STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5930	1	

REFERENCE: R-5930

PROJECT: 48548

SEE SHEET 3 FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

CONTENTS

LINE	STATION	PLAN	PROFILE	CROSS SECTIONS
-L-	17+00 to 165+33	4-15	17-21	23-69
-YILPA-	10+00 to 11+40	5		70
-Y9-	10+00 to 15+00	10	22	70
-Y11-	10+68 to 40+80	15-16		71-77

APPENDICES

APPENDIX	TITLE	SHEETS
A	LABORATORY TEST RESULTS	79-81

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY *CHATHAM*

PROJECT DESCRIPTION *CHATHAM PARK WAY – NEW LOCATION ROADWAY FROM NORTH OF SUTTLES ROAD TO US 15/501*

INVENTORY

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

M. STANBURY, PG

M. AKLAND

SUBTERRA EXP.

INVESTIGATED BY *N. MOHS, LG*

DRAWN BY *C. STEPHENS*

CHECKED BY *S. JOHNSON, PE, PG*

SUBMITTED BY *N. MOHS, LG*

DATE *MARCH 2023*

ICE of CAROLINAS, PLLC

NORTH CAROLINA LICENSED SEAL 2124 GEOLOGIST NATHAN DANIEL MOHS

DocuSigned by:
Nathan Mohs, LG 03/20/2023
631A2760...
SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-5930	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	50 MX													
#40	30 MX	50 MX	51 MN											
#200	15 MX	25 MX	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 ($TONS/FT^2$)
GENERALLY GRANULAR MATERIAL (NON-COHESIVE)	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	< 4 4 TO 10 10 TO 30 30 TO 50 > 50	N/A
GENERALLY SILT-CLAY MATERIAL (COHESIVE)	VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD	< 2 2 TO 4 4 TO 8 8 TO 15 15 TO 30 > 30	< 0.25 0.25 TO 0.5 0.5 TO 1.0 1 TO 2 2 TO 4 > 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
- [ ] CME-55
- [ ] CME-550
- [ ] VANE SHEAR TEST
- [ ] PORTABLE HOIST
- [X] D-50
- [ ] _____

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.
- [ ] CORE BIT
- [ ] _____

HAMMER TYPE:
- [X] AUTOMATIC [ ] MANUAL

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

HAND TOOLS:
- [ ] POST HOLE DIGGER
- [X] 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: ELEVATIONS DETERMINED FROM FILE R5930_LS_TIN.TIN
DATED 4/20/2020
ELEVATION: FEET

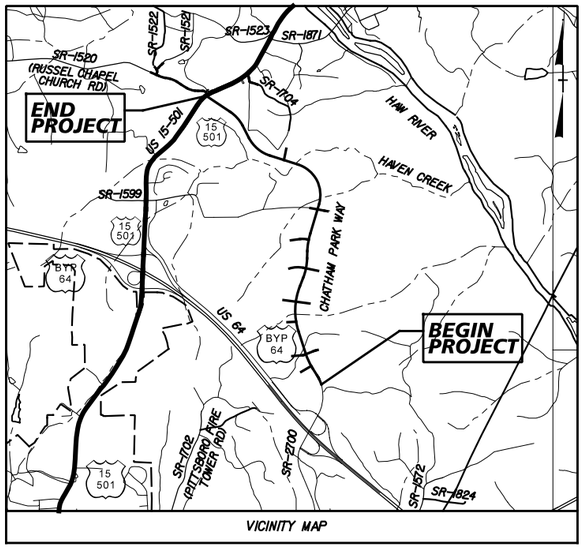
NOTES:
FIAD - FILLED IMMEDIATELY AFTER DRILLING

DATE: 8-15-14

09/08/99

TIP PROJECT: R-5930

SEE SHEET 1A FOR INDEX OF SHEETS
SEE SHEET 1B FOR CONVENTIONAL PLAN SHEET SYMBOLS



VICINITY MAP

——— PITTSBORO CITY LIMITS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

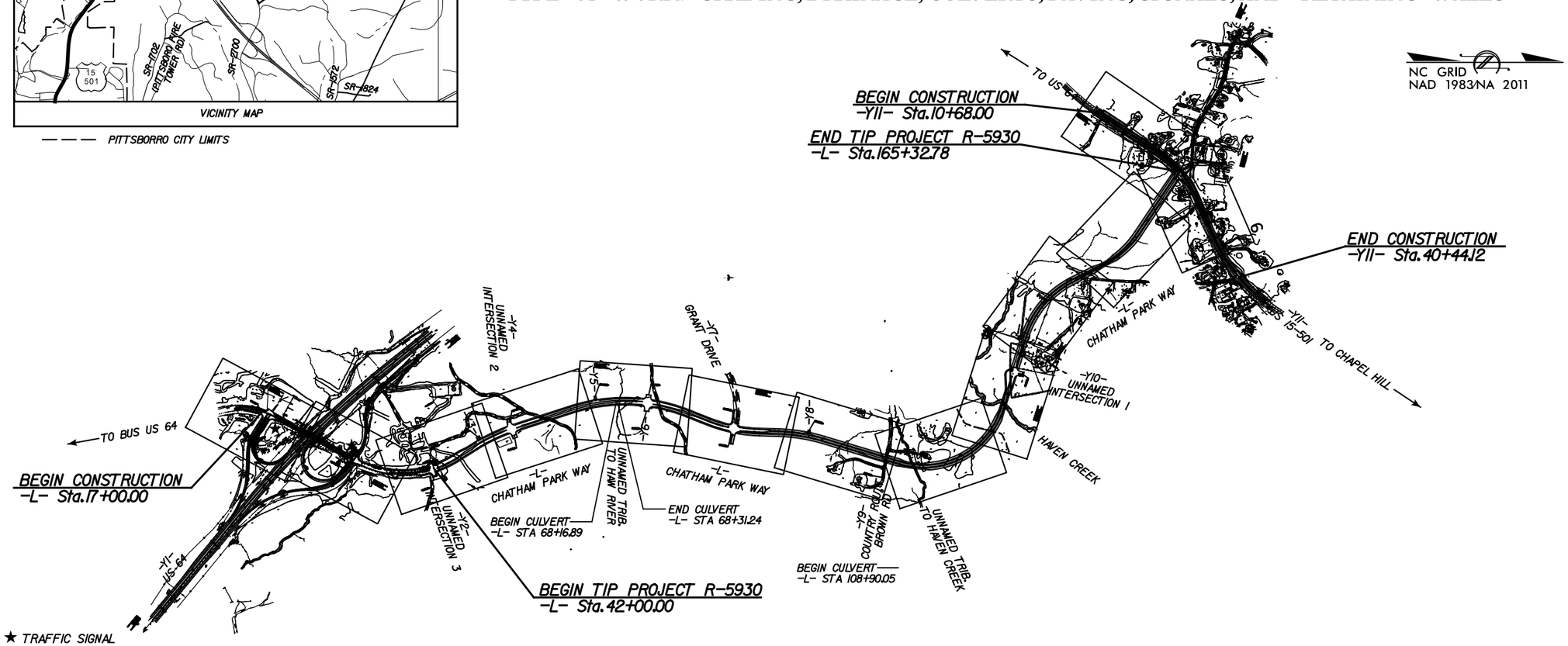
CHATHAM COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5930	3	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48548.1.1		PE
48548.2.1		RW & UTIL
48548.3.1		CONST.

LOCATION: CHATHAM PARK WAY FROM US 64 TO US 15-501

TYPE OF WORK: GRADING, DRAINAGE, CULVERTS, PAVING, SIGNALS, AND RETAINING WALLS



★ TRAFFIC SIGNAL

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT:

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

R-5930 DESIGN DATA

ADT 2024 = 0
ADT 2045 = 30000
K = 8%
D = 65
T = 5%*
V = 50 MPH
* (TTST 2% + DUAL 3%)
FUNCTIONAL CLASSIFICATION:
URBAN ARTERIAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-5930	=	2.326 MILES
LENGTH STRUCTURE TIP PROJECT R-5930	=	0.010 MILES
TOTAL LENGTH TIP PROJECT R-5930	=	2.336 MILES

PLANS PREPARED FOR THE NCDOT BY:

Kimley»Horn ©2022
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NOVEMBER 18, 2022

LETTING DATE:
JUNE 18, 2024

VANCE W. BLANTON, P.E.
PROJECT ENGINEER

TYLER G. SPRING, P.E.
PROJECT DESIGN ENGINEER

JEFFREY L. TEAGUE, P.E.
PROJECT MANAGER
NCDOT HIGHWAY DIVISION 8

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

3/16/2023

March 15, 2023

STATE PROJECT: 48548.1.1 (R-5930)
PROJECT ID: 39995
COUNTY: Chatham
DESCRIPTION: Chatham Park Way - New Location Roadway from North of Suttles Rd. U.S 15/501

SUBJECT: Geotechnical Report – Inventory

Project Description

This project consists of extending Chatham Park Way (-L-) north from US 64 Bypass to US 15/501 (-Y11-). The project crosses Country Routt Brown Road (-Y9-). US 15/501 (-Y11-) will be widened to accommodate the new intersection with -L-.

The geotechnical field investigation was conducted from September to October 2022. Standard Penetration Tests were performed with a track mounted D-50 with an automatic hammer along the project alignments. Borings performed in the existing roadway were filled and patched immediately after drilling (FIAD). Several hand augers were also performed along -L-, -Y9-, and -Y1LPA-- in areas of shallow cut/fill. A pavement design investigation was also conducted along US 15/501 (-Y11-). Representative soil samples were collected for visual classification in the field and submitted for laboratory analysis by Terracon, Inc. in Raleigh, NC and ICE, PLLC in Columbia, SC.

The following alignments, totaling 1.8 miles, were investigated. Subsurface cross-sections of these alignments are included in this report:

Line	Stations		
-L-	42+00	to	165+33
-Y9-	10+00	to	15+00
-Y11-	10+68	to	40+80
-Y1LPA-	10+00	to	11+40

Physiography and Geology

The project is in the rolling terrain of Chatham County, North Carolina. The alignment runs through woods, farmland, and few homes.

Geologically, the project lies within the Carolina Slate Belt. The rocks of the Carolina Slate Belt are classified generally as Meta-Volcanic and are believed to have been formed as lava and pyroclastic flows associated with an arc of volcanic islands formed during the collision of ancient North America and Africa during the formation of Pangea.

The geology of the project area consists of residual soils and partially weathered rock which are the weathered remains of parent material, and crystalline meta-volcanic rock.

Soil Properties

Soils encountered at the project site include roadway embankment and residual soils.

Roadway embankment underlies portions of the existing lanes of US 15/501 and the surrounding surface roads. Due to the area topography portions of the roadway were graded and paved. Where encountered roadway embankment soils range from 1.5 to 3.5 feet thick. These soils mainly consist of dry to moist, sandy clay and clayey sand (AASHTO classifications of A-2-6 and A-6).

Residual soils are found at the ground surface and immediately below the embankment soils. These soils mainly consist of dry to moist, soft to very stiff, sandy silt, sandy clay, silty clay (AASHTO classifications of A-4, A-6, and A-7-5/A-7-6), and loose to dense, silty sand (A-2-4). Some of the A-7 soils exhibit a PI of 26 or more and are classified as highly plastic.

Groundwater

Groundwater was only encountered at -L- Station 124+38, in a dry creek bed, at a depth of 3.7 Feet. The investigation was conducted during a period of relatively low rainfall. Numerous ephemeral stream beds cross the project alignment, and all were dry during the time of investigation. Seasonal fluctuations in groundwater elevations can be expected.

Areas of Special Geotechnical Interest

1. Highly Plastic Clays: Highly plastic clay (PI>25) was encountered on the project at the following locations:

Line	Stations	Offset
-L-	45+75 to 48+25	RT
-L-	57+75 to 64+25	LT & RT
-L-	67+00	LT
-L-	71+00	LT & RT
-L-	78+25 to 79+75	LT
-L-	85+75 to 88+75	LT & RT
-L-	89+06	LT & RT
-L-	92+25 to 102+25	LT & RT
-L-	115+75 to 120+25	LT & RT
-L-	145+75 to 147+25	LT & RT
-L-	154+93	LT & RT
-L-	156+25 to 158+25	LT & RT
-L-	161+75 to 163+75	LT & RT
-Y11-	12+30 to 13+75	RT
-Y11-	18+75 to 22+25	RT
-Y11-	23+07	RT
-Y11-	33+03	RT

2. Crystalline Rock: The following areas exhibit crystalline rock within 6.0 feet of proposed grade:

Line	Station	Offset
-L-	47+00	RT

3. Weathered Rock: The following areas exhibit weathered rock within 6.0 feet of proposed grade:

Line	Station	Offset
-L-	73+00	LT & RT
-L-	75+00	LT
-L-	78+50 to 80+00	LT & RT

4. Wells: Wells are present on the project at the following locations:

Line	Stations	Offset
-L-	15+78	120' RT
-L-	101+73	450’ RT
-L-	108+65	156’ LT
-L-	135+80	364’ RT
-L-	144+91	204' RT
-L-	149+04	503' RT
-L-	158+39	189' RT
-Y11-	26+99	336' LT
-Y11-	35+84	230’ RT
-Y11-	44+34	213' RT

5. Septic Fields: Approximate locations of septic fields were noted by property owners at the following locations:

Line	Station	Offset
-L-	110+30	LT
-L-	145+00	RT

6. Retention Basins: Retention basins are present on the project at the following locations:

Line	Station	Offset
-L-	29+25	112’ RT
-L-	30+00	134’ LT

Prepared by,

Nathan Mohs

Nathan Mohs, LG
Engineering Geologist Manager

REVISIONS

5/14/99

3/13/2023

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421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83 /NA 2011

AREA UNDER CONSTRUCTION

BM#1 ELEVATION = 470.55'
N 721,385 E 1,955,349
BL STATION 10+13.5, 437.1' LEFT
RAILROAD SPIKE IN 12"PINE

-L- POC Sta.18+18.24 =
-YILPD- POT Sta.10+00.00
Δ = 99°09'05"

-L- POC Sta.17+82.45 =
-YIRPD- POT Sta.10+00.00
Δ = 101°19'18"

BEGIN CONSTRUCTION
-L- Sta.17+00.00

-L- PT Sta.18+89.96

-YILPD- POT Sta.13+30.00

-YIRPD- PC Sta.13+11.03

-L- PC Sta.10+00.00

-YI- PT Sta.19+00.00

-YIRPD- PT Sta.15+30.00

MATCHLINE -L- STA 23+00 (SEE SHEET 5)

CHATHAM PARK INVESTORS LLC
DB 1403 PG 34
PB 35 PG 43

CHATHAM PARK INVESTORS LLC
DB 1387 PG 660
PB 2007 PG 473

CHATHAM PARK INVESTORS LLC
DB 1387 PG 660
PB 2007 PG 473

CHATHAM PARKWAY 36' BST

US64 RAMP 28' BST

☆ TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

REVISIONS

5/14/99

3/13/2023

-Y1- PC Sta. 10+00.00

-YIRPA- PC Sta. 10+00.00

-L- POT Sta. 30+51.27 =
-YILPA- POT Sta. 10+00.00
Δ = 101°43'27"

-YIRPA- PT Sta. 12+76.07

-L- POT Sta. 24+21.11 =
-Y1- POC Sta. 14+11.53
Δ = 106°44'32"

END CONSTRUCTION
-YILPA- POT Sta. 11+44.10

-YILPA- PC Sta. 12+21.72

-YIRPA- PT Sta. 18+00.00

-YILPA- PT Sta. 15+00.00

-YIRPA- PC Sta. 16+13.61

-L- PC Sta. 30+96.25

-L- POT Sta. 30+79.61 =
-YIRPA- POT Sta. 13+75.48
Δ = 101°43'27"

MATCHLINE -L- STA 23+00 (SEE SHEET 4)

MATCHLINE -L- STA 37+00 (SEE SHEET 6)

ROADWAY EMBANKMENT

L 2900

YILPA 1100

25+00

30+00

35+00

15+00

CHATHAM PARK INSVESTORS LLC
DB 1475 PG 311

CHATHAM PARK INSVESTORS LLC
DB 1471PG 1

CHATHAM PARK INSVESTORS LLC
DB 1393 PG 1003
PB 2005 PG 343

CHATHAM PARK INSVESTORS LLC
DB 1382 PG 377
PB 4 PG 74

WOODS

CHATHAM PARKWAY 36' BST

US64 RAMP 27' BST

BASIN

SEDIMENT BASIN

EXISTING R/W (FROM PREVIOUS ROADWAY PROJECT)

BL-103

BM#3 ELEVATION = 540.21'
N 722,729 E 1,956,641
BL STATION 27+08.5, 73.5' RIGHT
RAILROAD SPIKE IN 20" OAK

NAD 83 / NA 2011

☆ TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

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421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	5

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
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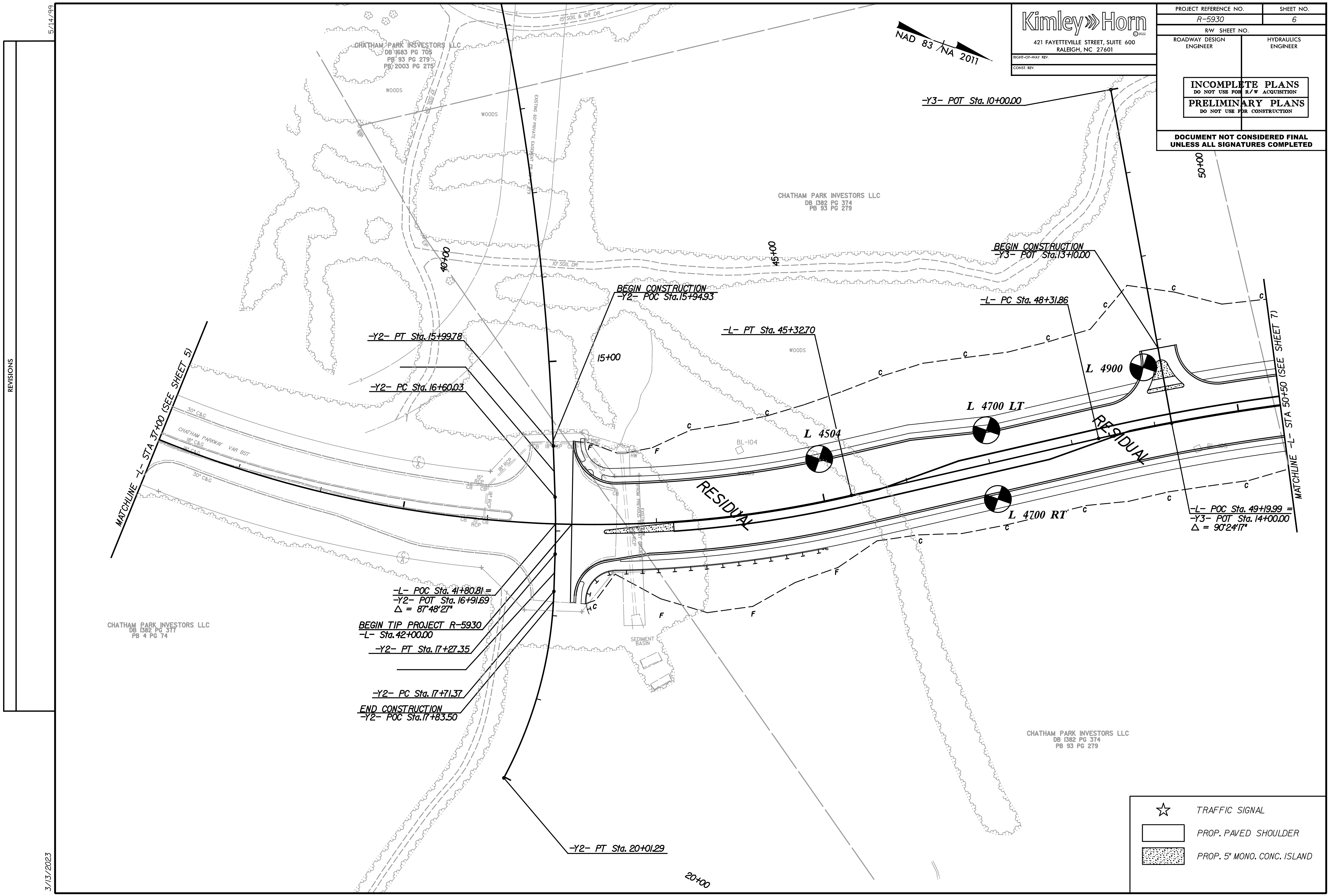

PROJECT REFERENCE NO.
SHEET NO.
R-5930
6
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
Kimley»Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601
RIGHT-OF-WAY REV.
CONST. REV.
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED
NAD 83 / NA 2011
5/14/99
REVISIONS
3/13/2023
CHATHAM PARK INVESTORS LLC
DB 1683 PG 705
PB 93 PG 279
PB 2003 PG 275
WOODS
CHATHAM PARK INVESTORS LLC
DB 1382 PG 374
PB 93 PG 279
-Y3- POT Sta. 10+00.00
50+00
45+00
40+00
15+00
BEGIN CONSTRUCTION
-Y3- POT Sta. 13+10.00
BEGIN CONSTRUCTION
-Y2- POC Sta. 15+94.93
-L- PC Sta. 48+31.86
-L- PT Sta. 45+32.70
-Y2- PT Sta. 15+99.78
-Y2- PC Sta. 16+60.03
L 4900
L 4700 LT
L 4504
L 4700 RT
RESIDUAL
RESIDUAL
MATCHLINE -L- STA 37+00 (SEE SHEET 5)
MATCHLINE -L- STA 50+50 (SEE SHEET 7)
CHATHAM PARKWAY VAR BST
30" C&G
18" C&G
BL-104
-L- POC Sta. 49+19.99 =
-Y3- POT Sta. 14+00.00
Δ = 90°24'17"
-L- POC Sta. 41+80.81 =
-Y2- POT Sta. 16+91.69
Δ = 87°48'27"
BEGIN TIP PROJECT R-5930
-L- Sta. 42+00.00
-Y2- PT Sta. 17+27.35
-Y2- PC Sta. 17+71.37
END CONSTRUCTION
-Y2- POC Sta. 17+83.50
CHATHAM PARK INVESTORS LLC
DB 1382 PG 377
PB 4 PG 74
SEDIMENT BASIN
CHATHAM PARK INVESTORS LLC
DB 1382 PG 374
PB 93 PG 279
-Y2- PT Sta. 20+01.29
20+00
TRAFFIC SIGNAL
PROP. PAVED SHOULDER
PROP. 5" MONO. CONC. ISLAND

Kimley»Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
R-5930	7

RW SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RIGHT-OF-WAY REV.

CONST. REV.

5/14/99

REVISIONS

NAD 83 /NA 2011

-Y4- POT Sta. 10+00.00

10+00

CHATHAM PARK INVESTORS LLC
DB 1384 PG 133

60+00

-Y4- PC Sta. 13+60.47
BEGIN CONSTRUCTION
-Y4- PC Sta. 13+73.00

55+00

-Y4- PT Sta. 14+34.40

WOODS

IRT SOIL DR

L 5100 LT

RESIDUAL

L 5300

L 5500

L 5903

L 6300 LT

L 5100

L 5703

L 6100

L 5097 RT

RESIDUAL

RESIDUAL

L 6300 RT

-L- STA 50+50 (SEE SHEET 6)

MATCHLINE

-L- STA 64+00 (SEE SHEET 8)

MATCHLINE

-L- PC Sta. 61+99.21

BL-106

BL-107

RIDDLE CEMETERY CEMETERY
DB KG PG 53
PB 4 PG 663

REBAR

AXLE

EIP

AXLE

-L- POC Sta. 53+66.87 =
-Y4- POT Sta. 14+71.35
Δ = 87°09'38"

-L- PT Sta. 53+99.25

CHATHAM PARK INVESTORS LLC
DB 1382 PG 374
PB 93 PG 279

END CONSTRUCTION
-Y4- POC Sta. 15+62.00

-Y4- PC Sta. 17+67.12

-Y4- PT Sta. 18+39.32

-Y4- POT Sta. 19+00.00

WOODS

WOODS

CHATHAM PARK INVESTORS LLC
DB 1384 PG 133

JS

TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

3/13/2023

5/14/99

REVISIONS

3/13/2023

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RALEIGH, NC 27601
RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BM#5 ELEVATION = 480.21'
N 725,736 E 1,955,112
BL STATION 60+02.8, 601.0' LEFT
RAILROAD SPIKE IN 12"PINE

GRANTHAM VIRGINIA MERRITT TRUSTEE
DB 1138 PG 453
PB 2001PG 491

CHATHAM PARK INVESTORS LLC
DB 1567 PG 800
PB 2001PG 223

CHATHAM PARK INVESTORS LLC
DB 1384 PG 133

15-501 EAST LLC
DB 1963 PG 998

-Y5- POT Sta. 10+00.00

-Y6- POT Sta. 10+00.00

NAD 83 /NA 2011

65+00

70+00

75+00

BEGIN CONSTRUCTION
-Y5- POT Sta. 12+05.00

BEGIN CONSTRUCTION
-Y6- POT Sta. 13+21.00

-L- POC Sta. 65+35.80 =
-Y5- POT Sta. 13+00.00
Δ = 96°45'00"

L 6855 LT

L 6888

L 6892

L 6950

L 7113

L 6705

L 6816

L 6500

L 6816B

L 6788

L 6861 RT

L 7505 LT

L 7300

L 7700

L 7500 RT

RESIDUAL

RESIDUAL

RESIDUAL

15+00

BL-108

BL-109

BL-110

BL-111

MATCHLINE -L- STA 64+00 (SEE SHEET 7)

MATCHLINE -L- STA 77+50 (SEE SHEET 9)

6" SOIL CA

-L- POC Sta. 72+34.69 =
-Y6- POT Sta. 14+27.28
Δ = 90°00'00"

END CONSTRUCTION
-Y6- POT Sta. 15+39.00

-Y6- POT Sta. 19+00.00

☆ TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

5/14/99

REVISIONS

3/13/2023

BM#6 ELEVATION = 445.84'
N 728,259 E 1,955,699
BL STATION 84+67.9, 331.0' LEFT
RAILROAD SPIKE IN 13"OAK

Kimley»Horn ©2022
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83 /NA 2011

-Y7- PC Sta. 10+00.00

I5-501 EAST LLC
DB 1963 PG 998

80+00

85+00

90+00

-L- PT Sta. 77+88.39

-L- PC Sta. 80+89.72

BEGIN CONSTRUCTION
-Y7- POC Sta. 14+89.00

-Y7- PT Sta. 14+96.60

MATCHLINE -L- STA 77+50 (SEE SHEET 8)

RESIDUAL

L 7903 LT

L 7900 RT

L 8303

L 8106

L 8504

L 8700 LT

L 8697 RT

L 8650

L 8697 RTB

L 8750

L 8906

L 9100

MATCHLINE -L- STA 91+75 (SEE SHEET 10)

-L- PC Sta. 90+40.07

-L- PT Sta. 87+86.66

-L- POC Sta. 84+41.99 =
-Y7- POT Sta. 15+78.54
Δ = 90°00'00"

END CONSTRUCTION
-Y7- POT Sta. 16+63.00

-Y7- POT Sta. 20+00.00

☆ TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

REVISIONS	
5/14/99	

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421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601
RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	10

