This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

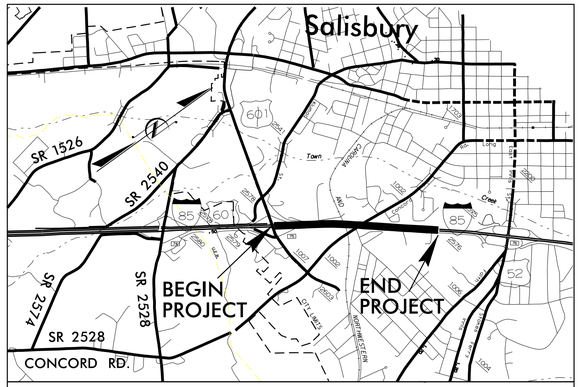
The documents contained herein were originally issued and sealed by the individuals whose names and license numbers appear on each page, on the dates appearing with their signature on that page.
This file or an individual page shall not be considered a certified document.

09/08/99

TIP PROJECT: I-5741

CONTRACT: C203814

See Sheet 1-A For Index of Sheets



VICINITY MAP – NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

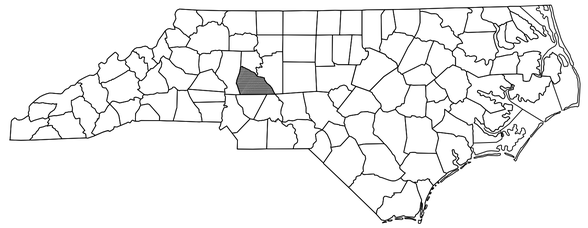
ROWAN COUNTY

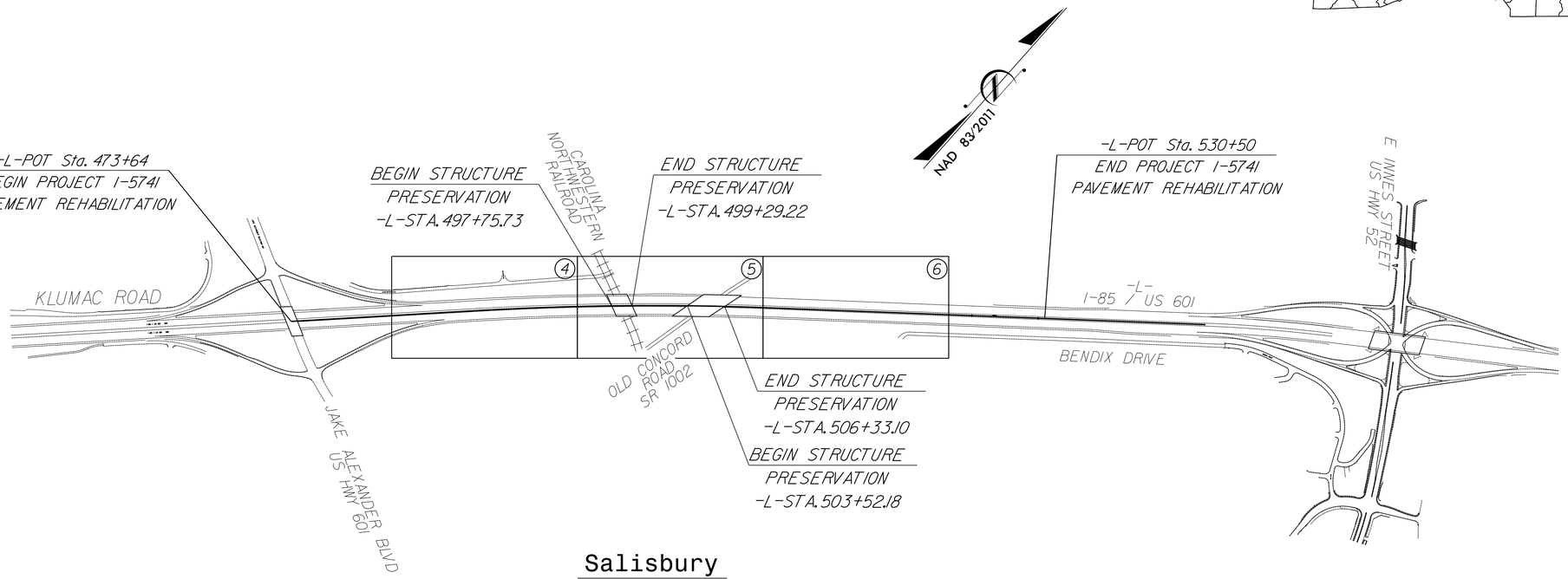
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5741	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
52022.1.1	NHPP-0085(022)	PE
52022.3.1	NHPP-0085(022)	CONST

