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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2525C	1	475

REFERENCE: U-2525C

PROJECT: 34821

SEE SHEET 3 FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY GUILFORD

PROJECT DESCRIPTION GREENSBORO LOOP FROM US 29 NORTH OF GREENSBORO TO SR 2303 LAWNDALE DRIVE

INVENTORY

CONTENTS

LINE	STATION	PLAN	PROFILE
-L-	249+73.04 - 552+99.67	4 - 25	39 - 62
-LACFLY-	10+00 - 46+05.71	5,29,30	63 - 65
-Y4-	12+50 - 45+50	34,3,35	66 - 68
-Y4LPA-	10+00 - 18+94.25	14	69
-Y4LPC-	10+00 - 18+99.87	14	70
-Y4RPA-	10+00 - 26+58.29	14,15	71
-Y4RPC-	10+00 - 25+48.98	13,14	72
-Y5-	17+00 - 28+00	17,36	73
-Y6-	10+00 - 38+00	37,18,38	74
-Y6LPA-	10+00 - 20+42.49	18,19	75
-Y6LPC-	10+00 - 20+80.90	18	76
-Y6RPA-	10+00 - 29+25.97	18,19	77
-Y6RPC-	10+00 - 27+72.25	17,18	78
-Y7-	20+86 - 29+94	21	79
-Y13LPC-	19+31.01 - 23+54.27	5	80
-Y13LPD-	10+00 - 14+50	5	81
-Y13RPA-	10+00 - 27+72.75	5,28	82
-Y13RPD-	10+00 - 38+32.74	5,6,29	83
-Y16-	14+19 - 22+25	6	84
-Y4DET-	11+38.51 - 22+13.42	14	85
-Y5DET-	10+89.44 - 18+24.96	17	85
-Y7DET-	11+15.29 - 18+19.35	21	86

SECTIONS

SECTION	TITLE	SHEETS
1	CROSS SECTIONS -L- LEFT	87 - 222
2	CROSS SECTIONS -L- RIGHT	223 - 370
3	CROSS SECTIONS -Y- LINES	371 - 447

APPENDICES

APPENDIX	TITLE	SHEETS
A	CPT LOGS	448 - 467

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.

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DATE MAY 2017

S&ME

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PROJECT REFERENCE NO.	SHEET NO.
U-2525C	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											GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
#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			
MATERIAL PASSING #40 LL	—		—	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
PI	6 MX		NP	10 MX	10 MX	11 MN	11 MN	10 MX	10 MX	11 MN	11 MN			
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
GRAIN SIZE 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) PL — PLASTIC LIMIT	- WET - (W)	SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
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
- [X] CME-550
- [ ] VANE SHEAR TEST
- [ ] PORTABLE HOIST
- [X] CME-850
- [X] DIETRICH D50

ADVANCING TOOLS:
- [ ] CLAY BITS
- [ ] 6" CONTINUOUS FLIGHT AUGER
- [ ] 8" HOLLOW AUGERS
- [ ] HARD FACED FINGER BITS
- [ ] TUNG.-CARBIDE INSERTS
- [ ] CASING [ ] W/ ADVANCER
- [ ] TRICONE ____" STEEL TEETH
- [ ] TRICONE ____" TUNG.-CARB.
- [ ] CORE BIT
- [X] 3 1/4" HSA

HAMMER TYPE:
- [X] AUTOMATIC
- [ ] MANUAL

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

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

ROCK DESCRIPTION

HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED. AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK.
ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:

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

WEATHERING

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

ROCK HARDNESS

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

FRACTURE SPACING

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

BEDDING

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

INDURATION

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

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

TERMS AND DEFINITIONS

ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.

AQUIFER - A WATER BEARING FORMATION OR STRATA.

ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.

ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.

ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE.

CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.

COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.

CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.

DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.

DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.

DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.

FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.

FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.

FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.

FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.

FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.

JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.

LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT.

LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.

MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.

PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM.

RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.

ROCK QUALITY DESIGNATION (RQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.

SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.

SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.

SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.

STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.

STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.

STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.

TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.

BENCH MARK:

ELEVATION: FEET

NOTES:

FIAD - FILLED IMMEDIATLEY AFTER DRILLING

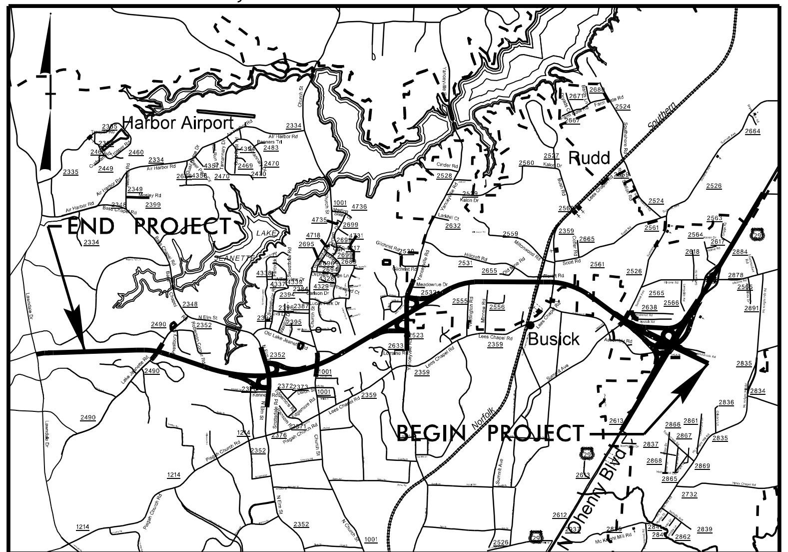
GROUNDLINE TAKEN FROM .TIN FILE PROVIDED BY NCDOT, DATED 05/13/2014

DATE: 8-15-14

09/08/99

TIP PROJECT: U-2525C

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Plan Sheet Symbols
See Sheet 1-C For Survey Control Sheet



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

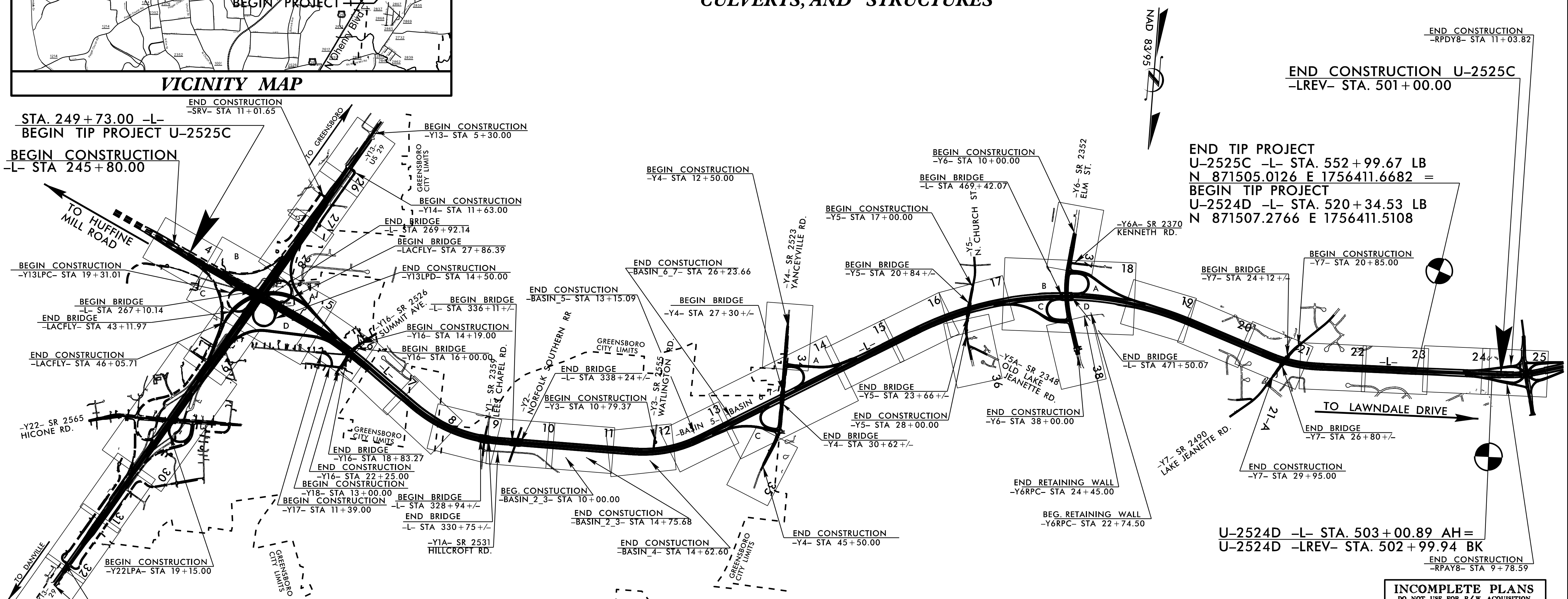
GUILFORD COUNTY

LOCATION: GREENSBORO LOOP FROM US 29 NORTH OF GREENSBORO TO EAST OF LAWNDALE DRIVE

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, CULVERTS, AND STRUCTURES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2525C	3	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34821.1.5		PE	

FDFI PLANS



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF GREENSBORO.
THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2018 = 63160
ADT 2040 = 96400
K = 10 %
D = 60 %
T = 14 % *
V = 70 MPH
* TTST = 8% DUAL = 6%
FUNC CLASS = INTERSTATE "STATEWIDE TIER"

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-2525C = 0.000 MILES
LENGTH STRUCTURE TIP PROJECT U-2525C = 0.000 MILES
TOTAL LENGTH OF TIP PROJECT U-2525C = 5.744 MILES

Prepared for the North Carolina Department of Transportation in the Office of:
WETHERILL ENGINEERING
1223 JONES FRANKLIN ROAD
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
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2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MAY 20, 2016

LETTING DATE: JULY 17, 2018

EDWARD G. WETHERILL, PE
PROJECT ENGINEER

BOB A. MAY, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACT: REKHA PATEL, PE
ROADWAY DESIGN: PROJECT ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

CONTRACT:

$$$$SYSTIME$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

May 19, 2017

STATE PROJECT: Geotechnical Report - Inventory
F.A. PROJECT: 34821.1.5 (U-2525)
COUNTY: Guilford
DESCRIPTION: Greensboro Eastern Loop From US 29 North of Greensboro to SR 2303 (Lawndale Drive)

SUBJECT: Geotechnical Report - Inventory

Project Description

The project is part of the Greensboro Outer Loop along new alignment between US 29 north and SR 2303 (Lawndale Drive) in Greensboro, North Carolina (249+73 to 552+99.67 -L-). The total length of the project is 5.744 miles. Based on our review of cross sections provided by NCDOT, embankment fill heights of up to 75 feet are anticipated with cut depths of as much as 40 feet proposed. The project will also include improvements to multiple intersections along the alignment. The alignments investigated include -Y4-, -Y5-, -Y6-, -Y7-, -Y16-, -LACFLY-, -Y4LPA-, -Y4RPA-, -Y4LPC-, -Y4RPC-, -Y6LPA-, -Y6RPA-, -Y6LPC-, -Y6RPC-, -Y13RPA-, -Y13LPC-, -Y13LPD-, -Y13RPD-, -Y4DET-, -Y5DET- and -Y7DET-. In addition to these alignments the following culvert locations along -L- were investigated: STA 365+50, STA 382+25, STA 431+05, STA 472+14, and STA 493+30.

In order to explore the general subsurface conditions at the project site, S&ME drilled a total of 309 soil test borings as shown on Sheets 5 through 38 between November 3, 2015 and March 3, 2016. The borings locations were selected and located in the field by S&ME personnel using a handheld Global Positioning System (GPS) unit.

Five drill rigs were used to complete the project. Two track mounted Diedrich D-50 rigs, a track mounted CME-850 and two ATV Mounted, CME-550X drill rigs were used to advance the borings. Both hollow-stem, continuous flight augers and mud rotary drilling techniques were used. Standard Penetration Tests (SPT tests) were performed at designated intervals in the soil test borings in general accordance with ASTM D1586 to provide an index for estimating soil strength and density and to provide samples for soil classification. SPT tests were performed with a hydraulic automatic hammer (Autohammer). In addition, Cone Penetration Test (CPT) testing was performed to supplement the test boring data at 20 locations. All boreholes were backfilled with soil cuttings after drilling was completed.

The following alignments were investigated for this project:

Line	Station (+/-)		
-L-	249+73.04	**to**	552+99.67
-Y4-	12+50	**to**	45+50
-Y5-	17+00	**to**	28+00
-Y6-	10+00	**to**	38+00
-Y7-	20+86	**to**	29+94
-Y16-	14+19	**to**	22+25
-LACFLY-	10+00	**to**	46+05.71
-Y4LPA-	10+00	**to**	19+26.25
-Y4RPA-	10+00	**to**	26+90.29
-Y4LPC-	10+00	**to**	19+19.87
-Y4RPC-	10+00	**to**	25+68.99
-Y6LPA-	10+00	**to**	20+77.52
-Y6RPA-	10+00	**to**	29+61.05
-Y6LPC-	10+00	**to**	21+16.88
-Y6RPC-	10+00	**to**	28+08.22
-Y13RPA-	10+00	**to**	27+72.75
-Y13LPC-	10+00	**to**	23+54.27
-Y13LPD-	10+00	**to**	24+01.92
-Y13RPD-	10+00	**to**	38+32.74
-Y4DET-	11+38.51	**to**	22+13.42
-Y5DET-	10+89.44	**to**	18+24.96
-Y7DET-	11+15.29	**to**	18+19.35

Areas of Special Geotechnical Interest

The following existing subsurface conditions have been identified as areas of special interest for the project. These conditions and their impacts to the project are further discussed in the S&ME Roadway Subsurface Recommendations Report dated February 2017 and Recommendations Letter Report dated February 2017.

Highly Plastic Clays: Some soil samples selected for laboratory testing had Plasticity Indexes of greater than 25. Soils exhibiting plastic indices greater than 25 were encountered along the proposed alignment at the following locations:

Line	Station (+/-)		
-L-	287+25	**to**	298+99
-L-	301+25	**to**	303+75
-L-	407+75	**to**	415+25
-L-	432+75	**to**	440+75
-L-	442+15	**to**	463+55
-L-	466+05	**to**	467+75
-L-	473+80	**to**	481+30

-L-	517+05	**to**	519+75
-L-	524+90	**to**	528+25
-L-	531+25	**to**	534+58
-L-	538+75	**to**	548+15
-Y4LPA-	14+95	**to**	17+05
-Y4RPA-	19+50	**to**	25+94
-Y4LPC-	10+00	**to**	18+22
-Y6LPA-	11+82	**to**	19+35
-Y6LPC-	11+40	**to**	14+45
-Y6LPC-	16+40	**to**	18+75
-Y6RPA-	16+50	**to**	22+40
-Y6RPA-	23+85	**to**	28+23
-Y13RPA-	18+43	**to**	19+40
-Y13RPA-	19+75	**to**	22+25
-Y13RPD-	15+13	**to**	18+90
-Y13RPD-	21+60	**to**	32+55
-Y4DET-	11+38.51	**to**	22+13.42
-Y5DET-	10+89.44	**to**	18+24.96

A discussion of these plastic soils is located below in the section titled “Soil Properties”.

Loose/Soft Soils: Soft or loose soils (N-values less than 4) were encountered on the project and may impact subgrade or embankment construction. These soils were found at the following locations:

Line	**Station (+/-)**		
-L-	281+40	**to**	282+23
-L-	314+45	**to**	315+66
-L-	330+95	**to**	331+65
-L-	339+25	**to**	342+85
-L-	358+05	**to**	360+58
-L-	373+14	**to**	374+32
-L-	379+20	**to**	384+78
-L-	415+95	**to**	418+33
-L-	430+38	**to**	431+64
-L-	440+50	**to**	442+22
-L-	471+50	**to**	473+26
-L-	492+11	**to**	494+72
-L-	507+75	**to**	511+45
-L-	528+43	**to**	531+05
-Y6-	23+00	**to**	23+50
-Y6-	32+05	**to**	33+50

A discussion of these loose/soft soils is located below in the section titled “Soil Properties”.

Ponds: Several ponds occur on or within close proximity of the right of way on this project. These were noted at the following locations:

Line	**Station (+/-)**			**Offset (+/-)**
-L-	340+26	**to**	341+56	210’ to 428’ LT
-L-	382+85	**to**	383+12	245’ to 345’ RT
-L-	393+17	**to**	395+65	545’ to 958’ LT
-L-	399+80	**to**	402+89	770’ to 940’ RT
-L-	407+75	**to**	408+05	300’ to 450’ RT
-L-	410+35	**to**	410+45	505’ to 632’ RT
-L-	413+35	**to**	413+52	285’ to 468’ LT
-L-	440+15	**to**	441+97	310’ RT to 92’ LT
-L-	459+50	**to**	462+73	632’ to 1010’ RT
-L-	471+56	**to**	472+07	148’ to 341’ RT
-L-	490+30	**to**	491+90	362’+ RT
-L-	510+72	**to**	511+02	177’ to 275’ RT
-Y13-	73+65	**to**	75+04	137’ to 302’ RT
-Y13-	98+25	**to**	98+50	249’ to 407’ RT
-Y13-	100+27	**to**	100+71	166’ to 311’ RT
-Y13-	102+88	**to**	103+53	177’ to 422’ RT
-Y6-	11+56	**to**	11+77	94’ to 280’ RT
-Y6A-	12+61	**to**	12+88	52’ to 190’ RT
-Y6-	32+92	**to**	33+18	310’ to 482’ RT

Water wells: Several water wells were found within or in close proximity to the proposed right of way at the following locations:

Line	**Station (+/-)**	**Offset (+/-)**
-L-	334+49	135’ LT
-L-	346+21	99’ LT
-L-	357+33	122’ RT
-L-	359+00	162’ RT
-L-	370+42	268’ LT
-L-	437+00	101’ RT

-L-	443+60	138’ RT
-Y4-	11+59	105’ LT
-Y4-	13+36	90’ LT
-Y4-	34+45	172’ RT
-Y13-	5+12	231’ LT
-Y13-	6+33	302’ LT
-Y13-	6+99	154’ RT
-Y13-	128+50	465’ RT
-Y6RPA-	19+12	326’ RT

Artificial Fill: Artificial fill may contain soils placed in an uncontrolled manner and may contain unsuitable soils. Areas of artificial fill are present at the following locations:

Line	Station (+/-)		
-L-	262+50	**to**	278+88
-L-	291+50	**to**	292+50
-L-	328+78	**to**	328+91
-L-	331+00	**to**	331+66
-L-	345+95	**to**	346+59
-L-	358+00	**to**	362+50
-L-	373+50	**to**	374+50
-L-	444+23	**to**	445+00
-L-	507+62	**to**	511+35
-LACFLY-	28+30	**to**	42+75
-LACFLY-	44+50	**to**	46+05
-Y13LPC-	12+00	**to**	23+54.27
-Y13LPD-	10+00	**to**	24+01.92
-Y13LPA-	18+35	**to**	23+54
-Y13RPD-	13+42	**to**	21+73

A discussion of these fills is located below in the section titled “Soil Properties”.

Groundwater: High water tables, seasonal high groundwater, as well as potential perched groundwater above or within 6 feet of proposed grade were encountered at the following locations:

Line	Station (+/-)		
-L-	393+00	**to**	394+75
-L-	399+00	**to**	401+50
-L-	444+00	**to**	456+00
-L-	515+00	**to**	517+00
-L-	523+25	**to**	525+00
-LACFLY-	16+50	**to**	17+00
-Y4LPC-	15+50	**to**	17+50
-Y6RPC-	20+50	**to**	22+00
-Y13RPD-	16+75	**to**	18+75

Weathered Rock: Weathered Rock was encountered within 6 feet of proposed grade at the following locations:

Line	Station (+/-)		
-Y6LPC-	18+85	**to**	20+75
-Y6RPC-	16+50	**to**	18+50
-Y13RPD-	18+85	**to**	20+75

Physiography, Geology and Surface Water

The project site is located in Guilford County to the north of Greensboro, North Carolina. The topography in the area is generally flat to gently rolling. The project area is generally wooded with some residential development. Grading associated with U-2525B, and the interchange between -L- and US 29 (-Y13-) is ongoing.

Geologically, the project area is located within the Carolina Slate Belt of the Piedmont Physiographic Province. Rock formations of the Carolina Slate Belt generally consist of felsic and mafic metavolcanic rocks and felsic igneous intrusions (intrusive rocks). Intrusive rocks range in composition from granites, quartz monzonites, granodiorites, quartz diorites, and diorites to gabbros. The intrusive rocks in this area generally weather to produce a relatively thin residual soil overburden consisting primarily of silts and possibly boulders. Below the soil overburden, the soil transitions rather abruptly to soft weathered rock and then to hard bedrock. In many locations, the transitional zone between soil and rock is not well defined. Locally the transitional zone is termed weathered rock (WR). For engineering purposes, weathered rock is considered as residual material in which standard penetration test N-values exceed 100 blows per foot.

Soil Properties

Generalized subsurface conditions for the project are described below. For more detailed soil descriptions and stratifications at a particular test location, the respective profile and cross section should be reviewed.

The soil test borings generally encountered roadway embankment material, artificial fill, alluvial soils, residual soils, weathered rock and crystalline rock to the boring termination depths.

Roadway Embankment Soils: Roadway embankment soils were encountered in some soil test to depths ranging from 1.5 to 22 feet below the existing ground surface. The roadway embankment

soils generally consisted of silty clays and clays (A-7-5 and A-7-6), silts (A-5), sandy silts (A-4), silty sand (A-2-4) and gravel (A-1). Consistencies/relative densities ranging from very loose to medium dense and very soft to very stiff were recorded in the roadway embankment soils. The roadway embankment soil samples selected for laboratory testing exhibit a liquid limit ranging from 31 to 59 and a plasticity index from 7 to 31.

Artificial Fill: Artificial fill soils are present in several sections of the project. These areas are listed in "Areas of Special Geotechnical Interest." The artificial fill was generally encountered to depths ranging from of 1.4 to 27 feet below the existing ground surface. The artificial fill soils generally consisted of silty clays and clays (A-7-5 and A-7-6), sandy clays (A-6), clayey silt (A-5), sandy silts (A-4), clayey sand (A-2-6), sand (A-2-4) and gravel (A-1). Consistencies/relative densities ranging from very loose to dense and very soft to hard were recorded in the artificial fill. The artificial fill soil samples selected for laboratory testing exhibit a liquid limit ranging from 48 to 62 and a plasticity index from 23 to 39.

Alluvial Soils: Alluvial soils were encountered in borings near existing drainage features from the existing ground surface or below the existing roadway embankment soils or artificial fill and extended to a depths ranging from 2 to 27 feet. These areas are listed in "Areas of Special Geotechnical Interest." The alluvial soils consisted of clay (A-7-6), sandy clays (A-6), silt (A-5), sandy silt (A-4) and silty sand (A-2-4) with consistencies/relative densities ranging from very loose to medium dense and very soft to very stiff. The alluvial soil samples selected for laboratory testing exhibit a liquid limit of 29 and a plasticity index of 10.

Residual Soils: Beneath the roadway embankment, artificial fill, and alluvial soils or at the ground surface, residual soils were encountered in most borings. The residual soils generally consisted of sandy clay (A-6), silty clays and clays (A-7-5 and A-7-6), sandy silts (A-4), silts (A-5) and sands (A-2-4). Consistencies/relative densities ranging from very loose to very dense and very soft to hard. The residual soil samples selected for laboratory testing exhibit a liquid limit ranging from 29 to 97 and a plasticity index from 4 to 53.

Weathered Rock: Weathered rock was encountered during the roadway investigation. It originates from the underlying metamorphosed granite and metamorphosed diorite. Weathered rock was encountered at elevations ranging from 732.4 to 835.9 feet. Refer to the "Areas of Geotechnical Interest" for areas of rock encountered within 6 feet of proposed grade.

Crystalline Rock: Crystalline rock was encountered during the roadway investigation and consists of metamorphosed granite and metamorphosed diorite. Crystalline rock was encountered at elevations ranging from 731.6 to 827.9 feet.

Ground Water

Ground water level measurements were attempted in the borings at the completion of drilling. Groundwater was typically greater than 10 feet below proposed grades in almost all borings throughout the project corridor. Areas that exhibit high groundwater are discussed in "Areas of Special Geotechnical Interest."

The depth of ground water beneath the ground surface will fluctuate with seasonal precipitation and may occur at higher times of the year above less permeable clayey soils or weathered rock materials.

Ponds

Several ponds occur on or near the project right of way. These ponds are listed by alignment, station, and offsets in the "Areas of Special Geotechnical Interest."

Water Wells

Several water wells occur on or near the project right of way. These ponds are listed by alignment, station, and offsets in the "Areas of Special Geotechnical Interest."

Closure

S&ME, Inc. appreciates the opportunity to provide our services on this project. Please contact us if you have any questions regarding this report or if we may be of further assistance.

Sincerely,

S&ME, Inc.

DocuSigned by:
Stewart S. Laney, PE
75BB4AB1AB3B4CB...
Stewart S. Laney, P.E.
Project Engineer

DocuSigned by:
Kristen H. Hill, P.E., P.G.
E52CFCB546224F2...
Kristen H. Hill, P.E., P.G.
Senior Geotechnical Engineer

8/17/99

REVISIONS

WETHERILL ENGINEERING
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Raleigh, N.C. 27606
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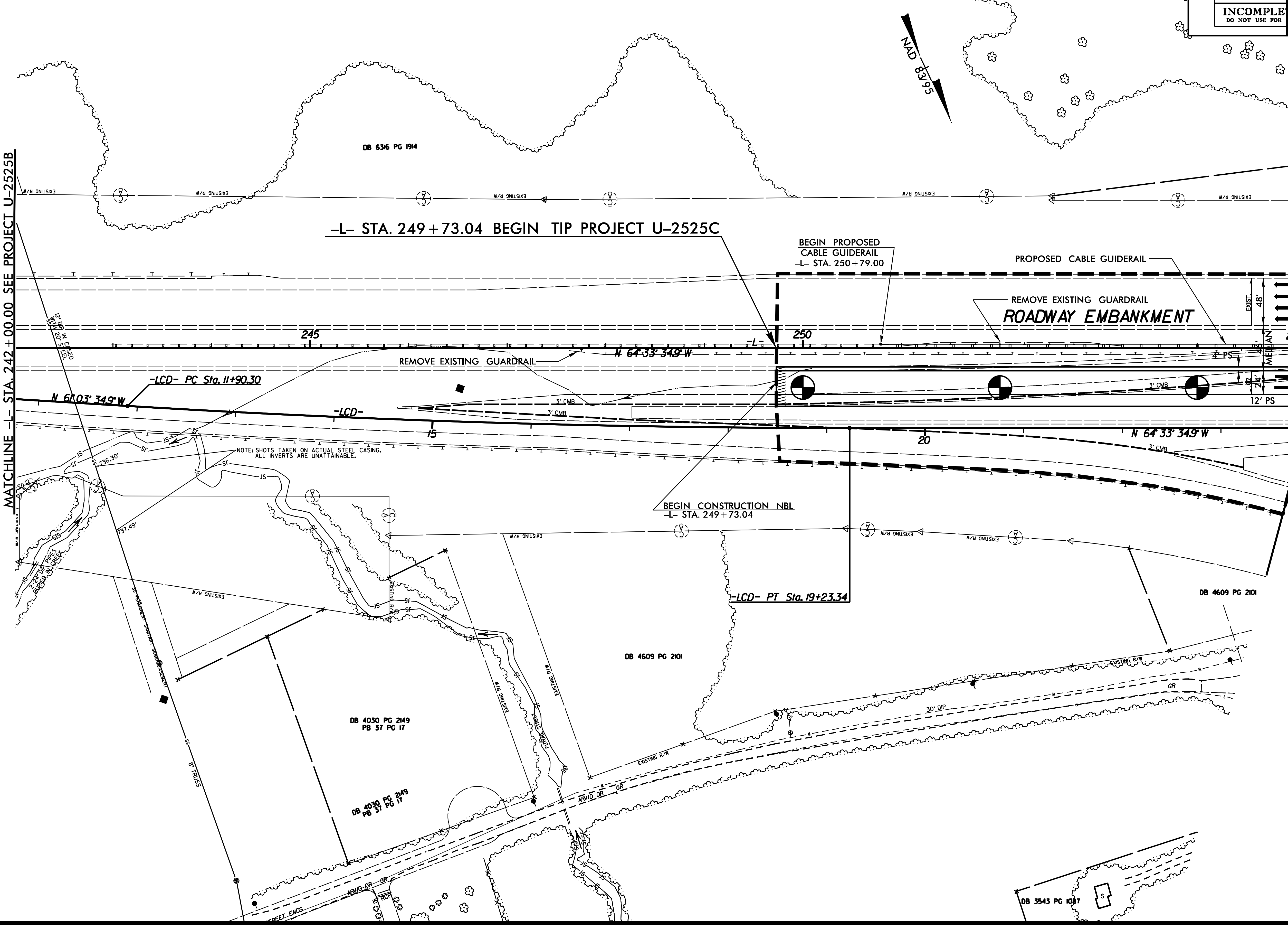
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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REVISIONS

6/2/20

PROJECT REFERENCE NO.	SHEET NO.
U-2524C	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER

STV/WILL ENGINEERING
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Fax: 919 851 8101
TRANSPORTATION PLANNING/DESIGN • INFRASTRUCTURE DESIGN
ON-SITE DESIGN • GIS/GPS • CONSTRUCTION DESIGN-BUILD

INCOMPLETE PLANS
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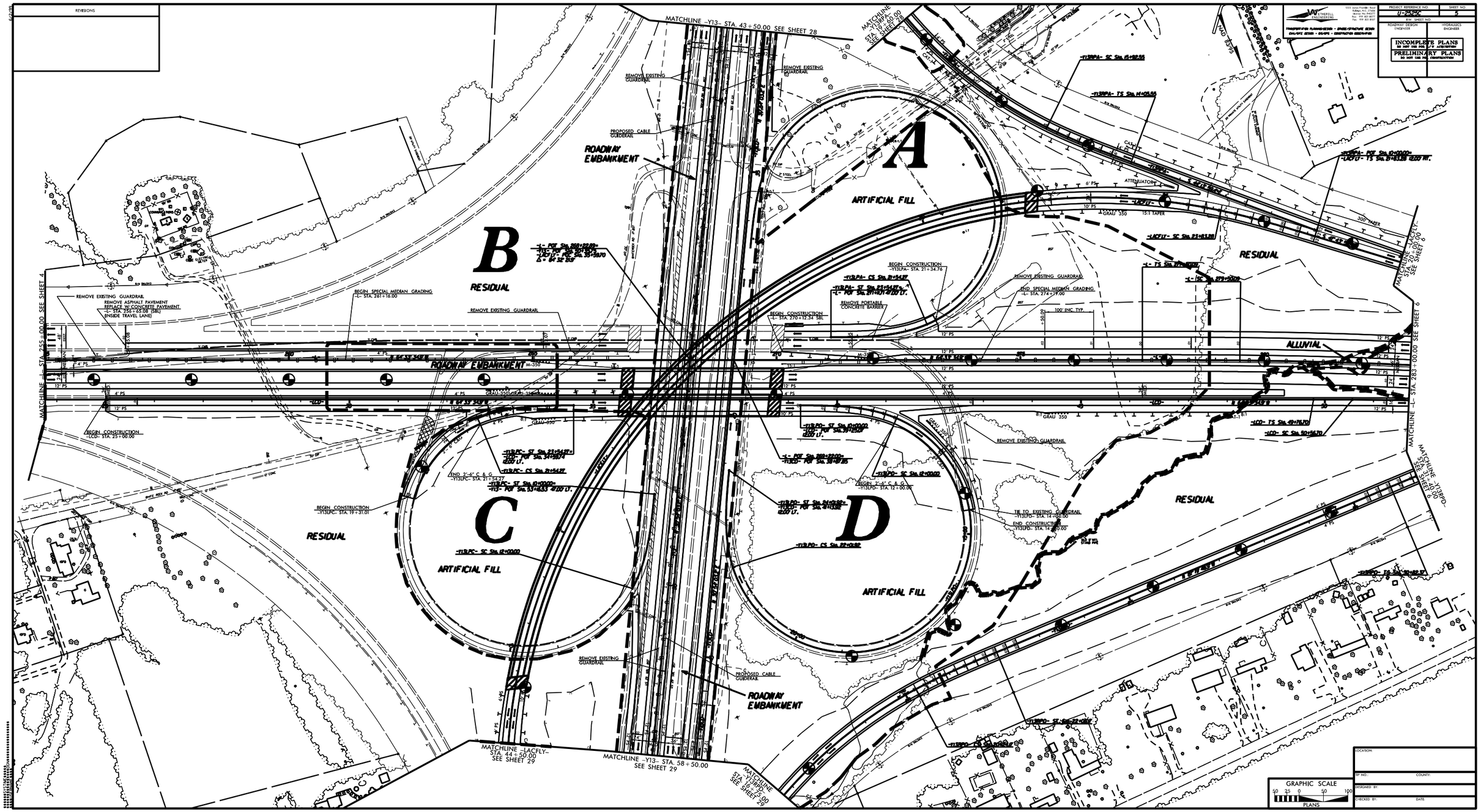
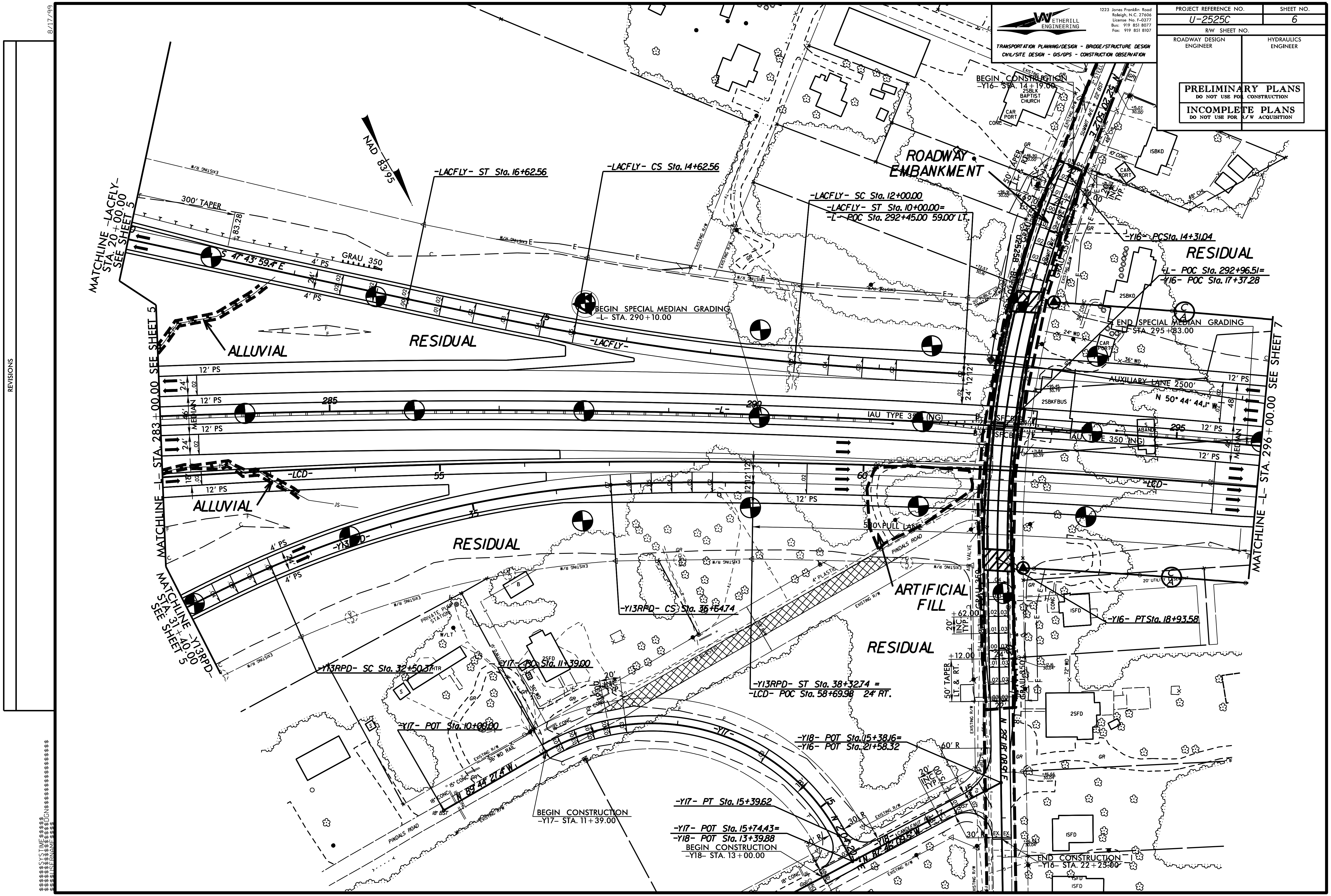
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



LOCATION:	
TIP NO:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:



WETHERILL ENGINEERING
1223 Jones Franklin Road Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
U-2525C
SHEET NO.
6
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
8/17/99
REVISIONS
NAD 83/95
MATCHLINE -LACFLY- STA. 20+00.00 SEE SHEET 5
MATCHLINE -L- STA. 283+00.00 SEE SHEET 5
MATCHLINE -Y13RPD- STA. 31+40.00 SEE SHEET 5
MATCHLINE -L- STA. 296+00.00 SEE SHEET 7
-LACFLY- ST Sta. 16+62.56
-LACFLY- CS Sta. 14+62.56
-LACFLY- SC Sta. 12+00.00
-LACFLY- ST Sta. 10+00.00=
-L- POC Sta. 292+45.00 59.00' LT.
BEGIN CONSTRUCTION
-Y16- STA. 14+19.00
ROADWAY EMBANKMENT
-Y16- PCSta. 14+31.04
RESIDUAL
-L- POC Sta. 292+96.51=
-Y16- POC Sta. 17+37.28
BEGIN SPECIAL MEDIAN GRADING
-L- STA. 290+10.00
END SPECIAL MEDIAN GRADING
-L- STA. 295+83.00
300' TAPER
S 47° 43' 59.4" E
ALLUVIAL
RESIDUAL
AUXILIARY LANE 2500'
N 50° 44' 44.1" W
IAU TYPE 350 (NG)
ALLUVIAL
RESIDUAL
500' FULL LANE
ARTIFICIAL FILL
-Y13RPD- CS Sta. 36+64.74
-Y16- PT Sta. 18+93.58
RESIDUAL
-Y13RPD- SC Sta. 32+50.37
-Y17- PC Sta. 11+39.00
-Y13RPD- ST Sta. 38+32.74 =
-LCD- POC Sta. 58+69.98 24' RT.
-Y17- POT Sta. 10+00.00
-Y18- POT Sta. 15+38.16=
-Y16- POT Sta. 21+58.32
N 89° 44' 21.5" W
PINDALS ROAD
BEGIN CONSTRUCTION
-Y17- STA. 11+39.00
-Y17- PT Sta. 15+39.62
-Y17- POT Sta. 15+74.43=
-Y18- POT Sta. 13+39.88
BEGIN CONSTRUCTION
-Y18- STA. 13+00.00
END CONSTRUCTION
-Y16- STA. 22+25.00
2SBLK BAPTIST CHURCH

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REVISIONS

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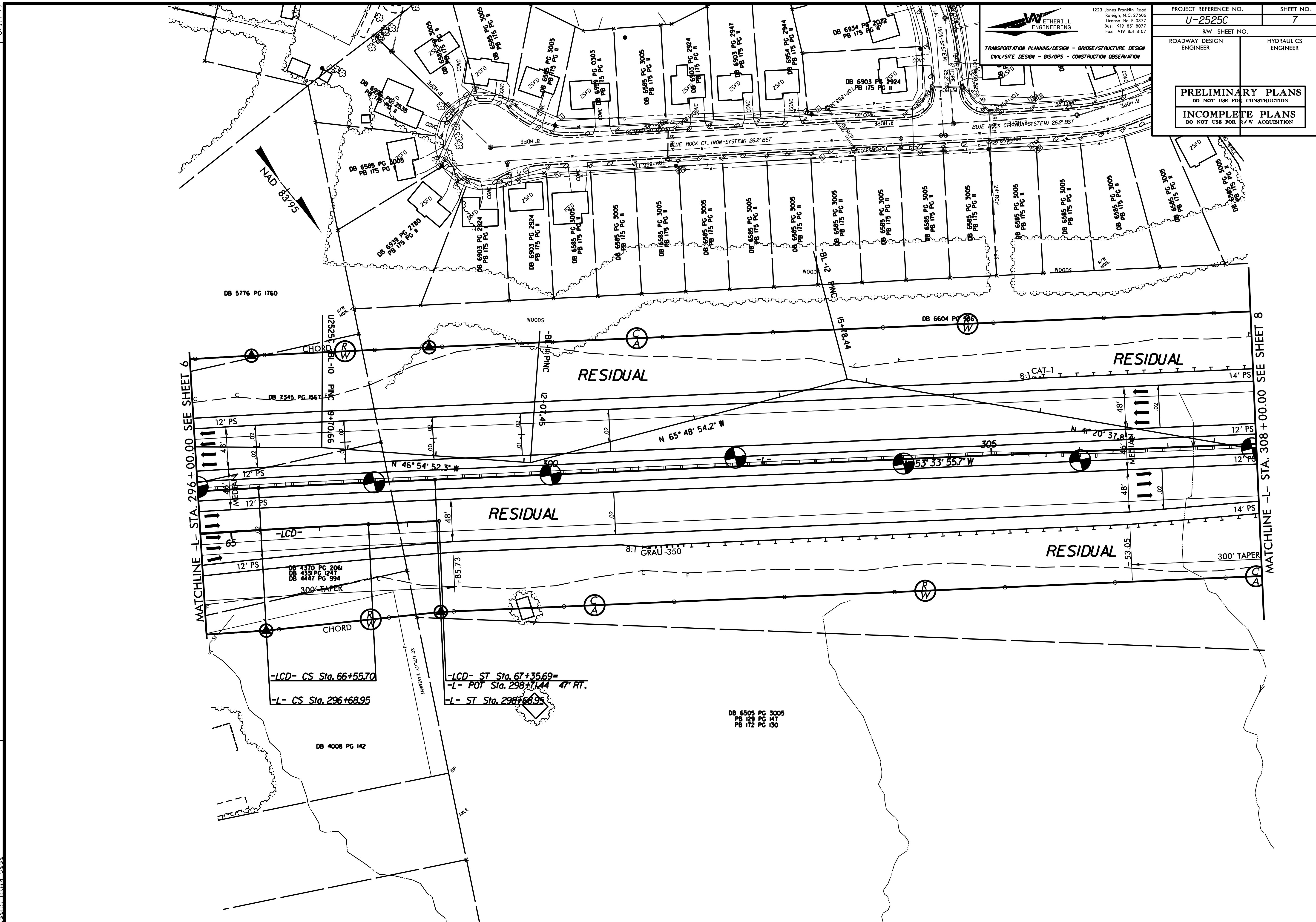
Fax: 919 851 8107

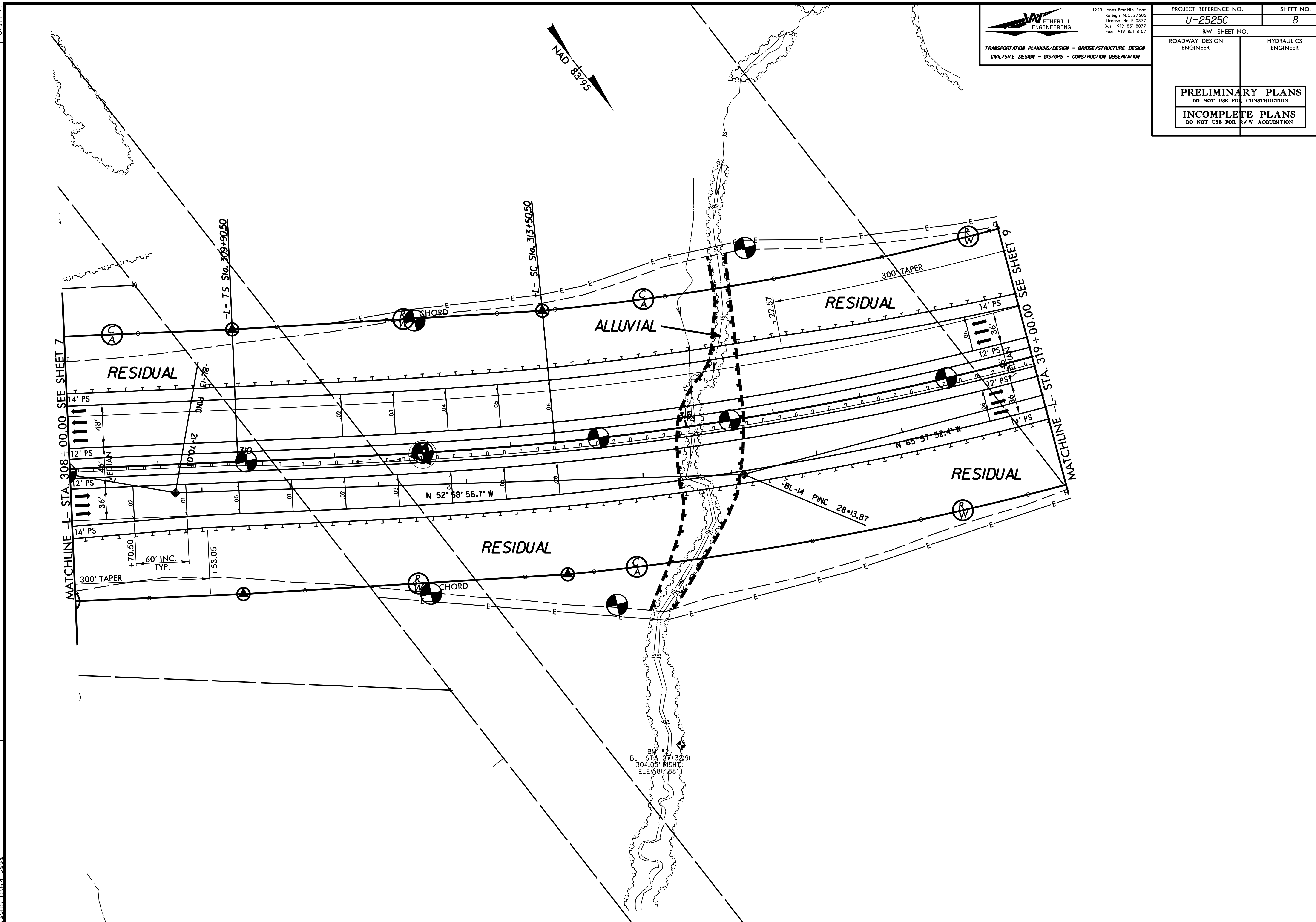
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION





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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

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$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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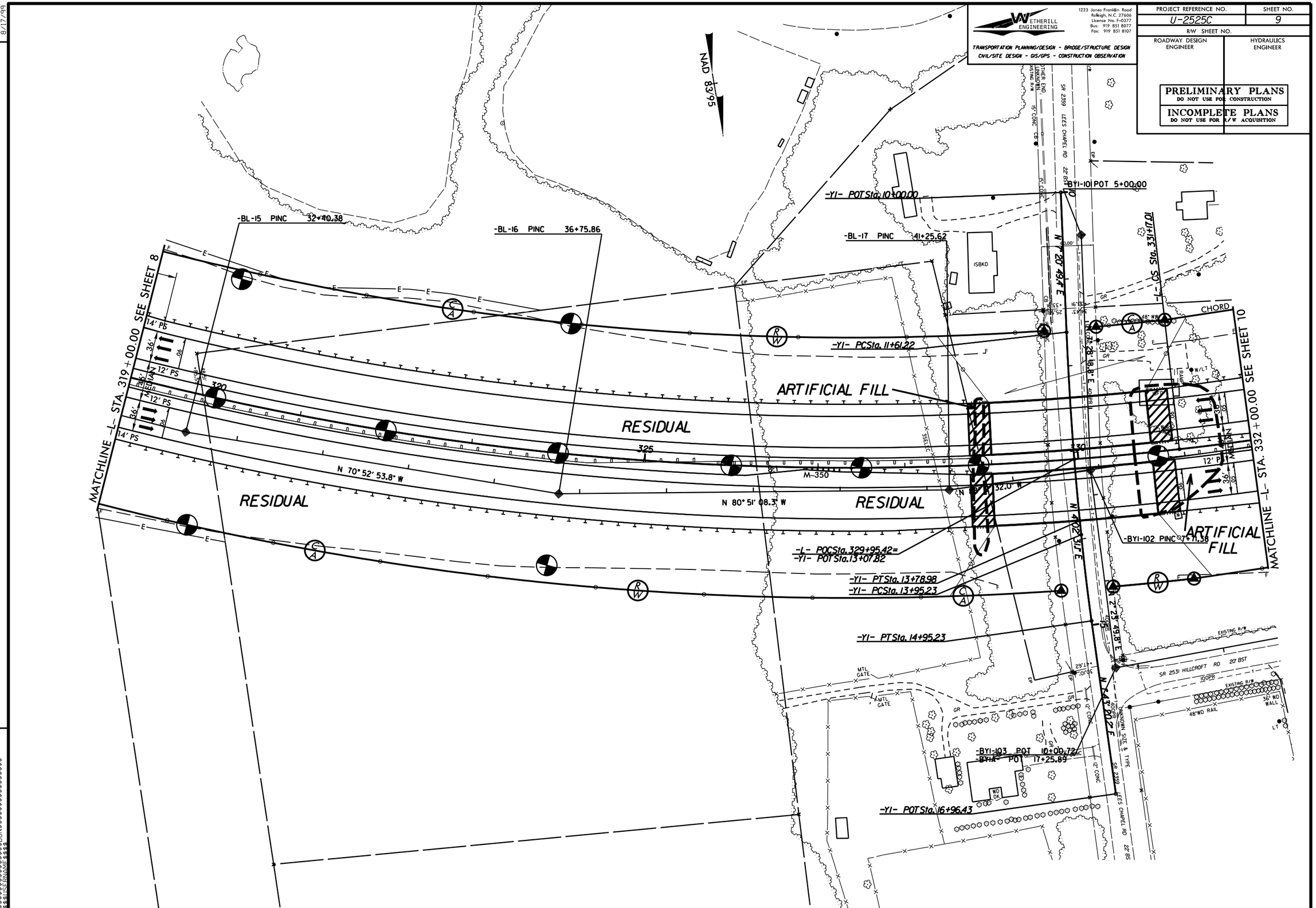
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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$$$$$$SYSTIME$$$$$$
$$$$$$DGN$$$$$$
$$$$$$USERNAME$$$$$$

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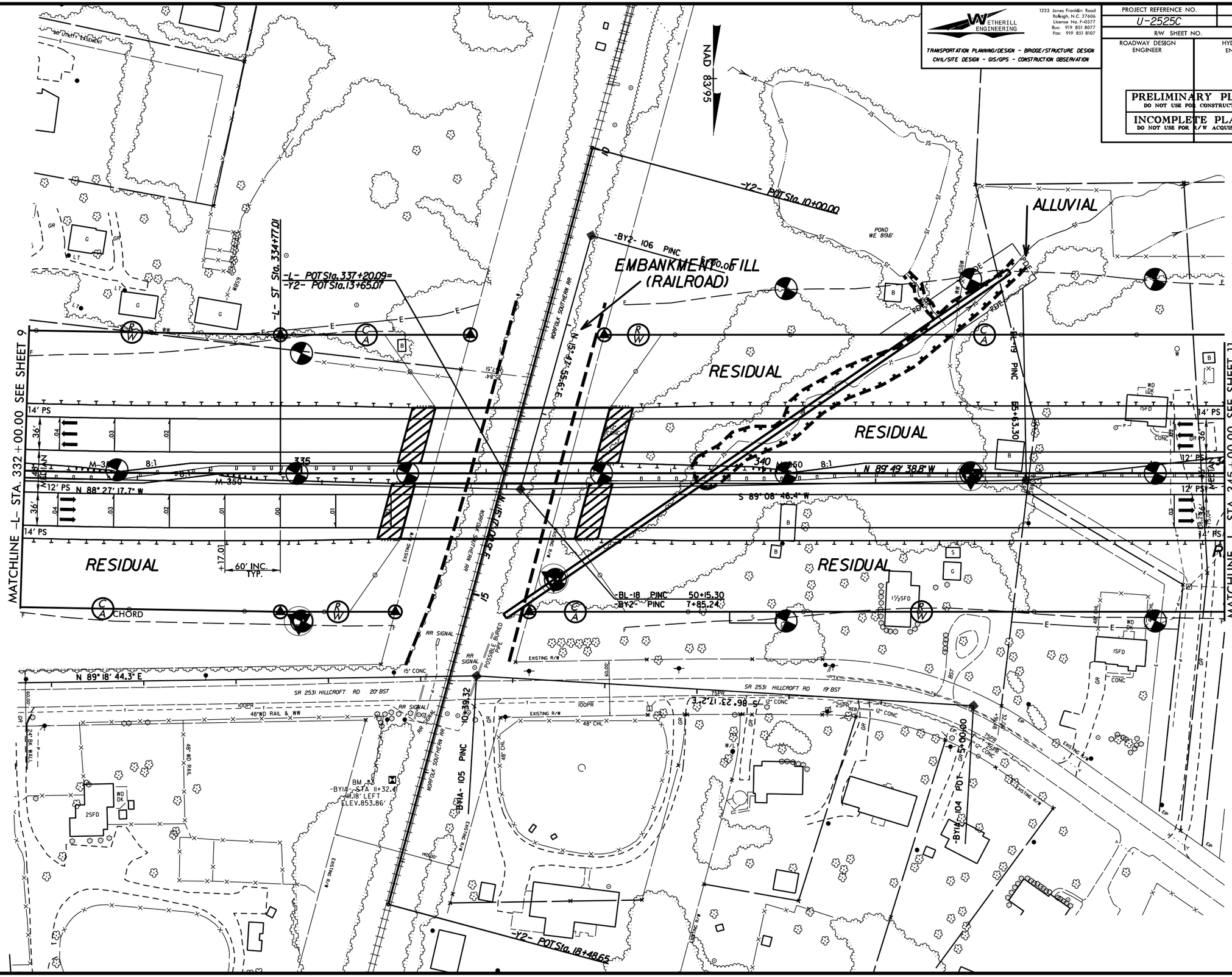
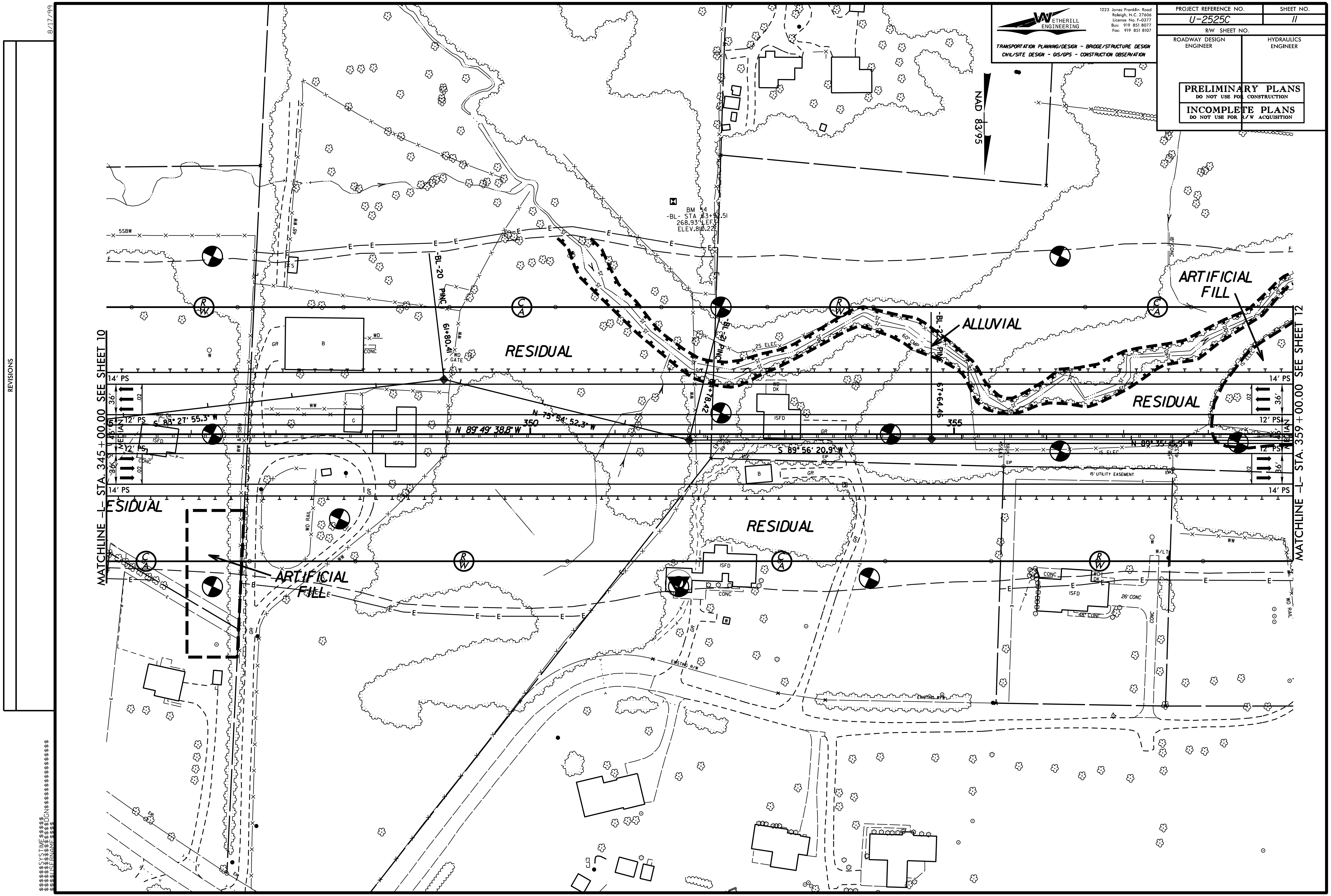
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION





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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
SHEET NO.
U-2525C
11
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
REVISIONS
8/17/99
NAD 83/95
BM 14
-BL- STA 63+93.51
268.93' LEFT
ELEV.810.22
ARTIFICIAL FILL
ALLUVIAL
RESIDUAL
RESIDUAL
RESIDUAL
ESIDUAL
ARTIFICIAL FILL
MATCHLINE -L- STA. 345+00.00 SEE SHEET 10
MATCHLINE -L- STA. 359+00.00 SEE SHEET 12
N 89° 49' 38.8" W
N 75° 54' 52.3" W
S 83° 27' 55.3" W
S 89° 56' 20.9" W
350
355
-BL-20
61+80.41
67+64.46
14' PS
12' PS
MEDIAN
15' UTILITY EASEMENT
EXISTING R/W
ISFD

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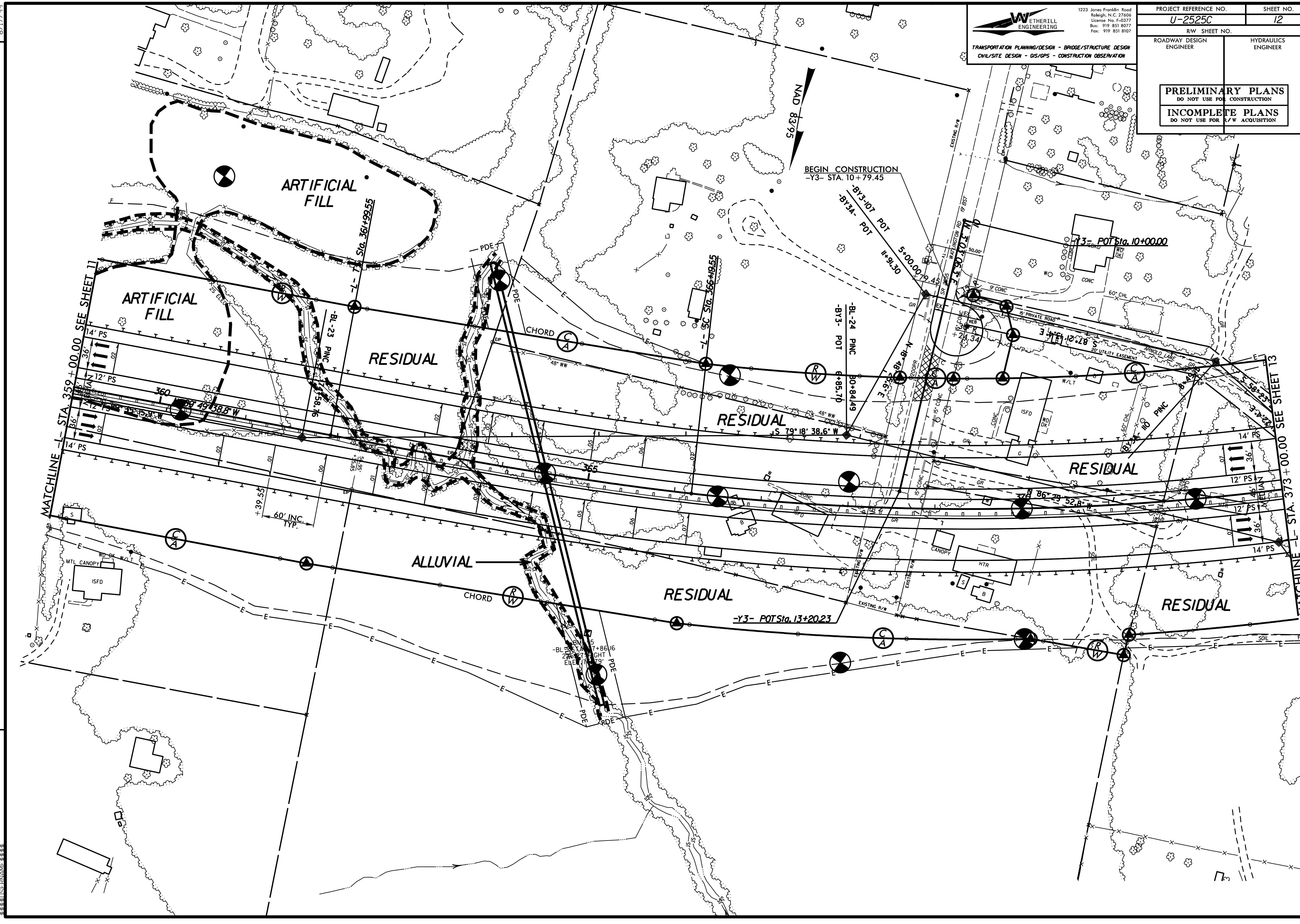
REVISIONS



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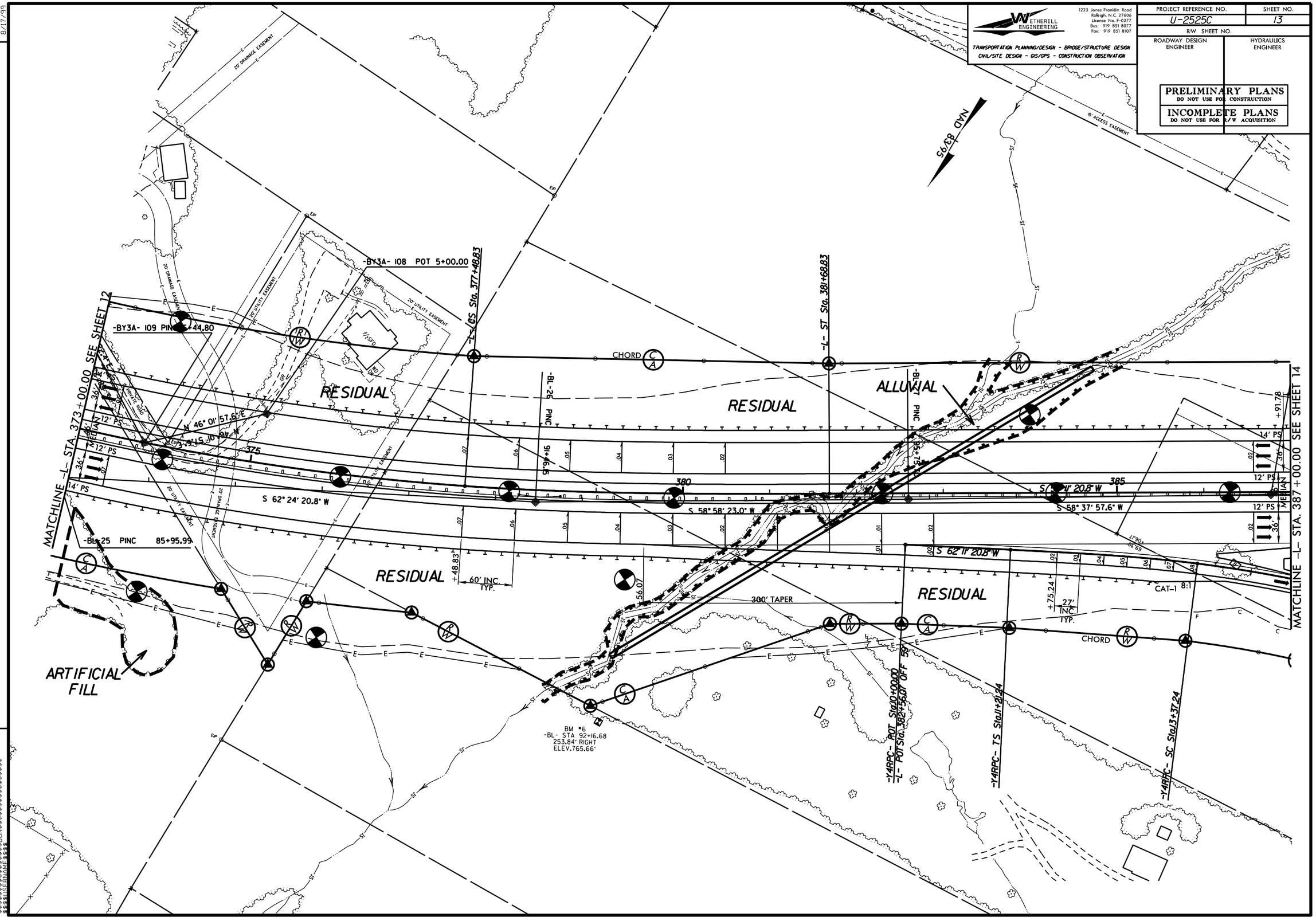
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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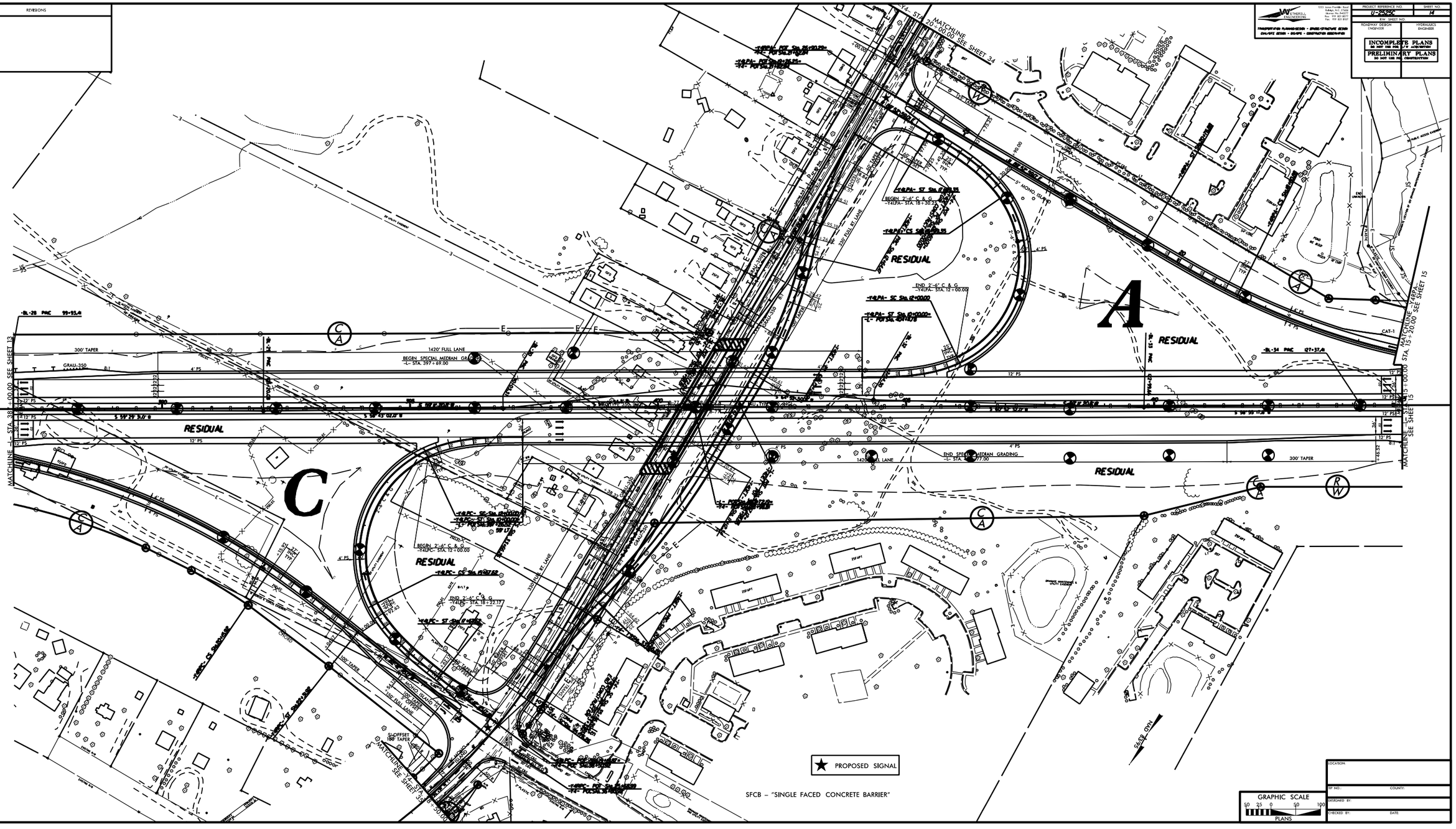
$$$$$$SYSTIME$$$$$$
$$$$$$SITE ENGINE$$$$$$
$$$$$$DGN$$$$$$



REVISIONS
PROJECT REFERENCE NO.
U-2525C
SHEET NO.
14
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
MATCHLINE -Y4- STA. 20+00.00 SEE SHEET 34
MATCHLINE -Y4RPA- STA. 15+00.00 SEE SHEET 15
MATCHLINE -L- STA. 38+00.00 SEE SHEET 13
MATCHLINE -L- STA. 15+00.00 SEE SHEET 15
MATCHLINE -Y4- STA. 35+50.00 SEE SHEET 35
RESIDUAL
A
C
300' TAPER
1420' FULL LANE
BEGIN SPECIAL MEDIAN GRADING -L- STA. 397+69.00
END SPECIAL MEDIAN GRADING -L- STA. 377+77.00
BEGIN 2'-6" C & G -Y4LPA- STA. 18+30.25
END 2'-6" C & G -Y4LPA- STA. 12+00.00
BEGIN 2'-6" C & G -Y4LPC- STA. 12+00.00
END 2'-6" C & G -Y4LPC- STA. 18+22.17
5' MONO ISLAND
330' FULL RT. LANE
100' TAPER
5' OFFSET 100' TAPER
PROPOSED SIGNAL
SFCB – "SINGLE FACED CONCRETE BARRIER"
GRAPHIC SCALE
50 25 0 50 100
PLANS
LOCATION:
TIP NO.:
COUNTY:
DESIGNED BY:
CHECKED BY:
DATE:

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Fax: 919 851 8107
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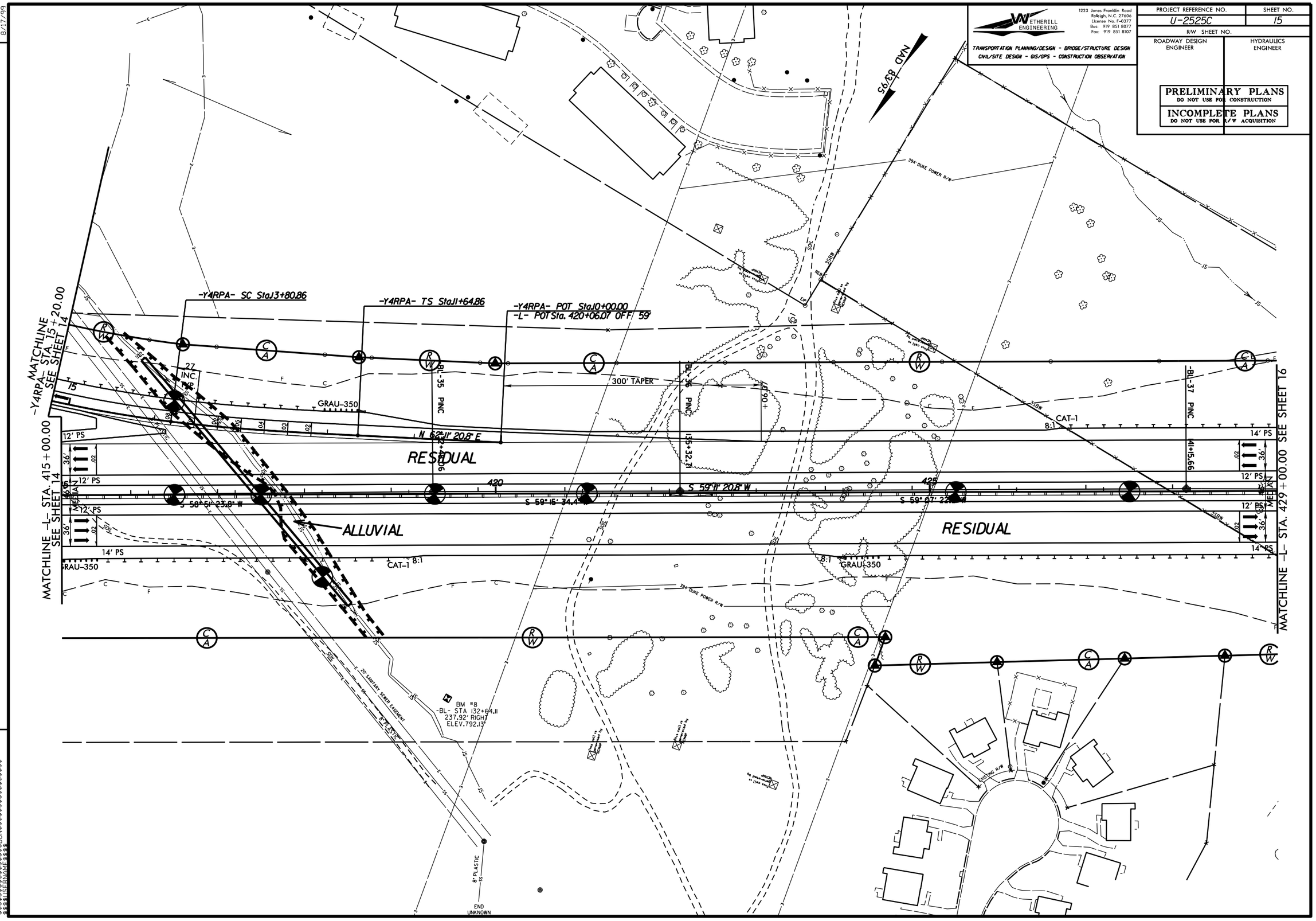
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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$$$$$$$SYSTIME$$$$$$
$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PRELIMINARY PLANS
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INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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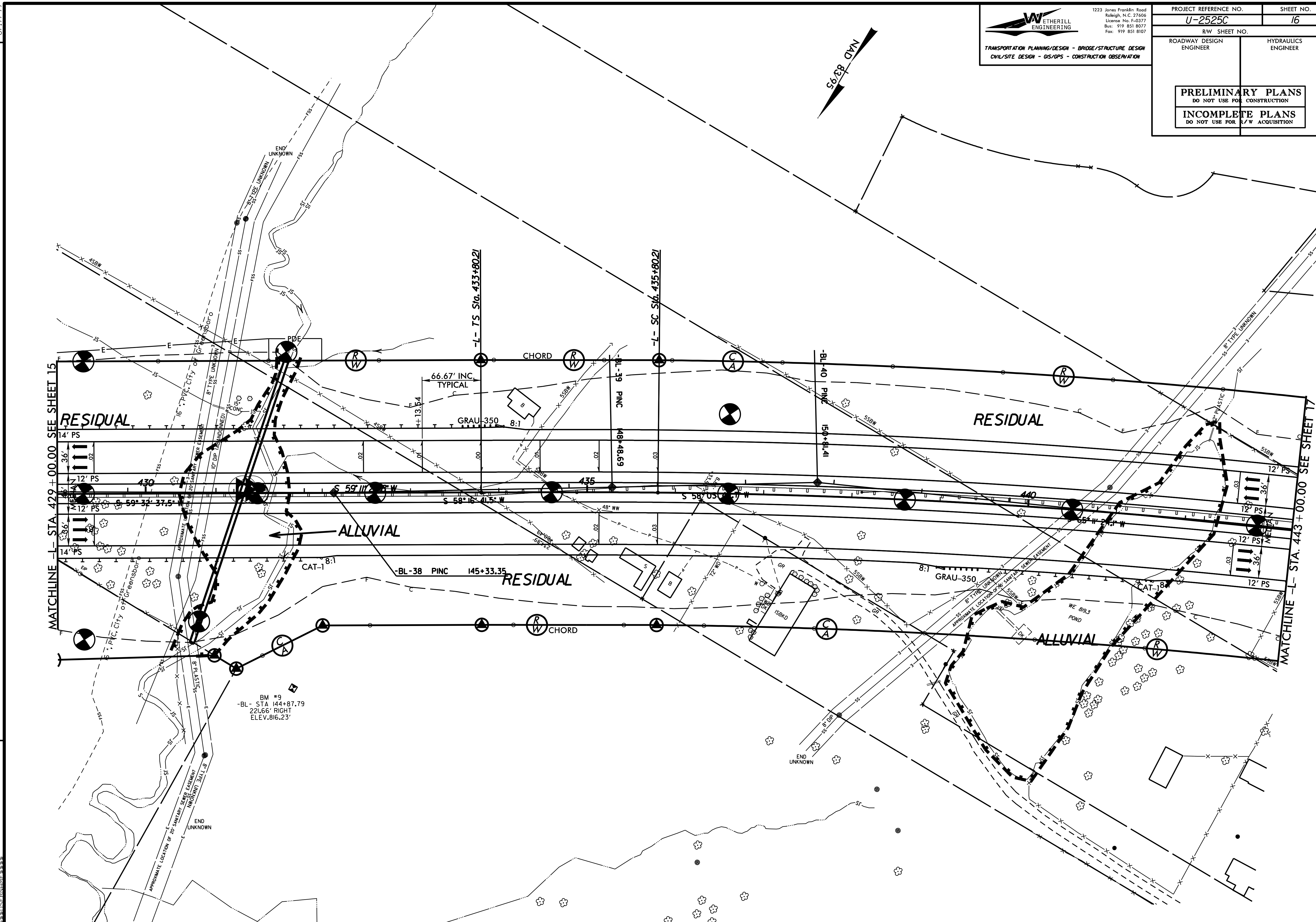

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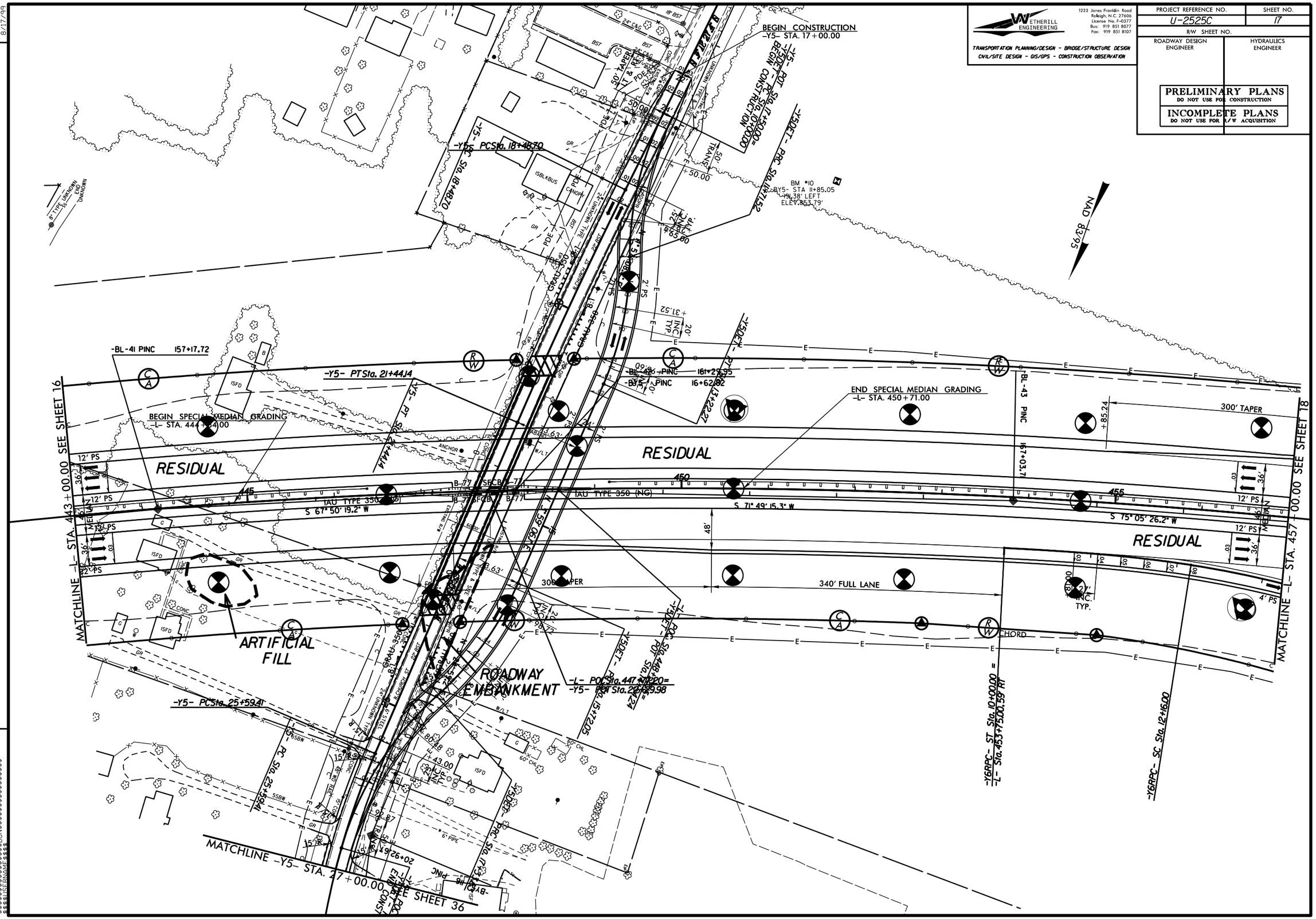
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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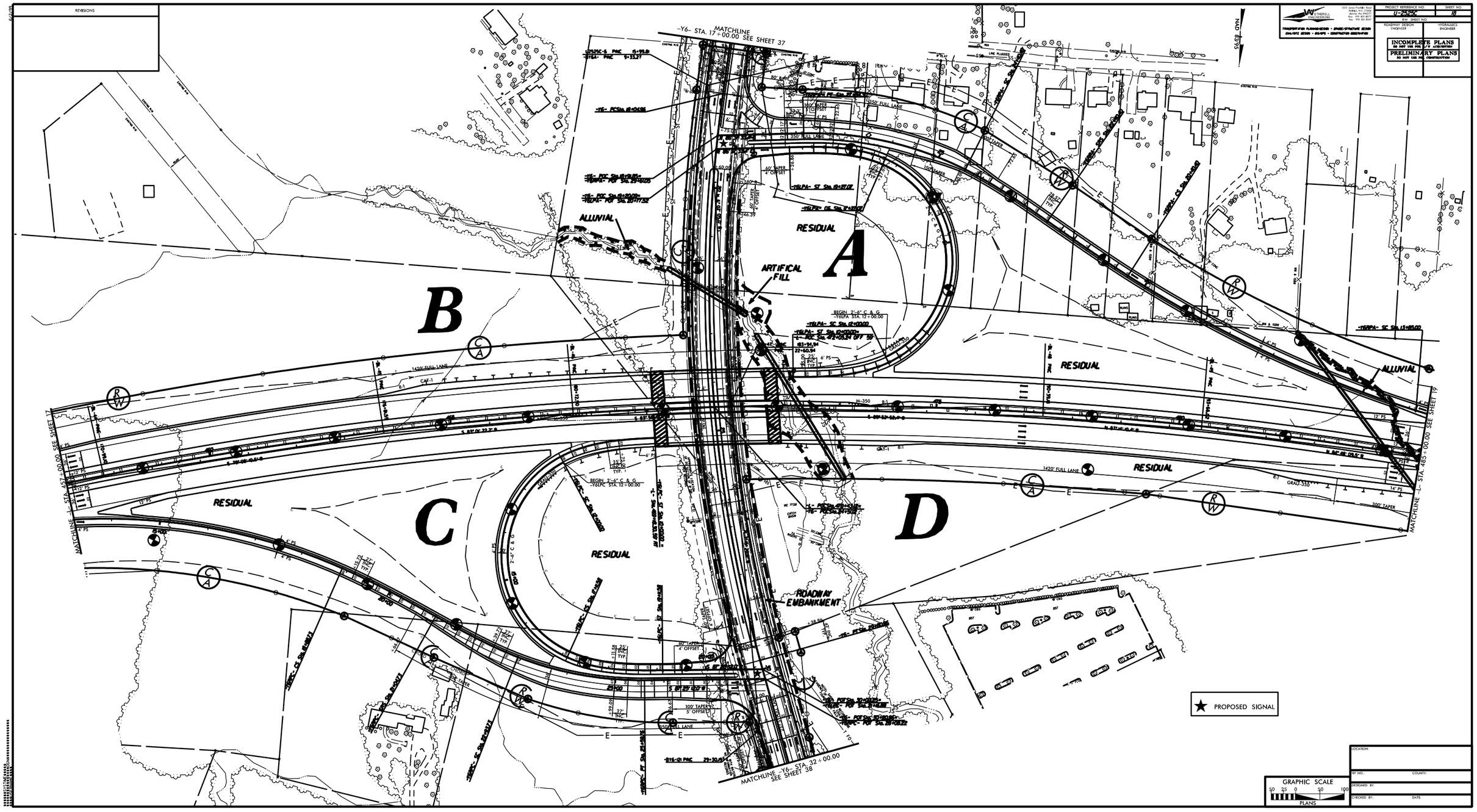
$$$$$$SYSTIME$$$$$$
$$$$$$DGN$$$$$$
$$$$$$ENAME$$$$

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-2524C	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:
TIP NO.: COUNTY:
DESIGNED BY:
CHECKED BY: DATE:

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Raleigh, N.C. 27606
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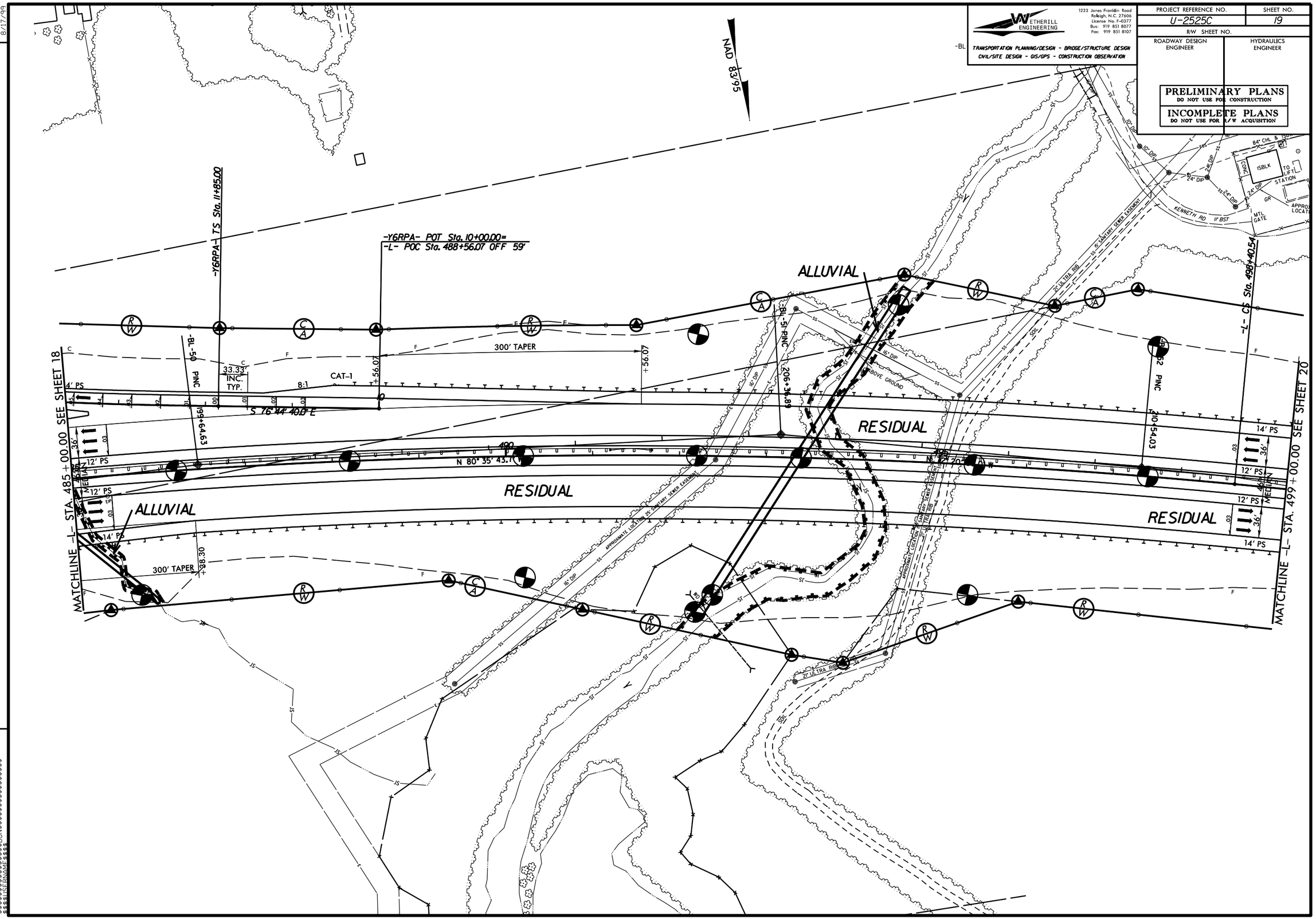
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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$$$$$$$SYSTIME$$$$$
$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$

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PROJECT REFERENCE NO.	SHEET NO.
U-2525C	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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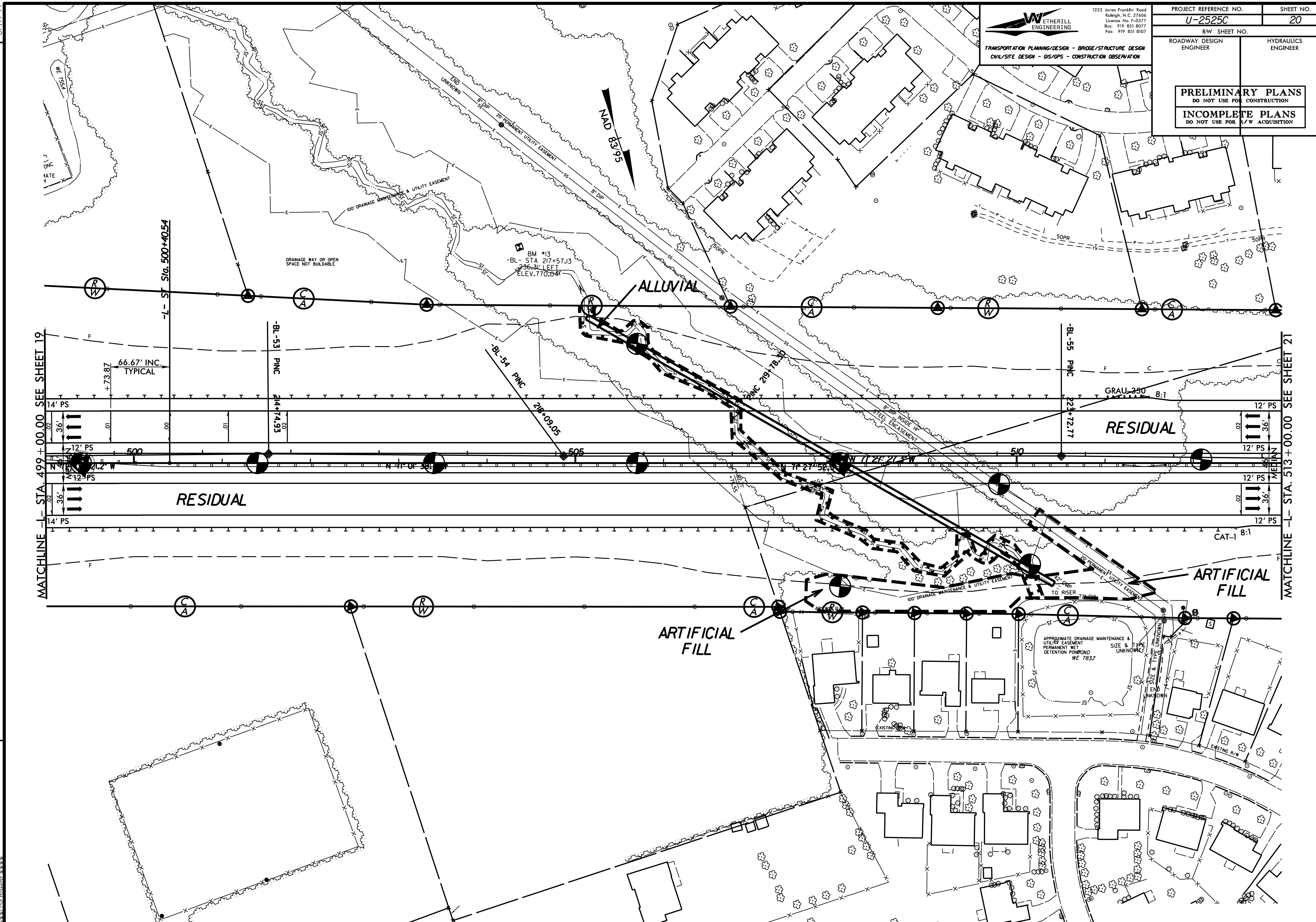
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS



$$$$SYSTIME$$$$
$$$$$$$$DGN$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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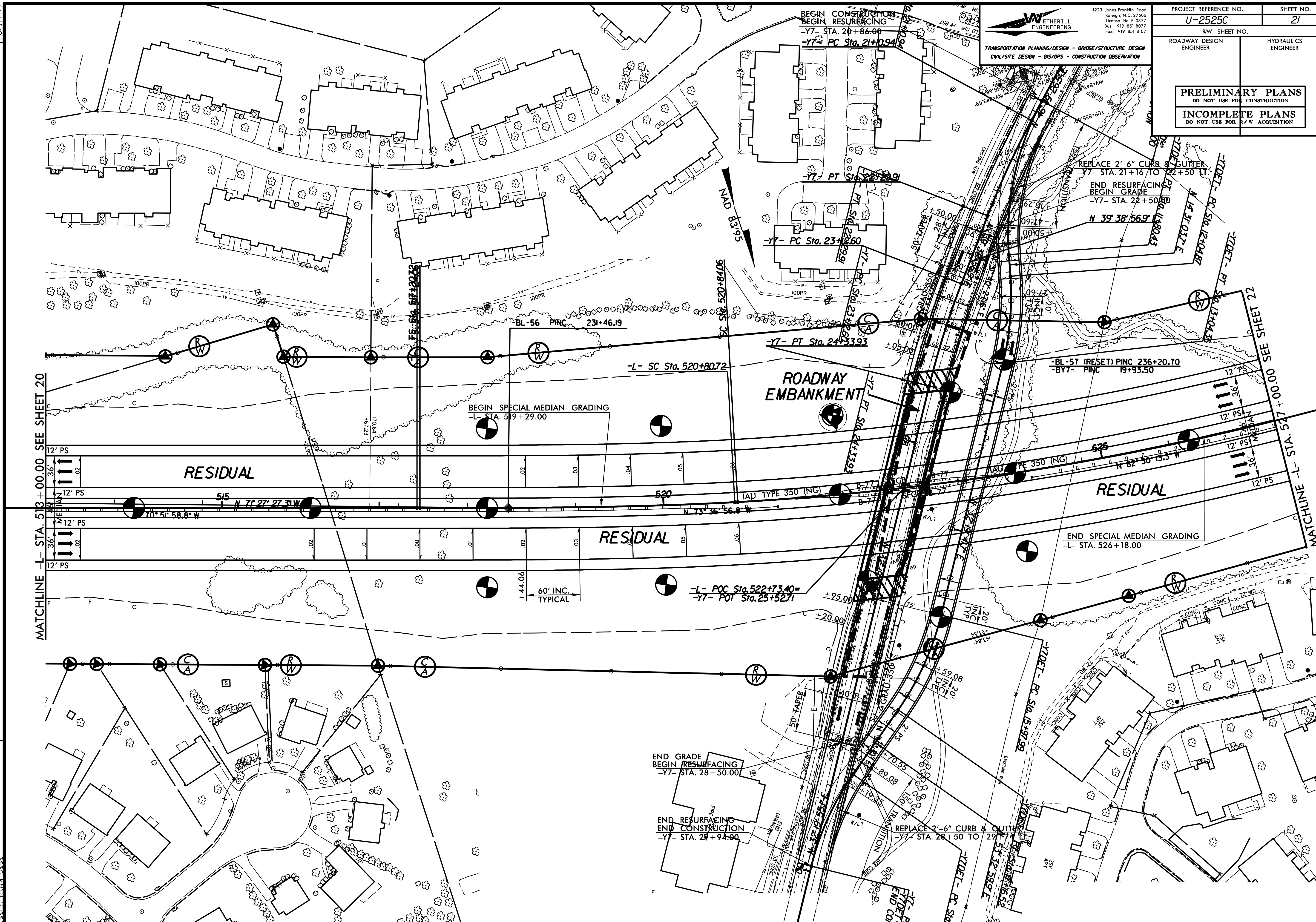
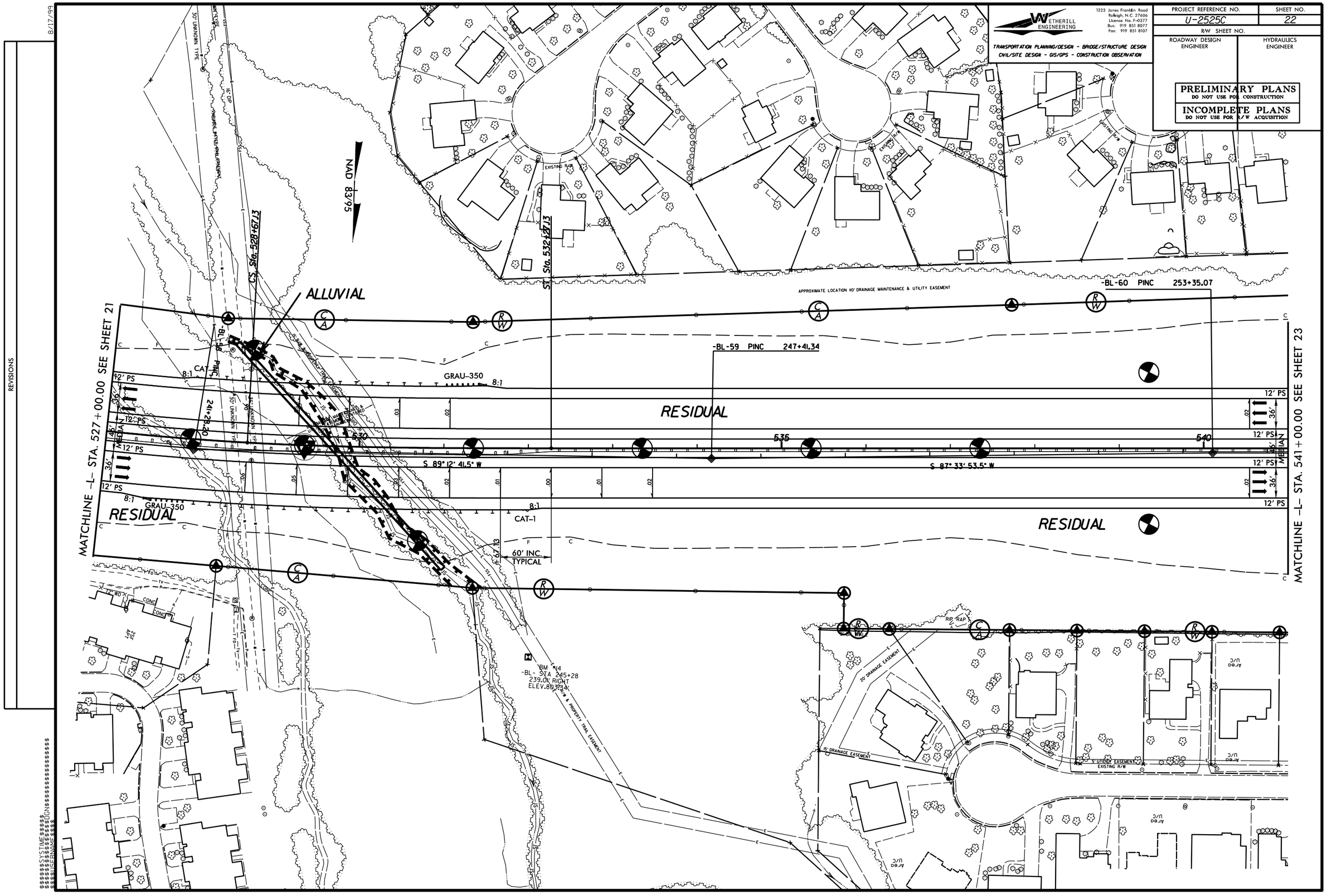
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
U-2525C
SHEET NO.
22
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
NAD 83/95
CS Sta. 528+67.13
ST Sta. 532+67.13
ALLUVIAL
RESIDUAL
GRAU-350
CAT-1
8:1
-BL-58 PINC
-BL-59 PINC 247+41.34
-BL-60 PINC 253+35.07
APPROXIMATE LOCATION 110' DRAINAGE MAINTENANCE & UTILITY EASEMENT
S 89° 12' 41.5" W
S 87° 33' 53.5" W
12' PS
36'
MEDIAN
60' INC. TYPICAL
MATCHLINE -L- STA. 527+00.00 SEE SHEET 21
MATCHLINE -L- STA. 541+00.00 SEE SHEET 23
BM #4
-BL- STA 245+28
239.0K RIGHT
ELEV.80.33 M
20' DRAINAGE EASEMENT
15' DRAINAGE EASEMENT
5' UTILITY EASEMENT
EXISTING R/W
RIP RAP
AREA U/C
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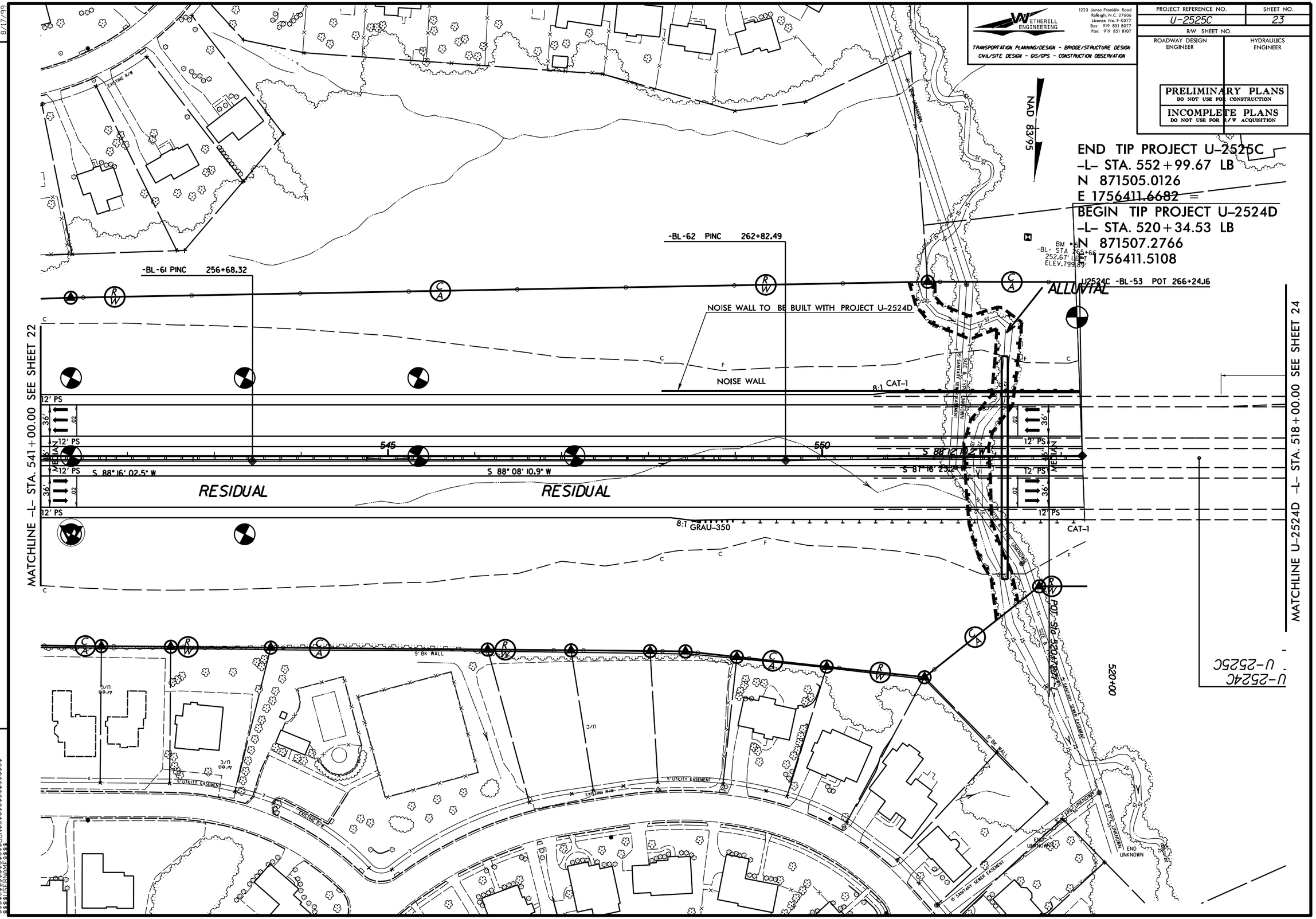
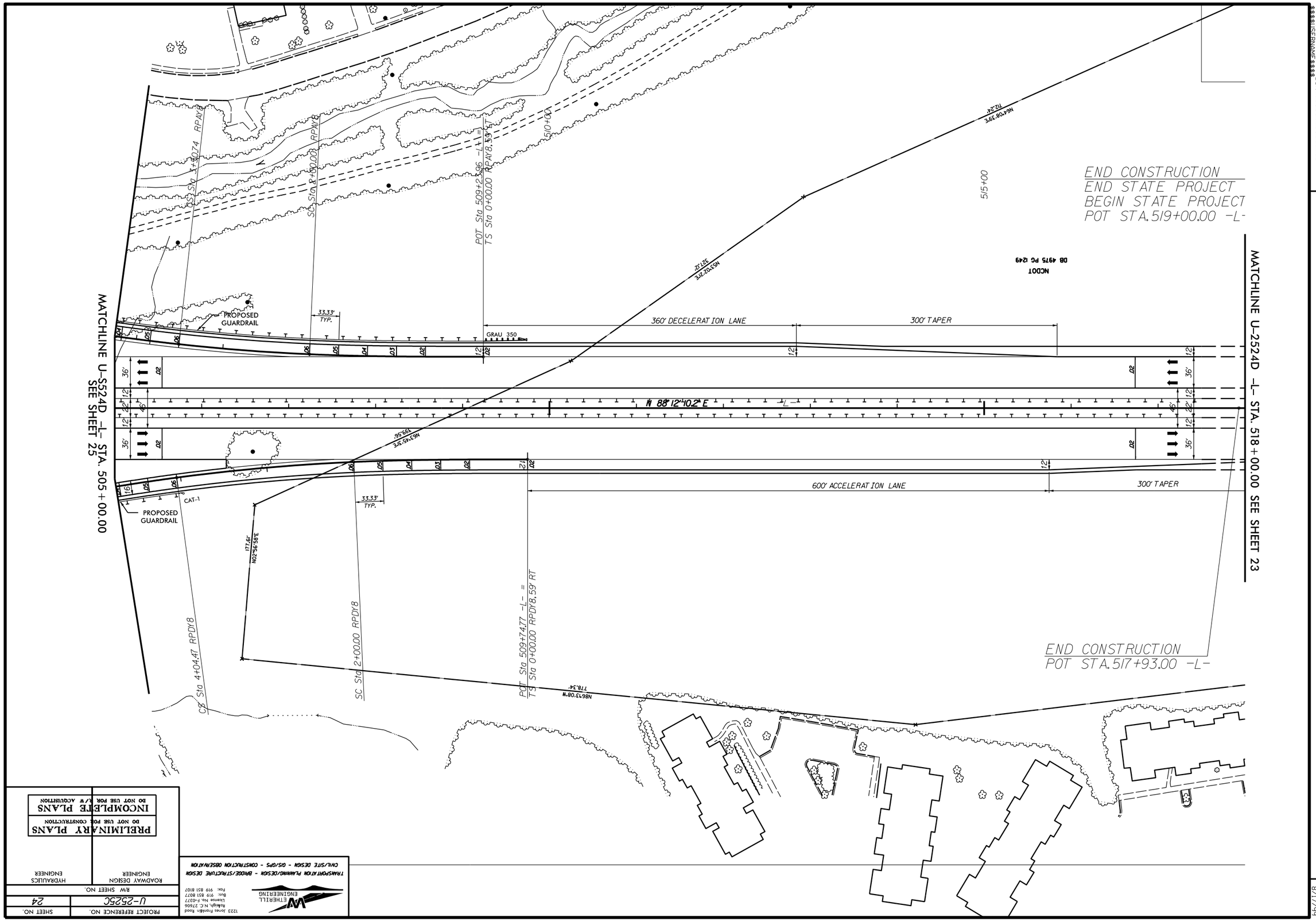
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION





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INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

R/W SHEET NO.

PROJECT REFERENCE NO. U-2525C | SHEET NO. 24

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

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PROJECT REFERENCE NO.	SHEET NO.
U-2525C	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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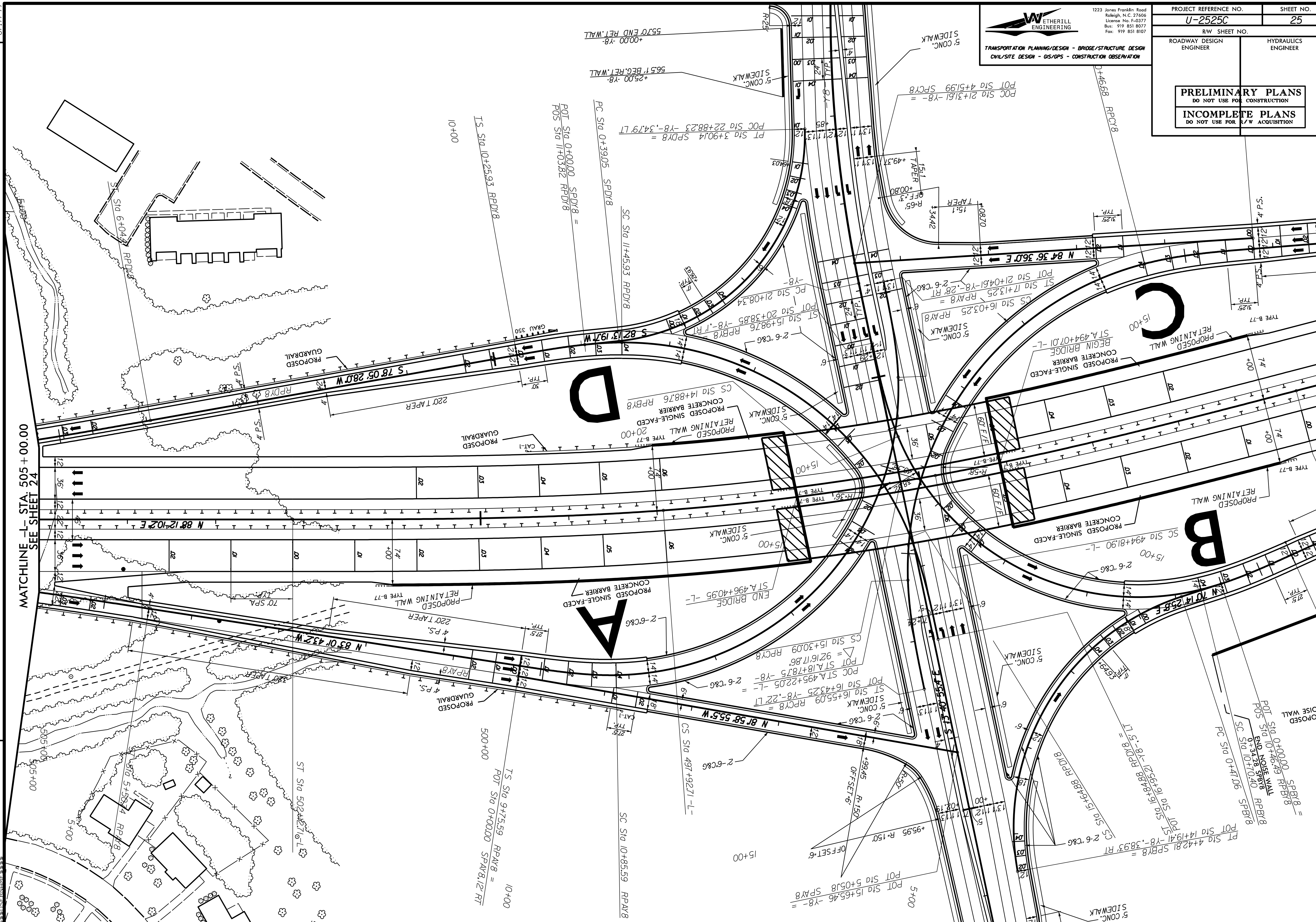
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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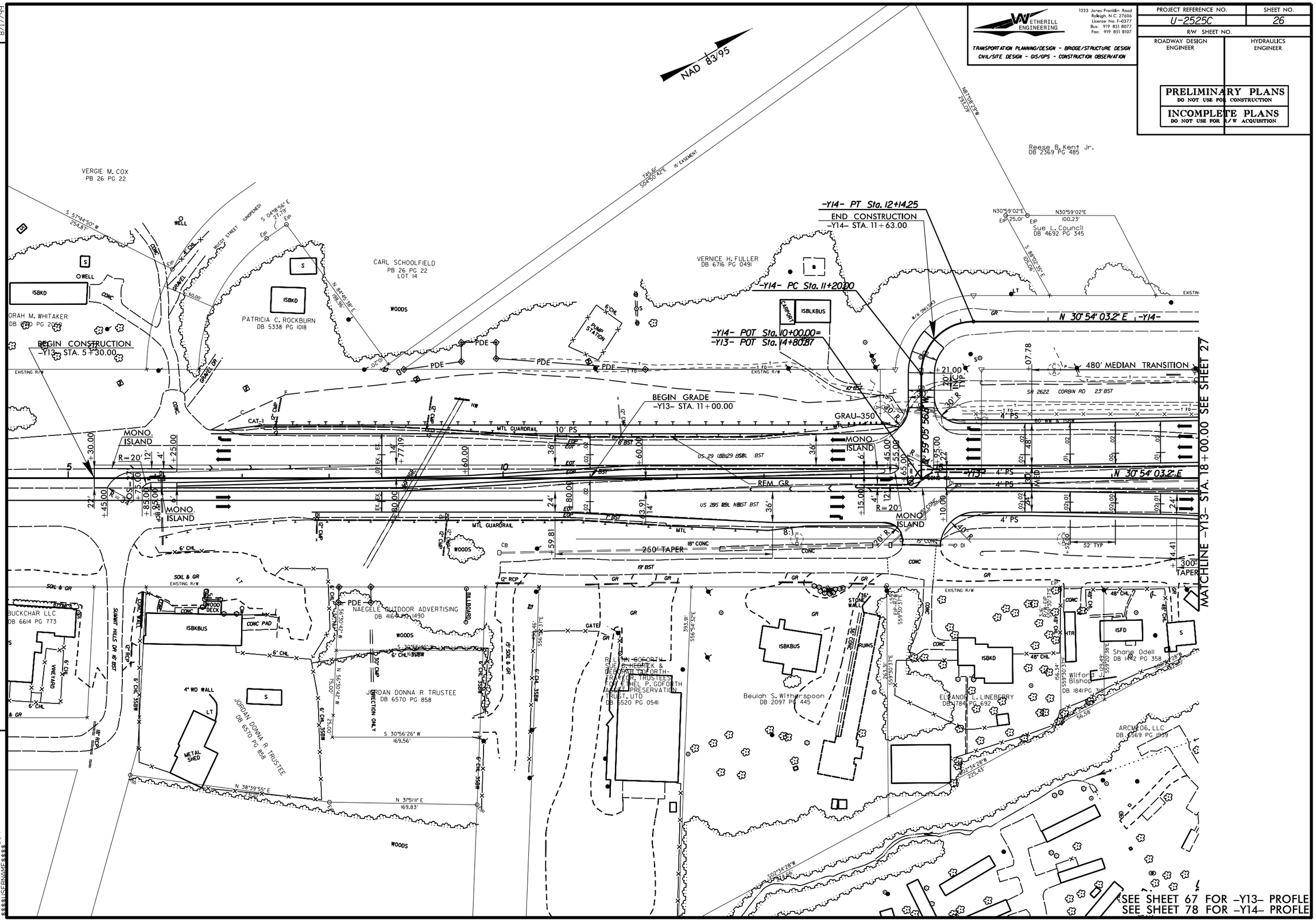
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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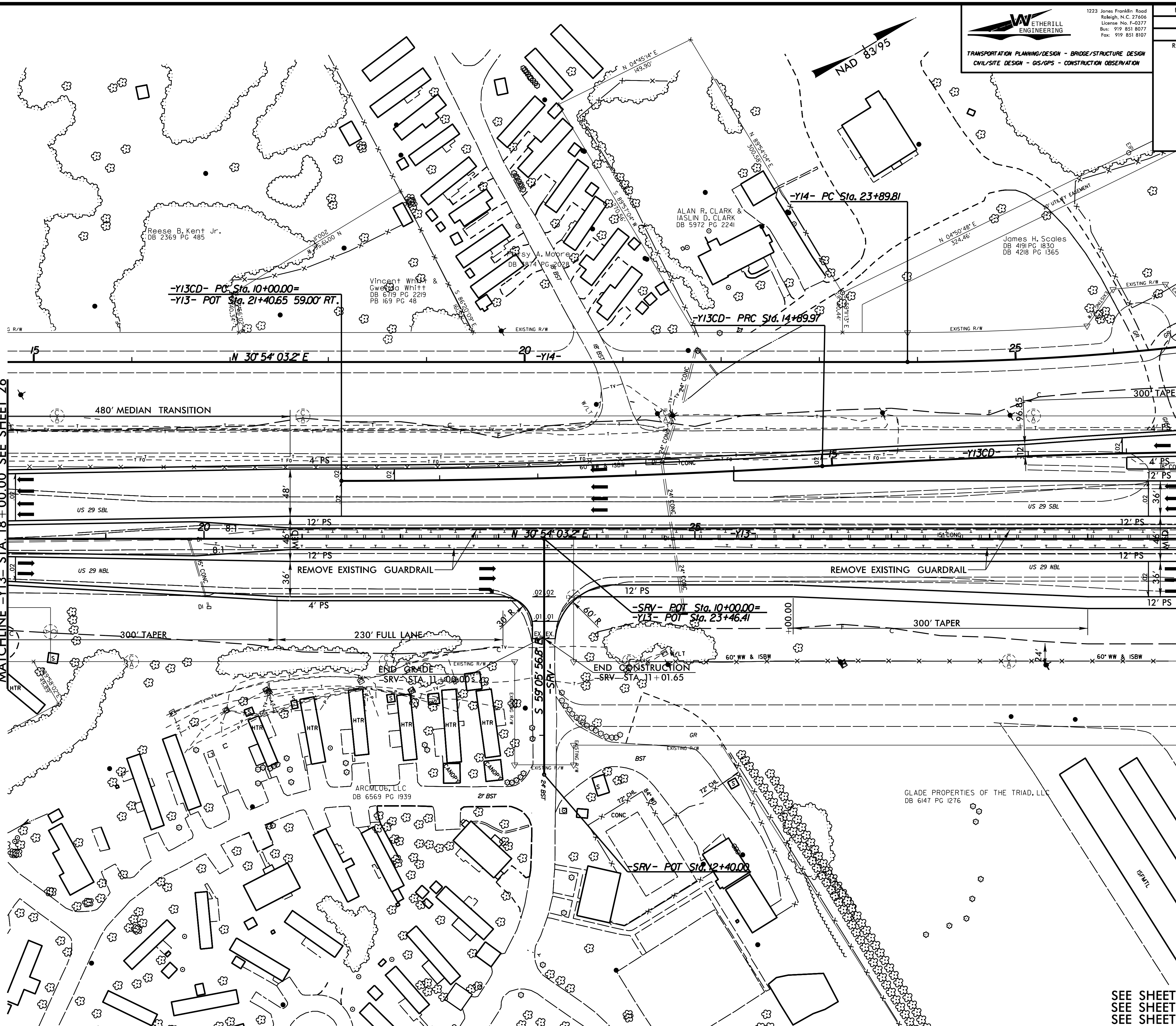
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



SEE SHEET 54 FOR -SRV- PROFILE
SEE SHEET 67 FOR -Y13- PROFILE
SEE SHEET 72 FOR -Y13CD- PROFILE

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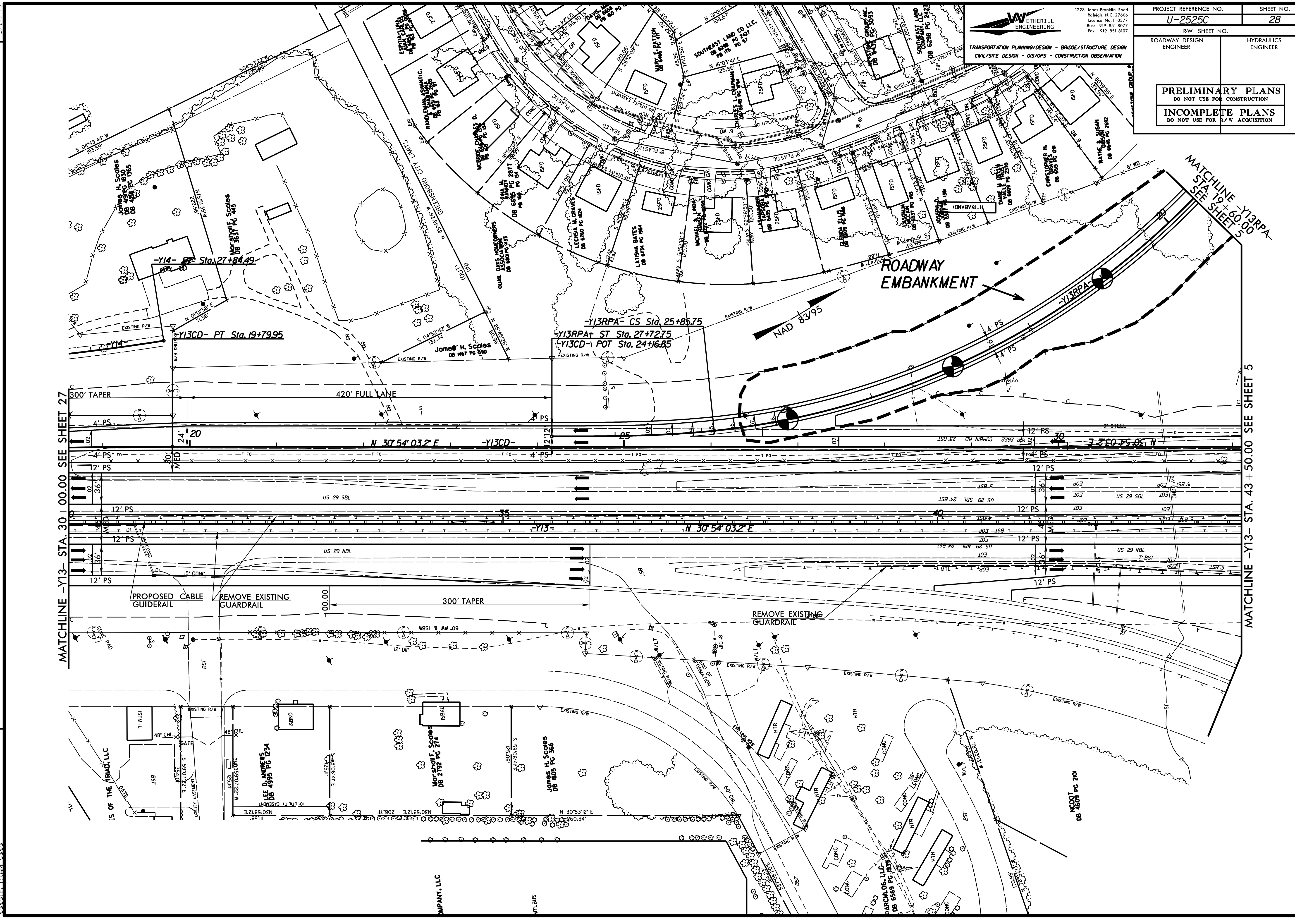
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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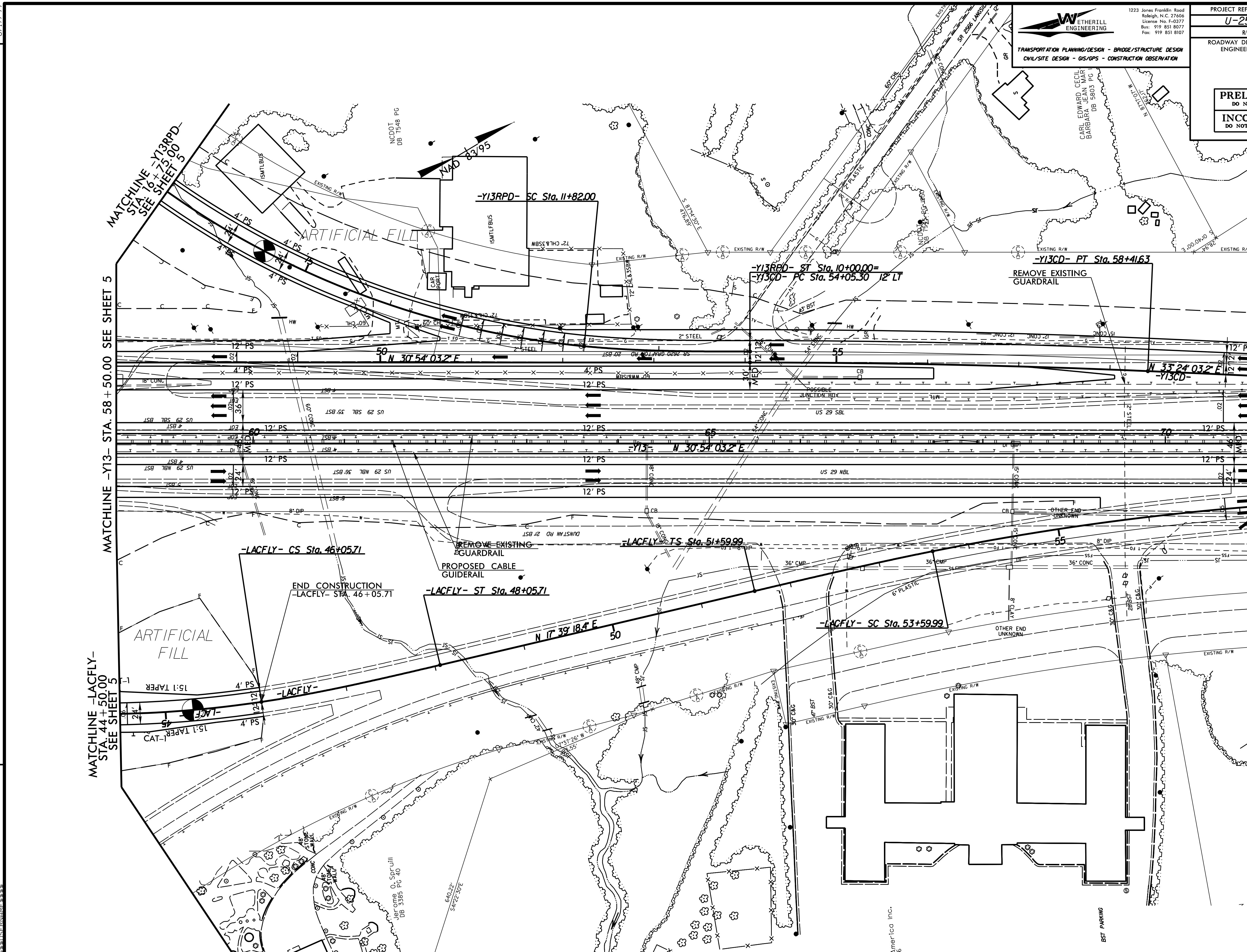
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	30
R/W SHEET NO.	

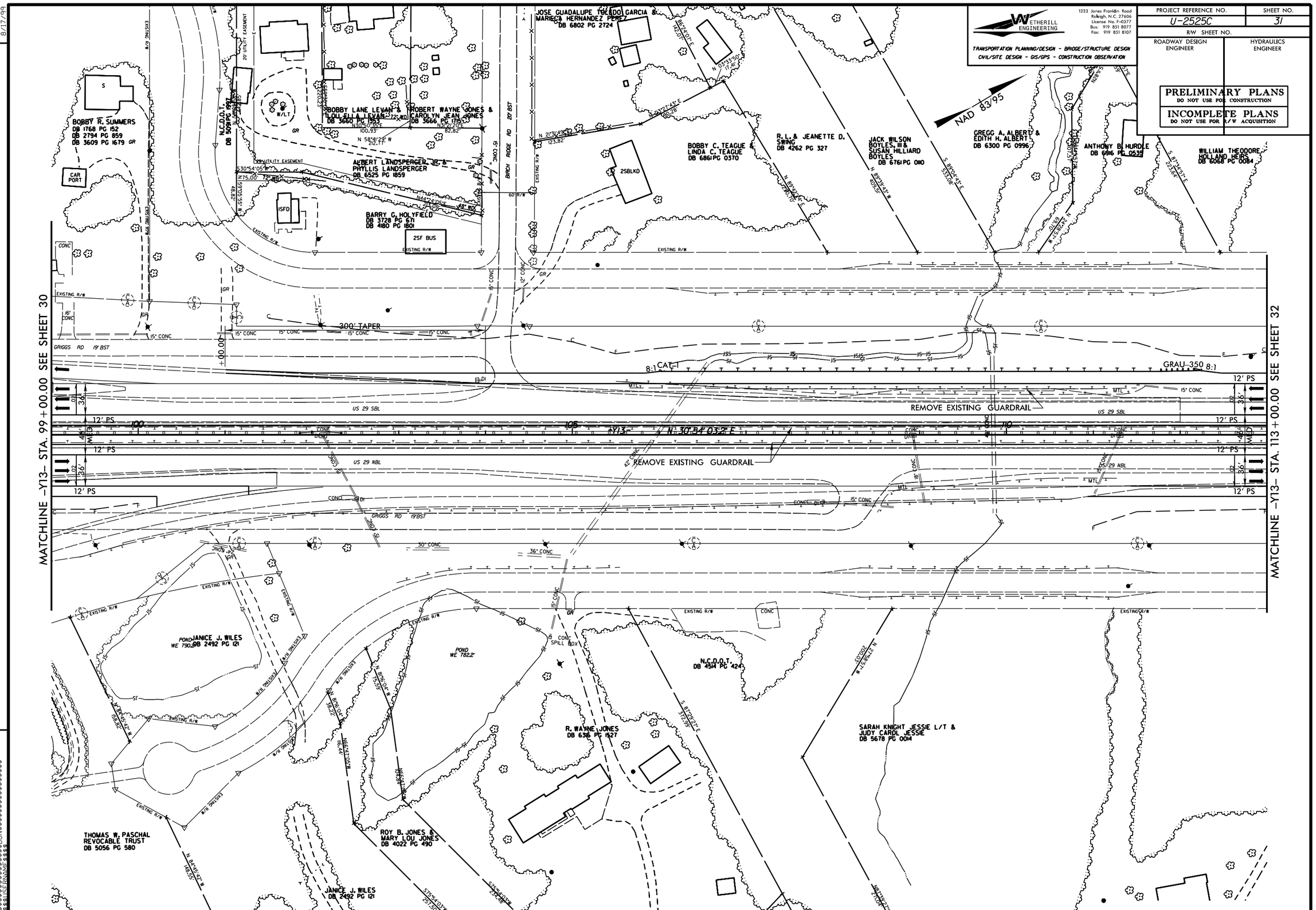
ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

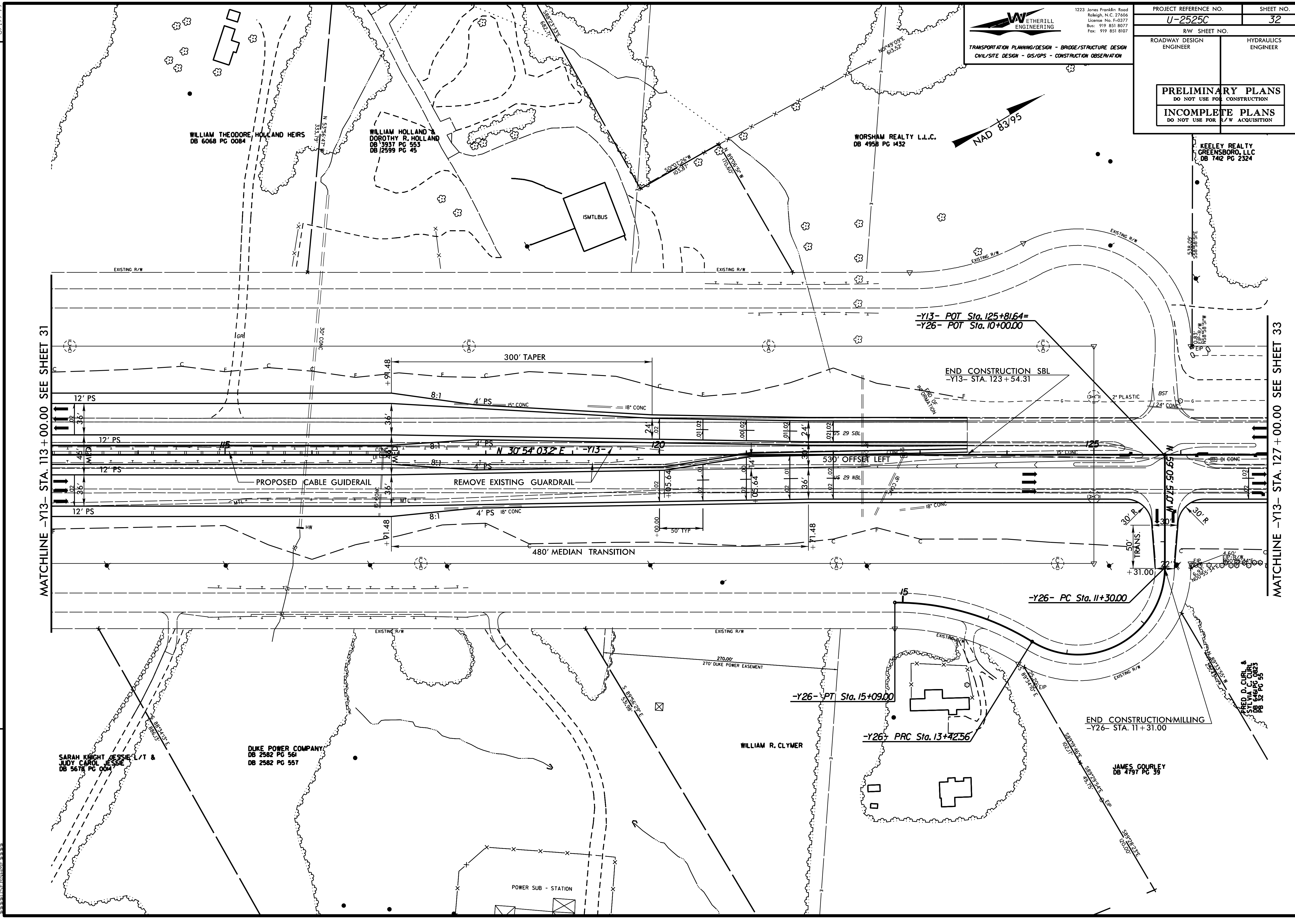
WETHERILL ENGINEERS
1111 Jones Franklin Road
Raleigh, NC 27606
License No. C-0832
Ph: (919) 851-8051
Fax: (919) 851-8052

TRANSPORTATION PLANNING/DESIGN - INFRASTRUCTURE DESIGN
ON-LINE DESIGN - SURVEYS - CONSTRUCTION OBSERVATION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

LOCATION:
TIP NO.: COUNTY:
DESIGNED BY:
CHECKED BY: DATE:


WETHERILL ENGINEERING
1223 Jones Franklin Road
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
U-2525C
SHEET NO.
31
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
NAD 83/95
MATCHLINE -Y13- STA. 99+00.00 SEE SHEET 30
MATCHLINE -Y13- STA. 113+00.00 SEE SHEET 32
BOBBY R. SUMMERS
DB 1768 PG 152
DB 2794 PG 859
DB 3609 PG 1679
CAR PORT
N.C.D.O.T.
DB 5080 PG 1997
BOBBY LANE LEVAN & LOU ELLA LEVAN
DB 3660 PG 1993
ROBERT WAYNE JONES & CAROLYN JEAN JONES
DB 3666 PG 1715
ALBERT LANDSPERGER JR. & PHYLLIS LANDSPERGER
DB 6525 PG 1859
BARRY G. HOLYFIELD
DB 3728 PG 671
DB 4180 PG 1801
2SF BUS
JOSE GUADALUPE TOLEDO GARCIA & MARIELA HERNANDEZ PEREZ
DB 6802 PG 2724
BOBBY C. TEAGUE & LINDA C. TEAGUE
DB 6861 PG 0370
R.L. & JEANETTE D. SWING
DB 4262 PG 327
JACK WILSON BOYLES, III & SUSAN HILLIARD BOYLES
DB 6761 PG 0110
GREGG A. ALBERT & EDITH H. ALBERT
DB 6300 PG 0996
ANTHONY B. HURDLE
DB 6916 PG 0539
WILLIAM THEODORE HOLLAND HEIRS
DB 6068 PG 0084
BIRCH RIDGE RD 20' BST
GRIGGS RD 19' BST
US 29 SBL
US 29 NBL
300' TAPER
REMOVE EXISTING GUARDRAIL
N 30°54'03.2" E
JANICE J. WILES
DB 2492 PG 121
POND WE 7902
POND WE 7822
N.C.D.O.T.
DB 4514 PG 424
R. WAYNE JONES
DB 6316 PG 1527
SARAH KNIGHT JESSIE L/T & JUDY CAROL JESSIE
DB 5678 PG 0014
THOMAS W. PASCHAL REVOCABLE TRUST
DB 5056 PG 580
ROY B. JONES & MARY LOU JONES
DB 4022 PG 490
JANICE J. WILES
DB 2492 PG 121
REVISIONS
8/17/99



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WETHERILL ENGINEERING
1223 Jones Franklin Road Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO. U-2525C
SHEET NO. 32
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
REVISIONS
NAD 83/95
WILLIAM THEODORE HOLLAND HEIRS
DB 6068 PG 0084
WILLIAM HOLLAND & DOROTHY R. HOLLAND
DB 3937 PG 553
DB 2599 PG 45
WORSHAM REALTY L.L.C.
DB 4958 PG 1432
KEELEY REALTY GREENSBORO, LLC
DB 7412 PG 2324
ISMTLBUS
EXISTING R/W
MATCHLINE -Y13- STA. 113+00.00 SEE SHEET 31
MATCHLINE -Y13- STA. 127+00.00 SEE SHEET 33
-Y13- POT Sta. 125+81.64=
-Y26- POT Sta. 10+00.00
END CONSTRUCTION SBL
-Y13- STA. 123+54.31
300' TAPER
480' MEDIAN TRANSITION
530' OFFSET LEFT
12' PS
4' PS
8:1
N 30°54'03.2" E -Y13-
PROPOSED CABLE GUIDERAIL
REMOVE EXISTING GUARDRAIL
US 29 SBL
US 29 NBL
50' TYP
30' R
50' TRANS.
-Y26- PC Sta. 11+30.00
-Y26- PT Sta. 15+09.00
-Y26- PRC Sta. 13+42.56
END CONSTRUCTION/MILLING
-Y26- STA. 11+31.00
270' DUKE POWER EASEMENT
SARAH KNIGHT JESSIE L/T & JUDY CAROL JESSIE
DB 5678 PG 0014
DUKE POWER COMPANY
DB 2582 PG 561
DB 2582 PG 557
WILLIAM R. CLYMER
JAMES GOURLEY
DB 4797 PG 39
FRED D. CURL & SYLVIA C. CURL
POWER SUB - STATION

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License No. F-0377
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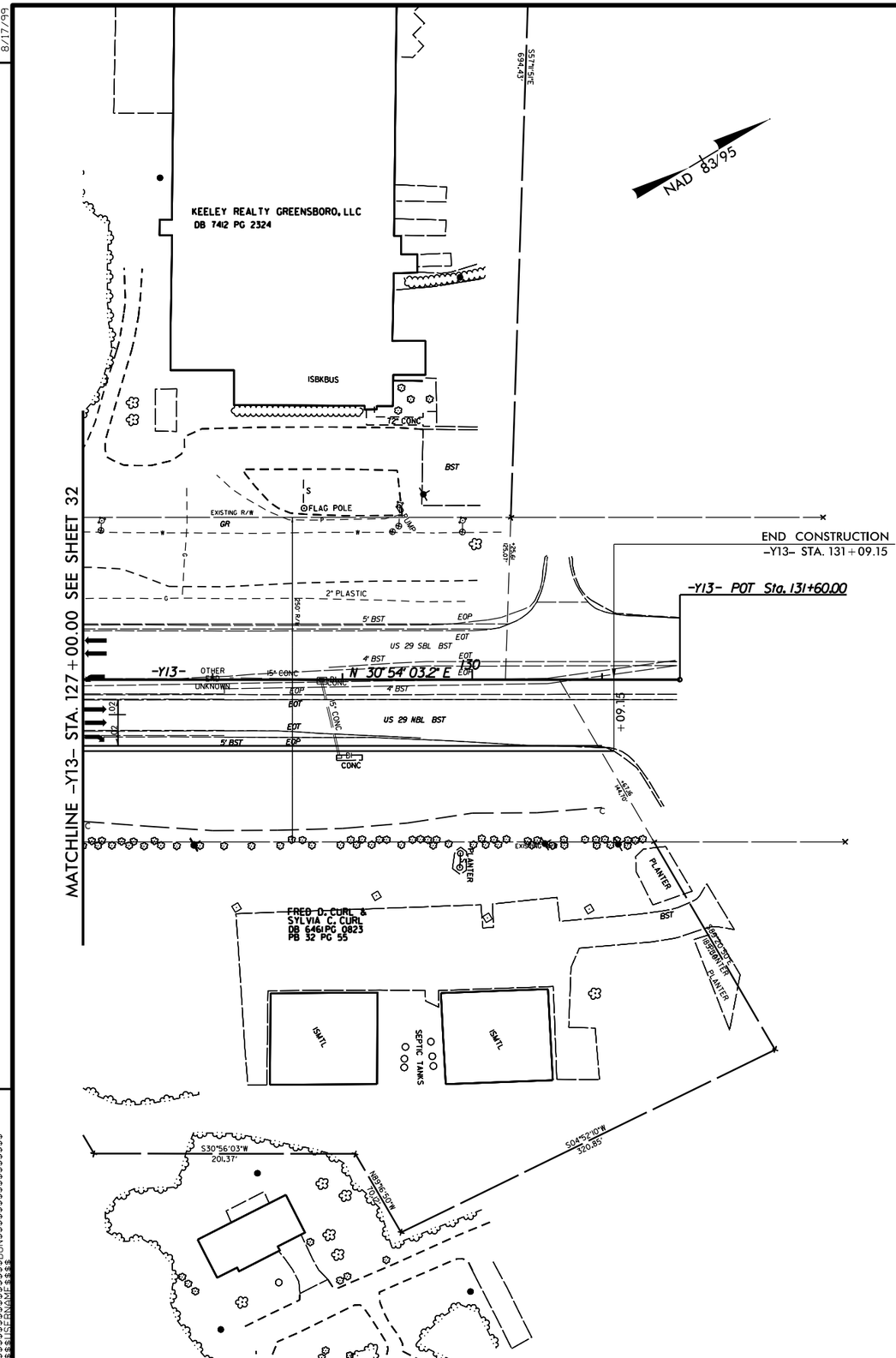
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	33
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

8/17/99

REVISIONS



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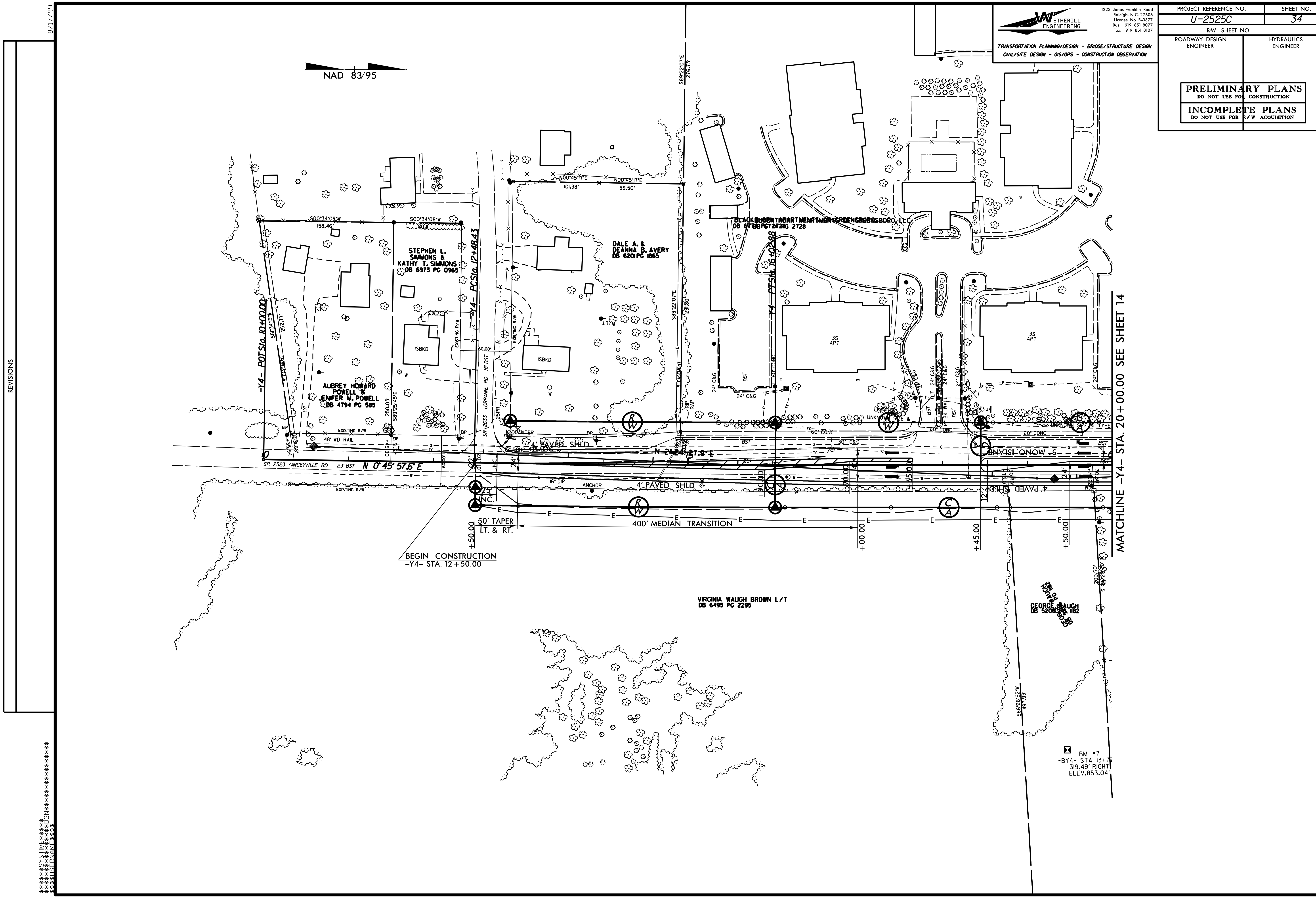
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WETHERILL ENGINEERING
1223 Jones Franklin Road Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO. U-2525C
SHEET NO. 34
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION
NAD 83/95
REVISIONS
STEPHEN L. SIMMONS & KATHY T. SIMMONS DB 6973 PG 0965
DALE A. & DEANNA B. AVERY DB 6201 PG 1865
AUBREY HOWARD POWELL & JENIFER M. POWELL DB 4794 PG 585
VIRGINIA WAUGH BROWN L/T DB 6495 PG 2295
GEORGE WAUGH
-Y4- POT Sta. 10+00.00
-Y4- PC Sta. 12+48.43
-Y4- PT Sta. 16+02.88
SR 2523 YANCEYVILLE RD 23' BST
SR 2533 LORRAINE RD 18' BST
N 0°45'57.6" E
N 2°24'47.9" E
4' PAVED SHLD
400' MEDIAN TRANSITION
50' TAPER LT. & RT.
BEGIN CONSTRUCTION -Y4- STA. 12+50.00
MATCHLINE -Y4- STA. 20+00.00 SEE SHEET 14
BM #7 -BY4- STA 13+77 319.49' RIGHT ELEV. 853.04'
S00°34'08"W 158.46'
S00°34'08"W
N00°45'17"E 101.38'
N00°45'17"E 99.50'
S89°22'07"E 276.73'
S89°22'07"E
S89°25'45"E 250.03'
S86°26'52"W 497.93'
3S APT
1SBKD
48' WD RAIL
EXISTING R/W
5' MONO. ISLAND
60' CONC
30" C&G
24" C&G
16" DIP
ANCHOR

WETHERILL ENGINEERING
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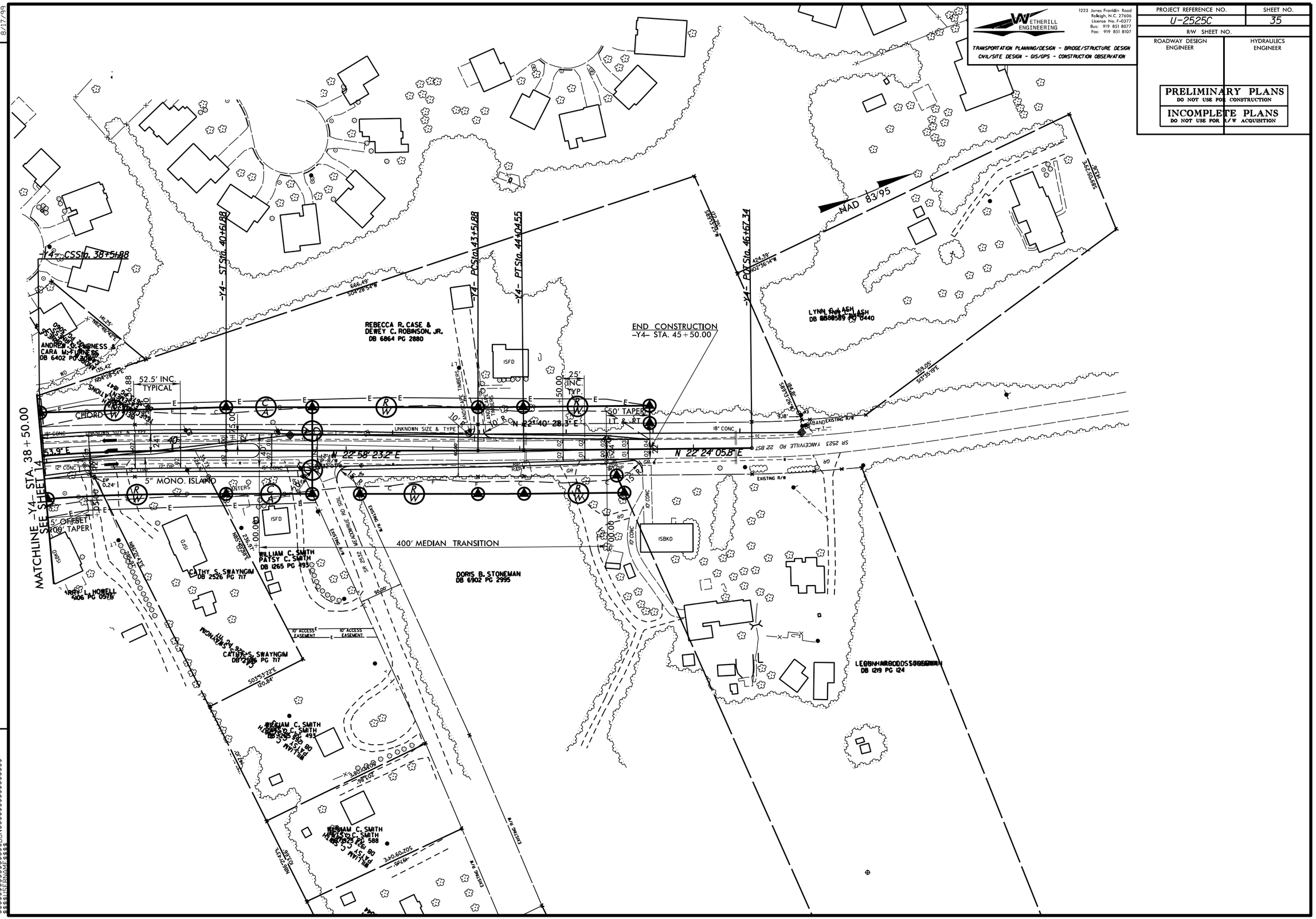
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	35
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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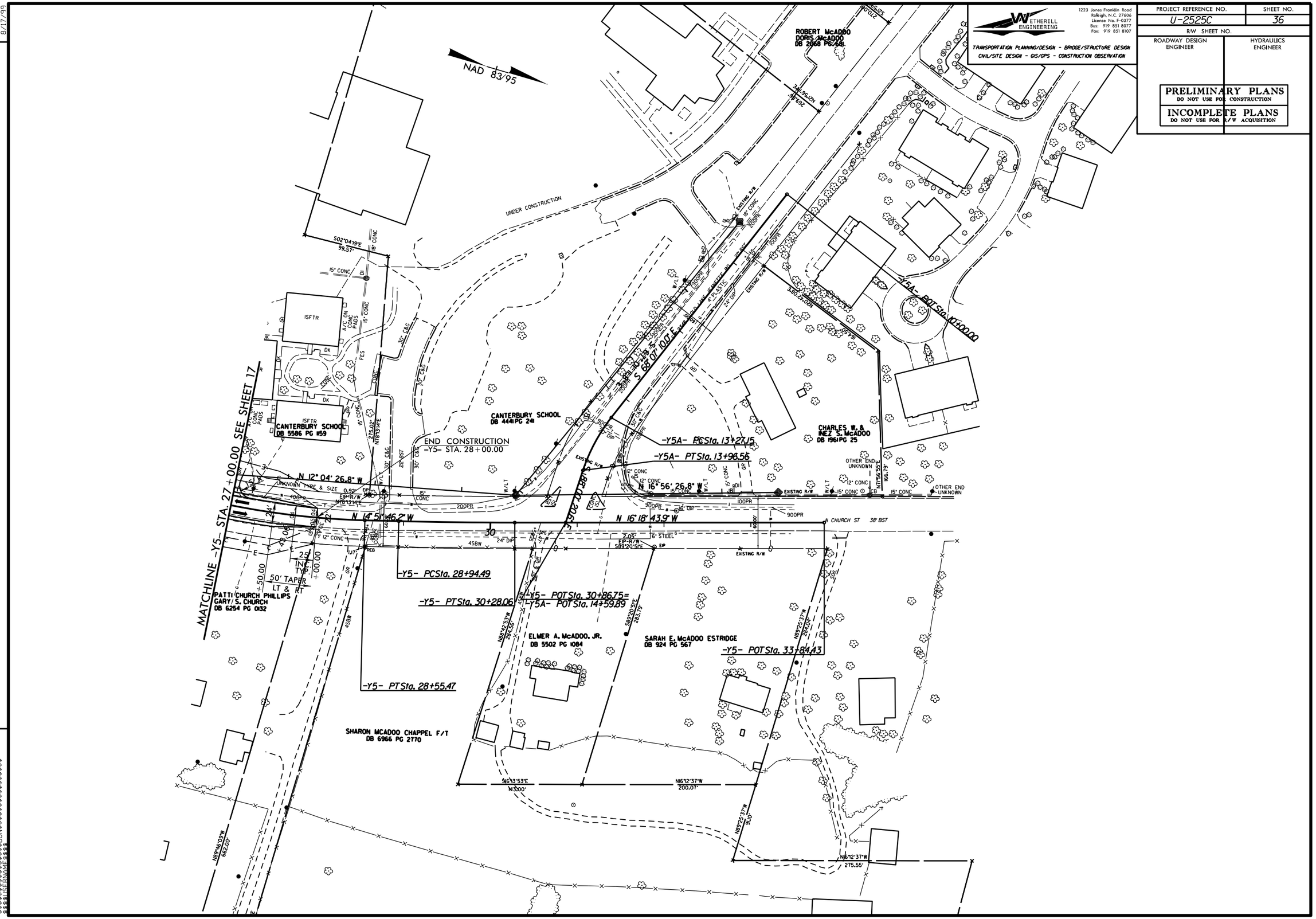
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	36
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



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Bus: 919 851 8077
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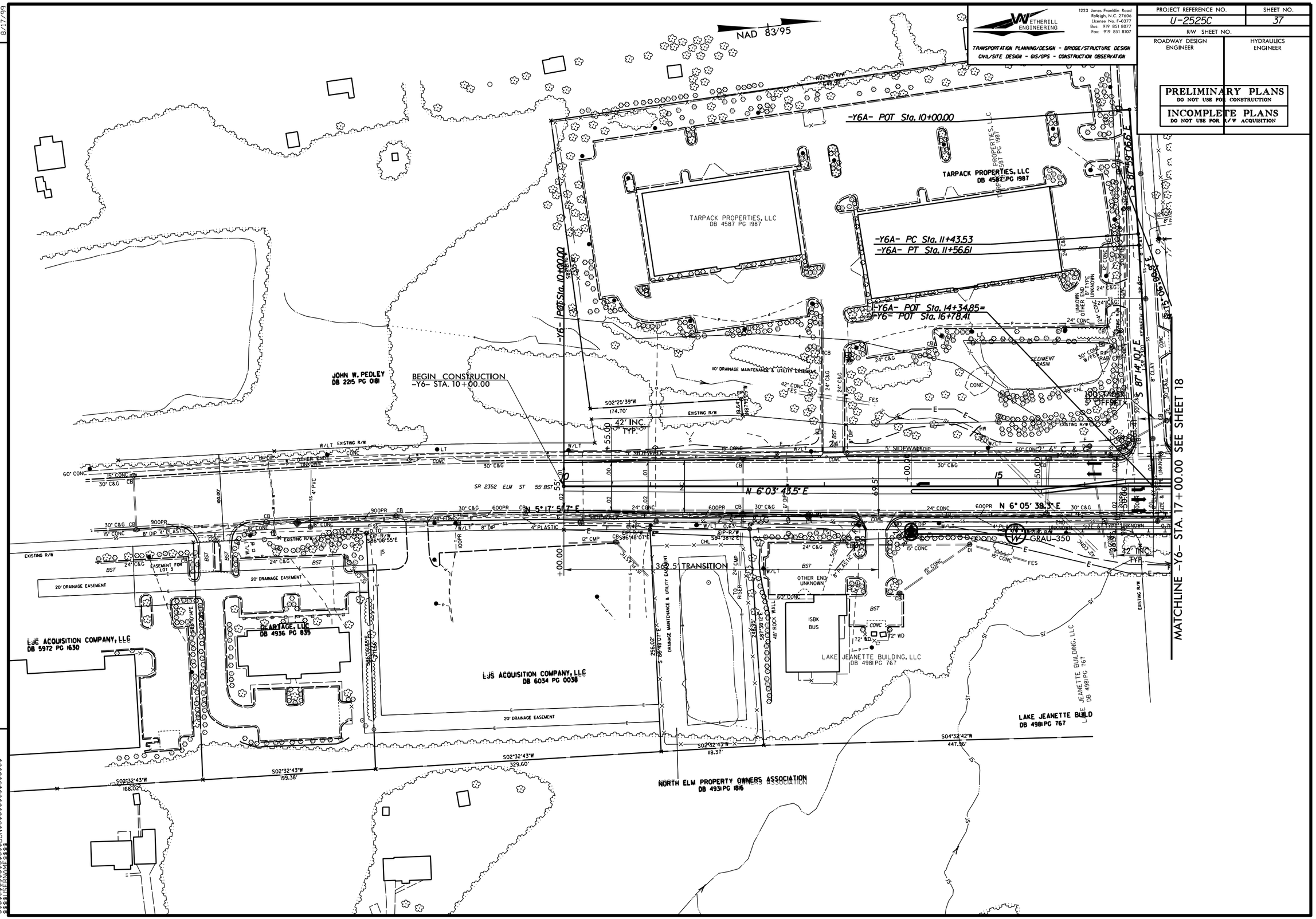
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	37
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION



REVISIONS

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$$$$USERNAME$$$$

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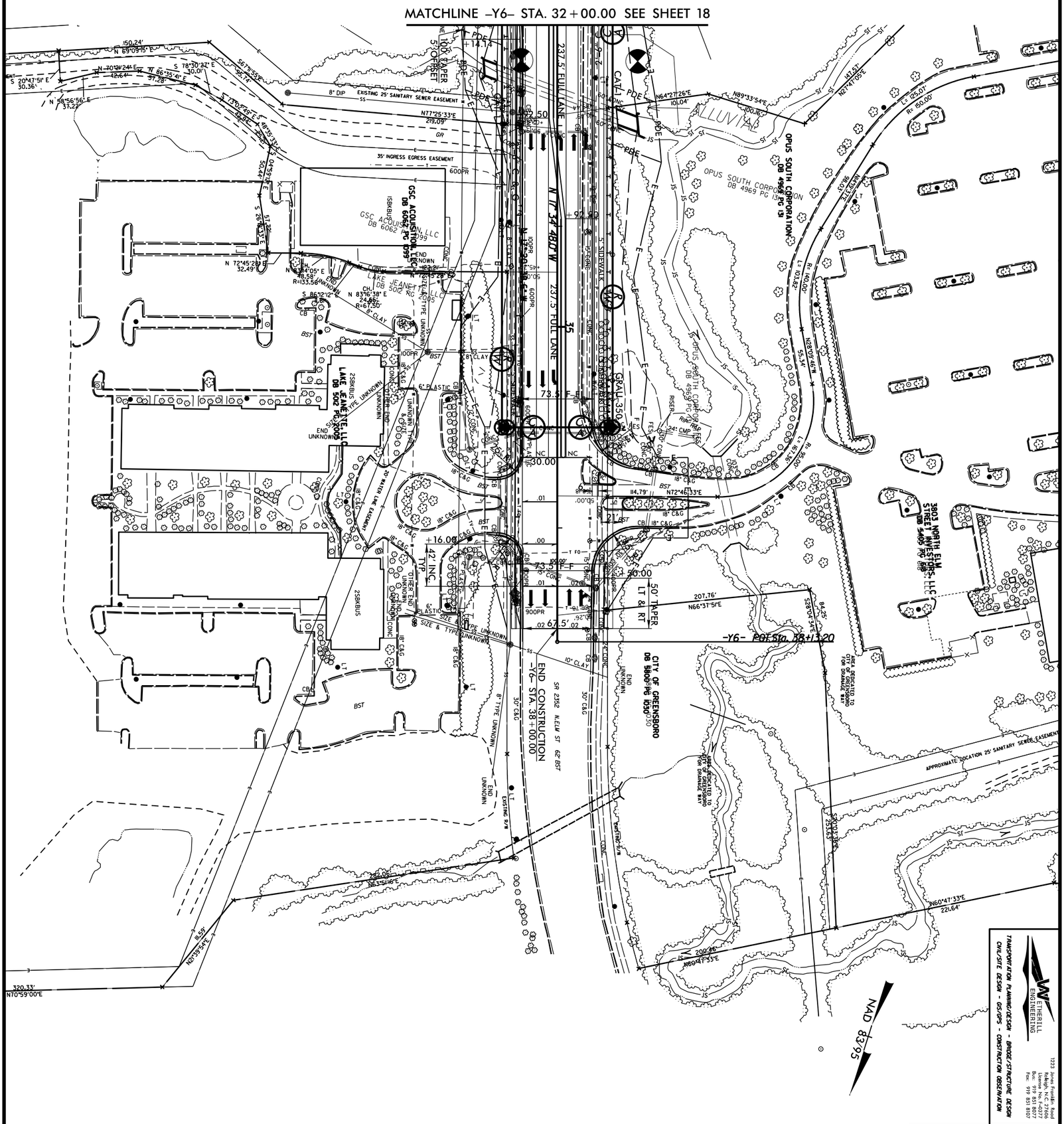

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

ETHERILL ENGINEERING

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Raleigh, N.C. 27606
Licence No. F-0377
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Fax: 919 851 8107

PROJECT REFERENCE NO. U-2525C
SHEET NO. 38
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	39

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

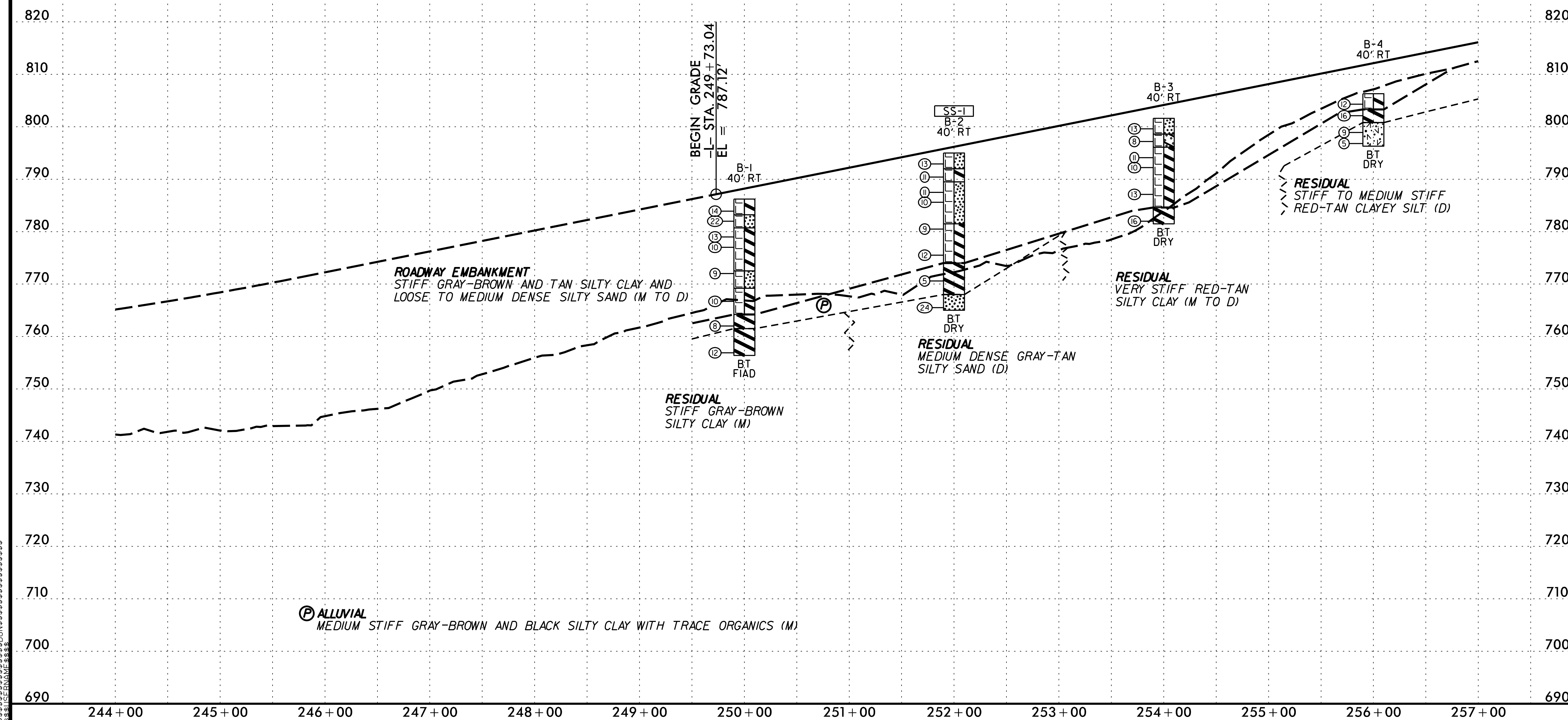
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-1	40' RT	252+00	1.1-2.6	A-2-4(0)	31	7	44	24	21	11	87	57	49	34.0	13.3	ND



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	40
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

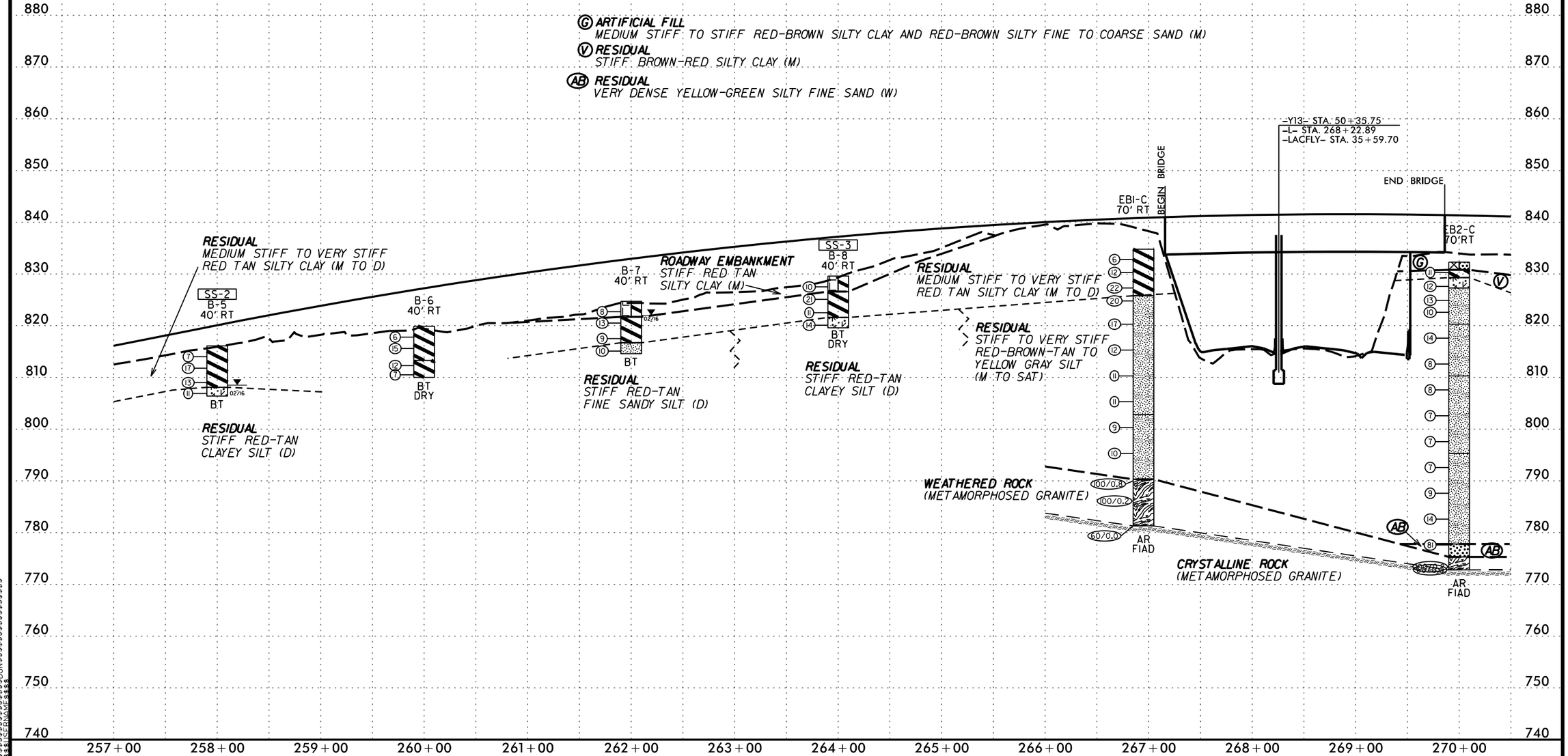
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-2	40' RT	258+00	1.1-2.6	A-7-5(38)	76	34	6	10	22	62	100	95	94	88.8	37.2	ND
SS-3	40' RT	264+00	1.1-2.6	A-7-6(29)	59	31	7	13	17	63	100	96	93	84.3	25.7	ND



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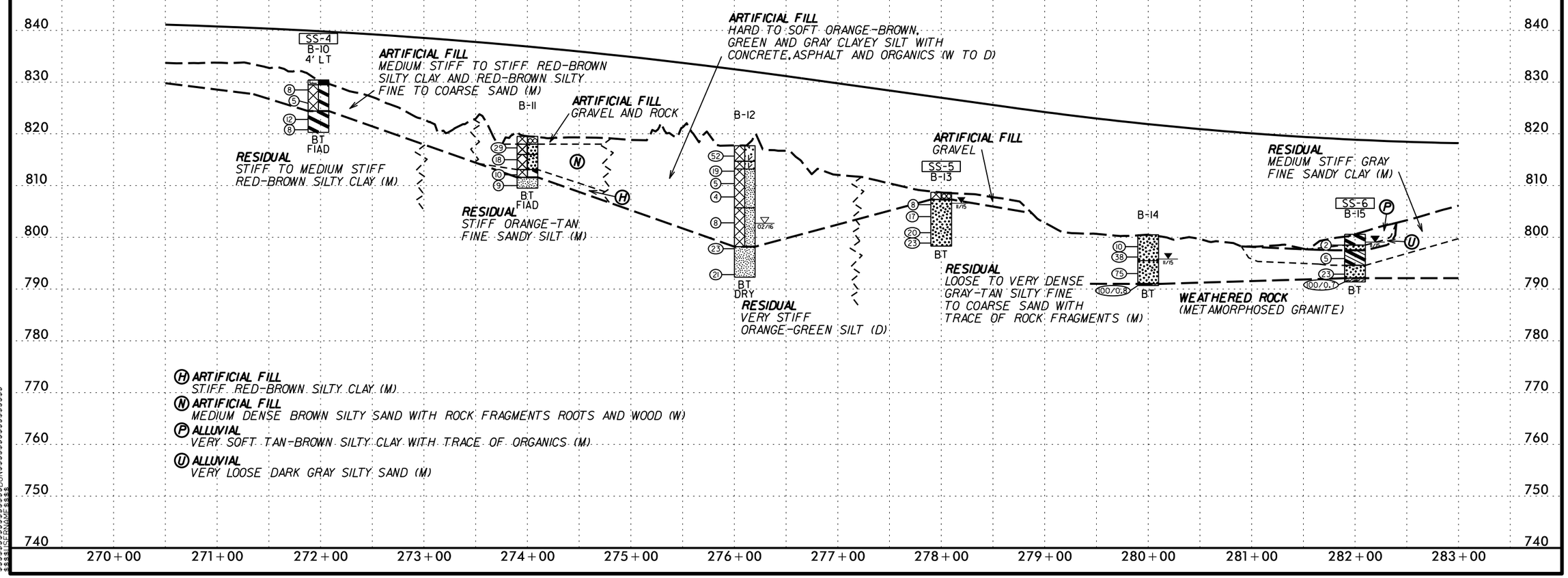
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	41
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-4	4' LT	271+98	0.9-2.4	A-7-6(10)	48	23	33	13	17	37	96	69	64	55.0	23.2	ND
SS-5	CL	278+00	1.4-2.9	A-4(1)	37	6	34	25	30	11	100	77	66	47.5	26.5	ND
SS-6	CL	282+00	1.1-2.6	A-2-4(0)	29	10	42	25	14	19	96	71	56	35.3	29.5	ND



ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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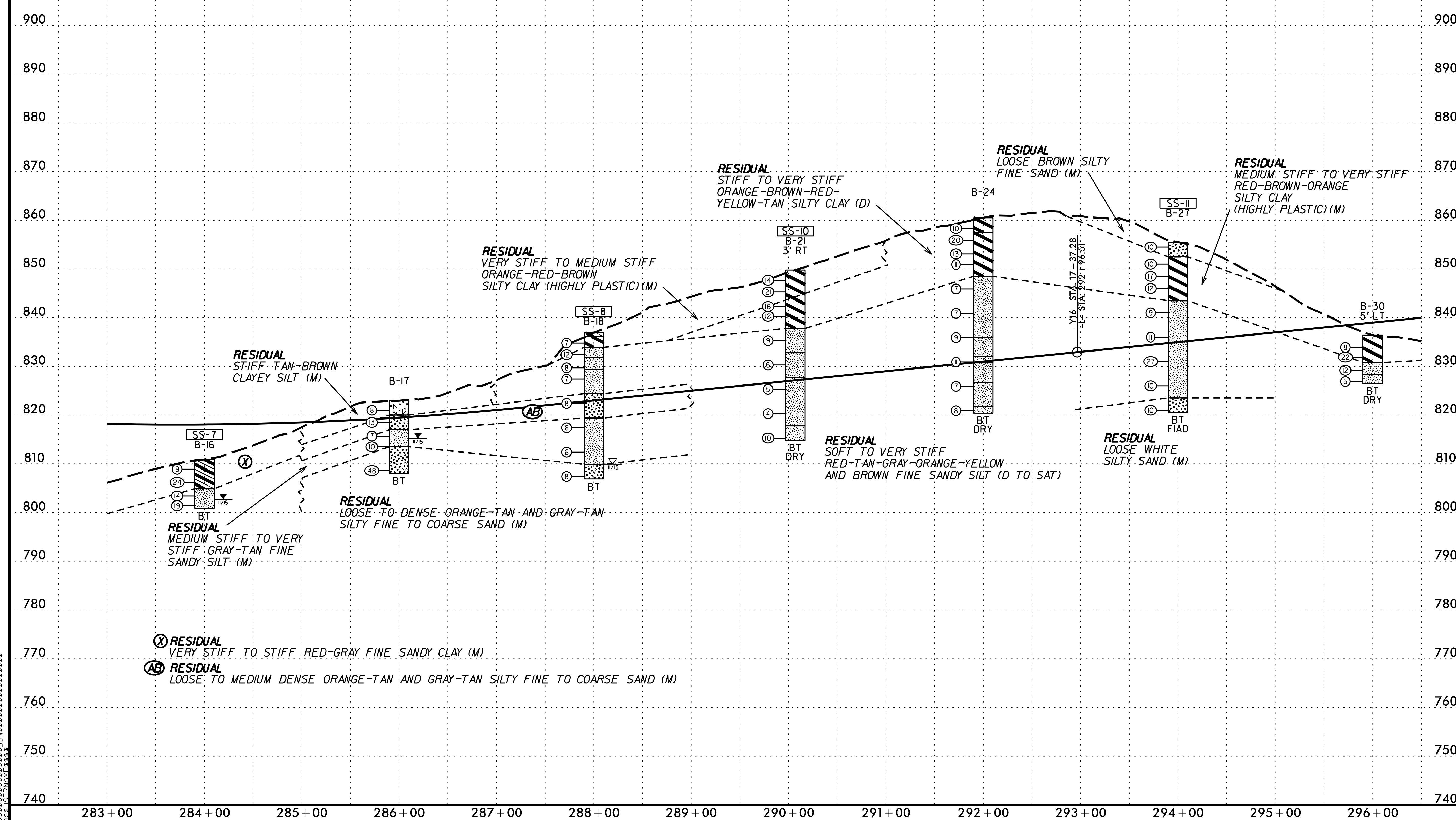
SS-8	CL	288+00	1-2.5	A-7-5(30)	72	33	11	15	18	56	100	93	89	78.3	34.8	ND
SS-10	3' RT	290+07	3.5-5	A-7-5(19)	56	23	13	14	22	51	100	95	87	75.6	26.7	ND
SS-11	CL	294+00	6-7.5	A-7-5(49)	77	40	0	6	40	54	100	100	100	97.9	29.0	ND

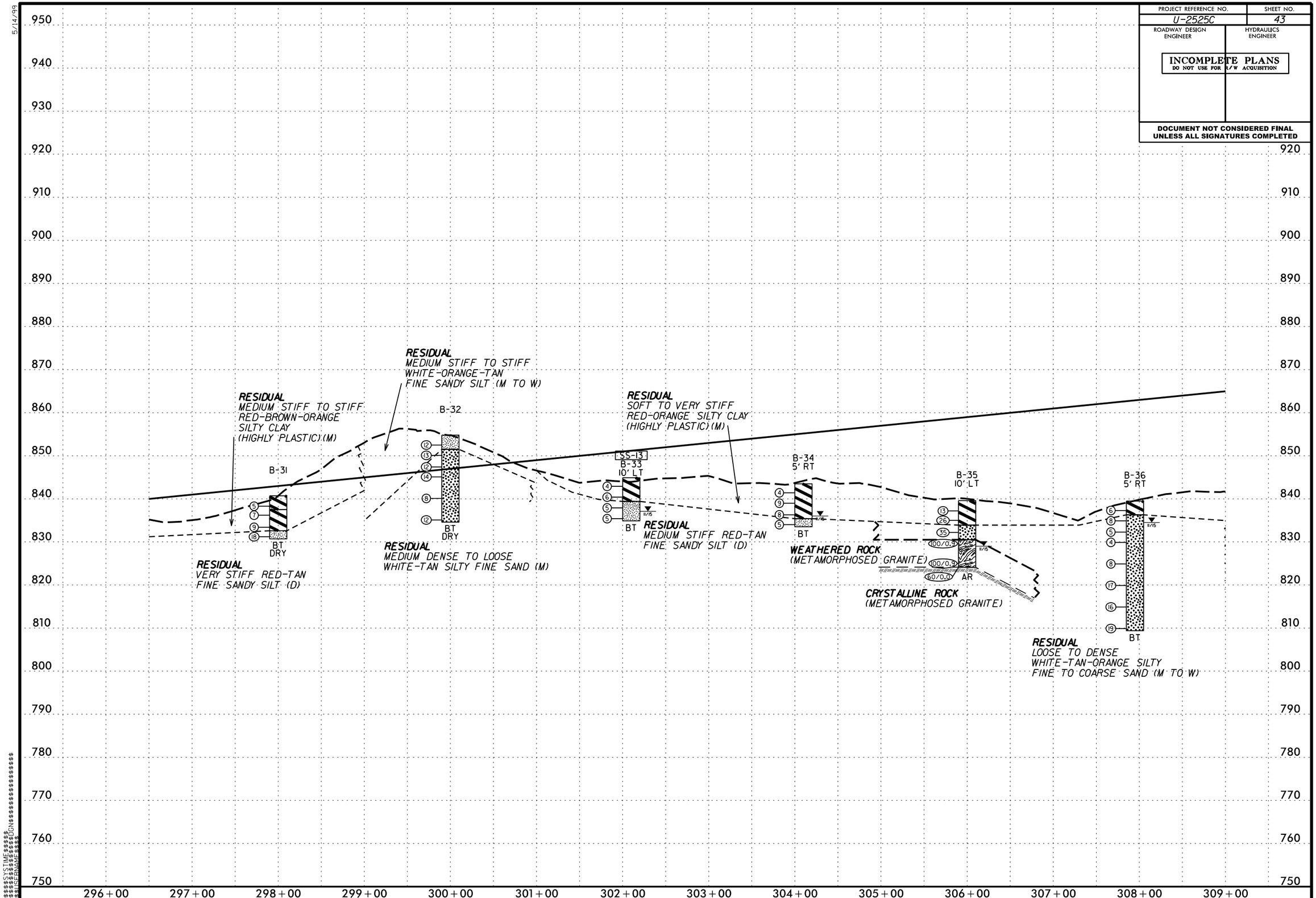


$$$$SYSTIME$$$$ $$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	43
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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PROJECT REFERENCE NO.	SHEET NO.
U-2525C	44

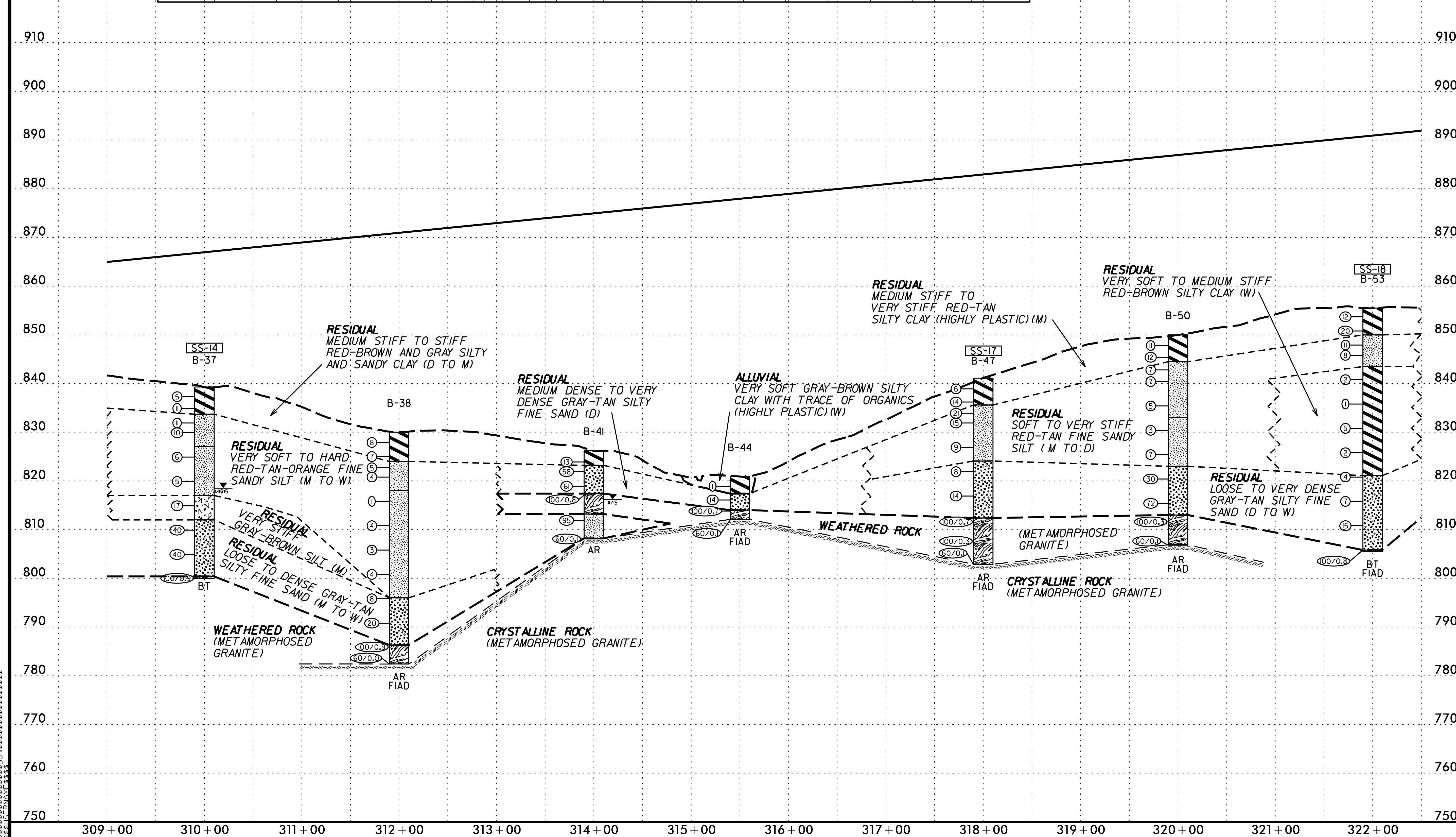
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SS-17	CL	318+00	1.2-2.7	A-7-5(43)	71	39	2	13	32	53	100	99	98	92.1	41.0	ND
SS-18	CL	322+00	18.7-20.2	A-7-5(25)	72	18	2	21	54	23	100	99	98	89.2	91.5	ND



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	45

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

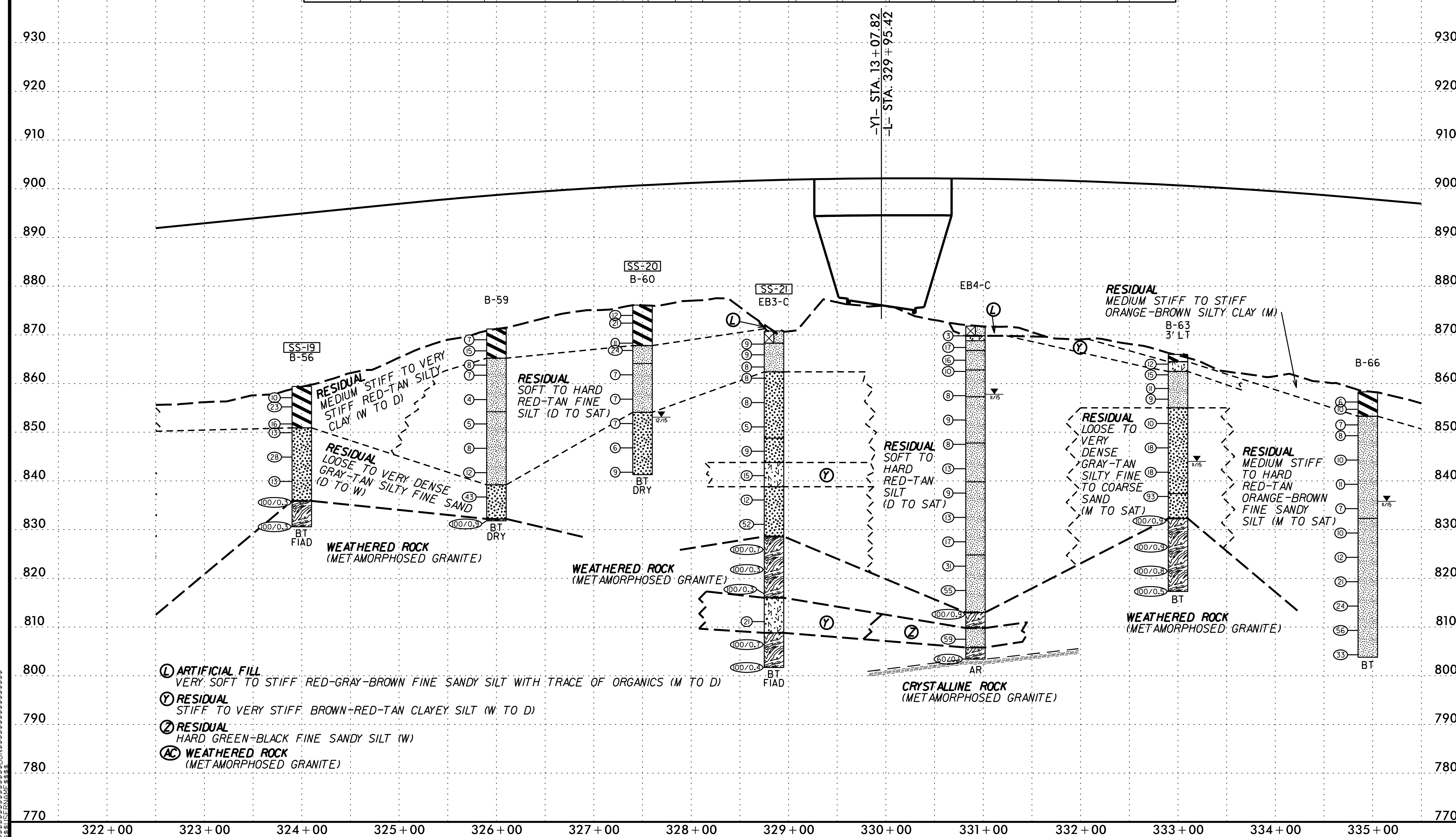
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-19	CL	324+00	6.7-8.2	A-7-5(6)	42	12	16	34	36	14	100	93	84	58.7	29.2	ND
SS-20	CL	327+50	6-7.5	A-7-5(8)	58	13	18	30	27	25	99	87	81	58.7	45.5	ND
SS-21	CL	328+85	28.7-30.2	A-5(1)	47	4	17	51	30	2	100	94	83	45.7	35.9	ND



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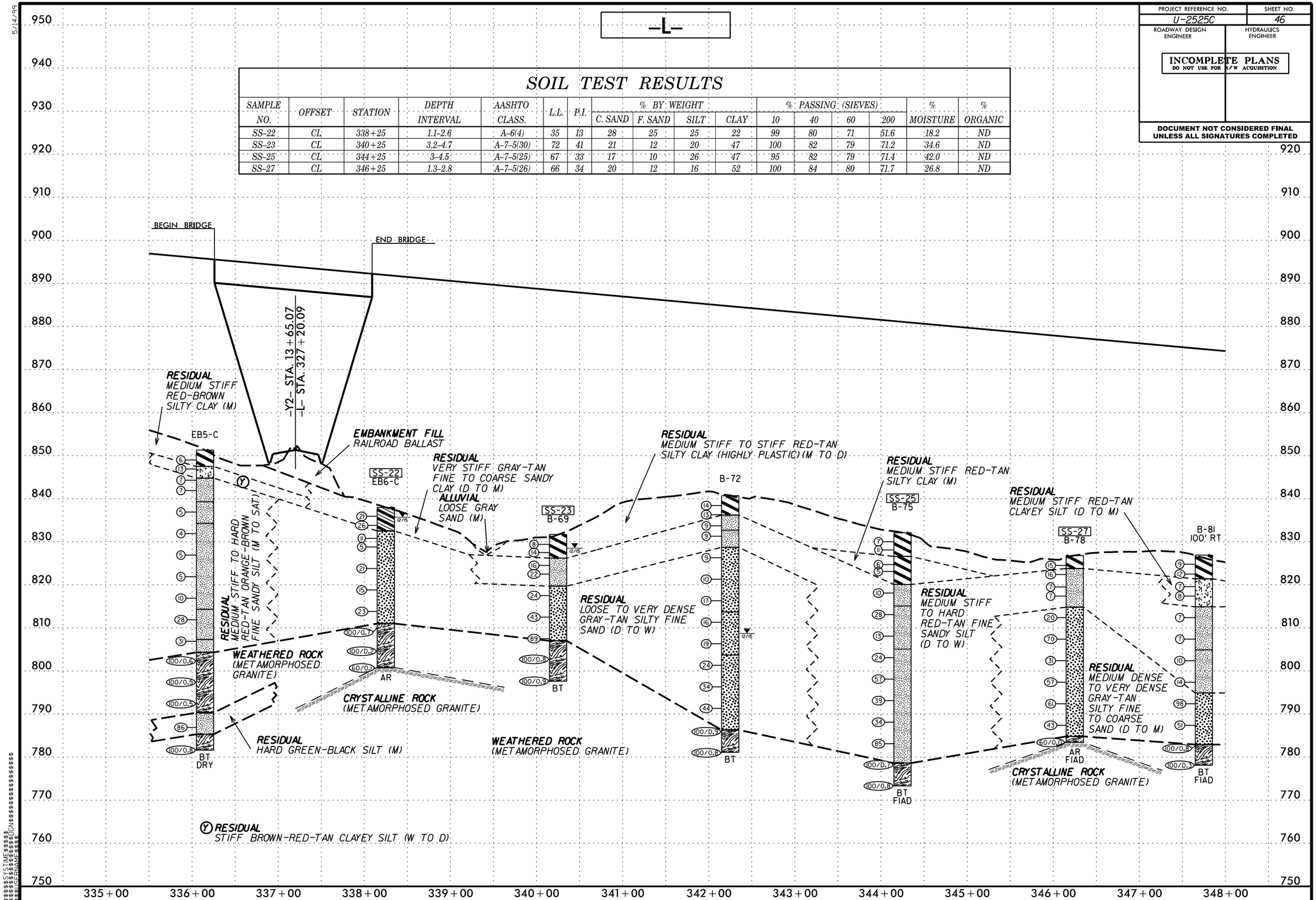
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	46
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-22	CL	338+25	1.1-2.6	A-6(4)	35	13	28	25	25	22	99	80	71	51.6	18.2	ND
SS-23	CL	340+25	3.2-4.7	A-7-5(30)	72	41	21	12	20	47	100	82	79	71.2	34.6	ND
SS-25	CL	344+25	3-4.5	A-7-5(25)	67	33	17	10	26	47	95	82	79	71.4	42.0	ND
SS-27	CL	346+25	1.3-2.8	A-7-5(26)	66	34	20	12	16	52	100	84	80	71.7	26.8	ND



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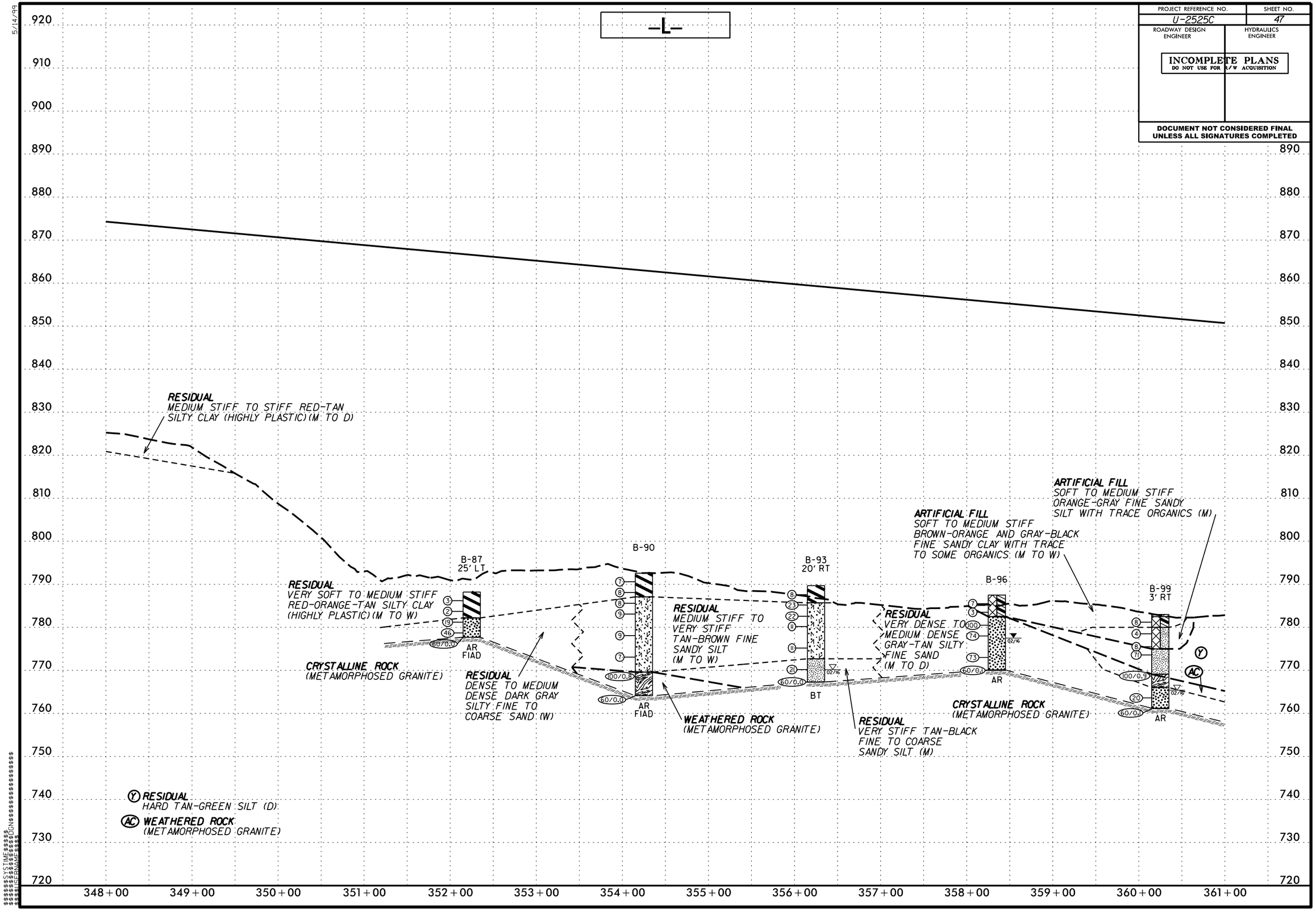
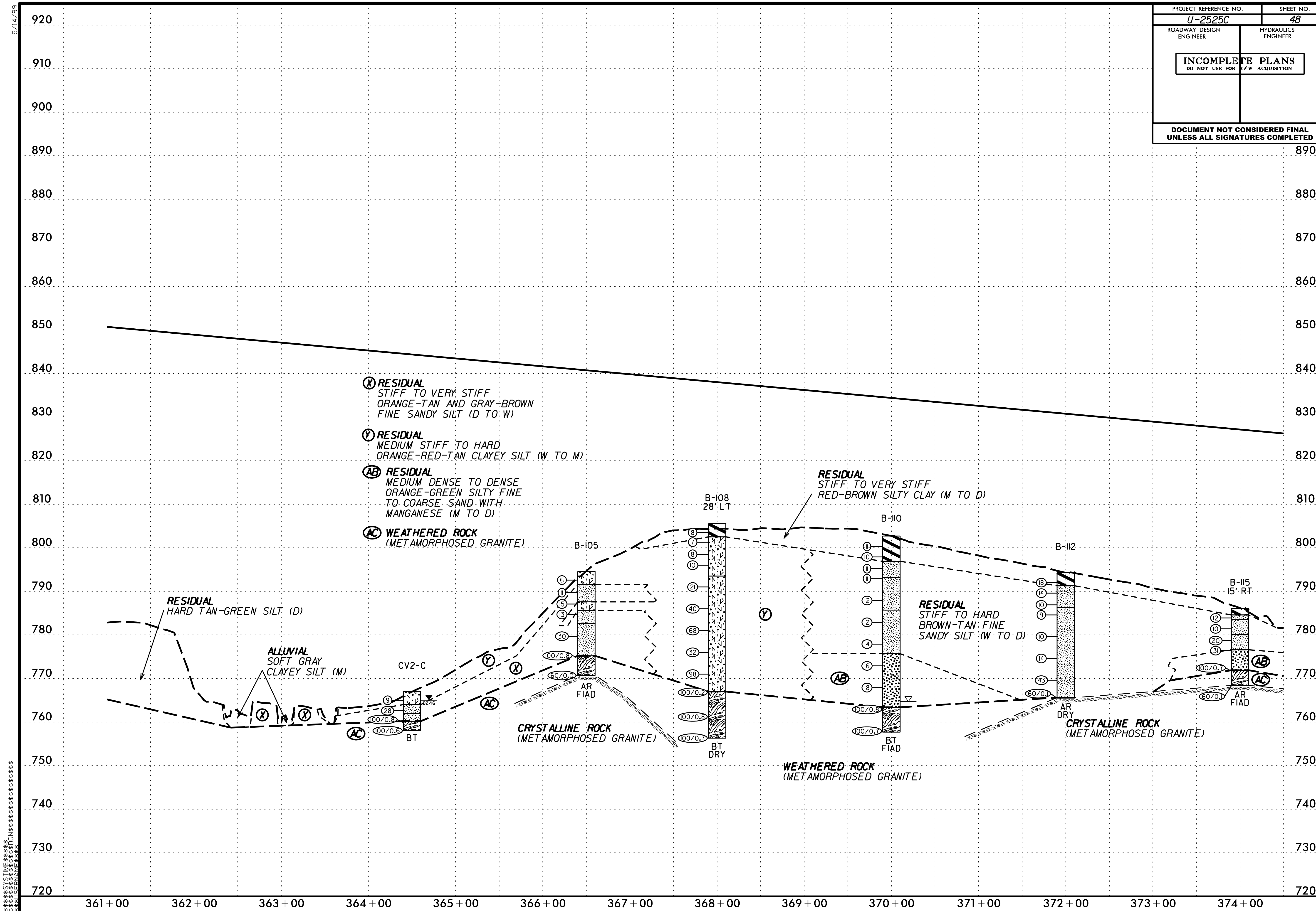
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





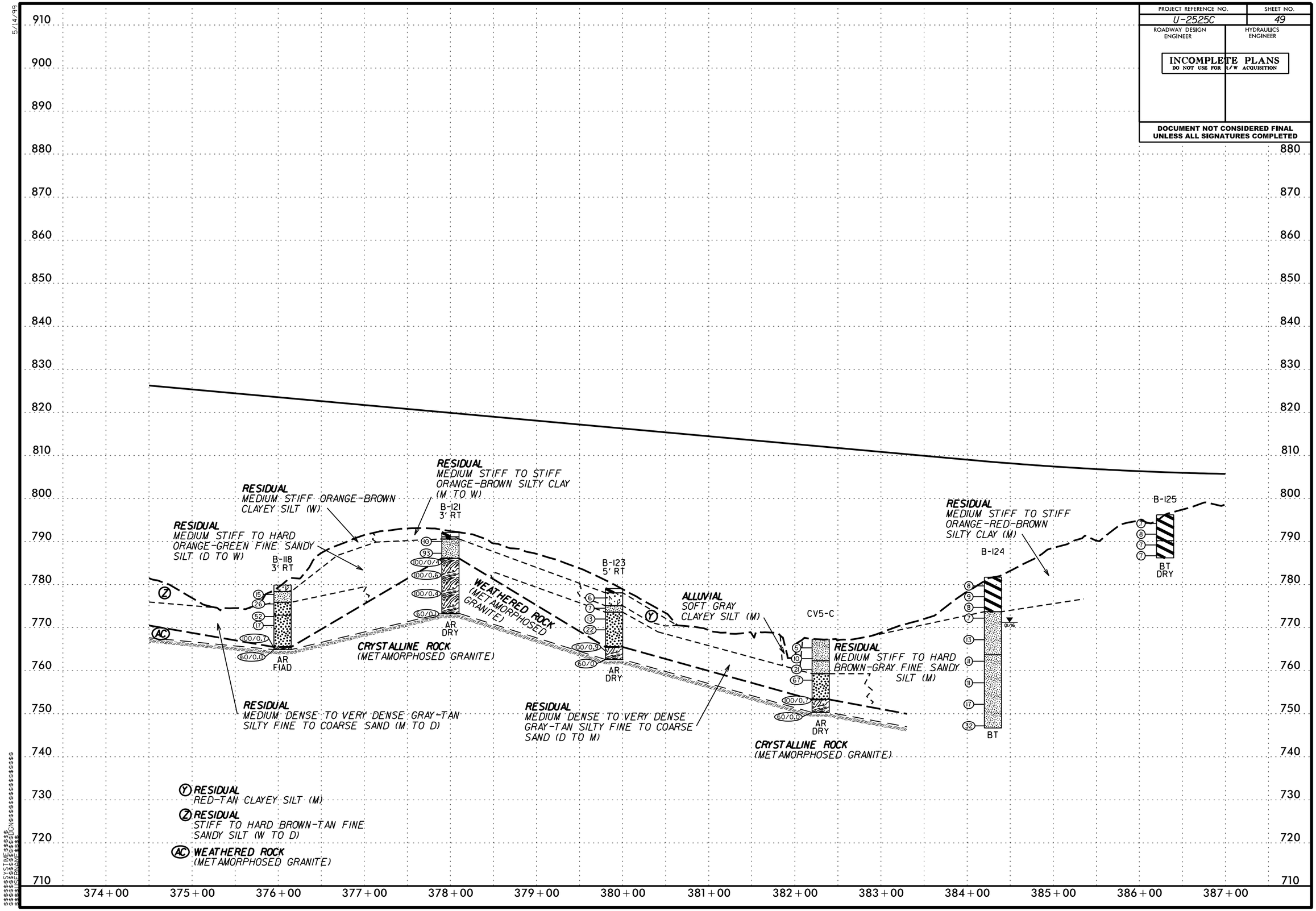
PROJECT REFERENCE NO.
SHEET NO.
U-2525C
48
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
5/14/99
(X) RESIDUAL
STIFF TO VERY STIFF
ORANGE-TAN AND GRAY-BROWN
FINE SANDY SILT (D TO W)
(Y) RESIDUAL
MEDIUM STIFF TO HARD
ORANGE-RED-TAN CLAYEY SILT (W TO M)
(AB) RESIDUAL
MEDIUM DENSE TO DENSE
ORANGE-GREEN SILTY FINE
TO COARSE SAND WITH
MANGANESE (M TO D)
(AC) WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
HARD TAN-GREEN SILT (D)
ALLUVIAL
SOFT GRAY
CLAYEY SILT (M)
CV2-C
BT
B-105
AR
FIAD
B-108
28' LT
BT
DRY
B-110
BT
FIAD
B-112
AR
DRY
B-115
15' RT
AR
FIAD
RESIDUAL
STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M TO D)
RESIDUAL
STIFF TO HARD
BROWN-TAN FINE
SANDY SILT (W TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
920 910 900 890 880 870 860 850 840 830 820 810 800 790 780 770 760 750 740 730 720
361+00 362+00 363+00 364+00 365+00 366+00 367+00 368+00 369+00 370+00 371+00 372+00 373+00 374+00

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	49
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	50
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

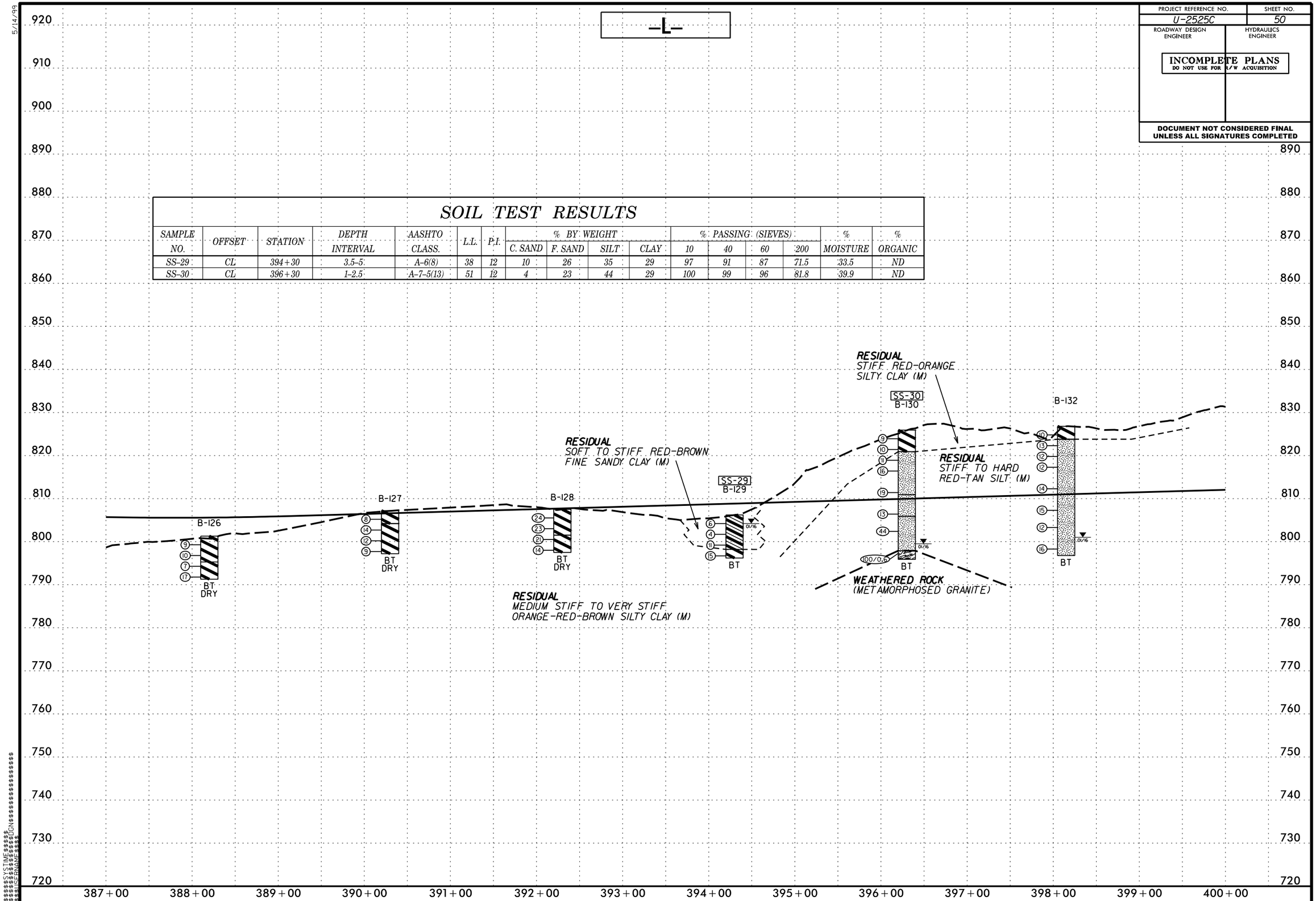
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-29	CL	394+30	3.5-5	A-6(8)	38	12	10	26	35	29	97	91	87	71.5	33.5	ND
SS-30	CL	396+30	1-2.5	A-7-5(13)	51	12	4	23	44	29	100	99	96	81.8	39.9	ND



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	51

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

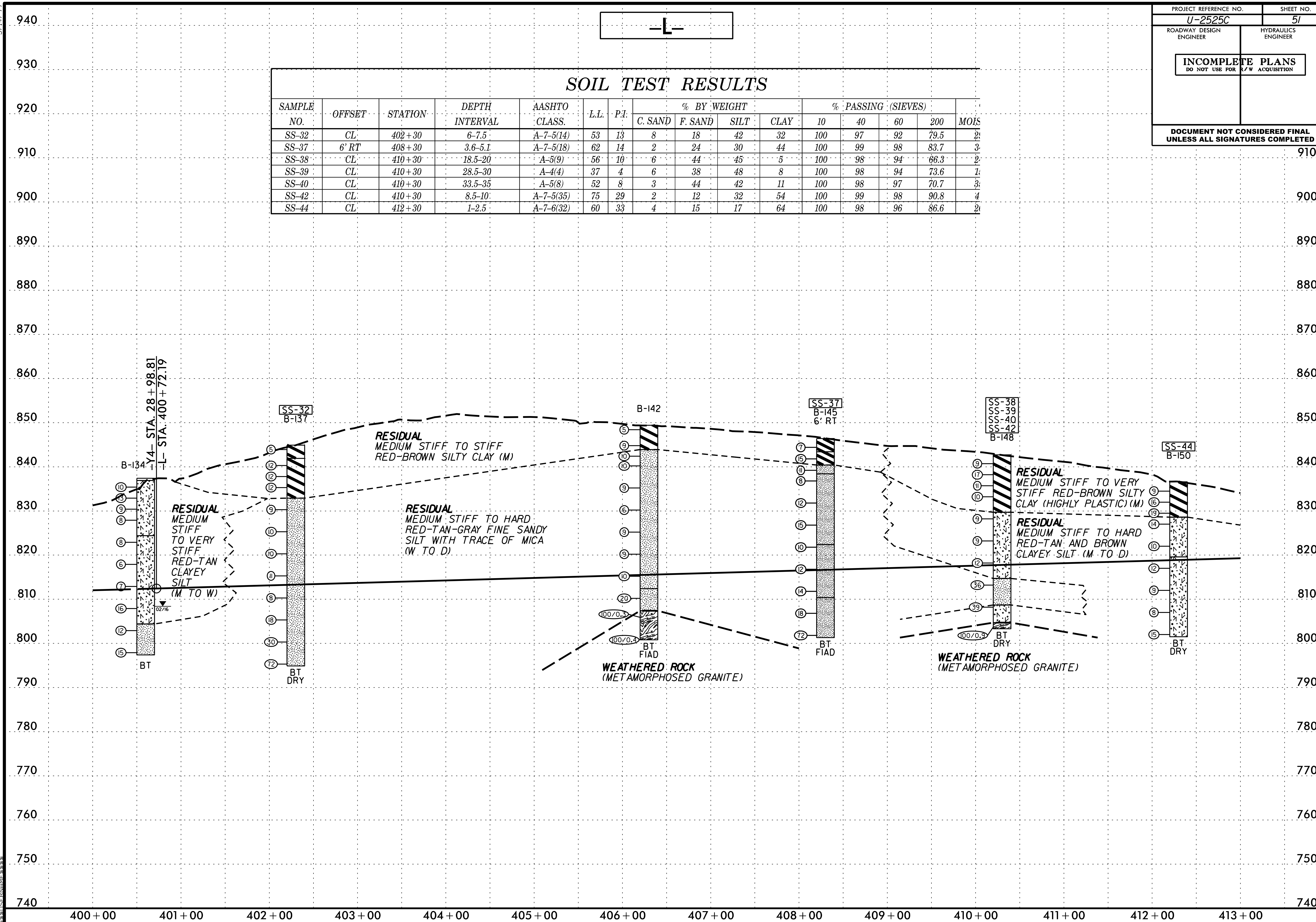
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				MOIS[illegible]
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200	
SS-32	CL	402+30	6-7.5	A-7-5(14)	53	13	8	18	42	32	100	97	92	79.5	2[illegible]
SS-37	6' RT	408+30	3.6-5.1	A-7-5(18)	62	14	2	24	30	44	100	99	98	83.7	3[illegible]
SS-38	CL	410+30	18.5-20	A-5(9)	56	10	6	44	45	5	100	98	94	66.3	2[illegible]
SS-39	CL	410+30	28.5-30	A-4(4)	37	4	6	38	48	8	100	98	94	73.6	1[illegible]
SS-40	CL	410+30	33.5-35	A-5(8)	52	8	3	44	42	11	100	98	97	70.7	3[illegible]
SS-42	CL	410+30	8.5-10	A-7-5(35)	75	29	2	12	32	54	100	99	98	90.8	4[illegible]
SS-44	CL	412+30	1-2.5	A-7-6(32)	60	33	4	15	17	64	100	98	96	86.6	2[illegible]



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	52
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

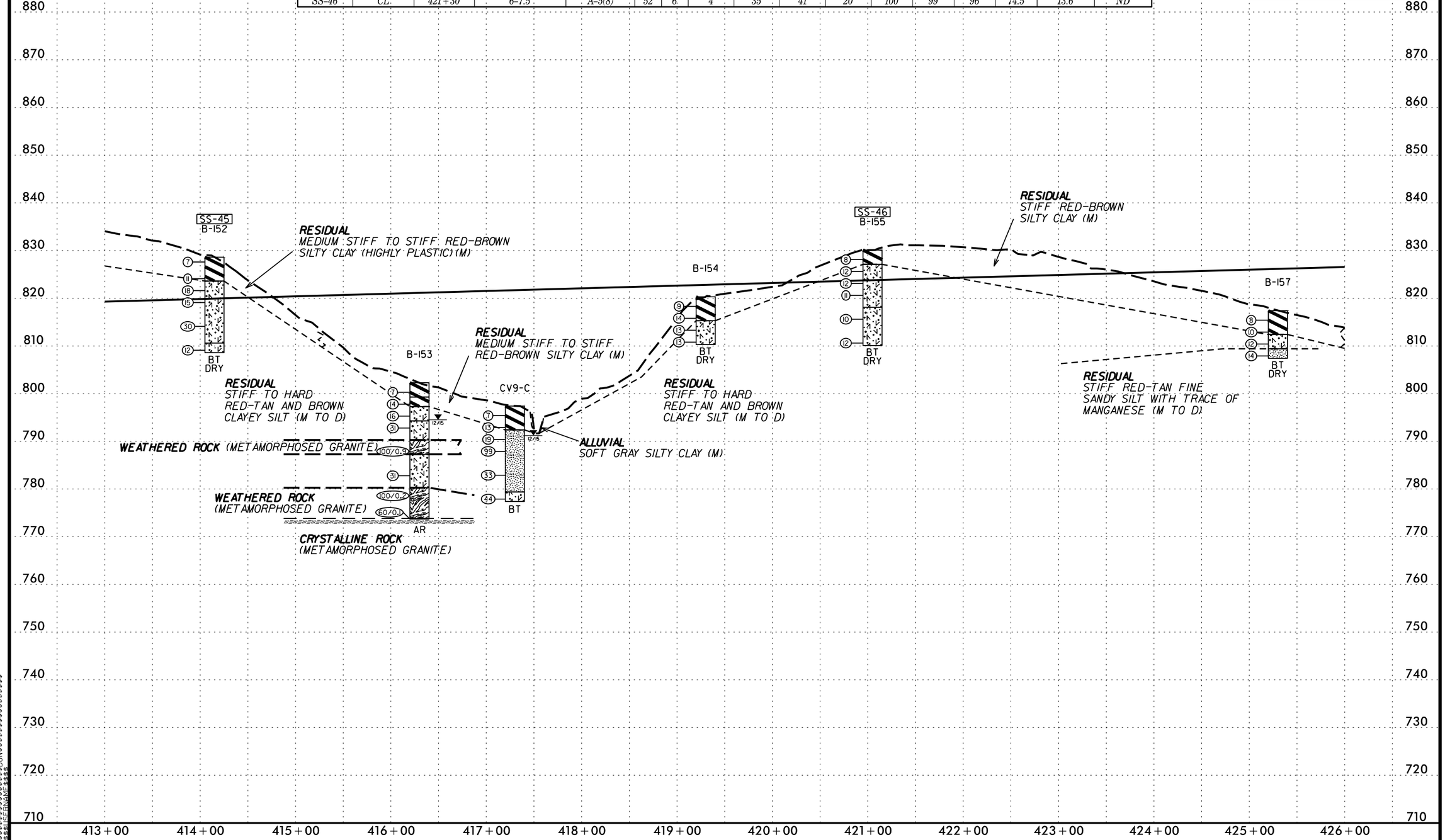
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-45	CL	414+30	3.5-5	A-7-5(35)	77	29	4	12	32	52	100	98	96	89.1	49.6	ND
SS-46	CL	421+30	6-7.5	A-5(8)	52	6	4	35	41	20	100	99	96	74.5	13.6	ND



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PROJECT REFERENCE NO.	SHEET NO.
U-2525C	53
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

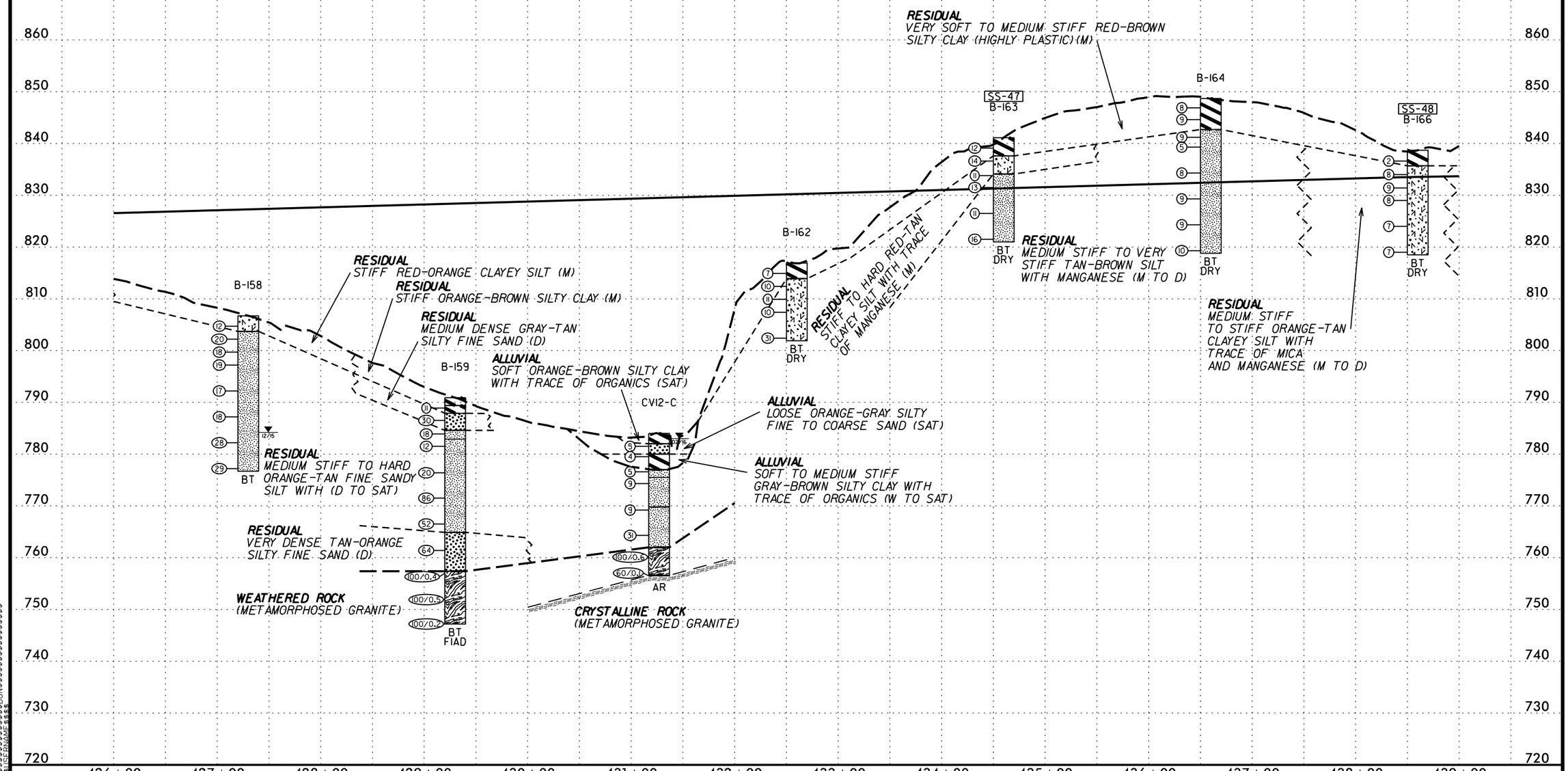
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-47	CL	434+60	3.6-5.1	A-5(7)	55	5	7	37	43	13	100	96	93	71.3	22.7	ND
SS-48	CL	438+60	1.1-2.6	A-7-6(23)	56	27	9	16	22	53	99	93	90	79.4	28.4	ND



5/14/99

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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	54
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

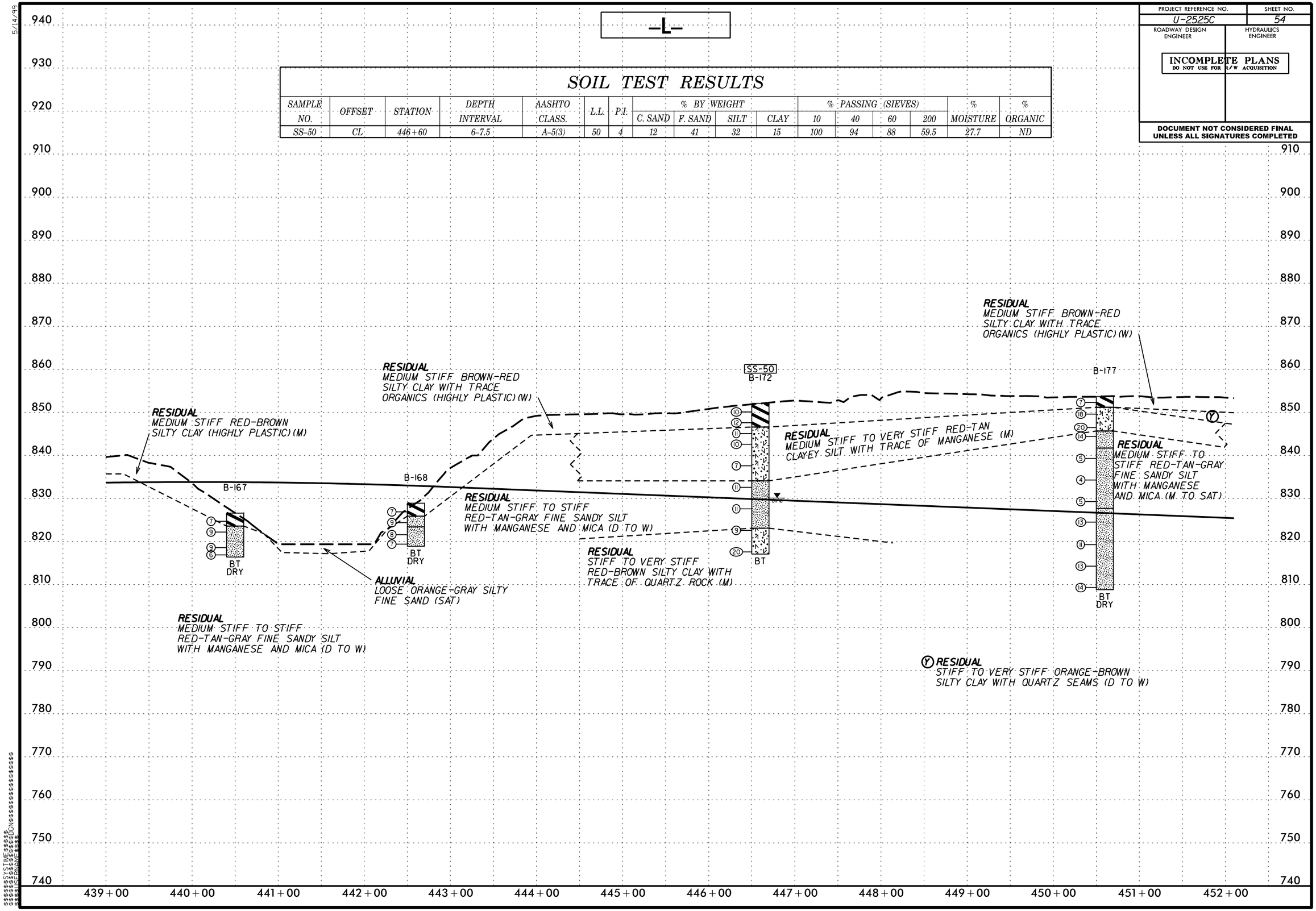
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-50	CL	446+60	6-7.5	A-5(3)	50	4	12	41	32	15	100	94	88	59.5	27.7	ND



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	55

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

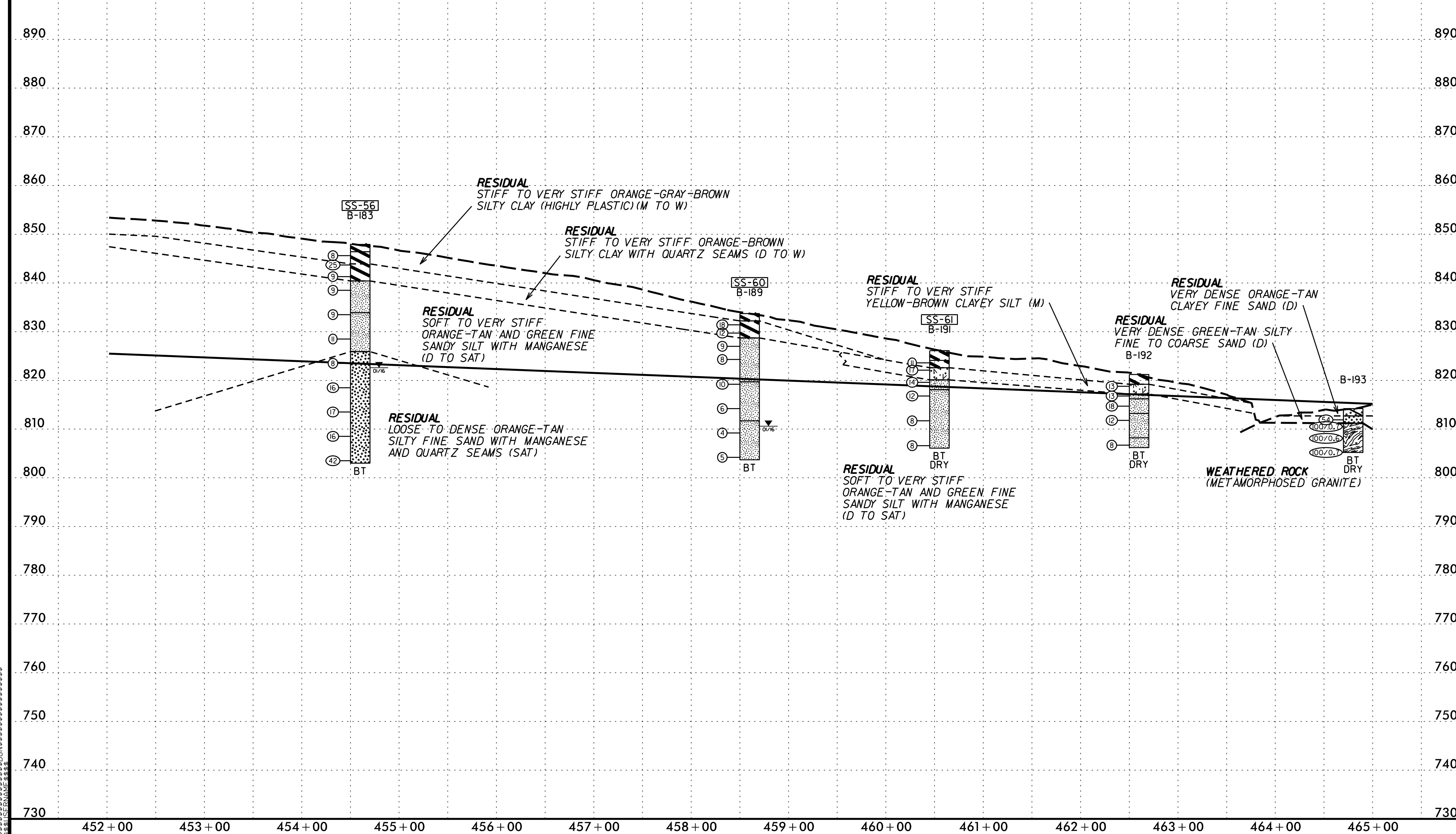
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				MOIS
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200	
SS-56	CL	454+60	5.6-7.1	A-7-5(28)	64	22	1	10	39	50	100	99	99	93.5	4
SS-60	CL	458+60	3-4.5	A-7-5(31)	61	25	1	6	40	53	100	100	99	96.8	3.
SS-61	CL	460+60	1.5-3.5	A-7-5(31)	65	32	8	9	24	59	96	90	88	83.0	2



ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

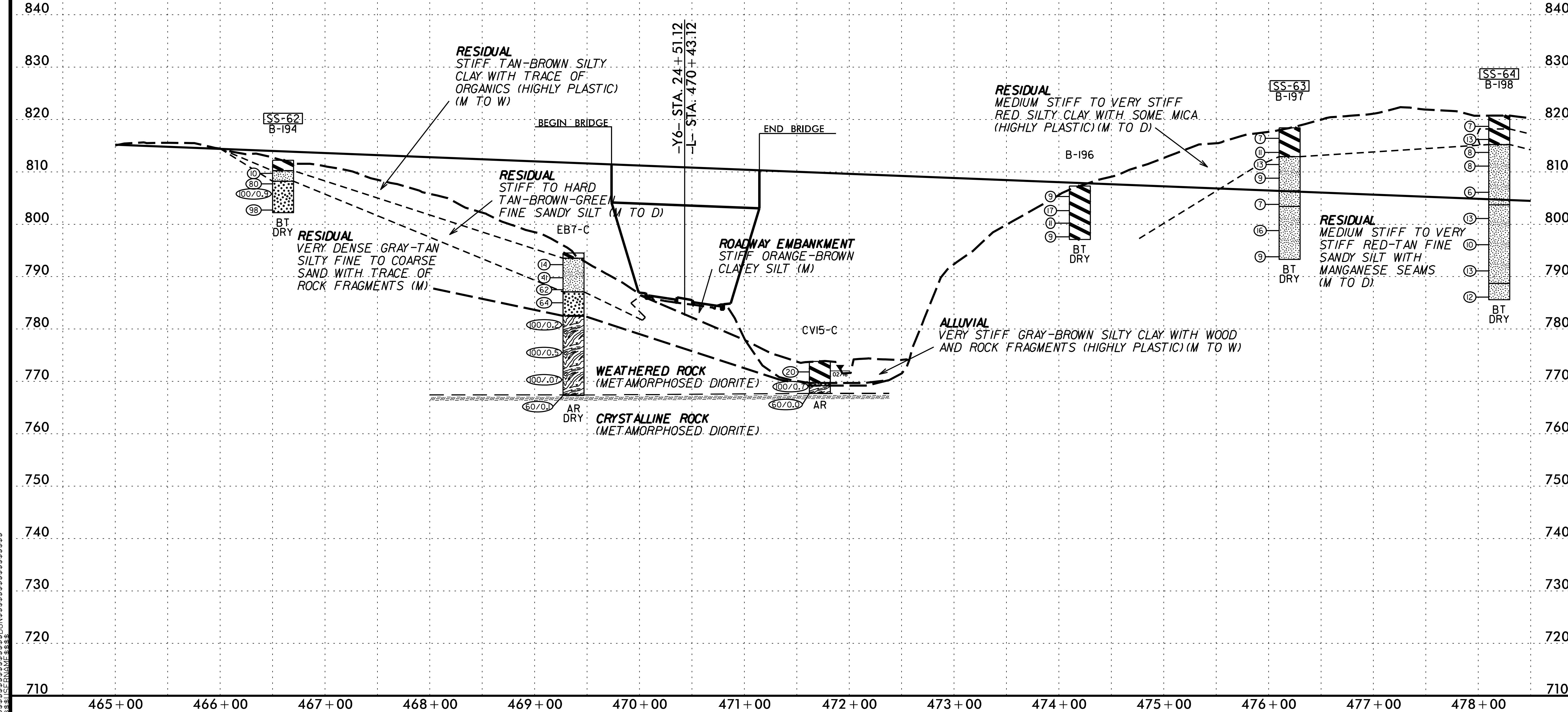
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-62	CL	466+60	1.5-3	A-7-6(26)	53	30	9	14	39	38	100	94	91	83.2	31.1	ND
SS-63	CL	476+20	1-2.5	A-7-5(54)	84	46	1	10	25	64	100	100	99	95.5	34.5	ND
SS-64	CL	478+20	3.5-5	A-7-5(26)	66	22	3	16	32	49	100	99	97	88.0	33.6	ND



