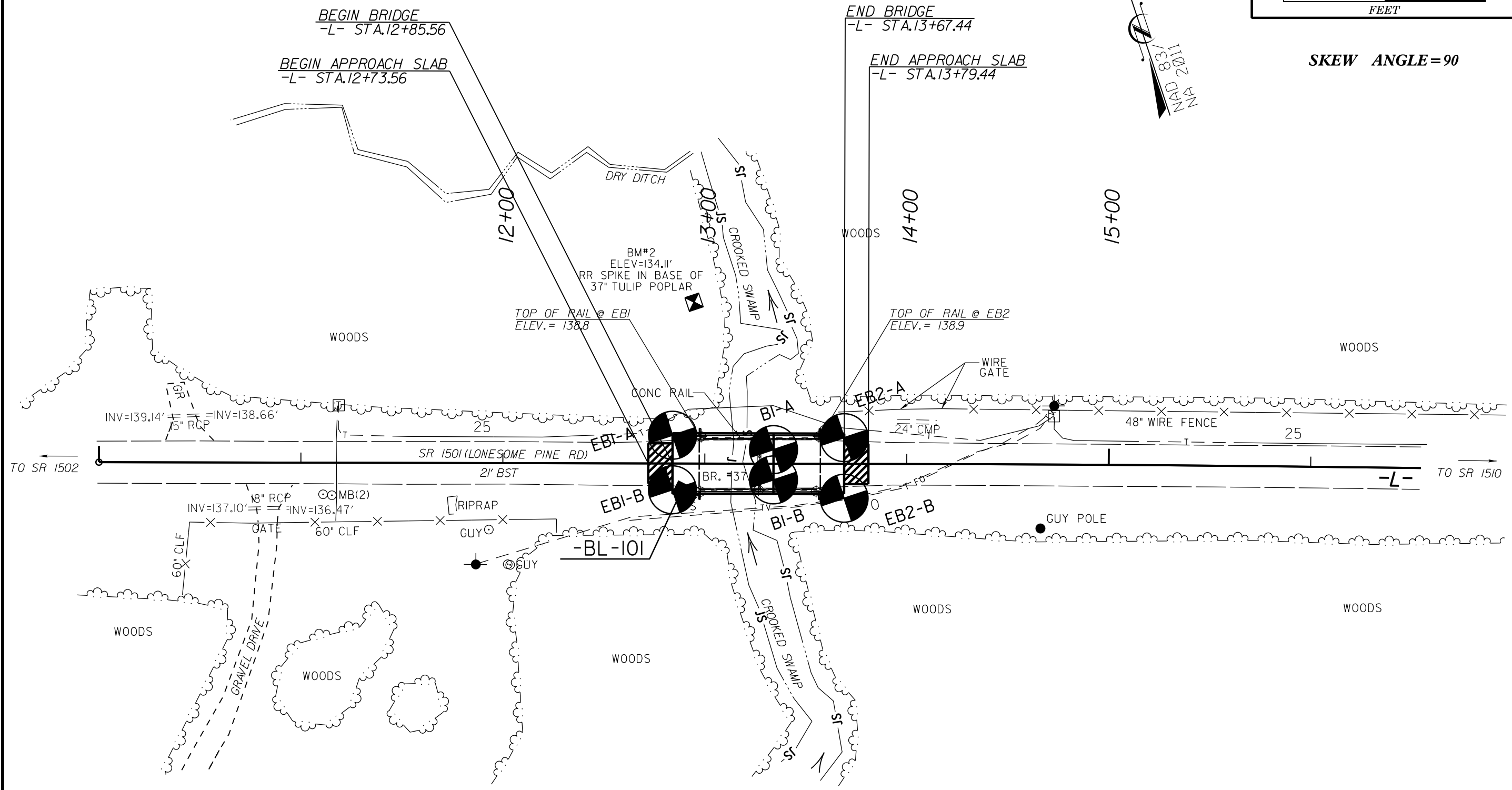
DocuSigned by:
Jaime Love Pedro 4/12/2016
B93571039B884B5

