

PROJECT: 6.678019T R-2248C

CONTENTS: AS SHOW ON PAGE 3

LINE	STATION	SHEET NUMBERS	
		PLAN	PROFILE & SECTS.
-L-	221+00 - 295+37.33	4-24	30-42
-YREV-	10+00 - 16+42.98	6,7,25	43
-YREVB-	10+00 - 14+30.26	6,7	44
-YREVA-	10+03 - 11+26.84	6,7	45
-YI-	10+00 - 11+60	14	45
-Y2-	12+60 - 18+00	15	45-46
-Y3REV-	10+00 - 17+17.99	23	47-48
RAMP E	0+00 - 4+60	4-5	49
RAMP F	0+00 - 4+57	4-5	50-51
LOOP A	0+00 - 4+50.62	15	52
LOOP C	0+00 - 4+45.88	15	53
Y2 RPA	0+00 - 6+81.751	15-16	54
Y2 RPB	0+00 - 5+42.361	14-15	55
Y2 RPC	0+00 - 6+92.65	14-15	56-57
Y2 RPD	0+00 - 5+24.067	15-16	58-59
Y3 RPA	0+00 - 4+49.62	23	60
Y3 RPB	0+00 - 5+66.432	23	61
Y3 RPC	0+00 - 5+60	23	62
Y3 RPD	0+00 - 4+69.92	23	63

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

SUBSURFACE INVESTIGATION

LOCATION: NORTH CHARLOTTE OUTER LOOP
FROM NORTH OF NC 27
TO NORTHEAST OF SR 2042 (OAKDALE RD.)
COUNTY: MECKLENBURG

INVENTORY ***

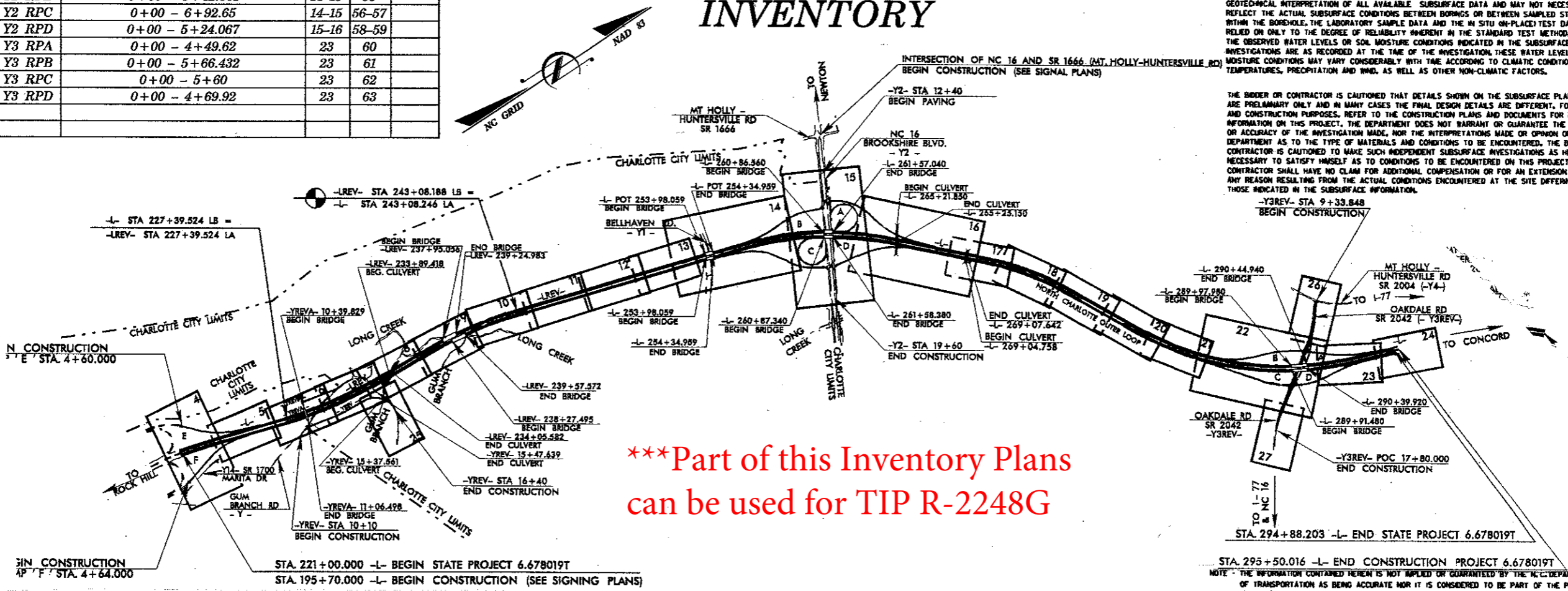
<p>ALL DIMENSIONS IN THESE PLANS ARE IN METERS</p>	STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
	N.C.	R-2248C	1	63
	STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
	8.U672212	NHF-117-1(45)	PE, RW- SPECIAL PARCELS	
6.678010T		RW-SPEC. PARCELS		
6.678006B		RW, UTIL.		
6.678019T		CONSTRUCTION		

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WAS 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 UNIT @ (919) 250-4086. NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA IS 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 BORINGHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU ON-PLACED TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INDICATED 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 THIS 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.

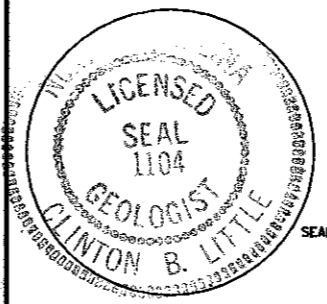


***Part of this Inventory Plans can be used for TIP R-2248G

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IS IT CONSIDERED TO BE PART OF THE PLANS, SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.

NOTE - 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.

DRAWN BY: J.E. BEVERLY



[Signature]
SIGNATURE

INVESTIGATED BY J.E. BEVERLY PERSONNEL J.K. STICKNEY
 CHECKED BY C.B. LITTLE C.L. SMITH
 SUBMITTED BY C.B. LITTLE C.E. BURRIS
 DATE JANUARY 2001

DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION			GRADATION			TERMS AND DEFINITIONS			ABBREVIATIONS											
SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED, SEMI-CONSOLIDATED OR WEATHERED EARTH MATERIALS WHICH CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER, AND WHICH YIELDS LESS THAN 100 BLOWS ACCORDING TO STANDARD PENETRATION TEST (ASTM D-1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM AND BASIC DESCRIPTIONS GENERALLY SHALL INCLUDE: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION AND OTHER PERTINENT FACTORS, SUCH AS: MINERALOGICAL COMPOSITION, ANGULARITY STRUCTURE, PLASTICITY, ETC. EXAMPLE: VERY STIFF, GRAY SILTY CLAY, MOST WITH INTERBEDDED FINE SAND LAYERS, HIGH PLASTIC, A7-6.			WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORM - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. (ALSO POORLY GRADED) GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLES OF TWO OR MORE SIZES.			ALLUVIUM (ALLUV.) - SOILS WHICH HAVE BEEN TRANSPORTED BY WATER. APPARENT DIP - THE DIP OF ROCK STRATA NOT PERPENDICULAR TO STRIKE. AQUIFER - A WATER BEARING FORMATION OR STRATA. AUGER REFUSAL (A.R.) - POINT AT WHICH POWER AUGERS WILL NOT PENETRATE. BEDDED - SOIL OR ROCK LYING IN A POSITION ESSENTIALLY PARALLEL. BEDROCK - ROCK OF RELATIVELY GREAT THICKNESS AND EXTENT IN ITS ORIGINAL LOCATION. CALcareous (CALC.) - SOILS WHICH CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COHESIVE SOIL - A SOIL THAT WHEN UNCONFINED HAS CONSIDERABLE DRY STRENGTH AND SIGNIFICANT COHESION WHEN SUBMERGED. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. CORE RECOVERY (% REC.) - TOTAL LENGTH OF ALL ROCK DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. COQUINA - A ROCK TYPE COMPOSED ESSENTIALLY OF MARINE SHELLS CEMENTED BY CALCIUM CARBONATE. DIKE - IGNEOUS ROCK INTRUSION WHICH IS NARROW COMPARED WITH ITS OTHER DIMENSIONS. DIP - THE ANGLE BETWEEN A BEDDING PLANE, JOINT PLANE OR FAULT PLANE AND THE HORIZONTAL, MEASURED PERPENDICULAR TO THE STRIKE. DUMPS - UNCOVERED DEPOSITS OF WASTE MATERIAL SUCH AS WOOD, MASONRY DEBRIS OR GARBAGE. FAULT - A BREAK IN THE CONTINUITY OF A BODY OF ROCK, ATTENDED BY A MOVEMENT ON EITHER OR BOTH SIDES OF THE BREAK. FINES - PORTIONS OF A SOIL FINER THAN NO. 200 U.S. STANDARD SIEVE. FISSILITY OR FISSILE - A PROPERTY OF SPLITTING EASILY ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLOGGED FROM PARENT MATERIAL. FLOODPLAIN - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION - A MAPPABLE UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. FRACTURE - A CRACK LARGE ENOUGH TO BE VISIBLE TO THE UNAIDED EYE. FRIABLE - EASY TO BREAK OR CRUMBLE. GRANULAR MATERIAL - SOIL THAT WHEN UNCONFINED HAS LITTLE OR NO DRY STRENGTH AND HAS LITTLE OR NO COHESION WHEN SUBMERGED. GROUNDWATER (G.W.) - WATER THAT IS FREE TO MOVE THROUGH SOIL MASS UNDER THE INFLUENCE OF GRAVITY. GROUNDWATER LEVEL - LEVEL OF WATER WITH RESPECT TO EXISTING GROUND SURFACE. HARDPAN - A GENERAL TERM USED TO DESCRIBE A HARD CEMENTED SOIL LAYER WHICH DOES NOT SOFTEN WHEN WET. INDURATED - EARTH MATERIAL HARDENED BY HEAT, PRESSURE OR CEMENTATION. INTERBEDDED - ALTERNATING LENSES OR LAYERS OF SOIL AND/OR ROCK MATERIALS. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LAMINATED - VERY THIN ALTERNATING LAYERS LESS THAN INCH. LAYER - SUBJECT MATERIAL GREATER THAN INCH IN THICKNESS. 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. MARL - A NON-INDURATED, CALcareous DEPOSIT OF CLAYS, SILTS AND SANDS, OFTEN CONTAINING SHELLS. MICACEOUS SOIL (MIC.) - A SOIL OR ROCK TYPE CONTAINING AN APPRECIABLE AMOUNT OF MICA. MUCK (MK.) - A HIGHLY ORGANIC SOIL OF VERY SOFT CONSISTENCY, GENERALLY FOUND ON TIDAL FLATS, LAKE OR STREAM FLOODPLAINS. PEAT (PT.) - A FIBROUS MASS OF ORGANIC MATTER IN VARIOUS STAGES OF DECOMPOSITION. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK - SEE LEGEND. ROCK QUALITY DESIGNATION (R.Q.D.) - 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 EXPRESSED AS A PERCENTAGE. SANITARY LANDFILLS - COMPACTED AND/OR COVERED LAYERS OF SOIL AND WASTE PRODUCTS. SAPROLITE (SAP.) - RESIDUAL SOIL WHICH RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLAIN. SILL - AN IGNEOUS SHEET OF INTRUSIVE ROCK WHOSE THICKNESS IS SLIGHT COMPARED TO ITS LATERAL EXTENT. SOME - PRESENCE OF 5% TO 30% OF SUBJECT MATERIAL. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS IN OR B.P.F. 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 PENETRATION RESISTANCE OF LESS THAN 1 INCH WITH 50 BLOWS. STRIKE - THE DIRECTION OR BEARING OF A HORIZONTAL LINE IN THE PLANE OF AN INCLINED STRATUM, JOINT, FAULT OR OTHER STRUCTURAL PLANE. SUBGRADE - THE SOIL PREPARED TO SUPPORT A STRUCTURE OR A PAVEMENT SYSTEM. TOPSOIL (T.S.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER. TRACE - PRESENCE OF LESS THAN 5% OF SUBJECT MATERIAL.			MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.			CORE RECOVERY (% REC.) - TOTAL LENGTH OF ALL ROCK DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.			BLDR. - BOULDER CL. - CLAY COB. - COBBLE CSE. - COARSE EST. - ESTIMATED F. - FINE FOSS. - FOSSILIFEROUS FRAC. - FRACTURED GR. - GRAVEL LL - LIQUID LIMIT MED. - MEDIUM MOT. - MOTTLED OM - OPTIMUM MOISTURE ORG. - ORGANIC			PL - PLASTIC LIMIT PI - PLASTICITY INDEX n - POROSITY SD - SAND SAT. - SATURATED SL. - SILT, SILTY SLI. - SLIGHTLY G _s - SPECIFIC GRAVITY q _u - UNCONFINED COMPRESSIVE STRENGTH γ - UNIT WEIGHT (WET UNIT WEIGHT) γ _d - DRY UNIT WEIGHT γ _{SAT} - SATURATED UNIT WEIGHT e - VOID RATIO V. - VERY		
SOIL LEGEND AND AASHTO CLASSIFICATION			MINERALOGICAL COMPOSITION			COMPRESSION			ROCK DESCRIPTION											
GENERAL CLASS. GRANULAR MATERIALS (≤ 35% PASSING #200) SILT-CLAY MATERIALS (> 35% PASSING #200) ORGANIC MATERIALS			MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.			SLIGHTLY COMPRESSIBLE LIQUID LIMIT LESS THAN 30 MODERATELY COMPRESSIBLE LIQUID LIMIT 31-50 HIGHLY COMPRESSIBLE LIQUID LIMIT GREATER THAN 50			IN THE BROADEST MEANING, HARD ROCK IS CONSIDERED THAT MATERIAL WHICH CANNOT BE SAMPLED BY CONVENTIONAL SOIL SAMPLING TOOLS OR TECHNIQUES. THE BOUNDARY BETWEEN SOIL AND ROCK IS ARBITRARY. TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF "WEATHERED ROCK". FOR THE PURPOSE OF THIS INVESTIGATION, THESE MATERIALS ARE DIVIDED AS FOLLOWS:											
GROUP CLASS. A-1, A-2, A-3, A-4, A-5, A-6, A-7, A-7-5, A-7-6, A-7-7			SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER			WEATHERED ROCK (SWR) (HWR)			SOFT WEATHERED ROCK MATERIAL THAT CAN BE PENETRATED WITH SOME DIFFICULTY USING POWER AUGERS AND YIELDS SPT VALUES > 100 BLOWS BUT < SPT REFUSAL											
SYMBOL			HIGHLY ORGANIC SOILS			HARD WEATHERED ROCK MATERIAL THAT CAN BE PENETRATED WITH GREAT DIFFICULTY USING POWER AUGERS AND YIELDS SPT REFUSAL.			CORED ROCK MATERIAL THAT CANNOT BE PENETRATED BY POWER AUGERS, EXCEPT IN THIN LEDGES, AND REQUIRES ROCK CORING TOOLS FOR OBTAINING A SAMPLE.											
% PASSING: 10, 40, 200			GROUP INDEX			HARD ROCK (HR)			*SPT REFUSAL ≤ 2.5cm OF PENETRATION PER 50 BLOWS. **AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER PENETRATE. THE HARD ROCK SYMBOL IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN INCLUDING: CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 0.1m DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%.											
LIQUID LIMIT PLASTIC INDEX			USUAL TYPES OF MAJOR MATERIALS			WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING.			SPRING OR SEEPAGE											
GENERAL RATING AS A SUBGRADE			P.I. OF A-7-5 ≤ L.L. - 30 ; P.I. OF A-7-5 > L.L. - 30			STATIC WATER LEVEL AFTER 24 HOURS.			MISCELLANEOUS SYMBOLS AND ABBREVIATIONS											
CONSISTENCY OR DENSENESS			GROUND WATER			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			TEST BORING											
PRIMARY SOIL TYPE			RANGE OF STANDARD PENETRATION RESISTANCE (BLOWS)			WATER LEVEL AFTER 24 HOURS.			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			SPT TEST BORING								
GENERAL GRANULAR MATERIAL			RANGE OF UNCONFINED COMPRESSIVE STRENGTH (kN/m ²)			PERCHED WATER, SATURATED ZONE OR WATER BEARING STRATA			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			SPT TEST BORING								
GENERAL SILT-CLAY MATERIAL									INFERRED SOIL BOUNDARIES			SPT TEST BORING								
									ALLUVIAL/RESIDUAL BOUNDARIES			SPT TEST BORING								
									DIP DIRECTION AND DIP OF STRUCTURES			SPT TEST BORING								
									APPARENT DIP (NORMAL TO _____)			SPT TEST BORING								
TEXTURE OR GRAIN SIZE			MISCELLANEOUS SYMBOLS AND ABBREVIATIONS			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			TEST BORING											
U.S. STD. SIEVE SIZE OPENING (MM)			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
BOULDER COBBLE GRAVEL COARSE SAND FINE SAND SILT CLAY			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
GRAIN SIZE MM IN.			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
SOIL MOISTURE - CORRELATION OF TERMS			MISCELLANEOUS SYMBOLS AND ABBREVIATIONS			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			TEST BORING											
SOIL MOISTURE SCALE (ATTERBERG LIMITS)			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
FIELD MOISTURE DESCRIPTION			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
GUIDE FOR FIELD MOISTURE DESCRIPTION			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
SATURATED (SAT.)			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
WET - (W)			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
MOIST - (M)			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
DRY - (D)			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
PLASTICITY			MISCELLANEOUS SYMBOLS AND ABBREVIATIONS			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			TEST BORING											
PLASTICITY INDEX			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
NONPLASTIC			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
LOW PLASTICITY			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
MED. PLASTICITY			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
HIGH PLASTICITY			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
COLOR			MISCELLANEOUS SYMBOLS AND ABBREVIATIONS			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			TEST BORING											
DESCRIPTORS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YEL-BRN, BLUE-GRAY)			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		
MODIFIERS SUCH AS LIGHT, DARK, MOTTLED, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.			ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			INFERRED SOIL BOUNDARIES			ALLUVIAL/RESIDUAL BOUNDARIES			DIP DIRECTION AND DIP OF STRUCTURES			APPARENT DIP (NORMAL TO _____)		

CAUTION NOTICE :

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WAS MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. SOME DATA OBTAINED MAY BE OMITTED FROM THIS RELEASE.

ADDITIONAL INFORMATION MAY BE AVAILABLE, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- FIELD BORING LOGS
- ROCK CORES
- SOIL & ROCK TEST DATA
- SUBSURFACE REPORT

THIS INFORMATION MAY BE VIEWED BY APPOINTMENT BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL UNIT @ (919) 250-4088. NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA IS 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 OPINIONS 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 THIS 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.

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IS IT CONSIDERED TO BE PART OF THE PLANS, SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.

NOTE - 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.

NOTES:

6/24/99

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



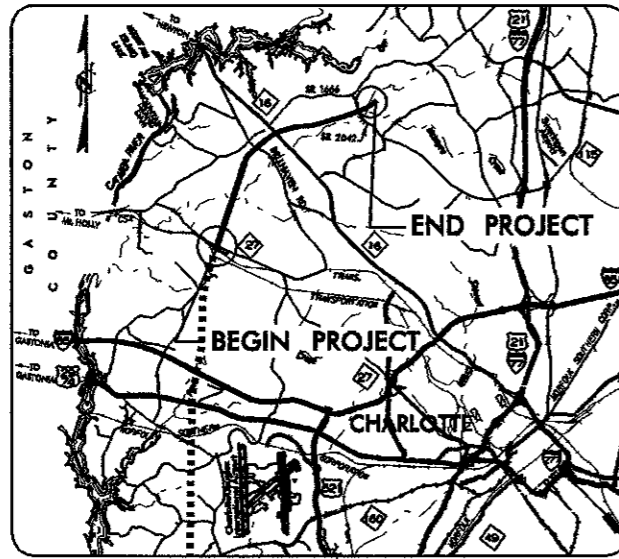
STATE	STATE PROJECT SURVEY NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2248C	3	63
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
8.U672212	NHF-117-1(45)	PE, RW- SPECIAL PARCELS	
6.678010T		RW-SPEC. PARCELS	
6.678006B		RAW, UTIL.	
6.678019T		CONSTRUCTION	

ALL DIMENSIONS IN THESE PLANS ARE IN METERS

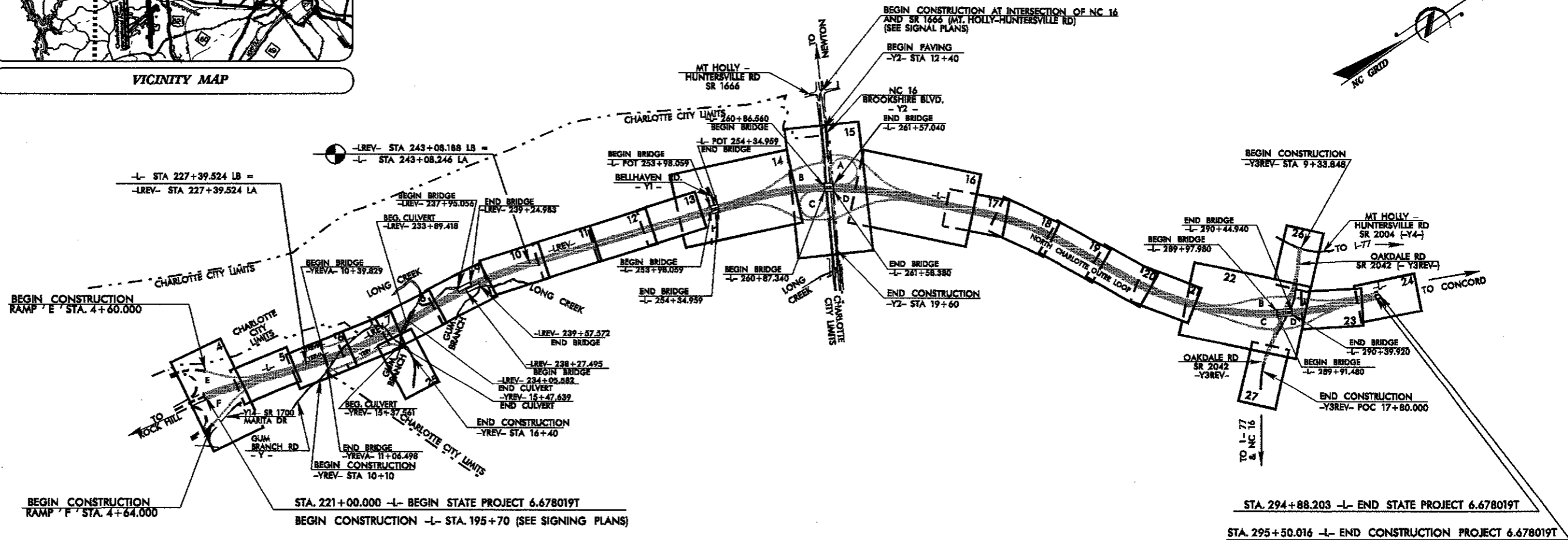
MECKLENBURG COUNTY

LOCATION: NORTH CHARLOTTE OUTER LOOP
FROM NORTH OF NC 27 (MOUNT HOLLY RD.)
TO NORTHEAST OF SR 2042 (OAKDALE ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES, CULVERTS,
GUARDRAIL, CABLE GUIDERAIL, SIGNING AND SIGNALS

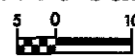


VICINITY MAP



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

GRAPHIC SCALES



PLANS



PROFILE (HORIZONTAL)



PROFILE (VERTICAL)

DESIGN DATA

ADT 2002 = 43,100
ADT 2020 = 71,100

DHV = 10%
D = 60%
T = 15% *
V = 110 km/h

* TTST % = 10 DUAL % = 5

PROJECT LENGTH

LENGTH ROADWAY PROJECT 6.678019T = 7.088 Km
LENGTH STRUCTURE PROJECT 6.678019T = 0.300 Km
TOTAL LENGTH STATE PROJECT 6.678019T = 7.388 Km

Prepared in the Office of:

DIVISION OF HIGHWAYS

2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 30, 2000

LETTING DATE:
JULY 16, 2002

G. E. BREW, P.E.
PROJECT ENGINEER

IMAD ABOUYOUNIS
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

APPROVED DIVISION ADMINISTRATOR

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED DIVISION ADMINISTRATOR

PROJECT: 6.678019T R-2248C

03-APR-2002 09:27
R:\PROJECTS\2248C\6.678019T\6.678019T.dwg



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

P.O. BOX 25201, RALEIGH, N.C. 27611-5201

LYNDO TIPPETT
SECRETARY

January 30, 2001

STATE PROJECT: 8.U672212 (R-2248C)
F.A. PROJECT: NHF-117-1(45)
COUNTY: Mecklenburg
DESCRIPTION: North Charlotte Outer Loop from North of NC 27 to Northeast of SR 2042 (Oakdale Rd.)

SUBJECT: Geotechnical Report - Inventory

This report presents the findings of the Geotechnical Investigation for section C of the North Charlotte Outer Loop. Stations encompassed on this project are from -L- 221+00 to 295+37.33. The project generally proceeds in a northern direction from beginning to end.

The initial geotechnical field investigation for this project was conducted between January and February of 2000. An alignment revision was re-drilled in November of 2000 and additional vane shear data collected in December 2000. An ATV mounted drill machine was utilized for this investigation.

The following survey lines were investigated:

Line	Station
-L-	221+00 – 295+37.33
-YREV-	10+00 – 16+42.98
-YREVB-	10+00 – 14+30.26
-YREVA-	10+03 – 11+26.84
-Y1-	10+00 – 11+60
-Y2	12+60 – 18+00
-Y3REV-	10+00 – 17+17.99
RAMP E	0+00 – 4+60
RAMP F	0+00 – 4+57
LOOP A	0+00 – 4+50.62
LOOP C	0+00 – 4+45.88
Y2 RAMP A	0+00 – 6+81.751
Y2 RAMP B	0+00 – 5+42.361
Y2 RAMP C	0+00 – 6+92.65

Line	Station
Y2 RAMP D	0+00 – 5+24.067
Y3 RAMP A	0+00 – 4+49.62
Y3 RAMP B	0+00 – 5+66.432
Y3 RAMP C	0+00 – 5+60.00
Y3 RAMP D	0+00 – 4+69.92

Areas of Special Geotechnical Interest:

1. Alluvial Soils / Wet Areas:

There are many areas containing alluvial soils throughout the project corridor as well as known wet land areas. Most of these areas are the result of adjacent streams and tributaries which contain soft to medium stiff silt and clay soils and should be of no special interest. The following is a list of areas which do contain very soft to soft alluvial soils which may be of concern:

Line	Station Range
-L-	240+40 – 242+40 (RT of -L- to LT of -L-)
-L-	245+00 – 247+50
-L-	252+75 – 253+05
-L-	265+15 – 265+50
-L-	281+00 – 281+50 (pond sediments)
Y2 Ramp A	2+00 – 2+30
Y2 Ramp A	4+10 – 4+45
Y2 Ramp C	3+60 Right of -CL- (pond)
Y2 Ramp D	0+65 – 1+55
Y3 Ramp B	2+90 – 1+55 (dried up pond sediments)

2. High PI Soils: (PI's Greater than 30)

- A. The area between -L- stations 238+20 to 238+55 contains a soft fine sandy silty clay (A-7-5) with a Plasticity Index of 31. The clay layer is alluvial in origin and extends from the ground surface to approximately 1.0 meter in depth.
- B. The area between -L- stations 259+80 to 260+60 contains a stiff sandy silty clay (A-7-6) with a Plasticity Index of 31. The clay layer extends from the ground surface to 2.0 meters in depth.
- C. The area between -L- stations 262+20 to 263+00 contains a very stiff sandy silty clay with a Plasticity Index of 35. The clay layer extends from the ground surface to approximately 2.0 meters in depth.
- D. The area between -L- stations 265+60 to 268+20 contains a medium stiff to stiff silty sandy clay (A-7-5) with a Plasticity Index of 32 to 37. The clay layer extends from the surface to as deep as 3 meters.

- E. The area between -L- stations 285+60 to 287+40 contains a medium stiff to very stiff sandy clay (A-7-6) with a Plasticity Index of 30 to 34. The clay layer extends from the ground surface to as much as 4 meters in depth.
- F. The area between Ramp E stations 0+00 to 1+70 contains a medium stiff to stiff sandy silty clay (A-7-5) with a Plasticity Index of 33. The clay layer extends from the ground surface to as much as 2 meters in depth.
- G. The area between Ramp F stations 3+40 to 4+55 contains a stiff sandy silty clay (A-7-5) with a Plasticity Index of 33. The clay layer extends from the ground surface to a depth of up to 3 meters.
- H. The area between Loop A at -Y2- stations 0+10 to 1+40 contains a stiff to very stiff sandy silty clay (A-7-5) with a Plasticity Index of 35. The clay layer extends from the ground surface to a depth of up to 2 meters.
- I. The area between Ramp A at -Y2- stations 0+00 to 1+10 contains a medium stiff silty sandy clay (A-7-5) with a Plasticity Index of 33. The clay layer extends from the ground surface to a depth of up to 2 meters.
- J. The area between Ramp A at -Y2- stations 4+10 to 4+45 contains an alluvial soft to medium stiff sandy clay (A-7-5) with a Plasticity Index of 37. The clay layer extends from the ground surface to a depth of 0.4 meters.
- K. The area between Ramp D at -Y2- stations 0+00 to 0+70 contains a stiff silty sandy clay (A-7-5) with a Plasticity Index of 35. The clay layer extends from the ground surface to a depth of 2 meters.
- L. The area between Ramp D at -Y2- stations 2+70 to 3+40 contains a medium stiff silty clay (A-7-5) with a Plasticity Index of 30. The clay layer extends from the ground surface to a depth of 2 meters.
- M. The area between Ramp C at -Y3REV stations 0+50 to 2+30 contains medium stiff to very stiff sandy clay (A-7-6) with a Plasticity Index of 30-34. The clay layer extends from the ground surface to a depth of up to 4 meters.
- N. The area between Ramp C at -Y3REV- stas. 3+00 to 4+57 contains a medium stiff to very stiff sandy silty clay (A-7-6) with a Plasticity Index of 31. The clay layer extends from the ground surface to a maximum depth of approximately 3 meters.
- O. The area between Ramp D at -Y3REV- stas. 1+90 to 3+00 contains a stiff silty clay (A-7-5) with a Plasticity Index of 30. The clay layer extends from the ground surface to a depth of 3 meters.

3. Rock:

Hard rock was encountered at locations throughout the proposed project corridor. The only instance of rock discovered at or above grade was between -L- stations 226+70 to 227+60.

4. Dumpsites:

- A. The area between -L- stations 268+65 to 268+80 contains various amounts of discarded waste on the ground surface. Some of the larger trash items noted were old junk cars and gas pumps. The area extends both left and right of the centerline.
- B. The area between -L- stations 271+70 to 272+80 contains trash scattered about the ground surface from the centerline to left of -L-. Items include junk cars, tires, trash, and used oil filters.

Physiography/Geology:

The project area is located in Mecklenburg County in the southern piedmont region of North Carolina. The topography ranges from flat to gently rolling with gently sloping interstream areas. The proposed project corridor is generally well drained and is bisected by several stream and wet weather drainage features. The project is surrounded by a combination of densely wooded areas, urban areas and open fields. Elevations within the project area range from approximately 180 to 230 meters.

Geologically this site is part of the Charlotte Belt and is underlain by granitic rock.

Soil Properties:

1. Residual Soils:

These soils are derived from in place weathering of parent materials. They occur in a variety of consistencies, classifications, and stratigraphic sequences. Residual soils are further subdivided into clays, silts, and sands.

Clays are found consistently throughout the project corridor as both near surface soils and subsoils. They consist primarily of medium stiff to very stiff red-brown and tan sandy silty clay (A-6, A-7-5, A-7-6) 0.5 to 14 meters thick. These soils are typically well drained and possess Atterburg Limits in the intermediate range. Soil test results for these soils indicate a plasticity index range of 11 to 37 and a liquid limit range of 42 to 72.

Silts encountered on the project were of both the A-4 and A-5 AASHTO Classifications and occur as both near surface soils and subsoils. They generally consist of medium stiff to hard gray-white and brown sandy silt with depths ranging from 0.5 to 9 meters thick.

Sands encountered on the project were of the A-1-b, A-2-4, A-2-6 and A-2-7 AASHTO Classification and occur as both near surface soils and subsoils. The sandy soils generally consists of a loose to dense silty sand with depths ranging from 0.5 to 8 meters thick.

2. Alluvial Soils:

Alluvial soils originate from water transportation and deposition in a floodplain environment. These deposits are usually shallow, but range up to 4 meters in thickness. Alluvial soils consist of very soft to medium stiff clayey sandy silt (A-4), soft to stiff sandy silty clay (A-6, A-7-5, A-7-6) and very loose to loose clayey silty sand (A-2-4).

3. Fill Soils:

The following three areas were encountered which contained uncompacted fill material:

- A. An area left of -L- stations 239+00 to 239+80 contains as much as 5 meters of medium stiff to hard sandy silty clay (A-7-5) with wood debris, plastic, stumps and rocks.
- B. Another area between -L- stations 272+80 to 273+40 contains up to 9 meters of medium stiff to stiff micaceous sandy silty clay (A-7-5) with wood debris.
- C. The third area is a debris fill used in the construction of an earthen dam right of -L- station 281+00. The fill material extends along the length of the dam and also has a gravel road constructed along top. Material in the fill appears to be a mixture of clay, silt, asphalt, and concrete slabs. Height of the fill (dam) is 3 to 3.5 meters.
- D. The fill area between Ramp B at -Y2- stations 4+20 to 4+85 contains medium stiff to stiff sandy clay (A-6). Maximum thickness of this material is approximately 6 meters.

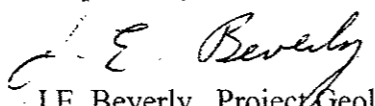
Rock Properties:

Rock is defined as that material which refuses penetration of power augers. Hard rock was encountered along various segments of the project corridor.

Groundwater:

Groundwater was encountered sporadically throughout the project corridor. The following is a list of areas where groundwater was encountered at or above proposed grade.

Line	Station Range
-L-	223+00 – 232+00
Ramp E	0+00 – 4+60 (All of Ramp E)
Ramp F	0+00 – 4+57 (All of Ramp F)

Respectfully Submitted,

 J.E. Beverly, Project Geologist

5/27/02

PROJECT NO. :

R-2248C

COUNTY:

MECKLENBURG

PREPARED:

ITA

*Use "L SBL" Stations

CHECKED:

TEF

LOCATION	EXCAVATION CU. METER					EMBANKMENT CU. METER					WASTE CU. METER		
	TOTAL UNCL EXCA	EARTH SUITABLE	EARTH UNSUITABLE	UNDERCUT	ROCK	TOTAL EMBANKMENT	ROCK EMBANKMENT	EARTH EMBANKMENT	EMBANKMENT PLUS 20%	BORROW (CM)	SUITABLE	UNSUITABLE	ROCK
Summary No. 1													
L 221+00 to 227+39.524	404462	391940			12522	1082	1082		1082		391940		11440
Rp-E 2+79.14 to 4+60.00	32297	32297				152		152	182		32115		
Rp-F 2+15.07 to 4+60.00	45447	45447									45447		
Y14 13+60 to 14+20	265	265									265		
SUMMARY NO. 1 TOTAL	482471	469949			12522	1234	1082	152	1264		469767		11440
SUMMARY No. 2													
Lrev 227+39.524 to 233+60.00	214737	213991			746	41188	746	40442	49276		165461		
Yrev 10+10.00 to 16+42.98	12967	12967				3764		3764	4517		8450		
Yreva 10+03.60 to 11+43.828						489		489	587	587			
Yrevb 11+50.00 to 14+30.00	3872	3872				1914		1914	2297		1575		
SUMMARY NO. 2 TOTAL	231576	230830			746	47355	746	46609	56677	587	175486		
SUMMARY No. 3													
Lrev 233+60 to 237+95.056	19898	19898				59558		59558	71470	51572			
SUMMARY NO. 3 TOTAL	19898	19898				59558		59558	71470	51572			
SUMMARY NO. 4													
Lrev 239+24.983 to 243+08.188 L.B	25107	25107		6348		43276		43276	51931	26824		6348	
L 243+08.246 L.A.to 246+60	21162	20893	269	9915		36922		36922	44306	23413		10184	
SUMMARY NO. 4 TOTAL	46269	46000	269	16263		80198		80198	96238	50238		16532	
SUMMARY NO. 5													
L 246+60 to 253+98.059				5475		323857		323857	388628	388628		5475	
Y1 10+00.00 to 11+67.391	249	249				439		439	527	278			
SUMMARY NO. 5 TOTAL	249	249		5475		324296		324296	389155	388906		5475	
SUMMARY NO. 6													
L 254+34.959 to 260+86.560	2294	2294				463634		463634	556361	554067			
Y2 12+40 to 18+20 (RT)	10569	10569				397		397	476		10093		
rpy2 1+42.223 to 6+00.00	1601	1601				76766		76766	92119	90518			
lpy2 1+02.648 to 3+56.05	6744	6744				1068		1068	1282		5462		
rpy2 2+35.544 to 5+20.00	44634	44634				3514		3514	4217		40417		
SUMMARY NO. 6 TOTAL	65842	65842				545379		545379	654455	644585	55972		

5/27/02

PROJECT NO. : R-2248C

COUNTY: MECKLENBURG

PREPARED: ITA

CHECKED: TEF

LOCATION	EXCAVATION CU. METER					EMBANKMENT CU. METER					WASTE CU. METER		
	TOTAL UNCL EXCA	EARTH SUITABLE	EARTH UNSUITABLE	UNDERCUT	ROCK	TOTAL EMBANKMENT	ROCK EMBANKMENT	EARTH EMBANKMENT	EMBANKMENT PLUS 20%	BORROW	SUITABLE	UNSUITABLE	ROCK
SUMMARY NO. 7													
L 261+57.040 to 271+20	4713	4713				299696		299696	359635	354922			
Y2 13+60 to 19+60 (LT)	8291	8291				390		390	468		7823		
Rpay2 1+37.719 to 6+60.00	6130	6130				104146		104146	124975	118845			
Lpay2 0+80.888 to 3+55.840	6507	6507				4493		4493	5392		1115		
Rpd2 1+08.364 to 5+00.00	13665	13665				13095		13095	15714	2049			
SUMMARY NO. 7 TOTAL	39306	39306				421820		421820	506184	475816	8938		
SUMMARY NO. 8 TOTAL													
L 271+20.00 to 280+40	24171	24171				273164		273164	327797	303626			
SUMMARY NO. 8 TOTAL	24171	24171				273164		273164	327797	303626			
SUMMARY NO. 9													
L 280+40.00 to 289+97.780	66278	66264	14	3895		211892		211892	254270	188006		3909	
Rpby3 1+45.031 to 4+80.00	9689	9689				11395		11395	13674	3985			
Rpcy3 1+21.935 to 4+40.00	2893	2893				20566		20566	24679	21786			
Y3rev 9+80.00 to 17+70	10829	10829				1206		1206	1447		9382		
SUMMARY NO. 9 TOTAL	89689	89675	14	3895		245059		245059	294071	213778	9382	3909	
SUMMARY NO. 10													
L 290+44.940 to 294+88.203	6328	6328				114043		114043	136852	130524			
Rpay3 1+35.930 to 4+20.00	8470	8470				1789		1789	2147		6323		
Rpd3 1+28.842 to 5+00.00	4936	4936				18443		18443	22132	17196			
SUMMARY NO. 10 TOTAL	19734	19734				134275		134275	161130	147719	6323		

PROJECT NUMBER: DO-5400 PG 0055
 DATE: 12/15/00
 DRAWN BY: J. LEE
 CHECKED BY: J. LEE
 INCHES: 1/4" = 1'-0"
 PRELIMINARY PLANS
 DO NOT SCALE
 CONTRACTOR: J. LEE
 DATE: 12/15/00

Table 1: Stationing Data

No. 6		No. 7	
PI STA 2+000	PI STA 3+000	PI STA 1+000	PI STA 2+000
Δ = 19°59'01" (RT)	Δ = 3°52'23"	Δ = 24°00'25" (LT)	Δ = 3°52'23"
L = 15.463	L = 60.000	L = 84.369	L = 60.000
T = 17.529	T = 40.000	T = 53.250	T = 40.000
R = 440.000	R = 200.000	R = 240.000	R = 200.000
sup = 0.00	sup = 0.00	sup = 0.00	sup = 0.00

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCOS FOR MONUMENT "MOTT" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 153988.713m EASTING: 423483.648m. THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS 0.999844. THE N.C. LAMBERT GRID BEARING LOCALIZED HORIZONTAL GROUND DISTANCE FROM "MOTT" TO -BL- STATION 2+51854 IS N 6° 52' 41.3" W 17391.639. ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES. VERTICAL DATUM USED IS NGVD 29.

