STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

FORSYTH COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4909	1	

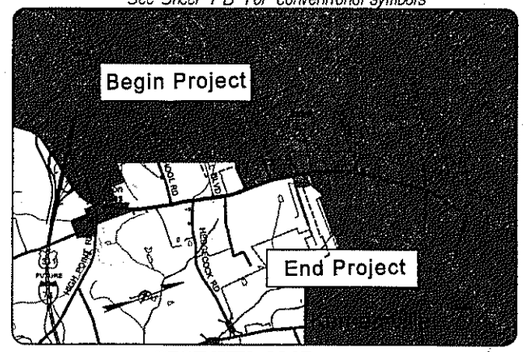
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
40278.1.1	STP-2643(2)	PE
40278.2.1	STPHPP-2643(3)	R/W/UTIL
40278.3.1	STP-2643(5)	CONST

LOCATION: WINSTON SALEM – SR 2643 (UNION CROSS RD.) FROM SR 2691 (WALLBURG RD) TO SR 2632 (SEDGE GARDEN RD.)

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

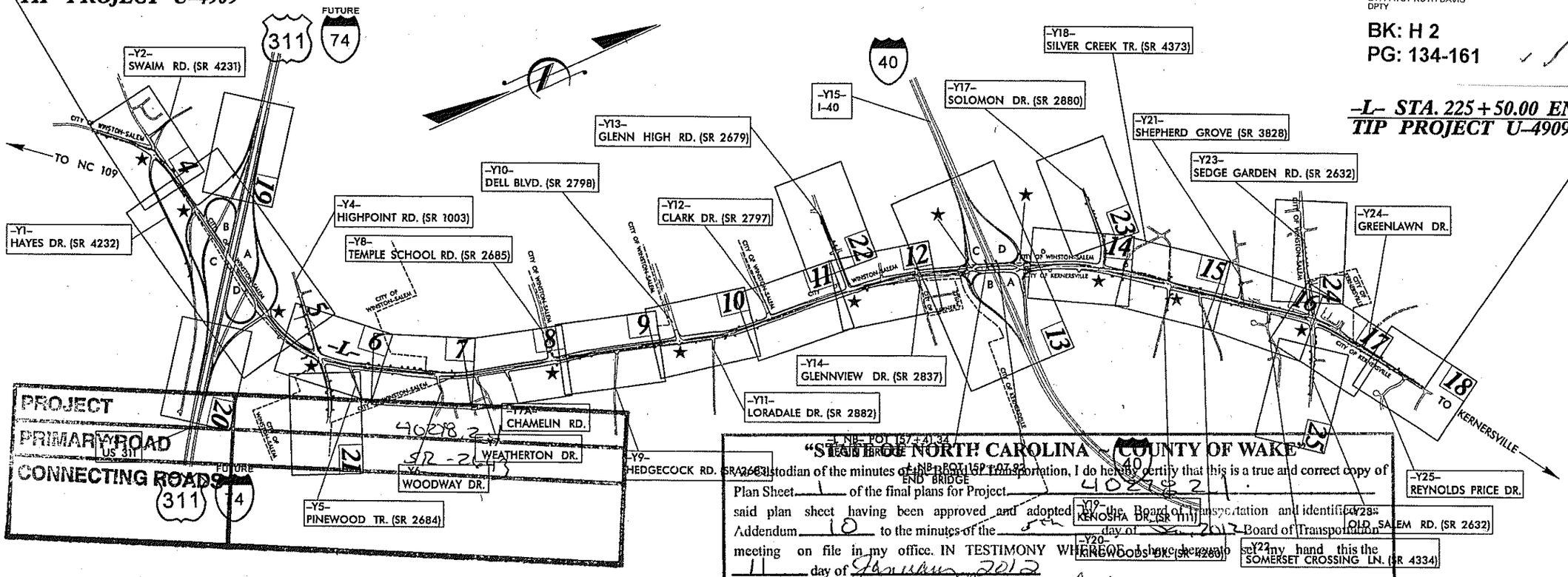
2012001494 0
FORSYTH CO, NC FEE $156.00
PRESENTED & RECORDED:
01-12-2012 01:03:24 PM
C. NORMAN HOLLEMAN
REGISTER OF DEEDS
BY: PATSY RUTH DAVIS
DPTY
BK: H 2
PG: 134-161

See Sheet 1-A For Index of Sheets
See Sheet 1-B for conventional symbols



VICINITY MAP

–L– STA. 7+40.00 BEGIN
TIP PROJECT U-4909



–L– STA. 225+50.00 END
TIP PROJECT U-4909

NOTES:
1. THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON PLANS.

"STATE OF NORTH CAROLINA – COUNTY OF WAKE"

I, Secretary to the Board of Transportation, custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 1 of the final plans for Project 40278.2.1, said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of January, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

GRAPHIC SCALES

PLANS: 50 0 50 100
PROFILE (HORIZONTAL): 50 0 50 100
PROFILE (VERTICAL): 10 0 10 20

DESIGN DATA

ADT 2011 = 25,120
ADT 2031 = 41,520
DHV = 10%
D = 60%
T = 9% *
V = 50 MPH
CLASS = URBAN COLLECTOR
* DUAL = 6%
DRAINAGE TIER: REGIONAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-4909 ..... 4.131 mi
LENGTH STRUCTURE TIP PROJECT U-4909 ..... 0.032 mi
TOTAL LENGTH TIP PROJECT U-4909 ..... 4.099 mi

PLANS PREPARED BY :

RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE, SUITE 350
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO. F-0112

FOR
DIVISION OF HIGHWAYS

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: AUGUST 15, 2008

LETTING DATE: DECEMBER 20, 2011

J.T. PEACOCK, JR., P.E.
PROJECT ENGINEER

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

NCDOT CONTACT: K. ZAK HAMIDI, PE
PROJECT ENGINEER – PROJECT SERVICES

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATHEW L. COOK
SIGNATURE: 10/9/11

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT
SIGNATURE: P.E. 10/19/2011

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
P.E.
STATE HIGHWAY DESIGN ENGINEER

TIP PROJECT: U4909
CONTRACT: C202745

10/5/2011
R:\Roadway\Proj\u4909_rdy_tsh.dgn
jbeauchaine

09/08/99

PROJECT REFERENCE NO.	SHEET NO.
U-4909	1-B

3/15/06

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 — IP
- 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
- Historic Boundary

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

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Wheel Chair Ramp — WCR
- Proposed Wheel Chair Ramp Curb Cut — WCC
- Curb Cut for Future Wheel Chair Ramp — CCFR
- 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
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole — HH
- 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 — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- 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

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"
As Corporate Secretary to Board of Transportation, I do hereby certify that this is a true and correct copy of the minutes of the Board of Transportation and identified as Plan Sheet 2 of the final plans for Project 40278.2.1 having been approved and adopted by the Board of Transportation this the 5th day of January 2012 as recorded in said minutes of the Board of Transportation, Plan Sheet 2 is identified as Addendum 10 and I have hereunto set my hand on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this 10th day of January 2012.
Secretary to Board of Transportation

WATER:

- Water Manhole — M
- 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 — TP
- 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

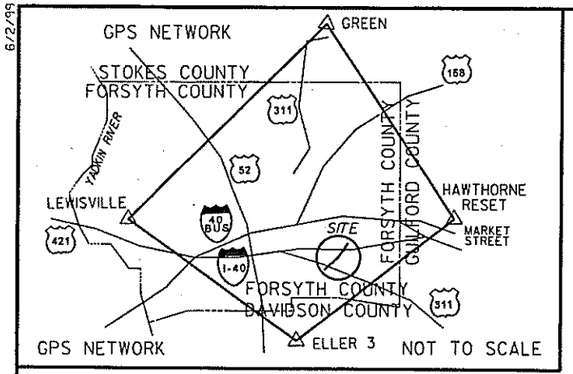
MISCELLANEOUS:

- Proposed Traffic Signal
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — PUTL
- U/G Tank; Water, Gas, Oil
- A/G Tank; Water, Gas, Oil
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

6/2/99

SURVEY CONTROL SHEET U-4909

PROJECT REFERENCE NO.	SHEET NO.
U-4909	1C
Location and Surveys	



NC GRID
NAD 83/2001

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 1C of the final plans for Project 40278.2, said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January, 2012

Secretary to Board of Transportation

MATCH LINE
140+00.00

GLEN HIGH RD SR 2609 -Y13-
CLARKE DR SR 2687 -Y12-
DELL RUN SR 2681 -Y10-
-Y11- LONDALE DR SR 2682
-Y9- HEDGEFORD RD
TEMPLE SCHOOL RD SR 2683 -Y8-
CHAMELIN RD -Y7A-
WEATHERTON DR -Y7-
WOODWAY DR -Y6-

END CONSTRUCTION
-L- POC Sta. 225+10.00
TO KERNERSVILLE
COVE EXPRESSION DR
REYNOLDS PRICE DR -Y25-
ANNE TYLER CT
GREEN LAWN DR -Y24-
UNION CROSS RD SR 2834

NCDOT GPS STATION U4909-3
LOCALIZED PROJECT COORDINATES
N = 852077.6190
E = 1674768.1550
ELEV. = 973.41

BEESON PARK LN SR 4571
HASTINGS HILL RD SR 2667
SEDGE GARDEN RD SR 2632 -Y23-
OLD SALEM RD SR 2632
CAMELLIA DR SR 2684
SR 2684 DR SR 2681
HASTINGS HILL RD SR 2667
SHEPERD GROVE RD SR 3828 -Y21-
LAMB'S LN SR 3829
SOMERSET CROSSING LN SR 4534 -Y22-
MEDFORD DR
BIRCH HILL DR
CAMILLABROOK SR 4568

NCDOT GPS STATION U4909-4
LOCALIZED PROJECT COORDINATES
N = 851399.6070
E = 1675954.6570
ELEV. = 941.44

KINGSWOOD DR SR 4280 -Y20-
BILOW AVE SR 3814 -Y19-
SILVER CREEK -Y18-
XENOSHA DR SR 1111 -Y19-
MELONE BROOK LN PRIVATE
SOLOMON DR SR 2880 -Y17-

NCDOT GPS STATION U4909-1
LOCALIZED PROJECT COORDINATES
N = 839184.3470
E = 1665574.1220
ELEV. = 916.29

TO WINSTON-SALEM
US 311 SBL

NCDOT GPS STATION U4909-2
LOCALIZED PROJECT COORDINATES
N = 838408.0730
E = 1666431.7530
ELEV. = 931.18

TO WINSTON-SALEM
UNION CROSS RD SR 2643
SPRING RD SR 2644 -L-
WALLBURG RD SR 2644
TO NC 109
BEGIN CONSTRUCTION
-L- POT Sta. 8+15.00
-Y1-
-Y2-
-Y3-
HAYES DR SR 4242 -Y1-
HIGH POINT RD SR 2683 -Y4-
TO WINSTON-SALEM
HIGH POINT RD SR 2683 -Y5-
TO HIGH POINT
US 311 WBL
TO HIGH POINT

NCDOT GPS STATION U2579AB-3
LOCALIZED PROJECT COORDINATES
N = 848078.0840
E = 1671084.4780
ELEV. = 933.37

TO WINSTON-SALEM
I-40 WBL
I-40 EBL
-Y15-
NCDOT GPS STATION U2579AB-4
LOCALIZED PROJECT COORDINATES
N = 848094.2320
E = 1669888.0260
ELEV. = 914.10

PECAN LN SR 2669 -Y16-
I-40 WBL
I-40 EBL TO GREENSBORO
SEARS RD SR 4242 -Y14-
GLENNVIEW DR SR 2837
UNION CROSS RD SR 2834
MATCH LINE
140+00.00

NOTES:

1. THE SITE CALIBRATION SHOWN IS BASED UPON A NETWORK TIED TO THE HARN (HIGH ACCURACY REFERENCE NETWORK) NAD 1995 ADJUSTMENT. THIS CALIBRATION WILL ALLOW THE END USER TO WORKWITHIN THE SAME COORDINATE SYSTEM WHEN USING RTK (REAL TIME KINEMATIC) GPS AND A LOCAL BASE STATION. IF ANOTHER SYSTEM SUCH AS VRS (VIRTUAL REFERENCE STATION) IS USED, ADDITIONAL FIELD TIES MAY BE NEEDED TO REDUCE POSSIBLE ERRORS, OR BIASES.
2. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/
THE FILES TO BE FOUND ARE AS FOLLOWS:
U4909_LS_GPSCALIB_DATE.HTML
U4909_LS_WGS84_DATE.TXT
U4909_LS_LOCAL_DATE.TXT
U4909_LS_CONTROL_DATE.TXT
THE WGS84 AND LOCAL FILES ARE COMMA DELIMITED AND CAN BE USED TO REPRODUCE THE SITE CALIBRATION FOR THE END USER'S GPS EQUIPMENT. 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.
NETWORK ESTABLISHED FROM EXISTING HARN MONUMENTATION
SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

NOTE: DRAWING NOT TO SCALE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "U2579C-1"
WITH NAD 83/2001 STATE PLANE GRID COORDINATES OF NORTHING: 876419.285(ft) EASTING: 1651591.602(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99995453
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U2579C-1" TO -L- STATION 7+00.00 IS S 18°20'17.75" 41820.769
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

10/5/2011
H:\Roadway\Proj\u4909_rdy_psh01c.dgn
locschmitt

SURVEY CONTROL SHEET U-4909

PROJECT REFERENCE NO.	SHEET NO.
U-4909	1D
Location and Surveys	

6/2/99

GPS Calibration Report

Project : U4909_Calibration

TIP Number
User name tbovender Date & Time 7:29:02 AM 3/25/2008
Coordinate System US State Plane 1983
Zone North Carolina 3200
Horizontal Datum NAD 1983 (Conus)
Vertical Datum Geoid Model Geoid03 (Conus) NC Sub Grid
Coordinate Units US survey feet
Distance Units US survey feet
Height Units US survey feet

LOCAL SITE INFORMATION

Localized around	U2579C-1
Latitude	36°09'08.35562" N
Longitude	80°10'48.38377" W
Site Scale Factor	1.000045472
Height	870.594

The North Carolina Department of Transportation uses a Localized Coordinate System which is very similar to North Carolina Zone 3200 from which it is derived. Please take care in utilizing these coordinates to eliminate confusion of the two systems.
This file is to aid in the use of Real Time Kinematic (RTK) GPS during construction layout.