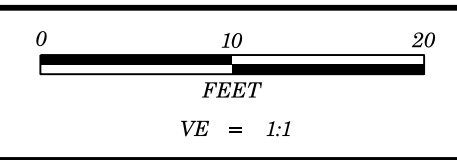
SIGNATURE DATE

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

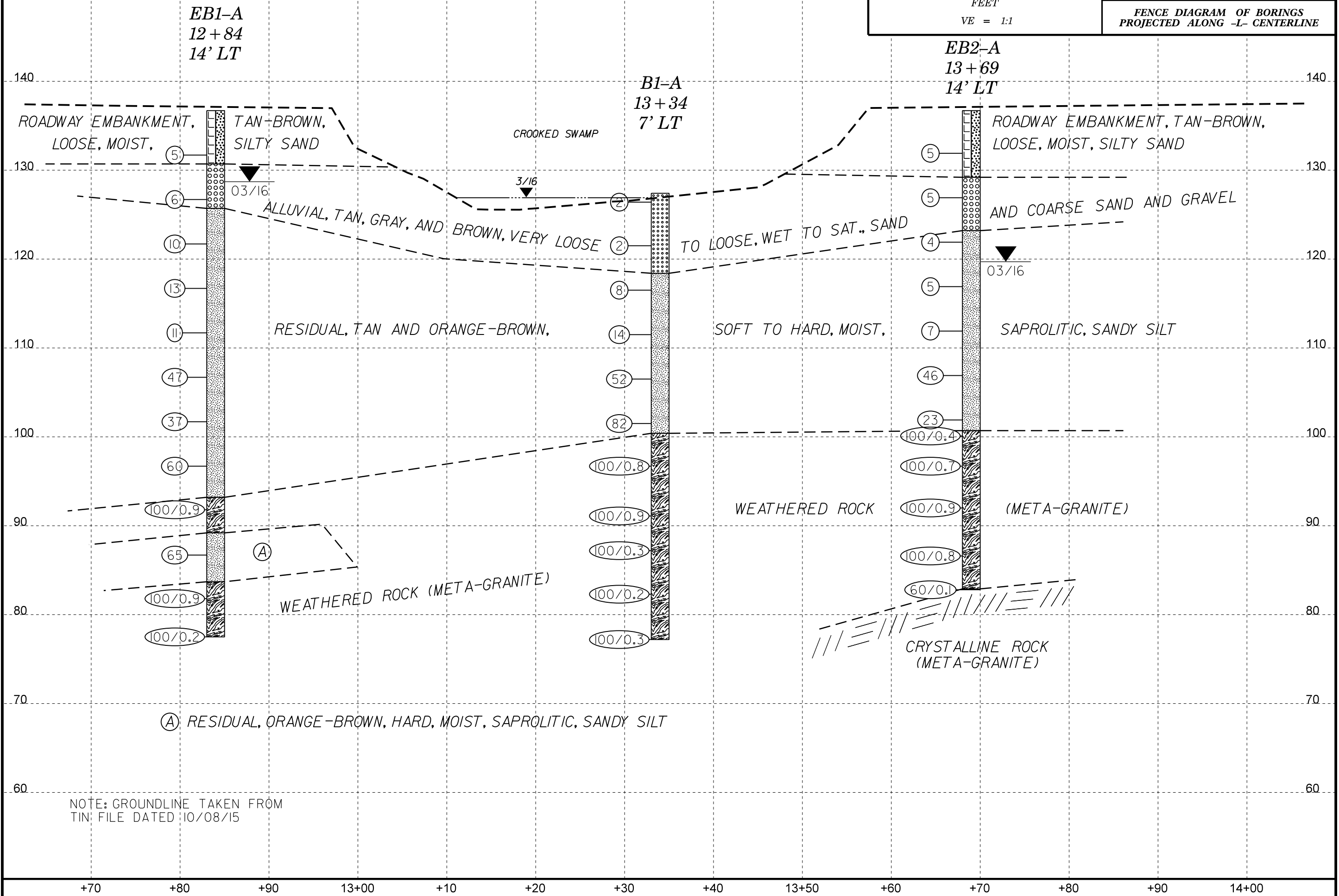


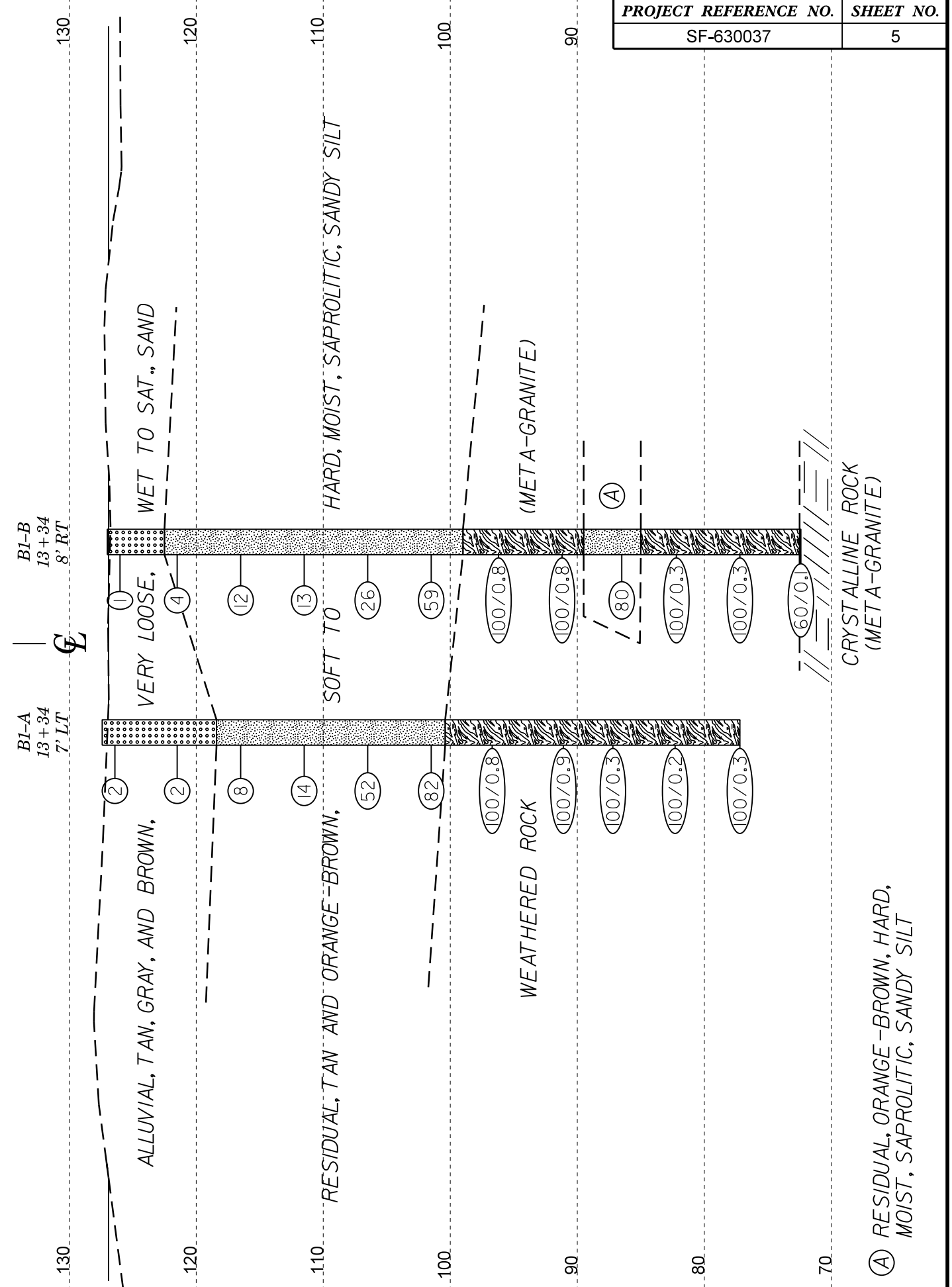
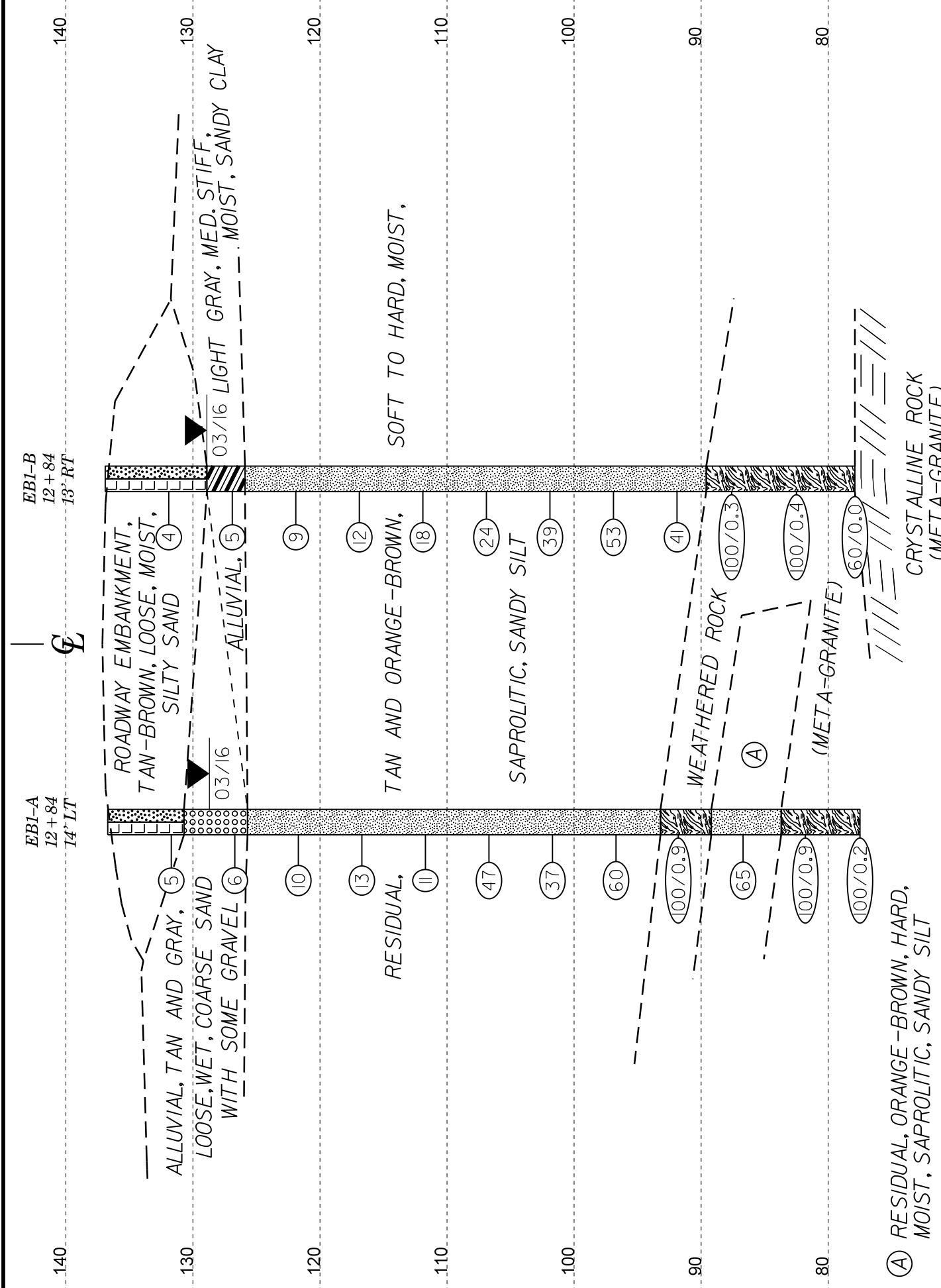
SKEW ANGLE = 90





