STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5600	1	35

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY *JOHNSTON*

PROJECT DESCRIPTION *US 70 FROM EAST OF US 70 BUSINESS TO WEST OF NEUSE RIVER*

RECOMMENDATIONS

REFERENCE: W-5600

PROJECT: 50056

CONTENTS

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.

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NOTES:
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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.

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DATE *MAY 2019*

SINCE 1881

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PROJECT REFERENCE NO.	SHEET NO.
W-5600	2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION

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,
VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6

SOIL LEGEND AND AASHTO CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)							SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS		
GROUP CLASS.	A-1		A-3	A-2				A-4	A-5	A-6	A-7	A-1, A-2 A-3	A-4, A-5 A-6, A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5, A-7-6			
SYMBOL														
% PASSING #10 #40 #200	50 MX 30 MX 15 MX		51 MN 10 MX	35 MX	35 MX	35 MX	35 MX	36 MN	36 MN	36 MN	36 MN	GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
MATERIAL PASSING #40 LL PI	– 6 MX		– NP	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
GROUP INDEX	0		0	0		4 MX		8 MX	12 MX	16 MX	NO MX			
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL, AND SAND		FINE SAND	SILTY OR CLAYEY GRAVEL AND SAND				SILTY SOILS		CLAYEY SOILS				
GEN. RATING AS SUBGRADE	EXCELLENT TO GOOD							FAIR TO POOR				FAIR TO POOR	POOR	UNSUITABLE

PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30

CONSISTENCY OR DENSENESS

PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTENCE (N-VALUE)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT²)
GENERALLY GRANULAR MATERIAL (NON-COHESIVE)	VERY LOOSE	< 4	
	LOOSE	4 TO 10	
	MEDIUM DENSE	10 TO 30	
	DENSE	30 TO 50	N/A
	VERY DENSE	> 50	
GENERALLY SILT-CLAY MATERIAL (COHESIVE)	VERY SOFT	< 2	< 0.25
	SOFT	2 TO 4	0.25 TO 0.5
	MEDIUM STIFF	4 TO 8	0.5 TO 1.0
	STIFF	8 TO 15	1 TO 2
	VERY STIFF	15 TO 30	2 TO 4
	HARD	> 30	> 4

TEXTURE OR GRAIN SIZE

U.S. STD. SIEVE SIZE	4	10	40	60	200	270
OPENING (MM)	4.76	2.00	0.42	0.25	0.075	0.053

BOULDER (BLDR.)	COBBLE (COB.)	GRAVEL (GR.)	COARSE SAND (CSE. SD.)	FINE SAND (F SD.)	SILT (SL.)	CLAY (CL.)

GRAIN SIZE	MM	305	75	2.0	0.25	0.05	0.005
	IN.	12	3				

SOIL MOISTURE - CORRELATION OF TERMS

SOIL MOISTURE SCALE (ATTERBERG LIMITS)	FIELD MOISTURE DESCRIPTION	GUIDE FOR FIELD MOISTURE DESCRIPTION
	- SATURATED - (SAT.)	USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE
LL — LIQUID LIMIT		
PLASTIC RANGE (PI)	- WET - (W)	SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
PL — PLASTIC LIMIT		
OM — OPTIMUM MOISTURE SL — SHRINKAGE LIMIT	- MOIST - (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
	- DRY - (D)	REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE

PLASTICITY

	PLASTICITY INDEX (PI)	DRY STRENGTH
NON PLASTIC	0-5	VERY LOW
SLIGHTLY PLASTIC	6-15	SLIGHT
MODERATELY PLASTIC	16-25	MEDIUM
HIGHLY PLASTIC	26 OR MORE	HIGH

COLOR

DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY). MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.

GRADATION

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.

ANGULARITY OF GRAINS

THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.

MINERALOGICAL COMPOSITION

MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.

COMPRESSIBILITY

SLIGHTLY COMPRESSIBLE	LL < 31
MODERATELY COMPRESSIBLE	LL = 31 - 50
HIGHLY COMPRESSIBLE	LL > 50

PERCENTAGE OF MATERIAL

ORGANIC MATERIAL	GRANULAR SOILS	SILT - CLAY SOILS	OTHER MATERIAL	
TRACE OF ORGANIC MATTER	2 - 3%	3 - 5%	TRACE	1 - 10%
LITTLE ORGANIC MATTER	3 - 5%	5 - 12%	LITTLE	10 - 20%
MODERATELY ORGANIC	5 - 10%	12 - 20%	SOME	20 - 35%
HIGHLY ORGANIC	> 10%	> 20%	HIGHLY	35% AND ABOVE

GROUND WATER

- WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING
- STATIC WATER LEVEL AFTER 24 HOURS
- PW — PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA
- SPRING OR SEEP

MISCELLANEOUS SYMBOLS

- ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION
- SOIL SYMBOL
- ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT
- INFERRED SOIL BOUNDARY
- INFERRED ROCK LINE
- ALLUVIAL SOIL BOUNDARY
- 25/025 — DIP & DIP DIRECTION OF ROCK STRUCTURES
- SPT, DPT, DMT, VST, PMT — TEST BORING
- AUGER BORING
- CORE BORING
- MW — MONITORING WELL
- PIEZOMETER INSTALLATION
- SLOPE INDICATOR INSTALLATION
- CONE PENETROMETER TEST
- SOUNDING ROD
- TEST BORING WITH CORE
- SPT N-VALUE

RECOMMENDATION SYMBOLS

- UNDERCUT
- SHALLOW UNDERCUT
- UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE
- UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK
- UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL

ABBREVIATIONS

AR - AUGER REFUSAL
BT - BORING TERMINATED
CL. - CLAY
CPT - CONE PENETRATION TEST
CSE. - COARSE
DMT - DILATOMETER TEST
DPT - DYNAMIC PENETRATION TEST
e - VOID RATIO
F - FINE
FOSS. - FOSSILIFEROUS
FRAC. - FRACTURED, FRACTURES
FRAGS. - FRAGMENTS
HI. - HIGHLY
MED. - MEDIUM
MICA. - MICACEOUS
MOD. - MODERATELY
NP - NON PLASTIC
ORG. - ORGANIC
PMT - PRESSUREMETER TEST
SAP. - SAPROLITIC
SD. - SAND, SANDY
SL. - SILT, SILTY
SLI. - SLIGHTLY
TCR - TRICONE REFUSAL
w - MOISTURE CONTENT
V - VERY
VST - VANE SHEAR TEST
WEA. - WEATHERED
γ - UNIT WEIGHT
γ_d - DRY UNIT WEIGHT

SAMPLE ABBREVIATIONS

S - BULK
SS - SPLIT SPOON
ST - SHELBY TUBE
RS - ROCK
RT - RECOMPACTED TRIAXIAL
CBR - CALIFORNIA BEARING RATIO

EQUIPMENT USED ON SUBJECT PROJECT

DRILL UNITS:
- [ ] CME-45C
- [X] CME-55
- [ ] CME-550
- [ ] VANE SHEAR TEST
- [ ] PORTABLE HOIST
- [ ] _____
- [ ] _____

ADVANCING TOOLS:
- [ ] CLAY BITS
- [ ] 6" CONTINUOUS FLIGHT AUGER
- [X] 8" HOLLOW AUGERS
- [ ] HARD FACED FINGER BITS
- [ ] TUNG.-CARBIDE INSERTS
- [ ] CASING [ ] W/ ADVANCER
- [ ] TRICONE _____" STEEL TEETH
- [ ] TRICONE _____" TUNG.-CARB.
- [X] CORE BIT
- [ ] _____

HAMMER TYPE:
- [X] AUTOMATIC [ ] MANUAL

CORE SIZE:
- [ ] -B _____ [ ] -H _____
- [ ] -N _____

HAND TOOLS:
- [ ] POST HOLE DIGGER
- [ ] HAND AUGER
- [ ] SOUNDING ROD
- [ ] VANE SHEAR TEST
- [ ] _____

ROCK DESCRIPTION

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:

WEATHERED ROCK (WR)	NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 100 BLOWS PER FOOT IF TESTED.
CRYSTALLINE ROCK (CR)	FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.
NON-CRYSTALLINE ROCK (NCR)	FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.
COASTAL PLAIN SEDIMENTARY ROCK (CP)	COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.

WEATHERING

FRESH	ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.
VERY SLIGHT (V SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN, CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF OF A CRYSTALLINE NATURE.
SLIGHT (SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.
MODERATE (MOD.)	SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED WITH FRESH ROCK.
MODERATELY SEVERE (MOD. SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. *IF TESTED, WOULD YIELD SPT REFUSAL*
SEVERE (SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. *IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF*
VERY SEVERE (V SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. *IF TESTED, WOULD YIELD SPT N VALUES < 100 BPF*
COMPLETE	ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.

ROCK HARDNESS

VERY HARD	CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.
HARD	CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.
MODERATELY HARD	CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.
MEDIUM HARD	CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.
SOFT	CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.
VERY SOFT	CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 1 INCH OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGERNAIL.

FRACTURE SPACING

TERM	SPACING
VERY WIDE	MORE THAN 10 FEET
WIDE	3 TO 10 FEET
MODERATELY CLOSE	1 TO 3 FEET
CLOSE	0.16 TO 1 FOOT
VERY CLOSE	LESS THAN 0.16 FEET

BEDDING

TERM	THICKNESS
VERY THICKLY BEDDED	4 FEET
THICKLY BEDDED	1.5 - 4 FEET
THINLY BEDDED	0.16 - 1.5 FEET
VERY THINLY BEDDED	0.03 - 0.16 FEET
THICKLY LAMINATED	0.008 - 0.03 FEET
THINLY LAMINATED	< 0.008 FEET

INDURATION

FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.

FRIABLE	RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.
MODERATELY INDURATED	GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER.
INDURATED	GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER.
EXTREMELY INDURATED	SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.

TERMS AND DEFINITIONS

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 DISLODGED 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 (RQD) - 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 (SRQD) - 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.