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	57

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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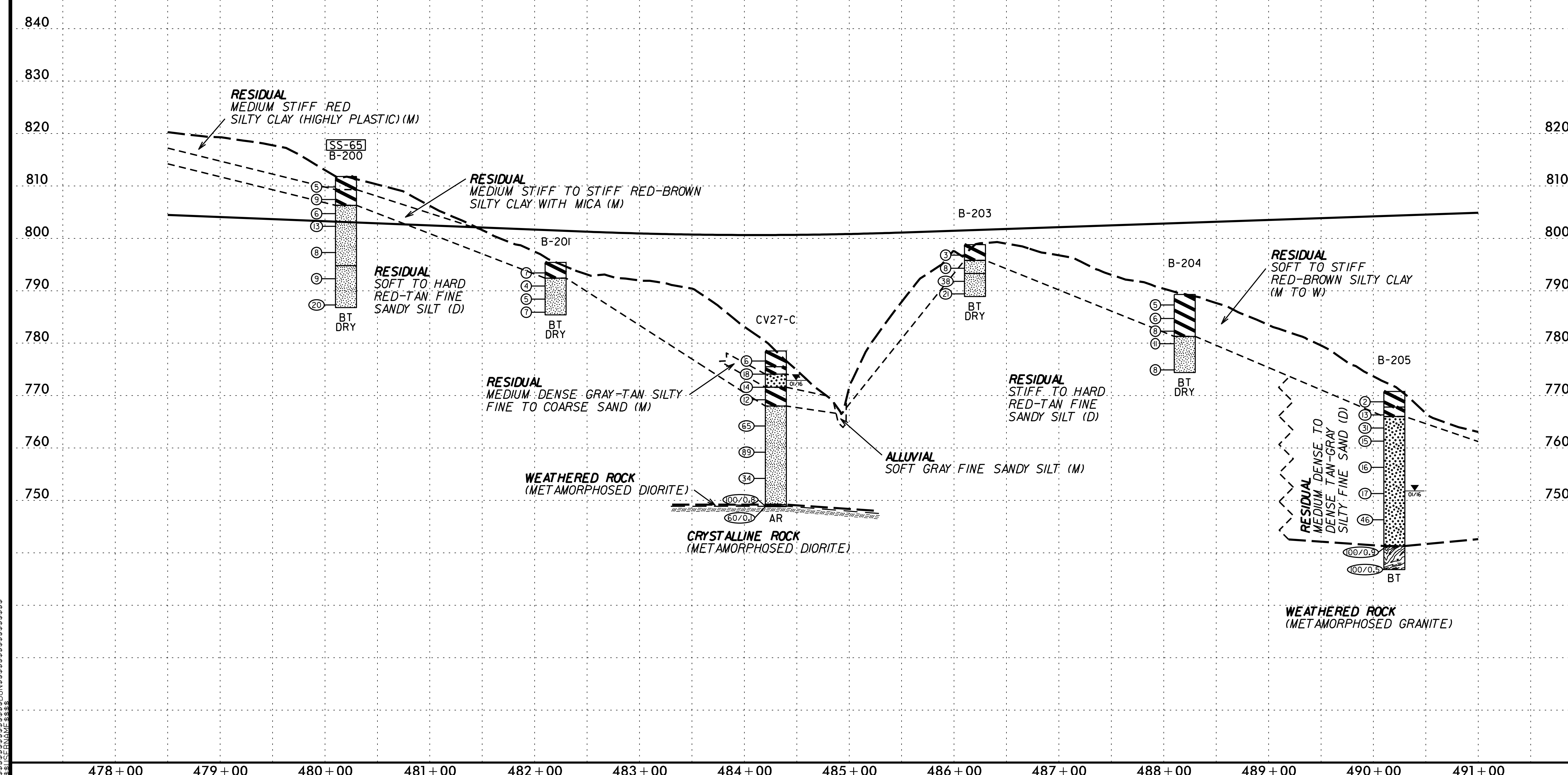
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-65	CL	480+20	1-2.5	A-7-5(41)	75	33	1	10	28	61	100	100	99	94.4	37.5	ND



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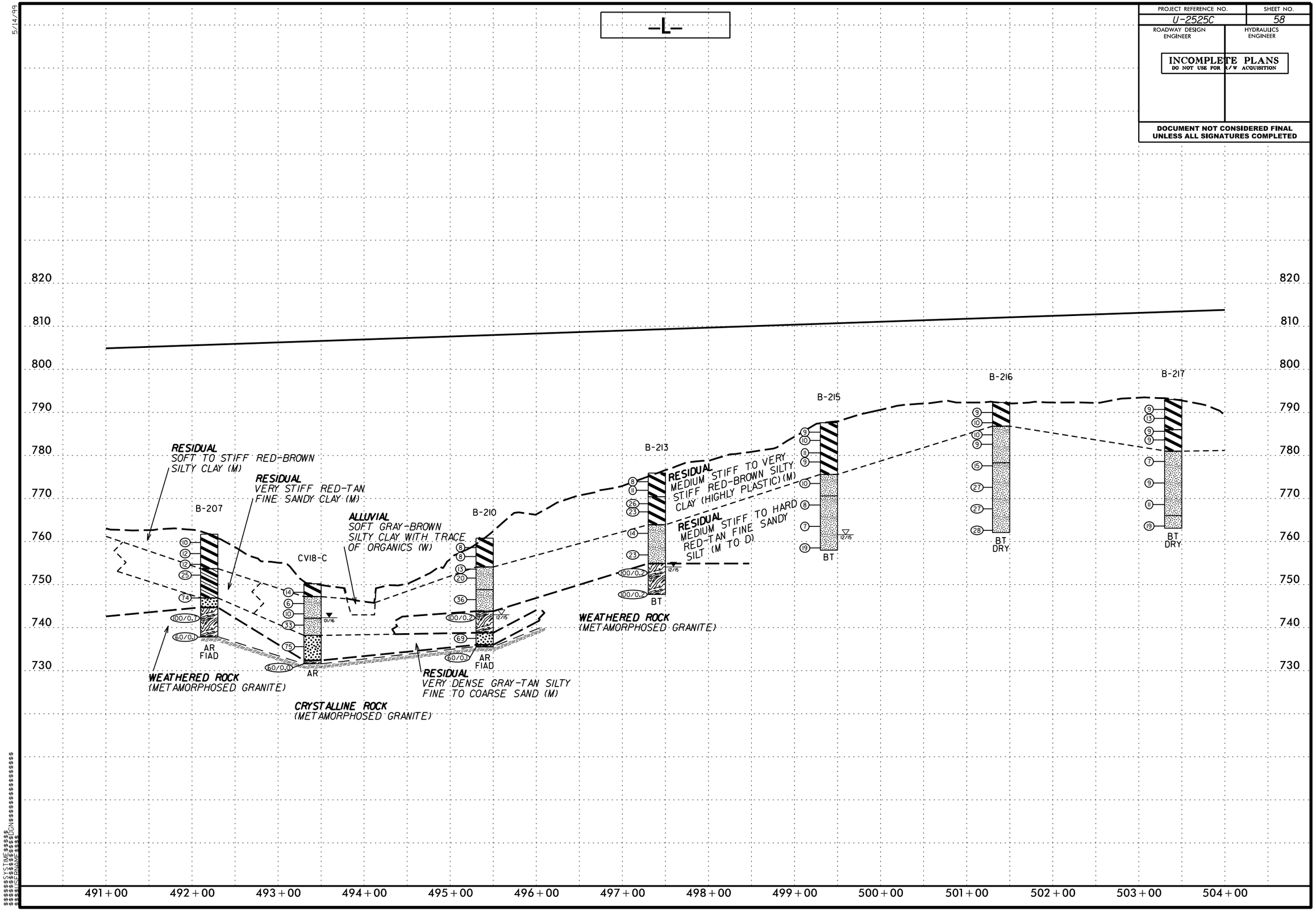
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	58
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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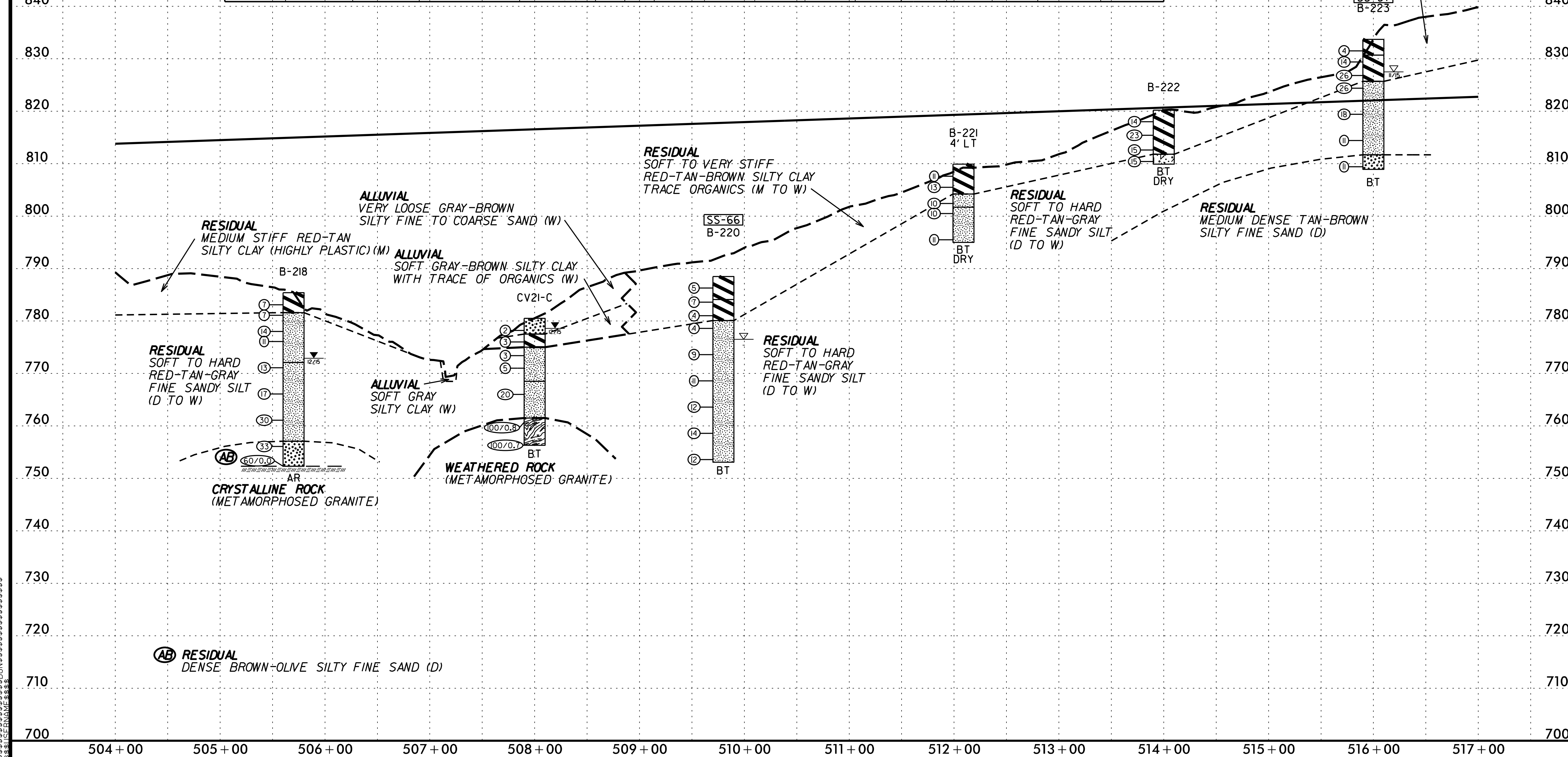
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-66	24' RT	509+80	1.2-2.7	A-7-6(22)	52	23	5	14	29	52	97	94	92	85.1	26.4	ND
SS-67	CL	516+00	1.2-2.7	A-7-6(14)	42	20	8	25	20	47	99	94	91	74.3	23.5	ND



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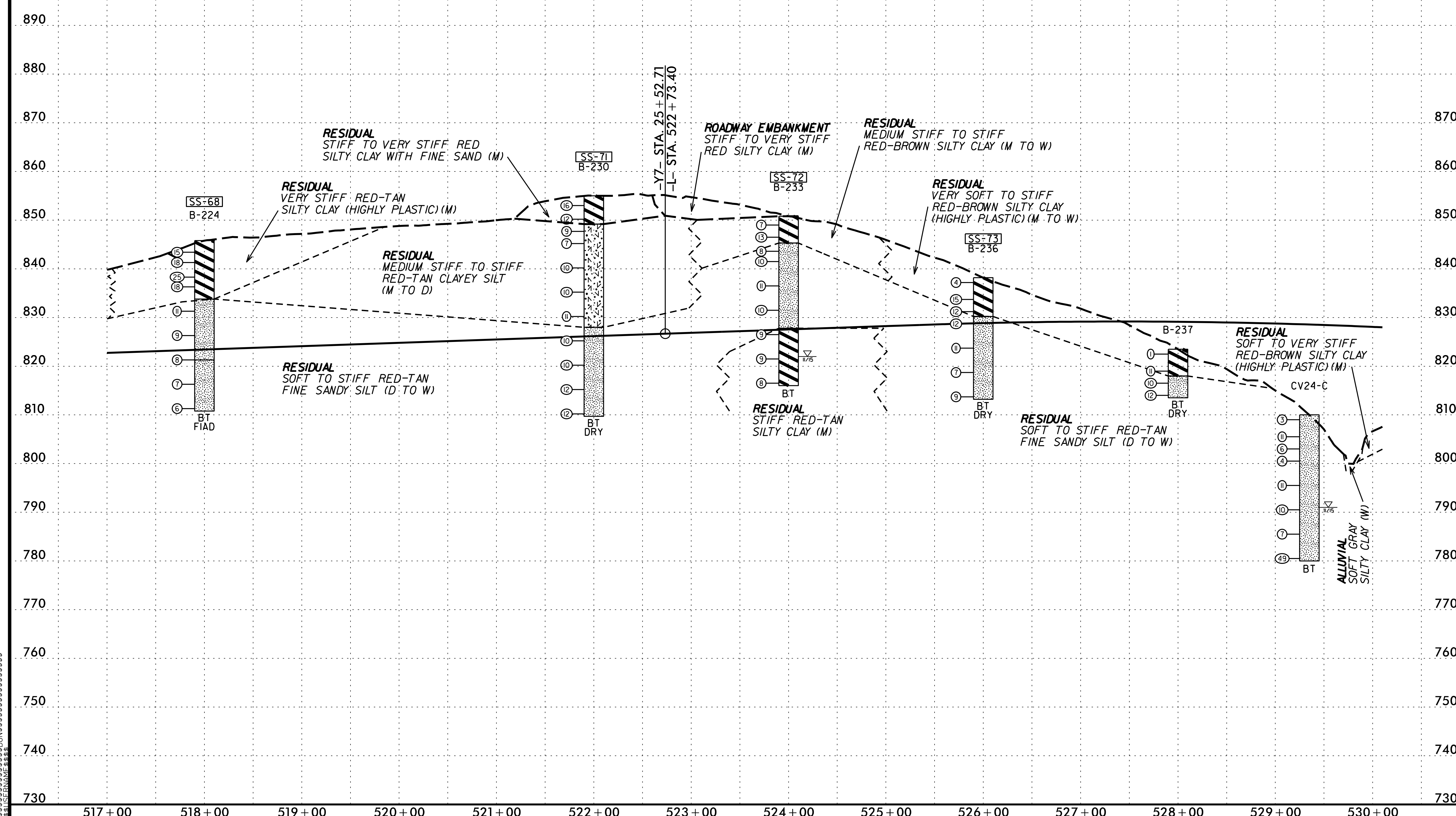
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOIST
SS-68	CL	518+00	6.5-8	A-7-5(37)	74	34	2	16	23	59	100	99	98	87.6	28.0
SS-71	CL	522+00	3.8-5.3	A-7-5(16)	51	18	4	27	34	35	100	98	96	77.6	28.2
SS-72	CL	524+00	23.3-24.8	A-7-5(9)	55	13	12	39	36	13	100	96	88	63.9	29.5
SS-73	CL	526+00	3.5-5	A-7-5(26)	62	28	3	26	24	47	100	99	97	79.9	25.8

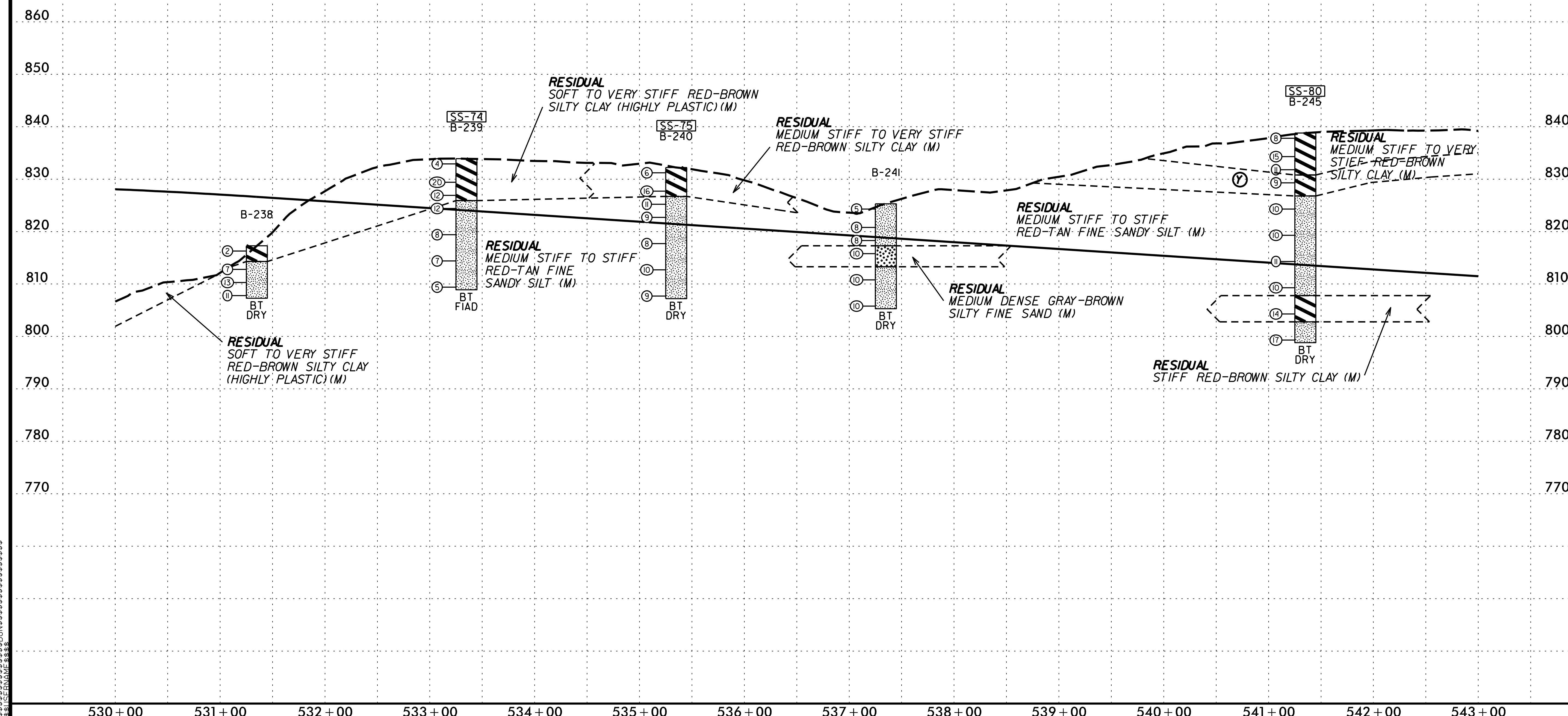


5/14/99

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				MOIS
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200	
SS-74	533+35	CL	3.5-5	A-7-5(43)	78	33	0	5	24	71	100	100	100	97.2	3
SS-75	535+35	CL	0-1.5	A-7-6(13)	43	16	8	19	29	44	97	92	89	77.6	2
SS-80	541+35	CL	3.5-5	A-7-5(25)	63	25	2	22	35	41	100	100	98	83.3	2



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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	62
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

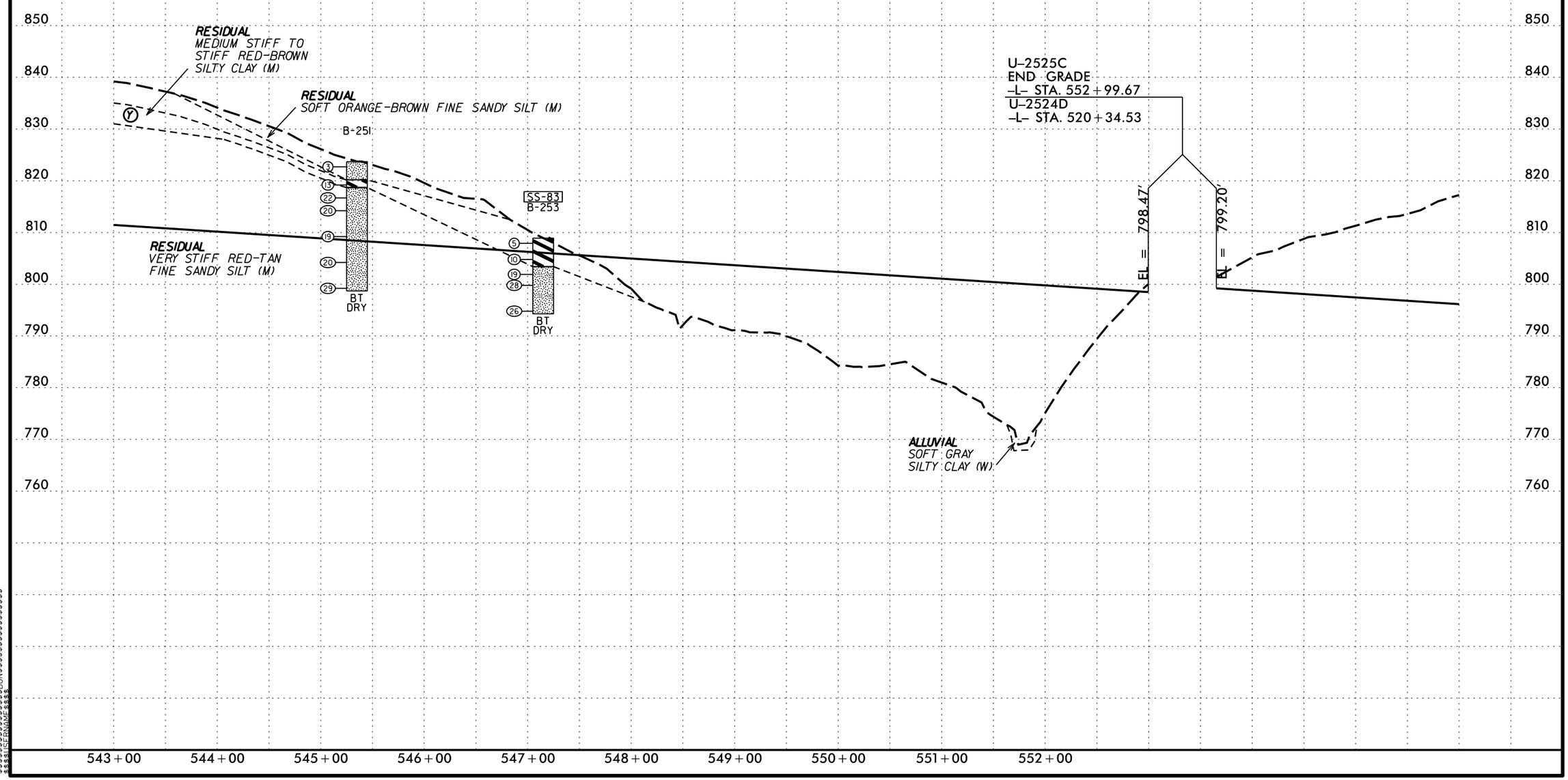
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-83	CL	547+35	3.5-5	A-7-5(33)	72	27	2	12	29	57	100	99	98	90.1	51.4	ND



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	63
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

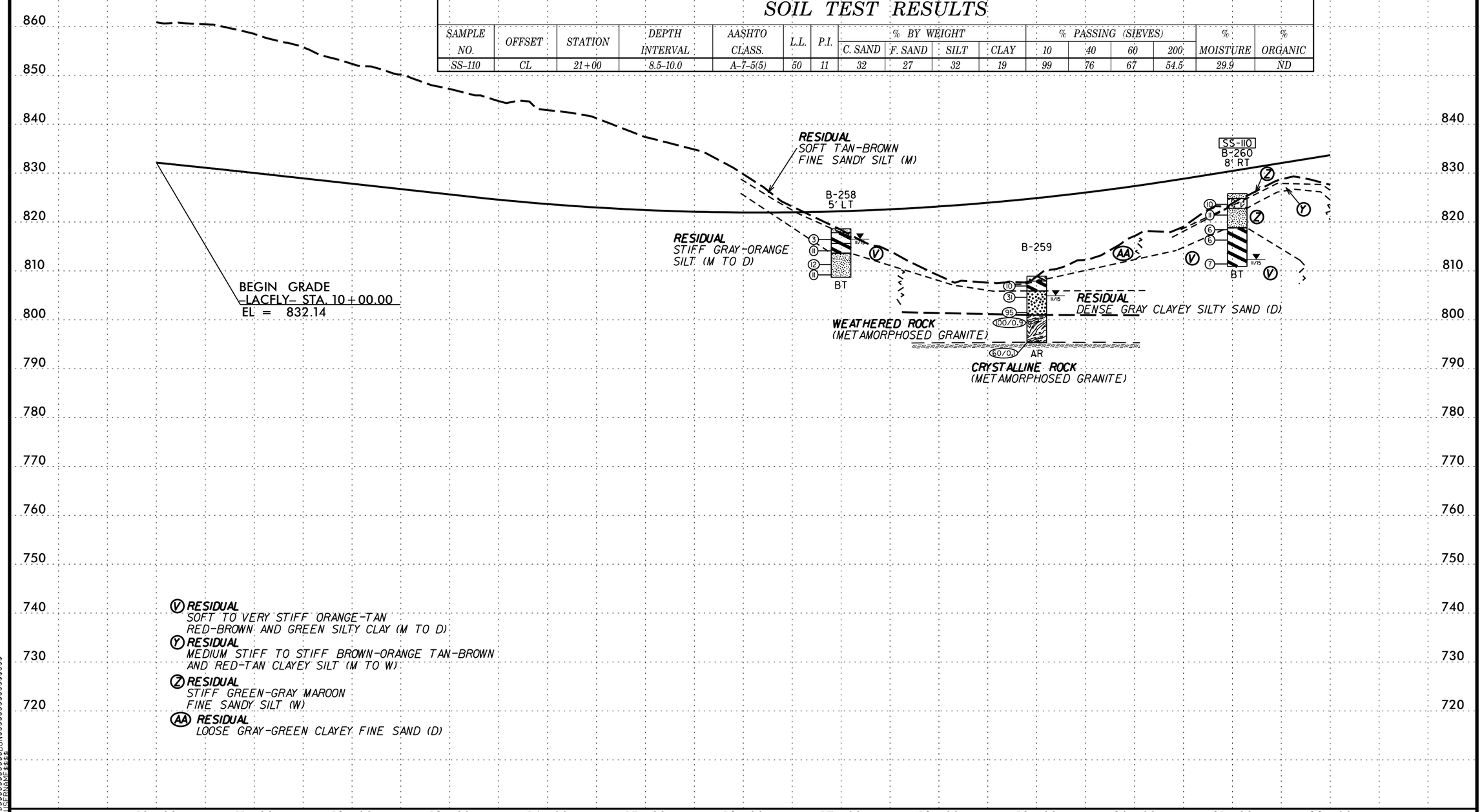
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-LACFLY-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-110	CL	21+00	8.5-10.0	A-7-5(5)	50	11	32	27	32	19	99	76	67	54.5	29.9	ND

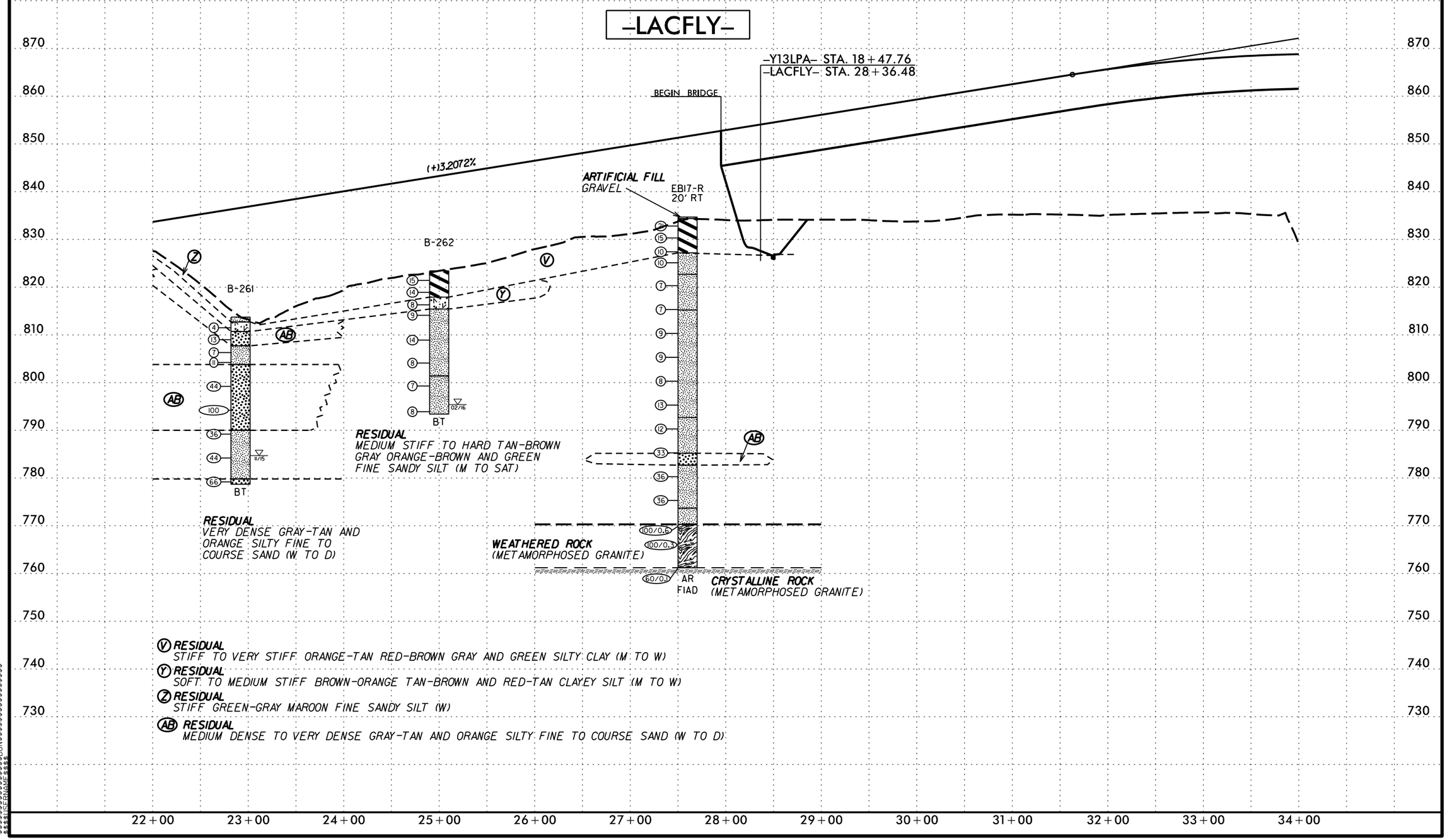


5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	64
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



5/14/99

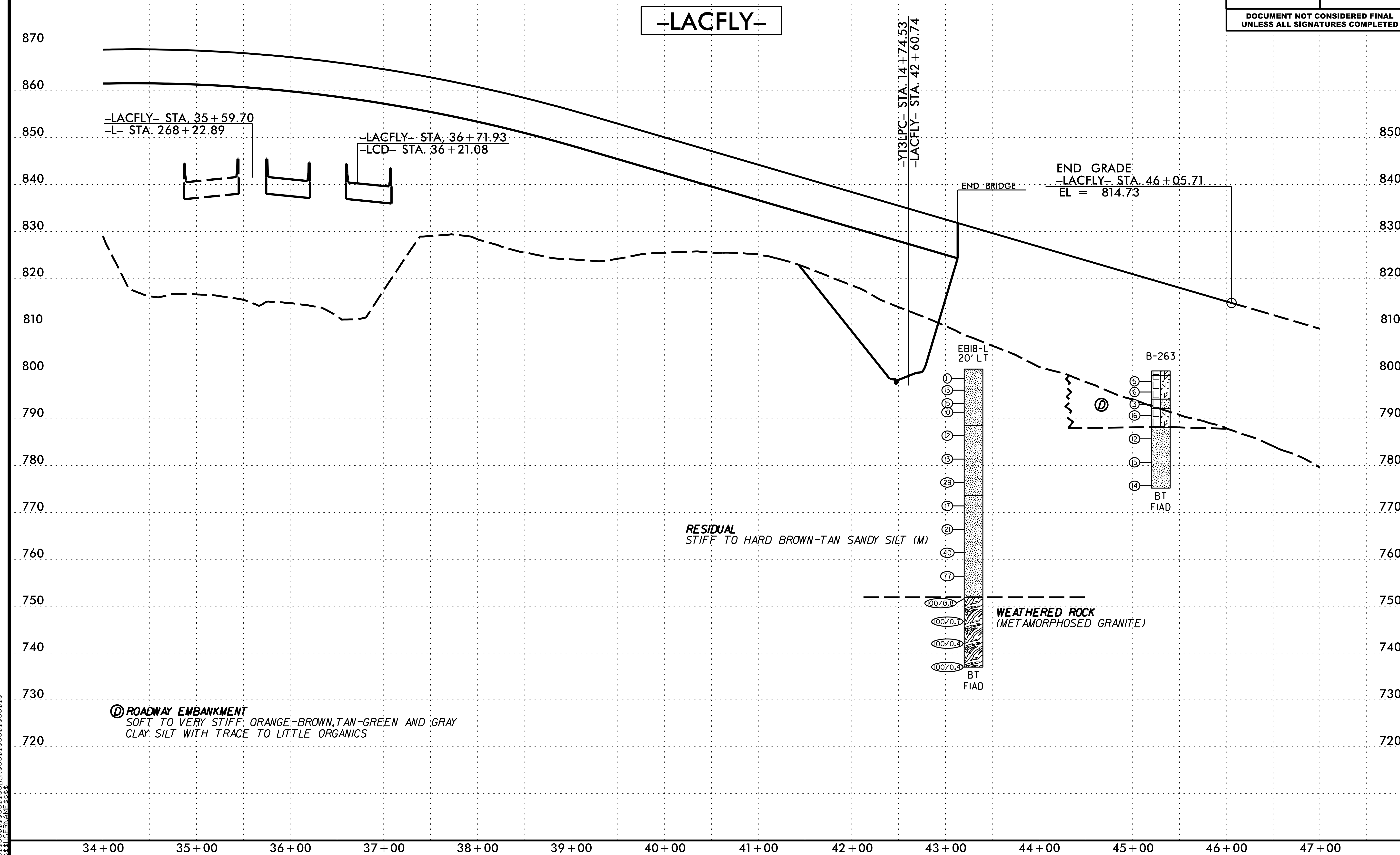
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	65

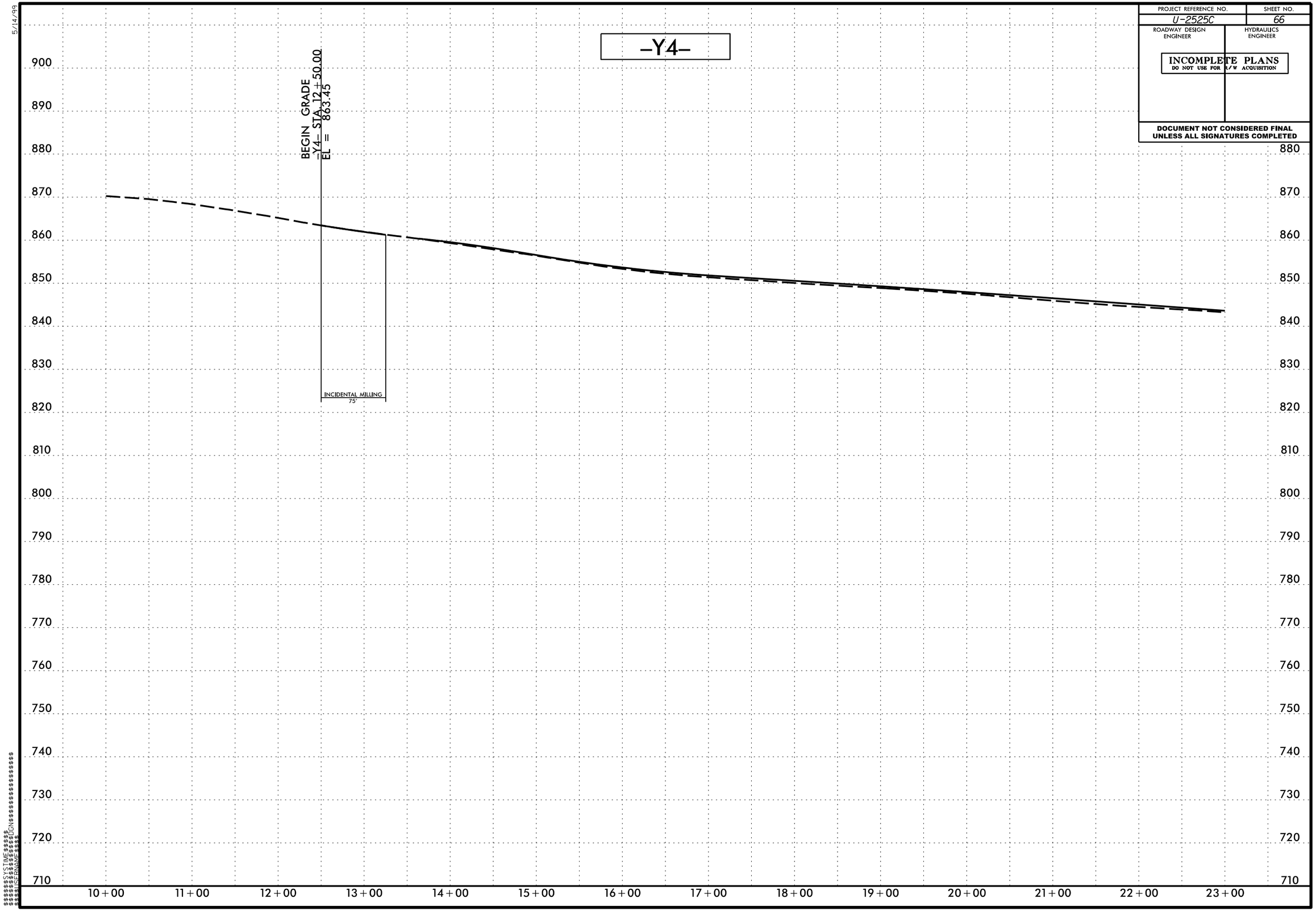
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





PROJECT REFERENCE NO.	SHEET NO.
U-2525C	66
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

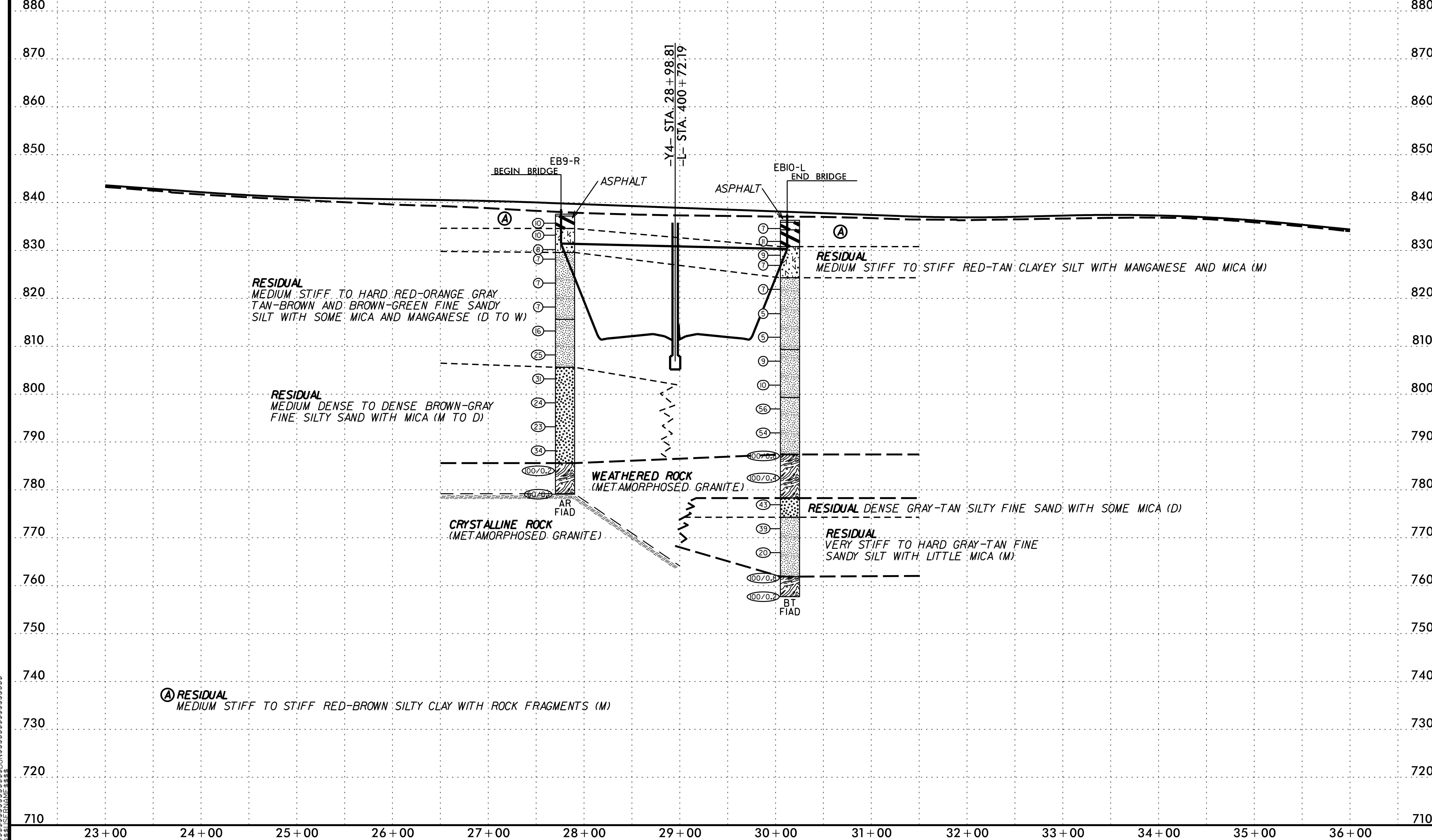
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	67

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

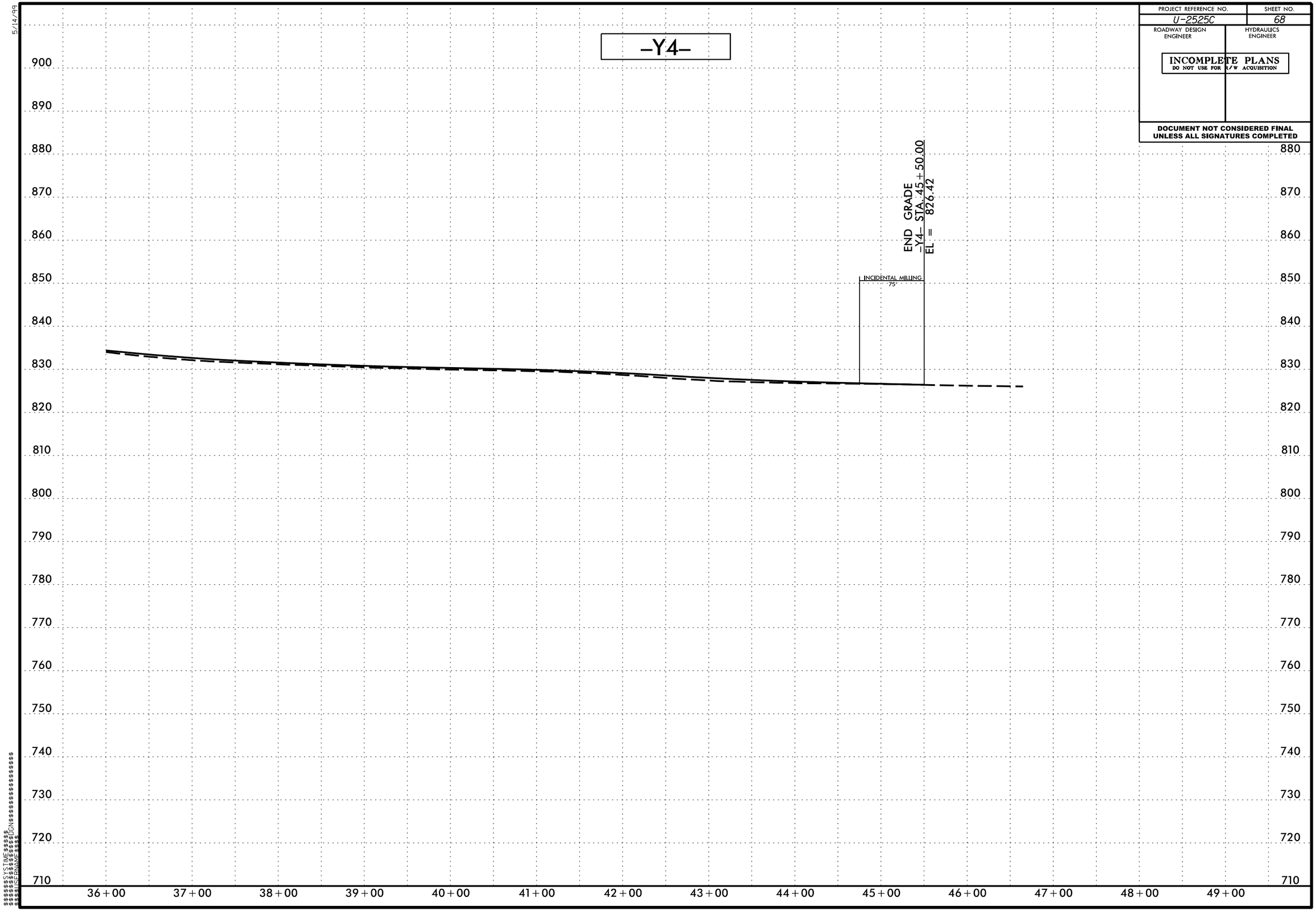
-Y4-



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	68
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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PROJECT REFERENCE NO.	SHEET NO.
U-2525C	69
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

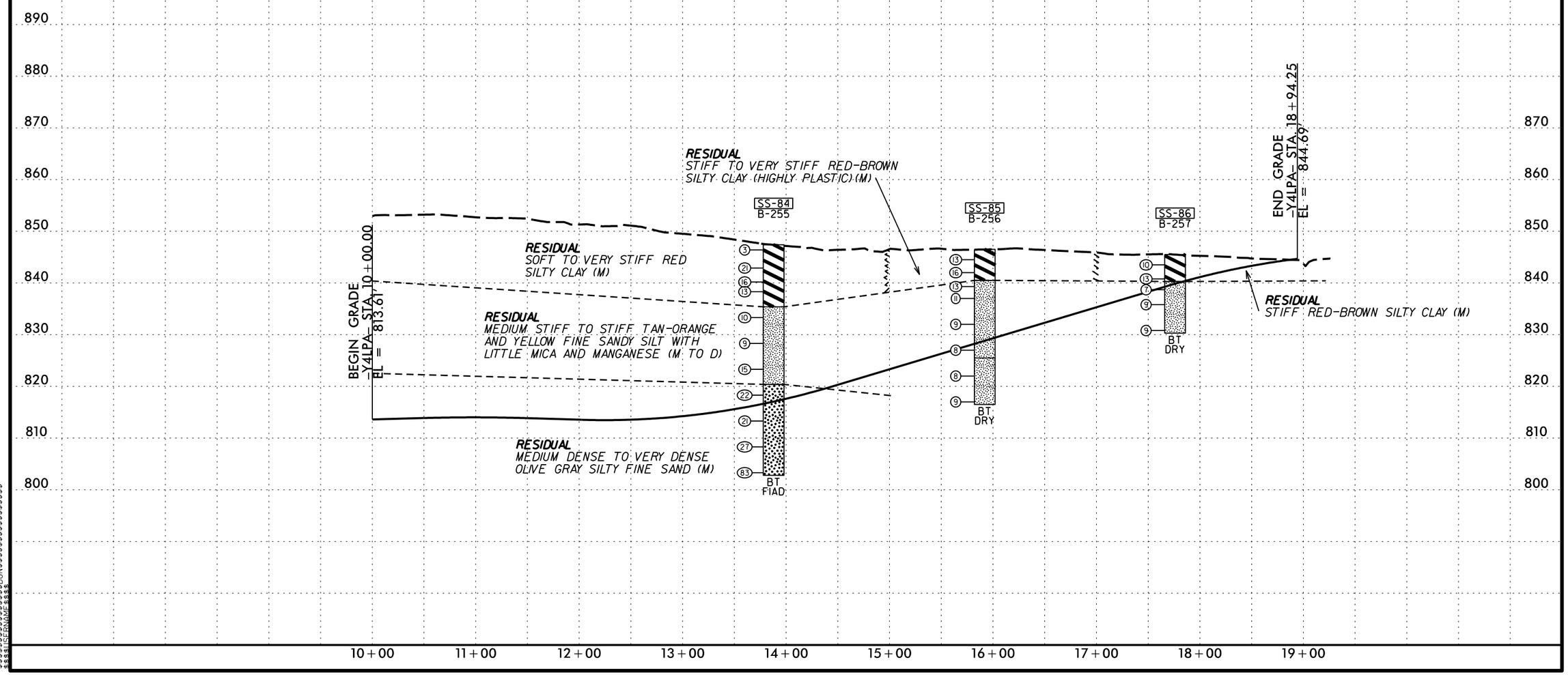
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y4LPA-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-84	CL	13+88	8.1-9.6	A-7-5(14)	54	16	3	34	29	34	100	99	97	73.5	32.7	ND
SS-85	CL	15+92	3.5-5.0	A-7-5(42)	79	31	0	5	29	66	100	100	100	97.7	36.9	ND
SS-86	CL	17+76	3.5-5.0	A-7-5(22)	63	24	2	30	31	37	100	99	98	78.0	38.0	ND



5/14/99

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	70

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

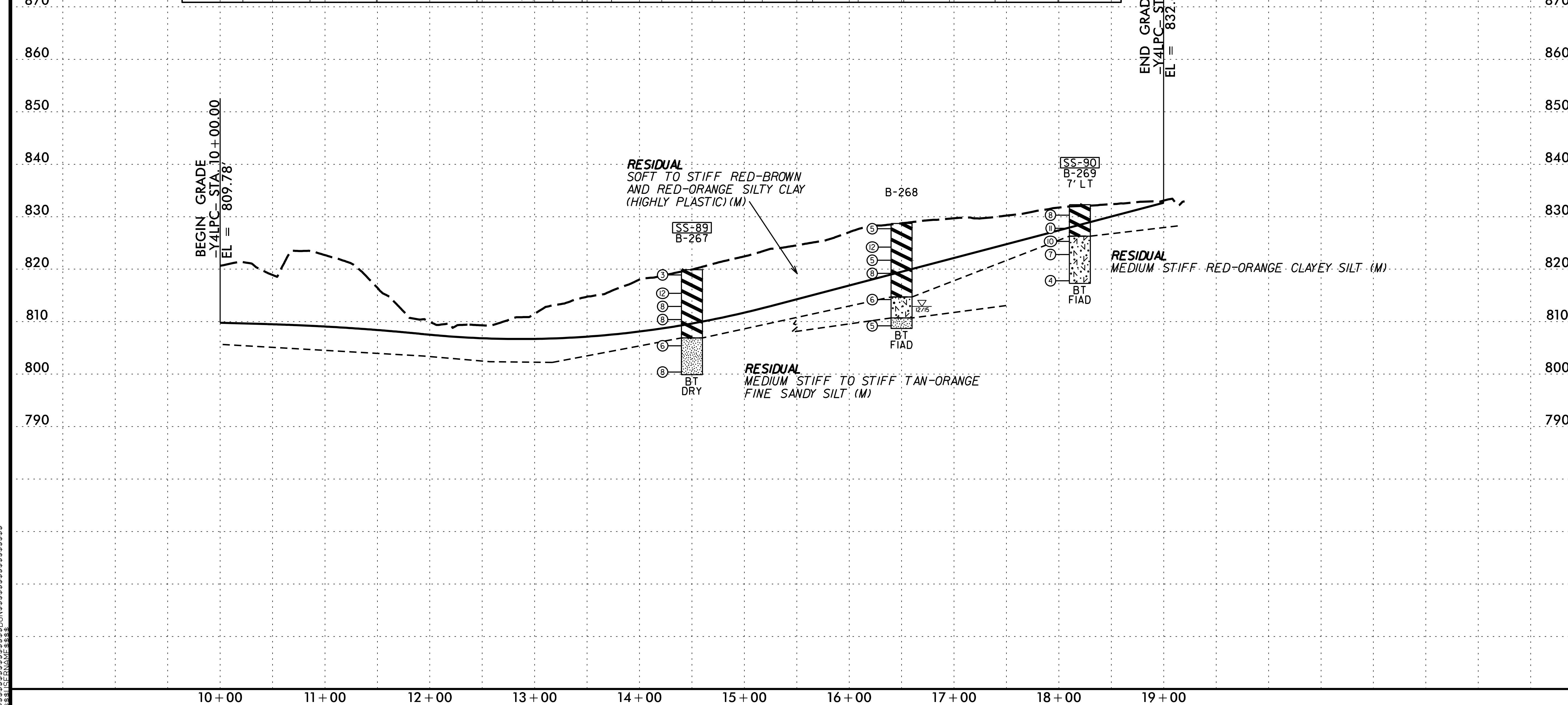
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y4LPC-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-89	CL	14+50	3.5-5.0	A-7-5(31)	66	36	13	15	20	52	100	90	87	77.9	37.1	ND
SS-90	7' LT	18+20	3.5-5.0	A-7-5(51)	87	41	1	6	28	65	100	100	99	95.6	43.0	ND



$$$$SYSTIME$$$$ $$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	71

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

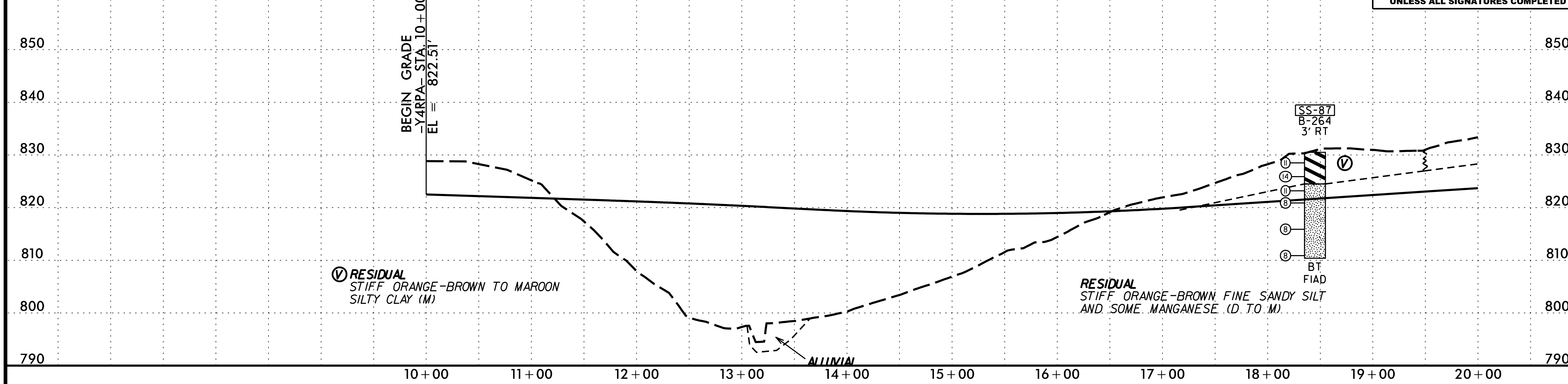
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y4RPA-

SOIL TEST RESULTS

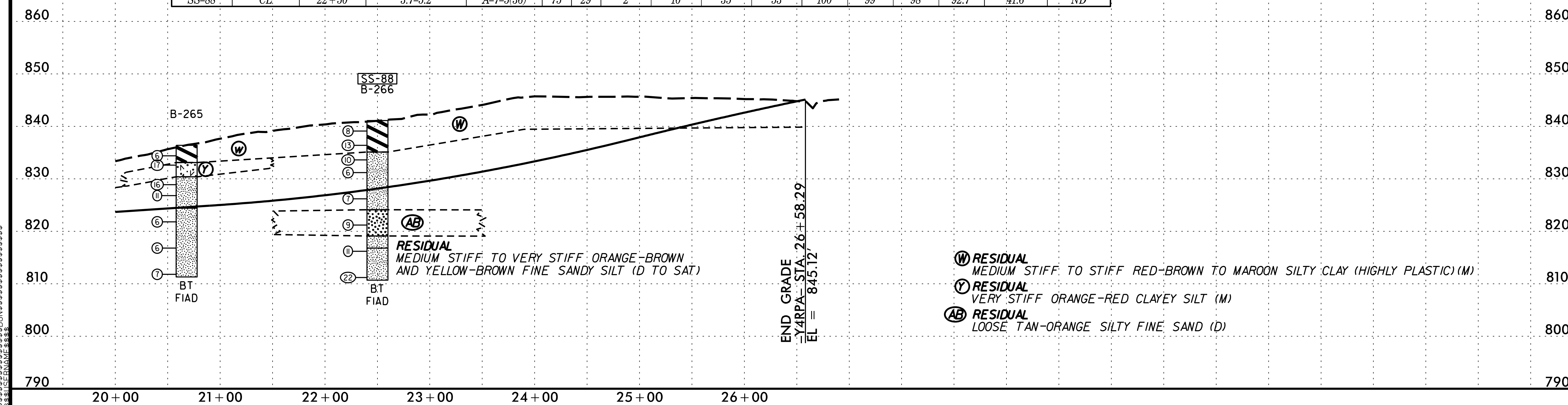
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-87	3' RT	18+45	3.6-5.1	A-7-5(28)	68	25	5	13	35	47	100	97	95	86.1	34.6	ND



-Y4RPA-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-88	CL	22+50	3.7-5.2	A-7-5(36)	75	29	2	10	35	53	100	99	98	92.7	41.6	ND



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	72
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

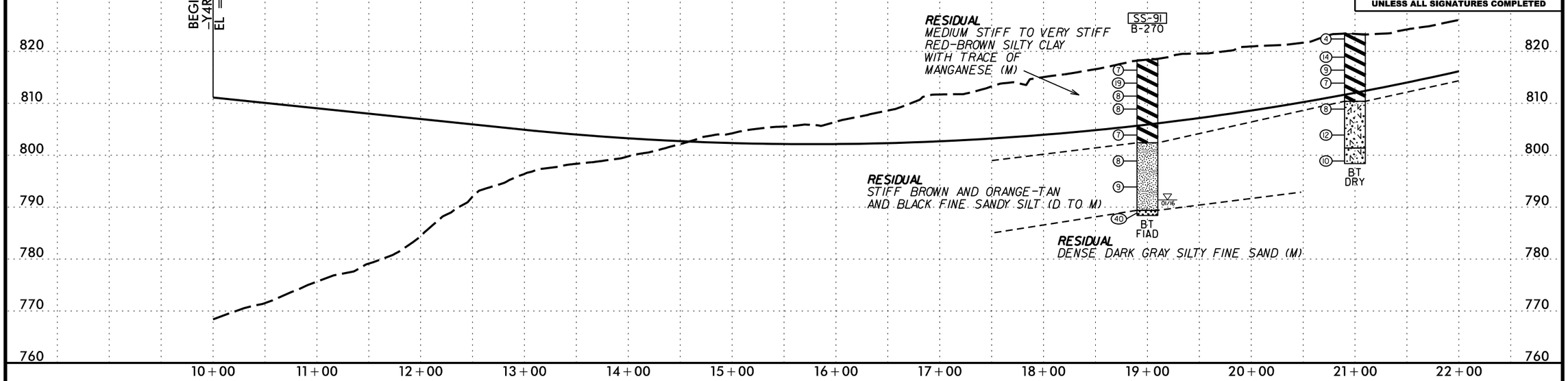
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

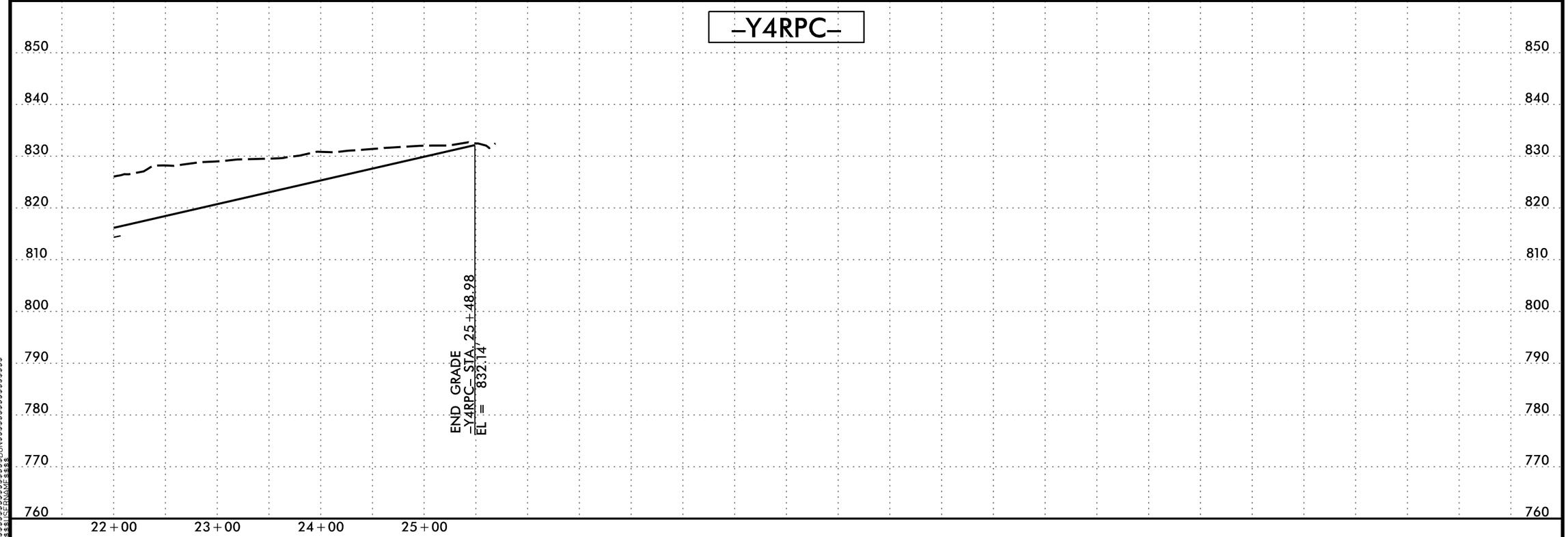
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y4RPC-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-91	CL	19+00	8.5-10.0	A-7-5(23)	64	17	1	18	33	48	100	100	99	91.4	47.0	ND



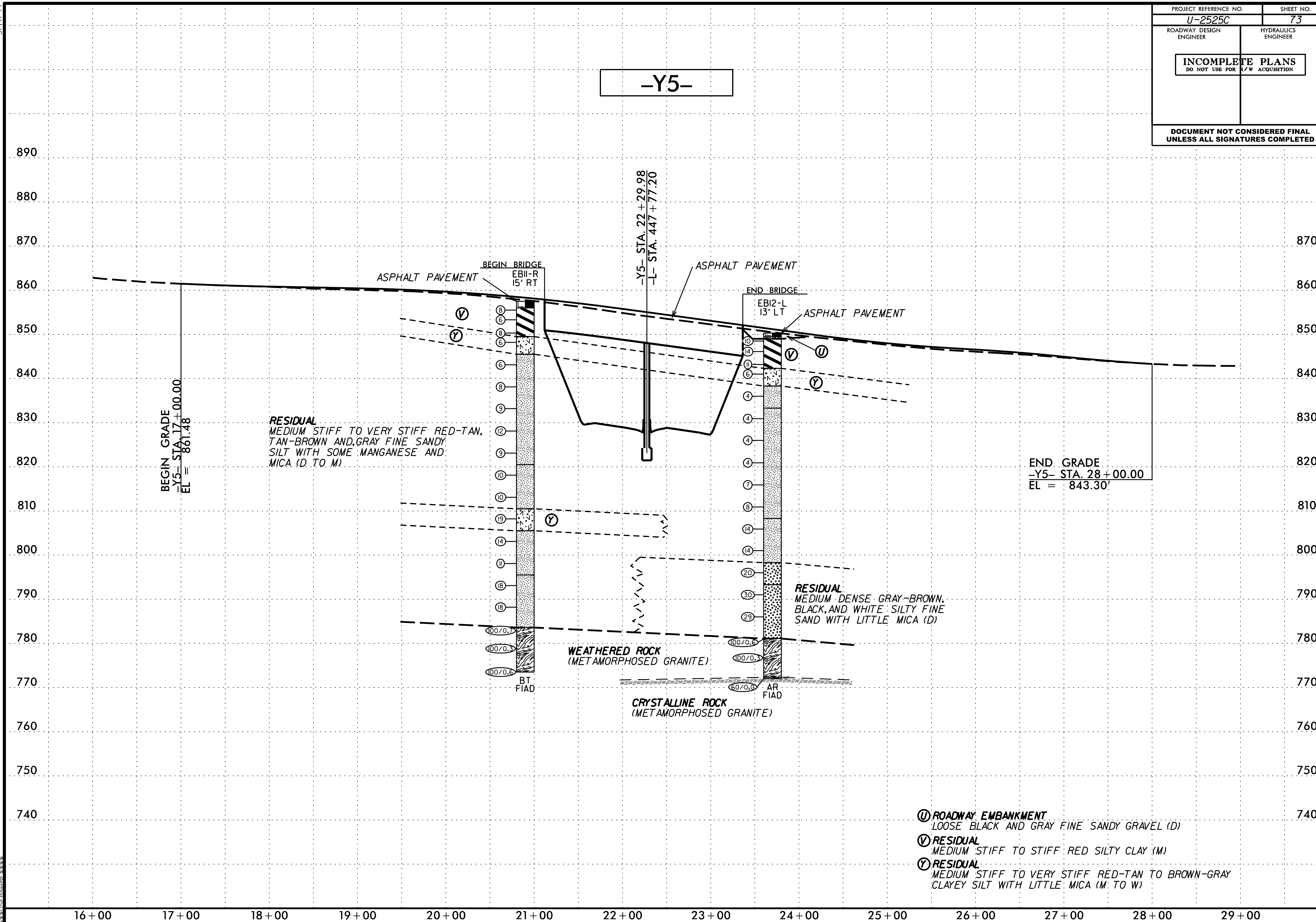


5/28/99

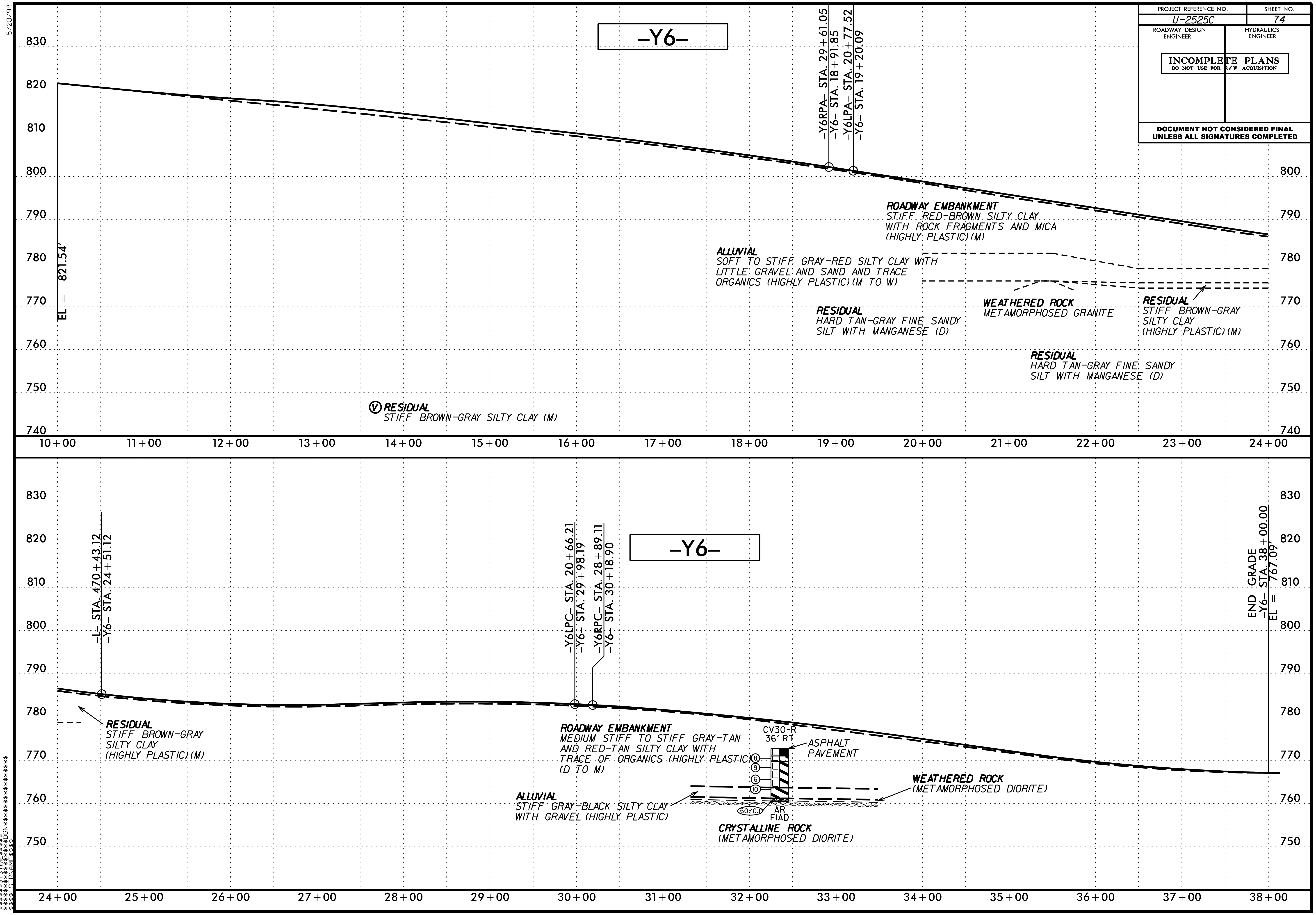
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	73
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



5/28/99



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5/14/99

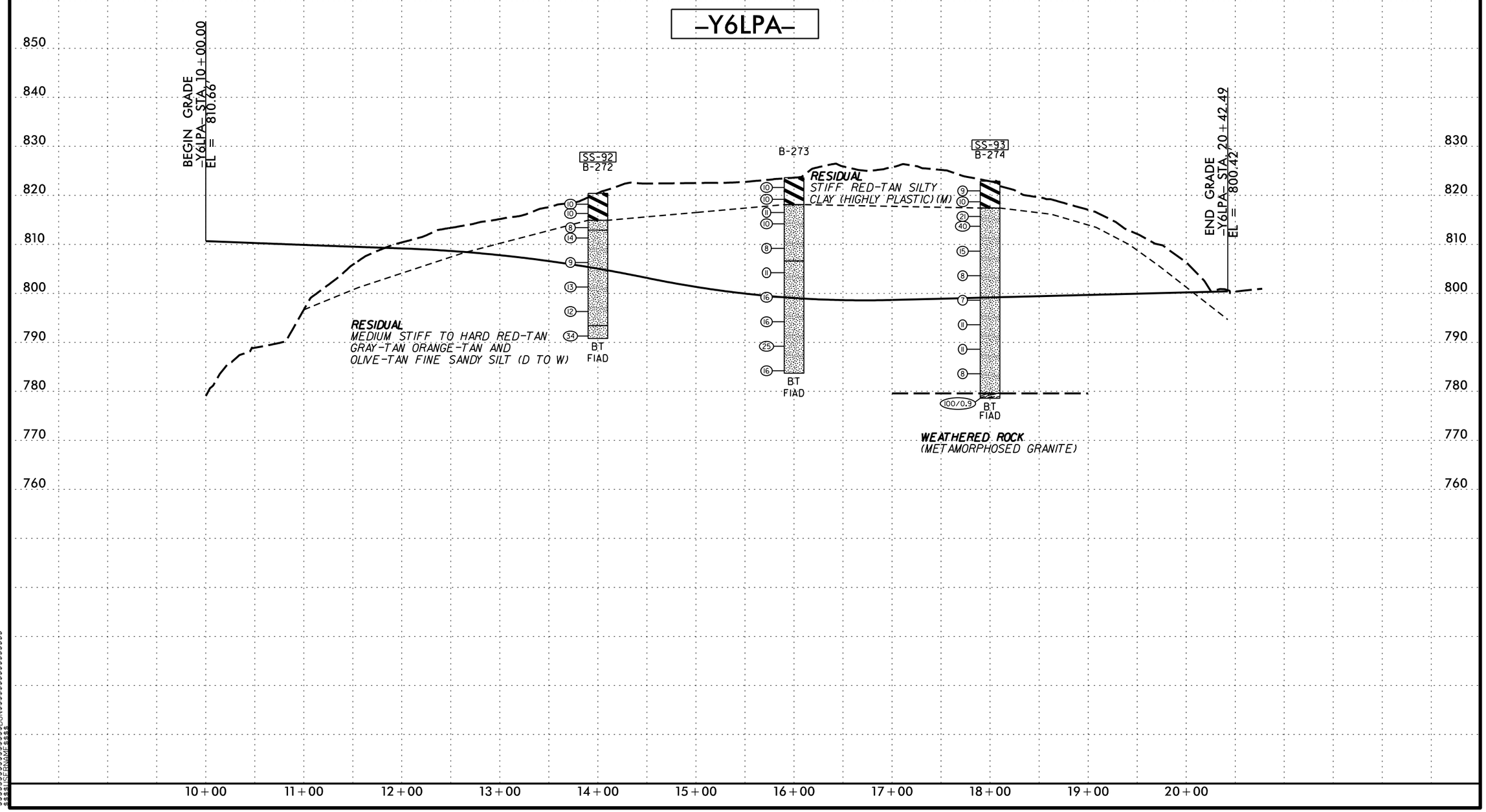
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	75
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-92	CL	14+00	3.1-4.6	A-7-5(40)	70	32	0	5	49	46	100	100	100	98.1	37.6	ND
SS-93	CL	18+00	3.2-4.7	A-7-5(25)	71	34	11	24	22	43	100	90	85	69.2	51.7	ND



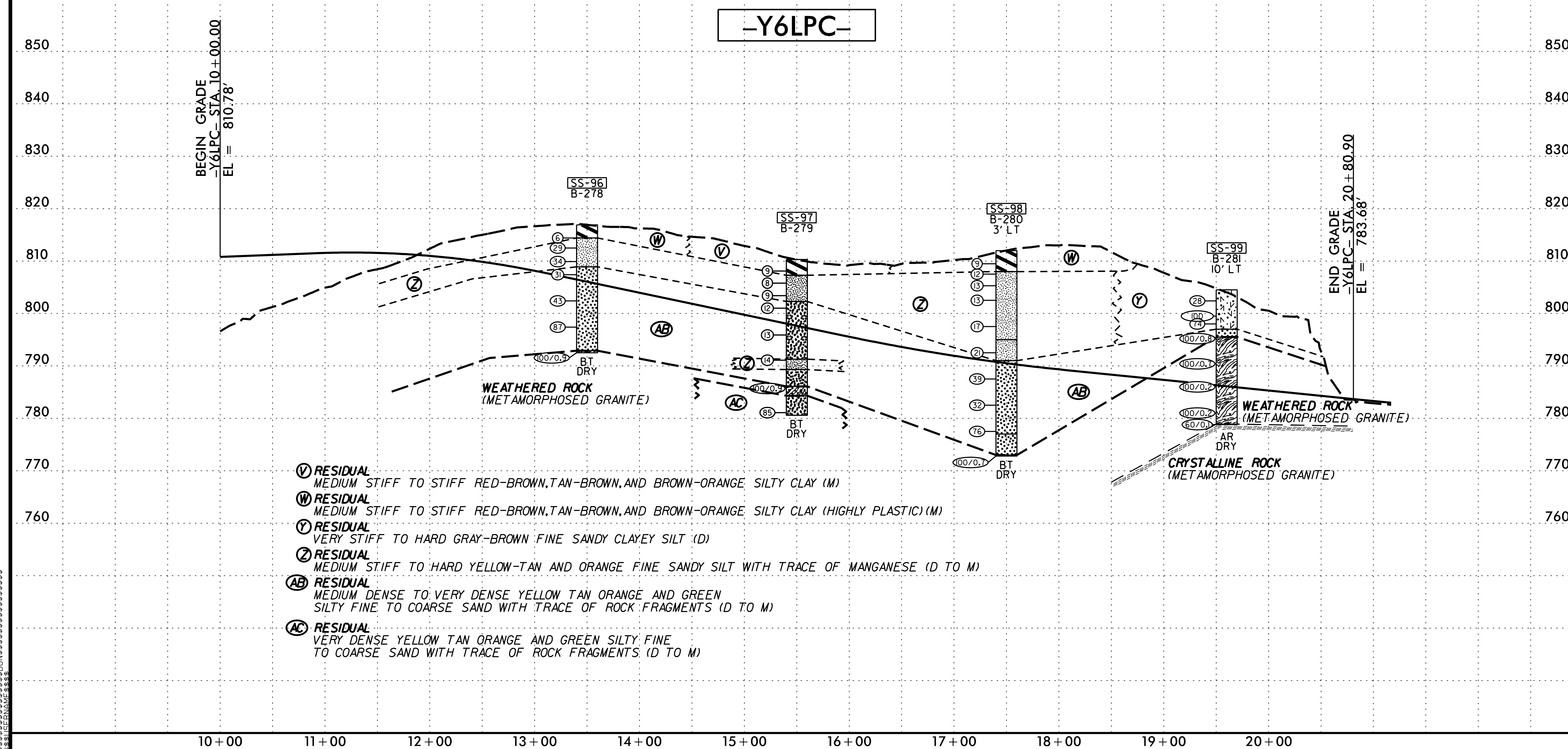
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	76
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-96	CL	13+50	1.5-3.0	A-7-6(35)	58	31	0	9	46	45	100	100	100	96.9	34.3	ND
SS-97	CL	15+50	1.2-2.7	A-7-5(14)	54	13	4	27	34	35	99	96	95	80.6	37.9	ND
SS-98	3' LT	17+50	1.5-3.0	A-7-5(66)	97	53	1	4	20	75	100	100	99	97.8	55.4	ND
SS-99	10' LT	19+60	5.5-7.0	A-5(7)	44	9	3	42	38	17	100	99	97	68.6	15.7	ND



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	77
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

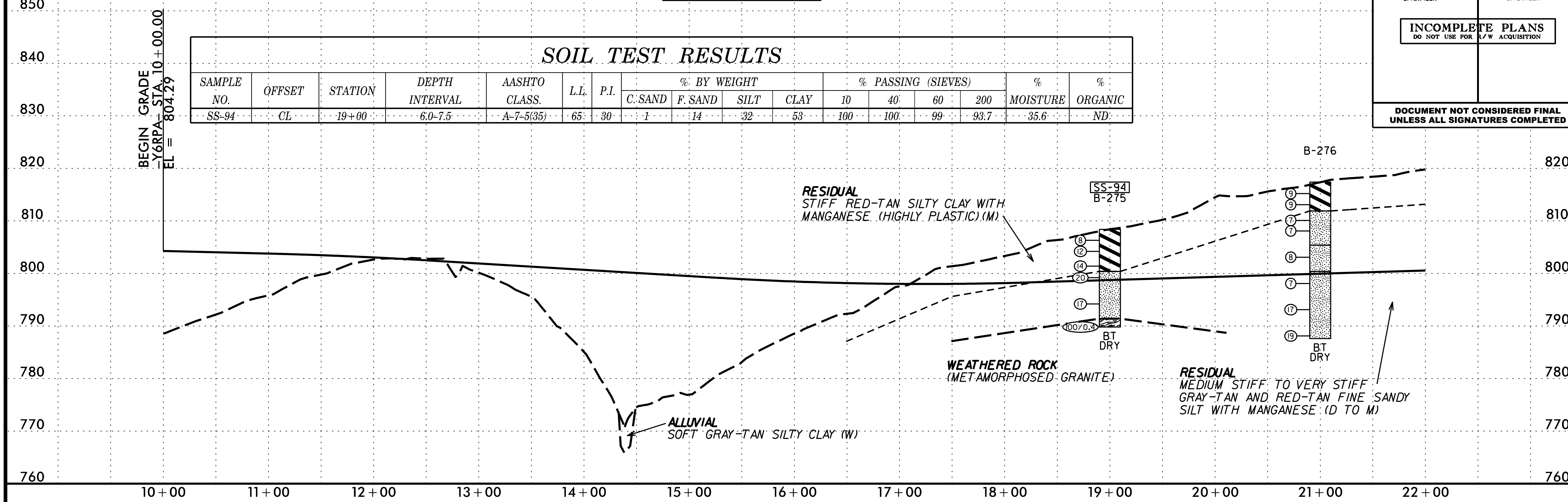
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/28/99

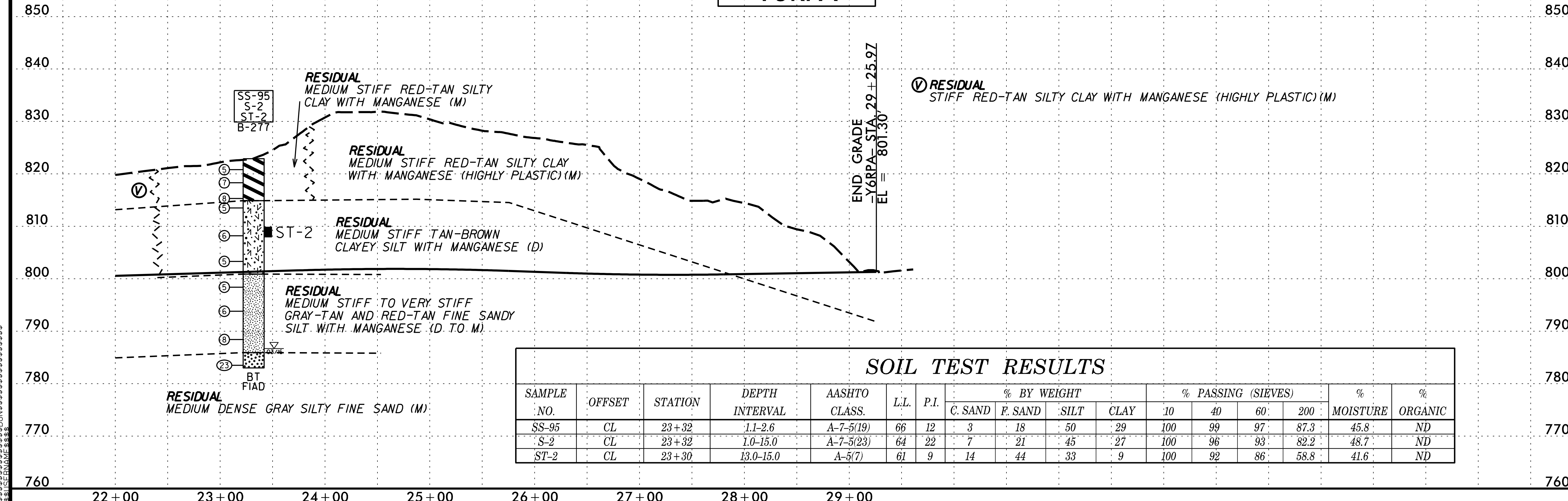
-Y6RPA-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-94	CL	19+00	6.0-7.5	A-7-5(35)	65	30	1	14	32	53	100	100	99	93.7	35.6	ND



-Y6RPA-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-95	CL	23+32	1.1-2.6	A-7-5(19)	66	12	3	18	50	29	100	99	97	87.3	45.8	ND
S-2	CL	23+32	1.0-15.0	A-7-5(23)	64	22	7	21	45	27	100	96	93	82.2	48.7	ND
ST-2	CL	23+30	13.0-15.0	A-5(7)	61	9	14	44	33	9	100	92	86	58.8	41.6	ND

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$$$$USERNAME$$$$

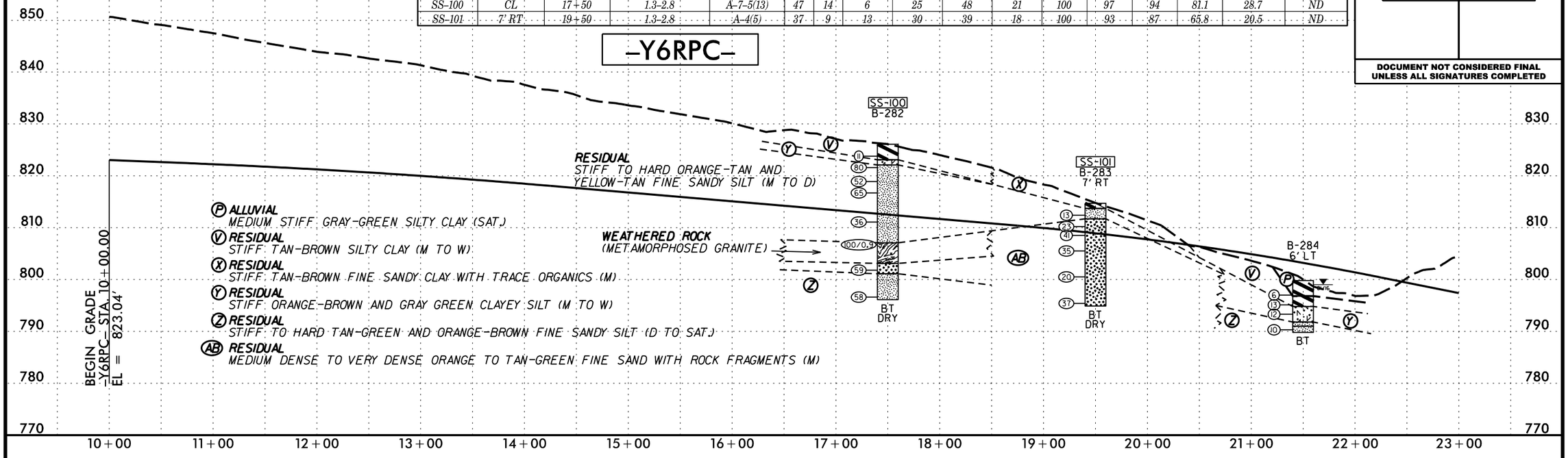
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	78
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

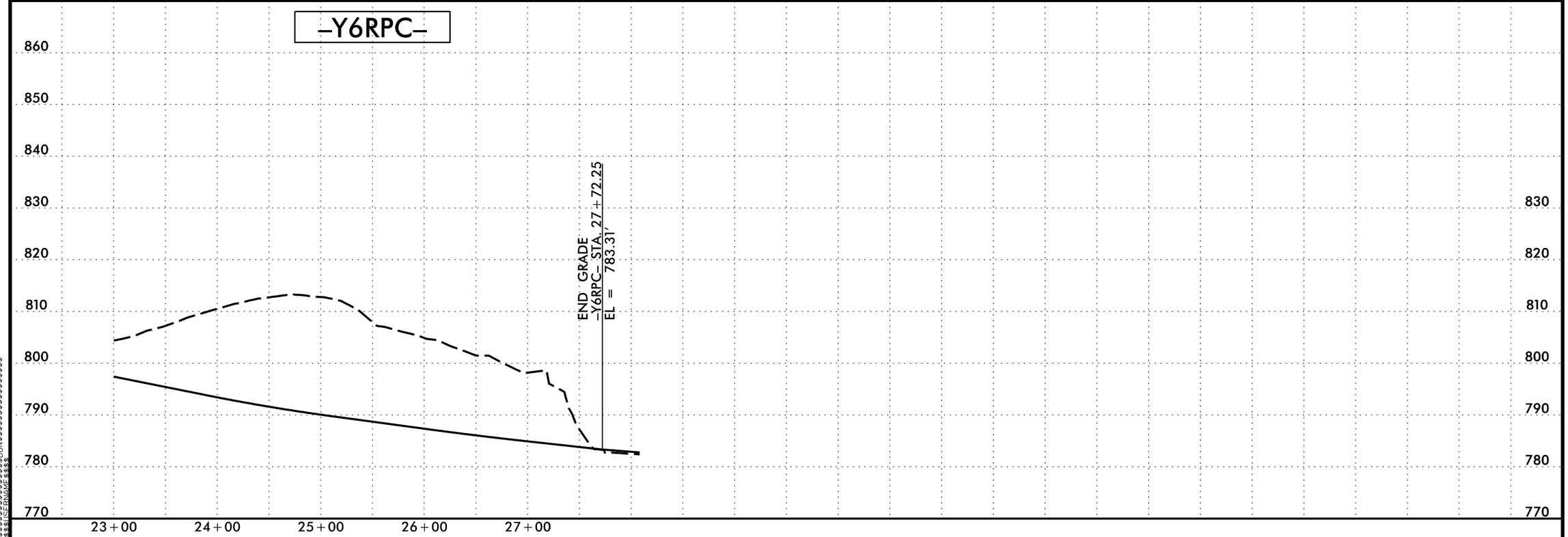
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-100	CL	17+50	1.3-2.8	A-7-5(13)	47	14	6	25	48	21	100	97	94	81.1	28.7	ND
SS-101	7' RT	19+50	1.3-2.8	A-4(5)	37	9	13	30	39	18	100	93	87	65.8	20.5	ND



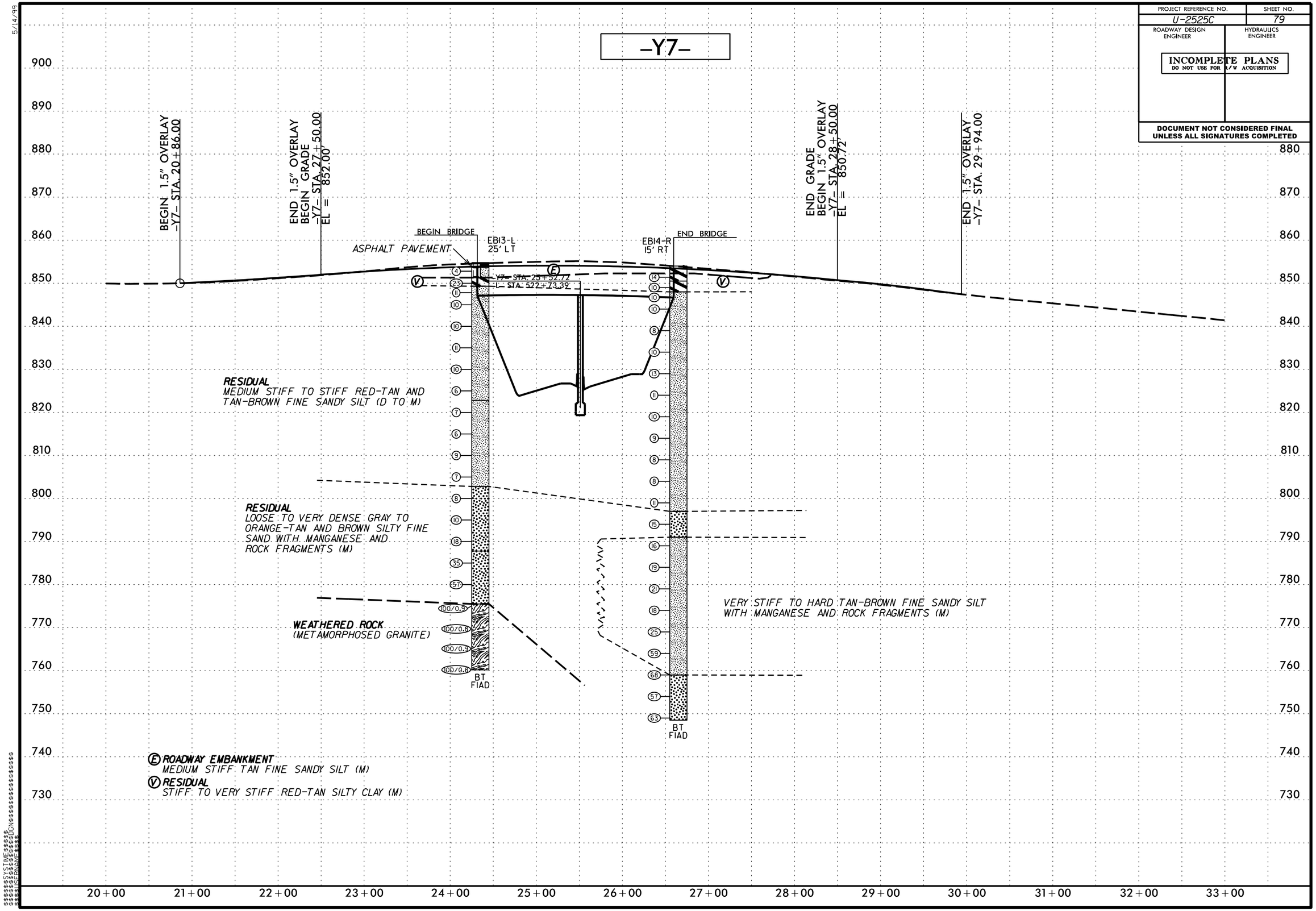


5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	79
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	80

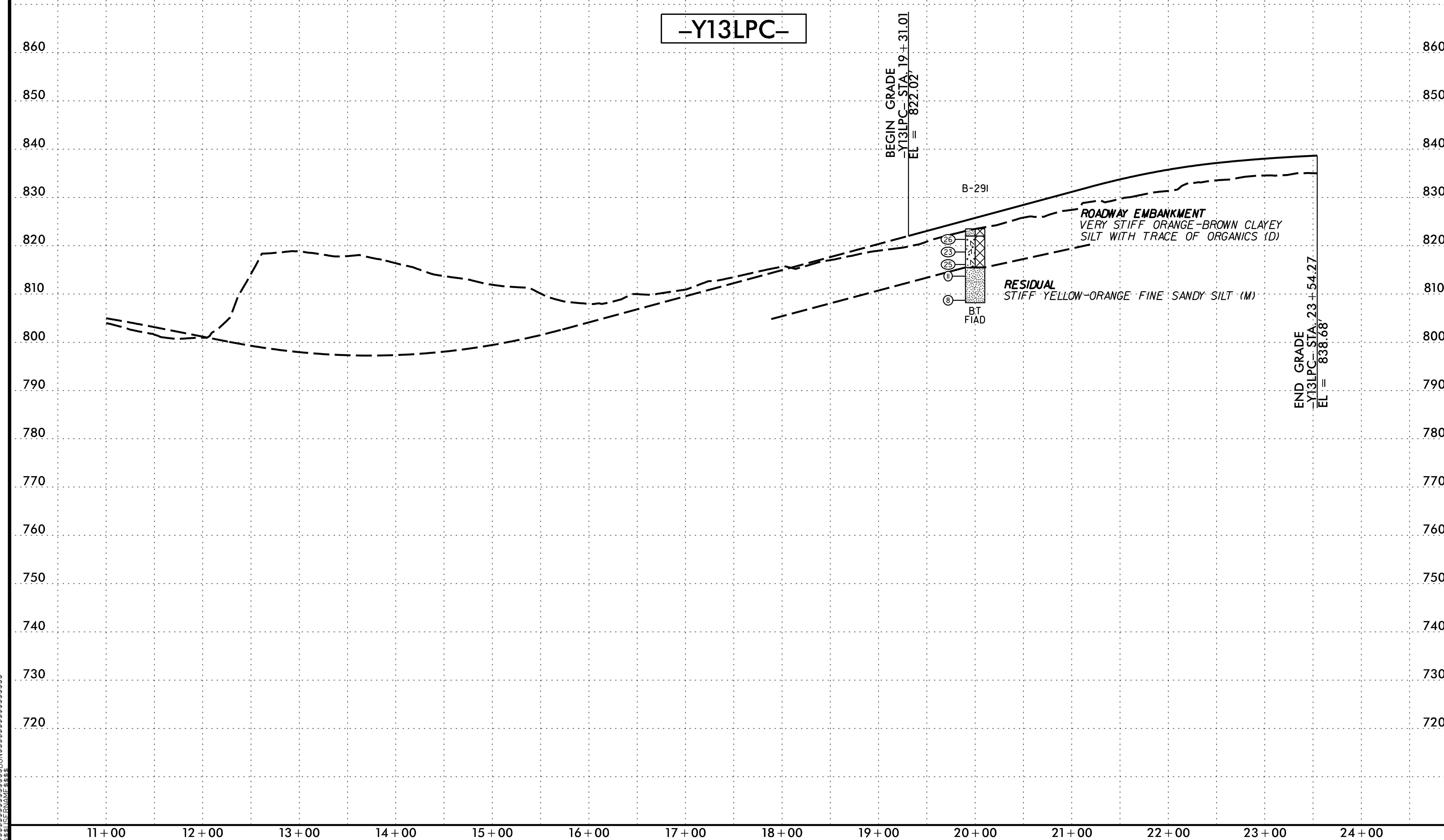
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

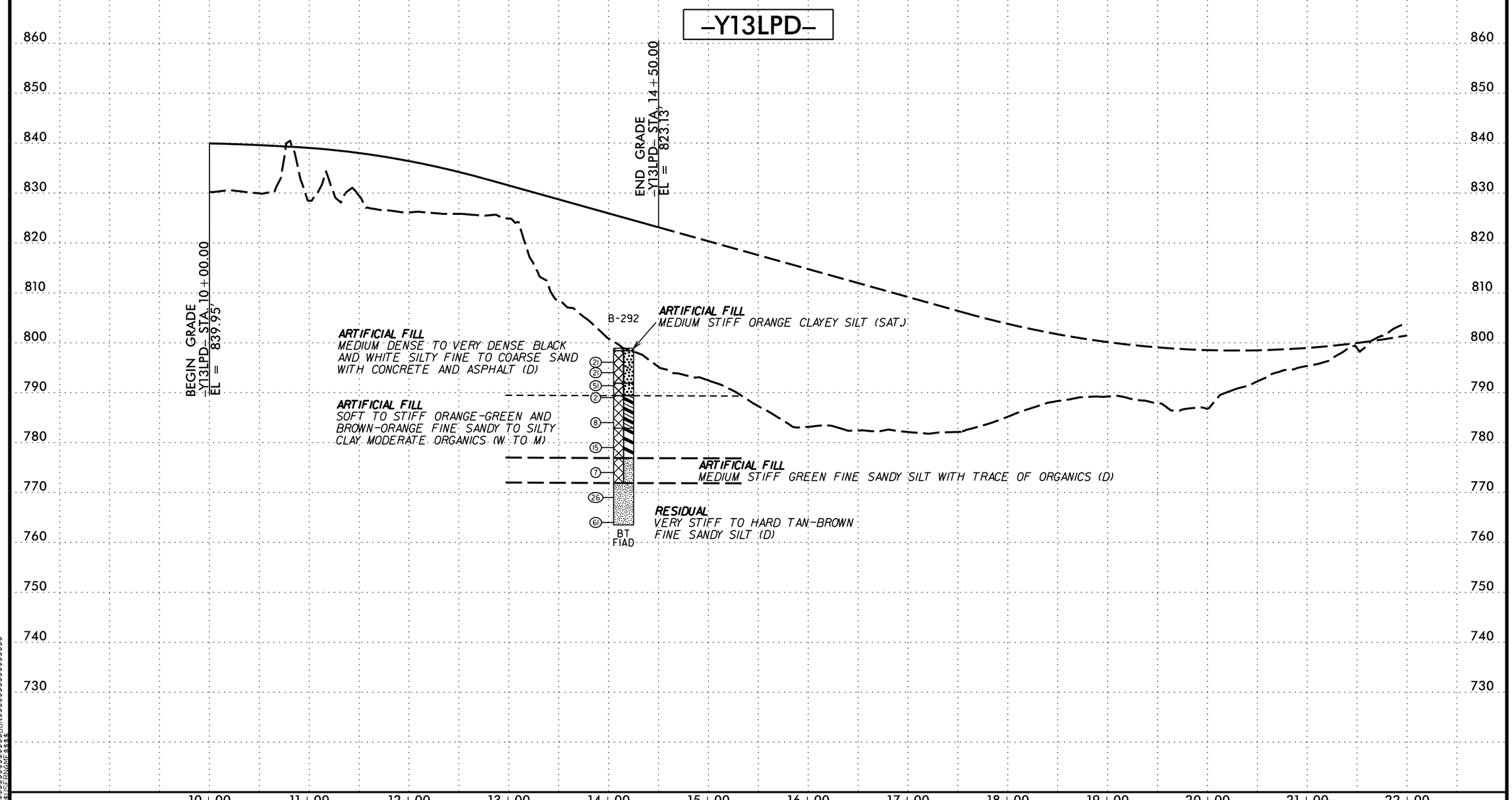


$$$$$SYSTIME$$$$$ $$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$ $$$$$USERNAME$$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	81
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



5/14/99

$$$$$SYSTIME$$$$$
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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	82
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

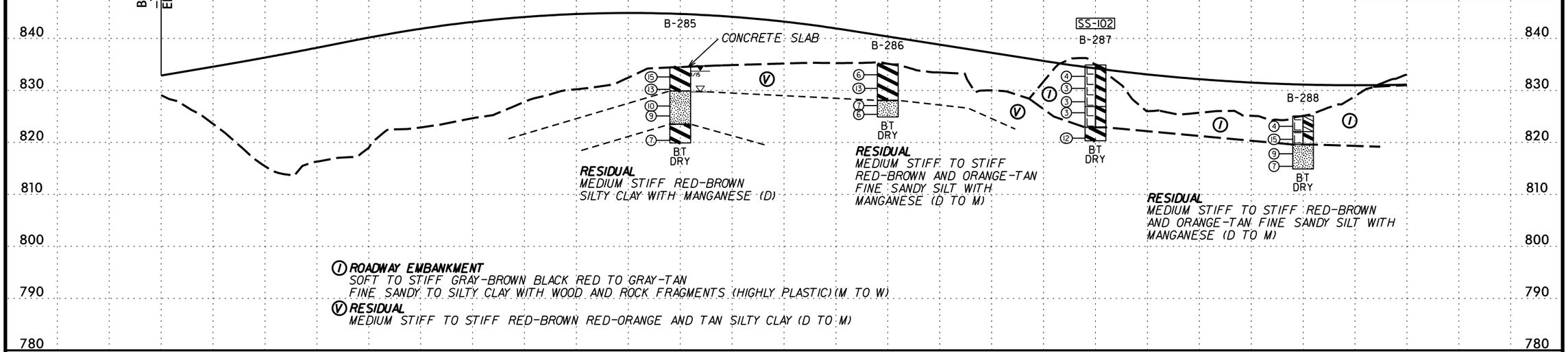
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y13RPA-

SOIL TEST RESULTS

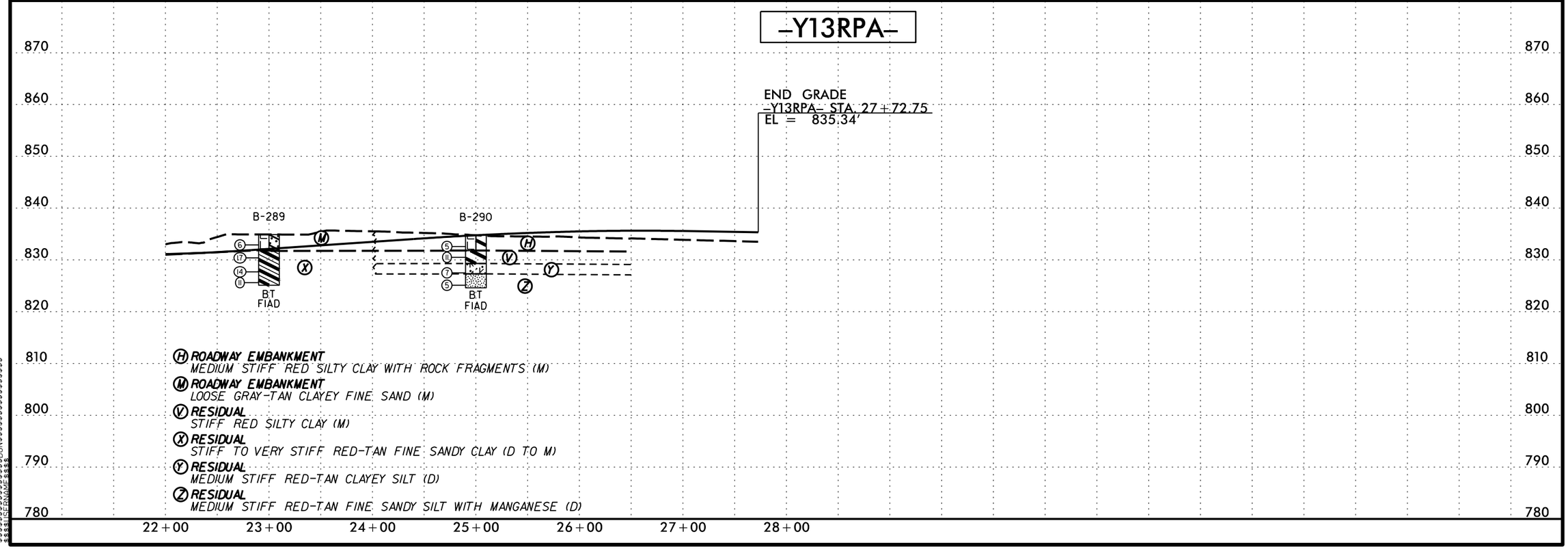
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-102	CL	19+00	1.2-2.7	A-7-6(27)	62	39	15	17	15	53	98	89	83	70.5	35.0	ND



(I) **ROADWAY EMBANKMENT**
SOFT TO STIFF GRAY-BROWN BLACK RED TO GRAY-TAN FINE SANDY TO SILTY CLAY WITH WOOD AND ROCK FRAGMENTS (HIGHLY PLASTIC) (M TO W)

(V) **RESIDUAL**
MEDIUM STIFF TO STIFF RED-BROWN RED-ORANGE AND TAN SILTY CLAY (D TO M)

-Y13RPA-



(H) **ROADWAY EMBANKMENT**
MEDIUM STIFF RED SILTY CLAY WITH ROCK FRAGMENTS (M)

(M) **ROADWAY EMBANKMENT**
LOOSE GRAY-TAN CLAYEY FINE SAND (M)

(V) **RESIDUAL**
STIFF RED SILTY CLAY (M)

(X) **RESIDUAL**
STIFF TO VERY STIFF RED-TAN FINE SANDY CLAY (D TO M)

(Y) **RESIDUAL**
MEDIUM STIFF RED-TAN CLAYEY SILT (D)

(Z) **RESIDUAL**
MEDIUM STIFF RED-TAN FINE SANDY SILT WITH MANGANESE (D)

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	83

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

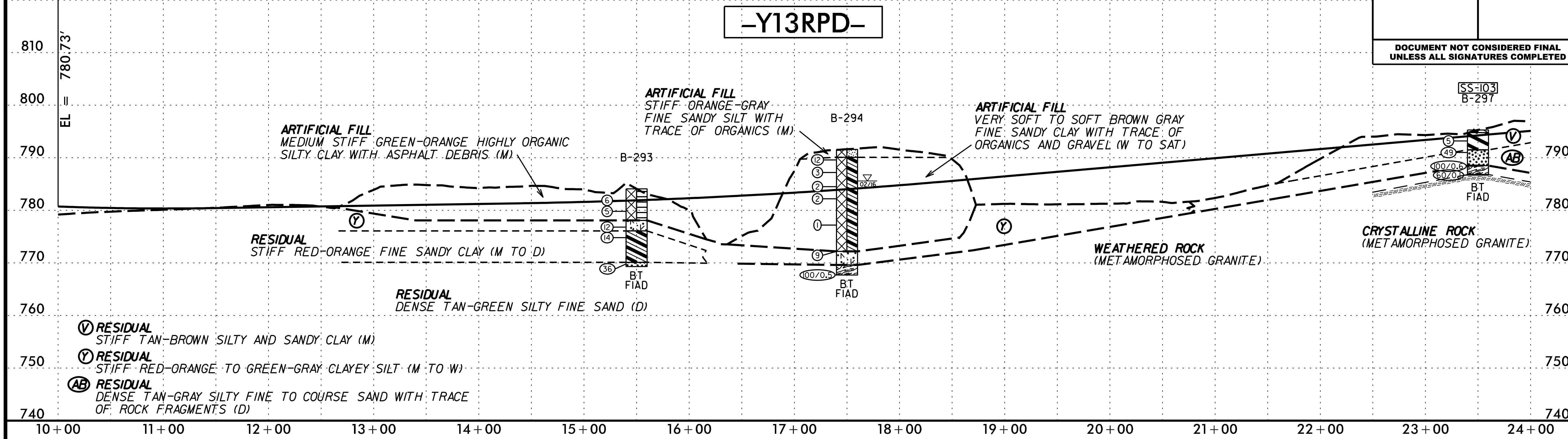
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/28/99

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-103	23+50	CL	1.1-2.6	A-7-6(38)	64	45	10	12	32	46	99	93	89	80.8	20.2	ND

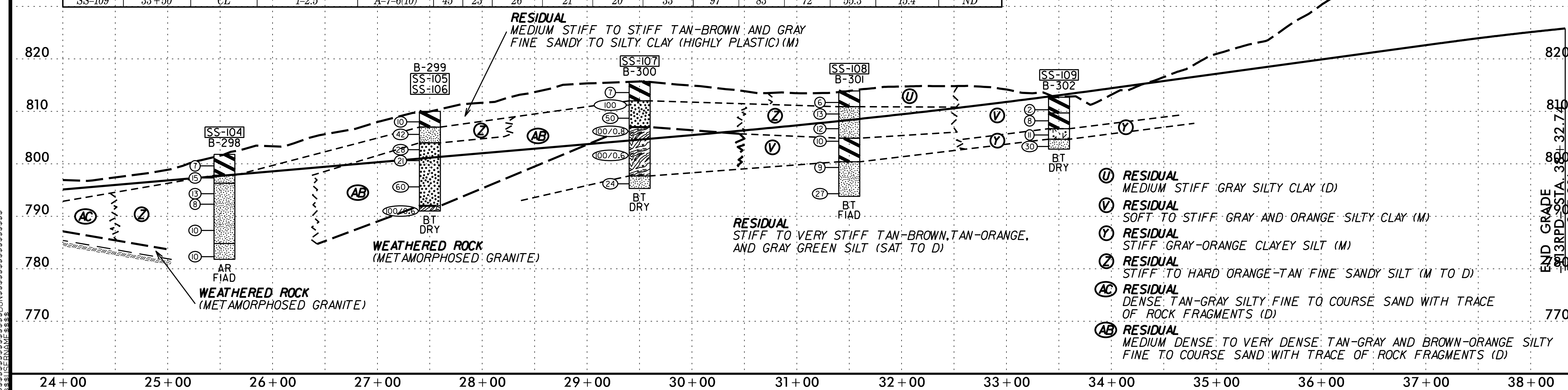
-Y13RPD-

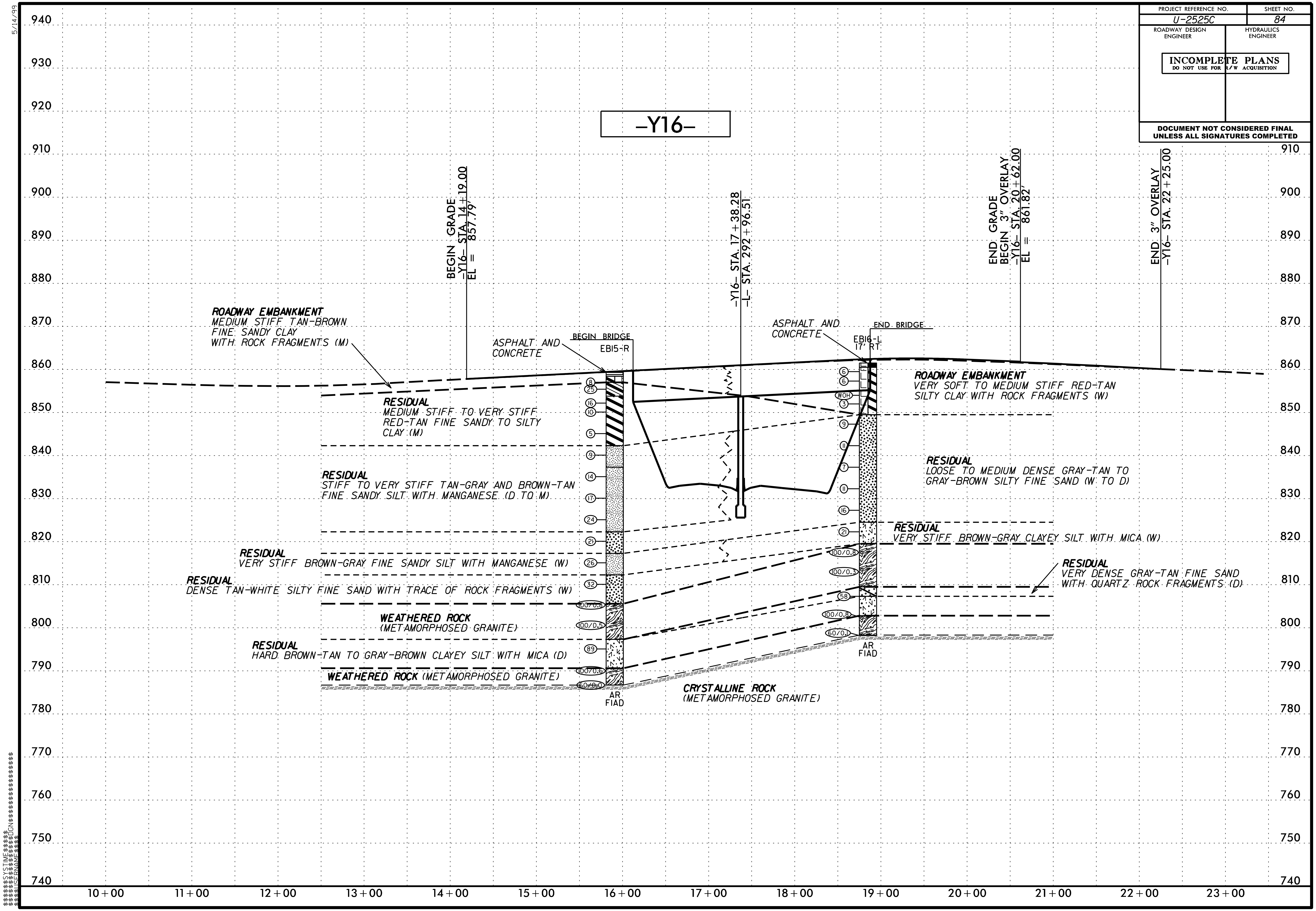


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-104	25+54	CL	1.2-2.7	A-7-6(47)	75	48	3	15	23	59	100	98	97	87.2	27.5	ND
SS-105	27+50	CL	3.5-5	A-4(3)	32	9	35	14	36	15	100	75	65	54.8	13.2	ND
SS-106	27+50	CL	1-2.5	A-7-6(23)	54	32	17	11	12	60	99	87	82	73.8	22.4	ND
SS-107	29+50	CL	1.1-2.6	A-7-6(47)	80	53	9	10	6	75	98	93	89	81.3	30.2	ND
SS-108	31+50	CL	1.2-2.7	A-7-6(18)	56	35	27	14	6	52	99	82	72	60.1	28.9	ND
SS-109	33+50	CL	1-2.5	A-7-6(10)	45	23	26	21	20	33	97	83	72	55.3	15.4	ND

-Y13RPD-





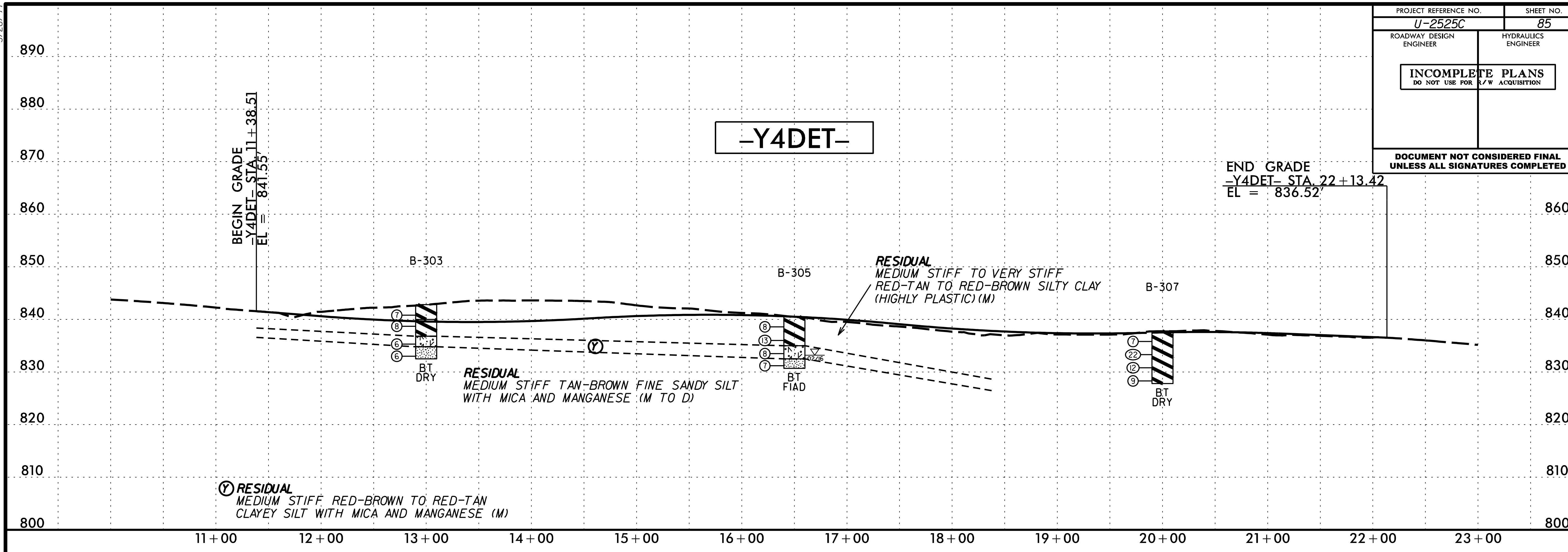
PROJECT REFERENCE NO.
U-2525C
SHEET NO.
84
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
-Y16-
BEGIN GRADE -Y16- STA. 14+19.00 EL = 857.79'
-Y16- STA. 17+38.28 -L- STA. 292+96.51
END GRADE BEGIN 3" OVERLAY -Y16- STA. 20+62.00 EL = 861.82'
END 3" OVERLAY -Y16- STA. 22+25.00
ROADWAY EMBANKMENT
MEDIUM STIFF TAN-BROWN FINE SANDY CLAY WITH ROCK FRAGMENTS (M)
ASPHALT AND CONCRETE
BEGIN BRIDGE
EB15-R
END BRIDGE
EB16-L 17' RT
ROADWAY EMBANKMENT
VERY SOFT TO MEDIUM STIFF RED-TAN SILTY CLAY WITH ROCK FRAGMENTS (W)
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-TAN FINE SANDY TO SILTY CLAY (M)
RESIDUAL
STIFF TO VERY STIFF TAN-GRAY AND BROWN-TAN FINE SANDY SILT WITH MANGANESE (D TO M)
RESIDUAL
LOOSE TO MEDIUM DENSE GRAY-TAN TO GRAY-BROWN SILTY FINE SAND (W TO D)
RESIDUAL
VERY STIFF BROWN-GRAY CLAYEY SILT WITH MICA (W)
RESIDUAL
VERY STIFF BROWN-GRAY FINE SANDY SILT WITH MANGANESE (W)
RESIDUAL
DENSE TAN-WHITE SILTY FINE SAND WITH TRACE OF ROCK FRAGMENTS (W)
RESIDUAL
VERY DENSE GRAY-TAN FINE SAND WITH QUARTZ ROCK FRAGMENTS (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
HARD BROWN-TAN TO GRAY-BROWN CLAYEY SILT WITH MICA (D)
WEATHERED ROCK (METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR FIAD
AR FIAD
8 25 16 10 5 9 14 17 24 21 26 32 100/0.8 100/0.5 89 100/0.6 60/0.0
6 6 WOH 3 9 11 7 11 16 21 100/0.8 100/0.3 58 100/0.8 60/0.1
940 930 920 910 900 890 880 870 860 850 840 830 820 810 800 790 780 770 760 750 740
10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00
5/14/99

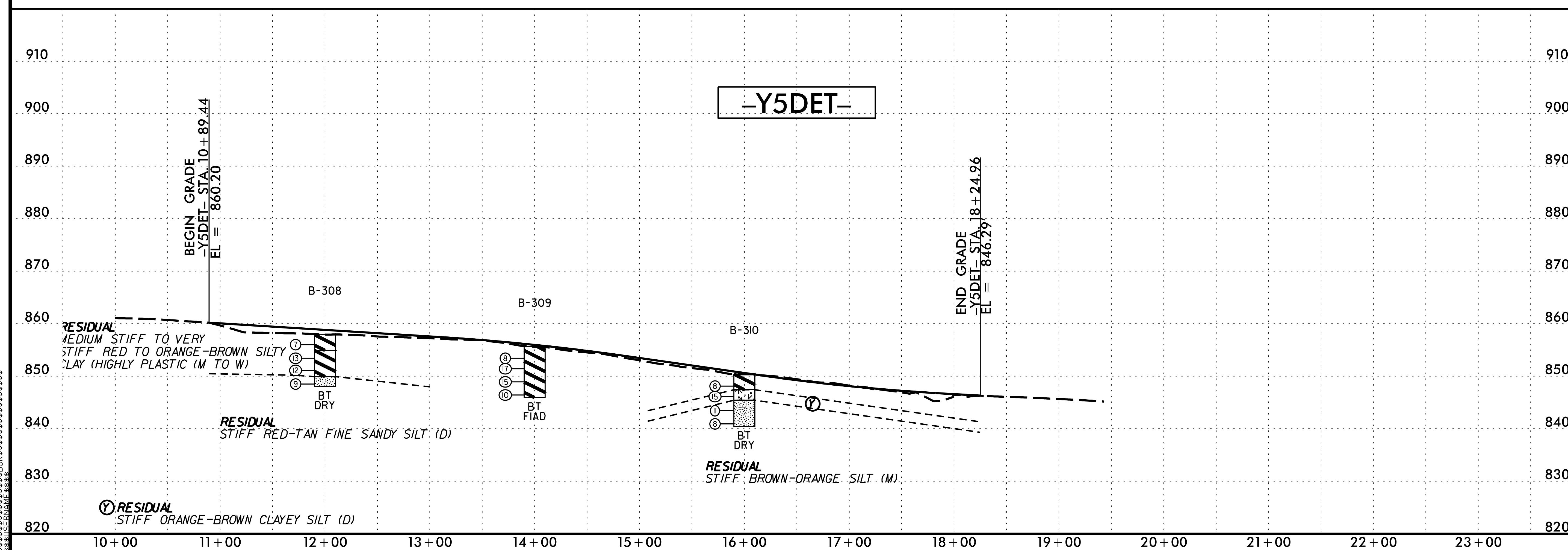
PROJECT REFERENCE NO. U-2525C | SHEET NO. 85

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





5/28/99

5/14/99

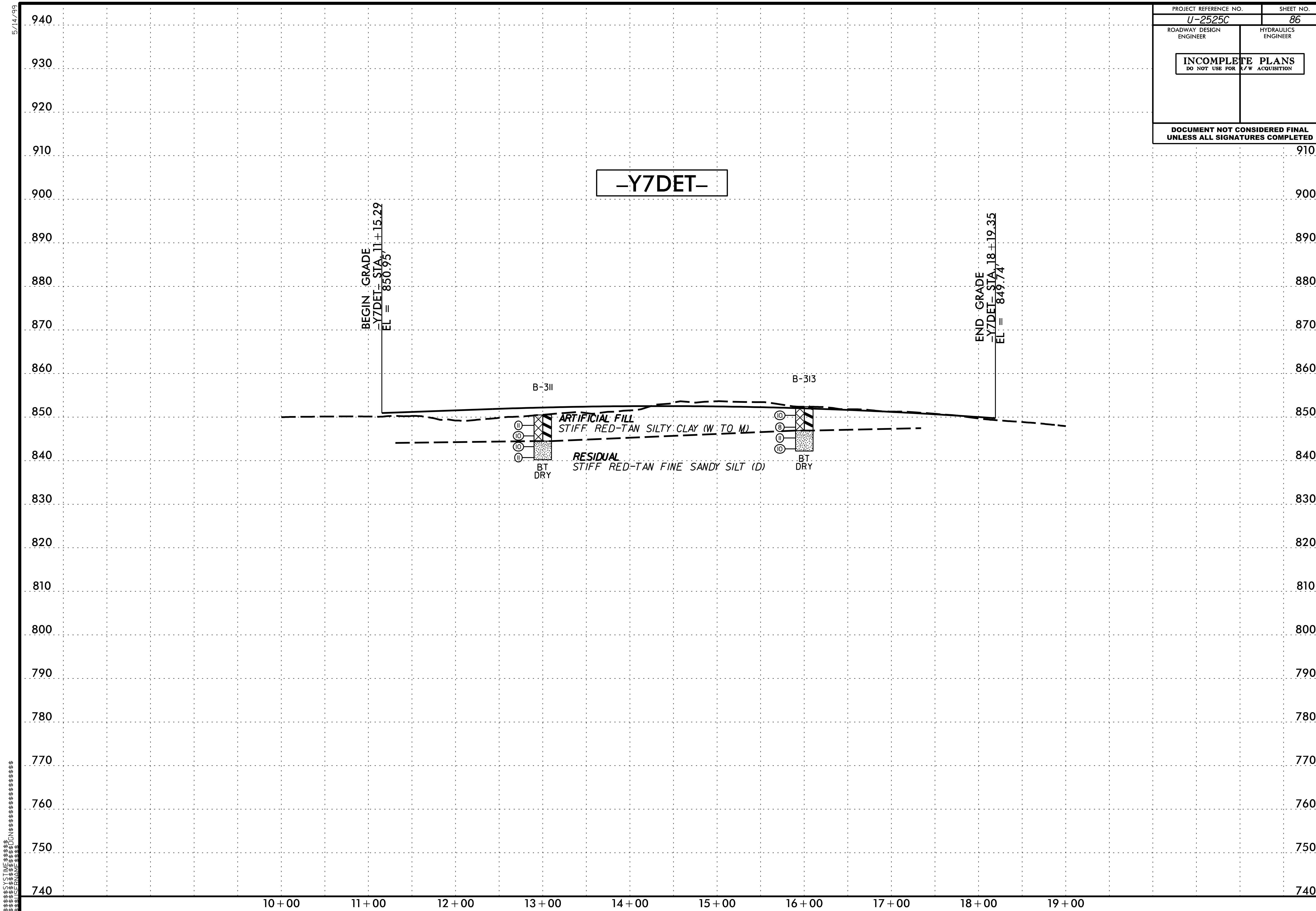
PROJECT REFERENCE NO.	SHEET NO.
U-2525C	86

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT REFERENCE NO.	SHEET NO.
U-2525C	87A

REFERENCE: U-2525C

PROJECT: 34821

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SECTION 1
CROSS SECTIONS
-L- LEFT

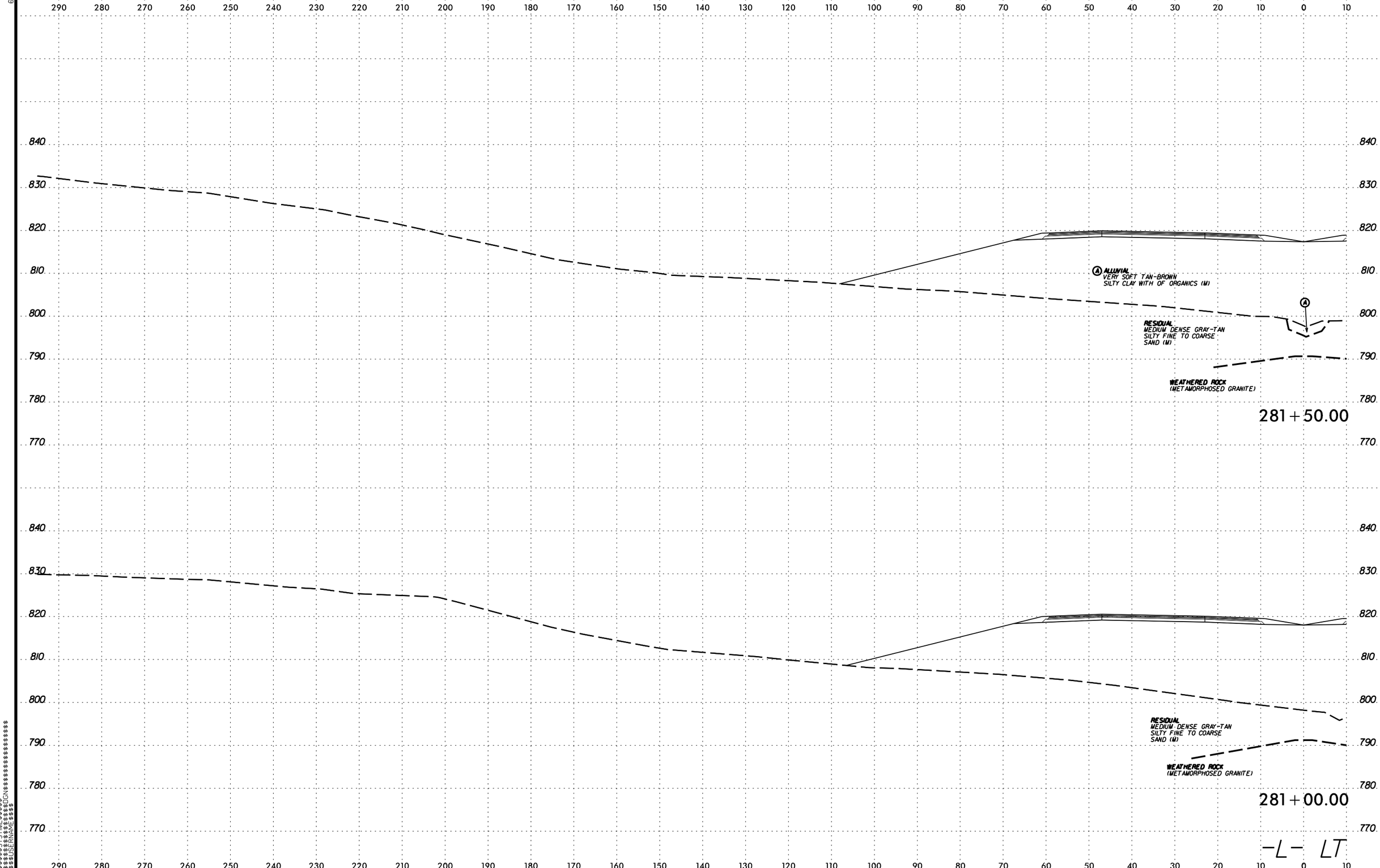
CROSS SECTIONS

LINE	STATION	SHEETS
-L- LEFT	281+00 - 282+50	87 - 88
-L- LEFT	287+00 - 299+00	89 - 99
-L- LEFT	301+00 - 304+00	100 - 102
-L- LEFT	312+00	102
-L- LEFT	314+00 - 316+00	103 - 105
-L- LEFT	320+00	106
-L- LEFT	324+00	107
-L- LEFT	330+50 - 332+00	107 - 109
-L- LEFT	335+00	110
-L- LEFT	337+50	111
-L- LEFT	339+00 - 343+00	112 - 120
-L- LEFT	344+00	121
-L- LEFT	346+00	122
-L- LEFT	351+50 - 352+00	123 - 124
-L- LEFT	354+00	125
-L- LEFT	356+00	126
-L- LEFT	358+00 - 361+00	127 - 133
-L- LEFT	363+50	134
-L- LEFT	366+50	135
-L- LEFT	373+00 - 374+50	136 - 137
-L- LEFT	384+00	138
-L- LEFT	396+50	138
-L- LEFT	398+50	139
-L- LEFT	402+50	139
-L- LEFT	406+50	140
-L- LEFT	407+50 - 416+50	140 - 148
-L- LEFT	429+50 - 464+00	149 - 179
-L- LEFT	466+00 - 468+00	179 - 180
-L- LEFT	471+00 - 482+00	181 - 190
-L- LEFT	492+00 - 495+00	191 - 196
-L- LEFT	497+50	197
-L- LEFT	505+50	198
-L- LEFT	507+50 - 508+50	198 - 199
-L- LEFT	517+00 - 520+00	200 - 203
-L- LEFT	522+00	203
-L- LEFT	524+00 - 535+00	204 - 213
-L- LEFT	538+50 - 548+15.23	214 - 222

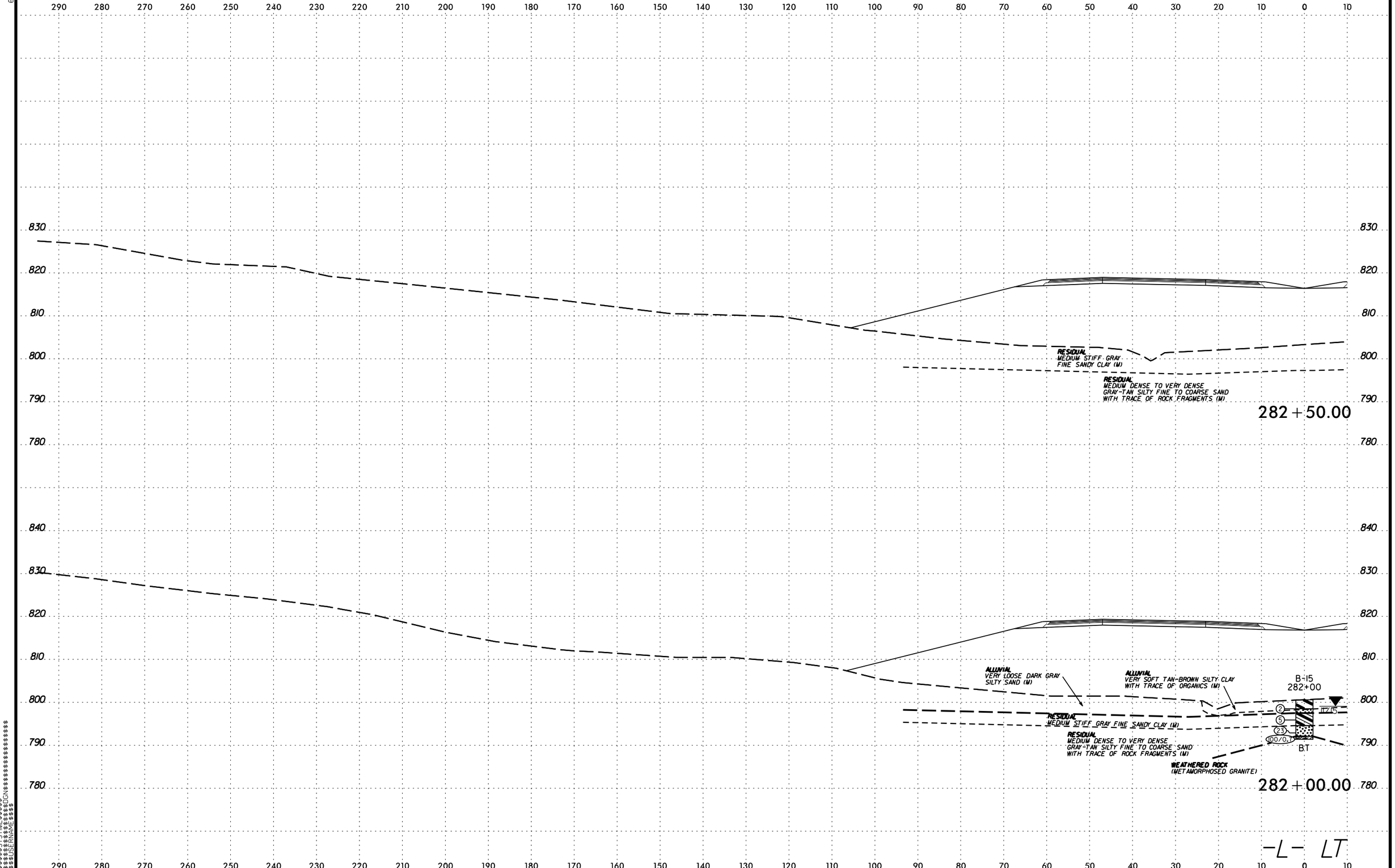
DocuSigned by:
Stewart S. Laney, PE
75BB4AB1AB3B4CB...

5/30/2017

S&ME

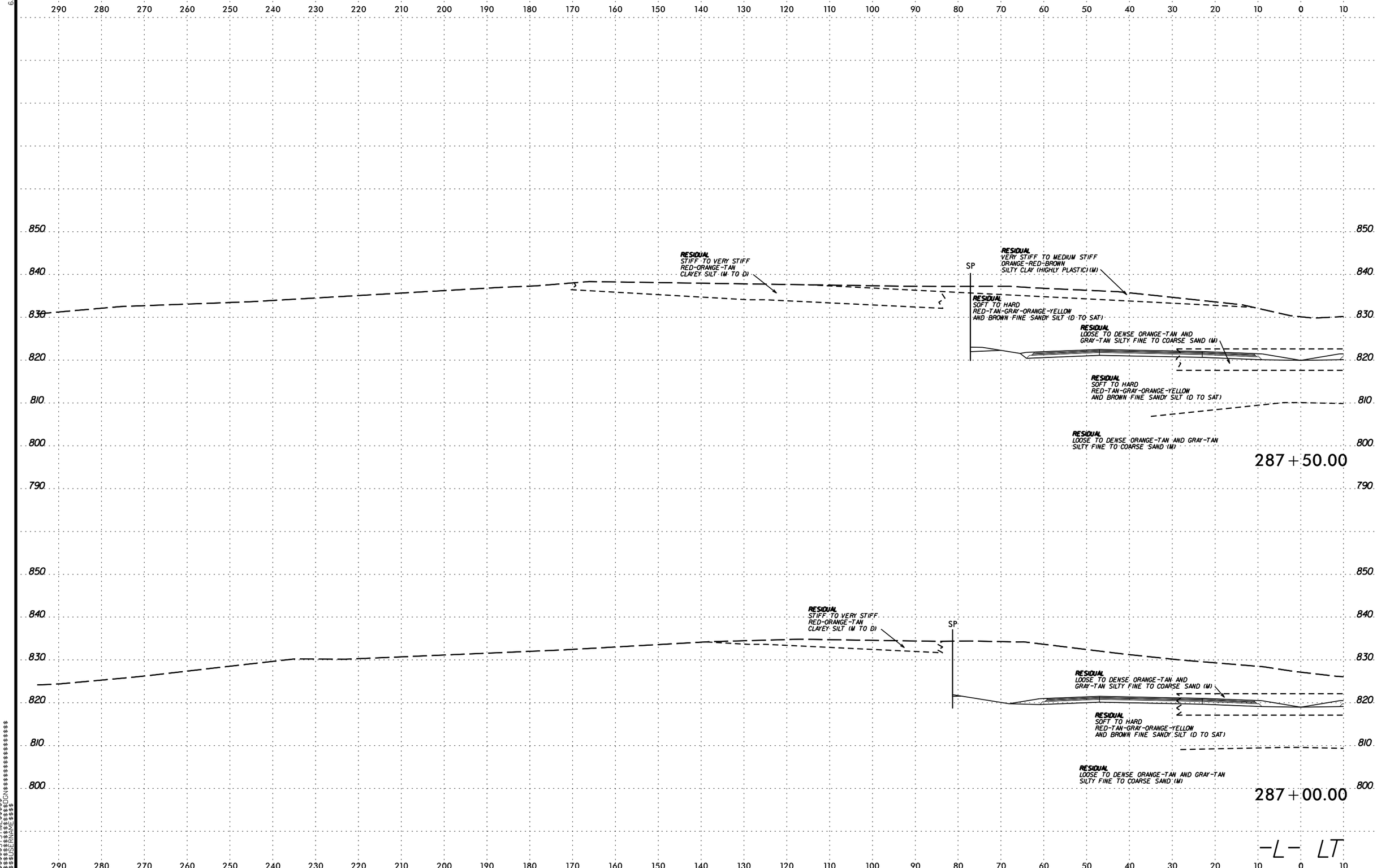


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
87
0 5 10
ALLUVIAL
VERY SOFT TAN-BROWN
SILTY CLAY WITH OF ORGANICS (M)
RESIDUAL
MEDIUM DENSE GRAY-TAN
SILTY FINE TO COARSE
SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
281+50.00
RESIDUAL
MEDIUM DENSE GRAY-TAN
SILTY FINE TO COARSE
SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
281+00.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
88
0 5 10
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10
830
820
810
800
790
780
840
RESIDUAL
MEDIUM STIFF GRAY
FINE SANDY CLAY (M)
RESIDUAL
MEDIUM DENSE TO VERY DENSE
GRAY-TAN SILTY FINE TO COARSE SAND
WITH TRACE OF ROCK FRAGMENTS (M)
282+50.00
ALLUVIAL
VERY LOOSE DARK GRAY
SILTY SAND (M)
ALLUVIAL
VERY SOFT TAN-BROWN SILTY CLAY
WITH TRACE OF ORGANICS (M)
B-15
282+00
RESIDUAL
MEDIUM STIFF GRAY FINE SANDY CLAY (M)
RESIDUAL
MEDIUM DENSE TO VERY DENSE
GRAY-TAN SILTY FINE TO COARSE SAND
WITH TRACE OF ROCK FRAGMENTS (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
B.T
282+00.00
-L- LT

PROJ. REFERENCE NO. U-2525C
SHEET NO. 89



6/23/16

$$$$$SYSTIME$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
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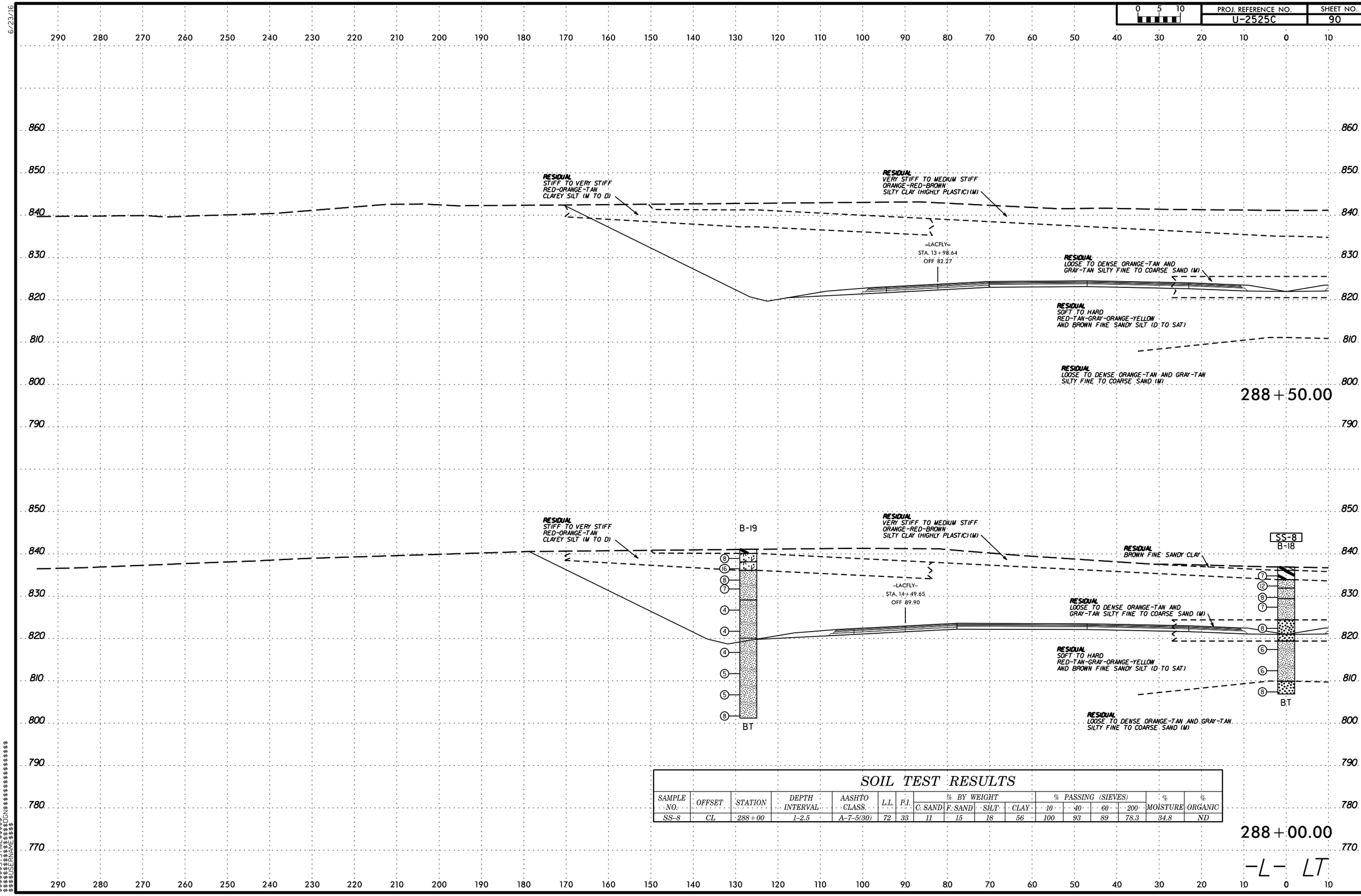


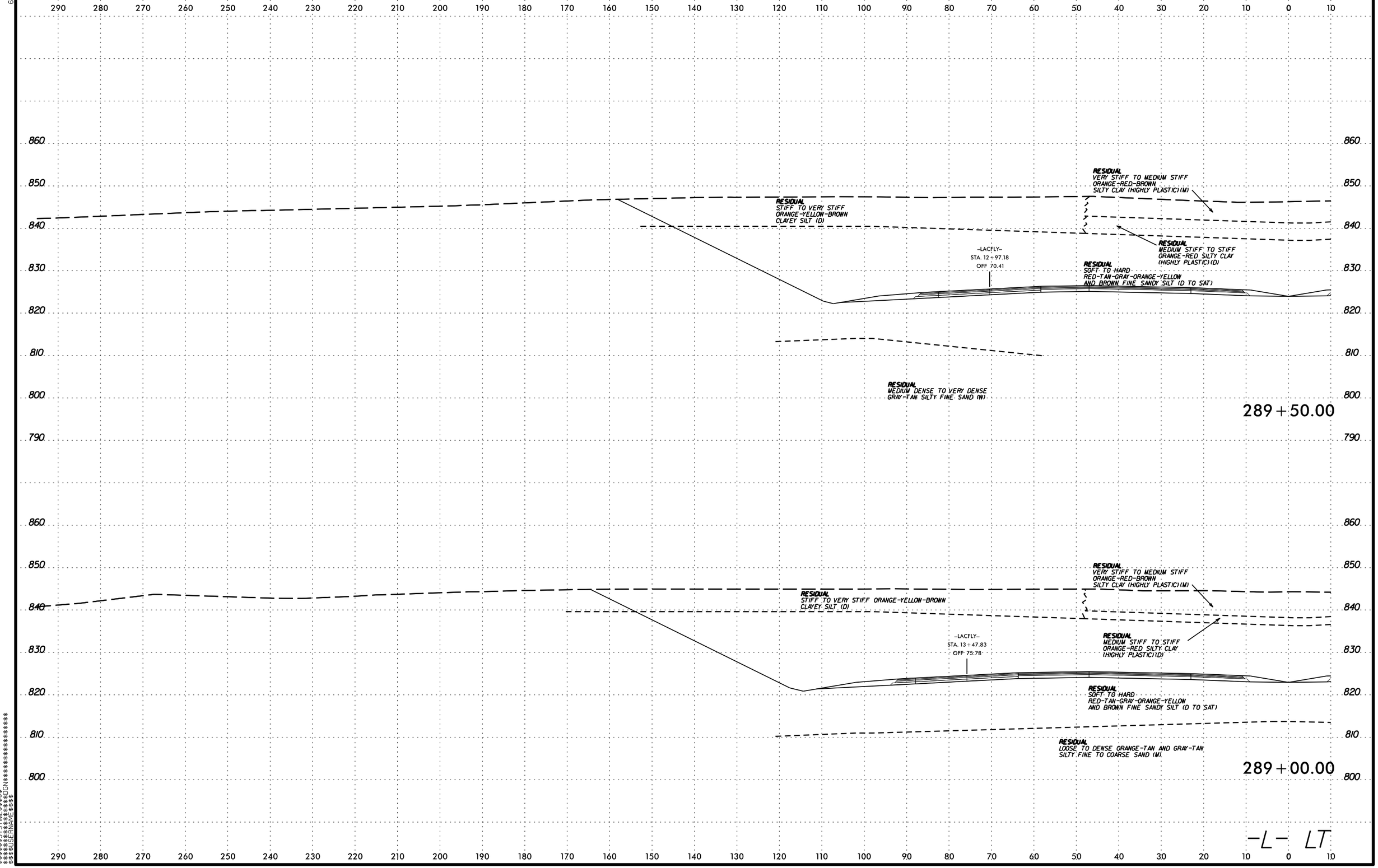
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-8	CL	288+00	1-2.5	A-7-5(30)	72	33	11	15	18	56	100	93	89	78.3	34.8	ND

6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	91



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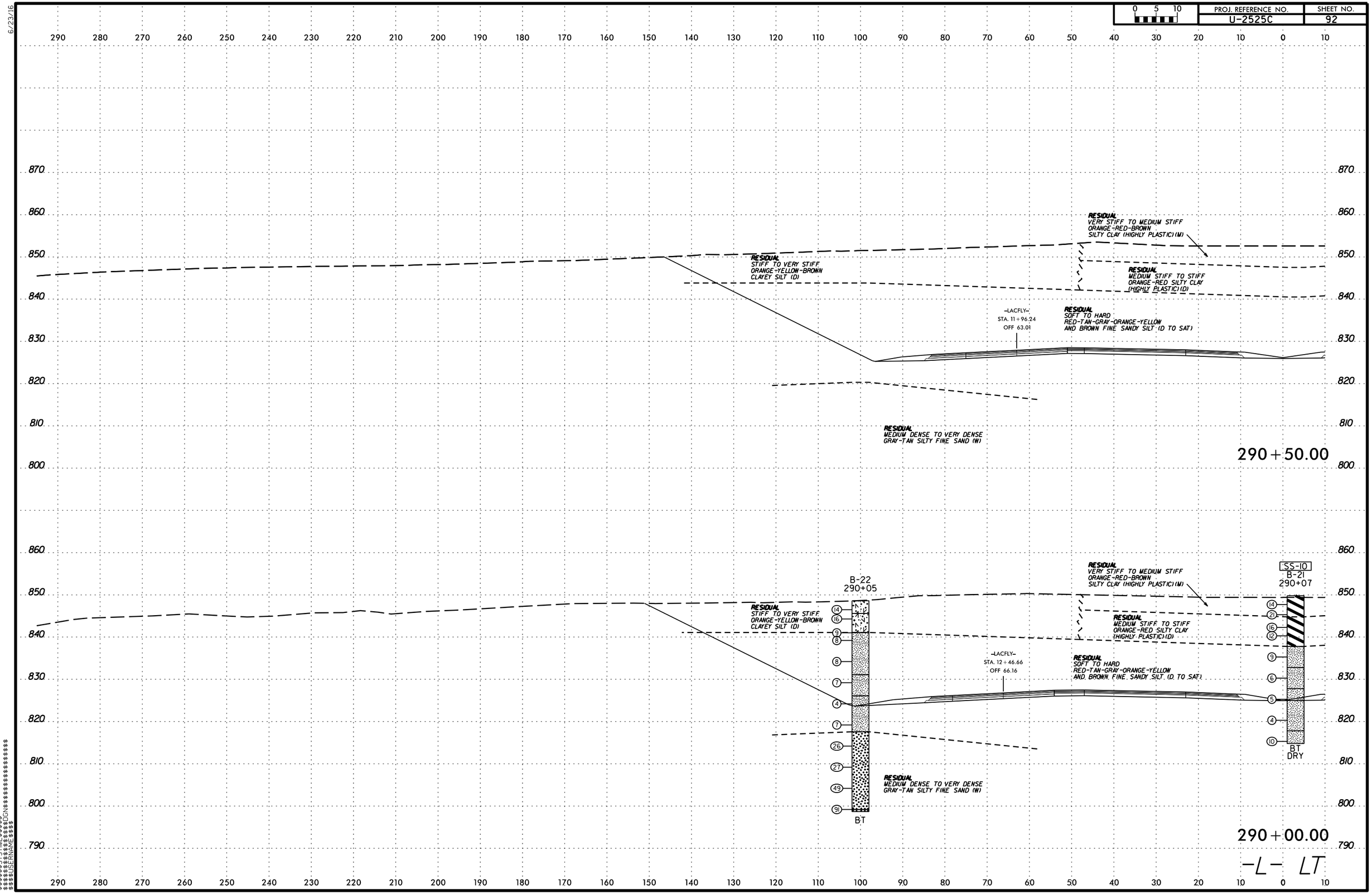
$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	92



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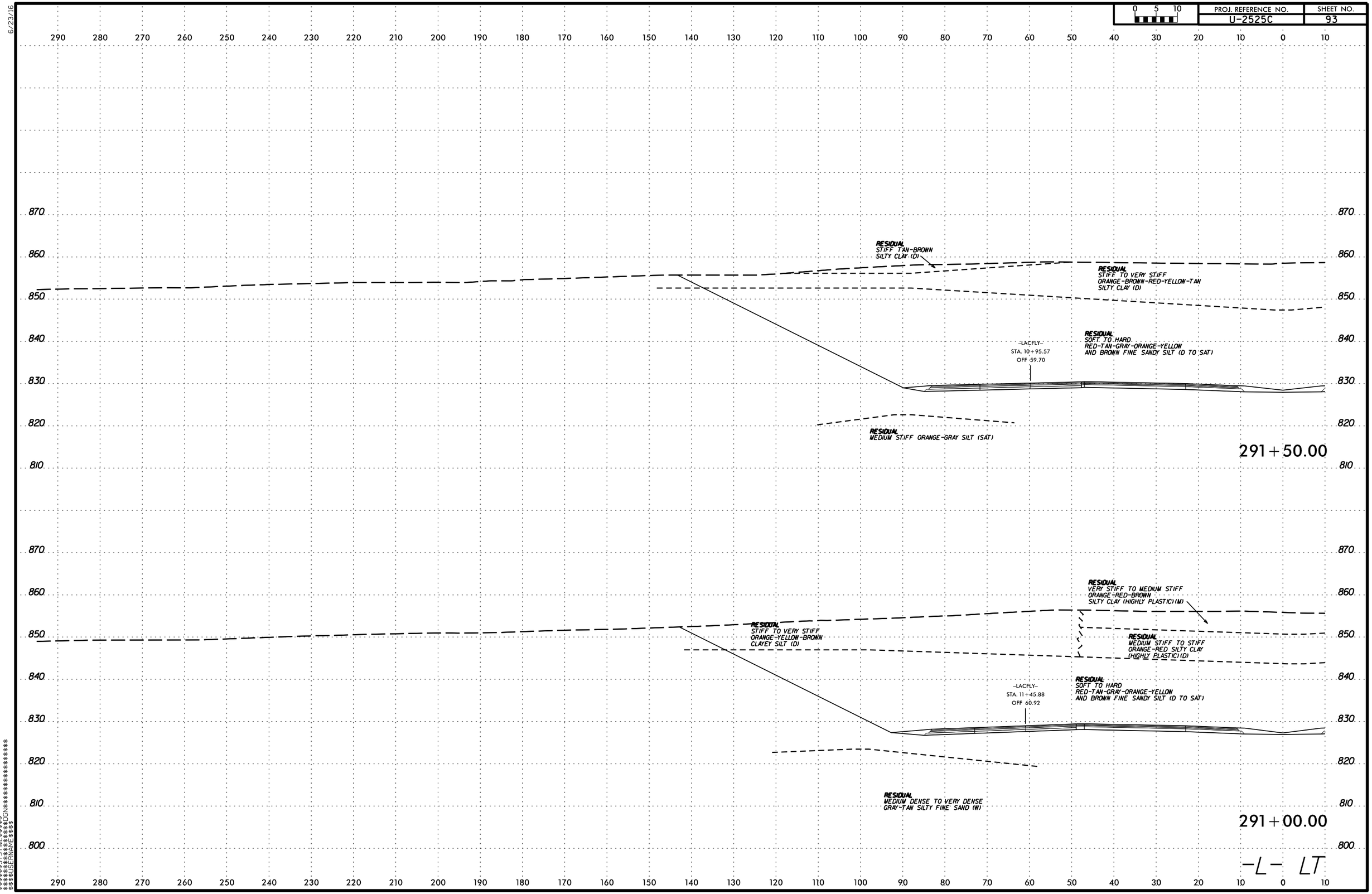
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	93



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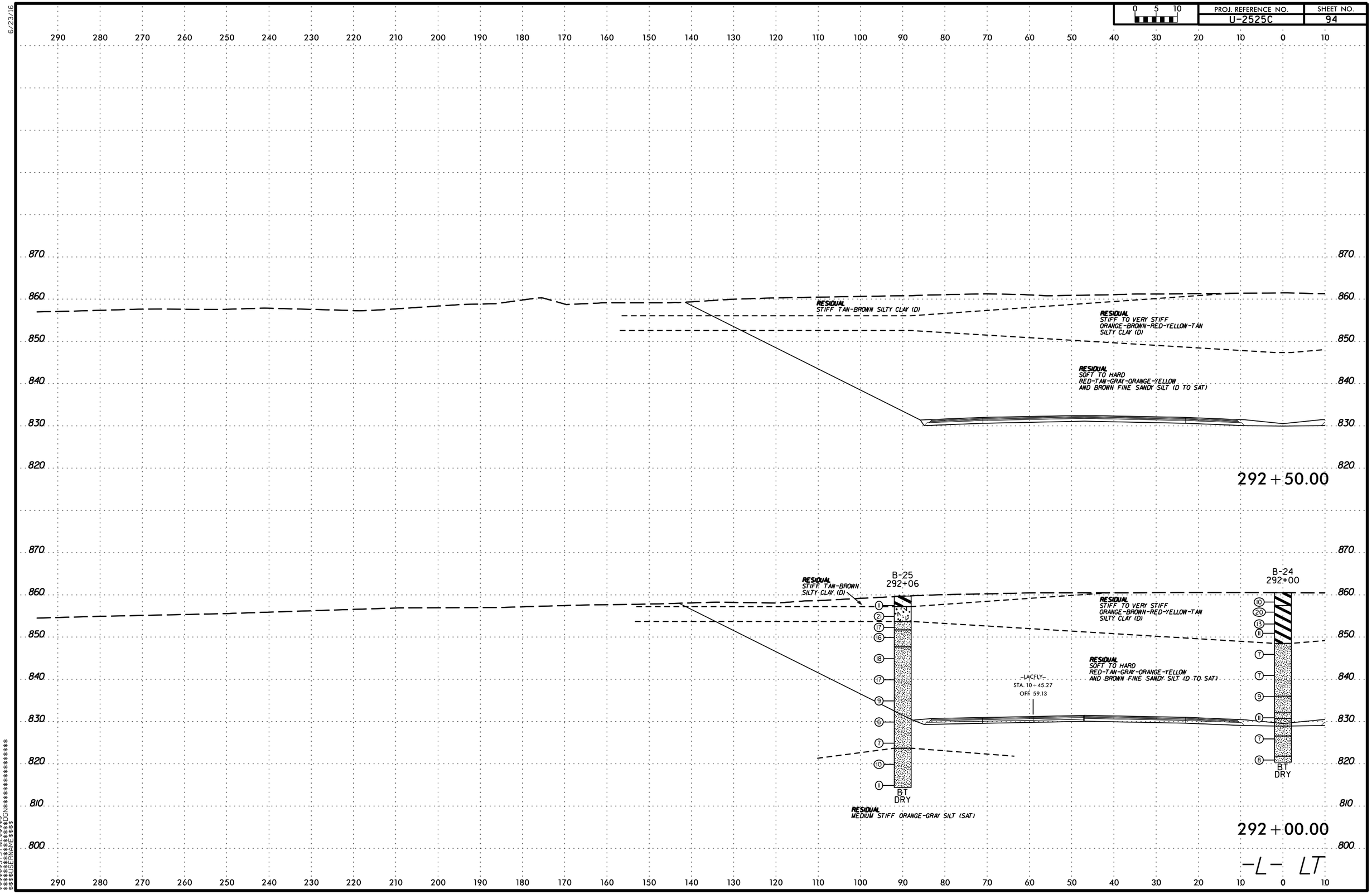
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	94



$$$$$$SYSTIME$$$$$$
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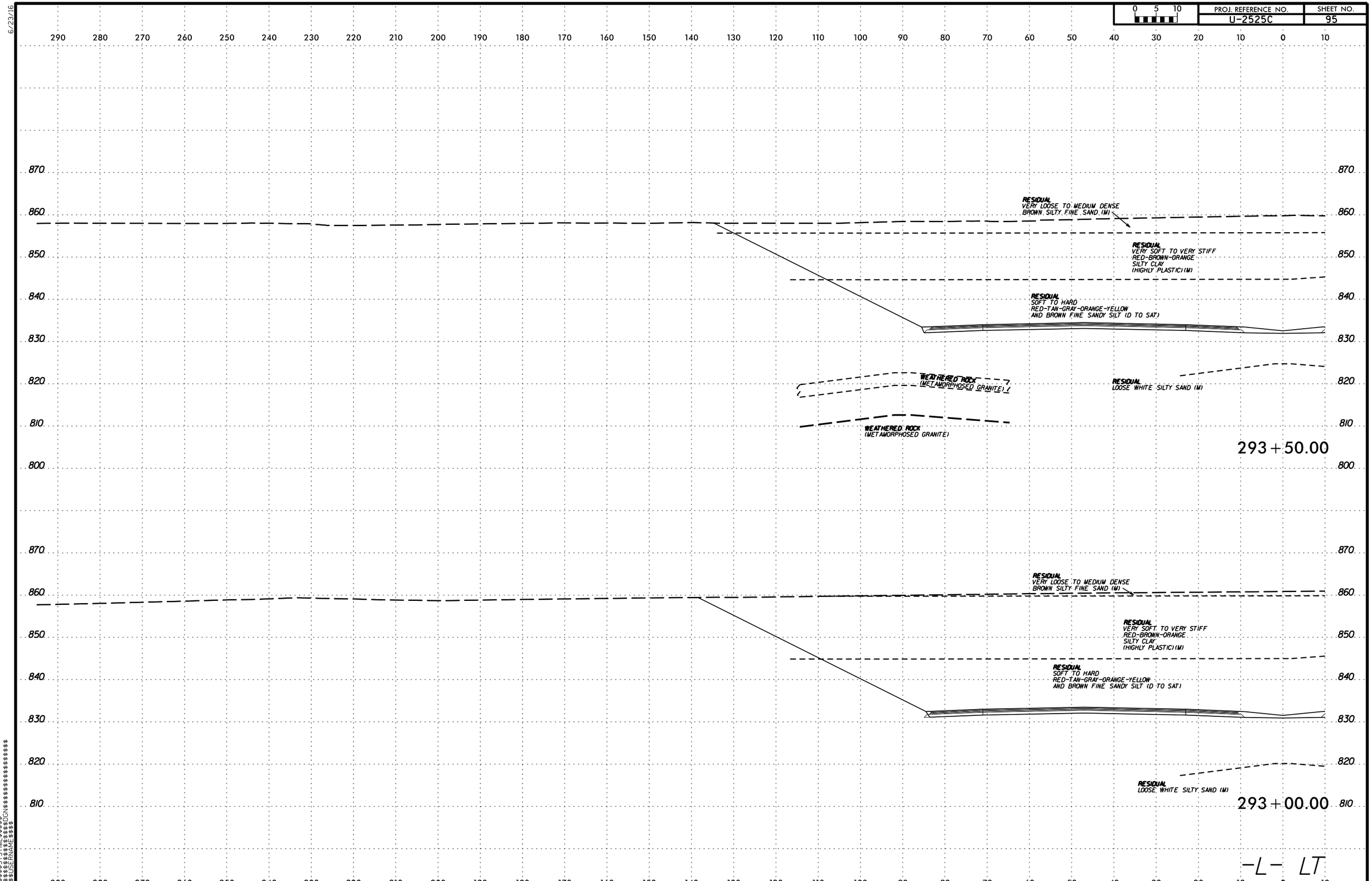
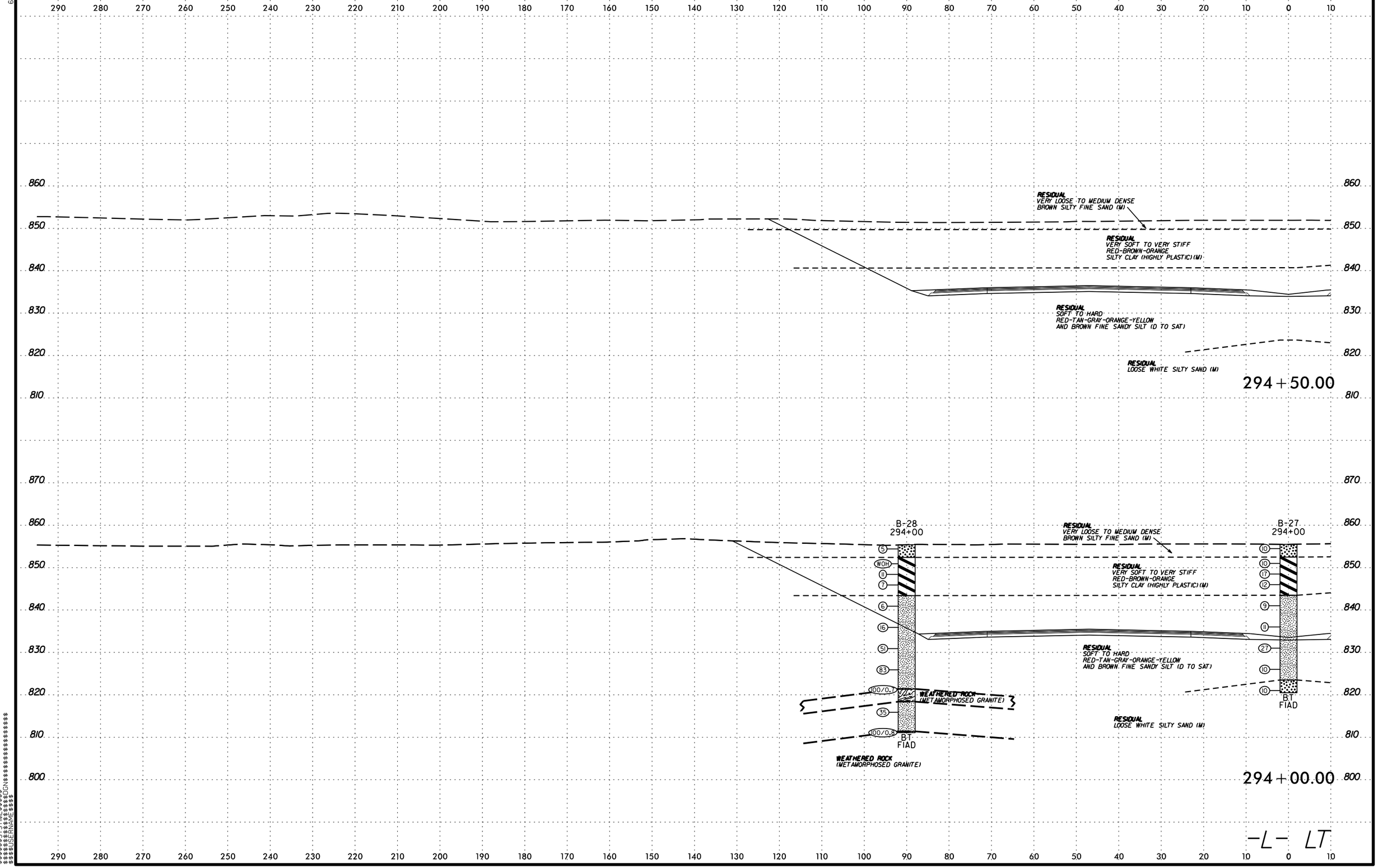


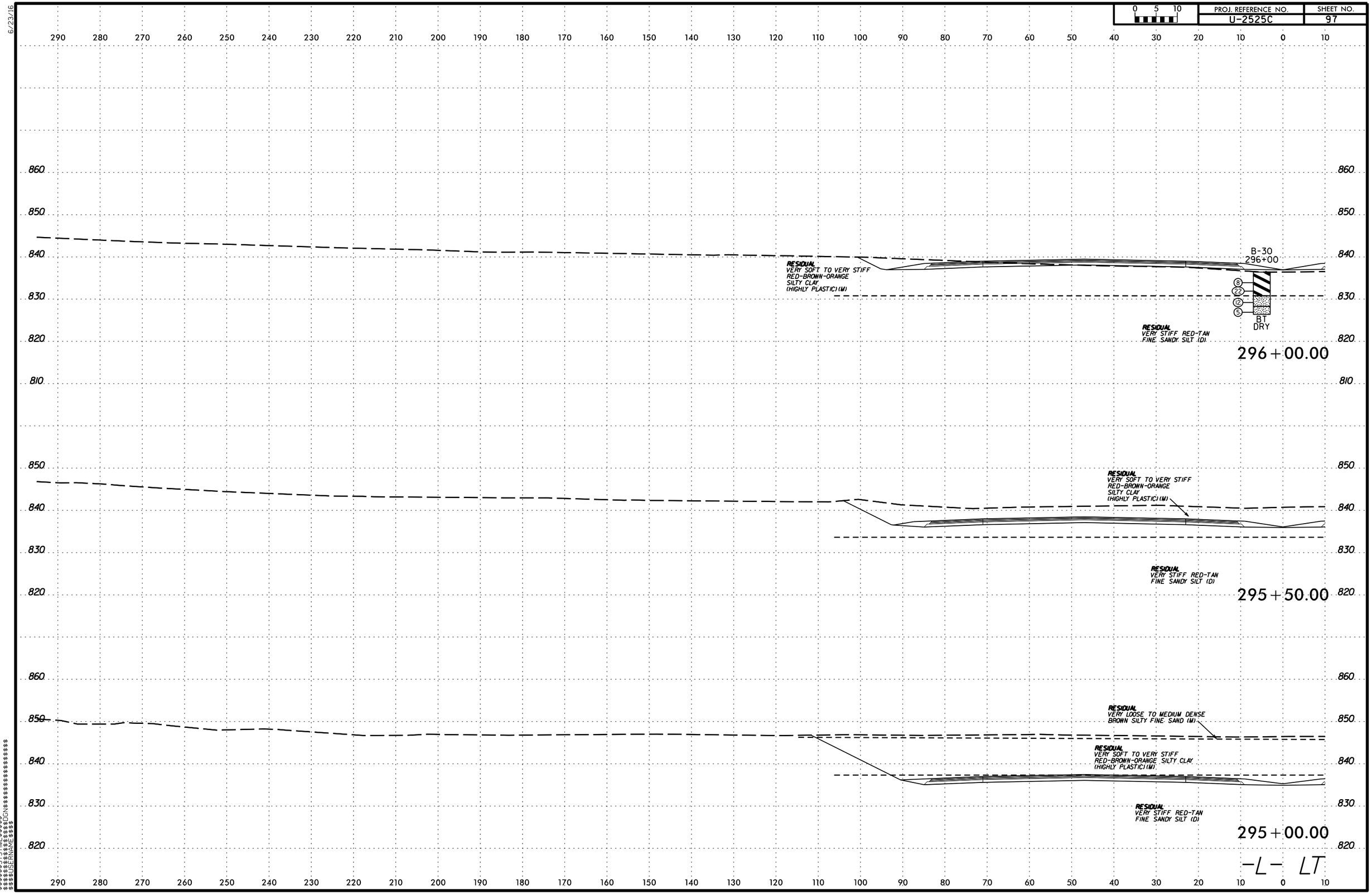
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
95
0 5 10
RESIDUAL
VERY LOOSE TO MEDIUM DENSE
BROWN SILTY FINE SAND (M)
RESIDUAL
VERY SOFT TO VERY STIFF
RED-BROWN-ORANGE
SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
LOOSE WHITE SILTY SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
293+50.00
RESIDUAL
VERY LOOSE TO MEDIUM DENSE
BROWN SILTY FINE SAND (M)
RESIDUAL
VERY SOFT TO VERY STIFF
RED-BROWN-ORANGE
SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
RESIDUAL
LOOSE WHITE SILTY SAND (M)
293+00.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
96
0 5 10
RESIDUAL
VERY LOOSE TO MEDIUM DENSE
BROWN SILTY FINE SAND (M)
RESIDUAL
VERY SOFT TO VERY STIFF
RED-BROWN-ORANGE
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
RESIDUAL
LOOSE WHITE SILTY SAND (M)
294+50.00
B-28
294+00
B-27
294+00
WEATHERED ROCK
(METAMORPHOSED GRANITE)
BT
FIAD
294+00.00
-L- LT

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	97



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$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
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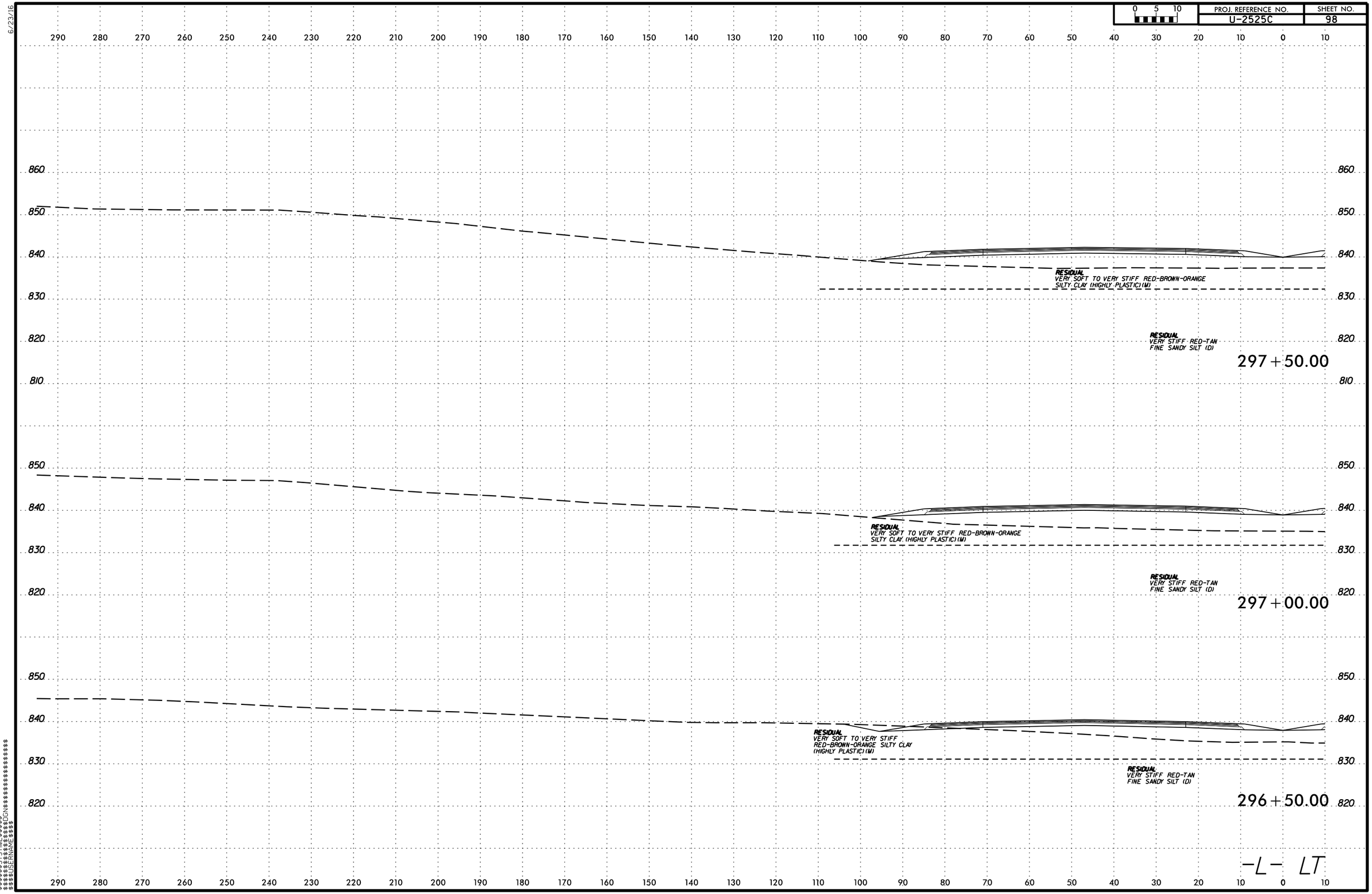
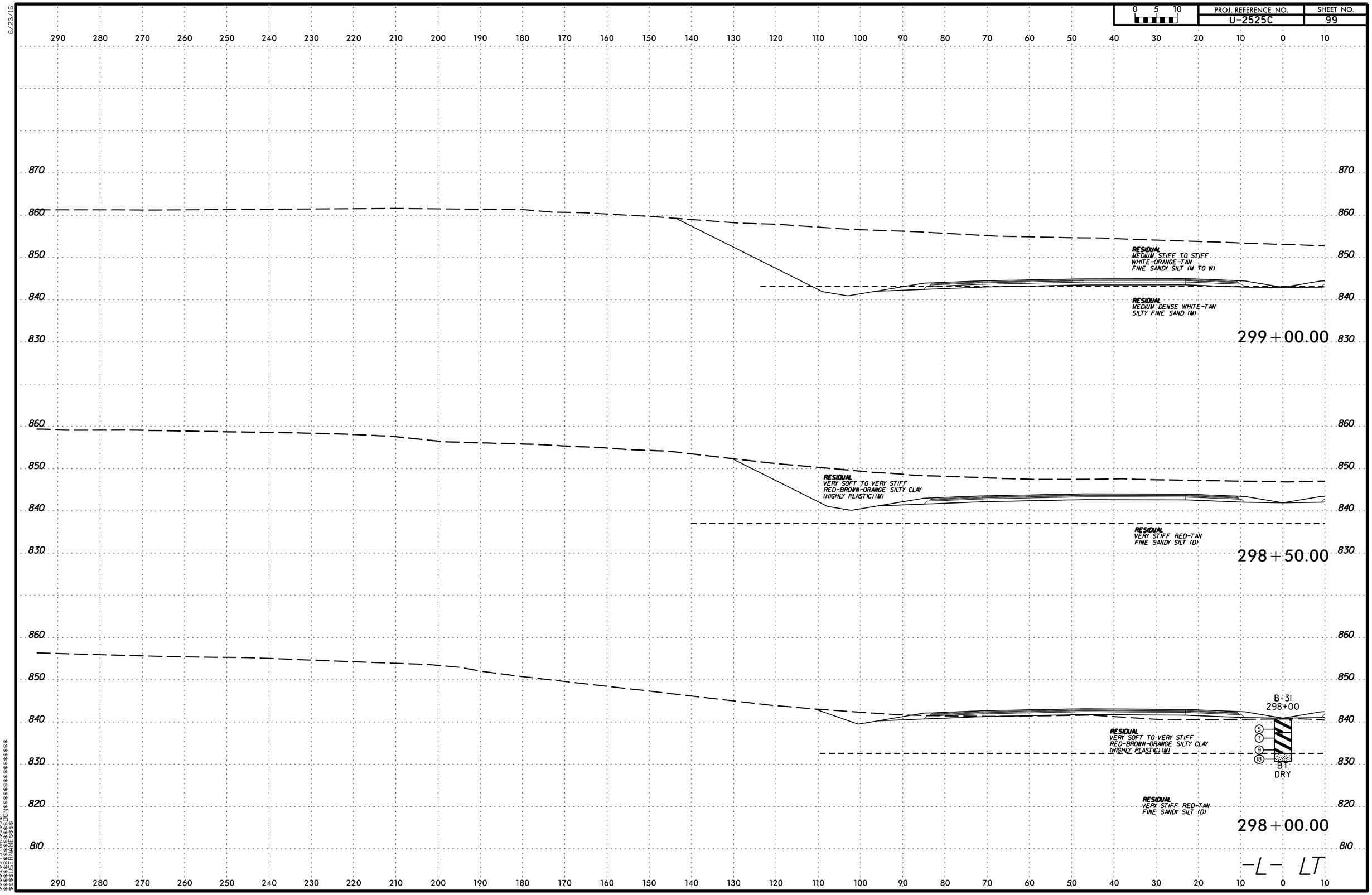


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
98
0 5 10
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10
860
850
840
830
820
810
RESIDUAL
VERY SOFT TO VERY STIFF RED-BROWN-ORANGE
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
VERY STIFF RED-TAN
FINE SANDY SILT (D)
297+50.00
297+00.00
296+50.00
-L- LT

6/23/16

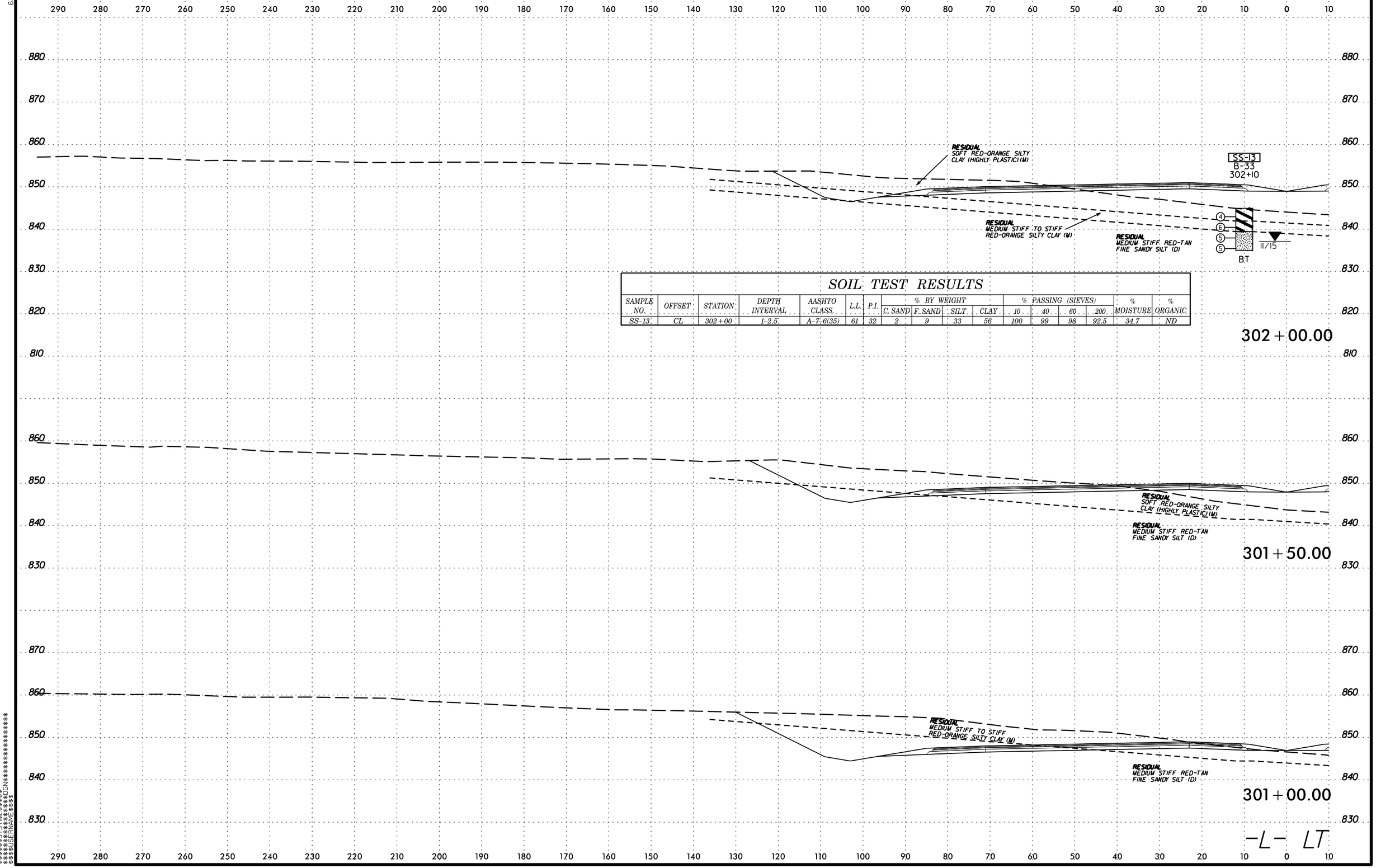
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	99



$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

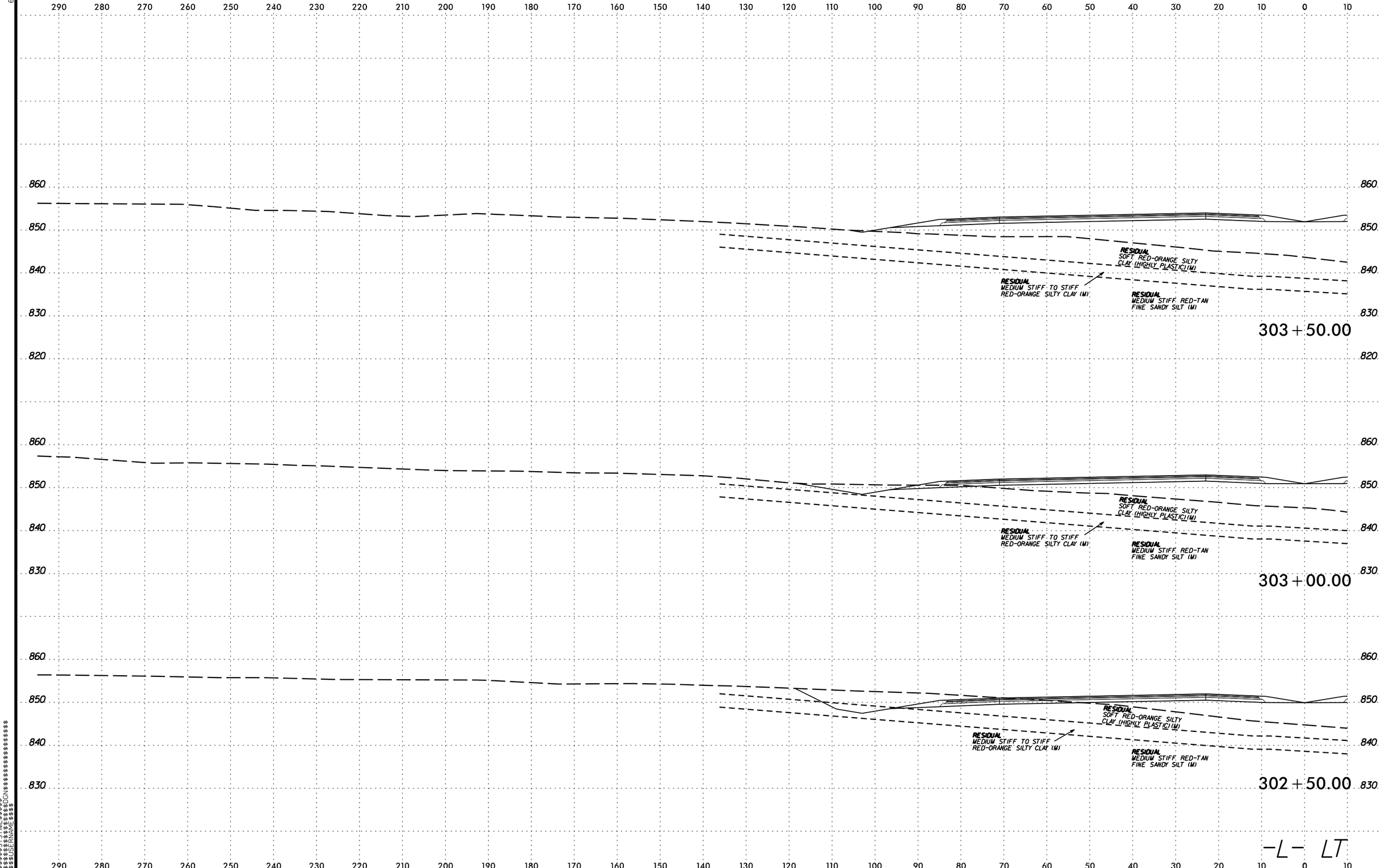
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	100



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-13	CL	302+00	1-2.5	A-7-6(35)	61	32	2	9	33	56	100	99	98	92.5	34.7	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



6/23/16

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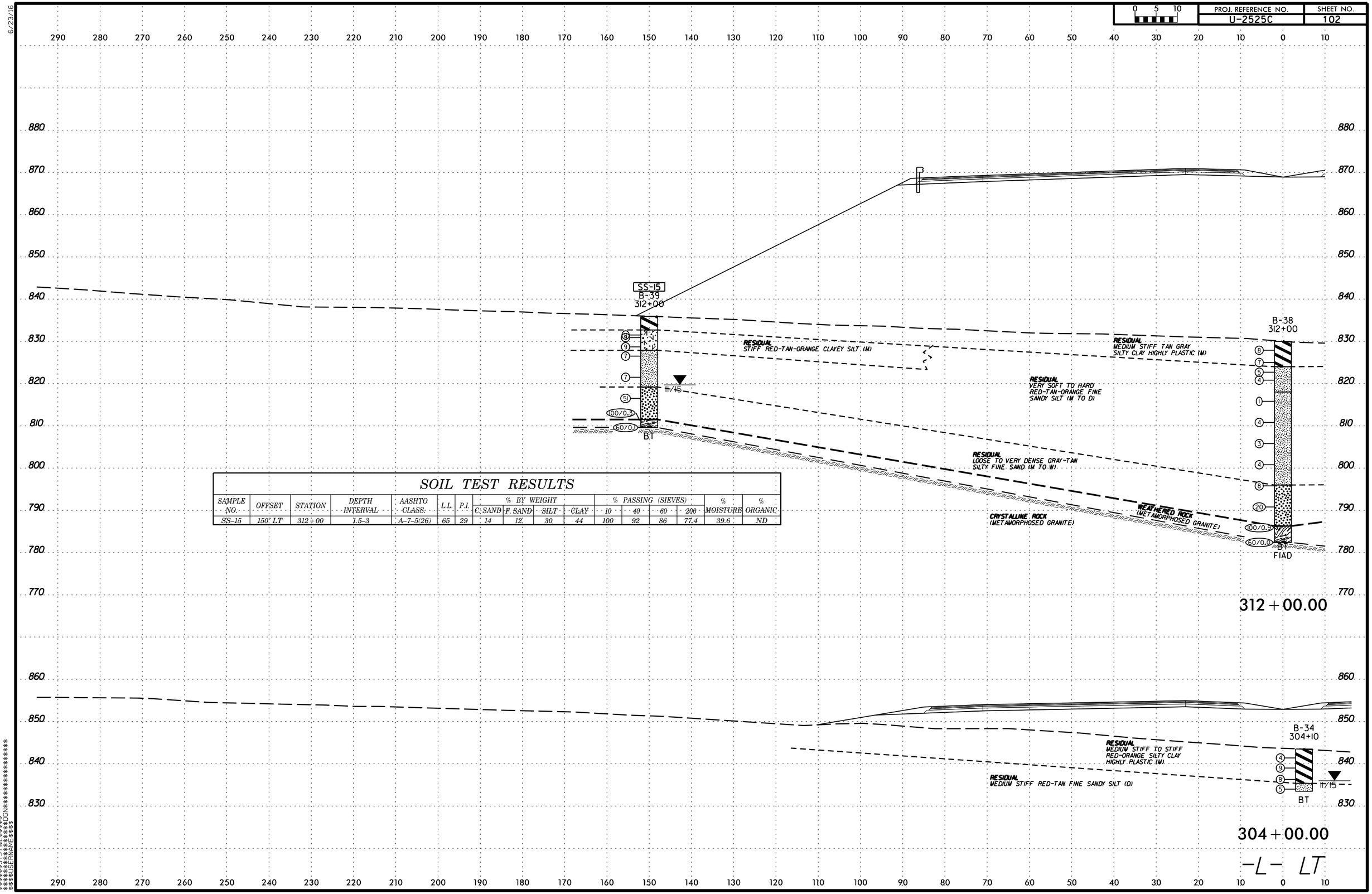

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-15	150' LT	312+00	1.5-3	A-7-5(26)	65	29	14	12	30	44	100	92	86	77.4	39.6	ND

6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
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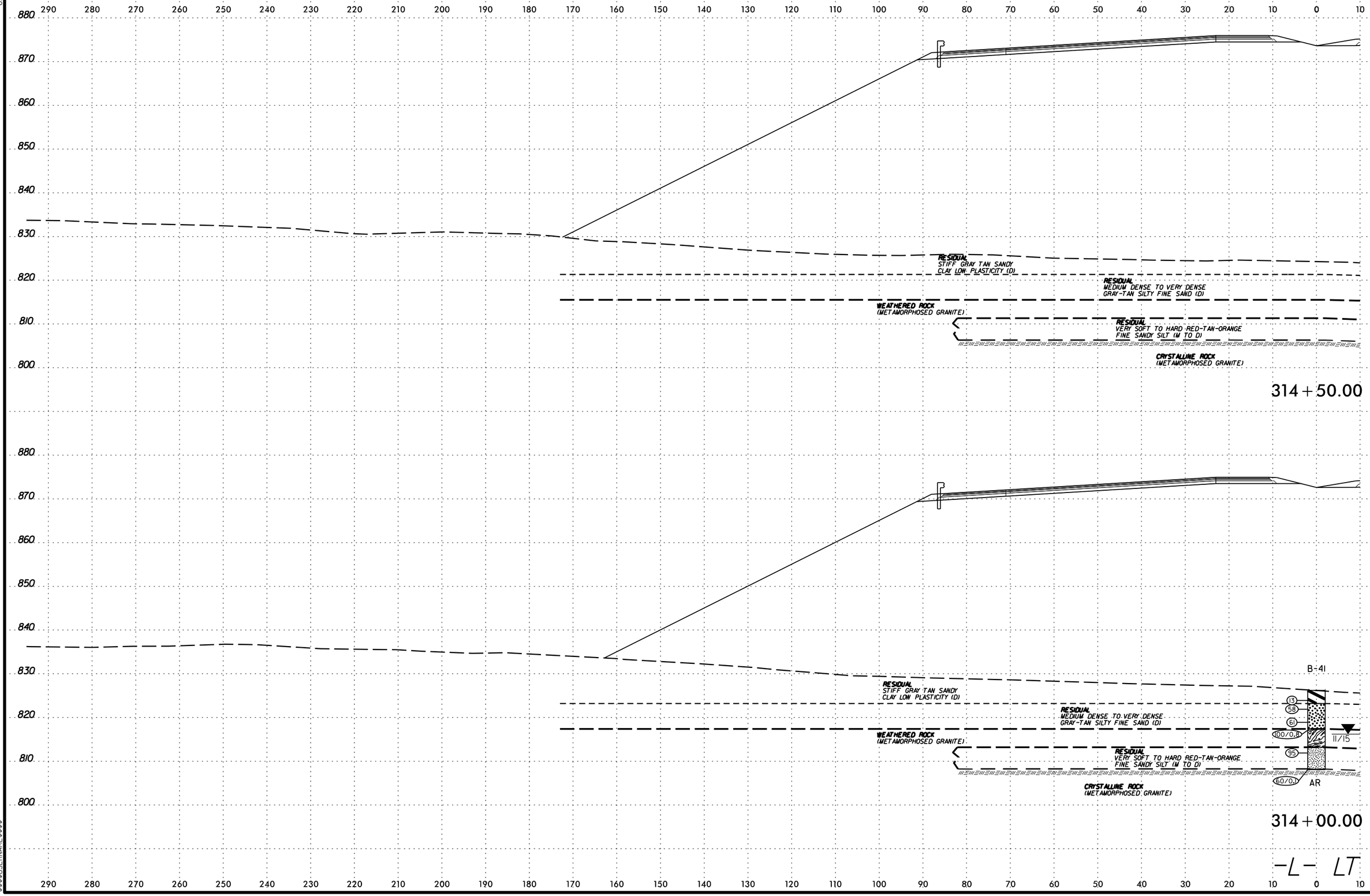
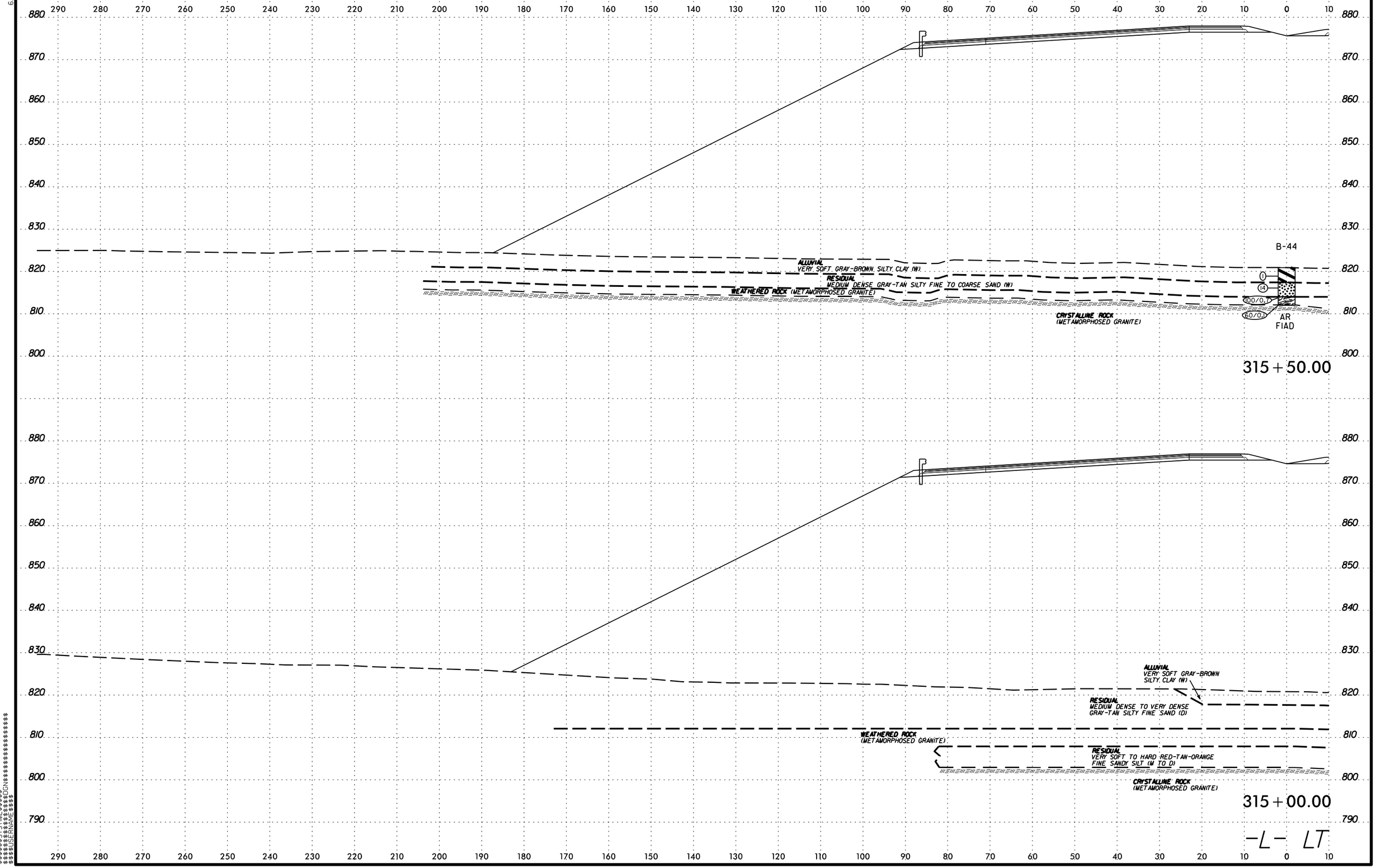


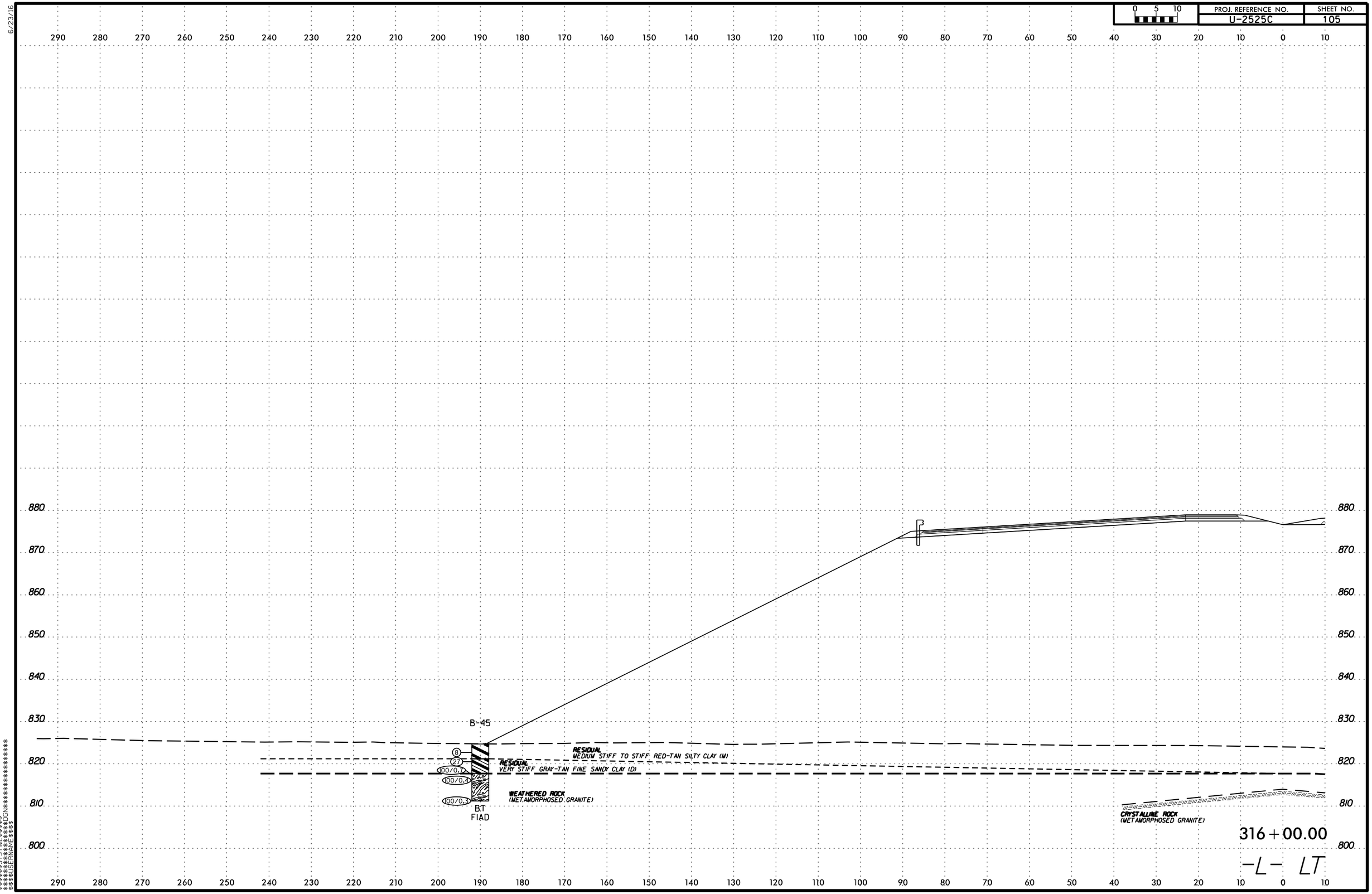
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
103
0 5 10
RESIDUAL
STIFF GRAY TAN SANDY
CLAY LOW PLASTICITY (D)
RESIDUAL
MEDIUM DENSE TO VERY DENSE
GRAY-TAN SILTY FINE SAND (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
VERY SOFT TO HARD RED-TAN-ORANGE
FINE SANDY SILT (M TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
314+50.00
B-41
13
58
61
100/0.8
95
60/0.1
11/15
AR
314+00.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
104
0 5 10
B-44
ALLUVIAL
VERY SOFT GRAY-BROWN SILTY CLAY (W)
RESIDUAL
MEDIUM DENSE GRAY-TAN SILTY FINE TO COARSE SAND (W)
WEATHERED ROCK (METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR
FIAD
315+50.00
ALLUVIAL
VERY SOFT GRAY-BROWN
SILTY CLAY (W)
RESIDUAL
MEDIUM DENSE TO VERY DENSE
GRAY-TAN SILTY FINE SAND (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
VERY SOFT TO HARD RED-TAN-ORANGE
FINE SANDY SILT (M TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
315+00.00
-L- LT

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	105



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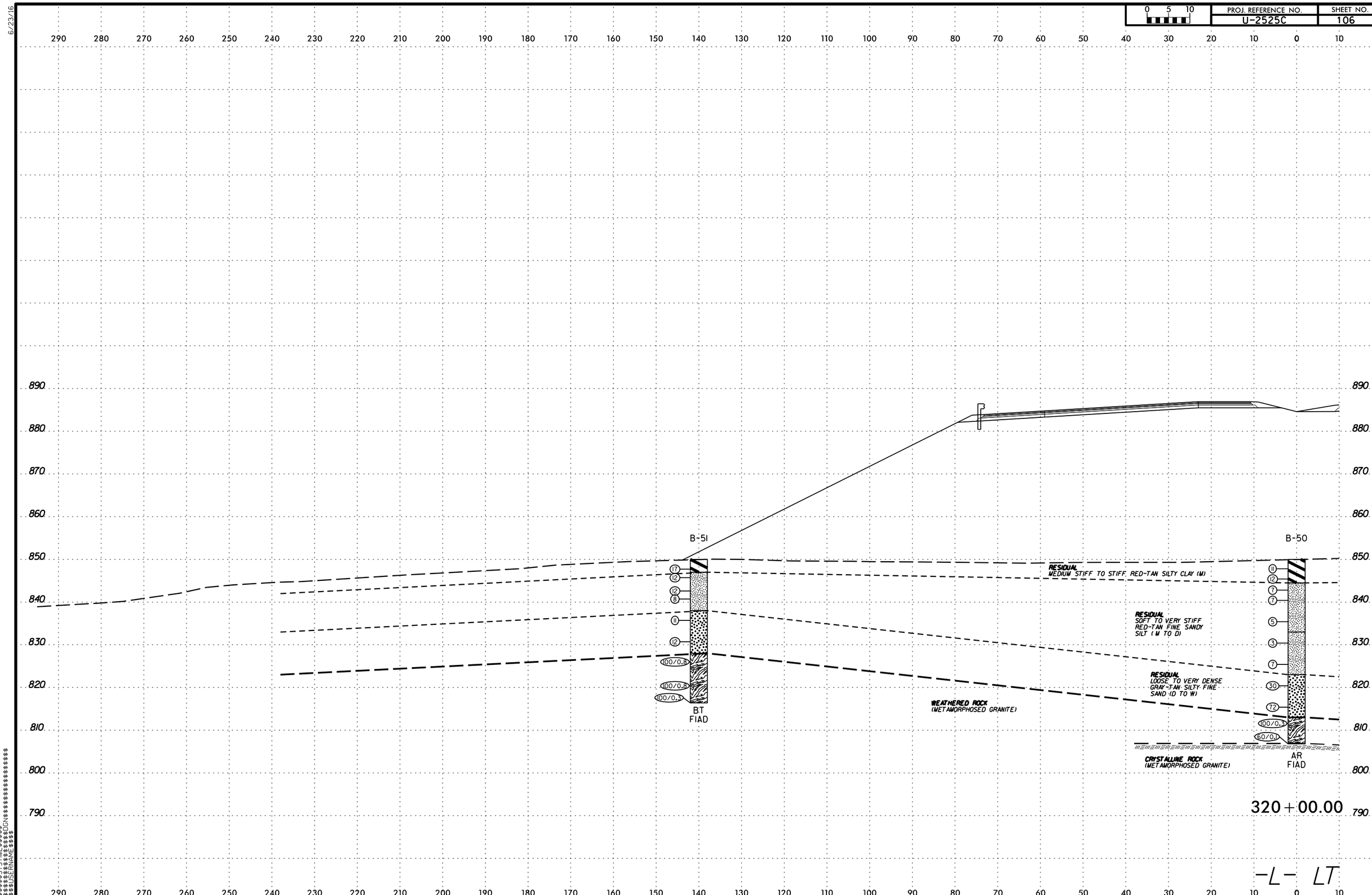
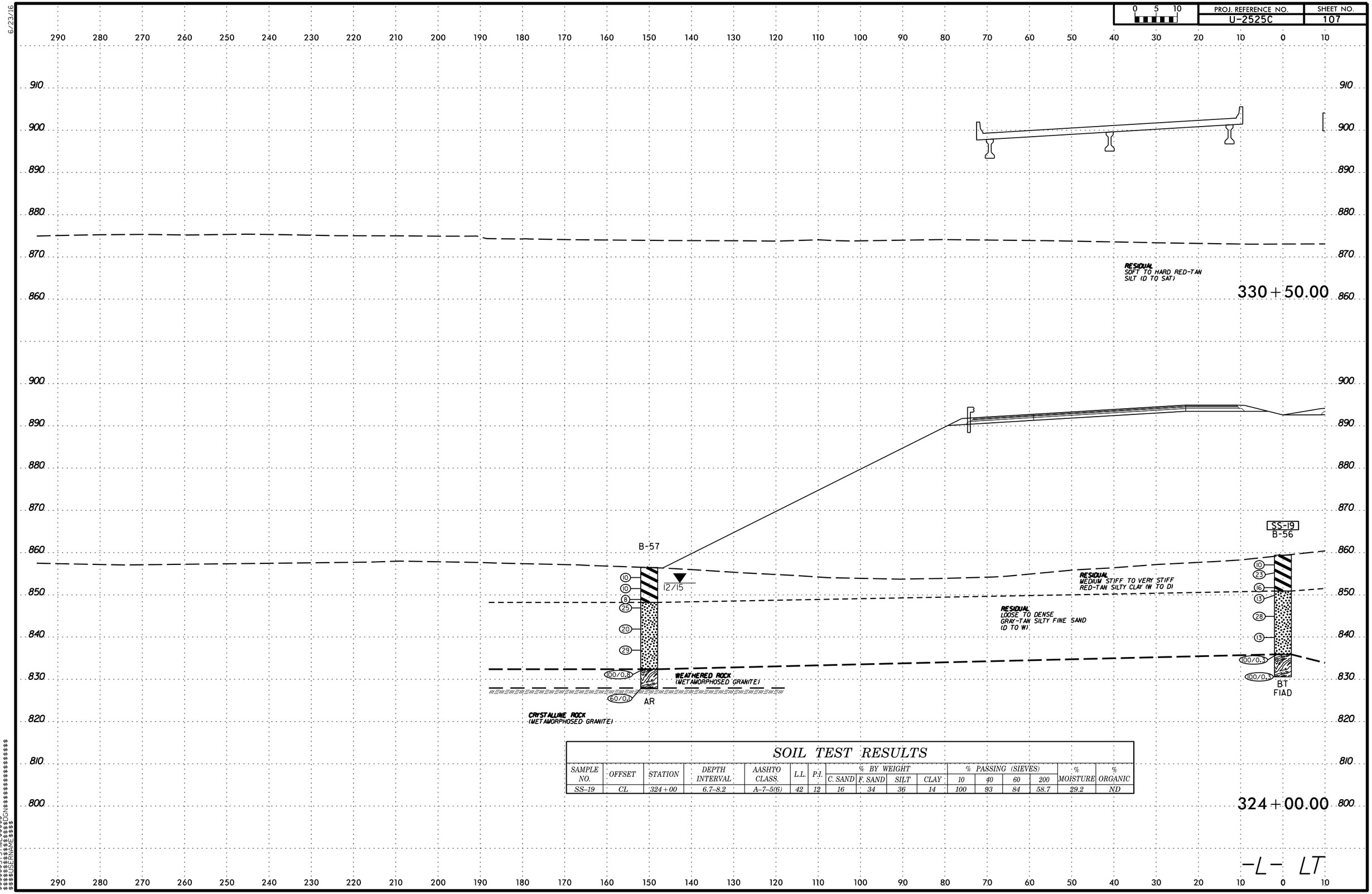


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
106
0 5 10
B-51
B-50
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN SILTY CLAY (M)
RESIDUAL
SOFT TO VERY STIFF
RED-TAN FINE SANDY
SILT (M TO D)
RESIDUAL
LOOSE TO VERY DENSE
GRAY-TAN SILTY FINE
SAND (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
BT
FIAD
AR
FIAD
320+00.00
-L- LT

6/23/16

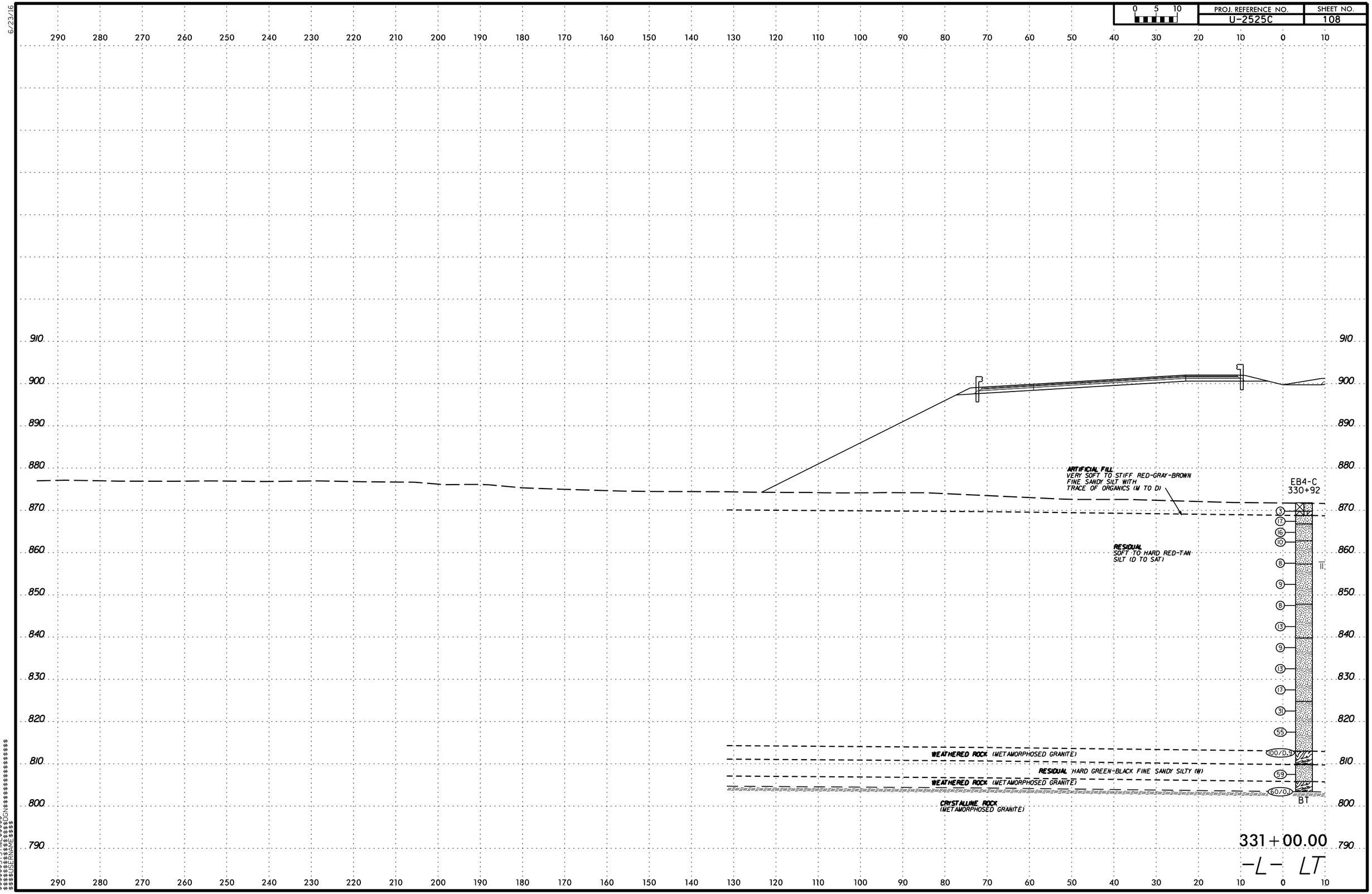
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	107



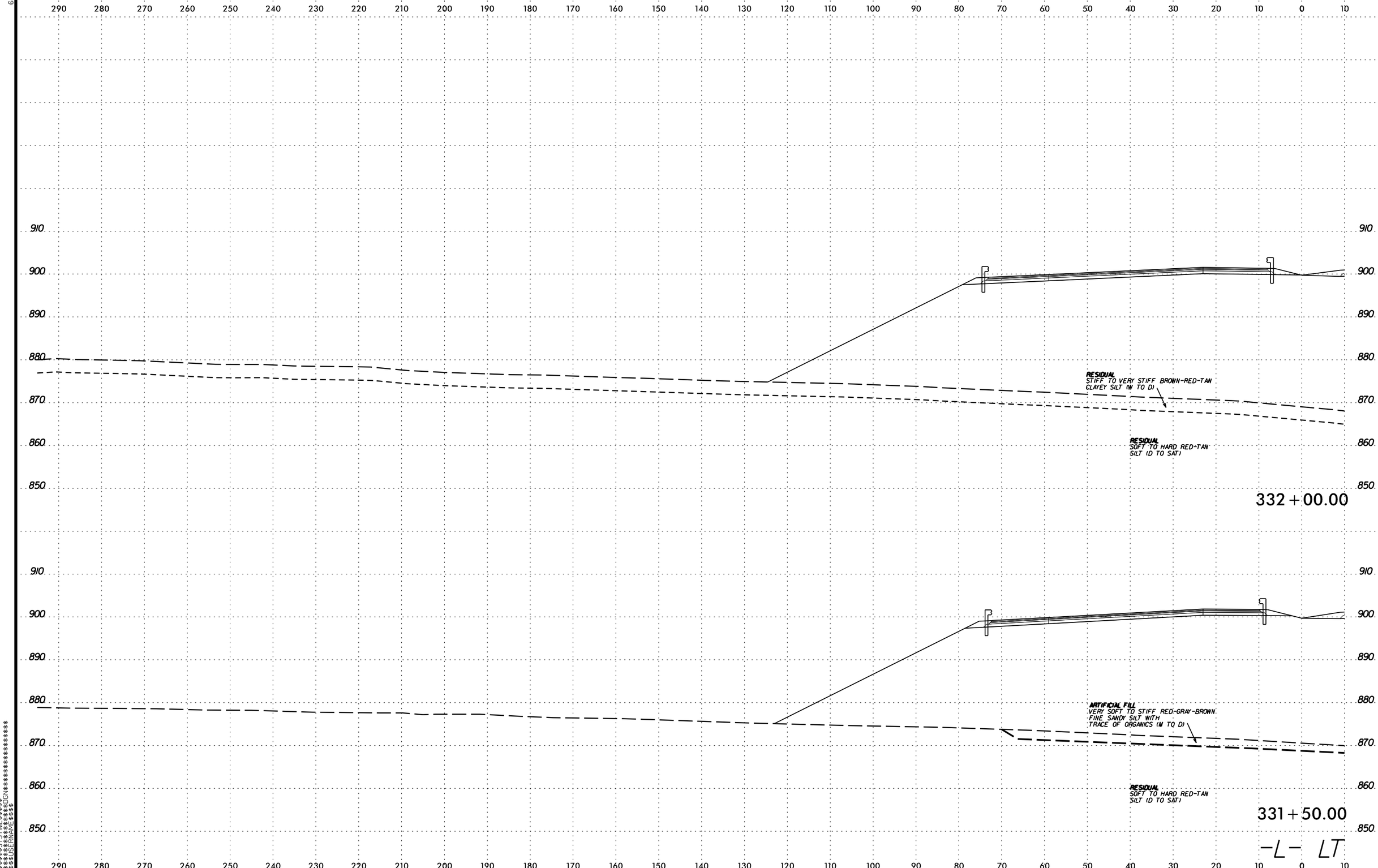
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-19	CL	324+00	6.7-8.2	A-7-5(6)	42	12	16	34	36	14	100	93	84	58.7	29.2	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



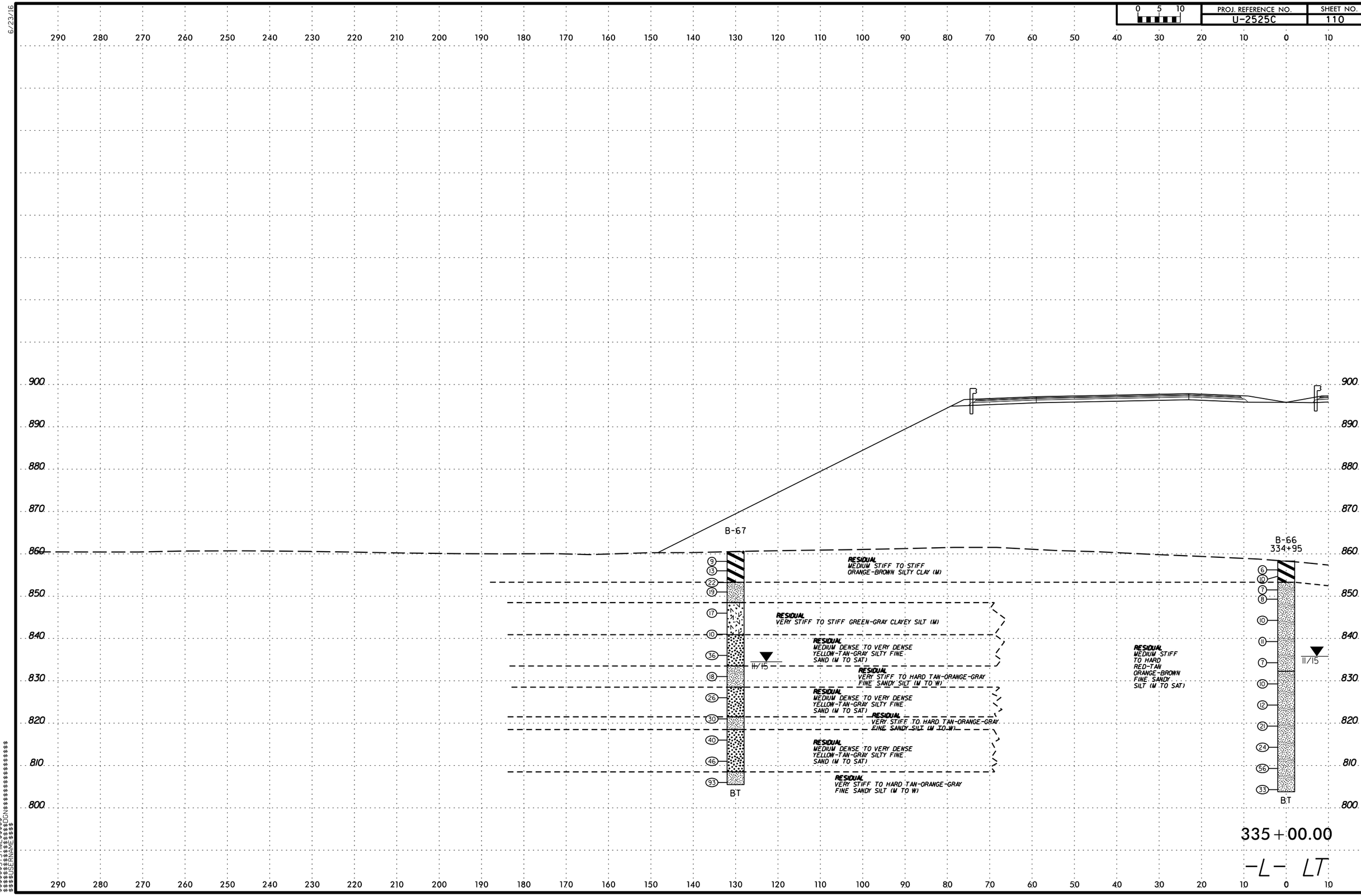
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
108
0 5 10
ARTIFICIAL FILL
VERY SOFT TO STIFF RED-GRAY-BROWN FINE SANDY SILT WITH TRACE OF ORGANICS (M TO D)
RESIDUAL
SOFT TO HARD RED-TAN SILT (D TO SAT)
EB4-C
330+92
WEATHERED ROCK (METAMORPHOSED GRANITE)
RESIDUAL HARD GREEN-BLACK FINE SANDY SILTY (W)
WEATHERED ROCK (METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
BT
331+00.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
109
0 5 10
RESIDUAL
STIFF TO VERY STIFF BROWN-RED-TAN
CLAYEY SILT (W TO D)
RESIDUAL
SOFT TO HARD RED-TAN
SILT (D TO SAT)
332+00.00
ARTIFICIAL FILL
VERY SOFT TO STIFF RED-GRAY-BROWN
FINE SANDY SILT WITH
TRACE OF ORGANICS (M TO D)
RESIDUAL
SOFT TO HARD RED-TAN
SILT (D TO SAT)
331+50.00
-L- LT

6/23/16

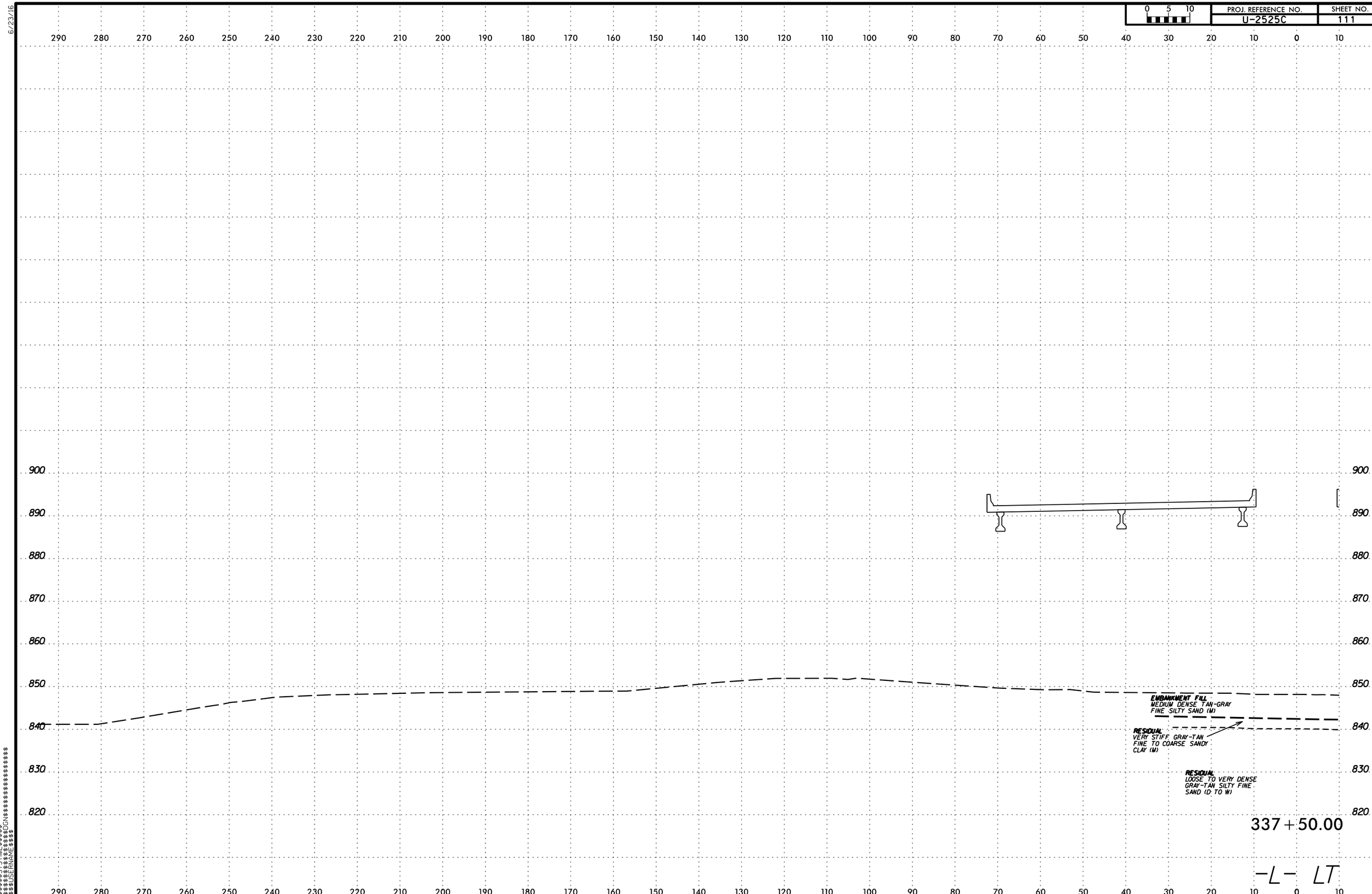
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	110



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

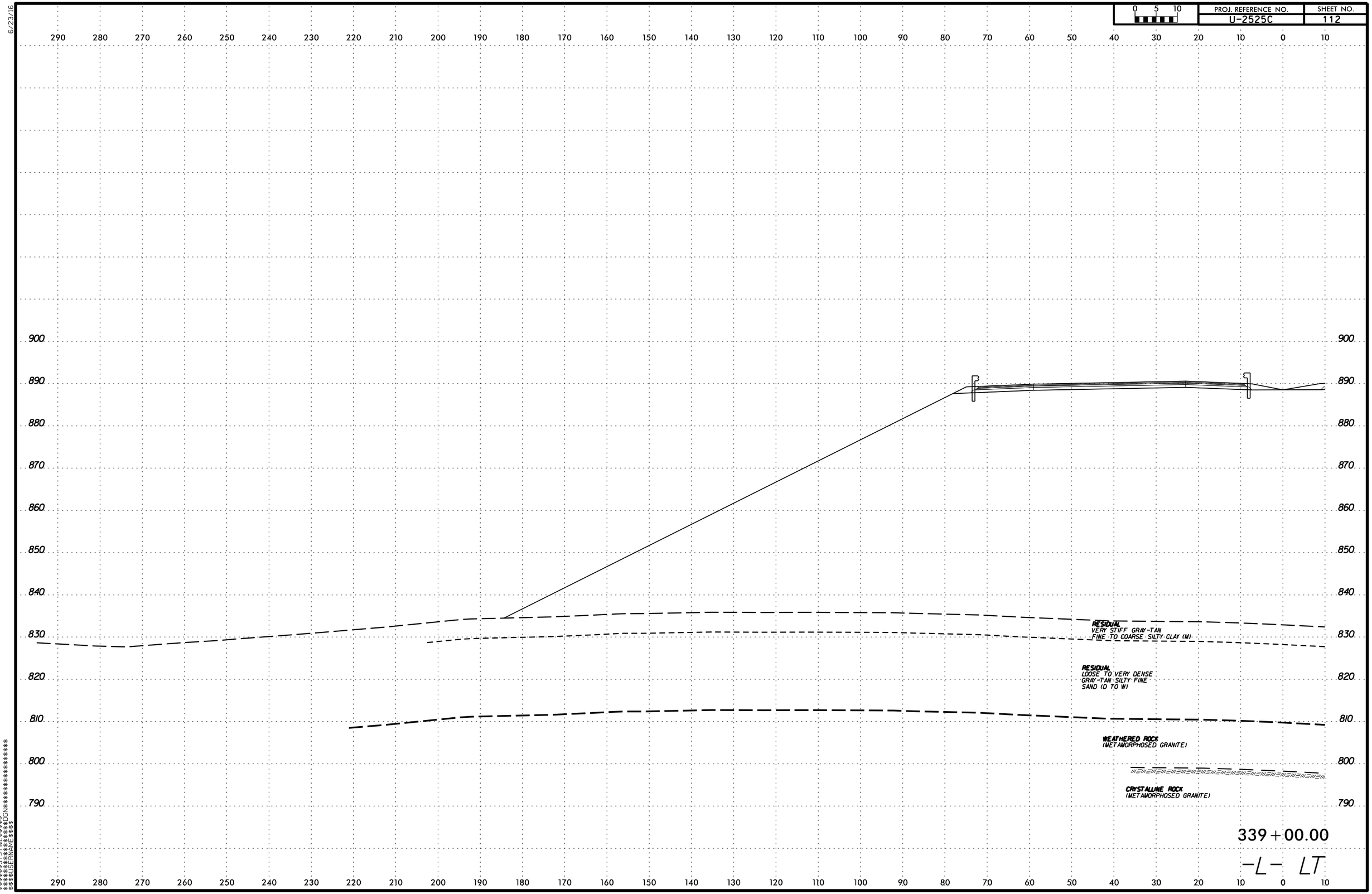
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	111



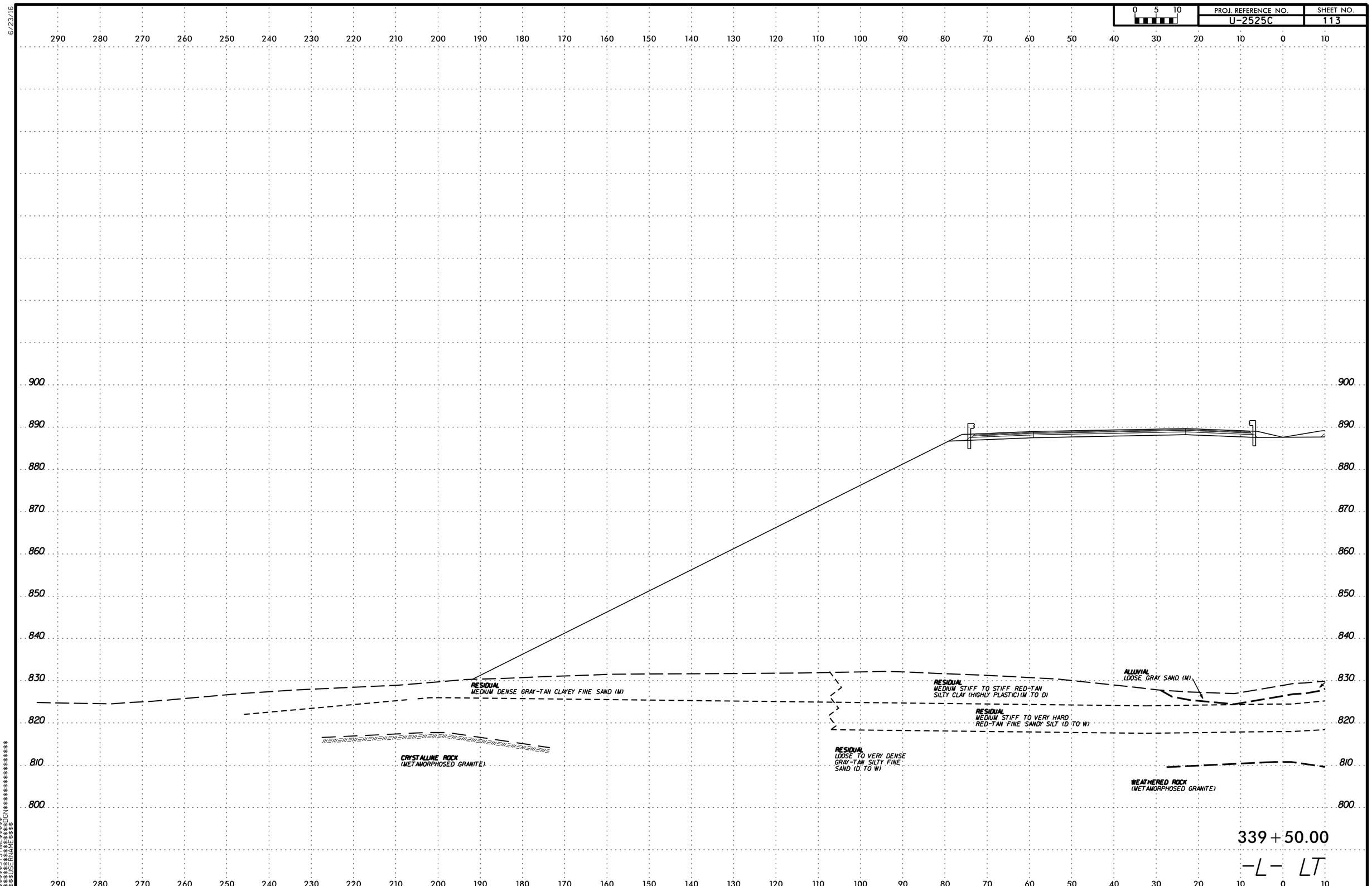
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	112