LOCATION: INTERSTATE 85 FROM US 601 (JAKE ALEXANDER BLVD.) TO 0.5 MILE SOUTH OF US 52 (INNES ST.) IN SALISBURY

TYPE OF WORK: DRAINAGE, PAVEMENT REHABILITATION, AND BRIDGE PRESERVATION





Salisbury

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2013 = 75000
DHV = 11 %
D = 55 %
T = 27 % *
V = 70 MPH
* TTST = 21 DUAL 6
FUNC CLASS = INTERSTATE
STATEWIDE TIER
(REF. PROJECT I-2511CA)

~~1/5/2016~~ ~~1/7/2016~~

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-5741 = 0.995 MILE
LENGTH STRUCTURE TIP PROJECT I-5741 = 0.082 MILE
TOTAL LENGTH TIP PROJECT I-5741 = 1.077 MILE

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A

LETTING DATE: FEBRUARY 16, 2016

J. BRETT ABERNATHY, PE, PLS
PROJECT ENGINEER

WILLIAM A. BLANTON, PE, PLS
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022000 ENGINEER Galen Cail

DocuSigned by: Galen Cail 1/7/2016
SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 025499 ENGINEER William A. Blanton

DocuSigned by: William A. Blanton 1/5/2016
SIGNATURE: *P.E.*

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

18-DEC-2015 14:50
S:\DDC_2015-18-I5505-I85-Rowan\Plansheets\I5505_ddc_tsh.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
I-5741	1-A

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 025499 ENGINEER WILLIAM A. BLANTON

DocuSigned by: 2/5/2016
William A. Blanton
CC86371B19FC44D...

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1	SURVEY CONTROL SHEETS
1D-1	CENTERLINE COORDINATE LIST
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1	RESURFACING BRIDGE LIST
3B-1	ROADWAY SUMMARIES
3D-1	DRAINAGE SUMMARIES
4 THRU 6	PLAN SHEET
TMP-1 THRU TMP-10	TRAFFIC MANAGEMENT PLANS
1	STRUCTURE PLANS:TITLE SHEET
1A	STRUCTURE PLANS: INDEX OF SHEETS
S-1 THRU S-6	STRUCTURE PLANS
SN	STRUCTURE NOTES

GENERAL NOTES

GENERAL NOTES: 2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 10-31-2014

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.02

SHOULDER DRAINS:

SHOULDER DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 816.02 AND DETAILS IN PLANS AT LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

SUBSURFACE PLANS:

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

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

2012 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-17-2012
REV. 10-30-2012

2012 ROADWAY ENGLISH STANDARD DRAWINGS

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

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
225.01	Guide for Grading Subgrade - Interstate and Freeway
225.05	Method of Obtaining Superelevation - Divided Highways
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.02	Method of Shoulder Construction - High Side of Superelevated Curve - Method II
DIVISION 7 - CONCRETE PAVEMENTS AND SHOULDERS	
700.01	Concrete Pavement Joints - Construction and Contraction Joints
700.02	Expansion Joint Layout - for Rigid Doweled Pavement at Bridges
700.03	Dowel Assembly
700.04	Concrete Pavement Header Board
700.05	Tying Proposed Pavement to Existing
710.01	Concrete Pavement - Station Marking
720.01	Concrete Shoulders - Stamped or Rolled Rumble Strips, Milled Rumble Strips
DIVISION 8 - INCIDENTALS	
816.01	Concrete Pads - for Shoulder Drain Installation
816.02	Aggregate Shoulder Drain
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.20	Frames and Wide Slot Flat Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
866.02	Woven Wire Fence - with Wood Post
876.02	Guide for Rip Rap at Pipe Outlets

21-DEC-2016 12:40
C:\Users\wblanton\Desktop\I5505-I 85-Rowan\Plansheets\I5505_ddc_1A.dgn
$$$$USERNAME$$$$

04/06/15

PROJECT REFERENCE NO.	SHEET NO.
I-5741	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

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

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

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

RIGHT OF WAY:

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

ROADS AND RELATED FEATURES:

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

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:

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

MINOR:

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

UTILITIES:

POWER:

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

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- U/G Telephone Cable LOS B (S.U.E.*) — T
- U/G Telephone Cable LOS C (S.U.E.*) — T
- U/G Telephone Cable LOS D (S.U.E.*) — T
- U/G Telephone Conduit LOS B (S.U.E.*) — TC
- U/G Telephone Conduit LOS C (S.U.E.*) — TC
- U/G Telephone Conduit LOS D (S.U.E.*) — TC
- U/G Fiber Optics Cable LOS B (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS C (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS D (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E.*) — W
- U/G Water Line LOS C (S.U.E.*) — W
- U/G Water Line LOS D (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

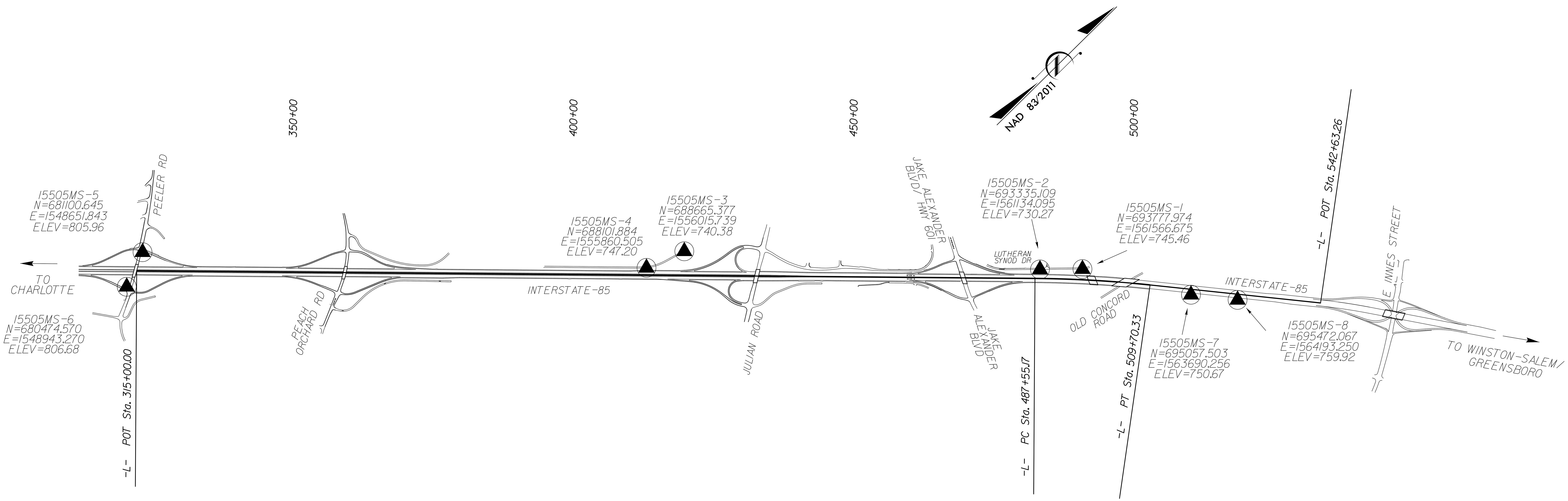
SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

MISCELLANEOUS:

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

SURVEY CONTROL SHEET I-5741



BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
6	I5505MS 6	680474.5700	1548943.2700	806.68	OUTSIDE PROJECTS LIMITS	
5	I5505MS 5	681100.6450	1548651.8430	805.96	315+26.64	359.95 LT
4	I5505MS 4	688101.8840	1555860.5050	747.20	415+74.73	225.76 LT
3	I5505MS 3	688665.3770	1556015.7390	740.38	420+82.59	515.07 LT
2	I5505MS 2	693335.1090	1561134.0950	730.27	490+01.97	207.78 LT
1	I5505MS 1	693777.9740	1561566.6750	745.46	496+14.77	230.77 LT
7	I5505MS 7	695057.5030	1563690.2560	750.67	520+55.10	168.49 RT
8	I5505MS 8	695472.0670	1564193.2500	759.92	527+06.91	167.31 RT

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "I5505MS-3"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 688665.377(ft) EASTING: 1556015.739(ft)
ELEVATION: 740.38(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99996363
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "I5505MS-3" TO -L- STATION 315+00.00 IS
S42°17'4.9" W 10595.12'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

NOTES:

▲ INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT DIVISION 9 DDC UNIT.

PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
I-5741	ID-1
DIVISION 9 DDC	

SURVEY CONTROL SHEET I-5741

L

TYPE	STATION	NORTH	EAST
POT	315+00.00	680826.9917	1548887.1863
PC	487+55.17	693013.0761	1561103.5785
PT	509+70.33	694499.3199	1562744.9845
POT	542+63.26	696589.0403	1565289.8724

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "I5505MS-3" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 688665.377(ft) EASTING: 1556015.739(ft) ELEVATION: 740.38(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99996363

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "I5505MS-3" TO -L- STATION 315+00.00 IS S42°17'4.9" W 10595.12'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES

VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

NOTES:

INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT DIVISION 9 DDC UNIT.

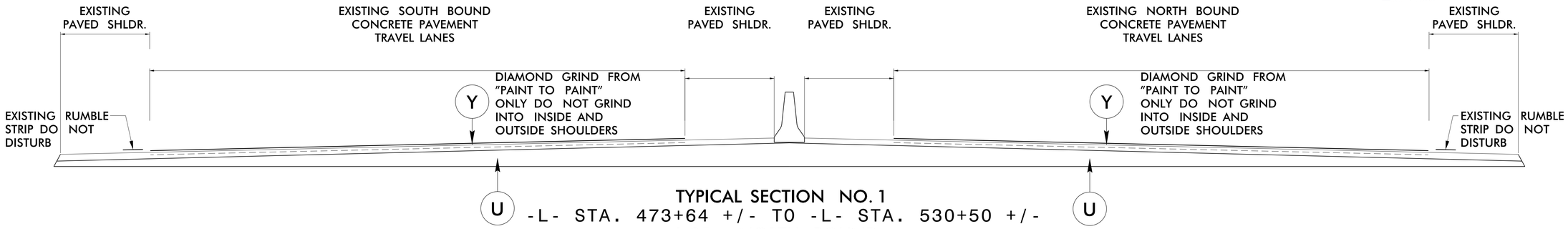
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

6/2/99

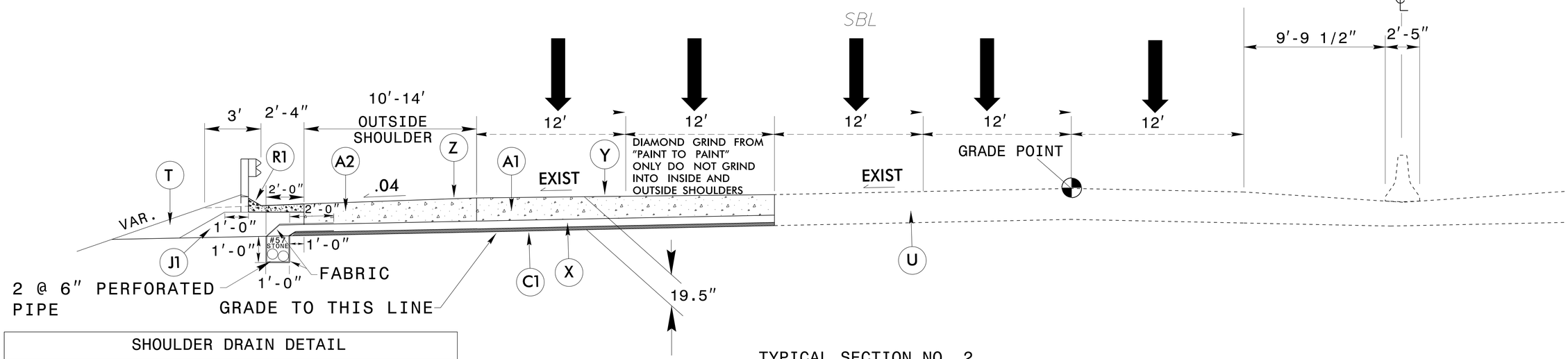
PROJECT REFERENCE NO.	SHEET NO.
I-5741	2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 025499 ENGINEER WILLIAM A BLANTON
DocuSigned by: William A. Blanton 1/5/2016
CC8637181919FC440...