Datum Transformation Parameters

Datum Transformation computation not requested

Updated Default Projection (Transverse Mercator) Definition

Updated default projection not requested

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "U2579C-1" WITH NAD 83/2001 STATE PLANE GRID COORDINATES OF NORTHING: 876419.285(ft) EASTING: 1651591.602(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99995453 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U2579C-1" TO -L- STATION 7+00.00 IS S 18°20'17.75" 41820.769 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Horizontal Adjustment Parameters

Northing coordinate of rotation center 845575.353sft
Easting coordinate of rotation center 1670624.663sft
Rotation about the center point 0°00'00"

Translation north -1.361sft
Translation east 0.792sft
Scale factor 1.00003929

Vertical Adjustment Parameters

Northing coordinate of origin point 839184.285sft
Easting coordinate of origin point 1665574.048sft
Vertical separation at origin 0.076sft
Slope north 7.562ppm
Slope east -4.979ppm

Geoid Model Definition

Geoid03 (Conus) NC Sub Grid

Residual Differences Between GPS (WGS84) And Local Coordinates

Summary

	Maximum error	Root Mean Square error	Point
Horizontal	0.106sft	0.023	BL-13_GPS
Vertical	0.035sft	0.008	U4909-4_GPS
Three-dimensional	0.108sft	0.024	BL-13_GPS

Point Residuals
WGS84 Coordinates Calculated point
FOR DISPLAY ONLY Local Coordinates

Point U4909-1_GPS Latitude 36°03'01.78617"N Longitude 80°64 07'52.74428"W Height 810.808sft	Northing 839184.285sft Easting 1665574.048sft Elevation 916.303sft Horz error 0.097sft Vert error 0.013sft 3D error 0.098sft	Point U4909-1_Local Northing 839184.347sft Easting 1665574.122sft Elevation 916.290sft Utilized Horz and Vert Quality Survey quality
Point U4909-2_GPS Latitude 36°02'54.20800"N Longitude 80°07'42.19245"W Height 825.730sft	Northing 838408.145sft Easting 1666431.782sft Elevation 931.151sft Horz error 0.078sft Vert error 0.029sft 3D error 0.083sft	Point U4909-2_Local Northing 838408.073sft Easting 1666431.753sft Elevation 931.180sft Utilized Horz and Vert Quality Survey quality
Point U2579AB-4_GPS Latitude 36°04'30.37318"N Longitude 80°07'01.43466"W Height 808.314sft	Northing 848094.283sft Easting 1669888.014sft Elevation 914.051sft Horz error 0.053sft Vert error 0.019sft 3D error 0.056sft	Point U2579AB-4_Local Northing 848094.232sft Easting 1669888.026sft Elevation 914.070sft Utilized Horz and Vert Quality Survey quality
Point U2579AB-3_GPS Latitude 36°04'30.34647"N Longitude 80°06'46.85906"W Height 827.706sft	Northing 848078.146sft Easting 1671084.467sft Elevation 933.390sft Horz error 0.063sft Vert error 0.020sft 3D error 0.067sft	Point U2579AB-3_Local Northing 848078.084sft Easting 1671084.478sft Elevation 933.370sft Utilized Horz and Vert Quality Survey quality
Point U4909-3_GPS Latitude 36°05'10.29921"N Longitude 80°06'02.53000"W Height 867.721sft	Northing 852077.542sft Easting 1674768.142sft Elevation 973.435sft Horz error 0.078sft Vert error 0.025sft 3D error 0.082sft	Point U4909-3_Local Northing 852077.619sft Easting 1674768.155sft Elevation 973.410sft Utilized Horz and Vert Quality Survey quality
Point U4909-4_GPS Latitude 36°05'03.72551"N Longitude 80°05'47.98458"W Height 835.776sft	Northing 851399.608sft Easting 1675954.644sft Elevation 941.405sft Horz error 0.013sft Vert error 0.035sft 3D error 0.037sft	Point U4909-4_Local Northing 851399.607sft Easting 1675954.657sft Elevation 941.440sft Utilized Horz and Vert Quality Survey quality
Point BL-13_GPS Latitude 36°03'27.98360"N Longitude 80°06'50.95985"W Height 858.384sft	Northing 841775.930sft Easting 1670677.082sft Elevation 963.784sft Horz error 0.106sft Vert error 0.024sft 3D error 0.108sft	Point BL-13 Northing 841775.979sft Easting 1670676.988sft Elevation 963.760sft Utilized Horz and Vert Quality Survey quality

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 1D of the final plans for Project 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

NOTE: DRAWING NOT TO SCALE

NOTES:

1. *THE SITE CALIBRATION SHOWN IS BASED UPON A NETWORK TIED TO THE HARN (HIGH ACCURACY REFERENCE NETWORK) NAD 8395 ADJUSTMENT. THIS CALIBRATION WILL ALLOW THE END USER TO WORK WITHIN THE SAME COORDINATE SYSTEM WHEN USING RTK (REAL TIME KINEMATIC) GPS AND A LOCAL BASE STATION. IF ANOTHER SYSTEM SUCH AS VRS (VIRTUAL REFERENCE STATION) IS USED, ADDITIONAL FIELD TIES MAY BE NEEDED TO REDUCE POSSIBLE ERRORS, OR BIASES.*
2. *THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT: HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/*

THE FILES TO BE FOUND ARE AS FOLLOWS:
U4909_LS_GPSCALIB_DATE.HTML
U4909_LS_WGS84_DATE.TXT
U4909_LS_LOCAL_DATE.TXT
U4909_LS_CONTROL_DATE.TXT

THE WGS84 AND LOCAL FILES ARE COMMA DELIMITED AND CAN BE USED TO REPRODUCE THE SITE CALIBRATION FOR THE END USER'S GPS EQUIPMENT. 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.
NETWORK ESTABLISHED FROM EXISTING HARN MONUMENTATION
SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

10/5/2011
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tbovender

PROJECT REFERENCE NO.	SHEET NO.
U-4909	1E
Location and Surveys	

SURVEY CONTROL SHEET U-4909

BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
5	BL-5	837427.2890	1665317.5730	955.57	15+85.33	90.39 LT
6	BL-6	837780.4260	1666809.3300	954.23	30+96.38	54.29 LT
7	BL-7	837865.7140	1667819.8720	962.90	41+06.78	32.65 RT
8	BL-8	838011.3660	1668588.4730	966.38	48+83.59	41.69 RT
9	BL-9	838395.1971	1669206.0728	961.39	56+03.01	19.76 RT
10	BL-10	838836.3850	1669468.9530	969.49	61+17.88	64.99 LT
11	BL-11	839820.9560	1670135.7570	968.10	73+06.09	25.50 RT
12	BL-12	840880.8730	1670507.4040	970.01	84+29.27	8.92 RT
13	BL-13	841775.9790	1670676.9880	963.76	93+41.42	48.69 LT
14	BL-14	842474.5780	1670896.5210	960.07	100+70.99	13.51 RT
15	BL-15	843508.5300	1671247.5580	961.79	111+61.87	61.19 RT
16	BL-16	844556.7080	1671412.4080	961.90	122+19.59	8.28 RT
17	BL-17	846027.9450	1671456.7440	965.78	136+89.65	65.30 LT
18	BL-18	847007.7330	1671730.2030	961.09	147+00.87	31.47 RT
19	BL-19	847752.2460	1671959.0610	958.38	154+81.29	2.42 LT
20	BL-20	848411.8940	1672293.9910	962.20	162+17.15	73.86 RT
21	BL-21	849012.8070	1672515.0500	967.95	168+58.71	64.47 RT
22	BL-22	849777.2900	1672866.5750	967.35	177+02.10	55.97 LT
23	BL-23	850347.1980	1673362.5100	964.92	184+56.52	16.04 LT
24	BL-24	850768.1530	1673754.0810	965.34	190+29.31	33.36 RT
25	BL-25	851382.2380	1674187.2640	974.81	197+79.91	3.36 LT
3	U4909-3	852077.6190	1674768.1550	973.41	206+87.12	4.35 RT
26	BL-26	852535.3930	1675348.3570	985.37	214+26.40	23.81 LT
27	BL-27	852934.7570	1676080.4150	969.83	222+58.35	31.45 RT

BY1

POINT	DESC.	NORTH	EAST	ELEVATION	Y2 STATION	OFFSET
28	BY1-28	838074.6310	1665098.3600	951.03	OUTSIDE PROJECT LIMITS	
5	BL-5	837427.2890	1665317.5730	955.72	OUTSIDE PROJECT LIMITS	

BY2

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
5	BL-5	837427.2890	1665317.5730	955.72	15+85.33	90.39 LT
29	BY2-29	833786.7760	1664834.9120	947.38	8+04.48	22.91 RT

BY3

POINT	DESC.	NORTH	EAST	ELEVATION	Y3 STATION	OFFSET
6	BL-6	837780.4260	1666809.3300	954.23	35+67.87	368.12 RT
30	BY3-30	837577.4860	1666527.2150	951.14	34+63.24	699.52 RT
31	BY3-31	837290.8870	1667062.1000	955.63	40+63.30	609.14 RT
32	BY3-32	837108.6800	1667567.5080	937.77	45+77.28	452.74 RT
33	BY3-33	836923.2590	1668141.9480	911.93	51+48.50	257.63 RT
34	BY3-34	836567.9320	1668653.8030	912.90	57+71.23	236.10 RT

BY4

POINT	DESC.	NORTH	EAST	ELEVATION	Y3 STATION	OFFSET
35	BY4-35	839725.3820	1664835.8390	904.53	OUTSIDE PROJECT LIMITS	
1	U4909-1	839184.3470	1665574.1220	916.29	17+38.16	17.77 LT
2	U4909-2	838408.0730	1666431.7530	931.18	28+89.81	91.11 RT
6	BL-6	837780.4260	1666809.3300	954.23	35+67.87	368.12 RT
36	BY4-36	837684.8800	1667248.5220	938.44	38+57.29	21.65 RT
37	BY4-37	837276.8680	1668059.9800	931.66	48+71.26	23.33 RT
38	BY4-38	836666.4670	1668907.1030	914.06	59+15.24	5.59 RT
39	BY4-39	836038.3070	1669854.5690	915.34	70+53.12	23.69 LT

BY5

POINT	DESC.	NORTH	EAST	ELEVATION	Y4 STATION	OFFSET
40	BY5-40	838569.5833	1668268.6777	948.45	13+39.59	21.70 LT
9	BL-9	838395.1971	1669206.0728	961.39	22+91.35	35.51 RT
41	BY5-41	838392.0260	1669657.2050	961.61	27+37.06	25.79 LT
42	BY5-42	838142.1060	1670122.2800	945.44	32+63.39	27.12 RT

BY6

POINT	DESC.	NORTH	EAST	ELEVATION	Y5 STATION	OFFSET
10	BL-10	838836.3850	1669468.9530	969.49	OUTSIDE PROJECT LIMITS	
43	BY6-43	838749.5360	1669790.6040	973.41	12+83.64	11.62 RT

BY7

POINT	DESC.	NORTH	EAST	ELEVATION	Y7A STATION	OFFSET
12	BL-12	840880.8730	1670507.4040	970.01	10+15.79	17.53 LT
44	BY7-44	840938.3320	1671115.2400	972.63	OUTSIDE PROJECT LIMITS	

BY8

POINT	DESC.	NORTH	EAST	ELEVATION	Y8 STATION	OFFSET
45	BY8-45	841623.2020	1670380.7190	964.50	13+44.49	32.19 LT
13	BL-13	841775.9790	1670676.9880	963.76	16+06.38	238.42 LT

BY9

POINT	DESC.	NORTH	EAST	ELEVATION	Y9 STATION	OFFSET
14	BL-14	842474.5780	1670896.5210	960.07	10+19.14	26.76 RT
46	BY9-46	842229.4750	1671394.5250	961.31	15+74.03	13.35 RT

BY10

POINT	DESC.	NORTH	EAST	ELEVATION	Y10 STATION	OFFSET
47	BY10-47	843440.0210	1670311.2080	929.31	OUTSIDE PROJECT LIMITS	
15	BL-15	843508.5300	1671247.5580	961.79	OUTSIDE PROJECT LIMITS	

BY11

POINT	DESC.	NORTH	EAST	ELEVATION	Y11 STATION	OFFSET
15	BL-15	843508.5300	1671247.5580	961.79	11+11.31	357.23 RT
48	BY11-48	843828.2390	1671372.4970	957.57	10+94.54	14.38 RT
49	BY11-49	843642.1410	1671865.3500	964.21	OUTSIDE PROJECT LIMITS	

BY12

POINT	DESC.	NORTH	EAST	ELEVATION	Y13 STATION	OFFSET
50	BY12-50	845089.4720	1670736.8540	959.12	16+04.75	27.90 RT
51	BY12-51	844827.9450	1671456.7440	965.78	23+22.75	38.02 LT

BY13

POINT	DESC.	NORTH	EAST	ELEVATION	Y14 STATION	OFFSET
52	BY13-52	846892.6310	1672192.3250	965.61	12+85.68	9.96 LT
53	BY13-53	846137.2920	1673046.1200	926.69	17+64.44	13.16 RT

BY14

POINT	DESC.	NORTH	EAST	ELEVATION	Y15 STATION	OFFSET
104	U2579AB-4	848094.2320	1669888.0260	914.10	18+82.11	12.58 RT
103	U2579AB-3	848078.0840	1671084.4780	933.37	30+78.67	8.52 RT
52	BY14-52	848077.7880	1672001.9610	937.05	39+96.02	6.69 LT
100		876419.2850	1651591.6020		POINT NOT SET	
53	BY14-53	848137.2920	1673046.1200	926.69	50+39.03	83.83 LT
54	BY14-54	848068.9362	1674103.8636	901.52	60+98.86	4.76 RT
55	BY14-55	848335.5169	1675107.5135	910.80	71+39.40	3.32 RT

"STATE OF NORTH CAROLINA" "COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 1E of the final plans for Project 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 1(2) to the minutes of the 5th day of September, 2013 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January, 2013

Secretary to Board of Transportation

NOTES:

1. *THE SITE CALIBRATION SHOWN IS BASED UPON A NETWORK TIED TO THE HARN (HIGH ACCURACY REFERENCE NETWORK) NAD 8596 ADJUSTMENT. THIS CALIBRATION WILL ALLOW THE END USER TO WORKWITHIN THE SAME COORDINATE SYSTEM WHEN USING RTK (REAL TIME KINEMATIC) GPS AND A LOCAL BASE STATION. IF ANOTHER SYSTEM SUCH AS VRS (VIRTUAL REFERENCE STATION) IS USED, ADDITIONAL FIELD TIES MAY BE NEEDED TO REDUCE POSSIBLE ERRORS, OR BIASES.*
2. *THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:*
   HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/
   THE FILES TO BE FOUND ARE AS FOLLOWS:
   U4909_LS_GPSCALIB_DATE.HTML
   U4909_LS_WGS84_DATE.TXT
   U4909_LS_LOCAL_DATE.TXT
   U4909_LS_CONTROL_DATE.TXT
   THE WGS84 AND LOCAL FILES ARE COMMA DELIMITED AND CAN BE USED TO REPRODUCE THE SITE CALIBRATION FOR THE END USER'S GPS EQUIPMENT. 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.
NETWORK ESTABLISHED FROM EXISTING HARN MONUMENTATION
SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

NOTE: DRAWING NOT TO SCALE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "U2579C-1" WITH NAD 83/2001 STATE PLANE GRID COORDINATES OF NORTHING: 876419.285(ft) EASTING: 1651591.602(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99995453 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U2579C-1" TO -L- STATION 7+00.00 IS S 18°20'17.75" 41820.769 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

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mpeterson

PROJECT REFERENCE NO.	SHEET NO.
U-4909	1F
Location and Surveys	

SURVEY CONTROL SHEET U-4909

BY15

POINT	DESC.	NORTH	EAST	ELEVATION	Y16 STATION	OFFSET
56	BY15-56	848827.0620	1671454.5830	954.91	OUTSIDE PROJECT LIMITS	
21	BL-21	849012.8070	1672515.0500	967.95	OUTSIDE PROJECT LIMITS	

