ID: R-2554BA

CONTRACT: C201818

NOTE: SEE SHEET 2A FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

CONTENTS

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

ROADWAY SUBSURFACE INVESTIGATION

PROJ. REFERENCE NO. 34461.1.3 (R-2554BA) F.A. PROJ. NHF - 70 (30)

COUNTY WAYNE

PROJECT DESCRIPTION US 70 (GOLDSBORO BYPASS) FROM EAST OF SR 1300 (SALEM CHURCH RD.) TO EAST OF SR 1556 (WAYNE MEMORIAL DR.)

INVENTORY

METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2554BA	1	84

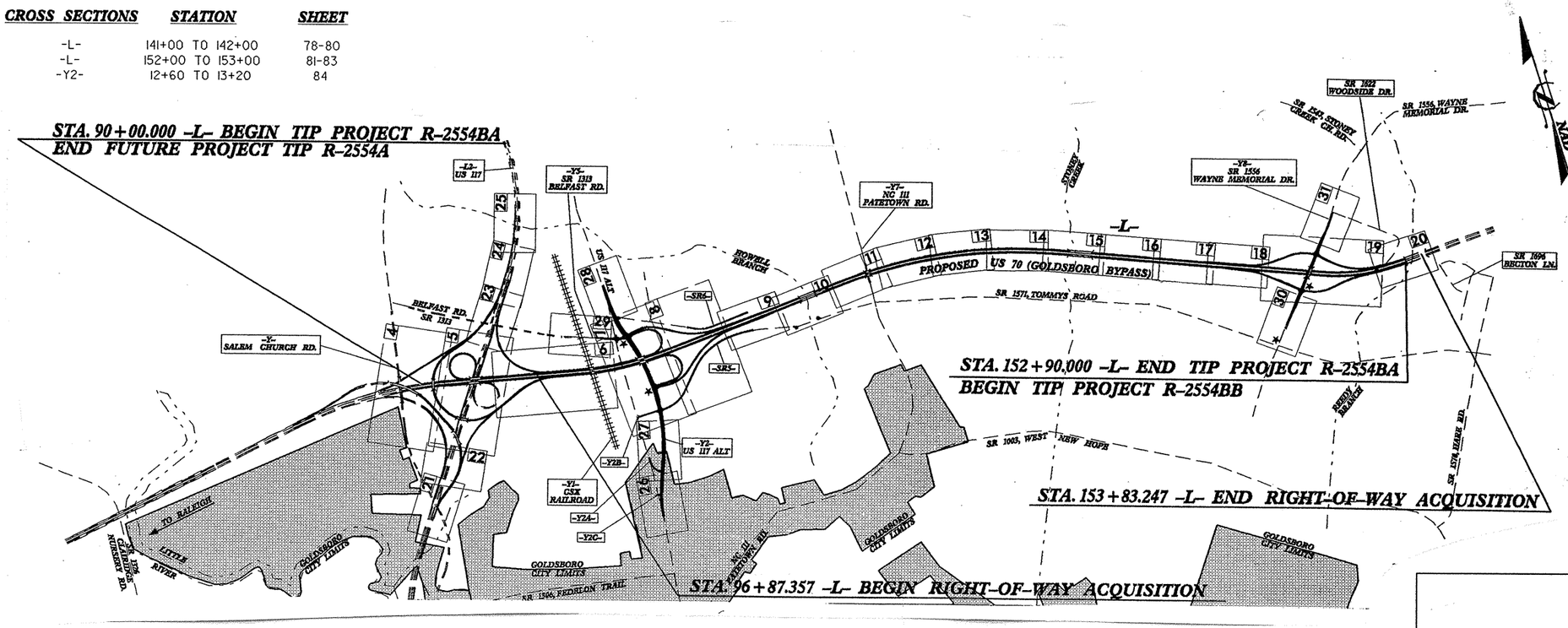
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34461.1.3	NHF-70(30)	PE
34461.2.7		R/W & UTIL.
34461.3.GV1	NHS-70(160)	CONST.

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING, AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 250-4088. NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA ARE PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION, AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON 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.



PERSONNEL

RLE

MMH

JEB

MBO

WNC

RES

KBQ

LWD

TJB

INVESTIGATED BY J.L. STONE

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE JANUARY, 2007

NORTH CAROLINA LICENSED SEAL 2007 GEOLOGIST JOSEPH L. STONE

1-16-07

DRAWN BY: JLS

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IT IS 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.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

PROJECT REFERENCE NO.	SHEET NO.
3446I.1.3 (R-2554BA)	2

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION

SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER, AND YIELD LESS THAN 100 BLOWS PER 30 CM ACCORDING TO STANDARD PENETRATION TEST (AASHTO T206, ASTM D-1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. 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, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6

SOIL LEGEND AND AASHTO CLASSIFICATION

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

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

CONSISTENCY OR DENSENESS

PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTENCE (N-VALUE)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH (kN/m^2)
GENERALLY GRANULAR MATERIAL (NON-COHESIVE)	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	<4 4 TO 10 10 TO 30 30 TO 50 >50	N/A
GENERALLY SILT-CLAY MATERIAL (COHESIVE)	VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD	<2 2 TO 4 4 TO 8 8 TO 15 15 TO 30 >30	<25 25 TO 50 50 TO 100 100 TO 200 200 TO 400 >400

TEXTURE OR GRAIN SIZE

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

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

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

SOIL MOISTURE - CORRELATION OF TERMS

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

PLASTICITY

	PLASTICITY INDEX (PI)	DRY STRENGTH
NONPLASTIC	0-5	VERY LOW
LOW PLASTICITY	6-15	SLIGHT
MED. PLASTICITY	16-25	MEDIUM
HIGH PLASTICITY	26 OR MORE	HIGH

COLOR

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

GRADATION

WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE.
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.

ANGULARITY OF GRAINS

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

MINERALOGICAL COMPOSITION

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

COMPRESSIBILITY

SLIGHTLY COMPRESSIBLE	LIQUID LIMIT LESS THAN 31
MODERATELY COMPRESSIBLE	LIQUID LIMIT EQUAL TO 31-50
HIGHLY COMPRESSIBLE	LIQUID LIMIT GREATER THAN 50

PERCENTAGE OF MATERIAL

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

GROUND WATER

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

MISCELLANEOUS SYMBOLS

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

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

ABBREVIATIONS

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

EQUIPMENT USED ON SUBJECT PROJECT

DRILL UNITS:
- [ ] MOBILE B-___
- [ ] BK-51
- [ ] CME-45C
- [ ] CME-550
- [ ] PORTABLE HOIST
- [X] CME-45B
- [ ] _____

ADVANCING TOOLS:
- [X] CLAY BITS
- [X] 152mm CONTINUOUS FLIGHT AUGER
- [ ] 203mm HOLLOW AUGERS
- [ ] HARD FACED FINGER BITS
- [ ] TUNG.-CARBIDE INSERTS
- [X] CASING [ ] W/ ADVANCER
- [X] TRICONE 75 mm STEEL TEETH
- [ ] TRICONE _____ mm TUNG.-CARB.
- [ ] CORE BIT
- [ ] _____

HAMMER TYPE:
- [X] AUTOMATIC [ ] MANUAL

CORE SIZE:
- [ ] -B_____
- [ ] -N_____
- [ ] -H_____

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

ROCK DESCRIPTION

HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT IF TESTED, WOULD YIELD SPT REFUSAL. AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 3 CM PER 60 BLOWS. IN NON-COASTAL PLAIN MATERIAL, THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK.
ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:

WEATHERED ROCK (WR)	NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 100 BLOWS PER 30 CM IF TESTED.
CRYSTALLINE ROCK (CR)	FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.
NON-CRYSTALLINE ROCK (NCR)	FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.
COASTAL PLAIN SEDIMENTARY ROCK (CP)	COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.

WEATHERING

FRESH	ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.
VERY SLIGHT (V SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN, CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF OF A CRYSTALLINE NATURE.
SLIGHT (SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.
MODERATE (MOD.)	SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED WITH FRESH ROCK.
MODERATELY SEVERE (MOD. SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. *IF TESTED, WOULD YIELD SPT REFUSAL*
SEVERE (SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. *IF TESTED, YIELDS SPT N VALUES > 100 BLOWS PER 30 CM*
VERY SEVERE (V SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT THE MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE SUCH THAT ONLY MINOR VESTIGES OF THE ORIGINAL ROCK FABRIC REMAIN. *IF TESTED, YIELDS SPT N VALUES < 100 BLOWS PER 30 CM*
COMPLETE	ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.

ROCK HARDNESS

VERY HARD	CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.
HARD	CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.
MODERATELY HARD	CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 6 MM DEEP CAN BE EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.
MEDIUM HARD	CAN BE GROOVED OR GOUGED 13 MM DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 25 MM MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.
SOFT	CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.
VERY SOFT	CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 25 MM OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGERNAIL.

FRACTURE SPACING

TERM	SPACING
VERY WIDE	MORE THAN 3 M
WIDE	3 TO 10 M
MODERATELY CLOSE	30 TO 100 CM
CLOSE	5 TO 30 CM
VERY CLOSE	LESS THAN 5 CM

BEDDING

TERM	THICKNESS
VERY THICKLY BEDDED	> 1 M
THICKLY BEDDED	0.5 - 1 M
THINLY BEDDED	0.05 - 0.5 M
VERY THINLY BEDDED	10 - 50 MM
THICKLY LAMINATED	2.5 - 10 MM
THINLY LAMINATED	< 2.5 MM

INDURATION

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

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

TERMS AND DEFINITIONS

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

AQUIFER - A WATER BEARING FORMATION OR STRATA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ROCK QUALITY DESIGNATION (RQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 10 CM DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.

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

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

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

STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N) OF A 63.5 KG HAMMER FALLING 0.76 M REQUIRED TO PRODUCE A PENETRATION OF 30 CM INTO SOIL WITH A 5 CM OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 3 CM PER 60 BLOWS.

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

STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 10 CM DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.

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

BENCH MARK:

ELEVATION: M

NOTES:

Approximate Limits of organic soils

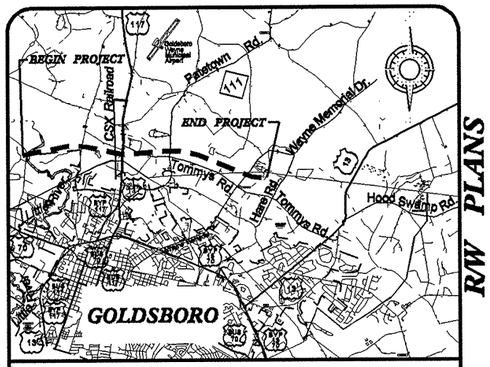
Approximate Limits of flood plain soils

REVISED 02/23/06

PROJECT: R-2554BA

CONTRACT:

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



VICINITY MAP

R/W PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
WAYNE COUNTY

METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2554BA	2A	84

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34461.1.3	NHF-70(30)	PE
34461.2.7		RW

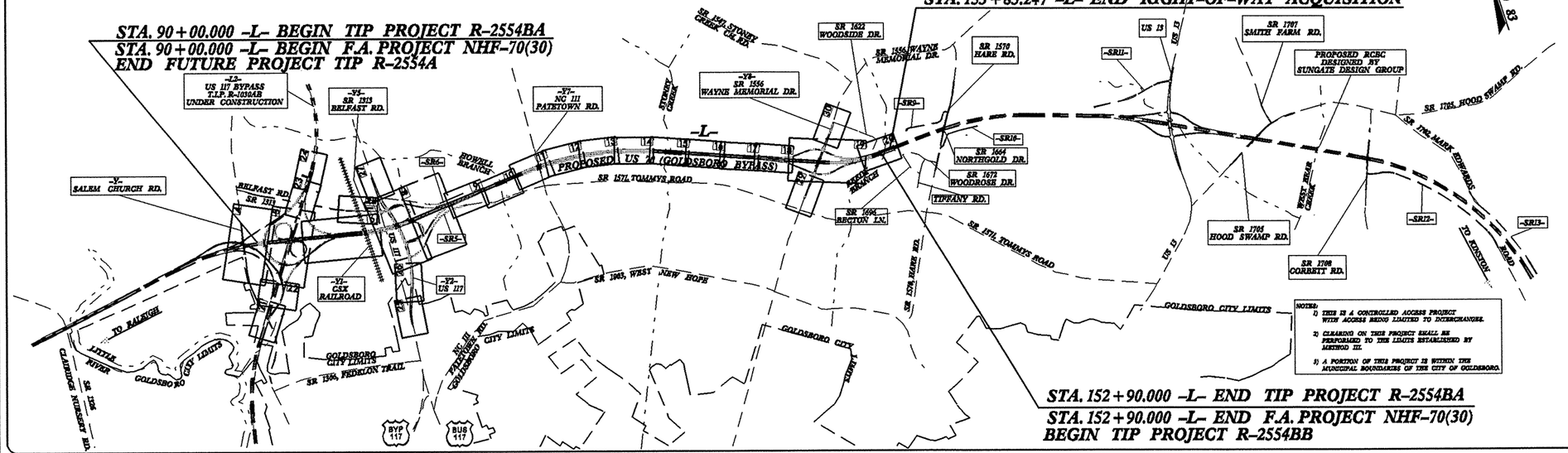
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

LOCATION: US 70 (GOLDSBORO BYPASS)
FROM EAST OF SR 1300 (SALEM CHURCH ROAD)
TO EAST OF SR 1556 (WAYNE MEMORIAL DRIVE)

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

STA. 90+00.000 –L– BEGIN TIP PROJECT R-2554BA
STA. 90+00.000 –L– BEGIN F.A. PROJECT NHF-70(30)
END FUTURE PROJECT TIP R-2554A

STA. 153+83.247 –L– END RIGHT-OF-WAY ACQUISITION



NOTES:
1) THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
2) CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
3) A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF GOLDSBORO.

STA. 152+90.000 –L– END TIP PROJECT R-2554BA
STA. 152+90.000 –L– END F.A. PROJECT NHF-70(30)
BEGIN TIP PROJECT R-2554BB

GRAPHIC SCALE

PLANS 5 0 10
PROFILE (HORIZONTAL) 5 0 10
PROFILE (VERTICAL) 1 0 2

DESIGN DATA

ADT 2008 = 20,728
ADT 2028 = 29,048
DHV = 10 %
D = 55 %
T = 10 % *
V = 110 km/h

* TTST 6% DUAL 4%

PROJECT LENGTH

Length Roadway TIP Project R-2554BA ..... 5.833 km

*Length Structure TIP Project R-2554BA ..... 0.457 km

TOTAL LENGTH TIP Project R-2554BA ..... 6.290 km
(3.91 MILES)

*USED EBL –L– STATIONS FOR STRUCTURE LENGTHS

PLANS PREPARED BY :
RUMMEL, KLEPPER & KAHL, LLP
consulting engineers
5800 FAIRWOOD PLACE, SUITE 105
RALEIGH, NORTH CAROLINA 27609
(919) 878-9560

FOR
DIVISION OF HIGHWAYS

2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MAY , 2005

LETTING DATE: MAY , 2007

B. KEITH SKINNER, P.E.
PROJECT ENGINEER

MICHAEL T. MERRITT, P.E.
PROJECT DESIGN ENGINEER

NCDOT CONTACT: Scott Blevins, P.E.
Project Engineer-Project Services

HYDRAULICS ENGINEER
SIGNATURE: P.E.

ROADWAY DESIGN
SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
STATE DESIGN ENGINEER P.E.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

January 16, 2007

STATE PROJECT: 34461.1.3 R-2554BA
F.A. PROJECT NHF-70(30)
COUNTY: Wayne
DESCRIPTION: US 70 (Goldsboro Bypass) from East of SR 1300 (Salem Church Rd.) To East of SR 1556 (Wayne Memorial Drive)

SUBJECT: Geotechnical Report – Inventory

Project Description

The project consists of constructing a four lane divided facility along a new location. The project begins approximately 1 kilometer west of Salem Church Road and proceeds 6.3 kilometers in an easterly direction to a point east of SR 1556 (Wayne Memorial Drive). The western terminus ties in with future project R-2554A and the eastern terminus ties in with future project R-2554BB. The geotechnical investigation of subsurface conditions was confined to the corridor of proposed new construction.

The following survey lines were investigated for this project:

Line	Station
-L-	90+00 to 152+90
-Y1-	10+00 to 12+00
-Y2-	10+87 to 26+35
-Y2A-	10+20 to 11+51
-Y2B-	10+00 to 11+49
-Y5-	11+08 to 13+05
-Y7-	10+60 to 12+80
-Y8-	12+00 to 19+95
-L2RPA-	0+00 to 6+55
-L2RPB-	0+00 to 2+20
-L2RPC-	4+40 to 9+17
-L2RPD-	0+00 to 5+10

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING UNIT
1589 MAIL SERVICE CENTER
RALEIGH NC 27699-1589

TELEPHONE: 919-250-4088
FAX: 919-250-4237

WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC

-L2RPBD-	0+00 to 17+94
-L2RPDB-	0+00 to 9+27
-L2LPB-	0+00 to 4+88
-L2LPD-	0+00 to 4+98
-Y2RPA-	10+00 to 16+65
-Y2RPD-	10+00 to 16+57
-Y2LPA-	10+00 to 14+16
-Y2LPD-	10+00 to 14+93
-Y8RPA-	10+00 to 14+71
-Y8RPB-	10+00 to 14+78
-Y8RPC-	10+00 to 14+40
-Y8RPD-	10+00 to 15+27
-SR5-	10+09 to 18+02
-SR6-	10+00 to 11+77
-SR6-	14+38 to 19+30
-Y8DET-	10+44 to 17+05

Areas of Special Geotechnical Interest

1) A high water table, seasonal high ground water or the potential for ground water related construction problems occur along the majority of the project.

2) The entire project contains cohesive soils except in the following areas. Typically, the cohesive soils exhibit medium to high plasticity indices, relatively high moisture contents, 50 percent or more passing the 75um sieve and or very soft to soft consistency

Line	Station±
-L-	129+20 to 131+20
-L-	133+40 to 142+80
-L-	147+30 to 152+20
-Y8-	12+00 to 13+70
-L2RPDB-	9+27 to 16+80
-Y8RPA-	10+00 to 14+71
-Y8RPC-	13+40 to 13+80
-Y8RPD-	10+00 to 12+10
-SR5-	13+40 to 15+30
-SR5-	16+30 to 18+02

3) The following sections contain recent alluvial soils typically consisting of very soft to soft cohesive silts and clays or very loose to loose sand:

Line	Station (+)
-L-	94+37 to 94+55
-L-	98+50 to 98+94
-L-	114+45 to 115+50
-L-	131+65 to 132+95
-L2RPBD-	13+85 to 14+36
-L2RPBD-	16+65 to 17+94
-L2LPD-	0+95 to 2+40

4) The following areas contain soft organic deposits that have the potential to cause embankment stability and/or long term settlement problems:

Line	Station(±)
-L-	141+11 to 141+89
-L-	152+43 to 152+90

5) Water wells located within or in close proximity to the proposed right-of-way were noted at the following locations:

Line	Station (+)
-L-	109+47, 53 m Rt.
-L-	111+50, 51 m Rt.
-L-	146+70, 16 m Rt.
-L-	151+40, 18 m Rt.
-L-	151+86, 15 m Lt.
-Y2-	14+50, 31 m Rt.
-Y2-	23+20, 55 m Rt.
-Y2RPA-	14+30, centerline
-Y5-	11+23, 35 m Rt.
-Y7_	10+15, 20 m Lt.
-Y8-	12+40, 19 m Rt.
-Y8-	13+22, 13 m Rt.
-Y8-	15+30, 12 m Rt.
-Y8-	15+42, 10 m Rt.
-Y8-	15+72, 12 m Rt.
-Y8-	16+39, 15 m Rt.
-Y8-	17+90, 65 m Rt.
-Y8-	18+15, 64 m Lt.
-Y8RPA-	13+60, 13 m Rt.
-Y8RPD-	14+70, 20 m Lt.
-SR5-	13+70, 15 m Rt.

Additional water wells not listed above may be present within the proposed right-of-way.

6) Farm ponds located within proposed right-of-way were noted at the following locations:

Line	Station (+)
-SR5-	15+90 to 16+18

Physiography and Geology

The project is located within the Middle Coastal Plain Physiographic Province. Topography is gently sloping to level and typical of the region. Elevations range from 29± to 40± meters.

The geology of the project basically consists of Pleistocene to Recent age fluvial and coastal plain sediments overlying marine to marginal marine sediments of the Pliocene age Yorktown Formation and deltaic sediments of the Upper Cretaceous age Black Creek Formation. The boundary between the Pleistocene to Recent coastal plain sediments and underlying Yorktown Formation sediments is generally difficult to determine due to a similar composition and degree of weathering. Therefore, no distinction is made between the two on the accompanying soil profile sheets. The Black Creek Formation was primarily encountered in deep borings along the project at elevations typically ranging between 21 and 28 meters. The project is drained by Howell Branch, Stoney Creek, and Reedy Branch, all within the Neuse River drainage basin.

Ground Water

Ground water data was collected primarily from late fall of 2002 to summer of 2003 as well as the spring of 2005 and 2006 during above average rainfall conditions. Typically, ground water levels were measured at depths of 0.5 to 2.0± meters below the natural ground surface in nearly level to level interstream areas and 2 to 3 meters or more below the natural ground surface in moderately to well drained upland areas. Ground water levels should fall 1± meters or more during dry summer conditions. Flood plain segments and very poorly drained upland areas typically exhibit water levels near or at the natural ground surface.

Soils

Soils occurring along the project are derived from marine and fluvial sediments deposited in the geologic past. Based on origin and occurrence, soils encountered during the investigation are separated into four major categories. The categories are surficial upland soils, coastal plain and Yorktown Formation soils, Black Creek Formation soils and flood plain soils.

Surficial upland soils include rootmat topsoil and generally the top 1 to 2 meters of the soil profile. Topsoil typically consists of 0.2 to 0.4 meters of very loose silty sand (A-2-4) or very soft to soft clayey fine sandy silt (A-4) with little or no organic content. Engineering properties of the topsoil range from fair to poor for the silt to good for the granular material. Rootmat along the project primarily occurs in wooded areas and is typically 0.1 to 0.2 meters thick. The rootmat is generally slightly organic and exhitbits

poor engineering properties. Surficial soils underlying the topsoil typically consist of loose to medium dense fine to coarse sand (A-2-4), clayey sand (A-2-4, A-2-6), medium stiff to stiff silty fine sandy clay (A-6, A-7-6) or medium stiff clayey sandy silt (A-4). The granular material generally exhibits good to excellent engineering properties. However, the cohesive soils generally exhibit fair to poor engineering properties which include relatively high moisture contents, medium high plasticity indices and 50 percent or more passing the 75um sieve. These soils have the potential to cause subgrade stability problems.

Flood plain soils typically consist of very loose to loose silty sand (A-2-4) and very soft to soft clayey fine sandy silt (A-4) and sandy clay (A-6). Organic contents of the soils within the roadway portion of the project generally range from non-organic to slightly organic. Engineering properties of flood plain soils range from good for the granular material to poor for the very soft to soft saturated silts and organic deposits. Bridges are proposed for the major flood plain areas.

The Pleistocene and Yorktown Formations generally underlie the surficial soils at a depth of 1 to 2 meters. Soils within this formation typically consist of beds of very loose to medium dense sand or clayey sand (A-2-4, A-3, A-1-b, A-2-6) and very soft to medium stiff silty sandy clay (A-6, A-7-6) or clayey sandy silt (A-4). The granular soils typically exhibit good to excellent engineering properties. However, the cohesive soils generally have poor engineering properties due to a soft to very soft consistency, relatively high moisture contents, medium to high plasticity indices and 50 percent or more passing the 75 um sieve. These soils have the potential to cause subgrade stability problems or embankment stability/settlement problems.

The Black Creek Formation underlies the Yorktown Formation and the alluvial soils. Cohesive soils within this formation typically consist of beds of very stiff to hard silty and find sandy clay (A-6, A-7-5, A-7-6) or clayey fine sandy silt (A-4). These soils exhibit fair to poor engineering properties. Granular soils within this formation typically consist of beds of medium dense to very dense fine to coarse sand (A-2-4, A-3, A-1-b). These soils exhibit good to excellent engineering properties. Due to its depth of occurrence, the Black Creek Formation should not affect the roadway portion of this project.

California Bearing Ratio (CBR) Samples

A bulk sample was taken at the following location and submitted for CBR testing:

Sample No.	Station	Depth (m)
CBR-1	-L- 78+10	0.3-3.3

Undisturbed Samples

Undisturbed (Shelby Tube) samples were taken at the following locations and submitted for testing:

Sample No.	Station	Depth (m)	Test
ST-1	-L2RPDB- Sta. 6+15	7.53 – 8.13	Triaxial CU, Con0solidation
ST-3	-L2RPBD Sta. 10+60	8.80 – 9.40	Triaxial CU, Consolidation
ST-4	-L- Sta. 93+60	8.97 – 9.57	Triaxial CU, Consolidation
ST-5	-L2RPDB- Sta. 12+00	7.50 – 8.10	Triaxial CU
ST-10	-L2RPDB- Sta. 11+40, 20 m Lt.	9.30 – 9.75	Consolidation
ST-12	-L2RPBD- Sta. 7+69.5 3.5 m RT	2.14-2.62	Consolidation

Culvert at -Y2- Sta. 12+60

Natural ground elevations range from 35.60± meters at the bottom of the ditch to 37.00 ± meters along the adjacent floodplain. Borings completed in the vicinity show approximately 1.5± meters of soft to stiff alluvial sandy silt (A-4) underlain by very loose to medium dense alluvial sand (A-3). During this investigation groundwater was measured at an elevation of 35.20± meters.

Prepared by:

J.L Stone, L.G.
Project Geologist

NWW/JLS

EARTHWORK BALANCE SHEET

R-2554BA

COMPUTED BY: ASH DATE: 11/16/2004
CHECKED BY: MTM DATE: 11/16/2004
REVISED BY: BJM/ASH DATE: 11/14/2007

METRIC

SHEET _____ OF _____

LINE	STATION	STATION	TOTAL EXCAV. (UNCL.)	ROCK EXCAV.	UNDERCUT EXCAV.	UNSUIT. EXCAV.	SUITABLE EXCAV.	TOTAL EMB.	ROCK EMB.	EARTH EMB.	EMBANKMENT [+25%]	BORROW	SUITABLE WASTE	UNSUIT. WASTE	TOTAL WASTE
SUMMARY #1															
		DUAL BRIDGES													
L	90+00	92+85						96,710		96,710	120,888	120,888			
L2	81+80	84+09 (LT)	2,013			201	1,812	87		87	109		1,703	201	1,904
L2	85+20	92+00 (CL)						2,127		2,127	2,659	2,659			
L2	86+60	90+80 (CL)	489			49	440	141		141	176		264	49	313
L2	96+70	102+10 (LT)	420			42	378	2,274		2,274	2,843	2,465		42	42
L2RPB	3+04	5+06						20,518		20,518	25,648	25,648			
L2LPB	0+95	4+89	1,140			114	1,026	15,266		15,266	19,083	18,057		114	114
L2RPC	4+29	9+17	14,229		660	142	14,087	30,177		30,177	37,721	23,634		802	802
L2RPBD	0+00.00	7+72	897			90	807	109,908		109,908	137,385	136,578		90	90
	END BRIDGE	BEGIN BRIDGE													
L2RPBD	8+30	10+76						123,962		123,962	154,953	154,953			
L2RPDB	6+12	8+60						135,867		135,867	169,834	169,834			
	END BRIDGE														
SUBTOTALS:			19,188		660	638	18,550	537,037		137,123	671,299	654,716	1,967	1,298	3,265
SUMMARY #2															
	END BRIDGE	BEGIN BRIDGE													
L	93+58	100+33						380,730		380,730	475,913	475,913			
L2	84+80	88+00 (RT)	34			3	31	46		46	58	27		3	3
L2	90+00	93+20 (RT)	877			88	789	283		283	354		435	88	523
L2	95+25	97+95 (RT)	604			60	544	291		291	364		180	60	240
L2RPA	1+18	6+56	586			59	527	38,764		38,764	48,455	47,928		59	59
L2LPD	0+76	4+98	706		400	71	635	42,843		42,843	53,554	52,919		471	471
L2RPD	1+30	3+86						42,455		42,455	53,069	53,069			
	END BRIDGE														
L2RPBD	11+38	16+84						109,630		109,630	137,038	137,038			
L2RPDB	0+00	5+00	32,395		1,276	3,240	29,156	13,665		13,665	17,081		12,075	4,516	16,590
SUBTOTALS:			35,202		1,676	3,521	31,681	628,707		628,707	785,886	766,894	12,689	5,197	17,886
SUMMARY #3															
	END BRIDGE	BEGIN BRIDGE													
L	100+88	103+58						206,874		206,874	258,593	258,593			
Y2B	10+20	11+40	36		960	4	32	1,626		1,626	2,033	2,001		964	964
Y5	11+08	12+95	316			32	284	638		638	798	514		32	32
EY2	14+87	15+16	204			20	184	110		110	138		46	20	66
EY2	16+54	16+84	197			20	177	31			39		138	20	158
SUBTOTALS:			753		960	75	678	209,279		209,248	261,601	261,107	184	1,035	1,219
SUMMARY #4															
	END BRIDGE	BEGIN BRIDGE													
L	104+04	114+20	3,511			351	3,160	126,887		126,887	158,609	155,449		351	351
Y2	10+87	26+35	8,999		6,220	900	8,099	28,102		28,102	35,128	27,029		7,120	7,120
Y2A	10+20	11+51	1,048		620	105	943	649		649	811		132	725	857
Y2RPA	12+20	16+40	3,593		2,970	359	3,234	4,524		4,524	5,655	2,421		3,329	3,329
Y2LPA	10+82	12+39						8,306		8,306	10,383	10,383			
Y2RPD	11+58	16+40	848		412	85	763	23,708		23,708	29,635	28,872		497	497
Y2LPD	10+97	12+39						18,873		18,873	23,591	23,591			
SR5	10+10	12+90	5			1	4	5,718		5,718	7,148	7,144		1	1
SR5	17+80	18+02	26			3	23	29		29	36	13		3	3
SR5	20+60	21+00	50			5	45						45	5	50
SR5	22+16	22+45	24			2	22	31		31	39	17		2	2
SR6	10+20	11+77	265			27	239						239	27	265
SR6	19+00	19+28	47			5	42	2		2	3		39	5	44
SUBTOTALS:			18,416		10,222	1,842	16,574	216,829		216,829	271,038	254,919	455	12,064	12,519

LINE	STATION	STATION	TOTAL EXCAV. (UNCL.)	ROCK EXCAV.	UNDERCUT EXCAV.	UNSUIT. EXCAV.	SUITABLE EXCAV.	TOTAL EMB.	ROCK EMB.	EARTH EMB.	EMBANKMENT [+25%]	BORROW	SUITABLE WASTE	UNSUIT. WASTE	TOTAL WASTE
SUMMARY #5															
	END BRIDGE	BEGIN BRIDGE													
L	115+32	118+78						83,719		83,719	104,649	104,649			
SUBTOTALS:								83,719		83,719	104,649	104,649			
SUMMARY #6															
	END BRIDGE														
L	119+10	128+20	18,580		3,000	1,858	16,722	132,232		132,232	165,290	148,568		4,858	4,858
SUBTOTALS:			18,580		3,000	1,858	16,722	132,232		83,719	165,290	148,568		4,858	4,858
SUMMARY #7															
		BEGIN BRIDGE													
L	128+20	131+49	17,229			1,723	15,506	10,943		10,943	13,679		1,827	1,723	3,550
SUBTOTALS:			17,229			1,723	15,506	10,943		10,943	13,679		1,827	1,723	3,550
SUMMARY #8															
	END BRIDGE														
L	133+25	142+00	1,334			133	1,201	71,904		71,904	89,880	88,679		133	133
SUBTOTALS:			1,334			133	1,201	71,904		71,904	89,880	88,679		133	133
SUMMARY #9															
		END CONST.													
L	142+00	152+90	53,090		450		53,090	34,133		34,133	42,666		10,424	450	10,874
		BEGIN BRIDGE													
Y8	12+00	15+56	279			28	251	52,094		52,094	65,118	64,867		28	28
	END BRIDGE														
Y8	16+18	19+95	547			55	492	41,559		41,559	51,949	51,457		55	55
Y8RPA	12+47	14+60	1,285			129	1,157	17,867			22,334	21,178		129	129
Y8RPB	12+00	14+60	5,344		1,150	534	4,810	10,157			12,696	7,886		1,684	1,684
Y8RPC	12+02	14+20	1,126			113	1,013	13,415		13,415	16,769	15,756		113	113
Y8RPD	12+27	14+80	54			5	49	25,575		25,575	31,969	31,920		5	5
Y8DET	10+00	17+06	820			82	738	3,055			3,819	3,081		82	82
SUBTOTALS:			62,545		1,600	946	61,600	197,855		166,776	247,320	196,145	10,424	2,546	12,970
TOTALS:			173,247		18,118	10,735	162,512	2,088,505			2,610,642	2,475,677	27,546	28,853	56,399
EST. SHOULDER MATERIAL:								30,000			37,500	37,500			
ADDITIONAL UNDERCUT (EMBANKMENT STABILITY):					500			500			625	625		500	500
ADDITIONAL UNDERCUT (SUBGRADE STABILITY):					4,000			4,000			5,000	5000		4,000	4,000
ADDITIONAL UNDERCUT (GRADE POINT):					5,900			5,900			7,375	7375		5,900	5,900
WASTE IN LIEU OF BORROW:												-27,546	-27,546		-27,546
REMOVAL OF DETOURS:			3,055				3,055						3,055		3,055
PROJECT TOTALS:			176,302		28,518	10,735	165,567	2,128,905			2,661,142	2,498,630	3,055	39,253	42,308
EST. FOR REPL. TOPSOIL ON BORROW PITS												124,932			
GRAND TOTALS:			176,302									2,623,562			42,308
SAY:			180,000									2,665,000			45,000

-L-, -L2-, -L2LPB-, -L2LPD-, -L2RPA-, -L2RPBD-, L2RPC-, -L2RPDB-, -Y-, -Y2-, -Y2A-, -Y2RPA-, -Y8-, -Y8RPA-, -Y8RPB-, -Y8RPC-, -Y8RPD-, -YDET-, -SR5-, & -SR6- PAVEMENT STRUCTURE VOLUME = 15,300 m3

DDE = 56,400 m3

Note: Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

METRIC

PROJECT REFERENCE NO. R-2554A
E.W. SHEET NO.
ROADWAY DESIGN SHEETS
HYDRAULICS SHEETS
CONST. REV.
R/W REV.