BENCH MARK: N/A

ELEV.: N/A FEET

NOTES:

FIAD= FILLED IMMEDIATELY AFTER DRILLING

NDOT .TIN FILE DATED 11/2/2017 USED TO OBTAIN ALL OTHER BORING ELEVATIONS

DATE: 8-15-14

09/08/99

TIP PROJECT: W-5600

CONTRACT:

VICINITY MAP

PRELIMINARY PLANS

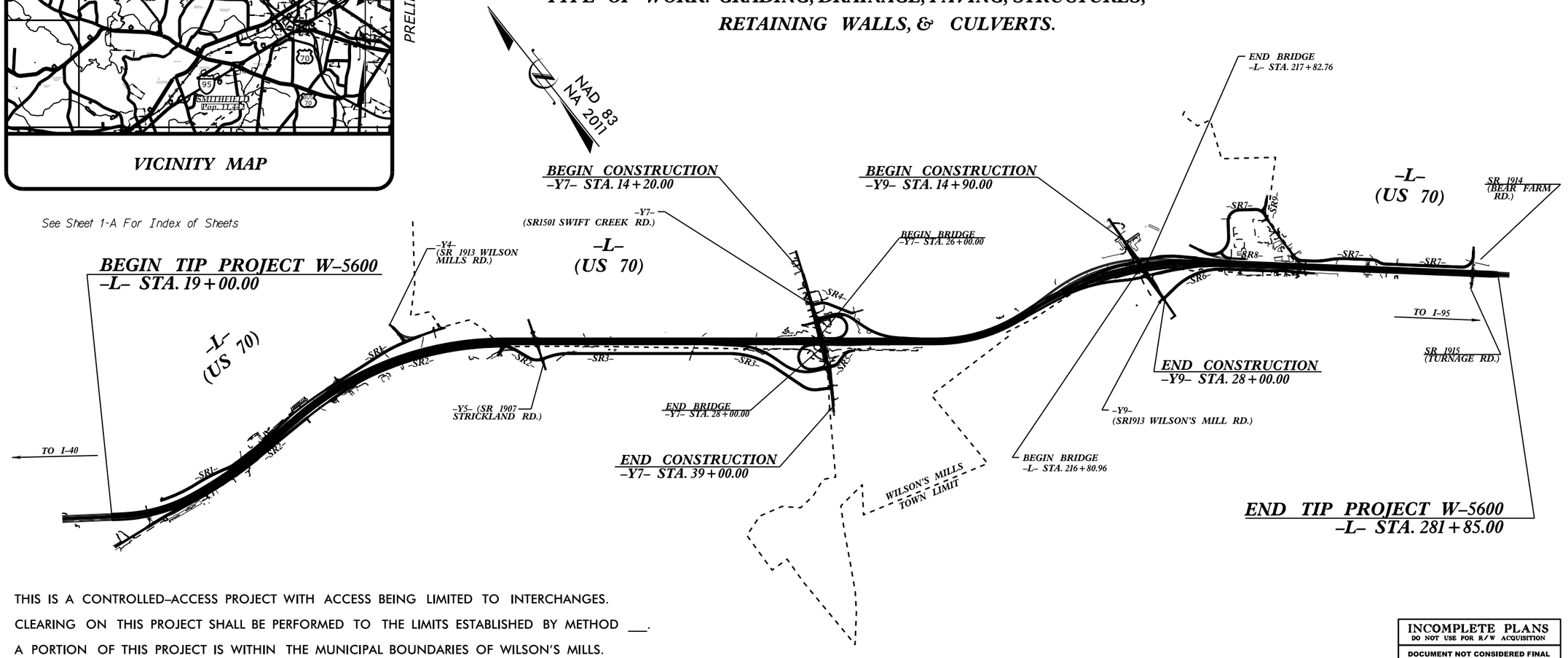
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5600	3	35
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50056.1.1	HISP-0070(163)	PE	

LOCATION: *US 70 FROM EAST OF US 70 BUSINESS TO WEST OF NEUSE RIVER.*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, STRUCTURES, RETAINING WALLS, & CULVERTS.*



See Sheet 1-A For Index of Sheets

END TIP PROJECT W-5600
–L– STA. 281+85.00

THIS IS A CONTROLLED–ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

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

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF WILSON'S MILLS.

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

GRAPHIC SCALES

PLANS: 50 25 0 50 100

PROFILE (HORIZONTAL): 50 25 0 50 100

PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2020 = 30,700
ADT 2040 = 45,400
K = 8 %
D = 55 %
T = 14 % *
V = 70 MPH
* TTST = 8% DUAL = 6%
FUNC. CLASS = INTERSTATE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5600	=	4.959 MILES
LENGTH STRUCTURE TIP PROJECT W-5600	=	0.019 MILES
TOTAL LENGTH TIP PROJECT W-5600	=	4.978 MILES

Prepared in the Office of:
WETHERILL ENGINEERING
1223 Jones Franklin Rd. Raleigh, N.C. 27606
License No. F-0377
Bus: 919.851.8077 Fax: 919.851.8107

Prepared for:
DIVISION OF HIGHWAYS
DIVISION 4
509 Ward Boulevard
Wilson NC, 27895

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:

BOB A. MAY, PE
PROJECT ENGINEER

JONATHAN HEFNER, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACT: MATT CLARK, PE
DIVISION PROJECT MANAGER

HYDRAULICS ENGINEER

SIGNATURE: _____ *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ *P.E.*

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

02-MAY-2019 11:58
F:\Projects_66U\66U-0197 (WEI-W-5600 US 70 Johnston Co)\CADD_GEOTECH\PlanProf\w5600_rdy_rec_tsh.dgn
TWalker AT 66026102

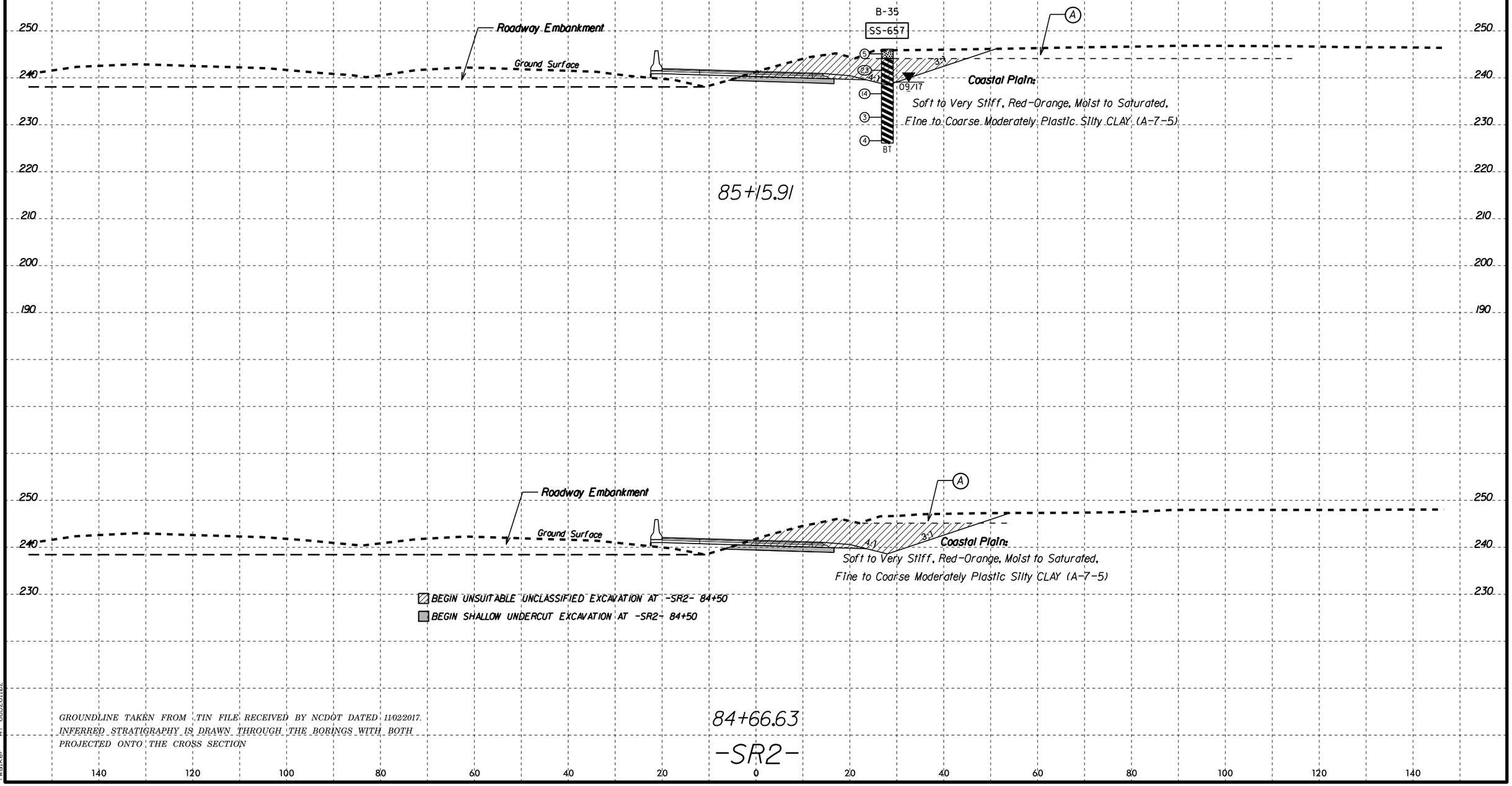
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	4

140 120 100 80 60 40 20 0 20 40 60 80

Ⓐ **Coastal Plain:** *Loose, Gray, Moist, Silty Fine SAND (A-2-4) with Trace Organics (Roots)*

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-657	28' RT	85+00	3.5-5.0	A-7-5(5)	54	22	34.1	20.0	5.6	40.3	86.4	75.0	49.0	14.2	-



GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	5

END UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR2- 85+75

END SHALLOW UNDERCUT EXCAVATION AT -SR2- 85+75

Roadway Embankment

Ⓐ **Coastal Plain:** Loose, Gray, Moist, Silty Fine SAND (A-2-4) with Trace Organics (Roots)

Ground Surface

Ⓐ

Coastal Plain:
Soft to Very Stiff, Red-Orange, Moist to Saturated,
Fine to Coarse Moderately Plastic Silty CLAY (A-7-5)

260
250
240
230

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

85+65.18
-SR2-

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	6

140 120 100 80 60 40 20 0 20 40 60 80

210
200
190

3:1 3:1 3:1 3:1 Ground Surface

Coastal Plain: Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7) with Trace Organics (Roots and Gravel)

14+50.00

B-82

3:1 3:1 3:1 3:1 Ground Surface

Coastal Plain: Stiff, Red-Brown, (13) Moist, Highly Plastic Silty CLAY (A-7) with Trace Organics (Roots and Gravel)

Residual: Soft to Medium Stiff, (7) Red-Brown-Gray, Wet, Clayey SILT (A-5)

BT DRY

14+00.00

210
200
190
180
170

3:1 3:1 3:1 3:1 Ground Surface

Coastal Plain: Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7) with Trace Organics (Roots and Gravel)

BEGIN UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR4- 13+25

BEGIN UNDERCUT EXCAVATION AT -SR4- 13+25

13+50.00

-SR4-

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.

INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION.

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	7

140 120 100 80 60 40 20 0 20 40 60 80

220
210
200

Ground Surface

3:1 3:1 3:1 3:1

Coastal Plain: Medium Stiff to Stiff, Red-Brown, Moist to Wet, Highly Plastic Silty CLAY (A-7-5) with Trace Organics (Roots)

15+10.00

220
210
200

Ground Surface

3:1 3:1 3:1 3:1

Coastal Plain: Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7) with Trace Organics (Roots and Gravel)

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION.

15+00.00

-SR4-

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Walker Al 66026102

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	8

140 120 100 80 60 40 20 0 20 40 60 80

END UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR4- 16+75

END UNDERCUT EXCAVATION AT -SR4- 16+75

210 200 190

Ground Surface 3:1 3:1

Coastal Plain: Medium Stiff to Stiff, Red-Brown, Moist to Wet, Highly PLastic Silty CLAY (A-7-5) with Trace Organics (Roots)

16+52.50

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-786	CL	16+00	0.1-1.5	A-7-5(42)	76	44	1.4	20.7	13.3	64.6	99.8	99.2	84.8	26.4	-

B-83
16+00

Ground Surface

3:1 3:1

Coastal Plain: Medium Stiff to Stiff, Red-Brown, Moist to Wet, Highly Plastic Silty CLAY (A-7-5) with Trace Organics (Roots)

Residual: Soft to Medium Stiff, Red-Gray, Wet, Clayey SILT (A-5) with Trace Mica

9
4
BT
DRY

210 200 190 180 170

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH
PROJECTED ONTO THE CROSS SECTION

15+80.00

-SR4-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	9

140 120 100 80 60 40 20 0 20 40 60 80

200
190
180

3:1 — 4:1

Ground Surface

Coastal Plain:
Stiff to Very Stiff, Red-Orange-Brown-Gray, Moist, Highly Plastic
Silty CLAY (A-7-6)

16+50.00

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-981	CL	16+15	0.9-1.5	A-7-6(27)	63	34	12.0	17.9	8.6	61.5	99.9	93.5	73.5	19.1	-

Ⓐ **Coastal Plain:** Loose to Medium Dense, Brown, Moist, Silty Fine SAND (A-2-4) with Trace Organics (Roots)

B-166
SS-981
Ⓐ

3:1 — 4:1

Ground Surface

⑩ ⑦ ⑯ BIT DRY

Coastal Plain: Stiff to Very Stiff, Red-Orange-Brown-Gray, Moist, Highly Plastic
Silty CLAY (A-7-6)

16+00.00

Ground Surface 3:1 — 4:1 3:1

Coastal Plain:
Stiff to Very Stiff, Red-Orange-Brown-Gray, Moist, Highly Plastic
Silty CLAY (A-7-6)

▨ BEGIN UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR7- 15+25
▩ BEGIN UNDERCUT EXCAVATION AT -SR7- 15+25

15+50.00

-SR7-

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/22/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

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TWalker AT 6602611102

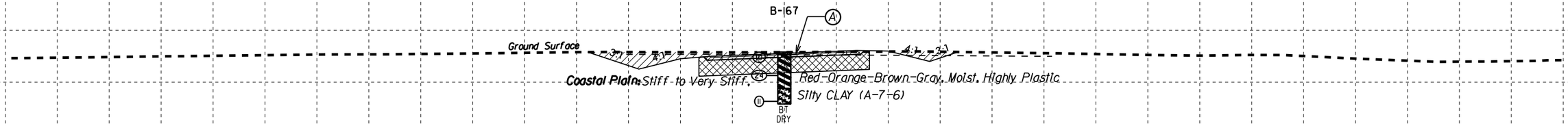
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	10

140 120 100 80 60 40 20 0 20 40 60 80

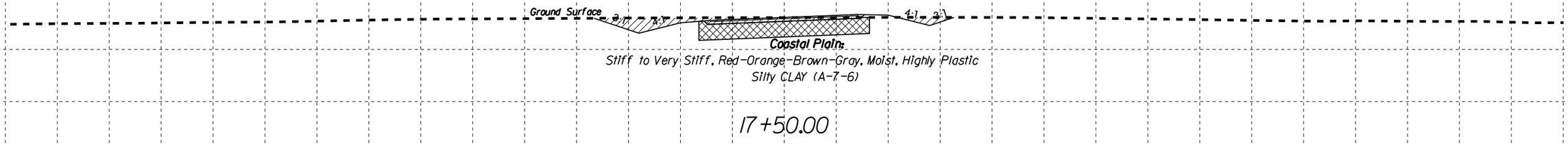
200 190 180 170

Ⓐ **Coastal Plain:** *Loose to Medium Dense, Brown, Moist, Silty Fine SAND (A-2-4) with Trace Organics (Roots)*



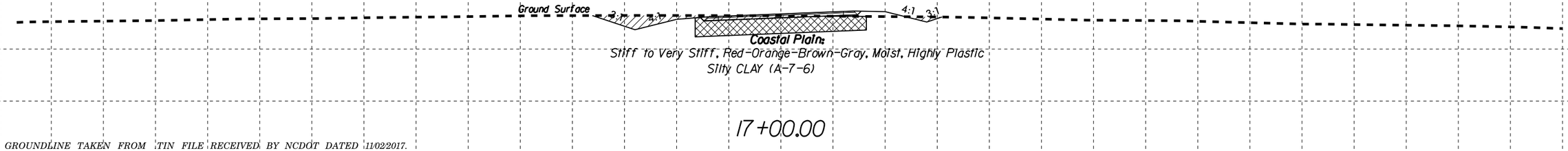
18+00.00

200 190 180



17+50.00

200 190 180



17+00.00

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

-SR7-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

02-MAY-2019 12:01
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Walker AT 66026102

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	11

140 120 100 80 60 40 20 0 20 40 60 80

END UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR7- 18+75

END UNDERCUT EXCAVATION AT -SR7- 18+75

200

190

180

Ground Surface

3:1

4:1

Coastal Plain: Stiff to Very Stiff, Red-Orange-Brown-Gray, Moist, Highly Plastic Silty CLAY (A-7-6)

18+50.00

-SR7-

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

02-MAY-2019 12:01
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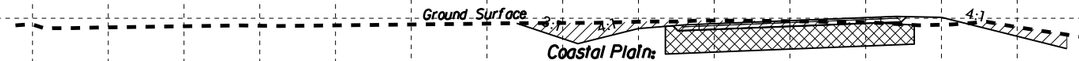
Walker AT 66026102

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	12

140 120 100 80 60 40 20 0 20 40 60 80

END UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR7- 42+75

END UNDERCUT EXCAVATION AT -SR7- 42+75



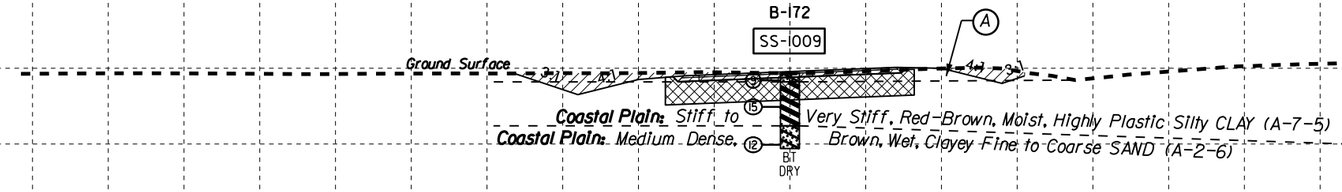
42+55.24

(A) **Coastal Plain:** Loose, Dark Brown, Moist, Clayey Fine SAND (A-2-6) with Trace Organics (Roots)

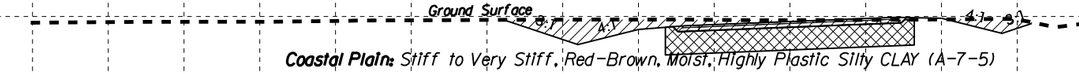
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-1009	CL	16+00	3.5-5.0	A-7-5(11)	62	29	32.7	18.9	5.8	42.6	100.0	82.1	50.1	18.1	-

B-172
SS-1009



42+05.24



41+55.24

BEGIN UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR7- 41+25

BEGIN UNDERCUT EXCAVATION AT -SR7- 41+25

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

-SR7-

190 180 170 160 150

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	13

140 120 100 80 60 40 20 0 20 40 60 80

170 160 150

Ground Surface 3:1 4:1 4:1

Coastal Plain: Soft to Stiff, Red-Orange-Brown, Moist to Wet, Highly Plastic Silty CLAY (A-7-6)

65+72.90

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-998	CL	65+00	3.5-5.0	A-7-6(27)	74	45	19.0	20.9	6.5	53.6	100.0	94.5	62.8	27.1	-