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83 /NA 2011

WOODS

EMILIO CASTELLANO DIAZ & SPOUSE, FIDELIA HERNANDEZ PEREZ
DB 1880 PG 320
PB 2000 PG 9

CONC G ISFD WD GRASS

I5-501 EAST LLC
DB 1963 PG 998

95+00

100+00

105+00

ROBERT PARKS & DONNA B. MORRIS
DB 1332 PG 408

ALAN E. COX
DB 966 PG 629

-Y8- PC Sta. 13+24.21

BEGIN CONSTRUCTION
-Y8- POT Sta. 15+44.00

-L- POC Sta. 94+35.72 =
-Y8- POT Sta. 16+19.30
Δ = 90°08'05"

-Y8- PT Sta. 15+73.75

-Y9- POT Sta. 10+00.00

-L- POT Sta. 105+21.53 =
-Y9- POT Sta. 12+44.69
Δ = 83°55'05"

RESIDUAL

L 9490 LT

L 9496 RT

L 9304

L 9700

L 9900

L 10100

L 10300

BL-115 BL-116 BL-117 BL-118 BL-119

MATCHLINE -L- STA 91+75 (SEE SHEET 9)

MATCHLINE -L- STA 106+00 (SEE SHEET 11)

-L- PT Sta. 96+46.12

Y9 1385

END CONSTRUCTION
-Y9- POT Sta. 15+00.00

-Y9- POT Sta. 16+00.00

GRASS
WD DECK
ISFD
WD STEPS
SHED

I5-501 EAST LLC
DB 1963 PG 998

THOMAS STEPHEN KENNEDY
DB 907 PG 304
PB 2001 PG 481

WOODS

ISFD
WD
6' CHN
MTL CAN
G

WENDELL W. BALLOU, JR.
DB 1102 PG 234
PB 2001 PG 481

BRIAN BULLARD & WIFE MARGARET MEJIA
DB 730 PG 447

IE SOIL & GR DR

☆ TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

3/13/2023

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421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

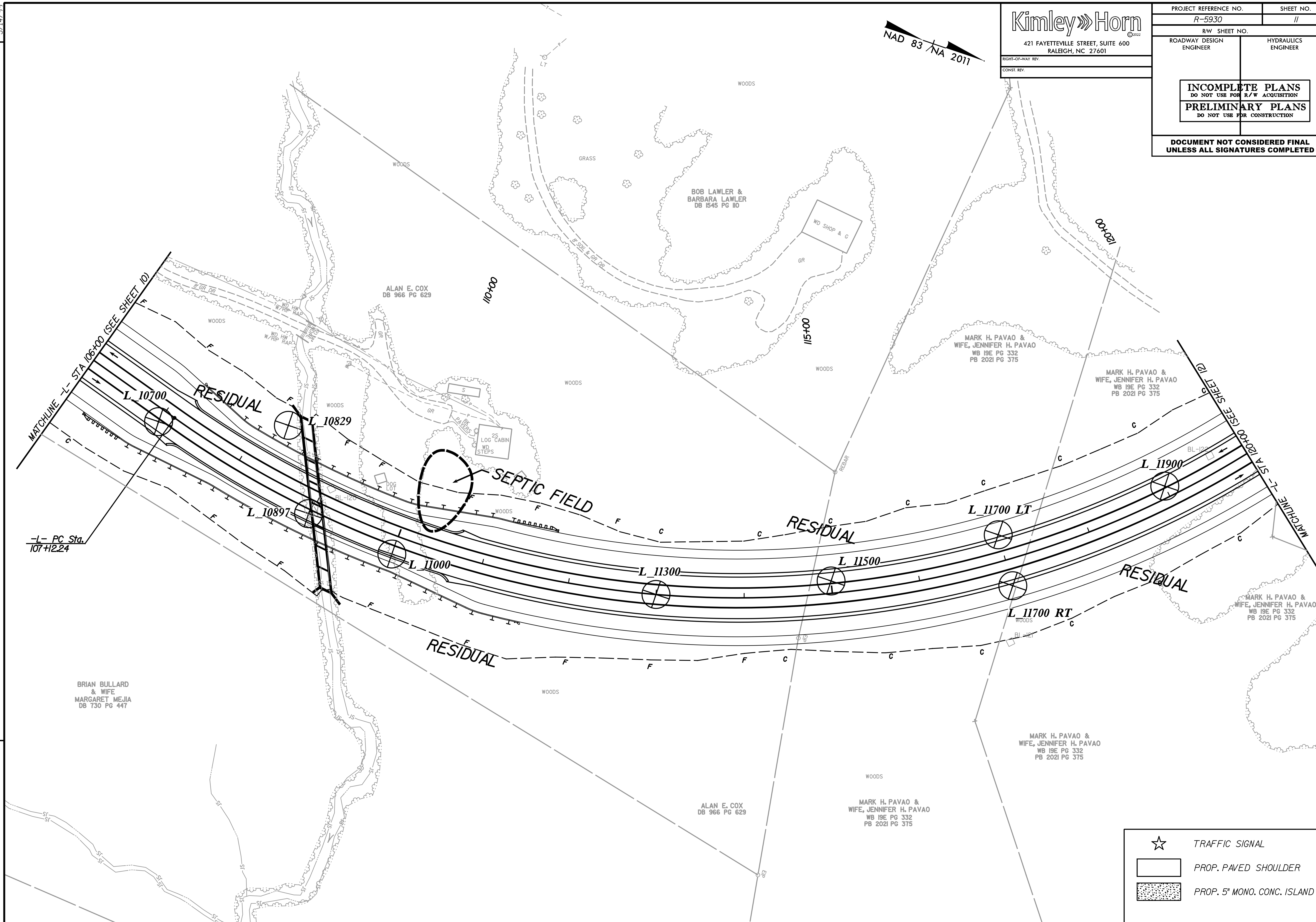
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

REVISIONS



NAD 83 / NA 2011
MATCHLINE -L- STA 106+00 (SEE SHEET 10)
MATCHLINE -L- STA 120+00 (SEE SHEET 12)
-L- PC Sta. 107+12.24
L_10700
L_10829
L_10897
L_11000
L_11300
L_11500
L_11700 LT
L_11700 RT
L_11900
110+00
115+00
120+00
RESIDUAL
RESIDUAL
RESIDUAL
RESIDUAL
SEPTIC FIELD
ALAN E. COX
DB 966 PG 629
BOB LAWLER &
BARBARA LAWLER
DB 1545 PG 110
WD SHOP & G
2S LOG CABIN
WD STEPS
DOG LOT
MARK H. PAVAO &
WIFE, JENNIFER H. PAVAO
WB 19E PG 332
PB 2021 PG 375
BRIAN BULLARD
& WIFE
MARGARET MEJIA
DB 730 PG 447
WOODS
GRASS
REBAR

☆	TRAFFIC SIGNAL
	PROP. PAVED SHOULDER
	PROP. 5" MONO. CONC. ISLAND

3/13/2023

PROJECT REFERENCE NO.	SHEET NO.
R-5930	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

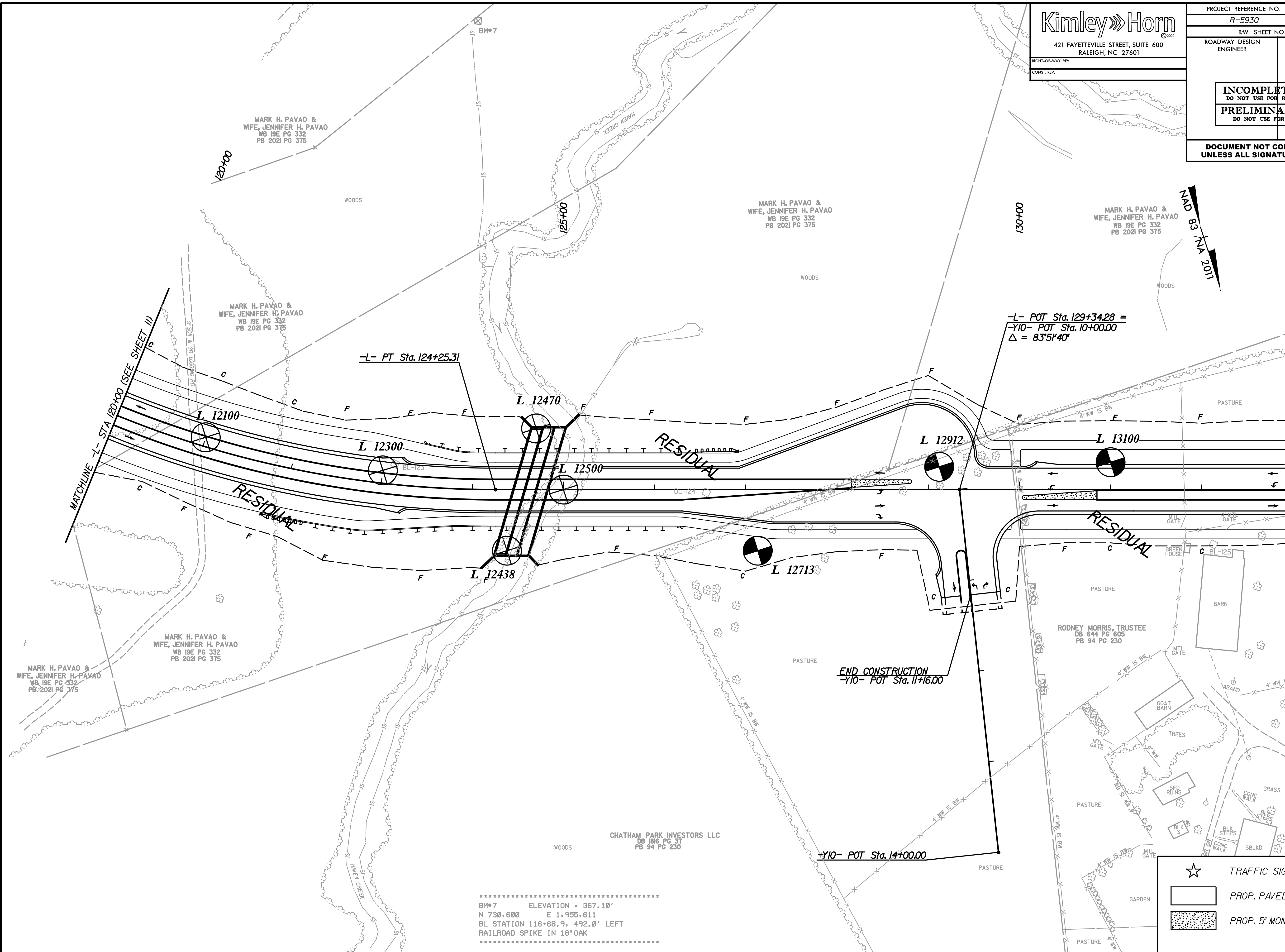
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

5/14/99



BM#7
MARK H. PAVAO &
WIFE, JENNIFER H. PAVAO
WB 19E PG 332
PB 2021 PG 375
120+00
125+00
130+00
WOODS
NAD 83/NA 2011
-L- POT Sta. 129+34.28 =
-Y10- POT Sta. 10+00.00
Δ = 83°51'40"
-L- PT Sta. 124+25.31
L 12100
L 12300
L 12470
L 12500
L 12438
L 12912
L 13100
L 12713
RESIDUAL
MATCHLINE -L- STA 120+00 (SEE SHEET 11)
MATCHLINE -L- STA 133+00 (SEE SHEET 13)
PASTURE
BARN
GREEN HOUSE
MTL GATE
RODNEY MORRIS, TRUSTEE
DB 644 PG 605
PB 94 PG 230
END CONSTRUCTION
-Y10- POT Sta. 11+16.00
-Y10- POT Sta. 14+00.00
GOAT BARN
TREES
GRASS
CONC WALK
BLK STEPS
GARDEN
CHATHAM PARK INVESTORS LLC
DB 1816 PG 37
PB 94 PG 230
HAVEN CREEK
4' WW IS BW

BM#7 ELEVATION = 367.10'
N 730,600 E 1,955,611
BL STATION 116+68.9, 492.0' LEFT
RAILROAD SPIKE IN 18"OAK

☆ TRAFFIC SIGNAL
PROP. PAVED SHOULDER
PROP. 5" MONO. CONC. ISLAND

3/13/2023

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CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	13

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
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PRELIMINARY PLANS
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REVISIONS

5/14/99

3/13/2023

NAD 83 / NA 2011

LEE M. PAVAO &
MARK H. PAVAO & WIFE,
JENNIFER H. PAVAO
DB 723 PG 944
PB 97 PG 241
PB 30 PG 8

RODNEY MORRIS, TRUSTEE
DB 644 PG 605
PB 94 PG 230

STATE OF NORTH CAROLINA
DB 529 PG 954
PB 88 PG 243

RODNEY MORRIS
DB 492 PG 93

KATIE B. COOPER
DB 388 PG 241

KATIE B. COOPER
DB 620 PG 1038

JOHN SLATER MORRIS
& WIFE
SHERRY SUZANNE MORRIS
DB 1681 PG 1017
PB 18 PG 48

LIBRON RODNEY MORRIS
& WIFE
YVONNE M. MORRIS
DB 620 PG 882
PB 93 PG 271

RODNEY MORRIS
DB 427 PG 412
PB A PG 638

HAVEN CREEK

135+00

140+00

145+00

MATCHLINE -L- STA 133+00 (SEE SHEET 12)

MATCHLINE -L- STA 146+50 (SEE SHEET 14)

-L- PC Sta. 134+32.29

-L- PT Sta. 144+21.54

L 13306

L 13500

L 13700

L 13900

L 14100

L 14352

L 14500

RESIDUAL

SEPTIC FIELD

BL-126

BM#8 ELEVATION = 423.40'
N 732,383 E 1,954,368
BL STATION 137+94.0, 408.5' RIGHT
RAILROAD SPIKE IN 15" PINE

TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

5/14/99

REVISIONS

3/13/2023

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RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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NAD 83 NA 2011

STATE OF NORTH CAROLINA
DB 529 PG 354
PB 88 PG 243

THOMAS JONATHAN OLDHAM
DB 1541PG 454

CHAPIN PIERRE OLDHAM
&
STEVEN EUGENE OLDHAM
DB 472 PG 485
CSC 14 E 297

150+00

155+00

160+00

-L- PC Sta. 149+03.57

-L- PT Sta. 155+34.93

MATCHLINE -L- STA 146+50 (SEE SHEET 13)

MATCHLINE -L- STA 160+50 (SEE SHEET 15)

L 14700

L 14894

L 14946

L 15100

L 15300

L 15493

L 15696

L 15897 LT

RESIDUAL

RESIDUAL

RESIDUAL

WOODS

FIELD

WOODS

GRASS

KATIE B. COOPER
DB 620 PG 1038

RANDY MCDONALD COOPER
DB 1608 PG 570
PB 2012 PG 28

CHAPIN PIERRE OLDHAM
&
STEVEN EUGENE OLDHAM
DB 472 PG 485
CSC 14 E 297

BL-129

BL-130

BL-131

WD STEPS

MTR

HTR

SEPTIC TANK LIDS

GR DR

WD DECK & STEPS

SERVICE POLE

WELL

BK WELL

ISFD

S POOR

DOG LOT

JS

ST

F

C

S

GR

☆ TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

Kimley»Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
R-5930	15

RW SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

RIGHT-OF-WAY REV.

CONST. REV.

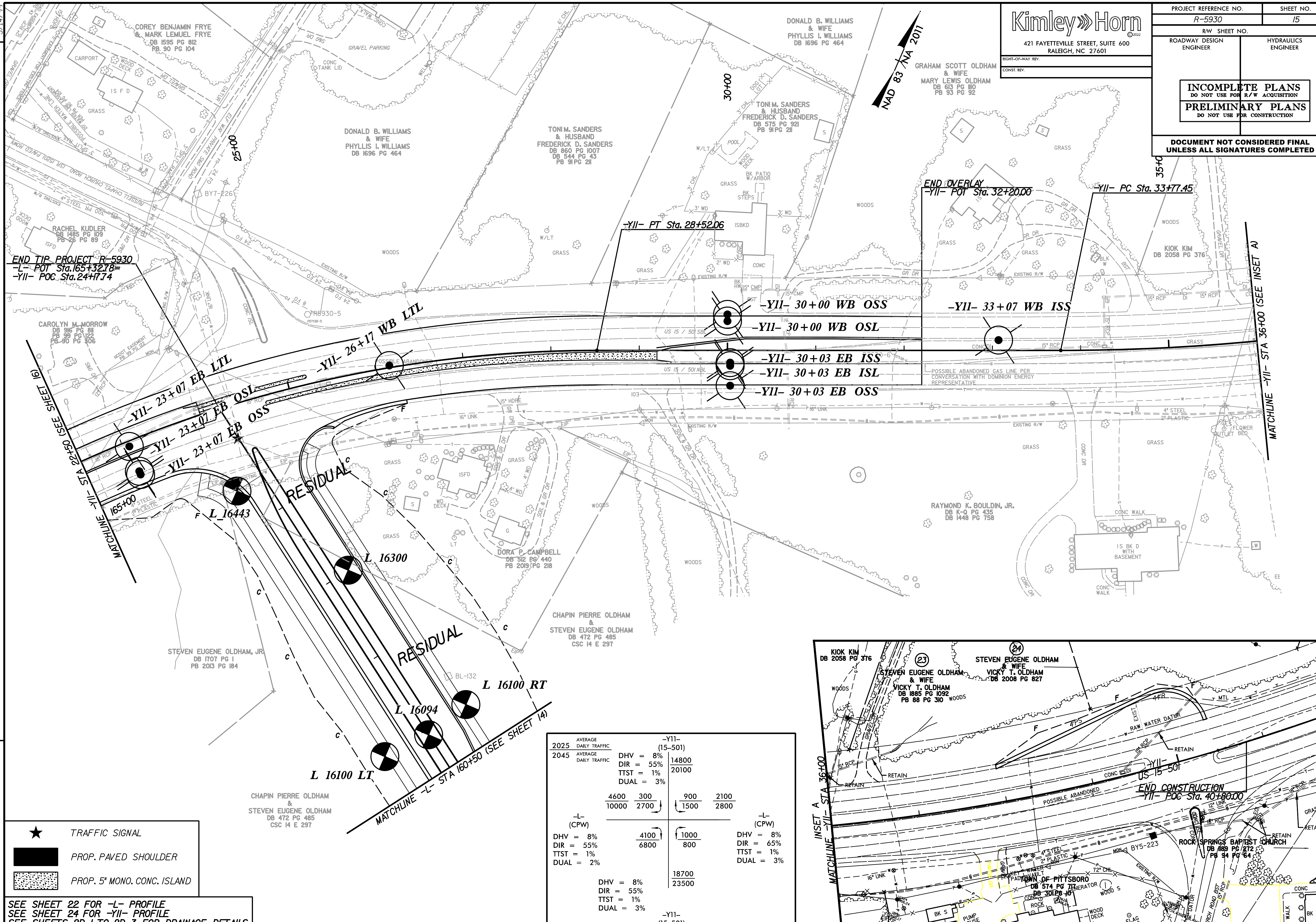
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

REVISIONS



NAD 83 / NA 2011
COREY BENJAMIN FRYE & MARK LEMUEL FRYE DB 1595 PG 812 PB 90 PG 104
DONALD B. WILLIAMS & WIFE PHYLLIS I. WILLIAMS DB 1696 PG 464
TONI M. SANDERS & HUSBAND FREDERICK D. SANDERS DB 860 PG 1007 DB 544 PG 43 PB 91 PG 211
TONI M. SANDERS & HUSBAND FREDERICK D. SANDERS DB 575 PG 921 PB 91 PG 211
GRAHAM SCOTT OLDHAM & WIFE MARY LEWIS OLDHAM DB 613 PG 1110 PB 93 PG 92
RACHEL KUDLER DB 1485 PG 109 PB 26 PG 89
CAROLYN M. MORROW DB 916 PG 811 PB 99 PG 122 PB 90 PG 306
KIOK KIM DB 2058 PG 376
RAYMOND K. BOULDIN, JR. DB K-Q PG 435 DB 1448 PG 758
DORA P. CAMPBELL DB 512 PG 440 PB 2019 PG 218
CHAPIN PIERRE OLDHAM & STEVEN EUGENE OLDHAM DB 472 PG 485 CSC 14 E 297
STEVEN EUGENE OLDHAM, JR. DB 1707 PG 1 PB 2013 PG 184
END TIP PROJECT R-5930
-L- POT Sta.165+32.78=
-Y11- POC Sta.24+17.74
-Y11- PT Sta. 28+52.06
END OVERLAY
-Y11- POT Sta. 32+20.00
-Y11- PC Sta. 33+77.45
-Y11- 30+00 WB OSS
-Y11- 30+00 WB OSL
-Y11- 33+07 WB ISS
-Y11- 30+03 EB ISS
-Y11- 30+03 EB ISL
-Y11- 30+03 EB OSS
-Y11- 26+17 WB LTL
-Y11- 23+07 EB LTL
-Y11- 23+07 EB OSL
-Y11- 23+07 EB OSS
L 16443
L 16300
L 16094
L 16100 RT
L 16100 LT
RESIDUAL
RESIDUAL
US 15 / 501 SBL
US 15 / 501 NBL
POSSIBLE ABANDONED GAS LINE PER CONVERSATION WITH DOMINION ENERGY REPRESENTATIVE
MATCHLINE -Y11- STA 22+50 (SEE SHEET 16)
MATCHLINE -Y11- STA 36+00 (SEE INSET A)
MATCHLINE -L- STA 160+50 (SEE SHEET 14)
25+00
30+00
35+00
165+00
BY7-226
RB930-5
BL-132
INSET A
MATCHLINE -Y11- STA 36+00
STEVEN EUGENE OLDHAM & WIFE VICKY T. OLDHAM DB 1885 PG 1092 PB 88 PG 310
STEVEN EUGENE OLDHAM & WIFE VICKY T. OLDHAM DB 2008 PG 827
END CONSTRUCTION
-Y11- POC Sta. 40+80.00
-Y11- US 15-501
ROCK SPRINGS BAPTIST CHURCH DB 189 PG 272 PB 94 PG 64
TOWN OF PITTSBORO
RAW WATER DATUM
RETAIN
BY5-223

★	TRAFFIC SIGNAL
(solid)	PROP. PAVED SHOULDER
(stippled)	PROP. 5" MONO. CONC. ISLAND

SEE SHEET 22 FOR -L- PROFILE
SEE SHEET 24 FOR -Y11- PROFILE
SEE SHEETS 2D-1 TO 2D-3 FOR DRAINAGE DETAILS

2025 AVERAGE DAILY TRAFFIC
2045 AVERAGE DAILY TRAFFIC

-Y11- (15-501): DHV = 8%, DIR = 55%, TTST = 1%, DUAL = 3%; 14800 / 20100

-L- (CPW) (west): DHV = 8%, DIR = 55%, TTST = 1%, DUAL = 2%

-L- (CPW) (east): DHV = 8%, DIR = 65%, TTST = 1%, DUAL = 3%

4600 / 10000	300 / 2700	900 / 1500	2100 / 2800
4100 / 6800		1000 / 800	

-Y11- (15-501) (south): DHV = 8%, DIR = 55%, TTST = 1%, DUAL = 3%; 18700 / 23500

3/14/2023

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RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	16

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
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PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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REVISIONS 5/14/99

3/13/2023

NAD 83 / NA 2011

BEGIN CONSTRUCTION
-Y11- POC Sta. 10+68.00

-Y11- PC Sta. 10+00.00

-Y11- PT Sta. 12+35.04

-Y11- 16+52 WB OSS

-Y11- 16+52 WB ISL

-Y11- 16+52 WB ISS

-Y11- 15+84 EB ISS

Y11_1250

Y11_1250 BULK

RESIDUAL

Y11_2100 BULK

-Y11- PC Sta. 20+25.93

MATCHLINE -Y11- STA 22+50 (SEE SHEET 15)

BM#11 ELEVATION = 445.25'
N 732,105 E 1,951,754
BY5 STATION 5+09.5, 119.7' RIGHT
RAILROAD SPIKE IN 10"POPLAR

GRAHAM SCOTT OLDHAM
DB 907 PG 988

GRAHAM SCOTT OLDHAM & WIFE MARY L. OLDHAM
DB 1038 PG 867
DB G-Z PG 111

BRYAN LACARIO RAMSEY
DB 1928 PG 451
PB 18 PG 55

ERNEST RADCLIFF RAMSEY
DB 452 PG 737
PB 18 PG 55

JEAN P. DURHAM
DB 1875 PG 351

JAMES CECIL ELLIS
DB 815 PG 281

ROBERT W. WYRICK, JR. & CINDY C. WYRICK
DB 1160 PG 844
PB 18 PG 55

ANTHONY JOHN AMERO & DANIEL AMERO
DB 1770 PG 921

RACHEL KUDLER
DB 1485 PG 109
PB 26 PG 89

CAROLYN M. MORROW
DB 916 PG 61
PB 99 PG 122
PB 90 PG 306

THOMAS JONATHAN OLDHAM
DB 1539 PG 626

THOMAS JONATHAN OLDHAM
DB 1541PG 454

STEVEN EUGENE OLDHAM, JR.
DB 1707 PG 1
PB 2013 PG 184

TRAFFIC SIGNAL

PROP. PAVED SHOULDER

PROP. 5" MONO. CONC. ISLAND

5/14/99

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RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
R-5930	17

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
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PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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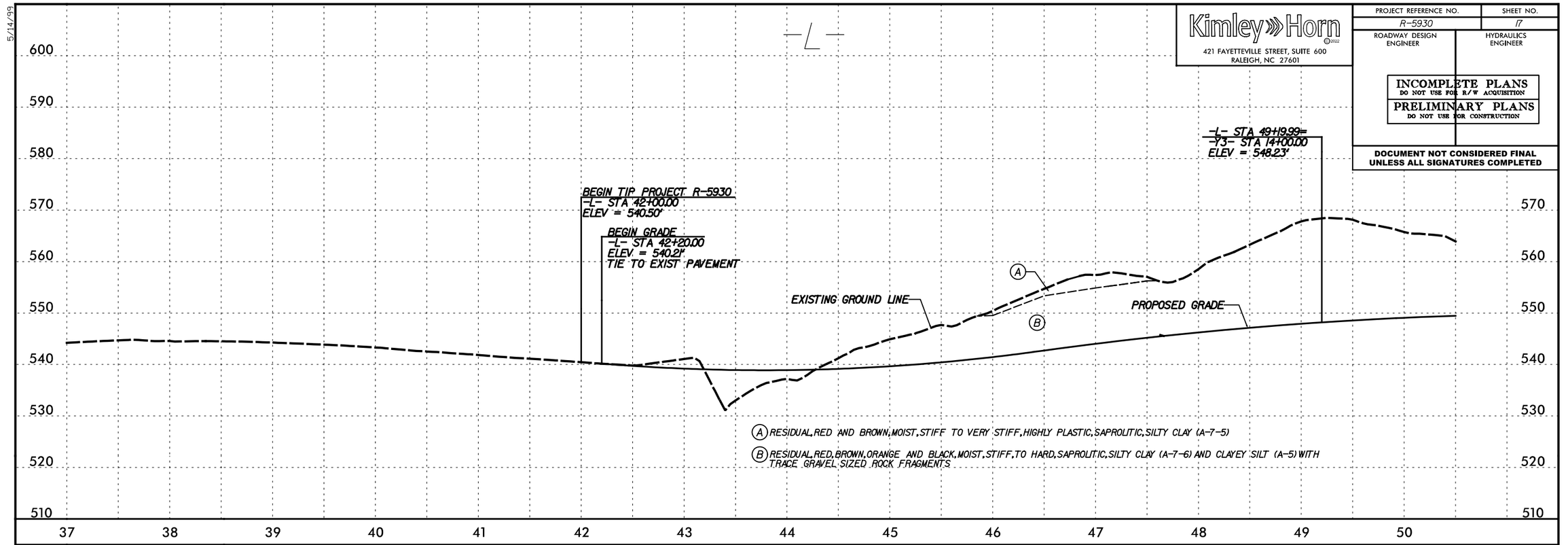