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

[redacted]

-Y-
PI Sta 10+98.505
Δ = 17°54' (LT)
L = 85.430
T = 43.770
R = 500.000

PI Sta 12+54.073
Δ = 0°30' (LT)
L = 60.00
T = 30.000
R = 11459.000

FUTURE CONSTRUCTION

BRIAN E. WELLS
DB 730 PG 838

LANE FARMS INC.
DB 965 PG 765

-Y- PT Sta.13+04.578

-Y- PT Sta.13+98.578 =
-L2RPC- PCC Sta.2+98.083
Δ = 126°20'55.3"

-Y- PC Sta.12+03.087

-Y- PT Sta.8+03.985

-Y- PC Sta.10+98.735

-Y- POT Sta.10+00.000
BEGIN CONSTRUCTION

-L2RPB- PCC Sta.6+35.79 =
-L2RPDB- PCC Sta.10+98.05
Δ = 47°48'.2"

-L2RPB- SC Sta.6+82.476

-L2RPB- PCS Sta.8+01.963

-Y- POT Sta.14+40.02
Δ = 141°29'.53"

-L2RPB- TS Sta.5+82.476

-L2RPDB- PCC Sta.10+54.809 =
-Y- POT Sta.14+40.52
Δ = 82°39'.36"

-L2RPDB- PCC Sta.10+03.224 =
-L- POT Sta.89+04.685
Δ = 34°01'.5"

-Y- POT Sta.13+47.824 =
-L- PCC Sta.86+58.525
Δ = 85°40'.68"

POT STA. 90+00.00 -L- BEGIN STATE PROJECT R-2554BA
POT STA. 90+00.00 -L- BEGIN F.A. PROJECT NHF-70-(30)

BEGIN CONSTRUCTION
R2554BA -L2RPC-
STA. 4+40

BEGIN CONSTRUCTION
R-2554BA -L2RPDB-
STA. 9+27+

LATERAL V DITCH
SEE DETAIL 1

-L2RPBD- PCC Sta.8+00.85 =
-L- PCC Sta.90+62.554
Δ = 85°37'.45.5"

-L2RPBD- TS Sta.7+84.892

-L2RPBD- SC Sta.8+82.775

-L2RPDB- TS Sta.8+82.775

-L- CS Sta.8+40.628

GRADE AREA TO DRAIN TO 20'

SHOULDER BERM GUTTER
-L2RPBD- STA. 7+84.892
TO 7+66.403

SHOULDER BERM GUTTER
-L2RPBD- STA. 8+33.868 TO 8+61.413

SPECIAL MEDIAN CUT DITCH
SEE DETAIL 9

LE TONE CL 3 SPRAY
W.S.E. 841.74.5

MATCHLINE -L2RPC- STA. 5+60 SEE SHEET 5

MATCHLINE -L- STA. 91+20 SEE SHEET 6

MATCHLINE -L2RPBD- STA. 5+97.042 SEE SHEET 5

FUTURE CONSTRUCTION

GRADING ONLY

NOTE: See Detail Sheet E-4 For Interchange Curve Data.

NOTE: See Detail Sheet E-9 For Bridge Sketch Showing Pavement to Pavement To Bridge Width

SEE SHT. 33 FOR -L- PROFILE
SEE SHT. 4F FOR -L2RPB- PROFILE
SEE SHT. 4B FOR -L2RPC- PROFILE
SEE SHTS. 5E & 5J FOR -L2RPBD- PROFILE
SEE SHT. 5B FOR -L2RPDB- PROFILE

109
181
US 70
17
35
30
44
225
399
214
387
50
62
26
40
157
204
US 117 BYPASS
2008 ADT
2028 ADT
(IN HUNDREDS)

PROJECTED TRAFFIC VOLUMES

-L-
PI Sta 85+45.008
Δ = 84°36'.48" (RT)
D = 5°44'.64
R = 998.05
T = 1250.000

PI Sta 91+40.08
Δ = 0°31'.5"
D = 0°31'.5"
L = 60.000
R = 11000
T = 30.000
ST = 30.000

PLANS PREPARED BY:
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FOR
DIVISION OF HIGHWAYS

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

REVISIONS

PROJECT REFERENCE NO. R-2554B/A
S/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST. REV
S/W REV.

PRELIMINARY PLANS
NOT FOR CONSTRUCTION
INCOMPLETE PLANS
NOT FOR BIDDING PURPOSES

END CONST. R-2554B/A
-L2RPB- STA 2+20

MATCHLINE 5+60 SEE SHEET 4
MATCHLINE 91+20 SEE SHEET 4
MATCHLINE STA. 5+80 SEE SHEET 4
MATCHLINE STA. 1+45 SEE SHEET 22
MATCHLINE 4+80 SEE SHEET 22
MATCHLINE 1+20 SEE SHEET 22
MATCHLINE STA. 3+60 SEE SHEET 23
MATCHLINE STA. 93+20 SEE SHEET 23
MATCHLINE 95+20 SEE SHEET 6
MATCHLINE 94+00 SEE SHEET 6
MATCHLINE STA. 4+50 SEE SHEET 6
MATCHLINE STA. 5+00 SEE SHEET 6

-L2RPDB- ST Sta.6+19.737
-L2RPDB- CS Sta.5+21.759
-L2RPDB- SC Sta.5+97.062
-L2RPDB- TS Sta.5+37.062
-L2RPBD- ST Sta.5+17.062
-L2RPBD- CS Sta.4+57.062
-L2RPB- ST Sta.1+73.446
-L2RPB- CS Sta.1+13.446
-L2RPA- PCC Sta.4+12.503

-L2RPD- SC Sta.1+99.163
-L2RPD- CS Sta.3+72.300
-L2RPD- ST Sta.4+32.300
-L2RPBD- CS Sta.12+99.328
-L2RPBD- PCT Sta.[illegible]
-L2RPBD- ST Sta.[illegible]

-L2RPB- PCC Sta.1+26.652
-L2RPB- SC Sta.0+90.000
-L2RPB- PCC Sta.3+62.090
-L2RPB- ST Sta.0+00.000 (14.2m LT.)
-L2RPB- CS Sta.3+98.652
-L2RPD- ST Sta.0+00.000 (14.2m RT.)
-L2RPD- CS Sta.4+08.146
-L2RPD- SC Sta.0+90.000

-L- POT Sta.86+57.806 =
-L2RPDB- POT Sta.5+63.595
Δ = 42°19' 02.6"

-L2- POT Sta.87+17.339 =
-L2RPBD- POT Sta.11+09.326
Δ = 85°12' 03.1"

-L- POT Sta.93+23.559 =
-L2- POT Sta.90+23.263 =
Δ = 67°41'13.65"

-L2- Sta.90+07.831=
-L2LPD- ST Sta.4+98.146 14.2m RT.)

-L- Sta.93+45.023=

-L- ST Sta.91+64.038

-L- Sta.92+90.586=
-L2LPB- ST Sta.0+00.000 14.2m LT.)

-L2- Sta.90+62.268 =
-L2LPB- ST Sta.4+88.662 14.2m LT.)

Bk.- 260 DMC 4.42.85'-
-L- STA. 94+43.90 40.33m RT.
EL. 36.956

Bk.- 260 Prof. 6+78.090=
-L- STA. 84+60.68 0.803m RT.
EL. 38.97

N 34°47'00.0" E

PROPOSED US 117 BYP
2008 ADT / 2028 ADT (IN HUNDREDS)
US 70
PROJECTED TRAFFIC VOLUMES

APPROXIMATE LIMIT OF FLOOD PLAIN SOILS

NOTE: See Detail Sheet 2-X for Interchange Curve Data.

NOTE: See Detail Sheet 2-2 For Bridge Sketch Showing Pavement in Relation To Bridge Width

SEE SHT. 74 FOR -L- PROFILE

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FOR DIVISION OF HIGHWAYS

REVISIONS

METRIC

PROJECT REFERENCE NO. R-2633CA
SHEET NO. 6
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST. REV.
R/W REV.

PRELIMINARY PLANS
INCOMPLETE PLANS

MATCHLINE STA. 3+00 SEE SHEET

MATCHLINE STA. 95+20 SEE SHEET

MATCHLINE STA. 102+20 SEE SHEET

MATCHLINE STA. 4+00 SEE SHEET

HARRY A. LYNCH CASEY
DB 838 PG 57
DB 838 PG 54

-L2RPA- PCC Sta.2+27.934

-L2RPA- SC Sta.0+60.000

-L- POT Sta.98+17.208 =
-L2RPA- ST Sta.0+00.000 (14.2m LT)

-L- TS Sta.99+72.358

-11- POT Sta.12+00.000

APPROXIMATE LIMIT OF FLOOD PLAIN SOILS
-L- SC Sta.100+32.358

CSX RAILROAD

AMERIGAS PROPANE
DB 1476 PG 227

-L- POT Sta.98+50.000 =
-L2RPBD- ST Sta.17+94.467 (14.2m RT)

-L2RPBD- CS Sta.17+34.467

NORFARM, LLC
DB 1541 PG 198

-L- POC Sta.100+61.488 =
-11- POT Sta.10+97.530 =
Δ = W2 18' 48.0"

-11- POT Sta.10+00.000

L. HARVEY & SON CO.
DB 187 PG 136

-L2RPBD- SC Sta.15+42.252

APPROXIMATE LIMIT OF FLOOD PLAIN SOILS

-L2RPBD- TS Sta.14+62.252

-L-
PI1 Sta. 100+12.158
Dg = D 22 52.5"
Lc = 60.000
LT = 50.109
ST = 30.000

PI2 Sta. 102+68.315
Δ = RT (10.00' (LT))
Lc = 60.000
L = 62.832
R = 1750.000
e = 0.035

NOTE: See Detail Sheet 2-X for Interchange Curve Data.

NOTE: See Detail Sheet 2-Z For Bridge Station Showing Pavement in Relation To Bridge Width

SEE SHTS. 74 & 75 FOR -L- PROFILE
SEE SHT. FOR -L2RAPA- PROFILE
SEE SHT. FOR -L2RAPDB- PROFILE

PLANS PREPARED BY :
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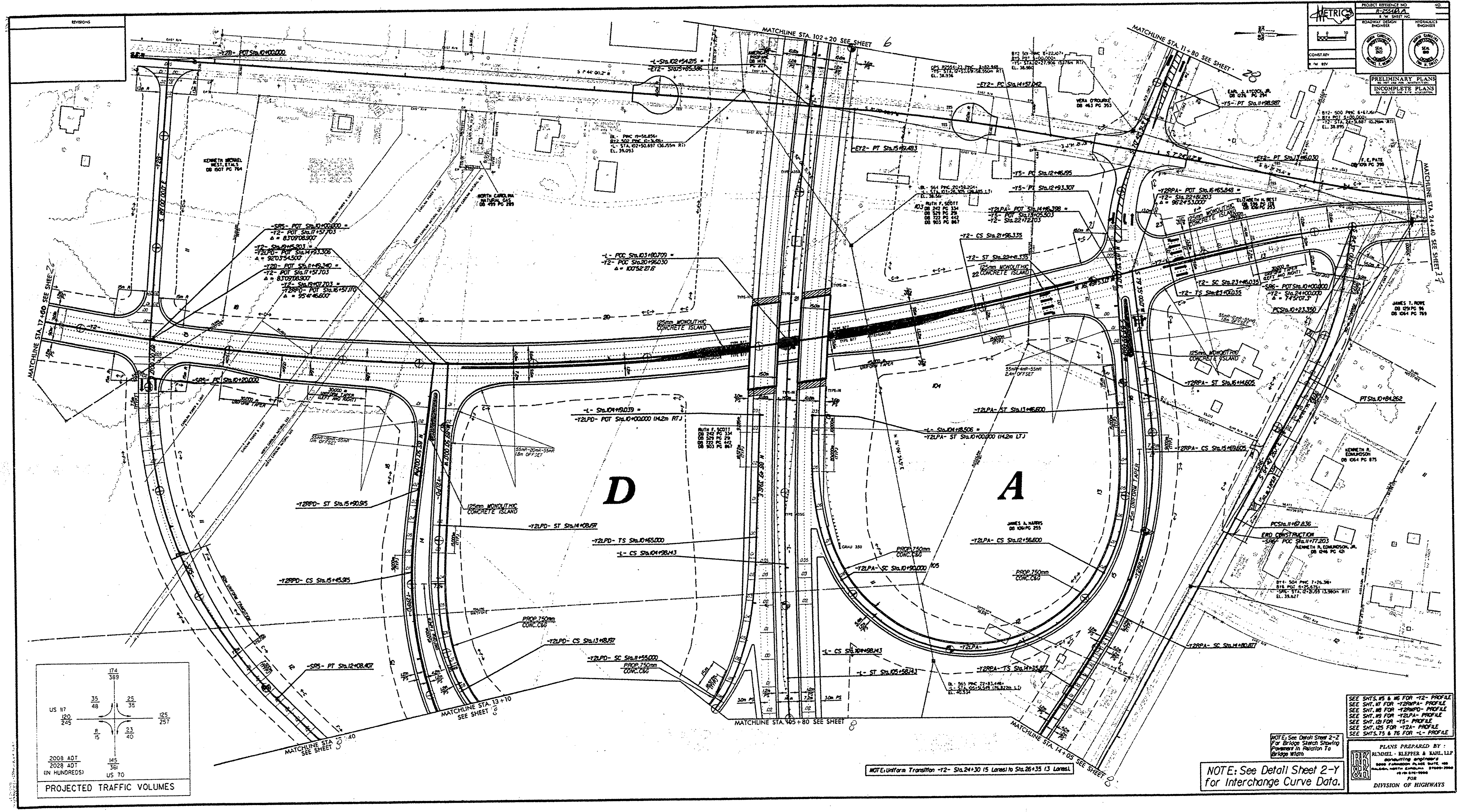
704 343 0608

FOR
DIVISION OF HIGHWAYS

7



PROJECTED TRAFFIC VOLUMES

SEE SHTS. 115 & 116 FOR -Y2- PROFILE
SEE SHT. 117 FOR -Y2RMPA- PROFILE
SEE SHT. 118 FOR -Y2RMPD- PROFILE
SEE SHT. 119 FOR -Y2LPA- PROFILE
SEE SHT. 121 FOR -Y5- PROFILE
SEE SHT. 125 FOR -Y2A- PROFILE
SEE SHTS. 73 & 76 FOR -L- PROFILE

NOTE: See Detail Sheet 2-Z For Bridge Sketch Showing Pavement In Relation To Bridge Width

NOTE: Uniform Transition -Y2- Sta. 24+30 (5 Lanes) to Sta. 26+35 (3 Lanes).

NOTE: See Detail Sheet 2-Y for Interchange Curve Data.

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FOR
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REVISIONS

METRIC

PROJECT REFERENCE NO. A-2548A

SHEET NO. 8

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

CONST. REV.

R/W REV.

PRELIMINARY PLANS
NOT FOR CONSTRUCTION
INCOMPLETE PLANS
NOT FOR BIDDING OR CONSTRUCTION

MATCHLINE STA. 112+10 SEE SHEET 7

MATCHLINE STA. 112+40 SEE SHEET 7

MATCHLINE STA. 105+80 SEE SHEET 7

MATCHLINE STA. 105+05 SEE SHEET 7

PROP. 750mm CONC. PIPE

-Y2LPD-

-Y2RPD- SC Sta.14+33.883

-Y2RPD- TS Sta.13+88.883

-Y2RPD- ST Sta.13+38.888

-SR5- PC Sta.13+68.407

-Y2RPD- CS Sta.12+73.888

EMILY R. PRYOTT
DB 1486 PG 432

-Y2RPA- ST Sta.13+60.877

-Y2RPA- CS Sta.12+95.877

BEGIN CONSTRUCTION
-SR6- POC Sta.14+38.928

PT Sta.14+75.54

PC Sta.14+29.54

-Y2RPA- SC Sta.14+35.000

PT Sta.15+93.304

-Y2RPA- TS Sta.10+70.000

-SR5- PCC Sta.15+45.672

MATCHLINE STA. 109+60 SEE SHEET 9

HERBERT M. EDWARDS
DB 332 PG 302

SEE SHT. 122 FOR -SR5- PROFILE
SEE SHT. 126 FOR -SR6- PROFILE
SEE SHT. 120 FOR -Y2LPD- PROFILE
SEE SHT. 85 FOR -Y2LPA- PROFILE
SEE SHT. 87 FOR -Y2RUPA- PROFILE
SEE SHT. 85 FOR -Y2RUPD- PROFILE
SEE SHT. 76 FOR -L- PROFILE

NOTE: See Detail Sheet 2-Y for Interchange Curve Data.

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919 431 0700

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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	
R/W SHEET NO.	

METRIC
5 0 10

CONST. REV.

R/W REV.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER IVAN H. SWEZY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

MARGARET H. SCOTT
DB 475 PG 64
DB 565 PG 358
PC C SLIDE 238

END CONSTRUCTION
-SR6- POT Sta.19+28.878

-SR6- PT Sta.19+12.211

-SR6- PC Sta.18+77.304

BY6A 514 -PINC 12+67.941
-L- STA. 111+72.910 (67.47
EL. 40.019

BL- 567 PINC 27+19.077=
-SR6- STA.17+20.047 (2.209m RT)
EL. 40.026

N 85° 15' 20.0" E -SR6-

-L- POT Sta.109+70.000=
-Y2RPA- POT Sta.10+00.000
(14.2M Lt.)

S 77° 08' 56.6" W

S 21° 04' 03.6" W

N 20° 41' 36.2" E

JOYCE P. CRUMPLER
DB 904 PG 420

BL- 568 PINC 30+27.867=
-L- STA. 112+73.347 (3.155m LT)
EL. 38.799

N 81° 38' 08.6" E -BL-

N 85° 15' 20.0" E -L-

-Y2RPD-

-L- POT Sta.109+96.000
-Y2RPD- ST Sta.10+00.00
(14.2M Rt.)

180m ACCELERATION LANE

90m UNIFORM TAPER

BL- PINC 28+82.000=
BY6A 515 PINC 13+71.797=
-L- STA. 111+27.771 (6.055m RT)
EL. 39.628

JAMES COLLINS
DB 1361 PG 758

GEORGE THORTON
DB 955 PG 394

S 79° 29' 24.0" E -SR5=

20m TAPER

TOMMY'S ROAD

S 77° 58' 11.0" E

S 13° 48' 50.7" W

BY4-507 PINC 13+87.765=
BY6A POT 14+52.104=
-SR5- STA. 18+23.285 (0.132m RT)
EL. 35.803

-SR5- POC Sta.18+02.000
END CONSTRUCTION

-SR5- PT Sta.18+82.401

-SR5- PC Sta.19+04.672

S 78° 28' 45.8" E

EMILY W. PRIVOTT
DB 1486 PG 432

NC GRID NAD 83

MATCHLINE STA. 109+60 SEE SHEET 8

MATCHLINE STA. 112+80 SEE SHEET 10

NOTE: See Detail Sheet 2-Y for Interchange Curve Data.

SEE SHT. 117 FOR -Y2RPA- PROFILE
SEE SHT. 118 FOR -Y2RPD- PROFILE
SEE SHT. 123 FOR -SR5- PROFILE
SEE SHT. 124 FOR -SR6- PROFILE
SEE SHTS. 76 & 77 FOR -L- PROFILE

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FOR
DIVISION OF HIGHWAYS

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST. REV.

R/W REV.

PRELIMINARY PLANS — INCOMPLETE PLANS

REVISIONS

MATCHLINE STA. 112+80 SEE SHEET 9

MATCHLINE STA. 116+40 SEE SHEET 11

NC GRID NAD 83

HOWELL BRANCH

CAREY R. HAM
DB 1621 PG 708

-TI- 103 PINC 5+77.965=
-L- STA. 114+27.108 (59.987m LT)
ELEV.= 33.131
NAIL SET

-TI-104 PINC 6+10.417=
-L- STA. 114+42.770 (31.565. LT)
ELEV.=33.226
NAIL SET

BL- 569 PINC 3+84.201=
-L- STA. 114+29.666 (0.937m LT)
EL. 36.786

BL POT 32+07.513
-TI-105 PINC 6+42.852=
-L- STA. 114+52.977 (0.779m LT)
ELEV.=33.367
NAIL SET

BL- 570 PINC 32+62.972=
-L- STA. 115+08.434 (0.408m LT)
EL. 33.203

BL- 571 PINC 33+44.122=
-L- STA. 115+89.581 (0.428m RT)
EL. 37.656

S 33° 36' 02.5" E

S 23° 05' 18.4" E

S 0° 25' 47.8" W

S 15° 19' 23.1" W

S 12° 01' 19.2" W

S 75° 20' 33.6" E

N 88° 04' 06.6" E

N 85° 15' 20.0" E

N 85° 38' 25.7" E

N 85° 50' 43.9" E

S 87° 35' 10.3" E

S 87° 24' 09.9" E

-L-

TYPE-III

TYPE M350

GRAU 350

APPROXIMATE LIMIT OF FLOOD PLAIN SOILS

FRANK E. DEANS
DB 552 PG 341

BERTIE E. BARDEN
WB 91E PG 28

WILLIAM W. WHITE
DB 1137 PG 620

-TI- 107 PINC 7+30.605=
-L- STA. 114+32.632 (83.834m RT)
ELEV.= 34.999
NAIL SET

-TI- 108 POT 8+11.687=
-L- STA. 114+09.242 (161.469m RT)
ELEV.= 34.071
NAIL SET

BY4- 508 PINC 15+95.311=
-SR5- STA. 20.31.770 (4.68m RT)
EL. 35.108

BY4 509 PINC 18+15.292=
-L- STA. 115+19.717 (167.727m RT)
EL. 36.978

-SR5- POC Sta.20+60.000

BEGIN CONSTRUCTION

-SR5- PC Sta.20+55.017

-SR5- PT Sta.21+15.247

-SR5- POT Sta.22+76.518

-L- TS Sta.116+34.304

TOMMY'S ROAD

-SR5-

EXIST R/W

TES

10m R

R=10m +178

R=10m +253

NOTE: See Detail Sheet 2-Y for Interchange Curve Data.

NOTE: See Detail Sheet 2-Z For Bridge Sketch Showing Pavement In Relation To Bridge Width

SEE SHT. 77 FOR -L- PROFILE

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FOR
DIVISION OF HIGHWAYS

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	11
R/W SHEET NO.	

METRIC

5 0 10

CONST.REV.

R/W REV.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER IMA H. SWEET

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

NC GRID NAD 83

-Y7- POT Sta12+80.000
END CONSTRUCTION

BL- PINC 36+52.788=
BY7 517 PINC 6+83.128=
-L- STA. 118+98.363 (1.382m RT)
EL. 38.111

-L-
PI Sta 123+83.422
Δ = 25°08'48.6" (RT)
L = 1,316.685
T = 669.118
R = 3,000.000
e = 0.02

CAREY R. HAM
DB 1621 PG 708

-L- POC Sta.118+92.556 =
-Y7- POT Sta12+17.434
Δ = 86°19'25.9"

BL- 572 PINC 34+63.041=
-L- STA. 117+08.509 (1.018m RT)
EL. 37.889

NC 111

S 3°00'47.9" W

D.201 R/W TO EP

68.092
S76°20'19"E

J. D. GUPTA
DB 1605 PG 459

MATCHLINE STA. 116+40 SEE SHEET 10

MATCHLINE STA. 119+80 SEE SHEET 12

-L- SC Sta.117+14.304

-Y7- POT Sta10+60.000
BEGIN CONSTRUCTION

N 85° 40' 35.0" E

-BL- N 87° 49' 54.8" E

GRAU 350

TYPE M350

CAT-1

TYPE-III

3.0m PS

15.0m (TYP)

+14.304

+160.000

7.2m

12.0m PS

11.4m

3.6m PS

DARRELL C. HORNE
DB 1221 PG 96

76.915
N85°46'34"W

32.378
S01°33'58"W

39.304
N85°44'58"W

5.120

77.163

N 3°06'00.0" E

S 6°48'43.9" W

NC 111

EXIST R/W

18.288

MARJORIE M. HESTER
DB 1439 PG 801

67.058
S86°51'14"E

69.654
N01°08'41"E

0.241 EP TO R/W

7.216
S67°07'33"E

GARY K. WHALEY
DB 1171 PG 716

NOTE: See Detail Sheet 2-Z For Bridge Sketch Showing Pavement In Relation To Bridge Width

SEE SHTS. 77 & 78 FOR -L- PROFILE
SEE SHT. 126 FOR -Y7- PROFILE

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FOR
DIVISION OF HIGHWAYS

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	12
R/W SHEET NO.	

CONST.REV.

R/W REV.

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEET

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

HUBERT C. MATHEWS
DB 582 PG 536

120 121 122 123

NC GRID NAD 83

J. D. GUPTA
DB 1605 PG 459

245.548
S76°20'19"E

BL- 573 PINC 39+64.918=
-L- STA. 122+10.748 (0.818m RT)
EL. 38.060

<F>

GRAU 350

3.6m PS

7.2m

1.2m PS

.02

MATCHLINE STA. 119+80 SEE SHEET 11

S 87° 35' 08.3" E

-BL-

-L-

CAT-1

3.0m PS

14.1m

MATCHLINE 123+20 SEE SHEET 13

J. D. GUPTA
DB 1605 PG 459

-L-
PI Sta 123+83.422
Δ = 25°08'48.6" (RT)
L = 1,316.685
T = 669.118
R = 3,000.000
e = 0.02

SEE SHT. 78 FOR -L- PROFILE

PLANS PREPARED BY :
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FOR
DIVISION OF HIGHWAYS

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	13
R /W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SNIEZY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

475.31'
S76°18'09"E

HUBERT C. MATHEWS
DB 582 PG 536

124 125 126

BL- 574 PINC 42+62.700=
-L- STA. 125+08.754 (1.227m RT)
EL. 38.575

NC GRID NAD 83

MATCHLINE 123+20 SEE SHEET 12

MATCHLINE STA. 126+60 SEE SHEET 14

←F→ C→

3.0m PS 7.2m 1.2m PS .02 14 m

-BL-

-L-

S 81° 34' 29.3" E

1255.466'
S70°05'19"E

J. D. GUPTA
DB 1605 PG 459

-L-
PI Sta 123+83.422
Δ = 25°08' 48.5" (RT)
L = 1,316.685
T = 669.118
R = 3,000.000
e = 0.02

SEE SHTS. 78 & 79 FOR -L- PROFILE

PLANS PREPARED BY :
RUMMEL • KLEPPER & KAHL, LLP
consulting engineers
5800 FARINGDON PLACE SUITE, 105
RALEIGH, NORTH CAROLINA 27609-3960
(919) 878-9560
FOR
DIVISION OF HIGHWAYS

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	14
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.

REVISIONS

BL- 575 PINC 45+87.464=
-L- STA. 128+16.783 (87.861m LT)
EL. 37.724

BL- 576 PINC 47+97.703=
-L- STA. 130+06.401 (3.214m LT)
EL. 35.452

127 128 129 130

NC GRID NAD 83

-BL-

N 88° 14' 02.8" E

S 47° 23' 05.2" E

HUBERT C. MATHEWS
DB 582 PG 536

J. D. GUPTA
DB 1605 PG 459

WLB

←C→

3.0m PS

7.2m

1.2m PS

.02

14 m

MATCHLINE STA. 126+60 SEE SHEET 13

MATCHLINE STA. 130+20 SEE SHEET 15

-L-
PI Sta 123+83.422
Δ = 25° 08' 48.6" (RT)
L = 1,316.585
T = 669.118
R = 3,000.000
e = 0.02

SEE SHT. 79 FOR -L- PROFILE

PLANS PREPARED BY :
RUMMEL • KLEPPER & KAHL, LLP
consulting engineers
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FOR
DIVISION OF HIGHWAYS

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	15
R/W SHEET NO.	

METRIC

5 0 10

CONST.REV.

R/W REV.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER INA H. SWEET

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

NC GRID NAD 83

HUBERT C. MATHEWS
DB 582 PG 536

RUTH H. EXUM
DB 1486 PG 40

STONEY CREEK

BL- 577 PINC 49+51.111=
-L- STA. 131+59.729 (0.203m LT)
EL. 30.557

-T2-201 POT 5+00.000=
-L- STA. 133+06.077 (4.042m LT)
ELEV.= 30.236
NAIL SET

-T2-202 PINC 5+29.043=
-L- STA. 132+94.509 (20.403m LT)
ELEV.= 29.974
NAIL SET

BL- 578 PINC 51+18.114=
-L- STA. 133+26.726 (1.655m LT)
EL. 30.803

MATCHLINE STA. 130+20 SEE SHEET 14

MATCHLINE STA. 133+60 SEE SHEET 16

S 67° 14' 17.9" E

S 68° 04' 11.0" E

S 68° 34' 03.9" E

S 45° 24' 16.4" W

TYPE M350

TYPE-III

GRAU 350

APPROXIMATE LIMIT OF FLOOD PLAIN SOILS

-L- CS Sta.130+30.989

-L- ST Sta.131+10.989

BL POT 50+92.788
-T2-203 PINC 5+49.233=
-L- STA. 133+01.410 (1.429m LT)
ELEV.= 29.966
NAIL SET

-T2- 204 PINC 5+79.387=
-L- STA. 132+96.775 (28.366m RT)
ELEV.= 30.455
NAIL SET

APPROXIMATE LIMIT OF FLOOD PLAIN SOILS

-T2-205 6+16.223=
-L- STA. 132+86.313 (63.686m RT)
ELEV.= 30.555
NAIL SET

-T2- 206 POT 6+40.398=
-L- STA. 132+77.403 (86.158m RT)
ELEV.= 29.198
NAIL SET

U. D. GUPTA
DB 1605 PG 459

SHERMAN E. BEST
DB 1534 PG 253

NOTE: See Detail Sheet 2-Z For Bridge Sketch Showing Pavement In Relation To Bridge Width

SEE SHTS. 79 & 80 FOR -L- PROFILE

-L-

PI Sta 123+83.422
Δ = 25° 08' 48.6" (RT)
L = 1,316.685
T = 669.118
R = 3,000.000
e = NC

PIs Sta 130+57.656
Θs = 0° 45' 50.2"
Ls = 80.000
LT = 53.334
ST = 26.667

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METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	16
R/W SHEET NO.	

CONST. REV.

R/W REV.

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SNIEZY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

NC GRID NAD 83

MATCHLINE STA. 133+60 SEE SHEET 15

MATCHLINE STA. 137+00 SEE SHEET 17

134 135 136 137

RUTH H. EXUM
DB 1486 PG 40

BL- 579 PINC 52+20.355=
-L- STA. 134+28.179 (14.323m LT)
EL. 35.280

BL- 580 PINC 54+30.522=
-L- STA. 136+38.032 (2.839m LT)
EL. 35.884

251.491'
N70°55'31"W

EIP

178.320'
N20°17'09"E

CAT-1

S. 75° 11' 14.6" E

-BL-

S 64° 56' 14.6" E

S 68° 04' 11.0" E

-L-

TYPE M350

SHERMAN E. BEST
DB 1534 PG 253

SHIRLEY WIMBERLY
DB 854 PG 674

WLB

234.530'
N69°42'02"W

251.372'
N69°42'02"W

SEE SHT. 80 FOR -L- PROFILE

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FOR
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METRIC

5 0 10

CONST.REV.

R/W REV.

PROJECT REFERENCE NO. R-2554BA

SHEET NO. 17

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEEZY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

NC GRID NAD 83

REUBEN HAMILTON
DB 1486 PG 43

KENNETH L. WIGGINS
DB 648 PG 95

MCCLINTON BEST
DB 854 PG 670

GEORGE MEADE BEST
DB 854 PG 681

GRAU 350

BL- 581PINC 56+93.095=
-L- STA. 139+00.605 (3.224m LT)
EL. 35.149

278.655' BEARING

138

139

140

90 m UNIFORM TAPER

CAT-1

-BL- S 68° 09' 13.7" E

-L- S 68° 04' 11.0" E

-BL-

MATCHLINE STA. 137+00 SEE SHEET 16

MATCHLINE STA. 140+40 SEE SHEET

SEE SHTS. 80 & 81 FOR -L- PROFILE

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FOR
DIVISION OF HIGHWAYS

REVISIONS

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	18
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEEZY

CONST.REV.

R/W REV.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

MATCHLINE STA. 140+40 SEE SHEET 17

MATCHLINE 144+00 SEE SHEET 19

NORA F. SMITH
DB 1424 PG 773

KENNETH L. WIGGINS
DB 648 PG 95

MALCOME Z. GURLEY
DB 1044 PG 849

NC GRID NAD 83

BL- 582 PINC 59+85.868=
-L- STA. 141+93.357 (0.248m RT)
EL. 36.225

BL- 583 PINC 61+38.866=
-L- STA. 142+99.758 (109.694m LT)
EL. 38.068

-Y8RPB-

PIs Sta 10+43.348	PI Sta 11+19.212	PIs Sta 11+94.448
θs = 4° 39' 19.0"	Δ = 15° 26' 11.5" (LT)	θs = 4° 39' 19.0"
Ls = 65.000	L = 107.767	Ls = 65.000
LT = 43.348	T = 54.212	LT = 43.348
ST = 21.680	R = 400.000	ST = 21.680
	e = 0.08	

-L- POT Sta.142+40.000=
-Y8RPB- TSSta.10+00.000 (14.2m LT)

-Y8RPB- SCSta.10+65.000

-L- POT Sta.142+00.000=
-Y8RPC- POT Sta.10+00.000 (14.2m RT)
Δ= 2° 18'

-Y8RPC- TSSta.10+47.493

-Y8RPC- SCSta.11+12.493

-Y8RPC- CSSta.11+74.348

-Y8RPC-

PIs Sta 10+90.838	PI Sta 11+43.469	PIs Sta 11+96.025
θs = 4° 08' 16.9"	Δ = 7° 52' 32.3" (RT)	θs = 4° 08' 16.9"
Ls = 65.000	L = 61.855	Ls = 65.000
LT = 43.345	T = 30.976	LT = 43.345
ST = 21.677	R = 450.000	ST = 21.677
	e = 0.08	

90 m UNIFORM TAPER

180 m ACCELERATION LANE

APPROXIMATE LIMITS OF ORGANIC SOILS

GRAU 350

10,833m (TYP.)

CAT-1

N 65° 59' 32.8" E

S 34° 49' 06.2" E

S 68° 04' 11.0" E

67° 23' 24.7" E

Δ S 65° 45' 22.0" E

141

142

143

10

11

12

SEE SHT. 81 FOR -L- PROFILE
SEE SHT. 130 FOR -Y8RPB- PROFILE
SEE SHT. 131 FOR -Y8RPC- PROFILE

PLANS PREPARED BY :
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consulting engineers
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RALEIGH, NORTH CAROLINA 27609-3960
(919) 878-9560
FOR
DIVISION OF HIGHWAYS

REVISIONS

METRIC

PROJECT REFERENCE NO. R-2548A
SHEET NO. 19
TOTAL SHEETS 20

ROADWAY DESIGN ENGINEER — NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 16844 — SIGNATURE & DATE

HYDRAULICS ENGINEER — NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 16844 — SIGNATURE & DATE

CONST. REV.

