

PROJECT: REFERENCE: BP7.R001

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY ROCKINGHAM
 PROJECT DESCRIPTION BRIDGE NO. 23 ON US 29
BUSINESS OVER US 29

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP7.R001	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

WEIS, J. M.

TRIGON EXP.

INVESTIGATED BY WEIS, J.M.

DRAWN BY CROCKETT, S.C.

CHECKED BY HUNSBERGER, W.S.

SUBMITTED BY FALCON ENG.

DATE JANUARY 2026



DocuSigned by:
Stephen Crockett 1/29/2026
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 SIGNATURE DATE

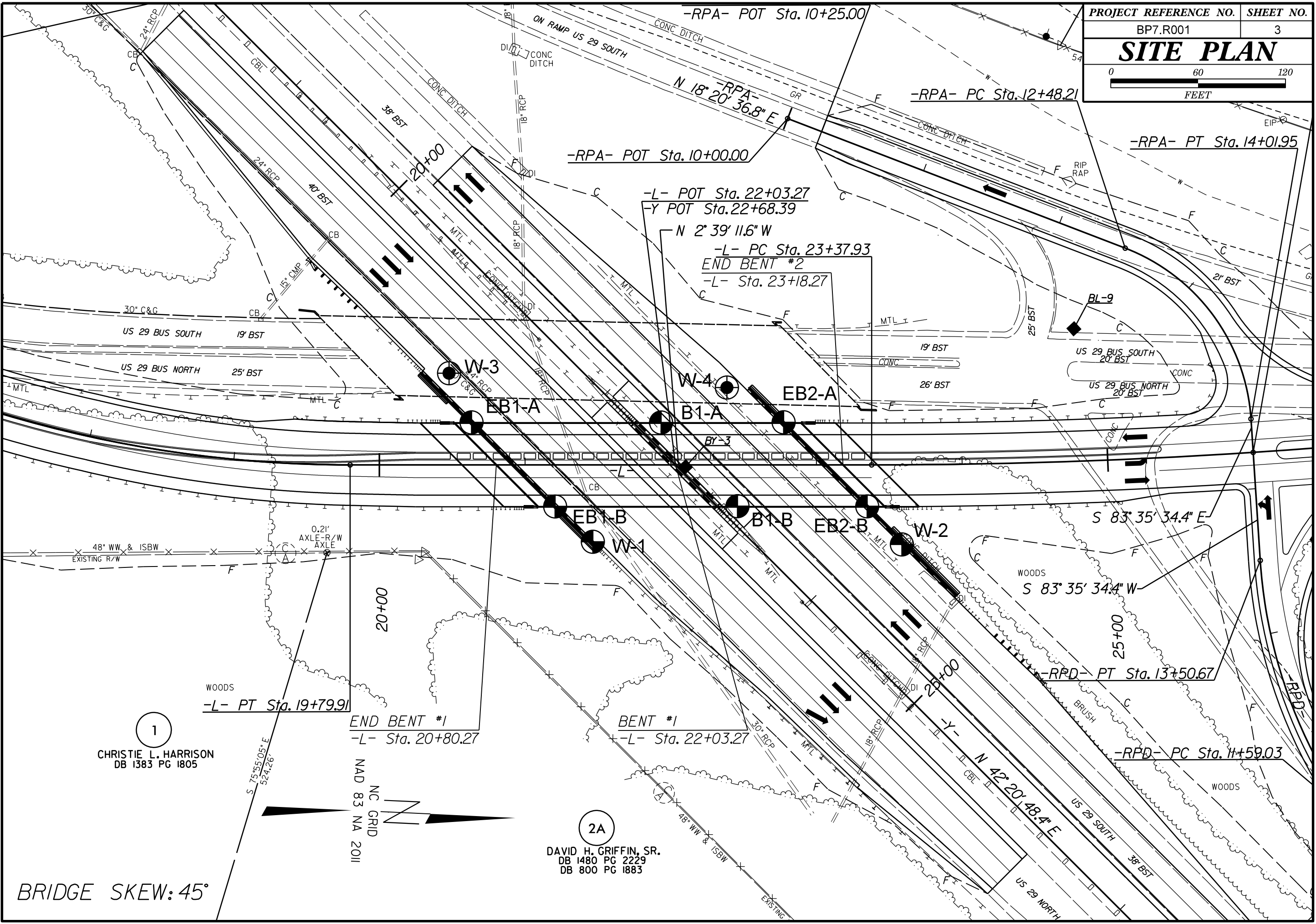
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**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT**

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION										GRADATION										ROCK DESCRIPTION										TERMS AND DEFINITIONS																																																																																																																																																				
<p>SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, <i>VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</i></p>										<p>WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.</p>										<p>HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED, AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:</p>										<p>ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. AQUIFER - A WATER BEARING FORMATION OR STRATA. ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND. ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC. ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE. CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK. DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH. FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLOADED FROM PARENT MATERIAL. FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK QUALITY DESIGNATION (ROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS. SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.</p>																																																																																																																																																				
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<p>MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.</p>										<p>SLIGHTLY COMPRESSIBLE LL < 31 MODERATELY COMPRESSIBLE LL = 31 - 50 HIGHLY COMPRESSIBLE LL > 50</p>										<p>FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.</p>										<p>COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.</p>																																																																																																																																																				
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1
CHRISTIE L. HARRISON
DB 1383 PG 1805