BY16

POINT	DESC.	NORTH	EAST	ELEVATION	Y17 STATION	OFFSET
58	BY16-58	849753.4860	1671734.1370	962.60	11+72.83	13.61 LT
57	BY16-57	849677.5190	1672495.4100	976.56	19+31.20	34.94 LT
21	BL-21	849012.8070	1672515.0500	967.95	OUTSIDE PROJECT LIMITS	

BY17

POINT	DESC.	NORTH	EAST	ELEVATION	Y18 STATION	OFFSET
60	BY17-60	850611.2030	1672651.1490	942.10	OUTSIDE PROJECT LIMITS	
59	BY17-59	850141.9370	1672658.6390	959.54	11+90.91	12.20 RT
22	BL-22	849777.2900	1672866.5750	967.35	16+07.07	30.00 RT

BY18

POINT	DESC.	NORTH	EAST	ELEVATION	Y19 STATION	OFFSET
61	BY18-61	850515.9010	1672960.1700	959.46	OUTSIDE PROJECT LIMITS	
23	BL-23	850347.1980	1673362.5100	964.92	14+25.08	20.57 LT

BY19

POINT	DESC.	NORTH	EAST	ELEVATION	Y19 STATION	OFFSET
23	BL-23	850347.1980	1673362.5100	964.92	14+25.08	20.57 LT
62	BY19-63	849881.2980	1674023.8160	951.68	OUTSIDE PROJECT LIMITS	

BY20

POINT	DESC.	NORTH	EAST	ELEVATION	Y20 STATION	OFFSET
24	BL-24	850768.1530	1673754.0810	965.34	10+52.32	105.36 LT
63	BY20-63	850624.3590	1673937.5190	967.09	12+91.73	12.40 RT
64	BY20-64	850634.8670	1674338.4500	969.32	OUTSIDE PROJECT LIMITS	

BY21

POINT	DESC.	NORTH	EAST	ELEVATION	Y21 STATION	OFFSET
66	BY21-66	851500.5710	1673203.4380	952.79	OUTSIDE PROJECT LIMITS	
65	BY21-65	851284.0390	1673801.9020	974.12	11+76.95	10.75 RT
25	BL-25	851382.2380	1674187.2640	974.81	14+26.07	279.91 LT

BY22

POINT	DESC.	NORTH	EAST	ELEVATION	Y22 STATION	OFFSET
25	BL-25	851382.2380	1674187.2640	974.81	OUTSIDE PROJECT LIMITS	
67	BY22-67	851474.1430	1674349.4570	976.25	10+65.52	26.19 RT
68	BY22-68	851374.8000	1674542.2390	969.87	12+78.68	15.03 RT
69	BY22-69	851396.2720	1675001.7240	959.36	OUTSIDE PROJECT LIMITS	

BY23

POINT	DESC.	NORTH	EAST	ELEVATION	Y23 STATION	OFFSET
70	BY23-70	852360.4180	1673766.1400	973.98	12+70.40	18.94 LT
71	BY23-71	852097.7400	1674378.7220	976.19	19+33.99	51.63 RT
3	U4909-3	852077.6190	1674768.1550	973.43	23+07.96	61.28 LT
72	BY23-72	851781.4790	1675260.6950	960.71	28+77.55	17.00 RT
4	U4909-4	851399.6070	1675954.6570	941.44	OUTSIDE PROJECT LIMITS	

BY24

POINT	DESC.	NORTH	EAST	ELEVATION	Y24 STATION	OFFSET
73	BY24-73	853112.6780	1675107.4590	981.23	OUTSIDE PROJECT LIMITS	
26	BL-26	852535.3930	1675348.3570	985.41	14+90.29	24.87 RT

BY25

POINT	DESC.	NORTH	EAST	ELEVATION	Y25 STATION	OFFSET
27	BL-27	852934.7570	1676080.4150	969.79	10+29.56	32.68 LT
74	BY25-74	852497.0180	1676137.6010	963.90	14+55.15	33.13 RT

****

BM#1 ELEVATION - 956.57
N 837132 E 1665025
L STATION 11+89 58' LEFT
CHISLED SQUARE ON SE CORNER OF CONCRETE SLAB FOR A GREEN POWER TRANSFORMER @ FIELD #2 @ THE OLD RADAR BASE

****

BM#2 ELEVATION - 955.42
N 837846 E 1666552
L STATION 28+54 162' LEFT
RR SPIKE SET IN SW ROOT OF 30" RED OAK 50' FROM END OF C/A FENCE

****

BM#3 ELEVATION - 960.96
N 838255 E 1669365
Y4 STATION 24+66 155' RIGHT
RR SPIKE IN SOUTH ROOT OF A 36" OAK WEST OF OLD 311 ACROSS FROM OLD 311 CURB MARKET IN SCHOOL PROPERTY. 100' NW OF DANIEL BOONE ARROWHEAD HISTORIC MARKER

****

BM#4 ELEVATION - 952.06
N 841641 E 1669458
L STATION 88+56 1295' LEFT
RR SPIKE IN SE ROOT OF 14" GUM ON THE WEST SIDE OF TEMPLE SCHOOL RD. 50' SW OF A 30" RCP

****

BM#5 ELEVATION - 951.68
N 846095 E 1670335
Y13 STATION 11+99 35' LEFT
EASTERN MOST BOLT ON THE BOTTOM OF A FIRE PLUG. 16' NORTH OF GLENN HIGH RD. BOLT IS 6' W OF POWER POLE #51 AND 7.6' W OF POWER POLE 65T

****

BM#6 ELEVATION - 962.52
N 848973 E 1672785
L STATION 10+13 2907' LEFT
RR SPIKE IN SEAM OF CONCRETE CURB AND GUTTER @ SHOPPING CENTER IN FRONT OF AUTO CREDIT AND BURGER KING AND A CLEANER WORLD

****

BM#7 ELEVATION - 953.98
N 851505 E 1673087
Y21 STATION 10+00
N 73° 58' 59.9" W DIST 371.98'
CHISLED SQUARE @ THE [illegible] CONCRETE CURB ON SHEPARDS GROVE RD. SQUARE IS ON THE SOUTH SIDEWAD

****

BM#8
N 853258 E 1676527
L STATION 22[illegible]
N 59° 26' 22.1" E DIST
NCGS MON. "SNOW". 13.5' RIGHT OF CENTERLINE OF UNION CROSS RD

****

BM#9 ELEVATION - 895.70
N 839961 E 1664265
Y3 STATION 10+00
N 63° 42' 42.9" W DIST 788.57'
RR SPIKE IN SEAM OF CONCRETE DITCH 24' FROM EDGE OF PAVEMENTOF HIGHWAY 311 SOUTH BOUND LANE

****

BM#10 ELEVATION - 878.52
N 836093 E 1668960
Y3 STATION 62+97 434' RIGHT
RR SPIKE IN NORTHERN MOST ROOT OF A 36" MAPLE. 449' SOUTH OF BY4 ON THE EAST SIDE OF BRANCH

****

BM#11 ELEVATION - 929.23
N 849182 E 1674886
Y15 STATION 72+94 861' LEFT
CHISLED CROSS IN WEST END OF A 15" RCP TO THE CONCRETE DRIVEWAY OF 1156 KENOSHA DR

****

BM#12 ELEVATION - 956.00
N 837770 E 1668318
L STATION 45+82 211' RIGHT
RR SPIKE IN THE NE ROOT OF A TWIN CHERRY TREE RT. OF -L-

****

BM#13 ELEVATION - 959.56
N 839905 E 1670304
Y6 STATION 11+45 26' LEFT
NE BOLT OF FIRE HYDRANT EAST OF WOODWAY DR

****

BM#14 ELEVATION - [illegible]
N 843276 E 1671342
L STATION 104+65.06 216.92' RIGHT
@ THE IGLESIA BAUTISTA HISPANA CHURCH

****

BM#15 ELEVATION - 959.81
N 848826 E 1671319
Y16 STATION 10+00
S 88° 15' 50.4" W DIST 583.16'
RR SPIKE IN EASTERN BASE OF POWER POLE W/ A LIGHT OWNED BY DUKE POWER ON PECAN RD

****

BM#16 ELEVATION - 983.67
N 852261 E 1674626
Y23 STATION 21+15 180' LEFT
RR SPIKE IN WESTERN ROOT OF A 24" MAPLE IN THE NE QUADRANT OF THE INTERSECTION OF SEDGE GARDEN, UNION CROSS AND OLD SALEM ROADS

****

NOTES:

1. *THE SITE CALIBRATION SHOWN IS BASED UPON A NETWORK TIED TO THE HARN (HIGH ACCURACY REFERENCE NETWORK) NAD 83/96 ADJUSTMENT. THIS CALIBRATION WILL ALLOW THE END USER TO WORKWITHIN THE SAME COORDINATE SYSTEM WHEN USING RTK (REAL TIME KINEMATIC) GPS AND A LOCAL BASE STATION. IF ANOTHER SYSTEM SUCH AS VRS (VIRTUAL REFERENCE STATION) IS USED, ADDITIONAL FIELD TIES MAY BE NEEDED TO REDUCE POSSIBLE ERRORS, OR BIASES.*
2. *THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:*
   HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/

   THE FILES TO BE FOUND ARE AS FOLLOWS:
   U4909_LS_GPSCAL10_DATE.HTML
   U4909_LS_WGS84_DATE.TXT
   U4909_LS_LOCAL_DATE.TXT
   U4909_LS_CONTROL_DATE.TXT

   THE WGS84 AND LOCAL FILES ARE COMMA DELIMITED AND CAN BE USED TO REPRODUCE THE SITE CALIBRATION FOR THE END USER'S GPS EQUIPMENT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

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PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.
NETWORK ESTABLISHED FROM EXISTING HARN MONUMENTATION
SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

NOTE: DRAWING NOT TO SCALE

"STATE OF NORTH CAROLINA COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 15 of the final plans for Project 40278.2.1 Intersection Improvements at SIDEWALK @ THE IGLESIA BAUTISTA HISPANA CHURCH, said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 1 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 6th day of February 2012

Secretary to Board of Transportation

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "U2579C-1" WITH NAD 83/2001 STATE PLANE GRID COORDINATES OF NORTHING: 876419.285(ft) EASTING: 1651591.602(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99995453 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U2579C-1" TO -L- STATION 7+00.00 IS S 18°20'17.75" 41820.769 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

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10/15/2011
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jbrouchard

PROJECT REFERENCE NO.	SHEET NO.
U-4909	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. DEBRITT 10/14/2016

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW A. COOK 10/13/16

1-RICHARD W. & KAREN A. BARLOW DB 1858 PG 336
2-MIRRIAN K. SOUTHARD DB 1629 PG 3251
3-MELODY K. THOMASON DB 1686 PG 1404
4-SHEILA R. MORTIMER DB 2038 PG 541
5-TRINIDAD O. ZAVALA & ERNESTO OLIVARES DB 2015 PG 1897
6-FERNANDO BARRERA-MELCHOR DB 2385 PG 3965
7-RAFAEL & JOSEFINA GONZALEZ DB 1865 PG 1834
8-MONTY F. DUMONT DB 2037 PG 2230

-Y2- +00.00 EXIST. R/W
END CONSTRUCTION -Y2- PC Sta. 14+00.00
-Y2- PRC Sta. 13+29.67
-Y2- PC Sta. 10+88.47
-Y1- PC Sta. 13+34.44
-Y1- PT Sta. 15+22.89
BEGIN CONSTRUCTION -Y1- POT Sta. 11+31.00
-Y2- POT Sta. 10+00.00 = -Y1- POT Sta. 12+55.00
-Y1- POT Sta. 10+00.00
-L- PC Sta. 11+61.90
-L- Sta. 7+40.00 BEGIN TIP PROJECT U-4909
-Y1- PC Sta. 16+88.57
-Y1- POT Sta. 15+32.71 = -L- POC Sta. 17+13.55
-L- PT Sta. 22+00.15

-Y2-
PI Sta 12+09.33 | PI Sta 14+07.94
Δ = 9° 12' 47.7" (LT) | Δ = 12° 45' 32.7" (RT)
D = 3° 49' 11.0" | D = 8° 11' 06.4"
L = 241.20' | L = 155.88'
T = 120.86' | T = 78.26'
R = 1,500.00' | R = 700.00'
Se = 0.04 | Se = 0.02
Runoff = See Plans | Runoff = See Plans

-L-
PI Sta 17+02.79
Δ = 39° 39' 30.0" (RT)
D = 3° 49' 11.0"
L = 1038.25'
T = 540.90'
R = 1,500.00'
Se = 0.04
Runoff = 150'

PI Sta 14+34.27
Δ = 46° 44' 30.0" (RT)
D = 24° 48' 12.1"
L = 188.45'
T = 99.82'
R = 231.00'
Se = 0.02
Runoff = See Plans

PI Sta 18+80.53
Δ = 38° 28' 50.0" (LT)
D = 10° 25' 02.7"
L = 369.39'
T = 191.96'
R = 550.00'
Se = 0.06
Runoff = 120'

PI Sta 36+89.02
Δ = 19° 47' 45.0" (RT)
D = 2° 51' 53.2"
L = 691.00'
T = 348.98'
R = 2,000.00'
Se = 0.04
Runoff = 90'

