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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5506	1	76

REFERENCE: I-5506

PROJECT: 43608

SEE SHEET 3 FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

CONTENTS

LINE	STATION	PLAN
-L-	23+90 - 68+70	4-6
-Y-	60+21 - 115+72	7-10
-RPA-	13+35 - 26+51	5,10
-LPB-	10+00 - 19+66	5
-RPB-	10+00 - 26+94	5,9
-RPC-	24+90 - 28+82	5

CROSS SECTIONS

LINE	STATION	SHEETS
-L-	27+00 - 66+16	11 - 25
-Y-	62+00 - 81+50	26 - 30
-RPA-	15+50 - 25+50	31 - 46
-LPB-	12+02 - 18+00	47 - 51
-RPB-	11+84 - 24+16	52 - 74
-RPC-	25+80 - 27+50	75 - 76

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY *WAKE*

PROJECT DESCRIPTION *I-40 AND SR 1002 (AVIATION PARKWAY) INTERCHANGE*

INVENTORY REVISION

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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INVESTIGATED BY *HDR ENGINEERING, INC. F&R, INC.*

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SUBMITTED BY *HDR ENGINEERING, INC.*

DATE *1/2017*

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 043535 ENGINEER CHRISTOPHER B. JONES

DocuSigned by: Christopher B. Jones 1/19/2017
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SIGNATURE DATE

NORTH CAROLINA PROFESSIONAL SEAL 023916 ENGINEER BRIAN D. KEANEY

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SIGNATURE DATE

PROJECT REFERENCE NO.	SHEET NO.
I-5506	2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION

SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE,
VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6

SOIL LEGEND AND AASHTO CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)							SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS		
GROUP CLASS.	A-1		A-3	A-2				A-4	A-5	A-6	A-7	A-1, A-2 A-3	A-4, A-5 A-6, A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5, A-7-6			
SYMBOL														
% PASSING #10 #40 #200	50 MX 30 MX 15 MX	50 MX 25 MX	51 MN 10 MX	35 MX	35 MX	35 MX	35 MX	36 MN	36 MN	36 MN	36 MN	GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
MATERIAL PASSING #40 LL PI	— 6 MX		— NP	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
GROUP INDEX	0		0	0		4 MX		8 MX	12 MX	16 MX	NO MX			
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL, AND SAND		FINE SAND	SILTY OR CLAYEY GRAVEL AND SAND				SILTY SOILS		CLAYEY SOILS				
GEN. RATING AS SUBGRADE	EXCELLENT TO GOOD							FAIR TO POOR				FAIR TO POOR	POOR	UNSUITABLE

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

CONSISTENCY OR DENSENESS

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

TEXTURE OR GRAIN SIZE

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

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

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

SOIL MOISTURE - CORRELATION OF TERMS

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

PLASTICITY

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

COLOR

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

GRADATION

WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE.
UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE.
GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.

ANGULARITY OF GRAINS

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

MINERALOGICAL COMPOSITION

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

COMPRESSIBILITY

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

PERCENTAGE OF MATERIAL

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

GROUND WATER

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

MISCELLANEOUS SYMBOLS

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

RECOMMENDATION SYMBOLS

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

ABBREVIATIONS

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

SAMPLE ABBREVIATIONS

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

EQUIPMENT USED ON SUBJECT PROJECT

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

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

HAMMER TYPE:
- [X] AUTOMATIC [ ] MANUAL

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

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

ROCK DESCRIPTION

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

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

WEATHERING

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

ROCK HARDNESS

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

FRACTURE SPACING

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

BEDDING

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

INDURATION

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

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

TERMS AND DEFINITIONS

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

AQUIFER - A WATER BEARING FORMATION OR STRATA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BENCH MARK: SEE NOTE BELOW

ELEVATION: FEET

NOTES:

BORING AND GROUND SURFACE ELEVATIONS OBTAINED FROM "I5506_IS_TIN.TIN" FILE DATED 3/9/2016

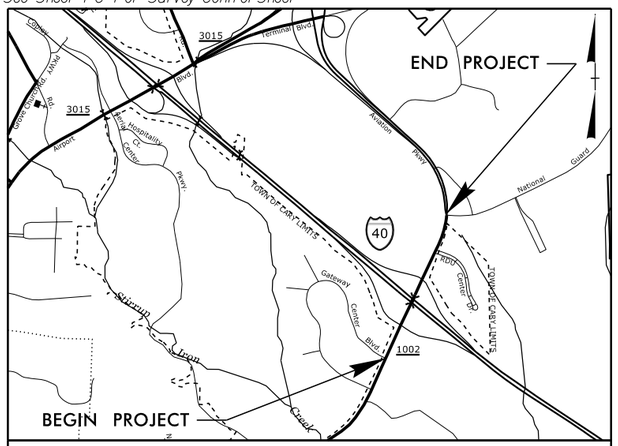
DATE: 8-15-14

09/08/99

TIP PROJECT: I-5506

CONTRACT:

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

WAKE COUNTY

LOCATION: I-40 AND SR 1002 (AVIATION PARKWAY) INTERCHANGE

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

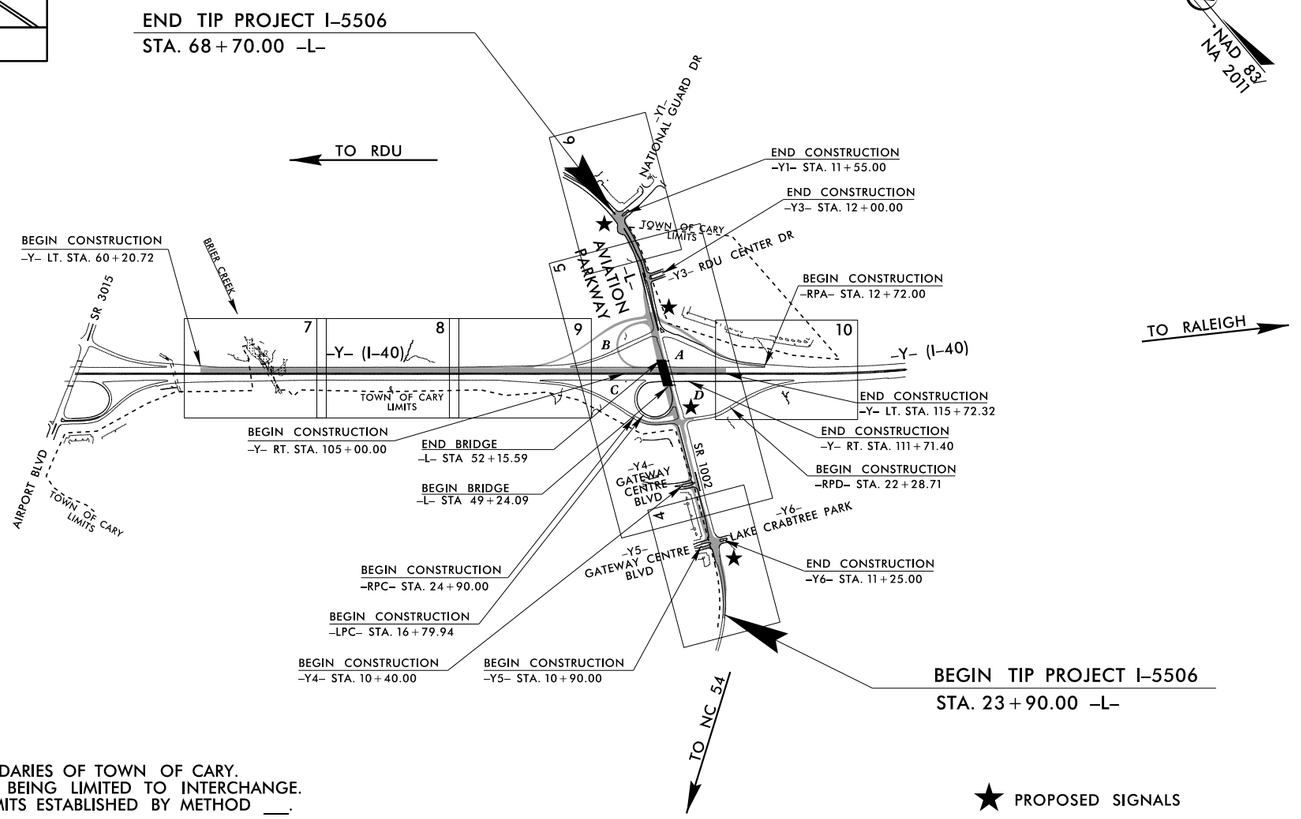
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5506	1	76

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
43608.1.1	NHPP-040-7(154)284	PE
43608.2.FS1	NHPP-040-7(154)284	ROW/UTIL.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CFI PLANS
SUBMITTAL

NAD 83/NA 2011

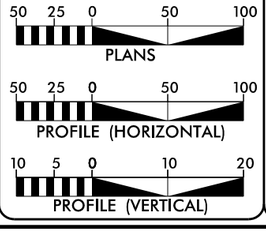


A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF TOWN OF CARY.
THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGE.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD ___.

★ PROPOSED SIGNALS

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

GRAPHIC SCALES



DESIGN DATA

ADT 2018 = 28,555
ADT 2040 = 37,600
K = 55 %
D = 10 %
T = 9 % *
V = 50 MPH
* TTST=2% DUAL=5%
FUNC CLASS= "MINOR ARTERIAL"

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-5506 = 0.793 MILES
LENGTH STRUCTURE TIP PROJECT I-5506 = 0.055 MILES
TOTAL LENGTH OF TIP PROJECT I-5506 = 0.848 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
Fax: 919 851 8107

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: FEBRUARY 17, 2017

LETTING DATE: FEBRUARY 20, 2018

EDWARD G. WETHERILL, PE
PROJECT ENGINEER

BOB A. MAY, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACT: GARY LOVERING, PE
ROADWAY DESIGN: PROJECT ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

10/13/2016
...\Roadway\Proj\I5506_Rdy_tsh.dgn
USER:Keys

January 5, 2016

STATE PROJECT: 43608
TIP NUMBER: I-5506
COUNTY: Wake
DESCRIPTION: I-40 and SR 1002 (Aviation Parkway) Interchange

SUBJECT: Geotechnical Roadway Inventory Report

PROJECT DESCRIPTION

The I-5506 project is designed to improve the flow of traffic around I-40 and Aviation Parkway near the town of Cary and Raleigh/Durham International Airport in Wake County. The I-5506 project consists of adding through and turn lanes to Aviation Parkway as well as a new bridge along this alignment. It also includes relocating Ramp A north of its current location, constructing Ramp B and Ramp C on a new alignment as well as Loops B and C. Partial widening of I-40 westbound shoulder widening and a culvert extension are also planned. The project length is approximately 0.85 miles along Aviation Parkway (-L-).

The field investigation was conducted in March 2016, using both a CME-55 rubber-tired and rubber-tracked rig with automatic hammer. Standard Penetration Tests (SPT) were performed at selected locations. Representative soil samples were collected and forwarded to an approved NCDOT M&T testing facility for soil quality analysis, moisture content, and AASHTO classification. Hand augers were performed in August 2016 to help identify rock outcropping along the -RPA- and -RPB- alignments.

The following alignments, totaling approximately 2.8 miles, were investigated

Line	Station			Length (ft)
-L-	23+90	to	68+70	4,480
-Y-	60+21	to	115+72	5,551
-RPA-	13+35	to	26+51	1,316
-LPB-	10+00	to	19+66	966
-RPB-	10+00	to	26+94	1694
-RPC-	24+90	to	27+61	271
-LPC	16+80	to	19+53	273
			Total =	14,551 (~2.8 miles)

PHYSIOGRAPHY AND GEOLOGY

Physiography and Geography

The project is located in the Piedmont Physiographic Province. Geologically, it is located in the Durham Triassic Basin. Soils in this region are deeply weathered into sandy silts, silty clays, and clays. The topography is rolling hills and valleys and the drainage from the area is poor. Sediments deposited in the Triassic Basin were eroded from sources including weathered metamorphic and igneous regimes.

The soil in the Durham Triassic Basin have historically proven to be unstable in steeper cut sections, especially those over ten feet high and those facing the south to east directions. Fractures and joints along this direction make cut slopes vulnerable to failure.

Soil Properties

Soils and rock encountered on the project site include roadway embankment, alluvial, Triassic Residual, weathered rock, and non-crystalline rock.

Roadway embankment soils are present in borings advanced on the shoulders of the existing roadways and typically consists of fine to coarse sand, silty sand (A-3, A-1-b, A-2-4), silt (A-4) and silty clay (A-7-6). These soils fluctuate in moisture content from dry to moist and range in thickness from a few feet to approximately 19 feet.

Alluvial soils were found in a few of the borings near the culvert. These soils were present in the upper 6 feet along the -Y- alignment from station 63+50 to 74+00 at approximately 90 to 115 feet LT and consist of fine to coarse silty sand (A-2-4) and sand (A-3).

The Triassic Residual deposits are present at all boring locations and consist of fine to coarse sand and clayey sand (A-1-b, A-3, A-2-4, A-2-6/7), clay (A-6, A-7-6), and silt (A-4). The consistency of the sands is generally loose to very dense while the consistency of the clays and silts is generally medium stiff to hard. The moisture content of the soils tested vary from dry to moist.

Weathered rock was also encountered along the project site at multiple areas. The weathered rock consists of a red-brown Triassic Sandstone and Siltstone, and was encountered at depths ranging from the surface to 11 feet.

Non-crystalline rock was found below the weathered rock in some of the borings. Although none of the rock was cored, it was identified by fragments in samples and by split spoon refusal. The non-crystalline rock consists of a red-brown Triassic Siltstone and Sandstone, characteristic of the region.

Groundwater

Groundwater varied over much of the site depending on the topography in which the boring was located. Generally in certain areas of the site, along lower natural ground areas, groundwater was encountered within several feet of the existing ground surface after 24 hours. Some of the water encountered on the site may be perched above impermeable zones.

hdrinc.com

555 Fayetteville Street, Suite 900, Raleigh, NC 27601
(919) 232-6600

Areas of Special Geotechnical Interest

Triassic weathered rock and non-crystalline rock was encountered above the proposed grade along some cut sections of the project. Table 1 below indicates the cut sections where the rock was encountered above grade or within 6' of proposed grade. Four rock soundings were completed in the vicinity of Ramp B to verify the presence of non-crystalline rock due to early termination of surrounding borings. SPT refusal tests in each rock sounding confirmed the non-crystalline rock.

Table 1 - Rock above Grade in Cut Sections

Alignment	Begin Station	End Station
-RPA-	16+50	21+50
-RPB-	12+10	18+00

The following sections were found to exhibit groundwater above or within 6' of proposed grade.

Alignment	Begin Station	End Station	Comment
-L-	29+50	30+50	Single boring, water at grade
-L-	36+50	37+50	Single boring, water at grade
-L-	57+50	62+50	Water at grade
-LPB-	13+30	18+37	Likely wet in cut section and near grade
-RPB-	15+80	17+32	Likely wet in cut section
-RPC-	27+16	27+61	Water at grade

Geotechnical Testing

The following samples were obtained to determine engineering properties of the soil and a list of each test completed for analysis are listed below.

Boring	Sample No.	Depth (ft)	Tests
LPB_1815L	ST-1	1.0'-3.0'	Consolidation, Class, Moisture
RPA_1997R	BS #1	2.0'-4.0'	CBR, Std. Proctor, Class, Moisture
RPB_1733L	BS #2	2.0'-10.0'	CBR, Std. Proctor, Class, Moisture

Sincerely,
HDR ENGINEERING, INC.

Chris B. Jones, P.E.
Geotechnical Engineer

Brian D. Keaney, P.E.
Geotechnical Project Manager

8/17/99

REVISIONS

GATEWAY CENTRE BLVD.

2520 / 3200 — 630 / 800 — 1620 / 2300 — –L– (SR 1002) AVIATION PARKWAY

24785 / 31600 — 260 / 600 — 515 / 600 — 26060 / 33300

1045 / 1300 — LAKE CRABTREE PARK

2017 ADT
2040 ADT

–L– (AVIATION PARKWAY)	
PI Sta 26+25.79	PI Sta 34+81.13
Δ = 37° 15' 07.8" (LT)	Δ = 5° 47' 36.6" (RT)
D = 3° 40' 22.1"	D = 0° 47' 25.0"
L = 1,014.27'	L = 733.09'
T = 525.79'	T = 366.86'
R = 1,560.00'	R = 7,250.00'
SE = 0.04 FT/FT	SE = NC
DS = 50 MPH	DS = 50 MPH

NAD 83/NSRS 2007

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CIVIL/SITE DESIGN – GIS/GPS – CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
I-5506	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L– STA. 23+90.00 BEGIN CONSTRUCTION OF TIP PROJECT I-5506

THE COUNTY OF WAKE
DB 3006 - PG 246
BM 1975 - PG 80

LARZ CARY LLC
DB 10135 - PG 1554
BM 1987 - PG 863

CROWN-RALEIGH I, LLC
A DELAWARE LIMITED LIABILITY COMPANY
DB 11919 - PG 2229
BM 2000 - PG 1746

RALEIGH-DURHAM INTERNATIONAL
DB 3565 - PG 231
BM 1999 - PG 392

BEGIN CONSTRUCTION
–Y5– STA. 11+00.00

–Y5– POT Sta. 10+00.00

–Y5– POT Sta. 12+20.00 =
–L– POC Sta. 32+07.34

–Y6– POT Sta. 10+00.00 =
–L– POC Sta. 32+06.57

END CONSTRUCTION
–Y6– STA. 11+20.00
–Y6– POT Sta. 11+70.00

–L– PRC Sta. 31+30.82

BEGIN GRASS COVERED ISLAND
–L– STA. 35+61.48

MATCHLINE –L– STA. 36+50.00 SEE SHEET 5

600' LANE DROP

200' FULL RIGHT TURN LANE

100' TAPER

250' FULL LEFT TURN LANE

100' LEFT TURN TAPER

440' TRANSITION LEFT & RIGHT

TRIASSIC RESIDUAL

ROADWAY EMBANKMENT

5" CONC. ISLAND

2'-6" C&G

L 2957L

L 2700R

L 2900R

L 3490L

PAVEMENT REMOVAL

REVISED SIGNAL

$$$$$$$SYSTIME$$$$$$
$$$$$$$USERNME$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5506	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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REVISIONS

LOOP C

PIs Sta 11+35.12	PI Sta 17+14.21	PIs Sta 17+48.24
Θs = 28° 38' 52.4"	Δ = 137° 29' 35.5" (LT)	Θs = 28° 38' 52.4"
Ls = 200.00'	D = 28° 38' 52.4"	Ls = 200.00'
LT = 135.12'	L = 479.94'	LT = 135.12'
ST = 68.30'	T = 514.21'	ST = 68.30'
	R = 200.00'	
	SE = EXIST.	

RAMP C

PIs Sta 14+68.06	PI Sta 17+83.25	PIs Sta 20+94.20	PIs Sta 24+88.78	PI Sta 26+40.92
Θs = 4° 26' 43.3"	Δ = 18° 48' 52.8" (RT)	Θs = 4° 26' 43.3"	Θs = 17° 11' 19.4"	Δ = 23° 27' 20.3" (LT)
Ls = 225.00'	D = 3° 57' 05.2"	Ls = 225.00'	Ls = 225.00'	D = 15° 16' 43.9"
LT = 150.05'	L = 476.15'	LT = 150.05'	LT = 150.71'	L = 153.52'
ST = 75.04'	T = 240.24'	ST = 75.04'	ST = 75.65'	T = 77.85'
	R = 1,450.00'			R = 375.00'
	SE = EXIST.			SE = 0.06 FT./FT.

-L- (AVIATION PARKWAY)

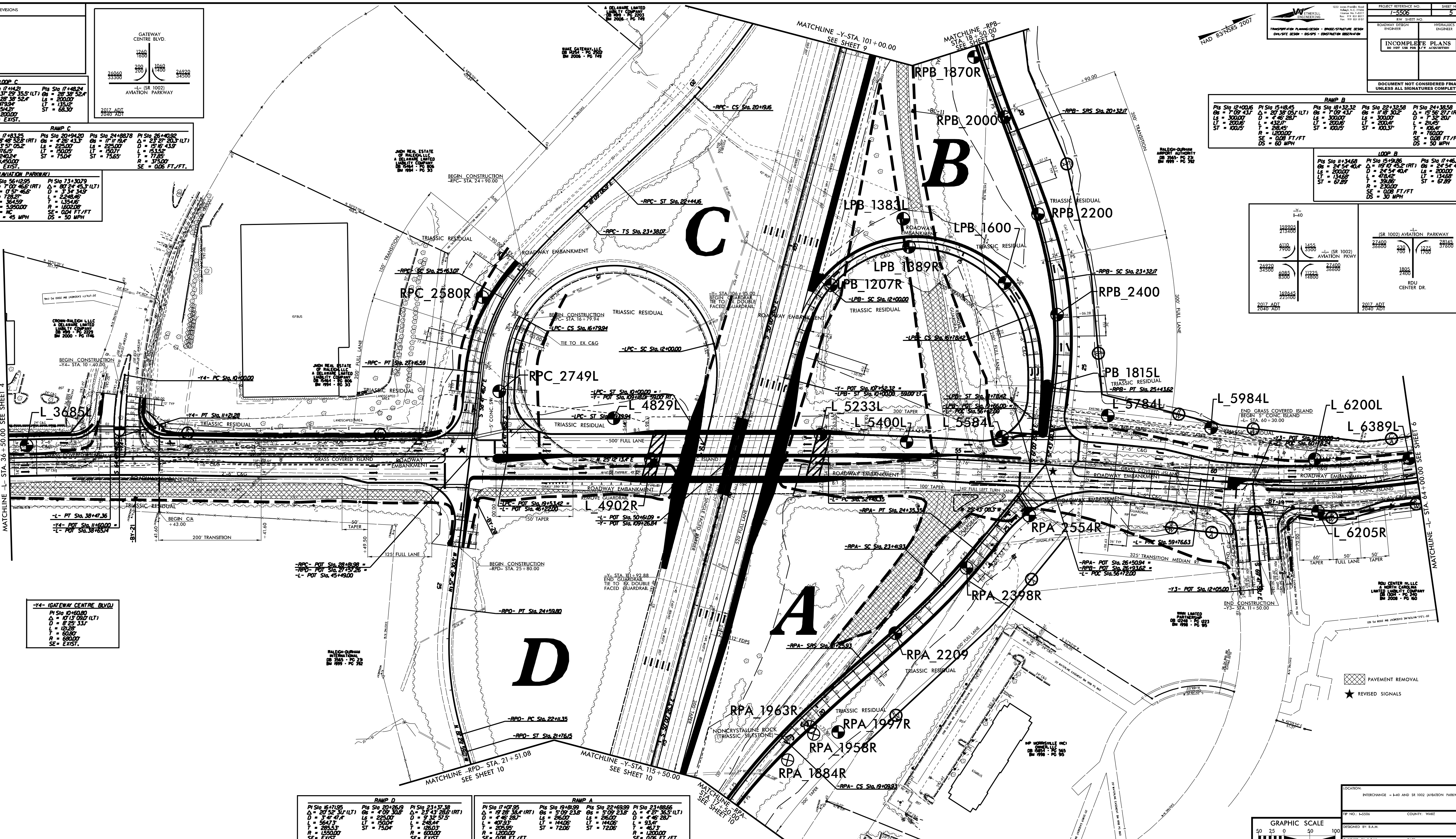
PI Sta 34+81.13	PI Sta 56+12.95	PI Sta 73+30.79
Δ = 5° 47' 36.6" (RT)	Δ = 7° 00' 46.6" (RT)	Δ = 80° 24' 45.3" (LT)
D = 0° 47' 25.0"	D = 0° 57' 46.6"	D = 3° 34' 34.9"
L = 733.09'	L = 728.27'	L = 2,248.46'
T = 366.86'	T = 364.59'	T = 1,354.16'
R = 7,250.00'	R = 5,950.00'	R = 1,602.08'
SE = NC	SE = NC	SE = 0.04 FT/FT
DS = 50 MPH	DS = 45 MPH	DS = 50 MPH

RAMP B

PIs Sta 12+00.16	PI Sta 15+18.45	PIs Sta 18+32.32	PIs Sta 22+32.58	PI Sta 24+38.58
Θs = 7° 09' 43.1"	Δ = 20° 38' 05.1" (LT)	Θs = 7° 09' 43.1"	Θs = 11° 18' 30.2"	Δ = 15° 56' 27.1" (RT)
Ls = 300.00'	D = 4° 46' 28.7"	Ls = 300.00'	Ls = 300.00'	D = 7° 32' 20.1"
LT = 200.16'	L = 432.17'	LT = 200.16'	LT = 200.41'	L = 211.45'
ST = 100.15'	T = 218.45'	ST = 100.15'	ST = 100.37'	T = 106.41'
	R = 1,200.00'			R = 760.00'
	SE = 0.08 FT/FT			SE = 0.08 FT/FT
	DS = 60 MPH			DS = 50 MPH

LOOP B

PIs Sta 11+34.68	PI Sta 15+91.86	PIs Sta 17+46.31
Θs = 24° 54' 40.4"	Δ = 119° 10' 45.2" (RT)	Θs = 24° 54' 40.4"
Ls = 200.00'	D = 24° 54' 40.4"	Ls = 200.00'
LT = 134.68'	L = 478.42'	LT = 134.68'
ST = 67.89'	T = 391.86'	ST = 67.89'
	R = 230.00'	
	SE = 0.08 FT/FT	
	DS = 30 MPH	



-Y4- (GATEWAY CENTRE BLVD)

PI Sta 10+60.80
Δ = 10° 13' 09.0" (LT)
D = 8° 25' 33.1"
L = 121.28'
T = 60.80'
R = 680.00'
SE = EXIST.

RAMP D

PI Sta 16+71.95	PIs Sta 20+26.19	PI Sta 23+37.38
Δ = 20° 52' 31.1" (LT)	Θs = 4° 09' 30.8"	Δ = 23° 43' 28.6" (RT)
D = 3° 41' 47.4"	Ls = 225.00'	D = 9° 32' 57.5"
L = 564.73'	LT = 150.04'	L = 248.44'
T = 285.53'	ST = 75.04'	T = 126.03'
R = 1,550.00'		R = 600.00'
SE = EXIST.		SE = EXIST.

RAMP A

PI Sta 17+07.95	PIs Sta 19+81.99	PIs Sta 22+69.99	PI Sta 23+88.66
Δ = 19° 28' 38.4" (RT)	Θs = 5° 09' 23.8"	Θs = 5° 09' 23.8"	Δ = 4° 27' 36.5" (LT)
D = 4° 46' 28.7"	Ls = 216.00'	Ls = 216.00'	D = 4° 46' 28.7"
L = 407.93'	LT = 144.06'	LT = 144.06'	L = 93.41'
T = 205.95'	ST = 72.06'	ST = 72.06'	T = 46.73'
R = 1,200.00'			R = 1,200.00'
SE = 0.08 FT./FT.			SE = 0.06 FT./FT.
DS = 60 MPH			DS = 40 MPH

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION: INTERCHANGE - I-40 AND SR 1002 (AVIATION PARKWAY)

TIP NO.: I-5506 COUNTY: WAKE

DESIGNED BY: B.A.M.

CHECKED BY: E.G.W. DATE:

8/17/99

REVISIONS

-L- (AVIATION PARKWAY)

PI Sta 73+30.79
Δ = 80° 24′ 45.3″ (LT)
D = 3° 34′ 34.9″
L = 2,248.46′
T = 1,354.16′
R = 1,602.08′
SE = 0.04 FT/FT
DS = 50 MPH

-Y1- (NATIONAL GUARD DR.)

PI Sta 15+38.84
Δ = 23° 14′ 21.4″ (LT)
D = 4° 38′ 21.6″
L = 500.92′
T = 253.95′
R = 1,235.00′
SE = EXIST.