NC GRID
NAD 83 NA 2011

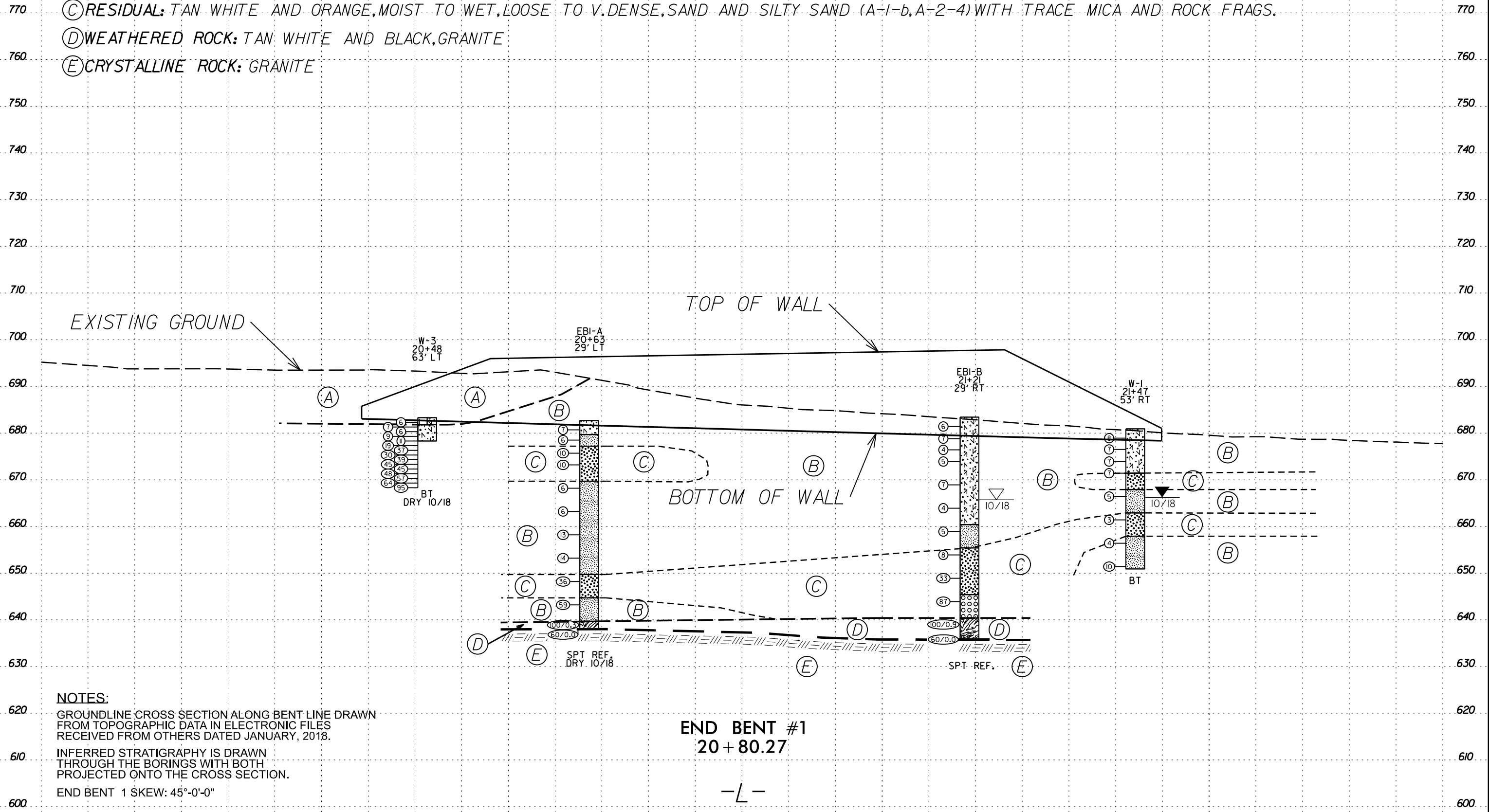
2A
DAVID H. GRIFFIN, SR.
DB 1480 PG 2229
DB 800 PG 1883

BRIDGE SKEW: 45°

8/23/99



- (A) ROADWAY EMBANKMENT: RED, MOIST, MED. STIFF, CLAYEY SILT (A-5) WITH TRACE GRAVEL
- (B) RESIDUAL: TAN ORANGE AND BROWN, MOIST TO WET, MED. STIFF TO HARD, SANDY AND CLAYEY SILT (A-4, A-5) WITH TRACE MICA
- (C) RESIDUAL: TAN WHITE AND ORANGE, MOIST TO WET, LOOSE TO V. DENSE, SAND AND SILTY SAND (A-1-b, A-2-4) WITH TRACE MICA AND ROCK FRAGS.
- (D) WEATHERED ROCK: TAN WHITE AND BLACK, GRANITE
- (E) CRYSTALLINE ROCK: GRANITE



NOTES:
 GROUNDLINE CROSS SECTION ALONG BENT LINE DRAWN FROM TOPOGRAPHIC DATA IN ELECTRONIC FILES RECEIVED FROM OTHERS DATED JANUARY, 2018.
 INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION.
 END BENT 1 SKEW: 45°-0'-0"