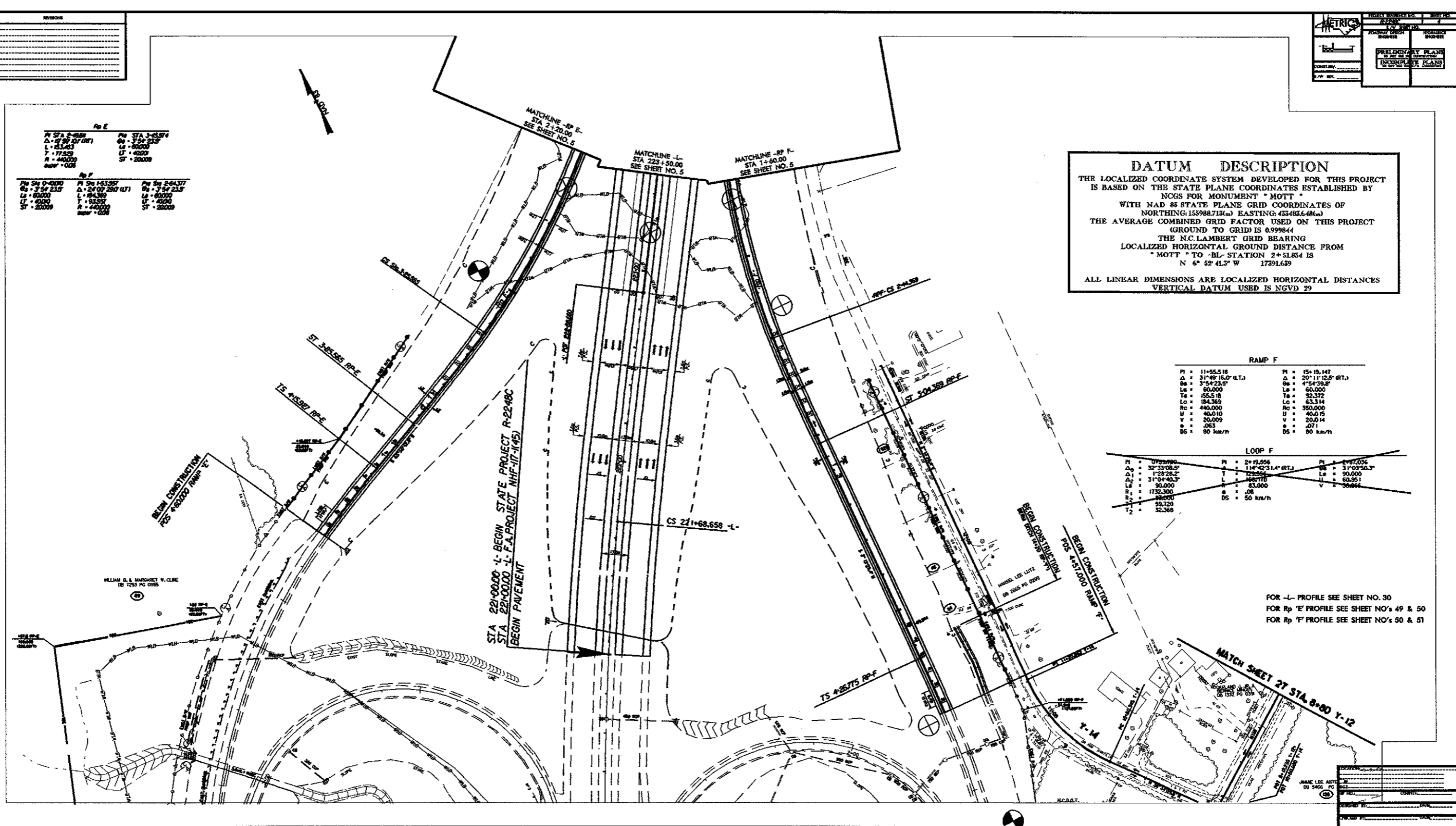
Table 2: RAMP F Data

PI = 11+55.518	PI = 15+19.147
Δ = 31°49'16.0" (LT)	Δ = 20°11'12.5" (RT)
Δθ = 3°54'23.0"	Δθ = 4°54'39.8"
L = 60.000	L = 60.000
T = 35.518	T = 32.372
Lo = 184.369	Lo = 63.314
Rc = 440.000	Rc = 350.000
U = 40.010	U = 40.075
V = 20.009	V = 20.014
e = .063	e = .071
DS = 90 km/h	DS = 90 km/h

Table 3: LOOP F Data

PI = 07+29.990	PI = 2+19.556	PI = 4+47.036
Δ = 32°33'08.5"	Δ = 114°42'31.4" (RT)	Δ = 31°03'50.3"
Δθ = 1°29'28.2"	Δθ = 128°57'10"	Δθ = 1°11'52.1"
L = 90.000	L = 83.000	L = 90.000
Rc = 1732.300	Rc = 83.000	Rc = 90.000
R = 380.000	R = 83.000	R = 90.000
T = 59.720	T = 50.000	T = 50.000
T2 = 32.368	T2 = 50.000	T2 = 50.000
DS = 50 km/h	DS = 50 km/h	DS = 50 km/h

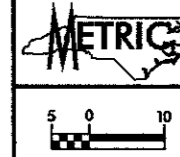
FOR -L- PROFILE SEE SHEET NO. 30
 FOR Rp 'E' PROFILE SEE SHEET NO'S 49 & 50
 FOR Rp 'F' PROFILE SEE SHEET NO'S 50 & 51



NAME: J. LEE
 DATE: 12/15/00
 PG: 0055

REVISIONS

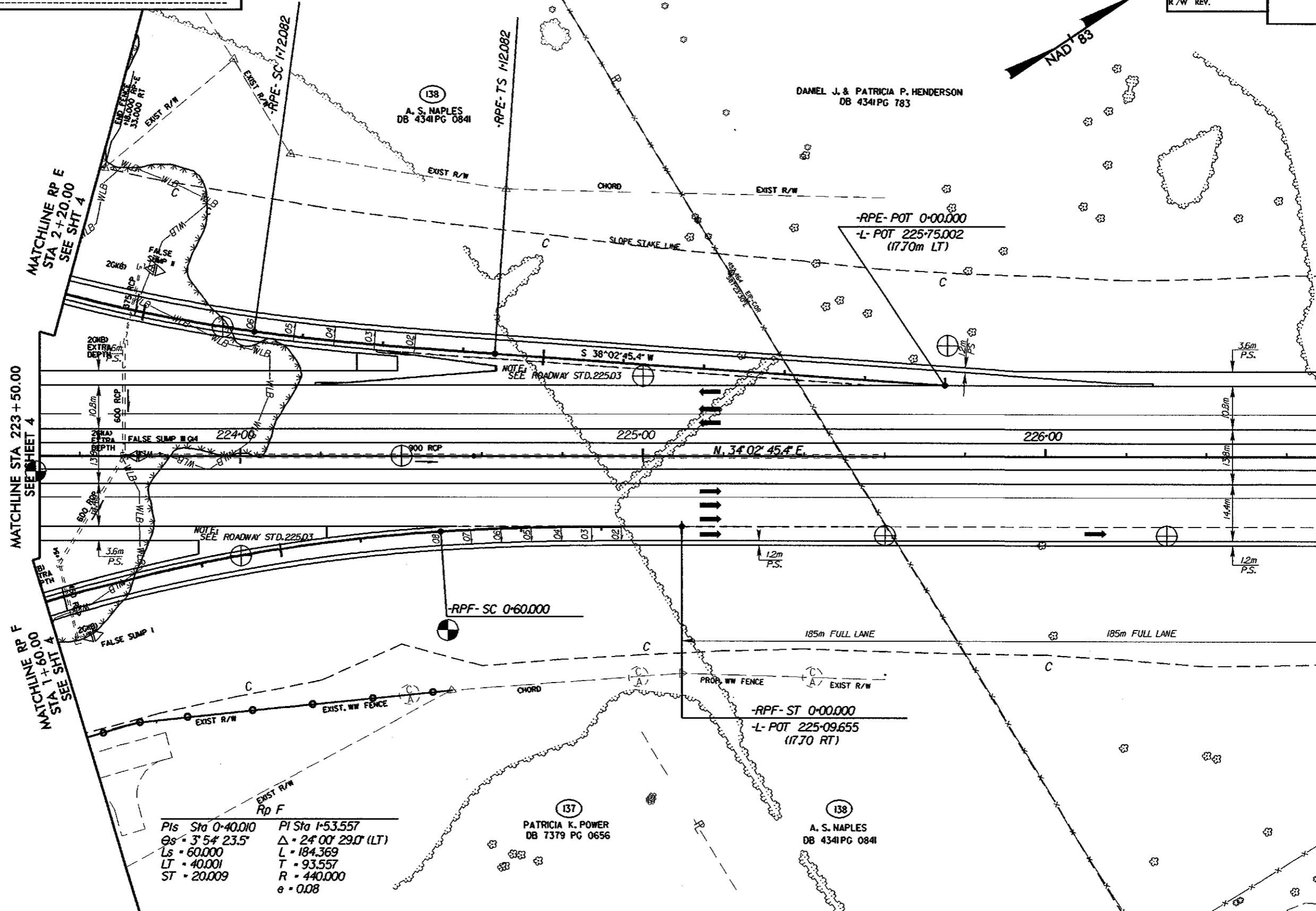
PROJECT REFERENCE NO. R-2248C	SHEET NO. 5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
CONST. REV.	
R/W REV.	



-RPE-

PI STA 1-52,092 θs = 3° 54' 23.5" Ls = 60,000 LT = 40,001 ST = 20,009	PI STA 2-49,611 Δ = 19° 59' 10.1" (RT) L = 153,483 T = 77,529 R = 440,000 e = 0.06	PI STA 3-45,574 θs = 3° 54' 23.5" Ls = 60,000 LT = 40,001 ST = 20,009
-----------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------

FOR -L- LINE PROFILE SEE SHEET NO. 30 & 31
 FOR Rp 'E' PROFILE SEE SHEET NO. 49 & 50
 FOR Rp 'F' PROFILE SEE SHEET NO. 50 & 51



Rd F

PI Sta 0+40,010 θs = 3° 54' 23.5" Ls = 60,000 LT = 40,001 ST = 20,009	PI Sta 1+53,557 Δ = 24° 00' 29.0" (LT) L = 184,369 T = 93,557 R = 440,000 e = 0.08
-----------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------

138
A. S. NAPLES
DB 4341 PG 0841

DANIEL J. & PATRICIA P. HENDERSON
DB 4341 PG 783

137
PATRICIA K. POWER
DB 7379 PG 0656

138
A. S. NAPLES
DB 4341 PG 0841

MATCHLINE STA 226 + 70.00 SEE SHEET 6

MATCHLINE STA 223 + 50.00 SEE SHEET 4

MATCHLINE RP E
STA 2 + 20.00
SEE SHT 4

MATCHLINE RP F
STA 1 + 60.00
SEE SHT 4

*****SYTIME*****
*****DATE*****

REVISIONS

-YREV-

PI Sta 10-07.737
Δ = 5' 12" 43.2" (LT)
L = 15.464
T = 7.737
R = 170.000

PI Sta 10-59.441
Δ = 32' 00" 00.0" (RT)
L = 72.606
T = 37.277
R = 130.000
e = 0.08

-LREV-

PIs Sta 228-83.306
θ s = 1' 28" 31.5"
Ls = 120.000
LT = 80.003
ST = 40.003

PI Sta 231-40.671
Δ = 10' 39" 34.2" (LT)
L = 433.4813
T = 217.3680
R = 2,330.000
e = 0.03

FOR -L- LINE PROFILE SEE SHEET NO. 31
FOR -YREV- PROFILE SEE SHEET NO. 43
FOR -YREVA- PROFILE SEE SHEET NO. 45
FOR -YREVB- PROFILE SEE SHEET NO. 44



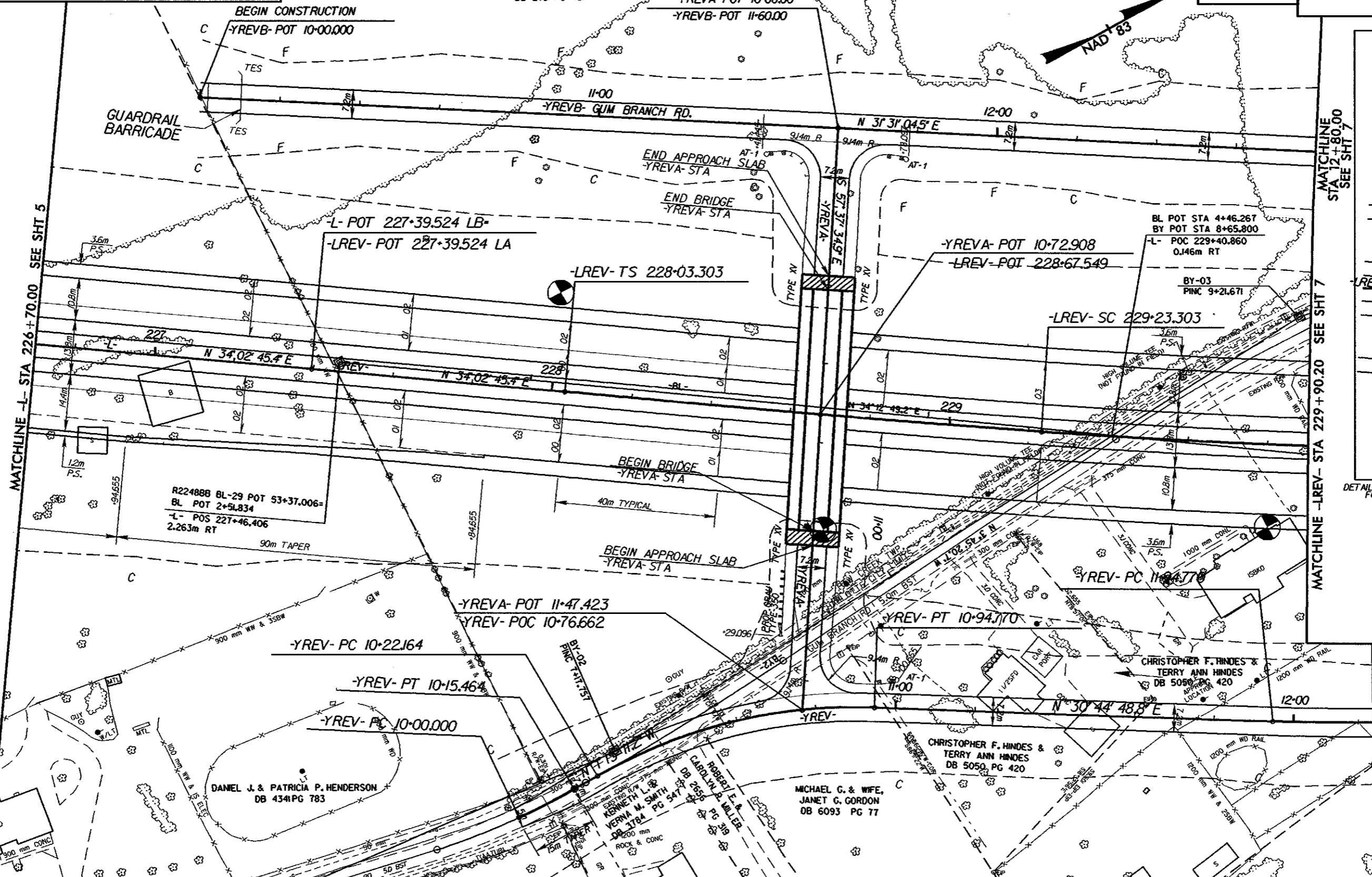
CONST. REV.
R/W REV.

PROJECT REFERENCE NO. R-2248C 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

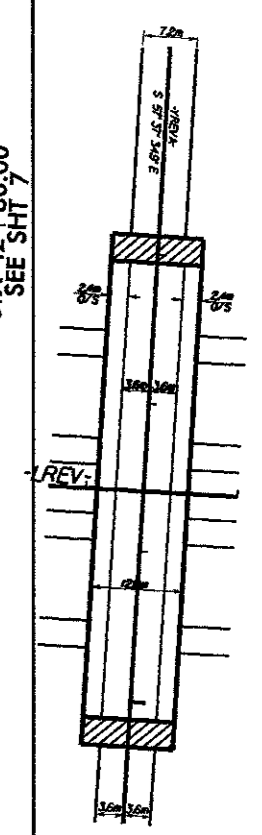
ANNE MAE BLACK
DB 2781 PG 461



MATCHLINE -L- STA 226+70.00 SEE SHT 5

MATCHLINE -LREV- STA 229+90.20 SEE SHT 7

MATCHLINE STA 12+20.00 SEE SHT



DETAIL OF BRIDGE & APPROACHES FOR YREVA OVER 'L' (NOT TO SCALE)

REVISIONS

METRIC

CONST. REV.
R/W REV.

PROJECT REFERENCE NO. R-224BC	SHEET NO. 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	

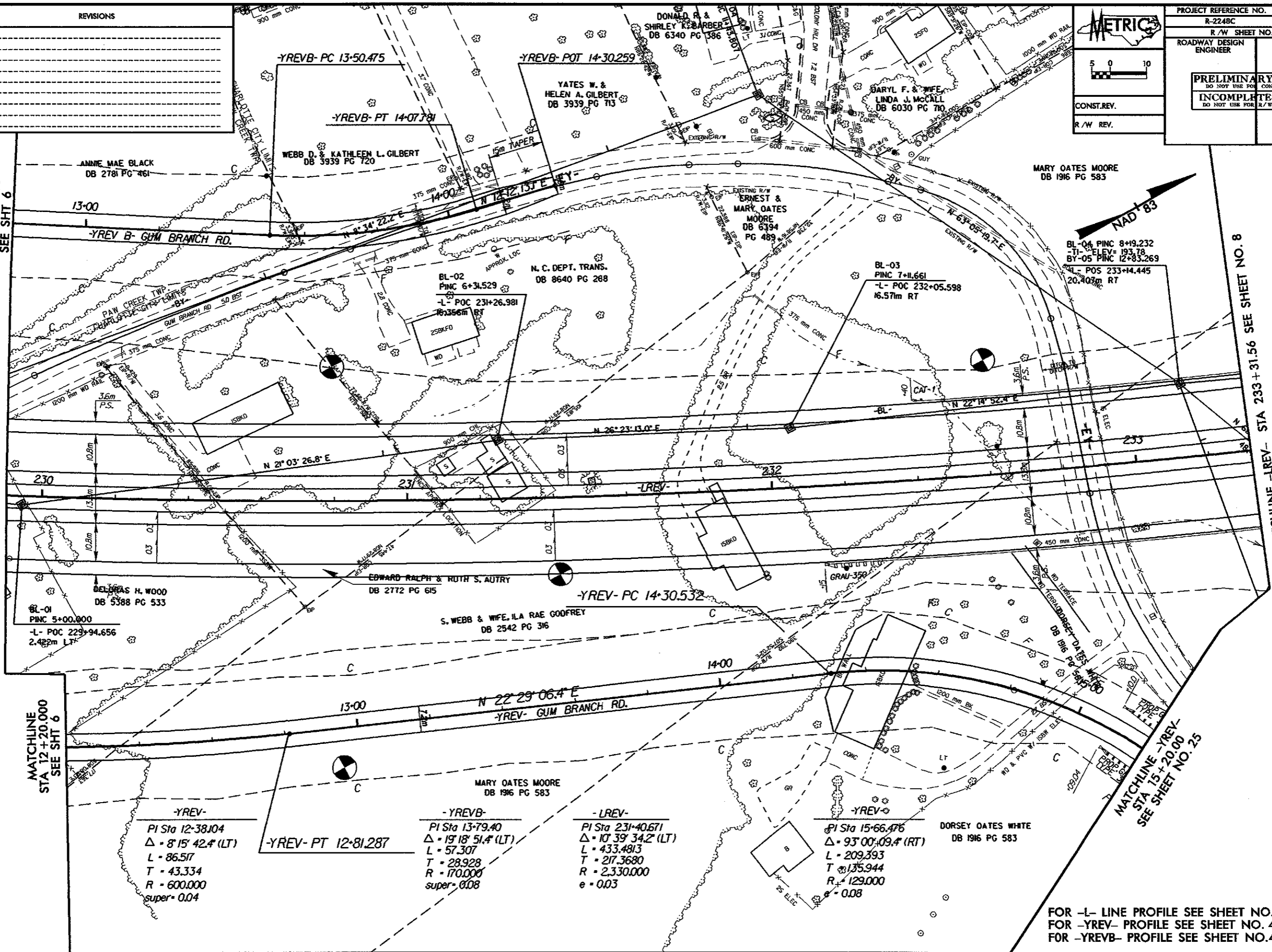
MATCHLINE - STA 12+80.00 SEE SHT 6

MATCHLINE - STA 229+90.20 SEE SHT 6

MATCHLINE - STA 12+20.000 SEE SHT 6

MATCHLINE - LREV - STA 233+31.56 SEE SHEET NO. 8

MATCHLINE - YREV - STA 15+20.00 SEE SHEET NO. 25



-YREV-
 PI Sta 12+38.04
 $\Delta = 8' 15" 42.4$ (LT)
 L = 86.517
 T = 43.334
 R = 600.000
 super = 0.04

-YREV- PT 12+81.287

-YREVB-
 PI Sta 13+79.40
 $\Delta = 19' 18" 51.4$ (LT)
 L = 57.307
 T = 28.928
 R = 170.000
 super = 0.08

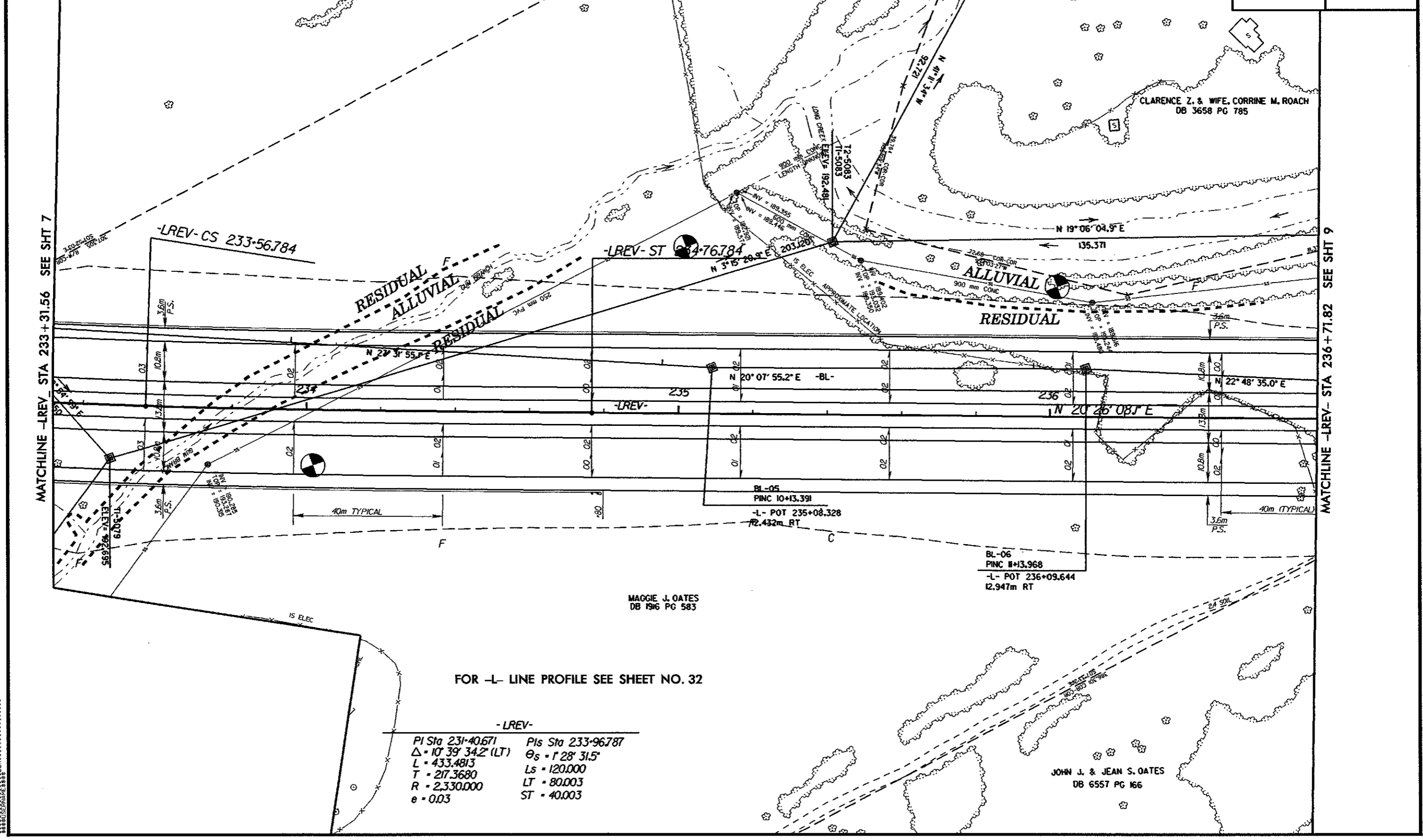
-LREV-
 PI Sta 231+40.671
 $\Delta = 10' 39" 34.2$ (LT)
 L = 433.4813
 T = 217.3680
 R = 2,330.000
 e = 0.03

-YREV-
 PI Sta 15+66.476
 $\Delta = 93' 00" 09.4$ (RT)
 L = 209.393
 T = 135.944
 R = 129.000
 e = 0.08

FOR -L- LINE PROFILE SEE SHEET NO. 31 & 32
 FOR -YREV- PROFILE SEE SHEET NO. 43
 FOR -YREVB- PROFILE SEE SHEET NO. 44

REVISIONS

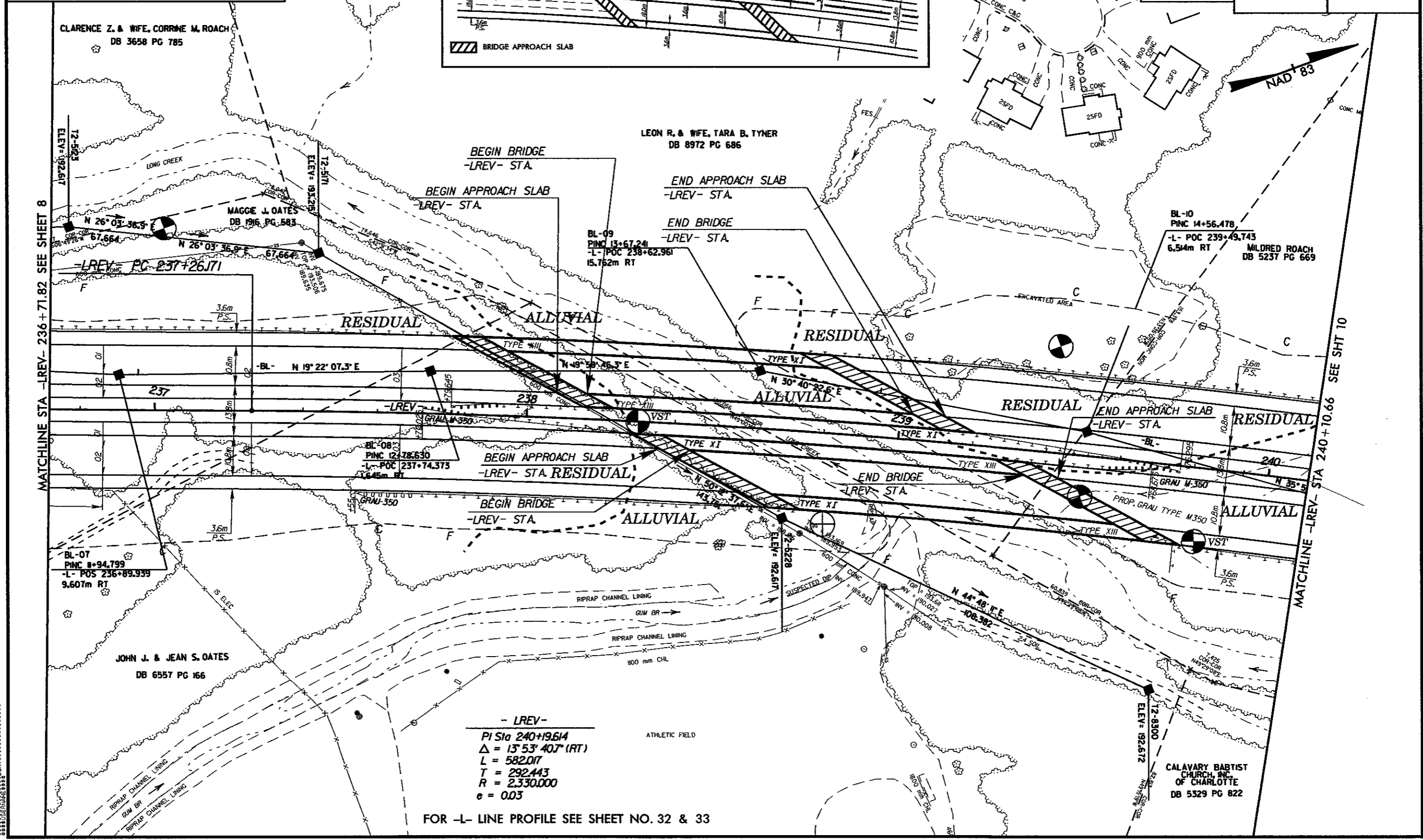
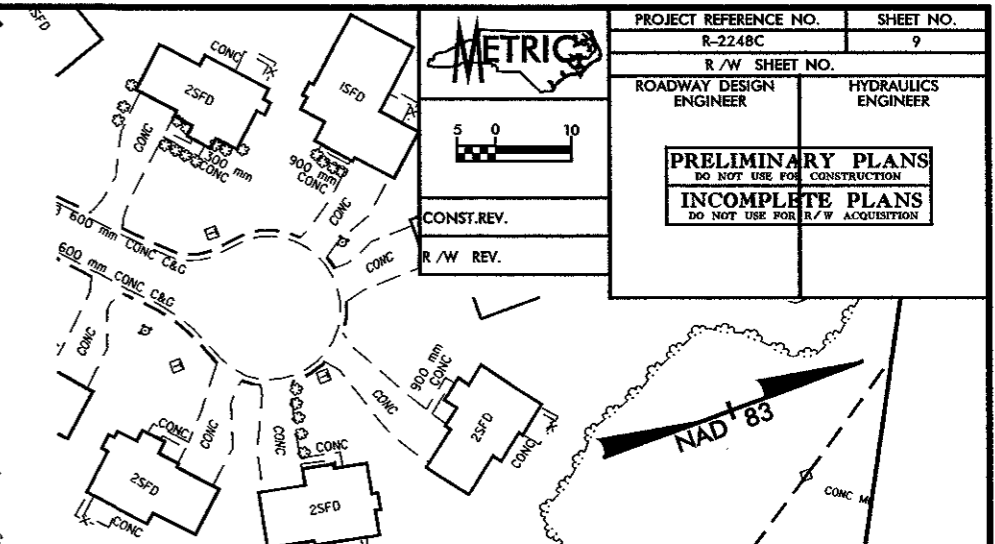
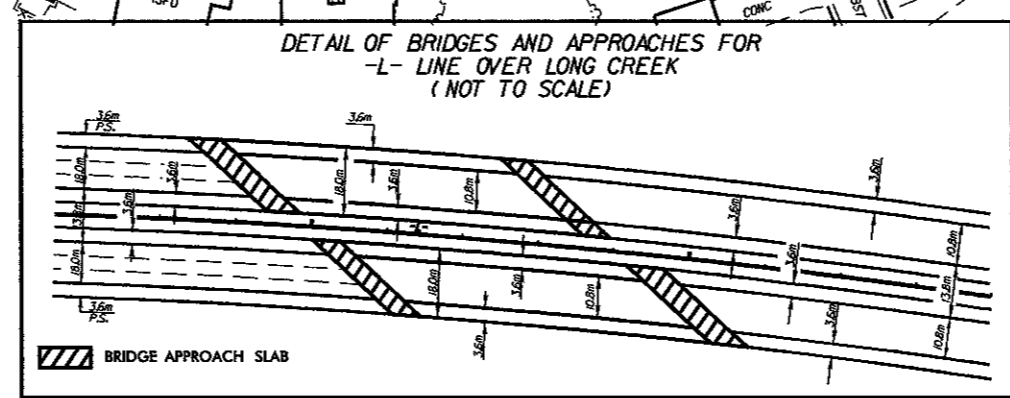
PROJECT REFERENCE NO. R-2248C	SHEET NO. 8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
CONST. REV.	
R/W REV.	



FOR -L- LINE PROFILE SEE SHEET NO. 32

-LREV-	
PI Sta 231+40.671	PIs Sta 233+96.787
$\Delta = 10^\circ 39' 34.2" (LT)$	$\theta_s = 1^\circ 28' 31.5"$
L = 433.4813	Ls = 120.000
T = 217.3680	LT = 80.003
R = 2,330.000	ST = 40.003
e = 0.03	

REVISIONS



- LREV -

PI Sta 240+19.614

$\Delta = 15^\circ 53' 40.7''$ (RT)

L = 582.017

T = 292.443

R = 2,530.000

e = 0.03

FOR -L- LINE PROFILE SEE SHEET NO. 32 & 33

*****SYSTIME*****

REVISIONS

FOR -L- LINE PROFILE SEE SHEET NO. 33

METRIC

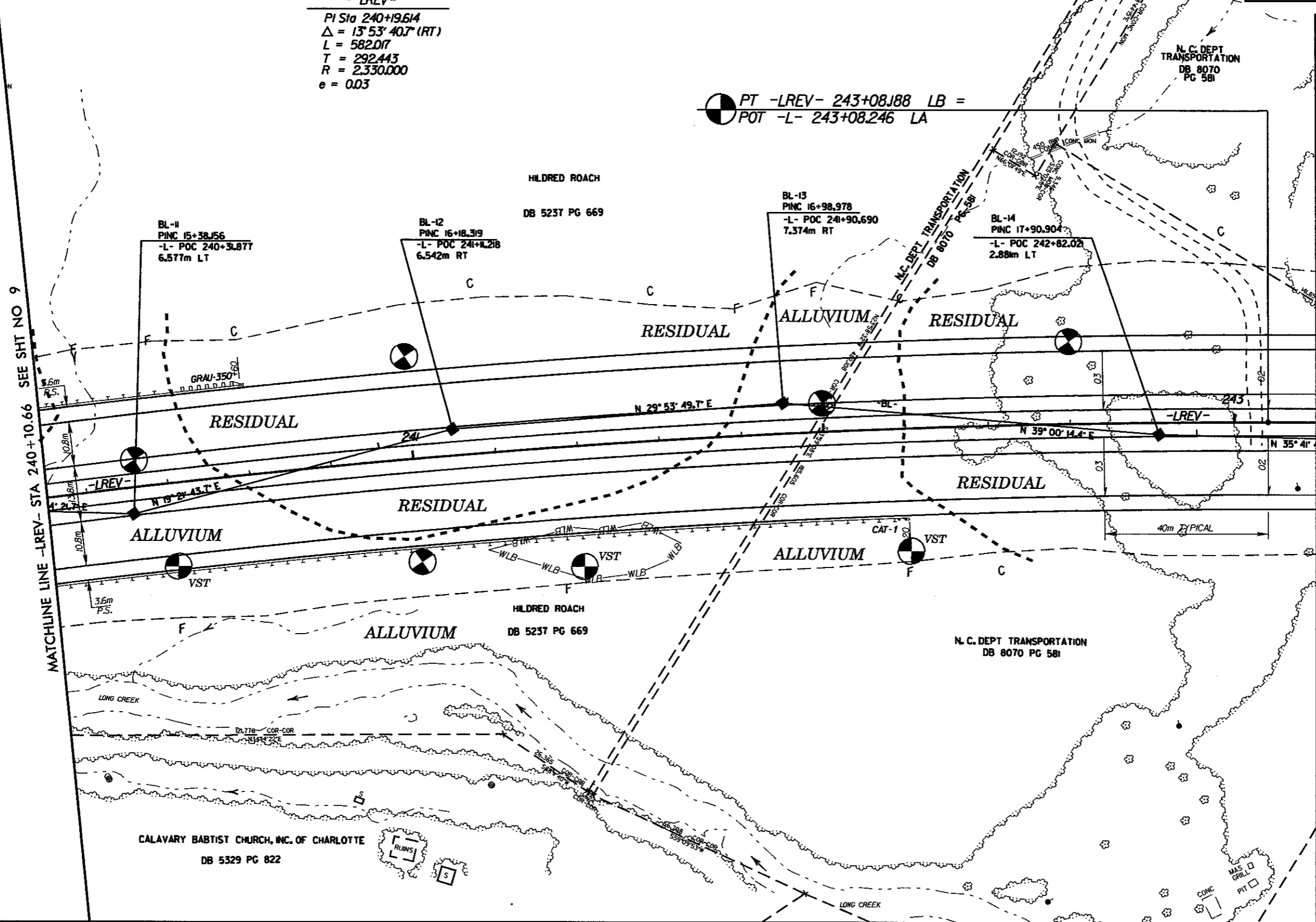
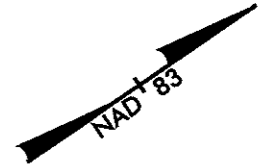
CONST. REV.

R/W REV.

PROJECT REFERENCE NO. R-2248C	SHEET NO. 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	

- LREV -
 PI Sta 240+19.614
 $\Delta = 13^{\circ} 53' 40.7''$ (RT)
 L = 582.017
 T = 292.443
 R = 2,330.000
 e = 0.03

PT -LREV- 243+08J88 LB =
 POT -L- 243+08.246 LA



MATCHLINE -LREV- STA 240+10.66 SEE SHT NO 9

MATCHLINE -L- STA 243+20.00 SEE SHEET NO. 11

CALAVARY BAPTIST CHURCH, INC. OF CHARLOTTE
 DB 5329 PG 822

HILDRED ROACH
 DB 5237 PG 669

N. C. DEPT TRANSPORTATION
 DB 8070 PG 581

BL-11
 PINC 15+38J56
 -L- POC 240+3L877
 6.577m LT

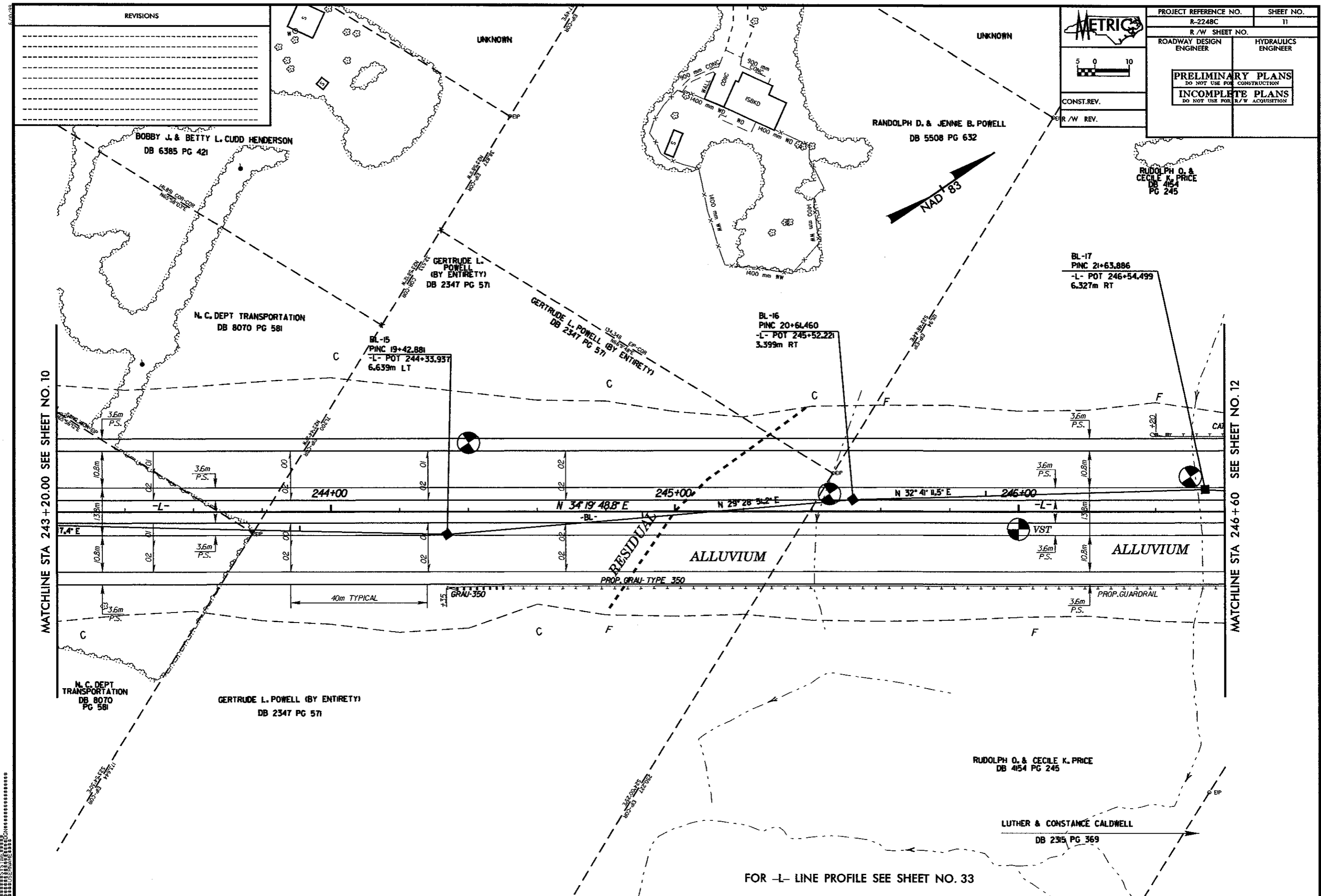
BL-12
 PINC 16+18J19
 -L- POC 241+L218
 6.542m RT

BL-13
 PINC 16+98J78
 -L- POC 241+90.690
 7.374m RT

BL-14
 PINC 17+90J04
 -L- POC 242+82.02
 2.88m LT

REVISIONS

PROJECT REFERENCE NO. R-2248C	SHEET NO. 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	
CONST. REV.	R/W REV.



MATCHLINE STA 243 + 20.00 SEE SHEET NO. 10

MATCHLINE STA 246 + 60 SEE SHEET NO. 12

FOR -L- LINE PROFILE SEE SHEET NO. 33

SYNOPSIS OF REVISIONS

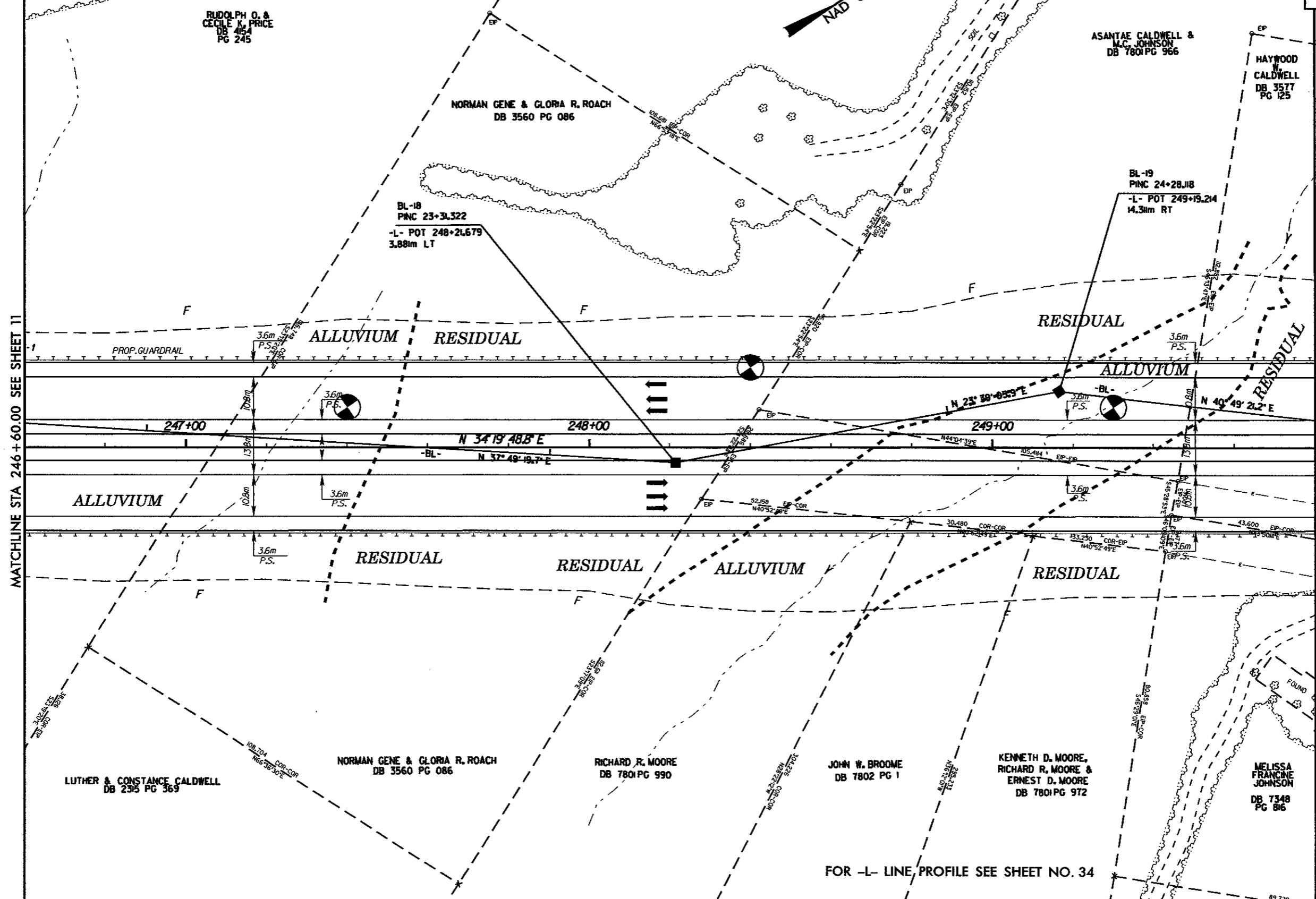
REVISIONS

5 0 10

CONST. REV.


