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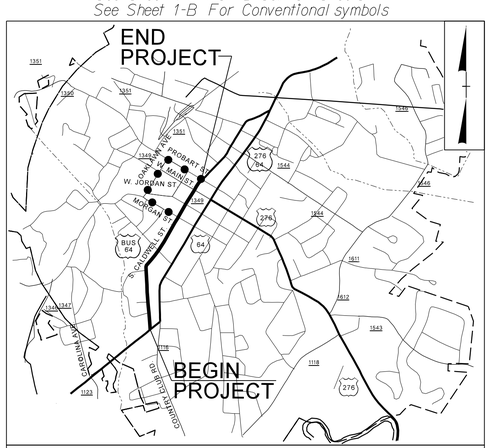
09/08/99

PROJECT: U-5104

CONTRACT: C203318

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



VICINITY MAP

OFF-SITE DETOUR ROUTE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSYLVANIA COUNTY

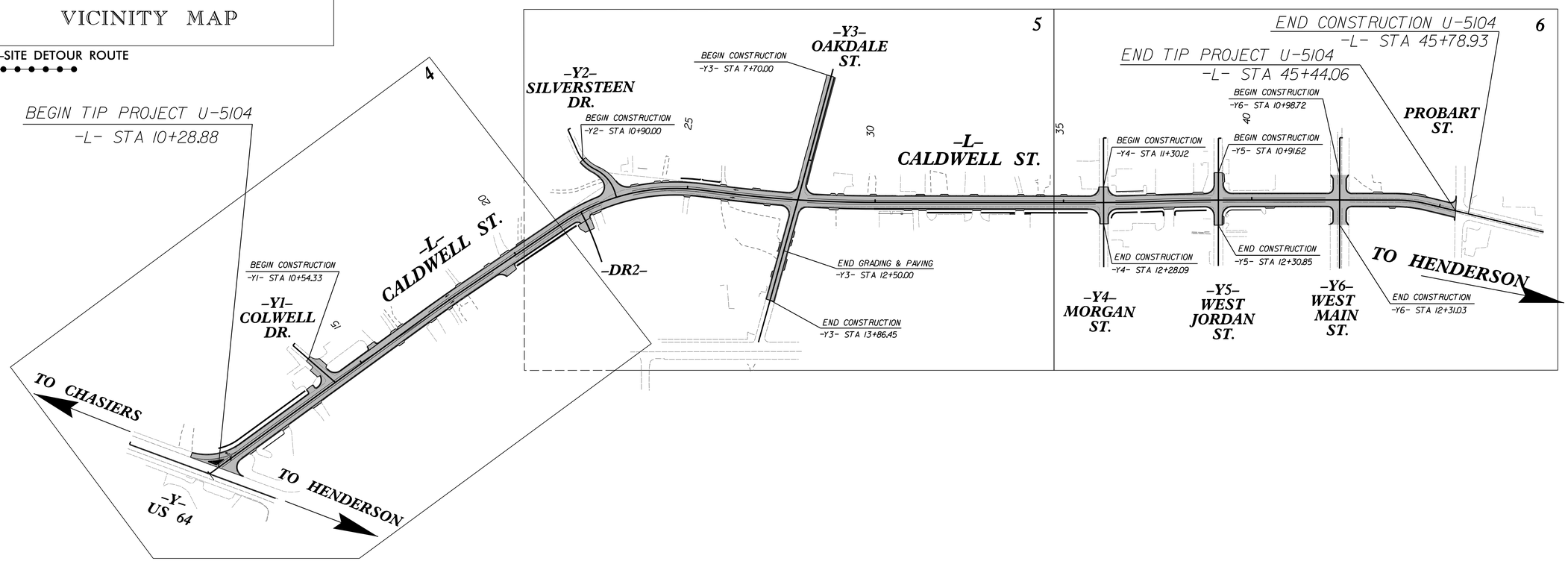
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5104	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
41902.1.1	STP-064B(3)	PE
41902.2.1	STP-064B(3)	RW/UTIL
41902.3.FR1	STP-064B(3)	CONST.

LOCATION: CALDWELL STREET FROM US 64 (ROSMAN HIGHWAY) TO PROBART STREET

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS AND WALLS.

NAD 83/2007
NSRS 2007



DESIGN EXCEPTION REQUIRED: DESIGN SPEED

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2015 = 11,600
ADT 2035 = 14,215
V = 40 MPH
CLASSIFICATION: MAJOR COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-5104 = 0.666 Mile

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: DECEMBER 2011

LETTING DATE: OCTOBER 20, 2015

NCDOT CONTACT

STEVE SCOTT, PE
PROJECT ENGINEER

BEN CRAWFORD, PE
PROJECT DESIGN ENGINEER

STEPHEN WILLIAMS
DIVISION PROJECT MANAGER-NCDOT

HYDRAULICS ENGINEER
8/27/2015
DocuSigned by: Brian Mazzeoli
SIGNATURE:
NORTH CAROLINA PROFESSIONAL SEAL 33719 ENGINEER BRIAN MAZZEOLI
P.E.

ROADWAY DESIGN ENGINEER
8/27/2015
DocuSigned by: Steve Scott
SIGNATURE:
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
P.E.

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

8/27/2015
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8/17/99

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
U-5104	1A

SEPI ENGINEERING & CONSTRUCTION
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License: C-2197

ROADWAY DESIGN ENGINEER
9/11/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
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INDEX OF SHEETS

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1 THRU 1C-2	SURVEY CONTROL SHEETS
2A-1 THRU 2A-7	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
2B-1 THRU 2B-2	INTERSECTION DETAIL SHEETS
2C-1	2'-6" C & G TO EXPRESSWAY GUTTER TRANSITION
2C-2	STAMPED CONCRETE CROSSWALK DETAIL
2C-3	DETAIL OF CONCRETE STEPS WITH HANDRAIL
2C-4	DETAIL OF PEDESTRIAN SAFETY RAIL
2D-1	DETAIL OF PROPOSED OFFSET CATCH BASIN
2G-1	STANDARD TEMPORARY SHORING
3B-1	SUMMARY OF EARTHWORK.SUMMARY OF PAVEMENT REMOVAL, SUMMARY OF SUBSURFACE DRAINAGE, SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION, AND SUMMARY OF REPLACEMENT OF CONCRETE STEPS
3D-1 THRU 3D-4	SUMMARY OF DRAINAGE QUANTITIES
3P-1	PARCEL INDEX SHEET
4 THRU 6	PLAN SHEETS
7 THRU 9	PROFILE SHEETS
TMP-1 THRU TMP-8	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-5	PAVEMENT MARKING PLANS
EC-1 THRU EC-8/CONST.6	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-4	SIGNING PLANS
SIG-1 THRU SCP.11	SIGNAL PLANS
UC-1 THRU UC-4	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-4	UTILITIES BY OTHERS PLANS
W-1 THRU W-19	WALL PLANS
X-1	CROSS SECTIONS INDEX
X-1A	CROSS SECTIONS SUMMARY
X-2 THRU X- 50	CROSS-SECTIONS

GENERAL NOTES

GENERAL NOTES

GENERAL NOTES: 2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 08/31/11

GRADE LINE:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO.815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3' RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE:
CITY OF BREVARD, DUKE ENERGY, COMPORIUM COMMUNICATIONS, MORRIS BROADBAND
NCDOT ITS, PSNC ENERGY, and EDUCATION AND RESEARCH CONSORTIUM OF THE WESTERN CAROLINAS

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

Curb Ramps:

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS.

LIST OF STANDARDS

STANDARD DRAWINGS

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES & PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
815.02	Subsurface Drain
840.00	Concrete Base Pad for Drianage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.17	Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.22	Frames and Wide Slot Sag Grates
840.24	Frames and Narrow Slot Sag Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.26	Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.52	Precast Manhole 4', 5', and 6' Diameter
840.54	Manhole Frame And Cover
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
846.02	Drop Inlet Installation In Expressway Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb & Gutter
852.01	Concrete Islands
866.01	Chain Link Fence - 4', 5' and 6' High Fence
876.02	Guide for Rip Rap at Pipe Outlets

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04/16/11

PROJECT REFERENCE NO.	SHEET NO.
U-5104	1-B

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
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License: C-2197

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite Marker — RW
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

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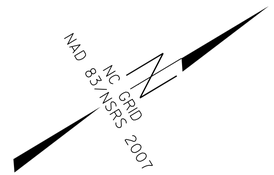
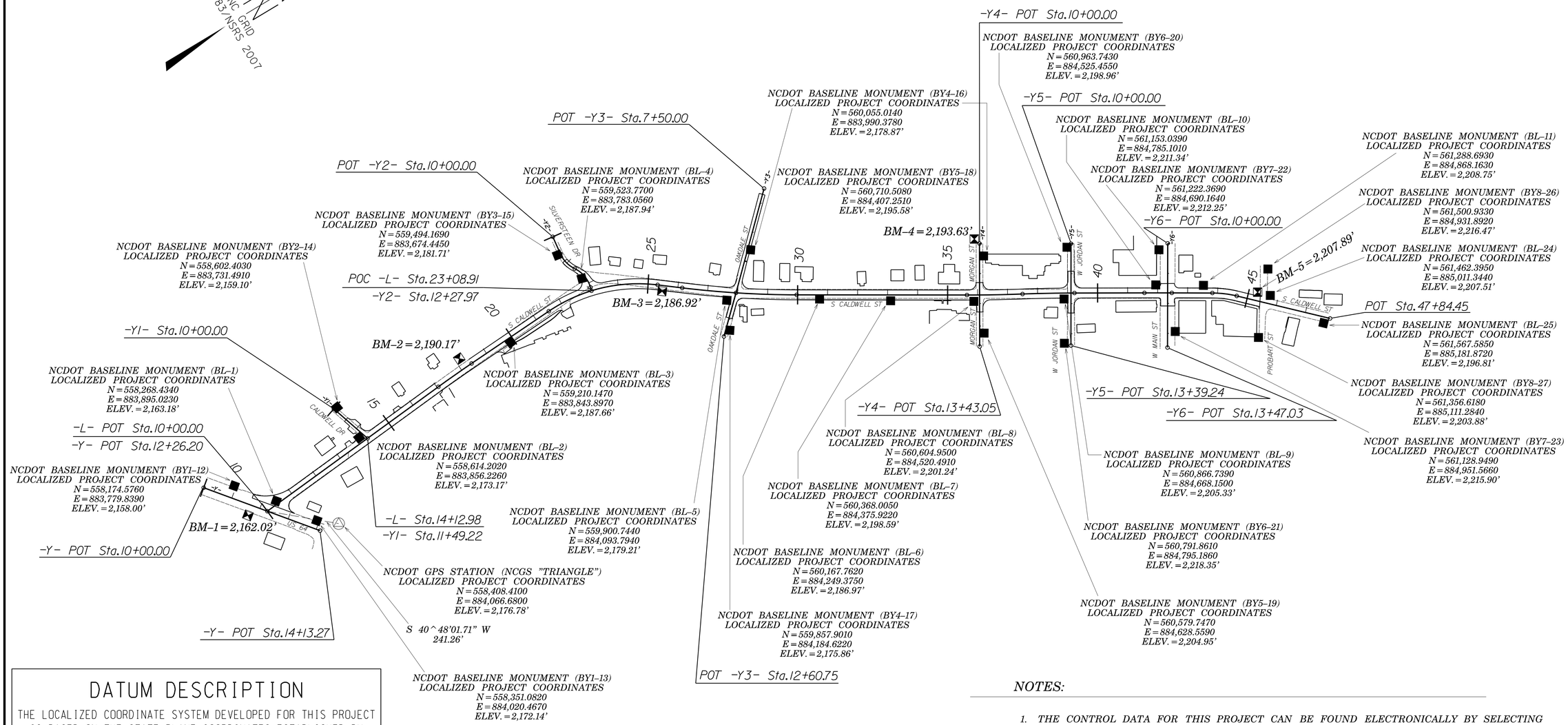
PROJECT REFERENCE NO.	SHEET NO.
U-5104	1C-1
Location and Surveys	

SURVEY CONTROL SHEET U-5104
-FINAL-





DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "TRIANGLE"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 558408.4100(ft) EASTING: 884066.6800(ft)
ELEVATION: 2176.78(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99977257
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "TRIANGLE" TO -L- STATION 10+00.00 IS
S 40°48'01.71" W 241.26'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION/

THE FILES TO BE FOUND ARE AS FOLLOWS:
U-5104_LS_CONTROL.TXT

SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

△ INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

6/2/99

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PROJECT REFERENCE NO.	SHEET NO.
U-5104	1C-2
Location and Surveys	

SURVEY CONTROL SHEET U-5104
-FINAL-

BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	BL-1	558268.4340	883895.0230	2163.18	10+43.73	10.18 LT
2	BL-2	558614.2020	883856.2260	2173.17	13+91.57	18.23 LT
3	BL-3	559210.1470	883843.8970	2187.66	19+86.89	14.98 RT
4	BL-4	559523.7700	883783.0560	2187.94	22+92.18	48.98 LT
5	BL-5	559900.7440	884093.7940	2179.21	27+66.02	26.58 RT
6	BL-6	560167.7620	884249.3750	2186.97	30+73.31	13.96 RT
7	BL-7	560368.0050	884375.9220	2198.59	33+10.13	19.25 RT
8	BL-8	560604.9500	884520.4910	2201.24	35+87.59	21.14 RT
9	BL-9	560866.7390	884668.1500	2205.33	38+88.04	19.69 RT
10	BL-10	561153.0390	884785.1010	2211.34	41+93.89	26.71 LT
11	BL-11	561288.6930	884868.1630	2208.75	43+52.89	25.53 LT
24	BL-24	561462.3950	885011.3440	2207.51	45+72.77	28.04 LT
25	BL-25	561567.5850	885181.8720	2196.81	47+67.32	19.85 RT

BY1

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
12	BY1-12	558174.5760	883779.8390	2158.00	OUTSIDE PROJECT LIMITS	
201	BL-1	558268.4340	883895.0230	2163.18	10+43.73	10.18 LT
13	BY1-13	558351.0820	884020.4670	2172.14	11+14.95	122.08 RT

BY2

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
14	BY2-14	558602.4030	883731.4910	2159.10	13+90.86	143.52 LT
202	BL-2	558614.2020	883856.2260	2173.17	13+91.57	18.23 LT

BY3

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
15	BY3-15	559494.1690	883674.4450	2181.71	22+51.88	150.95 LT
204	BL-4	559523.7700	883783.0560	2187.94	22+92.18	48.98 LT

BY4

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
16	BY4-16	560055.0140	883990.3780	2178.87	28+35.83	146.06 LT
205	BL-5	559900.7440	884093.7940	2179.21	27+66.02	26.58 RT
17	BY4-17	559857.9010	884184.6220	2175.86	27+82.62	125.56 RT

BY5

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
18	BY5-18	560710.5080	884407.2510	2195.58	36+21.36	130.02 LT
208	BL-8	560604.9500	884520.4910	2201.24	35+87.59	21.14 RT
19	BY5-19	560579.7470	884628.5590	2204.95	36+20.29	127.02 RT

BY6

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
20	BY6-20	560963.7430	884525.4550	2198.96	38+99.00	152.50 LT
209	BL-9	560866.7390	884668.1500	2205.33	38+88.04	19.69 RT
21	BY6-21	560791.8610	884795.1860	2218.35	38+87.86	167.15 RT

BY7

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
22	BY7-22	561222.3690	884690.1640	2212.25	42+04.46	143.79 LT
210	BL-10	561153.0390	884785.1010	2211.34	41+93.89	26.71 LT
23	BY7-23	561128.9490	884951.5660	2215.90	42+59.12	128.36 RT

BY8

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
26	BY8-26	561500.9330	884931.8920	2216.47	45+44.56	111.71 LT
224	BL-24	561462.3950	885011.3440	2207.51	45+72.77	28.04 LT
27	BY8-27	561356.6180	885111.2840	2203.88	45+67.38	117.39 RT

.....

BM1 ELEVATION = 2162.02
N 558163 E 883888
L STATION 10+00.00
S 18°41'37.02" W DIST 66.09
CHISELED SQUARE IN CONC CURB

.....
.....

BM2 ELEVATION = 2190.17
N 559036 E 883802
L STATION 18+15.00 36 LEFT
EIGHT INCH SPIKE SET IN BASE OF SIXTEEN INCH SPRUCE PINE

.....
.....

BM3 ELEVATION = 2186.92
N 559731 E 883957
L STATION 25+50.00 19 RIGHT
CHISLED SQUARE IN EDGE OF CONC SIDEWALK

.....
.....

BM4 ELEVATION = 2193.63
N 560713 E 884343
L STATION 35+90.00 187 LEFT
CHISLED SQUARE IN EDGE OF CONC SIDEWALK

.....
.....

BM5 ELEVATION = 2207.89
N 561432 E 884981
L STATION 45+29.00 28 LEFT
CHISLED SQUARE IN CONC SIDEWALK

.....

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "TRIANGLE"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 558408.4100(ft) EASTING: 884066.6800(ft)
ELEVATION: 2176.78(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99977257
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "TRIANGLE" TO -L- STATION 10+00.00 IS
S 40°48'01.71" W 241.26'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

-FINAL- ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	11+21.17	-30.00	558343.8219	883868.4297
L	13+85.59	-30.00	558607.1975	883845.0319
L	14+26.63	-30.00	558648.0770	883841.4002
L	16+37.21	-30.00	558857.8386	883822.7654
L	16+46.22	-30.00	558866.8047	883821.9689
L	17+04.77	-30.00	558925.1271	883816.7876
L	18+40.01	-30.00	559061.0313	883807.0266
L	20+04.36	-30.00	559225.1269	883798.0262
L	20+04.36	-25.00	559225.4608	883803.0154
L	24+62.82	-30.00	559687.0807	883866.6427
L	25+32.05	-30.00	559747.5722	883907.6532
L	26+14.56	-30.00	559812.7181	883958.2892
L	27+79.74	-30.00	559944.4481	884055.3313
L	28+23.20	-41.64	559986.4488	884070.0882
L	28+34.00	-30.00	559988.7874	884085.7065
L	29+96.91	-30.00	560124.9306	884172.3371
L	32+06.77	-30.00	560304.7942	884280.4567
L	32+06.77	-29.00	560304.2790	884281.3138
L	32+22.89	-29.00	560318.0951	884289.6190
L	32+22.89	-30.00	560318.6103	884288.7619
L	35+64.46	-30.00	560611.3536	884464.7358
L	35+86.62	-41.46	560636.1160	884466.1926
L	36+27.06	-41.15	560670.5028	884486.8146
L	36+38.30	-30.00	560674.5394	884502.0594
L	37+49.75	-30.00	560770.9596	884556.5321
L	38+86.00	-30.00	560890.1531	884624.2775
L	38+91.09	-37.00	560898.1188	884620.8409
L	39+44.00	26.26	560911.3487	884702.3168
L	39+44.00	39.50	560904.5538	884713.6857
L	39+31.01	39.41	560893.4484	884706.9472
L	38+90.73	43.10	560857.1729	884689.6889
L	38+75.50	30.00	560850.7648	884670.7404
L	37+49.75	30.00	560742.0551	884609.1109
L	36+35.00	30.00	560641.5472	884552.2832
L	36+25.97	58.00	560619.5824	884571.8923
L	35+86.49	34.00	560597.4265	884530.9776
L	35+64.46	30.00	560580.4415	884516.1600
L	29+96.91	30.00	560094.0185	884223.7612
L	28+27.00	30.00	559949.4401	884131.5408
L	28+27.00	36.00	559946.0804	884136.5119
L	28+07.53	35.50	559930.0875	884125.0271
L	27+66.68	38.00	559894.7158	884103.5163
L	27+60.00	30.00	559893.8096	884093.0878
L	26+14.56	30.00	559775.8967	884005.6620
L	25+32.05	30.00	559710.7507	883955.0259
L	21+50.68	30.00	559374.5165	883849.9225
L	18+40.01	30.00	559064.3173	883866.9366
L	17+04.77	30.00	558930.4364	883876.5522
L	11+21.17	29.91	558349.1160	883928.1010