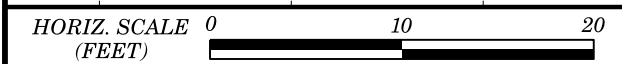
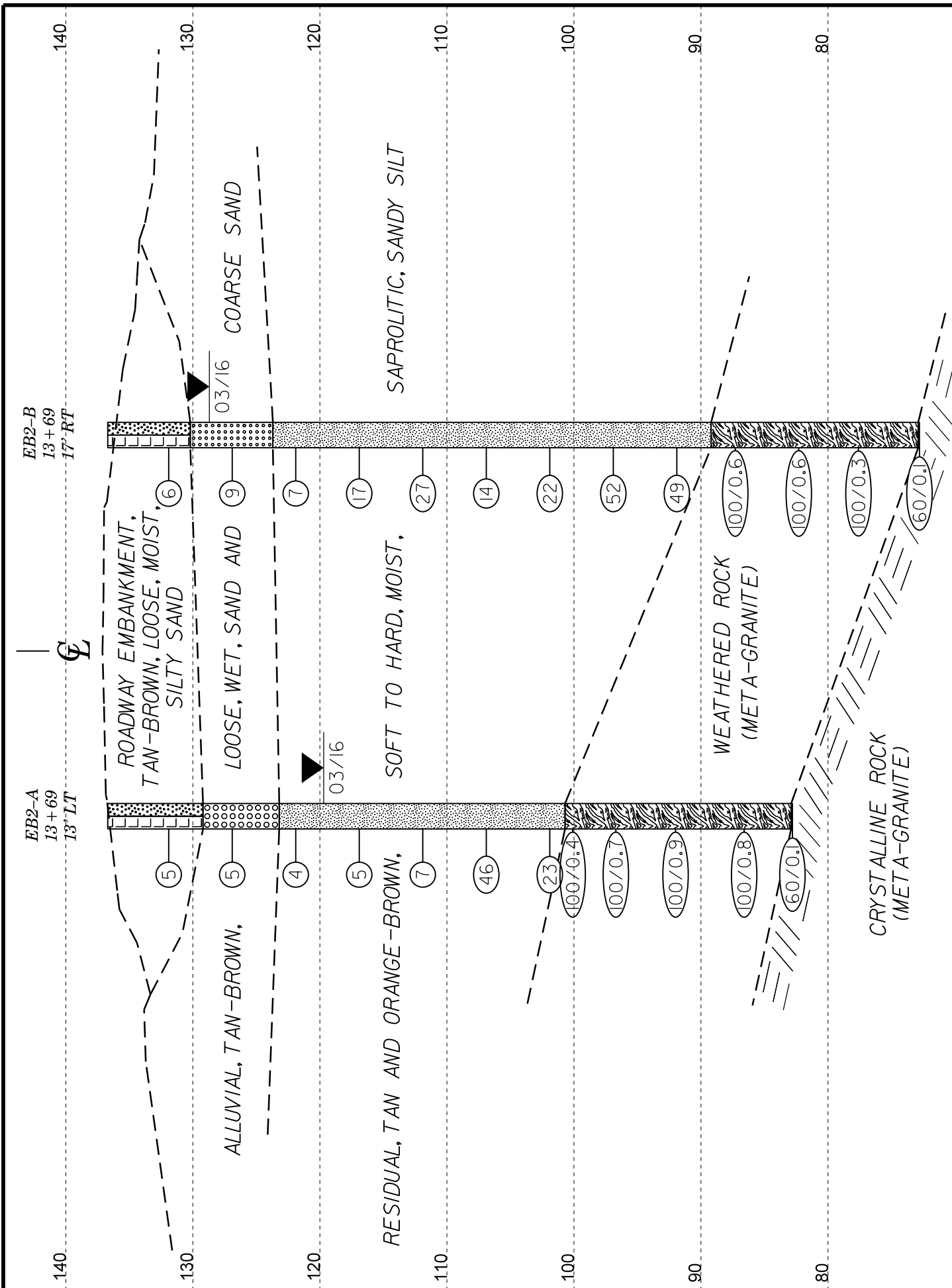
PROJECT REFERENCE NO.	SHEET NO.
630037	4
FENCE DIAGRAM OF BORINGS PROJECTED ALONG -L- CENTERLINE	