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
I-5506	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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PROJECT REFERENCE NO.	SHEET NO.
I-5506	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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REVISIONS

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PROJECT REFERENCE NO.	SHEET NO.
I-5506	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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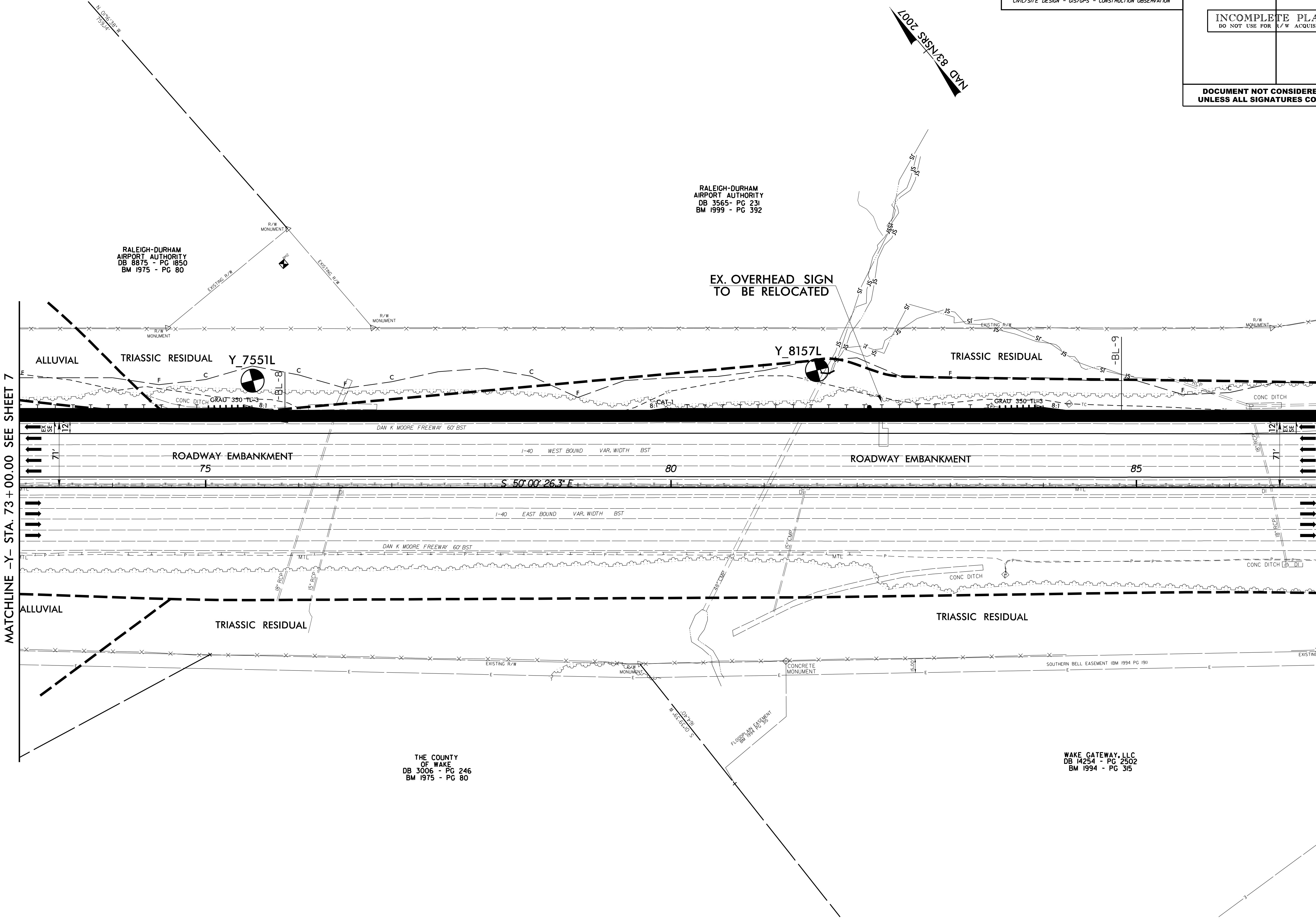

NAD 83/NSRS 2007
RALEIGH-DURHAM AIRPORT AUTHORITY DB 3565- PG 231 BM 1999 - PG 392
RALEIGH-DURHAM AIRPORT AUTHORITY DB 8875 - PG 1850 BM 1975 - PG 80
EX. OVERHEAD SIGN TO BE RELOCATED
R/W MONUMENT
EXISTING R/W
ALLUVIAL
TRIASSIC RESIDUAL
Y_7551L
Y_8157L
-BL-8
-BL-9
CONC DITCH
GRAU 350 TL-3
DAN K MOORE FREEWAY 60' BST
I-40 WEST BOUND VAR. WIDTH BST
ROADWAY EMBANKMENT
75
80
85
S 50°00' 26.3" E
I-40 EAST BOUND VAR. WIDTH BST
MATCHLINE -Y- STA. 73+00.00 SEE SHEET 7
MATCHLINE -Y- STA. 87+00.00 SEE SHEET 9
CONCRETE MONUMENT
SOUTHERN BELL EASEMENT (BM 1994 PG 19)
THE COUNTY OF WAKE DB 3006 - PG 246 BM 1975 - PG 80
WAKE GATEWAY, LLC DB 14254 - PG 2502 BM 1994 - PG 315

REVISIONS

8/17/99

8/17/99

REVISIONS

RAMP B				
PIs Sta 12+00.16	PI Sta 15+18.45	PIs Sta 18+32.32	PIs Sta 22+32.58	PI Sta 24+38.58
Θs = 7° 09' 43.1"	Δ = 20° 38' 05.1" (LT)	Θs = 7° 09' 43.1"	Θs = 11° 18' 30.2"	Δ = 15° 56' 27.1" (RT)
Ls = 300.00'	D = 4° 46' 28.7"	Ls = 300.00'	Ls = 300.00'	D = 7° 32' 20.1"
LT = 200.16'	L = 432.17'	LT = 200.16'	LT = 200.41'	L = 211.45'
ST = 100.15'	T = 218.45'	ST = 100.15'	ST = 100.37'	T = 106.41'
	R = 1,200.00'			R = 760.00'
	SE = 0.08 FT/FT			SE = 0.08 FT/FT
	DS = 60 MPH			DS = 50 MPH

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PROJECT REFERENCE NO.	SHEET NO.
I-5506	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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NAD 83/NSRS 2007

RALEIGH-DURHAM AIRPORT AUTHORITY
DB 3565- PG 231
BM 1999 - PG 392

-RPB- CS Sta. 17+32.17

-RPB- STA. 18+50.00 SEE SHEET 5

MATCHLINE -Y- STA. 101+00.00 SEE SHEET 5

-RPB- SC Sta. 13+00.00

-RPB- ST Sta. 10+00.00 =
-Y- POT Sta. 92+15.65 59.00' LT

NONCRYSTALLINE ROCK (TRIASSIC SILTSTONE)

EXISTING R/W

EX. SIGN TO BE RELOCATED

WEATHERED ROCK (TRIASSIC SANDSTONE)

TRIASSIC RESIDUAL

RPB_1207L
RPB_1230L
RPB_1352L
RPB_1399L
RPB_1439L
RPB_1450L
RPB_1469L
RPB_1483L
RPB_1497L
RPB_1509L
RPB_1582L
RPB_1630L
RPB_1652L
RPB_1733L
RPB_1775L
RPB_1783R

15" RCP/CMP PIPE CHANGES TYPE UNDERGROUND

ROADWAY EMBANKMENT

POSSIBLE JUNCTION BOX

MATCHLINE -Y- STA. 87+00.00 SEE SHEET 8

S. 50° 00' 26.3" E.

S. 45° 51' 26.3" E.

-RPC- POT Sta. 10+00.00 =
-Y- POT Sta. 92+75.00 59.00' RT

-RPC- TS Sta. 13+18.01

-RPC- SC Sta. 15+43.01

15' SOUTHERN BELL EASEMENT (DB 5131/PG 190)

DAN K MOORE FREEWA

WAKE GATEWAY, LLC
DB 14254 - PG 2502
BM 1994 - PG 315

WAKE GATEWAY, LLC
DB 14254 - PG 2502
BM 1994 - PG 315

WAKE GATEWAY, LLC
DB 14254 - PG 2502
BM 2006 - PG 749

CROWN-RALEIGH I, LLC
A DELAWARE LIMITED LIABILITY COMPANY
DB 11919 - PG 2203
BM 2006 - PG 749

RAMP C				
PIs Sta 14+68.06	PI Sta 17+83.25	PIs Sta 20+94.20	PIs Sta 24+88.78	PI Sta 26+40.92
Θs = 4° 26' 43.3"	Δ = 18° 48' 52.8" (RT)	Θs = 4° 26' 43.3"	Θs = 17° 11' 19.4"	Δ = 23° 27' 20.3" (LT)
Ls = 225.00'	D = 3° 57' 05.2"	Ls = 225.00'	Ls = 225.00'	D = 15° 16' 43.9"
LT = 150.05'	L = 476.15'	LT = 150.05'	LT = 150.71'	L = 153.52'
ST = 75.04'	T = 240.24'	ST = 75.04'	ST = 75.65'	T = 77.85'
	R = 1,450.00'			R = 375.00'
	SE = EXIST.			SE = 0.06 FT./FT.

PAVEMENT REMOVAL

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

PROJECT REFERENCE NO.	SHEET NO.
I-5506	10

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

RAMP A

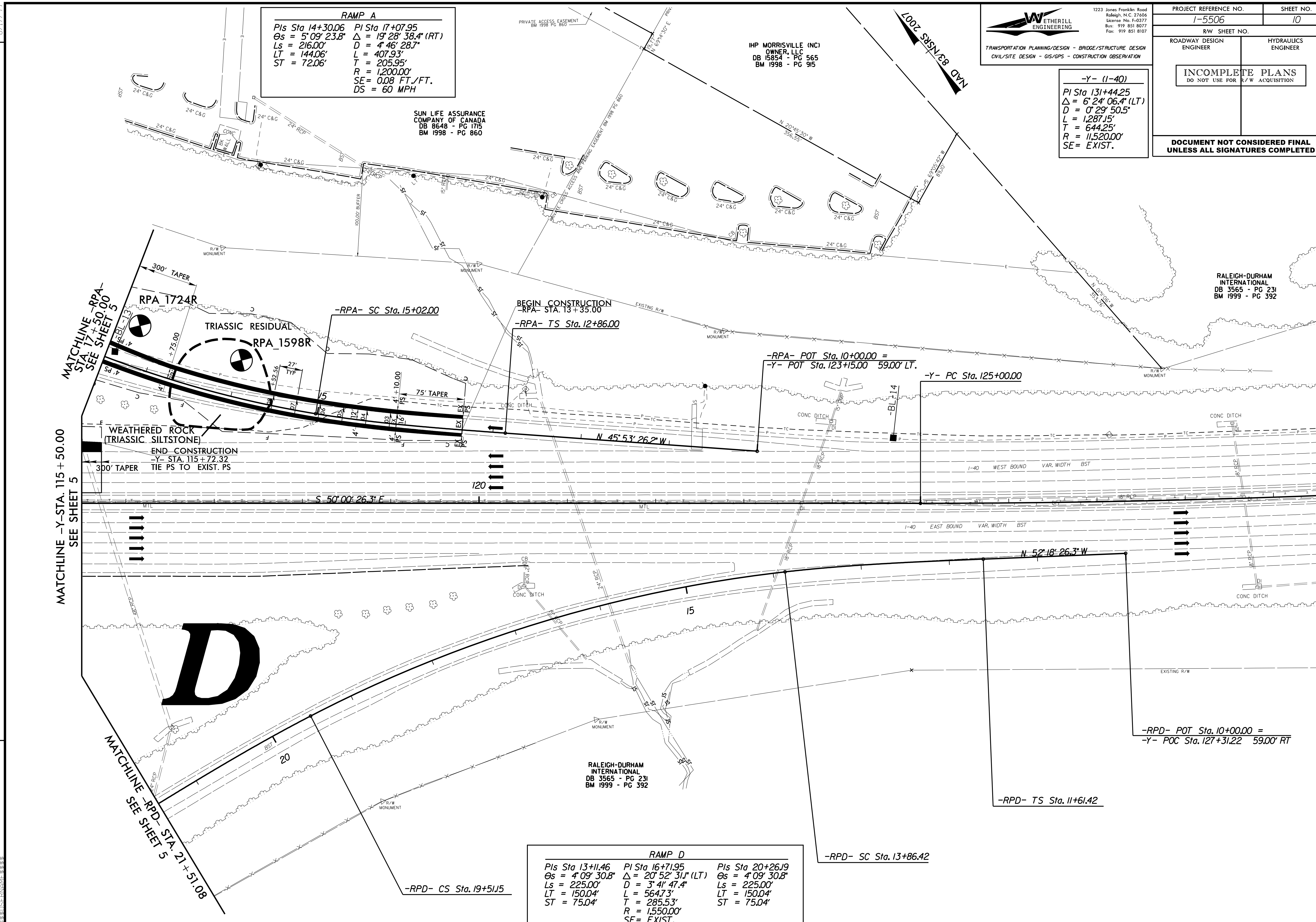
PIs Sta 14+30.06	PI Sta 17+07.95
Θs = 5° 09' 23.8"	Δ = 19° 28' 38.4" (RT)
Ls = 216.00'	D = 4° 46' 28.7"
LT = 144.06'	L = 407.93'
ST = 72.06'	T = 205.95'
	R = 1,200.00'
	SE = 0.08 FT./FT.
	DS = 60 MPH

-Y- (I-40)

PI Sta 131+44.25
Δ = 6° 24' 06.4" (LT)
D = 0° 29' 50.5"
L = 1,287.15'
T = 644.25'
R = 11,520.00'
SE = EXIST.

RAMP D

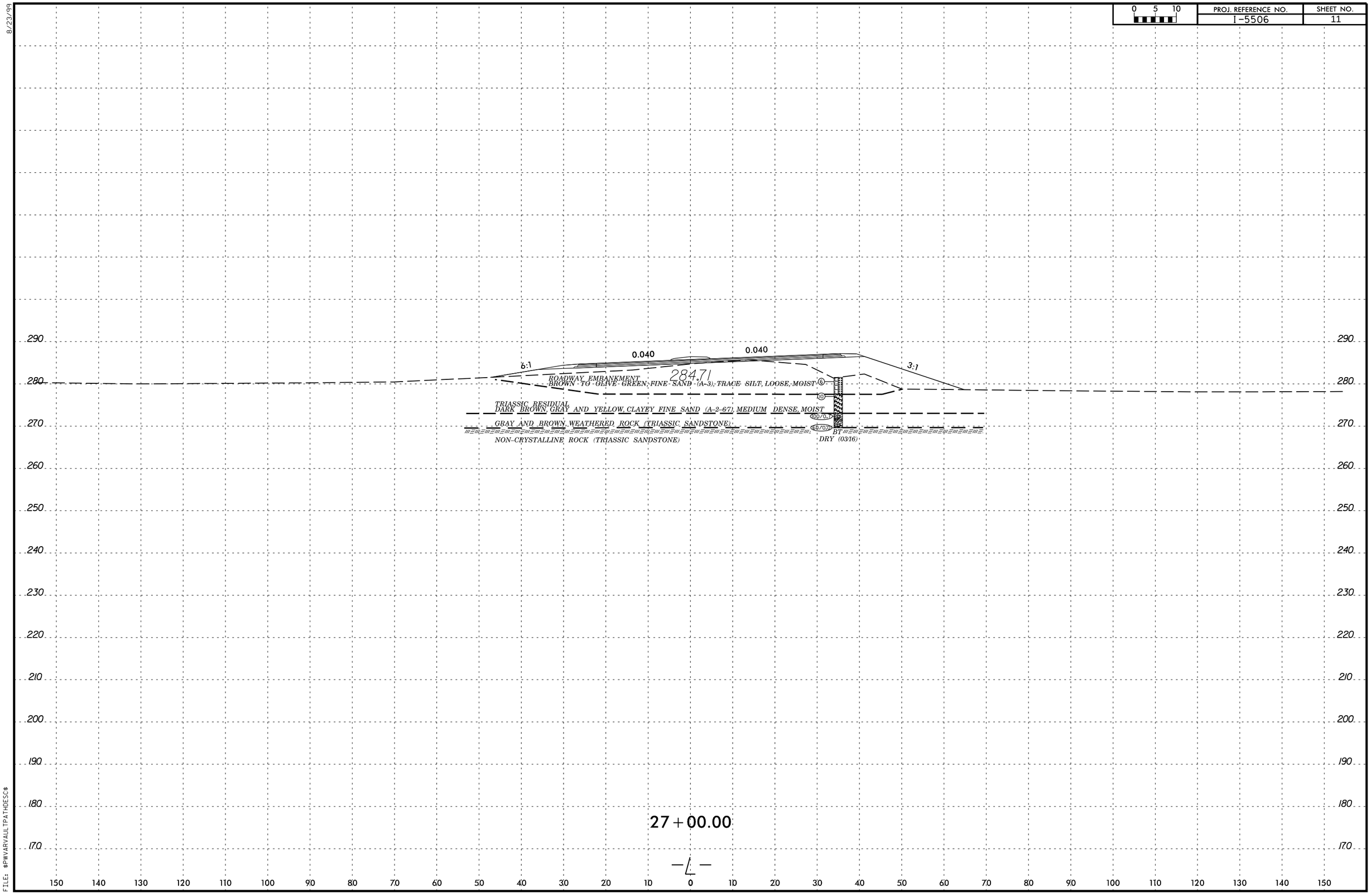
PIs Sta 13+11.46	PI Sta 16+71.95	PIs Sta 20+26.19
Θs = 4° 09' 30.8"	Δ = 20° 52' 31.1" (LT)	Θs = 4° 09' 30.8"
Ls = 225.00'	D = 3° 41' 47.4"	Ls = 225.00'
LT = 150.04'	L = 564.73'	LT = 150.04'
ST = 75.04'	T = 285.53'	ST = 75.04'
	R = 1,550.00'	
	SE = EXIST.	



NAD 83/NSRS 2007
SUN LIFE ASSURANCE COMPANY OF CANADA DB 8648 - PG 1715 BM 1998 - PG 860
IHP MORRISVILLE (NC) OWNER, LLC DB 15854 - PG 565 BM 1998 - PG 915
RALEIGH-DURHAM INTERNATIONAL DB 3565 - PG 231 BM 1999 - PG 392
PRIVATE ACCESS EASEMENT BM 1998 PG 860
MATCHLINE -RPA- STA. 17+50.00 SEE SHEET 5
MATCHLINE -Y- STA. 115+50.00 SEE SHEET 5
MATCHLINE -RPD- STA. 21+51.08 SEE SHEET 5
RPA_1724R
RPA_1598R
TRIASSIC RESIDUAL
WEATHERED ROCK (TRIASSIC SILTSTONE)
300' TAPER
75' TAPER
END CONSTRUCTION -Y- STA. 115+72.32 TIE PS TO EXIST. PS
BEGIN CONSTRUCTION -RPA- STA. 13+35.00
-RPA- SC Sta. 15+02.00
-RPA- TS Sta. 12+86.00
-RPA- POT Sta. 10+00.00 = -Y- POT Sta. 123+15.00 59.00' LT.
-Y- PC Sta. 125+00.00
N 45° 53' 26.2" W
S 50° 00' 26.3" E
N 52° 18' 26.3" W
I-40 WEST BOUND VAR. WIDTH BST
I-40 EAST BOUND VAR. WIDTH BST
CONC DITCH
EXISTING R/W
R/W MONUMENT
-BL-13
-BL-14
D
-RPD- POT Sta. 10+00.00 = -Y- POC Sta. 127+31.22 59.00' RT
-RPD- TS Sta. 11+61.42
-RPD- SC Sta. 13+86.42
-RPD- CS Sta. 19+51.15
REVISIONS
8/17/99

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	11



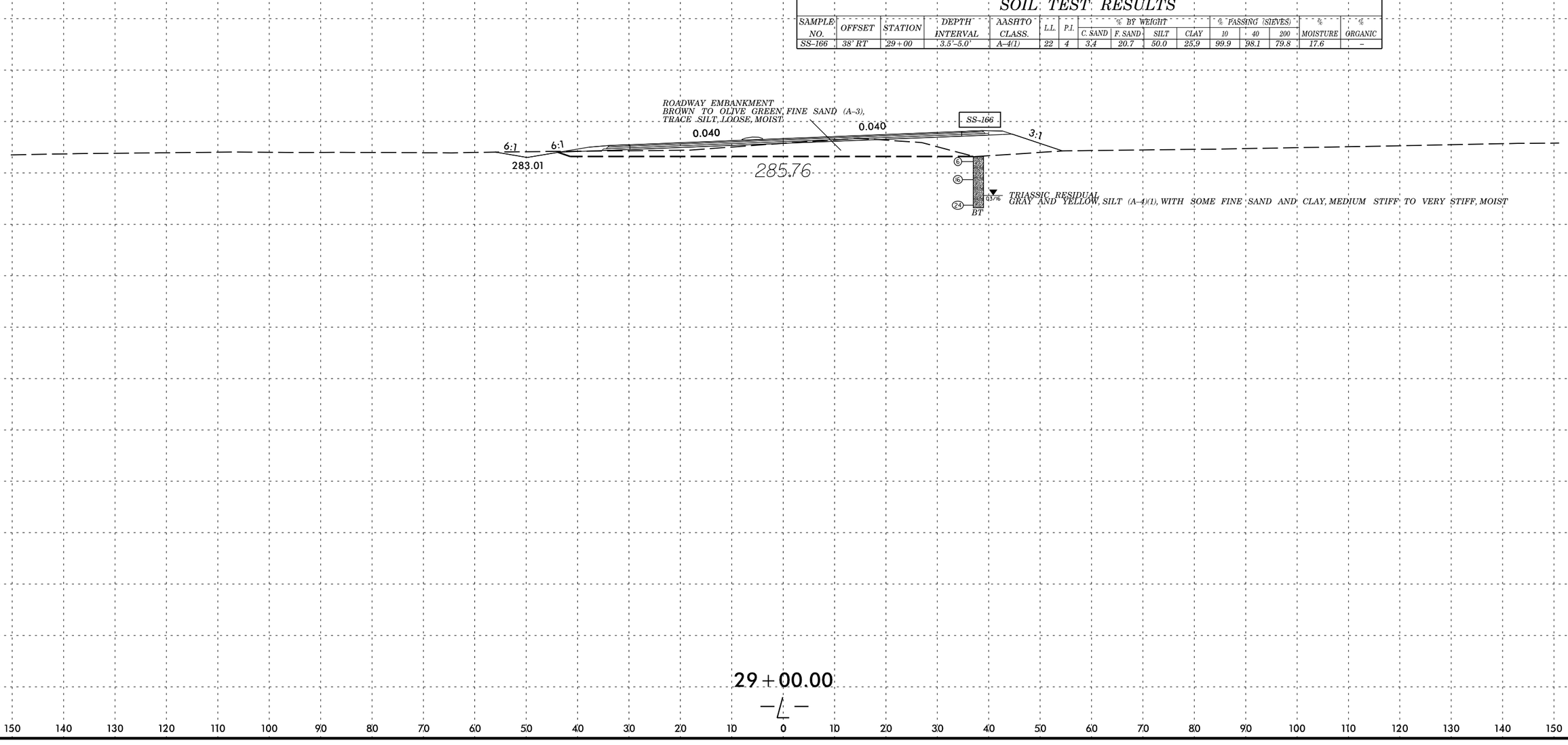
PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
TIME: $TIME$
PENTABLE: $PENTBLS$

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	12

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING SIEVES 10	40	200	% MOISTURE	% ORGANIC
SS-166	38' RT	29+00	3.5'-5.0'	A-4(1)	22	4	3.4	20.7	50.0	25.9	99.9	98.1	79.8	17.6	–

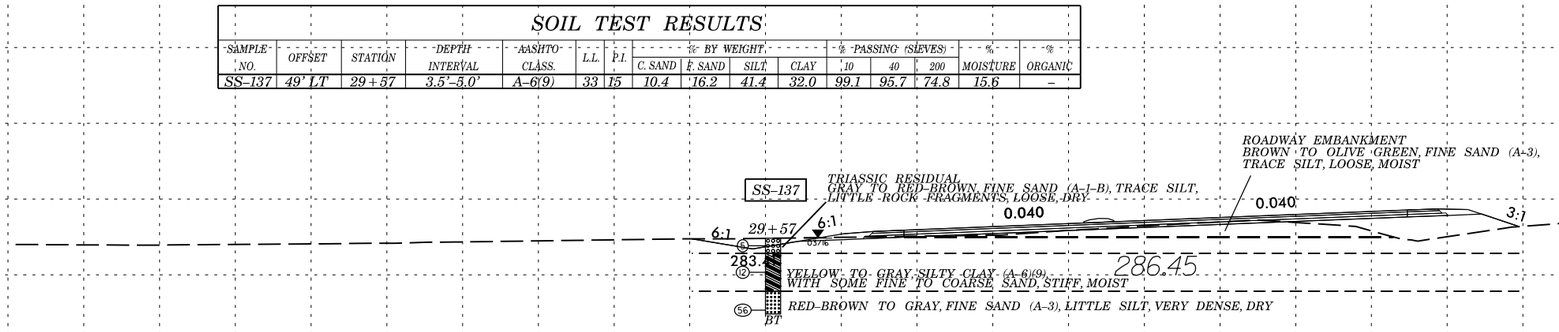


8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	13

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-137	49' LT	29+57	3.5'-5.0'	A-6(9)	33	15	10.4	16.2	41.4	32.0	99.1	95.7	74.8	15.6	–



29+50.00

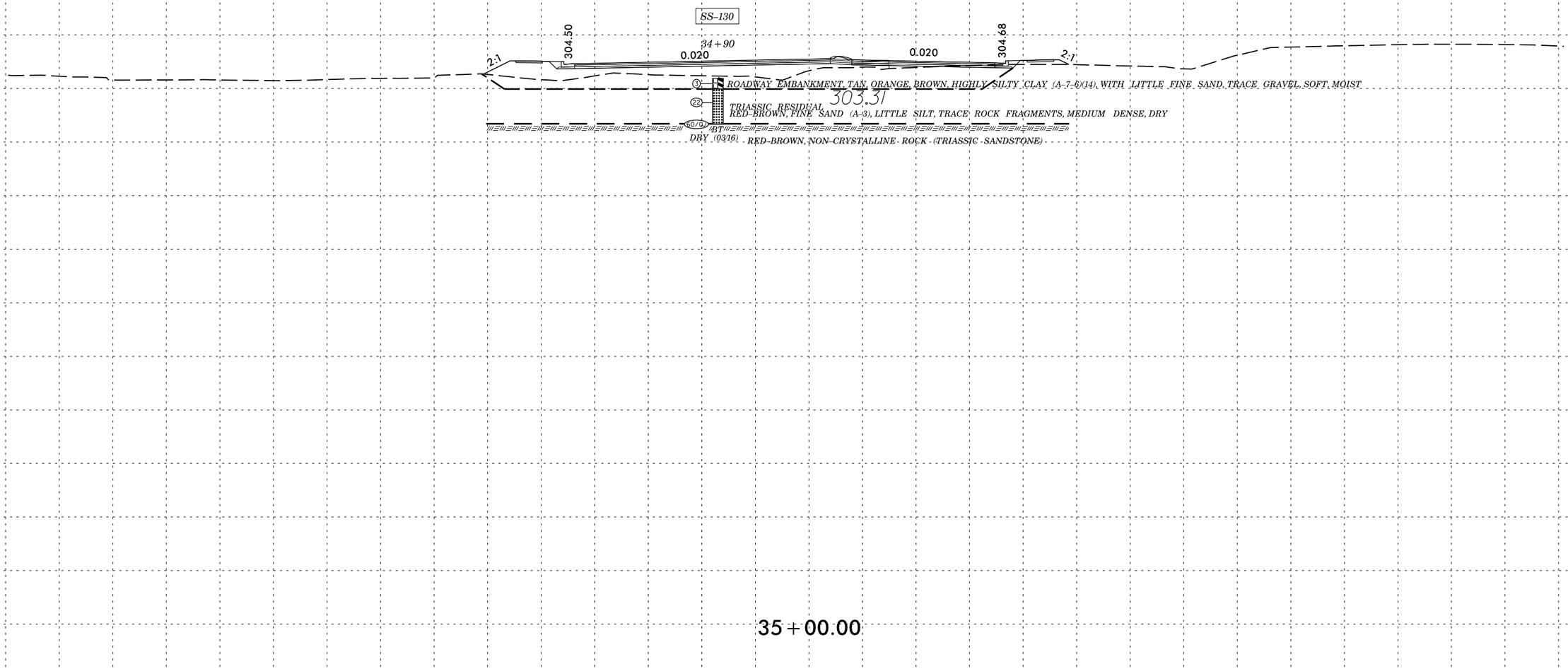
PLOT DRIVER: $PLTDRVS$ DATE: $DATE$ PENTABLE: $PENTBLS$
USER: $USER$ TIME: $TIME$
FILE: $PWVARVAULTPATHDESC$