END BENT #1
 20 + 80.27

-L-

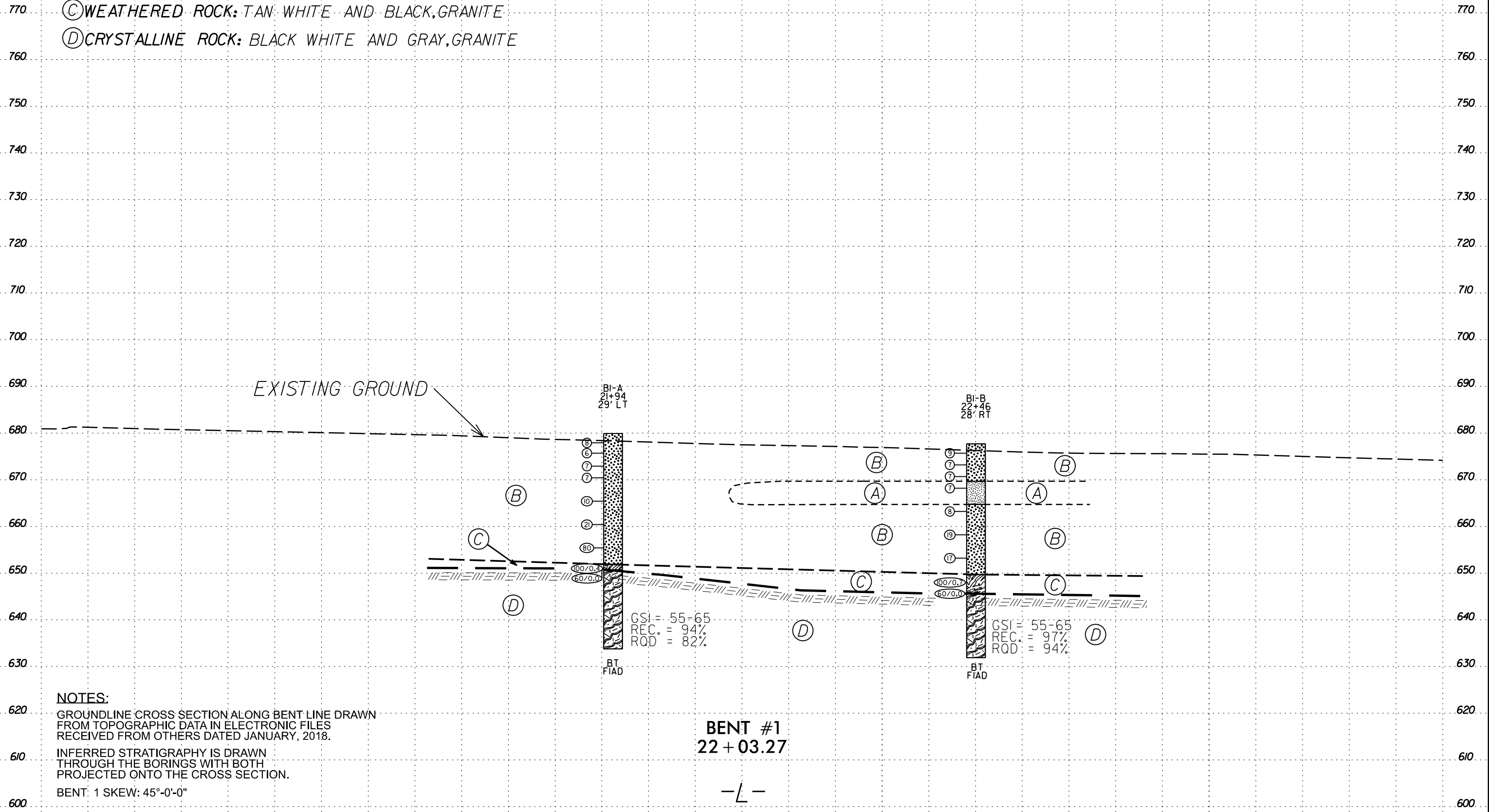
SCALE\$

8/23/99

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



- (A) RESIDUAL: TAN, MOIST, MED. STIFF, SANDY SILT (A-4) WITH TRACE MICA
- (B) RESIDUAL: TAN, MOIST TO WET, LOOSE TO V. DENSE, SILTY SAND (A-2-4) WITH TRACE MICA
- (C) WEATHERED ROCK: TAN, WHITE AND BLACK, GRANITE
- (D) CRYSTALLINE ROCK: BLACK, WHITE AND GRAY, GRANITE



NOTES:
 GROUNDLINE CROSS SECTION ALONG BENT LINE DRAWN FROM TOPOGRAPHIC DATA IN ELECTRONIC FILES RECEIVED FROM OTHERS DATED JANUARY, 2018.
 INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION.
 BENT: 1 SKEW: 45°-0'-0"