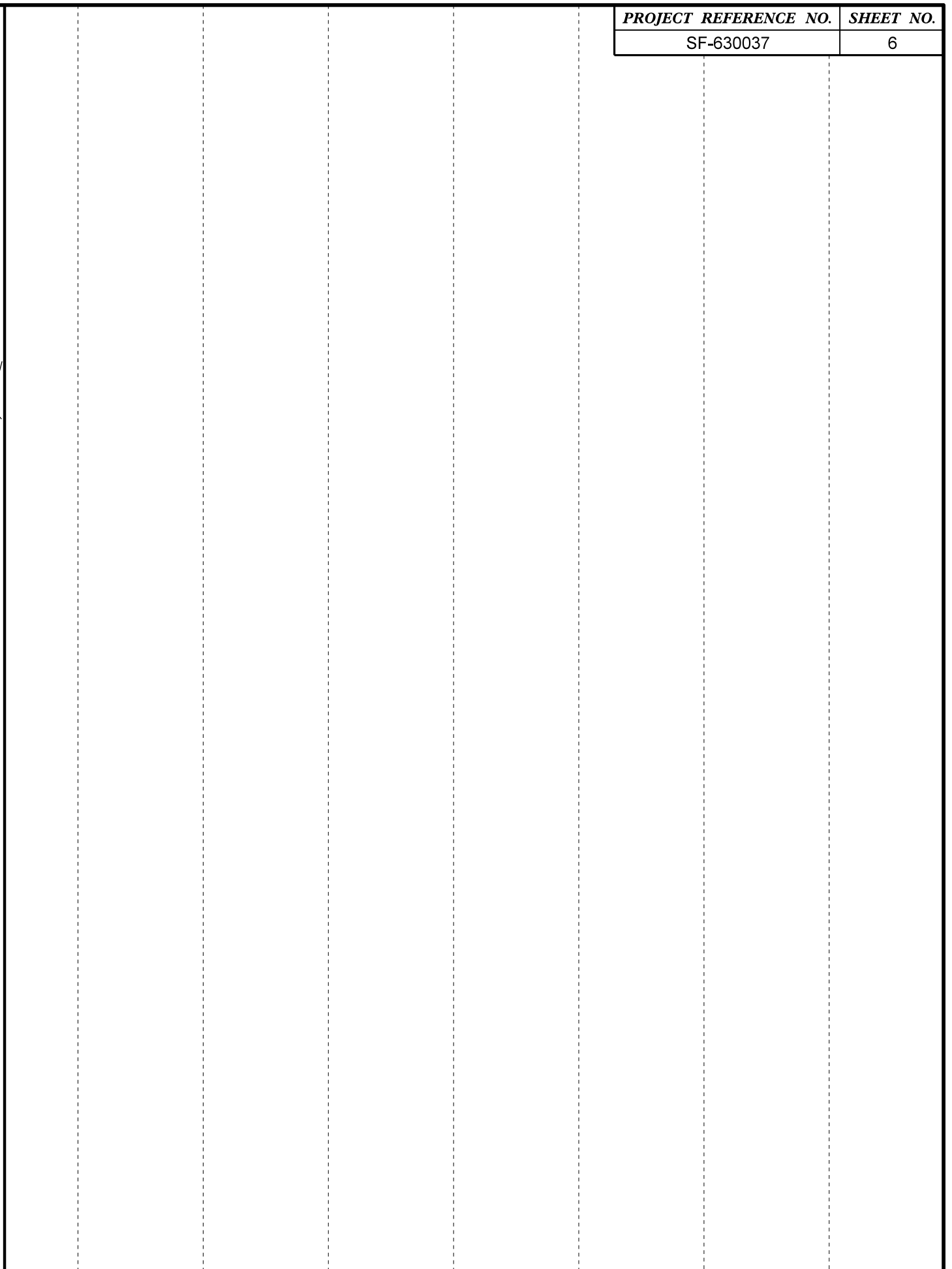
(A) RESIDUAL, ORANGE-BROWN, HARD, MOIST, SAPROLITIC, SANDY SILT

(A) RESIDUAL, ORANGE-BROWN, HARD, MOIST, SAPROLITIC, SANDY SILT



VE = 1:1

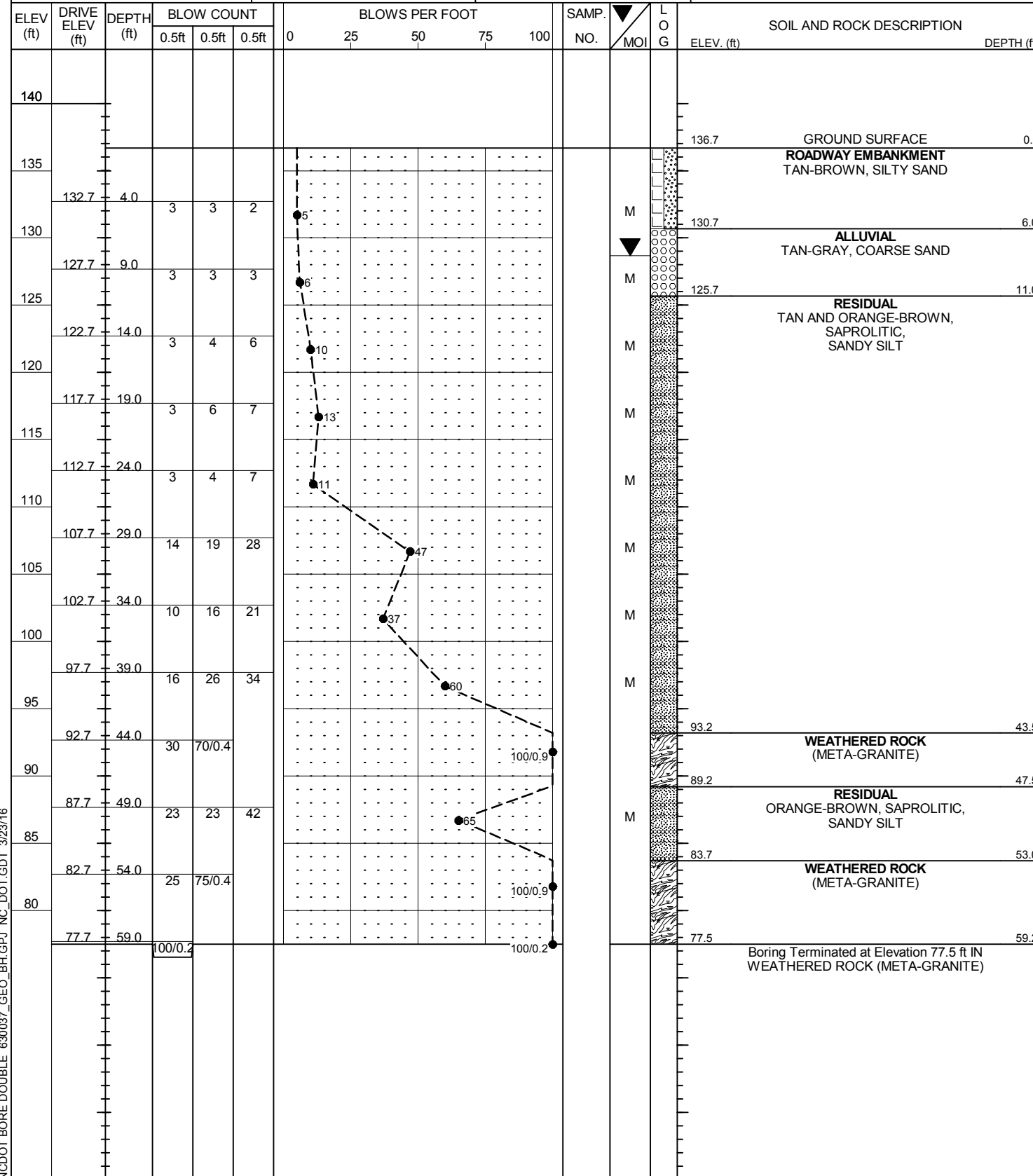
CROSS SECTION THROUGH EB2



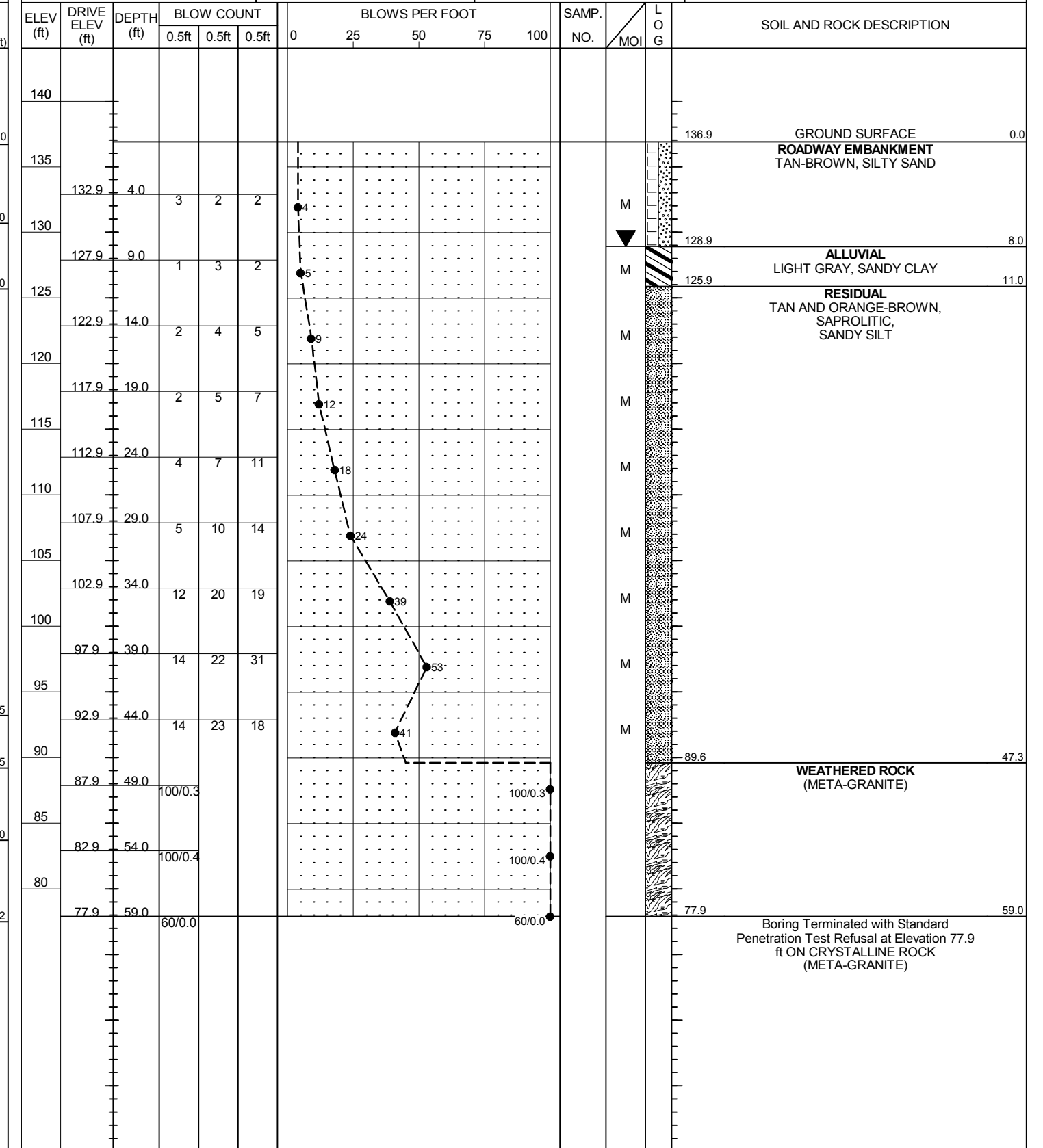
GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.4.R.68	TIP SF-630037	COUNTY NASH	GEOLOGIST Oti, O. B.
SITE DESCRIPTION BRIDGE NO. 37 ON -L- (SR 1501) OVER CROOKED SWAMP			GROUND WTR (ft)
BORING NO. EB1-A	STATION 12+84	OFFSET 14 ft LT	ALIGNMENT -L-
COLLAR ELEV. 136.7 ft	TOTAL DEPTH 59.2 ft	NORTHING 869,335	EASTING 2,330,441
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 89% 02/09/2015		DRILL METHOD NW Casing w/ Advancer	HAMMER TYPE Automatic
DRILLER Pinter, D. G.	START DATE 03/10/16	COMP. DATE 03/10/16	SURFACE WATER DEPTH N/A