180 170 160 150 140

Ⓐ **Coastal Plain:** Loose, Tan-Brown, Moist to Wet, Clayey Fine to Coarse SAND (A-2-6) with Trace Organics (Roots)

B-178
SS-998
65+00

Ground Surface 3:1 4:1 4:1

Coastal Plain: Soft to Stiff, Red-Orange-Brown, Moist to Wet, Highly Plastic Silty CLAY (A-7-6)

Coastal Plain: Medium Dense, Gray, BT DRY Wet, Clayey Fine to Coarse SAND (A-2-6)

BEGIN UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR7- 65+00

BEGIN UNDERCUT EXCAVATION AT -SR7- 65+00

65+22.90

-SR7-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

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Walker AT 6602611102

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	14

140 120 100 80 60 40 20 0 20 40 60 80

170 160 150

Ground Surface 3:1 4:1 4:1

Coastal Plain:

Soft to Stiff, Red-Orange-Brown, Moist to Wet, Highly Plastic Silty CLAY (A-7-6)

67+72.90

170 160 150

Ground Surface 3:1 4:1 4:1

Coastal Plain:

Soft to Stiff, Red-Orange-Brown, Moist to Wet, Highly Plastic Silty CLAY (A-7-6)

67+22.90

170 160 150

Ground Surface 3:1 4:1 4:1

Coastal Plain:

Soft to Stiff, Red-Orange-Brown, Moist to Wet, Highly Plastic Silty CLAY (A-7-6)

66+72.90

170 160 150

Ground Surface 3:1 4:1 4:1

Coastal Plain:

Soft to Stiff, Red-Orange-Brown, Moist to Wet, Highly Plastic Silty CLAY (A-7-6)

66+22.90

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/022017. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

-SR7-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

02-MAY-2019 12:01
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TWalker AT 66026102

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	15

140 120 100 80 60 40 20 0 20 40 60 80

170
160
150

Ground Surface 3:1 4:1 4:1

Coastal Plain: *Medium Stiff to Stiff, Orange-Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)*

69+22.90

170
160
150

Ground Surface 3:1 4:1 4:1 (A)

Coastal Plain: *Medium Stiff to Stiff, Orange-Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)*

68+72.90

180
170
160
150
140

(A) **Coastal Plain:** *Loose, Dark Brown, Wet, Clayey Fine SAND (A-2-6) with Trace Organics (Roots)*

B-179

Ground Surface 3:1 4:1 4:1 (A)

(5) **Coastal Plain:** *Medium Stiff to Stiff,* (13) *Orange-Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)*

Coastal Plain: (8) *Loose, Gray, Wet,* B/T DRY *Clayey Fine to Coarse SAND (A-2-6)*

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

68+22.90

-SR7-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	16

140 120 100 80 60 40 20 0 20 40 60 80

170
160
150

Ground Surface 3:1 4:1 4:1

Coastal Plain:

Medium Stiff, Orange-Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)

70+69.00

170
160
150

Ground Surface 3:1 4:1 4:1

Coastal Plain:

Medium Stiff, Orange-Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)

70+22.90

170
160
150

Ground Surface 3:1 4:1 4:1

Coastal Plain:

Medium Stiff to Stiff, Orange-Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)

69+72.90

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.

INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

-SR7-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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Walker AT 6602611102

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
W-5600	17

0 5 10

140 120 100 80 60 40 20 0 20 40 60 80

170 160 150

Ground Surface 3:1 4:1 4:1 3:1

Coastal Plain: *Medium Stiff, Orange-Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)*

72+00.00

170 160 150

Ground Surface 3:1 4:1 4:1 3:1

Coastal Plain: *Medium Stiff, Orange-Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)*

71+50.00

180 170 160 150

Ⓐ **Coastal Plain:** *Loose, Dark Brown, Wet, Clayey Fine to Coarse SAND (A-2-6) with Trace Organic (Roots)*

B-180 Ⓐ

Ground Surface 3:1 4:1 4:1

Coastal Plain: *Medium Stiff, Orange-* ⑦ *Dark Brown, Moist, Highly Plastic Silty CLAY (A-7)*

Coastal Plain: *Loose,* ⑨ 10/17 *Gray, Wet, Clayey Fine to Coarse SAND (A-2-6)*

BT

71+10.00

-SR7-

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

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02-MAY-2019 12:01
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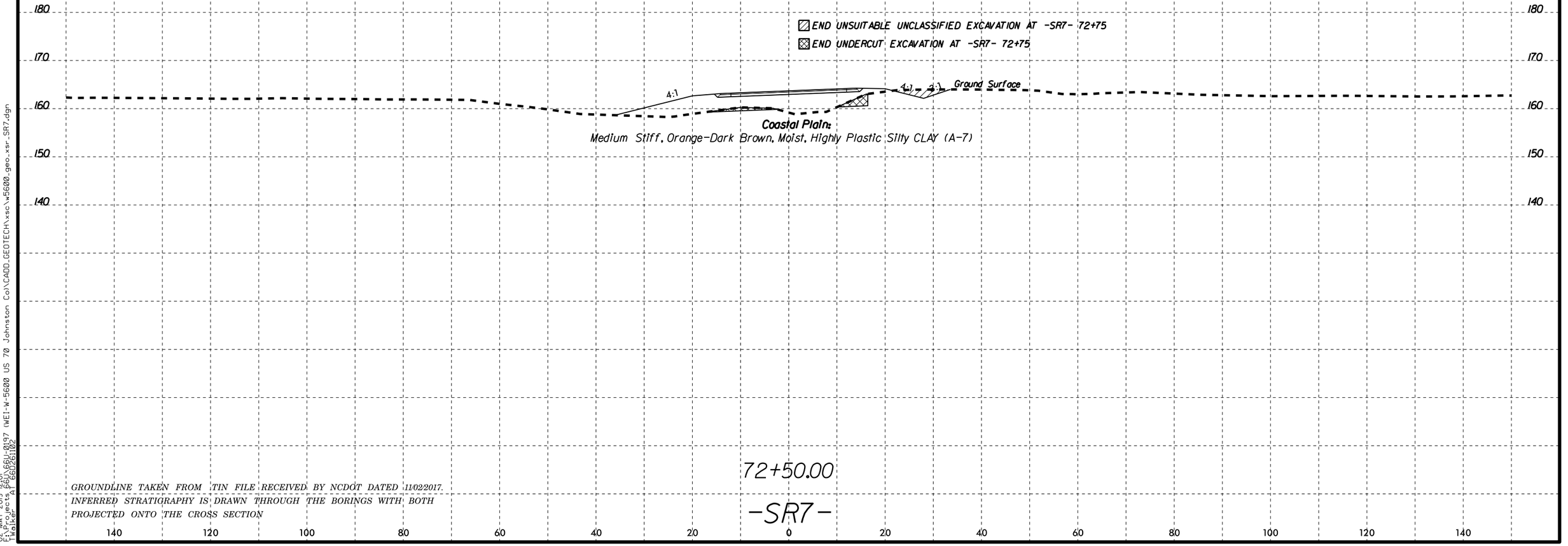
TIWalker AT 66026102

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	18

END UNSUITABLE UNCLASSIFIED EXCAVATION AT -SR7- 72+75

END UNDERCUT EXCAVATION AT -SR7- 72+75



72+50.00

-SR7-

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

02-MAY-2019 12:01
F:\Projects\66U\66U-0197 (WEI-W-5600 US 70 Johnston Co)\CADD_GEOTECH\xsc\w5600-geo-xsr-SR7.dgn
Walker M 6602611102

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	19

140 120 100 80 60 40 20 0 20 40 60 80

200
190
180

4:1 3:1 Ground Surface

Coastal Plain: Medium Stiff to Very Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7-6)

10+60.00

200
190
180

4:1 3:1 Ground Surface

Coastal Plain: Medium Stiff to Very Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7-6)

10+50.00

230
220
210
200
190

B-166
SS-981
10+00

4:1 3:1 Ground Surface

10
7
16
BT
DRY

Coastal Plain: Medium Stiff to Very Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7-6)

BEGIN UNDERCUT EXCAVATION AT -SR8- 10+00

10+30.00

-SR8-

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-981	CL	10+00	0.9-1.5	A-7-6(27)	63	34	12.0	17.9	8.6	61.5	99.9	93.5	73.5	19.1	-

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	20

140 120 100 80 60 40 20 0 20 40 60 80

210
200
190
180

END UNDERCUT EXCAVATION AT -SR8- 11+75

4:1 4:1 Ground Surface

Coastal Plain: Medium Stiff to Very Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7-6)

11+51.58

200
190
180

4:1 Ground Surface

Coastal Plain: Medium Stiff to Very Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7-6)

11+01.21

200
190
180

4:1 4:1 Ground Surface

Coastal Plain: Medium Stiff to Very Stiff, Red-Brown, Moist, Highly Plastic Silty CLAY (A-7-6)

11+00.00

-SR8-

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

02-MAY-2019 12:02
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Walker AT 6602661102

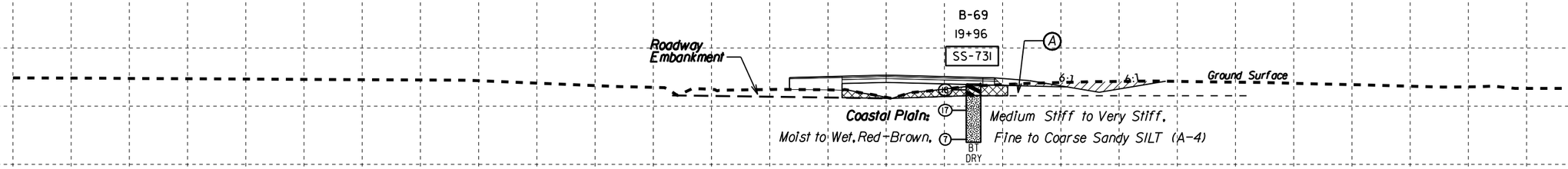
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	21