R/W REV.

PRELIMINARY PLANS — NOT FOR CONSTRUCTION — NOT FOR RIGHT OF WAY ACQUISITION

INCOMPLETE PLANS — NOT FOR CONSTRUCTION — NOT FOR RIGHT OF WAY ACQUISITION

-Y8RPB-
Pt Sta.14+24.581
GB = N 26° 30' 00" E
Lt = 65.000
Ll = 90.105
St = 15.004

Pt Sta.13+97.533
Δ = 86° 36' 24.3" (RT)
Lt = 64.996
Ll = 94.167
R = 60.000
• = 0.083

Pt Sta.14+12.644
GB = N 26° 30' 00" E
Lt = 65.000
Ll = 90.105
St = 15.004

-Y8RPA-
Pt Sta.12+90.624
GB = N 26° 30' 00" E
Lt = 65.000
Ll = 94.105
St = 21.877

Pt Sta.12+47.311
Δ = 86° 36' 24.3" (RT)
Lt = 64.996
Ll = 94.167
R = 60.000

Pt Sta.13+96.170
GB = N 26° 30' 00" E
Lt = 64.996
Ll = 94.105
St = 21.877

-Y8RPC-
Pt Sta.14+96.825
GB = N 26° 30' 00" E
Lt = 64.996
Ll = 94.105
St = 21.877

-Y8RPD-
Pt Sta.10+21.668
GB = N 26° 30' 00" E
Lt = 65.000
Ll = 94.105
St = 21.869

Pt Sta.11+36.343
Δ = 143° 27' 27.2"
Lt = 64.000
Ll = 97.003
St = 21.875

Pt Sta.11+98.756
Δ = 90° 00' 00" (LT)
Lt = 64.996
Ll = 94.166
R = 60.000
• = 0.075

Pt Sta.12+45.756
GB = N 26° 30' 00" E
Lt = 64.996
Ll = 94.105
St = 21.875

Pt Sta.13+92.494
GB = N 26° 30' 00" E
Lt = 64.000
Ll = 94.105
St = 15.004

Pt Sta.14+04.480
Δ = 93° 06' 14.2" (RT)
Lt = 65.000
Ll = 97.166
R = 60.000
• = 0.065

Pt Sta.14+65.228
GB = N 26° 30' 00" E
Lt = 64.000
Ll = 94.105
St = 15.004

-L-
Pt Sta.M7+65.882
GB = N 06° 24' 00" E
Lt = 65.000
Ll = 94.105
St = 28.337

Pt Sta.M9+88.602
Δ = 20° 44' 58.5" (LT)
Lt = 64.996
Ll = 97.166
R = 1,432.000
• = 0.105

MATCHLINE STA. 17+80 SEE SHEET 30

MATCHLINE STA. 151+00 SEE SHEET 20

MATCHLINE STA. 144+00 SEE SHEET 29

MATCHLINE STA. 14+00 SEE SHEET 29

EDWARD RAY BULLARD

MALCOLM E. CURLEY

MORA F. SMITH

NCDOT

A

B

C

D

JETHO H. HUNT

-Y8- POT Sta.11+07.000
-Y8RPA- Sta.14+71.245
-Y8RPB- Sta.14+78.582

-Y8RPB- ST Sta.12+37.767

-Y8RPB- CS Sta.11+72.767

-Y8RPB- CS Sta.14+05.630

-Y8RPB- SC Sta.13+39.965

-Y8RPB- ST Sta.14+51.630

-Y8RPB- TS Sta.12+94.965

-Y8RPA- ST Sta.14+39.493

-Y8RPA- CS Sta.13+74.493

-Y8RPA- SC Sta.11+12.479

-Y8RPA-

-Y8- POT Sta.15+85.032
-L- POT Sta.M6+62.803
Δ = 72°40'39.03" Rt

-L- SC Sta.M7+75.31

-L- TS Sta.M6+90.31

-Y8RPD- TS Sta.10+65.000

-Y8RPD- TS Sta.10+95.000

-Y8RPD- SC Sta.11+60.000

-Y8RPD- CS Sta.12+17.469

-Y8RPD- TS Sta.13+12.469

-Y8RPD- SC Sta.13+57.469

-Y8RPD- ST Sta.12+82.469

-Y8RPD- CS Sta.14+50.214

-Y8RPD- ST Sta.M+95.214

POT -Y8- Sta.M+65.000 =
-Y8RPC- Sta.14+63.558
-Y8RPD- Sta.15+27.301

TS Sta.12+79.348

S 65° 00' 00.0" E

S 68° 04' 11.07" E

S 57° 36' 15.34" E

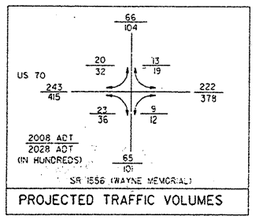
N 43° 49' 40.1" W

N 65° 14' 59.0" W

N 39° 49' 40.0" E

S 80° 35' 15.8" E

N 85° 3' 38.3" W



PROJECTED TRAFFIC VOLUMES

NOTE, See Detail Sheet 2-7 For Bridge Station Showing Pavement In Relation To Bridge Width

SEE SHTS. 81 & 82 FOR -L- PROFILE

LOCATION:

TIP NO.: COUNTY:

DESIGNED BY: DATE:

CHECKED BY: DATE:

REVISIONS

NC GRID NAD 83

METRIC

5 0 10

CONST.REV.

R/W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	20
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER IMA H. SWEET

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

-L- POC Sta.151+70.000=
-Y8RPA- POT Sta.10+00.000 (14.2 m LT)
Δ= 2°18'

-Y8RPA- TS Sta.10+47.479

-L- CS Sta.151+97.221

BL- 589 PINC 70+99.267=
-L- STA. 152+29.525 (42.544m LT)
EL. 37.084

ST Sta.152+82.221

-T3- 301 POT 5+00.000=
-L- STA. 154+19.294 (65.909m LT)
ELEV.= 31.883
NAIL SET

-T3- 302 PINC 5+36.702=
-L- STA. 154+02.281 (33.388m LT)
ELEV.= 31.795
NAIL SET

BL- 590 PINC 72+59.891=
-L- STA. 153+87.958 (12.989m LT)
-T3- 303 PINC 5+61.627
ELEV.= 31.714

REEDY BRANCH

S 24° 36' 53.6" W

S 24° 04' 21.0" W

S 24° 32' 20.1" W

APPROXIMATE LIMITS OF ORGANIC SOILS

80 m UNIFORM TAPER

N 76° 57' 52.1" E

S 82° 18' 33.7" E

N 85° 28' 00.0" W

N 87° 00' 00.0" E

13.0m (TYP.)

TYPE M350

GRAU 350

TYPE-III

TYPE-III

TYPE-III

285m ACCELERATION LANE

90 m UNIFORM TAPER

MATCHLINE STA. 151+00 SEE SHEET 19

-T3- 304 PINC 5+82.662=
-L- STA. 153+79.989 (6.477m RT)
ELEV.=31.622
NAIL SET

-T3- 305 POT 6+28.985=
-L- STA. 153+58.571 (47.552m RT)
ELEV.= 31.652
NAIL SET

-L- POC Sta.151+19.887=
-Y8RPD- SC Sta.10+00.000 (14.2m RT)

STA. 152 + 90.000 -L- END STATE PROJECT R-2554BA

STA. 152 + 90.000 -L- END F.A. PROJECT NHF-70-(30)

-Y8RPA-

PIs Sta 10+90.824	PI Sta 12+47.317	PIs Sta 13+96.170
θs = 4° 08' 16.9"	Δ= 33° 21' 38.1" (RT)	θs = 4° 08' 16.9"
Ls = 65.000	L = 262.013	Ls = 65.000
LT = 43.345	T = 134.838	LT = 43.345
ST = 21.677	R = 450.000	ST = 21.677
	e = 0.05	

-L-

PI Sta 149+88.602	PIs Sta 152+25.558
Δ= 20° 44' 59.6" (LT)	θs = 2° 05' 24.7"
L = 421.909	Ls = 85.000
T = 213.291	LT = 56.671
R = 1165.000	ST = 28.337
e = 0.05	

-Y8RPD-

PIs Sta 10+21.668
θs = 1° 34' 44.9"
Ls = 65.000
LT = 43.335
ST = 21.668

NOTE: See Detail Sheet 2-Z For Bridge Sketch Showing Pavement In Relation To Bridge Width

SEE SHTS. 83 & 84 FOR -L- PROFILE
SEE SHT. 129 FOR -Y8RPA- PROFILE
SEE SHT. 132 FOR -Y8RPD- PROFILE

PLANS PREPARED BY :
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(919) 878-9560
FOR
DIVISION OF HIGHWAYS

REVISIONS

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	21
R /W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEEZY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

JAMES B. MALPASS & WIFE
JANET H. MALPASS
DB 716 PG. 462

NC GRID NAD 83

LANE FARMS, INC.
DB 965 PG 766
DB 874 PG 277
DB 965 PG 777

90.28ft N17°56'36"W

0.680 R/W TO CONC.MON.

CONC. MON.

SR 1300 (SALEM CHURCH RD) PG 62 RAT

1495 AXEL TO R/W

76.27ft N72°55'54"W

81 82 83

90m UNIFORM TAPER

180m ACCELERATION LANE

610m DECELERATION LANE

T.I.P. R-1030AB UNDER CONSTRUCTION (US117 BYPASS SBL)

EXIST. CABLE GUIDERAIL

N 34°47'00.00" E

-L2-

CAT-1

12.0m (TYP.)

9.145m (TYP.)

-L2RPDB-

N 54°00'00.0" E

-L2- POT Sta.81+22.227=
-L2RPDB- TS Sta.0+00.000 (14.2m RT.)

-L2RPDB- SC Sta.0+60.000

-L2RPDB- CS Sta.1+34.158

-L2RPDB- ST Sta.1+94.158

-L2RPDB- TS Sta.2+11.403

GORDON H. LEWIS & WIFE
LILLIAN E. LEWIS
DB 577 PG. 154

WLB

WLB CHURCH ROAD (SR 1300)

T.I.P. R-1030AB UNDER CONSTRUCTION (SALEM CHURCH ROAD)

15.240 NORTH CAROLINA NATURAL GAS EASEMENT

NORTH CAROLINA POWER AND LIGHT 36.576 EASEMENT

MATCHLINE -L2- STA. 83+60 SEE SHEET 22

MATCHLINE -RAMP DB- STA. 2+40 SEE SHEET

NOTE: See Detail Sheet 2-X for Interchange Curve Data.

SEE SHT.108 FOR -L2RMPDB- PROFILE
SEE SHTS. 95 & 96 FOR -L2- PROFILE

PLANS PREPARED BY :
RUMMEL · KLEPPER & KAHL, LLP
consulting engineers
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(919) 876-9560
FOR
DIVISION OF HIGHWAYS

REVISIONS

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 22

R /W SHEET NO.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEET

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

MATCHLINE 7+45 SEE SHEET 5

MATCHLINE 85+80 SEE SHEET 5

MATCHLINE 4+80 SEE SHEET 5

MATCHLINE 1+70 SEE SHEET 5

-L2RPC- CS Sta.8+57.355

-L2RPC- ST Sta.9+17.355 (14.2m LT)

-L2- POT Sta.84+08.544 =

-L2RPDB- POS Sta.3+13.291 =

-L2RPD- TS Sta.0+00.000

-L2RPD- TS Sta.1+39.163

-L2RPD- ST Sta.0+60.000

-L2RPD- SC Sta.2+71.403

-L2RPC- 50m UNIFORM TAPER

-L2RPDB- 75m TRANSITION

TJP.R-1030AB UNDER CONSTRUCTION (US117 BYPASS SBL)

TJP.R-1030AB UNDER CONSTRUCTION (US117 BYPASS NBL)

N 34° 47' 00.000" E

N 34° 32' 27.0" E

450mm

EXIST. CABLE GUIDERAIL

GRAU 350

GRAU 350

1.2m PS

1.2m PS+60

3.6m

3.0m PS

7.2m

14.4m

180m ACCELERATION LANE

12.000m (MVP)

11.000m (MVP)

9.145m (MVP)

BDDS

400mm CSP

600mm

375mm

2GI

LANE FARMS, INC.
DB 965 PG 766
DB 874 PG 277
DB 965 PG 777

GORDON H. LEWIS & WIFE
LILLIAN E. LEWIS
DB 577 PG. 154

NC GRID NAD 83

MATCHLINE STA.83+60 SEE SHEET 21

MATCHLINE STA. 2+40 SEE SHEET 21

NOTE: See Detail Sheet 2-X for Interchange Curve Data.

SEE SHTS. 108 & 109 FOR -L2RMPDB- PROFILE
SEE SHT. 103 FOR -L2RMPC- PROFILE
SEE SHT. 104 FOR -L2RMPD- PROFILE
SEE SHT. 96 FOR -L2- PROFILE

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FOR
DIVISION OF HIGHWAYS

REVISIONS

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	23
R /W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TWA H. SWIFT

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

MATCHLINE STA. 3+80 SEE SHEET

-L2RPB- PCSta.0+00.000

-L2RPB-

-L2RPBD-

THURMAN RAY DEAVER & WIFE
MARGARET LOUISE DEAVER
DB 431 PG. 73

THURMAN R. DEAVER
DB 942 PG. 418

THURMAN RAY DEAVER & WIFE
MARGARET LOUISE DEAVER
DB 861 PG. 217

T.J.P.R-1030AB UNDER CONSTRUCTION (BELFAST RD/SR1313)

13.333m (TYP.)

6.67m

12m PS

7.2m

95

96

ERMA H. THOMPSON
DB 99 PG 192

NC GRID NAD 83

MATCHLINE STA. 93+20 SEE SHEET

30m PS

7.2m

14m

7.2m

-L2-

EXIST. CABLE GUIDERAIL

EXIST. IMPACT ATTENUATORS

T.J.P.R-1030AB UNDER CONSTRUCTION (US117 BYPASS SBL)

-L2RPBD- SC Sta.0+60.000

-L2RPBD-

-L2-

EXIST CABLE GUIDERAIL

7.2m

14m

7.2m

3.0m

12m PS

90m UNIFORM TAPER

-L2RPA-

T.J.P.R-1030AB UNDER CONSTRUCTION (US117 BYPASS NBL)

12.0m (TYP.)

MATCHLINE STA. 4+50 SEE SHEET

MATCHLINE 96+40 SEE SHEET

180m ACELERATION LANE

-L2RPA- CS Sta.5+95.762

-L2- POT Sta.95+25.199 =

-L2RPA- ST Sta.6+55.762 (14.2m RT.)

ERMA H. THOMPSON
DB 99 PG 192

SEE SHT. 105 FOR -L2RMPBD- PROFILE
SEE SHT. 100 FOR -L2RMPB- PROFILE
SEE SHT. 99 FOR -L2RMPA- PROFILE
SEE SHTS. 97 & 98 FOR -L2- PROFILE

NOTE: See Detail Sheet 2-X for Interchange Curve Data.

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METRIC

5 0 10

CONST.REV.

R/W REV.

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 24

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEETY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

MATCHLINE STA. 96+40 SEE SHEET 23

NC GRID NAD 83

96 98 99 100

-L2- TS Sta.96+70.000 =
-L2RPBD- ST Sta.0+00.000 (14.2m LT)

-L2- SC Sta.97+50.539

580.00' RT.

610m DECELERATION LANE

-L2- TS Sta.96+70.539

24.000m (TYP.)

3.0m PS

0.3 0.2

7.2m 14 m 7.2m

3.6m

TJ.P.R-1030AB UNDER CONSTRUCTION (US117 BYPASS SBL)

EXIST. CABLE GUIDERAIL -L2-

TJ.P.R-1030AB UNDER CONSTRUCTION (US117 BYPASS NBL)

12m PS

C F F

180m ACELERATION LANE

90m TAPER

105.833
N10°23'19"E

N57°36'40"W 57.577

NOTE: See Detail Sheet 2-X for Interchange Curve Data.

SEE SHT. 105 FOR -L2RMPBD- PROFILE
SEE SHT. 98 FOR -L2- PROFILE

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REVISIONS

METRIC

5 0 10

CONST.REV.

R/W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	25
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEEY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

NC GRID NAD 83

-Y2- POT Sta.10+00.000 =
-EY2- POT Sta.26+58.734

BEGIN CONSTRUCTION
-Y2- TS Sta.10+87.084

-EY2- PT Sta.25+28.283

-Y2- SC Sta.11+32.084

-EY2- PC Sta.23+32.799

T. A. LOVING & CO.
DB 376 PG 406
DB 376 PG 404
DB 315 PG 31

N 6°45'09.5" E

S 82° 26' 40.0" W

JACK A. BEDFORD
DB 889 PG 752

MANFRED TEACHEY
DB 1175 PG 676

MILTON HEAD
DB 564 PG 364

LOUISE P. SASSER
DB 376 PG 451

GPS R2554-21-PINC 18+96.846=
-L- STA. 11+73.028 (2.363m RT)
EL. 38.240

LOUISE PARKER LEWIS
DB 1249 PG 512

ANDREWS FARMS
OF WAYNE CO. INC.
DB 1037 PG 181
DB 1193 PG 737

-Y2- CS Sta.12+45.193

-Y2- ST Sta.12+90.193

MATCHLINE STA. 13+35 SEE SHEET 26

NOTE: See Detail Sheet 2-W for Interchange Curve Data.

SEE SHT. 114 FOR -Y2- PROFILE

NOTE: 240m Uniform Transition -Y2- Sta.10+90 (2 lanes) to Sta.13+30 (5 lanes).

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METRIC

5 0 10

CONST.REV.

R/W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	26
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEETY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

LLOYD MAX HOCUTT
DB 1689 PG 484

GOLDSBORO CITY LIMITS

WILLIE STRICKLAND
DB 1260 PG 881

KENNETH MICHAEL WEST, ETALS
DB 1507 PG 764

-BY2- 503 PINC 15+76.482=
-Y2- STA. 14+79.840 (93.558m LT)
EL. 38.545

-EY2- POT Sta.21+75.000=
-Y2A- POT Sta.10+00.000

S 1° 25' 08.8" W

1667m

5.000m (TYP.)

WOOTEN OIL COMPANY (LEASE)
DB 1220 PG 206

-Y2A- PC Sta.10+20.000
BEGIN CONSTRUCTION

-Y2A- PC Sta.10+49.962

S 68° 38' 08.7" E

R=10m

1.2m PS

9.0m

N 21° 21' 50.0" E

-Y2A- PT Sta.11+41.664

R=310m

R=412m

-Y2-

-Y2- POT Sta.13+70.000=
-Y2A- POT Sta.11+51.95

15.000m (TYP.)

NO ASSOCIATED PIPING FOUND FOR THESE ANG.

ANDREWS FARMS OF WAYNE CO. INC.
DB 1037 PG 181,
DB 1193 PG 737

-Y2- TS Sta.14+19.707

-Y2- SC Sta.14+64.707

KENNETH MICHAEL WEST, ETALS
DB 1507 PG 764

NC GRID NAD 83

MATCHLINE STA. 13+35 SEE SHEET 25

MATCHLINE 17+00 SEE SHEET 27

RUTH F. SCOTT
DB 242 PG 334
DB 529 PG 291
DB 722 PG 442
DB 903 PG 867

NOTE: See Detail Sheet 2-W for Interchange Curve Data.

SEE SHT. 114 FOR -Y2- PROFILE
SEE SHT. 116 FOR -Y2A- PROFILE

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REVISIONS

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 27

R /W SHEET NO.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEETY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

NC GRID NAD 83

MATCHLINE STA. 24+40 SEE SHEET 7

FRANK E. PATE
DB 438 PG 54
DB 1184 PG 325

LENA D. SASSER
DB 807 PG 254
DB 511 PG 521

DOROTHY H. BRYAN
DB 665 PG 297

THELMA S. PEACOCK
DB 307 PG 217

JEFFRY P. RADFORD
DB 1505 PG 463

WYATT GURLEY
DB 1190 PG 675

SANDRA G. MOORING
DB 1015 PG 435

-EY2- PC Sta.11+02.327

N 2°00'56"W

S 2°00'56"E

POT Sta. 26+94.861

-Y2- POT Sta. 26+35.00
END CONSTRUCTION

-EY2- POT Sta.10+00.000

-Y2- CS Sta.24+61.357

-Y2- ST Sta.25+06.357

JAMES T. ROWE
DB 537 PG 423

GLADYS HINNANT
DB 499 PG 387

DEWEY M. PATE
DB 516 PG 97

WAYNE CO. BOARD OF EDUCATION

GPS R2554-24 5+00.000=
-Y2- STA. 25+98.659 (8.436m LT)
EL. 39.108

NOTE: See Detail Sheet 2-W for Interchange Curve Data.

SEE SHT.116 FOR -Y2- PROFILE

NOTE: 205m Uniform Transition -Y2- Sta.24+30 (5 Lanes) to Sta.26+35 (3 Lanes).

e = 0.05

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METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BD	2B
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MCDRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEEZY

CONST.REV.

R/W REV.

REVISIONS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

NC GRID NAD 83

-Y5- POT Sta.10+00.000

-Y5- Sta 10+16.20=

BYI POT 5+00.000=
RI030A BYI4-3=
-Y5- STA. 10+03.851 (4.849m LT)
EL. 39.227

-Y5-

S 70°42'31.3" E

Begin Construction
-Y5- PC Sta.11+08.000

-Y5- +20.000
15m (49.22 ft)

-Y5- PRC Sta.11+53.493

-Y5- +53.493
15m (49.22 ft)

F. E. PATE
DB 1091 PG 398

JAMES T. ALLEY
DB 1515 PG 862

BJC INC.
DB 1580 PG 164

ELBERT REEVES
DB 1785 PG 46

SARA P. SEYMOUR
DB 1050 PG 834

VIRGINIA R. SMITH
DB 481 PG 351

VERA O'ROURKE
DB 463 PG 353

RANSOM M. GODWIN
DB UNKNOWN

NORFAM, LLC
DB 1541 PG 198

EXIST R/W

CENTERLINE OF DITCH IS PC

MATCHLINE 11+80 SEE SHEET 3

SEE SHT.12I FOR -Y5- PROFILE

NOTE: See Detail Sheet 2-W for Interchange Curve Data.

NOTE: MAINTAIN EXISTING NORTHERN EDGE OF PAVEMENT FOR -Y5-.

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FOR
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METRIC

5 0 10

CONST.REV.

R/W REV.

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 29

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEETY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

NC GRID NAD 83

NORA F. SMITH
DB 1424 PG 773

GPS R2554-32 -PINC 15+77.128=
BY10 PINC 6+57.298=
-Y8- STA. 11+00.820 (8.732m RT)
EL. 38.836

-Y8- PCSta.11+35.847

-Y8- PTSta.12+00.000
BEGIN CONSTRUCTION

-Y8- PTSta.12+29.355

BY8 522 -PINC 14+01.539=
-Y8- STA. 12+75.720 (6.650m LT)
EL. 40.016

20m TAPER

N 58° 56' 00.8" W

N 40° 20' 53.0" E

S 35° 00' 20.3" W

N 39° 45' 10.0" E

S 40° 00' 07.6" W

EXIST R/W

18.288

DP TO R/W

EP

GOLDSBORO CITY LIMITS

SOUTHERN BELL SUB-STATION

NO ASSOCIATED SPRING FOUND ON THIS AREA

EMMA PARKS FIELDS
WB 89E PG 467

MARY T. SMITH
DB 777 PG 449

WINFORD E. LANGSTON
DB 1134 PG 309

LEON J. TEACHEY
DB 777 PG 447

HAROLD T. ANDERSON
DB 1035 PG 355
DB 1044 PG 847

MALCOLM E. GURLEY
DB 648 PG 416
DB 937 PG 807
DB 1044 PG 849

BRIAN TEACHEY
DB 1277 PG 896

45m UNIFORM TAPER

85m STORAGE LENGTH FOR RIGHT TURN LANE

140m UNIFORM TRANSITION

-Y8-
PI Sta 11+82.602
Δ = 0° 35' 43.0" (LT)
L = 93.508
T = 46.754
R = 9,000.000
e = NC

NOTE: 140m Uniform Transition -Y8- Sta.12+88.913 (2 Lanes) to Sta.14+28.831 (3 Lanes).

MATCHLINE STA. 14+00 SEE SHEET 19

SEE SHT.127 FOR -Y8- PROFILE

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REVISIONS

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	30
R /W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEETY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

JOAN CRUMPLER JOYNER
DB 1551 PG 491

NC GRID NAD 83

-Y8- SC Sta.18+62.114

-Y8- TS Sta.18+17.114

-Y8- CS Sta.19+58.386

-Y8- ST Sta.20+03.386

-Y8- POT Sta.21+24.769

ISLAND

140m UNIFORM TRANSITION

85m STORAGE LENGTH FOR RIGHT TURN LANE

45m UNIFORM TAPER

20m TAPER

MATCHLINE STA. 17+80 SEE SHEET 10

18

19

20

21

EXIST R/W

S 38° 26' 56.0" W

N 35° 07' 38.9" E

S 30° 31' 11.1" W

3.872m

3.665m

4.224m

3m

7.2m

5.3m

1.2m PS

STORM DRAIN

EIP

0.25 R/W TO EIP

0.93 EIP TO R/W

BY8 519-PINC 6+82.971=
-Y8- STA. 19+93.297 (8.223m RT)
EL. 39.688

-Y8- Sta.19+95.000
END CONSTRUCTION

HUGH E. ROBERTS
DB 1232 PG 52
DB 1265 PG 97
DB 1237 PG 350

TERRY BOYETTE
92CV PG 1642

EDWARD RAY BULLARD
DB 1208 PG 546

TIMOTHY BAKER
DB 1480 PG 613

ROBERT PERSON
DB 1671 PG 340

JAMES D. ETHERIDGE
DB 778 PG 62

JOHN CHAPMAN
DB 1718 PG 957

SHIRLEY A. LOCKLAIR
DB 1638 PG 596

ROBERT PERSON
DB 1505 PG 753

NO ASSOCIATED PIPING FOUND FOR RMS PATCHES AREA

S.S. CONC

ISBAD

WTR

UTIL

CONC

3.96+50.055 S29°09'E

60.325

S 29°09'E

60.325

S 29°09'E

60.181

S 29°25'53"E

30.698

N39°44'36"E

60.736

N39°44'20"E

S 35°49'36"E 180.854

S 35°49'36"E 214.488

S 35°49'36"E 40.924

S 35°49'36"E 60.960

S 35°49'36"E 60.960

51.238
N35°29'34"E

31.692
N37°25'10"E

45.720
N37°25'09"E

51.764
N35°10'06"E

18.288

BY8 520 -PINC 8+93.970=
-Y8- STA. 17+82.820 (6.296m RT)
EL. 38.373

-Y8-

Pls Sta 18+47.114	Pl Sta 19+10.262	Pls Sta 19+73.386
es = 0° 44' 12.0"	Δ = 3° 09' 07.3" (LT)	es = 0° 44' 12.0"
Ls = 45.000	L = 96.272	Ls = 45.000
LT = 30.000	T = 48.148	LT = 30.000
ST = 15.000	R = 1,750.000	ST = 15.000
	e = 0.02	

NOTE: 140m Uniform Transition -Y2- Sta.17+40.513 (3 Lanes) to Sta.18+80.513 (2 Lanes).

SEE SHTS.127 & 128 FOR -Y8- PROFILE

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METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	31
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEZY

CONST.REV.

R/W REV.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

NC GRID NAD 83

13

-Y8DET-

PI Sta 10+52.756	PI Sta 13+56.614
Δ = 19° 56' 50.4" (LT)	Δ = 39° 37' 20.6" (RT)
L = 104.444	L = 484.079
T = 52.756	T = 252.170
R = 300.000	R = 700.000
e = 0.055	e = 0.035

NORA F. SMITH
DB 1424 PG 773

-Y8DET- PRC Sta.11+04.444

BEGIN CONSTRUCTION
-Y8DET- PC Sta.10+00.000 =
-Y8- POC Sta.12+29.355

-Y8- PCSta.11+35.847

MATCHLINE STA. 12+00 SEE SHEET 32

EXIST R/W

-Y8- N 39° 45' 10.0" E

N 40° 20' 53.0" E

GOLDSBORO CITY LIMITS

SOUTHERN BELL SUB-STATION

EMMA PARKS FIELDS
WB 89E PG 467

MARY T. SMITH
DB 777 PG 449

WINFORD E. LANGSTON
DB 1134 PG 309

LEON J. TEACHEY
DB 777 PG 447

HAROLD T. ANDERSON
DB 1035 PG 355
DB 1044 PG 847

MALCOLM E. GURLEY
DB 648 PG 416
DB 937 PG 807
DB 1044 PG 849

SEE SHTS. 25, 57 & 58 FOR -Y8- DESIGN
SEE SHT. 155 FOR -Y8DET- PROFILE

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METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554B	32
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TARA H. SWEEZY

CONST.REV.

R/W REV.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

REVISIONS

MATCHLINE STA. 12+00 SEE SHEET 32

MATCHLINE STA. 15+40 SEE SHEET 33

N 87° 10' 59.5" E

S 68° 04' 11.0" E

S 49° 36' 15.9" E

S 65° 00' 00.0" E

N 43° 49' 49" W

N 65° 14' 50.0" W

N 39° 45' 10.0" E

-L- POT Sta.145+99.796 =
-Y8DET- POT Sta.13+43.383

-Y8RPB- TSSta.12+94.966

-Y8RPB- SCSta.13+39.966

-Y8RPB- CSSta.14+06.630

-Y8RPB- STSta.14+51.630

POT -Y8- Sta.14+65.000 =
-Y8RPC- Sta.14+40.558
-Y8RPD- Sta.15+27.301

POT -L- Sta.146+62.803 =
POT -Y8- Sta.15+85.032
Δ = 72°10'39.034"

-Y8RPD-STSta.14+95.214

-Y8RPD-CSSta.14+50.214

-L- TSSta.146+90.311

-Y8RPA- STSta.14+39.493

-Y8DET-

PI Sta 13+56.614	PI Sta 16+47.775
Δ = 39° 37' 20.6" (RT)	Δ = 22° 20' 42.7" (L
L = 484.079	L = 116.999
T = 252.170	T = 59.253
R = 700.000	R = 300.000
e = 0.035	

-Y8- POT Sta.17+07.000
-Y8RPA- Sta.14+71.245
-Y8RPB- Sta.14+78.567

NORA F. SMITH
DB 1424 PG 773

JOAN CRUMPLER JOYNER
DB 1551 PG 491

MALCOLM E. GURLEY
DB 648 PG 416
DB 937 PG 807
DB 1044 PG 849

NCDOT
DB 1586 PG 344
DB 1618 PG 719
DB 1618 PG 828

NCDOT
DB 1636 PG 106

NCDOT
DB 1472 PG 411

HO H. HARE
728 PG 105

MALCOLM E. GURLEY
DB 648 PG 416
DB 937 PG 807
DB 1044 PG 849

CAROLINA POWER & LIGHT

EXIST R/W

SEE SHTS. 25, 57 & 58 FOR -Y8- DESIGN
SEE SHT. 155 FOR -Y8DET- PROFILE

PLANS PREPARED BY :
RUMMEL • KLEPPER & KAHL, LLP
consulting engineers
5800 FARINGDON PLACE SUITE. 105
RALEIGH, NORTH CAROLINA 27609-3960
(919) 878-9560
FOR
DIVISION OF HIGHWAYS

REVISIONS

METRIC

5 0 10

CONST.REV.

R/W REV.

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 33

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MCBRITT

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18181 ENGINEER TINA H. SWEET

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

NC GRID NAD 83

-Y8DET-
PI Sta 16+47.775
Δ = 22° 20' 42.7" (LT)
L = 116.999
T = 59.253
R = 300.000
e = 0.055

JOAN CRUMPLER JOYNER
DB 1551 PG 491

-Y8- SCSta.18+62.114

END CONSTRUCTION
-Y8DET- PCC Sta.17+05.522 =
-Y8- POC Sta.19+21.202

End Uniform Transition
-Y8- Sta.18+77.513

-Y8- TSSta.18+17.114

-Y8- CSSta.19+58.386

-Y8- STSta.20+03.386

MATCHLINE STA. 15+40 SEE SHEET 32

EIP

N49°36'07"W 85.595

ISLAND

NCDOT
DB 1675 PG 420

+66.552

6.286m (TYP.)

1.143m

0.660m

0.762m

+23.523

6.366m (TYP.)

3.183m

+57.792

3.173m

6.345m (TYP.)

EXIST R/W

PRCSta.15+88.523

0.399 EIP TO R/W

0.325 R/W TO EIP

EDWARD RAY BULLARD
DB 1208 PG 546

TERRY BOYETTE
92CV PG 1642

TIMOTHY BAKER
DB 1480 PG 613

HUGH E. ROBERTS
DB 1232 PG 52
DB 1265 PG 97
DB 1237 PG 350

S50°05'44"E 60.526

S50°05'44"E 60.521

S35°25'50"E 60.018

60.960

30.698

60.736

N39°44'35"E

N39°44'36"E

N39°44'20"E

N 35° 07' 38.9" E

SR 1550 WAYNE MEMORIAL RD

18.288

0.095 R/W

60.960

S50°05'38"E

LITS EIP TO R/W 40.924

S50°05'39"E

ROBERT PERSON
DB 1671 PG 340

0.193 EIP TO R/W

51.238

N35°29'34"E

SHIRLEY A. LOCKL
DB 1638 PG 596

18.288

51.76

N35°10'0

SEE SHTS. 25, 57 & 58 FOR -Y8- DESIGN
SEE SHT. 155 FOR -Y8DET- PROFILE

PLANS PREPARED BY :
RUMMEL · KLEPPER & KAHL, LLP
consulting engineers
5800 FARINGDON PLACE SUITE. 105
RALEIGH, NORTH CAROLINA 27609-3960
(919) 878-9560
FOR
DIVISION OF HIGHWAYS

METRIC

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 34

ROADWAY DESIGN ENGINEER | HYDR- ENGINEER

5 0 10

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

CONST.REV.

R/W REV.