WBS 17BP.4.R.68	TIP SF-630037	COUNTY NASH	GEOLOGIST Oti, O. B.
SITE DESCRIPTION BRIDGE NO. 37 ON -L- (SR 1501) OVER CROOKED SWAMP			GROUND WTR (ft)
BORING NO. EB1-B	STATION 12+84	OFFSET 13 ft RT	ALIGNMENT -L-
COLLAR ELEV. 136.9 ft	TOTAL DEPTH 59.0 ft	NORTHING 869,309	EASTING 2,330,433
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 89% 02/09/2015		DRILL METHOD NW Casing w/ Advancer	HAMMER TYPE Automatic
DRILLER Pinter, D. G.	START DATE 03/10/16	COMP. DATE 03/10/16	SURFACE WATER DEPTH N/A

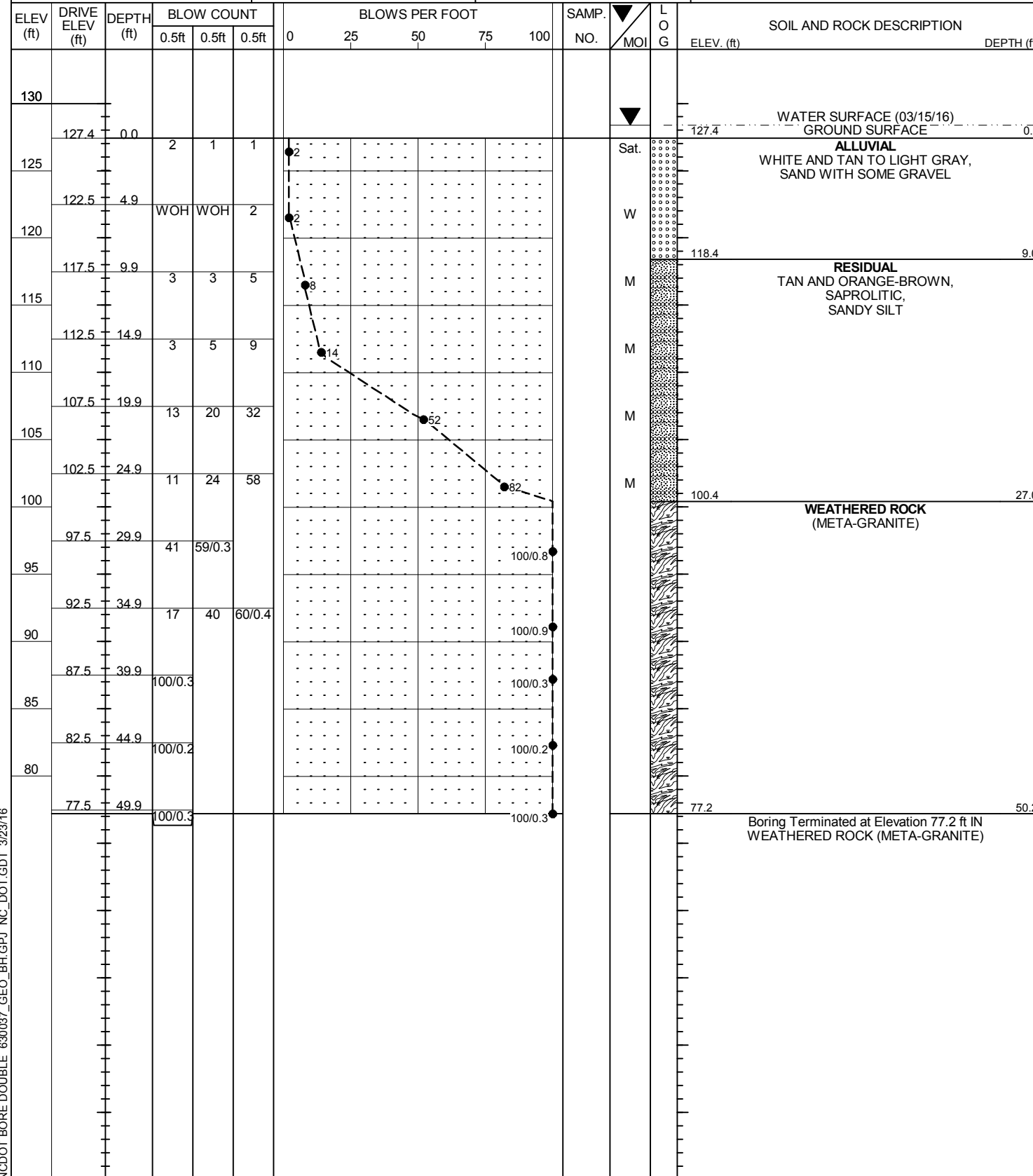


NCDOT BORE DOUBLE 630037_GEO_BH.GPJ NC_DOT.GDT 3/23/16

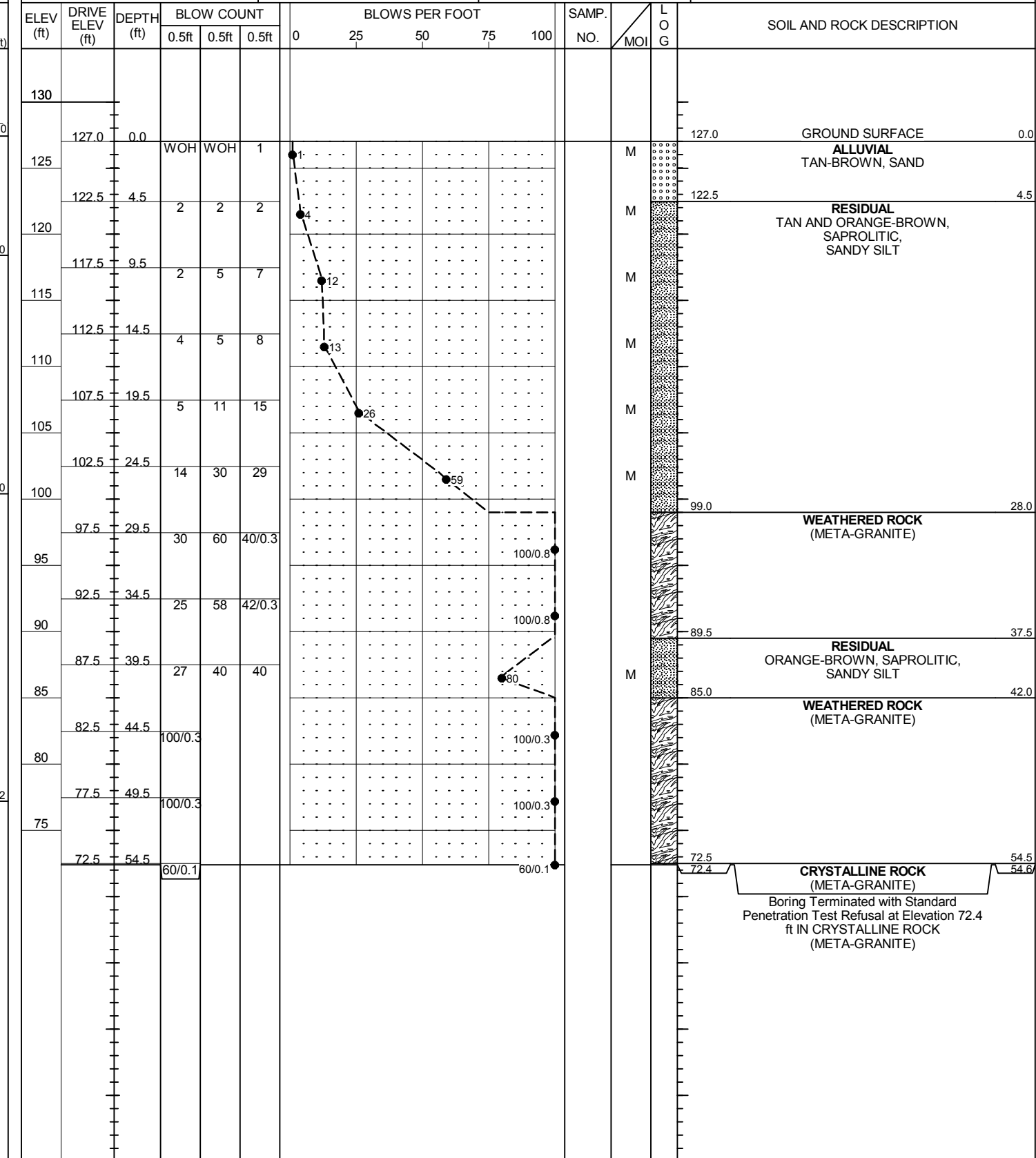
GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.4.R.68	TIP SF-630037	COUNTY NASH	GEOLOGIST Oti, O. B.
SITE DESCRIPTION BRIDGE NO. 37 ON -L- (SR 1501) OVER CROOKED SWAMP			GROUND WTR (ft)
BORING NO. B1-A	STATION 13+34	OFFSET 7 ft LT	ALIGNMENT -L-