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	14

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				% MOISTURE	% ORGANIC
							% SAND	F. SAND	SILT	CLAY	10	40	200			
SS-130	17' LT	34+90	0'-1.5'	A-7-6(14)	44	19	8.7	10.5	40.3	40.5	89.1	83.9	73.5		12.6	-

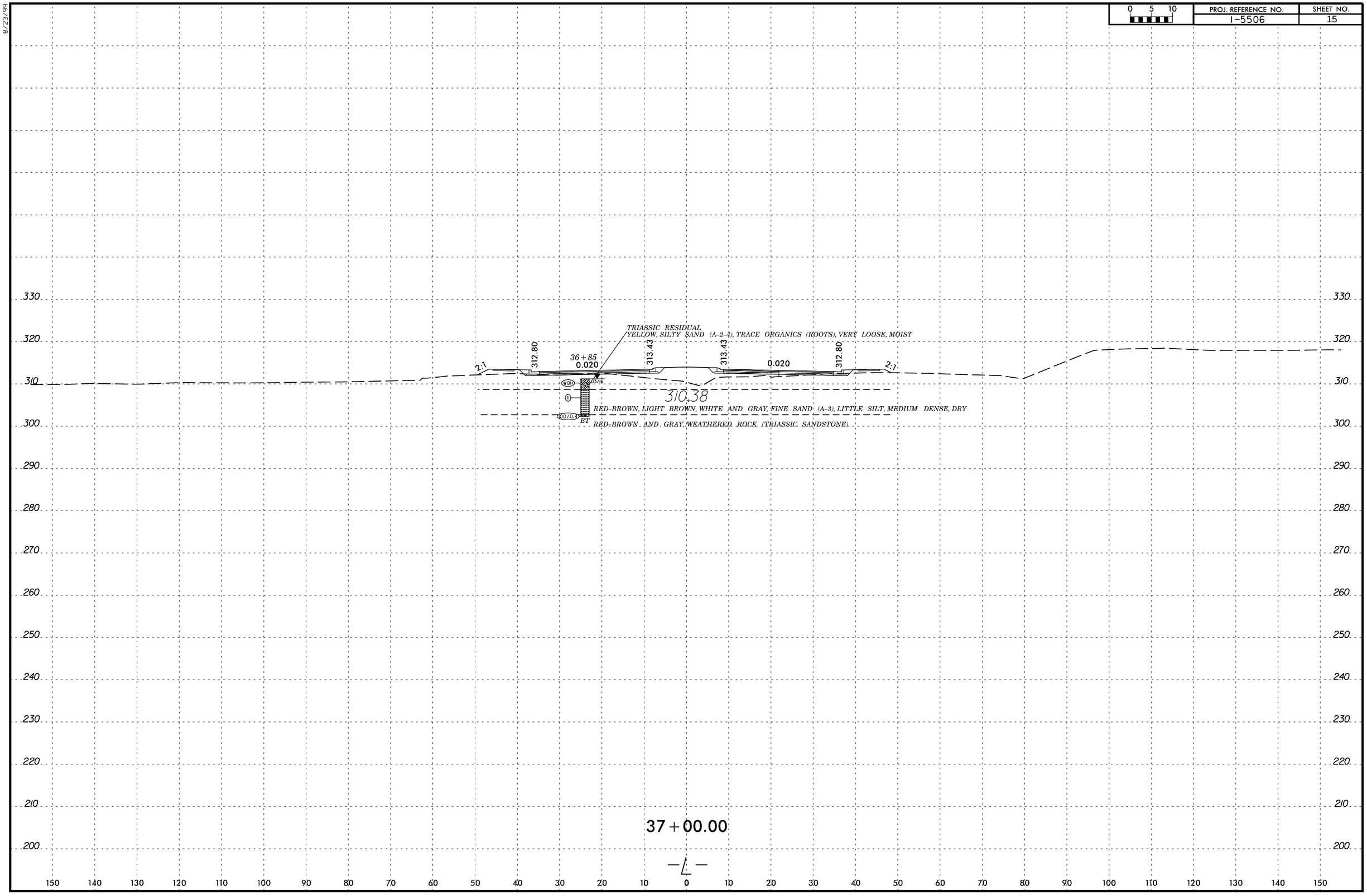


35+00.00

PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
PENTABLE: $PENTBLS$
TIME: $TIME$

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	15



8/23/99

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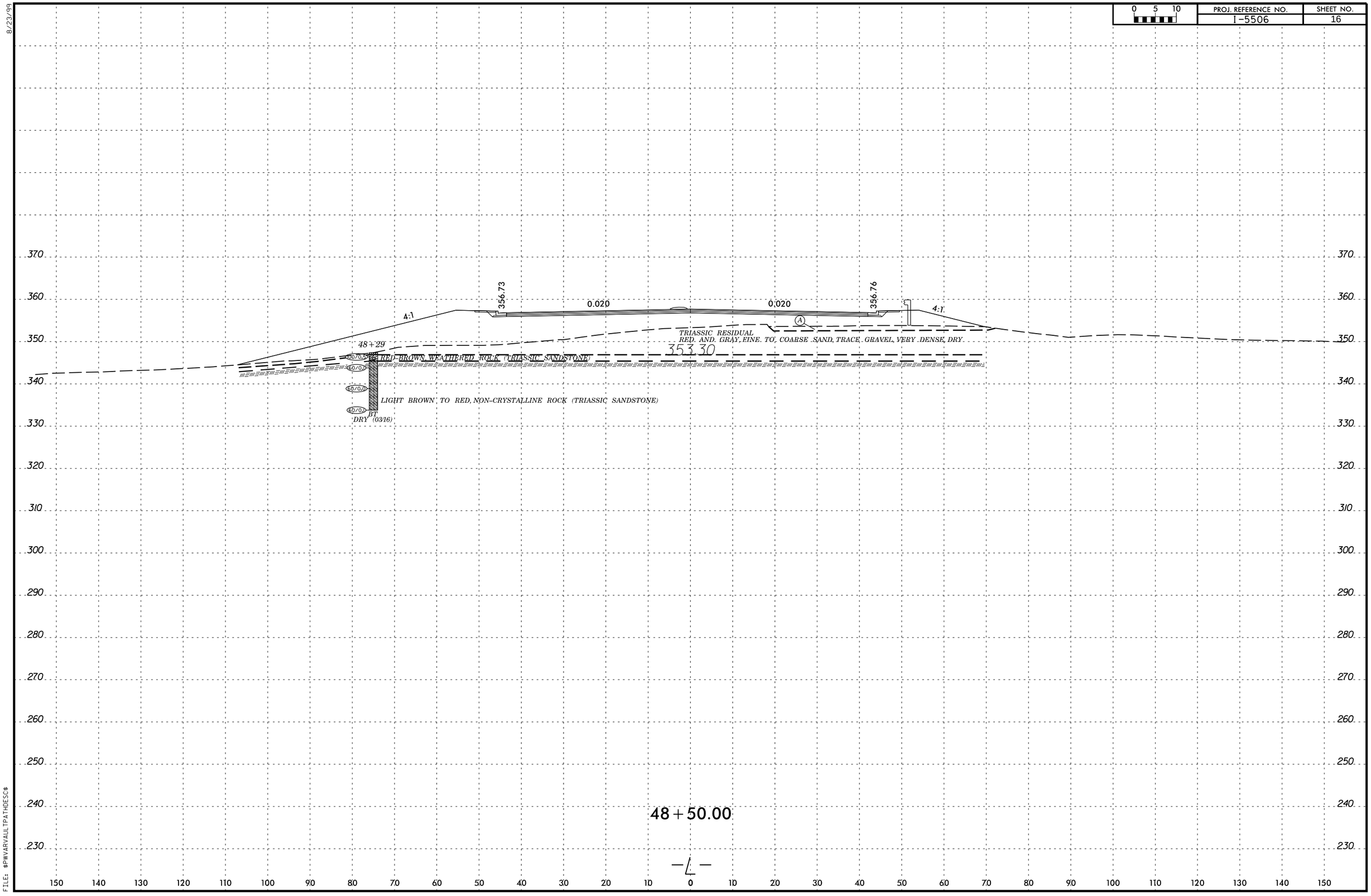
	I-5506	16



PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
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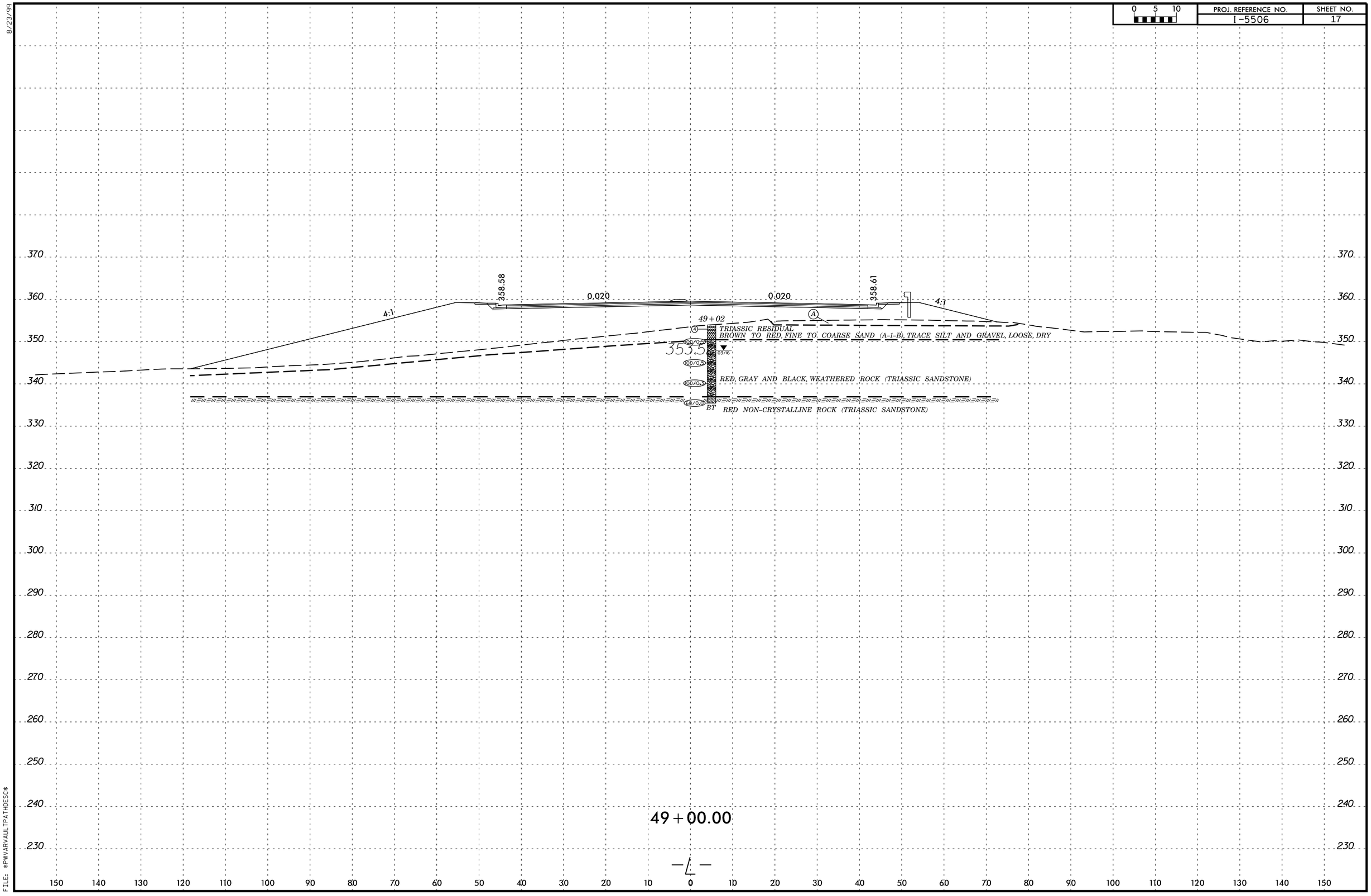
PENTABLE: $PENTBLS$

8/23/99

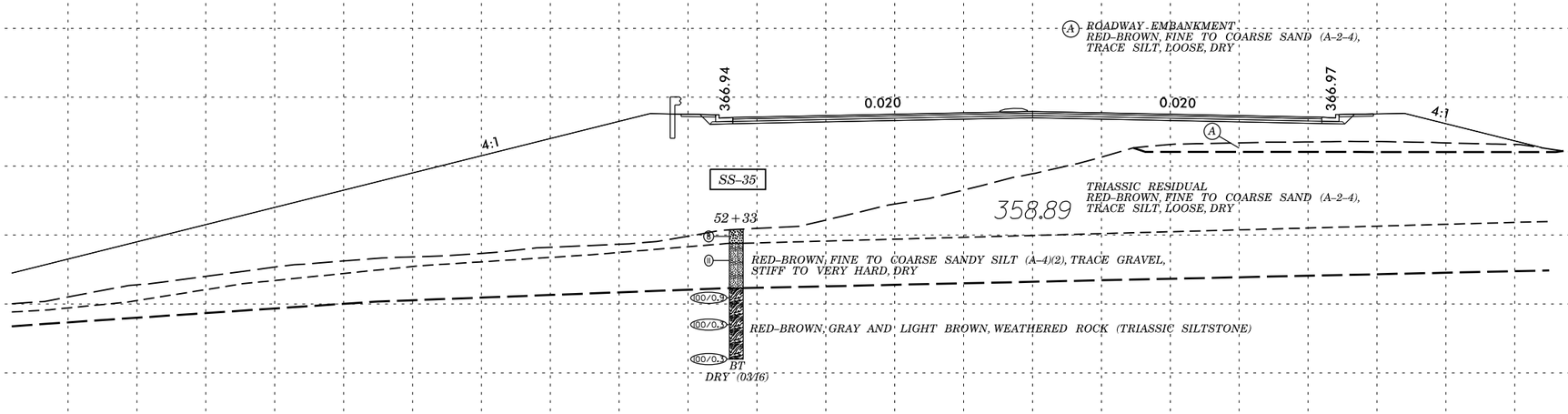
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	17



PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
PENTABLE: $PENTBLS$
TIME: $TIME$

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-35	43' LT	52+33	3.5'-5.0'	A-4(2)	28	7	17.1	15.5	42.7	24.7	89.0	78.2	62.0	11.4	–



(A) ROADWAY EMBANKMENT
RED-BROWN, FINE TO COARSE SAND (A-2-4), TRACE SILT, LOOSE, DRY

TRIASSIC RESIDUAL
RED-BROWN, FINE TO COARSE SAND (A-2-4), TRACE SILT, LOOSE, DRY

(B) RED-BROWN, FINE TO COARSE SANDY SILT (A-4)(2), TRACE GRAVEL, STIFF TO VERY HARD, DRY

RED-BROWN, GRAY AND LIGHT BROWN, WEATHERED ROCK (TRIASSIC SILTSTONE)

52+48.35

390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230

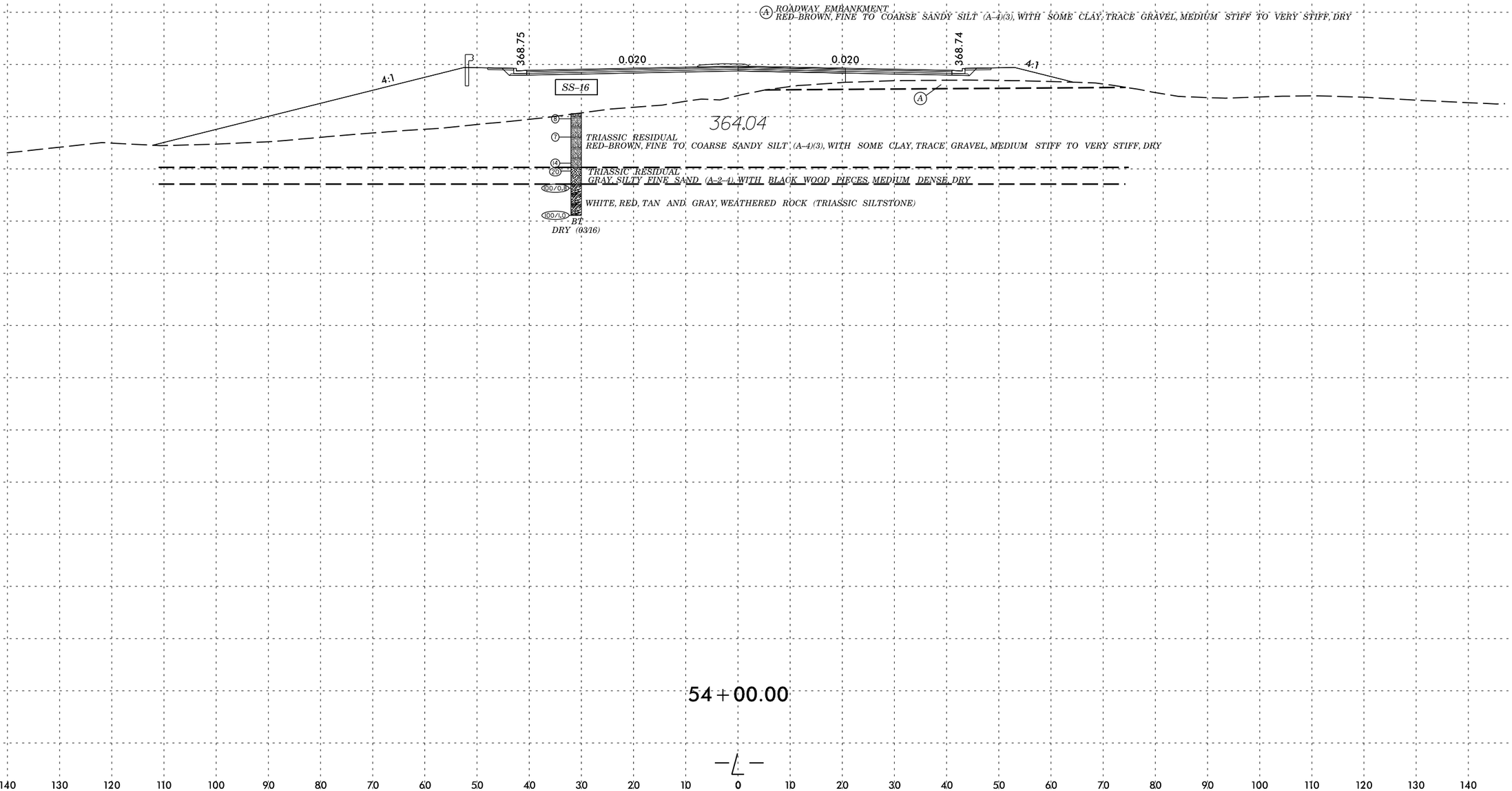
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	19

SOIL TEST RESULTS

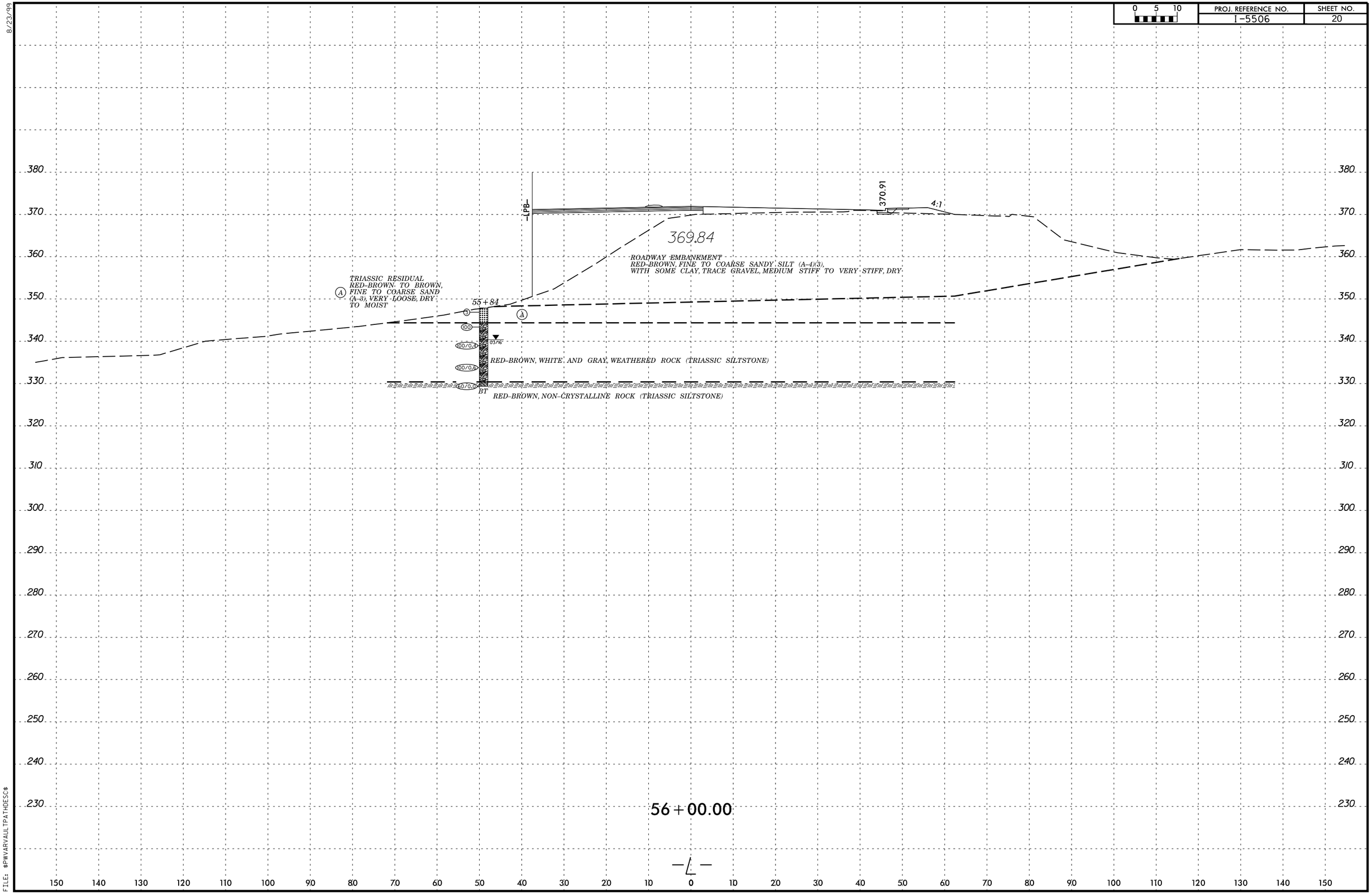
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-16	31' LT	54+00	0'-1.5'	A-4(3)	28	7	16.7	10.1	49.0	24.2	95.3	83.8	71.3	10.1	-



PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
TIME: $TIME$
PENTABLE: $PENTBLS$

8/23/99

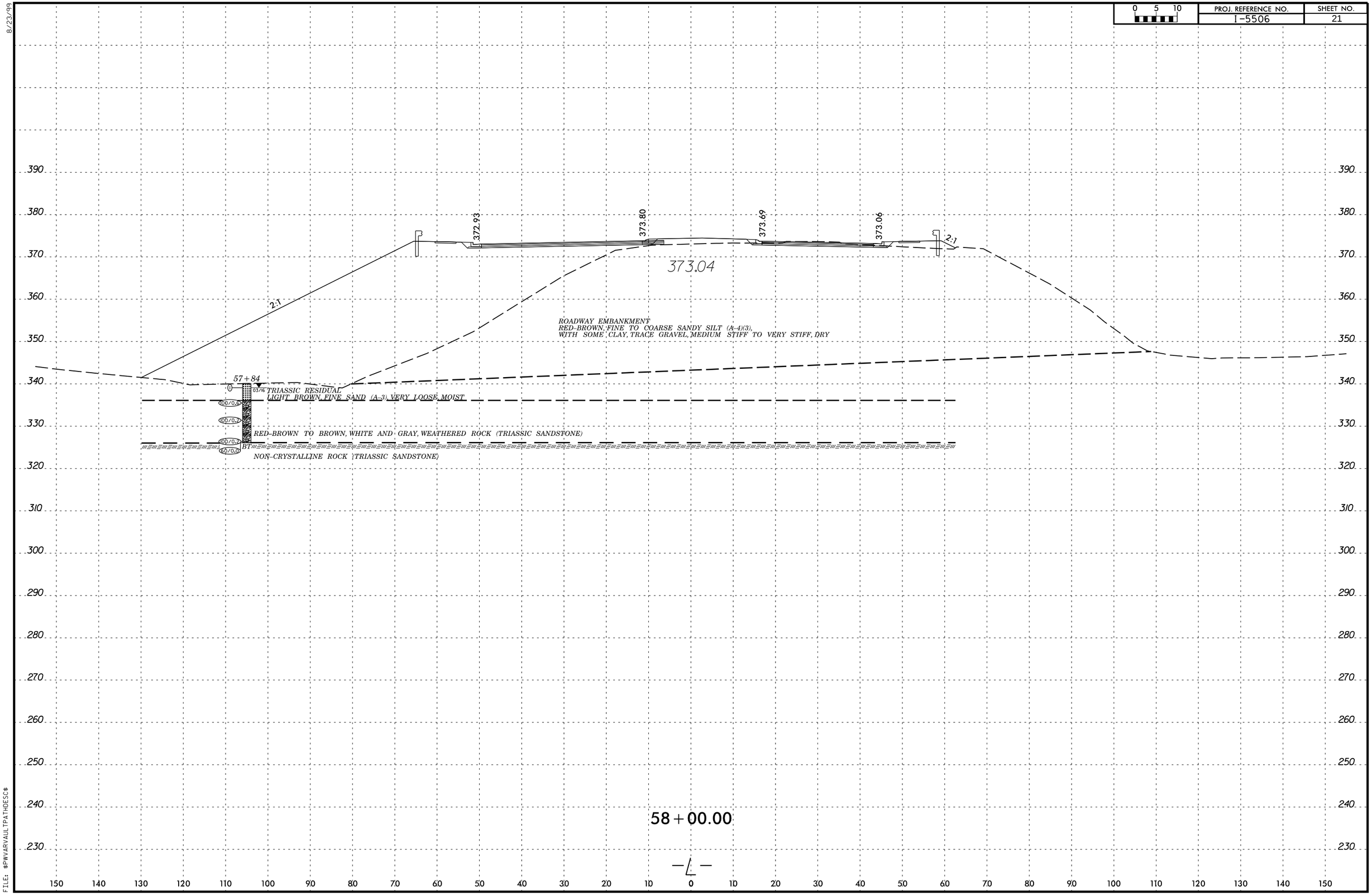
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	20



PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
TIME: $TIME$
PENTABLE: $PENTBLS$