-Y1-

MATCHLINE -L- STA. 9+00
MATCHLINE -Y1- STA. 23+00 SEE SHEET 5
MATCHLINE -Y1- STA. 22+00 SEE SHEET 5

NAD 83

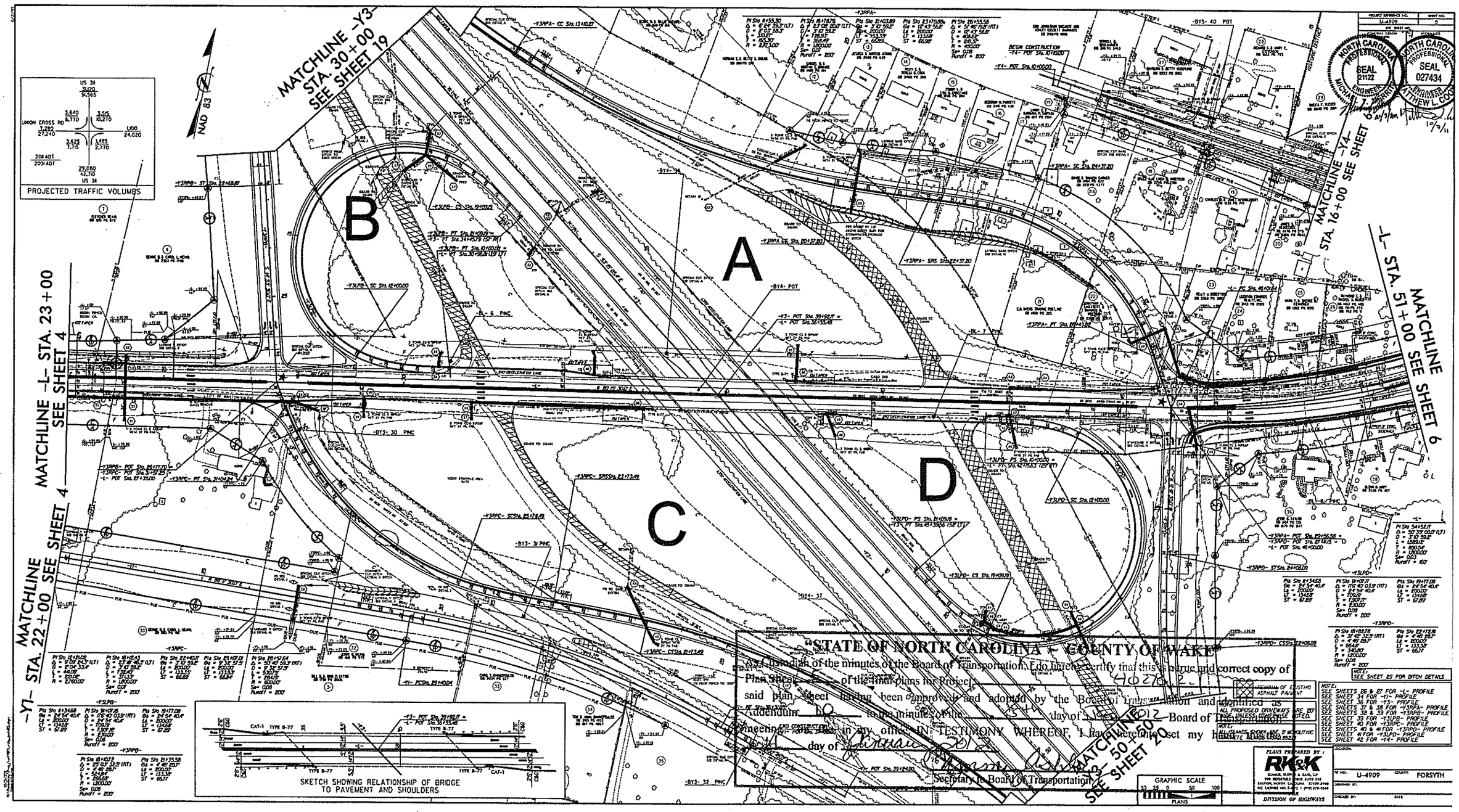
"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"
As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of plan Sheets ___ of the final plans for Project ___, said plan sheets having been approved and adopted by the Board of Transportation and identified as Addendum ___ to the minutes of the ___ day of January 2017 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand, this the ___ day of January 2017
Secretary to Board of Transportation

PROJECTED TRAFFIC VOLUMES
SWAIM RD: 700 / 1,020
UNION CROSS RD: 4,210 / 7,575
WALLBURG RD: 11,810 / 19,185
2011 ADT / 2031 ADT: 575 / 26,750 / 18,770

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.
NOTE: ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD. 852.01
NOTE: SEE DETAIL SHEET 2M FOR INTERSECTION DESIGN
NOTE: SEE SHEET 26 FOR -L- PROFILE; SEE SHEET 34 FOR -Y1- PROFILE; SEE SHEET 35 FOR -Y2- PROFILE
NOTE: ALL PROP. FENCE IS 48" WOVEN WIRE UNLESS OTHERWISE NOTED.
NOTE: SEE SHEET 25 FOR DITCH DETAILS

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

10/13/2016
R:\Roadway\Proj\u4909_rdy_psh04.dgn
apridgen


MATCHLINE -Y3- STA. 30+00 SEE SHEET 19
NAD 83
US 38
3,120
56,565
3,640
8,770
3,515
10,270
UNION CROSS RD
7,280
27,240
1,100
24,020
3,625
7,715
1,485
2,770
208 ADT
209 ADT
29,080
42,710
US 38
PROJECTED TRAFFIC VOLUMES
MATCHLINE -L- STA. 23+00 SEE SHEET 4
MATCHLINE -Y1- STA. 22+00 SEE SHEET 4
MATCHLINE -Y4- STA. 16+00 SEE SHEET 6
MATCHLINE -L- STA. 51+00 SEE SHEET 6
MATCHLINE -L- STA. 50+50 SEE SHEET 20
A
B
C
D
SKETCH SHOWING RELATIONSHIP OF BRIDGE TO PAVEMENT AND SHOULDERS
NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK
NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. REGAN
STATE OF NORTH CAROLINA + COUNTY OF WAKE
I, Secretary to the Board of Transportation, do hereby certify that this is a true and correct copy of Plan Sheet 5 of the final plans for Project 40270.2.12 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum No. 0 to the minutes of the meeting held on 5/16 day of 2012 Board of Transportation meeting held in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this 11th day of January 2013
Secretary to Board of Transportation
REMOVAL OF EXISTING ASPHALT PAVEMENT
NOTE: ALL PROPOSED DRIVEWAYS ARE PAVED UNLESS OTHERWISE NOTED.
NOTE: SEE SHEET B5 FOR DITCH DETAILS
SEE SHEETS 25 & 27 FOR -L- PROFILE
SEE SHEET 34 FOR -Y1- PROFILE
SEE SHEET 36 FOR -Y3- PROFILE
SEE SHEETS 37 & 38 FOR -Y3RPA- PROFILE
SEE SHEETS 38 & 39 FOR -Y3RPB- PROFILE
SEE SHEET 39 FOR -Y3LPB- PROFILE
SEE SHEET 40 FOR -Y3RPC- PROFILE
SEE SHEETS 40 & 41 FOR -Y3RPD- PROFILE
SEE SHEET 41 FOR -Y3LPD- PROFILE
SEE SHEET 42 FOR -Y4- PROFILE
PLANS PREPARED BY : RK&K
DIVISION OF HIGHWAYS
TIP NO. U-4909 COUNTY: FORSYTH
GRAPHIC SCALE
PLANS

8/17/99

NOTE:
ALL PROP. FENCE IS 48" WOVEN WIRE UNLESS OTHERWISE NOTED.

NOTE:
ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

SMITH- TUCKER FARMS
RURAL HISTORIC DISTRICT

NOTE:
SEE DETAIL SHEET 2M FOR INTERSECTION DESIGN

REMOVAL OF EXISTING ASPHALT PAVMENT

NOTE:
ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD. 852.01

HIGH POINT RD
4,860 / 8,070
UNION CROSS RD
1,225 / 3,310 — 875 / 1,115
13,905 / 23,605 — 14,785 / 24,085
1,870 / 2,430 — 3,100 / 5,105
2011 ADT / 2035 ADT
7,735 / 11,180
HIGH POINT RD

PROJECTED TRAFFIC VOLUMES

PROJECT REFERENCE NO.	SHEET NO.
U-4909	6
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — 10/1/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 10/1/11

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 6 of the final plans for Project -BL- 10 PINC 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

-Y5- POT Sta. 10+00.00 =
-L- POC Sta. 60+88.00

-Y4- POT Sta. 22+95.91 =
-L- POC Sta. 56+32.70

-L- POT Sta. 67+90.76

MATCHLINE -Y4- STA. 16+00 SEE SHEET 5

MATCHLINE -L- STA. 51+00 SEE SHEET 5

MATCHLINE -L- STA. 65+00 SEE SHEET 7

MATCHLINE -L- STA. 27+00 SEE SHEET 21

HISTORIC DISTRICT

CITY OF WINSTON-SALEM

NAD 83

ONEITA F. TUCKER
DB 2840 PG 3194

JAMES S. HEDGECOCK
DB 2278 PG 176
DB 2366 PG 4647

SPECIAL CUT DITCH SEE DETAIL E

MICKEY D. & ZELMA P. REDDICK
DB 1579 PG 839

RAYMOND C. & RACHEL S. McGEE
DB 1452 PG 140
DB TBRRC 473 100'
DB 762 PG 9

JERRY R. & SHIRLEY A. DOWNEY
DB 2065 PG 3726

LATERAL V-DITCH SEE DETAIL D

BK CHURCH

UNION CROSS MORAVIAN CHURCH
DB 494 PG 149
DB 885 PG 376

GLENN D. HART
DB 2535 PG 127

PHIL V. MAYS
DB 1022 PG 760

JAMES L. HILL
DB 1023 PG 504

WINSTON-SALEM/FORSYTH COUNTY BOARD OF EDUCATION
DB 299 PG 260

R. WAYNE & GLENDA C. ELLER
DB 2109 PG 3596
DB 1627 PG 451

GEORGE L. & ANN C. YOUNTZ
DB 2300 PG 634

WILLIAM F. & ONEIDA G. THOMAS
DB 1638 PG 149

BARRY D. STAFFORD
DB 2397 PG 2580

LARRY D. & DONNA A. HOLMAN
DB 2395 PG 2186

RONALD G. & LEE B. HARTLEY
DB 1502 PG 1685

DONNA G. PASOUR
DB 2172 PG 1879

SUSIE T. HAUSER
PB 12 PG 124

ETHELENE C. SPAUGH
DB 655 PG 1879

CHARLES BANKS, III
DB 2030 PG 2478

CLARENCE D. ROYALL
DB 860 PG 165

HERMAN H. & BARBARA H. BROWN AND MONTY L. PETTIT
DB 2396 PG 1821

-BL- 9 PINC

-Y4- TS Sta. 25+03.47

-Y4- SC Sta. 26+63.47

-Y5- POT Sta. 12+05.00

END CONSTRUCTION

Do Not Disturb Historic Marker

-L-
PI Sta 54+52.17
Δ = 50° 35' 00.0" (LT)
D = 3° 10' 59.2"
L = 1,589.12'
T = 850.54'
R = 1,800.00'
Se = 0.03
Runoff = 160'

-Y4-
PIs Sta 26+10.15
θs = 3° 03' 20.8"
Ls = 160.00'
LT = 106.68'
ST = 53.35'

PI Sta 28+73.48
Δ = 15° 56' 23.4" (RT)
D = 3° 49' 11.0"
L = 417.30'
T = 210.01'
R = 1,500.00'
Se = 0.06
Runoff = 240'

NOTE:
SEE SHEET 2S FOR DITCH DETAILS

NOTE:
SEE SHEETS 27 & 28 FOR -L- PROFILE
SEE SHEET 42 FOR -Y4- PROFILE
SEE SHEET 43 FOR -Y5- PROFILE

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

10/5/2011
R:\Roadway\Proj\u4909_rdj_psh06.dgn
lpowhatan

8/17/99

UNION CROSS RD	
14,785 / 24,085	14,835 / 24,295
900 / 900	950 / 1,110
2011 ADT / 2031 ADT	1,850 / 2,010
WEATHERSTONE DEVELOPMENT	

PROJECTED TRAFFIC VOLUMES

PROJECT REFERENCE NO.	SHEET NO.
U-4909	7
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL K. MERRITT — Nov. 7, 2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW K. POOK — 11/7/11

NAD 83

CITY OF WINSTON-SALEM

MATCHLINE -L- STA. 65+00 SEE SHEET 6

MATCHLINE -L- STA. 79+00 SEE SHEET 8

UNION CROSS MORAVIAN CHURCH DB 2848 PG 138-140

Deborah D. Taylor & John E. Taylor, Sr. DB 3013 PG 4034-4038

SONYA K. KETNER DB 1714 PG 2553

GREGORY L. MARTIN DB 1826 PG 4018

PEGGY L. HICKS DB 1825 PG 2127

JEFFREY V. & EFFIE V. PARRISH DB 1686 PG 1779

WILLIAM T. MOSS DB 890 PG 491

CHARLES R. LEONARD DB 953 PG 591 DB 2159 PG 3654

ESTATE OF BESSIE P. LEONARD DB 2284 PG 2034 DB 2159 PG 3654

ETHELENE C. SPAUGH DB 655 PG 1879

RONALD A. & PEGGY A. COTTER DB 1457 PG 1560

JENNIFER TROUT BOWMAN DB 2261 PG 2856

MARK A. & ANGELA N. WALL DB 2050 PG 1353

SAM H. & PENNY F. COGGINS DB 1598 PG 1030

JADE ASSOCIATES II, LLC DB 2478 PG 2603 TRACT 1

JADE ASSOCIATED II, LLC DB 2478 PG 2603 PB 50 PG 66

CYNTHIA/GARY LYNCH DB 2795 PG 743-744

MICAH C. MOORE AND WIFE JESSICA A. MOORE DB 2793 PG 243 PB 50 PG 66

RYAN P. DOOLEY AND WIFE LAURA K. WARD-DOOLEY DB 2737 PG 2736 PB 50 PG 66

JADE ASSOCIATED II, LLC DB 2478 PG 2603 PB 50 PG 66

SHUGART MANAGEMENT, INC. DB 2731 PG 1540 PB 50 PG 66

WILLIAM P. HUFFMAN AND WIFE LINSEY B. HUFFMAN DB 2790 PG 3372 PB 50 PG 66

WEATHERSTONE TOWNHOMES HOA, INC. DB 2685 PG 3782 PB 50 PG 66

MARC B. YOST DB 2776 PG 2923 PB 50 PG 66

XUAN TRANG THINGUYEN KHANH TRANG THINGUYEN DB 2786 PG 287 PB 50 PG 66

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 7 of the final plans for Project $40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 12 to the minutes of the meeting of [illegible], 2012 of the Board of Transportation dated [illegible] 2012. IN TESTIMONY WHEREOF, I have hereunto set my hand this the [illegible] day of [illegible], 2012.