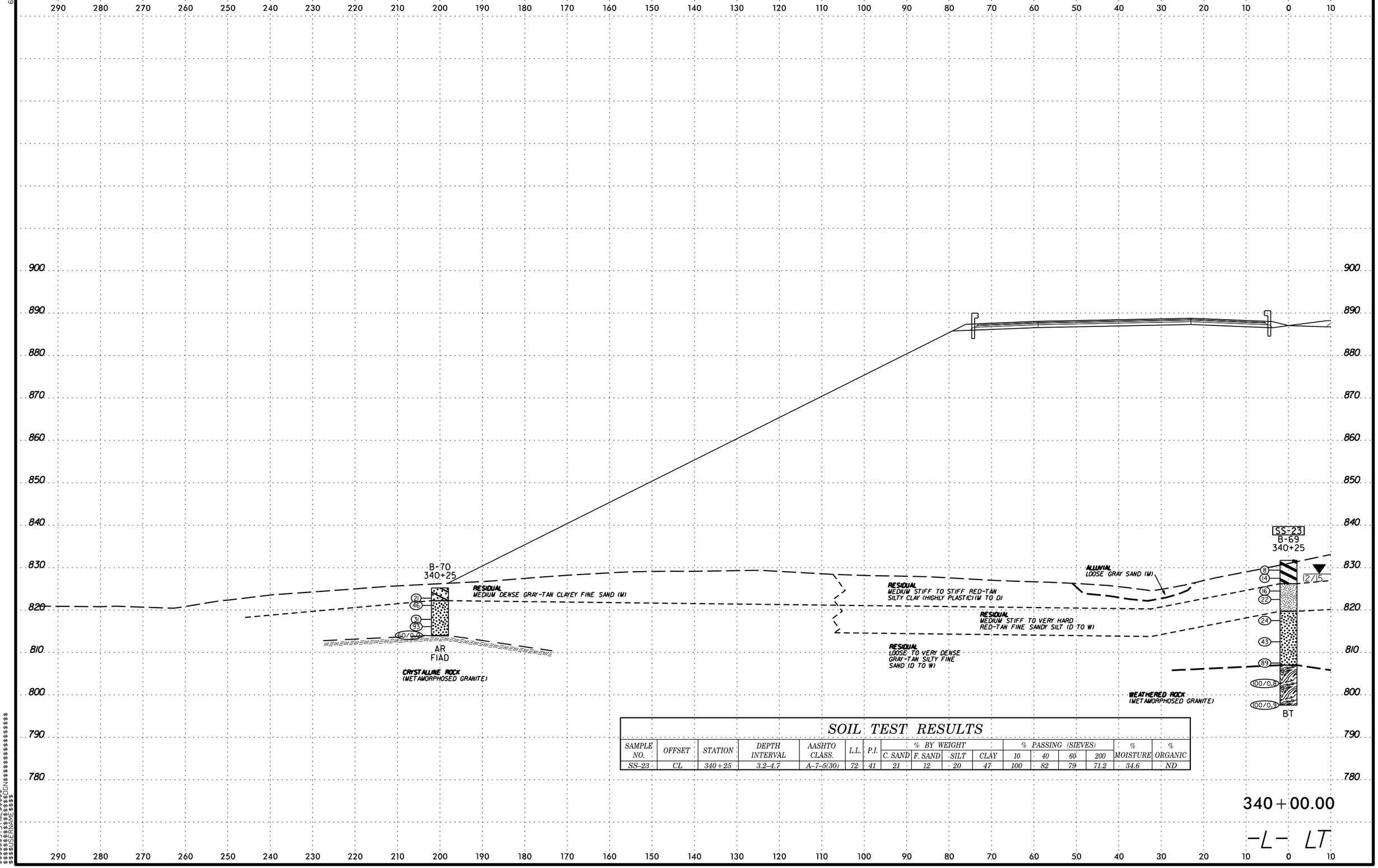
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



6/23/16

$$$$$SYSTIME$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C
SHEET NO. 114

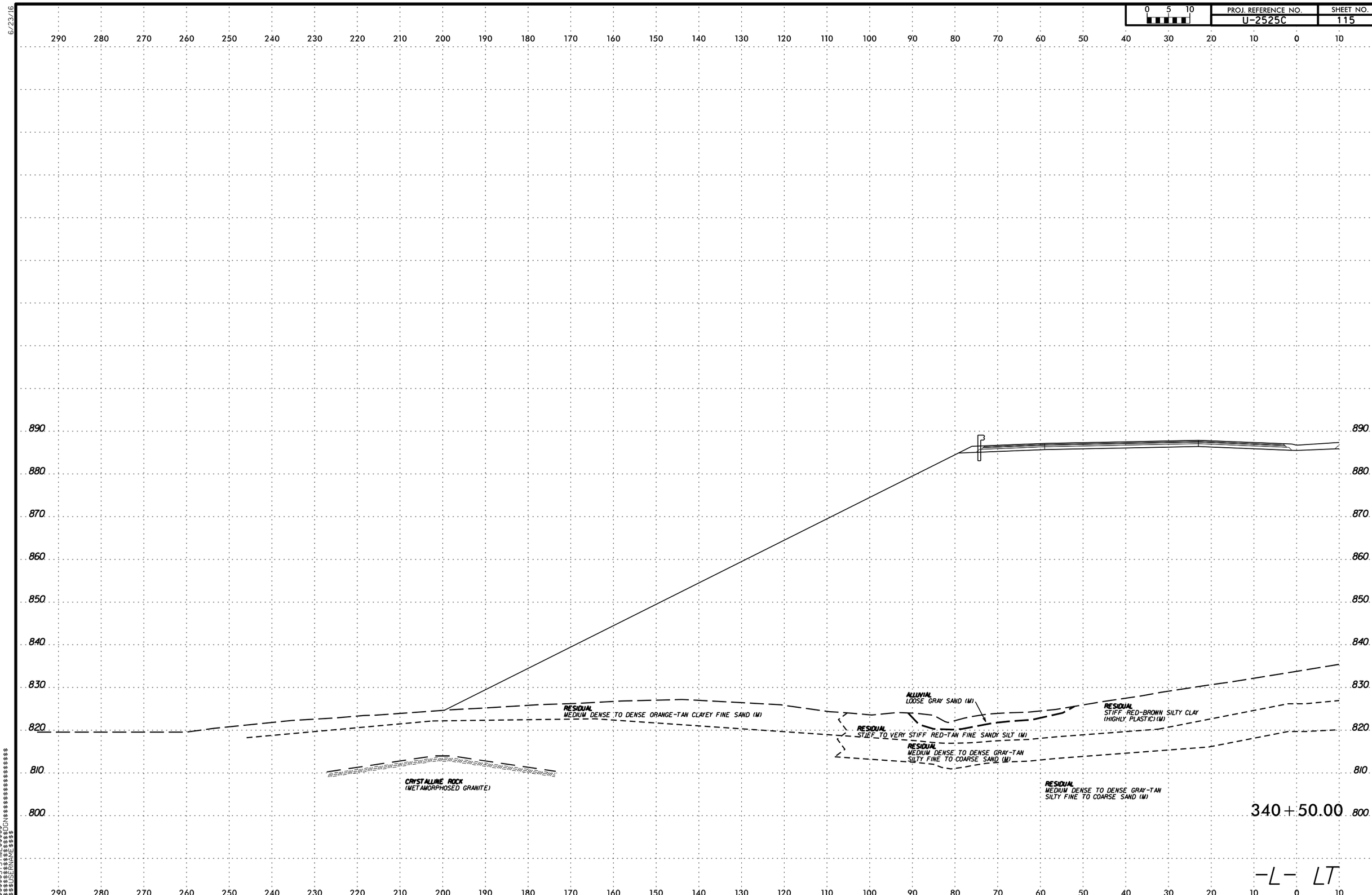


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-23	CL	340+25	3.2-4.7	A-7-5(30)	72	41	21	12	20	47	100	82	79	71.2	34.6	ND

6/23/16

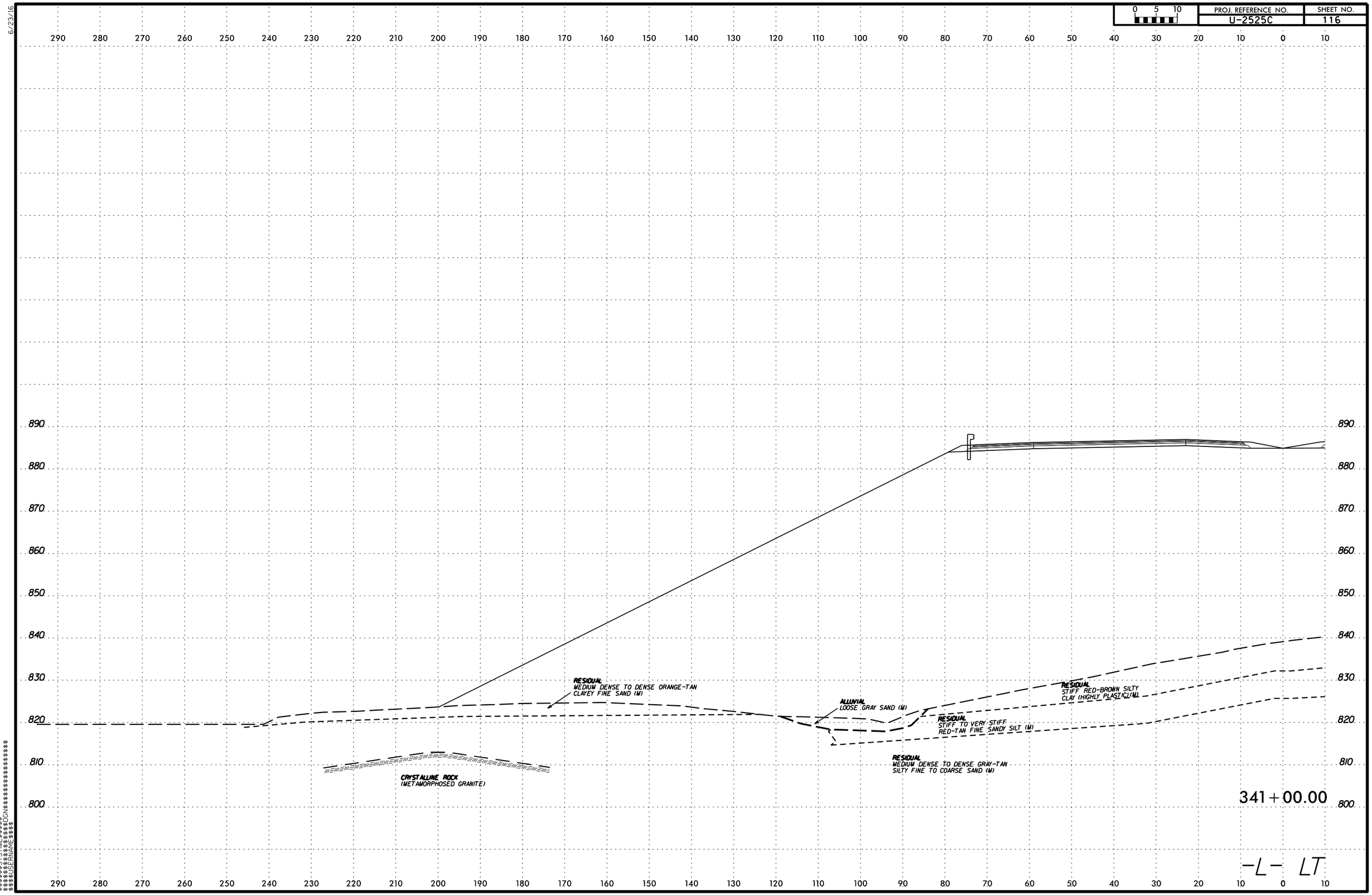
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	115



$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

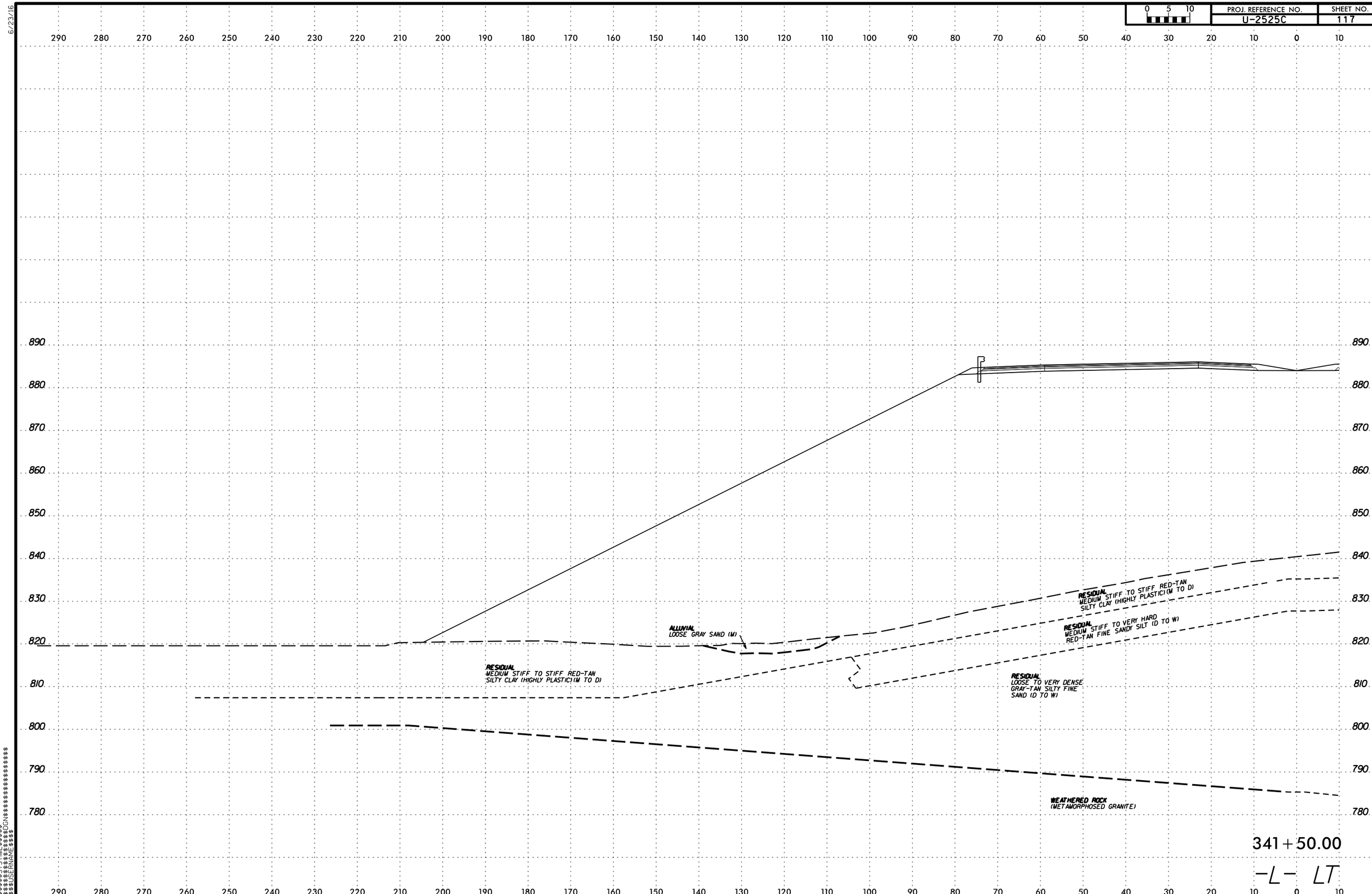
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	116



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

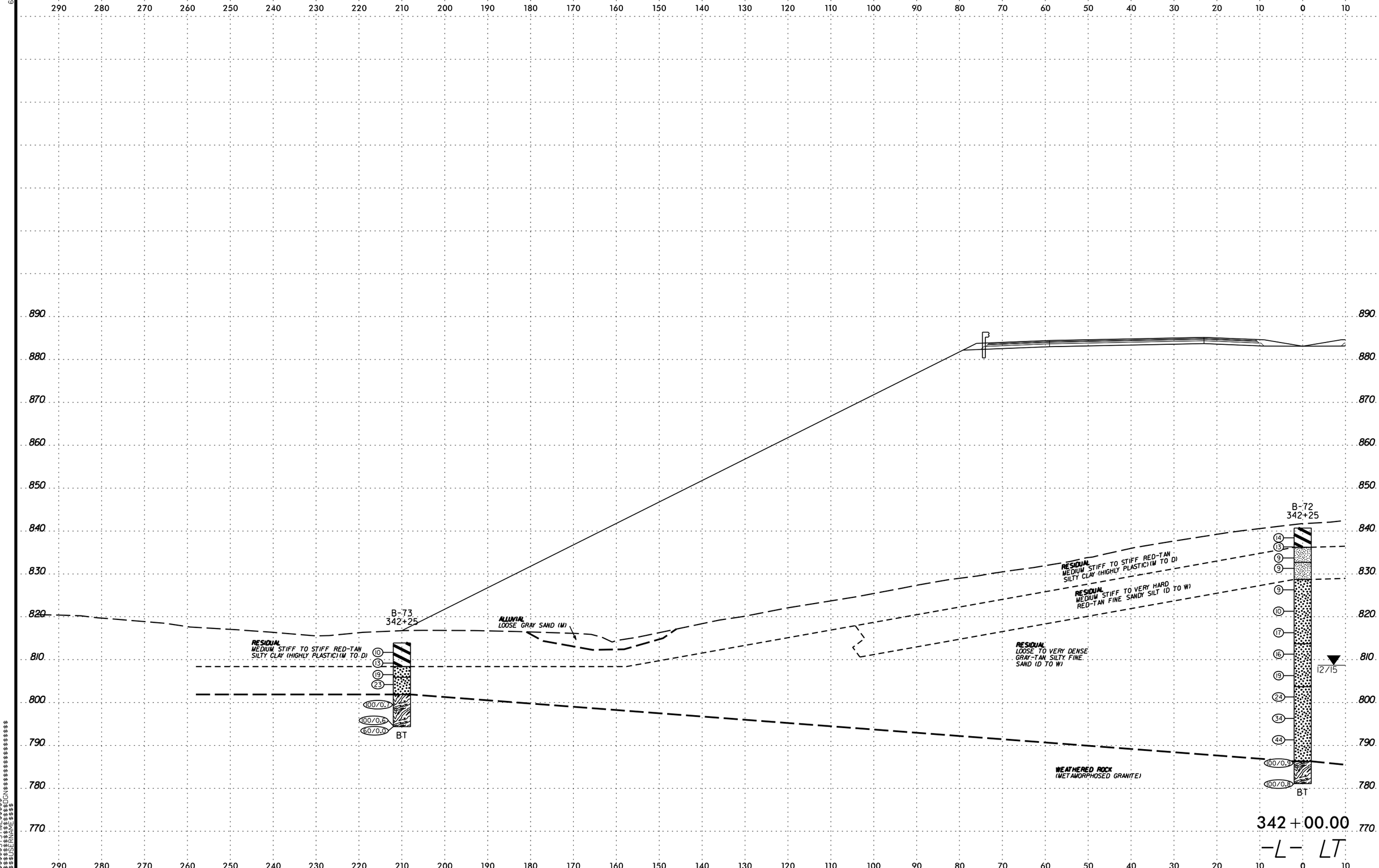
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	117



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

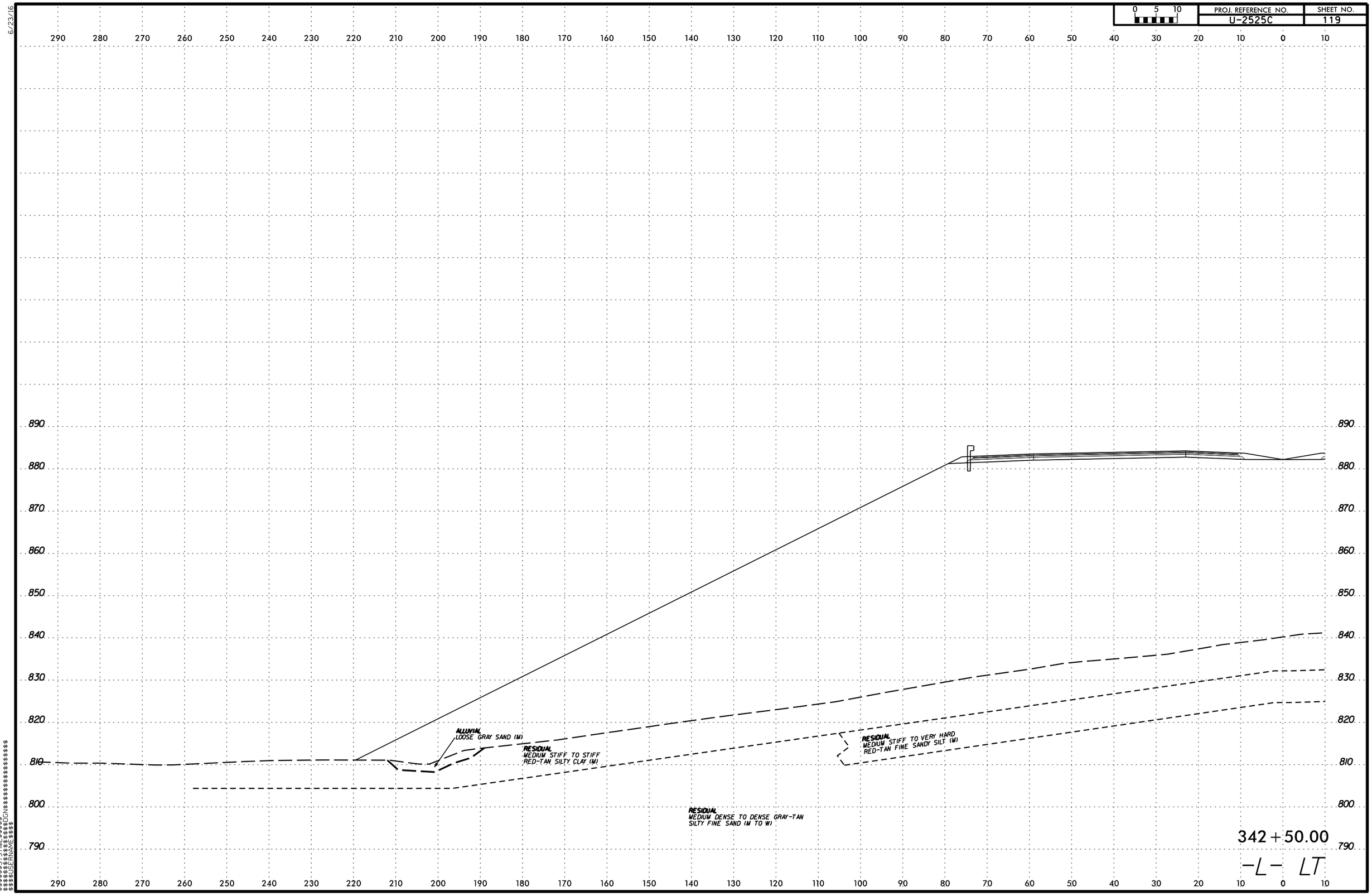
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	118



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	119

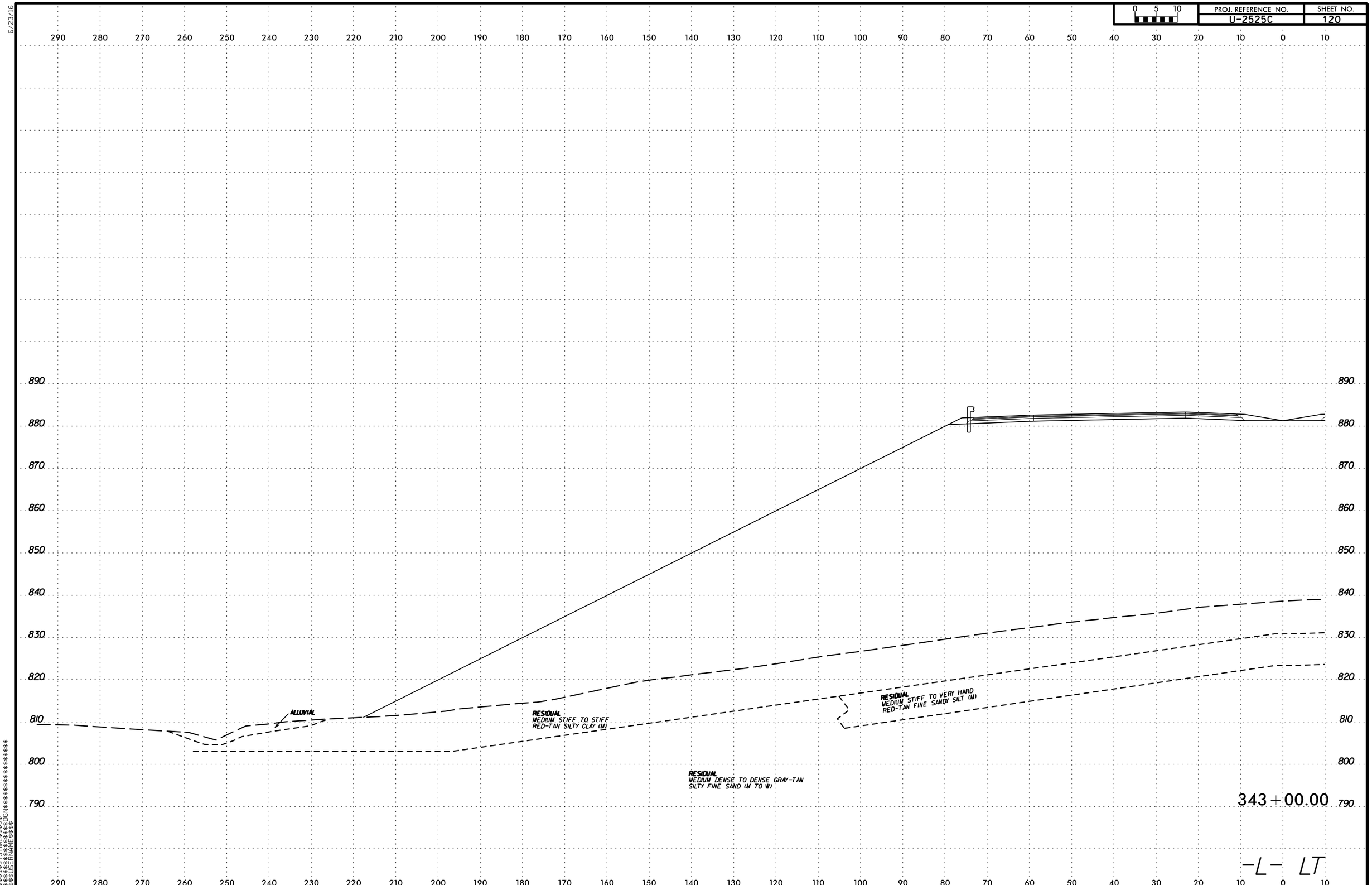


6/23/16

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

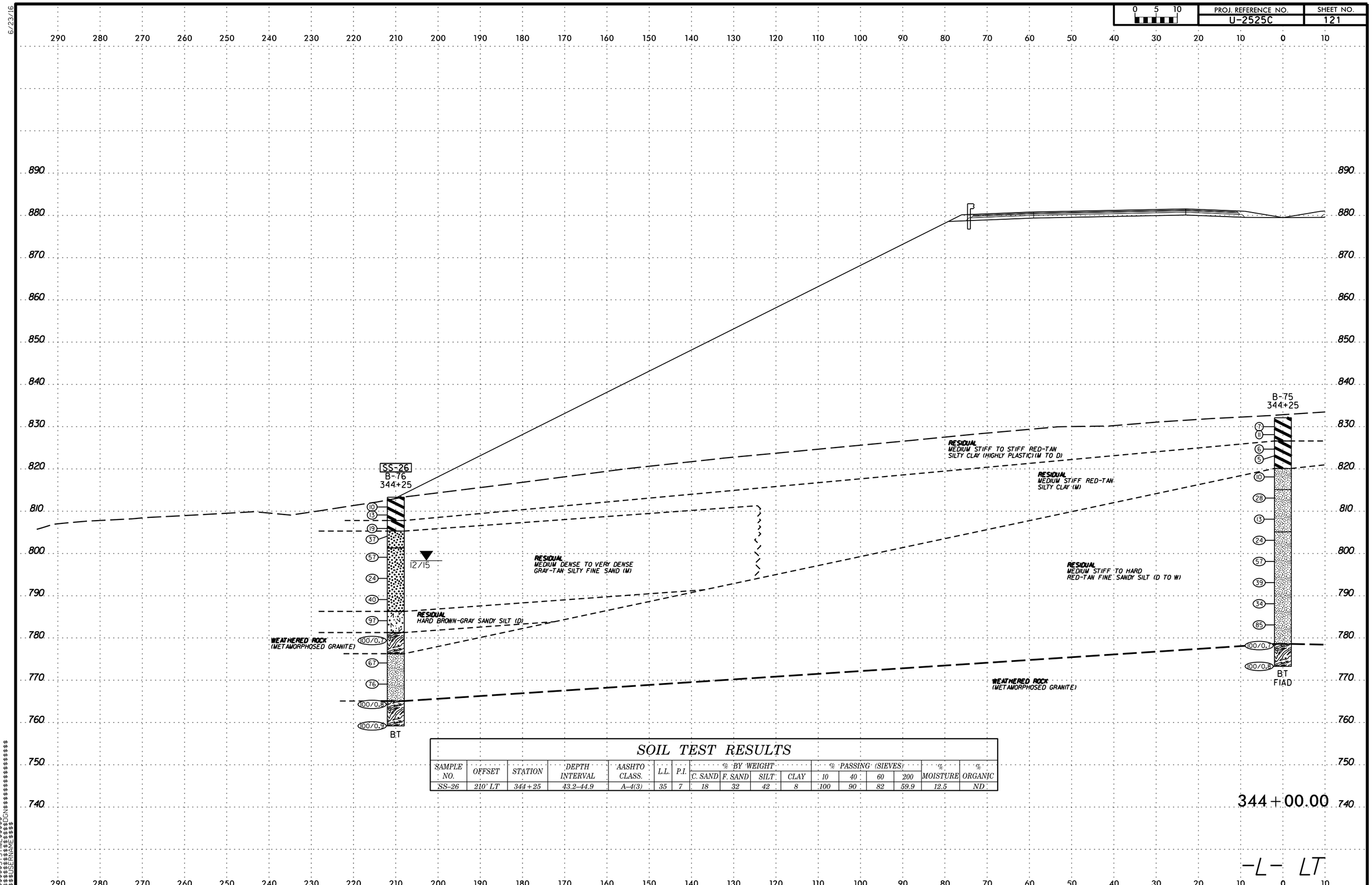
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	120



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

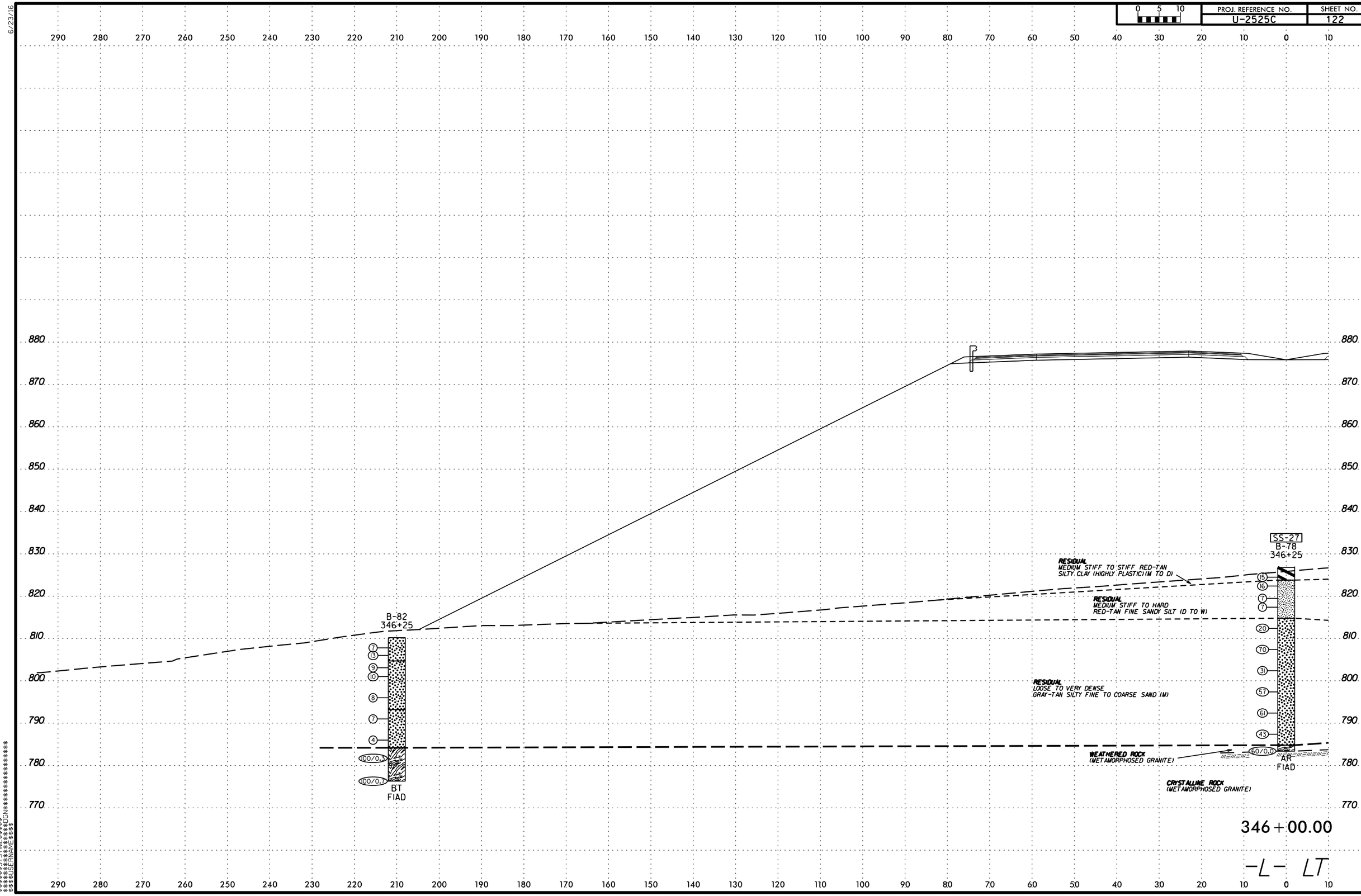
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	121



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-26	210' LT	344+25	43.2-44.9	A-4(3)	35	7	18	32	42	8	100	90	82	59.9	12.5	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

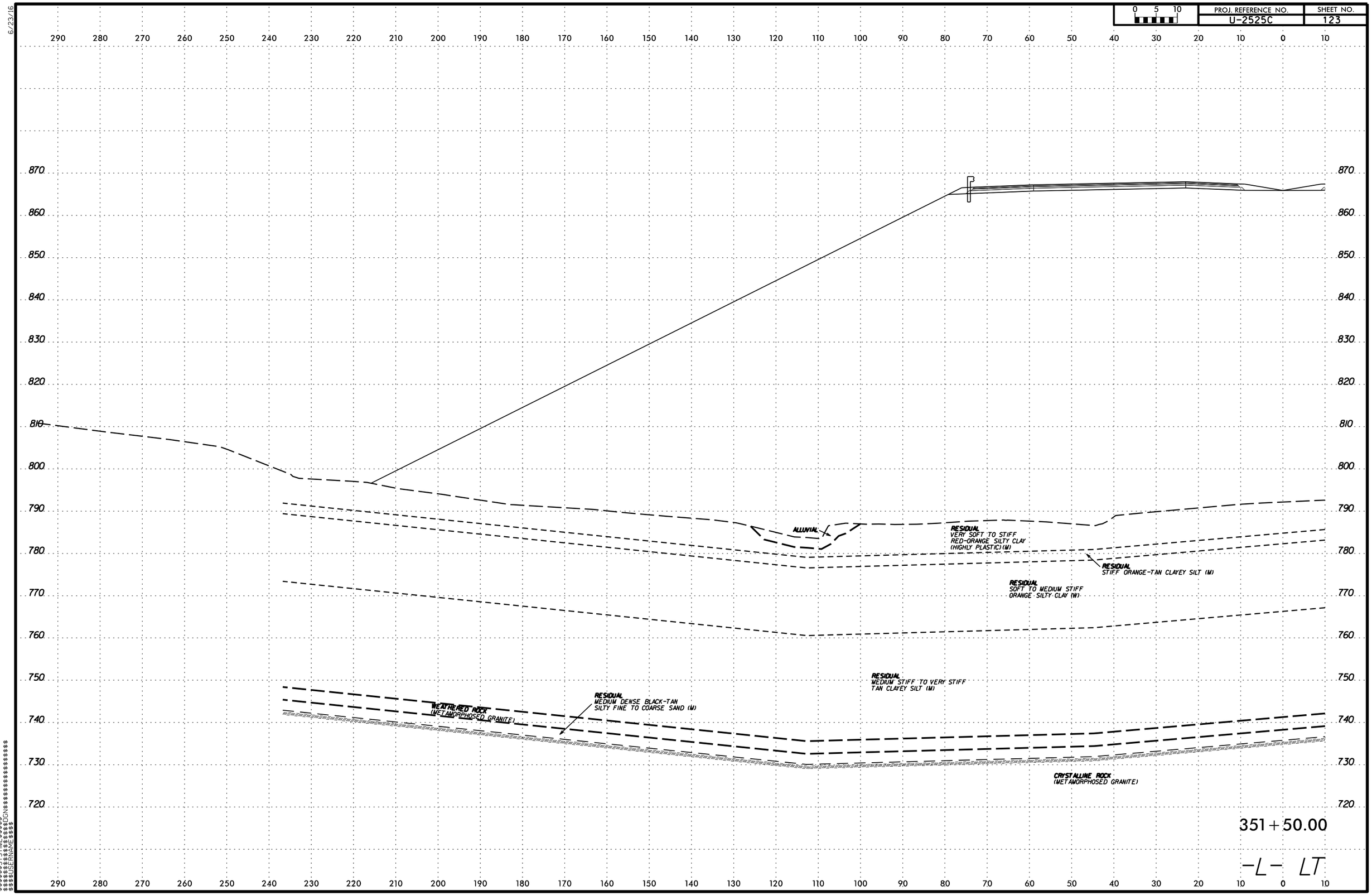


6/23/16

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

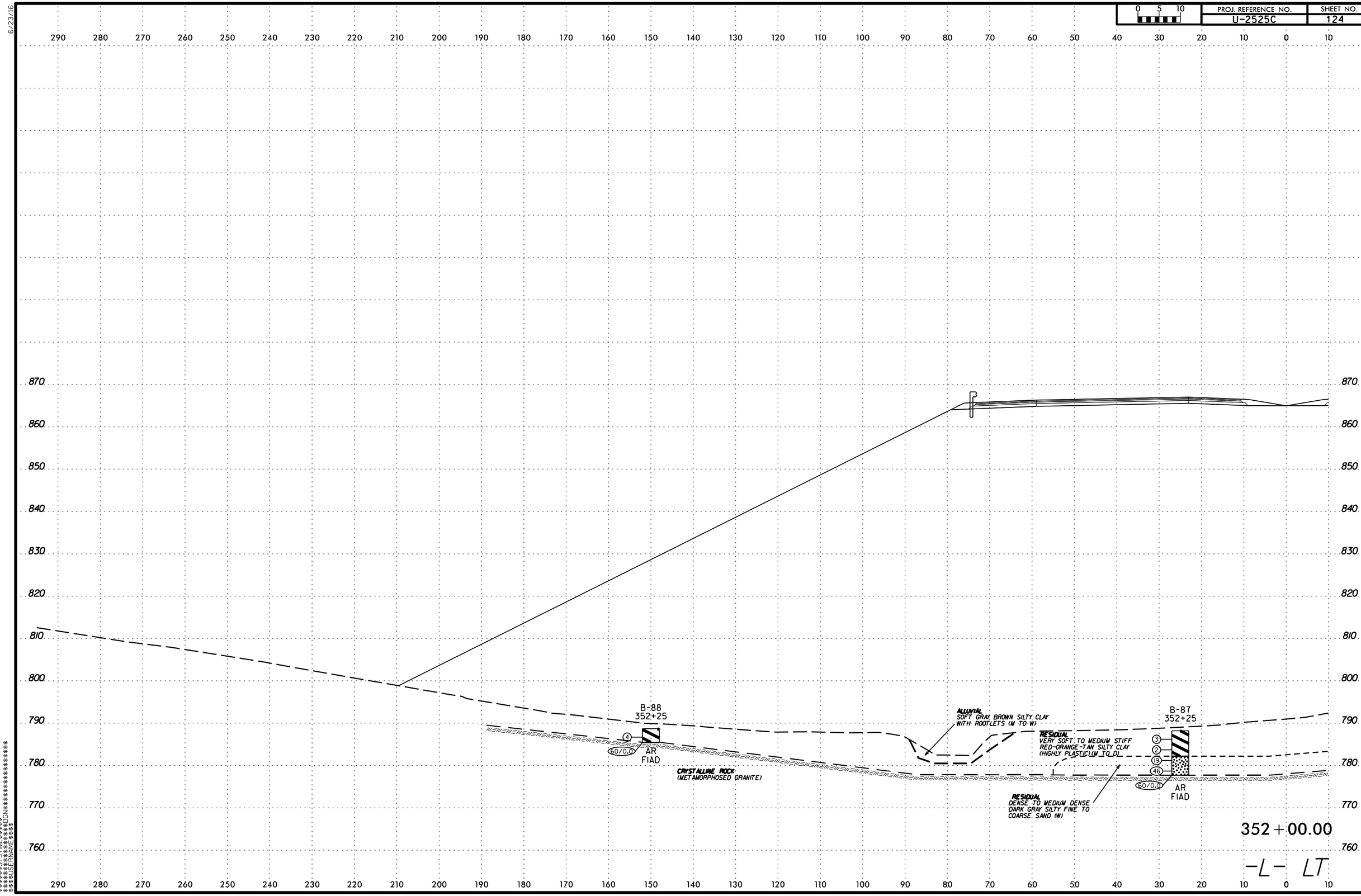
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	123



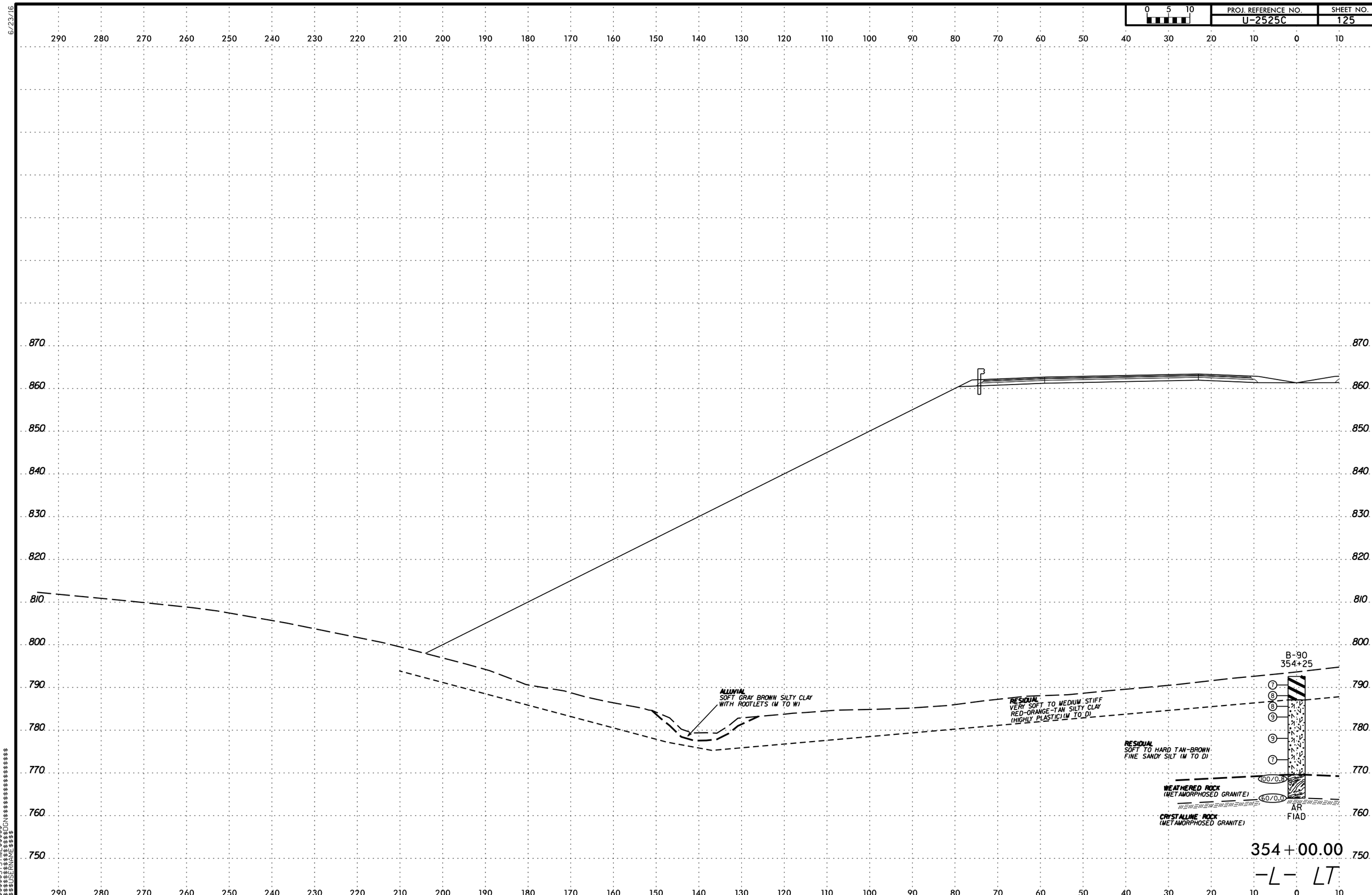
$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	124



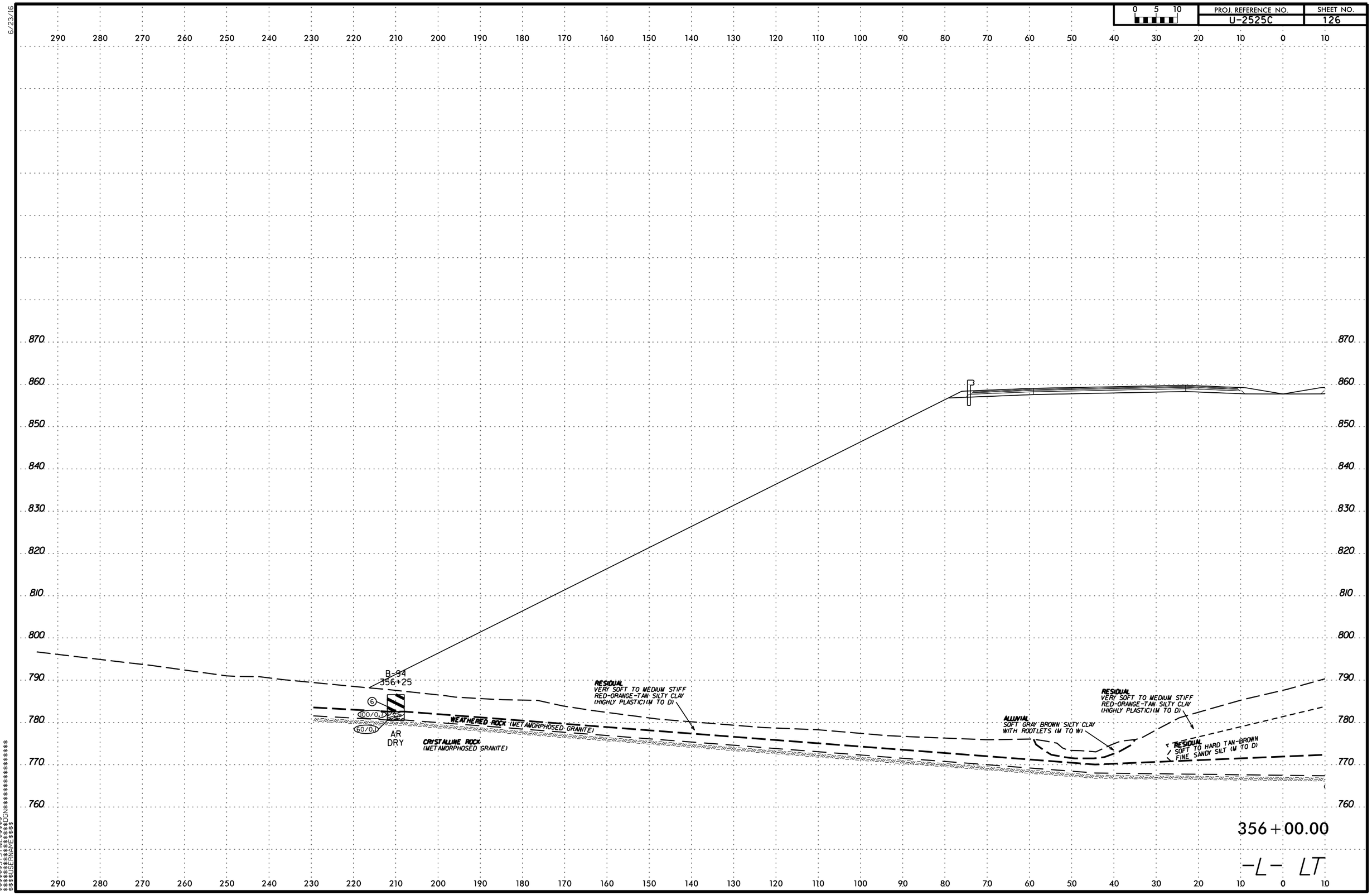
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
125
0 5 10
ALLUVIAL
SOFT GRAY BROWN SILTY CLAY
WITH ROOTLETS (M TO W)
RESIDUAL
VERY SOFT TO MEDIUM STIFF
RED-ORANGE-TAN SILTY CLAY
(HIGHLY PLASTIC)(M TO D)
RESIDUAL
SOFT TO HARD TAN-BROWN
FINE SANDY SILT (M TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
B-90
354+25
100/0.8
60/0.0
AR
FIAD
354+00.00
-L- LT

6/23/16

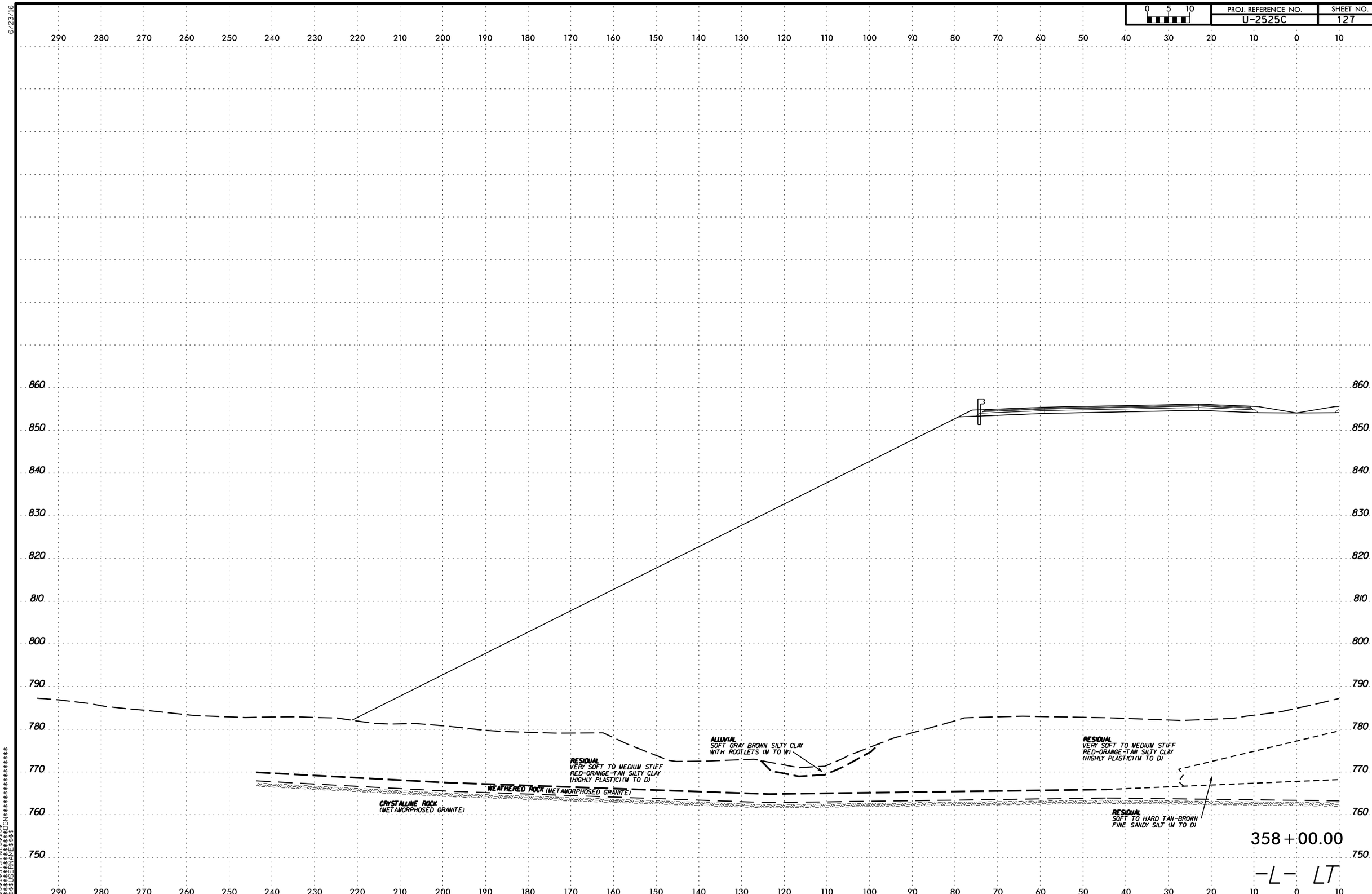
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	126



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

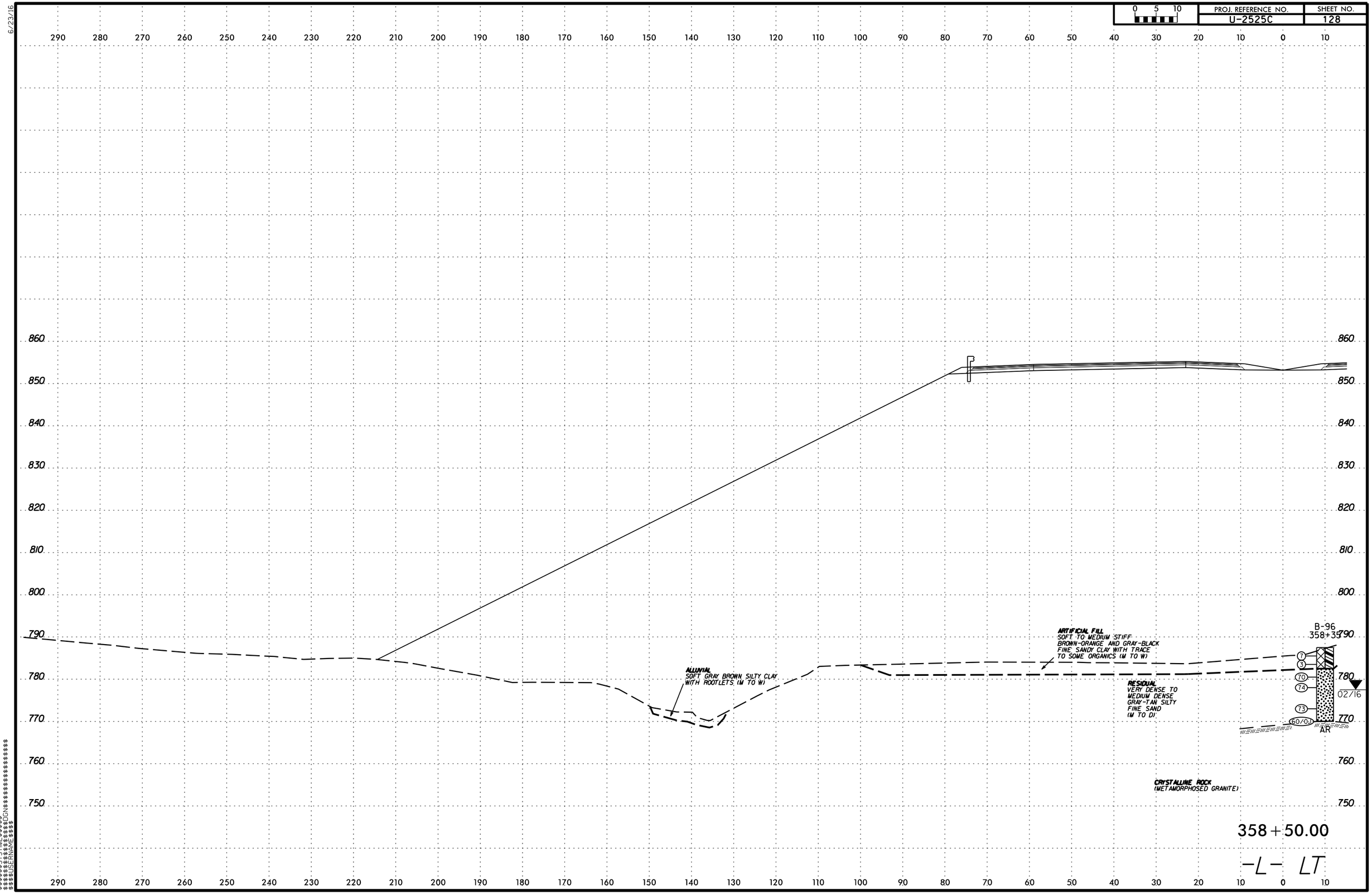
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	127



$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN
$$$$$USERNAME$$$$

6/23/16

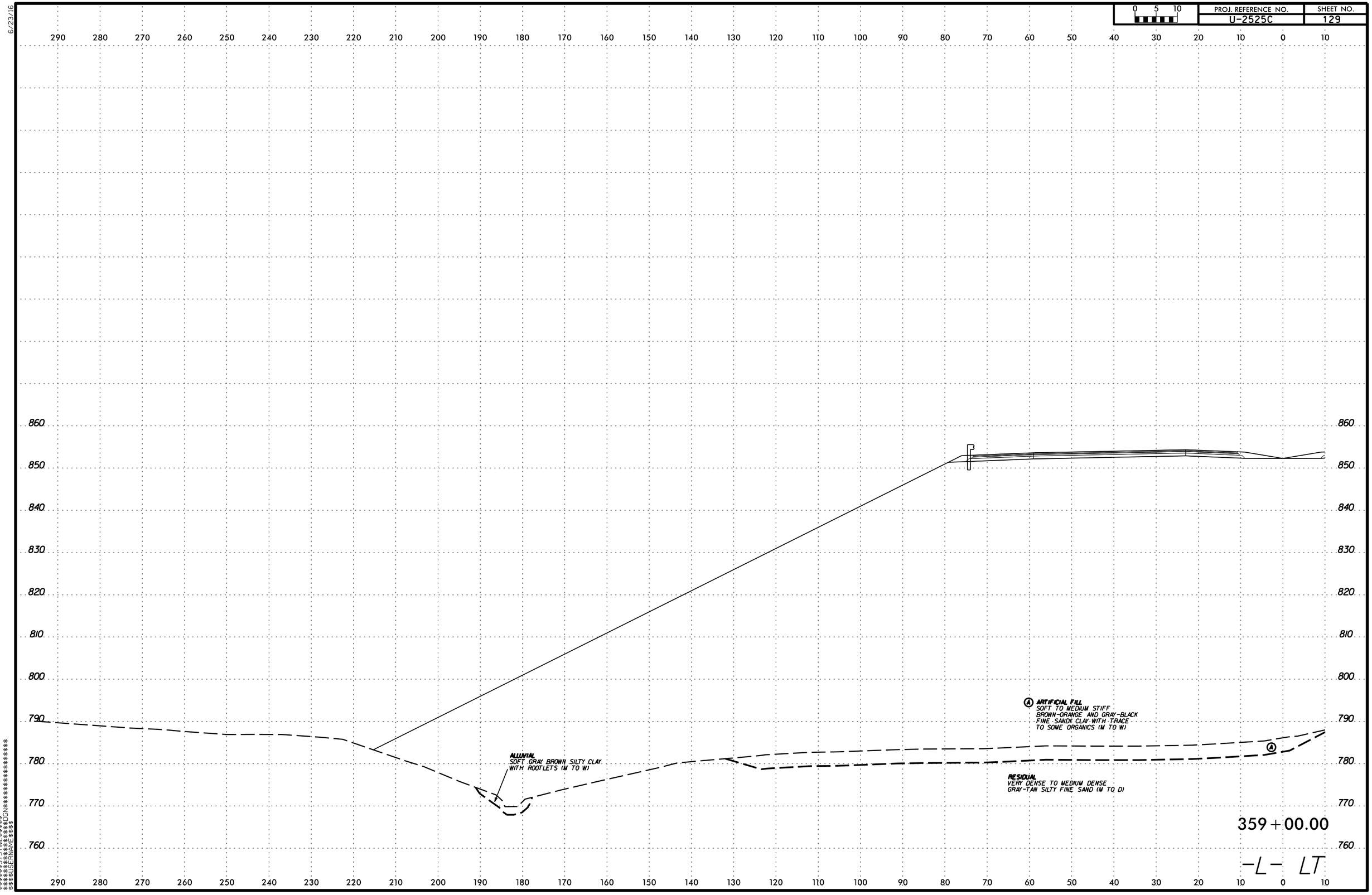
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	128



$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

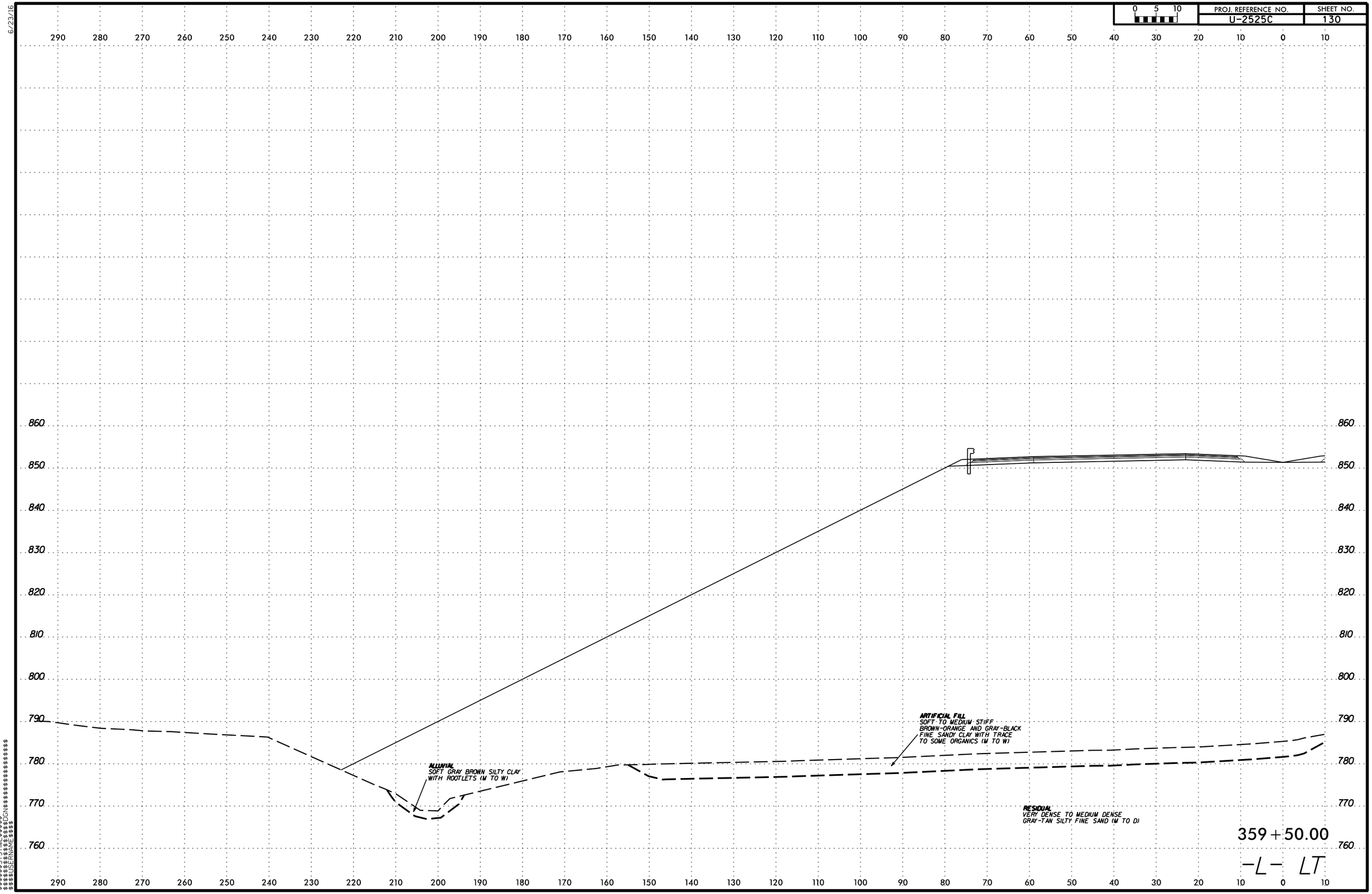
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	129



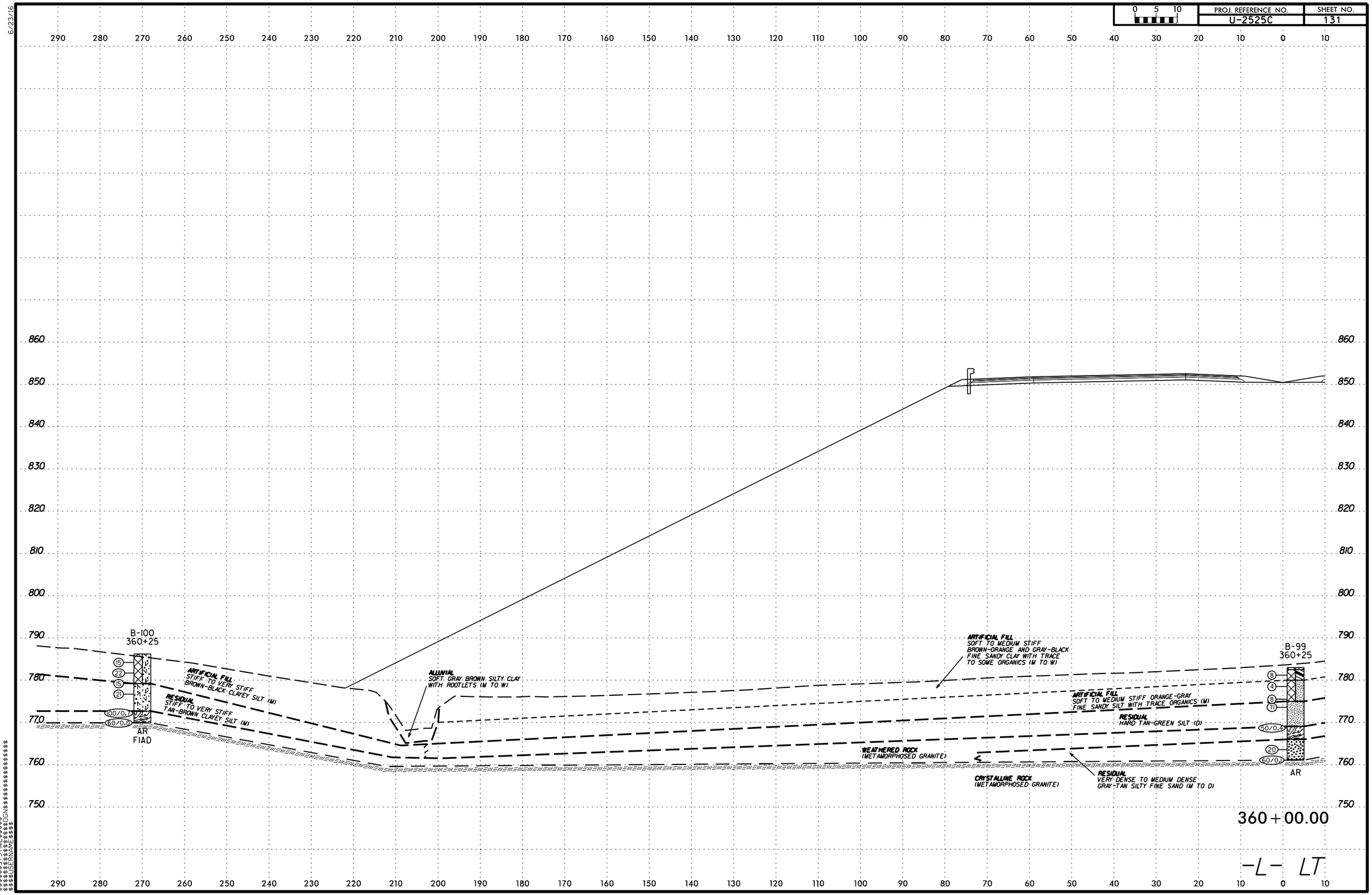
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

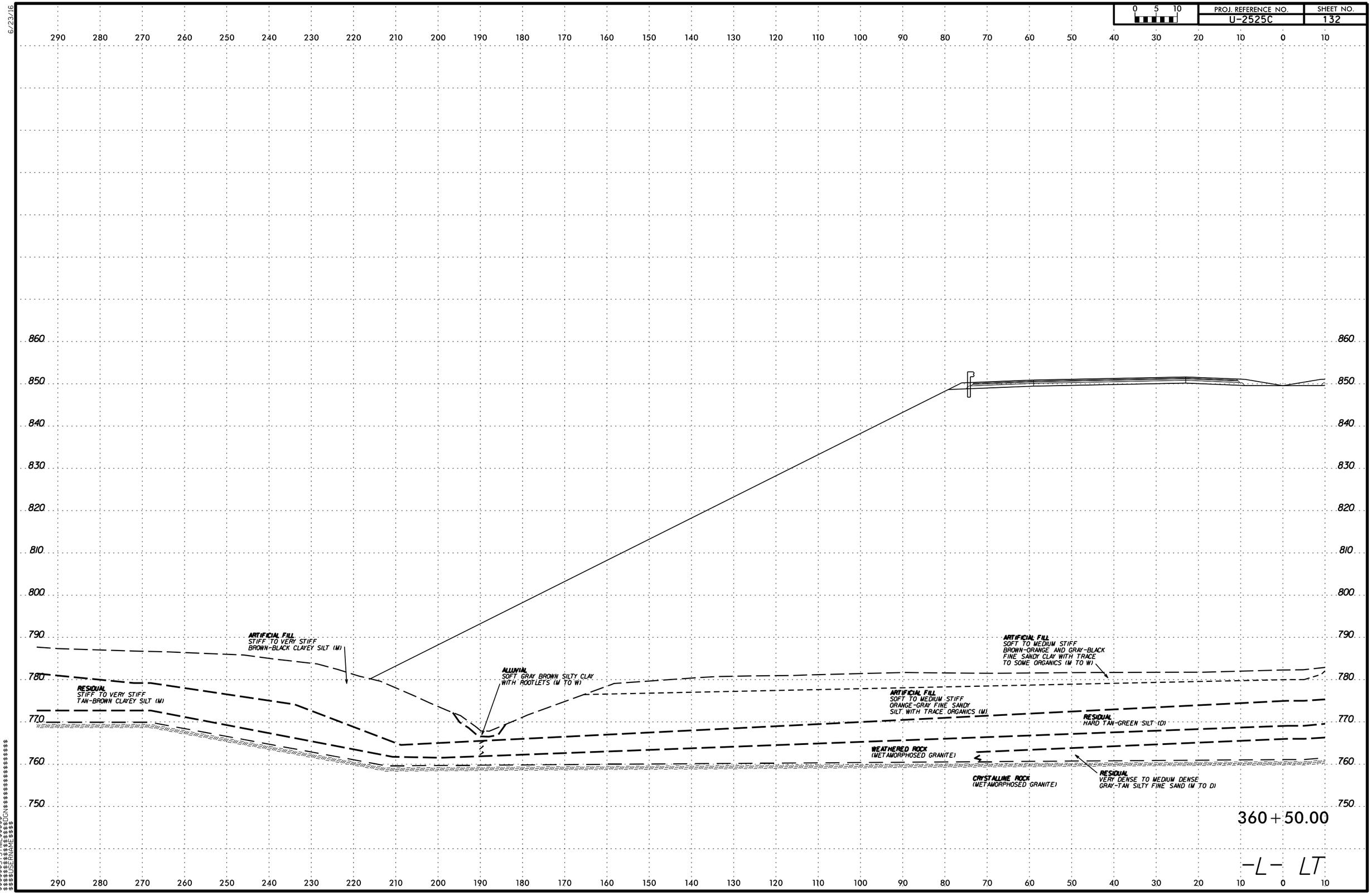
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	130



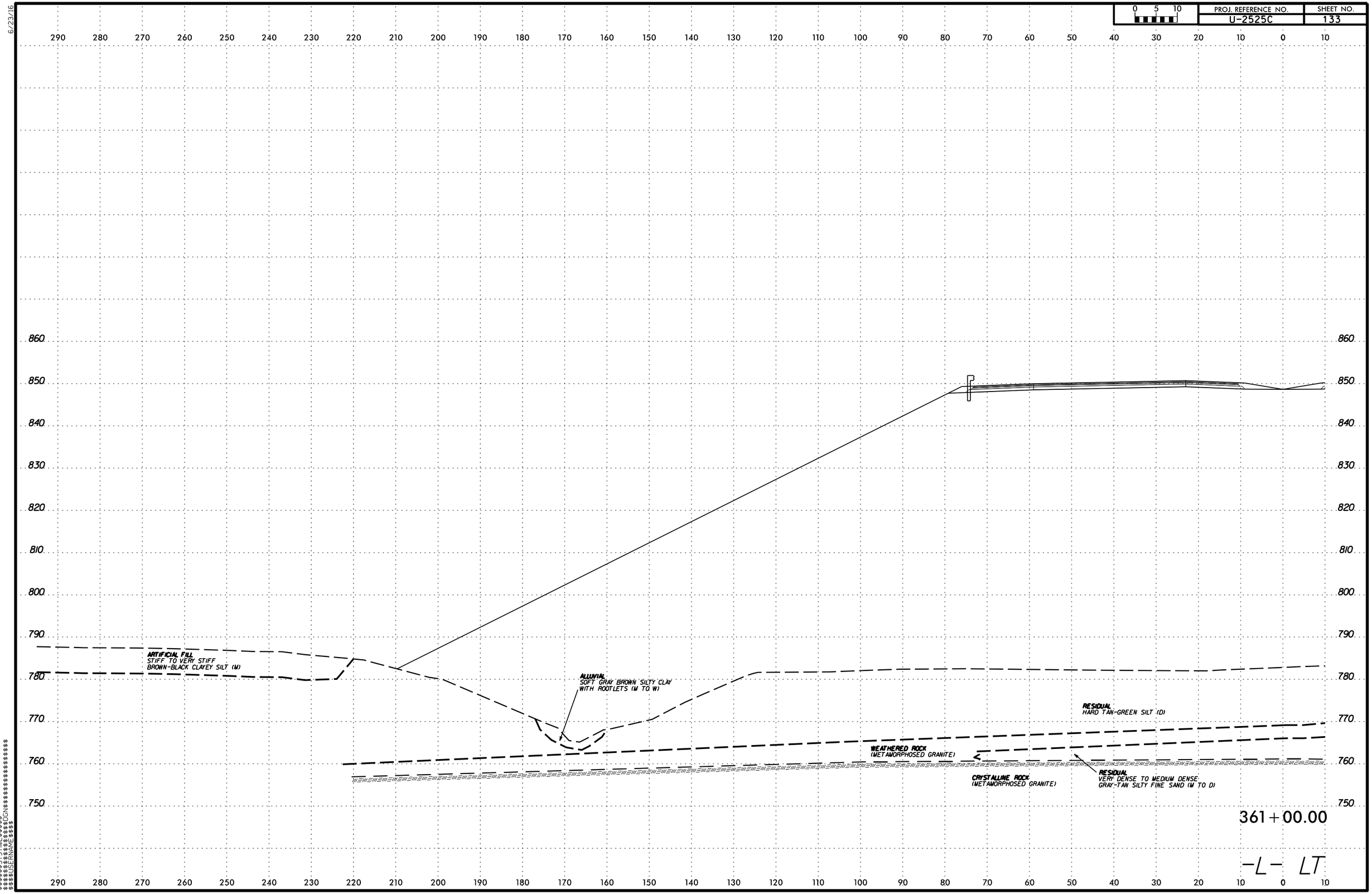
$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



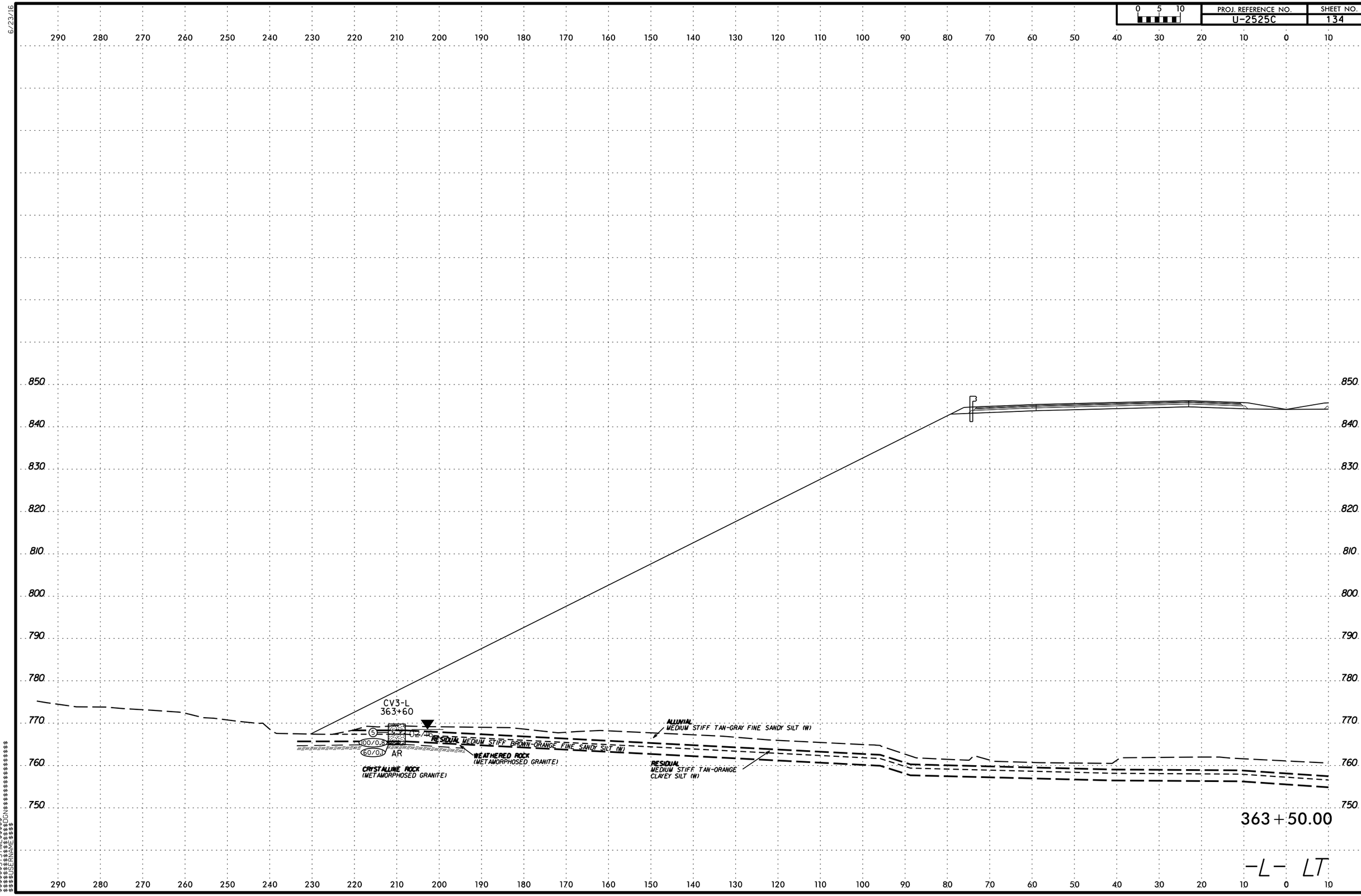
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
131
0 5 10
B-100
360+25
AR
FIAD
ARTIFICIAL FILL
STIFF TO VERY STIFF
BROWN-BLACK CLAYEY SILT (M)
RESIDUAL
STIFF TO VERY STIFF
TAN-BROWN CLAYEY SILT (M)
ALLUVIAL
SOFT GRAY BROWN SILTY CLAY
WITH ROOTLETS (M TO W)
ARTIFICIAL FILL
SOFT TO MEDIUM STIFF
BROWN-ORANGE AND GRAY-BLACK
FINE SANDY CLAY WITH TRACE
TO SOME ORGANICS (M TO W)
ARTIFICIAL FILL
SOFT TO MEDIUM STIFF ORANGE-GRAY
FINE SANDY SILT WITH TRACE ORGANICS (M)
RESIDUAL
HARD TAN-GREEN SILT (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
VERY DENSE TO MEDIUM DENSE
GRAY-TAN SILTY FINE SAND (M TO D)
B-99
360+25
AR
360+00.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
132
0 5 10
ARTIFICIAL FILL
STIFF TO VERY STIFF
BROWN-BLACK CLAYEY SILT (M)
RESIDUAL
STIFF TO VERY STIFF
TAN-BROWN CLAYEY SILT (M)
ALLUVIAL
SOFT GRAY BROWN SILTY CLAY
WITH ROOTLETS (M TO W)
ARTIFICIAL FILL
SOFT TO MEDIUM STIFF
BROWN-ORANGE AND GRAY-BLACK
FINE SANDY CLAY WITH TRACE
TO SOME ORGANICS (M TO W)
ARTIFICIAL FILL
SOFT TO MEDIUM STIFF
ORANGE-GRAY FINE SANDY
SILT WITH TRACE ORGANICS (M)
RESIDUAL
HARD TAN-GREEN SILT (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
VERY DENSE TO MEDIUM DENSE
GRAY-TAN SILTY FINE SAND (M TO D)
360+50.00
-L- LT



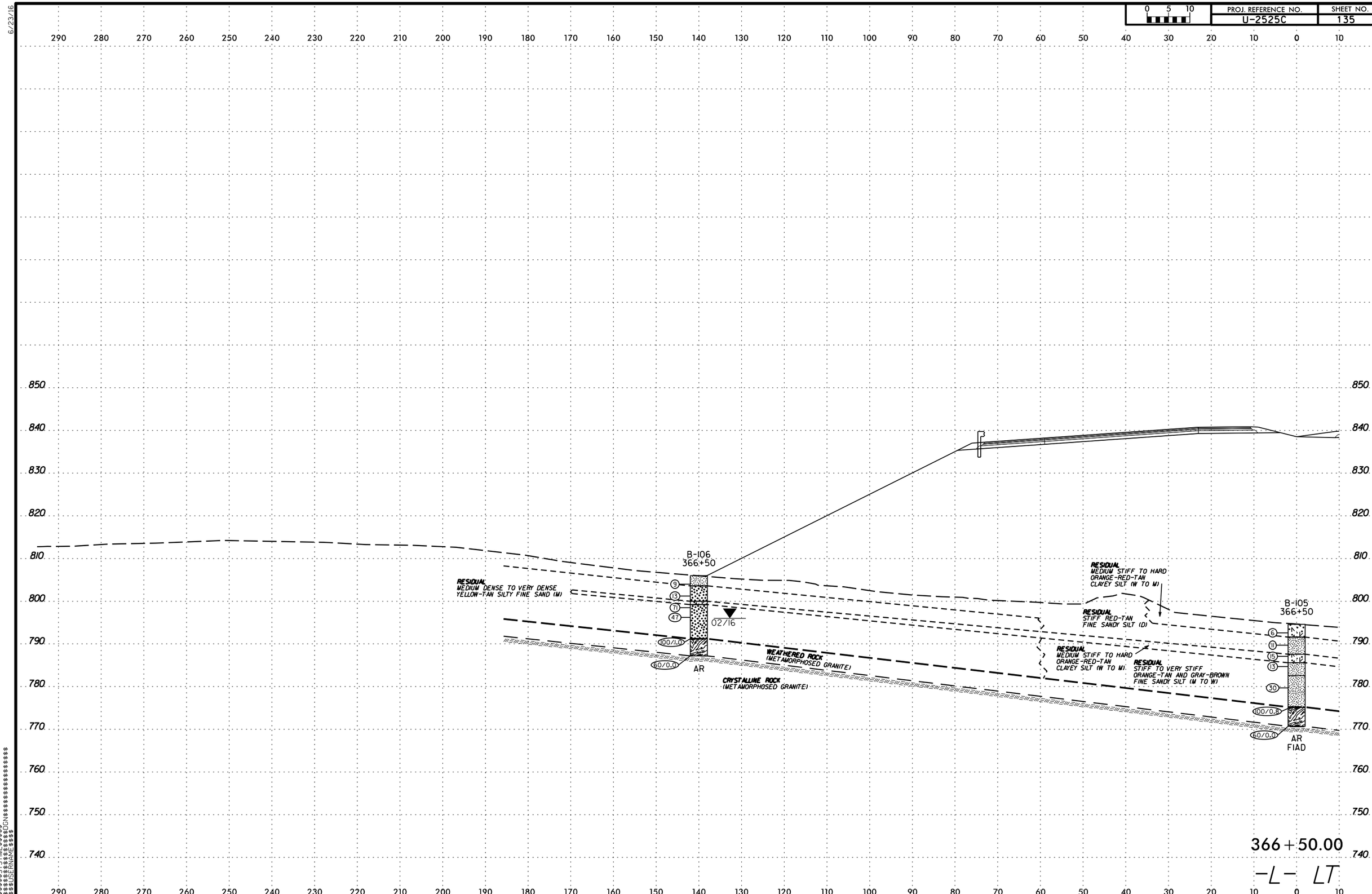
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
133
0 5 10
ARTIFICIAL FILL
STIFF TO VERY STIFF
BROWN-BLACK CLAYEY SILT (M)
ALLUVIAL
SOFT GRAY BROWN SILTY CLAY
WITH ROOTLETS (M TO W)
RESIDUAL
HARD TAN-GREEN SILT (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
VERY DENSE TO MEDIUM DENSE
GRAY-TAN SILTY FINE SAND (M TO D)
361+00.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
134
0 5 10
CV3-L
363+60
5
100/0.8
60/0.1
AR
0.2/46
RESIDUAL MEDIUM STIFF BROWN-ORANGE FINE SANDY SILT (W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
ALLUVIAL
MEDIUM STIFF TAN-GRAY FINE SANDY SILT (W)
RESIDUAL
MEDIUM STIFF TAN-ORANGE
CLAYEY SILT (W)
363+50.00
-L- LT

6/23/16

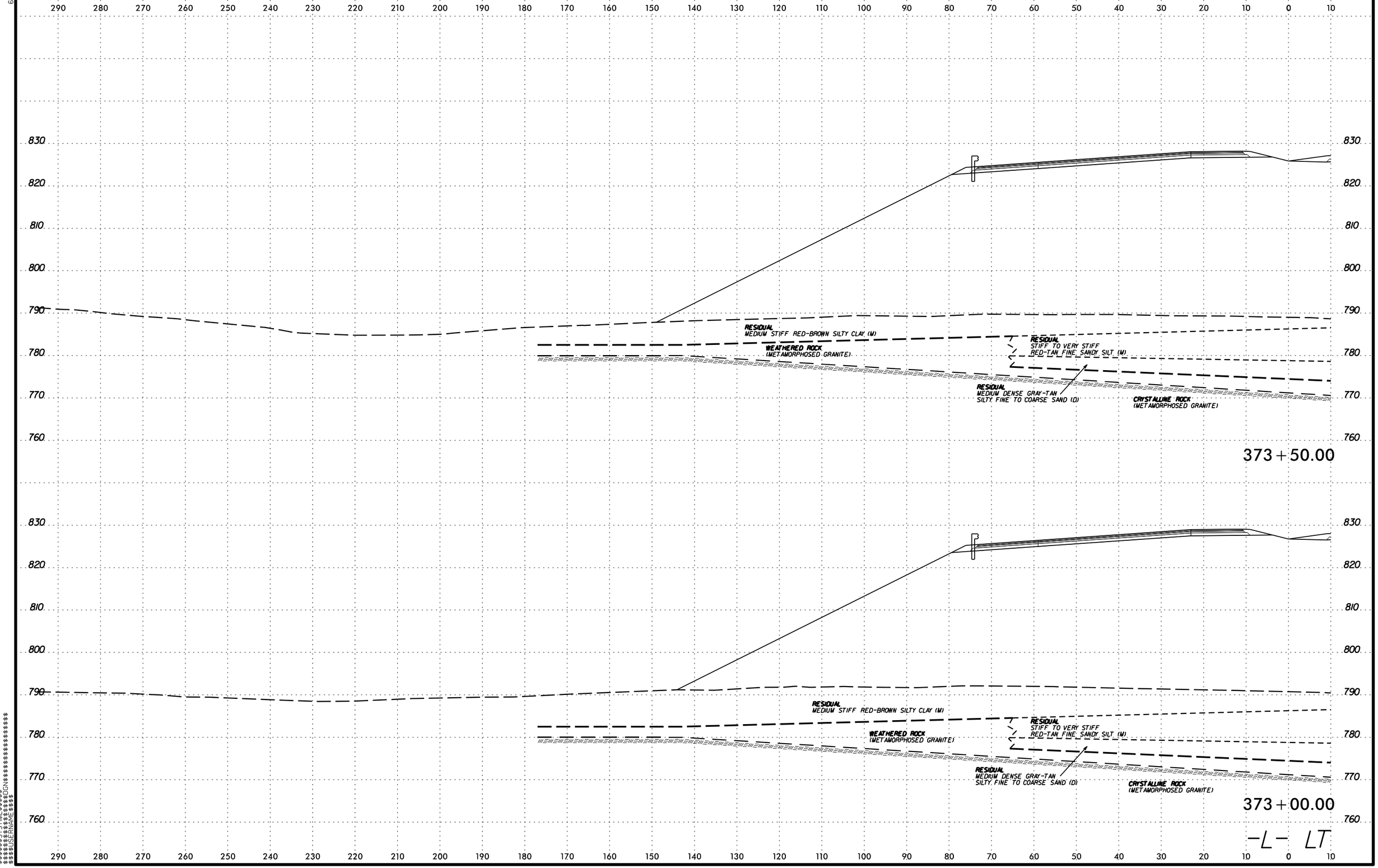
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	135



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

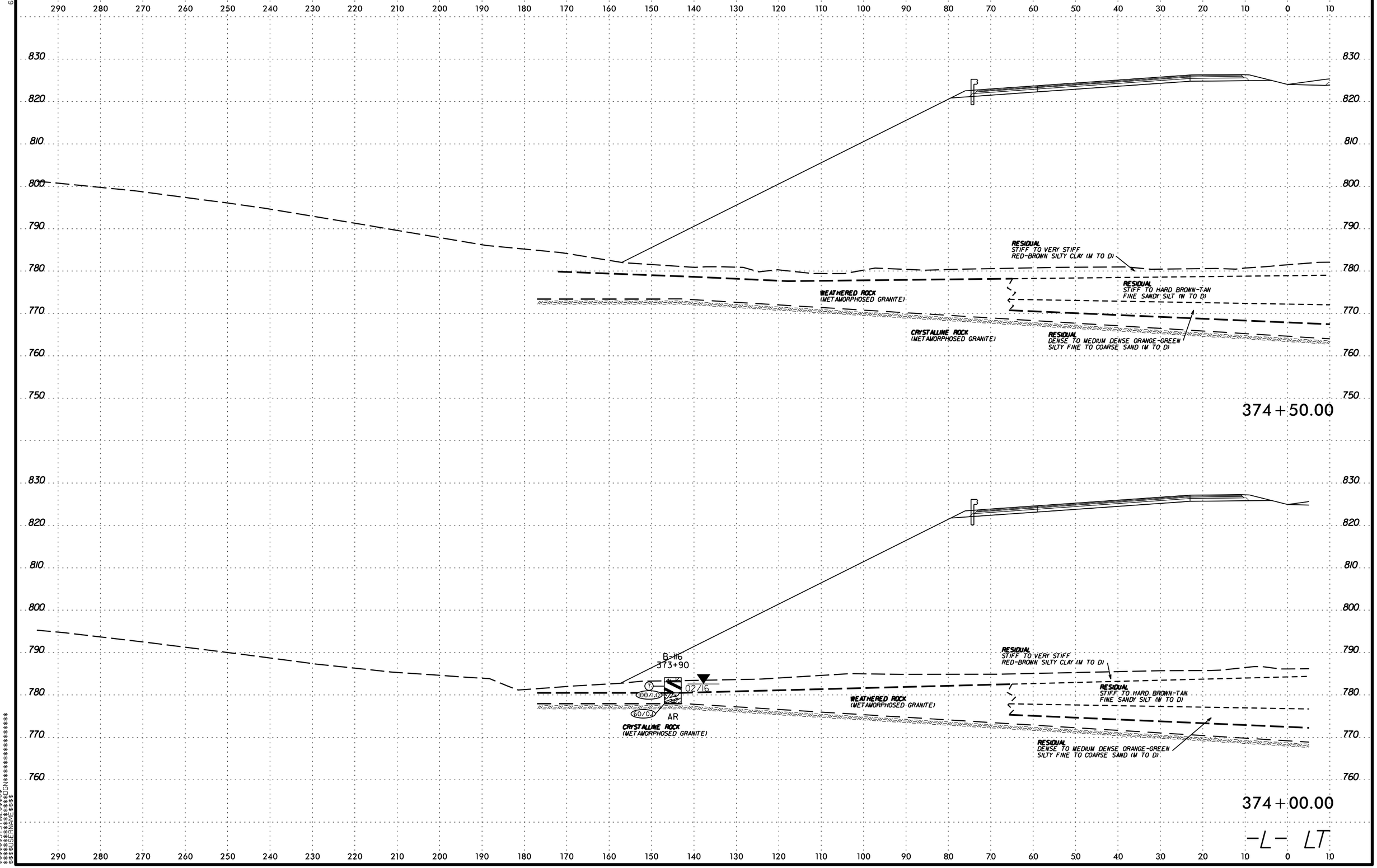
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	136



$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN
$$$$$USERNAME$$$$

6/23/16

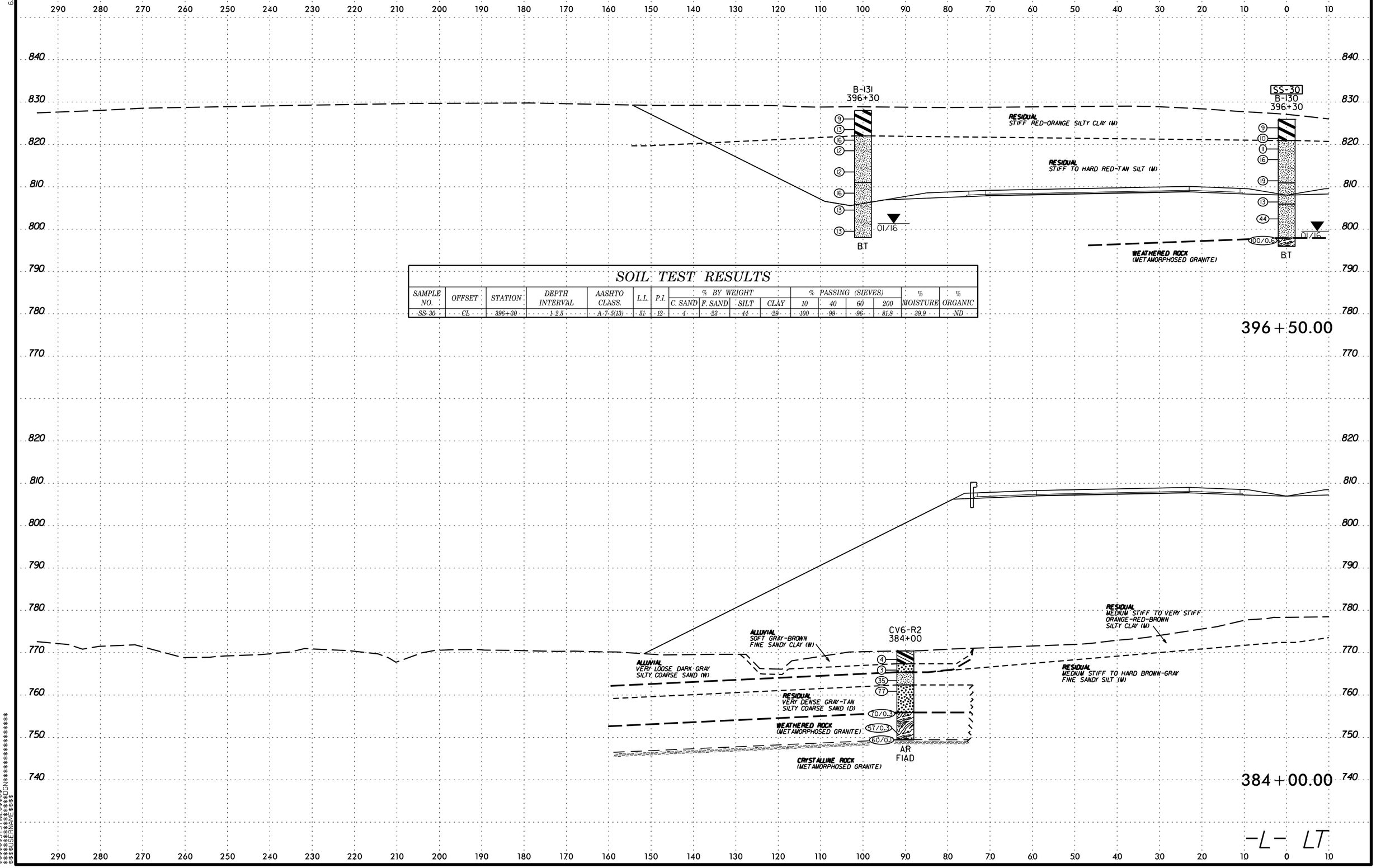
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	137



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	138



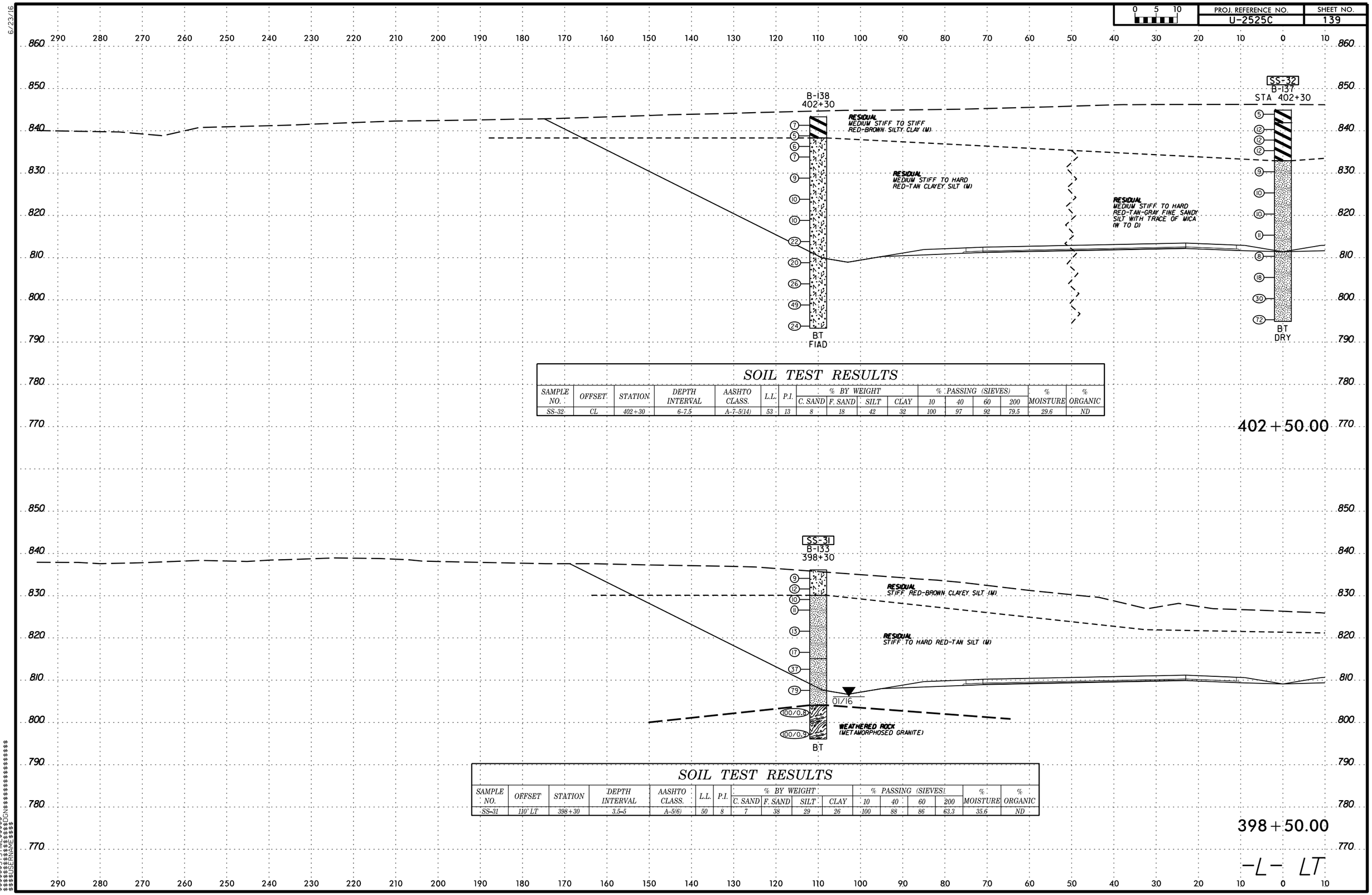
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-30	CL	396+30	1-2.5	A-7-5(13)	51	12	4	23	44	29	100	99	96	81.8	39.9	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	139



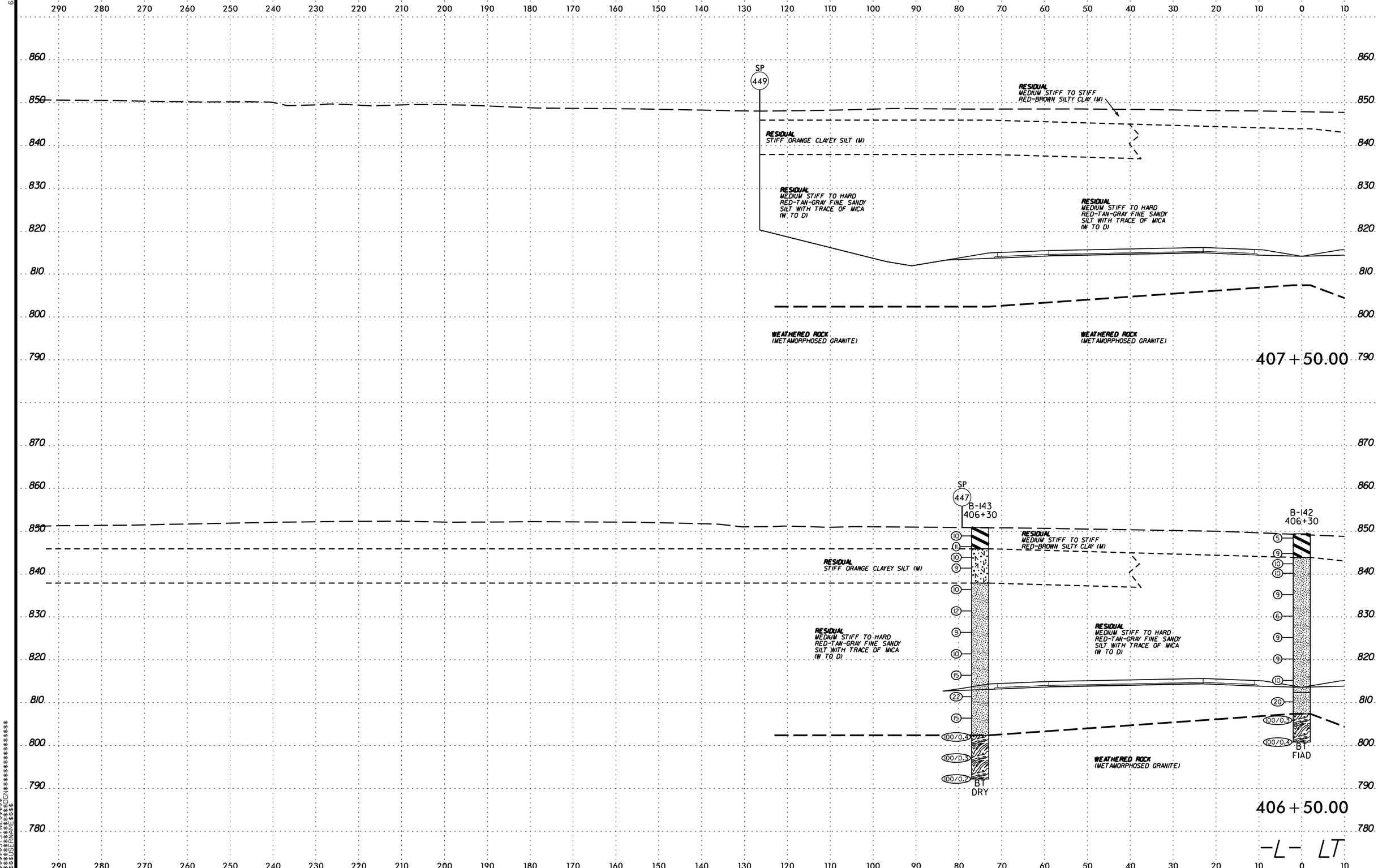
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-32	CL	402+30	6-7.5	A-7-5(14)	53	13	8	18	42	32	100	97	92	79.5	29.6	ND

SOIL TEST RESULTS

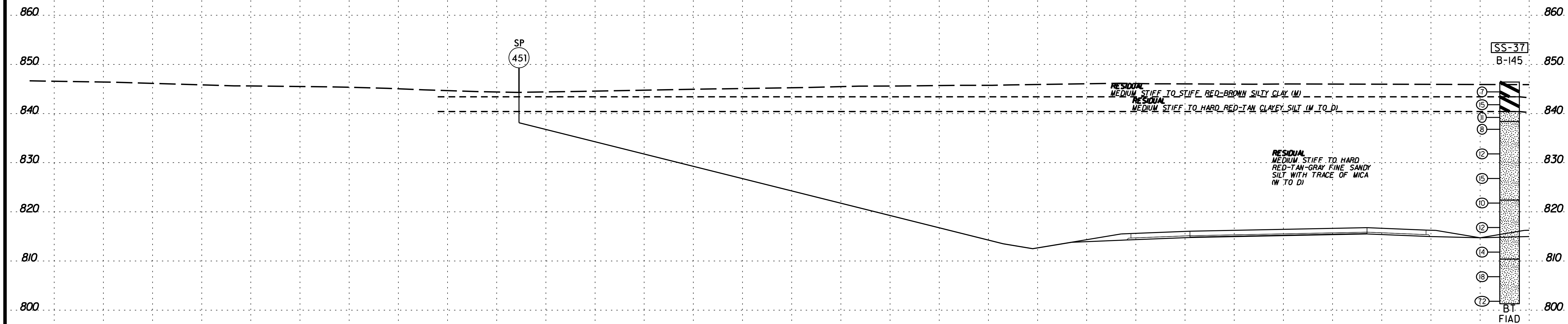
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-31	110' LT	398+30	3.5-5	A-5(6)	50	8	7	38	29	26	100	88	86	63.3	35.6	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
140
0 5 10
SP
449
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
STIFF ORANGE CLAYEY SILT (M)
RESIDUAL
MEDIUM STIFF TO HARD
RED-TAN-GRAY FINE SANDY
SILT WITH TRACE OF MICA
(W TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
407+50.00
SP
447
B-143
406+30
B-142
406+30
BT
DRY
BT
FIAD
406+50.00
-L- LT

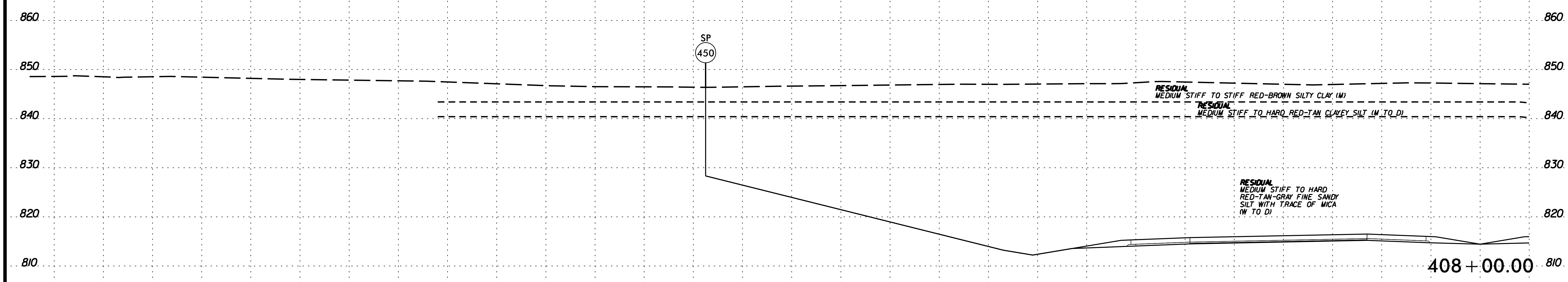
6/23/16



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-37	6' RT	408+30	3.6-5.1	A-7-5(18)	62	14	2	24	30	44	100	99	98	83.7	34.2	ND

408+50.00

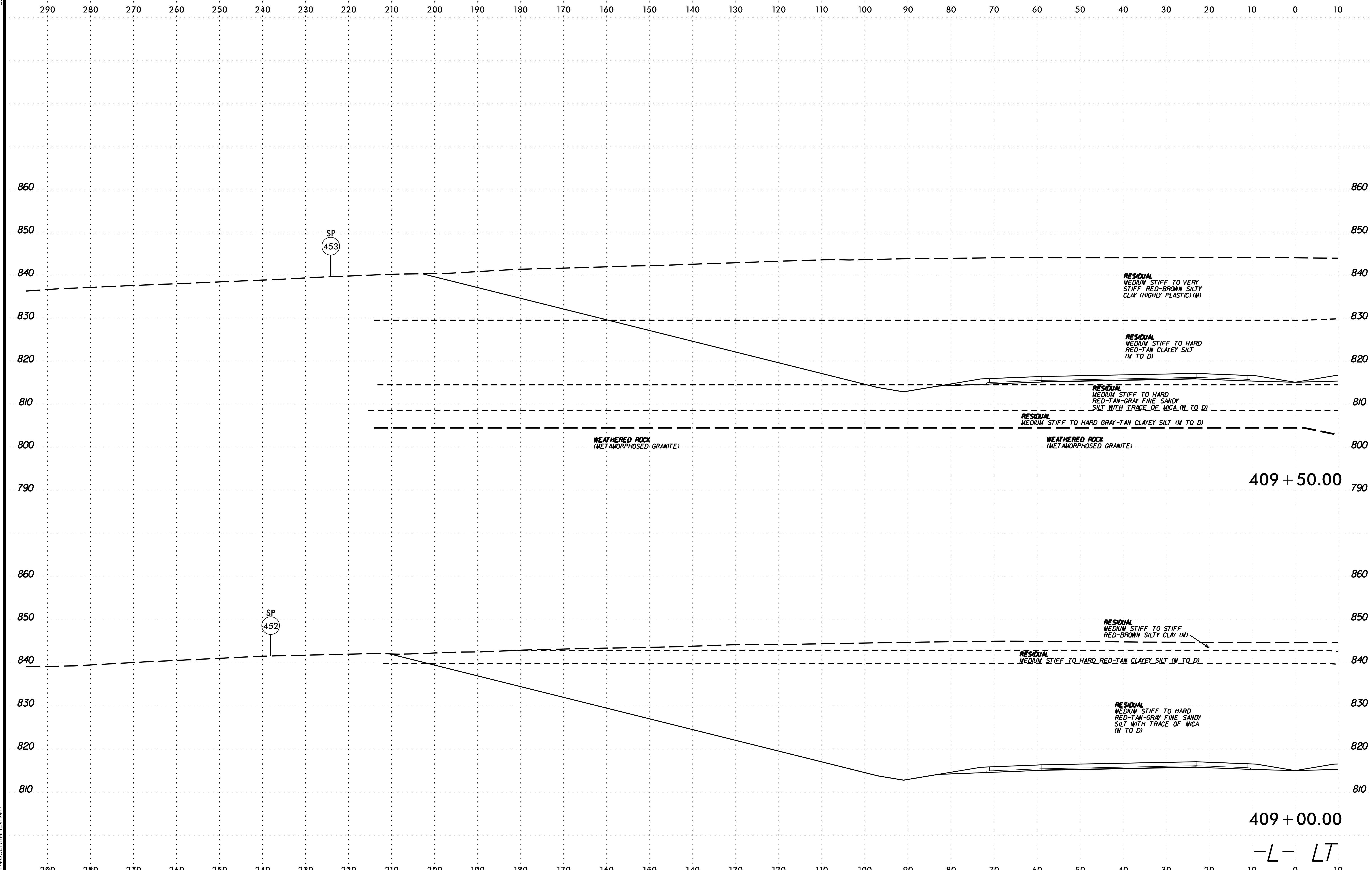


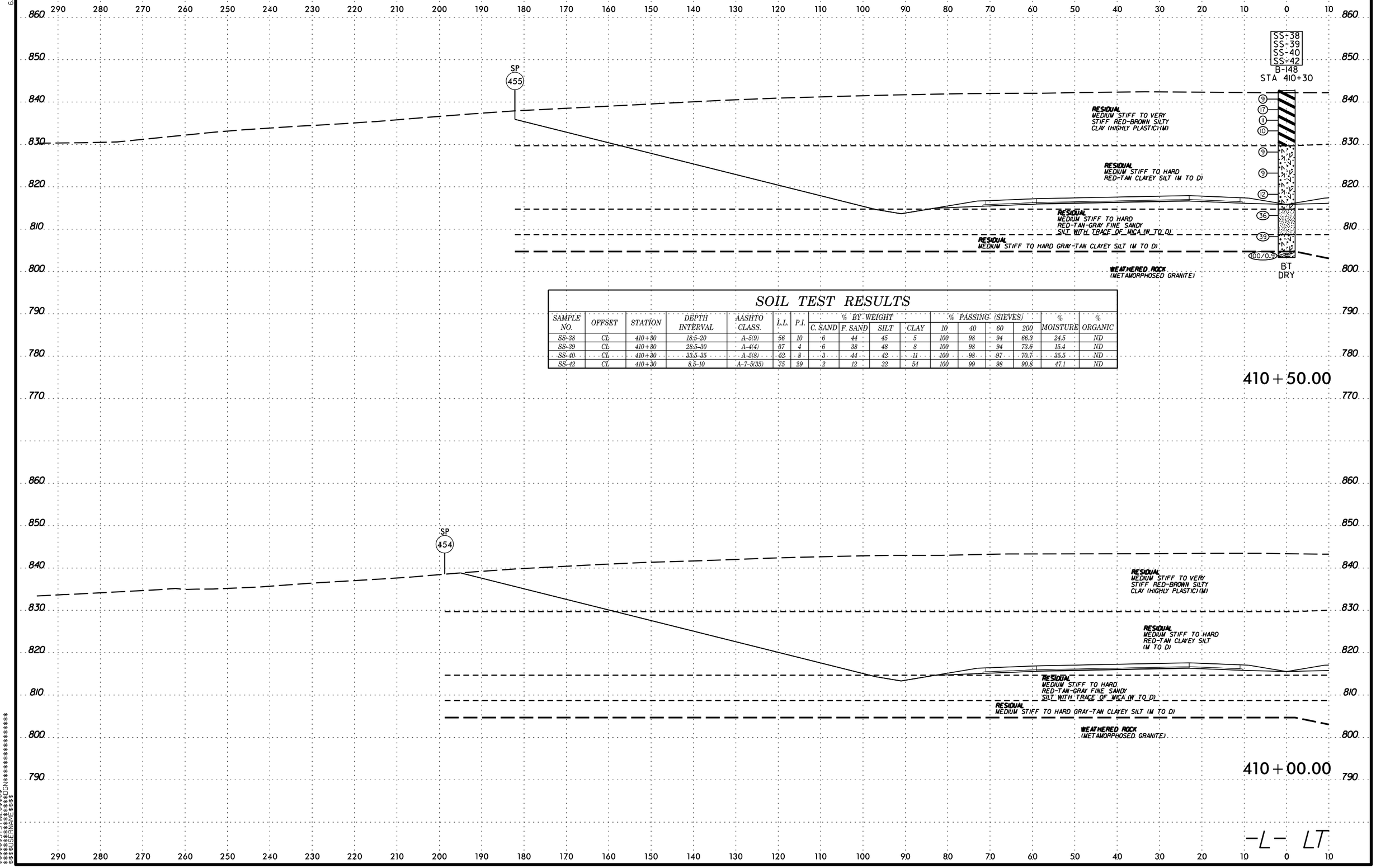
408+00.00

-L- LT

$$$$SYSTIME$$$$ $$$$$$$$$$$$DGN$$$$$$$$$$$$ $$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	142





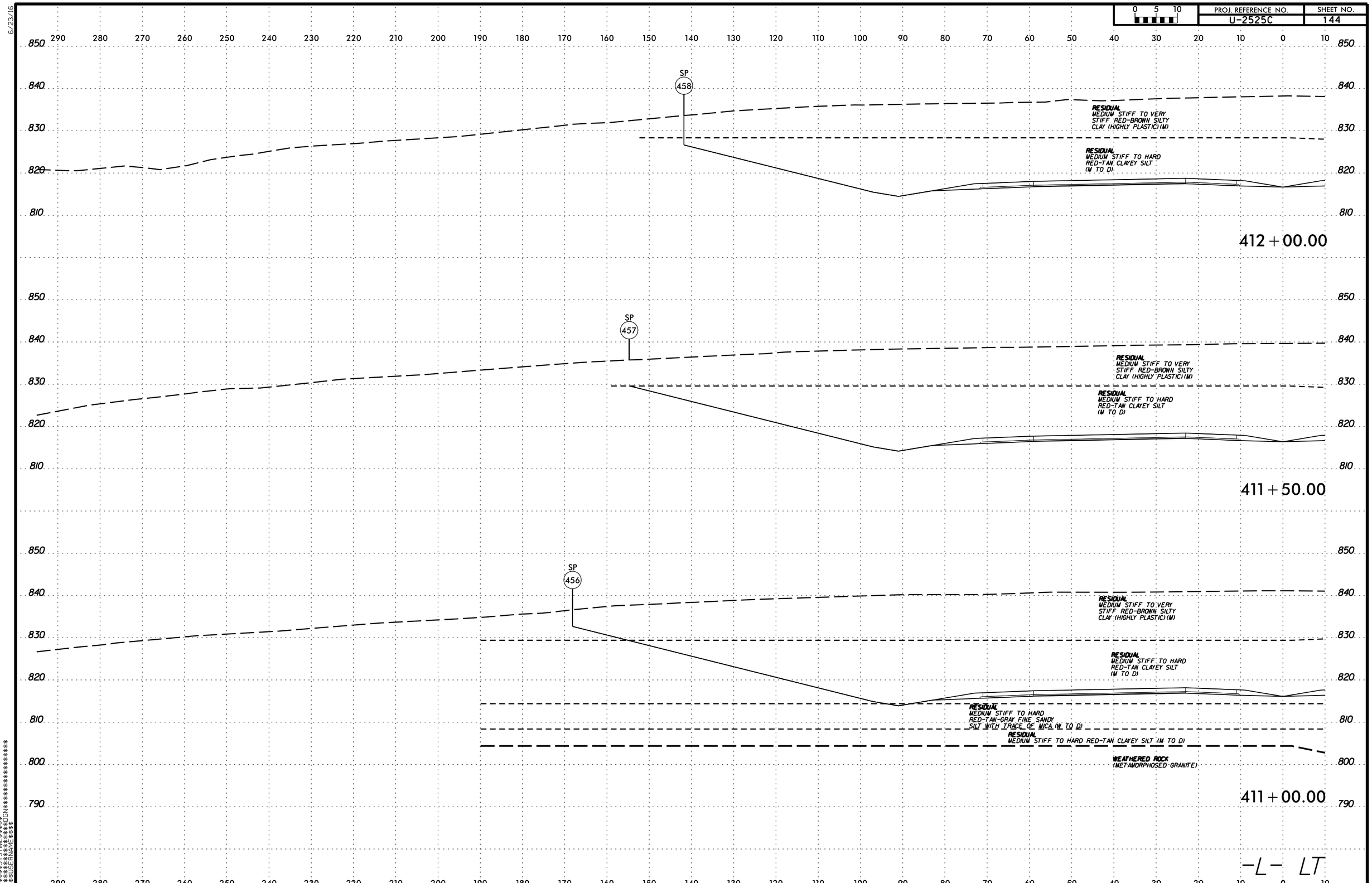
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-38	CL	410+30	18.5-20	A-5(9)	56	10	6	44	45	5	100	98	94	66.3	24.5	ND
SS-39	CL	410+30	28.5-30	A-4(4)	37	4	6	38	48	8	100	98	94	73.6	15.4	ND
SS-40	CL	410+30	33.5-35	A-5(8)	52	8	3	44	42	11	100	98	97	70.7	35.5	ND
SS-42	CL	410+30	8.5-10	A-7-5(35)	75	29	2	12	32	54	100	99	98	90.8	47.1	ND

6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

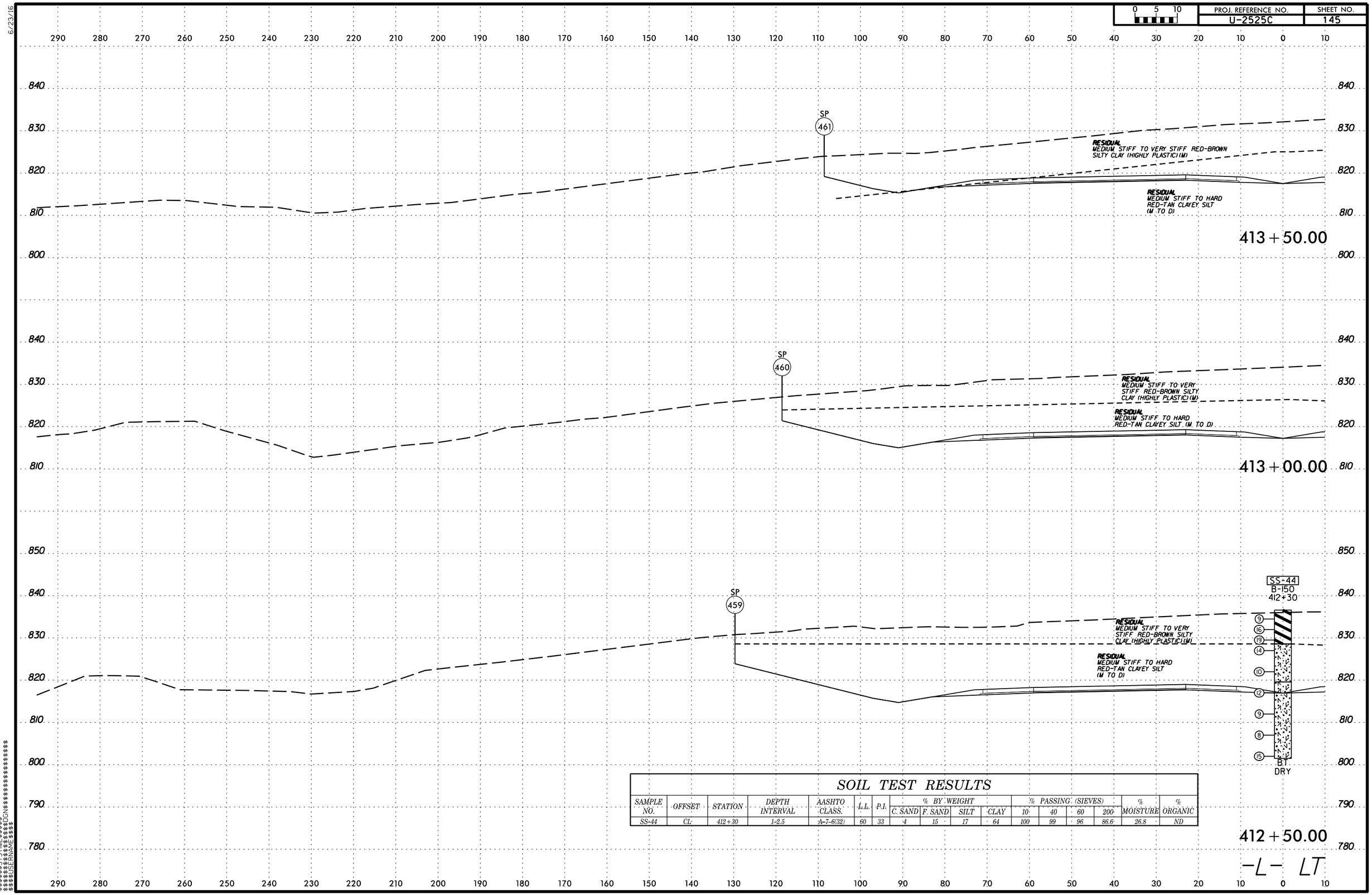
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	144



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 145

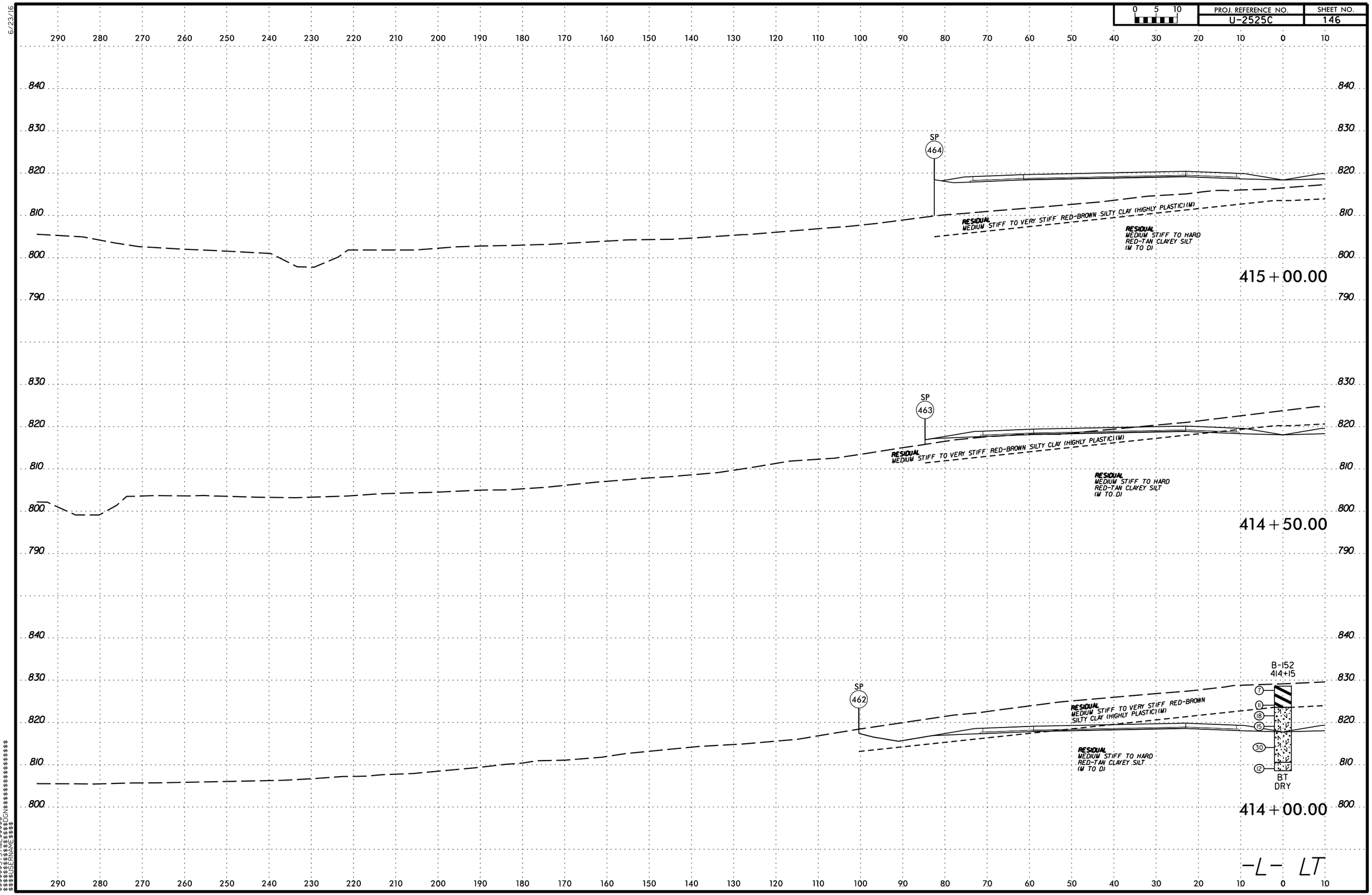


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-44	CL	412+30	1-2.5	A-7-6(32)	60	33	4	15	17	64	100	99	96	86.6	26.8	ND

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	146

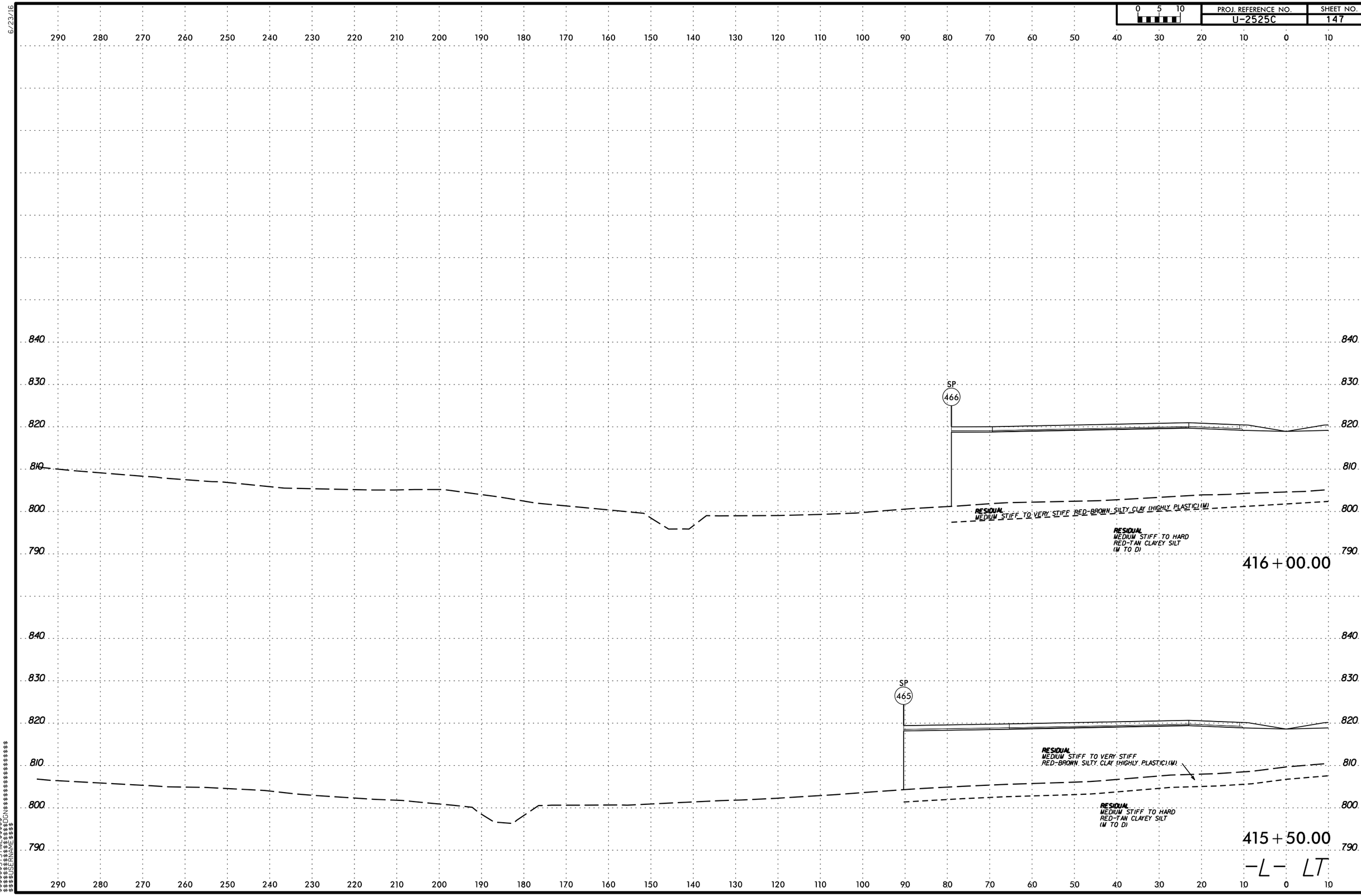


$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	147

0 5 10



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
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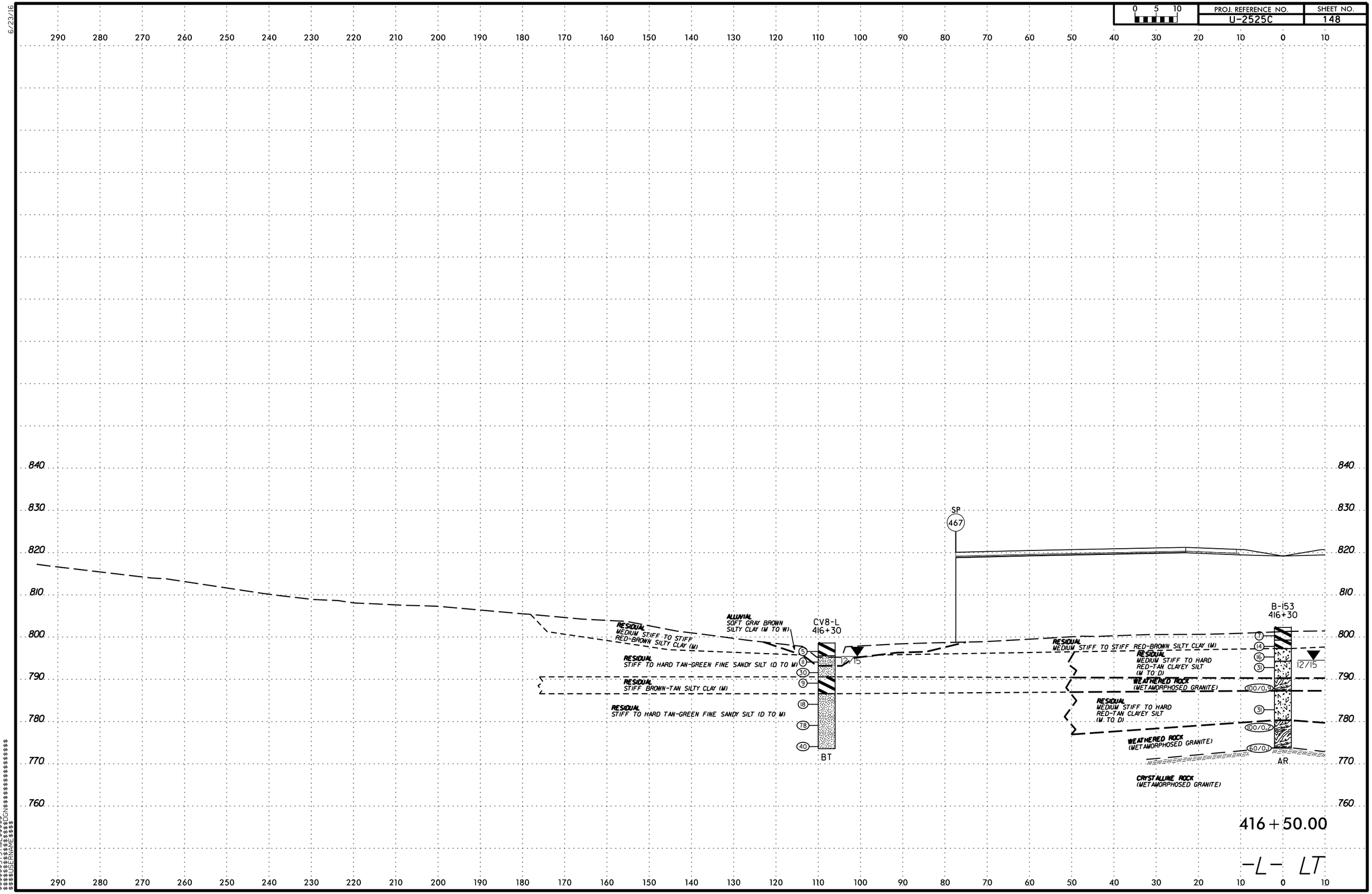
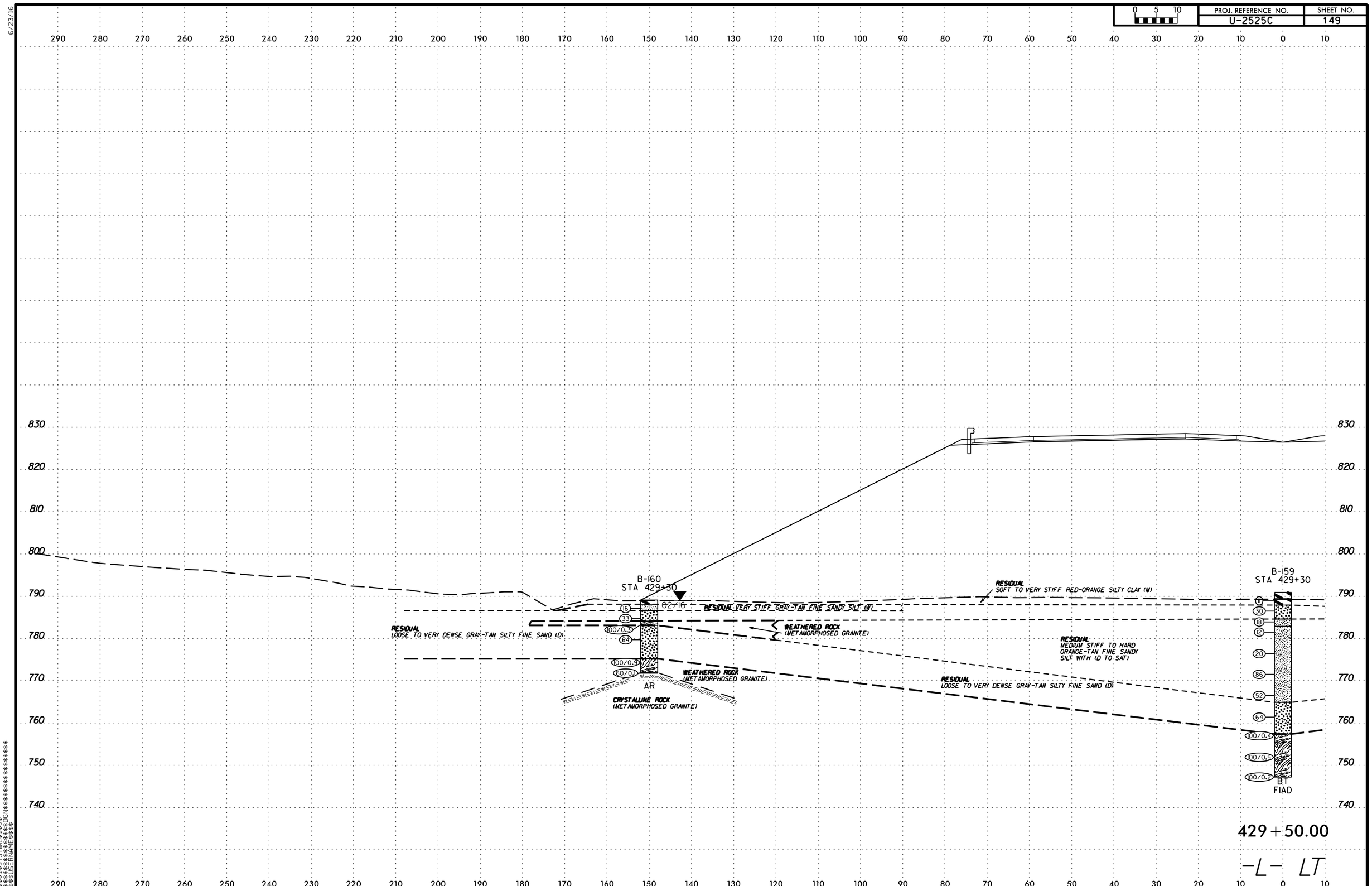


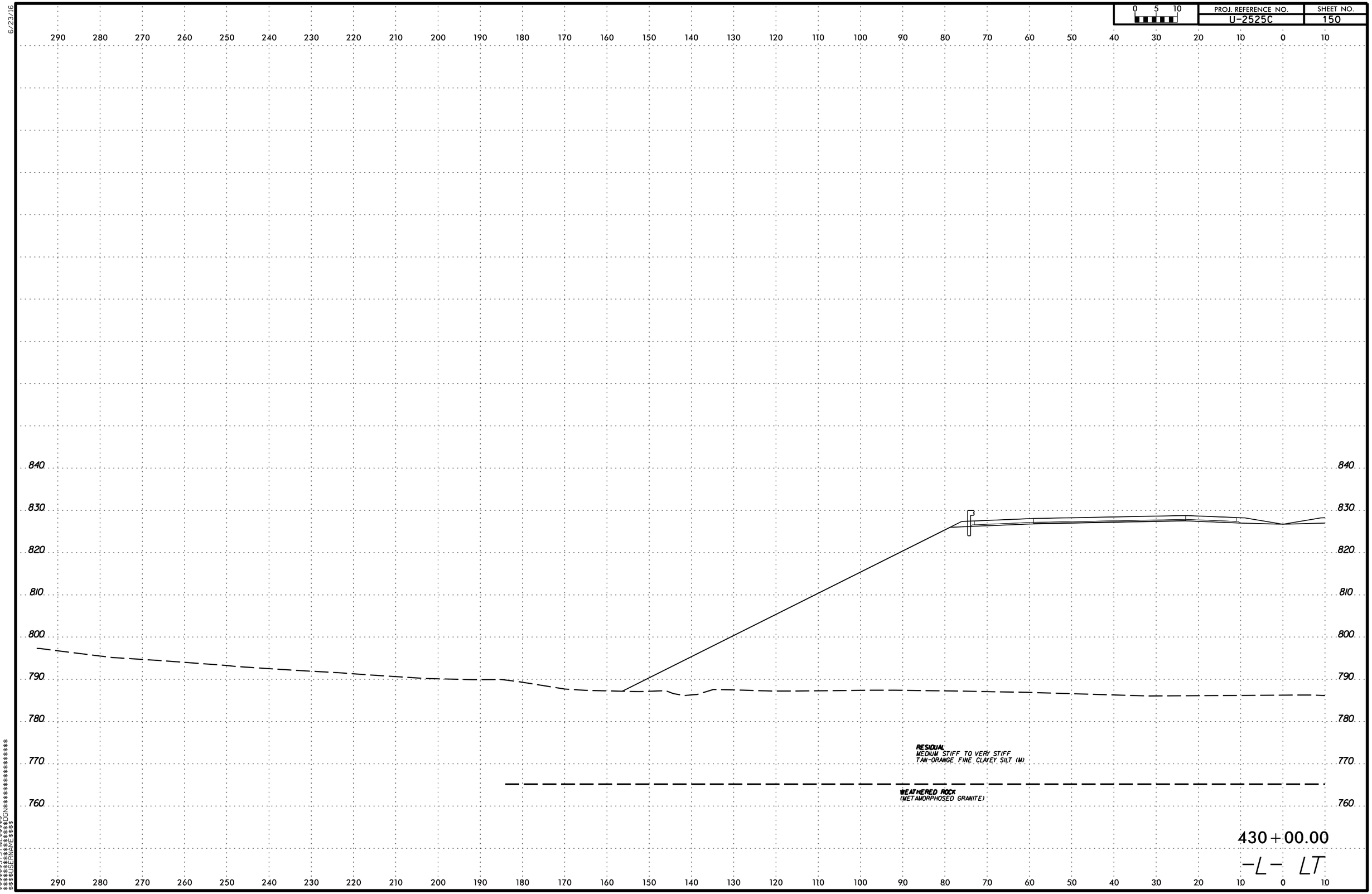
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
148
0 5 10
SP
467
CV8-L
416+30
B-153
416+30
ALLUVIAL
SOFT GRAY BROWN
SILTY CLAY (M TO W)
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
STIFF TO HARD TAN-GREEN FINE SANDY SILT (D TO M)
RESIDUAL
STIFF BROWN-TAN SILTY CLAY (M)
RESIDUAL
STIFF TO HARD TAN-GREEN FINE SANDY SILT (D TO M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO HARD
RED-TAN CLAYEY SILT
(M TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
MEDIUM STIFF TO HARD
RED-TAN CLAYEY SILT
(M TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
12/15
12/15
BT
AR
416+50.00
-L- LT



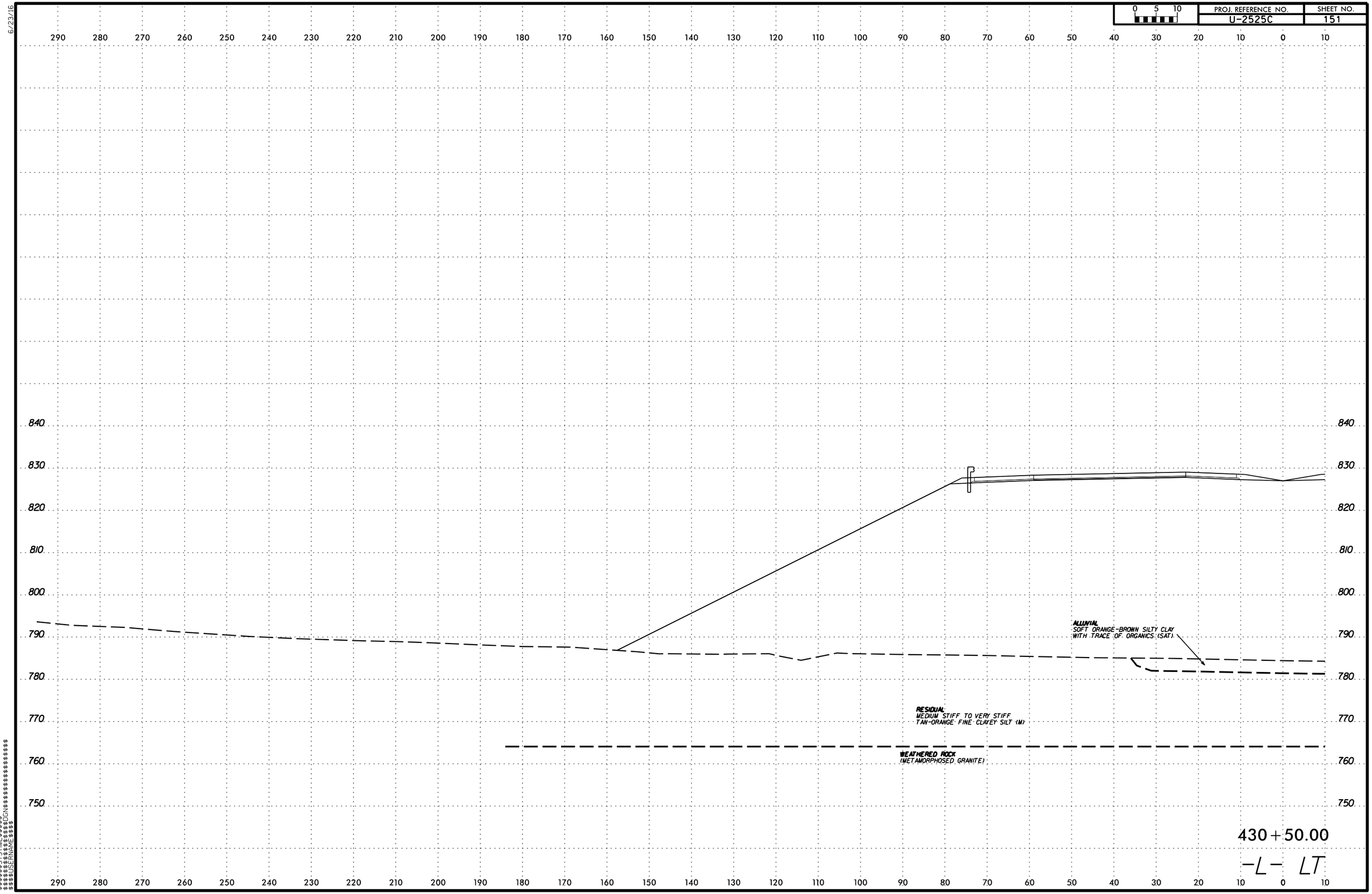
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
149
0 5 10
B-160
STA 429+30
02/16
RESIDUAL VERY STIFF GRAY-TAN FINE SANDY SILT (W)
RESIDUAL
LOOSE TO VERY DENSE GRAY-TAN SILTY FINE SAND (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR
RESIDUAL
SOFT TO VERY STIFF RED-ORANGE SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO HARD
ORANGE-TAN FINE SANDY
SILT WITH (D TO SAT)
RESIDUAL
LOOSE TO VERY DENSE GRAY-TAN SILTY FINE SAND (D)
B-159
STA 429+30
BT
FIAD
429+50.00
-L- LT

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	150

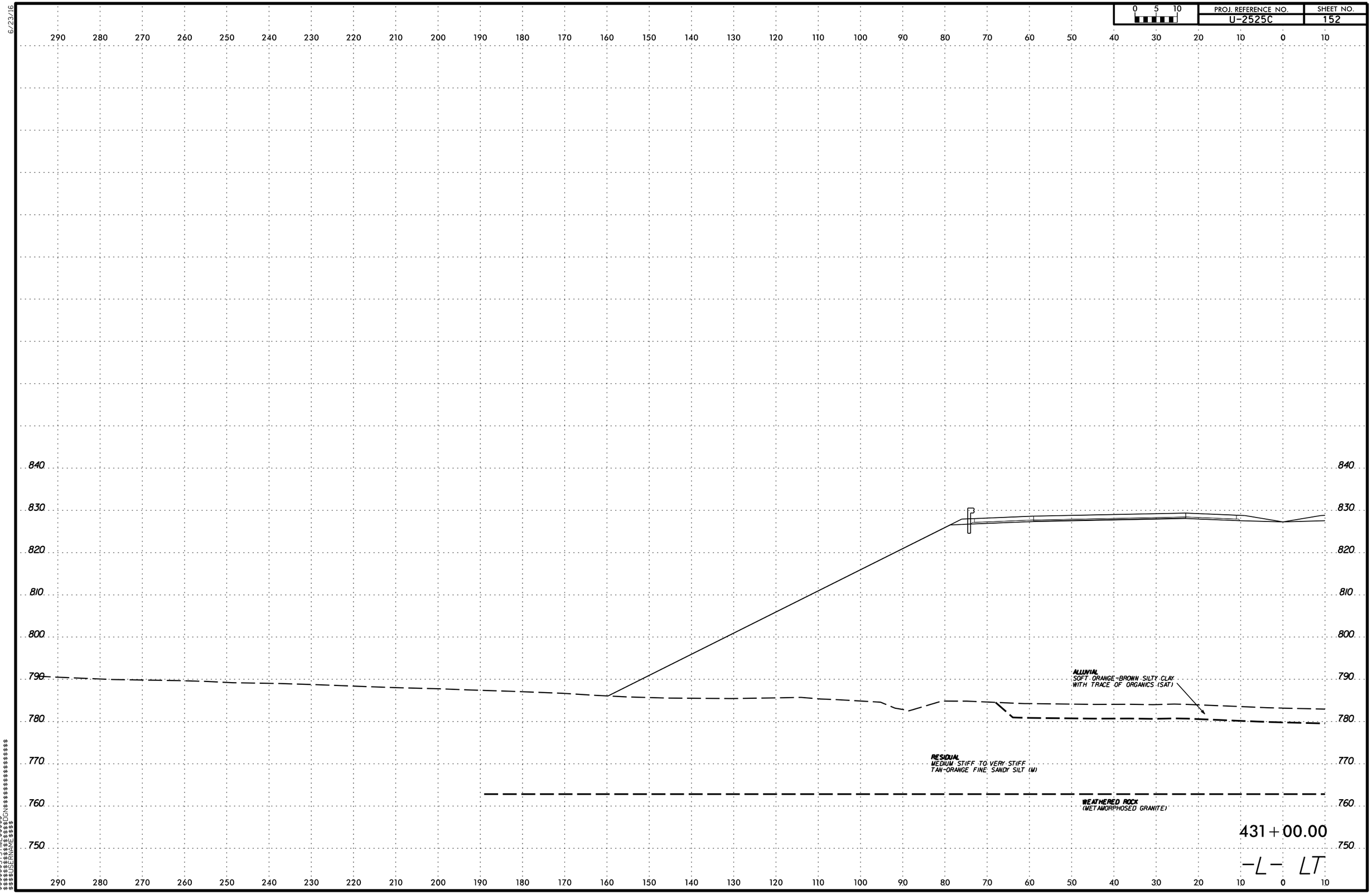


$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



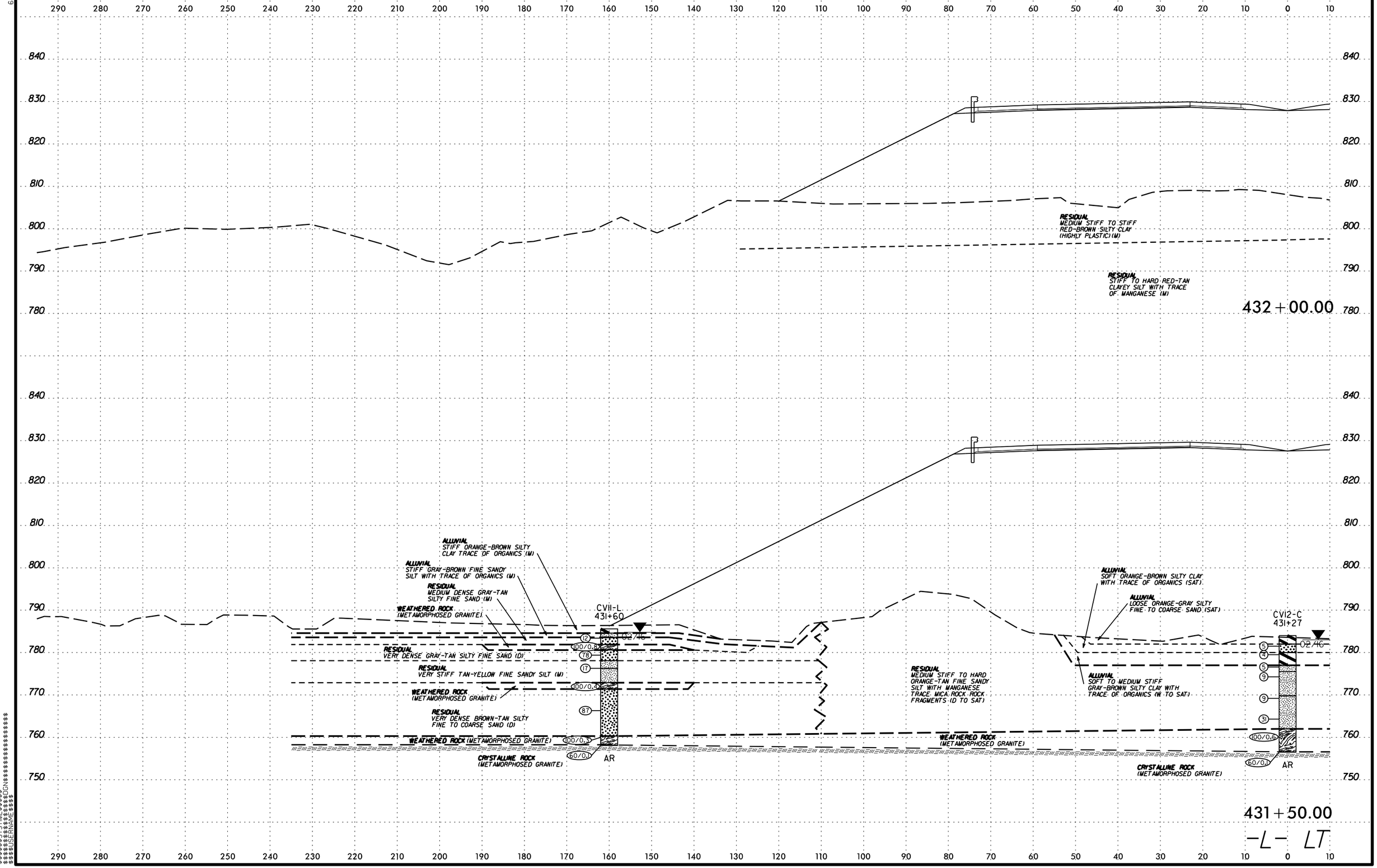
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
151
0 5 10
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10
840
830
820
810
800
790
780
770
760
750
ALLUVIAL
SOFT ORANGE-BROWN SILTY CLAY
WITH TRACE OF ORGANICS (SAT)
RESIDUAL
MEDIUM STIFF TO VERY STIFF
TAN-ORANGE FINE CLAYEY SILT (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
430+50.00
-L- LT

6/23/16



6/23/16

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

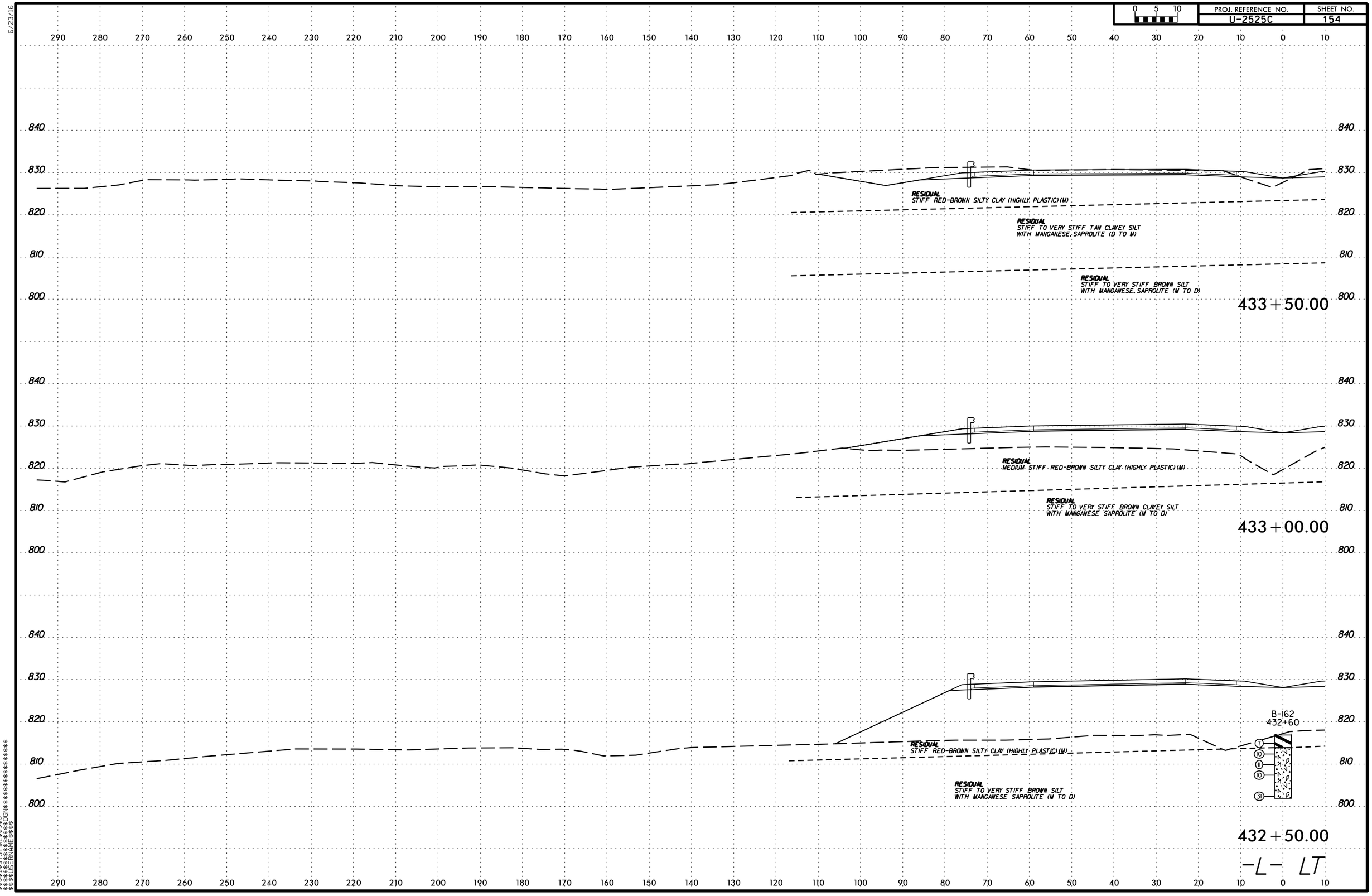


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
153
0 5 10
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO HARD RED-TAN
CLAYEY SILT WITH TRACE
OF MANGANESE (M)
432+00.00
ALLUVIAL
STIFF ORANGE-BROWN SILTY
CLAY TRACE OF ORGANICS (M)
ALLUVIAL
STIFF GRAY-BROWN FINE SANDY
SILT WITH TRACE OF ORGANICS (M)
RESIDUAL
MEDIUM DENSE GRAY-TAN
SILTY FINE SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CVII-L
431+60
02/16
RESIDUAL
VERY DENSE GRAY-TAN SILTY FINE SAND (D)
RESIDUAL
VERY STIFF TAN-YELLOW FINE SANDY SILT (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
VERY DENSE BROWN-TAN SILTY
FINE TO COARSE SAND (D)
WEATHERED ROCK (METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR
RESIDUAL
MEDIUM STIFF TO HARD
ORANGE-TAN FINE SANDY
SILT WITH MANGANESE
TRACE MICA ROCK ROCK
FRAGMENTS (D TO SAT)
ALLUVIAL
SOFT ORANGE-BROWN SILTY CLAY
WITH TRACE OF ORGANICS (SAT)
ALLUVIAL
LOOSE ORANGE-GRAY SILTY
FINE TO COARSE SAND (SAT)
ALLUVIAL
SOFT TO MEDIUM STIFF
GRAY-BROWN SILTY CLAY WITH
TRACE OF ORGANICS (W TO SAT)
CVI2-C
431+27
02/16
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR
431+50.00
-L- LT

6/23/16

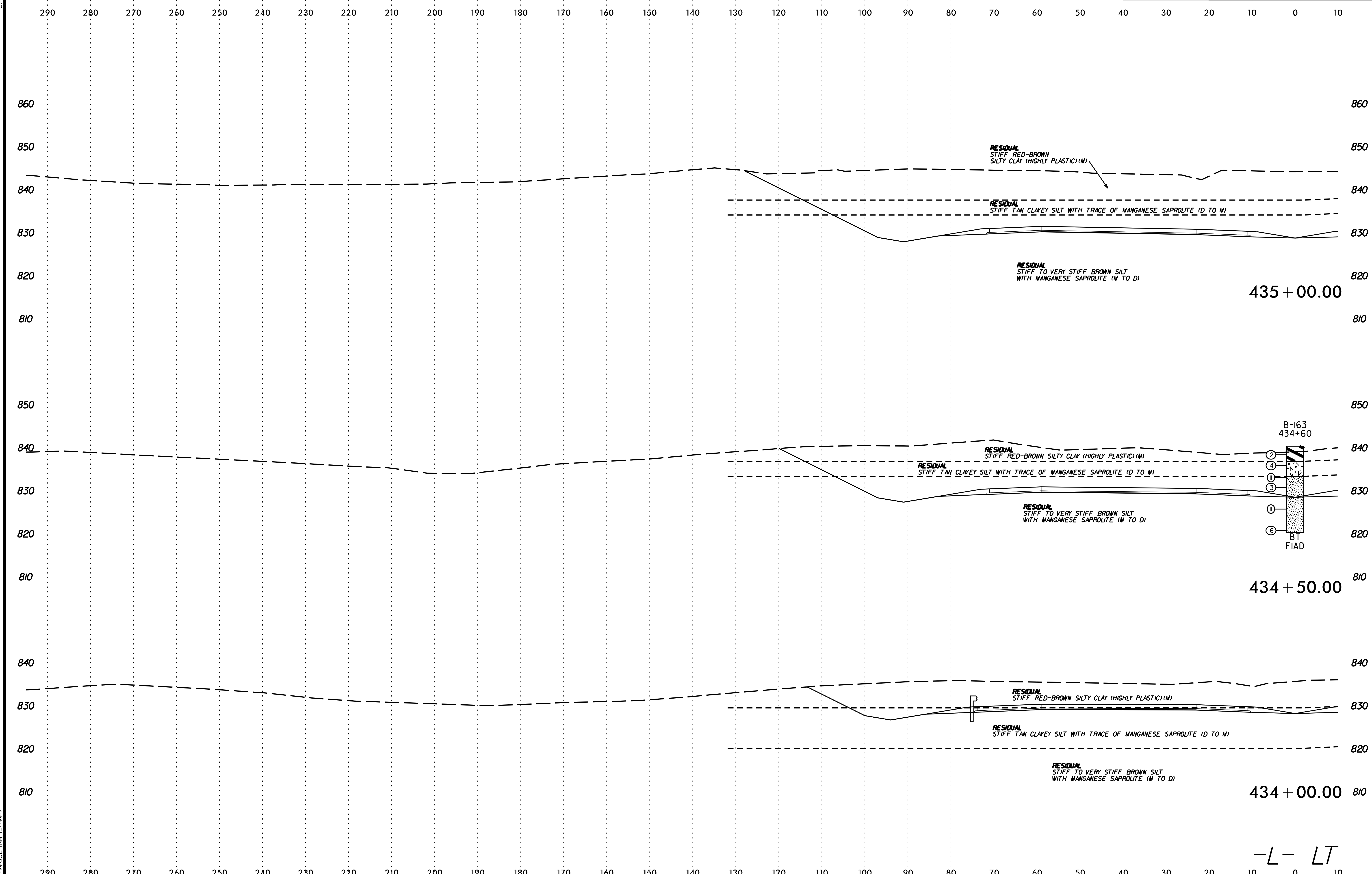
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	154

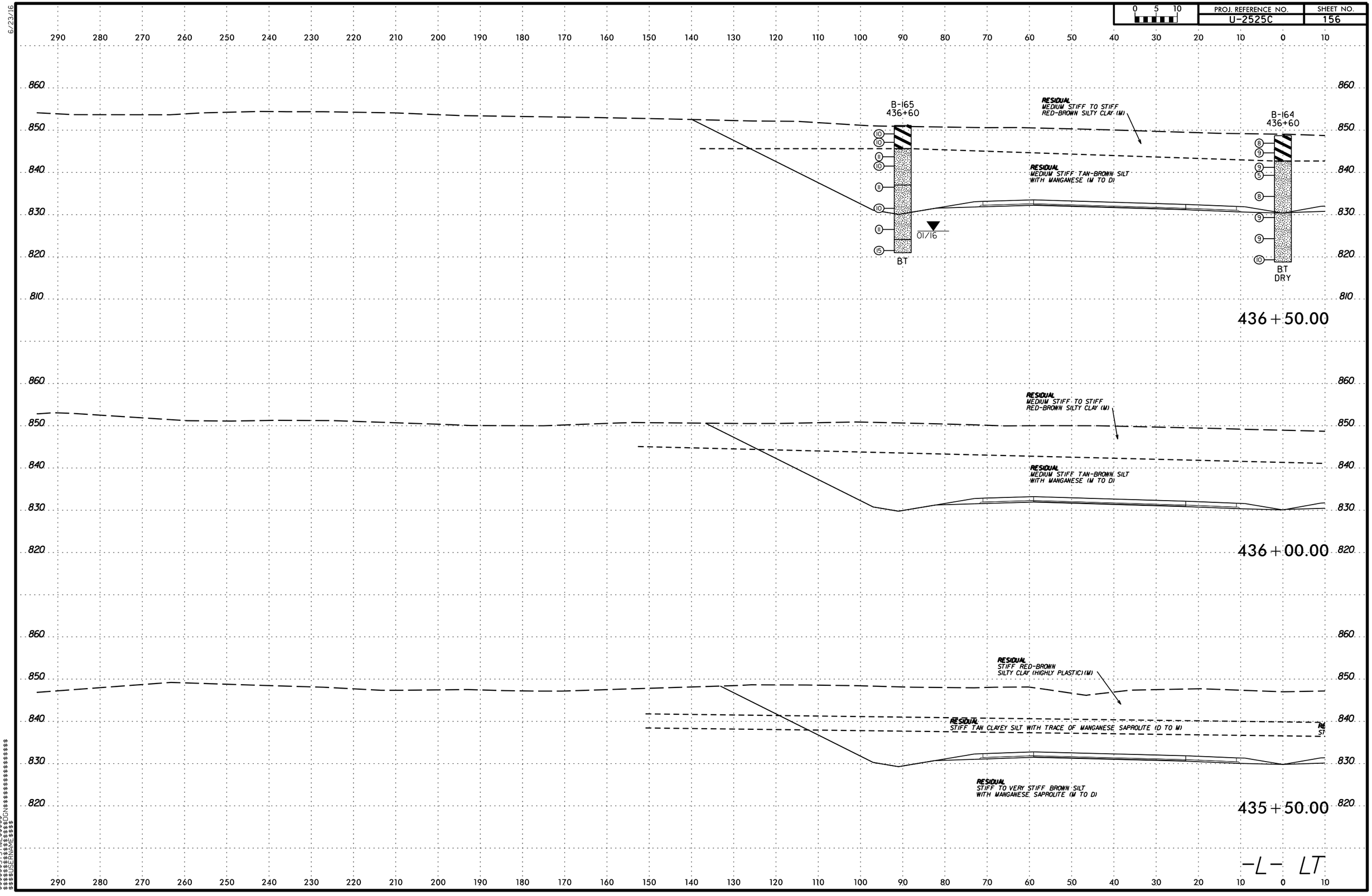
0 5 10



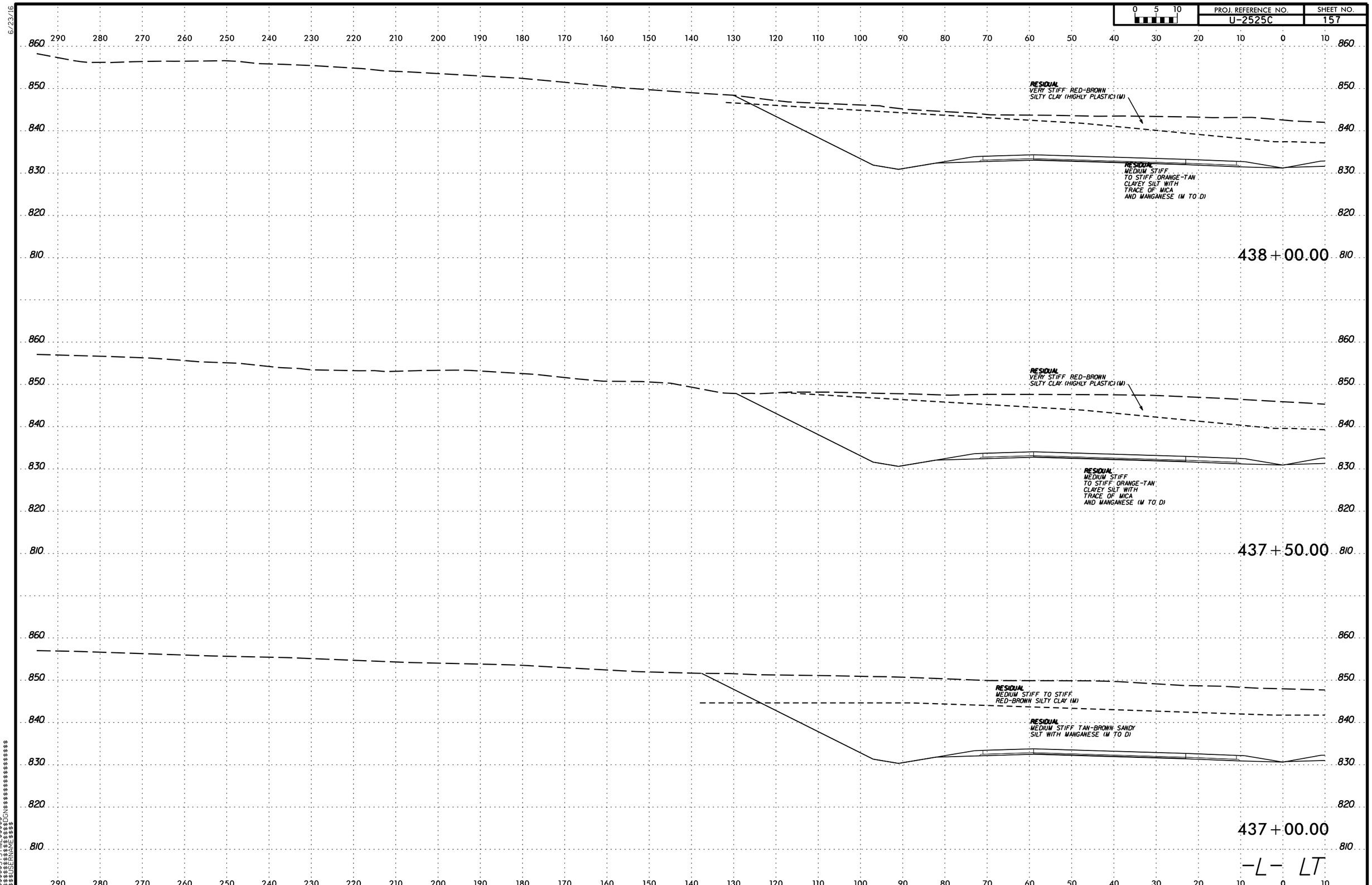
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	155



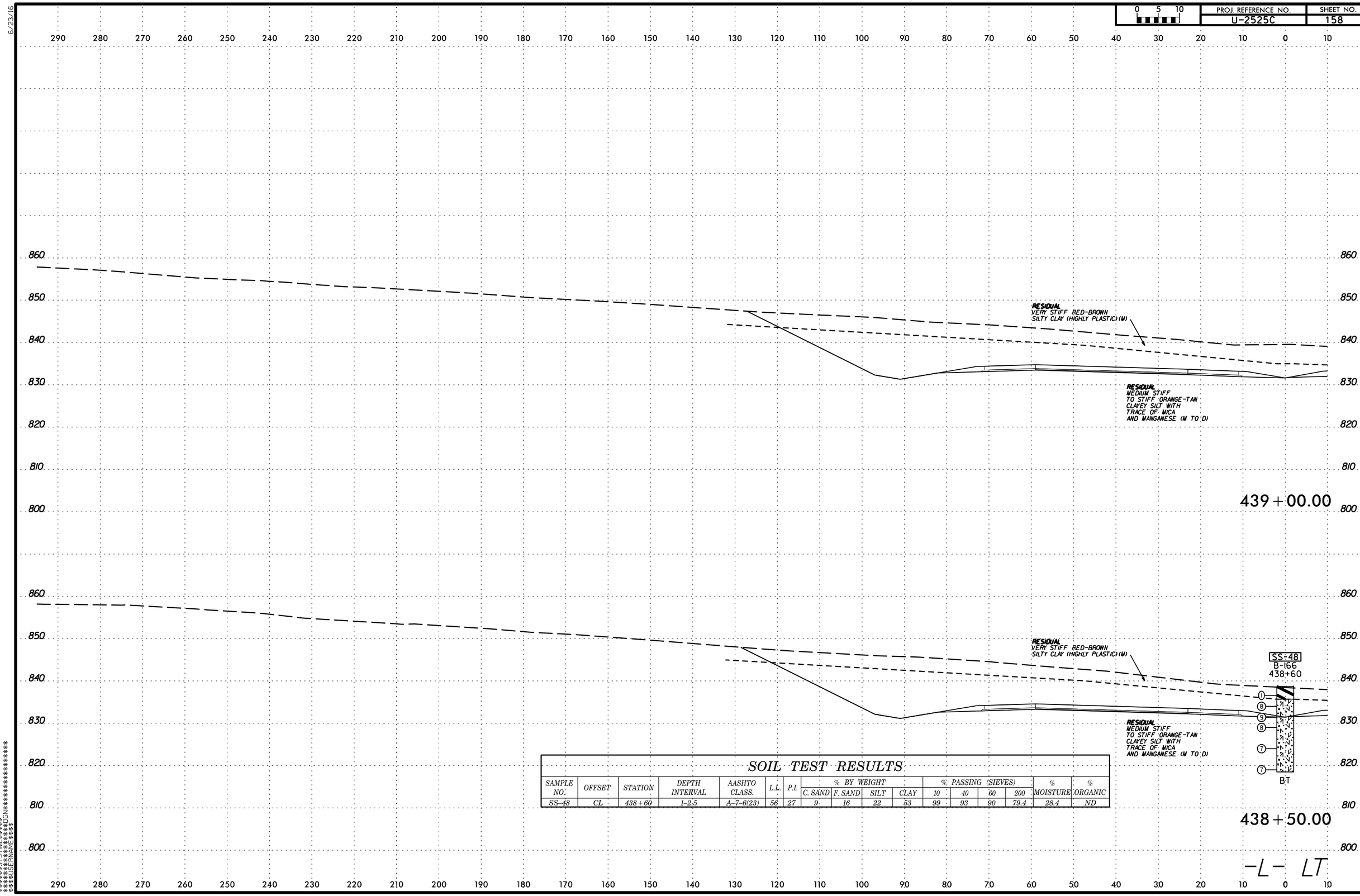


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
156
B-165
436+60
B-164
436+60
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN SILT
WITH MANGANESE (M TO D)
01/16
BT
BT
DRY
436+50.00
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN SILT
WITH MANGANESE (M TO D)
436+00.00
RESIDUAL
STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TAN CLAYEY SILT WITH TRACE OF MANGANESE SAPROLITE (D TO M)
RESIDUAL
STIFF TO VERY STIFF BROWN SILT
WITH MANGANESE SAPROLITE (M TO D)
435+50.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
157
0 5 10
RESIDUAL
VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF
TO STIFF ORANGE-TAN
CLAYEY SILT WITH
TRACE OF MICA
AND MANGANESE (M TO D)
438+00.00
RESIDUAL
VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF
TO STIFF ORANGE-TAN
CLAYEY SILT WITH
TRACE OF MICA
AND MANGANESE (M TO D)
437+50.00
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN SANDY
SILT WITH MANGANESE (M TO D)
437+00.00
-L- LT

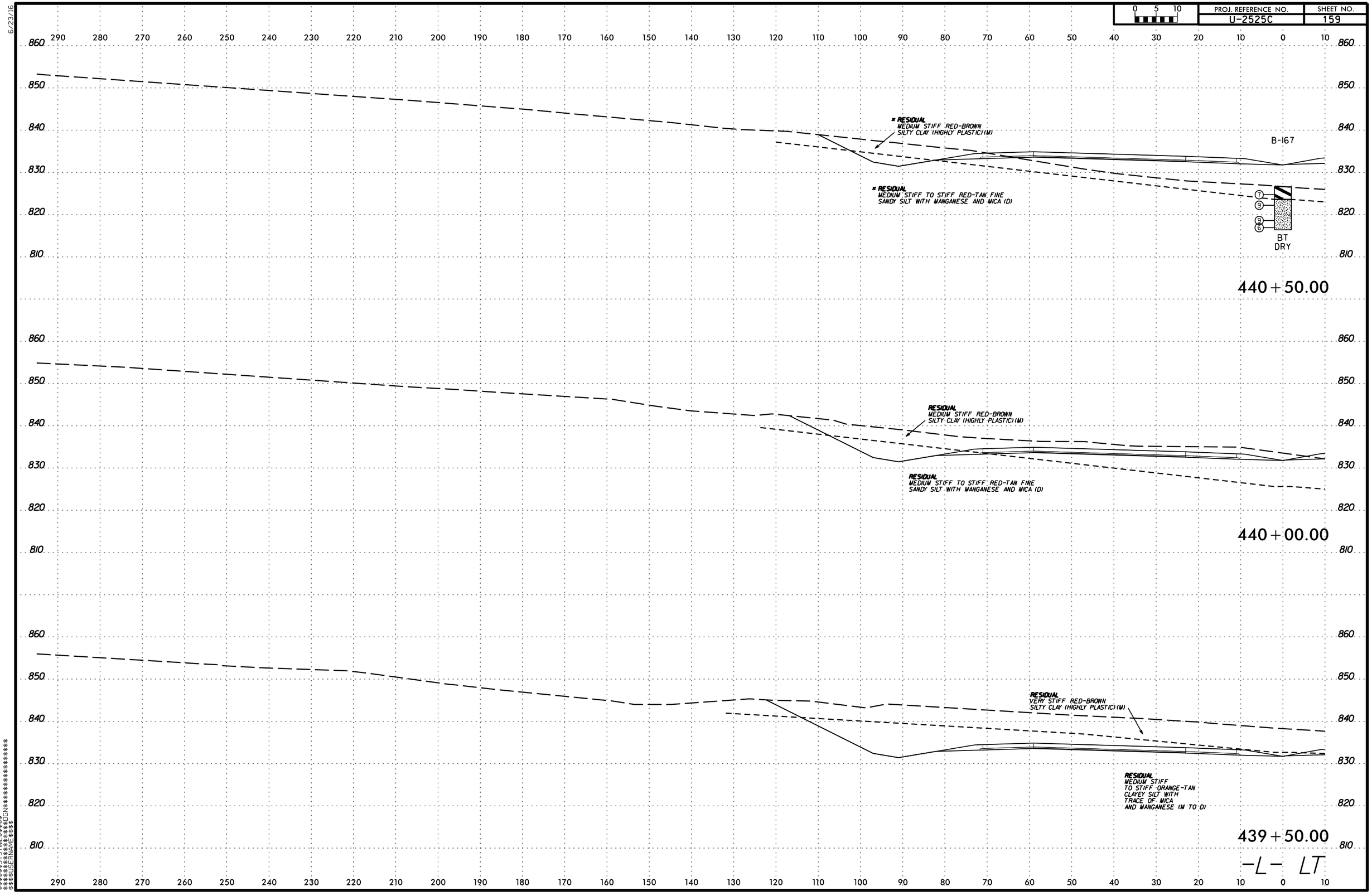
PROJ. REFERENCE NO. U-2525C | SHEET NO. 158



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-48	CL	438+60	1-2.5	A-7-6(23)	56	27	9	16	22	53	99	93	90	79.4	28.4	ND

6/23/16
$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

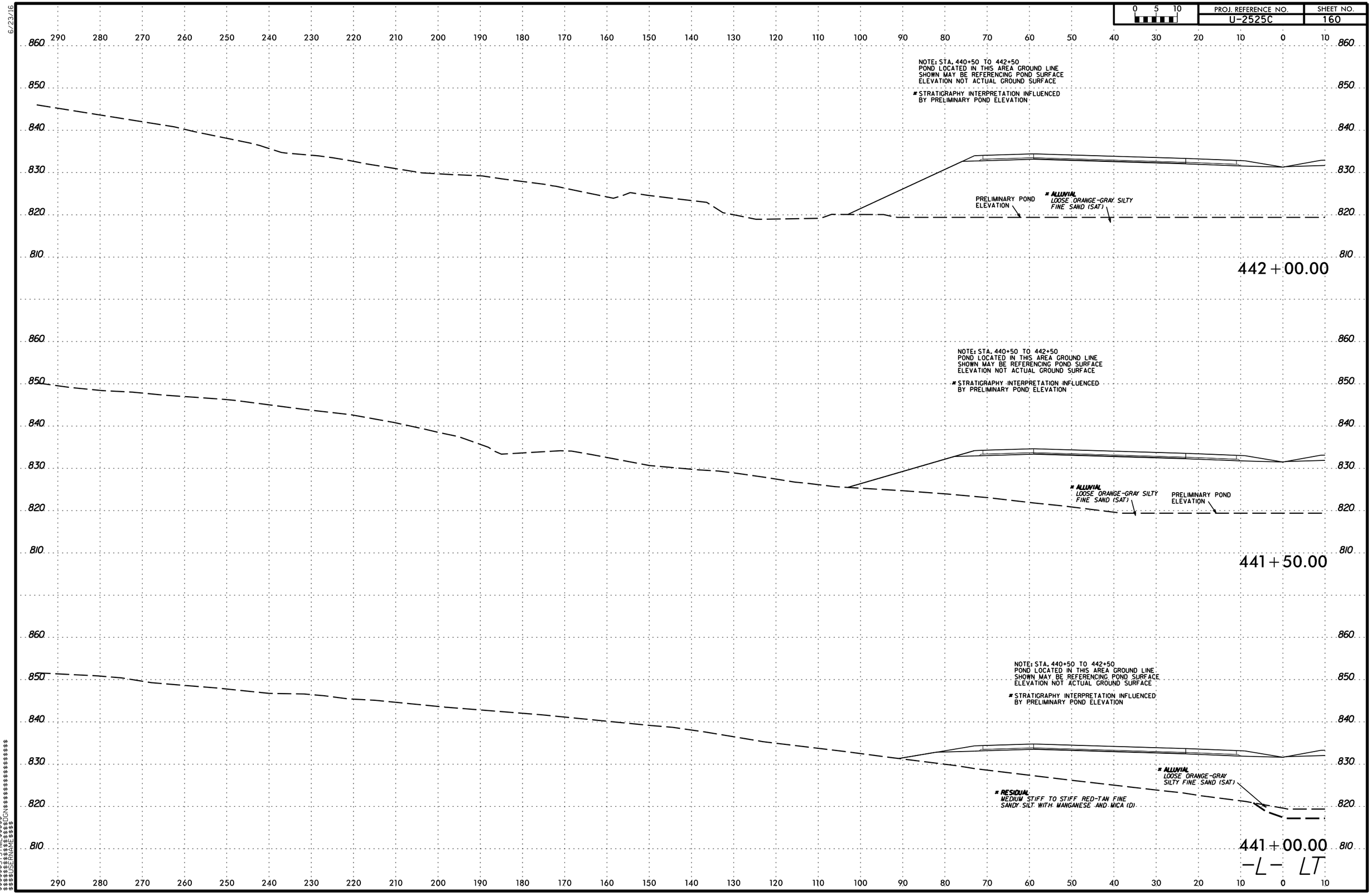


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
159
0 5 10
* RESIDUAL
MEDIUM STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
* RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN FINE
SANDY SILT WITH MANGANESE AND MICA (D)
B-167
BT
DRY
440+50.00
RESIDUAL
MEDIUM STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN FINE
SANDY SILT WITH MANGANESE AND MICA (D)
440+00.00
RESIDUAL
VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF
TO STIFF ORANGE-TAN
CLAYEY SILT WITH
TRACE OF MICA
AND MANGANESE (M TO D)
439+50.00
-L- LT

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	160

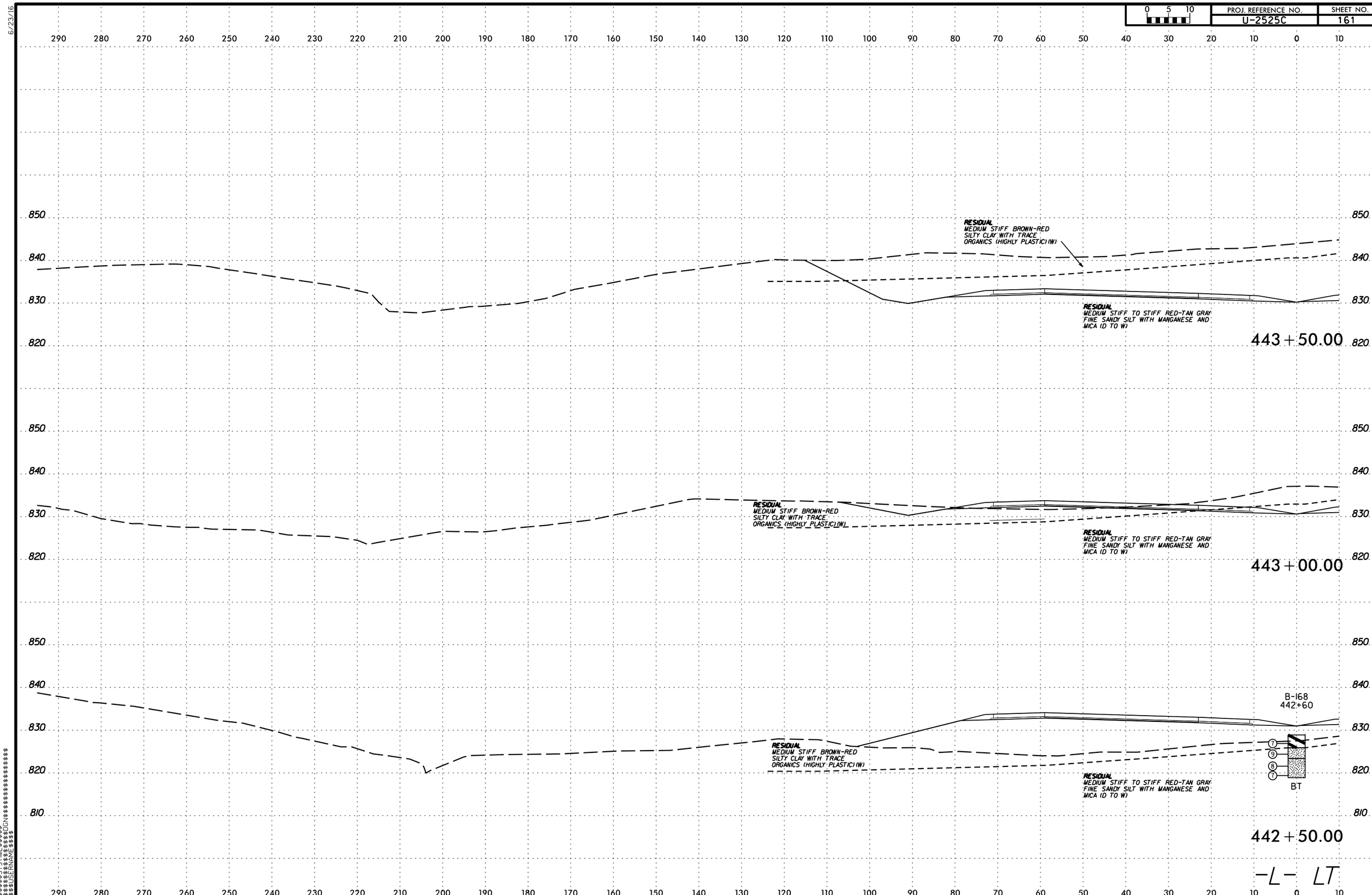
0 5 10



$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

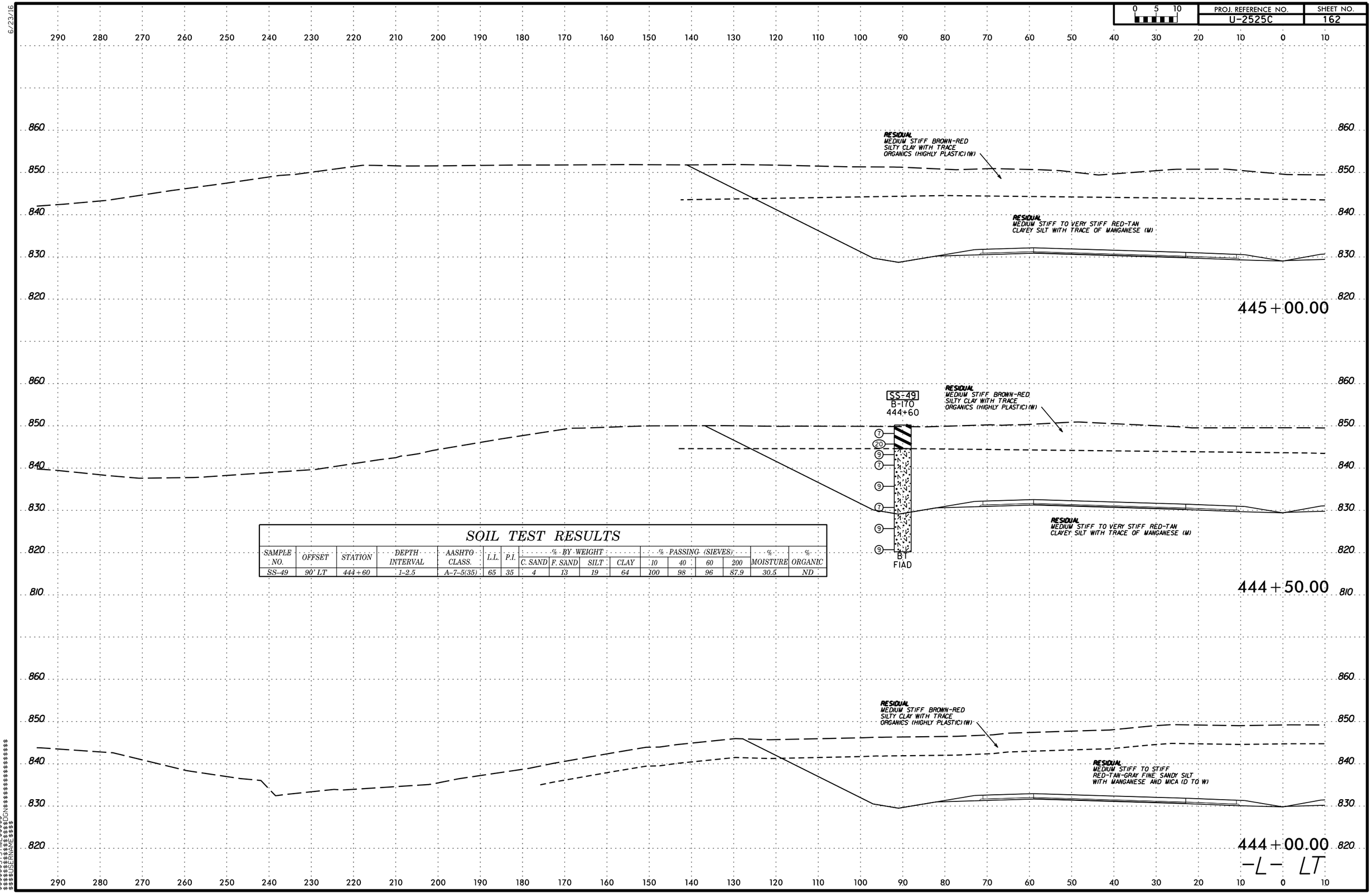
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	161



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 162

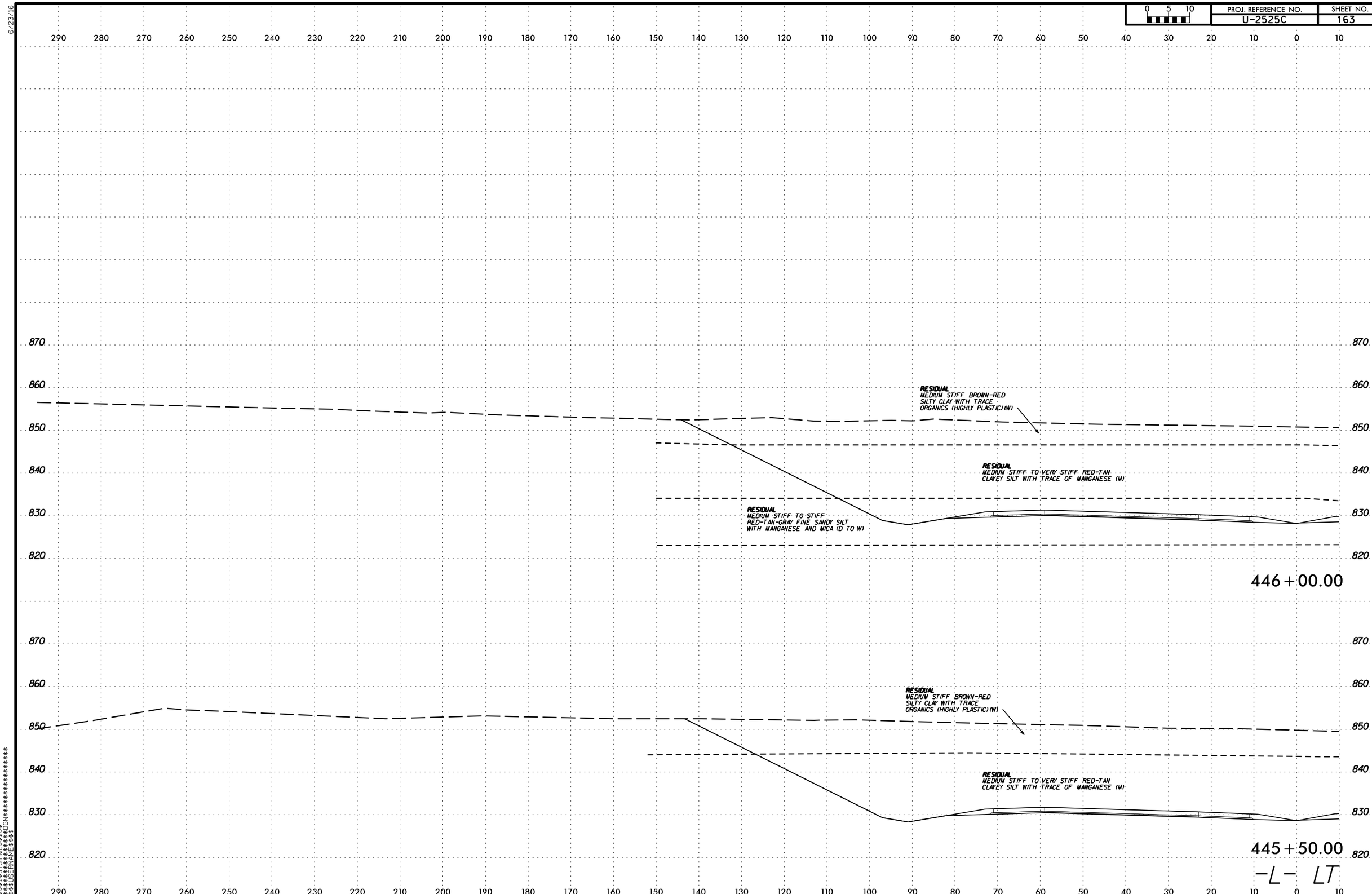


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-49	90' LT	444+60	1-2.5	A-7-5(35)	65	35	4	13	19	64	100	98	96	87.9	30.5	ND

6/23/16

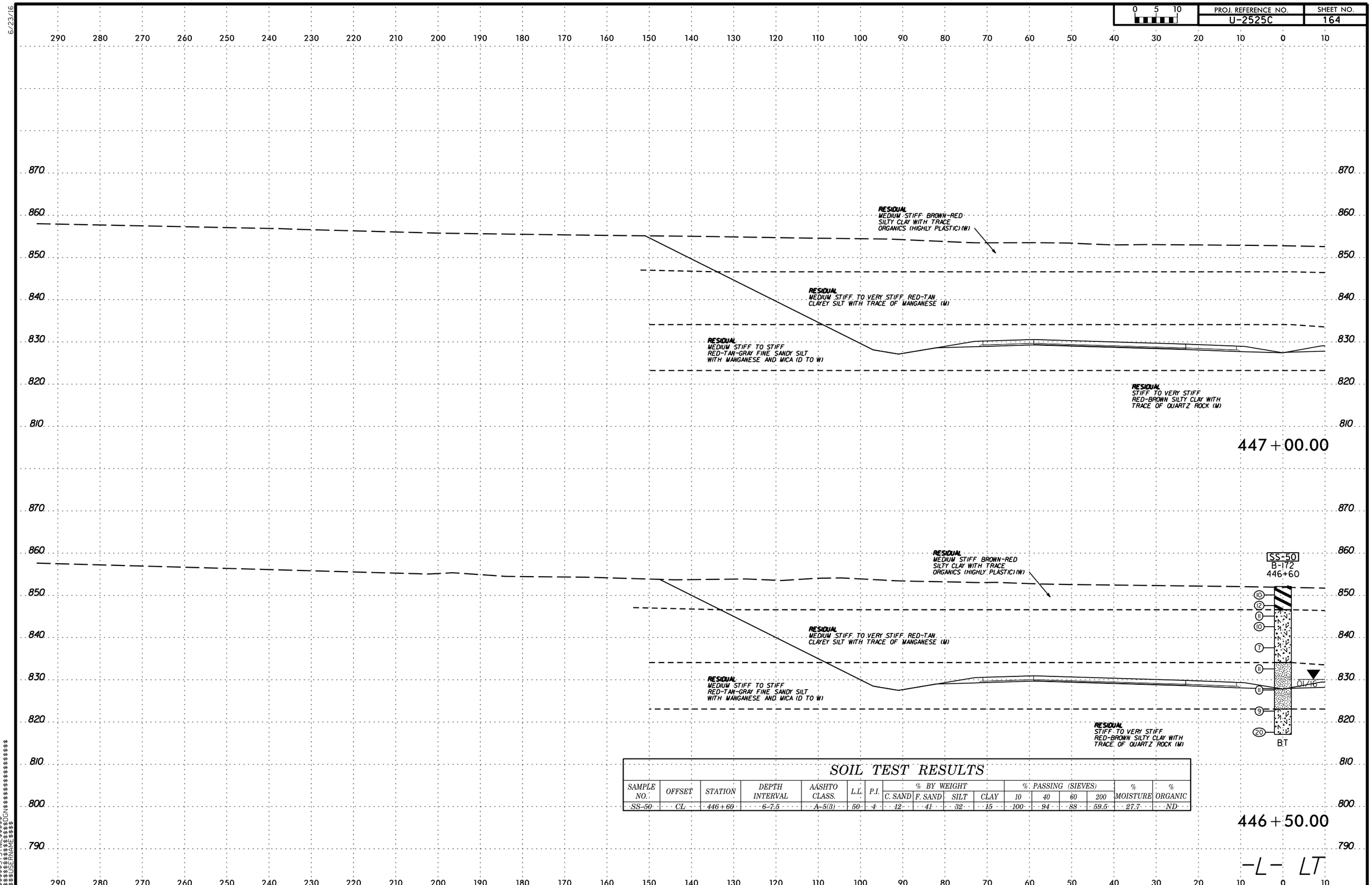
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	163



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

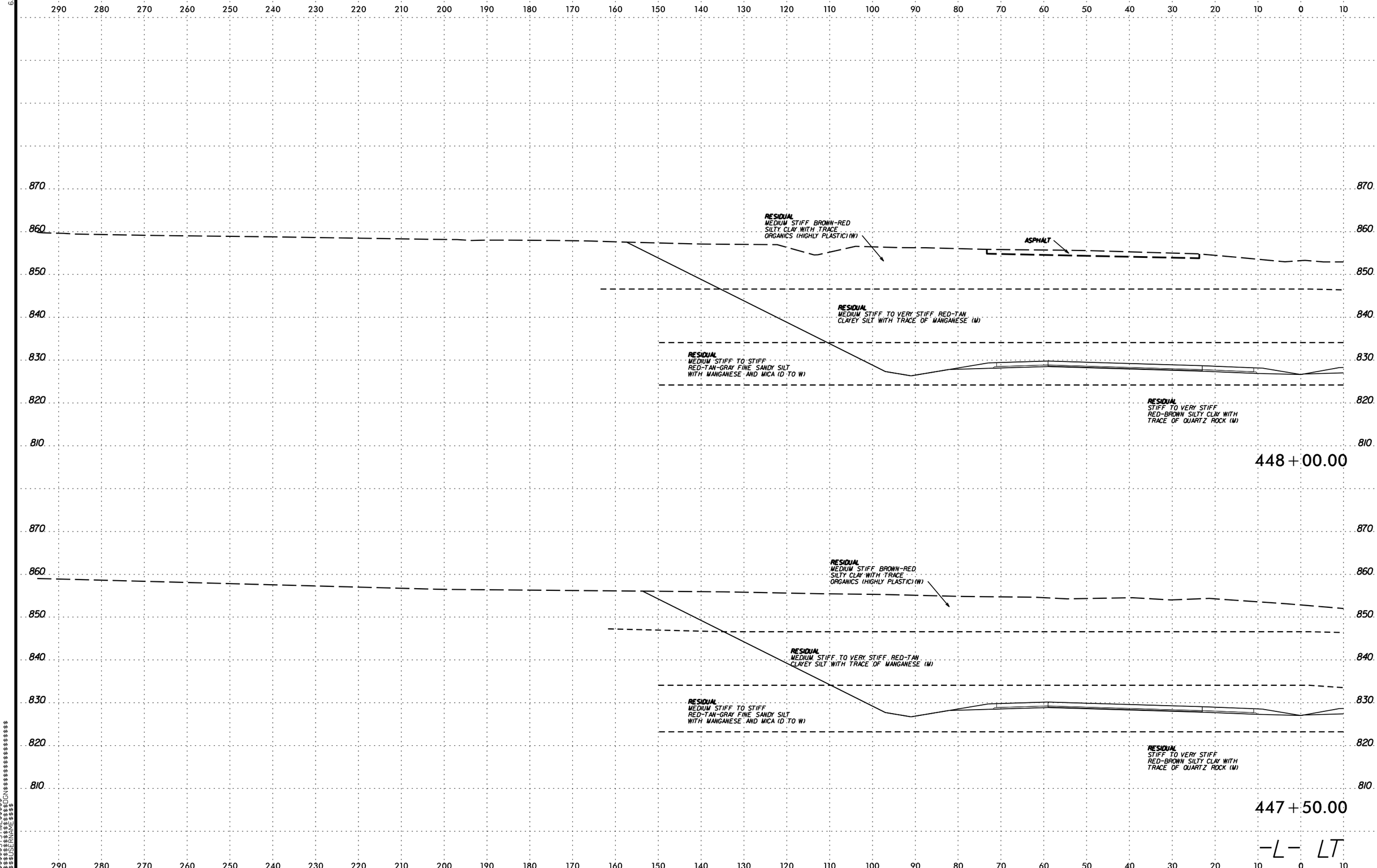
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	164



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-50	CL	446+60	6-7.5	A-5(3)	50	4	12	41	32	15	100	94	88	59.5	27.7	ND

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

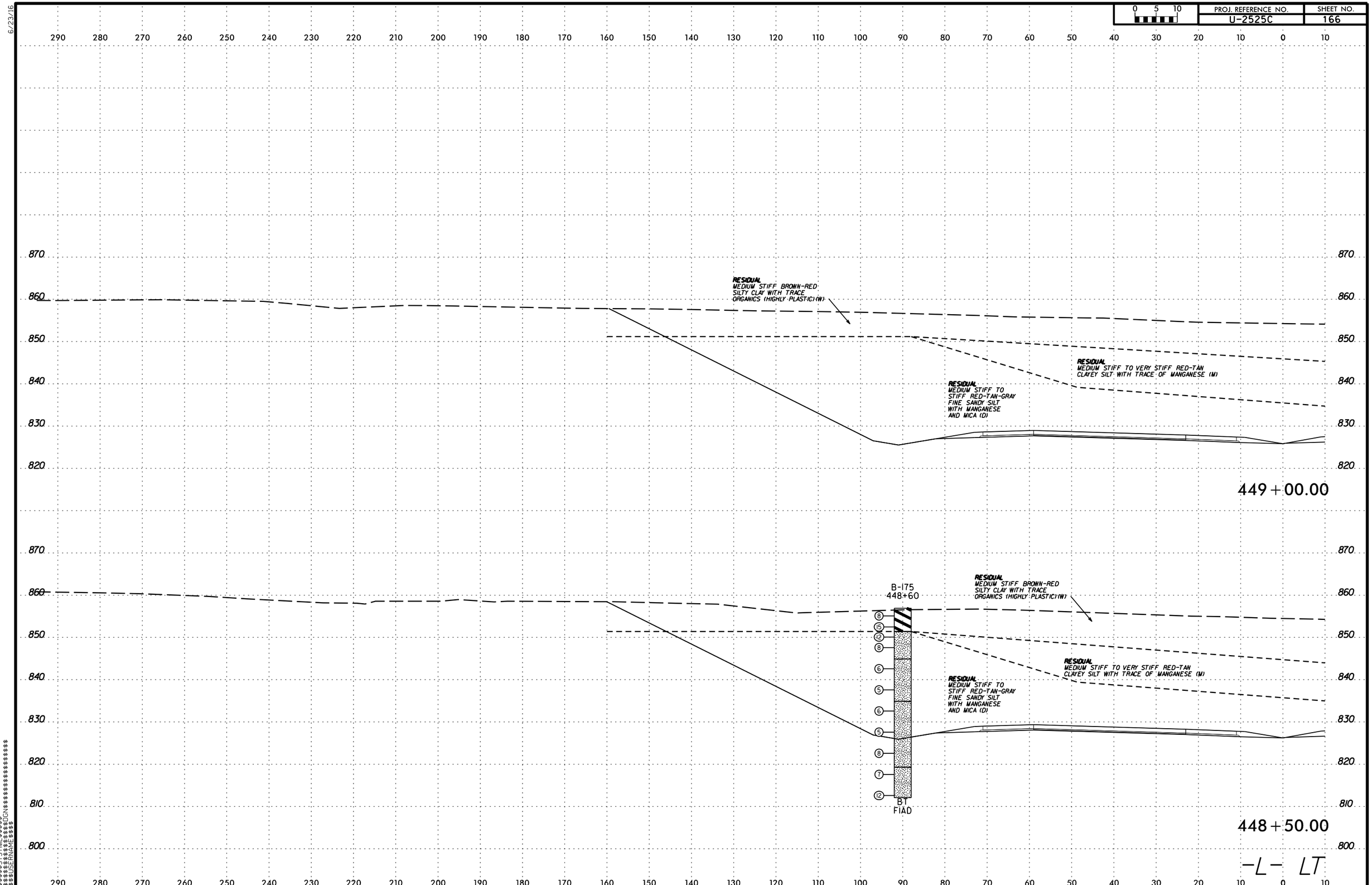


6/23/16

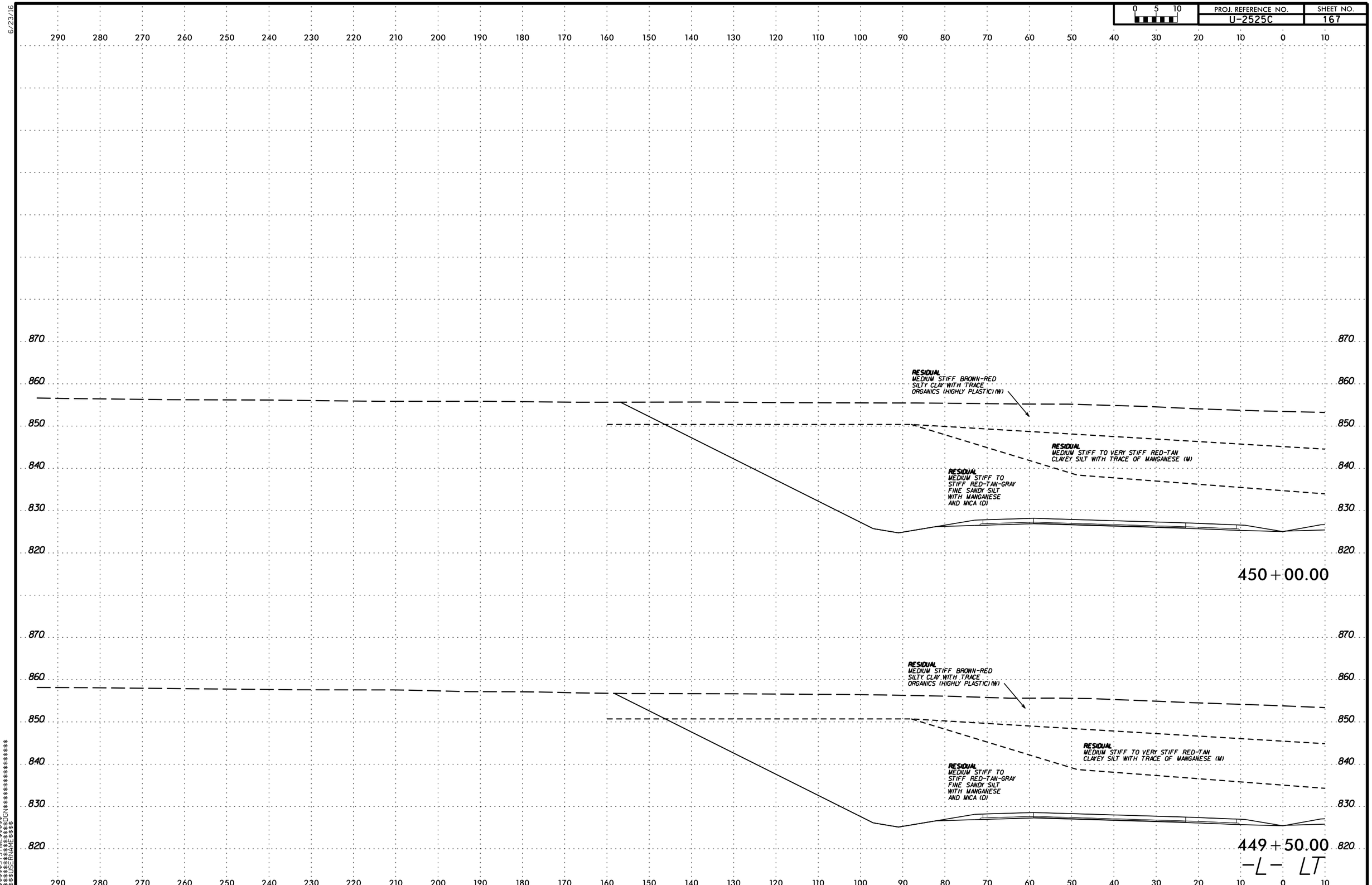
$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	166



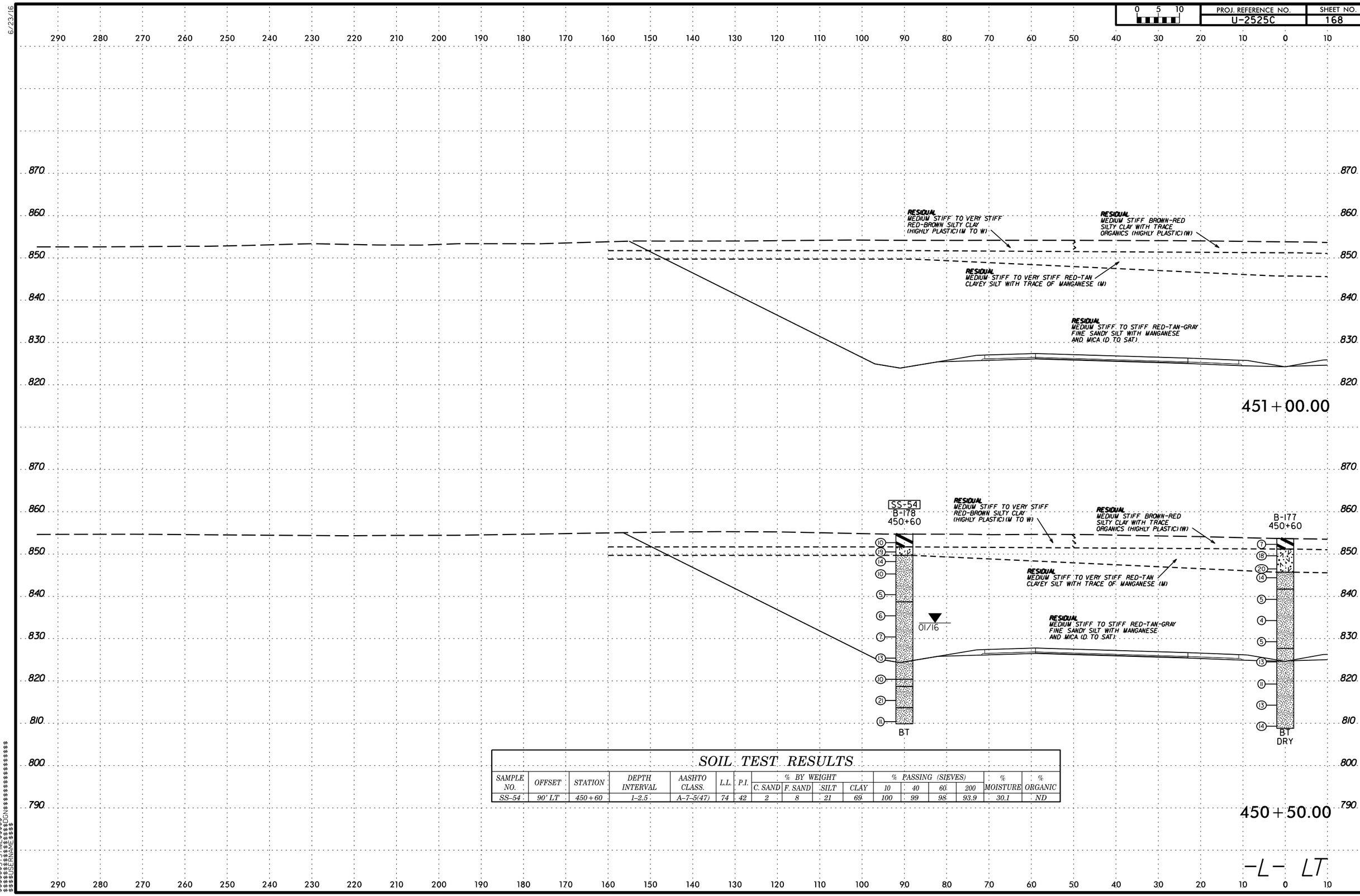
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
167
0 5 10
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10
870
860
850
840
830
820
RESIDUAL
MEDIUM STIFF BROWN-RED SILTY CLAY WITH TRACE ORGANICS (HIGHLY PLASTIC) (W)
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-TAN CLAYEY SILT WITH TRACE OF MANGANESE (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN-GRAY FINE SANDY SILT WITH MANGANESE AND MICA (D)
450+00.00
RESIDUAL
MEDIUM STIFF BROWN-RED SILTY CLAY WITH TRACE ORGANICS (HIGHLY PLASTIC) (W)
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-TAN CLAYEY SILT WITH TRACE OF MANGANESE (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN-GRAY FINE SANDY SILT WITH MANGANESE AND MICA (D)
449+50.00
-L- LT

6/23/16

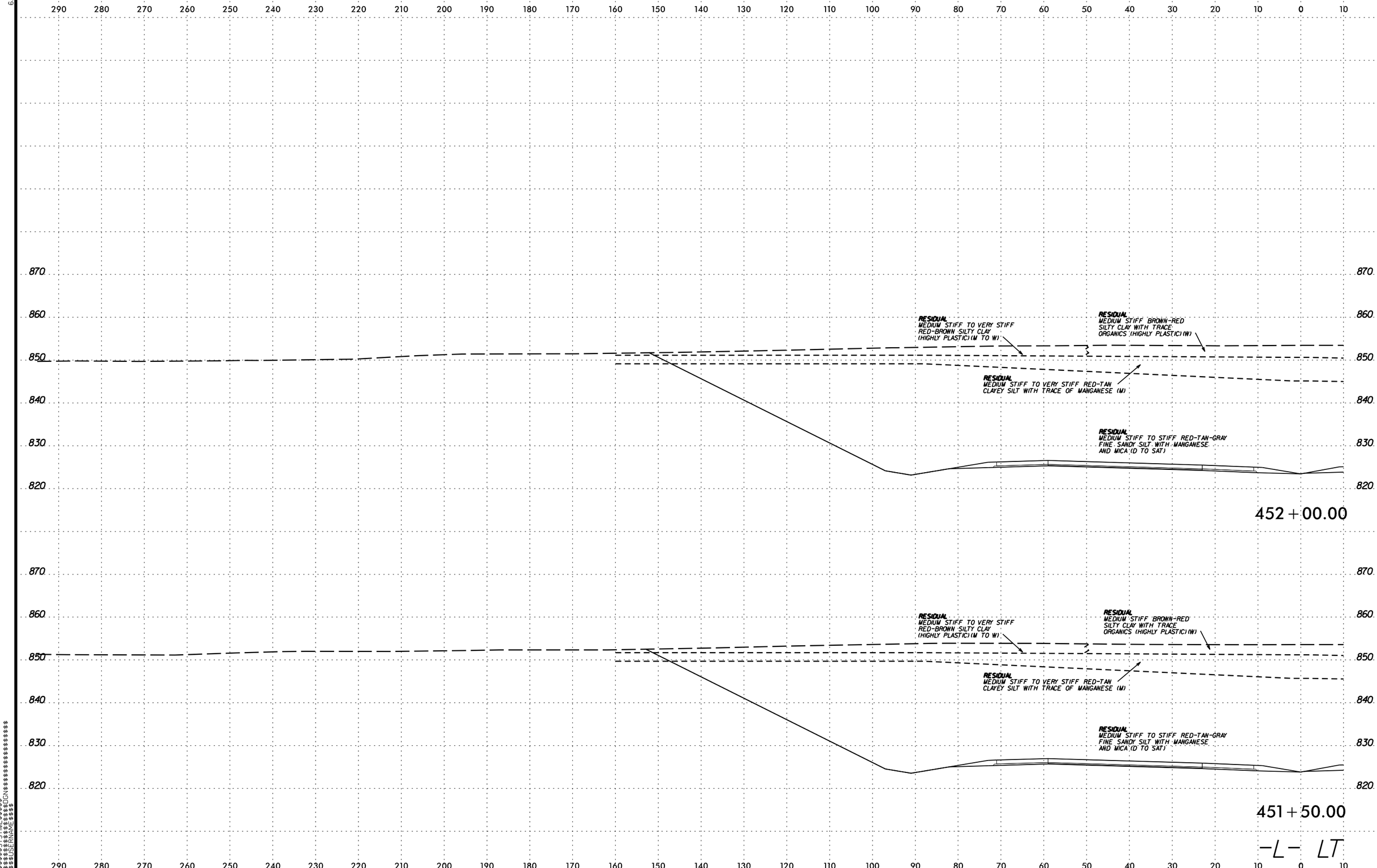
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	168



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-54	90' LT	450+60	1-2.5	A-7-5(47)	74	42	2	8	21	69	100	99	98	93.9	30.1	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



6/23/16

$$$$$SYSTIME$$$$
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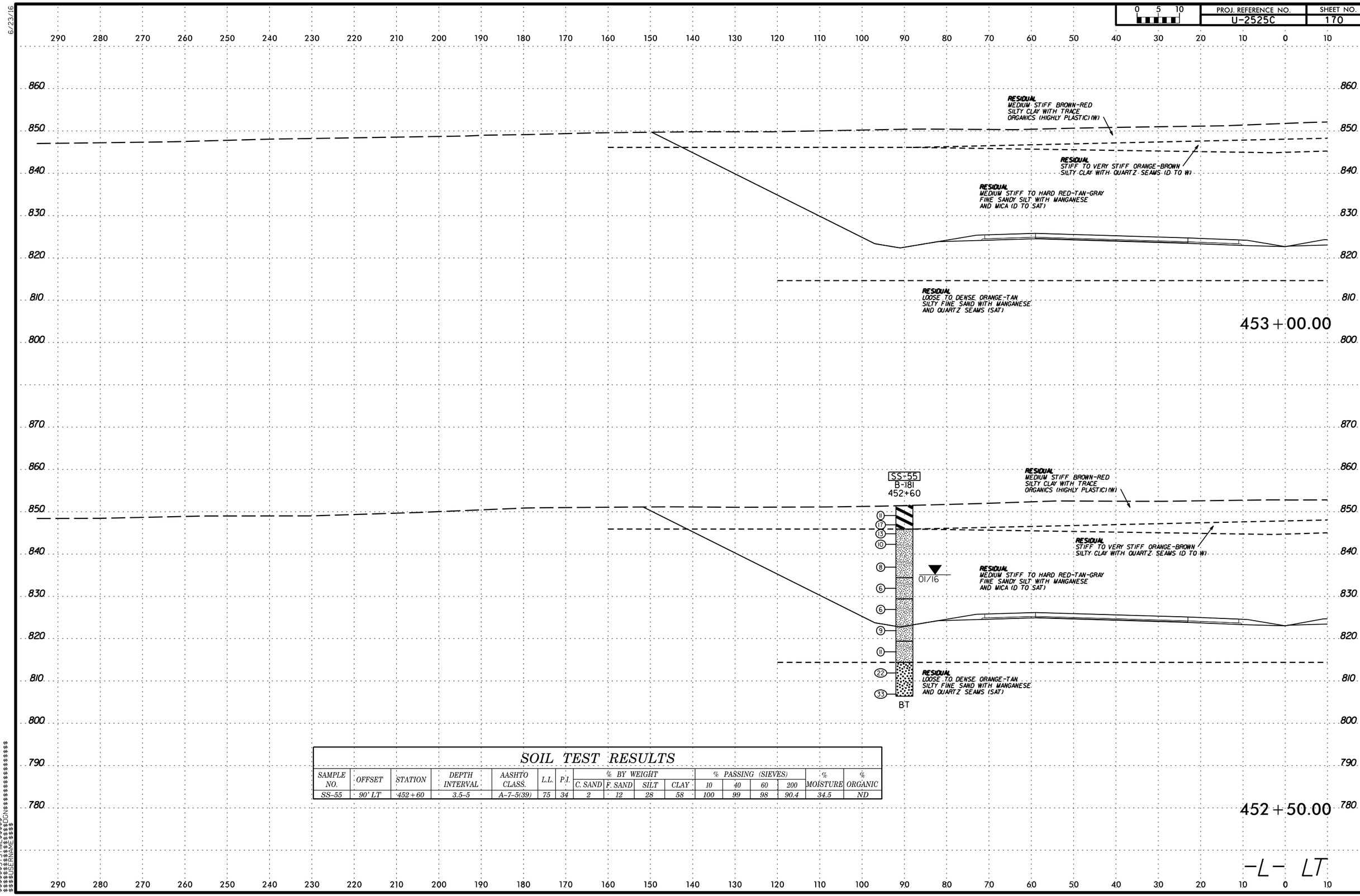
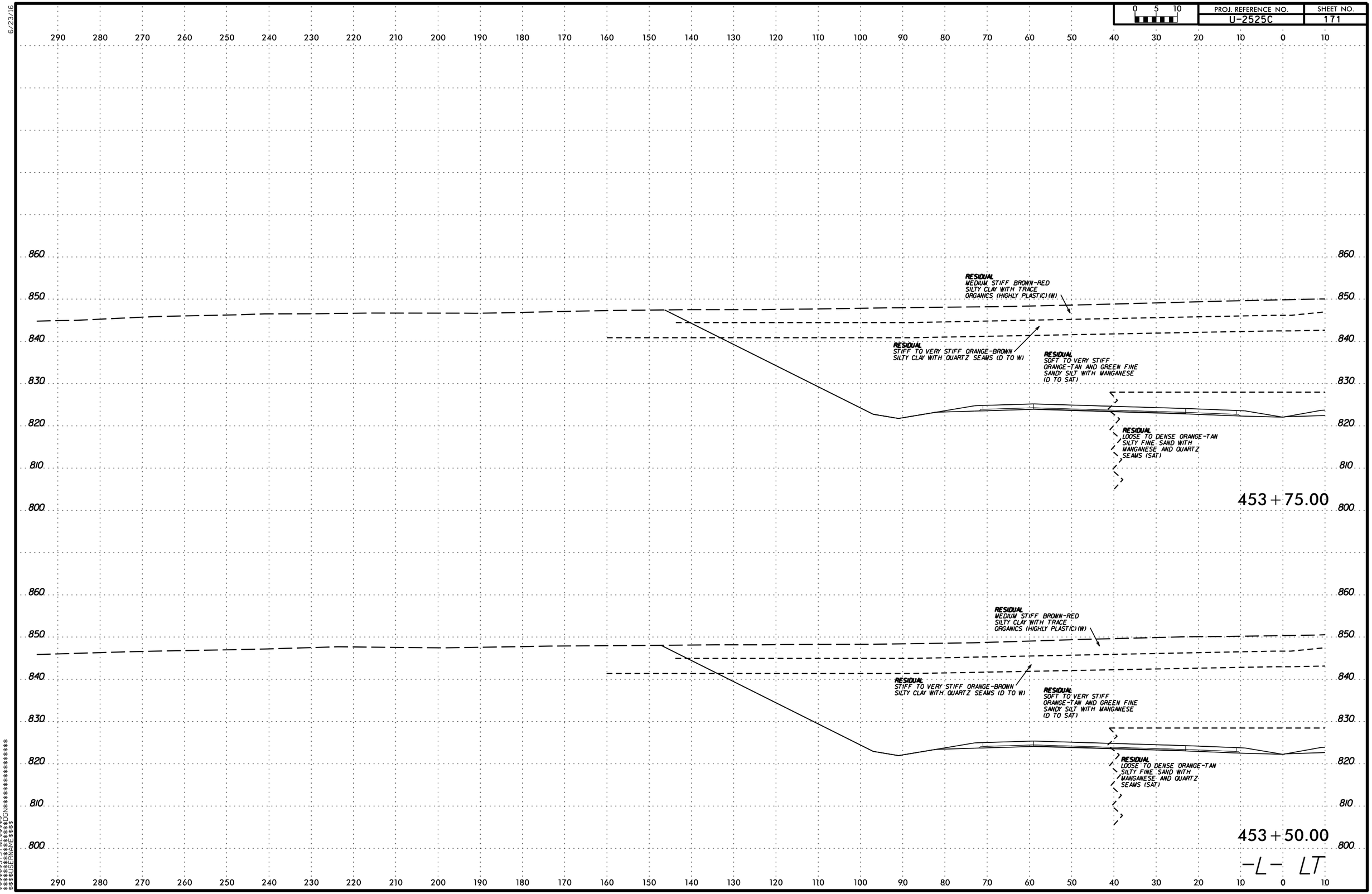
$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 170



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-55	90' LT	452+60	3.5-5	A-7-5(39)	75	34	2	12	28	58	100	99	98	90.4	34.5	ND



6/23/16
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
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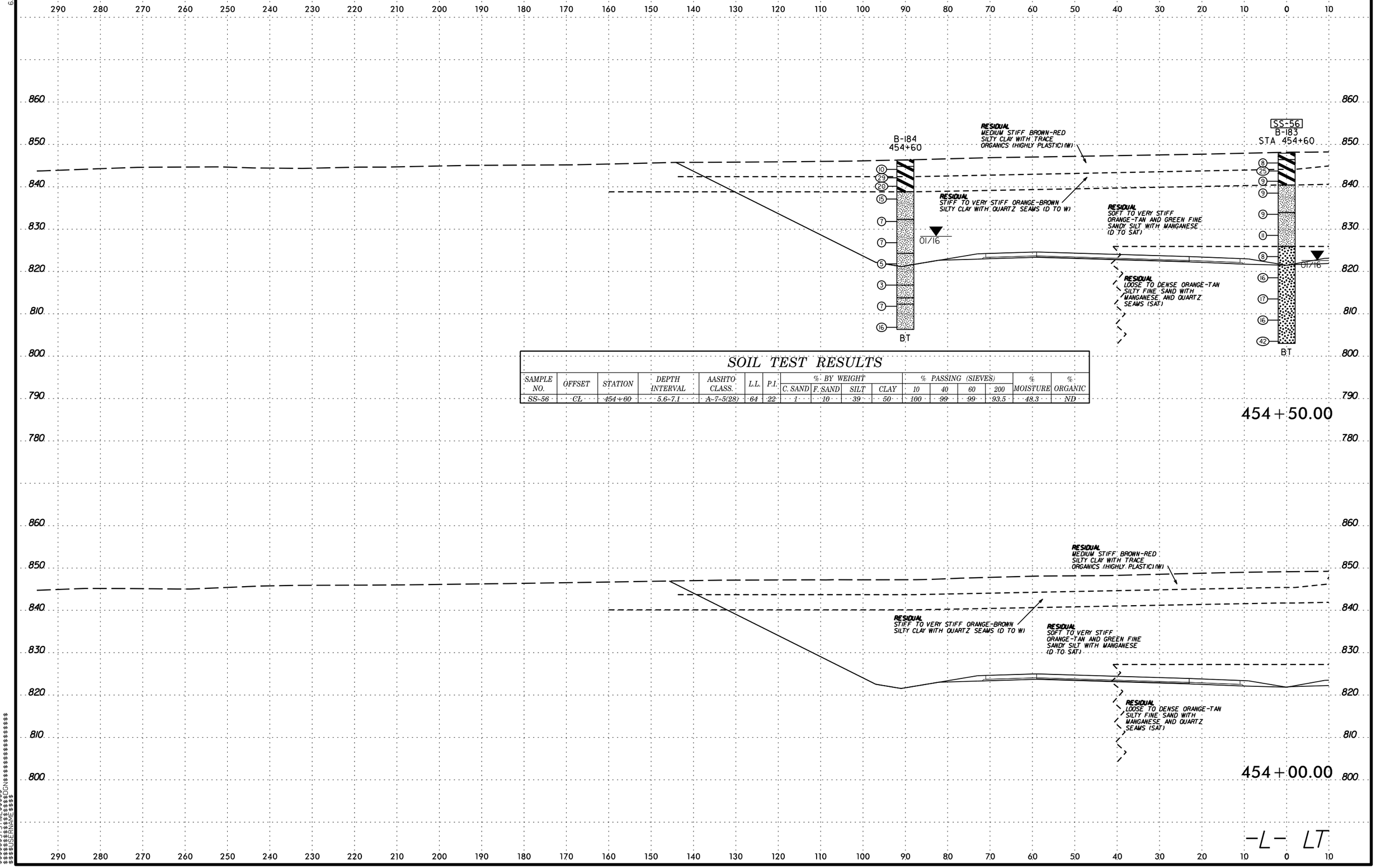
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	172