8/23/99

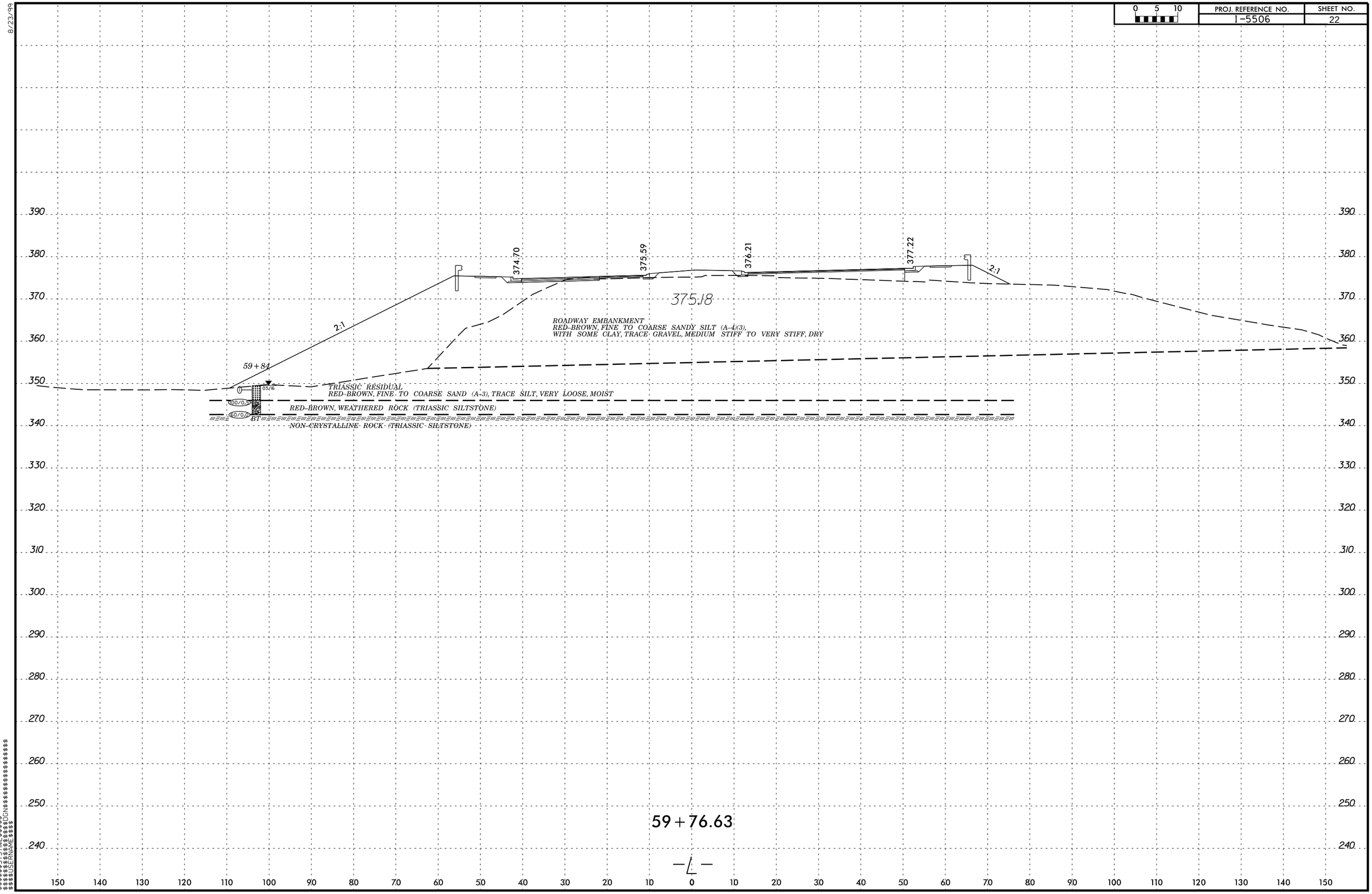
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	21



PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
TIME: $TIME$
PENTABLE: $PENTBLS$

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
I-5506	22



59+76.63

–L–

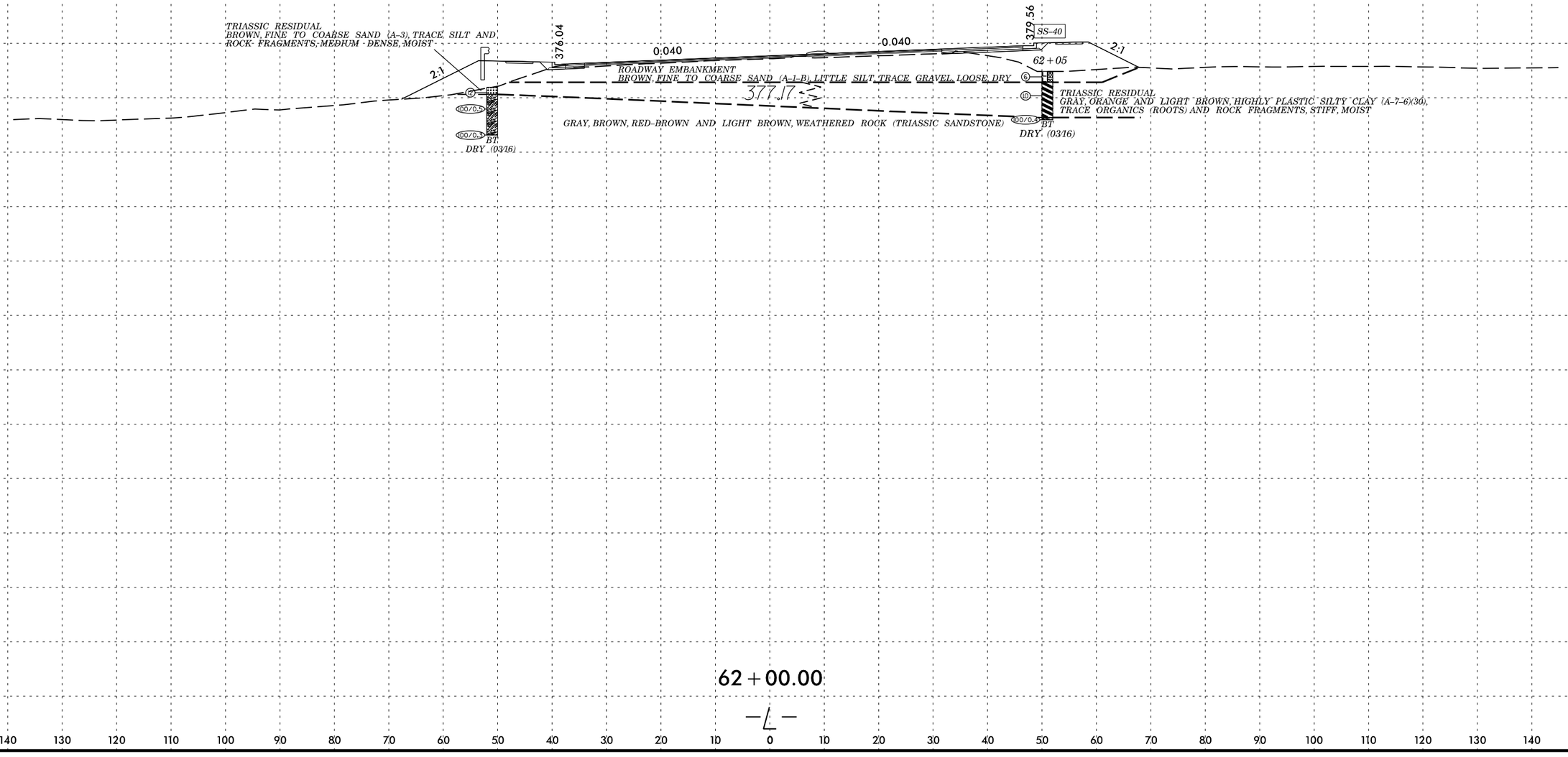
$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$USERNAME$$$$

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	23

SOIL TEST RESULTS

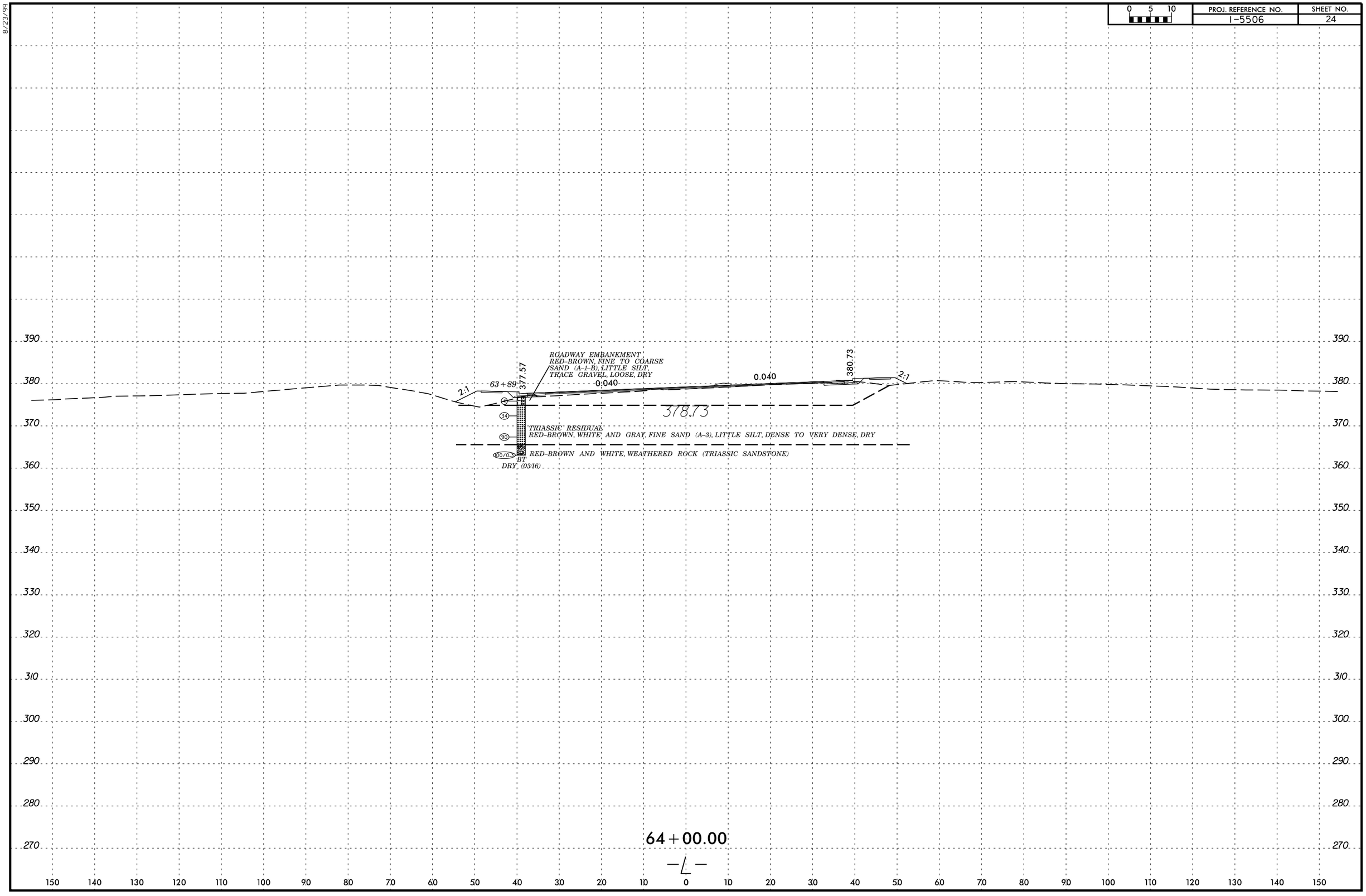
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-40	51' RT	62+05	3.5'-5.0'	A-7-6(30)	59	33	4.2	7.7	33.7	54.2	92.9	90.4	83.0	28.9	–



PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
PENTABLE: $PENTBLS$
TIME: $TIME$

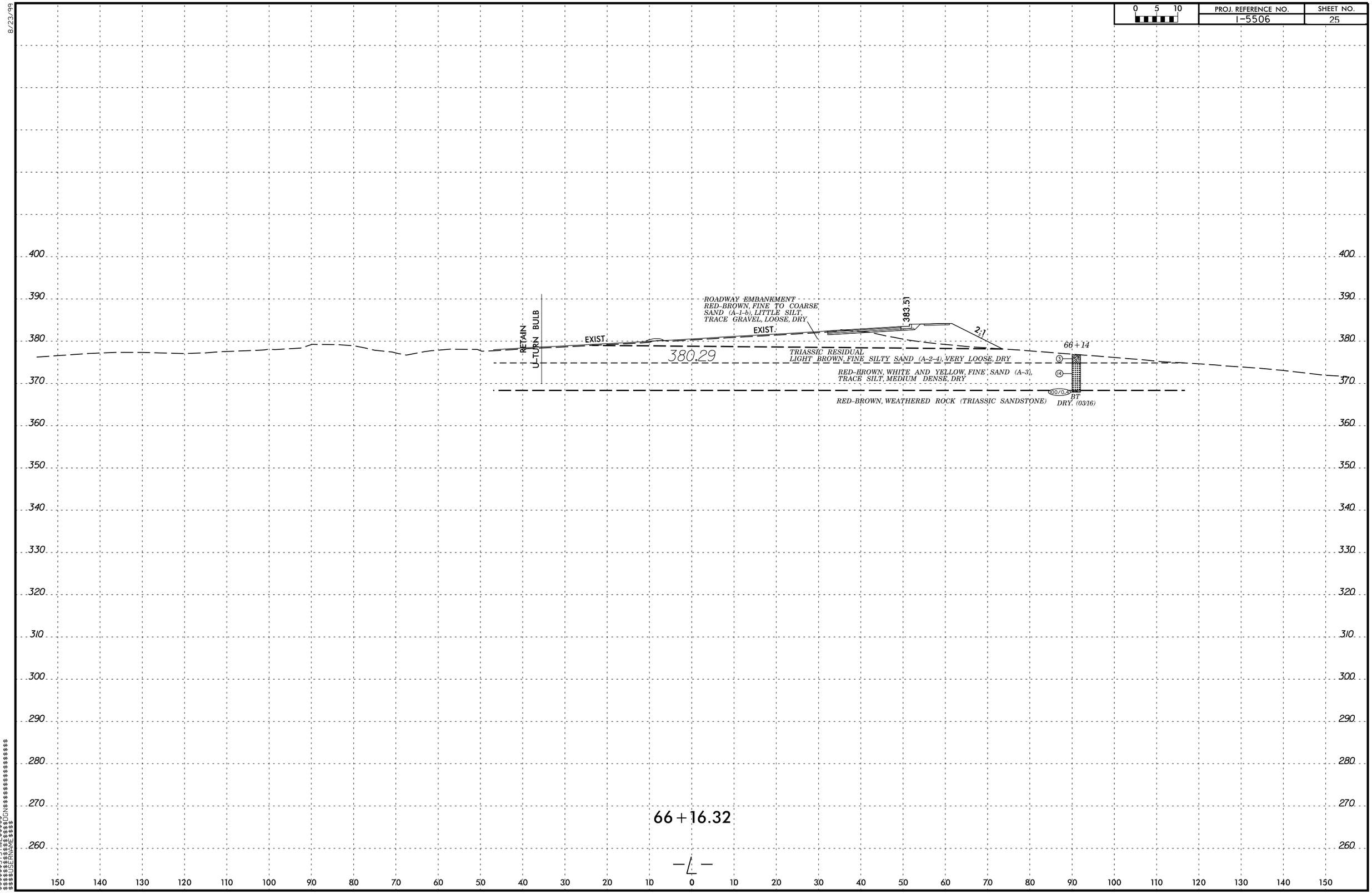
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	24



8/23/99

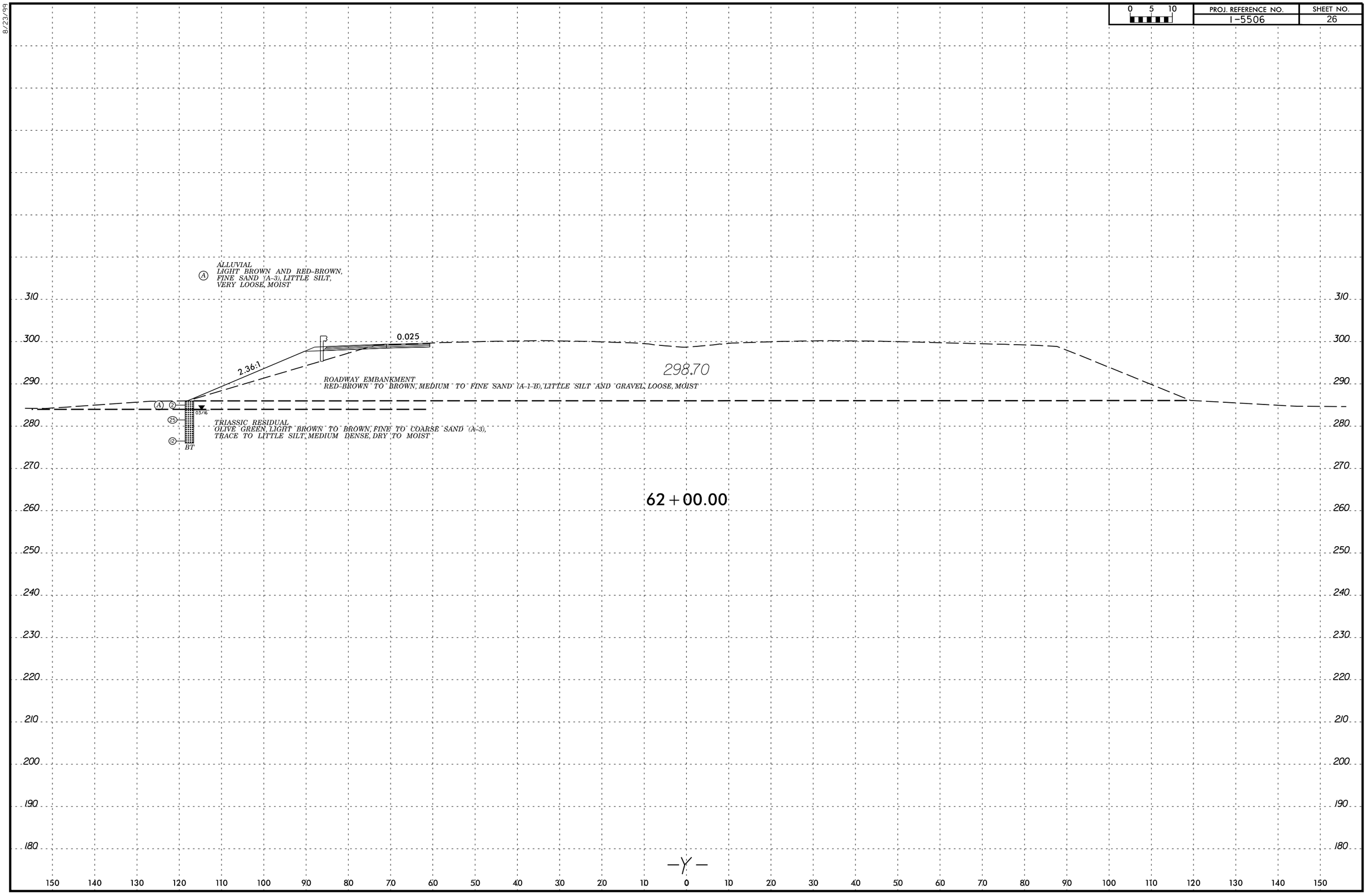
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	25



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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	26

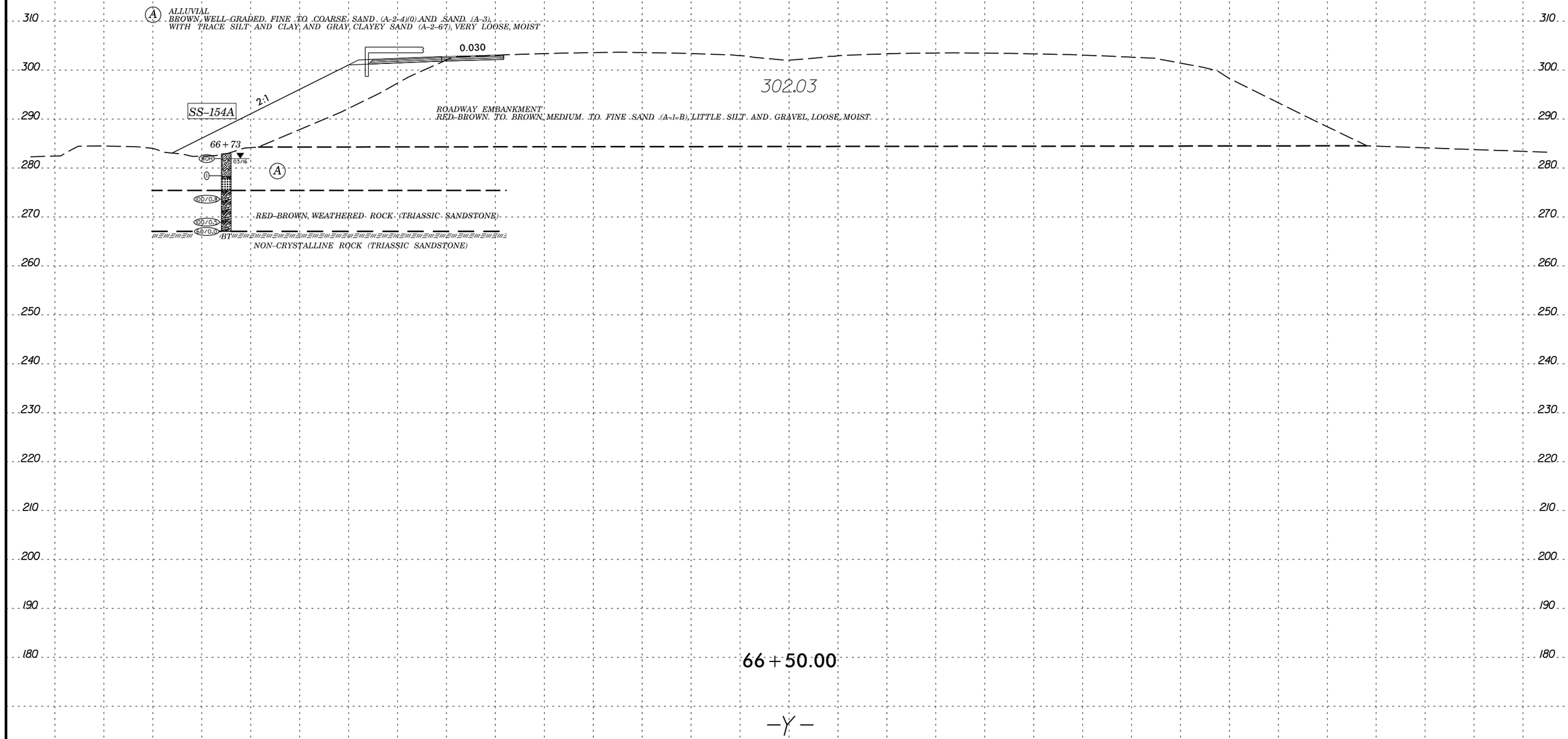


8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	27

SOIL TEST RESULTS

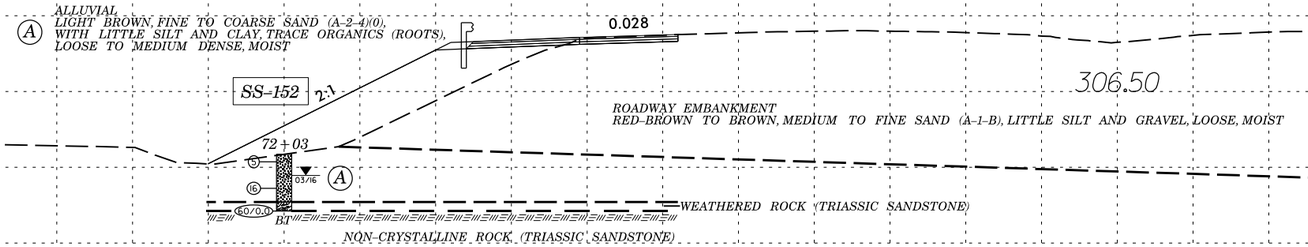
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-154A	115' LT	66+73	3.5'-5.0'	A-2-4(0)	16	NP	73.9	12.1	8.4	5.6	98.2	45.3	14.4	25.7	



PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PNVARVAULTPATHDESC$
DATE: $DATE$
TIME: $TIME$
PENTABLE: $PENTBLS$

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-152	110' LT	72+03	3.5'-5.0'	A-2-4(0)	24	NP	31.6	37.7	11.4	19.3	99.9	91.0	33.0	18.3	–



320 310 300 290 280 270 260 250 240 230 220 210 200 190 180

72+00.00

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

8/23/99

PLOT DRIVER: $PLTDRVS$ PENTABLE: $PENTBLS$
USER: $USER$ DATE: $DATE$ TIME: $TIME$
FILE: $PWVARVAULTPATHDESC$

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	29

330
320
310
300
290
280
270
260
250
240
230
220
210
200
190
180

75+51

3:1

4:1

6:1

0.029

307.21

309.13

TRIASSIC RESIDUAL
RED-BROWN, FINE SAND (A-3),
TRACE SILT, TRACE ROCK
FRAGMENTS, VERY DENSE, DRY

(74)
(66)
100/0.8
50/0.0

BT
DRY (03/16)

RED-BROWN, WEATHERED ROCK
(TRIASSIC SANDSTONE)

RED-BROWN, NON-CRYSTALLINE ROCK
(TRIASSIC SANDSTONE)

ROADWAY EMBANKMENT
RED-BROWN TO BROWN, MEDIUM TO FINE SAND (A-1-B),
LITTLE SILT AND GRAVEL, LOOSE, MOIST

75+50.00

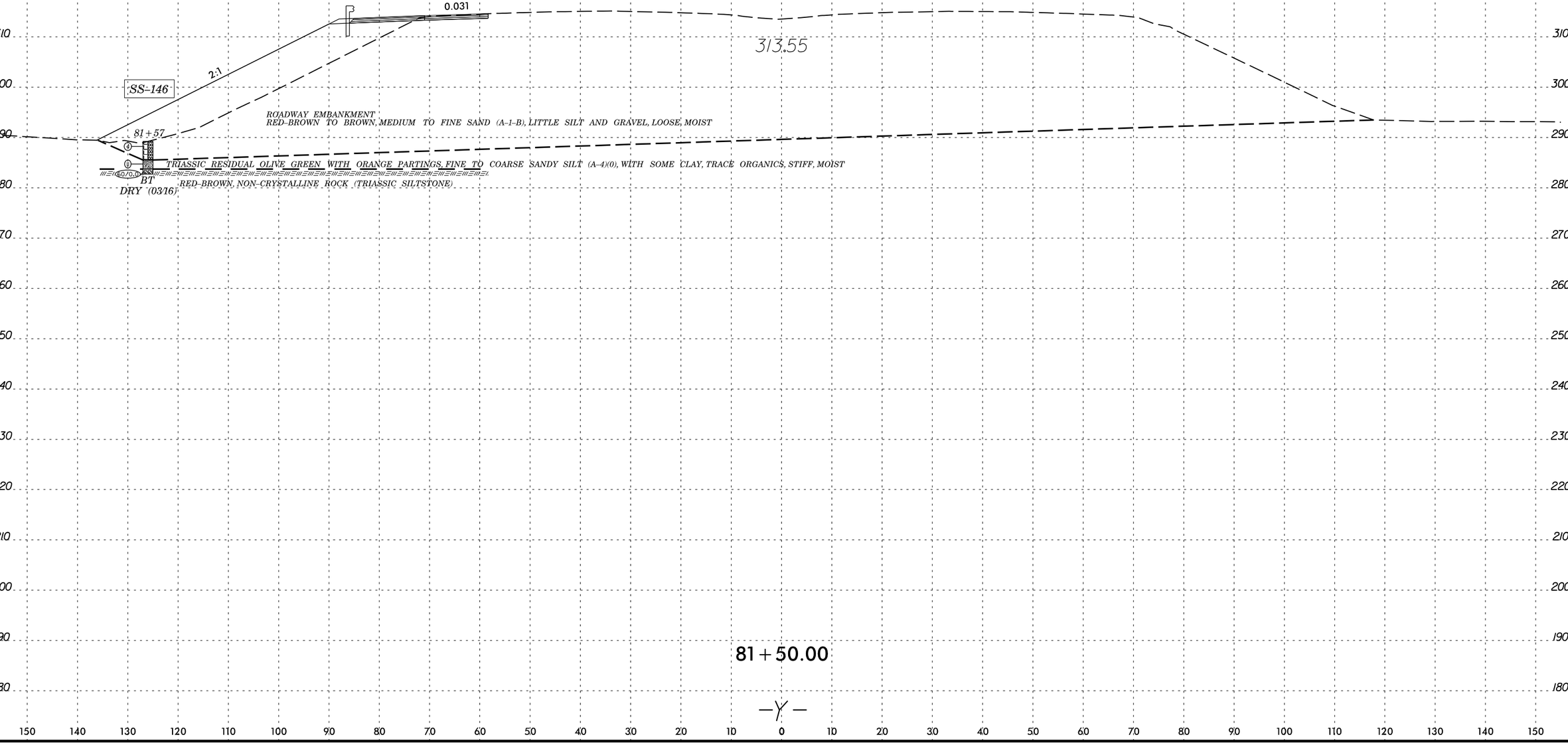
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
TIME: $TIME$
PENTABLE: $PENTBLS$