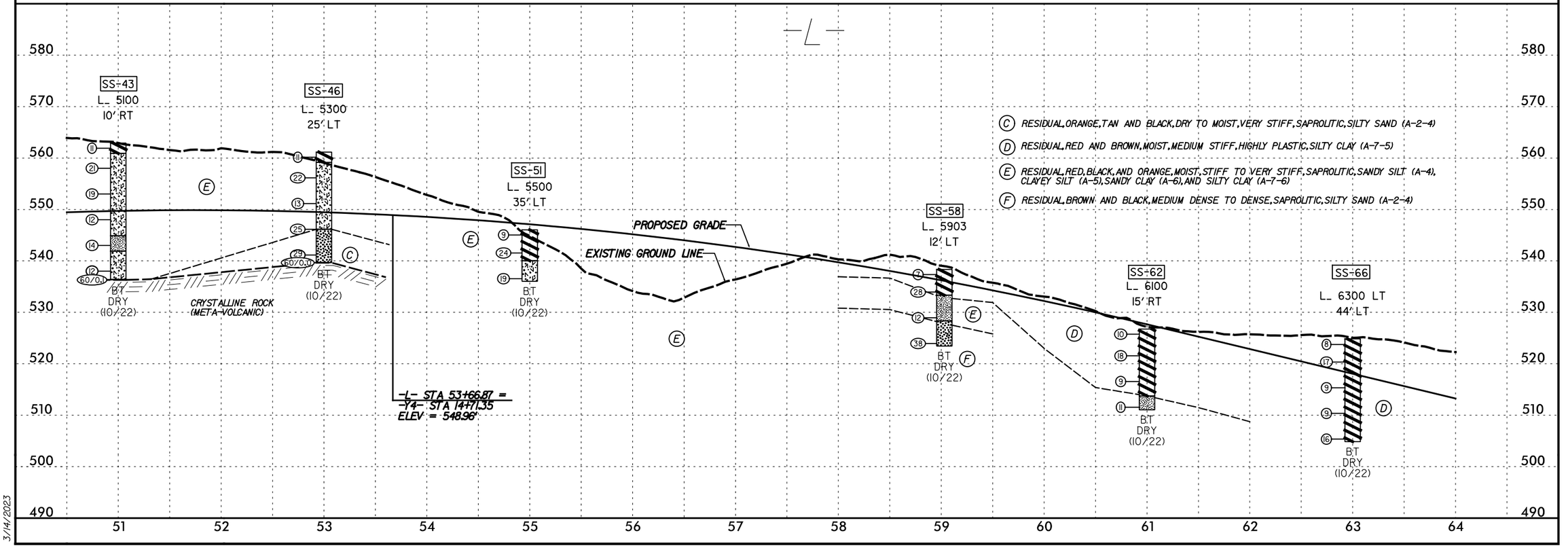

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RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
R-5930	18

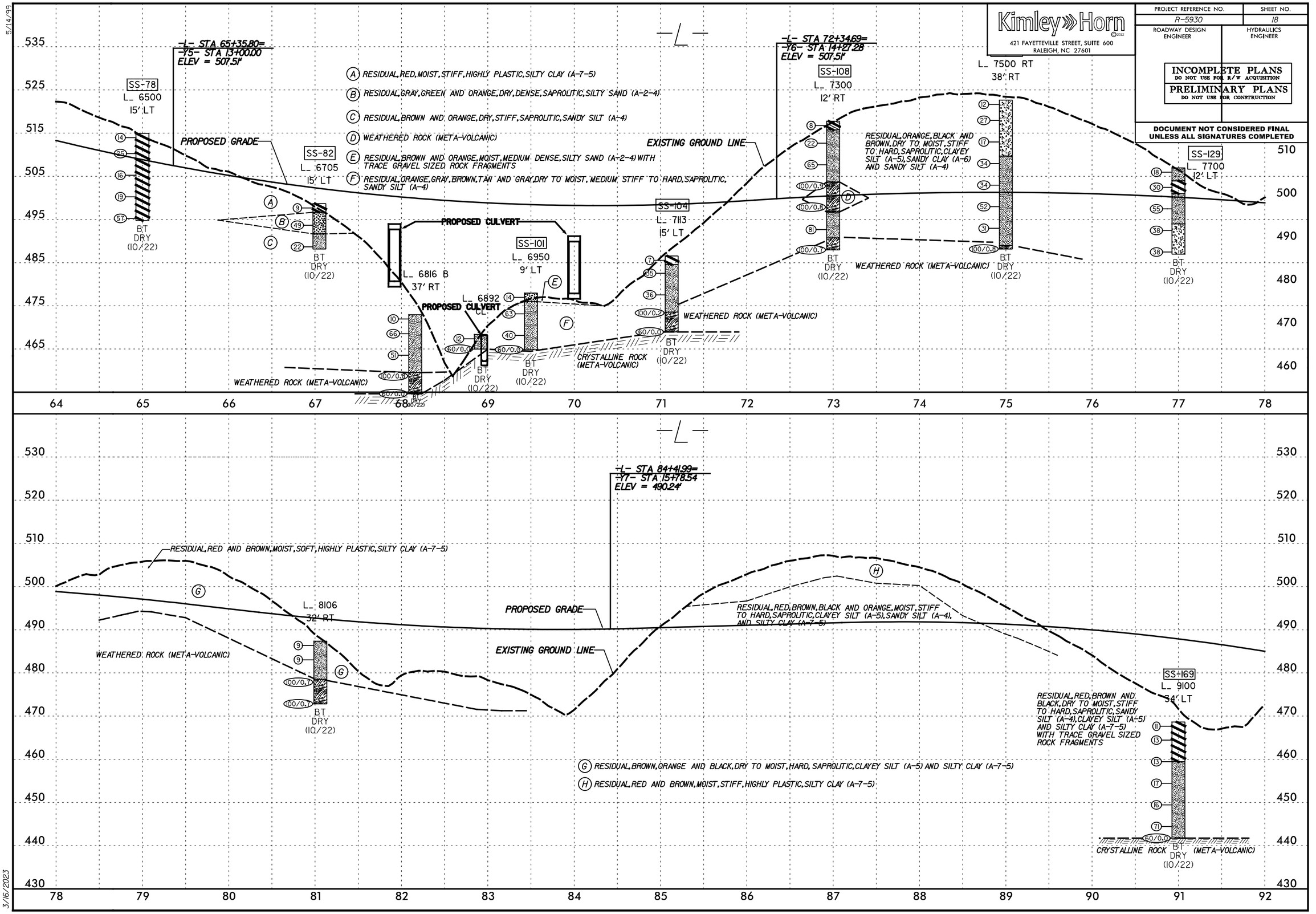
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



3/16/2023

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PROJECT REFERENCE NO.	SHEET NO.
R-5930	19

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

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RALEIGH, NC 27601

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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SS-174
L_ 9304
25' RT
(10) (13) (13) (11) (27)
BT
DRY
(10/22)

SS-185
L_ 9490 LT
20' LT
(13) (24) (15) (13) (99) (100/0.4)
BT
DRY
(10/22)

RESIDUAL, RED AND BROWN, MOIST, STIFF, SANDY CLAY (A-6)

RESIDUAL, BROWN, DRY, LOOSE, SILTY SAND (A-2-4) WITH SOME ORGANICS AND HIGH GRAVEL SIZED ROCK FRAGMENTS

RESIDUAL, BROWN AND BLACK, MOIST, VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

WEATHERED ROCK (META-VOLCANIC)

-L- STA 94+35.72 = -Y8- STA 16+19.30 ELEV = 475.21'

L_ 9700
15' RT
BT
DRY
(10/22)

PROPOSED GRADE

EXISTING GROUND LINE

HA-345
L_10100
20' RT
BT
DRY
(10/22)

RESIDUAL, ORANGE AND BROWN, MOIST, MEDIUM STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

L_ 9900
14' RT
BT
DRY
(10/22)

(A) RESIDUAL, RED, BLACK AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

RESIDUAL, TAN AND ORANGE, MOIST, MEDIUM STIFF, SAPROLITIC, SANDY SILT (A-4)

HA-347
L_10300
39' RT
BT
DRY
(10/22)

-L- STA 105+21.53= -Y9- STA 12+44.69 ELEV = 402.97'

RESIDUAL, ORANGE, BROWN, TAN, AND DARK GRAY, DRY TO MOIST, LOOSE, SANDY SILT (A-4), CLAYEY SILT (A-7-5) AND SANDY CLAY (A-6) WITH TRACE ORGANICS

HA-353
L_10700
14' RT
BT
DRY
(11/22)

HA-355
L_10829
62' LT
BT
DRY
(11/22)

HA-357
L_10897
16' RT
BT
DRY
(11/22)

HA-360
L_11000
21' RT
BT
DRY
(11/22)

PROPOSED GRADE

EXISTING GROUND LINE

RESIDUAL, BROWN, ORANGE, TAN, AND GRAY, DRY TO MOIST, MEDIUM STIFF, SAPROLITIC, SANDY SILT (A-4), CLAYEY SILT (A-5), SANDY CLAY (A-6), AND SILTY CLAY (A-7-6)

HA-363
HA-365
L_11300
CL
BT
DRY
(11/22)

HA-319
L_11500
14' LT
BT
DRY
(10/22)

HA-329
L_11700 LT
30' LT
BT
DRY
(10/22)

HA-332
L_11900
13' LT
BT
DRY
(10/22)

(B) RESIDUAL, ORANGE, BROWN AND TAN, DRY, LOOSE, SILTY SAND (A-2-4) WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

(C) RESIDUAL, BROWN, ORANGE AND TAN, DRY, MEDIUM STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5) WITH TRACE ORGANICS

3/14/2023

5/14/99

BM#7 ELEVATION = 367.10'
N 730,600 E 1,955,611
BL STATION 116+68.9, 492.0' LEFT
L STATION 123+89.50, 513.62' LEFT
RAILROAD SPIKE IN 18"OAK

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RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
R-5930	20
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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-L- STA 129+34.28= -Y10- STA 10+00.00
ELEV = 391.79'

S-310
L 12100
10' LT
BT
DRY
(10/22)

EXISTING GROUND LINE

PROPOSED GRADE

RESIDUAL, BROWN, ORANGE, GRAY AND BLACK, MOIST, MEDIUM STIFF, SAPROLITIC, SANDY SILT (A-4), CLAYEY SILT (A-5), SILTY CLAY (A-6) AND SANDY CLAY (A-6) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

S-307
L 12438
67' RT
BT
10/22

PROPOSED CULVERT

RESIDUAL, BROWN, TAN, ORANGE, GRAY AND BLACK, MOIST, MEDIUM STIFF, SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

SS-260
L 12713
67' RT
8, 14, 9, 6, 10
BT
DRY
(11/22)

RESIDUAL, GRAY AND BLACK, MOIST, SAPROLITIC, SILTY SAND (A-2-4)

SS-257
L 12912
25' LT
6, 22, 33
BT
DRY
(11/22)

RESIDUAL, RED, BROWN AND BLACK, MOIST, SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-6)

SS-254
L 13100
30' LT
7, 12, 14
BT
DRY
(11/22)

440 430 420 410 400 390 380 370 360 350

120 121 122 123 124 125 126 127 128 129 130 131 132 133

BM#8 ELEVATION = 423.40'
N 732,383 E 1,954,368
BL STATION 137+94.0, 408.5' RIGHT
L STATION 145+97.35, 451.6' RIGHT
RAILROAD SPIKE IN 15"PINE

RESIDUAL, BROWN, RED AND BLACK, DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY SILT (A-4)

SS-270
L 14500
37' RT
14, 24, 33, 100/0.3
BT
DRY
(11/22)

WEATHERED ROCK (META-VOLCANIC)

PROPOSED GRADE

SS-265
L 14352
14' RT
13, 18, 15
BT
DRY
(11/22)

SS-248
L 14100
19' RT
8, 17, 8, 18
BT
DRY
(11/22)

SS-246
L 13700
14
7, 16, 7
BT
DRY
(11/22)

SS-245B
L 13900
28' RT
6, 17, 4
BT
DRY
(11/22)

SS-251
L 13306
32' LT
11, 14, 18
BT
DRY
(11/22)

SS-243
L 13500
14' RT
19, 26, 18
BT
DRY
(11/22)

EXISTING GROUND LINE

RESIDUAL, RED, BROWN, AND BLACK, MOIST, SOFT TO VERY STIFF, SAPROLITIC, SANDY SILT (A-4), CLAYEY SILT (A-5), SANDY CLAY (A-6) AND SILTY CLAY (A-7-6)

(A) RESIDUAL, BROWN AND BLACK, DRY, VERY STIFF TO HARD, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

460 450 440 430 420 410 400 390 380 370

133 134 135 136 137 138 139 140 141 142 143 144 145 146

3/15/2023

5/14/99

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RALEIGH, NC 27601
RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930	21
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

480 470 460 450 440 430 420 410 400

147 148 149 150 151 152 153 154 155 156 157 158 159 160

(A) RESIDUAL, BROWN, RED AND BLACK, DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY SILT (A-4)

(B) RESIDUAL, BROWN AND BLACK, DRY, STIFF TO HARD, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

(C) RESIDUAL, BROWN AND BLACK, MOIST, VERY DENSE, SAPROLITIC, SILTY SAND (A-2-4)

(D) CRYSTALLINE ROCK (META-VOLCANIC)

(E) RESIDUAL, BROWN, MOIST, MEDIUM STIFF TO HARD, SANDY SILT (A-4) AND SANDY CLAY (A-6) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

(F) RESIDUAL, RED, BROWN AND GRAY, MOIST, STIFF TO VERY STIFF, SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-5)

SS-273
L_14700
21' RT
16 16 39 65
BT DRY (11/22)

SS-234
L_14894
30' LT
L_14946
51' RT
6 33 60/0.3 60/0.0
BT DRY (11/22)
14 100/0.3 60/0.0
BT DRY (10/22)
WEATHERED ROCK (META-VOLCANIC)

SS-231
L_15100
3' LT
7 25 94
BT DRY (10/22)

WEATHERED ROCK (META-VOLCANIC)

SS-227
L_15300
25' RT
12 42 100/0.4
94
BT DRY (10/22)

PI = 154+29.00
EL = 422.29'

EXISTING GROUND LINE

SS-225
L_15493
15' LT
5 14 10
BT DRY (10/22)

ORANGE, GRAY AND BLACK, MOIST, STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

RESIDUAL, RED AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-6)

SS-220
L_15696
34' RT
13 34 49 27
BT DRY (10/22)

PROPOSED GRADE

SS-215
L_15897 LT
27' LT
8 16 22 17 33
BT DRY (10/22)

BROWN AND GRAY, MOIST, DENSE, SAPROLITIC, CLAYEY SAND (A-2-6)

END GRADE
-L- STA 164+92.33 =
-Y11- 24+28.62 (39" RT)
ELEV = 464.93'

END TIP PROJECT R-5930
-L- STA 165+32.78 =
-Y11- 24+17.74
ELEV = 466.67'

SS-191
L_16094
CL
10 18 30 36 55 93 100/0.3
BT DRY (10/22)

EXISTING GROUND LINE

L_16300 RT
24' RT
12 23 9 13 33 25 100/0.3
BT DRY (10/22)

SS-238
L_16443
34' RT
13 25 27 21
BT DRY (10/22)

PROPOSED GRADE

RESIDUAL, RED, BROWN, GRAY MOIST, STIFF TO HARD, SAPROLITIC, SILTY CLAY

AND BLACK, HIGHLY PLASTIC, (A-7-5)

WEATHERED ROCK (META-VOLCANIC)

(G) RESIDUAL, RED, BROWN, GRAY, AND ORANGE, MOIST, STIFF TO VERY STIFF, SAPROLITIC, SILTY CLAY (A-7-6) AND SANDY SILT (A-4)

(H) RESIDUAL, BLACK AND GREEN, DRY, VERY DENSE, SAPROLITIC, SILTY SAND (A-2-4)

(I) RESIDUAL, RED, ORANGE, BROWN AND BLACK, DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY CLAY (A-6)

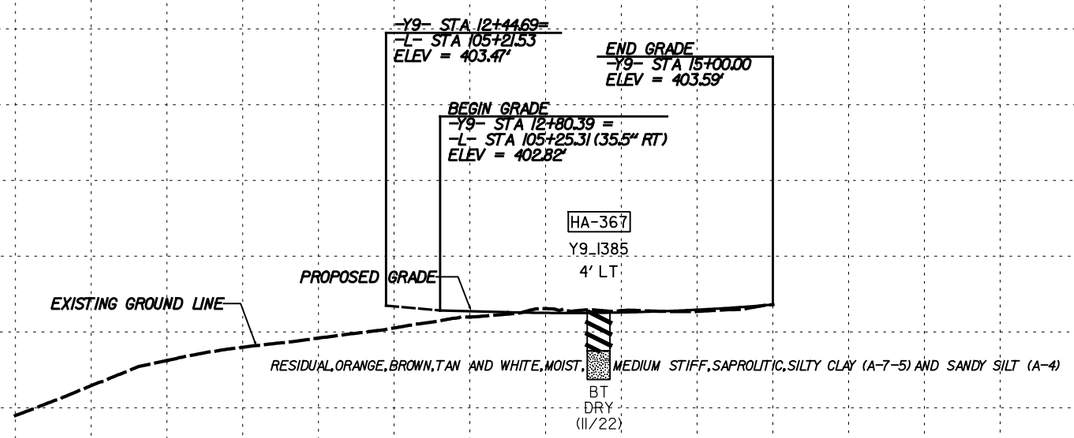
(J) RESIDUAL, TAN, BROWN, AND BLACK, DRY, MEDIUM DENSE, SAPROLITIC, SILTY SAND (A-2-4)

500 490 480 470 460 450 440 430 420 410

161 162 163 164 165 166

3/14/2023

5/14/99



Kimley»Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
R-5930	22

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

3/14/2023

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	23

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

560 550 540 530 520

3:1 3:1 557.26 2:1 2:1 8:1 538.11

RESIDUAL, RED, BROWN, ORANGE AND BLACK, MOIST, STIFF, TO HARD, SAPROLITIC, SILTY CLAY (A-7-5) AND CLAYEY SILT (A-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

45+50.00

SS-2
BULK-3

L_ 4504
45+04

3:1 3:1 553.19 2:1 2:1 8:1 536.82

(12) (29) (19) (28) (33) (15)

RESIDUAL, RED, BROWN, ORANGE AND BLACK, MOIST, STIFF, TO HARD, SAPROLITIC, SILTY CLAY (A-7-5) AND CLAYEY SILT (A-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

BT DRY (10/22)

3:1

45+00.00

L_ 2900

Ⓐ

BT DRY (10/22)

ROADWAY EMBANKMENT, TAN AND BROWN, MOIST, MEDIUM STIFF, SANDY CLAY (A-6) WITH TRACE ORGANICS AND TRACE GRAVEL SIZED ROCK FRAGMENTS

2:1

Ⓐ ROADWAY EMBANKMENT, BROWN, MOIST, LOOSE, CLAYEY SAND (A-2-6) WITH TRACE ORGANICS AND TRACE GRAVEL SIZED ROCK FRAGMENTS

29+00.00

—L—

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

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	24

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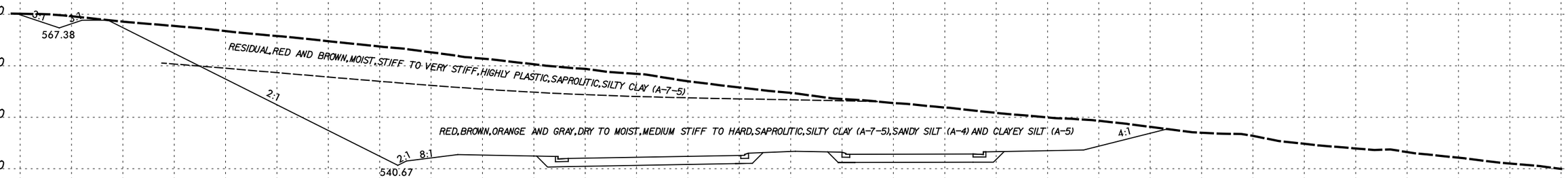
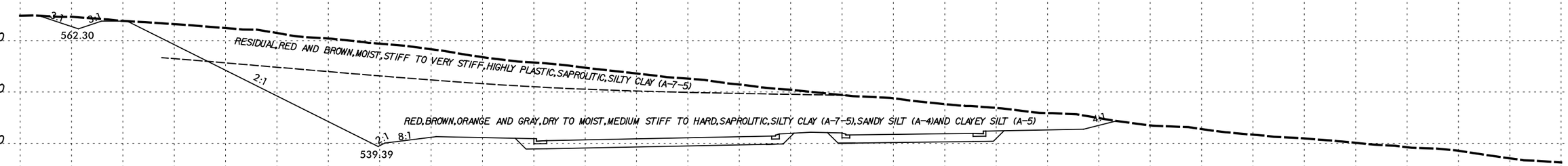
580 570 560 550 540 530 520



46+50.00



46+00.00

—L—

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580 570 560 550 540 530 520

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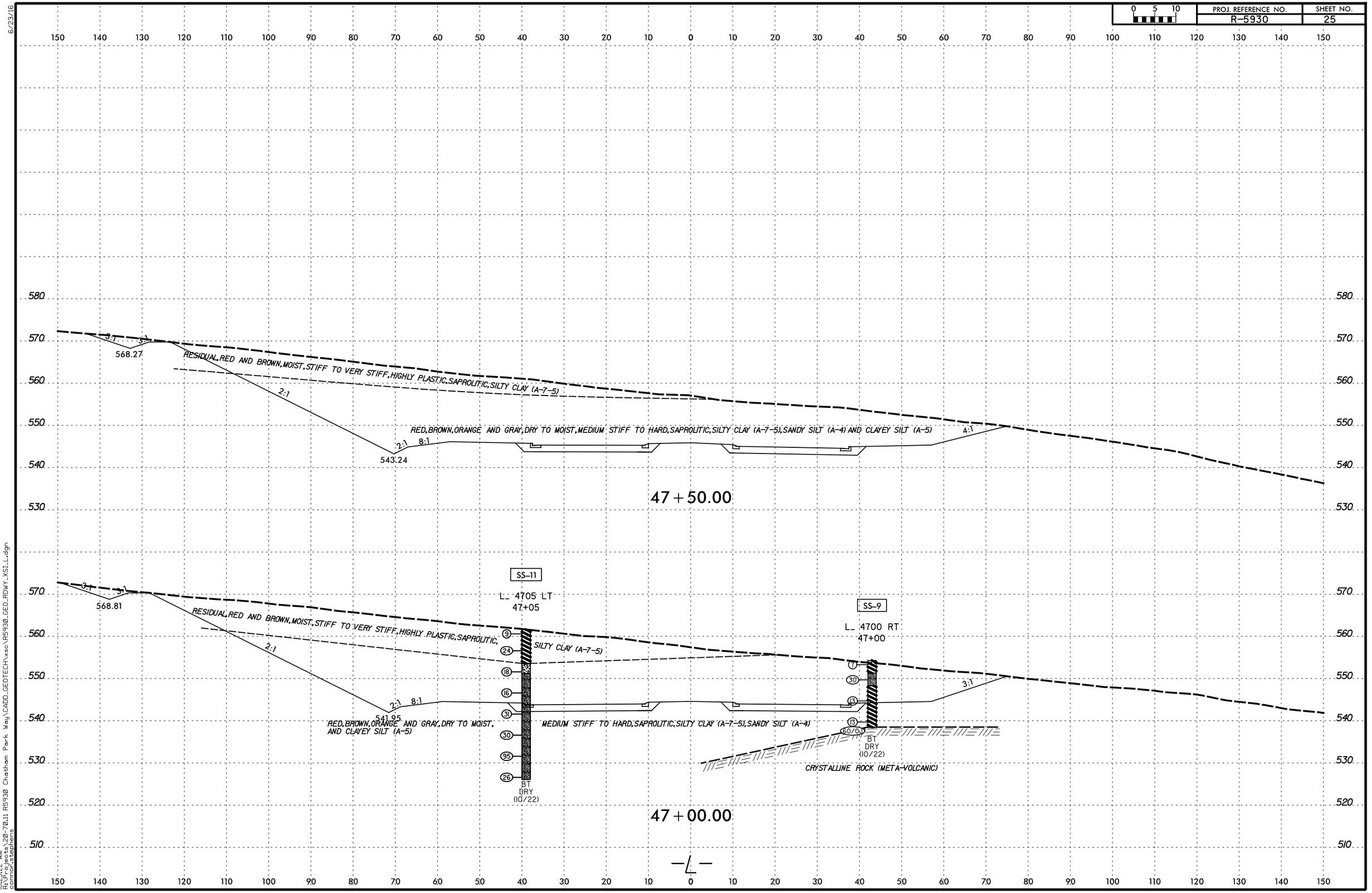
	R-5930	25



6/23/16

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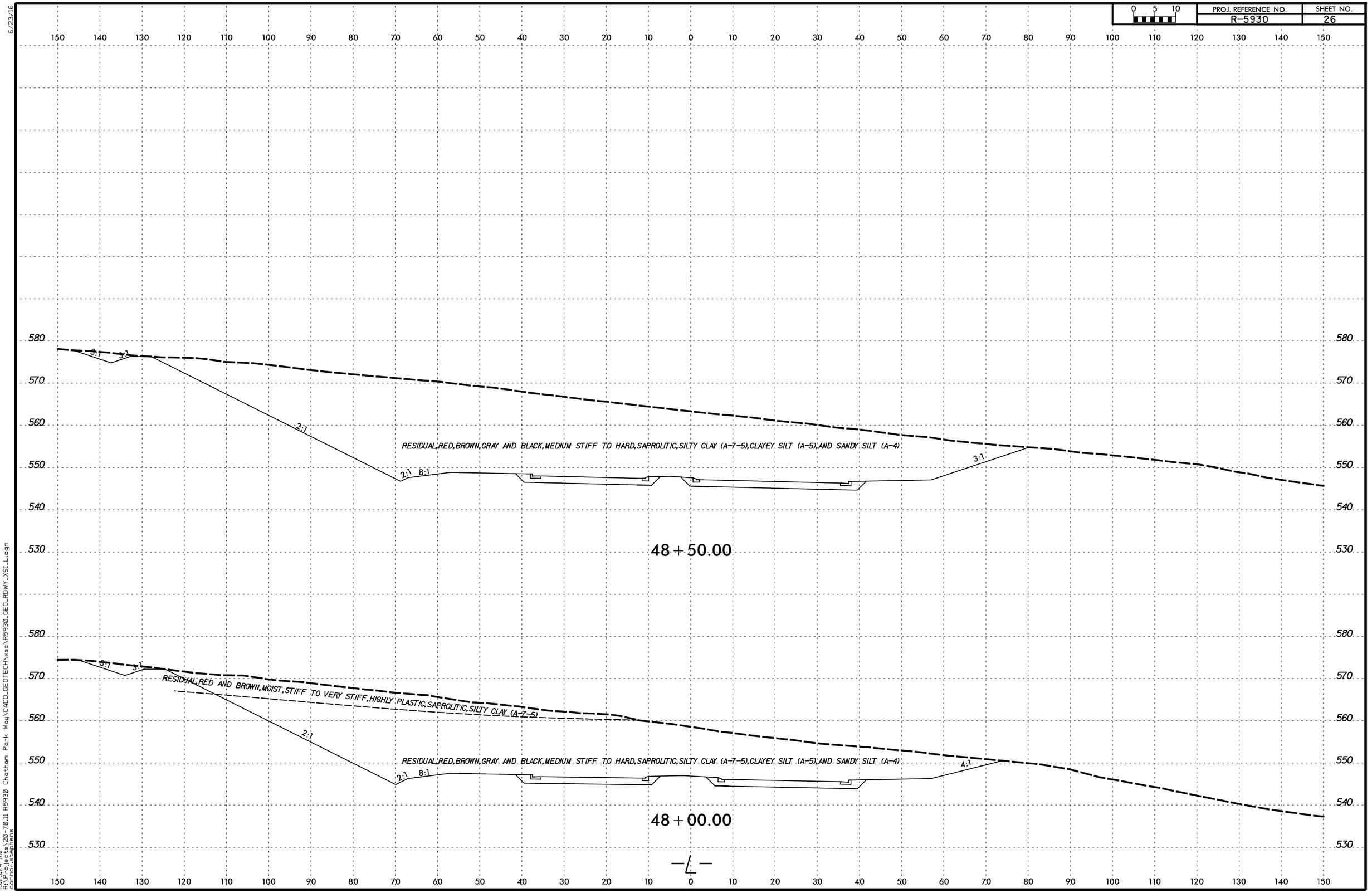
	R-5930	26