Secretary to Board of Transportation

-L- PC Sta. 74+27.73

-Y6- PC Sta. 10+57.50

-Y6- PRC Sta. 11+93.69

-BL- 11 PINC

END CONSTRUCTION -Y6- POT Sta. 12+40.00

-Y6- PT Sta. 14+06.65

-Y6- POT Sta. 14+30.00

NOTE: SEE SHEET 2S FOR DITCH DETAILS

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE: SEE SHEET 28 FOR -L- PROFILE SEE SHEET 43 FOR -Y6- PROFILE

-Y6-	-Y6-	-L-
PI Sta 11+26.92	PI Sta 13+05.42	PI Sta 76+76.40
Δ = 27° 22' 47.2" (LT)	Δ = 42° 48' 47.2" (RT)	Δ = 14° 10' 30.0" (LT)
D = 20° 06' 13.6"	D = 20° 06' 13.6"	D = 2° 51' 53.2"
L = 136.19'	L = 212.96'	L = 494.80'
T = 69.42'	T = 111.73'	T = 248.67'
R = 285.00'	R = 285.00'	R = 2,000.00'
Se = 0.02	Se = 0.02	Se = 0.03
Runoff = See Plans	Runoff = See Plans	Runoff = 160'

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

11/7/2011
R:\Roadway\Proj\u4909_rdy_psh07.dgn
hbenchamin

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4909	8
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT
10/17/2011

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK
10/17/11

SMITH- TUCKER FARMS
RURAL HISTORIC DISTRICT

(70) PAUL & INA J.T. STEPHENS
DB 74 PG 90
DB 2840 PG 3188

(59) ESTATE OF EARLIE F. LEONARD
DB 2284 PG 2034
DB 953 PG 591
DB 2159 PG 3654

(59A) CHARLES R. LEONARD
DB 953 PG 591
DB 2159 PG 3654

ASSUMED PROPERTY LINE

NAD 83

TEMPLE SCHOOL RD
2011 ADT / 2031 ADT
1,985 / 5,270
785 / 2,010
1,200 / 3,205
14,835 / 24,295
15,250 / 25,430
UNION CROSS RD

PROJECTED TRAFFIC VOLUMES

-BY8- 45 POT

BEGIN CONSTRUCTION
-Y8- POT Sta. 15+02.24

-BL- 12 PINC

-Y7- PC Sta. 10+39.50

-Y7- POT Sta. 10+00.00 =
-L- POT Sta. 79+72.00

-L- PT Sta. 79+22.54

-Y7A- POT Sta. 10+00.00 =
-L- POC Sta. 84+07.42

-L- PC Sta. 88+72.28

MATCHLINE -L- STA. 79+00 SEE SHEET 7

MATCHLINE -L- STA. 93+00 SEE SHEET 9

HISTORIC DISTRICT

SR 2643 UNION CROSS RD 39' BST

SR 2685 TEMPLE SCHOOL RD 45' BST

CITY OF WINSTON-SALEM

WS INDUSTRIAL PROPERTIES SUB V LLC
DB 2842 PG 1361
(71)

(78) PAUL & INA J.T. STEPHENS
DB 764 PG 10

(77) PAUL & INA J.T. STEPHENS
DB 2840 PG 3188

(76) WEATERSTONE TOWNHOMES HOA, INC.
DB 2804 PG 2797

(75) WEATHERSTONE TOWNHOMES HOA, INC.
DB 2685 PG 3782
PB 50 PG 66

(74) SHUGART ENTERPRISES, LLC
DB 2685 PG 3782
PB 50 PG 66
PB 53 PG 98
PB 51PG 136

(73) HELEN C. McELROY
DB 2753 PG 849
PB 51PG 114

(72) BILLY R. LANKFORD, JR.
DB 2741PG 3232
PB 51PG 14

(69) WEATHERSTONE TOWNHOMES HOA, INC.
DB 2685 PG 3782
PB 50 PG 66

-Y7- PRC Sta. 12+62.42

-Y7- PT Sta. 13+87.19

-Y7- POT Sta. 14+61.13

END CONSTRUCTION
-Y7- POC Sta. 11+75.00

END CONSTRUCTION
-Y7A- POT Sta. 11+95.00

-Y8- POT Sta. 16+50.00 =
-L- POC Sta. 91+03.00

2 TONS CL B RIPRAP W/7 SY FIL FAB (131)

PROP. 5' CONC. SIDEWALK

PROP. 2'6" CONC. C&G

PROP. 16" CONC. C&G

450' LEFT TURN LANE

450' RIGHT TURN LANE

100' TAPER

155' TAPER

90° TAPER

LATERAL V DITCH SEE DETAIL B

30' UTILITY EASEMENT

REMOVE 41 18" RCP

REMOVE 15" CLASS IV

UNION CROSS RD
14,785 / 24,085
14,835 / 24,295
900 / 900
950 / 1,110
2011 ADT / 2031 ADT
1,850 / 2,010
WEATHERSTONE DEVELOPMENT

PROJECTED TRAFFIC VOLUMES

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of sheet 8 of the final plans for Project 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of January 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

NOTE:
SEE SHEET 25 FOR DITCH DETAILS

NOTE:
ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE:
ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE:
SEE SHEET 28 & 29 FOR -L- PROFILE
SEE SHEET 43 FOR -Y7-, -Y7A-, & -Y8- PROFILE

-L-

PI Sta 76+76.40
Δ = 14° 10' 30.0" (LT)
D = 2° 51' 53.2"
L = 494.80'
T = 248.67'
R = 2,000.00'
Se = 0.03
Runoff = 160'

PI Sta 91+25.50
Δ = 4° 50' 00.0" (LT)
D = 0° 57' 17.7"
L = 506.15'
T = 253.22'
R = 6,000.00'
Se = 0.02
Runoff = 110'

-Y7-

PI Sta 11+53.94
Δ = 31° 55' 50.7" (LT)
D = 14° 19' 26.2"
L = 222.92'
T = 114.44'
R = 400.00'
Se = 0.02
Runoff = See Plans

PI Sta 13+25.56
Δ = 21° 39' 45.7" (RT)
D = 17° 21' 44.5"
L = 124.77'
T = 63.14'
R = 330.00'
Se = 0.02
Runoff = See Plans

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR
DIVISION OF HIGHWAYS

D:\18\2011\Roadway\Proj\u4909_rdy_psh08.dgn
Tammy

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4909	9
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL J. DEWITT — 10/17/2011

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 10/19/11

NAD 83

SMITH- TUCKER FARMS RURAL HISTORIC DISTRICT

WS INDUSTRIAL PROPERTIES SUB V LLC DB 2842 PG 1361

71

-BL- 13 PINC

-BL- 14 PINC

-L- PT Sta. 93+78.43

-L- PC Sta. 95+78.96

-L- PT Sta. 100+66.20

-Y9- POT Sta. 10+00.00 = -L- POT Sta. 101+01.00

MATCHLINE -L- STA. 93+00 SEE SHEET 8

MATCHLINE -L- STA. 107+00 SEE SHEET 10

450' RIGHT TURN LANE

450' LEFT TURN LANE

100' TAPER

55' TYP.

PROP. 2'6" CONC. C&G

PROP. 5' CONC. SIDEWALK

8 TONS CL B RIPRAP W/21 SY FIL FAB

2 ELBOWS W/ROD AND LUGS

HISTORIC DISTRICT

N 16° 15' 00.0" E

N 10° 40' 00.0" E

CITY OF WINSTON-SALEM

SR 2643 UNION CROSS RD 38' BST

SPECIAL BACK OF CURB CUT DITCH SEE DETAIL G

LATERAL V DITCH SEE DETAIL B

LATERAL V DITCH SEE DETAIL C

LATERAL BASE DITCH SEE DETAIL H

Do Not Disturb Steps and House

78 PAUL & INA J.T. STEPHENS DB 764 PG 10

80 PAUL & INA J.T. STEPHENS DB 764 PG 9

77 PAUL & INA J.T. STEPHENS DB 2840 PG 3188

82 PAUL & INA J.T. STEPHENS DB 2840 PG 3188

88 PAUL & INA J.T. STEPHENS DB 2840 PG 3188

15 CHARLES R., JR. & LEE M. HARBINSON DB 1896 PG 315

-BY9- 46 POT

N 03°20'05" E 470.51'

ASSUMED PROPERTY LINE

S 74°25'54" E 264.68'

N 15°53'17" E 178.56'

HEDGECOCK RD

PROJECTED TRAFFIC VOLUMES

-L-	
PI Sta 91+25.50	PI Sta 98+22.77
Δ = 4° 50' 00.0" (LT)	Δ = 5° 35' 00.0" (RT)
D = 0° 57' 17.7"	D = 1° 08' 45.3"
L = 506.15'	L = 487.24'
T = 253.22'	T = 243.81'
R = 6,000.00'	R = 5,000.00'
Se = 0.02	Se = 0.02
Runoff = 110'	Runoff = 110'

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 9 of the final plans for Project 40278.2.1, said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of January 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11th day of January 2012

Secretary to Board of Transportation

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: SEE SHEET 29 FOR -L- PROFILE SEE SHEET 44 FOR -Y9- PROFILE

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

8/18/2011
C:\Projects\Projects\4909_roj\u4909_rdy_pshts09.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4909	10
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — 10/19/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW A. COOK — 10/19/11

-Y10- POT Sta. 10+00.00

NAD 83

SMITH- TUCKER FARMS RURAL HISTORIC DISTRICT

HISTORIC DISTRICT

CITY OF WINSTON-SALEM

(71) WS INDUSTRIAL PROPERTIES SUB V LLC DB 2842 PG 1361

(85) WINSTON-SALEM ALLIANCE (1' STRIP) DB 2535 PG 1316

(86) WINSTON-SALEM ALLIANCE (1' STRIP) DB 2535 PG 1316

(84) WILCOXESS LLC DB 2411 PG 1236

(87) EDNA C. EDWARDS DB 661 PG 342 DB 2577 PG 895

DELL BLVD
• ADT 2030 ADT
1,200
500 700
26,900 27,100
UNION CROSS RD

PROJECTED TRAFFIC VOLUMES
• TRAFFIC VOLUMES NOT PROVIDED

-L-
PI Sta 118+15.35
Δ = 11° 39' 30.0" (LT)
D = 2° 51' 53.2"
L = 406.95'
T = 204.18'
R = 2,000.00'
Se = 0.03
Runoff = 160'

NOTE:
ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE:
ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

-L- PT Sta. 120+18.12

MATCHLINE -L- STA. 121+00 SEE SHEET 11

MATCHLINE -L- STA. 107+00 SEE SHEET 9

BEGIN CONSTRUCTION -Y10- POT Sta. 13+05.00

-BL- 15 PINC

-L- PC Sta. 116+11.17

-Y11- POT Sta. 10+00.00 = -L- POT Sta. 115+31.00

-Y10- POT Sta. 15+50.00 = -L- POT Sta. 110+23.00

-BY11- 48 PINC

END CONSTRUCTION

-Y11- POT Sta. 13+80.00

2 TONS CL B RIPRAP W/7 SY FIL FAB

5 TONS CL B RIPRAP W/14 SY FIL FAB

PROP. 5' CONC. SIDEWALK

PROP. 2'6" CONC. C&G

450' RIGHT TURN LANE

175' TAPER

100' TAPER

90' TAPER

REMOVE

TIE TO EXIST. SYSTEM

Lilen, Inc. DB 2741 PG 916

Lilen, Inc. DB 2741 PG 913

(88) IGLESIA BAUTISTA HISPANA DE UNION CROSS DB 1885 PG 791

(89) KENNY W. & LYNN C. FULP DB 1324 PG 462

(90) WILLIAM M. & LINDA BARNETT DB 1728 PG 2655

(91) RONNIE A. & SHARON B. WINTERS DB 1452 PG 424

(92) JIM D. SIDES NO DEED REF.

HENRY E. JR. & JEANETTE M. HEDGECOCK DB 1378 PG 590

CYNTHIA FULP BROWN DB 1751 PG 3485

UNION CROSS RD
16,028 27,715
16,028 27,815
225 305
325 405
2011 ADT
2031 ADT
550 710
LORADALE DR

PROJECTED TRAFFIC VOLUMES

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 10 of the final plans for Project 40278.2.1 as said plan sheet having been approved and adopted by the Board of Transportation and identified as addendum 10 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

NOTE:
SEE SHEET 29 FOR -L- PROFILE
SEE SHEET 44 FOR -Y10- & -Y11- PROFILE

NOTE:
SEE SHEET 25 FOR DITCH DETAILS

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

10/18/2011
I:\Roadway\Proj\u4909_rdy_psh10.dgn
tami

PROJECT REFERENCE NO.	SHEET NO.
U-4909	11
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. HERRITT — 10/4/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 10/4/2011

-Y12- POT Sta. 10+00.00

(87) EDNA C. EDWARDS DB 661PG 342 DB 2577 PG 895

-BL- 16 PINC

S 89°58'30.0" E

48" CMP

30" RCP

24" RCP

30" C&G

BST

RETAIN SYSTEM

N 03°54'44" E 190.77'

(93) R. DENNIS & FRANKIE E. WEAVIL

BEGIN CONSRUCTION -Y12- POT Sta. 13+85.00 BST

75' GUARDRAIL TO EXISTING 15:1 TAPER

TIE TO EXIST. SYSTEM

REMOVE 35' 18" RCP

REMOVE

MAINTAIN EXIST. PARKING C&G

REMOVE EXIST. GUARDRAIL REMOVE CB

PROP. 5' CONC. SIDEWALK

100' TAPER

REMOVE EXIST. C&G

PROP. 2'6" CONC. C&G

PUE

ISBKD

CONC

36" CONC

R=60'

R=50'

123' R/W

20" RCP

CB (188)

CB (189)

CB (190)

CB (191)

CB (193)

CB (192)

CB (187)

CB (183)

CB (184)

CB (185)

CB (186)

15" CLASS IV

18" C&G

SR 2634 UNION CROSS RD 50' BST

CITY OF WINSTON-SELF

PROP. 16 CONC. C&G

EXISTING R/W

-L- N 4°35'30.0" E

450' LEFT TURN LANE

200' TAPER

250' TAPER

REMOVE

8' DI

12" HDPE

APPROX. LOCATION OF RETAIN

APPROX. LOCATION OF -L- RETAIN

FLAGPOLE

25BK SCHOOL

WINSTON-SALEM/FORSYTH COUNTY BOARD OF EDUCATION DB 1535 PG 1627 DB 618 PG 39 DB 617 PG 132 DB 2597 PG 1961 DB 2581PG 4451

(94)

NAD 83

JIMMY D. & JOYCE G. SOES DB 1201PG 893

(92)

STONE

-Y12- POT Sta. 15+25.00 = -L- POT Sta. 124+17.00

(95) ONEITA F. TUCKER AND PAUL & NA J.T. STEPHENS DB 2568 PG 682

(96) CHARLES D. WILLIARD, JR DB 289 PG 125

HENRY E. JR. & JEANETTE M. HEDGECOCK DB 1378 PG 590

JOSE F. ABUNDIS DB 2071PG 1412

MATCHLINE -L- STA. 121+00 SEE SHEET 10

MATCHLINE -L- STA. 135+00 SEE SHEET 12

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 11 of the final plans for Project 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

REMOVAL OF EXISTING ASPHALT PAVMENT

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE: NO TRAFFIC VOLUMES FOR INTERSECTION OF CLARKE DR & UNION CROSS RD

NOTE: SEE SHEET 30 FOR -L- PROFILE SEE SHEET 44 FOR -Y12- PROFILE

PLANS PREPARED BY : RK&K

RUMMEL, KLEPPER & KAHL, LLP 900 RIDGEFIELD DRIVE SUITE 350 RALEIGH, NORTH CAROLINA 27609-3960 NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

8/17/99

10/5/2011 R:\Roadway\Proj\u4909_rdy_psh11.dgn

8/17/99

NOTE:
SEE DETAIL SHEET 2N FOR INTERSECTION DESIGN

-L-
PI Sta 144+30.22
Δ = 16° 24' 30.0" (RT)
D = 1° 08' 45.3"
L = 1,431.90'
T = 720.88'
R = 5,000.00'
Se=0.02
Runoff = 110'

-Y14-
PI Sta 17+64.64
Δ = 6° 33' 58.0" (LT)
D = 2° 51' 53.2"
L = 229.20'
T = 114.73'
R = 2,000.00'
Se=0.03
Runoff = 110'

PROJECT REFERENCE NO.	SHEET NO.
U-4909	12
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT 10/19/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW K. COOK 11/1/11

MATCHLINE -Y13- STA.20+00 SEE SHEET 22

MATCHLINE -L- STA. 135+00 SEE SHEET 11

MATCHLINE -L- STA. 149+00 SEE SHEET 13

-Y14- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y14- POT Sta. 11+72.45

-Y14- POT Sta. 12+53.67 =
-L- POC Sta.146+89.27

END CONSTRUCTION
-Y14- POT Sta. 14+50.00

-L- PC Sta. 137+09.34

-Y13- POT Sta. 23+87.84 =
-L- POT Sta.136+52.00

-BL- 17 PINC

-BL- 18 PINC

-BY13- 51 POT

265' RIGHT TURN TAPER

100' TAPER

450' LEFT TURN LANE

465' RIGHT TURN LANE

450' RIGHT TURN LANE

252.10' TAPER

250' TAPER

90' TAPER

GLENN CROSSING ASSOCIATES, LLC
DB 2770 PG 1473
PB 52 PG 85

WINSTON-SALEM/FORSYTH COUNTY BOARD OF EDUCATION
DB 1536 PG 1627
DB 618 PG 39
DB 617 PG 132
DB 2597 PG 1961
DB 2581 PG 445

WEST POINT VILLAGE ASSOCIATES
DB 2770 PG 1479
PB 52 PG 85

CHARLES O. JR. & RILLA W. WILLARD
DB 1018 PG 439

CHARLES O. WILLIARD, JR
DB 289 PG 125

C. STANLEY & KIMBERLY P. TART
DB 1969 PG 470

ROBERT H. & TREVA BOYLES
DB 778 PG 312
DB 723 PG 80
DB 831 PG 545

LARRY W. BOYLES AND WIFE KATHRYN H. BOYLES
DB 2928 PG 3689
DB 2906 PG 4399
DB 2899 PG 655
DB 927 PG 569

PRIME PROPERTY, LLC
DB 2770 PG 1477
PB 52 PG 85

UNION CROSS, LLC
DB 2592 PG 1

HELEN G. WOOD
DB 2156 PG 1085

DB 2244 PG 3736

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 12 of the final plans for Project U-4909 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

4/02/12

SHOPS AT GLENN CROSSING

	10,000	
UNION CROSS RD 8,500		10,200
20,140 / 34,975		20,380 / 36,015
465 / 1,350		490 / 1,450
2011 ADT / 2031 ADT	1,025 / 3,110	

GLENNVIEW DR

PROJECTED TRAFFIC VOLUMES
• TRAFFIC VOLUMES NOT PROVIDED

GLENN HIGH RD

2011 ADT / 2031 ADT	8,440 / 13,250	
	2,165 / 3,050	6,085 / 10,205
16,030 / 27,815		18,650 / 34,975

UNION CROSS RD

PROJECTED TRAFFIC VOLUMES

NOTE:
ALL PROP. FENCE IS 48" WOVEN WIRE UNLESS OTHERWISE NOTED.