R/W REV.

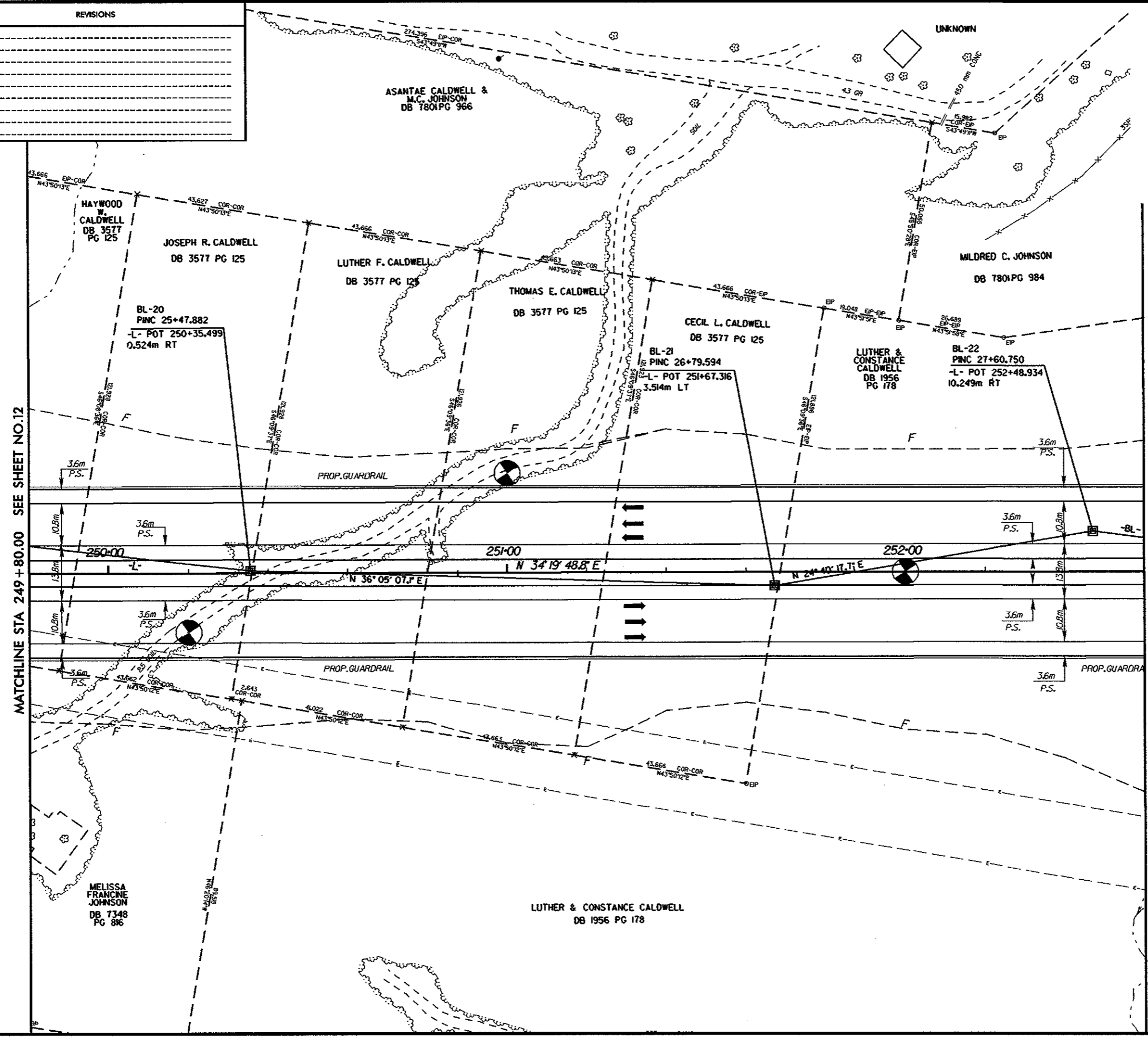
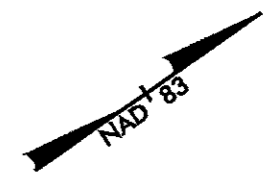
PROJECT REFERENCE NO. R-2248C	SHEET NO. 12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	



 SYSTEMS

REVISIONS	

	
PROJECT REFERENCE NO. R-2248C	SHEET NO. 13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small>	
CONST.REV.	
R/W REV.	

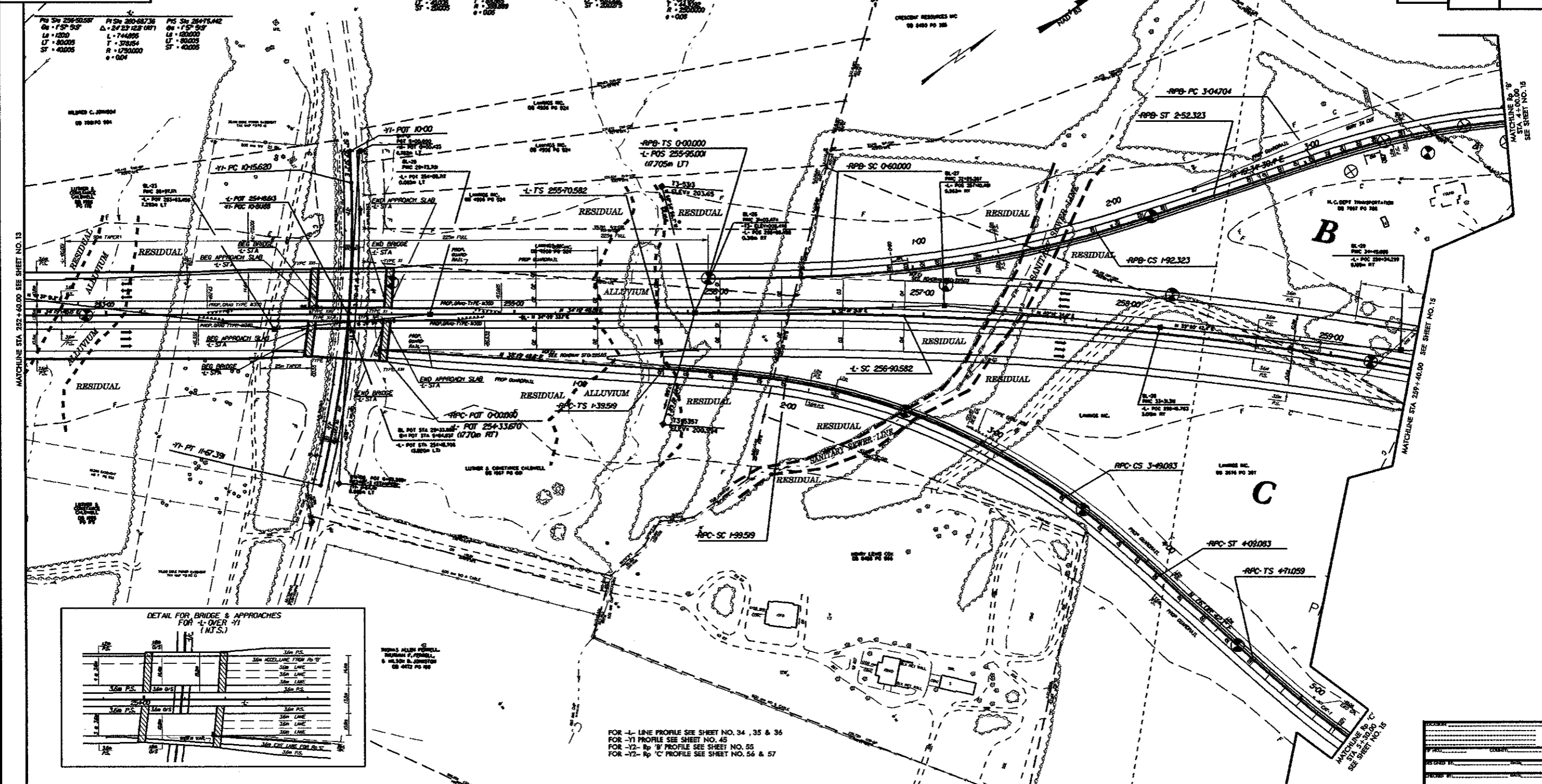


MATCHLINE STA 249+80.00 SEE SHEET NO.12

MATCHLINE STA 252+60.00 SEE SHEET NO.14

FOR -L- LINE PROFILE SEE SHEET NO. 34

REVISION	DATE	BY	DESCRIPTION

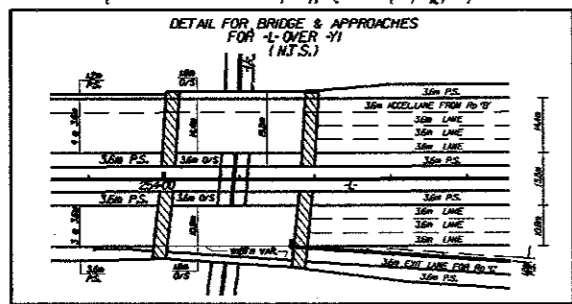


Pk Sta 0+0000 Δ: 15 3' 47.00" L: 76.953 T: 99.000 R: 500.000 e: 0.00		Pk Sta 1+0000 Δ: 24 23' 12.00" L: 74.695 T: 78.854 R: 175.000 e: 0.00		Pk Sta 2+0000 Δ: 24 23' 12.00" L: 74.695 T: 78.854 R: 175.000 e: 0.00		Pk Sta 3+0000 Δ: 24 23' 12.00" L: 74.695 T: 78.854 R: 175.000 e: 0.00	
-------------------------------------------------------------------------------------	--	--------------------------------------------------------------------------------------	--	--------------------------------------------------------------------------------------	--	--------------------------------------------------------------------------------------	--

Pk Sta 250+00.00 Δ: 15 3' 47.00" L: 76.953 T: 99.000 R: 500.000 e: 0.00	Pk Sta 250+87.39 Δ: 24 23' 12.00" L: 74.695 T: 78.854 R: 175.000 e: 0.00	Pk Sta 254+76.62 Δ: 15 3' 47.00" L: 76.953 T: 99.000 R: 500.000 e: 0.00
----------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------

MATCHLINE STA 222+50.00 SEE SHEET NO. 13

METRICS SCALE: 1" = 50' PROJECT: DATE: DRAWN BY: CHECKED BY: APPROVED BY:	PRELIMINARY PLAN INCOMPLETE PLANS TO BE USED FOR RECORDS
----------------------------------------------------------------------------------------------------	----------------------------------------------------------------



FOR -1- LINE PROFILE SEE SHEET NO. 34, 35 & 36
 FOR -Y1 PROFILE SEE SHEET NO. 45
 FOR -Y2- Rp 'B' PROFILE SEE SHEET NO. 55
 FOR -Y2- Rp 'C' PROFILE SEE SHEET NO. 56 & 57

PROJECT NO.	
COUNTY	
DATE	
PROJ. NO.	

METRICS

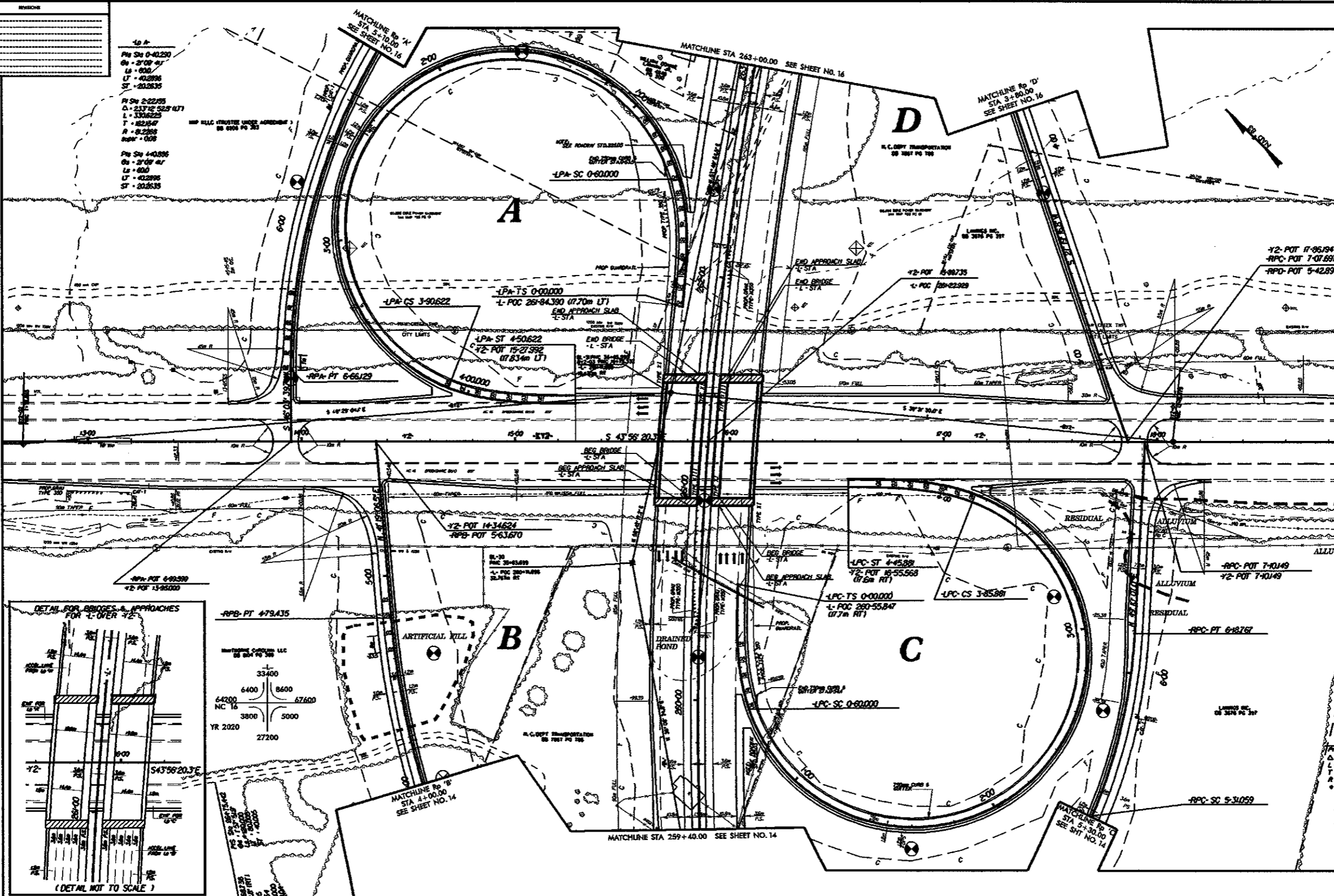
PROJECT NO. 17-0000
SHEET NO. 11

DATE: 11/15/17
SCALE: 1"=40'

PRELIMINARY PLANS
INCOMPLETE PLANS

CONTR. NO. 17-0000
1/11 REV.

FOR -L- LINE PROFILE SEE SHEET NO. 36 & 37
 FOR R/A PROFILE SEE SHEET NO. 54
 FOR R/B PROFILE SEE SHEET NO. 55
 FOR R/C PROFILE SEE SHEET NO. 56 & 57
 FOR R/D PROFILE SEE SHEET NO. 58 & 59
 FOR L/A PROFILE SEE SHEET NO. 52
 FOR L/B PROFILE SEE SHEET NO. 53
 FOR -Y2- PROFILE SEE SHEET NO. 45, 46, & 47



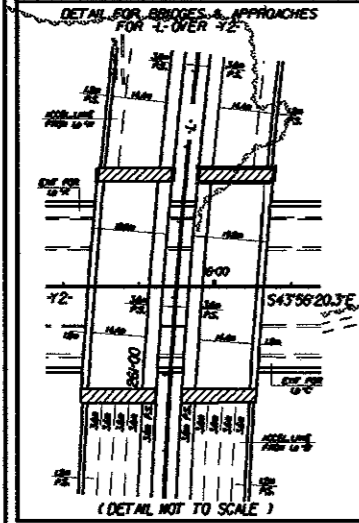
Lo A
 Pk Sta 0+42.20
 Gs = 2'09" 47'
 Ls = 600'
 Lt = 40.2895
 St = 20.2835

R/A
 Pk Sta 2+22.55
 Gs = 2'37" 52.5' 47'
 Ls = 330.6225
 Lt = 82.1547
 R = 5.2200
 St = 1.028

Pk Sta 4+08.86
 Gs = 2'09" 47'
 Ls = 600'
 Lt = 40.2895
 St = 20.2835

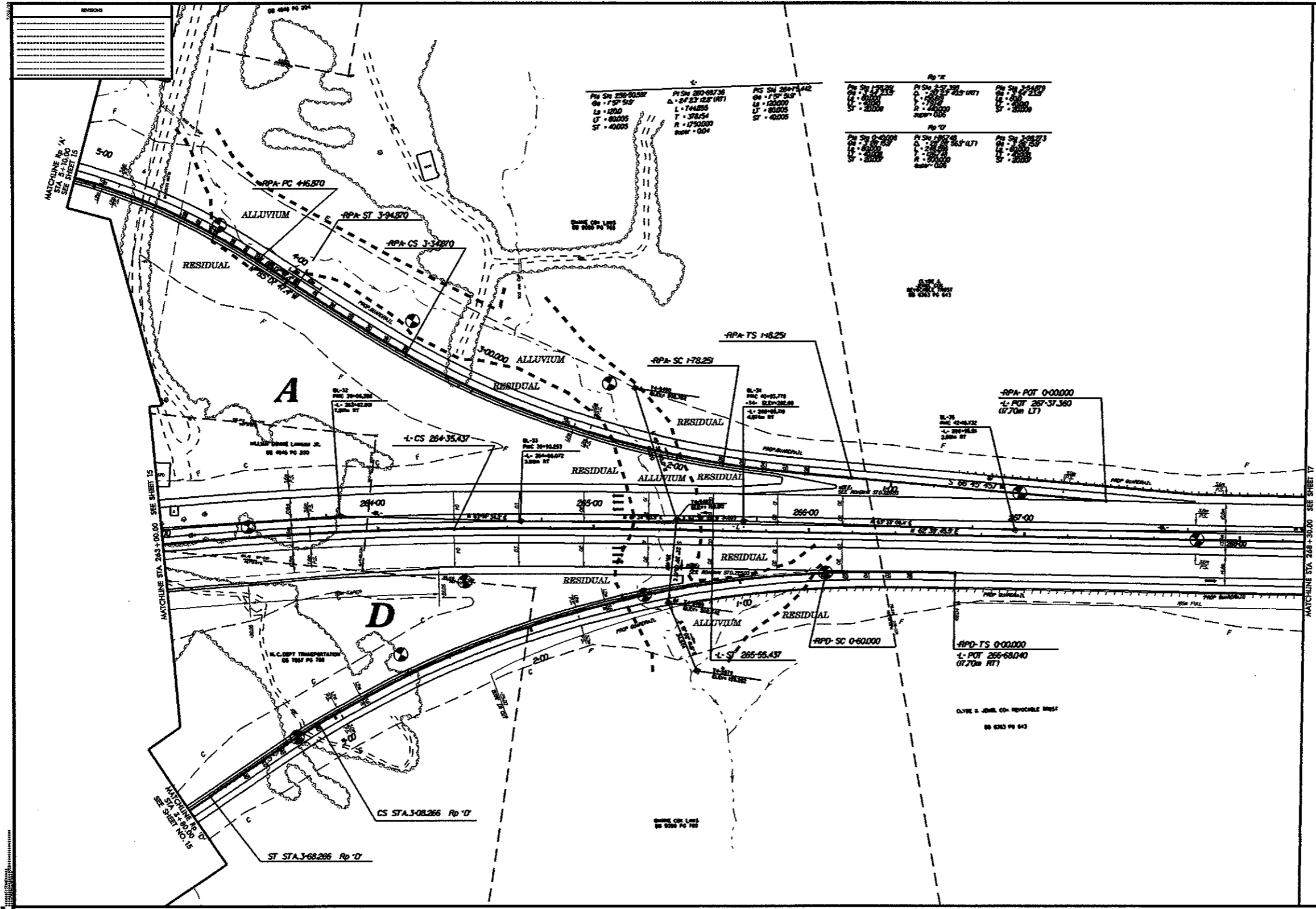
-Y2- MATCHLINE STA 12+40.00 SEE SHEET NO. 25

-Y2- MATCHLINE STA 19+40.00 SEE SHEET NO. 27



Pk Sta 0+42.20 Gs = 2'09" 47' Ls = 600' Lt = 40.2895 St = 20.2835	Pk Sta 2+34.70 Gs = 2'29" 52.5' 47' Ls = 330.6225 Lt = 82.1547 R = 5.2200 St = 1.028	Pk Sta 4+08.86 Gs = 2'09" 47' Ls = 600' Lt = 40.2895 St = 20.2835
R/A Pk Sta 5+28.53 Gs = 2'37" 52.5' 47' Ls = 240.2567 Lt = 132.7385 R = 292.0000 St = 0.028	R/B Pk Sta 3+51.970 Gs = 2'29" 52.5' 47' Ls = 174.730 Lt = 88.885 R = 388.888 St = 0.028	R/C Pk Sta 5+08.298 Gs = 2'53" 23.2' Ls = 600.000 Lt = 40.000 R = 1750.000 St = 0.004
L Pk Sta 280+87.35 Gs = 2'23" 23.2' 47' Ls = 744.856 Lt = 378.54 R = 1750.000 St = 0.004		

	METRICS 1" = 100' 1" = 20.0m	PRELIMINARY PLANS INCOMPLETE PLANS
	CIVIL ENGINEER ROADWAY DESIGN SURVEYOR	HIGHWAY ENGINEER



FOR L- LINE PROFILE SEE SHEET NO. 37 & 38
 FOR RPA PROFILE SEE SHEET 54
 FOR D PROFILE SEE SHEET 58 & 59

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

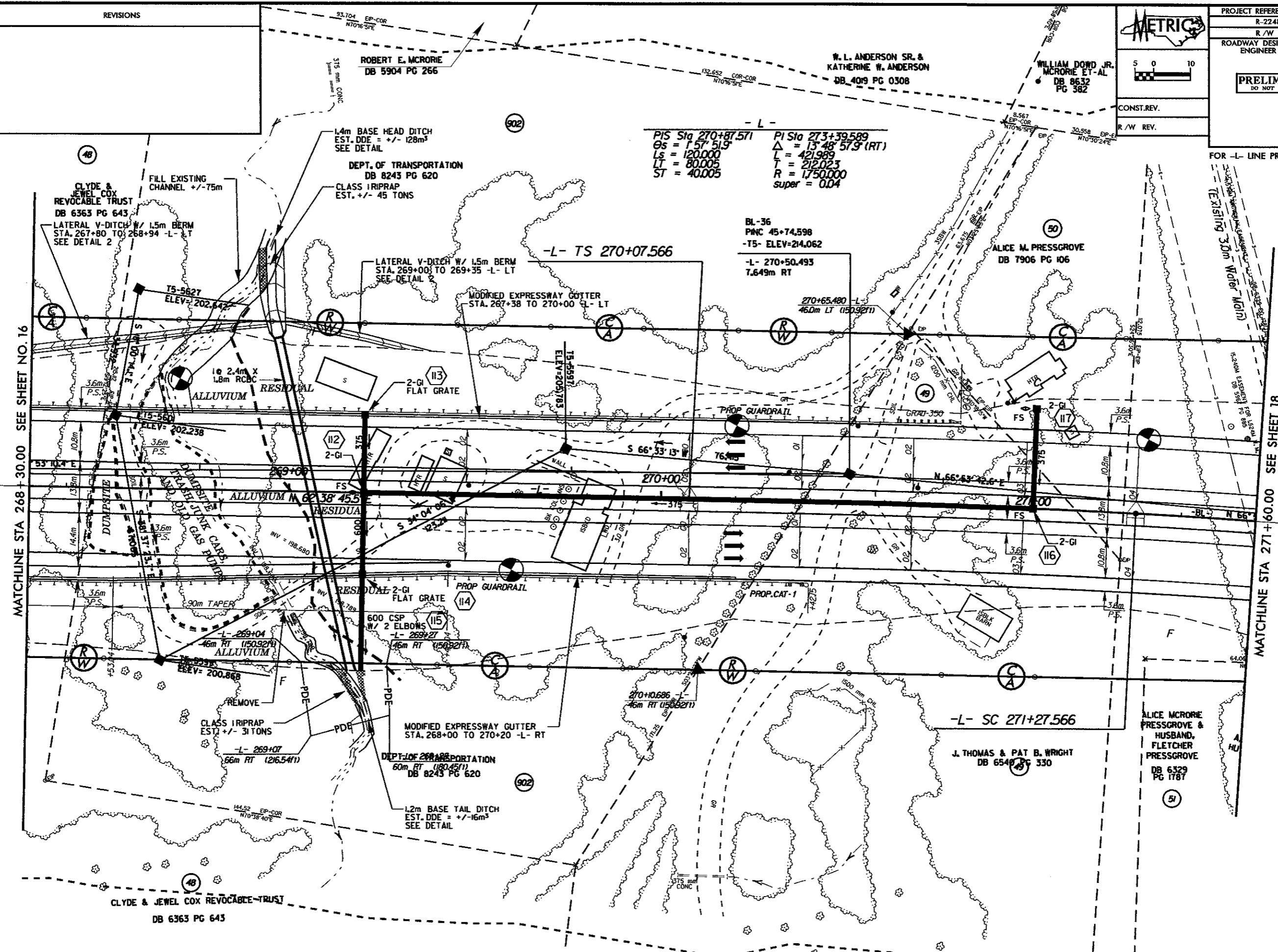
REVISIONS



PROJECT REFERENCE NO. R-2248C	SHEET NO. -17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
CONST.REV.	
R/W REV.	

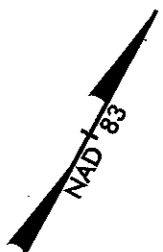


FOR -L- LINE PROFILE SEE SHEET NO. 36



MATCHLINE STA 268 + 30.00 SEE SHEET NO. 16

MATCHLINE STA 271 + 60.00 SEE SHEET 18



CLYDE & JEWEL COX REVOCABLE TRUST
DB 6363 PG 643

ALICE MCRORIE PRESSGROVE & HUSBAND, FLETCHER PRESSGROVE
DB 6329 PG 1787

J. THOMAS & PAT B. WRIGHT
DB 6548 PG 330

ALICE M. PRESSGROVE
DB 7906 PG 106

W. L. ANDERSON SR. & KATHERINE W. ANDERSON
DB 4019 PG 0308

ROBERT E. MCRORIE
DB 5904 PG 266

- L -
 PIS Sta 270+87.571 PI Sta 273+39.589
 Gs = 1.57 51.9' Δ = 13 48' 57.9" (RT)
 Ls = 120.000 L = 421.989
 LT = 80.005 T = 212.023
 ST = 40.005 super = 0.04

BL-36
 PNC 45+74.598
 -T5- ELEV=214.062
 -L- 270+50.493
 7.649m RT

1.4m BASE HEAD DITCH
 EST. DDE = +/- 128m³
 SEE DETAIL

DEPT. OF TRANSPORTATION
 DB 8243 PG 620
 CLASS IRIPRAP
 EST. +/- 45 TONS

CLYDE & JEWEL COX REVOCABLE TRUST
 DB 6363 PG 643
 LATERAL V-DITCH W/ 1.5m BERM
 STA. 267+80 TO 268+94 -L- LT
 SEE DETAIL 2

LATERAL V-DITCH W/ 1.5m BERM
 STA. 269+00 TO 269+35 -L- LT
 SEE DETAIL 2

MODIFIED EXPRESSWAY GUTTER
 STA. 267+38 TO 270+00 -L- LT

ALLUVIUM M 6' 38' 45.5"

CLASS IRIPRAP
 EST +/- 31 TONS

DEPT. OF TRANSPORTATION
 DB 8243 PG 620
 60m RT (180.45ft)
 L- 269+07
 66m RT (216.54ft)

MODIFIED EXPRESSWAY GUTTER
 STA. 268+00 TO 270+20 -L- RT

1.2m BASE TAIL DITCH
 EST. DDE = +/- 16m³
 SEE DETAIL

2.4m x 1.8m RCBC
 3.6m P.S.

2-GI FLAT GRATE

2-GI FLAT GRATE

600 CSP W/ 2 ELBOWS
 -L- 269+27
 46m RT (150.92ft)

46m RT (150.92ft)

270+10.686 -L-
 46m RT (150.92ft)

2-GI FLAT GRATE

2-GI FLAT GRATE

2-GI FLAT GRATE

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

3.6m P.S.

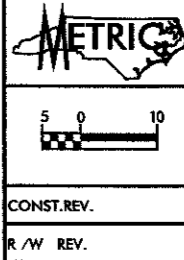
3.6m P.S.

3.6m P.S.

3.6m P.S.

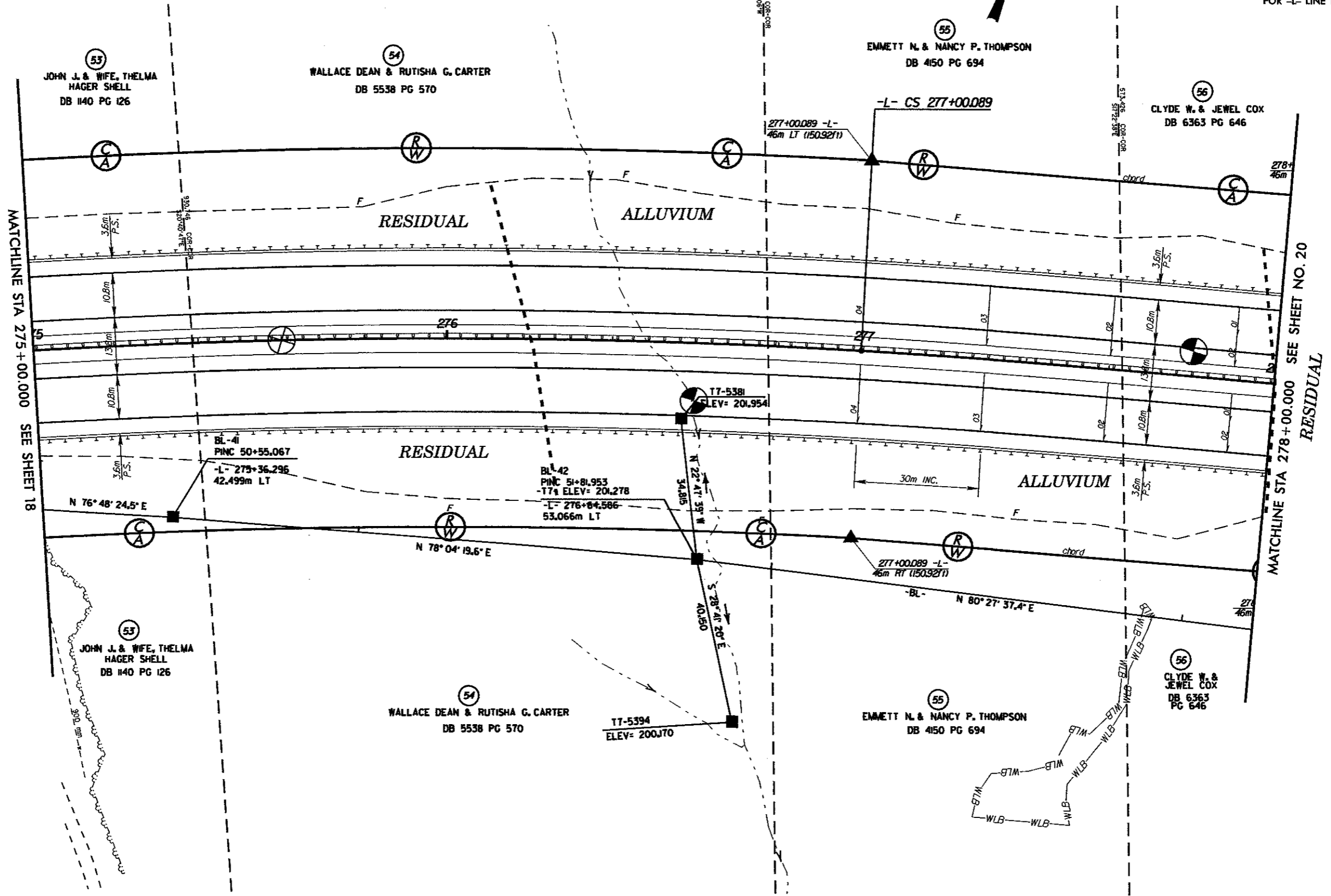
- L -

PI Sta 275+17.598	PIs Sta 277+40.094
$\Delta = 17^{\circ} 59' 37.1'' (RT)$	$\Theta_s = 1^{\circ} 57' 51.9''$
L = 366.325	Ls = 120.000
T = 183.834	LT = 80.005
R = 1,750.000	ST = 40.004
super = 0.04	



PROJECT REFERENCE NO. R-2248C		SHEET NO. 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	
CONST. REV.			
R/W REV.			

FOR -L- LINE PROFILE SEE SHEET NO. 37



5000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
 5000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
 5000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
 5000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
 5000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

REVISIONS



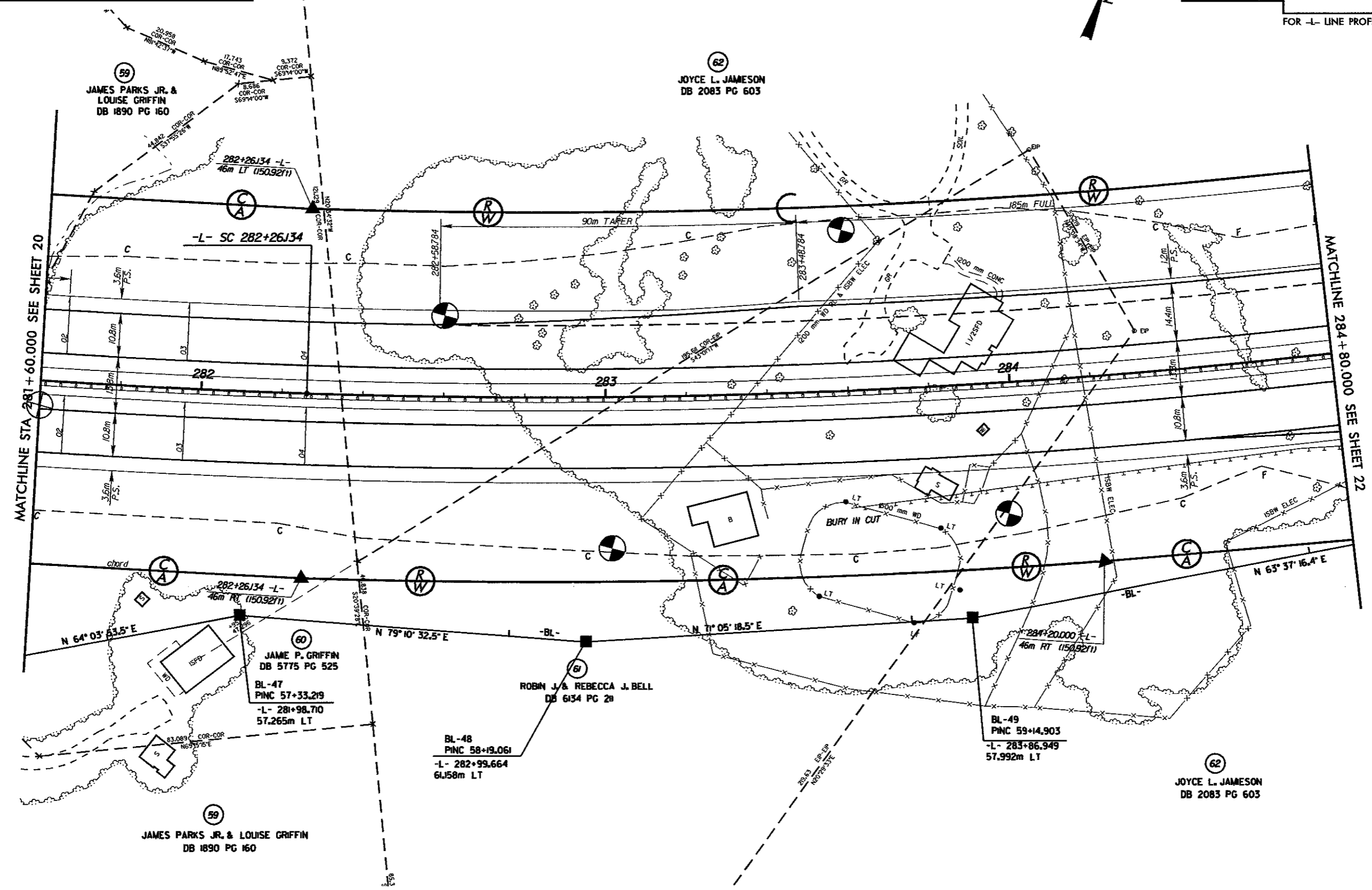
PROJECT REFERENCE NO.	SHEET NO.
R-2248C	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
CONST. REV.	
R/W REV.	

- L -

PIs Sta 281+86.138	PI Sta 288+11.919
Gs = 1.57 51.9	Δ = 37° 00' 51.6" (LT)
Ls = 120.000	L = 1,130.538
LT = 80.005	T = 585.785
ST = 40.004	R = 1,750.000
	super = 0.04



FOR -L- LINE PROFILE SEE SHEET NO. 38



MATCHLINE STA 281+60.000 SEE SHEET 20

MATCHLINE STA 284+80.000 SEE SHEET 22

59
JAMES PARKS JR. & LOUISE GRIFFIN
DB 1890 PG 160

62
JOYCE L. JAMESON
DB 2083 PG 603

60
JAME P. GRIFFIN
DB 5775 PG 525
BL-47
PINC 57+33.219
-L- 281+98.710
57.265m LT

61
ROBIN J. & REBECCA J. BELL
DB 6134 PG 20

BL-48
PINC 58+19.061
-L- 282+99.664
61.58m LT

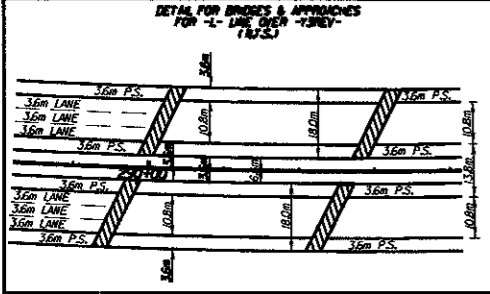
BL-49
PINC 59+14.903
-L- 283+86.949
57.992m LT

62
JOYCE L. JAMESON
DB 2083 PG 603

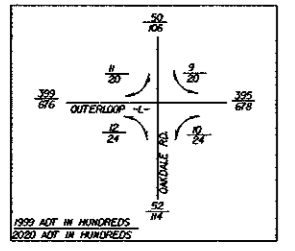
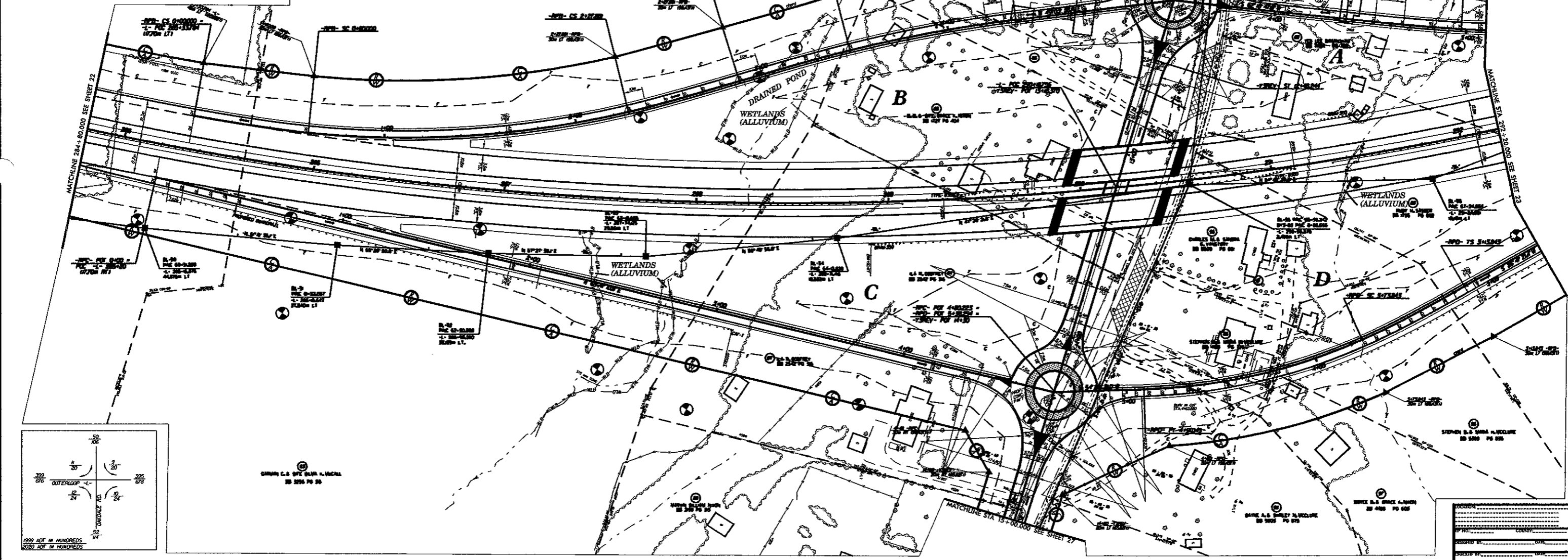
59
JAMES PARKS JR. & LOUISE GRIFFIN
DB 1890 PG 160

11/11/2011 10:55:55 AM

NO.	DATE	DESCRIPTION



No A		No B	
PC Sta 0+000.00	PT Sta 0+300.00	PC Sta 0+350.00	PT Sta 0+650.00
Δ = 299.99	Δ = 299.99	Δ = 299.99	Δ = 299.99
L = 300.00	L = 300.00	L = 300.00	L = 300.00
LT = 150.00	LT = 150.00	LT = 150.00	LT = 150.00
ST = 200.00	ST = 200.00	ST = 200.00	ST = 200.00
Sup = 0.00	Sup = 0.00	Sup = 0.00	Sup = 0.00



METRIC

PROJECT APPROVED BY: _____

DATE: _____

SCALE: _____

CONTRACT: _____

FOR 'L' LINE PROFILE SEE SHEET NO. 26 & 27
 FOR 'M' PROFILE SEE SHEET NO. 28 & 29
 FOR 'N' PROFILE SEE SHEET NO. 30 & 31
 FOR 'O' PROFILE SEE SHEET NO. 32 & 33

DESIGNED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
APPROVED BY: _____	DATE: _____

REVISIONS

METRIC

CONST. REV.
R/W REV.