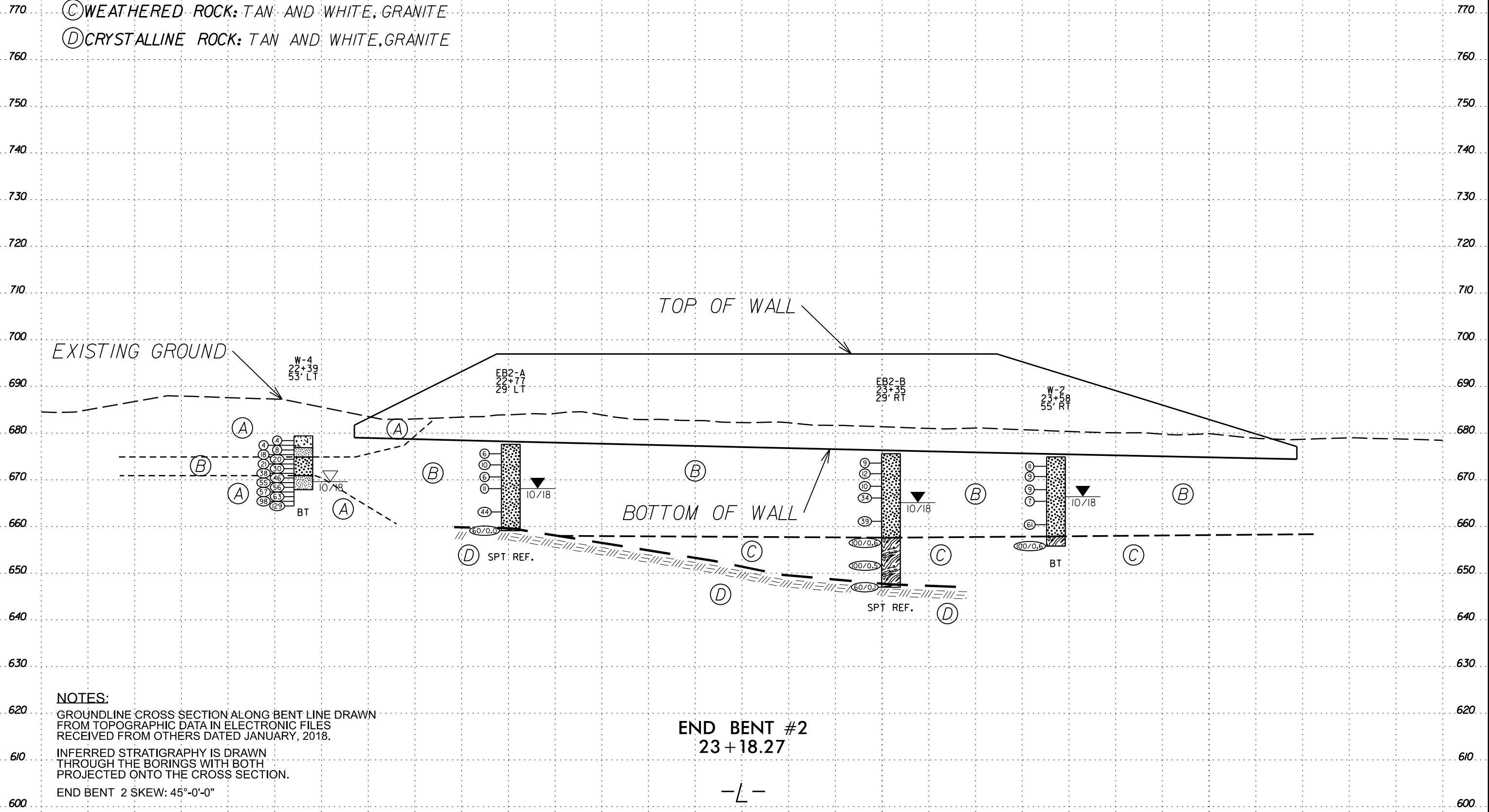
SCALE\$

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

8/23/99



- (A) RESIDUAL: RED AND TAN, MOIST, MED. STIFF, SANDY AND CLAYEY SILT (A-4, A-5)
- (B) RESIDUAL: TAN, MOIST, LOOSE TO V. DENSE, SILTY SAND (A-2-4) WITH TRACE MICA
- (C) WEATHERED ROCK: TAN AND WHITE, GRANITE
- (D) CRYSTALLINE ROCK: TAN AND WHITE, GRANITE



NOTES:
 GROUNDLINE CROSS SECTION ALONG BENT LINE DRAWN FROM TOPOGRAPHIC DATA IN ELECTRONIC FILES RECEIVED FROM OTHERS DATED JANUARY, 2018.
 INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION.
 END BENT 2 SKEW: 45°-0'-0"