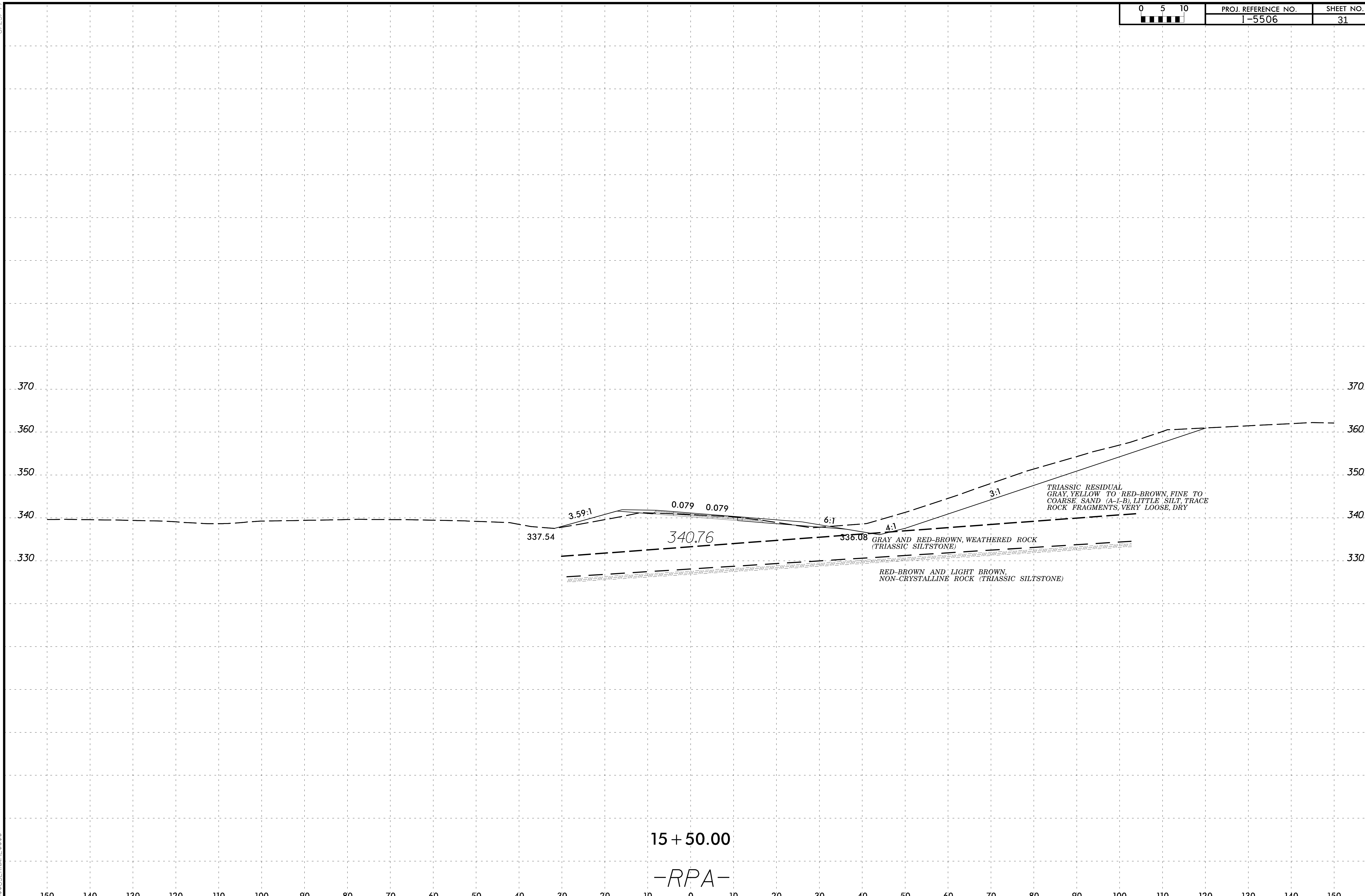
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	30

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	% BY WEIGHT F. SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-146	126' LT	81+57	3.5'-5.0'	A-4(0)	22	2	11.3	15.1	48.3	25.3	99.3	92.5	75.4	17.6	–



PROJ. REFERENCE NO.	SHEET NO.
I-5506	31


0 5 10
370
360
350
340
330
3.59:1
0.079
0.079
6:1
4:1
3:1
337.54
340.76
336.08
TRIASSIC RESIDUAL
GRAY, YELLOW TO RED-BROWN, FINE TO COARSE SAND (A-1-B), LITTLE SILT, TRACE ROCK FRAGMENTS, VERY LOOSE, DRY
GRAY AND RED-BROWN, WEATHERED ROCK (TRIASSIC SILTSTONE)
RED-BROWN AND LIGHT BROWN, NON-CRYSTALLINE ROCK (TRIASSIC SILTSTONE)
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

15+50.00

-RPA-

8/23/99

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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	32

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	33

370
360
350
340
330

TRIASSIC RESIDUAL
GRAY, YELLOW TO RED-BROWN, FINE TO COARSE SAND (A-1-B), LITTLE SILT, TRACE ROCK FRAGMENTS, VERY LOOSE, DRY

4:1
0.080
0.080
342.77
6:1
4:1
338.00
3:1

GRAY AND RED-BROWN, WEATHERED ROCK (TRIASSIC SILTSTONE)

RED-BROWN AND LIGHT BROWN, NON-CRYSTALLINE ROCK (TRIASSIC SILTSTONE)

16+50.00

-RPA-

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

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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	34

Ⓐ TRIASSIC RESIDUAL
GRAY, YELLOW TO RED–BROWN, FINE TO COARSE SAND (A–1–B), LITTLE SILT, TRACE ROCK FRAGMENTS, VERY LOOSE, DRY

Ⓑ RED–BROWN, WEATHERED ROCK
(TRIASSIC SILTSTONE)

17+00.00

–RPA–

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	35

Ⓐ TRIASSIC RESIDUAL
GRAY, YELLOW TO RED-BROWN, FINE TO COARSE SAND (A-1-B), LITTLE SILT, TRACE ROCK FRAGMENTS, VERY LOOSE, DRY

Ⓑ RED-BROWN, WEATHERED ROCK (TRIASSIC SILTSTONE)

370
360
350
340
330

15.4:1
0.080
0.080
6:1
3:1
4:1
345.16
340.20
RED-BROWN, NON-CRYSTALLINE ROCK (TRIASSIC SILTSTONE)

17+50.00

-RPA-

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

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	36

Ⓐ TRIASSIC RESIDUAL
GRAY, YELLOW TO RED-BROWN, FINE TO COARSE SAND (A-1-B), LITTLE SILT, TRACE ROCK FRAGMENTS, VERY LOOSE, DRY

Ⓑ RED-BROWN, WEATHERED ROCK (TRIASSIC SILTSTONE)

370
360
350
340
330

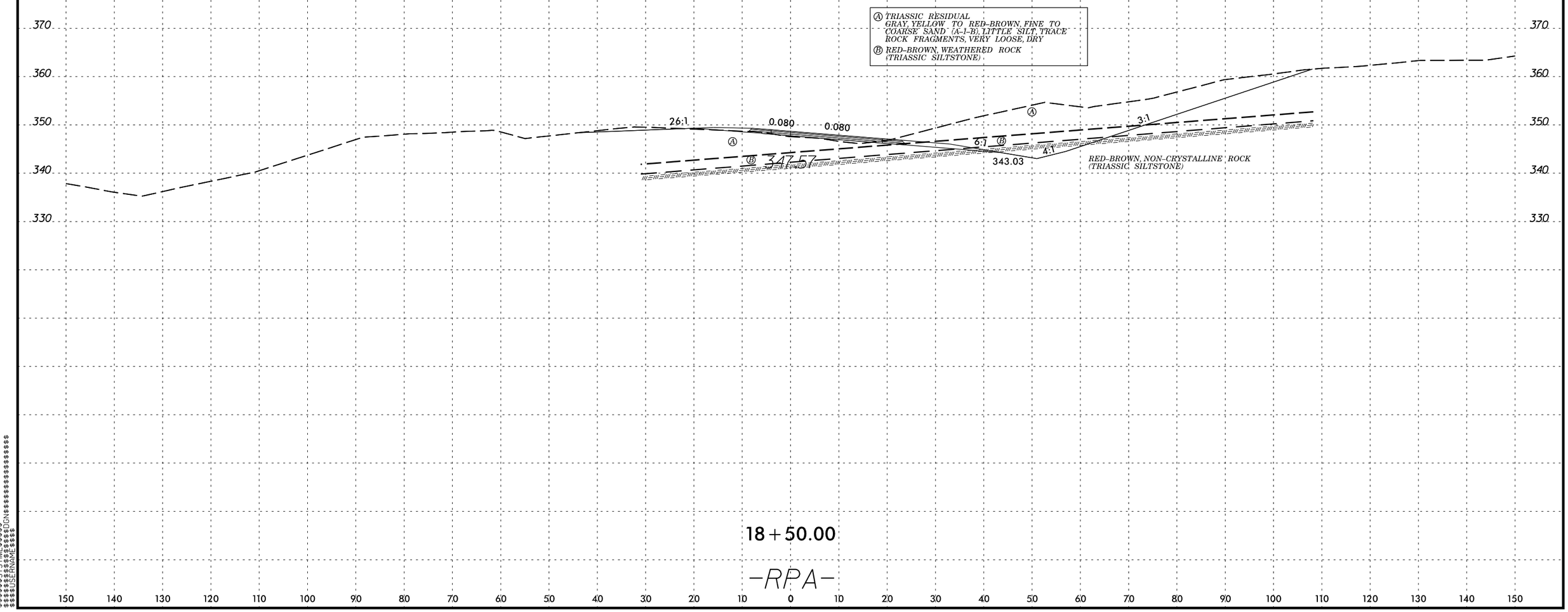
30:1
0.080
0.080
3:1
4:1
346.50
341.52
RED-BROWN, NON-CRYSTALLINE ROCK (TRIASSIC SILTSTONE)

18+00.00

-RPA-

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

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

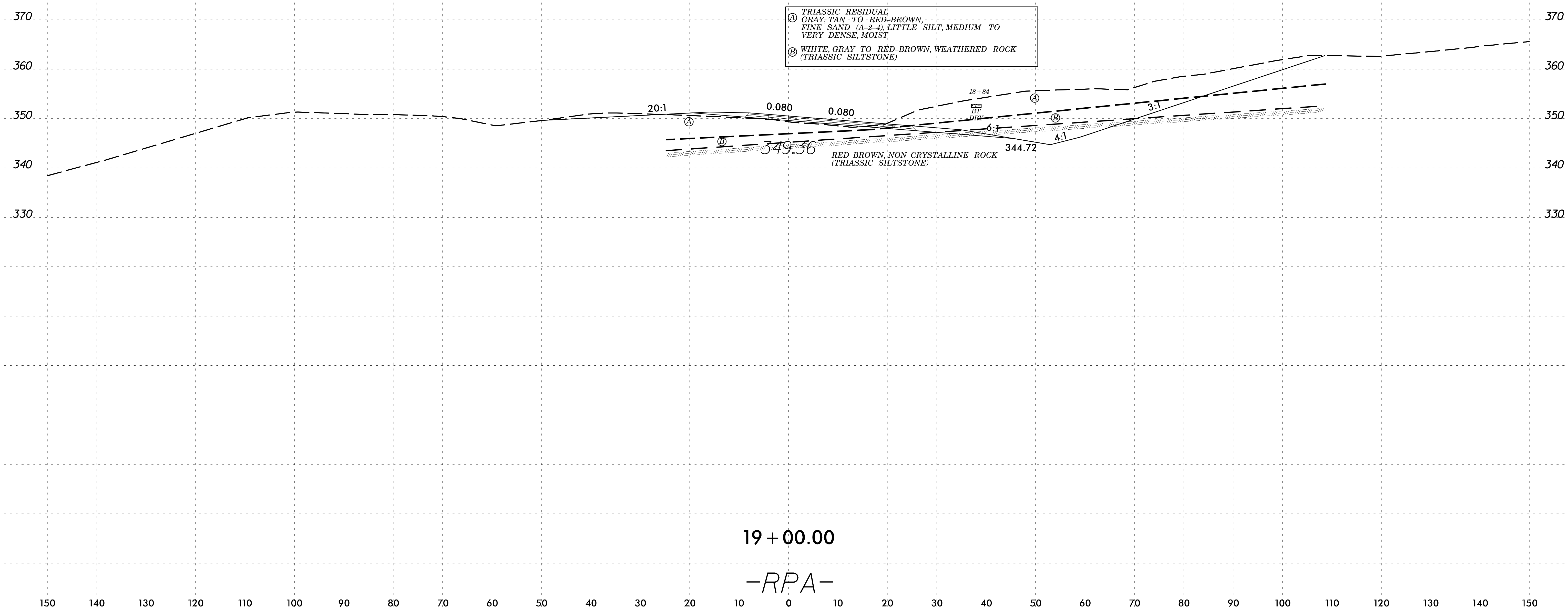


0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	37

18+50.00

–RPA–

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	38



370
360
350
340
330
370
360
350
340
330
(A) TRIASSIC RESIDUAL
GRAY, TAN TO RED-BROWN,
FINE SAND (A-2-4), LITTLE SILT, MEDIUM TO
VERY DENSE, MOIST
(B) WHITE, GRAY TO RED-BROWN, WEATHERED ROCK
(TRIASSIC SILTSTONE)
20:1
0.080
0.080
18+84
BT
DRY
6:1
4:1
3:1
349.36
344.72
RED-BROWN, NON-CRYSTALLINE ROCK
(TRIASSIC SILTSTONE)
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

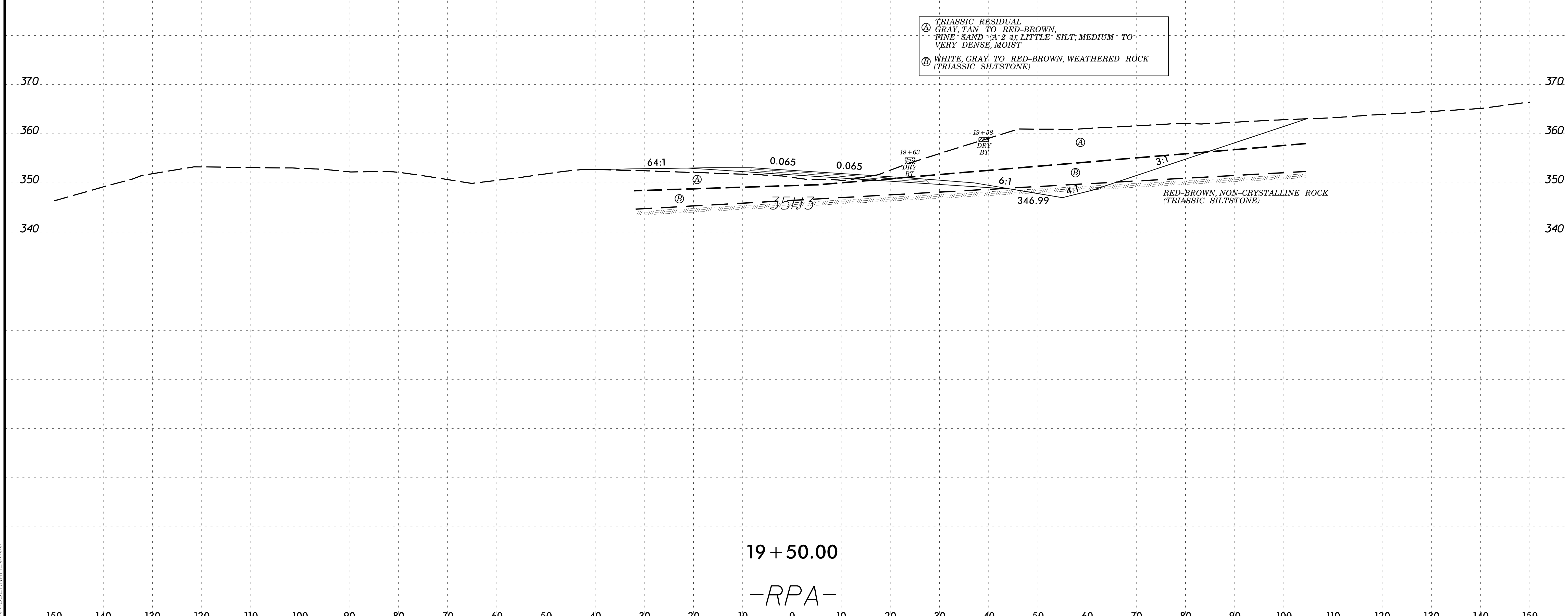
19+00.00

-RPA-

8/23/99

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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	39



8/23/99
370
360
350
340
TRIASSIC RESIDUAL
GRAY, TAN TO RED-BROWN, FINE SAND (A-2-4), LITTLE SILT, MEDIUM TO VERY DENSE, MOIST
WHITE, GRAY TO RED-BROWN, WEATHERED ROCK (TRIASSIC SILTSTONE)
19+58 DRY BT.
19+63 DRY BT.
64:1
0.065
0.065
6:1
3:1
4:1
346.99
35H3
RED-BROWN, NON-CRYSTALLINE ROCK (TRIASSIC SILTSTONE)
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

19+50.00

-RPA-

8/23/99

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	200		
BS #1	69' RT	19+97	2.0'–4.0'	A–6(15)	39	16	5.9	5.7	41.1	47.3	97.6	93.7	87.2	14.9	–
SS–64	69' RT	19+97	8.5'–10.0'	A–4(0)	22	6	28.4	20.3	30.6	20.7	90.8	74.8	48.4	3.7	–

Ⓐ TRIASSIC RESIDUAL
ORANGE, LIGHT BROWN AND GRAY, HIGHLY SILTY CLAY (A–6)(15),
WITH LITTLE SAND, TRACE ORGANICS (ROOTS), STIFF, DRY

Ⓑ GRAY, TAN TO RED–BROWN, FINE SAND (A–2–4),
LITTLE SILT, VERY DENSE, MOIST

Ⓒ WHITE, GRAY TO RED–BROWN,
WEATHERED ROCK (TRIASSIC SILTSTONE)

SS–64
BS #1

20+00.00

–RPA–

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	41

Ⓐ TRIASSIC RESIDUAL
ORANGE, LIGHT BROWN AND GRAY, HIGHLY SILTY CLAY, (A-6)(15), WITH LITTLE SAND, TRACE ORGANICS (ROOTS), STIFF, DRY

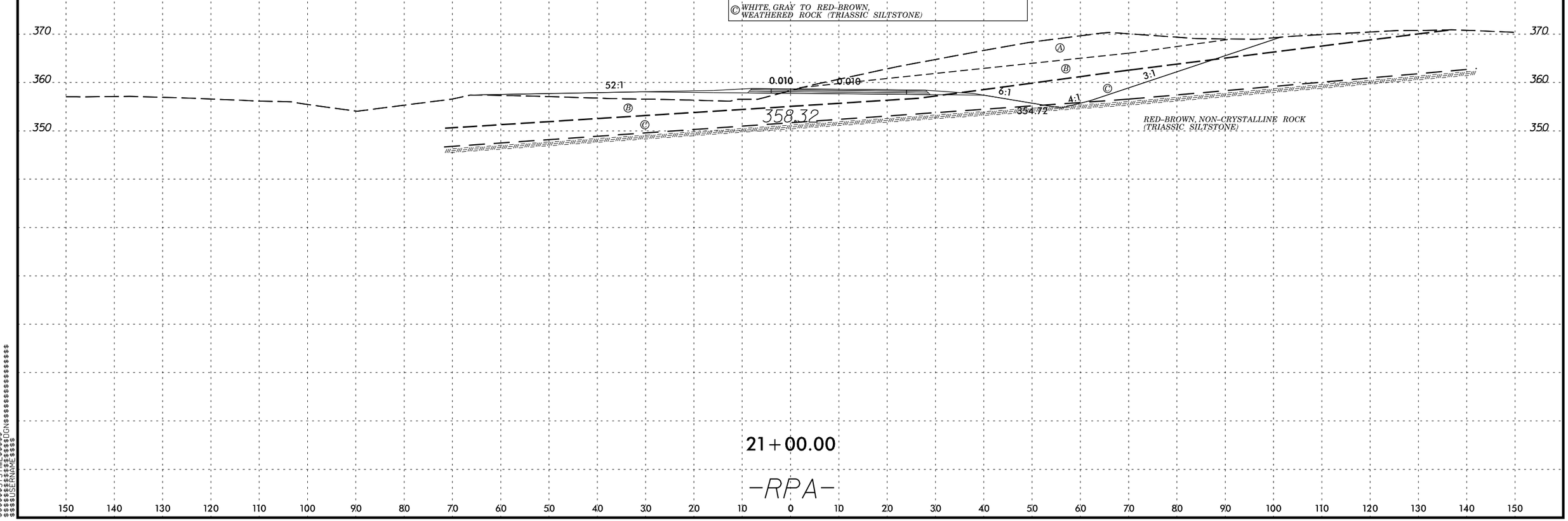
Ⓑ GRAY, TAN TO RED-BROWN, FINE SAND (A-2-4), LITTLE SILT, VERY DENSE, MOIST

Ⓒ WHITE, GRAY TO RED-BROWN, WEATHERED ROCK (TRIASSIC SILTSTONE)

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	42



Ⓐ TRIASSIC RESIDUAL
ORANGE, LIGHT BROWN AND GRAY, HIGHLY SILTY CLAY (A–6)(15),
WITH LITTLE SAND, TRACE ORGANICS (ROOTS), STIFF, DRY

Ⓑ GRAY, TAN TO RED–BROWN, FINE SAND (A–2–4),
LITTLE SILT, VERY DENSE, MOIST

Ⓒ WHITE, GRAY TO RED–BROWN,
WEATHERED ROCK (TRIASSIC SILTSTONE)

21+00.00

–RPA–

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	43

TRIASSIC RESIDUAL
Ⓐ ORANGE, LIGHT BROWN AND GRAY, HIGHLY SILTY CLAY (A-6)(15), WITH LITTLE SAND, TRACE ORGANICS (ROOTS), STIFF, DRY

GRAY, TAN TO RED-BROWN, FINE SAND (A-2-4), Ⓑ LITTLE SILT, VERY DENSE, MOIST

Ⓒ WHITE, GRAY TO RED-BROWN, WEATHERED ROCK (TRIASSIC SILTSTONE)

380
370
360
350

6:1
6:1
0.009
0.009
6:1
4:1
3:1
356.58
362.13
357.15
Ⓐ
Ⓑ
Ⓒ

RED-BROWN, NON-CRYSTALLINE ROCK (TRIASSIC SILTSTONE)

21+50.00

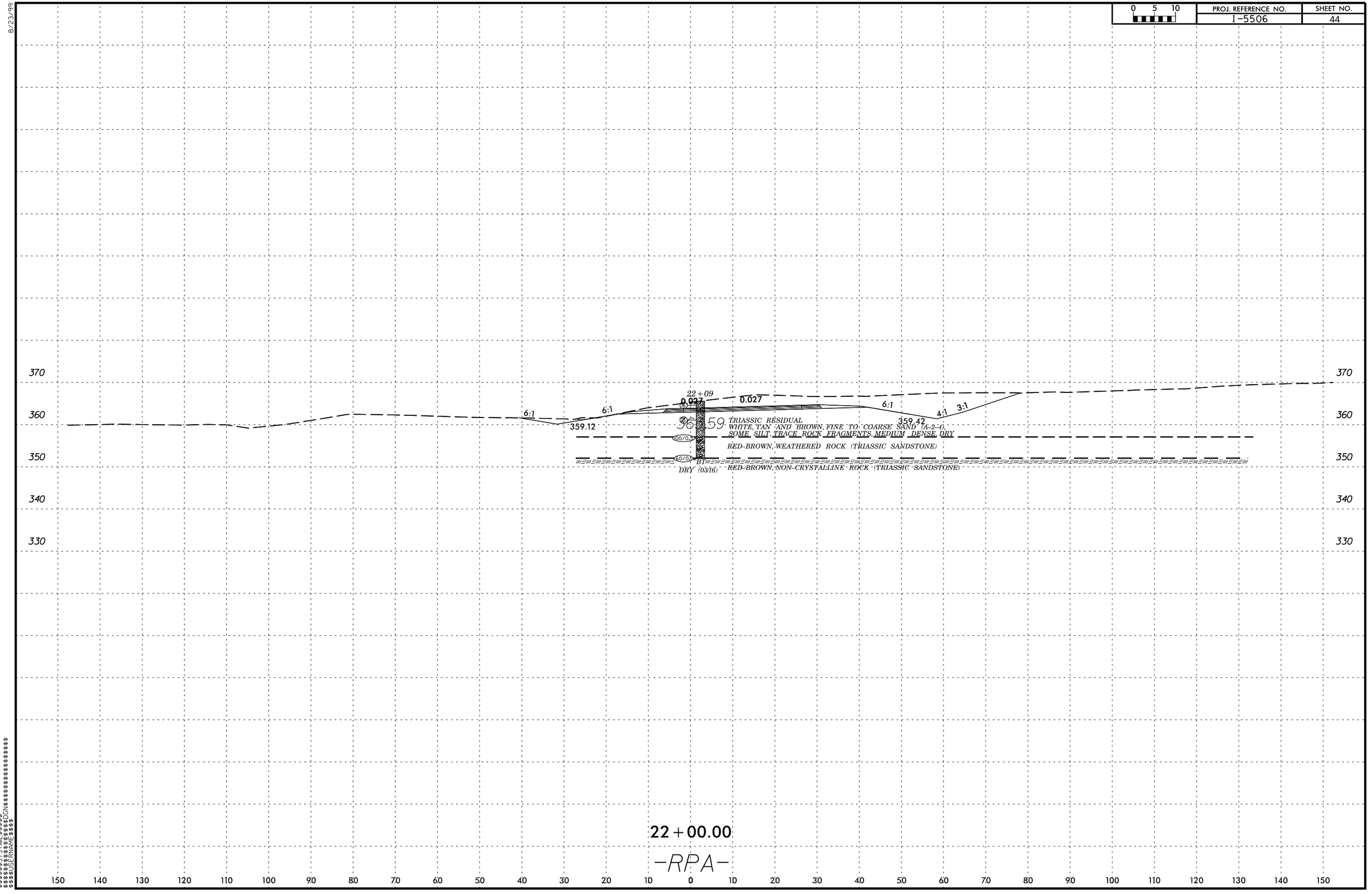
-RPA-

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

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

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
I-5506	44



22+00.00

-RPA-

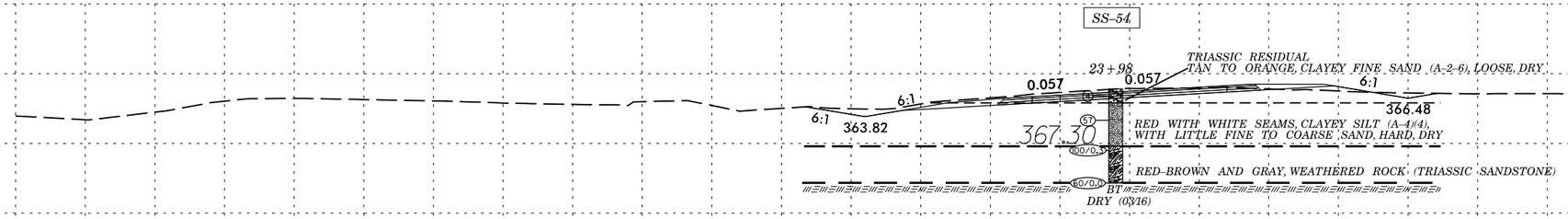
$$$$$$SYSTIME$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	45