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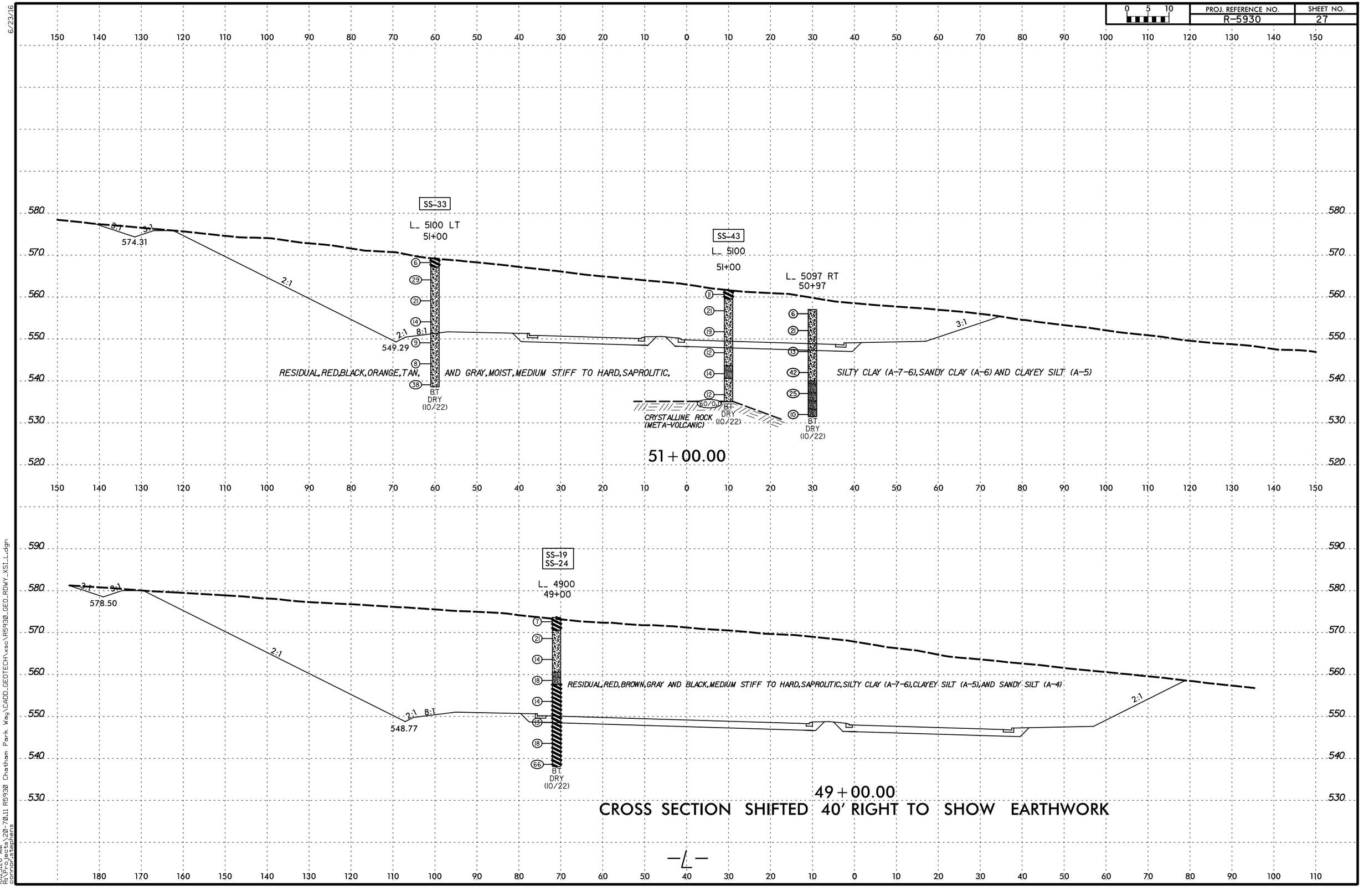

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	28

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

540 530 520 510 500 560 550 540 530

SS-54
℄ 5703
57+03
3:1 3:1 8:1 2:1
540.23
11 32 13 14 58
BT
DRY
(10/22)
RESIDUAL, ORANGE, BROWN, RED AND BLACK, MOIST, STIFF TO HARD, SAPROLITIC, SANDY CLAY (A-6) AND SANDY SILT (A-4)

57+00.00

SS-51
℄ 5500
55+00
3:1 3:1 8:1 4:1
545.69
9 24 19
BT
DRY
(10/22)
RESIDUAL, BROWN, RED AND BLACK, MOIST, STIFF TO VERY STIFF, SAPROLITIC, CLAYEY SILT (A-5) AND SILTY CLAY (A-7-6) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

55+00.00

SS-46
℄ 5300
53+00
3:1 8:1 2:1 2:1 8:1 3:1
565.09
548.01
11 22 13 25 29 60/0.0
BT
DRY
(10/22)
RESIDUAL, BROWN, RED, BLACK AND TAN, STIFF, TO VERY STIFF, SAPROLITIC, SILTY CLAY (A-7-6) AND CLAYEY SILT (A-5)
ORANGE, TAN AND BLACK, DRY TO MOIST, MEDIUM DENSE, SAPROLITIC, SILTY SAND (A-2-4)

53+00.00

℄

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	29

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

550 540 530 520 510

RESIDUAL, RED AND BROWN, MOIST, MEDIUM STIFF TO VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

RED AND ORANGE, MOIST, STIFF TO VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

BROWN AND BLACK, MEDIUM DENSE TO DENSE, SAPROLITIC, SILTY SAND (A-2-4)

3:1 8:1 3:1

58+50.00

RESIDUAL, RED AND BROWN, MOIST, MEDIUM STIFF TO VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

RED AND ORANGE, MOIST, STIFF TO VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

BROWN AND BLACK, MEDIUM DENSE TO DENSE, SAPROLITIC, SILTY SAND (A-2-4)

3:1 8:1 3:1

58+00.00

RESIDUAL, ORANGE, BROWN, RED AND BLACK, MOIST, STIFF TO HARD, SAPROLITIC, SANDY CLAY (A-6) AND SANDY SILT (A-4)

4:1 8:1 3:1

57+50.00

—L—

10:23:29 AM
R:\Projects\20-7011 R5930 Chatham Park Way\CADD_GEOTECH\xsc\R5930_GEO_RDWY_XSI_L.dgn
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	30

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

540 530 520 510 500 550

3:1 8:1 4:1

RESIDUAL, RED, ORANGE, BLACK AND BROWN, MOIST, STIFF TO VERY STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

RED AND ORANGE, MOIST, STIFF TO VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

60+00.00

3:1 8:1 4:1

RESIDUAL, RED AND BROWN, MOIST, MEDIUM STIFF TO VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

RED AND ORANGE, MOIST, STIFF, SAPROLITIC, SANDY SILT (A-4)

BROWN AND BLACK, MOIST, DENSE, SAPROLITIC, SILTY SAND (A-2-4)

59+50.00

SS-58

L- 5903
59+03

3:1 8:1 4:1

RESIDUAL, RED AND BROWN, MOIST, MEDIUM STIFF TO VERY STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5) (7)

RED AND ORANGE, MOIST, STIFF, SAPROLITIC, SANDY SILT (A-4) (28)

BROWN AND BLACK, DENSE, SAPROLITIC, SILTY SAND (A-2-4) (12)

(38)

BT
DRY
(10/22)

59+00.00

-L-

10:23:31 AM
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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	31

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

540
530
520
510
500

3:1 8:1 4:1

RESIDUAL,RED,ORANGE,BLACK AND BROWN,MOIST,STIFF TO VERY STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

BROWN AND BLACK,MOIST,STIFF,SAPROLITIC,SANDY SILT (A-4)

61+50.00

SS-62

L_ 6100
61+00

3:1 8:1 4:1

16
18
9
11

RESIDUAL,RED,ORANGE,BLACK AND BROWN,MOIST,STIFF TO VERY STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

BROWN AND BLACK,MOIST,STIFF,SAPROLITIC,SANDY SILT (A-4)

BT.
DRY
(10/22)

61+00.00

44:1 4:1

RESIDUAL,RED,ORANGE,BLACK AND BROWN,MOIST,STIFF TO VERY STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

BROWN AND BLACK,MOIST,STIFF,SAPROLITIC,SANDY SILT (A-4)

60+50.00

—L—

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	32

6/23/16

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

540 530 520 510 500 490

SS-66

L- 6300 LT
63+00

SS-74

L- 6300 RT
63+00

4:1
8:1
3:1

(8) (17) (9) (9) (16)

(11) (21) (9) (9) (9)

RESIDUAL, RED, ORANGE,

BLACK, TAN, GRAY AND GREEN, MOIST, MEDIUM STIFF TO VERY STIFF, HIGHLY PLASTIC

SAPROLITIC, SILTY CLAY (A-7-5)

BT
DRY
(10/22)

BT
DRY
(10/22)

63+00.00

540 530 520 510 500 490

4:1
8:1
4:1

RESIDUAL, RED, ORANGE, BLACK, TAN, GRAY AND GREEN, MOIST, MEDIUM STIFF TO VERY STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

62+50.00

540 530 520 510 500

11:1
4:1

RESIDUAL, RED, ORANGE, BLACK AND BROWN, MOIST, STIFF TO VERY STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

BROWN AND BLACK, MOIST, STIFF, SAPROLITIC, SANDY SILT (A-4)

62+00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	33

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

530 520 510 500 490

RESIDUAL,BROWN,RED,ORANGE,TAN AND BLACK,MOIST,STIFF TO HARD,SAPROLITIC,SILTY CLAY (A-7-5)

3:1 8:1 4:1

64+50.00

530 520 510 500 490

RESIDUAL,RED,ORANGE,BLACK,TAN,GRAY AND GREEN,MOIST,MEDIUM STIFF TO VERY STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

3:1 8:1 3:1

64+00.00

530 520 510 500

RESIDUAL,RED,ORANGE,BLACK,TAN,GRAY AND GREEN,MOIST,MEDIUM STIFF TO VERY STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

3:1 8:1 3:1

63+50.00

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

10:23:36 AM
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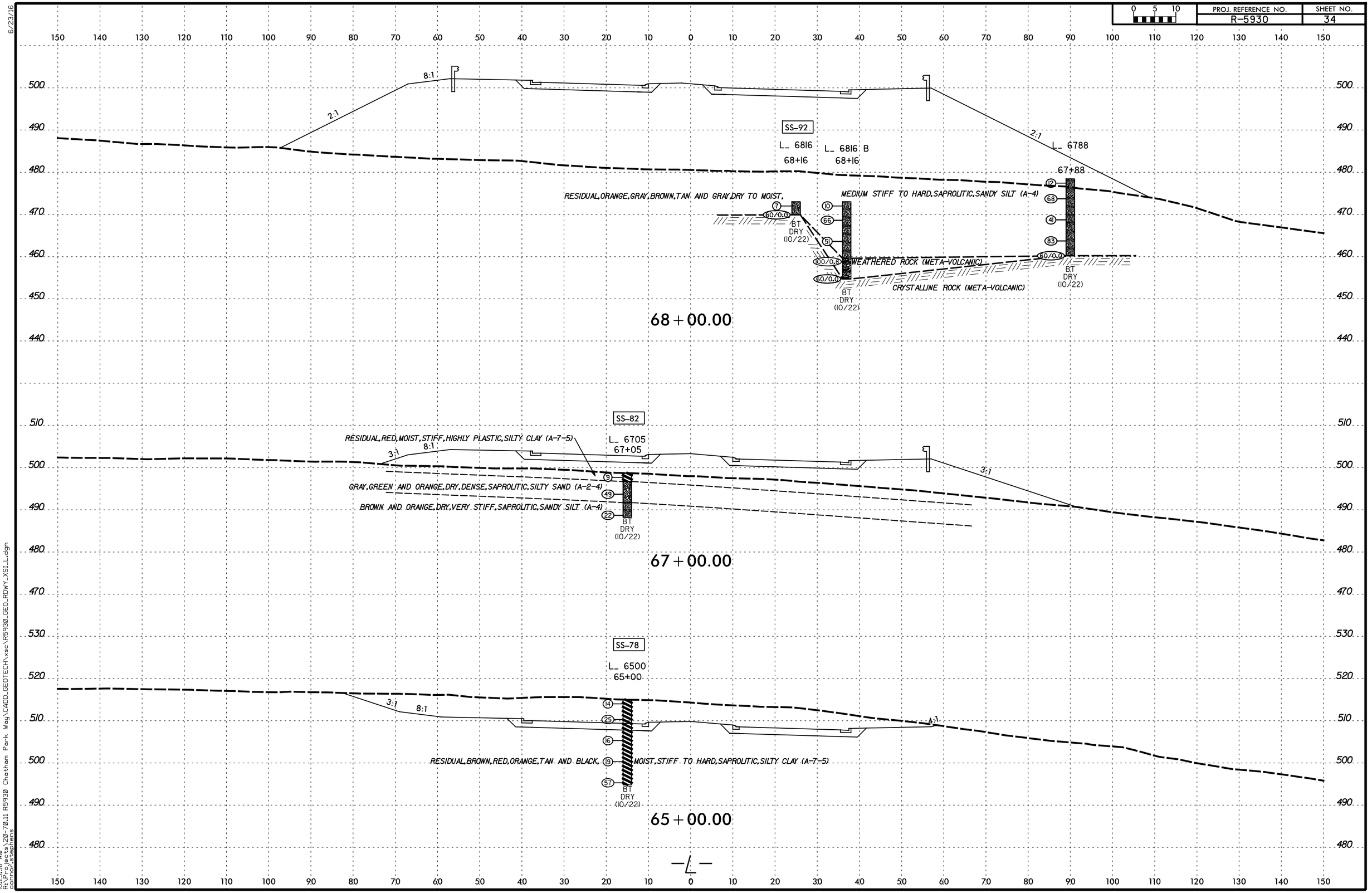

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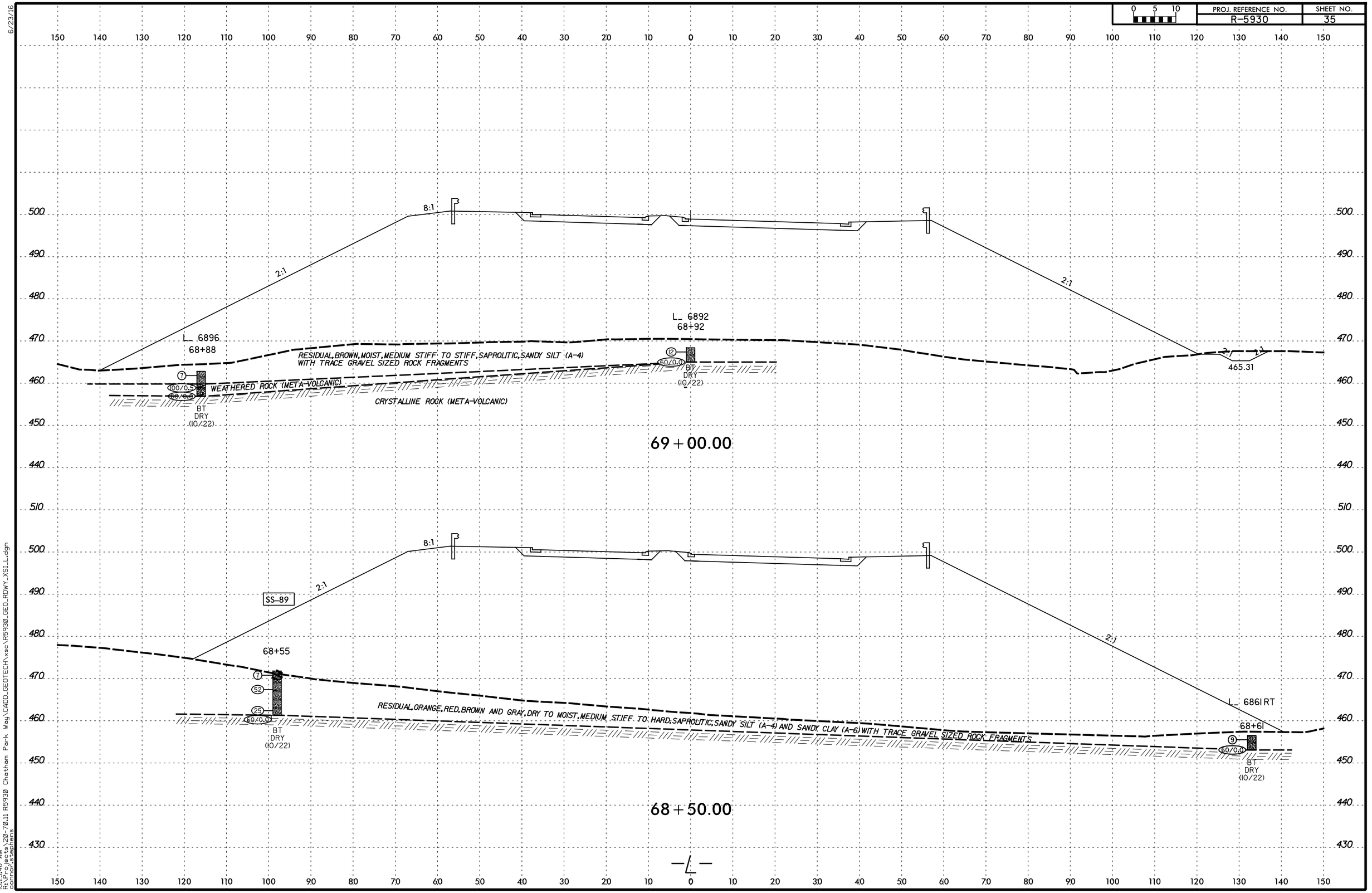

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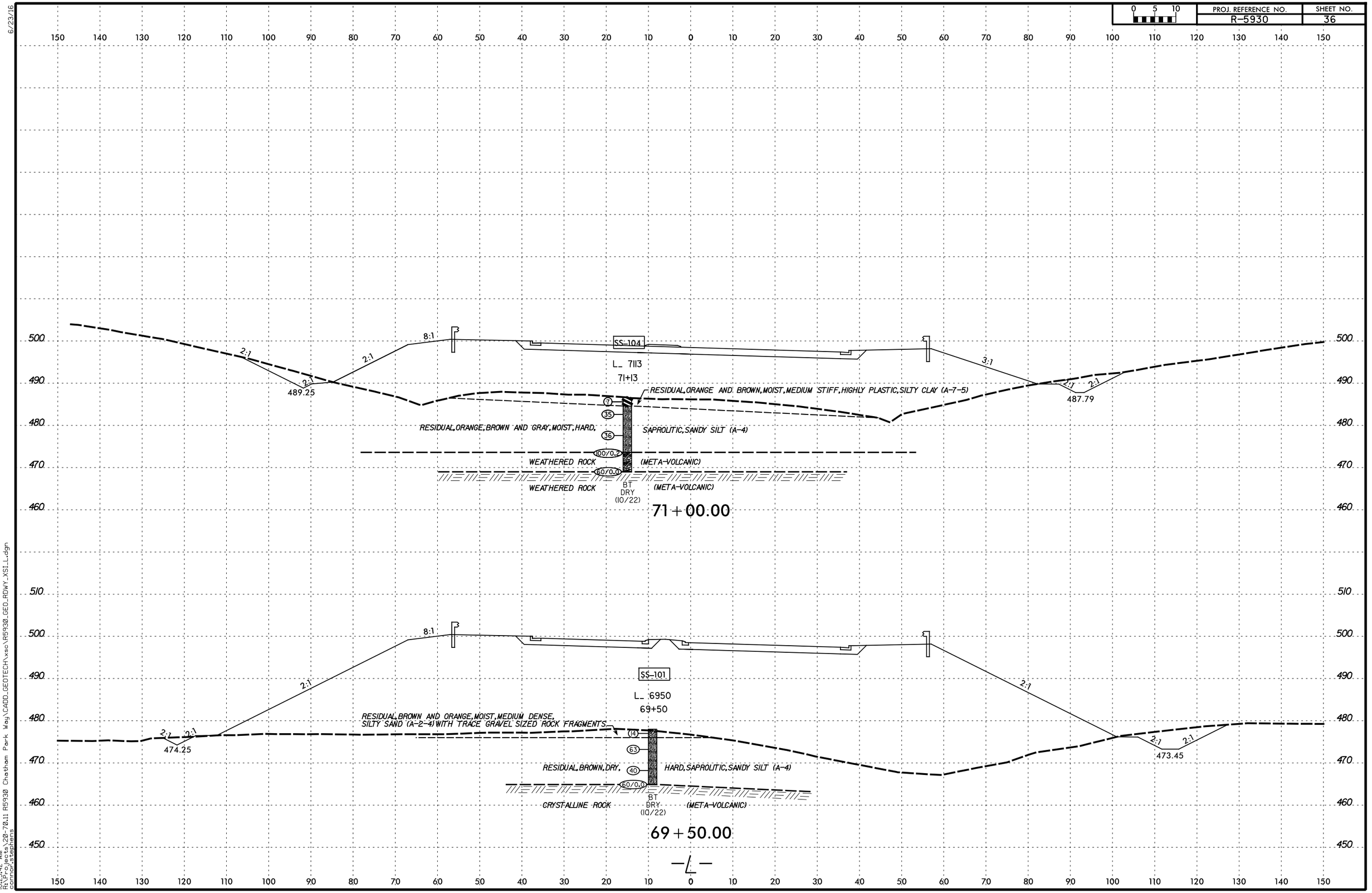

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	37

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

540 530 520 510 500 490 480

SS-122
BULK-4
L- 7505 LT
75+05

SS-118
L- 7500 RT
75+00

RESIDUAL, RED, ORANGE, BROWN, GRAY AND BLACK

2:1

8:1

MOIST, STIFF TO HARD, SAPROLITIC, CLAYEY SILT (A-5) AND SANDY SILT (A-4) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

2:1

19 18 17 26 62 100/0.9 100/0.7 100/0.6

BT
DRY
(10/22)

WEATHERED ROCK (META-VOLCANIC)

12 27 17 34 34 52 31 100/0.8

BT
DRY
(10/22)

75+00.00

SS-108
L- 7300
73+00

8 22 RESIDUAL, ORANGE, BLACK AND BROWN, DRY TO MOIST, 65 STIFF TO HARD, SAPROLITIC, SANDY CLAY (A-6) AND SANDY SILT (A-4)

2:1

8:1

100/0.9

WEATHERED ROCK (META-VOLCANIC)

100/0.8

RESIDUAL, BROWN AND BLACK, DRY, HARD, SAPROLITIC, SANDY SILT (A-4) 81

WEATHERED ROCK (META-VOLCANIC) 100/0.7

BT
DRY
(10/22)

73+00.00

10:23:43 AM
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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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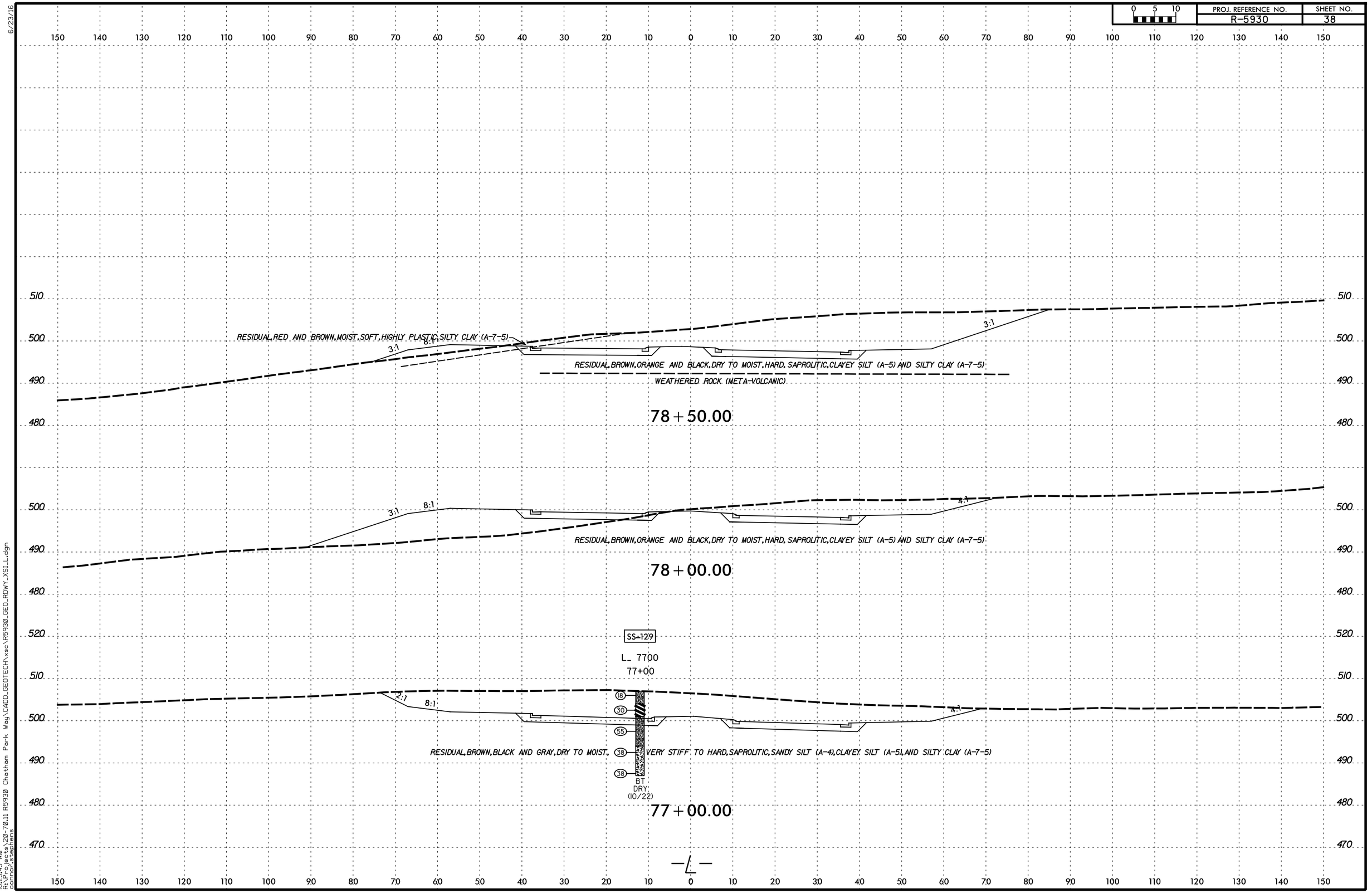