END BENT #2
23+18.27

-L-

SCALE\$

GEOTECHNICAL BORING REPORT BORE LOG

WBS BP7.R001		TIP SF-780023		COUNTY ROCKINGHAM		GEOLOGIST Weis, J.M.										
SITE DESCRIPTION BRIDGE NO. 23 OVER US 29 ON US 29 BUSINESS IN ROCKINGHAM COUNTY							GROUND WTR (ft)									
BORING NO. EB1-A		STATION 20+63		OFFSET 29 ft LT		ALIGNMENT -L-										
COLLAR ELEV. 682.7 ft		TOTAL DEPTH 44.7 ft		NORTHING 914,567		EASTING 1,807,868										
DRILL RIG/HAMMER EFF./DATE TRI0055 CME-55 74% 05/13/2024			DRILL METHOD H.S. Augers			HAMMER TYPE Automatic										
DRILLER TOOTHMAN, R.		START DATE 10/01/18		COMP. DATE 10/01/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
685															682.7	0.0
	681.7	1.0	4	3	4									M	0.4' TOPSOIL	
680	679.5	3.2	2	2	4									M	RESIDUAL TAN AND ORANGE, CLAYEY SILT (A-5) WITH TRACE MICA	3.0
	676.7	6.0	2	4	6									M	TAN AND ORANGE, CLAYEY SANDY SILT (A-4)	5.5
675	674.2	8.5	4	5	5									M	TAN, SILTY SAND (A-2-4) WITH TRACE MICA	
670	669.2	13.5	2	3	3									M	TAN AND ORANGE, SANDY SILT (A-4) WITH TRACE MICA	13.0
665	664.2	18.5	2	2	4									M		
660	659.2	23.5	2	5	8									M		
655	654.2	28.5	4	6	8									M		
650	649.2	33.5	13	20	16									M	TAN AND WHITE, SILTY SAND (A-2-4)	33.0
645	644.2	38.5	9	21	38									M	TAN AND BROWN, SANDY SILT (A-4) WITH TRACE MICA	38.0
640	639.2	43.5												M		43.0
	638.0	44.7	100/0.3											M	WEATHERED ROCK WHITE AND BLACK, GRANITE	44.7
			60/0.0												Boring Terminated WITH STANDARD PENETRATION TEST REFUSAL at Elevation 638.0 ft ON CR: GRANITE	

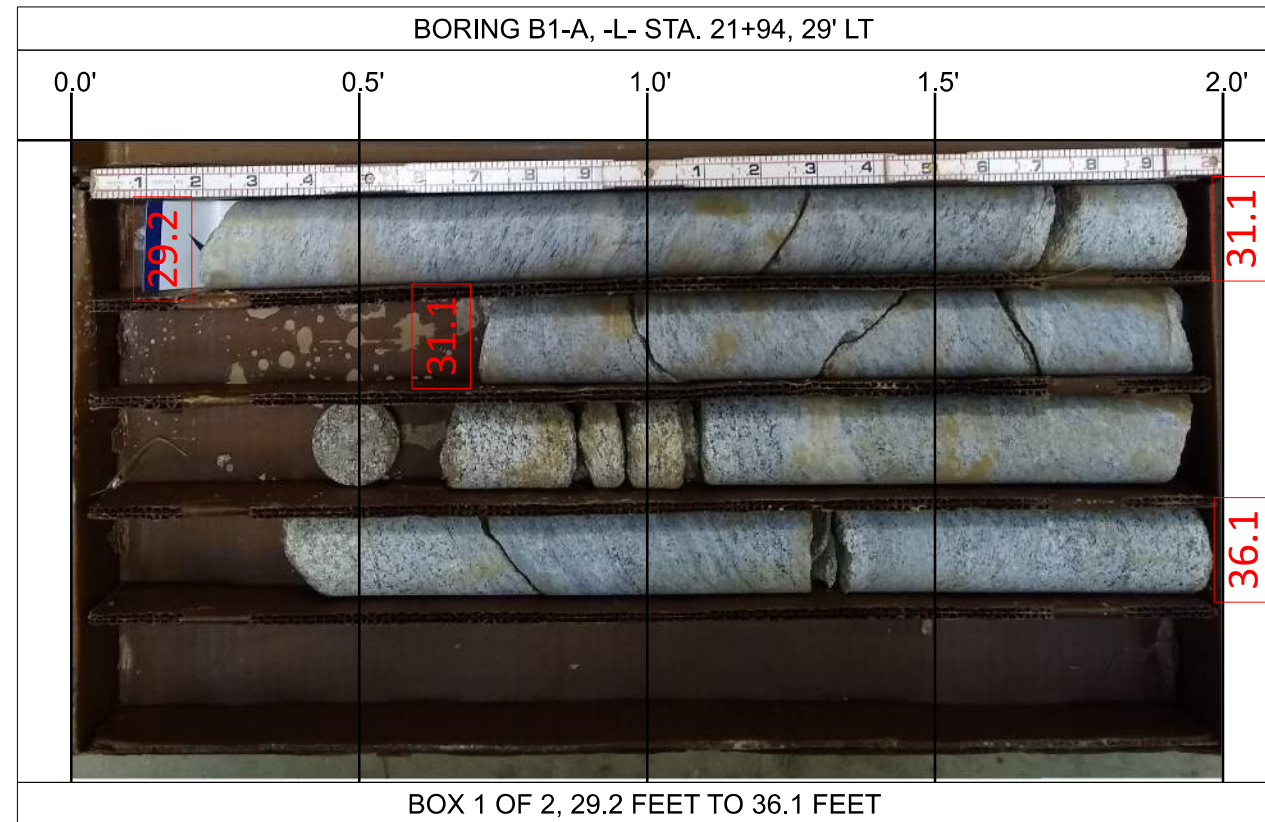
NCDOT BORE SINGLE_SF780023_BORINGS.GPJ NC_DOT.GDT 1/14/26