140 120 100 80 60 40 20 0 20 40 60 80

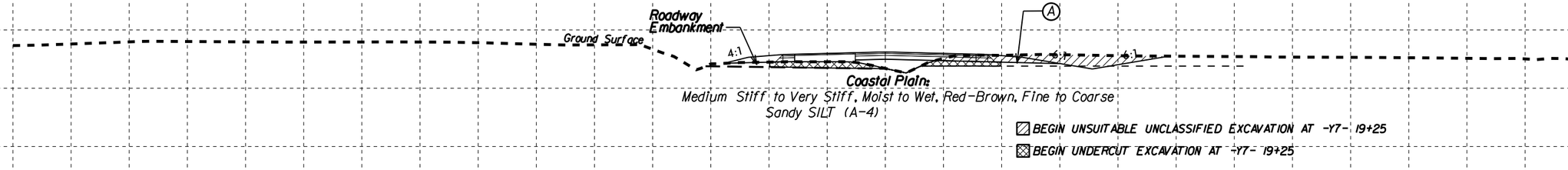
240 230 220 210 200 190 180

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-731	15' RT	19+96	0. 1- 1. 5	A-7-5(52)	91	45	1. 3	10. 6	3. 5	84. 6	99. 1	98. 4	91. 3	26. 4	-



20+00.00



19+50.00

-Y7-

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	22

140 120 100 80 60 40 20 0 20 40 60 80

220
210
200
190

6:1 6:1

Ground Surface

Coastal Plain:

Medium Stiff to Very Stiff, Moist to Wet, Red-Brown, Fine to Coarse Sandy SILT (A-4)

END UNSUITABLE UNCLASSIFIED EXCAVATION AT -Y7- 20+75

END UNDERCUT EXCAVATION AT -Y7- 20+75

21+00.00

Ⓐ **Coastal Plain:** *Very Stiff, Moist, Red-Brown, Silty CLAY (A-7-5)*

Roadway Embankment

Ⓐ

6:1

Ground Surface

Coastal Plain:

Medium Stiff to Very Stiff, Moist to Wet, Red-Brown, Fine to Coarse Sandy SILT (A-4)

20+50.00

-Y7-

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

02-MAY-2019 12:02
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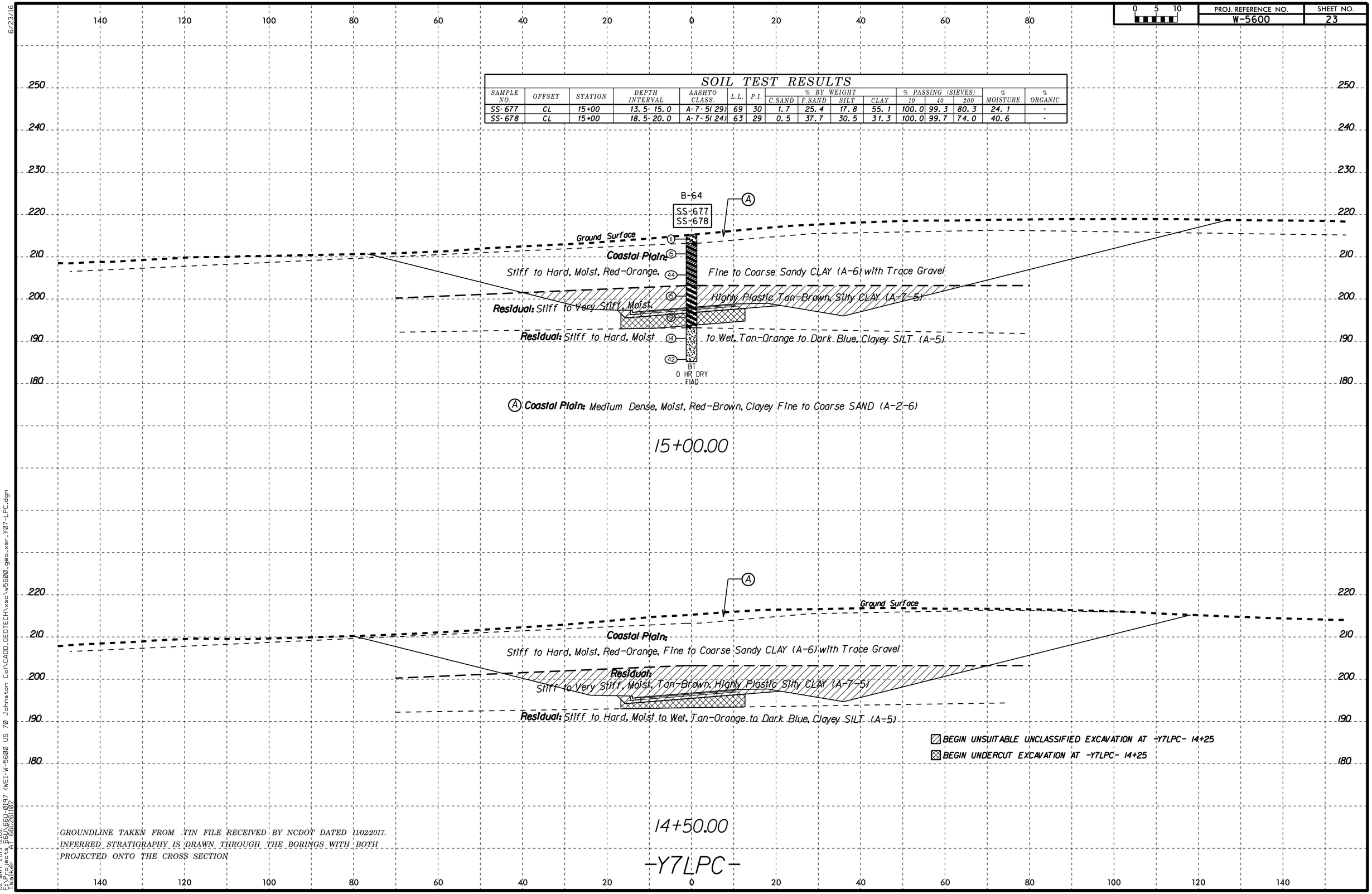
T.Walker AT 6602611102

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
W-5600	23

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-677	CL	15+00	13.5-15.0	A-7-5(29)	69	30	1.7	25.4	17.8	55.1	100.0	99.3	80.3	24.1	-
SS-678	CL	15+00	18.5-20.0	A-7-5(24)	63	29	0.5	37.7	30.5	31.3	100.0	99.7	74.0	40.6	-



GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

02-MAY-2019 12:02
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Walker AT 6602611102

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	24

140 120 100 80 60 40 20 0 20 40 60 80

230 220 210 200 190

Ground Surface

Coastal Plain: Loose to Medium Dense, Moist to Wet, Red-Brown-Gray, Silty Fine to Coarse SAND (A-2-4)

Residual: Medium Stiff to Stiff, Moist to Wet, Tan, Highly Plastic Silty CLAY (A-7-6)

Residual: Very Stiff, Moist, Blue Gray, Fine to Coarse Sandy SILT (A-4)

16+50.00

END UNSUITABLE UNCLASSIFIED EXCAVATION AT -Y7LPC- 16+25

Ⓐ

Ground Surface

Coastal Plain: Stiff to Hard, Moist, Red-Orange, Fine to Coarse Sandy CLAY (A-6) with Trace Gravel

Residual: Stiff to Very Stiff, Moist, Highly Plastic Tan-Brown, Silty CLAY (A-7-5)

Residual: Stiff to Hard, Moist to Wet, Tan-Orange to Dark Blue, Clayey SILT (A-5)

16+00.00

Ⓐ **Coastal Plain:** Medium Dense, Moist, Red-Brown, Clayey Fine to Coarse SAND (A-2-6)

Ⓐ

SP 51

Ground Surface

Coastal Plain: Stiff to Hard, Moist, Red-Orange, Fine to Coarse Sandy CLAY (A-6) with Trace Gravel

Residual: Stiff to Very Stiff, Moist, Tan-Brown, Highly Plastic Silty CLAY (A-7-5)

Residual: Stiff to Hard, Moist to Wet, Tan-Orange to Dark Blue, Clayey SILT (A-5)