0 5 10



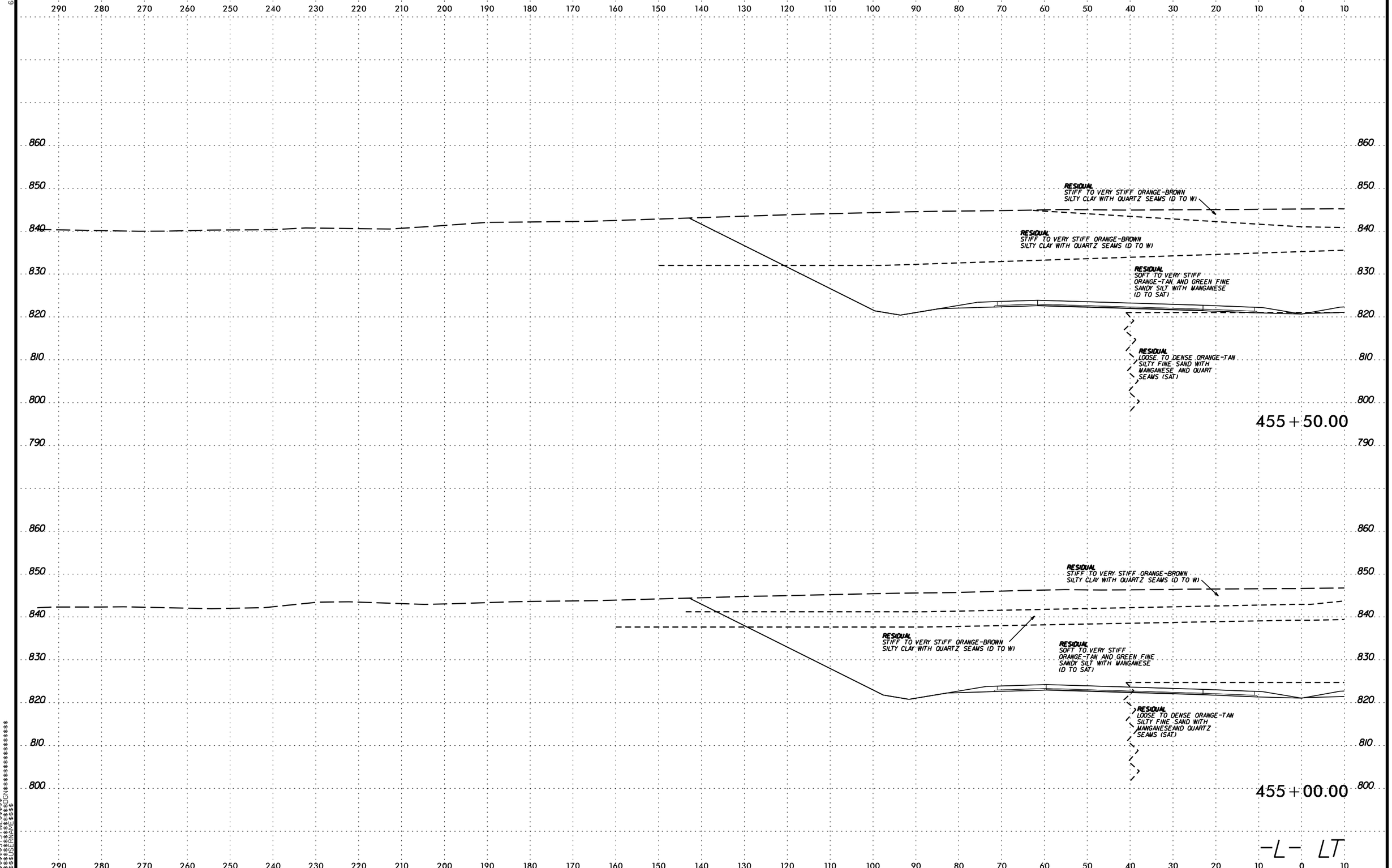
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-56	CL	454+60	5.6-7.1	A-7-5(28)	64	22	1	10	39	50	100	99	99	93.5	48.3	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	173



$$$$$$SYSTIME$$$$$
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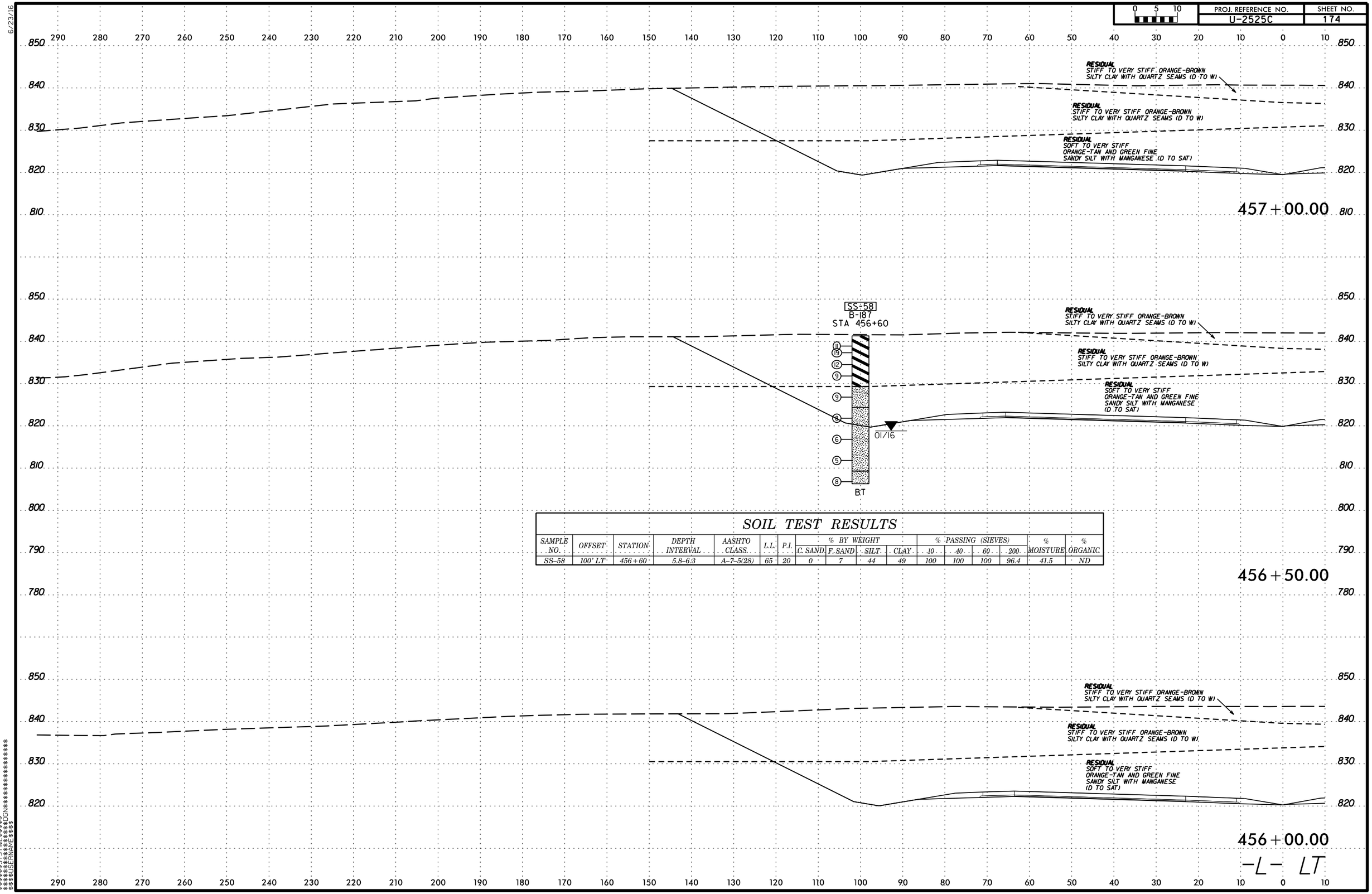
$$$$USERNAME$$$$

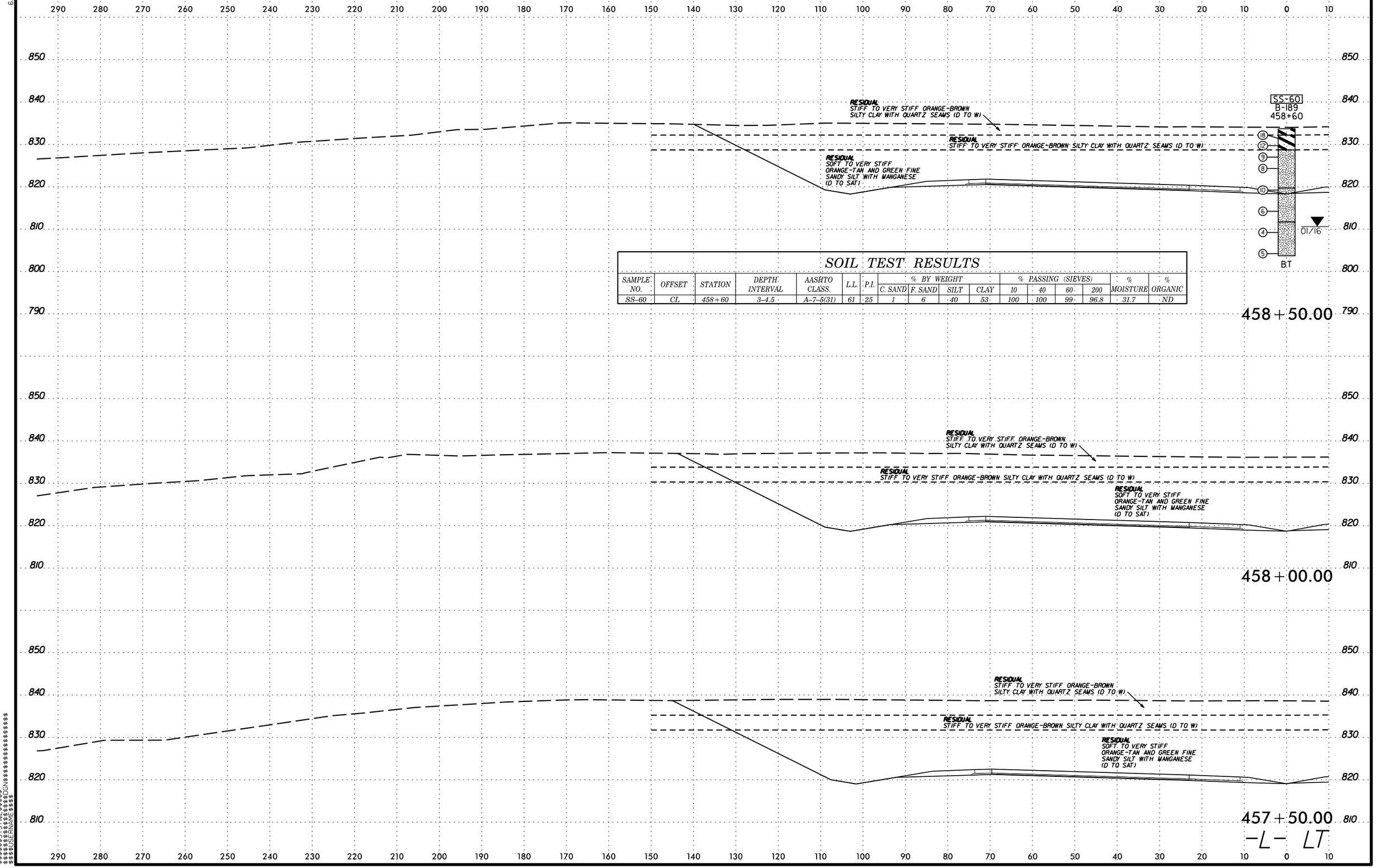
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	174



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-58	100' LT	456+60	5.8-6.3	A-7-5(28)	65	20	0	7	44	49	100	100	100	96.4	41.5	ND

6/23/16
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



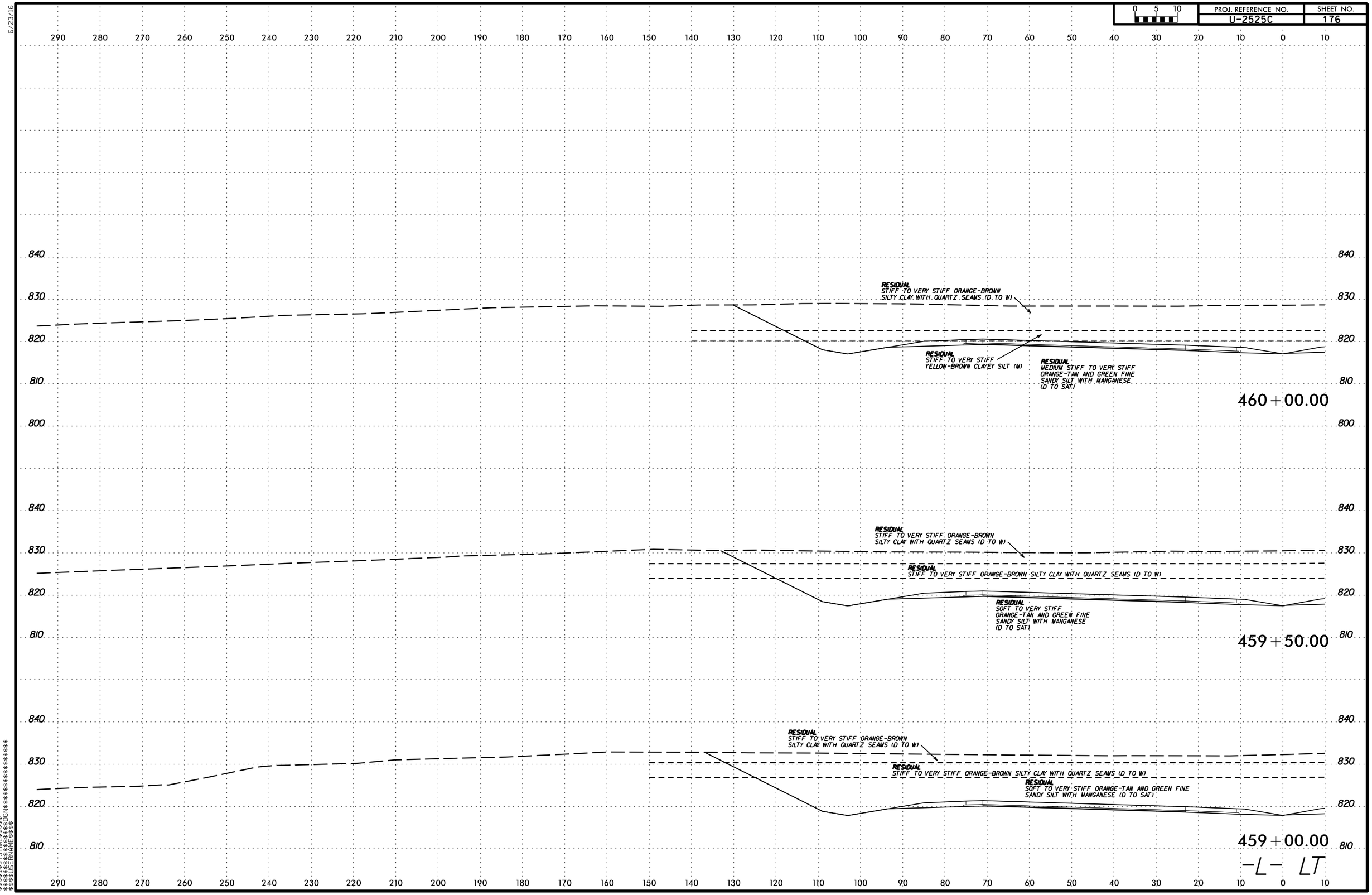
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-60	CL	458+60	3-4.5	A-7-5(31)	61	25	1	6	40	53	100	100	99	96.8	31.7	ND

6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

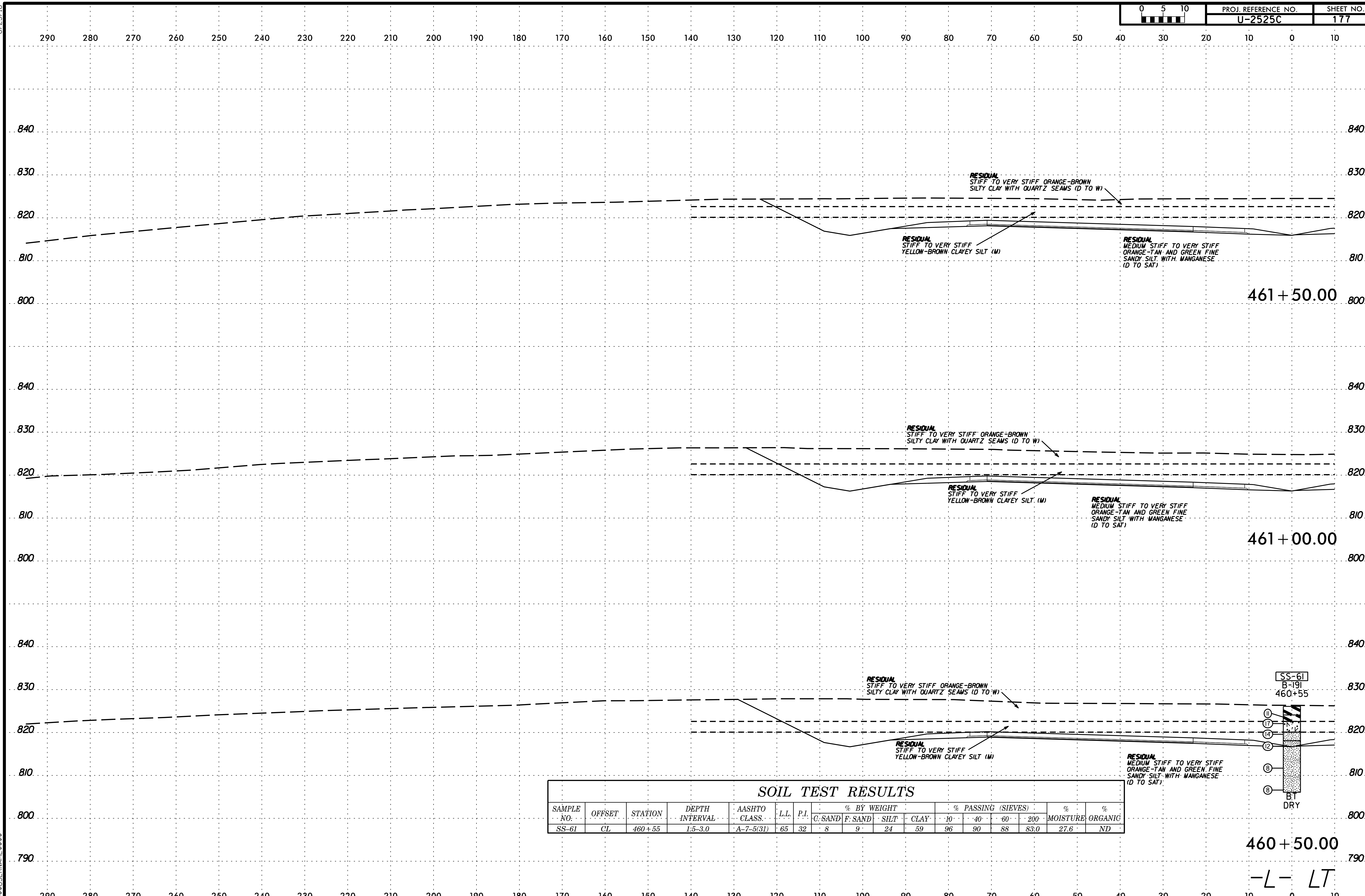
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	176



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	177



SOIL TEST RESULTS

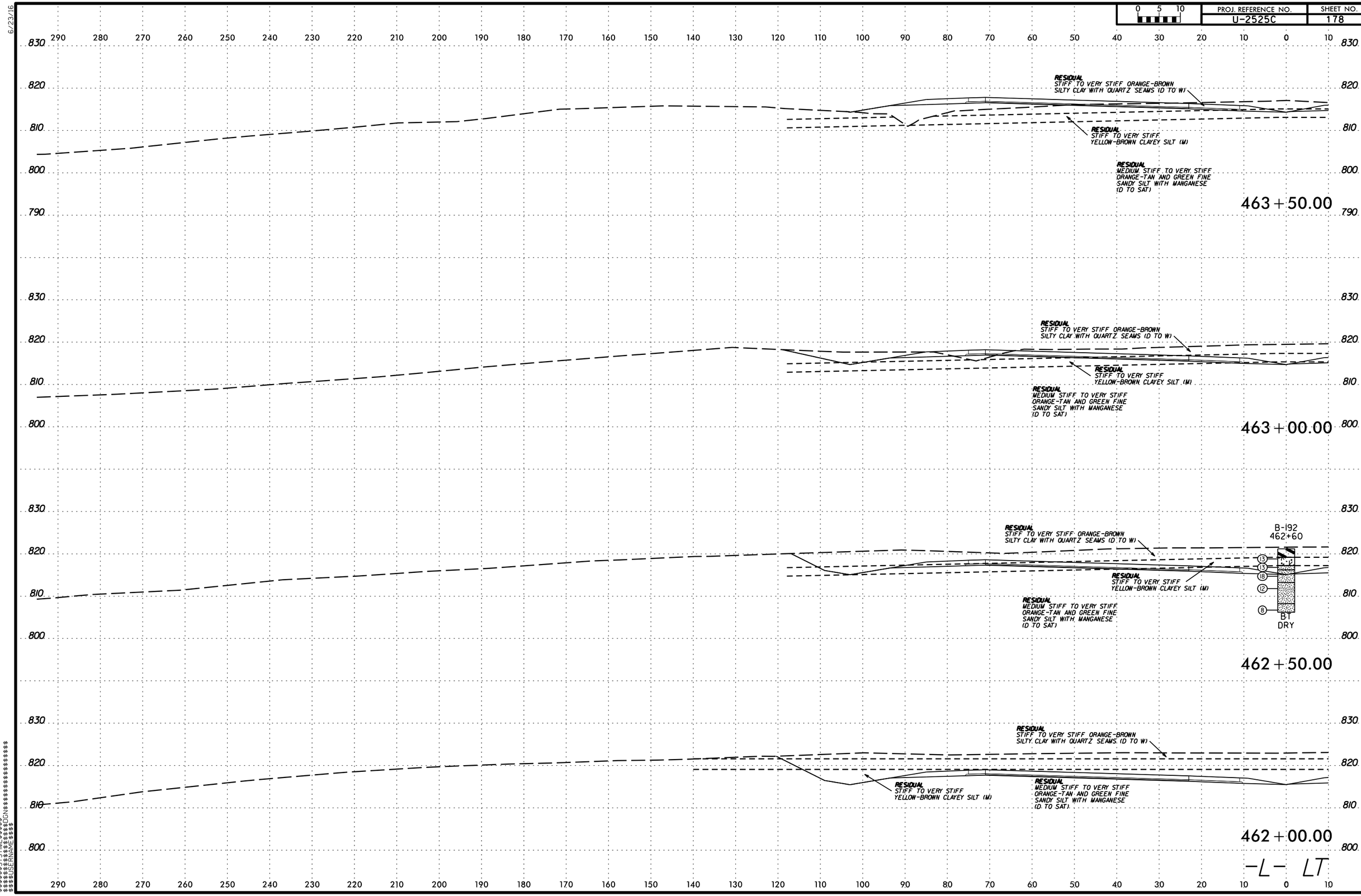
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-61	CL	460+55	1.5–3.0	A-7-5(31)	65	32	8	9	24	59	96	90	88	83.0	27.6	ND

6/23/16

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$USERNAME$$$$

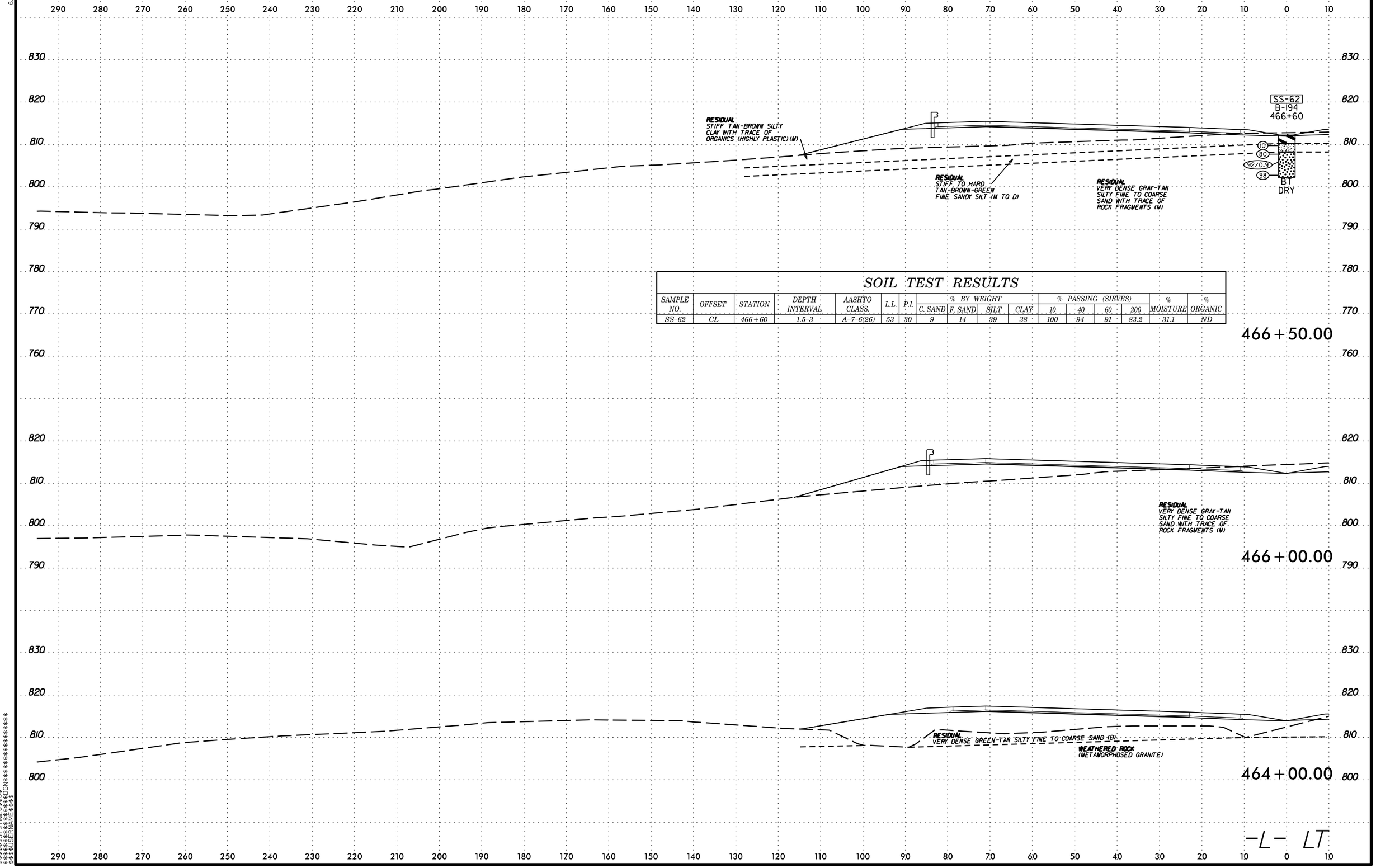
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	178



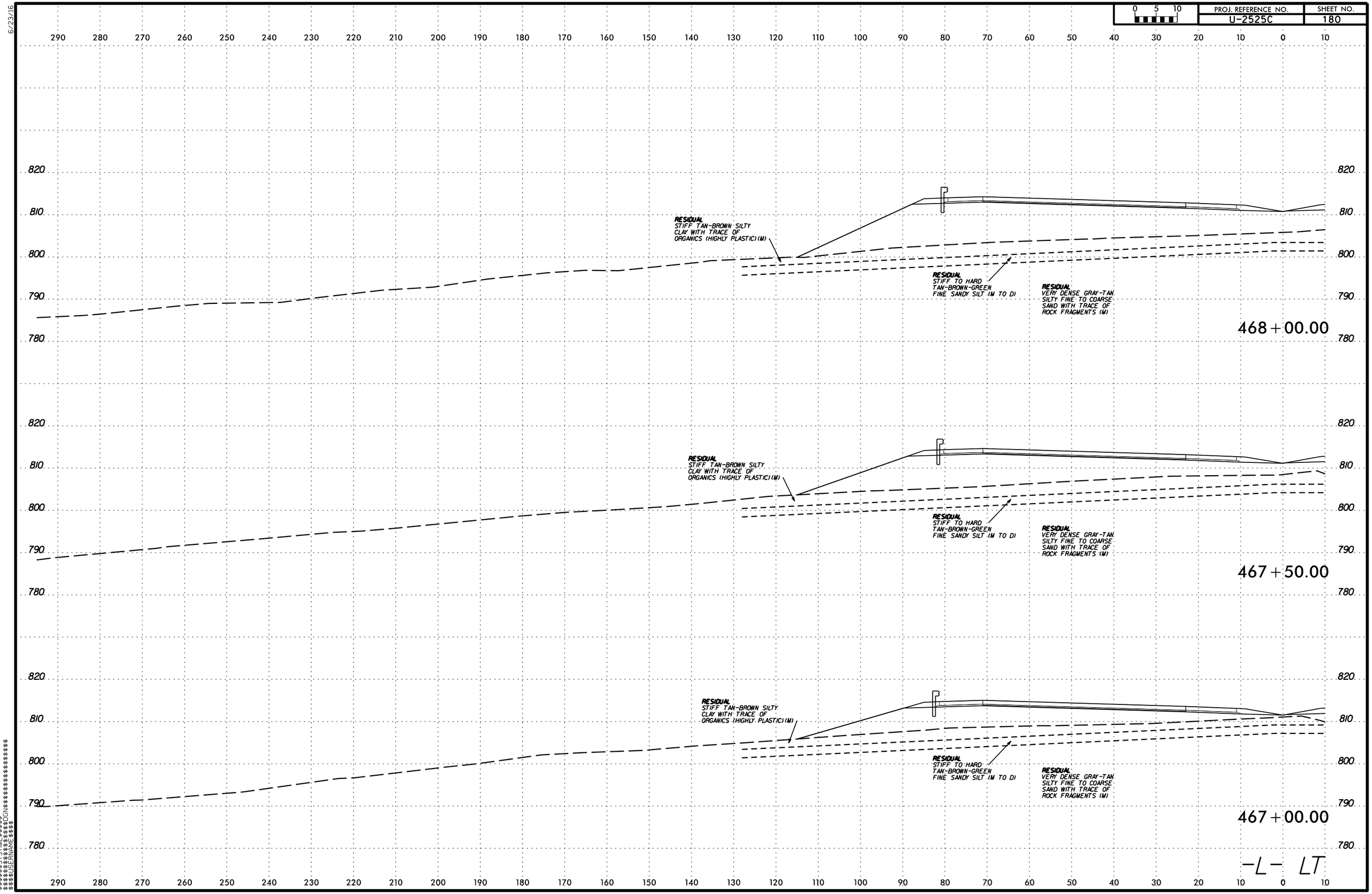
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 179

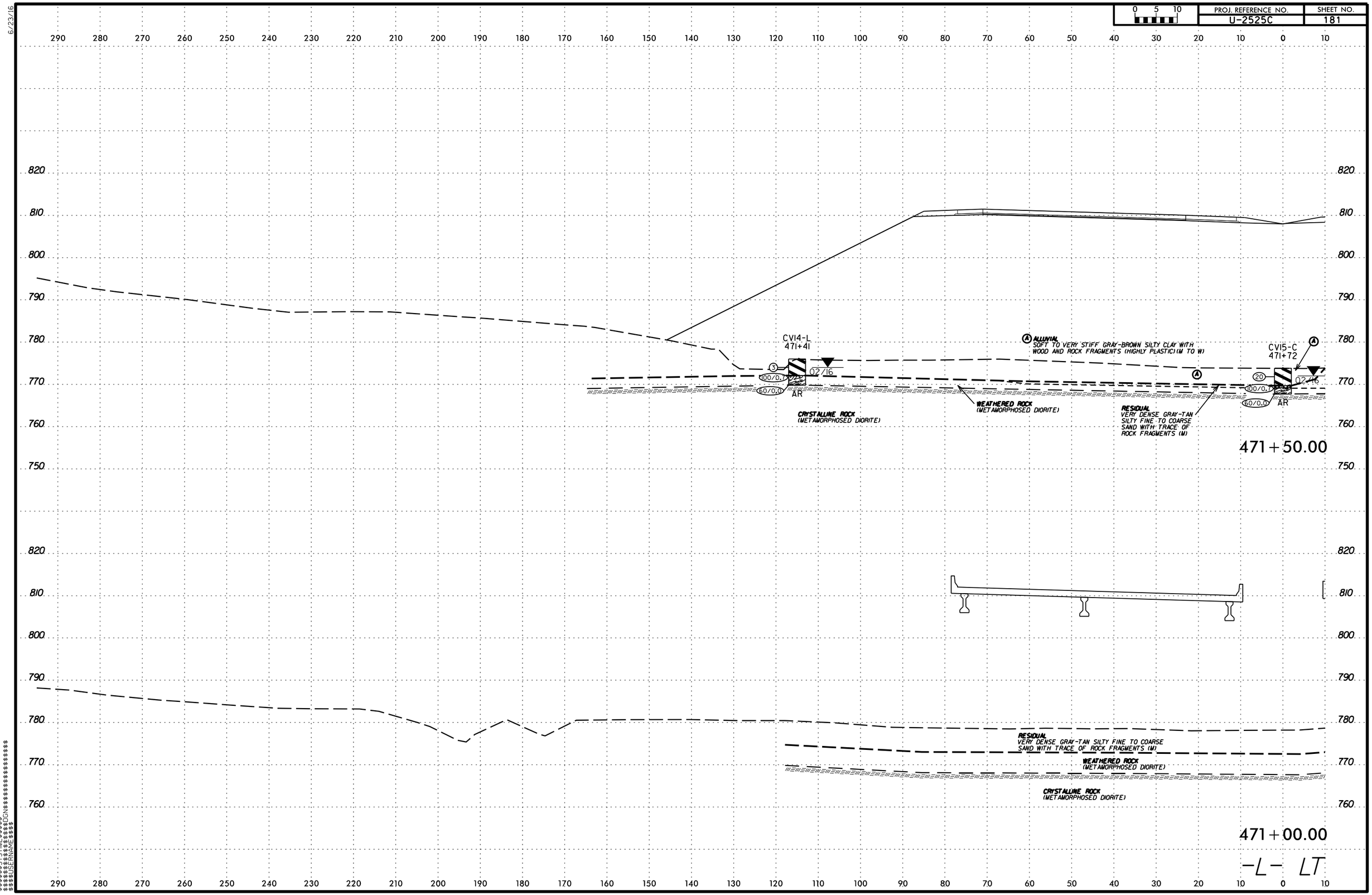


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-62	CL	466+60	1.5-3	A-7-6(26)	53	30	9	14	39	38	100	94	91	83.2	31.1	ND

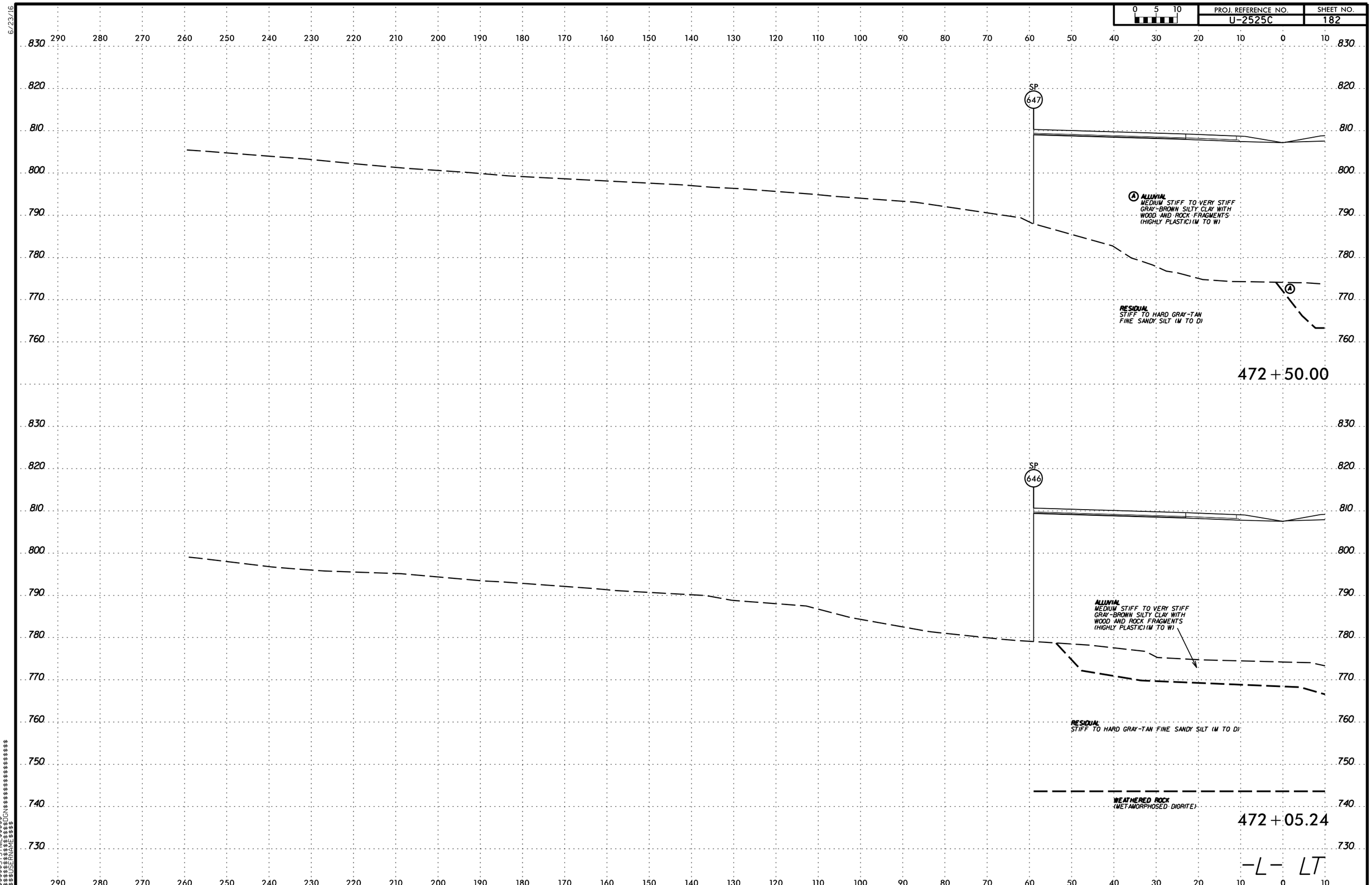


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
180
0 5 10
RESIDUAL
STIFF TAN-BROWN SILTY CLAY WITH TRACE OF ORGANICS (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO HARD TAN-BROWN-GREEN FINE SANDY SILT (M TO D)
RESIDUAL
VERY DENSE GRAY-TAN SILTY FINE TO COARSE SAND WITH TRACE OF ROCK FRAGMENTS (M)
468+00.00
467+50.00
467+00.00
-L- LT



6/23/16

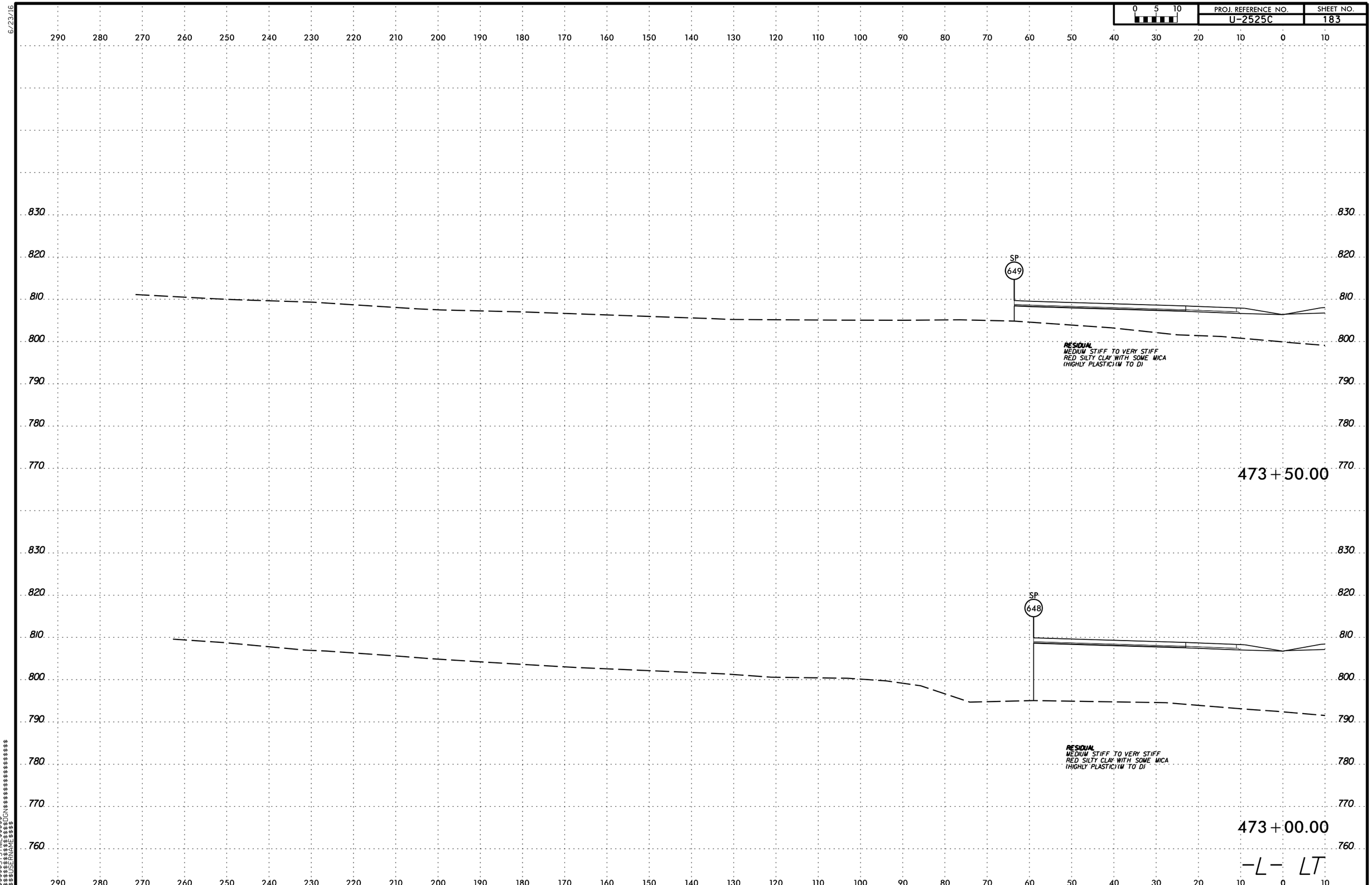
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
182
0 5 10
SP
647
ALLUVIAL
MEDIUM STIFF TO VERY STIFF GRAY-BROWN SILTY CLAY WITH WOOD AND ROCK FRAGMENTS (HIGHLY PLASTIC) (M TO W)
RESIDUAL
STIFF TO HARD GRAY-TAN FINE SANDY SILT (M TO D)
472+50.00
SP
646
ALLUVIAL
MEDIUM STIFF TO VERY STIFF GRAY-BROWN SILTY CLAY WITH WOOD AND ROCK FRAGMENTS (HIGHLY PLASTIC) (M TO W)
RESIDUAL
STIFF TO HARD GRAY-TAN FINE SANDY SILT (M TO D)
WEATHERED ROCK
(METAMORPHOSED DIORITE)
472+05.24
-L- LT

6/23/16

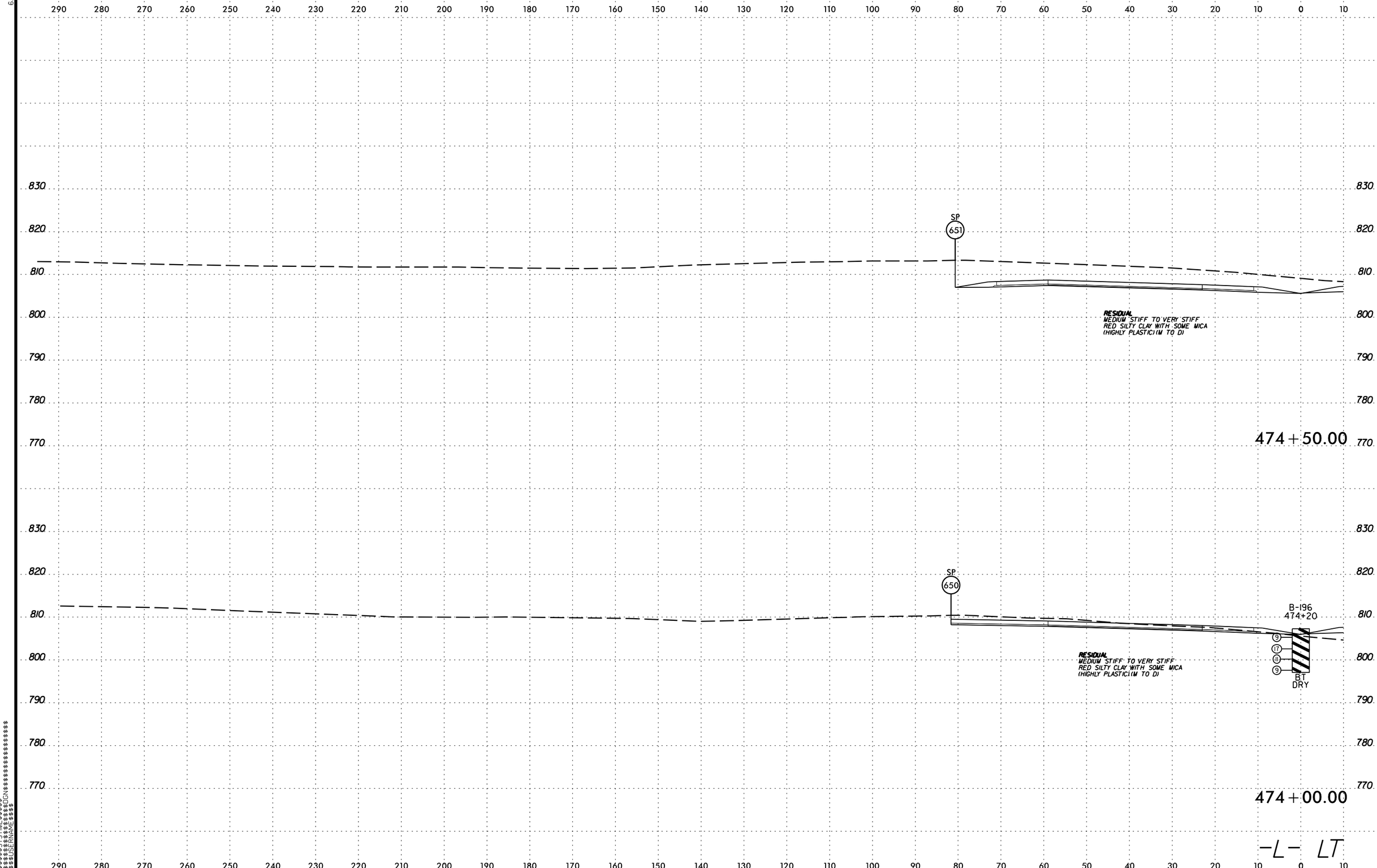
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	183



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

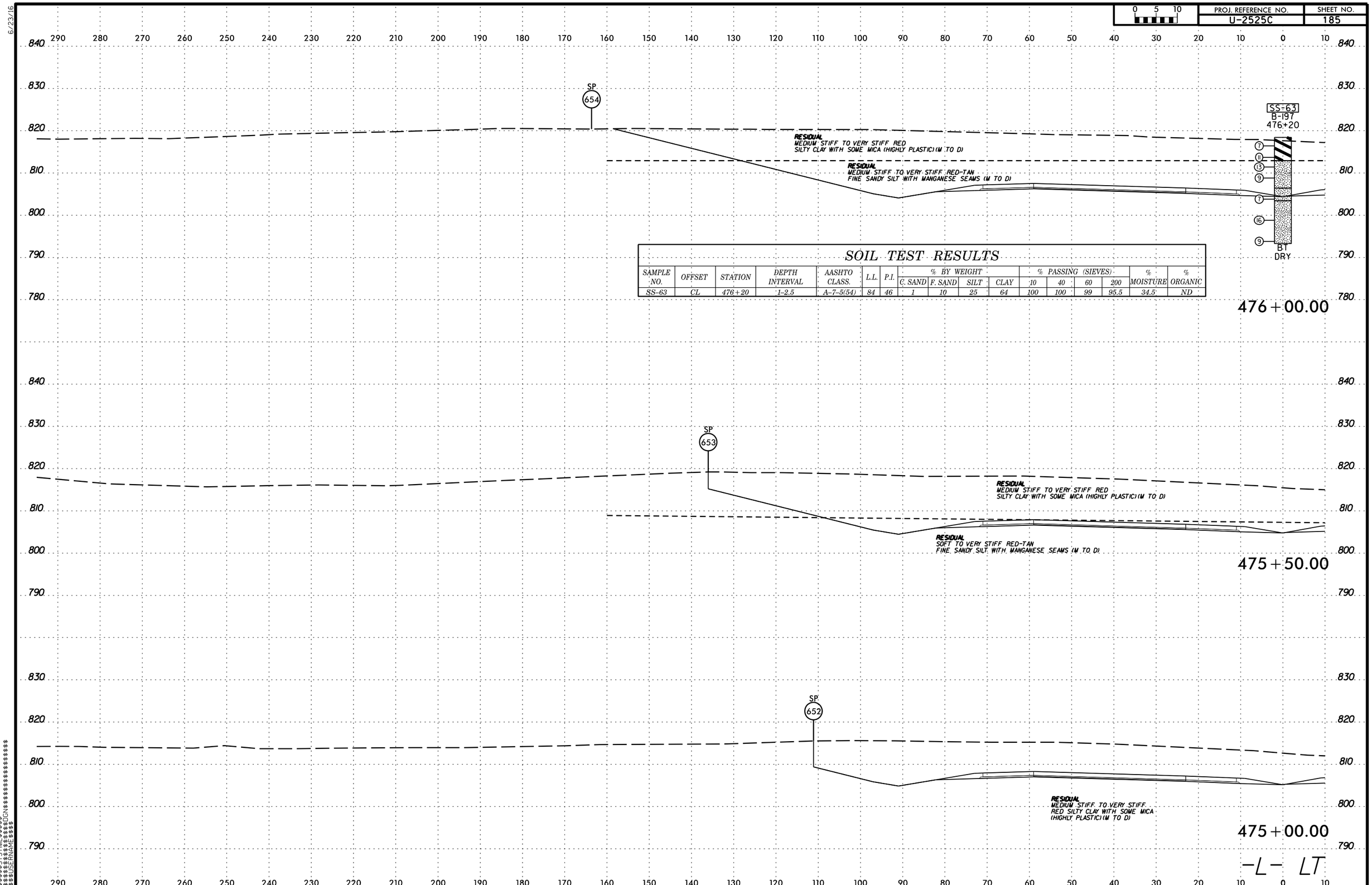
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	184



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 185

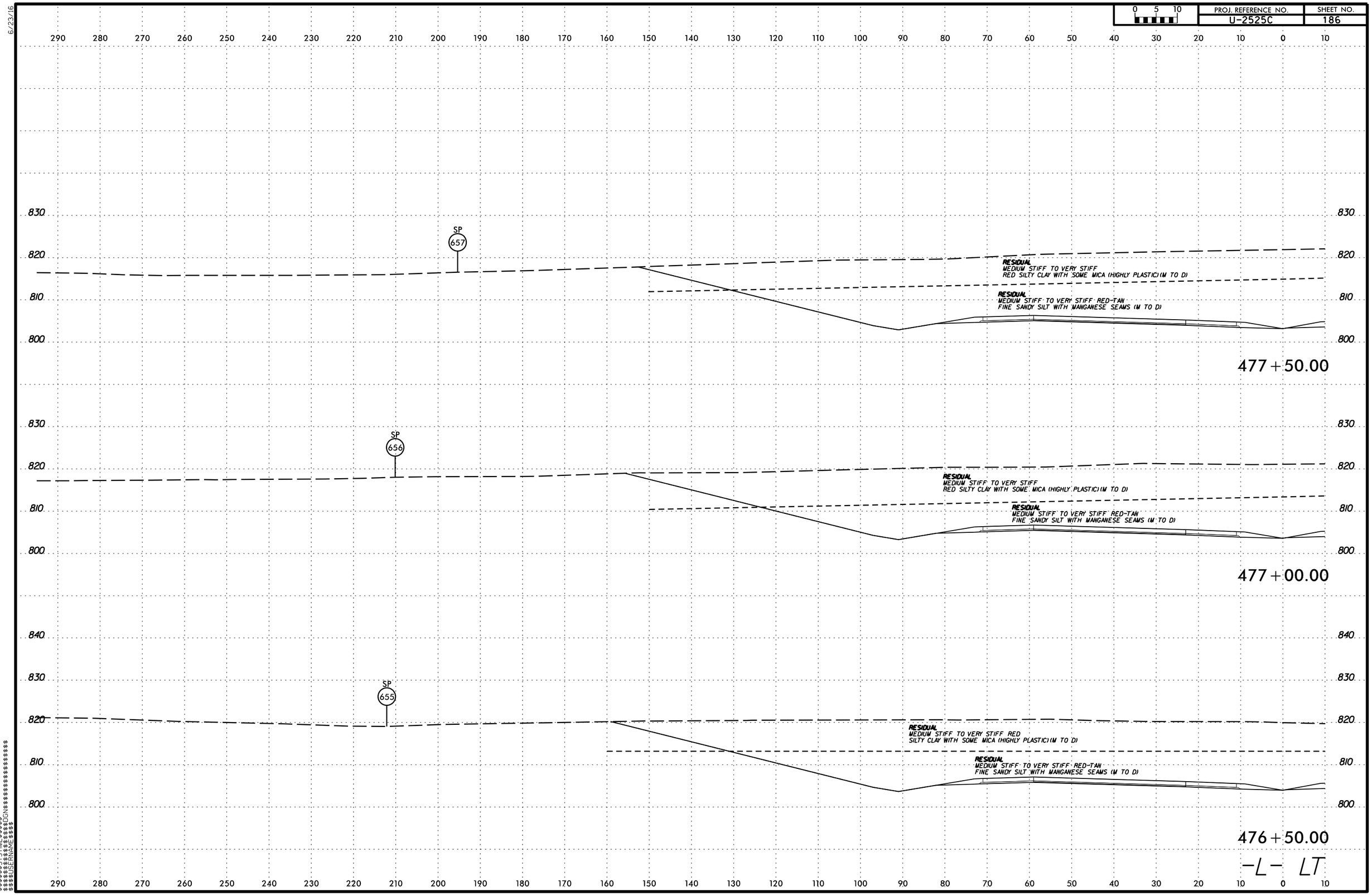


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-63	CL	476+20	1-2.5	A-7-5(54)	84	46	1	10	25	64	100	100	99	95.5	34.5	ND

6/23/16

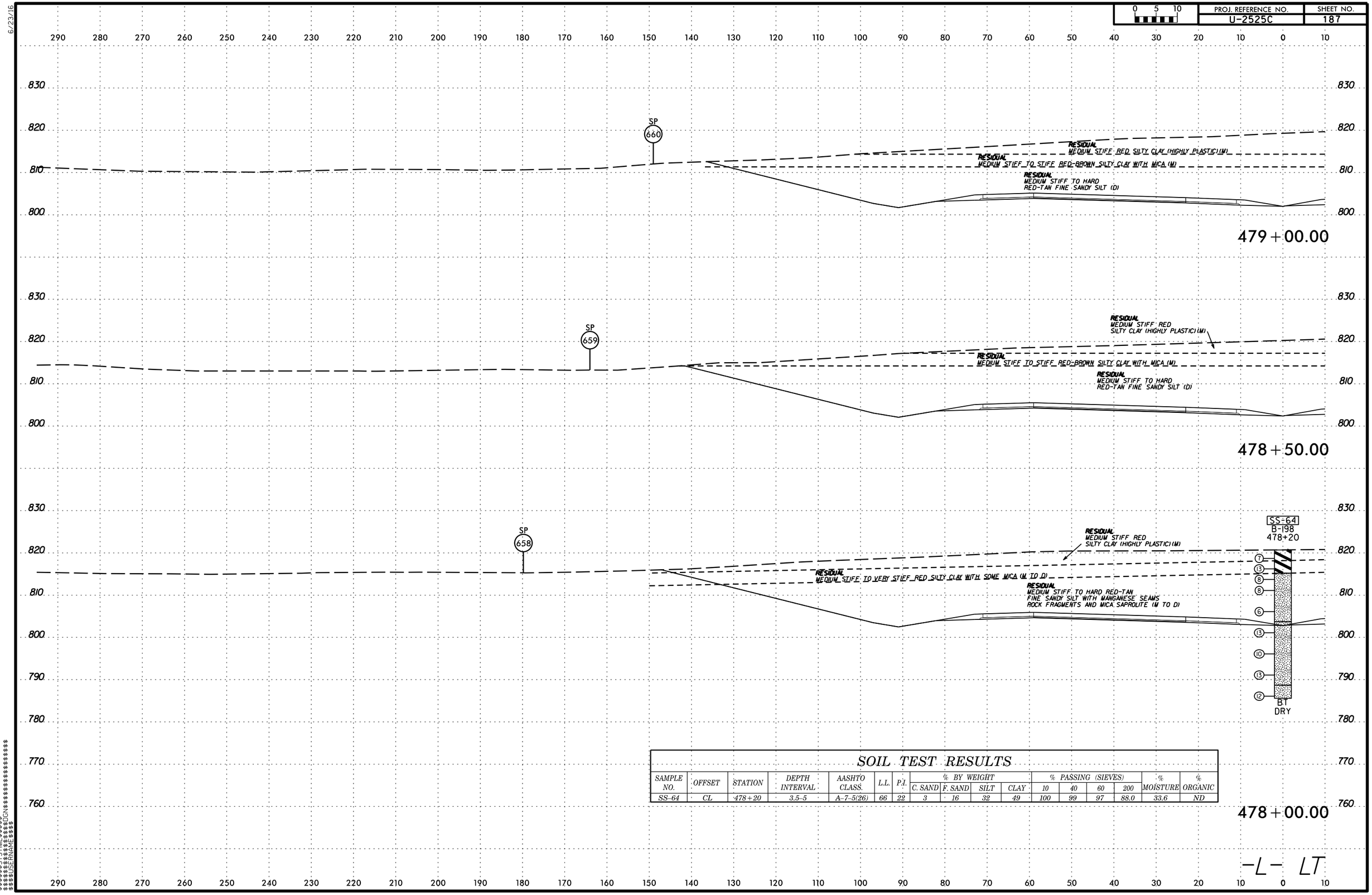
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	186



$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	187



SOIL TEST RESULTS

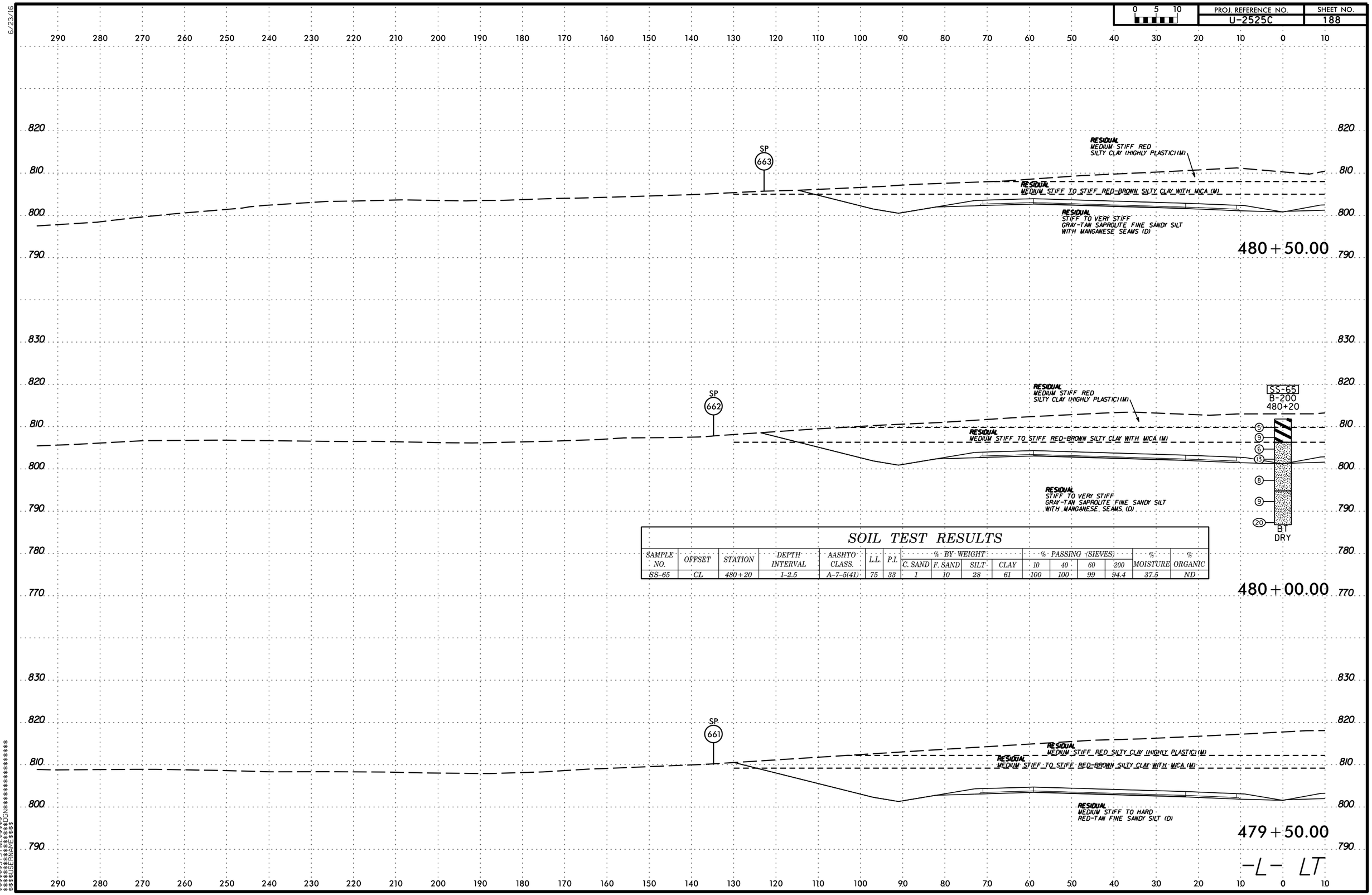
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-64	CL	478+20	3.5-5	A-7-5(26)	66	22	3	16	32	49	100	99	97	88.0	33.6	ND

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	188

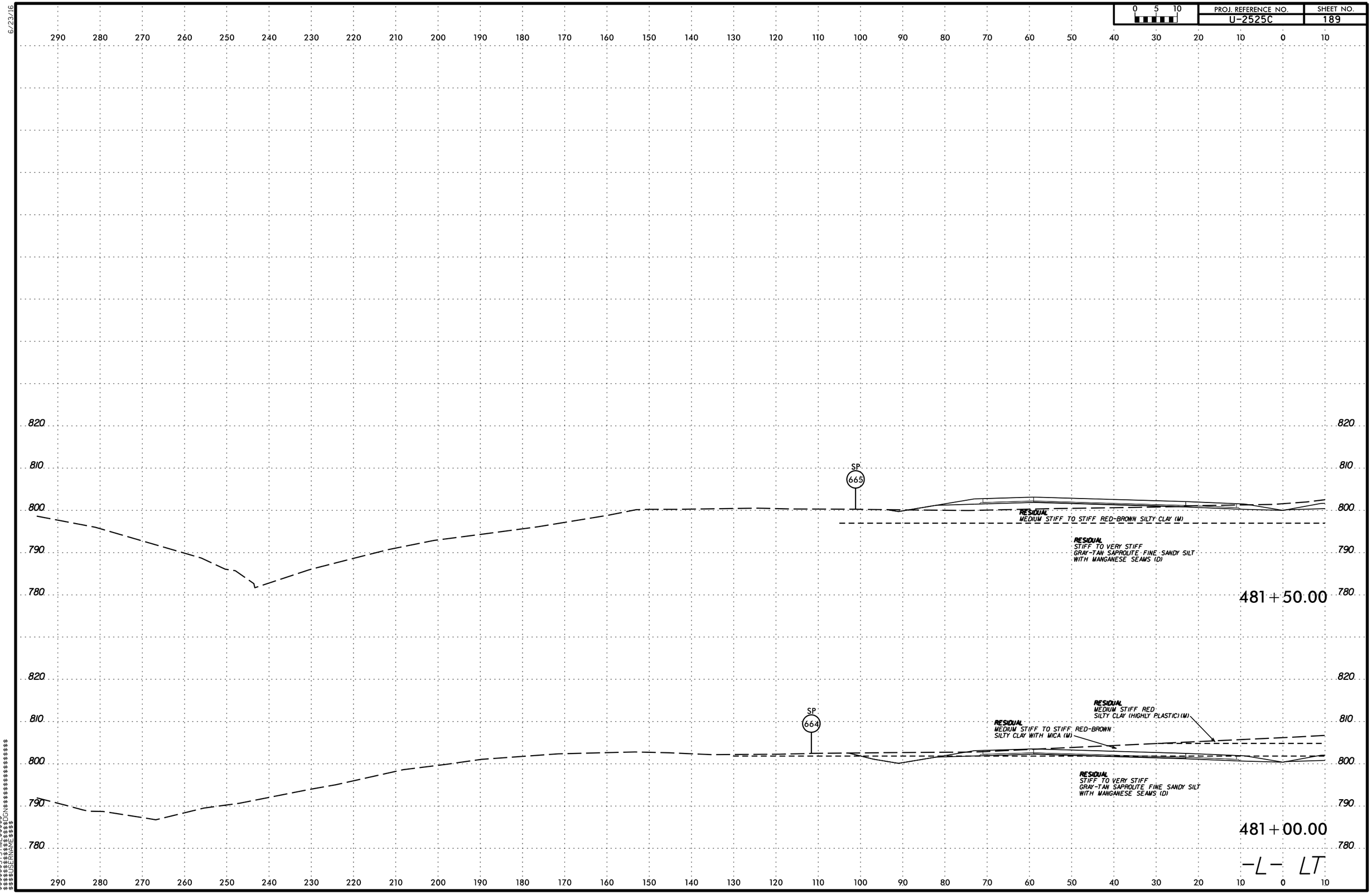
0 5 10



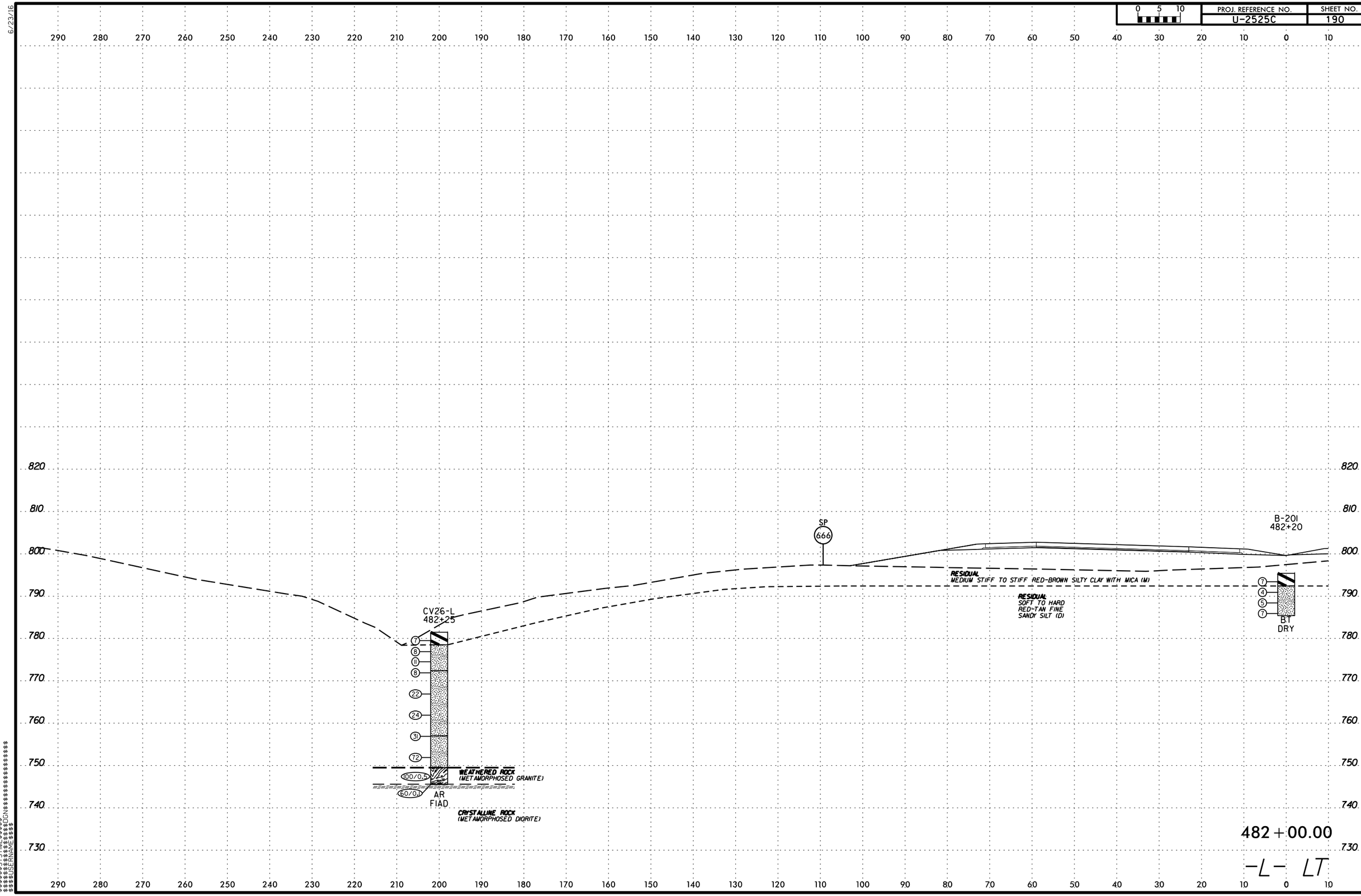
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-65	CL	480+20	1-2.5	A-7-5(41)	75	33	1	10	28	61	100	100	99	94.4	37.5	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



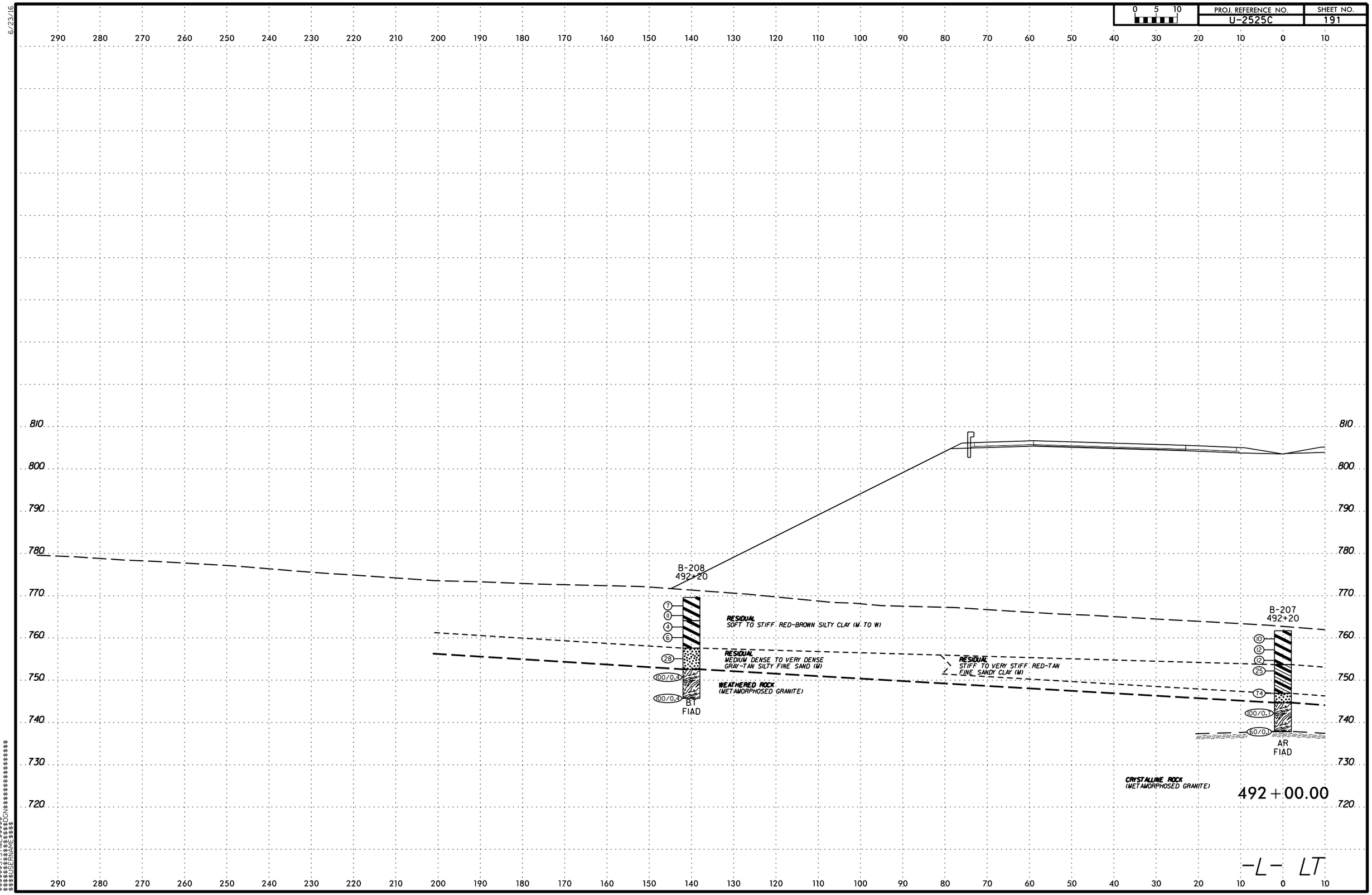
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
189
0 5 10
SP
665
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN SILTY CLAY (M)
RESIDUAL
STIFF TO VERY STIFF
GRAY-TAN SAPROLITE FINE SANDY SILT
WITH MANGANESE SEAMS (D)
481+50.00
SP
664
RESIDUAL
MEDIUM STIFF RED
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN
SILTY CLAY WITH MICA (M)
RESIDUAL
STIFF TO VERY STIFF
GRAY-TAN SAPROLITE FINE SANDY SILT
WITH MANGANESE SEAMS (D)
481+00.00
-L- LT



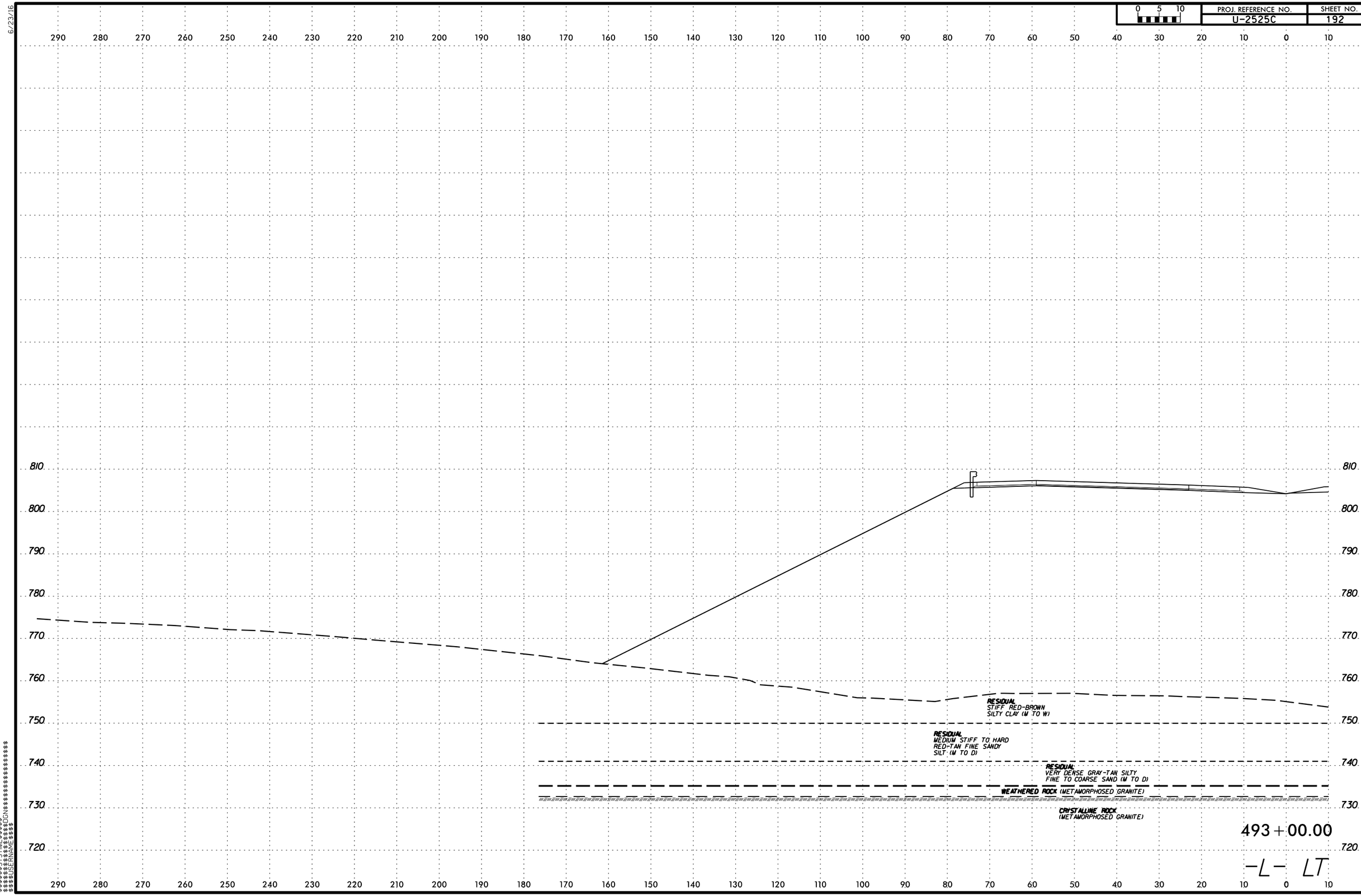
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
190
0 5 10
SP
666
B-201
482+20
CV26-L
482+25
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN SILTY CLAY WITH MICA (M)
RESIDUAL
SOFT TO HARD
RED-TAN FINE
SANDY SILT (D)
BT
DRY
WEATHERED ROCK
(METAMORPHOSED GRANITE)
AR
FIAD
CRYSTALLINE ROCK
(METAMORPHOSED DIORITE)
482+00.00
-L- LT

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	191

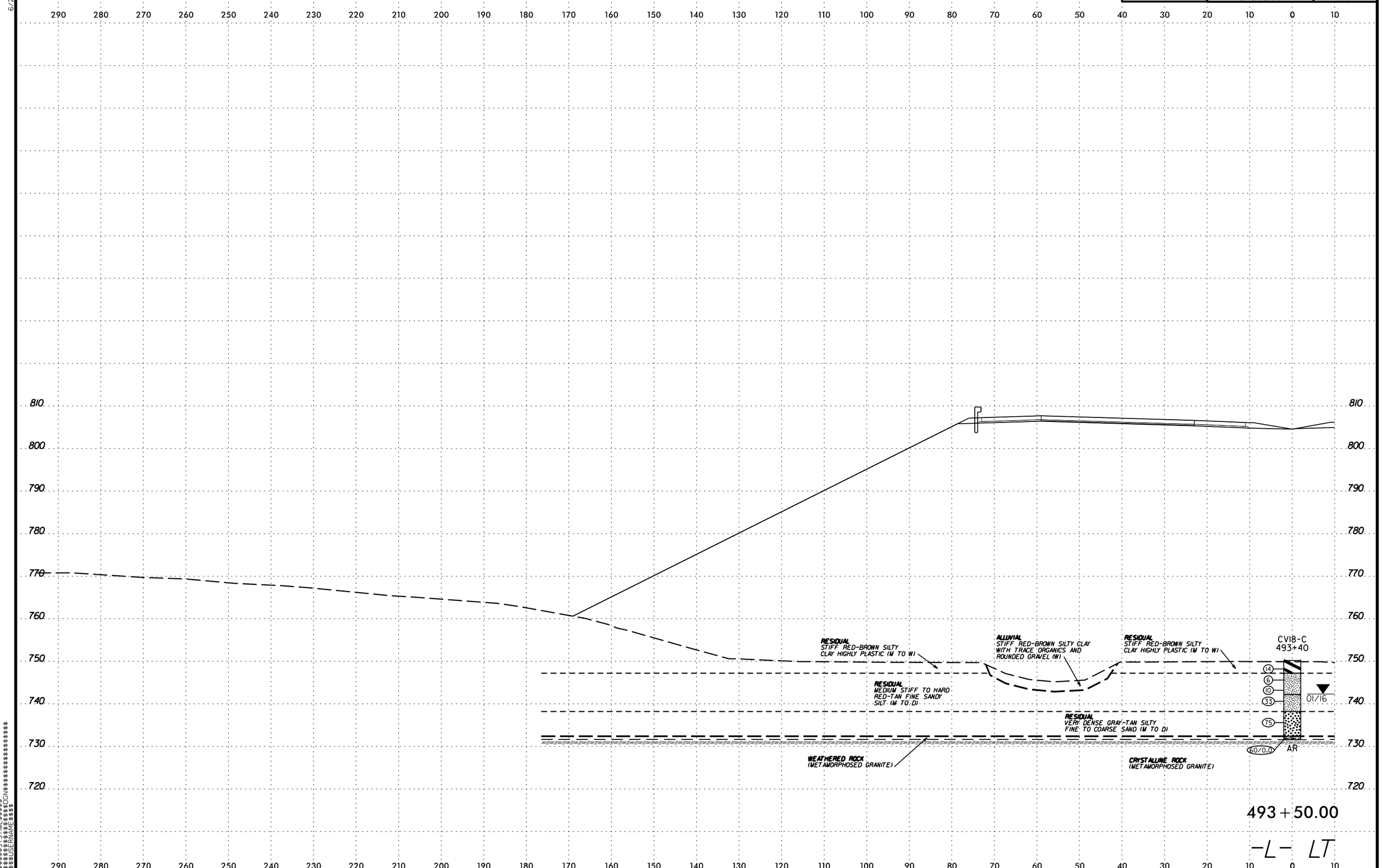


$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



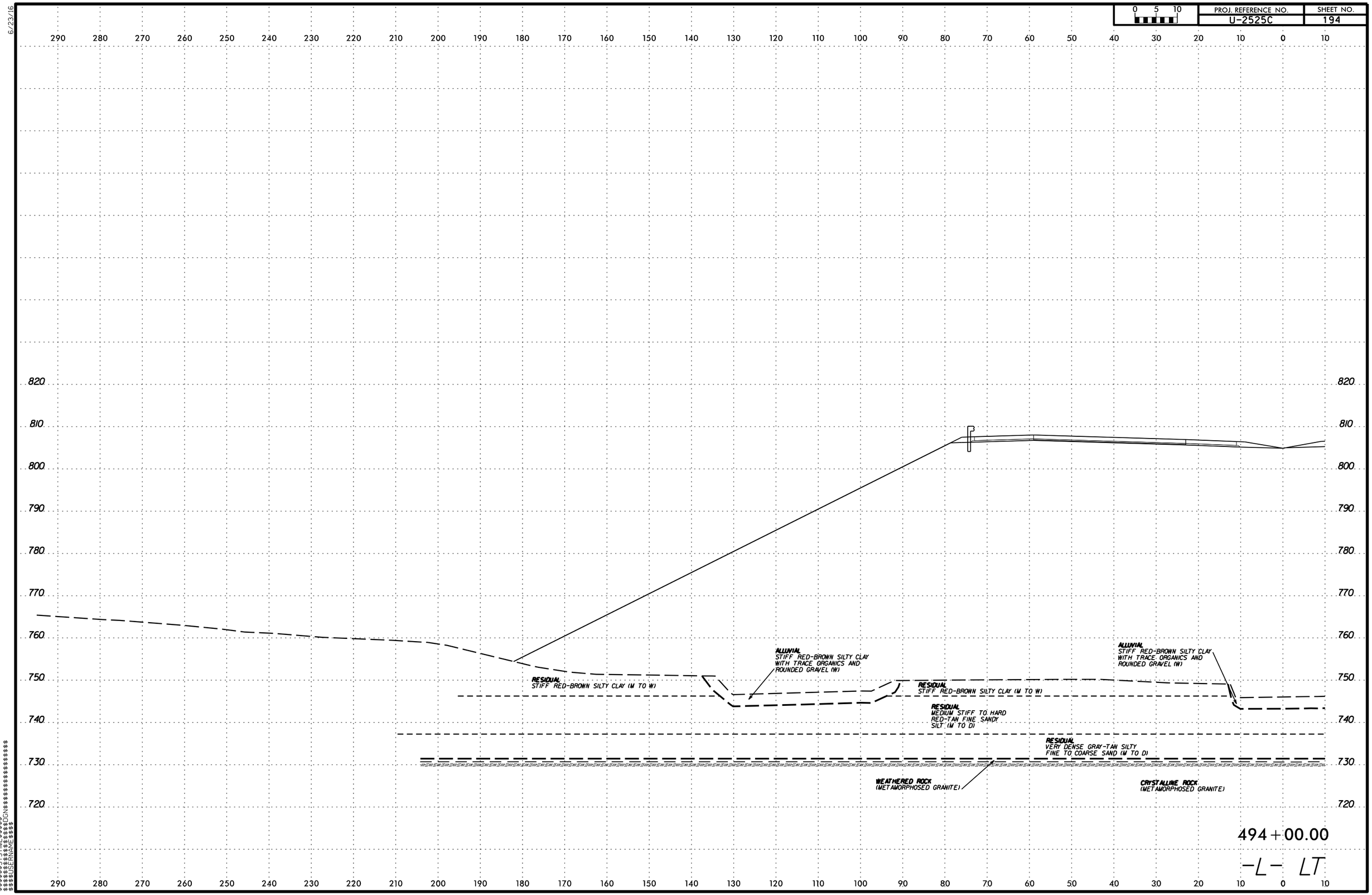
6/23/16

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

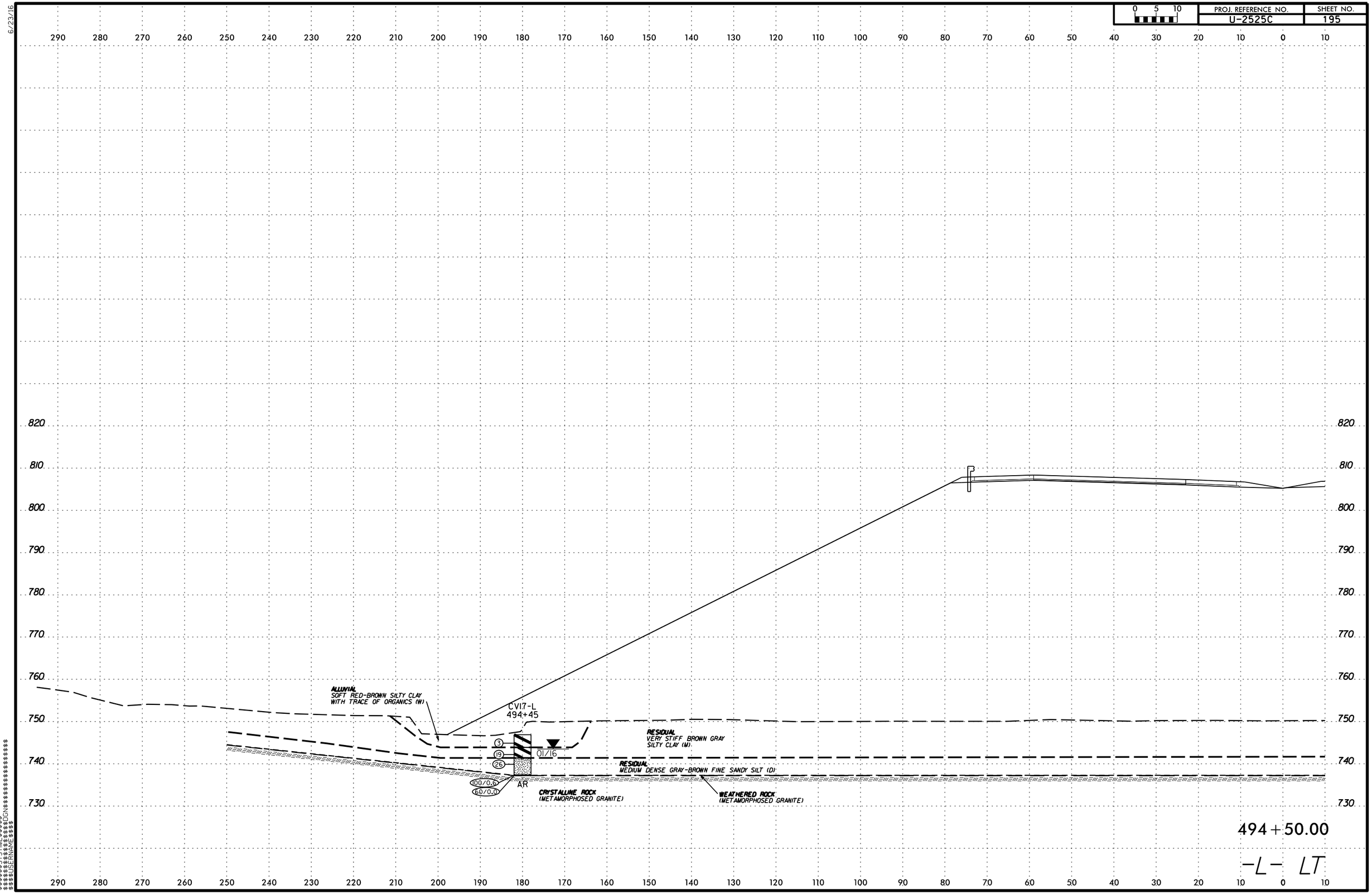


6/23/16

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

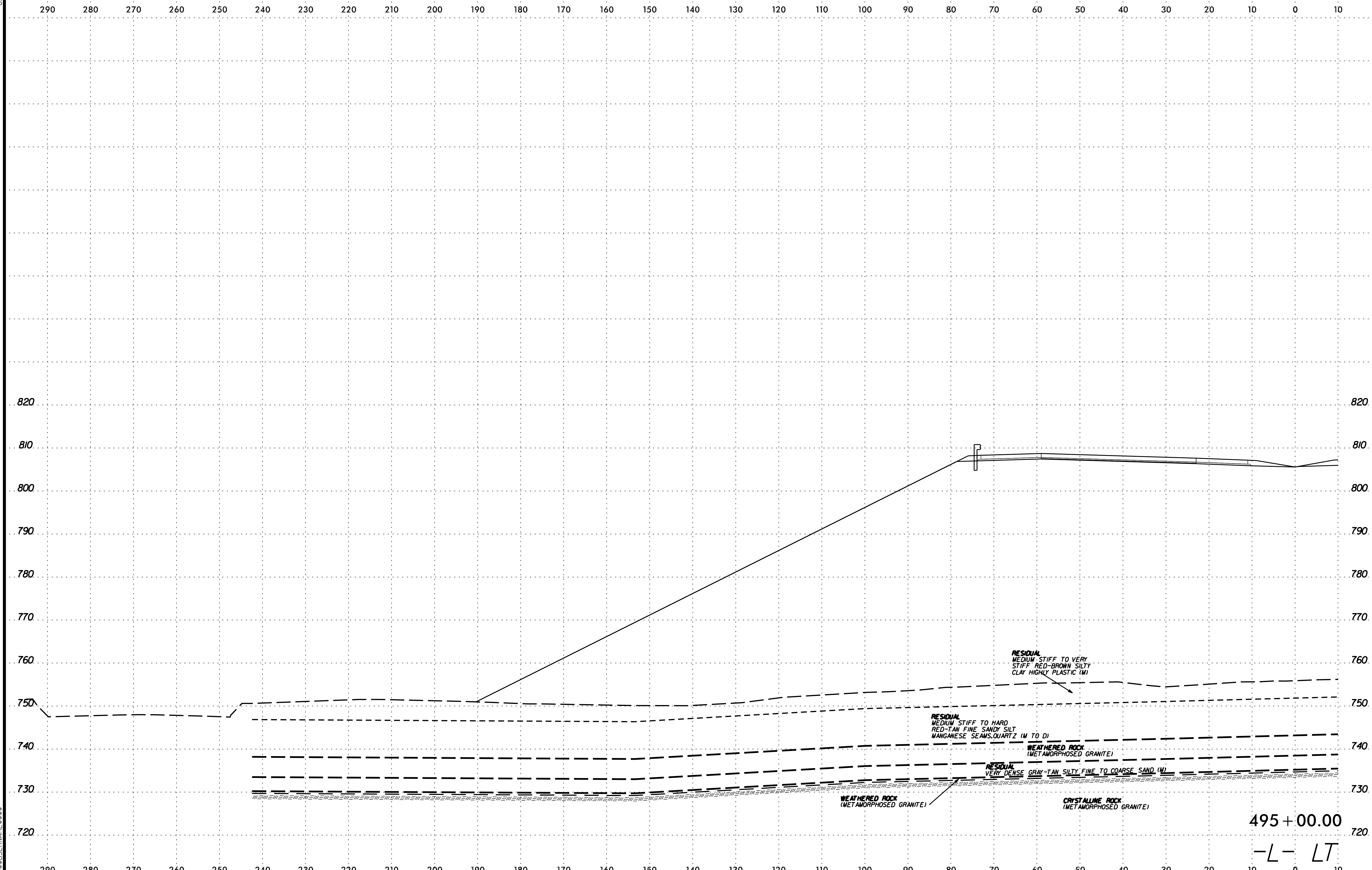


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
194
0 5 10
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10
820 810 800 790 780 770 760 750 740 730 720
ALLUVIAL
STIFF RED-BROWN SILTY CLAY
WITH TRACE ORGANICS AND
ROUNDED GRAVEL (W)
RESIDUAL
STIFF RED-BROWN SILTY CLAY (M TO W)
RESIDUAL
STIFF RED-BROWN SILTY CLAY (M TO W)
RESIDUAL
MEDIUM STIFF TO HARD
RED-TAN FINE SANDY
SILT (M TO D)
RESIDUAL
VERY DENSE GRAY-TAN SILTY
FINE TO COARSE SAND (M TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
494+00.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
195
0 5 10
ALLUVIAL
SOFT RED-BROWN SILTY CLAY
WITH TRACE OF ORGANICS (W)
CV17-L
494+45
3
19
26
01/16
100/0.6
60/0.0
AR
RESIDUAL
VERY STIFF BROWN GRAY
SILTY CLAY (M)
RESIDUAL
MEDIUM DENSE GRAY-BROWN FINE SANDY SILT (D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
494+50.00
-L- LT

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	196

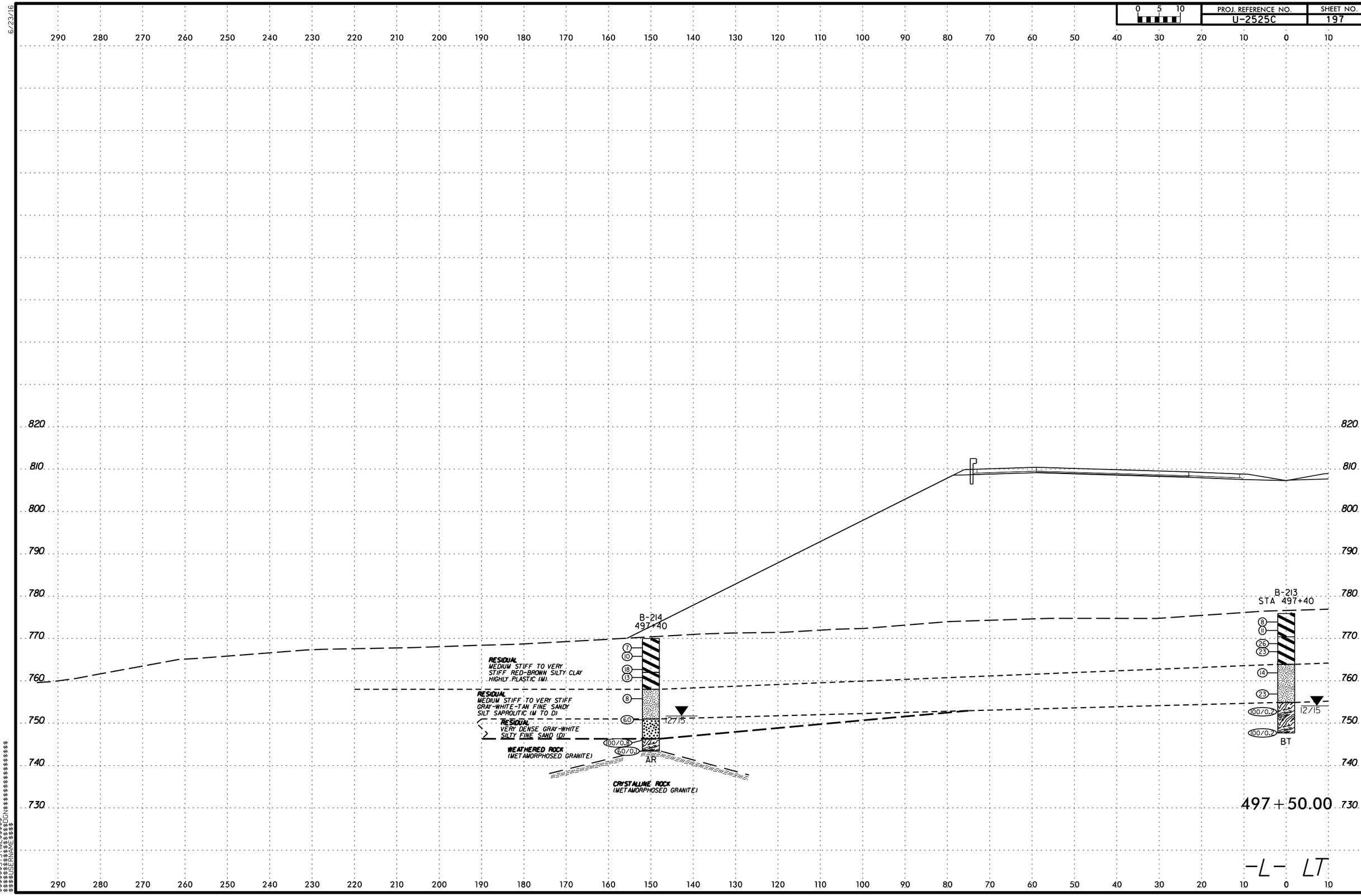


495+00.00

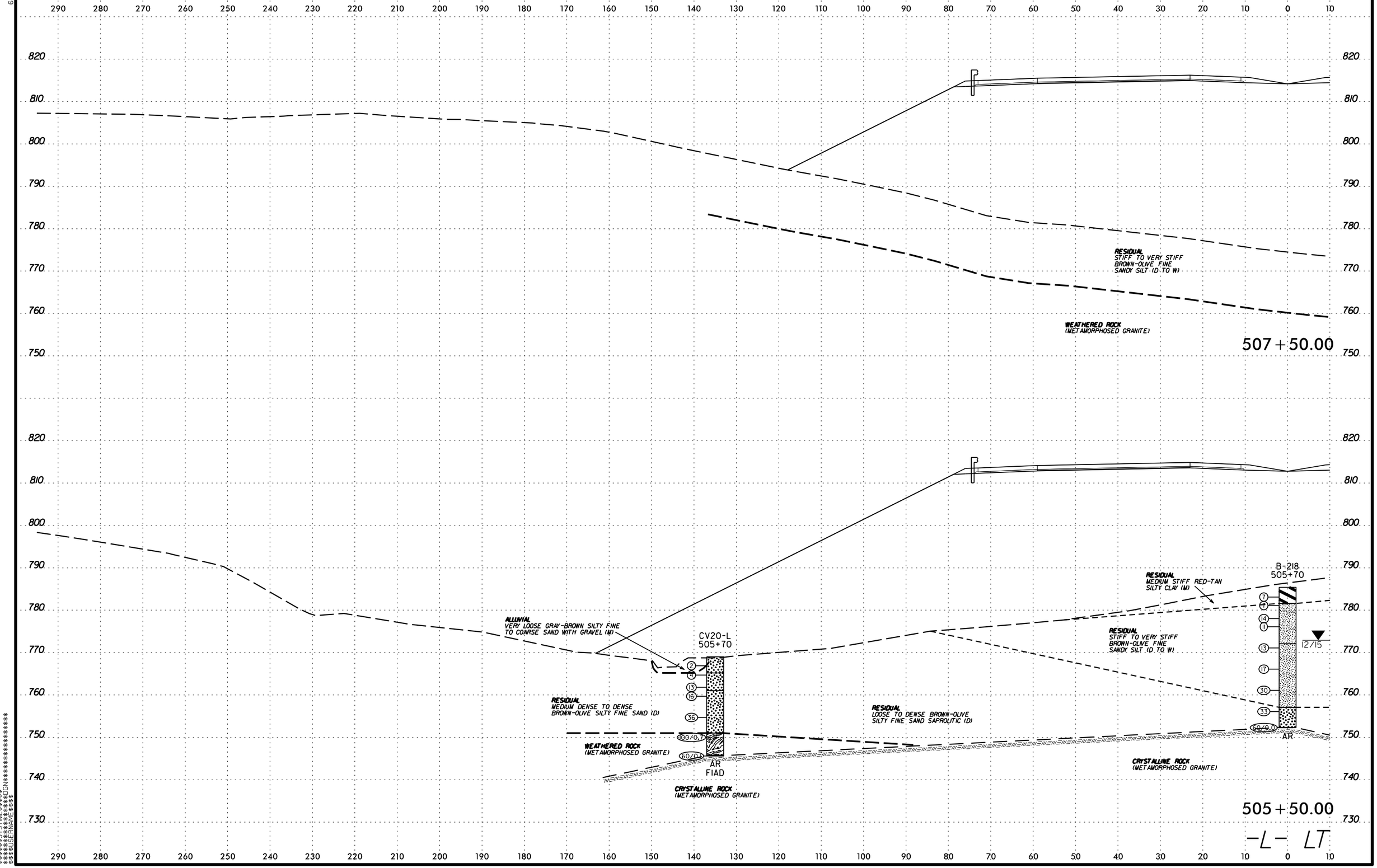
-L- LT

6/23/16

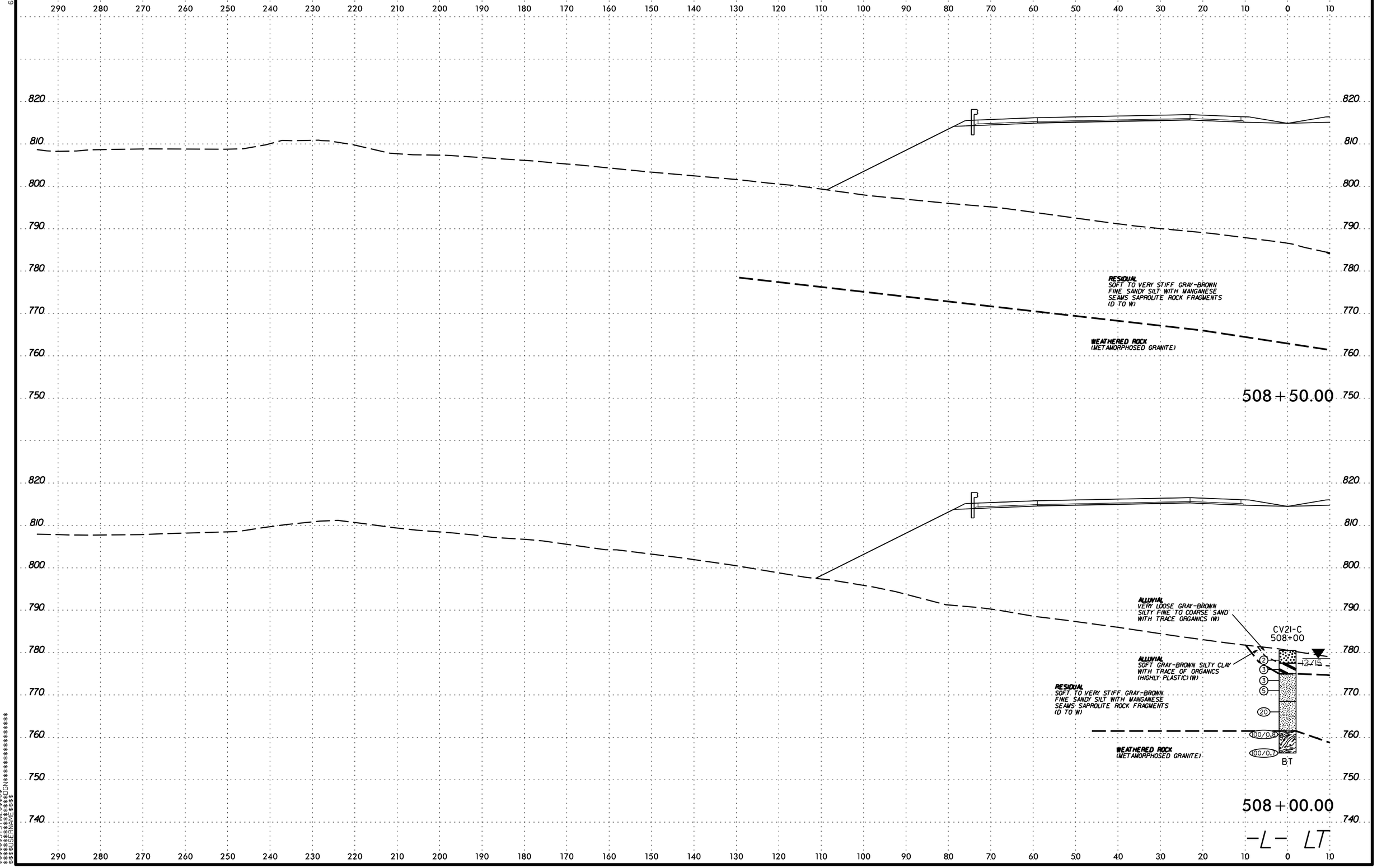
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	197



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



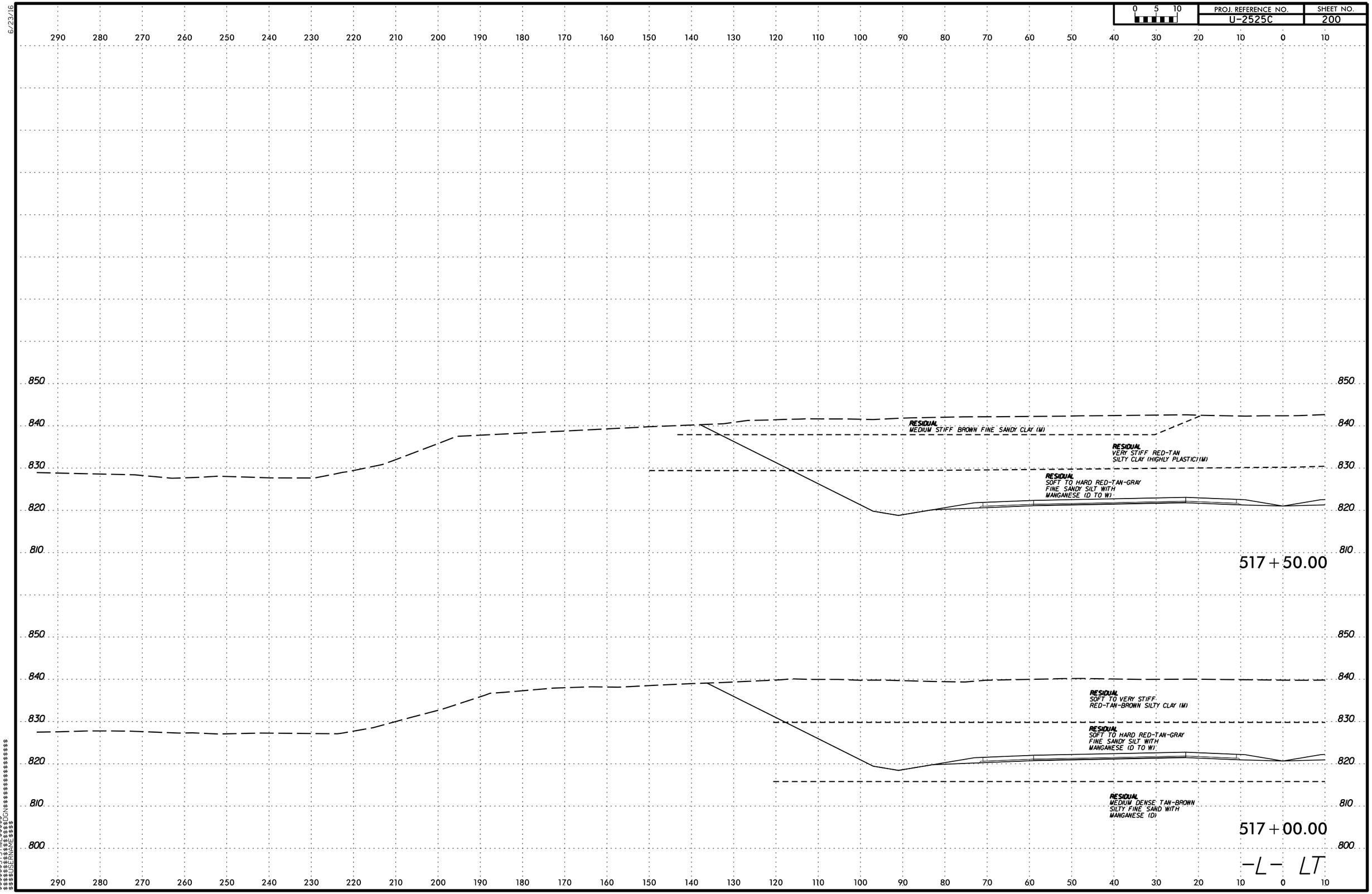
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
198
0 5 10
RESIDUAL
STIFF TO VERY STIFF
BROWN-OLIVE FINE
SANDY SILT (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
507+50.00
ALLUVIAL
VERY LOOSE GRAY-BROWN SILTY FINE
TO COARSE SAND WITH GRAVEL (M)
CV20-L
505+70
RESIDUAL
MEDIUM DENSE TO DENSE
BROWN-OLIVE SILTY FINE SAND (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
AR
FIAD
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
LOOSE TO DENSE BROWN-OLIVE
SILTY FINE SAND SAPROLITIC (D)
RESIDUAL
MEDIUM STIFF RED-TAN
SILTY CLAY (M)
B-218
505+70
RESIDUAL
STIFF TO VERY STIFF
BROWN-OLIVE FINE
SANDY SILT (D TO W)
12/15
AR
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
505+50.00
-L- LT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
199
0 5 10
RESIDUAL
SOFT TO VERY STIFF GRAY-BROWN FINE SANDY SILT WITH MANGANESE SEAMS SAPROLITE ROCK FRAGMENTS (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
508+50.00
ALLUVIAL
VERY LOOSE GRAY-BROWN SILTY FINE TO COARSE SAND WITH TRACE ORGANICS (W)
CV21-C
508+00
ALLUVIAL
SOFT GRAY-BROWN SILTY CLAY WITH TRACE OF ORGANICS (HIGHLY PLASTIC) (W)
12/15
RESIDUAL
SOFT TO VERY STIFF GRAY-BROWN FINE SANDY SILT WITH MANGANESE SEAMS SAPROLITE ROCK FRAGMENTS (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
BT
508+00.00
-L- LT

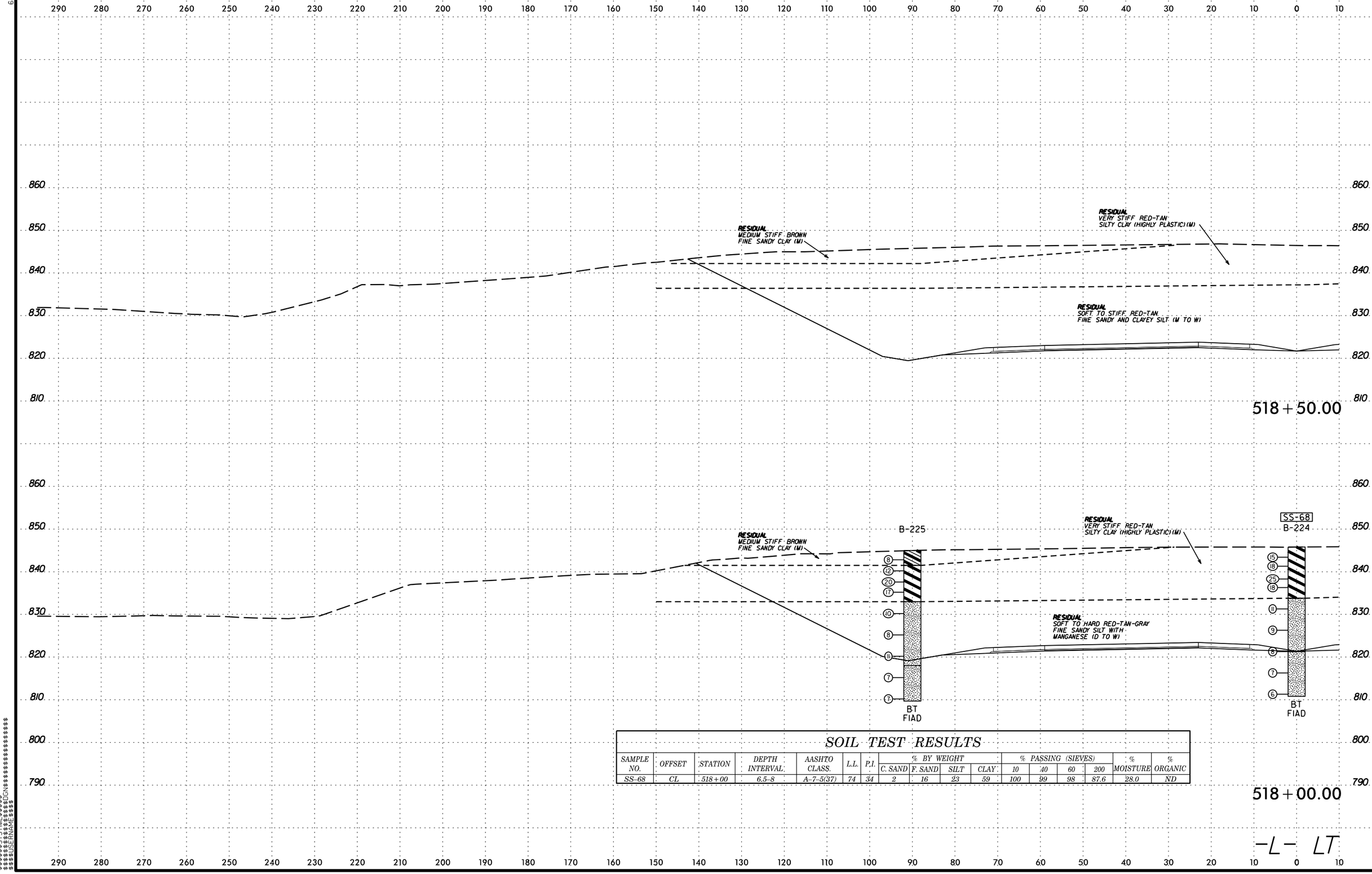
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	200



$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 201



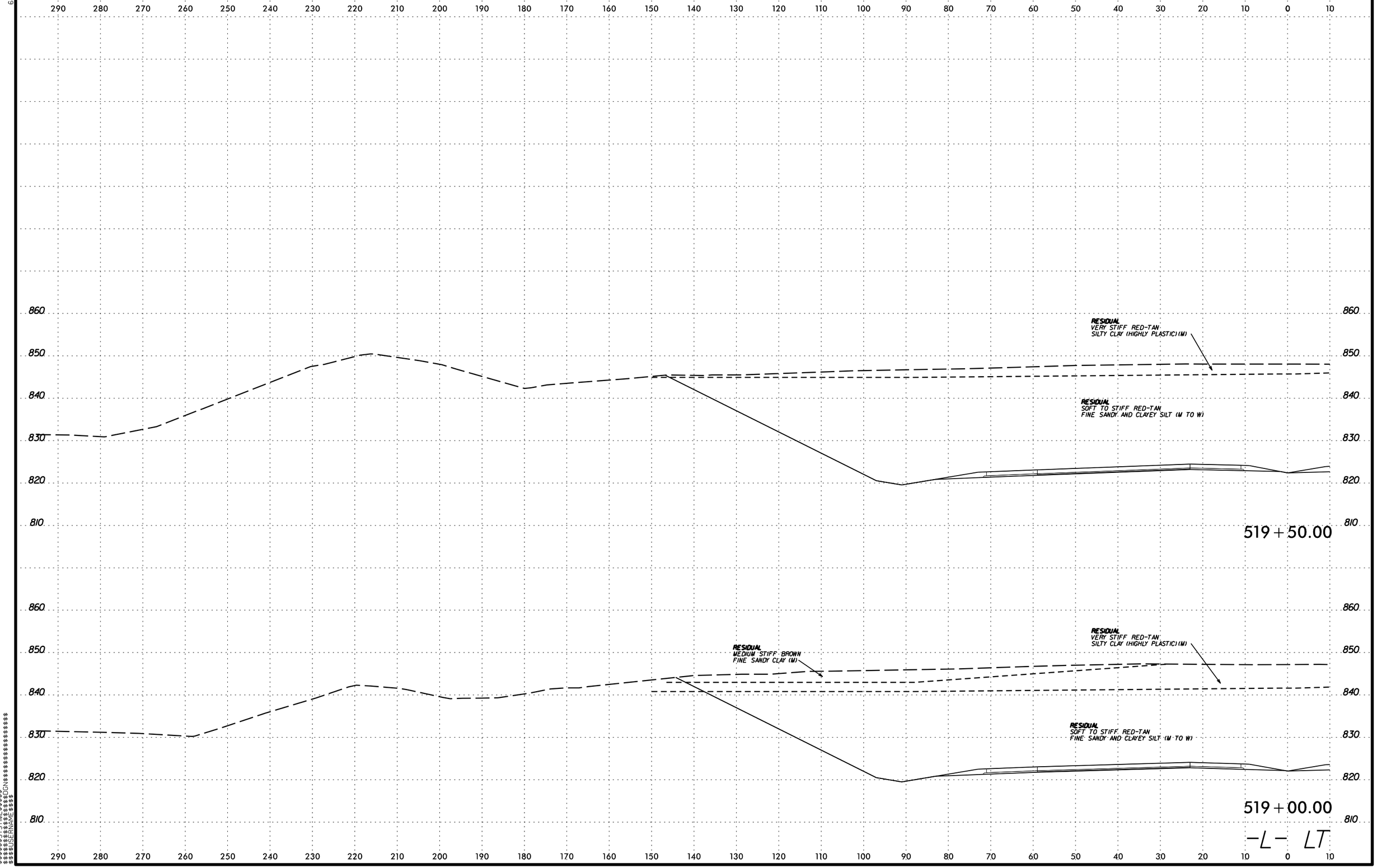
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-68	CL	518+00	6.5-8	A-7-5(37)	74	34	2	16	23	59	100	99	98	87.6	28.0	ND

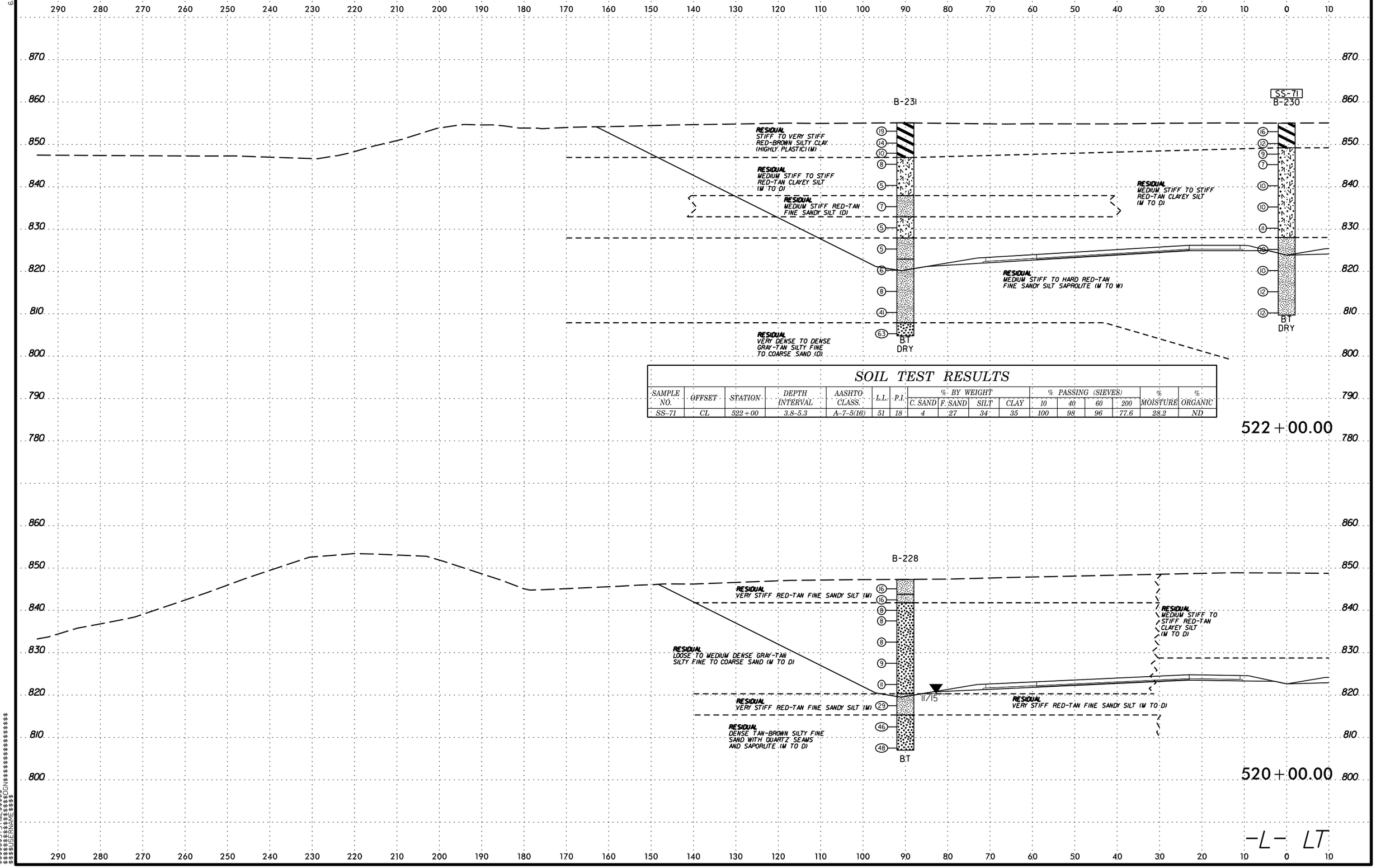
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	202

0 5 10



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

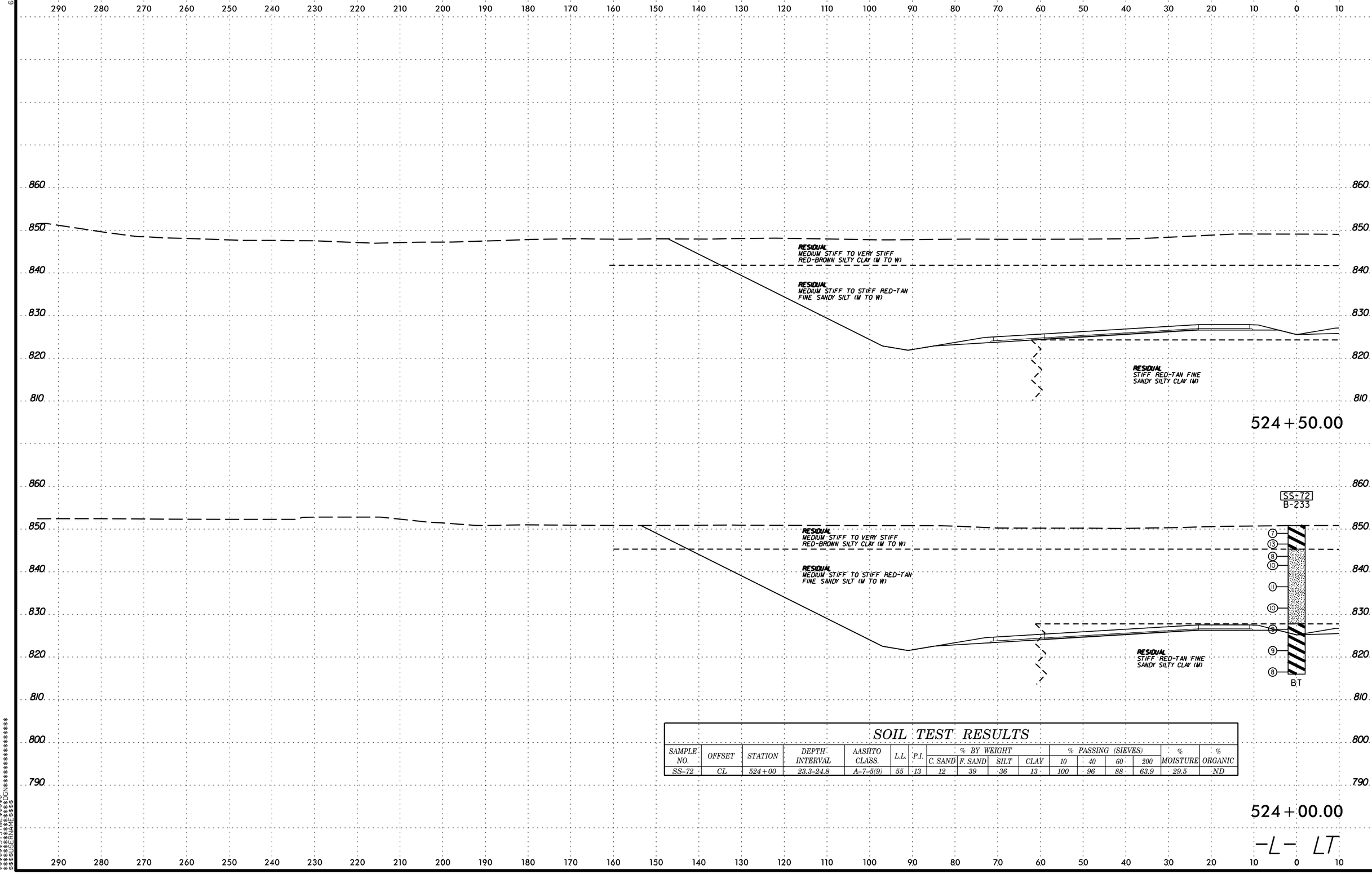


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-71	CL	522+00	3.8-5.3	A-7-5(16)	51	18	4	27	34	35	100	98	96	77.6	28.2	ND

6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 204



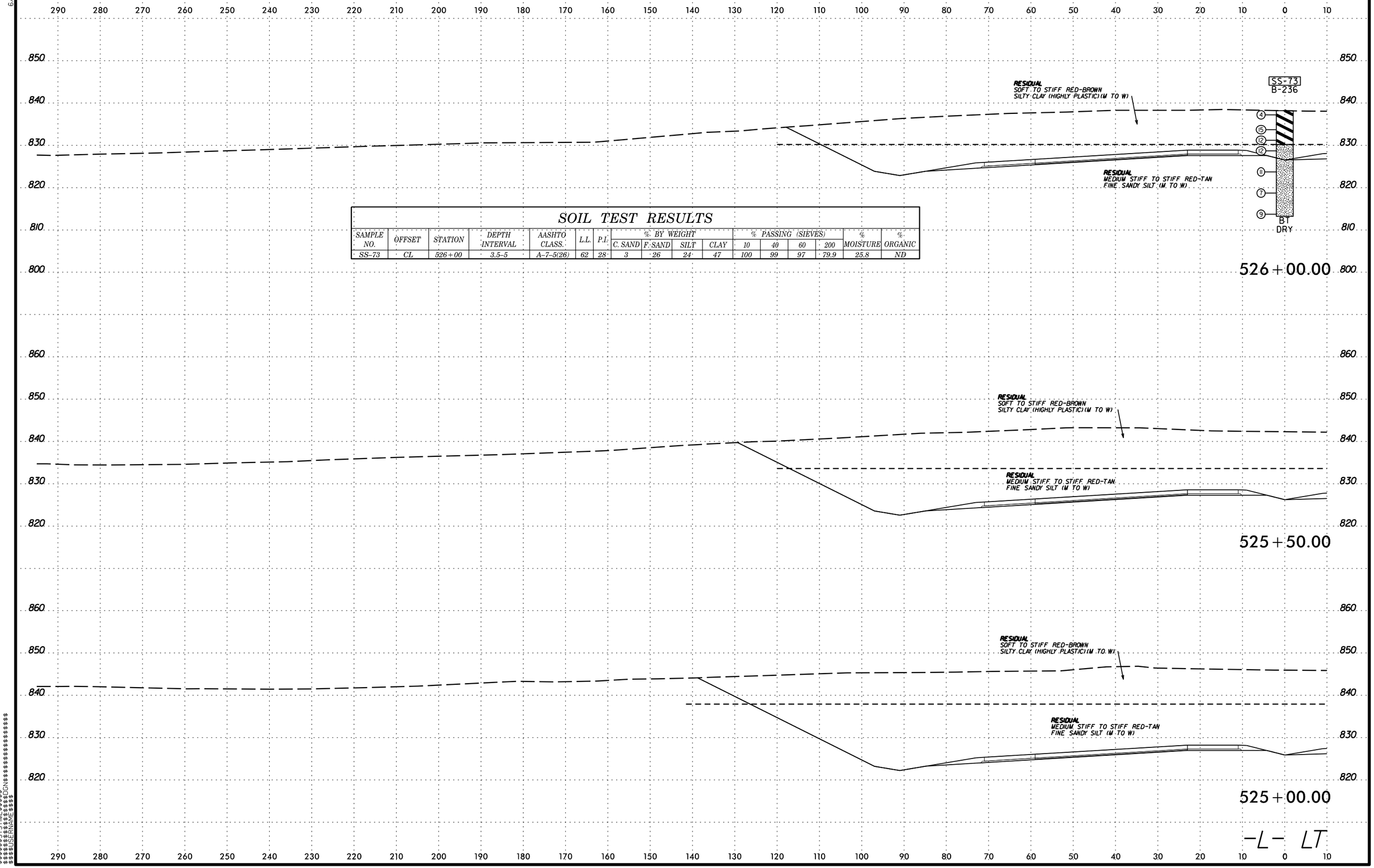
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-72	CL	524+00	23.3-24.8	A-7-5(9)	55	13	12	39	36	13	100	96	88	63.9	29.5	ND

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	205

0 5 10



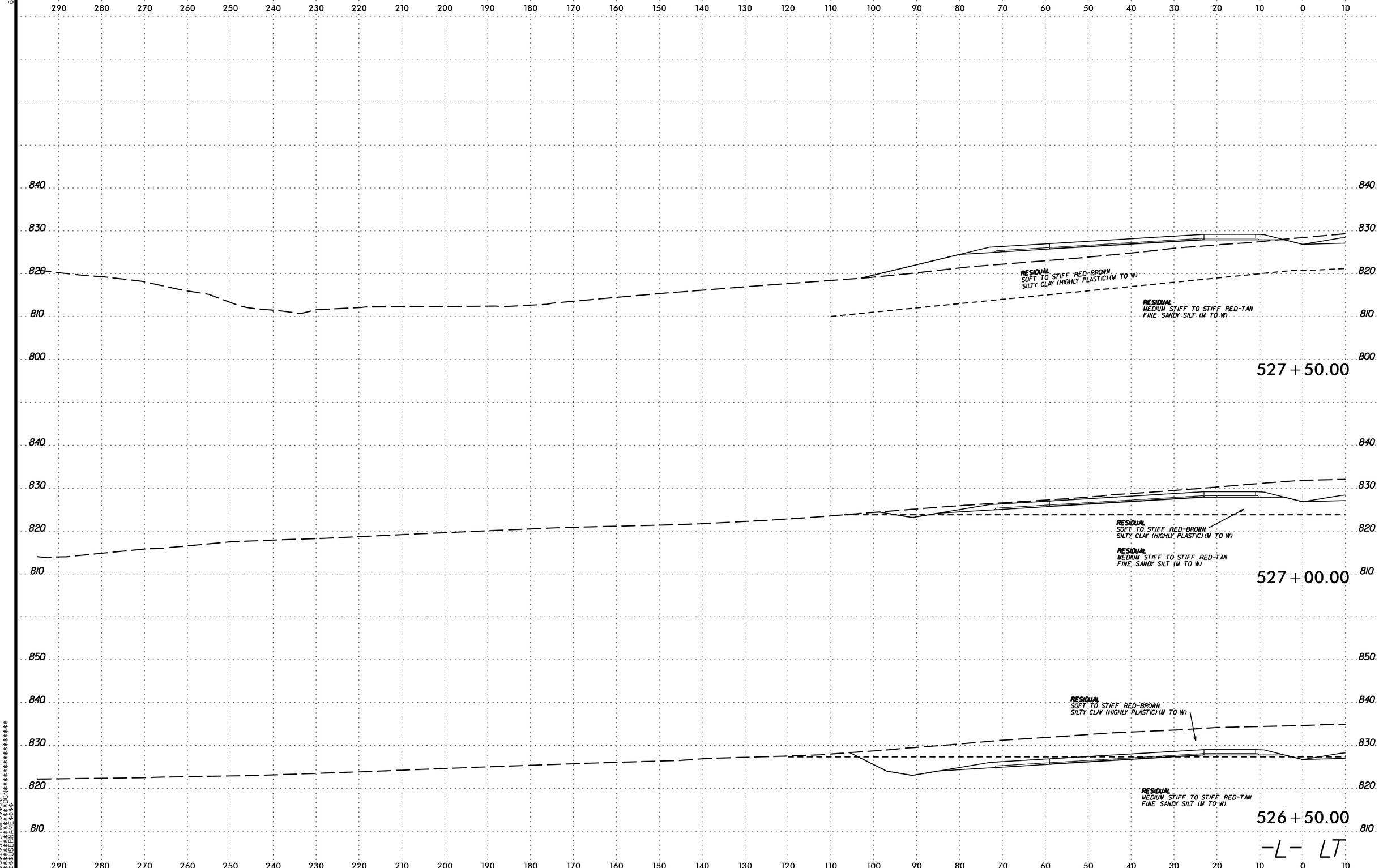
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-73	CL	526+00	3.5-5	A-7-5(26)	62	28	3	26	24	47	100	99	97	79.9	25.8	ND

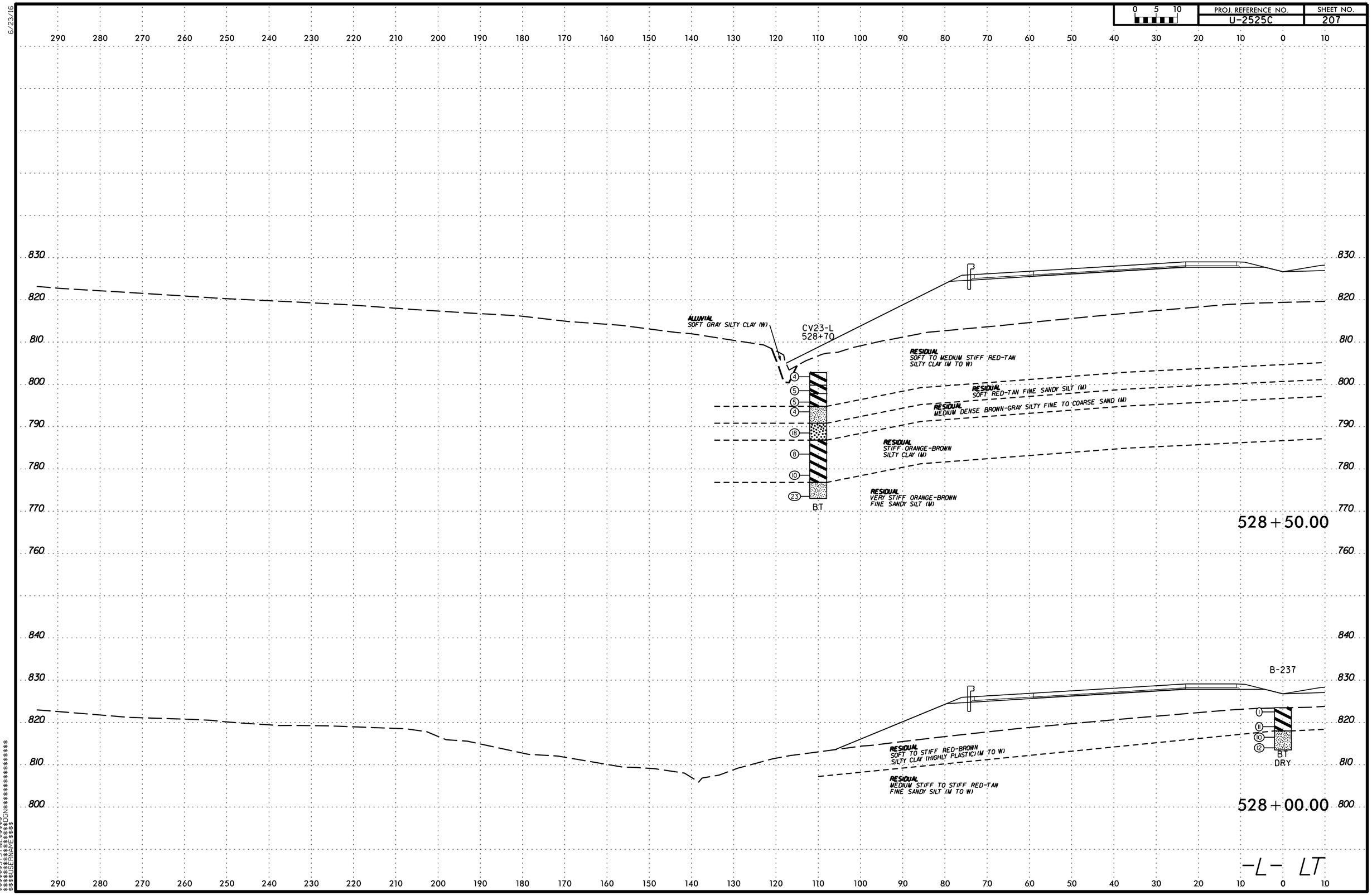
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	206



$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

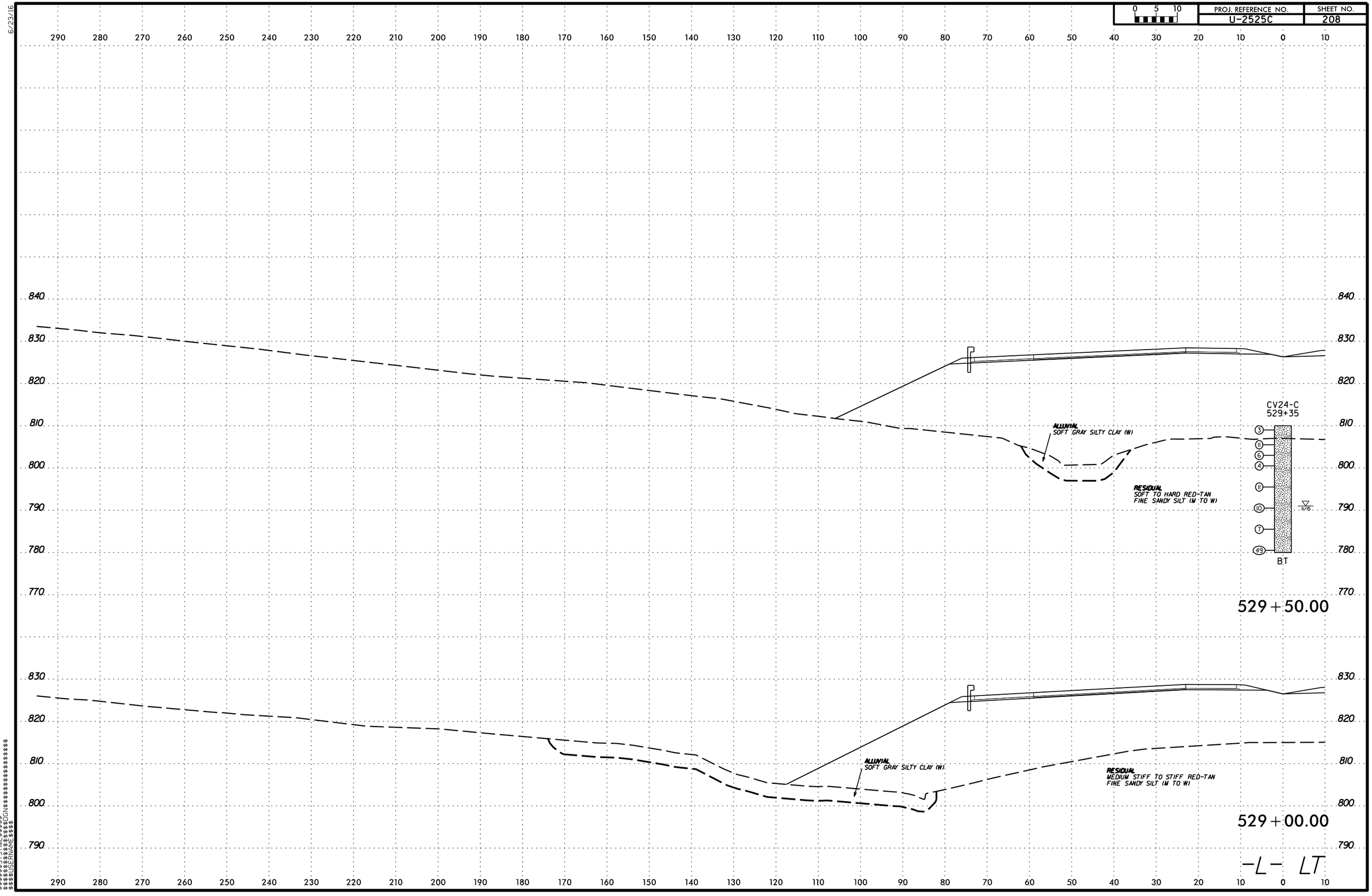


6/23/16

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

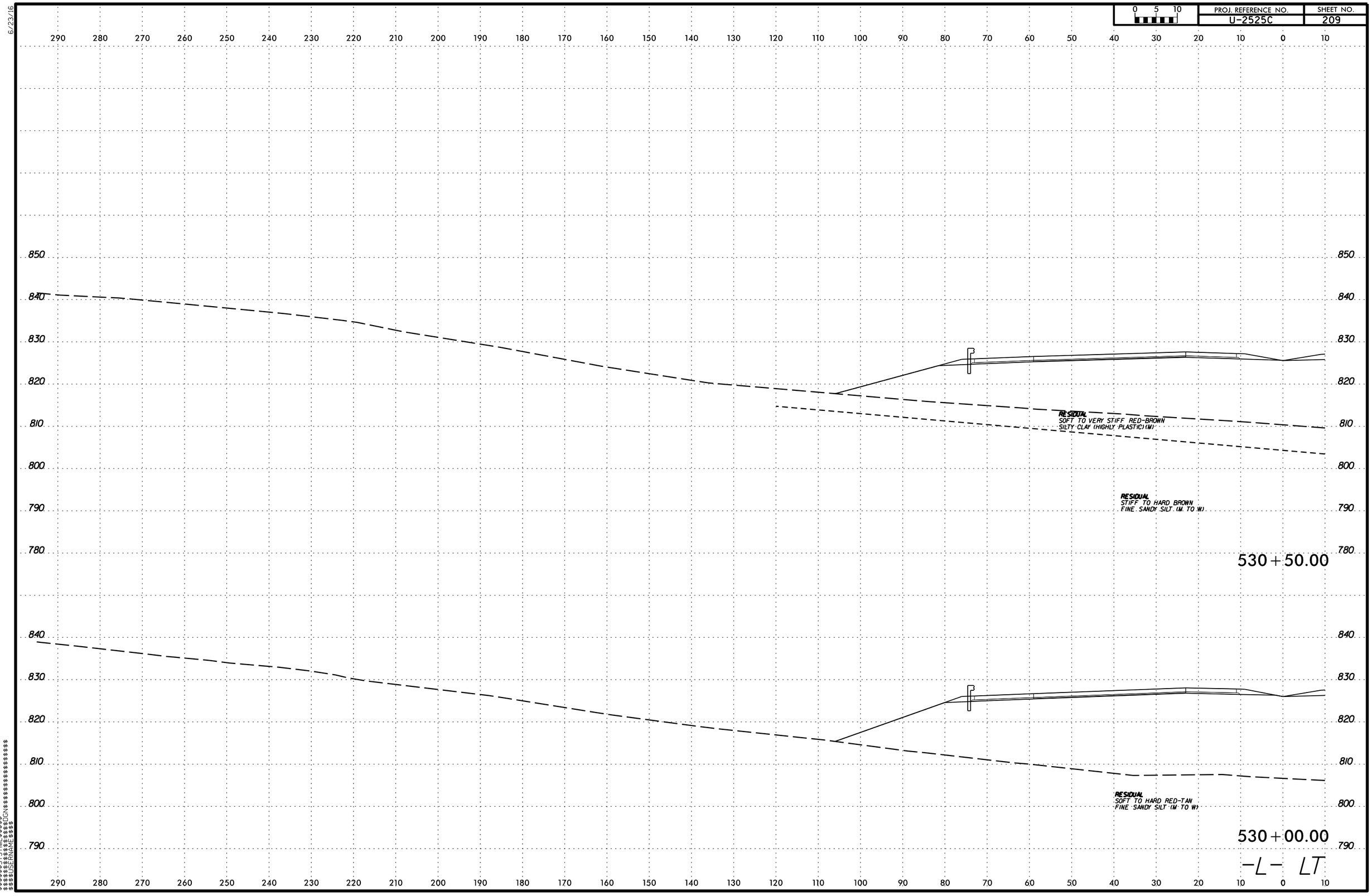
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	208



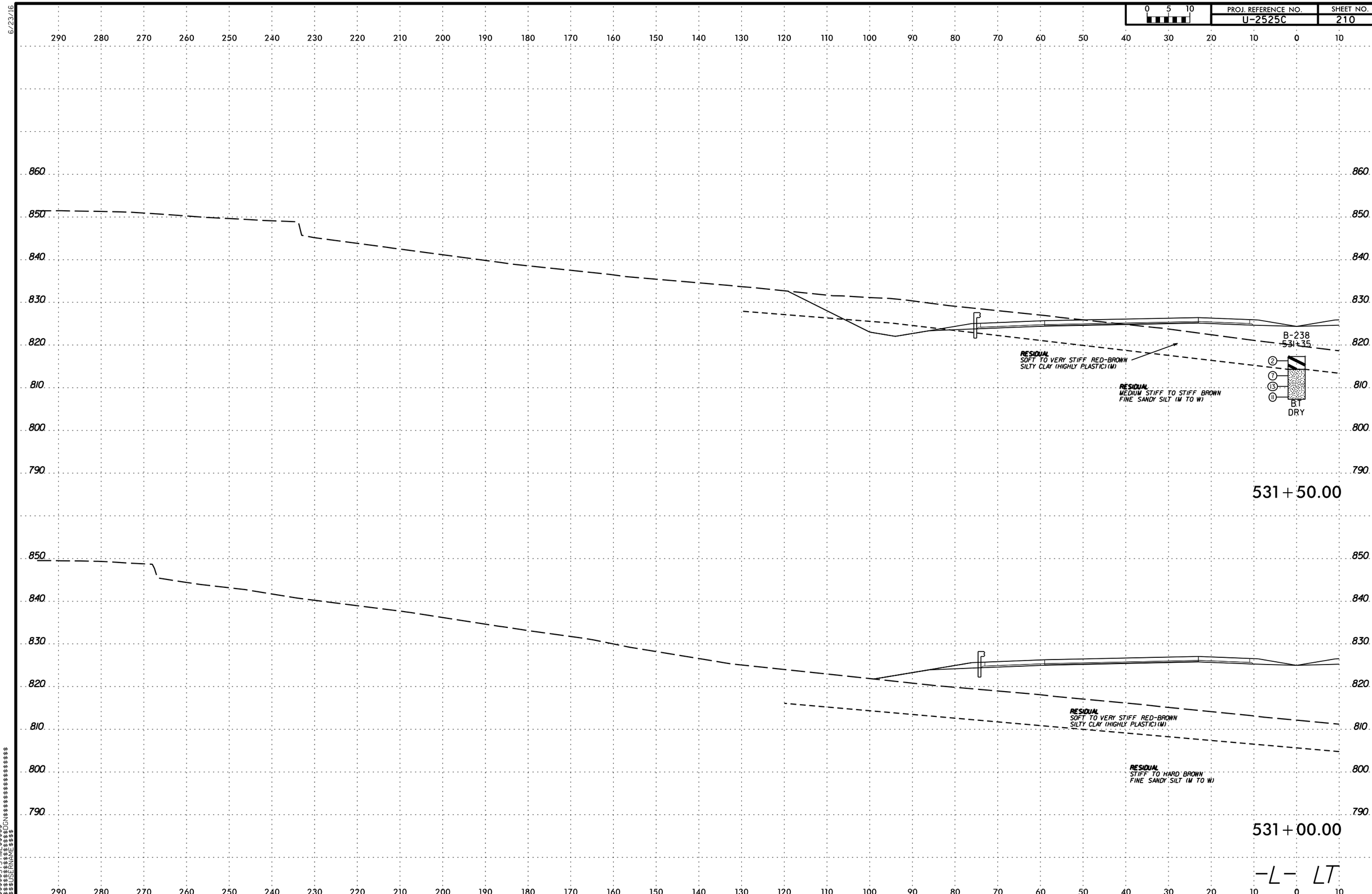
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	209



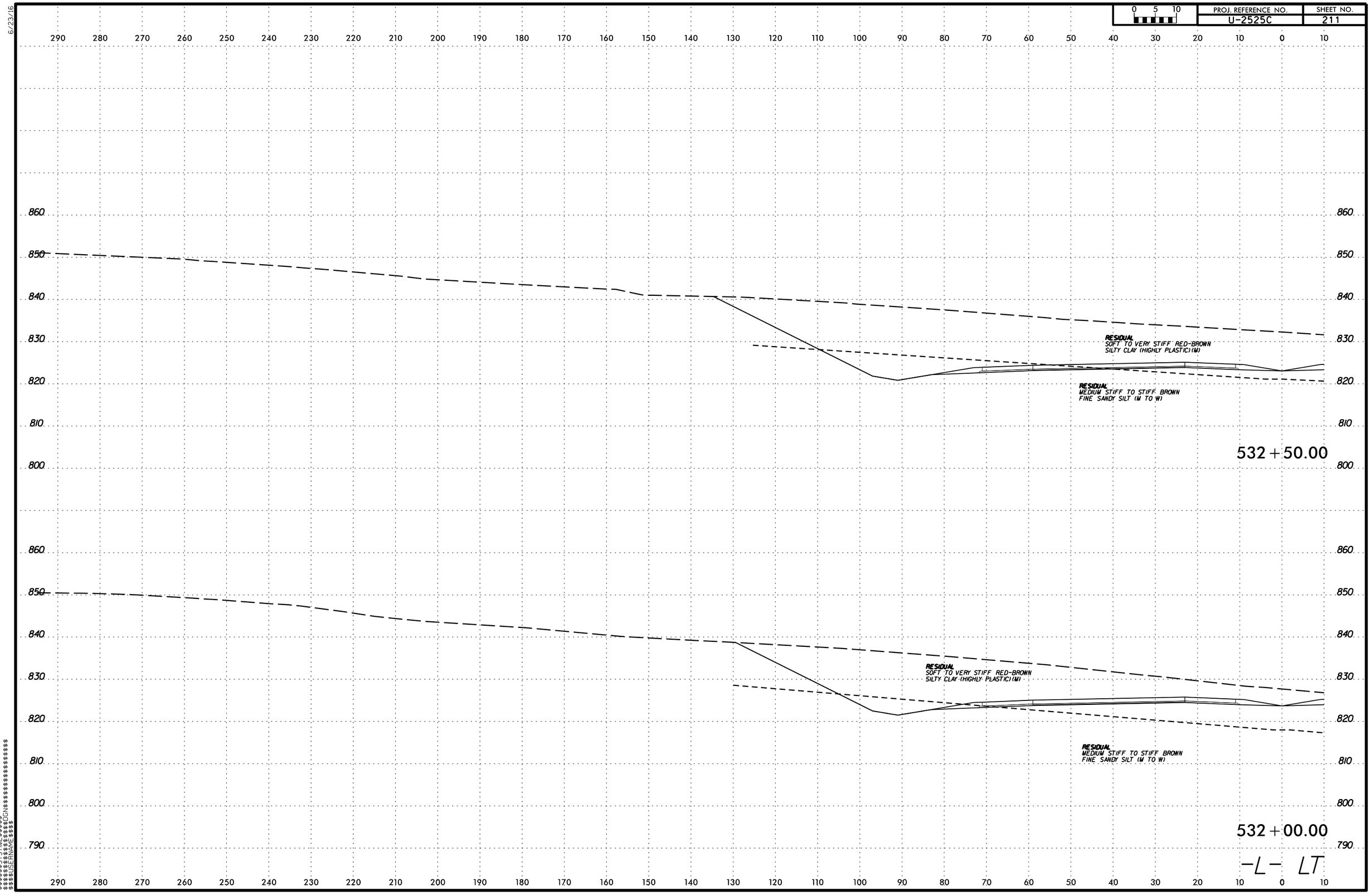
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
210
0 5 10
290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10
860 850 840 830 820 810 800 790
B-238
531+35
RESIDUAL
SOFT TO VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO STIFF BROWN
FINE SANDY SILT (M TO W)
B.T
DRY
531+50.00
RESIDUAL
SOFT TO VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
STIFF TO HARD BROWN
FINE SANDY SILT (M TO W)
531+00.00
-L- LT

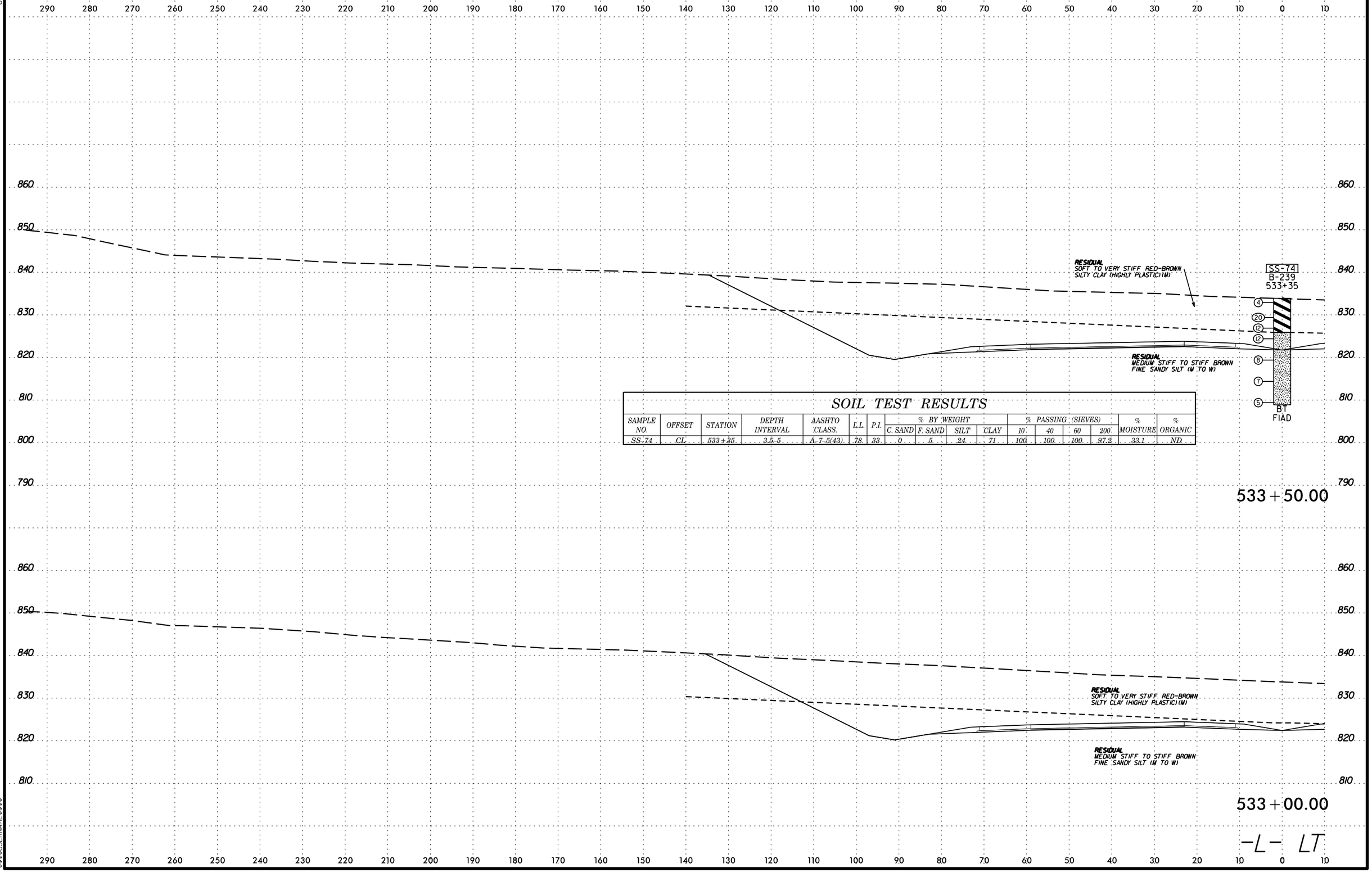
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	211



$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 212

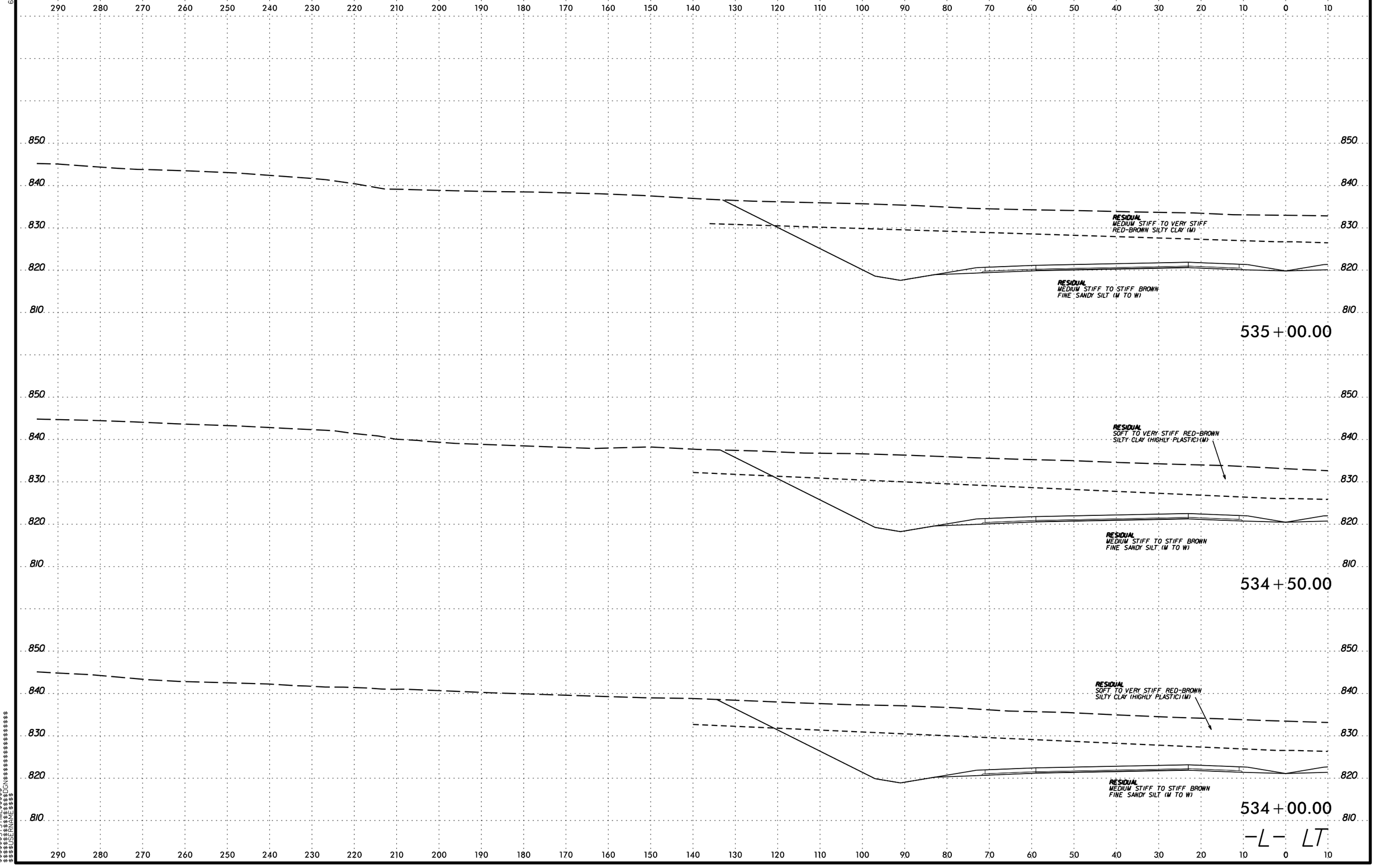


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-74	CL	533+35	3.5-5	A-7-5(43)	78	33	0	5	24	71	100	100	100	97.2	33.1	ND

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	213

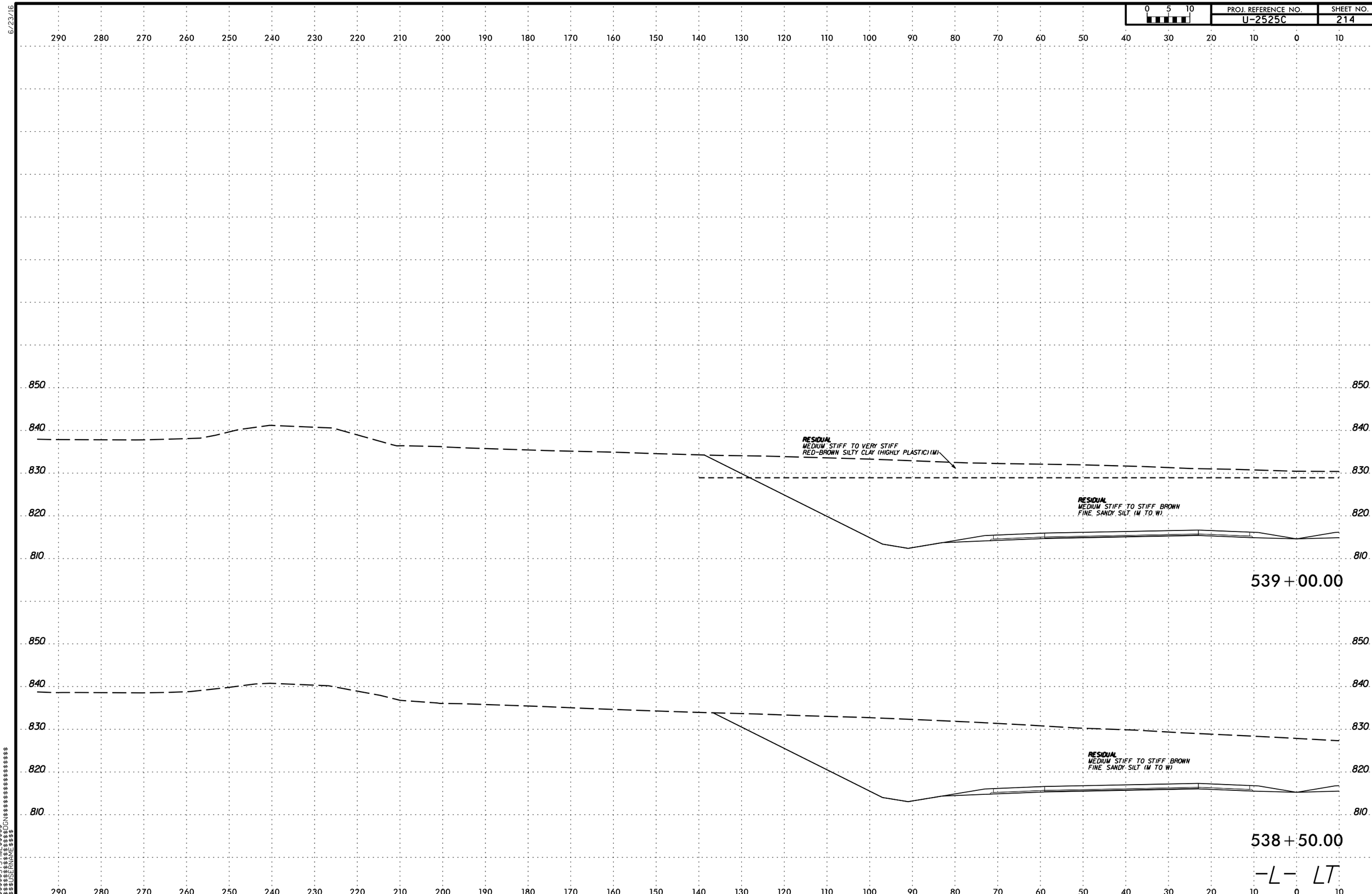


$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	214

0 5 10



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
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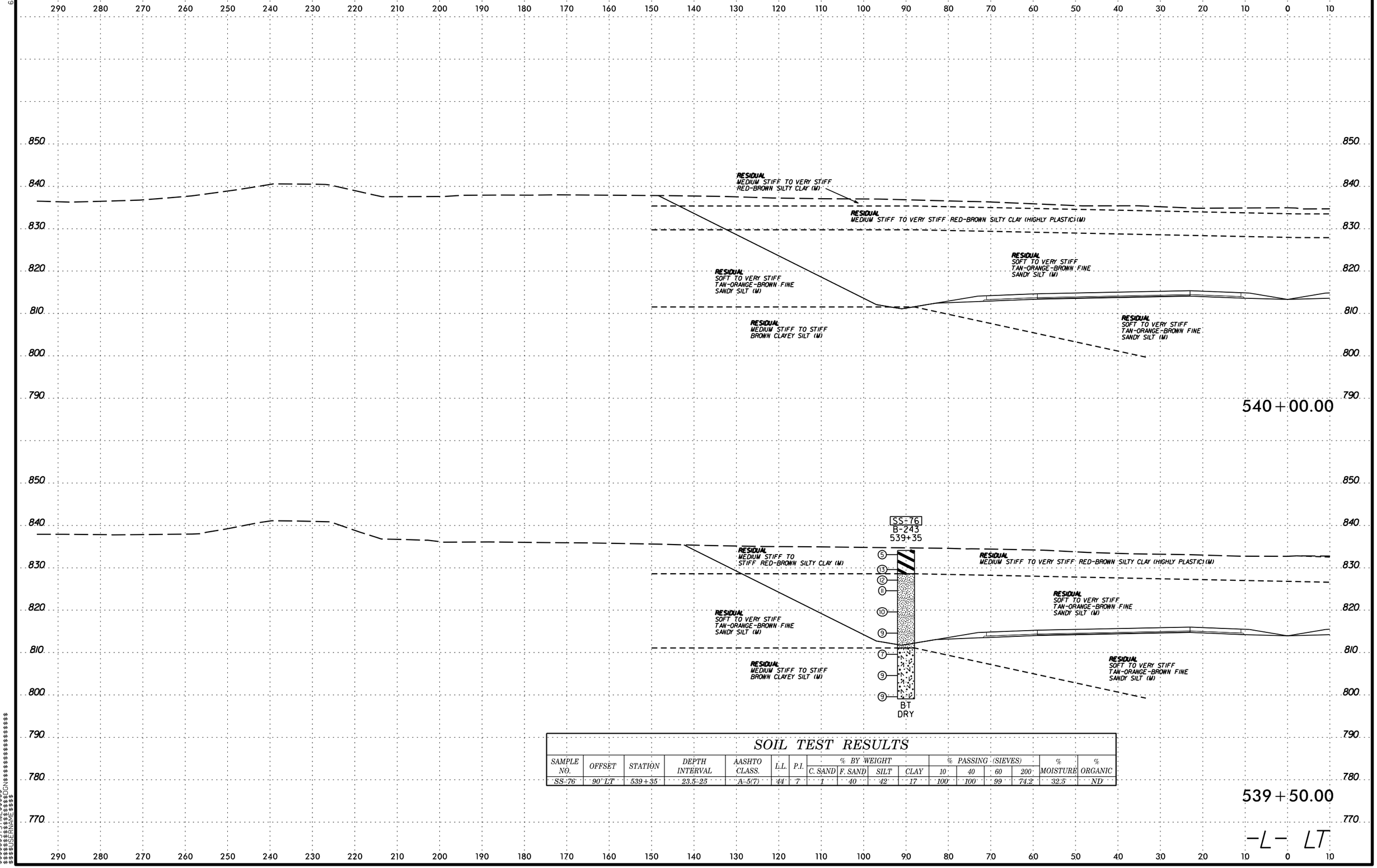
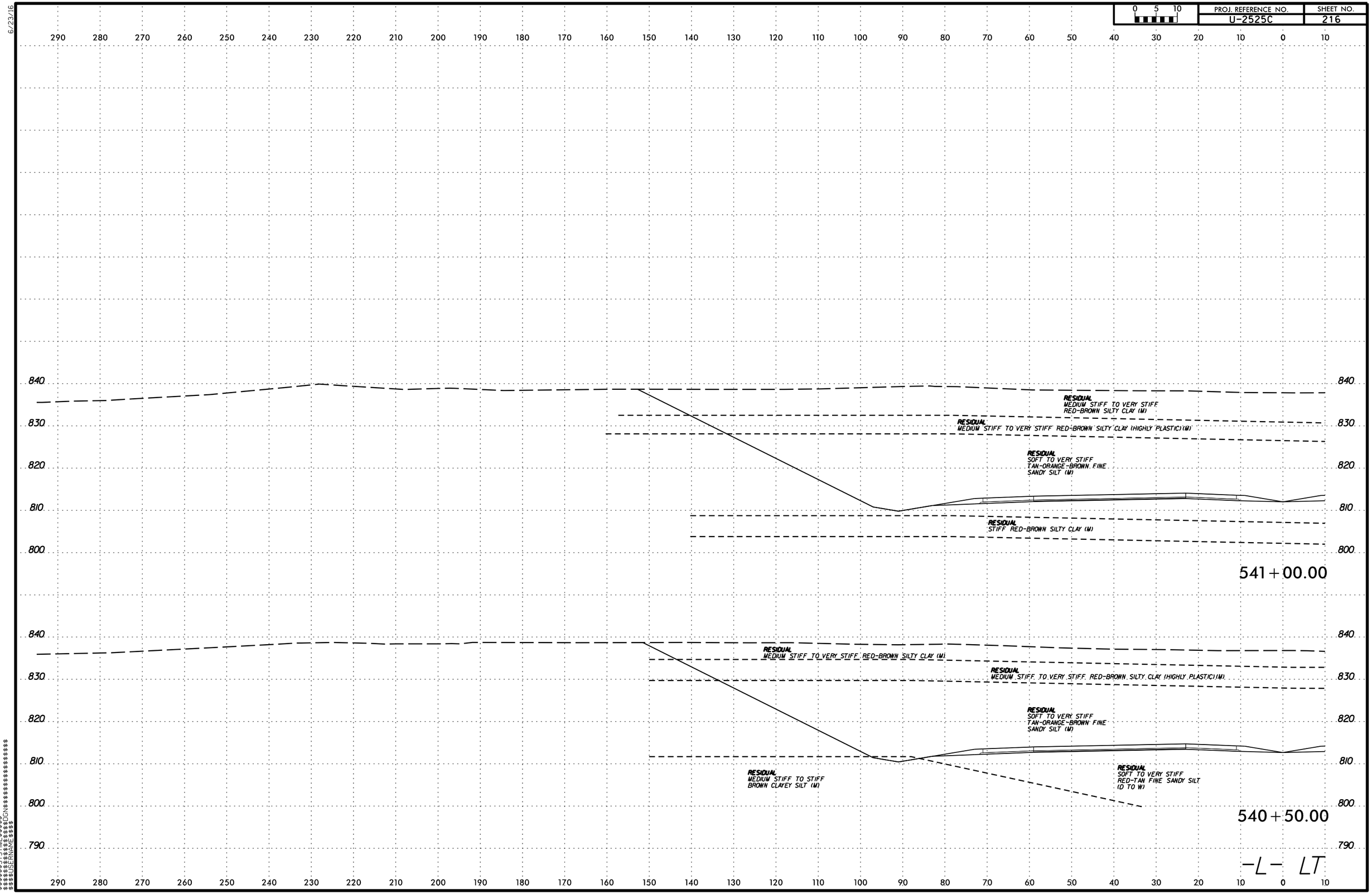
PROJ. REFERENCE NO. U-2525C | SHEET NO. 215



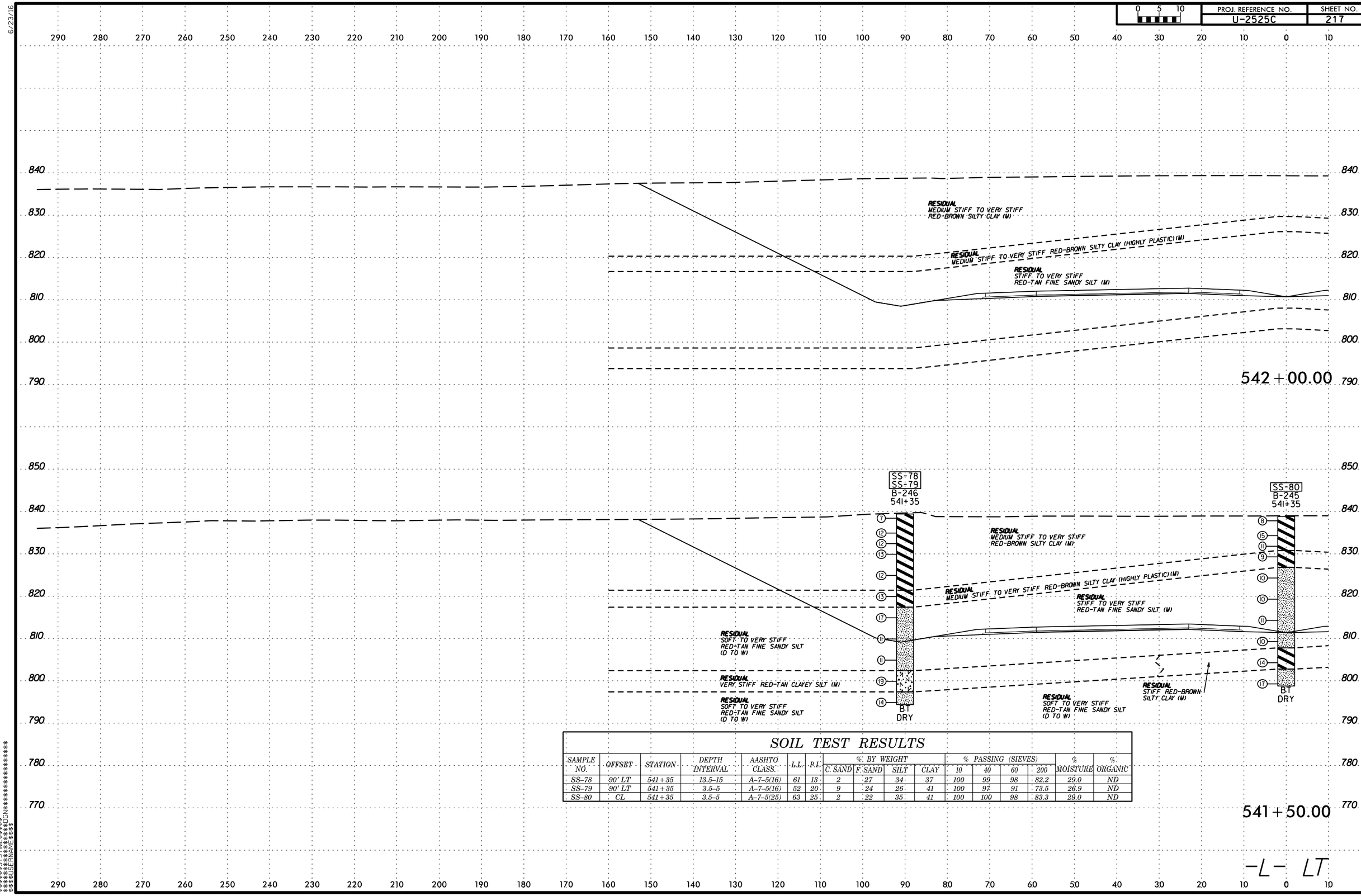
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-76	90' LT	539+35	23.5-25	A-5(7)	44	7	1	40	42	17	100	100	99	74.2	32.5	ND



6/23/16

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



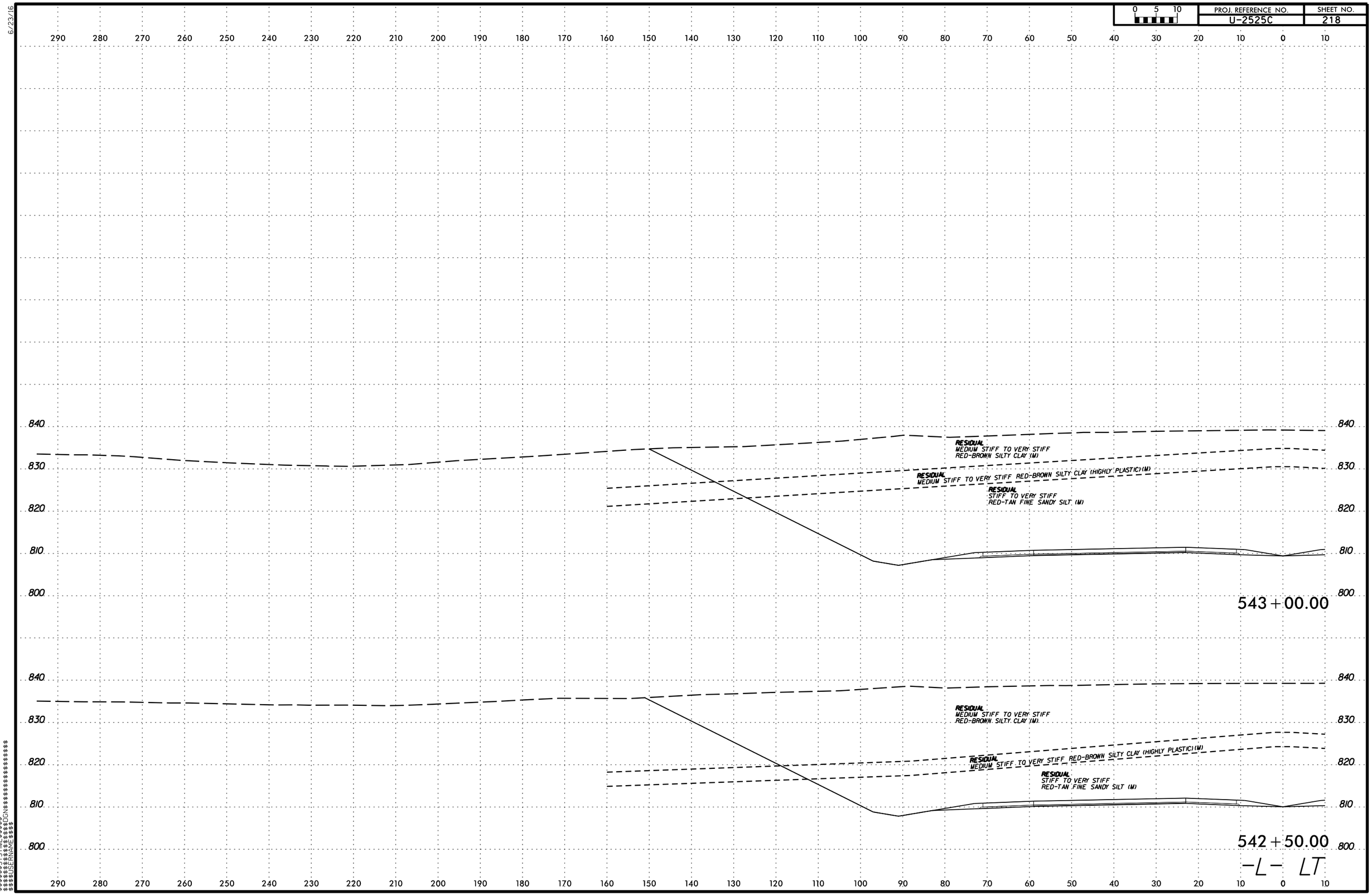
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-78	90' LT	541+35	13.5-15	A-7-5(16)	61	13	2	27	34	37	100	99	98	82.2	29.0	ND
SS-79	90' LT	541+35	3.5-5	A-7-5(16)	52	20	9	24	26	41	100	97	91	73.5	26.9	ND
SS-80	CL	541+35	3.5-5	A-7-5(25)	63	25	2	22	35	41	100	100	98	83.3	29.0	ND

6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

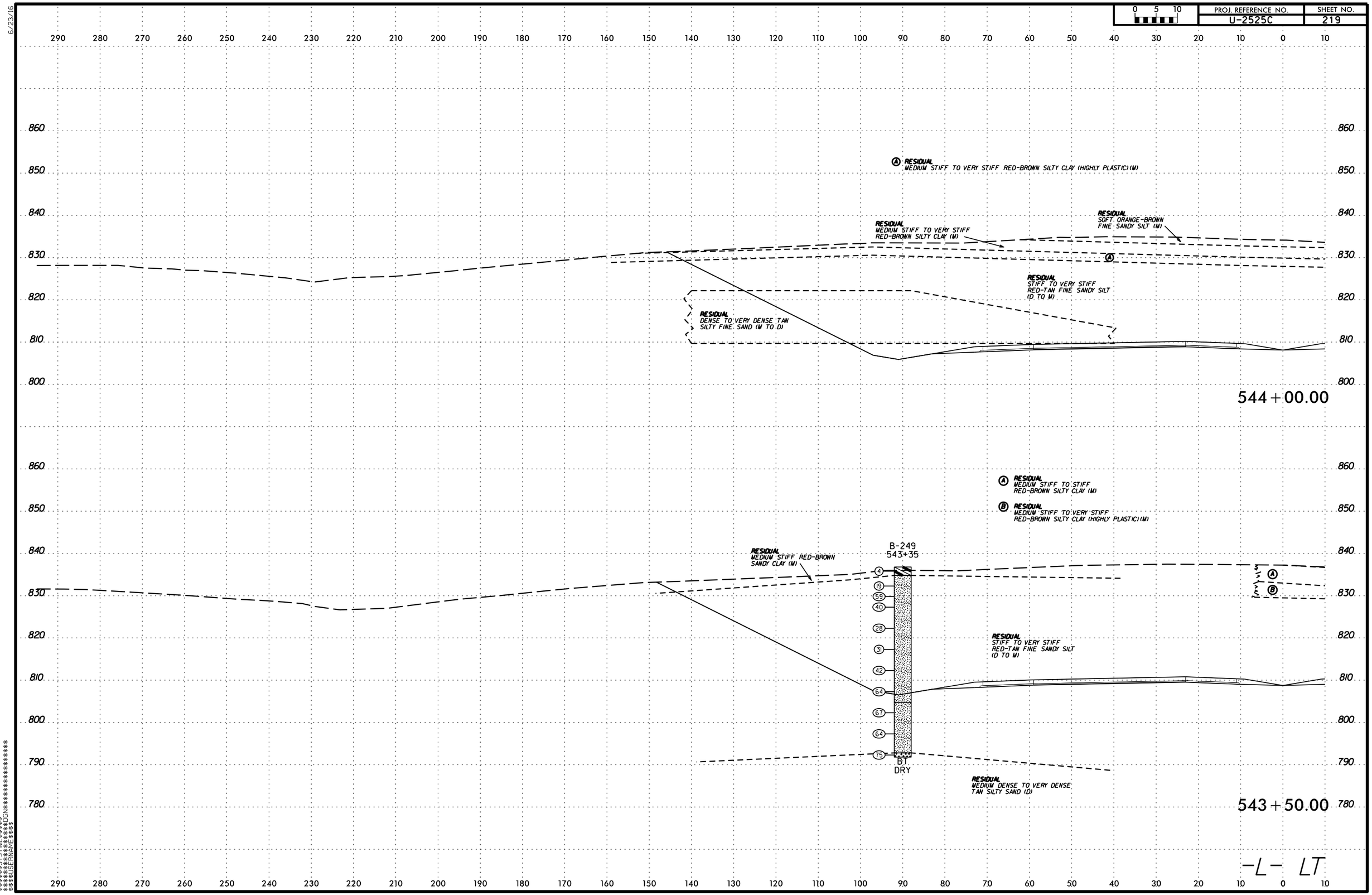
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	218



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	219



$$$$$$SYSTIME$$$$$$
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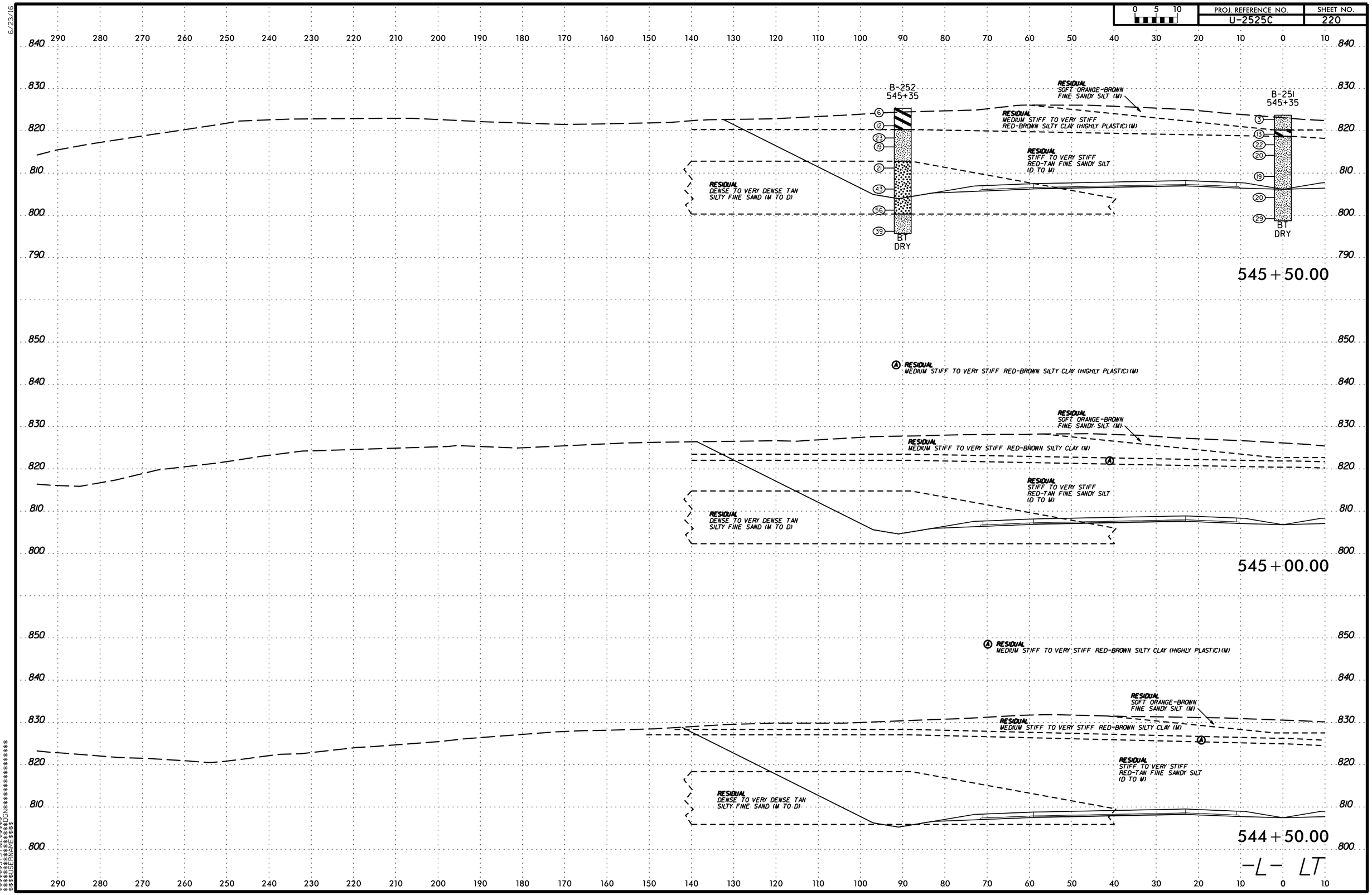
$$$$$$USERNAME$$$$



6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
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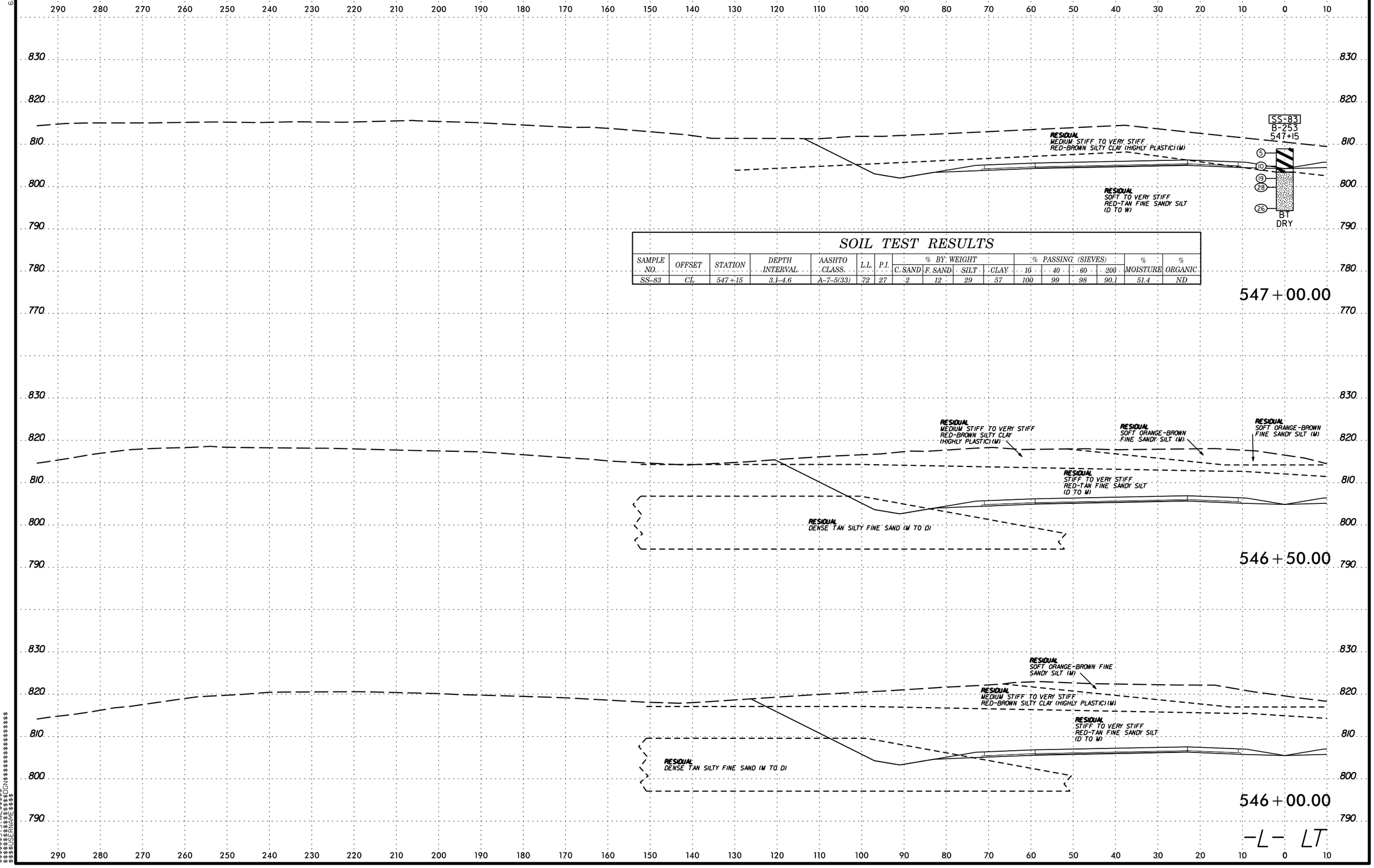
PROJ. REFERENCE NO. U-2525C | SHEET NO. 221

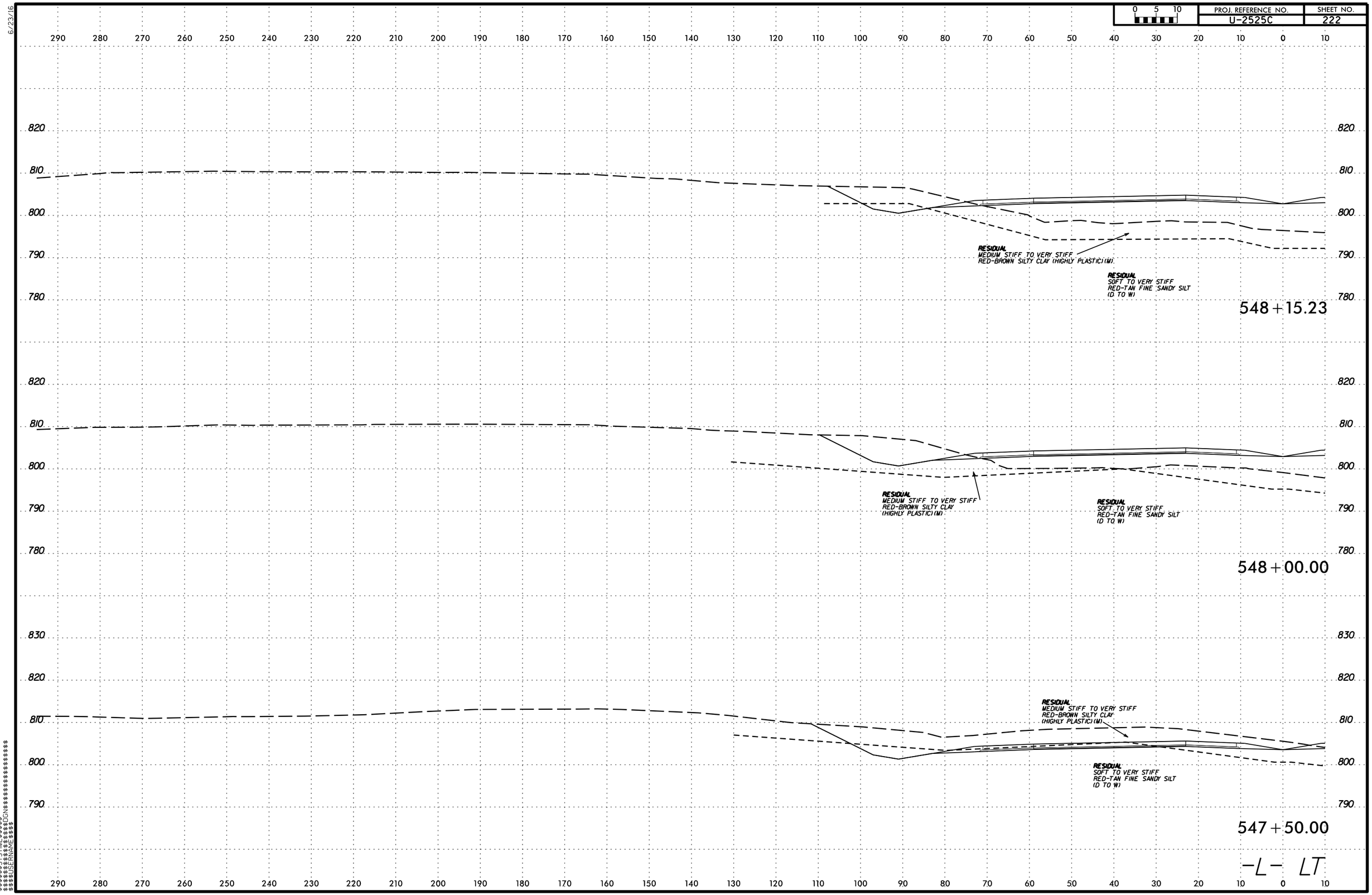


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-83	CL	547+15	3.1-4.6	A-7-5(33)	72	27	2	12	29	57	100	99	98	90.1	51.4	ND

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	222



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	223A

REFERENCE: U-2525C

PROJECT: 34821

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SECTION 2
CROSS SECTIONS
-L- RIGHT

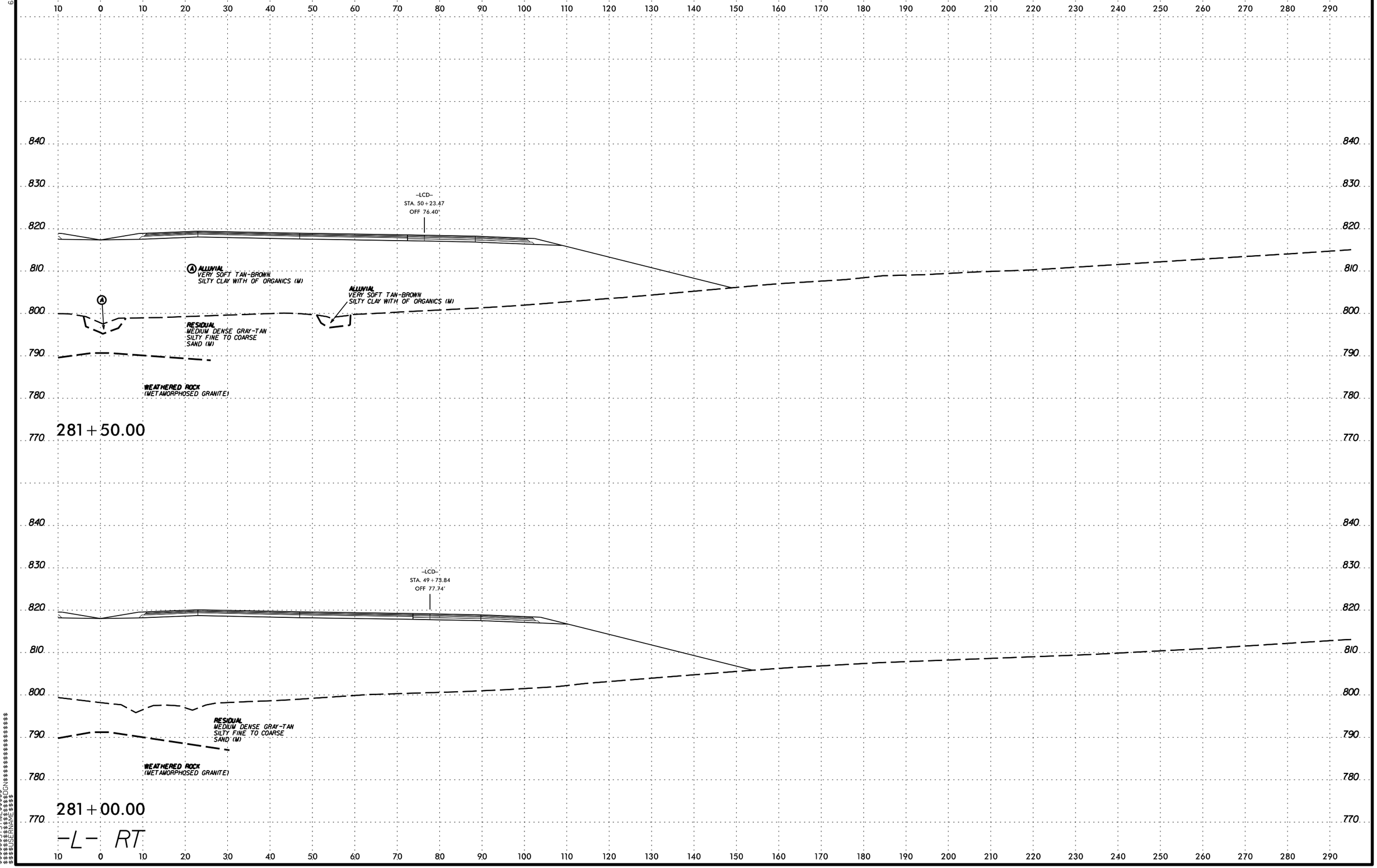
CROSS SECTIONS

LINE	STATION	SHEETS
-L- RIGHT	281+00 - 282+50	223 - 224
-L- RIGHT	287+00 - 299+00	225 - 235
-L- RIGHT	301+00 - 304+00	236 - 238
-L- RIGHT	312+00	238
-L- RIGHT	314+00 - 316+00	239 - 243
-L- RIGHT	320+00	244
-L- RIGHT	324+00	245
-L- RIGHT	330+50 - 332+00	245 - 247
-L- RIGHT	335+00	248
-L- RIGHT	337+50	249
-L- RIGHT	339+00 - 343+00	250 - 257
-L- RIGHT	344+00	258
-L- RIGHT	346+00	259
-L- RIGHT	351+50 - 352+00	260 - 261
-L- RIGHT	354+00	262
-L- RIGHT	358+00 - 361+00	263 - 269
-L- RIGHT	363+50	270
-L- RIGHT	365+50	271
-L- RIGHT	368+00	272
-L- RIGHT	370+00	273
-L- RIGHT	373+00 - 374+50	274 - 276
-L- RIGHT	376+00	277
-L- RIGHT	379+50	278
-L- RIGHT	402+50	279
-L- RIGHT	404+11.78	280
-L- RIGHT	406+50	281
-L- RIGHT	407+50 - 415+50	281 - 289
-L- RIGHT	418+00	290
-L- RIGHT	429+50 - 464+00	291 - 323
-L- RIGHT	466+00 - 468+00	323 - 324
-L- RIGHT	471+00 - 482+00	325 - 333
-L- RIGHT	485+50	333
-L- RIGHT	490+00	334
-L- RIGHT	492+00 - 495+50	335 - 342
-L- RIGHT	507+50 - 511+50	343 - 349
-L- RIGHT	517+00 - 520+00	349 - 352
-L- RIGHT	524+00 - 535+00	353 - 362
-L- RIGHT	538+50 - 548+15.23	362 - 370

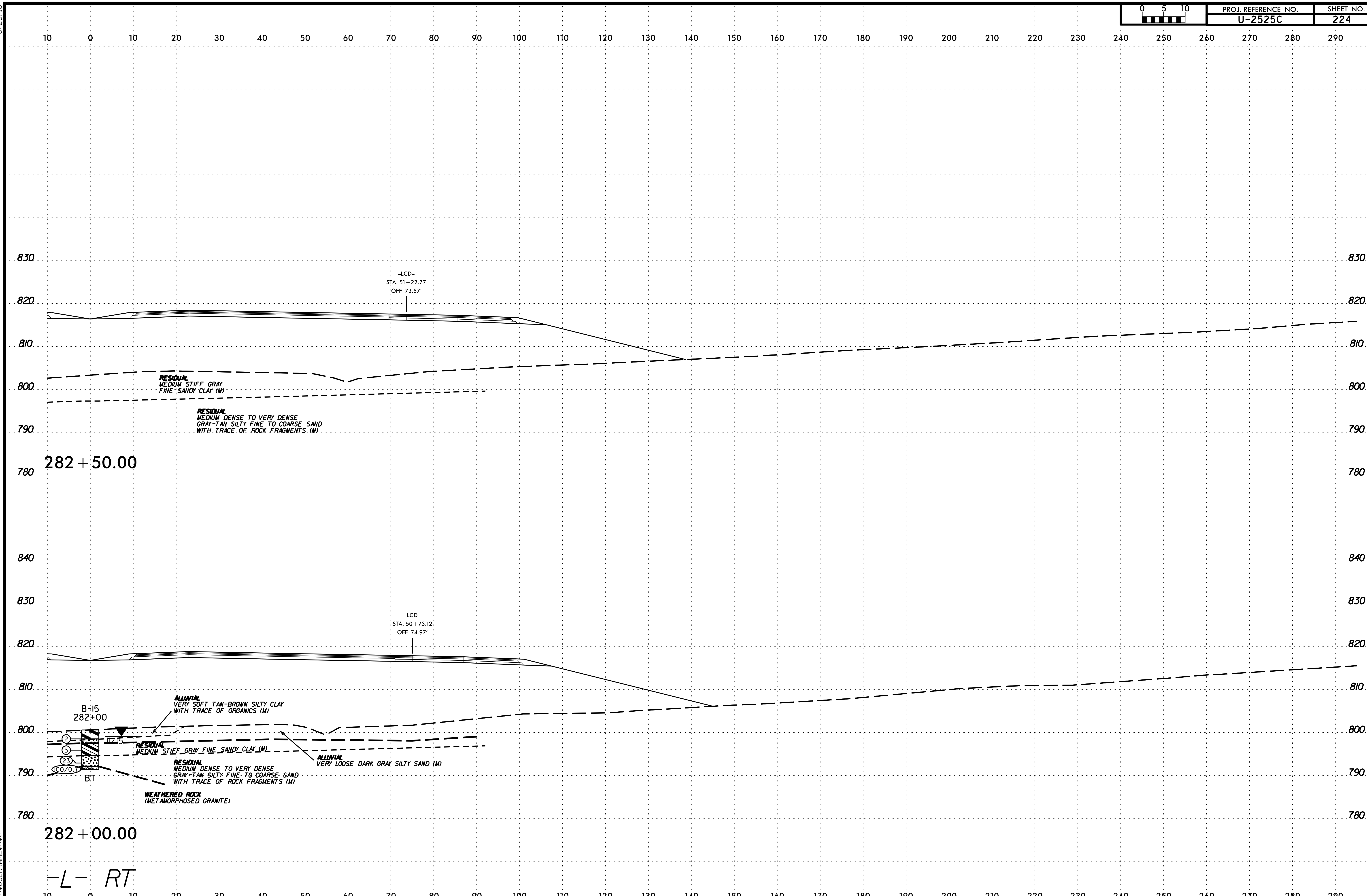
DocuSigned by:
Stewart S. Laney, PE
75BB4AB1AB3B4CB...