GEOTECHNICAL BORING REPORT BORE LOG

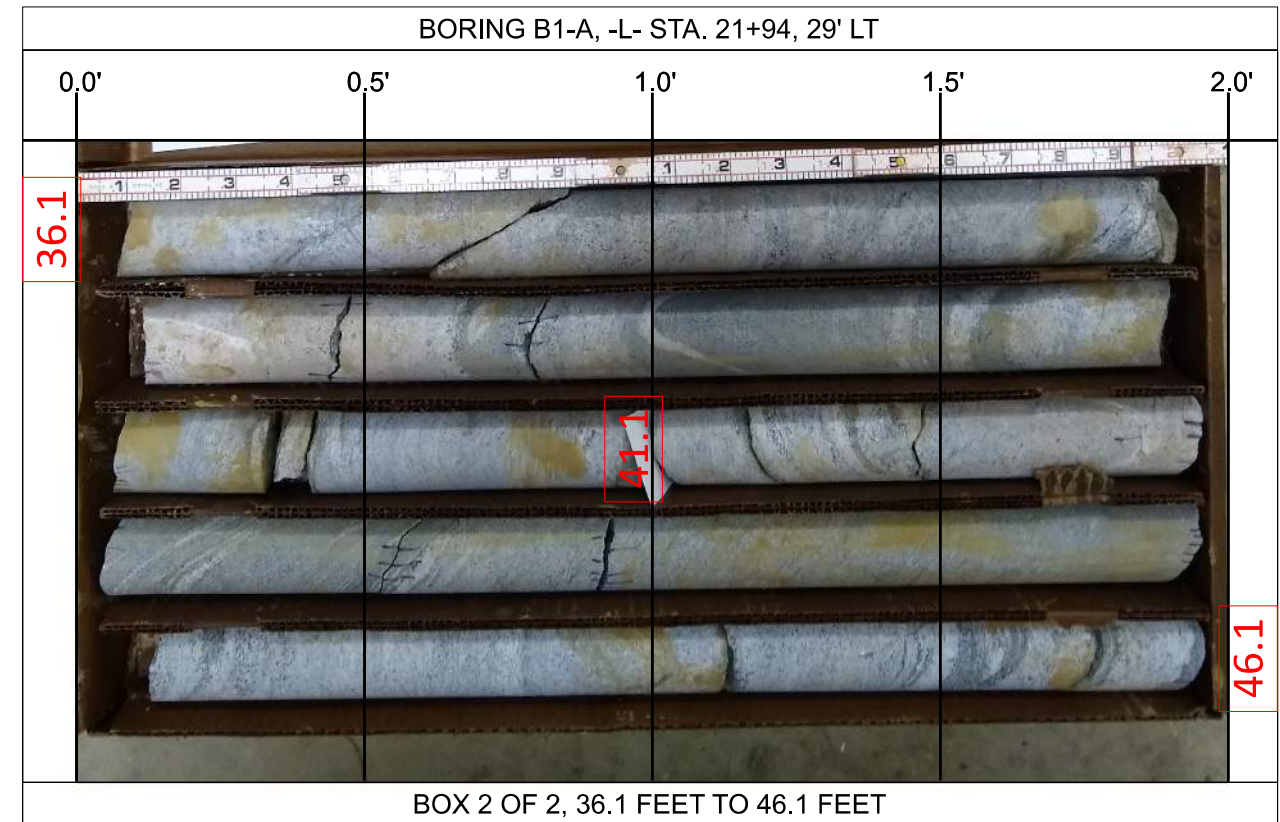
SHEET 8

WBS BP7.R001		TIP SF-780023		COUNTY ROCKINGHAM		GEOLOGIST Weis, J.M.										
SITE DESCRIPTION BRIDGE NO. 23 OVER US 29 ON US 29 BUSINESS IN ROCKINGHAM COUNTY							GROUND WTR (ft)									
BORING NO. EB1-B		STATION 21+21		OFFSET 29 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 683.4 ft		TOTAL DEPTH 47.6 ft		NORTHING 914,627		EASTING 1,807,923										
DRILL RIG/HAMMER EFF./DATE TRI0055 CME-55 74% 05/13/2024			DRILL METHOD H.S. Augers			HAMMER TYPE Automatic										
DRILLER TOOTHMAN, R.		START DATE 10/01/18		COMP. DATE 10/01/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
685															683.4	0.0
	682.4	1.0	2	3	3									M	0.4' TOPSOIL	
680	679.8	3.6	3	3	4									M	RESIDUAL TAN AND ORANGE, CLAYEY SILT (A-5)	3.0
	677.4	6.0	2	1	3									M		
675	674.9	8.5	2	2	3									M		
670	669.9	13.5	2	3	4									M		
665	664.9	18.5	1	2	2									M		
660	659.9	23.5	2	2	3									M	TAN AND ORANGE, SANDY SILT (A-4) WITH TRACE MICA	23.0
655	654.9	28.5	1	3	5									M	TAN AND BROWN, SILTY SAND (A-2-4)	28.0
650	649.9	33.5	5	13	20									M		
645	644.9	38.5	30	27	60									M	TAN AND WHITE, CLEAN SAND (A-1-b)	38.0
640	639.9	43.5	18	82/0.4										M		43.0
	635.8	47.6	60/0.0											M	WEATHERED ROCK TAN, GRANITE	47.6
															Boring Terminated WITH STANDARD PENETRATION TEST REFUSAL at Elevation 635.8 ft ON CR: GRANITE	