NOTE:
SEE SHEET 2S FOR DITCH DETAILS

NOTE:
ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

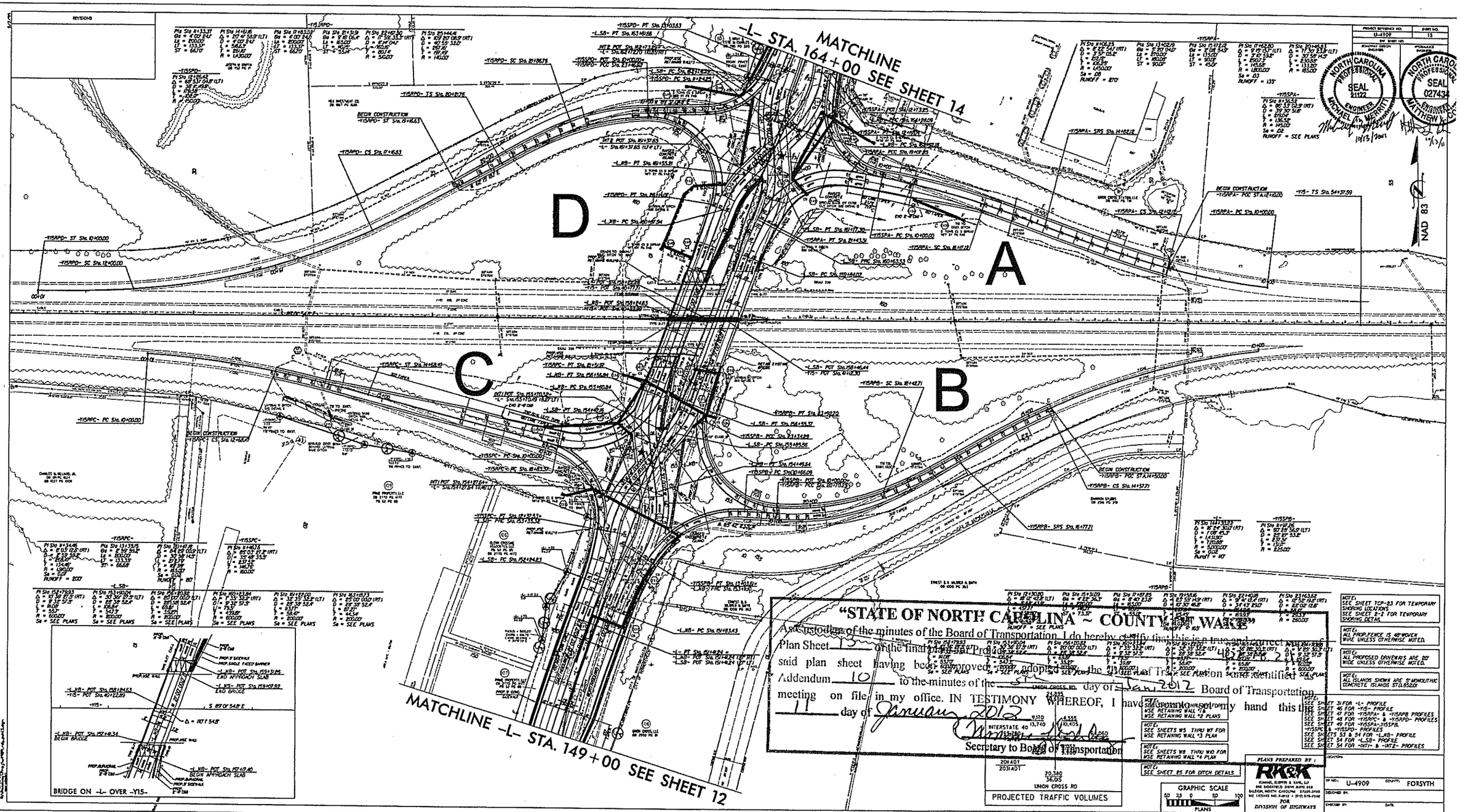
NOTE:
SEE SHEET 30 & 31 FOR -L- PROFILE
SEE SHEET 45 FOR -Y13- & -Y14- PROFILE

NOTE:
ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD. 852.01

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

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10/18/2011
10:46:11 am

15



"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 13 of the final Right-of-Way Procedure Plans for Project U-4909 FS 2 as said plan sheet having been approved, revised, adopted and the Standard Plans for Construction identified as Addendum 10 to the minutes of the 5 day of Jan. 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this the 11 day of January 2012

Secretary to Board of Transportation

PROJECT REFERENCE NO.	SHEET NO.
U-4909	13

TIP NO.	COUNTY
U-4909	FORSYTH

DESIGNED BY:

CHECKED BY: DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-4909	14
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — 10/19/2011

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 10/19/11

-Y16-
PI Sta 11+92.78
Δ = 20° 47' 50.0" (RT)
D = 11° 01' 06.3"
L = 188.75'
T = 95.42'
R = 520.00'

-Y17-
PI Sta 19+30.72
Δ = 34° 20' 20.0" (RT)
D = 7° 38' 22.0"
L = 449.50'
T = 231.73'
R = 750.00'
Se = 0.06
Runoff = 190'

-L-
PI Sta 171+16.05
Δ = 17° 00' 00.0" (RT)
D = 2° 51' 53.2"
L = 593.41'
T = 298.90'
R = 2,000.00'
Se = 0.03
Runoff = 110'

-Y18-
PI Sta 13+61.14
Δ = 50° 34' 13.0" (LT)
D = 11° 41' 34.9"
L = 432.48'
T = 231.47'
R = 490.00'
Se = 0.05
Runoff = 100'

NAD 83

-Y16- POT Sta. 10+00.00

-Y16- PC Sta. 10+97.36

BEGIN CONSTRUCTION
-Y16- Sta.12+00.00

-Y16- PT Sta. 12+86.11

-L- POT Sta. 167+00.00 =
-L_NB- POT Sta. 167+41.30 (27' RT)
-L_SB- POT Sta. 167+27.21 (39' LT)

-L- PC Sta. 168+17.15

-Y17- PT Sta. 21+48.49

-BY16- 57 PINC

BEGIN CONSTRUCTION
-Y18- POT Sta. 13+60.00

-Y18- PT Sta. 15+62.15

MATCHLINE -Y17- STA. 18+00 SEE SHEET 23

MATCHLINE -L- STA. 164+00 SEE SHEET 13

MATCHLINE -L- STA. 178+00 SEE SHEET 15

-Y17- POT Sta. 22+18.13 =
-L- POC Sta.174+05.00

-L- PT Sta. 174+10.56

-L- POT Sta.165+73.53
-Y16- POT Sta. 14+39.00

-L_NB- PT Sta. 165+59.03

-BL- 21 PINC

-Y18- POT Sta. 16+62.75 =
-L- POT Sta.180+31.50

-BL- 22 PINC

(110) T. WRAY & ESTIE M. CHARLES DB 780 PG 320

(111) UNION CROSS STATION LLC DB 1982 PG 781

(112) T. WRAY & ESTIE M. CHARLES DB 780 PG 320

(113) MARY E.S. SOLOMON DB 1905 PG 2489

(114) ROBERT H. & TREVA H. BOYLES DB 1000 PG 578

(115) HAROLD D. & MARY A. SPARBOUR DB 873 PG 36

(116) DAVID A. & PHILIPPA H. KING DB 1554 PG 238

(117) SAMUEL H. & BOBBIE R. HENSDALE DB 902 PG 298 DB 935 PG 310

(118) D.H. HORTON, INC DB 1953 PG 781

REX C. JR. & CINDY L. DOYLE DB 2020 PG 2152

(119) TRIAD HOLDING COMPANY, LLC DB 2059 PG 2652

(120) GREENWOOD & CHARLES, INC. DB 1935 PG 894

(121) MARK & DEBRA OVERBY DB 2549 PG 2021

(122) JAY T. PROPERTIES, LLC DB 1814 PG 964

(123) BYRON W. SMITH DB 2707 PG 3620

SOLOMON DR
2011 ADT 395
2031 ADT 1,035
200 / 520
100 / 100
24,640 / 39,475
24,595 / 39,265
UNION CROSS RD

PROJECTED TRAFFIC VOLUMES

SILVER CREEK TR
2011 ADT 1,620
2031 ADT 2,025
1,450 / 1,610
175 / 415
24,595 / 39,265
23,320 / 38,070
UNION CROSS RD

PROJECTED TRAFFIC VOLUMES

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the records of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 14 of the final plans for Project 40278.21 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5TH day of Jan, 2012 meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this 11 day of January, 2012

Secretary to Board of Transportation

REMOVAL OF EXISTING ASPHALT PAVEMENT

NOTE:
ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE:
SEE SHEET 2S FOR DITCH DETAILS

NOTE:
ALL PROP. FENCE IS 48" WOVEN WIRE UNLESS OTHERWISE NOTED.

NOTE:
SEE DETAIL SHEET 2N FOR INTERSECTION DESIGN

NOTE:
ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE:
SEE SHEET 31 & 32 FOR -L- PROFILE
SEE SHEET 50 FOR -Y16, -Y17- & -Y18- PROFILES
SEE SHEETS 53 & 54 FOR -L_NB- PROFILE
SEE SHEET 54 FOR -L_SB- PROFILE

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

8/17/99

10/19/2011
X:\Roadway\Proj\u4909_rdy_psh14.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4909	15
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — Nov. 7, 2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 11/7/11

MATCHLINE -L- STA. 178+00 SEE SHEET 14

MATCHLINE -L- STA. 192+00 SEE SHEET 16

-BY18- 61 POT

-Y19- POT Sta. 10+00.00

-Y19-
PI Sta 16+91.50
Δ = 11° 32' 15.0" (RT)
D = 5° 43' 46.5"
L = 201.37'
T = 101.03'
R = 1,000.00'
Se= 0.04
Runoff = See Plans

-Y20-
PI Sta 11+19.09
Δ = 25° 46' 00.0" (LT)
D = 21° 13' 14.4"
L = 121.42'
T = 61.76'
R = 270.00'
Se= 0.04
Runoff = See Plans

-BL- 23 PINC

BEGIN CONSTRUCTION
-Y19- POT Sta. 11+90.00

-Y20- POT Sta. 10+00.00 =
-L- POT Sta.189+16.50

-Y19- POT Sta. 14+37.41 =
-L- POT Sta.184+38.69

-Y18- PC Sta. 11+29.67

-BY17- 59 PINC

Do Not Disturb
Historic Well House
(within 10' boundary)

-Y19- PC Sta. 15+90.47

-Y19- PT Sta. 17+91.84

-Y20- PC Sta. 10+57.34

END CONSTRUCTION
-Y19- PT Sta. 19+20.00

BEGIN CONSTRUCTION
-Y20- POT Sta. 12+20.00

NAD 83

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify this is a true and correct copy of Plan Sheet 15 of the final plans for Project 46278.1.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of January, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11th day of January, 2012

Secretary to Board of Transportation

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 51 FOR -Y19- & -Y20- PROFILES

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

PROJECTED TRAFFIC VOLUMES

BUSTON AVE
370 / 930
175 / 415 — 100 / 100
UNION CROSS RD
23,320 / 38,070 — 22,500 / 34,845
2,240 / 9,055 — 1,495 / 6,145
2011 ADT / 2031 ADT
3,830 / 15,615
KENOSHA DR

PROJECTED TRAFFIC VOLUMES

UNION CROSS RD
22,500 / 34,845 — 22,300 / 34,645
325 / 405 — 125 / 205
2011 ADT / 2031 ADT
450 / 610
KINGSWOOD DR

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

11/7/2011
H:\Roadway\Proj\4909_rdy_psh15.dgn

8/17/99

-Y21-
PI Sta 12+43.26
Δ = 21° 03' 45.0" (RT)
D = 11° 27' 33.0"
L = 183.80'
T = 92.95'
R = 500.00'
Se= 0.02
Runoff = See Plans

-Y22-
PI Sta 13+02.85
Δ = 36° 27' 25.0" (LT)
D = 22° 55' 05.9"
L = 159.07'
T = 82.33'
R = 250.00'

-L-
PI Sta 207+66.48
Δ = 19° 36' 30.0" (RT)
D = 2° 29' 28.0"
L = 787.13'
T = 397.45'
R = 2,300.00'
Se= 0.03
Runoff = 2.10'

SHEPHERD GROVE RD
2011 ADT 750/910
2031 ADT
525/605 225/305
22,300/34,645 22,000/34,345
UNION CROSS RD
PROJECTED TRAFFIC VOLUMES

UNION CROSS RD
22,000/34,345 21,700/34,045
725/805 425/505
2011 ADT
2031 ADT
1,150/1,310
SOMERSET CROSSING LN
PROJECT REFERENCE NO. U-4909 | SHEET NO. 16
R/W SHEET NO.
ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL J. MERRITT Nov. 7, 2011
HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. BOOK 11/3/11