5/30/2017

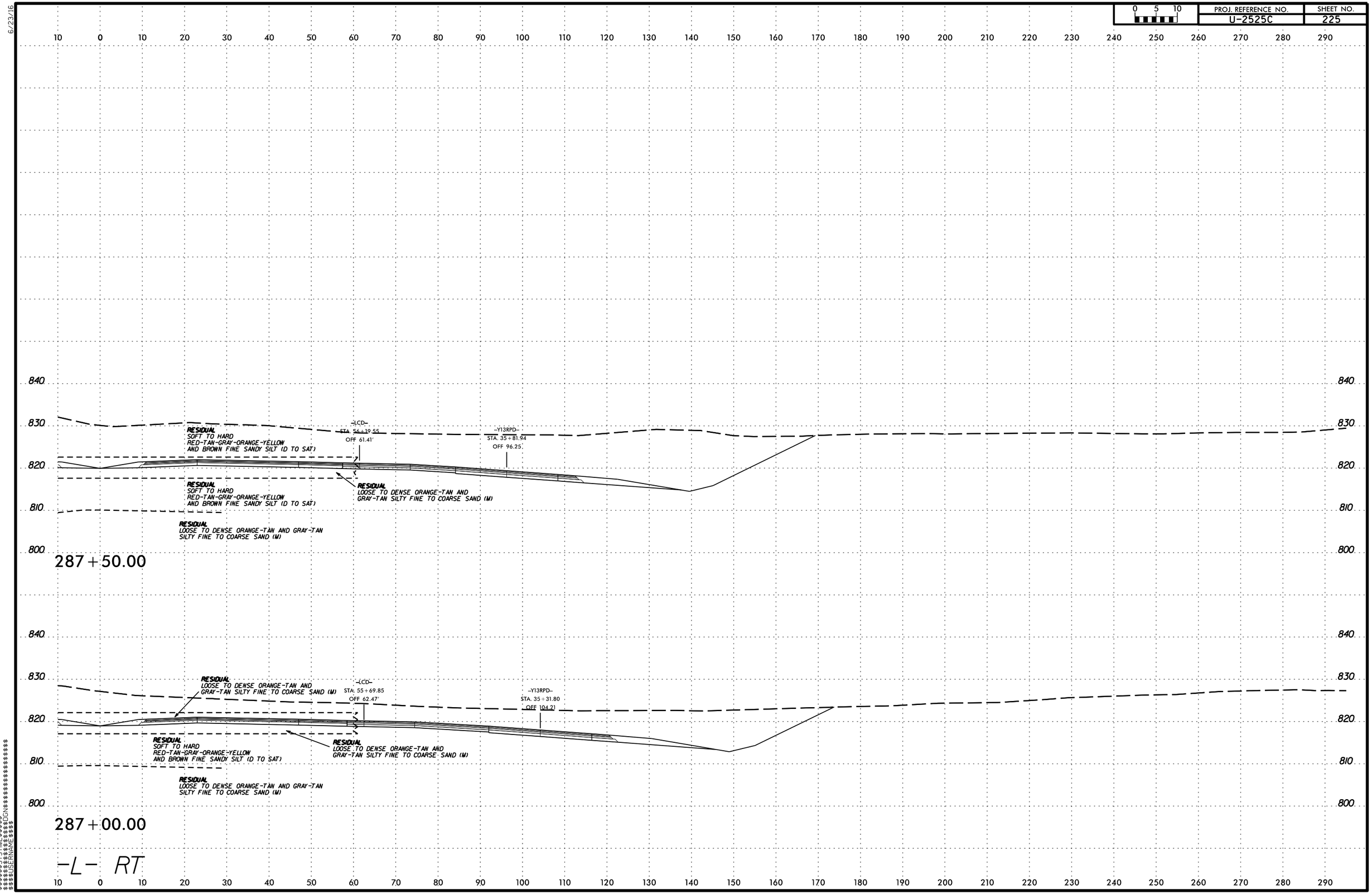
S&ME



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
223
0 5 10
-LCD-
STA. 50+23.47
OFF 76.40'
ALLUVIAL
VERY SOFT TAN-BROWN
SILTY CLAY WITH OF ORGANICS (M)
ALLUVIAL
VERY SOFT TAN-BROWN
SILTY CLAY WITH OF ORGANICS (M)
RESIDUAL
MEDIUM DENSE GRAY-TAN
SILTY FINE TO COARSE
SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
281+50.00
-LCD-
STA. 49+73.84
OFF 77.74'
RESIDUAL
MEDIUM DENSE GRAY-TAN
SILTY FINE TO COARSE
SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
281+00.00
-L- RT

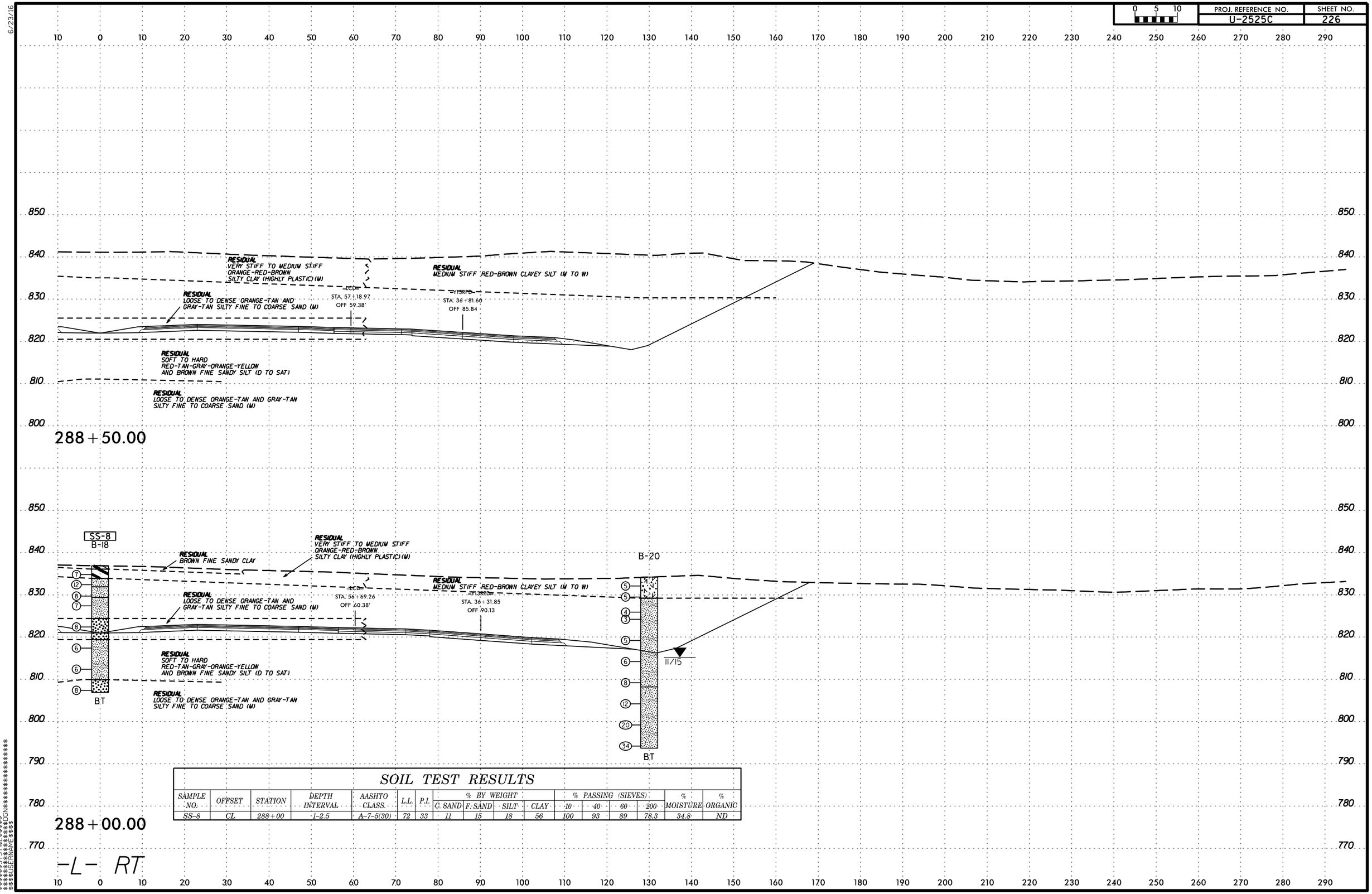


6/23/16
$$$$SYSTIME$$$$
$$$$$$DGN$$$$$$
$$$USERNAME$$$$



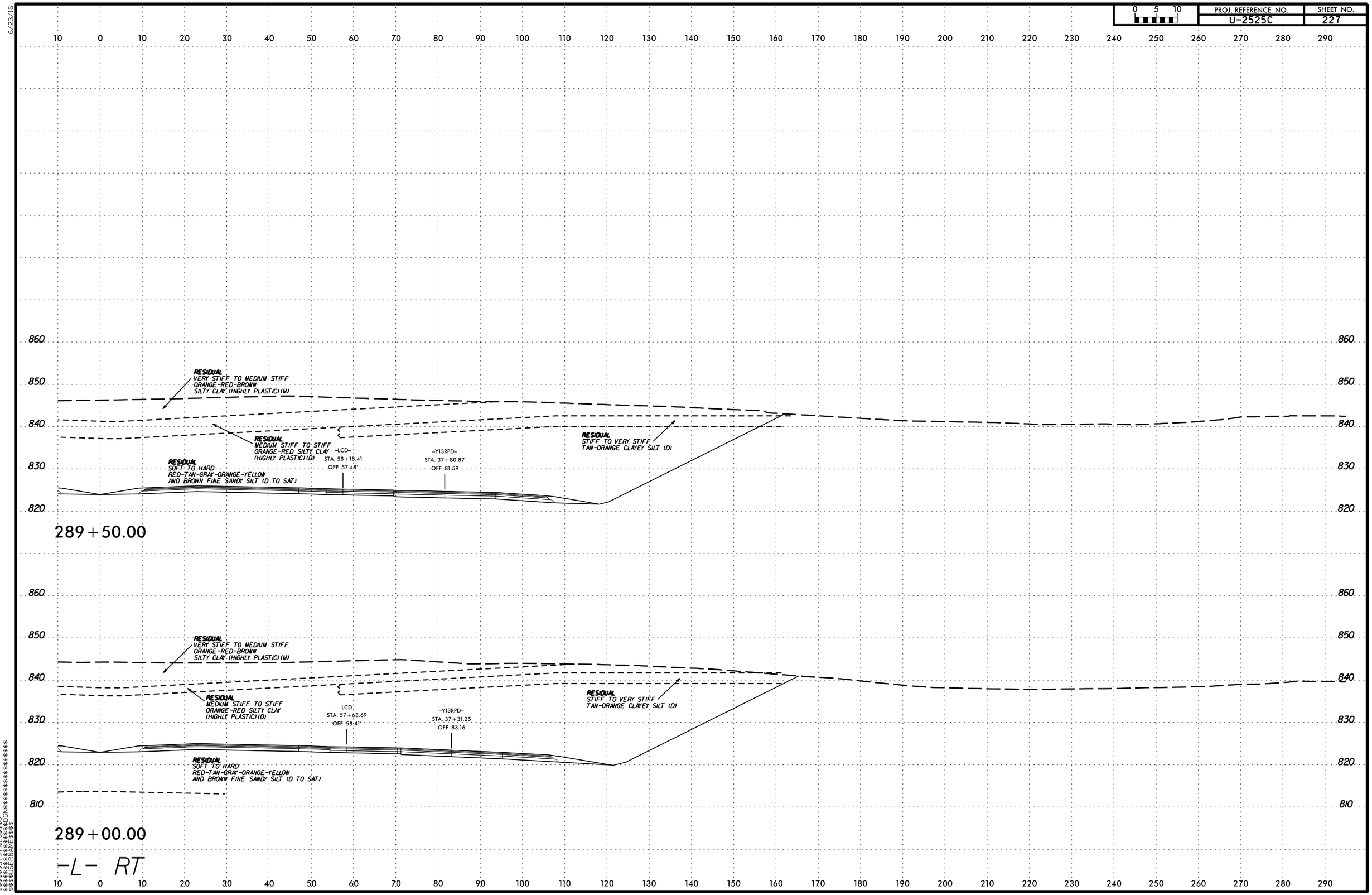
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
225
0 5 10
6/23/16
840
830
820
810
800
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
-LCD-
STA. 56+19.55
OFF 61.41'
-Y13RPD-
STA. 35+81.94
OFF 96.25'
RESIDUAL
LOOSE TO DENSE ORANGE-TAN AND
GRAY-TAN SILTY FINE TO COARSE SAND (M)
RESIDUAL
LOOSE TO DENSE ORANGE-TAN AND GRAY-TAN
SILTY FINE TO COARSE SAND (M)
287+50.00
-LCD-
STA. 55+69.85
OFF 62.47'
-Y13RPD-
STA. 35+31.80
OFF 104.21
287+00.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 226



SOIL TEST RESULTS

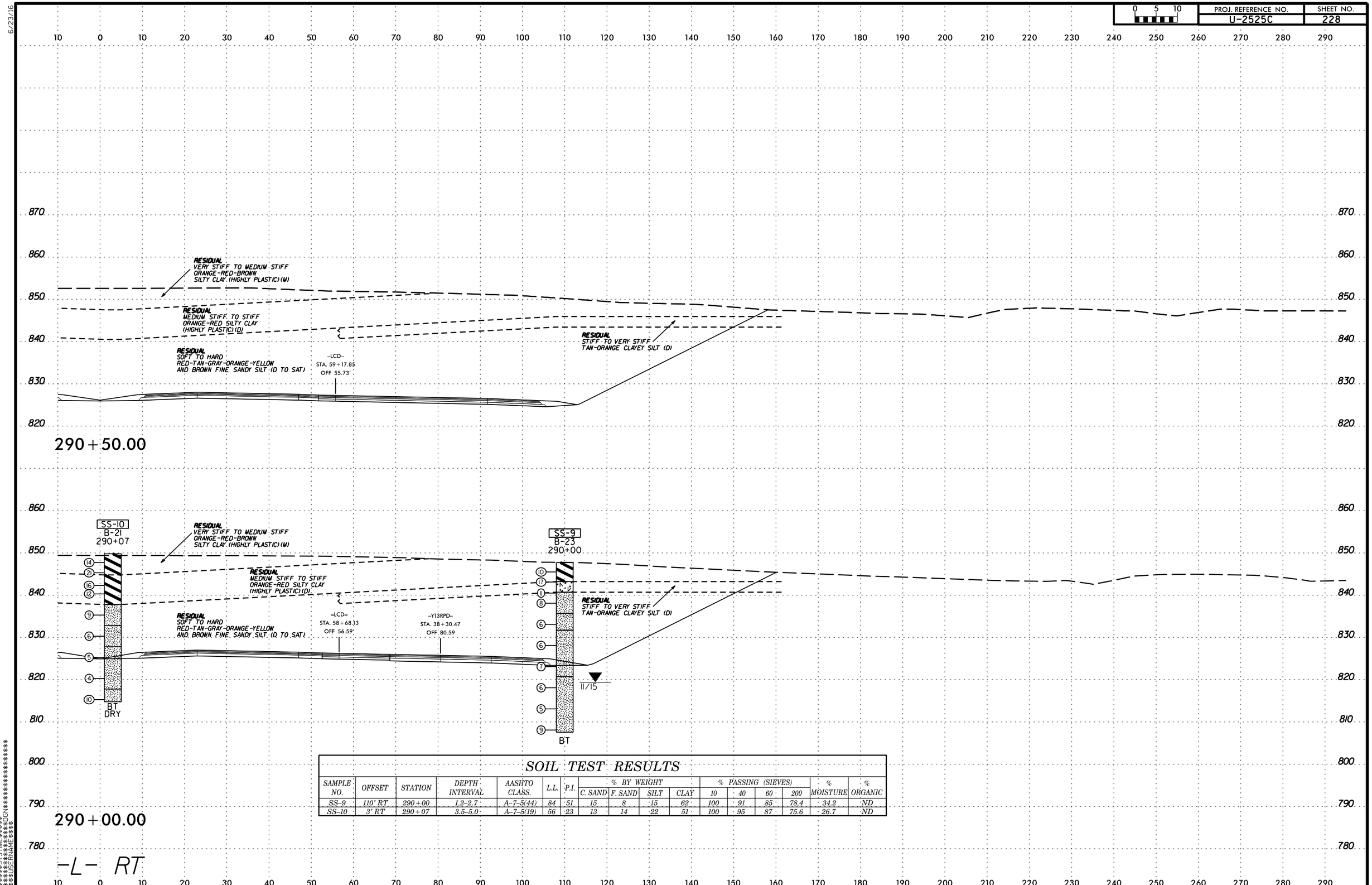
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-8	CL	288+00	1-2.5	A-7-5(30)	72	33	11	15	18	56	100	93	89	78.3	34.8	ND



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
227
0 5 10
RESIDUAL
VERY STIFF TO MEDIUM STIFF
ORANGE-RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF
ORANGE-RED SILTY CLAY
(HIGHLY PLASTIC) (D)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
-LCD-
STA. 58+18.41
OFF 57.48'
-Y13RPD-
STA. 37+80.87
OFF 81.59
RESIDUAL
STIFF TO VERY STIFF
TAN-ORANGE CLAYEY SILT (D)
289+50.00
RESIDUAL
VERY STIFF TO MEDIUM STIFF
ORANGE-RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF
ORANGE-RED SILTY CLAY
(HIGHLY PLASTIC) (D)
-LCD-
STA. 57+68.69
OFF 58.41'
-Y13RPD-
STA. 37+31.25
OFF 83.16
RESIDUAL
STIFF TO VERY STIFF
TAN-ORANGE CLAYEY SILT (D)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
289+00.00
-L- RT

6/23/16

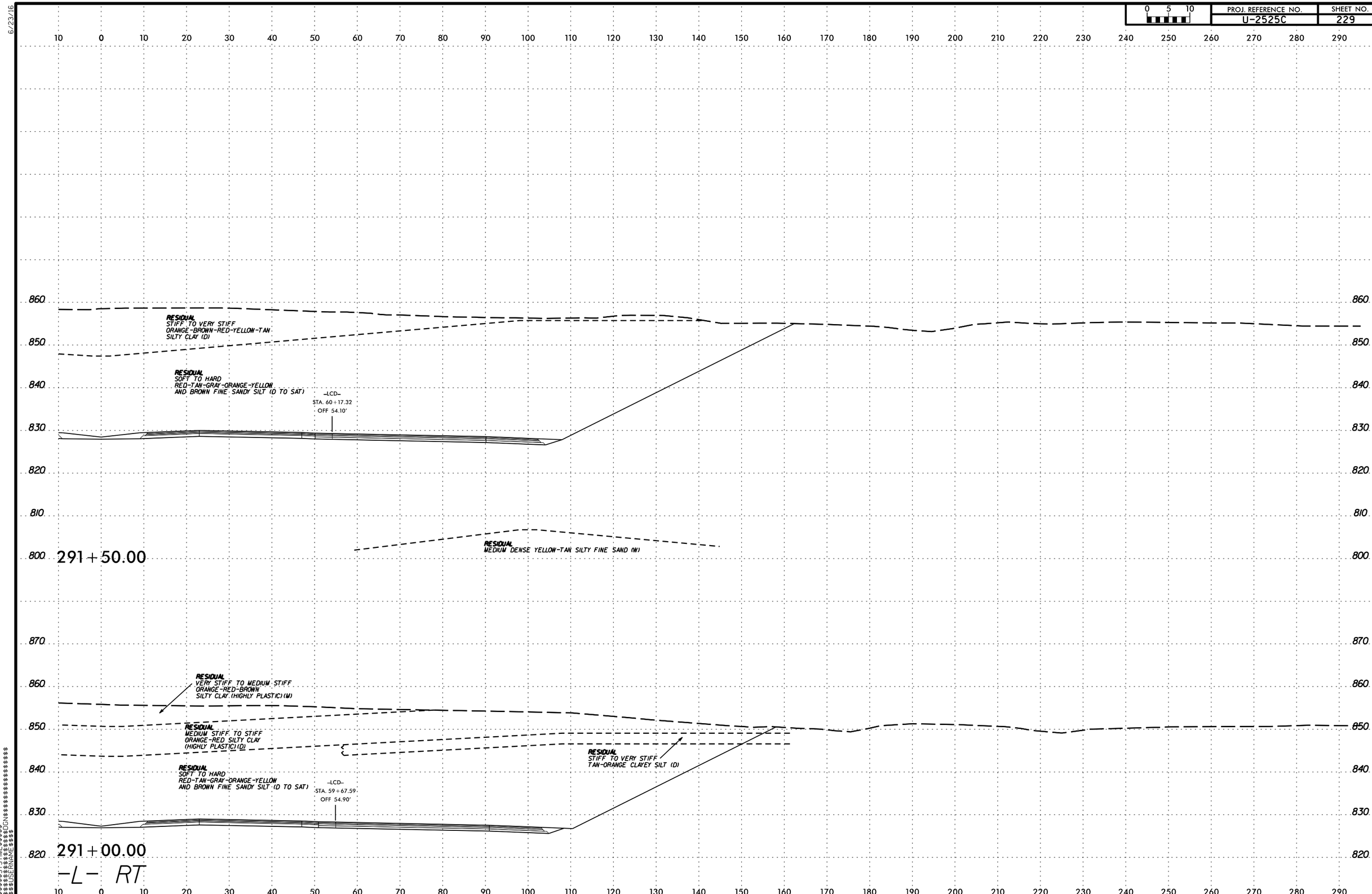
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	228



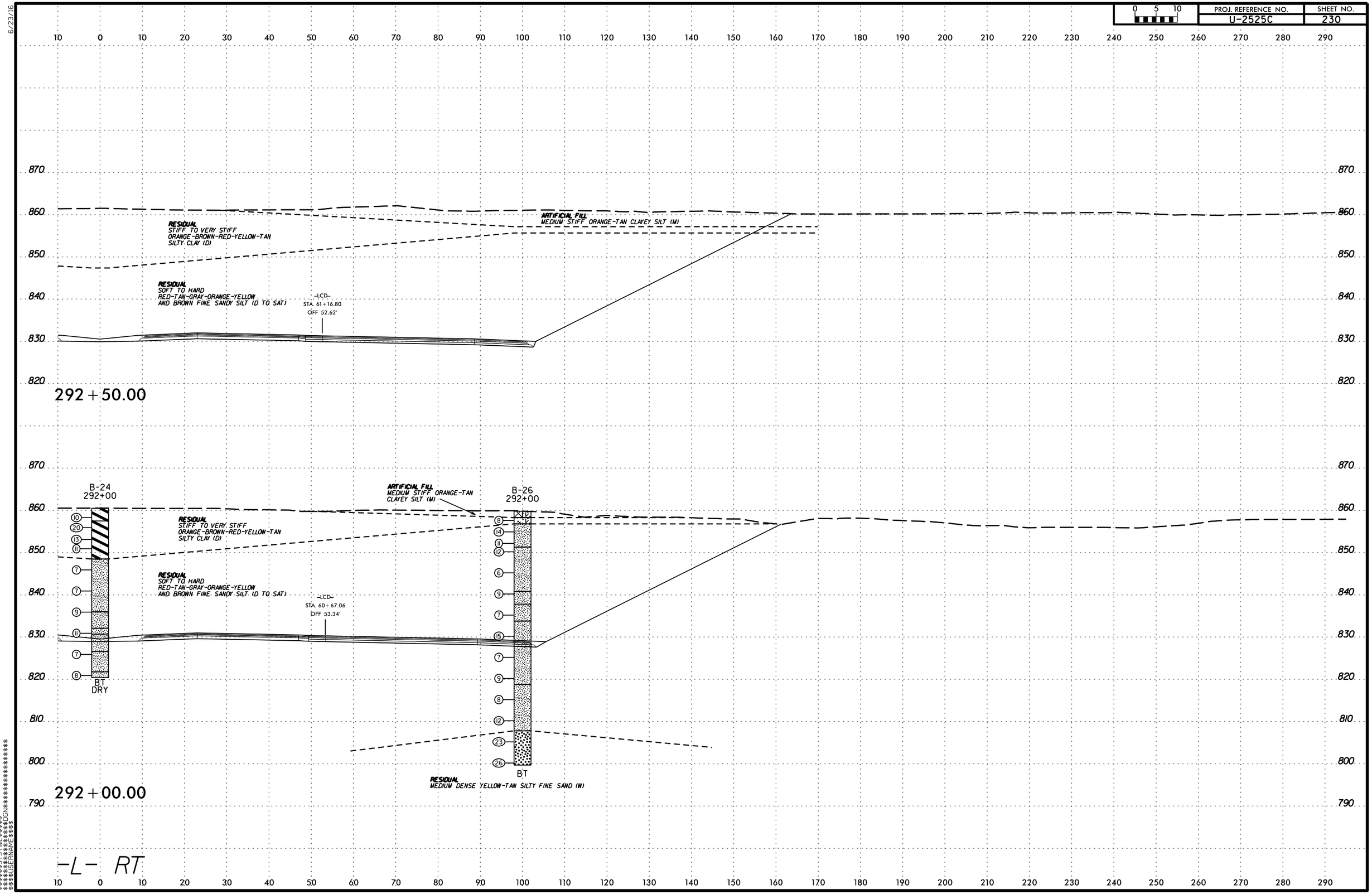
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-9	110' RT	290+00	1.2-2.7	A-7-5(44)	84	51	15	8	15	62	100	91	85	78.4	34.2	ND
SS-10	3' RT	290+07	3.5-5.0	A-7-5(19)	56	23	13	14	22	51	100	95	87	75.6	26.7	ND

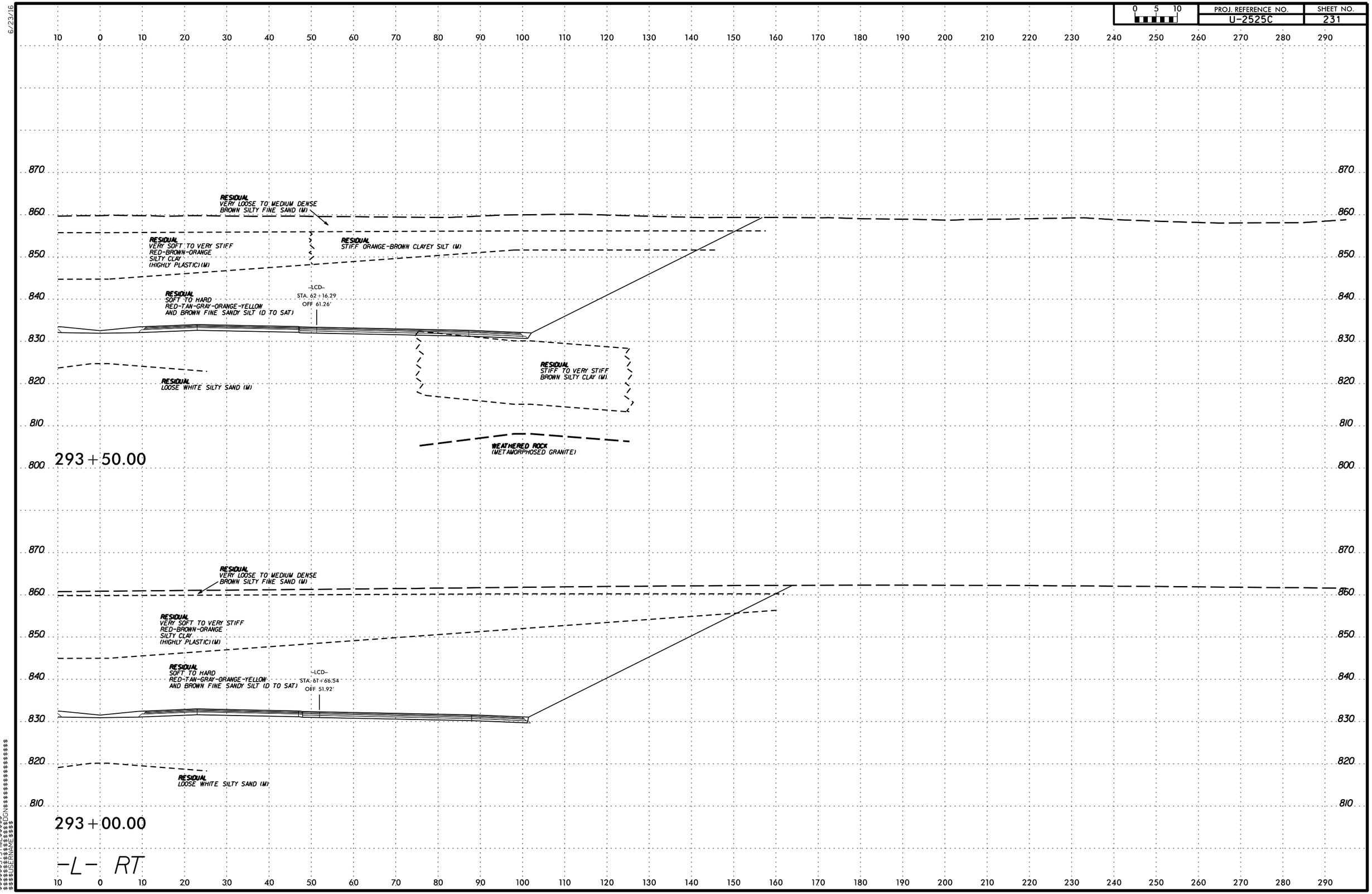
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
229
0 5 10
RESIDUAL
STIFF TO VERY STIFF
ORANGE-BROWN-RED-YELLOW-TAN
SILTY CLAY (D)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
-LCD-
STA. 60+17.32
OFF 54.10'
RESIDUAL
MEDIUM DENSE YELLOW-TAN SILTY FINE SAND (W)
291+50.00
RESIDUAL
VERY STIFF TO MEDIUM STIFF
ORANGE-RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF
ORANGE-RED SILTY CLAY
(HIGHLY PLASTIC) (D)
RESIDUAL
STIFF TO VERY STIFF
TAN-ORANGE CLAYEY SILT (D)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
-LCD-
STA. 59+67.59
OFF 54.90'
291+00.00
-L- RT

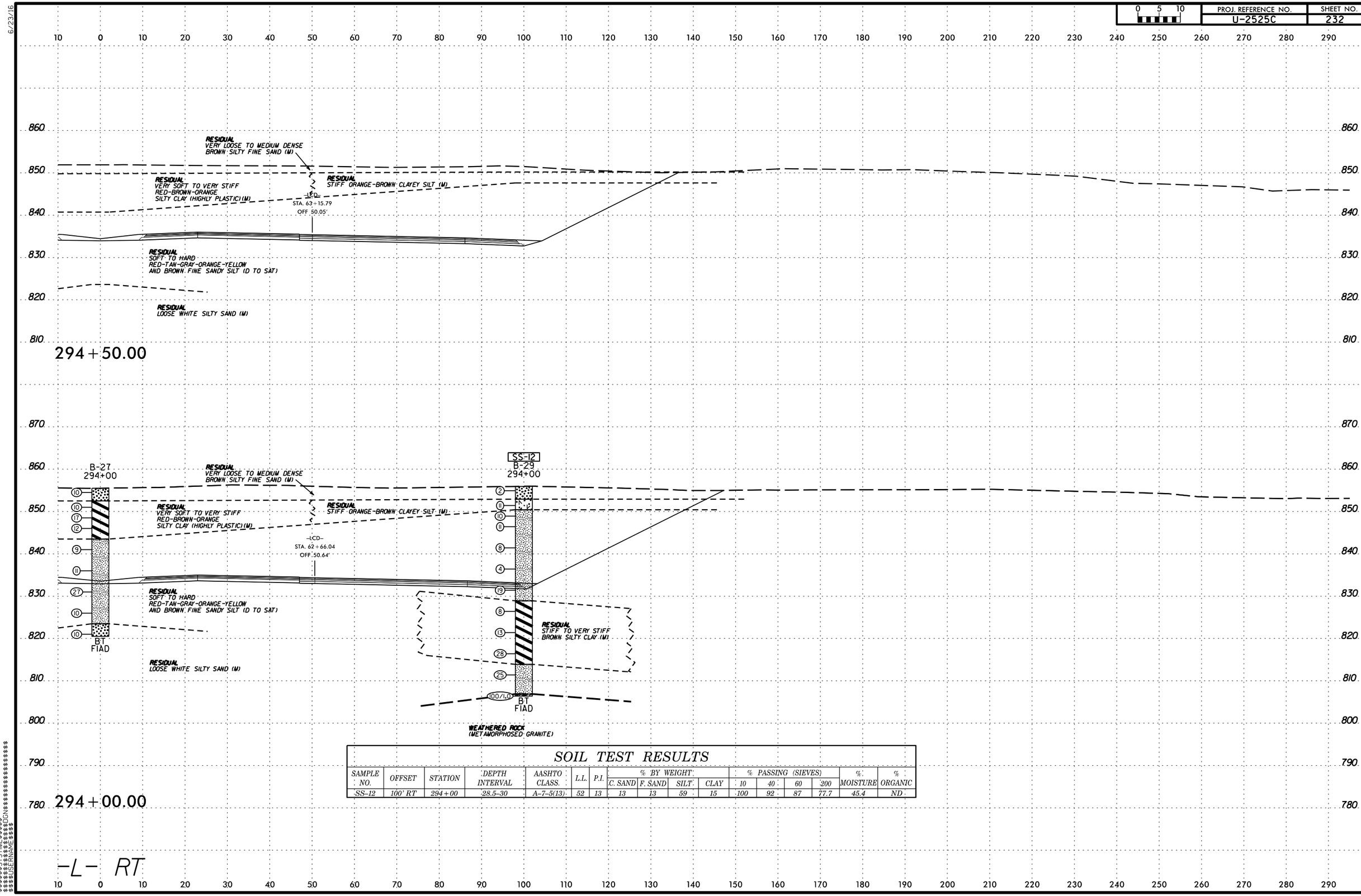


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
230
0 5 10
6/23/16
RESIDUAL
STIFF TO VERY STIFF
ORANGE-BROWN-RED-YELLOW-TAN
SILTY CLAY (D)
ARTIFICIAL FILL
MEDIUM STIFF ORANGE-TAN CLAYEY SILT (M)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
-LCD-
STA. 61+16.80
OFF 52.62'
292+50.00
B-24
292+00
B-26
292+00
ARTIFICIAL FILL
MEDIUM STIFF ORANGE-TAN
CLAYEY SILT (M)
RESIDUAL
STIFF TO VERY STIFF
ORANGE-BROWN-RED-YELLOW-TAN
SILTY CLAY (D)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
-LCD-
STA. 60+67.06
OFF 53.34'
BT
DRY
BT
RESIDUAL
MEDIUM DENSE YELLOW-TAN SILTY FINE SAND (W)
292+00.00
-L- RT



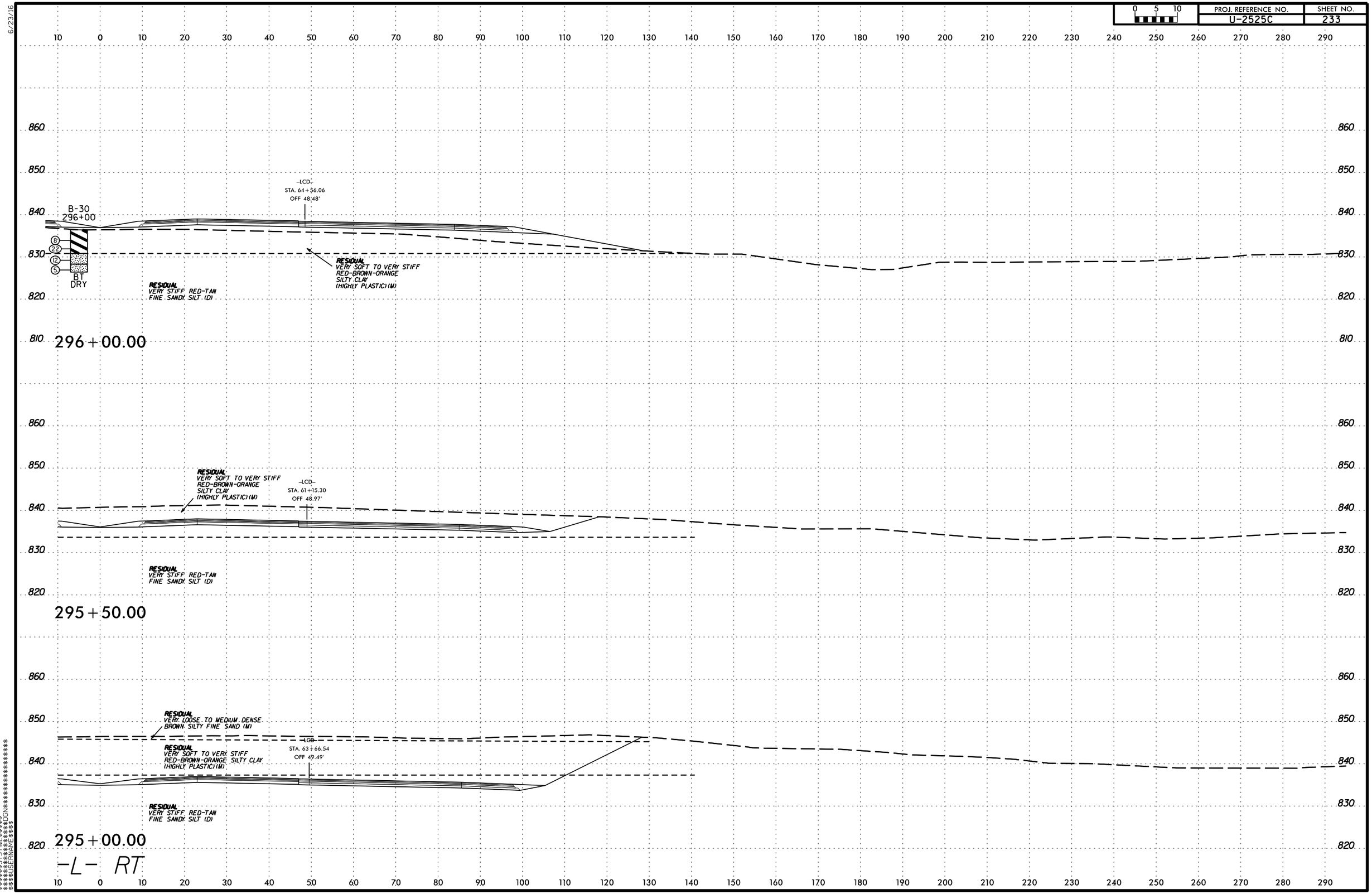
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
231
0 5 10
6/23/16
RESIDUAL
VERY LOOSE TO MEDIUM DENSE
BROWN SILTY FINE SAND (M)
RESIDUAL
VERY SOFT TO VERY STIFF
RED-BROWN-ORANGE
SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
STIFF ORANGE-BROWN CLAYEY SILT (M)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
-LCD-
STA. 62+16.29
OFF 61.26'
RESIDUAL
STIFF TO VERY STIFF
BROWN SILTY CLAY (M)
RESIDUAL
LOOSE WHITE SILTY SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
293+50.00
RESIDUAL
VERY LOOSE TO MEDIUM DENSE
BROWN SILTY FINE SAND (M)
RESIDUAL
VERY SOFT TO VERY STIFF
RED-BROWN-ORANGE
SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
SOFT TO HARD
RED-TAN-GRAY-ORANGE-YELLOW
AND BROWN FINE SANDY SILT (D TO SAT)
-LCD-
STA. 61+66.54
OFF 51.92'
RESIDUAL
LOOSE WHITE SILTY SAND (M)
293+00.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 232



SOIL TEST RESULTS

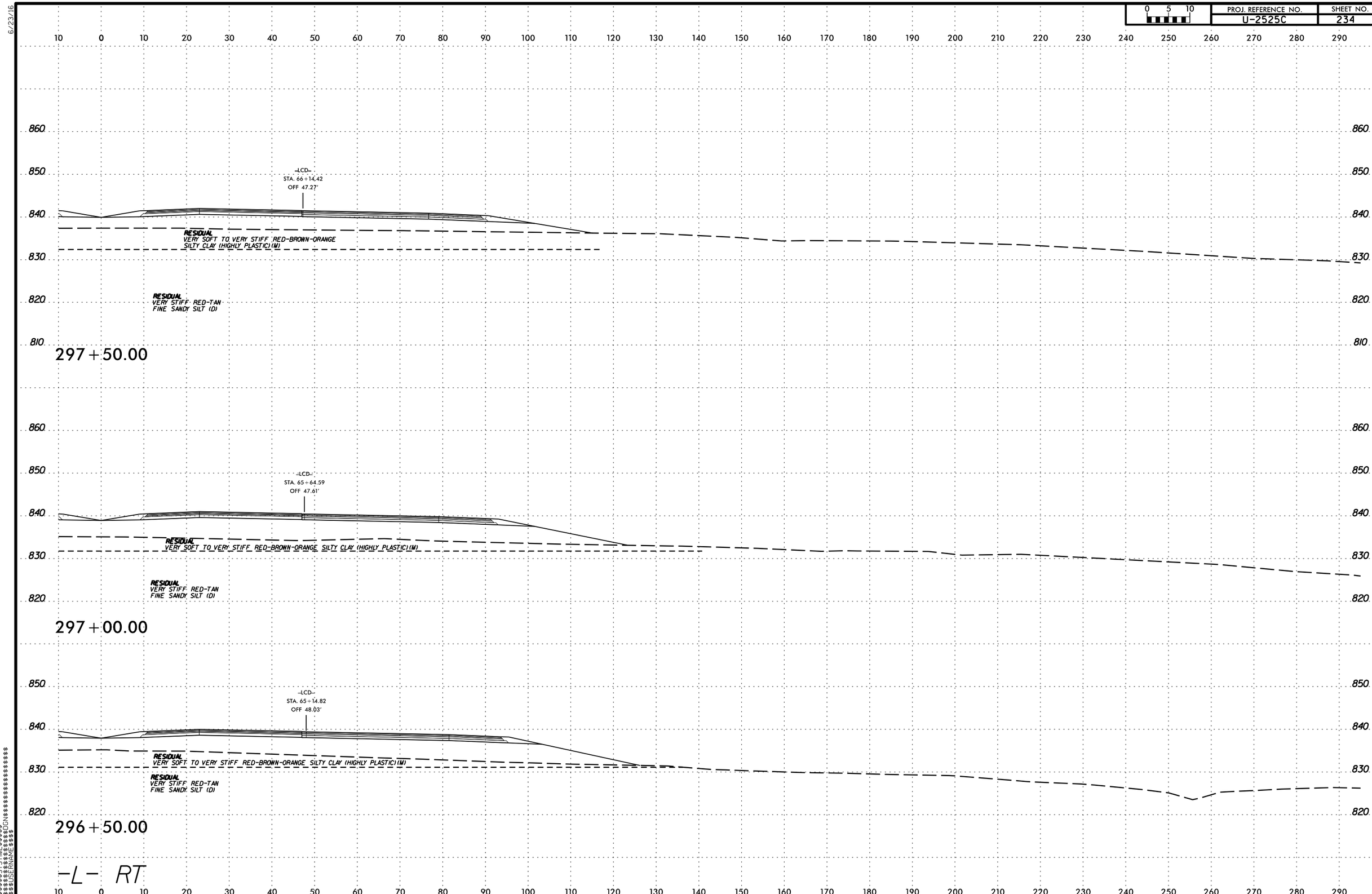
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-12	100' RT	294+00	28.5-30	A-7-5(13)	52	13	13	13	59	15	100	92	87	77.7	45.4	ND



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
233
0 5 10
B-30
296+00
8
22
12
5
BT
DRY
-LCD-
STA. 64+56.06
OFF 48.48'
RESIDUAL
VERY SOFT TO VERY STIFF
RED-BROWN-ORANGE
SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
VERY STIFF RED-TAN
FINE SANDY SILT (D)
296+00.00
RESIDUAL
VERY SOFT TO VERY STIFF
RED-BROWN-ORANGE
SILTY CLAY
(HIGHLY PLASTIC) (M)
-LCD-
STA. 61+15.30
OFF 48.97'
RESIDUAL
VERY STIFF RED-TAN
FINE SANDY SILT (D)
295+50.00
RESIDUAL
VERY LOOSE TO MEDIUM DENSE
BROWN SILTY FINE SAND (M)
RESIDUAL
VERY SOFT TO VERY STIFF
RED-BROWN-ORANGE SILTY CLAY
(HIGHLY PLASTIC) (M)
-LCD-
STA. 63+66.54
OFF 49.49'
RESIDUAL
VERY STIFF RED-TAN
FINE SANDY SILT (D)
295+00.00
-L- RT

6/23/16

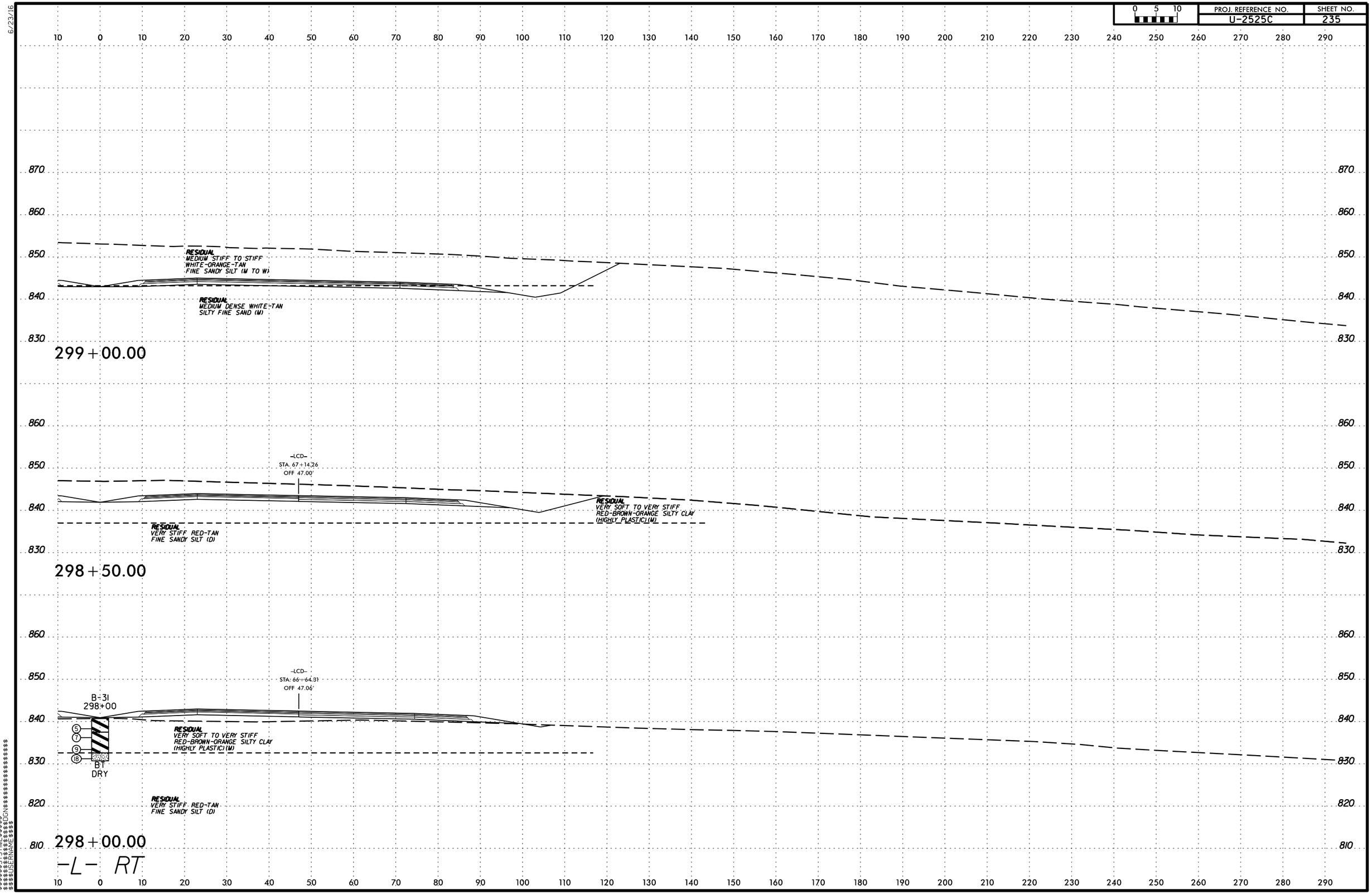
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	234



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

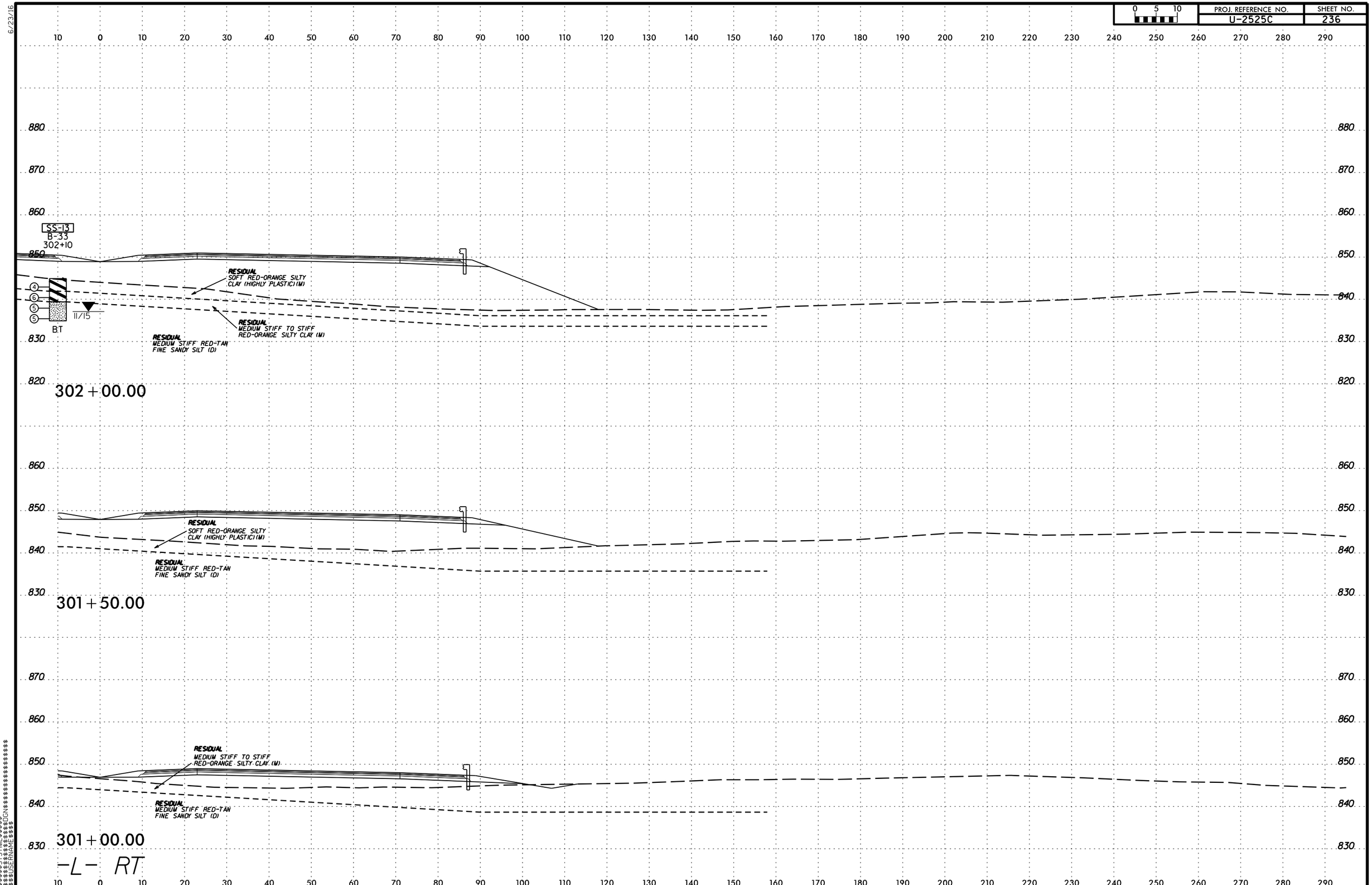
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	235



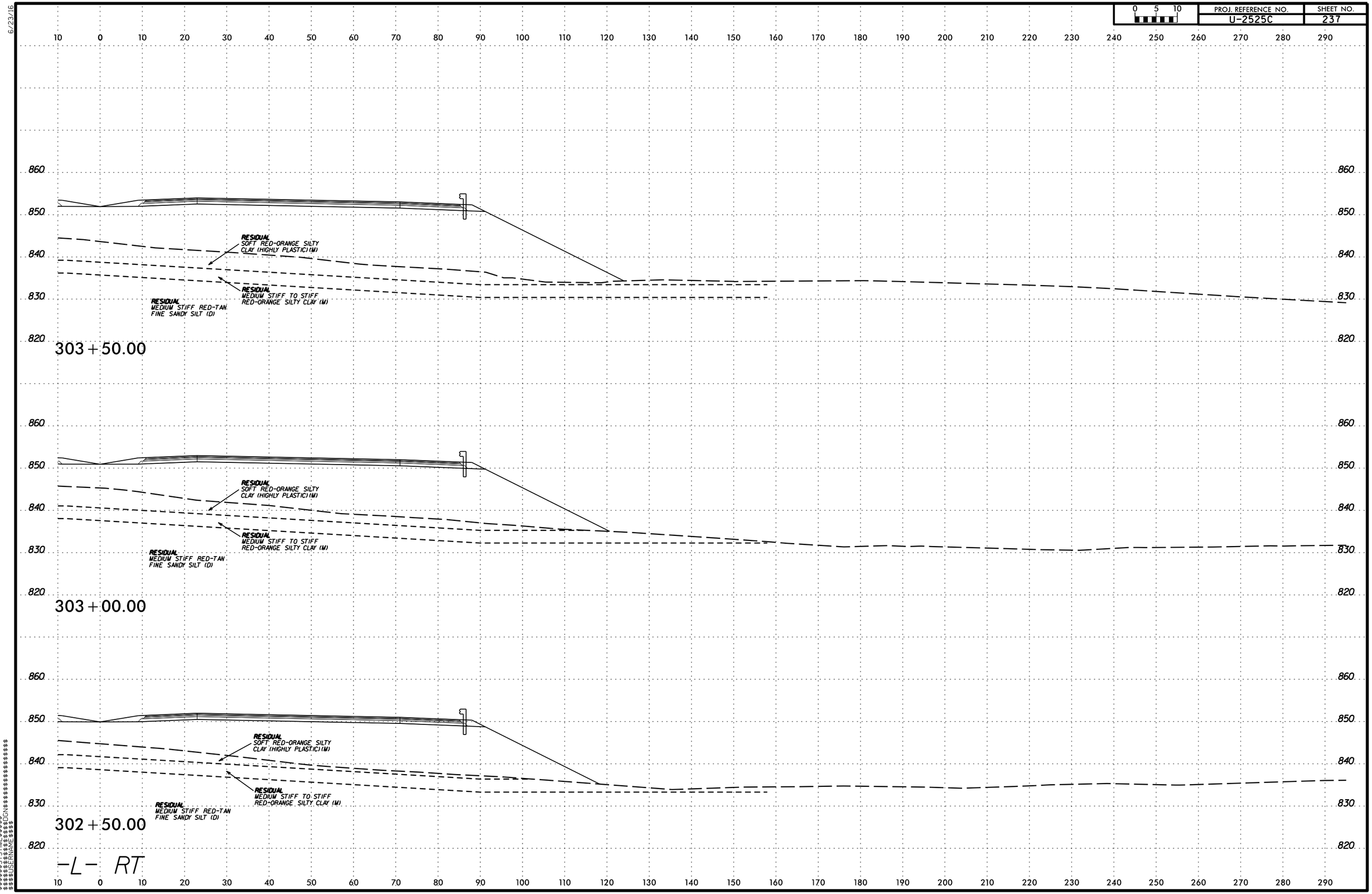
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	236



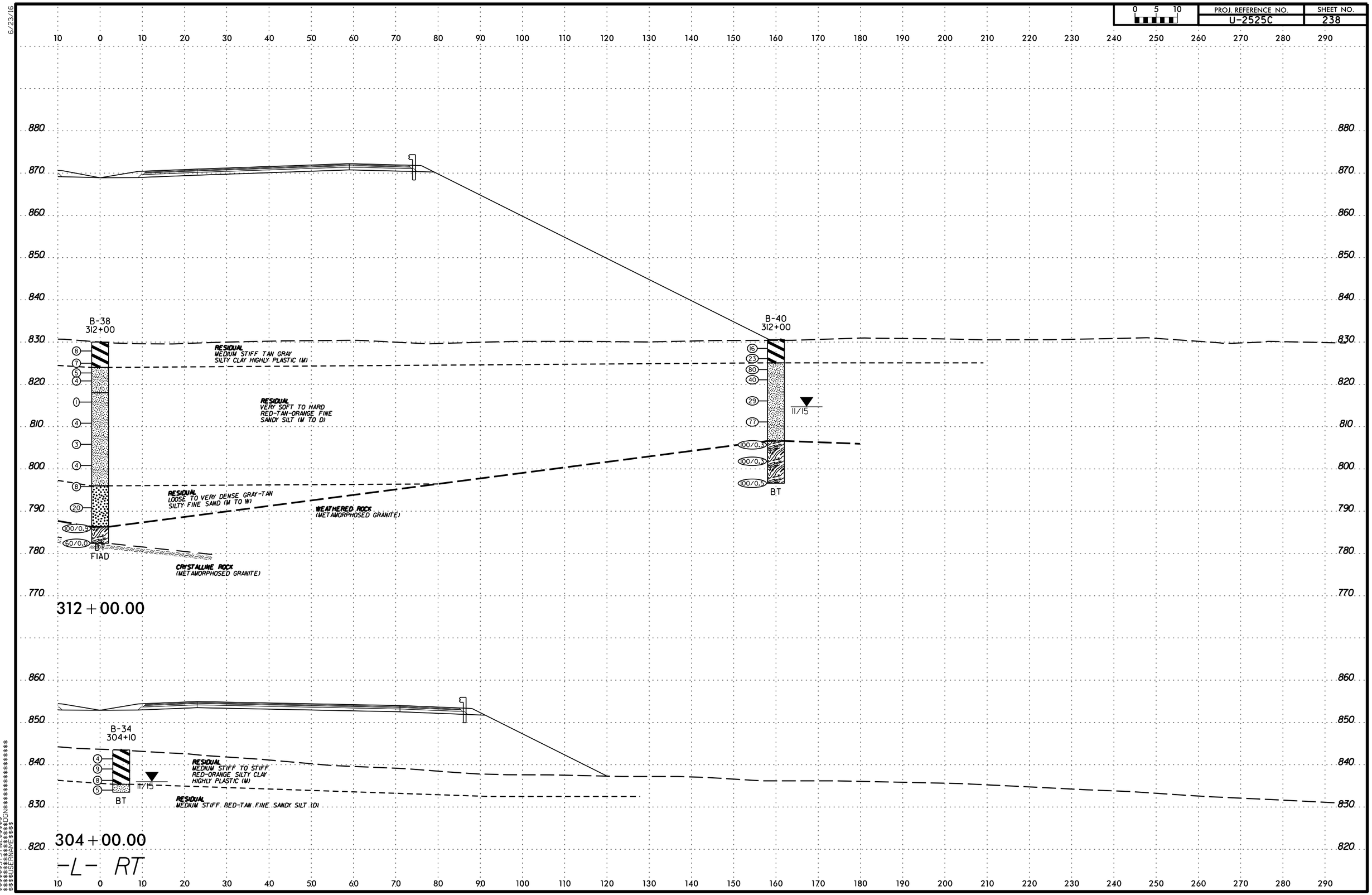
$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



6/23/16
$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

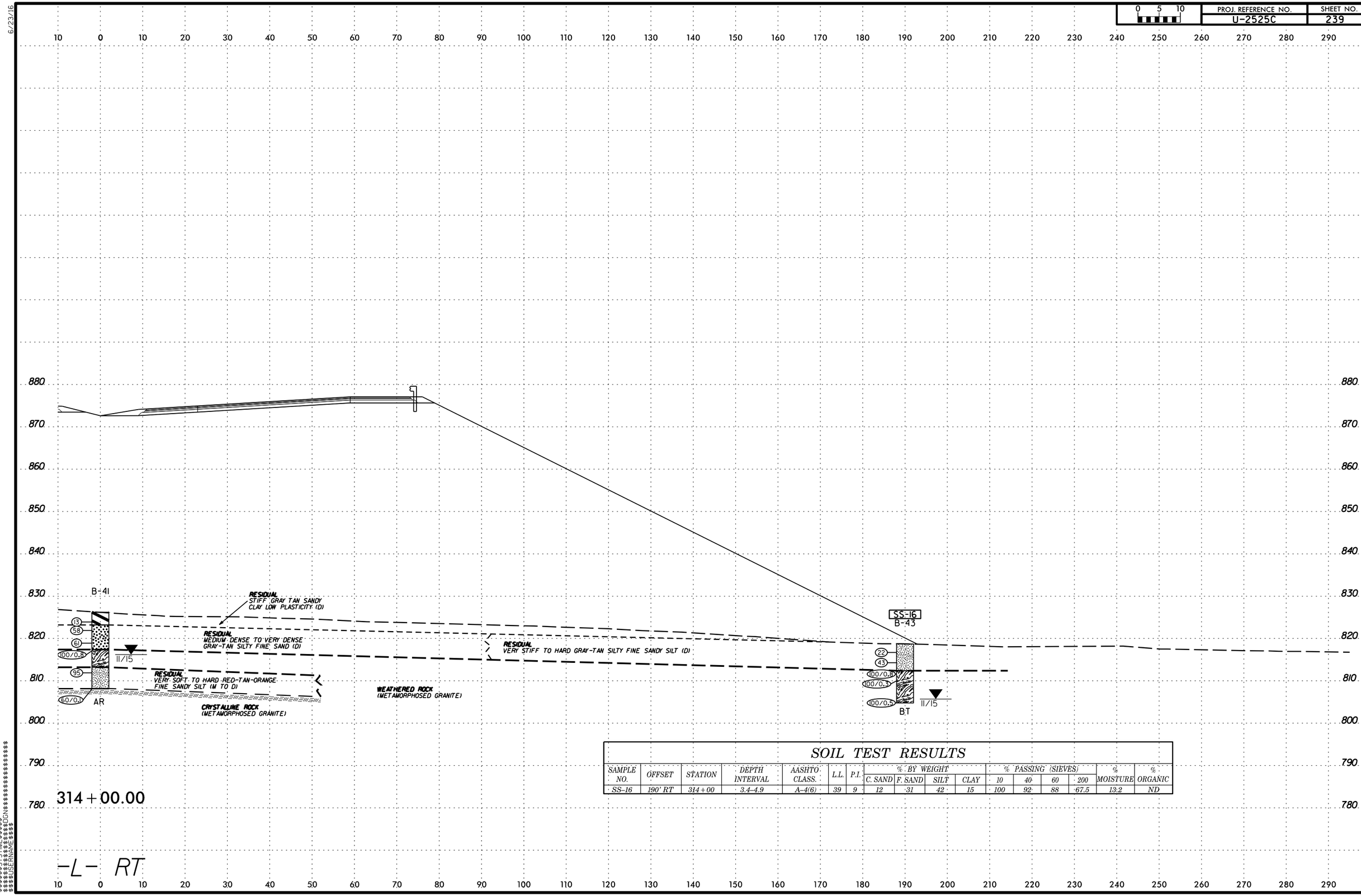
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	238



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 239

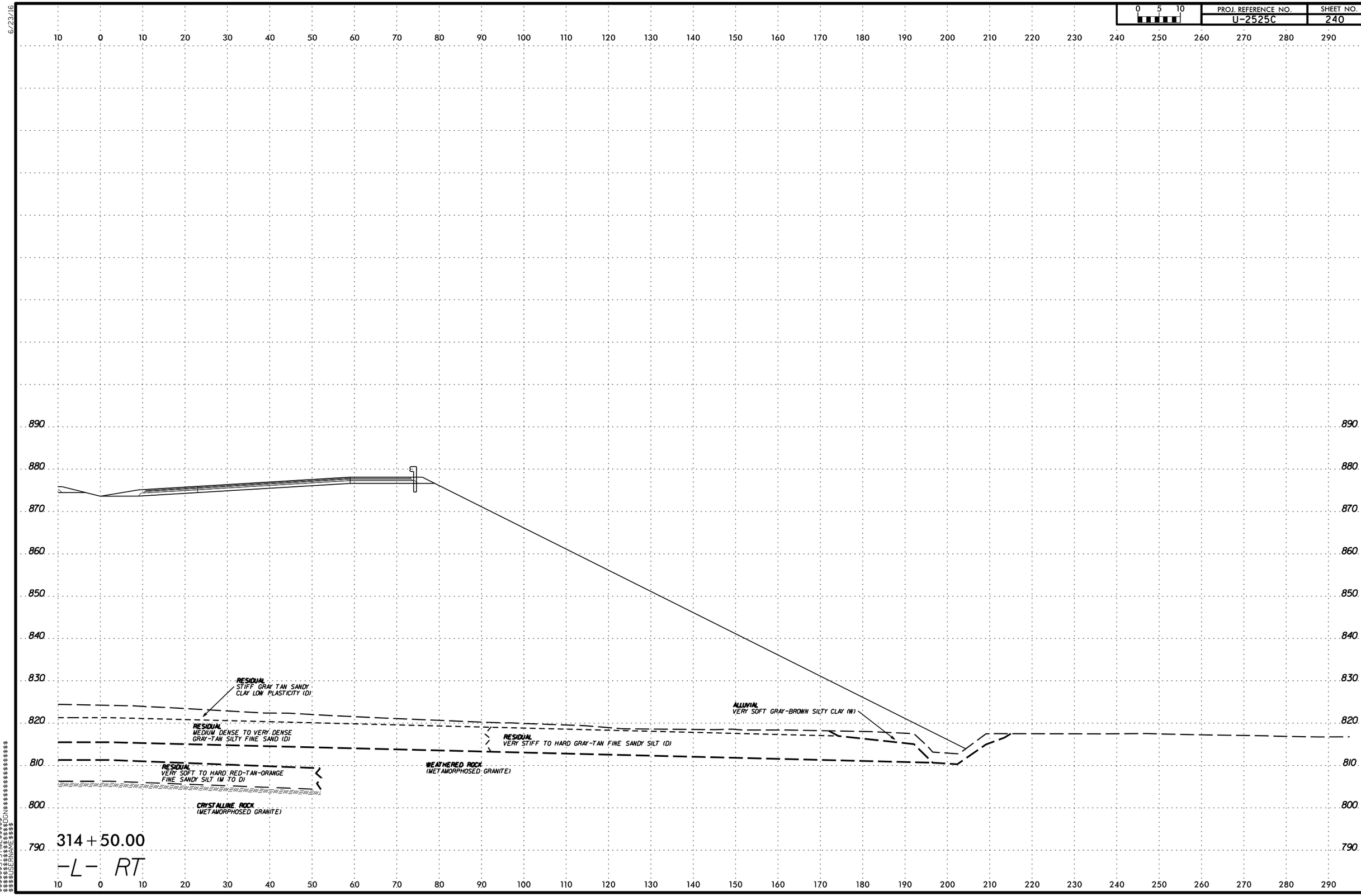


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-16	190' RT	314+00	3.4-4.9	A-4(6)	39	9	12	31	42	15	100	92	88	67.5	13.2	ND

6/23/16

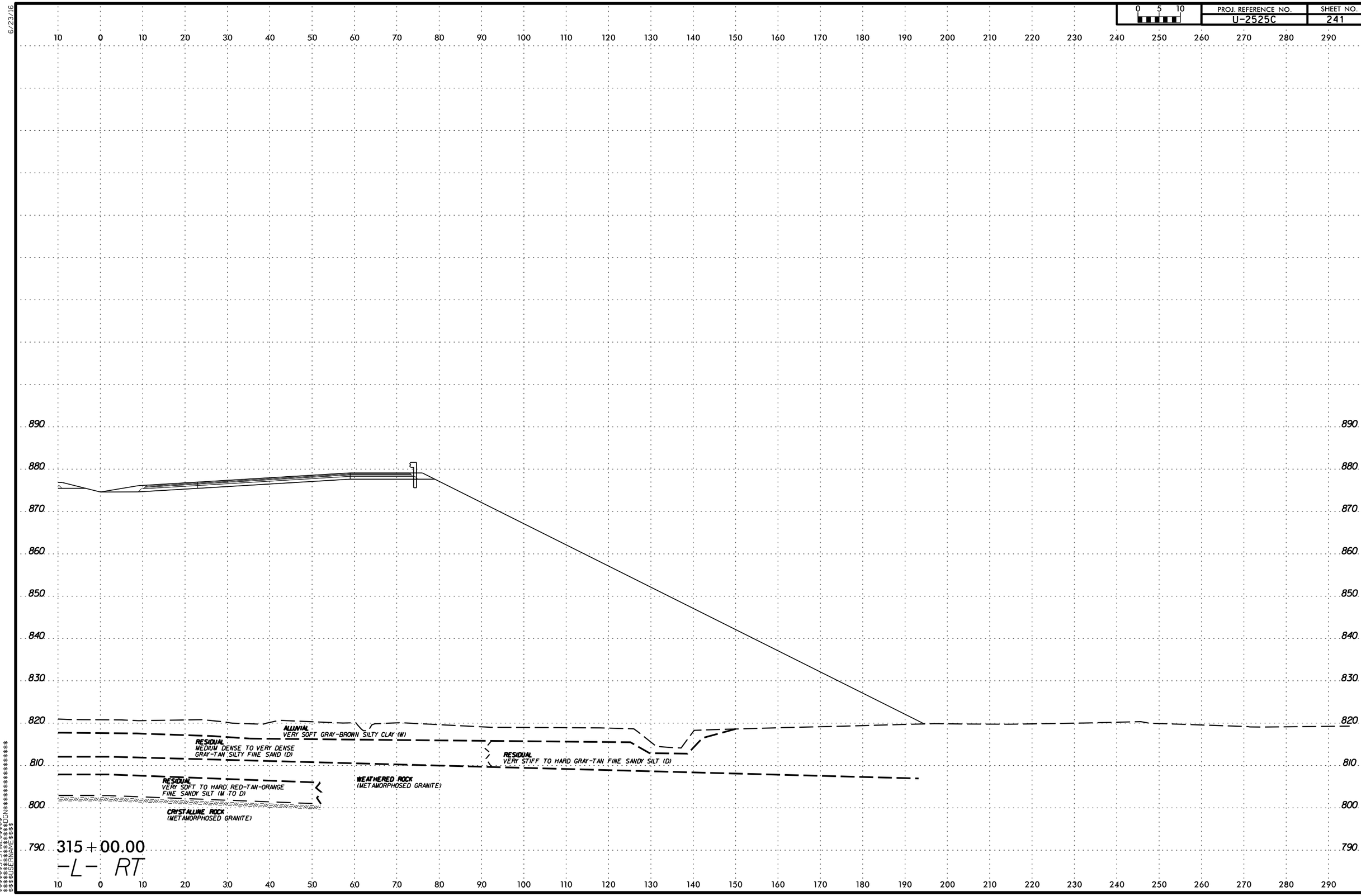
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	240



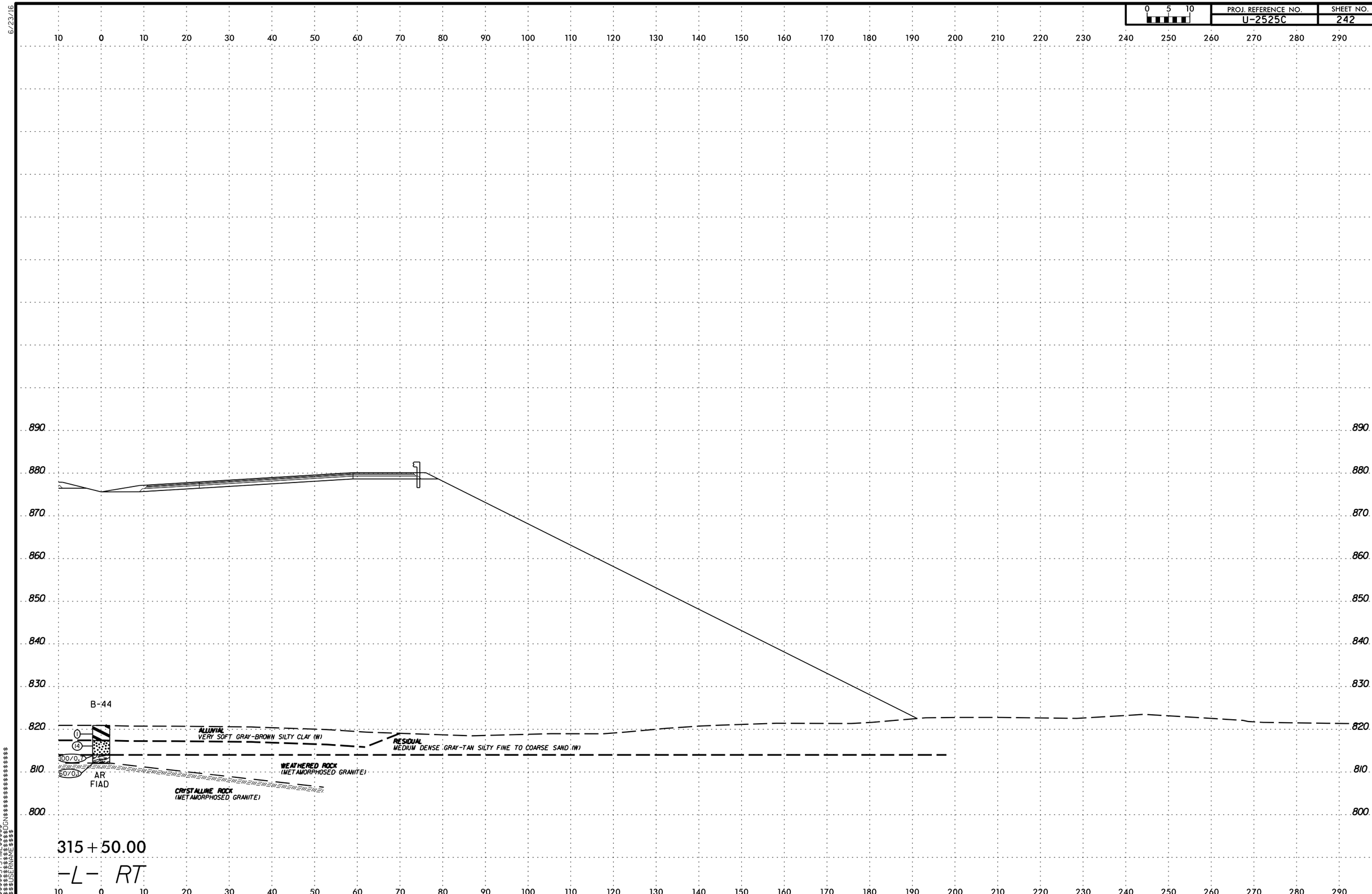
$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

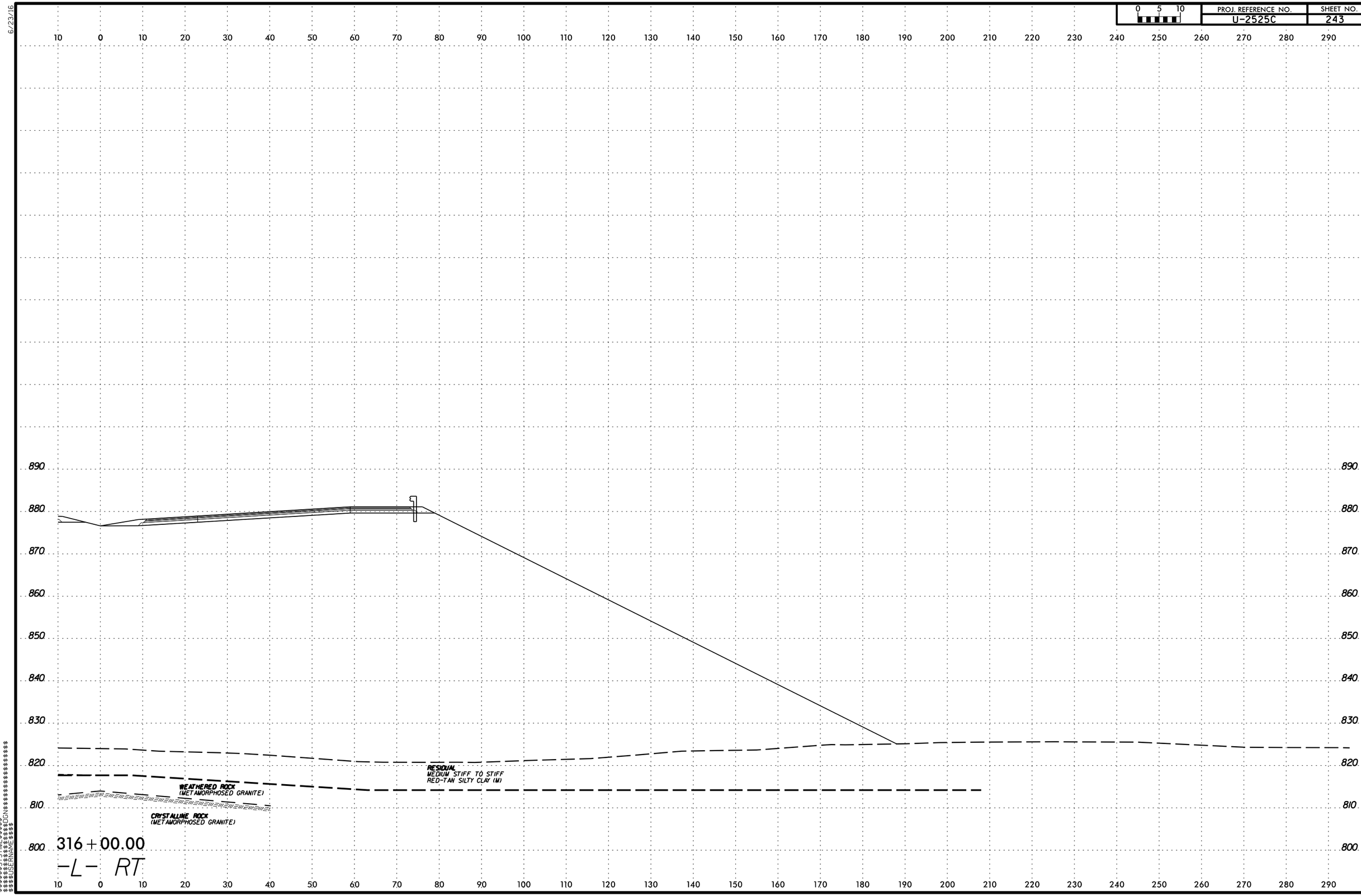
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	241



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

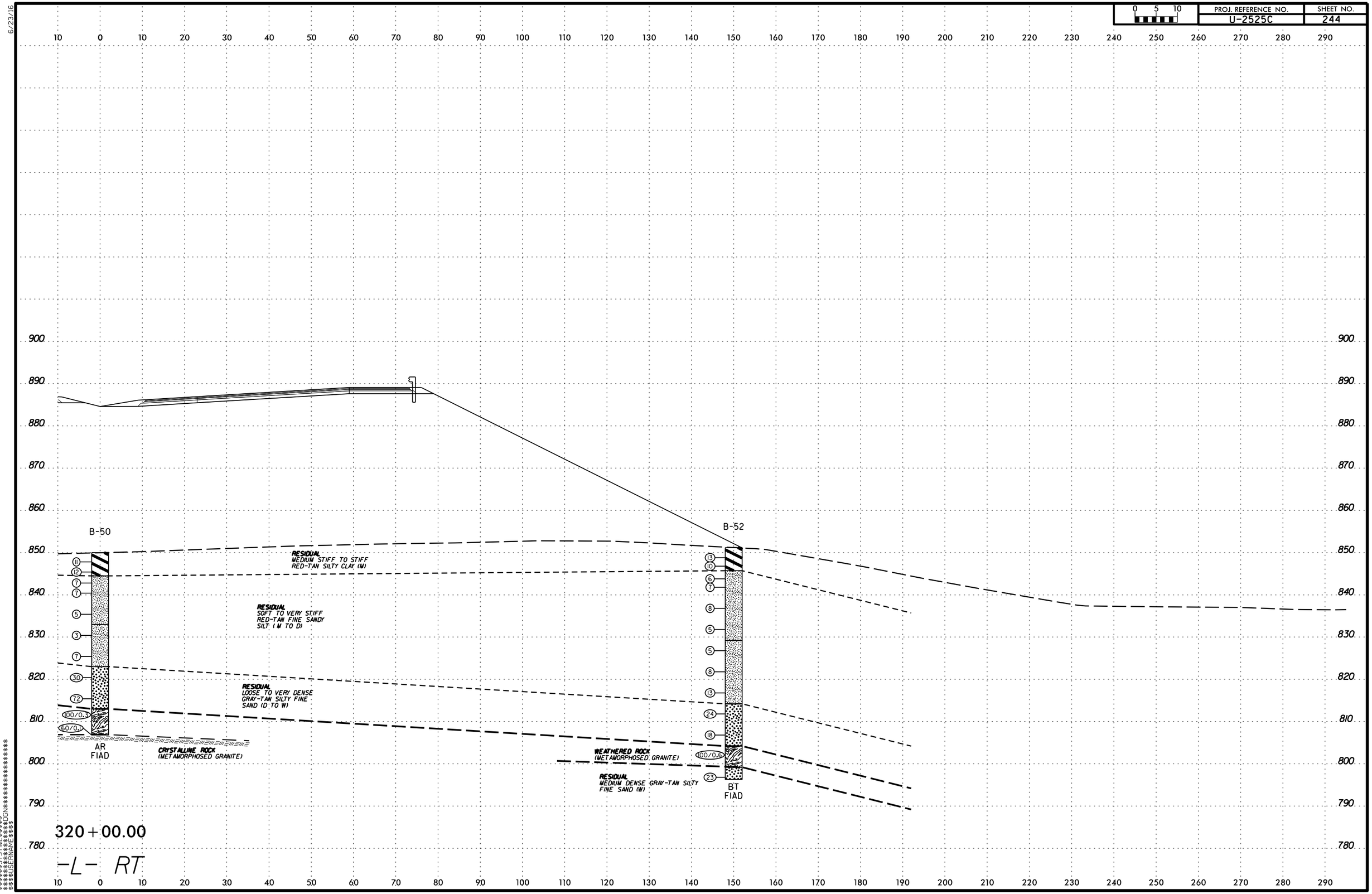


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
242
0 5 10
B-44
ALLUVIAL
VERY SOFT GRAY-BROWN SILTY CLAY (W)
RESIDUAL
MEDIUM DENSE GRAY-TAN SILTY FINE TO COARSE SAND (W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR
FIAD
100/0.7
60/0.1
315+50.00
-L- RT



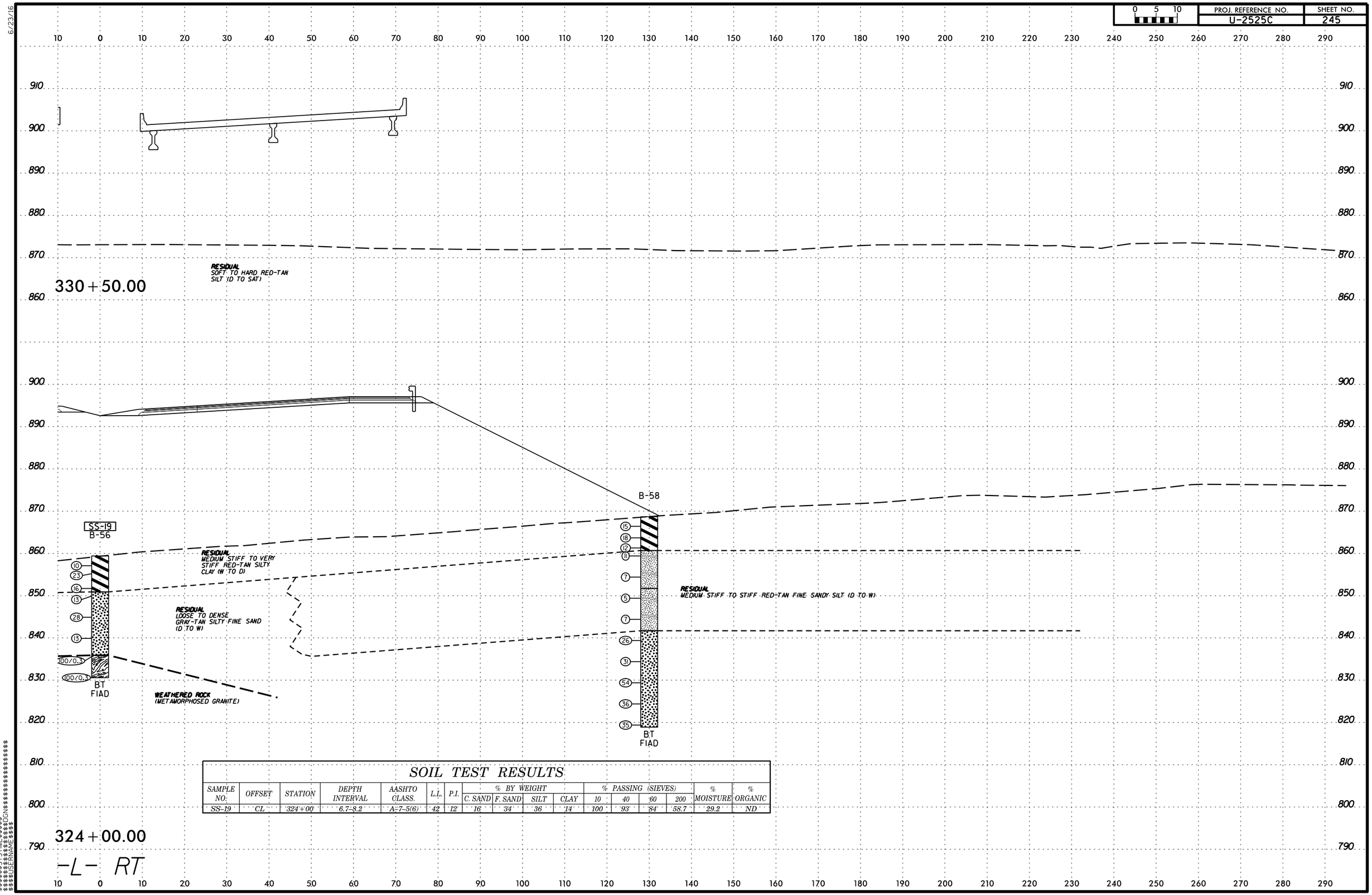
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
243
0 5 10
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290
890
880
870
860
850
840
830
820
810
800
RESIDUAL
MEDIUM STIFF TO STIFF
RED-TAN SILTY CLAY (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
316+00.00
-L- RT

6/23/16



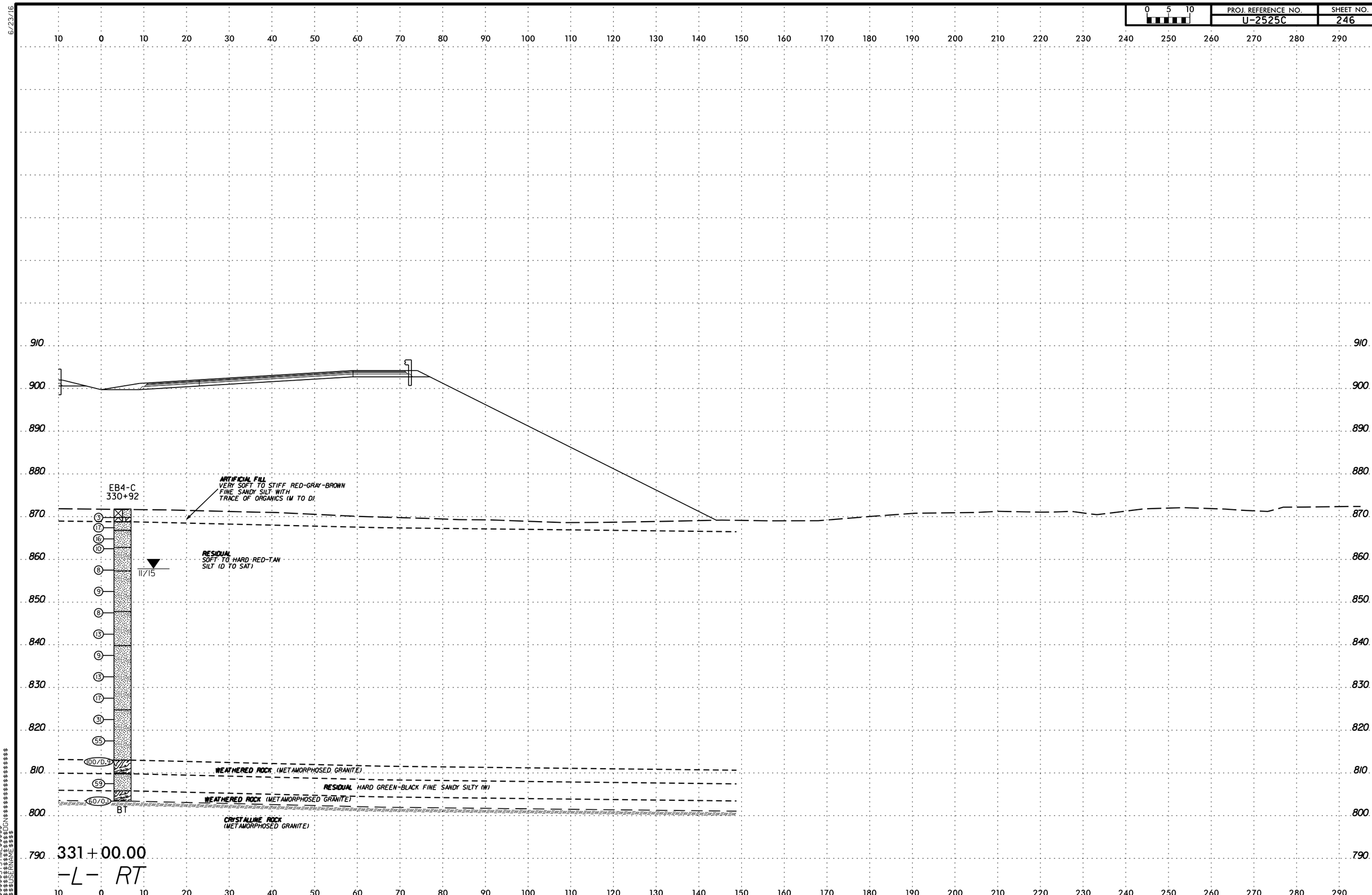
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
244
0 5 10
B-50
B-52
RESIDUAL
MEDIUM STIFF TO STIFF
RED-TAN SILTY CLAY (M)
RESIDUAL
SOFT TO VERY STIFF
RED-TAN FINE SANDY
SILT (M TO D)
RESIDUAL
LOOSE TO VERY DENSE
GRAY-TAN SILTY FINE
SAND (D TO W)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
MEDIUM DENSE GRAY-TAN SILTY
FINE SAND (W)
AR
FIAD
BT
FIAD
320+00.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 245

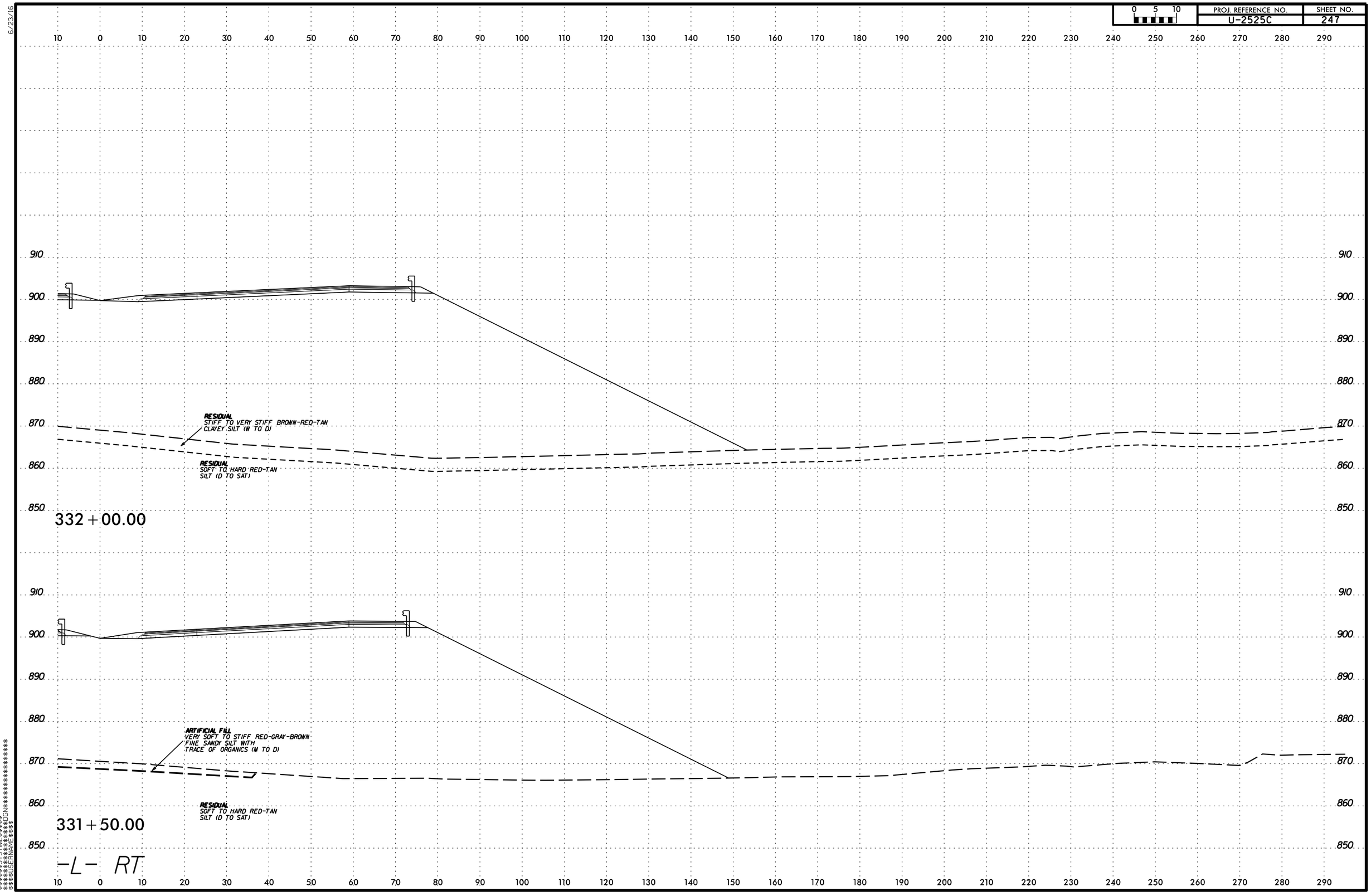


SOIL TEST RESULTS

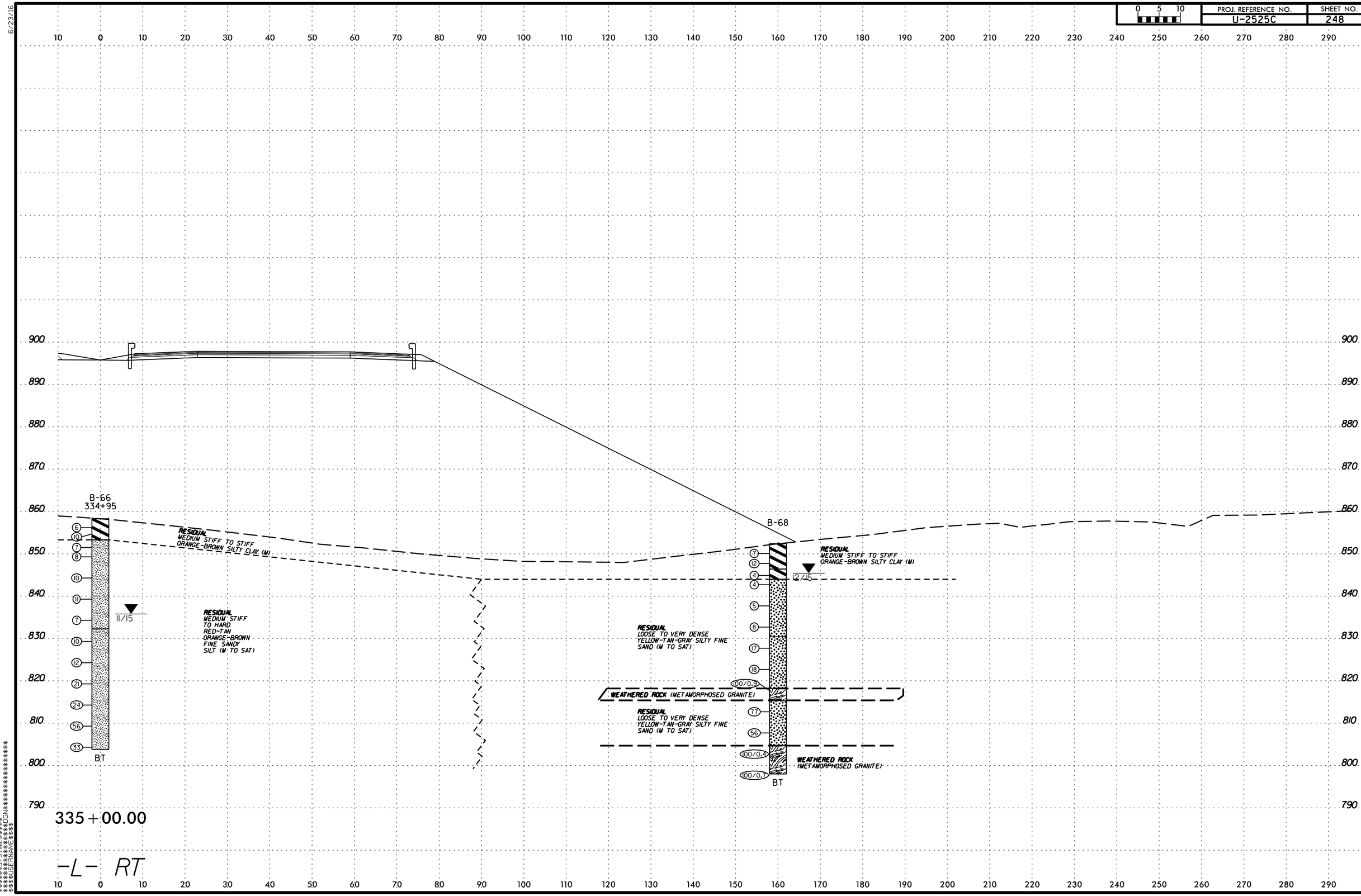
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-19	CL	324+00	6.7-8.2	A-7-5(6)	42	12	16	34	36	14	100	93	84	58.7	29.2	ND



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
246
0 5 10
EB4-C
330+92
ARTIFICIAL FILL
VERY SOFT TO STIFF RED-GRAY-BROWN
FINE SANDY SILT WITH
TRACE OF ORGANICS (M TO D)
RESIDUAL
SOFT TO HARD RED-TAN
SILT (D TO SAT)
11/15
WEATHERED ROCK (METAMORPHOSED GRANITE)
RESIDUAL HARD GREEN-BLACK FINE SANDY SILTY (W)
WEATHERED ROCK (METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
BT
331+00.00
-L- RT



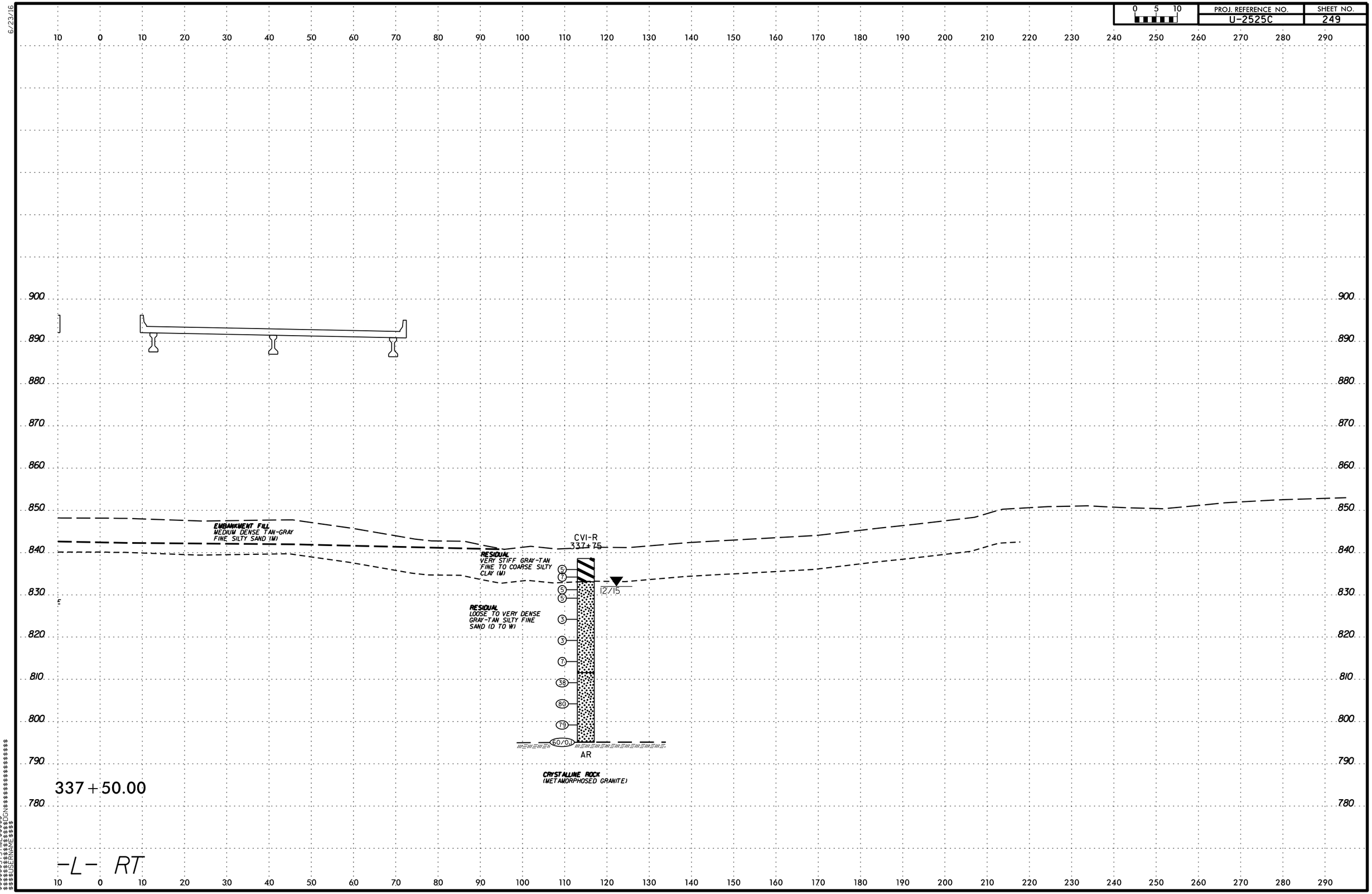
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
247
0 5 10
6/23/16
RESIDUAL
STIFF TO VERY STIFF BROWN-RED-TAN
CLAYEY SILT (W TO D)
RESIDUAL
SOFT TO HARD RED-TAN
SILT (D TO SAT)
332+00.00
ARTIFICIAL FILL
VERY SOFT TO STIFF RED-GRAY-BROWN
FINE SANDY SILT WITH
TRACE OF ORGANICS (M TO D)
RESIDUAL
SOFT TO HARD RED-TAN
SILT (D TO SAT)
331+50.00
-L- RT



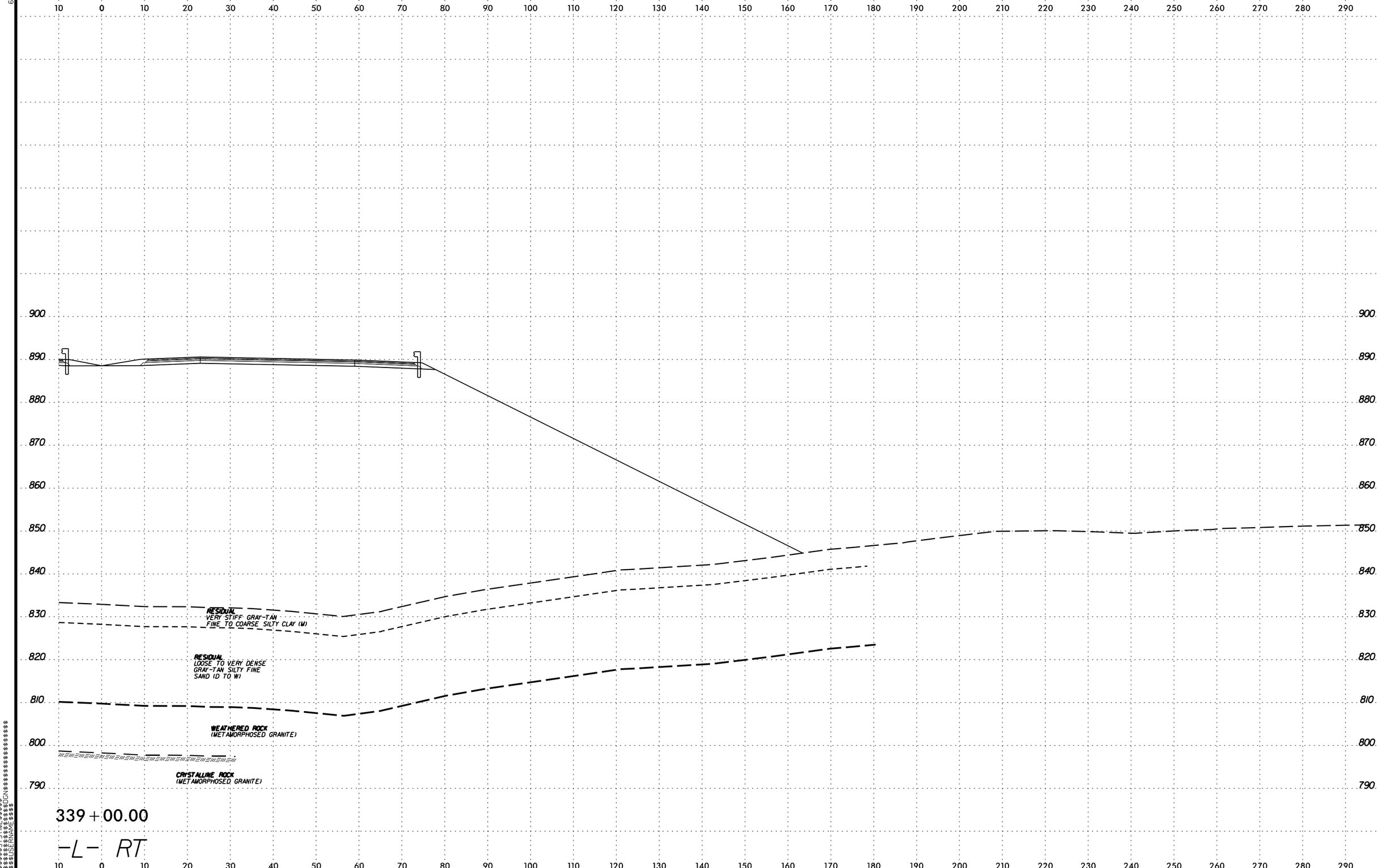
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
248
0 5 10
B-66
334+95
B-68
RESIDUAL
MEDIUM STIFF TO STIFF
ORANGE-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF
TO HARD
RED-TAN
ORANGE-BROWN
FINE SANDY
SILT (M TO SAT)
RESIDUAL
LOOSE TO VERY DENSE
YELLOW-TAN-GRAY SILTY FINE
SAND (M TO SAT)
WEATHERED ROCK (METAMORPHOSED GRANITE)
11/15
12/15
BT
335+00.00
-L- RT

6/23/16

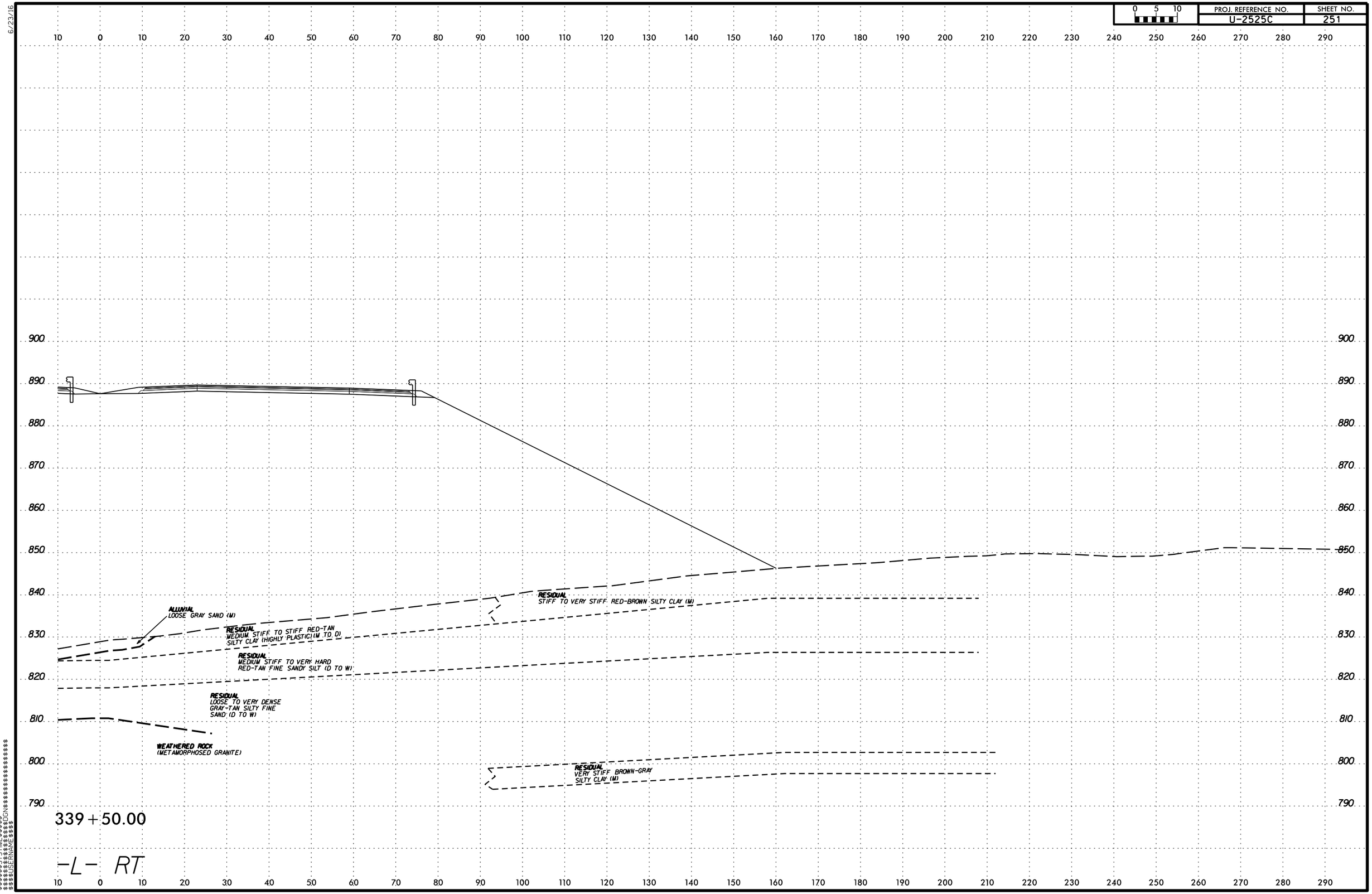
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	249



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

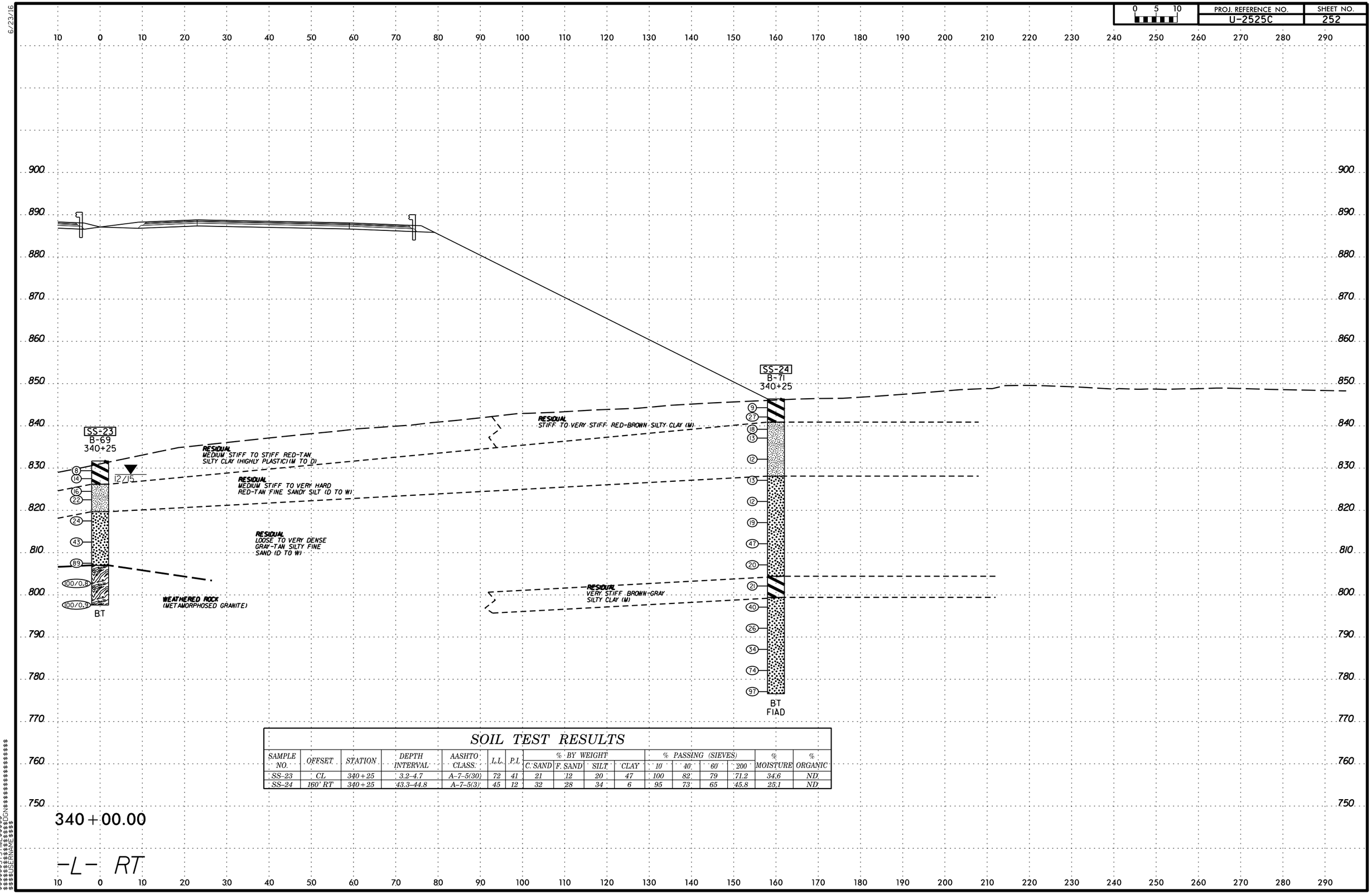


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
250
0 5 10
RESIDUAL
VERY STIFF GRAY-TAN
FINE TO COARSE SILTY CLAY (M)
RESIDUAL
LOOSE TO VERY DENSE
GRAY-TAN SILTY FINE
SAND (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
339+00.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
251
0 5 10
ALLUVIAL
LOOSE GRAY SAND (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN
SILTY CLAY (HIGHLY PLASTIC) (M TO D)
RESIDUAL
MEDIUM STIFF TO VERY HARD
RED-TAN FINE SANDY SILT (D TO W)
RESIDUAL
LOOSE TO VERY DENSE
GRAY-TAN SILTY FINE
SAND (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
STIFF TO VERY STIFF RED-BROWN SILTY CLAY (M)
RESIDUAL
VERY STIFF BROWN-GRAY
SILTY CLAY (M)
339+50.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 252

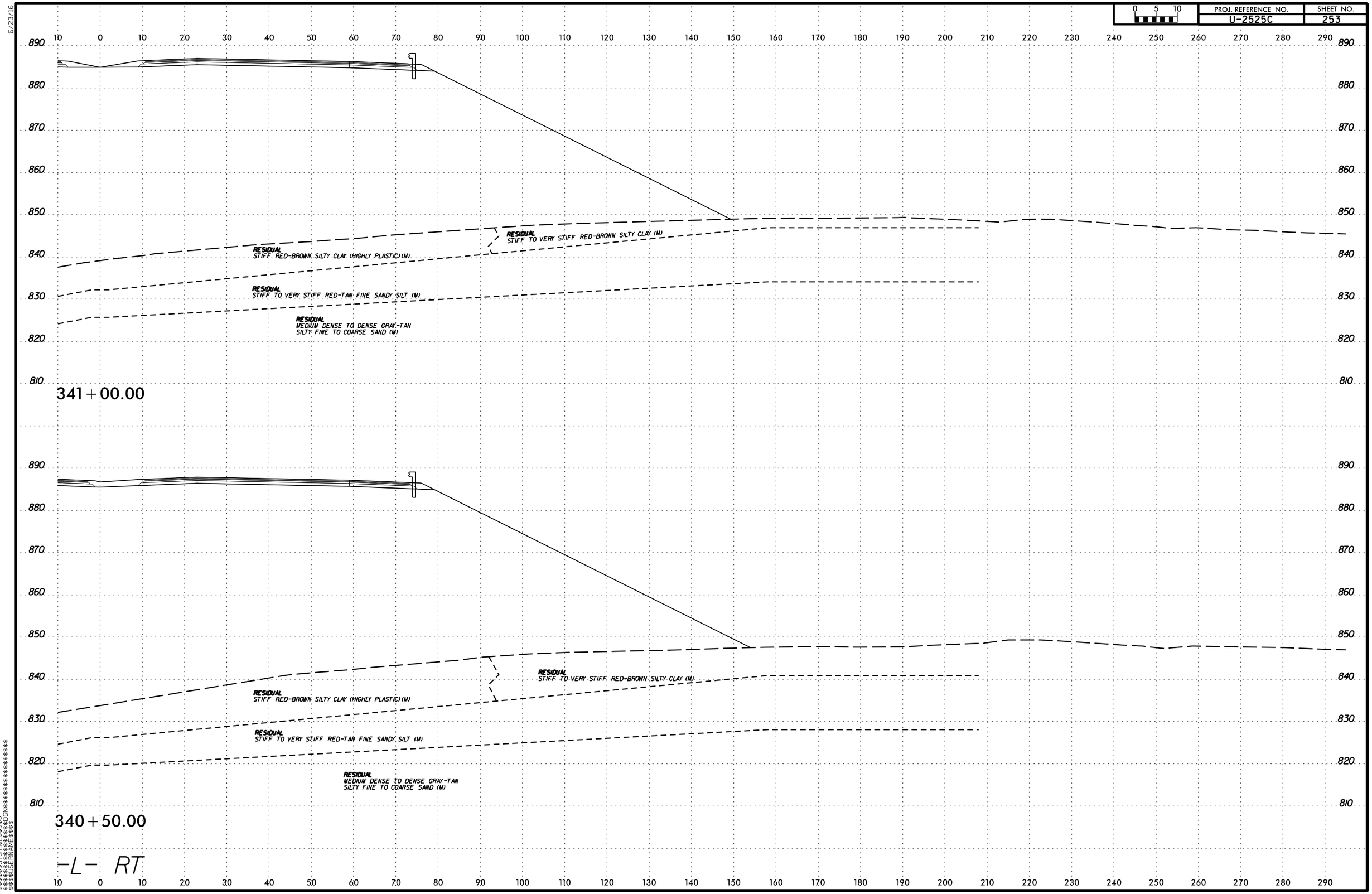


SOIL TEST RESULTS

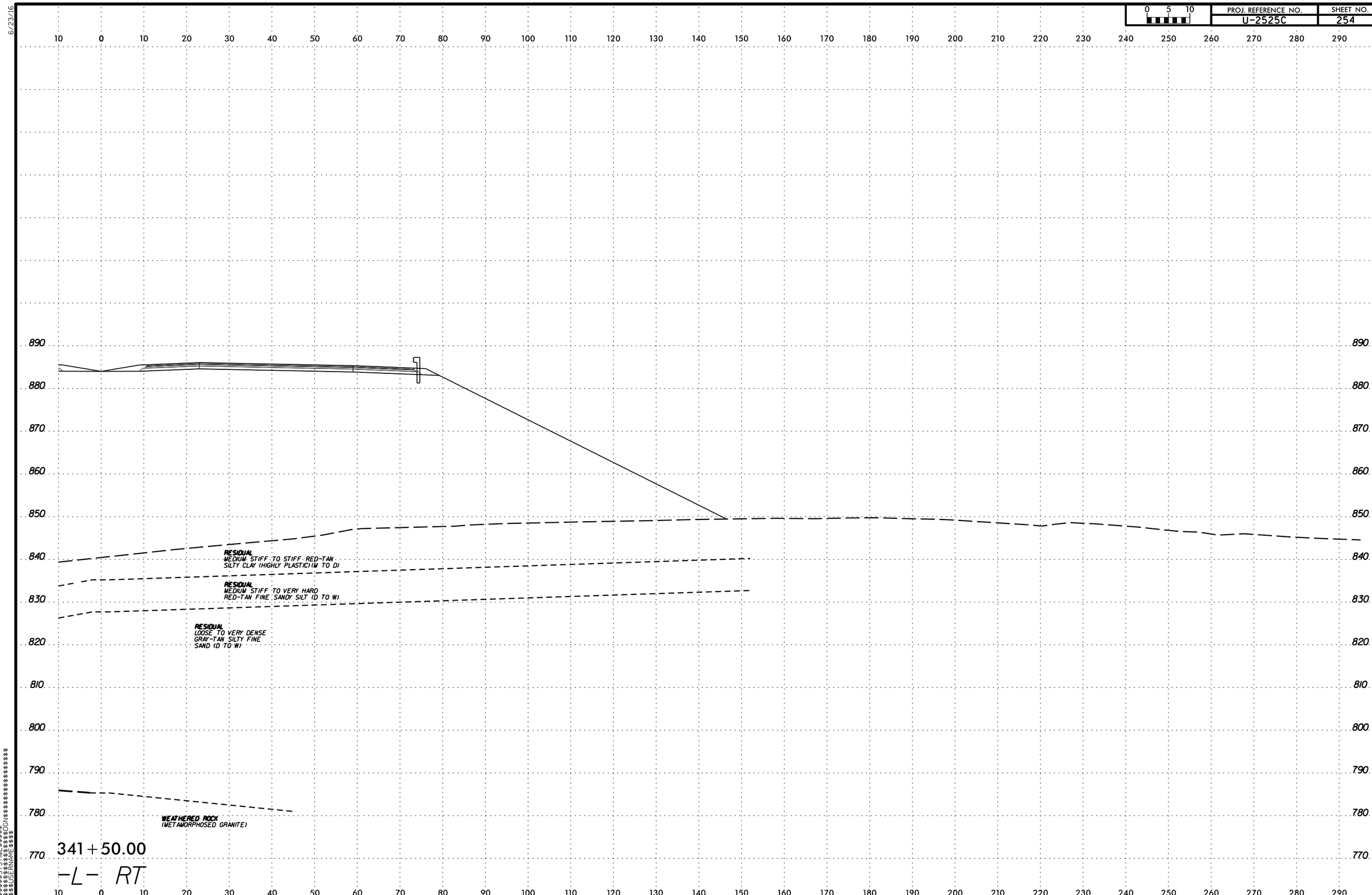
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-23	CL	340+25	3.2-4.7	A-7-5(30)	72	41	21	12	20	47	100	82	79	71.2	34.6	ND
SS-24	160' RT	340+25	43.3-44.8	A-7-5(3)	45	12	32	28	34	6	95	73	65	45.8	25.1	ND

6/23/16

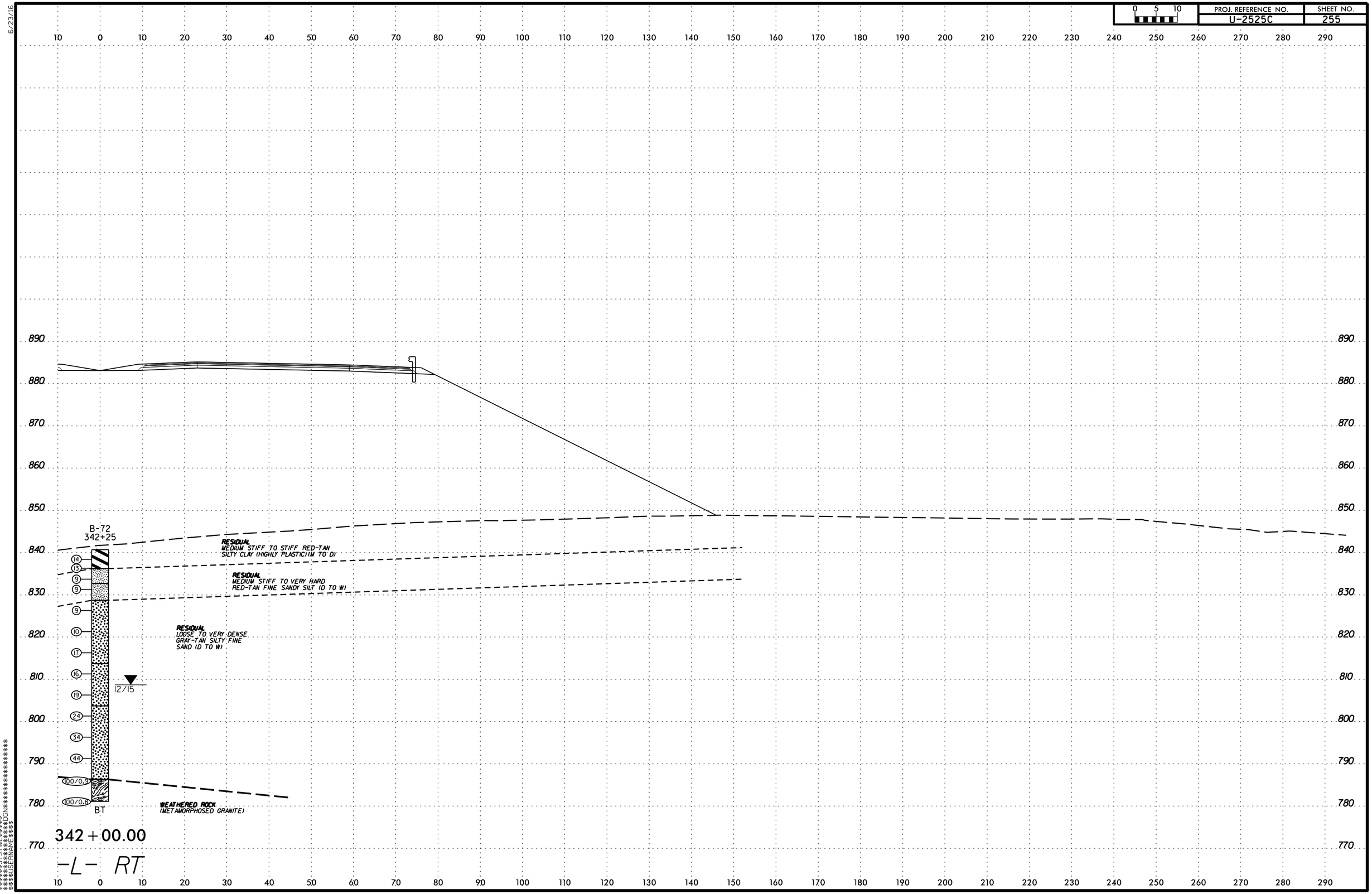
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	253



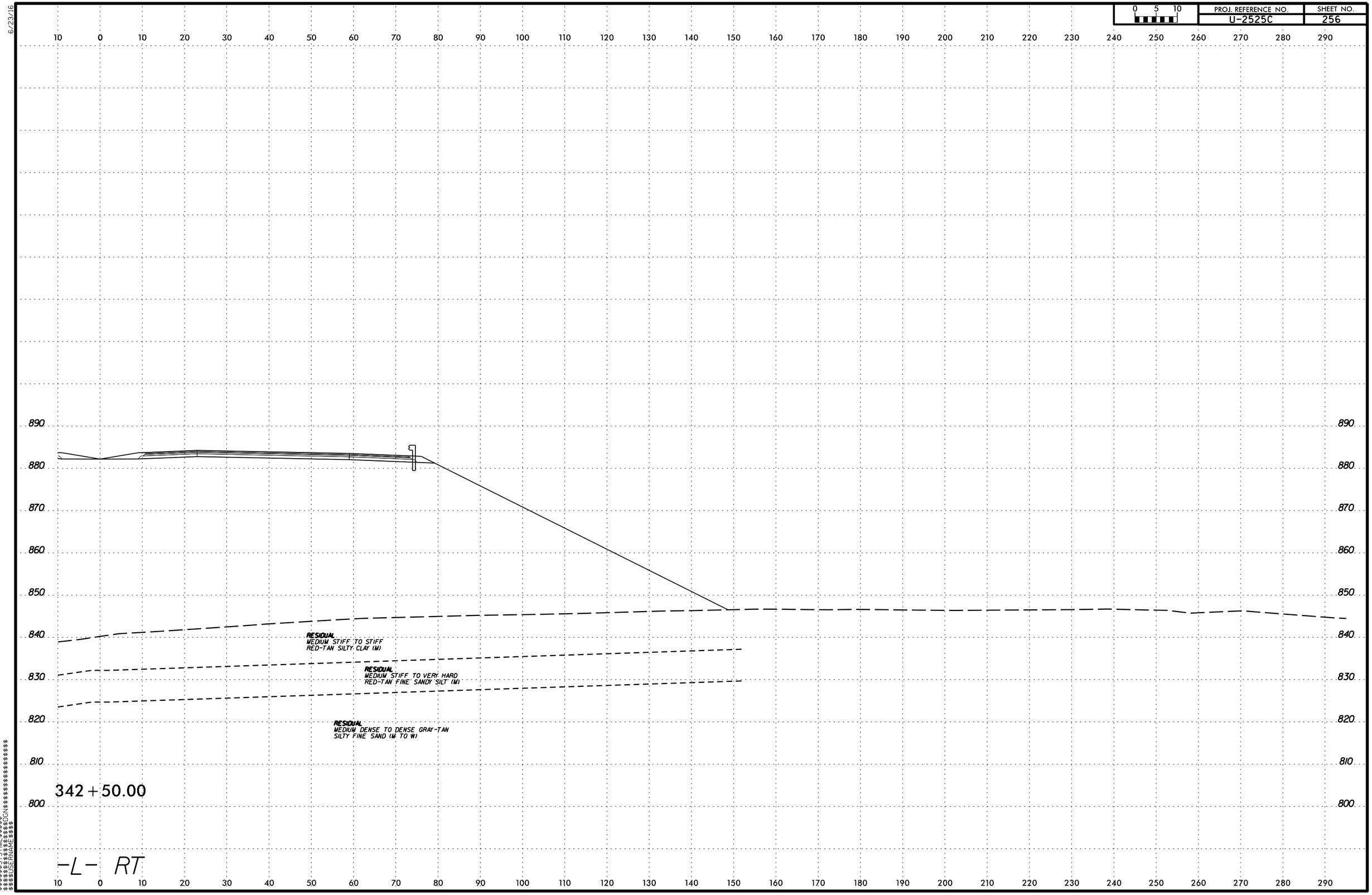
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



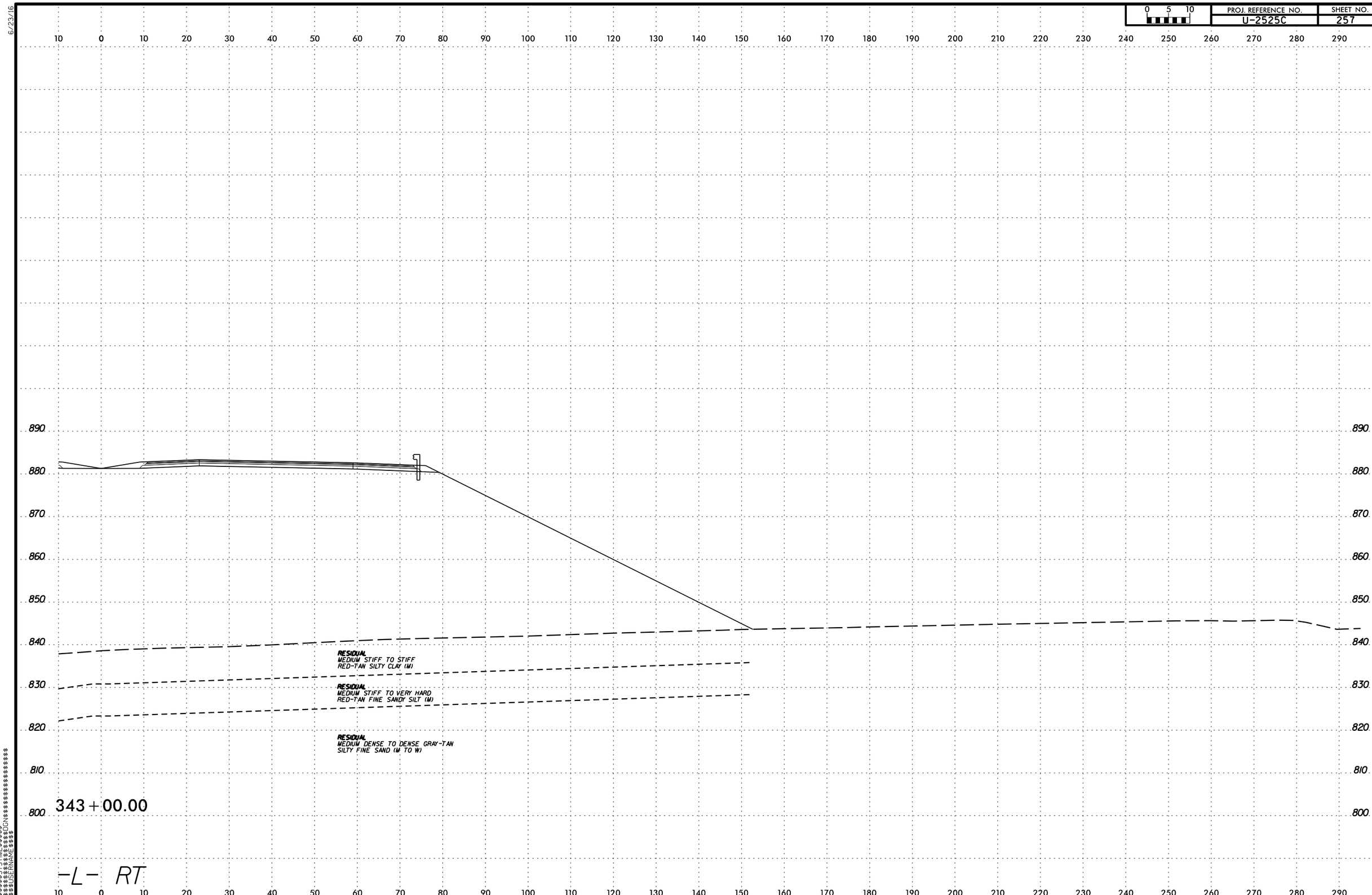
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
254
0 5 10
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M TO D)
RESIDUAL
MEDIUM STIFF TO VERY HARD RED-TAN FINE SANDY SILT (D TO W)
RESIDUAL
LOOSE TO VERY DENSE GRAY-TAN SILTY FINE SAND (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
341+50.00
-L- RT



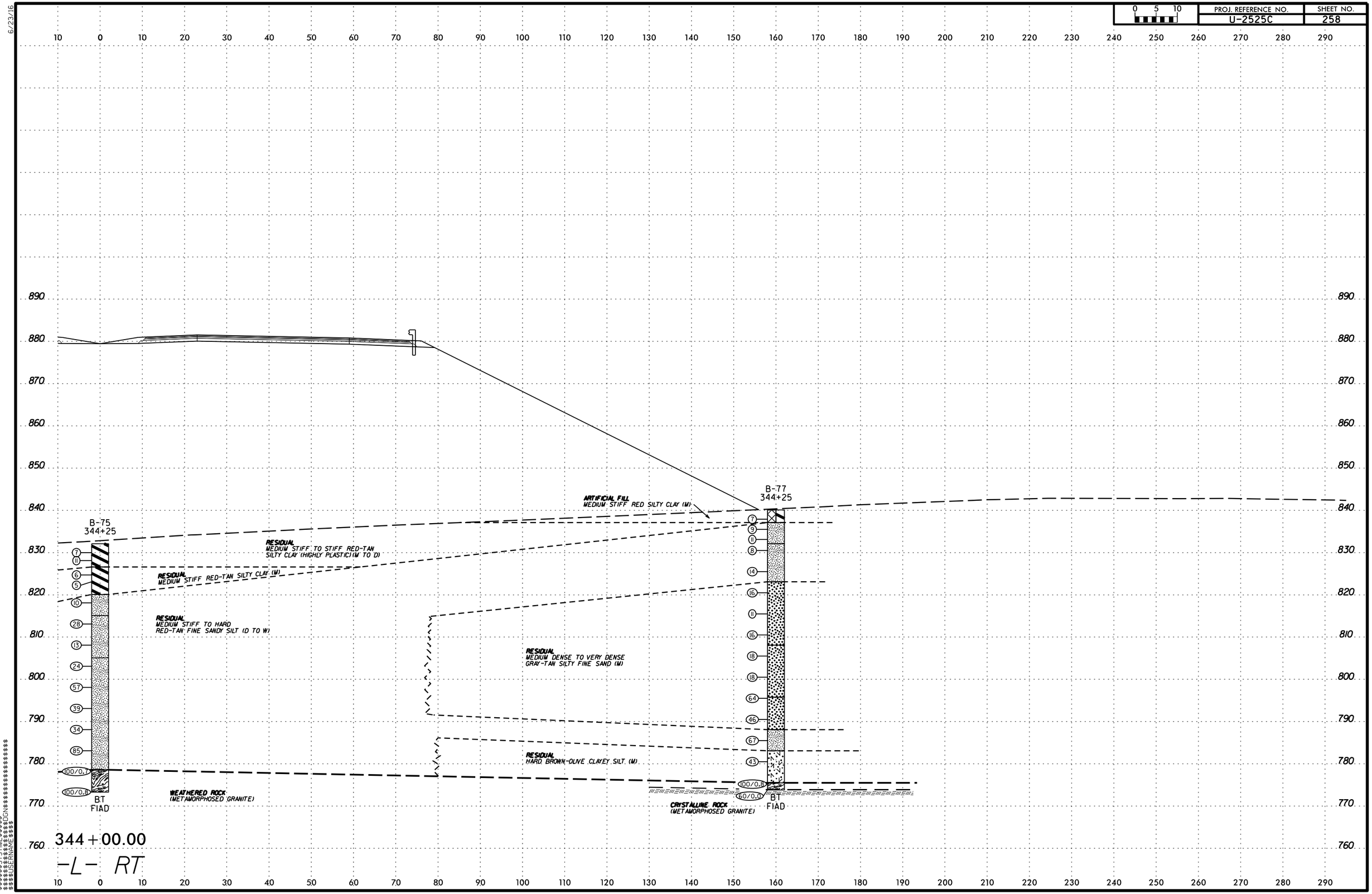
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
255
0 5 10
B-72
342+25
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M TO D)
RESIDUAL
MEDIUM STIFF TO VERY HARD RED-TAN FINE SANDY SILT (D TO W)
RESIDUAL
LOOSE TO VERY DENSE GRAY-TAN SILTY FINE SAND (D TO W)
12/15
WEATHERED ROCK
(METAMORPHOSED GRANITE)
BT
342+00.00
-L- RT



6/23/16
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

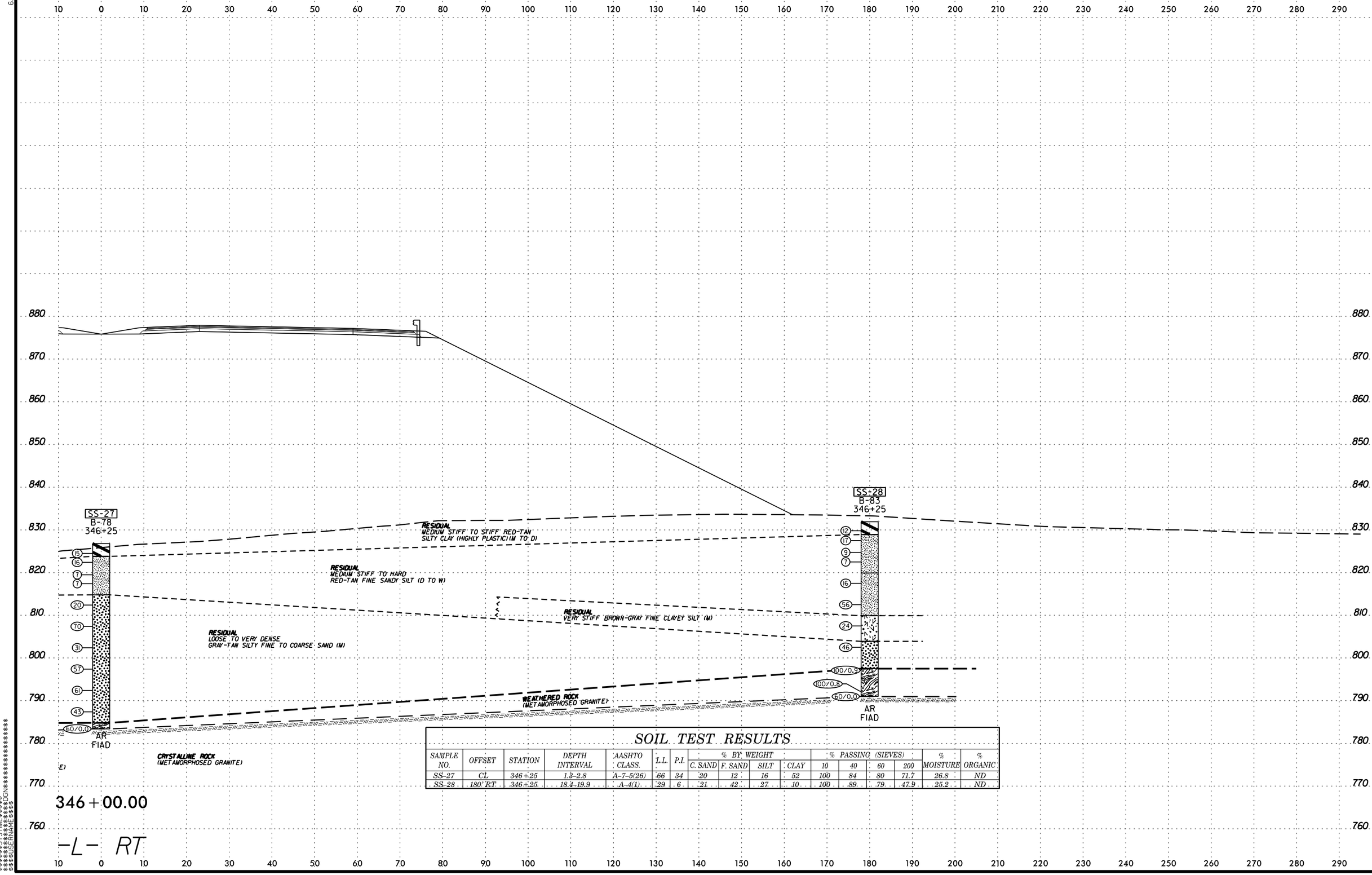


0 5 10
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
257
6/23/16
890
880
870
860
850
840
830
820
810
800
RESIDUAL
MEDIUM STIFF TO STIFF
RED-TAN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO VERY HARD
RED-TAN FINE SANDY SILT (M)
RESIDUAL
MEDIUM DENSE TO DENSE GRAY-TAN
SILTY FINE SAND (M TO W)
343+00.00
-L- RT



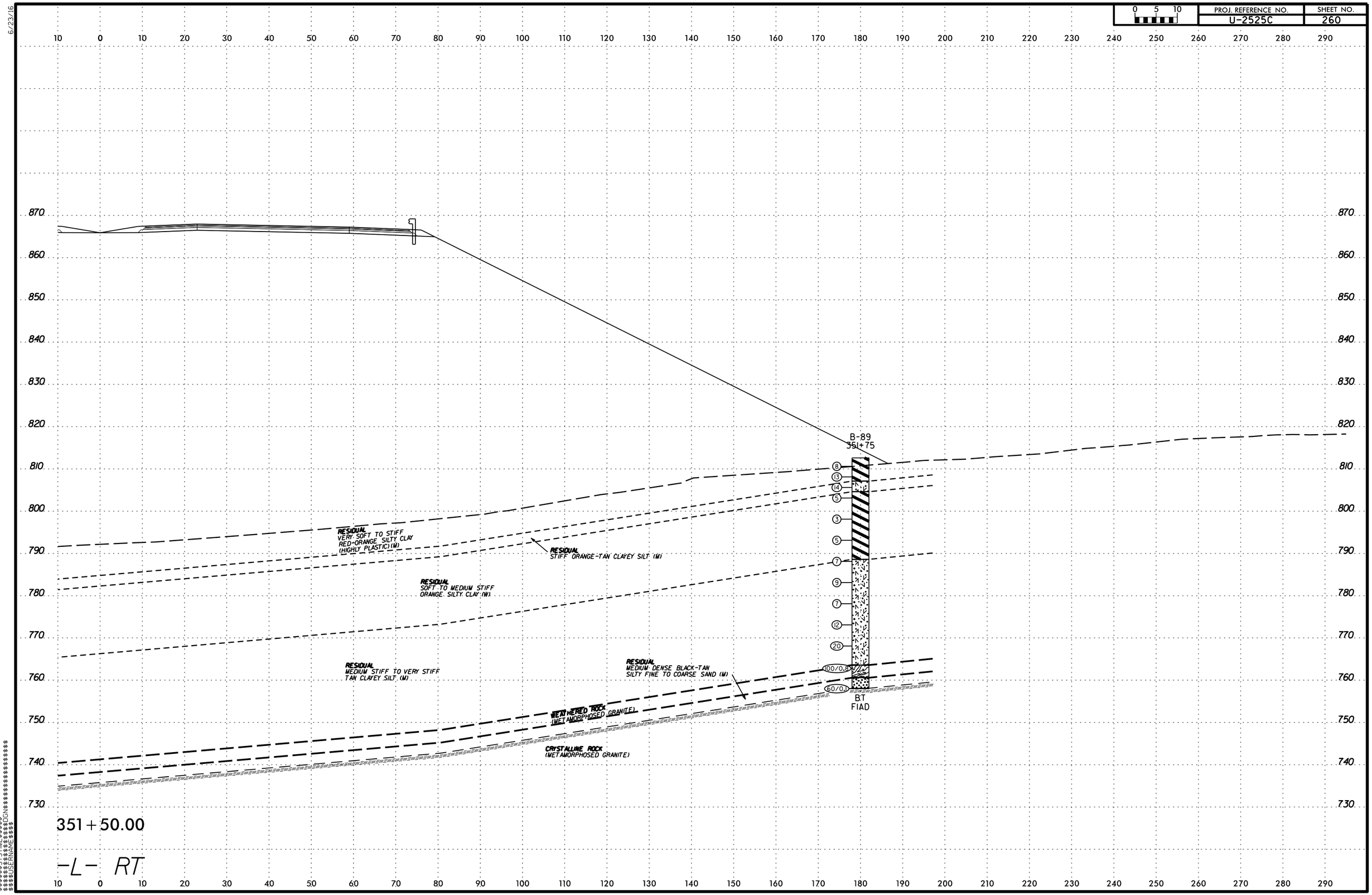
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
258
0 5 10
B-75
344+25
B-77
344+25
ARTIFICIAL FILL
MEDIUM STIFF RED SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC) (M TO D)
RESIDUAL
MEDIUM STIFF RED-TAN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO HARD RED-TAN FINE SANDY SILT (D TO W)
RESIDUAL
MEDIUM DENSE TO VERY DENSE GRAY-TAN SILTY FINE SAND (M)
RESIDUAL
HARD BROWN-OLIVE CLAYEY SILT (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
BT
FIAD
BT
FIAD
344+00.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 259



SOIL TEST RESULTS

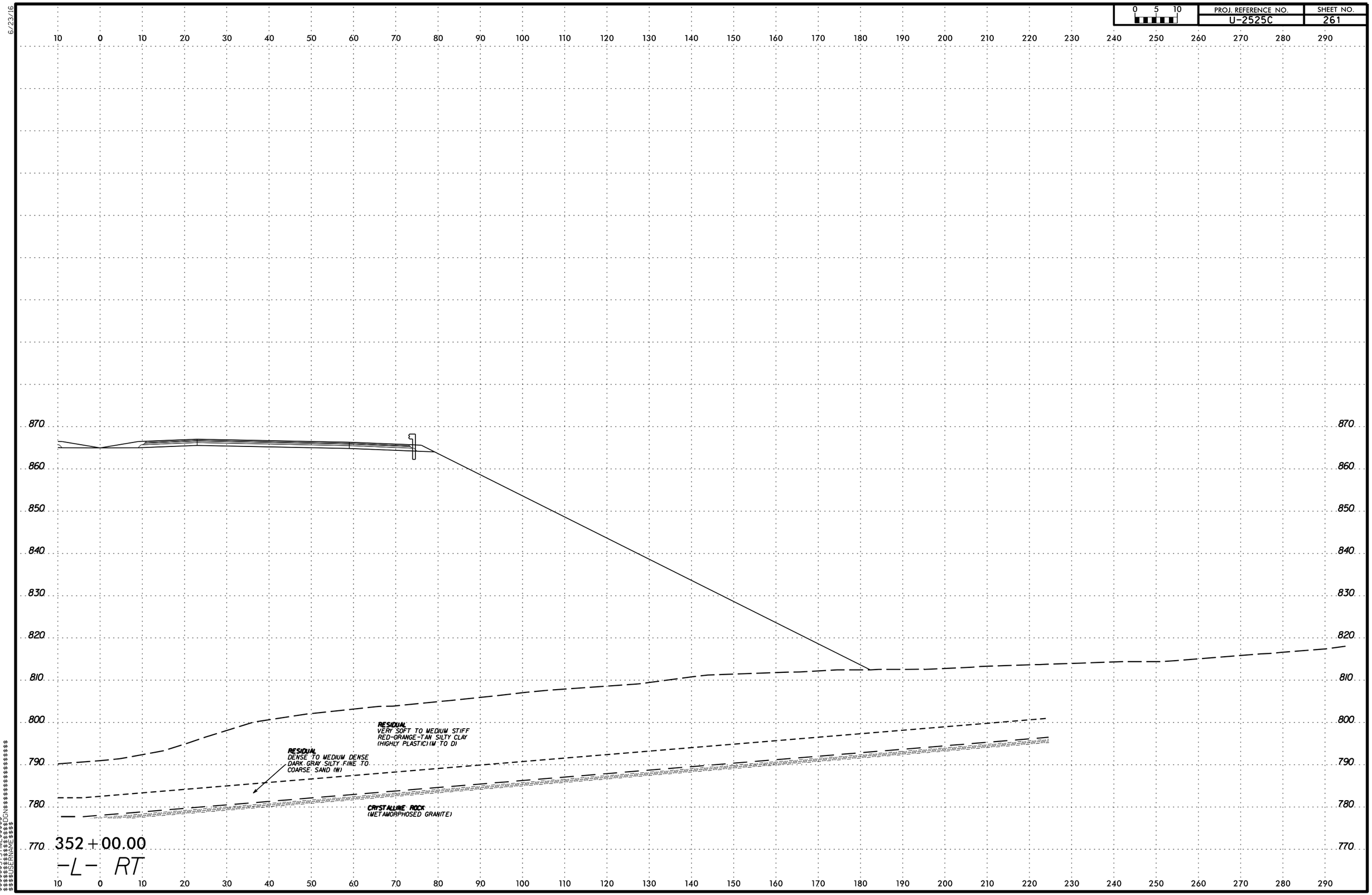
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-27	CL	346+25	1.3-2.8	A-7-5(26)	66	34	20	12	16	52	100	84	80	71.7	26.8	ND
SS-28	180' RT	346+25	18.4-19.9	A-4(1)	29	6	21	42	27	10	100	89	79	47.9	25.2	ND



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
260
0 5 10
B-89
351+75
8
13
14
5
3
5
7
9
7
12
20
100/0.8
60/0.1
BT
FIAD
RESIDUAL
VERY SOFT TO STIFF
RED-ORANGE SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
STIFF ORANGE-TAN CLAYEY SILT (M)
RESIDUAL
SOFT TO MEDIUM STIFF
ORANGE SILTY CLAY (W)
RESIDUAL
MEDIUM STIFF TO VERY STIFF
TAN CLAYEY SILT (M)
RESIDUAL
MEDIUM DENSE BLACK-TAN
SILTY FINE TO COARSE SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
351+50.00
-L- RT

6/23/16

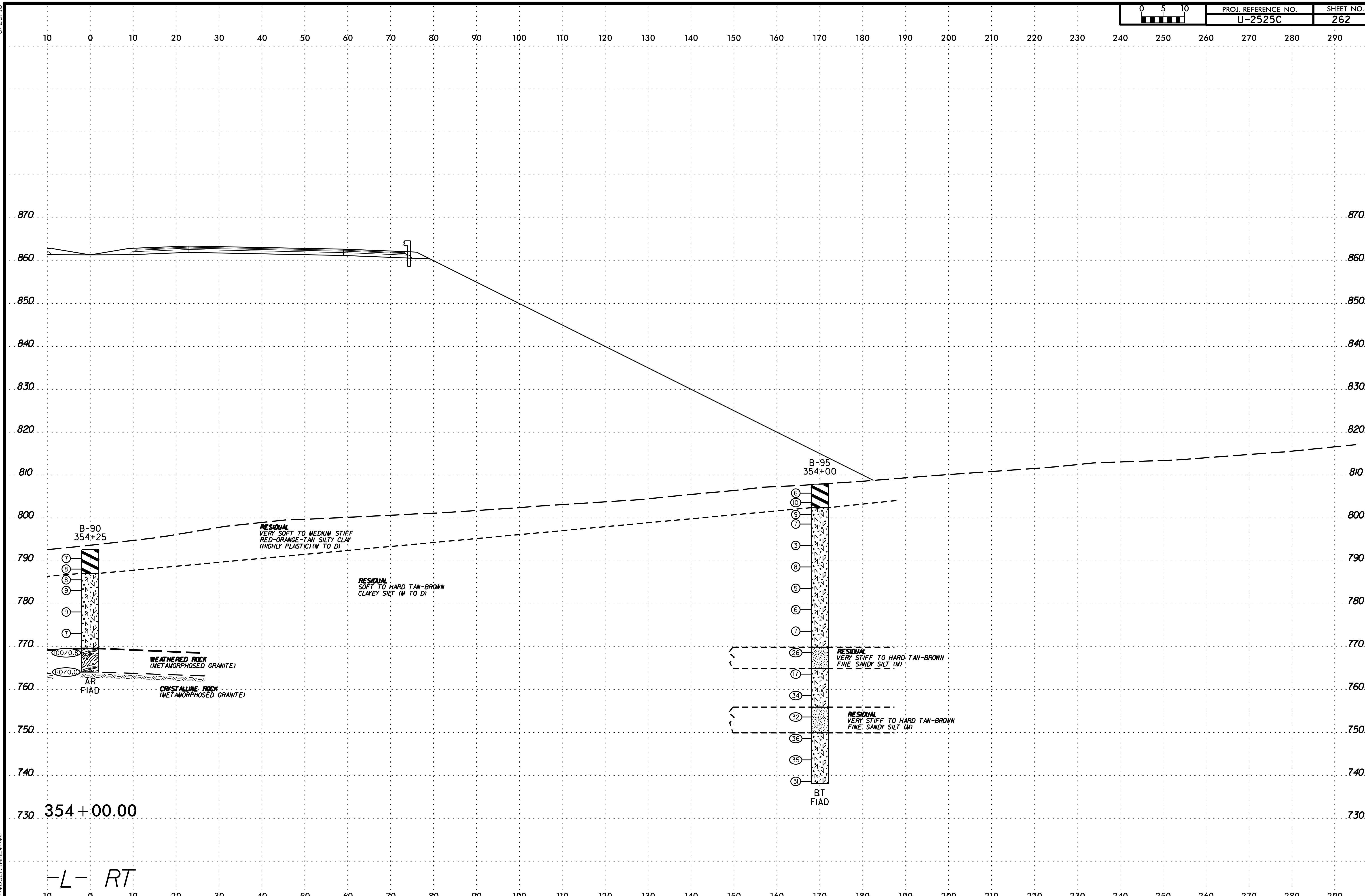
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	261

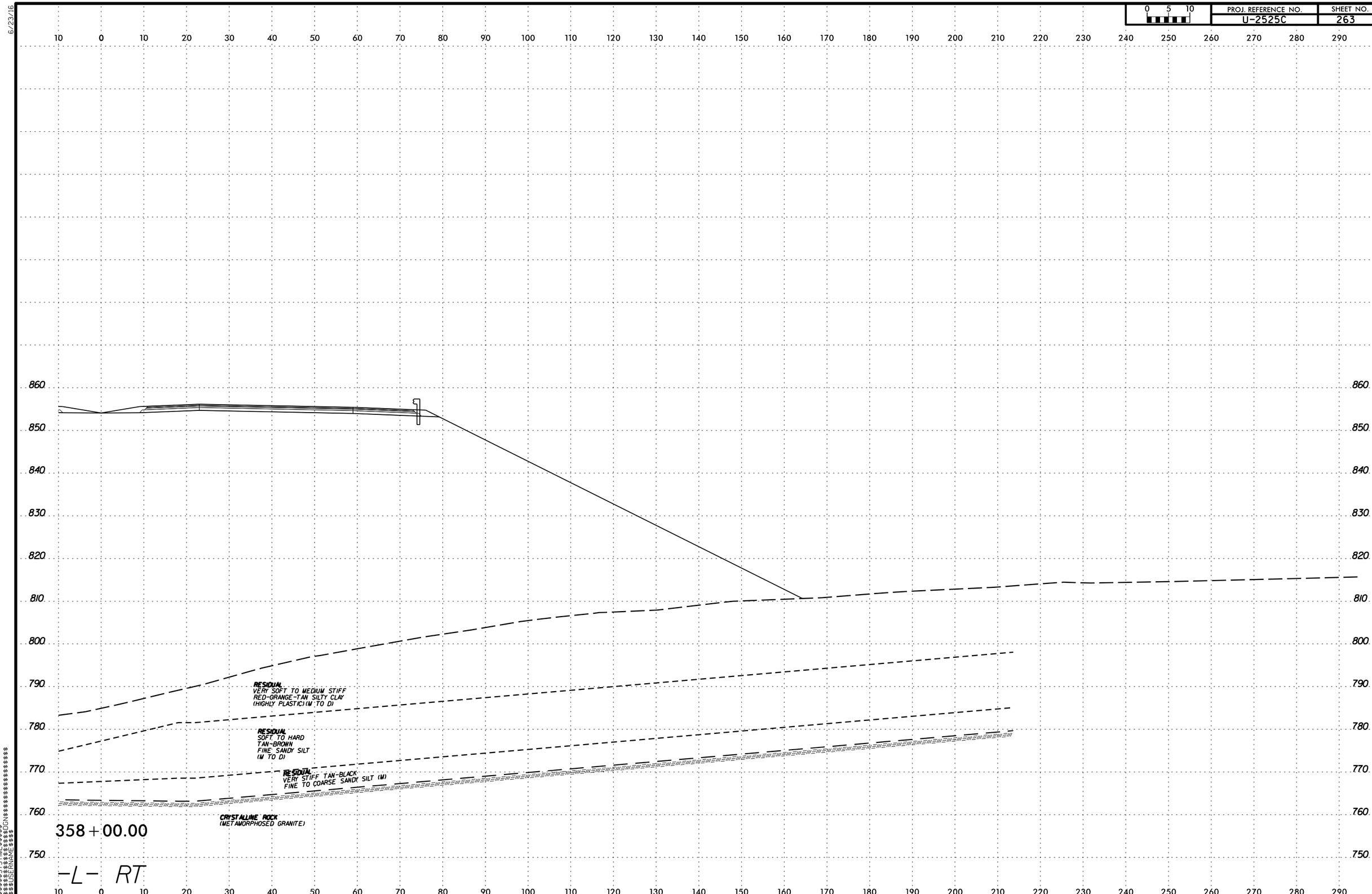


$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

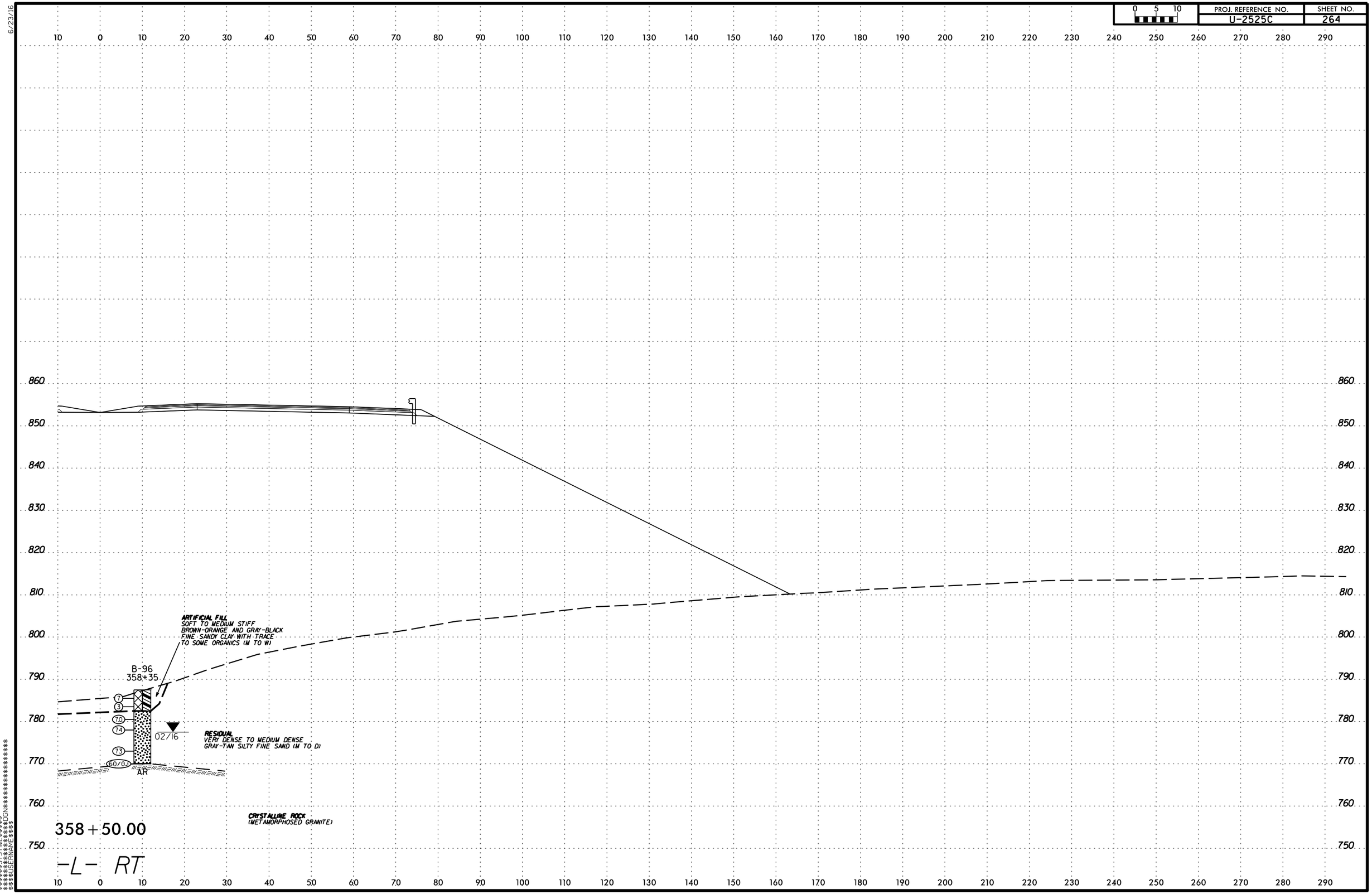
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	262





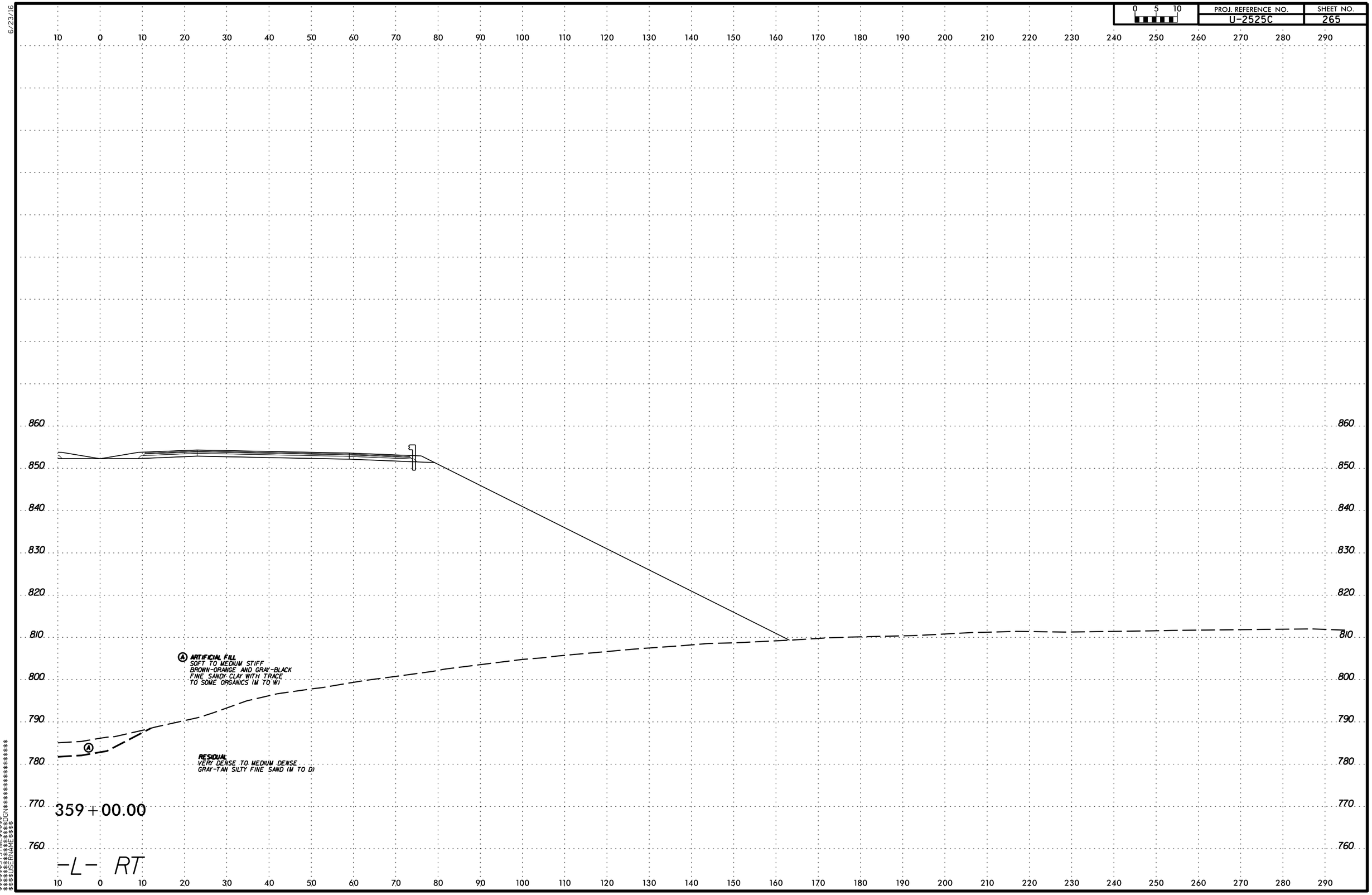
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
263
0 5 10
RESIDUAL
VERY SOFT TO MEDIUM STIFF
RED-ORANGE-TAN SILTY CLAY
(HIGHLY PLASTIC)(M TO D)
RESIDUAL
SOFT TO HARD
TAN-BROWN
FINE SANDY SILT
(M TO D)
RESIDUAL
VERY STIFF TAN-BLACK
FINE TO COARSE SANDY SILT (M)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
358+00.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
264
0 5 10
ARTIFICIAL FILL
SOFT TO MEDIUM STIFF
BROWN-ORANGE AND GRAY-BLACK
FINE SANDY CLAY WITH TRACE
TO SOME ORGANICS (M TO W)
B-96
358+35
7
3
7.0
7.4
7.3
6.0/0.1
AR
02/16
RESIDUAL
VERY DENSE TO MEDIUM DENSE
GRAY-TAN SILTY FINE SAND (M TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
358+50.00
-L- RT

6/23/16

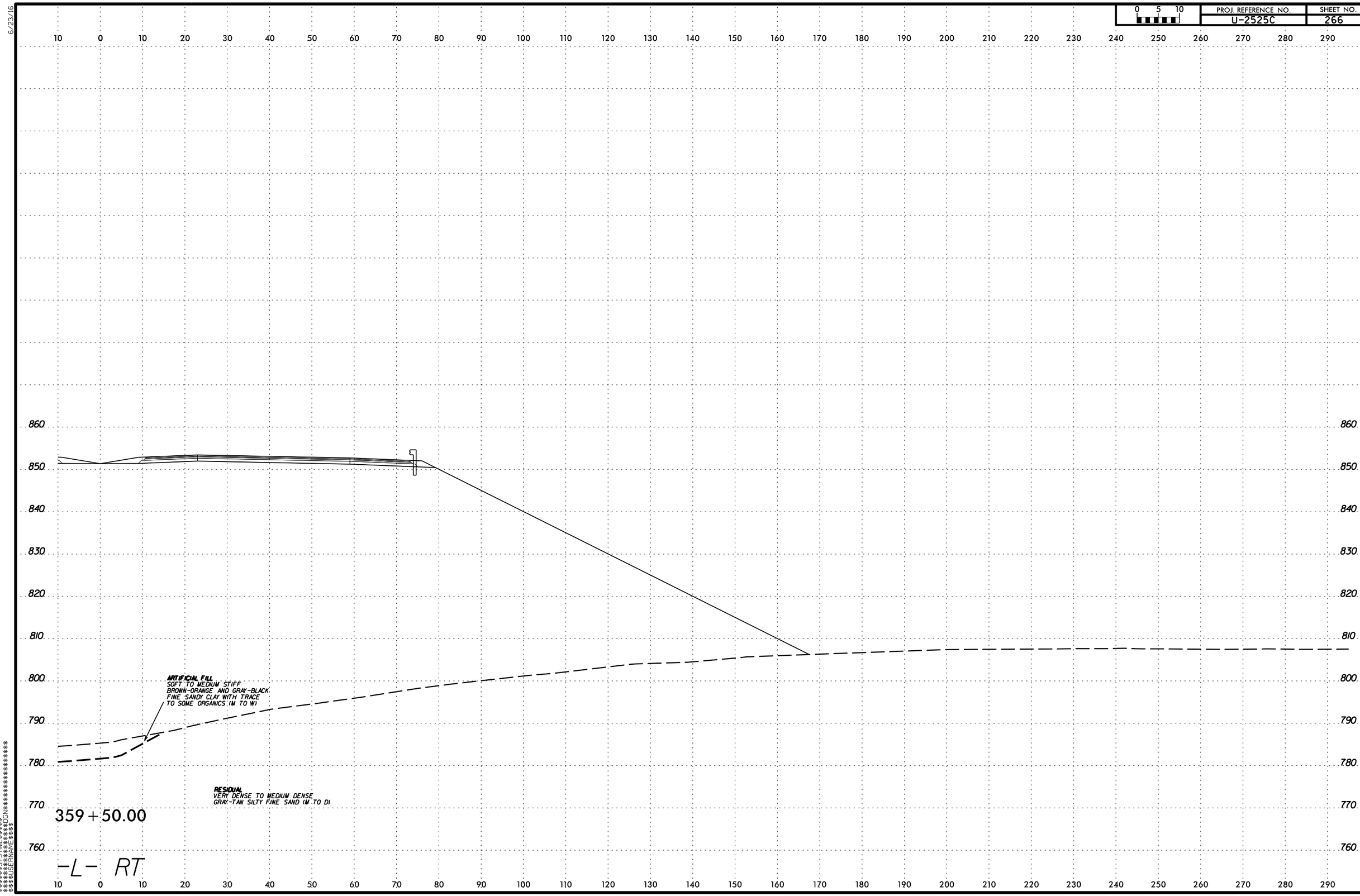
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	265



$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

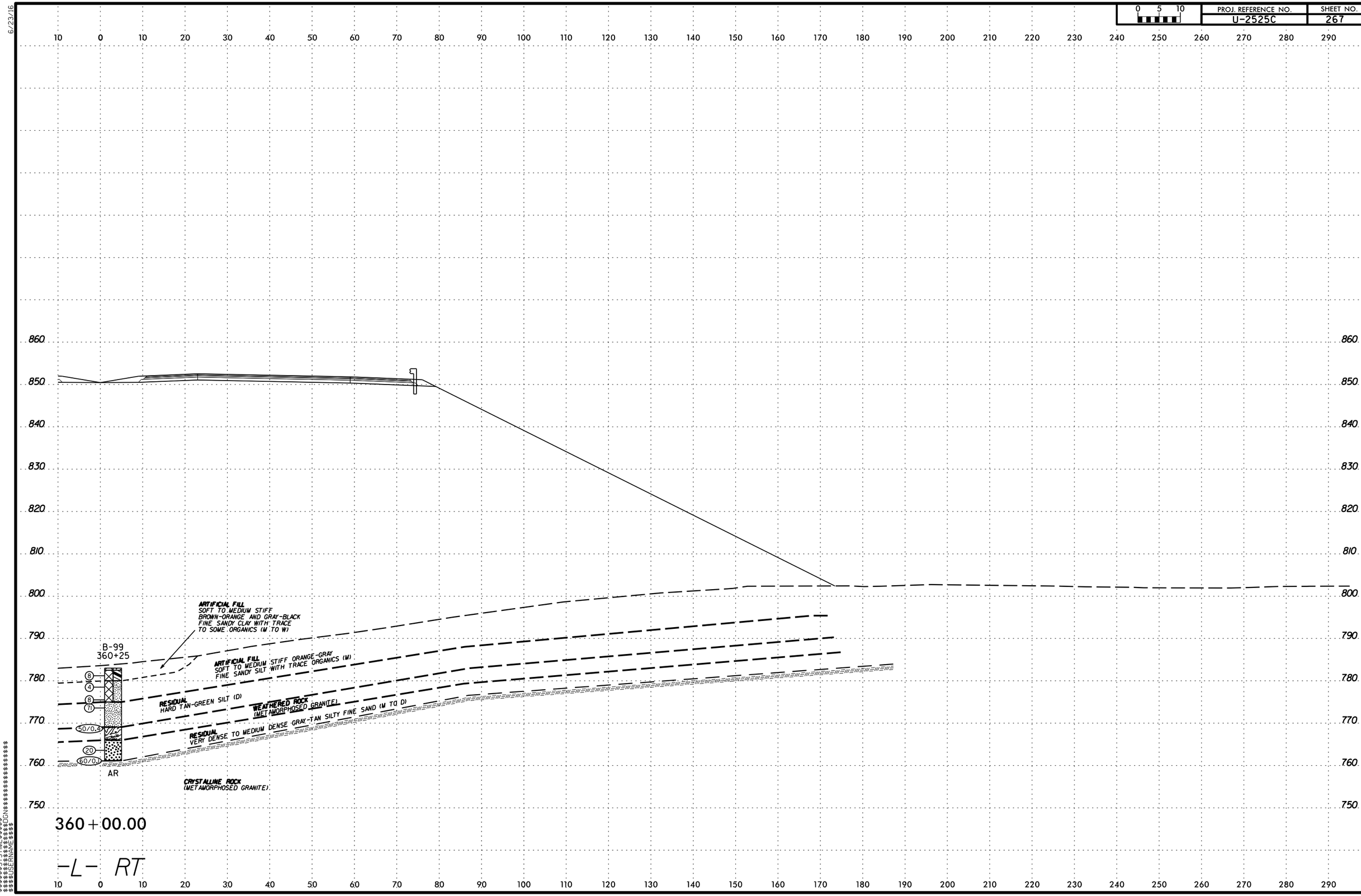
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	266



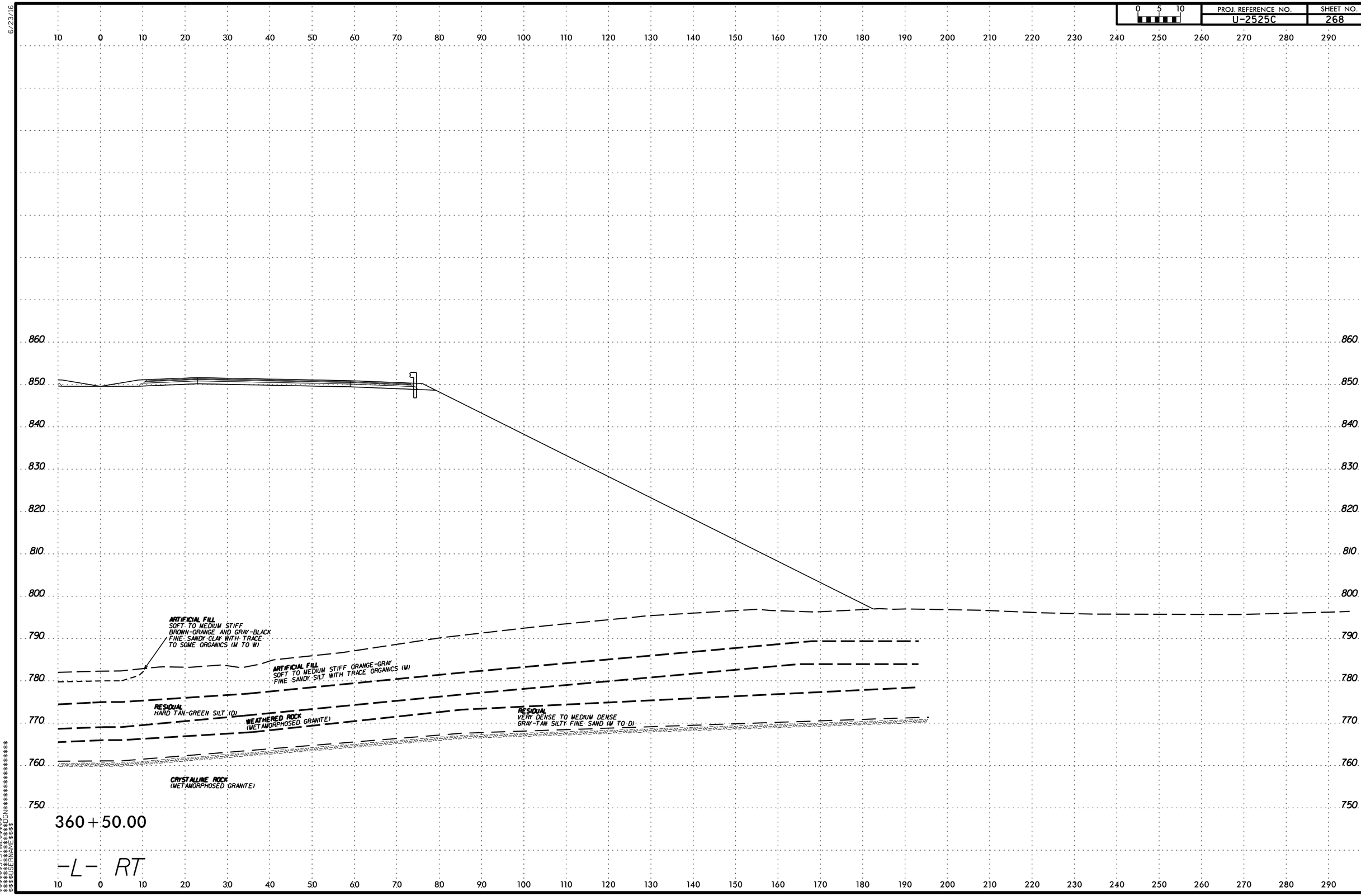
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

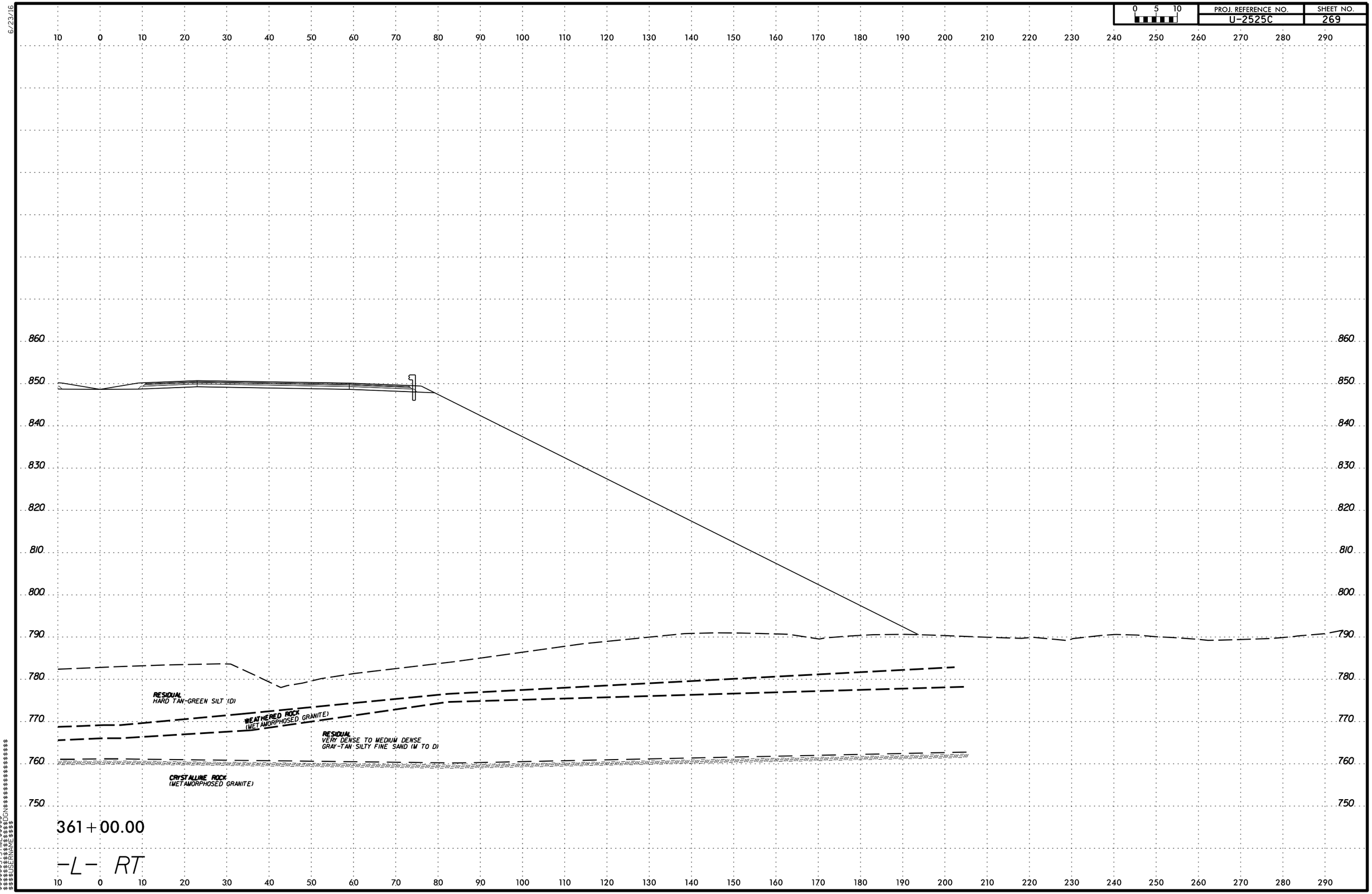
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	267



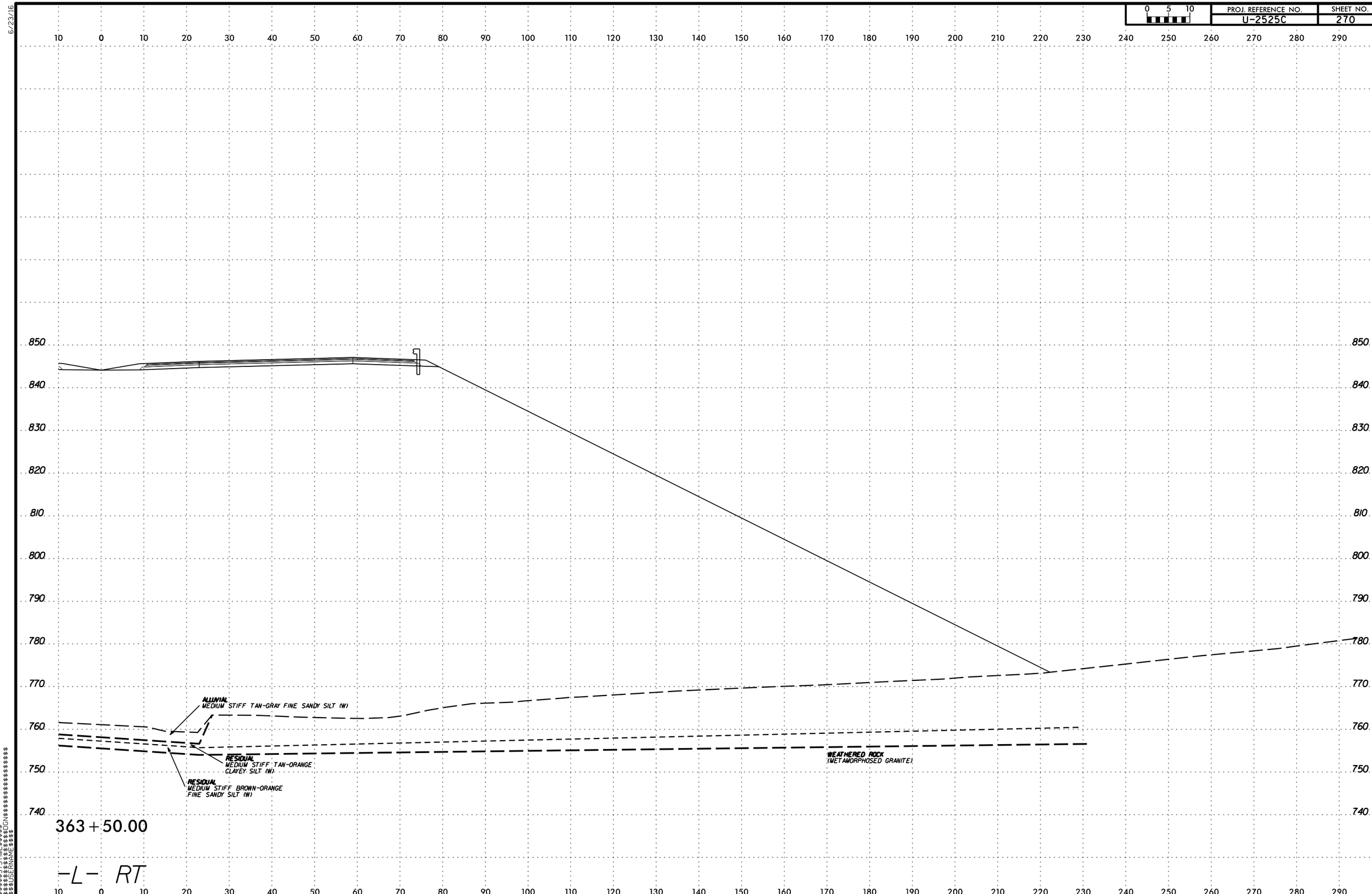
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



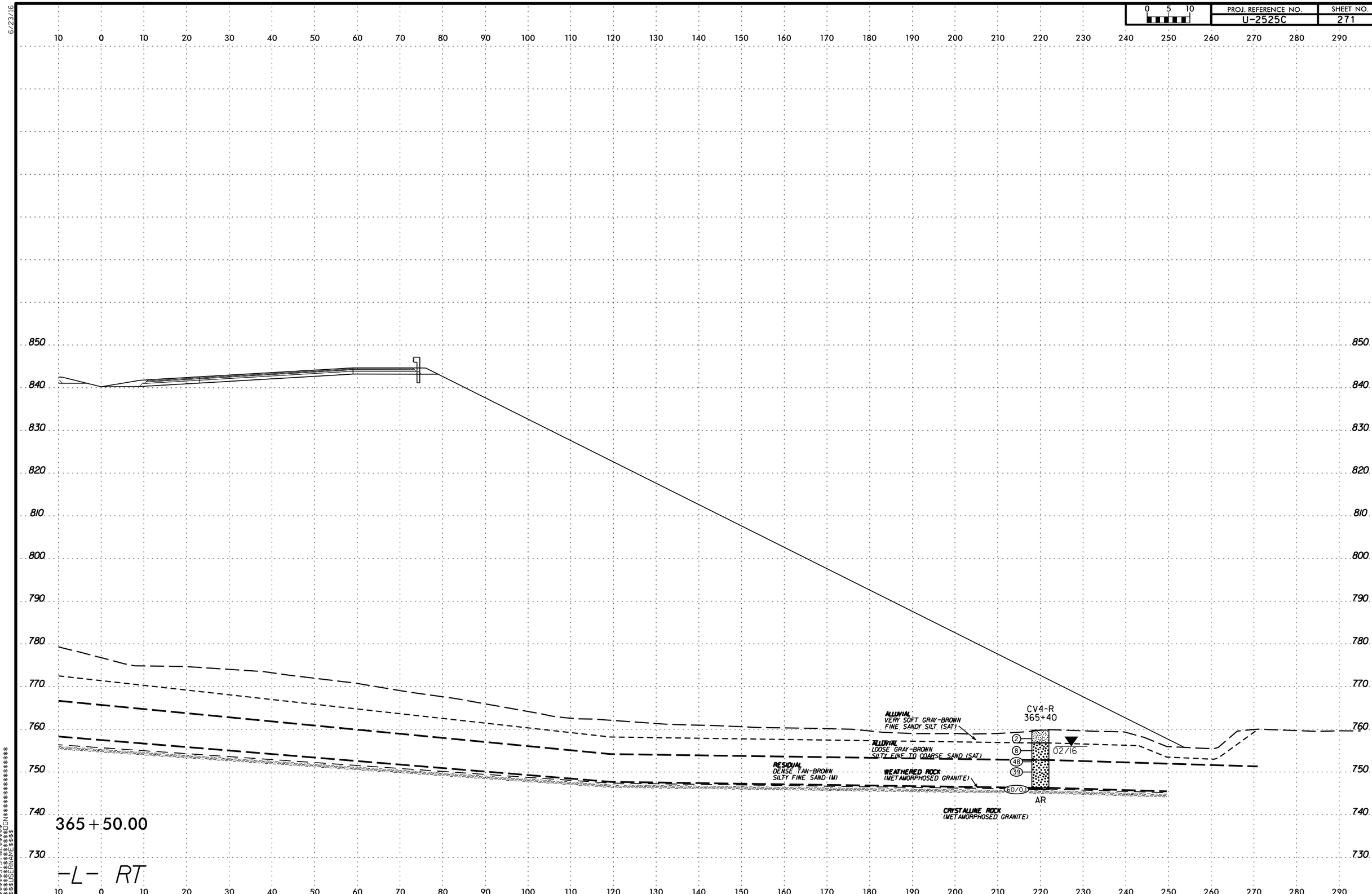
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
268
0 5 10
ARTIFICIAL FILL
SOFT TO MEDIUM STIFF
BROWN-ORANGE AND GRAY-BLACK
FINE SANDY CLAY WITH TRACE
TO SOME ORGANICS (M TO W)
ARTIFICIAL FILL
SOFT TO MEDIUM STIFF ORANGE-GRAY
FINE SANDY SILT WITH TRACE ORGANICS (M)
RESIDUAL
HARD TAN-GREEN SILT (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
VERY DENSE TO MEDIUM DENSE
GRAY-TAN SILTY FINE SAND (M TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
360+50.00
-L- RT



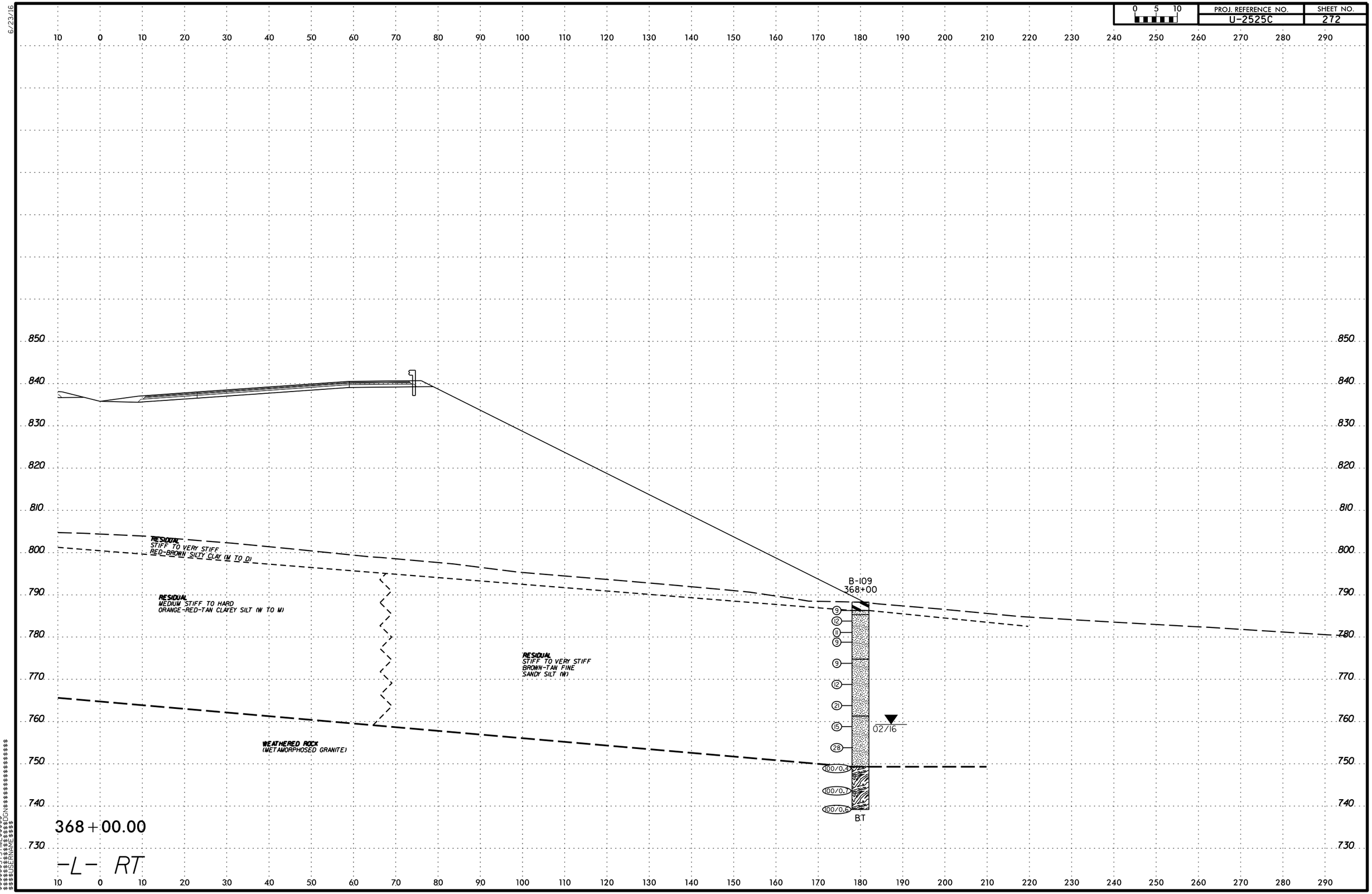
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
269
0 5 10
RESIDUAL
HARD TAN-GREEN SILT (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
VERY DENSE TO MEDIUM DENSE
GRAY-TAN SILTY FINE SAND (M TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
361+00.00
-L- RT



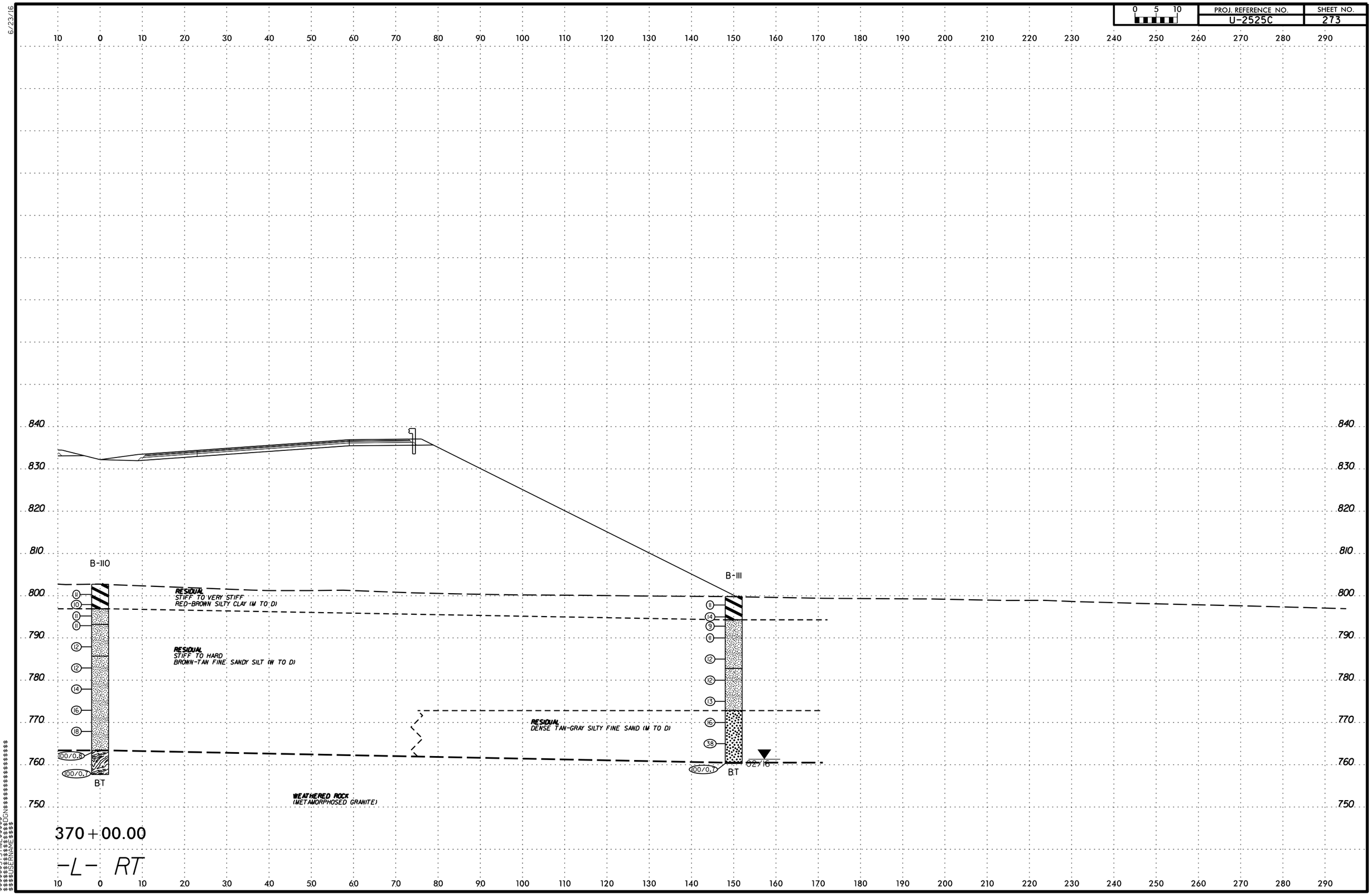
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
270
0 5 10
ALLUVIAL
MEDIUM STIFF TAN-GRAY FINE SANDY SILT (W)
RESIDUAL
MEDIUM STIFF TAN-ORANGE
CLAYEY SILT (W)
RESIDUAL
MEDIUM STIFF BROWN-ORANGE
FINE SANDY SILT (W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
363+50.00
-L- RT



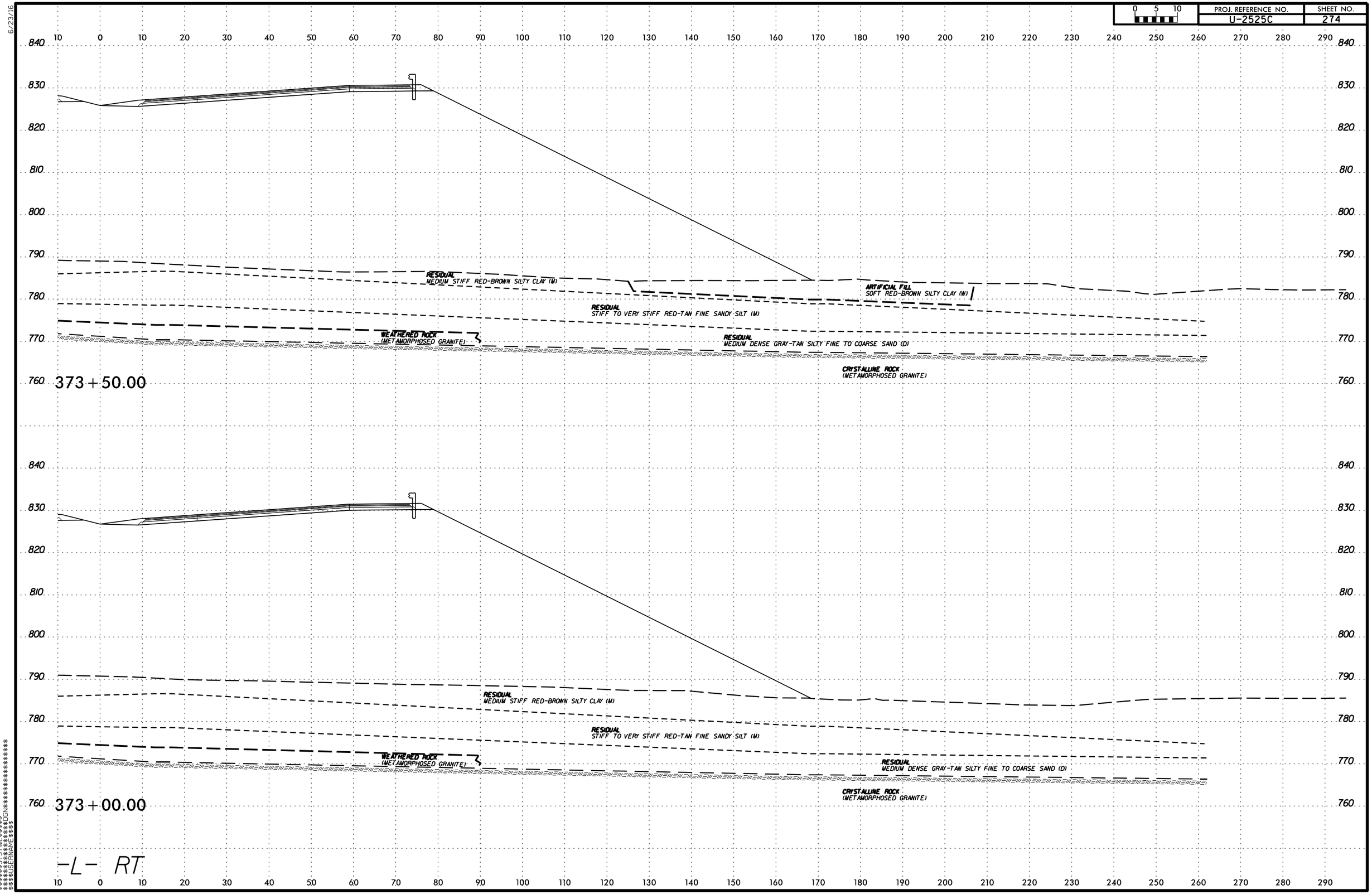
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
271
0 5 10
6/23/16
ALLUVIAL
VERY SOFT GRAY-BROWN
FINE SANDY SILT (SAT)
ALLUVIAL
LOOSE GRAY-BROWN
SILTY FINE TO COARSE SAND (SAT)
RESIDUAL
DENSE TAN-BROWN
SILTY FINE SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
CV4-R
365+40
02/16
AR
365+50.00
-L- RT



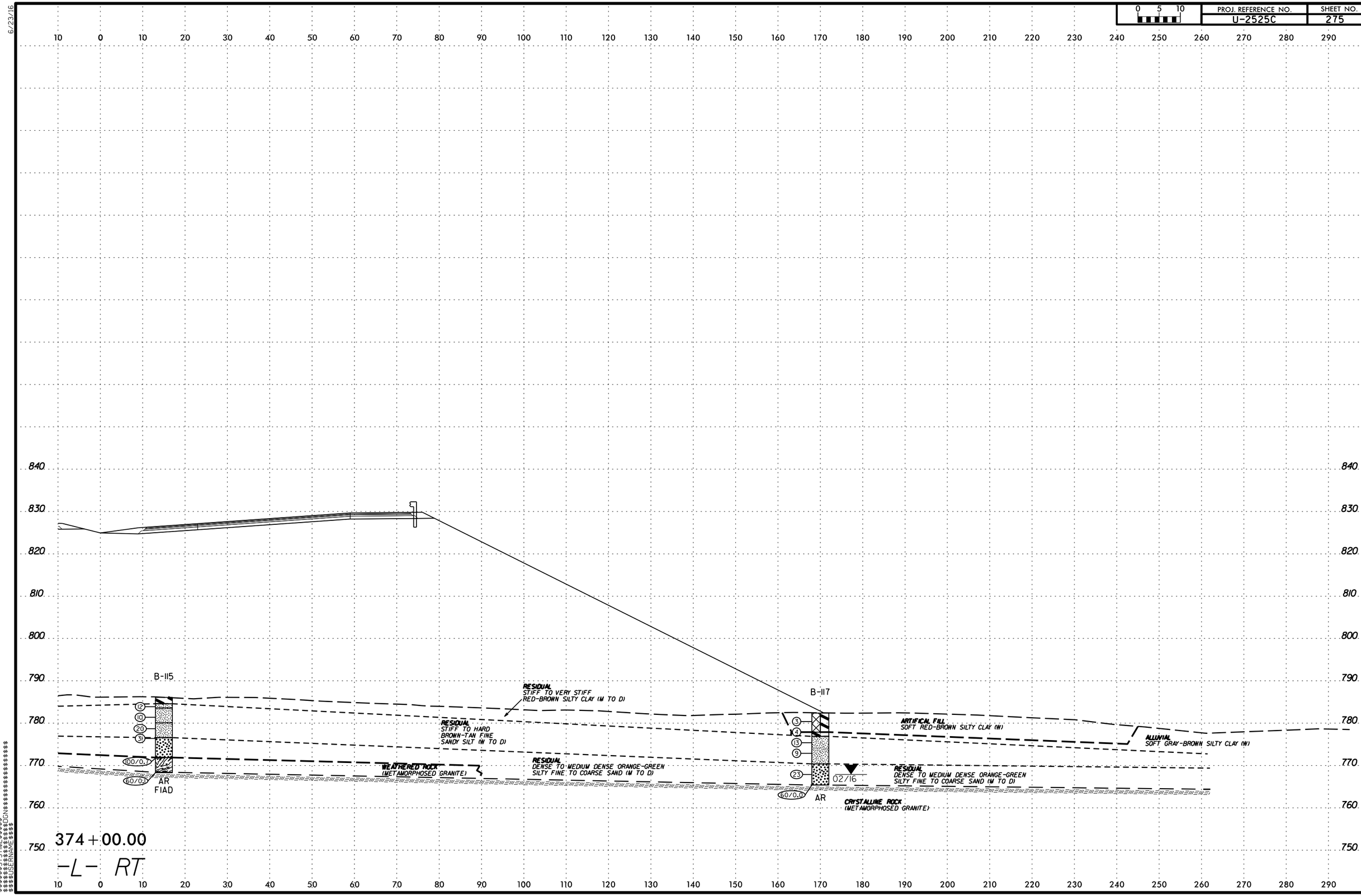
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
272
0 5 10
6/23/16
RESIDUAL
STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M TO D)
RESIDUAL
MEDIUM STIFF TO HARD
ORANGE-RED-TAN CLAYEY SILT (W TO M)
RESIDUAL
STIFF TO VERY STIFF
BROWN-TAN FINE
SANDY SILT (W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
B-109
368+00
9
12
11
9
9
12
21
15
28
100/0.4
100/0.7
100/0.6
02/16
BT
368+00.00
-L- RT



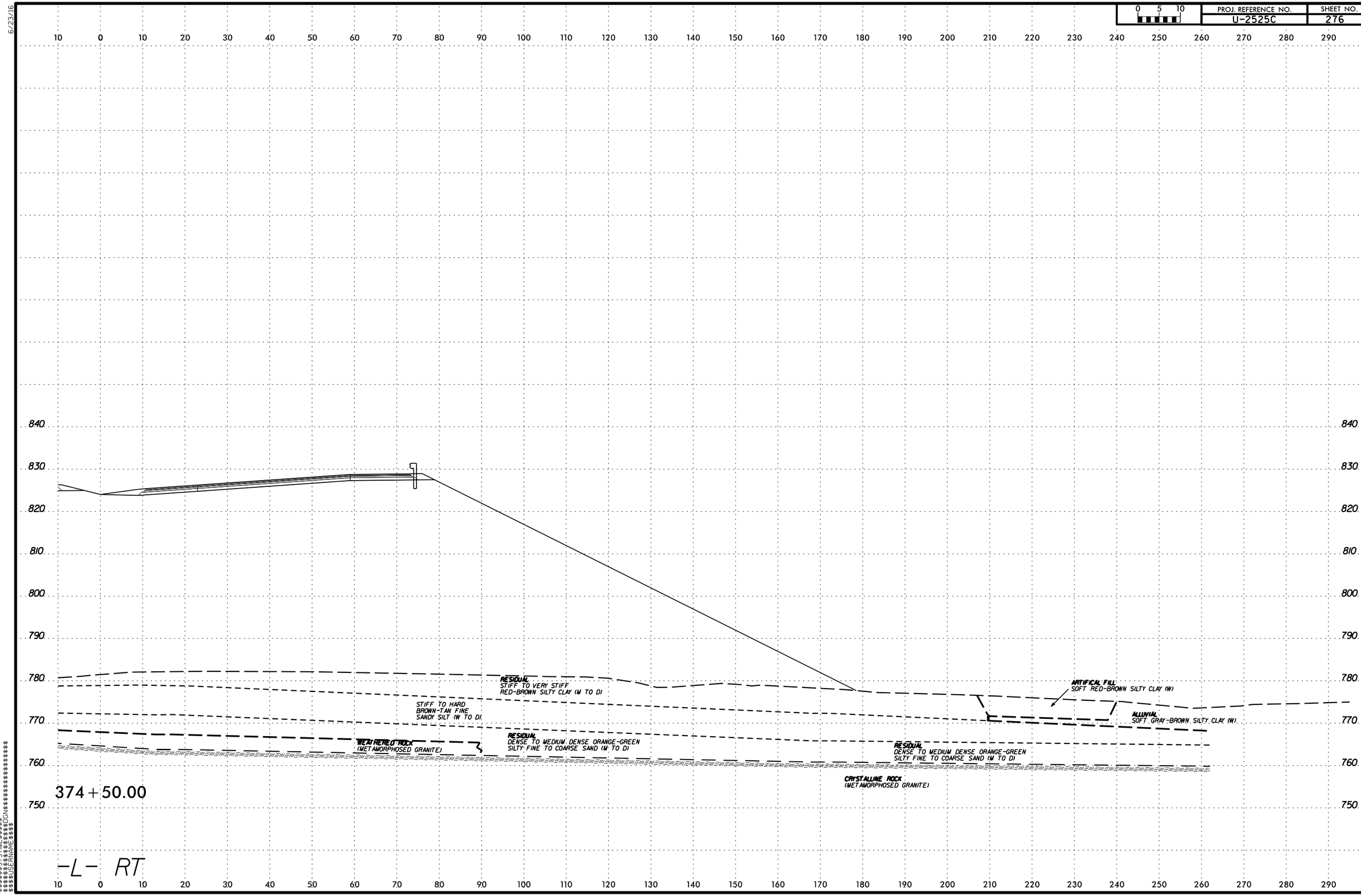
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
273
0 5 10
B-110
B-111
RESIDUAL
STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M TO D)
RESIDUAL
STIFF TO HARD
BROWN-TAN FINE SANDY SILT (W TO D)
RESIDUAL
DENSE TAN-GRAY SILTY FINE SAND (M TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
100/0.8
100/0.7
BT
02/16
370+00.00
-L- RT



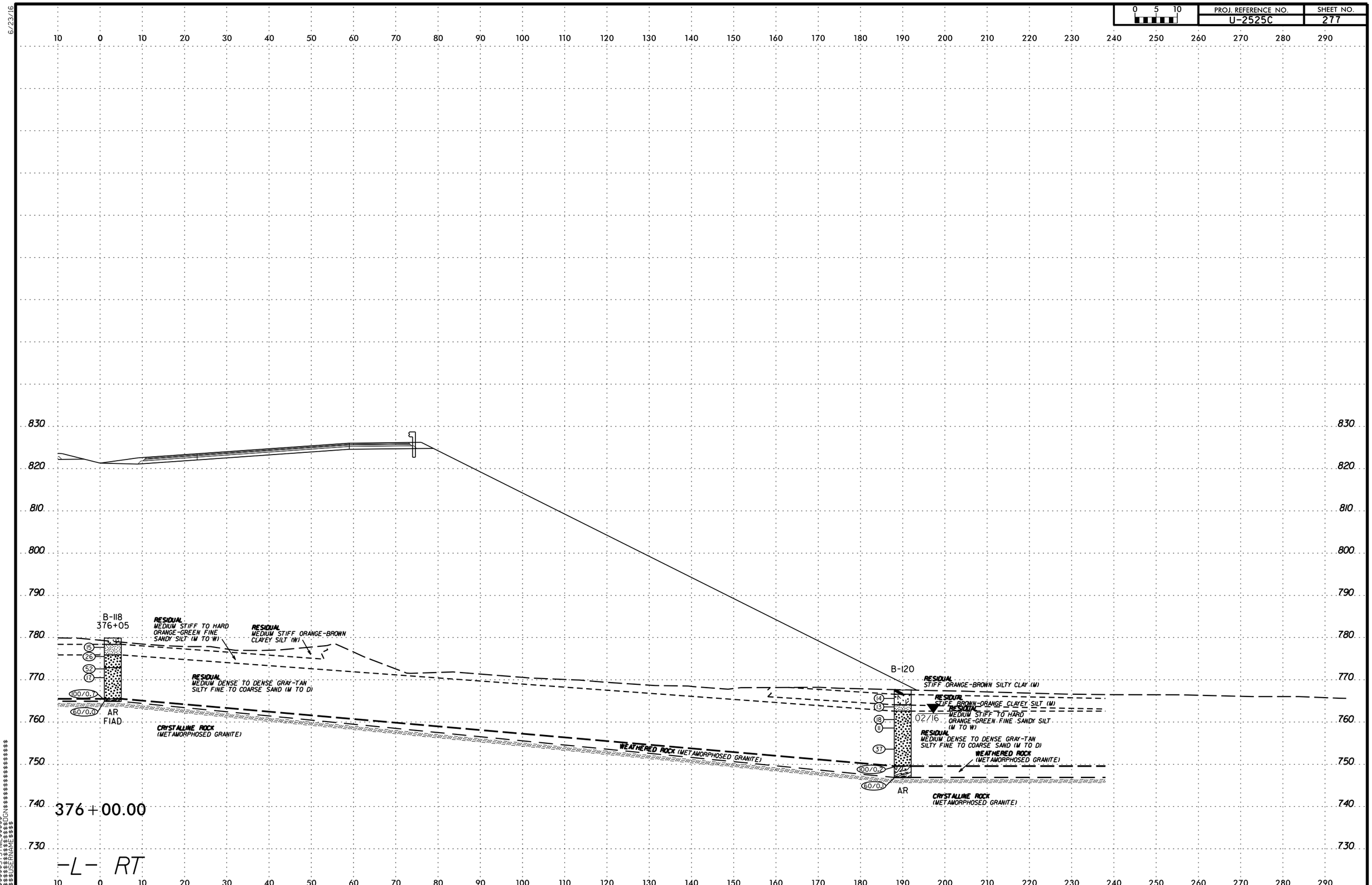
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
274
0 5 10
373+50.00
RESIDUAL
MEDIUM STIFF RED-BROWN SILTY CLAY (M)
ARTIFICIAL FILL
SOFT RED-BROWN SILTY CLAY (W)
RESIDUAL
STIFF TO VERY STIFF RED-TAN FINE SANDY SILT (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
MEDIUM DENSE GRAY-TAN SILTY FINE TO COARSE SAND (D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
373+00.00
RESIDUAL
MEDIUM STIFF RED-BROWN SILTY CLAY (M)
RESIDUAL
STIFF TO VERY STIFF RED-TAN FINE SANDY SILT (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
MEDIUM DENSE GRAY-TAN SILTY FINE TO COARSE SAND (D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
-L- RT



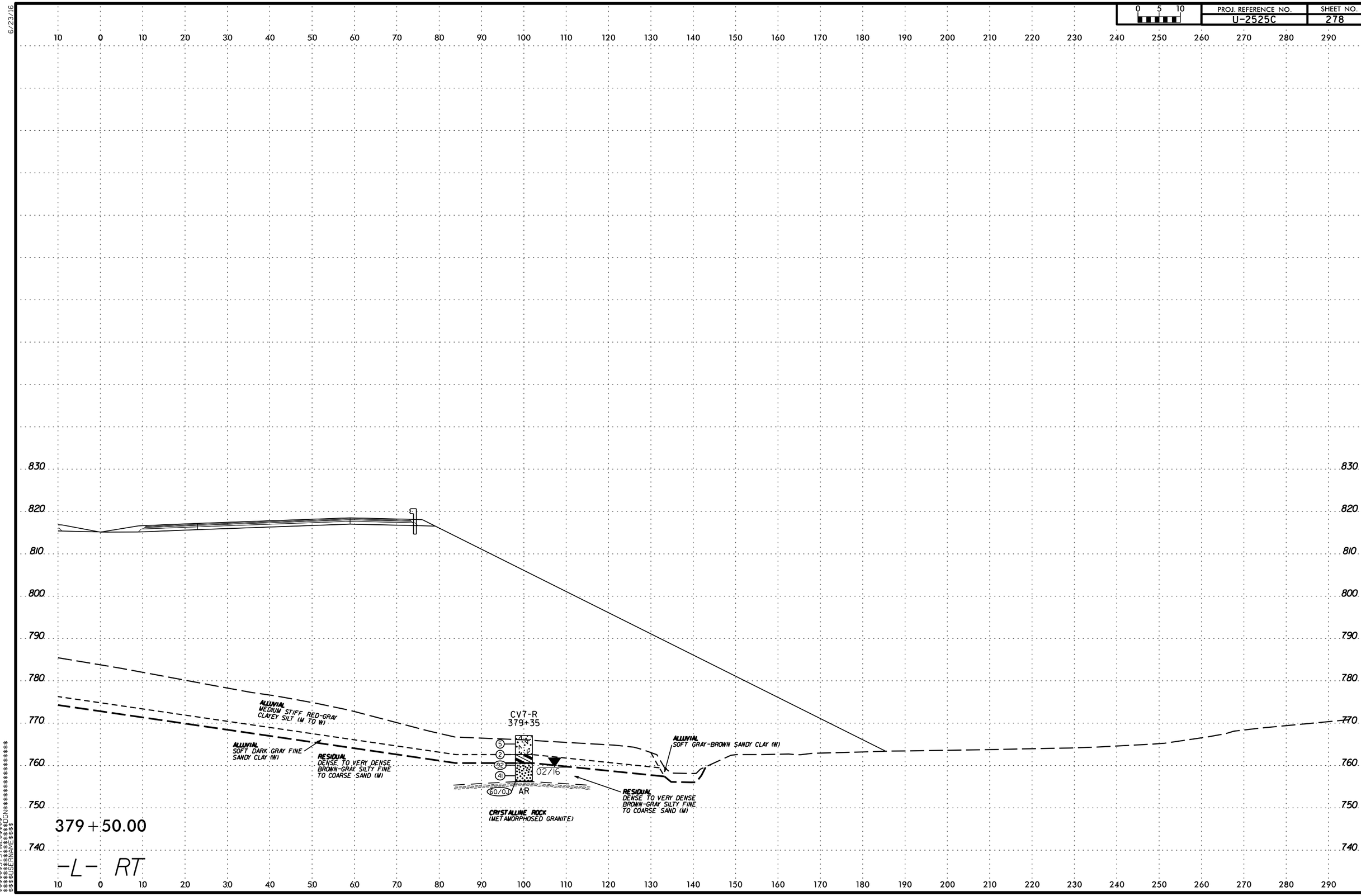
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
275
0 5 10
B-115
B-117
RESIDUAL
STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M TO D)
RESIDUAL
STIFF TO HARD
BROWN-TAN FINE
SANDY SILT (W TO D)
RESIDUAL
DENSE TO MEDIUM DENSE ORANGE-GREEN
SILTY FINE TO COARSE SAND (M TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
ARTIFICAL FILL
SOFT RED-BROWN SILTY CLAY (W)
ALLUVIAL
SOFT GRAY-BROWN SILTY CLAY (W)
RESIDUAL
DENSE TO MEDIUM DENSE ORANGE-GREEN
SILTY FINE TO COARSE SAND (M TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR
FIAD
AR
02/16
374+00.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
276
0 5 10
840
830
820
810
800
790
780
770
760
750
RESIDUAL
STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M TO D)
STIFF TO HARD
BROWN-TAN FINE
SANDY SILT (W TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
DENSE TO MEDIUM DENSE ORANGE-GREEN
SILTY FINE TO COARSE SAND (M TO D)
ARTIFICAL FILL
SOFT RED-BROWN SILTY CLAY (W)
ALLUVIAL
SOFT GRAY-BROWN SILTY CLAY (W)
RESIDUAL
DENSE TO MEDIUM DENSE ORANGE-GREEN
SILTY FINE TO COARSE SAND (M TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
374+50.00
-L- RT

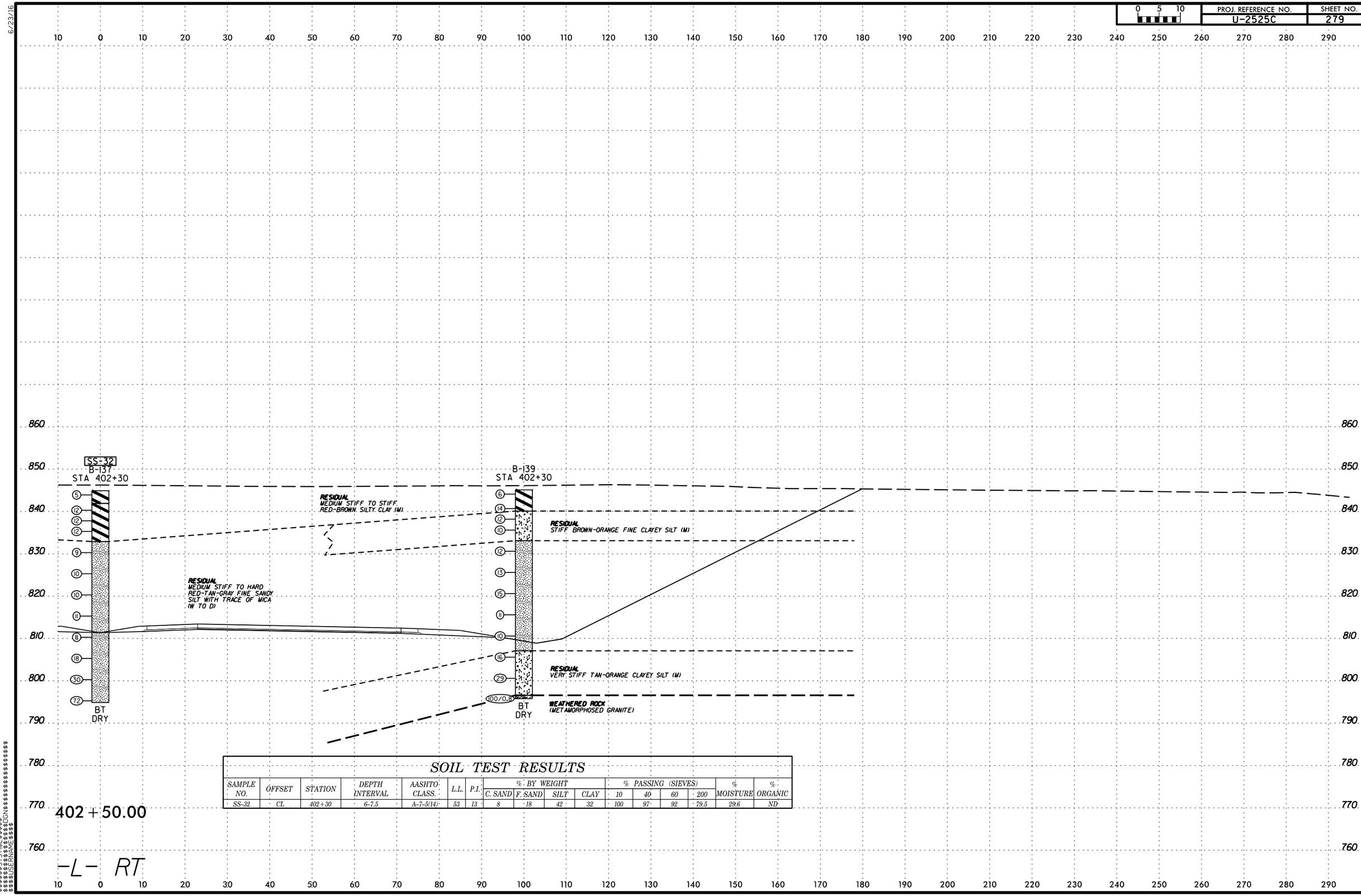


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
277
0 5 10
B-118
376+05
RESIDUAL
MEDIUM STIFF TO HARD
ORANGE-GREEN FINE
SANDY SILT (M TO W)
RESIDUAL
MEDIUM STIFF ORANGE-BROWN
CLAYEY SILT (W)
RESIDUAL
MEDIUM DENSE TO DENSE GRAY-TAN
SILTY FINE TO COARSE SAND (M TO D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR
FIAD
B-120
RESIDUAL
STIFF ORANGE-BROWN SILTY CLAY (M)
RESIDUAL
STIFF BROWN-ORANGE CLAYEY SILT (M)
RESIDUAL
MEDIUM STIFF TO HARD
ORANGE-GREEN FINE SANDY SILT
(M TO W)
RESIDUAL
MEDIUM DENSE TO DENSE GRAY-TAN
SILTY FINE TO COARSE SAND (M TO D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
WEATHERED ROCK (METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
AR
02/16
376+00.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
278
0 5 10
6/23/16
ALLUVIAL
MEDIUM STIFF RED-GRAY
CLAYEY SILT (M TO W)
ALLUVIAL
SOFT DARK GRAY FINE
SANDY CLAY (W)
RESIDUAL
DENSE TO VERY DENSE
BROWN-GRAY SILTY FINE
TO COARSE SAND (M)
CV7-R
379+35
5
2
92
41
60/0.1
AR
02/16
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
ALLUVIAL
SOFT GRAY-BROWN SANDY CLAY (W)
RESIDUAL
DENSE TO VERY DENSE
BROWN-GRAY SILTY FINE
TO COARSE SAND (M)
379+50.00
-L- RT

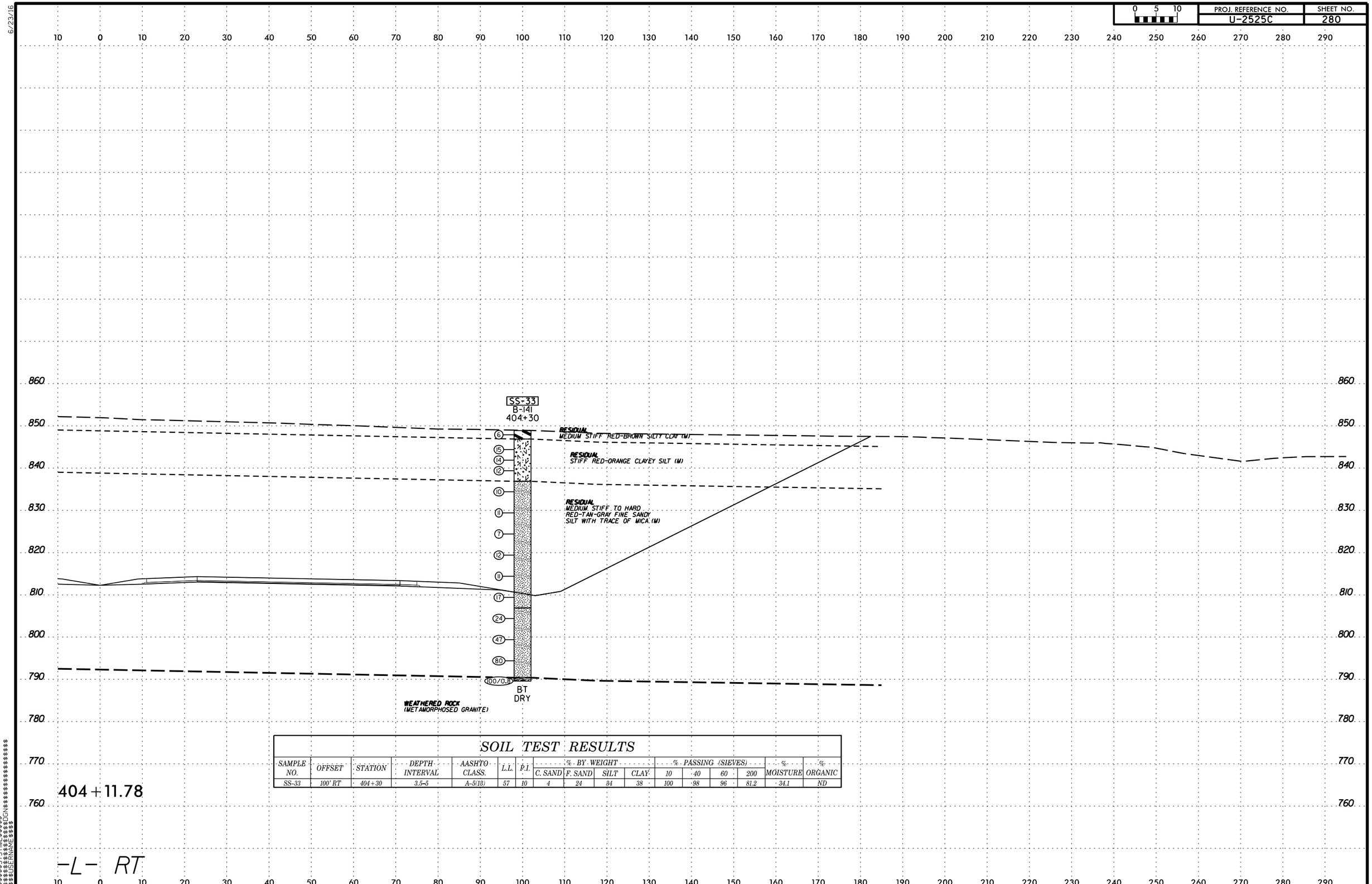
PROJ. REFERENCE NO. U-2525C
SHEET NO. 279



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-32	CL	402+30	6-7.5	A-7-5(14)	53	13	8	18	42	32	100	97	92	79.5	29.6	ND

PROJ. REFERENCE NO. U-2525C | SHEET NO. 280

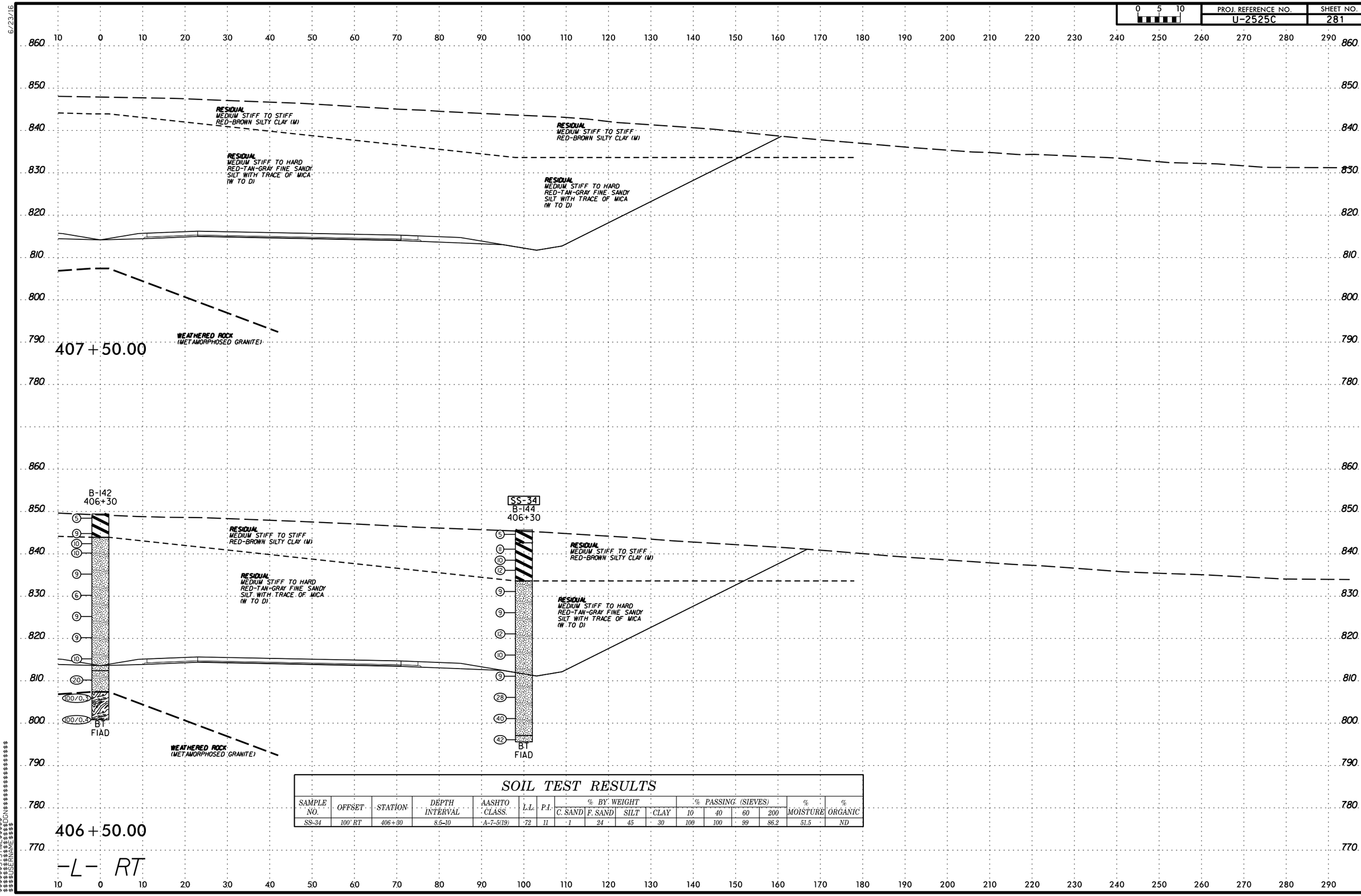


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-33	100' RT	404+30	3.5-5	A-5(13)	57	10	4	24	34	38	100	98	96	81.2	34.1	ND

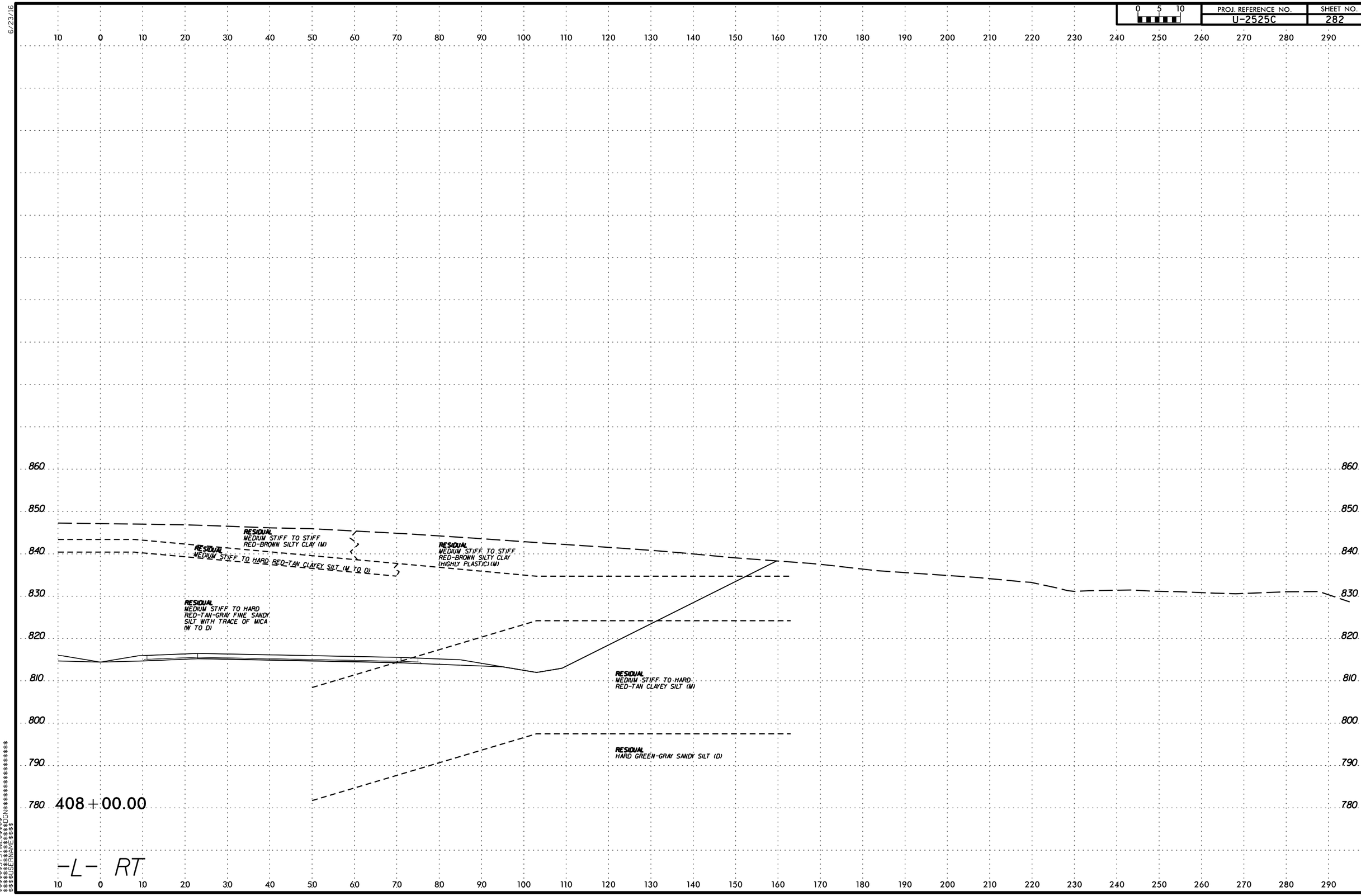
6/23/16
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	281



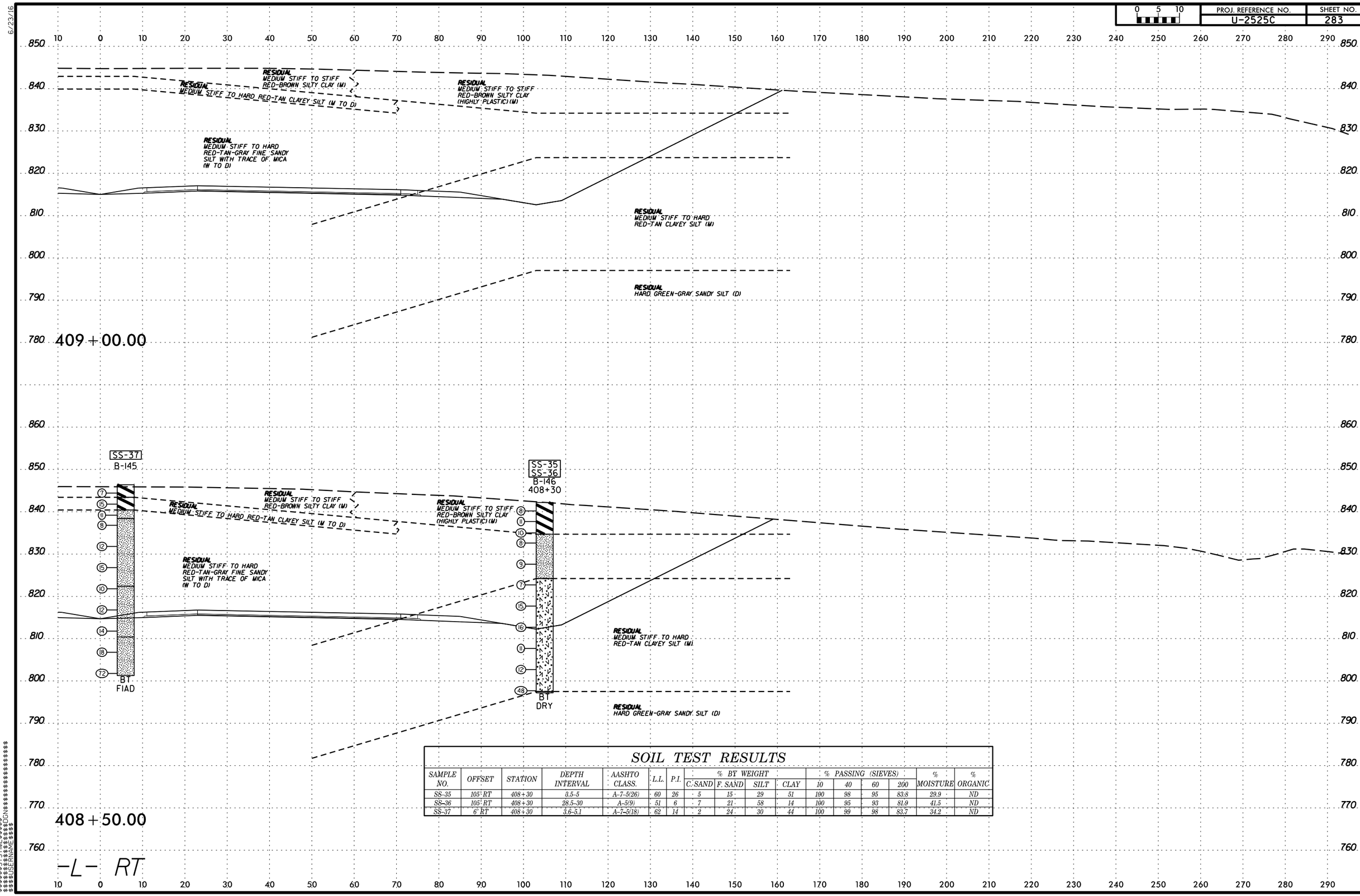
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-34	100' RT	406+30	8.5-10	A-7-5(19)	72	11	1	24	45	30	100	100	99	86.2	51.5	ND



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
282
0 5 10
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO HARD RED-TAN CLAYEY SILT (M TO D)
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO HARD
RED-TAN-GRAY FINE SANDY
SILT WITH TRACE OF MICA
(W TO D)
RESIDUAL
MEDIUM STIFF TO HARD
RED-TAN CLAYEY SILT (M)
RESIDUAL
HARD GREEN-GRAY SANDY SILT (D)
408+00.00
-L- RT

PROJ. REFERENCE NO. U-2525C
SHEET NO. 283

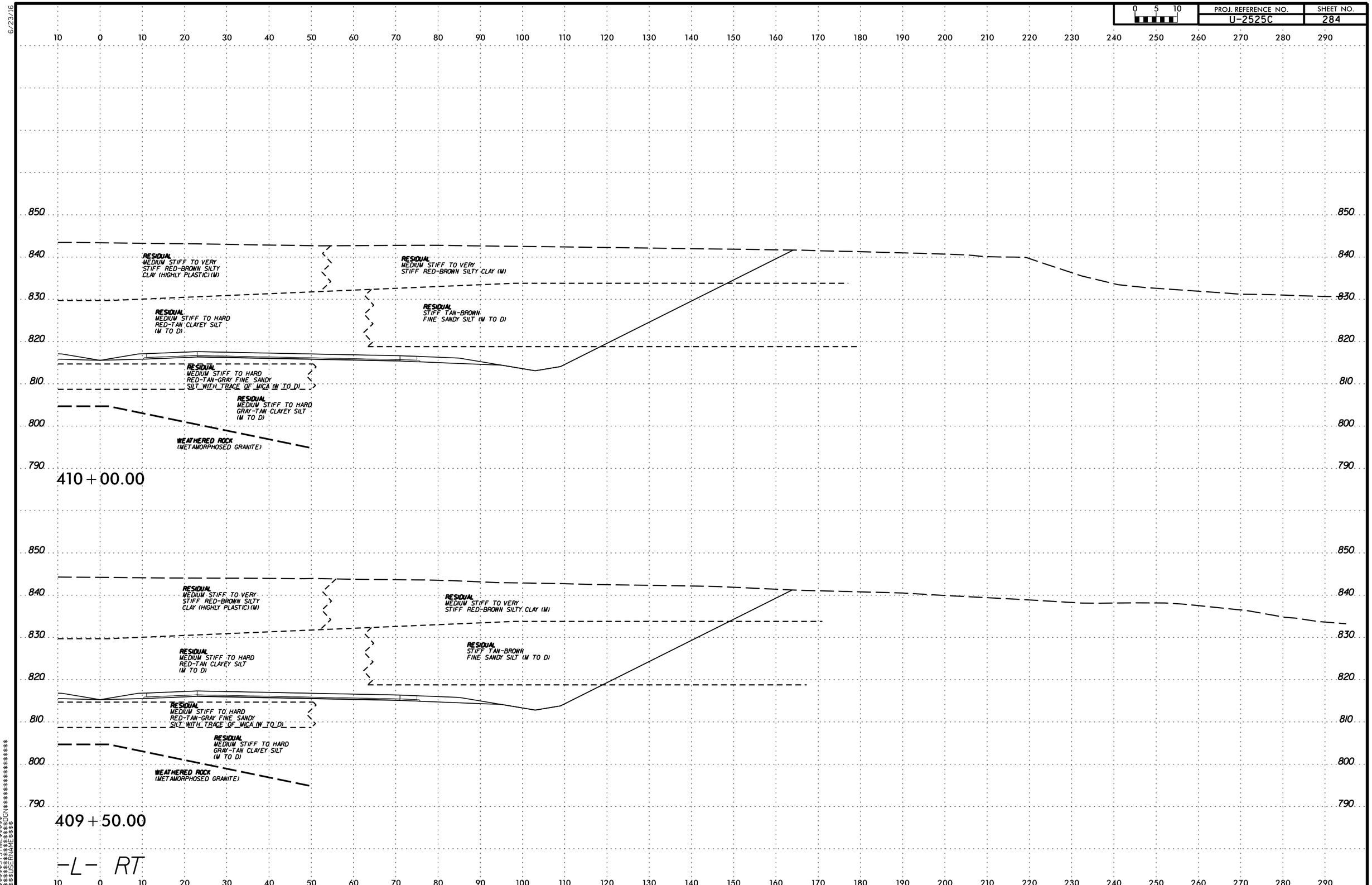


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-35	105' RT	408+30	3.5-5	A-7-5(26)	60	26	5	15	29	51	100	98	95	83.8	29.9	ND
SS-36	105' RT	408+30	28.5-30	A-5(9)	51	6	7	21	58	14	100	95	93	81.9	41.5	ND
SS-37	6' RT	408+30	3.6-5.1	A-7-5(18)	62	14	2	24	30	44	100	99	98	83.7	34.2	ND

6/23/16

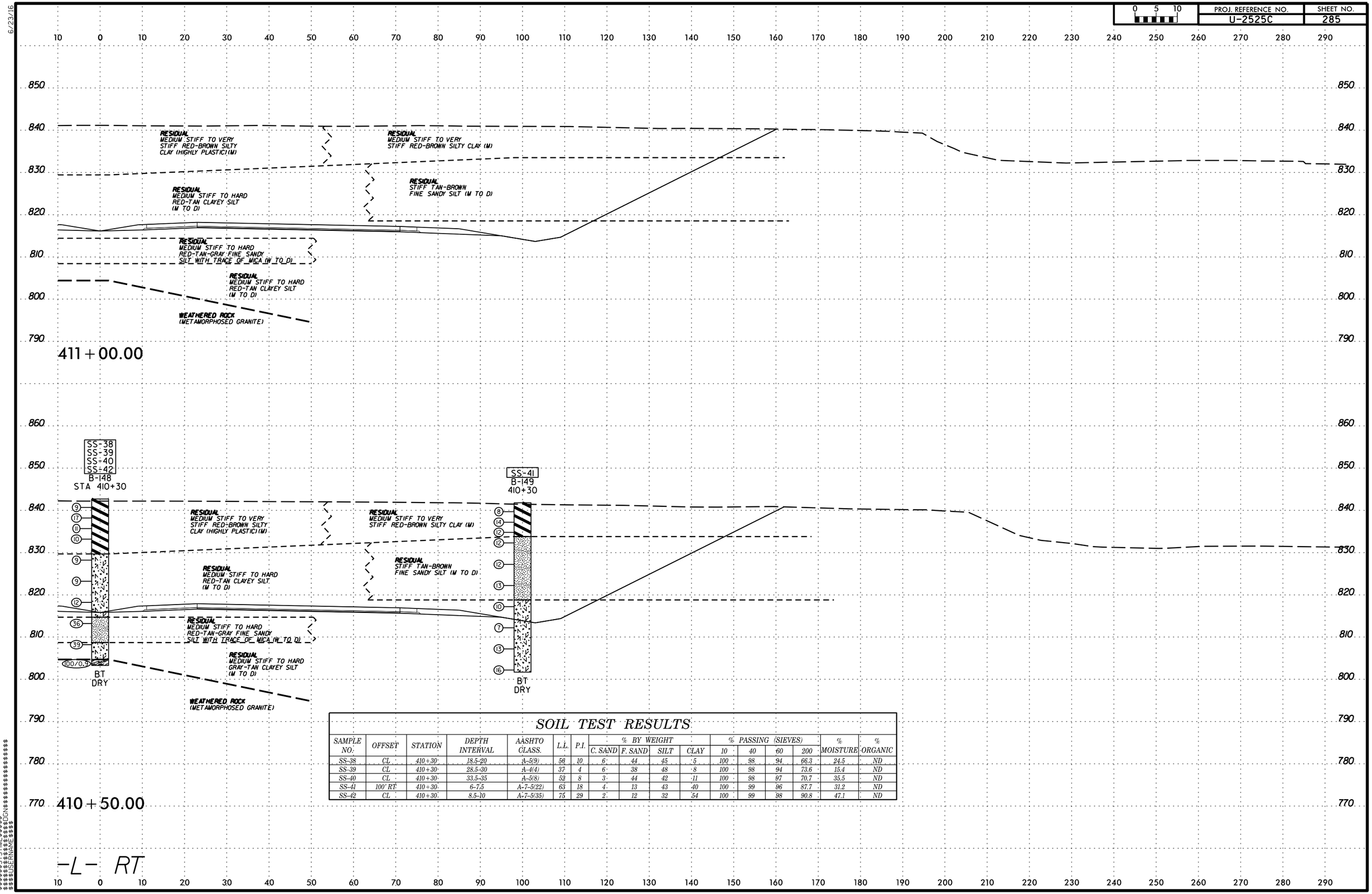
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	284



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	285

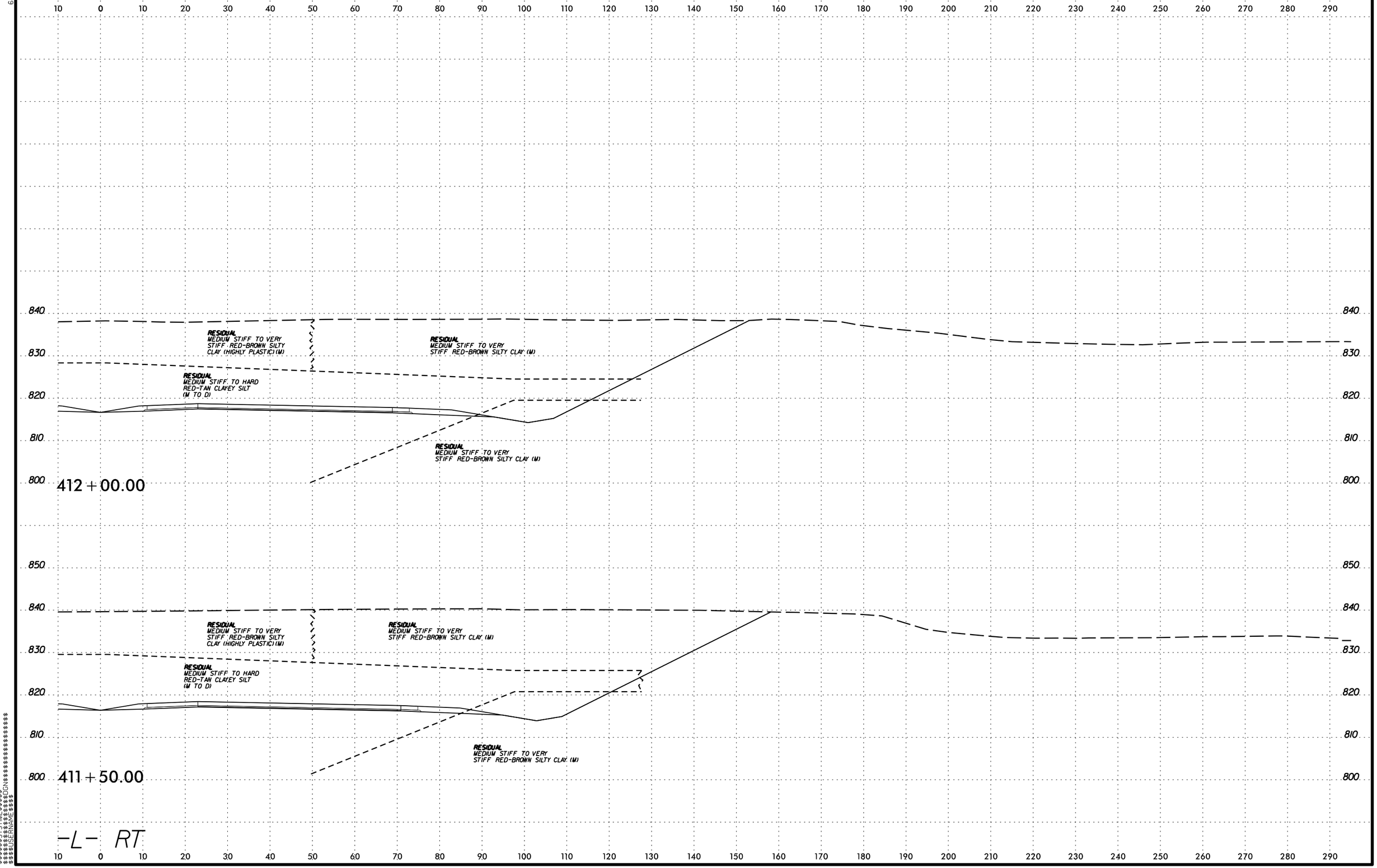


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-38	CL	410+30	18.5-20	A-5(9)	56	10	6	44	45	5	100	98	94	66.3	24.5	ND
SS-39	CL	410+30	28.5-30	A-4(4)	37	4	6	38	48	8	100	98	94	73.6	15.4	ND
SS-40	CL	410+30	33.5-35	A-5(8)	52	8	3	44	42	11	100	98	97	70.7	35.5	ND
SS-41	100' RT	410+30	6-7.5	A-7-5(22)	63	18	4	13	43	40	100	99	96	87.7	31.2	ND
SS-42	CL	410+30	8.5-10	A-7-5(35)	75	29	2	12	32	54	100	99	98	90.8	47.1	ND

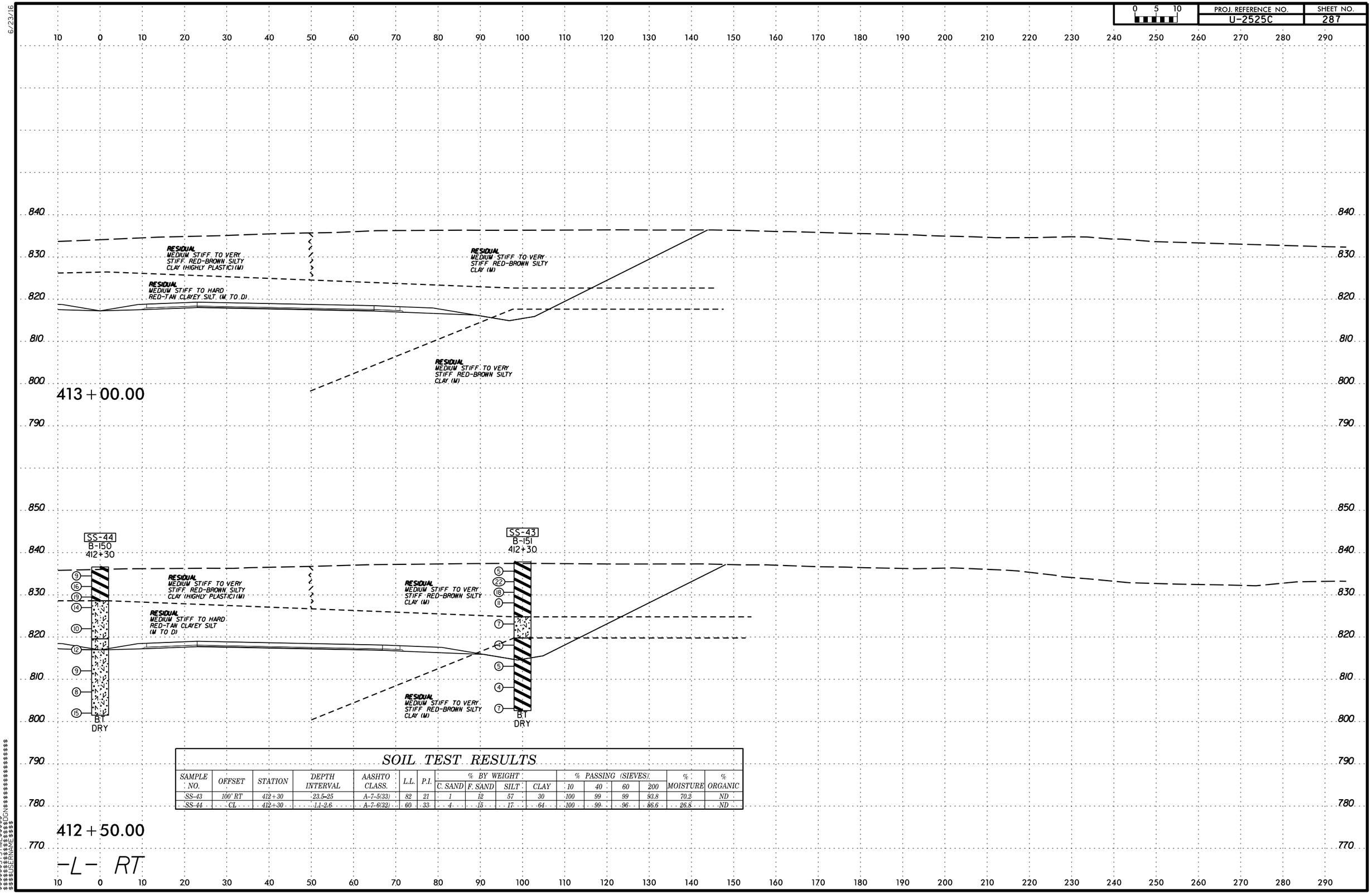
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	286



6/23/16

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

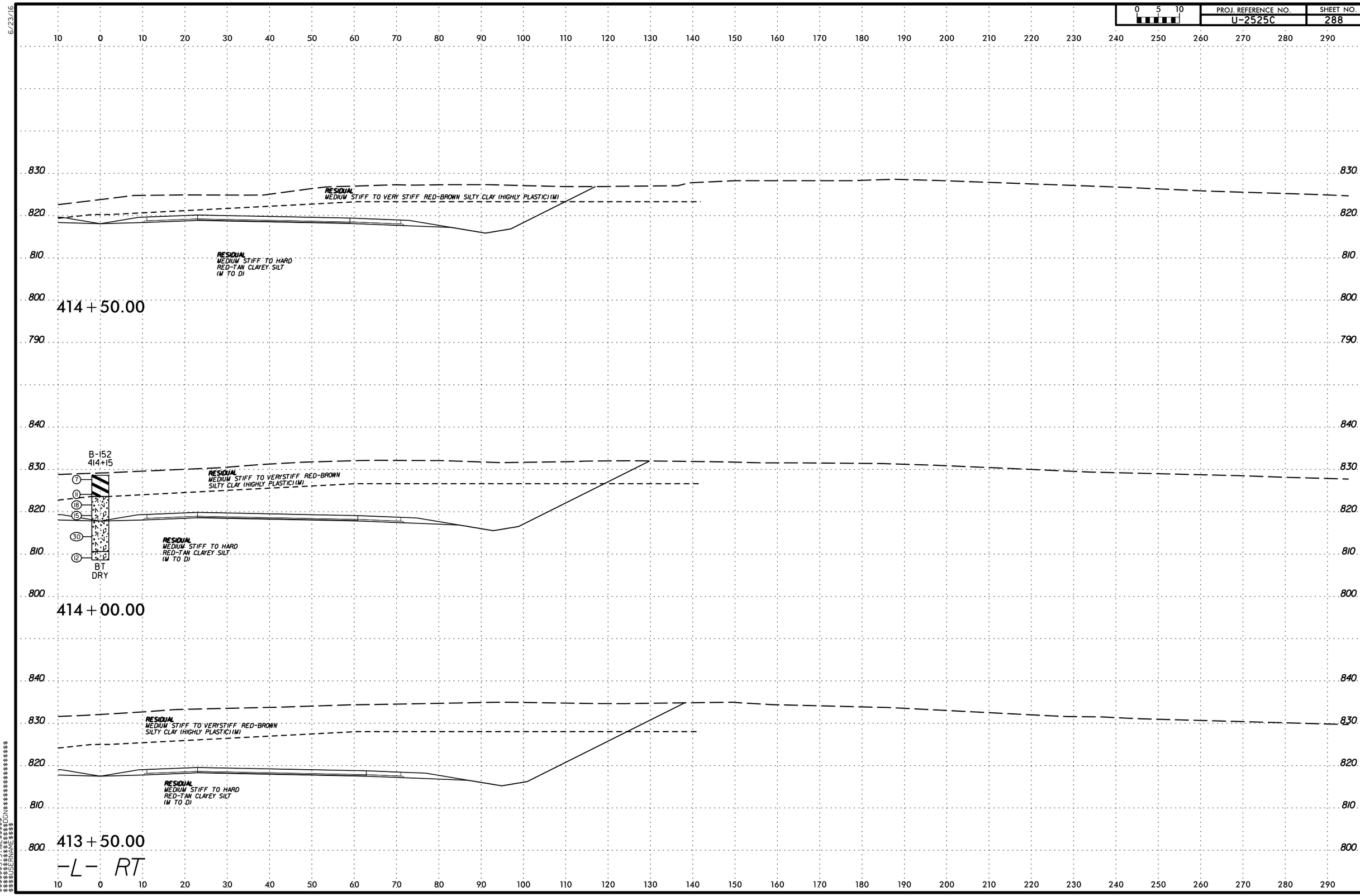


SOIL TEST RESULTS

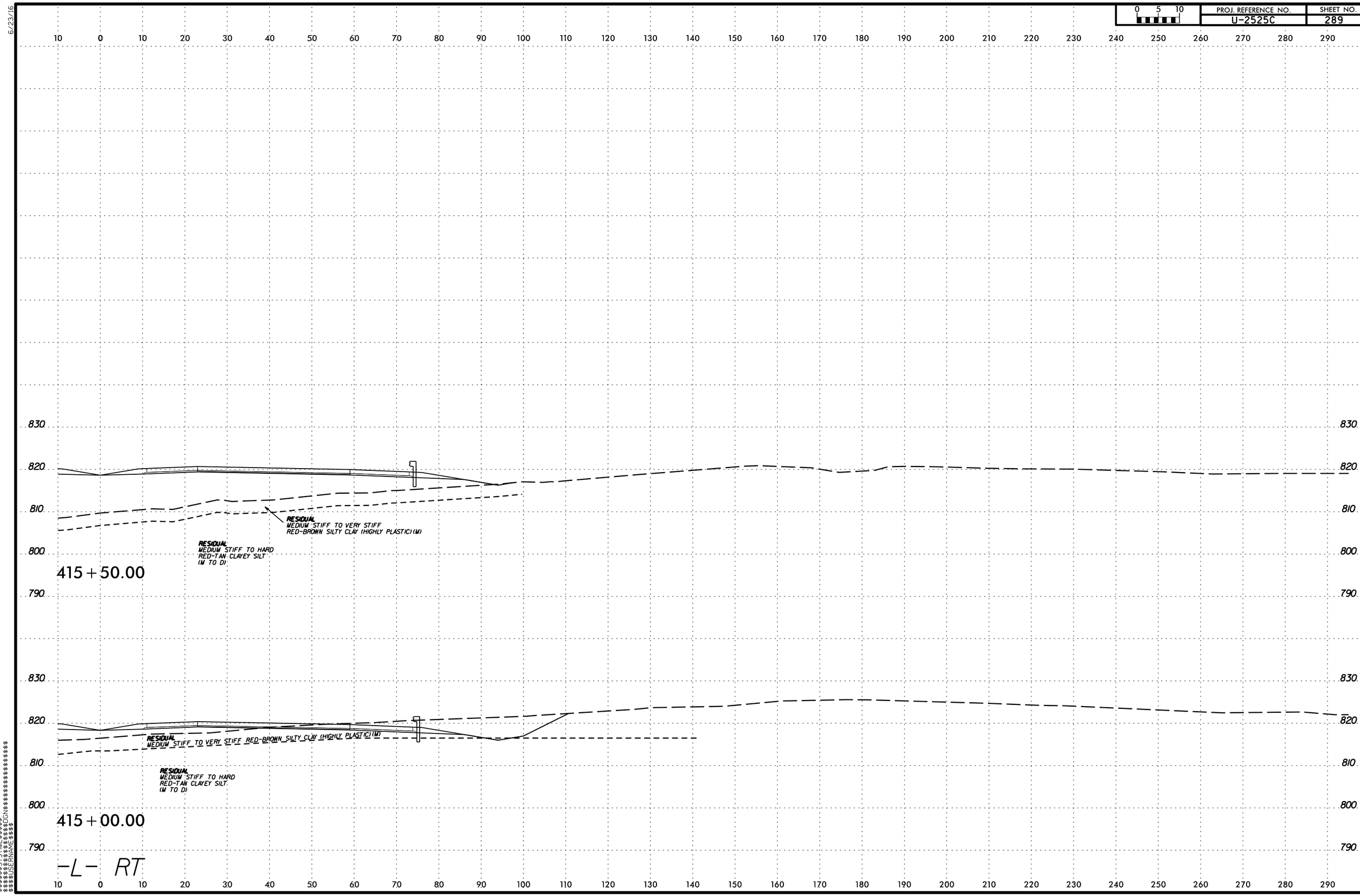
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-43	100' RT	412+30	23.5-25	A-7-5(33)	82	21	1	12	57	30	100	99	99	93.8	70.2	ND
SS-44	CL	412+30	1.1-2.6	A-7-6(32)	60	33	4	15	17	64	100	99	96	86.6	26.8	ND

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	288



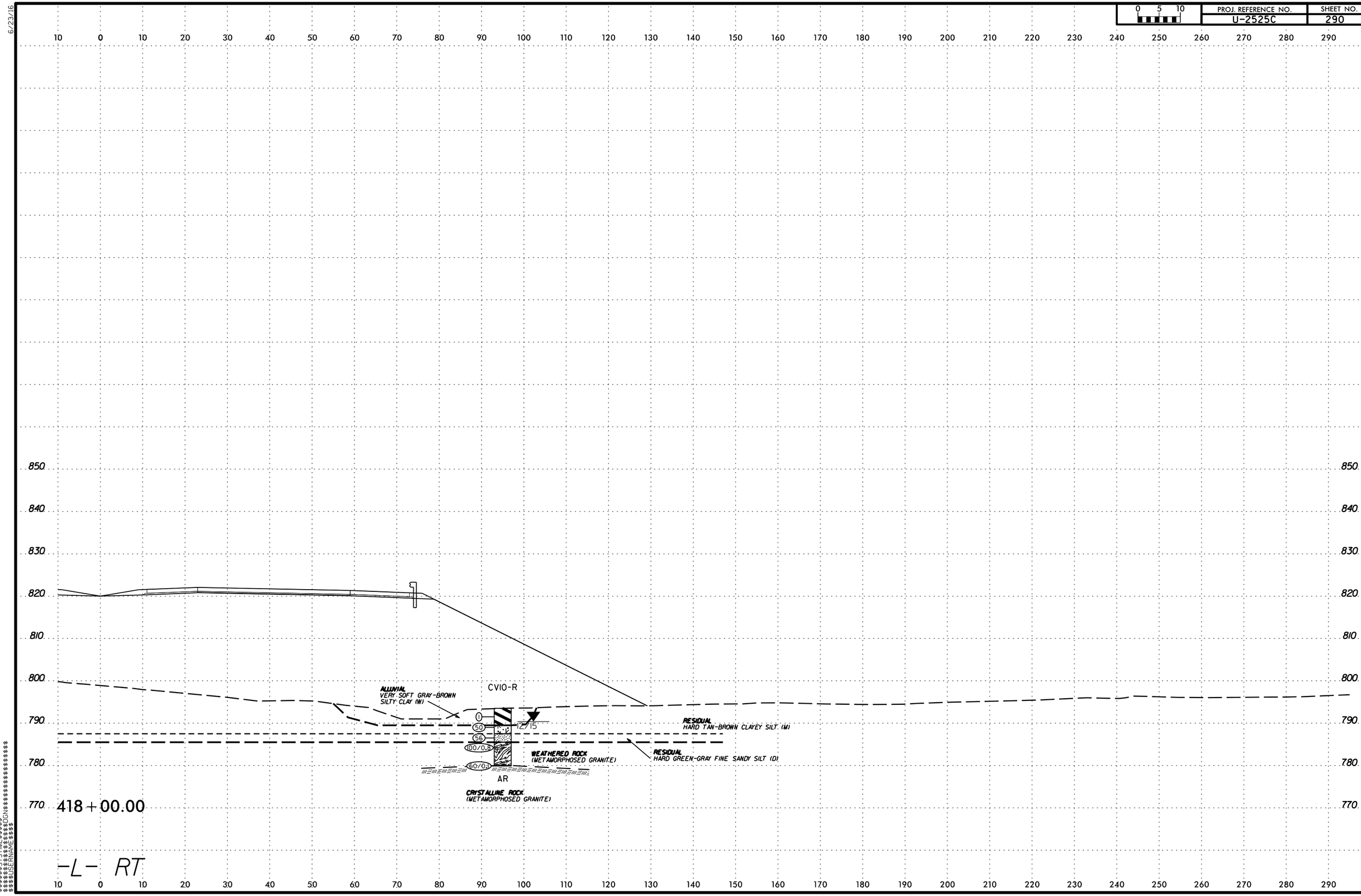
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