PROJECT REFERENCE NO. R-2248C	SHEET NO. 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	

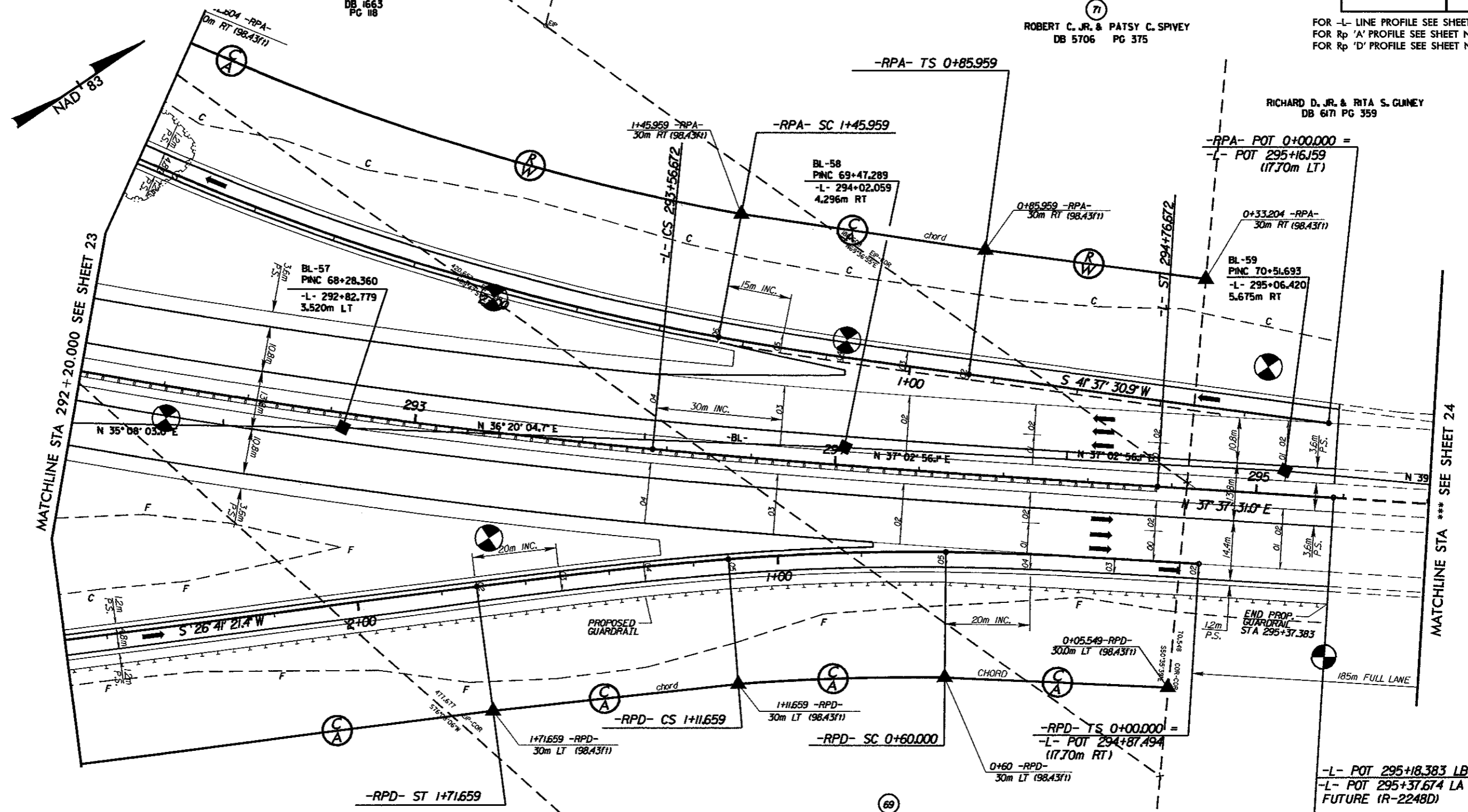
- L -		
PI Sta 288+11.919 $\Delta = 37^{\circ}00'51.6"$ (LT) L = 1130.538 T = 585.785 R = 1750.000	PIs Sta 293+96.676 $\Theta s = 1^{\circ}57'51.9"$ Ls = 120.000 LT = 80.005 ST = 40.004	PI Sta 3+22.609 $\Theta s = 2^{\circ}51'53.2"$ Ls = 60.000 LT = 40.005 ST = 20.005
Rp A		
PI Sta 2+24.729 $\Delta = 14^{\circ}57'30.5"$ (RT) L = 156.645 T = 78.770 R = 600.000 super = 0.06	PIs Sta 1+25.964 $\Theta s = 2^{\circ}51'53.2"$ Ls = 60.000 LT = 40.005 ST = 20.005	

(71)
ROBERT C. JR. & PATSY C. SPIVEY
DB 5706 PG 375

FOR -L- LINE PROFILE SEE SHEET NO. 39 & 40
FOR Rp 'A' PROFILE SEE SHEET NO. 58
FOR Rp 'D' PROFILE SEE SHEET NO. 61

(70)
EUGENE D. & GERALDINE BIRMINGHAM
DB 1663 PG 118

RICHARD D. JR. & RITA S. GUINEY
DB 6171 PG 359



MATCHLINE STA 292+20,000 SEE SHEET 23

MATCHLINE STA *** SEE SHEET 24

(68)
RUBY H. SASSER
DB 1796 PG 582

Rp D		
PIs Sta 0+40.006 $\Theta s = 2^{\circ}56'17.68"$ Ls = 60.000 LT = 40.006 ST = 20.005	PI Sta 0+85.846 $\Delta = 5^{\circ}03'34.28"$ (LT) L = 51.659 T = 25.846 R = 585.000 super = 0.05	PIs Sta 1+31.664 $\Theta s = 2^{\circ}56'17.68"$ Ls = 60.000 LT = 40.006 ST = 20.005

(69)
TED LEE BIRMINGHAM
DB 7494 PG T22

POT STA 295+18.383 -L- END STATE PROJECT R-2248C
POT STA 295+18.383 -L- END F.A. PROJECT NHF-117-1145)
END CONSTRUCTION

-L- POT 295+18,383 LB =
-L- POT 295+37,674 LA
FUTURE (R-2248D)

RICHARD D. JR. & RITA S. GUINEY
DB 6171 PG 359

REVISIONS



CONST. REV.

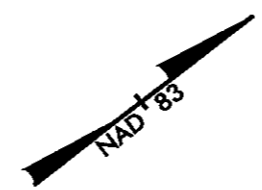
R/W REV.

PROJECT REFERENCE NO. R-2248C SHEET NO. 24

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

FOR -L- LINE PROFILE SEE SHEET NO. 40



MATCHLINE STA *** SEE SHEET 23

OAK HILLS, INC.
DB 4092 PG 428

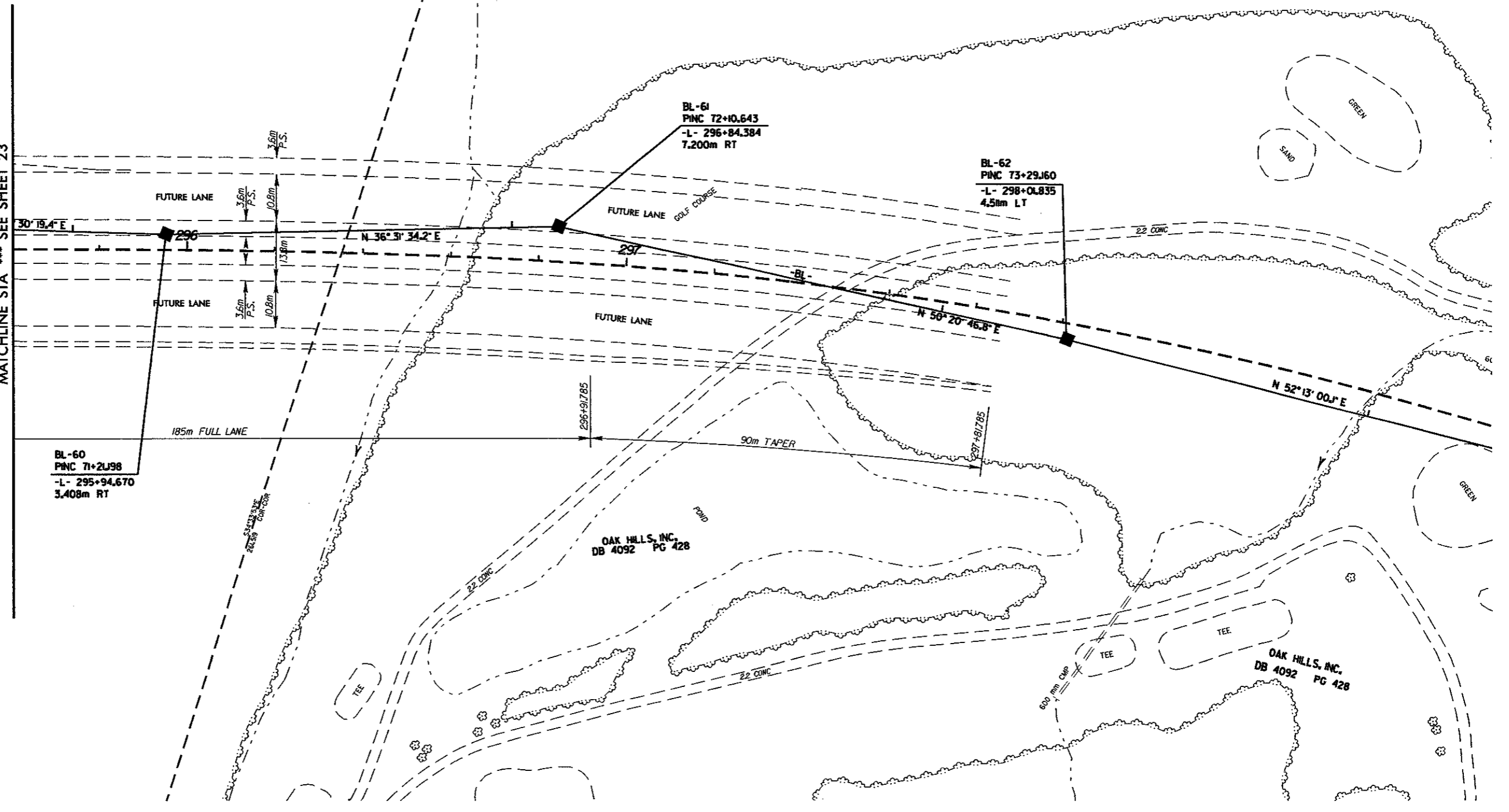
BL-61
PINC 72+10.643
-L- 296+84.384
7.200m RT

BL-62
PINC 73+29.160
-L- 298+04.835
4.51m LT

BL-60
PINC 71+21.998
-L- 295+94.670
3.408m RT


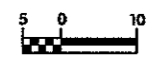
OAK HILLS, INC.
DB 4092 PG 428

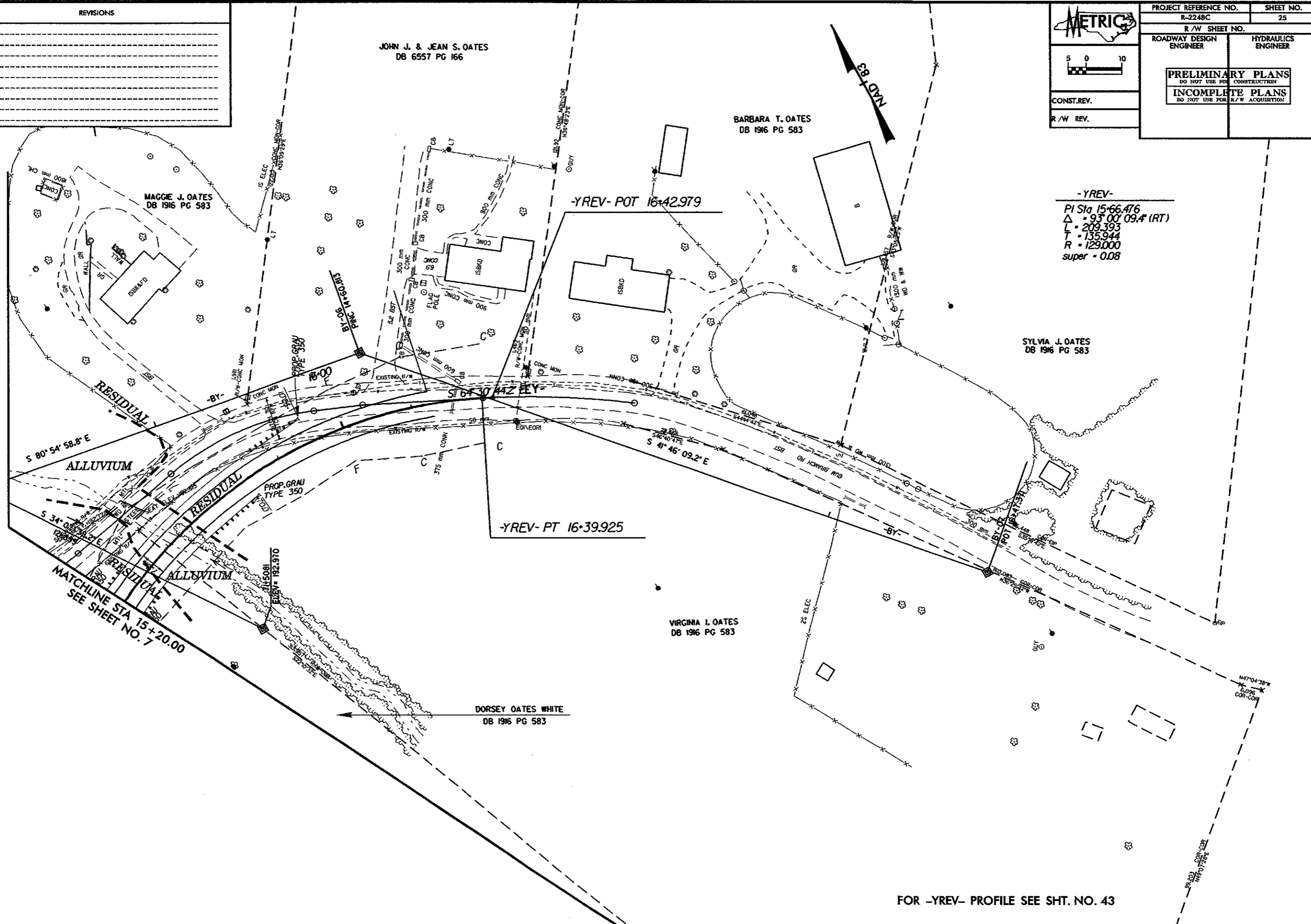
OAK HILLS, INC.
DB 4092 PG 428



SYTIME

REVISIONS

 	PROJECT REFERENCE NO. R-2248C	SHEET NO. 25
	R / W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>		
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small>		
CONST. REV.		
R / W REV.		



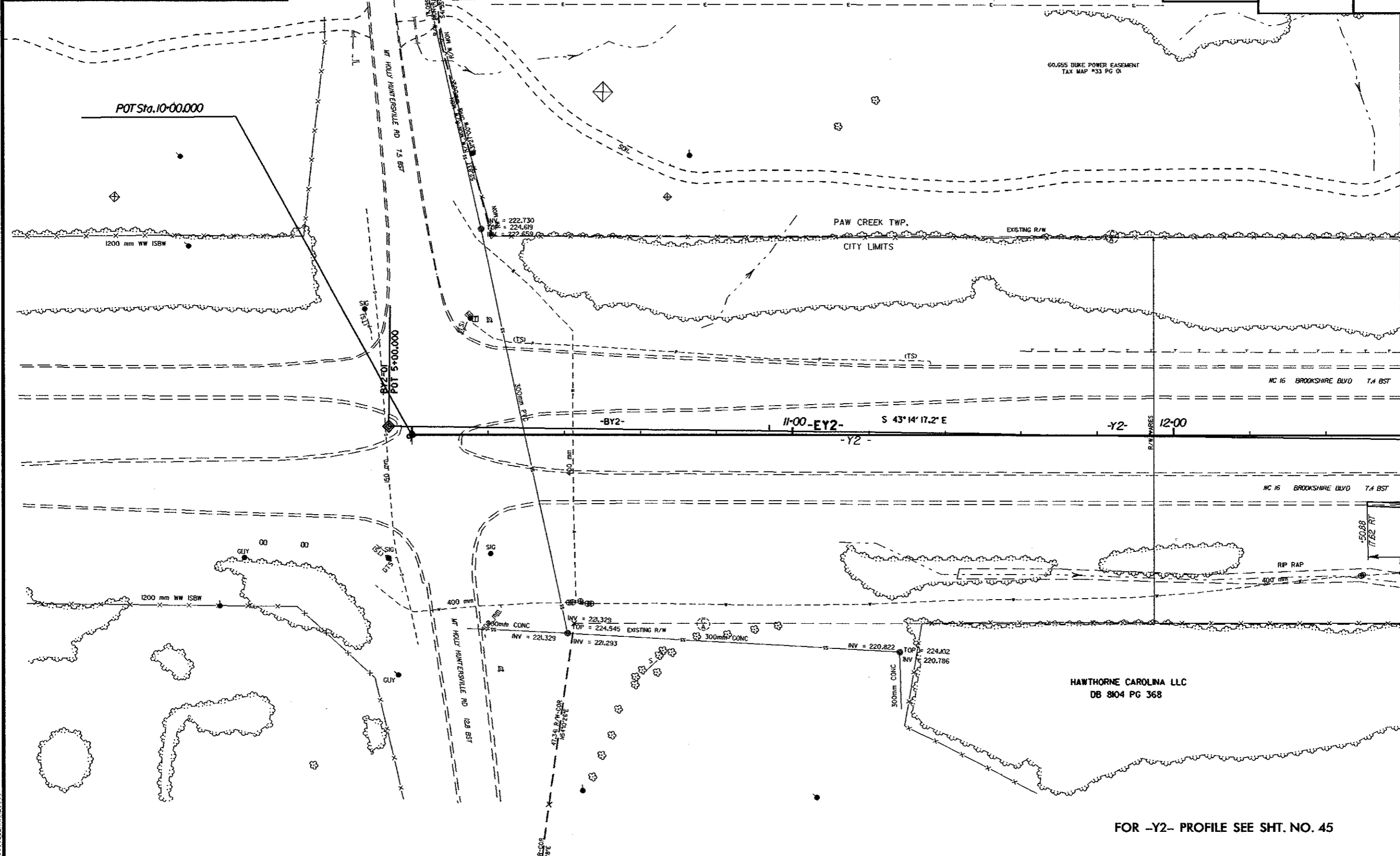
-YREV-
 PI Sta 15+66.476
 $\Delta = 93^{\circ} 00' 09.4" (RT)$
 $L = 209.393$
 $T = 135.944$
 $R = 129.000$
 super = 0.08

FOR -YREV- PROFILE SEE SHT. NO. 43

REVISIONS

HNP ILLC (TRUSTEE UNDER AGREEMENT)
DB 8806 PG 383

	PROJECT REFERENCE NO. R-2248C	SHEET NO. 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		
CONST.REV.		
R/W REV.		



FOR -Y2- PROFILE SEE SHT. NO. 45

REVISIONS



PROJECT REFERENCE NO. SHEET NO.

R-2248C 27

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

CONST.REV.

R/W REV.

UNKNOWN

60.655 DUKE POWER EASEMENT
TAX MAP #33 PG 01



-Y2- POT STA. 20+84.475

MATCHLINE STA 19+80.00 SEE SHEET NO. 15

4.4° E 20-00

CONC DJ
TOP = 200.173 375mm CMP
INV = 199.346 END OF PIPE OBSSTRUCTED (APPROX. LOCATION)

STEEL & CONC

18Y2-

STEEL & CONC

TANK

THURMAN F. FERRELL
DB 3708 PG 855

UNKNOWN

FOR -Y2- PROFILE SEE SHEET NO. 46

REVISIONS

5 0 10

CONST. REV.
R/W REV.

PROJECT REFERENCE NO. R-2248C		SHEET NO. 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			

~~-Y4-~~
~~PI Sta 12-39150~~
~~Δ = 39° 59' 37.0" (LT)~~
~~L = 264.451~~
~~T = 137.861~~
~~R = 378.853~~
~~e = 0.08~~

END CONSTRUCTION
 POT Sta. 13-05.457 -Y4REV- LB
 POC 13-00.00 -Y4- LA

-Y4REV-
 PI Sta 11-73.625
 Δ = 41° 04' 44.4" (LT)
 L = 125.469
 T = 65.567
 R = 175.000
 e = 0.06

~~-Y3-~~
~~PI Sta 10-10.928~~ ~~PI Sta 10-46.002~~
~~Δ = 0° 37' 51.89" (LT)~~ ~~Δ = 0° 37' 18.93" (RT)~~
~~L = 20.0545~~ ~~L = 51.8941~~
~~T = 10.0279~~ ~~T = 25.9473~~
~~R = 704.4629~~ ~~R = 4780.8189~~
~~e = NC~~ ~~e = NC~~

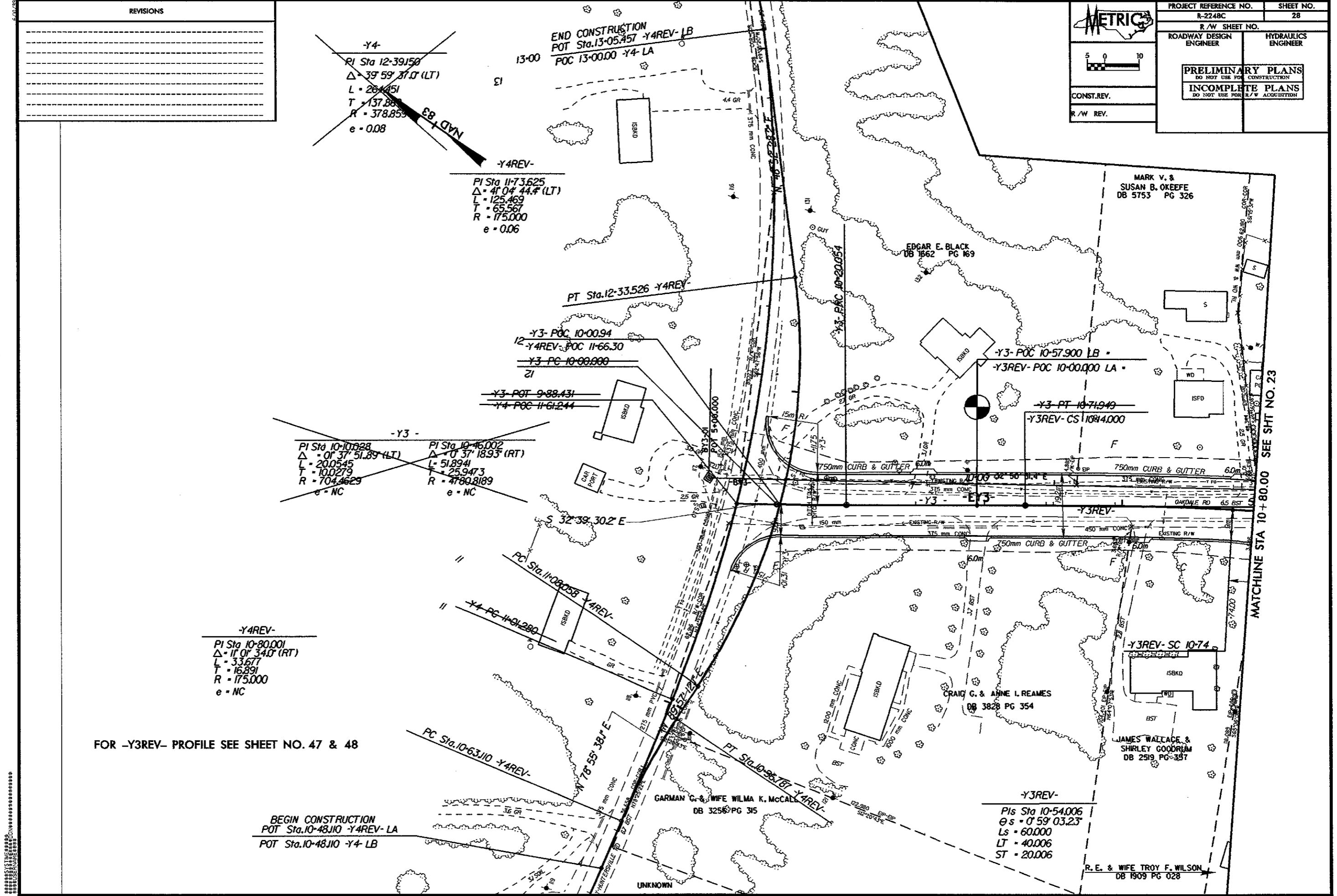
-Y4REV-
 PI Sta 10-80.001
 Δ = 11° 01' 34.0" (RT)
 L = 33.677
 T = 16.891
 R = 175.000
 e = NC

-Y3REV-
 Pis Sta 10-54.006
 θ s = 0° 59' 03.23"
 Ls = 60.000
 LT = 40.006
 ST = 20.006


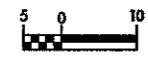
FOR -Y3REV- PROFILE SEE SHEET NO. 47 & 48

BEGIN CONSTRUCTION
 POT Sta. 10-48.110 -Y4REV- LA
 POT Sta. 10-48.110 -Y4- LB

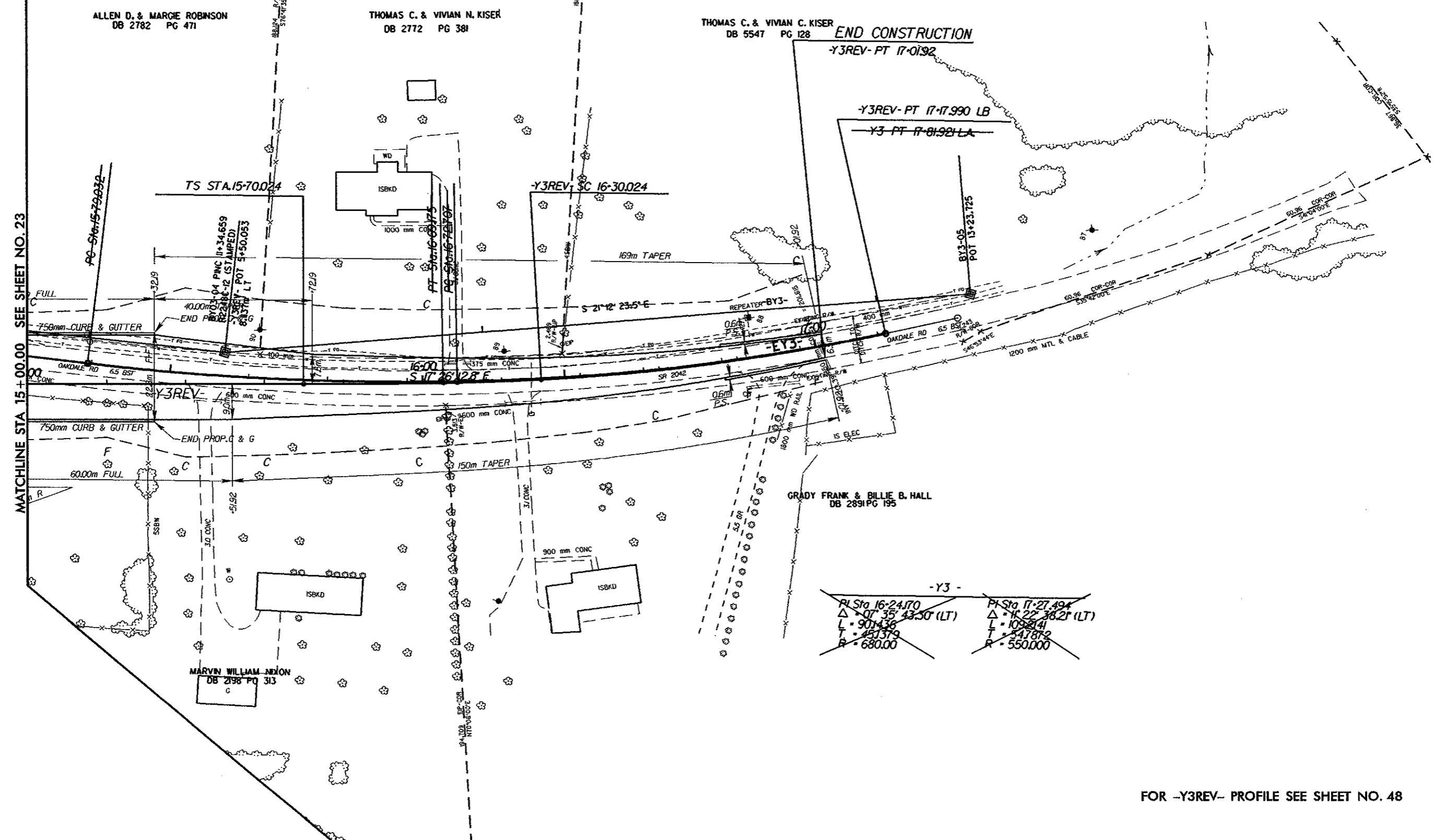
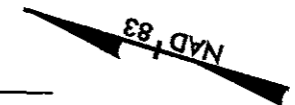
MATCHLINE STA 10 + 80.00 SEE SHT NO. 23



REVISIONS

 	PROJECT REFERENCE NO. R-2248C	SHEET NO. 29
	R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>		
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small>		
CONST.REV.		
R/W REV.		

-Y3REV -
 PI Sta 16+10.030 PI Sta 16+74.101
 Δs = 3° 07' 30.8" Δ = 9° 09' 49.6" (LT)
 Ls = 60.000 L = 87.966
 LT = 40.006 T = 44.077
 ST = 20.006 R = 550.000
 e = 0.06



MATCHLINE STA 15+00.00 SEE SHEET NO. 23

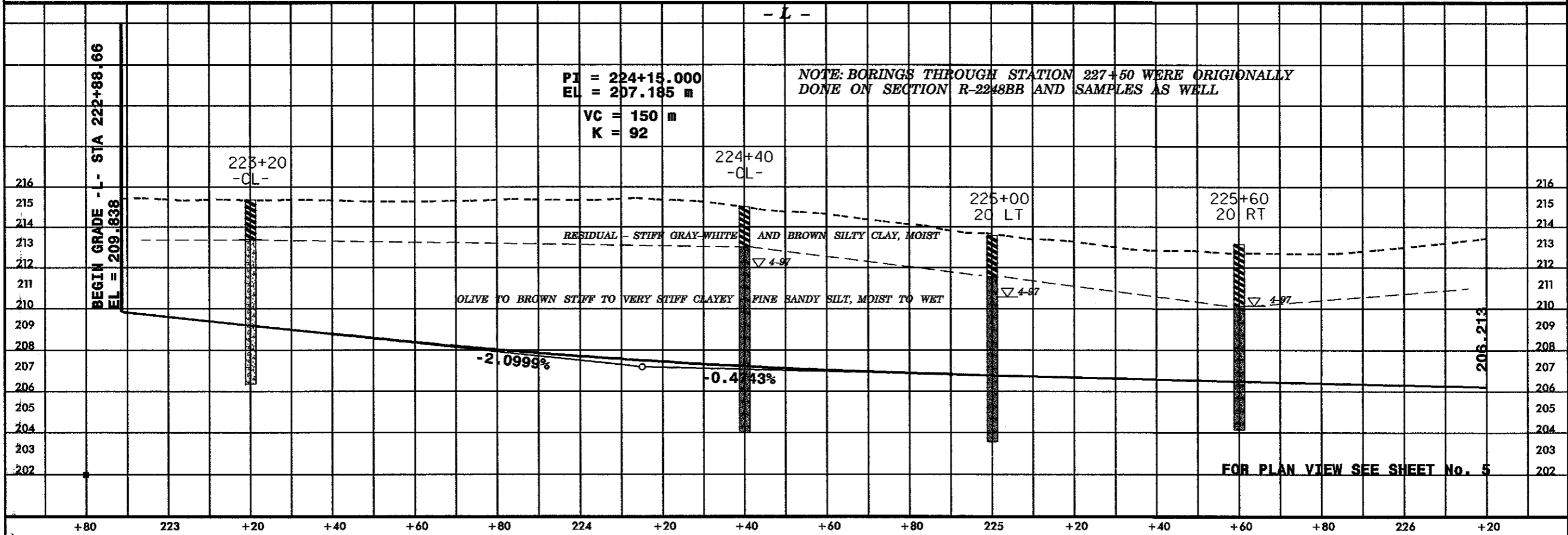
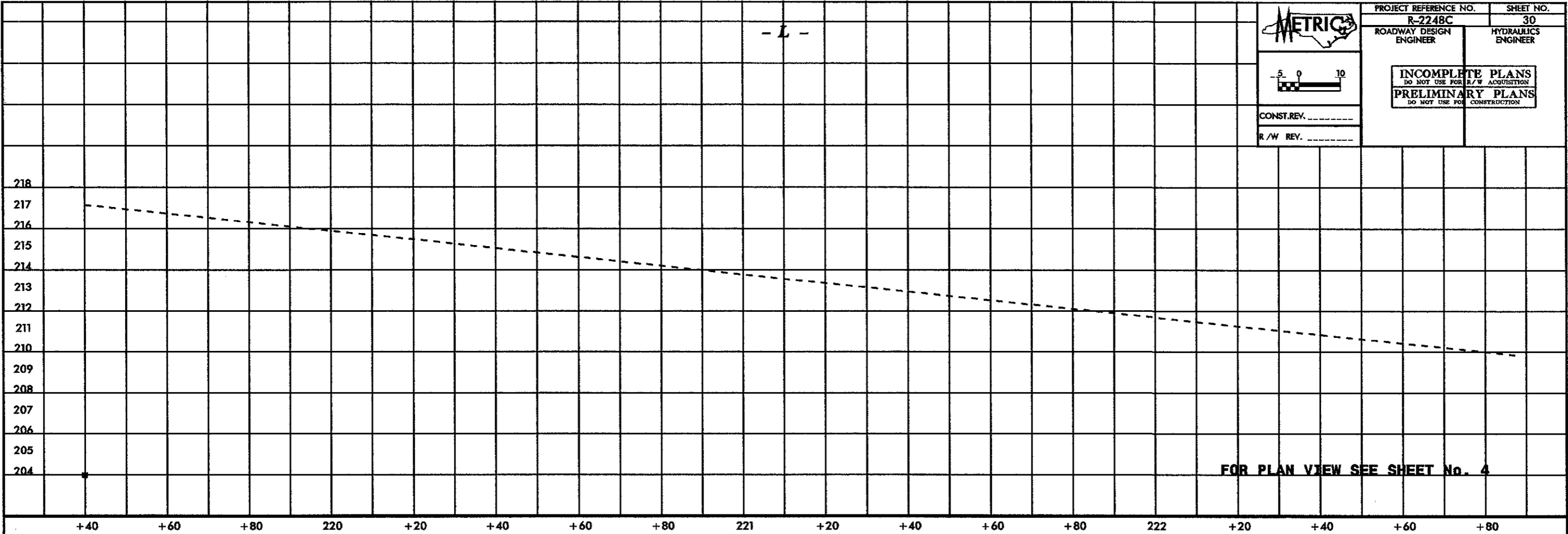
~~-Y3 -~~
~~PI Sta 16+24.170 PI Sta 17+27.494~~
~~Δ = 07° 35' 43.50" (LT) Δ = 14° 22' 36.21" (LT)~~
~~L = 90.436 L = 109.241~~
~~T = 45.139 T = 24.782~~
~~R = 680.00 R = 550.000~~

FOR -Y3REV- PROFILE SEE SHEET NO. 48

METRIC

CONST. REV. _____
R/W REV. _____

PROJECT REFERENCE NO. R-2248C	SHEET NO. 30
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small> PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	





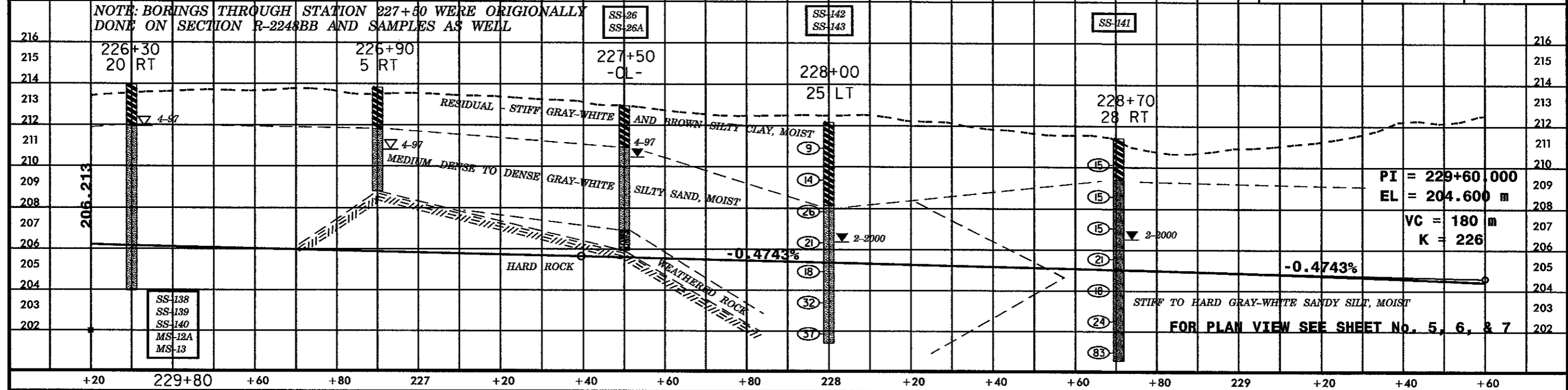
INCOMPLETE PLANS
DO NOT USE FOR ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST. REV. _____
R/W REV. _____

SOIL TEST RESULTS

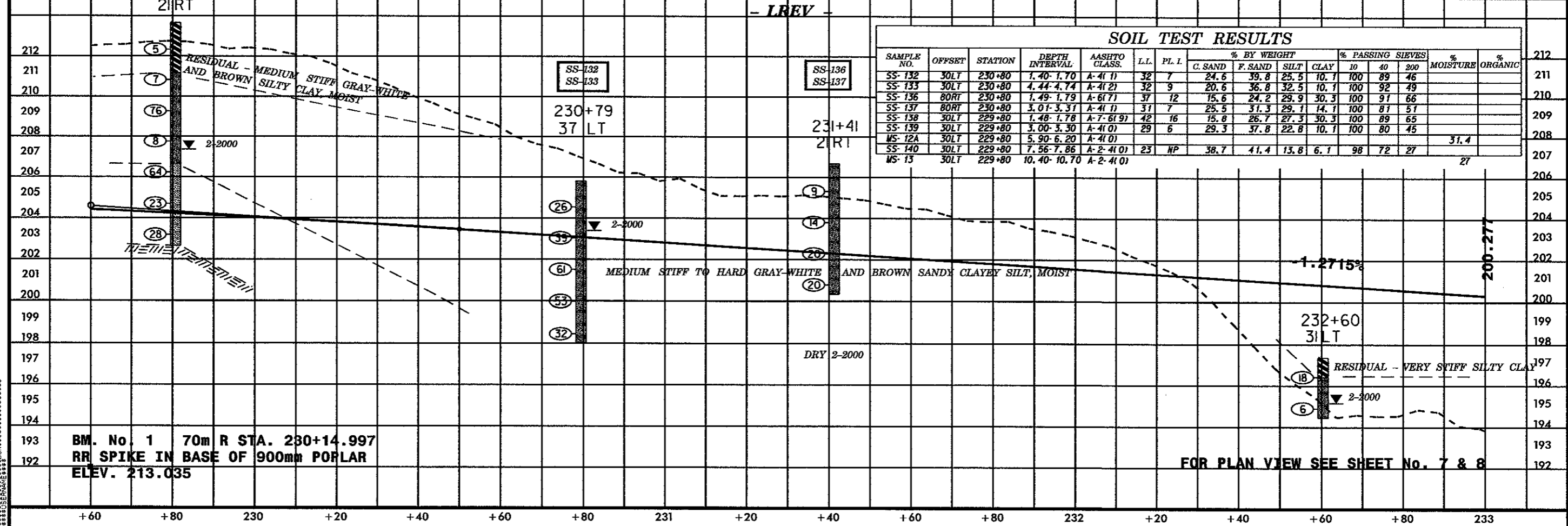
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-26	CL	227+60	0.00-2.00	A-7-5(32)	65	33	8.2	9.8	20.9	61.2	100	95	84		
S-26A	CL	227+60	2.00-6.00	A-2-4(0)	22	2	30.6	38.7	18.5	12.2	94	75	34		
SS-141	30RT	228+70	2.97-3.27	A-4(1)	28	5	15.4	42	28.5	14.1	100	95	53		
SS-142	30RT	228+00	1.42-1.72	A-7-5(12)	44	11	2.8	16.6	56.4	24.2	100	98	87		
SS-143	30RT	228+00	4.46-4.76	A-2-4(0)	21	NP	35.4	39.2	15.4	10.1	100	79	35		

NOTE: BORINGS THROUGH STATION 227+50 WERE ORIGINALLY DONE ON SECTION R-2248BB AND SAMPLES AS WELL



SOIL TEST RESULTS

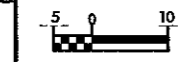
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-132	30LT	230+80	1.40-1.70	A-4(1)	32	7	24.6	39.8	25.5	10.1	100	89	46		
SS-133	30LT	230+80	4.44-4.74	A-4(2)	32	9	20.6	36.8	32.5	10.1	100	92	49		
SS-136	80RT	230+80	1.49-1.79	A-6(7)	37	12	15.6	24.2	29.9	30.3	100	91	66		
SS-137	80RT	230+80	3.01-3.31	A-4(1)	31	7	25.5	31.3	29.1	14.1	100	81	51		
SS-138	30LT	229+80	1.48-1.78	A-7-6(9)	42	16	15.8	26.7	27.3	30.3	100	89	65		
SS-139	30LT	229+80	3.00-3.30	A-4(0)	29	6	29.3	37.8	22.8	10.1	100	80	45		
MS-12A	30LT	229+80	5.90-6.20	A-4(0)										31.4	
SS-140	30LT	229+80	7.56-7.86	A-2-4(0)	23	NP	38.7	41.4	13.8	6.1	98	72	27		
MS-13	30LT	229+80	10.40-10.70	A-2-4(0)											27



BM. No. 1 70m R STA. 230+14.997
RR SPIKE IN BASE OF 900mm POPLAR
ELEV. 213.035



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



CONST. REV. _____
R/W REV. _____

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-123	20RT	239+50	0.00-0.45	A-6(7)	13	13	5.5	32.5	21.6	40.4	100	99	68		
SS-124	20LT	239+40	1.50-1.80	A-7-6(10)	41	18	17.2	21.5	20.7	40.6	95	85	63		
SS-125	20LT	239+40	6.06-6.36	A-4(0)	32	5	30.4	25.8	25.6	18.3	82	63	41		
SS-126	20LT	239+40	9.10-9.40	A-4(5)	37	7	5.5	31.2	58.9	24.3	100	98	73		
SS-127	35LT	237+00	1.18-1.48	A-4(0)	24	4	25.6	42.4	9.7	22.3	99	93	41		
SS-128	35LT	237+00	2.60-2.90	A-4(3)	37	9	17.6	38.3	23.7	20.3	100	91	54		
SS-129	30LT	235+00	1.48-1.78	A-1-6(0)	22	5	36.5	26.2	13	24.3	52	40	22		
SS-130	30RT	234+00	1.44-1.74	A-7-6(7)	47	22	32.5	20	1.1	40.4	97	76	49		
SS-131	30RT	234+00	2.96-3.26	A-4(3)	36	5	17.8	33.5	34.5	14.1	98	88	64		