COLLAR ELEV. 127.4 ft	TOTAL DEPTH 50.2 ft	NORTHING 869,312	EASTING 2,330,487
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 89% 02/09/2015		DRILL METHOD NW Casing w/ Advancer	HAMMER TYPE Automatic
DRILLER Pinter, D. G.	START DATE 03/15/16	COMP. DATE 03/16/16	SURFACE WATER DEPTH 1.0ft



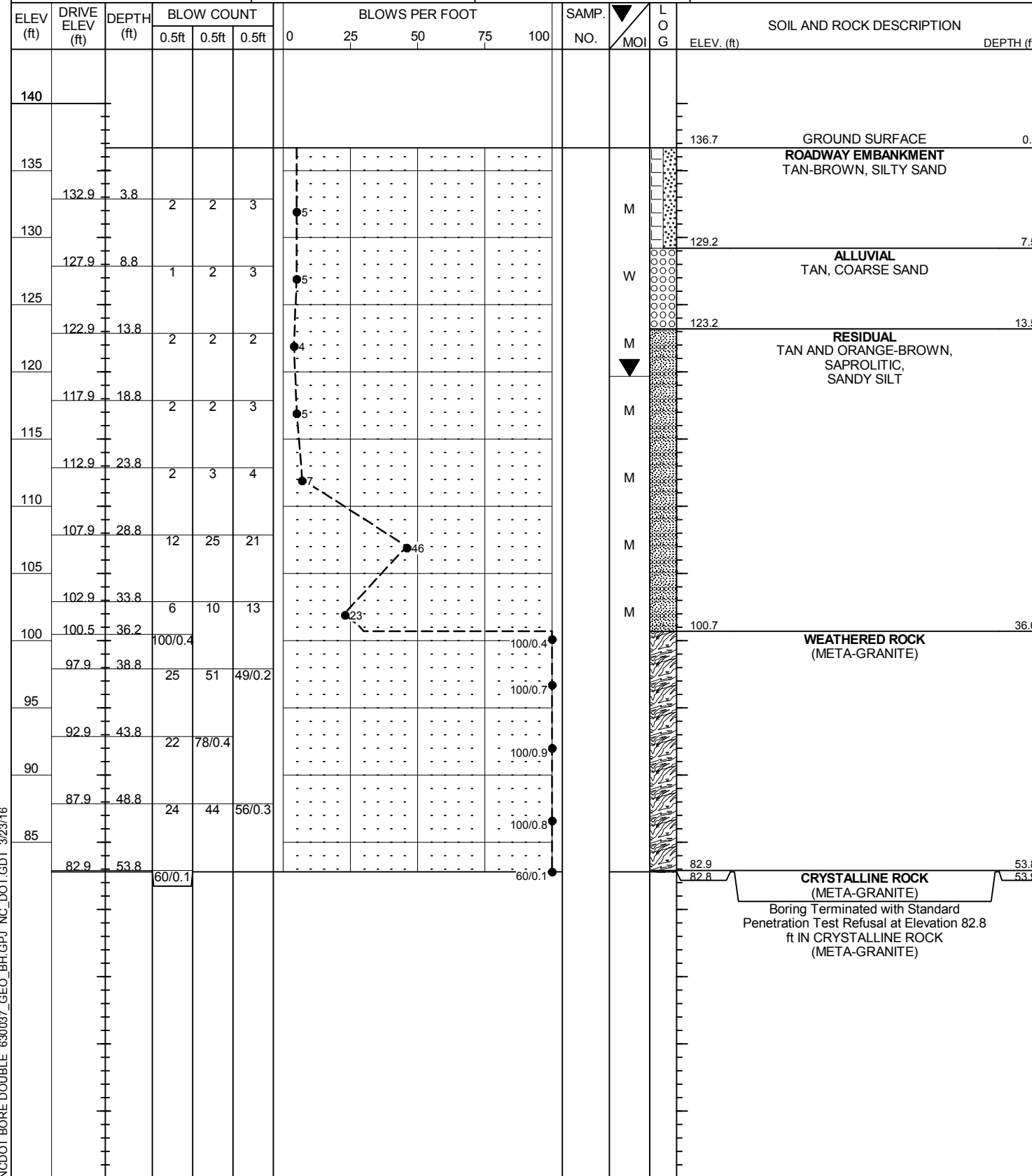
WBS 17BP.4.R.68	TIP SF-630037	COUNTY NASH	GEOLOGIST Oti, O. B.
SITE DESCRIPTION BRIDGE NO. 37 ON -L- (SR 1501) OVER CROOKED SWAMP			GROUND WTR (ft)
BORING NO. B1-B	STATION 13+34	OFFSET 8 ft RT	ALIGNMENT -L-
COLLAR ELEV. 127.0 ft	TOTAL DEPTH 54.6 ft	NORTHING 869,299	EASTING 2,330,482
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 89% 02/09/2015		DRILL METHOD NW Casing w/ Advancer	HAMMER TYPE Automatic
DRILLER Pinter, D. G.	START DATE 03/16/16	COMP. DATE 03/16/16	SURFACE WATER DEPTH N/A