15+50.00

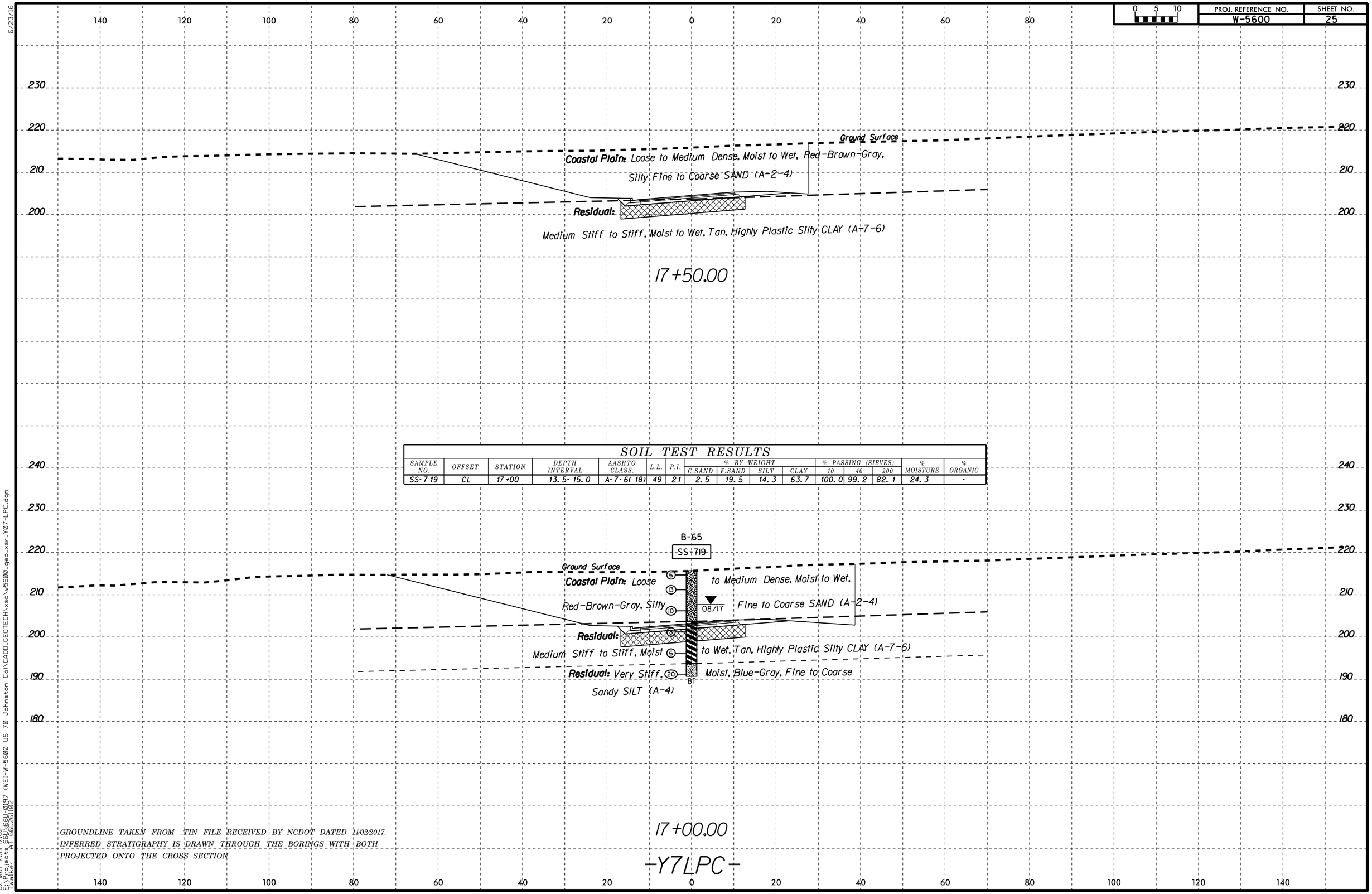
-Y7LPC-

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.

INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	25



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-719	CL	17+00	13.5-15.0	A-7-6(18)	49	21	2.5	19.5	14.3	63.7	100.0	99.2	82.1	24.3	-

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

-Y7LPC-

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	26

140 120 100 80 60 40 20 0 20 40 60 80

B-62
18+58

Ground Surface

Coastal Plain:
Loose to Medium Dense, Red-Brown, Moist, Clayey Fine to Coarse SAND (A-2-6) with Trace Organics (Roots)

11 / 19 / 9 — JQ/LZ

Coastal Plain:
Medium Stiff to Very Stiff, Tan, Moist to Saturated Silty CLAY (A-7-6) with Trace Gravel

19 / 8 — BT

220 210 200 190 180 170

18+50.00

Ground Surface

Coastal Plain:
Loose to Medium Dense, Red-Brown, Moist, Clayey Fine to Coarse SAND (A-2-6) with Trace Organics (Roots)

Coastal Plain:
Medium Stiff to Very Stiff, Tan, Moist to Saturated Silty CLAY (A-7-6) with Trace Gravel

230 220 210 200 190

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

18+00.00

-Y7LPC-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
W-5600	27

0 5 10

140 120 100 80 60 40 20 0 20 40 60 80

220 210 200 190

END UNDERCUT EXCAVATION AT -Y7LPC- 19+25

Ground Surface

Coastal Plain:

Loose to Medium Dense, Red-Brown, Moist, Clayey Fine to Coarse SAND (A-2-6) with Trace Organics (Roots)

Coastal Plain:

Medium Stiff to Very Stiff, Tan, Moist to Saturated Silty CLAY (A-7-6) with Trace Gravel

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.

INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

19+00.00

-Y7LPC-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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TWalker
AT 660261102

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	28

140 120 100 80 60 40 20 0 20 40 60 80

230 220 210

Ground Surface

3:1 6:1 A-1

Coastal Plain:
Medium Stiff to Very Stiff, Moist to Wet, Brown, Orange-Red-Brown, Highly Plastic Silty CLAY (A-7-5) with Trace Gravel and Trace Organics (Roots)

14+00.31

230 220 210

Ground Surface

3:1 6:1 A-1

Coastal Plain:
Medium Stiff to Very Stiff, Moist to Wet, Brown, Orange-Red-Brown, Highly Plastic Silty CLAY (A-7-5) with Trace Gravel and Trace Organics (Roots)

13+50.26

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-662	CL	13+00	0.1-1.5	A-7-5(8)	59	26	34.2	21.7	5.1	39.0	99.0	81.4	46.0	18.8	-

250 240 230 220 210

Roadway Embankment

Roadway Embankment:

Ground Surface

B-57

SS-662

16 12 10 BT

09/17

3:1 6:1 4:1

Coastal Plain:
Medium Stiff to Very Stiff, Moist to Wet, Brown, Silty CLAY (A-7-5) with Trace Gravel

Orange-Red-Brown, Highly Plastic and Trace Organics (Roots)

13+00.20

B-50

6 18 12 BT DRY

Coastal Plain:
Medium Dense, Red-Orange-Brown, Moist to Wet, Clayey Fine to Coarse SAND (A-2-6)

230 220 210

Ground Surface

6:1 A-1

Coastal Plain:
Medium Stiff to Very Stiff, Moist to Wet, Brown, Orange-Red-Brown, Highly Plastic Silty CLAY (A-7-5) with Trace Gravel and Trace Organics (Roots)

BEGIN UNSUITABLE UNCLASSIFIED EXCAVATION AT -Y7RPC- 12+25

BEGIN UNDERCUT EXCAVATION AT -Y7RPC- 12+25

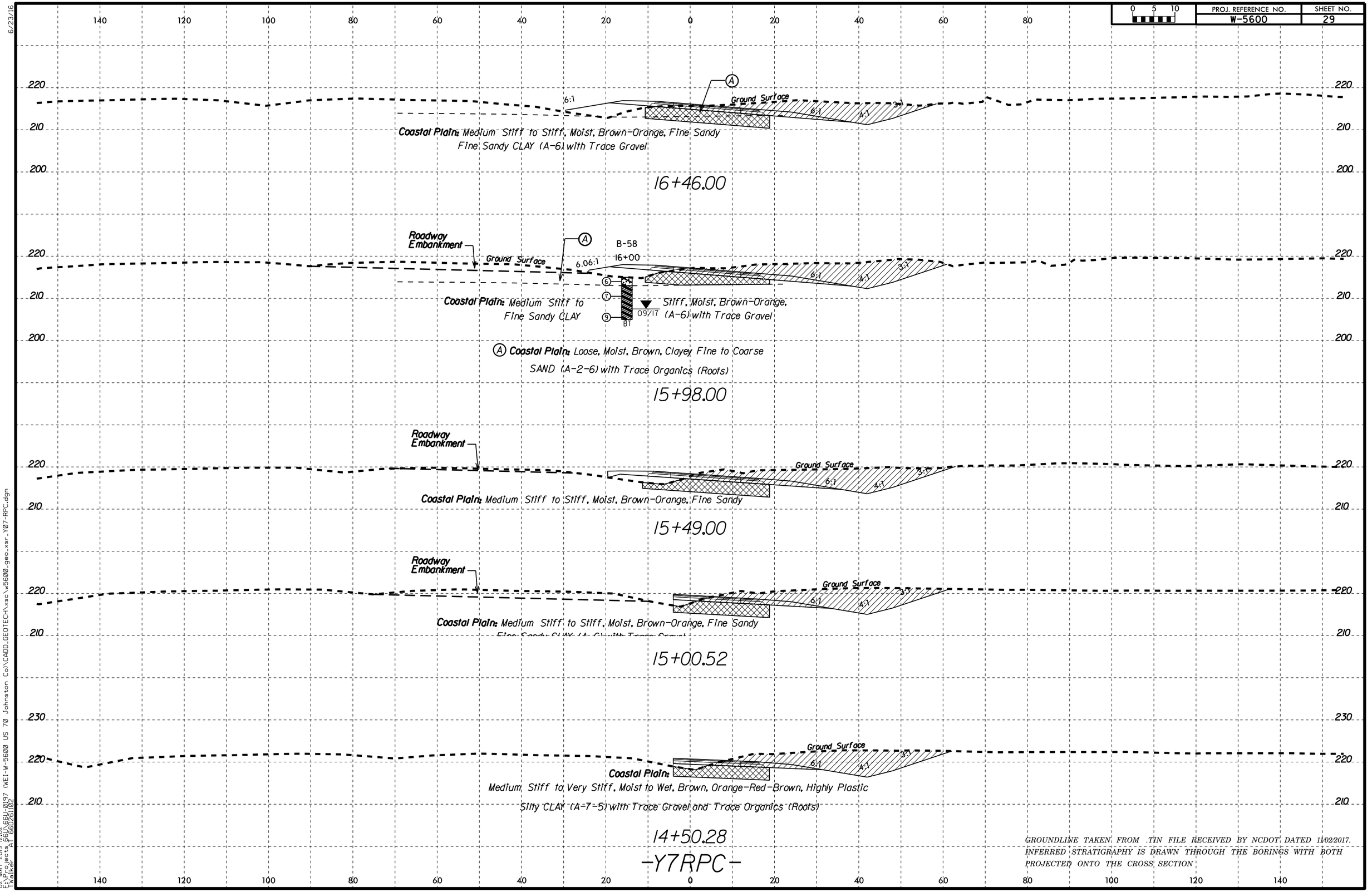
12+50.13

-Y7RPC-

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	29



GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11022017. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	30

140 120 100 80 60 40 20 0 20 40 60 80

230 220 210 200

Ⓐ **Coastal Plain:** *Medium Dense, Moist, Brown-Orange, Clayey Fine to Coarse SAND (A-2-6)*

Ground Surface

4.02:1 4:1 6:1 **Coastal Plain:** *Very Stiff, Moist, Gray-Orange, Highly Plastic Silty CLAY (A-7-5)* 6:1 4:1 3:1

Ⓐ **Residual:** *Very Stiff, Moist, Light Brown, Moderately Plastic Silty CLAY (A-7-6)* Ⓐ