-L-

POT STA. 90+00.00 -L- BEGIN R2554BA

-L- Sta. 90+62.554 = -L2RPBD Sta. 8+00.816

-L- Sta. 89+04.195 = -L2RPDB- Sta. 10+03.224

BM #1 RR SPIKE IN BASE OF 460mm (18") PINE
72.7170M LT OF -BL- STA.8+14.282

PI = 89+90.000
EL = 41.920 m
VC = 200 m
K = 359

+1.8000%

+2.3965%

+1.8000%

-0.5000%

-0.5000%

+1.8000%

V. LOOSE TO LOOSE GRAY BRN CLY. F- CSE SAND MOI

V. SOFT TO SOFT F SDY CLY SILT AND V. LOOSE CLY F SAND, MOI

MEDIUM DRY STIFF TO STIFF GRAY TO RED BRN FINE SDY

Existing Ground At -L-

SILTY CLAY, SILTY SDY CLAY CLY F. SDY SILT, AND MOTTLED WET

LOOSE TO MED DENSE TAN, GRAY AND PINK CLY CSE SAND W/GRVL, SAT

LOOSE TO MED DENSE GRAY F-CSE SAND, SAT.

VERY SOFT TO SOFT DARK GRAY F. SDY SILT, WET

LOOSE DARK GRAY F-CSE SD, SAT

V. STIFF TO HARD F. SDY SILTY CLAY, WET (BLACK CREEK FM)

PI = 92+90.000
EL = 47.320 m
VC = 200 m
K = 87

-L- Sta. 92+90.586 = -L2LPB- Sta. 0+00.000

-L- Sta. 93+23.591 = -L2- Sta. 90+29.263

-L- Sta. 93+45.023 = -L2LPD- Sta. 0+00.000

(A) MED DENSE TO DENSE GRAY F-CSE SAND, SAT

(B) V. STIFF TO HARD DARK GRAY F. SDY SILTY CLAY, WET (BLACK CREEK FM)

(C) LOOSE TO MED DENSE GRAY F-CSE. SAND W/SHELLS, SAT

V. LOOSE BRN SILTY F SD, MOI

STIFF TO VERY STIFF RED AND GRAY BRN F. SDY SILTY CLAY, MOI.

V. LOOSE TO MED DENSE TAN WHITE AND GRAY F-CSE SD, SAT

SOFT TO MED. STIFF DARK GRAY F SDY SILTY CLAY, WET

LOOSE TO

STIFF YEL

VERY SOFT TO GRAY F. SDY SILT, SOFT WET

ST-4

BRN F SDY SILTY CLAY, MOI

MED DENSE F-CSE SAND, SAT

V. SOFT BRN. SILT, WET (ALLUVIUM)

V. SOFT TO SOFT DARK GRAY SILTY CLAY AND CLY SDY SILT, WET

SOFT TO STIFF YEL BRN F SDY SILT, MOI

MEDIUM DENSE TAN TO WHITE F-CSE SAND, MOI TO SAT

V. SOFT GRAY SDY CLAY, WET

V. SOFT TO SOFT DARK GRAY F. SDY. CLAY, SILTY WET

V. LOOSE DARK GRAY CLY SILTY F-CSE SD, W/SHELLS, SAT

Soil Sample Test Results

SAMPLE No.	STATION	OFFSET	DEPTH	AASHTO	LL	PI	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVES) #10	#40	#200	MOIS. CONT.	% ORGANIC
SS-99	89+00	CL	0.36-0.45	A-2-4(0)	22	10	47.9	25.4	8.6	18.1	100	71	30		
SS-100	89+00	CL	0.76-1.21	A-2-4(0)	27	10	54.6	24.0	6.3	15.1	100	66	23		
SS-101	89+00	CL	1.52-1.97	A-7-6(15)	49	31	24.2	20.2	23.3	32.3	99	81	61	20.9	
SS-102	89+00	CL	4.14-4.61	A-2-6(0)	36	18	70.7	10.5	9.7	19.1	94	51	18		
SS-103	89+00	CL	5.65-6.12	A-1-b(0)	23	NP	81.3	10.6	1.1	7.0	92	39	8		
SS-104	89+00	CL	8.72-9.17	A-4(0)	28	9	15.9	51.6	12.4	20.1	97	87	37		
SS-105	89+00	CL	11.2-11.72	A-4(0)	30	NP	11.9	55.4	24.3	8.1	100	95	37		
SS-106	89+00	CL	13.2-13.74	A-2-4(0)	22	5	51.4	20.0	19.6	9.1	100	88	31		
SS-107	89+00	CL	14.8-15.26	A-7-6(39)	59	37	10.5	10.5	48.8	30.2	100	93	83	20.3	
SS-108	89+00	CL	17.86-18.31	A-7-6(29)	45	25	11.3	16.4	46.4	26.2	99	92	80		
SS-109	89+00	CL	19.3-19.84	A-6(7)	34	10	7.7	41.6	29.8	12.1	98	92	62		
SS-95	90+20	CL	0.76-1.21	A-4(5)	24	10	8.3	23.4	38.0	30.2	100	96	74	17.1	
SS-97	90+20	CL	1.52-1.97	A-7-6(23)	47	31	4.2	20.8	29.3	46.3	100	98	81		
SS-98	90+20	CL	2.28-2.73	A-6(6)	32	19	16.7	36.9	16.2	30.2	100	94	51		
SS-110	92+80	CL	0.30-0.45	A-6(6)	26	11	4.6	27.0	38.2	30.2	100	98	76	19.6	
SS-111	92+80	CL	0.76-1.21	A-7-6(17)	55	32	3.5	20.5	24.0	52.0	100	98	91	30.6	
SS-112	92+80	CL	2.68-3.13	A-3(0)	23	NP	62.1	29.0	0.8	8.1	100	76	10		
SS-113	92+80	CL	4.23-4.66	A-1-b(0)	18	NP	75.8	14.3	2.9	7.0	88	44	10		
SS-114	92+80	CL	7.28-7.79	A-7-6(32)	65	38	9.9	10.3	41.6	38.3	100	95	81	72.7	
SS-115	92+80	CL	10.36-10.75	A-6(7)	33	15	14.7	27.0	43.6	14.1	96	88	61		
SS-116	92+80	CL	11.85-12.25	A-2-6(0)	28	NP	11.1	39.6	27.2	22.1	100	98	89	20.4	
SS-117	92+80	CL	13.36-13.80	A-7-6(13)	43	25	9.4	21.8	41.0	27.8	100	98	85		
SS-118	92+80	CL	16.40-16.85	A-7-6(13)	42	22	6.4	18.1	45.2	30.2	100	96	82		
SS-119	92+80	CL	17.93-18.37	A-6(21)	39	25	6.6	14.5	40.6	38.3	100	97	85		
SS-253	93+60	CL	0.15-0.45	A-6(15)	36	20	2.9	22.2	42.3	32.7	100	99	83		
SS-254	93+60	CL	1.53-1.97	A-7-6(13)	53	34	1.2	13.5	38.4	46.9	100	99	91		
SS-255	93+60	CL	3.05-3.46	A-1-b(0)	19	NP	74.7	20.5	1.7	3.1	88	30	7		
SS-256	93+60	CL	6.85-7.30	A-2-4(0)	25	NP	24.6	63.2	9.2	3.1	100	90	18		
SS-257	93+60	CL	8.37-8.82	A-4(1)	27	8	4.1	57.8	30.0	8.2	100	98	45		
SS-258	93+60	CL	11.41-11.86	A-1-b(0)	25	NP	82.0	12.8	0.8	5.2	92	38	7		
SS-259	93+60	CL	12.93-13.38	A-7-6(2)	52	25	2.2	24.9	46.3	26.5	100	99	83		
SS-260	93+60	CL	15.95-16.42	A-7-6(15)	47	20	5.5	16.3	43.5	34.7	100	97	84		
SS-133	95+60	CL	0.30-0.45	A-4(0)	14	NP	7.9	45.7	36.4	10.1	100	99	57		
SS-134	95+60	CL	0.91-1.21	A-6(7)	28	15	3.2	35.4	35.2	26.2	100	99	69		
SS-135	95+60	CL	1.52-1.97	A-4(1)	23	8	2.8	53.1	21.3	22.2	100	99	52		
SS-136	95+60	CL	2.68-3.13	A-2-4(0)	21	NP	38.2	50.2	2.5	9.1	100	79	14		
SS-137	95+60	CL	4.21-4.66	A-7-6(14)	48	27	32.1	7.5	7.9	52.5	100	83	61		
SS-138	95+60	CL	5.53-6.18	A-1-b(0)	25	NP	70.1	13.8	1.0	3.1	86	34	5		
SS-139	95+60	CL	7.25-7.60	A-2-6(0)	26	11	50.4	21.3	19.7	8.1	93	62	28		
SS-140	95+60	CL	8.76-9.23	A-1-b(0)	26	5	77.4	13.1	2.4	7.1	80	26	8		

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 35

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

METRIC

5 0 10

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	LL	PI	% BY WEIGHT GSAND	FSAND	SILT	CLAY	% PASSING SIEVES #10	#40	#200	% MOISTURE	% ORGANIC
SS-194	98+20	CL	0.30-0.45	A-4(2)	21	8	17.2	31.9	26.7	24.2	100	89	58		
SS-195	98+20	CL	0.76-1.21	A-6(5)	31	17	13.9	28.7	25.1	32.3	100	92	64		
SS-196	98+20	CL	2.68-3.13	A-2-4(0)	28	7	77.0	11.0	8.9	11.1	97	44	13		
SS-197	98+20	CL	5.73-6.28	A-1-b(0)	23	NP	77.1	18.4	1.5	3.0	85	34	5		
SS-198	98+20	CL	9.78-10.23	A-2-4(0)	28	NP	55.4	34.7	5.9	4.0	95	61	17		
SS-199	98+20	CL	10.30-10.75	A-1-b(0)	24	NP	78.5	12.7	2.7	6.1	79	36	8		
SS-200	98+20	CL	13.35-13.80	A-7-6(36)	56	35	1.8	8.7	41.0	48.5	100	99	93		
SS-232	100+40	CL	0.15-0.45	A-2-7(4)	73	45	69.6	5.2	1.7	23.5	97	36	25		
SS-233	100+40	CL	1.52-1.97	A-4(1)	22	9	39.3	21.2	18.1	21.4	100	70	44		
SS-234	100+40	CL	3.80-4.25	A-4(0)	19	NP	69.6	19.5	2.8	8.2	93	64	37		
SS-235	100+40	CL	6.83-7.28	A-2-4(0)	25	NP	15.7	56.4	16.6	11.2	100	94	33		
SS-236	100+40	CL	9.88-10.33	A-4(0)	22	4	18.9	46.3	22.6	12.2	100	94	36		
SS-237	100+40	CL	12.92-13.37	A-2-4(0)	22	NP	26.9	55.9	4.9	12.3	83	69	15		
SS-238	100+40	CL	14.45-14.90	A-7-6(27)	50	29	2.2	9.8	34.9	53.1	100	99	92		
S-176	101+20	20M LT	0.30-1.70	A-7-6(10)	49	32	36.8	20.0	14.9	28.3	99	78	46		
S-177	101+20	20M LT	2.80-3.90	A-2-7(3)	56	36	14.7	12.7	14.4	58.2	93	75	53		
S-178	101+20	20M LT	5.40-5.79	A-2-4(0)	27	7	81.0	9.8	3.1	6.1	85	32	8		
S-179	101+20	20M LT	5.79-7.30	A-2-4(0)	21	NP	11.7	67.7	8.5	12.1	99	96	22		
S-180	101+20	20M LT	7.30-11.37	A-2-4(0)	21	NP	5.3	74.5	10.1	10.1	100	99	21		
S-181	101+20	20M LT	11.31-11.90	A-6(4)	36	15	3.2	51.5	25.1	20.2	96	95	50		
SS-471	102+20	22M LT	0.75-1.20	A-6(6)	30	17	19.8	31.1	20.8	28.3	100	90	57		
SS-472	102+20	22M LT	2.58-3.03	A-4(0)	24	4	7.9	63.8	12.1	16.2	100	96	37		
SS-473	102+20	22M LT	5.58-6.03	A-1-b(0)	21	NP	80.9	13.1	2.9	3.0	76	24	6		
SS-474	102+20	22M LT	7.08-7.53	A-2-4(0)	20	NP	29.3	53.3	9.5	8.1	100	92	19		
SS-475	102+20	22M LT	11.58-12.03	A-2-4(0)	27	NP	19.8	69.9	6.3	4.0	100	93	12		
SS-476	102+20	22M LT	16.08-16.53	A-2-4(0)	23	NP	12.2	72.8	7.9	7.1	96	94	17		

BM #2 RR SPIKE IN BASE OF 600mm (24") OAK
97.8677M RT OF -BL- STA.13+60.274

PI = 96+10.000
EL = 45.720 m
VC = 200 m
K = 144

46.040

-0.5000%

+0.8858%

-L-

48.643

BM #3 RR SPIKE IN BASE OF 300mm (12") OAK
61.8540M LT OF -BL- STA.15+81.681

-L- Sta. 98+17.208 = -L2RPA- Sta. 0+00.000

-L- Sta. 98+50.000 = -L2RPBD- Sta. 17+94.467

SOFT GRAY CLAY, WET

Existing Ground At -L-

LOOSE TO MEDIUM DENSE TAN F-CSE SAND, MOI

GRAY BROWN CLY F SDY SILT, MOI

MEDIUM STIFF GRAY BRN SILTY F SDY CLAY, MOI

SOFT GRAY CLAY, WET

MOI TO SAT

V. LOOSE BRN CLY F SDY SILT, WET (ALLUVIUM)

LOOSE GRAY BRN SILTY F SDY SILT, MOI

MED. STIFF GRAY F SDY CLAY, MOI

BRN SILTY F SDY SILT, MOI

MED DENSE TAN AND WHITE F-CSE SAND, MOI

WHITE TO SAT

V. LOOSE DARK GRAY F-CSE SAND

PI = 101+69.000
EL = 50.672 m
VC = 280 m
K = 110

+0.8858%

-1.6500%

48.643

48.5046

AND SOFT DARK GRAY SANDY SILT, SAT TO WET

LOOSE TO V. DENSE GRAY CSE SAND W/ SHELL FRAGMENTS, SAT

VERY STIFF DARK GRAY SILTY CLAY, WET (BLACK CREEK FM)

L- Sta. 100+61.488 = Y1- Sta. 10+97.530
CSX RAILROAD

20 m LT

22 m LT

(A) LOOSE TO MED. DENSE TAN, WHITE AND GRAY F-CSE SAND AND CLY SAND, SAT

(B) V. LOOSE GRAY CLY SAND AND V. SOFT CLY SDY SILT, SAT TO WET

(C) SOFT TO MED STIFF GRAY SILTY CLAY, WET

(D) V. LOOSE GRAY SILTY SAND W/ SHELLS, SAT

(E) V. STIFF TO HARD GRAY F SDY AND SILTY CLAY, WET (BLACK CREEK FM)

LOOSE BRN CLY SAND, MOI

MEDIUM STIFF TO VERY STIFF TAN-GRAY SDY CLAY AND CLY SDY SILT, MOI TO WET

SOFT GRAY CLAY, WET

V. DENSE GRAY F SD, SAT

MOI TO WET

+80 96 +20 +40 +60 +80 97 +20 +40 +60 +80 98 +20 +40 +60 +80 99 +20 +40

+40 +60 +80 100 +20 +40 +60 +80 101 +20 +40 +60 +80 102 +20 +40 +60 +80 103

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	36

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.

-L-

-L- Sta. 103+80.709 = -Y2LPA- Sta. 21+25.328

-L- Sta. 104+18.506 = -Y2LPA- Sta. 10+00.000

-L- Sta. 104+19.039 = -Y2LPD- Sta. 10+00.000

-L- Sta. 109+70.000 = -Y2RPA- Sta. 10+00.000

-L- Sta. 109+96.000 = -Y2RPD- Sta. 10+00.000

49.506

-1.6500%

42.570

+0.5000%

-0.8000%

41.412

PI = 107+75.810
EL = 40.659 m
VC = 200 m
K = 93

PI = 110+00.000
EL = 41.780 m
VC = 200 m
K = 154

BM #4 RR SPIKE IN BASE OF 460mm (18") POPLAR
90.9079 RT OF -BL- STA.25+29.607

MEDIUM STIFF TO STIFF RED BROWN SILTY F. SANDY Existing Ground At -L-

VERY LOOSE TO LOOSE GRAY BRN. SILTY F. SAND SAT

VERY LOOSE TO MED. DENSE TAN, GRAY AND WHITE FINE TO CSE. SAND, MOI TO SAT

MEDIUM STIFF GRAY F. SDY CLAY WET

V. LOOSE TO MED DENSE SILTY F-CSE SAND, SAT

DARK GRAY

HARD GRAY SILTY SDY CLAY (BLACK CREEK FM) WET

VERY LOOSE F-CSE SAND, SAT

DARK GRAY SAND, SAT (BLACK CREEK FM)

STIFF RED AND ORANGE MEDIUM DENSE TAN AND ORANGE BROWN SANDY CLAY, MOI TO WET

SILTY F-CSE SAND, MOI TO SAT

Existing Ground At -L-

DRY 2/03

DRY 2/03

CLAY 2/03

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH	INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
SS-82	103+80	CL	0.3	-0.45	A-2-4(0)	18	NP	28.5	48.5	17.0	6.1	100	85	39		
SS-83	103+80	CL	0.75	-1.21	A-6(1)	32	16	27.6	36.6	14.5	26.3	100	88	47	18.2	
SS-84	103+80	CL	2.6	-3.13	A-2-6(0)	28	7	52.3	31.0	2.5	14.2	94	54	17		
SS-85	103+80	CL	4.3	-4.66	A-3(0)	23	NP	33.4	62.6	3.7	0.3	100	66	4		
SS-86	103+80	CL	5.7	-6.18	A-1-b(0)	24	NP	90.7	6.2	0.1	3.0	99	32	3		
SS-87	103+80	CL	7.2	-7.70	A-7-6(7)	42	27	18.5	48.9	8.3	32.3	100	97	44		
SS-88	103+80	CL	10.3	-10.7	A-2-6(0)	23	9	72.1	52.1	13.5	10.9	99	85	23		
SS-89	103+80	CL	12.3	-13.8	A-2-4(0)	22	NP	22.8	55.6	5.3	17.2	81	71	19		
SS-90	103+80	CL	14.8	-15.3	A-2-4(0)	24	NP	38.1	53.7	5.2	3.0	100	86	8		
SS-91	103+80	CL	17.9	-18.3	A-6(2)	28	12	22.6	38.4	29.8	18.3	100	95	41		
SS-77	105+20	CL	0.75	-1.21	A-6(5)	33	17	23.8	33.5	14.3	28.2	100	94	56		
SS-78	105+20	CL	1.5	-1.97	A-7-6(15)	50	31	12.1	34.9	12.5	40.4	100	95	51		
SS-79	105+20	CL	2.6	-3.13	A-2-4(0)	29	6	20.4	59.0	4.4	16.2	100	92	21		
SS-80	105+20	CL	4.2	-4.66	A-3(0)	17	NP	62.0	30.5	2.4	5.1	100	73	9		
SS-81	105+20	CL	5.7	-6.18	A-1-b(0)	24	NP	91.1	5.8	1.6	1.5	96	36	4		
SS-59	108+20	CL	0.3	-0.45	A-2-4(0)	16	NP	32.7	43.9	13.3	10.1	100	80	34		
SS-60	108+20	CL	0.7	-1.21	A-7-6(13)	59	33	29.9	20.3	9.7	40.1	97	76	51		
SS-61	108+20	CL	2.3	-2.73	A-2-6(0)	31	11	40.0	21.9	21.1	16.0	100	64	19		

+20 +40 +60 +80 100 +20 +40 +60 +80 101 +20 +40 +60 +80 102 +20 +40 +60 +80 103 +20 +40 +60 +80 104 +20 +40 +60 +80 105 +20 +40 +60 +80 106 +20 +40 +60 +80 107 +20 +40 +60 +80 108 +20 +40 +60 +80 109 +20 +40 +60 +80 110 +20

35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 37

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L-

41.812

-0.8000%

Existing Ground At -L-

VERY LOOSE TO LOOSE TAN STIFF TO VERY LOOSE TO MED. DENSE TAN STIFF ORANGE AND GRAY CLY. SAND, MOI TO SAT SILTY F-CSE SAND, MOI SDY CLAY, MOI TO WET

DRY 2/03

2/03

36.937

41
40
39
38
37
36
35

+20 +40 +60 +80 111 +20 +40 +60 +80 112 +20 +40 +60 +80 113 +20 +40 +60 +80

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT CSAND	FSAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
SS-169	10+40	CL	0.30-0.45	A-6(9)	37	19	16.4	28.3	14.9	30.4	100	91	62		
SS-170	10+40	CL	0.76-1.21	A-7-6(6)	54	26	45.1	18.5	4.9	26.4	98	65	41		
SS-171	10+40	CL	1.52-1.97	A-2-6(0)	31	14	54.9	24.3	1.6	17.2	98	62	19		
SS-172	10+40	CL	2.28-2.73	A-2-4(0)	21	NP	58.8	30.9	1.7	9.1	100	67	13		
S-66	12+00	CL	0.30-0.76	A-6(4)	33	16	26.3	30.0	13.1	30.6	100	86	49		
S-67	12+00	CL	0.76-1.52	A-7-6(10)	47	28	29.8	23.7	7.8	38.8	99	81	58		
S-68	12+00	CL	1.52-2.29	A-6(14)	39	23	39.5	19.7	6.5	34.3	93	62	39		
SS-162	14+20	CL	0.76-1.21	A-6(2)	31	15	37.5	24.3	12.1	26.1	100	77	41		
SS-163	14+20	CL	1.52-1.97	A-2-4(0)	22	7	46.3	31.9	3.7	18.1	95	71	22		
SS-164	14+20	CL	2.28-2.80	A-4(3)	25	NP	14.4	49.1	19.4	22.1	100	98	67		
SS-165	14+20	CL	6.87-7.32	A-3(0)	12	NP	42.1	52.6	1.3	4.0	100	96	6		
SS-166	14+20	CL	11.43-11.8	A-2-4(0)	21	NP	23.5	53.8	14.7	8.0	94	82	23		
SS-167	14+20	CL	12.95-13.4	A-2-4(0)	38	NP	47.5	41.1	9.3	2.0	100	71	14		
SS-168	14+20	CL	14.47-14.9	A-7-6(25)	58	42	9.2	27.9	21.5	40.1	98	93	66		
SS-301	15+40	CL	0.76-1.21	A-4(0)	32	NP	27.1	41.6	19.2	12.1	100	86	38		
SS-302	15+40	CL	1.52-1.97	A-2-4(0)	39	NP	52.6	27.4	16.0	4.0	95	60	23		
SS-303	15+40	CL	2.32-2.77	A-1-b(0)	21	NP	79.0	13.4	0.6	5.0	97	41	6		
SS-304	15+40	CL	5.36-5.81	A-1-b(0)	14	NP	89.6	5.1	1.3	4.0	95	16	7		
SS-305	15+40	CL	6.80-7.34	A-1-b(0)	21	NP	79.6	11.2	2.2	7.0	94	49	9		
SS-306	15+40	CL	8.43-8.86	A-2-4(0)	27	NP	22.2	60.2	10.5	7.0	99	88	19		
SS-307	15+40	CL	14.58-14.9	A-3(0)	23	NP	42.6	50.0	2.6	4.8	99	70	5		
SS-308	15+40	CL	17.55-18.0	A-6(12)	35	22	7.4	33.5	15.9	44.1	100	96	66		

BM #5 RR SPIKE IN BASE OF 360mm (14") OAK
36.8291 RT OF -BL- STA.31+74.508

PI = 114+65.000
EL = 38.060 m
VC = 300 m
K = 107

38.937

-0.8000%

+2.0000%

LOOSE BRN SILTY SD, MOI TO WET

MED STIFF RED BRN SILTY SDY CLAY, MOI

LOOSE TO MED DENSE TAN GRAY CLY SD AND F-CSE SAND, MOI TO SAT

Existing Ground At -L-

SOFT TAN CLY SDY SILT, WET

V. LOOSE BRN SILTY SD MOI TO SAT (ALLUVIUM)

HOWELL BRANCH

MED STIFF GRAY SDY CLAY, WET

V. LOOSE TO MED DENSE TAN BRN F-CSE SAND, SAT

LOOSE BRN SILTY SAND, MOI

MED. STIFF ORANGE - RED BRN SILTY SDY CLAY, MOI

V. LOOSE AND

TO MED DENSE ORANGE GRAY F-CSE SAND, SAT.

DRY 3/03

3/03

HD5

43.474

Ⓐ V. SOFT TO SOFT BRN CLY SDY SILT, MOI TO WET (ALLUVIUM)

Ⓑ MED. DENSE TAN F-CSE SAND, SAT

Ⓒ VERY LOOSE DARK GRAY SILTY F-CSE SAND, SAT

Ⓓ DENSE DARK GRAY F-CSE SAND, SAT. (BLACK CREEK FM.)

Ⓔ V. STIFF TO HARD DARK GRAY SILTY F. SDY CLAY, WET (BLACK CREEK FM.)

Ⓕ V. DENSE TAN F-CSE SAND, SAT (BLACK CREEK FM.)

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31
30

+80 114 +20 +40 +60 +80 115 +20 +40 +60 +80 116 +20 +40 +60 +80 117 +20 +40

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	38
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5 0 10

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

CONST.REV.

R/W REV.

-L-

PI = 118+84.000
EL = 46.440 m
VC = ~~300~~ 222 m
K = ~~123.81~~

BM #6 RR SPIKE IN BASE OF 660mm (26") TWIN OAK
176.2625 LT OF -BL- STA.35+55.047

+2.0000% -1.0000%

43.474 44.064

V. LOOSE BRN SILTY F SAND, MOI

MEDIUM STIFF TO STIFF RED BRN TO GRAY SILTY FINE SANDY CLAY, MOI TO WET

V. LOOSE TO MED. DENSE WHITE TO GRAY FINE TO COARSE SAND, SAT

Existing Ground At -L-

3/03

+40 +60 +80 118 +20 +40 +60 +80 119 +20 +40 +60 +80 120 +20 +40 +60 +80 121

41 40 39 38 37 36 35 34 33 32 31 30

VERY LOOSE TO MED. DENSE GRAY F-CSE SAND W/ SHELLS SAT

DENSE TO V. DENSE GRAY SILTY SAND, SAT (BLACK CREEK FM)

V. STIFF TO HARD GRAY SILTY CLAY, WET (BLACK CREEK FM)

F. SDY

Soil Sample Test Results

SAMPLE	STA	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	GI	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING SIEVES #10	#40	#200	LIQUID LIMIT	PLASTIC INDEX	% ORGANIC
SS-375	118+60	CL-?	0.76-1.21	A-4(10)	38	21	8.8	37.4	21.6	32.2	100	97	49		
SS-376	118+60	CL-	3.22-3.77	A-4(10)	38	6	47.6	34.4	5.9	12.1	100	93	19		
SS-377	118+60	CL-	3.84-4.28	A-6(8)	23	NP	47.0	48.1	5.0	5.0	96	76	19		
SS-378	118+60	CL	5.39-7.24	A-4(10)	25	NP	24.9	45.2	29.9	5.0	99	69	16		
SS-379	118+60	CL	9.94-10.39	A-4(8)	25	4	27.1	42.9	25.9	14.1	95	85	28		
SS-380	119+00	CL	0.00-1.52	A-4(8)	30	NP	26.6	44.3	29.1	10.1	96	83	15		
SS-381	118+60	CL	12.51-13.9	A-4(10)	31	8	4.0	64.1	17.8	14.1	100	99	34		
SS-366	119+20	CL-	0.76-1.21	A(10)	39	11	15.2	34.6	24.9	24.1	100	93	56		
SS-367	119+20	CL	2.22-2.77	A-7(12)	49	26	19.2	33.4	14.4	26.3	100	91	50	24.7	
SS-368	119+20	CL	3.84-4.29	A(10)	24	NP	74.0	18.9	7.1	5.0	94	56	8		
SS-369	119+20	CL-	5.36-5.81	A-6(11)	35	19	37.6	34.9	18.4	18.1	98	84	30		
SS-370	119+20	CL	6.89-7.24	A-6(10)	32	NP	40.2	37.7	22.1	5.0	97	79	19		
SS-371	119+20	CL	9.94-10.39	A-6(10)	24	NP	22.6	47.8	29.6	14.1	89	75	18		
SS-372	119+20	CL	12.98-13.4	A-4(10)	25	NP	23.5	55.9	20.6	10.1	86	77	20		
SS-373	119+20	CL-	14.51-14.9	A-4(6)(3)	62	30	6.5	39.5	31.5	42.2	100	97	81		
SS-374	119+20	CL	17.56-18.0	A(6)	34	1	13.5	45.0	28.6	28.1	100	99	54		
S-113	121+00	CL	0.30-1.52	A(6)	36	11	8.6	51.4	28.8	34.2	100	97	65		
S-114	121+00	CL	1.22-2.74	A-6(12)	39	24	8.4	33.4	22.0	36.2	100	97	63		
S-115	121+00	CL	2.74-4.57	A-6(10)	18	NP	60.1	25.0	4.8	10.1	99	62	17		
S-116	121+00	CL	4.57-6.10	A-6(10)	20	NP	29.6	52.3	3.1	6.0	94	36	9		
S-117	121+00	CL	6.10-8.08	A-6(10)	24	NP	63.6	21.6	5.7	9.0	99	74	15		
SS-441	123+00	CL	0.30-0.45	A(6)(7)	32	15	18.5	28.3	17.0	36.2	100	92	56		
SS-442	123+00	CL-	0.76-1.21	A-6(11)	45	22	19.2	23.5	9.2	26.3	100	88	55		
SS-443	123+00	CL-	1.07-1.97	A-6(12)	38	22	37.6	32.0	8.3	24.1	100	84	31		
S-118	124+00	CL	0.30-2.40	A-6(6)	26	12	7.0	26.0	29.5	36.2	100	98	70	19.4	

BM #7 RR SPIKE IN BASE OF 360mm (14") PINE
128.9154 LT OF -BL- STA.41+92.690

44.084 40.104

V. LOOSE GRAY BROWN SILTY F SAND AND SOFT F SDY SILTY MOI

MEDIUM STIFF RED BRN AND GRAY SILTY SANDY CLAY, MOI TO WET

Existing Ground At -L-

DRY 4/03

LOOSE TO MED. DENSE GRAY-TAN F-CSE SAND AND CLYSAND, MOI TO SAT

V. LOOSE TO MED. DENSE GRAY F-CSE SAND, SAT

121 +20 +40 +60 +80 122 +20 +40 +60 +80 123 +20 +40 +60 +80 124 +20 +40 +60

41 40 39 38 37 36 35 34 33 32 31 30

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	34

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

5 0 10

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

CONST.REV.

R/W REV.

-L-

Existing Ground At -L-

REVISED GRADE

VERY LOOSE TAN F SDY SILT

MEDIUM STIFF YEL TAN F SDY CLAY, MOIST

LOOSE TO MED. DENSE RED BRN AND YEL TAN CLY. SAND

BRN SILTY SAND AND SOFT SDY SILT, MOIST

SDY SILT AND SILTY SDY CLAY, MOIST TO WET

V. LOOSE TO MED. DENSE YEL. TAN CLY. SAND, MOIST TO SAT.

DRY 4/03 | 4/03 | 4/03 | 4/03 | 4/03 | 3/03 | 3/03 | 3/03 | 4/03

BM #8 RR SPIKE IN BASE OF 600mm (24") OAK
50.5008 LT OF -BL- STA.46+96.201

PI = 130+87.000
EL = ~~33.207~~ m
VC = 200 m
K = ~~110~~ 194

-1.1000%

+0.6000%

Ⓐ LOOSE TO DENSE GRAY F-CSE SAND, SAT (BLACK CREEK)

Ⓑ V. STIFF TO HARD GRAY F SDY SILTY CLAY, WET (BLACK CREEK FM.)

Ⓒ V. SOFT BRN CLY F SDY SILT AND V. LOOSE F SD w/ SOME ORG SILT, WET TO SAT (ALLUVIUM)

V. LOOSE TAN CLY SAND, MOIST TO SAT 3/03

V. LOOSE TO MED. DENSE TAN BRN F-CSE SAND, SAT

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS	LL	PI	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	.425mm	.75mm	MOISTURE	ORGANIC
S-119	125+20	CL	0.60-1.20	A-4(4)	31	17	14.7	42.4	26.5	16.4	100	96	49		
SS-43	126+00	CL	0.30-0.45	A-2-4(0)	15	NP	23.3	54.6	13.1	9.0	100	91	29		
SS-43	126+00	CL	0.76-1.21	A-4(0)	19	3	21.7	43.6	20.6	14.1	100	92	39		
SS-44	126+00	CL	1.52-1.97	A-2-4(0)	25	10	28.5	39.8	21.6	10.1	100	93	34		
S-120	125+20	CL	1.20-1.80	A-4(5)	25	9	27.0	39.6	24.1	10.3	100	90	54		
SS-44	127+00	CL	0.30-0.45	A-1(3)	23	5	13.5	59.7	26.6	28.1	100	95	61		
SS-44	127+00	CL	0.90-1.21	A-7-5(13)	41	23	13.9	29.9	28.0	38.2	100	95	61		
SS-44	127+00	CL	1.52-1.97	A-7-6(17)	37	21	18.4	44.2	23.3	10.1	100	59	20		
SS-45	126+00	CL	3.05-3.50	A-2-4(0)	27	8	13.0	75.2	11.0	11.1	98	46	14		
S-101	130+20	CL	0.30-2.29	A-2-4(0)	24	NP	46.1	37.5	8.3	8.0	100	76	19		
S-102	130+20	CL	2.29-2.65	A-2-4(1)	28	9	36.5	18.5	25.9	19.1	93	70	28		
S-103	130+20	CL	2.65-3.66	A-2-4(0)	23	7	12.4	64.6	9.7	13.3	100	90	25		
SS-309	131+40	CL	0.76-1.21	A-2-4(0)	16	3	13.7	35.7	25.4	25.2	99	81	35		
SS-310	131+40	CL	2.28-2.73	A-2-4(0)	27	NP	39.5	27.6	18.9	13.9	85	63	13		
SS-311	131+40	CL	3.81-4.26	A-4-b(0)	22	NP	30.0	44.5	15.5	10.0	91	48	5		
SS-312	131+40	CL	5.33-5.78	A-2-4(0)	25	6	15.6	57.7	20.7	15.0	93	54	17		
SS-313	131+40	CL	6.86-7.31	A-2-4(0)	28	NP	29.9	54.7	9.4	8.6	97	90	18		
SS-314	131+40	CL	9.91-10.36	A-6-4(0)	19	NP	27.8	20.2	43.9	8.0	99	75	13		
SS-315	131+40	CL	13.43-13.8	A-6(10)	38	22	2.6	41.7	29.6	26.1	100	99	61		
SS-316	131+40	CL	16.00-16.4	A-7-6(14)	43	18	4.0	31.1	44.9	20.0	109	99	78		

+60 +80 125 +20 +40 +60 +80 126 +20 +40 +60 +80 127 +20 +40 +60 +80 128 +20

+20 +40 +60 +80 129 +20 +40 +60 +80 130 +20 +40 +60 +80 131 +20 +40 +60 +80

41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25

40.114 | 36.964 | 36.144 | 36.964 | 36.964 | 35.964

METRIC

5 0 10

CONST.REV.