PUE

-FINAL- ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	14+22.18	-49.36	558641.9360	883822.5070
L	17+67.73	-45.59	558987.2228	883796.1255
L	17+80.35	-51.06	558999.5667	883789.7590
L	18+12.81	-29.92	559033.6729	883808.6982
L	22+73.05	-138.00	559518.7548	883691.3897
L	22+77.59	-148.29	559526.2592	883682.2983
L	23+22.73	-83.54	559565.3235	883757.6357
L	23+77.71	-57.37	559616.1871	883801.9983
L	24+88.51	-47.76	559719.8643	883866.0709
L	27+82.52	-44.73	559955.1208	884044.8142
L	38+38.50	-30.00	560848.8205	884600.2772
L	38+91.18	-58.33	560909.0220	884602.5080
L	39+30.83	-44.56	560936.3724	884634.7733
L	39+40.68	-44.81	560944.9604	884639.6115
L	39+42.86	-30.00	560939.2322	884653.4449
L	41+56.10	-30.00	561122.2700	884762.8426
L	41+95.84	-38.23	561160.6370	884776.2261
L	37+84.38	30.00	560772.1545	884625.7993
L	37+45.39	54.82	560726.2407	884628.7329
L	36+47.17	46.77	560643.7485	884572.9440
L	36+25.90	65.15	560615.9139	884578.0351
L	35+86.47	45.78	560591.3845	884541.0949
L	29+35.61	44.41	560033.6348	884203.5852
L	29+16.12	50.37	560013.7266	884198.0536
L	28+82.93	30.00	559996.4898	884162.7443
L	27+63.37	54.93	559882.2174	884115.4213
L	27+53.00	55.00	559873.5699	884109.3870
L	27+38.44	52.42	559863.0168	884098.6918
L	27+37.25	30.00	559875.1039	884079.7666
L	22+56.55	30.00	559474.1674	883854.3623
L	22+32.43	38.52	559450.7351	883860.0847
L	19+87.94	44.80	559212.8287	883873.6092
L	19+37.27	31.85	559161.5259	883863.4553
L	19+25.35	44.73	559150.3344	883876.9747
L	18+99.10	51.34	559124.4846	883885.0054
L	18+67.72	30.00	559091.9799	883865.4193
L	14+48.28	29.96	558674.9512	883899.2075
L	14+55.42	58.21	558684.5584	883926.7151
L	14+36.08	63.34	558665.7566	883933.5333
L	14+27.33	29.96	558654.0879	883901.0575
L	12+91.88	29.93	558519.1595	883913.0223
L	12+54.54	51.20	558483.8514	883937.5143
L	10+95.53	44.98	558324.9172	883945.3882

NOTE: DRAWING NOT TO SCALE

-L- FINAL

TYPE	STATION	NORTH	EAST
POT	10+00.00	558225.7790	883909.0345
PC	17+04.77	558927.7817	883846.6699
PT	18+40.01	559062.6743	883836.9816
PC	21+50.68	559372.8735	883819.9675
PT	25+32.05	559729.1614	883931.3395
PC	26+14.56	559794.3074	883981.9756
PT	29+96.91	560109.4745	884198.0491
PC	35+64.46	560595.8976	884490.4479
PRC	37+49.75	560756.5074	884582.8215
PT	39+22.88	560906.6918	884668.9461
PC	41+56.10	561106.8791	884788.5937
PT	42+47.38	561185.1445	884835.5653
PC	43+82.45	561300.8349	884905.2855
PT	44+64.48	561365.5116	884955.4344
POT	47+84.45	561593.7147	885179.7151

-Y- FINAL

TYPE	STATION	NORTH	EAST
POT	10+00.00	558083.9737	883732.8041
POT	14+13.27	558343.0348	884054.8000

-Y1- FINAL

TYPE	STATION	NORTH	EAST
POT	10+00.00	558591.0071	883730.5215
POT	11+49.22	558637.1329	883872.4298

-Y2- FINAL

TYPE	STATION	NORTH	EAST
POT	10+00.00	559511.8940	883614.2725
PC	10+62.18	559504.4183	883675.9965
PRC	11+32.12	559519.9851	883742.7287
PT	12+16.02	559532.9114	883823.1641
POT	12+27.97	559529.8376	883834.7095

-Y3- FINAL

TYPE	STATION	NORTH	EAST
POT	7+50.00	560198.5316	883838.4496
POT	10+00.00	560018.6455	884012.0611
POT	11+09.97	559939.5183	884088.4283
POT	12+60.75	559830.2722	884192.3588

-Y4- FINAL

TYPE	STATION	NORTH	EAST
POT	10+00.00	560719.9606	884364.7058
POT	13+43.05	560544.0114	884659.1969

-Y5- FINAL

TYPE	STATION	NORTH	EAST
POT	10+00.00	560981.2543	884522.0607
POT	13+39.24	560806.7106	884812.9564

-Y6- FINAL

TYPE	STATION	NORTH	EAST
POT	10+00.00	561258.2419	884686.8463
POT	13+47.03	561079.2024	884984.1293

DUE

-FINAL- ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	10+53.31	-49.31	558274.5143	883855.2037
L	10+60.50	-55.52	558281.1327	883848.3810
L	10+79.99	-60.00	558300.1494	883842.1870
L	10+86.61	-31.28	558309.2782	883870.2142

PDE

-FINAL- ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	10+60.50	-55.52	558281.1327	883848.3810
L	10+60.00	-74.00	558278.9954	883830.0154
L	11+00.00	-74.00	558318.8385	883826.4758
L	11+00.00	-30.10	558322.7235	883870.2069
L	44+88.00	-18.00	561394.9016	884959.0813
L	44+88.00	-44.00	561413.1264	884940.5378
L	45+15.00	-43.50	561432.0325	884959.8201
L	45+15.00	-18.00	561414.1583	884978.0069

NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION/

THE FILES TO BE FOUND ARE AS FOLLOWS:
U-5104_LS_CONTROL.TXT

SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

△ INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

7/23/2015
13:20:04 pm
jbeaver
USERdefault

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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-5104	2A-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSign Envelope ID: 88B49FE84BF8480...
Steve Scott

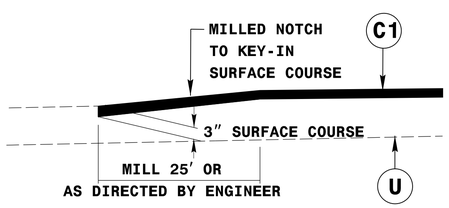
PAVEMENT ENGINEER
8/17/2015
NORTH CAROLINA PROFESSIONAL SEAL 22896 ENGINEER CLARK S. MORRISON
DocuSign Envelope ID: 90A110DD1E004C4...
Clark Morrison

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

PAVEMENT SCHEDULE

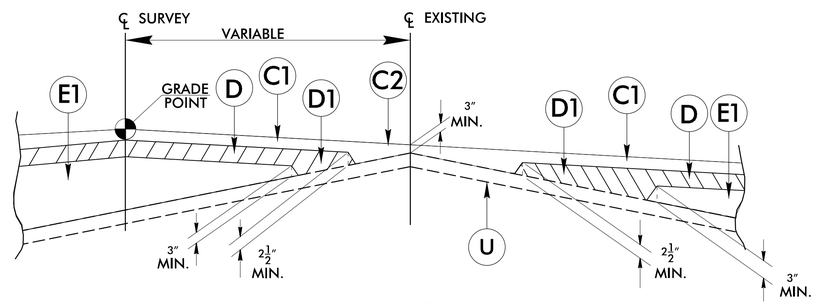
C1	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS/SY IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS/SY/IN TO BE PLACED IN LAYERS NOT TO EXCEED 1½″ IN DEPTH.
D	PROP. APPROX. 4″ ASPH. CONC. INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS/SY.
D1	PROP. VAR. DEPTH ASPH. CONC. INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS/SY/IN. DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2½″ OR GREATER THAN 4″ DEPTH.
E	PROP. APPROX. 4″ ASPH. CONC. BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS/SY.
E1	PROP. VAR. DEPTH ASPH. CONC. BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS/SY/IN. DEPTH TO BE PLACED IN LAYERS NOT GREATER THAN 5½″ OR LESS THAN 3″ DEPTH.
J1	8″ AGGREGATE BASE COURSE
R1	2′-6″ CONCRETE CURB AND GUTTER
S	4″ SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
X1	VARIABLE MILLING, 0 - 4″ DEPTH
X2	4″ MILLING
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

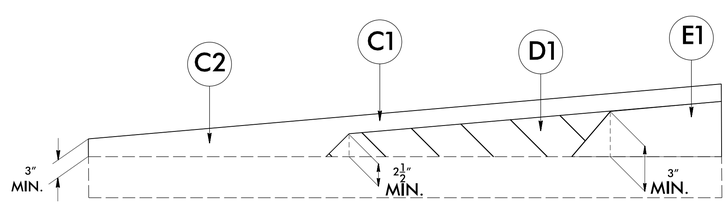


INCIDENTAL MILLING DETAIL

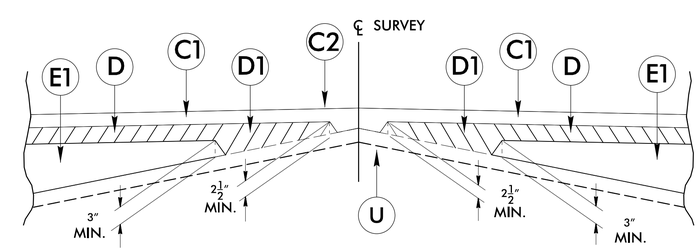
–L– STA. 10+28.80 & 45+44.06
–Y1– STA. 10+54.34
–Y2– STA. 10+90.00
–Y3– STA. 7+70.00 & 13+86.45
–Y4– STA. 11+30.12 & 12+28.09
–Y5– STA. 10+91.62 & 12+30.85
–Y6– STA. 10+98.61 & 12+31.58



Detail Showing Method Of Wedging: –L–



Wedging Detail For Resurfacing: –Y1–, –Y2–, & –Y3–



Detail Showing Method of Wedging: –L–

NOT TO SCALE

8/12/2015
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USER:Mwright

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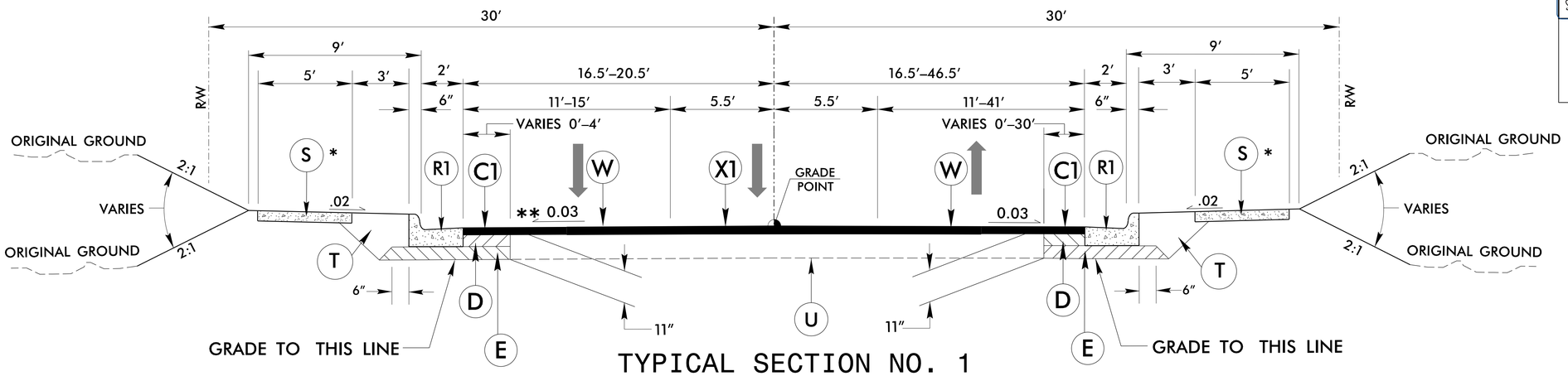
PROJECT REFERENCE NO.	SHEET NO.
U-5104	2A-2
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSign envelope ID: B8B4BFC849FB468...
Steve Scott

PAVEMENT ENGINEER
8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 22896 ENGINEER CLARK S. MORRISON
DocuSign envelope ID: 8A110DD1E00AC4...
Clark Morrison

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

℄ –L– CALDWELL STREET

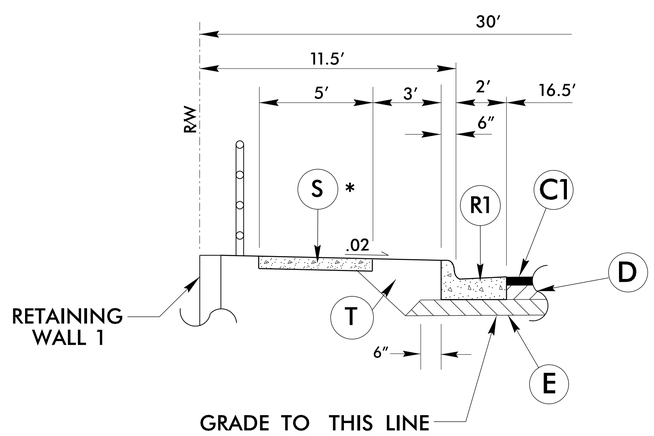


TYPICAL SECTION NO. 1

–L– STA. 10+28.80 TO 41+50.00
** RETAIN EXISTING SUPER FROM
–L– STA 39+52.00 TO 41+50.00 LT.

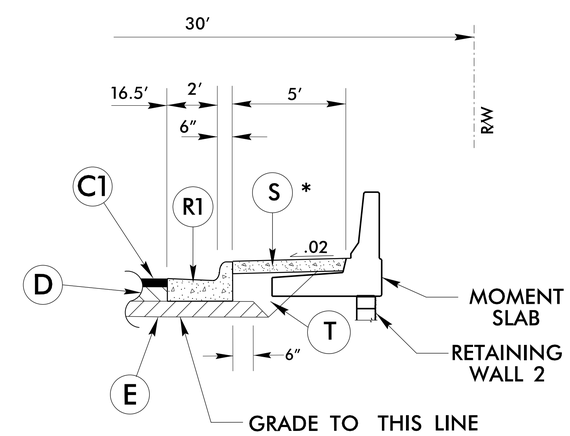
C1	3″ S9.5B
C2	VAR. S9.5B
D	4″ I19.0B
D1	VAR. I19.0B
E	4″ B25.0B
E1	VAR. B25.0B
J1	8″ ABC
R1	2′-6″ C & G
S	4″ SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT
X1	VAR MILLING 0-4″
X2	4″ MILLING
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



PARTIAL SECTION NO. 1A

–L– STA. 10+58.97 TO 13+35.35



PARTIAL SECTION NO. 1B

–L– STA. 19+83.00 TO 21+90.79

* REFER TO THE ROADWAY PLAN SHEETS FOR STATION APPLICATION OF PROPOSED SIDEWALK

NOT TO SCALE

5/14/99

8/17/2015
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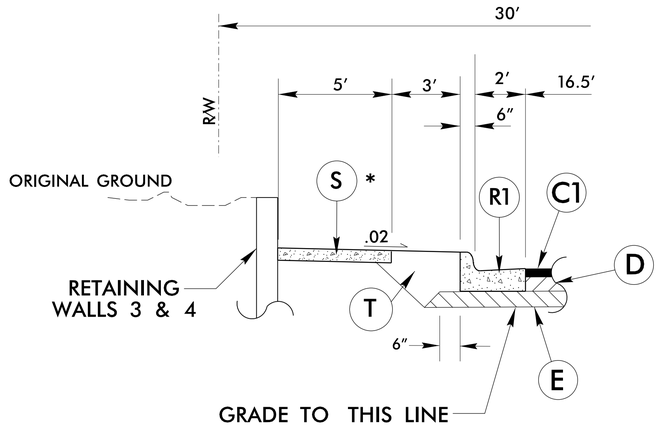
PROJECT REFERENCE NO.	SHEET NO.
U-5104	2A-3
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott

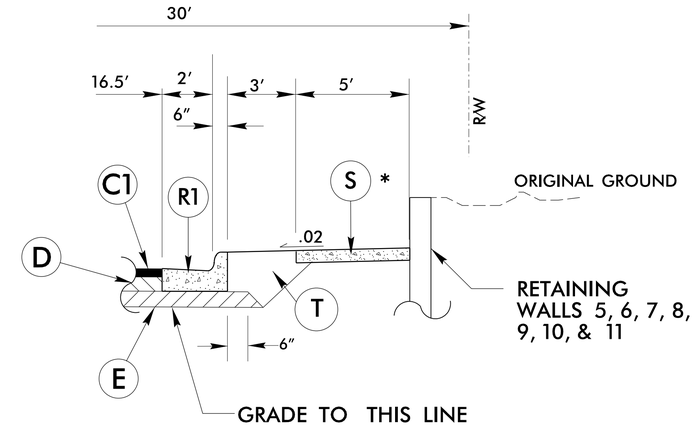
PAVEMENT ENGINEER
8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 22896 ENGINEER CLARK S. MORRISON
DocuSigned by: Clark Morrison

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197



PARTIAL SECTION NO. 1C

–L– STA. 24+81.38 TO 25+30.89 (WALL 3)
–L– STA. 25+36.78 TO 25+83.90 (WALL 4)

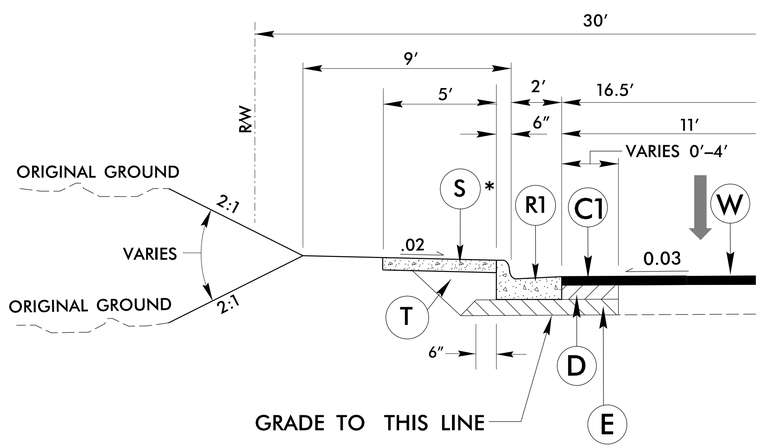


PARTIAL SECTION NO. 1D

–L– STA. 31+37.76 TO 32+56.71 (WALL 5)
–L– STA. 32+81.09 TO 33+71.43 (WALL 6)
–L– STA. 33+96.83 TO 34+81.91 (WALL 7)
–L– STA. 34+84.97 TO 35+64.00 (WALL 8)
–L– STA. 36+26.77 TO 36+95.92 (WALL 9)
–L– STA. 37+03.59 TO 37+64.42 (WALL 10)
–L– STA. 37+95.06 TO 38+79.80 (WALL 11)

C1	3″ S9.5B
C2	VAR. S9.5B
D	4″ I19.0B
D1	VAR. I19.0B
E	4″ B25.0B
E1	VAR. B25.0B
J1	8″ ABC
R1	2′-6″ C & G
S	4″ SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT
X1	VAR MILLING,0-4″
X2	4″ MILLING
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



PARTIAL SECTION NO. 1E

–L– STA. 19+90.69 TO 22+86.14 LT
–L– STA. 31+72.49 TO 32+51.13 LT

* REFER TO THE ROADWAY PLAN SHEETS FOR STATION APPLICATION OF PROPOSED SIDEWALK

NOT TO SCALE

5/14/99
8/17/2015
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PROJECT REFERENCE NO.	SHEET NO.
U-5104	2A-4
R/W SHEET NO.	

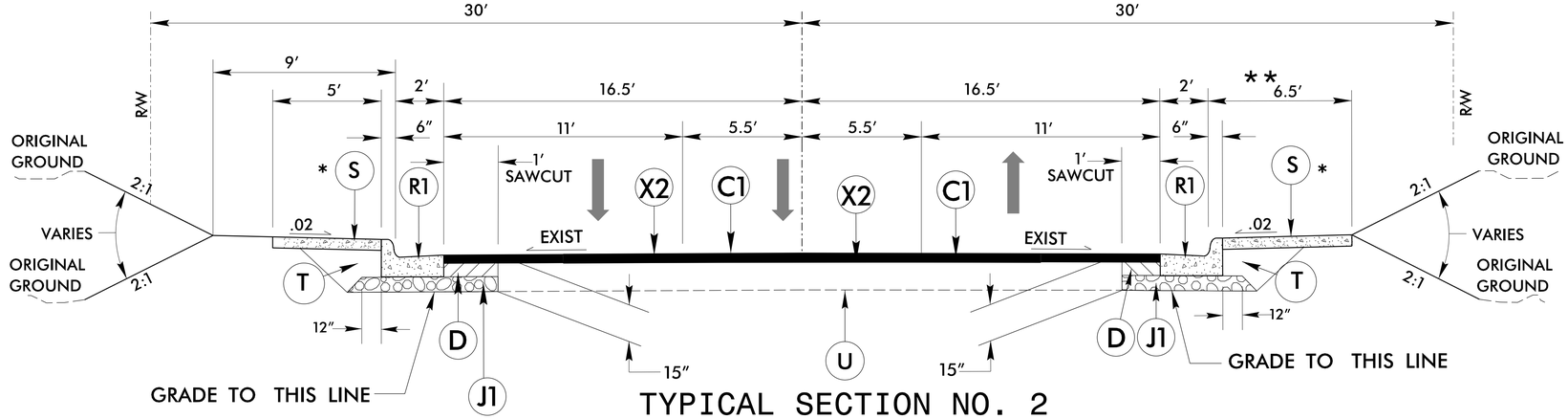
ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
DBC49FE84CFB4C8...