18+90.00

4.26:1 6:1 *Ground Surface* 3:1

Coastal Plain: *Very Stiff, Moist, Gray-Orange, Highly Plastic Silty CLAY (A-7-5)* 6:1 4:1

Ⓐ **Residual:** *Very Stiff, Moist, Light Brown, Moderately Plastic Silty CLAY (A-7-6)* Ⓐ

18+38.00

6:1 6:1 *Ground Surface* 3:1

Ⓐ **Coastal Plain:** *Very Stiff, Moist, Gray-Orange, Highly Plastic Silty CLAY (A-7-5)* 6:1 4:1 Ⓐ

Residual: *Very Stiff, Moist, Light Brown, Moderately Plastic Silty CLAY (A-7-6)*

17+92.00

6:1 *Ground Surface* 3:1

Coastal Plain: *Medium Stiff to Stiff, Moist, Brown-Orange, Fine Sandy Fine Sandy CLAY (A-6) with Trace Gravel* 6:1 4:1

17+41.00

6.01:1 *Ground Surface* 3:1

Coastal Plain: *Medium Stiff to Stiff, Moist, Brown-Orange, Fine Sandy Fine Sandy CLAY (A-6) with Trace Gravel* 6:1 4:1

16+95.00

-Y7RPC-

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11022017. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

02-MAY-2019 12:02
F:\Projects\66U\66U-0197 (WEI-W-5600 US 70 Johnston Co)\CADD_GEOTECH\xsc\w5600_geo_xsr_Y07-RPC.dgn
Walker AT 6602611102

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	32

140 120 100 80 60 40 20 0 20 40 60 80

240 230 220 210 200 190 180

B-60

A

Ground Surface

9 25 11 15 17 11

Coastal Plain: Stiff to Very Stiff, with Trace Gravel

Moist, Gray-Red-Orange, Silty CLAY (A-7-5)

4:1 6:1 4:1 6:1 4:1 3:1

Residual: Stiff to Very Stiff, Moist, Light Brown, Fine to Coarse Sandy Silty CLAY (A-7-6)

Residual: Stiff, Wet, Yellow-Brown, Clayey SILT (A-5)

BT
0 HR DRY
FIAD

Ⓐ **Coastal Plain:** Loose, Moist, Brown, Silty and Clayey Fine to Coarse SAND (A-2-4) and (A-2-6) with Trace Organics (Roots)

21+70.00

A

Ground Surface

Coastal Plain: Stiff to Very Stiff, Moist, Gray-Red-Orange, Silty CLAY (A-7-5) with Trace Gravel

4:1 6:1 4:1 6:1 4:1 3:1

Residual: Stiff to Very Stiff, Moist, Light Brown, Fine to Coarse Sandy Silty CLAY (A-7-6)

21+20.00

A

Ground Surface

Coastal Plain: Stiff to Very Stiff, Moist, Gray-Red-Orange, Silty CLAY (A-7-5) with Trace Gravel

4:1 6:1 4:1 6:1 4:1 3:1

Residual: Stiff to Very Stiff, Moist, Light Brown, Fine to Coarse Sandy Silty CLAY (A-7-6)

20+70.00

-Y7RPC-

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

02-MAY-2019 12:02
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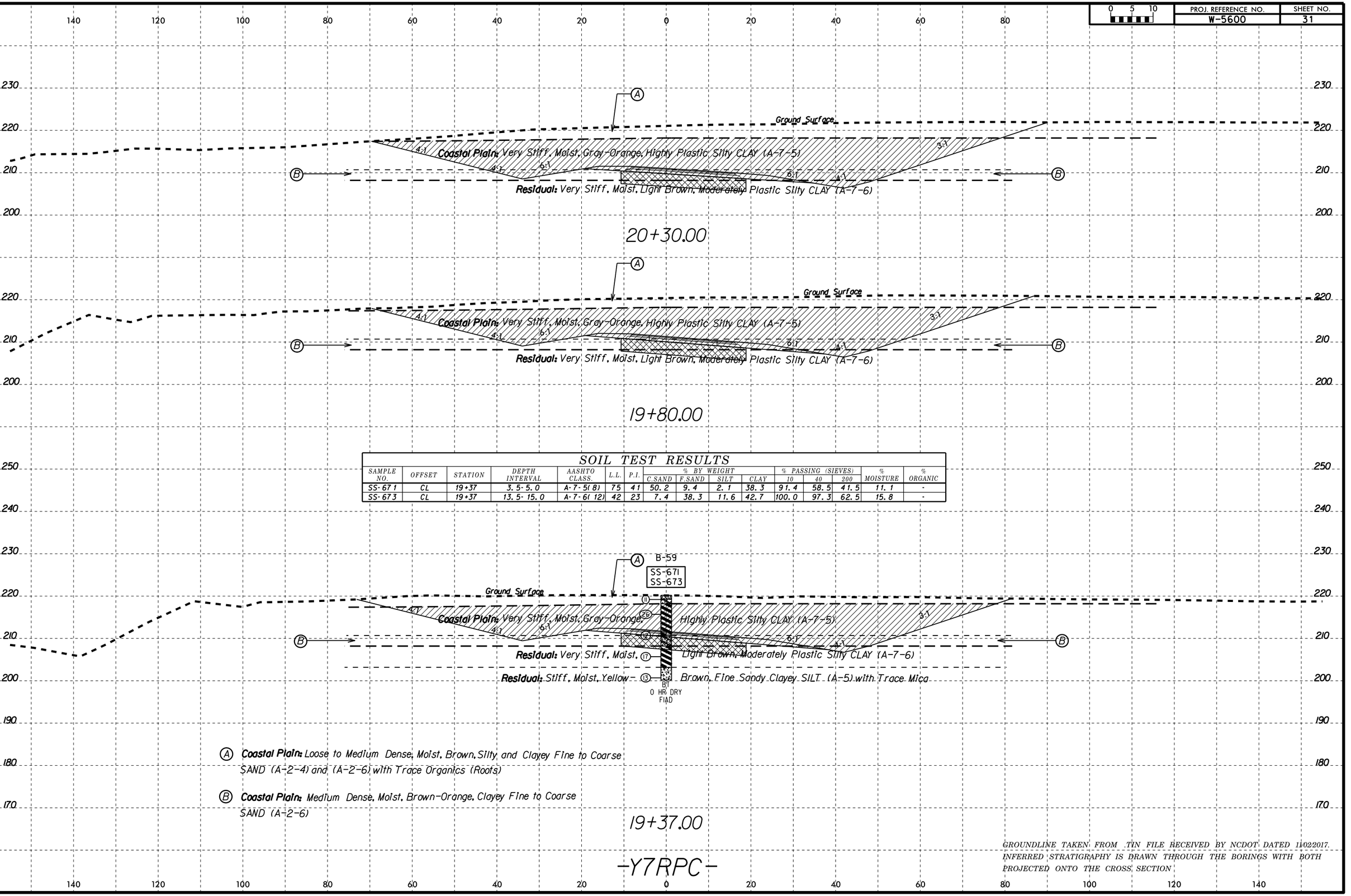
Walker AT 66026102

PROJ. REFERENCE NO.	SHEET NO.
W-5600	31



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-671	CL	19+37	3.5-5.0	A-7-5(8)	75	41	50.2	9.4	2.1	38.3	91.4	58.5	41.5	11.1	-
SS-673	CL	19+37	13.5-15.0	A-7-6(12)	42	23	7.4	38.3	11.6	42.7	100.0	97.3	62.5	15.8	-

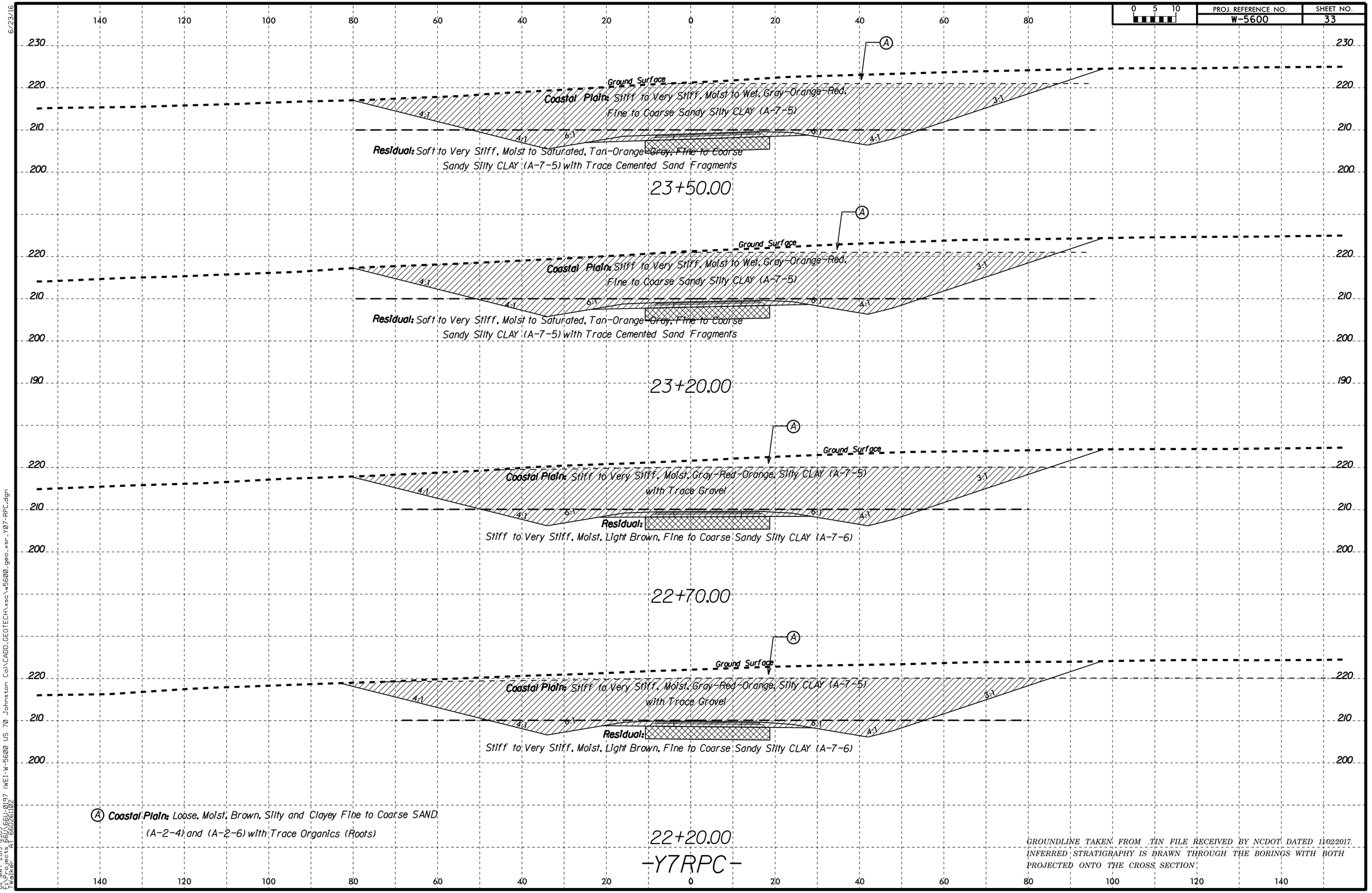
(A) **Coastal Plain:** Loose to Medium Dense, Moist, Brown, Silty and Clayey Fine to Coarse SAND (A-2-4) and (A-2-6) with Trace Organics (Roots)