R /W REV.

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 40

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

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

-L-

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	% BY WEIGHT P.I.	C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	.425mm	.75mm	% MOISTURE	% ORGANIC
S-338	133+10	℄	0.76-1.35	A-2-4(0)	26	9	58.5	31.7	1.7		61	99	81	18	
S-339	133+10	℄	1.31-2.76	A-2-4(0)	32	18	54.9	18.3	4.7		2.1	98	61	20	
S-340	133+10	CL	3.36-5.81	A-2-4(0)	26	NP	58.8	29.4	7.8		8.0	98	57	13	
S-341	133+10	CL	4.0-8.0	A-4(8)	32	10	43.3	29.3	11.6		14.3	100	91	55	
S-342	133+10	CL	9.92-10.37	A-2-4(0)	20	NP	23.6	55.1	9.2		9.1	100	91	28	
S-343	133+10	CL	11.96-13.4	A-6(1)	32	18	6.5	31.9	31.4		30.3	100	97	74	
S-344	133+10	CL	13.91-15.4	A-7-6(22)	47	24	3.9	20.2	54.2		21.5	100	98	86	
S-345	134+20	CL	0.15-0.45	A-2-4(0)	15	NP	54.5	40.2	5.3		5.0	100	89	12	
S-346	134+20	CL	1.52-1.93	A-2-4(1)	33	18	42.0	37.0	5.8		15.2	99	79	30	
S-347	134+20	CL	2.39-2.74	A-2-4(0)	31	14	46.9	32.3	1.5		19.2	100	87	23	
S-348	136+00	CL	0.15-0.45	A-2-4(0)	14	NP	47.6	37.9	8.4		6.1	100	81	17	
S-349	136+00	CL	1.52-1.93	A-2-4(0)	33	16	25.3	34.0	15.5		25.2	96	74	19	
S-350	136+00	CL	3.14-3.51	A-2-4(0)	22	NP	51.3	37.6	2.9		2.1	99	68	17	

BM #9 RR SPIKE IN BASE OF 800mm (32") PINE
45.7537 LT OF -BL- STA.51+28.360

REVISED GRADE

STONEY CREEK

V. SOFT BRN SDY SILT, WET (ALLUVIUM)

Existing Ground At -L-

LOOSE TAN FINE TO COARSE SAND, MOI TO SAT

VERY LOOSE ORANGE BRN F CSE SAND, SAT

LOOSE TO MED DENSE CLY F-CSE SAND, MOI TO SAT

MED DENSE BRN FINE TO COARSE SAND

LITTLE OF HARD DARK GRAY SDY CLAY, MOI

MEDIUM DENSE GRAY F-CSE. SAND, SAT

VERY STIFF SILTY F SDY CLAY, WET

TO DENSE GRAY TO CSE SAND

LIGNITE (BLACK CREEK FM)

GRAY SILTY CLAY, MOI

TO DENSE DARK GRAY F-CSE SAND, SAT

TO HARD GRAY

BM #10 RR SPIKE IN BASE OF 460mm (18") OAK
62.4392 LT OF -BL- STA.54+93.003

PI = 136+90.124
EL = 36.826 m
VC = 200 m
K = 1000

+0.6000%

+0.4000%

+0.4000%

35.995

36.375

37.325

37.665

+80 132 +20 +40 +60 +80 133 +20 +40 +60 +80 134 +20 +40 +60 +80 135 +20 +40

+40 +60 +80 136 +20 +40 +60 +80 137 +20 +40 +60 +80 138 +20 +40 +60 +80 139

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	41
ROADWAY DESIGN ENGINEER	HYDRA_____ ENGINEER

METRIC

5 0 10

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS	LL	PI	% PASSING #10	% PASSING #40	% PASSING #200	MOISTURE CONTENT (%)	% PASSING (SIEVE) 3"	% PASSING (SIEVE) #4	% PASSING (SIEVE) #10	% PASSING (SIEVE) #40	% PASSING (SIEVE) #200	GROUP INDEX	ORGANIC
SS101	139+20	LT	0.0-1.0ft	A-2-4(0)	22	NP	82.7	71.4	10.2	10.2	100	97	83	51	13	0	
SS102	139+40	LT	0.0-1.0ft	A-2-4(0)	20	NP	83.5	73.3	9.1	10.2	100	98	84	52	13	0	
SS103	139+60	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS104	139+80	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS105	140+00	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS106	140+20	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS107	140+40	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS108	140+60	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS109	140+80	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS110	141+00	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS111	141+20	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS112	141+40	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS113	141+60	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS114	141+80	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS115	142+00	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS116	142+20	LT	0.0-1.0ft	A-2-4(0)	20	NP	84.6	74.8	9.1	10.3	100	98	85	53	13	0	
SS117	142+40	LT	0.0-1.0ft	A-7-6(11)	49	28	99.3	96.6	94.1	20.1	100	100	99	97	87	17	

-L- Sta. 139+00.000 = -Y8RPC- Sta. 10+00.000

-L- Sta. 142+40.000 = Y8RPB Sta. 10+00.000

BM #11 RR SPIKE IN BASE OF 360mm (14") GUM
144.126m LT OF -BL- STA 80+98.883 EL. 37.445m

BEG SPLIT BASE DITCH RT. STA 139+00.000 EL. 38.665

END LAT. BASE DITCH RT. STA 142+60.000 EL. 36.783

BEG SPLIT DITCH RT. STA 139+60.000 EL. 37.960

END SPLIT DITCH RT. STA 140+80.000 EL. 38.429

BEG SPLIT DITCH LT. STA 139+60.000 EL. 37.960

END SPLIT DITCH LT. STA 140+80.000 EL. 38.429

BEG SPLIT DITCH RT. STA 141+60.000 EL. 38.429

END SPLIT DITCH RT. STA 142+60.000 EL. 38.429

BEG SPLIT DITCH LT. STA 141+60.000 EL. 38.429

END SPLIT DITCH LT. STA 142+60.000 EL. 38.429

BEG MED. OUT DITCH STA 139+00.000 EL. 38.665

END MED. OUT DITCH STA 142+60.000 EL. 38.783

BEG SPLIT DITCH RT. STA 145+60.000 EL. 38.429

END SPLIT DITCH RT. STA 146+60.000 EL. 38.429

BEG SPLIT DITCH LT. STA 145+60.000 EL. 38.429

END SPLIT DITCH LT. STA 146+60.000 EL. 38.429

BEG MED. OUT DITCH STA 145+00.000 EL. 38.429

END MED. OUT DITCH STA 146+00.000 EL. 38.429

+0.400% -0.900% -0.750%

Existing Ground -L-

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	42
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER

METRIC

5 0 10

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

Soil Sample Test Results

-L-

BM #12 RR SPIKE IN BASE OF 300mm (12") GUM
68.72 m RT OF -RL- STA 67+15.366

107500K

Ⓐ VERY SOFT BROWN SANDY SILT MOIST TO WET

VERY LOOSE TO MEDIUM DENSE TAN GRAY SILTY CLAYEY SAND, WET TO SAT

Existing Ground At -L-

Ⓑ VERY LOOSE BROWN MODERATELY ORGANIC SILTY SAND, SAT

VERY LOOSE TO MEDIUM DENSE GRAY SILTY CLAYEY SAND, SAT

P.I. = 152+17.370
EL = 35.268 m
VC = 200 m
K = 151

STA. 152+90 -L-
END STATE ORDER
225 CU.M.

REEDY BRANCH

Existing Ground At -L-

15-AUG-2006 14:43
I:\ero\greenville investigation\tip\r-2554ba\cadd.original\roadway\pro\r2554b_rdy_pf1.dgn
jlistone
AT GEO226153

METRIC

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 4/3

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

5 0 10

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

L2RPA

PI = 0+30.000
EL = 47.141 m
VC = 40 m
K = 133

Begin Grade
-L2RPA- Sta. 0+00.000=
-L- Sta. 98+17.208
Elev. 47.411

-0.9000%

-1.2000%

-1.2000%

43.181

Existing Ground At L2RPA

SOFT BROWN SOFT TO LOOSE

CLAYEY FINE SANDY SILT MOI. MEDIUM STIFF TAN BROWN TO MEDIUM DENSE TAN-WHITE

SILTY SDY CLAY AND CLY F SDY SILT, MOI. F-CSE SAND, SAT

LOOSE GRAY CLY SAND W/ SHELLS, SOFT TO MED. STIFF SILTY SDY CLAY AND CLY, F SDY SILT, SAT TO WET

LOOSE GRAY CLY F-CSE SAND W/ SHELLS, SAT

V. STIFF TO HARD DARK BROWN SILTY CLAY, WET (BLACK CREEK FM)

PI = 3+97.330
EL = 42.733 m
VC = 80 m
K = 44

PI = 5+00.000
EL = 39.653 m
VC = 120 m
K = 32

PI = 6+18.000
EL = 40.479 m
VC = 50 m
K = 121

End Grade
-L2RPA- Sta. 6+55.760=
-L2- Sta. 95+25.20
Elev. 40.587

-1.2000%

-3.0000%

-3.0000%

+0.7000%

+0.2851%

Existing Ground At L2RPA

SOFT TAN CLY

SDY SILT

VERY LOOSE TO MEDIUM GRAY BROWN

STIFF GRAY BRN SILTY SDY CLAY

SILTY F. SAND, MOI

LOOSE TO MED. DENSE TAN GRAY F.-CSE SAND, SAT

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	425μm	75μm	% MOISTURE	% ORGANIC
SS-141	1+60	CL	0.00-0.45	A-4(0)	13	NP	15.8	42.2	27.7	12.3	100	96	83		
SS-142	1+60	CL	0.91-1.21	A-4(0)	20	7	22.4	37.6	19.6	20.2	100	93	85		
SS-143	1+60	CL	1.52-1.97	A-2-6(1)	28	11	32.1	44.9	8.6	23.2	100	97	81		
SS-144	1+60	CL	2.59-3.13	A-1-b(0)	25	6	50.2	34.1	4.4	11.3	97	56	36		
SS-145	1+60	CL	5.73-6.18	A-1-b(0)	20	NP	77.9	16.4	2.7	3.0	97	38	7		
SS-146	1+60	CL	7.25-7.70	A-6(1)	30	13	30.9	38.8	22.2	8.2	97	80	56		
SS-147	1+60	CL	8.78-9.23	A-2-6(0)	30	11	49.2	29.5	10.7	10.7	85	53	22		
SS-148	1+60	CL	10.30-10.7	A-2-6(1)	22	NP	22.7	51.3	6.4	10.1	95	84	46		
SS-149	3+20	CL	0.00-0.45	A-4(0)	18	5	5.0	25.3	45.6	24.1	100	98	79		
SS-150	3+20	CL	0.76-1.21	A-6(14)	30	15	4.0	24.5	39.4	32.1	100	99	89		
SS-151	3+20	CL	2.58-3.13	A-2-6(0)	20	NP	70.9	14.7	4.3	10.0	100	63	35		
SS-152	3+20	CL	4.81-4.66	A-1-b(0)	18	NP	57.	21.0	4.9	7.8	81	39	11		
SS-153	3+20	CL	5.73-6.18	A-6(11)	30	15	14.2	27.7	44.0	14.0	99	88	73		

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	44

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

5 0 10

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

L2RPB

PI = 0+70.000
EL = 41.105 m
VC = 70 m
K = 62

PI = 1+50.000
EL = 42.705 m
VC = 55 m
K = 55

PI = 3+00.000
EL = 47.955m
VC = 200 m
K = 33

Begin Grade
-L2RPB- Sta. 0+00.000 =
-L2RPBD- Sta. 3+20.000
Elev. 40.496

40.496

+0.8700%

+2.0000%

+2.0000%

+3.0000%

REVISED GRADE

+3.0000%

-2.5000%

REVISED GRADE

46.285
46.215

VERY SOFT GRAY BROWN CLY. & SANDY SILT, MOI

MEDIUM

Existing Ground At L2RPB

2/03

MOI VERY STIFF RED AND GRAY

2/03

LOOSE TAN BROWN SILTY F-CSE SAND, MOI

2/03

SANDY CLAY, MOI TO WET

2/03

LOOSE TO MED. DENSE TAN BRN F-CSE SAND AND CLY. SAND, SAT

~~PI = 3+00.000~~
~~EL = 47.205 m~~
~~VC = 200~~
~~K = 36~~

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

49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34

PI = 5+00.000
EL = ~~42.205~~ 42.365 m
VC = 100 m
K = ~~100~~ 67

PI = 6+40.000
EL = ~~37.205~~ 37.355 m
VC = 180 m
K = ~~65~~ 55

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CL. SS.	L.L.	P.I.	% BY WEIGHT C SAND	F SAND	SILT	CLAY	% PASSING SIEVES 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
SS-120	2+30	CL	0.30-0.76	A-6(7)	39	20	18.6	29.1	13.9	38.4	100	91	58	22.3	
SS-121	2+80	CL	0.52-1.07	A-2-6(0)	29	19	40.2	16.6	2.0	7.2	98	53	20		
SS-122	2+80	CL	4.21-4.66	A-2-6(0)	27	12	65.1	16.2	4.6	14.1	98	49	20		
SS-123	3+00	CL	2.93-3.18	A-1-b(0)	26	-	88.9	10.7	2.3	8.1	98	38	9		
S-59	5+00	CL	0.30-0.76	A-2-4(0)	13	NP	58.3	32.0	4.6	5.1	100	69	16		
S-60	5+00	CL	1.56-1.37	A-2-4(0)	21	3	58.2	29.9	3.9	8.1	100	72	20		
S-61	5+00	CL	1.37-2.59	A-6(11)	58	23	4.3	37.5	25.1	33.7	100	96	61		
S-62	5+00	CL	2.59-3.81	A-2-4(15)	44	24	6.8	34.5	23.9	36.3	100	98	68		

REVISED GRADE

-2.5000%

-3.5000%

46.215
45.985

VERY LOOSE TO LOOSE TAN BRN F-CSE. SAND, MOI TO SAT

6/03

MEDIUM

Existing Ground At L2RPB

2/03

STIFF

2/03

TO STIFF RED AND GRAY BROWN SILTY F. SDY. CLAY, MOI

6/03

TO WET

-5000%

-0.7400%

MED. AND DENSE PINK TAN F-CSE SAND, SAT

2/03

-L2RPB- Sta. 5+94.471 =
-Y- Sta. 15+12.054

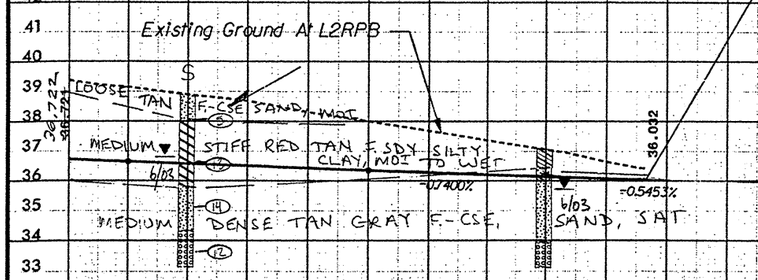
MED DENSE GRAY F-CSE SAND, SAT

36.285
36.215

47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26

+60 +80 4 +20 +40 +60 +80 5 +20 +40 +60 +80 6 +20 +40 +60 +80 7 +20

L2RPB



End Grade
-L2RPB- Sta. 8+16.590 =
-L2RPDB- Sta. 12+79.917
Elev. 31.563

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	.85µm	.75µm	% MOISTURE	% ORGANIC
SS-561	7+40	CL	0.50-1.21	A-7-6(15)	44	28	16.2	26.0	29.4	30.4	100	92	63		
SS-562	7+40	CL	2.29-2.74	A-2-6(23)	40	20	3.9	21.7	29.7	44.7	100	99	79		
SS-563	7+40	CL	3.81-4.26	A-2-4(0)	29	5	63.8	22.7	3.3	11.2	93	51	14		
SS-564	7+40	CL	5.33-5.78	A-1-b(0)	22	NP	84.1	10.1	4.7	5.1	90	34	6		

+20 +40 +60 +80 8

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	416
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

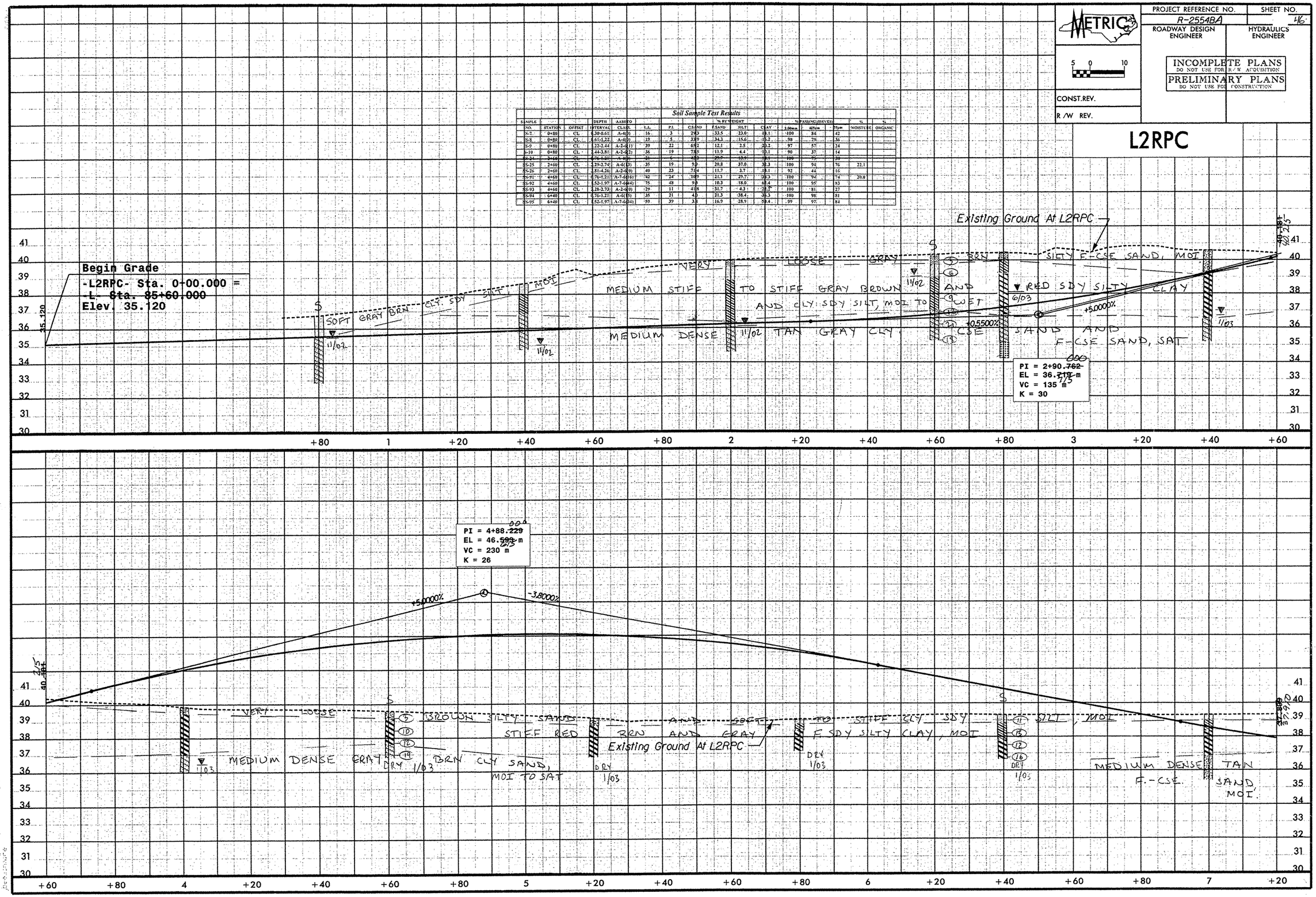
CONST.REV.

R/W REV.

L2RPC

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY	% PASSING (SIEVE) 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
S-7	0+80	CL	(.30-0.61	A-4(0)	16	3	29.3	33.5	23.0	19.1		100	84	42		
S-8	0+80	CL	0.61-1.22	A-4(0)	19	5	33.9	34.3	15.6	15.2		98	79	36		
S-9	0+80	CL	1.22-2.44	A-2-6(1)	39	22	6.2	12.1	2.5	23.2	54.0	97	57	24		
S-10	0+80	CL	2.44-3.81	A-2-6(2)	36	19	7.8	11.9	4.4	31.1	44.8	90	37	14		
S-24	2+60	CL	0.76-1.37	A-4(0)	21	6	10.2	29.6	10.9	19.1	30.2	100	75	30		
S-25	2+60	CL	1.29-2.74	A-6(13)	35	19	9.2	20.8	37.0	32.3	0.7	100	94	76	22.1	
S-26	2+60	CL	2.81-4.26	A-2-6(0)	40	23	7.4	11.7	3.7	18.1	59.1	92	44	16		
S-91	4+60	CL	0.70-1.21	A-7-6(46)	42	24	1.0	2.1	29.7	29.3	38.0	100	94	74	20.8	
S-92	4+60	CL	1.52-1.97	A-7-6(44)	75	48	9.2	10.3	18.0	62.4		100	95	83		
S-93	4+60	CL	2.28-2.73	A-2-6(0)	29	11	41.8	31.7	4.3	22.2		100	81	27		
S-94	6+40	CL	0.76-1.21	A-6(15)	38	21	4.0	21.3	38.4	36.3		100	98	81		
S-95	6+40	CL	1.52-1.97	A-7-6(34)	59	39	3.8	16.9	28.9	50.4		99	97	84		



METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	47

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.

L2RPC

7+52.000

PI = ~~7+51.720~~ 80.3

EL = 36.~~580~~ m

VC = 120 m

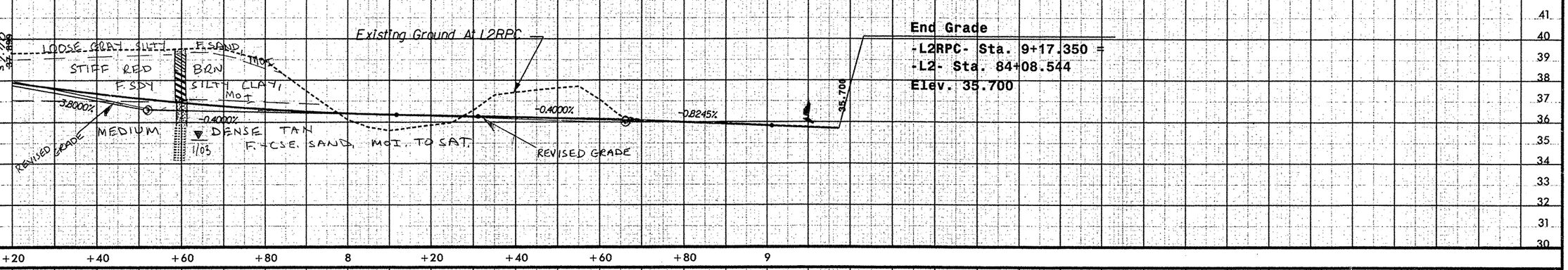
K = 35

PI = 8+66.~~120~~ 070

EL = 36.~~122~~ 125 m

VC = 70 m

K = ~~165~~ 166



METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	48

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.

L2RPD

Begin Grade
-L2RPD- Sta. 0+00.000=
-L2RPDB- Sta. 3+13.291
Elev. 39.801

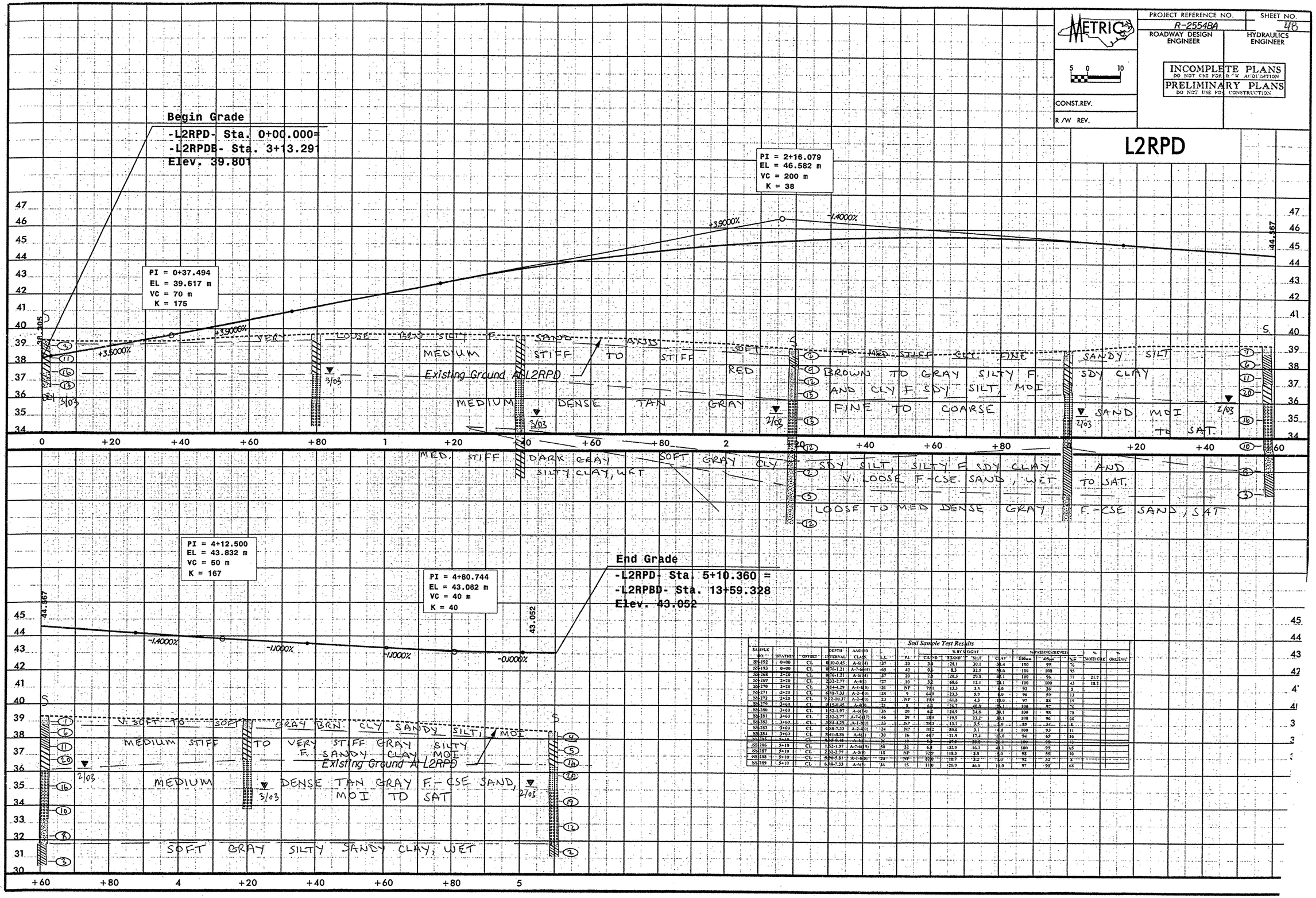
PI = 0+37.494
EL = 39.617 m
VC = 70 m
K = 175

PI = 2+16.079
EL = 46.582 m
VC = 200 m
K = 38

PI = 4+12.500
EL = 43.832 m
VC = 50 m
K = 167

PI = 4+80.744
EL = 43.082 m
VC = 40 m
K = 40

End Grade
-L2RPD- Sta. 5+10.360 =
-L2RPBD- Sta. 13+59.328
Elev. 43.052



Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	% BY WEIGHT PI	C.S.&D	SAND	SILT	CLAY	% PASSING SIEVES #200	#40	#10	% MOISTURE	% ORGANIC
SS-192	0+00	CL	0.50-0.45	A-6(10)	37	20	3.8	28.1	20.1	38.4	100	99	74		
SS-193	0+00	CL	9.76-1.21	A-7-6(41)	45	40	0.2	8.3	32.5	59.0	100	100	95		
SS-268	2+20	CL	0.76-1.21	A-6(14)	37	20	7.8	20.3	29.5	42.1	100	96	77	21.7	
SS-269	2+20	CL	2.32-2.77	A-4(1)	27	10	3.2	60.6	12.1	24.1	100	100	43	18.2	
SS-270	2+20	CL	3.84-4.29	A-1-b(0)	21	NP	79.1	13.3	3.5	4.0	92	36	3		
SS-271	2+20	CL	6.88-7.33	A-2-4(0)	24	9	64.8	23.3	5.7	6.0	96	59	13		
SS-272	2+20	CL	9.22-10.37	A-2-4(0)	23	NP	19.9	61.8	4.3	14.0	97	88	19		
SS-279	3+60	CL	0.15-0.45	A-4(8)	21	8	6.8	26.7	40.5	26.1	100	97	76		
SS-280	3+60	CL	1.52-1.97	A-6(14)	35	20	6.2	24.9	34.8	34.1	100	98	78		
SS-281	3+60	CL	2.32-2.77	A-7-6(17)	46	29	18.9	19.9	33.2	28.1	100	96	66		
SS-282	3+60	CL	3.84-4.29	A-1-b(0)	23	NP	76.3	13.1	3.5	7.0	89	34	8		
SS-283	3+60	CL	6.88-7.33	A-2-4(0)	24	NP	11.2	80.6	3.1	5.0	100	93	11		
SS-284	3+60	CL	8.41-8.86	A-6(1)	30	16	4.7	21.9	17.4	16.0	94	65	36		
SS-285	5+10	CL	0.15-0.45	A-6(1)	36	18	5.2	29.0	26.0	20.1	100	90	53		
SS-286	5+10	CL	1.52-1.97	A-7-6(19)	50	32	6.8	33.9	16.1	43.1	100	99	65		
SS-287	5+10	CL	2.32-2.77	A-3(0)	18	NP	72.9	18.3	3.5	5.0	95	55	10		
SS-288	5+10	CL	5.36-5.81	A-1-b(0)	20	NP	82.0	10.7	3.2	4.0	92	32	5		
SS-289	5+10	CL	6.88-7.33	A-4(1)	26	15	11.0	26.9	46.0	16.0	97	90	68		

METRIC

5 0 10

PROJECT REFERENCE NO. R-2554B A | SHEET NO. 49

ROADWAY DESIGN ENGINEER

OK

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R /W REV.

L2RPBD

Begin Grade
-L2RPBD- Sta. 0+00.000 =
-L2- Sta. 96+70.000
Elev. 41.021

-L2RPBD- Sta. 3+20.00 =
-L2RPB- Sta. 0+00.000

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	LL	PI	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVES) #10	#40	#200	% MOISTURE	% ORGANIC
S-219	2+40	CL	0.30-0.91	A-4(0)	16	NP	17.5	37.0	32.5	12.1	100	89	53	-	-
S-220	2+40	CL	0.91-1.80	A-4(0)	17	NP	21.3	45.0	26.6	8.0	100	87	44	-	-

PI = 0+70.000
EL = 40.811 m
VC = 100 m
K = 196

PI = 2+20.000
EL = 39.596 m
VC = 195 m
K = 114

PI = 4+20.000
EL = 41.396 m
VC = 150 m
K = 71

-0.3000%
-0.8100%
-0.8100%
+0.9000%
+0.9000%
+3.0000%
+3.0000%

41.021
40.872
50.217

Existing Ground At L2RPBD

SOFT GRAY SANDY SILT, MOI
GRAY SANDY SILT, MOI
MEDIUM STIFF GRAY BROWN SILTY SANDY CLAY, MOI TO WET
SOFT GRAY BRN CLY
SDY. SILT, MOI
LOOSE BRN SILTY FINE SAND, MOI
MEDIUM STIFF RED AND YEL BRN SILTY F SDY CLAY, MOI TO WET
LOOSE TO MED DENSE TAN PINK AND ORANGE F-CSE SAND, SAT
SOFT GRAY F SDY SILTY CLAY, WET

6/03 5/03 6/03 2/03 4/03 6/03 1/03 1/03

3m RT 6m RT 9m RT

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

+60 +80 4 +20 +40 +60 +80 5 +20 +40 +60 +80 6 +20 +40 +60 +80 7 +20

42 41 40 39 38 37 36 35 34 33 32 31 30

11/6/2002
jf: Jones GEOTECH dgn: C:\SCPTwin\Geotechdgns\

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	50
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.

L2RPBD

PI = 7+73.000
EL = 51.986 m
VC = 180 m
K = 38

+3.0000% -1.7000%

50.217

-L2RPBD- Sta. 8+00.816=
-L- Sta. 90+62.554

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	EL.	PI	% BY WEIGHT CSAND	FSAND	SILT	CLAY	% PASSING SIEVES 2.00mm	425µm	75µm	MOISTURE	% ORGANIC
SS-239	8+20	CL	0.76-1.21	A-6(5)	31	16	5.7	35.9	23.7	34.7	100	98	75		
SS-240	8+20	CL	2.29-2.74	A-6(4)	31	16	7.6	48.8	12.9	30.6	100	98	68		
SS-241	8+20	CL	3.81-4.26	A-2-4(0)	29	NP	62.3	28.3	2.7	7.0	99	63	21		
SS-242	8+20	CL	6.86-7.31	A-3(0)	28	NP	65	30.1	0.7	3.9	100	92	6		
SS-243	8+20	CL	9.91-10.36	A-2-6(1)	36	20	61.9	14.9	7.9	15.3	98	52	25		
SS-244	8+20	CL	11.43-11.80	A-6(11)	38	19	4.1	35.1	41.8	18.4	100	98	59		
SS-245	8+20	CL	12.95-13.40	A-7-6(23)	49	24	3.2	14.9	28.8	53.1	100	98	87		
SS-246	8+20	CL	16.40-16.45	A-7-6(26)	48	25	2.4	10.0	32.4	55.1	100	99	93		
SS-247	10+60	CL	0.15-0.45	A-4(3)	23	8	5.5	33.5	36.5	24.5	100	98	71		
SS-248	10+60	CL	1.22-1.97	A-6(11)	38	22	5.1	28.4	31.8	34.7	100	98	75		
SS-249	10+60	CL	3.78-4.23	A-3(0)	22	NP	67.8	26.5	2.3	4.0	100	65	8		
SS-250	10+60	CL	8.15-8.89	A-6(7)	36	14	9.8	37.1	38.8	14.3	100	95	54		
SS-251	10+60	CL	11.10-11.85	A-2-6(0)	32	11	68.3	17.4	4.1	10.2	99	36	14		
SS-252	10+60	CL	12.52-13.37	A-7-6(24)	42	25	2.4	10.8	43.9	42.9	100	98	84		
SS-261	11+60	CL	0.76-1.31	A-6(8)	36	21	4.2	30.5	36.4	28.9	100	98	73		
SS-262	11+60	CL	2.26-2.71	A-6(0)	35	17	5.2	46.5	16.1	32.1	100	99	54		
SS-263	11+60	CL	3.80-4.25	A-1-b(0)	21	NP	78.3	13.2	3.2	5.3	94	39	9		
SS-264	11+60	CL	6.83-7.28	A-2-6(0)	29	12	59.2	19.3	11.1	10.0	94	51	22		
SS-265	11+60	CL	11.00-11.85	A-2-4(0)	23	NP	16.2	71.2	6.3	6.0	99	90	33	31.0	
SS-266	11+60	CL	12.52-13.37	A-7-6(16)	42	19	7.2	16.9	43.8	32.1	100	95	83		
SS-267	11+60	CL	15.57-16.12	A-2-4(0)	20	NP	47.7	37.9	8.3	6.0	100	93	46		
SS-285	13+60	CL	0.15-0.45	A-4(5)	26	10	5.2	27.9	38.8	28.1	100	98	73		
SS-286	13+60	CL	1.22-1.97	A-7-6(19)	50	32	6.5	32.9	16.1	44.1	100	99	65		
SS-287	13+60	CL	2.52-2.77	A-3(0)	18	NP	72.9	18.3	3.8	5.0	98	55	10		
SS-288	13+60	CL	5.56-5.81	A-1-b(0)	20	NP	82.0	10.7	3.2	4.0	92	32	8		
SS-289	13+60	CL	6.35-7.33	A-6(9)	36	15	11.8	26.9	46.0	10.9	97	90	58		

-17.000%

46.767

SOFT TO MED. STIFF BRN TAN CLY. FINE SANDY SILTY GRAY BR FINE SANDY

Existing Ground At L2RPBD

MEDIUM STIFF TO STIFF

LOOSE TO MED DENSE GRAY F-CSE SAND, MOI TO SAT.