NCDOT BORE SINGLE_SF780023_BORINGS.GPJ NC_DOT.GDT 1/14/26



GSI = 55-65



GSI = 55-65

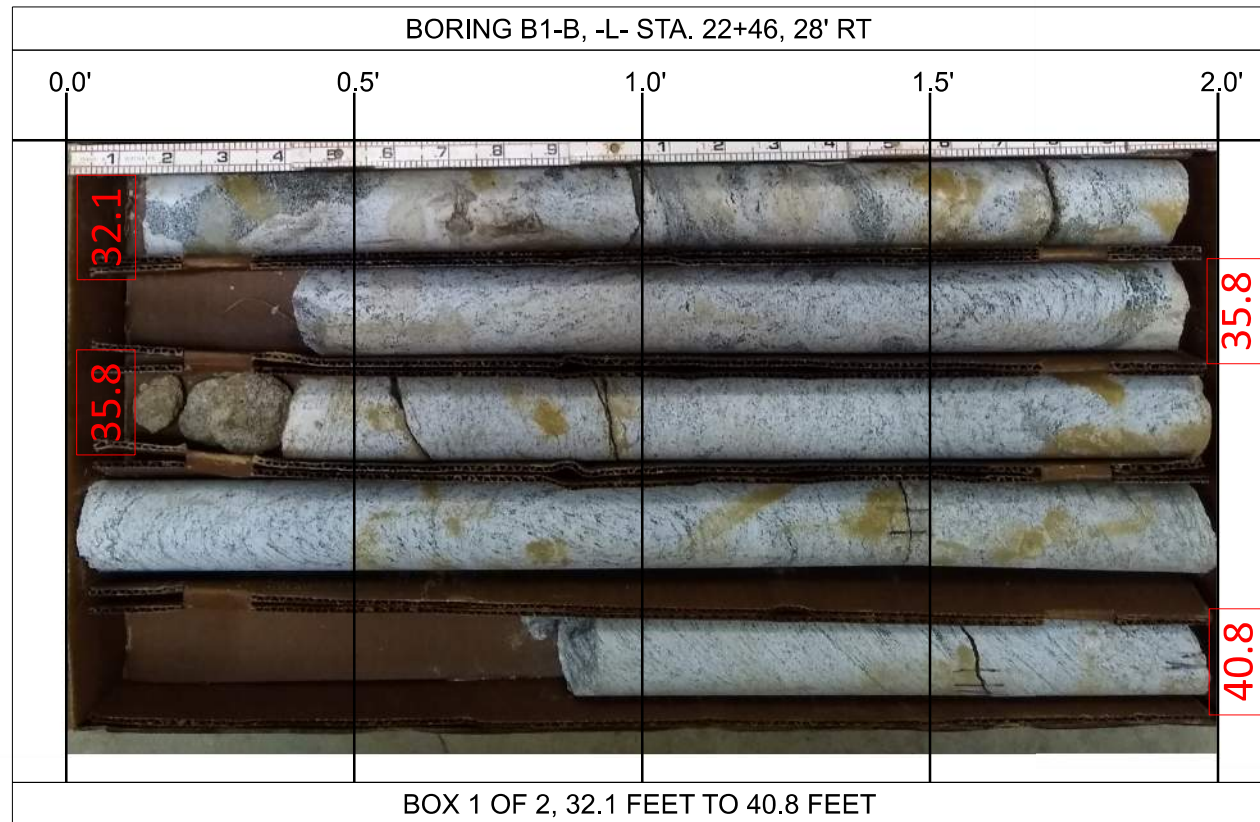


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FALCON ENGINEERING, INC.
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ROCK CORE PHOTOGRAPHS

BRIDGE NO. 23 ON US 29 BUSINESS
OVER US 29
ROCKINGHAM COUNTY, NC
TIP: BP7.R001
FALCON PROJECT NO. G25008.00



GSI = 55-65



GSI = 55-65



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ROCK CORE PHOTOGRAPHS

BRIDGE NO. 23 ON US 29 BUSINESS
OVER US 29
ROCKINGHAM COUNTY, NC
TIP: BP7.R001
FALCON PROJECT NO. G25008.00

GEOTECHNICAL BORING REPORT BORE LOG

WBS BP7.R001		TIP SF-780023		COUNTY ROCKINGHAM		GEOLOGIST Weis, J.M.										
SITE DESCRIPTION BRIDGE NO. 23 OVER US 29 ON US 29 BUSINESS IN ROCKINGHAM COUNTY							GROUND WTR (ft)									
BORING NO. EB2-A		STATION 22+77		OFFSET 29 ft LT		ALIGNMENT -L-										
COLLAR ELEV. 677.2 ft		TOTAL DEPTH 18.5 ft		NORTHING 914,781		EASTING 1,807,858										
DRILL RIG/HAMMER EFF./DATE TRI0055 CME-55 74% 05/13/2024		DRILL METHOD H.S. Augers		HAMMER TYPE Automatic												
DRILLER TOOTHMAN, R.		START DATE 10/04/18		COMP. DATE 10/04/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
680																
	676.2	1.0	1	3	3										677.2	0.4' TOPSOIL
675	673.8	3.4	3	5	5											RESIDUAL TAN, SILTY SAND (A-2-4) WITH TRACE MICA
	671.2	6.0	2	3	3											
670	668.7	8.5	3	5	6											
	663.7	13.5	26	26	18											
665	658.7	18.5													659.2 658.7	CRYSTALLINE ROCK TAN, GRANITE
660																Boring Terminated WITH STANDARD PENETRATION TEST REFUSAL at Elevation 658.7 ft IN CR: GRANITE