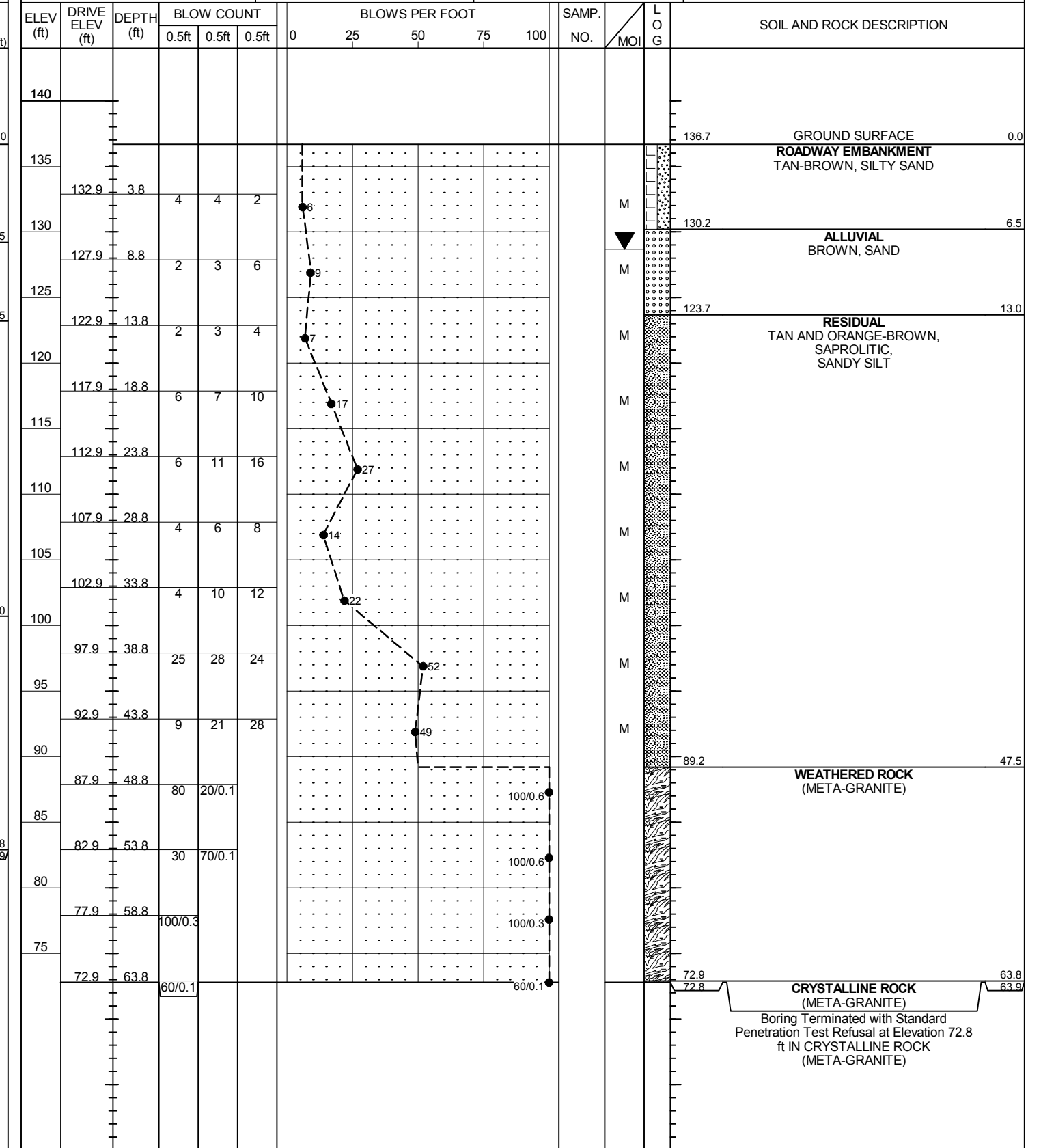
NCDOT BORE DOUBLE 630037_GEO_BH.GPJ NC_DOT.GDT 3/23/16

GEOTECHNICAL BORING REPORT BORE LOG

WBS 17BP.4.R.68	TIP SF-630037	COUNTY NASH	GEOLOGIST Oti, O. B.
SITE DESCRIPTION BRIDGE NO. 37 ON -L- (SR 1501) OVER CROOKED SWAMP			GROUND WTR (ft)
BORING NO. EB2-A	STATION 13+69	OFFSET 13 ft LT	ALIGNMENT -L-
COLLAR ELEV. 136.7 ft	TOTAL DEPTH 53.9 ft	NORTHING 869,307	EASTING 2,330,522
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 89% 02/09/2015		DRILL METHOD NW Casing w/ Advancer	HAMMER TYPE Automatic
DRILLER Pinter, D. G.	START DATE 03/15/16	COMP. DATE 03/15/16	SURFACE WATER DEPTH N/A



WBS 17BP.4.R.68	TIP SF-630037	COUNTY NASH	GEOLOGIST Oti, O. B.
SITE DESCRIPTION BRIDGE NO. 37 ON -L- (SR 1501) OVER CROOKED SWAMP			GROUND WTR (ft)
BORING NO. EB2-B	STATION 13+69	OFFSET 17 ft RT	ALIGNMENT -L-
COLLAR ELEV. 136.7 ft	TOTAL DEPTH 63.9 ft	NORTHING 869,279	EASTING 2,330,512
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 89% 02/09/2015		DRILL METHOD NW Casing w/ Advancer	HAMMER TYPE Automatic
DRILLER Pinter, D. G.	START DATE 03/14/16	COMP. DATE 03/14/16	SURFACE WATER DEPTH N/A



NCDOT BORE DOUBLE 630037_GEO_BH.GPJ NC_DOT.GDT 3/23/16

SITE PHOTOGRAPH

Bridge No. 37 on -L- (SR 1501) Crooked Swamp



Looking Southwest towards End Bent 1