6/23/16

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connor.stephens

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	39

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

510
500
490
480

RESIDUAL, BROWN, ORANGE AND BLACK, DRY TO MOIST, HARD, SAPROLITIC, CLAYEY SILT (A-5) AND SILTY CLAY (A-7-5)

2:1 8:1 3:1

80+00.00

510
500
490
480
520
470

RESIDUAL, RED AND BROWN, MOIST, SOFT, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

2:1 8:1

RESIDUAL, BROWN, ORANGE AND BLACK, DRY TO MOIST, HARD, SAPROLITIC, CLAYEY SILT (A-5) AND SILTY CLAY (A-7-5)

2:1

WEATHERED ROCK (META-VOLCANIC)

79+50.00

SS-133
L- 7903 LT
79+03

RESIDUAL, RED AND BROWN, MOIST, SOFT, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

4
47
42
100/0.7
100/0.8
BT
DRY
(10/22)

SS-138
L- 7900 RT
79+00

RESIDUAL, BROWN, MOIST, MEDIUM DENSE, CLAYEY SAND (A-2-6) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

11
48
100/0.8
100/0.9
45
92
BT
DRY
(10/22)

RESIDUAL, BROWN, ORANGE AND BLACK, DRY TO MOIST, HARD, SAPROLITIC, CLAYEY SILT (A-5) AND SILTY CLAY (A-7-5)

2:1

WEATHERED ROCK (META-VOLCANIC)

BROWN AND BLACK, MOIST, DENSE, SAPROLITIC, SILTY SAND (A-2-4)

BROWN AND BLACK, DRY, HARD, SAPROLITIC, SANDY SILT (A-4)

79+00.00

—L—

10:23:47 AM
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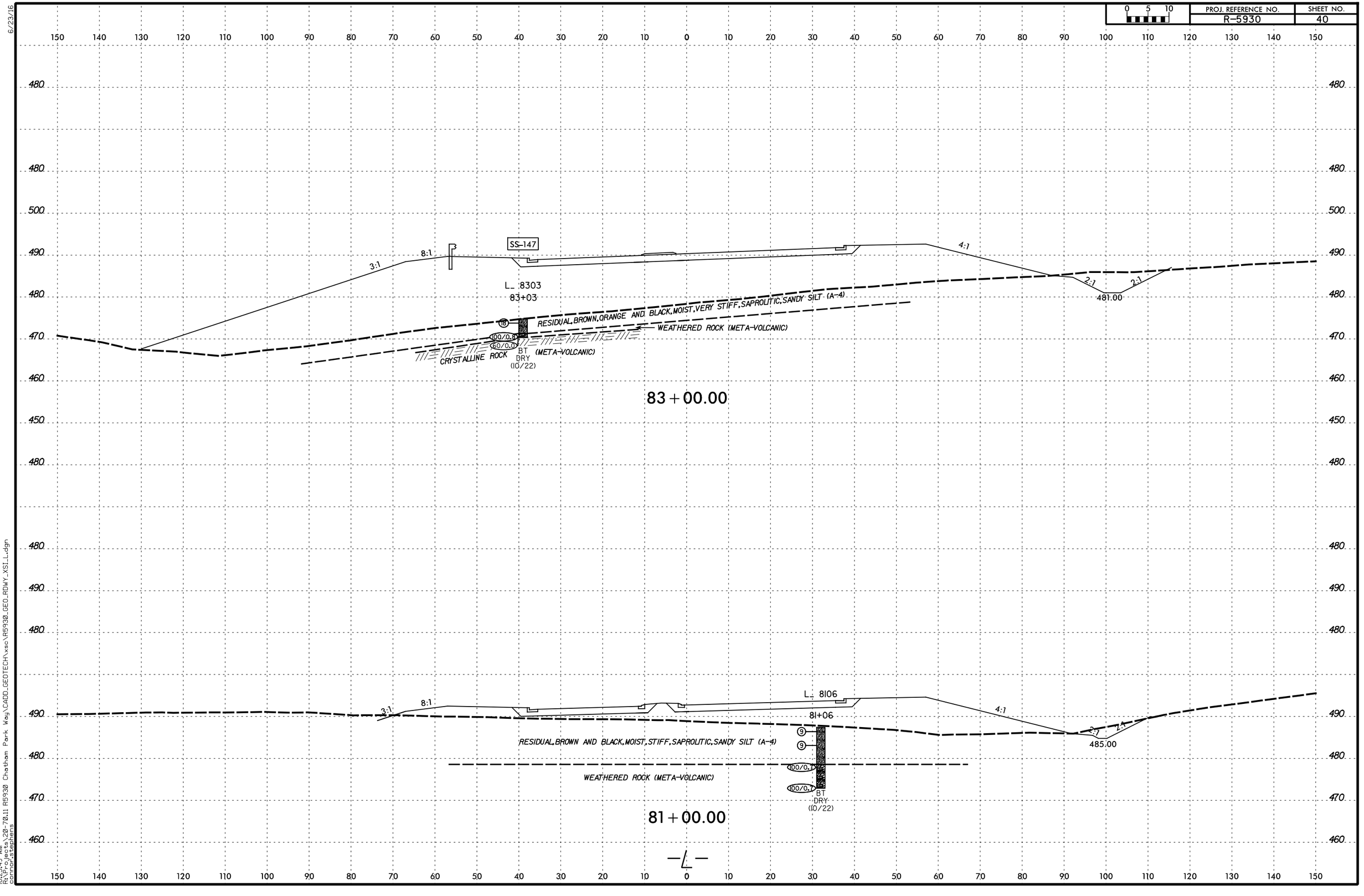

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connor.stephens

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	41

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

520 510 500 490 480 470 460

RESIDUAL, RED, MOIST, STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

BROWN, MOIST, STIFF, SANDY SILT (A-4)

WEATHERED ROCK (META-VOLCANIC)

2:1 8:1 3 4:1 2:1 3:1 3:1

514.35

490.61

86+00.00

RESIDUAL, BROWN, ORANGE, GRAY AND BLACK, DRY TO MOIST, MEDIUM DENSE TO VERY DENSE, SAPROLITIC, SILTY SAND (A-2-4)

WEATHERED ROCK (META-VOLCANIC)

2:1 8:1 3 4:1 2:1 3:1 3:1

506.02

490.33

85+50.00

SS-150
L_ 8504
85+04

RESIDUAL, BROWN, ORANGE, GRAY AND BLACK, DRY TO MOIST,

MEDIUM DENSE TO VERY DENSE, SAPROLITIC, SILTY SAND (A-2-4)

WEATHERED ROCK (META-VOLCANIC)

14 61 100/0.8 100/0.7

BT
DRY
(10/22)

2:1 8:1 3 3:1 3:1 3:1

497.60

85+00.00

—L—

10:23:51 AM
R:\Projects\20-7011 R5930 Chatham Park Way\CADD_GEOTECH\xsc\R5930_GEO_RDWY_XSI_L.dgn
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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	42

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

520 510 500 490 480 470

SS-158

L_ 8700 LT
87+00

SS-157

L_ 8697 RT
L_ 8697RT-B 86+97
86+97

RESIDUAL, RED, MOIST, STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

BOULDER SIZED ROCK LENS

RESIDUAL, RED, BROWN, BLACK AND ORANGE, MOIST, VERY STIFF TO HARD, SAPROLITIC, CLAYEY SILT (A-5), SANDY SILT (A-4), SILTY CLAY (A-7-5) AND SANDY CLAY (A-6)

RED, BLACK AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

WEATHERED ROCK (META-VOLCANIC)

CRYSTALLINE ROCK (META-VOLCANIC)

BT DRY (10/22)

2:1 8:1 4:1 2:1 3:1

521.11 491.16

87+00.00

L_ 8650
86+50

RESIDUAL, RED, MOIST, STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

BROWN, MOIST, STIFF, SANDY SILT (A-4)

2:1 8:1 4:1 2:1

518.71 490.88

CRYSTALLINE ROCK (META-VOLCANIC)

BT FIAD (10/22)

86+50.00

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	43

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

520 510 500 490 480 470

RESIDUAL,RED AND BROWN,MOIST,STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

BROWN AND GRAY,DRY,VERY STIFF TO HARD,SAPROLITIC,SANDY SILT (A-4)

2:1 8:1 4:1 3:1 2:1 2:1 2:1

490.39 510.03

88+50.00

RESIDUAL,RED AND BROWN,MOIST,STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

BROWN,MOIST,STIFF,SANDY SILT (A-4)

2:1 8:1 4:1 2:1 2:1 2:1

490.89 515.75

88+00.00

L_ 8750
87+50

RESIDUAL,RED,MOIST,STIFF,HIGHLY PLASTIC,SILTY CLAY (A-7-5)

BROWN,MOIST,VERY STIFF TO HARD,SANDY SILT (A-4)

490.51 0.034 491.19 492.22 0.034 491.19

60/0.0

CRYSTALLINE ROCK BT FIAD (10/22) (META-VOLCANIC)

87+50.00

—L—

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	44

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

490
480
470

3:1 8:1 3:1 4:1 4:1 3:1 4:1

488.65

RESIDUAL,RED AND BROWN,MOIST,STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

487.72

BROWN,BLACK AND ORANGE,STIFF TO HARD,SAPROLITIC,SANDY SILT (A-4)

90+00.00

500
490
480
470

3:1 8:1 3:1 3:1 3:1 3:1

497.45

RESIDUAL,RED AND BROWN,MOIST,STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

488.80

BROWN,BLACK AND ORANGE,STIFF TO HARD,SAPROLITIC,SANDY SILT (A-4)

89+50.00

510
500
490
480
470

SS-164

L_ 8906

89+06

RESIDUAL,ORANGE AND BROWN,MOIST,STIFF,SAPROLITIC,SANDY SILT (A-4) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

7
15
A-4
12
81

3:1 8:1 3:1 3:1 2:1 3:1

502.51

RED AND BROWN,MOIST,STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

489.69

BROWN AND GRAY,DRY,DENSE,SAPROLITIC,SILTY SAND

BROWN,BLACK AND ORANGE,STIFF TO HARD,SAPROLITIC,SANDY SILT (A-4)

BT
DRY
(10/22)

89+00.00

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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	45

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

490 480 470 460 450 440 430

8:1 2:1 4:1 2:1 4:1 3:1 4:1 4:1

485.80 483.95 479.33

RESIDUAL, RED, BROWN AND BLACK, DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

91+50.00

8:1 2:1 4:1 2:1 4:1 3:1 3:1 3:1

487.13 485.28 478.50

SS-169

L- 9100
91+00

11
13
13
17
16
71
60/0.0

BT
DRY
(10/22)

CRYSTALLINE ROCK (META-VOLCANIC)

RESIDUAL, RED, BROWN AND BLACK, DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

91+00.00

8:1 2:1 4:1 2:1 4:1 3:1 4:1 4:1

488.03 486.65 483.50

RESIDUAL, RED, BROWN AND BLACK, DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

90+50.00

—L—

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	46

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

490 480 470 460

SS-174

L- 9304

93+04

3:1 8:1 2:1 4:1 480.61 3:1 484.58

10 15 11 27

4:1 3:1 478.76

RESIDUAL, RED, BLACK AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

BROWN AND BLACK, MOIST, VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

BT DRY (10/22)

93+00.00

490 480 470 460 450

3:1 8:1 2:1 4:1 482.54 4:1 3:1 480.69 4:1 4:1 481.00

RESIDUAL, RED, BLACK AND BROWN, MOIST, STIFF, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

BROWN AND BLACK, MOIST, VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

92+50.00

490 480 470 460 450

8:1 2:1 4:1 484.26 4:1 3:1 482.41 4:1 4:1 480.17

RESIDUAL, RED, BROWN AND BLACK, DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

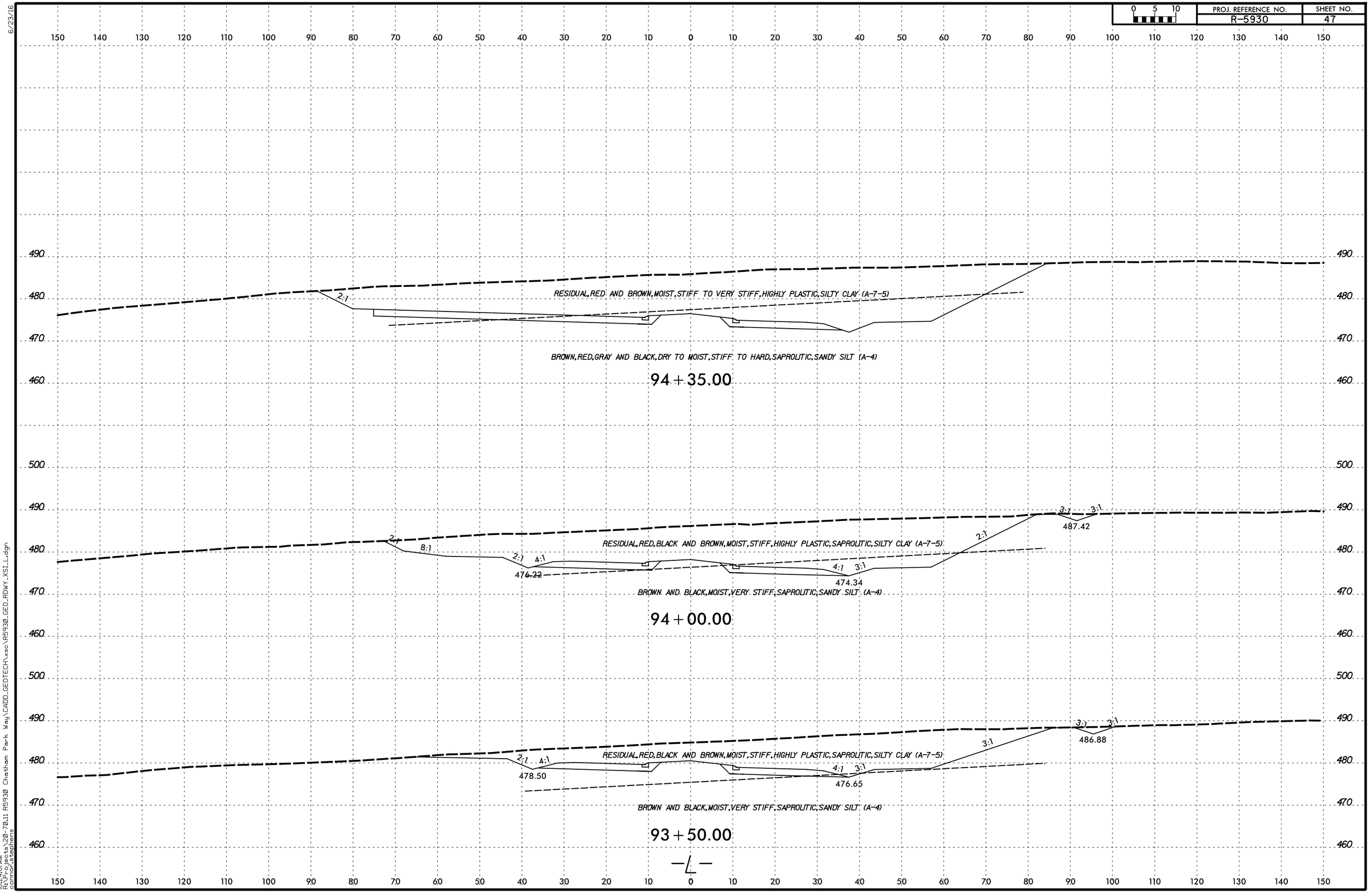
92+00.00

—L—

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

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	47



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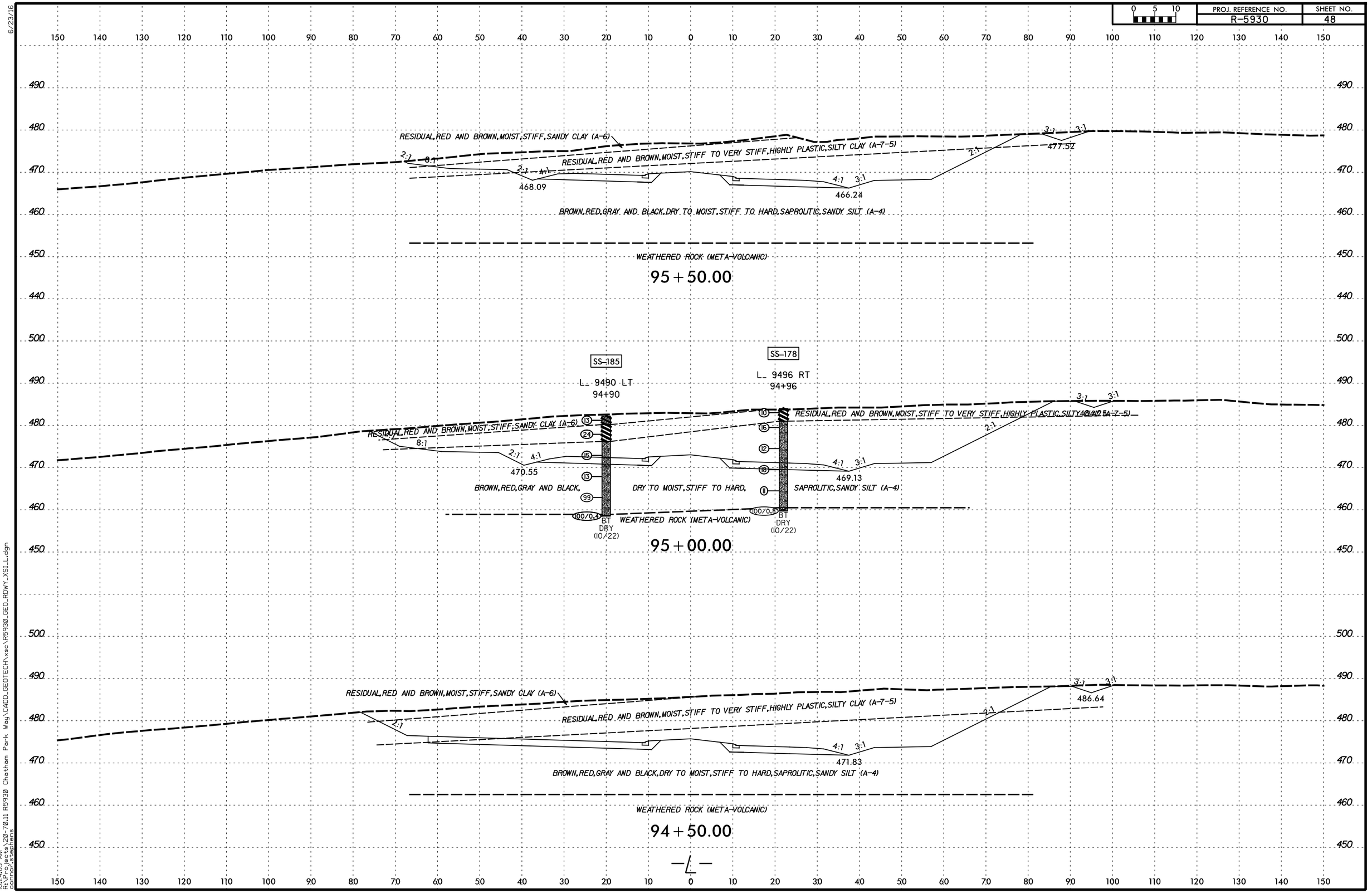
connor.stephens

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	48



6/23/16

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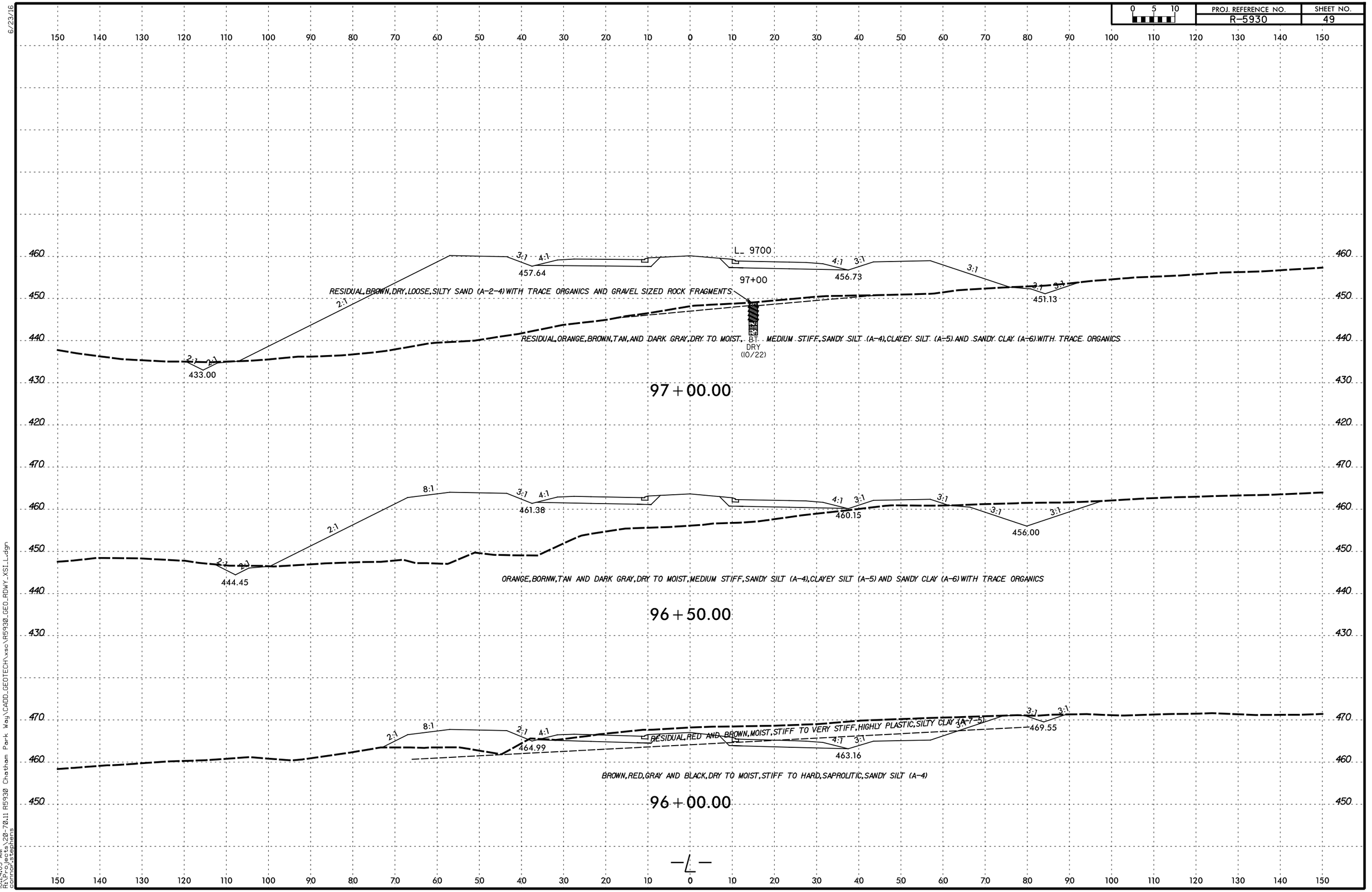
	R-5930	49



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connor.stephens

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	50

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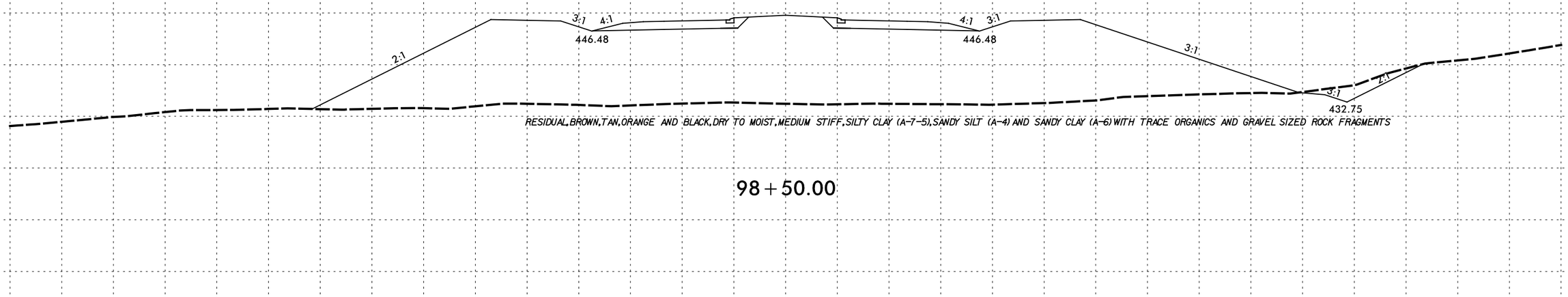
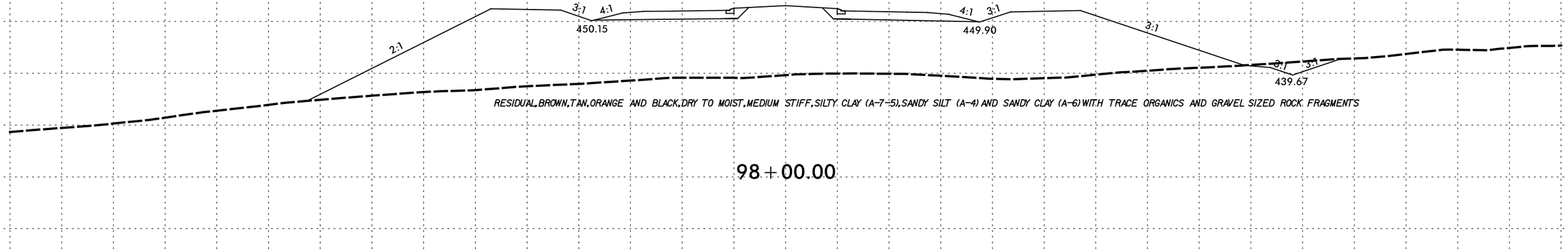
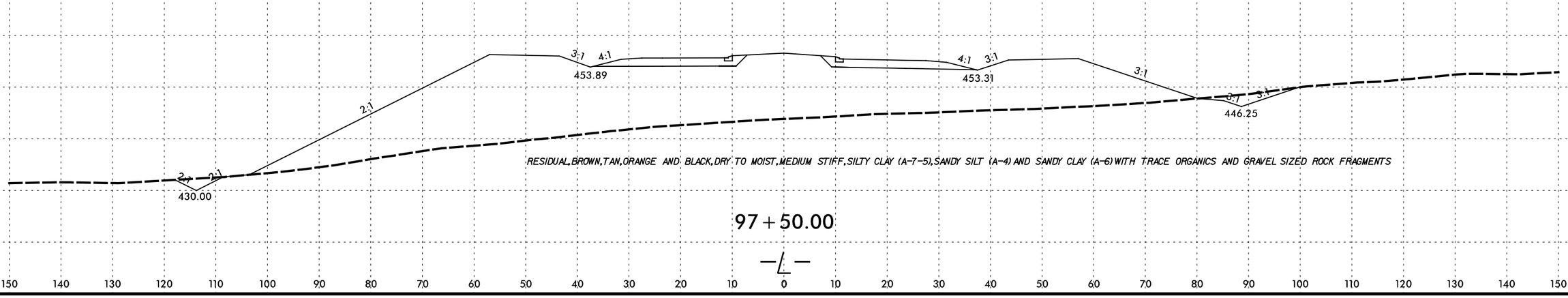