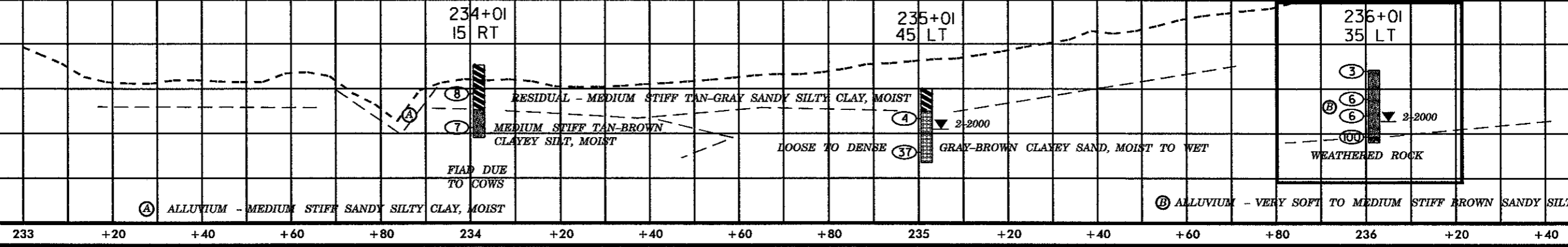
260-277

PI = 235+87.000
EL = 196.628 m
VC = 200 m
K = 124

-1.2715%

-1.2715%

+0.3380%



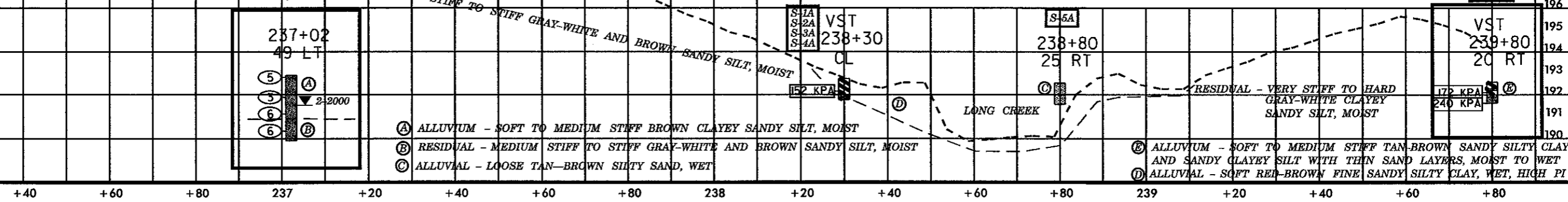
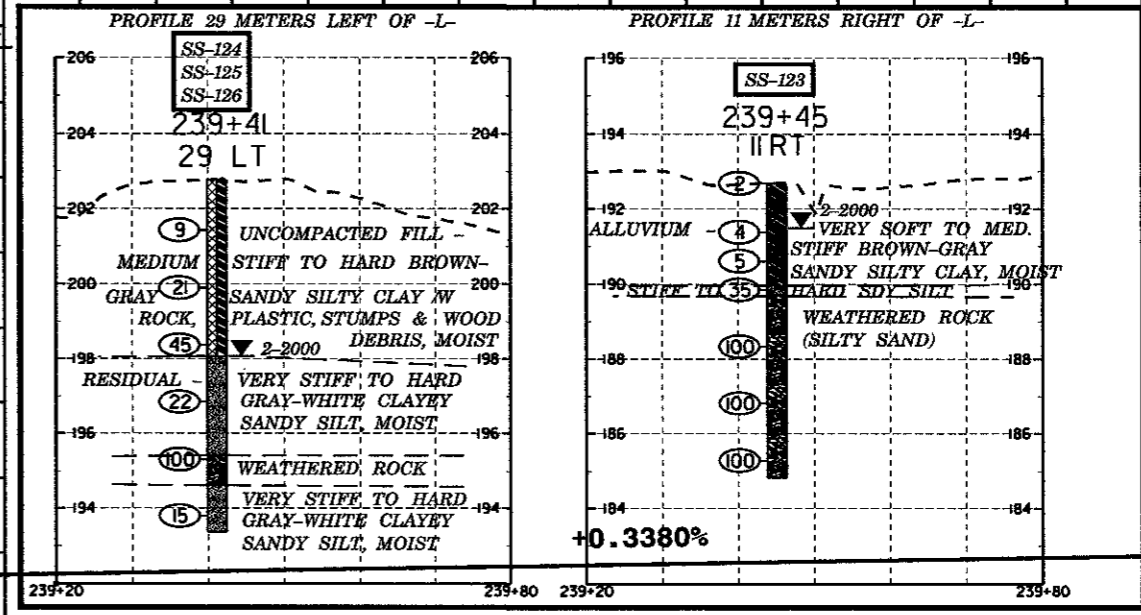
(A) ALLUVIUM - MEDIUM STIFF SANDY SILTY CLAY, MOIST

(B) ALLUVIUM - VERY SOFT TO MEDIUM STIFF BROWN SANDY SILT, MOIST

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-1A	CL	238+30	0.00 - 0.10	A-7-5(25)	61	27	7.5	16	42	34.5	100	96	81		
S-2A	CL	238+30	0.10 - 0.27	A-7-5(31)	67	31	4.7	15.8	30.8	48.7	100	98	84		
S-3A	CL	238+30	0.40 - 0.60	A-7-5(24)	51	21	1.4	5.9	50.1	42.6	100	99	95		
S-4A	CL	238+30	0.75 - 1.00	A-6(12)	39	17	7.3	15.8	34.3	42.6	96	94	76		
S-5A	25 RT	238+80	0.00 - 0.20	A-2-4(0)	26	NP	16.2	56.4	21.3	6.1	100	98	33		
S-6A	20 RT	239+80	0.00 - 0.20	A-7-6(14)	48	20	16.8	15.2	39.6	28.4	96	84	70		
S-7A	20 RT	239+80	0.30 - 0.40	A-2-4(0)	28	10	45.8	20.9	17	16.2	96	66	34		
S-8A	20 RT	239+80	0.40 - 0.60	A-7-6(19)	47	18	6.7	6.5	42.2	44.6	100	96	89		
S-9A	20 RT	239+80	0.60 - 0.70	A-2-4(0)	23	5	50.9	16	16.8	16.2	95	60	34		
S-10A	20 RT	239+80	0.70 - 0.90	A-4(3)	28	9	22.7	22.1	30.8	24.3	97	83	58		

-L REV-



(A) ALLUVIUM - SOFT TO MEDIUM STIFF BROWN CLAYEY SANDY SILT, MOIST

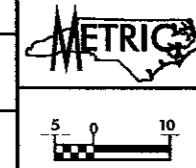
(B) RESIDUAL - MEDIUM STIFF TO STIFF GRAY-WHITE AND BROWN SANDY SILT, MOIST

(C) ALLUVIAL - LOOSE TAN-BROWN SILTY SAND, WET

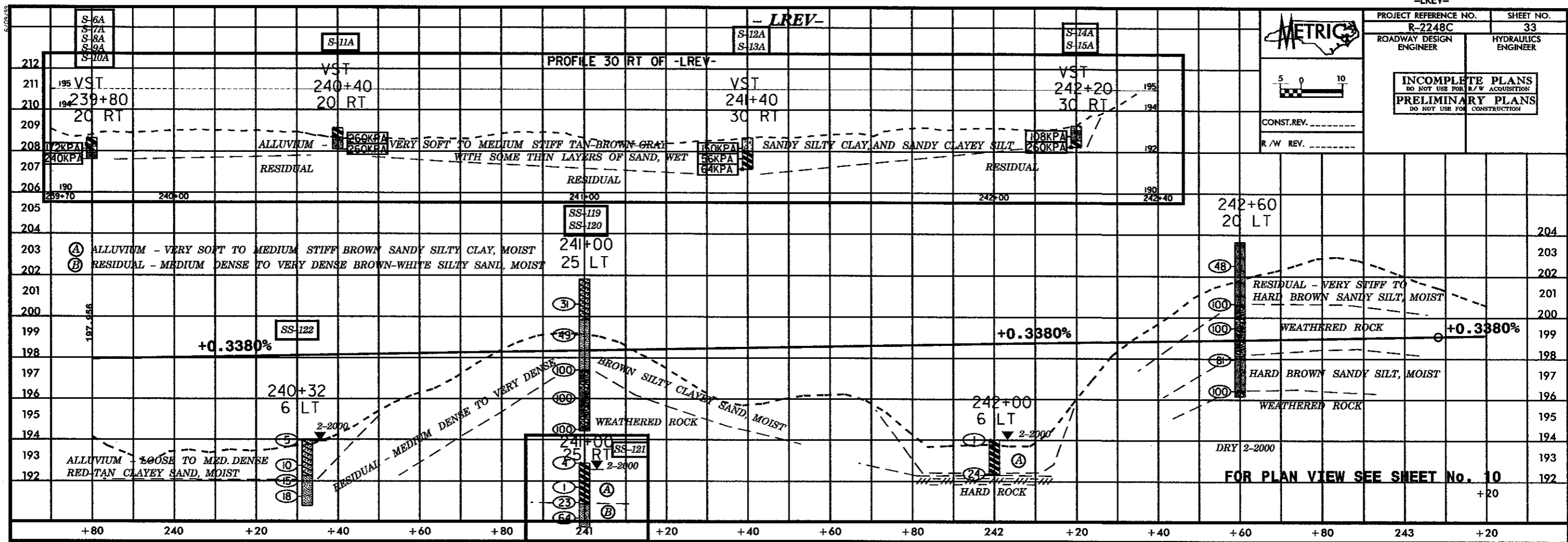
(D) ALLUVIUM - SOFT TO MEDIUM STIFF TAN-BROWN SANDY SILTY CLAY AND SANDY CLAYEY SILT WITH THIN SAND LAYERS, MOIST TO WET

(E) ALLUVIAL - SOFT RED-BROWN FINE SANDY SILTY CLAY, WET, HIGH PI

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



CONST. REV. R/W REV.

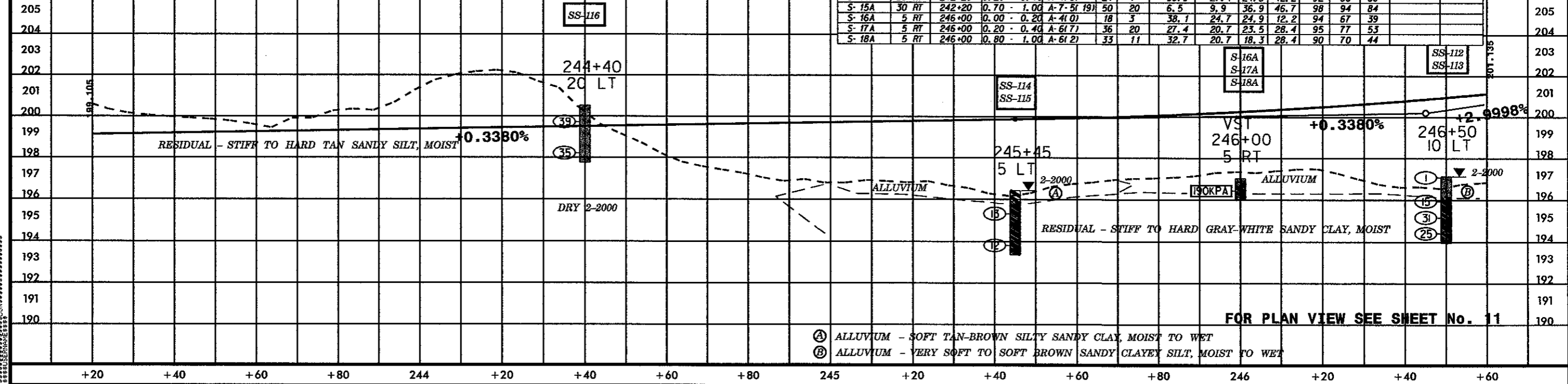


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL. I.	% BY WEIGHT				% PASSING SIEVES		% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40		
SS-112	10LT	247+40	0.20-0.50	A-4(0)	30	7	32.5	27.7	21.6	18.2	99	73	42	
SS-113	10LT	247+40	1.34-1.64	A-6(5)	33	17	26.3	28.1	13.3	32.3	99	83	50	
SS-114	5LT	245+50	1.23-1.53	A-6(6)	36	16	25.7	20.2	19.8	34.3	97	80	57	
SS-115	5LT	245+45	2.75-3.05	A-6(3)	30	14	28.1	26.9	12.7	32.3	99	82	49	
SS-116	10RT	244+40	0.96-1.26	A-4(1)	27	7	25.1	24.2	18.4	32.3	97	81	54	
SS-119	20LT	241+00	1.38-1.68	A-2-6(0)	33	12	38.4	30.3	9.1	22.2	99	74	35	
SS-120	20LT	241+00	2.90-3.20	A-2-4(0)	27	HP	48.8	30.2	9.9	11.1	89	59	23	
SS-122	16RT	240+32	0.00-0.45	A-7-6(12)	21	21	12.5	26.9	16.2	44.4	100	93	66	
SS-121	30RT	241+00	0.00-0.45	A-7-6(19)	18	18	3.8	9.3	28.3	58.6	100	98	89	

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL. I.	% BY WEIGHT				% PASSING SIEVES		% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40		
S-6A	20 RT	239+80	0.00 - 0.20	A-7-6(14)	48	20	16.8	15.2	39.6	28.4	96	84	70	
S-7A	20 RT	239+80	0.30 - 0.40	A-2-4(0)	28	10	45.8	20.9	17	16.2	96	66	34	
S-8A	20 RT	239+80	0.40 - 0.60	A-7-6(19)	47	18	6.7	6.5	42.2	44.6	100	96	89	
S-9A	20 RT	239+80	0.60 - 0.70	A-2-4(0)	23	5	50.9	16	16.8	16.2	95	60	34	
S-10A	20 RT	239+80	0.70 - 0.90	A-4(3)	28	9	22.7	22.1	30.8	24.3	97	83	58	
S-11A	20 RT	240+40	0.45 - 0.65	A-4(2)	26	7	7.9	38.7	29	24.3	100	97	60	
S-12A	30 RT	241+40	0.10 - 0.30	A-5(6)	44	9	18.7	15.6	41.4	24.3	95	82	66	
S-13A	30 RT	241+40	0.70 - 0.90	A-7-6(27)	54	25	3.2	5.7	32.3	58.8	100	98	92	
S-14A	30 RT	242+20	0.20 - 0.40	A-4(0)	24	4	38.9	27.4	21.5	12.2	92	66	36	
S-15A	30 RT	242+20	0.70 - 1.00	A-7-5(19)	50	20	6.5	9.9	36.9	46.7	98	94	84	
S-16A	5 RT	246+00	0.00 - 0.20	A-4(0)	18	3	38.1	24.7	24.9	12.2	94	67	39	
S-17A	5 RT	246+00	0.20 - 0.40	A-6(7)	36	20	27.4	20.7	23.5	28.4	95	77	53	
S-18A	5 RT	246+00	0.80 - 1.00	A-6(2)	33	11	32.7	20.7	18.3	28.4	90	70	44	

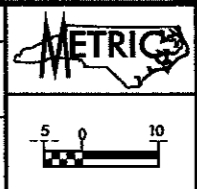


(A) ALLUVIUM - SOFT TAN-BROWN SILTY SANDY CLAY, MOIST TO WET
 (B) ALLUVIUM - VERY SOFT TO SOFT BROWN SANDY CLAYEY SILT, MOIST TO WET

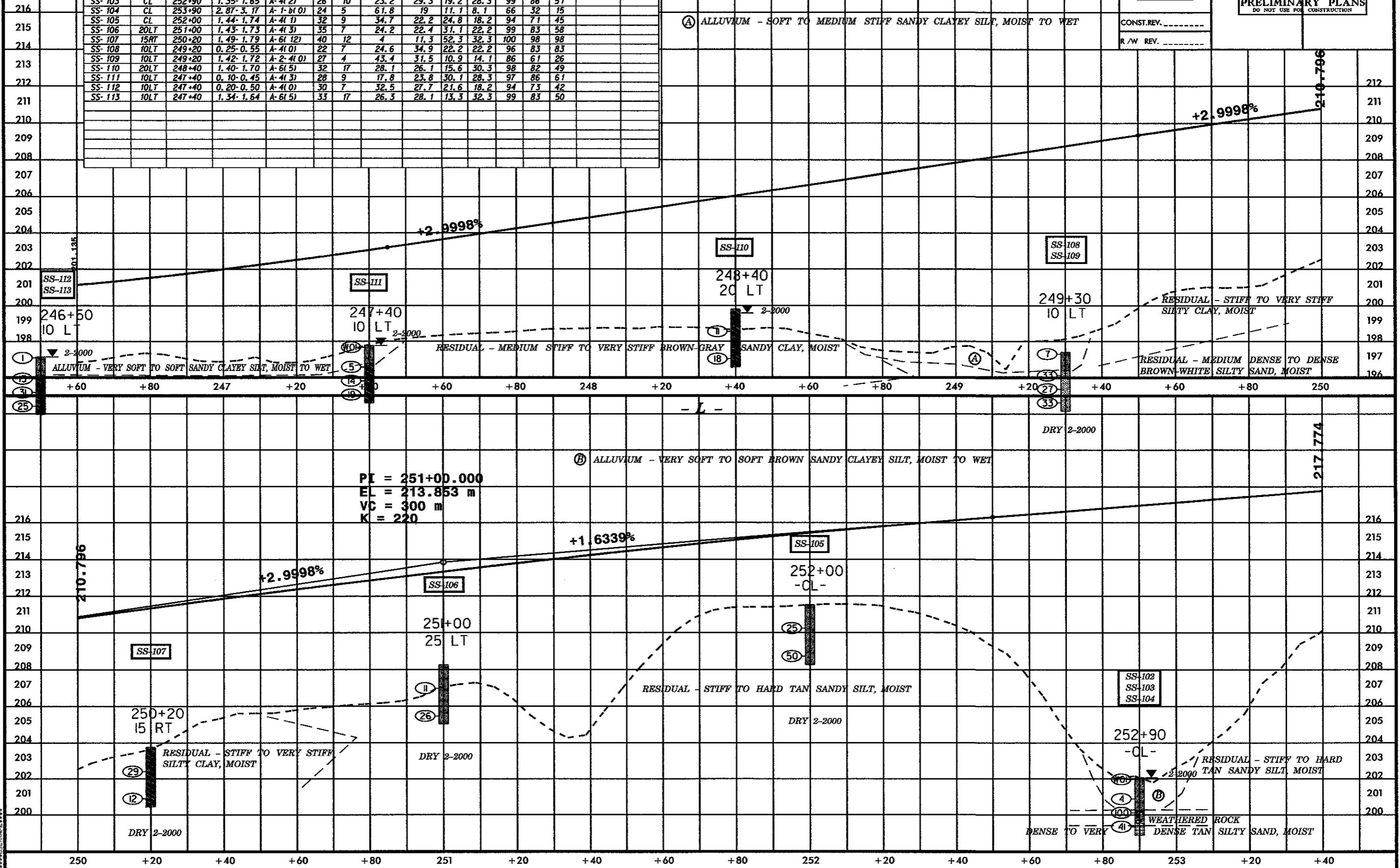
FOR PLAN VIEW SEE SHEET No. 11

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							G. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-102	CL	252+90	0.25-0.55	A-4(0)	26	6	30.3	27.7	23.8	18.2	97	79	46		
SS-103	CL	252+90	1.35-1.65	A-4(2)	26	10	23.2	29.3	19.2	28.3	99	86	51		
SS-104	CL	253+90	2.87-3.17	A-1-b(0)	24	5	61.8	19	11.1	8.1	66	32	15		
SS-105	CL	252+00	1.44-1.74	A-4(1)	32	9	34.7	22.2	24.8	18.2	94	71	45		
SS-106	20LT	251+00	1.43-1.73	A-4(3)	35	7	24.2	22.4	31.1	22.2	99	83	58		
SS-107	15RT	250+20	1.49-1.79	A-6(12)	40	12	4	11.3	52.3	32.3	100	98	98		
SS-108	10LT	249+20	0.25-0.55	A-4(0)	22	7	24.6	34.9	22.2	22.2	96	83	83		
SS-109	10LT	249+20	1.42-1.72	A-2-4(0)	27	4	43.4	31.5	10.9	14.1	86	61	26		
SS-110	20LT	248+40	1.40-1.70	A-6(5)	32	17	28.1	26.1	15.6	30.3	98	82	49		
SS-111	10LT	247+40	0.10-0.45	A-4(3)	28	9	17.8	23.8	30.1	28.3	97	86	61		
SS-112	10LT	247+40	0.20-0.50	A-4(0)	30	7	32.5	27.7	21.6	18.2	94	73	42		
SS-113	10LT	247+40	1.34-1.64	A-6(5)	33	17	26.3	28.1	13.3	32.3	99	83	50		



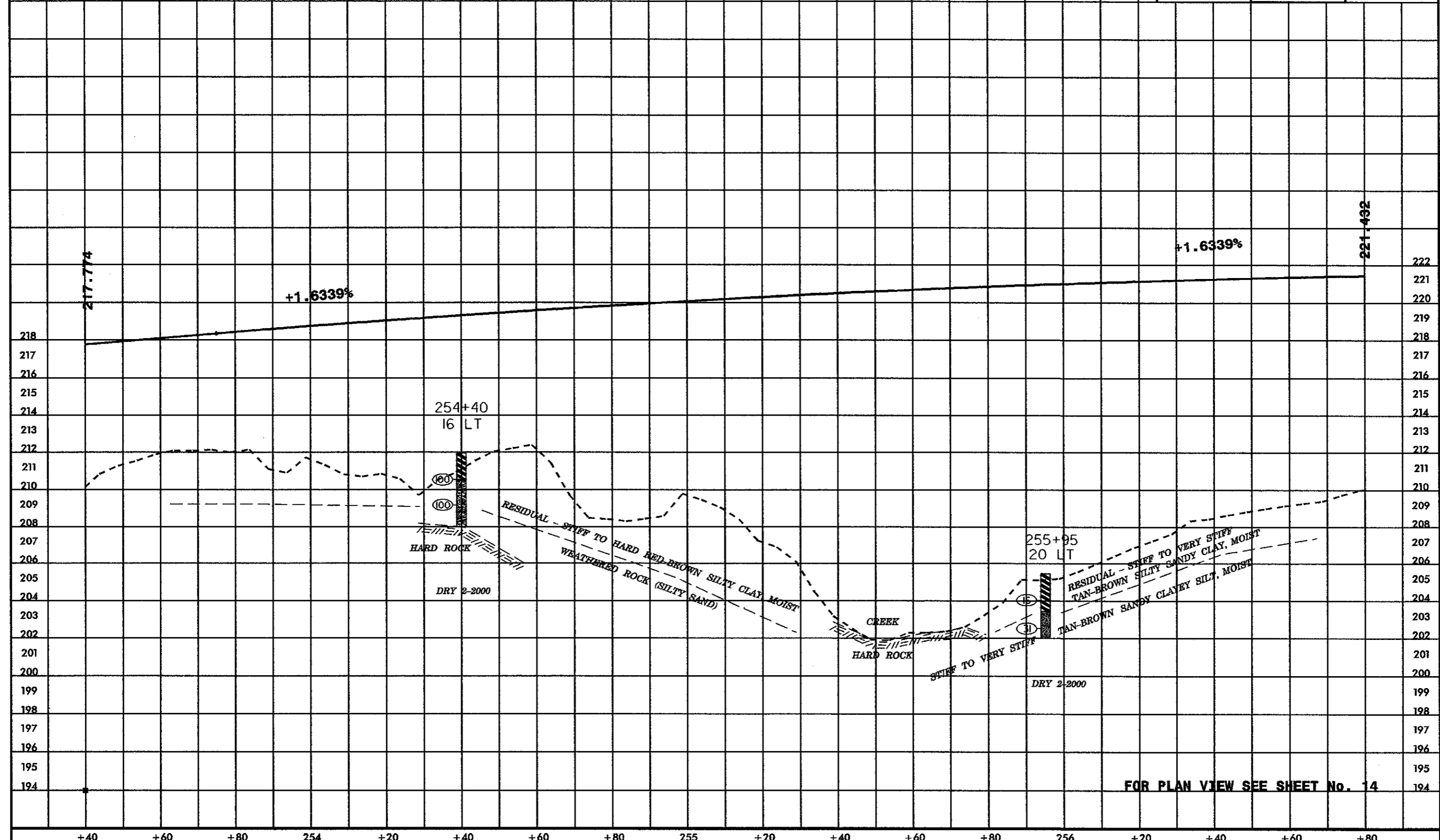
PROJECT REFERENCE NO. R-2248C SHEET NO. 34
 ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER
INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION



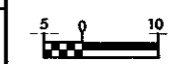
BM No. 5 64m LT OF STA. 254+13.224
 RR SPIKE IN BASE OF PP/TP
 ELEV. 214.269

METRIC
 5 0 10
 CONST. REV. _____
 R/W REV. _____

PROJECT REFERENCE NO. R-2248C	SHEET NO. 35
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

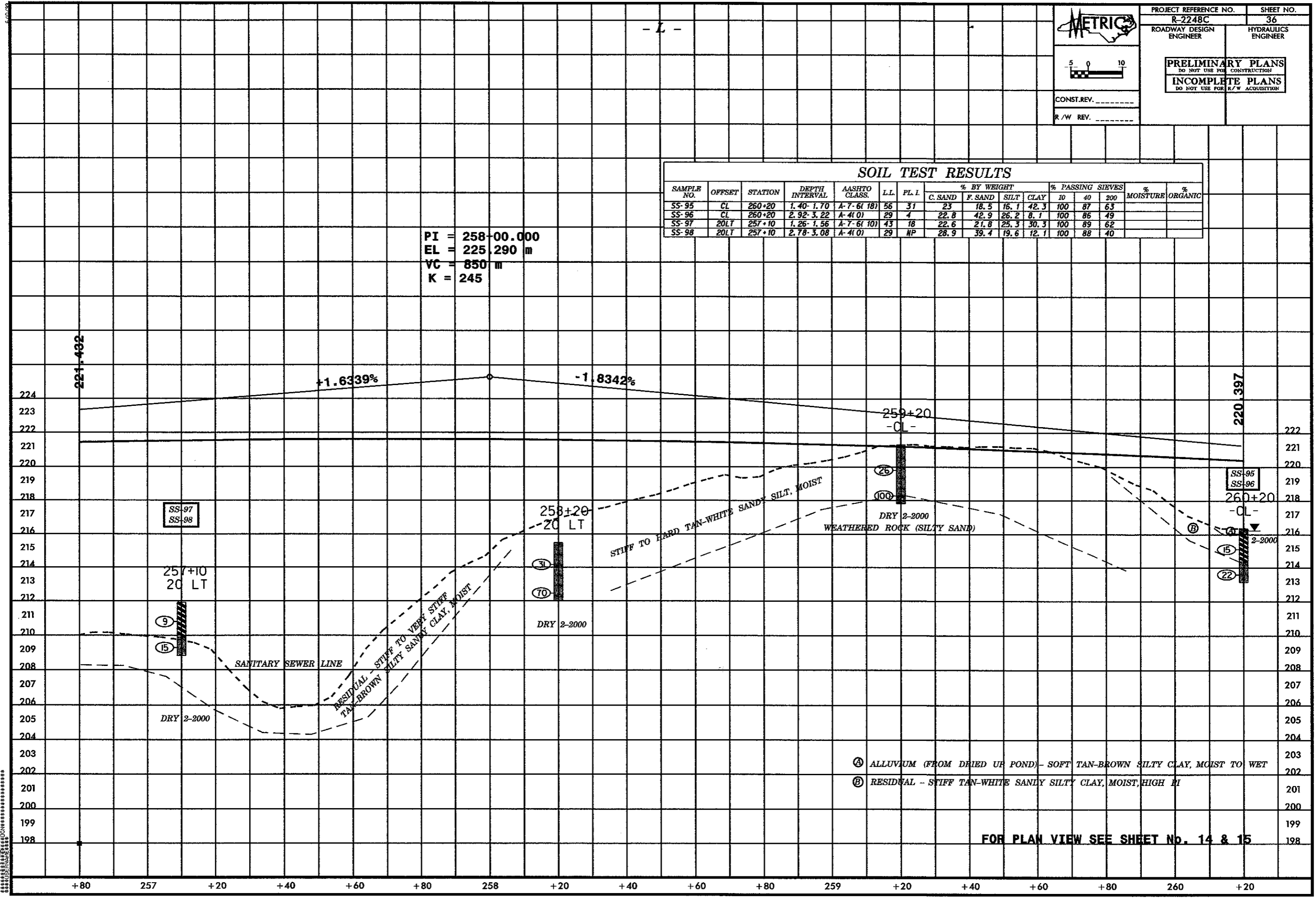


FOR PLAN VIEW SEE SHEET No. 14



SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-95	CL	260+20	1.40-1.70	A-7-6(18)	56	31	23	18.5	16.1	42.3	100	87	63		
SS-96	CL	260+20	2.92-3.22	A-4(0)	29	4	22.8	42.9	26.2	8.1	100	86	49		
SS-97	20LT	257+10	1.26-1.56	A-7-6(10)	43	18	22.6	21.8	25.3	30.3	100	89	62		
SS-98	20LT	257+10	2.78-3.08	A-4(0)	29	NP	28.9	39.4	19.6	12.1	100	88	40		

PI = 258+00.000
 EL = 225.290 m
 VC = 850 m
 K = 245



- Ⓐ ALLUVIUM (FROM DRIED UP POND) - SOFT TAN-BROWN SILTY CLAY, MOIST TO WET
- Ⓑ RESIDUAL - STIFF TAN-WHITE SANDY SILTY CLAY, MOIST, HIGH PI

FOR PLAN VIEW SEE SHEET No. 14 & 15

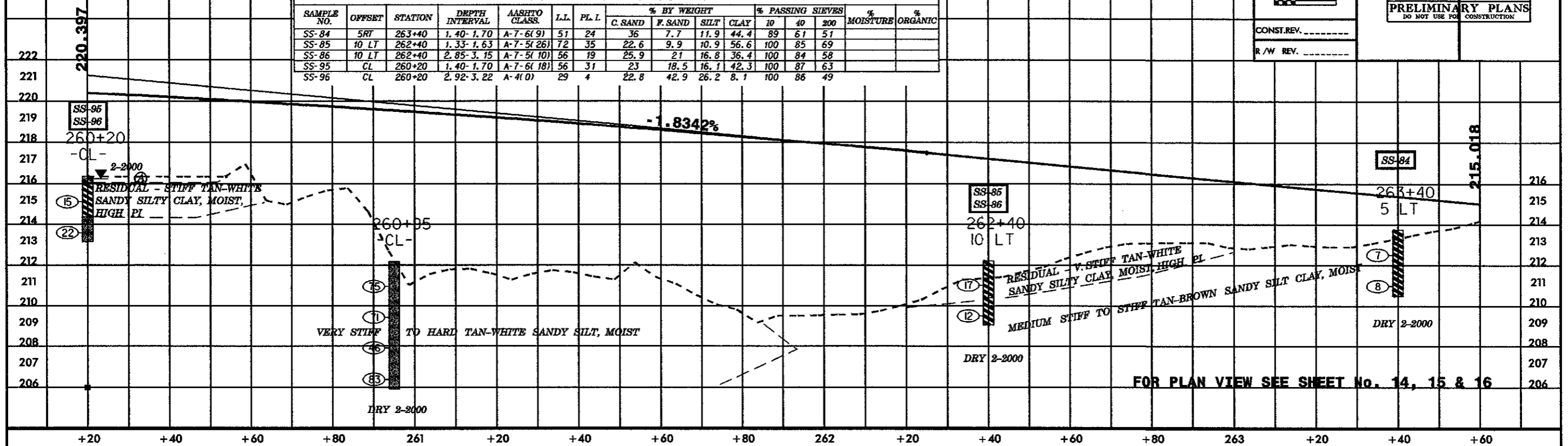
Ⓐ ALLUVIUM (FROM DRIED UP POND) - SOFT TAN-BROWN SILTY CLAY, MOIST TO WET

CONST. REV. _____
R/W REV. _____

PROJECT REFERENCE NO. R-2248C SHEET NO. 37
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION

SOIL TEST RESULTS

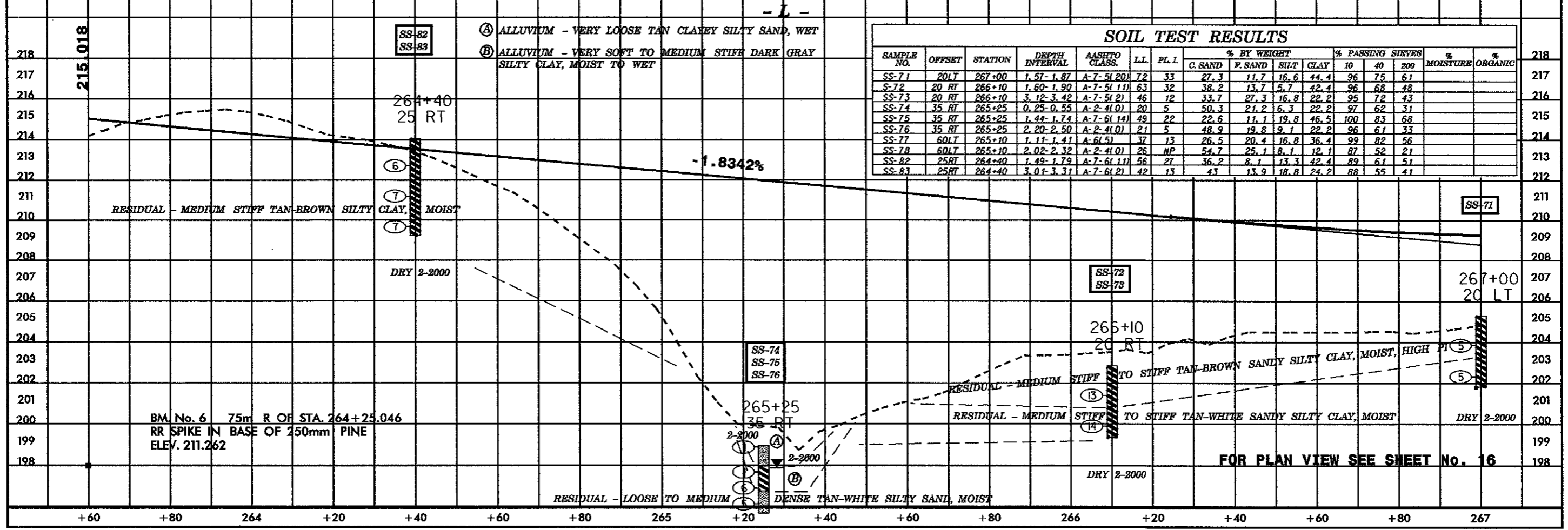
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-84	5RT	263+40	1.40-1.70	A-7-6(9)	51	24	36	7.7	11.9	44.4	89	61	51		
SS-85	10 LT	262+40	1.33-1.63	A-7-5(26)	72	35	22.6	9.9	10.9	56.6	100	85	69		
SS-86	10 LT	262+40	2.85-3.15	A-7-5(10)	56	19	25.9	2.1	16.8	36.4	100	84	58		
SS-95	CL	260+20	1.40-1.70	A-7-6(18)	56	31	23	18.5	16.1	42.3	100	87	63		
SS-96	CL	260+20	2.92-3.22	A-4(0)	29	4	22.8	42.9	26.2	8.1	100	86	49		



Ⓐ ALLUVIUM - VERY LOOSE TAN CLAYEY SILTY SAND, WET
Ⓑ ALLUVIUM - VERY SOFT TO MEDIUM STIFF DARK GRAY SILTY CLAY, MOIST TO WET

SOIL TEST RESULTS

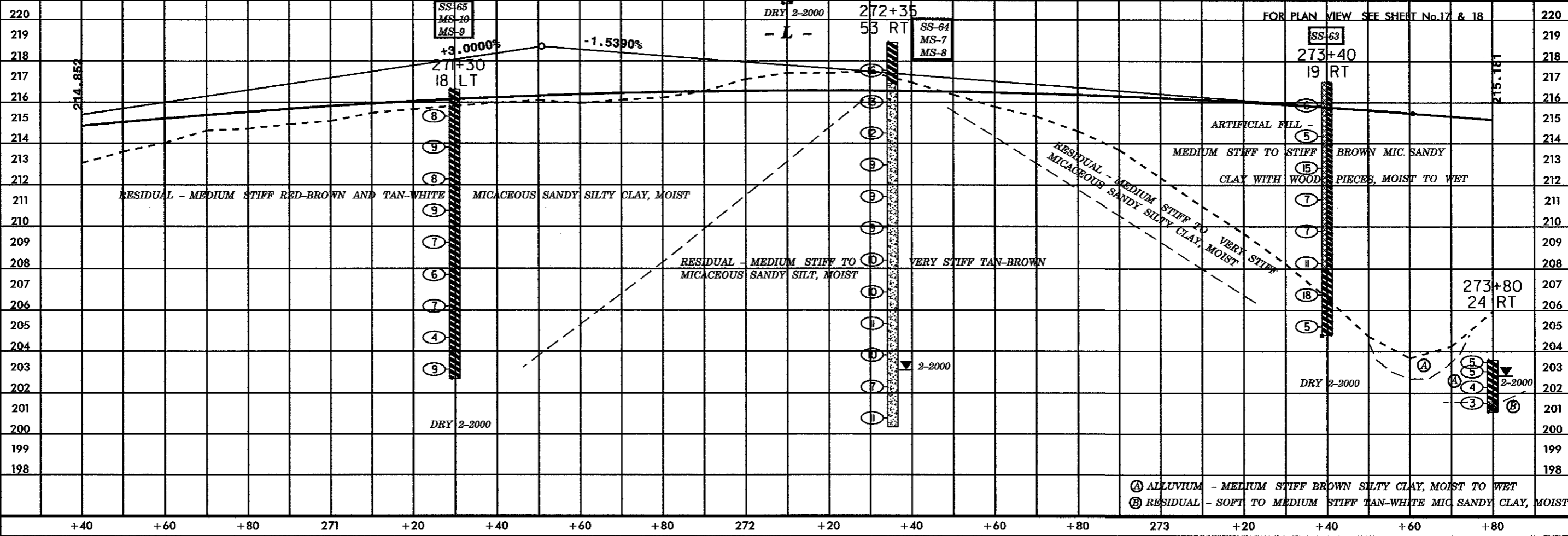
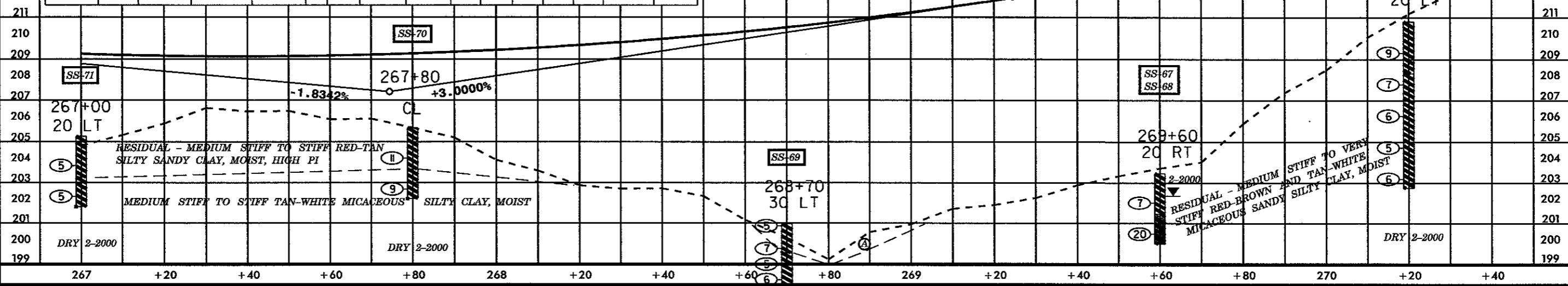
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-71	20LT	267+00	1.51-1.87	A-7-5(20)	72	33	27.3	11.7	16.6	44.4	96	75	61		
S-72	20 RT	266+10	1.60-1.90	A-7-5(11)	63	32	38.2	13.7	5.7	42.4	96	68	48		
SS-73	20 RT	266+10	3.12-3.42	A-7-5(2)	46	12	33.7	27.3	16.8	22.2	95	72	43		
SS-74	35 RT	265+25	0.25-0.55	A-2-4(0)	20	5	50.3	21.2	6.3	22.2	97	62	31		
SS-75	35 RT	265+25	1.44-1.74	A-7-6(14)	49	22	22.6	11.1	19.8	46.5	100	83	68		
SS-76	35 RT	265+25	2.20-2.50	A-2-4(0)	21	5	48.9	19.8	9.1	22.2	96	61	33		
SS-77	60LT	265+10	1.11-1.41	A-6(5)	37	13	26.5	20.4	16.8	36.4	99	82	56		
SS-78	60LT	265+10	2.02-2.32	A-2-4(0)	26	NP	54.7	25.1	8.1	12.1	87	52	21		
SS-82	25RT	264+40	1.49-1.79	A-7-6(11)	56	27	36.2	8.1	13.3	42.4	89	61	51		
SS-83	25RT	264+40	3.01-3.31	A-7-6(2)	42	13	43	13.9	18.8	24.2	88	55	41		



SOIL TEST RESULTS

STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
					C. SAND	F. SAND	SILT	CLAY	10	40	200		
222	MS-8 53RT 272+35	15, 20-15, 50	A-5(4)									32.5	
221	SS-63 19RT 273+40	8, 87-9, 17	A-7-5(10)	56	21	26.7	20.8	22.2	30.3	94	78	54	
220	SS-64 53RT 272+35	1, 62-1, 92	A-7-5(33)	66	29	4.6	4.4	28.3	62.6	100	97	92	
219	SS-65 18LT 271+30	3, 04-3, 34	A-7-5(9)	51	18	26.1	17.2	28.5	28.3	92	74	56	
218	MS-7 53RT 272+35	7, 60-7, 90	A-5(4)									23.5	
218	MS-9 18LT 271+30	5, 92-6, 22	A-7-5(9)									23.3	
218	MS-10 18LT 271+30	10, 55-10, 85	A-7-5(9)									26.5	
217	SS-66 20LT 270+20	1, 66-1, 96	A-7-5(13)	57	23	25.1	11.9	24.6	38.4	92	74	61	
217	MS-11 20LT 270+20	4, 57-4, 87	A-7-5(9)									33.5	
216	SS-67 20RT 269+60	1, 60-1, 90	A-7-6(7)	54	27	40	17	18.8	24.2	92	64	43	
216	SS-68 20RT 269+70	3, 12-3, 42	A-6(1)	32	11	45.7	12.9	7.1	34.3	95	61	41	
215	SS-69 30RT 267+80	0, 25-0, 55	A-7-6(11)	48	20	27.1	10.9	25.7	36.4	96	75	62	
214	SS-70 CL 267+80	1, 62-1, 92	A-7-5(27)	71	37	21.6	9.1	37	32.3	97	81	69	
214	SS-71 20LT 267+00	1, 57-1, 87	A-7-5(20)	72	33	27.3	11.7	16.6	44.4	96	75	61	

PROJECT REFERENCE NO. R-2248C SHEET NO. 38
 ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER
 INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION
 PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
 METRIC
 5 0 10
 CONST. REV. _____
 R/W REV. _____



LEFT DITCH

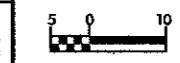
- L -



PROJECT REFERENCE NO. R-2248C SHEET NO. 39

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

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



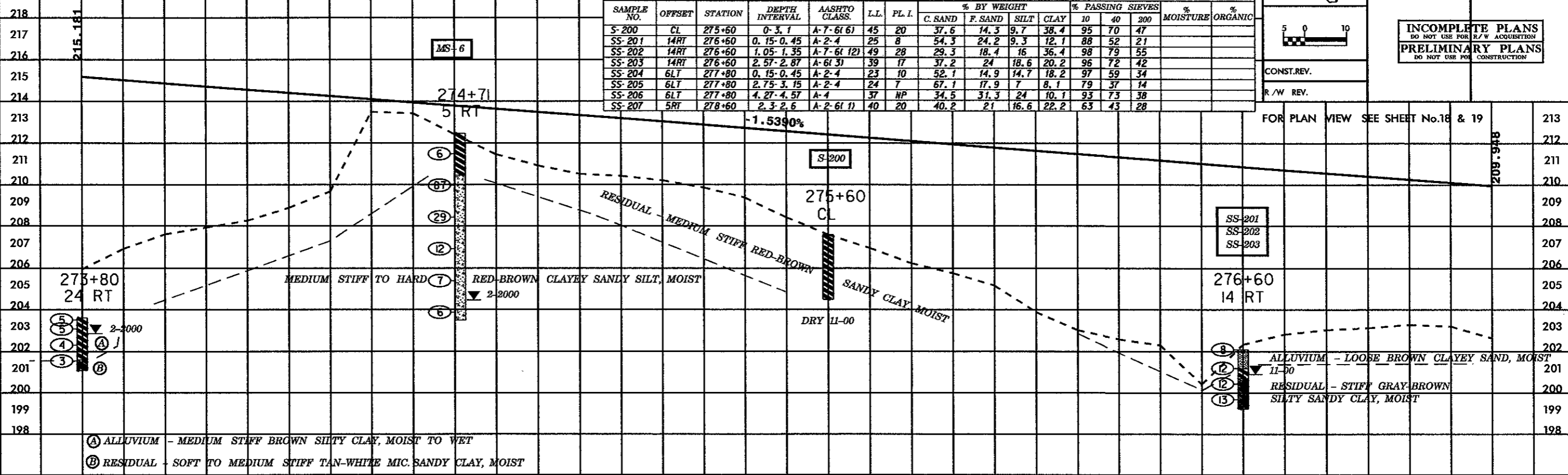
CONST. REV.