NCDOT BORE SINGLE SF780023_BORINGS.GPJ NC_DOT.GDT 1/14/26

GEOTECHNICAL BORING REPORT BORE LOG

WBS BP7.R001		TIP SF-780023		COUNTY ROCKINGHAM		GEOLOGIST Weis, J.M.										
SITE DESCRIPTION BRIDGE NO. 23 OVER US 29 ON US 29 BUSINESS IN ROCKINGHAM COUNTY							GROUND WTR (ft)									
BORING NO. EB2-B		STATION 23+35		OFFSET 29 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 675.2 ft		TOTAL DEPTH 28.6 ft		NORTHING 914,841		EASTING 1,807,913										
DRILL RIG/HAMMER EFF./DATE TRI0055 CME-55 74% 05/13/2024		DRILL METHOD H.S. Augers		HAMMER TYPE Automatic												
DRILLER TOOTHMAN, R.		START DATE 10/03/18		COMP. DATE 10/03/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
680																
	675.2														675.2	0.4' TOPSOIL
675																RESIDUAL TAN, SILTY SAND (A-2-4)
	671.9	3.3		3	6											
670	669.2	6.0		5	5	7										
	666.7	8.5		2	3	7										
665	666.7	8.5		6	13	21										
	661.7	13.5		15	21	18										
660	656.7	18.5		50	50/0.1										657.2	WEATHERED ROCK TAN AND WHITE, GRANITE
655																
	651.7	23.5		100/0.5												
650	646.7	28.5		60/0.1											647.2 646.6	CRYSTALLINE ROCK TAN AND WHITE, GRANITE
																Boring Terminated WITH STANDARD PENETRATION TEST REFUSAL at Elevation 646.6 ft IN CR: GRANITE

NCDOT BORE SINGLE SF780023_BORINGS.GPJ NC_DOT.GDT 1/14/26

GEOTECHNICAL BORING REPORT BORE LOG

WBS BP7.R001		TIP SF-780023		COUNTY ROCKINGHAM		GEOLOGIST Weis, J.M.										
SITE DESCRIPTION BRIDGE NO. 23 OVER US 29 ON US 29 BUSINESS IN ROCKINGHAM COUNTY							GROUND WTR (ft)									
BORING NO. W-1		STATION 21+47		OFFSET 53 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 680.9 ft		TOTAL DEPTH 30.0 ft		NORTHING 914,654		EASTING 1,807,946										
DRILL RIG/HAMMER EFF./DATE TRI0055 CME-55 74% 05/13/2024			DRILL METHOD H.S. Augers			HAMMER TYPE Automatic										
DRILLER TOOTHMAN, R.		START DATE 10/01/18		COMP. DATE 10/01/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
685																
680	679.9	1.0	2	3	5								M		680.9	0.4' TOPSOIL RESIDUAL TAN AND ORANGE, CLAYEY SILT (A-5)
	677.5	3.4	2	3	4								M			
675	674.9	6.0	2	3	4								M			
	672.4	8.5	2	3	4								M			
670															671.4	ORANGE, SILTY SAND (A-2-4) WITH TRACE ROCK FRAGMENTS
	667.4	13.5	1	2	3								M		667.9	ORANGE, SANDY SILT (A-4)
665																
	662.4	18.5	1	2	1								W		662.9	TAN, SILTY SAND (A-2-4)
660																
	657.4	23.5	1	2	2								W		657.9	TAN, SANDY SILT (A-4)
655																
	652.4	28.5	2	4	6								M		650.9	Boring Terminated at Elevation 650.9 ft IN RESIDUAL: SANDY SILT

NCDOT BORE SINGLE SF780023_BORINGS.GPJ NC_DOT.GDT 1/14/26

GEOTECHNICAL BORING REPORT BORE LOG

WBS BP7.R001		TIP SF-780023		COUNTY ROCKINGHAM		GEOLOGIST Weis, J.M.										
SITE DESCRIPTION BRIDGE NO. 23 OVER US 29 ON US 29 BUSINESS IN ROCKINGHAM COUNTY							GROUND WTR (ft)									
BORING NO. W-2		STATION 23+58		OFFSET 55 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 674.5 ft		TOTAL DEPTH 19.1 ft		NORTHING 914,866		EASTING 1,807,938										
DRILL RIG/HAMMER EFF./DATE TRI0055 CME-55 74% 05/13/2024			DRILL METHOD H.S. Augers			HAMMER TYPE Automatic										
DRILLER TOOTHMAN, R.		START DATE 10/02/18		COMP. DATE 10/03/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
675																
	673.5	1.0	3	5	6								M		674.5	0.5' TOPSOIL
670	671.3	3.2	3	4	5								M			RESIDUAL TAN, SILTY SAND (A-2-4)
	668.5	6.0	3	4	5								M			
665	666.0	8.5	2	2	5								M			
	661.0	13.5	18	29	32								M			
660																
	656.0	18.5	83	170.1											657.5	WEATHERED ROCK TAN, GRANITE
															655.4	Boring Terminated at Elevation 655.4 ft IN WEATHERED ROCK: GRANITE

NCDOT BORE SINGLE SF780023_BORINGS.GPJ NC_DOT.GDT 1/14/26