PAVEMENT ENGINEER
8/17/2015
NORTH CAROLINA PROFESSIONAL SEAL 22896 ENGINEER CLARK S. MORRISON
DocuSigned by: Clark Morrison
B0A110DD1E004C4...

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

NOTE: –L– STA. 39+30 TO STA. 45+43.75 RT. REPLACE EXISTING C&G AND SIDEWALK WITH PROPOSED C&G AND SIDEWALK AT SAME ELEVATION AS EXISTING.

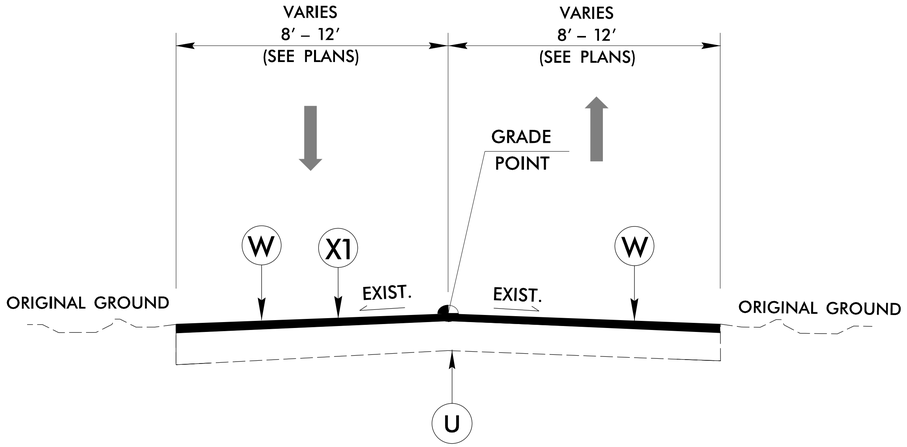
℄ –L– CALDWELL STREET



TYPICAL SECTION NO. 2

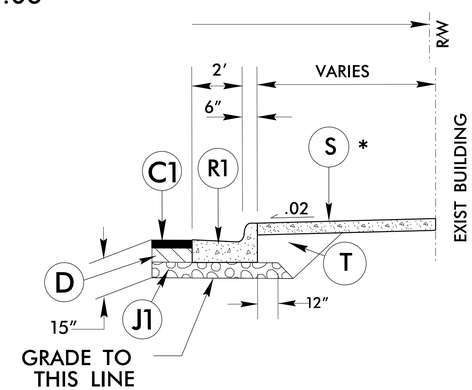
–L– STA. 41+50.00 TO 45+44.06

℄ –Y1–



TYPICAL SECTION NO. 3

–Y1– STA. 10+54.34 TO 11+32.35



PARTIAL SECTION NO. 2A

** –L– STA. 40+60.67 TO 41+95.67
–L– STA. 42+70.64 TO 43+60.74
–L– STA. 43+79.85 TO 45+40.52

C1	3″ S9.5B
C2	VAR. S9.5B
D	4″ I19.0B
D1	VAR. I19.0B
E	4″ B25.0B
E1	VAR. B25.0B
J1	8″ ABC
R1	2′-6″ C & G
S	4″ SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT
X1	VAR MILLING,0-4″
X2	4″ MILLING
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

* REFER TO THE ROADWAY PLAN SHEETS FOR STATION APPLICATION OF PROPOSED SIDEWALK

NOT TO SCALE

5/14/99
8/02/2015
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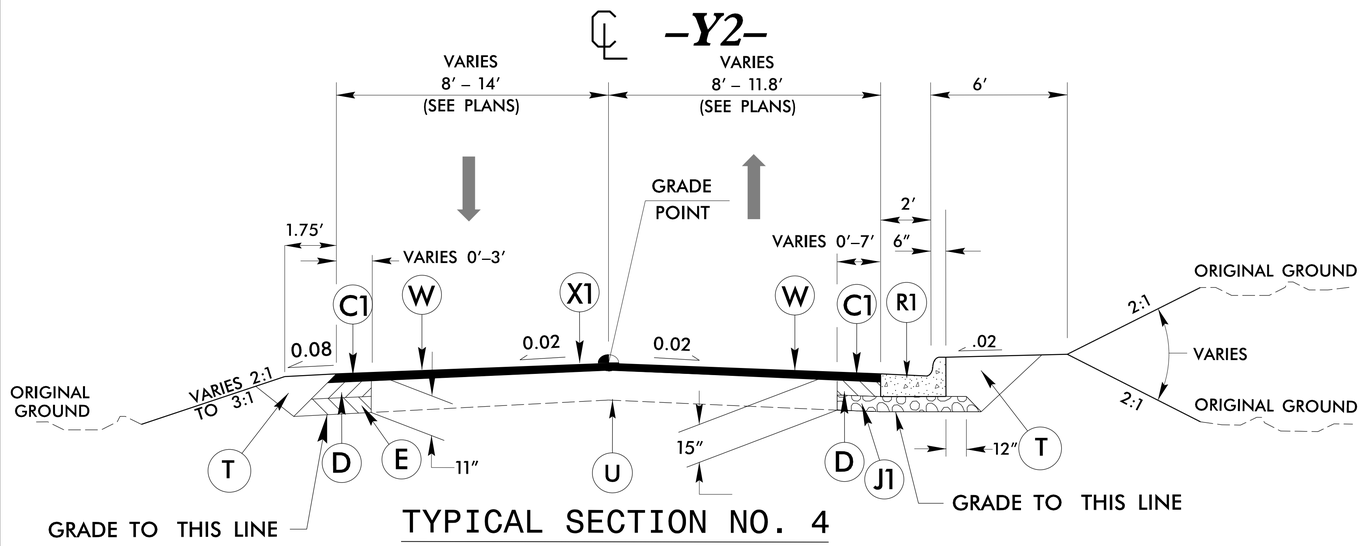
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-5104	2A-5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
Steve Scott

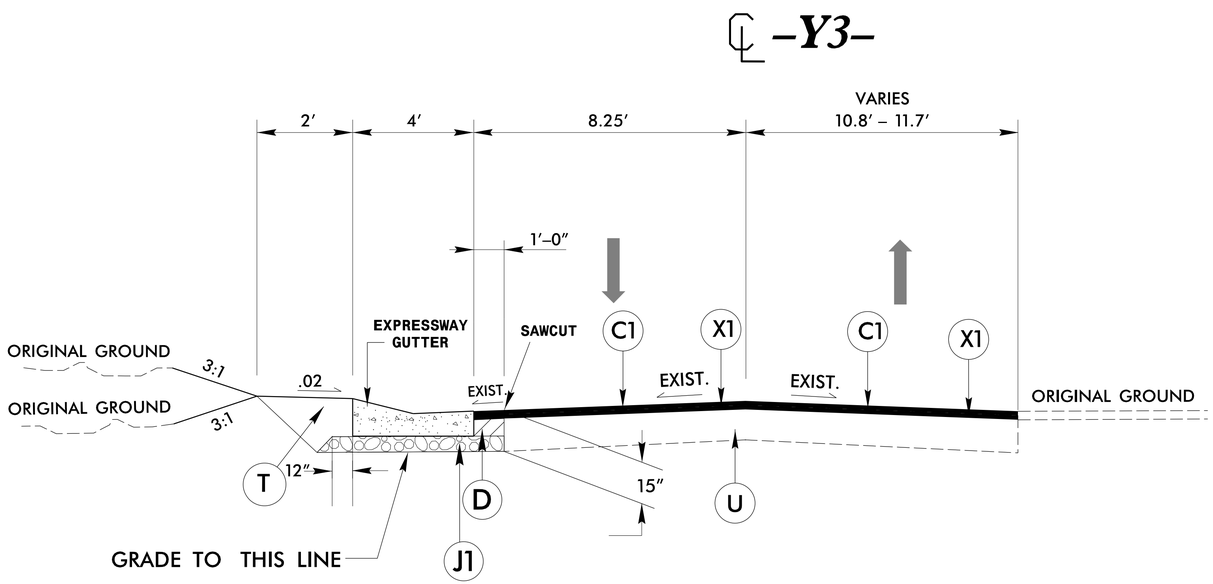
PAVEMENT ENGINEER
8/17/2015
NORTH CAROLINA PROFESSIONAL SEAL 22896 ENGINEER CLARK S. MORRISON
Clark Morrison

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197



TYPICAL SECTION NO. 4

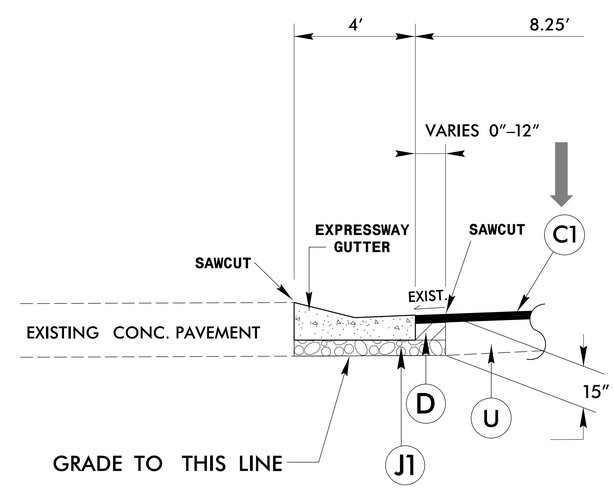
–Y2– STA. 10+90.00 TO 12+11.37



TYPICAL SECTION NO. 5

–Y3– STA. 7+70.00 TO 10+60.32 *

* = MILL 1.5″ & REPLACE WITH 3.0″ OF S9.5B



PARTIAL SECTION NO. 5A

–Y3– STA. 8+89.96 TO 10+60.32

C1	3″ S9.5B
C2	VAR. S9.5B
D	4″ I19.0B
D1	VAR. I19.0B
E	4″ B25.0B
E1	VAR. B25.0B
J1	8″ ABC
R1	2′-6″ C & G
S	4″ SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT
X1	VAR MILLING,0-4″
X2	4″ MILLING
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

NOT TO SCALE

8/12/2015
\\SEPI-RDU\Proj\U5104_RDY_TYP.dgn
USER:RMcDaniel

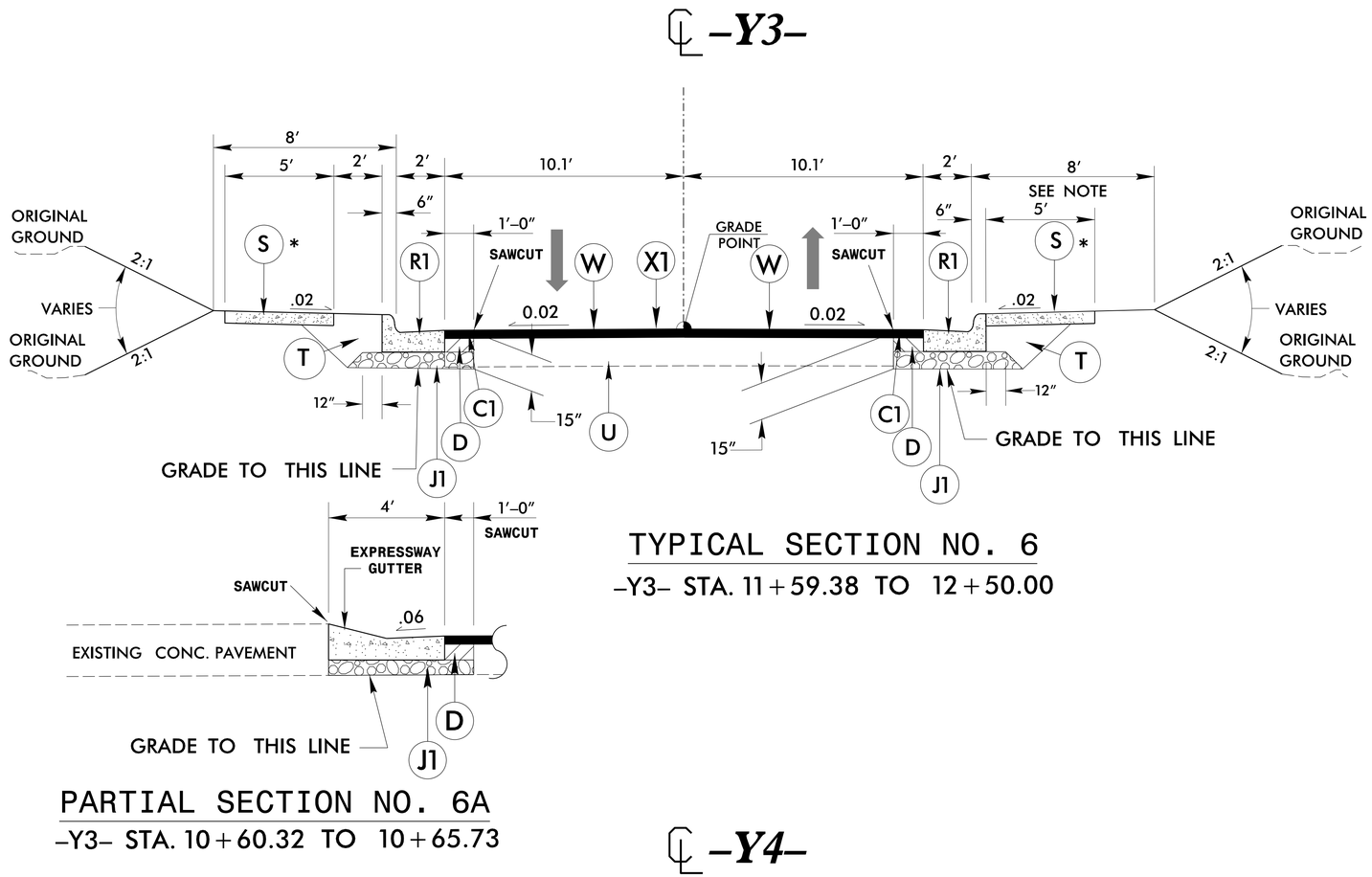
DocuSign Envelope ID: 44433A77-C866-4B7B-8C40-DA7DDDCB7545

PROJECT REFERENCE NO.	SHEET NO.
U-5104	2A-6
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
D8CA9FE8ALCF8ACB...

PAVEMENT ENGINEER
8/17/2015
NORTH CAROLINA PROFESSIONAL SEAL 22896 ENGINEER CLARK S. MORRISON
DocuSigned by: Clark Morrison
80A110DD1E004C4...

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

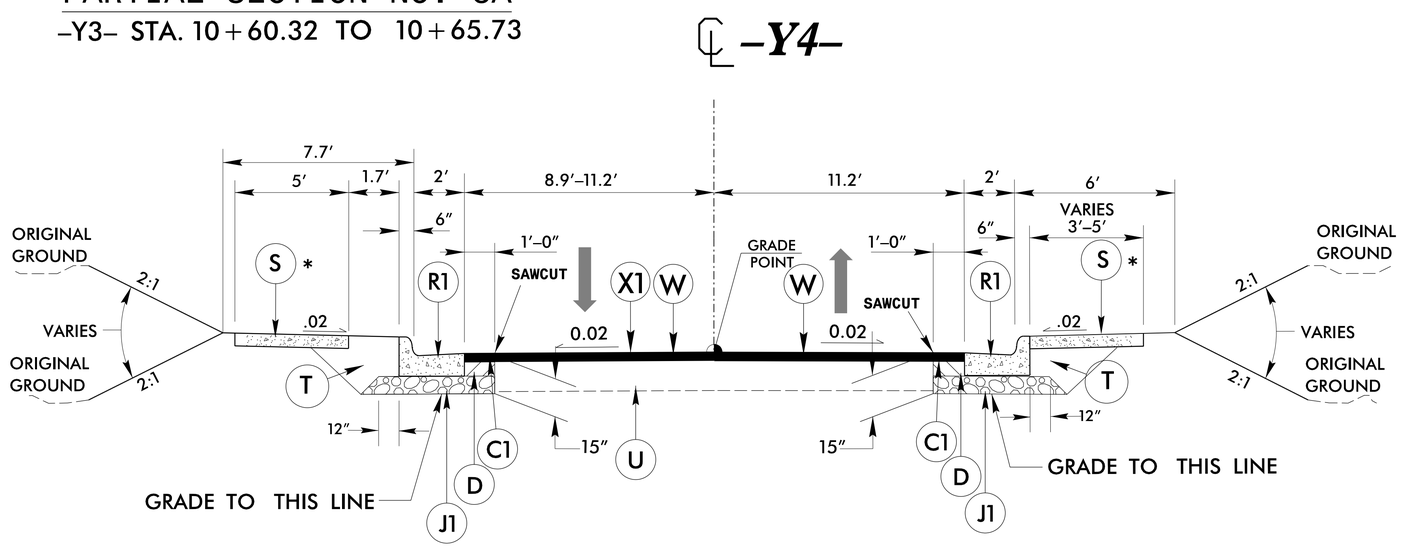


TYPICAL SECTION NO. 6

–Y3– STA. 11+59.38 TO 12+50.00

PARTIAL SECTION NO. 6A

–Y3– STA. 10+60.32 TO 10+65.73



TYPICAL SECTION NO. 7

–Y4– STA. 11+87.85 TO 12+28.09

C1	3″ S9.5B
C2	VAR. S9.5B
D	4″ I19.0B
D1	VAR. I19.0B
E	4″ B25.0B
E1	VAR. B25.0B
J1	8″ ABC
R1	2′-6″ C & G
S	4″ SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT
X1	VAR MILLING,0-4″
X2	4″ MILLING
W	WEDGING

* REFER TO THE ROADWAY PLAN SHEETS FOR STATION APPLICATION OF PROPOSED SIDEWALK

NOT TO SCALE

5/14/99

8/12/2015
\\SEPI\SEPI\Proj\U5104\RDY_TYP.dgn
USER:KMOORE

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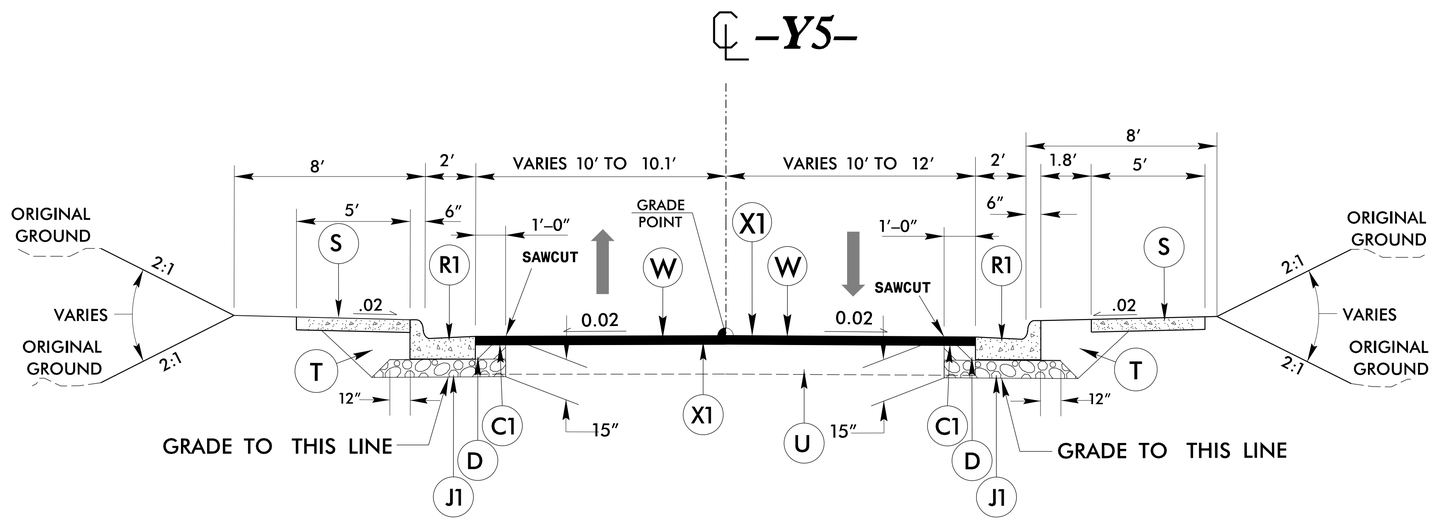
PROJECT REFERENCE NO.	SHEET NO.
U-5104	2A-7
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
5B94BF8D43F3480...