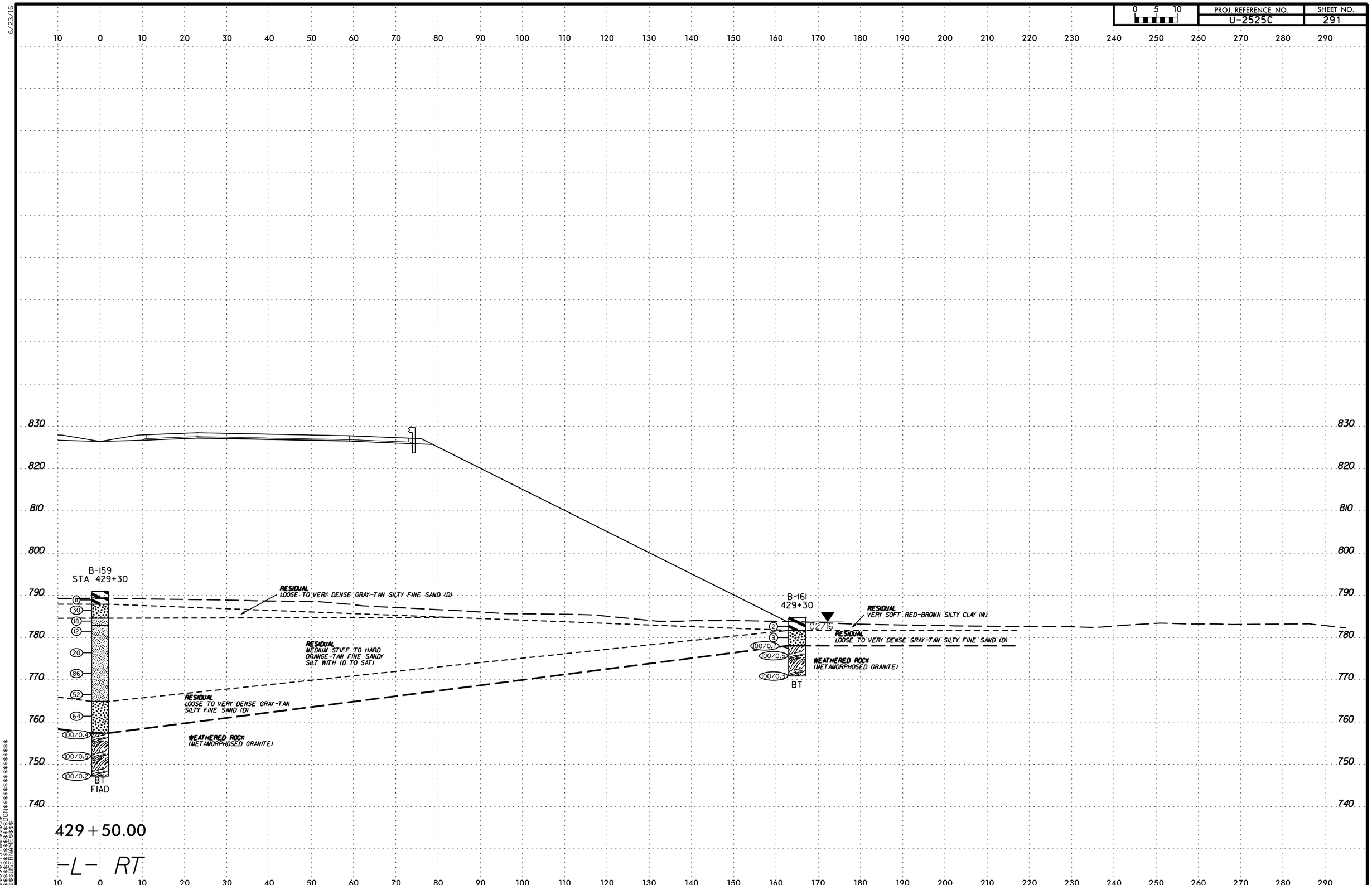
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
289
0 5 10
6/23/16
830
820
810
800
790
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO HARD
RED-TAN CLAYEY SILT
(M TO D)
415 + 50.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO HARD
RED-TAN CLAYEY SILT
(M TO D)
415 + 00.00
-L- RT

6/23/16

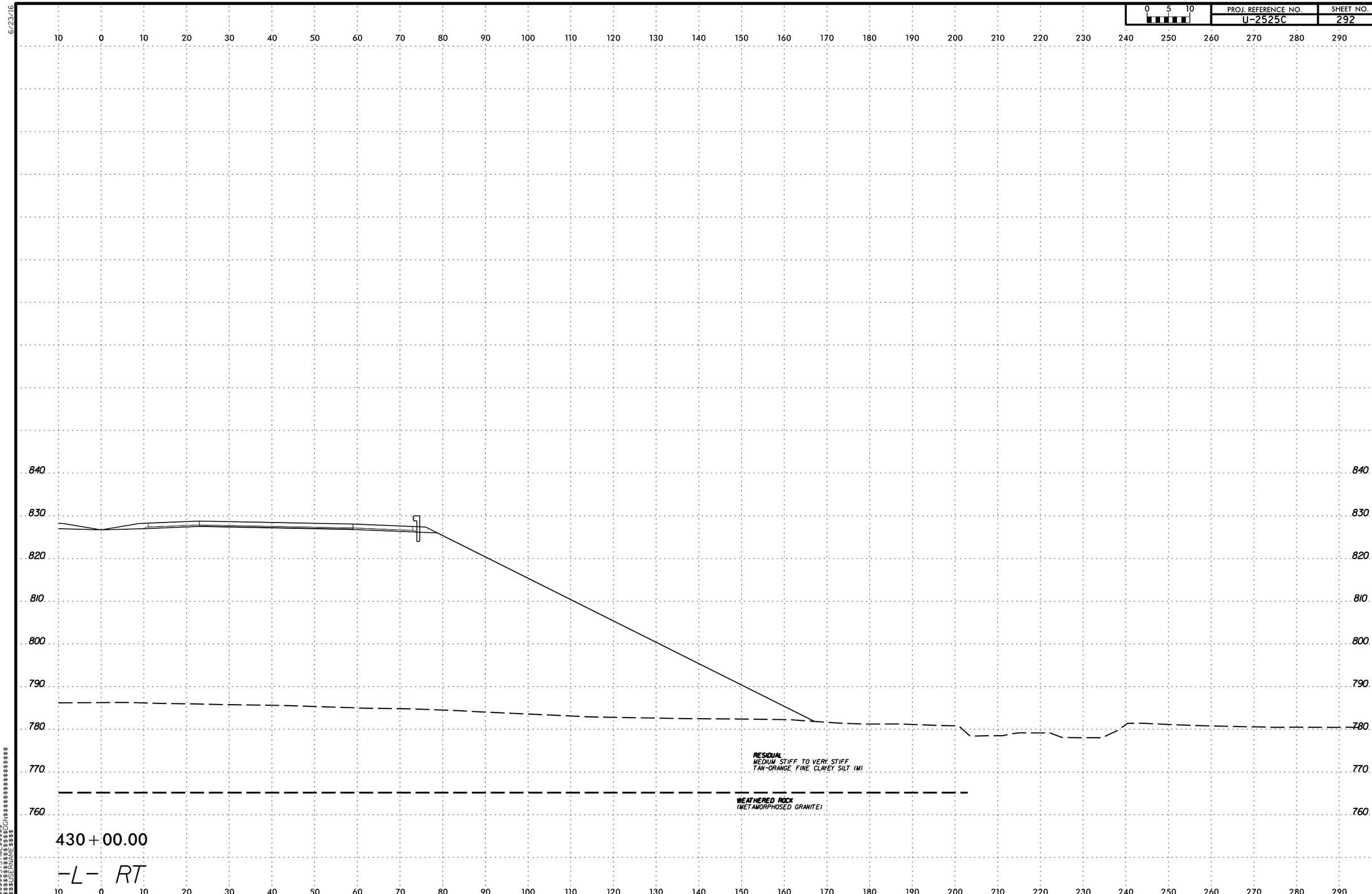
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	290



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

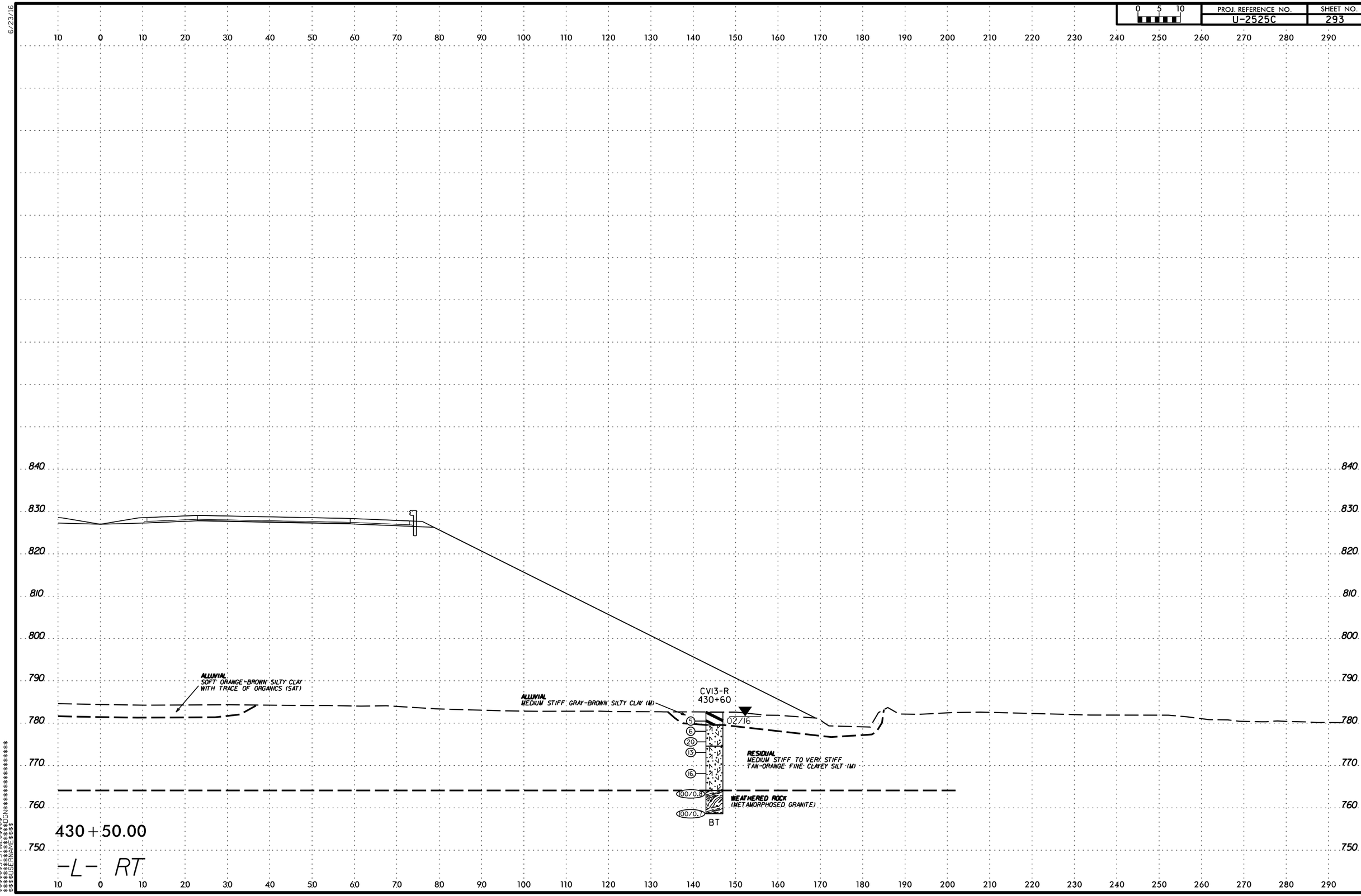


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
291
0 5 10
B-159
STA 429+30
11
30
18
12
20
86
52
64
100/0.4
100/0.5
100/0.2
BT
FIAD
RESIDUAL
LOOSE TO VERY DENSE GRAY-TAN SILTY FINE SAND (D)
RESIDUAL
MEDIUM STIFF TO HARD
ORANGE-TAN FINE SANDY
SILT WITH (D TO SAT)
RESIDUAL
LOOSE TO VERY DENSE GRAY-TAN
SILTY FINE SAND (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
B-161
429+30
02/16
2
9
100/0.7
100/0.5
100/0.3
BT
RESIDUAL
VERY SOFT RED-BROWN SILTY CLAY (W)
RESIDUAL
LOOSE TO VERY DENSE GRAY-TAN SILTY FINE SAND (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
830
820
810
800
790
780
770
760
750
740
429+50.00
-L- RT

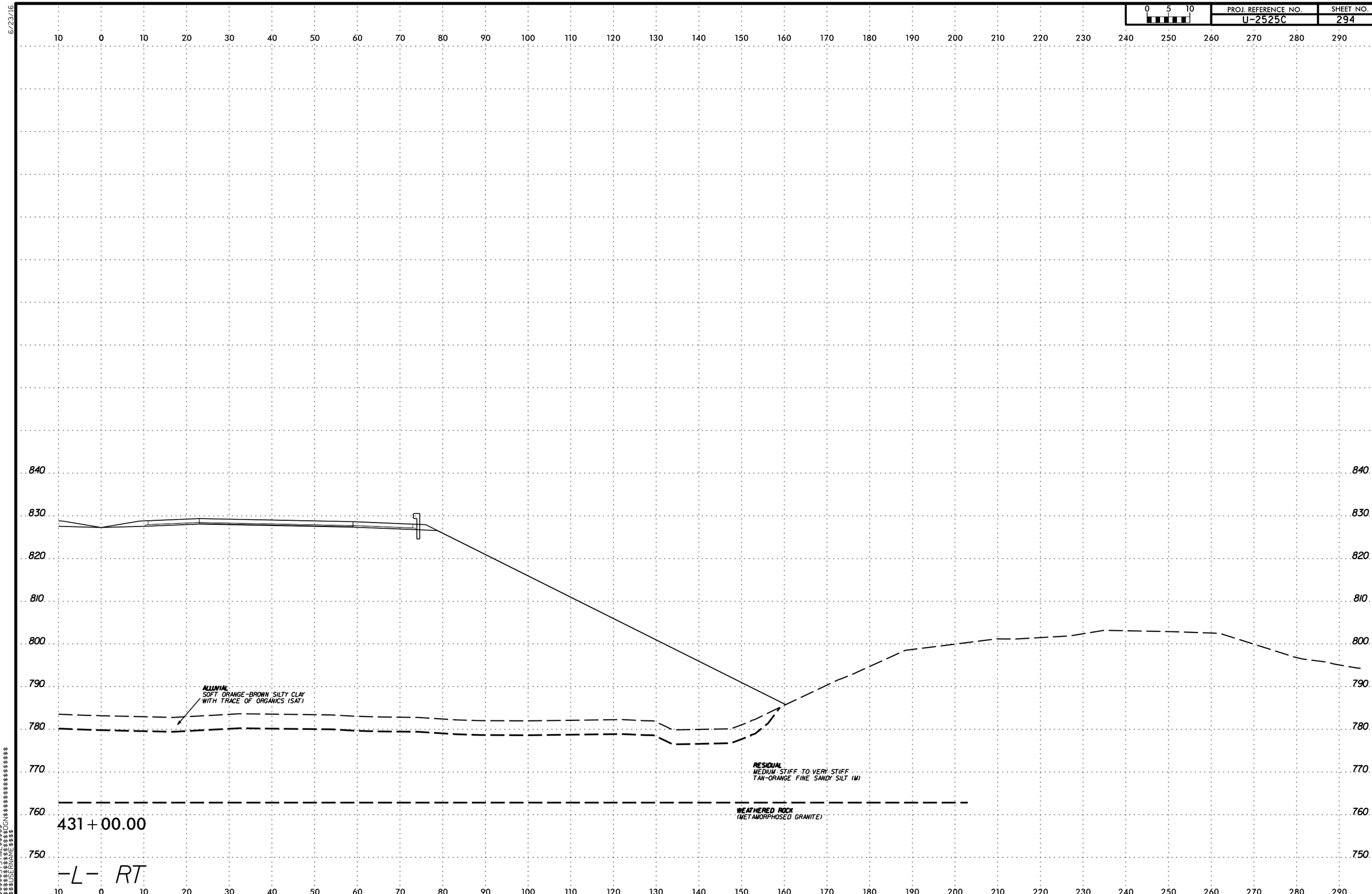


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
292
0 5 10
840
830
820
810
800
790
780
770
760
RESIDUAL
MEDIUM STIFF TO VERY STIFF
TAN-ORANGE FINE CLAYEY SILT (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
430+00.00
-L- RT

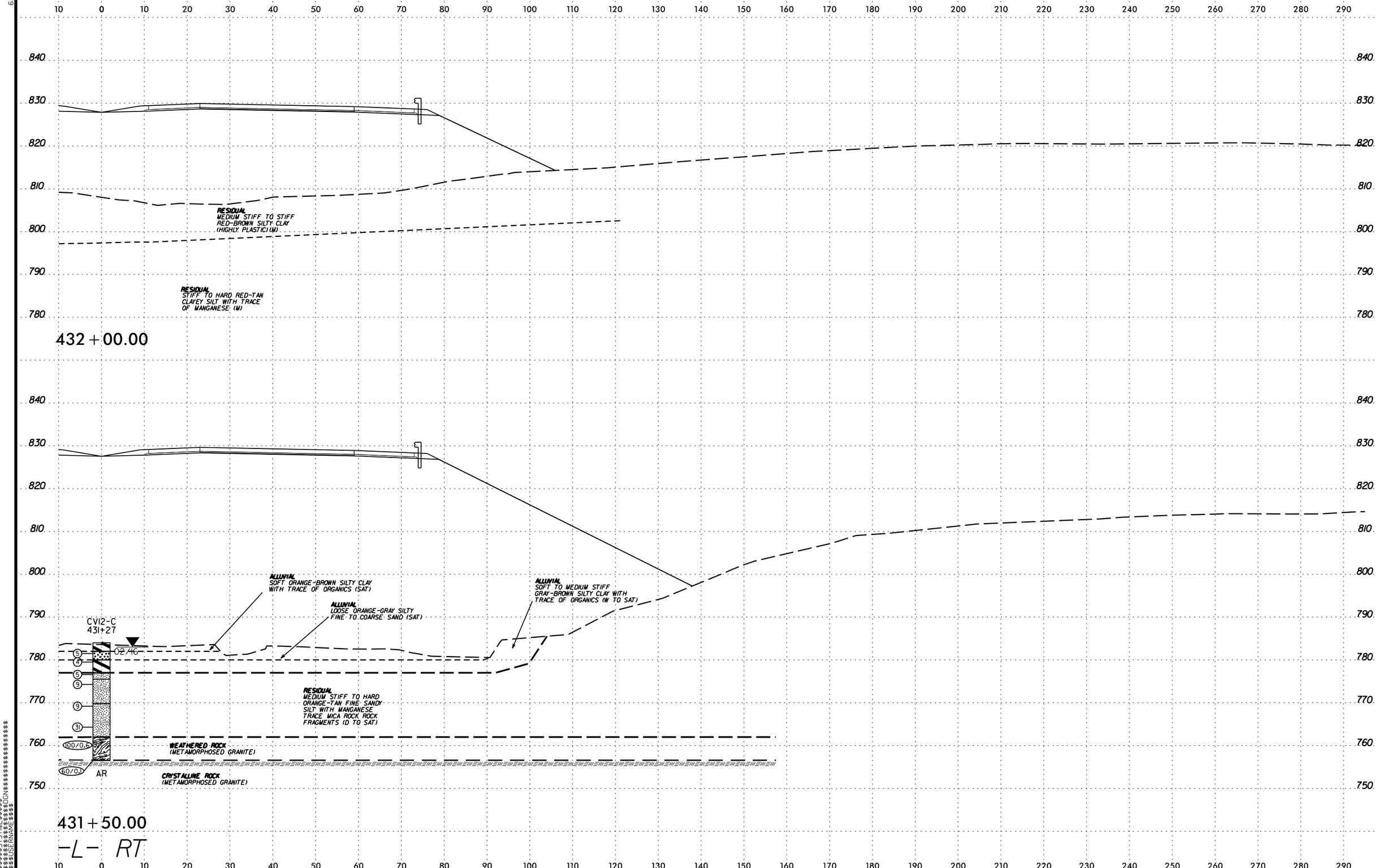
6/23/16



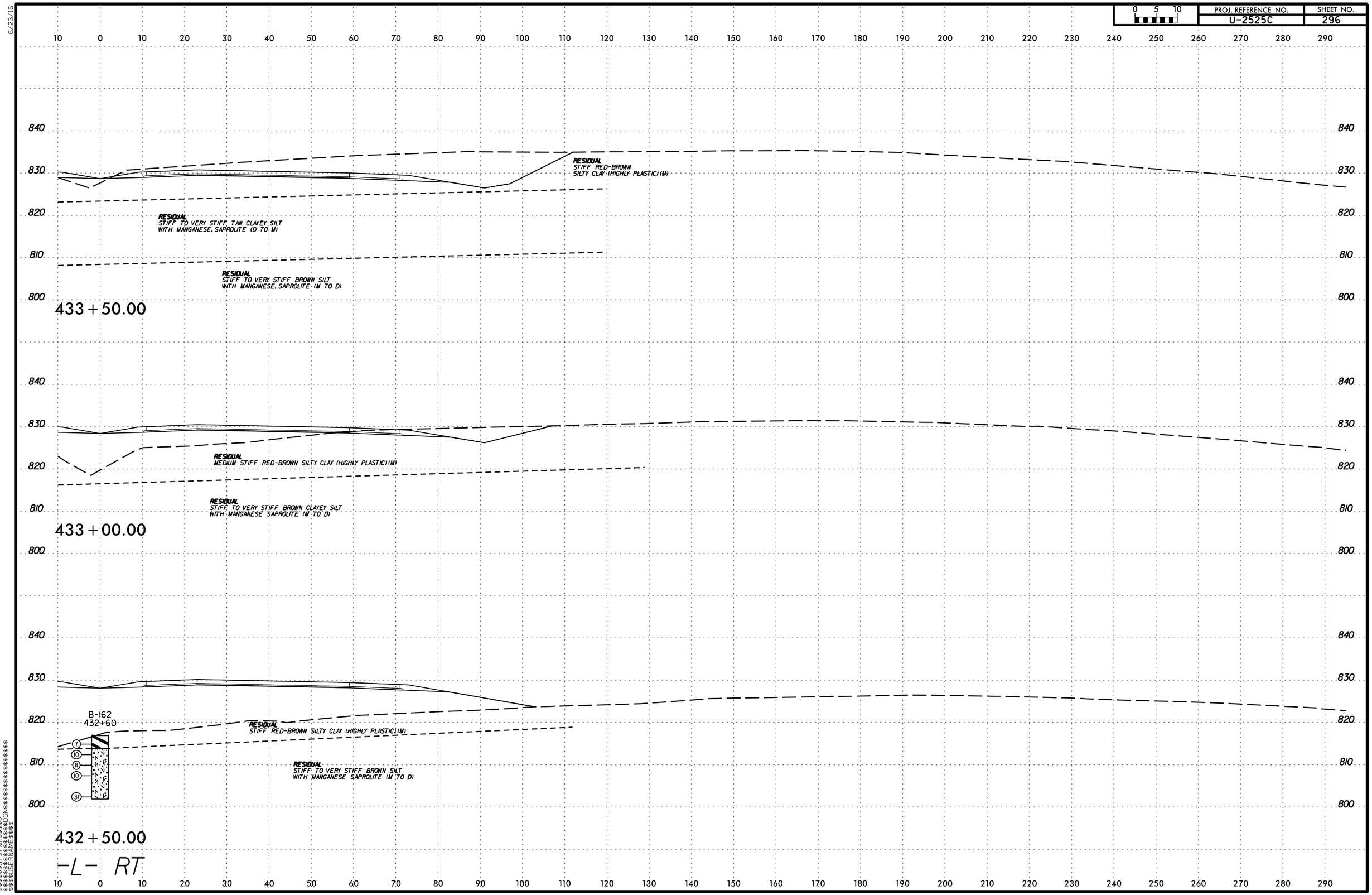
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
293
0 5 10
ALLUVIAL
SOFT ORANGE-BROWN SILTY CLAY
WITH TRACE OF ORGANICS (SAT)
ALLUVIAL
MEDIUM STIFF GRAY-BROWN SILTY CLAY (M)
CV13-R
430+60
02/16
5
6
20
13
16
100/0.8
100/0.7
BT
RESIDUAL
MEDIUM STIFF TO VERY STIFF
TAN-ORANGE FINE CLAYEY SILT (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
430+50.00
-L- RT



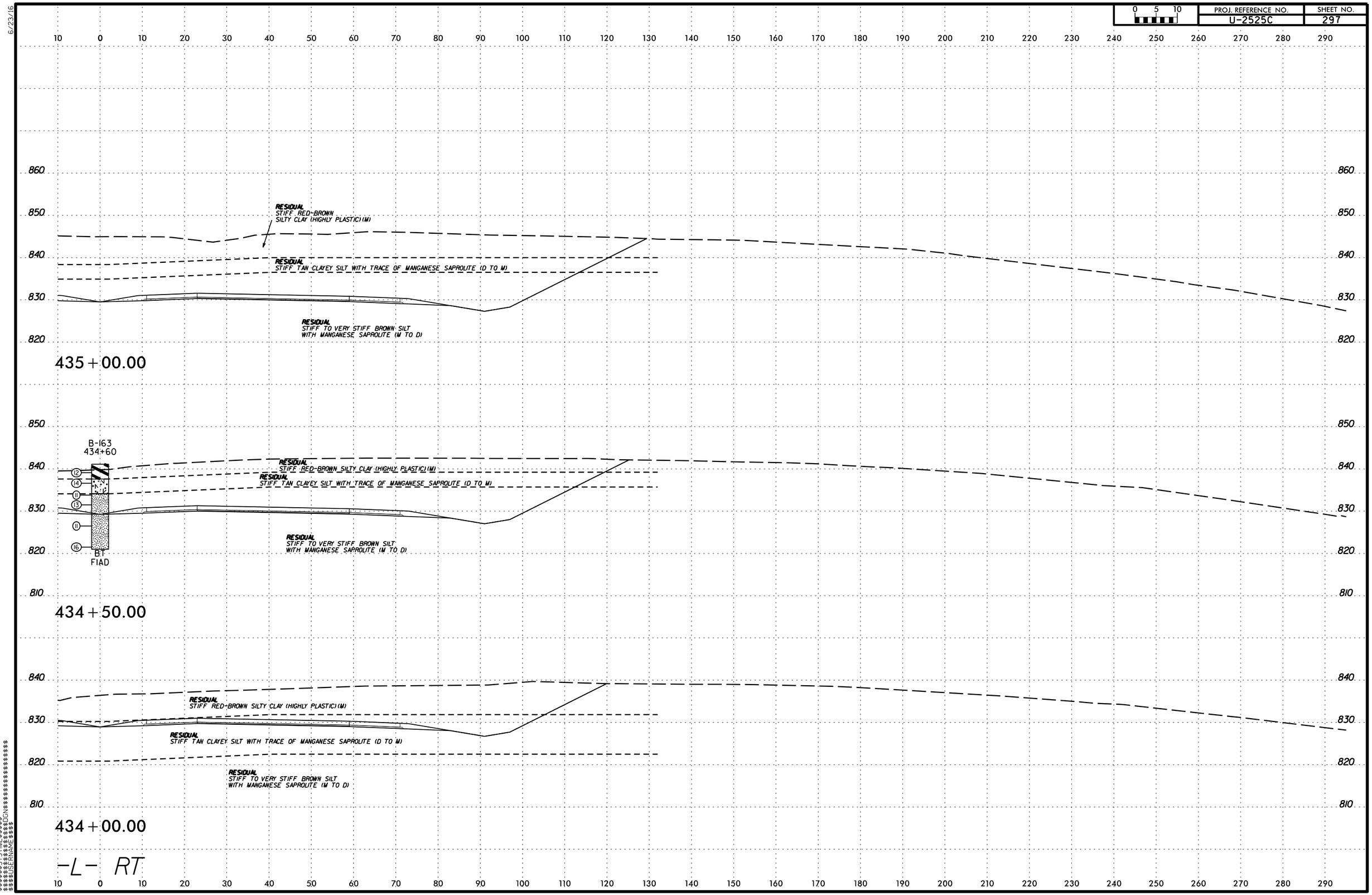
0 5 10
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
294
6/23/16
840
830
820
810
800
790
780
770
760
750
ALLUVIAL
SOFT ORANGE-BROWN SILTY CLAY
WITH TRACE OF ORGANICS (SAT)
RESIDUAL
MEDIUM STIFF TO VERY STIFF
TAN-ORANGE FINE SANDY SILT (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
431+00.00
-L- RT



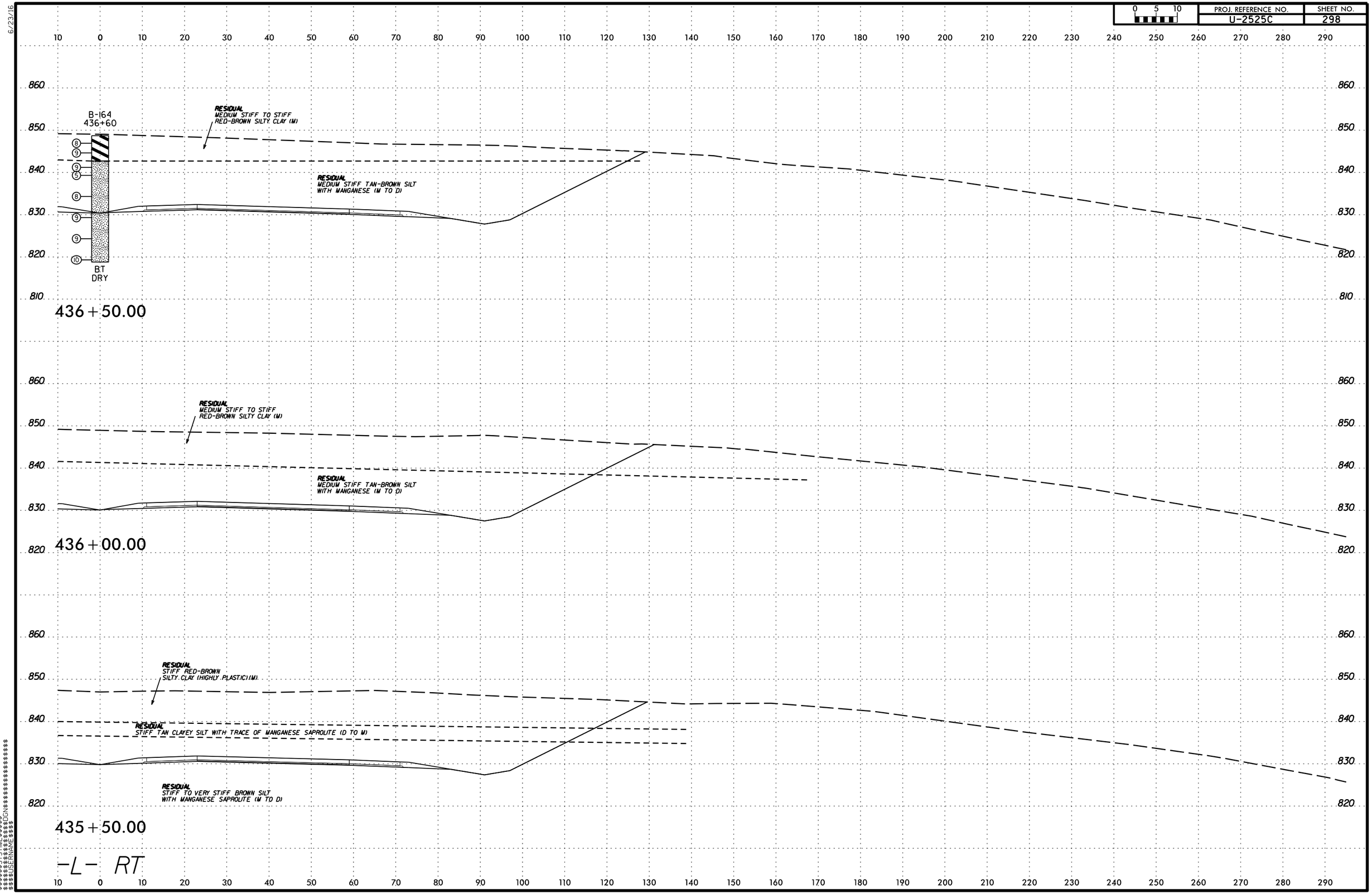
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
295
0 5 10
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO HARD RED-TAN
CLAYEY SILT WITH TRACE
OF MANGANESE (M)
432+00.00
ALLUVIAL
SOFT ORANGE-BROWN SILTY CLAY
WITH TRACE OF ORGANICS (SAT)
ALLUVIAL
LOOSE ORANGE-GRAY SILTY
FINE TO COARSE SAND (SAT)
ALLUVIAL
SOFT TO MEDIUM STIFF
GRAY-BROWN SILTY CLAY WITH
TRACE OF ORGANICS (W TO SAT)
CV12-C
431+27
02/16
RESIDUAL
MEDIUM STIFF TO HARD
ORANGE-TAN FINE SANDY
SILT WITH MANGANESE
TRACE MICA ROCK ROCK
FRAGMENTS (D TO SAT)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
100/0.6
60/0.1
AR
431+50.00
-L- RT



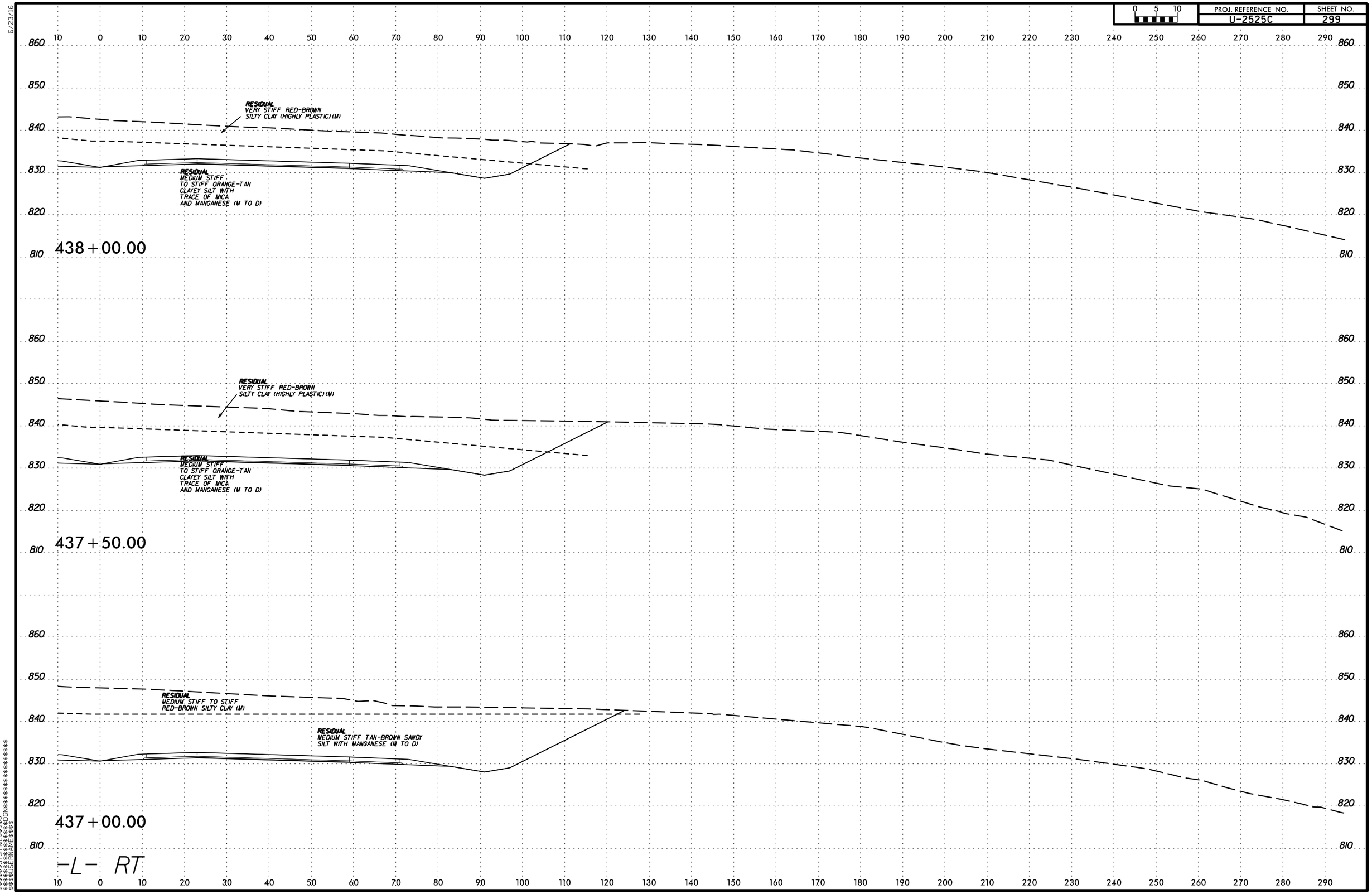
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
296
0 5 10
RESIDUAL
STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO VERY STIFF TAN CLAYEY SILT
WITH MANGANESE, SAPROLITE (D TO M)
RESIDUAL
STIFF TO VERY STIFF BROWN SILT
WITH MANGANESE, SAPROLITE (M TO D)
433+50.00
RESIDUAL
MEDIUM STIFF RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO VERY STIFF BROWN CLAYEY SILT
WITH MANGANESE SAPROLITE (M TO D)
433+00.00
B-162
432+60
RESIDUAL
STIFF RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO VERY STIFF BROWN SILT
WITH MANGANESE SAPROLITE (M TO D)
432+50.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
297
0 5 10
RESIDUAL
STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TAN CLAYEY SILT WITH TRACE OF MANGANESE SAPROLITE (D TO M)
RESIDUAL
STIFF TO VERY STIFF BROWN SILT
WITH MANGANESE SAPROLITE (M TO D)
435+00.00
B-163
434+60
BT
FIAD
434+50.00
434+00.00
-L- RT

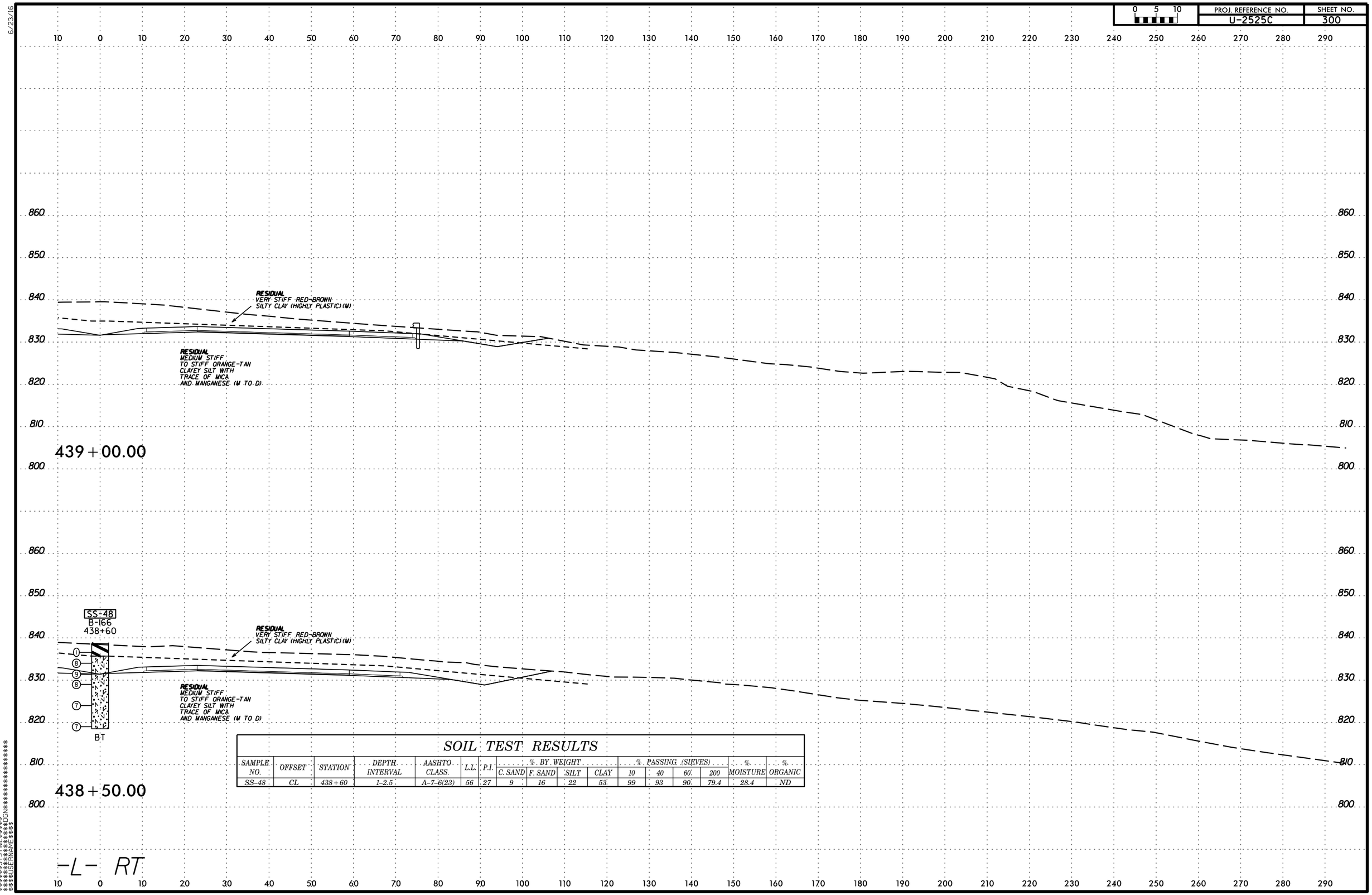


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
298
B-164
436+60
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN SILT
WITH MANGANESE (M TO D)
BT
DRY
436+50.00
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN SILT
WITH MANGANESE (M TO D)
436+00.00
RESIDUAL
STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TAN CLAYEY SILT WITH TRACE OF MANGANESE SAPROLITE (D TO M)
RESIDUAL
STIFF TO VERY STIFF BROWN SILT
WITH MANGANESE SAPROLITE (M TO D)
435+50.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
299
0 5 10
RESIDUAL
VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF
TO STIFF ORANGE-TAN
CLAYEY SILT WITH
TRACE OF MICA
AND MANGANESE (M TO D)
438+00.00
RESIDUAL
VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF
TO STIFF ORANGE-TAN
CLAYEY SILT WITH
TRACE OF MICA
AND MANGANESE (M TO D)
437+50.00
RESIDUAL
MEDIUM STIFF TO STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN SANDY
SILT WITH MANGANESE (M TO D)
437+00.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 300

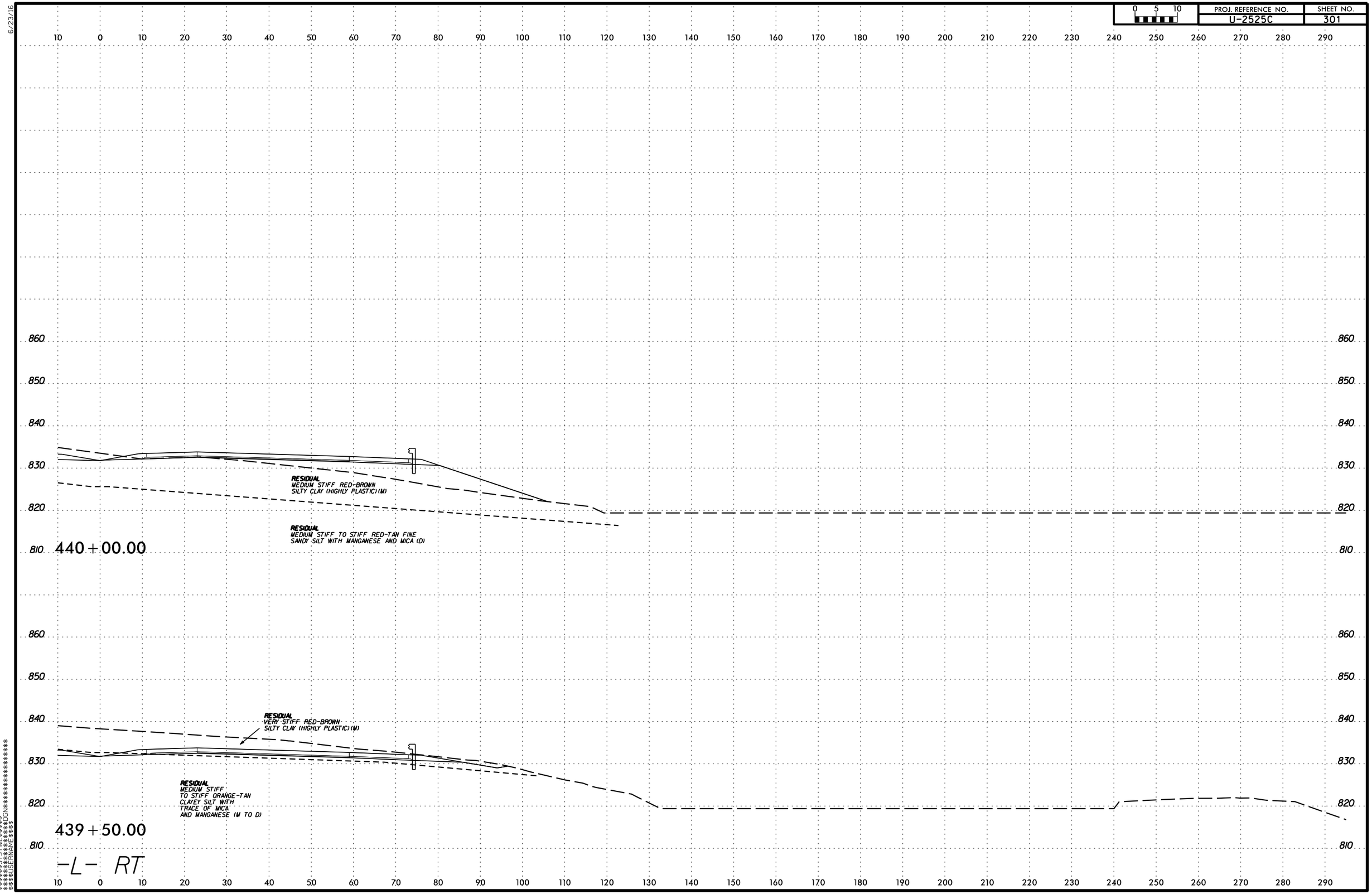


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-48	CL	438+60	1-2.5	A-7-6(23)	56	27	9	16	22	53	99	93	90	79.4	28.4	ND

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	301



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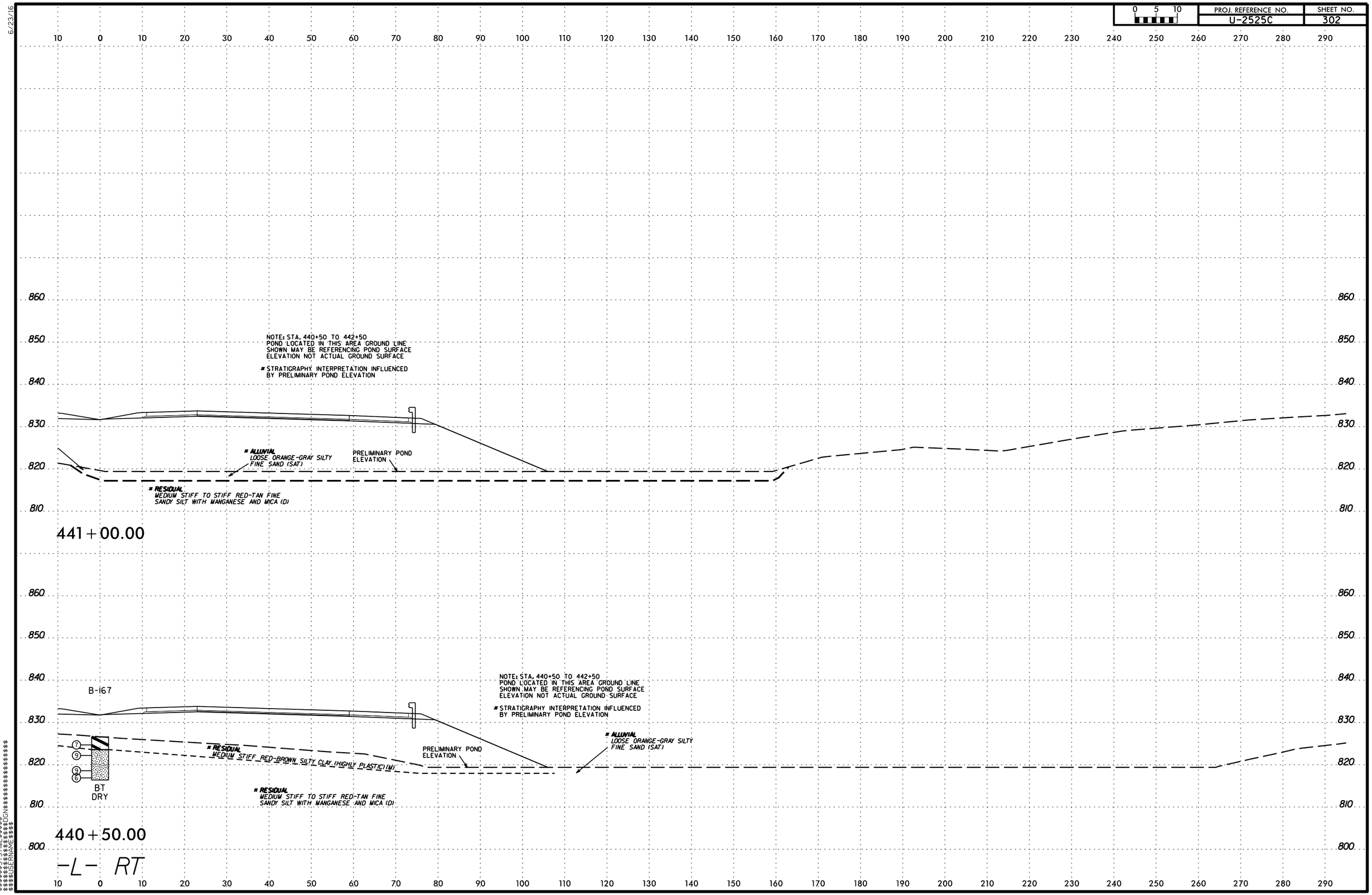
$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	302



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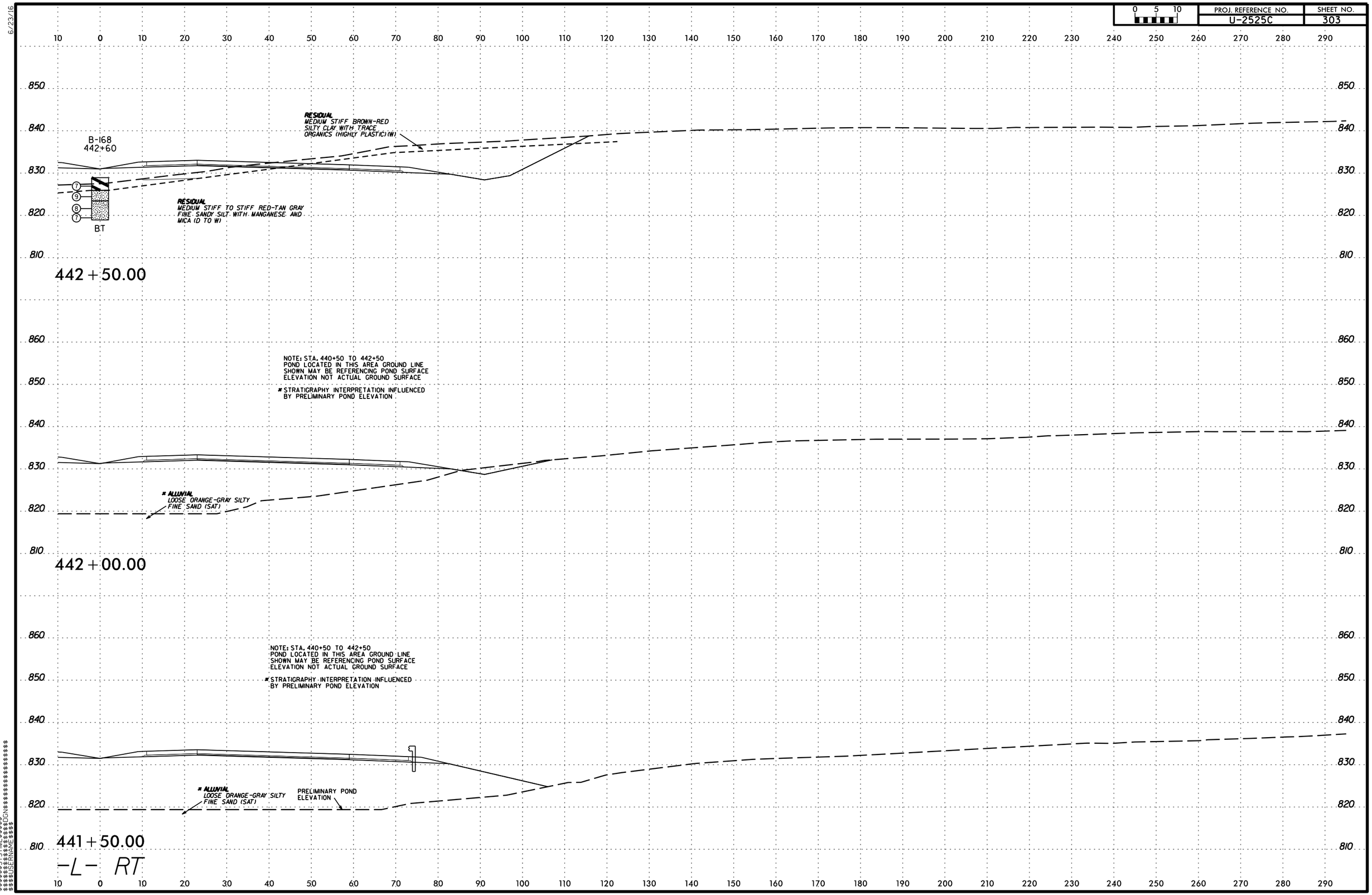
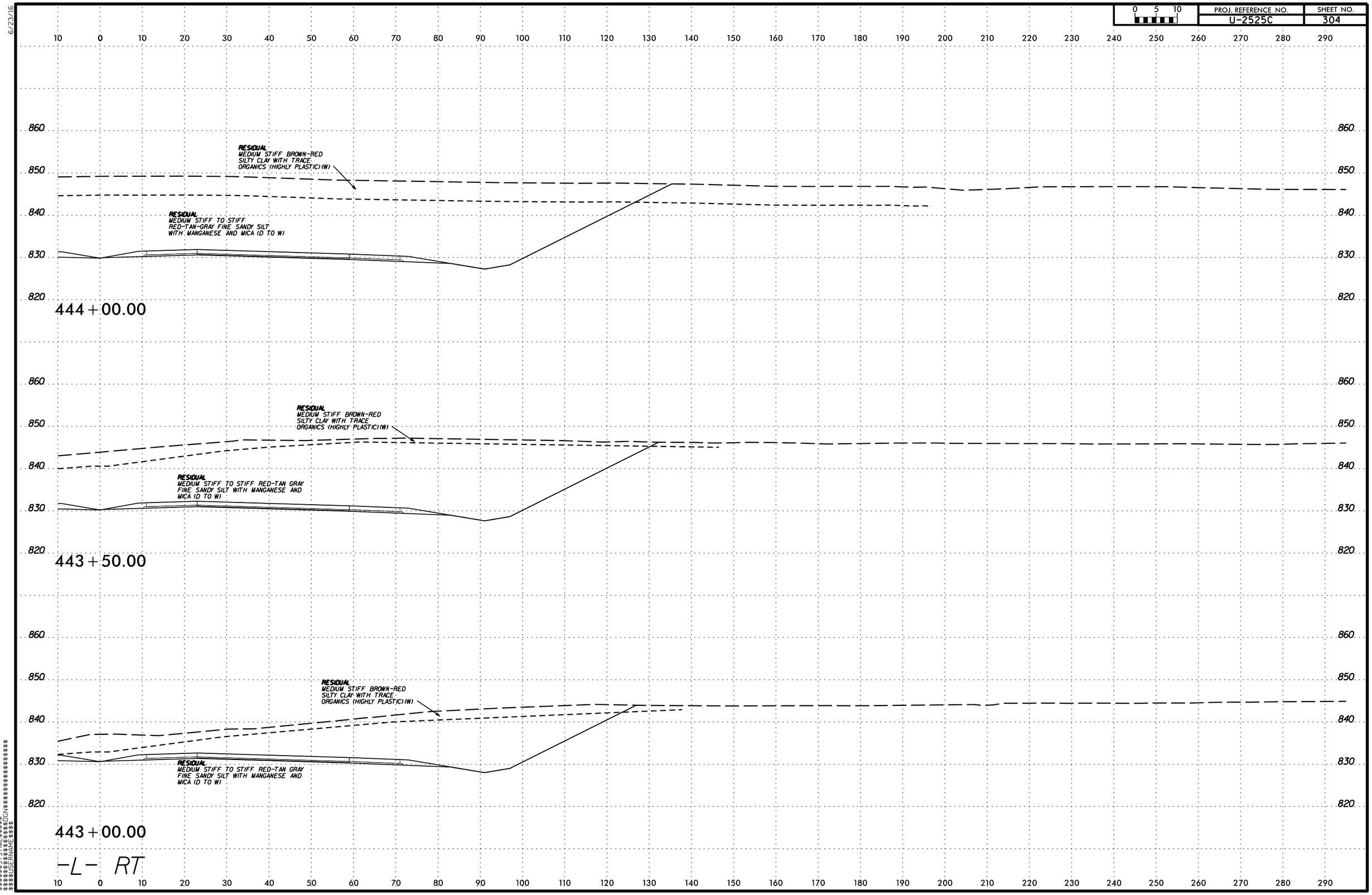
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



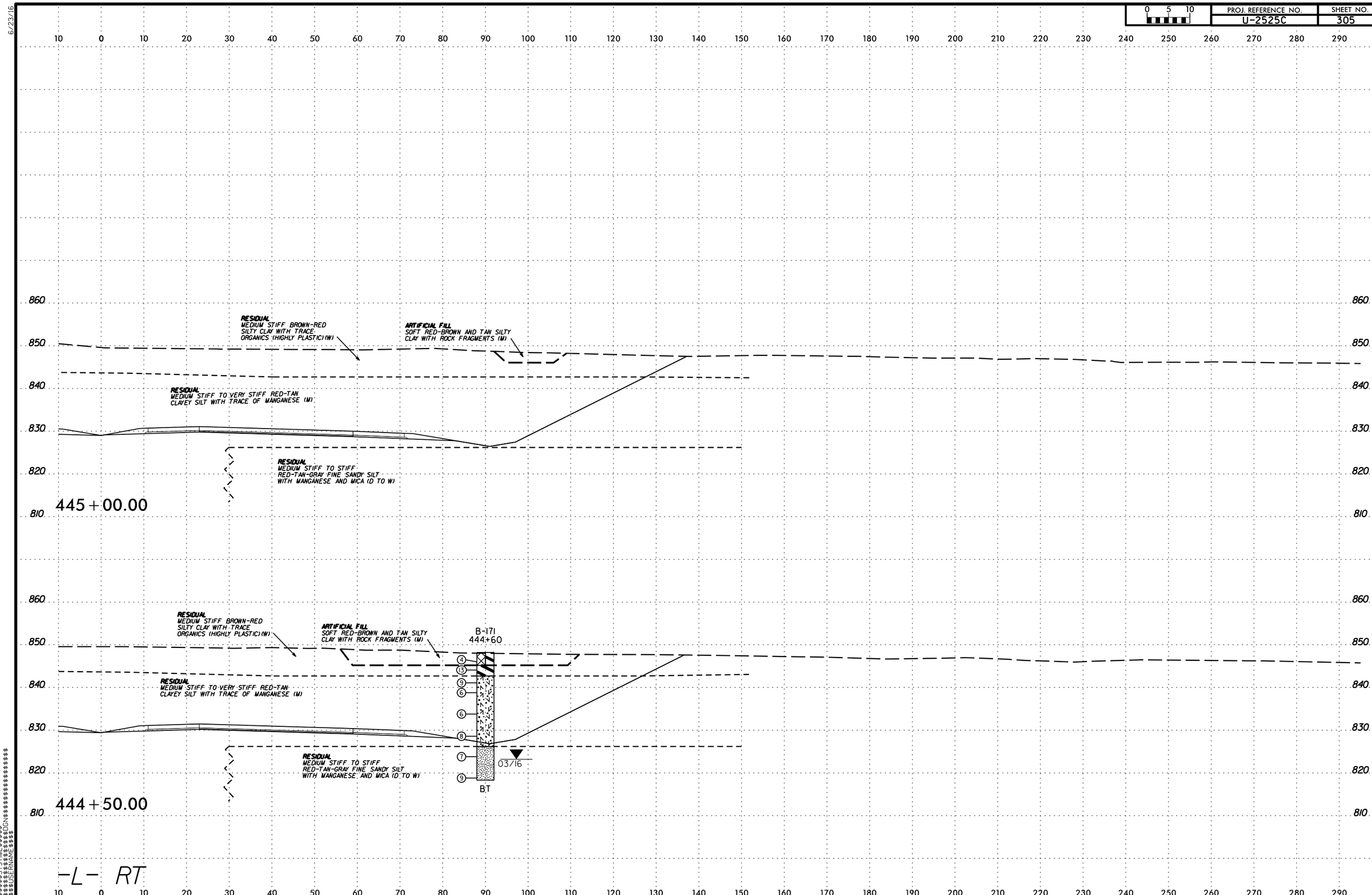
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
303
0 5 10
B-168
442+60
RESIDUAL
MEDIUM STIFF BROWN-RED
SILTY CLAY WITH TRACE
ORGANICS (HIGHLY PLASTIC)(W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN GRAY
FINE SANDY SILT WITH MANGANESE AND
MICA (D TO W)
BT
442+50.00
NOTE: STA. 440+50 TO 442+50
POND LOCATED IN THIS AREA GROUND LINE
SHOWN MAY BE REFERENCING POND SURFACE
ELEVATION NOT ACTUAL GROUND SURFACE
* STRATIGRAPHY INTERPRETATION INFLUENCED
BY PRELIMINARY POND ELEVATION
* ALLUVIAL
LOOSE ORANGE-GRAY SILTY
FINE SAND (SAT)
442+00.00
NOTE: STA. 440+50 TO 442+50
POND LOCATED IN THIS AREA GROUND LINE
SHOWN MAY BE REFERENCING POND SURFACE
ELEVATION NOT ACTUAL GROUND SURFACE
* STRATIGRAPHY INTERPRETATION INFLUENCED
BY PRELIMINARY POND ELEVATION
* ALLUVIAL
LOOSE ORANGE-GRAY SILTY
FINE SAND (SAT)
PRELIMINARY POND
ELEVATION
441+50.00
-L- RT



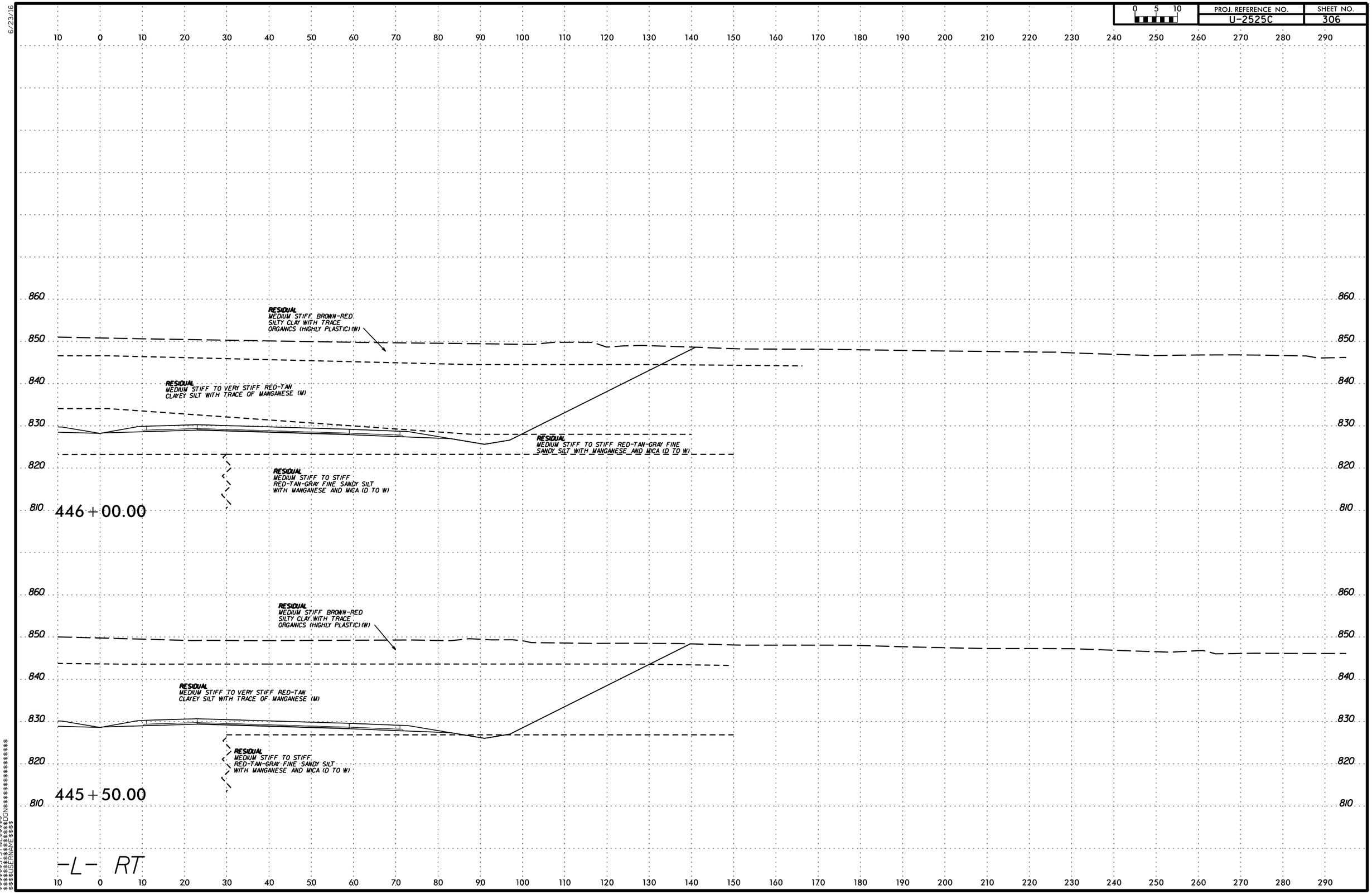
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
304
0 5 10
RESIDUAL
MEDIUM STIFF BROWN-RED
SILTY CLAY WITH TRACE
ORGANICS (HIGHLY PLASTIC) (W)
RESIDUAL
MEDIUM STIFF TO STIFF
RED-TAN-GRAY FINE SANDY SILT
WITH MANGANESE AND MICA (D TO W)
444+00.00
RESIDUAL
MEDIUM STIFF BROWN-RED
SILTY CLAY WITH TRACE
ORGANICS (HIGHLY PLASTIC) (W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN GRAY
FINE SANDY SILT WITH MANGANESE AND
MICA (D TO W)
443+50.00
RESIDUAL
MEDIUM STIFF BROWN-RED
SILTY CLAY WITH TRACE
ORGANICS (HIGHLY PLASTIC) (W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN GRAY
FINE SANDY SILT WITH MANGANESE AND
MICA (D TO W)
443+00.00
-L- RT

6/23/16

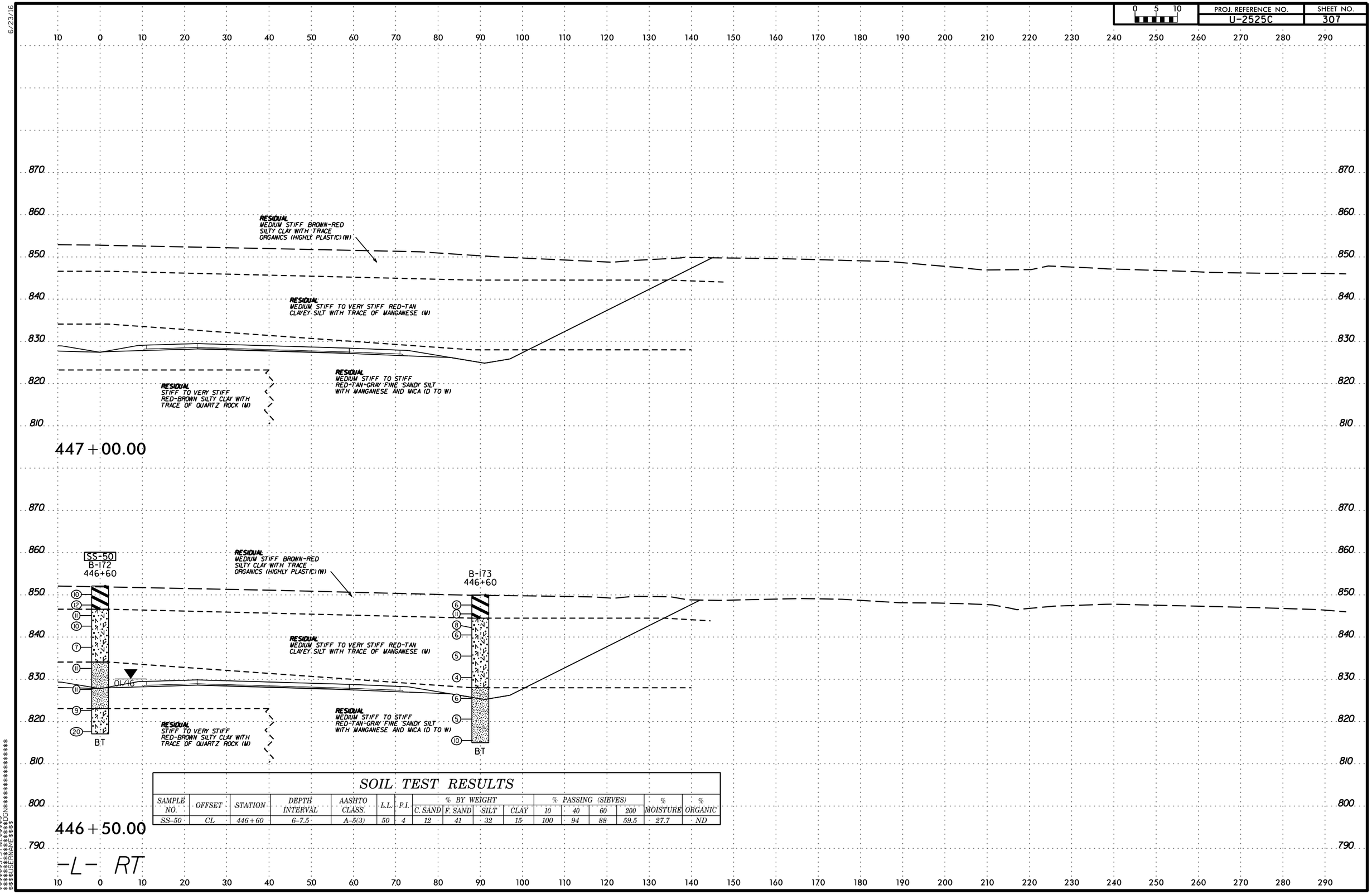
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	305



$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
306
0 5 10
RESIDUAL
MEDIUM STIFF BROWN-RED SILTY CLAY WITH TRACE ORGANICS (HIGHLY PLASTIC) (W)
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-TAN CLAYEY SILT WITH TRACE OF MANGANESE (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN-GRAY FINE SANDY SILT WITH MANGANESE AND MICA (D TO W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN-GRAY FINE SANDY SILT WITH MANGANESE AND MICA (D TO W)
446+00.00
RESIDUAL
MEDIUM STIFF BROWN-RED SILTY CLAY WITH TRACE ORGANICS (HIGHLY PLASTIC) (W)
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-TAN CLAYEY SILT WITH TRACE OF MANGANESE (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN-GRAY FINE SANDY SILT WITH MANGANESE AND MICA (D TO W)
445+50.00
-L- RT

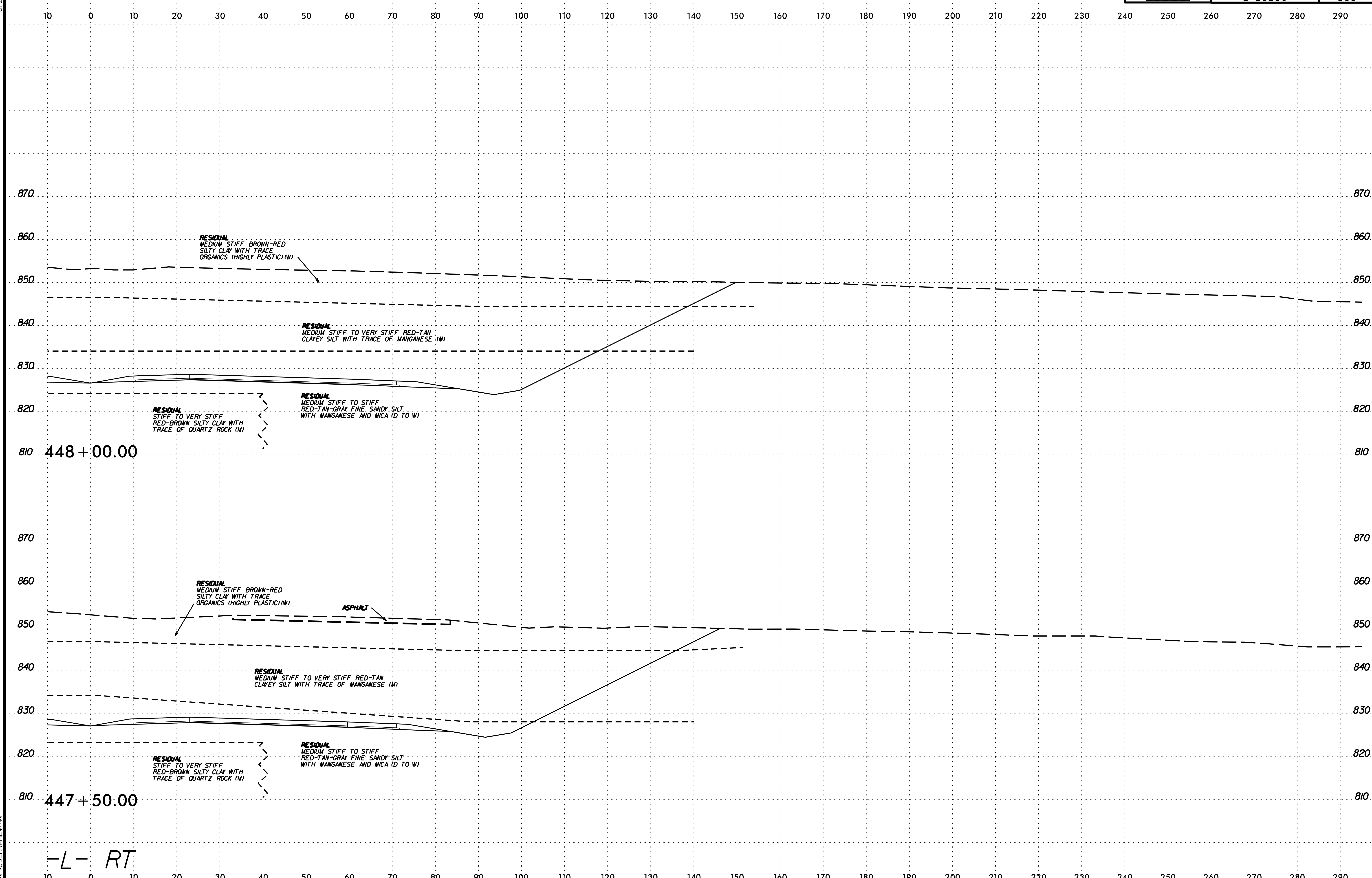


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-50	CL	446+60	6-7.5	A-5(3)	50	4	12	41	32	15	100	94	88	59.5	27.7	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

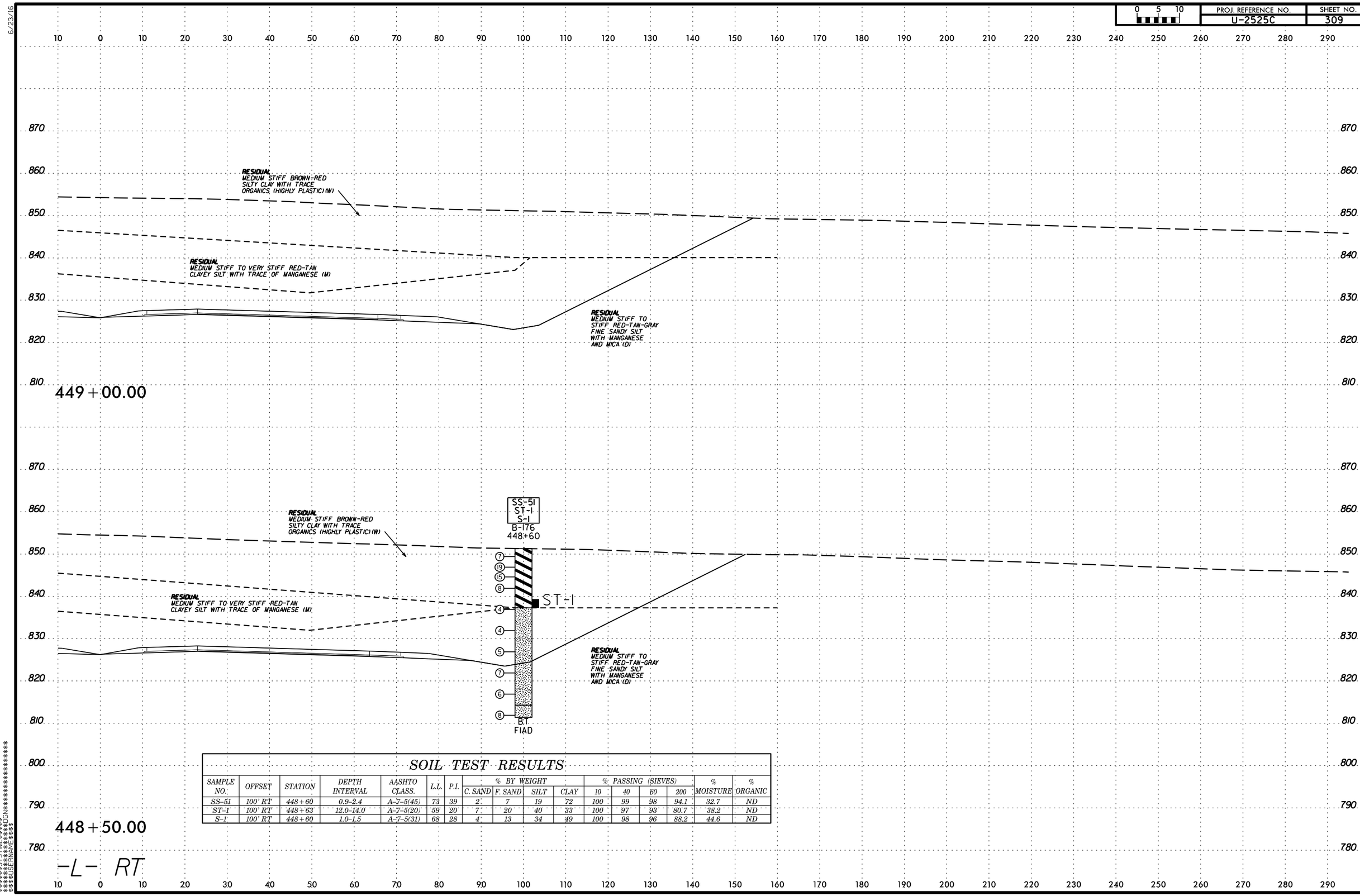
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	308



6/23/16

$$$$$SYSTIME$$$$$ $$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$

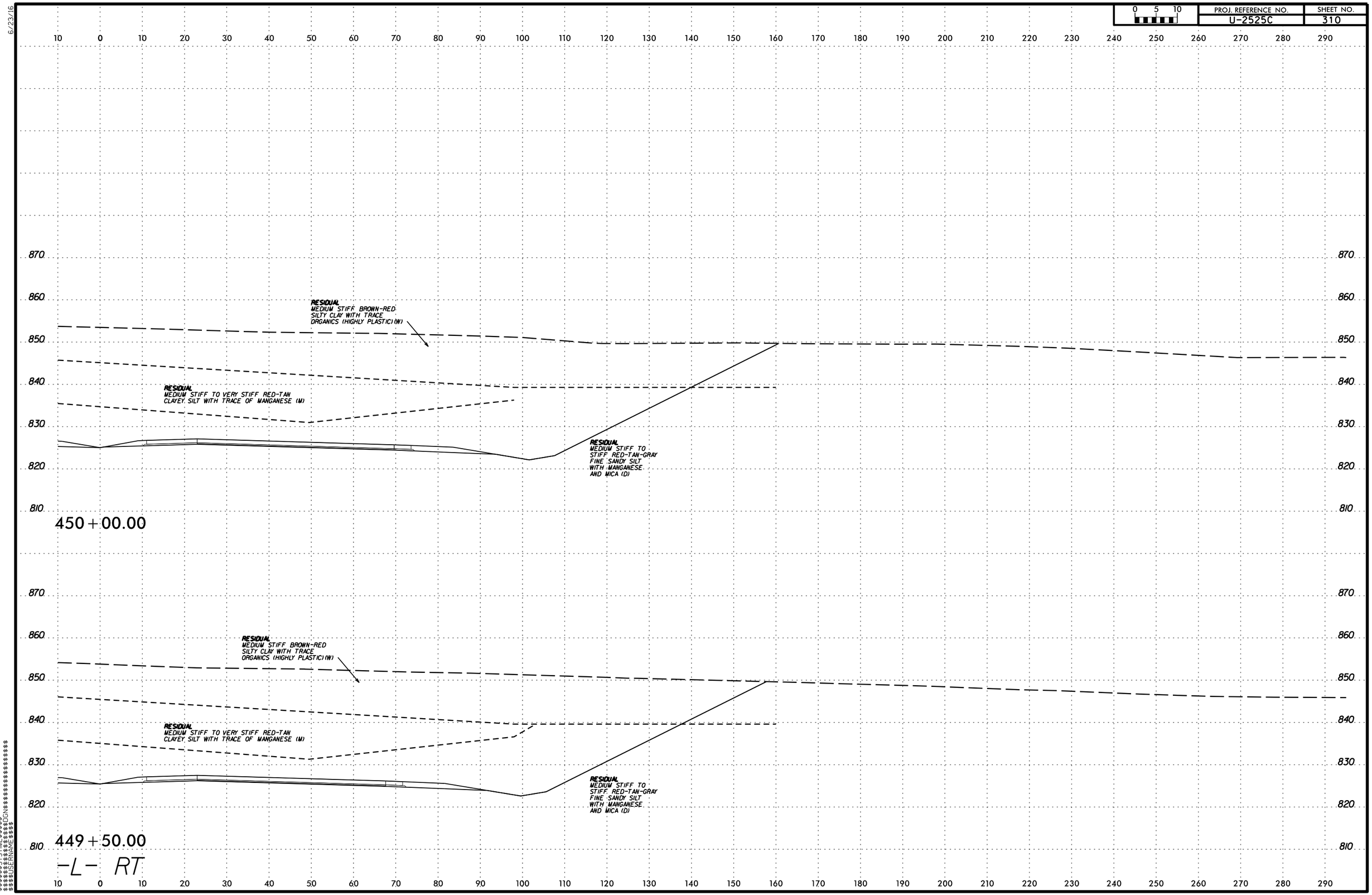
PROJ. REFERENCE NO. U-2525C | SHEET NO. 309



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-51	100' RT	448+60	0.9-2.4	A-7-5(45)	73	39	2	7	19	72	100	99	98	94.1	32.7	ND
ST-1	100' RT	448+63	12.0-14.0	A-7-5(20)	59	20	7	20	40	33	100	97	93	80.7	38.2	ND
S-1	100' RT	448+60	1.0-1.5	A-7-5(31)	68	28	4	13	34	49	100	98	96	88.2	44.6	ND

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	310

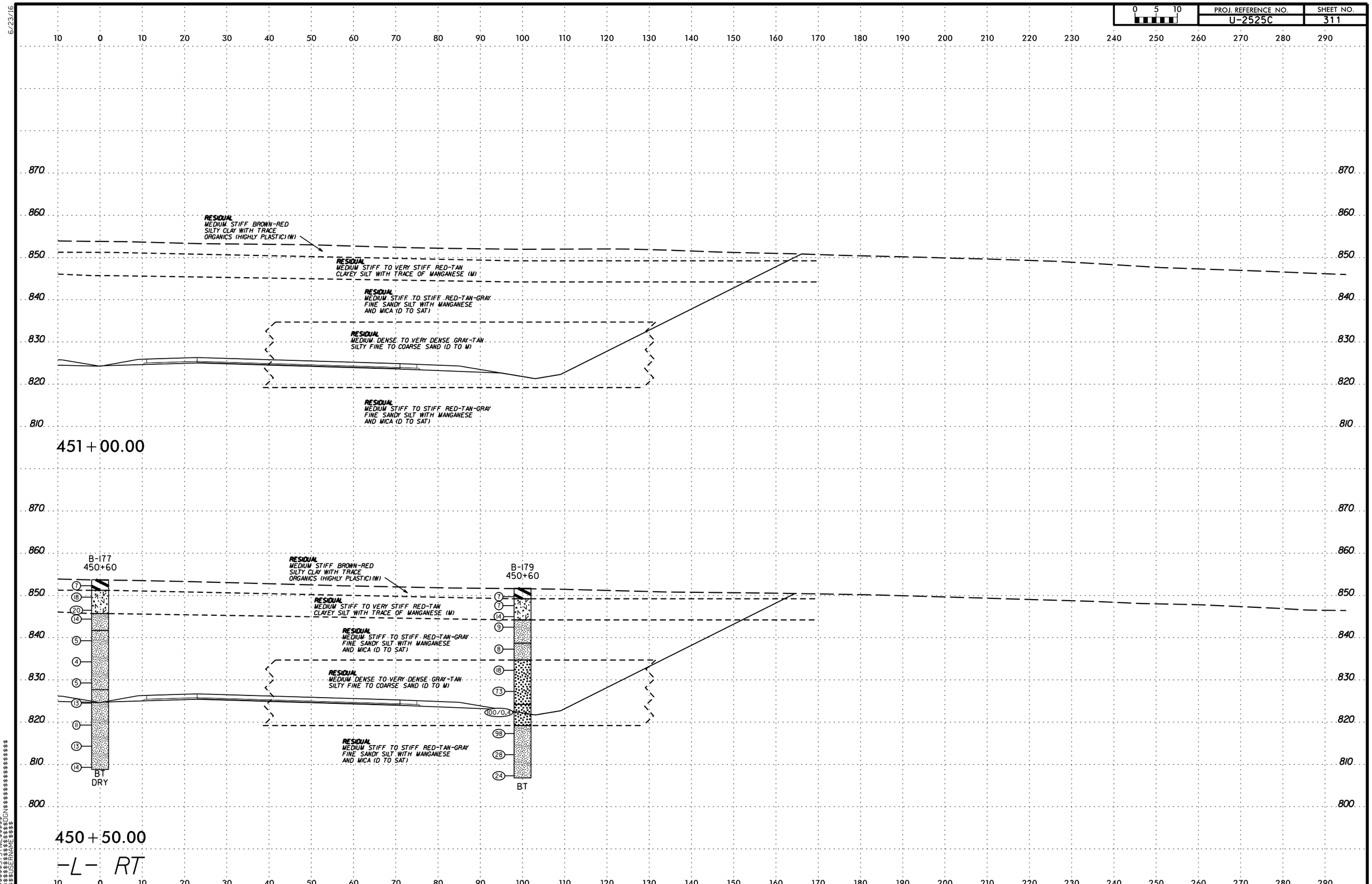


6/23/16

$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

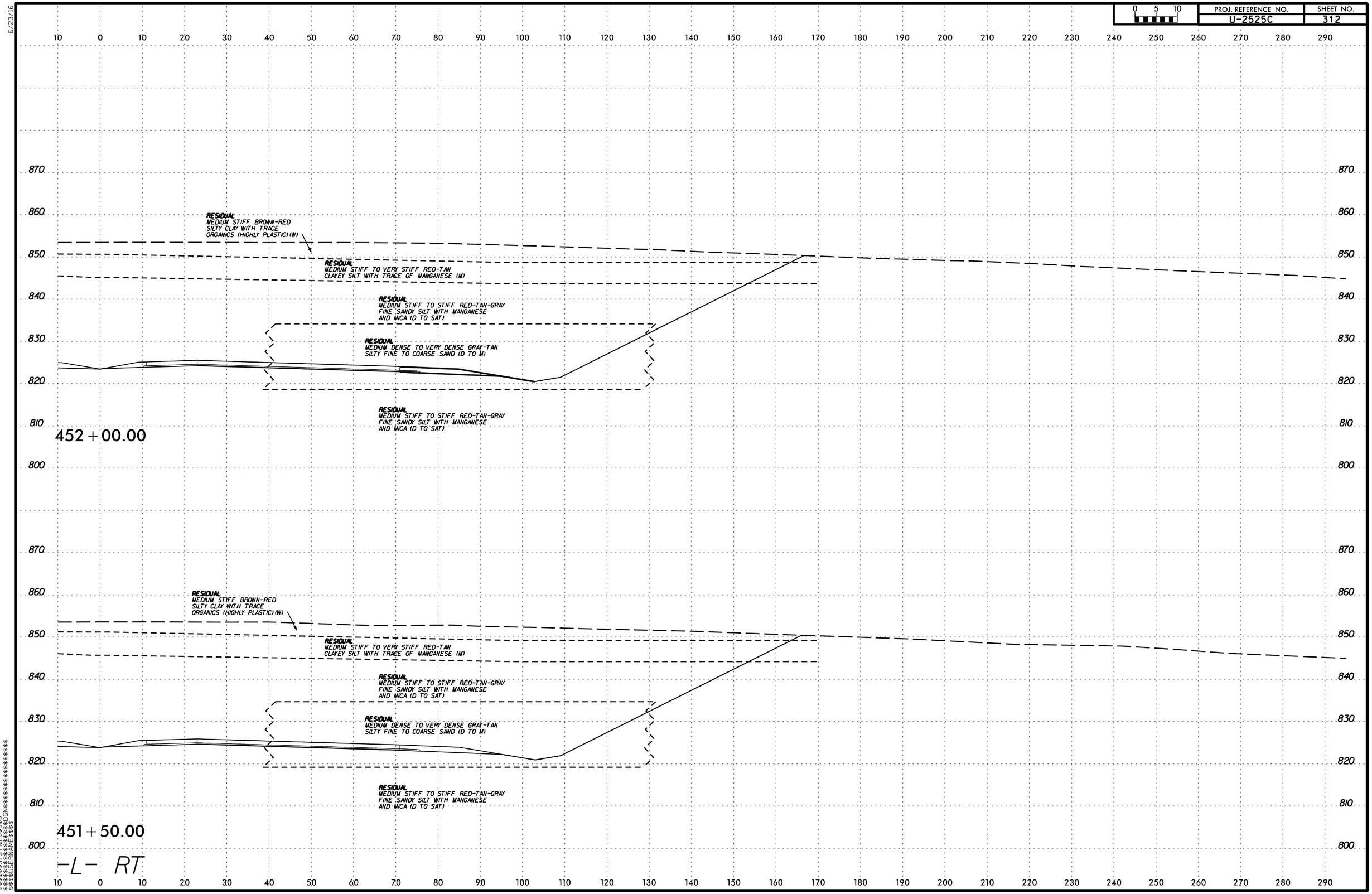
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	311



$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

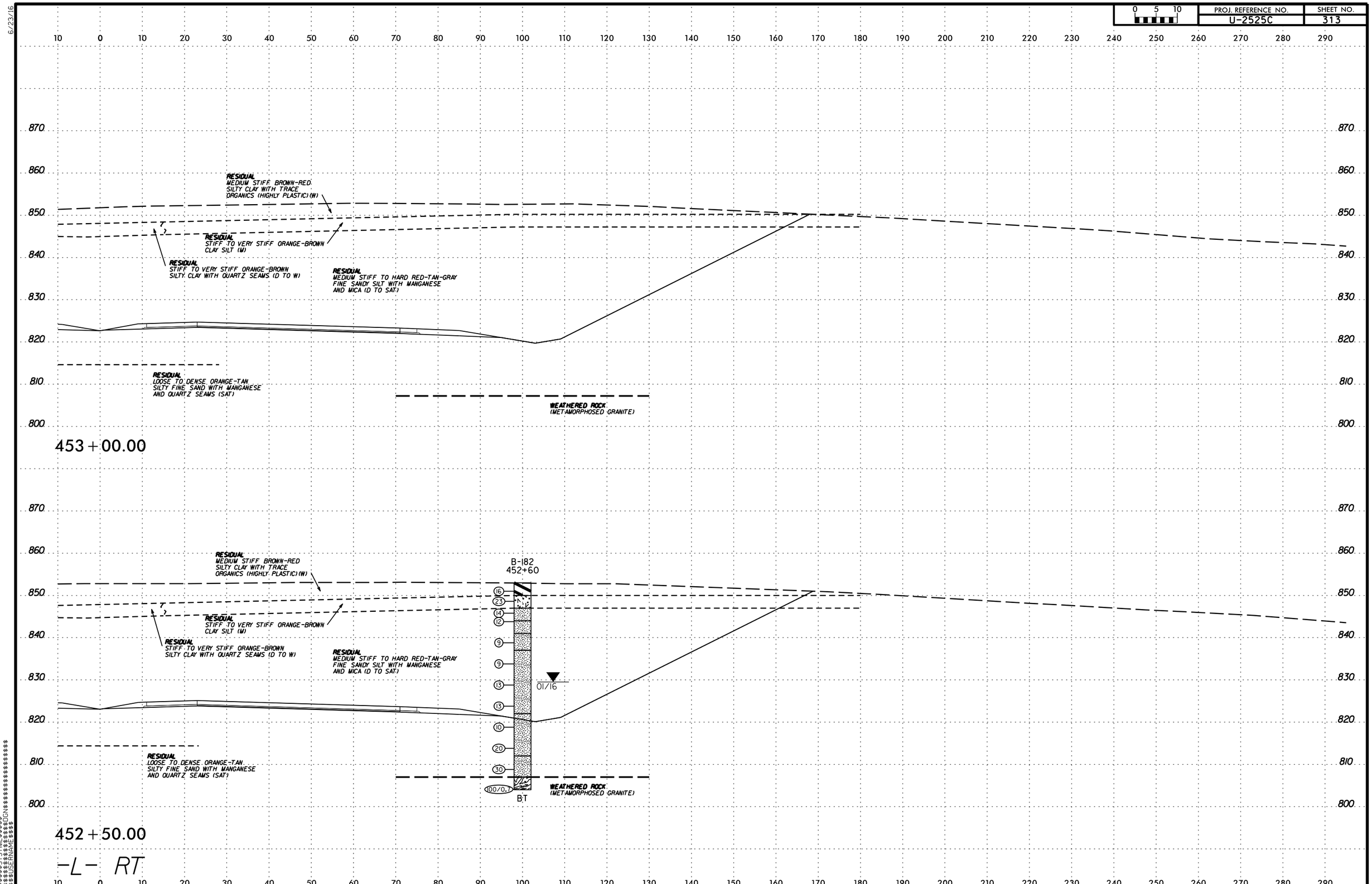
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	312



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	313



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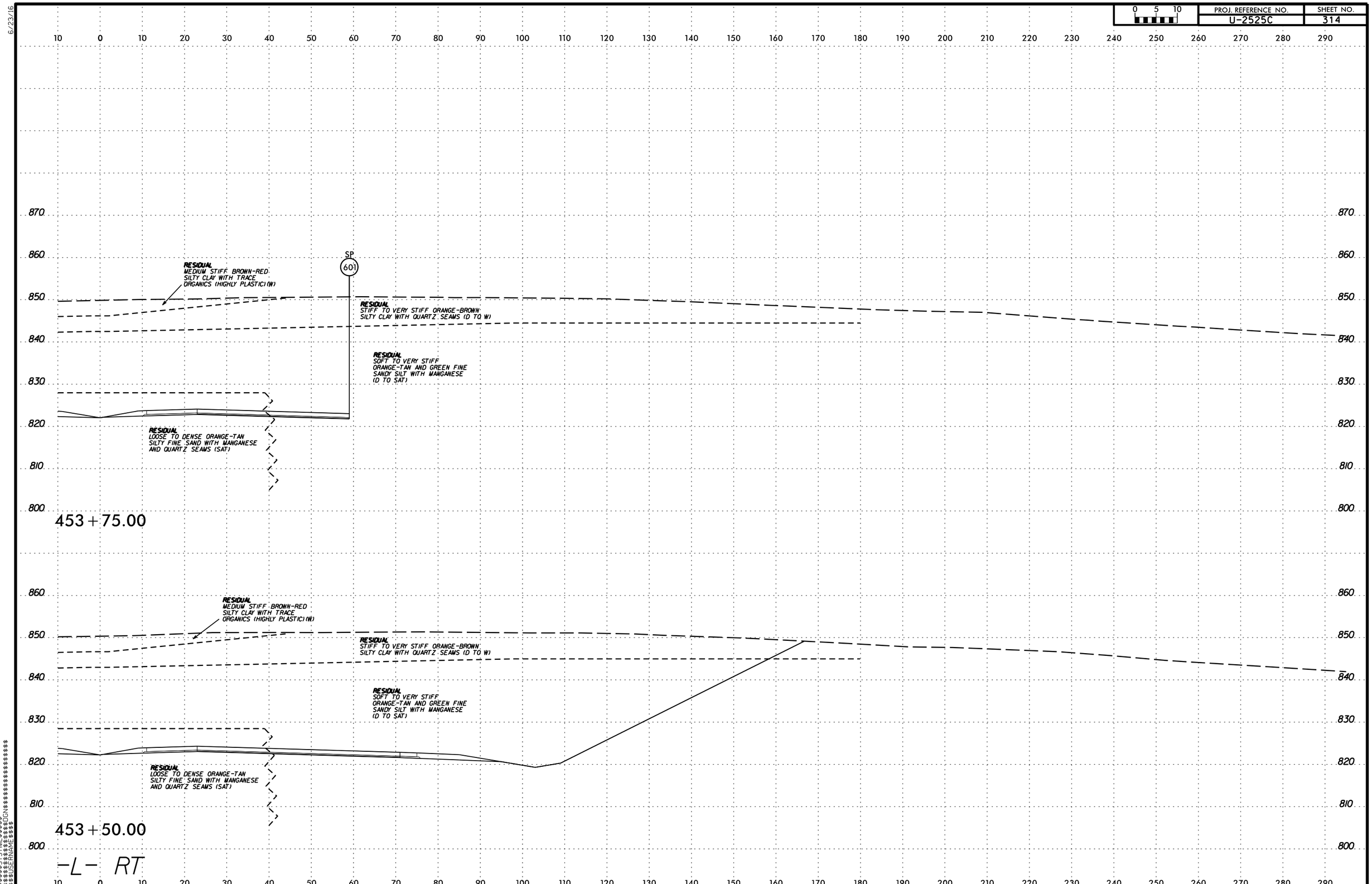
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	314



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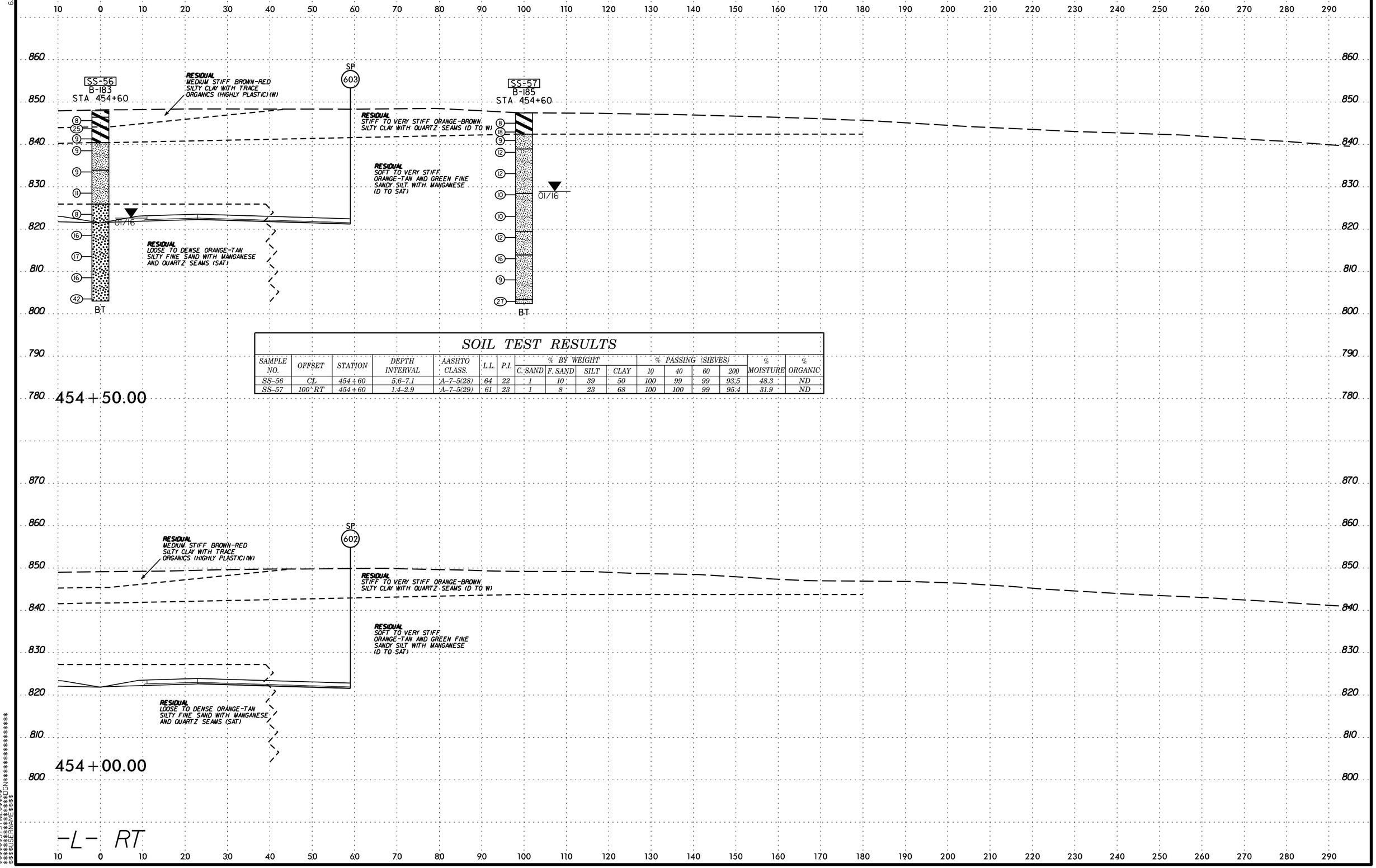
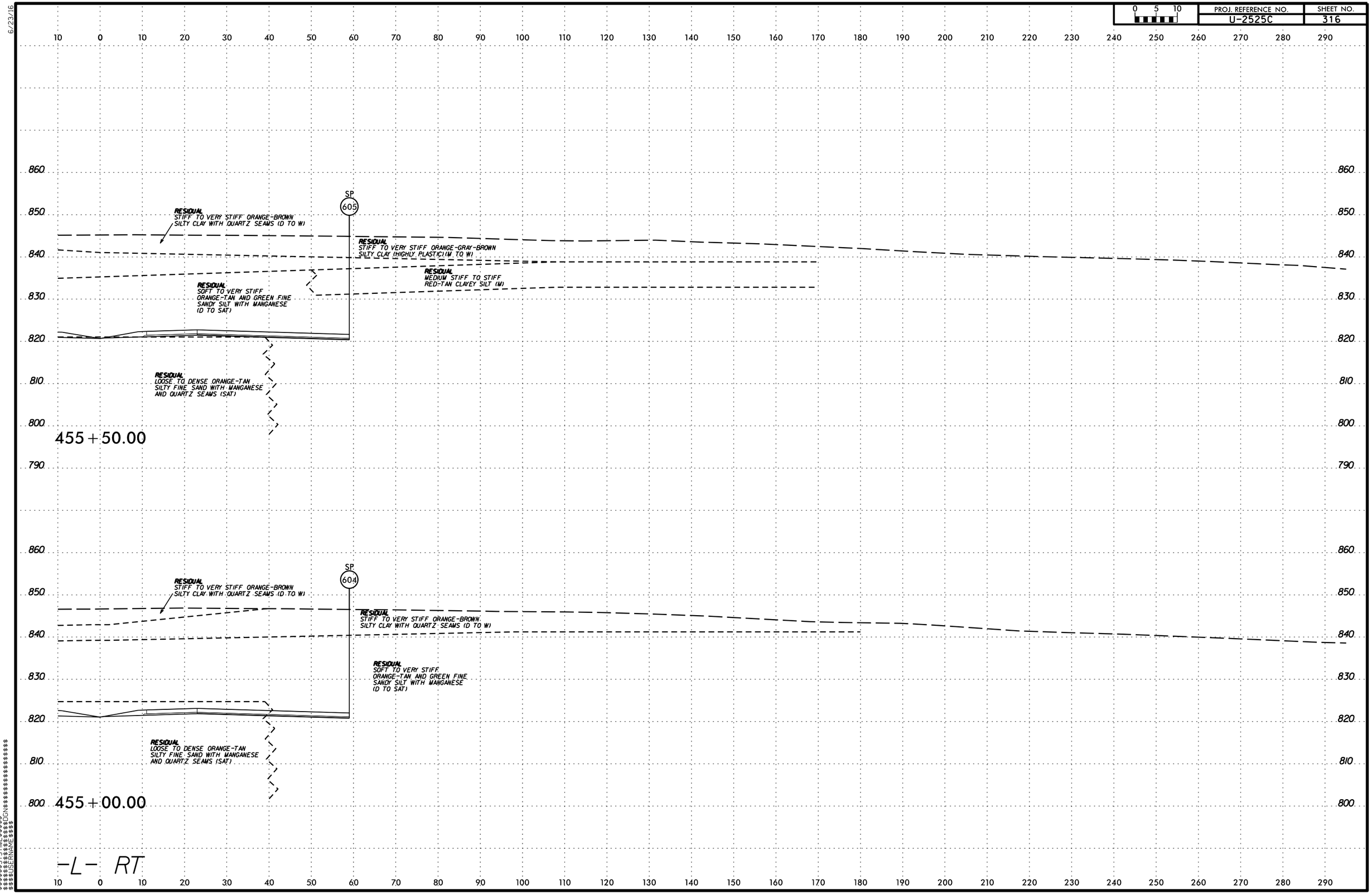
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-56	CL	454+60	5.6-7.1	A-7-5(28)	64	22	1	10	39	50	100	99	99	93.5	48.3	ND
SS-57	100' RT	454+60	1.4-2.9	A-7-5(29)	61	23	1	8	23	68	100	100	99	95.4	31.9	ND



6/23/16
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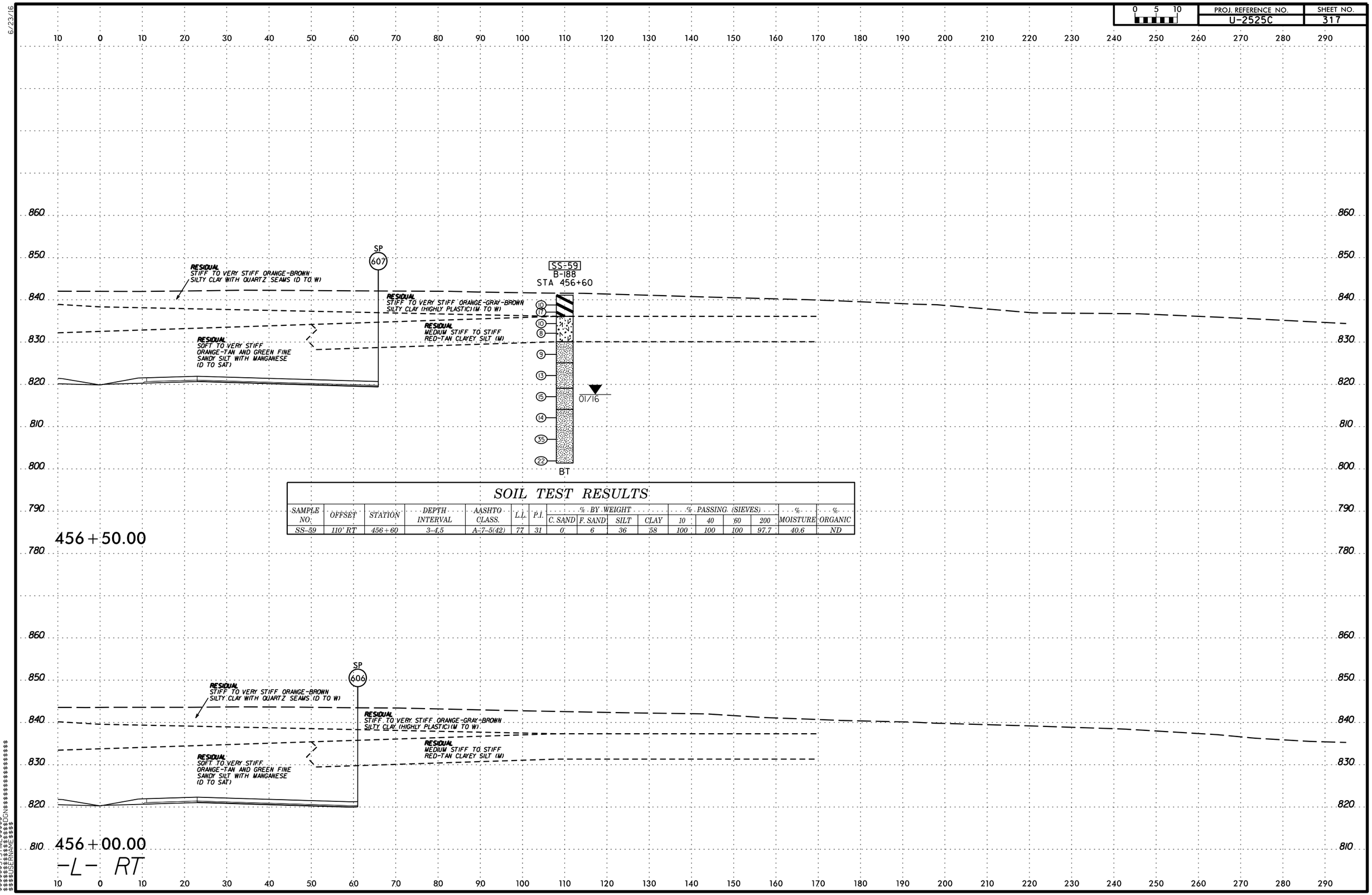
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-59	110' RT	456+60	3-4.5	A-7-5(42)	77	31	0	6	36	58	100	100	100	97.7	40.6	ND

6/23/16
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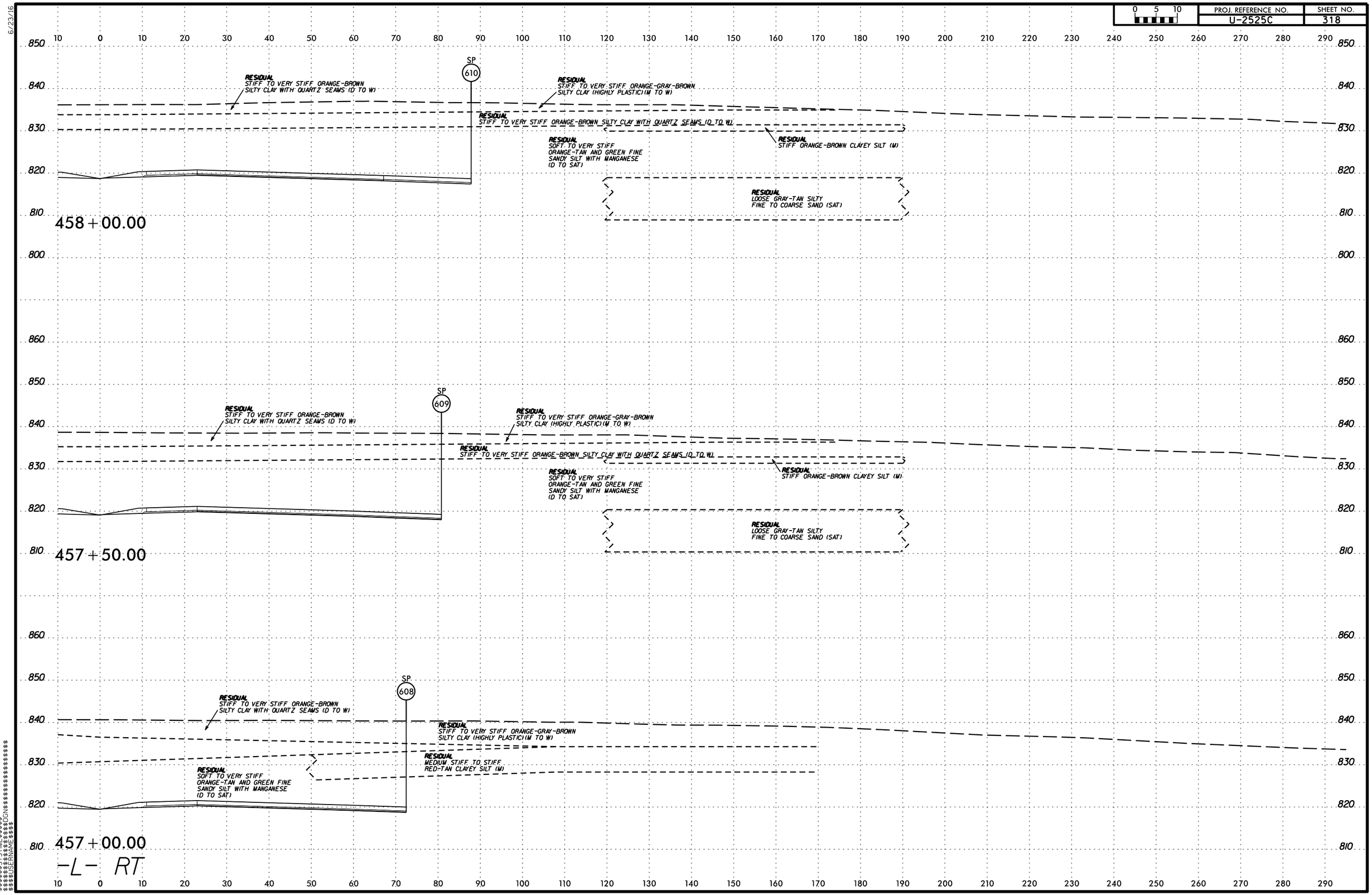
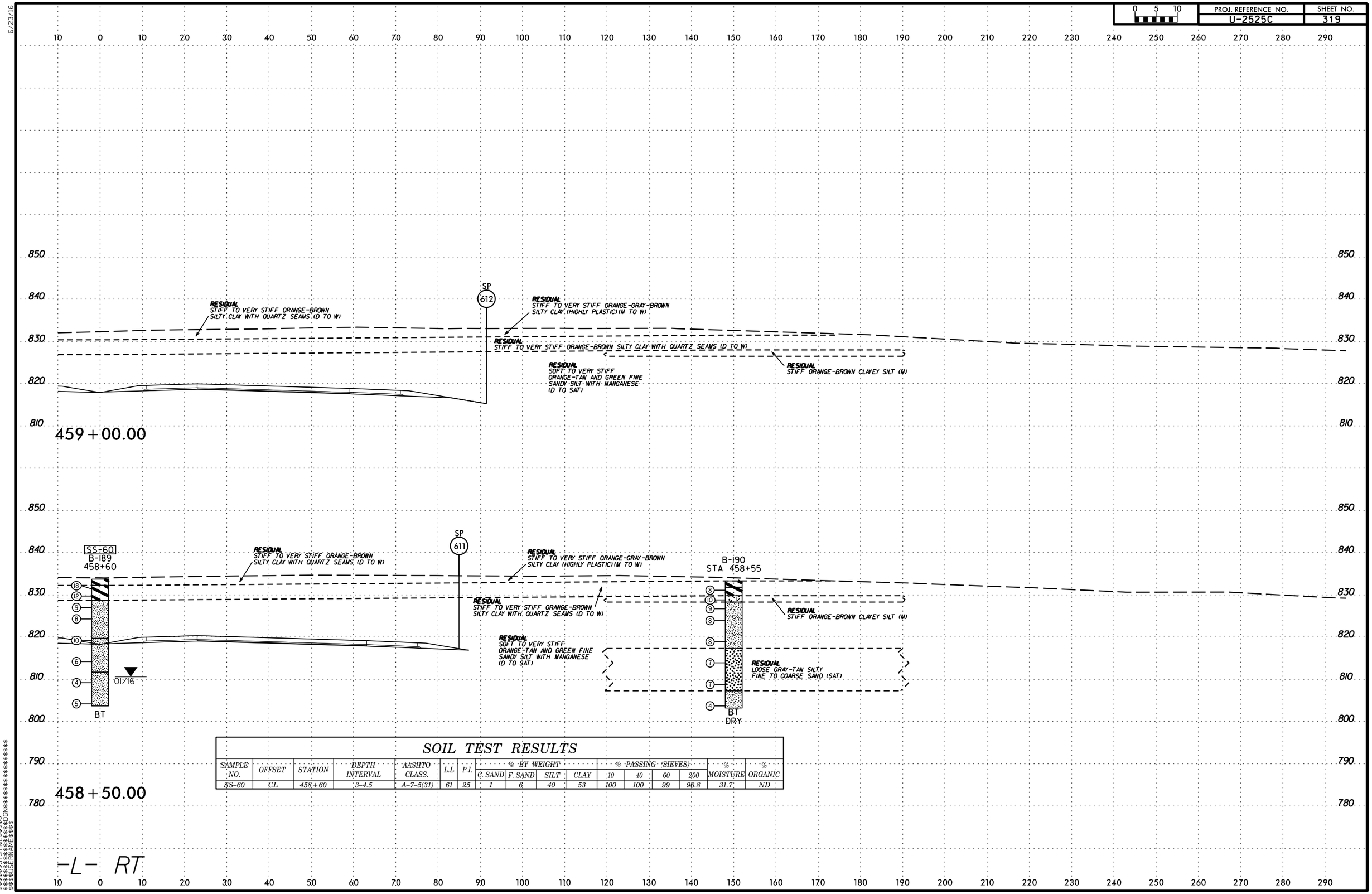
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
318
0 5 10
SP 610
RESIDUAL STIFF TO VERY STIFF ORANGE-BROWN SILTY CLAY WITH QUARTZ SEAMS (D TO W)
RESIDUAL STIFF TO VERY STIFF ORANGE-GRAY-BROWN SILTY CLAY (HIGHLY PLASTIC)(M TO W)
RESIDUAL STIFF TO VERY STIFF ORANGE-BROWN SILTY CLAY WITH QUARTZ SEAMS (D TO W)
RESIDUAL SOFT TO VERY STIFF ORANGE-TAN AND GREEN FINE SANDY SILT WITH MANGANESE (D TO SAT)
RESIDUAL STIFF ORANGE-BROWN CLAYEY SILT (M)
RESIDUAL LOOSE GRAY-TAN SILTY FINE TO COARSE SAND (SAT)
458+00.00
SP 609
RESIDUAL STIFF TO VERY STIFF ORANGE-BROWN SILTY CLAY WITH QUARTZ SEAMS (D TO W)
RESIDUAL STIFF TO VERY STIFF ORANGE-GRAY-BROWN SILTY CLAY (HIGHLY PLASTIC)(M TO W)
RESIDUAL STIFF TO VERY STIFF ORANGE-BROWN SILTY CLAY WITH QUARTZ SEAMS (D TO W)
RESIDUAL SOFT TO VERY STIFF ORANGE-TAN AND GREEN FINE SANDY SILT WITH MANGANESE (D TO SAT)
RESIDUAL STIFF ORANGE-BROWN CLAYEY SILT (M)
RESIDUAL LOOSE GRAY-TAN SILTY FINE TO COARSE SAND (SAT)
457+50.00
SP 608
RESIDUAL STIFF TO VERY STIFF ORANGE-BROWN SILTY CLAY WITH QUARTZ SEAMS (D TO W)
RESIDUAL STIFF TO VERY STIFF ORANGE-GRAY-BROWN SILTY CLAY (HIGHLY PLASTIC)(M TO W)
RESIDUAL MEDIUM STIFF TO STIFF RED-TAN CLAYEY SILT (M)
RESIDUAL SOFT TO VERY STIFF ORANGE-TAN AND GREEN FINE SANDY SILT WITH MANGANESE (D TO SAT)
457+00.00
-L- RT

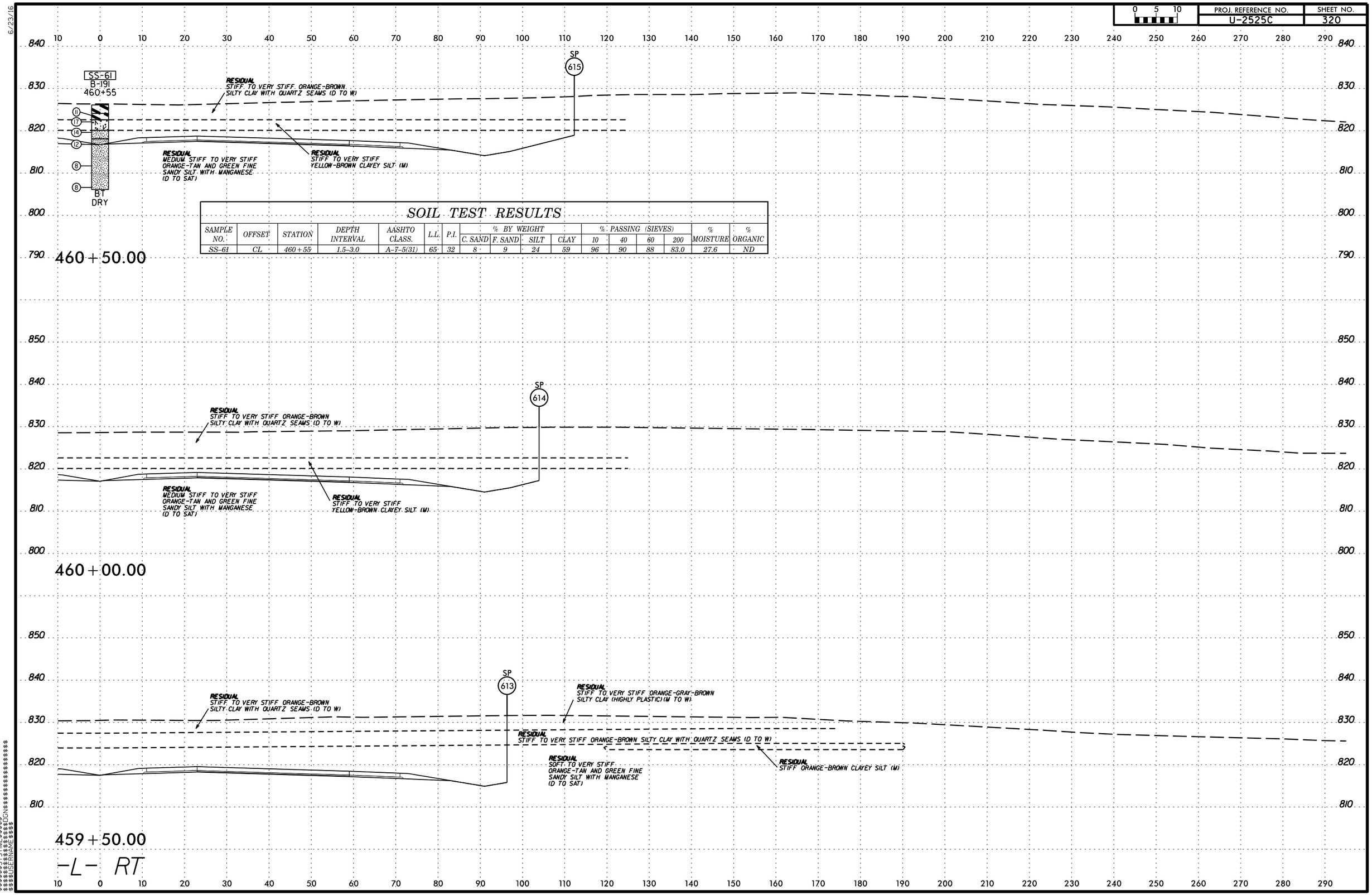
PROJ. REFERENCE NO. U-2525C | SHEET NO. 319



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-60	CL	458+60	3-4.5	A-7-5(31)	61	25	1	6	40	53	100	100	99	96.8	31.7	ND

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	320

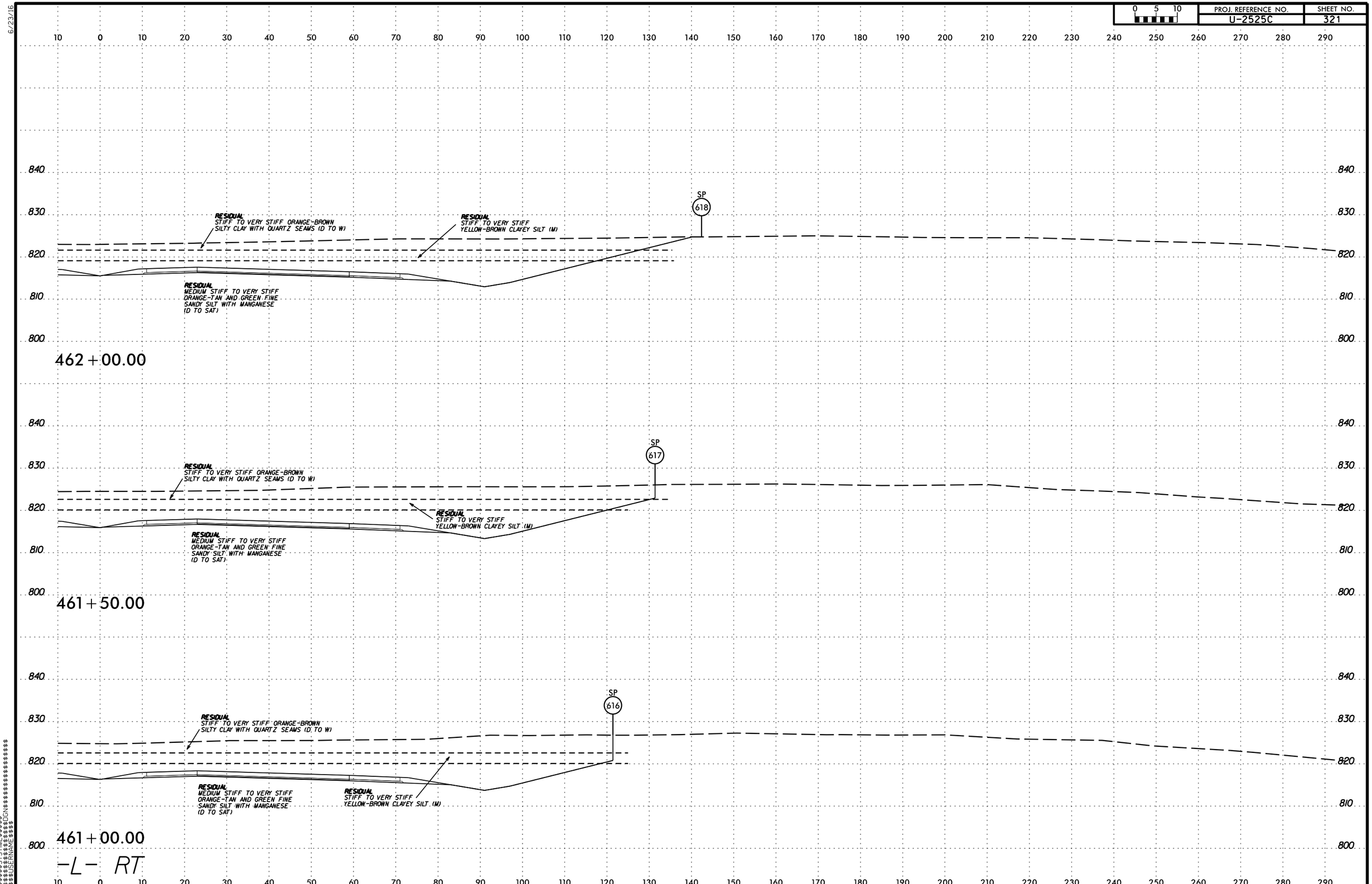


SOIL TEST RESULTS

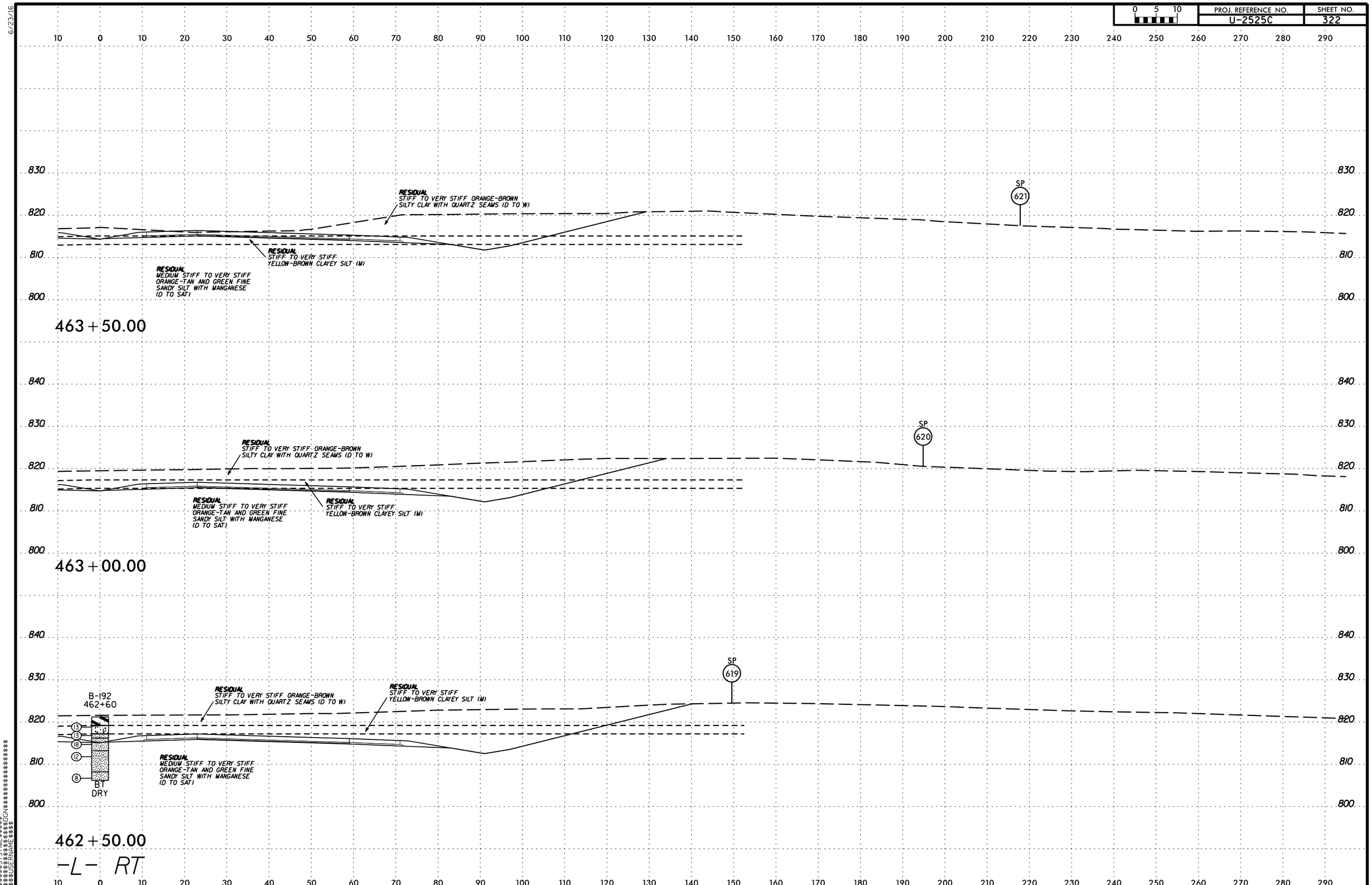
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-61	CL	460+55	1.5-3.0	A-7-5(31)	65	32	8	9	24	59	96	90	88	83.0	27.6	ND

6/23/16

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

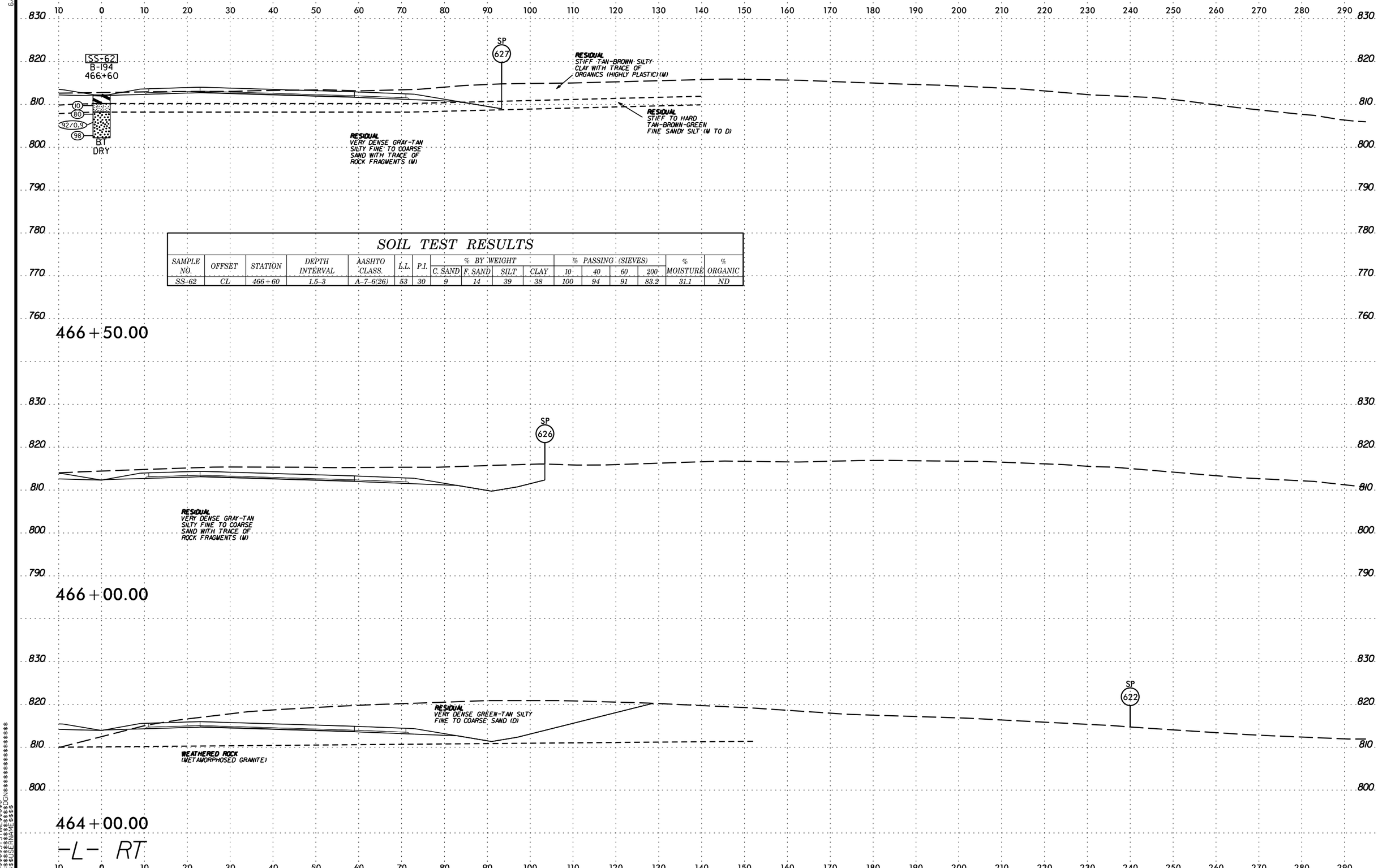


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
321
0 5 10
RESIDUAL
STIFF TO VERY STIFF ORANGE-BROWN SILTY CLAY WITH QUARTZ SEAMS (D TO W)
RESIDUAL
STIFF TO VERY STIFF YELLOW-BROWN CLAYEY SILT (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF ORANGE-TAN AND GREEN FINE SANDY SILT WITH MANGANESE (D TO SAT)
SP
618
462+00.00
SP
617
461+50.00
SP
616
461+00.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
322
0 5 10
RESIDUAL
STIFF TO VERY STIFF ORANGE-BROWN SILTY CLAY WITH QUARTZ SEAMS (D TO W)
RESIDUAL
STIFF TO VERY STIFF YELLOW-BROWN CLAYEY SILT (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF ORANGE-TAN AND GREEN FINE SANDY SILT WITH MANGANESE (D TO SAT)
SP
621
463+50.00
SP
620
463+00.00
SP
619
B-192
462+60
13
13
18
12
8
BT
DRY
462+50.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 323

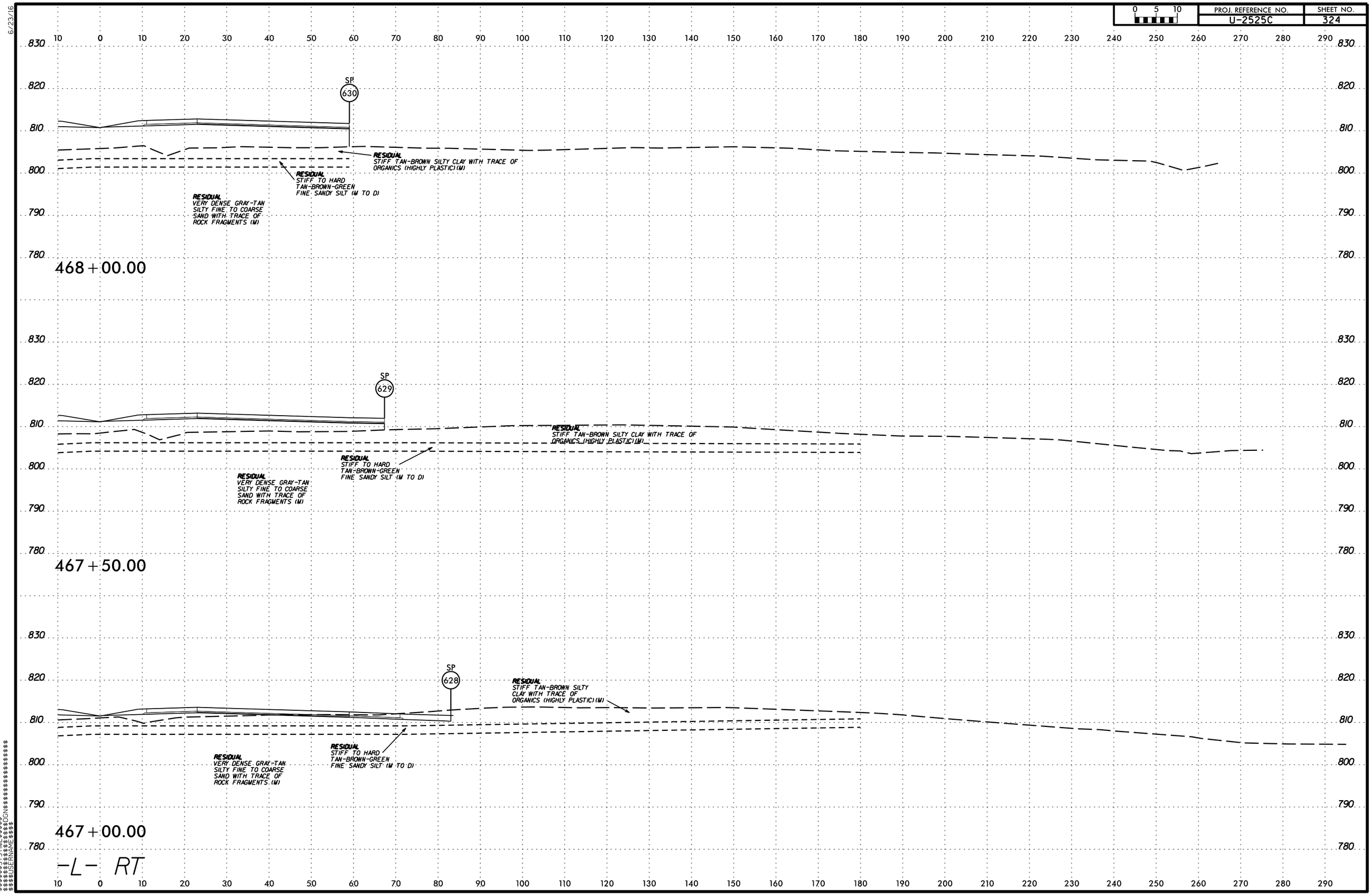


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-62	CL	466+60	1.5-3	A-7-6(26)	53	30	9	14	39	38	100	94	91	83.2	31.1	ND

6/23/16

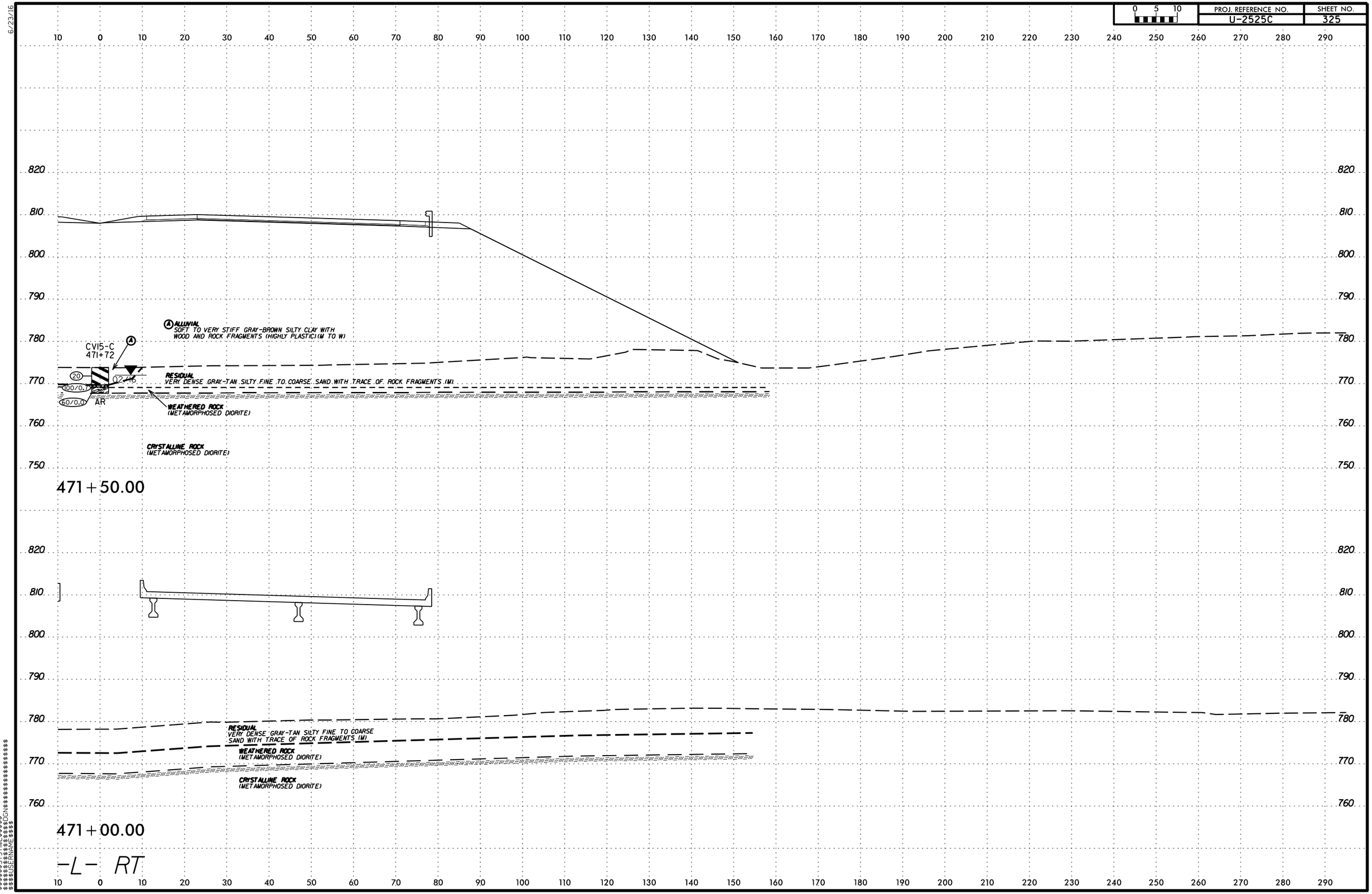
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	324



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

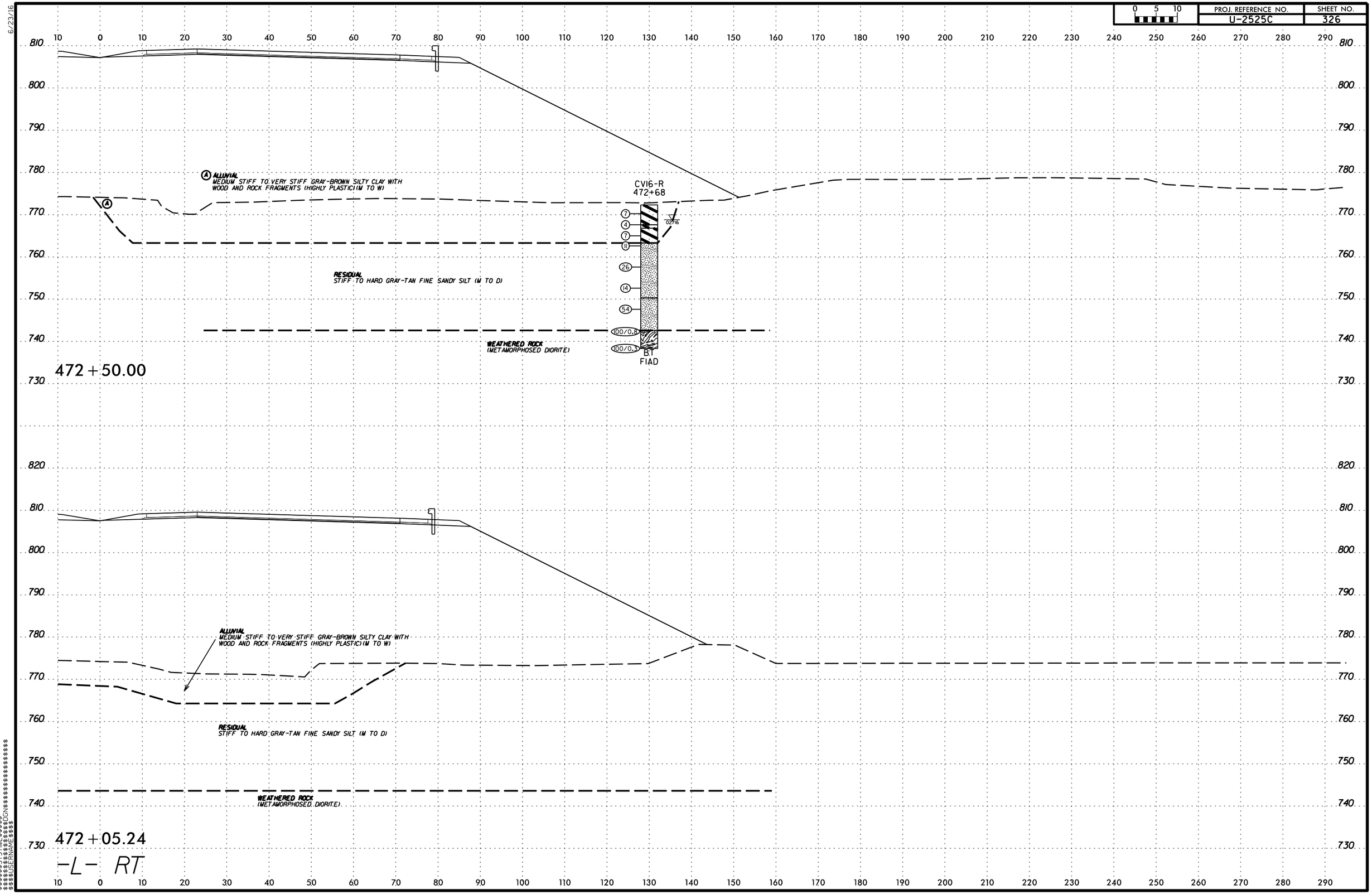
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	325



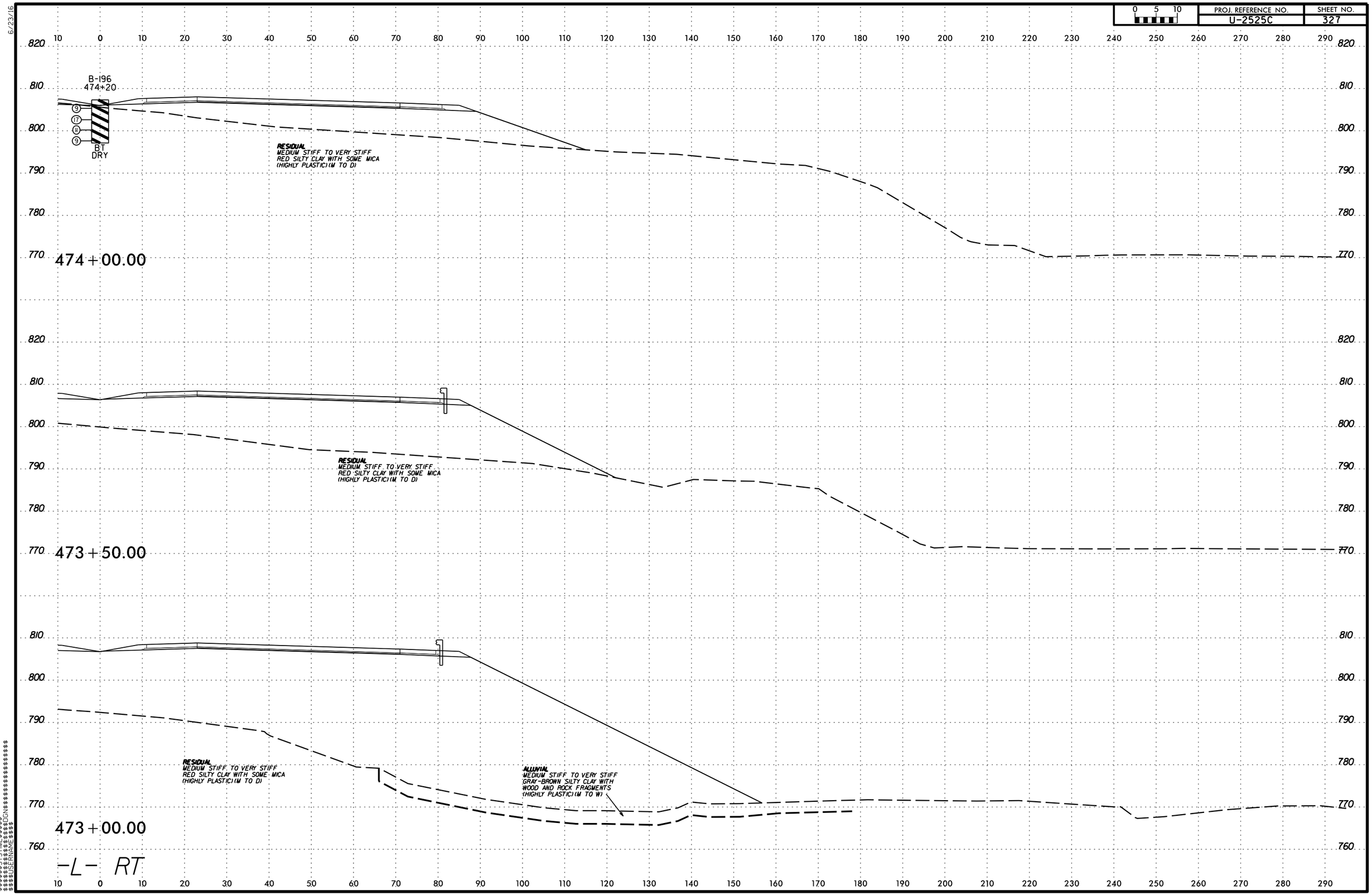
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

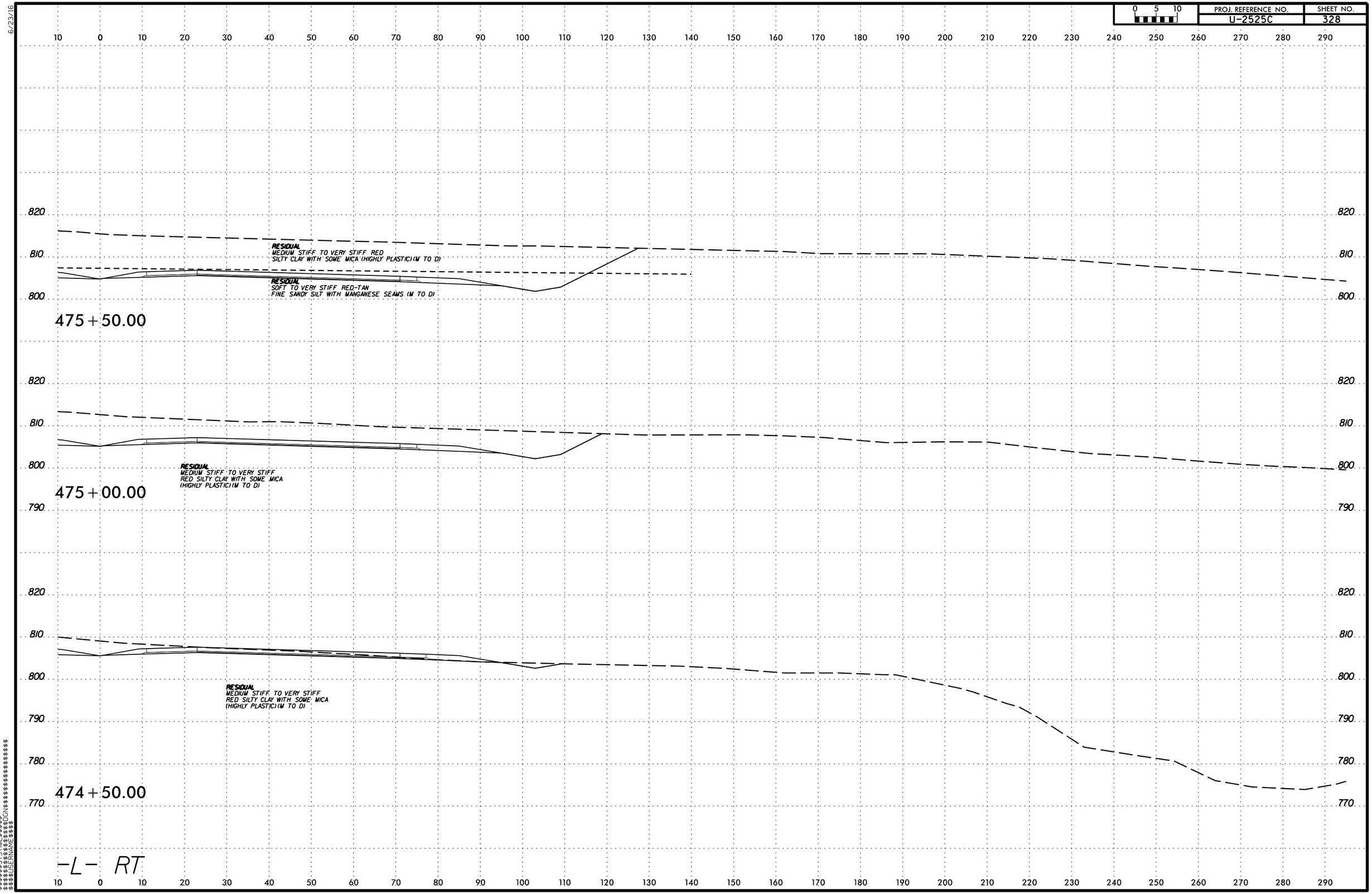
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	326



$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

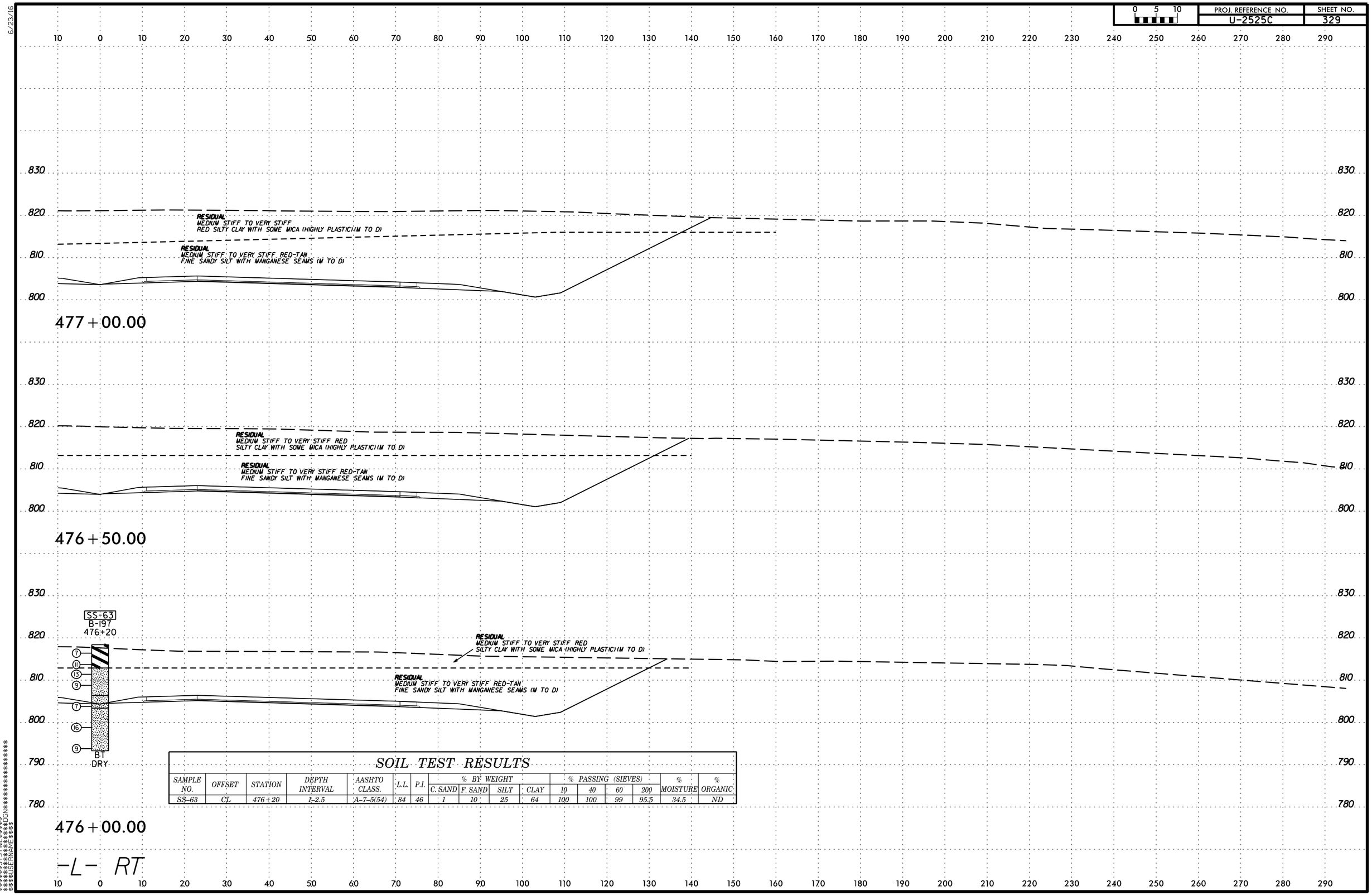


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
327
B-196
474+20
BT
DRY
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED SILTY CLAY WITH SOME MICA
(HIGHLY PLASTIC)(M TO D)
474+00.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED SILTY CLAY WITH SOME MICA
(HIGHLY PLASTIC)(M TO D)
473+50.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED SILTY CLAY WITH SOME MICA
(HIGHLY PLASTIC)(M TO D)
ALLUVIAL
MEDIUM STIFF TO VERY STIFF
GRAY-BROWN SILTY CLAY WITH
WOOD AND ROCK FRAGMENTS
(HIGHLY PLASTIC)(M TO W)
473+00.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
328
0 5 10
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED
SILTY CLAY WITH SOME MICA (HIGHLY PLASTIC) (M TO D)
RESIDUAL
SOFT TO VERY STIFF RED-TAN
FINE SANDY SILT WITH MANGANESE SEAMS (M TO D)
475+50.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED SILTY CLAY WITH SOME MICA
(HIGHLY PLASTIC) (M TO D)
475+00.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED SILTY CLAY WITH SOME MICA
(HIGHLY PLASTIC) (M TO D)
474+50.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 329

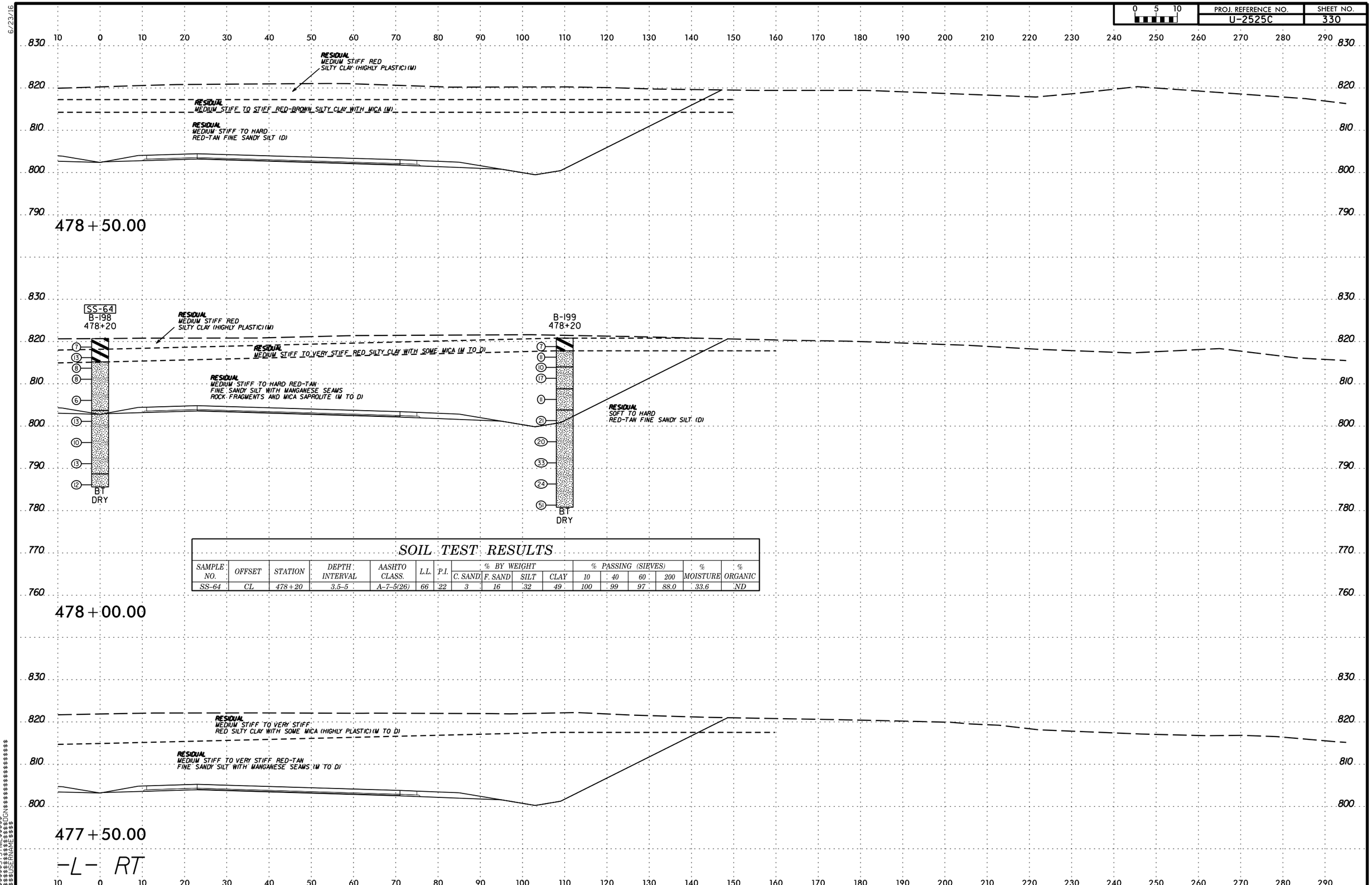


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-63	CL	476+20	1-2.5	A-7-5(54)	84	46	1	10	25	64	100	100	99	95.5	34.5	ND

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	330

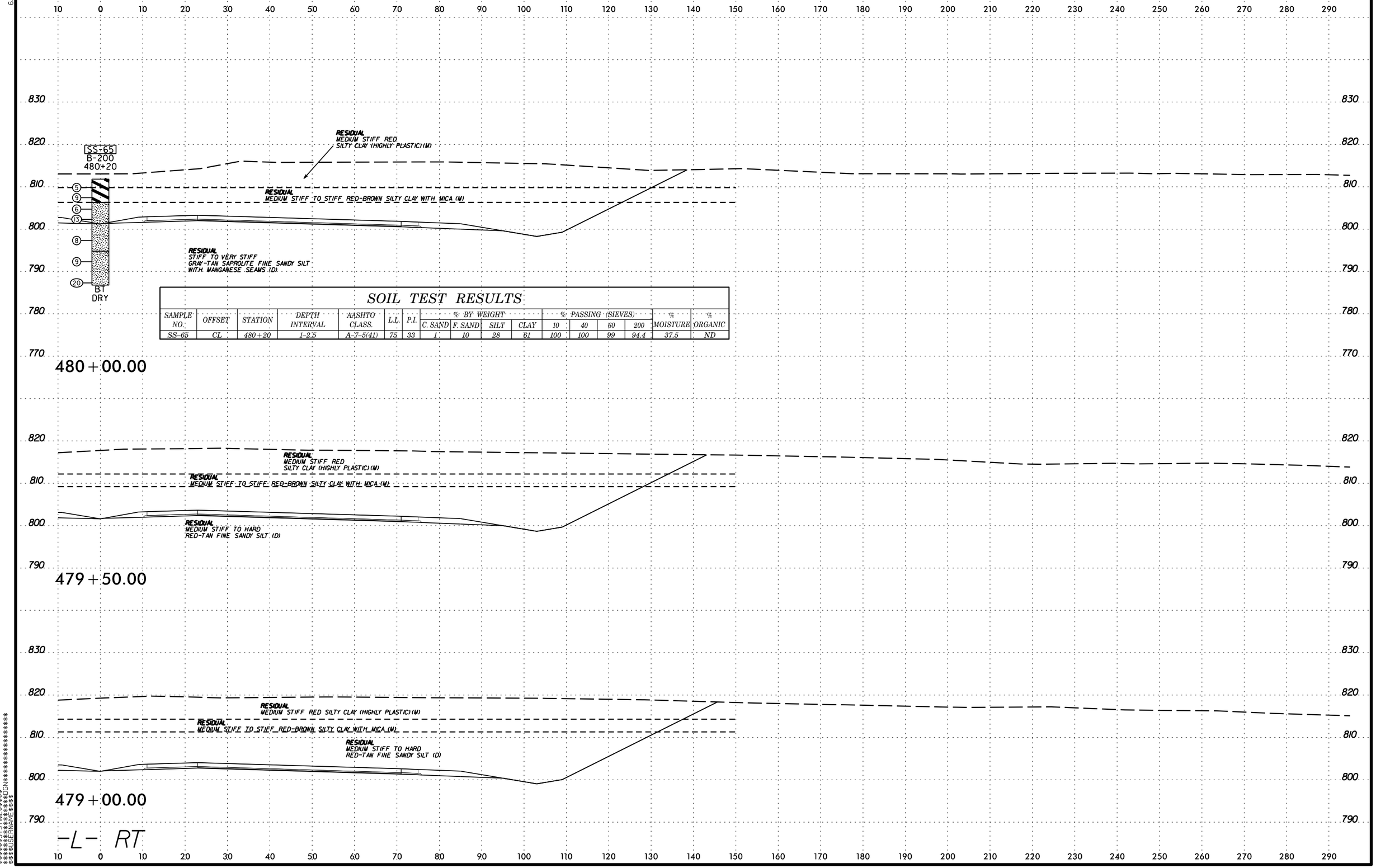


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-64	CL	478+20	3.5-5	A-7-5(26)	66	22	3	16	32	49	100	99	97	88.0	33.6	ND

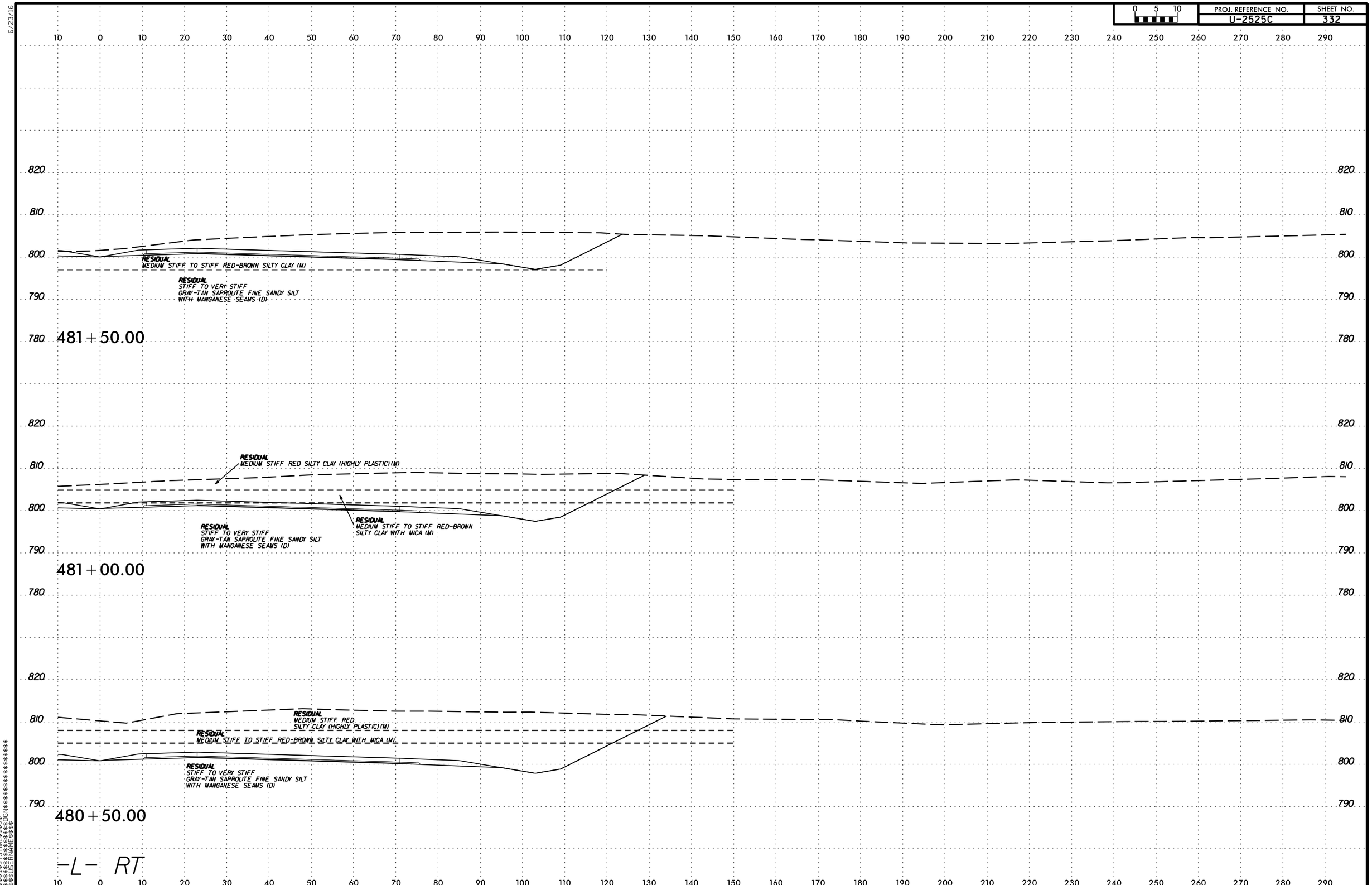
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 331



SOIL TEST RESULTS

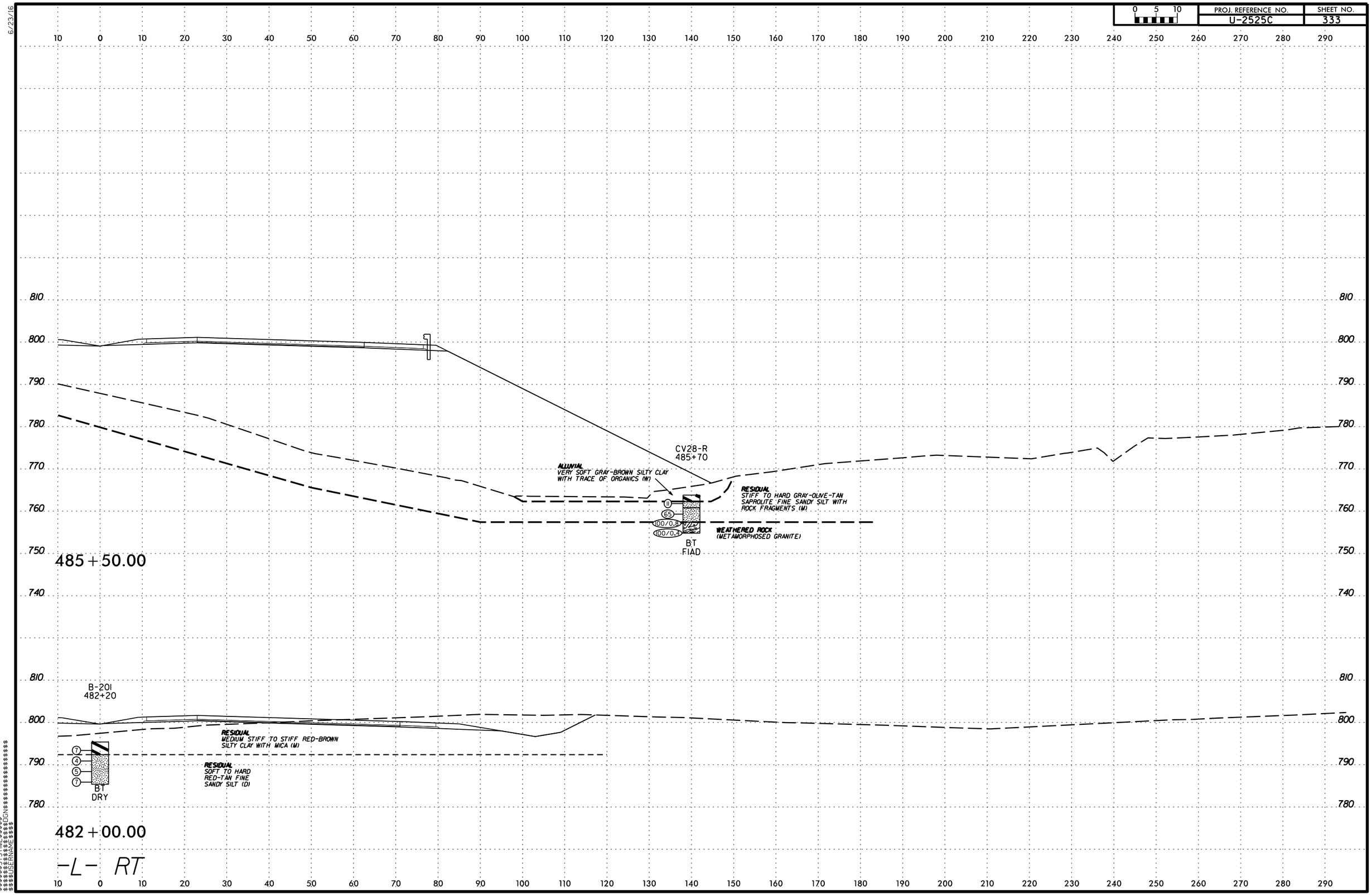
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-65	CL	480+20	1-2.5	A-7-5(41)	75	33	1	10	28	61	100	100	99	94.4	37.5	ND



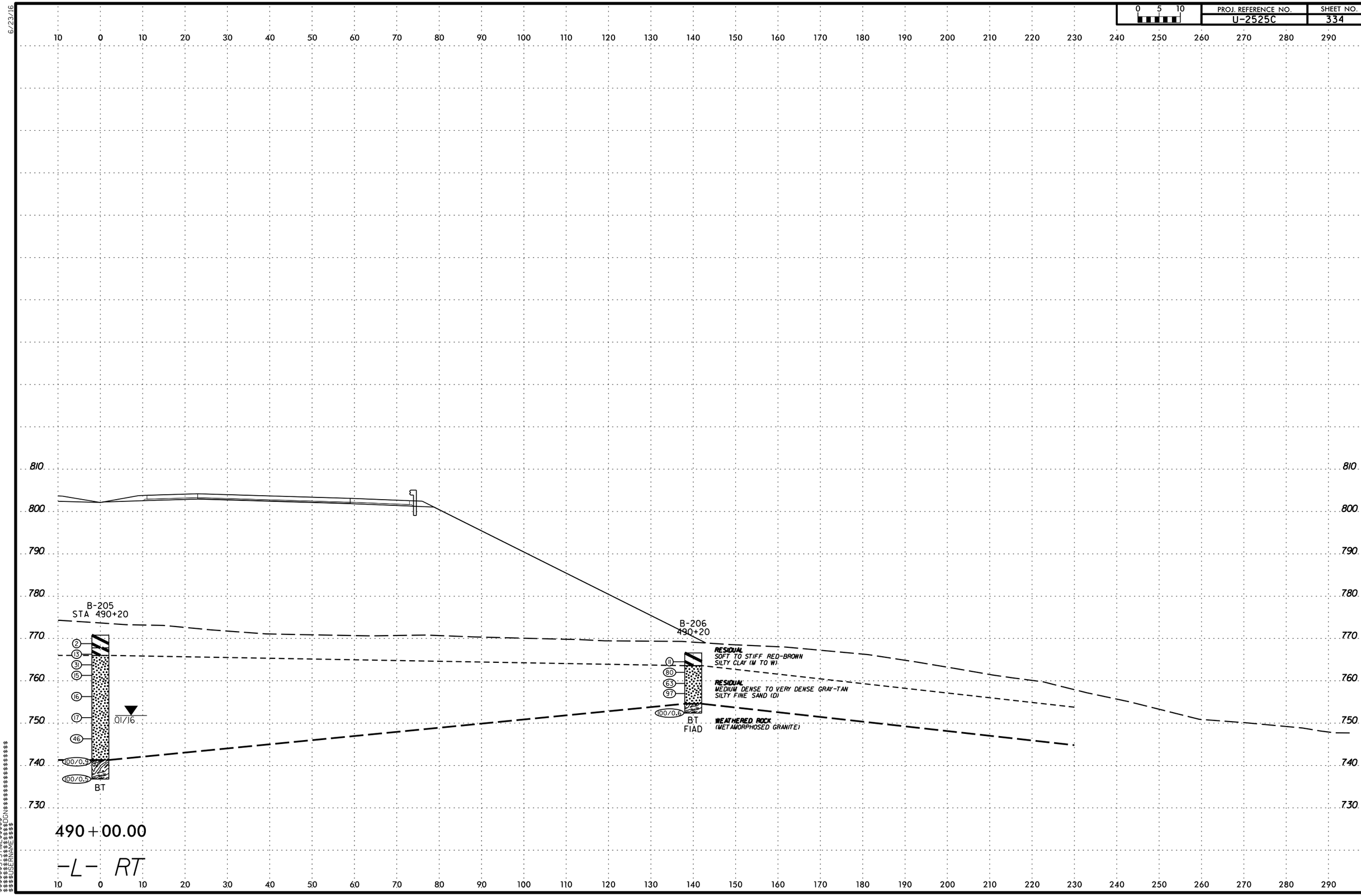
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
332
0 5 10
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN SILTY CLAY (M)
RESIDUAL
STIFF TO VERY STIFF
GRAY-TAN SAPROLITE FINE SANDY SILT
WITH MANGANESE SEAMS (D)
481+50.00
RESIDUAL
MEDIUM STIFF RED SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO VERY STIFF
GRAY-TAN SAPROLITE FINE SANDY SILT
WITH MANGANESE SEAMS (D)
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN
SILTY CLAY WITH MICA (M)
481+00.00
RESIDUAL
MEDIUM STIFF RED
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN SILTY CLAY WITH MICA (M)
RESIDUAL
STIFF TO VERY STIFF
GRAY-TAN SAPROLITE FINE SANDY SILT
WITH MANGANESE SEAMS (D)
480+50.00
-L- RT

6/23/16

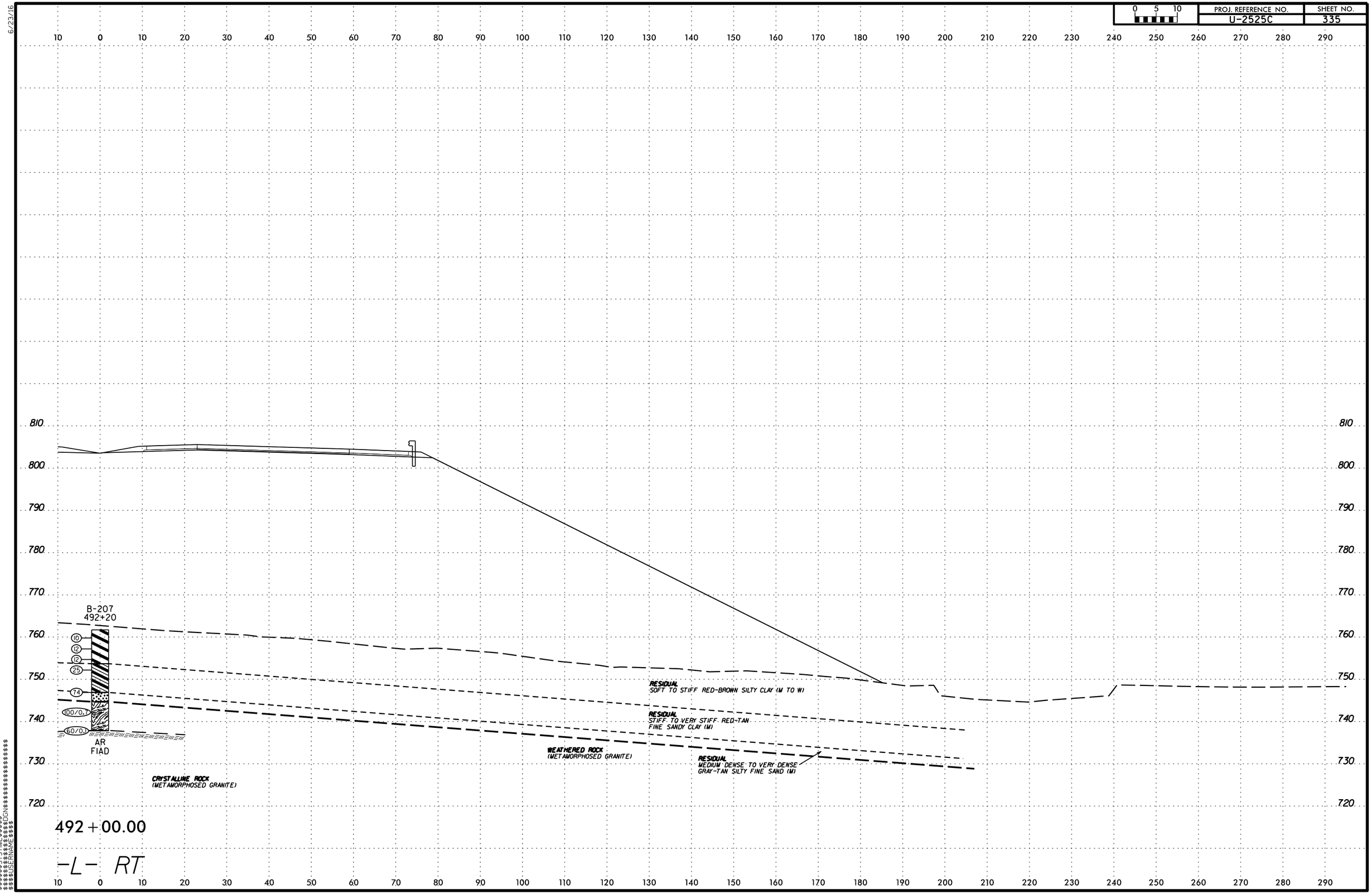
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	333



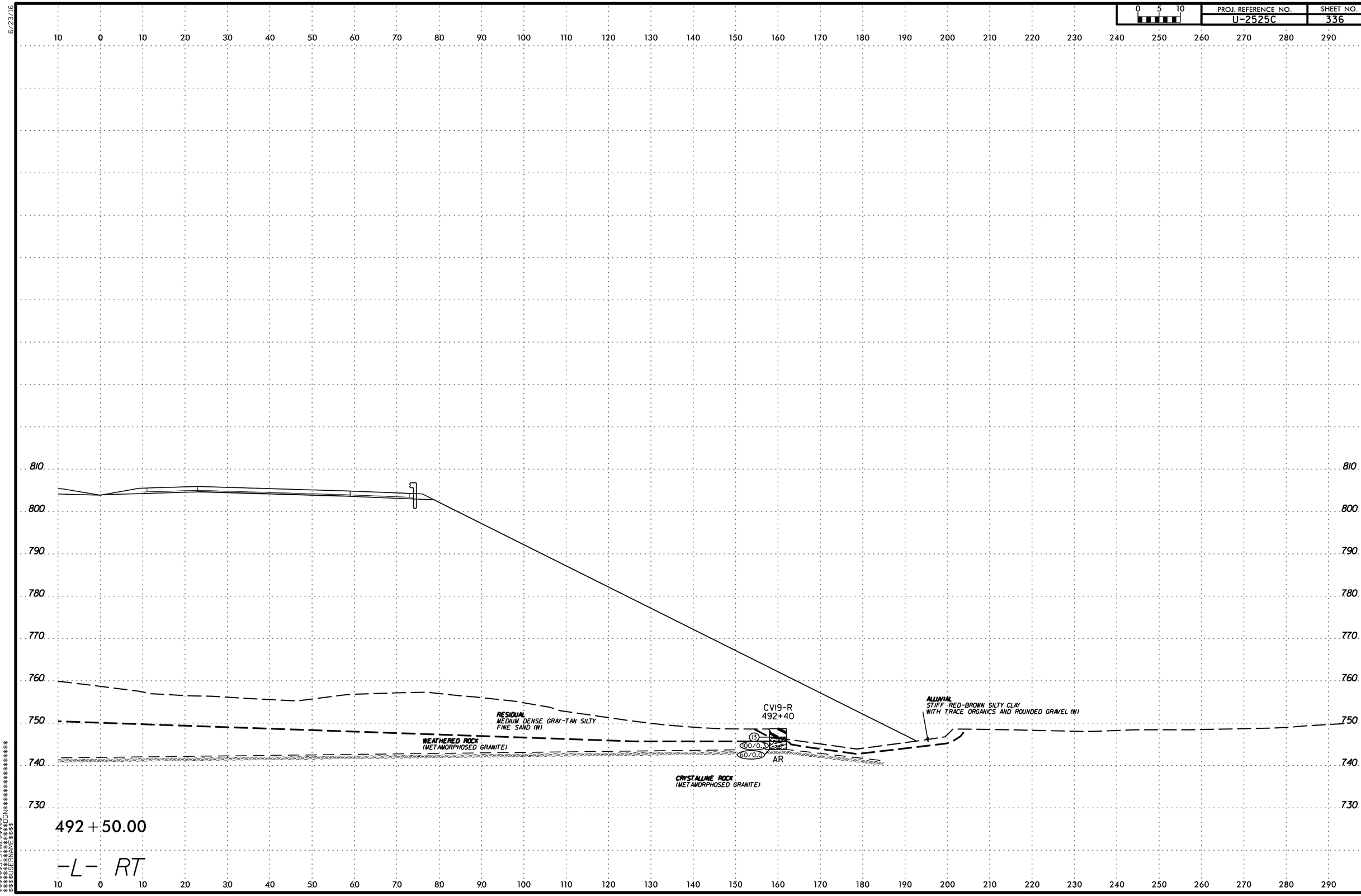
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
334
0 5 10
B-205
STA 490+20
B-206
490+20
RESIDUAL
SOFT TO STIFF RED-BROWN
SILTY CLAY (M TO W)
RESIDUAL
MEDIUM DENSE TO VERY DENSE GRAY-TAN
SILTY FINE SAND (D)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
01/16
BT
BT
FIAD
490+00.00
-L- RT



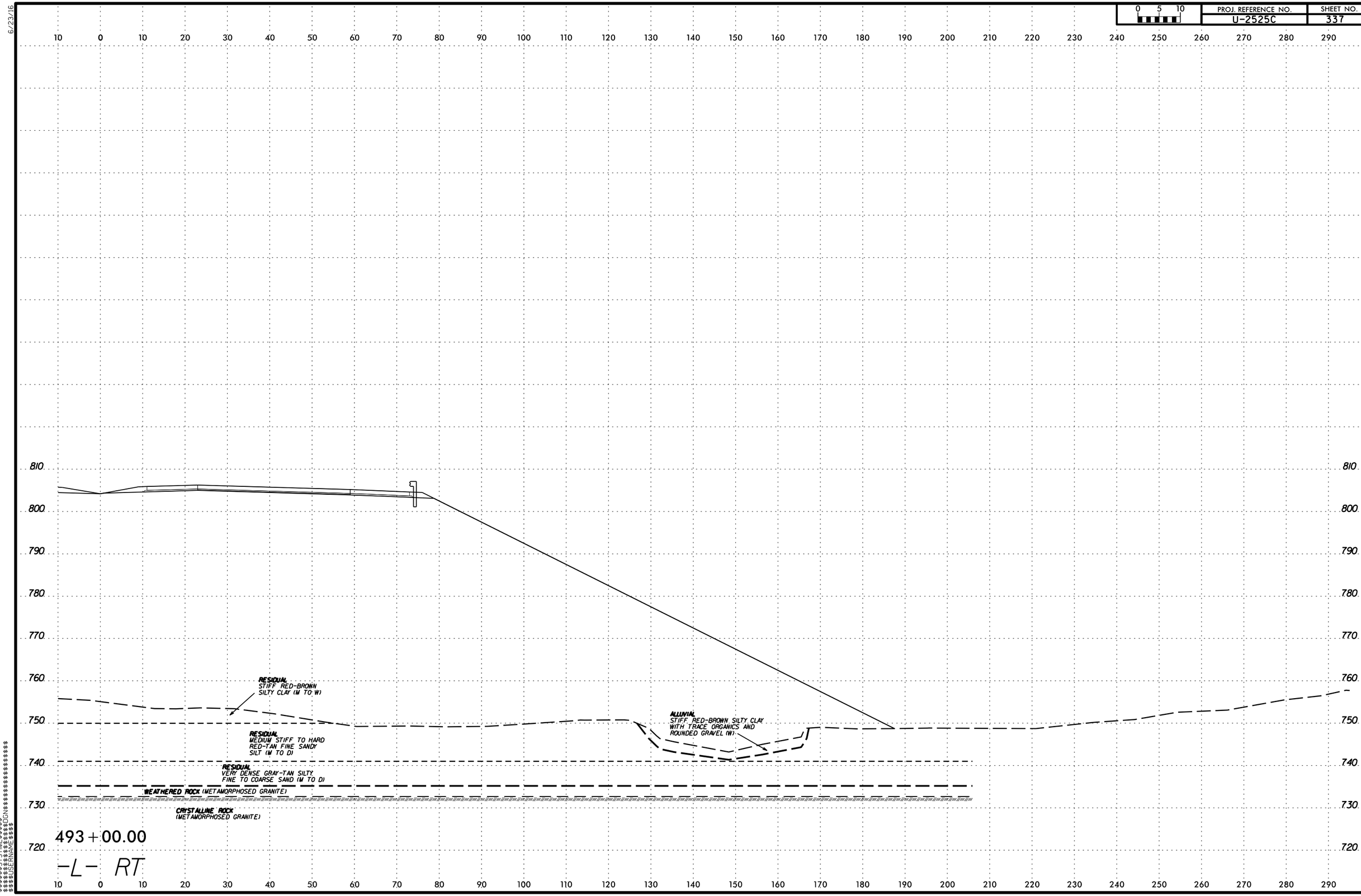
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
335
0 5 10
B-207
492+20
10
12
12
25
74
100/0.7
60/0.1
AR
FIAD
RESIDUAL
SOFT TO STIFF RED-BROWN SILTY CLAY (M TO W)
RESIDUAL
STIFF TO VERY STIFF RED-TAN
FINE SANDY CLAY (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
RESIDUAL
MEDIUM DENSE TO VERY DENSE
GRAY-TAN SILTY FINE SAND (M)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
492+00.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
336
0 5 10
810
800
790
780
770
760
750
740
730
CV19-R
492+40
13
100/0.3
60/0.0
AR
RESIDUAL
MEDIUM DENSE GRAY-TAN SILTY
FINE SAND (W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
ALLUVIAL
STIFF RED-BROWN SILTY CLAY
WITH TRACE ORGANICS AND ROUNDED GRAVEL (W)
492+50.00
-L- RT

6/23/16

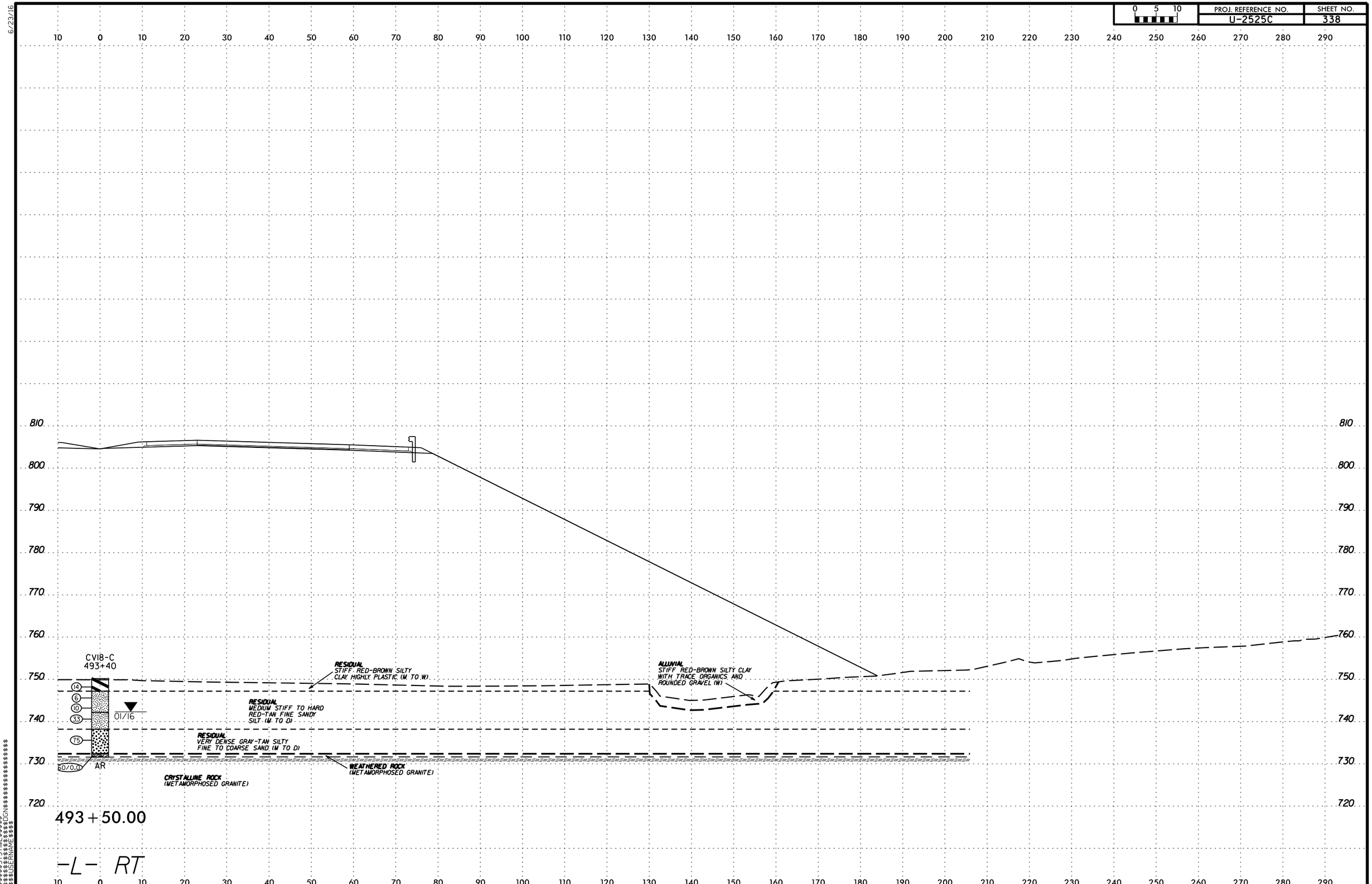
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	337



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN
$$$$$$USERNAME$$$$

6/23/16

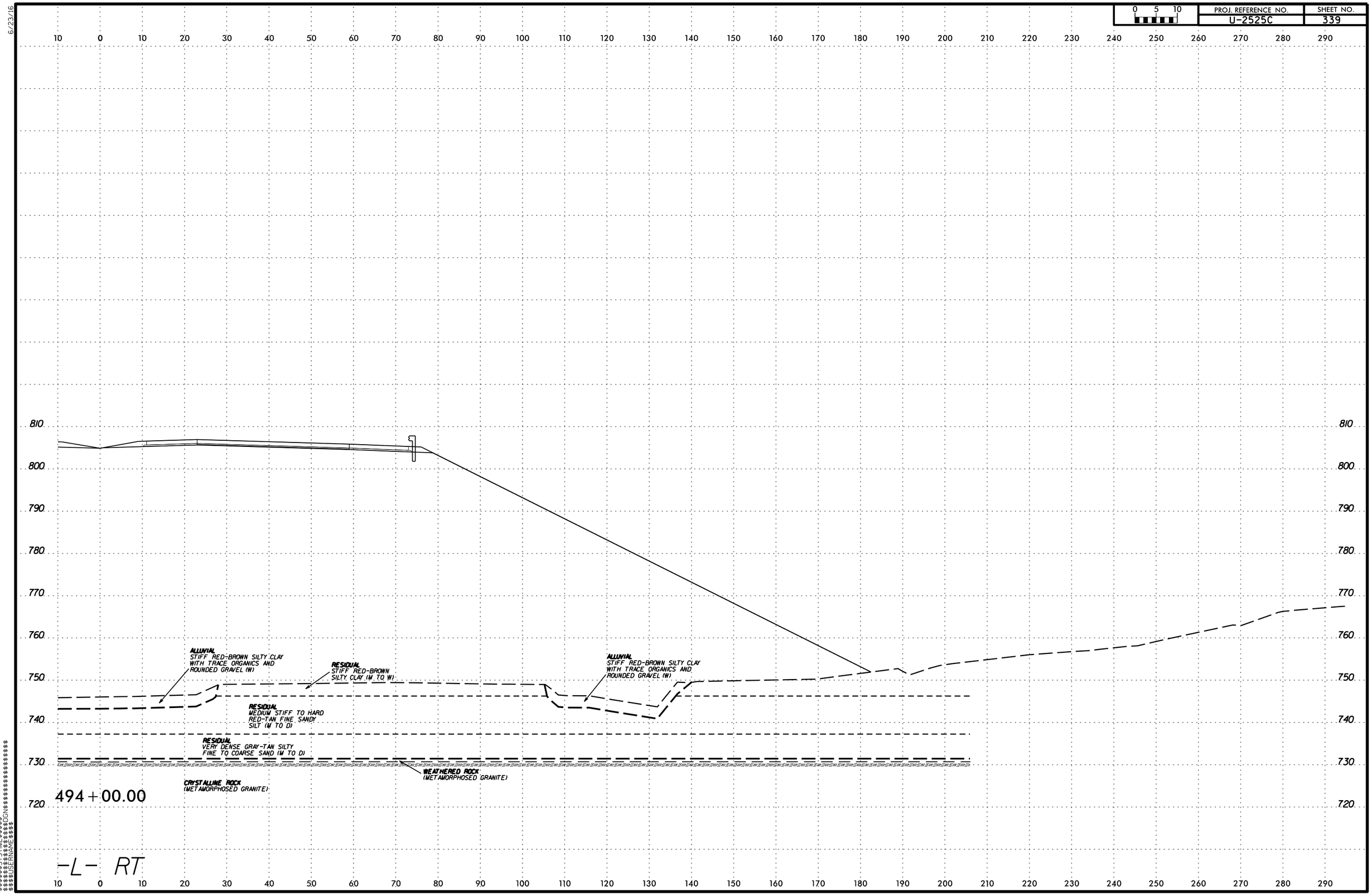
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	338



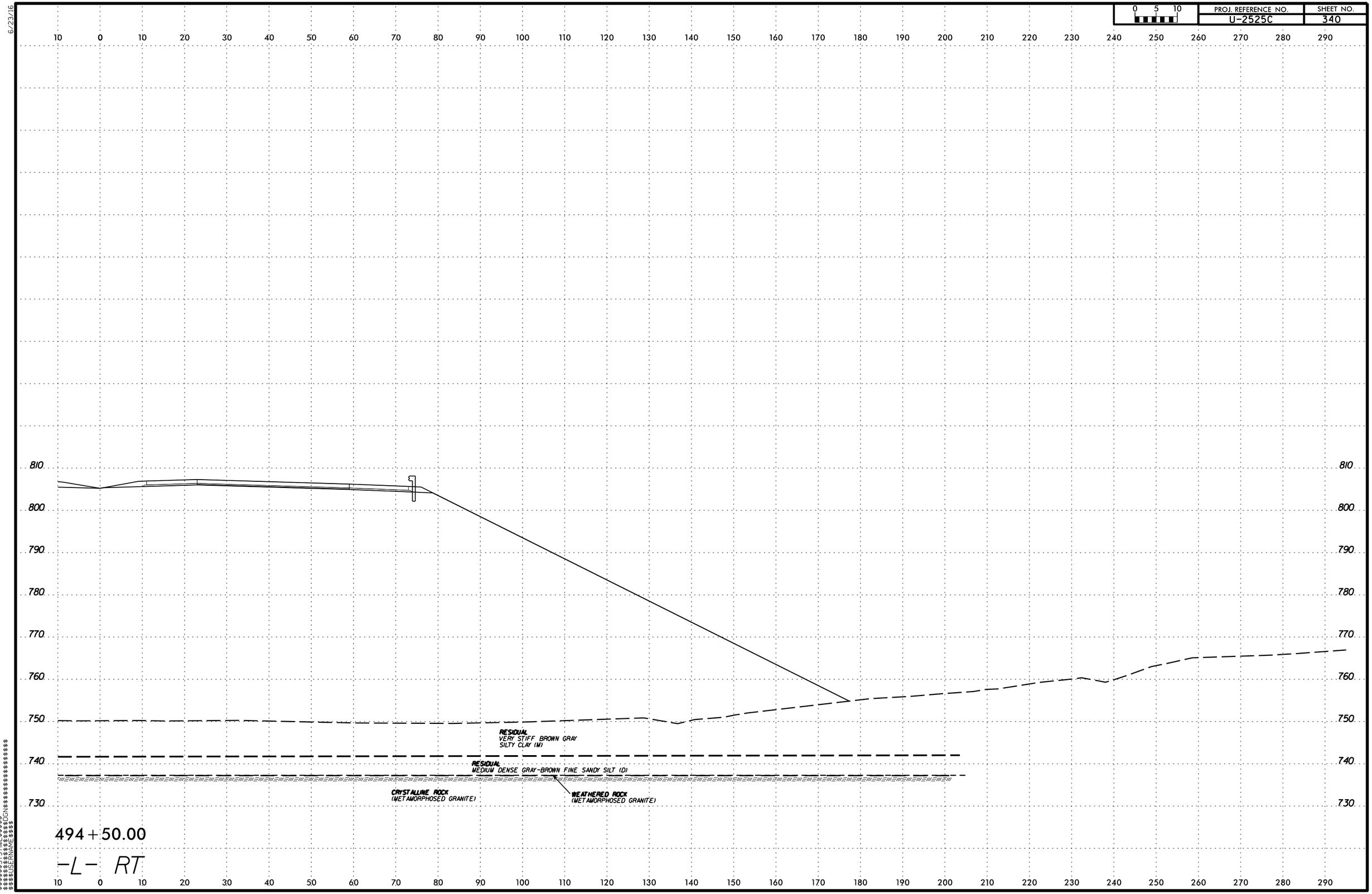
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	339



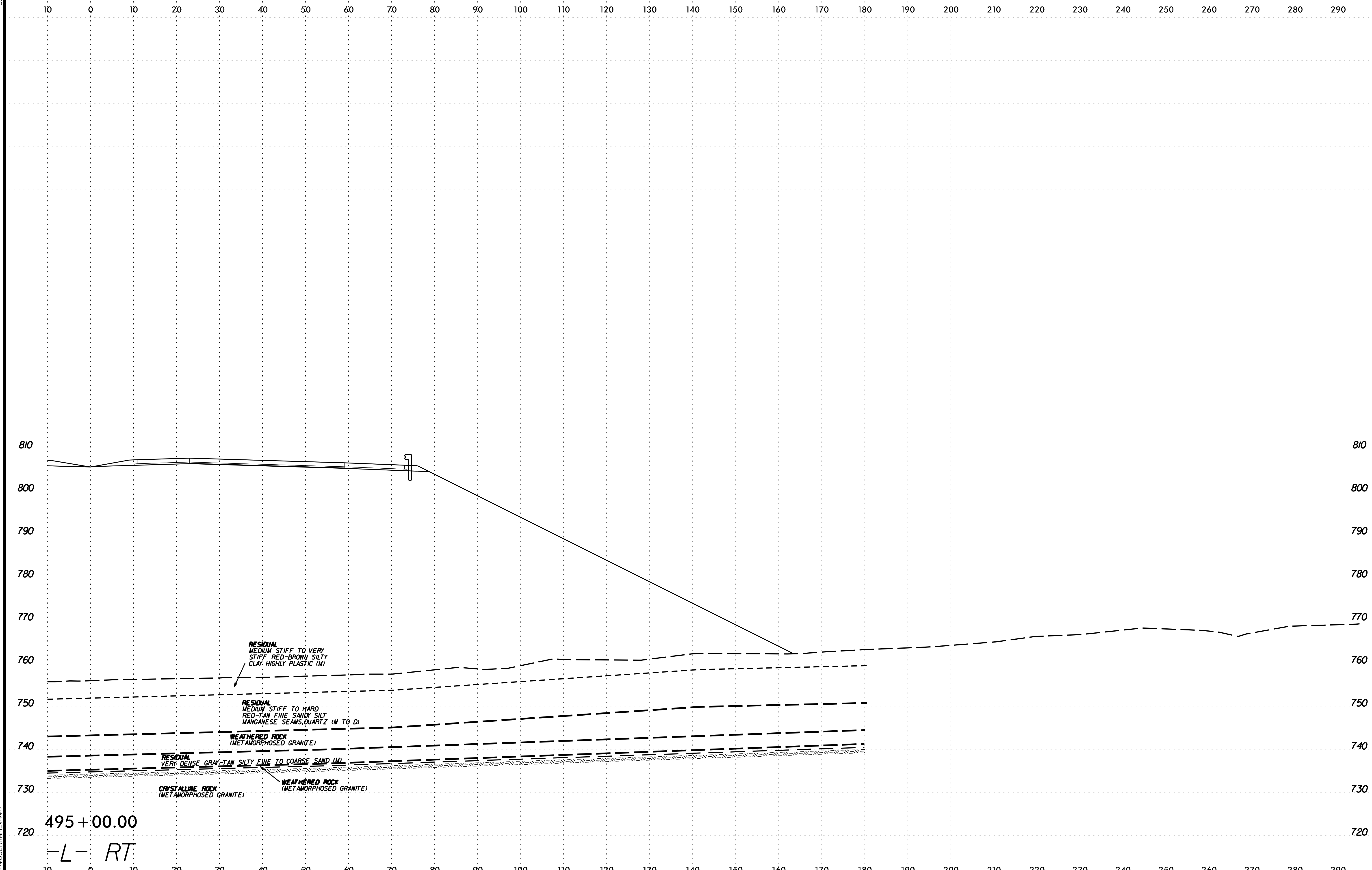
$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

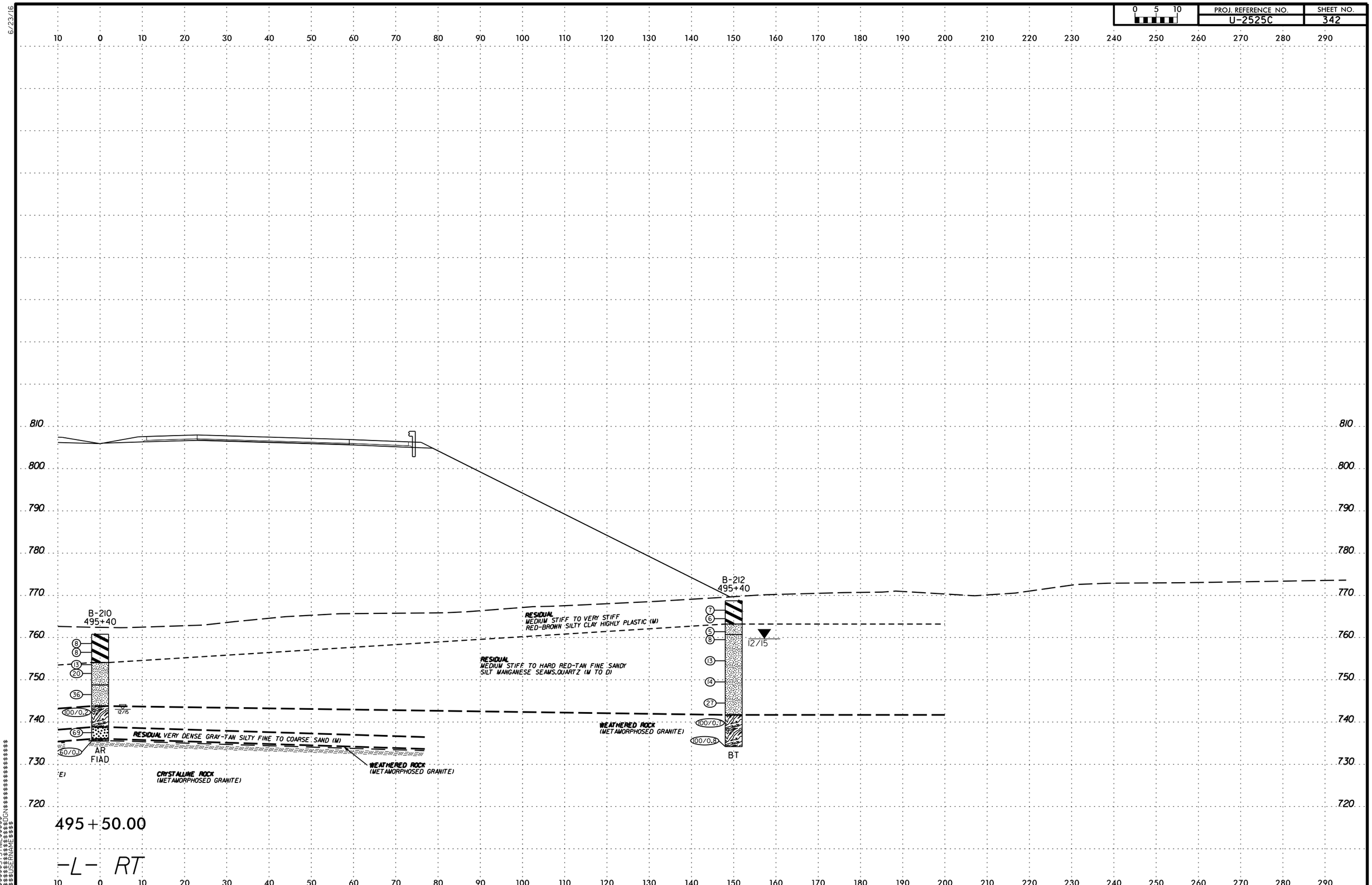


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
340
0 5 10
810
800
790
780
770
760
750
740
730
RESIDUAL
VERY STIFF BROWN GRAY
SILTY CLAY (M)
RESIDUAL
MEDIUM DENSE GRAY-BROWN FINE SANDY SILT (D)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
494+50.00
-L- RT

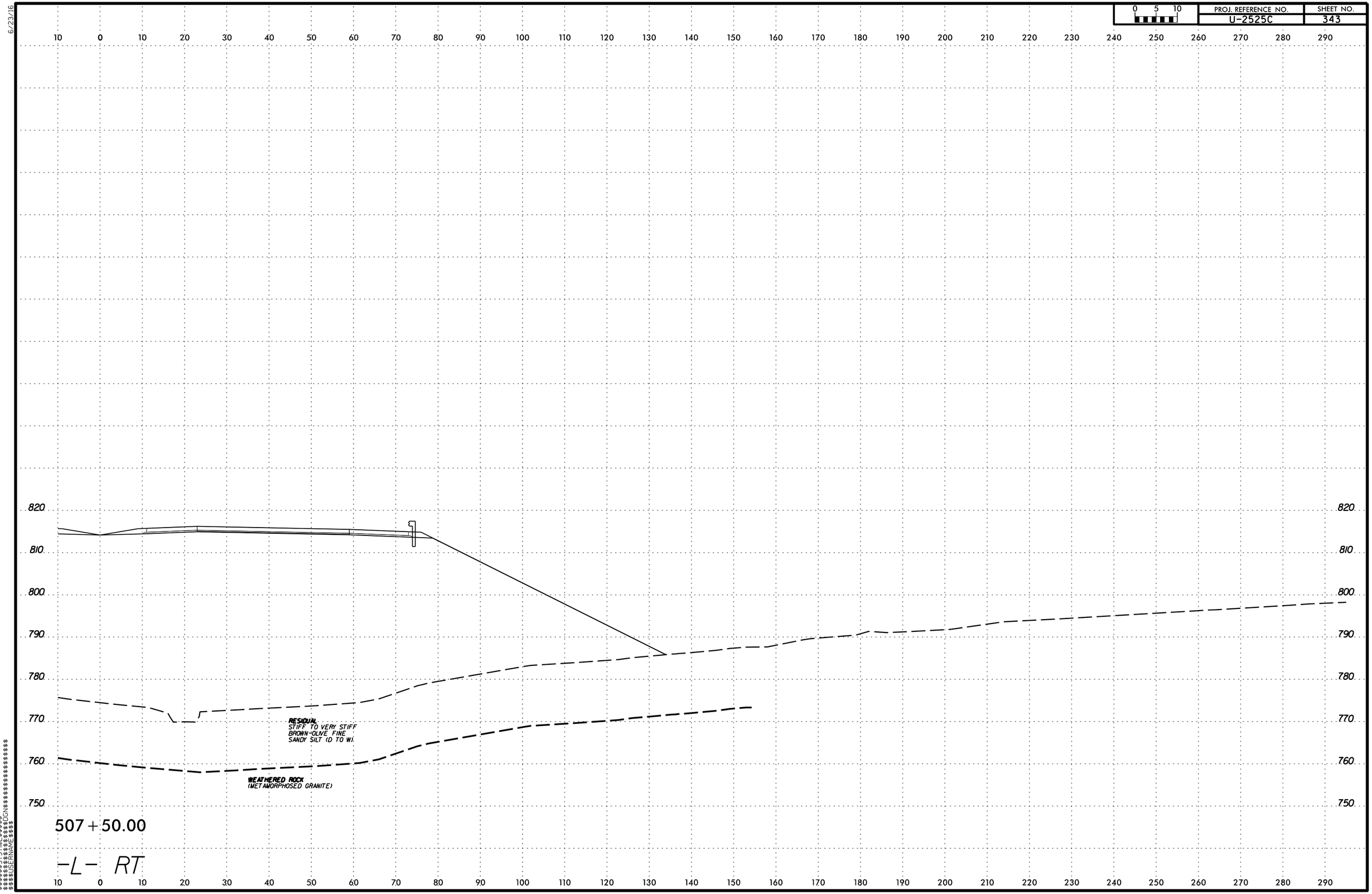
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	341

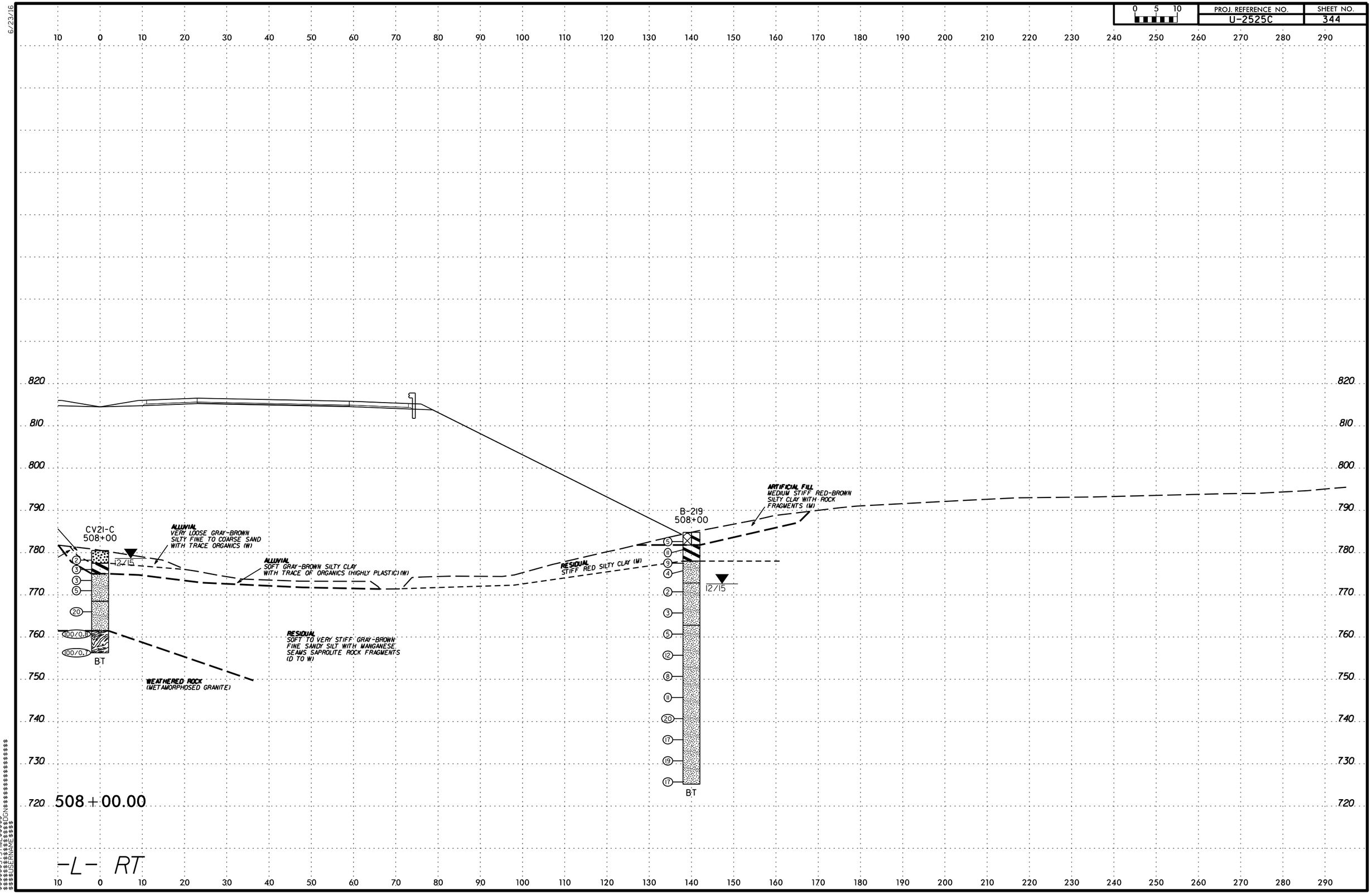




PROJ. REFERENCE NO.
U-2525C
SHEET NO.
342
0 5 10
B-210
495+40
B-212
495+40
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED-BROWN SILTY CLAY HIGHLY PLASTIC (M)
RESIDUAL
MEDIUM STIFF TO HARD RED-TAN FINE SANDY
SILT MANGANESE SEAMS,QUARTZ (M TO D)
RESIDUAL VERY DENSE GRAY-TAN SILTY FINE TO COARSE SAND (M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
12/15
AR
FIAD
BT
495+50.00
-L- RT

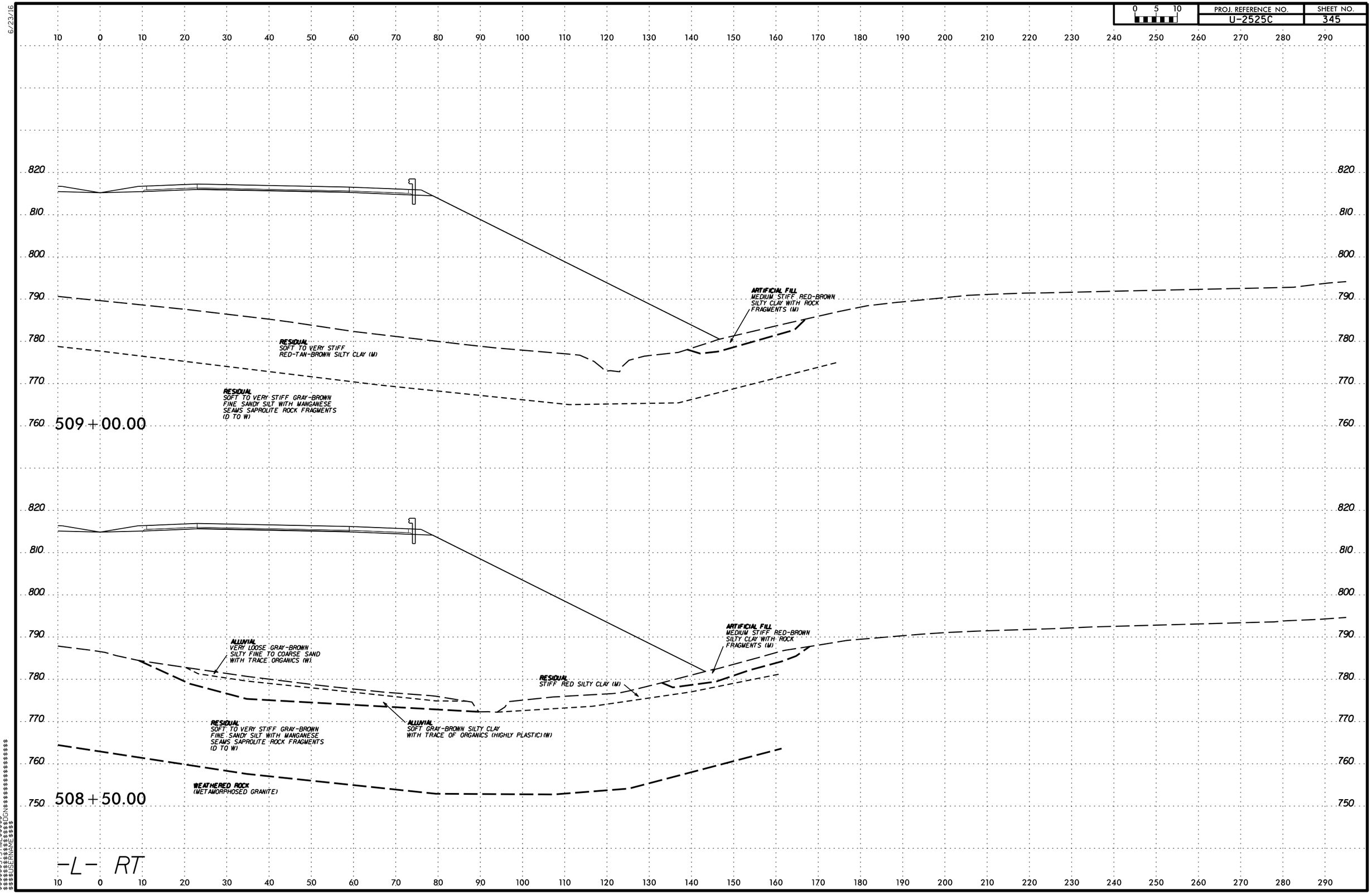


0 5 10
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
343
6/23/16
820
810
800
790
780
770
760
750
RESIDUAL
STIFF TO VERY STIFF
BROWN-OLIVE FINE
SANDY SILT (D TO W).
WEATHERED ROCK
(METAMORPHOSED GRANITE)
507+50.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
344
0 5 10
CV21-C
508+00
ALLUVIAL
VERY LOOSE GRAY-BROWN SILTY FINE TO COARSE SAND WITH TRACE ORGANICS (W)
ALLUVIAL
SOFT GRAY-BROWN SILTY CLAY WITH TRACE OF ORGANICS (HIGHLY PLASTIC) (W)
RESIDUAL
STIFF RED SILTY CLAY (M)
ARTIFICIAL FILL
MEDIUM STIFF RED-BROWN SILTY CLAY WITH ROCK FRAGMENTS (M)
B-219
508+00
12/15
RESIDUAL
SOFT TO VERY STIFF GRAY-BROWN FINE SANDY SILT WITH MANGANESE SEAMS SAPROLITE ROCK FRAGMENTS (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
BT
508+00.00
-L- RT

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	345

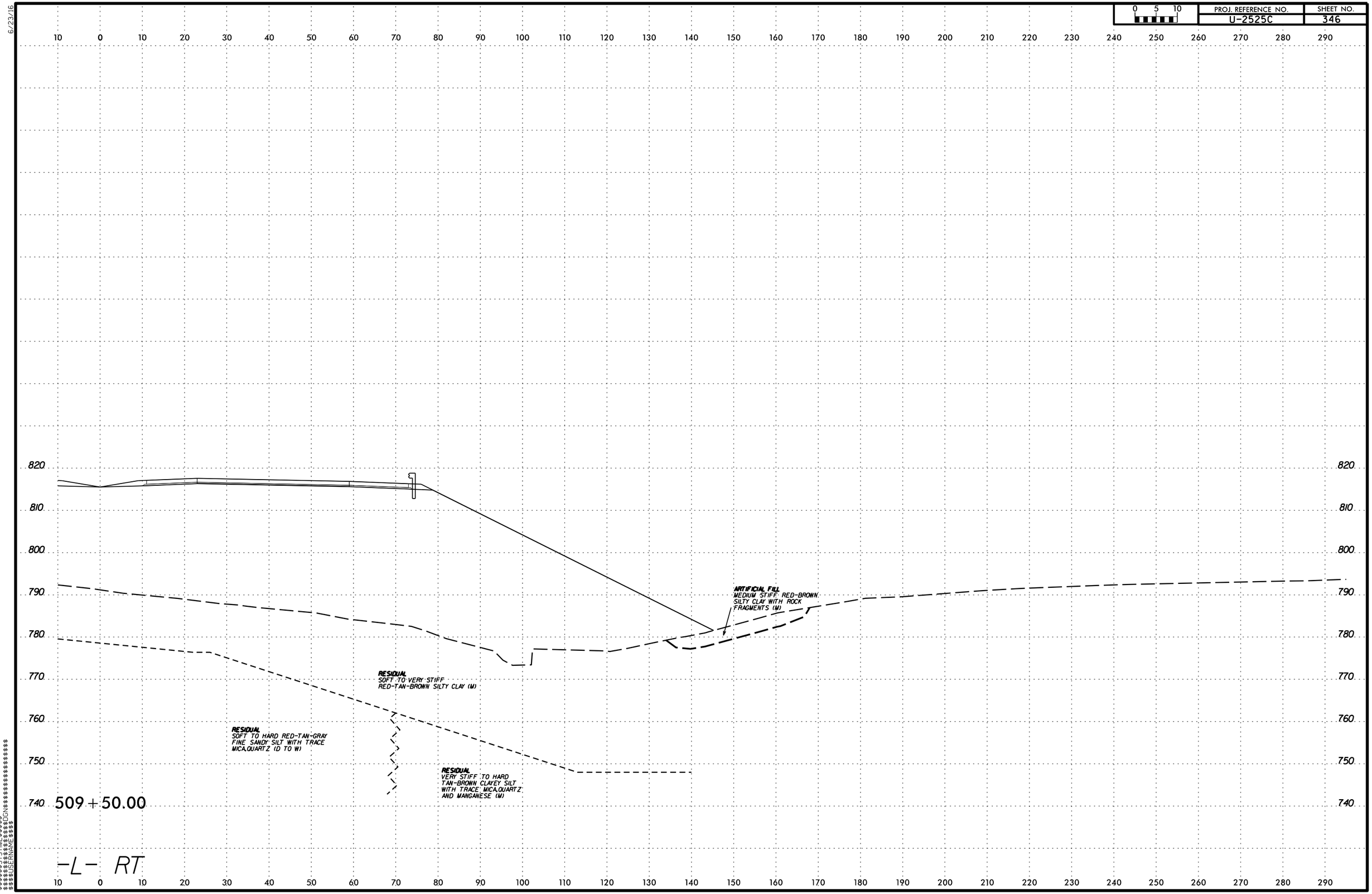


6/23/16

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

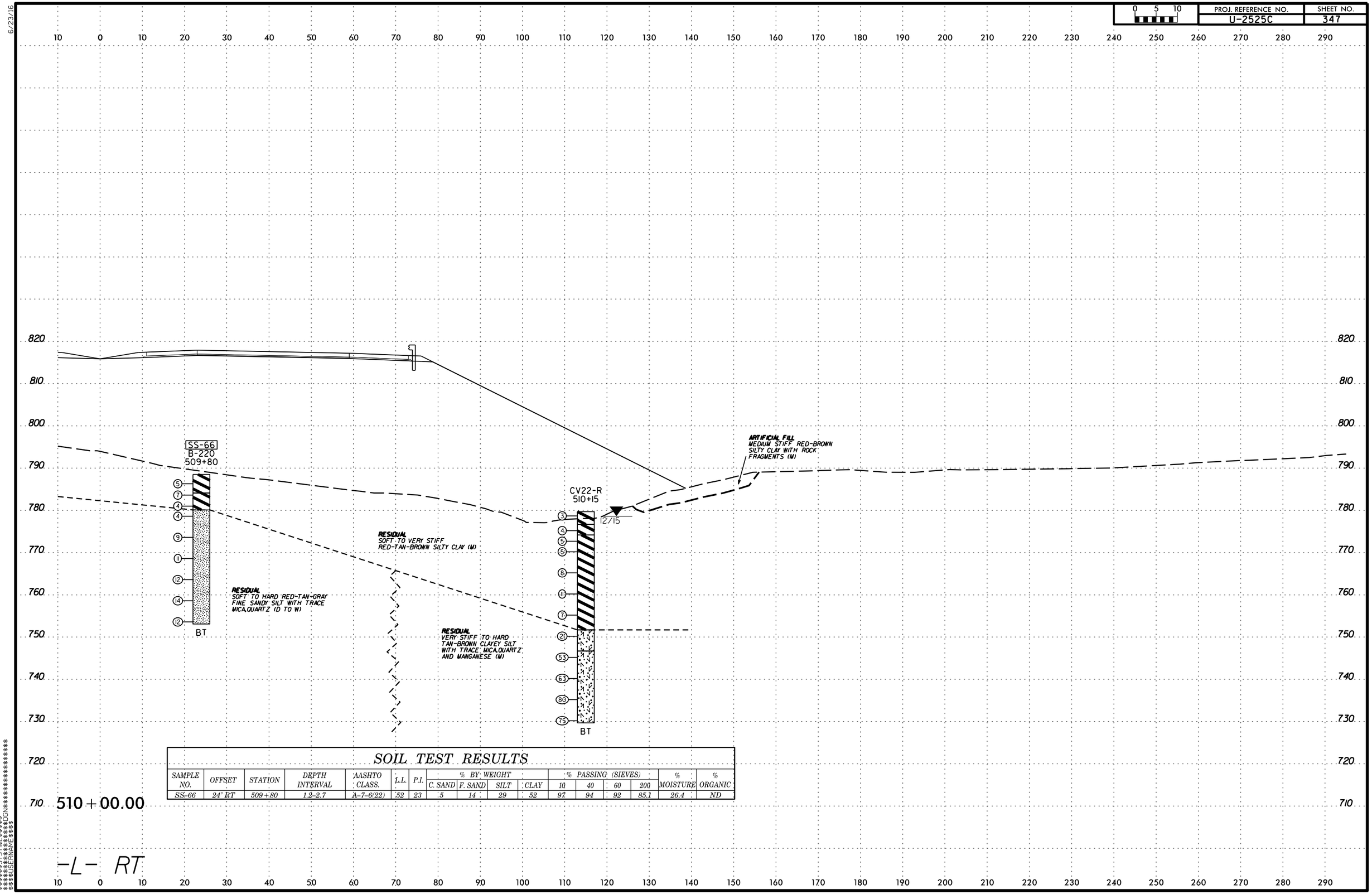
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	346



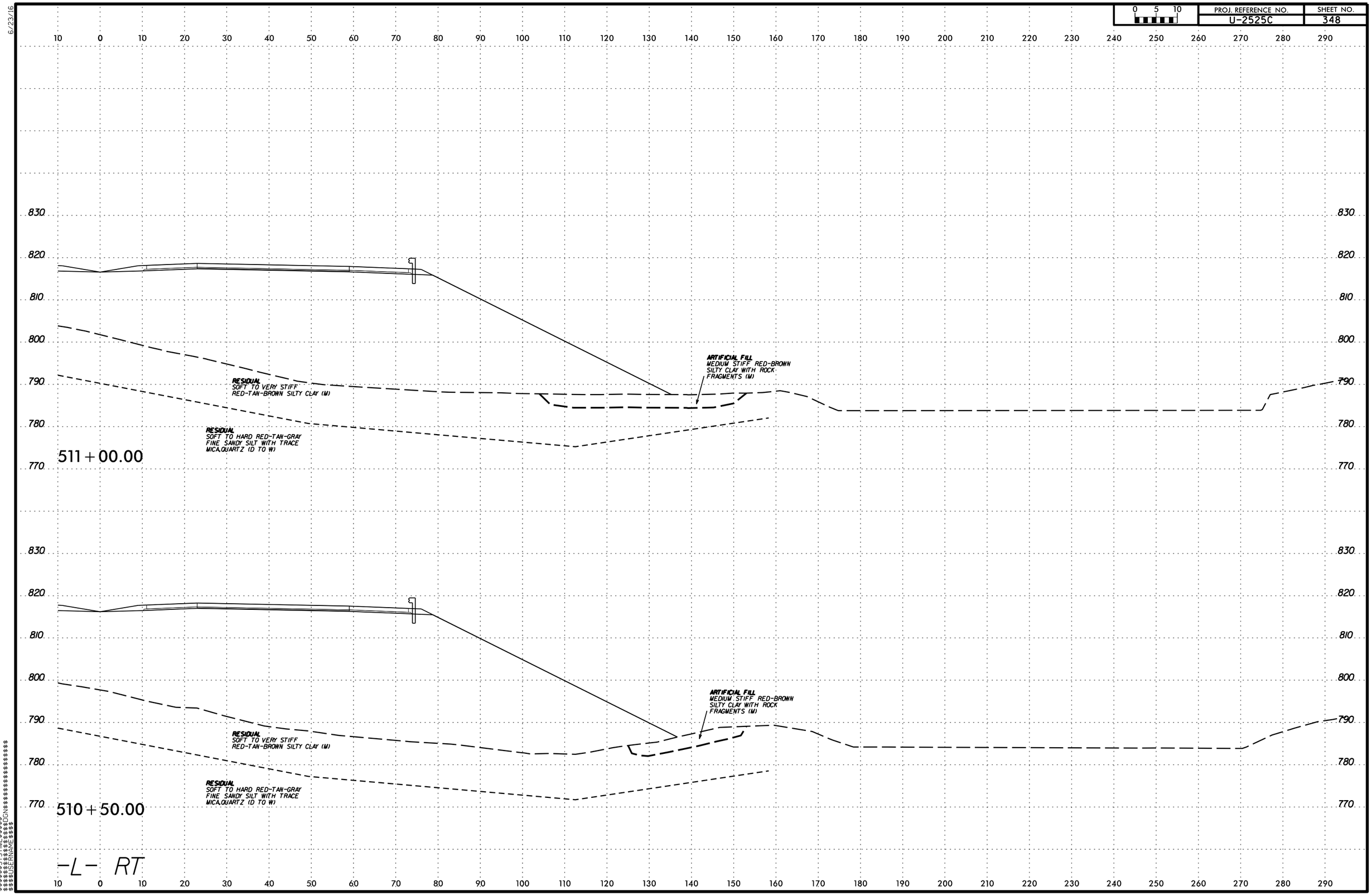
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 347