98 + 50.00



98 + 00.00



97 + 50.00

—L—

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connor.stephens

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	51

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

440 430 420 410

3:1 4:1 436.22 4:1 3:1 436.22 3:1 3:1 435.50 2:1

2:1

RESIDUAL, BROWN, TAN, ORANGE AND BLACK, DRY TO MOIST, MEDIUM STIFF, SILTY CLAY (A-7-5), SANDY SILT (A-4) AND SANDY CLAY (A-6) WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

TAN AND ORANGE, MOIST, SAPROLITIC, SANDY SILT (A-4)

TAN AND ORANGE, MOIST, MEDIUM STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5) WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

100 + 00.00

450 440 430 420 410

3:1 4:1 439.64 4:1 3:1 439.64 3:1 3:1 434.58 2:1

2:1

RESIDUAL, BROWN, TAN, ORANGE AND BLACK, DRY TO MOIST, MEDIUM STIFF, SILTY CLAY (A-7-5), SANDY SILT (A-4) AND SANDY CLAY (A-6) WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

99 + 50.00

450 440 430 420 410

3:1 4:1 443.06 4:1 3:1 443.06 3:1 3:1 433.67 2:1

2:1

L- 9900
99+00

BT
DRY
(10/22)

RESIDUAL, BROWN, TAN, ORANGE AND BLACK, DRY TO MOIST, MEDIUM STIFF, SILTY CLAY (A-7-5), SANDY SILT (A-4) AND SANDY CLAY (A-6) WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

99 + 00.00

—L—

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

10:24:08 AM
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connor.stephens

0 5 10

PROJ. REFERENCE NO.	SHEET NO.
R-5930	52

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

430 420 410

RESIDUAL,ORANGE AND BROWN,MOIST,MEDIUM STIFF,SILTY CLAY (A-7-5)

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

419.13

ORANGE,TAN AND DARK GRAY,MOIST,MEDIUM STIFF,SAPROLITIC,CLAYEY SILT (A-5)

102+50.00

430 420 410

RESIDUAL,ORANGE AND BROWN,MOIST,MEDIUM STIFF,HIGHLY PLASTIC,SILTY CLAY (A-7-5)WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

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

422.55

RESIDUAL,ORANGE,BROWN,TAN AND DARK GRAY,MOIST,SAPROLITIC,SANDY SILT (A-4)

102+00.00

440 430 420

RESIDUAL,ORANGE AND BROWN,MOIST,MEDIUM STIFF,HIGHLY PLASTIC,SILTY CLAY (A-7-5)WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

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

425.97 425.97

TAN AND ORANGE,MOIST,SAPROLITIC,SANDY SILT (A-4)

101+50.00

450 440 430 420

HA-345
L_10100
101+00

RESIDUAL,ORANGE AND BROWN,MOIST,MEDIUM STIFF,HIGHLY PLASTIC,SILTY CLAY (A-7-5)WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

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

429.39 BT DRY (10/22) 429.39

TAN AND ORANGE,MOIST,MEDIUM SUTIFF,SAPROLITIC,SANDY SILT (A-4)

101+00.00

440 430 420

RESIDUAL,ORANGE AND BROWN,MOIST,MEDIUM STIFF,HIGHLY PLASTIC,SILTY CLAY (A-7-5)WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

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

432.80 432.80

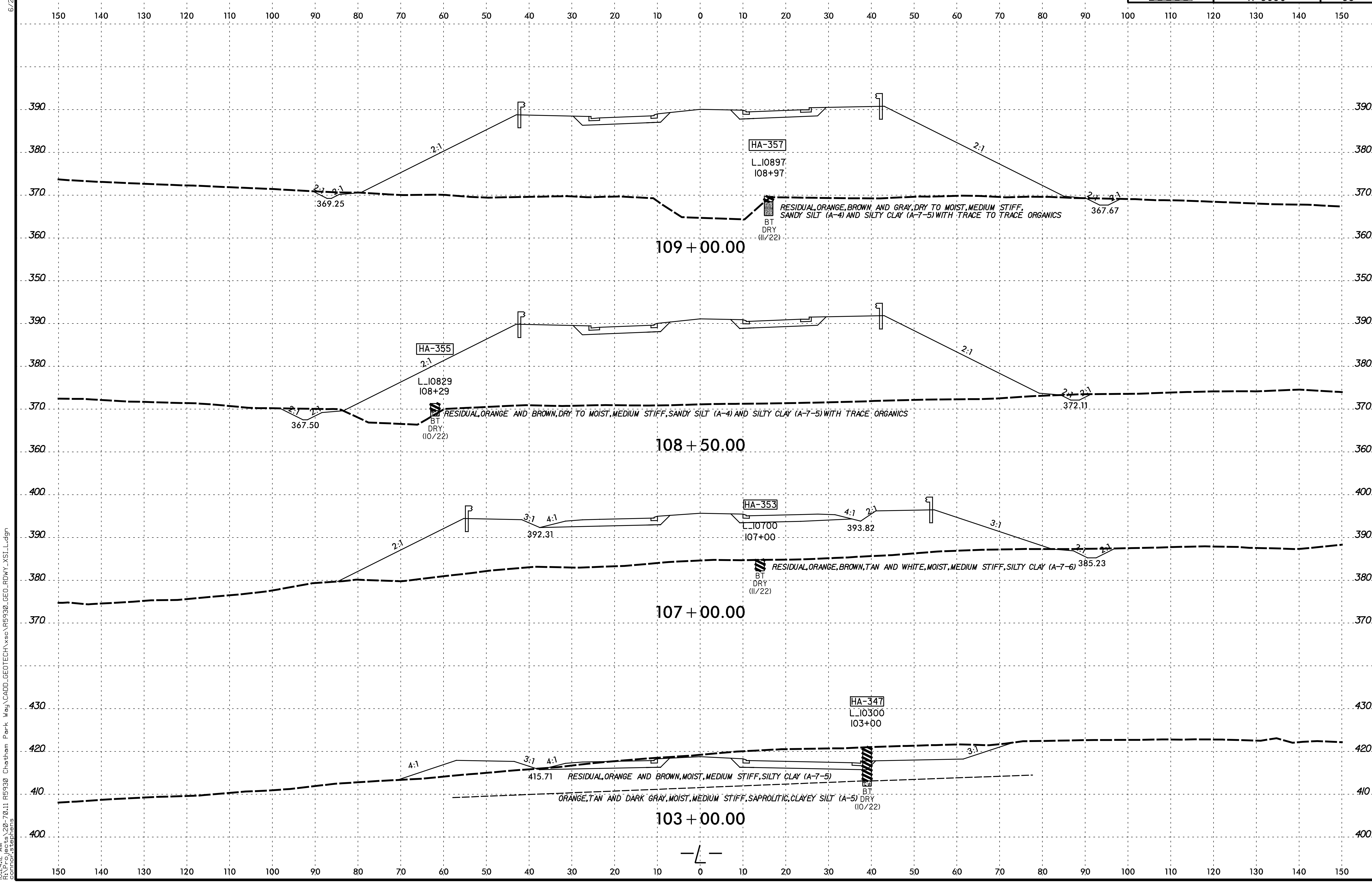
TAN AND ORANGE,MOIST,SAPROLITIC,SANDY SILT (A-4)

100+50.00

—L—

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

PROJ. REFERENCE NO.	SHEET NO.
R-5930	53

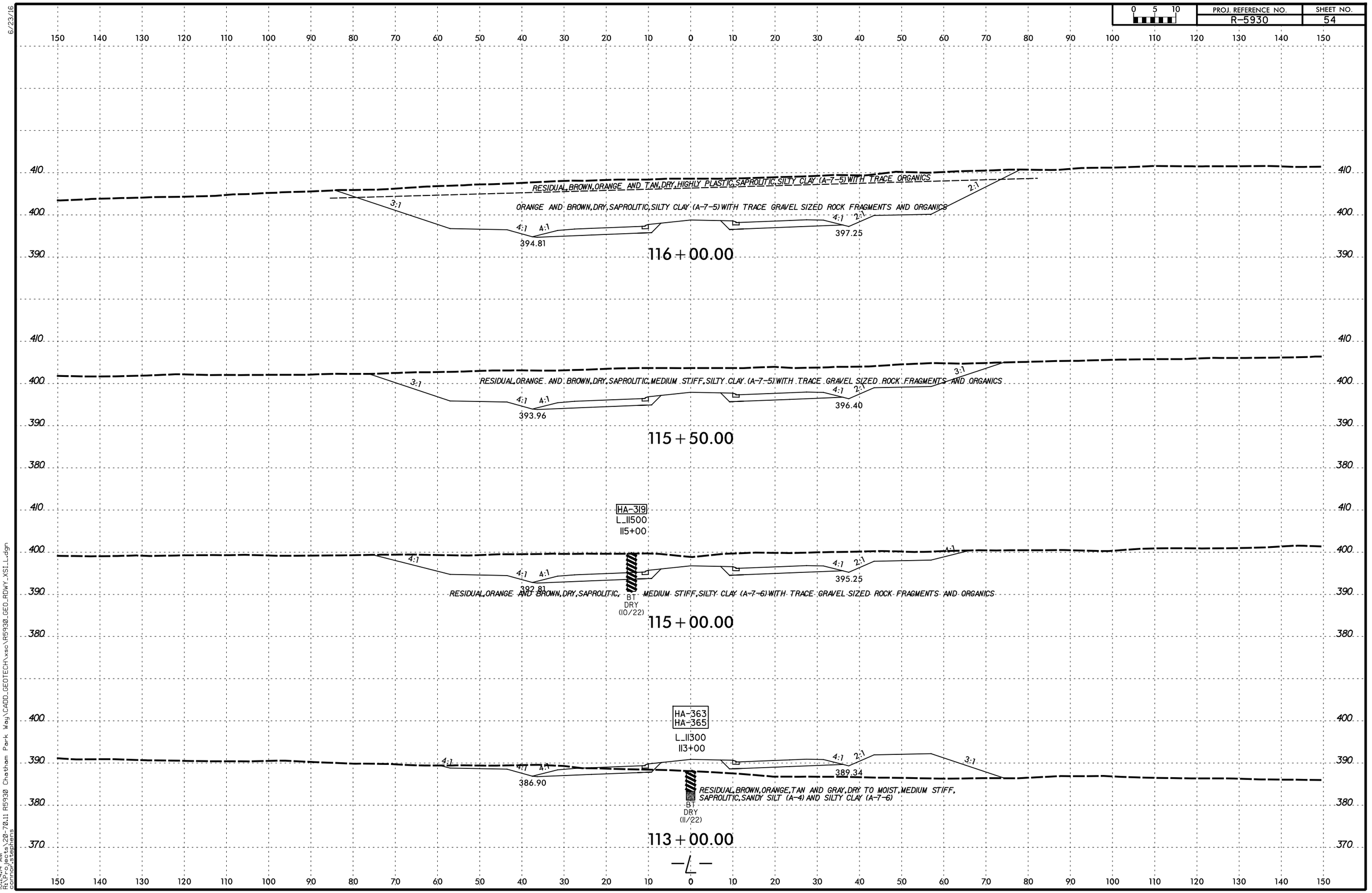


0 5 10
HA-357
L_10897
108+97
RESIDUAL,ORANGE,BROWN AND GRAY,DRY TO MOIST,MEDIUM STIFF,
SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE TO TRACE ORGANICS
BT
DRY
(11/22)
369.25
367.67
109 + 00.00
HA-355
L_10829
108+29
RESIDUAL,ORANGE AND BROWN,DRY TO MOIST,MEDIUM STIFF,SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE ORGANICS
BT
DRY
(10/22)
367.50
372.11
108 + 50.00
HA-353
L_10700
107+00
392.31
393.82
RESIDUAL,ORANGE,BROWN,TAN AND WHITE,MOIST,MEDIUM STIFF,SILTY CLAY (A-7-6)
BT
DRY
(11/22)
385.23
107 + 00.00
HA-347
L_10300
103+00
415.71
RESIDUAL,ORANGE AND BROWN,MOIST,MEDIUM STIFF,SILTY CLAY (A-7-5)
ORANGE,TAN AND DARK GRAY,MOIST,MEDIUM STIFF,SAPROLITIC,CLAYEY SILT (A-5)
BT
DRY
(10/22)
103 + 00.00
-L-

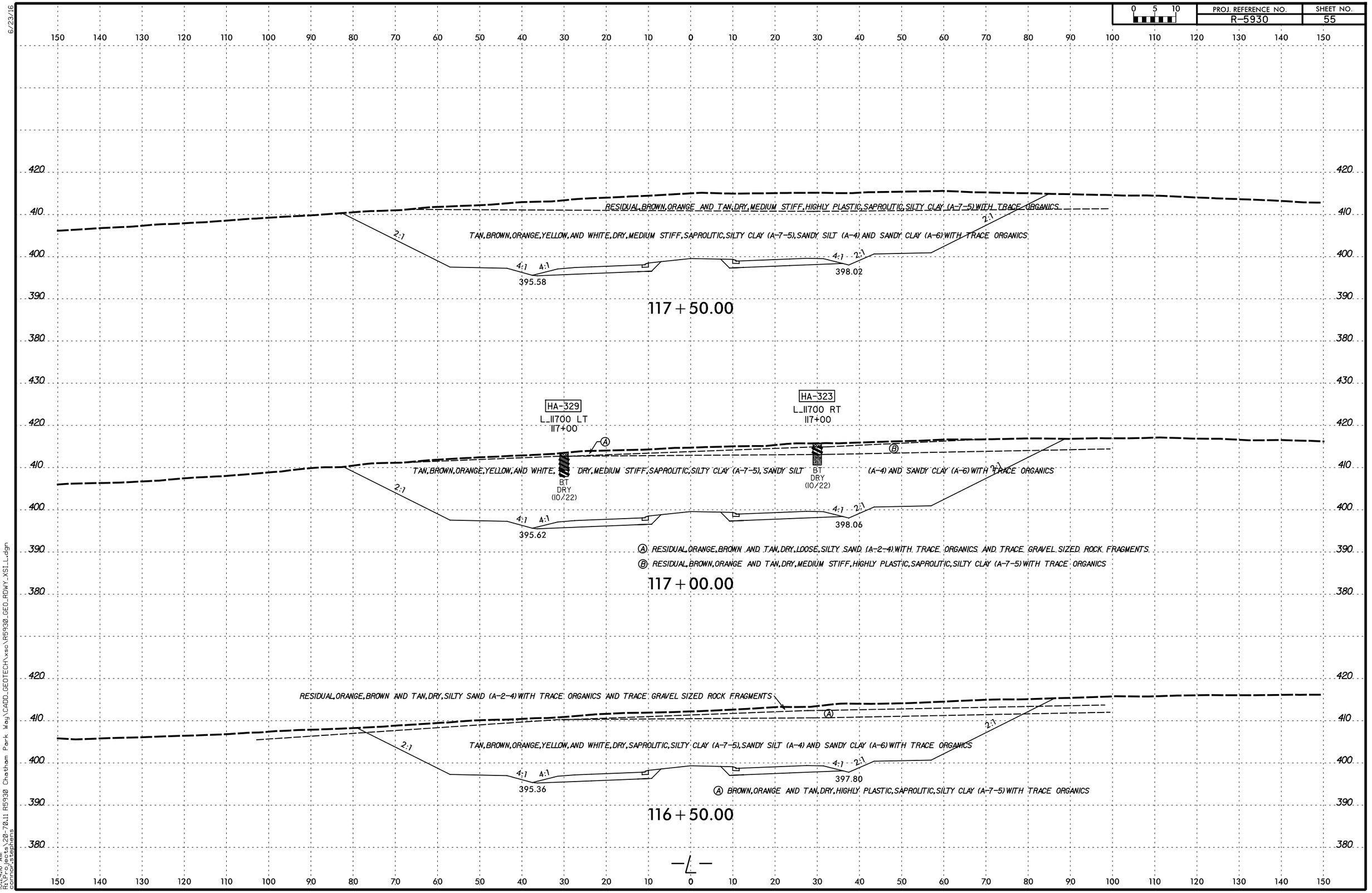
6/23/16

10:24:12 AM
R:\Projects\20-70.11 R5930 Chatham Park Way\CADD_GEOTECH\xsc\R5930_GEO_RDWY_XSL_L.dgn
connor.stephens

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	54



0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	55



6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	56

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

410 400 390 380 420

RESIDUAL,BROWN AND BLACK,DRY,MEDIUM STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

BROWN AND BLACK,DRY,MEDIUM STIFF,SAPROLITIC,SANDY SILT (A-4)

3:1 4:1 4:1 2:1 4:1

392.47 394.91

119+50.00

HA-332
L_11900
119+00

Ⓐ RESIDUAL,BROWN AND ORANGE,DRY,LOOSE,CLAYEY SAND WITH TRACE GRAVEL SIZED ROCK FRAGMENTS AND TRACE ORGANICS

RESIDUAL,BROWN AND BLACK,DRY,MEDIUM STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

BROWN AND BLACK,DRY,MEDIUM STIFF,SAPROLITIC,SANDY SILT (A-4)

2:1 4:1 4:1 BT DRY (10/25) 4:1 2:1 3:1

393.69 396.13

119+00.00

RESIDUAL,BROWN AND BLACK,DRY,MEDIUM STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

TAN,BROWN,ORANGE,YELLOW,AND WHITE,DRY,MEDIUM STIFF,SAPROLITIC,SILTY CLAY (A-7-5),SANDY SILT (A-4) AND SANDY CLAY (A-6) WITH TRACE ORGANICS

2:1 4:1 4:1 4:1 2:1 3:1

394.62 397.06

118+50.00

RESIDUAL,BROWN AND BLACK,DRY,MEDIUM STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

TAN,BROWN,ORANGE,YELLOW,AND WHITE,DRY,MEDIUM STIFF,SAPROLITIC,SILTY CLAY (A-7-5),SANDY SILT (A-4) AND SANDY CLAY (A-6) WITH TRACE ORGANICS

2:1 4:1 4:1 4:1 2:1 2:1

395.25 397.69

118+00.00

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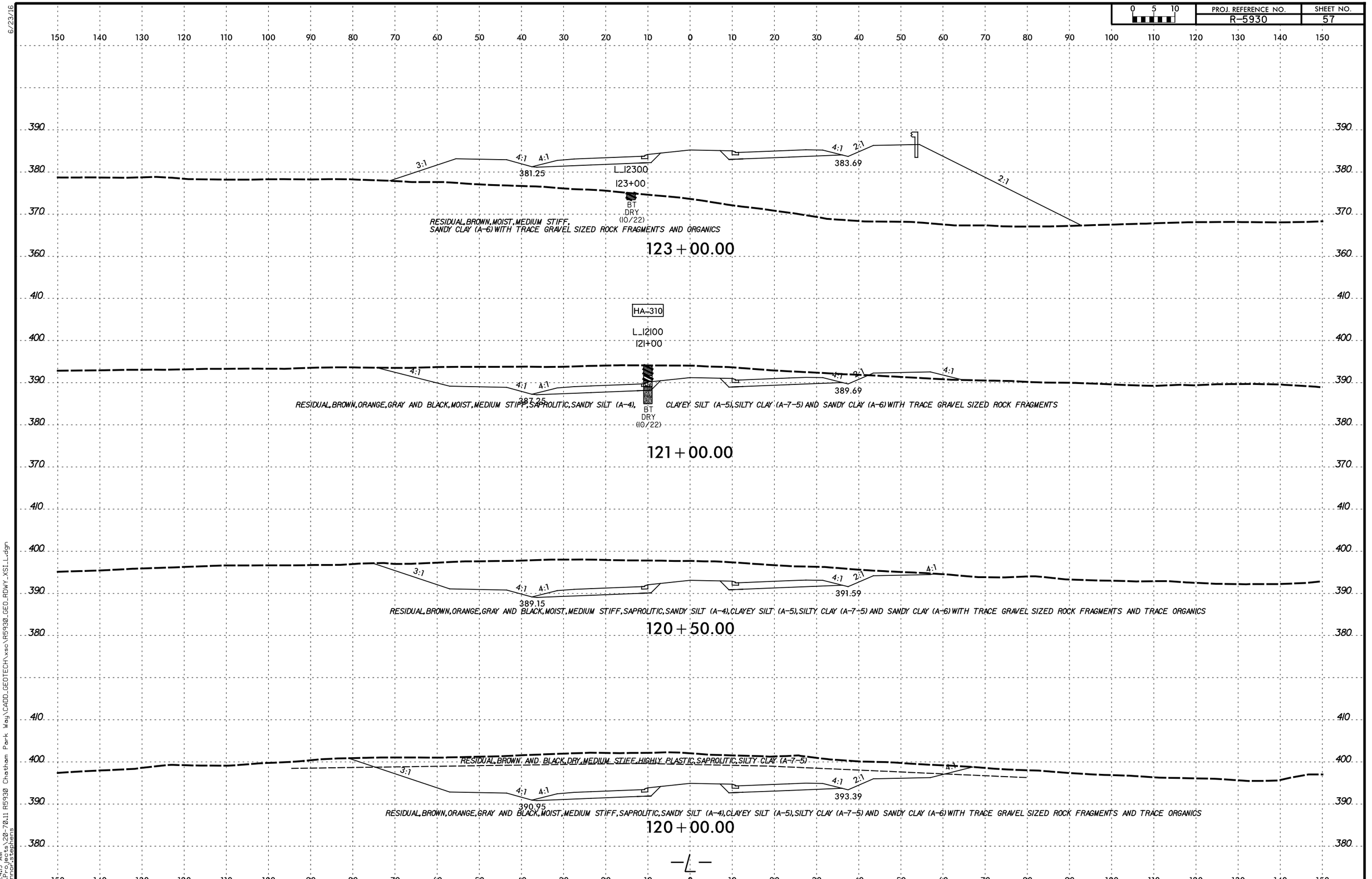
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	57



0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	58

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

390 380 370 360 350

SS-260

L_12713
127+13
4:1

3:1

379.00

RESIDUAL,RED,BROWN AND BLACK,MOIST,MEDIUM STIFF TO STIFF,SAPROLITIC,SANDY SILT (A-4) AND SILTY CLAY (A-7-6)

8 14 9 6 10

BT
DRY
(11/22)

127+00.00

2:1

L_12500
125+00

365.00

RESIDUAL,BROWN,MOIST,MEDIUM STIFF, SILTY CLAY (A-7-5)

BT
DRY
(10/22)

125+00.00

HA-307

L_12470
124+70

L_12438
124+38

BT
DRY
(10/22)

BT 10/22

RESIDUAL,BROWN,TAN,ORANGE,GRAY AND BLACK,MOIST,MEDIUM STIFF,SILTY CLAY (A-7-6) AND SANDY SILT (A-4) WITH AND GRAVEL SIZED ROCK FRAGMENTS

124+50.00

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	59

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

410 400 390 380 370

SS-251

L_I3306
I33+06

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

395.42

394.82

(11) (14) (18)

BT
DRY
(II/22)

RESIDUAL, RED, BROWN, BLACK AND GRAY, MOIST, STIFF TO VERY STIFF, SAPROLITIC, SILTY CLAY (A-7-6) AND SANDY SILT (A-4) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

133+00.00

SS-254

L_I3100
I31+00

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

392.46

392.46

(12) (14)

BT
DRY
(II/22)

RESIDUAL, RED, GRAY, WHITE AND BLACK, MOIST, MEDIUM STIFF TO STIFF, SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-5)

131+00.00

SS-257

L_I2912
I29+12

3:1 4:1

(6) (22) (33)

BT
DRY
(II/22)

RESIDUAL, RED, GRAY AND GREEN, MOIST, MEDIUM STIFF, SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-6)

(A) RESIDUAL, GRAY AND BLACK, MOIST, MEDIUM DENSE, SAPROLITIC, SILTY SAND (A-2-4)

129+00.00

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	60

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

410 400 390 380 370

SS-248
L_14100
141+00

3:1 2:1 4:1 406.14 4:1 4:1 403.70 4:1 3:1 400.36

RESIDUAL,BROWN,RED,ORANGE,BLACK AND BROWN,MOIST,MEDIUM STIFF TO VERY STIFF,SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-6) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

8 17 8 18 BT DRY (11/22)

141+00.00

SS-245B
L_13900
139+00

3:1 2:1 4:1 403.78 4:1 4:1 401.34 4:1 3:1 401.80

6 17 4 BT DRY (11/22)

139+00.00

SS-246
L_13700
137+00

3:1 2:1 4:1 401.42 4:1 4:1 398.98 4:1 4:1 399.00

RESIDUAL,RED,BROWN AND BLACK,MOIST,MEDIUM STIFF TO VERY STIFF,SAPROLITIC,SANDY SILT (A-4) AND CLAYEY SILT (A-5)

7 16 7 BT DRY (11/22)

137+00.00

SS-243
L_13500
135+00

3:1 2:1 4:1 399.06 4:1 4:1 396.62 4:1 4:1 395.68

RESIDUAL,GRAY,GREEN,RED,ORANGE AND BROWN,MOIST,VERY STIFF,SAPROLITIC,SANDY SILT (A-4)

19 26 18 BT DRY (11/22)

135+00.00

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	61

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

430 420 410 400 390

4:1 3:1 4:1 410.18 4:1 3:1 409.60 3:1

RESIDUAL, BROWN, RED AND BLACK; DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY SILT (A-4)

WEATHERED ROCK (META-VOLCANIC)

145+50.00

SS-270

L_I4500
I45+00

4:1 3:1 4:1 409.91 4:1 3:1 3:1

(14) (24) (33) (100/0.5)

RESIDUAL, BROWN, RED AND BLACK, DRY TO MOIST, STIFF TO HARD, SAPROLITIC, SANDY SILT (A-4)

WEATHERED ROCK (META-VOLCANIC)

BT
DRY
(11/22)

145+00.00

SS-265

L_I4352
I43+52

3:1 2:1 4:1 409.09 4:1 4:1 406.65 4:1 3:1 404.75

(13) (18) (15)

RESIDUAL, RED, BROWN AND BLACK, DRY TO MOIST, STIFF TO VERY STIFF SAPROLITIC, SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

BT
DRY
(11/22)

143+50.00

—L—

380

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5930	62

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

430 420 410 400 390

SS-273

L_I4700
147+00

RESIDUAL, BROWN AND ORANGE, DRY, VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

3:1 4:1 411.42 4:1 3:1 411.54 4:1

(18) (16) (39) (65)

BROWN AND BLACK, DRY, VERY STIFF TO HARD, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

BROWN AND BLACK, MOIST, VERY DENSE, SAPROLITIC, SILTY SAND (A-2-4)

BT DRY (11/22)

147+00.00

RESIDUAL, BROWN AND ORANGE, DRY, VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

4:1 3:1 4:1 410.82 4:1 3:1 410.82 3:1

BROWN AND BLACK, DRY, VERY STIFF TO HARD, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

BROWN AND BLACK, MOIST, VERY DENSE, SAPROLITIC, SILTY SAND (A-2-4)

146+50.00

RESIDUAL, BROWN AND ORANGE, DRY, VERY STIFF, SAPROLITIC, SANDY SILT (A-4)

4:1 3:1 4:1 410.48 4:1 3:1 410.21 3:1

BROWN AND BLACK, DRY, VERY STIFF TO HARD, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

BROWN AND BLACK, MOIST, VERY DENSE, SAPROLITIC, SILTY SAND (A-2-4)