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-54	8' RT	23+98	3.5'-5.0'	A-4(4)	28	6	4.8	13.1	51.5	30.6	97.0	94.2	82.3	9.4	–



24+00.00
-RPA-

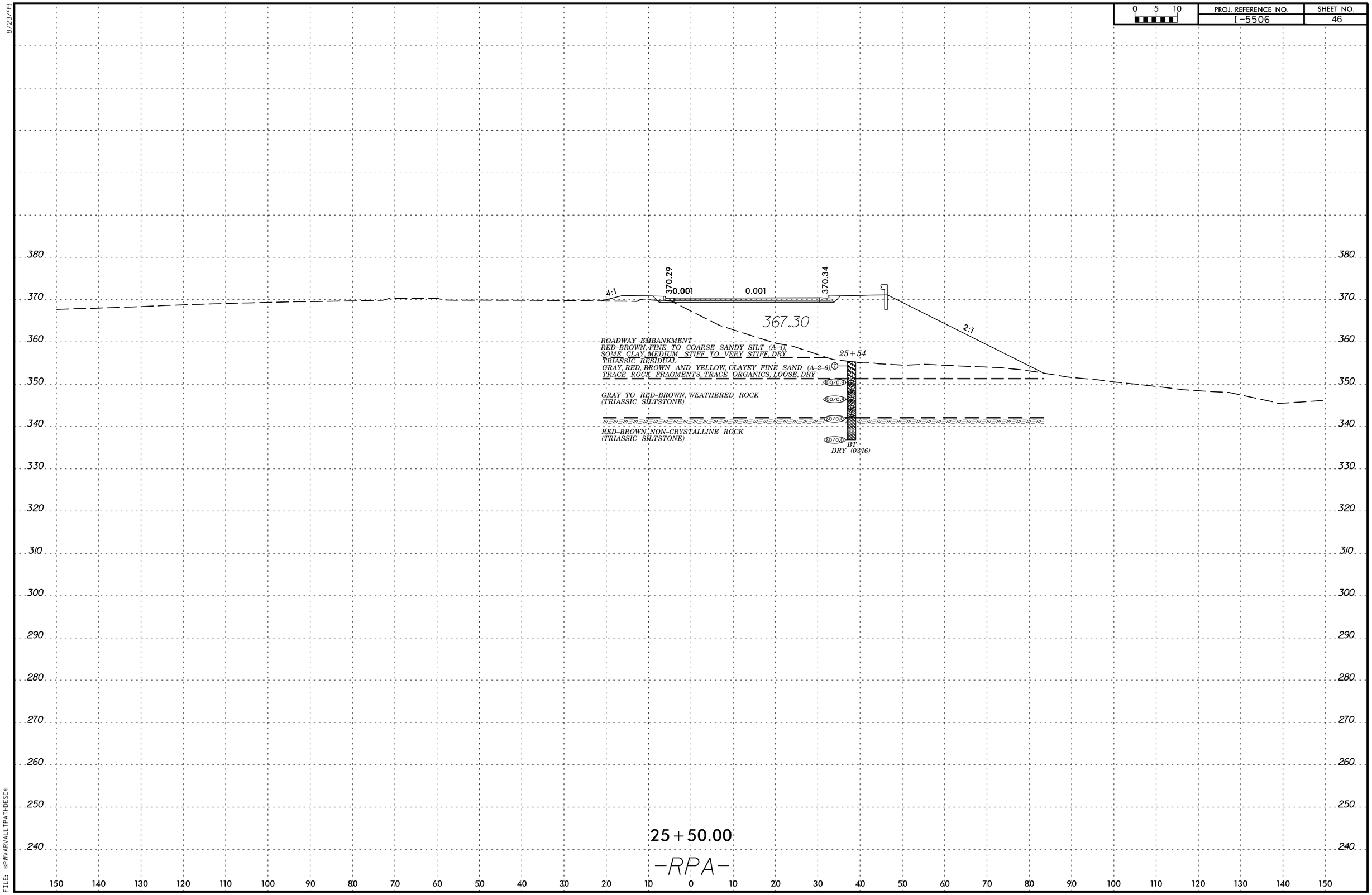
400 390 380 370 360 350 340 330 320 310 300 290 280 270 260

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

PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PNVARVAULTPATHDESC$
DATE: $DATE$
PENTABLE: $PENTBLS$
TIME: $TIME$

8/23/99

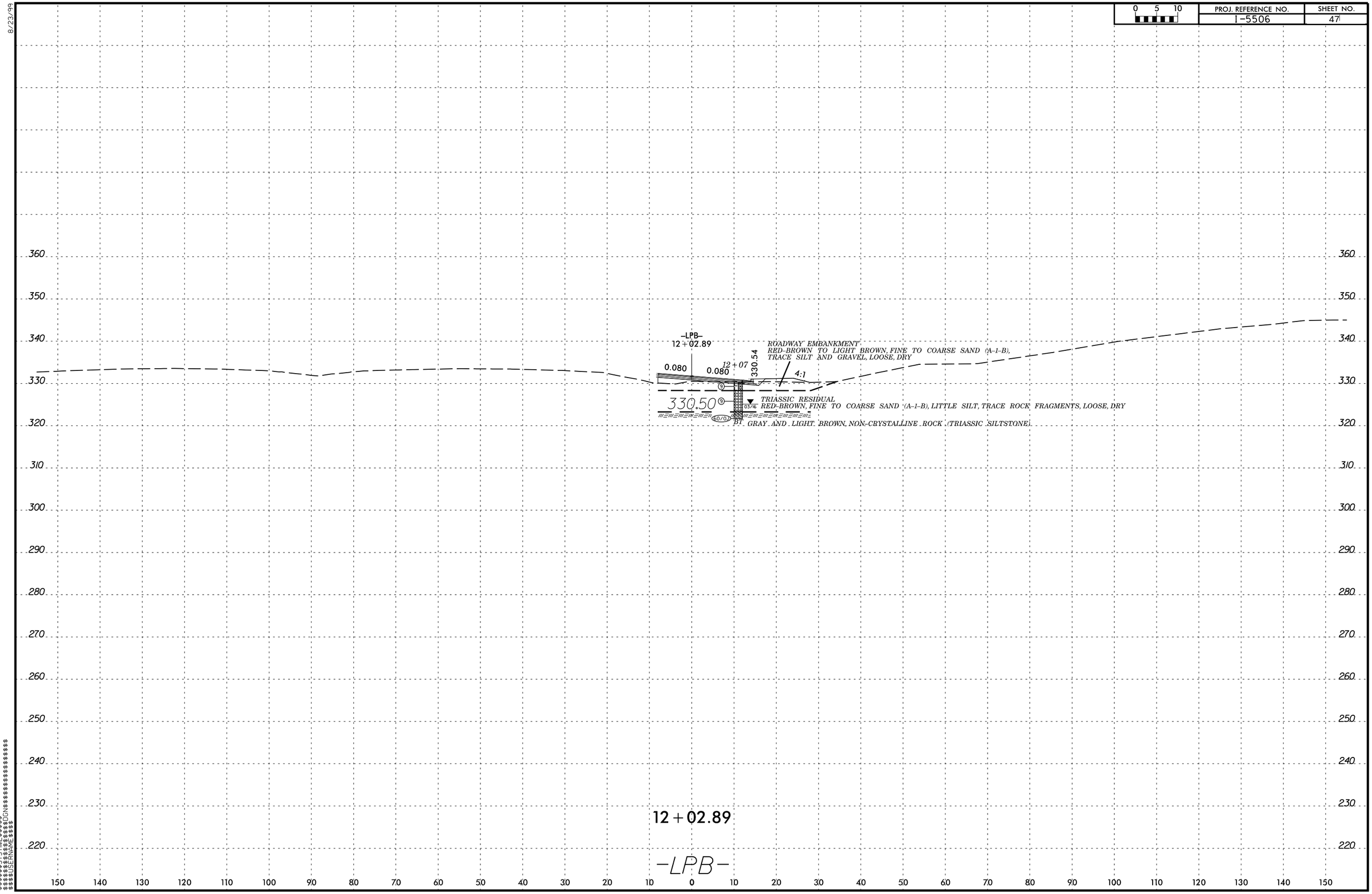
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	46



PLOT DRIVER: $PLTDRV$$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
TIME: $TIME$
PENTABLE: $PENTBLS$

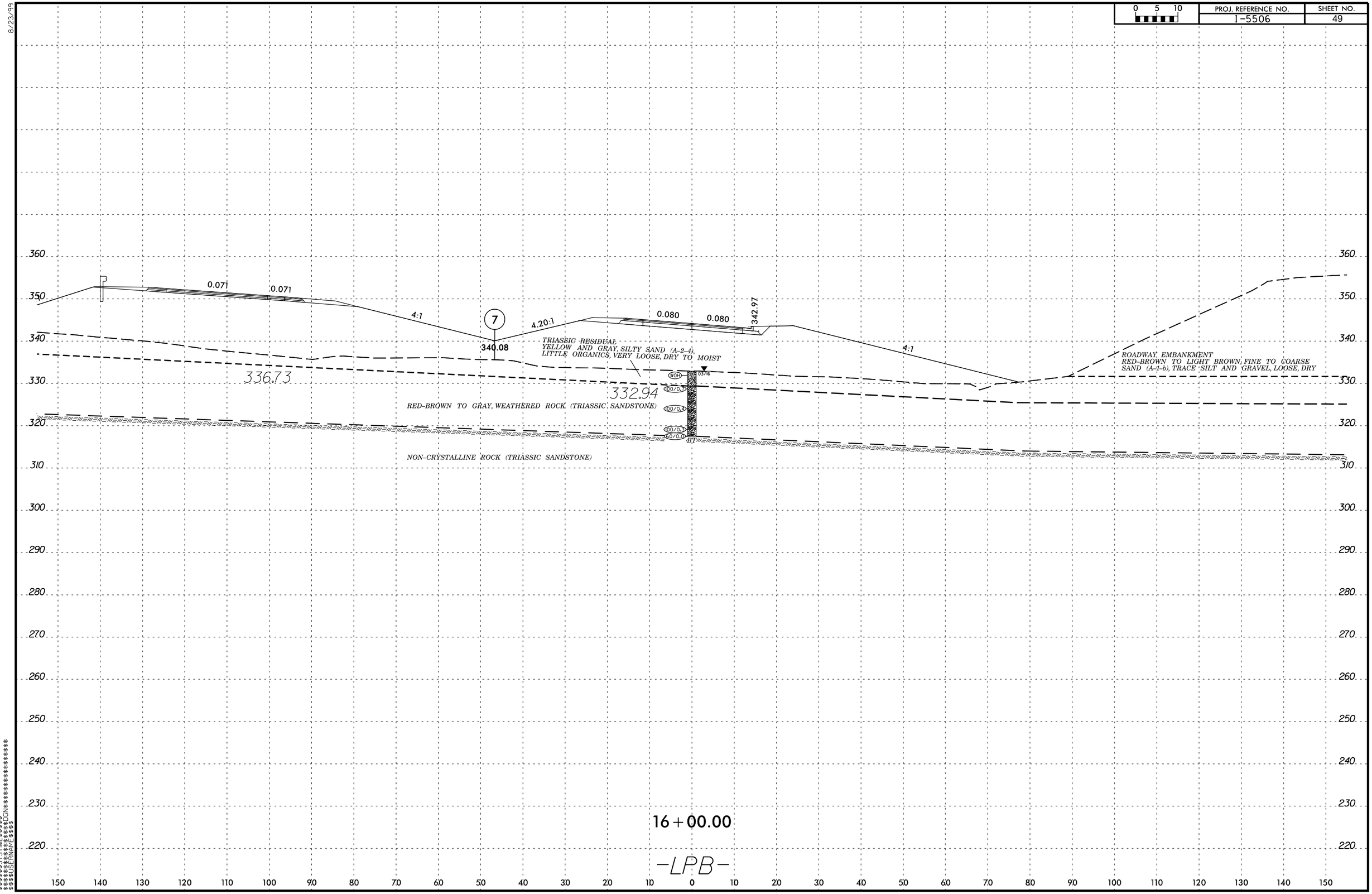
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	47



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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	48



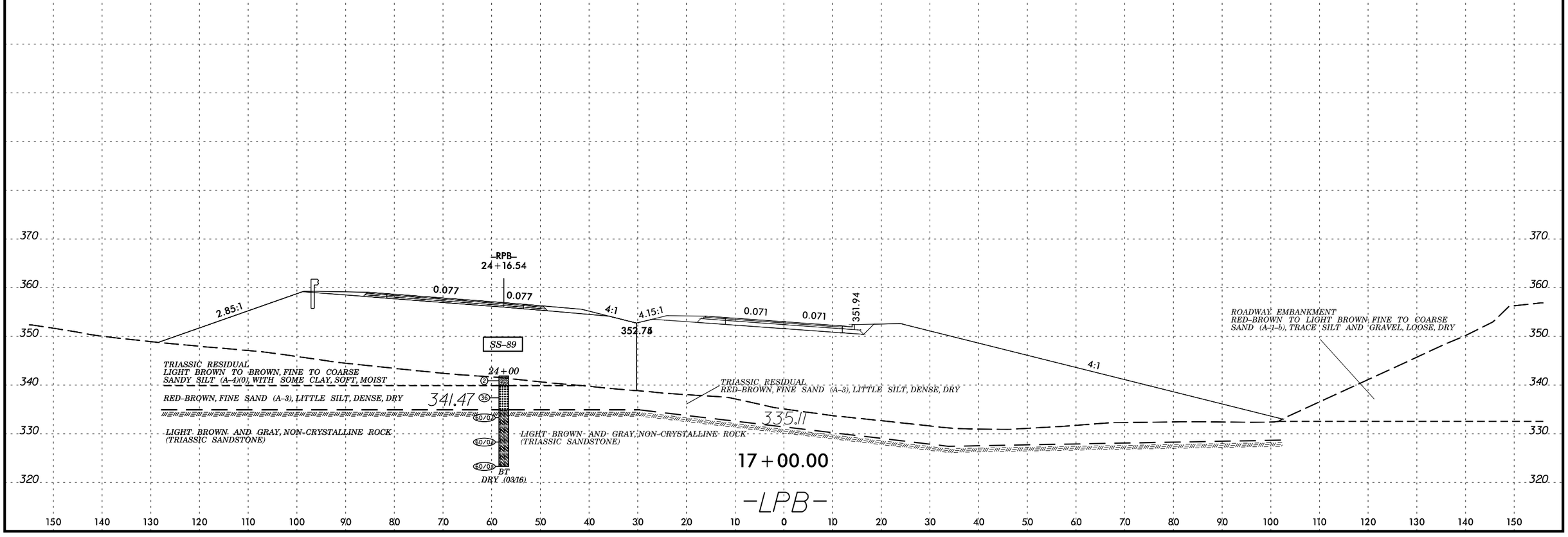
360
350
340
330
320
310
300
290
280
270
260
250
240
230
220
0.071
0.071
4:1
7
340.08
4.20:1
0.080
0.080
342.97
4:1
336.73
332.94
TRIASSIC RESIDUAL
YELLOW AND GRAY, SILTY SAND (A-2-4),
LITTLE ORGANICS, VERY LOOSE, DRY TO MOIST
WOH
03/16
100/0.7
100/0.4
100/0.3
60/0.0
BT
RED-BROWN TO GRAY, WEATHERED ROCK (TRIASSIC SANDSTONE)
NON-CRYSTALLINE ROCK (TRIASSIC SANDSTONE)
ROADWAY EMBANKMENT
RED-BROWN TO LIGHT BROWN, FINE TO COARSE
SAND (A-1-b), TRACE SILT AND GRAVEL, LOOSE, DRY
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

16 + 00.00

-LPB-

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	50



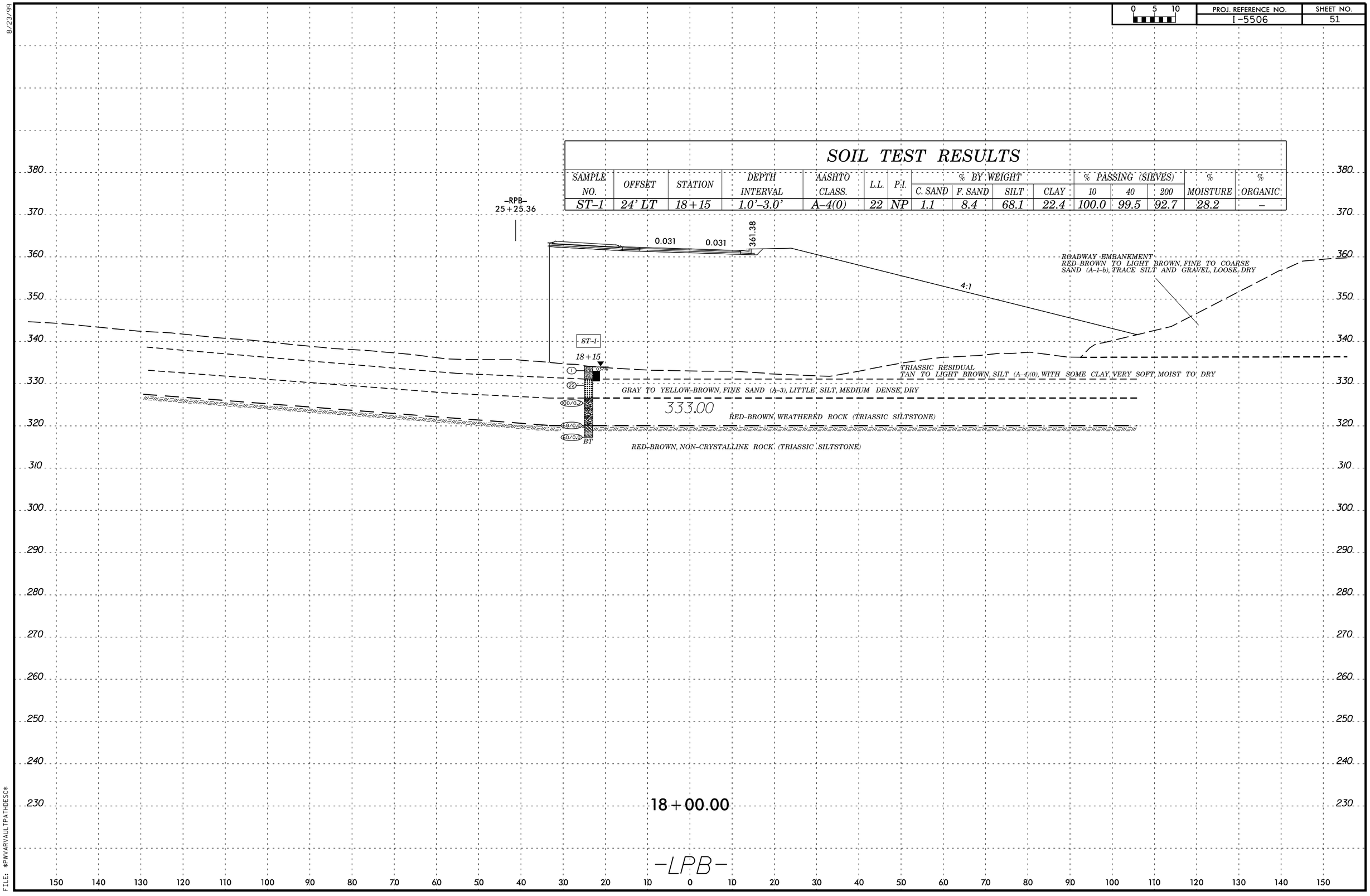
PLOT DRIVER: $PLTDRVS$ | USER: $USER$ | FILE: $PWVARVAULTPATHDESC$ | DATE: $DATE$ | TIME: $TIME$ | PENTABLE: $PENTBLS$

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	51

SOIL TEST RESULTS

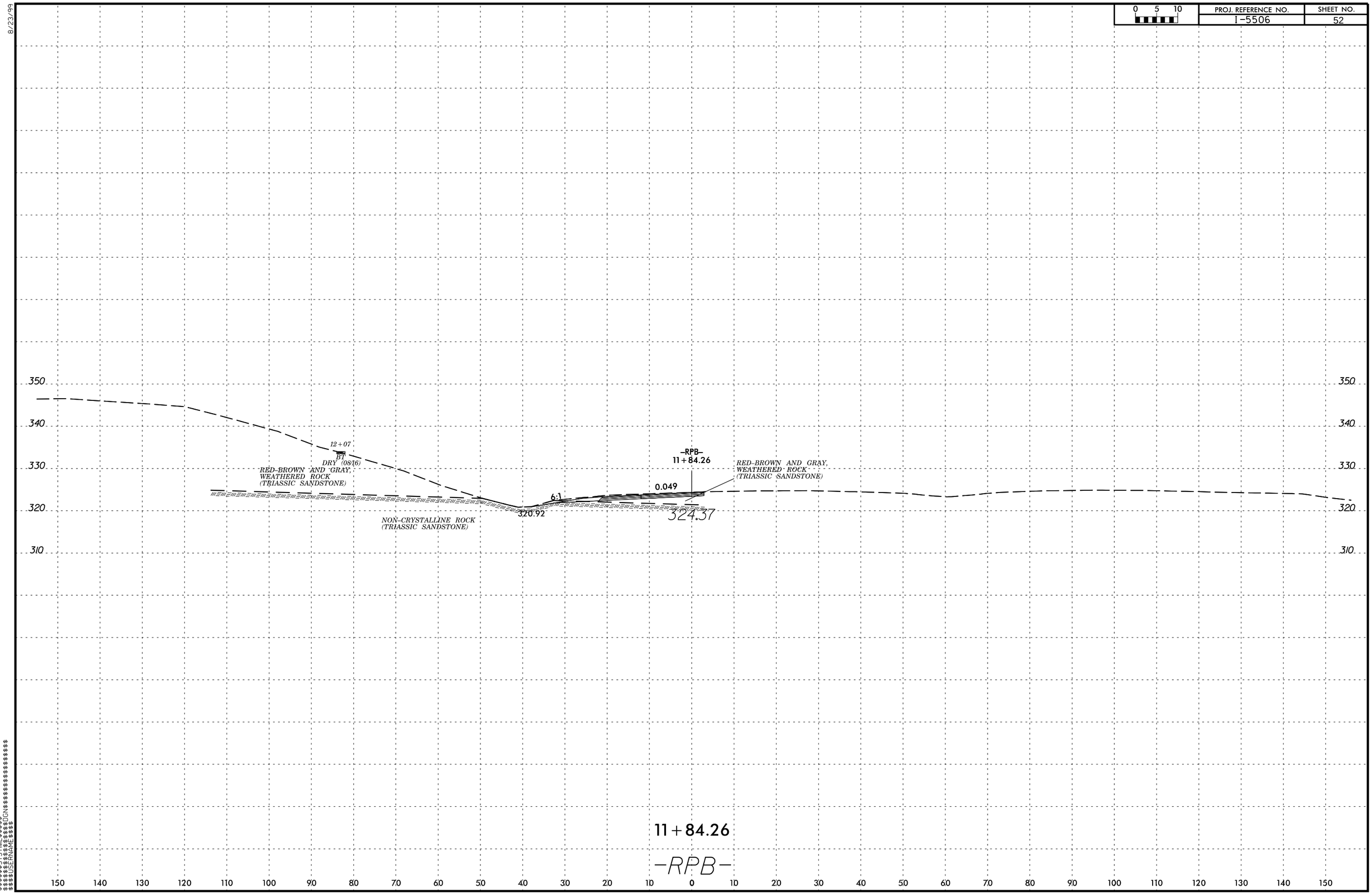
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
ST-1	24' LT	18+15	1.0'-3.0'	A-4(0)	22	NP	1.1	8.4	68.1	22.4	100.0	99.5	92.7	28.2	-



PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
PENTABLE: $PENTBLS$
TIME: $TIME$

8/23/99

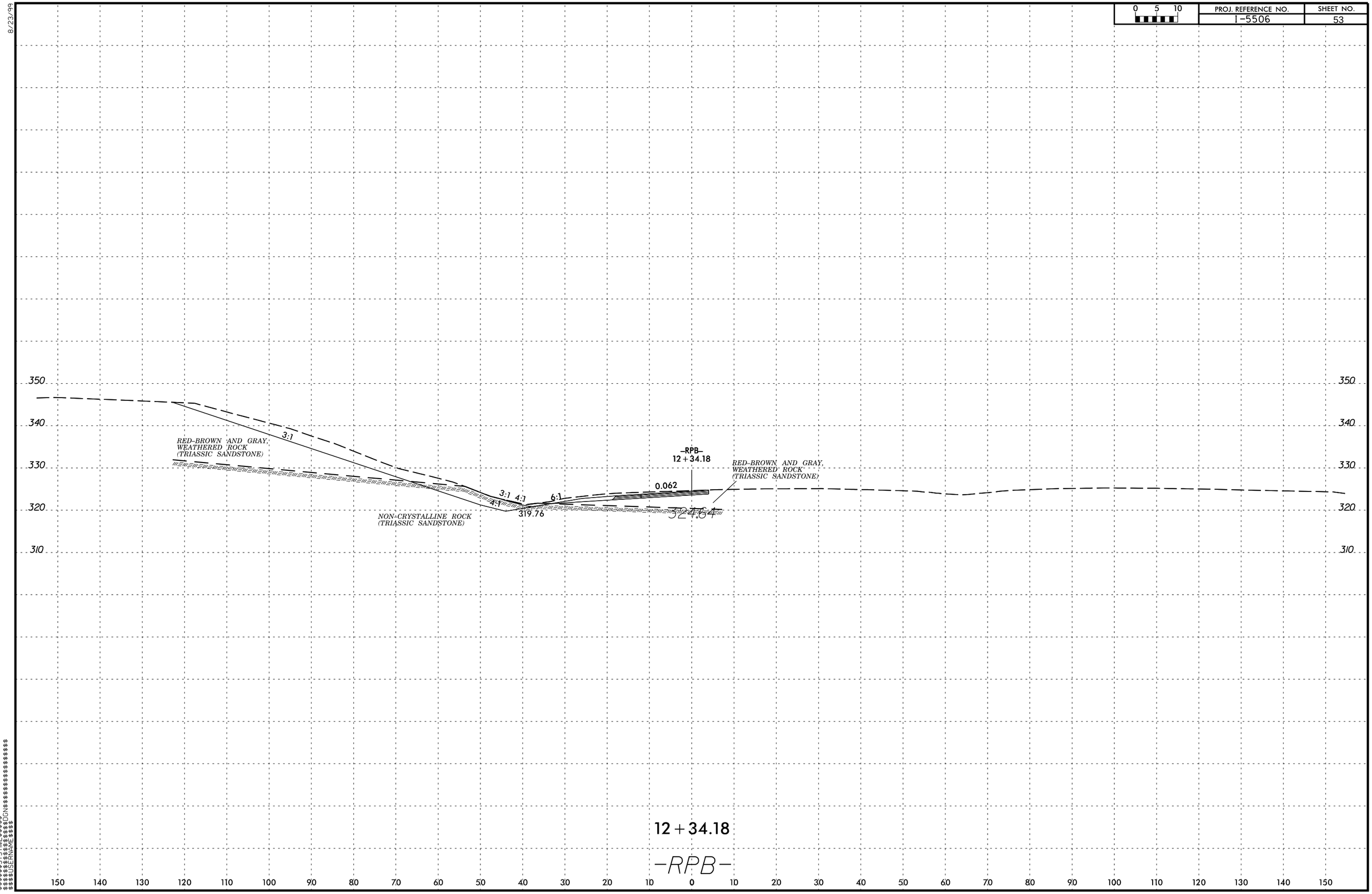
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	52