BEGIN CONSTRUCTION
-Y21- POT Sta. 11+00.00

-Y21- PC Sta. 11+50.31

-Y21- PT Sta. 13+34.12

-Y22- POT Sta. 10+00.00 =
-L- POT Sta. 199+71.50

-Y21- POT Sta. 14+29.42 =
-L- POT Sta. 195+00.00

END CONSTRUCTION
-Y22- POT Sta. 11+85.00

-Y22- PC Sta. 12+20.52

-Y22- PT Sta. 13+29.59

-Y22- POT Sta. 15+69.60

-BY21- 65 PINC

-BL- 25 PINC

-BY22- 67 PINC

-BY22- 68 PINC 9+03.29

MATCHLINE -L- STA. 192+00 SEE SHEET 15

MATCHLINE -L- STA. 204+00 SEE SHEET 17

NAD 83

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 16 of the final plans for Project 4.82782.1 which was approved and adopted by the Board of Transportation and identified as said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum ___ to the minutes of the meeting of the ___ day of ___ Board of Transportation on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the ___ day of ___

Secretary to Board of Transportation

NOTE:
ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE:
SEE SHEET 2S FOR DITCH DETAILS

NOTE:
ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD. 852.01

NOTE:
SEE SHEETS 32 & 33 FOR -L- PROFILE
SEE SHEET 51 FOR -Y21- & -Y22- PROFILES

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

11/7/2011
R:\Roadway\Proj\u4909_rdy_psh16.dgn
bpeschke

PROJECT REFERENCE NO.	SHEET NO.
U-4909	17
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT 10/7/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK 10/7/11

-L-
PI Sta 207+66.48
Δ = 19° 36' 30.0" (RT)
D = 2° 29' 28.0"
L = 787.13'
T = 396.45'
R = 2,300.00'
Se = 0.03
Runoff = 2.10"

-Y23-
PI Sta 20+64.65
Δ = 6° 56' 58.1" (RT)
D = 1° 54' 35.5"
L = 363.87'
T = 182.16'
R = 3,000.00'
Se = 0.03
Runoff = See Plans

PI Sta 27+97.55
Δ = 5° 57' 35.9" (RT)
D = 1° 54' 35.5"
L = 312.06'
T = 156.17'
R = 3,000.00'
Se = 0.03
Runoff = See Plans

-Y24-
PI Sta 11+49.03
Δ = 19° 00' 45.0" (LT)
D = 6° 26' 15.8"
L = 295.33'
T = 149.03'
R = 890.00'
Se = 0.02

MATCHLINE -Y23- STA. 19+00 SEE SHEET 24

MATCHLINE -L- STA. 204+00 SEE SHEET 16

MATCHLINE -L- STA. 217+00 SEE SHEET 18

MATCHLINE -Y23- STA. 28+00 SEE SHEET 25

-Y24- BEGIN CONSTRUCTION STA. 12+95.33

-Y24- POT Sta. 13+30.00

-Y23- PT Sta. 22+46.36

-Y23- POT Sta. 22+77.46 = -L- POC Sta. 206+18.74

-L- PT Sta. 211+56.16

-Y23- PC Sta. 26+41.38

-Y24- POT Sta. 15+14.35 = -L- POT Sta. 214+15.50

U4909-3 "GPS"

-BL- 26 PINC

-BY23- 71 PINC

SEDGE GARDEN RD
12,620 / 19,350
UNION CROSS RD: 6,165 / 11,055 (NW); 3,545 / 6,030 (NE); 21,700 / 34,045 (W); 18,075 / 28,335 (E); 2,075 / 4,315 (SW); 1,070 / 3,635 (SE)
2011 ADT / 2031 ADT
6,050 / 10,220
OLD SALEM RD

PROJECTED TRAFFIC VOLUMES

"STATE OF NORTH CAROLINA – COUNTY OF WAKE"

I, _____, Custodian of the minutes of the Board of Transportation, do hereby certify that this is a true and correct copy of Plan Sheet 17 of the final plans for Project 4027 as approved and adopted by the Board of Transportation and identified as said plan sheet having been attached to the minutes of the 5th day of July, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 7th day of January, 2012

Secretary to Board of Transportation

NOTE: SEE DETAIL SHEET 20 FOR INTERSECTION DESIGN

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: SEE SHEET 27 FOR CURB RAMP DETAIL

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE: NO TRAFFIC VOLUMES FOR INTERSECTION OF REYNOLDS PRICE DR & UNION CROSS RD

NOTE: NO TRAFFIC VOLUMES FOR INTERSECTION OF GREEN LAWN DR & UNION CROSS RD

NOTE: SEE SHEET 33 FOR -L- PROFILE
SEE SHEET 52 FOR -Y23- PROFILE
SEE SHEET 53 FOR -Y24- PROFILE

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

8/17/99

10/5/2011
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PROJECT REFERENCE NO.	SHEET NO.
U-4909	18
RW SHEET NO.	

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — 10/7/2011

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK

8/17/99

MATCHLINE -L- STA. 217+00 SEE SHEET 17

JOHN & SUSAN L. MARRA DB 2144 PG 1047

-L-
PI Sta 224+12.82
Δ = 1°13' 56.5" (LT)
D = 0°12' 58.4'
L = 569.98'
T = 285.00'
R = 26,500.00'
Se= 0.02

ROGER L. HASTINGS DB 517 PG 279 DB 1205 PG 357

LUCILLE M. SAPP DB 1164 PG 194

HARRY E. & PATRICIA P. FREEZE DB 2614 PG 213

DAVID S. & MARILYN S. PASCHAL DB 1343 PG 395

BETTY H. CLARK ROGER L. JR & CAROLE T. HASTINGS (TRUSTEES) DB 2387 PG 375

ROGER L. HASTINGS DB 517 PG 279 DB 1205 PG 357

DONALD L. HASTINGS DB 1737 PG 3750

-L- PC Sta. 221+27.82

-Y25- POT Sta. 10+00.00 =
-L- POC Sta. 222+27.50

-L- Sta. 225+50.00
END TIP PROJECT U-4909

STANDARD BASE DITCH SEE DETAIL S

3 TONS CL B RIPRAP W/10 SY FIL FAB INV= 965.65

LATERAL V DITCH SEE DETAIL K

SPECIAL CUT DITCH SEE DETAIL A

SR 2643 UNION CROSS RD 24' BST

BM#8
BEARING FROM BL 27
N 54-03-57 E HD 551.86'
N 853258.6
E 1676527.3
ELEV.= 972.62'

Do Not Disturb Brick Wall

Do Not Disturb Brick Wall

ROYCE E. & CAROLYN R. VOSS DB 1997 PG 78

MICHAEL S. & BETH S. WILLIAMS DB 2056 PG 758

OMEGA L. PHIFER DB 2021 PG 3495

FRANCIS X. & LORA T. TIANO DB 1982 PG 559

DAVID E. & DIANE P. DUNN DB 2044 PG 1970

G. VANCE & KATHLEEN D. O'BRIEN DB 1902 PG 2000

LEON F. JR. & PETRINA BARBER DB 1981 PG 3906

HARRY L. & MARGARET S. HOLT DB 2272 PG 467

GREGORY H. & JANICE G. MILLER DB 1915 PG 513

BUNTHLENG KIM & DAVY TIENG DB 2053 PG 657

DONALD R. & SHARON M. SAUNDERS DB 1913 PG 1491

PHILLIP H. & MARIA REEVES DB 2061 PG 2504

TALMADGE T. & ANNE H. SOUTHERN DB 2152 PG 1780

MINNIAN S. NIRMAL DB 2178 PG 2731

PHILLIP A. & MARSHA A. ELINCHUM DB 2057 PG 1952

-BL 27 POT

-Y25- PT Sta. 11+98.84

-Y25- PC Sta. 12+44.53

-BY25- 74 POT

-Y25-
PI Sta 11+23.77
Δ = 32° 19' 00.0" (RT)
D = 22° 55' 05.9"
L = 141.01'
T = 72.43'
R = 250.00'

PI Sta 14+80.63
Δ = 84° 29' 09.3" (LT)
D = 22° 02' 12.6"
L = 383.38'
T = 236.11'
R = 260.00'

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 18 of the final plans for Project 40278.2.1 said plans having been approved and adopted by the Board of Transportation and identified as Item 10 to the minutes of the 5th day of Jan, 2012 meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 5th day of January 2012

Secretary to Board of Transportation

NOTE:
SEE SHEET 25 FOR DITCH DETAILS

NOTE:
ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE:
ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE:
SEE SHEET 33 FOR -L- PROFILE
SEE SHEET 53 FOR -Y25- PROFILE

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

10/5/2011
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mpaulanis

PROJECT REFERENCE NO.	SHEET NO.
U-4909	19
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — 10/7/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 10/7/11

8/17/99

FLETCHER WEAVIL DB 1681PG 1876

FLETCHER WEAVIL DB 1210 PG 979

KENNETH R. & JEANNE COCHRAN DB 2396 PG 4167

RALPH G. HAYES DB 849 PG 464

MARIE C. & COLLEEN M. PARRISH DB 952 PG 38

DB 1238 PG 147

0.85' EIP TO R/W

48' RW W/15BW

VAR.WDTH EXISTING R/W

48' CNL & 15BW

U4909-1 "GPS"

-Y3RPA- POC Sta. 10+00.00

36" RCP

30" RCP

15" RCP

EXIST.

RETAIN

36" CABLE

-Y3-

RETAIN REMAINDER OF SYSTEM

S 53° 16' 05.4" E

S 49° 10' 00.0" E

4° 05' 05"

SPECIAL CUT DITCH SEE DETAIL A

TIE TO EXIST. SYSTEM

GRADE TO DRAIN

REMOVE DITCH COLLAR

FS SEE DETAIL J

CUT/FILL TRANSITION 2 TONS CL B RIPRAP W/7 SY FIL FAB

15" CLASS III

DIRECT PROP. DITCH TO DI

U4909-2 "GPS"

US 311 NBL 24' BST

US 311 SBL 24' BST

4' BST

3' BST

4' P.S.

24"

40' TYP.

BEGIN CONSRUCTION -Y3- POT Sta. 16+82.33

-Y3RPB- POT Sta. 10+00.00

-Y3RPB- TS Sta. 13+44.04

-Y3RPB- SC Sta. 15+44.04

-Y3RPB- +28.37 118.72' TIE PROP. FENCE TO EXIST.

-Y3RPB- +44.04 120'

-Y3RPB- CS Sta. 20+68.87 120'

300' TAPER

FLETCHER WEAVIL DB 1210 PG 979

DEANE O. & CAROL L. WEAVIL DB 2353 PG 1740

MATCHLINE -Y3RPB- STA. 22+00 SEE SHEET 5

MATCHLINE -Y3- STA. 30+00 SEE SHEET 5

-Y3RPB-

PI Sta 18+10.72
Δ = 25° 03' 32.5" (RT)
D = 4° 46' 28.7"
L = 524.84'
T = 266.68'
R = 1,200.00'
Se = 0.02
Runoff = 200'

Pls Sta 14+77.42
Θs = 4° 46' 28.7"
Ls = 200.00'
LT = 133.38'
ST = 66.71'

-Y3RPA-

PI Sta 11+55.30
Δ = 6° 24' 39.3" Lt
D = 2° 03' 58.3"
L = 310.27'
T = 155.30'
R = 2,773.00'

REMOVAL OF EXISTING ASPHALT PAVMENT

NOTE: ALL PROP. FENCE IS 48" WOVEN WIRE UNLESS OTHERWISE NOTED.

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD. 852.01

NOTE: SEE SHEETS 35 & 36 FOR -Y3- PROFILE SEE SHEET 37 FOR -Y3RPA- PROFILE SEE SHEET 38 FOR -Y3RPB- PROFILE

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 19 of the final plans for Project 4027821 and said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Dec, 2012. Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January, 2012

Secretary to Board of Transportation

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

10/5/2011
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bgauchang

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4909	20
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT 10/19/2011

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW A. COOK 10/19/11

-Y3-
Pls Sta 62+30.18
Θs = 0° 15' 07.8"
Ls = 90.00'
LT = 60.00'
ST = 30.00'

Pl Sta 67+02.10
Δ = 4° 56' 58.2" (LT)
D = 0° 33' 37.3"
L = 883.29'
T = 441.92'
R = 10,225.00'

-Y3RPC-
Pl Sta 12+21.02
Δ = 9° 09' 24.3" (LT)
D = 2° 04' 33.4"
L = 441.09'
T = 221.02'
R = 2,760.00'

-Y3RPD-
Pls Sta 14+75.36
Θs = 4° 46' 28.7"
Ls = 200.00'
LT = 133.38'
ST = 66.71'

Pl Sta 18+82.78
Δ = 31° 42' 32.5" (RT)
D = 4° 46' 28.7"
L = 664.31'
T = 340.80'
R = 1,200.00'
Se = 0.02
Runoff = 200'

MATCHLINE -Y3RPD- 21+00 SEE SHEET 5

MATCHLINE -Y3- 50+50 SEE SHEET 5

NIOGENE B. IDOL DB 2144 PG 261

S 86°27'48" E 115.34'

N 02°21'44" E 88.09'

EIP

GEORGIA B. SMITH DB 1912 PG 1045

NAD 83

-Y3RPD- PT Sta. 10+00.00

-Y3RPD- +88.55
100' BEGIN FENCE

JESSE G. TAYLOR DB 804 PG 135

48"WW W/ISBW

0.32' EIP TO R/W

VARIOUS EXISTING R/W

N 87°09'10" W 405.81'

-Y3RPD- SC Sta. 15+41.98

-Y3RPD- TS Sta. 13+41.98

-Y3- TS Sta. 61+70.18

CUT/FILL TRANSITION 2 TONS CL B RIPRAP W/7 SY FIL FAB

TIE TO EXIST. DITCH

REMOVE 24" 18" RCP AND DI

SPECIAL CUT DITCH SEE DETAIL A

2 TONS CL B RIPRAP W/7 SY FIL FAB

300' TAPER

-Y3RPD-

15" CLASS III

24" CLASS III

2-2GI

18" FS SEE DETAIL J

TIE TO EXIST. SYSTEM

COLLAR

40' TYP.

CUT/FILL TRANSITION 2 TONS CL B RIPRAP W/7 SY FIL FAB

SP. LAT. BASE DITCH SEE DETAIL R

-Y3- SC Sta. 62+60.18

LATERAL V DITCH SEE DETAIL B

FS SEE DETAIL I

RETAIN

GRADE TO DRAIN

RIP-RAP

CAT-1

GRAU 350

N 50° 57' 00.0" W

2' 18' 05.0"

4' BST

US 311 NBL 24' BST

3' BST

36" CABLE

RETAIN SYSTEM

18" RCP

EX 075

S 53° 15' 05.4" E

-Y3-

54" CMP

24" RCP

MTL

EXIST.

-BY4- 38 PINC

-Y3RPC- POC Sta. 10+00.00

END CONSTRUCTION -Y3- POC Sta. 65+00.00

-BY3- 33 PINC

-BY3- 34 POT

72" CONC DITCH

CONC HDW

DRAINAGE EASEMENT

EXISTING R/W

WILLIAM & ONEIDA THOMAS DB 1633 PG 1671

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 25 of the final plans for Project 10U718.1 SR 1432 (Aves Dr) 24' BST said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum No. to the minutes of the 5 PERMANENT DRAINAGE EASEMENT day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of Jan, 2012

Secretary to Board of Transportation

REMOVAL OF EXISTING ASPHALT PAVMENT

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: SEE SHEETS 36 & 37 FOR -Y3- PROFILE
SEE SHEET 40 FOR -Y3RPC- PROFILE
SEE SHEETS 40 & 41 FOR -Y3RPD- PROFILE

NOTE: ALL PROP. FENCE IS 48" WOVEN WIRE UNLESS OTHERWISE NOTED.