R/W REV.

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-200	CL	275+60	0-3.1	A-7-6(6)	45	20	37.6	14.3	9.7	38.4	95	70	47		
SS-201	14RT	276+60	0.15-0.45	A-2-4	25	8	54.3	24.2	9.3	12.1	88	52	21		
SS-202	14RT	276+60	1.05-1.35	A-7-6(12)	49	28	29.3	18.4	16	36.4	98	79	55		
SS-203	14RT	276+60	2.57-2.87	A-6(3)	39	17	37.2	24	18.6	20.2	96	72	42		
SS-204	6LT	277+80	0.15-0.45	A-2-4	23	10	52.1	14.9	14.7	18.2	97	59	34		
SS-205	6LT	277+80	2.75-3.15	A-2-4	24	7	67.1	17.9	7	8.1	79	37	14		
SS-206	6LT	277+80	4.27-4.57	A-1	37	NP	34.5	31.3	24	10.1	93	73	38		
SS-207	5RT	278+60	2.3-2.6	A-2-6(1)	40	20	40.2	21	16.6	22.2	63	43	28		

FOR PLAN VIEW SEE SHEET No. 18 & 19



(A) ALLUVIUM - MEDIUM STIFF BROWN SILTY CLAY, MOIST TO WET
 (B) RESIDUAL - SOFT TO MEDIUM STIFF TAN-WHITE MIC. SANDY CLAY, MOIST

+80 274 +20 +40 +60 +80 275 +20 +40 +60 +80 276 +20 +40 +60 +80 277 +20

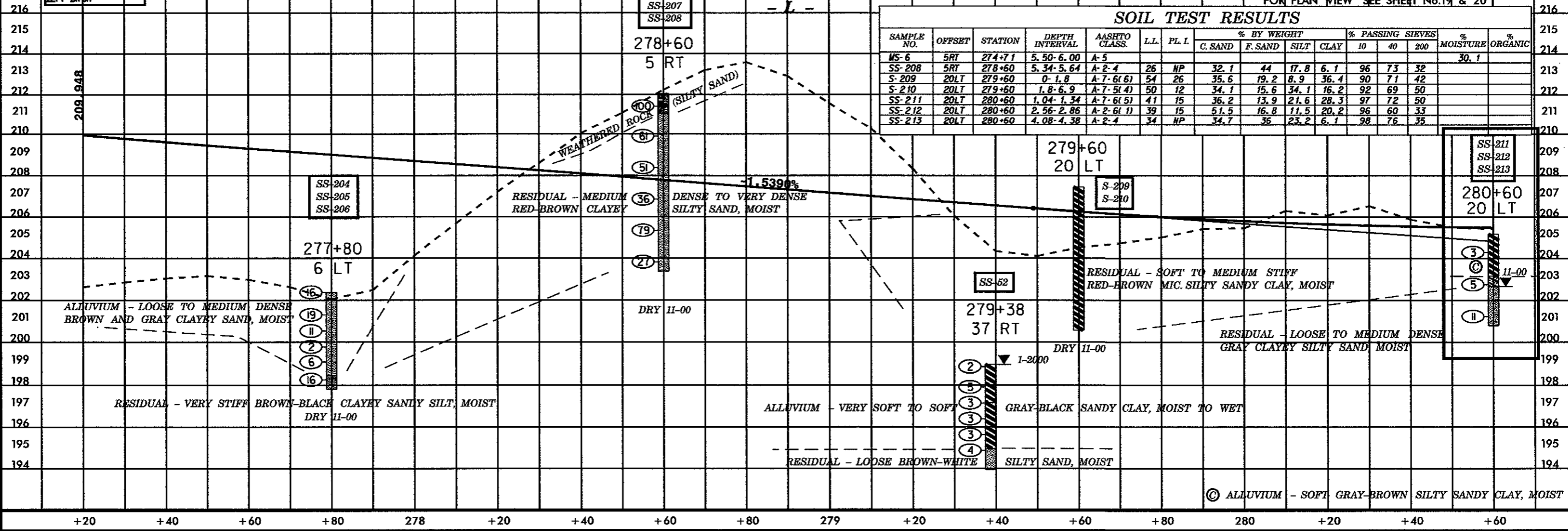
LEFT DITCH

- L -

FOR PLAN VIEW SEE SHEET No. 19 & 20

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
MS-6	5RT	274+71	5.50-6.00	A-5											
SS-208	5RT	278+60	5.34-5.64	A-2-4	26	NP	32.1	44	17.8	6.1	96	73	32		30.1
S-209	20LT	279+60	0-1.8	A-7-6(6)	54	26	35.6	19.2	8.9	36.4	90	71	42		
S-210	20LT	279+60	1.8-6.9	A-7-6(4)	50	12	34.1	15.6	34.1	16.2	92	69	50		
SS-211	20LT	280+60	1.04-1.34	A-7-6(5)	41	15	36.2	13.9	21.6	28.3	97	72	50		
SS-212	20LT	280+60	2.56-2.86	A-2-6(1)	39	15	51.5	16.8	11.5	20.2	96	60	33		
SS-213	20LT	280+60	4.08-4.38	A-2-4	34	NP	34.7	36	23.2	6.1	98	76	35		



RESIDUAL - VERY STIFF BROWN-BLACK CLAYEY SANDY SILT, MOIST
 DRY II-00

(C) ALLUVIUM - SOFT GRAY-BROWN SILTY SANDY CLAY, MOIST

+20 +40 +60 +80 278 +20 +40 +60 +80 279 +20 +40 +60 +80 280 +20 +40 +60

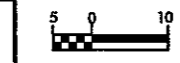
LEFT DITCH ---
RIGHT DITCH ---

SOIL TEST RESULTS

FOR PLAN VIEW SEE SHEET No.20,21,& 22

PROJECT REFERENCE NO. R-2248C SHEET NO. 40

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER



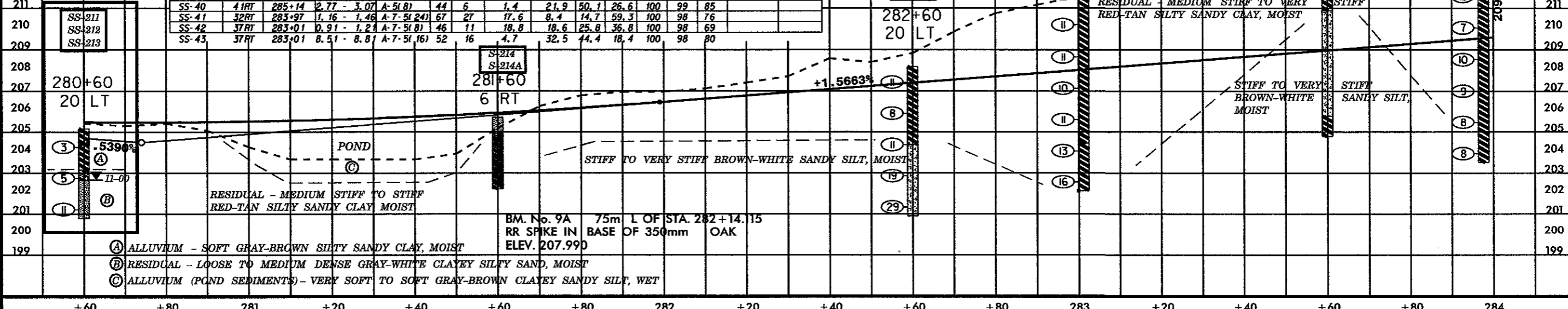
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.
R/W REV. S-217

283+97
32 RT

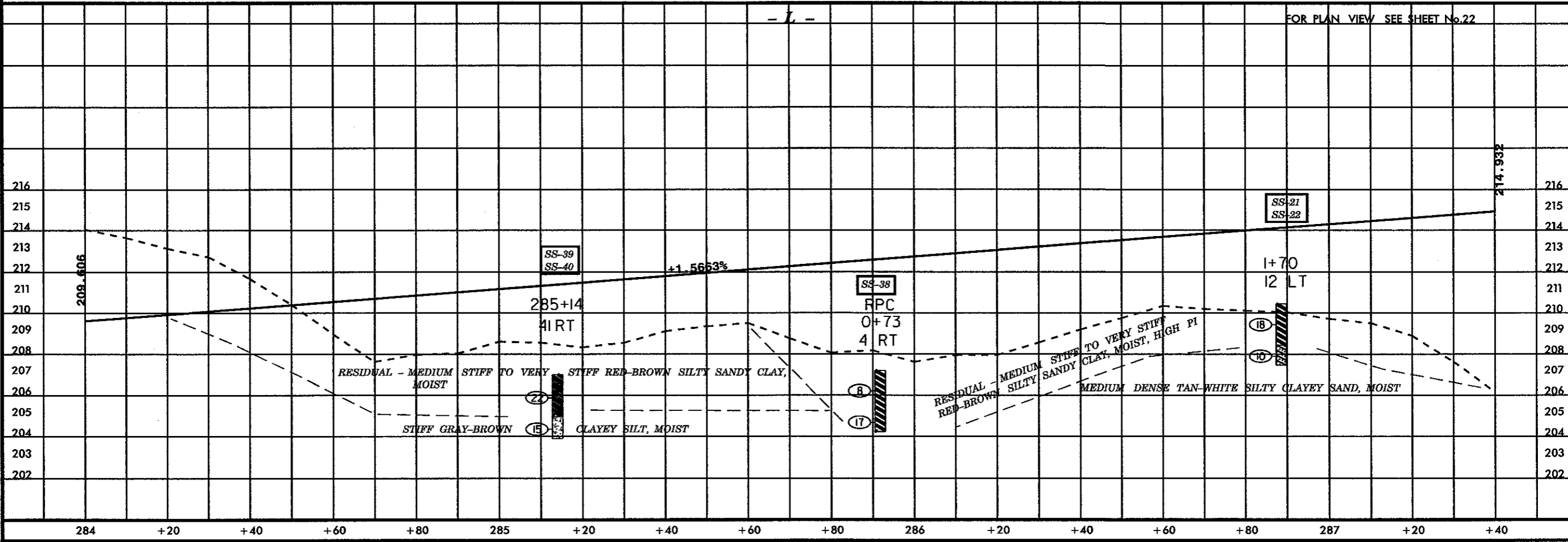
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-211	20LT	280+60	1.04-1.34	A-7-6(1)	41	15	36.2	13.9	21.6	28.3	97	72	50		
SS-212	20LT	280+60	2.56-2.86	A-2-6(1)	39	15	51.5	16.8	11.5	20.2	96	60	33		
SS-213	20LT	280+60	4.08-4.38	A-2-4	34	NP	34.7	36	23.2	6.1	98	76	35		
S-214A	6RT	281+60	0-0.8	A-7-6(1)	49	27	36.4	18.2	9.1	36.4	96	75	45		
S-214	6RT	281+60	.8-2.5	A-6(1)	32	13	37.8	21.6	16.4	24.2	85	63	38		
SS-215	20LT	282+60	0.91-1.21	A-7-5(1)	51	18	26.1	22	19.6	32.3	100	82	57		
SS-216	20LT	282+60	3.95-4.25	A-5	42	NP	34.5	35.2	24.2	6.1	100	77	37		
S-217	40LT	283+60	7.0-8.0	A-7-6(3)	41	16	39.6	17	23.2	20.2	88	60	41		
MS-1	32RT	283+97	4.20-4.50											27.2	
MS-2	32RT	283+97	7.24-7.54											21.3	
MS-3	37RT	283+01	5.95-4.25											25.2	
MS-4	37RT	283+01	6.99-7.29											25.8	
SS-21	12LT	1+70	1.48-1.78	A-7-6(16)	55	34	24.4	19.6	9.5	46.5	100	91	57		
SS-22	12LT	1+70	2.70-3.00	A-2-7(1)	44	15	50.9	17	13.9	18.2	92	57	32		
SS-38	4RT	0+73	1.12-1.42	A-7-6(10)	51	30	37	16.2	8.5	38.4	100	76	48		
SS-39	41RT	285+14	1.25-1.55	A-6(5)	40	14	30.1	17.6	13.5	38.9	97	78	54		
SS-40	41RT	285+14	2.77-3.07	A-5(8)	44	6	1.4	21.9	50.1	26.6	100	99	85		
SS-41	32RT	283+97	1.16-1.46	A-7-5(24)	67	27	17.6	8.4	14.7	59.3	100	98	76		
SS-42	37RT	283+01	0.91-1.21	A-7-5(8)	46	11	18.8	18.6	25.8	36.8	100	98	69		
SS-43	37RT	283+01	8.51-8.81	A-7-5(16)	52	16	4.7	32.5	44.4	18.4	100	98	80		

- L -



- (A) ALLUVIUM - SOFT GRAY-BROWN SILTY SANDY CLAY, MOIST
- (B) RESIDUAL - LOOSE TO MEDIUM DENSE GRAY-WHITE CLAYEY SILTY SAND, MOIST
- (C) ALLUVIUM (POND SEDIMENTS) - VERY SOFT TO SOFT GRAY-BROWN CLAYEY SANDY SILT, WET

BM. No. 9A 75m L OF STA. 282+14.15
RR SPIKE IN BASE OF 350mm OAK
ELEV. 207.990



VERTICAL CURVE DATA
STATIONING
ELEVATION

LEFT DITCH
RIGHT DITCH

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-3	4RT	1+15	1.11 - 1.41	A-7-5(22)	54	17	0.8	9.3	53.5	36.4	100	99	96		
SS-4	4RT	1+15	5.67 - 5.97	A-7-5(17)	56	12	1.6	16	56.2	26.3	100	99	91		
SS-5	2LT	1+99	2.71 - 3.01	A-5(5)	46	8	22.6	22.8	34.3	20.2	100	86	61		
SS-6	13RT	292+42	1.21 - 1.51	A-7-5(7)	52	12	27.7	20.6	23.4	28.3	100	83	57		
SS-10	13RT	291+42	0.80 - 1.10	A-6(2)	38	11	34.7	24.2	20.8	20.2	100	85	44		
SS-11	13RT	291+42	1.29 - 1.59	A-7-6(23)	50	26	12.1	6.3	27.1	54.5	100	93	83		
SS-17	44RT	289+75	1.03 - 1.33	A-7-6(11)	51	22	29.7	16.4	25.7	28.3	100	80	57		
SS-18	44RT	289+75	2.55 - 2.85	A-7-5(3)	44	11	30.5	28.5	28.9	12.1	100	80	48		
SS-19	24RT	287+97	0.15 - 0.45	A-4(0)	24	6	38.4	21	20.4	20.2	100	77	44		
SS-20	24RT	287+97	1.73 - 2.03	A-2-4(0)	29	6	49.7	23.8	16.4	10.1	89	56	28		

- L -

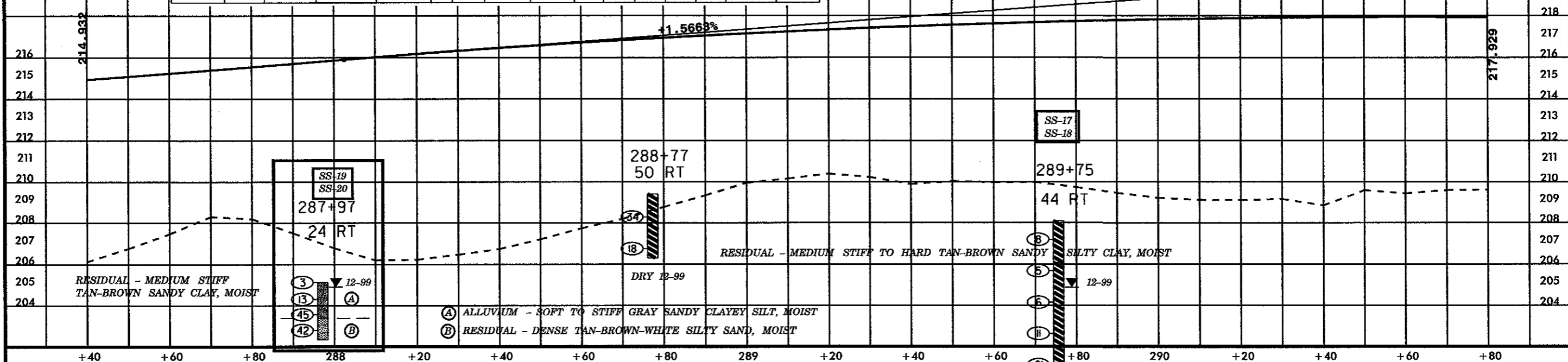
FOR PLAN VIEW SEE SHEET No.22 & 23



CONST.REV.
R/W REV.

PROJECT REFERENCE NO. R-2248C
ROADWAY DESIGN ENGINEER
SHEET NO. 41
HYDRAULICS ENGINEER

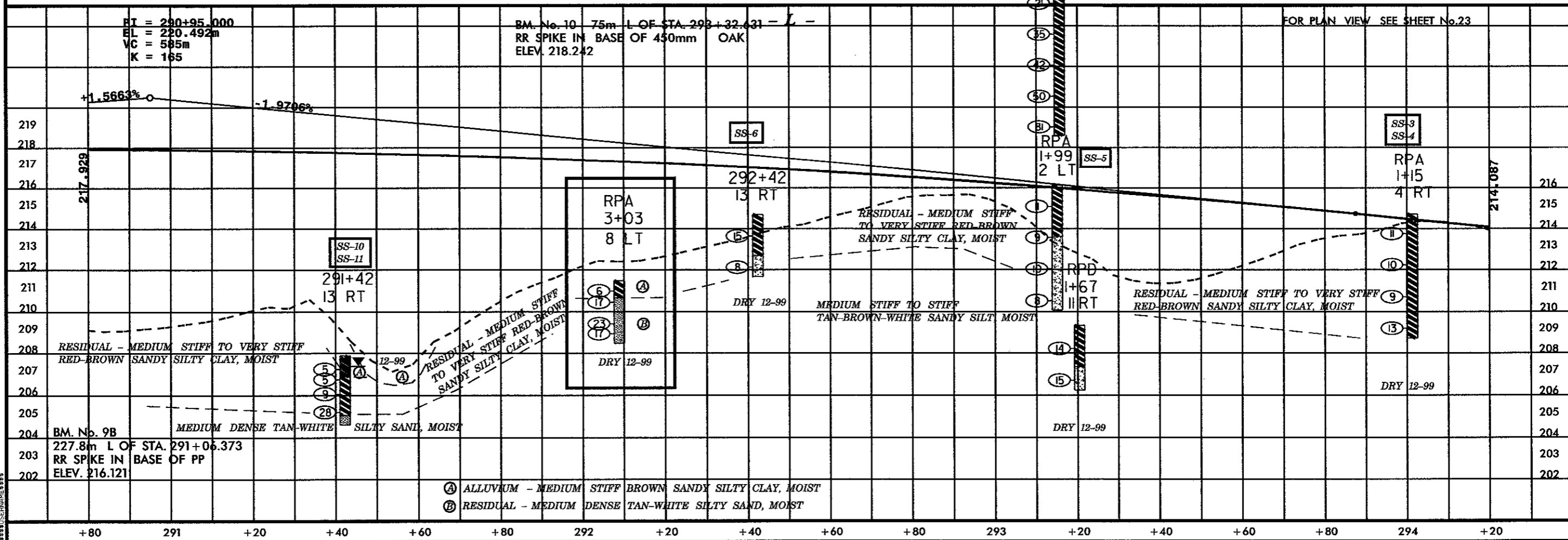
INCOMPLETE PLANS
DO NOT USE FOR ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

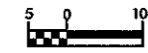


RT = 290+95.000
EL = 220.492m
VC = 585m
K = 165

BM. No. 10 75m L OF STA. 293+32.431 - L -
RR SPIKE IN BASE OF 450mm OAK
ELEV. 218.242

FOR PLAN VIEW SEE SHEET No.23



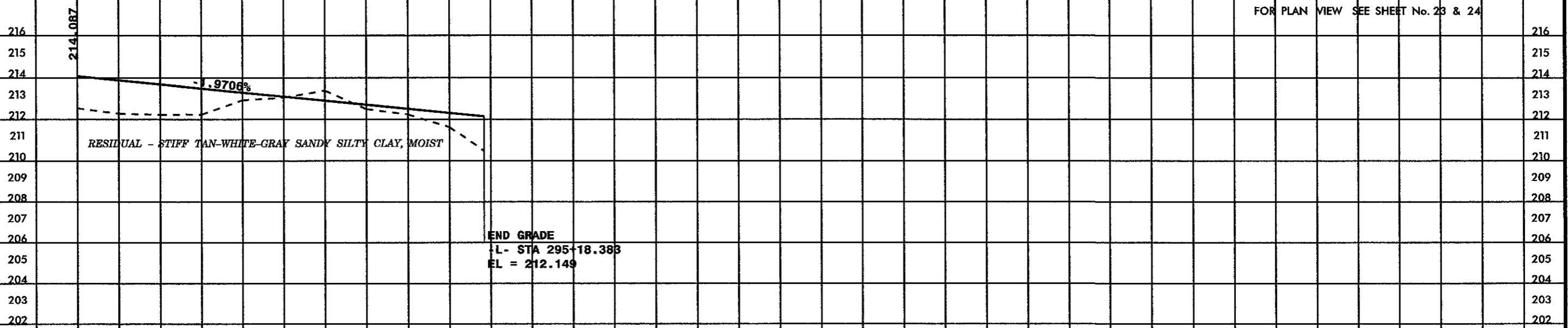


INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST. REV.

R/W REV.

FOR PLAN VIEW SEE SHEET No. 23 & 24

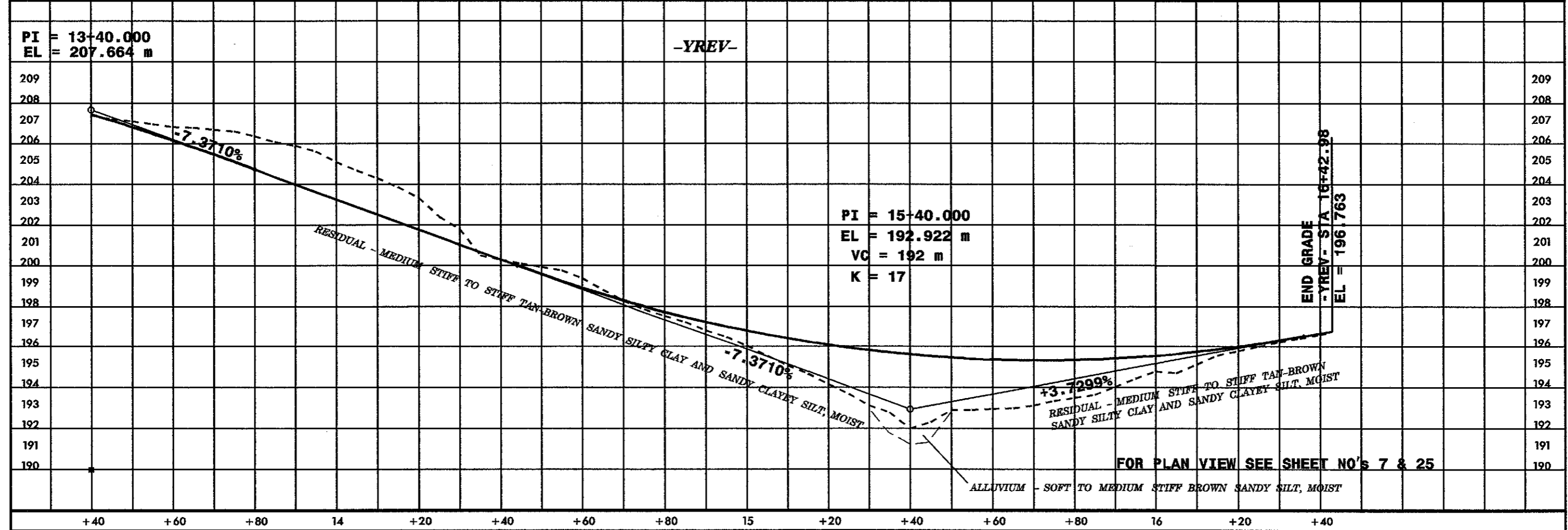
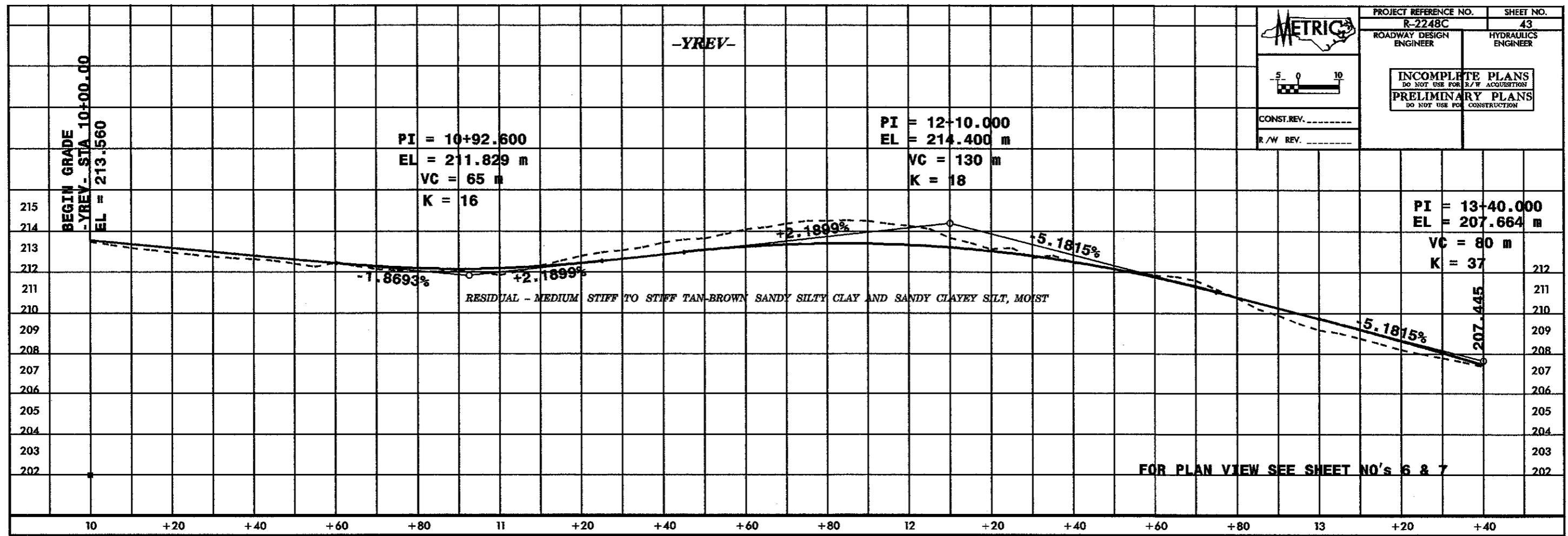


+20 +40 +60 +80 295

CONSTRUCTION

CONST. REV. _____
R/W REV. _____

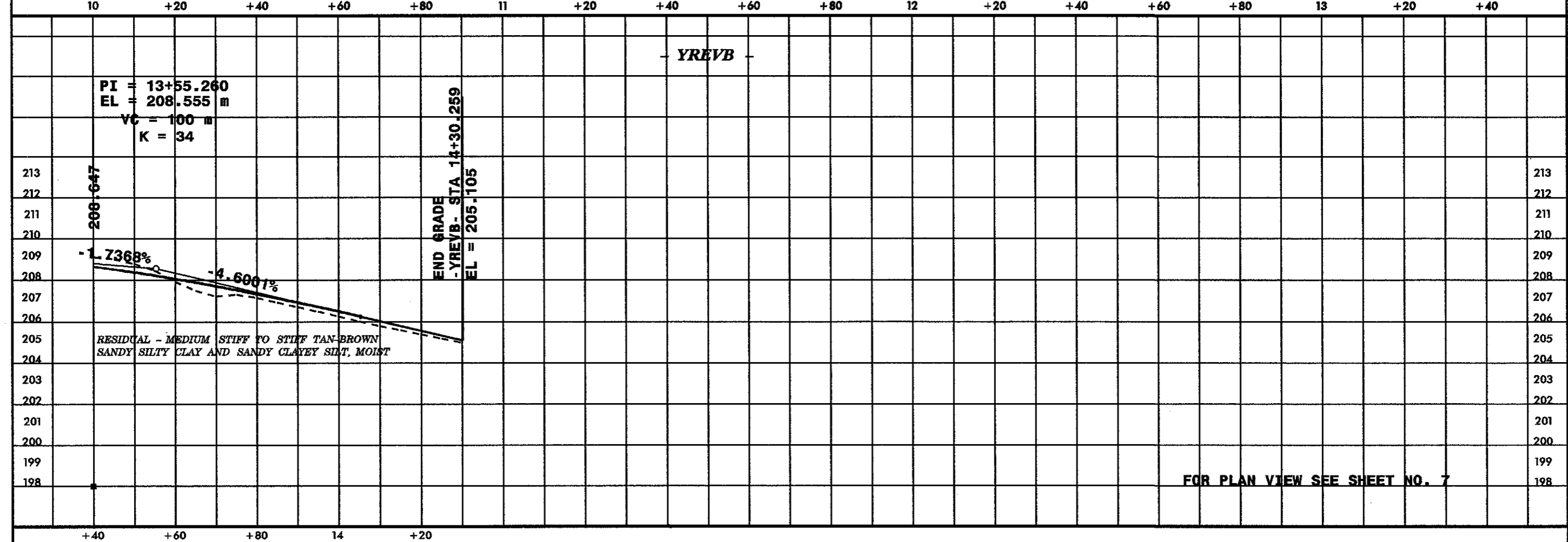
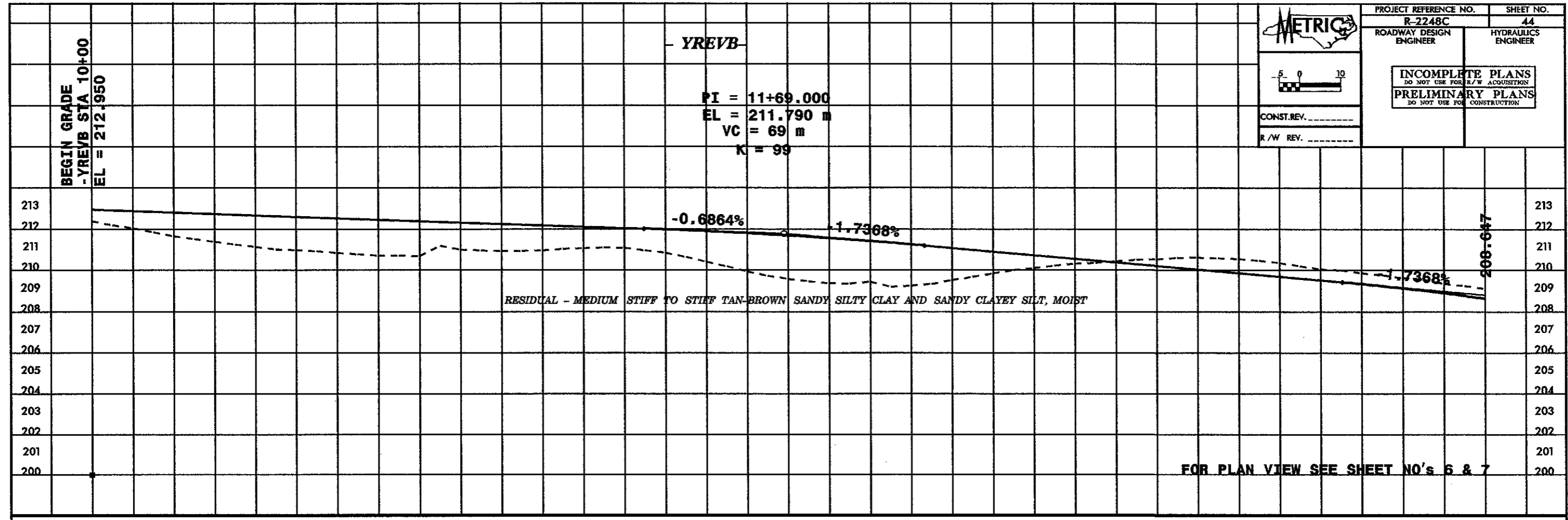
PROJECT REFERENCE NO. R-2248C	SHEET NO. 43
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

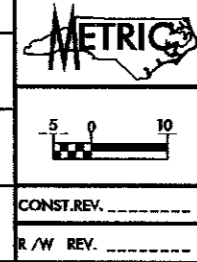


METRIC

CONST. REV. _____
R/W REV. _____

PROJECT REFERENCE NO. R-2248C	SHEET NO. 44
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small> PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	





ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

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

- Y1 -
BELHAVEN RD

PI = 10+40.000
EL = 213.183 m
VC = 40 m
K = 57

PI = 11+26.840
EL = 212.851 m
VC = 30 m
K = 10

PI = 10+80.000
EL = 210.962 m
VC = 40 m
K = 59

PI = 11+20.000
EL = 209.013 m
VC = 40 m
K = 66

RESIDUAL - MEDIUM STIFF TO HARD TAN-BROWN SANDY SILTY CLAY AND SANDY CLAYEY SILT, MOIST

RESIDUAL - MEDIUM STIFF TO HARD TAN-BROWN SANDY SILTY CLAY AND SANDY CLAYEY SILT, MOIST

BEGIN GRADE
-YREVA- STA 10+03.600
EL = 211.731

BEGIN GRADE
-Y1- STA 10+00.000
EL = 215.124

END GRADE
-YREVA- STA 11+43.770
EL = 212.496

END GRADE
-Y1- STA 11+60.000
EL = 206.821

FOR PLAN VIEW SEE SHEET NO. 6

FOR PLAN VIEW SEE SHEET NO. 14

10 +20 +40 +60 +80 11 +20 +40 10 +20 +40 +60 +80 11 +20 +40 +60

- Y2 -
BROOKSHIRE BLVD.
NC16

BEGIN GRADE
-Y2- STA 12+60.000
M.E.O.P. EL = 221.568

RESIDUAL - MEDIUM STIFF TO HARD TAN-BROWN SANDY SILTY CLAY AND SANDY CLAYEY SILT, MOIST

-2.8242%

219.305

FOR PLAN VIEW SEE SHEET NO. 15

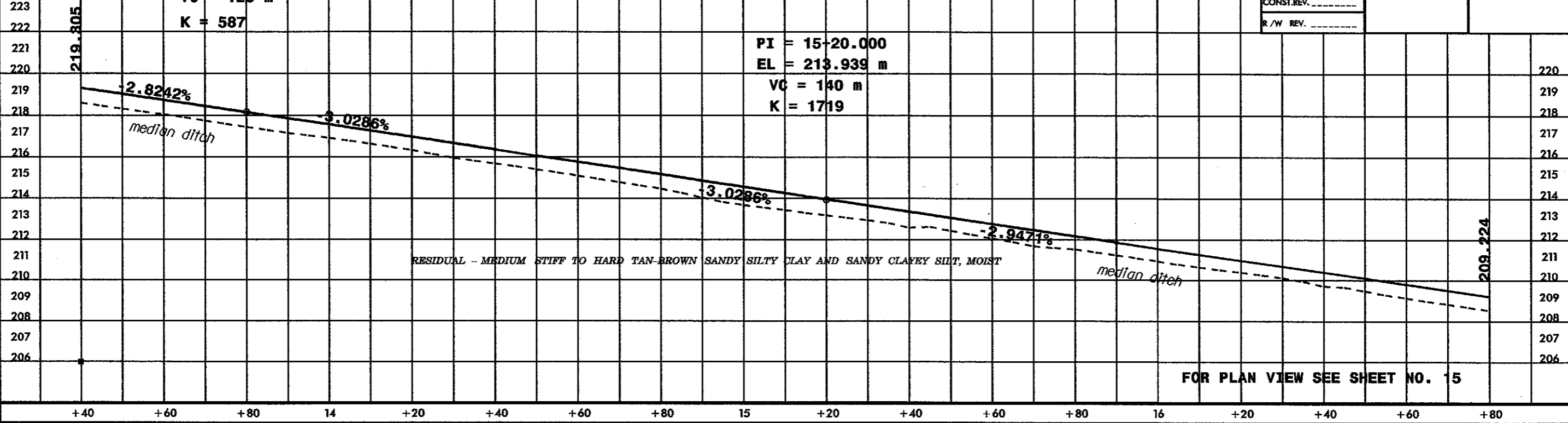
10 +20 +40 +60 +80 11 +20 +40 +60 +80 12 +20 +40 +60 +80 13 +20 +40

**- Y2 -
BROOKSHIRE BLVD.
NC16**

PROJECT REFERENCE NO. R-2248C	SHEET NO. 46
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS <small>DO NOT USE FOR ACQUISITION</small> PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
CONST. REV. _____	
R/W REV. _____	

PI = 13+80.000
EL = 218.179 m
VC = 120 m
K = 587

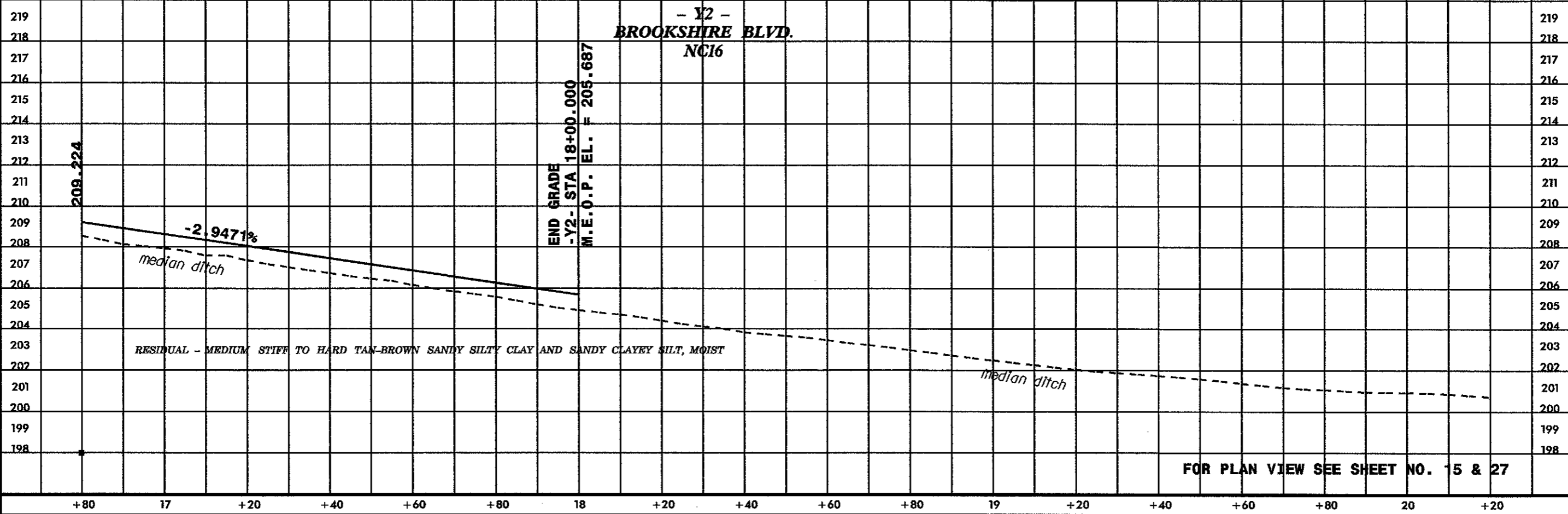
PI = 15+20.000
EL = 213.939 m
VC = 140 m
K = 1719