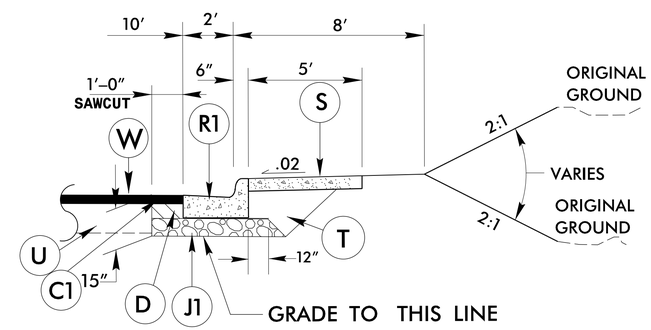
PAVEMENT ENGINEER
8/17/2015
NORTH CAROLINA PROFESSIONAL SEAL 22896 ENGINEER CLARK S. MORRISON
DocuSigned by: Clark Morrison
B0A11DCD7E0D4C4...

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197



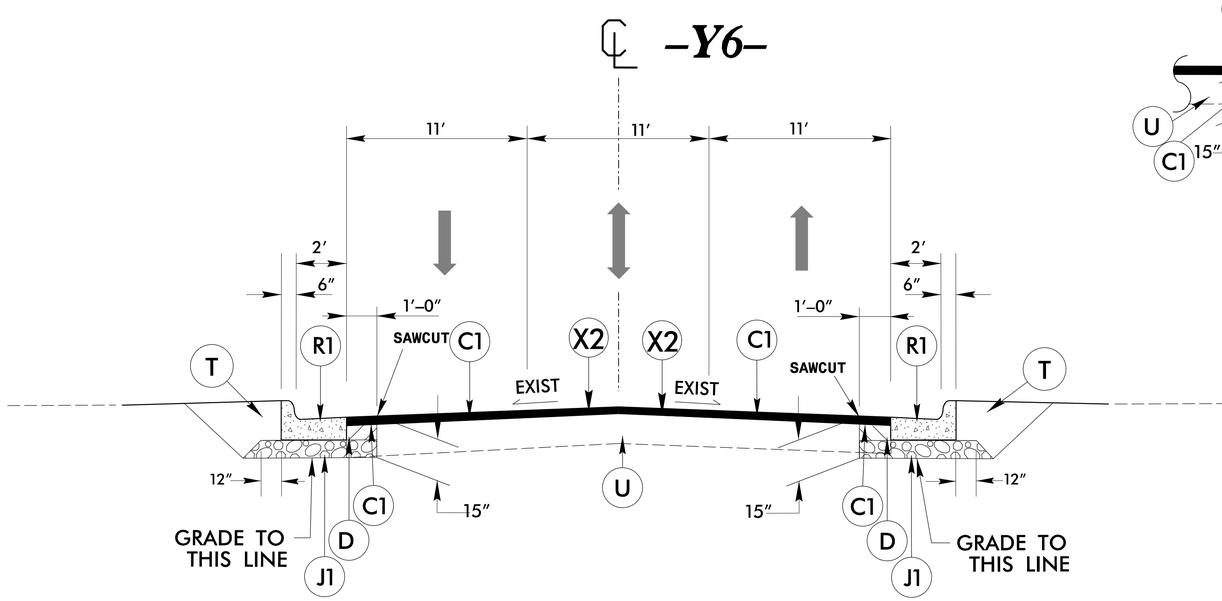
TYPICAL SECTION NO. 8

–Y5– STA. 10+91.62 TO 11+47.85
–Y5– STA. 11+80.85 TO 12+30.85



PARTIAL SECTION NO. 8A

–Y5– STA. 11+80.85 TO 12+30.85



TYPICAL SECTION NO. 9

–Y6– STA. 10+98.63 TO 11+48.61
–Y6– STA. 11+81.61 TO 12+31.58

C1	3″ S9.5B
C2	VAR. S9.5B
D	4″ I19.0B
D1	VAR. I19.0B
E	4″ B25.0B
E1	VAR. B25.0B
J1	8″ ABC
R1	2′-6″ C & G
S	4″ SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT
X1	VAR MILLING,0-4″
X2	4″ MILLING
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

NOT TO SCALE

5/14/99

8/13/2015
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USER:RMcBride

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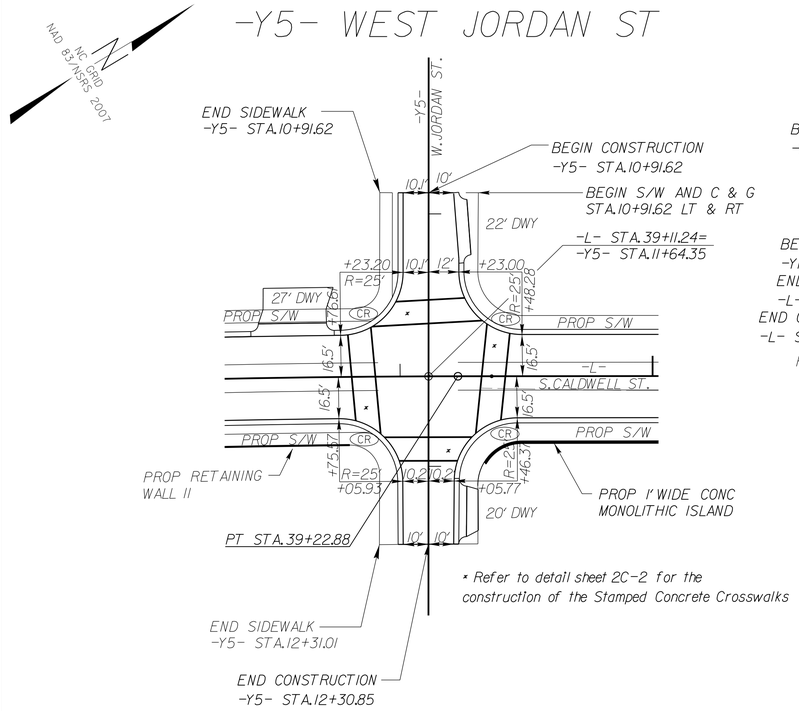
INTERSECTION DETAIL SHEET

PROJECT REFERENCE NO.	SHEET NO.
U-5104	2B-1
R/W SHEET NO.	

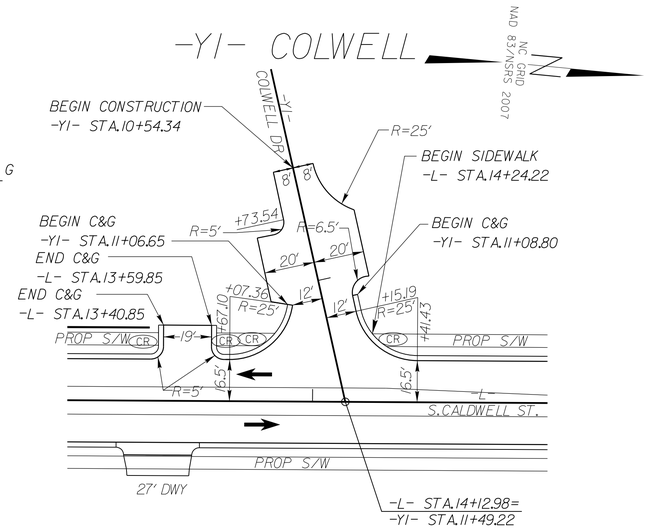
ROADWAY DESIGN ENGINEER
8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
DBCA9FE8CFBAC8...

HYDRAULICS ENGINEER
8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 33719 ENGINEER BRIAN A. MAZZOCCHI
DocuSigned by: Brian Mazzocchi
DEF9D8B8B0DE4AA...

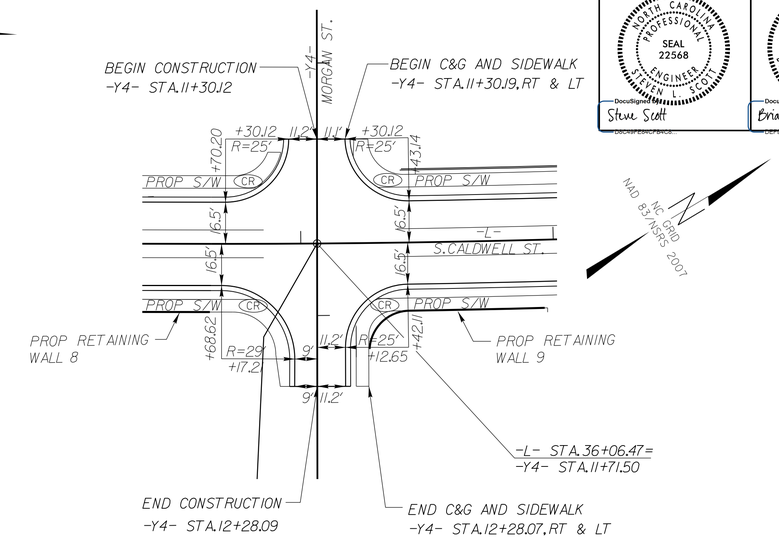
-Y5- WEST JORDAN ST



-Y1- COLWELL



-Y4- MORGAN ST



-Y3- OAKDALE ST

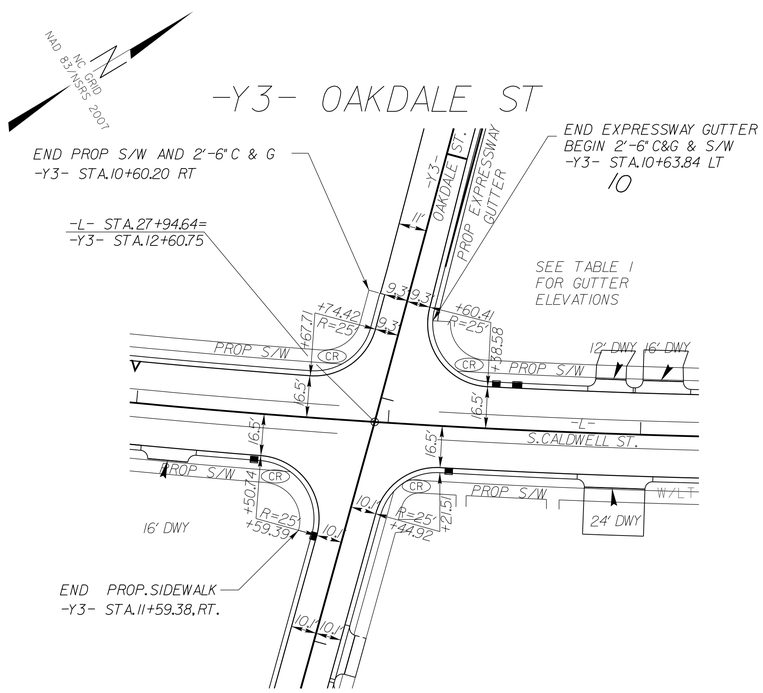
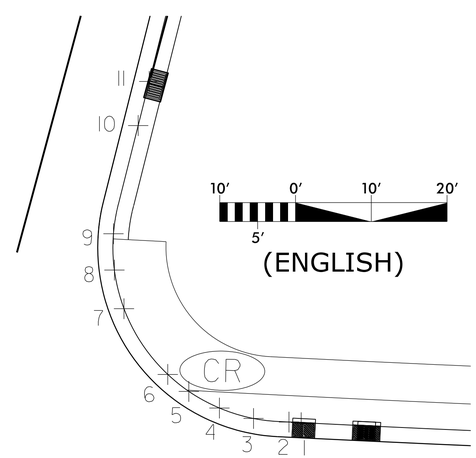


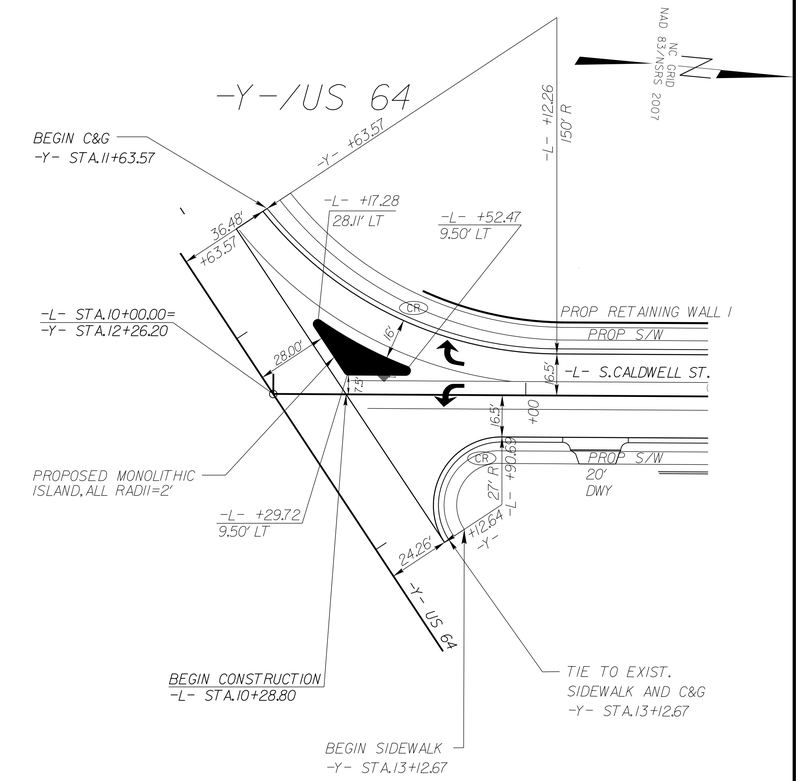
TABLE 1

Point Number	Gutter Coordinates		
	Northing	Easting	Elevation
1	559988.6680	884099.4750	2179.7363
2	559987.3215	884098.5734	2179.7278
3	559983.5586	884095.7675	2179.7008
4	559980.3994	884092.2682	2179.6608
5	559978.0689	884088.3052	2179.6065
6	559976.8330	884084.9594	2179.5490
7	559976.3369	884074.5449	2179.2352
8	559977.8707	884069.5102	2179.1345
9	559980.2334	884065.3343	2179.0534
10	559990.3724	884054.7661	2178.97150
11	559994.6193	884050.5265	2178.9227



10' 0' 10' 20'
5'
(ENGLISH)

-Y-/US 64



LEGEND

CR	CURB RAMP
■	MONOLITHIC CONC ISLAND

30' 0' 30' 60'
15'
(ENGLISH)

REVISIONS

8/17/99

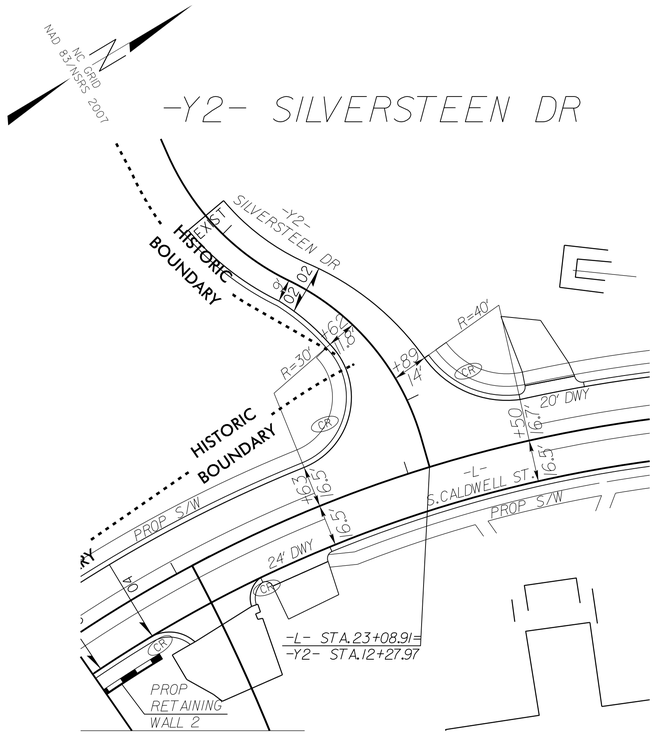
8/14/2015
u5104_2b1_Rdy_dt1.2B-1.dgn
USER: KWoodple

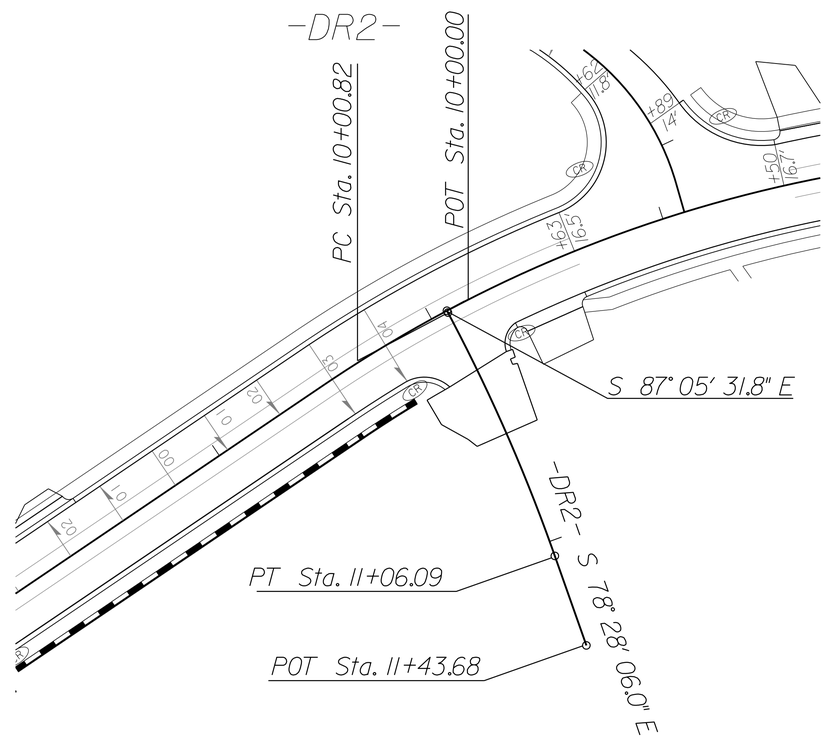
DocuSign Envelope ID: 285FBCA9-1026-4023-BD96-41FE19156FF4

INTERSECTION DETAIL SHEET

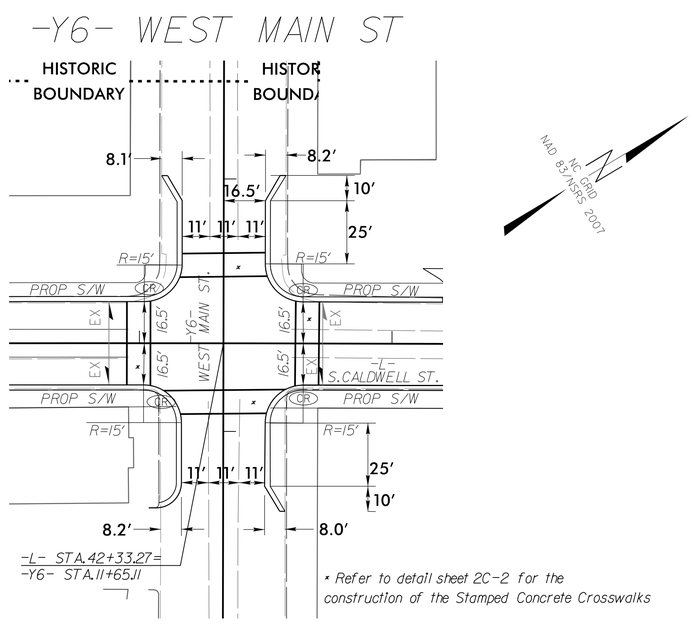
PROJECT REFERENCE NO.	SHEET NO.
U-5104	2B-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSign Envelope ID: Steve Scott
DBC40E6AC8C4C9...