146+00.00

—L—

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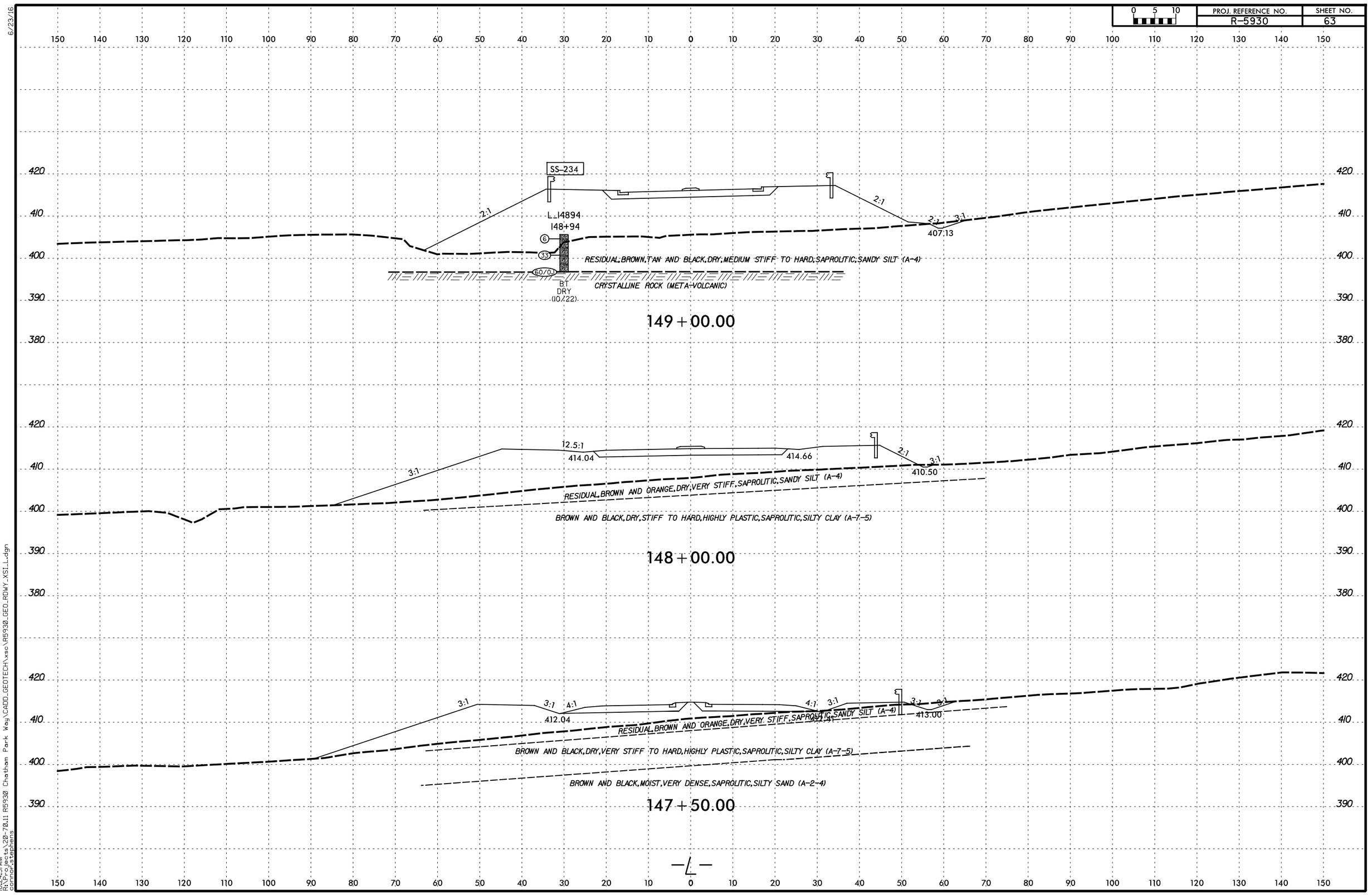
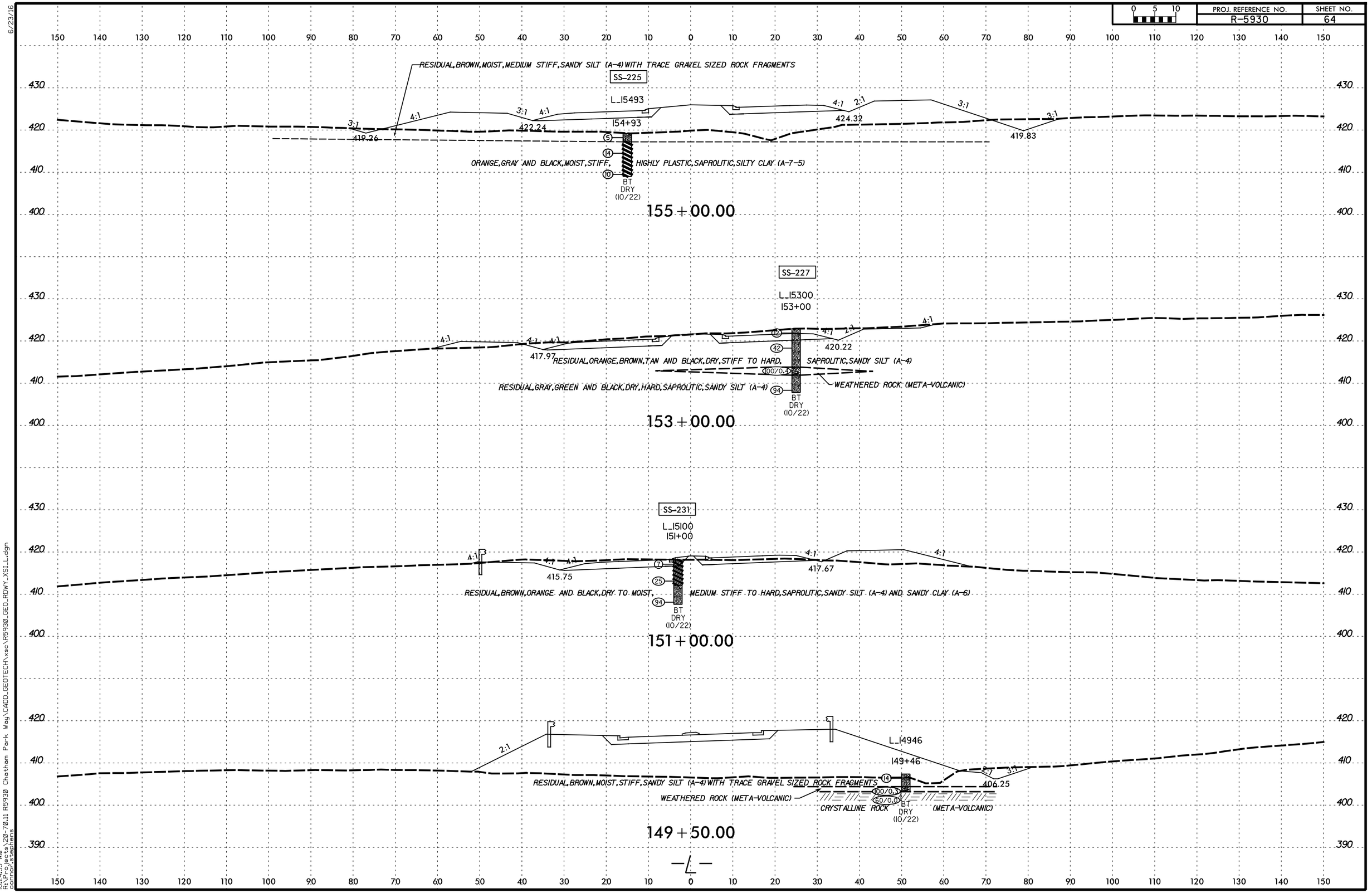
	R-5930	63





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connor.stephens

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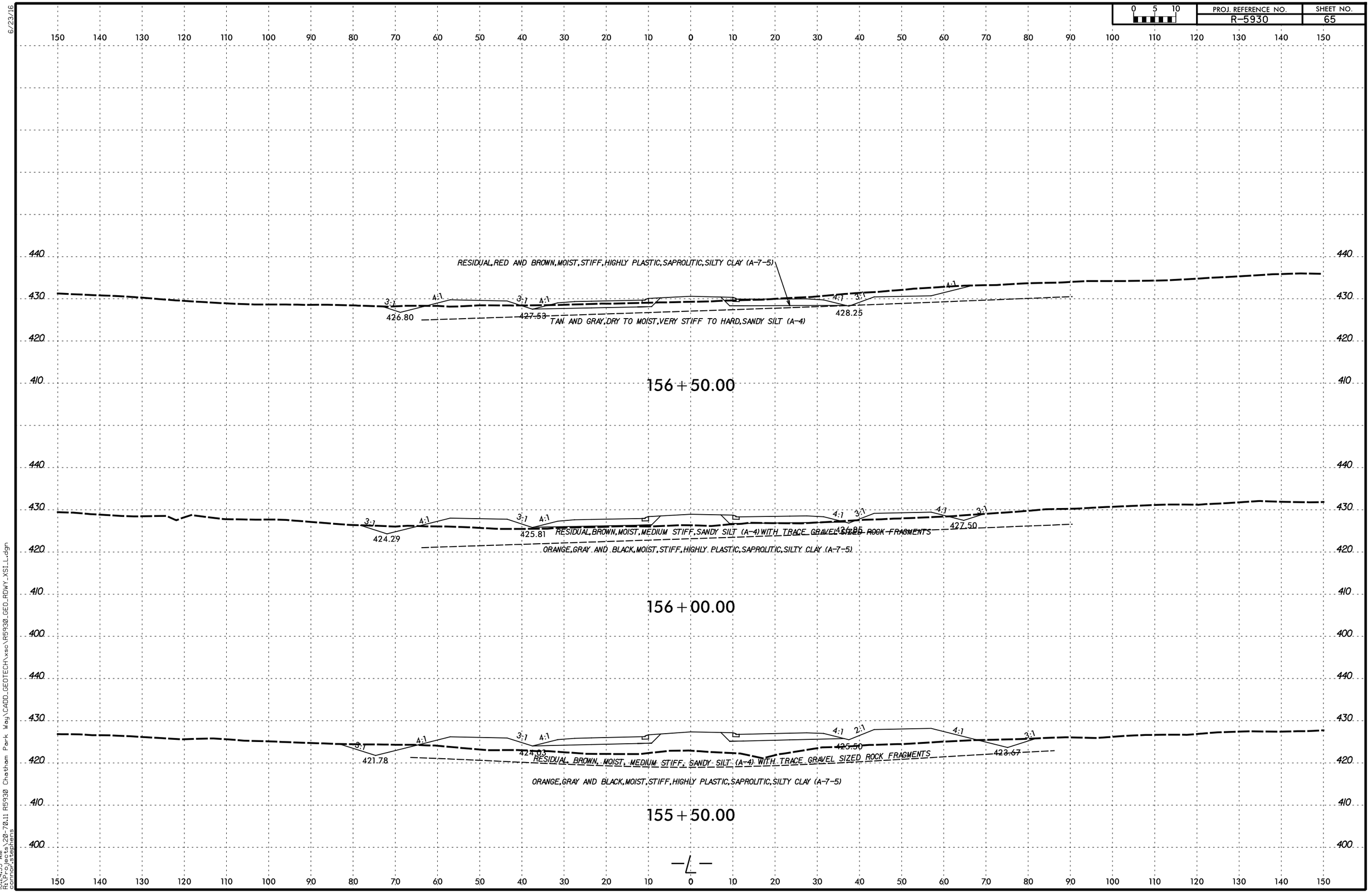

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	R-5930	66

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

450 440 430 420 410

RESIDUAL,RED,BROWN AND GRAY,MOIST,MEDIUM STIFF TO VERY STIFF,SAPROLITIC,SANDY SILT (A-4) AND SILTY CLAY (A-7-5)

434.42 434.42

BROWN AND GRAY,MOIST,MEDIUM DENSE TO DENSE,SAPROLITIC,CLAYEY SAND

158+50.00

RESIDUAL,RED AND BROWN,MOIST,STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

RESIDUAL,RED,BROWN AND GRAY,MOIST,VERY STIFF TO HARD,SAPROLITIC,SANDY SILT (A-4)

432.70 432.70

158+00.00

RESIDUAL,RED AND BROWN,MOIST,STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-5)

430.98 431.04

TAN AND GRAY,DRY TO MOIST,VERY STIFF TO HARD,SANDY SILT (A-4)

157+50.00

SS-220

L_I5696

156+96

RESIDUAL,RED AND BROWN,MOIST,STIFF,HIGHLY PLASTIC,SAPROLITIC,SILTY CLAY (A-7-6)

13 54 49 27

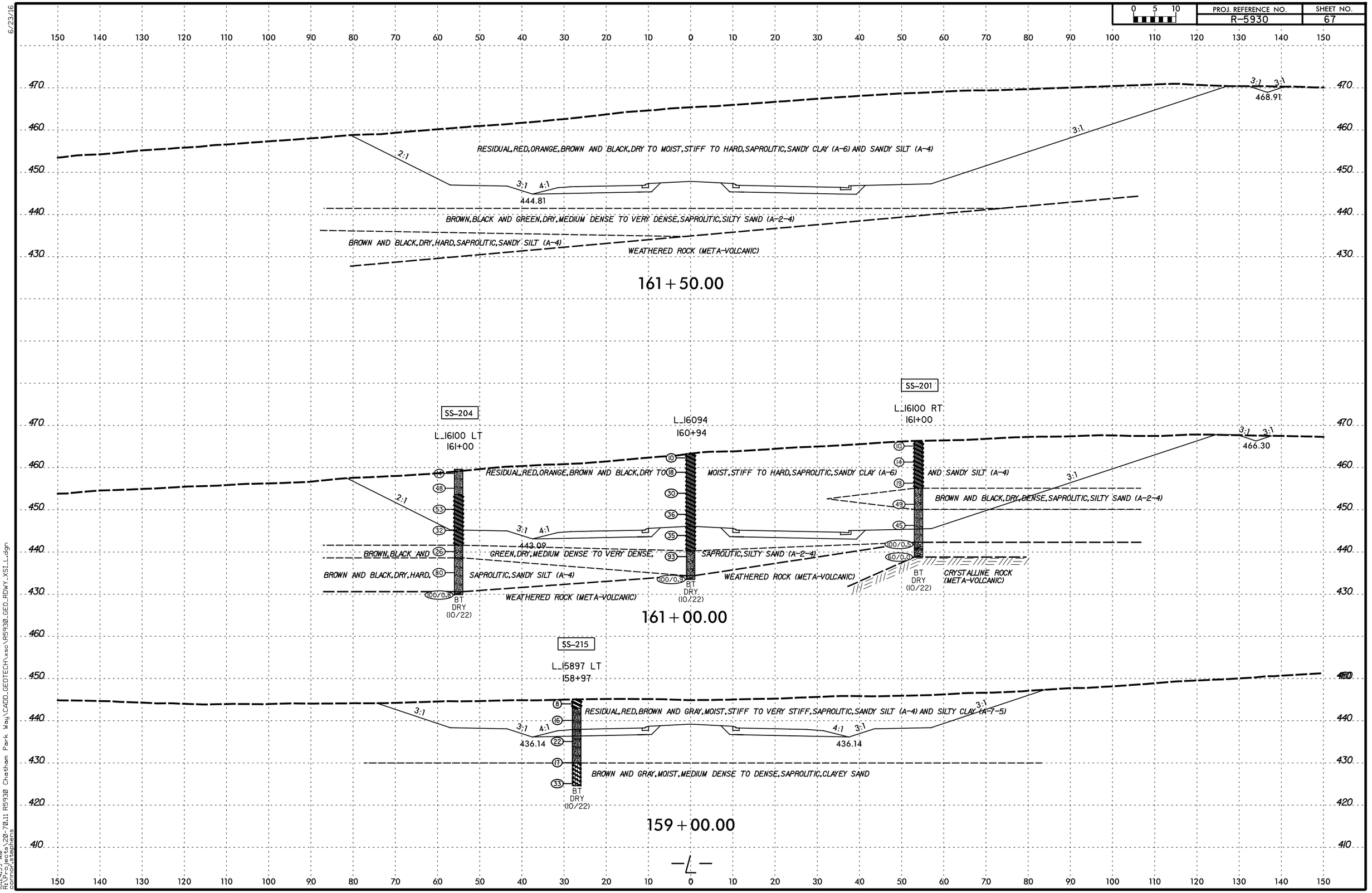
429.25 429.64

TAN AND GRAY,DRY TO MOIST,VERY STIFF TO HARD,SANDY SILT (A-4)

BT
DRY
(10/22)

157+00.00

—L—



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	R-5930	68

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

480 470 460 450 440 430

SS-19
L 16300 RT
163+00

RESIDUAL, RED, MOIST, STIFF, SANDY SILT (A-4)

12
23
RED, BROWN, GRAY AND BLACK, MOIST, STIFF 9 TO HARD, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)
18
33
25
100/0.3
BT
DRY
(10/22)

WEATHERED ROCK (META-VOLCANIC)

3:1 3:1 4:1
451.14
3:1 3:1
471.01

163+00.00

480 470 460 450 440 430

RESIDUAL, RED, MOIST, STIFF, SANDY SILT (A-4)

RED, BROWN, GRAY AND BLACK, MOIST, STIFF TO HARD, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

3:1 3:1 4:1
448.77
3:1 3:1
470.57

WEATHERED ROCK (META-VOLCANIC)

162+50.00

480 470 460 450 440 430

RESIDUAL, RED, MOIST, STIFF, SANDY SILT (A-4)

RED, BROWN, GRAY AND BLACK, MOIST, STIFF TO HARD, HIGHLY PLASTIC, SAPROLITIC, SILTY CLAY (A-7-5)

3:1 3:1 4:1
446.66
3:1 3:1
470.51

WEATHERED ROCK (META-VOLCANIC)

162+00.00

420

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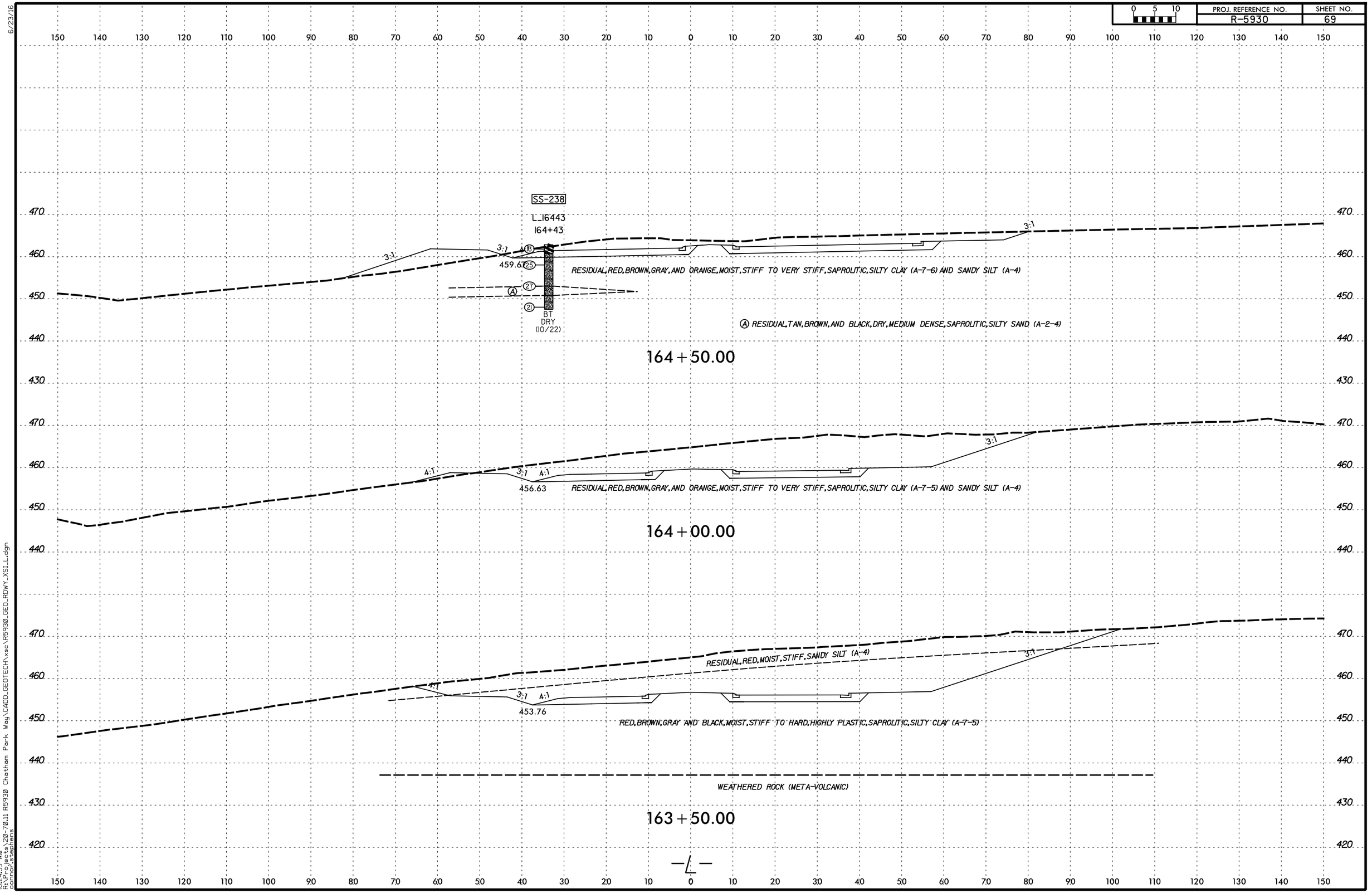

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connor.stephens

6/23/16

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	R-5930	70

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420
410
400
390
380

SS-367
Y9_1385
13+85

RESIDUAL,ORANGE,BROWN,TAN AND WHITE,MOIST, MEDIUM STIFF,SAPROLITIC,SILTY CLAY AND SANDY SILT

BT
DRY
(11/22)

14+00.00

-Y9-

570
560
550
540
530
520

YILPA_1100
11+00

2:1

ROADWAY EMBANKMENT,BROWN,DRY,MEDIUM STIFF,SANDY CLAY WITH TRACE GRAVEL AND ORGANICS

BT
DRY
(10/22)

11+00.00

-YILPA-

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connor.stephens

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	R-5930	71

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

460 450 440 430 420 410

HA-350
Y11_1250
12+50

BULK-1
Y11_1250_BULK
BULK
12+50

Ⓐ

6:1

4:1

RESIDUAL, BROWN, ORANGE, BLACK, TAN AND GRAY, MOIST, SAPROLITIC, SANDY SILT (A-4)

BT
DRY
(10/22)

Ⓐ RESIDUAL, BROWN, ORANGE, AND TAN, DRY TO MOIST, HIGHLY PLASTIC, SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS AND ORGANICS

12 + 50.00

6:1

4:1

Ⓐ

RESIDUAL, BROWN, ORANGE, BLACK, TAN AND GRAY, MOIST, SAPROLITIC, SANDY SILT (A-4)

Ⓐ RESIDUAL, BROWN, ORANGE, AND TAN, DRY TO MOIST, HIGHLY PLASTIC, SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS AND ORGANICS

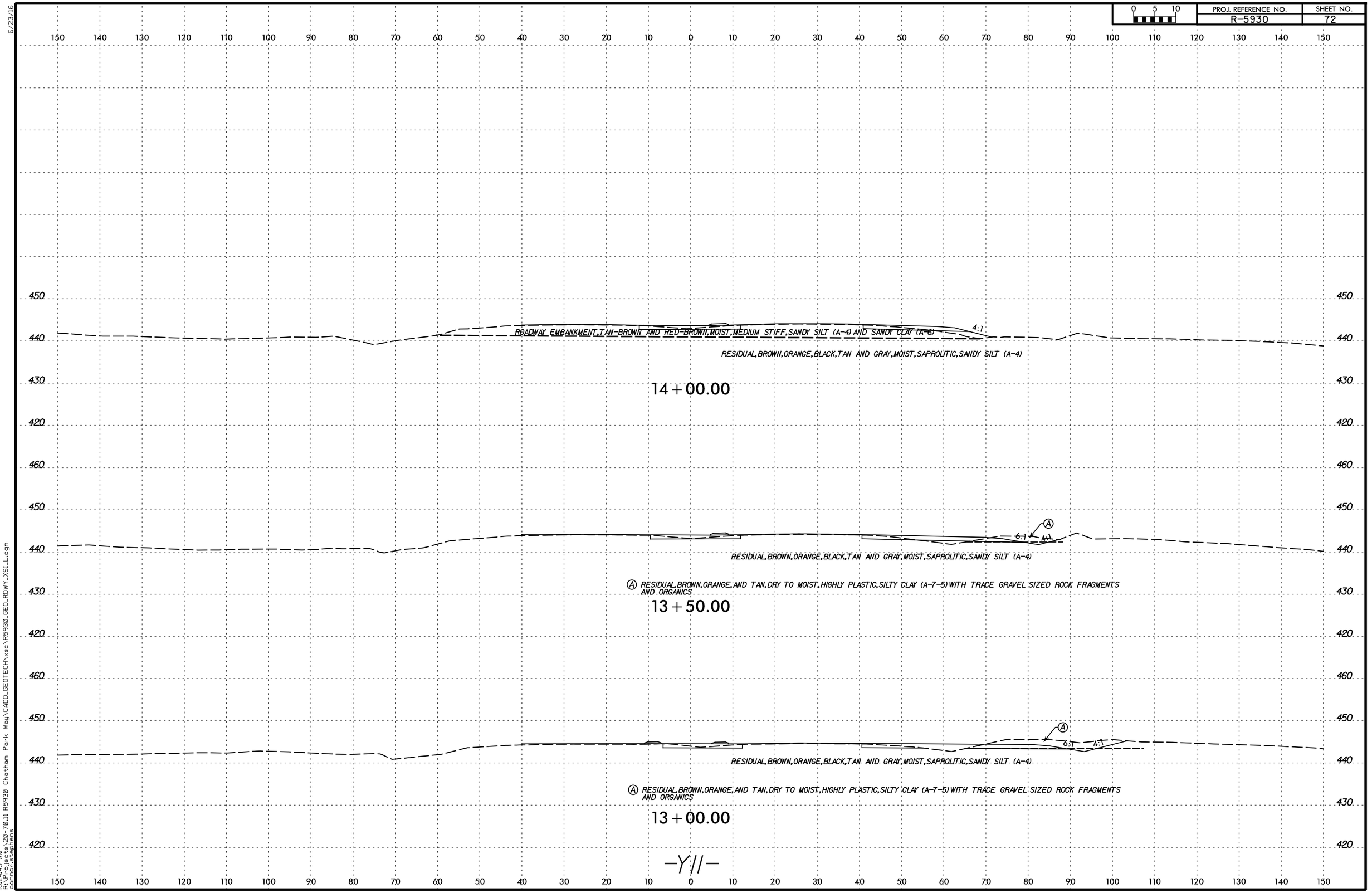
12 + 30.00

6:1

RESIDUAL, BROWN, ORANGE, BLACK, TAN AND GRAY, MOIST, SAPROLITIC, SANDY SILT (A-4)

12 + 20.00

—Y11—



6/23/16

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	R-5930	73

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

460 450 440 430

4:1

RESIDUAL, ORANGE, BROWN, AND RED, DRY TO MOIST, STIFF, HIGHLY PLASTIC, SILTY CLAY (A-7-5)

18+50.00

460 450 440 430

ROADWAY EMBANKMENT, BROWN, SILTY FINE SAND WITH TRACE ROCK FRAGMENTS

5:1 5:1

18+00.00

460 450 440 430 420

S-12 S-9

-Y11- 16+52 WB OSS -Y11- 16+52 WB ISL -Y11- 16+52 WB ISS

16+52 16+52 16+52

ASPHALT

BT FIAD (9/22) BT FIAD (9/22) BT FIAD (9/22)