(B) **Coastal Plain:** Medium Dense, Moist, Brown-Orange, Clayey Fine to Coarse SAND (A-2-6)

GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

02-MAY-2019 12:03
F:\Projects_66U\66U-0137 (WEI-W-5600 US 70 Johnston Co)\CADD_GEOTECH\xsc\w5600_geo.xsr_Y07-RPC.dgn
Walker AT 6602611002

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	33

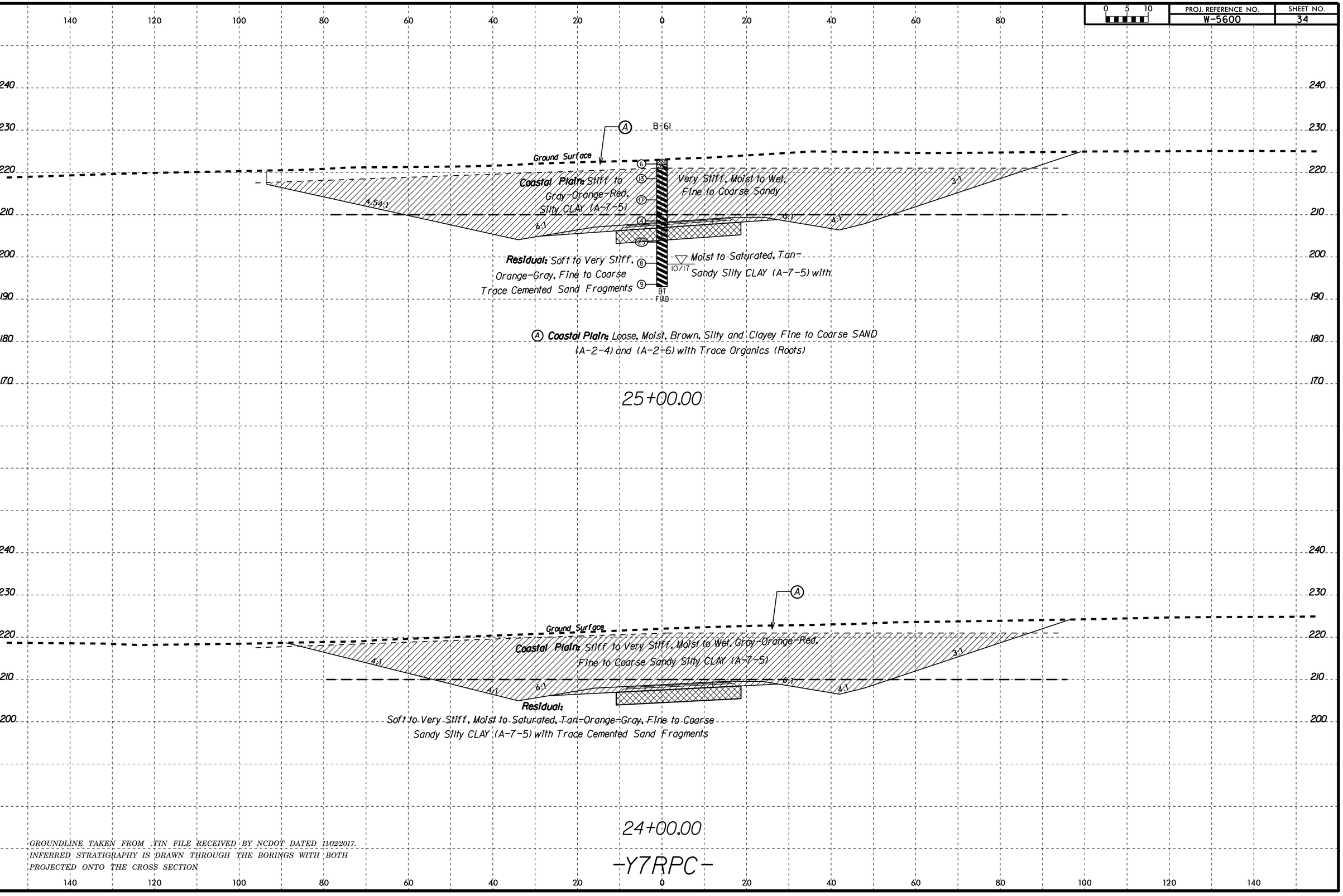


(A) **Coastal Plain:** Loose, Moist, Brown, Silty and Clayey Fine to Coarse SAND (A-2-4) and (A-2-6) with Trace Organics (Roots)

GROUNDLINE TAKEN FROM .TIN FILE RECEIVED BY NCDOT DATED 11/02/2017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	34



GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

02-MAY-2019 12:03
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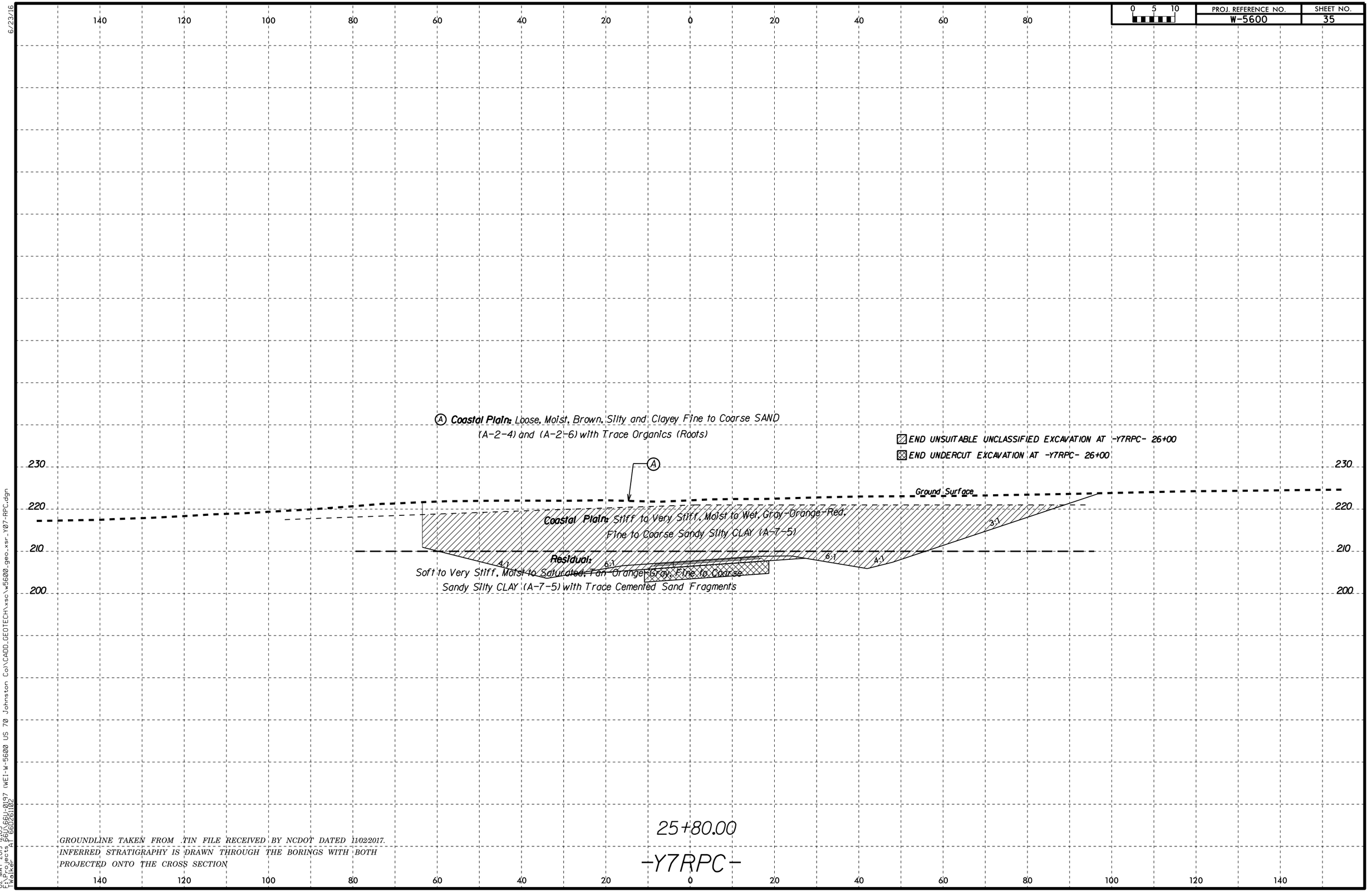
Walker AT 66026102

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5600	35



GROUNDLINE TAKEN FROM TIN FILE RECEIVED BY NCDOT DATED 11022017.
INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE CROSS SECTION

02-MAY-2019 12:03
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Walker AT 6602611102