CLAY, MOI TO WET

1/03 2/03 1/03 1/03 2/03

+20 +40 +60 +80 8 +20 +40 +60 +80 9 +20 +40 +60 +80 10 +20 +40 +60 +80

-L2RPBD- Sta. 11+09.326=
-L2- Sta. 87+73.739

46.781

VERY SOFT TO MED STIFF GRAY F SDY AND SILTY CLAY, WET

VERY STIFF TO HARD GRAY BRN SILTY CLAY, MOI

PI = 13+38.690
EL = 42.369 m
VC = 200 m
K = 70
(BLACK CREEK FM)

-L2RPBD- Sta. 13+59.328=
-L2RPD- Sta. 5+10.361

MED DENSE GRAY CLY SD, SAT

43.539

-1.7000% +1.1542%

Ⓐ MED. DENSE GRAY F SAND W/SHELLS, SAT
Ⓑ HARD GRAY SILTY CLAY, WET
Ⓒ V. DENSE GRAY F.-CSE SAND, SAT

SOFT TAN GRAY F SDY SILTY CLAY AND CLY F SDY SILT, MOI

MEDIUM STIFF TO VERY STIFF TAN GRAY SILTY F SDY CLAY MOI

Existing Ground At L2RPBD

LOOSE TO MED. DENSE TAN F.-CSE. SAND, SAT

LOOSE GRAY CLY SAND, SAT

MEDIUM DENSE TO DENSE TAN FINE TO COARSE SAND, MOI TO SAT

V. SOFT GRAY BRN SILTY CLAY (ALLUVIUM)

SOFT GRAY F SDY SILTY CLAY, WET

2/03 2/03 2/03 7/03

+80 11 +20 +40 +60 +80 12 +20 +40 +60 +80 13 +20 +40 +60 +80 14 +20 +40

METRIC

5 0 10

PROJECT REFERENCE NO. R-2554B A | SHEET NO. 51

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

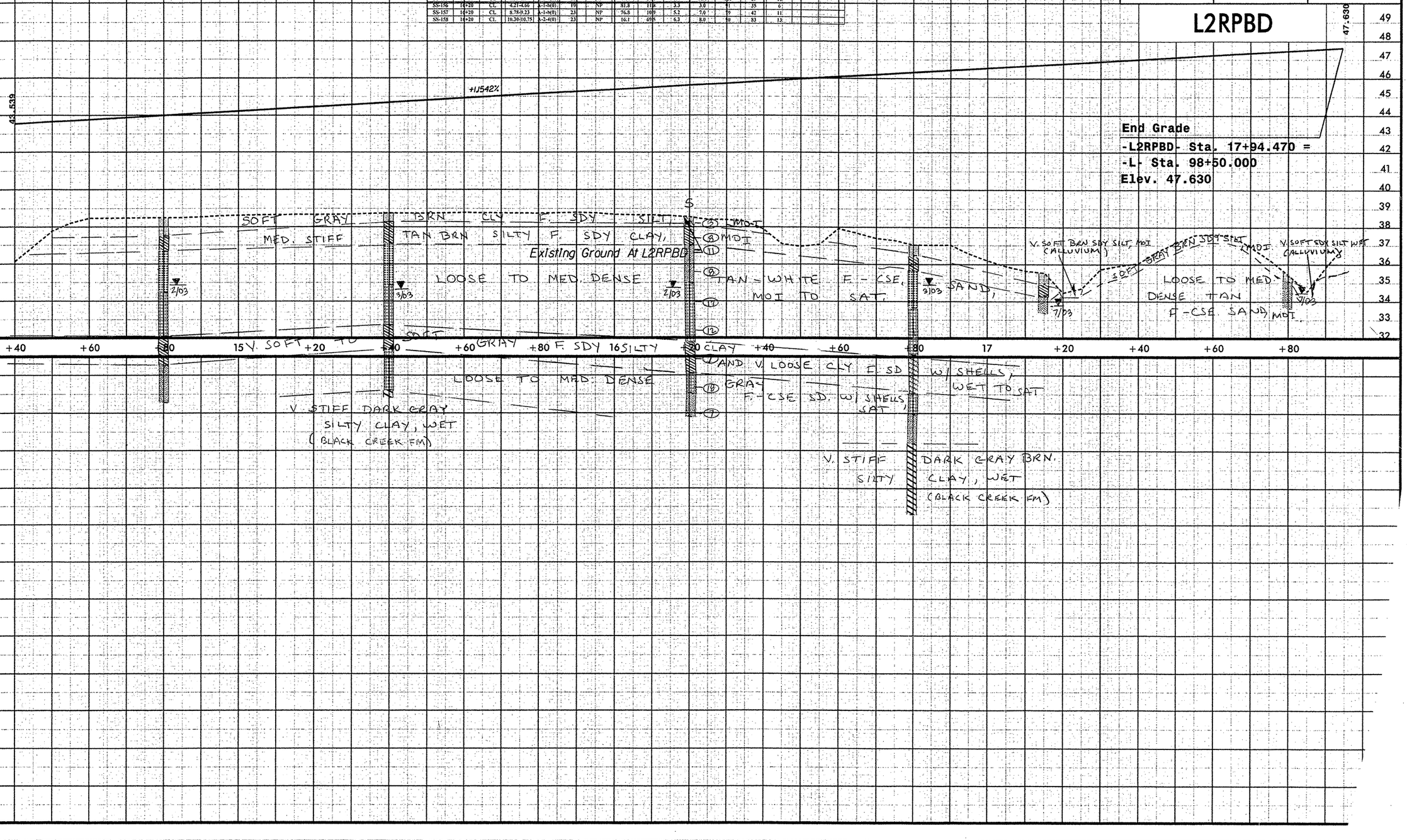
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R /W REV.

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) #200	#100	#50	% MOISTURE	% ORGANIC
SS-154	16+20	CL	0.76-1.21	A-6(3)	25	12	8.6	42.5	26.8	22.1	100	98	56		
SS-155	16+20	CL	1.52-1.97	A-2-4(0)	22	NP	47.4	37.1	3.4	12.0	100	89	16		
SS-156	16+20	CL	4.27-4.66	A-1-b(0)	19	NP	81.9	11.6	3.3	3.0	91	35	6		
SS-157	16+20	CL	8.78-9.23	A-1-b(0)	23	NP	76.8	10.5	5.2	7.0	79	42	11		
SS-158	16+20	CL	10.36-10.75	A-2-4(0)	23	NP	16.1	69.5	6.3	8.0	90	33	12		



METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	52

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

5 0 10

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

CONST.REV.

R /W REV.

L2RPDB

-L2RPDB- Sta. 3+13.291 =
-L2RPD- Sta. 0+00.000

Begin Grade
-L2RPDB- Sta. 0+00.000 =
-L2- Sta. 8+22.227
Elev. 33.332

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L	P.I.	% BY WEIGHT CSAND	FSAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
S-170	2+40	CL	0.31-1.07	A-6(13)	40	24	8.3	33.3	24.2	32.3	100	97	65		
S-171	2+40	CL	1.07-3.05	A-7-6(50)	75	47	0.6	14.5	32.3	52.5	100	100	92		
SS-273	2+80	CL	0.76-1.21	A-7-6(17)	41	22	2.2	24.3	35.4	36.9	100	99	79		
SS-274	2+80	CL	3.84-4.29	A-2-4(0)	32	NP	56.6	20.2	5.3	6.0	95	55	13		
SS-275	2+80	CL	6.55-7.34	A-2-4(0)	25	8	58.4	16.9	6.7	8.0	95	60	17		
SS-276	2+80	CL	9.94-10.39	A-2-4(0)	27	7	22.9	51.6	9.5	16.0	91	80	24		
SS-277	2+80	CL	12.98-13.43	A-2-4(0)	25	8	33.3	47.5	9.1	14.0	87	69	22		
SS-278	2+80	CL	14.54-14.96	A-6(15)	38	21	8.2	22.1	33.0	36.5	100	96	79		
SS-281	2+15	CL	0.30-0.45	A-4(5)	23	10	6.0	24.8	35.0	32.2	100	97	77		
SS-202	2+15	CL	0.76-1.21	A-6(9)	27	14	4.0	24.5	35.2	36.2	100	98	80		
SS-203	2+15	CL	2.29-2.73	A-7-6(31)	54	35	3.8	15.1	26.8	50.5	100	98	85		
SS-204	2+15	CL	3.81-4.26	A-1-b(0)	20	NP	81.3	12.1	1.6	4.0	98	44	6		
SS-205	2+15	CL	6.86-7.31	A-2-4(0)	25	10	56.3	21.1	11.5	10.1	83	49	20		
SS-206	2+15	CL	8.38-8.83	A-6(7)	34	16	11.1	40.8	36.0	12.0	100	94	59		
SS-207	2+15	CL	9.90-10.35	A-6(5)	31	12	9.1	43.0	34.0	14.0	100	95	56		
SS-208	2+15	CL	12.94-13.34	A-2-4(0)	33	15	49.3	24.4	16.3	8.0	92	58	24		
SS-209	2+15	CL	14.47-14.92	A-2-4(0)	20	NP	55.9	36.6	3.4	10.1	98	70	16		
SS-210	2+15	CL	15.99-16.44	A-6(8)	31	14	2.6	47.7	19.7	30.2	100	99	70		
SS-211	2+15	CL	17.52-17.97	A-7-6(37)	59	36	3.0	7.2	35.4	54.3	100	98	93	23.0	
SS-212	2+15	CL	20.56-21.01	A-7-6(14)	41	20	2.0	31.6	39.2	24.1	100	99	74		

Existing Ground At L2RPDB

SPOIL
VERY LOOSE BRN SILTY FINE SAND, AND SOFT
STIFF RED BRN TO GRAY F. SDY AND
LOOSE TO MED. DENSE TAN FINE TO COARSE SAND, MOI.
SILTY CLAY, MOI.
SDY SILT, MOI

+0.8000%
+0.0868%
+0.1000%
+0.1000%
+0.0868%
+3.5000%

PI = 0+50.206
EL = 33.704 m
VC = 60 m
K = 86

PI = 1+86.670
EL = 33.870 m
VC = 140 m
K = 41

MED STIFF YEL BRN SILTY CLAY, WET

DRY 4/03
DRY 3/03
DRY 3/03

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L	P.I.	% BY WEIGHT CSAND	FSAND	SILT	CLAY	% PASSING SIEVES 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
SS-192	3+13	CL	0.30-0.45	A-6(13)	37	20	3.4	28.1	30.1	38.4	100	99	76		
SS-193	3+13	CL	0.76-1.21	A-7-6(44)	55	40	0.6	8.3	32.5	58.6	100	100	95		

-L2RPDB- Sta. 5+63.595 =
-L2- Sta. 86+57.06

PI = 5+00.000
EL = 44.840 m
VC = 280 m
K = 350

+3.5000%
+2.7000%

Existing Ground At L2RPBD

(A) LOOSE TO MED. DENSE GRAY CLY F-CSE SAND W/SHELLS, SAT
(B) V. STIFF TO HARD DARK BROWN F. SDY SILTY CLAY, WET
(C) V. LOOSE TO LOOSE GRAY SILTY SAND, SAT
(D) V. DENSE GRAY F-CSE SAND, SAT (BLACK CREEK FM.)
(E) V. STIFF TO HARD GRAY SILTY AND F. SDY CLAY, WET (BLACK CREEK FM.)

MED. STIFF TAN BRN CLY SDY SILT MOI
VERY STIFF TAN GRAY F SDY SILTY CLAY, MOI
MEDIUM DENSE TAN F.-CSE SAND, MOI. TO SAT.
V. LOOSE GRAY CLY SD. W/SHELLS, WET
STIFF TAN F. SDY SILTY CLAY, MOI
MED DENSE TAN F-CSE SAND, SAT
SOFT TO MED STIFF GRAY SILTY F SDY CLAY, WET
MED STIFF TAN F.SDY CLY SILT, MOI
STIFF TAN SILTY CLAY MOI
MED DENSE TAN F-CSE SAND, SAT
SOFT TO MED STIFF GRAY F SDY SILTY CLAY, WET

DRY 3/03
2/03
6/03
WET 6/03

39.940
50.780

L2RPDB

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	53
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.

+27000%

-4.3000%

50.780

53.598

53.640

53.598

53.590

39.420

PI = 10+00.000
EL = 58.340 m
VC = 400 m
K = 59

-L2RPDB- Sta. 10+03.224 =
-L- Sta. 89+04.195

-L2RPDB- Sta. 10+54.243 =
-Y- Sta. 14+63.775

-L2RPDB- Sta. 12+79.917
-L2RPB- Sta. 8+16.598

Existing Ground At L2RPBD

Existing Ground At L2RPBD

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	LL	PI	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
SS-533	9+20	Cl.	1.20-1.68	A-7-6(27)	61	44	11.0	2.1	19.8	42.2	100	94	66		
SS-534	9+20	Cl.	2.58-3.03	A-6(3)	34	17	2.6	68.3	11.0	26.1	100	99	42		
SS-535	9+20	Cl.	4.10-4.55	A-1-b(0)	21	NP	73.6	19.1	1.3	6.0	97	41	7		
SS-536	9+20	Cl.	11.72-12.1	A-2-6(1)	38	19	57.1	14.4	8.4	16.1	98	55	24		
SS-537	9+20	Cl.	14.77-15.2	A-7-6(30)	52	30	2.0	8.6	41.1	48.2	100	99	92		
SS-538	9+20	Cl.	19.34-19.7	A-3(0)	21	NP	36.2	58.8	4.0	4.0	100	87	10		
SS-129	9+60	Cl.	0.30-0.45	A-2-4(0)	44	NP	49.2	38.5	8.3	7.1	100	73	19		
SS-130	9+60	Cl.	1.52-1.97	A-7-6(25)	59	36	11.7	23.6	20.2	44.4	100	93	71		
SS-131	9+60	Cl.	4.16-4.61	A-1-b(0)	22	NP	77.9	18.9	2.1	5.1	95	44	8		
SS-132	9+60	Cl.	9.19-9.64	A-3(0)	19	NP	76.0	21.9	1.6	0.5	100	80	3		
SS-133	11+40	Cl.	1.22-1.67	A-7-6(7)	42	26	22.6	37.4	17.8	22.2	100	89	46		
SS-134	11+40	Cl.	2.59-3.04	A-1-b(0)	23	NP	76.8	15.8	1.4	6.1	97	39	7		
SS-135	11+40	Cl.	10.21-10.6	A-6(4)	31	12	5.3	45.7	32.1	16.9	89	57	25		
SS-539	11+40	Cl.	10.58-11.0	A-2-4(0)	20	NP	8.3	64.9	18.7	8.1	100	97	32		
SS-540	11+40	Cl.	13.02-13.4	A-3(0)	17	NP	78.1	18.3	2.5	4.1	100	64	8		
SS-541	11+40	Cl.	16.07-16.5	A-7-6(36)	56	39	2.2	17.8	43.4	36.5	100	99	88		
SS-542	11+40	Cl.	19.11-19.5	A-7-6(16)	41	26	2.2	30.0	41.4	26.4	100	99	69		
SS-5	13+50	2.3M RT	0.76-1.21	A-2-4(0)	35	NP	66.6	19.2	9.2	5.1	96	54	15		
SS-6	13+50	2.3M RT	2.28-2.73	A-1-b(0)	20	NP	71.2	21.1	3.6	4.0	94	45	9		
SS-7	13+50	2.3M RT	3.81-4.11	A-4(2)	29	8	13.1	41.4	27.3	18.2	100	94	53	12.2	
SS-556	13+50	2.3M RT	7.39-7.64	A-2-4(0)	18	NP	78.5	16.5	4.0	1.0	100	62	11		
SS-557	13+50	2.3M RT	8.71-9.16	A-2-6(0)	28	13	56.5	13.2	16.3	14.1	99	56	31		
SS-558	13+50	2.3M RT	11.76-12.2	A-7-6(27)	49	31	2.4	21.1	33.3	42.2	100	99	86		
SS-559	13+50	2.3M RT	14.84-15.2	A-7-6(23)	58	32	2.6	16.3	40.9	46.2	100	99	91		
SS-560	13+50	2.3M RT	16.33-16.7	A-4(0)	29	7	1.4	61.0	15.5	15.1	100	100	36		
S-11	14+40	C.	0.30-2.29	A-2-6(0)	31	13	71.5	11.9	5.5	11.1	93	40	17		

SOFT BRN CLY F SDY SILT, MOI

SOFT TO STIFF TAN, RED AND GRAY SILTY F. SDY CLAY, MOI

VERY LOOSE TAN BRN SILTY F.-CSE. SAND, MOI.

LOOSE TO MED DENSE TAN GRAY F-CSE. SAND, SAT.

V. SOFT TO SOFT GRAY SILTY F SDY CLAY AND CLY F. SDY SILT, WET

SOFT TO MED STIFF GRAY AND V. LOOSE TO LOOSE MOI, TO SAT F. SDY SILTY CLAY CLY SILTY F. SAND,

STIFF TO HARD DARK GRAY (BLACK CREEK FM) SILTY CLAY, WET

LOOSE TO TAN AND SAND AND CLY SAND, SAT

MED DENSE WHITE F-CSE.

(A) SOFT TO MED STIFF GRAY SILTY SANDY CLAY AND CLY SDY SILT, WET

(B) LOOSE TO MED. DENSE GRAY F. SAND SAT

(C) V. STIFF TO HARD GRAY BRN SDY CLAY, WET (BLACK CREEK FM)

(D) SOFT GRAY CLY SILT, WET

(E) LOOSE GRAY F-CSE SD, SAT

(F) MED. DENSE GRAY CLY SD, SAT (BLACK CREEK FM)

(G) V. STIFF GRAY BRN F SDY SILTY CLAY AND CLY F. SDY SILT, WET (BLACK CREEK FM)

(H) MED. DENSE TAN CLY. CSE. SAND, MOI TO SAT

V. LOOSE TO LOOSE STIFF RED GRAY

LOOSE TO MED DENSE TAN F.-CSE. SAND, SAT.

TAN BRN SILTY SANDY CLAY, MOI

F-CSE. SAND, MOI TO WET

LOOSE TO MED. DENSE TAN GRAY F-CSE SAND, MOI TO SAT

V. DENSE LT. GRAY F-CSE SAND, SAT

V. LOOSE BRN F.-CSE SAND MOI

LOOSE GRAY F-CSE SAND, SAT

V. LOOSE BRN SILTY SAND MOI

V. SOFT DARK BRN SDY. SILT, WET (ALLUVIUM)

ST-10

6/03 1/03 2/03 11/02 11/03

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	54

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

5 0 10

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

L2RPDB

PI = 15+60.000
EL = 34.260 m
VC = 170 m
K = 45

PI = 17+10.000
EL = 33.465 m
VC = 40 m
K = 200

End Grade
-L2RPDB- Sta. 18+04.630 =
-L- Sta. 81+38.037
Elev. 31.689

PI = 17+53.000
EL = 33.151 m
VC = 30 m
K = 68

PI = 17+83.000
EL = 32.800 m
VC = 20 m
K = 224

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT GRAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING SIEVES 2.00mm	% PASSING SIEVES 425µm	% PASSING SIEVES 75µm	% MOISTURE	% ORGANIC
S-11	14+40	CL	0.30-2.29	A-2-6(0)	31	13	7.5	11.9	5.5	11.1	93	40	17		
S-5	15+00	CL	1.52-3.35	A-4(1)	36	15	2.4	36.8	32.5	28.3	100	98	77	26.8	
S-6	15+00	CL	3.35-6.10	A-4(7)	35	13	13.1	29.9	29.8	27.2	100	95	67		
SS-30	16+00	CL	0.76-1.34	A-3(0)	17	NP	0.9	44.5	39.6	15.0	99	73	14		
SS-31	16+20	CL	1.52-1.97	A-7-6(22)	47	29	5.6	29.7	33.3	34.3	100	99	78	166.6	

-L3000%
-L5300%
-L5300%
-L7301%
-L7301%
-L1712%
-L1712%
-L0818%

V. LOOSE GRAY F. SDY SILT AND LOOSE GRAY F.-CSE SAND, MOI

F. SAND, MOI TO SAT

SOFT GRAY CLY SDY SILT AND SILTY F. SDY CLAY, WET

V. LOOSE DARK BRN SILTY F. SAND, SAT (ALLUVIUM)

STIFF RED GRAY F. SDY SILTY CLAY, WET

V. LOOSE TO LOOSE TAN AND GRAY SILTY F-CSE SAND, MOI TO SAT

LOOSE GRAY CLY SAND, SAT

Existing Ground At L2RPDB

MED. DENSE GRAY SILTY F-CSE SAND, SAT

11/02 11/03

33.420

32.966

+40 +60 +80 15 +20 +40 +60 +80 16 +20 +40 +60 +80 17 +20 +40 +60 +80 18

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 55

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.

L2LPB

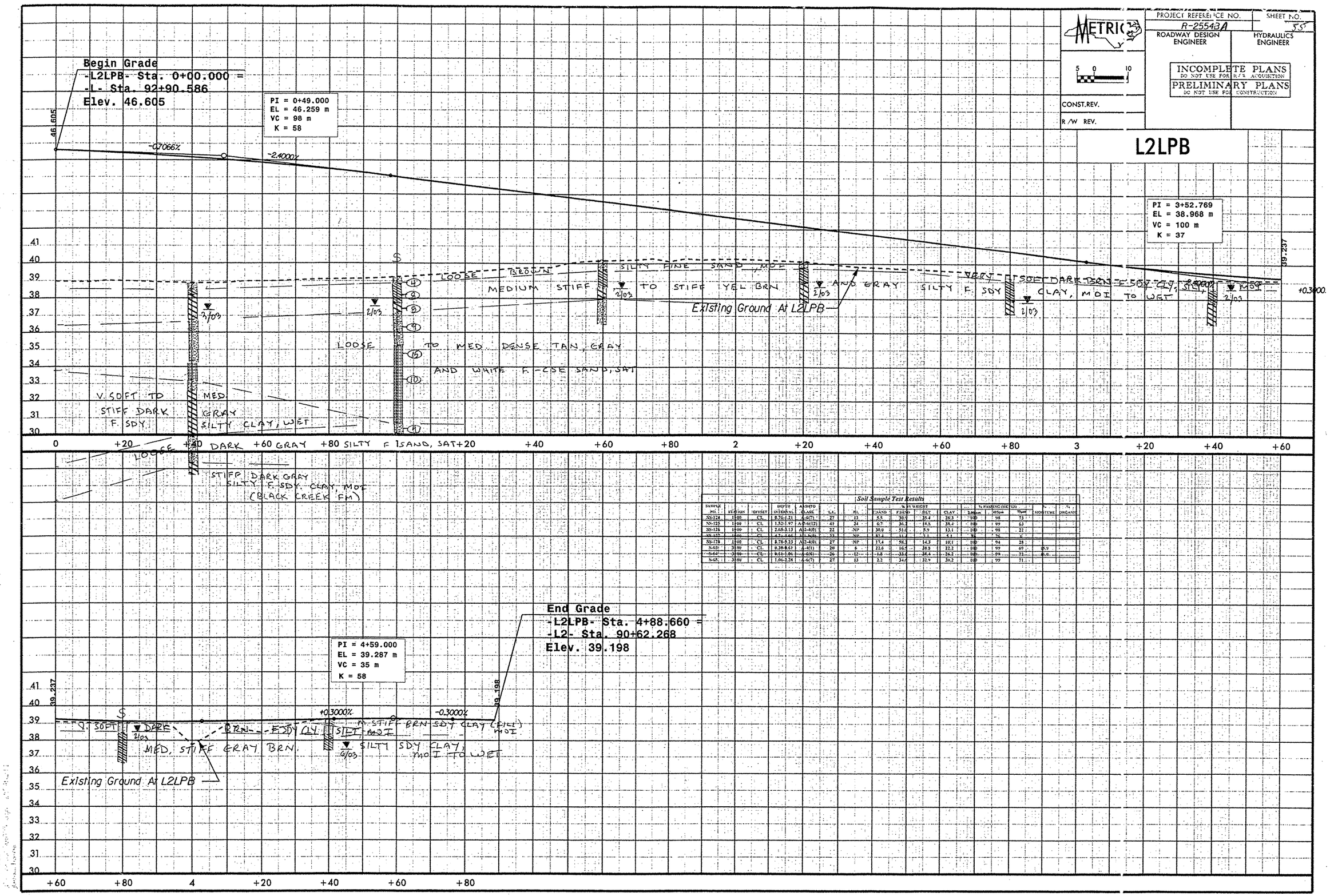
Begin Grade
-L2LPB- Sta. 0+00.000 =
-L- Sta. 92+90.586
Elev. 46.605

PI = 0+49.000
EL = 46.259 m
VC = 98 m
K = 58

PI = 3+52.769
EL = 38.968 m
VC = 100 m
K = 37

End Grade
-L2LPB- Sta. 4+88.660 =
-L2- Sta. 90+62.268
Elev. 39.198

PI = 4+59.000
EL = 39.287 m
VC = 35 m
K = 58



Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS	L.L.	P.I.	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVE) 2.00mm	425µm	75µm	MOISTURE	ORGANIC
SS-124	1+00	CL	0.76-1.21	A-6(7)	37	13	2.5	30.1	35.4	28.3	100	98	73		
SS-125	1+00	CL	1.52-1.97	A-2-6(12)	41	24	6.7	36.2	N.S.	38.4	100	99	63		
SS-126	1+00	CL	2.68-3.13	A-2-4(0)	22	NP	30.0	51.0	5.9	13.1	100	98	22		
SS-127	1+00	CL	4.2-4.65	A-1-b(0)	32	NP	53.2	31.7	7.1	8.1	91	76	6		
SS-128	1+00	CL	8.78-9.23	A-2-4(0)	27	NP	17.4	58.2	14.3	10.1	100	94	28		
N-63	3+00	CL	0.28-0.63	A-4(1)	20	6	22.6	16.5	38.3	22.2	100	99	69	15.9	
N-64	3+00	CL	0.61-1.06	A-6(6)	26	12	1.8	33.6	38.4	26.2	100	99	72	16.0	
N-65	3+00	CL	1.06-2.28	A-6(7)	27	13	2.2	34.0	32.9	30.2	100	99	71		

PROJECT REFERENCE NO.	SHEET NO.
R-2554B	56
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.

L2LPD

Begin Grade
-L2LPD- Sta. 0+00.000 =
-L- Sta. 93+45.023
Elev. 46.785

PI = 0+80.000
EL = 46.390 m
VC = 100 m
K = 42

PI = 0+15.000
EL = 46.780 m
VC = 30 m
K = 53

-0.0304% -0.6000% -0.6000% -3.0000%

PI = 3+65.000
EL = 37.840 m
VC = 130 m
K = 32

PI = 4+65.000
EL = 38.940 m
VC = 45 m
K = 55

End Grade
-L2LPD- Sta. 4+98.146 =
-L2- Sta. 90+07.831
Elev. 39.034

+1.0000% +0.2823%

Existing Ground At Loop D

Existing Ground At L2LPD

4m LT — LOOSE BRN SILTY F SAND AND SOFT CLAYEY SILT, MOI; MED STIFF GRAY BRN SILTY F SDY CLAY, MOI; LOOSE TO MEDIUM DENSE TAN BRN F-CSE SAND, MOI TO SAT; VERY SOFT GRAY F SDY SILT AND F SDY SILTY CLAY, WET; LOOSE GRAY F-CSE SAND, SAT; HARD DARK GRAY SILTY CLAY, WET (BLACK CREEK FM)

6m RT — V. LOOSE BRN SILTY F SAND, MOI; V. SOFT GRAY SILTY CLAY WET (ALLUVIUM); STIFF GRAY BRN F SDY SILTY CLAY, MOI; LOOSE TO MED DENSE TAN GRAY ORANGE CLY F-CSE SAND, SAT; DRY 2/03

6m LT — V. LOOSE BRN SILTY SAND, MOI; V. SOFT BRN GRAY CLY SDY SILT, MOI TO WET; STIFF GRY BRN F SDY SILTY CLAY, DRY 6/03, MOI, TO WET; LOOSE ORANGE CLY F-CSE SAND, SAT; DRY 2/03

ST-4

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

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

38.558

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVE) 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
SS-253	0+15	14 M LT	0.15-0.45	A-6(15)	36	20	2.9	22.2	42.2	32.7	100	99	83		
SS-254	0+15	14 M LT	1.52-1.77	A-7-6(33)	53	34	1.2	13.5	38.4	46.9	100	99	91		
SS-255	0+15	14 M LT	3.81-4.06	A-1-b(0)	19	NP	74.2	20.5	1.2	4.1	88	39	6		
SS-256	0+15	14 M LT	6.85-7.10	A-2-4(0)	25	NP	37.6	53.7	5.2	3.1	100	30	15		
SS-257	0+15	14 M LT	8.37-8.62	A-4(1)	27	3	4.1	57.8	30.0	8.2	100	78	48		
SS-258	0+15	14 M LT	11.41-11.6	A-1-b(0)	25	NP	52.0	12.0	0.8	5.1	92	30	7		
SS-259	0+15	14 M LT	12.95-13.2	A-7-6(17)	52	25	0.2	24.9	46.3	28.6	100	97	85		
SS-260	0+15	14 M LT	15.97-16.2	A-7-6(18)	47	20	5.5	16.3	43.5	34.7	100	97	84		
SS-293	01+40	6 M RT	0.15-0.45	A-4(0)	16	NP	4.4	44.4	32.9	18.2	100	78	60		
SS-294	01+40	6 M RT	0.76-1.11	A-4(11)	34	19	2.2	33.2	36.5	28.2	100	99	72		
SS-295	01+40	6 M RT	1.52-1.77	A-2-4(0)	24	5	2.6	67.9	7.9	22.1	100	100	33		
SS-296	01+40	6 M RT	3.81-4.06	A-1-b(0)	20	NP	83.4	12.0	0.6	4.0	78	23	4		
SS-297	01+40	6 M RT	5.33-5.72	A-7-5(3)	46	16	31.6	15.9	36.5	16.1	100	74	60	58.9	
SS-298	01+40	6 M RT	6.85-7.10	A-2-4(0)	27	NP	62.8	19.9	3.2	10.1	94	31	18	24.9	
SS-299	01+40	6 M RT	9.90-10.31	A-2-4(0)	21	NP	18.8	67.3	4.8	9.0	95	36	14		
SS-300	01+40	6 M RT	12.95-13.4	A-7-6(22)	47	23	4.0	12.3	47.5	36.2	100	97	89		
SS-290	3+60	CL	0.15-0.45	A-7-6(22)	47	28	5.1	19.6	26.9	48.5	100	97	89		
SS-291	3+60	CL	1.52-1.77	A-7-5(23)	55	38	8.3	17.2	29.1	46.5	100	95	84		
SS-292	3+60	CL	2.29-2.54	A-2-4(0)	23	5	54.7	23.5	9.5	12.1	100	59	26		

5/09/22

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554B A	57

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

5 0 10

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

-Y1-

-Y1- Sta. 10+97.530 =
-L- Sta. 100+61.488

Existing Ground At -Y1-
(CSX RAILROAD)

40
39
38
37
36
35

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

14-SEP-2005 09:00
L:\ERO\Raleigh Investigation\TIP\Greenville\R2554B_GEO_RDWY\CADD_ORIGINAL\r2554b_rdy_pf1.dgn
wdf.wld AT GEJ221400

METRIC

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 58

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-

PI = 11+12.000
EL = 38.379 m
VC = 50 m
K = 49

PI = 11+62.000
EL = 38.804 m
VC = 50 m
K = 37

PI = 12+65.771
EL = 38.286 m
VC = 100 m
K = 125

Begin Grade
-Y2- Sta. 10+87.000
Elev. 38.422

38.422

38.568

+0.8500%

-0.5000%

-0.1700%

0.5000%

+0.5000%

MEDIUM DENSE TAN SILTY SAND AND LOOSE TAN BRN SILTY SAND AND SOFT TO MED TAN AND GRAY BRN CLY, SDY SILT, MOI SOFT TO MED STIFF TAN BRN SANDY SILT, MOI MEDIUM DENSE TAN GRAY CLAYEY SAND AND SAND, SAT.