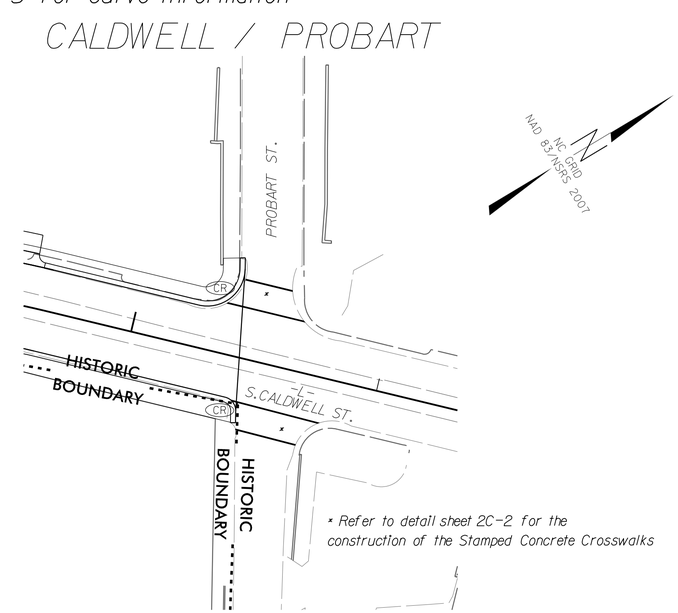




see sheet 5 for curve information



* Refer to detail sheet 2C-2 for the construction of the Stamped Concrete Crosswalks



* Refer to detail sheet 2C-2 for the construction of the Stamped Concrete Crosswalks

LEGEND

CR CURB RAMP

MONOLITHIC CONC ISLAND

30' 0' 30' 60'
15'
(ENGLISH)

REVISIONS

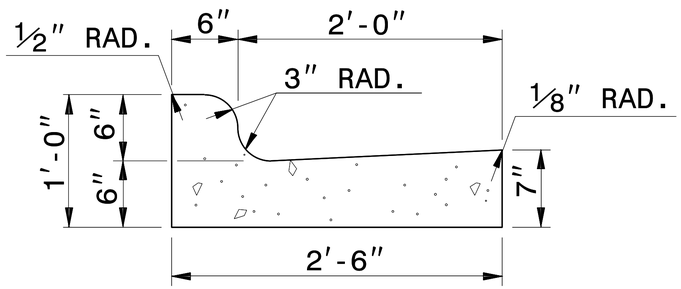
8/17/99

8/18/2015
U-5104_Rdy_dtl_2B-2.dgn
USERM-cpple

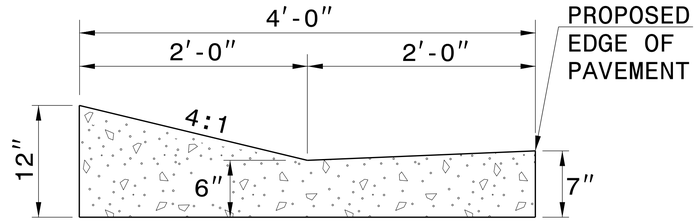
DocuSign Envelope ID: 44433A77-C866-4B7B-8C40-DA7DDDCB7545

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-5104	2C-1



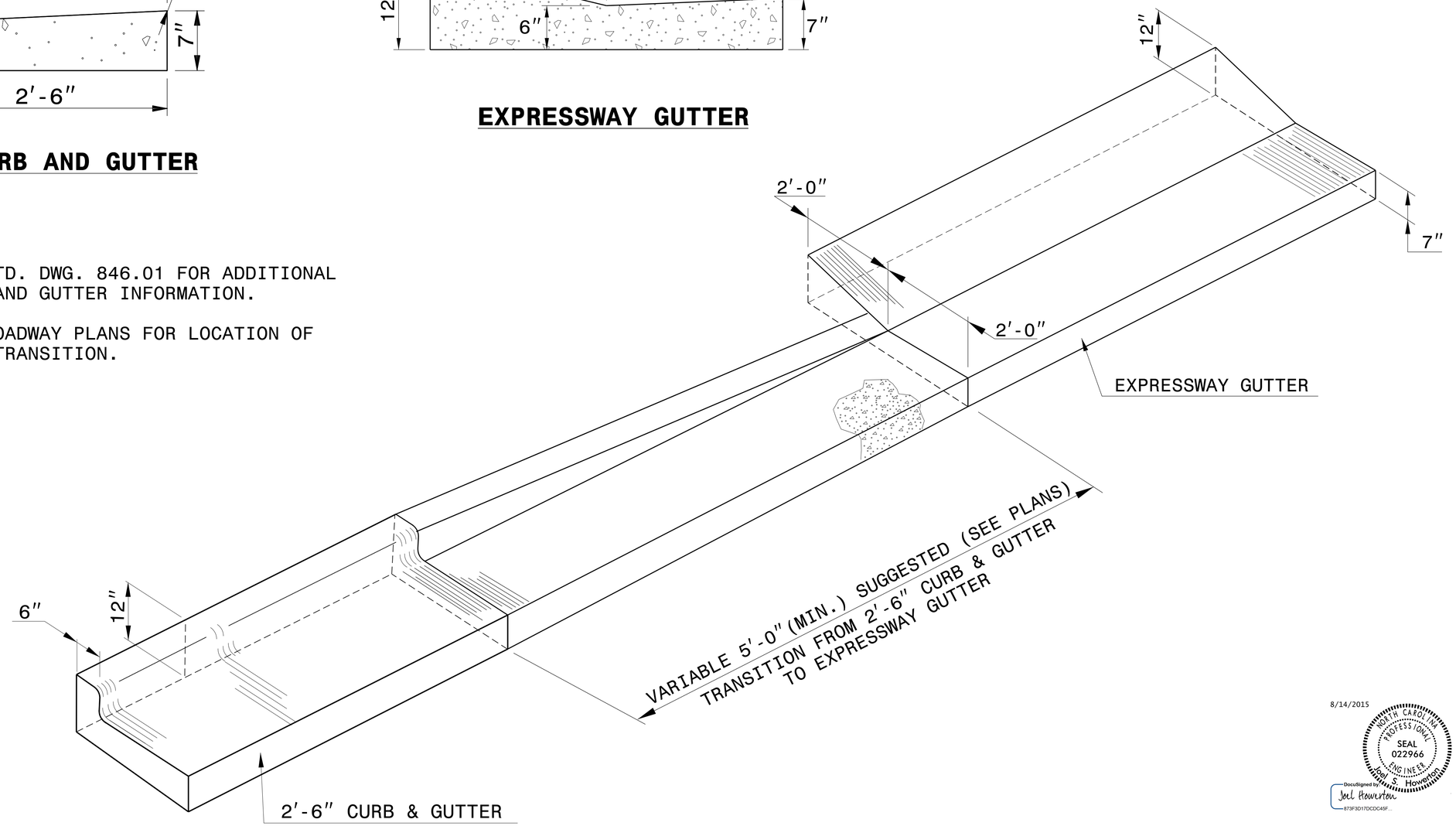
2'-6" CURB AND GUTTER



EXPRESSWAY GUTTER

NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



ISOMETRIC VIEW OF TRANSITION

8/14/2015

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

DocuSigned by: Joel Howerton
873F3D17DCDC45F...

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

DETAIL OF 2'-6" CURB & GUTTER TO EXPRESSWAY GUTTER TRANSITION SECTION

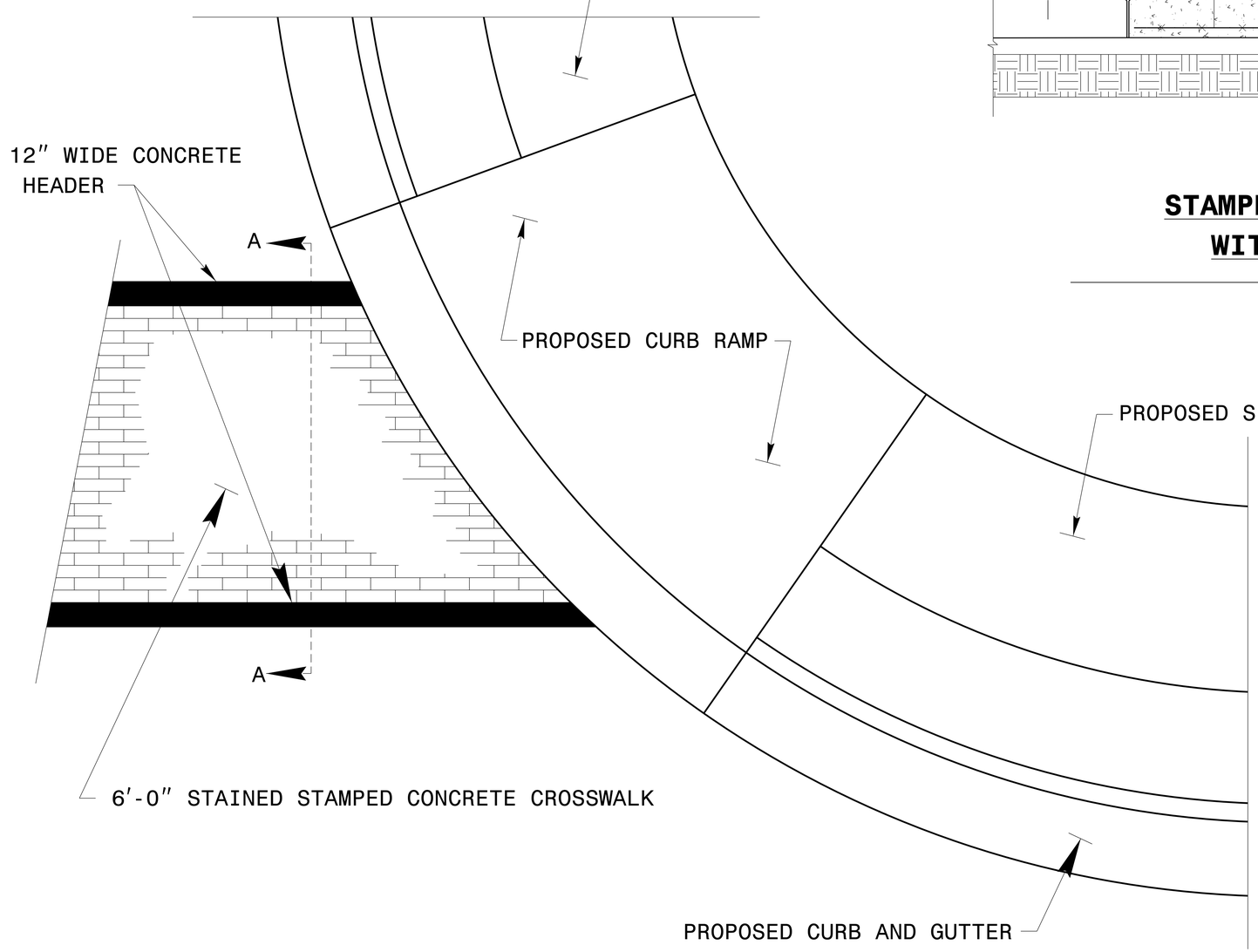
ORIGINAL BY: T.S.Spell DATE: 8-13-02
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: w:usr/details/stand/cgtransit.dgn

$$$$SYSTME$$$$
$$$$SCENE$$$$
$$$$USERNME$$$$

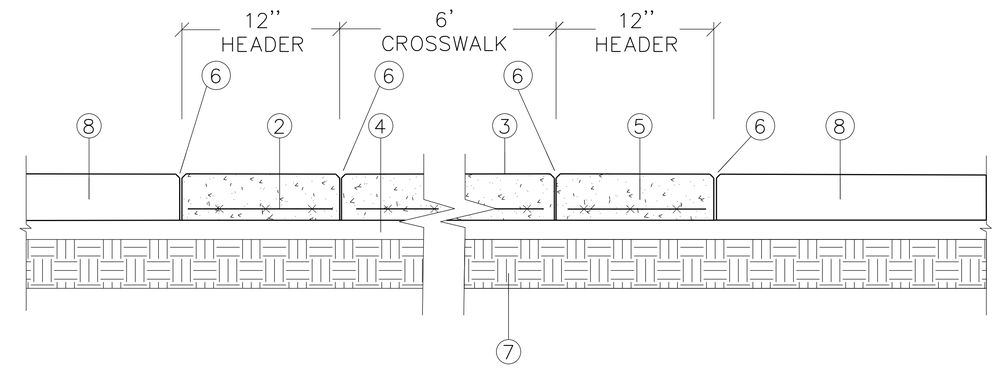
DocuSign Envelope ID: 44433A77-C866-4B7B-8C40-DA7DDDCB7545

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-5104	2C-2



PLAN VIEW OF WHEELCHAIR RAMP AND STAMPED CONCRETE CROSSWALK



STAMPED CONCRETE CROSSWALK WITH CONCRETE HEADERS

SEE SECTION A-A

NOT TO SCALE

1. PROVIDE CONTRACTION/EXPANSION JOINTS IN ACCORDANCE WITH STANDARD NO.848.01
2. CONTINUOUS 6" X 6" X W5 X W5 WELDED WIRE MESH (FOR CROSSWALK AND CONCRETE HEADERS ONLY)
3. 7" THICK STAMPED CONCRETE (SEE PROVISIONS FOR TYPE)
4. 4" ASPHALT CONCRETE BASE
5. 7" THICK CONCRETE HEADER (SEE PROVISIONS FOR TYPE)
6. 1/4" TOOLED CHAMFERED EDGE (BOTH SIDES)
7. COMPACTED SUBGRADE
8. ADJACENT ROADWAY

8/14/2015

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Jerry S. Howerton

DocuSigned by: Jerry Howerton 873F3D17DCDC45F...

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

STAMPED CONCRETE CROSSWALK

ORIGINAL BY:	nbritt	DATE:	10-01-2004
MODIFIED BY:	nbritt	DATE:	07-16-2015
CHECKED BY:		DATE:	
FILE SPEC.:	details/nbritt/english/misc/u5104 stamped concrete crosswalk.dgn		

$$$$SYSTEM$$$$
$$$$USERNAME$$$$

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PROJECT REFERENCE NO.	SHEET NO.
U-5104	2C-3

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR

CONCRETE STEPS WITH HANDRAIL

SHEET 1 OF 1

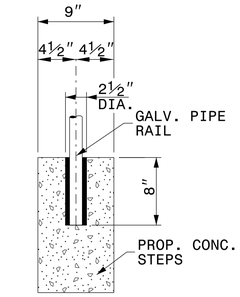
844D01

GENERAL NOTES :

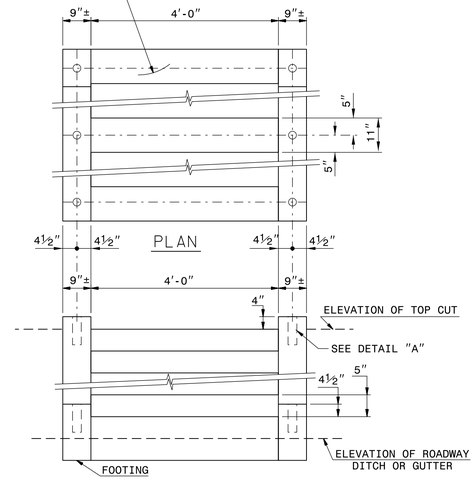
1- CONSTRUCT PROPOSED STEEL PIPE RAIL OF 1½″ DIAMETER SCHEDULE 40 PLAIN END GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53. EMBED PIPE RAIL 8″ INTO PROPOSED STEPS WITH CHEMICAL OR CONCRETE GROUT ANCHORING SYSTEM AS DIRECTED BY THE ENGINEER.
2- USE A ROTARY DRILL FOR DRILLING THE HOLES FOR THE PIPE RAIL. NO IMPACT DRILLS ALLOWED.
3- USE CLASS "B" CONCRETE THROUGHOUT FOR CONCRETE STEPS.
4- LOCATION AND QUANTIES SHOWN ARE APPROXIMATE ONLY. EXACT LOCATION AND QUANTIES WILL BE DETERMINED BY THE ENGINEER.
5- ALL WORK AS DIRECTED BY THE ENGINEER.
6- REPAIR OF GALVANIZING IN ACCORDANCE WITH SCT.1076 OF THE STANDARD SPECIFICATIONS.
7- WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE STANDARD SPECIFICATIONS.
8- 2″ CLEAR SPACING ON ALL REINFORCING BARS.
9- EXTEND HORIZONTAL REINFORCING BARS UPWARD INTO SIDE WALLS.
10- ALL HANDRAILS AND STEPS MUST COMPLY WITH ADA STANDARDS FOR ACCESSIBLE DESIGN.

CUBIC YARDS IN STANDARD CONCRETE STEPS

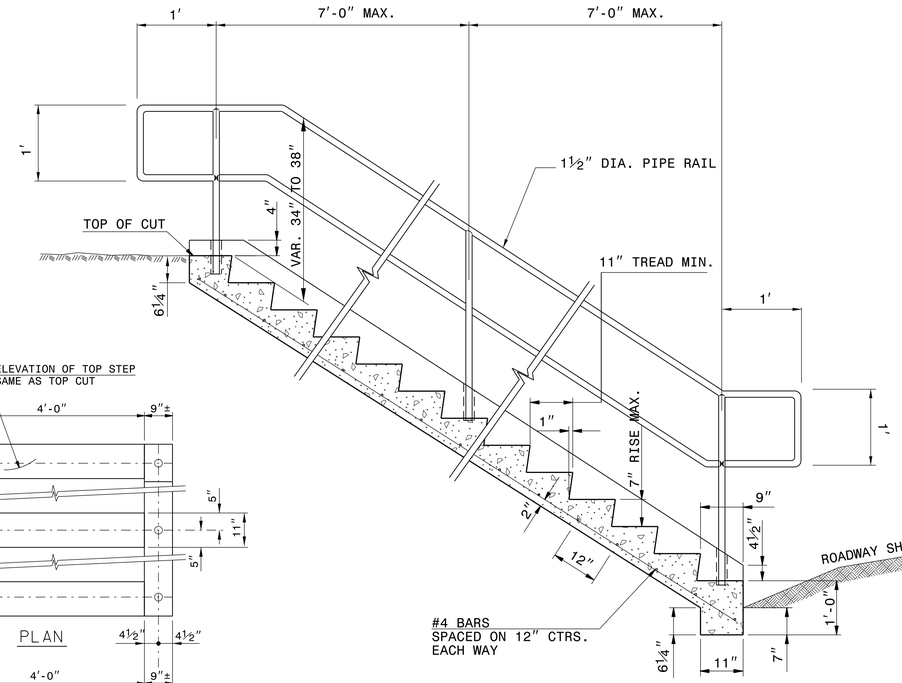
NO. OF STEPS	4′ WIDE	5′ WIDE	6′ WIDE	7′ WIDE	ADDITIONAL CU. YDS. PER 1′ WIDTH
2	0.4	0.5	0.5	0.6	0.1
3	0.6	0.7	0.8	0.9	0.1
4	0.8	0.9	1.0	1.2	0.1
5	1.0	1.2	1.3	1.4	0.1
6	1.2	1.4	1.5	1.7	0.2
7	1.4	1.6	1.8	2.0	0.2
8	1.6	1.8	2.0	2.3	0.2
9	1.8	2.0	2.3	2.6	0.3
10	2.0	2.3	2.5	2.8	0.3
ADDITIONAL STEP INCREMENT	0.2	0.2	0.2	0.3	0.1



DETAIL "A"