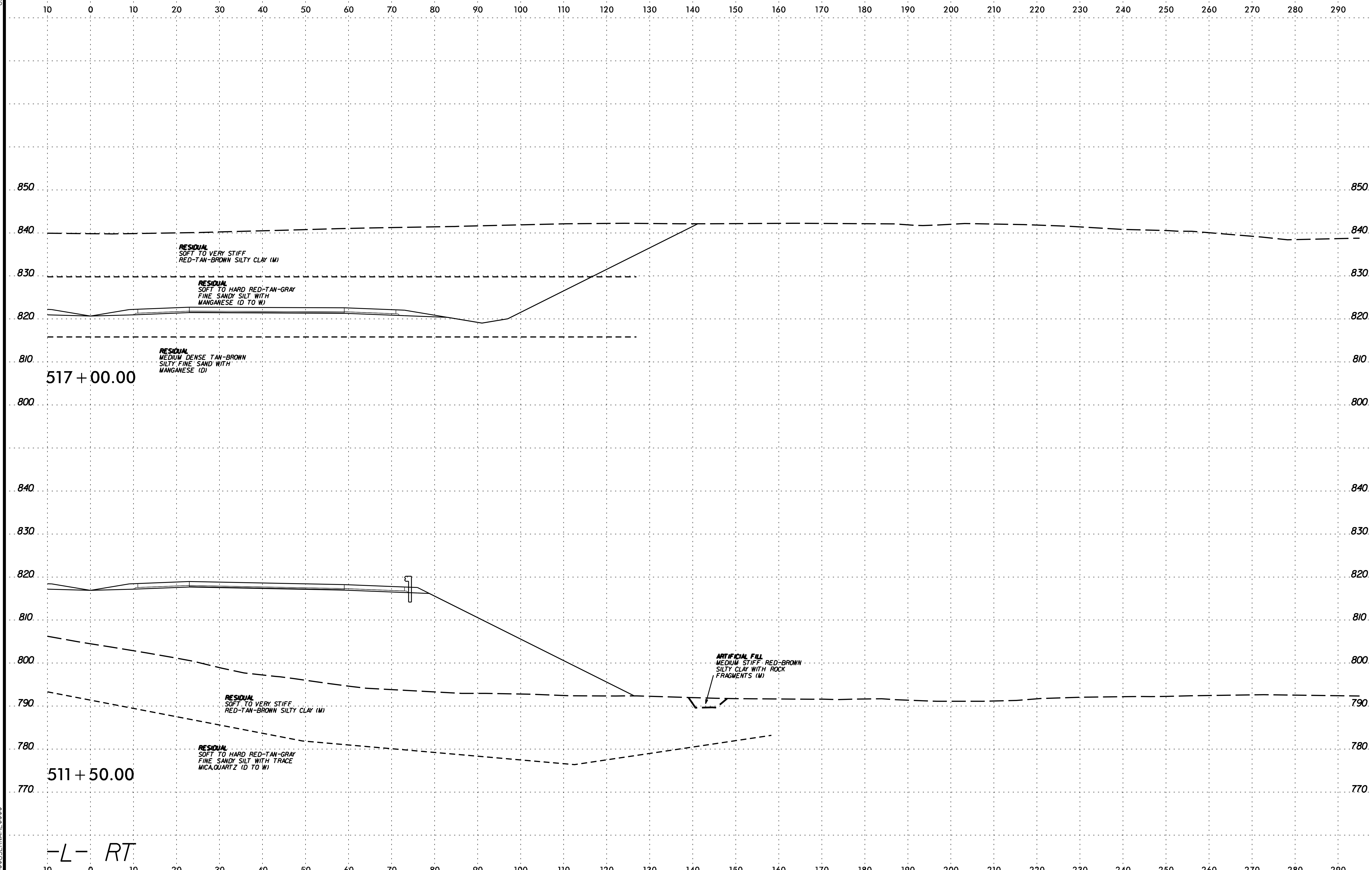
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-66	24' RT	509+80	1.2-2.7	A-7-6(22)	52	23	5	14	29	52	97	94	92	85.1	26.4	ND



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
348
0 5 10
511+00.00
510+50.00
ARTIFICIAL FILL
MEDIUM STIFF RED-BROWN SILTY CLAY WITH ROCK FRAGMENTS (M)
RESIDUAL
SOFT TO VERY STIFF RED-TAN-BROWN SILTY CLAY (M)
RESIDUAL
SOFT TO HARD RED-TAN-GRAY FINE SANDY SILT WITH TRACE MICA,QUARTZ (D TO W)
-L- RT

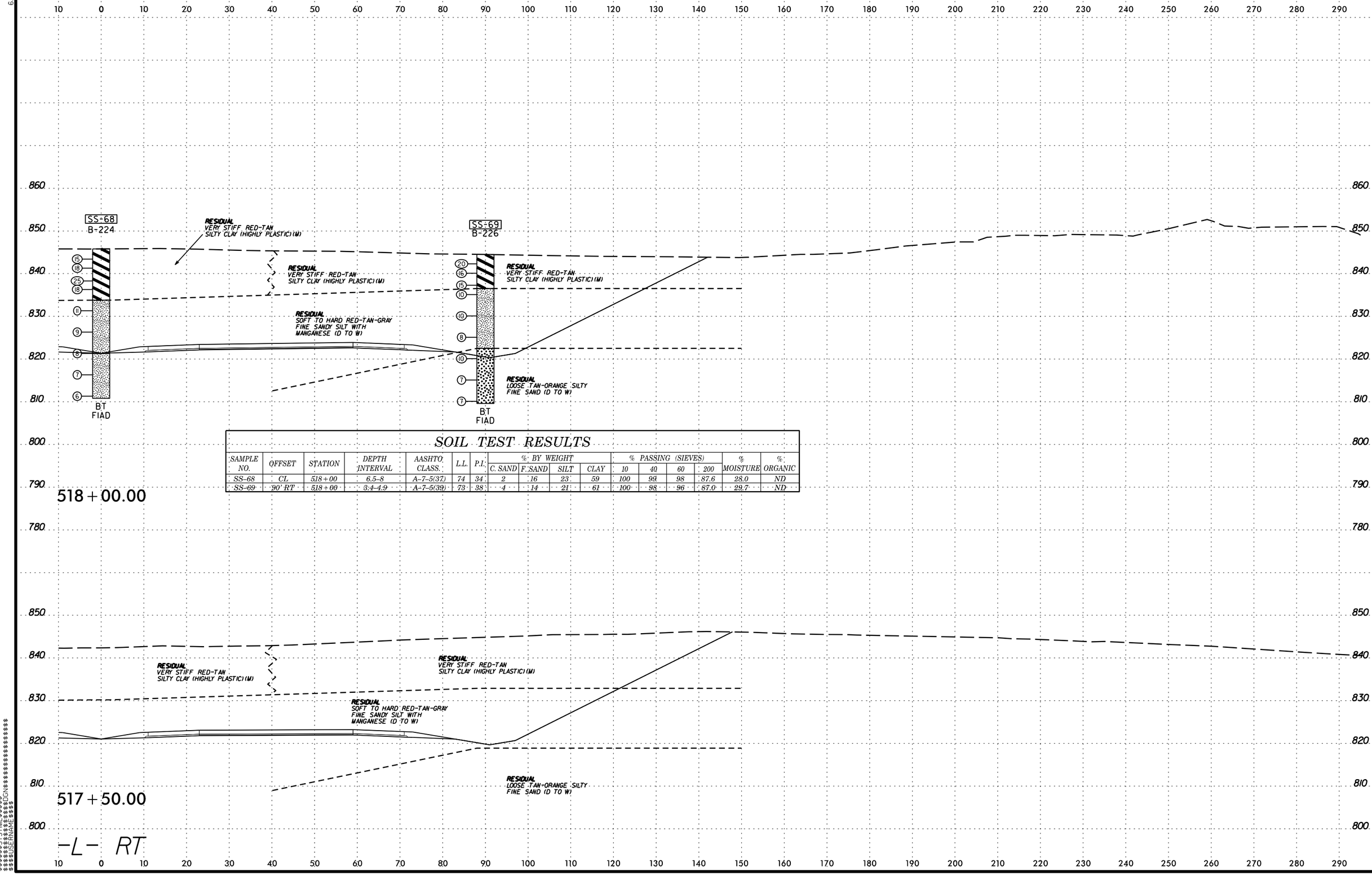
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	349



6/23/16

$$$$$SYSTIME$$$$$ $$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 350

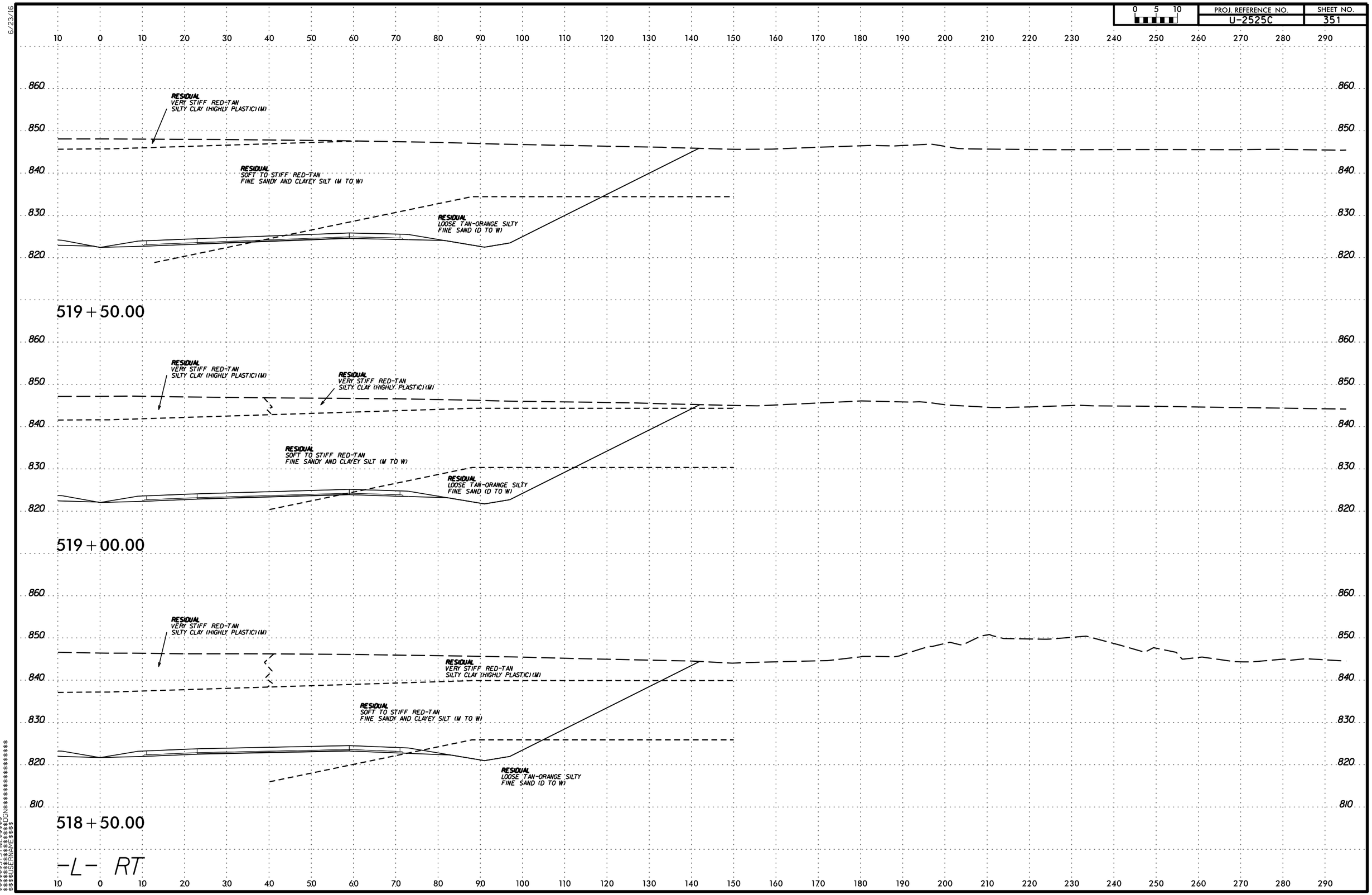


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-68	CL	518+00	6.5-8	A-7-5(37)	74	34	2	16	23	59	100	99	98	87.6	28.0	ND
SS-69	90' RT	518+00	3.4-4.9	A-7-5(39)	73	38	4	14	21	61	100	98	96	87.0	29.7	ND

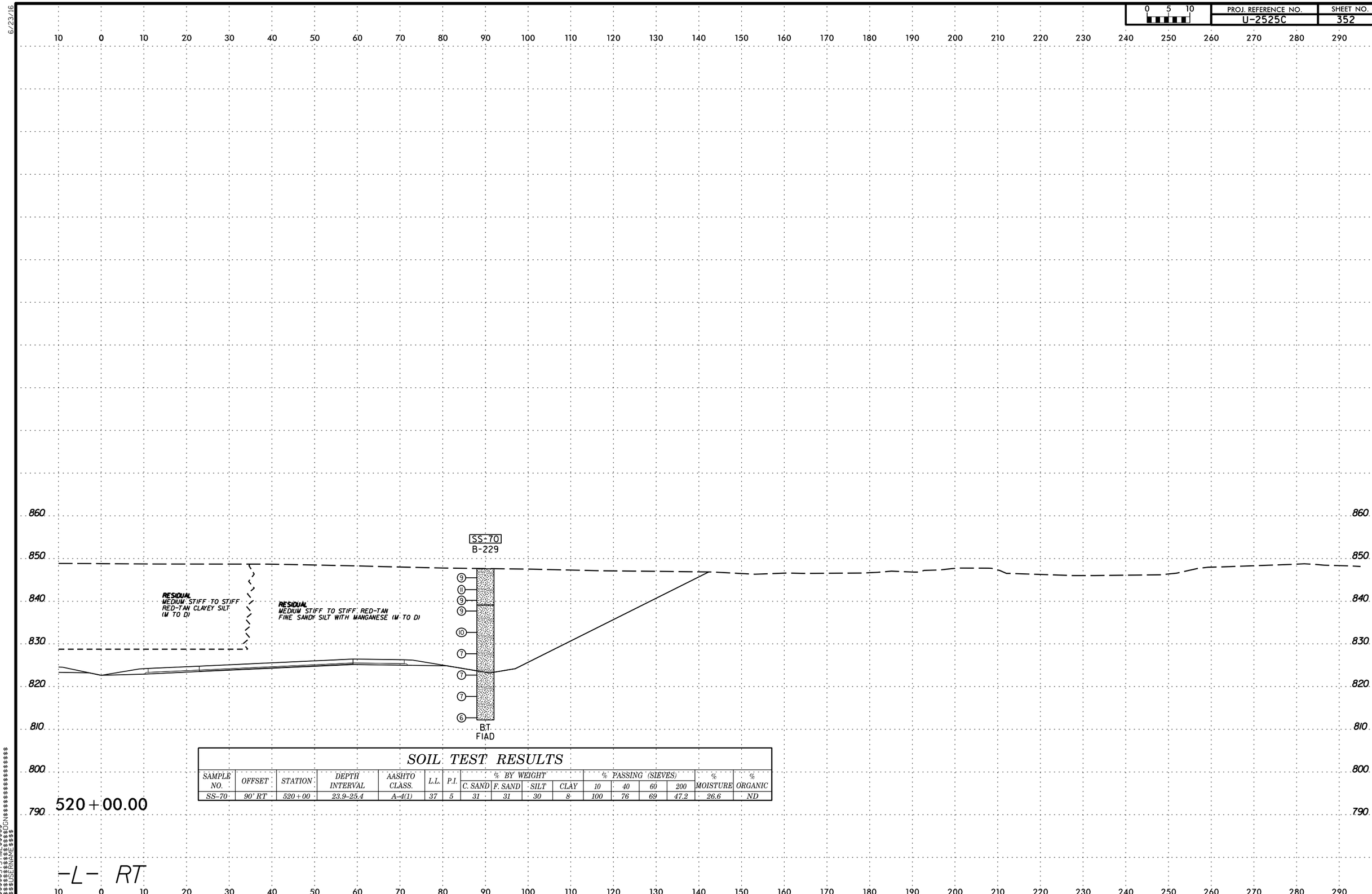
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	351



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

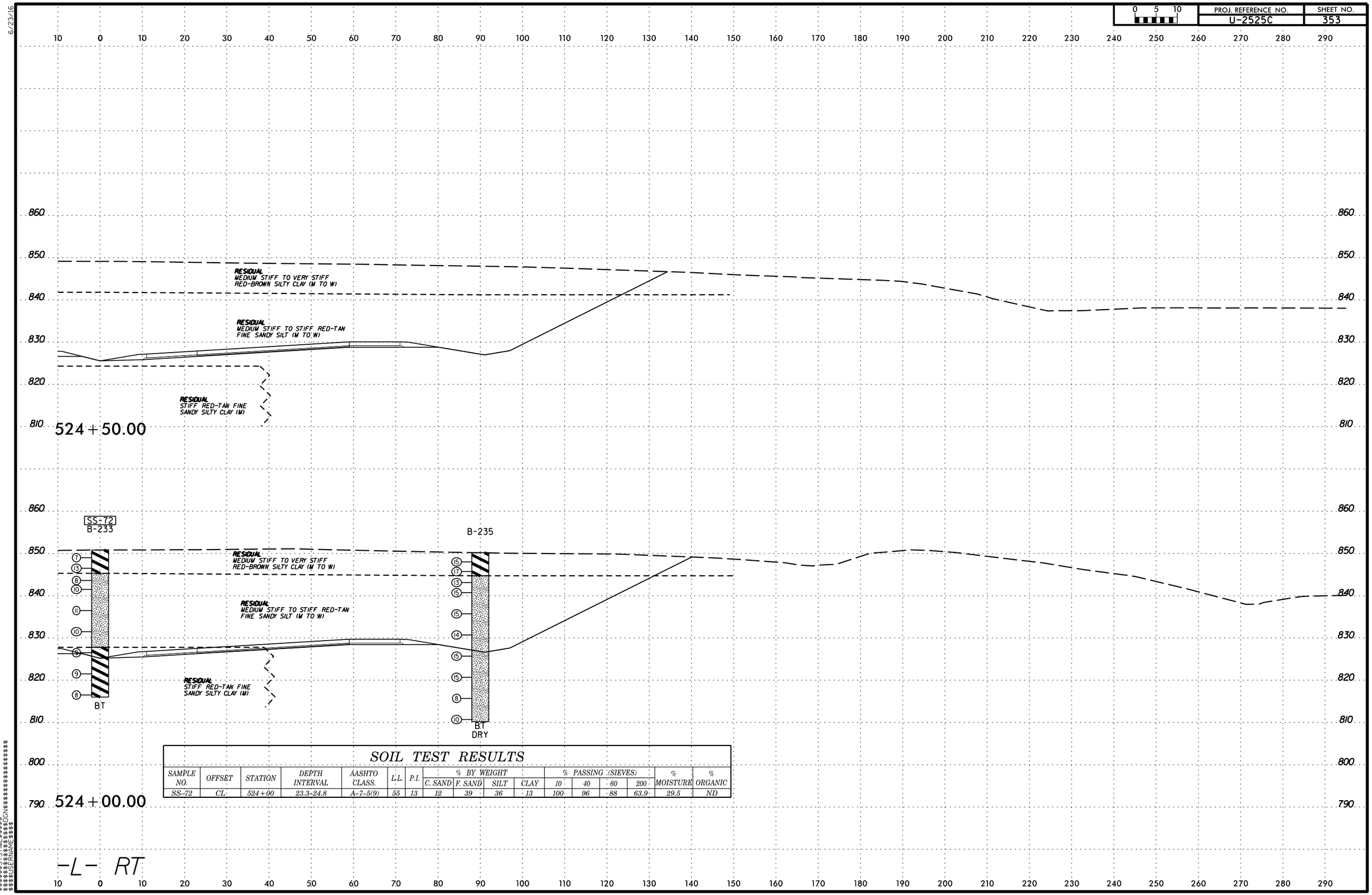
PROJ. REFERENCE NO. U-2525C
SHEET NO. 352



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-70	90' RT	520+00	23.9-25.4	A-4(1)	37	5	31	31	30	8	100	76	69	47.2	26.6	ND

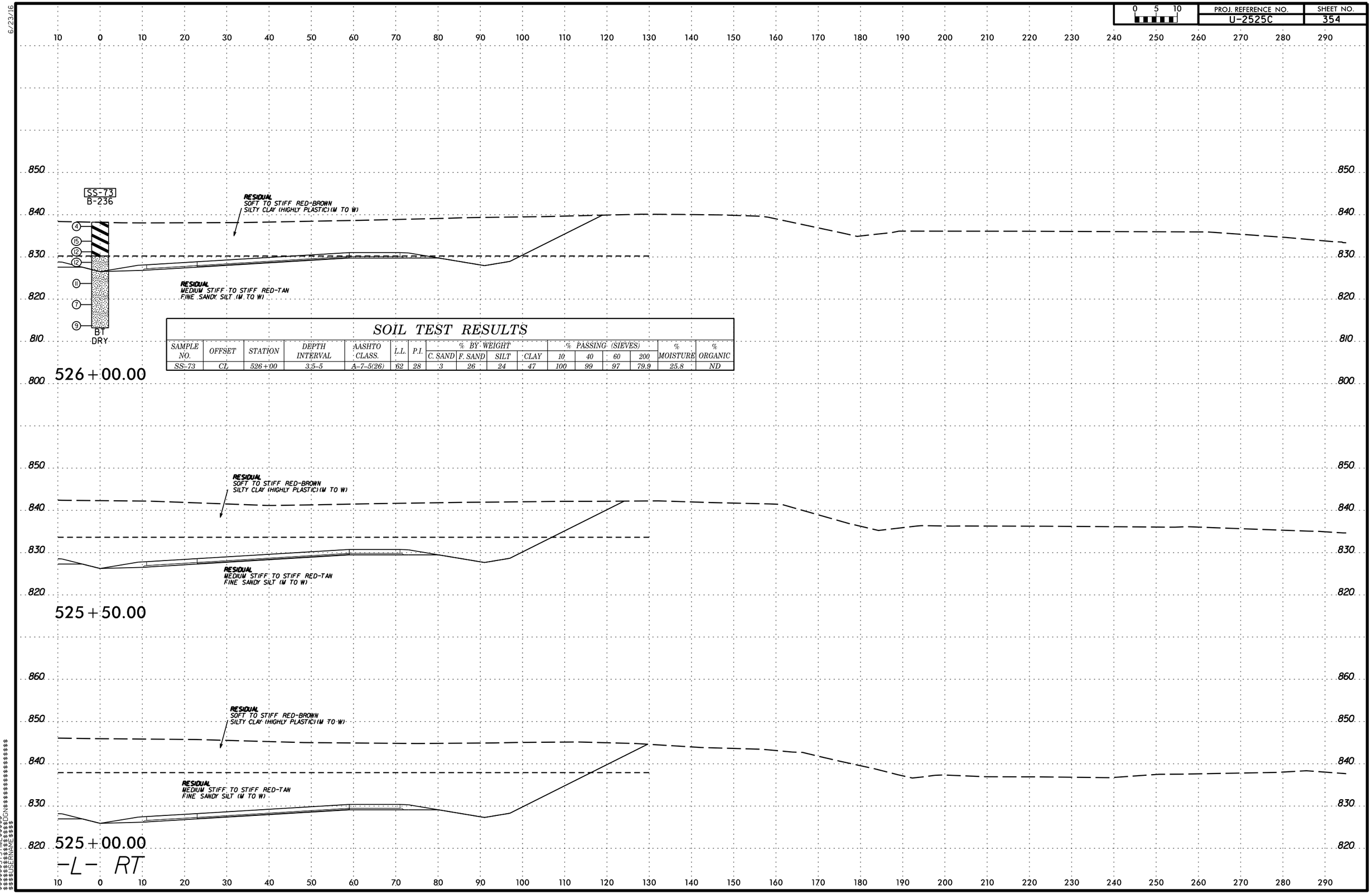
PROJ. REFERENCE NO. U-2525C | SHEET NO. 353



SOIL TEST RESULTS

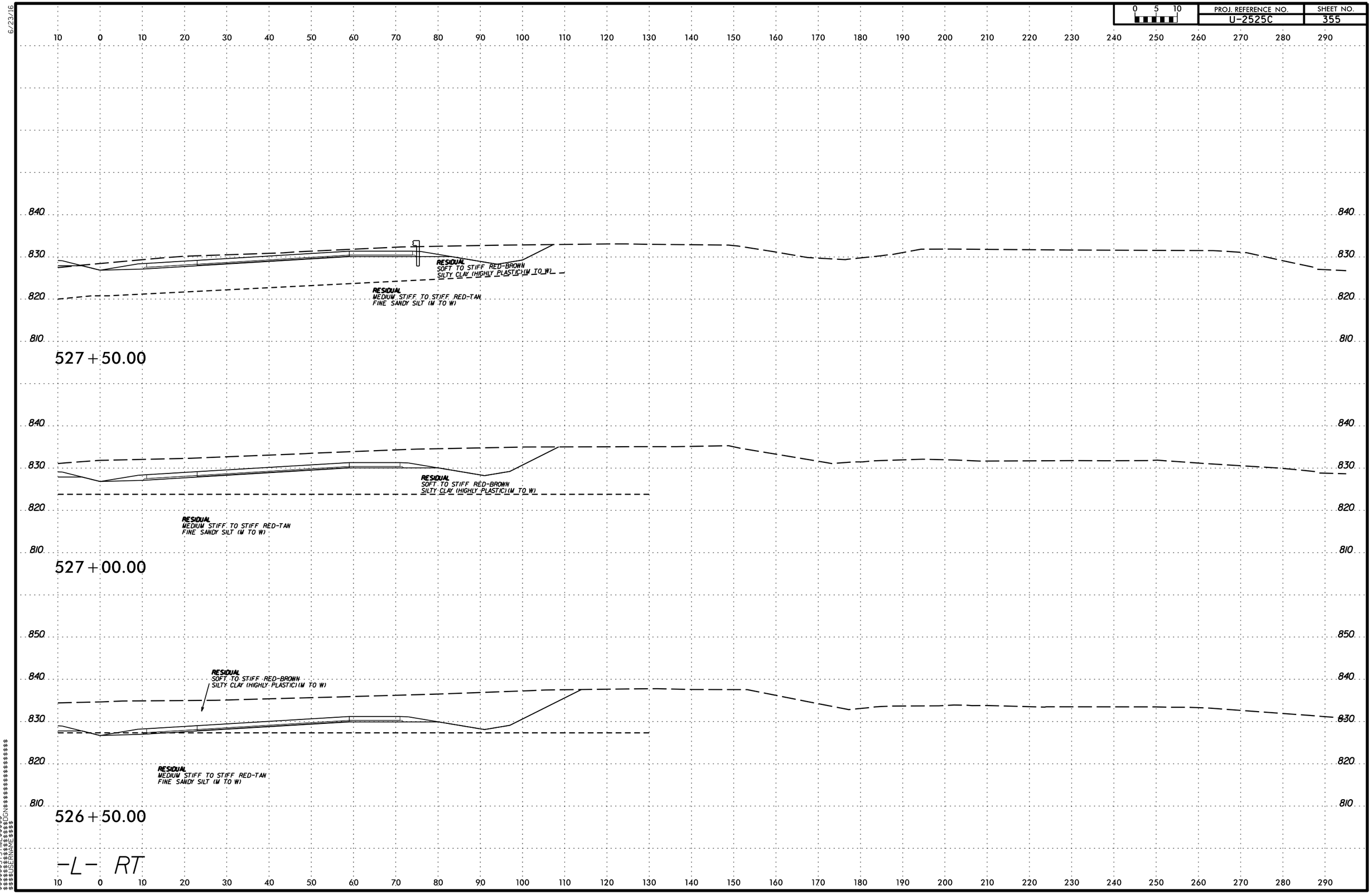
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-72	CL	524+00	23.3-24.8	A-7-5(9)	55	13	12	39	36	13	100	96	88	63.9	29.5	ND

PROJ. REFERENCE NO. U-2525C | SHEET NO. 354

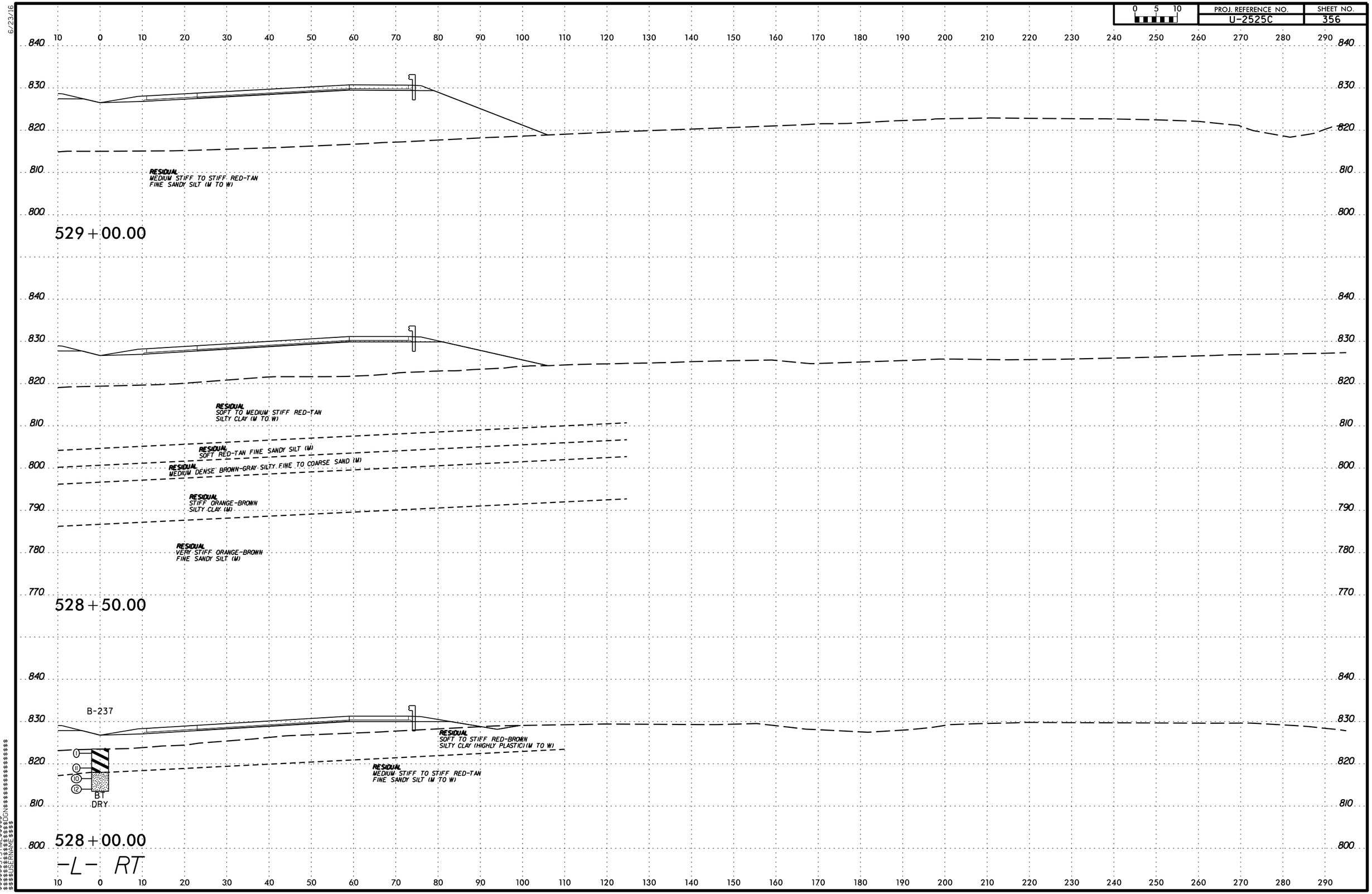


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-73	CL	526+00	3.5-5	A-7-5(26)	62	28	3	26	24	47	100	99	97	79.9	25.8	ND

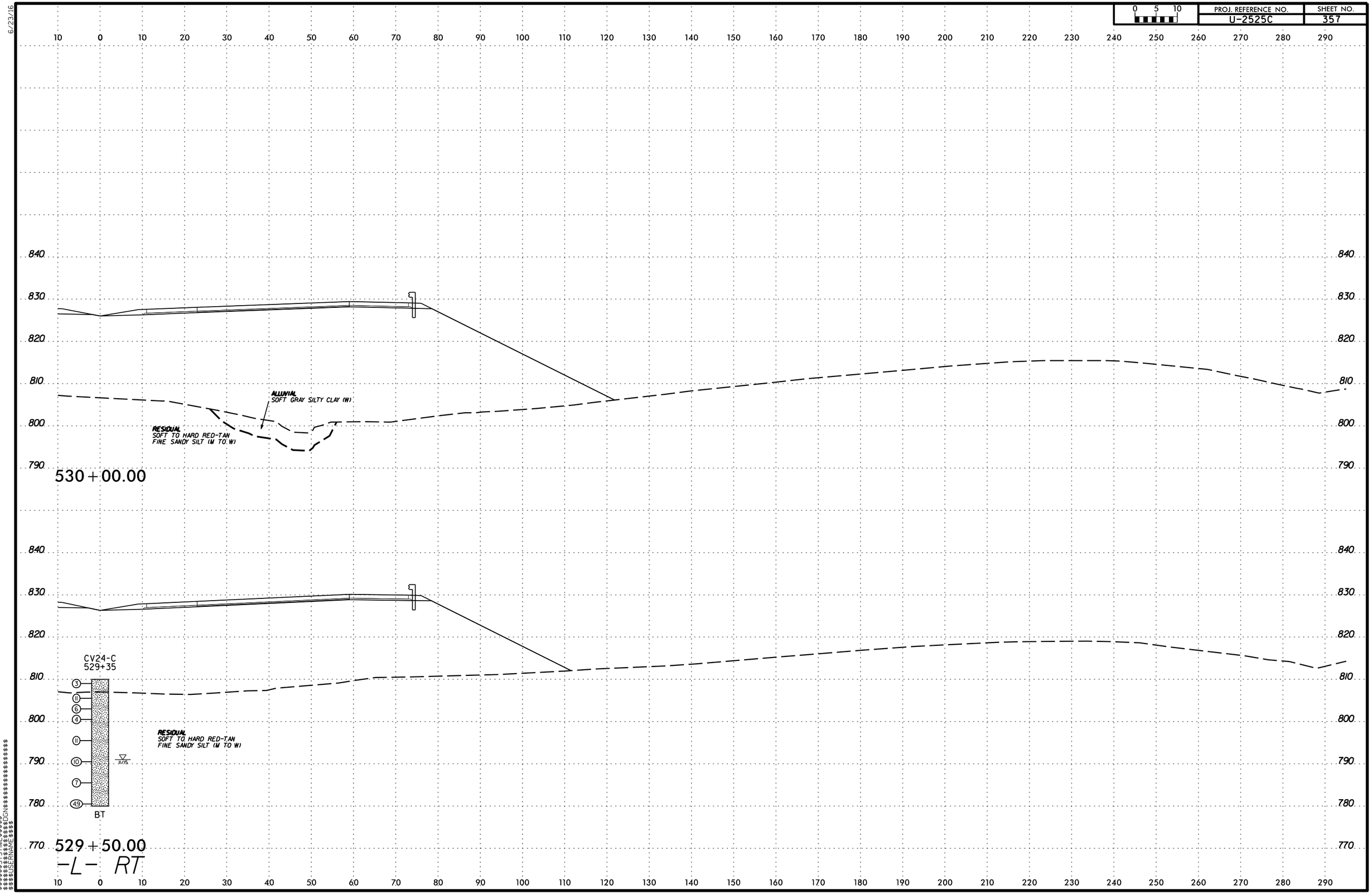


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
355
0 5 10
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290
840
830
820
810
RESIDUAL
SOFT TO STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC)(M TO W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN
FINE SANDY SILT (M TO W)
527+50.00
RESIDUAL
SOFT TO STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC)(M TO W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN
FINE SANDY SILT (M TO W)
527+00.00
850
RESIDUAL
SOFT TO STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC)(M TO W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN
FINE SANDY SILT (M TO W)
526+50.00
-L- RT



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
356
0 5 10
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN
FINE SANDY SILT (M TO W)
529+00.00
RESIDUAL
SOFT TO MEDIUM STIFF RED-TAN
SILTY CLAY (M TO W)
RESIDUAL
SOFT RED-TAN FINE SANDY SILT (M)
RESIDUAL
MEDIUM DENSE BROWN-GRAY SILTY FINE TO COARSE SAND (M)
RESIDUAL
STIFF ORANGE-BROWN
SILTY CLAY (M)
RESIDUAL
VERY STIFF ORANGE-BROWN
FINE SANDY SILT (M)
528+50.00
B-237
RESIDUAL
SOFT TO STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC)(M TO W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-TAN
FINE SANDY SILT (M TO W)
BT
DRY
528+00.00
-L- RT

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	357



6/23/16

$$$$$$SYSTIME$$$$$
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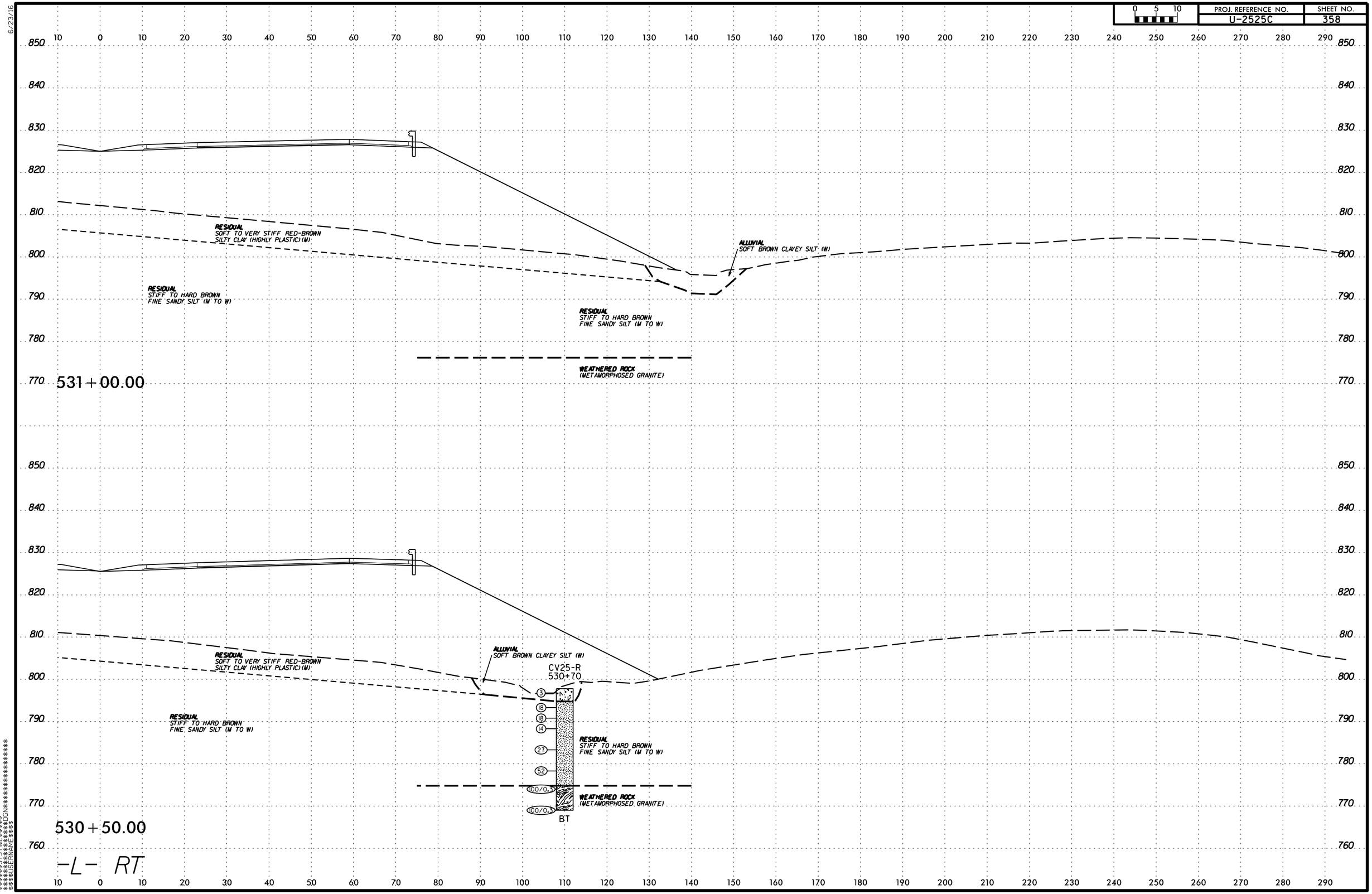
$$$$USERNAME$$$$

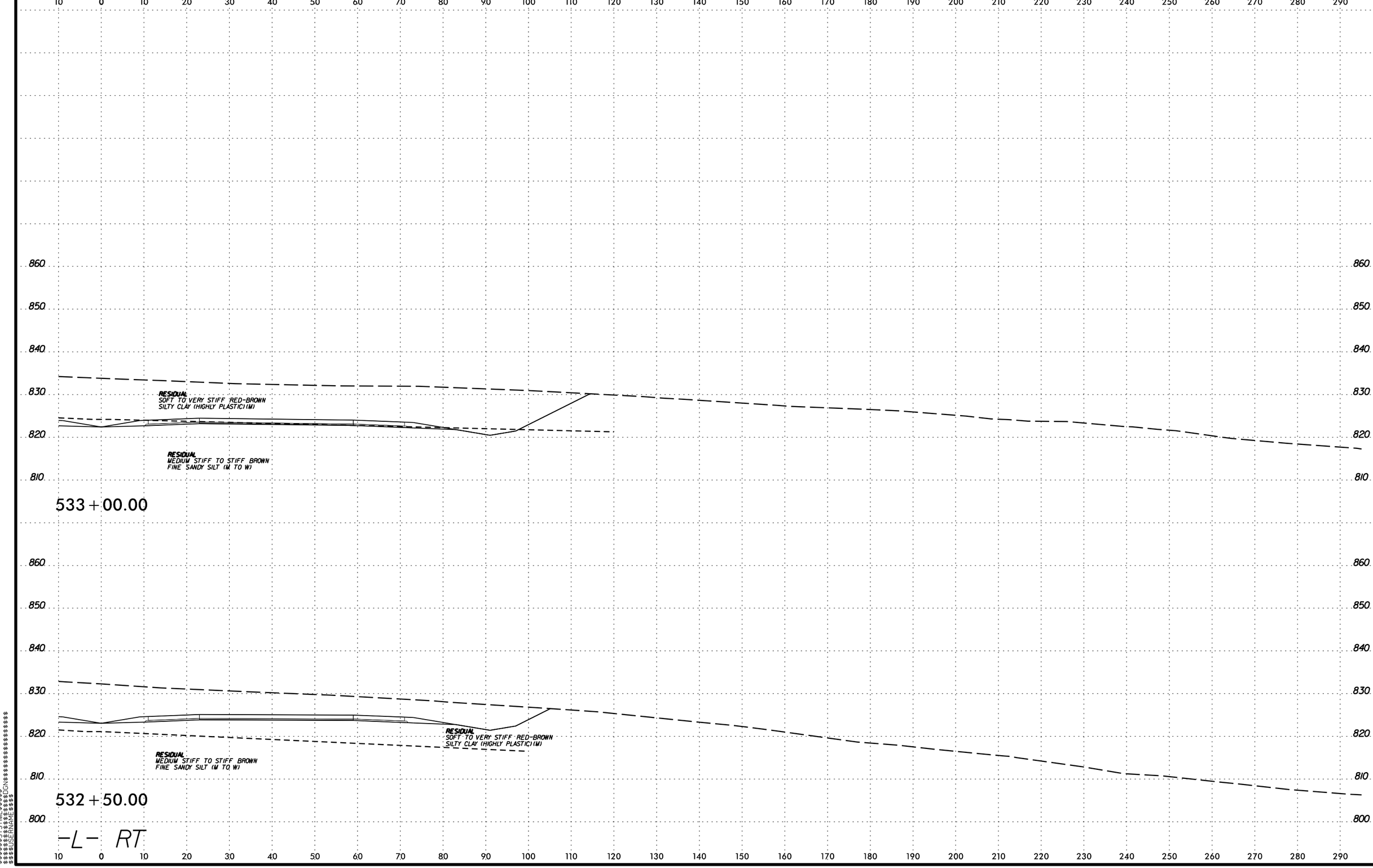


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
358
0 5 10
RESIDUAL
SOFT TO VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO HARD BROWN
FINE SANDY SILT (M TO W)
ALLUVIAL
SOFT BROWN CLAYEY SILT (W)
RESIDUAL
STIFF TO HARD BROWN
FINE SANDY SILT (M TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
531+00.00
RESIDUAL
SOFT TO VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC) (M)
ALLUVIAL
SOFT BROWN CLAYEY SILT (W)
CV25-R
530+70
3
18
18
14
27
52
100/0.3
100/0.3
RESIDUAL
STIFF TO HARD BROWN
FINE SANDY SILT (M TO W)
RESIDUAL
STIFF TO HARD BROWN
FINE SANDY SILT (M TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
BT
530+50.00
-L- RT

PROJ. REFERENCE NO.
U-2525C
SHEET NO.
359
0 5 10
RESIDUAL
SOFT TO VERY STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO STIFF BROWN
FINE SANDY SILT (M TO W)
532+00.00
B-238
531+35
BT
DRY
531+50.00
-L- RT

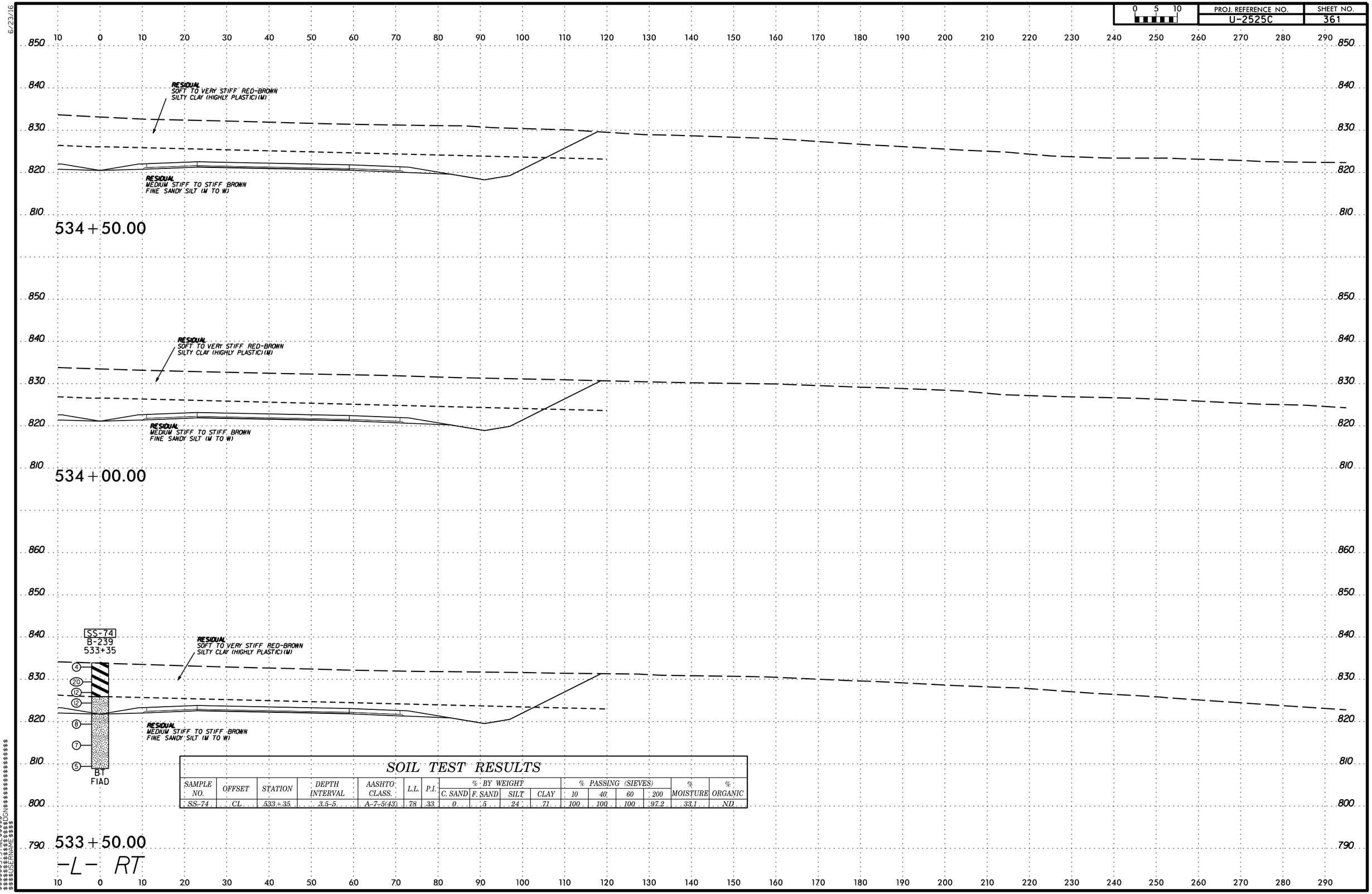
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	360



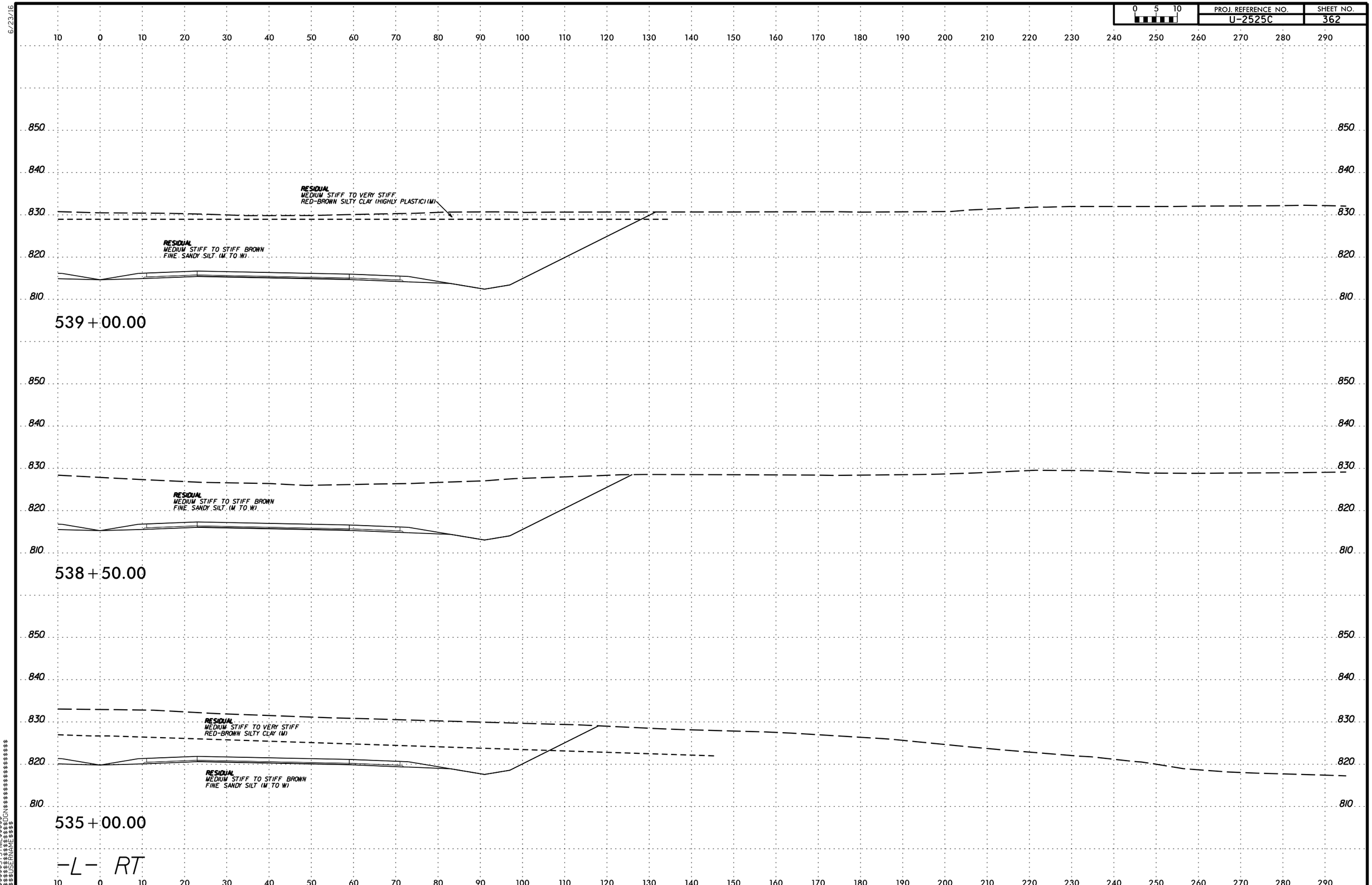
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	361



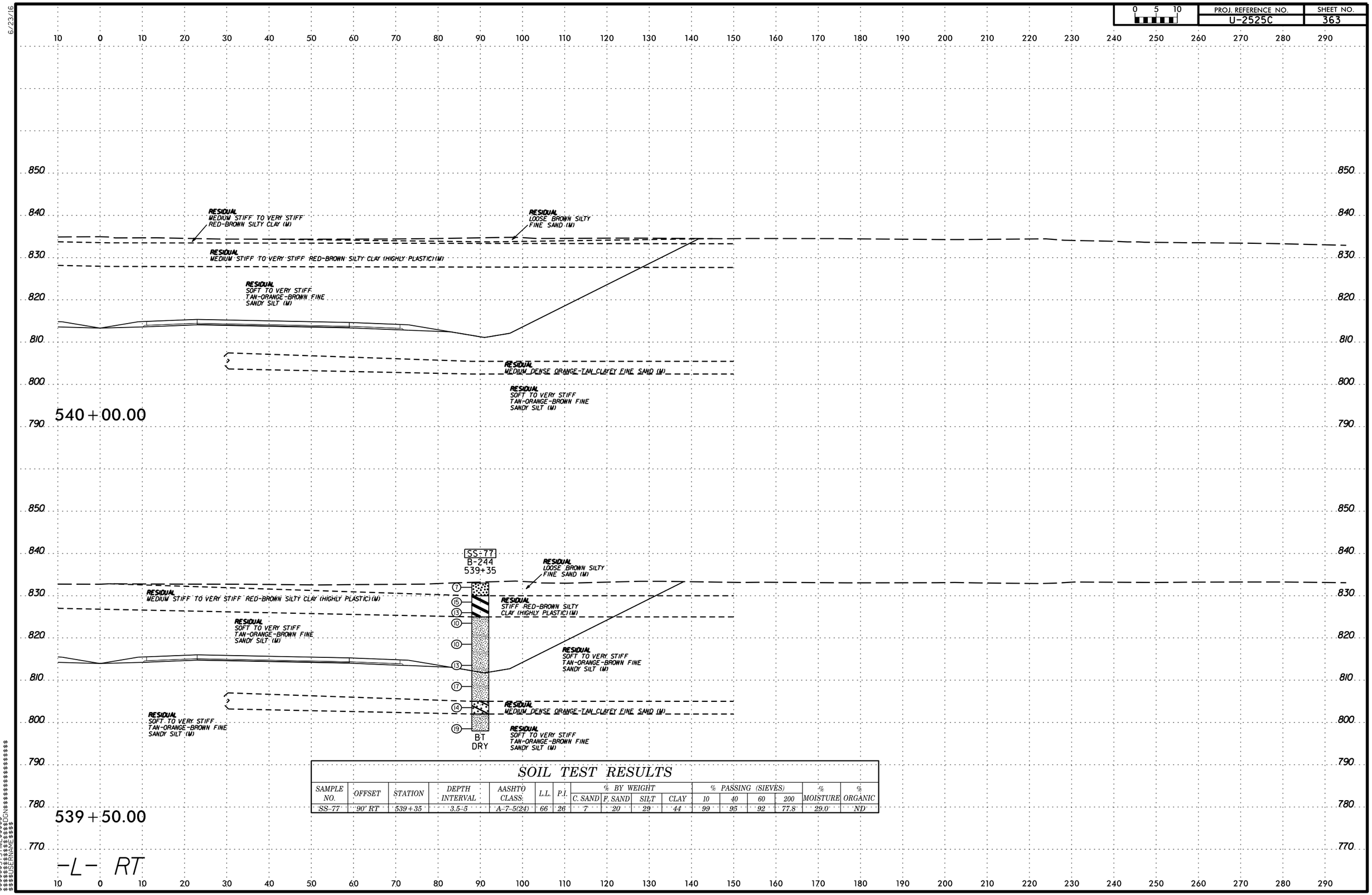
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-74	CL	533+35	3.5-5	A-7-5(43)	78	33	0	5	24	71	100	100	100	97.2	33.1	ND



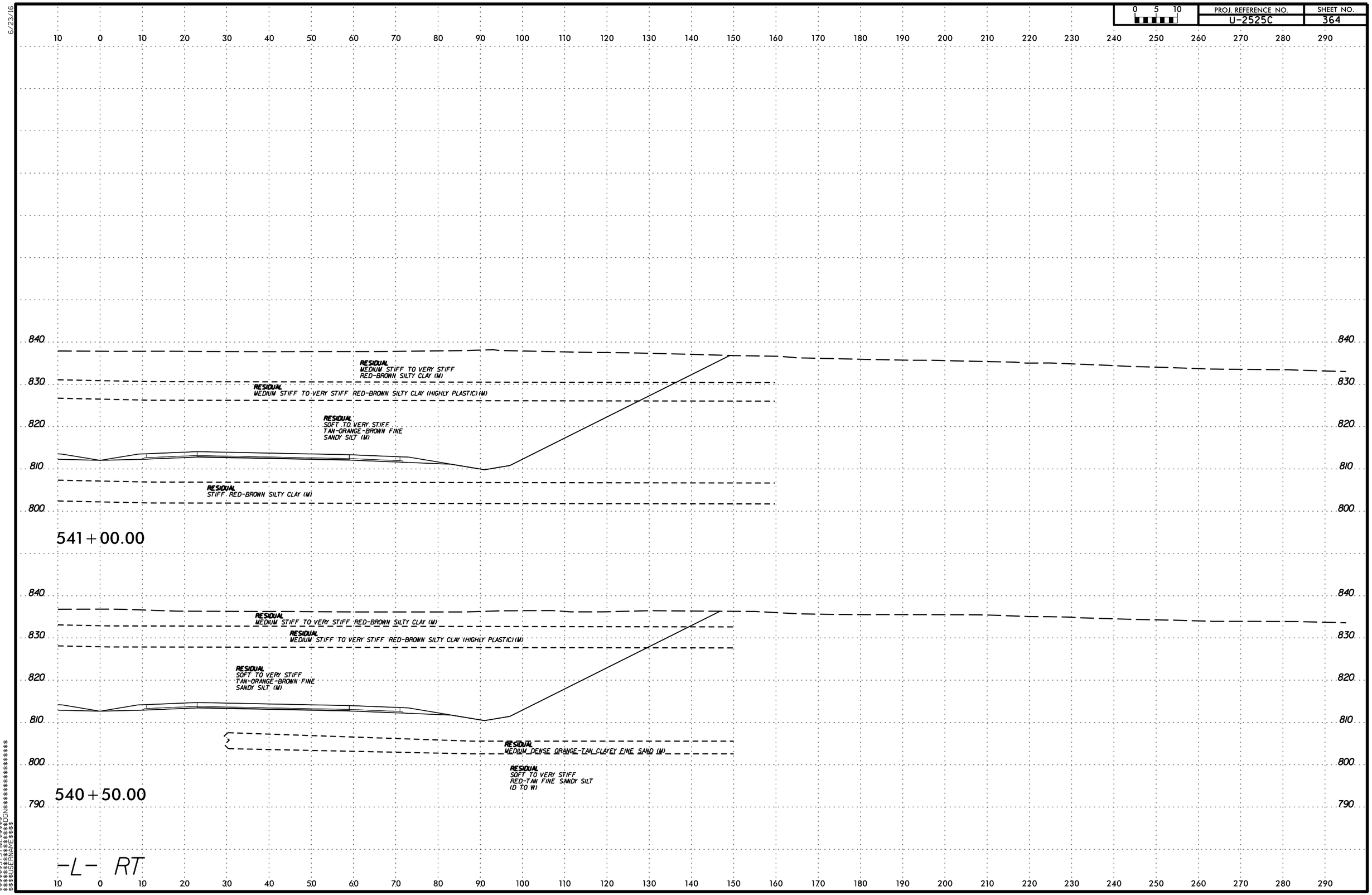
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
362
0 5 10
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF BROWN
FINE SANDY SILT (M TO W)
539+00.00
RESIDUAL
MEDIUM STIFF TO STIFF BROWN
FINE SANDY SILT (M TO W)
538+50.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO STIFF BROWN
FINE SANDY SILT (M TO W)
535+00.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 363



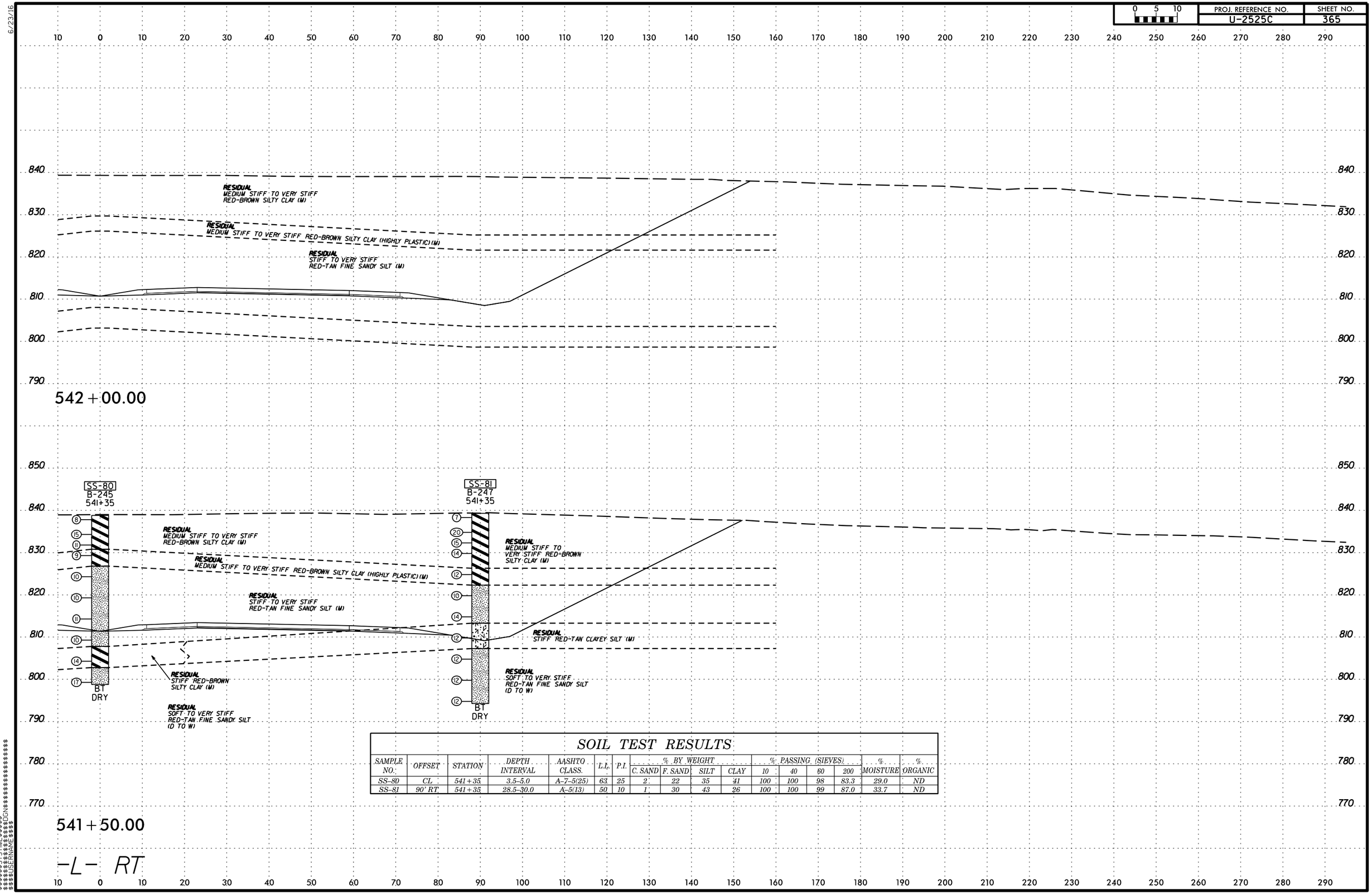
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-77	90' RT	539+35	3.5-5	A-7-5(24)	66	26	7	20	29	44	99	95	92	77.8	29.0	ND



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
364
0 5 10
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
SOFT TO VERY STIFF
TAN-ORANGE-BROWN FINE
SANDY SILT (M)
RESIDUAL
STIFF RED-BROWN SILTY CLAY (M)
541+00.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-BROWN SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
SOFT TO VERY STIFF
TAN-ORANGE-BROWN FINE
SANDY SILT (M)
RESIDUAL
MEDIUM DENSE ORANGE-TAN CLAYEY FINE SAND (M)
RESIDUAL
SOFT TO VERY STIFF
RED-TAN FINE SANDY SILT
(D TO W)
540+50.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 365

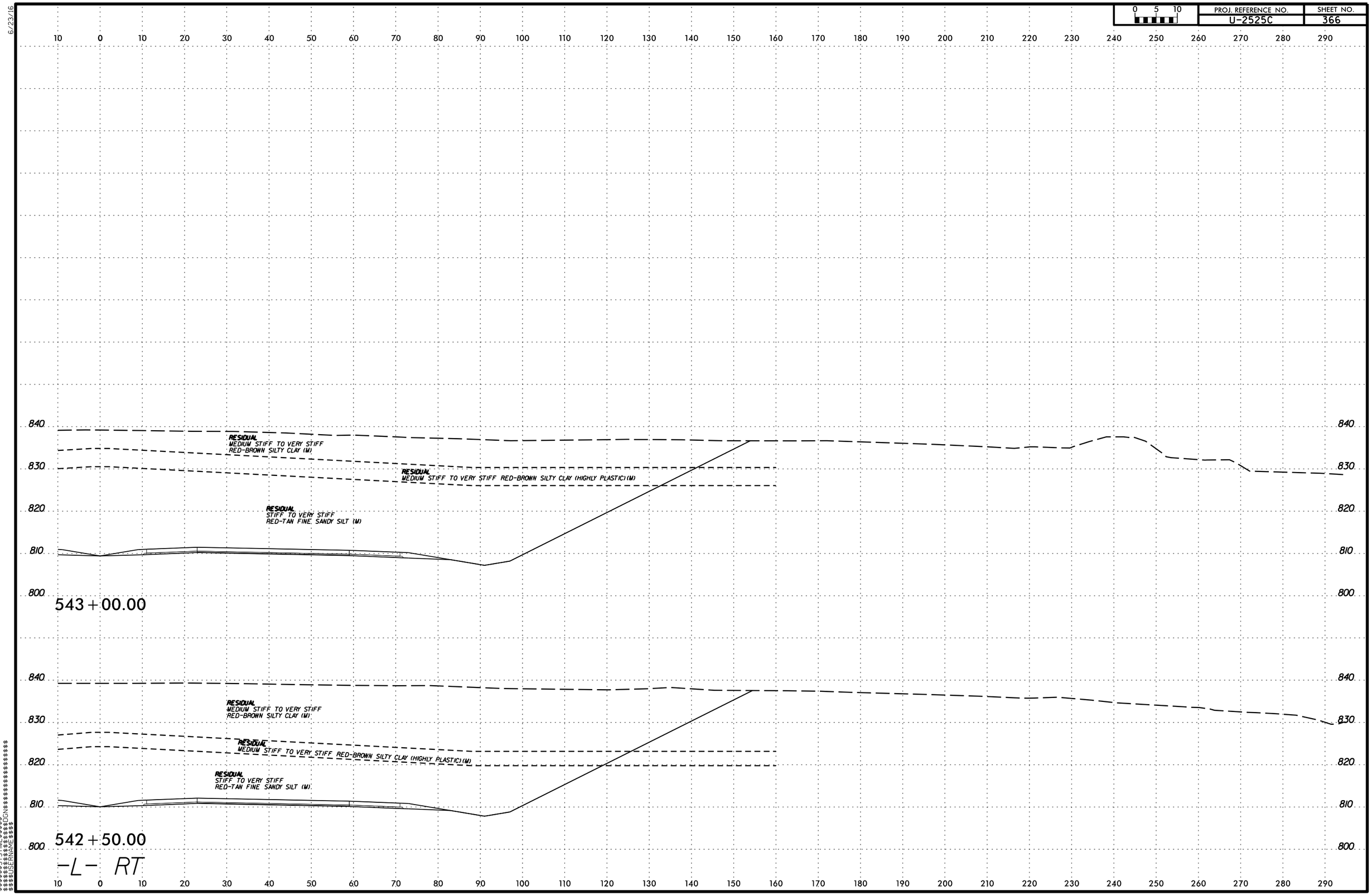


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-80	CL	541+35	3.5-5.0	A-7-5(25)	63	25	2	22	35	41	100	100	98	83.3	29.0	ND
SS-81	90' RT	541+35	28.5-30.0	A-5(13)	50	10	1	30	43	26	100	100	99	87.0	33.7	ND

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	366



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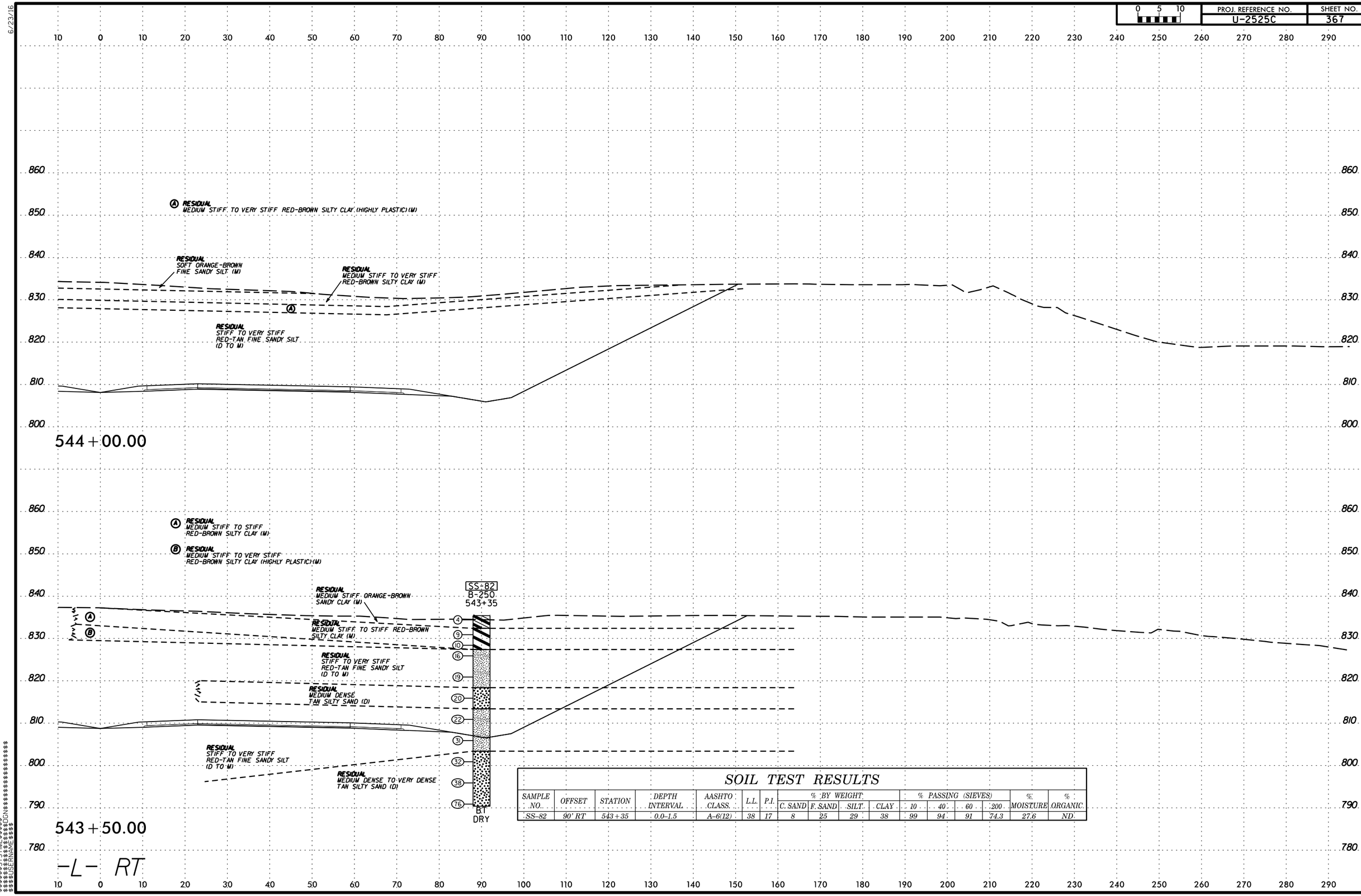
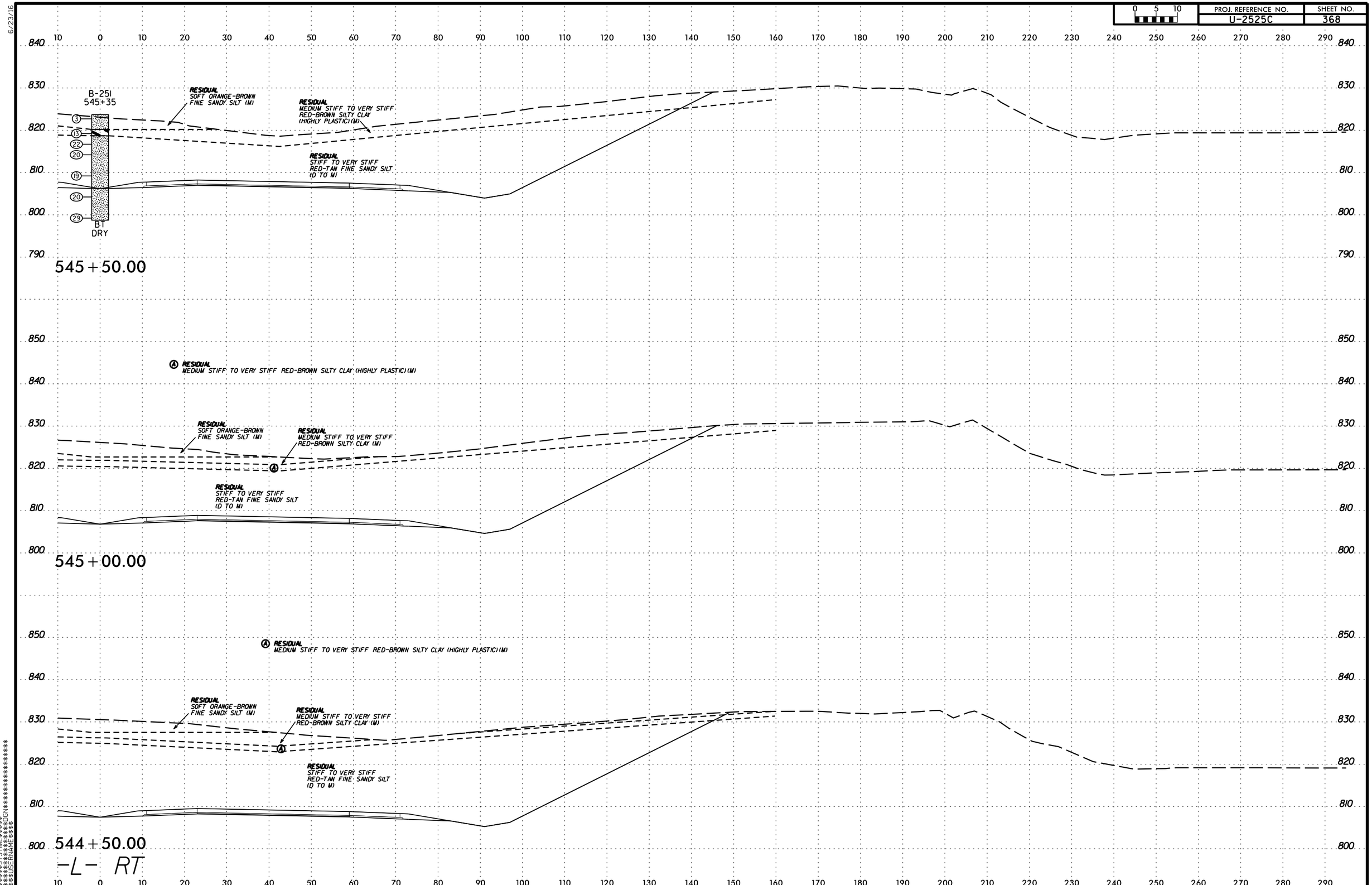
PROJ. REFERENCE NO. U-2525C | SHEET NO. 367



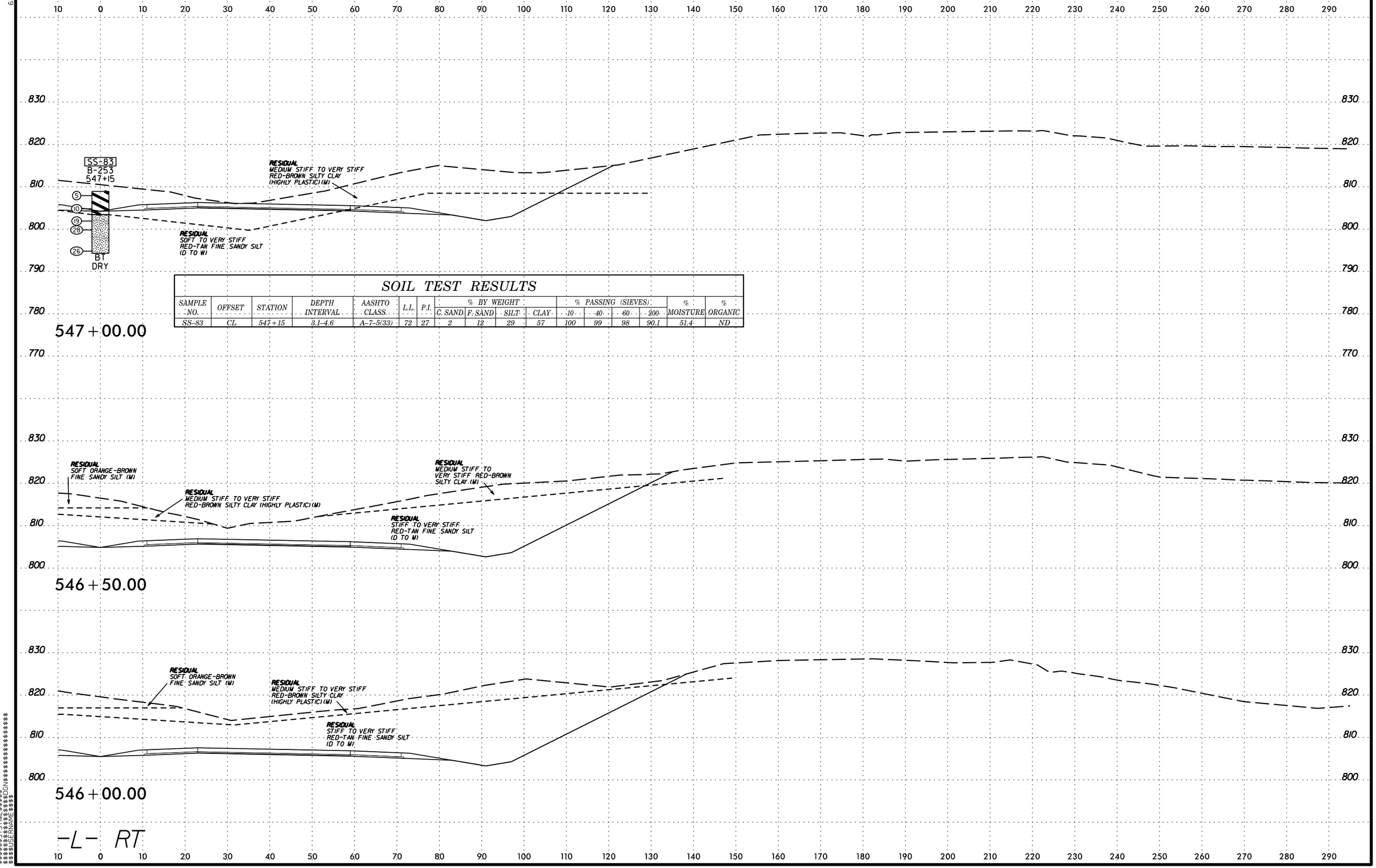
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-82	90' RT	543+35	0.0-1.5	A-6(12)	38	17	8	25	29	38	99	94	91	74.3	27.6	ND



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
368
B-251
545+35
RESIDUAL
SOFT ORANGE-BROWN
FINE SANDY SILT (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED-BROWN SILTY CLAY
(HIGHLY PLASTIC) (M)
RESIDUAL
STIFF TO VERY STIFF
RED-TAN FINE SANDY SILT
(D TO M)
BT
DRY
545+50.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
SOFT ORANGE-BROWN
FINE SANDY SILT (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
STIFF TO VERY STIFF
RED-TAN FINE SANDY SILT
(D TO M)
545+00.00
RESIDUAL
MEDIUM STIFF TO VERY STIFF RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
SOFT ORANGE-BROWN
FINE SANDY SILT (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF
RED-BROWN SILTY CLAY (M)
RESIDUAL
STIFF TO VERY STIFF
RED-TAN FINE SANDY SILT
(D TO M)
544+50.00
-L- RT

PROJ. REFERENCE NO. U-2525C | SHEET NO. 369

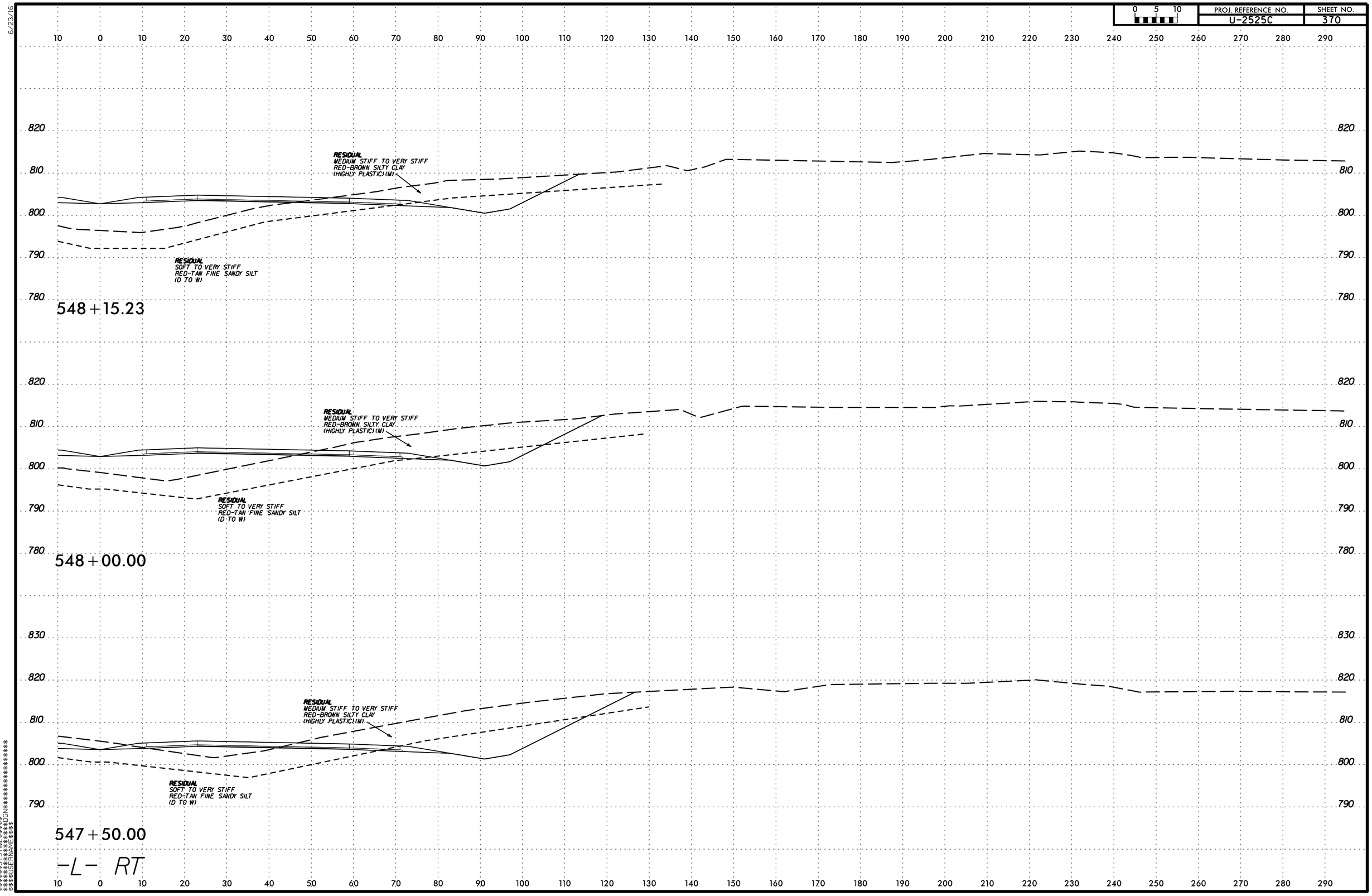


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-83	CL	547+15	3.1-4.6	A-7-5(33)	72	27	2	12	29	57	100	99	98	90.1	51.4	ND

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	370



$$$$$$SYSTIME$$$$$$
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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-2525C	371A

REFERENCE: U-2525C

PROJECT: 34821

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SECTION 3
CROSS SECTIONS
-Y- LINES

CROSS SECTIONS

LINE	STATION	SHEETS
-Y4LPA-	14+50 - 17+50	371 - 373
-Y4LPC-	10+00 - 18+22.17	374 - 380
-Y4RPA-	19+45 - 25+94.29	381 - 385
-Y6-	21+50	386
-Y6-	22+50	386
-Y6-	32+50	386
-Y6LPA-	11+44.92 - 19+35.43	387 - 394
-Y6LPC-	11+16.78 - 14+50	395 - 398
-Y6LPC-	16+00 - 19+00	398 - 401
-Y6RPA-	16+09.49 - 28+22.65	402 - 411
-Y13RPA-	18+00 - 22+82	412 - 415
-Y13RPD-	14+88 - 32+88	416 - 427
-Y4DET-	11+38.51 - 22+13.42	428 - 439
-Y5DET-	10+89.44 - 18+24.96	440 - 447

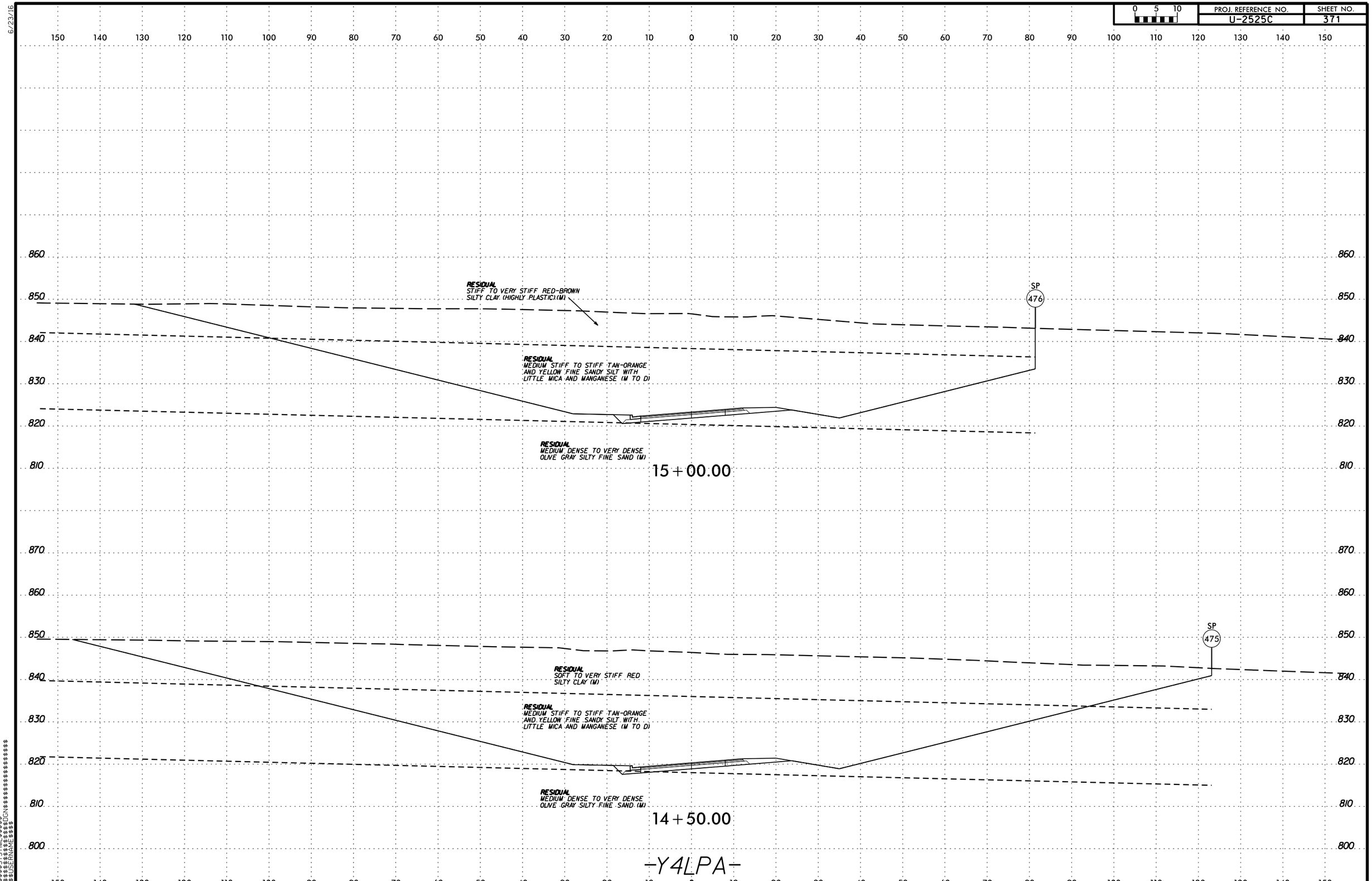
DocuSigned by:
Stewart S. Laney, PE
75BB4AB1AB3B4CB...

5/30/2017

S&ME

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	371



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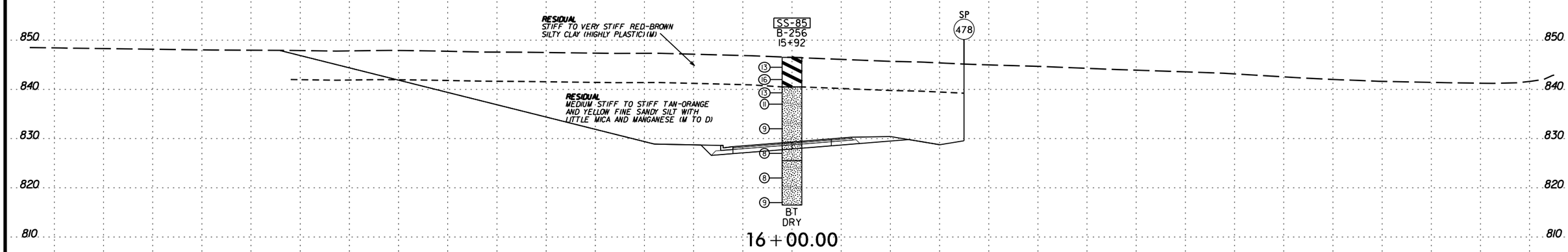
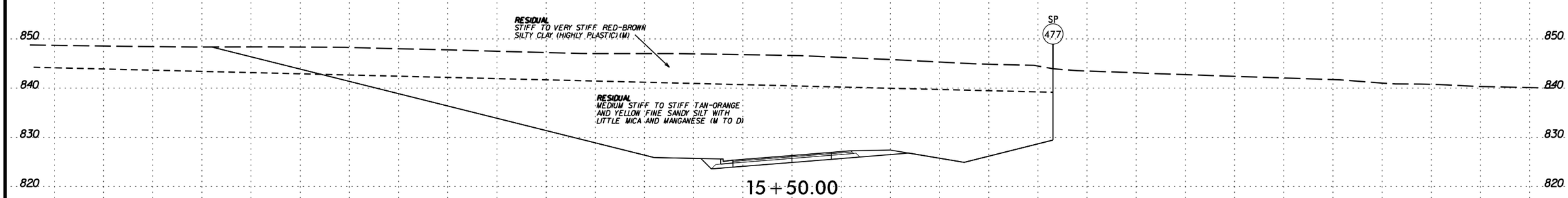
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO. U-2525C | SHEET NO. 372

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-85	CL	15+92	3.5-5	A-7-5(42)	79	31	0	5	29	66	100	100	100	97.7	36.9	ND

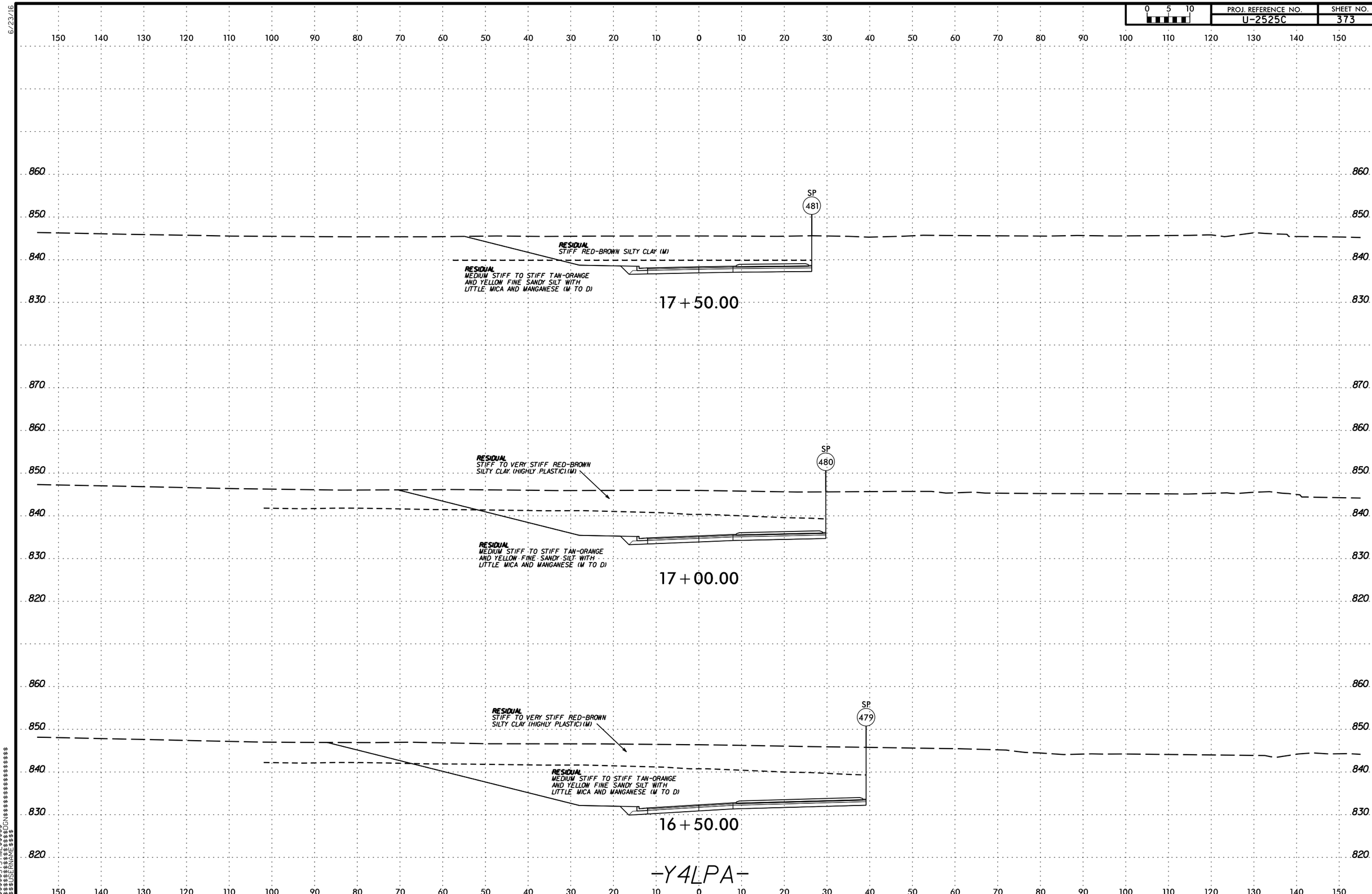




-Y4LPA-

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	373



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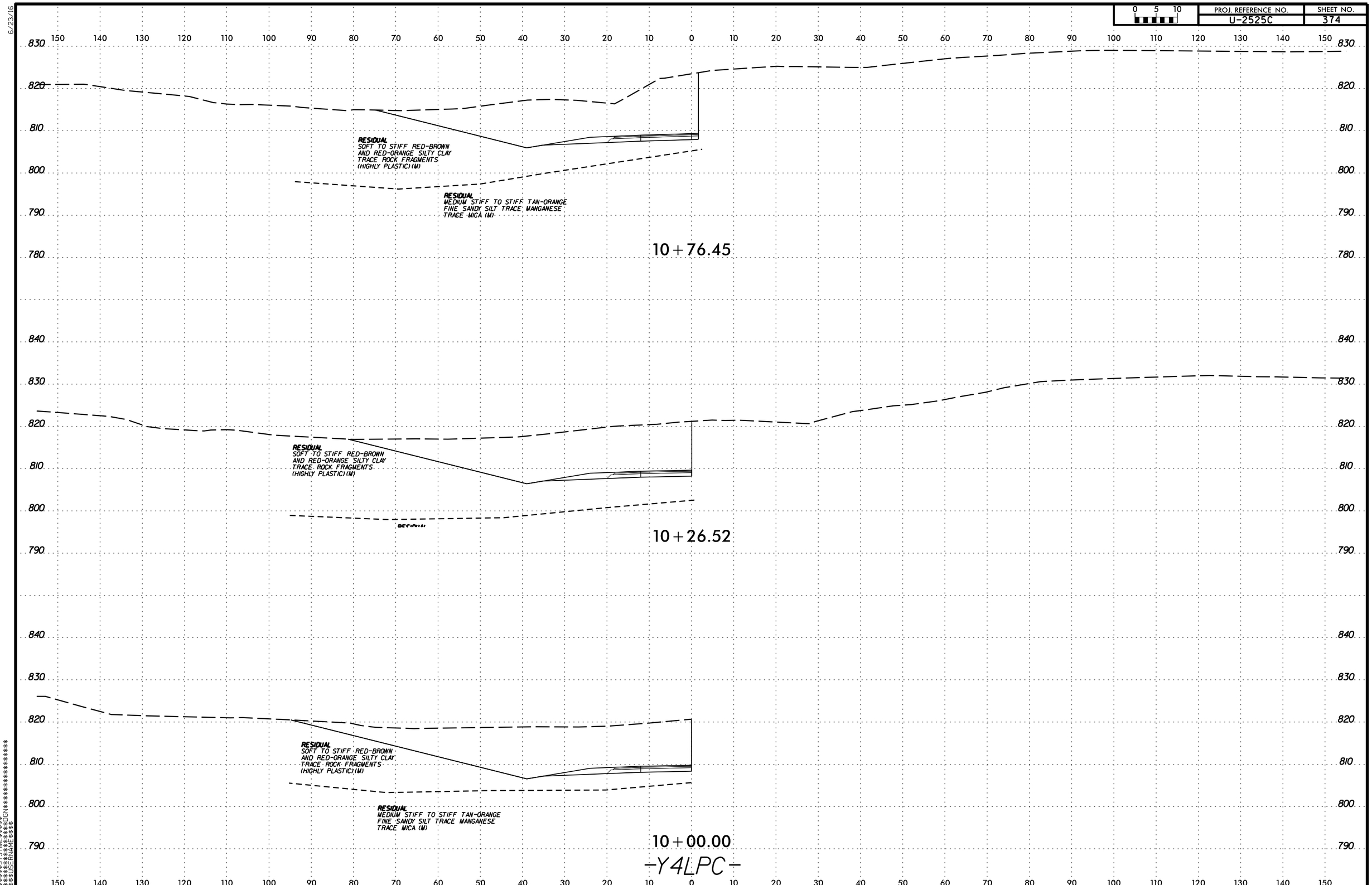
$$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	374



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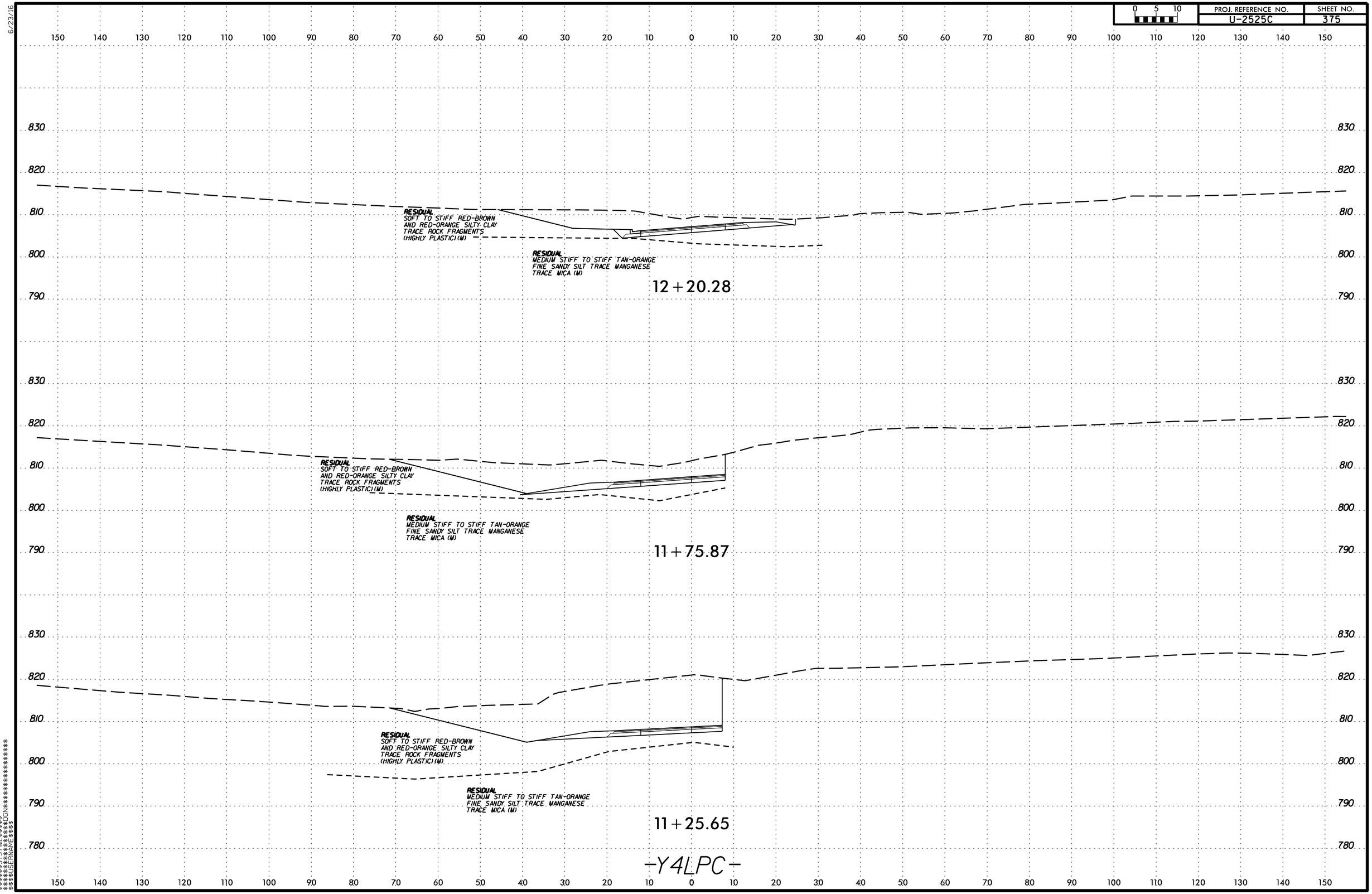
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	375



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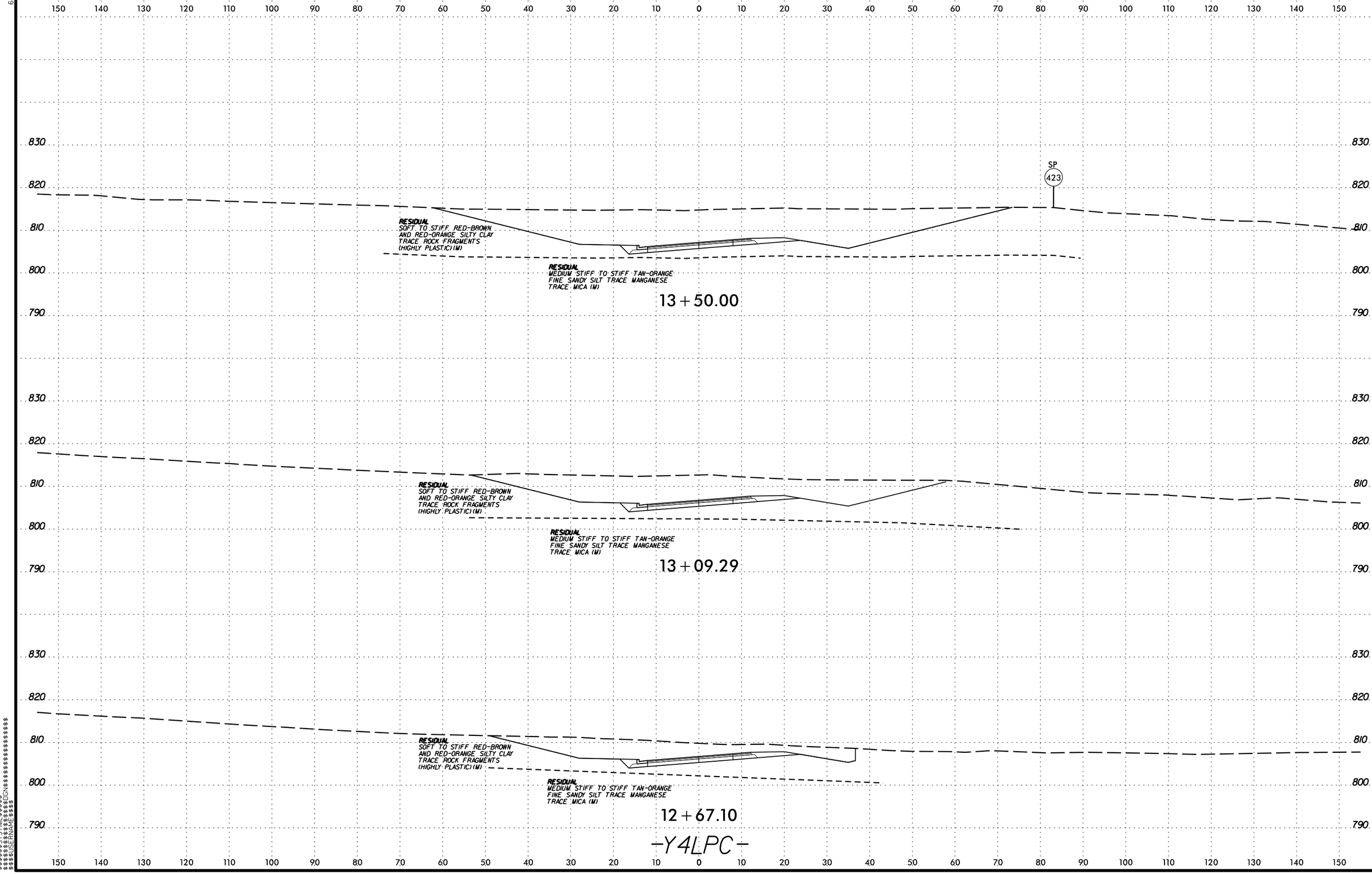
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	376

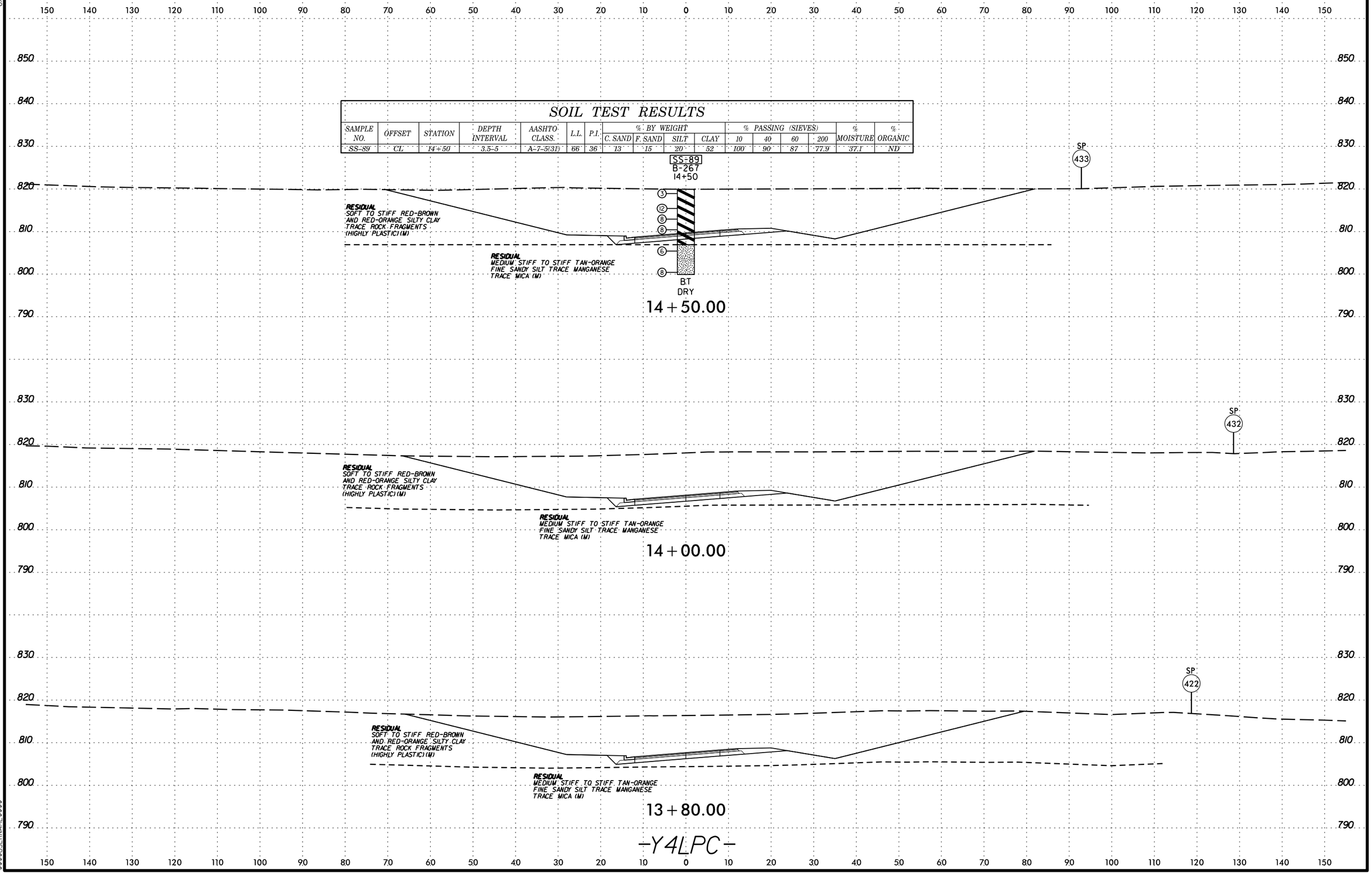


$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

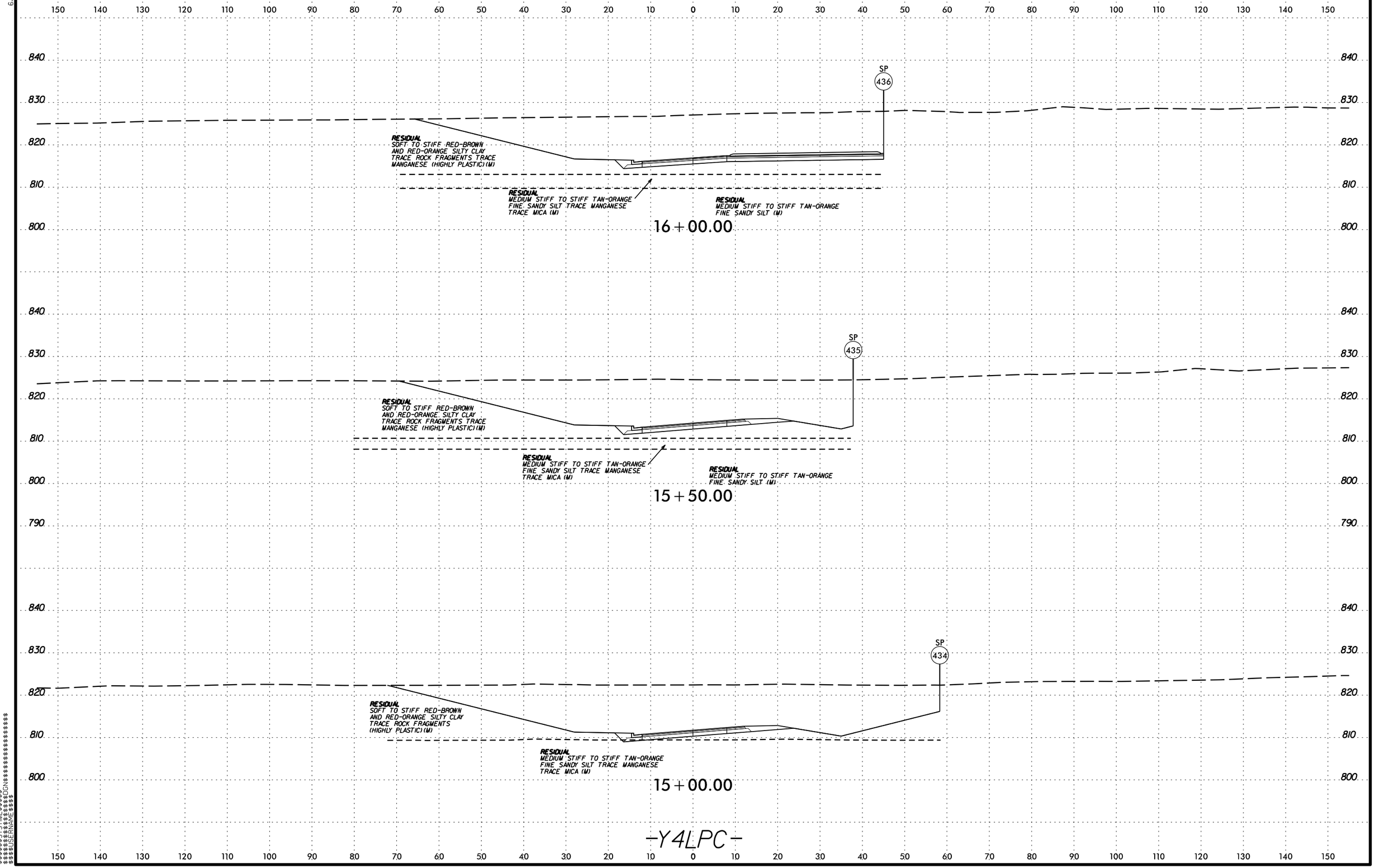
PROJ. REFERENCE NO. U-2525C | SHEET NO. 377

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-89	CL	14+50	3.5-5	A-7-5(31)	66	36	13	15	20	52	100	90	87	77.9	37.1	ND

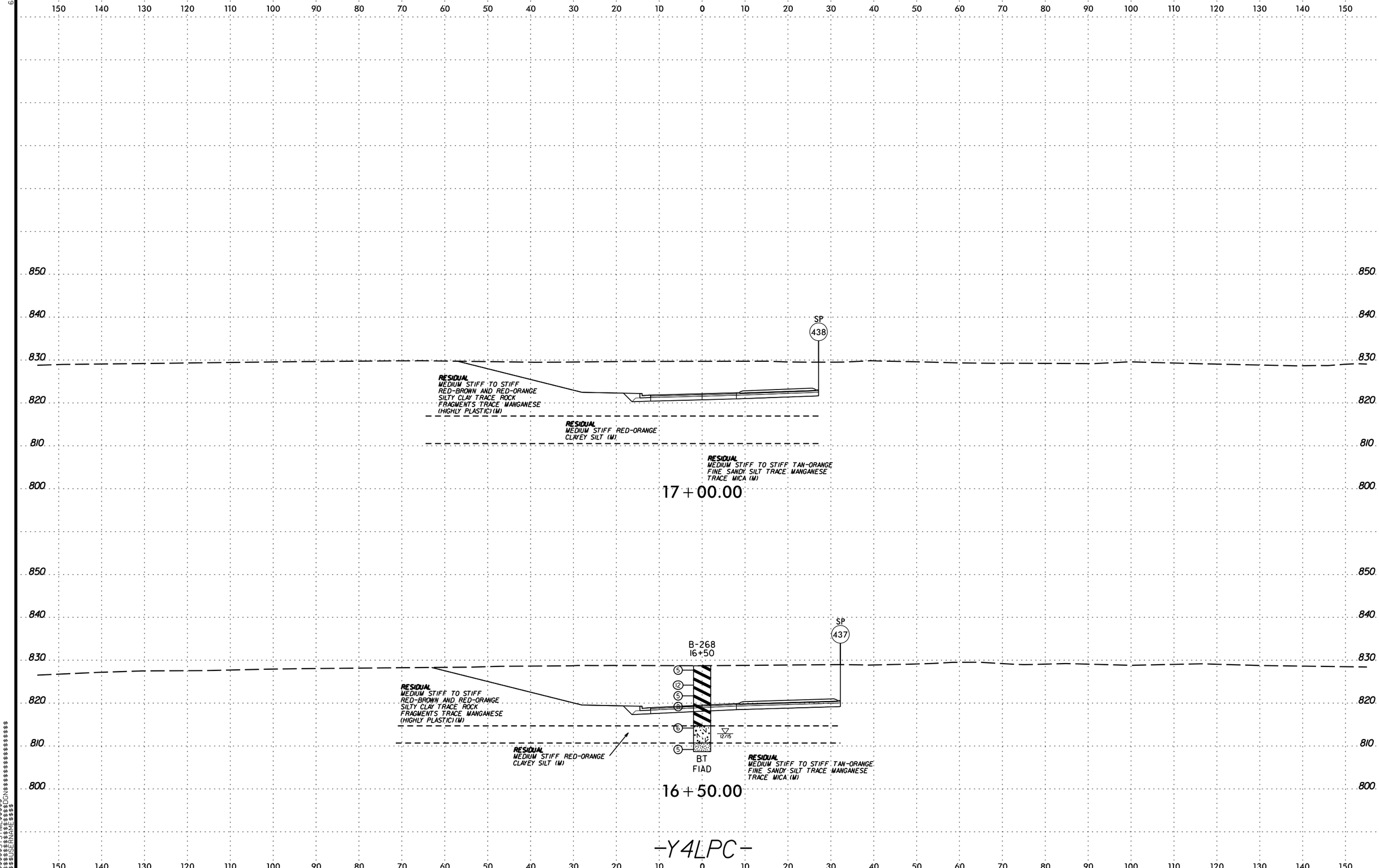


6/23/16
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
378
0 5 10
SP 436
RESIDUAL
SOFT TO STIFF RED-BROWN AND RED-ORANGE SILTY CLAY TRACE ROCK FRAGMENTS TRACE MANGANESE (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF TAN-ORANGE FINE SANDY SILT TRACE MANGANESE TRACE MICA (M)
RESIDUAL
MEDIUM STIFF TO STIFF TAN-ORANGE FINE SANDY SILT (M)
16+00.00
SP 435
RESIDUAL
SOFT TO STIFF RED-BROWN AND RED-ORANGE SILTY CLAY TRACE ROCK FRAGMENTS TRACE MANGANESE (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF TAN-ORANGE FINE SANDY SILT TRACE MANGANESE TRACE MICA (M)
RESIDUAL
MEDIUM STIFF TO STIFF TAN-ORANGE FINE SANDY SILT (M)
15+50.00
SP 434
RESIDUAL
SOFT TO STIFF RED-BROWN AND RED-ORANGE SILTY CLAY TRACE ROCK FRAGMENTS (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO STIFF TAN-ORANGE FINE SANDY SILT TRACE MANGANESE TRACE MICA (M)
15+00.00
-Y4LPC-

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	379



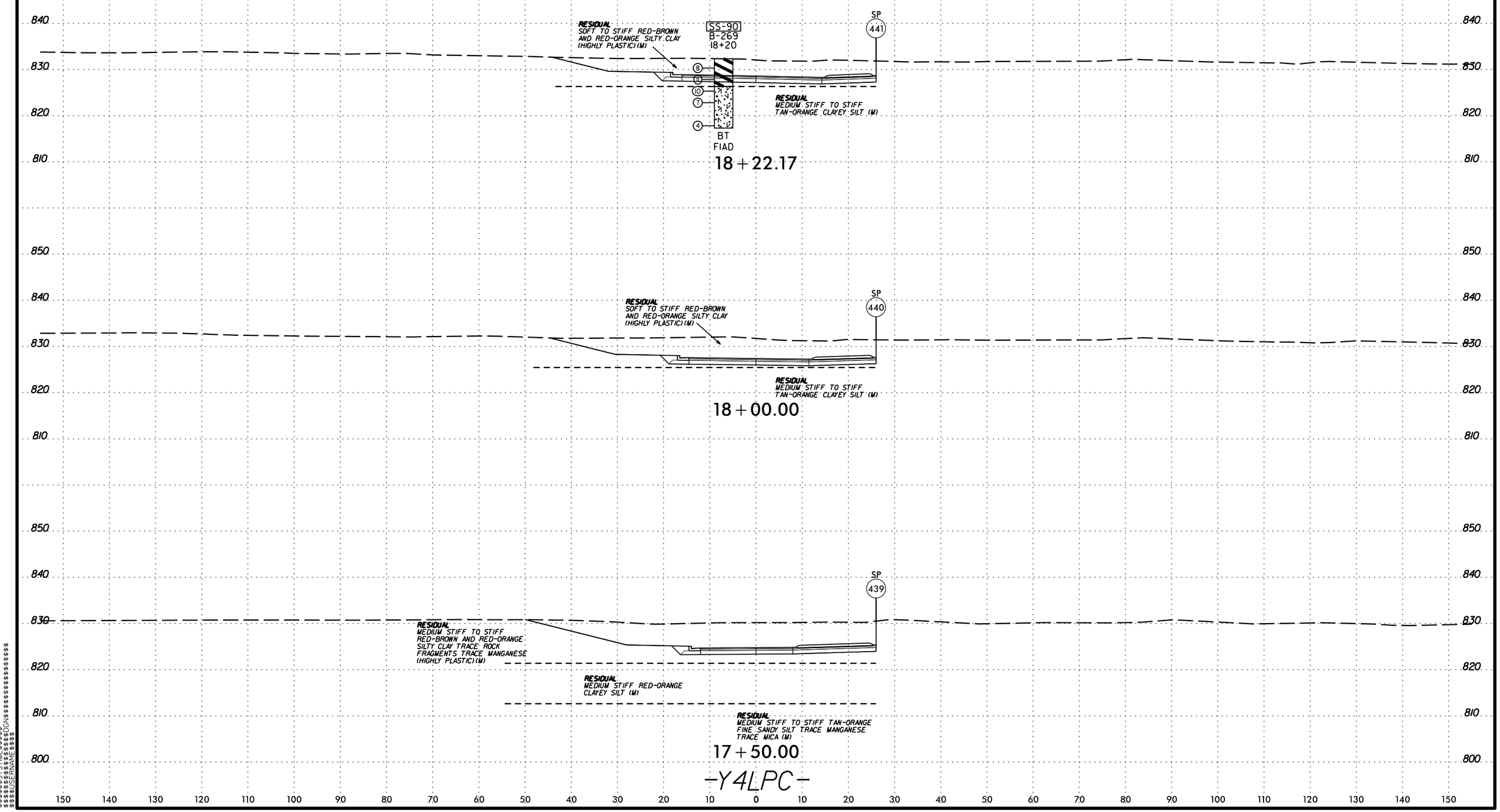
6/23/16

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	380

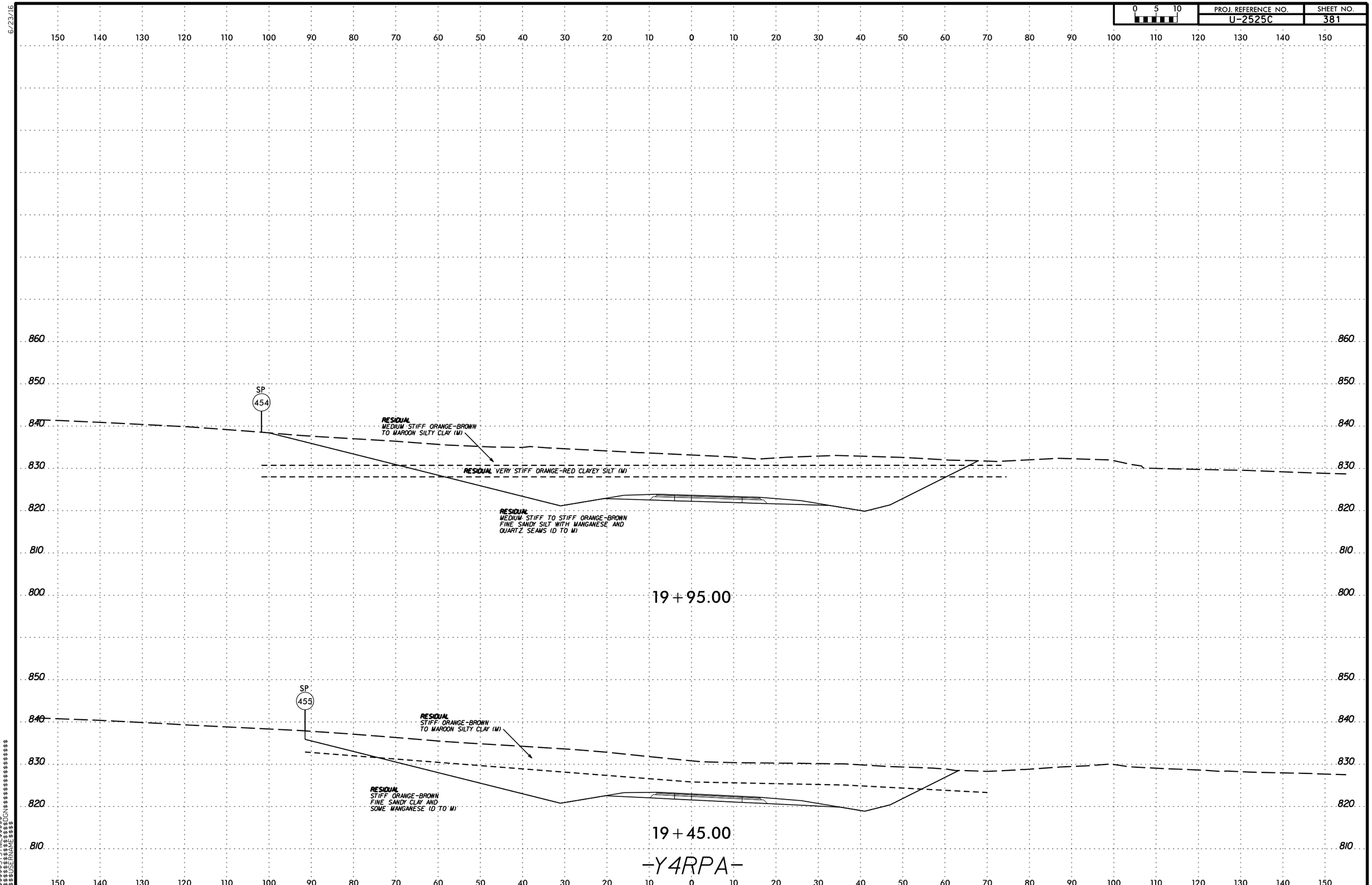
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-90	7' LT	18+20	3.5-5	A-7-5(51)	87	41	1	6	28	65	100	100	99	95.6	43.0	ND



6/23/16

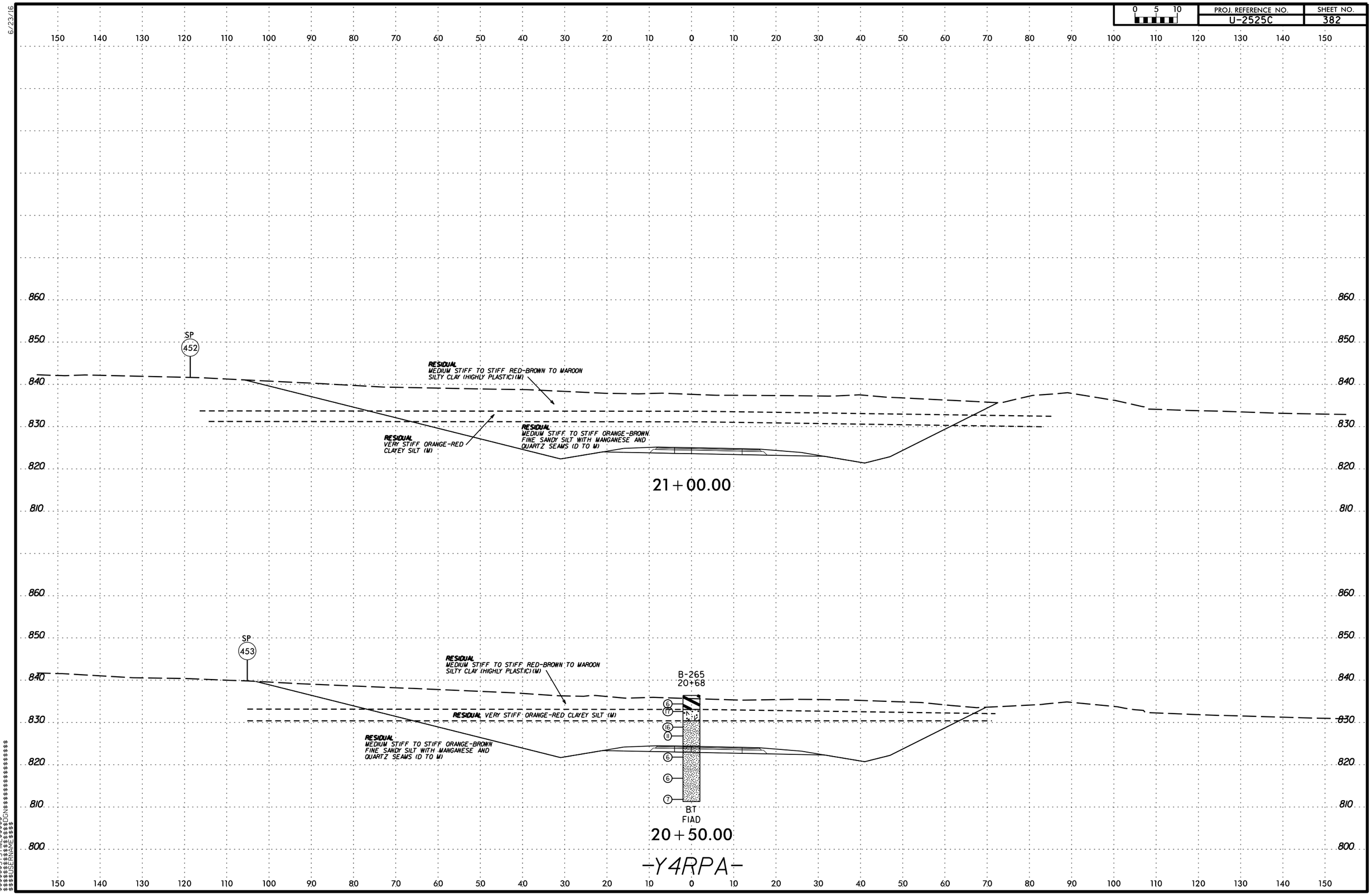
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	382



$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

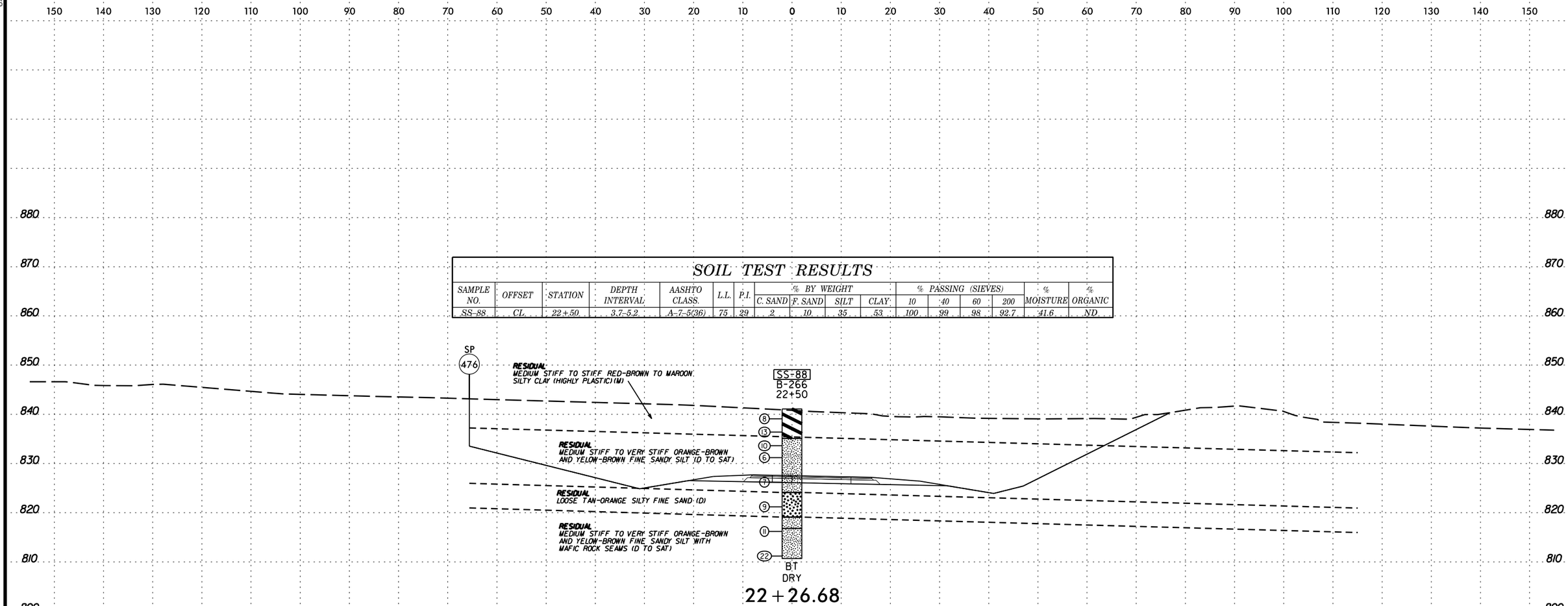
6/23/16

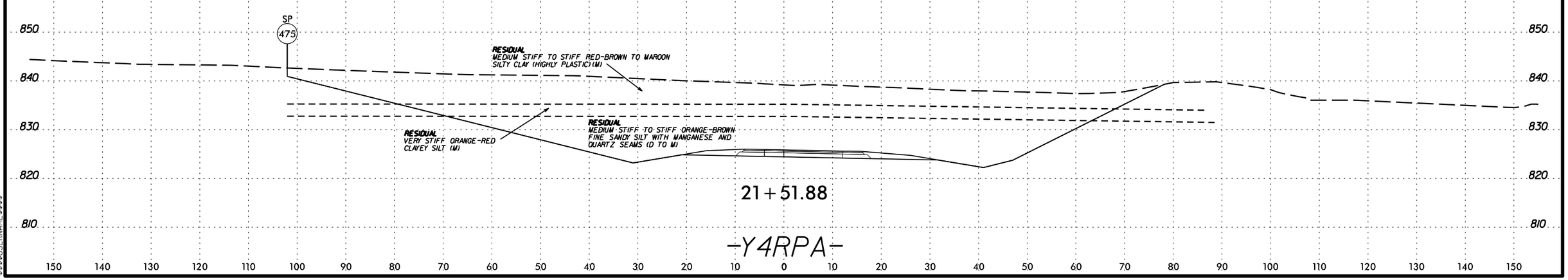
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	383

0 5 10

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-88	CL	22+50	3.7-5.2	A-7-5(36)	75	29	2	10	35	53	100	99	98	92.7	41.6	ND



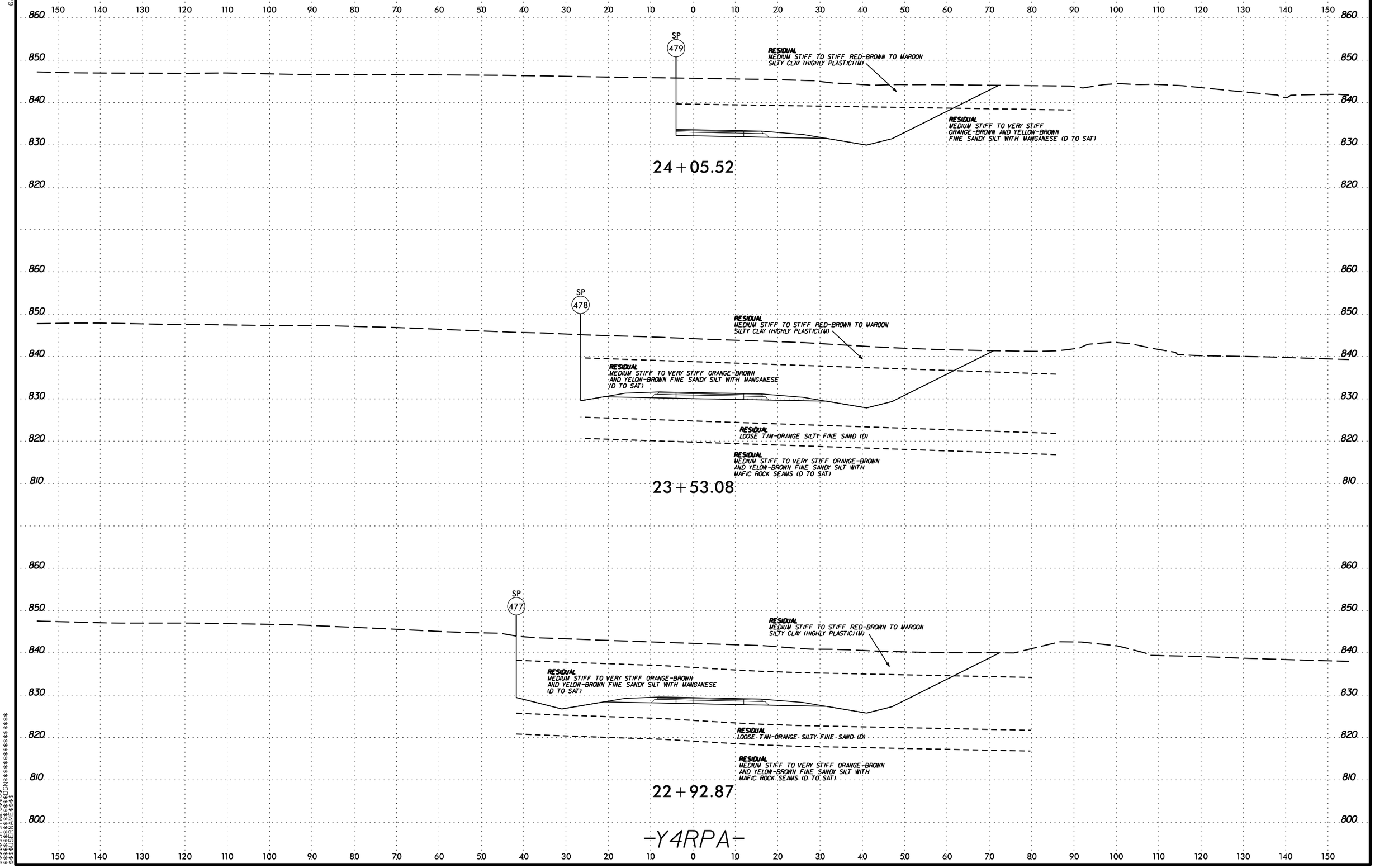


-Y4RPA-

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	384



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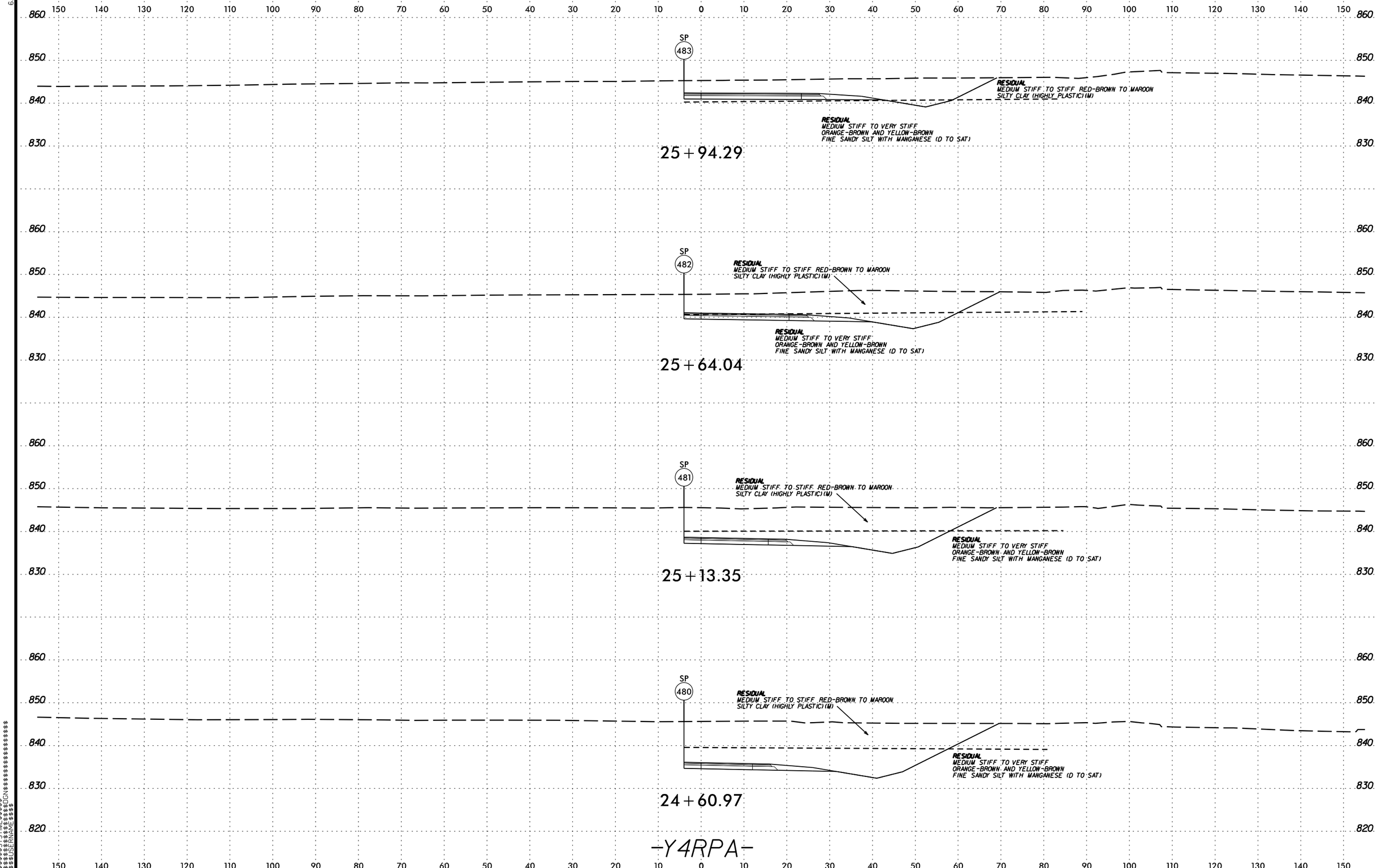
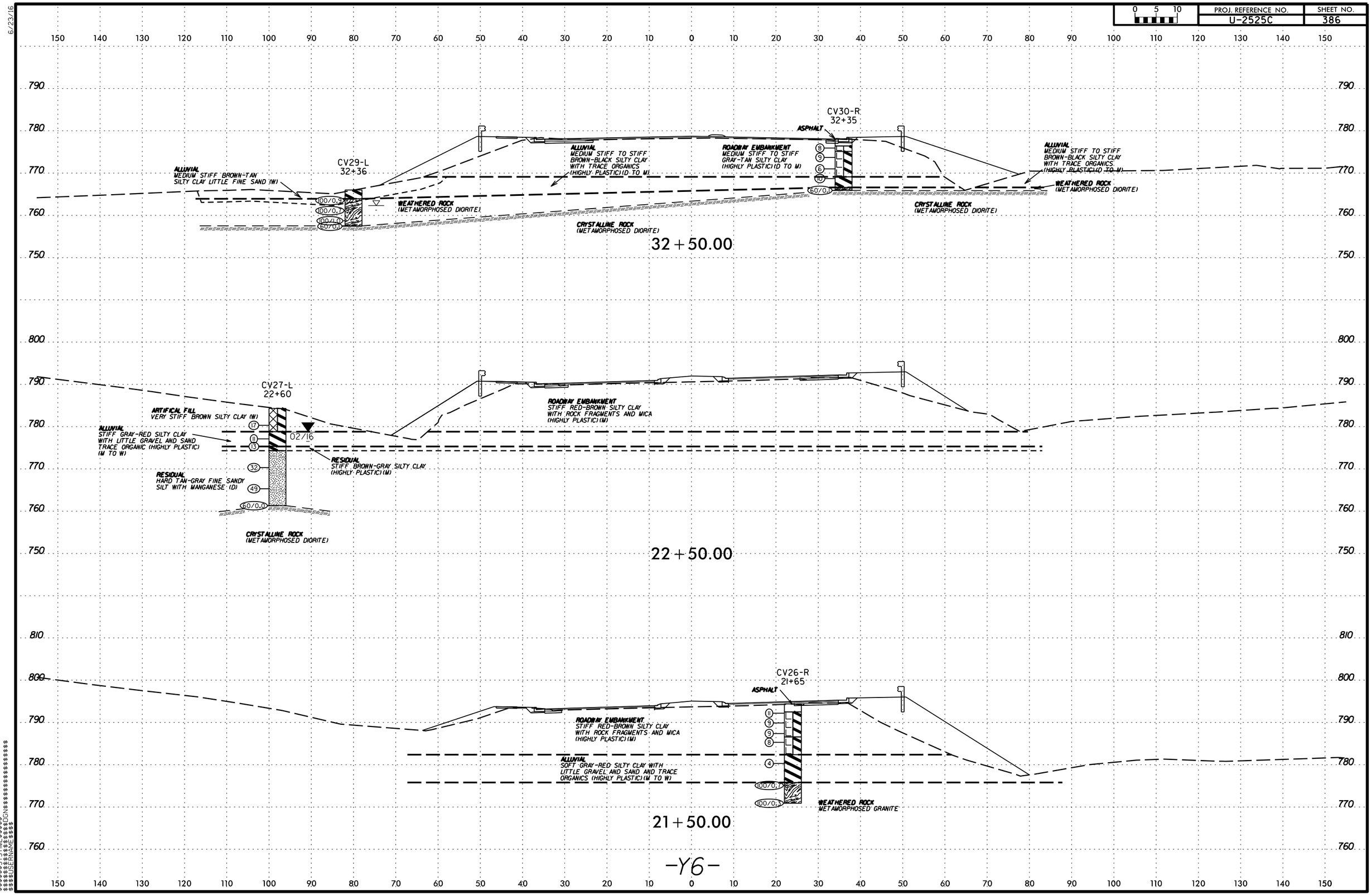
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



-Y4RPA-

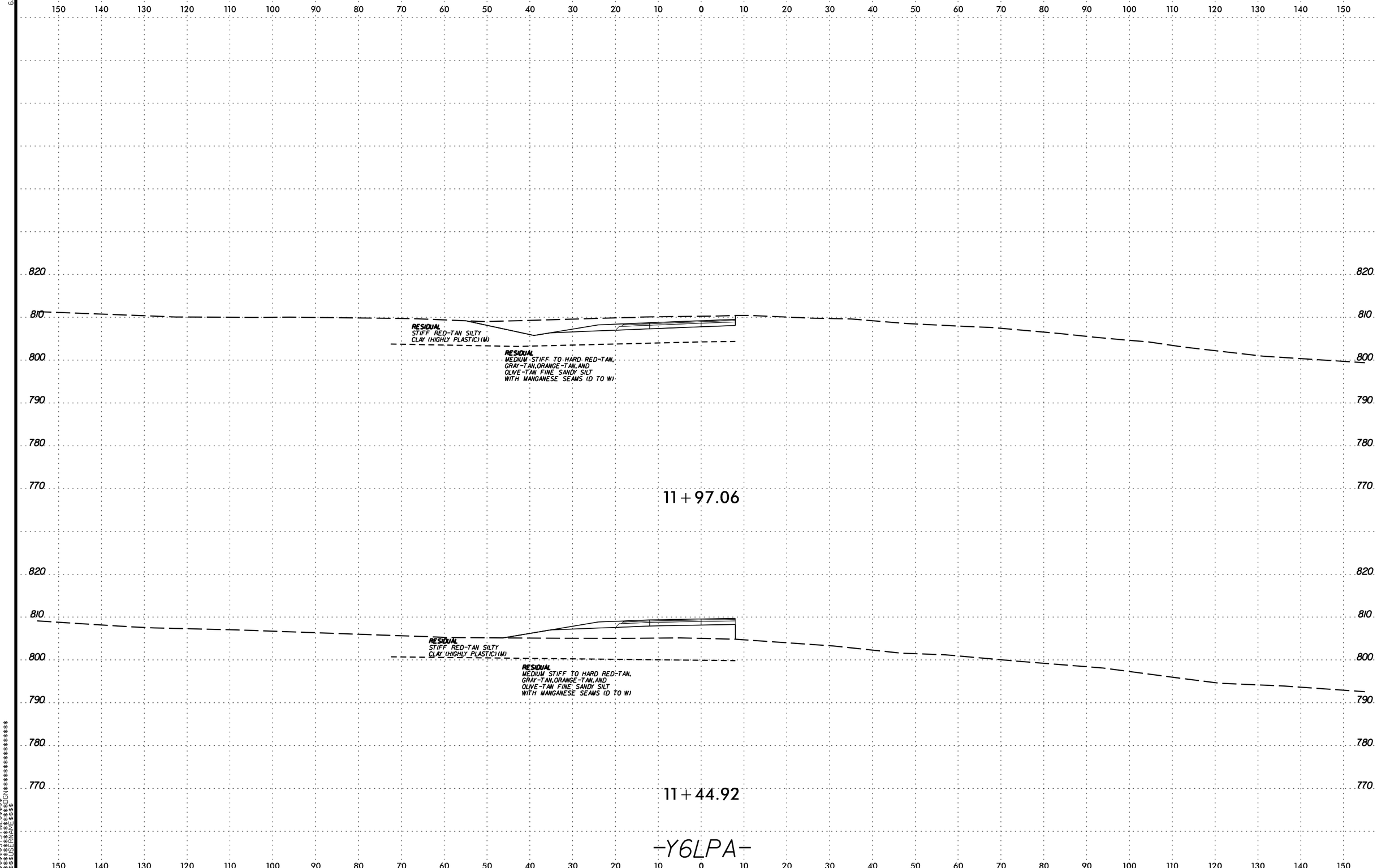
6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



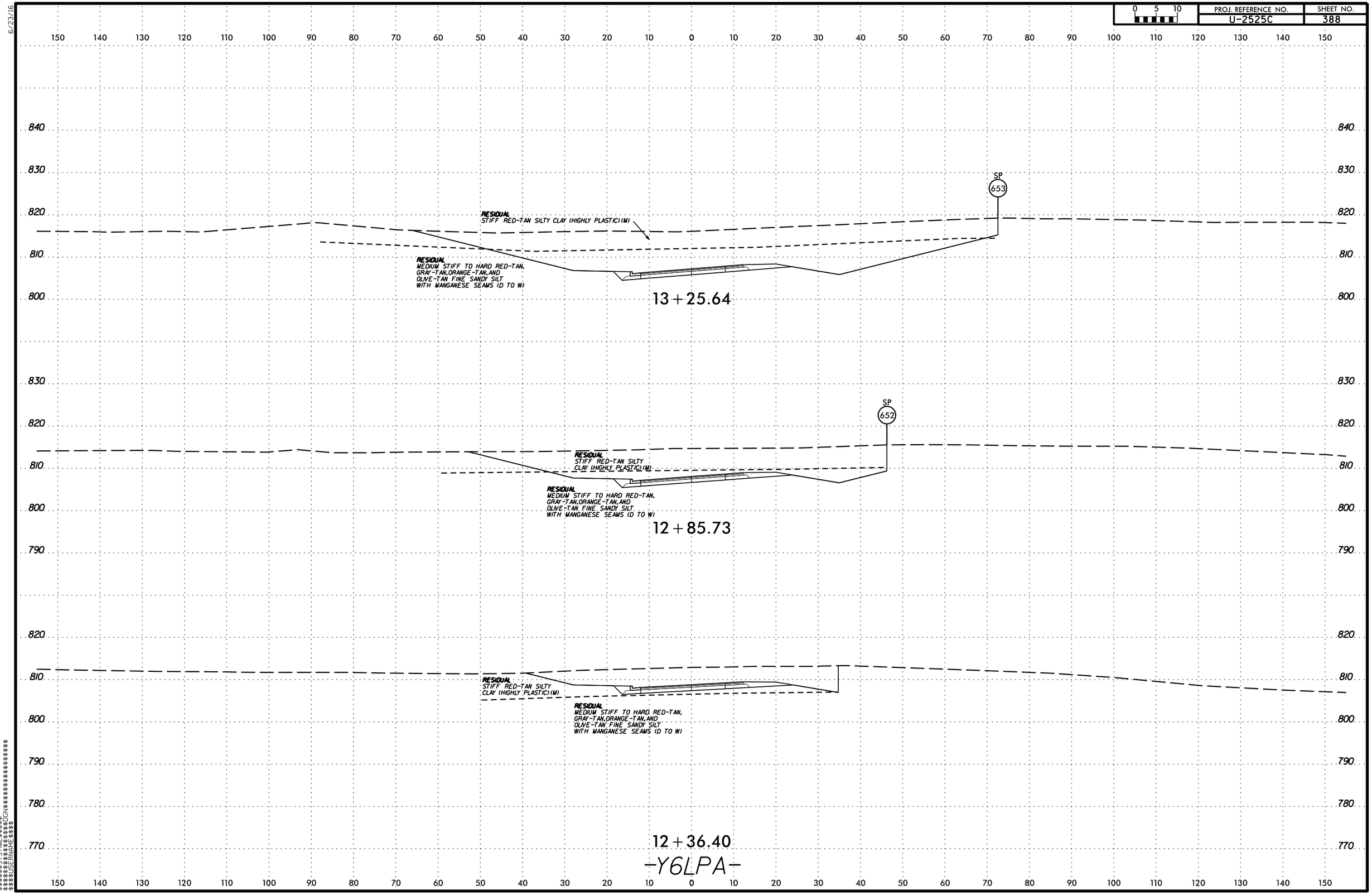
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
386
0 5 10
CV29-L
32+36
CV30-R
32+35
ASPHALT
ALLUVIAL
MEDIUM STIFF BROWN-TAN SILTY CLAY LITTLE FINE SAND (W)
ALLUVIAL
MEDIUM STIFF TO STIFF BROWN-BLACK SILTY CLAY WITH TRACE ORGANICS (HIGHLY PLASTIC)(D TO M)
ROADWAY EMBANKMENT
MEDIUM STIFF TO STIFF GRAY-TAN SILTY CLAY (HIGHLY PLASTIC)(D TO M)
ALLUVIAL
MEDIUM STIFF TO STIFF BROWN-BLACK SILTY CLAY WITH TRACE ORGANICS (HIGHLY PLASTIC)(D TO M)
WEATHERED ROCK
(METAMORPHOSED DIORITE)
CRYSTALLINE ROCK
(METAMORPHOSED DIORITE)
32+50.00
CV27-L
22+60
ARTIFICAL FILL
VERY STIFF BROWN SILTY CLAY (W)
ALLUVIAL
STIFF GRAY-RED SILTY CLAY WITH LITTLE GRAVEL AND SAND TRACE ORGANIC (HIGHLY PLASTIC) (M TO W)
02/16
RESIDUAL
STIFF BROWN-GRAY SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
HARD TAN-GRAY FINE SANDY SILT WITH MANGANESE (D)
CRYSTALLINE ROCK
(METAMORPHOSED DIORITE)
ROADWAY EMBANKMENT
STIFF RED-BROWN SILTY CLAY WITH ROCK FRAGMENTS AND MICA (HIGHLY PLASTIC)(M)
22+50.00
CV26-R
21+65
ASPHALT
ROADWAY EMBANKMENT
STIFF RED-BROWN SILTY CLAY WITH ROCK FRAGMENTS AND MICA (HIGHLY PLASTIC)(M)
ALLUVIAL
SOFT GRAY-RED SILTY CLAY WITH LITTLE GRAVEL AND SAND AND TRACE ORGANICS (HIGHLY PLASTIC)(M TO W)
WEATHERED ROCK
METAMORPHOSED GRANITE
21+50.00
-Y6-

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	387



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

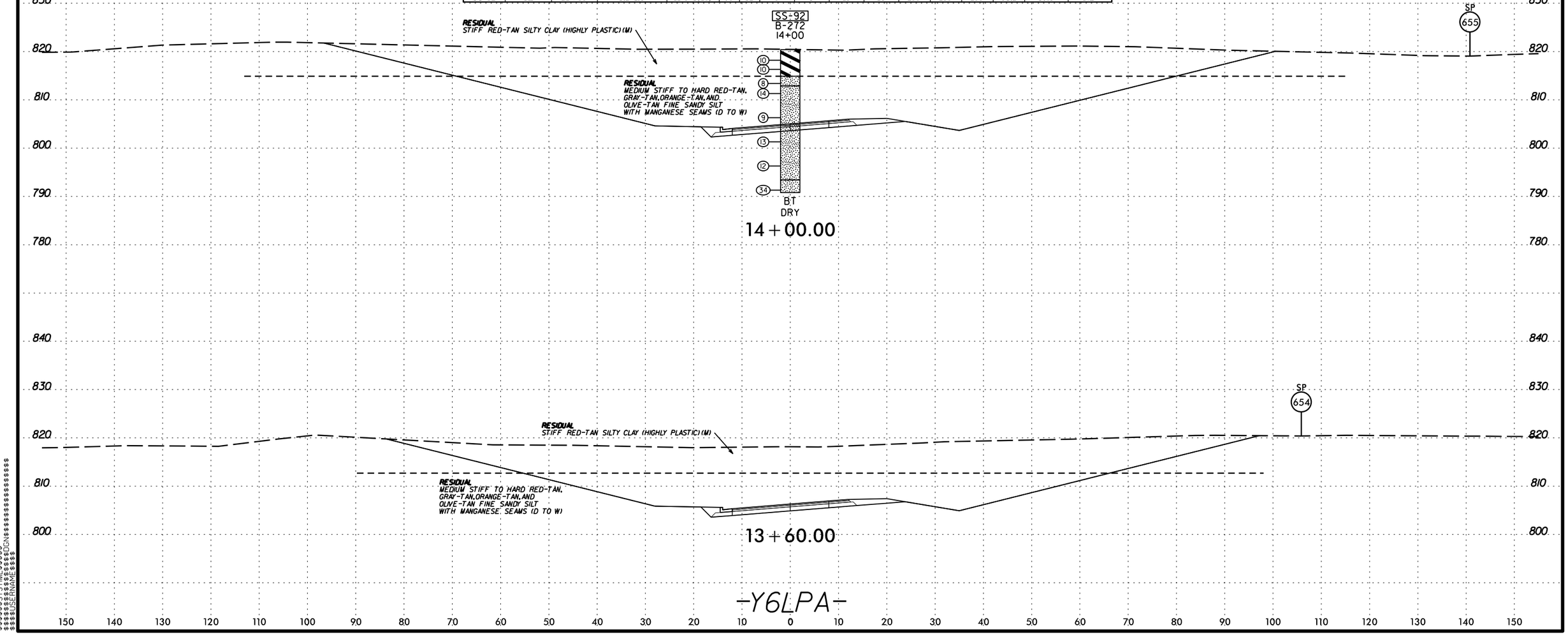


PROJ. REFERENCE NO.
U-2525C
SHEET NO.
388
0 5 10
SP
653
RESIDUAL
STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO HARD RED-TAN, GRAY-TAN, ORANGE-TAN, AND OLIVE-TAN FINE SANDY SILT WITH MANGANESE SEAMS (D TO W)
13+25.64
SP
652
RESIDUAL
STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO HARD RED-TAN, GRAY-TAN, ORANGE-TAN, AND OLIVE-TAN FINE SANDY SILT WITH MANGANESE SEAMS (D TO W)
12+85.73
RESIDUAL
STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO HARD RED-TAN, GRAY-TAN, ORANGE-TAN, AND OLIVE-TAN FINE SANDY SILT WITH MANGANESE SEAMS (D TO W)
12+36.40
-Y6LPA-

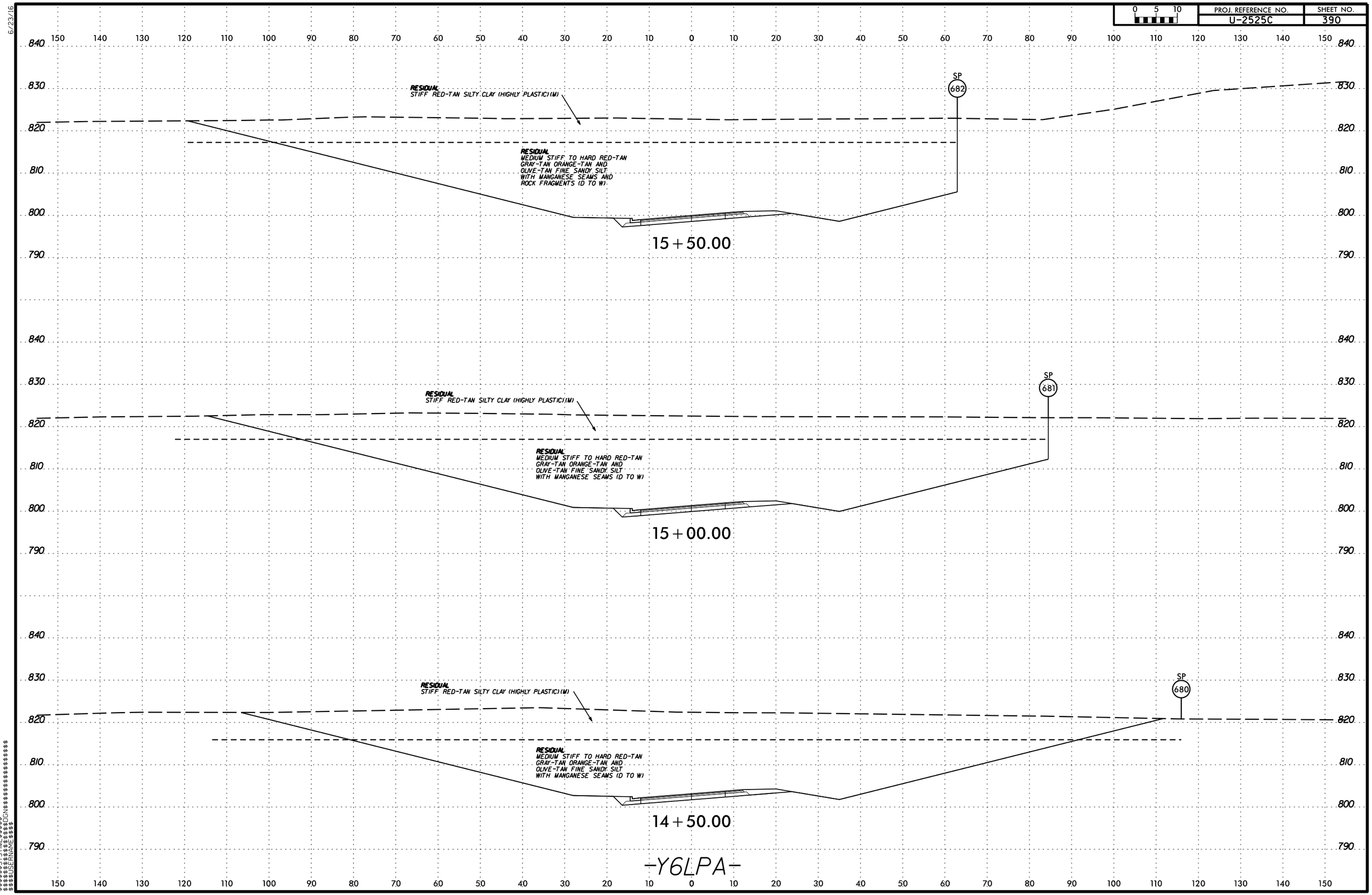
PROJ. REFERENCE NO. U-2525C | SHEET NO. 389

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-92	CL	14+00	3.1-4.6	A-7-5(40)	70	32	0	5	49	46	100	100	100	98.1	37.6	ND



0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	390

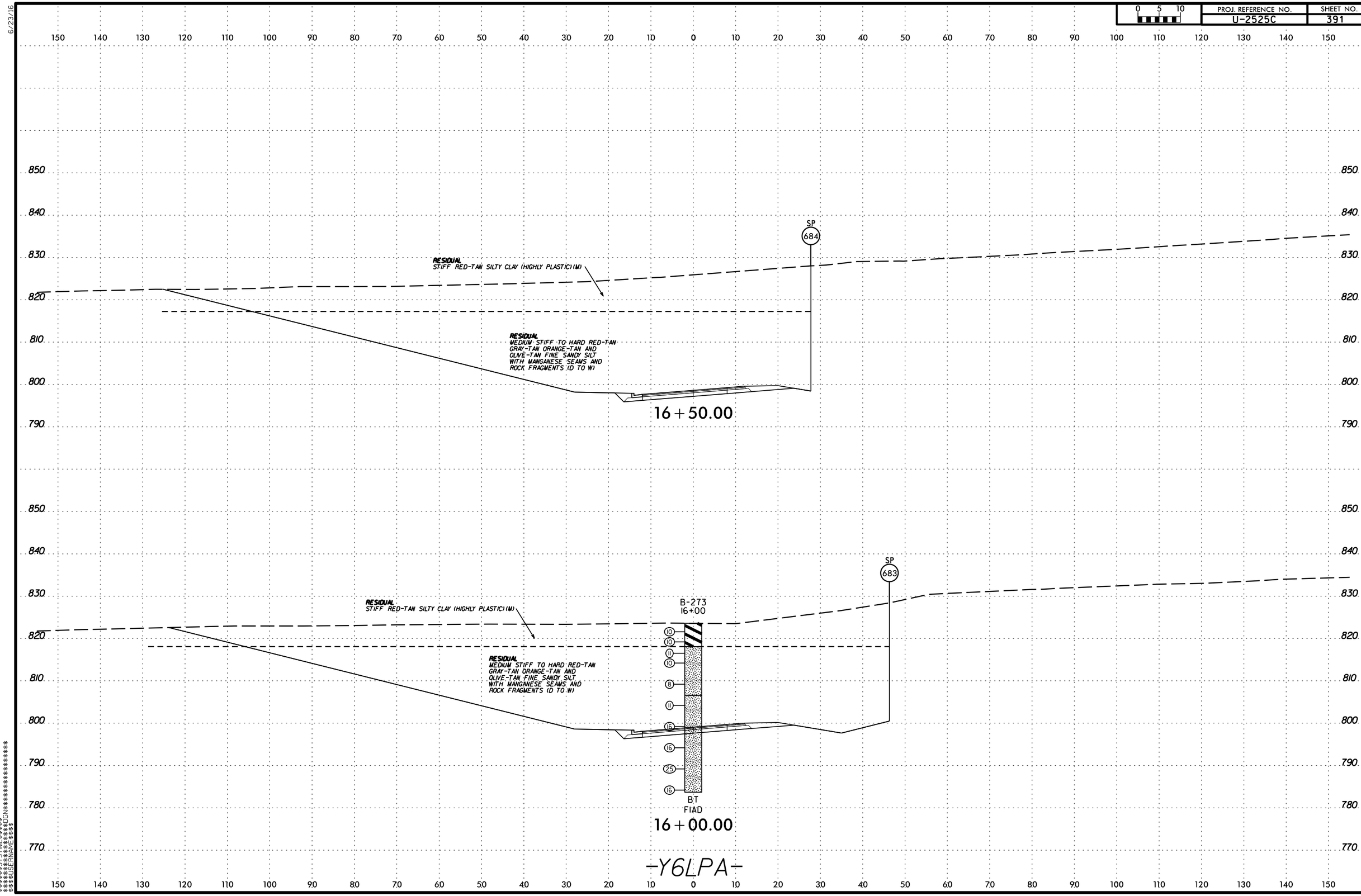


6/23/16

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

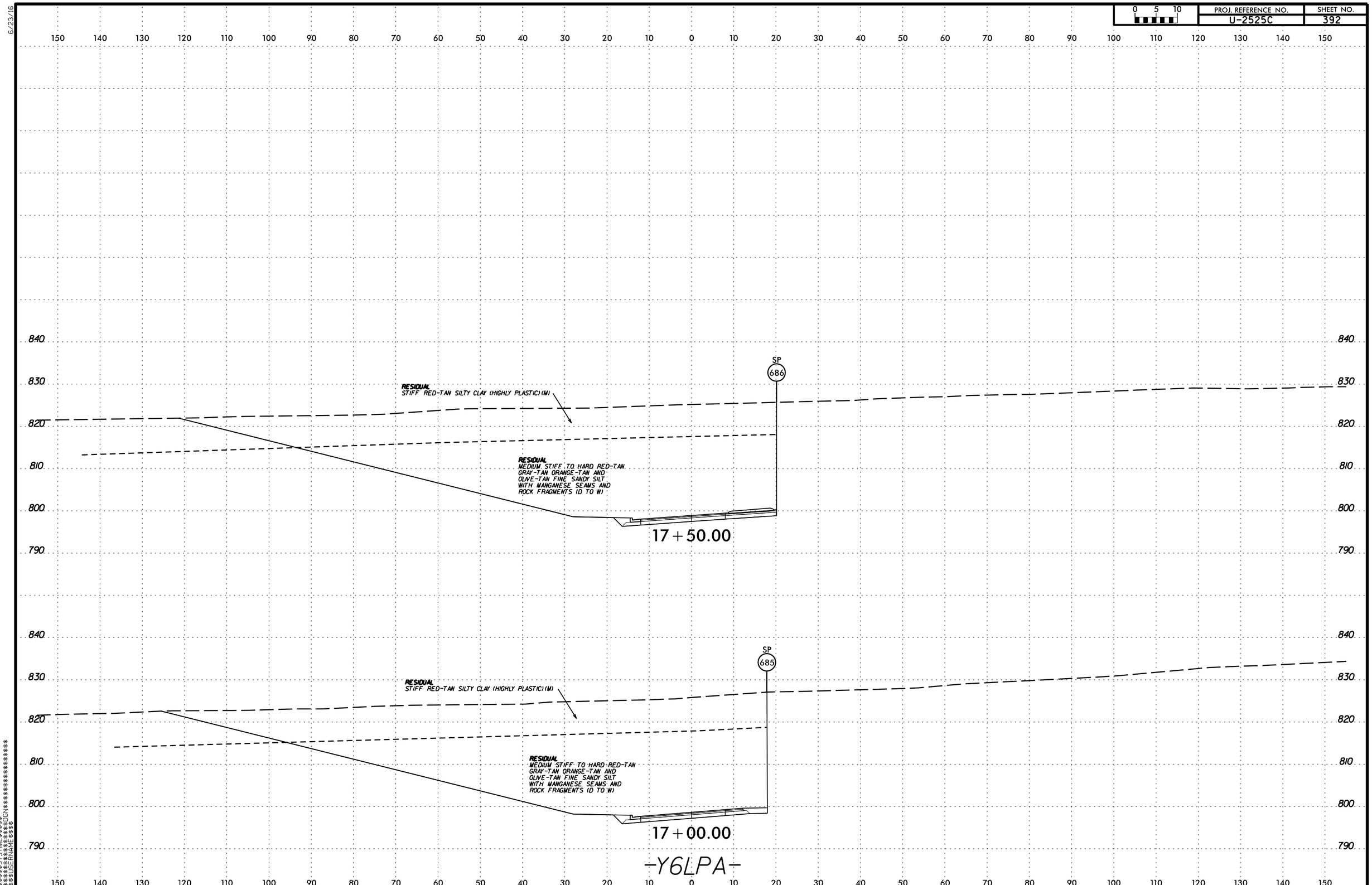
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	391



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	392

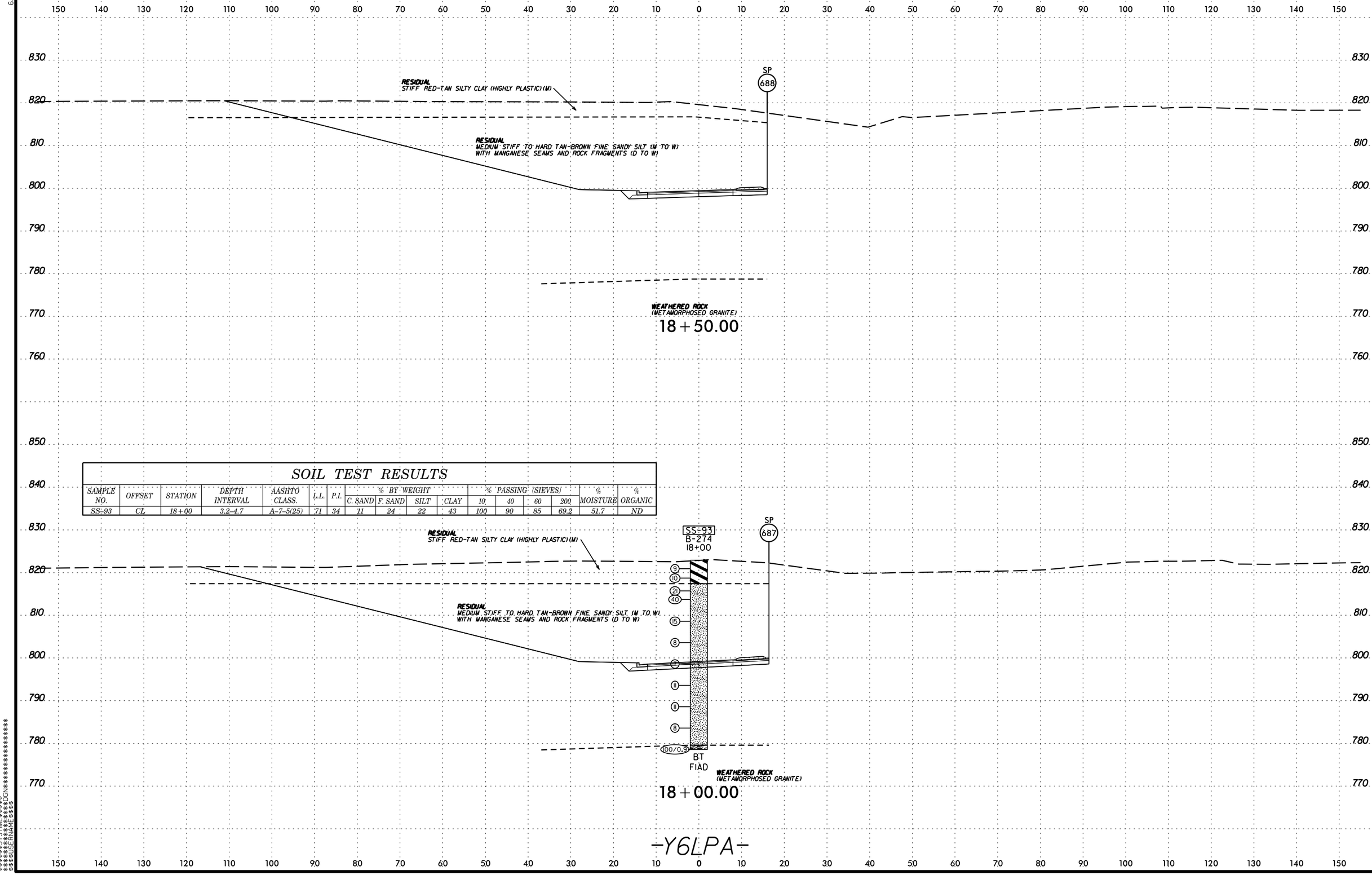


6/23/16

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	393

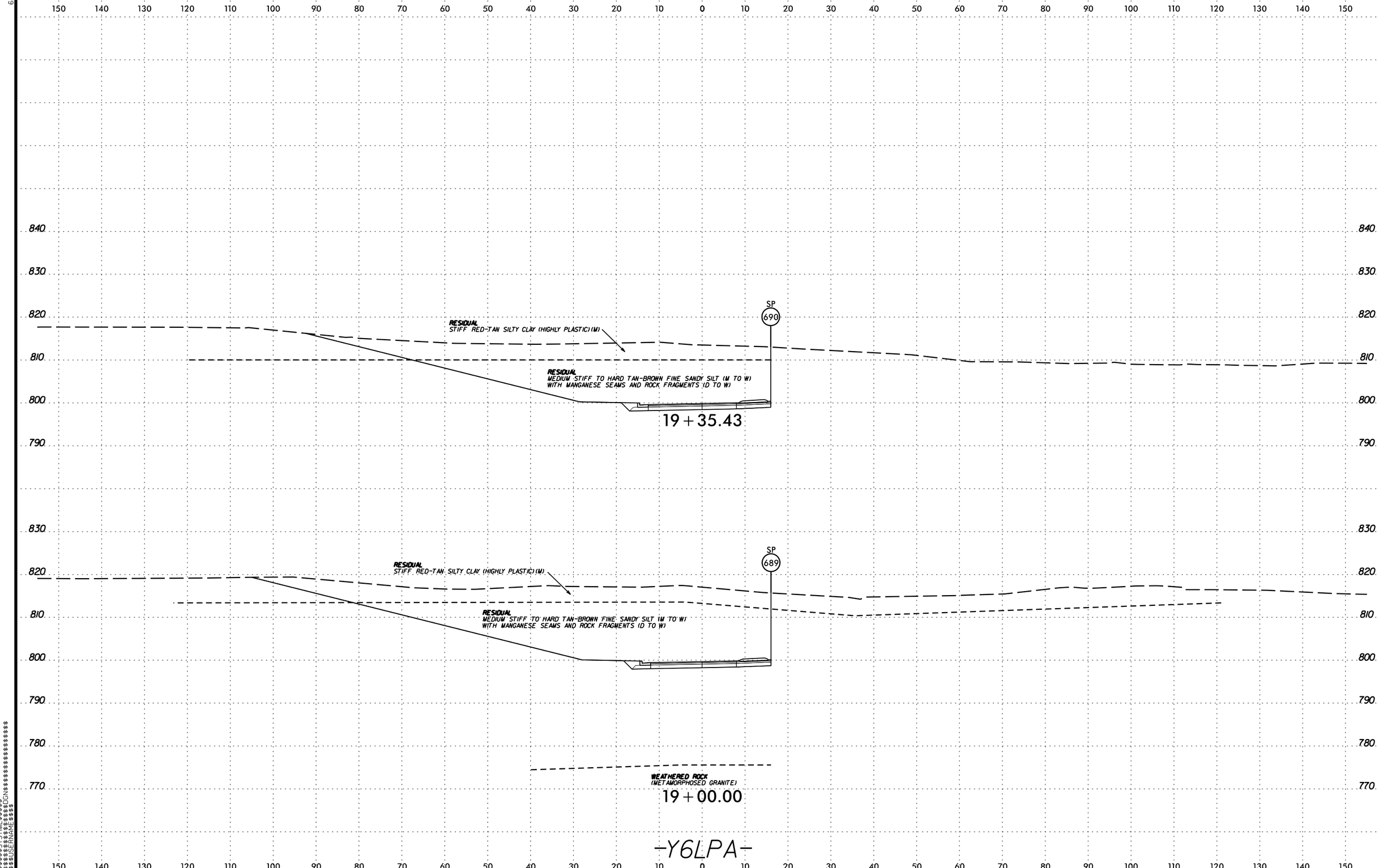


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-93	CL	18+00	3.2-4.7	A-7-5(25)	71	34	11	24	22	43	100	90	85	69.2	51.7	ND

-Y6LPA-

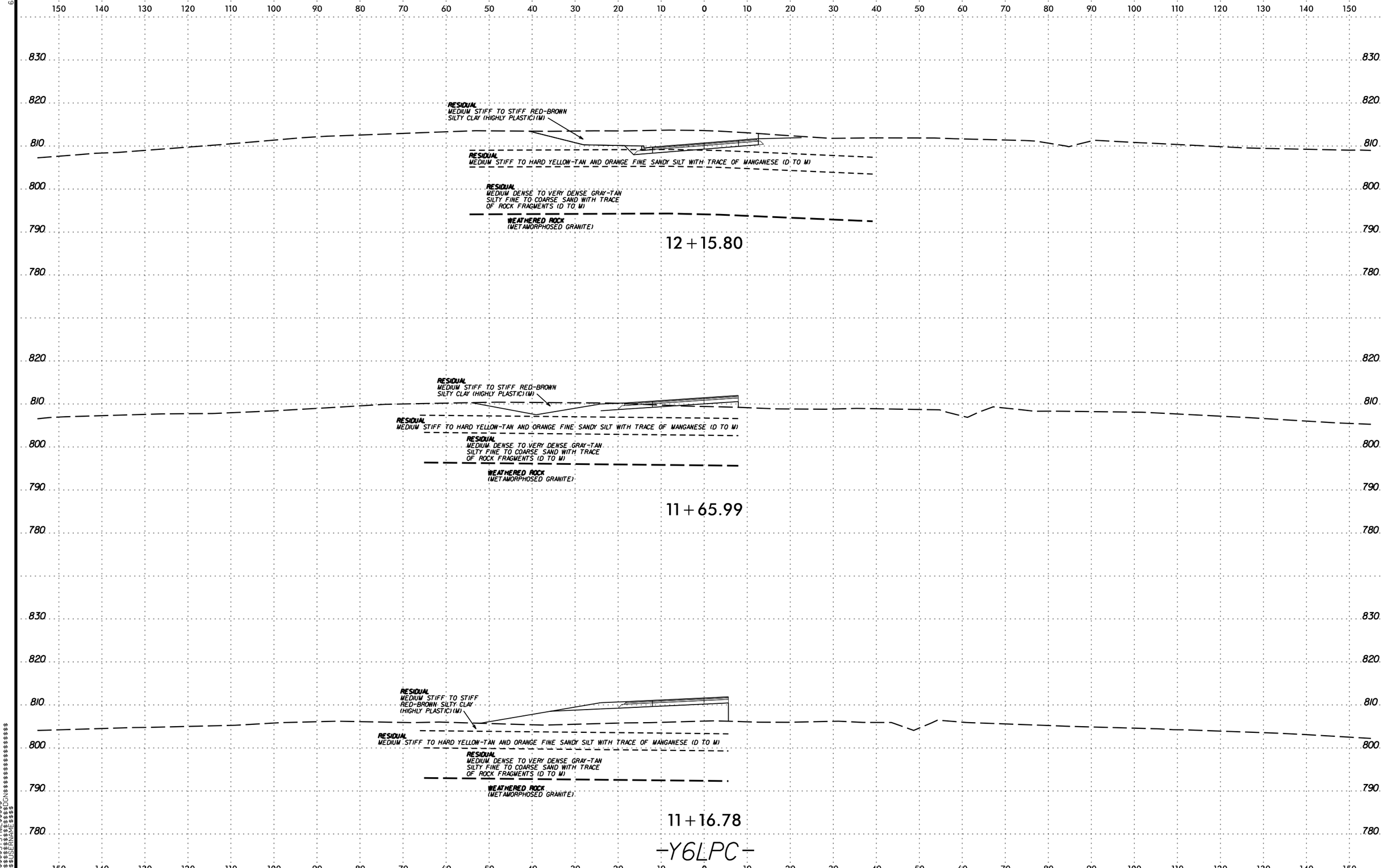
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
394
0 5 10
SP
690
RESIDUAL
STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO HARD TAN-BROWN FINE SANDY SILT (M TO W)
WITH MANGANESE SEAMS AND ROCK FRAGMENTS (D TO W)
19+35.43
SP
689
RESIDUAL
STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO HARD TAN-BROWN FINE SANDY SILT (M TO W)
WITH MANGANESE SEAMS AND ROCK FRAGMENTS (D TO W)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
19+00.00
-Y6LPA-

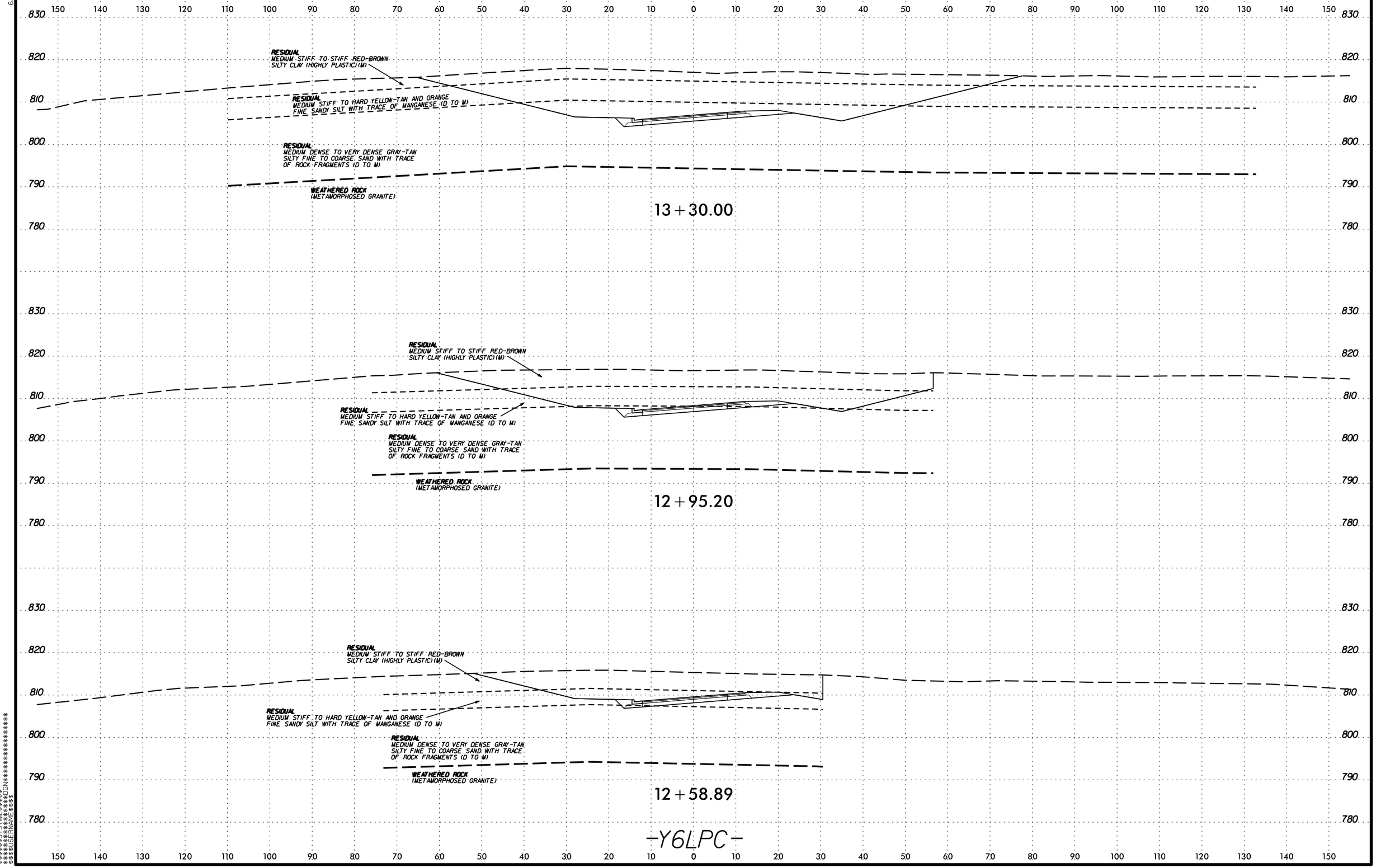
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	395

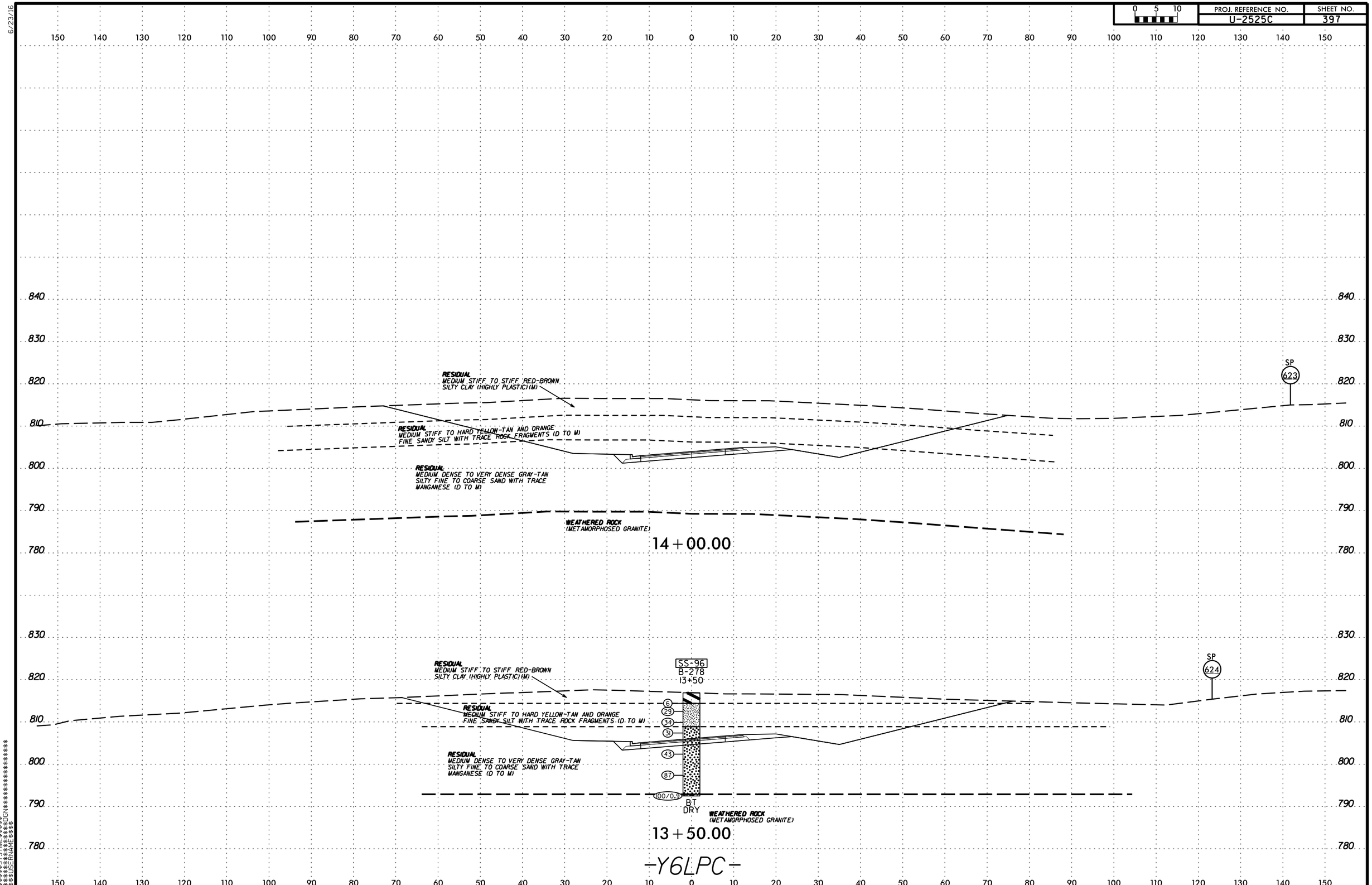


$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

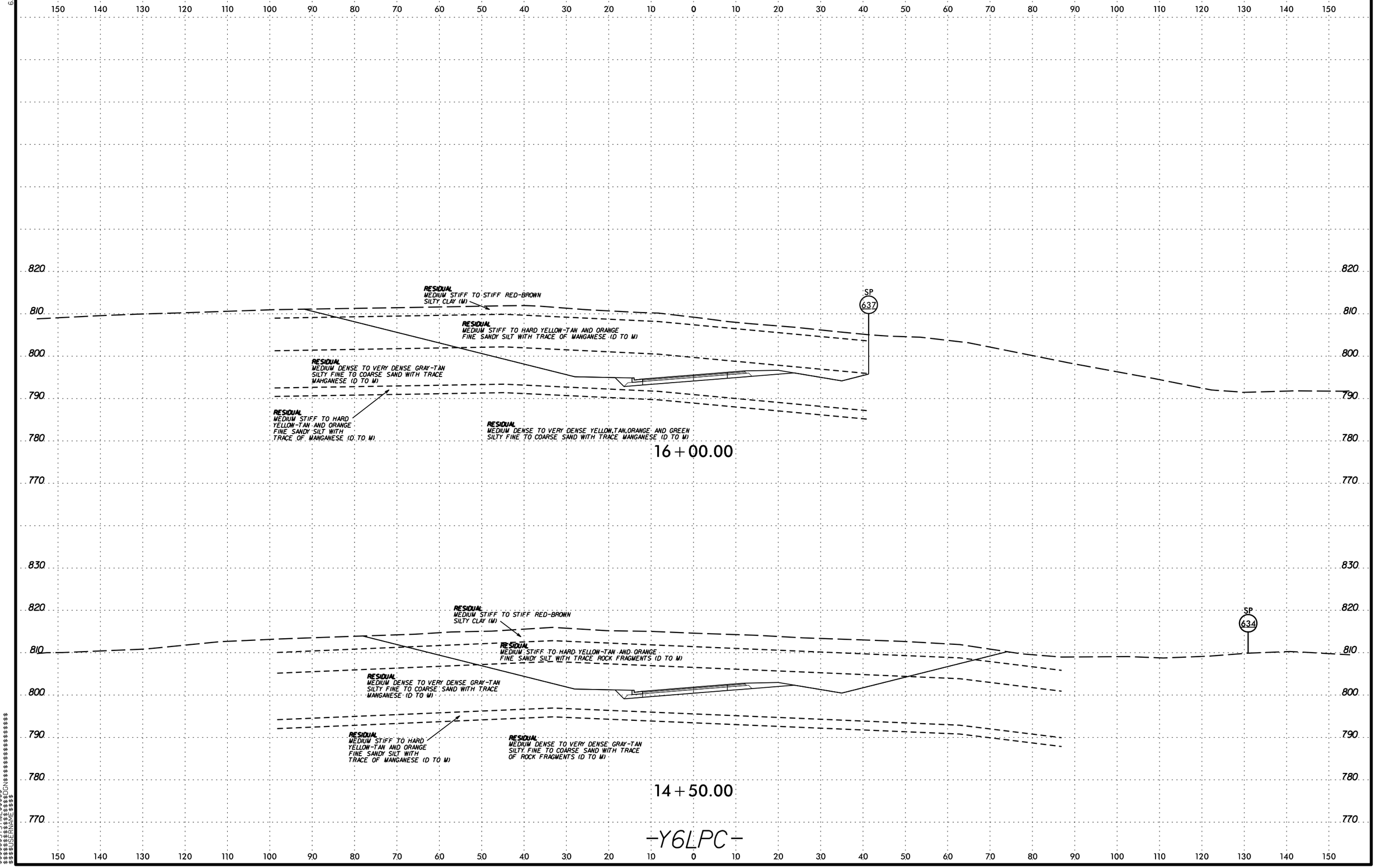
PROJ. REFERENCE NO. U-2525C
SHEET NO. 396



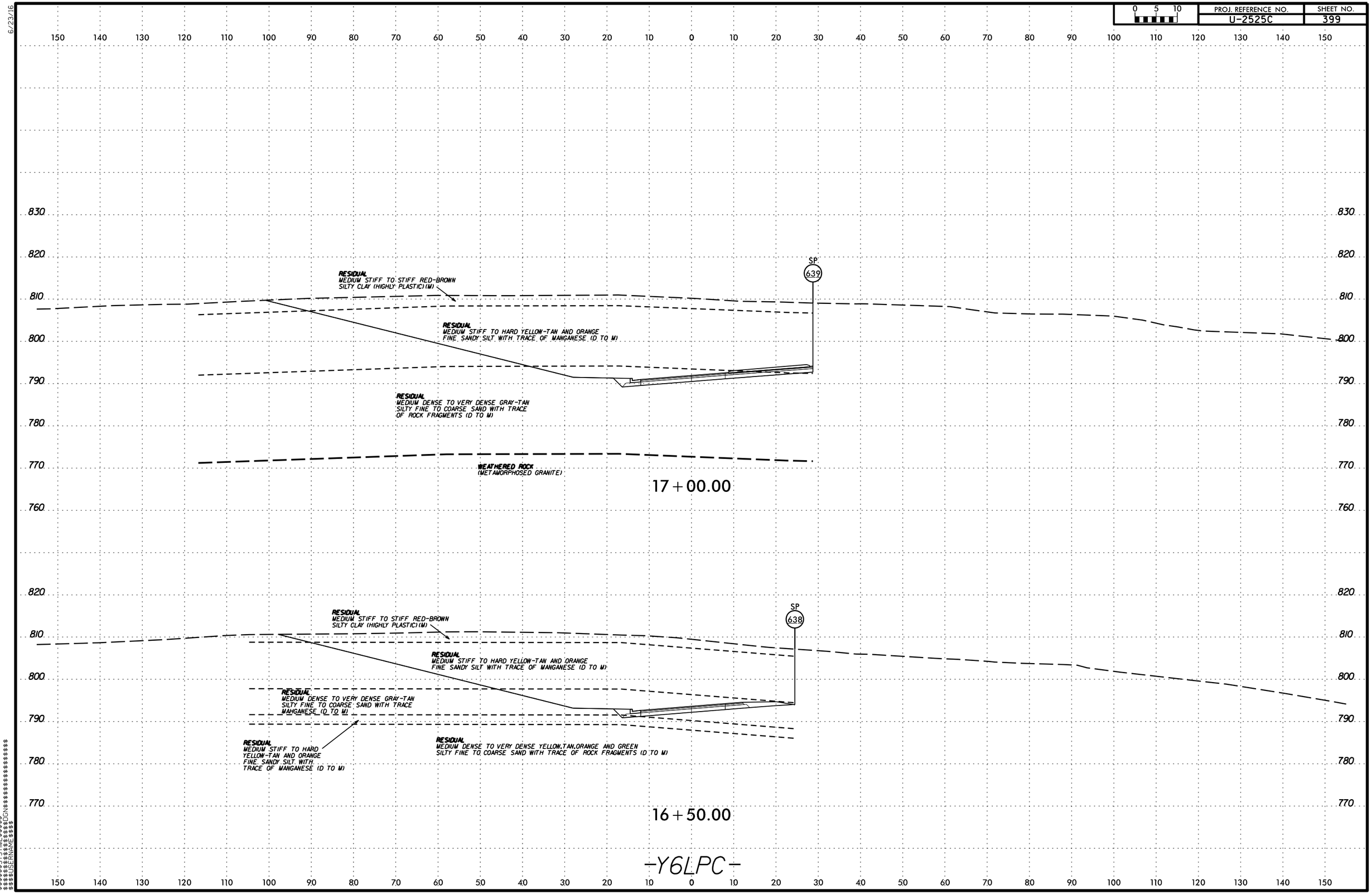
6/23/16
$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
397
0 5 10
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN SILTY CLAY (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO HARD YELLOW-TAN AND ORANGE FINE SANDY SILT WITH TRACE ROCK FRAGMENTS (D TO M)
RESIDUAL
MEDIUM DENSE TO VERY DENSE GRAY-TAN SILTY FINE TO COARSE SAND WITH TRACE MANGANESE (D TO M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
SP
623
14+00.00
SS-96
B-278
13+50
6
29
34
31
43
87
100/0.9
BT
DRY
SP
624
13+50.00
-Y6LPC-



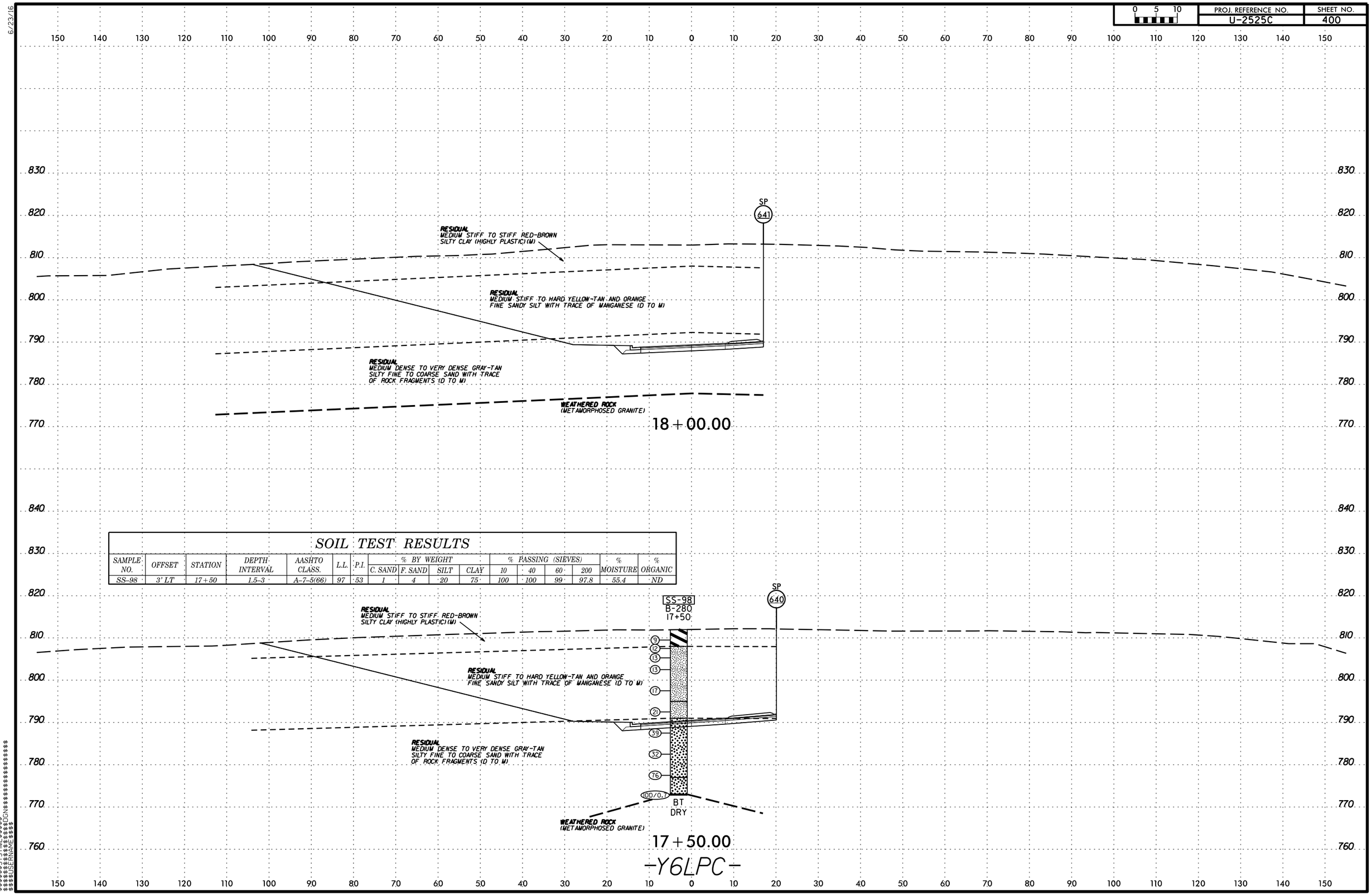
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
398
0 5 10
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN
SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO HARD YELLOW-TAN AND ORANGE
FINE SANDY SILT WITH TRACE OF MANGANESE (D TO M)
RESIDUAL
MEDIUM DENSE TO VERY DENSE GRAY-TAN
SILTY FINE TO COARSE SAND WITH TRACE
MAHGANESE (D TO M)
RESIDUAL
MEDIUM STIFF TO HARD
YELLOW-TAN AND ORANGE
FINE SANDY SILT WITH
TRACE OF MANGANESE (D TO M)
RESIDUAL
MEDIUM DENSE TO VERY DENSE YELLOW,TAN,ORANGE AND GREEN
SILTY FINE TO COARSE SAND WITH TRACE MANGANESE (D TO M)
SP
637
16+00.00
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN
SILTY CLAY (M)
RESIDUAL
MEDIUM STIFF TO HARD YELLOW-TAN AND ORANGE
FINE SANDY SILT WITH TRACE ROCK FRAGMENTS (D TO M)
RESIDUAL
MEDIUM DENSE TO VERY DENSE GRAY-TAN
SILTY FINE TO COARSE SAND WITH TRACE
MANGANESE (D TO M)
RESIDUAL
MEDIUM STIFF TO HARD
YELLOW-TAN AND ORANGE
FINE SANDY SILT WITH
TRACE OF MANGANESE (D TO M)
RESIDUAL
MEDIUM DENSE TO VERY DENSE GRAY-TAN
SILTY FINE TO COARSE SAND WITH TRACE
OF ROCK FRAGMENTS (D TO M)
SP
634
14+50.00
-Y6LPC-



6/23/16
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

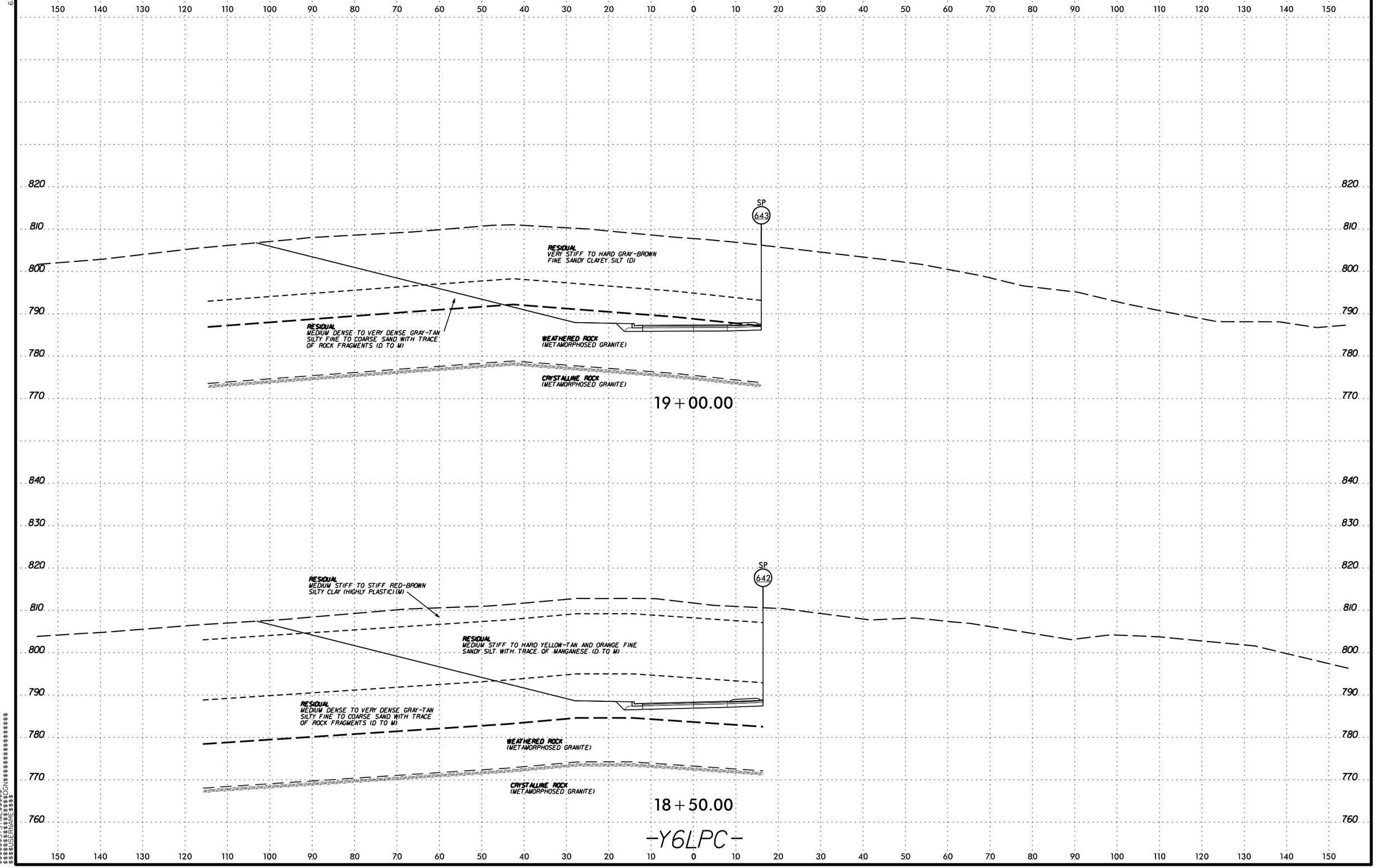
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	400



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-98	3' LT	17+50	1.5-3	A-7-5(66)	97	53	1	4	20	75	100	100	99	97.8	55.4	ND

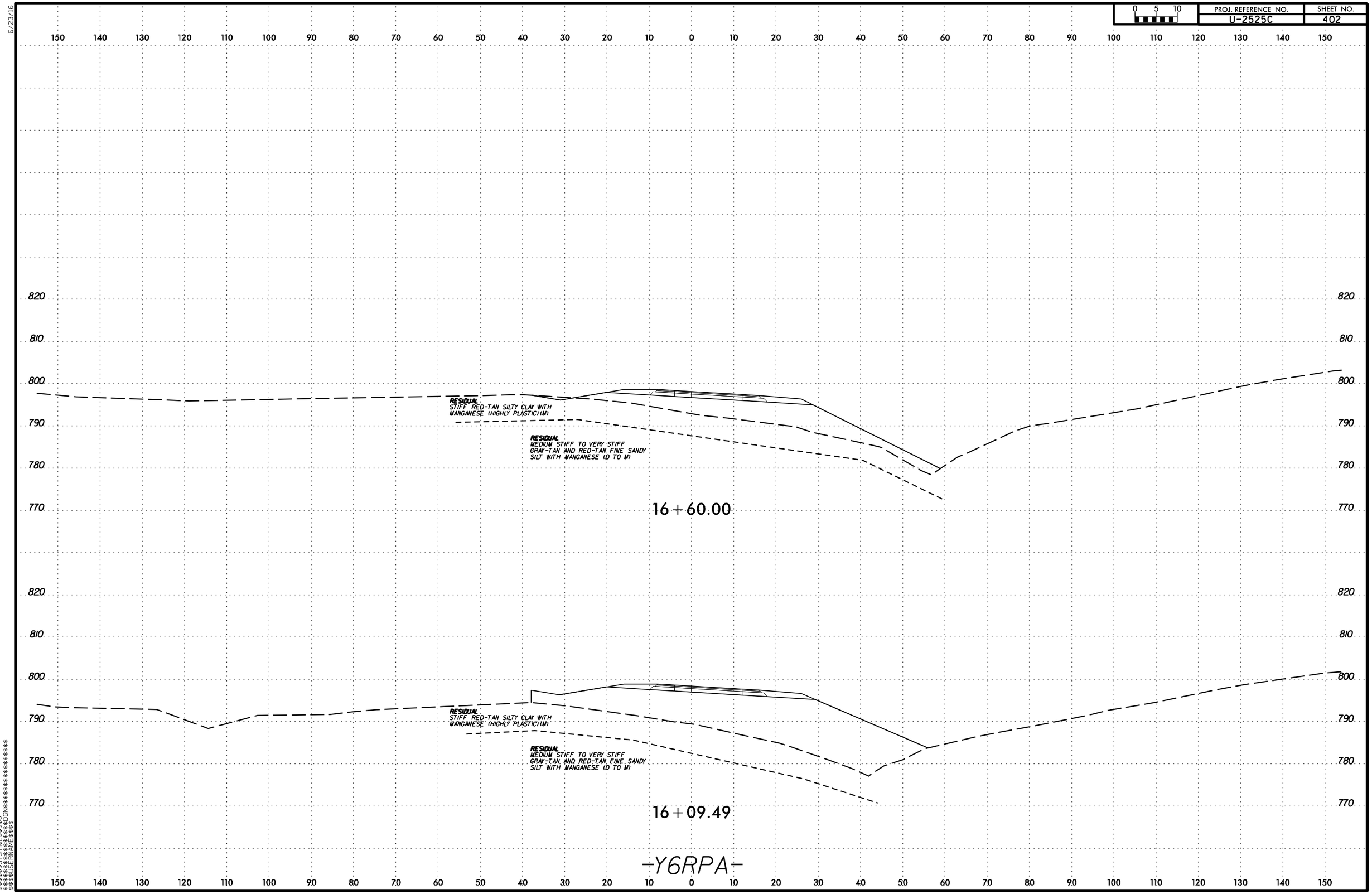
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



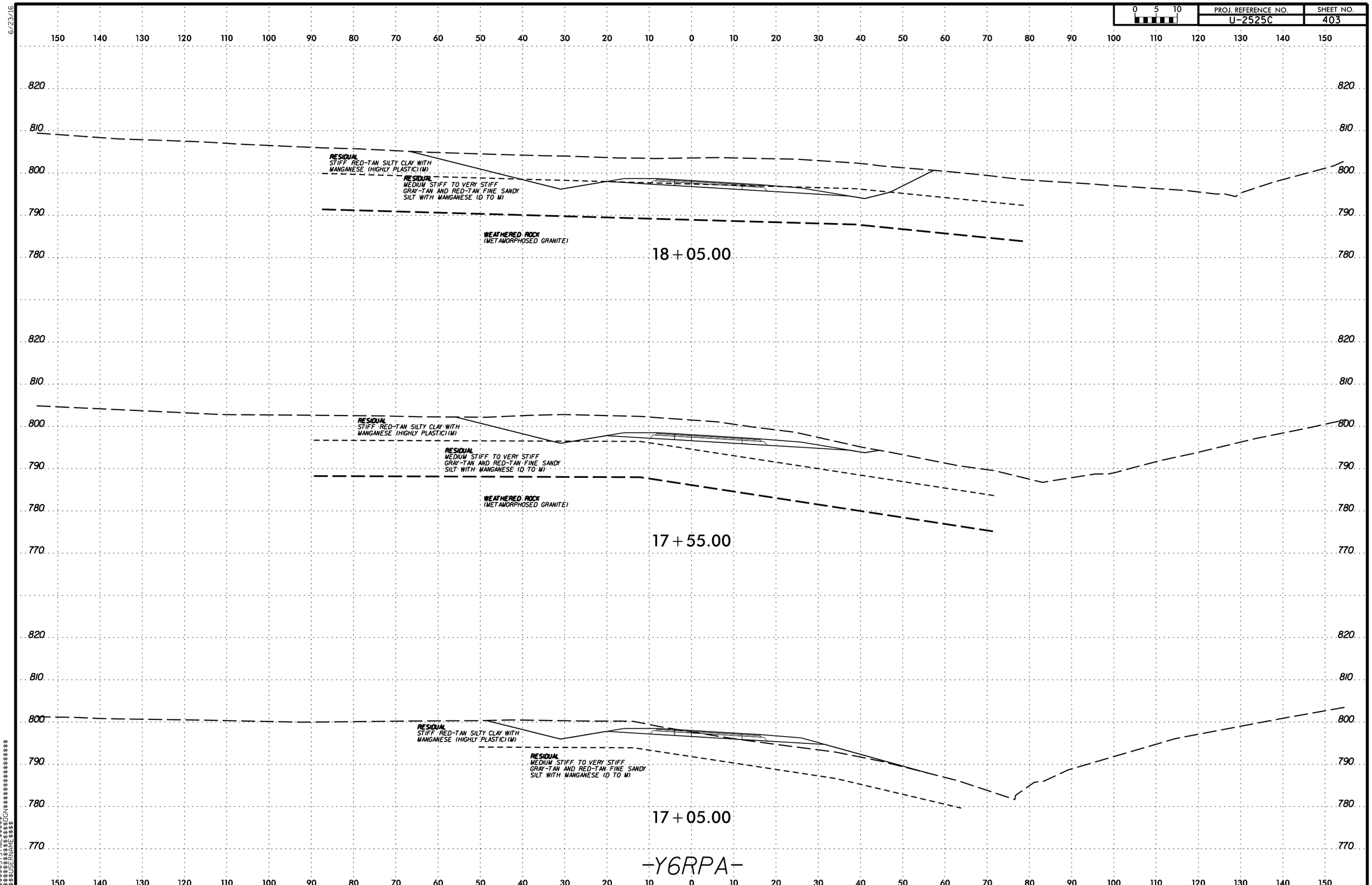
PROJ. REFERENCE NO.
U-2525C
SHEET NO.
401
0 5 10
SP
643
RESIDUAL
VERY STIFF TO HARD GRAY-BROWN
FINE SANDY CLAYEY SILT (D)
RESIDUAL
MEDIUM DENSE TO VERY DENSE GRAY-TAN
SILTY FINE TO COARSE SAND WITH TRACE
OF ROCK FRAGMENTS (D TO M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
19+00.00
SP
642
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN
SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO HARD YELLOW-TAN AND ORANGE FINE
SANDY SILT WITH TRACE OF MANGANESE (D TO M)
RESIDUAL
MEDIUM DENSE TO VERY DENSE GRAY-TAN
SILTY FINE TO COARSE SAND WITH TRACE
OF ROCK FRAGMENTS (D TO M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
CRYSTALLINE ROCK
(METAMORPHOSED GRANITE)
18+50.00
-Y6LPC-

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	402

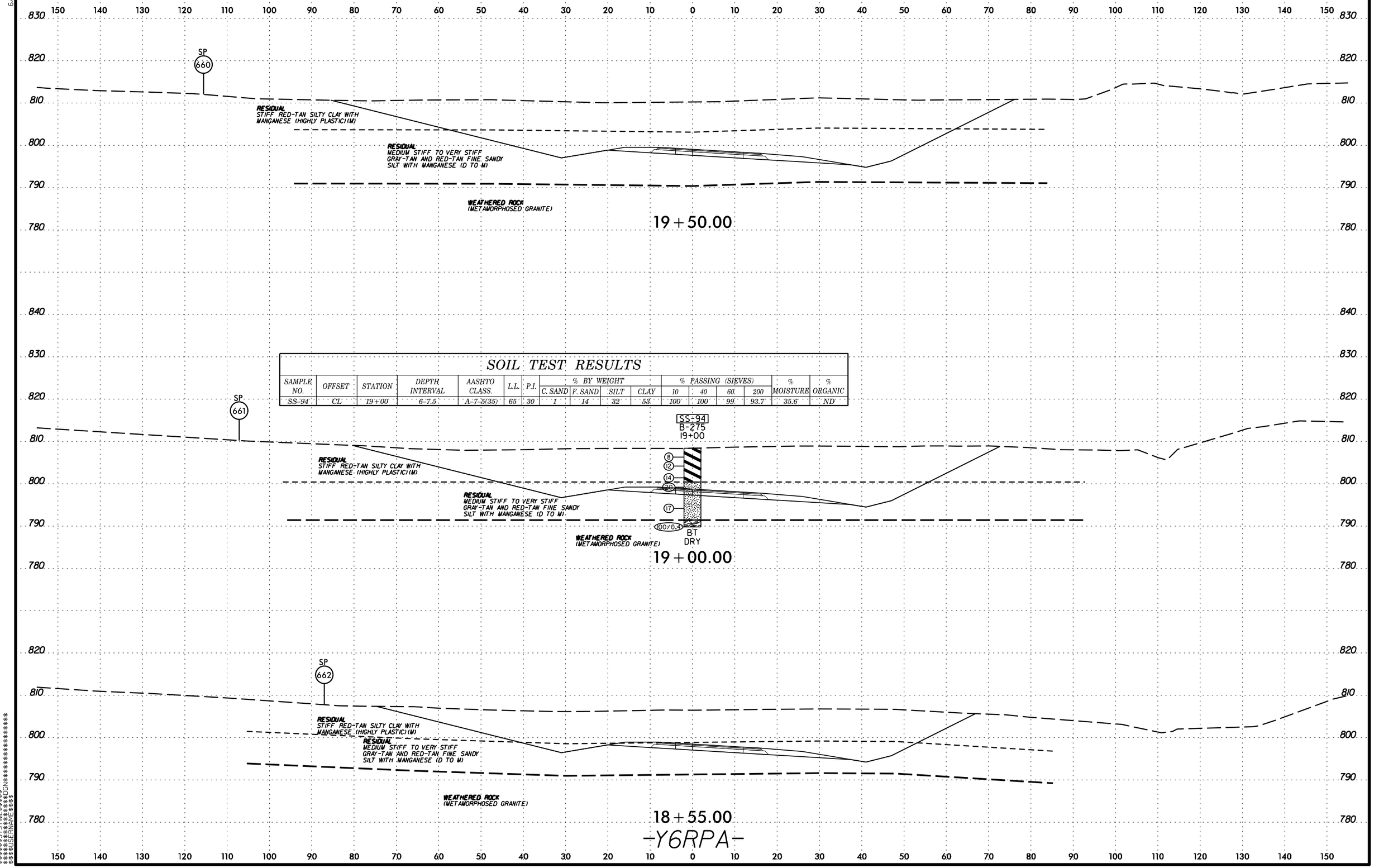


$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
403
0 5 10
RESIDUAL
STIFF RED-TAN SILTY CLAY WITH MANGANESE (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF GRAY-TAN AND RED-TAN FINE SANDY SILT WITH MANGANESE (D TO M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
18+05.00
RESIDUAL
STIFF RED-TAN SILTY CLAY WITH MANGANESE (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF GRAY-TAN AND RED-TAN FINE SANDY SILT WITH MANGANESE (D TO M)
WEATHERED ROCK
(METAMORPHOSED GRANITE)
17+55.00
RESIDUAL
STIFF RED-TAN SILTY CLAY WITH MANGANESE (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF TO VERY STIFF GRAY-TAN AND RED-TAN FINE SANDY SILT WITH MANGANESE (D TO M)
17+05.00
-Y6RPA-

PROJ. REFERENCE NO. U-2525C | SHEET NO. 404

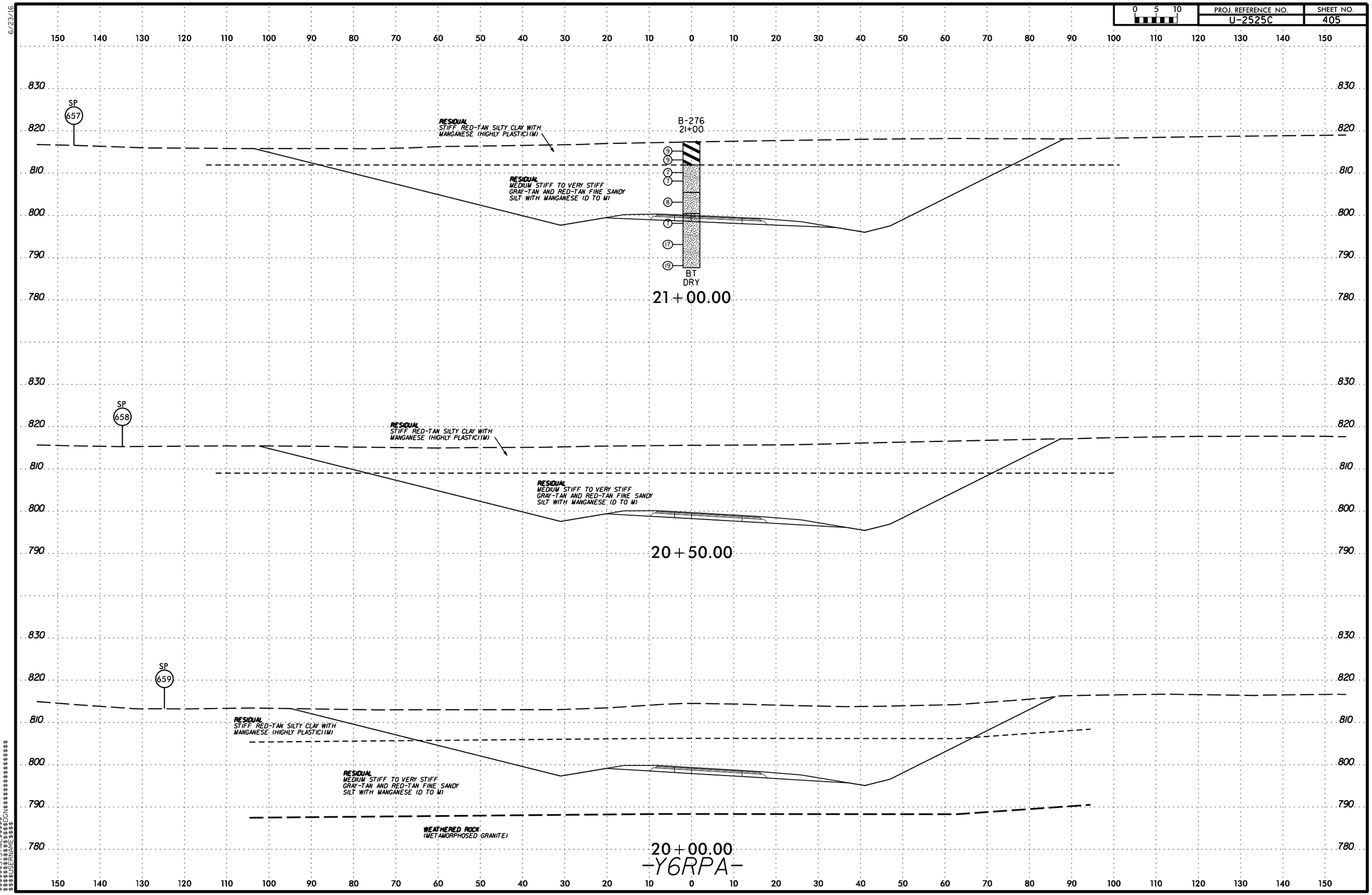


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-94	CL	19+00	6-7.5	A-7-5(35)	65	30	1	14	32	53	100	100	99	93.7	35.6	ND

6/23/16

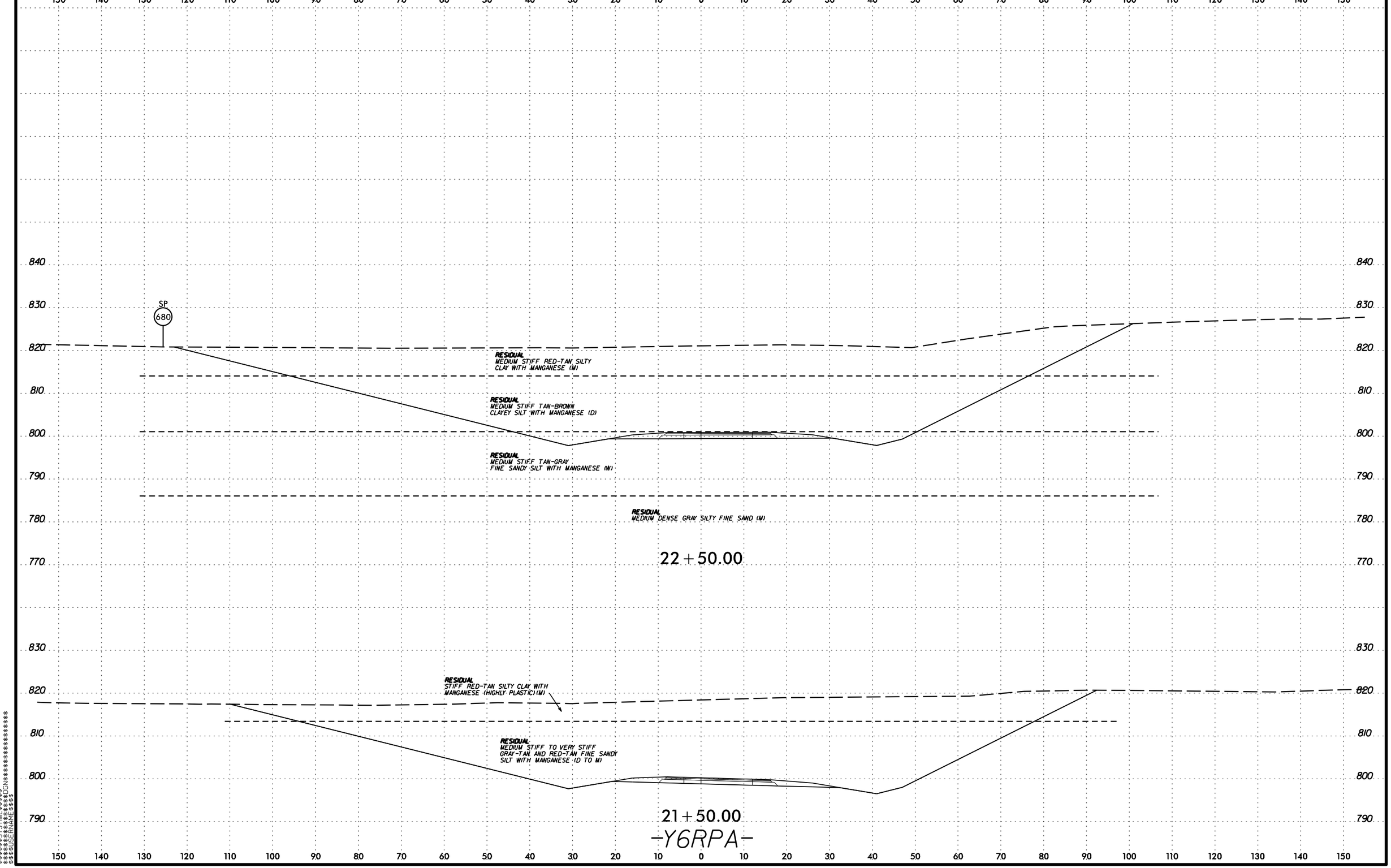
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	405



-Y6RPA-

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	406



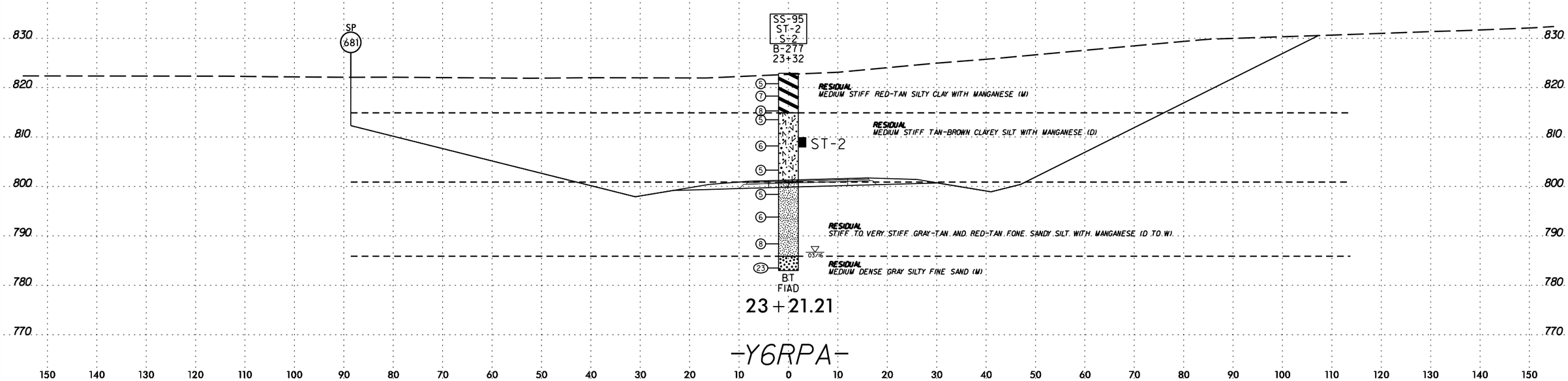
6/23/16
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	407

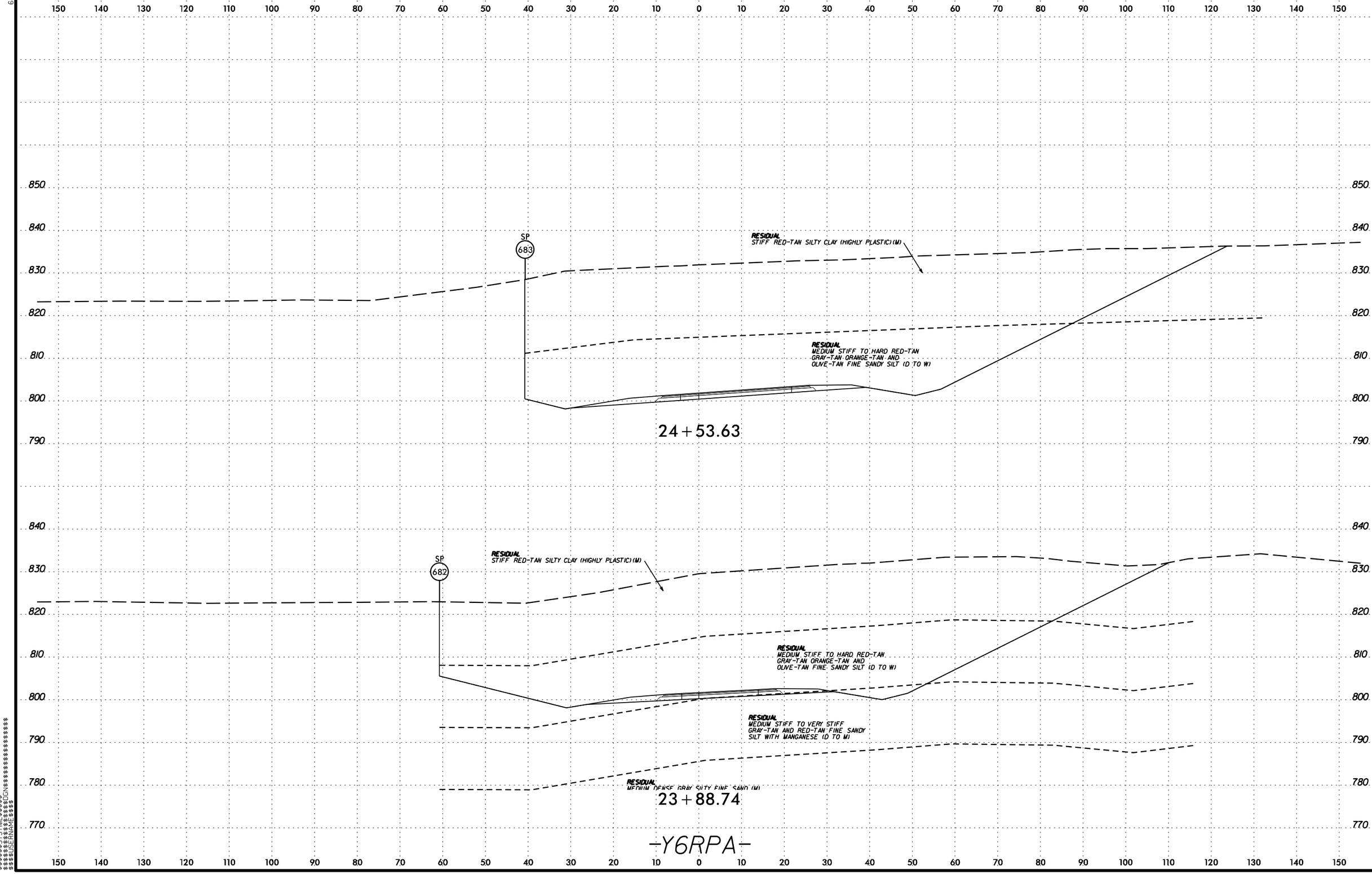
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-95	CL	23+32	1.0-2.5	A-7-5(19)	66	12	3	18	50	29	100	99	97	87.3	45.8	ND
S-2	CL	23+32	1.0-15.0	A-7-5(23)	64	22	7	21	45	27	100	96	93	82.2	48.7	ND
ST-2	CL	23+30	13.0-15.0	A-5(7)	61	9	14	44	33	9	100	92	86	58.8	41.6	ND