Existing Ground At -Y2-

MATCHLINE

MATCHLINE

5/03

F/2

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

30 31 32 33 34 35 36 37 38 39 40

-Y2- Sta. 13+70.000 =
-Y2A- Sta. 11+51.195

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS	L.L.	P.I.	% BY WEIGHT CLAY	% BY WEIGHT SILT	% BY WEIGHT SAND	% BY WEIGHT GRAVEL	% PASSING SIEVES #10	% PASSING SIEVES #40	% PASSING SIEVES #200	% MOISTURE	% ORGANIC
S-103	11+49	CL	0.3-1.40	A-4(2)	22	9	22.7	31.8	26.3	18.2	100	90	53		
S-104	11+49	CL	1.40-1.80	A-2-6(0)	31	15	56.9	33.1	8.9	12.1	100	75	29		
S-102	13+20	CL	0.3-1.80	A-4(9)	33	NP	35.6	35.6	22.7	6.1	100	78	57		
S-101	15+00	CL	0.3-1.20	A-6(10)	39	24	37.4	31.5	20.8	10.3	100	91	57		
S-105	15+00	CL	1.2-1.80	A-6(7)	32	23	23.4	33.3	18.0	25.3	100	91	56		
S-100	16+80	CL	0.3-1.20	A-4(5)	25	10	8.4	29.3	42.0	20.3	100	99	75		
S-101	16+80	CL	1.2-1.80	A-6(13)	36	18	22.1	25.7	34.7	34.5	100	99	79		

PI = 17+20.000
EL = 39.648 m
VC = 100 m
K = 167

39.573

+0.3000%

+0.3000%

MEDIUM DENSE TAN GRAY CLY SAND, SAT LOOSE TAN BRN CLAYEY SAND AND MEDUM STIFF TAN BRN, TAN, GRAY SILT, MOI SOFT, CLAY FINE SANDY SILT, MOI 5/03 AND RED BRN SILTY SANDY CLAY, WET

Existing Ground At -Y2-

5/03

+60 +80 14 +20 +40 +60 +80 15 +20 +40 +60 +80 16 +20 +40 +60 +80 17 +20

30 31 32 33 34 35 36 37 38 39 40

BRIDGE_GND
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DesignRound

PROJECT REFERENCE NO. R-2554B A | SHEET NO. 59

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

METRIC 5 0 10

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

CONST.REV.

R/W REV.

-Y2-

-Y2- Sta. 17+57.703 = -SR5- Sta. 10+00.000 -Y2B- Sta. 11+49.340

PI = 17+20.000
EL = 39.648 m
VC = 100 m
K = 167

-Y2- Sta. 19+07.703
-Y2RPD- Sta. 16+47.523

-Y2- Sta. 19+15.203
-Y2LPD- Sta. 14+83.699

PI = 20+49.000
EL = 38.661 m
VC = 100 m
K = 167

39.573

-0.3000%

SOFT GRAY

MEDIUM STIFF

BRN

TAN BRN AND GRAY SILTY SANDY CLAYEY

SANDY SILT, MOI.

CLAY AND CLY SDY SILT, MOI. TO WET

LOOSE TAN SILTY SAND, MOI TO SAT

-0.3000%

+0.3000%

38.765

Existing Ground At -Y2-

5/03 2/03

+20 +40 +60 +80 18 +20 +40 +60 +80 19 +20 +40 +60 +80 20 +20 +40 +60 +80

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS	LL	PI	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	.425	.075mm	% MOISTURE	% ORGANIC
S-74	20+20	CL	0.30-0.46	A-4(1)	21	8	24.1	25.2	32.2	18.4	100	82	57		1
S-75	20+20	CL	0.46-0.76	A-6(5)	26	12	19.0	13.2	36.1	31.7	100	87	65		
S-76	20+20	CL	0.76-1.22	A-6(10)	34	20	17.6	21.8	25.9	34.7	100	82	66		
S-77	20+20	CL	1.22-1.83	A-4(3)	23	10	22.4	27.6	23.5	26.5	100	82	58		
SS-182	21+25	CL	0.30-0.45	A-2-4(0)	18	NP	24.5	45.5	17.0	13.1	100	83	30		
SS-183	21+25	CL	0.76-1.28	A-6(4)	32	16	23.6	36.6	14.5	26.3	100	85	47	18.2	
SS-184	21+25	CL	2.68-3.13	A-2-4(0)	28	7	53.3	31.0	2.5	14.1	94	5	17		
SS-185	21+25	CL	3.21-3.66	A-2-4(0)	23	NP	33.7	51.5	2.7	8.1	100	83	13		
SS-186	21+25	CL	5.73-6.18	A-1-b(0)	24	NP	90.7	6.2	0.1	3.0	98	3	3		
SS-187	21+25	CL	7.25-7.70	A-7-6(7)	42	27	10.5	48.9	8.3	32.3	100	91	44		
SS-188	21+25	CL	10.30-10.7	A-2-6(0)	33	4	24.2	52.4	12.5	10.1	94	58	25		
SS-189	21+25	CL	12.35-13.8	A-2-4(0)	27	NP	22.0	55.6	5.3	17.2	81	7	19		
SS-190	21+25	CL	14.87-15.3	A-2-4(0)	24	NP	38.1	53.7	5.2	3.0	100	86	11		
SS-191	21+25	CL	17.75-18.2	A-6(8)	35	17	23.9	29.1	20.0	27.0	100	92	42		
SS-432	22+60	CL	0.30-0.45	A-4(0)	16	3	38.2	29.7	20.0	12.1	98	76	39		
SS-433	22+60	CL	0.76-1.21	A-6(2)	25	12	34.1	27.7	20.0	18.2	99	72	45		
SS-434	22+60	CL	1.52-1.98	A-2-4(0)	20	5	44.4	31.7	11.7	12.1	99	71	29		
S-78	24+00	CL	0.30-0.61	A-4(0)	19	4	2.4	39.3	42.2	16.1	100	91	71		
S-79	24+00	CL	0.61-1.83	A-6(10)	31	16	1.8	30.6	35.3	32.3	100	95	78	22.9	

-Y2- Sta. 21+25.038 = -L- Sta. 103+80.709

-Y2- Sta. 22+72.703
-Y2LPA- Sta. 14+06.637 = -Y5- Sta. 13+05.503

-Y2- Sta. 22+81.203
-Y2RPA- Sta. 16+56.187

PI = 23+81.000
EL = 39.657 m
VC = 100 m
K = 167

38.765

+0.3000%

V. LOOSE TO LOOSE TAN GRAY F. CSE SAND SAT

MED. STIFF F. SDY GRAY CLAY, MOI.

VERY LOOSE GRAY BRN SILTY SAND AND SOFT CLY SDY

MEDIUM STIFF GRAY BRN SILTY SDY CLAY, MOI TO WET

LOOSE TO MED DENSE TAN GRAY CLY SILTY SAND, SAT

SILT, MOI TO WET

0.3000%

0.3000%

39.482

Existing Ground At -Y2-

2/03 3/03

+80 21 +20 +40 +60 +80 22 +20 +40 +60 +80 23 +20 +40 +60 +80 24 +20 +40

METRIC

5 0 0

CONST.REV.

R/W REV.

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 60

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-Y2-

PI = 24+60.000
EL = 39.420 m
VC = 50 m
K = 63

PI = 25+58.271
EL = 39.912 m
VC = 50 m
K = 63

PI = 26+10.000
EL = 39.757 m
VC = 50 m
K = 94

End Grade
-Y2- Sta. 26+35.000
Elev. 39.814

39.482

39.814

-0.3000% +0.5000% 6m RT +0.5000% -0.3000% 6m RT -0.3000% +0.2300%

SOFT TO SOFT TAN BRN CLY F SDY SILT, MOI TO WET

3/03 3/03 WET 3/03

STIFF TAN GRAY SILTY F SDY CLAY, MOI

Existing Ground At -Y2-

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS	LL	PI	% BY WEIGHT GRAVEL	CSAND	FSAND	SILT	CLAY	% PASSING (SIEVES) #200	#40	#10	% MOISTURE	% ORGANIC
S-59	25+80	6m RT	0.30-0.76	A-4(1)	20	6	2.8	43.5	34.3	20.2	100	99	68		
S-81	25+80	"	0.76-1.83	A-4(4)	25	10	1.8	39.1	34.9	24.2	100	99	69		
S-82	25+80	"	1.83-2.83	A-6(7)	28	14	1.4	37.1	32.7	28.8	100	99	71		

-Y2A-

Begin Grade
-Y2A- Sta. 10+00.000
Elev. 38.820

PI = 11+14.850
EL = 38.475 m
VC = 50 m
K = 56

End Grade
-Y2A- Sta. 11+42.190 =
-Y2- Sta. 13+70.000
Elev. 38.640

38.820

38.640

-0.3000% -0.3000% +0.5000%

LOOSE BRN CLY SILTY F SAND, MOI

MED STIFF TAN BRN SILTY SDY CLAY, MOI

MED DENSE TAN 3/03 GRAY CLY SD, SAT

Existing Ground At -Y2A-

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS	LL	PI	% BY WEIGHT GRAVEL	CSAND	FSAND	SILT	CLAY	% PASSING (SIEVES) #200	#40	#10	% MOISTURE	% ORGANIC
S-186	11+20	C/L	0.30-1.40	A-6(7)	38	19	21.8	30.7	19.2	28.3	100	84	55		
S-187	11+70	C/L	1.40-1.90	A-2-7(2)	56	33	67.9	9.5	6.4	16.2	94	45	22		

METRIC

PROJECT REFERENCE NO. R-2554BA | 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.

-Y2- RAMP A

End Grade
-Y2RPA- Sta. 16+56.187
-Y2- Sta. 22+80.124
Elev. 39.163

PI = 14+72.347
EL = 41.369 m
VC = 100 m
K = 67

-1.2000%

+0.3000%

VERY LOOSE TAN BROWN SILTY SAND, MOI

STIFF YEL BROWN AND RED SILTY SANDY CLAY, MOI TO WET

Existing Ground At -Y2- Ramp A

MEDIUM DENSE ORANGE RED CLY SAND, SAT

3/03

40.882

39.163

41 40 39 38 37 36 35 34 33 32 31 30

+60 +40 +20 16 +80 +60 +40 +20 15 +80 +60 +40 +20 14 +80 +60 +40 +20

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	LL	PI	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
S-97	124+80	CL	0.30-0.76	A-6(9)	39	23	28.6	39.7	13.4	36.3	100	88	56		
S-98	124+80	CL	0.76-1.83	A-7-6(16)	52	35	17.0	27.9	20.5	44.4	100	91	60		
SS-41	159+20	CL	0.30-0.45	A-7-6(9)	46	26	31.2	30.4	7.9	38.5	97	80	52		
SS-41	159+20	CL	0.76-1.21	A-7-6(7)	52	29	40.0	19.4	8.3	32.3	97	72	41		
SS-41	159+20	CL	2.28-2.73	A-2-6(0)	35	15	66.9	16.4	4.6	12.1	94	53	17		

PI = 11+60.000
EL = 40.432 m
VC = 100 m
K = 100

Begin Grade
-Y2RPA- Sta. 10+00.000
-L- Sta. 109+70.000
Elev. 41.327

PI = 10+45.000
EL = 41.237 m
VC = 50 m
K = 100

41.327

-0.7000%

-0.2000%

+0.3000%

LOOSE TAN GRAY SILTY SAND, MOI

STIFF RED BRN SILTY SDY CLAY, NOT TO WET

16 mLT

MED DENSE ORANGE RED CLY SAND, SAT

Existing Ground At -Y2- Ramp A

40.882

41 40 39 38 37 36 35 34 33 32 31 30

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

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 62

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- RAMP D

Begin Grade
-Y2RPD- Sta. 10+00.000
-L- Sta. 109+96.000
Elev. 41.317

PI = 10+42.000
EL = 41.359 m
VC = 70 m
K = 80

PI = 12+70.000
EL = 39.603 m
VC = 100 m
K = 93

PI = 14+77.527
EL = 40.226 m
VC = 70 m
K = 88

End Grade
-Y2RPD- Sta. 16+47.523
-Y2- Sta. 19+07.703
Elev. 39.376

41.317 | 39.873 | 39.603 | 39.376

+0.1000% | -0.7700% | -0.7700% | -0.7700% | +0.3000% | +0.3000% | -0.5000% | -0.5000%

14m RT

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	G.I.	P.I.	% BY WEIGHT GRAVEL	% BY WEIGHT SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) #10	% PASSING (SIEVES) #40	% PASSING (SIEVES) #200	% MOISTURE	% ORGANIC
S-98	10+80	CL	0.30m/0.76	A-7-6(15)	49	28	23.6	19.8	14.2	42.4	100	86	62	23.9	
S-91	11+50	CL	0.76m/1.37	A-7-6(15)	54	31	27.9	17.8	12.0	42.4	100	84	58		
S-92	12+20	CL	1.37m/1.83	A-7-6(14)	51	29	26.9	20.0	13	41.1	94	86	55		
SS-487	10+60	CL	0.30m/0.45	A-4(0)	15	NP	42.9	35.0	20.0	12.1	77	70	37		
SS-488	10+60	CL	0.76m/1.21	A-2-4(0)	14	NP	60.0	23.0	8.3	8.7	45	33	20		
SS-489	10+60	CL	1.52m/1.97	A-7-6(12)	49	31	39.6	10.0	17.2	33.2	100	72	53		
S-95	10+60	CL	0.30m/0.61	A-6(15)	39	23	9.9	22.0	29.8	38.3	100	95	74	25.1	
S-39	10+00	CL	0.61m/1.83	A-7-6(24)	52	34	10.1	21.3	24.6	44.0	100	94	74		

Existing Ground At -Y2- Ramp D

V. LOOSE GRAY BRN SHTY SAND, MOI

STIFF RED BRN SILTY SDY CLAY, MOI TO WET

MEDIUM DENSE PINK AND DRY GRAY BROWN CLY

V. LOOSE TAN TO BROWN SILTY F SAND, MOI

MEDIUM STIFF TO STIFF RED BRN SILTY SDY CLAY, MOI

CSE SAND MOI TO SAT

MED STIFF V. LOOSE GRAY BRN CLY SDY SHTY, MOI TO SAT

GRAY BRN F-CSE SD

STIFF GRAY BRN SILTY SDY CLAY, WET

SDY SHTY GRAY BROWN CLY, MOI

MED STIFF TO STIFF GRAY BRN MOI TO SAT

YEL BRN AND GRAY SILTY SANDY CLAY, MOI TO WET

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

+60 +80 14 +20 +40 +60 +80 15 +20 +40 +60 +80 16 +20 +40

30 31 32 33 34 35 36 37 38 39 40

PROJECT REFERENCE NO. R-2554B A | SHEET NO. 63

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

PI = 10+45.000
EL = 45.582 m
VC = 90 m
K = 82

PI = 11+85.291
EL = 41.794 m
VC = 100 m
K = 67

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (#10) #40	#200	% MOISTURE	% ORGANIC
SS-416	11+60	CL	0.30-0.45	A-6(5)	34	20	30.5	35.6	13.7	30.3	78	73	41	
SS-417	11+60	CL	0.76-1.21	A-7-6(5)	42	22	35.8	23.4	10.5	30.3	88	73	44	
SS-418	11+60	CL	1.52-1.97	A-2-7(3)	51	25	32.1	12.9	2.6	52.3	96	91	35	
SS-419	13+60	CL	0.30-0.45	A-6(3)	28	15	29.1	30.3	16.4	24.2	95	81	23	
SS-420	13+60	CL	0.76-1.21	A-7-6(9)	45	27	25.7	29.5	11.5	34.3	89	85	48	
SS-421	13+60	CL	1.52-1.97	A-2-7(1)	41	24	56.9	20.4	3.4	20.2	96	59	24	

Begin Grade
-Y2LPA- Sta. 10+00.000 =
-L- Sta. 104+18.506
Elev. 46.302 16mRT

End Grade
-Y2LPA- Sta. 14+06.637
-Y2- Sta. 22+70.938
Elev. 39.138

-16000%
-27000%
-27000%
-12000%
-12000%

46.302
39.698
39.138

Existing Ground At -Y2- Loop A

VERY LOOSE TO MED DENSE TAN, GRAY AND WHITE F-CSE SAND, SAT

MED STIFF TO STIFF RED BRN SILTY CLAY, WET

MEDIUM STIFF TO STIFF RED AND YEL BRN SILTY SANDY CLAY, MOI TO WET

MEDIUM DENSE TAN GRAY CLY F-CSE SAND, SAT

LOOSE TAN SILTY F-CSE SAND, MOI TO DRY

MEDIUM DENSE TAN CLY SAND AND F-CSE SAND, MOI TO SAT

LOOSE GRAY BRN SILTY SAND, moi

MED STIFF GRAY BRN SILTY SDY CLAY MOI TO WET

MED DENSE TAN GRAY CLY F-CSE SAND, SAT

3/03

10 +20 +40 +60 +80 11 +20 +40 +60 +80 12 +20 +40 +60 +80 13 +20 +40 +60 +80 14

41 40 39 38 37 36 35 34 33 32 31 30

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	64
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5 0 10

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

CONST.REV.

R/W REV.

-Y2- LOOP D

Begin Grade
-Y2LPD- Sta. 10+00.000
-L- Sta. 104+19.039
Elev. 46.797

PI = 10+83.000
EL = 45.452 m
VC = 55 m
K = 69

PI = 12+91.342
EL = 40.411 m
VC = 150 m
K = 87

-1.6200%
-2.4200%
-2.4200%
-2.4200%
-0.7000%

14 m LT
16 m LT

MED STIFF TO STIFF RED BRN SILTY CLAY, MOI

LOOSE TO MEDIUM

STIFF TO STIFF YEL BRN AND GRAY SILTY CLAY, MOI

LOOSE TO MED DENSE TAN GRAY TO WHITE FINE TO CSE SAND, SAT

V. STIFF RED BRN SILTY CLAY, MOI

LOOSE TO MED DENSE CSE SAND, MOI

STIFF TAN GRAY SILTY CLAY, MOI TO WET

Existing Ground At -Y2- Loop D

End Grade
-Y2LPD- Sta. 14+83.699
-Y2- Sta. 19+14.860
Elev. 39.064

-0.7000%

LOOSE CLAYEY FINE SAND, MOI

STIFF YEL BRN AND RED SILTY SDY CLAY, MOI

MED DENSE E-CSE SAND, SAT

GRAY TO WET

TAN BRN

Existing Ground At -Y2- Loop D

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	ASSHTO CLASS.	L.L.	P.I.	% by WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVE) #10	#40	#200	MOISTURE	ORGANIC
SS-177	-11+88	16M LT	.76-1.21	A-6(5)	33	17	23.8	33.5	14.3	28.3	100	86	50		
SS-178	11+88	16M LT	4.57-5.03	A-7-6(15)	50	31	15.1	34.9	12.5	37.4	100	95	68		
SS-179	11+88	16M LT	6.86-7.32	A-2-6(0)	29	6	28.4	59.0	4.4	8.2	100	93	22		
SS-180	11+88	16M LT	27.4-6.86	A-3(0)	17	NP	6.0	90.5	2.4	1.1	100	73	9		
SS-181	11+88	16M LT	9.6-10.06	A-1-b(0)	22	NP	9.6	79.5	7.9	3.0	100	76	7		
S-93	12+28	Cl.	30-0.91	A-4(8)	27	14	30.7	22.0	21.11	26.2	91	74	48		
S-94	12+28	Cl.	1.91-2.13	A-2-7(5)	51	34	31.5	14.5	8.3	25.7	96	63	35		
S-95	12+28	Cl.	1.52-2.74	A-7-5(25)	54	37	16.3	19.0	22.3	42.2	98	91	52		
S-96	12+28	Cl.	2.74-5.33	A-2-4(0)	21	NP	7.0	19.0	2.9	1.1	100	66	11		
SS-410	14+66	Cl.	30-0.45	A-6(7)	33	17	8.5	31.3	27.9	32.3	100	97	68		
SS-411	14+66	Cl.	0.76-1.21	A-7-6(19)	50	33	2.5	33.7	22.2	35.4	100	97	66		
SS-412	14+66	Cl.	2.28-2.73	A-2-4(0)	22	NP	7.19	16.4	1.8	19.1	100	59	12		

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	65

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

5 0 10

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R/W REV.

-Y5-

Soil Sample Test Results

SAMPLE NO	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS	LL	PI	% BY WEIGHT GRAND	SAND	SIL	CLAY	% PASSING (SIEVES) 2.00mm	.425m	.75m	% MOISTURE	% ORGANIC
S-99	12+60		Cl.	0.30-0.61	A-4(0)	17	-2	15.3	32.5	34.1	18.2	100	92	60	-	-
S-100	12+60		Cl.	0.61-2.29	A-7-6(11)	44	26	3.1	22.5	23.3	51.1	100	96	73	-	-

PI = 12+56.230
EL = 39.423 m
VC = 35 m
K = 34

Begin Grade
-Y5- Sta. 11+08.000
Elev. 39.116

End Grade
-Y5- Sta. 12+95.740 =
-Y2- Sta. 22+74.467
Elev. 39.146

39.116

39.146

-0.3000%

+0.2000%

+0.3400%

+0.3400%

-.07000%

Existing Ground At -Y5-

GRAY BRN MED. STIFF SANDY MOIST

MED. STIFF YEL BRN SILTY A SDY CLAY, MOI TO WET

SOFT MED. STIFF

VERY SOFT BRN CLAYEY SILT, WET

STIFF YEL BRN CLAY, WET

MED. DENSE TAN CLY SAND, SAT

PI = 11+21.000
EL = 39.142 m
VC = 25 m
K = 50

PI = 11+49.000
EL = 39.058 m
VC = 25 m
K = 39

40 39 38 37 36 35 34 33 32 31 30

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

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 66

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.

-SR5-

Begin Grade
-SR5- Sta. 10+09.064 =
-Y2- Sta. 17+57.703
Elev. 39.798

39.798

PI = 12+41.632
EL = 40.496 m
VC = 100 m
K = 167

40.161

+0.3000%

-0.3000%

Existing Ground At -SR5-

SOFT - GRAY - BRN

STIFF

YEL BRN TO GRAY AND

CLY F SDY SILT SAT

SILTY F SDY CLAY

CLY F SDY SILT, MOI. TO WET

V. LOOSE TO LOOSE SAND SAT

40 39 38 37 36 35 34 33 32 31 30

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

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	CLASS.	DEPTH INTERVAL	AASHTO CLASS.	G.I.	% BY WEIGHT #10	#40	#200	PASSING SIEVES #10	#40	#200	L.L.	P.I. MOISTURE	ORGANIC
S-86	10+86	- CL -	(0.30-0.61)	A-6(1)	14	19	48	33.7	30.2	52.3	100	98	69		
S-87	10+86	- CL -	(1.61-1.83)	A-7-6(13)	45	42	28	24.6	24.2	47.4	100	95	77	31.5	
SS-104	12+98	CL	(0.30-0.45)	A-4(1)	28	14	56	28.0	28.2	43.3	100	93	66		
SS-105	12+00	CL	(1.76-1.21)	A-7-6(22)	49	31	40	30.1	43.6	20.2	100	93	74		
SS-106	12+00	CL -	(2.28-2.73)	A-4(1)	24	6	48	57.6	17.4	21.2	100	99	48		
SS-401	14+40	- CL -	(0.30-0.45)	A-4(1)	26	3	51	16.2	30.5	20.2	99	90	56		
SS-402	14+40	CL	(1.76-1.21)	A-2-4(0)	118	3	43	28.1	18.2	10.1	99	73	32		
SS-403	14+40	CL	(2.28-2.73)	A-2-4(0)	120	NP	60	18.4	4.4	1	98	52	14		
S-83	16+20	CL	(0.30-0.76)	A-6(10)	34	14	82	18.8	38.3	41.3	100	96	77		
S-84	16+20	CL -	(0.76-1.06)	A-6(3)	33	13	219	22.4	31.7	29.2	100	86	60		
S-85	16+20	CL	(1.06-1.53)	A-2-4(0)	21	2	42	20.4	16.5	9.1	99	70	36		

PI = 15+20.000
EL = 39.661 m
VC = 100 m
K = 167

PI = 16+84.000
E. = 40.153 m
V. = 95 m
K = 26

40.141

35.940

-0.3000%

+0.3000%

+0.3000%

-3.8000%

V. LOOSE - TAN SILTY SAND, MOI

VERY LOOSE TO LOOSE BRN AND TAN F. CSE SAND, MOI

MED STIFF BRN CLY SDY SILT, MOI

V. LOOSE BRN SILTY SD MOI TO SAT

V. LOOSE DARK BRN SILTY SAND, SAT

MED. STIFF RED GRAY SDY SILTY CLAY, WET

VERY LOOSE TAN BRN SILTY SAND, MOI

SOFT TO MED STIFF GRAY BRN SDY CLAY, WET

LOOSE GRAY CLY SILTY SAND, SAT

Existing Ground At -SR5-

40 39 38 37 36 35 34 33 32 31 30

+60 +80 14 +20 +40 +60 +80 15 +20 +40 +60 +80 16 +20 +40 +60 +80 17 +20

8/04/2002
c:\cmos\301695.dgn\r-554bp01
jlee/chang

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554B A	62
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5 0 10

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONST.REV.

R /W REV.

-SR5-

PI = 17+57.000
EL = 37.744 m
VC = 50 m
K = 42

End Grade
-SR5- Sta. 17+82.000
Elev. 37.219

38.940

37.219

-3.000%

-2.000%

4m RT

VERY LOOSE TO LOOSE TAN SILTY F-CSE SAND

B&N 3/03

MED TO SAT

Existing Ground At -SR5-

40 39 38 37 36 35 34 33 32 31 30

+20 +40 +60 +80 18 +20 +40 +60 +80 19 +20 +40 +60 +80 20 +20 +40 +60 +80

PROJECT REFERENCE NO.	SHEET NO.
R-2554B A	68
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

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

CONST. REV.

R/W REV.

-SR6-

Begin Grade
-SR6- Sta. 10+09.329
Elev. 39.124

PI = 10+40.000
EL = 39.017 m
VC = 40 m
K = 50

PI = 10+80.000
EL = 39.197 m
VC = 40 m
K = 57

PI = 11+20.000
EL = 39.097 m
VC = 40 m
K = 43

PI = 14+60.000
EL = 40.646 m
VC = 40 m
K = 73

~~PI = 15+00.000~~
~~EL = 40.766 m~~
~~VC = 40 m~~
~~K = 36~~

39.124
40.699
39.484
40.284

+0.4500% -0.2500% +0.3000% -0.8000%

8m RT 8m RT 8m LT

REVISED GRADE

SOFT BRN SDY SLT MOI

MEDIUM STIFF TAN, GRY, BRN LOOSE GRY BRN SLTY SAND, MOI

SILTY F SDY CLAY, MOI TO WET

MED STIFF TO STIFF TAN SLTY SANDY CLAY, MOI TO WET

RED AND GRAY BRN CLAY, MOI TO WET

MED DENSE TAN ORANGE COARSE SAND, SAT

Existing Ground At -SR6-

10/03

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	LL	PI	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	% PASSING (REVISED) #10	#40	#200	MOISTURE	ORGANIC
S-78	10+00	CL	0.3@0.61	A-4(0)	19	4	2.4	39.5	42.1	16.1	100	99	78		
S-79	10+00	CL	0.61@1.83	A-6(10)	31	16	1.8	30.6	35.3	32.3	100	99	78	22.9	
S-69	10+40	CL	0.3@0.46	A-4(0)	15	NP	16.7	55.0	16.7	11.4	100	99	78		
S-70	10+40	CL	0.46@0.76	A-6(5)	29	15	13.1	41.6	14.7	30.6	100	99	92	23	
S-71	10+40	CL	0.76@1.52	A-7-6(20)	57	37	9.3	33.5	8.4	49.0	100	99	96	62	27.8
S-72	10+40	CL	1.52@1.83	A-2-7(1)	43	23	45.9	29.8	6.6	17.7	96	96	61	24	
SS-173	7+60	CL	0.3@0.45	A-4(0)	16	NP	11.3	55.4	21.2	12.1	100	99	55	15	
SS-174	7+60	CL	0.76@1.21	A-7-6(20)	55	29	6.1	29.5	11.9	52.5	100	99	99	69	
SS-175	7+60	CL	1.52@1.97	A-7-6(4)	42	20	28.5	34.3	9.8	36.4	100	99	94	42	
SS-176	7+60	CL	2.28@2.73	A-2-4(0)	25	4	61.9	24.5	8.6	13.1	100	99	66	14	

End Grade
-SR6- Sta. 19+28.878
Elev. 40.186

~~PI = 15+80.000~~
~~EL = 40.128 m~~
~~VC = 100 m~~
~~K = 91~~

PI = 17+75.000
EL = ~~40.743 m~~ 40.737
VC = 100 m
K = ~~156~~ 77

40.277
40.186

REVISED GRADE

REVISED GRADE

-0.8000% +0.3000% +0.3000% -0.3414%

LOOSE TAN CLY SD, SAT

MEDIUM STIFF TO STIFF TAN SANDY CLAY

MED DENSE TAN ORANGE CLY F-CSE SD, SAT

RED BRN SANDY CLAY, MOI TO WET

2/03 10/03 DRY 2/03 DRY 10/03

10 +20 +40 +60 +80 11 +20 +40 +60 +80 +20 +40 +60 +80 15 +20 +40 +60

+80 16 +20 +40 +60 +80 17 +20 +40 +60 +80 18 +20 +40 +60 +80 19 +20

8/14/2024 H:\Projects 2016\R-2554B\dgn\R-2554B_prfl_Barrington

METRIC

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 69

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

5 0 10

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

CONST.REV.

R /W REV.

-Y2B-

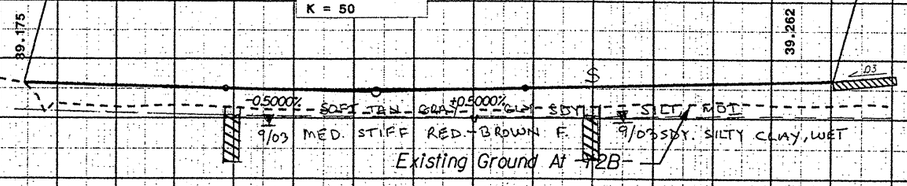
Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASSIFICATION	% BY WEIGHT LL	PI	GRAVEL	SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	.25mm	.75mm	Pc MOISTURE	% ORGANIC
S-258	11+00	CL	0.30-0.90	A-7-6(31)	55	38	6.8	26.5	34.3	32.4	100	97	80		
S-259	11+00	CL	0.90-1.80	A-7-6(34)	63	39	4.0	21.3	36.3	38.4	100	98	87		

Begin Grade
-Y2B- Sta. 10+04.340 =
-Y2- Sta. 17+57.703
Elev. 39.175

PI = 10+63.666
EL = 38.879 m
VC = 50 m
K = 50

End Grade
-Y2B- Sta. 11+40.310 =
-EY2- Sta. 17+56.933
Elev. 39.262



40 39 38 37 36 35 34 33 32 31 30

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

METRIC

5 0 10

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 76

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.

-Y7-

-Y7- Sta. 12+17.434 = -L- Sta. 118+92.556

(MINIMUM RESURFACING)

Existing Ground At -Y7-
(PATETOWN RD)

39
38
37
36
35
34
33
32
31
30

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

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	GI	PI	% BY WEIGHT GRAVEL	SAND	SILT	CLAY	2mm	% PASSING (SIEVES) #200	#40	#10	MOISTURE	% ORGANIC
SS-327	15+52	16.5M LT	0.15-0.45	A-2-4(0)	16	NP	22.2	54.9	14.8	8.0	100	93	28			
SS-328	15+52	16.5M LT	0.76-1.21	A-6(5)	31	17	11.4	34.7	17.8	26.1	100	90	49	24.9		
SS-329	15+52	16.5M LT	2.32-2.77	A-6(3)	33	19	24.0	39.7	10.2	26.1	100	90	39			
SS-330	15+52	16.5M LT	3.84-4.29	A-3(0)	19	NP	10.3	71.5	12	7.0	97	64	9			
SS-331	15+52	16.5M LT	6.89-7.34	A-2-6(0)	36	20	25.3	33	13	10.1	98	82	12			
SS-332	15+52	16.5M LT	8.42-8.87	A-4(0)	26	NP	0.7	67.4	12.8	19.1	100	100	42			
SS-333	15+52	16.5M LT	11.47-11.9	A-2-4(0)	23	NP	27.8	56.5	9.6	11.1	98	87	18			
SS-334	15+52	16.5M LT	13.00-13.5	A-2-4(0)	32	NP	14.5	69.1	11	5.4	100	81	31			
SS-335	15+52	16.5M LT	14.51-14.9	A-2-4(0)	27	NP	8.2	73.2	5.5	13.1	100	98	21			
SS-336	15+52	16.5M LT	17.56-18.0	A-2-4(0)	25	NP	15.3	74.5	2.2	8.0	100	93	13			
SS-337	15+52	16.5M LT	19.05-19.5	A-2-4(0)	24	NP	13.5	72.2	5.9	8.0	100	81	16			
SS-317	16+12	15.6M LT	0.76-1.21	A-6(3)	32	16	19.4	41.1	9.4	30.1	100	95	42			
SS-318	16+12	15.6M LT	2.32-2.77	A-6(2)	33	16	18.1	38.7	8.2	26.1	100	89	40			
SS-319	16+12	15.6M LT	3.84-4.29	A-2-4(0)	20	NP	23.0	65.1	2.8	9.0	100	96	13			
SS-320	16+12	15.6M LT	5.36-5.81	A-6(0)	24	3	14.3	15.0	4.6	6.0	90	43	10			
SS-321	16+12	15.6M LT	6.85-7.34	A-4(0)	20	6	2.0	64.1	11.9	22.0	100	99	45	44.5		
SS-322	16+12	15.6M LT	9.24-10.29	A-2-4(0)	23	NP	2.2	83.6	5.2	8.0	100	99	17			
SS-323	16+12	15.6M LT	12.98-13.4	A-2-4(0)	23	NP	8.2	70.5	9.2	12.0	100	99	27			
SS-324	16+12	15.6M LT	16.03-16.4	A-2-4(0)	19	NP	5.0	73.3	8.5	10.0	94	87	33			
SS-325	16+12	15.6M LT	17.55-19.0	A-3(0)	22	NP	16.1	34.9	4.0	5.0	99	56	18			
SS-326	16+12	15.6M LT	19.05-19.5	A-7-6(29)	53	33	7.2	12.6	46.1	34.1	100	96	84			

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554B	71
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.