FOR PLAN VIEW SEE SHEET NO. 15


**- Y2 -
BROOKSHIRE BLVD.
NC16**

END GRADE
-Y2- STA. 18+00.000
M.E.O.P. EL. = 205.687



FOR PLAN VIEW SEE SHEET NO. 15 & 27

**- Y2 -
BROOKSHIRE BLVD.
NC16**

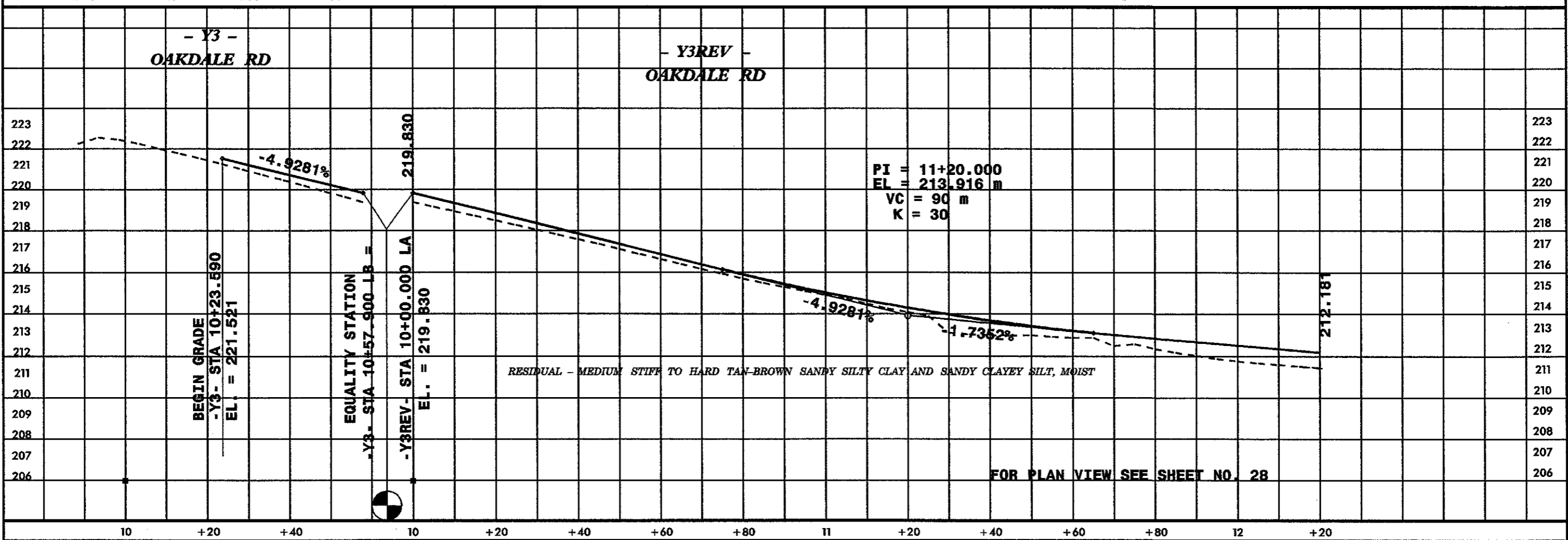
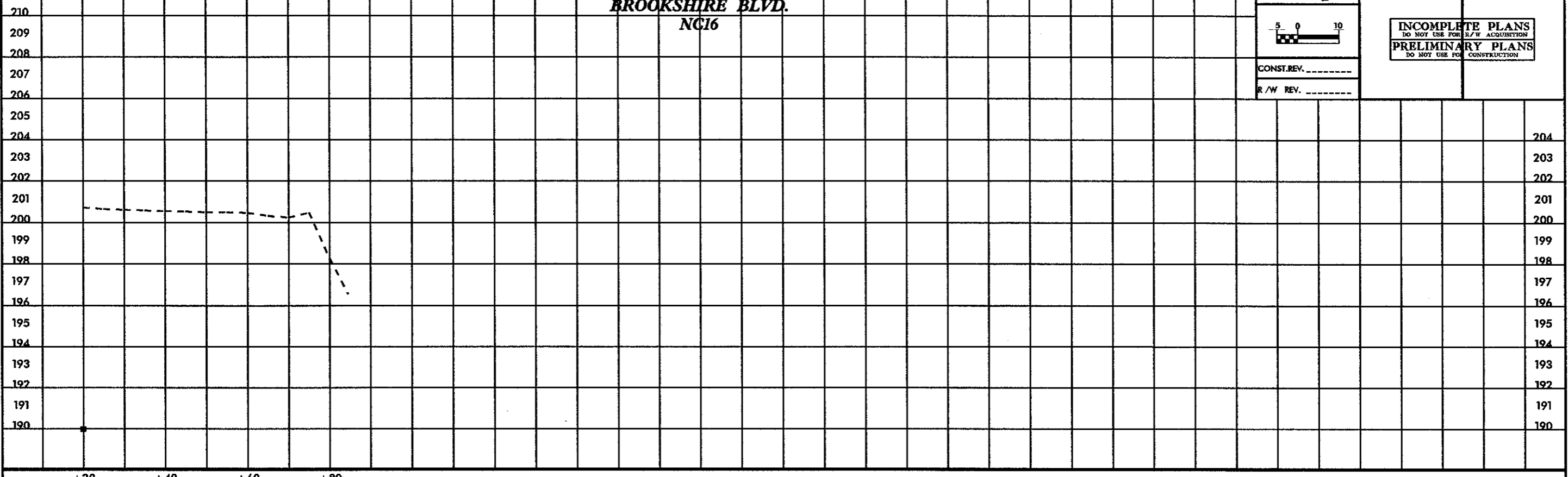


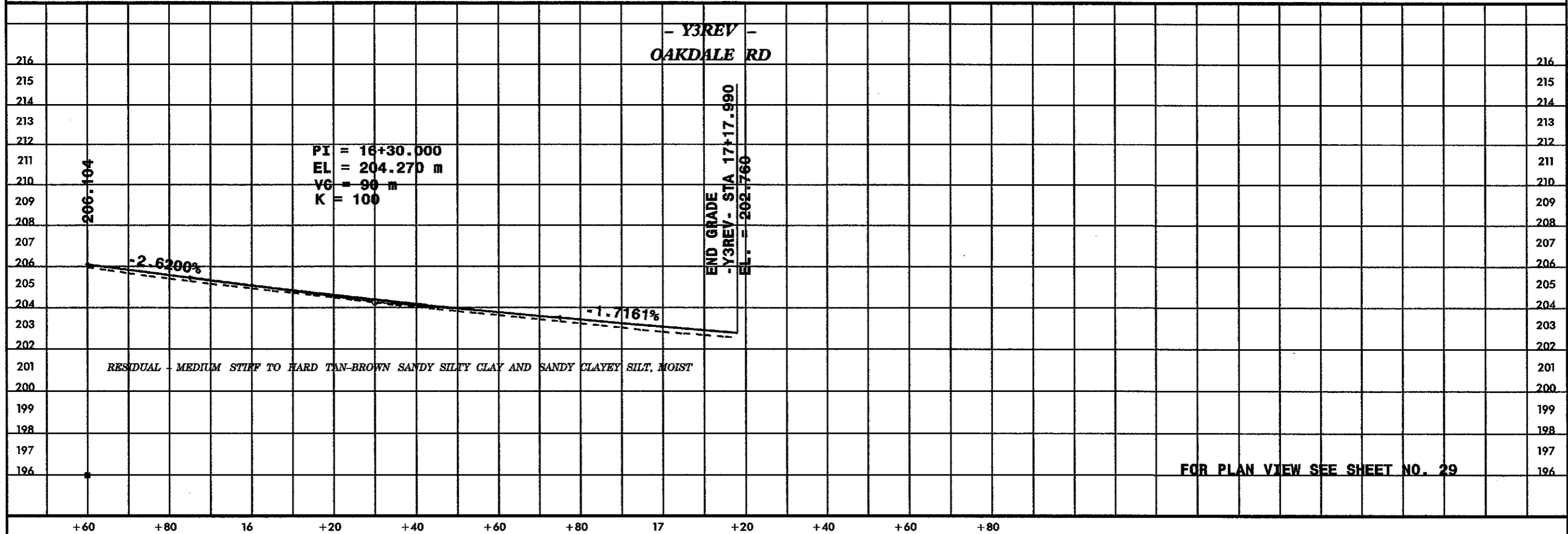
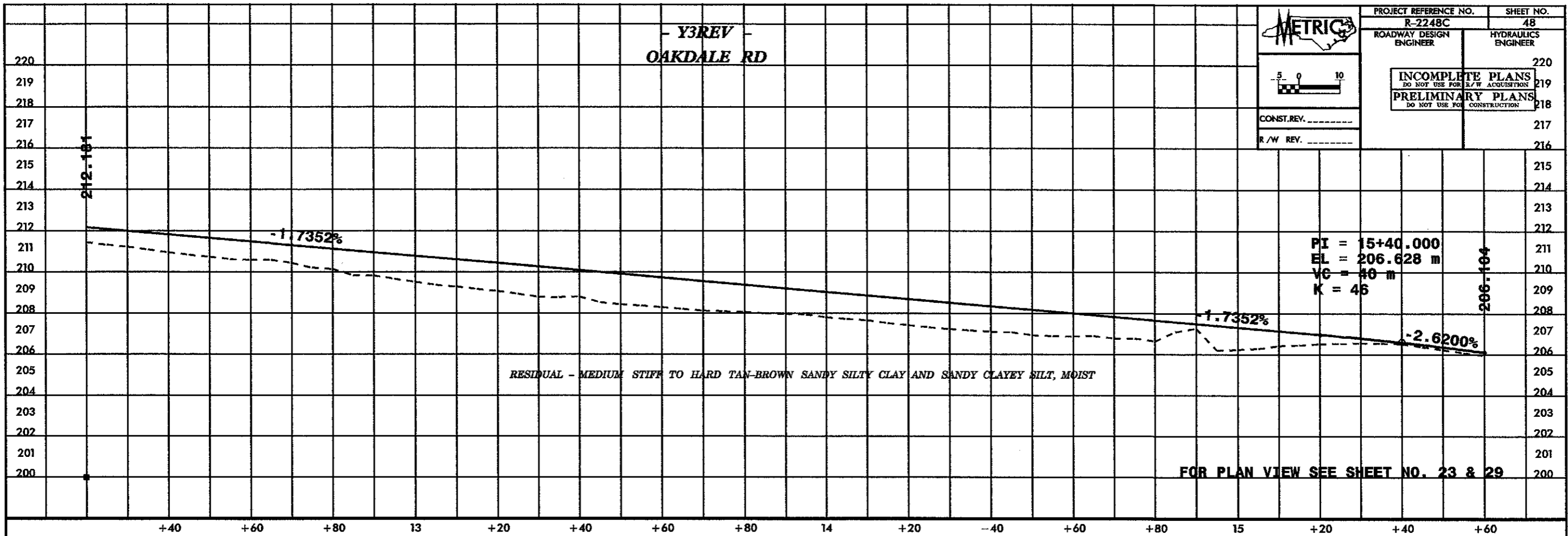
5 0 10

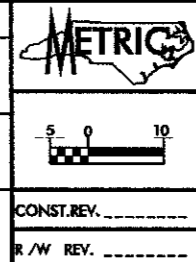
CONST. REV. _____

R/W REV. _____

PROJECT REFERENCE NO. R-2248C	SHEET NO. 47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS <small>DO NOT USE FOR B/W ACQUISITION</small> PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	







NOTE: DUE TO PROJECT OVERLAP BORINGS AND SAMPLES WERE ORIGINALLY TAKEN ON SECTION R-2248BB

RAMP E

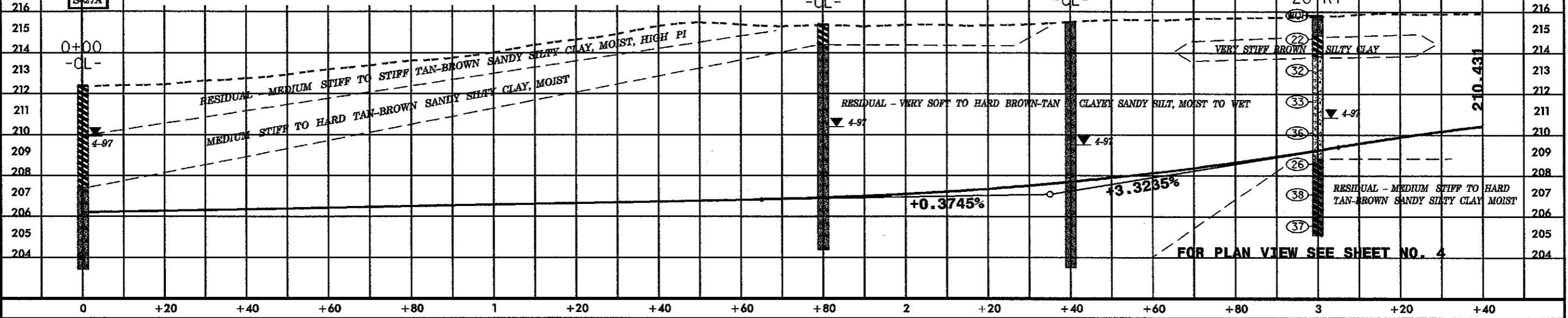
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-27	10	0+00	0.00-5.00	A-7-5(32)	65	33	8.2	9.8	20.9	61.2	100	95	84	41.1	
S-27A	10	0+00	5.00-9.00	A-4(0)	31	6	27.7	34.9	21.1	16.3	98	82	43		
S-30	0	1+80	0.00-1.00	A-7-6(25)	54	26	4.7	14.5	40.1	40.8	100	97	85		
S-30A	0	1+80	1.00-6.00	A-4(0)	25	2	26.3	38.9	20.5	14.3	100	83	41		
S-30B	0	1+80	6.00-11.00	A-4(4)	35	8	13.9	24.1	39.7	22.4	92	84	63		
SS-31	20	3+00	0.00-0.45	A-4(0)	35	2	21.2	29.0	33.5	16.3	95	84	53		
SS-31A	20	3+00	1.15-1.50	A-7-5(50)	87	51	3.3	6.5	18.9	71.4	100	98	92	40.7	
SS-31B	20	3+00	2.67-3.12	A-5(6)	44	7	8.8	28.3	40.5	22.4	100	96	72	27.8	
SS-31C	20	3+00	7.23-7.68	A-6(6)	89	13	15.9	29.8	29.9	24.5	97	88	59	26.1	

S-30
S-30A
S-30B

SS-31
SS-31A
SS-31B
SS-31C

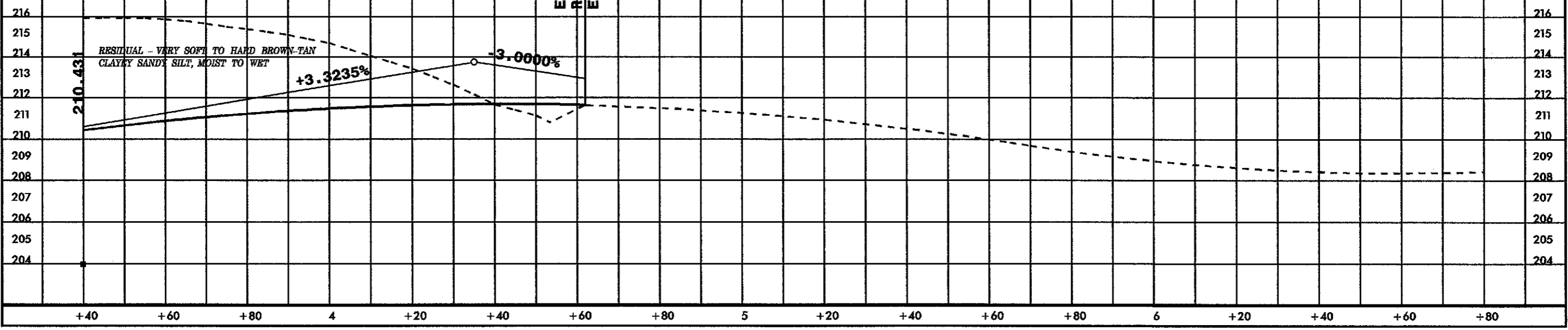
BEGIN GRADE
 RP 'E' STA 0+00.000
 EL. = 206.210



RAMP E

PI = 4+35.000
 EL = 213.737 m
 VC = 260 m
 K = 41

END GRADE
 RP 'E' STA 4+60.00
 EL. = 211.646



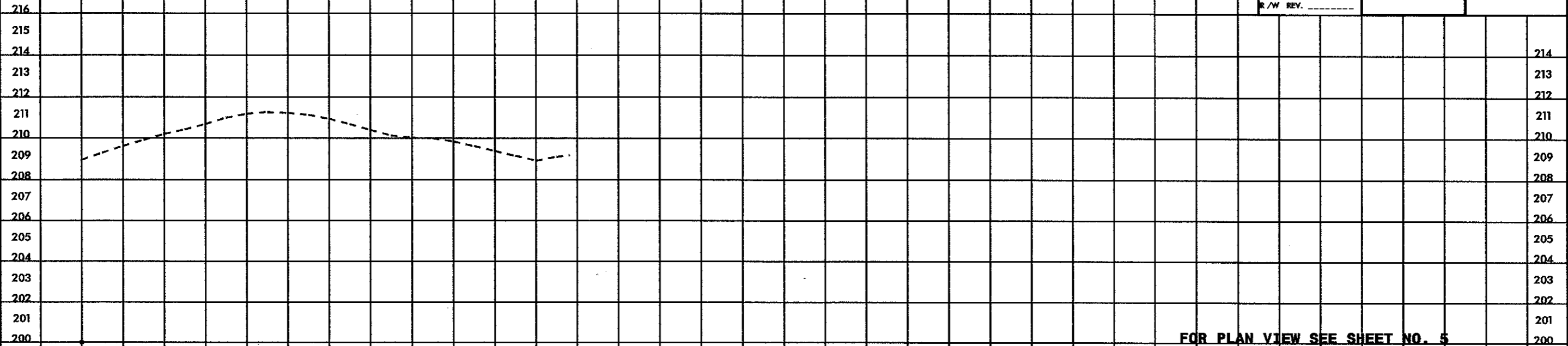
RAMP E

5 0 10

CONST. REV. _____
R/W REV. _____

PROJECT REFERENCE NO. R-2248C SHEET NO. 50
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

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



NOTE: DUE TO PROJECT OVERLAP BORINGS AND SAMPLES WERE ORIGINALLY TAKEN ON SECTION R-2248BB

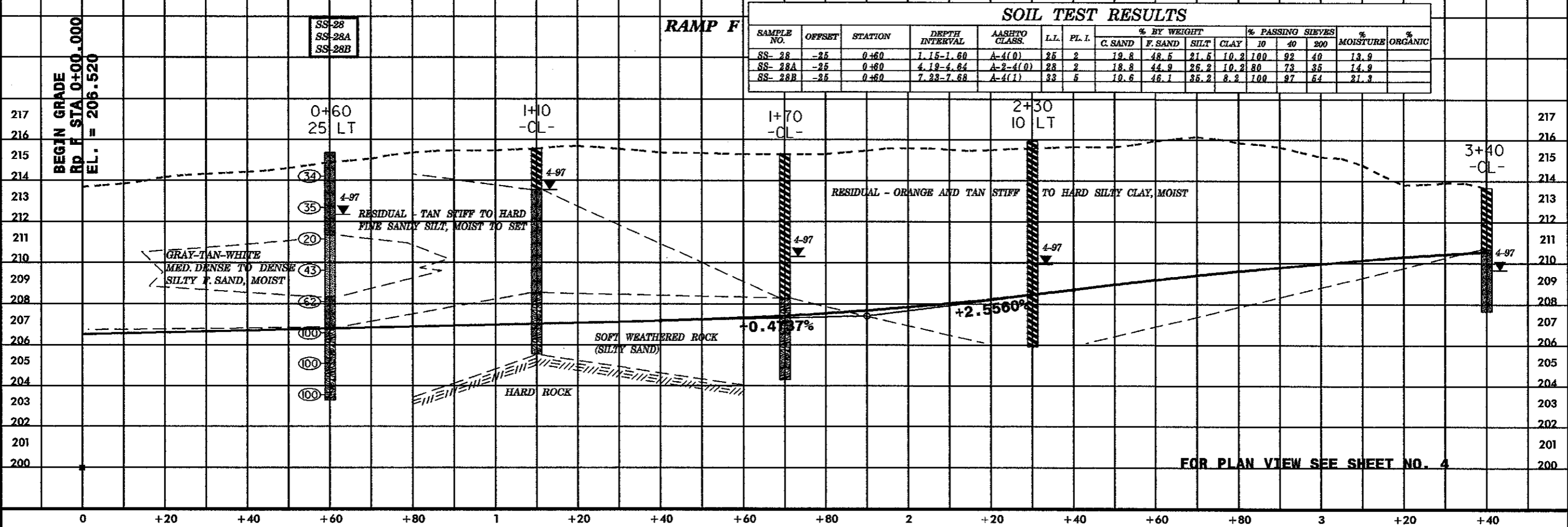
FOR PLAN VIEW SEE SHEET NO. 5

+80 7 +20 +40 +60 +80

RAMP F

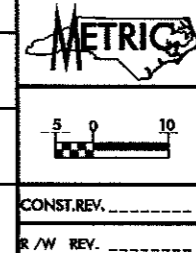
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-28	-25	0+60	1.15-1.60	A-4(0)	25	2	19.8	48.5	21.5	10.2	100	92	40	13.9	
SS-28A	-25	0+60	4.19-4.64	A-2-4(0)	28	2	18.8	44.9	26.2	10.2	80	73	35	14.9	
SS-28B	-25	0+60	7.22-7.68	A-4(1)	33	5	10.6	46.1	35.2	8.2	100	97	64	21.3	



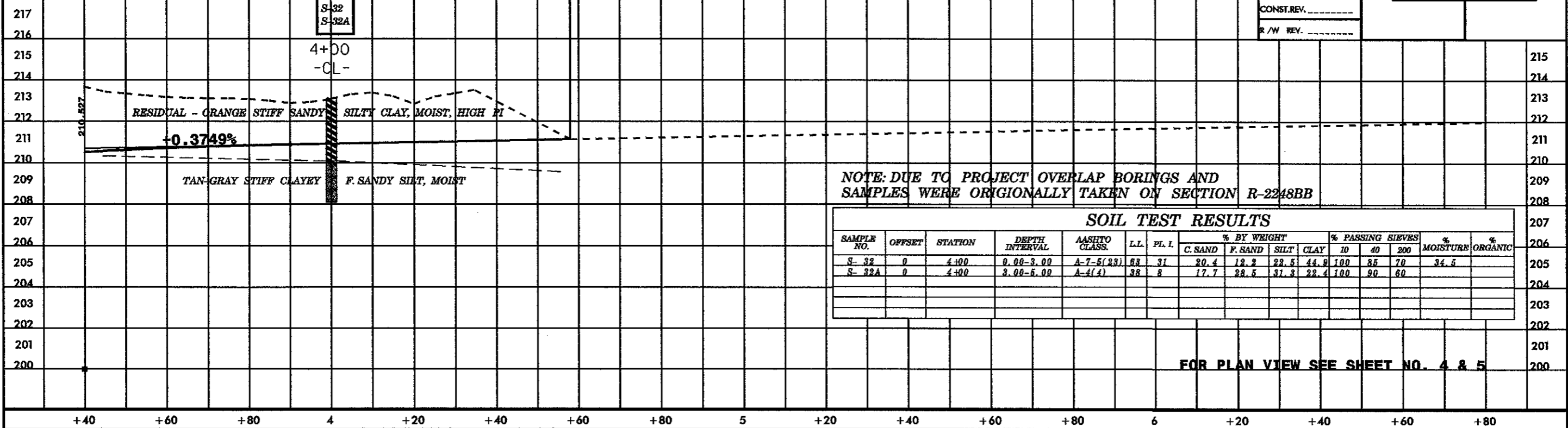
FOR PLAN VIEW SEE SHEET NO. 4

0 +20 +40 +60 +80 1 +20 +40 +60 +80 2 +20 +40 +60 +80 3 +20 +40



PROJECT REFERENCE NO. R-2248C SHEET NO. 51
 ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER
 INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION
 PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION

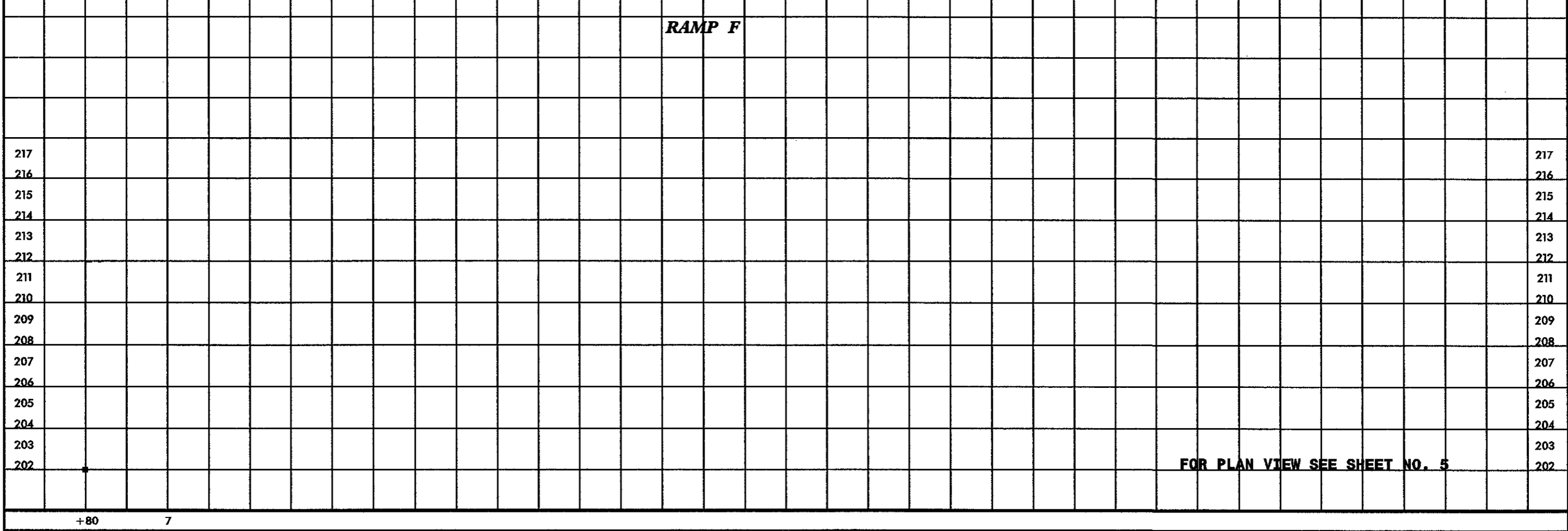
RAMP F
 END GRADE
 Rp 'F' STA 4+57.00
 EL. = 211.147



NOTE: DUE TO PROJECT OVERLAP BORINGS AND SAMPLES WERE ORIGINALLY TAKEN ON SECTION R-2248BB

SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL I	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-32	0	4+00	0.00-3.00	A-7-5(23)	68	31	20.4	12.2	22.5	44.9	100	85	70	34.5	
S-32A	0	4+00	3.00-5.00	A-4(4)	38	8	17.7	28.5	31.3	22.4	100	90	60		

FOR PLAN VIEW SEE SHEET NO. 4 & 5



FOR PLAN VIEW SEE SHEET NO. 5

SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-85	15RT	0+60	1.33-1.63	A-7-5(26)	72	35	22.6	9.9	10.9	56.6	100	85	69		
SS-86	15RT	0+60	2.85-3.15	A-7-5(10)	56	19	25.9	21	16.8	36.4	100	84	58		

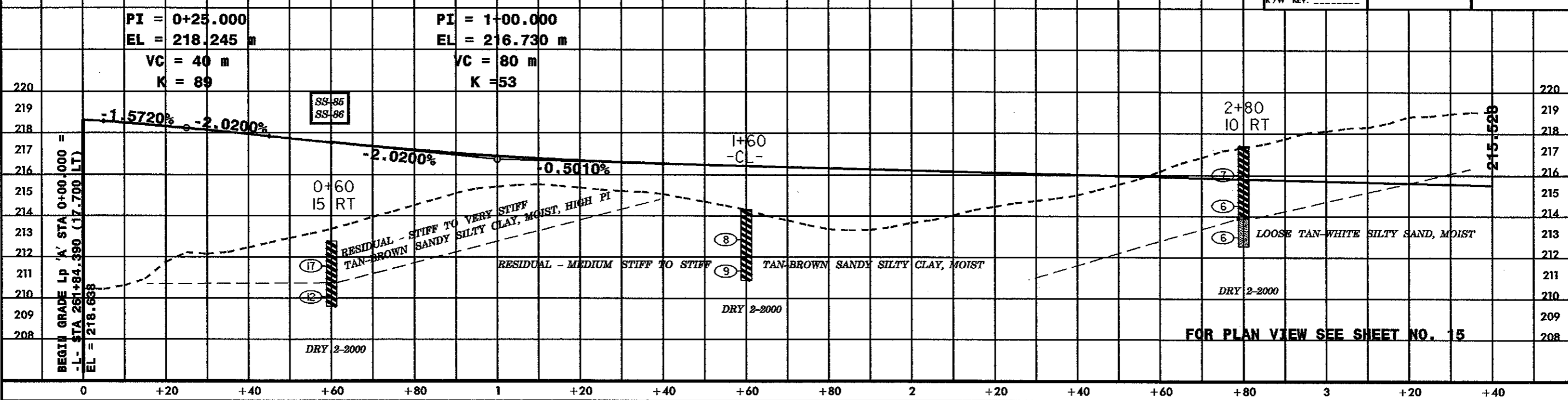
**- Y2 -
LOOP A
BROOKSHIRE BLVD.**

PROJECT REFERENCE NO. R-2248C
SHEET NO. 52

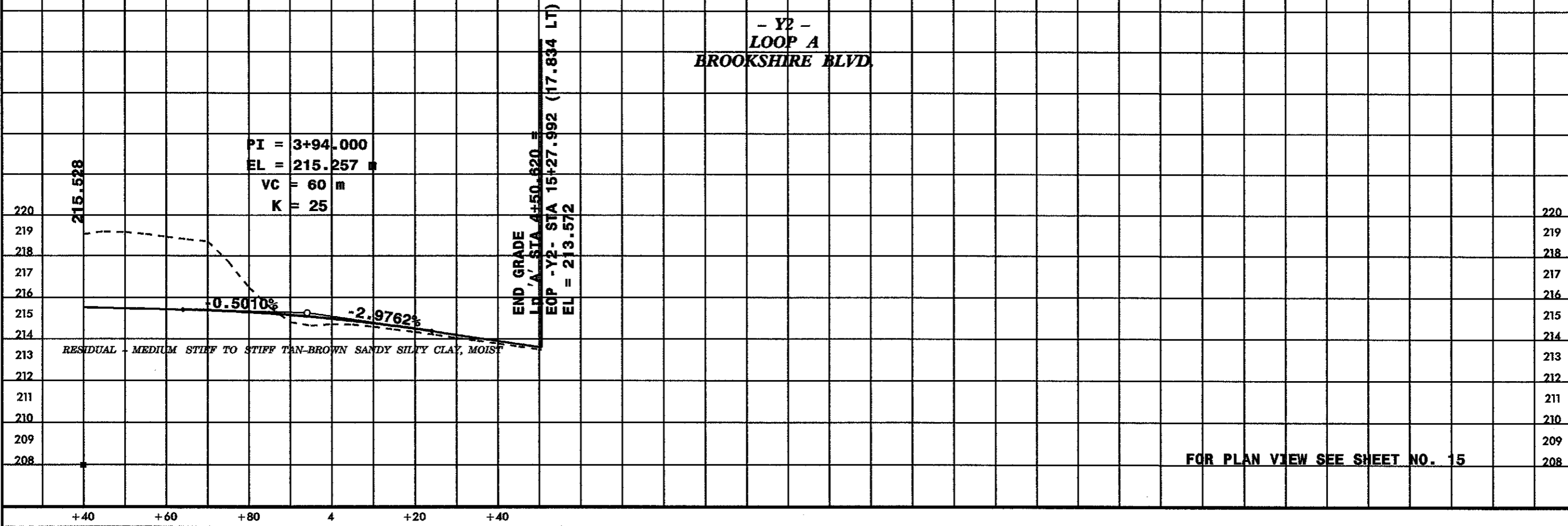
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER

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

CONST. REV. _____
R/W REV. _____



**- Y2 -
LOOP A
BROOKSHIRE BLVD.**



FOR PLAN VIEW SEE SHEET NO. 15

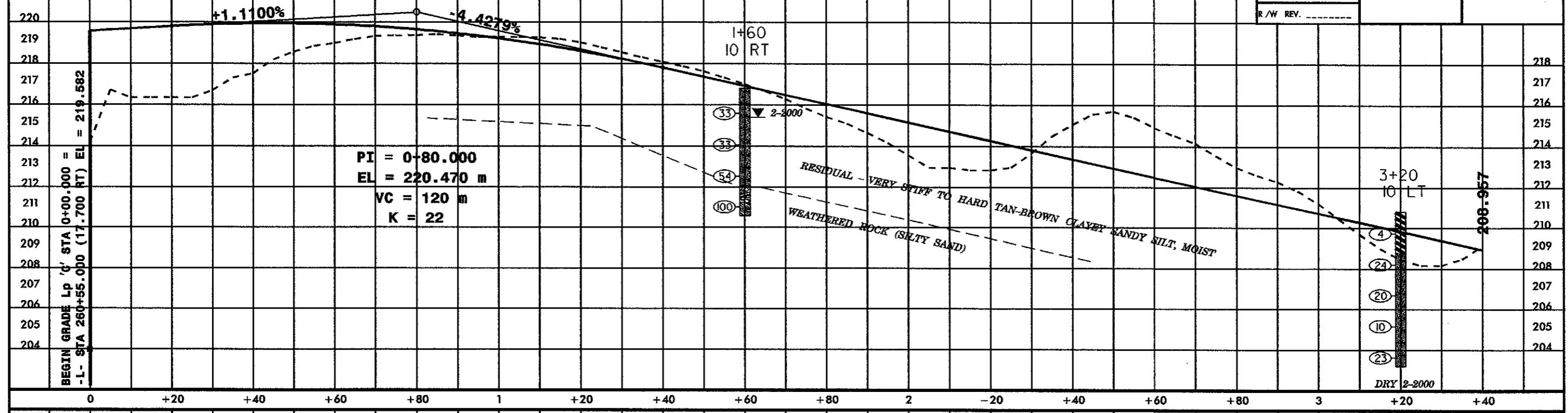


INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

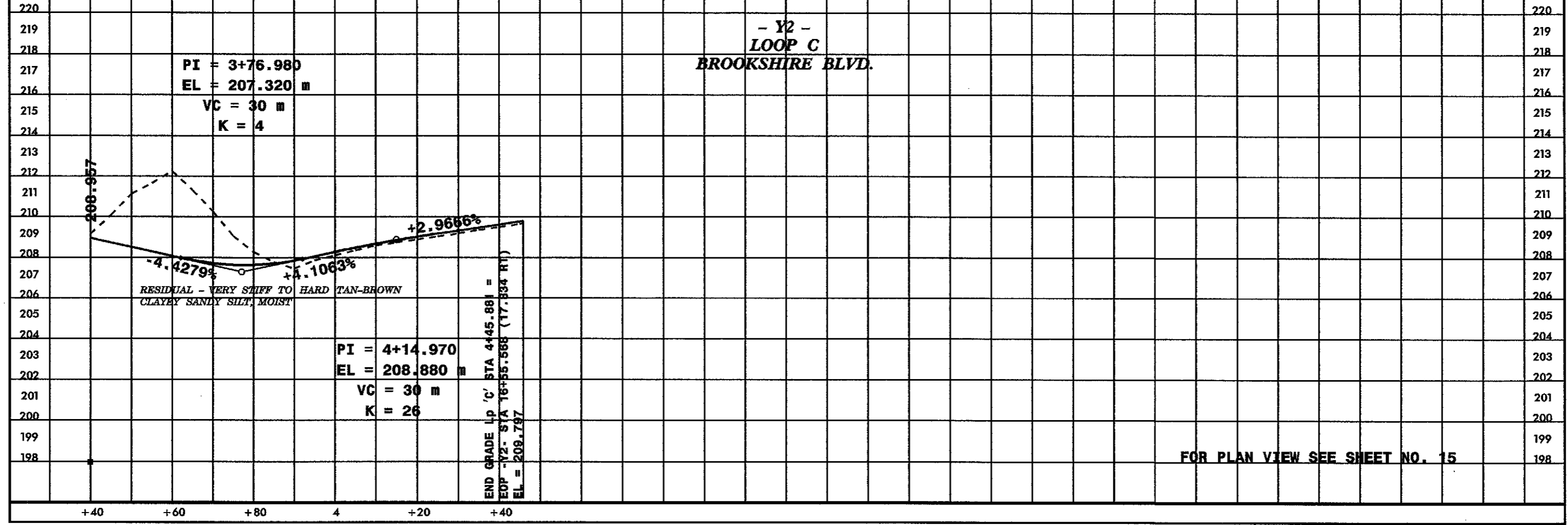
CONST. REV. _____

R/W REV. _____

**- Y2 -
LOOP C
BROOKSHIRE BLVD.**



**- Y2 -
LOOP C
BROOKSHIRE BLVD.**



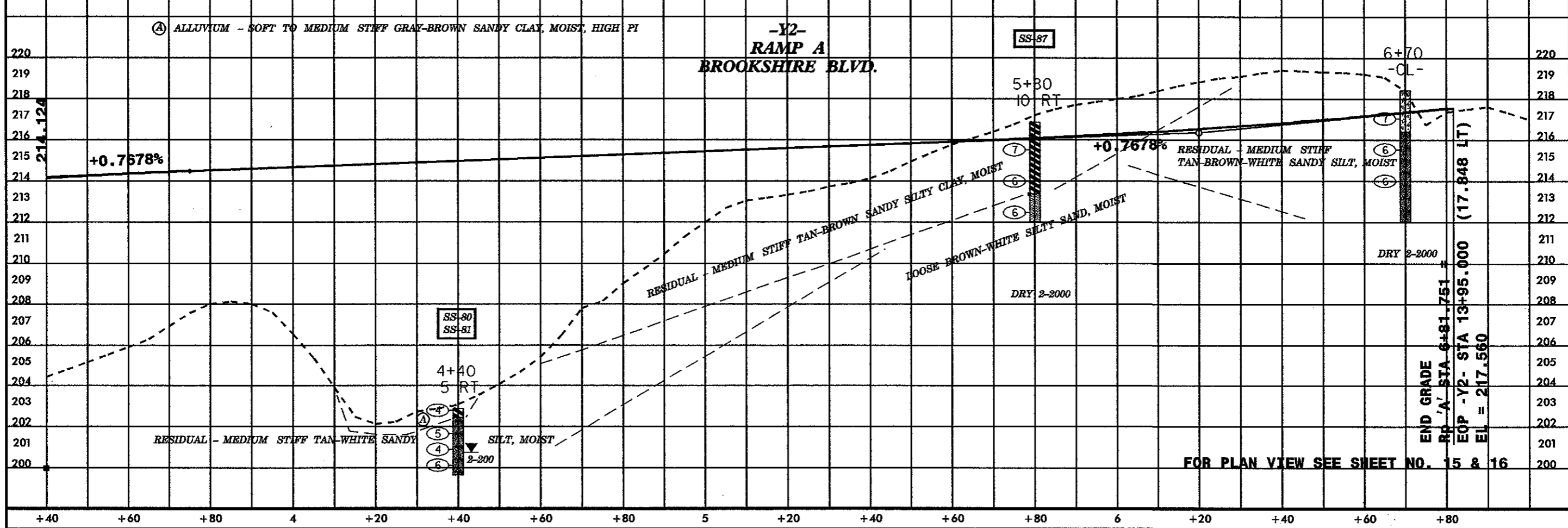
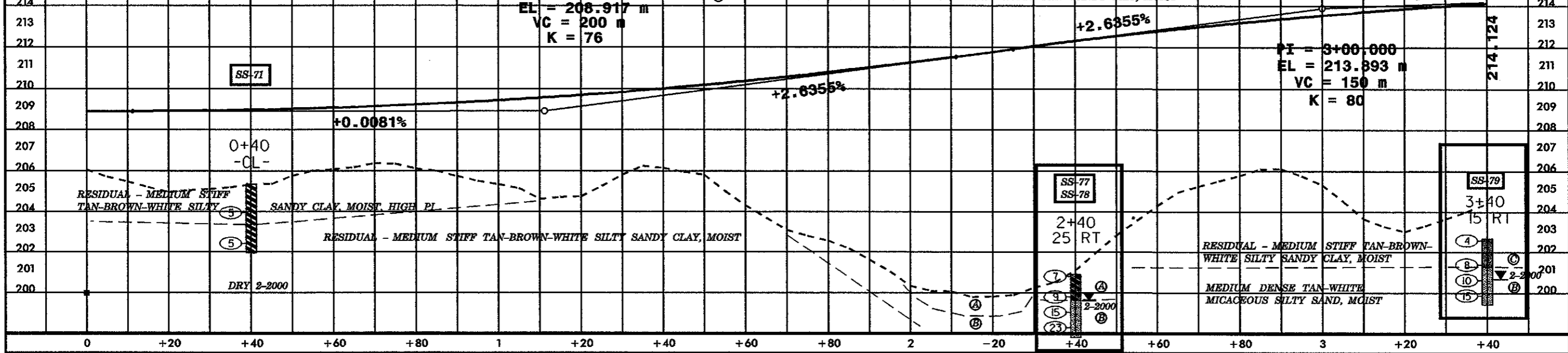
FOR PLAN VIEW SEE SHEET NO. 15

**-Y2-
RAMP A
BROOKSHIRE BLVD.**

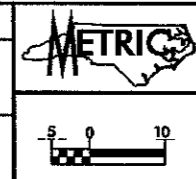
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-71	-CL-	0+40	1.57-1.87	A-7-5(20)	72	33	27.3	11.7	16.6	44.4	96	75	61		
SS-77	25RT	2+40	1.11-1.41	A-6(5)	37	13	26.5	20.4	16.8	36.4	99	82	56		
SS-78	25RT	2+40	2.02-2.32	A-2-4(0)	26	NP	54.7	25.1	8.1	12.1	87	52	21		
SS-79	15RT	3+40	0.25-0.55	A-4(0)	20	6	38.6	26.5	10.7	24.2	97	73	37		
SS-80	5RT	4+40	1.36-1.66	A-4(0)	37	2	36	31.3	14.5	18.2	96	72	37		
SS-81	5RT	4+40	0.25-0.55	A-7-5(12)	71	37	33.5	22.6	11.5	32.3	98	77	46		
SS-87	10LT	5+80	4.65-4.95	A-2-4(0)	34	NP	47.7	22.6	15.6	14.1	87	54	30		

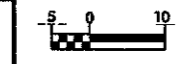
- (A) ALLUVIUM - SOFT TO MEDIUM STIFF TO STIFF DARK GRAY SILTY CLAY WITH ROOT MATTER, MOIST
- (B) RESIDUAL - MEDIUM DENSE TAN-WHITE MICACEOUS SILTY SAND, MOIST
- (C) RESIDUAL - LOOSE TO MEDIUM DENSE BROWN-WHITE-TAN SANDY SILT, MOIST



FOR PLAN VIEW SEE SHEET NO. 15 & 16



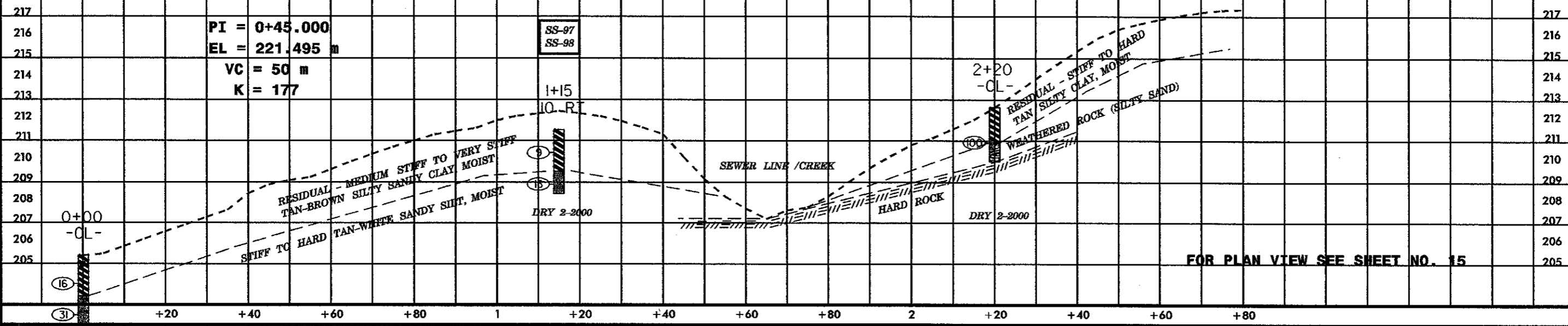
-Y2-
RAMP B
BROOKSHIRE BLVD.



TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-93	15RT	4+60	1.50-1.80	A-6(3)	31	13	36.1	19.4	14.3	30.2	98	77	47		
SS-94	15RT	4+60	6.06-6.36	A-7-6(11)	49	20	23.2	22	20.6	34.3	100	84	62		
SS-97	10RT	1+15	1.26-1.56	A-7-6(10)	43	18	22.6	21.8	25.3	30.3	100	89	62		
SS-98	10RT	1+15	2.78-3.08	A-4(0)	29	NP	28.9	39.4	19.6	12.1	100	88	40		

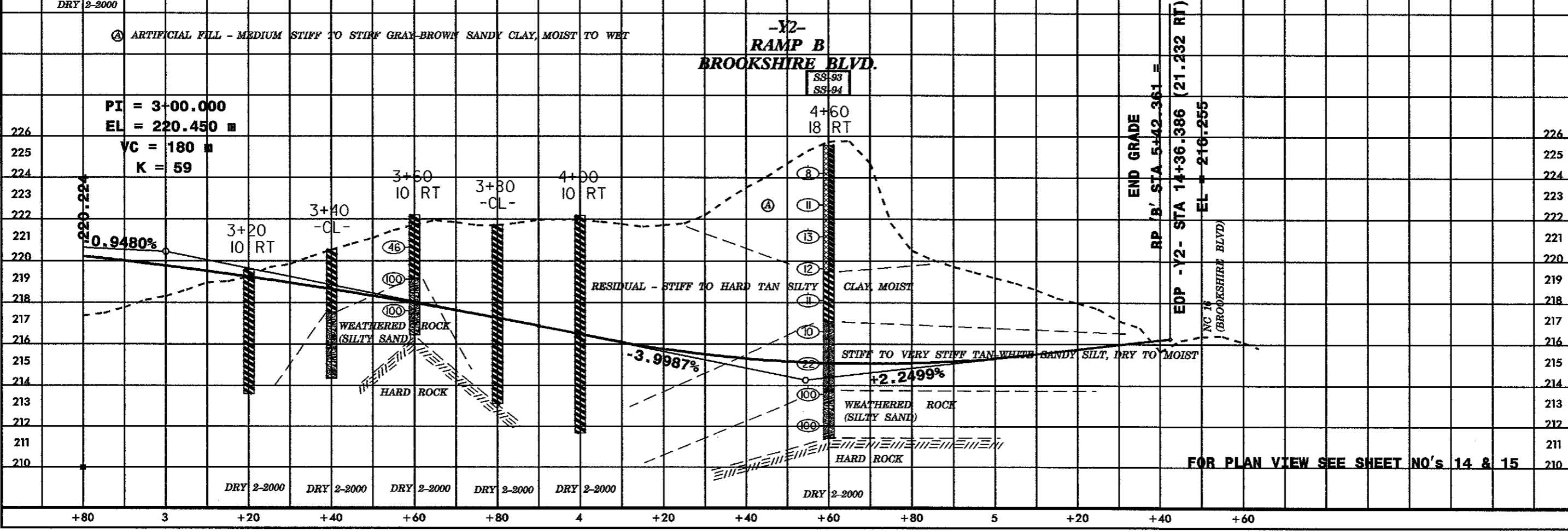
PI = 0+45.000
 EL = 221.495 m
 VC = 50 m
 K = 177



FOR PLAN VIEW SEE SHEET NO. 15

-Y2-
RAMP B
BROOKSHIRE BLVD.

PI = 3+00.000
 EL = 220.450 m
 VC = 180 m
 K = 59



FOR PLAN VIEW SEE SHEET NO'S 14 & 15



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

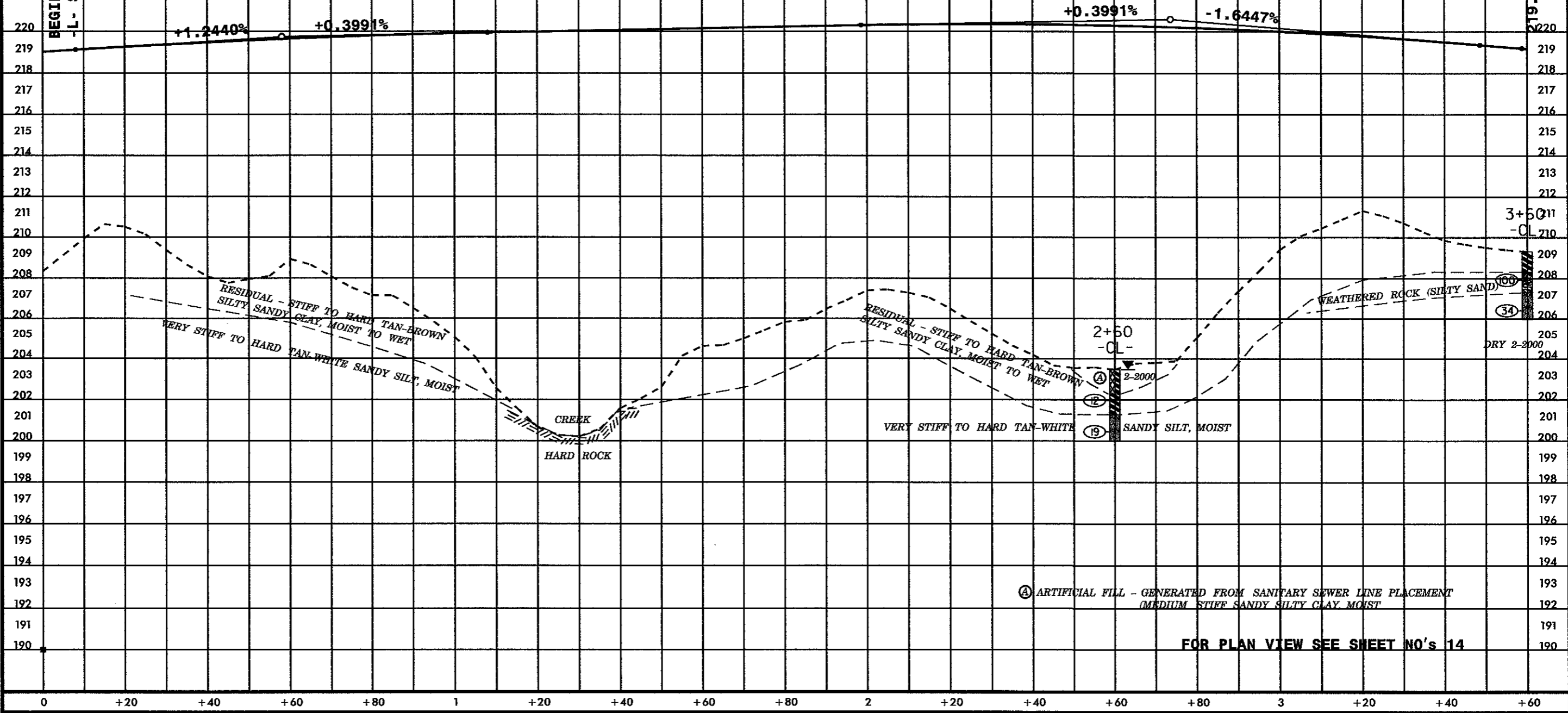
CONST. REV. _____
R/W REV. _____

- Y2 -
RAMP C
BROOKSHIRE BLVD.

BEGIN GRADE Rp 'C' STA 0+00.000 =
-L- STA 254+33.670 (17.7m RT) EL = 219.018

PI = 0+58.000
EL = 219.740 m
VC = 100 m
K = 118 m

PI = 2+73.630
EL = 220.600 m
VC = 150 m
K = 73



(A) ARTIFICIAL FILL - GENERATED FROM SANITARY SEWER LINE PLACEMENT
MEDIUM STIFF SANDY SILTY CLAY, MOIST

FOR PLAN VIEW SEE SHEET NO's 14

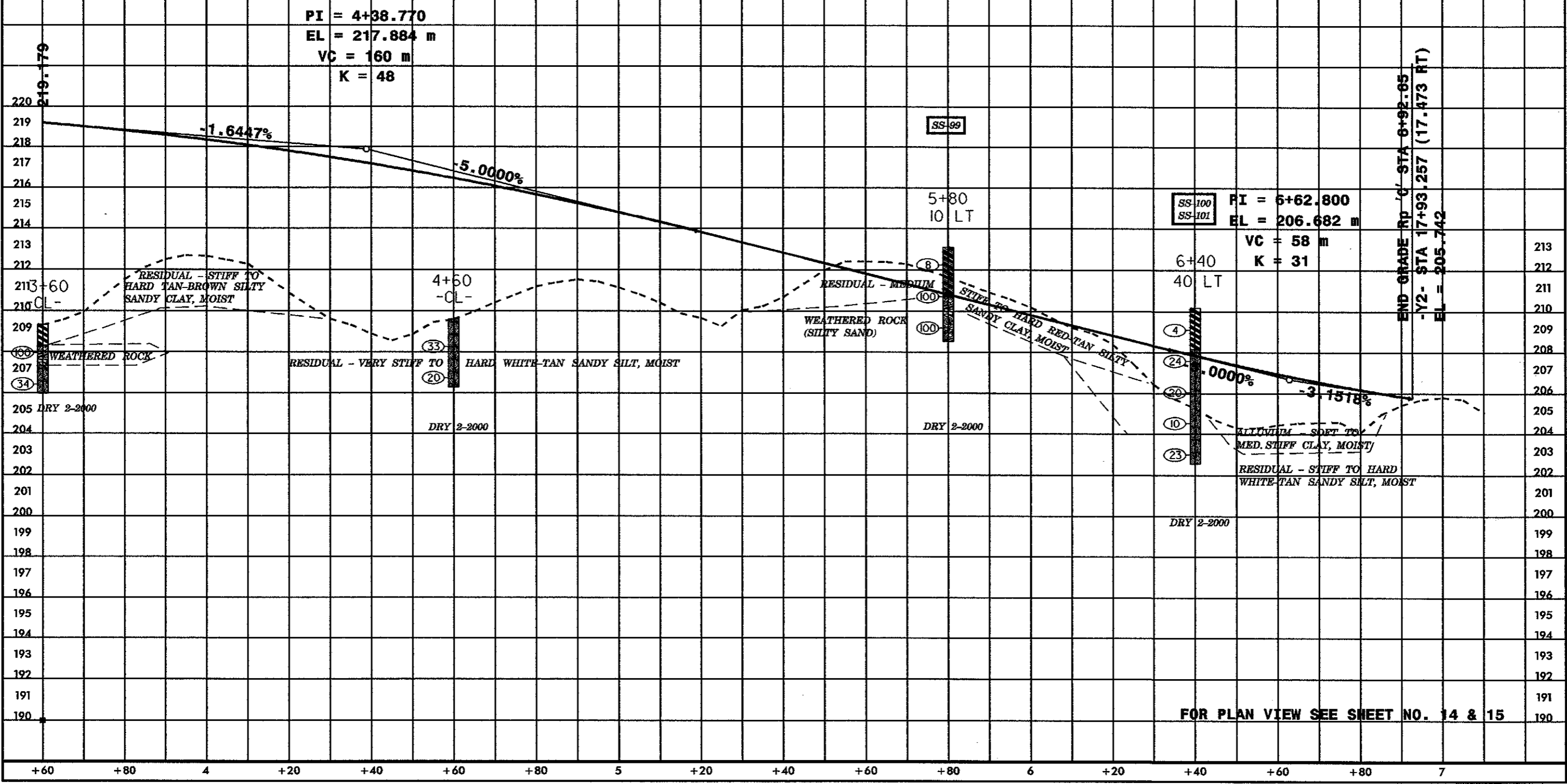
**- Y2 -
RAMP C
BROOKSHIRE BLVD.**

METRIC

CONSTR. REV. _____
R/W REV. _____

PROJECT REFERENCE NO. R-2248C	SHEET NO. 57
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-99	10LT	5+80	1.02-1.32	A-6(4)	36	12	23.2	33.1	17.4	26.3	100	90	51		
SS-100	40LT	6+40	1.22-1.52	A-7-6(9)	44	16	22.4	19.8	15.4	42.4	100	89	62		
SS-101	40LT	6+40	2.74-3.04	A-4(2)	29	10	28.3	32.7	14.7	24.2	100	86	46		



FOR PLAN VIEW SEE SHEET NO. 14 & 15



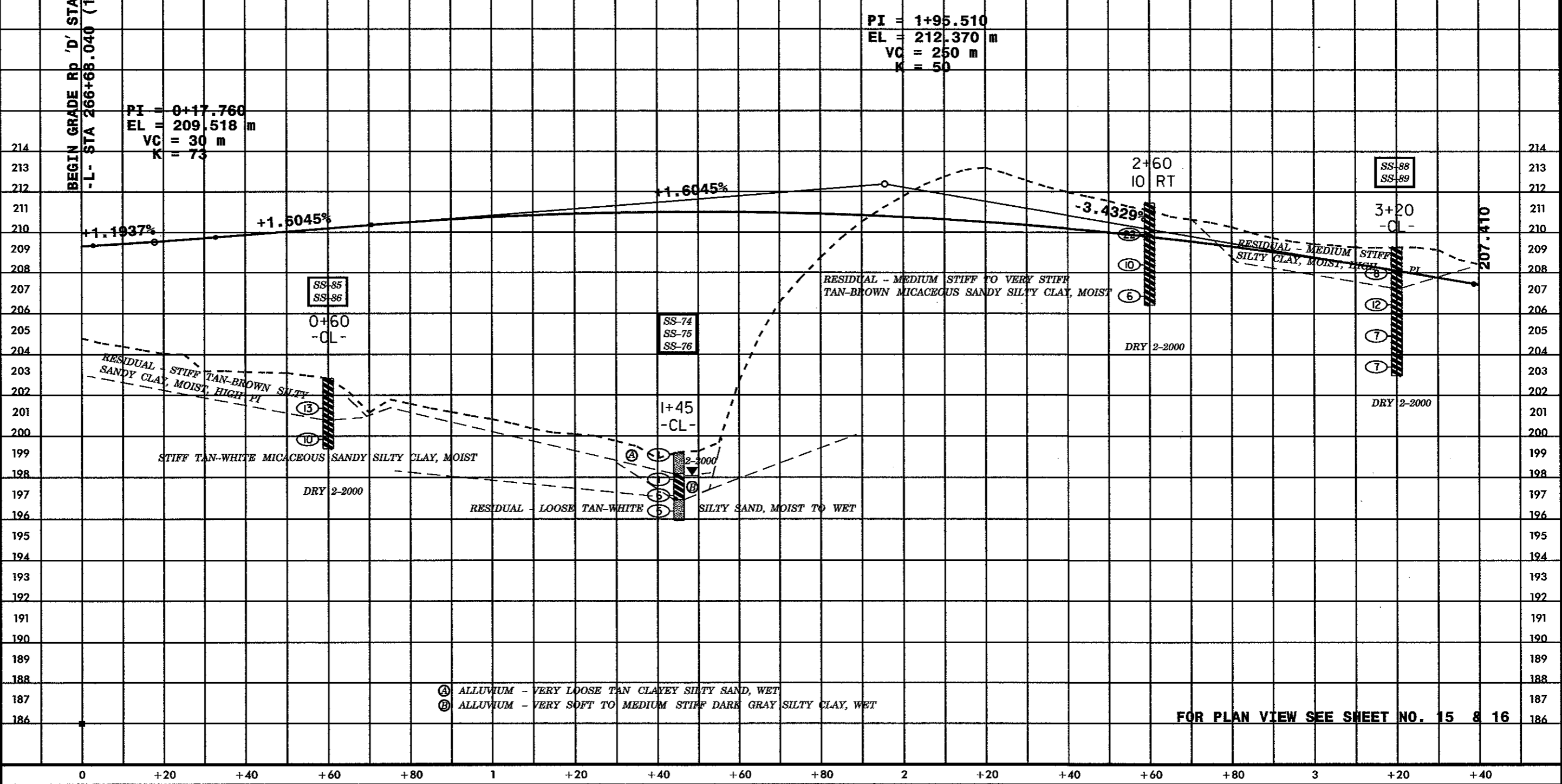
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

CONST. REV. _____
R/W REV. _____

- Y2 -
RAMP D
BROOKSHIRE BLVD.

BEGIN GRADE RD 'D' STA 0+00.000 =
-L- STA 266+68.040 (17.7000 RT) EL = 209.306

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-74	5RT	2+60	0.25-0.55	A-2-4(0)	20	5	50.3	21.2	6.3	22.2	97	62	31		
SS-75	5RT	2+60	1.44-1.74	A-7-6(14)	49	22	22.6	11.1	19.8	46.3	100	83	68		
SS-76	5RT	2+60	2.20-2.50	A-2-4(0)	21	5	48.9	19.8	9.1	22.2	96	61	33		
SS-85	15RT	0+60	1.33-1.63	A-7-5(26)	72	35	22.6	9.9	10.9	56.6	100	85	69		
SS-86	15RT	0+60	2.85-3.15	A-7-5(10)	56	19	25.9	21	16.8	36.4	100	84	58		
SS-88	CL	3+20	1.45-1.75	A-7-4(29)	68	30	10.7	10.1	26.7	52.5	100	93	82		
SS-89	CL	3+20	2.97-3.27	A-7-5(9)	52	17	26.2	21.2	20.4	32.3	100	84	58		



- Ⓐ ALLUVIUM - VERY LOOSE TAN CLAYEY SILTY SAND, WET
- Ⓑ ALLUVIUM - VERY SOFT TO MEDIUM STIFF DARK GRAY SILTY CLAY, WET

FOR PLAN VIEW SEE SHEET NO. 15 & 16



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

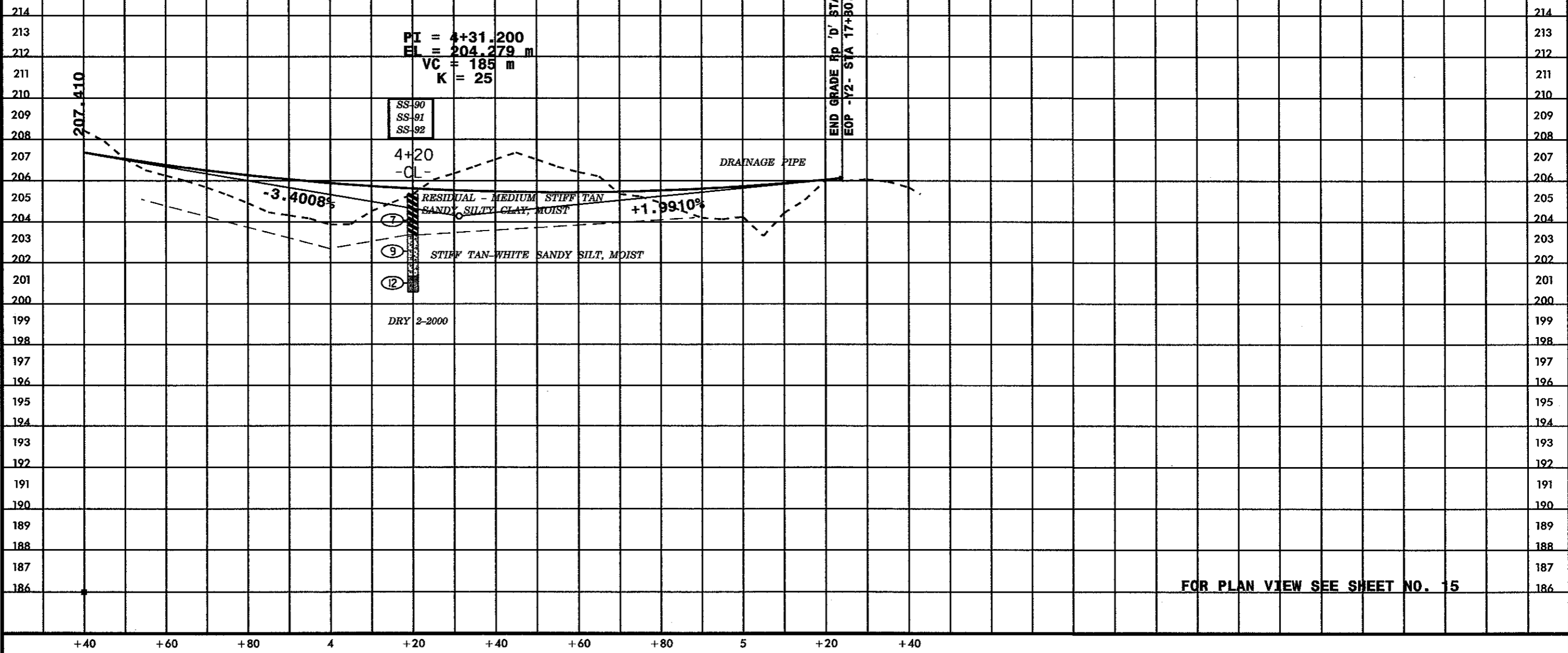
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

CONST. REV. _____

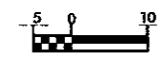
R/W REV. _____

**- Y2 -
RAMP D
BROOKSHIRE BLVD.**

SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-90	CL	4+20	1.43-1.73	A-7-5(16)	60	20	20	16.5	17.1	46.4	100	88	69		
SS-91	CL	4+20	2.95-3.25	A-5(3)	45	9	20.6	38.9	14.3	26.2	100	89	50		
SS-92	CL	4+20	4.47-4.77	A-4(0)	36	NP	28.4	45	14.5	12.1	100	84	37		



FOR PLAN VIEW SEE SHEET NO. 15



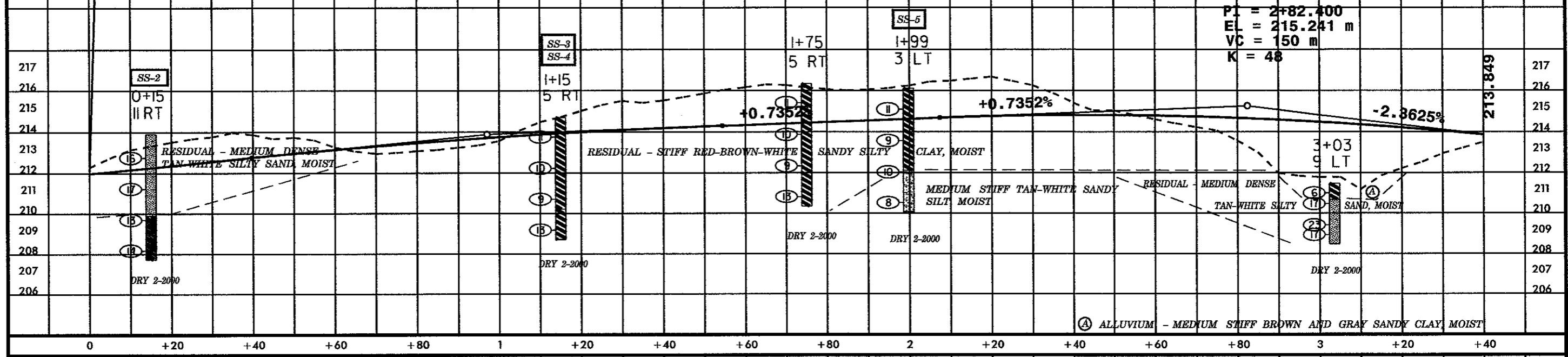
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

RAMP 'A' AT -Y3REV- (OAKDALE RD)

BEGIN GRADE
Rp A STA 0+00.000
-L- STA 295+16.159 (17.70 LT)
EL = 211.977

FOR PLAN VIEW SEE SHEET NO. 23 & 24

PI = 2+82.400
EL = 215.241 m
VC = 150 m
K = 48

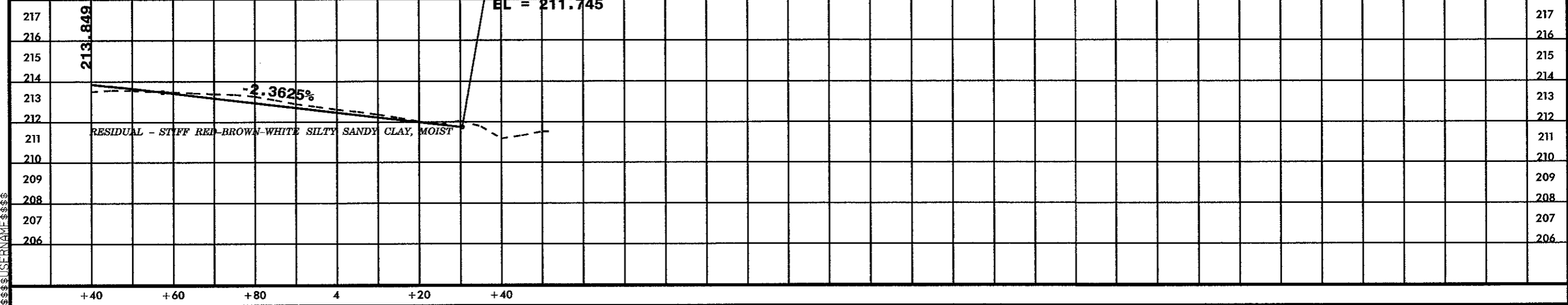


Ⓐ ALLUVIUM - MEDIUM STIFF BROWN AND GRAY SANDY CLAY, MOIST

FOR PLAN VIEW SEE SHEET NO. 23 & 24

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-2	11RT	0+15	4.34 - 4.74	A-6(8)	39	11	7.7	31.7	42.4	18.2	100	96	71		
SS-3	5RT	1+15	1.11 - 1.41	A-7-5(22)	54	17	0.8	9.3	53.5	36.4	100	99	96		
SS-4	5RT	1+15	5.67 - 5.97	A-7-5(17)	56	12	1.6	16	56.2	26.3	100	99	91		
SS-5	3LT	1+99	2.71 - 3.01	A-5(5)	46	8	22.6	22.8	34.3	20.2	100	86	61		

END GRADE
Rp A STA 4+30.381 =
EL = 211.745



SYSTEMS
 DONORS
 TRAIL
 SCS
 TRAIL

METRIC

PROJECT REFERENCE NO. R-2248C SHEET NO. 61

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST. REV. _____

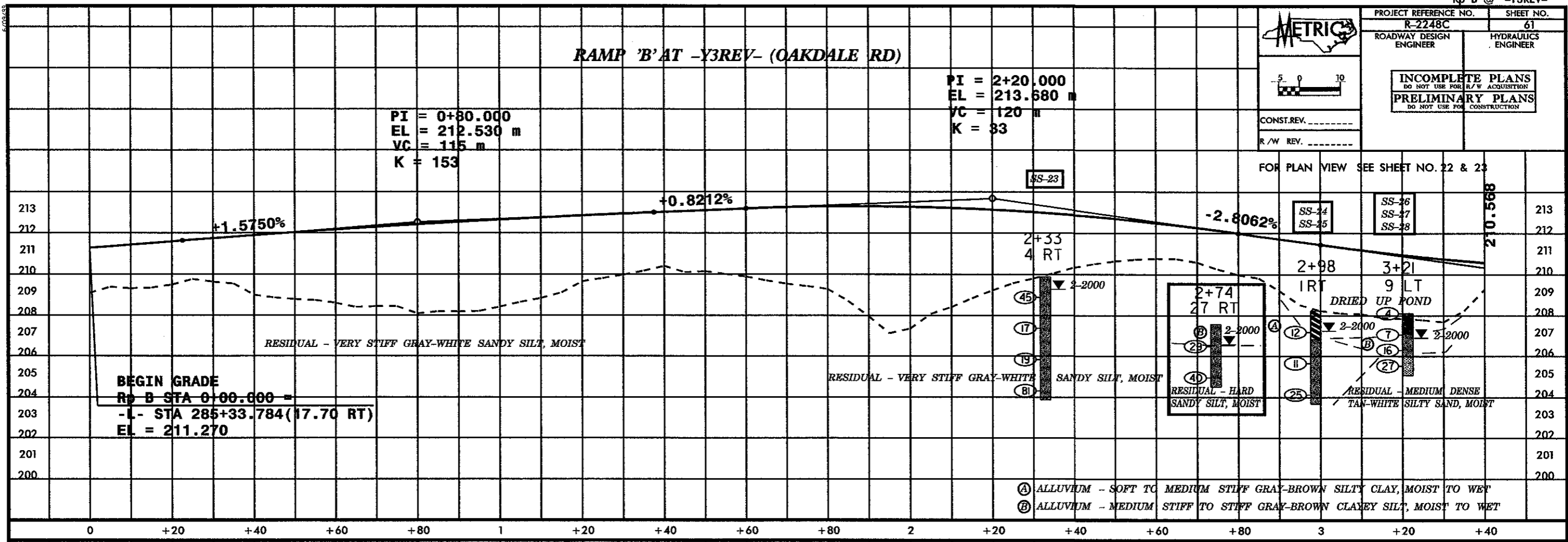
R/W REV. _____

RAMP 'B' AT -Y3REV- (OAKDALE RD)

PI = 0+80.000
EL = 212.530 m
VC = 115 m
K = 153

PI = 2+20.000
EL = 213.680 m
VC = 120 m
K = 33

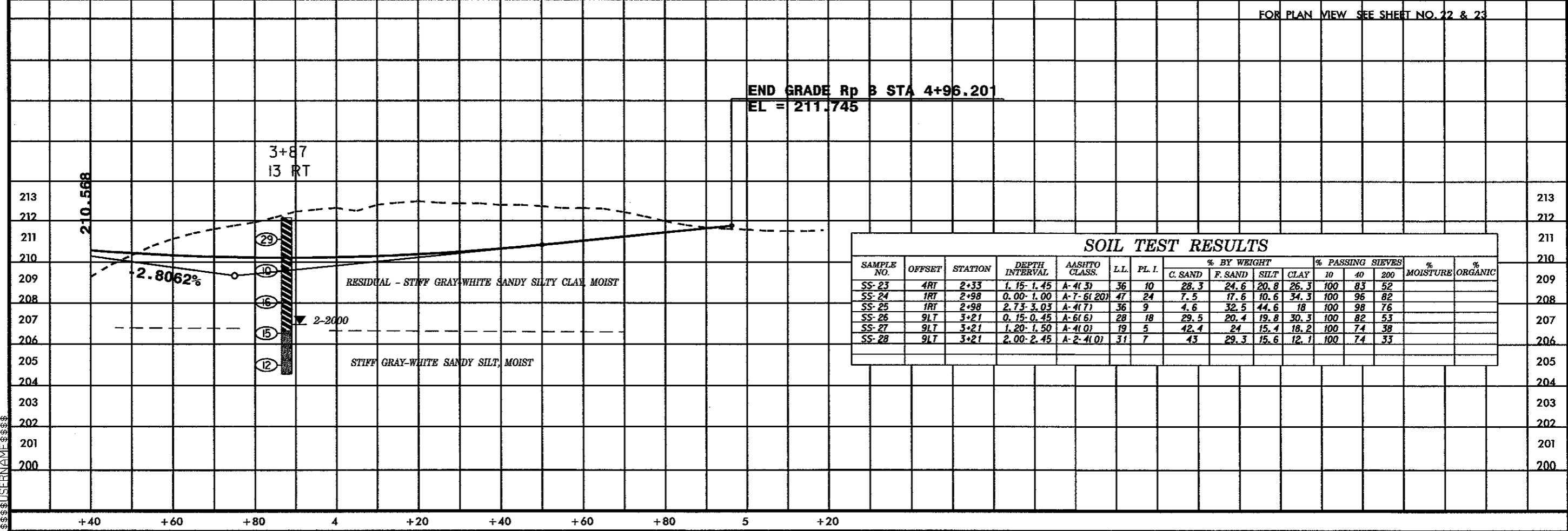
FOR PLAN VIEW SEE SHEET NO. 22 & 23



BEGIN GRADE
Rp B STA 0+00.000 =
-L- STA 285+33.784 (17.70 RT)
EL = 211.270

END GRADE Rp B STA 4+96.201
EL = 211.745

FOR PLAN VIEW SEE SHEET NO. 22 & 23

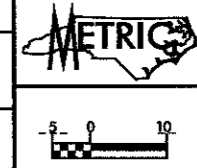


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-23	4RT	2+33	1.15-1.45	A-4(3)	36	10	28.3	24.6	20.8	26.3	100	83	52		
SS-24	1RT	2+98	0.00-1.00	A-7-6(20)	47	24	7.5	17.6	10.6	34.3	100	96	82		
SS-25	1RT	2+98	2.73-3.03	A-4(7)	36	9	4.6	32.5	44.6	18	100	98	76		
SS-26	9LT	3+21	0.15-0.45	A-6(6)	28	18	29.5	20.4	19.8	30.3	100	82	53		
SS-27	9LT	3+21	1.20-1.50	A-4(0)	19	5	42.4	24	15.4	18.2	100	74	38		
SS-28	9LT	3+21	2.00-2.45	A-2-4(0)	31	7	43	29.3	15.6	12.1	100	74	33		

SYSTEMS ENGINEERING

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

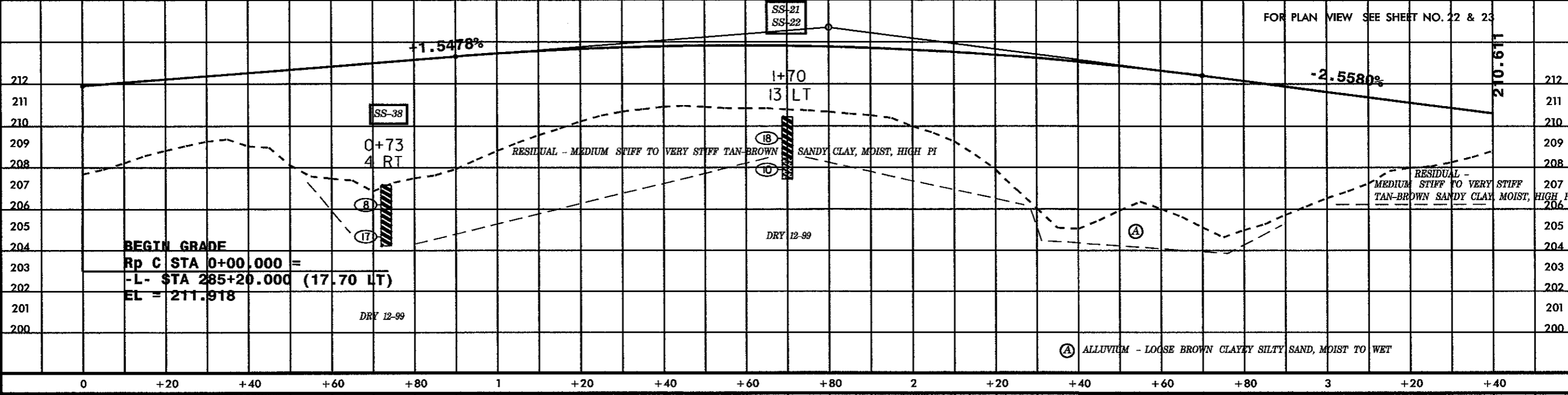


CONST. REV. _____
R/W REV. _____

RAMP 'C' AT -Y3REV- (OAKDALE RD)

PI = 1+80.000
EL = 214.704 m
VC = 180 m
K = 44

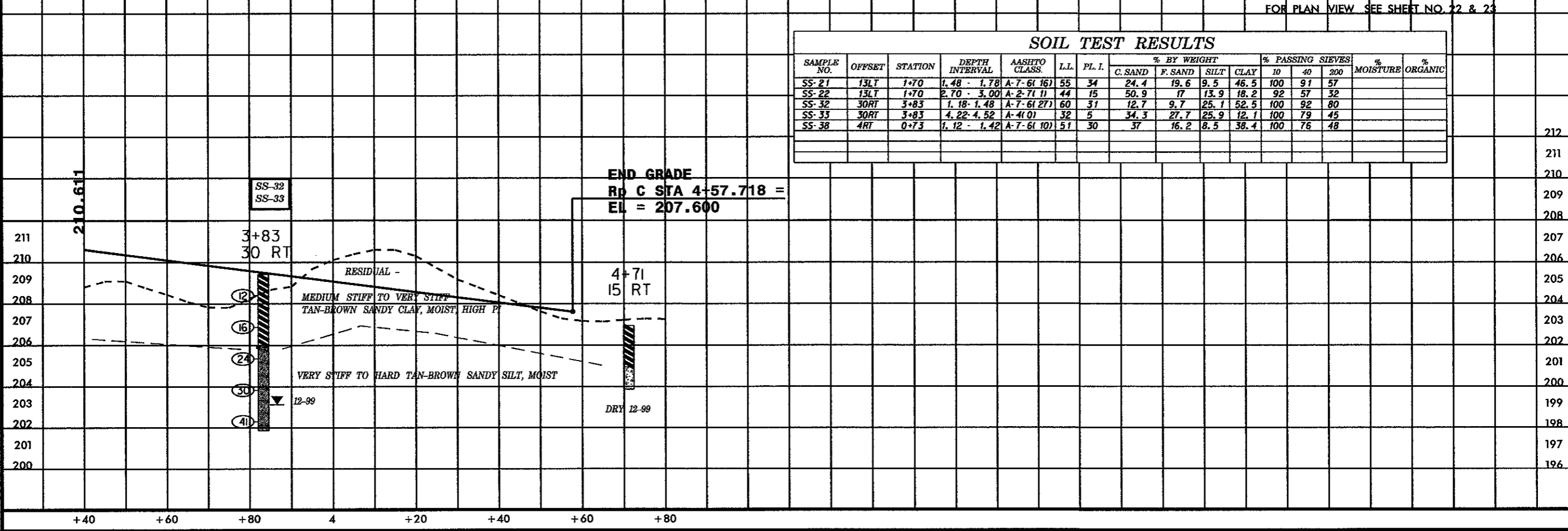
FOR PLAN VIEW SEE SHEET NO. 22 & 23



FOR PLAN VIEW SEE SHEET NO. 22 & 23

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-21	13LT	1+70	1.48 - 1.78	A-7-61 (6)	55	34	24.4	19.6	9.5	46.5	100	91	57		
SS-22	13LT	1+70	2.70 - 3.00	A-2-71 (1)	44	15	50.9	17	13.9	18.2	92	57	32		
SS-32	30RT	3+83	1.18 - 1.48	A-7-61 (27)	60	31	12.7	9.7	25.1	52.5	100	92	80		
SS-33	30RT	3+83	4.22 - 4.52	A-4(0)	32	5	34.3	27.7	25.9	12.1	100	79	45		
SS-38	4RT	0+73	1.12 - 1.42	A-7-61 (10)	51	30	37	16.2	8.5	38.4	100	76	48		



SYSTEM TIME: 12:00:00 PM 12/12/99
 USER: JAMLE
 PROJECT: R-2248C
 SHEET: 62
 TITLE: RAMP 'C' AT -Y3REV- (OAKDALE RD)
 DATE: 12/12/99



PROJECT REFERENCE NO. R-2248C SHEET NO. 63
 ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER
INCOMPLETE PLANS
 DO NOT USE FOR ACQUISITION
PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

RAMP 'D' AT -Y3REV- (OAKDALE RD)

PI = 0+62.600
 EL = 214.190 m
 VC = 125 m
 K = 288

PI = 2+05.000
 EL = 216.921 m
 VC = 155 m
 K = 32

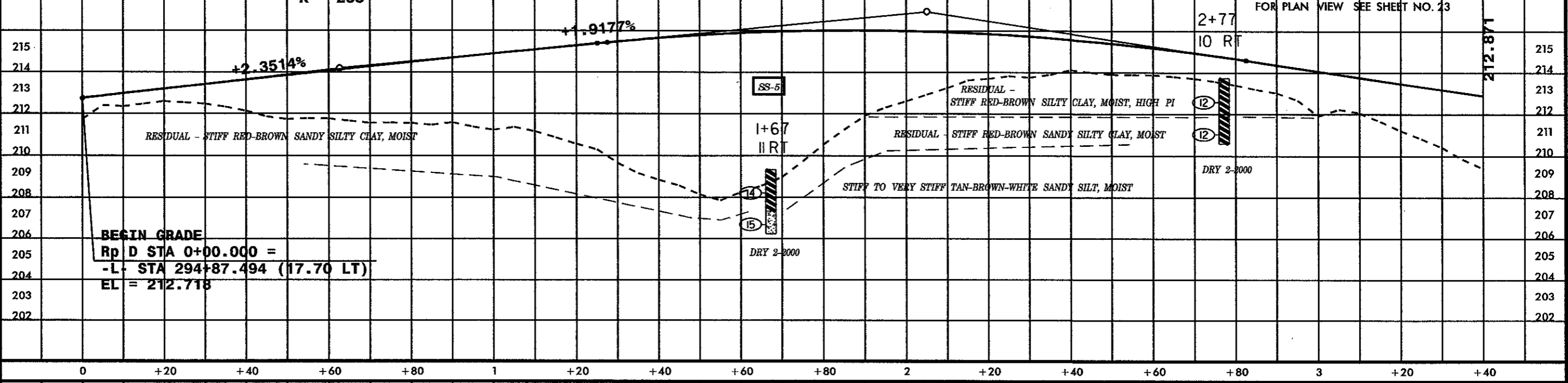


CONST. REV. _____
 R/W REV. _____

SS-12

FOR PLAN VIEW SEE SHEET NO. 13

212.871



BEGIN GRADE
 Rp D STA 0+00.000 =
 -L- STA 294+87.494 (17.70 LT)
 EL = 212.718

DRY 2-2000

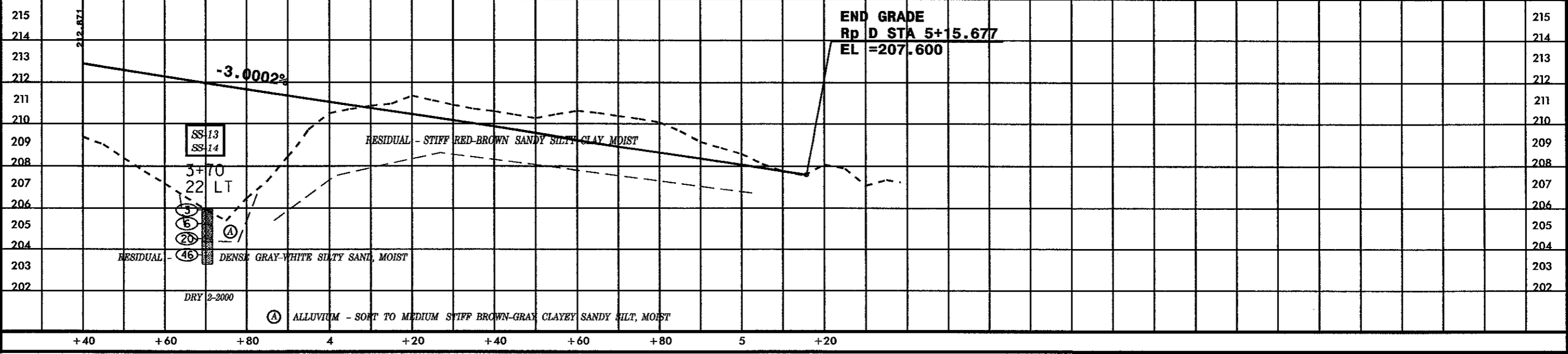
DRY 2-2000

0 +20 +40 +60 +80 1 +20 +40 +60 +80 2 +20 +40 +60 +80 3 +20 +40

FOR PLAN VIEW SEE SHEET NO. 13

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	LL	PL I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-5	11RT	1+67	2.71-3.01	A-5(5)	46	8	22.6	22.8	34.3	20.2	100	86	61		
SS-12	10RT	2+77	1.33-1.63	A-7.5(34)	66	30	4.6	7.7	35.2	52	100	97	91		
SS-13	22LT	3+70	0.86-1.16	A-4(0)	26	9	44.4	19.8	11.5	24.2	100	74	38		
SS-14	22LT	3+70	2.38-2.68	A-2-4(0)	25	NP	60.2	24.2	7.5	8.1	93	52	18		



END GRADE
 Rp D STA 5+15.677
 EL = 207.600

SS-13
 SS-14

3+70
 22 LT

RESIDUAL - (46) DENSE GRAY-WHITE SILTY SAND, MOIST

DRY 2-2000

(A) ALLUVIUM - SORT TO MEDIUM STIFF BROWN-GRAY CLAYEY SANDY SILT, MOIST

+40 +60 +80 4 +20 +40 +60 +80 5 +20

\$\$\$ SYSTEM TIME \$\$\$
 \$\$\$ DGN \$\$\$
 \$\$\$ PLOT \$\$\$
 \$\$\$ PRINT \$\$\$