ROADWAY EMBANKMENT, BROWN, MOIST, LOOSE, SILTY FINE SAND (A-2-4) WITH TRACE ROCK FRAGMENTS

RESIDUAL, BROWN, ORANGE, BLACK, TAN AND GRAY, DRY TO MOIST, SAPROLITIC, SANDY SILT (A-4) AND SANDY CLAY (A-6) WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

16+50.00

460 450 440 430 420

S-13 S-14

-Y11- 15+84 EB ISS

15+84

ASPHALT

ROADWAY EMBANKMENT, TAN-BROWN AND RED-BROWN, SANDY SILT (A-4) AND SILTY CLAY (A-7-5)

BT FIAD (9/22)

RESIDUAL, BROWN, ORANGE, BLACK, TAN AND GRAY, DRY TO MOIST, SAPROLITIC, SANDY SILT (A-4) AND SANDY CLAY (A-6) WITH TRACE ORGANICS AND GRAVEL SIZED ROCK FRAGMENTS

16+00.00

-Y11-

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nathanmohs

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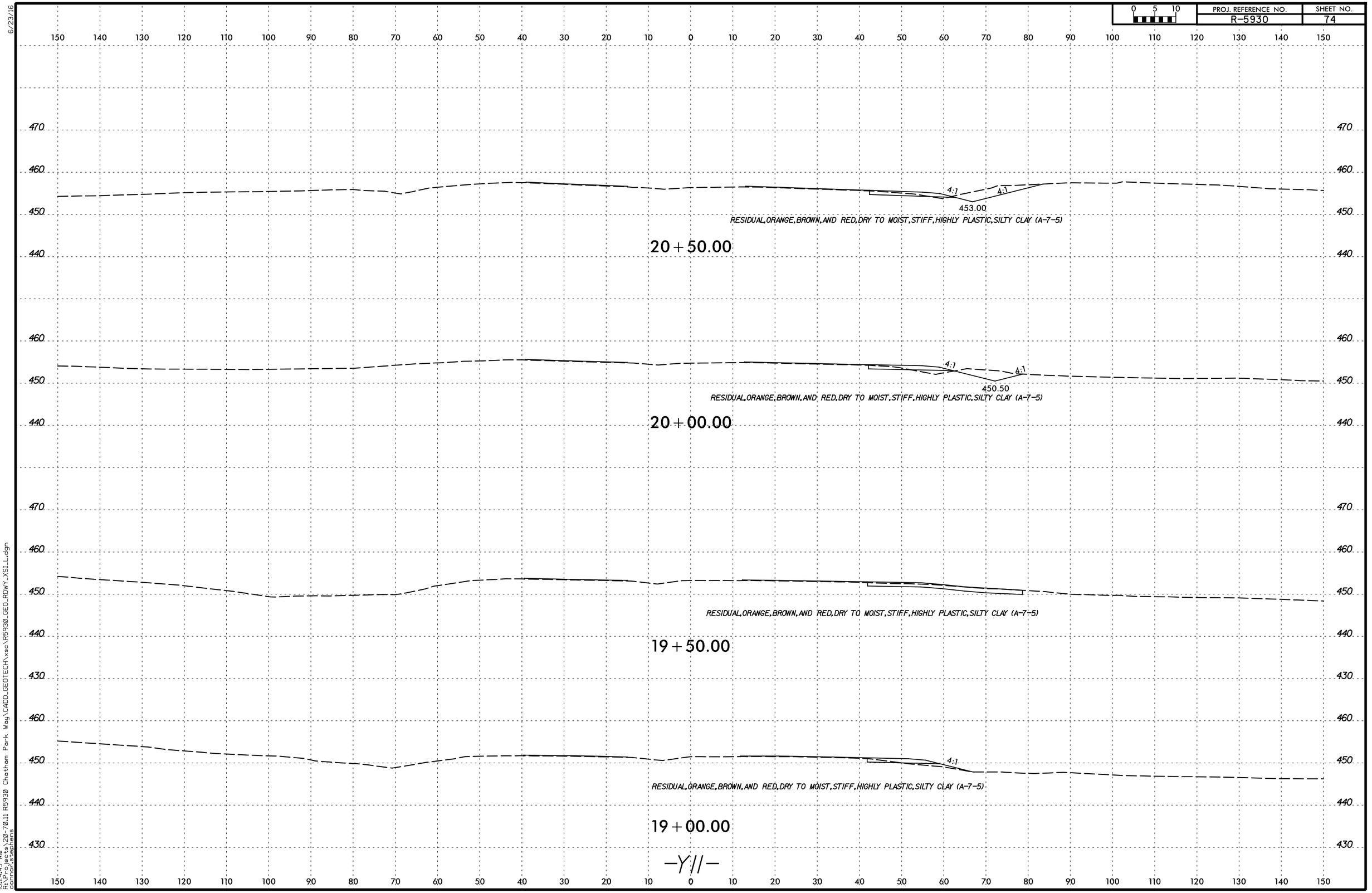

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	R-5930	75

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470 460 450 440

Ⓐ

4:1

RESIDUAL,BROWN,ORANGE,RED AND GRAY,DRY TO MOIST,STIFF TO VERY STIFF,SAPROLITIC,SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

Ⓐ ROADWAY EMBANKMENT,BROWN-GRAY,BROWN-ORANGE AND BROWN,MOIST,MEDIUM STIFF,SILTY CLAY (A-7-5) AND SANDY CLAY (A-6)

22+50.00

4:1 4:1

456.50

RESIDUAL,ORANGE,BROWN,AND RED,DRY TO MOIST,STIFF,HIGHLY PLASTIC,SILTY CLAY (A-7-5)

22+00.00

4:1 4:1

455.33

RESIDUAL,ORANGE,BROWN,AND RED,DRY TO MOIST,STIFF,HIGHLY PLASTIC,SILTY CLAY (A-7-5)

21+50.00

BULK-2

YII_2100_BULK

BULK 21+00

4:1 4:1

454.17

RESIDUAL,ORANGE,BROWN,AND RED,DRY TO MOIST,STIFF,HIGHLY PLASTIC,SILTY CLAY (A-7-5)

21+00.00

—Y//—

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

490 480 470 460 450 440 430 420

S-7
-Y11- 26+17 WB LTL
26+17
ASPHALT
RESIDUAL,BROWN,MOIST,MEDIUM STIFF,SANDY CLAY (A-6)
WEATHERED ROCK (META-VOLCANIC)
BT
FIAD
(9/22)

26+00.00

SS-238
L_16443
-Y11- 24+08
ALSO ON -L- 164+43
4:1
4:1
13
25
27
21
RESIDUAL,BROWN,ORANGE,RED AND GRAY,DRY TO MOIST,STIFF TO VERY STIFF, SAPROLITIC,SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS
TAN,BROWN AND BLACK,DRY,MEDIUM DENSE,SAPROLITIC,SILTY SAND (A-2-4)
TAN,ORANGE AND GRAY,MOIST,VERY STIFF,SAPROLITIC,SANDY SILT (A-4)
BT
DRY
(10/22)

24+00.00

Ⓐ
4:1
RESIDUAL,BROWN,ORANGE,RED AND GRAY,DRY TO MOIST,STIFF TO VERY STIFF,SAPROLITIC,SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS
Ⓐ ROADWAY EMBANKMENT,BROWN-GRAY,BROWN-ORANGE AND BROWN,MOIST,MEDIUM STIFF,SILTY CLAY (A-7-5) AND SANDY CLAY (A-6)

23+50.00

S-15
S-16
-Y11- 23+07 EB LTL
23+07
ASPHALT
BT
FIAD
(9/22)

S-1
S-2
-Y11- 23+07 EB OSL
-Y11- 23+07 EB OSS
23+07
23+07
Ⓐ
4:1
BT
FIAD
(9/22)
BT
FIAD
(9/22)
RESIDUAL,BROWN,ORANGE,RED AND GRAY,DRY TO MOIST,STIFF TO VERY STIFF,SAPROLITIC,SANDY SILT (A-4) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS
Ⓐ ROADWAY EMBANKMENT,BROWN-GRAY,BROWN-ORANGE AND BROWN,MOIST,MEDIUM STIFF,SILTY CLAY (A-7-5) AND SANDY CLAY (A-6)

23+00.00

-Y11-

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nathan.mohs

6/23/16

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	R-5930	77

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480
470
460
450

S-6

-Y11- 33+07 WB ISS

33+07

ASPHALT

BT FIAD (9/22)

RESIDUAL, TAN-BROWN, MOIST, LOOSE, SILTY FINE SAND (A-2-4)

33+00.00

490
480
470
460
450

S-11

-Y11- 30+00 WB OSL

-Y11- 30+00 WB OSS

30+00 30+00

ASPHALT

BT FIAD (9/22)

BT FIAD (9/22)

S-17
S-18

-Y11- 30+03 EB ISL

30+03

-Y11- 30+03 EB OSS

30+03

ASPHALT

BT FIAD (9/22)

BT FIAD (9/22)

ROADWAY EMBANKMENT, BROWN, BROWN-ORANGE, GRAY AND RED-BROWN, MOIST, MEDIUM STIFF, FINE SANDY CLAY (A-6) AND SILTY CLAY (A-7-5) WITH TRACE GRAVEL SIZED ROCK FRAGMENTS

30+00.00

-Y11-

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nathan.mohs

PROJECT REFERENCE NO.	SHEET NO.
R–5930	78

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

APPENDIX A
LABORATORY TESTING SUMMARY

REFERENCE: R–5930

PROJECT: 48548

ICE of CAROLINAS, PLLC

Laboratory Testing Summary

Project Number: 48548.1.1
TIP Number: R-5930
City/County/State: Pittsboro, Chatham County, North Carolina
Description: Chatham Park Way New Location Roadway from North of Suttles Road to US 15/501

Boring No.	Sample No.	Station	Offset (feet)	Depth Interval (feet)	AASHTO Class.	L.L.	P.I.	% by Weight				% Retained #4 Sieve	% Passing (sieves)			% Moisture	% Organic
								Coarse Sand	Fine Sand	Silt	Clay		#10	#40	#200		
L_4504	SS-2	45+04	50 LT	3.4-4.9	A-7-5(14)	64	17	12.1	22	22	53.9	0.6	85.1	78.5	66.9	31.0%	-
L_4700 RT	SS-9	47+00	43 RT	8.6-10.1	A-7-5(17)	50	17	3.6	9	36.1	51.3	0.6	92.8	90.9	83.8	28.4%	-
L_4705 LT	SS-11	47+05	39 LT	0.0-1.5	A-7-5(29)	63	30	4	4.5	32	59.5	0.8	90.4	88	83.9	26.6%	-
L_4900	SS-19	49+00	71 LT	0.0-1.5	A-7-6(14)	43	17	5.5	5.6	43.6	45.3	4	87.6	84.2	79.4	22.2%	-
L_4900	SS-24	49+00	71 LT	24.0-25.5	A-7-5(16)	55	10	1.8	5	41.7	51.5	0	99	98.2	94	37.5%	-
L_5100 LT	SS-33	51+00	60 LT	0.0-1.5	A-7-6(19)	49	20	4.2	5.2	41.6	49	5.3	91.2	89.2	84	20.7%	-
L_5100	SS-43	51+00	10 RT	13.9-15.4	A-5(12)	52	7	2.9	11.5	51.5	34.1	0	99.4	97.9	90	29.3%	-
L_5300	SS-46	53+00	25 LT	0.0-1.5	A-7-6(20)	51	23	4.3	4.6	28.6	62.5	3.7	86.7	84.1	80.1	20.8%	-
L_5500	SS-51	55+00	35 LT	0.0-1.5	A-7-6(11)	45	16	6.6	7.2	36.5	49.7	2.2	79.5	76	70	21.4%	-
L_5703	SS-54	57+03	39 RT	0.0-1.5	A-6(10)	40	16	8.7	5	38	48.3	11.4	79.5	73.6	69.9	16.3%	-
L_5903	SS-58	59+03	12 LT	0.0-1.5	A-7-5(43)	75	38	3.3	4.1	11	81.6	0.4	98.8	96.6	92.6	33.7%	-
L_6100	SS-62	61+00	15 RT	0.0-1.5	A-7-5(47)	75	40	1.8	2.5	23.6	72.1	0.4	98.7	97.5	95.2	27.3%	-
L_6300 LT	SS-66	63+00	44 LT	0.0-1.5	A-7-5(34)	68	33	6.9	6	19	68.1	0.2	97.8	92.6	86.8	29.4%	-
L_6300 RT	SS-74	63+00	62 RT	8.4-9.4	A-7-5(35)	72	26	1.3	4	16.9	77.8	0	99.9	99.1	96	30.4%	-
L_6500	SS-78	65+00	15 LT	3.7-5.2	A-7-5(18)	50	15	1.1	11.3	35.5	52.1	0	100	99.4	91.7	21.0%	-
L_6705	SS-82	67+05	15 LT	0.0-1.5	A-7-5(31)	60	28	3.9	5.2	24.8	66.1	0.2	98.6	95.9	91.2	24.5%	-
L_6816	SS-92	68+16	25 RT	0.0-1.5	A-4(5)	34	8	19.5	10.6	30.2	39.7	3.1	96.5	81.1	70.1	17.0%	-
L_6855 LT	SS-89	68+55	98 LT	0.0-1.5	A-6(7)	34	11	9.2	8.9	34.2	47.7	13.7	85.1	79.3	71.9	18.0%	-
L_6950	SS-101	69+50	9 LT	0.0-1.5	not enough material			20.4	10.5	39.5	29.6	14.4	67.9	55.8	48.9	16.8%	-
L_7113	SS-104	71+13	15 LT	0.0-1.5	A-7-5(35)	62	30	2.4	3.9	25.5	68.2	0	100	98.3	94.9	24.8%	-
L_7300	SS-108	73+00	12 RT	0.0-1.5	not enough material											23.2%	-
L_7500 RT	SS-118	75+00	38 RT	18.7-20.2	A-4(3)	32	7	15.8	29.7	37.2	17.3	0	99.8	90.5	62.2	19.3%	-
L_7505 LT	SS-122	75+05	38 LT	0.0-1.5	A-5(11)	47	7	4.7	3.9	14.6	76.8	0.9	98.3	94.4	91.1	25.8%	-
L_7700	SS-129	77+00	12 LT	3.5-5.0	A-7-5(9)	50	18	12.5	10.1	36.9	40.5	20.8	72	65.8	57.5	14.9%	-
L_7900 RT	SS-138	79+00	43 RT	3.7-5.2	A-7-5(8)	49	19	18.5	15	33.6	32.9	2.6	78.7	68.9	54.9	16.1%	-
L_7903 LT	SS-133	79+03	35 LT	0.0-1.5	A-7-5(18)	67	30	9.9	16.5	14.7	58.9	7	77.9	72.5	61.3	31.7%	-
L_8303	SS-147	83+03	39 LT	0.0-1.5	A-4(0)	29	7	20.2	15.7	34.5	29.6	13.3	63.2	52.7	43.7	16.4%	-
L_8504	SS-150	85+04	28 RT	3.7-5.2	A-4(1)	30	4	25.7	12.4	34.5	27.4	2.5	86.1	66.9	56.1	13.7%	-
L_8697 RT	SS-157	86+97	25 RT	17.6-19.1	A-7-5(59)	93	56	1.3	3.4	4.7	90.6	0	91.8	91.4	88.3	46.5%	-
L_8700 LT	SS-158	87+00	48 LT	0.0-1.5	A-7-5(27)	66	32	5.3	8.8	13.4	72.5	1.6	85.5	82.1	75.9	27.5%	-
L_8906	SS-164	89+06	17 RT	3.5-5.0	A-7-5 (32)	73	26	2.3	8.9	7.1	81.7	0	100	99.1	90.8	33.9%	-
L_9100	SS-169	91+00	34 LT	3.2-4.7	A-7-5 (26)	61	24	4.4	9.1	17.3	69.2	0.3	99.6	97.1	88.4	28.0%	-
L_9304	SS-174	93+04	25 RT	0.0-1.5	A-7-5 (27)	57	26	3.3	5.1	20.1	71.5	4.7	95.2	92.8	88.8	24.7%	-
L_9490 LT	SS-185	94+90	20 LT	3.3-4.8	A-7-5 (34)	73	28	1.3	6.5	17.1	75.1	0	96.7	96	91.5	28.4%	-
L_9496 RT	SS-178	94+96	22 RT	0.0-1.5	A-7-5 (45)	80	40	1.5	3	11.7	83.8	0.2	94.1	93.3	90.7	33.0%	-
L_10100	HA-345	101+00	20 RT	0.0-2.2	A-7-5(26)	70	30	4.9	6.9	34	54.2	3.4	84.6	81.8	76.1	32.0%	-

Laboratory Testing Summary

Project Number: 48548.1.1
TIP Number: R-5930
City/County/State: Pittsboro, Chatham County, North Carolina
Description: Chatham Park Way New Location Roadway from North of Suttles Road to US 15/501

Boring No.	Sample No.	Station	Offset (feet)	Depth Interval (feet)	AASHTO Class.	L.L.	P.I.	% by Weight				% Retained #4 Sieve	% Passing (sieves)			% Moisture	% Organic
								Coarse Sand	Fine Sand	Silt	Clay		#10	#40	#200		
L_10300	HA-347	103+00	39 RT	0.0-0.8	A-7-5(17)	49	19	9	8.6	36.8	45.6	4.5	93.3	87.4	79	24.9%	-
L_10700	HA-353	107+00	14 RT	0.0-0.8	A-7-6(11)	42	13	10.8	9.8	40	39.4	0.9	98.4	90.4	80.6	30.9%	-
L_10829	HA-355	108+29	62 LT	0.0-0.6	A-7-5(10)	44	14	12.2	15.5	39.4	33.4	5	93.6	86.3	71.4	25.8%	-
L_10897	HA-357	108+97	16 RT	0.0-0.7	A-7-6(10)	41	12	8	13.3	41.7	37	4.6	92.2	87	76.1	23.1%	-
L_11000	HA-360	110+00	21 RT	0.0-0.5	A-7-5(11)	49	15	18.5	10.8	37.7	33	0	95.8	81.9	69.9	29.7%	-
L_11300	HA-363	113+00	0	0.0-0.8	A-7-6(12)	41	13	9.2	9.1	43.3	38.4	0.5	98.3	92.3	82.5	28.4%	-
L_11300	HA-365	113+00	0	4.9-5.5	A-7-5(2)	47	6	33.2	17.6	18.8	30.4	0.9	94.9	71.3	49.7	21.9%	-
L_11500	HA-319	115+00	14 LT	0.6-0.9	A-7-6(20)	50	21	4.5	5.4	40.6	49.5	2.6	90.8	87.9	83.3	20.2%	-
L_11700 LT	HA-329	117+00	30 LT	4.2-4.6	A-7-5(18)	51	15	2.8	8	41.5	47.7	0	99.4	98.2	90.5	22.0%	-
L_11700 RT	HA-323	117+00	30 RT	1.0-1.6	A-7-5(34)	68	33	2.9	6.8	30	60.3	0.2	94	92.2	86.9	27.2%	-
L_11900	HA-332	119+00	13 LT	0.9-1.3	A-7-5(40)	78	33	3.5	4.1	23.6	68.8	0.1	97.7	95.4	91.4	35.2%	-
L_12100	HA-310	121+00	10 LT	2.8-3.3	A-7-5 (29)	68	23	3.9	6.1	15.2	74.8	0	99.9	97.6	91.5	33.5%	-
L_12438	HA-307	124+38	67 RT	3.3-3.6	A-7-6 (14)	42	17	3.4	15.8	34.7	46.1	1.8	94.9	93.7	80.5	32.1%	-
L_12713	SS-260	127+13	67 RT	0.0-1.5	A-7-6(23)	51	22	4.4	6.5	29.7	59.4	0.7	98.8	96.1	89.7	-	-
L_12912	SS-257	129+12	25 LT	0.0-1.5	A-7-6(19)	49	21	5.3	7.7	31.7	55.3	1.6	93	89.7	82.9	-	-
L_13100	SS-254	131+00	30 LT	0.0-1.5	A-7-5(27)	56	24	1.6	3.7	29.3	65.4	0	96.7	95.8	92.9	-	-
L_13306	SS-251	133+06	32 LT	0.0--1.5	A-7-6(16)	46	18	5.9	7.7	27.3	59.1	3.4	90.2	86.6	79.7	-	-
L_13500	SS-243	135+00	14 RT	4.3-5.8	A-4(1)	33	1	13.1	18.2	43.9	242.8	0.2	97.3	89.1	71.3	-	-
L_13700	SS-246	137+00	14 RT	4.1-5.6	A-5(5)	46	7	22.7	19	30.9	27.4	0	98.9	84.3	61.6	35.9%	-
L_13900	SS-245B	139+00	28 RT	0.0-1.5	A-7-6(18)	47	20	5.5	7.1	28.3	59.1	0.9	92.8	89.6	82.9	-	-
L_14100	SS-248	141+00	19 RT	0.0-1.5	A-7-6(13)	42	17	9.2	8.7	34.9	47.2	1.3	91.8	85.9	77.2	-	-
L_14352	SS-265	143+52	14 RT	0.0-1.5	A-7-5(22)	60	22	5.1	8.1	26.6	60.2	3.1	90.5	87.4	80.5	-	-
L_14500	SS-270	145+00	37 RT	8.7-10.3	A-4(7)	39	10	27.7	25.3	33.5	13.5	0.2	92.4	76.5	74.4	-	-
L_14700	SS-273	147+00	21 RT	3.7-5.3	A-7-5(19)	60	28	5.4	11.6	38.8	44.2	2.4	77.7	75.2	67.5	-	-
L_14894	SS-234	148+94	30 LT	0.0-1.5	A-4 (1)	27	4	20.4	13.6	43.3	22.7	3.4	90	74	63.5	14.3%	-
L_15100	SS-231	151+00	3 LT	0.0-1.5	A-6 (9)	35	13	10.8	10.5	35.5	43.2	2	92.3	83.8	75.9	19.0%	-
L_15300	SS-227	153+00	25 RT	0.0-1.5	A-4 (5)	39	7	18.4	13.9	32.4	35.3	0	96.8	83.7	69.2	14.1%	-
L_15493	SS-225	154+93	15 LT	3.7-5.2	A-7-5 (32)	67	29	5.1	7.4	31.4	56.1	0.7	98.5	95.2	88.2	33.4%	-
L_15696	SS-220	156+96	34 RT	0.0-1.5	A-7-6 (36)	74	47	6.5	5.3	19.1	69.1	0.9	81.9	77.7	73.5	21.7%	-
L_15897 LT	SS-215	158+97	27 LT	0.0-1.5	A-7-5 (22)	56	25	8.4	7.7	22.6	61.3	4.8	92.8	86.7	79.9	26.3%	-
L_16100 LT	SS-204	161+00	55 LT	8.5-10.0	A-6 (10)	40	11	5.2	14.8	52.2	27.8	0.2	5	92.3	81.9	8.8%	-
L_16100 RT	SS-201	161+00	54 RT	18.8-20.3	A-4 (1)	40	8	35.6	21.2	24.9	18.3	0	92.7	68	44.2	16.6%	-
L_16300 RT	SS-191	163+00	24 RT	3.9-5.4	A-7-5 (37)	78	27	1.1	3.3	15.3	80.3	0	97.3	96.8	94	29.9%	-
Y11_1250	HA-350	12+50	80 RT	0.0-0.7	A-7-5(16)	48	17	8.5	8.7	39.1	43.7	0	96.6	90.5	82.4	18.4%	-
Y9_1385	HA-367	13+85	4 LT	0.0-0.5	A-7-5(24)	53	23	5.3	6.3	29.6	58.8	0.2	97.1	93.5	87.6	31.6%	-
Y11_2408	SS-238	24+08	95 RT	0.0-1.5	A-7-6 (12)	44	19	17.9	9.3	5.8	67	1	92.3	77.7	70	17.8%	-

Laboratory Testing Summary

Project Number: 48548.1.1
TIP Number: R-5930
City/County/State: Pittsboro, Chatham County, North Carolina
Description: Chatham Park Way New Location Roadway from North of Suttles Road to US 15/501

Boring No.	Sample No.	Station	Offset (feet)	Depth Interval (feet)	AASHTO Class.	L.L.	P.I.	% by Weight				% Retained #4 Sieve	% Passing (sieves)			% Moisture	% Organic
								Coarse Sand	Fine Sand	Silt	Clay		#10	#40	#200		
-Y11- 15+84 EB ISS	S-13	15+84	12 RT	1.4-3.0	A-4 (1)	28	8	23.1	26.7	29.7	20.5	5.0	82	71	46	12.8%	-
-Y11- 15+84 EB ISS	S-14	15+84	12 RT	3.0-4.3	A-7-6 (15)	45	21	11.2	15.7	27.7	45.4	2.0	95	87	74	23.7%	-
-Y11- 23+07 EB LTL	S-15	23+07	6 RT	1.3-3.3	A-7-6 (26)	57	32	10.9	9.8	25.5	53.8	1.0	95	87	78	27.1%	-
-Y11- 23+07 EB LTL	S-16	23+07	6 RT	3.3-4.3	A-6 (6)	37	16	23.2	17.3	25.1	34.4	8.0	85	71	54	38.6%	-
-Y11- 23+07 EB OSL	S-1	23+07	36 RT	1.2-2.5	A-7-6 (25)	56	27	5.4	11.7	31.0	51.9	2.0	96	92	84	28.1%	-
-Y11- 23+07 EB OSL	S-2	23+07	36 RT	2.5-4.3	A-7-5 (24)	57	27	4.5	12.8	28.5	54.2	2.0	93	90	82	30.1%	-
-Y11- 30+03 EB ISL	S-17	30+03	17 RT	1.5-2.5	A-6 (1)	32	12	20.2	17.1	34.7	28.0	7.0	59	51	40	19.6	-
-Y11- 30+03 EB ISL	S-18	30+03	17 RT	2.5-4.3	A-7-6 (30)	63	34	10.0	7.2	26.1	56.7	2.0	95	87	81	25.8%	-
-Y11- 16+52 WB OSS	S-12	16+52	42 LT	1.4-4.3	A-1-b (0)	25	6	45.2	21.8	20.7	12.3	21.0	65	43	24	7.3%	-
-Y11- 16+52 WB ISS	S-9	16+52	14 LT	1.3-4.3	A-2-4 (0)	25	6	45.6	20.6	18.2	15.6	16.0	70	46	26	9.3%	-
-Y11- 26+17 WB LTL	S-7	26+17	13 LT	1.4-4.0	A-6 (2)	37	17	32.8	16.4	22.8	28.0	28.0	68	51	37	12.2%	-
-Y11- 30+00 WB OSS	S-11	30+00	41 LT	0.7-4.3	A-6 (4)	36	14	21.0	14.0	32.4	32.6	11.0	70	59	49	18.0%	-
-Y11- 33+07 WB ISS	S-6	33+07	13 LT	0.8-3.3	A-2-4 (0)	30	9	32.3	16.3	29.8	21.6	24.0	64	47	35	7.2%	-
Y11_12+50	Bulk 1	12+50	98 RT	0.0-3.0	A-7-5 (22)	66	29	4.0	6.5	15.6	73.9	3	78	76	71	33.7%	-
Y11_21+00	Bulk 2	21+00	94 RT	0.0-3.0	A-7-5 (45)	79	40	2.6	4.5	15.0	77.9	0	95	94	90	39.1%	-
L_45+00	Bulk 3	45+00	50 LT	0.0-3.0	A-4 (5)	38	8	15.1	14.6	46.8	23.5	0	89	79	66	13.3%	-
L_75+00	Bulk 4	75+00	38 LT	0.0-3.0	A-7-6 (11)	44	20	15.2	18	27.4	39.4	1	90	80	65	20.5%	-