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

8/23/99

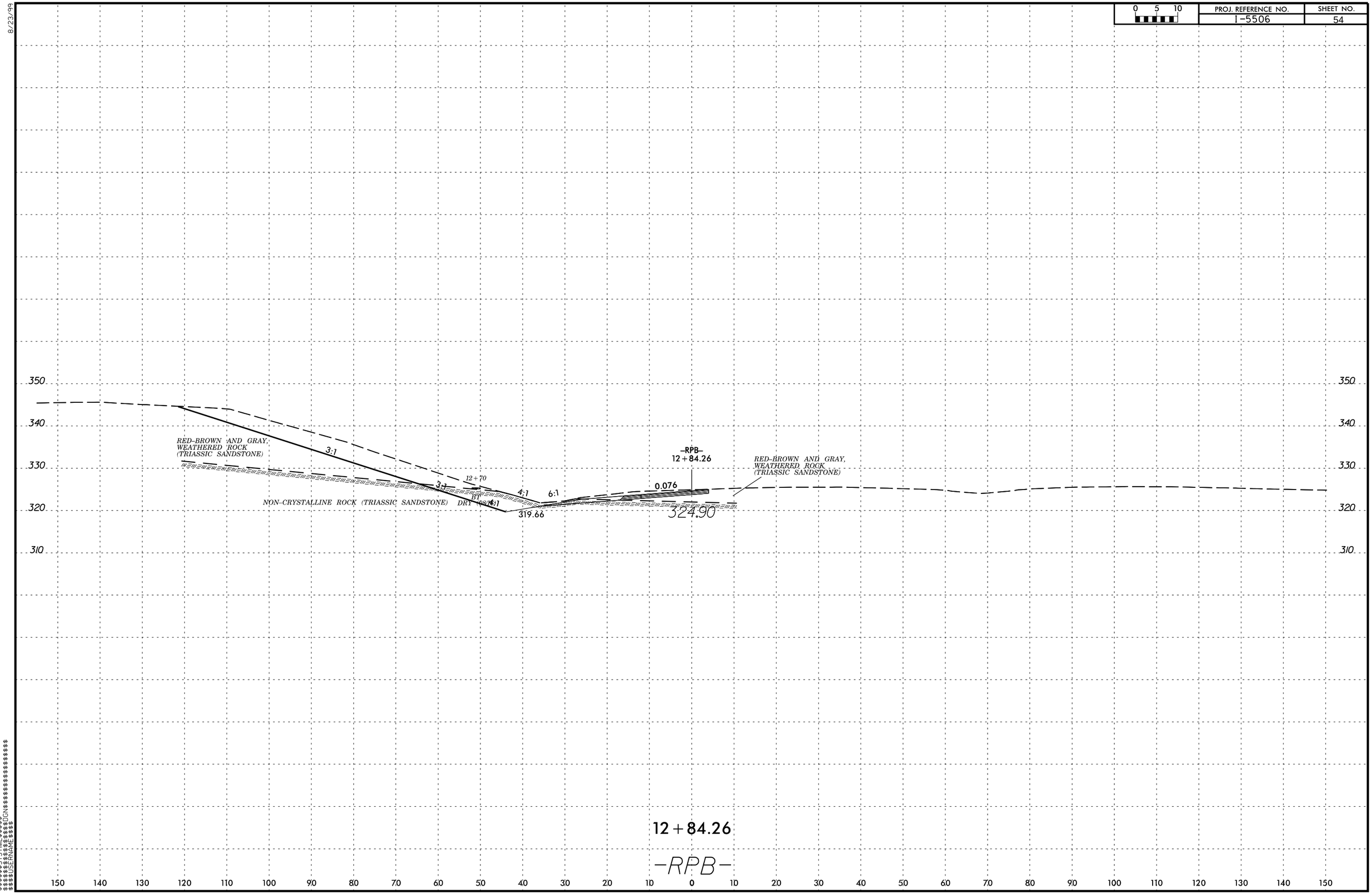
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	53



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

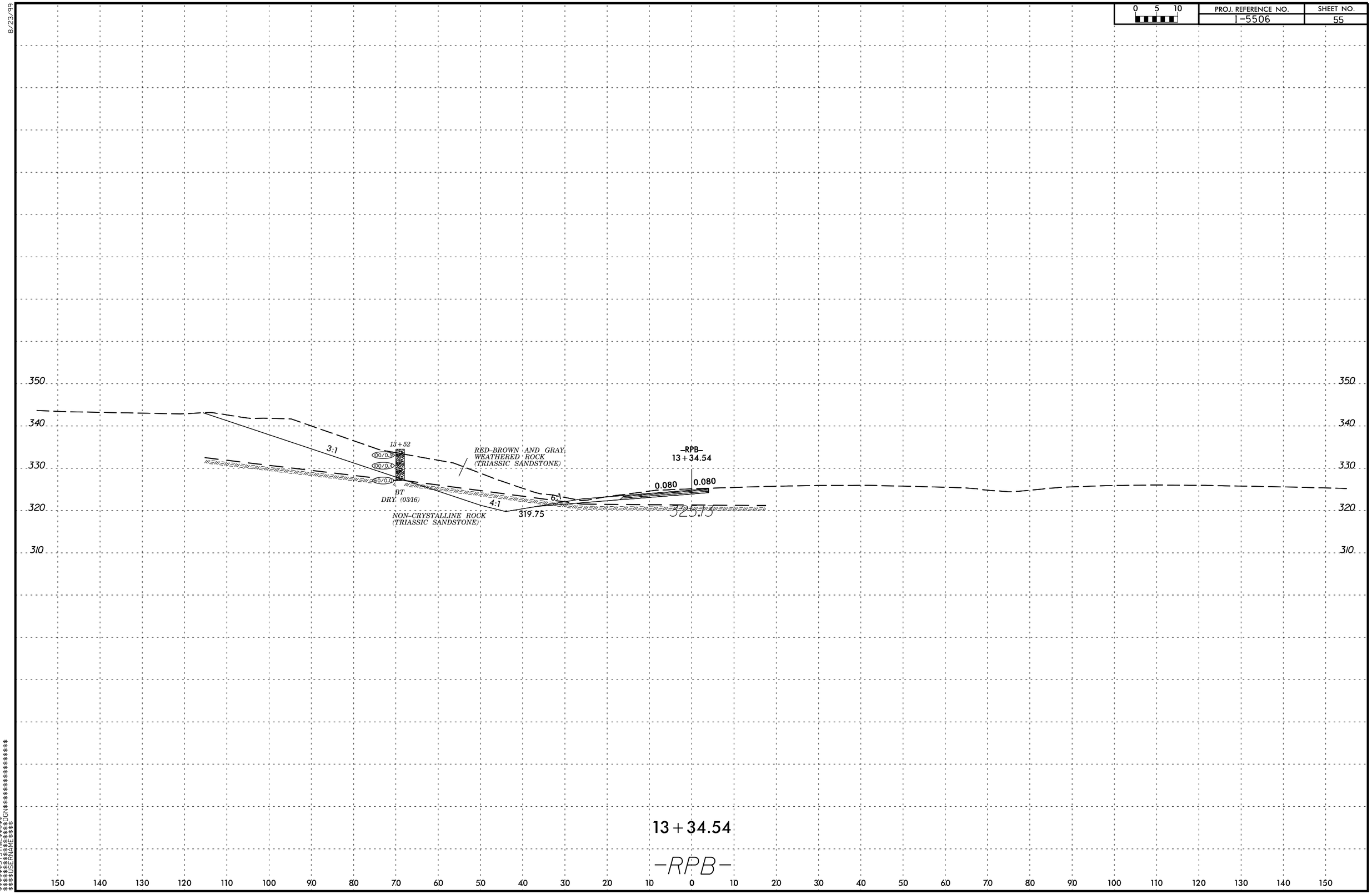
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	54



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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	55



13+34.54

-RPB-

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	56

13 + 85.15

–RPB–

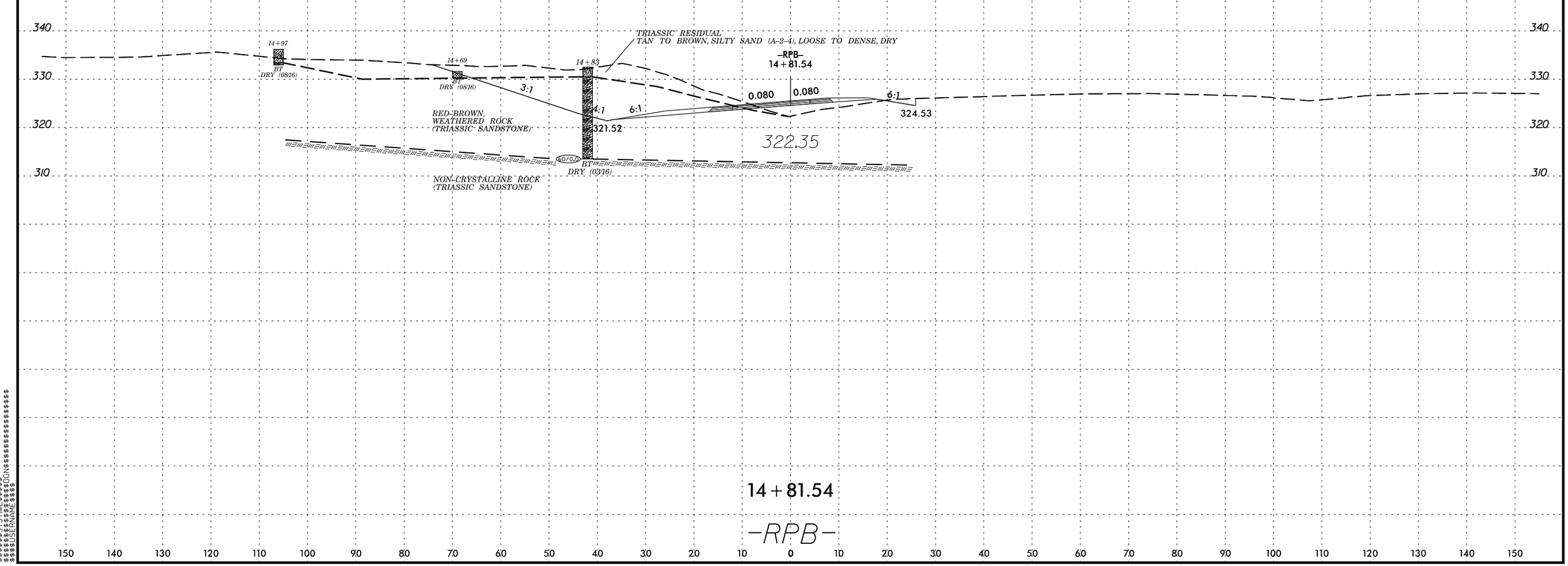
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	57

14+32.50

-RPB-

8/23/99

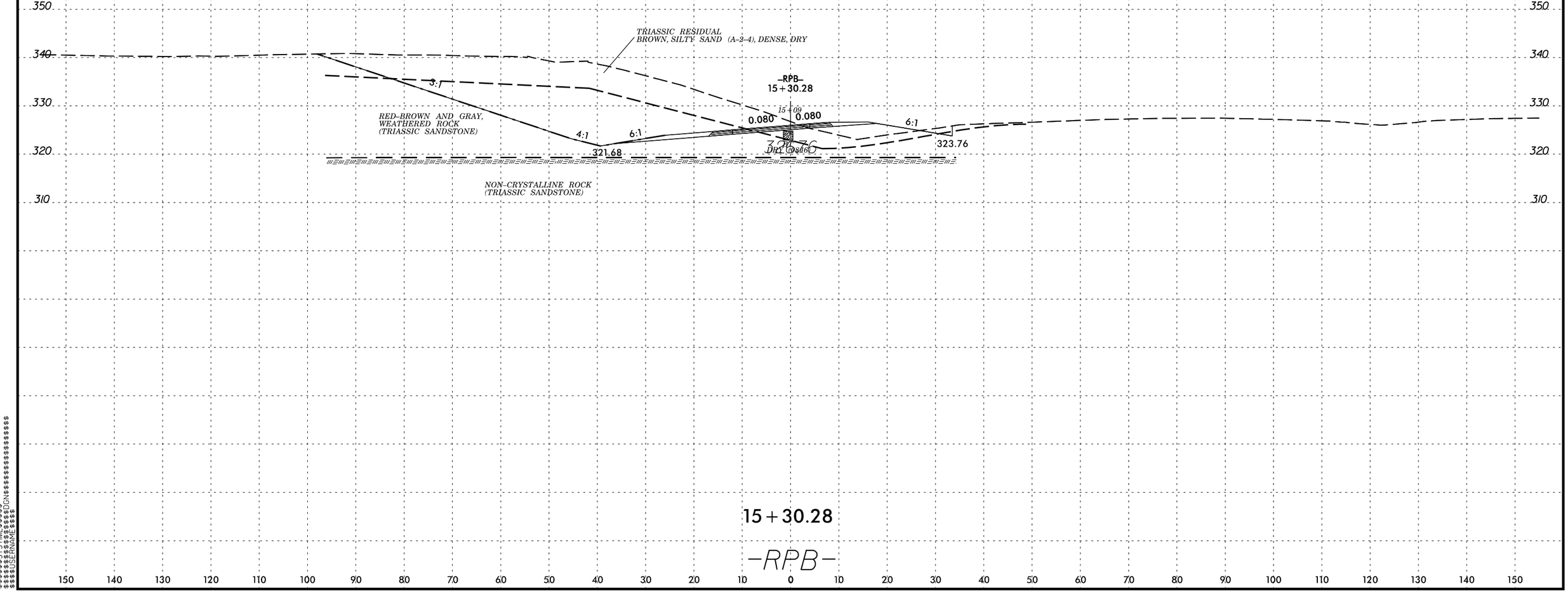
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	58



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

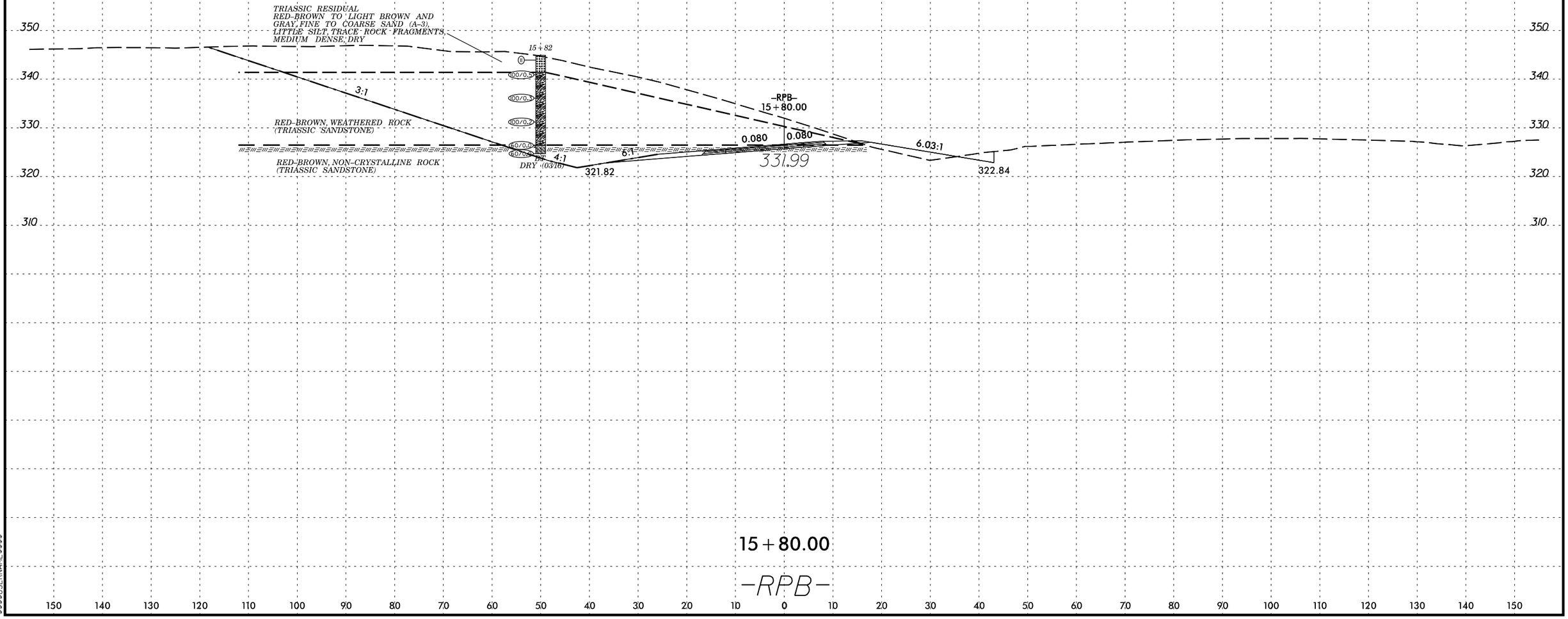
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	59



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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	60



15 + 80.00

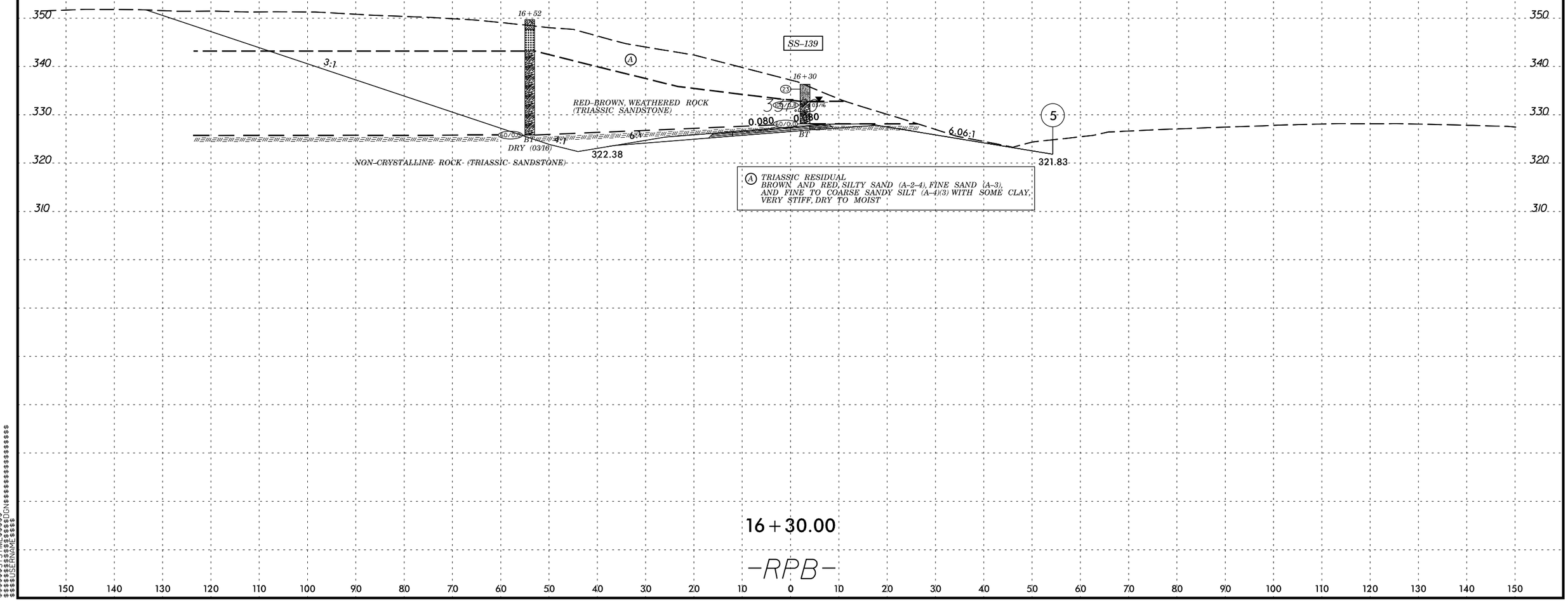
–RPB–

8/23/99

$$$$$SYSTIME$$$$
$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$
$$$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	200		
SS–139	2' RT	16+30	0'–1.5'	A–4(3)	27	6	8.3	16.1	53.1	22.5	95.8	91.3	74.7	14.5	–



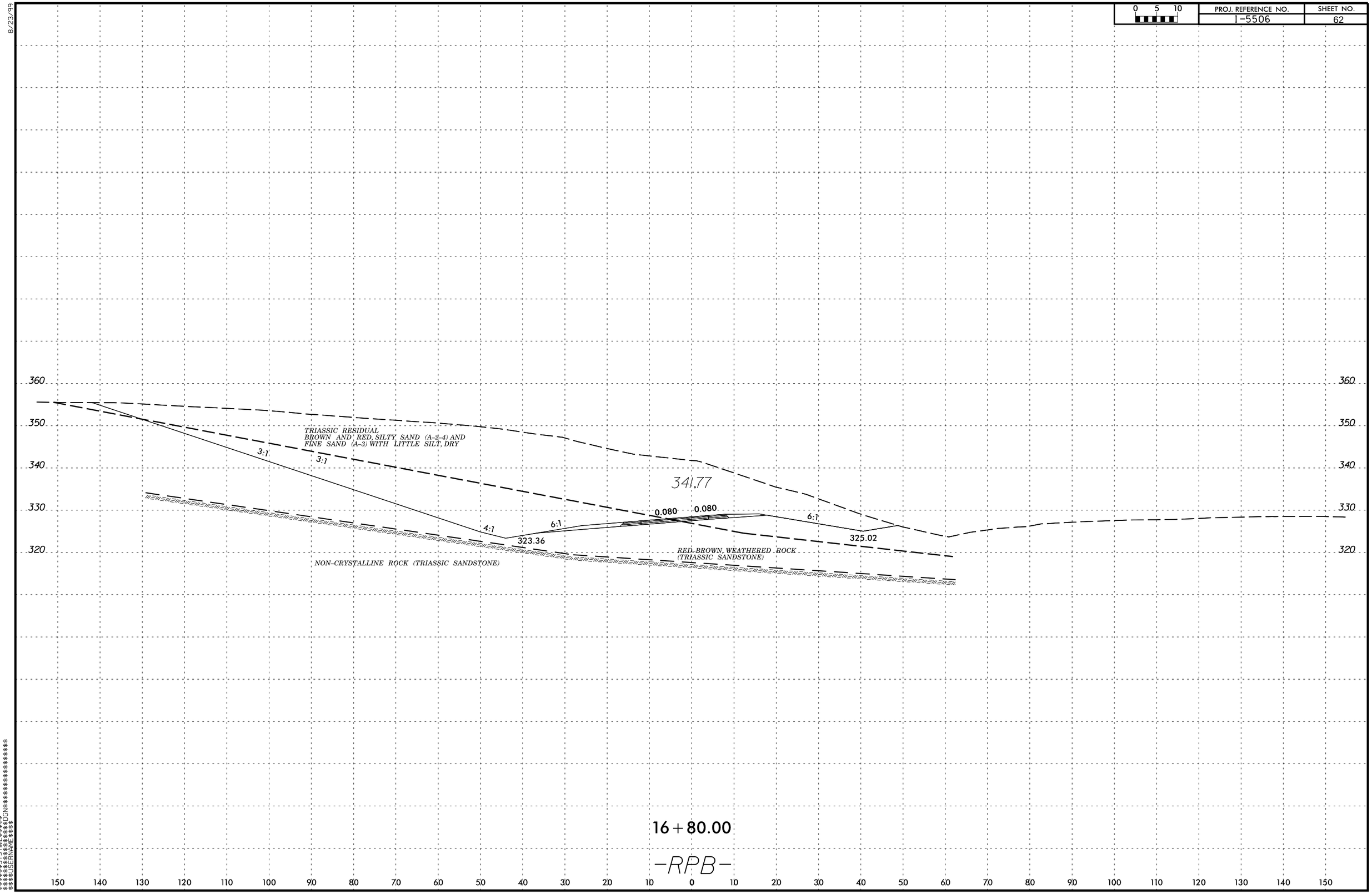
Ⓐ TRIASSIC RESIDUAL
BROWN AND RED, SILTY SAND (A–2–4), FINE SAND (A–3),
AND FINE TO COARSE SANDY SILT (A–4)(3) WITH SOME CLAY,
VERY STIFF, DRY TO MOIST

16+30.00

–RPB–

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	62

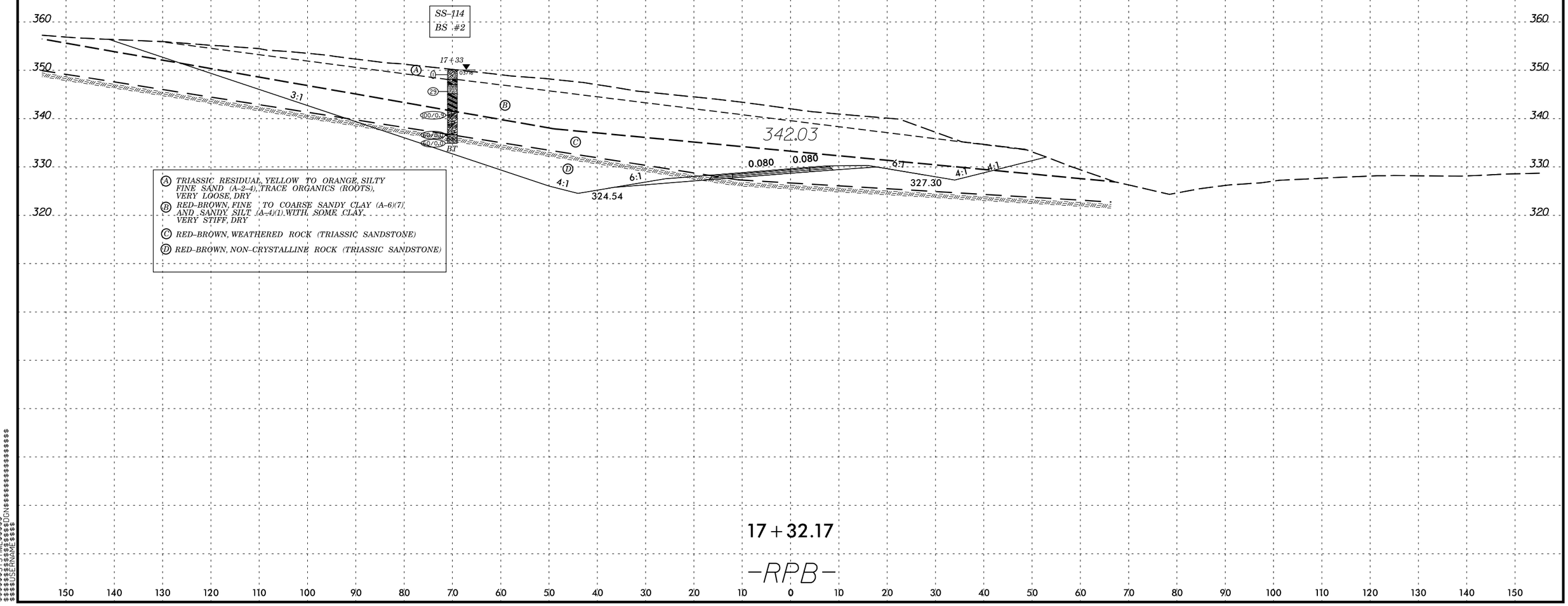


$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	63

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-114	70' LT	17+33	3.5'-5.0'	A-4(1)	27	5	21.9	17.0	37.9	23.2	89.0	75.2	56.7	10.9	–
BS #2	70' LT	17+33	2.0'-10.0'	A-6(7)	30	11	11.3	9.5	46.7	32.5	97.7	90.2	78.8	7.4	–



Ⓐ TRIASSIC RESIDUAL, YELLOW TO ORANGE, SILTY FINE SAND (A-2-4), TRACE ORGANICS (ROOTS), VERY LOOSE, DRY

Ⓑ RED-BROWN, FINE TO COARSE SANDY CLAY (A-6)(7) AND SANDY SILT (A-4)(1) WITH SOME CLAY, VERY STIFF, DRY

Ⓒ RED-BROWN, WEATHERED ROCK (TRIASSIC SANDSTONE)

Ⓓ RED-BROWN, NON-CRYSTALLINE ROCK (TRIASSIC SANDSTONE)

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	64

370
360
350
340
330
320

Ⓐ TRIASSIC RESIDUAL
YELLOW TO ORANGE, FINE SILTY SAND (A-2-4) AND FINE SAND (A-3), LITTLE ORGANICS (ROOTS), VERY LOOSE, DRY

RED-BROWN, WEATHERED ROCK
(TRIASSIC SANDSTONE)

3:1

17+75

Ⓐ

60/0.3

BT
DRY (03/16)

4:1

325.98

RED-BROWN TO TAN, NON-CRYSTALLINE ROCK
(TRIASSIC SANDSTONE)