FRONT ELEVATION



SECTION
CONCRETE STEPS

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR

CONCRETE STEPS WITH HANDRAIL

SHEET 1 OF 1

844D01

8/14/2015

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

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CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: T.Spell DATE: Oct.7,1998
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: s:usr/details/stand/844d01e.dgn

$$$$SYSTIME$$$$
$$$$DGNNAME$$$$
$$$$USERNAME$$$$

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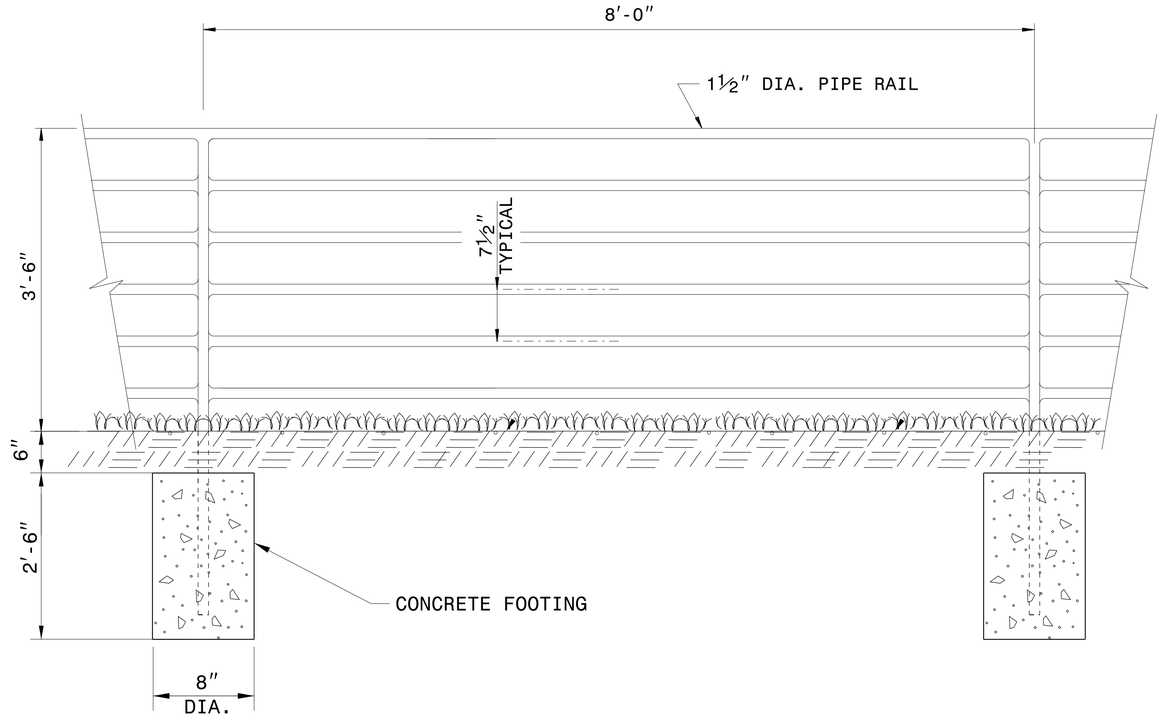
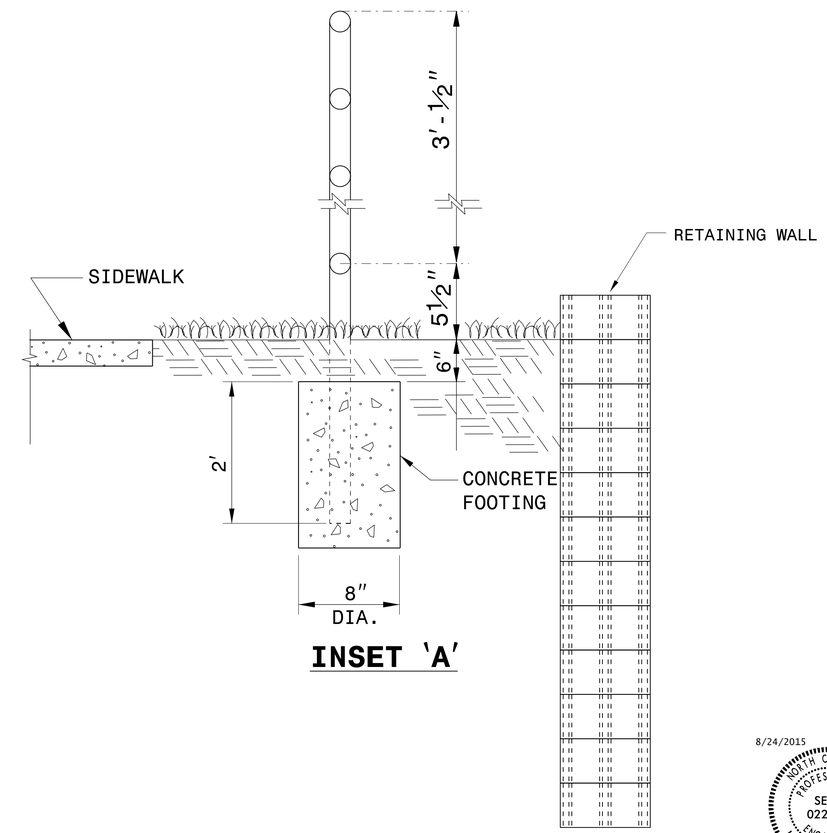
PROJECT REFERENCE NO.	SHEET NO.
U-5104	2C-4



ELEVATION OF HANDRAIL



INSET 'A'

NOTES:

CONSTRUCT PROPOSED STEEL PIPE RAIL OF 1½" DIAMETER SCHEDULE 40 PLAIN END GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53.

REPAIR GALVANIZING IN ACCORDANCE WITH SECTION 1076 OF THE NCDOT STANDARD SPECIFICATIONS.

PAINT, IF REQUIRED BY THE ENGINEER, IN ACCORDANCE WITH SECTION 1080 OF THE STANDARD SPECIFICATIONS.

WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE STANDARD SPECIFICATIONS.

USE CLASS 'B' CONCRETE FOR HANDRAIL FOOTINGS.

PLACEMENT OF HANDRAIL IN RELATION TO RETAINING WALL AND SIDEWALK MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.

8/24/2015

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel Howerton

Joel Howerton
873F3D17DCDC45F...

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CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

PROPOSED PEDESTRIAN SAFETY RAIL

ORIGINAL BY: E.E. WARD DATE: 12-99
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: jhowerton/handrail on retaining wall.dgn

$$$$SYSTIME$$$$
$$$$TIME$$$$
$$$$DGNS$$$$
$$$$USERNAME$$$$

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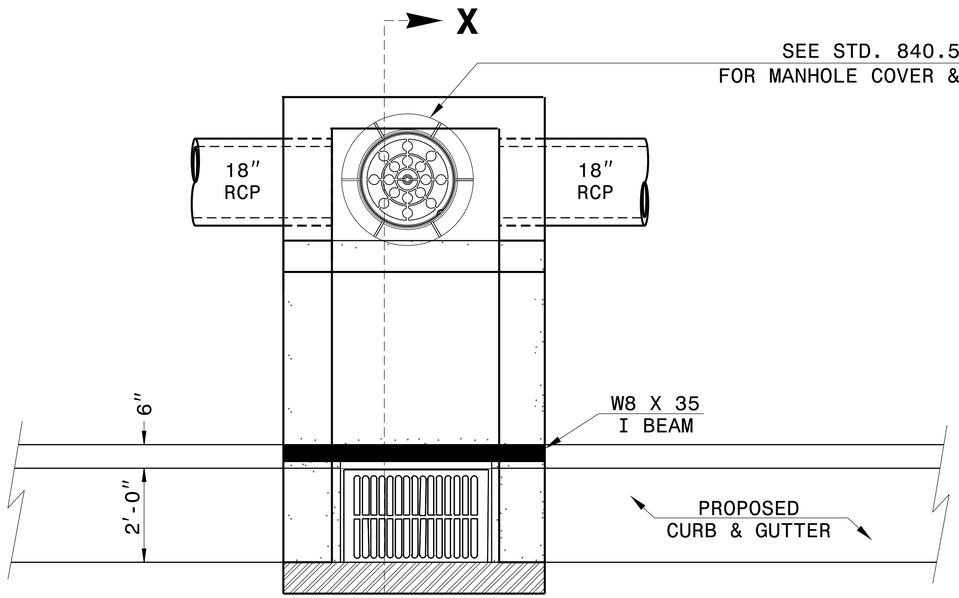
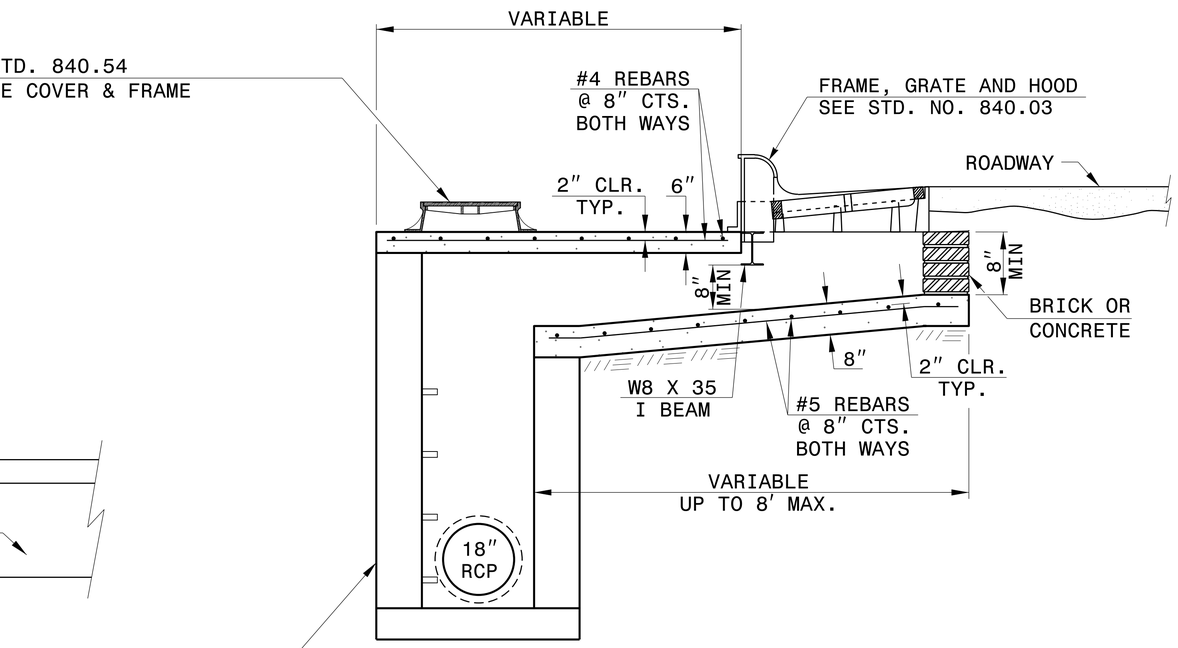
PROJECT REFERENCE NO.	SHEET NO.
U-5104	2D-1



PLAN



SEE R.S.D. 840.02
FOR DIMENSIONS
FOR THIS PORTION
OF CATCH BASIN

SECTION X-X

NOTES:

MORTAR JOINTS ½″ TO ¼″ THICK.

USE CLASS "B" CONCRETE THROUGHOUT.

USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.

USE BRICK OR CONCRETE BLOCK WHICH COMPLIES WITH THE REQUIREMENTS OF SECTION 840 OF THE STANDARD SPECIFICATIONS.

CHAMFER ALL EXPOSED CORNERS 1″.

DRAWING NOT TO SCALE.

PROVIDE ALL CATCH BASINS OVER 3′-6″ IN DEPTH WITH STEPS 12″ ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66

8/14/2015

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

DocuSigned by: Joel Howerton
873F3D17DCDC45F...

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

PROPOSED OFFSET CATCH BASIN

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: K. KEMPF DATE: 2/22/13
CHECKED BY: _____ DATE: _____
FILE SPEC.: nbritt/english/hydro/840d06 offset boxes.dgn

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

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PROJECT REFERENCE NO.	SHEET NO.
U-5104	2G-1

GEOTECHNICAL ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022246 ENGINEER SCOTT A. HIDDEN

DocuSigned by: Scott A. Hidden 8/7/2015
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SIGNATURE DATE

ENGINEER

SIGNATURE DATE

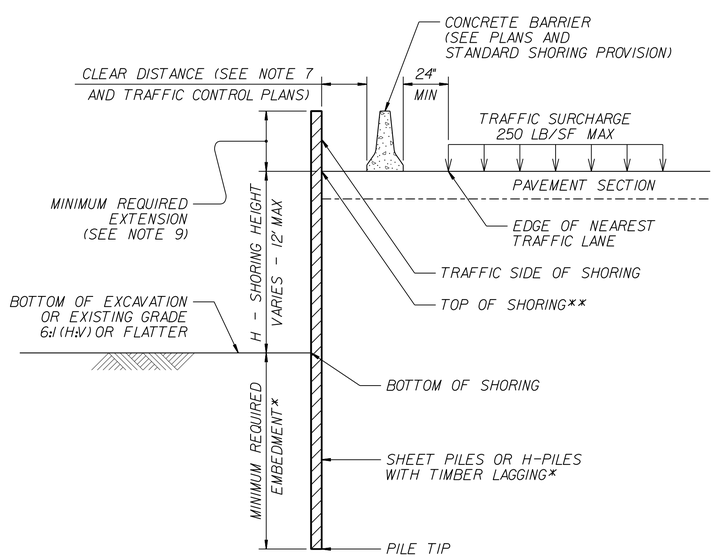
GROUNDWATER CONDITION (SEE NOTE 6)	H SHORING HEIGHT (FT)	SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT					SURCHARGE CASE WITH TRAFFIC IMPACT				
		SHEET PILES		H-PILES WITH TIMBER LAGGING			SHEET PILES		H-PILES WITH TIMBER LAGGING		
		MINIMUM REQUIRED EMBEDMENT (FT)	MINIMUM REQUIRED SECTION MODULUS (IN^3/FT)	MINIMUM REQUIRED EMBEDMENT* (FT) (SEE NOTE 10)			MINIMUM REQUIRED EMBEDMENT (FT)	MINIMUM REQUIRED SECTION MODULUS (IN^3/FT)	MINIMUM REQUIRED EMBEDMENT* (FT) (SEE NOTE 10)		
				HP 10x42	HP 12x53	HP 14x73			HP 10x42	HP 12x53	HP 14x73
GROUNDWATER ELEVATION BEWTEEN BOTTOM OF SHORING AND PILE TIP	< 6	11.5	4.5	11.5	11.5	11.5	16.0	12.0	13.0	13.0	13.0
	7	13.0	7.0	13.0	13.0	13.0	17.0	14.5	14.5	14.5	14.5
	8	15.0	10.0	--	15.0	15.0	18.0	17.0	--	15.5	15.5
	9	17.0	14.0	--	17.0	17.0	19.0	20.0	--	17.0	17.0
	10	18.5	19.5	--	--	18.5	20.0	23.5	--	--	18.5
	11	20.5	26.0	--	--	--	21.0	28.0	--	--	20.0
	12	22.5	33.0	--	--	--	22.0	33.0	--	--	21.5
GROUNDWATER ELEVATION BELOW PILE TIP	< 6	7.5	3.0	8.0	8.0	8.0	11.0	10.0	9.5	9.5	9.5
	7	8.5	4.5	9.5	9.5	9.5	12.0	12.0	10.5	10.5	10.5
	8	10.0	6.5	10.5	10.5	10.5	12.5	14.0	11.5	11.5	11.5
	9	11.0	9.5	--	12.0	12.0	13.5	16.5	--	12.5	12.5
	10	12.5	13.0	--	--	13.5	14.0	19.5	--	13.5	13.5
	11	13.5	17.0	--	--	14.5	15.0	22.5	--	--	14.5
	12	15.0	21.5	--	--	16.0	16.0	25.5	--	--	15.5

MINIMUM REQUIRED EMBEDMENT AND SECTION MODULUS

*DO NOT USE H-PILES WITH TIMBER LAGGING FOR GROUNDWATER CONDITION, SHORING HEIGHT AND H-PILE SIZE SHOWN IF MINIMUM REQUIRED EMBEDMENT IS "--".

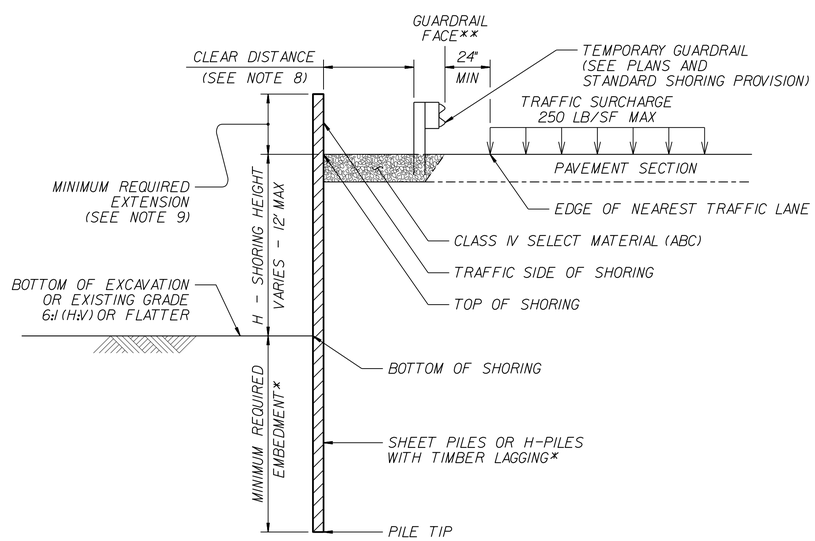
NOTES:

1. AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING AS NOTED IN THE PLANS.
2. FOR STANDARD TEMPORARY SHORING, SEE STANDARD SHORING PROVISION.
3. STANDARD TEMPORARY SHORING IS BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:
   UNIT WEIGHT, γ = 120 LB/CF
   FRICTION ANGLE, ϕ = 30 DEGREES
   COHESION, c = 0 LB/SF
4. DO NOT USE STANDARD TEMPORARY SHORING IF ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE.
5. DO NOT USE STANDARD TEMPORARY SHORING WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS WITHIN THE EMBEDMENT DEPTH.
6. USE GROUNDWATER ELEVATION NOTED IN THE PLANS. IF NO GROUNDWATER ELEVATION IS SHOWN IN THE PLANS, USE "GROUNDWATER ELEVATION BETWEEN BOTTOM OF SHORING AND PILE TIP" FOR GROUNDWATER CONDITION. DO NOT USE STANDARD TEMPORARY SHORING IF GROUNDWATER IS ABOVE BOTTOM OF SHORING.
7. AT THE CONTRACTOR'S OPTION OR IF AVAILABLE CLEAR DISTANCE IS LESS THAN THE MINIMUM REQUIRED FOR CONCRETE BARRIER, SET BARRIER NEXT TO AND UP AGAINST TRAFFIC SIDE OF PILES AND USE "SURCHARGE CASE WITH TRAFFIC IMPACT".
8. AT THE CONTRACTOR'S OPTION OR IF AVAILABLE CLEAR DISTANCE IS LESS THAN 4' FOR TEMPORARY GUARDRAIL, ATTACH GUARDRAIL TO TRAFFIC SIDE OF PILES AS SHOWN IN THE PLANS AND USE "SURCHARGE CASE WITH TRAFFIC IMPACT".
9. MINIMUM REQUIRED EXTENSION IS 6" FOR "SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT" AND 32" FOR "SURCHARGE CASE WITH TRAFFIC IMPACT".
10. MINIMUM REQUIRED EMBEDMENT FOR H-PILES WITH TIMBER LAGGING IS BASED ON DRIVEN H-PILES AT MAXIMUM 6' SPACING. AT THE CONTRACTOR'S OPTION, EMBEDMENT DEPTHS MAY BE REDUCED BY 25% FOR DRILLED-IN H-PILES.
11. SUBMIT A "STANDARD TEMPORARY SHORING SELECTION FORM" AT LEAST 7 DAYS BEFORE STARTING TEMPORARY SHORING CONSTRUCTION. UP TO 3 SHORING LOCATIONS MAY BE INCLUDED ON EACH FORM. STANDARD SHORING SELECTION FORMS ARE AVAILABLE FROM: connect.ncdot.gov/resources/Geological/Pages/Geotech_Forms_Details.aspx
12. CONTACT THE ENGINEER IF PILES DO NOT ATTAIN THE MINIMUM REQUIRED EMBEDMENT.



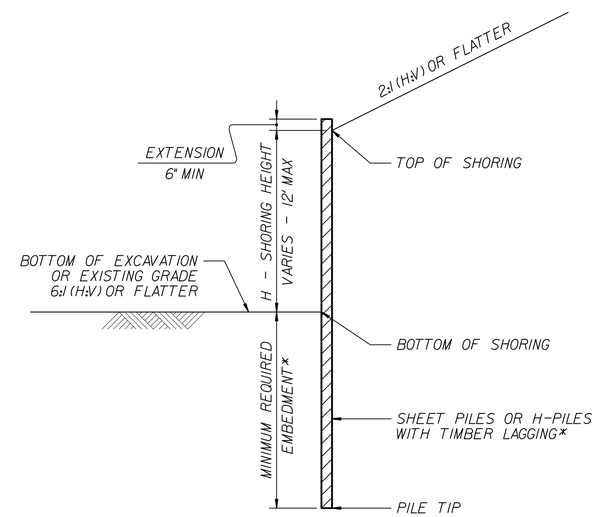
CONCRETE BARRIER

**TOP OF SHORING = EDGE OF PAVEMENT



TEMPORARY GUARDRAIL

**GUARDRAIL FACE = EDGE OF PAVEMENT



STANDARD TEMPORARY SHORING

(SLOPE CASE)
*SEE TABLE ABOVE.

STANDARD TEMPORARY SHORING

(SURCHARGE CASE)
*SEE TABLE ABOVE.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

STANDARD DETAIL NO. 1801.01

STANDARD TEMPORARY SHORING

DATE: 11-19-13

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12/06/07

COMPUTED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
U-5104	3B-1

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
-L- 10+28.80	-L- 45+43.75	2125	1778		347
-Y2- 10+90.00	-Y2- 12+00.00	63	20		43
-Y3- 7+70.00	-Y3- 12+00.00	45	21		24
-Y4- 11+30.12	-Y4- 12+28.09	4	2		2
-Y5- 10+91.62	-Y5- 12+30.85	18	6		12
-Y6- 10+98.63	-Y6- 12+28.09	1			1
-DR1- 10+10.70	-DR1- 10+98.27	113			113
SUBTOTALS:		2369	1826		543
TOTALS:		2369	1826		543
Loss due to CL & GR		-1555		1555	
Waste in Lieu of Borrow				-543	-543
PROJECT TOTALS:		814	1826	1012	
Est. 5% to replace Topsoil At Borrow Pit				51	
GRAND TOTALS:		814		1063	
SAY:		900		1100	

SELECT GRANULAR MATERIAL = 100 CUBIC YARDS (CONTINGENCY)
PER DIVISION RECOMMENDATION, ESTIMATED 200 CUBIC YARDS OF UNDERCUT TO BE USED AT THE DISCRETION OF THE RESIDENT ENGINEER.