-Y8-

Begin Grade
-Y8- Sta. 12+20.000
Elev. 40.295

PI = 12+88.180
EL = 40.840 m
VC = 80 m
K = 36

40.295

45.808

+0.1999%

+3.0000%

9m LT

VERY LOOSE TO LOOSE TAN BROWN SILTY FINE TO CSE SAND, MOI TO SAT

3/03

Existing Ground At -Y8-

MED STIFF TO STIFF TAN RED BROWN SILTY SDY CLAY, MOIST

LOOSE TO MED DENSE TAN, GRAY AND WHITE F-CSE SAND, SAT

11 +20 +40 +60 +80 12 +20 +40 +60 +80 13 +20 +40 +60 +80 14 +20 +40 +60

41 40 39 38 37 36 35 34

PI = 15+70.000
EL = 49.295 m
VC = 300 m
K = 43

+5.0000%

-4.0000%

45.808

40.184

-Y8- Sta. 14+65.000 =
-Y8RPC- Sta. 14+40.558 =
-Y8RPD- Sta. 15+27.301

-Y8- Sta. 15+85.032
-L- Sta. 146+62.803

-Y8- Sta. 17+07.000 =
-Y8RPA- Sta. 14+71.243 =
-Y8RPB- Sta. 14+78.567

(A) V. LOOSE TO MED DENSE TAN GRAY AND ORANGE F-CSE SAND, SAT

(B) V. SOFT TO MED STIFF, GRAY ORANGE CLY F. SDY SILT, WET

(C) V. LOOSE TO MED DENSE TAN GRAY F-CSE SAND, SAT

(D) DENSE GRAY F-CSE SAND, SAT (BLACK CREEK FM)

(E) V. STIFF GRAY BRN SILTY CLAY, WET (BLACK CREEK FM)

LOOSE BRN TAN SILTY F-CSE SAND, MOI

MEDIUM STIFF TO STIFF TAN AND RED BRN SILTY SANDY CLAY, WET

16.5m LT

15.6m LT

10m LT

VERY LOOSE TO LOOSE TAN BRN SILTY F-CSE SAND, MOI TO SAT

MEDIUM STIFF TO STIFF TAN AND RED BRN SANDY CLAY, WET

Existing Ground At -Y8-

3/03

3/02

+60 +80 15 +20 +40 +60 +80 16 +20 +40 +60 +80 17 +20 +40 +60 +80 18 +20

41 40 39 38 37 36 35 34 33 32 31 30

METRIC

5 0 10

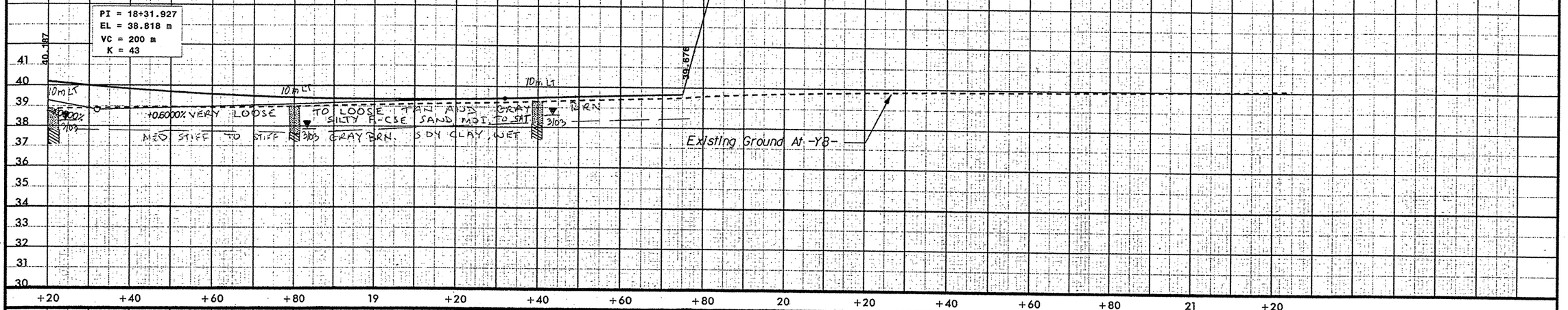
PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	72
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CONST.REV.

R/W REV.

-Y8-



METRIC

5 0 10

CONST.REV.

R/W REV.

PROJECT REFERENCE NO. R-2554B A

SHEET NO. 73

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-Y8- Ramp A

END

~~Begin~~ Grade
-Y8RPA- Sta. 14+65.210 =
-Y8- Sta. 17+06.325
Elev. 43.700

PI = 14+30.000
EL = 42.996 m
VC = 50 m
K = 20

PI = 12+80.000
EL = 36.246 m
VC = 200 m
K = 48

Soil Sample Test Results

SAMPLE NO	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	LL	PI	% BY WEIGHT GRAVEL	% SAND	% SILT	% CLAY	% PASSING (SIEVES) #10	#40	#200	% MOISTURE	% ORGANIC
S-157	13+80	CL	0.30-0.85	A-4(0)	26	6	30.9	31.7	22.4	8.1	100	86	41		
S-158	13+80	CL	0.85-3.00	A-3(0)	19	NP	40.2	51.2	5.6	4.0	100	95	10		

+2.0000%

+4.5000%

+4.5000%

+0.313%

V. LOOSE TAN SILTY F-CSE SAND, MOI

LOOSE TAN CRAY CLY SAND, MOI TO SAT

Existing Ground At -Y8- Ramp A

11/03

SOFT BRN SDY SILT, MOI

VERY LOOSE 4/03

LOOSE BRN SILTY F-CSE SAND, MOI TO LOOSE TAN AND WHITE F-CSE SAND, MOI TO SAT.

4/03

VERY LOOSE TAN SILTY F-CSE SAND, MOI

3/03

LOOSE TO MED DENSE YEL TAN F-CSE SAND AND CLY SAND, MOI TO SAT

Existing Ground At -Y8- Ramp A

23m LT

18m LT

3/03

3/03

3/03

35.369

39 38 37 36 35 34 33 32 31 30

+60 +40 +20 14 +80 +60 +40 +20 13 +80 +60 +40 +20 12 +80 +60 +40 +20

DEGN
End Grade
-Y8RPA- Sta. 10+00.000 =
-L- Sta. 151+70.000
Elev. 35.369

35.369

8m LT

17m LT

LOOSE TAN SILTY SAND MOI

3/03

LOOSE TO MED. TAN BRN F-CSE SAND

3/03

DENSE SAND AND CLY SAND

Existing Ground At -Y8- Ramp A

39 38 37 36 35 34 33 32 31 30

11 +80 +60 +40 +20 10

PROJECT REFERENCE NO. R-2554BA | SHEET NO. 14

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.

-Y8- Ramp B

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	LL	PI	% BY WEIGHT C&GRAV	F.SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	425µm	75µm	% MOISTURE	% ORGANIC
SS-412	11+60	CL	0.76-1.21	A-6(7)	35	20	18.2	37.2	29.4	26.1	100	92	50		
SS-413	11+60	CL	1.52-1.97	A-7-6(10)	43	29	11.5	40.0	27.8	20.7	100	97	65	21.2	
SS-414	11+60	CL	2.28-2.73	A-2-6(1)	30	15	19.7	54.5	7.9	18.1	100	97	28		
SS-415	11+60	CL	3.05-3.50	A-2-4(0)	22	-	157.1	28.5	33	10.1	100	76	15		
SS-416	12+00	CL	0.30-0.65	A-2-4(0)	18	NP	131.6	51.3	31	8.0	100	57	23		
SS-430	14+00	CL	0.76-1.21	A-6(7)	39	22	17.1	38.0	14.5	30.2	100	94	49		
SS-431	14+00	CL	1.52-1.97	A-7-6(8)	41	26	17.9	38.4	13.6	30.2	100	95	48		
SS-432	14+00	CL	2.28-2.73	A-7-6(10)	51	35	10.0	45.8	7.9	36.4	100	91	64		
SS-433	14+00	CL	3.05-3.50	A-2-4(0)	21	NP	11.1	71.6	13	10.1	100	99	20		

Begin Grade
-Y8RPB- Sta. 10+00.000
-L- Sta. 142+40.000
Elev. 38.881

PI = 10+50.000
EL = 39.080 m
VC = 60 m
K = 86

PI = 12+15.000
EL = 38.585 m
VC = 120 m
K = 52

End Grade
-Y8RPB- Sta. 14+72.417 =
-Y8- Sta. 17+05.420
Elev. 43.733

38.881 | +0.3972% | -0.3000% | +2.0000% | 41.485

V. LOOSE TO LOOSE TAN BROWN F-CSE SAND MOIST TO SAT

STIFF RED BRN AND GRAY SILTY SANDY CLAY, WET

MED. DENSE TAN, BRN AND ORANGE F-CSE SAND, SAT

-0.3000% AND 0

GRAY SILTY F SDY CLAY WET

Existing Ground At -Y8- Ramp B

43.733 | D2 | 41.485

V. LOOSE SOFT TO MED TAN BRN F-CSE SAND MOIST TO SAT

STIFF RED BRN AND GRAY SILTY SANDY CLAY, WET

Existing Ground At -Y8- Ramp B

LOOSE TO MED DENSE RND ORANGE CL F-

YEL TAN CSE SAND, SAT

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	7E
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.

-Y8- Ramp C

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	LL	PI	% BY WEIGHT COBB	GRAVEL	SAND	SILT	CLAY	% PASSING SIEVES 3.80mm	425µm	75µm	% MOISTURE	% ORGANIC
SS-382	11+24	CL	0.30-0.45	A-2-(0)	14	NP	5.8	40.7		12.4	41	100	51	31		
SS-383	11+24	CL	0.76-1.21	A-6(5)	30	15	16.8	33.3		21.0	28.5	100	93	57		
SS-384	11+24	CL	1.52-1.97	A-6(12)	39	23	11.7	30.7		24.2	33.3	100	96	63		
SS-385	14+24	CL	0.30-0.45	A-2-(0)	21	NP	24.5	59.5		8.9	7.1	100	74	19		
SS-386	14+24	CL	0.76-1.21	A-2-(0)	24	7	24.6	48.3		8.9	18.2	100	89	34		
SS-387	14+24	CL	1.52-1.97	A-7-6(11)	42	24	3.7	36.8		17.2	42.4	100	97	58		
SS-388	14+24	CL	1.99-2.84	A-6(6)	40	22	14.1	52.9		6.1	26.5	100	91	39		
SS-389	14+24	CL	2.14-2.56	A-2-(0)	24	7	4.2	33.6		10.1	52.2	99	71	30		
SS-390	14+24	CL	4.60-4.99	A-1-b(0)	23	NP	5.8	82		12.9	9.1	95	30	8		
SS-391	14+24	CL	6.86-7.31	A-6(2)	30	19	4.1	15.4		22.4	44.1	94	71	37		

Begin Grade
-Y8RPC- Sta. 10+00.000
-L- Sta. 142+00.000
Elev. 38.721

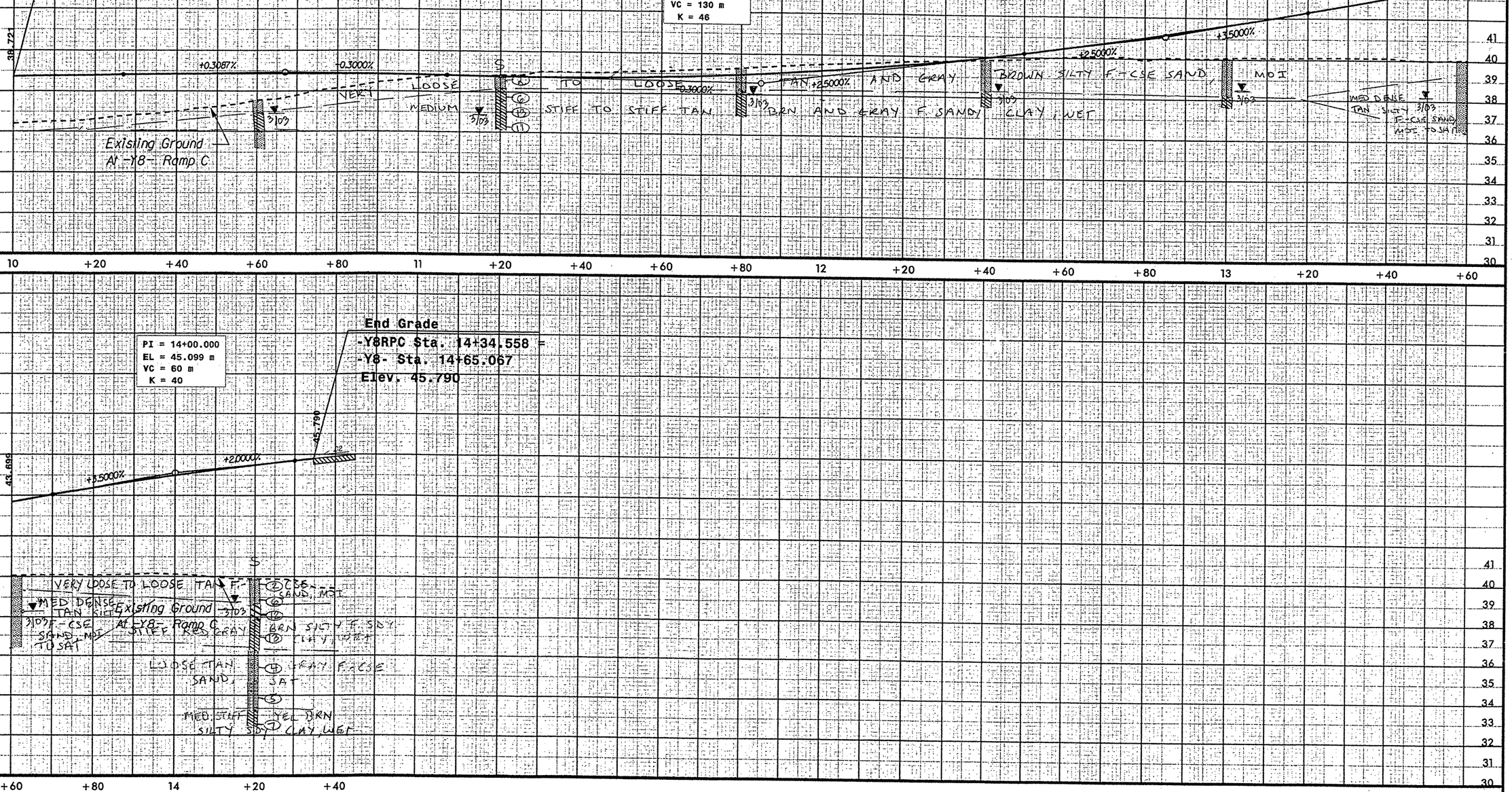
PI = 10+67.000
EL = 38.928 m
VC = 80 m
K = 131

PI = 11+85.000
EL = 38.574 m
VC = 130 m
K = 46

PI = 12+85.000
EL = 41.074 m
VC = 70 m
K = 70

End Grade
-Y8RPC Sta. 14+34.558 =
-Y8- Sta. 14+65.067
Elev. 45.790

PI = 14+00.000
EL = 45.099 m
VC = 60 m
K = 40



PROJECT REFERENCE NO. R-2554BA | SHEET NO. 76

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

METRIC 5 0 10

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

CONST.REV.

R/W REV.

-Y8- Ramp D

End Grade
-Y8RPD- Sta. 15+21.089 =
-Y8- Sta. 14+66.608
Elev. 45.820

PI = 14+80.000
EL = 44.998 m
VC = 60 m
K = 26

45.820

02

+2.0000%

-1.4300%

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY	% PASSING (SIEVES) 2"(50MM)	#10(2MM)	#40(.42MM)	#200(.074MM)	W. MOISTURE	O. ORGANIC
SS-392	14+40	CL	0.30-0.45	A-2-4(0)	17	NP		27.7	59.8	8.5	4.0	100	90	38			
SS-393	14+40	CL	0.76-1.21	A-4(1)	40	21		22.6	36.8	8.3	32.3	100	90	45			
SS-394	14+40	CL	1.52-1.97	A-3(0)1	58	37		9.5	33.3	11.7	44.4	100	97	63			
SS-395	14+40	CL	2.43-2.73	A-2-4(0)	20	NP		10.3	72.7	6.9	10.1	100	99	24			
SS-396	14+40	CL	5.33-5.73	A-1-b(0)	19	NP		24.7	18.4	8.8	5.1	99	71	8			
SS-397	14+40	CL	6.86-7.31	A-1-b(0)	20	NP		24.9	9.6	6.4	4.0	91	26	15			

PI = 12+75.000
EL = 36.183 m
VC = 170 m
K = 32

-1.0000%

+1.4300%

-1.0000%

Existing Ground At -Y8- Ramp D

MEDIUM STIFF 3/10ft

VERY LOOSE TAN F-CSE SAND, MOI TO STIFF YEL BRN AND GRAY SANDY CLAY, MOI

3/10ft

3/10ft

LOOSE TO MED DENSE GRAY, YEL AND TAN F-CSE SAND, SAT

LOOSE TO MED DENSE TAN, BRN TO ORANGE F-CSE SAND AND CLY F-CSE SAND, MOI TO SAT

MED STIFF GRAY BRN SDY CLAY, MOI

MED DENSE F-CSE SAND, SAT

TAN GRAY

37.191

40 39 38 37 36 35 34 33 32 31 30

+20 15 +80 +60 +40 +20 14 +80 +60 +40 +20 13 +80 +60 +40 +20 12 +80

Begin Grade
-Y8RPD- Sta. 10+00.000 =
-L- Sta. 151+19.887
Elev. 36.359

PI = 11+50.000
EL = 37.433 m
VC = 80 m
K = 47

PI = 10+60.000
EL = 36.803 m
VC = 40 m
K = 991

37.191

-1.0000%

+1.0700%

+0.2000%

+0.7404%

14 RT

36.359

VERY LOOSE GRAY BRN F-CSE SAND, MOI

3/10ft

3/10ft

LOOSE TO MED DENSE TAN GRAY F-CSE SAND, SAT

Existing Ground At -Y8- Ramp D

AND CLY F-CSE SD, MOI TO SAT

40 39 38 37 36 35 34 33 32 31 30

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

METRIC

5 0 10

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	77

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.

-Y8DET-

Begin Grade
-Y8DET- Sta. 10+44.360 ~~365~~
Elev. 40.169

PI = 11+35.000
EL = 41.246
VC = 60
K = 24

REVISED GRADE

Existing Ground At -Y8Det-

LOOSE MEDIUM TAN BRN -0.3000% SILTY FINE TO COARSE SAND, MOI TO SAT
4/03 STIFF TO STIFF TAN GRAY RED SANDY CLAY, MOI TO WET

REVISED GRADE

10/12 39.222

41 40 39 38 37 36 35

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

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 2.00mm	19mm	75mm	% MOISTURE	% ORGANIC
S-153	12+00	CL	0.30-1.20	A-2-4(0)	15	NP	35.5	53.7	41.8	2.0	100	87	13		
S-154	12+00	CL	1.20-1.80	A-6(2)	35	18	27.4	40.0	30.4	22.2	100	93	36		
S-151	13+80	CL	0.30-1.10	A-6(5)	35	19	21.2	35.3	33.2	30.3	100	92	47		
S-152	13+80	CL	1.10-1.80	A-6(8)	39	20	16.1	36.3	39.3	28.1	100	95	52		
S-149	15+60	CL	0.00-0.90	A-2-6(0)	32	16	34.1	51.6	10.1	4.0	100	86	33		
S-147	15+60	CL	0.90-1.40	A-6(4)	32	16	14.1	44.6	21.1	20.3	100	95	43		
S-150	15+60	CL	1.40-1.80	A-7-6(11)	44	30	11.9	42.6	25.3	24.2	100	96	51		

PI = 15+49.920
EL = 38.652 m
VC = 200 m
K = 333

PI = 16+79.000
EL = 38.826m
VC = 70m
K = 79

End Grade
-Y8DET- Sta. 16+57.470 ~~460~~
Elev. 38.975

Existing Ground At -Y8Det-

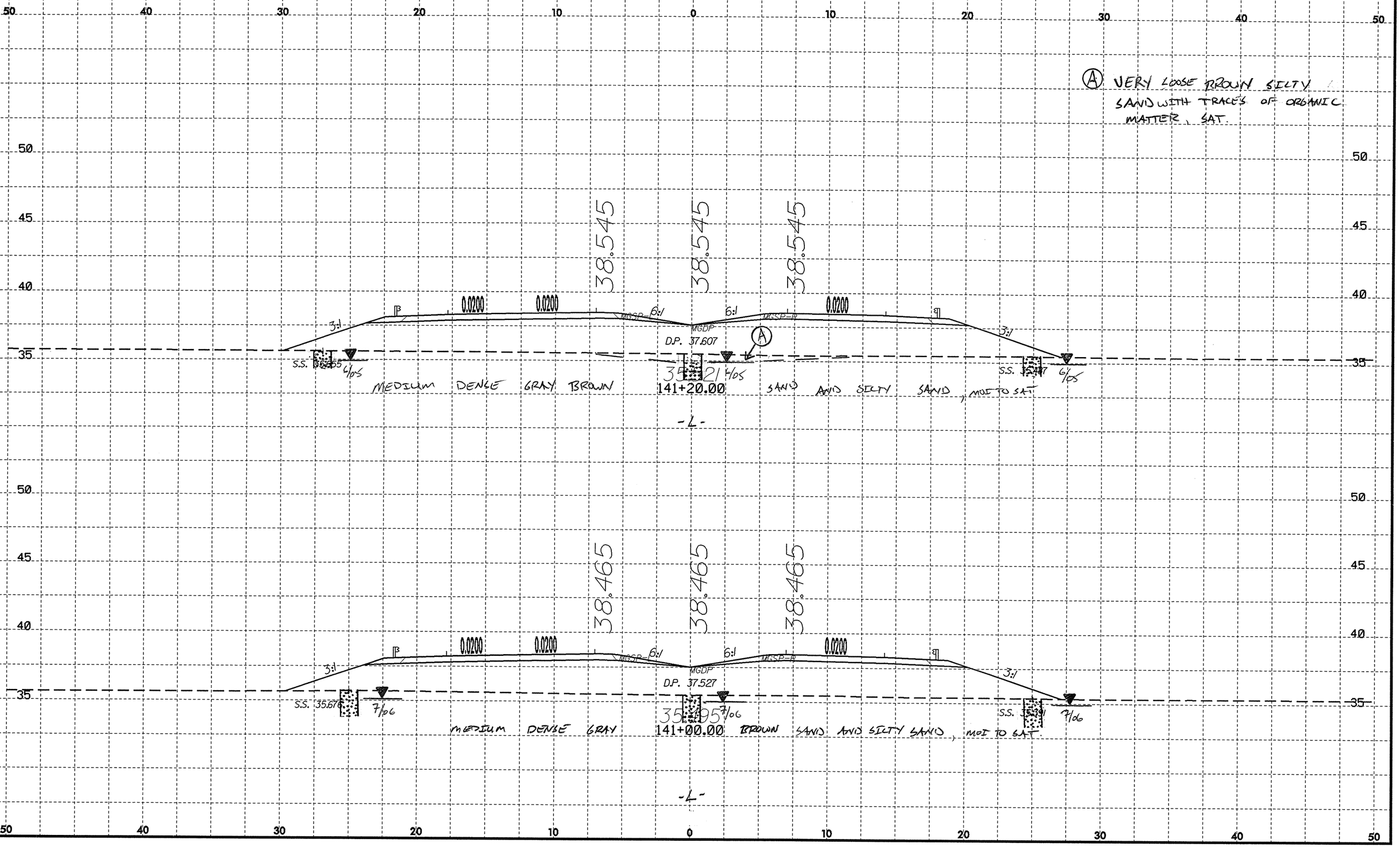
10/12 39.222

REVISED GRADE

MEDIUM STIFF TO STIFF LOOSE TO MED DENSE TAN GRAY SILTY SAND, SAT
4/03 -0.3000% TAN SILTY SANDY CLAY, MOI TO WET
-0.3000% BRN SILTY F. TO CSE. SAND, MOI TO SAT
4/03

41 40 39 38 37 36 35

+60 +80 14 +20 +40 +60 +80 15 +20 +40 +60 +80 16 +20 +40 +60 +80 17

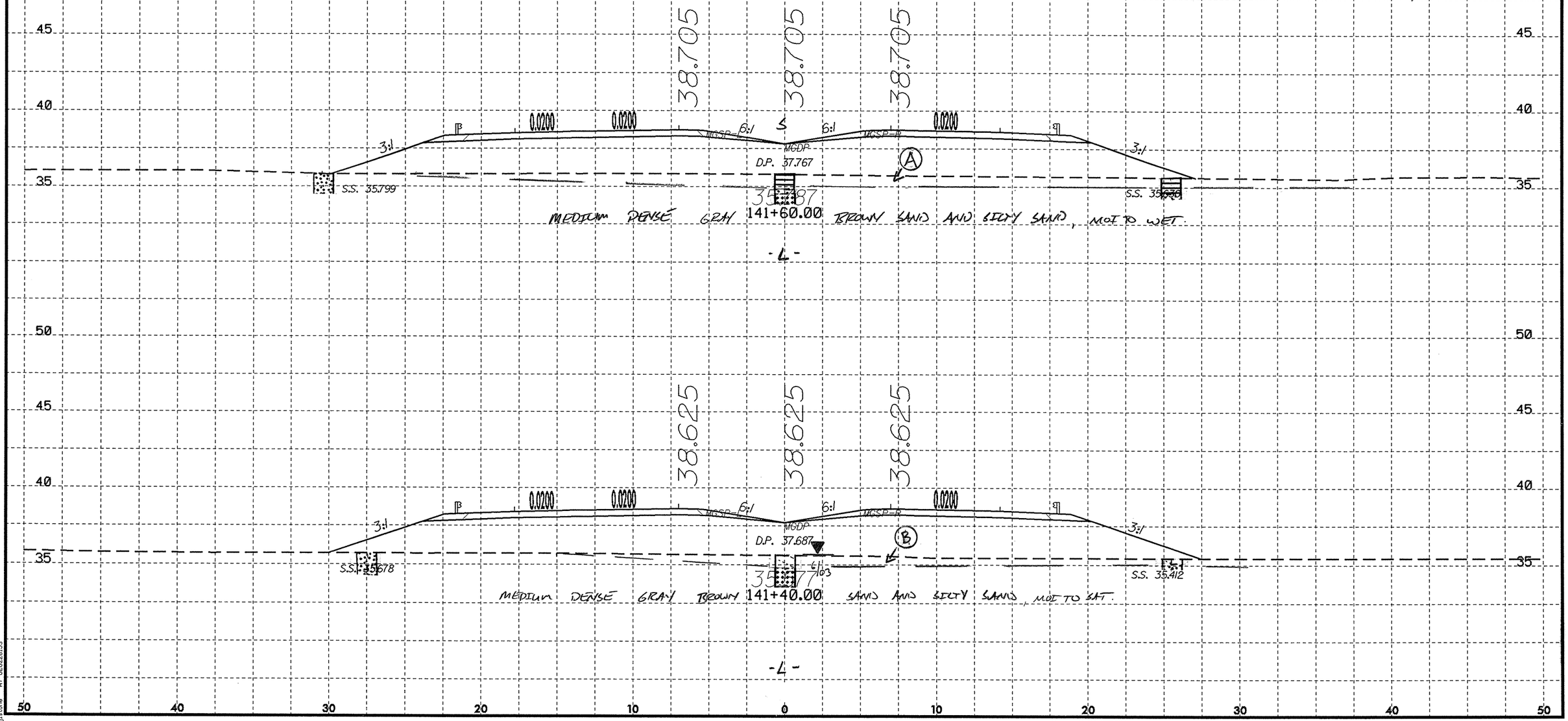


Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 2.0 mm	425 µm	75 um	% MOISTURE	% ORGANIC
S-505	141+60	CL	0.30-0.91	A-4(3)	32	9.0	26.0	21.7	36.0	16.4	100	87	56		6

(A) VERY LOOSE BROWN SANDY SILT WITH TRACES OF ORGANIC MATTER, SAT

(B) VERY LOOSE BROWN SILTY SAND WITH TRACES OF ORGANIC MATTER, SAT



PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	80

2.5 0 2.5 5

50 40 30 20 10 0 10 20 30 40 50

55 50 45 40 35

Ⓐ VERY SOFT, BROWN WET SANDY SILT WITH TRACES OF ORGANIC MATTER, SAT

38.865 38.865 38.865 38.721 Y8RPG 10+00.000

0.3

S.S. 36.551

4.70:1 0.0200 0.0200 6:1 6:1 0.0200 0.0199 3.9:1:1

MGSP MGDP MGSP-R

D.P. 37.927

3:1 3:1 35.982

S.S. 36.133

MEDIUM DENSE GRAY BROWN SAND 3/b 36 AND SILTY SAND, MOI TO SAT

142+00.000

-L-

38.785 38.785 38.785

S.S. 36.011

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

MGSP 6:1 6:1 MGSP-R MGDP

D.P. 37.847

Ⓐ Ⓐ

35.873

S.S. 36.170

MEDIUM DENSE GRAY BROWN SAND AND SILTY SAND, MOI TO SAT

141+80.00

-L-

2.5 0 2.5 5

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	81

50 40 30 20 10 0 10 20 30 40 50

50 45 40 35

S.S. 36.157

3:1 6:1 0.0325 35.65/ 5.33:1 MGSP 5.4:1 MGSP 0.0312 0.0325 3:1

34.349

MGDP

D.P. 34.604

34.47/63

9/96

S.S. 32.451

152+20.00

LOOSE TO MEDIUM DENSE TAN GRAY SILTY SAND AND CLAYEY SAND, SAT.

-L-

S.S. 36.622

3:1 6:1 0.0479 35.660 5.55:1 MGSP 5.84:1 MGSP 0.0477 0.0479 3.17:1

34.211

D.P. 34.664

34.611

S.S. 33.235

152+00.00

LOOSE TO MEDIUM DENSE TAN GRAY SILTY SAND AND CLAYEY SAND, SAT.

-L-

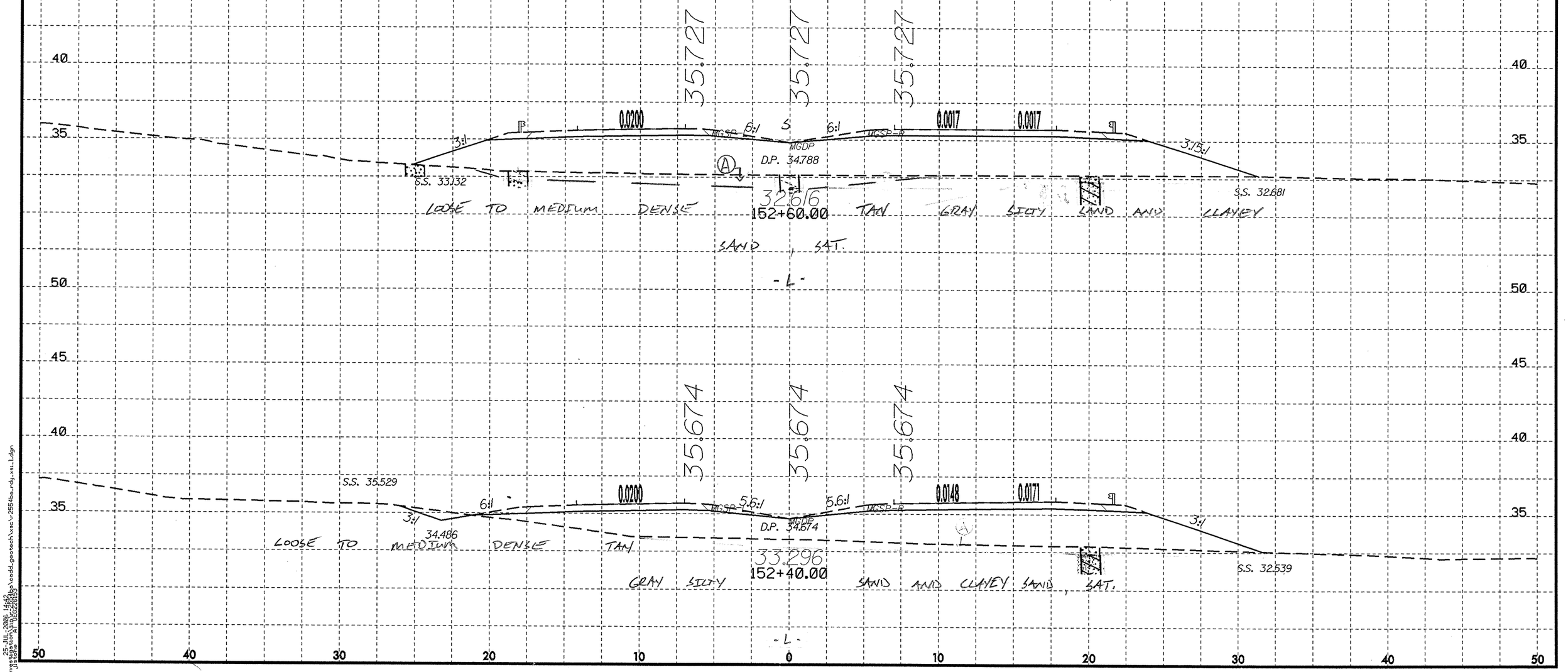
50 40 30 20 10 0 10 20 30 40 50

2.5 0 2.5 5 METRIC

Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 2.0 mm	425 um	75 um	% MOISTURE	% ORGANIC
S-900	152+60	CL	0.31-0.61	A-2-4(0)	28	NP	31.4	51.2	14.8	2.6	99	86	21	22	6

Ⓐ VERY LOOSE BROWN MODERATELY ORGANIC SILTY SAND, SAT.



Soil Sample Test Results

SAMPLE NO.	STATION	OFFSET	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 2.0 mm	425 um	75 um	% MOISTURE	% ORGANIC
S-901	153+00	CL	0.31-0.61	A-2-4(0)	23	NP	45.4	39.8	10.2	4.6	99	75	17	40	10

Ⓐ VERY LOOSE TO LOOSE BROWN MODERATELY ORGANIC SILTY SAND, SAT.

35.925 35.925 35.925

0.0200 0.0200 0.0200

7/06

153+00.00

LOOSE TO MEDIUM DENSE TAN GRAY SILTY SAND AND CLAYEY SAND, SAT.

-L-

35.810 35.810 35.810

0.0200 6:1 6:1 0.0182 0.0137

3:1 3:1

MGSP MGSP MGDP

D.P. 34.872

S.S. 32.566 S.S. 32.320

7/06

32.158

152+80.00

LOOSE TO MEDIUM DENSE TAN GRAY SILTY SAND AND CLAYEY SAND, SAT.

-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2554BA	84

2.5 0 2.5 5

50 40 30 20 10 0 10 20 30 40 50

45 40 35

38.448

38.398

38.380

38.393

Ⓐ VERY LOOSE TAN SILTY SAND AND SOFT SANDY SILT, MOI.

SOFT TO MEDIUM STIFF TAN BROWN SANDY SILT, MOI.

13+20.000 -Y2-

LOOSE TAN SILTY SAND ROADWAY EMBANKMENT

SOFT TO MEDIUM STIFF TAN BROWN SANDY SILT, MOI

MEDIUM STIFF TAN GRAY CLAYEY SANDY SILT, MOI TO WET

13+00.000 -Y2-

LOOSE TAN SILTY SAND MOI ROADWAY EMBANKMENT

SOFT TO MEDIUM STIFF TAN BROWN SANDY SILT, MOI

MEDIUM STIFF TAN GRAY CLAYEY SANDY SILT MOI TO WET

12+80.000 -Y2-

LOOSE SILTY SAND, MOI ROADWAY EMBANKMENT

MEDIUM STIFF TAN GRAY CLAYEY SANDY SILT MOI TO WET

MEDIUM DENSE TAN 12+60.000 SAND AND CLAYEY SAND SAT

-Y2-