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

JESSE G. TAYLOR DB 804 PG 135

CHRISTOPHER L. GUYER DB 1724 PG 3590

ISLOCD

ISFD

S 25°26'07" W 375.22'

S 05°34'42" W 459.25'

S 02°22'20" W 459.25'

PLANS PREPARED BY :

RKK

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

10/19/2011 K:\Roadway\Proj\u4909_rdy_psh20.dgn

8/17/99

-Y4-

PI Sta 28+73.48
Δ = 15° 56' 23.4" (RT)
D = 3° 49' 11.0"
L = 417.30'
T = 210.01'
R = 1,500.00'
Se = 0.06
Runoff = 240'

PIs Sta 31+34.12
θs = 3° 03' 20.8"
Ls = 160.00'
LT = 106.68'
ST = 53.35'

NAD 83

PROJECT REFERENCE NO.	SHEET NO.
U-4909	21
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — 10/4/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 9/1/11

MATCHLINE -Y4- STA. 27+00
SEE SHEET 6

ARNOLD C. & BETTY JO SNYDER DB 1955 PG 2291

ARNOLD C. & BETTY JO SNYDER DB 1576 PG 329

RONALD G. & LEE B. HARTLEY DB 1502 PG 1685

LARRY D. & DONNA A. HOLMAN DB 2395 PG 2186

BARRY D. STAFFORD DB 2391 PG 2580

(183) JOSE L. GARCIA DB 2848 PG 1959

(184) CHAD E. & KIMBERLY GREENE DB 2358 PG 1986

(185) MARK STOEHR & DEBRA MAIDEN DB 2302 PG 13

(186) MARK STOEHR DB 2030 PG 2746

CITY OF WINSTON-SALEM

(44) WILLIAM F. & ONEIDA C. THOMAS DB 1638 PG 1491

JADE ASSOCIATES II, LLC DB 2478 PG 2603 TRACT I

-Y4- POT Sta. 33+04.60

S 60° 51' 00.0" E

END CONSTRUCTION
-Y4- POT Sta. 32+50.00

-BY5-42 POT

-Y4- CS Sta. 30+80.78

-Y4- ST Sta. 32+40.78

-BY5- 41 PINC

(43) WINSTON-SALEM/FORSYTH COUNTY BOARD OF EDUCATION DB 299 PG 260

WINSTON-SALEM/FORSYTH COUNTY BOARD OF EDUCATION DB 1672 PG 1930

SR 1003 HIGH POINT RD

RIGHT TURN LANE

450' LEFT TURN LANE

100' TAPER

40' TAPER

SPECIAL CUT DITCH SEE DETAIL A

2 TONS CL B RIPRAP W/7 SY FIL FAB

HTR CLASSRM

RD RAMP

SCHOOL

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 21 of the final plans for Project 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan. 2017 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

NOTE: SEE SHEET 42 FOR -Y4- PROFILE

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

10/5/2011
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lbarnebaine

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4909	22
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — 10/7/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 10/7/2011

-Y13-

PI Sta 15+05.83
Δ = 2° 16' 33.3" (LT)
D = 1° 09' 27.0"
L = 196.63'
T = 98.33'
R = 4,950.00'
Se = 0.02
Runoff = 80'

PI Sta 17+26.70
Δ = 2° 50' 13.3" (RT)
D = 1° 09' 27.0"
L = 245.10'
T = 122.58'
R = 4,950.00'
Se = 0.02
Runoff = 80'

NAD 83

CHARLES O. WILLIARD, JR.
DB 1214 PG 1524
DB 1037 PG 1008
(187)

WANELL W. WALL
DB 797 PG 451

WANELL W. WALL
DB 1225 PG 850

CHARLES O. WILLIARD, JR.
DB 1225 PG 850
DB 2747 PG 3988
(187A)

WEST POINT VILLIAGE ASSOCIATES
DB 2770 PG 1479
PB 52 PG 85
(188A)

WEST POINT VILLIAGE ASSOCIATES
DB 2770 PG 1479
PB 52 PG 85
(188)

EDWARD P. WEAVER, JR.
DB 940 PG 161

REID W. DAVIS AND WIFE CAROLYN DAVIS
DB 982 PG 660
DB 1481 PG 1414
(94A)

WINSTON-SALEM/FORSYTH COUNTY BOARD OF EDUCATION
DB 1536 PG 1627
DB 618 PG 39
DB 617 PG 132
DB 2597 PG 1951
DB 2581 PG 4451
(94)

-Y13- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y13- POT Sta. 11+40.00

-Y13- PC Sta. 14+07.50

-Y13- PRC Sta. 16+04.13

-Y13- PT Sta. 18+49.23

-BY12- 50 POT

S 86°48'04" E 295.44'

S 86°45'39" E 306.76'

S 86°17' 50.0" E

S 85° 44' 10.0" E

N 05°39'46" E 434.45'

N 04°32'37" E 235.24'

N 03°55'37" E 235.00'

S 04°28'07" W 409.06'

S 17°37'37" W 65.27'

S 10°12'18" W 203.22'

S 1°50'01" W 204.55'

RADIUS = 264.81'
CHORD = 293.71'
CHORD BEARING = N 37°58'58" E

RADIUS = 275.00'
CHORD = 69.38'
CHORD BEARING = S 64°25'01" W

RADIUS = 214.81'
CHORD = 238.25'
CHORD BEARING = N 37°59'00" E

FINAL PVMT LAYER NOT COMPLETE AS OF DATE OF SURVEY

15' TYPE B LANDSCAPE BUFFER

30' UTILITY EASEMENT

6' UTILITY EASEMENT

GLENN CENTER DRIVE 27' BST

GLEN HIGH RD 36' BST

SPECIAL CUT DITCH SEE DETAIL A

RETAIN SYSTEM

2 TONS CL B RIPRAP W/7 SY FILTER FAB

TENNIS COURTS

PROP. 26' CONC. C&G

PROP. 5' CONC. SIDEWALK

MATCHLINE -Y13- STA.20+00 SEE SHEET 12

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 22 of the final plans for Project 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE: SEE SHEET 45 FOR -Y13- PROFILE

PLANS PREPARED BY :

RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

10/5/2011
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bcallahan

PROJECT REFERENCE NO.	SHEET NO.
U-4909	23
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. HERRITT — 10/7/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 10/7/2011

-Y17-
PI Sta 19+30.72
Δ = 34° 20' 20.0" (RT)
D = 7° 38' 22.0"
L = 449.50'
T = 231.73'
R = 750.00'
Se = 0.06
Runoff = 190'

NAD 83

-BY16- 58 POT

BEGIN CONSTRUCTION
-Y17- POT Sta. 10+00.00

MATCHLINE -Y17- STA. 18+00 SEE SHEET 14

-Y17- PC Sta. 16+99.00

JOAN HART GRANT DB 1720 PG 4178

(189) ANTHONY S. DANIEL DB 2792 PG 4041

(190) MARSHALL G. CHEEK AND WIFE EDNA M. CHEEK DB 1235 PG 991

(191) TIMOTHY D. SMITH AND WIFE JENNIFER D. SMITH DB 2659 PG 2885

(192) MICHAEL & SANDY ZIELINSKI DB 2110 PG 4787

SANDRA R. WARD (P/A) ELLIS R. & CATHERINE E. RUNIONS DB 893 PG 73

(193)

(194) MARTY W. & CHRISTY A. WHICKER DB 2134 PG 2372

(115) HAROLD D. & MARY A. SPAINHOUR DB 873 PG 36

(195) JERRY L. WHITTUM LINDA E. WHITTUM DB 1905 PG 3257

(196) MARGIE W. HARRIS DB 902 PG 166

(114) ROBERT H. & TREVA H. BOYLES DB 1000 PG 578

SPECIAL CUT DITCH SEE DETAIL A

800' TAPER

1080' TAPER

EXISTING R/W=PROPERTY LINE

PROPOSED R/W

PUE

REMOVE

SR 2830 SOLOMON DR 20' BST

S 86°29'50" E

S 85°58'35" E 188.10'

S 86°17'35" E 165.10'

S 86°17'35" E 199.76'

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 23 of the final plans for Project 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January 2012

Secretary to Board of Transportation

NOTE: SEE SHEET 50 FOR -Y17- PROFILE

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

FOR DIVISION OF HIGHWAYS

8/17/99

10/5/2011
R:\Roadway\Proj\u4909_rdy_psh23.dgn
mpatterson

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4909	24
RW SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. MERRITT — 10/7/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK — 10/7/11

-Y23-

PI Sta 14+95.73	PI Sta 20+64.65
Δ = 5°16' 34.0" (LT)	Δ = 6°56' 58.0" (RT)
D = 1°54' 35.5"	D = 1°54' 35.5"
L = 267.26'	L = 363.87'
T = 138.23'	T = 182.16'
R = 3,000.00'	R = 3,000.00'
Se = 0.02	Se = 0.02
Runoff = See Plans	Runoff = See Plans

-BY23- 70 POT

BEGIN CONSTRUCTION -Y23- POT Sta. 10+00.00

-Y23- PC Sta. 18+82.49

-Y23- PCSta. 13+57.51

MATCHLINE -Y23- STA. 19+00 SEE SHEET 17

"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 24 of the final plans for Project 40278.2.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan, 2012. Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of February, 2012

Secretary to Board of Transportation

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: ALL ISLANDS SHOWN ARE 5' MONOLITHIC CONCRETE ISLANDS STD.852.01

NOTE: SEE SHEET 52 FOR -Y23- PROFILE

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

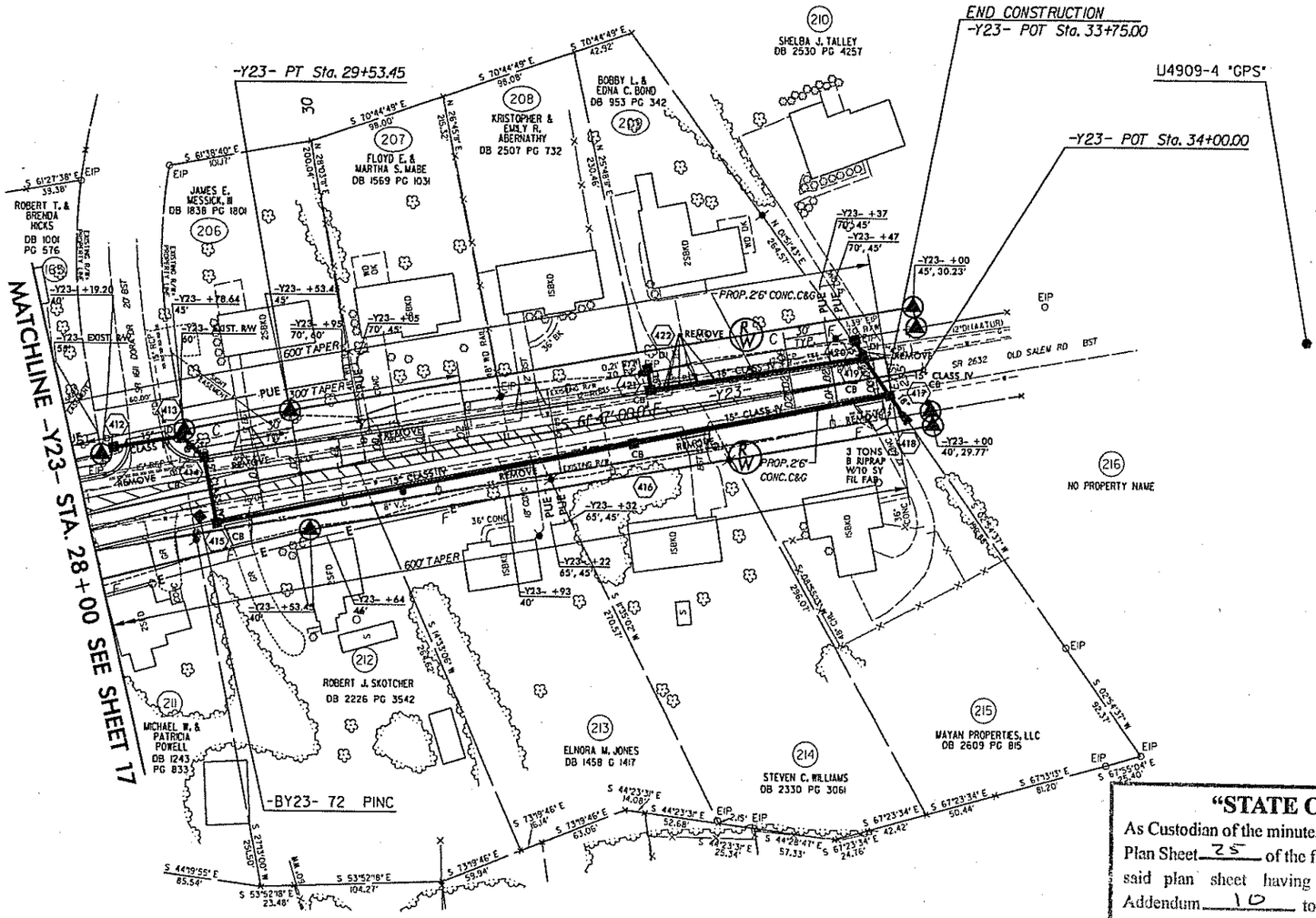
10/5/2011
N:\Roadway\Proj\u4909_rdy_psh24.dgn
jbarnette

PROJECT REFERENCE NO.	SHEET NO.
U-4909	25
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21122 ENGINEER MICHAEL T. METRITT — 10/7/2011

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 027434 ENGINEER MATTHEW L. COOK

-Y23-
PI Sta 27+97.56
Δ = 5° 57' 36.0" (RT)
D = 1° 54' 35.5"
L = 312.06'
T = 156.17'
R = 3,000.00'
Se = 0.02
Runoff = See Plans



"STATE OF NORTH CAROLINA ~ COUNTY OF WAKE"

As Custodian of the minutes of the Board of Transportation, I do hereby certify that this is a true and correct copy of Plan Sheet 25 of the final plans for Project 4027827.1 said plan sheet having been approved and adopted by the Board of Transportation and identified as Addendum 10 to the minutes of the 5th day of Jan, 2012 Board of Transportation meeting on file in my office. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 11 day of January, 2012

Secretary to Board of Transportation

NOTE: SEE SHEET 52 FOR -Y23- PROFILE

NOTE: SEE SHEET 25 FOR DITCH DETAILS

NOTE: ALL PROPOSED DRIVEWAYS ARE 20' WIDE UNLESS OTHERWISE NOTED.

NOTE: ALL ISLANDS SHOWN ARE 5" MONOLITHIC CONCRETE ISLANDS STD. 852.01

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560
FOR DIVISION OF HIGHWAYS

8/17/99

10/5/2011
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brackbill