Approximate quantities only. Clearing and Grubbing, Unclassified Excavation, Borrow Excavation, Fine Grading, and Removal of Asphalt Pavement will be paid at the Lump Sum price for "Grading".

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD^2
-L-	22+57	22+79	LT	3
-L-	23+18	23+50	LT	50
-L-	23+70	24+09	LT	6.50
			TOTAL:	59.50
			SAY:	60

SUMMARY OF SUBSURFACE DRAINAGE

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	Drain Type * UD/BD/SD	LF
CONTINGENCY				SD	200
				TOTAL LF:	200

*UD = Underdrain
*BD = Blind Drain
*SD = Subsurface Drain

SUMMARY OF AGGREGATE SUSBGRADE/STABILIZATION

SURVEY LINE	STATION	STATION	Aggregate type ASU/AST	Aggregate Thickness INCHES	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Geotextile for Soil Stabilization SY	Geotextile for Soil Stabilization SY
CONTINGENCY			ASU		100	200	200		
			TOTAL CY/TONS/SY:		100	200	200*	0	0

ASU = Aggregate Subgrade, AST = Aggregate Stabilization
*Total Square Yards of Geotextile for Soil Stabilization is only the estimated quantity for ASU/AST and may only represent a portion of the Geotextile quantity shown in the Item Sheets of the Proposal.

SUMMARY OF REPLACEMENT OF CONCRETE STEPS

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	CY
-L-	17+66		LT	1.8
-L-	24+62		LT	1.0
-L-	25+34		LT	0.8
-L-	27+16		LT	0.6
-L-	33+33		LT	0.6
-L-	15+56		RT	1.0
-L-	16+65		RT	0.6
-L-	34+83		RT	1.2
-L-	37+00		RT	1.8
			TOTAL:	9.4
			SAY:	10.0

8/4/2015
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USER: mpope

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W143-2

COMPUTED BY:	BAM	DATE:	08/04/15
CHECKED BY:	DSW	DATE:	08/05/15

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-5104	3D-1

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| LINE & STATION / SIZE / THICKNESS OR GAUGE | OFFSET | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | C. S. PIPE (SE: SHOP ELONGATED) 12 .064 | 15 .064 | 18 .064 | 24 .064 | 30 .079 | 36 .079 | 42 .109 | 48 .109 | 54 | 60 | 66 | 72 | 78 | 84 | R. C. PIPE CLASS IV 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY | REINFORCED ENDWALLS CY | DRAINAGE STRUCTURE MASONRY CY | QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH | A 5' THRU 10' LIN. FT. | B 10' AND ABOVE LIN. FT. | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E | F | G | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATES STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26 | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28 | G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20 | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24 | G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | J.B. STD. 840.31 OR STD. 840.32 | T.B.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | T.B.D.I. FOR STEEL GRATES STD. 840.36 | STEEL FRAME WITH TWO GRATES STD. 840.37 | TB M.H. STD. 840.52 6' DIAMETER | M.H. FRAME AND COVER STD. 840.54 | CONVERT EXISTING C.B. TO J.B. | 15" C.S. ELBOW | 18" C.S. ELBOW | 24" C.S. ELBOW | 30" C.S. ELBOW | OFFSET CB STD. 804.D02 | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---

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W143-2

COMPUTED BY:	BAM	DATE:	08/04/15
CHECKED BY:	DSW	DATE:	08/05/15

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-5104	3D-2

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| LINE & STATION / SIZE / THICKNESS OR GAUGE | OFFSET | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | C. S. PIPE (SE: SHOP ELONGATED) 12 .064 | 15 .064 | 18 .064 | 24 .064 | 30 .079 | 36 .079 | 42 .109 | 48 .109 | 54 | 60 | 66 | 72 | 78 | 84 | R. C. PIPE CLASS IV 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY | REINFORCED ENDWALLS CY | DRAINAGE STRUCTURE MASONRY CY | QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH | A 5' THRU 10' LIN. FT. | B 10' AND ABOVE LIN. FT. | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E | F | G | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATES STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26 | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28 | G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20 | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24 | G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | J.B. STD. 840.31 OR STD. 840.32 | T.B.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | T.B.D.I. FOR STEEL GRATES STD. 840.36 | STEEL FRAME WITH TWO GRATES STD. 840.37 | TB M.H. STD. 840.52 6' DIAMETER | M.H. FRAME AND COVER STD. 840.54 | CONVERT EXISTING C.B. TO J.B. | 15" C.S. ELBOW | 18" C.S. ELBOW | 24" C.S. ELBOW | 30" C.S. ELBOW | OFFSET CB STD. 804.D02 | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---

DocuSign Envelope ID: 44433A77-C866-4B7B-8C40-DA7DDDCB7545

W143-2

COMPUTED BY:	BAM	DATE:	08/04/15
CHECKED BY:	DSW	DATE:	08/05/15

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-5104	3D-3

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| LINE & STATION / SIZE / THICKNESS OR GAUGE | OFFSET | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | C. S. PIPE (SE: SHOP ELONGATED) 12 .064 | 15 .064 | 18 .064 | 24 .064 | 30 .079 | 36 .079 | 42 .109 | 48 .109 | 54 | 60 | 66 | 72 | 78 | 84 | R. C. PIPE CLASS IV 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY | REINFORCED ENDWALLS CY | DRAINAGE STRUCTURE MASONRY CY | QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH | A 5' THRU 10' LIN. FT. | B 10' AND ABOVE LIN. FT. | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E | F | G | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATES STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26 | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28 | G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20 | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24 | G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | J.B. STD. 840.31 OR STD. 840.32 | T.B.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | T.B.D.I. FOR STEEL GRATES STD. 840.36 | STEEL FRAME WITH TWO GRATES STD. 840.37 | TB M.H. STD. 840.52 6' DIAMETER | M.H. FRAME AND COVER STD. 840.54 | CONVERT EXISTING C.B. TO J.B. | 15" C.S. ELBOW | 18" C.S. ELBOW | 24" C.S. ELBOW | 30" C.S. ELBOW | OFFSET CB STD. 804.D02 | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---

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W143-2

COMPUTED BY:	BAM	DATE:	08/04/15
CHECKED BY:	DSW	DATE:	08/05/15

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-5104	3D-4

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| LINE & STATION / SIZE / THICKNESS OR GAUGE | OFFSET | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | C. S. PIPE (SE: SHOP ELONGATED) 12 .064 | 15 .064 | 18 .064 | 24 .064 | 30 .079 | 36 .079 | 42 .109 | 48 .109 | 54 | 60 | 66 | 72 | 78 | 84 | R. C. PIPE CLASS IV 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY | REINFORCED ENDWALLS CY | DRAINAGE STRUCTURE MASONRY CY | QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH | A 5' THRU 10' LIN. FT. | B 10' AND ABOVE LIN. FT. | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E | F | G | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATES STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26 | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28 | G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20 | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24 | G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | J.B. STD. 840.31 OR STD. 840.32 | T.B.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | T.B.D.I. FOR STEEL GRATES STD. 840.36 | STEEL FRAME WITH TWO GRATES STD. 840.37 | TB M.H. STD. 840.52 6' DIAMETER | M.H. FRAME AND COVER STD. 840.54 | CONVERT EXISTING C.B. TO J.B. | 15" C.S. ELBOW | 18" C.S. ELBOW | 24" C.S. ELBOW | 30" C.S. ELBOW | OFFSET CB STD. 804.D02 | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---

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PROJ. REFERENCE NO.	SHEET NO.
U-5104	3P-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
1	4	J. HALL WADDELL
2	4	RLD HOLDINGS, LLC
3	4	WILLIAM R. WHITE, ET. ALS.
4	4	MANDI M. NEUMANN
5	4	RUTH FEASTER ET. AL.
6	4	RUTH FEASTER ET. AL.
7	4	BERNIECE D. GRINDSTAFF
8	4	DOROTHY O. McINTOSH
9	4	MARY D. LOVE TRUSTEE
10	4	DAWN ROUSE
11	4	STEPHEN H. BLYTHE
12	4	KAREN R. GALLOWAY
13	4	ARLENE J. FAUL
14	4	PAUL J. BUCHMAN
15	4	BETTY LANDRETH, ET. ALS.
16	4	PAUL B. WELCH
17	4	PAUL B. WELCH
18	4, 5	PARK VILLAGE OF BREVARD, LLC
19	4, 5	ANN HANLY
20	5	TRANSYLVANIA COUNTY ARTS COUNCIL, INC.
21	5	TOM BEARDEW
21A	5	N. CAROLINA PROPERTIES, INC.
21B	5	MINERVA PINEIRO
22	5	EDWIN L. GALLOWAY AND WIFE, MAGARET GALLOWAY
23	5	STEVEN F. CAGEN AND WIFE, NANCE J. CAGEN
24	5	MICHAEL EUBANKS
25	5	LINDA WILLIAMS MELROSE SUCCESS TRUSTEE
26	5	NORMA J. CLAYTON
27	5	THOMAS ALFRED REID
28	5	BREAD OF LIFE INC
29	5	RICHARD J. WINSLOW
30	5	SOUTH BROAD RENTALS, LLC
31	5	WINIFRED G. SEALE
32	5	VINEYARD FINANCING LLC
33	5	CHARLESTON MORTGAGE CO., INC.
34	5	BLUE HERON HOLDING L.L.C.
36	5	WALTER S. CLAYTON, Jr.
37	5, 6	BURTON F. BASS
38	5, 6	ERIK D HANSON
39	6	FIRST CITIZENS BANK & TRUST COMPANY
40	6	PNC BANK
41	6	REBECCA WALKER FREEMAN WOOD, ET. ALS.
42	6	CDP ALOE PROPERTIES, LLC
43	6	CITY OF BREVARD
45	6	JAMES R. AUSTIN ANGELA C. AUSTIN
46	6	RICE FURNITURE COMPANY, INC.
47	6	WEST MAIN DEVELOPMENT, LLC.
48	6	RICE FURNITURE INC.
49	6	RICE PROPERTY MANAGEMENT LLC.
50	6	RICE PROPERTY MANAGEMENT LLC.

PARCEL No.	SHEET No.	PROPERTY OWNER NAME

DocuSign Envelope ID: 285FBCA9-1026-4023-BD96-41FE19156FF4

PROJECT REFERENCE NO.	SHEET NO.
U-5104	4

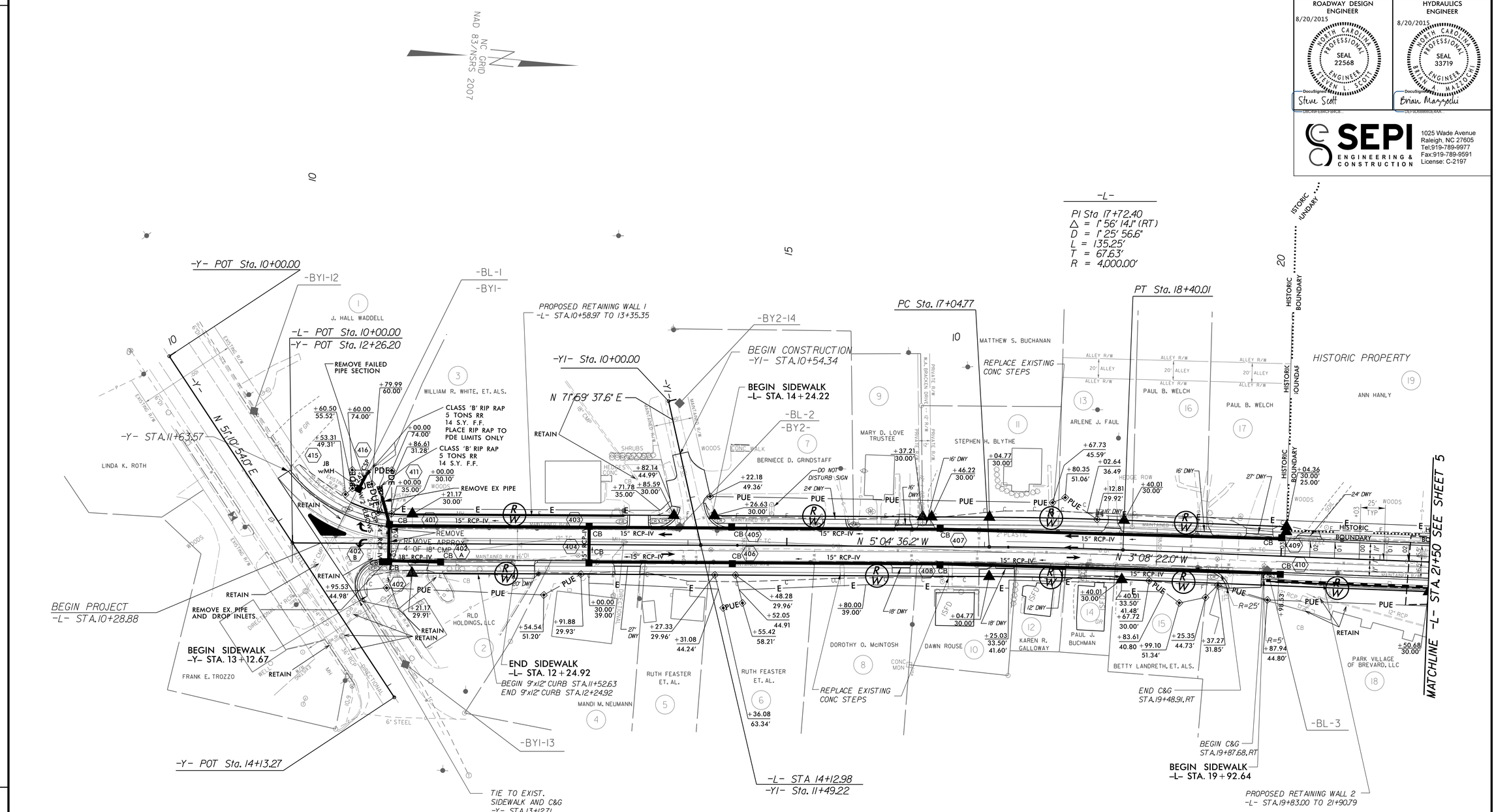
ROADWAY DESIGN ENGINEER
8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
D8CA0F1E8CF1BCB...

HYDRAULICS ENGINEER
8/20/2015
NORTH CAROLINA PROFESSIONAL SEAL 33719 ENGINEER BRIAN M. MAZZOCCHI
DocuSigned by: Brian Mazzocchi
DEF1C888880E40A...

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

REVISIONS

8/17/99



SEE SHEET 2B-1 FOR DETAILS OF INTERSECTIONS -Y- AND -Y1- & -L-

SEE SHEET 7 FOR -L- PROFILE
SEE SHEET 8 FOR -Y1- PROFILE

8/17/2015
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PROJECT REFERENCE NO.	SHEET NO.
U-5104	5

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
DEC4DF5AF6F64CE...

HYDRAULICS ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 33719 ENGINEER BRIAN MAZZOCCHI
DocuSigned by: Brian Mazzocchi
DEF8D8000CE94...

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

8/17/99

REVISIONS

-Y2-

PI Sta 10+98.64
△ = 40° 04' 22.9" (LT)
D = 57° 17' 44.8"
L = 69.94'
T = 36.47'
R = 100.00'

PI Sta 11+76.72
△ = 48° 04' 31.3" (RT)
D = 57° 17' 44.8"
L = 83.91'
T = 44.60'
R = 100.00'

-DR2-

PI Sta 10+53.60
△ = 8° 37' 25.8" (RT)
D = 8° 11' 31.5"
L = 105.27'
T = 52.78'
R = 700.00'

-L-

PI Sta 23+49.94
△ = 40° 59' 46.8" (RT)
D = 10° 44' 58.8"
L = 381.37'
T = 199.26'
R = 533.00'

PI Sta 28+05.97
△ = 6° 50' 45.5" (LT)
D = 1° 47' 25.8"
L = 382.35'
T = 191.40'
R = 3,200.00'

NC GRID NAD 83/NSRS 2007

-BY3-15
S 83° 05' 39.3" E
POT -Y2- Sta. 10+00.00
BEGIN C&G -Y2- STA.10+90.00 RT
PRC -Y2- Sta. 11+32.12
PC -Y2- Sta. 10+62.18
BEGIN CONSTRUCTION -Y2- STA.10+90.00
BEGIN C&G & SIDEWALK -Y2- STA.11+88.64 LT
PC -L- Sta. 26+14.56
END SIDEWALK -Y2- STA.11+61.19
END SIDEWALK -L- STA.22+22.87
POC -L- Sta. 23+08.91 -Y2- Sta. 12+27.97
PT -Y2- Sta. 12+16.02
BEGIN C&G -L- STA.22+22.87,RT
see sheet 2B-2 for -DR2- alignment
END C&G -L- STA.21+90.79,RT
END SIDEWALK -L- STA. 21+90.79
PC Sta. 21+50.68
END SIDEWALK -Y3- STA. 11+59.38
THE PROPOSED DRAINAGE CONSTRUCTED UNDER THE NCDOT CONTRACT ENDING AT STA. 12+60 -Y3- WILL TIE TO THE PROPOSED DRAINAGE CONSTRUCTED BY THE CITY OF BREVARD
END SIDEWALK -Y3- 10+60.20
BEGIN SIDEWALK -Y3- STA. 10+63.84
APPROX. LOCATION
POT Sta. 7+50.00
BEGIN CONSTRUCTION -Y3- STA.7+70.00
INVERT ELEVATIONS MAY REQUIRE ADJUSTMENT DURING CONSTRUCTION
BEGIN EXPRESSWAY GUTTER -Y3- STA.7+70.00
END EXPRESSWAY GUTTER -Y3- STA.10+65.31
-BY4-16
PT -L- Sta. 29+96.91
-L- Sta. 27+94.64
-Y3- Sta. 11+09.97
POT -Y3- Sta. 12+60.75
PT Sta. 25+32.05
END GRADING & PAVING -Y3- STA.12+50.00
END S/W -Y3- STA.13+86.45
END CONSTRUCTION SEE PAVEMENT MARKINGS PLANS -Y3- STA.13+86.45
POT -Y3- Sta. 15+02.19
MATCHLINE -L- STA. 35+00 SEE SHEET 6
MATCHLINE -L- STA. 21+50 SEE SHEET 4
S 43° 58' 59.2" E
S 43° 34' 17.9" E
N 37° 51' 24.8" E
N 31° 00' 39.3" E
S 75° 05' 30.8" E
-BL-4
-BY3-
-BL-5
-BY4-
-BY4-17
-BL-6
-BL-7
-DR2-
PI Sta 10+53.60
△ = 8° 37' 25.8" (RT)
D = 8° 11' 31.5"
L = 105.27'
T = 52.78'
R = 700.00'
PROPOSED RETAINING WALLS -L- STA.31+37.76 TO 32+56.71 (WALL 5) -L- STA.32+81.09 TO 33+71.43 (WALL 6) -L- STA.33+96.83 TO 34+81.91 (WALL 7) -L- STA.34+84.97 TO 35+64.00 (WALL 8)
PROPOSED RETAINING WALLS -L- STA.24+81.38 TO 25+30.97 (WALL 3) -L- STA.25+36.93 TO 25+83.90 (WALL 4)
REPLACE EXISTING CONC STEPS
DO NOT DISTURB HANDICAP RAMP
DO NOT DISTURB LAWN ART
DO NOT DISTURB TREE
PROPOSED SLOPE STAKE LINE
RESET FENCE AND GATE
SEE NOTE FOR -Y2- TAPERS
HISTORIC BOUNDARY
MINERVA PINEIRO
N. CAROLINA PROPERTIES, INC.
TOM BEARDEW
EDWIN L. GALLOWAY AND WIFE, MARGARET GALLOWAY
MICHAEL EUBANKS
NORMA J. CLAYTON
BREAD OF LIFE INC
RICHARD J. WINSLOW
WINIFRED G. SEALE
CHARLESTON MORTGAGE CO., INC.
BLUE HERON HOLDING L.L.C.
WALTER S. CLAYTON, Jr.
BURTON F. BASS
VINEYARD FINANCING LLC
SOUTH BROAD RENTALS, LLC
TRANSYLVANIA COUNTY ARTS COUNCIL, INC.
TANGLED LIMB, LLC
LINDA A. DEROSE
THREE LEES, LLC
PARK VILLAGE OF BREVARD, LLC
GEORGE BRADSHAW
SOUTH BROAD STREET
NOTE: MAINTAIN AN ADA COMPLIANT ACCESS FOR WOODEN RAMP TO SIDEWALK AT -Y3- STA.11+45 LT ON PARCEL 25
NOTE: -Y2- LEFT SIDE TAPERS FROM 9' AT STA.10+90.00 TO 14' AT STA.11+89.28. -Y2- RIGHT SIDE TAPERS FROM 9' AT STA. 11+32.12 TO 11.8' AT STA.11+61.19.