17+83

339.84

3
54
60/0.3

Ⓐ

0.067
0.067

6:1

4:1
4:1

328.34

100/0.3
60/0.3
60/0.3

BT
DRY (03/16)

17+80.00

-RPB-

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

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	65

370
360
350
340
330
320

TRIASSIC RESIDUAL
RED-BROWN AND WHITE, FINE SAND (A-3),
LITTLE SILT, VERY LOOSE TO LOOSE, DRY

RED-BROWN, WEATHERED ROCK
(TRIASSIC SANDSTONE)

3:1
4:1
6:1
339.04
0.054
0.054
6:1
4:1
4:1
329.57
327.64

18+30.00

-RPB-

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

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

8/23/99

0 5 10

PROJ. REFERENCE NO.	SHEET NO.
I-5506	66

370
360
350
340
330
320

3:1
4:1
6:1
329.46
TRIASSIC RESIDUAL
BROWN, SILTY SAND (A-2-4), VERY LOOSE TO LOOSE, DRY TO MOIST
0.041
0.041
338.85
18+70
6:1
4:1
4:1
330.96
RED-BROWN, WEATHERED ROCK
(TRIASSIC- SANDSTONE)
50/0.0
BT
DRY (03/16)
NON-CRYSTALLINE ROCK (TRIASSIC SANDSTONE)

18+80.00

-RPB-

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

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	67

370
360
350
340
330
320

TRIASSIC RESIDUAL
BROWN, SILTY SAND (A-2-4), VERY LOOSE TO LOOSE, DRY TO MOIST

346.89

3:1
4:1
6:1
0.027
0.027
6:1
4:1
4:1
331.44
332.51

RED-BROWN, WEATHERED ROCK
(TRIASSIC SANDSTONE)

NON-CRYSTALLINE ROCK (TRIASSIC SANDSTONE)

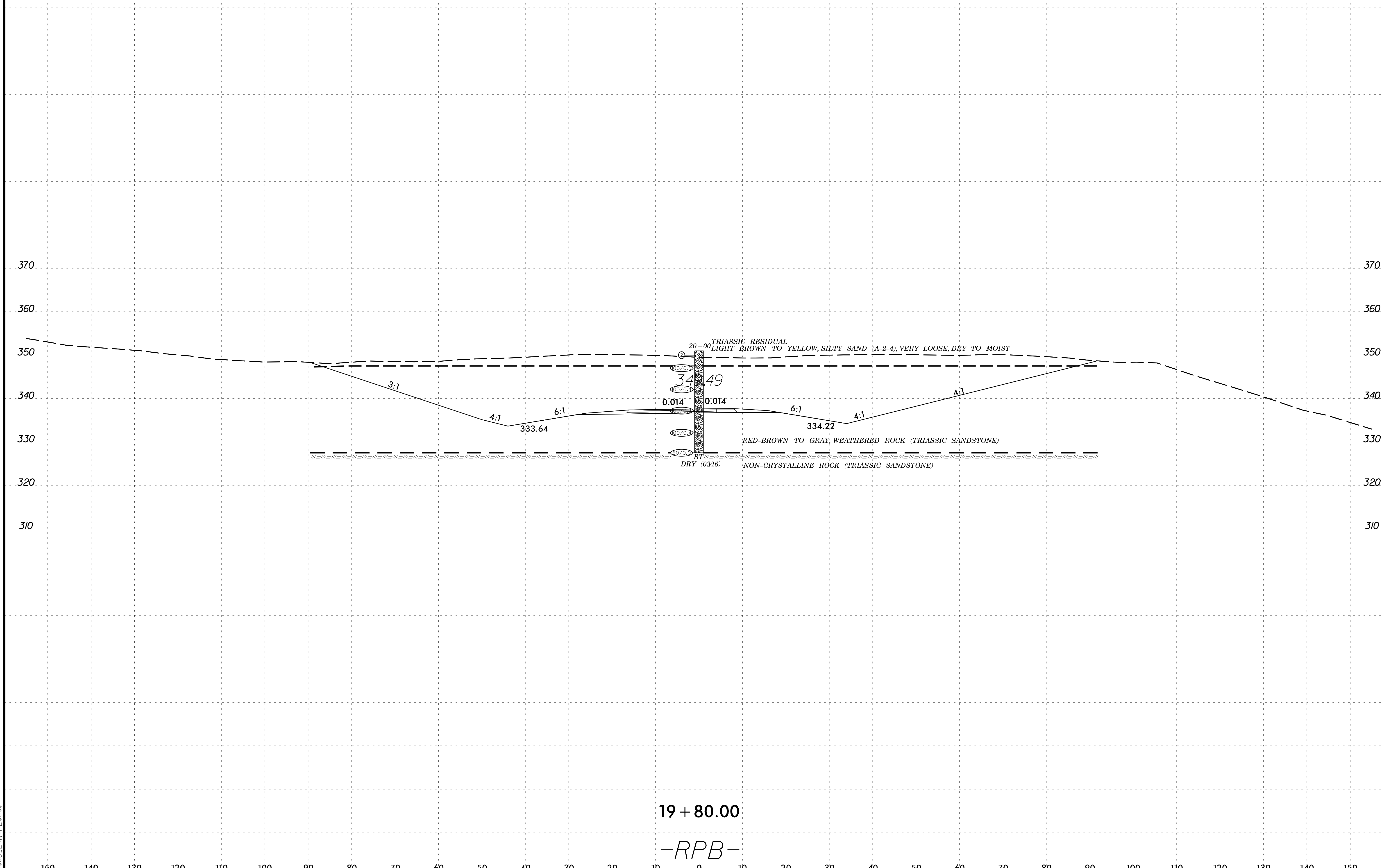
19+30.00

-RPB-

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

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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	68

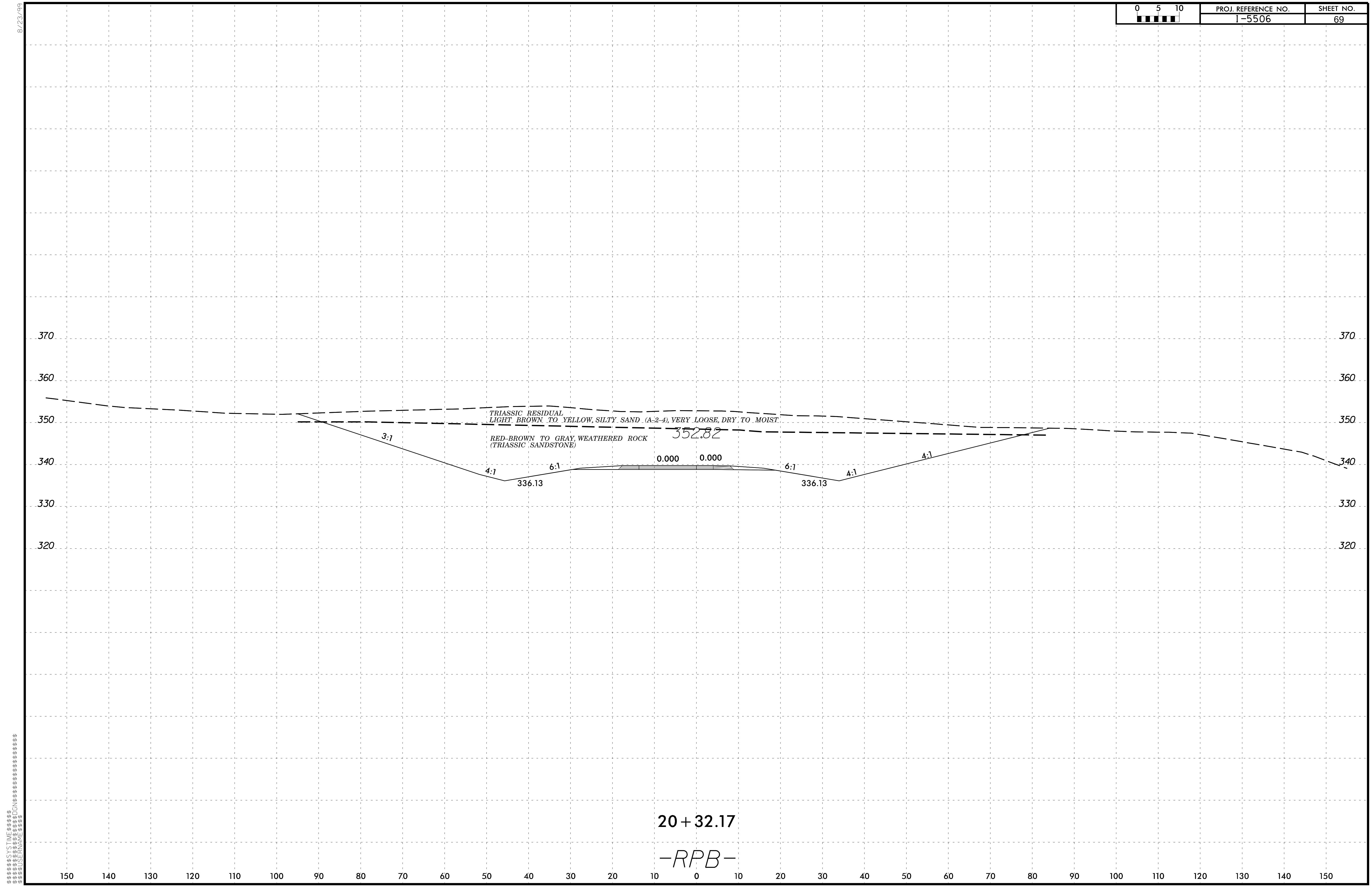


370
360
350
340
330
320
310
20+00
TRIASSIC RESIDUAL
LIGHT BROWN TO YELLOW, SILTY SAND (A-2-4), VERY LOOSE, DRY TO MOIST
100/0.5
349.49
100/0.4
0.014
0.014
100/0.3
100/0.4
60/0.0
BT
DRY (03/16)
3:1
4:1
6:1
333.64
6:1
4:1
334.22
4:1
RED-BROWN TO GRAY, WEATHERED ROCK (TRIASSIC SANDSTONE)
NON-CRYSTALLINE ROCK (TRIASSIC SANDSTONE)
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

19+80.00

-RPB-

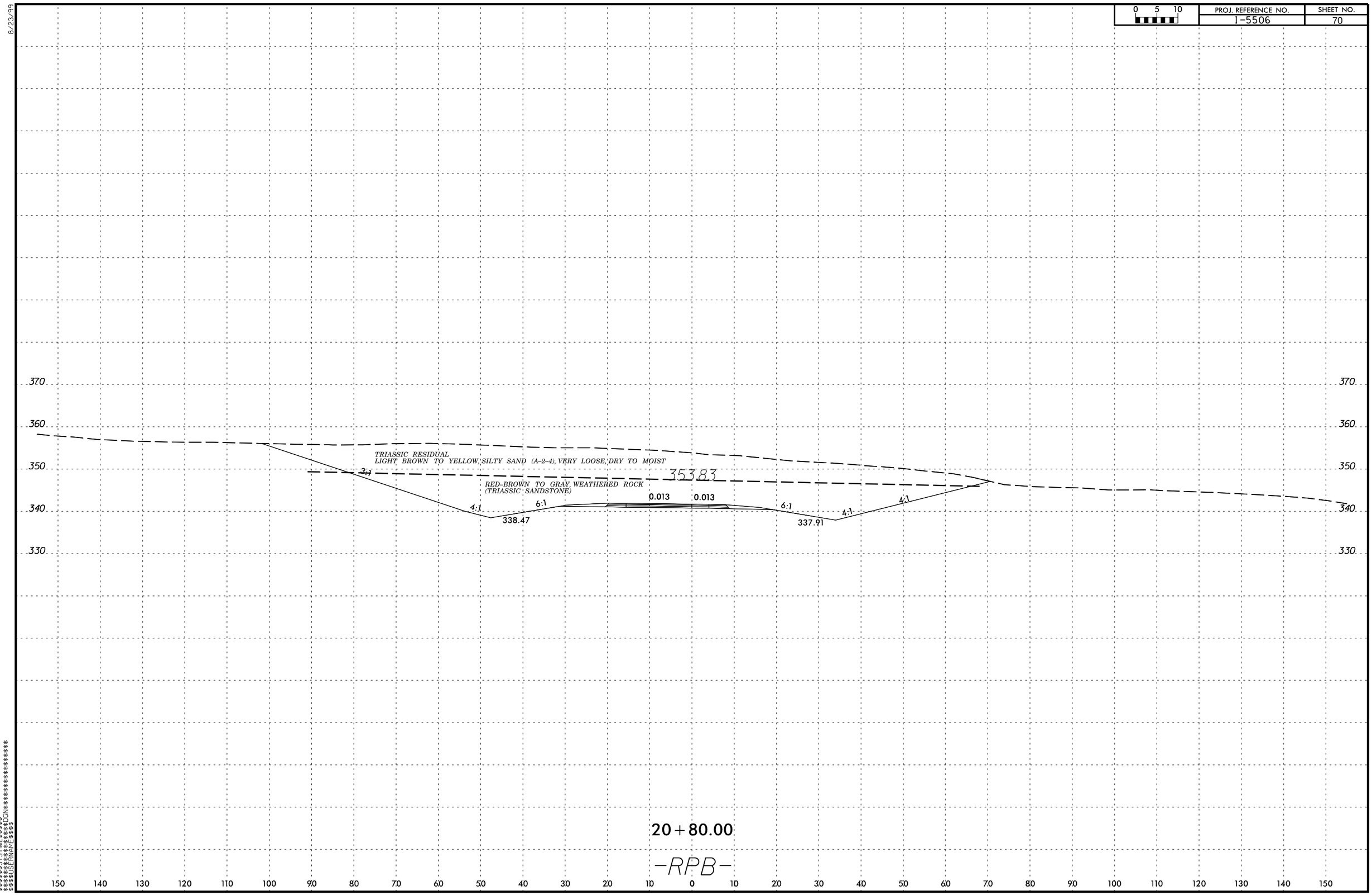
8/23/99



0 5 10
PROJ. REFERENCE NO.
I-5506
SHEET NO.
69
8/23/99
370
360
350
340
330
320
TRIASSIC RESIDUAL
LIGHT BROWN TO YELLOW, SILTY SAND (A-2-4), VERY LOOSE, DRY TO MOIST
352.82
RED-BROWN TO GRAY, WEATHERED ROCK
(TRIASSIC SANDSTONE)
3:1
4:1
6:1
0.000
0.000
6:1
4:1
4:1
336.13
336.13
20+32.17
-RPB-
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$USERNAME$$$$

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
I-5506	70



20+80.00

-RPB-

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

8/23/99

0 5 10

PROJ. REFERENCE NO.	SHEET NO.
I-5506	71

370
360
350
340
330

TRIASSIC RESIDUAL
LIGHT BROWN TO YELLOW, SILTY SAND (A-2-4), VERY LOOSE, DRY TO MOIST

3:1
4:1
6:1
341.98
352.37
0.031
0.031
RED-BROWN TO GRAY, WEATHERED ROCK
(TRIASSIC SANDSTONE)
6:1
340.63
4:1
4:1

21+50.00

-RPB-

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

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

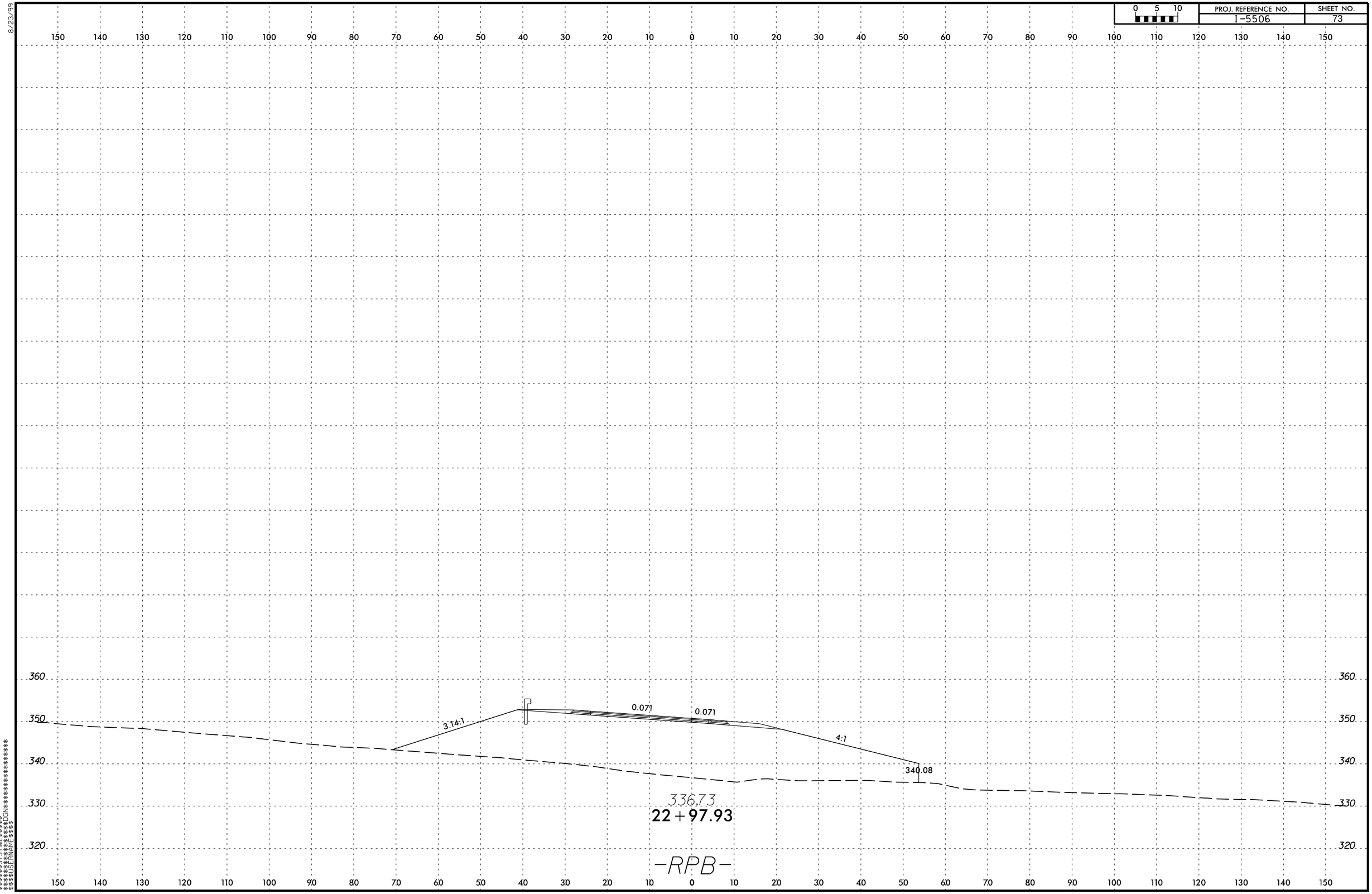
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	72

22+20.00

–RPB–

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
I-5506	73

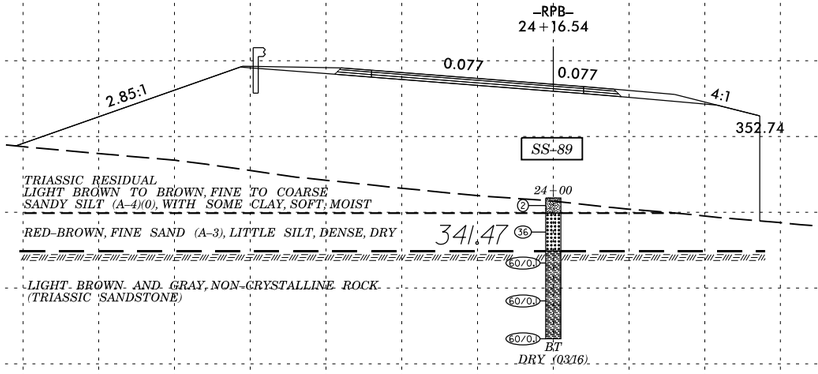


8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	74

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-89	CL	24+00	0'-1.5'	A-4(0)	21	NP	20.2	16.3	44.0	19.5	79.5	67.6	52.7	18.3	–



24+16.54

–RPB–

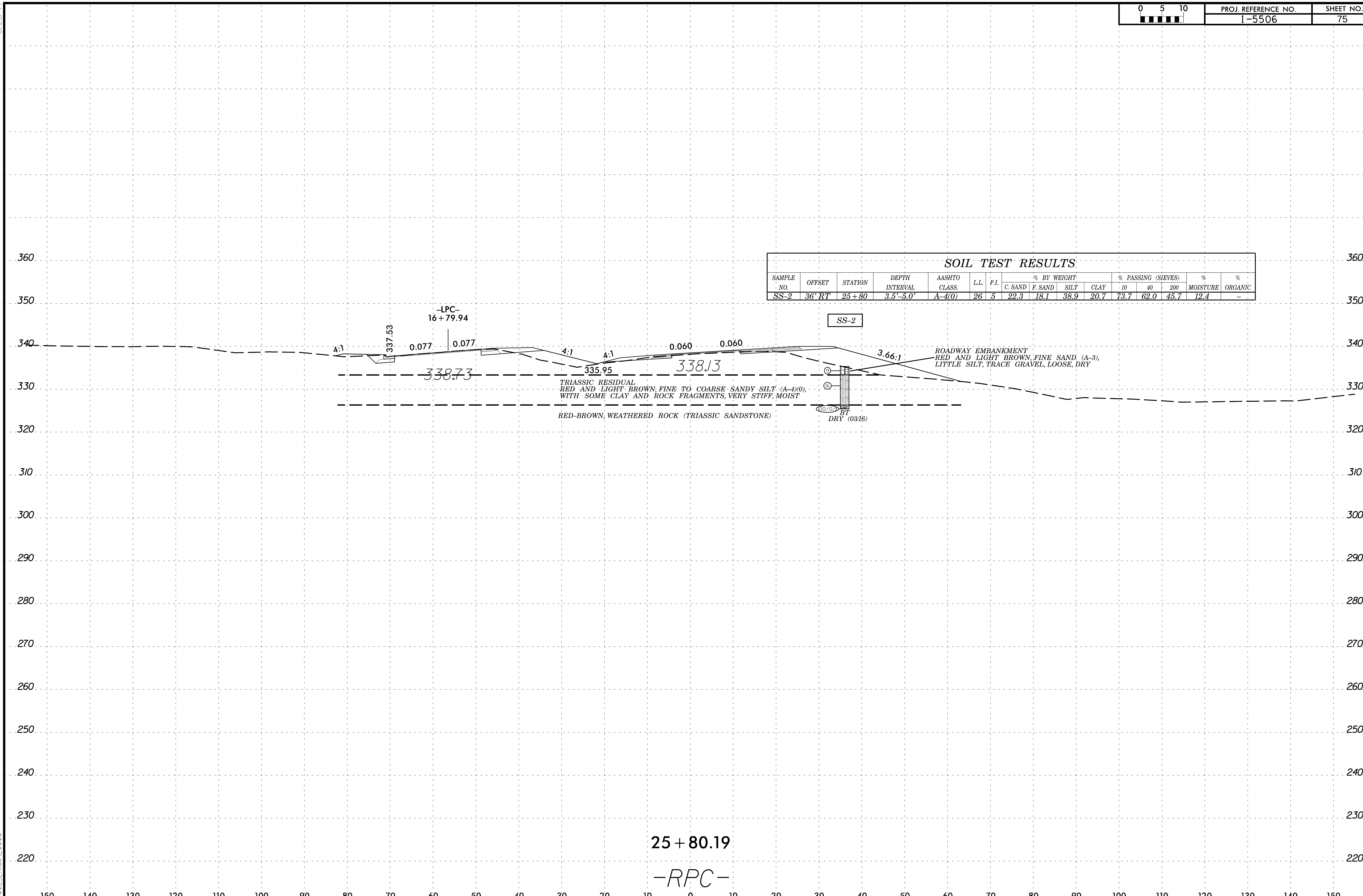
380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230

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

PLOT DRIVER: $PLTDRVS$
USER: $USER$
FILE: $PWVARVAULTPATHDESC$
DATE: $DATE$
PENTABLE: $PENTBLS$
TIME: $TIME$

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-2	36' RT	25+80	3.5'-5.0'	A-4(0)	26	5	22.3	18.1	38.9	20.7	73.7	62.0	45.7	12.4	-

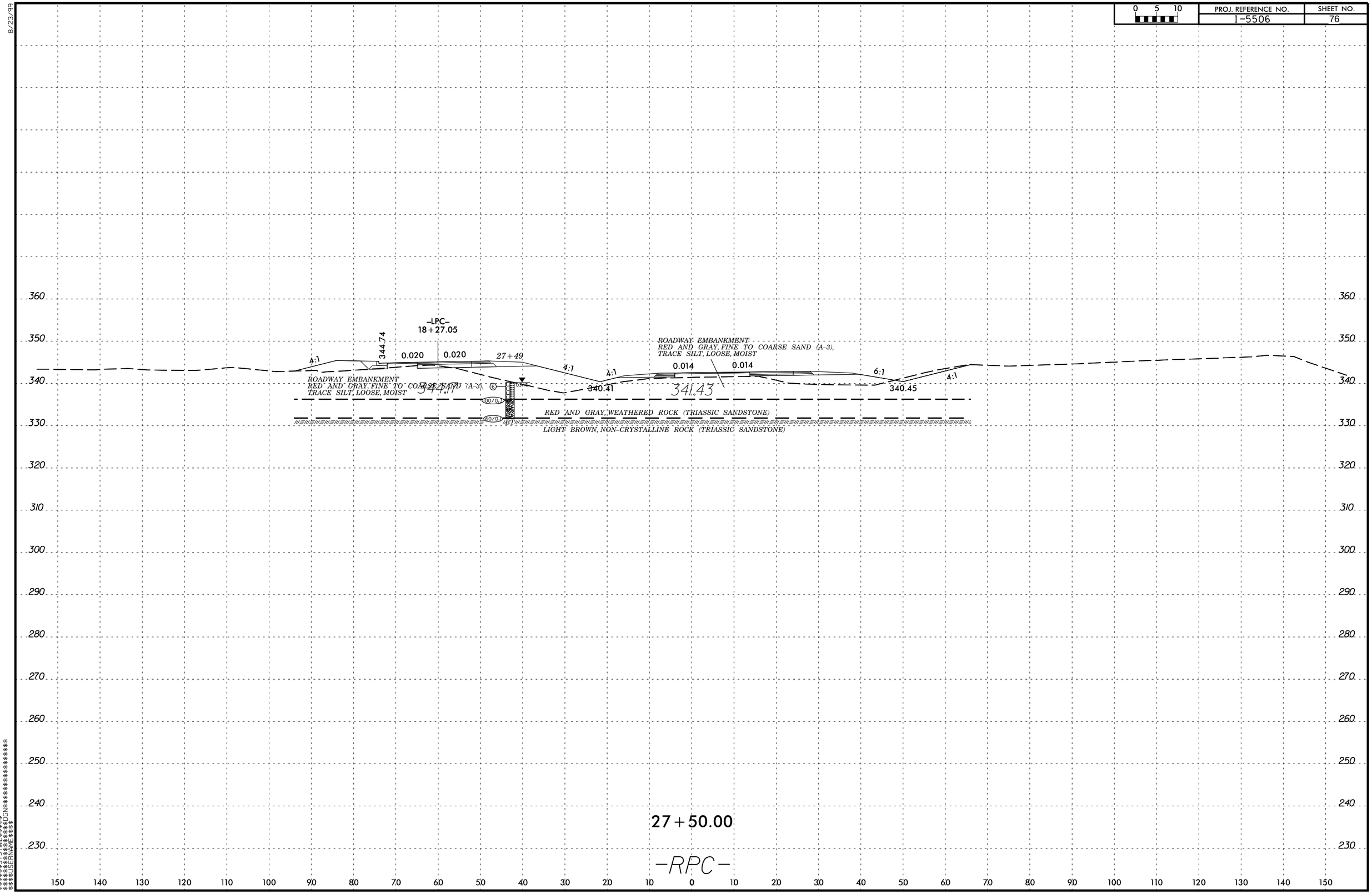


25+80.19

-RPC-

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-5506	76



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