-Y6RPA-

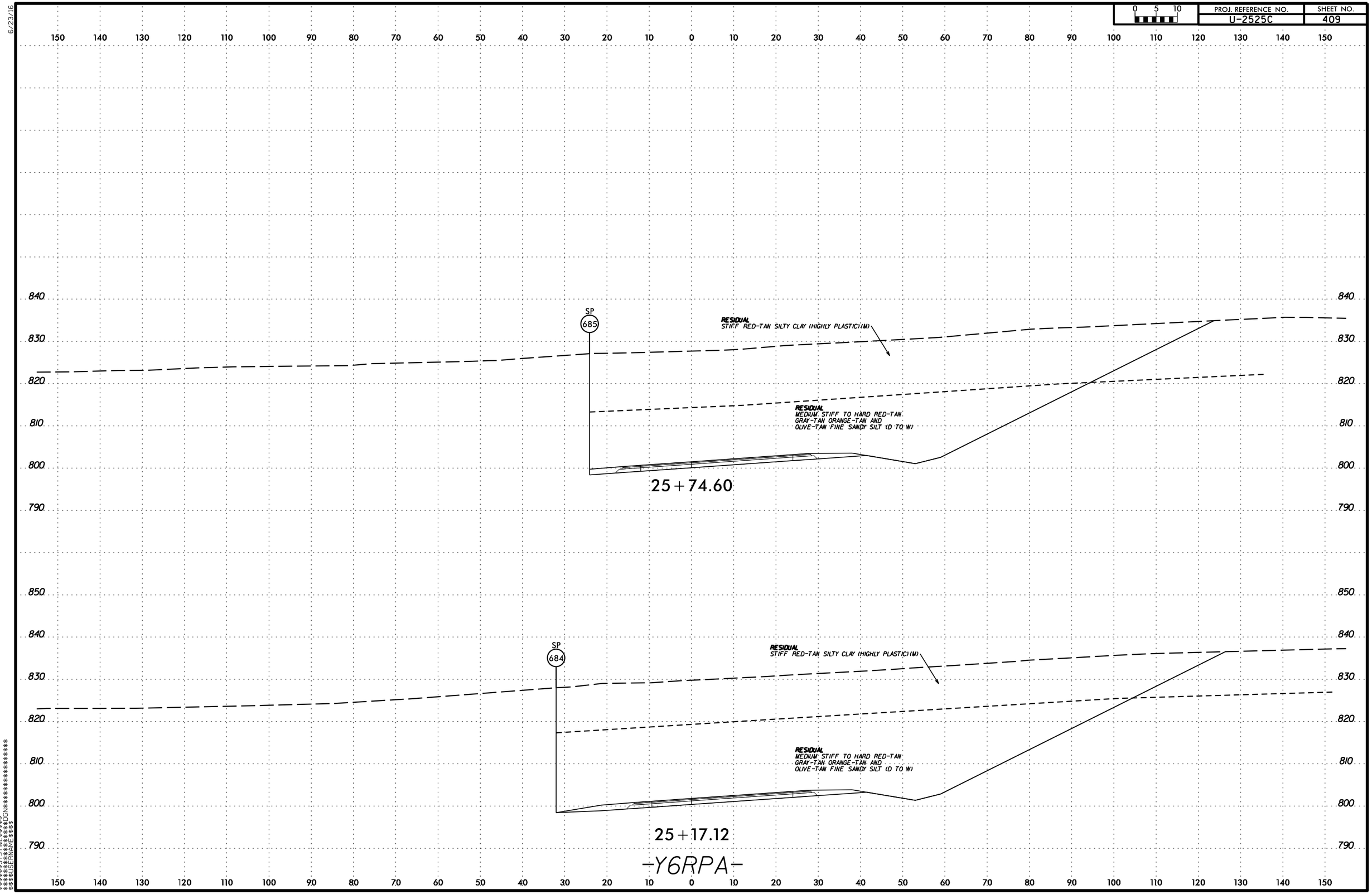
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
408
0 5 10
SP
683
RESIDUAL
STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO HARD RED-TAN
GRAY-TAN ORANGE-TAN AND
OLIVE-TAN FINE SANDY SILT (D TO W)
24+53.63
SP
682
RESIDUAL
STIFF RED-TAN SILTY CLAY (HIGHLY PLASTIC)(M)
RESIDUAL
MEDIUM STIFF TO HARD RED-TAN
GRAY-TAN ORANGE-TAN AND
OLIVE-TAN FINE SANDY SILT (D TO W)
RESIDUAL
MEDIUM STIFF TO VERY STIFF
GRAY-TAN AND RED-TAN FINE SANDY
SILT WITH MANGANESE (D TO M)
RESIDUAL
MEDIUM DENSE GRAY SILTY FINE SAND (M)
23+88.74
-Y6RPA-

6/23/16

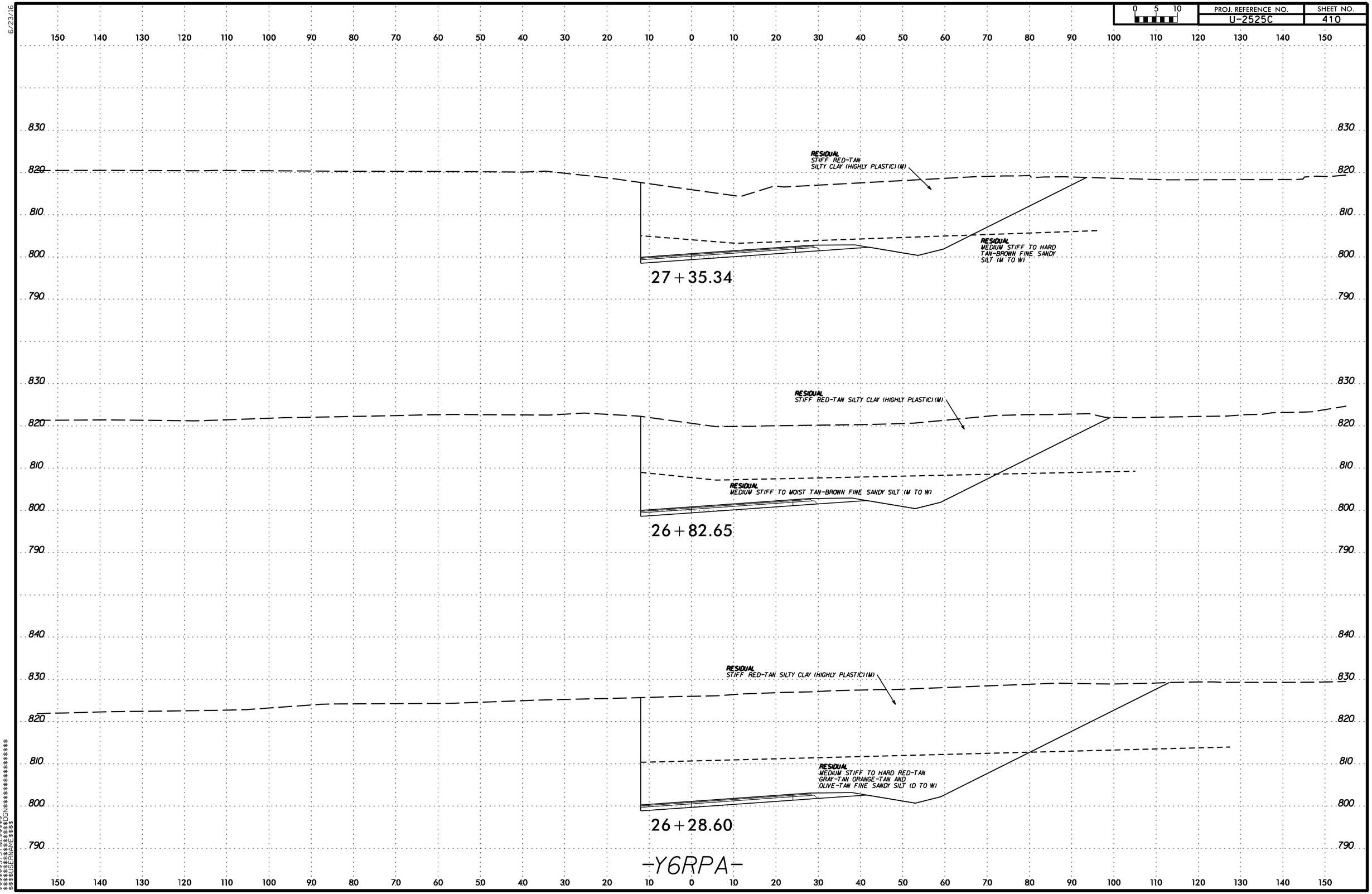
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	409



$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	410

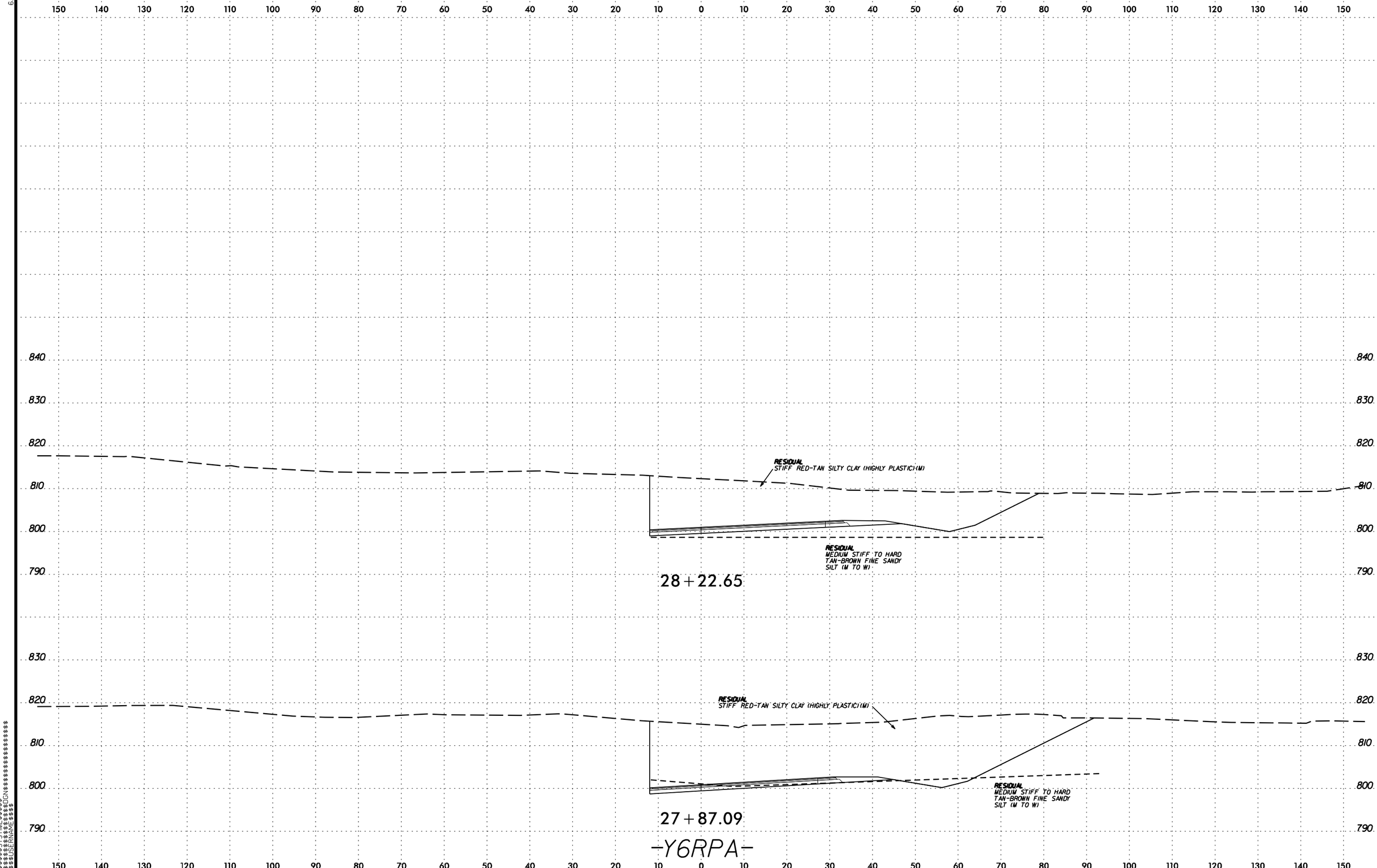


$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	411

0 5 10

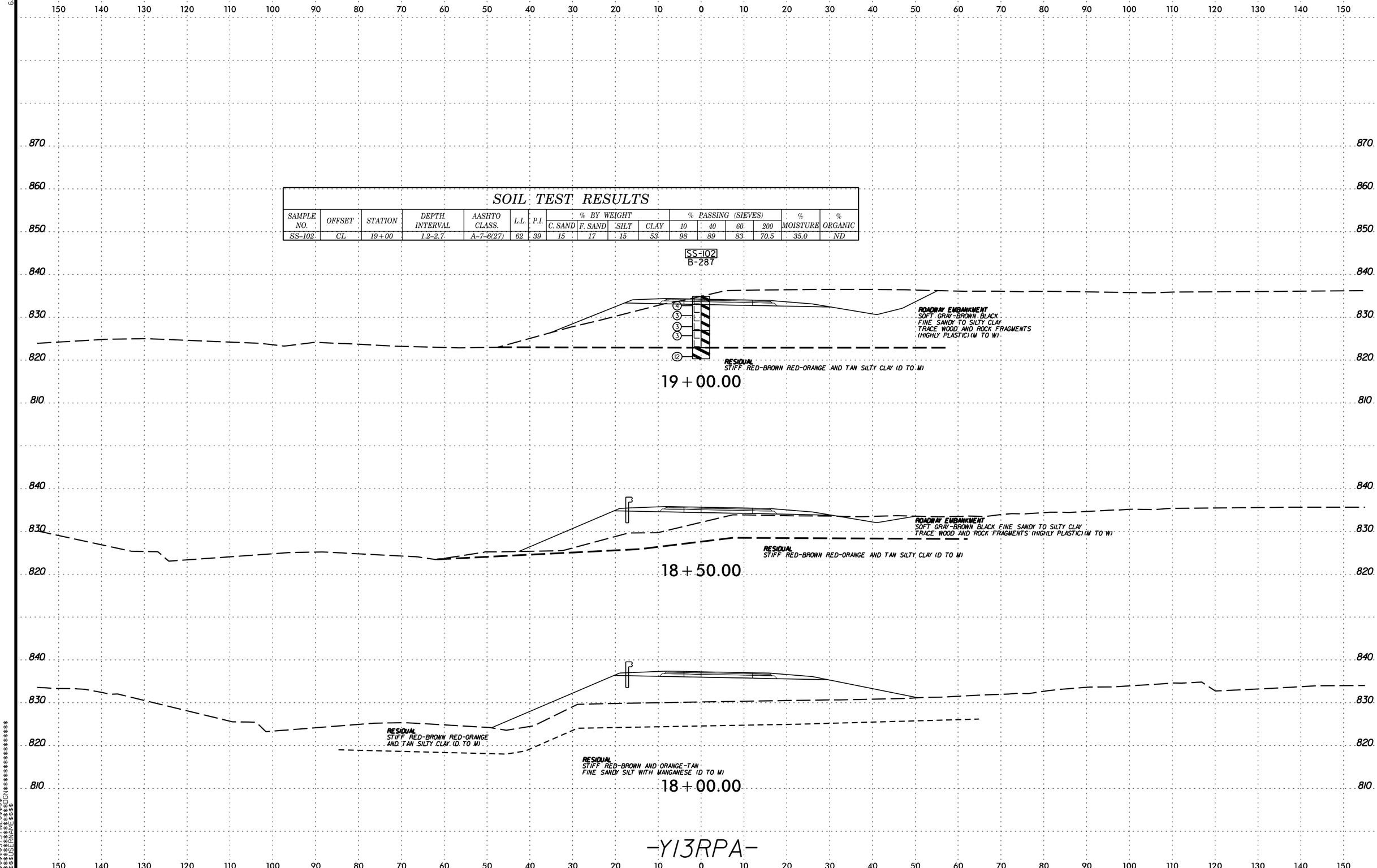


$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	412

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-102	CL	19+00	1.2-2.7	A-7-6(27)	62	39	15	17	15	53	98	89	83	70.5	35.0	ND

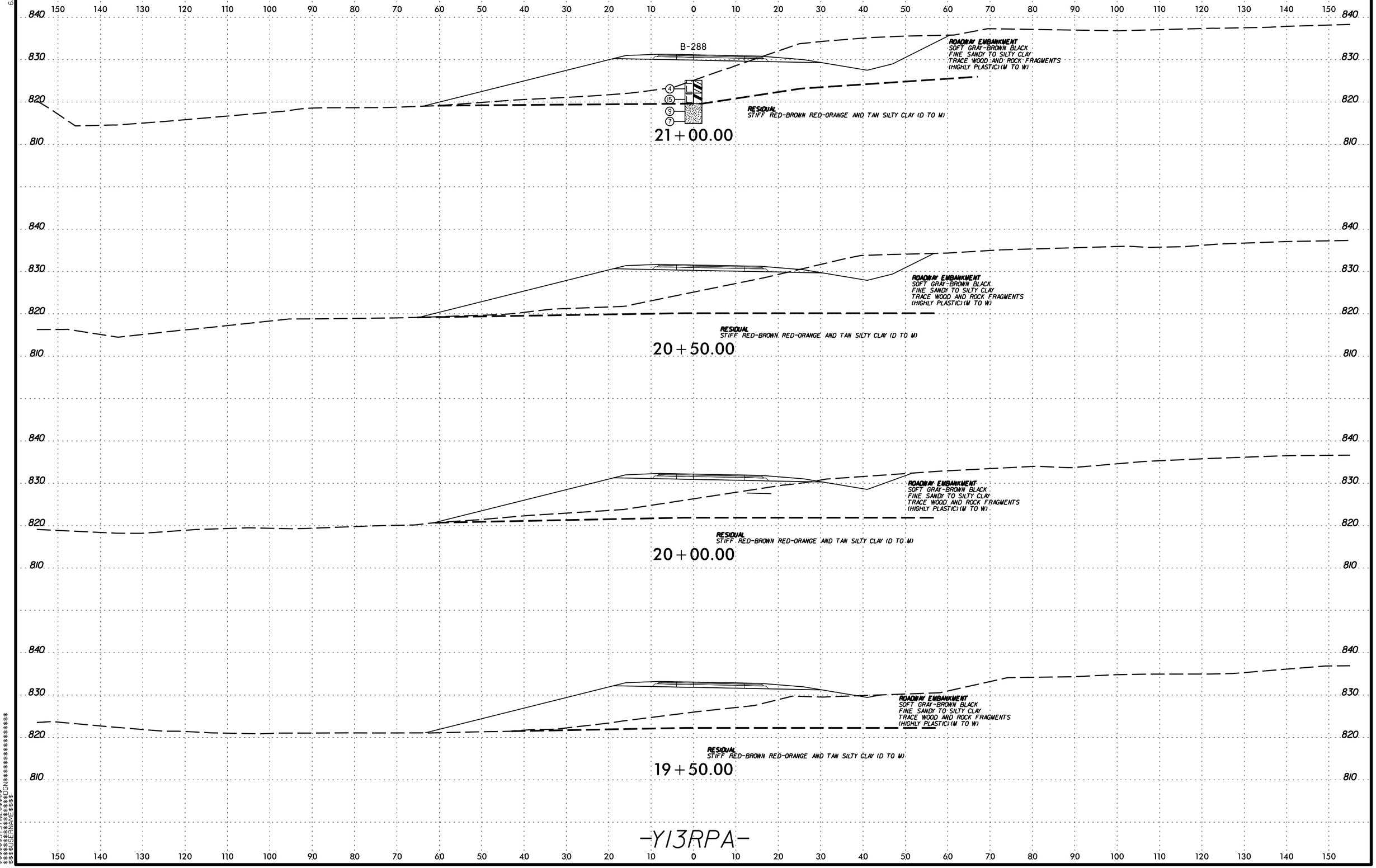


6/23/16

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

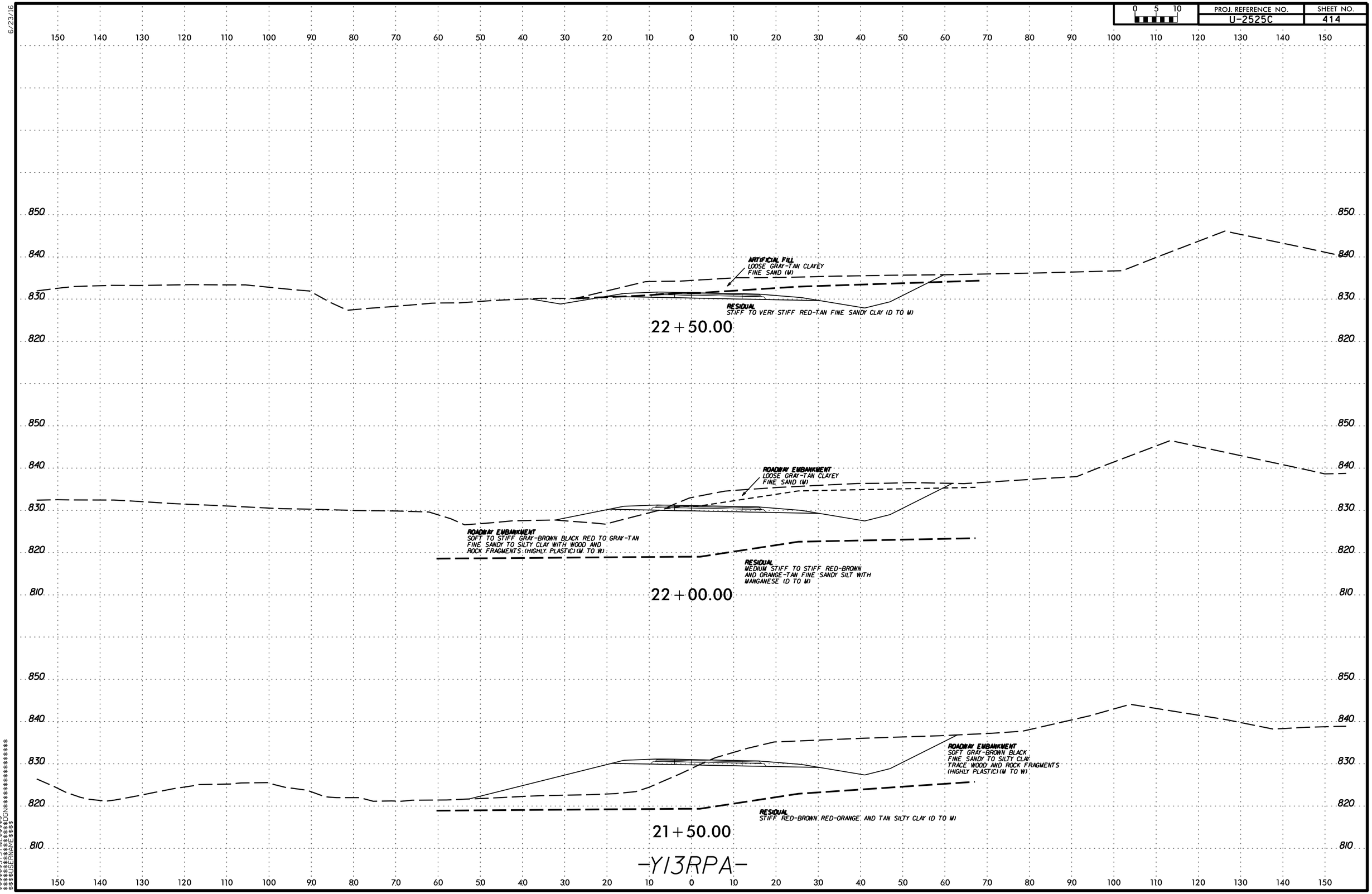
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	413



-Y13RPA-

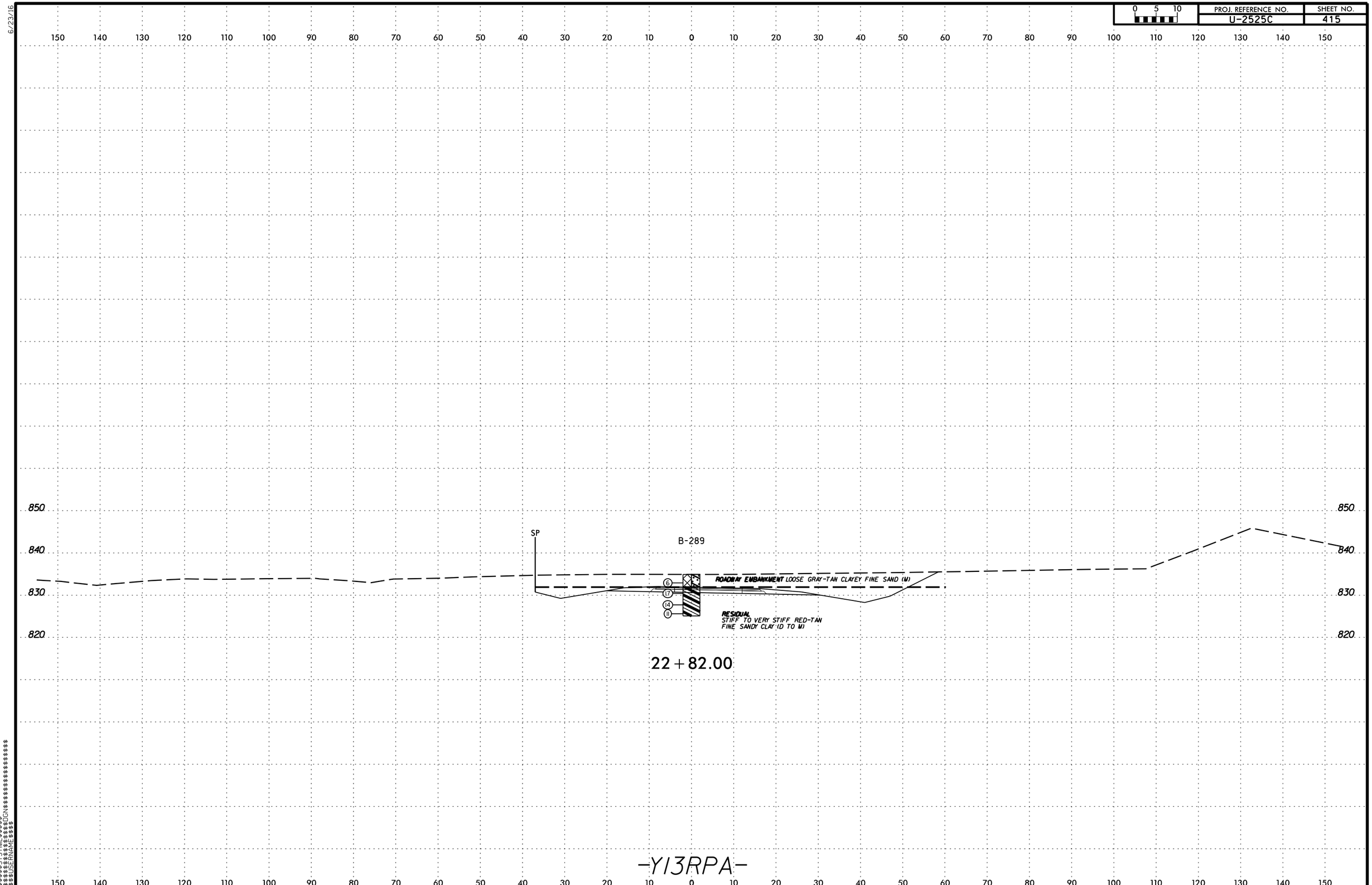
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
414
0 5 10
ARTIFICIAL FILL
LOOSE GRAY-TAN CLAYEY FINE SAND (M)
RESIDUAL
STIFF TO VERY STIFF RED-TAN FINE SANDY CLAY (D TO M)
22+50.00
ROADWAY EMBANKMENT
LOOSE GRAY-TAN CLAYEY FINE SAND (M)
ROADWAY EMBANKMENT
SOFT TO STIFF GRAY-BROWN BLACK RED TO GRAY-TAN FINE SANDY TO SILTY CLAY WITH WOOD AND ROCK FRAGMENTS (HIGHLY PLASTIC)(M TO W)
RESIDUAL
MEDIUM STIFF TO STIFF RED-BROWN AND ORANGE-TAN FINE SANDY SILT WITH MANGANESE (D TO M)
22+00.00
ROADWAY EMBANKMENT
SOFT GRAY-BROWN BLACK FINE SANDY TO SILTY CLAY TRACE WOOD AND ROCK FRAGMENTS (HIGHLY PLASTIC)(M TO W)
RESIDUAL
STIFF RED-BROWN RED-ORANGE AND TAN SILTY CLAY (D TO M)
21+50.00
-Y13RPA-

6/23/16

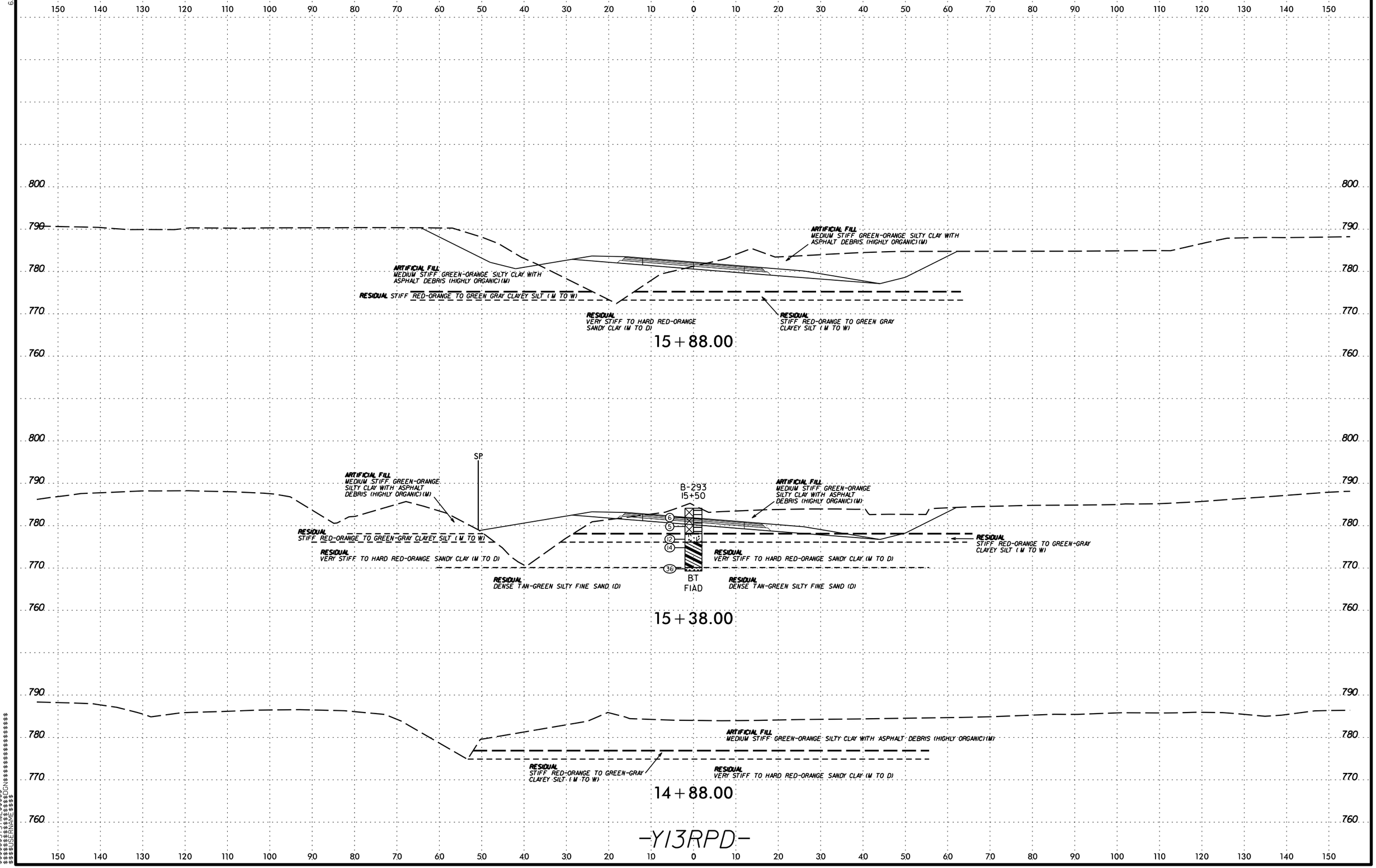
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	415



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

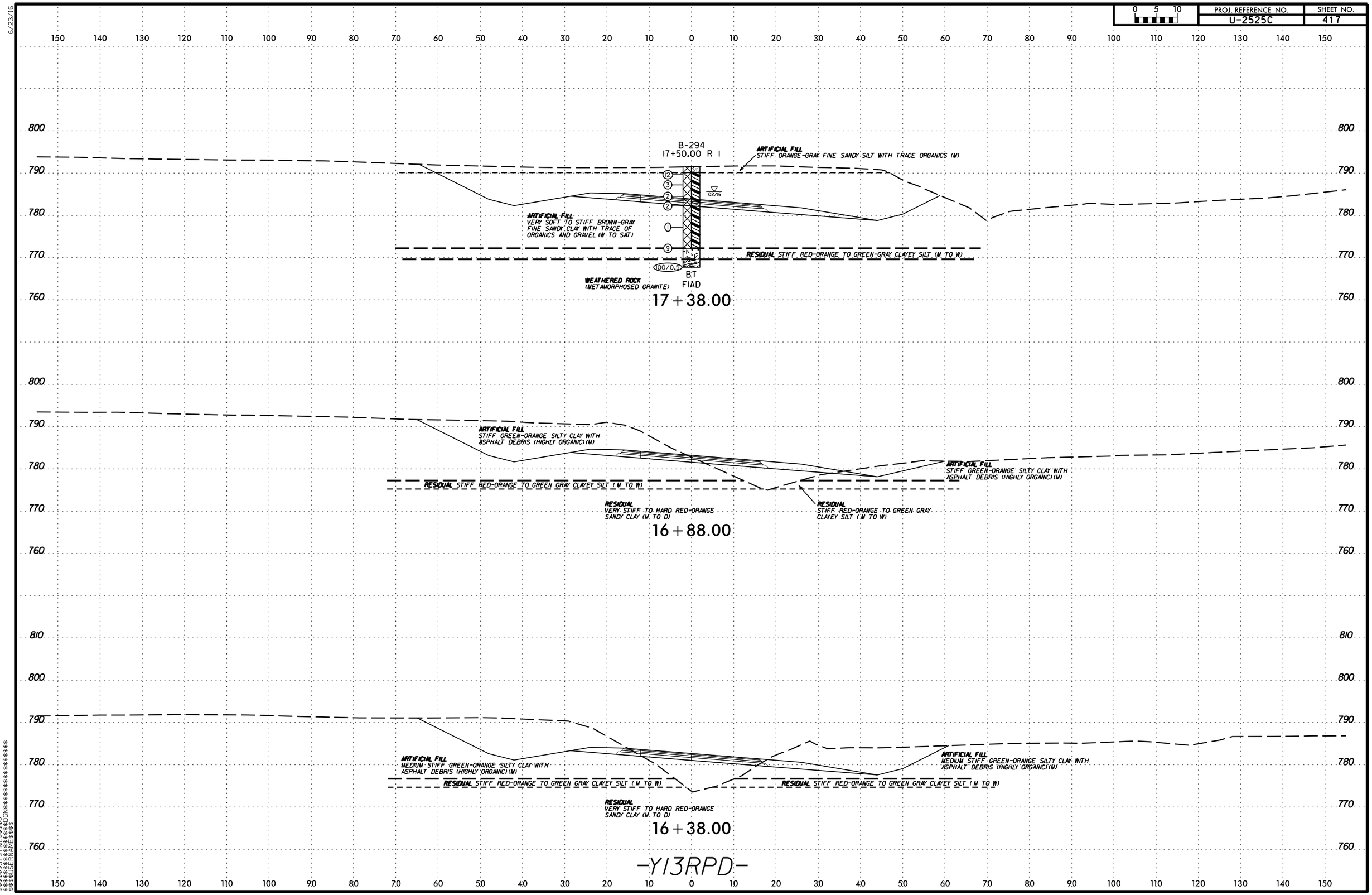
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	416



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

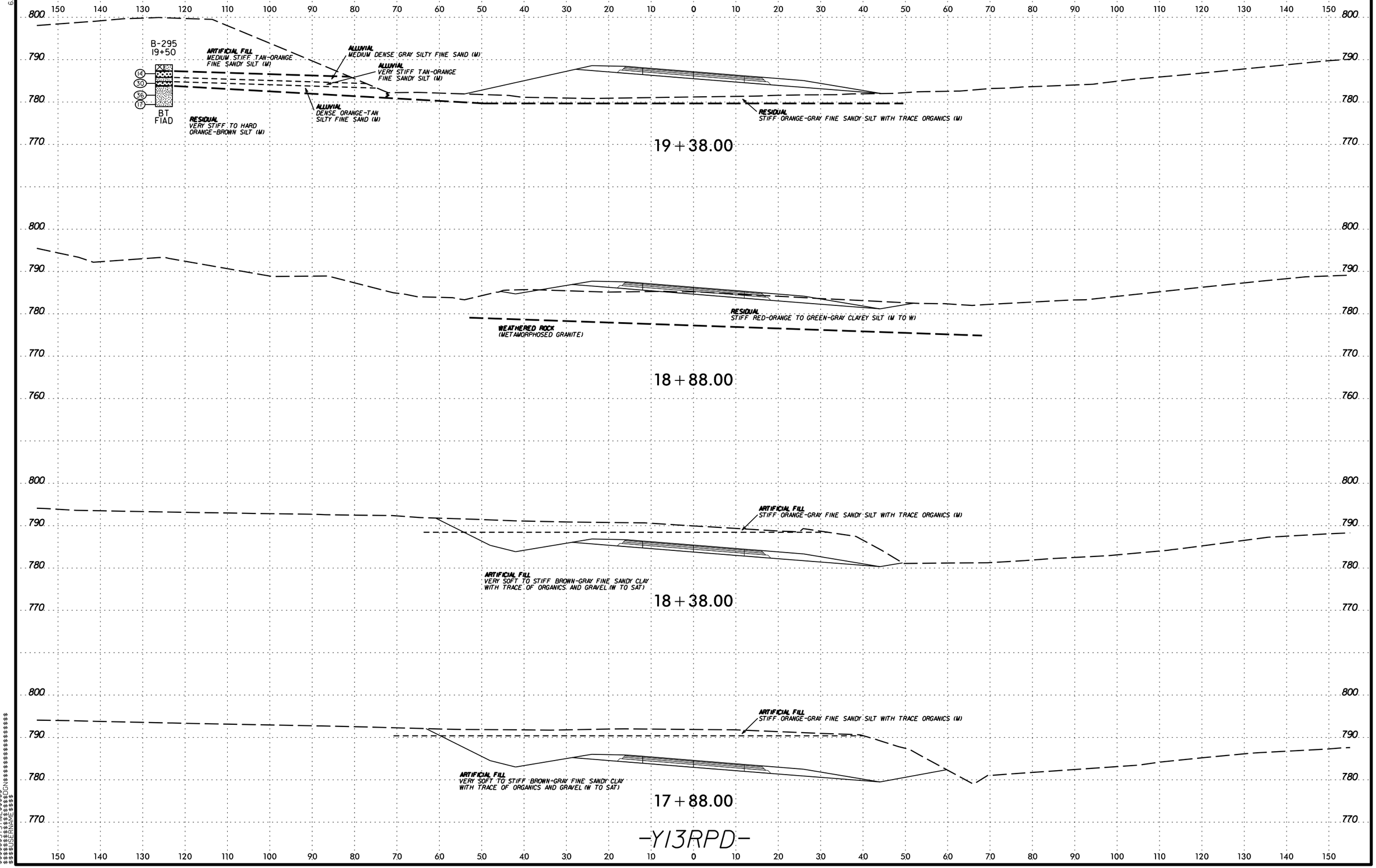
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	417

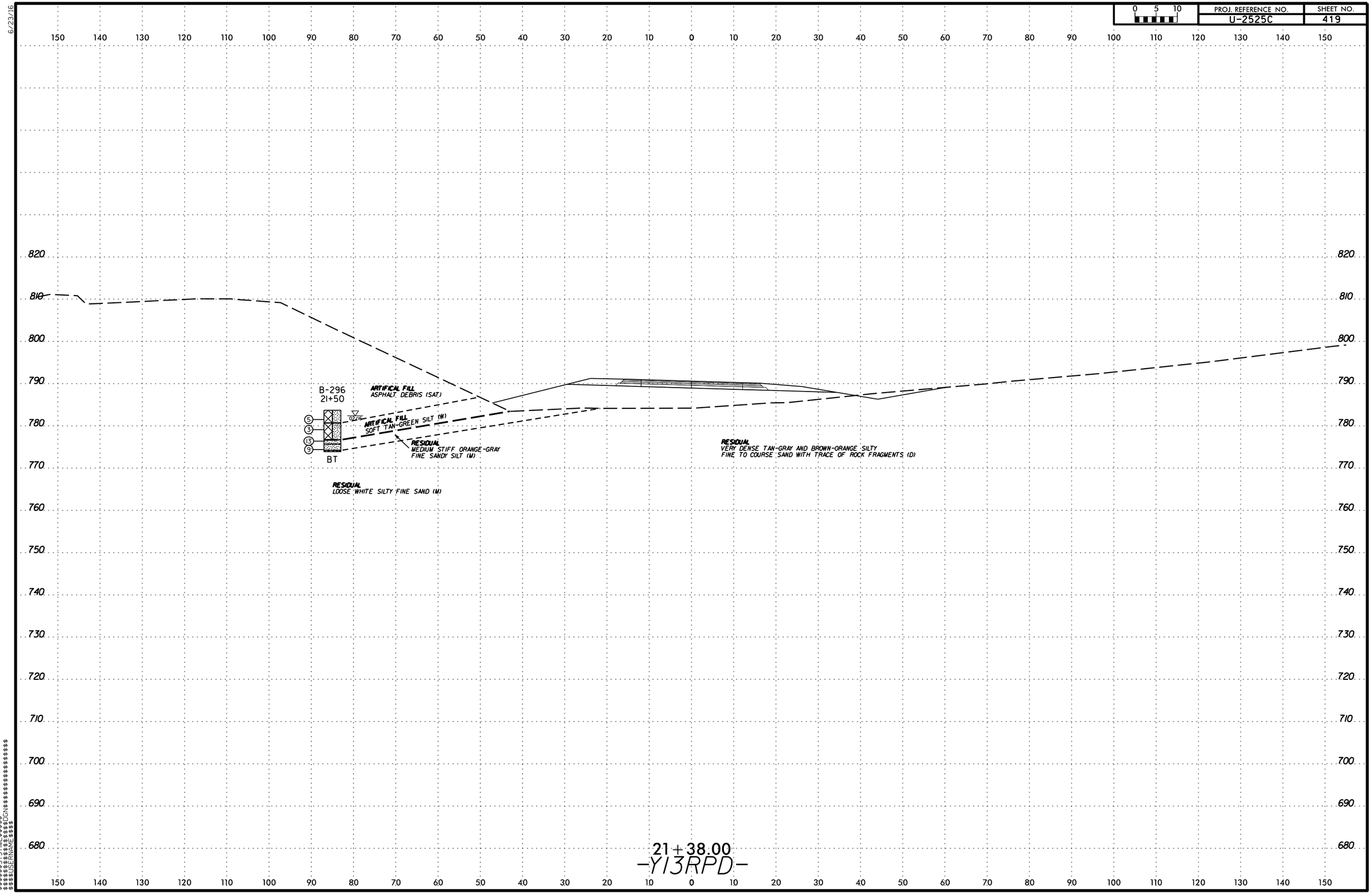


$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	418



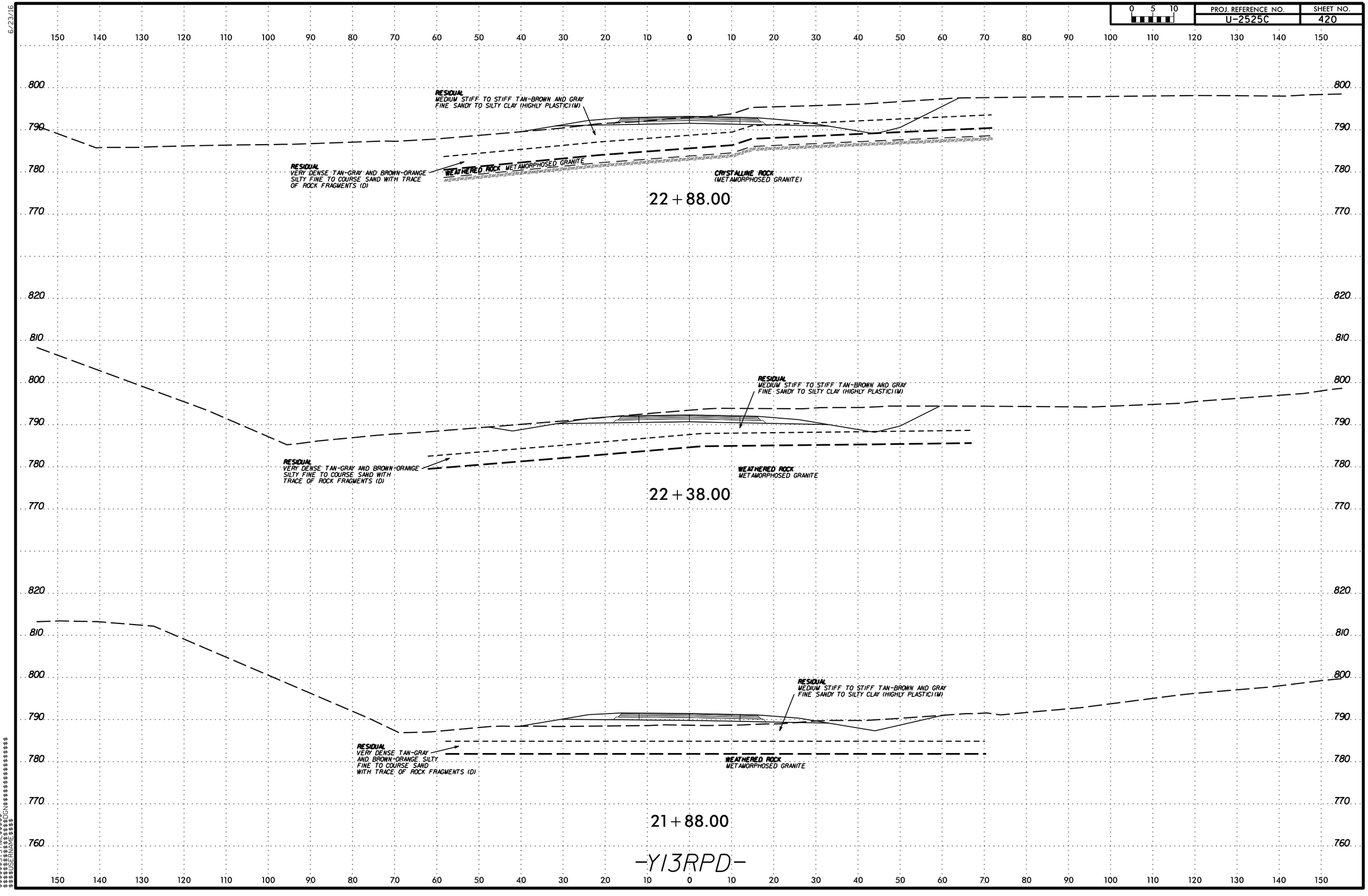
6/23/16
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



PROJ. REFERENCE NO.
U-2525C
SHEET NO.
419
0 5 10
B-296
21+50
BT
ARTIFICAL FILL
ASPHALT DEBRIS (SAT)
ARTIFICAL FILL
SOFT TAN-GREEN SILT (W)
RESIDUAL
MEDIUM STIFF ORANGE-GRAY
FINE SANDY SILT (M)
RESIDUAL
LOOSE WHITE SILTY FINE SAND (M)
RESIDUAL
VERY DENSE TAN-GRAY AND BROWN-ORANGE SILTY
FINE TO COURSE SAND WITH TRACE OF ROCK FRAGMENTS (D)
21+38.00
-Y13RPD-

6/23/16

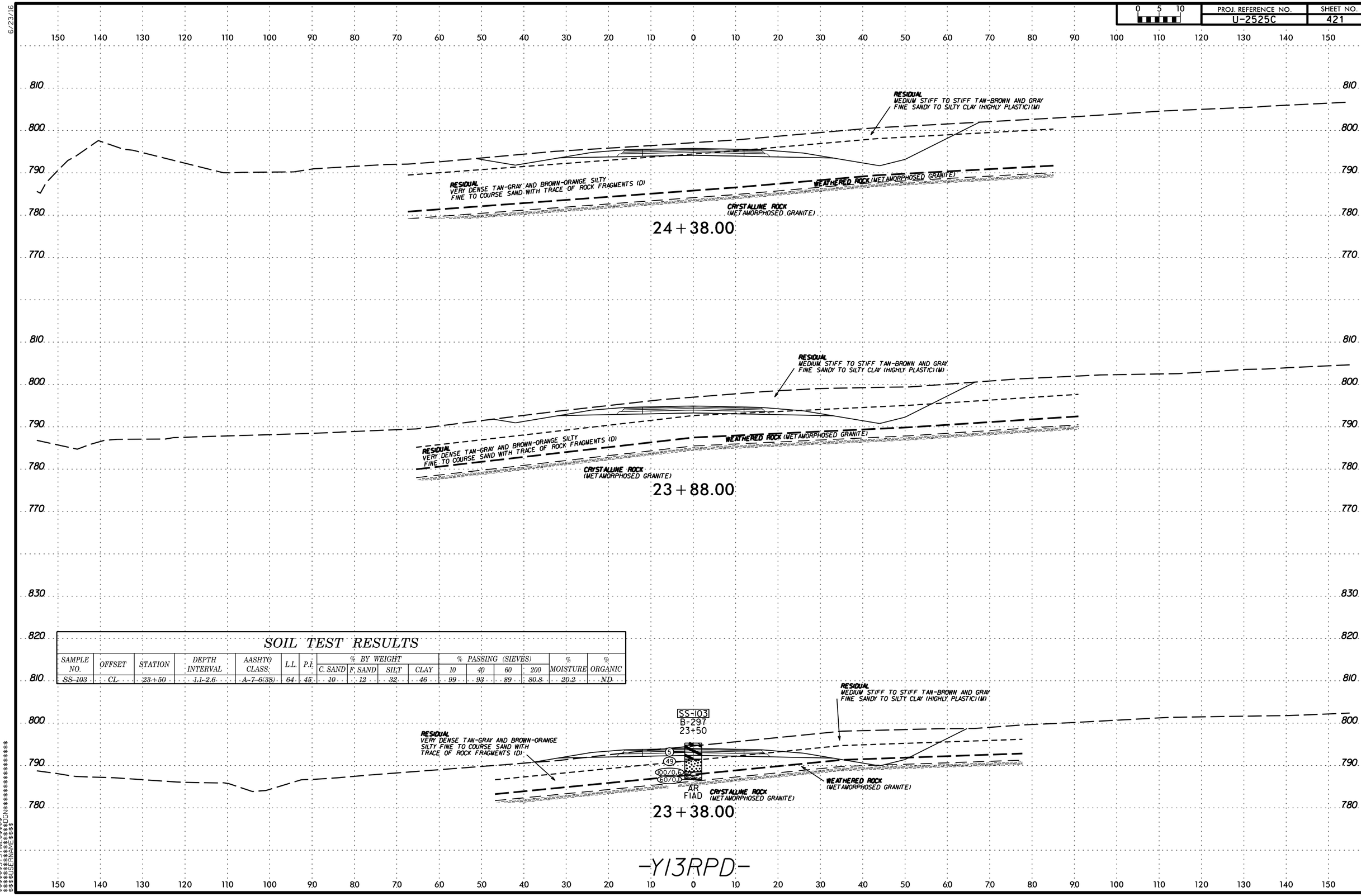
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	420



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	421

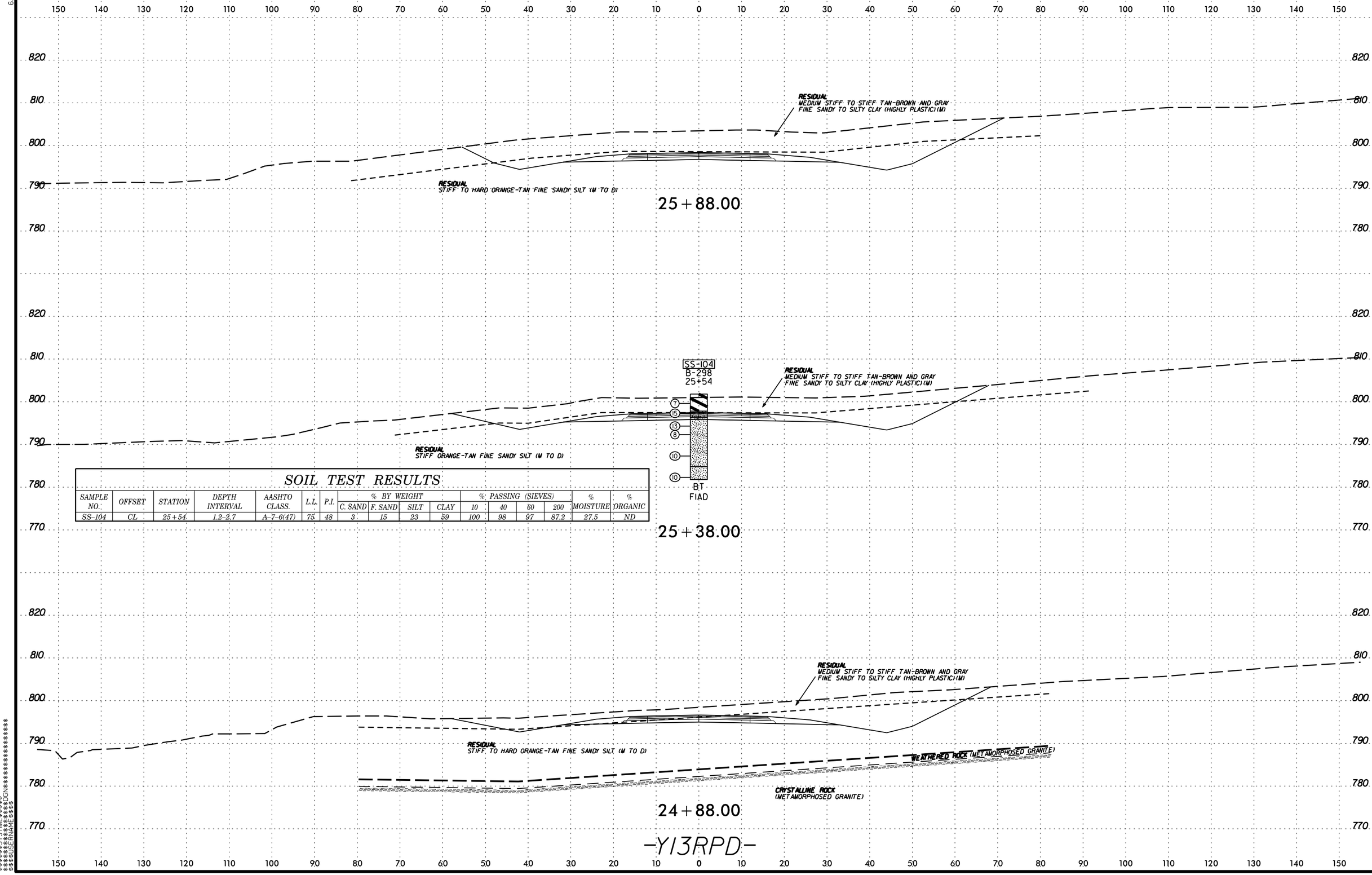


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-103	CL	23+50	1.1-2.6	A-7-6(38)	64	45	10	12	32	46	99	93	89	80.8	20.2	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	422

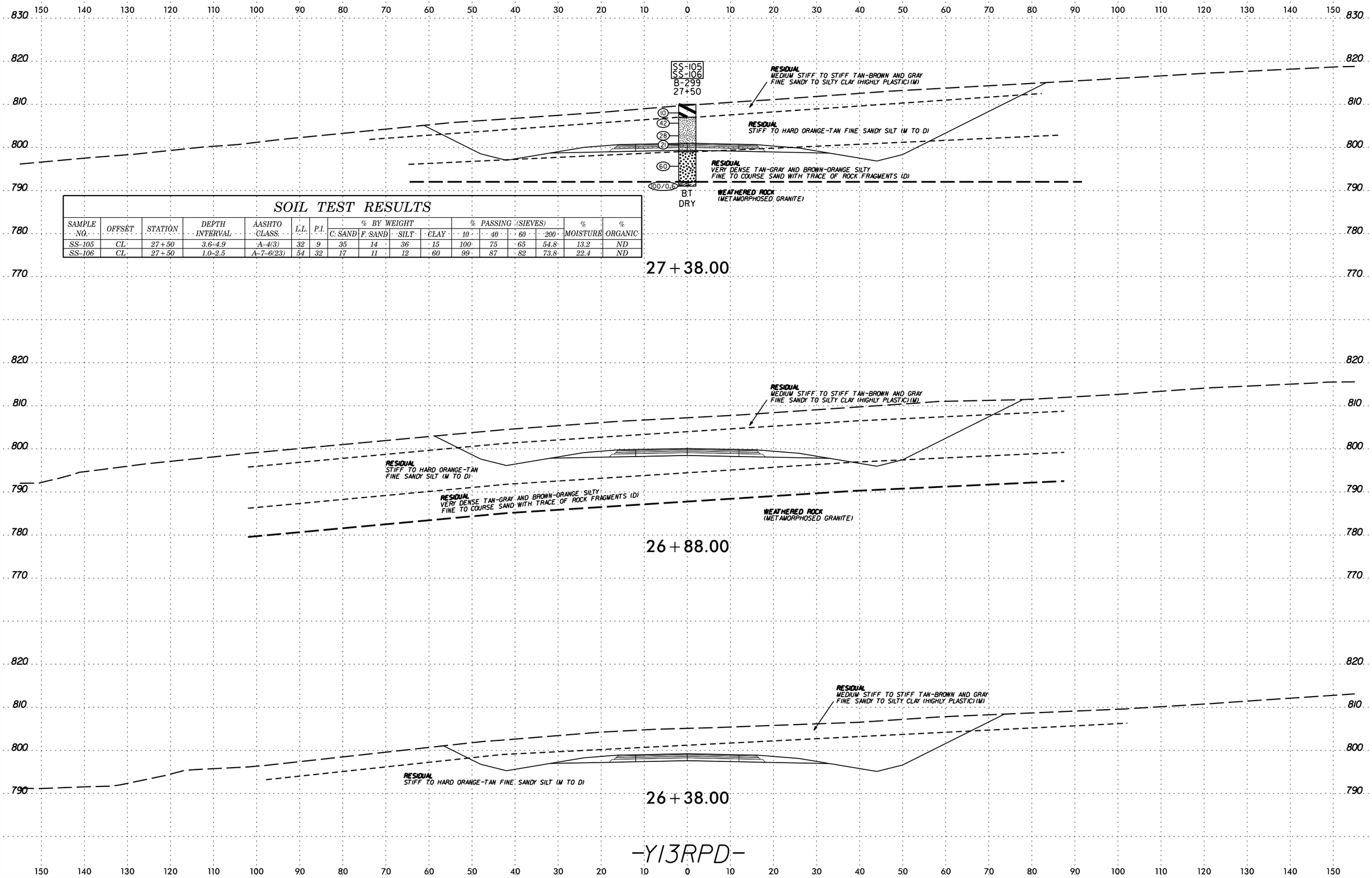


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 60	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-104	CL	25+54	1.2-2.7	A-7-6(47)	75	48	3	15	23	59	100	98	97	87.2	27.5	ND

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	423



SOIL TEST RESULTS

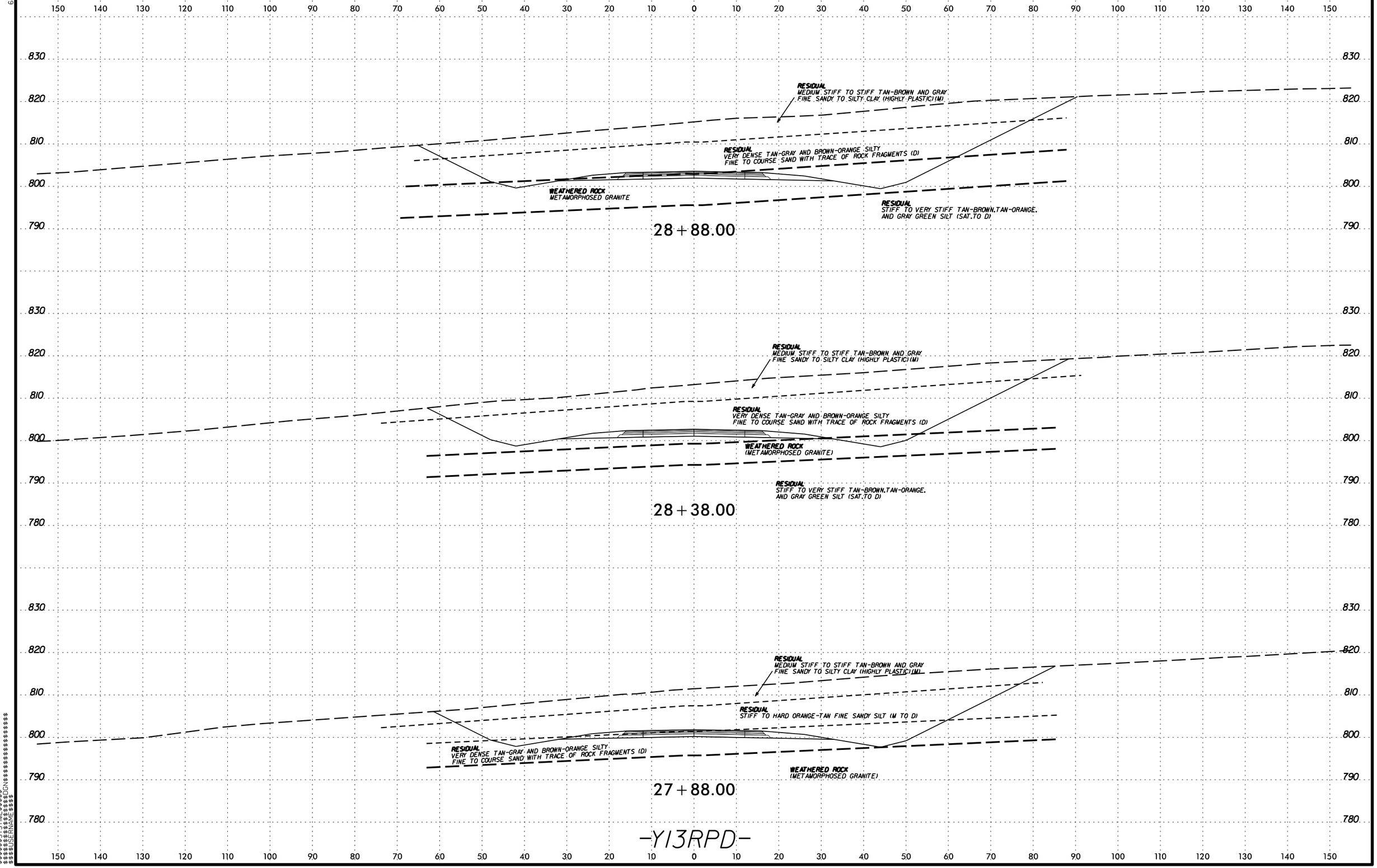
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-105	CL	27+50	3.6-4.9	A-4(3)	32	9	35	14	36	15	100	75	65	54.8	13.2	ND
SS-106	CL	27+50	1.0-2.5	A-7-6(23)	54	32	17	11	12	60	99	87	82	73.8	22.4	ND

6/23/16
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

6/23/16

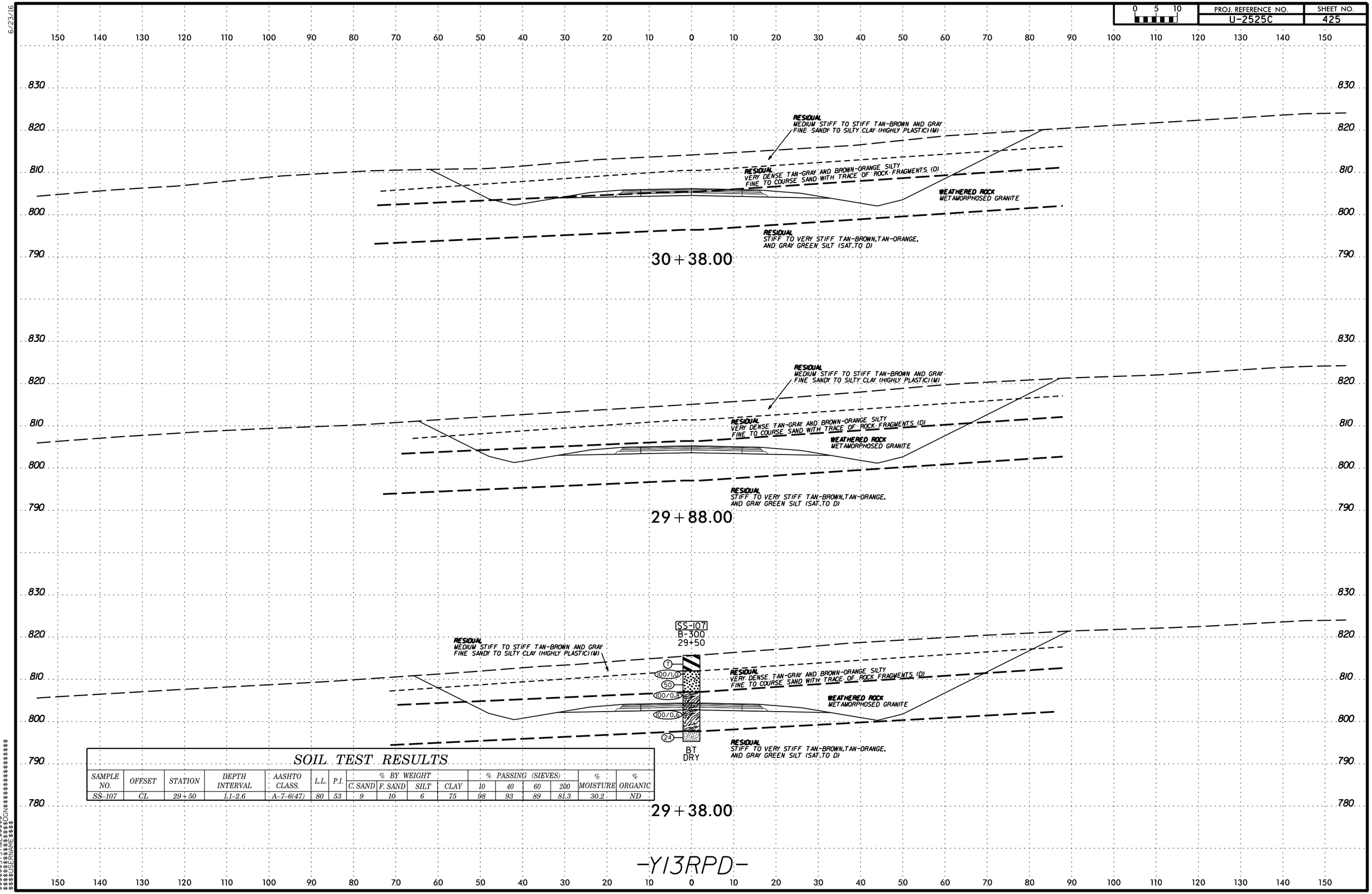
PROJ. REFERENCE NO.	SHEET NO.
U-2525C	424

0 5 10



$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	425

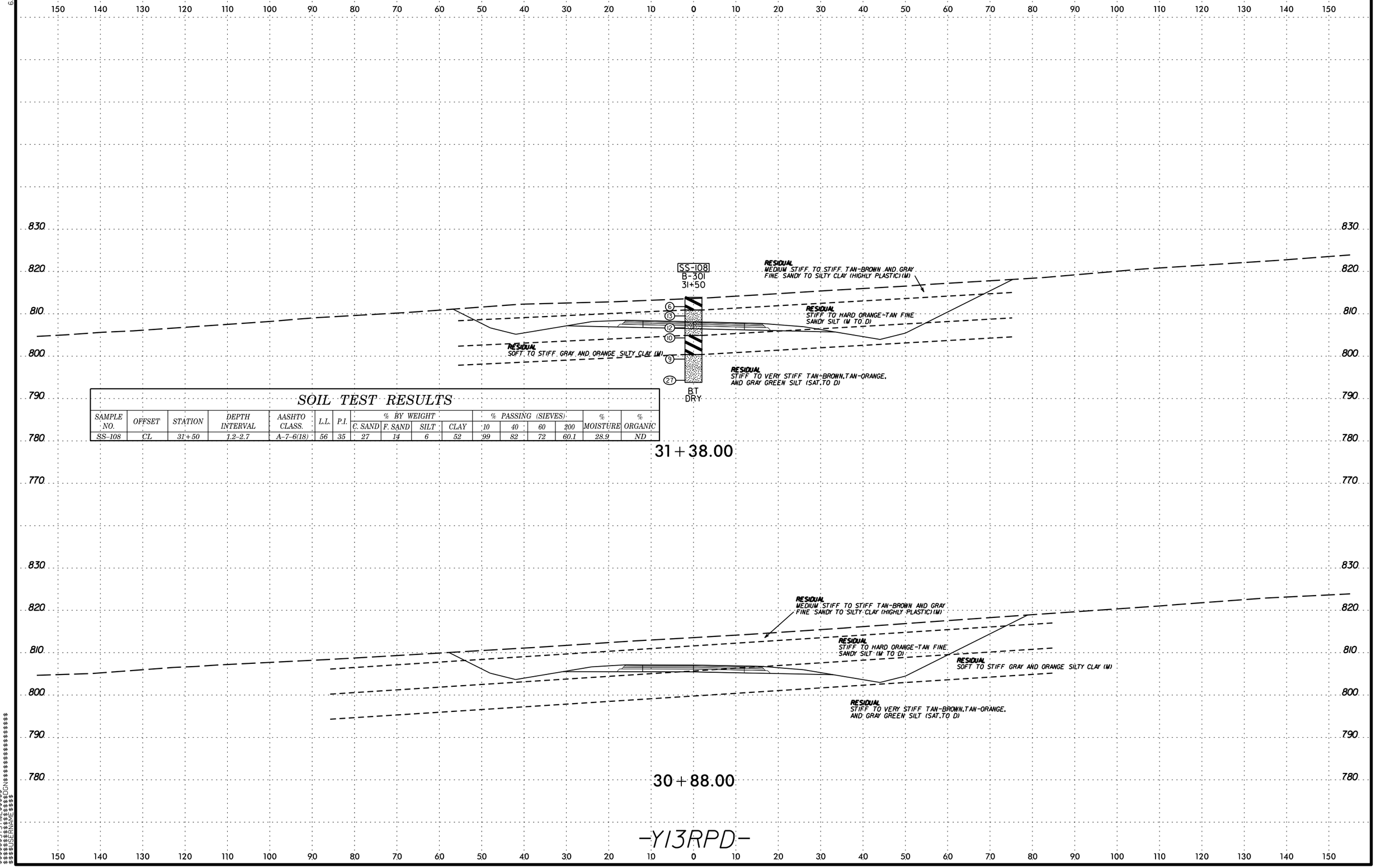


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	60	200		
SS-107	CL	29+50	1.1-2.6	A-7-6(47)	80	53	9	10	6	75	98	93	89	81.3	30.2	ND

6/23/16

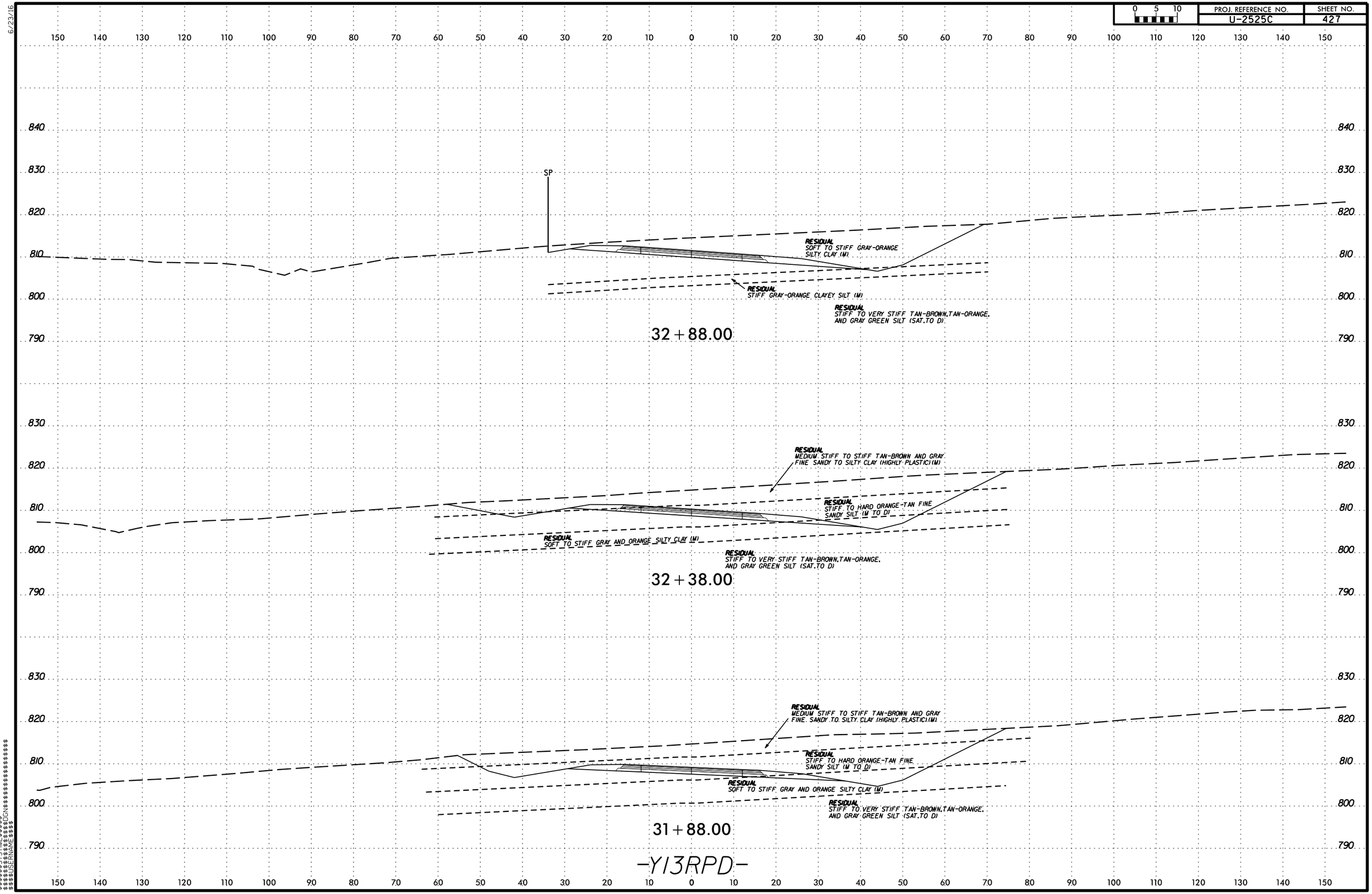
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	426



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	60	200	% MOISTURE	% ORGANIC
SS-108	CL	31+50	1.2-2.7	A-7-6(18)	56	35	27	14	6	52	99	82	72	60.1	28.9	ND

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



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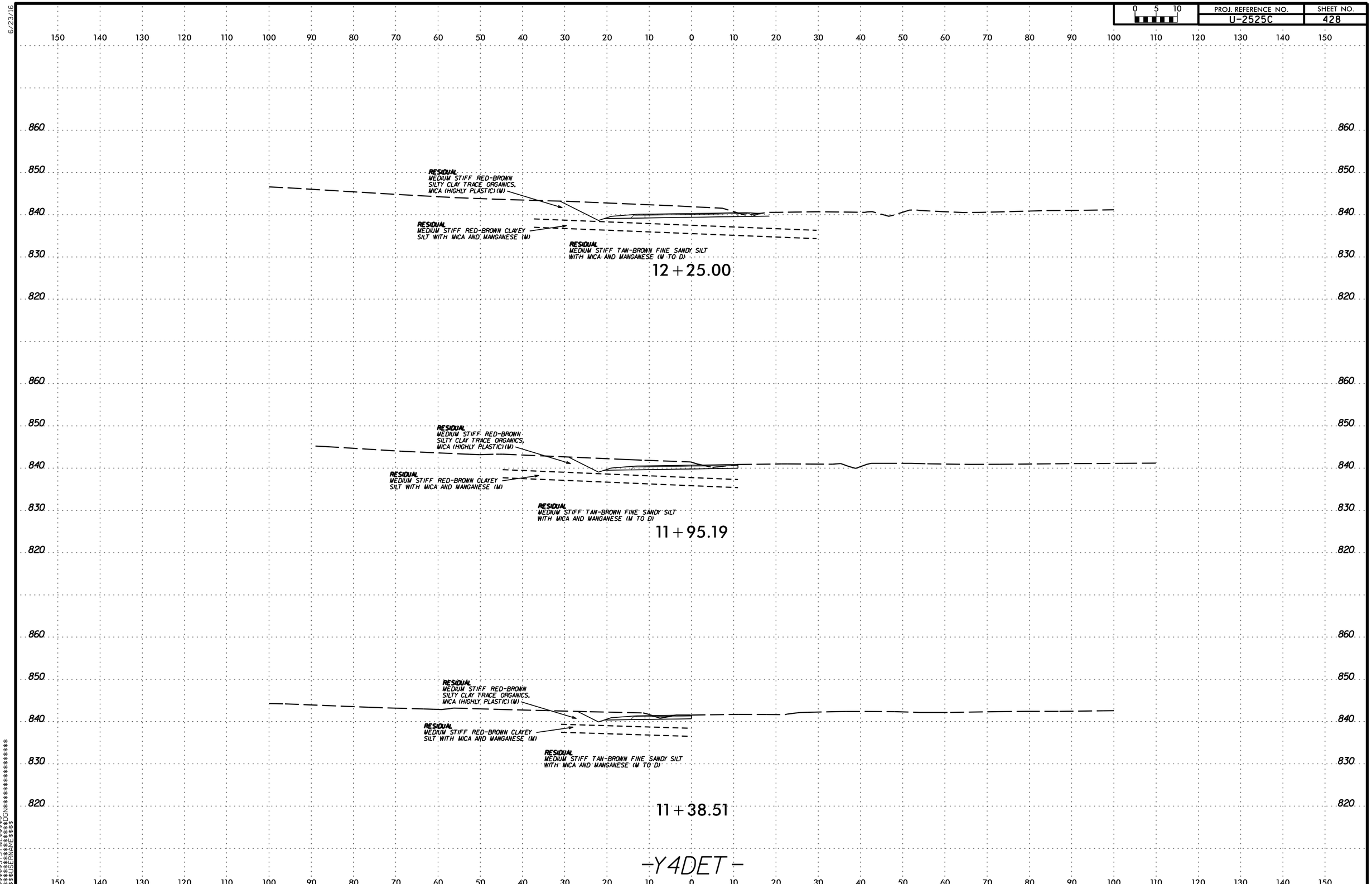
6/23/16

PROJ. REFERENCE NO.	SHEET NO.
U-2525C	428

0 5 10



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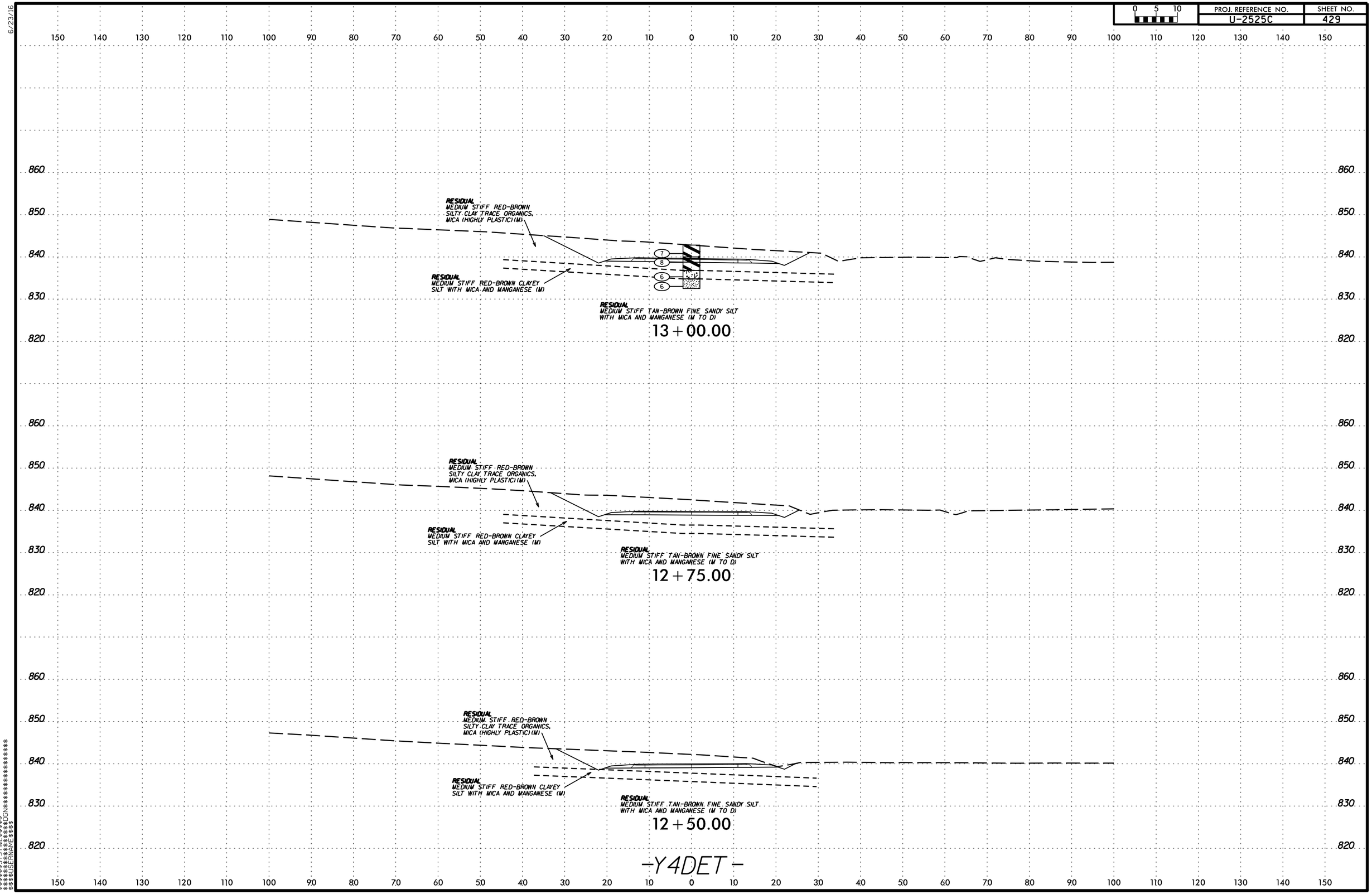

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U-2525C
SHEET NO.
429
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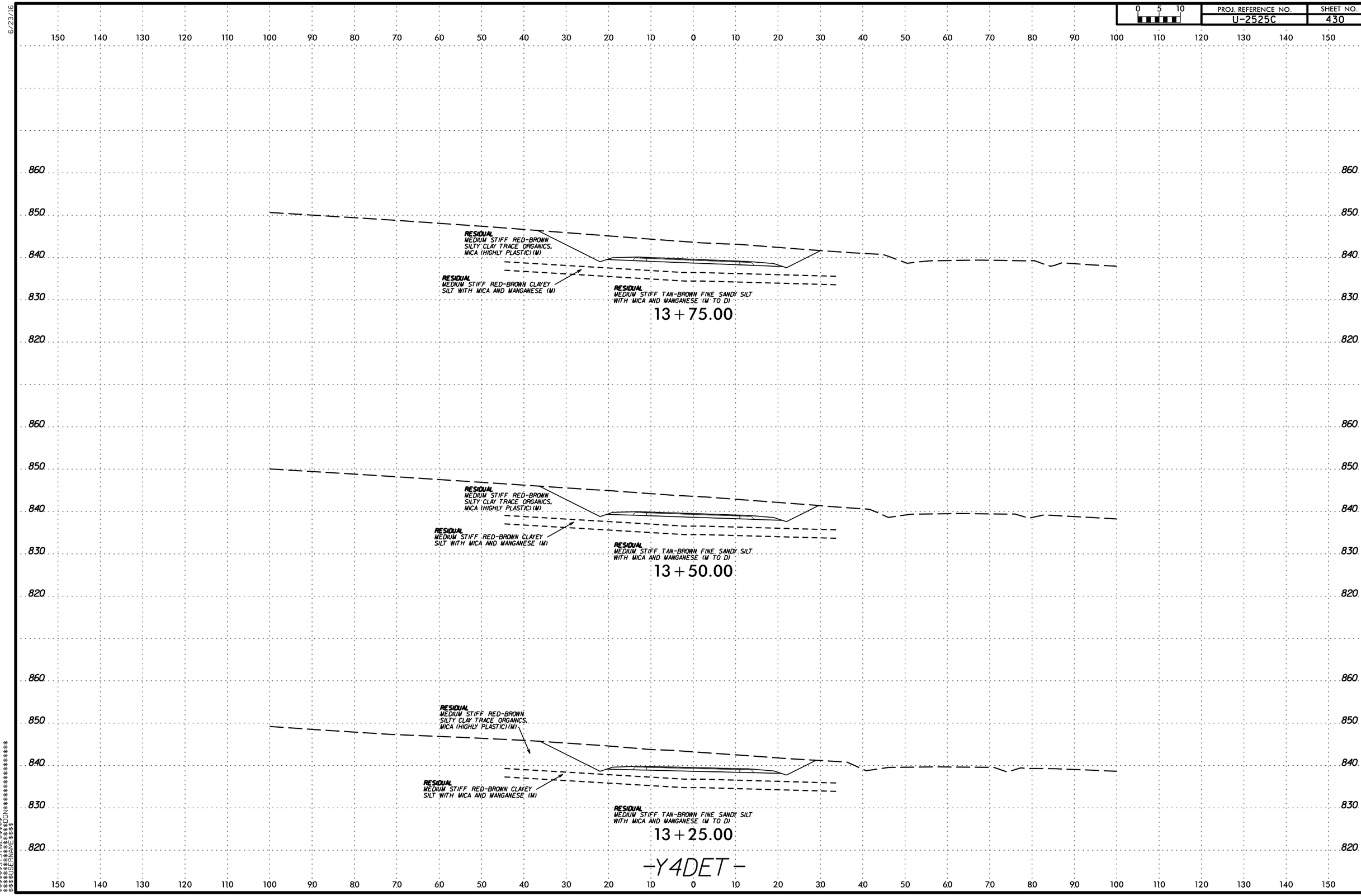
RESIDUAL
MEDIUM STIFF RED-BROWN SILTY CLAY TRACE ORGANICS, MICA (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF RED-BROWN CLAYEY SILT WITH MICA AND MANGANESE (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN FINE SANDY SILT WITH MICA AND MANGANESE (M TO D)
13+00.00
12+75.00
12+50.00
-Y4DET-

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	430



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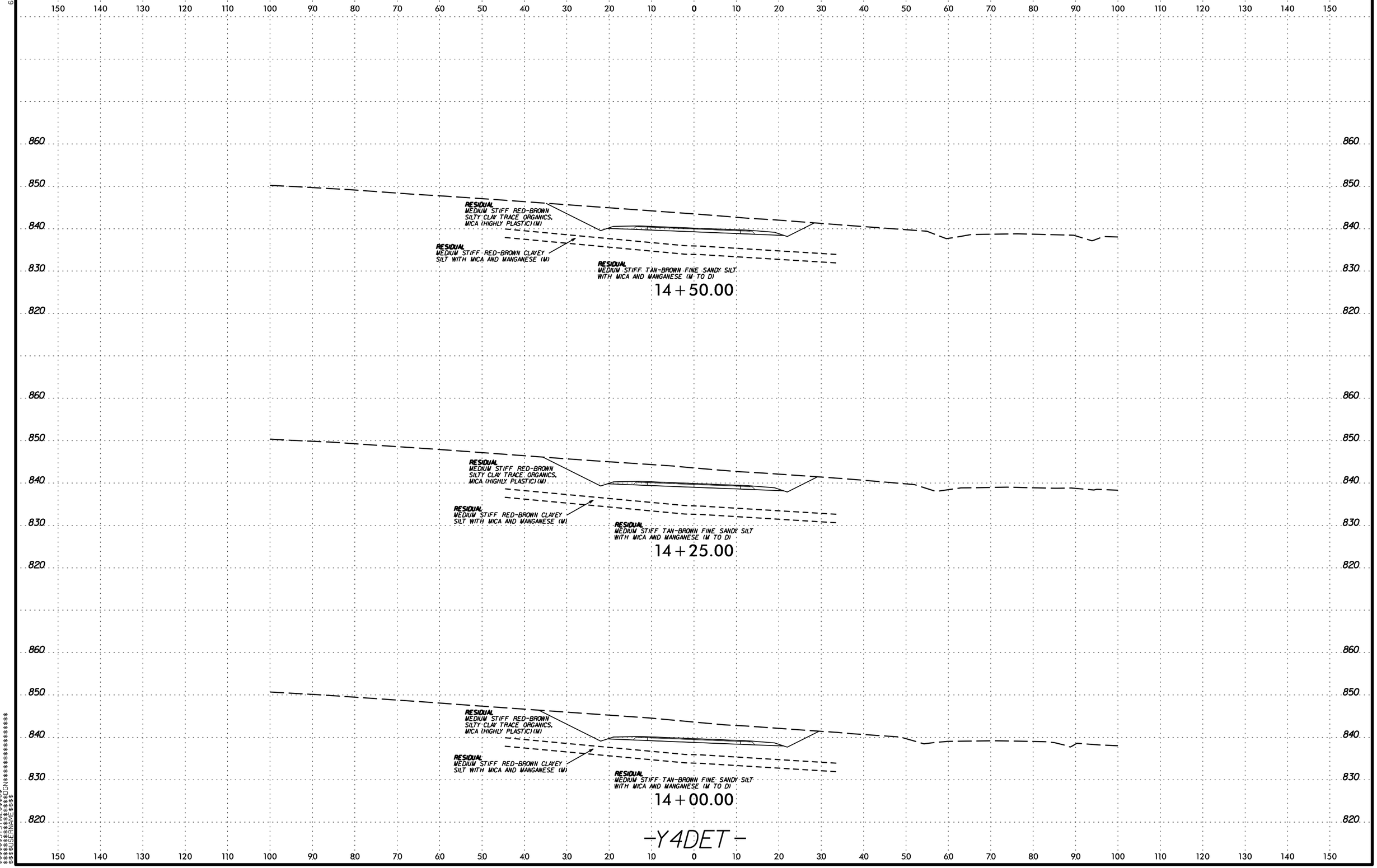

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U-2525C
SHEET NO.
431
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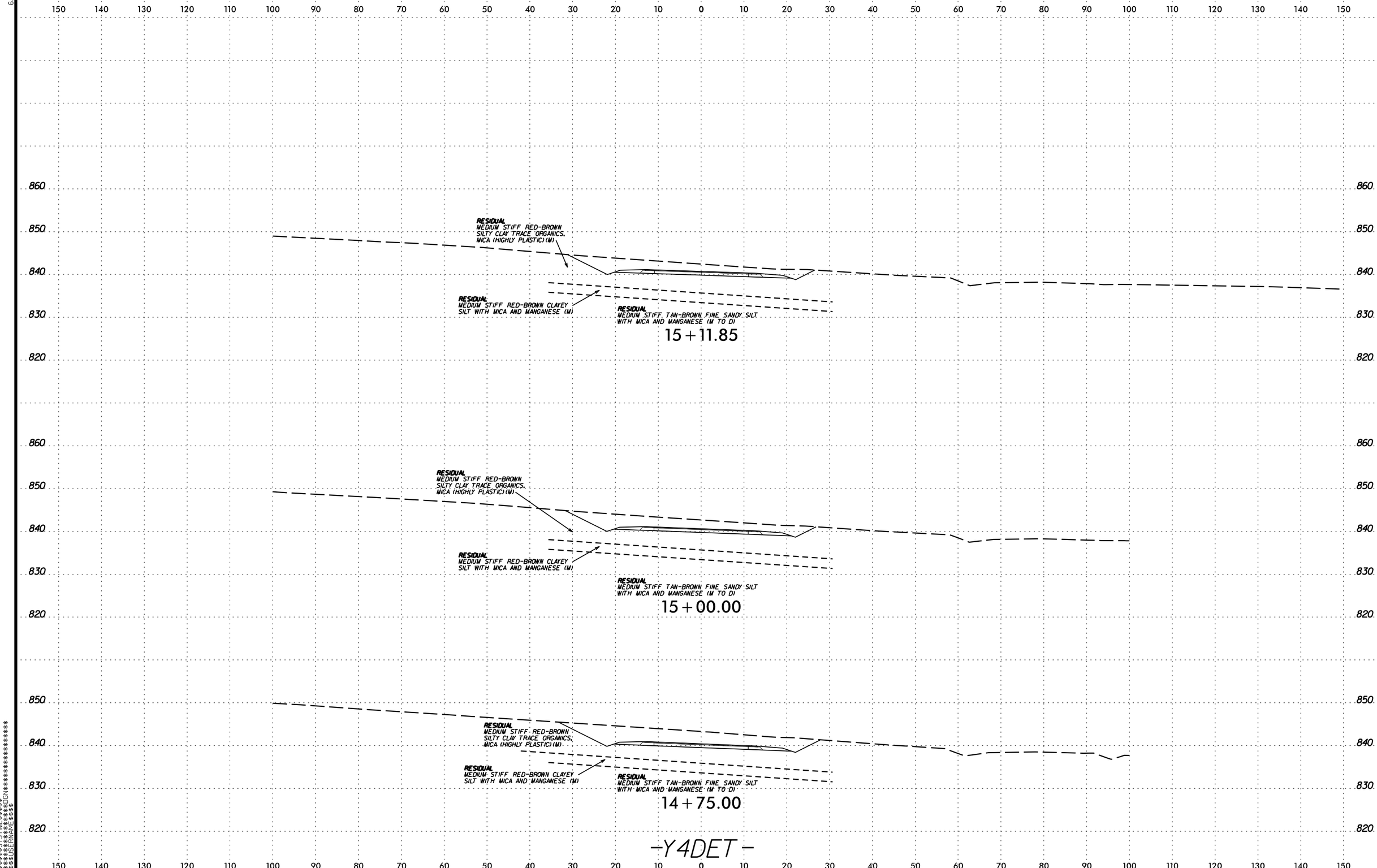
RESIDUAL
MEDIUM STIFF RED-BROWN SILTY CLAY TRACE ORGANICS, MICA (HIGHLY PLASTIC) (M)
RESIDUAL
MEDIUM STIFF RED-BROWN CLAYEY SILT WITH MICA AND MANGANESE (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN FINE SANDY SILT WITH MICA AND MANGANESE (M TO D)
14+50.00
14+25.00
14+00.00
-Y4DET-

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525C	432



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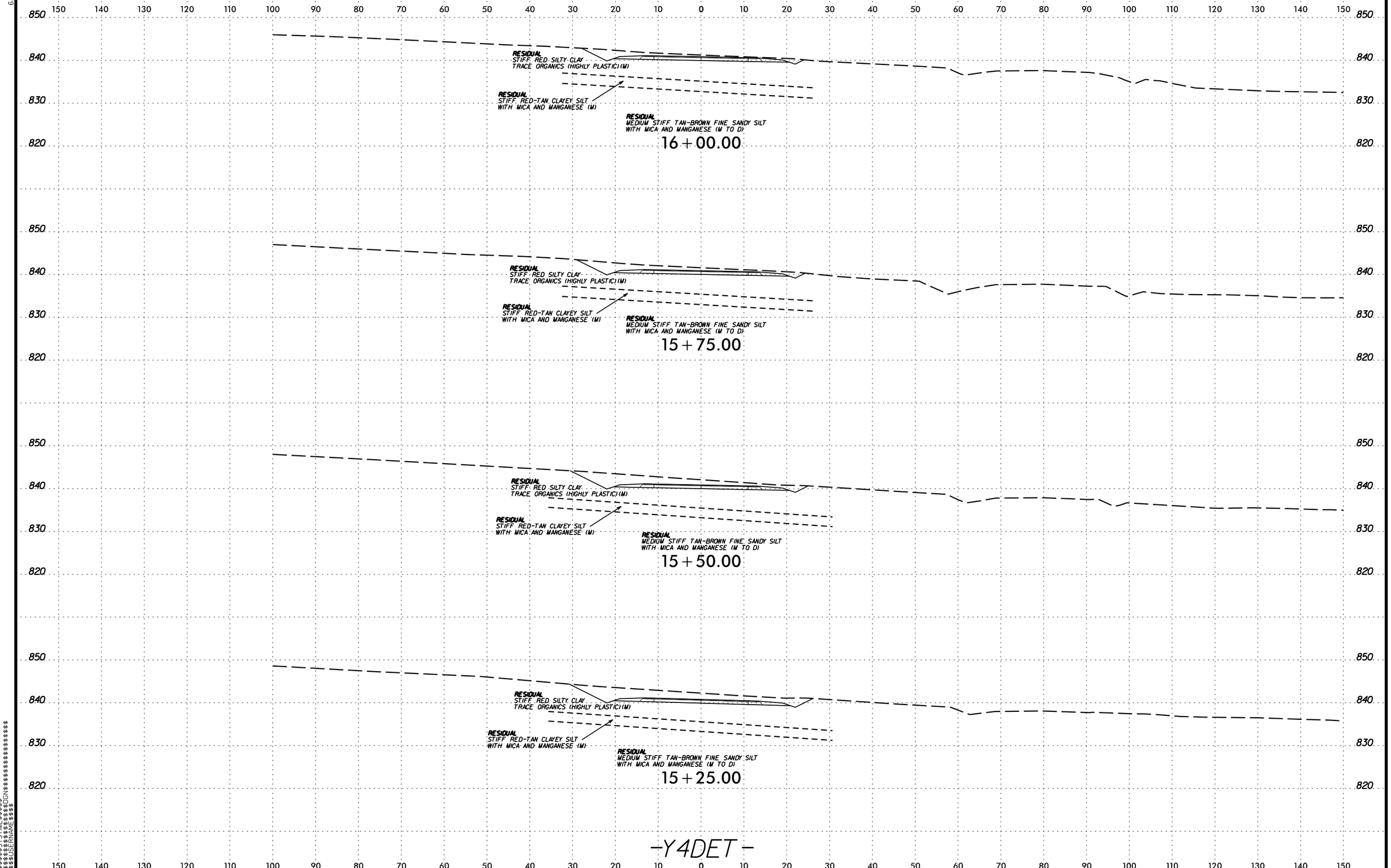

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U-2525C
SHEET NO.
433
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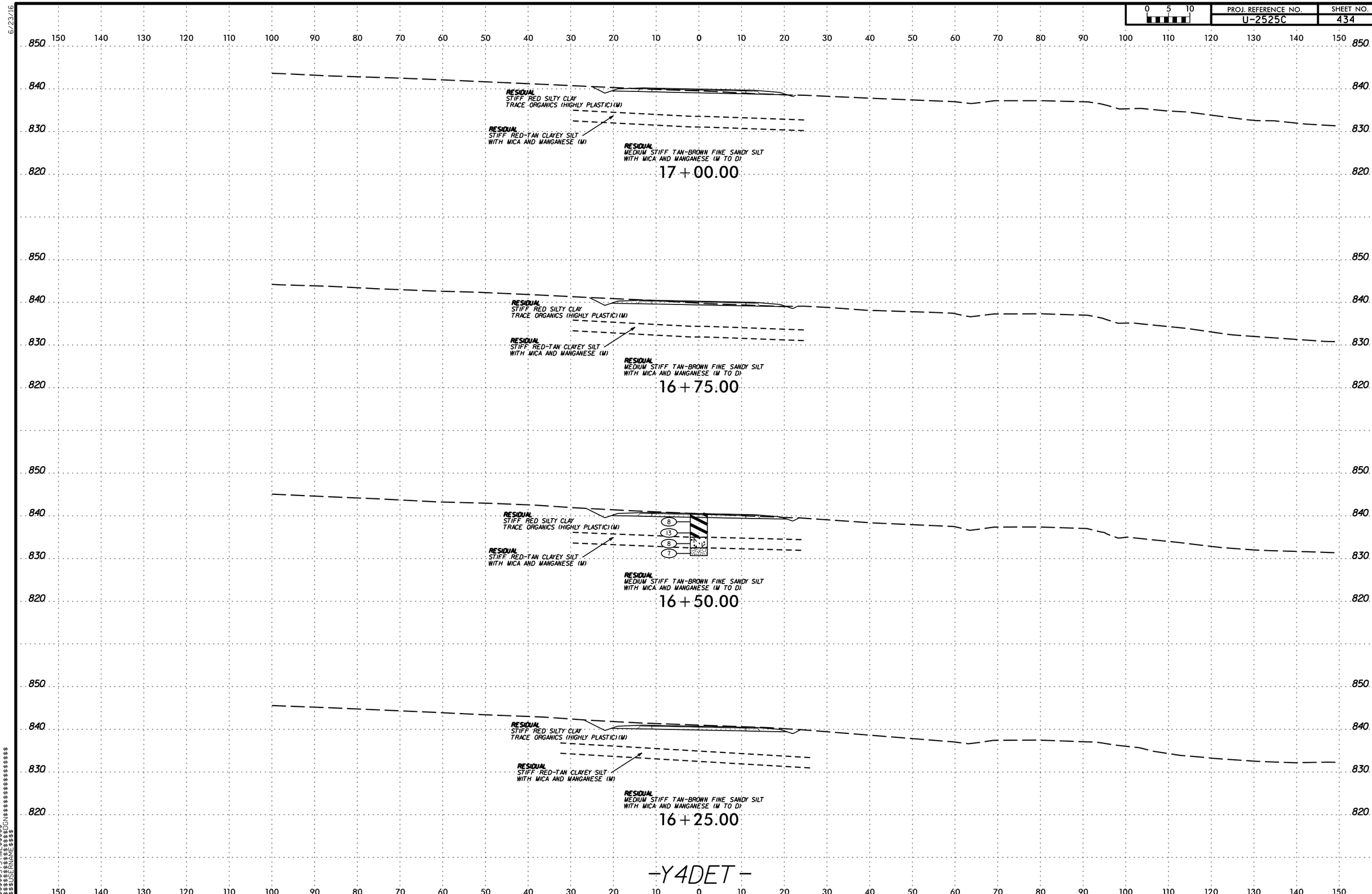
RESIDUAL
STIFF RED SILTY CLAY
TRACE ORGANICS (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF RED-TAN CLAYEY SILT
WITH MICA AND MANGANESE (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN FINE SANDY SILT
WITH MICA AND MANGANESE (M TO D)
16+00.00
15+75.00
15+50.00
15+25.00
-Y4DET-



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SHEET NO.
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STIFF RED SILTY CLAY
TRACE ORGANICS (HIGHLY PLASTIC) (M)
RESIDUAL
STIFF RED-TAN CLAYEY SILT
WITH MICA AND MANGANESE (M)
RESIDUAL
MEDIUM STIFF TAN-BROWN FINE SANDY SILT
WITH MICA AND MANGANESE (M TO D)
17+00.00
16+75.00
8
13
8
7
16+50.00
16+25.00
-Y4DET-

6/23/16

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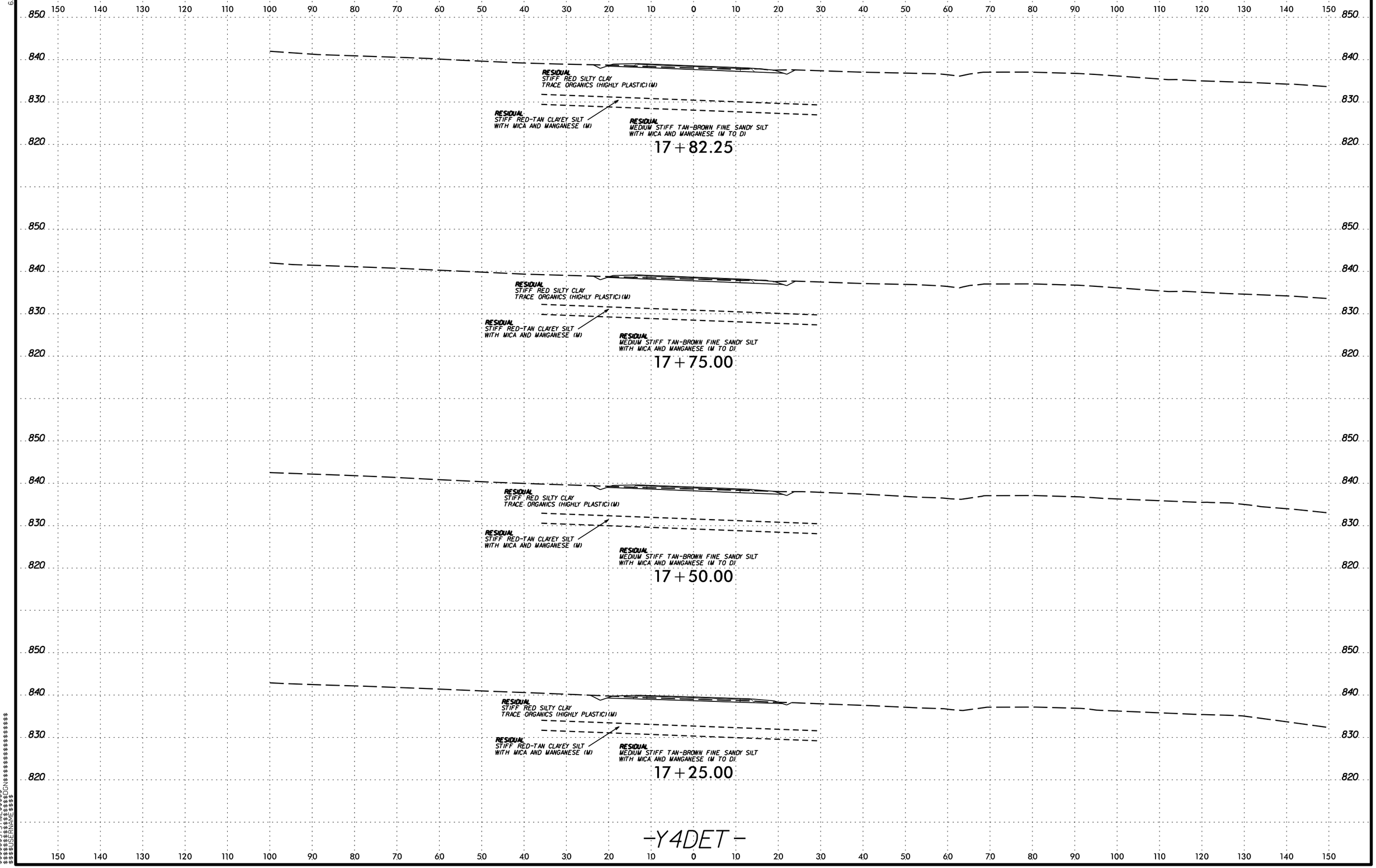

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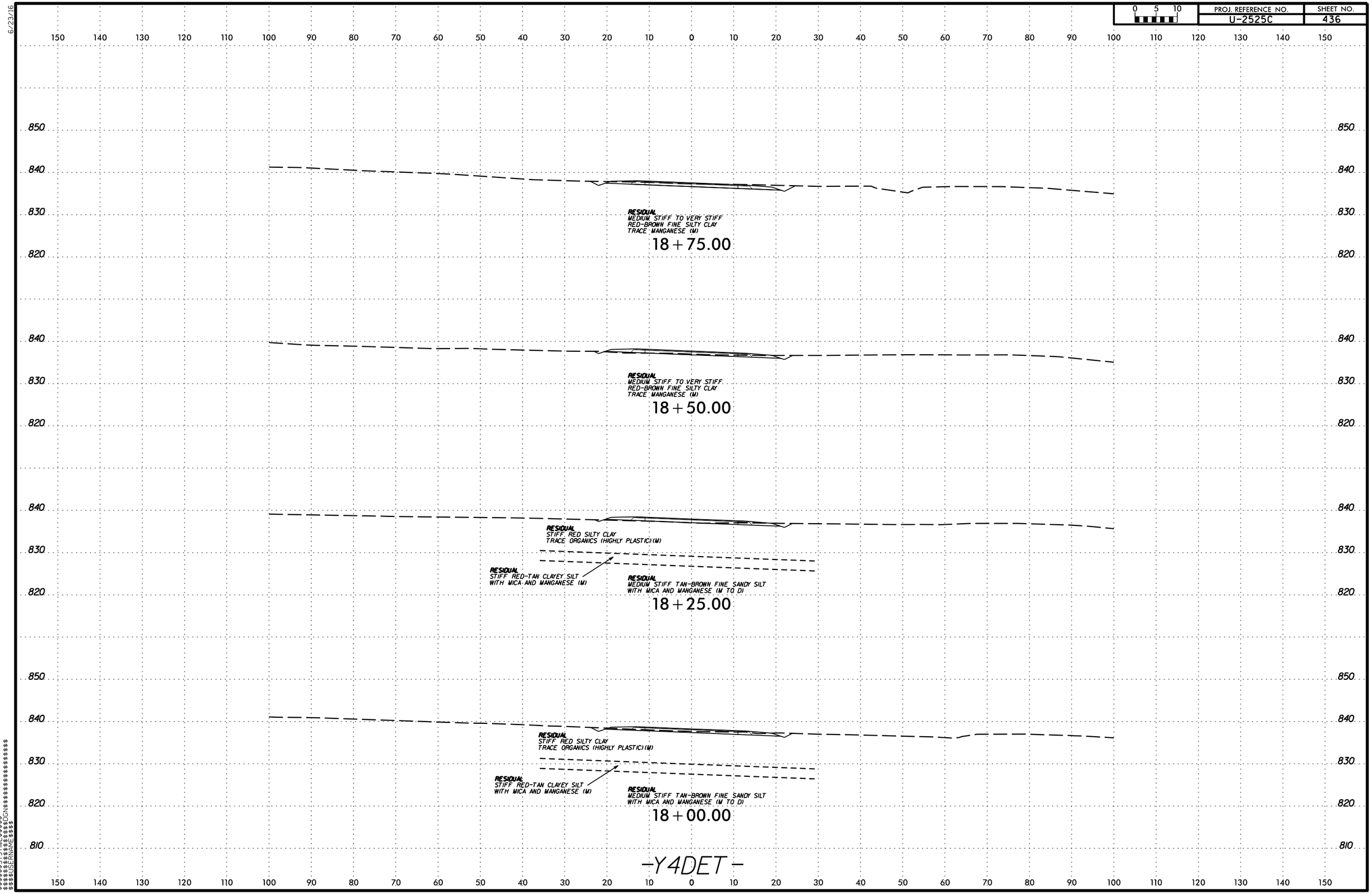

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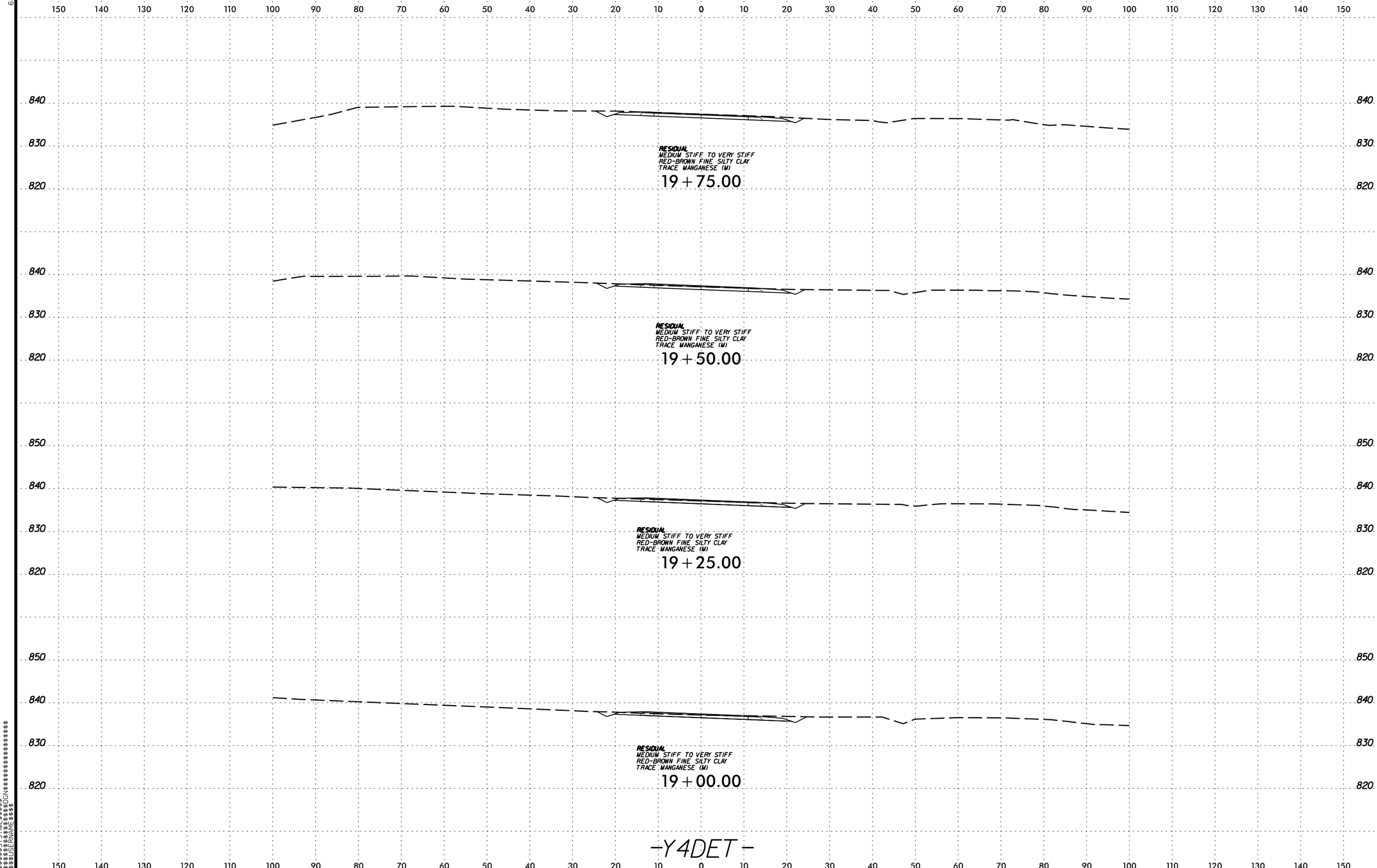

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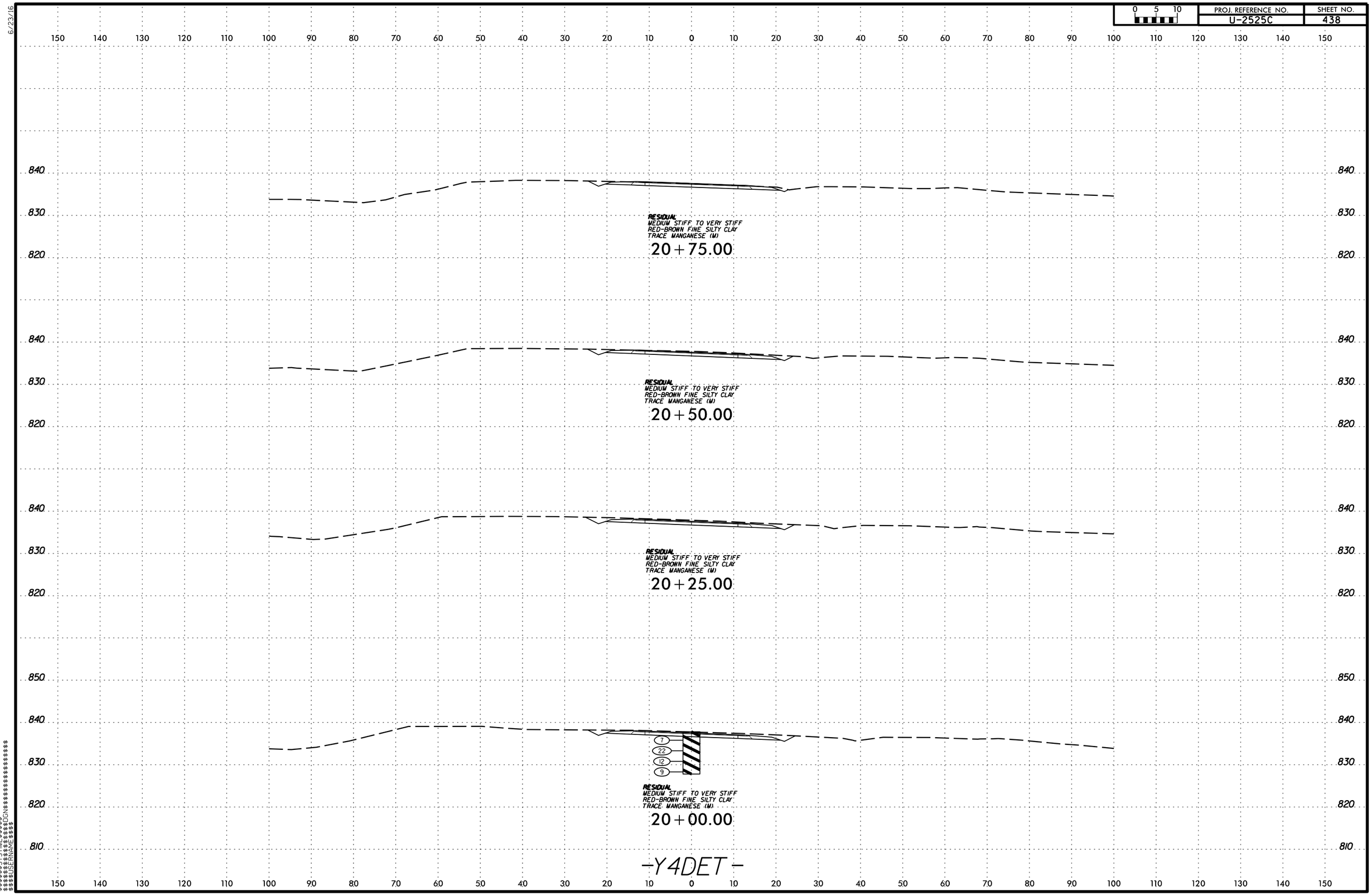

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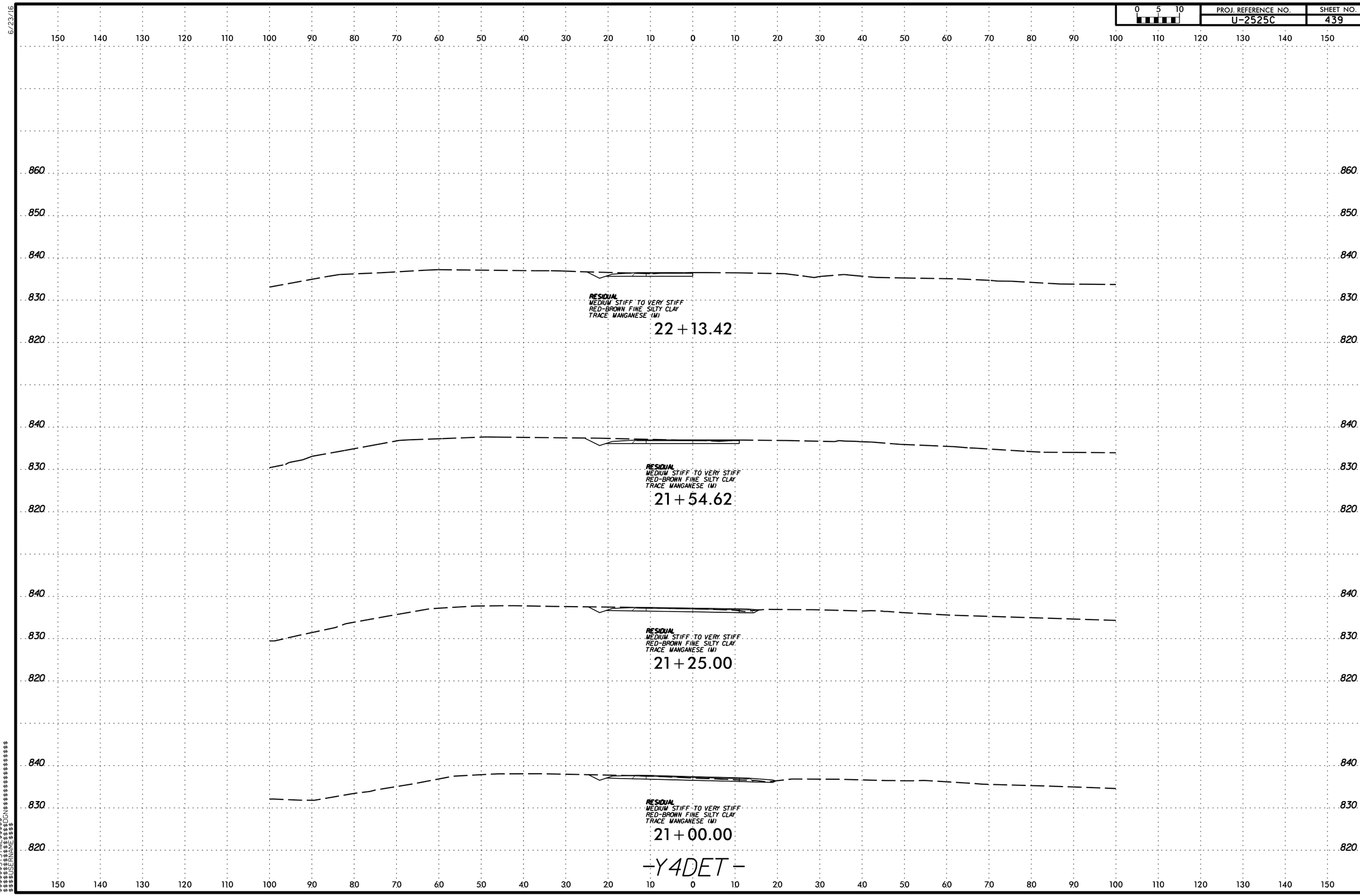

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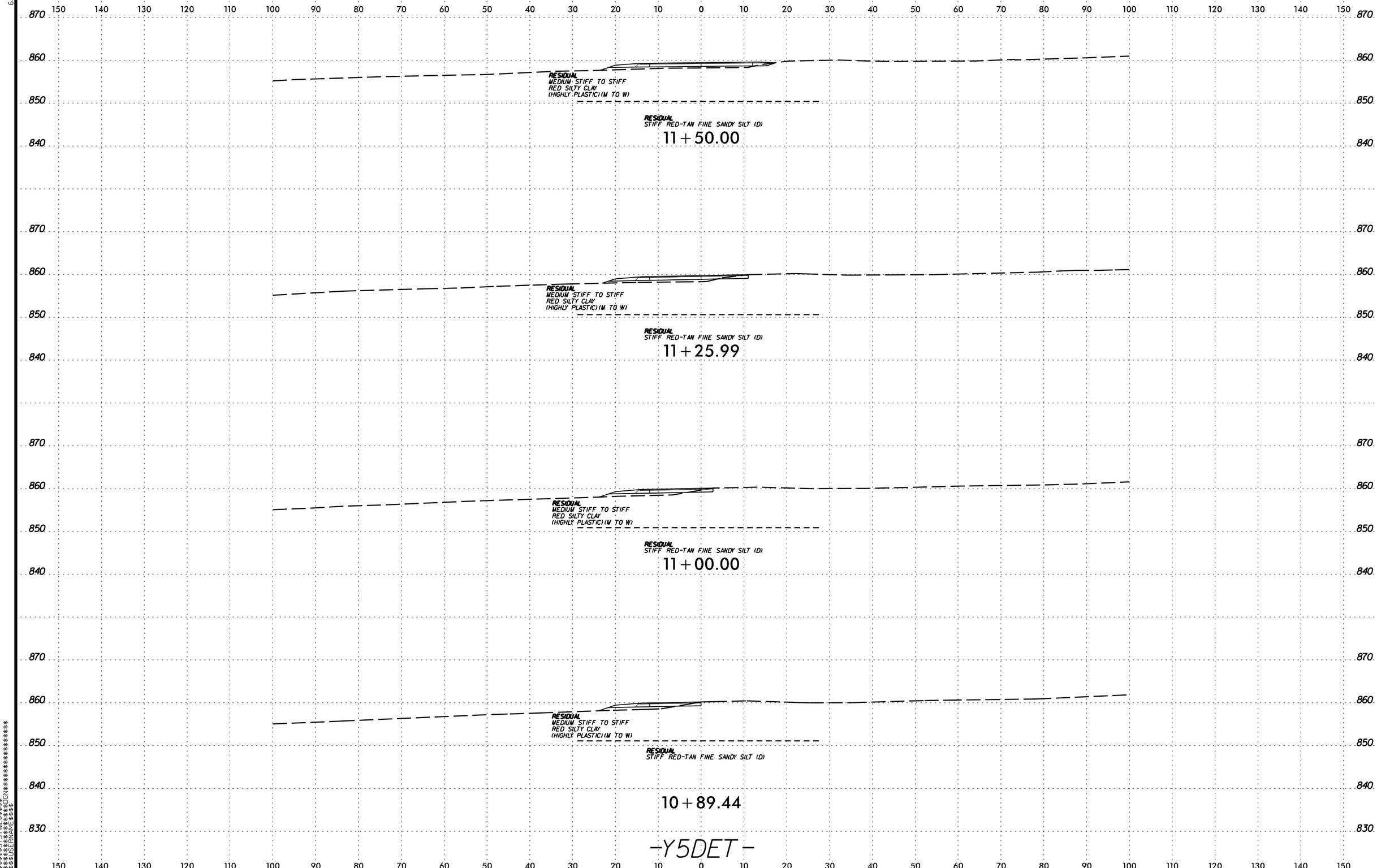

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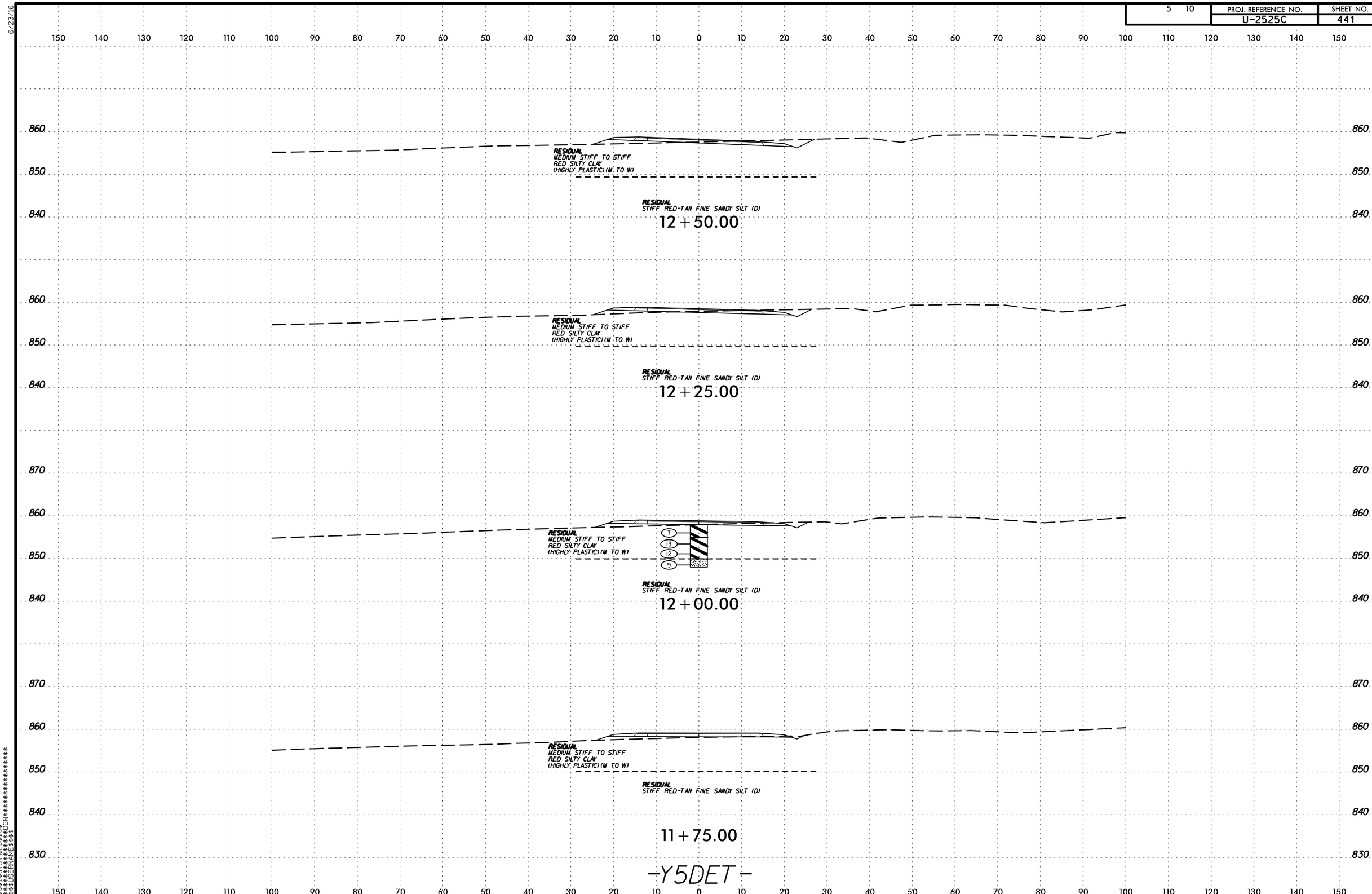

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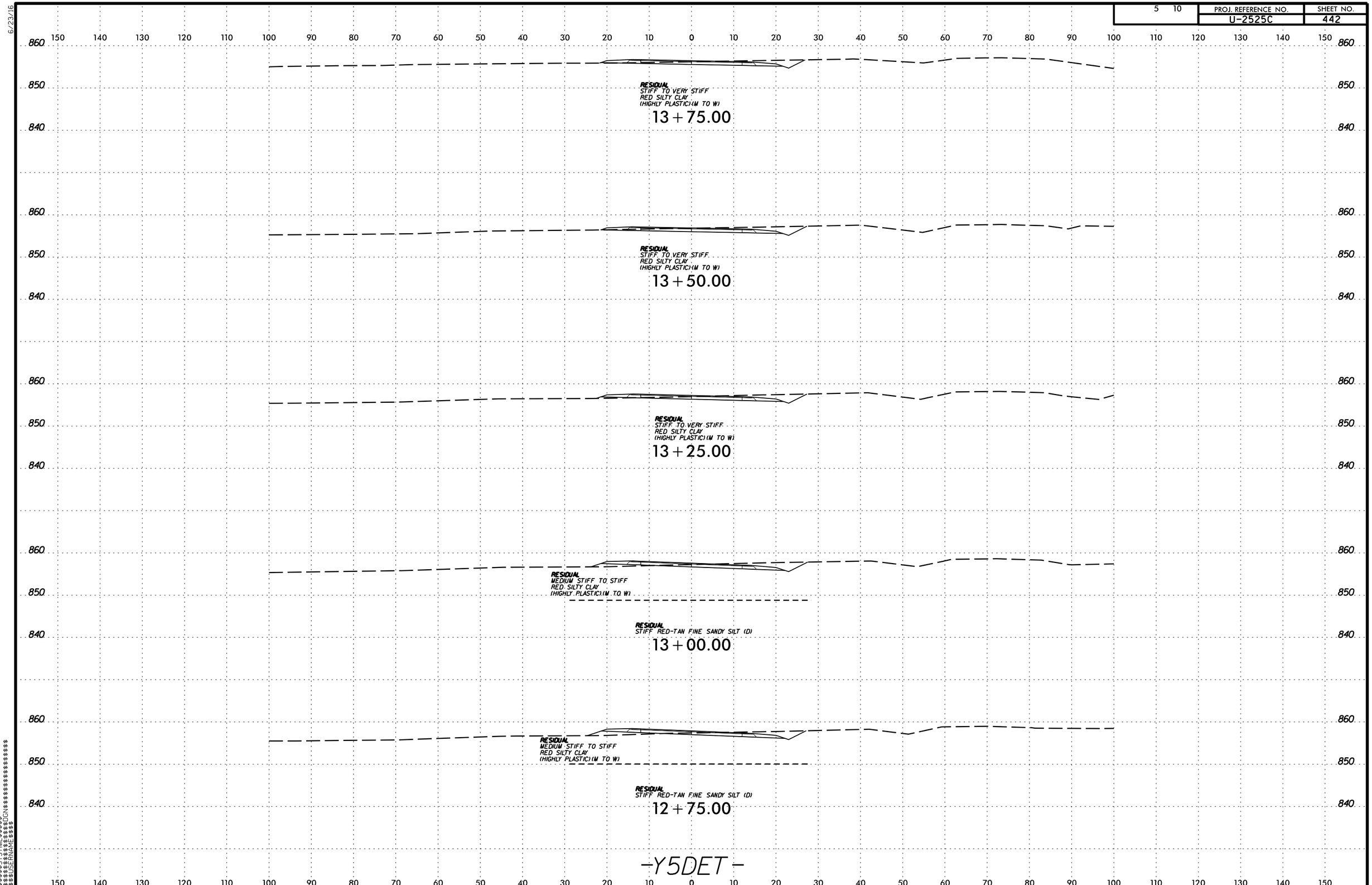

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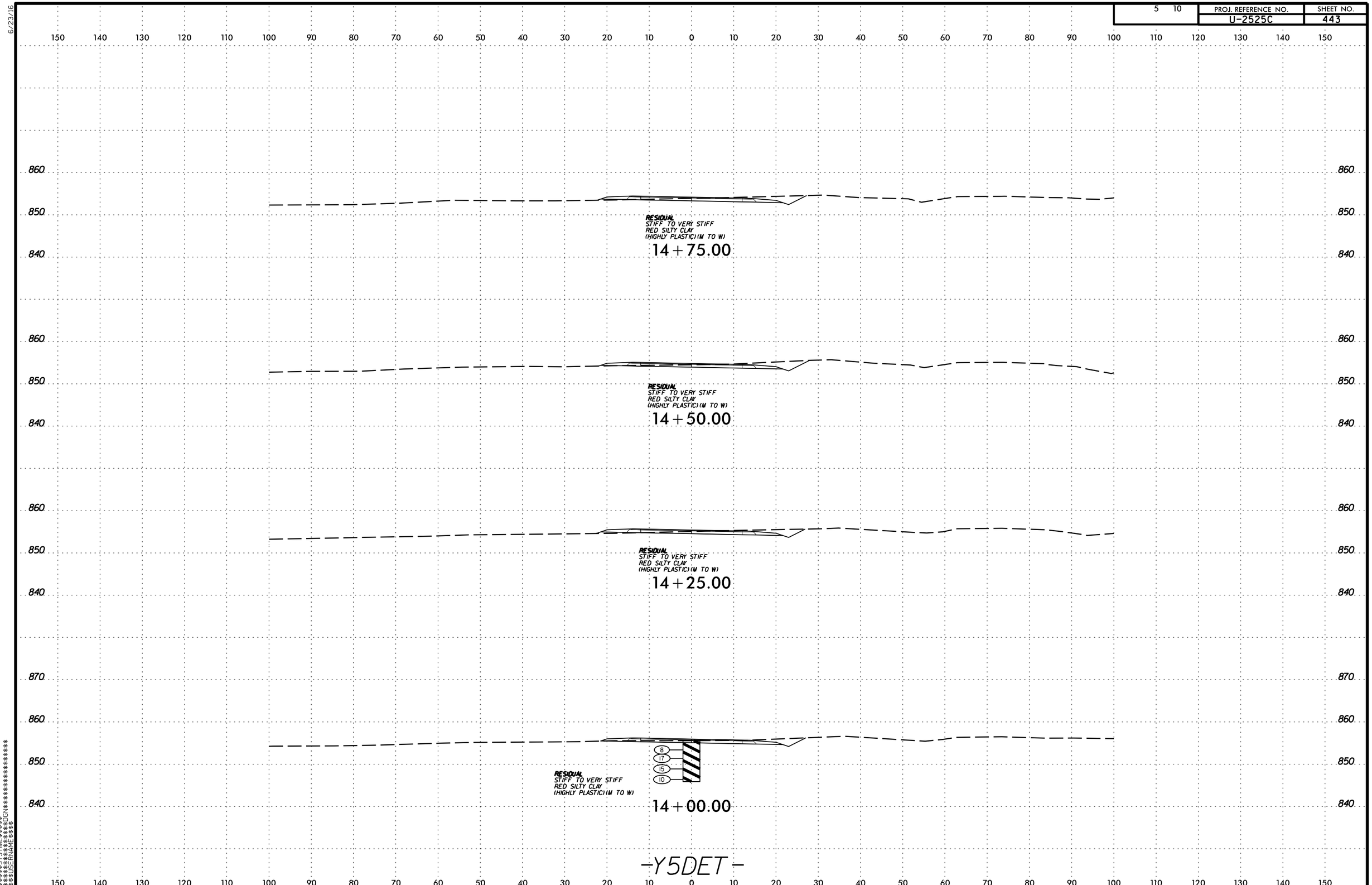

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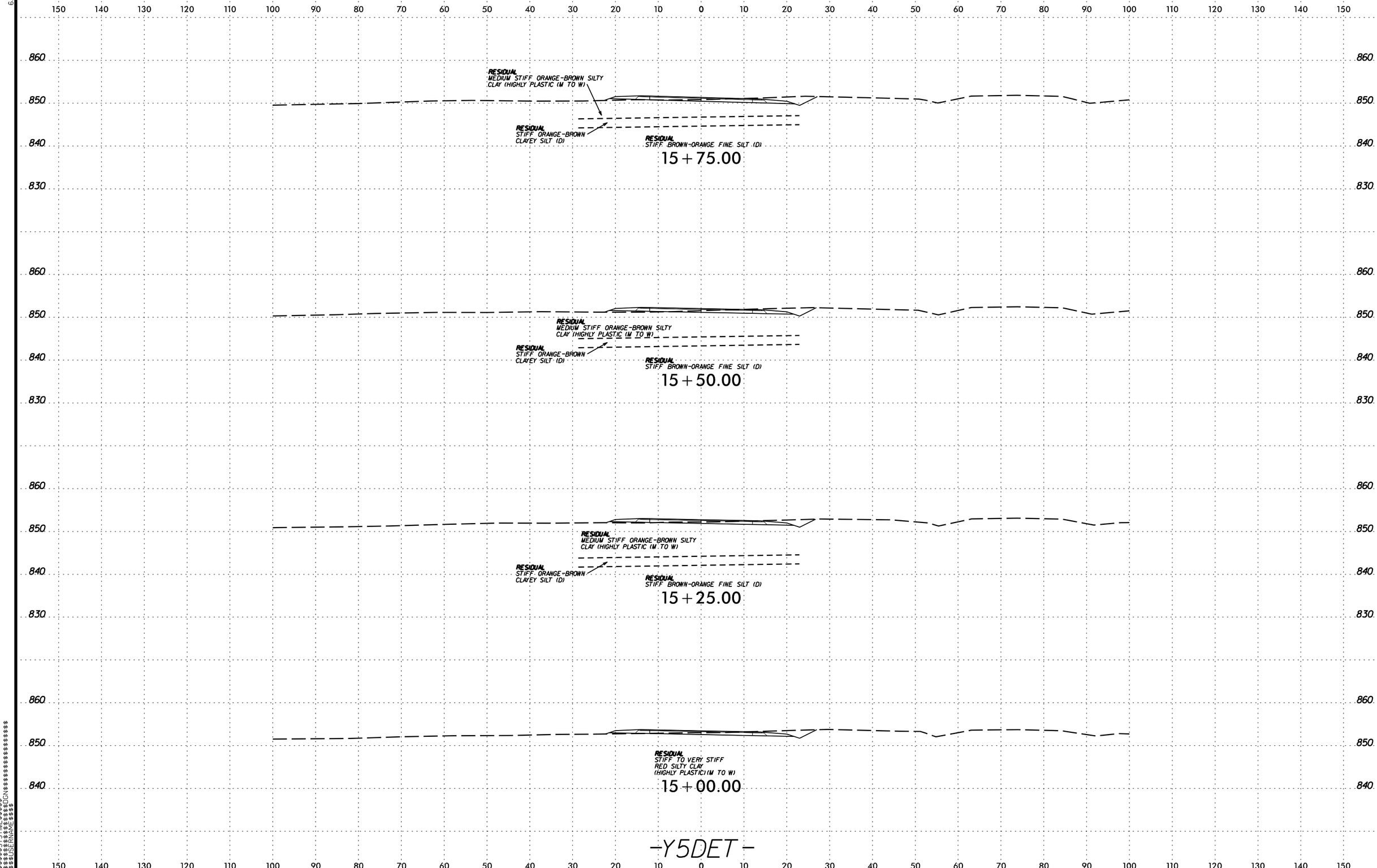

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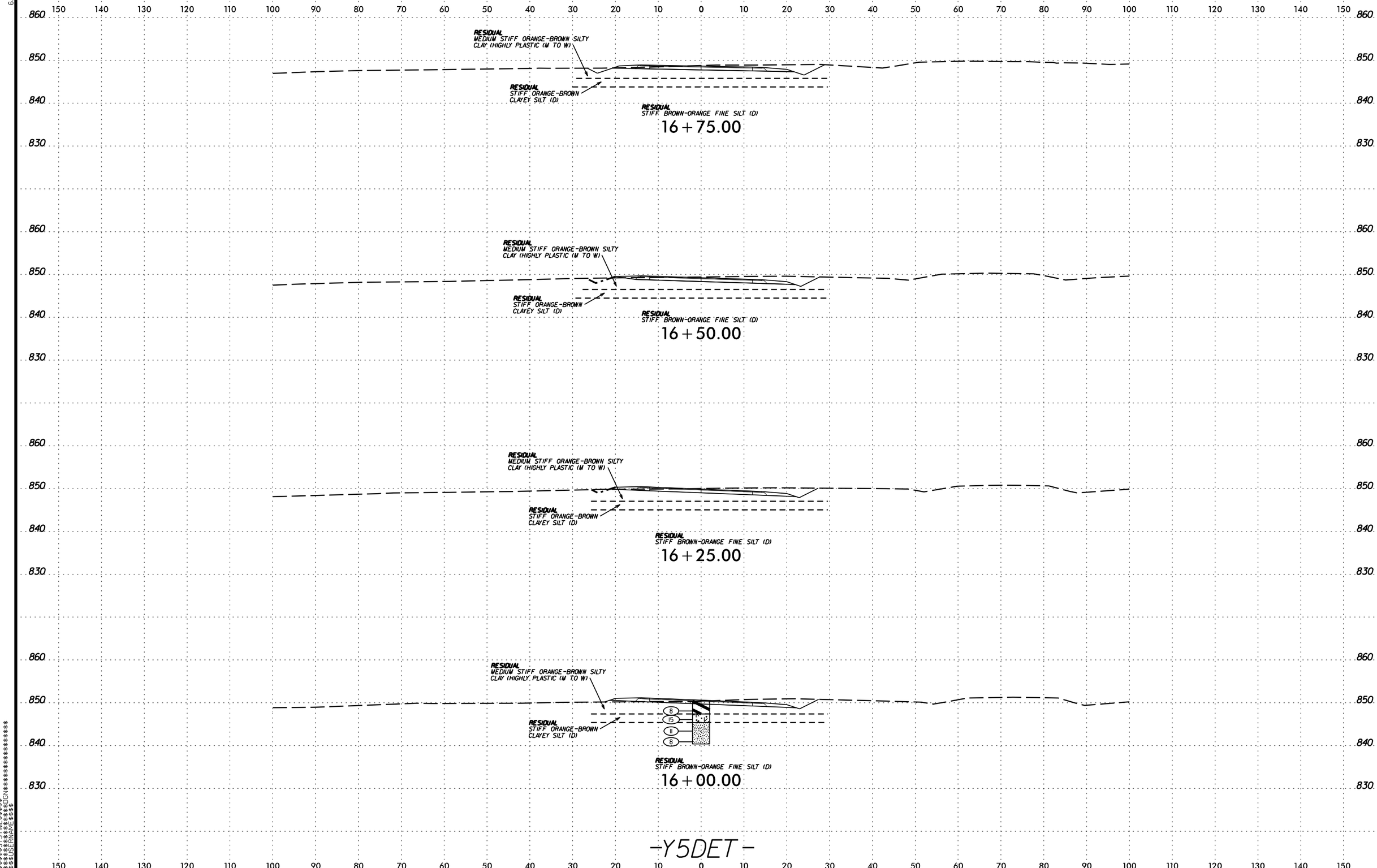

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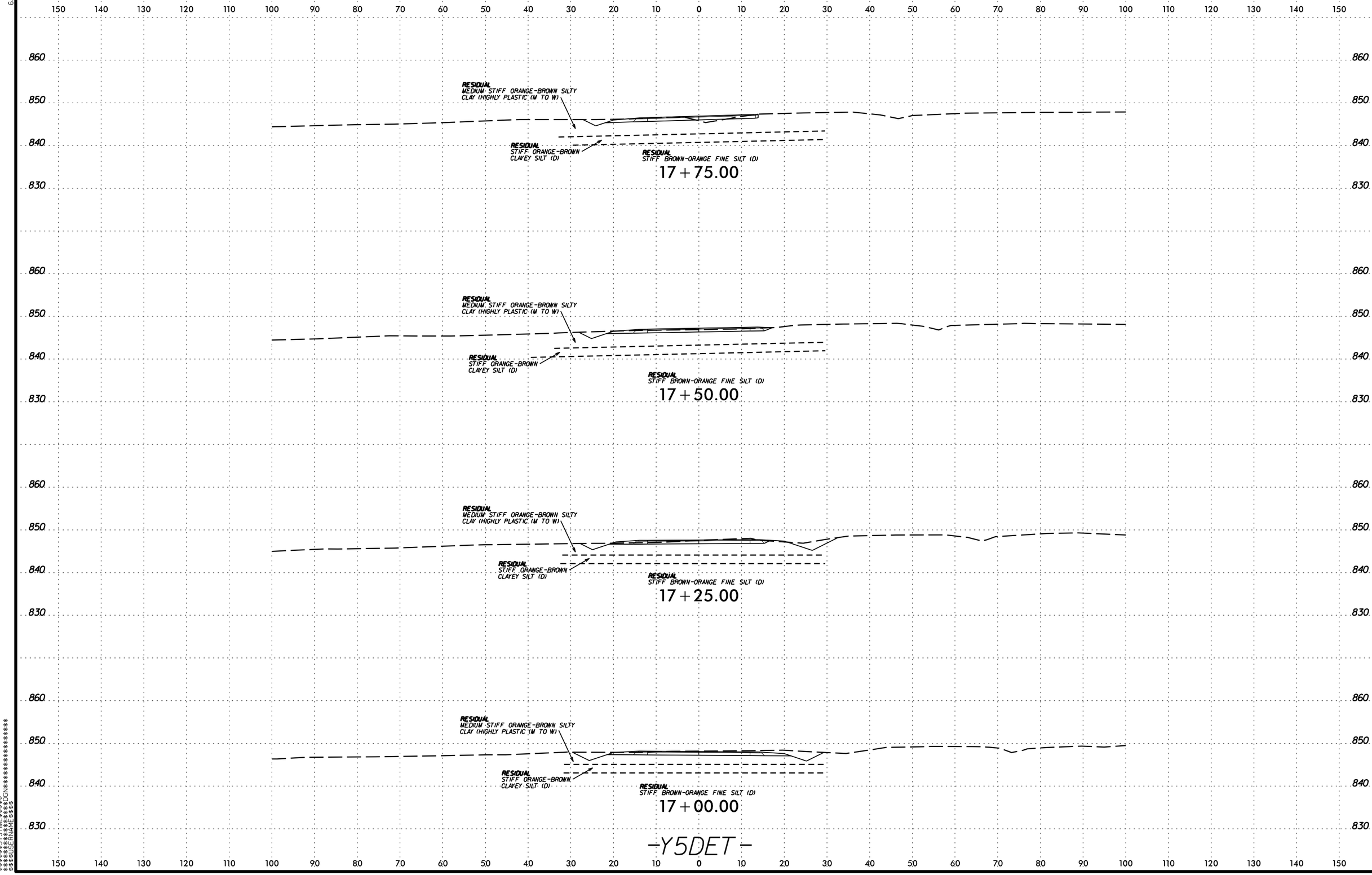

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6/23/16

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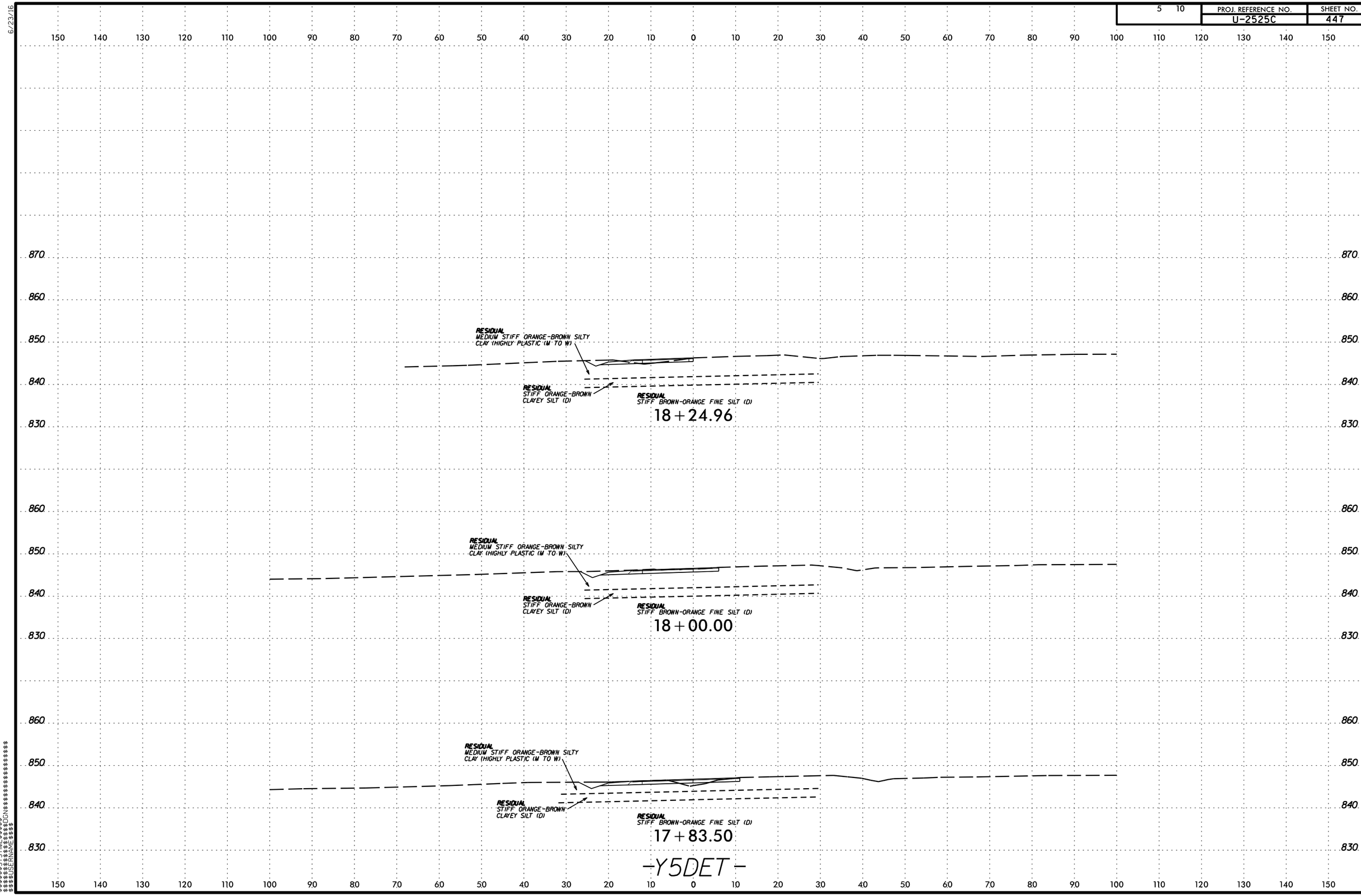
	U-2525C	447



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PROJECT REFERENCE NO.	SHEET NO.
U-2525C	448A

REFERENCE: U-2525C

PROJECT: 34821

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

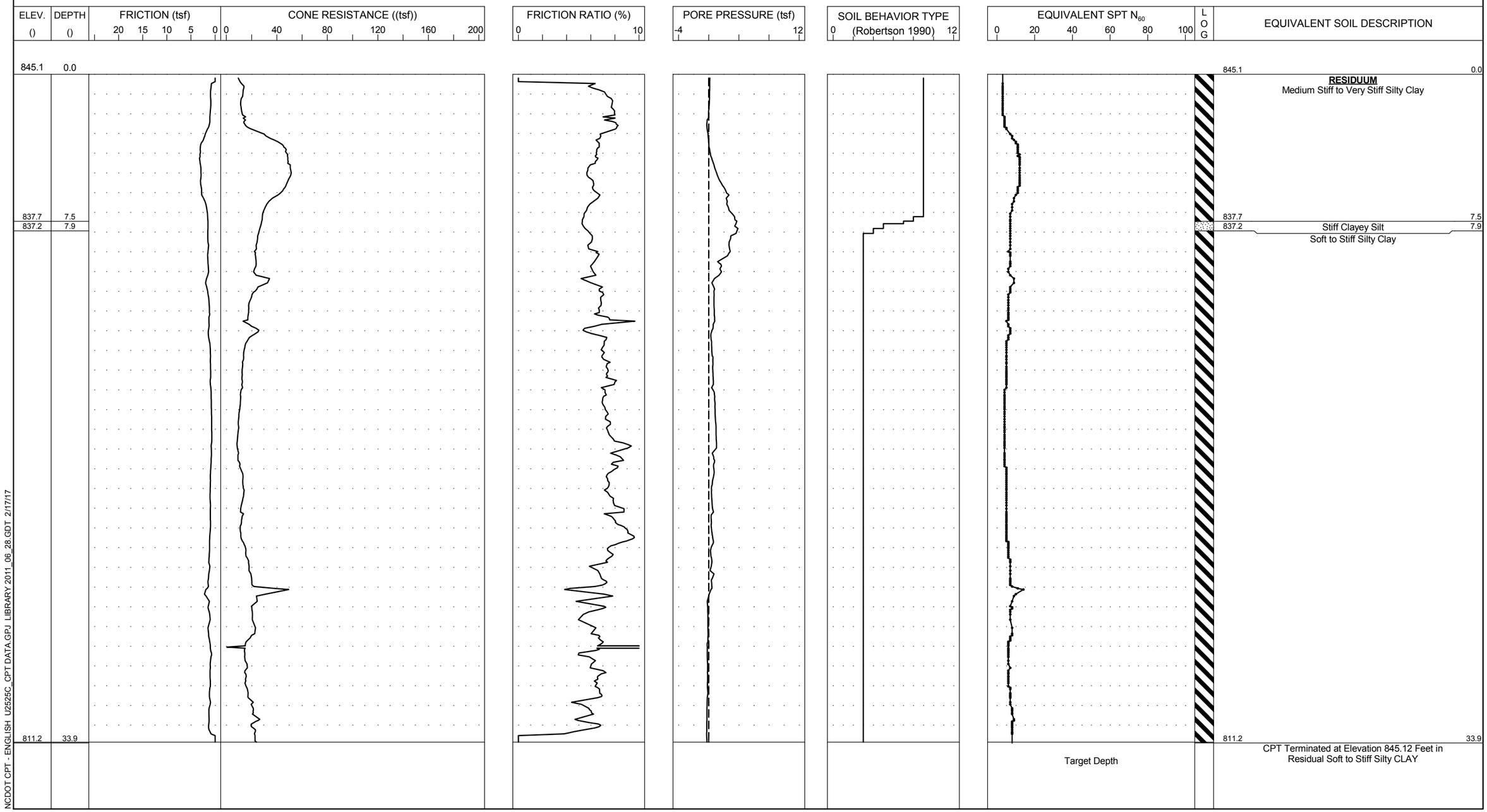
APPENDIX A
CPT LOGS

DocuSigned by:
Stewart S. Laney, PE
75BB4AB1AB3B4CB...

5/30/2017

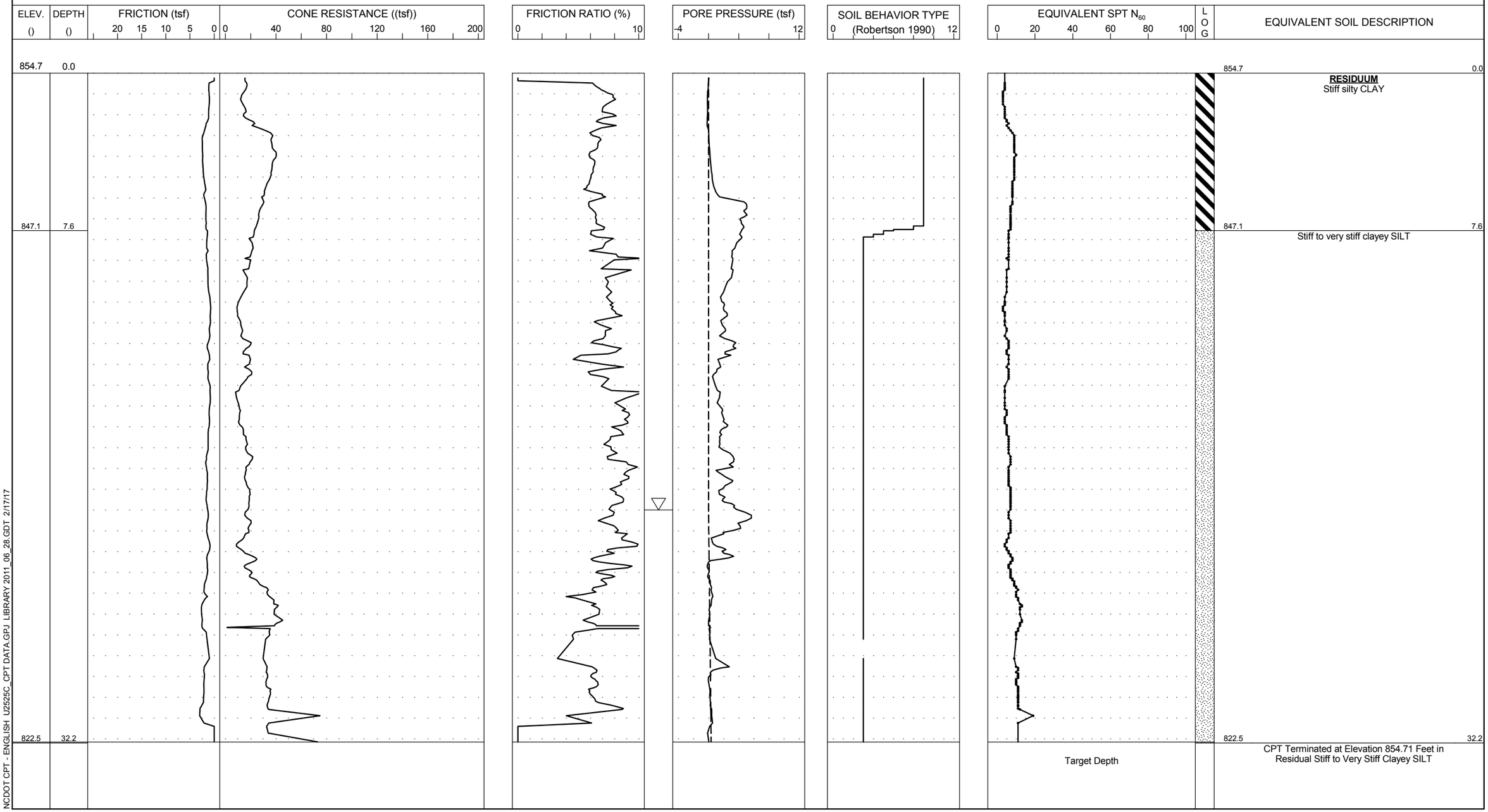
S&ME

PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 33.9	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-139	**BORING LOCATION** 402+30	**OFFSET** 99 RT	**ALIGNMENT** -L-	**0 HR.** Dry	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 845.1	**NORTHING** 873,205.5	**EASTING** 1,770,617.2		**24 HR.** Dry	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 5 feet



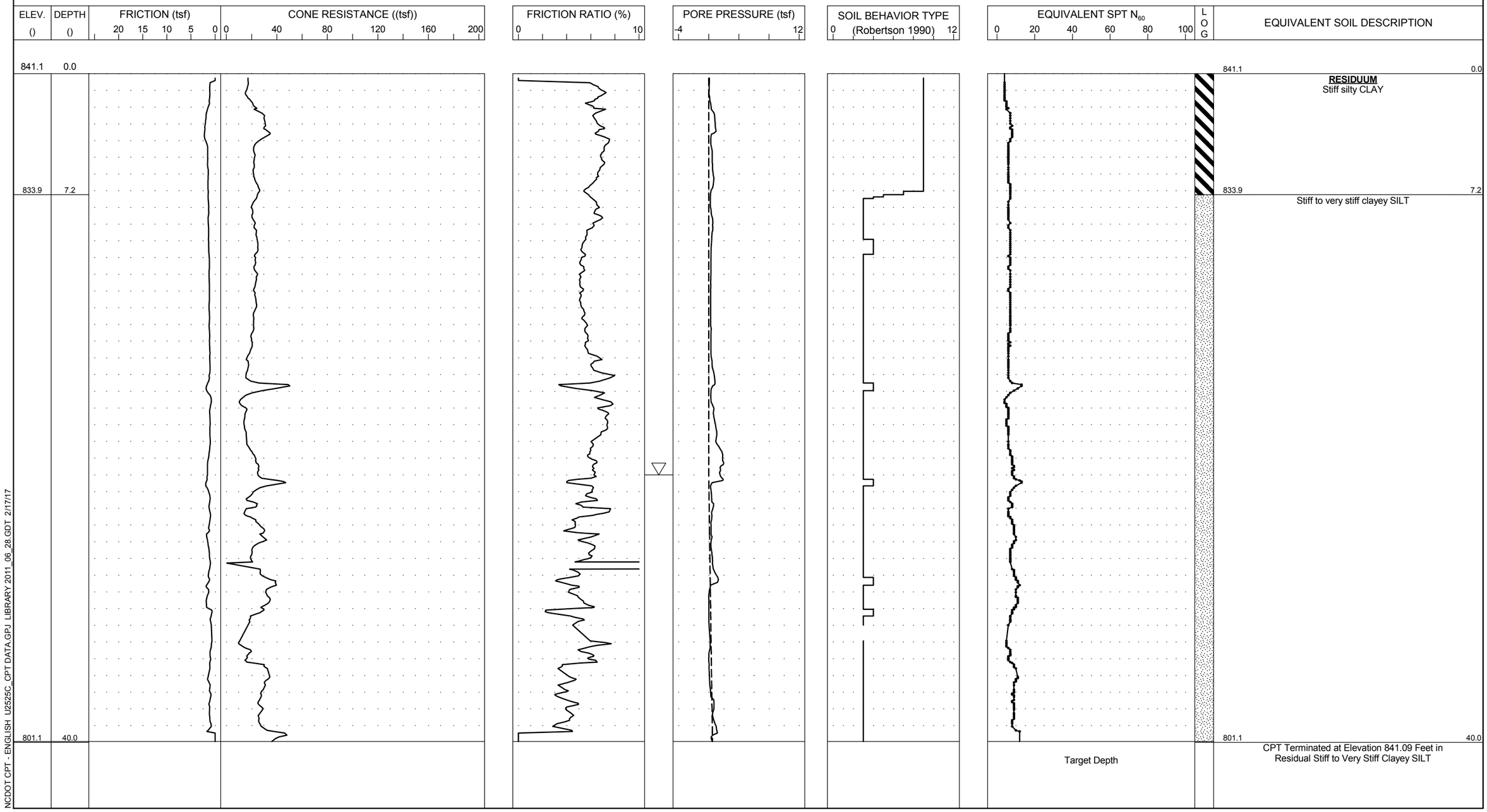
NCDOT CPT - ENGLISH U2525C_CPT DATA.GPJ LIBRARY 2011_06_28.GDT 2/17/17

PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 32.2	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-178	**BORING LOCATION** 450+60	**OFFSET** 92 LT	**ALIGNMENT** -L-	**0 HR.** 21	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 854.7	**NORTHING** 870,708.9	**EASTING** 1,766,474.1		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.75 feet



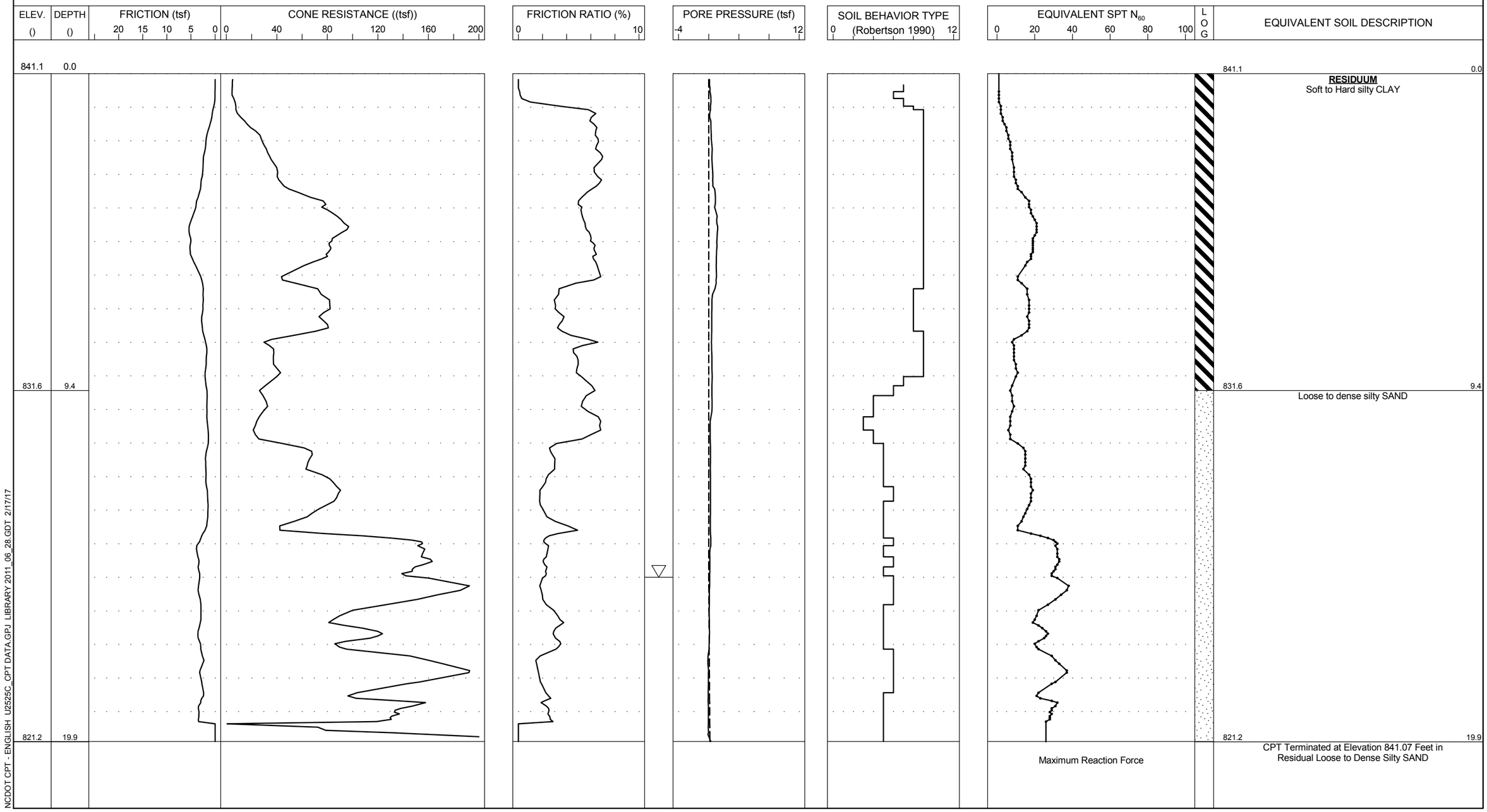
NCDOT CPT - ENGLISH U2525C_CPT DATA.GPJ LIBRARY 2011_06_28.GDT 2/17/17

PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 40.0	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-188	**BORING LOCATION** 456+55	**OFFSET** 108 RT	**ALIGNMENT** -L-	**0 HR.** 24	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 841.1	**NORTHING** 870,730.2	**EASTING** 1,765,848.2		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 6 feet

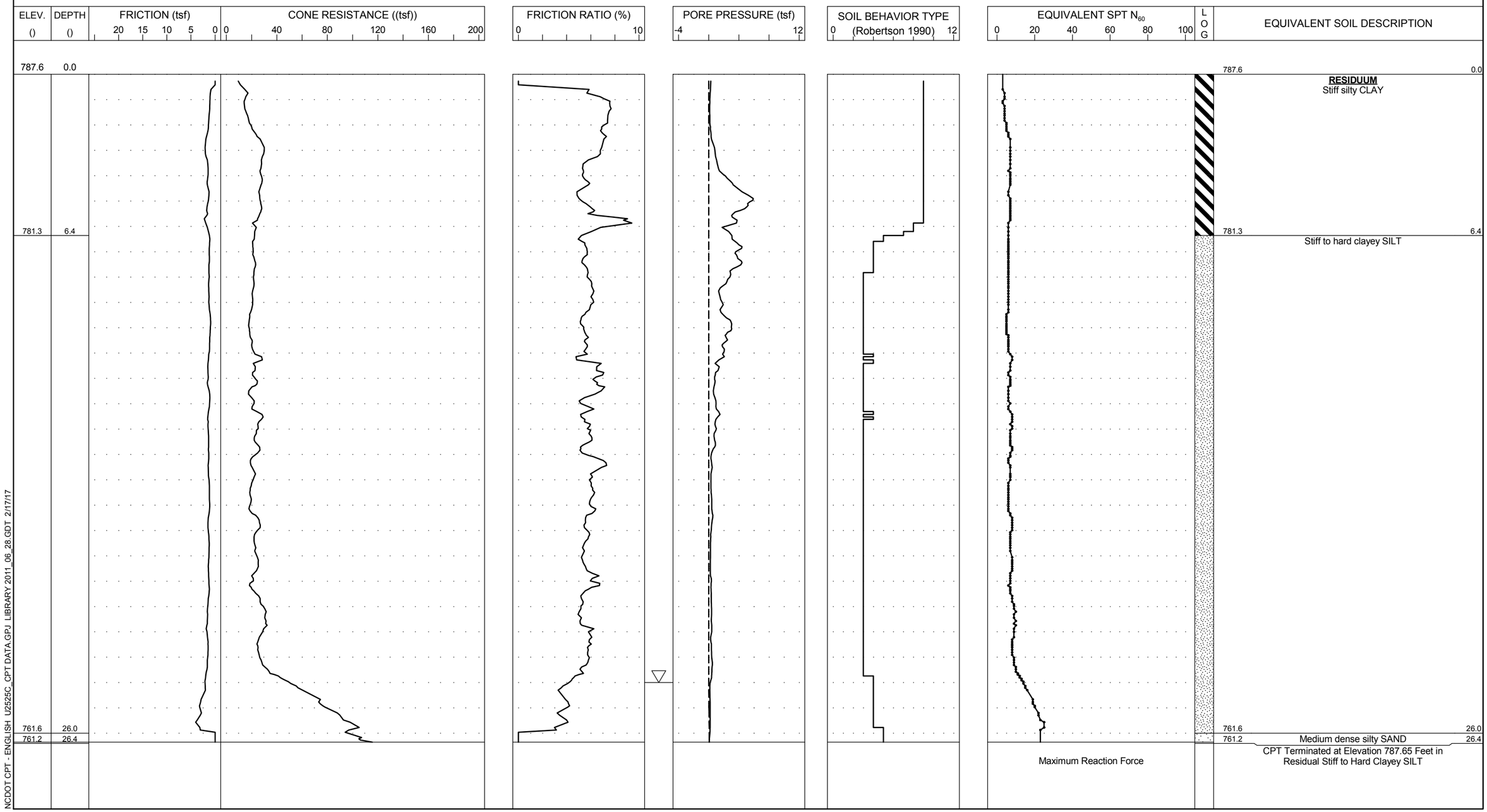


NCDOT CPT - ENGLISH U2525C_CPT DATA.GPJ LIBRARY 2011_06_28.GDT 2/17/17

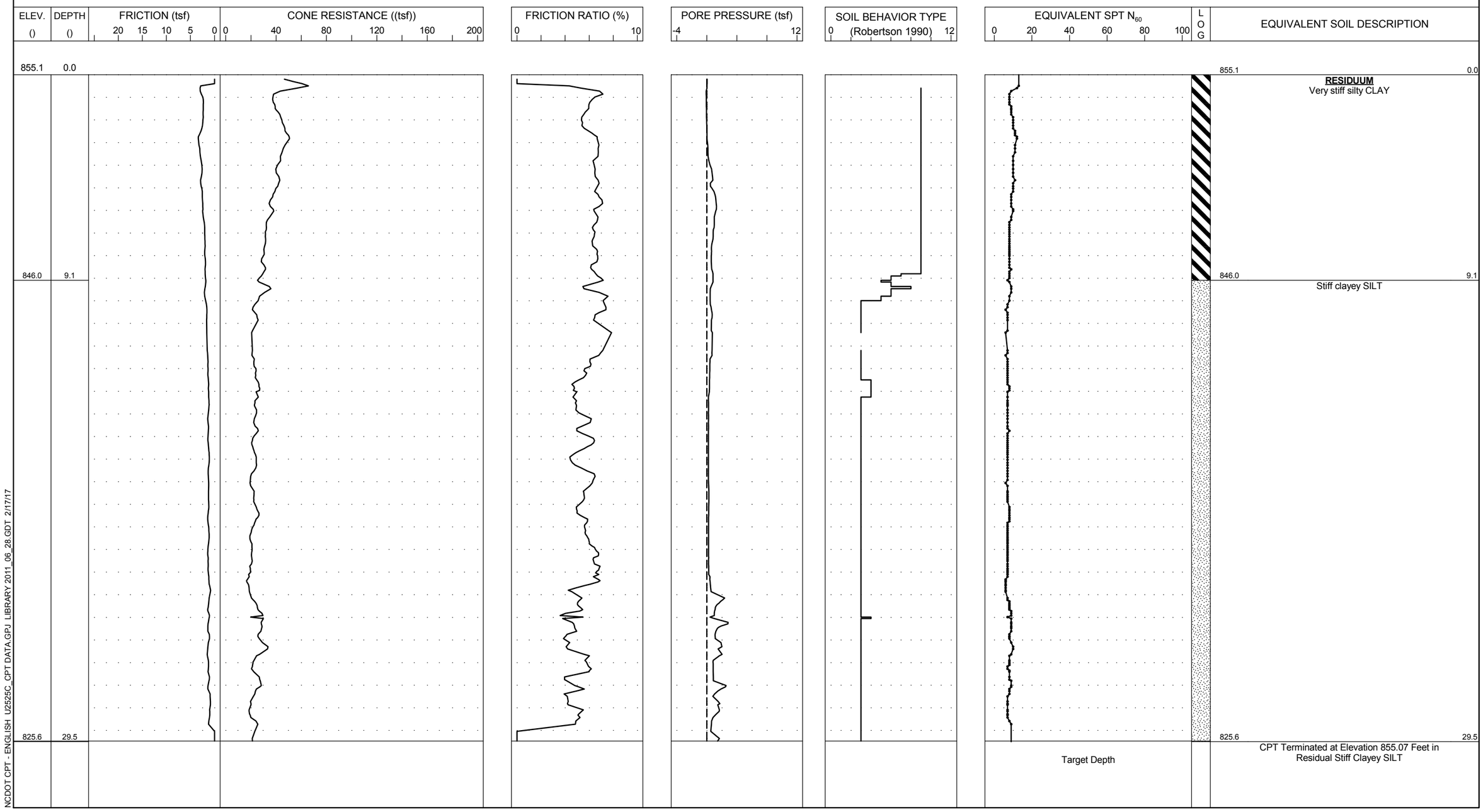
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 19.9	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-19	**BORING LOCATION** 287+98	**OFFSET** 126 LT	**ALIGNMENT** -L-	**0 HR.** 15	**DATE STARTED** 5/10/2016	**COMPLETED** 5/10/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 841.1	**NORTHING** 872,543.1	**EASTING** 1,781,064.0		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 2.94 feet



PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 26.4	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-215	**BORING LOCATION** 499+39	**OFFSET** 2 RT	**ALIGNMENT** -L-	**0 HR.** 24	**DATE STARTED** 5/12/2016	**COMPLETED** 5/12/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 787.6	**NORTHING** 870,785.5	**EASTING** 1,761,650.8		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4 feet

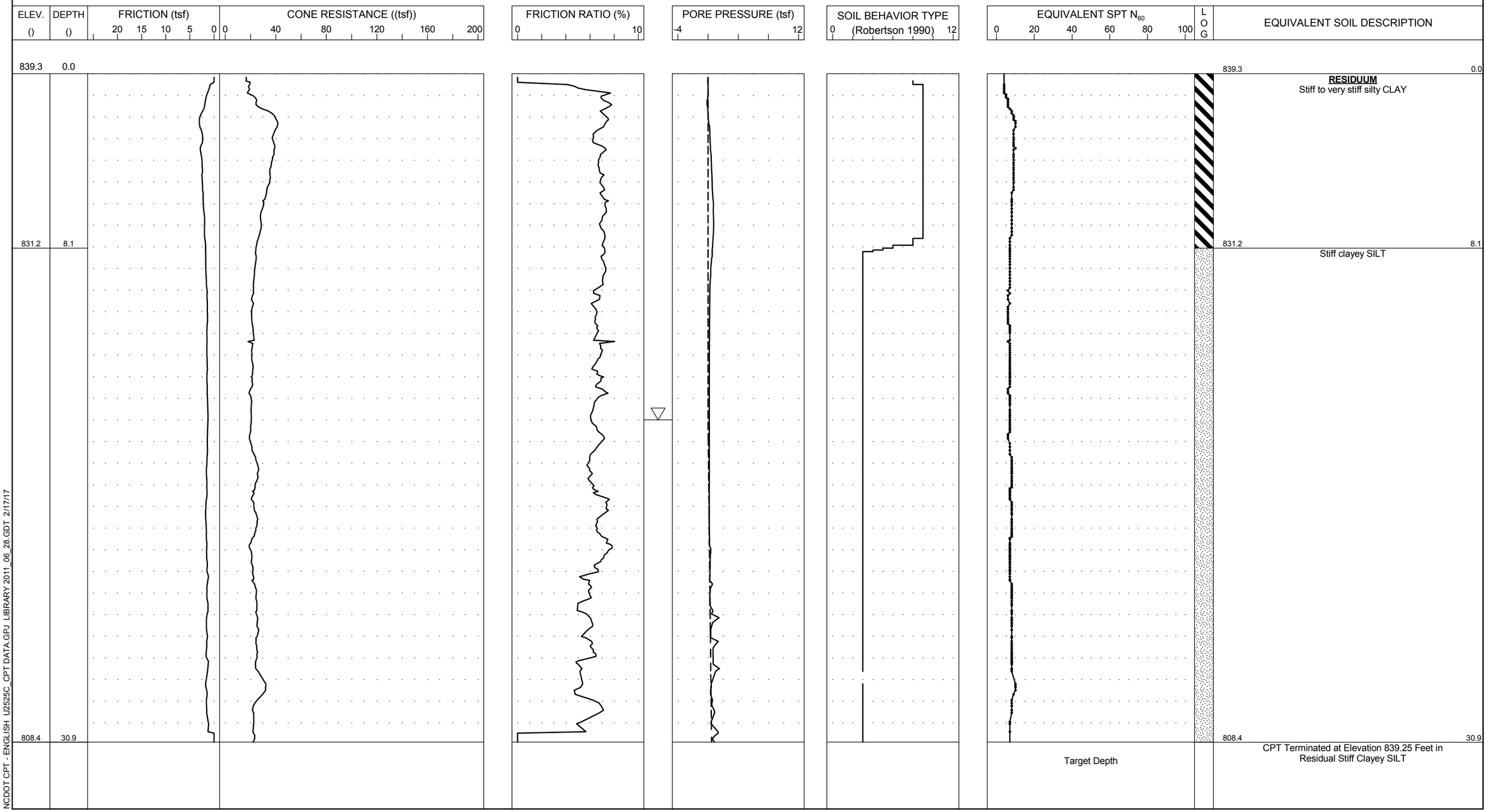


PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 29.5	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-231	**BORING LOCATION** 522+00	**OFFSET** 88 LT	**ALIGNMENT** -L-	**0 HR.** Dry	**DATE STARTED** 5/12/2016	**COMPLETED** 5/12/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 855.1	**NORTHING** 871,401.9	**EASTING** 1,759,482.9		**24 HR.** Dry	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.33 feet



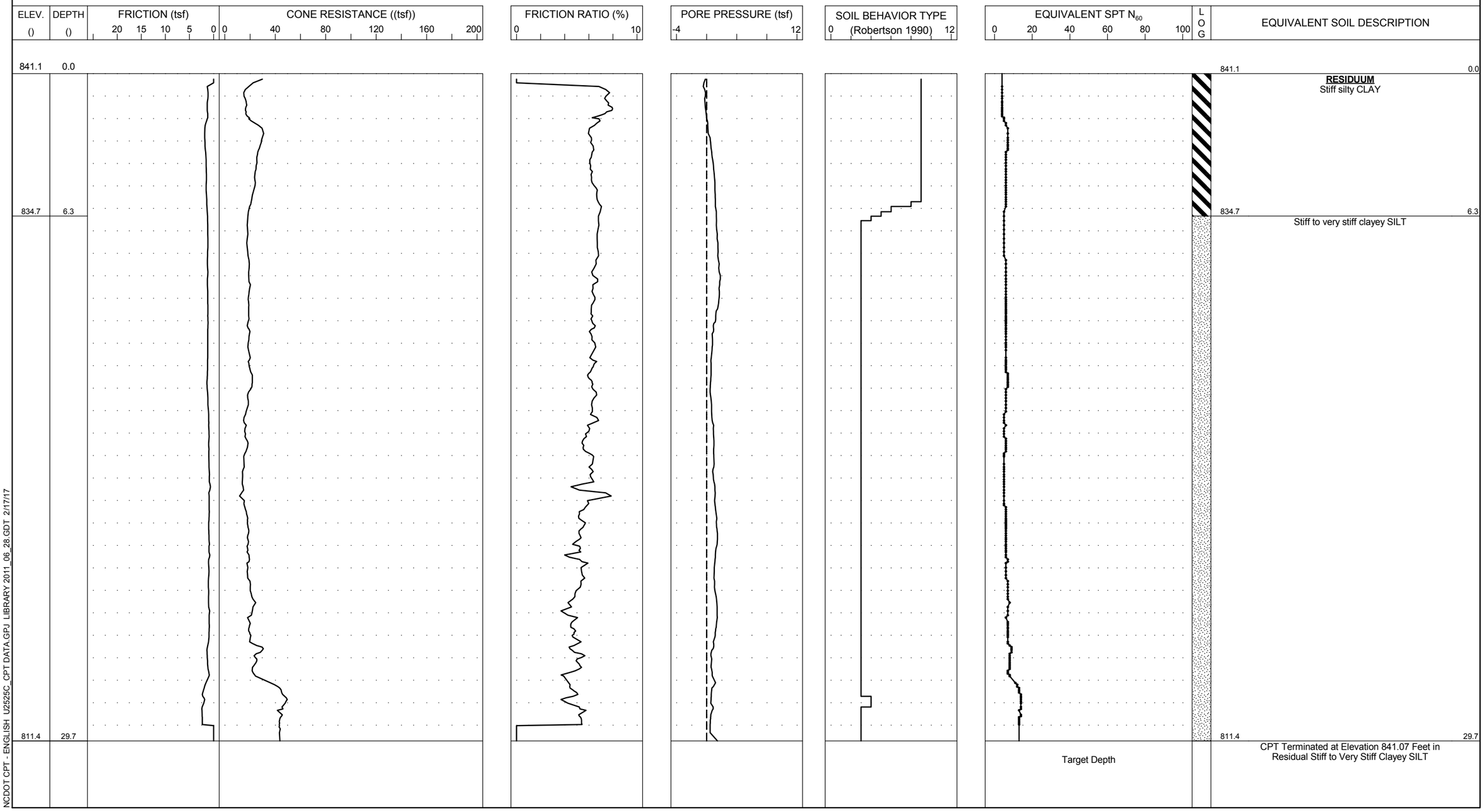
NCDOT CPT - ENGLISH U2525C_CPT DATA.GPJ LIBRARY 2011_06_28.GDT 2/17/17

PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 30.9	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-247	**BORING LOCATION** 541+30	**OFFSET** 88 RT	**ALIGNMENT** -L-	**0 HR.** 16	**DATE STARTED** 5/12/2016	**COMPLETED** 5/12/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 839.3	**NORTHING** 871,631.5	**EASTING** 1,757,572.9		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.63 feet



NCDOT CPT - ENGLISH U2525C_CPT DATA.GPJ LIBRARY 2011_06_28.GDT 2/17/17

PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 29.7	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-266	**BORING LOCATION** 22+50	**OFFSET** 3 LT	**ALIGNMENT** -Y4RPA-	**0 HR.** Dry	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 841.1	**NORTHING** 872,453.5	**EASTING** 1,770,365.2		**24 HR.** Dry	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.34 feet



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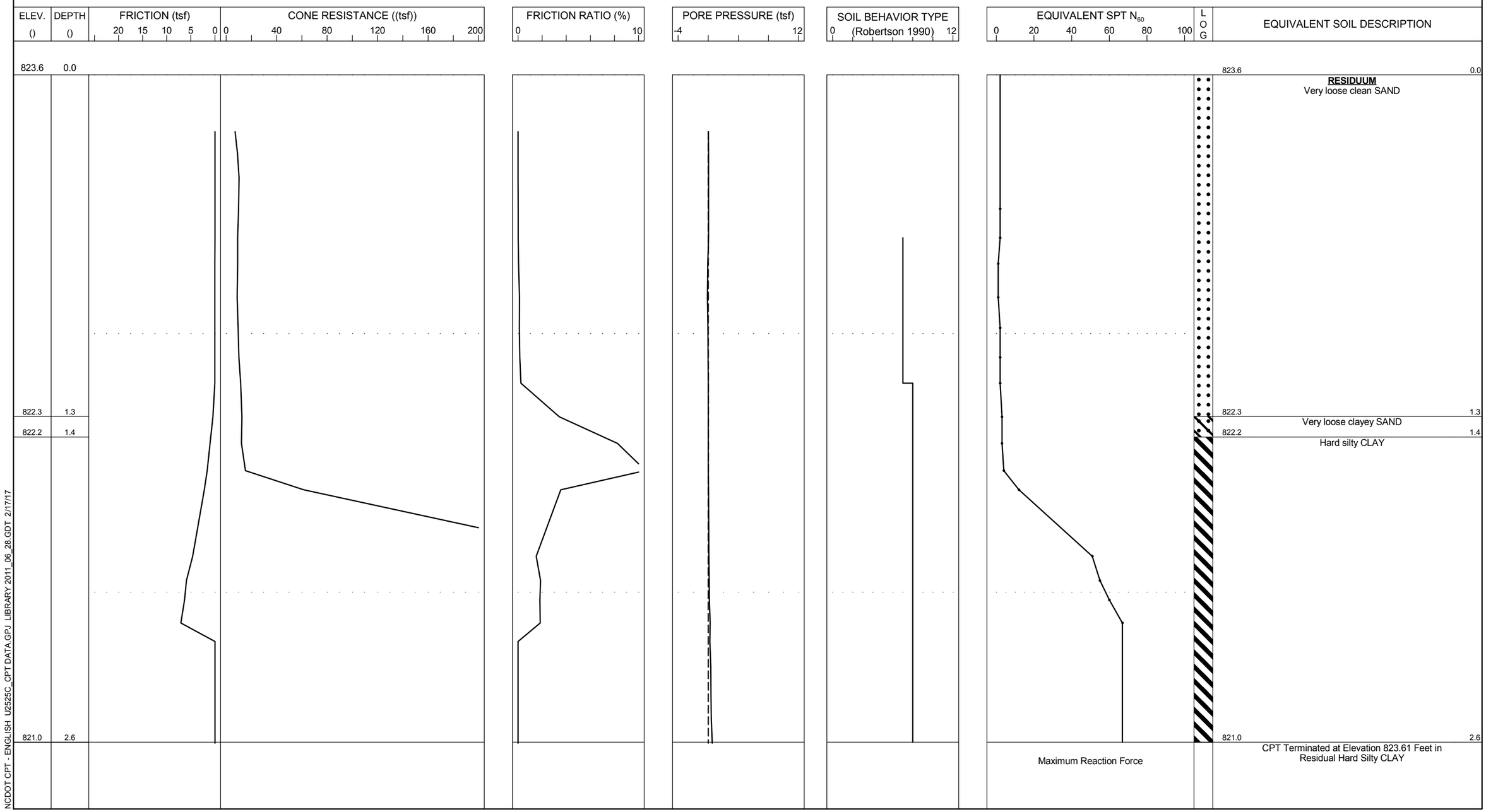
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 2.6	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-273	**BORING LOCATION** 16+00	**OFFSET** 1 RT	**ALIGNMENT** -Y6LPA-	**0 HR.** Dry	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 823.6	**NORTHING** 869,964.6	**EASTING** 1,764,072.3		**24 HR.** Dry	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 0.38 feet



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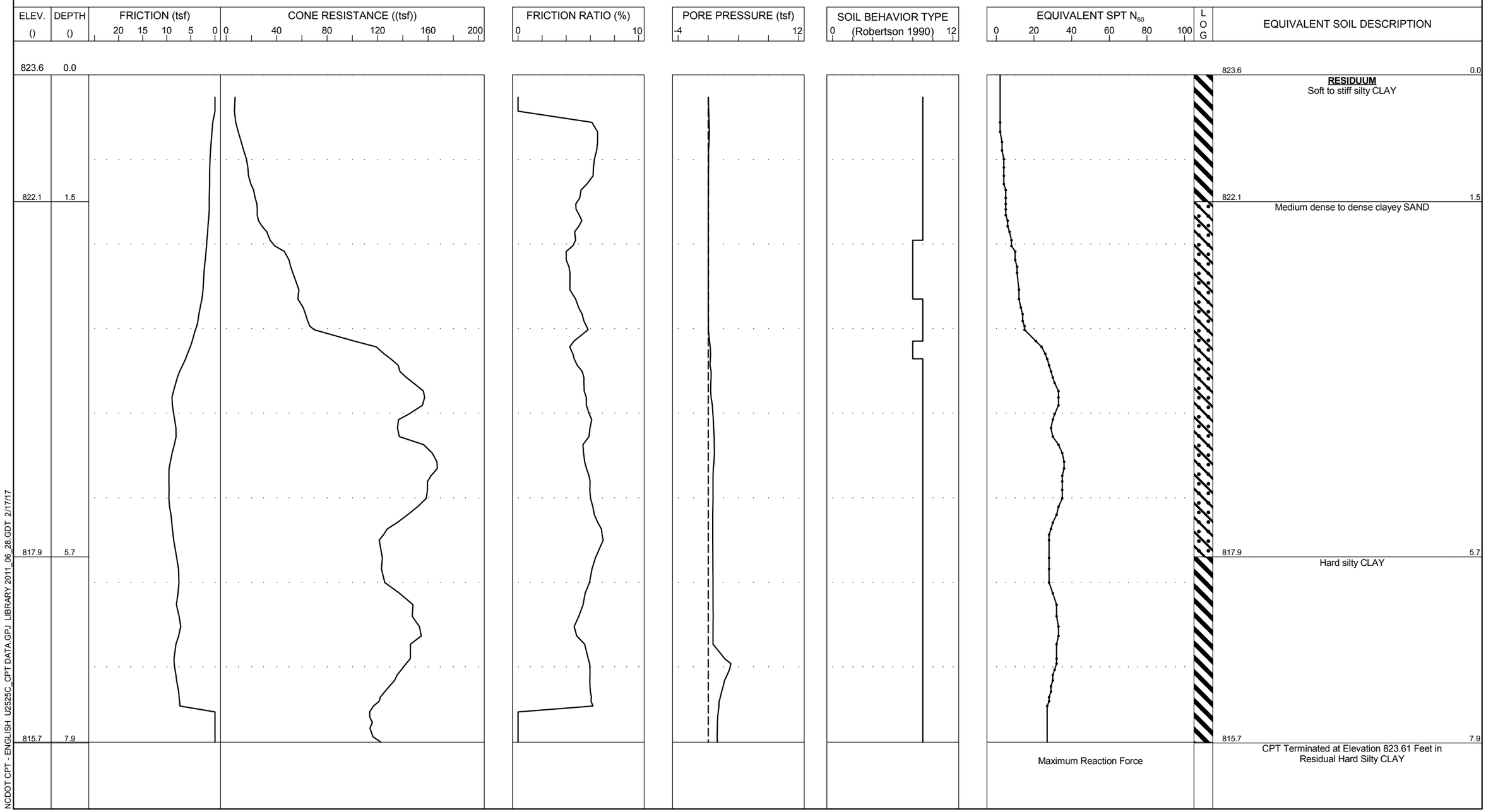
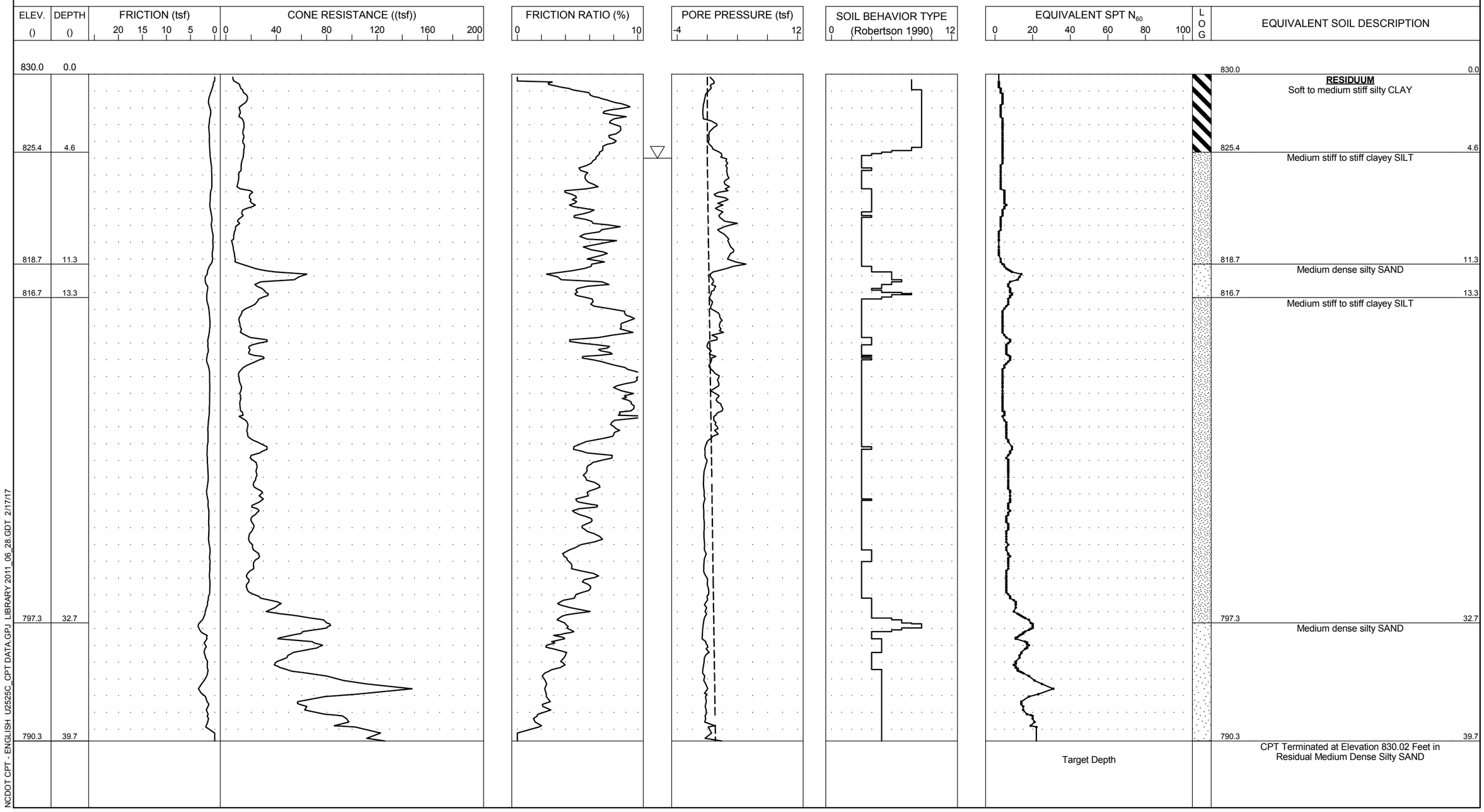
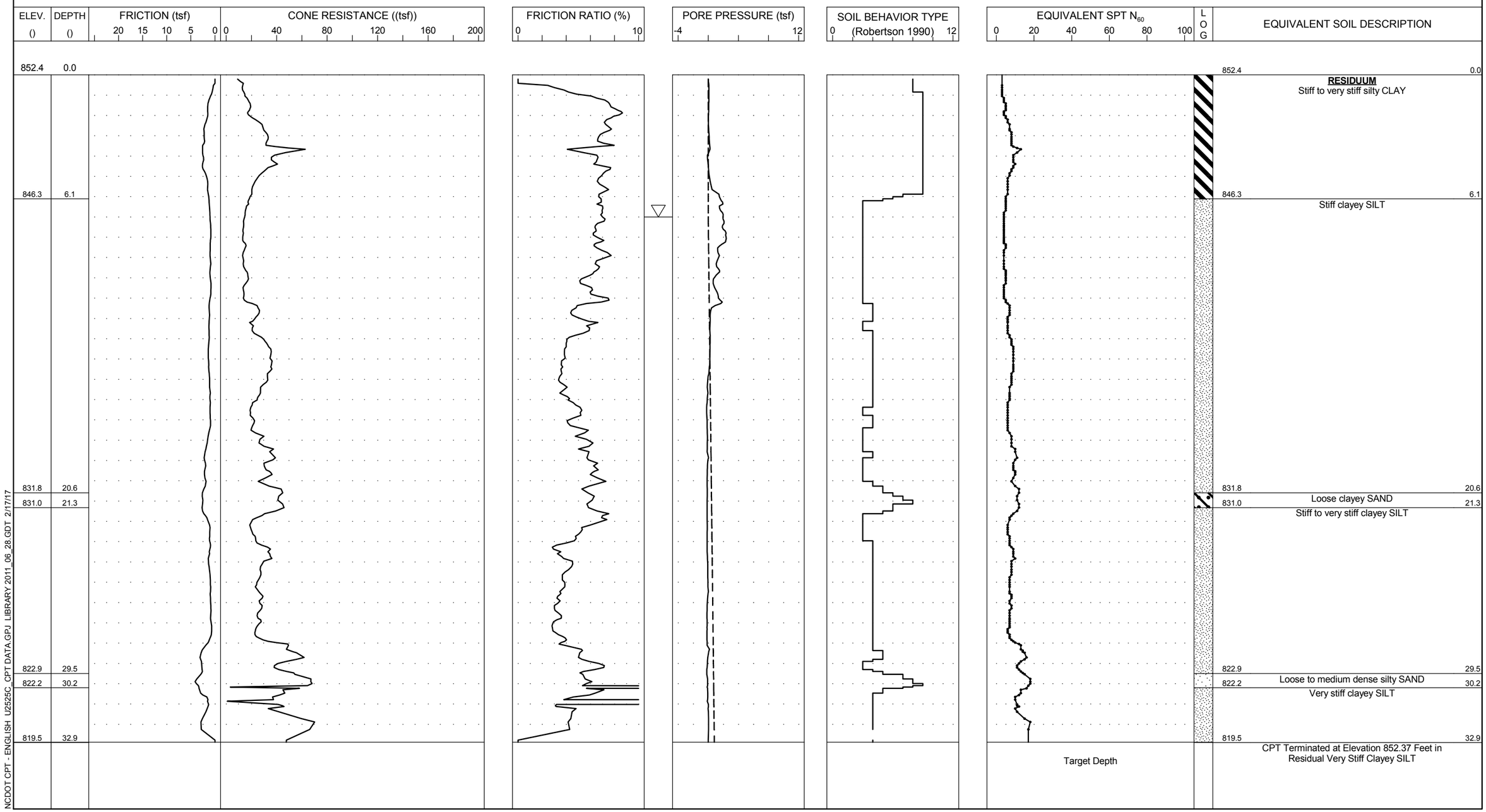
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 7.9	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-273A	**BORING LOCATION** 15+98	**OFFSET** 7 RT	**ALIGNMENT** -Y6LPA-	**0 HR.** Dry	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 823.6	**NORTHING** 869,964.6	**EASTING** 1,764,072.3		**24 HR.** Dry	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 1.15 feet



PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 39.7	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-38	**BORING LOCATION** 312+00	**OFFSET** 2 RT	**ALIGNMENT** -L-	**0 HR.** 5	**DATE STARTED** 5/10/2016	**COMPLETED** 5/10/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 830.0	**NORTHING** 874,037.7	**EASTING** 1,779,170.8		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 5.75 feet



PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 32.9	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-68	**BORING LOCATION** 334+97	**OFFSET** 160 RT	**ALIGNMENT** -L-	**0 HR.** 7	**DATE STARTED** 5/10/2016	**COMPLETED** 5/10/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 852.4	**NORTHING** 874,838.8	**EASTING** 1,777,006.5		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.88 feet



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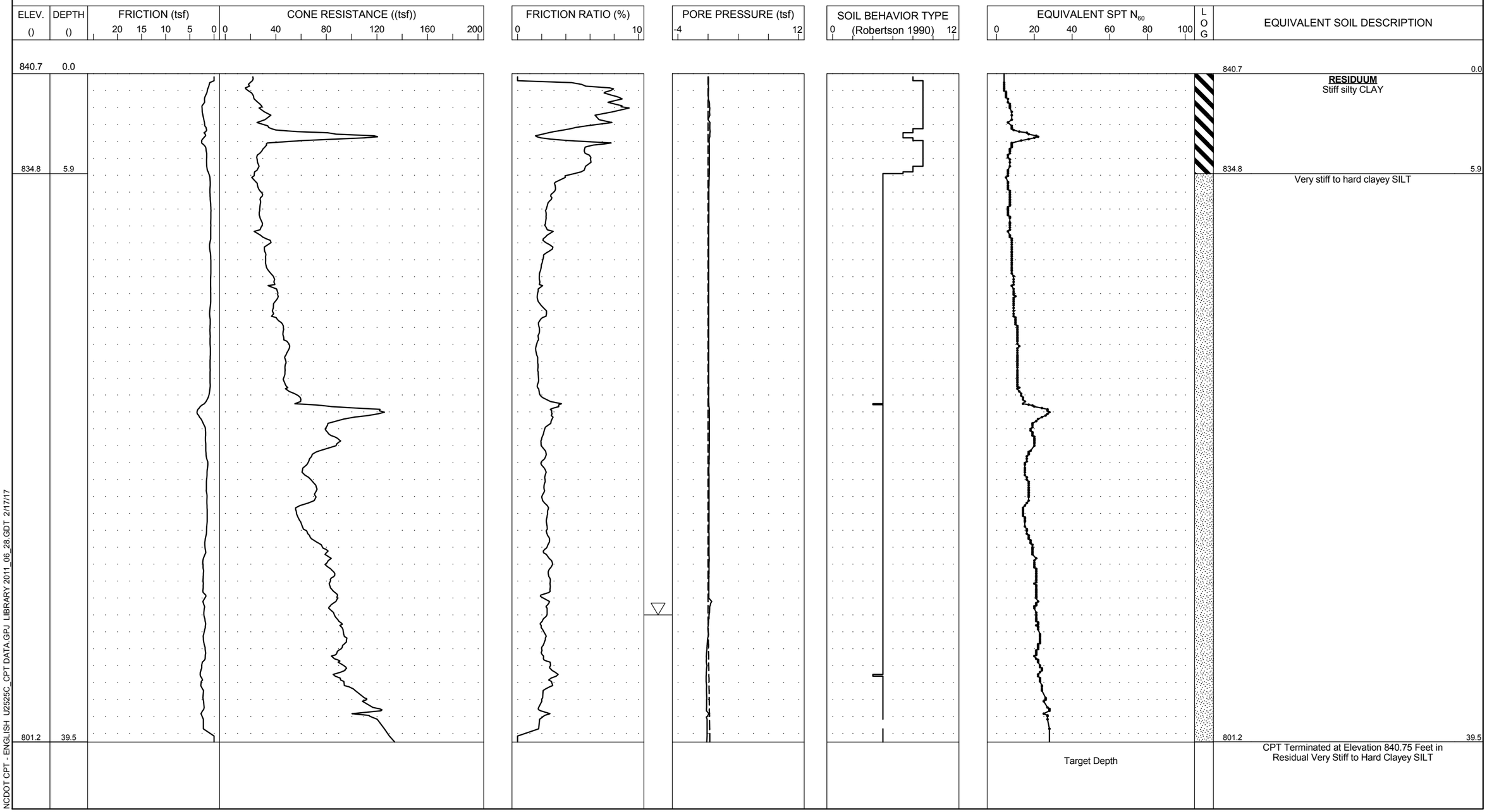
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 39.5	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-72	**BORING LOCATION** 342+25	**OFFSET** 3 RT	**ALIGNMENT** -L-	**0 HR.** 32	**DATE STARTED** 5/10/2016	**COMPLETED** 5/10/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 840.7	**NORTHING** 874,681.0	**EASTING** 1,776,281.0		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 5.90 feet



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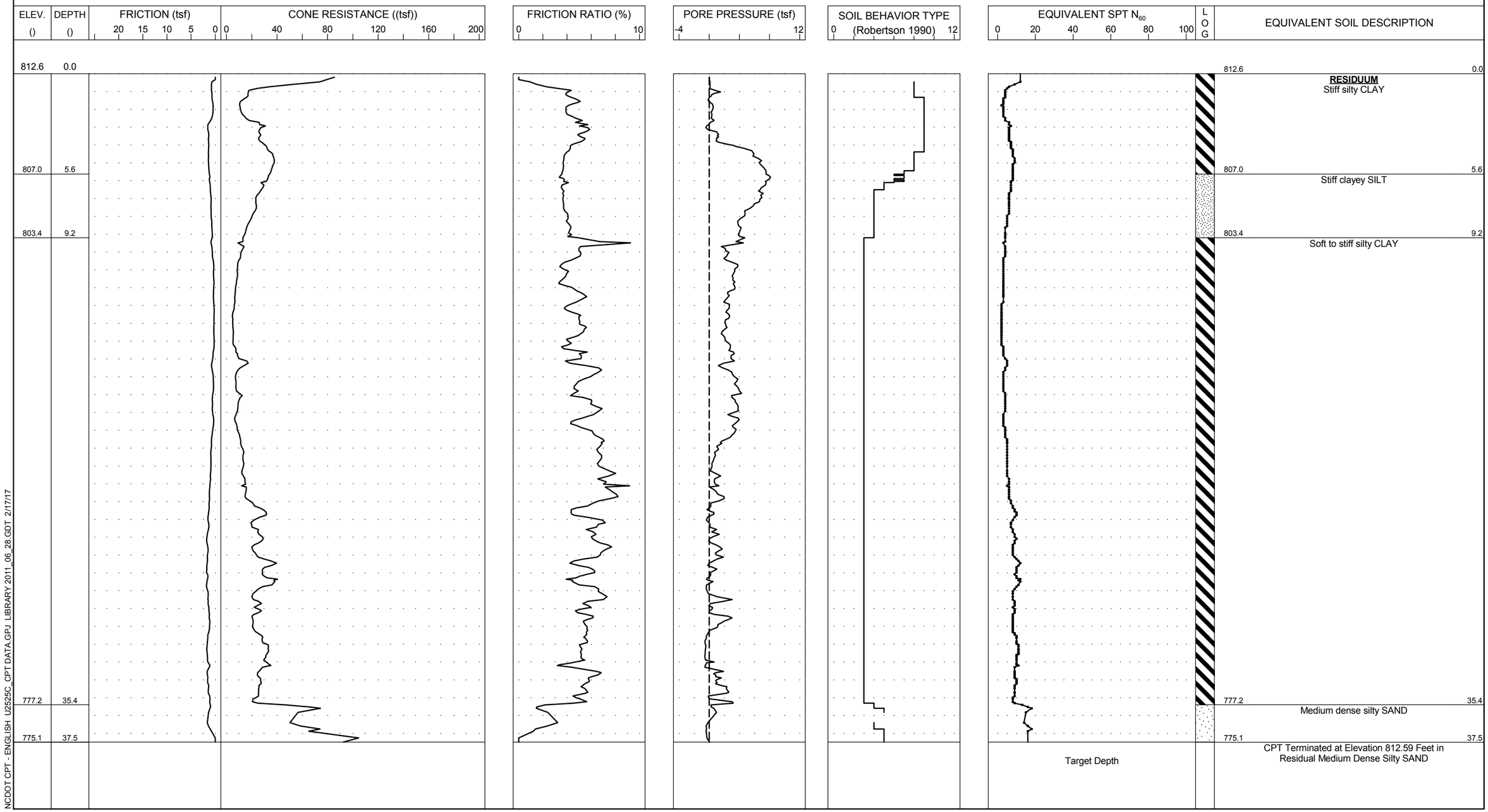
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 37.5	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. B-89	**BORING LOCATION** 351+75	**OFFSET** 176 RT	**ALIGNMENT** -L-	**0 HR.** N/A	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 812.6	**NORTHING** 874,863.9	**EASTING** 1,775,331.5		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 5.60 feet



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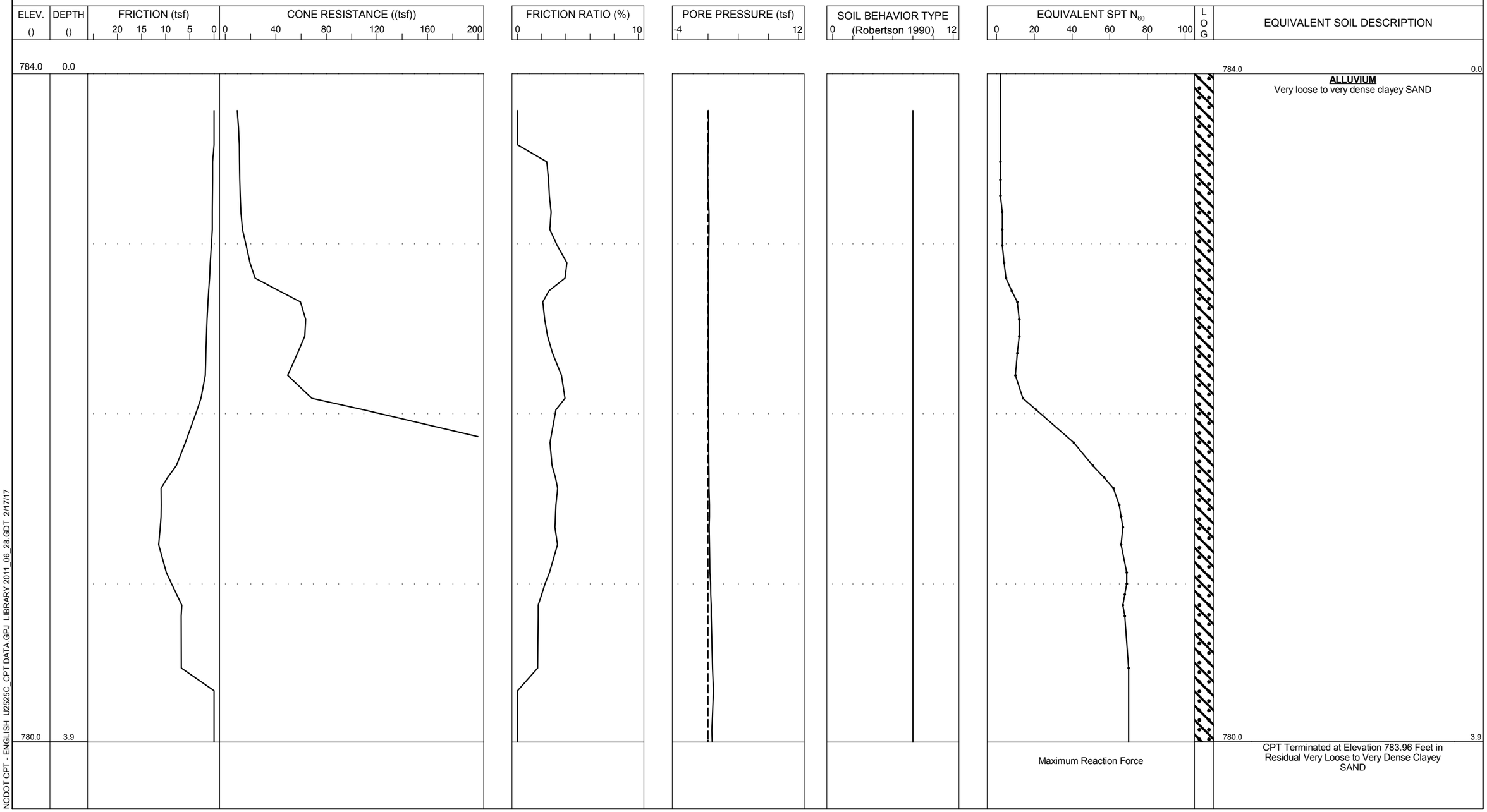
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 3.9	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. CV12-C	**BORING LOCATION** 431+21	**OFFSET** 4 LT	**ALIGNMENT** -L-	**0 HR.** Dry	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 784.0	**NORTHING** 871,635.7	**EASTING** 1,768,180.3		**24 HR.** Dry	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 0.58 feet



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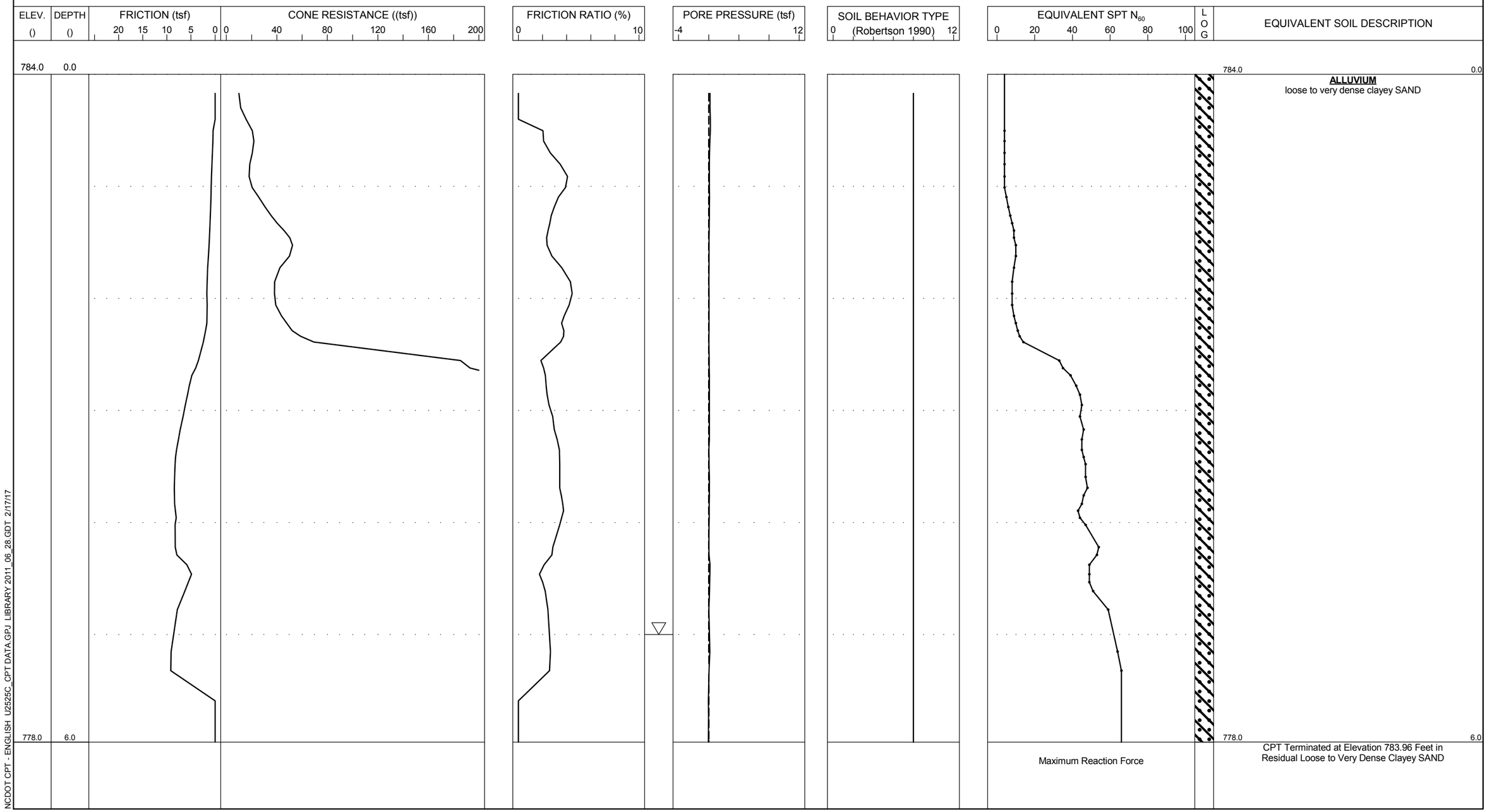
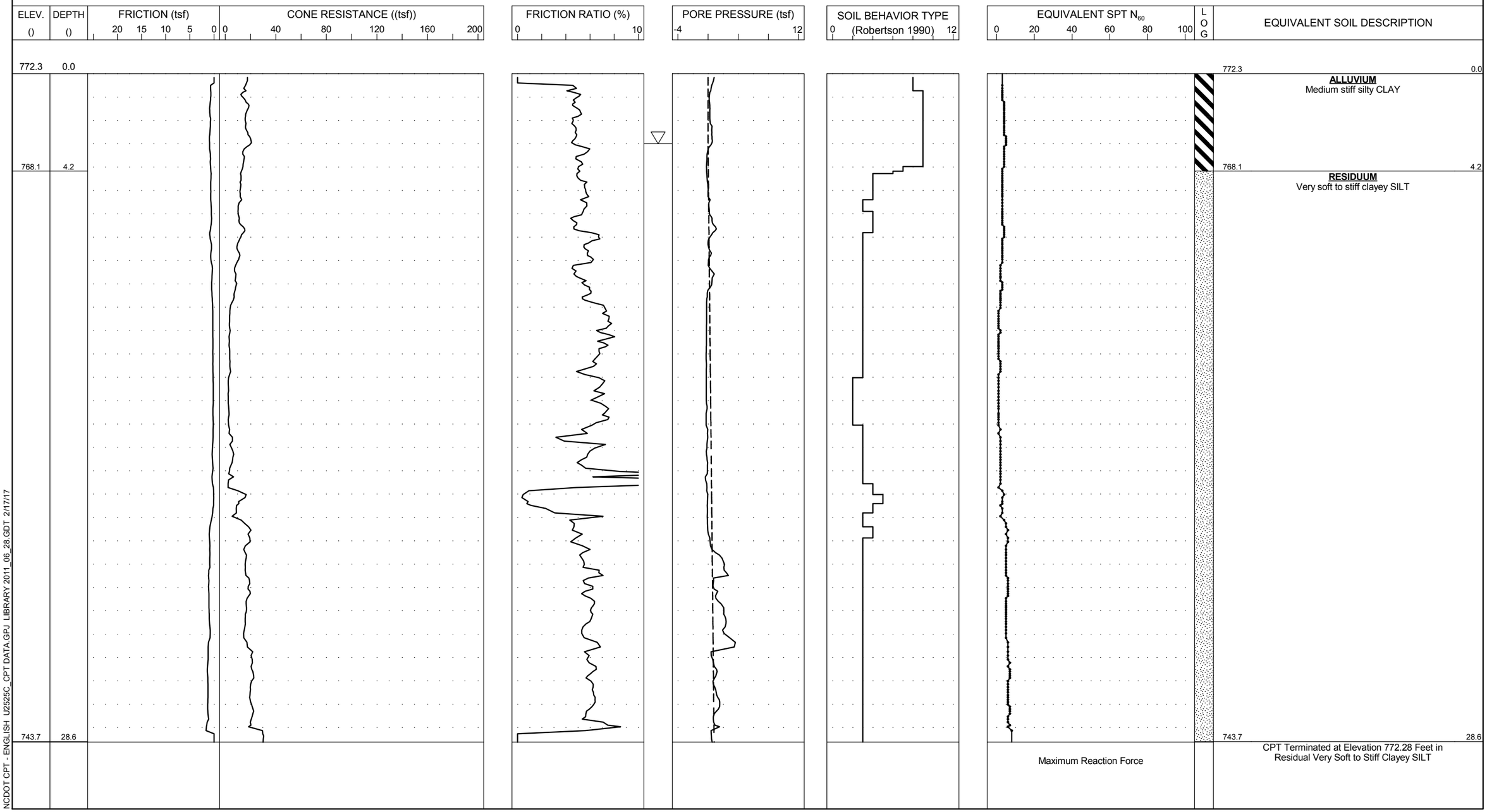
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 6.0	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. CV12-CA	**BORING LOCATION** 431+10	**OFFSET** 4 LT	**ALIGNMENT** -L-	**0 HR.** 5	**DATE STARTED** 5/11/2016	**COMPLETED** 5/11/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 784.0	**NORTHING** 871,635.7	**EASTING** 1,768,180.3		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 0.88 feet



PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 28.6	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. CV16-R	**BORING LOCATION** 472+65	**OFFSET** 130 RT	**ALIGNMENT** -L-	**0 HR.** 3	**DATE STARTED** 5/12/2016	**COMPLETED** 5/12/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 772.3	**NORTHING** 870,530.4	**EASTING** 1,764,276.4		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.20 feet



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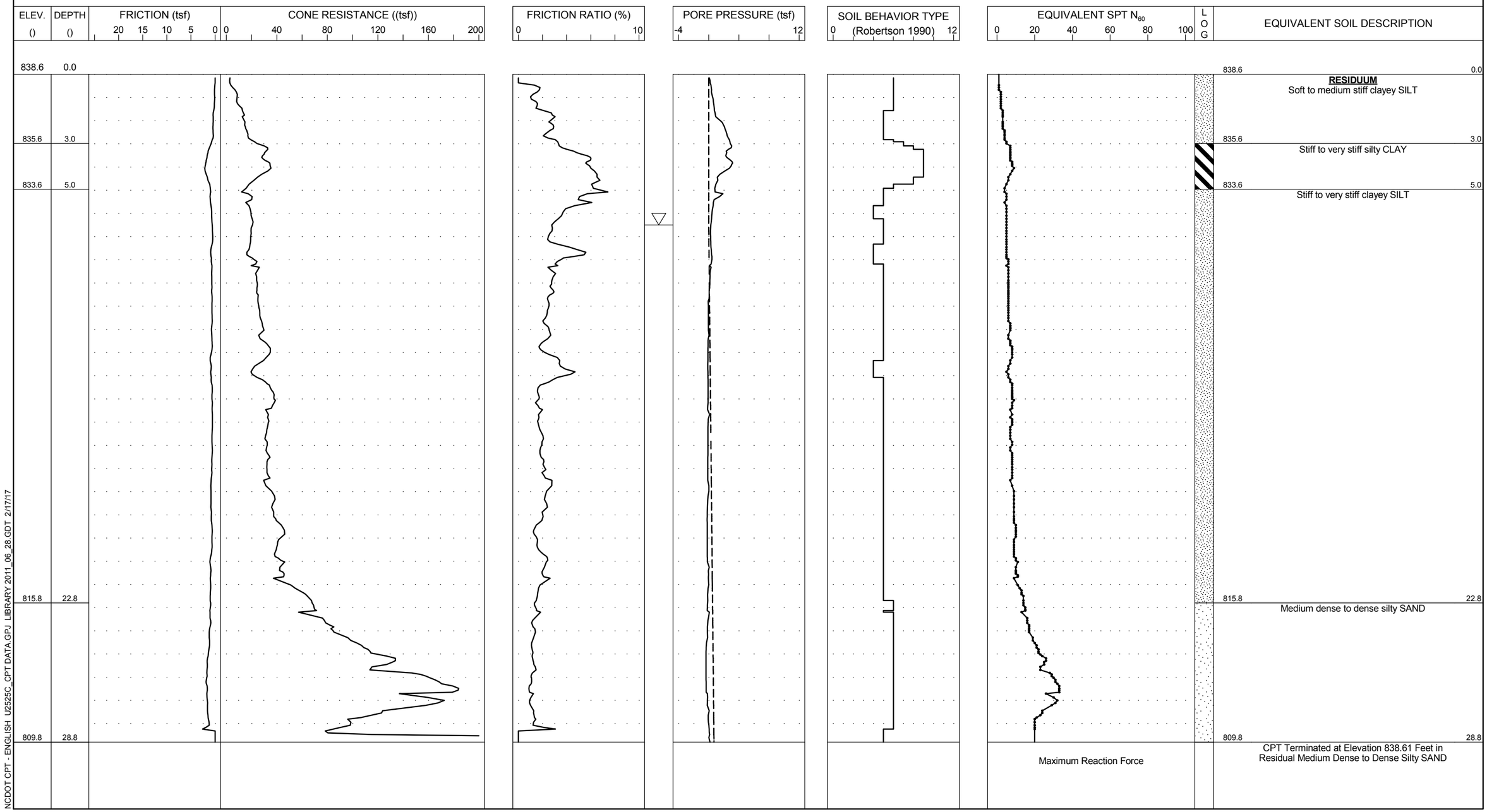
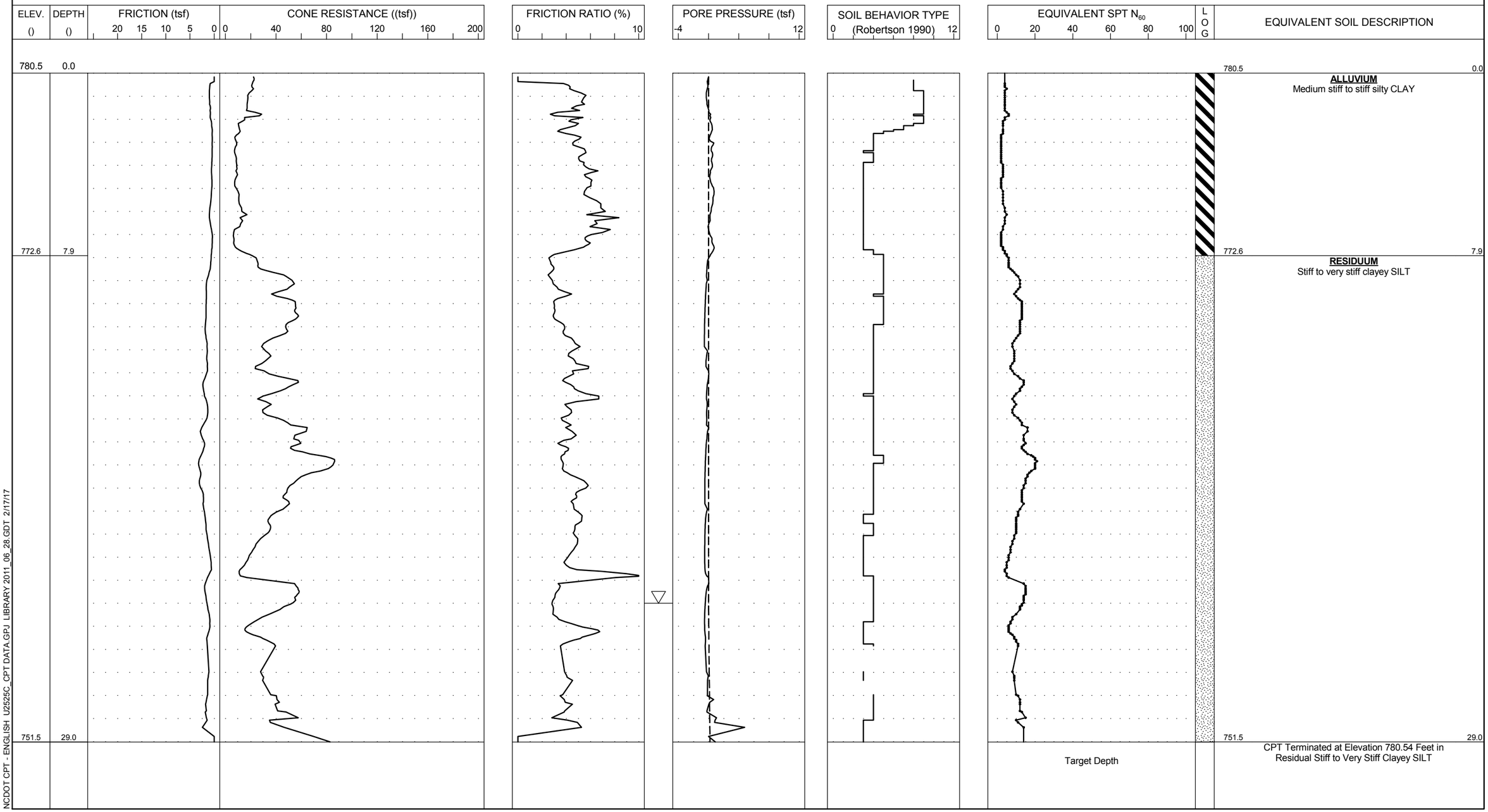
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 28.8	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. CV1-R	**BORING LOCATION** 337+73	**OFFSET** 114 RT	**ALIGNMENT** -L-	**0 HR.** 6.5	**DATE STARTED** 5/10/2016	**COMPLETED** 5/10/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 838.6	**NORTHING** 874,794.6	**EASTING** 1,776,731.3		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.29 feet



PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 29.0	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. CV21-C	**BORING LOCATION** 508+00	**OFFSET** 1 RT	**ALIGNMENT** -L-	**0 HR.** 23	**DATE STARTED** 5/12/2016	**COMPLETED** 5/12/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 780.5	**NORTHING** 871,058.9	**EASTING** 1,760,835.4		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.27 feet



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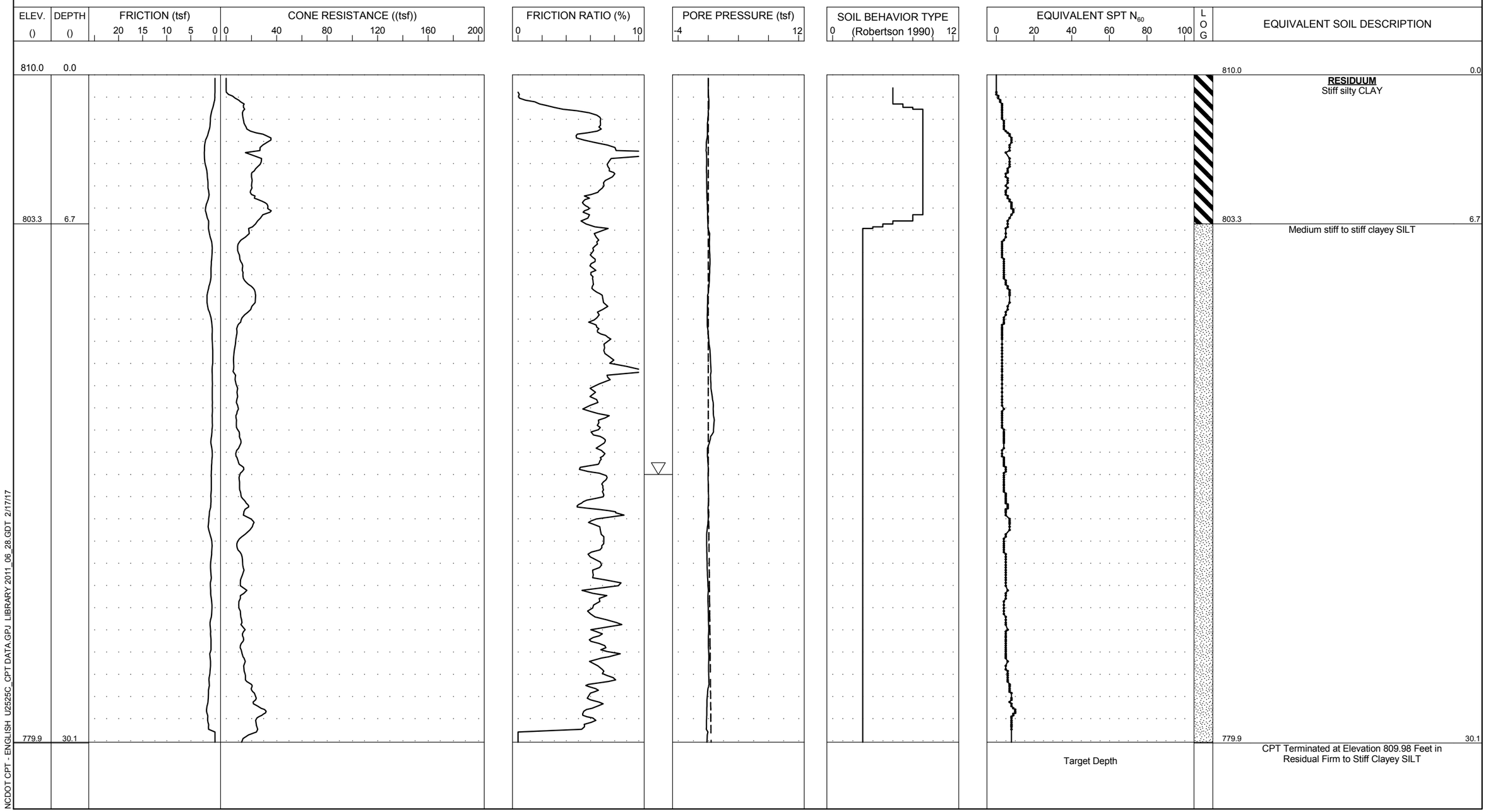
PROJECT NO. 34821.1.5	**ID.** U-2525C	**COUNTY** GUILFORD	**GEOLOGIST** Tiernan, S.W.	**TYPE OF CONE** 1.75 in. PIEZO CONE	**ROD TYPE** 1.75 in. Diam.	**MAXIMUM DOWN PRESSURE** Approximately 920 tsf	
SITE DESCRIPTION Greensboro Eastern Loop From US 29 North of Greensboro to East of SR 2303 (Lawndale Drive)			**GROUND WATER (ft)**	**TOTAL DEPTH** 30.1	**DRILL MACHINE** Marooka	**DRILL METHOD** Direct Push	**HAMMER TYPE** N/A
BORING NO. CV24-C	**BORING LOCATION** 529+35	**OFFSET** 2 RT	**ALIGNMENT** -L-	**0 HR.** 18	**DATE STARTED** 5/12/2016	**COMPLETED** 5/12/2016	**SURFACE WATER DEPTH**
COLLAR ELEV. 810.0	**NORTHING** 871,575.6	**EASTING** 1,758,775.3		**24 HR.** N/A	**DRILLER:** M. Wright	**TECHNICIAN** L. Washington	Sounding Log Scale 1 inch to 4.47 feet



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