SEE SHEET 2B-1 FOR DETAIL OF INTERSECTION -Y3- & -L-
SEE SHEET 2B-2 FOR DETAIL OF INTERSECTION -Y2- & -L-
SEE SHEET 7 FOR -L- PROFILE
SEE SHEET 8 FOR -Y2- & -Y3- PROFILE
SEE SHEET 9 FOR -DR1- PROFILE

8/13/2015
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USER: mcpple

DocuSign Envelope ID: 44433A77-C866-4B7B-8C40-DA7DDDCB7545

PROJECT REFERENCE NO.	SHEET NO.
U-5104	6

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
DBC49EE8CCF8CCB...

HYDRAULICS ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 33719 ENGINEER BRIAN MAZZOCCHI
DocuSigned by: Brian Mazzocchi
DEF0DE8B8B0E4A...

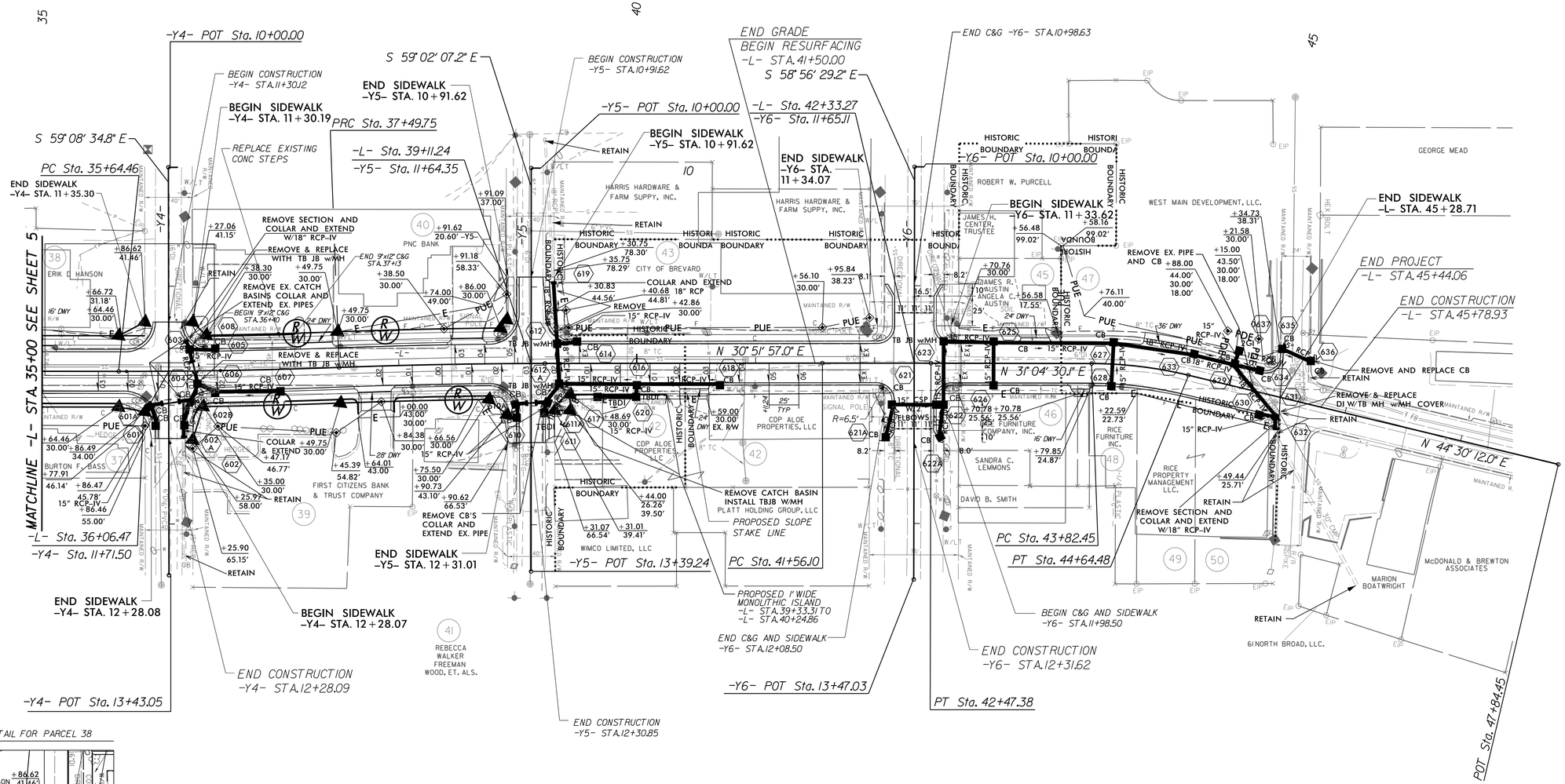
SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

REVISIONS

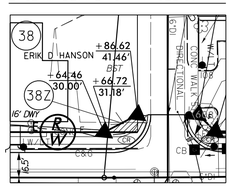
8/17/99

-L-

PI Sta 36+57.11	PI Sta 38+36.32	PI Sta 42+01.74	PI Sta 44+23.66
Δ = 2° 12' 42.3" (LT)	Δ = 2° 04' 00.0" (RT)	Δ = 0° 12' 33.1" (RT)	Δ = 13° 25' 41.9" (RT)
D = 1° 11' 37.2"	D = 1° 11' 37.2"	D = 0° 13' 45.1"	D = 16° 22' 12.8"
L = 185.29'	L = 173.14'	L = 91.28'	L = 82.03'
T = 92.66'	T = 86.58'	T = 45.64'	T = 41.20'
R = 4,800.00'	R = 4,800.00'	R = 25,000.00'	R = 350.00'



Z CLAIM DETAIL FOR PARCEL 38



NOTE: RETAINING WALLS

-L- STA.36+26.77 RT	-L- STA.36+95.92 RT (WALL 9)
-L- STA.37+03.59 RT	-L- STA.37+64.42 RT (WALL 10)
-L- STA.37+95.06 RT	-L- STA.38+79.80 RT (WALL 11)

SEE SHEET 2B-1 FOR DETAILS OF INTERSECTIONS -Y4- AND -Y5- & -L-

SEE SHEET 2B-2 FOR DETAILS OF INTERSECTION -Y6- & -L-

SEE SHEETS 7 & 8 FOR -L- PROFILE
SEE SHEET 9 FOR -Y4- & -Y5- PROFILE

8/13/2015
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USER: Mcapple

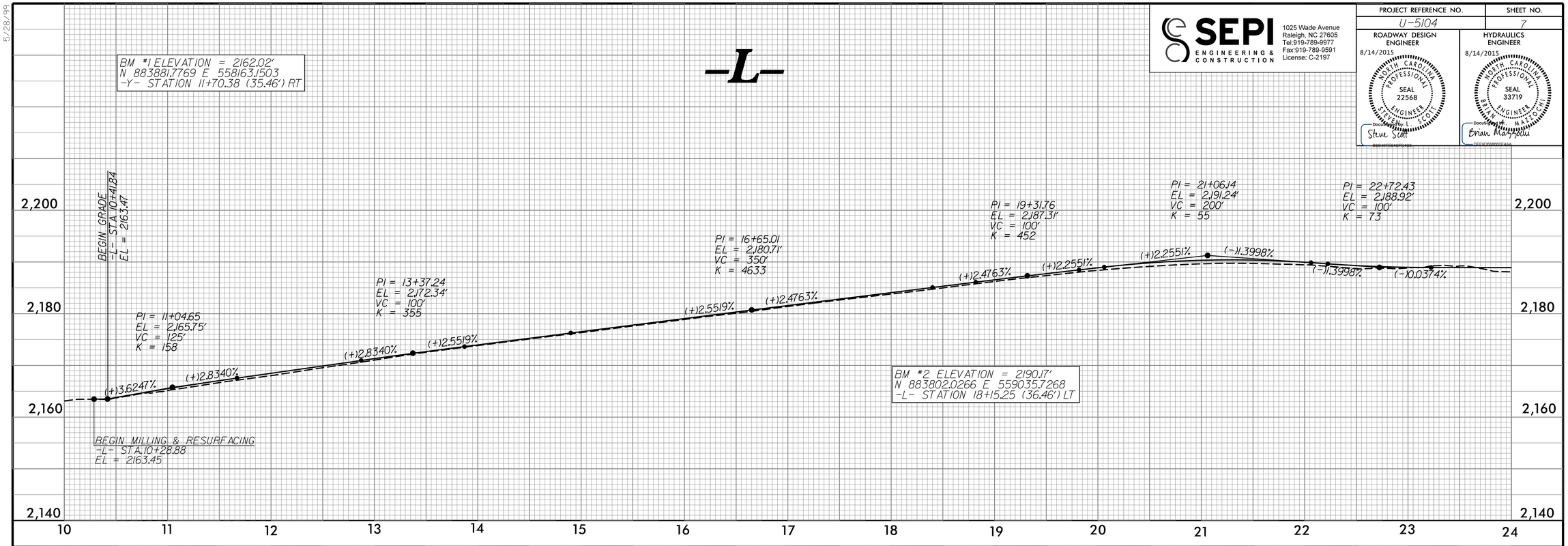
DocuSign Envelope ID: 44433A77-C866-4B7B-8C40-DA7DDDCB7545

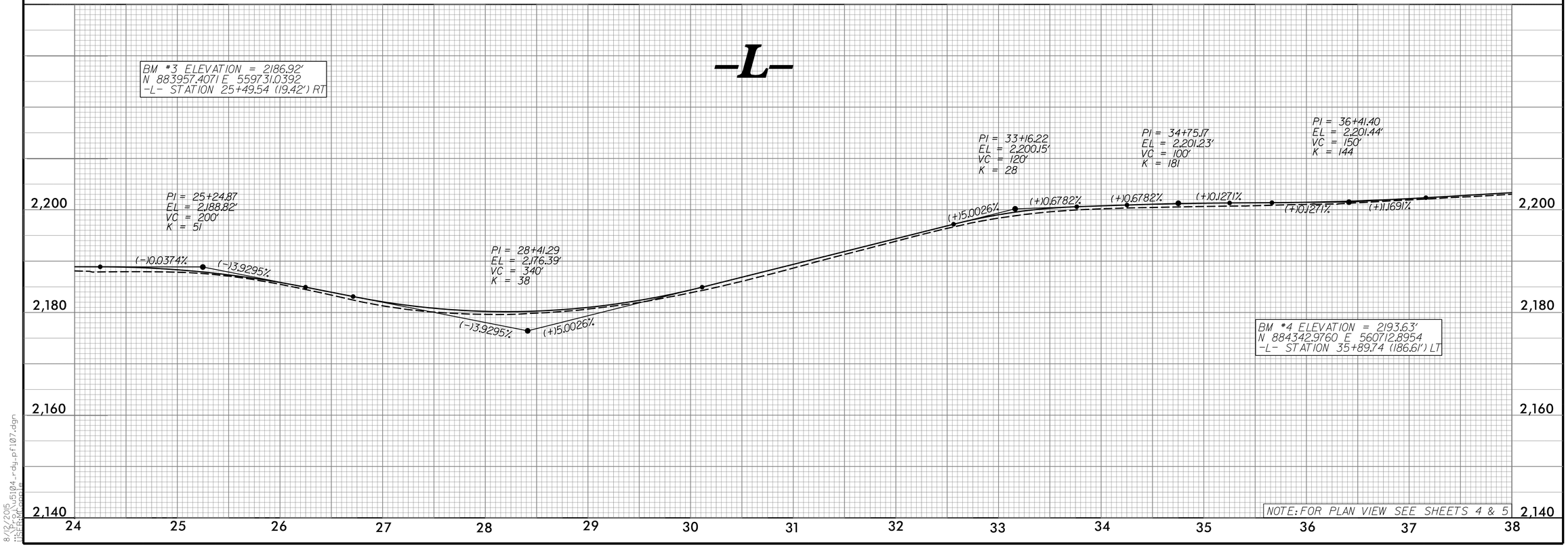
SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

PROJECT REFERENCE NO.	SHEET NO.
U-5104	7

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSigned by: Steve Scott
08C4F5E6A9F8402...

HYDRAULICS ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 33719 ENGINEER BRIAN M. MATOLLA
DocuSigned by: Brian Matolla
DFE9C9B9C6A4A...





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Fax:919-789-9591
License: C-2197

PROJECT REFERENCE NO.	SHEET NO.
U-5104	8

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEPHEN W. SCOTT
DocuSigned by: Steve Scott
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HYDRAULICS ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 33719 ENGINEER BRIAN MARGOLIS
DocuSigned by: Brian Margolis
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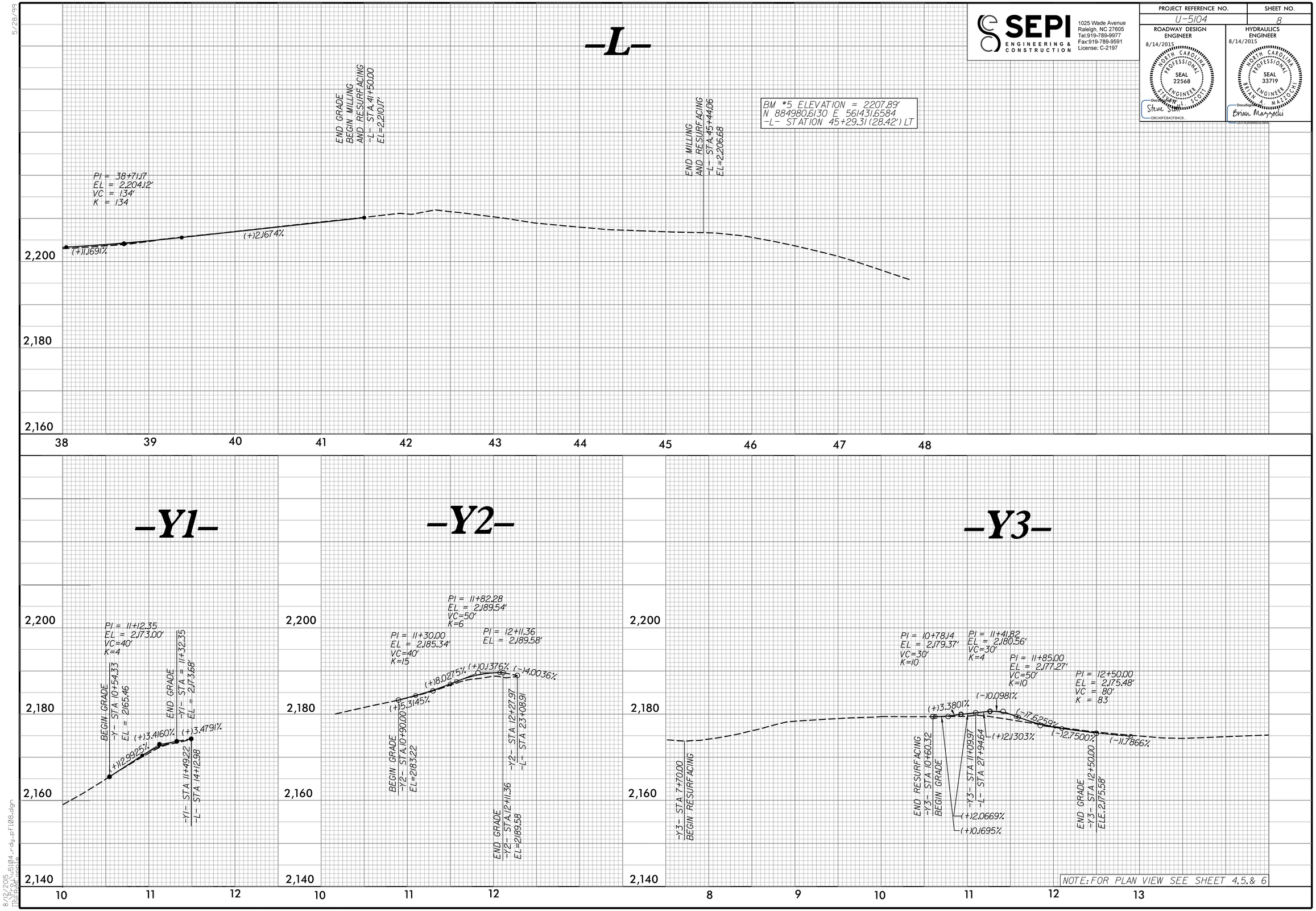

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U-5104	9

ROADWAY DESIGN ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 22568 ENGINEER STEVEN L. SCOTT
DocuSign Envelope ID: Steve Scott
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HYDRAULICS ENGINEER
8/14/2015
NORTH CAROLINA PROFESSIONAL SEAL 33719 ENGINEER BRIAN MAZZOCCHI
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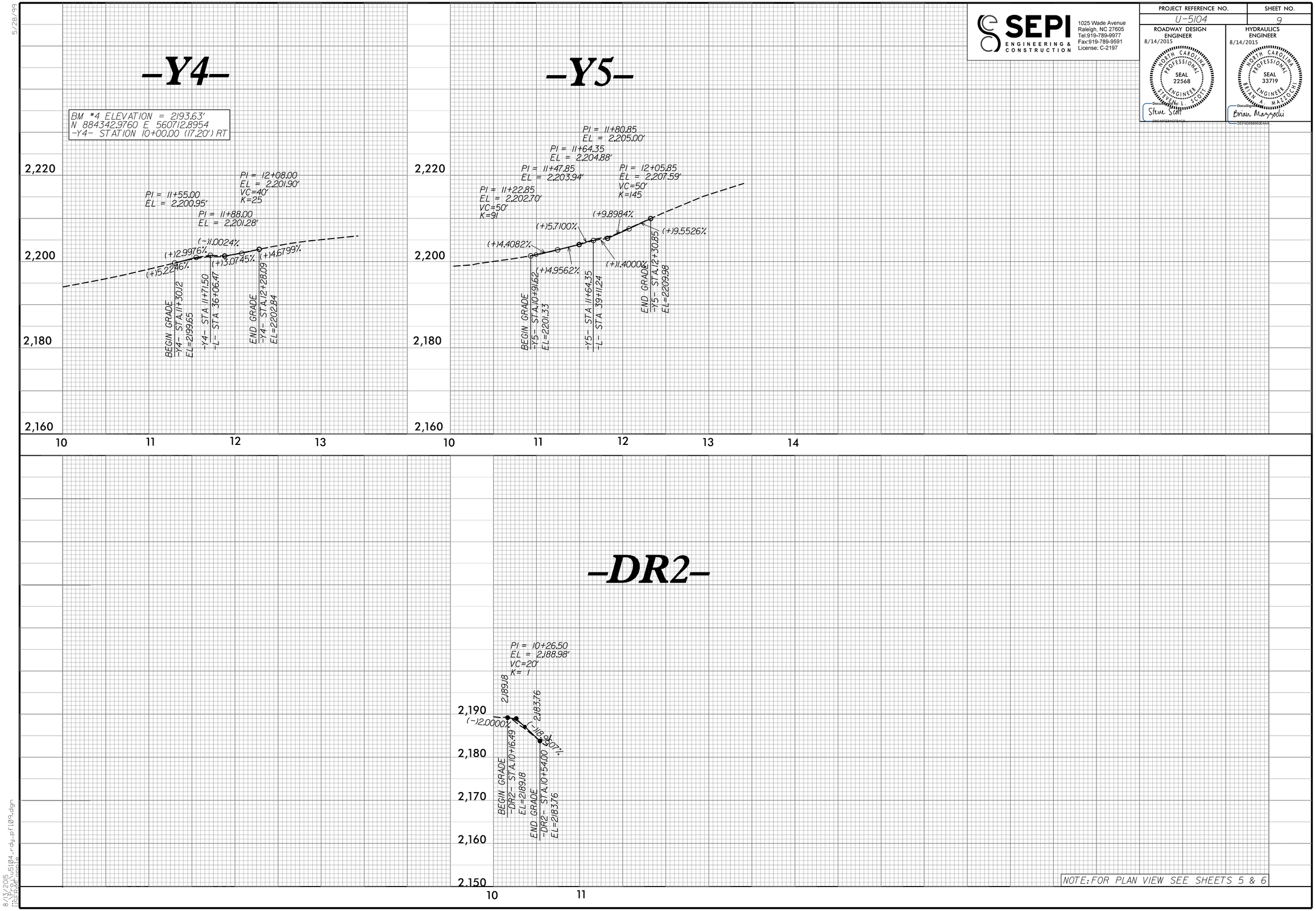

NOTE: FOR PLAN VIEW SEE SHEETS 5 & 6

5/28/99

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