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

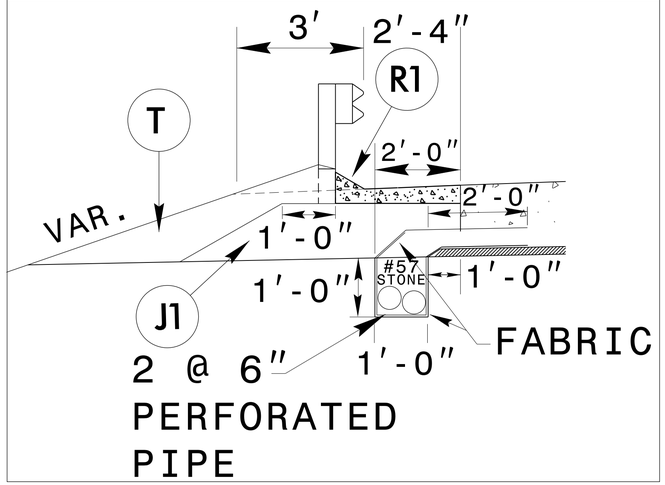


TYPICAL SECTION NO. 1
-L- STA. 473+64 +/- TO -L- STA. 530+50 +/-
I-85 – NORTH BOUND
I-85 – SOUTH BOUND



TYPICAL SECTION NO. 2
-L- STA. 499+20 +/- TO -L- STA. 501+15 +/-

SHOULDER DRAIN DETAIL



PAVEMENT SCHEDULE

A1	14" DOWELED JOINTED PORTLAND CEMENT CONCRETE PAVEMENT
A2	14" UN-DOWELED JOINTED PORTLAND CEMENT CONCRETE PAVEMENT
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE SF9.5A AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
J1	PROP. VAR. DEPTH AGGREGATE BASE COURSE.
R1	SHOULDER BERM GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT
X	4" PERMEABLE ASPHALT DRAIANGE COURSE (PADC), TYPE P-57
Y	PROPOSED DIAMOND GRINDING
Z	RUMBLE STRIPS.

NOTE: PAV. EDGES ARE 1:1 UNLESS SHOWN OTHERWISE.

05-JAN-2016 10:29
C:\Projects\I-5505-I 85-Rowan\Plansheets\I5505_ddc_typ.dgn
$$USER$$
$$DESIGNATION$$

I-5741 Resurfacing Bridge List

									PROJECT NO. I-5741			SHEET NO. 2B-1
Map No.	**Route No.**	**Route Name**	**Bridge/ Overhead Sign No.**	**Feature Intersected**	**Floor Construction**	**Clear Roadway Width (Ft)**	**Horizontal Clearance Under (Ft.)**	**Vertical Clearance Under**	**2nd Opening Clearance Under**	**Length (Ft)**	**Posting**	**Recommended Treatment, From Bridge Maintenance**
1	US 601	US 601	114	I-85	8.5 RC SLAB	68	71	18 FT 02 IN I-85 NBL	18 FT 10 IN I-85 SBL	234	NA	Maintain Clearance
1	I-85	I-85	115	SOUTHERN RAILWAY	9" RC SLAB	163.6	NA	NA	NA	153	NA	DO NOT DIAMOND GRIND BRIDGE DECK
1	I-85	I-85	118	SR 1002 OLD CONCORD RD.	9" RC SLAB	163.6	NA	NA	NA	279	NA	DO NOT DIAMOND GRIND BRIDGE DECK

12/06/07

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
I-5741	3B-1

SHOULDER DRAIN SUMMARY

SURVEY LINE	STA. TO STA.	LOCATION	4" PERFOR. PIPE (FT.)	6" PERFOR. PIPE (FT.)	SHOULDER DRAINS (FT.)	OUTLET	OUTLET STRUCTURE	
						6" PIPE (FT.)	DRAINAGE STRUCTURE	CONCRETE PAD
-L-	499+05 TO 501+93	OUTSIDE, LT		556	278		EXIST. DI	
CONTINGENCY				25	25	25		1
TOTALS				581	303	25		1
SAY				590	310	25		1

SUMMARY OF EXISTING CONCRETE PAVEMENT REMOVAL

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD²
-L-	499+20	501+15	LT	850
			TOTAL:	850
			SAY:	850

SHOULDER BERM GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LENGTH
-L-	489+65	489+85	20
-L-	493+53	493+73	20
-L-	496+60	496+80	20
-L-	499+05	501+93	278
-L-	507+20	507+40	20
-L-	514+86	515+06	20
		TOTAL:	378
		SAY:	380

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS								IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE AND RESET EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GRAU 350	M-350	XIII	CAT-1	VI MOD	BIC	AT-1	EA	G	NG				
-L-	489+65	489+85	LT																								20		REMOVE AND REPLACE AT EXISTING LOCATION
-L-	493+53	493+73	LT																								20		REMOVE AND REPLACE AT EXISTING LOCATION
-L-	496+60	496+80	LT																								20		REMOVE AND REPLACE AT EXISTING LOCATION
-L-	499+05	501+93	LT																								278		REMOVE AND REPLACE AT EXISTING LOCATION
-L-	507+20	507+40	RT																								20		REMOVE AND REPLACE AT EXISTING LOCATION
-L-	514+86	515+06	RT																								20		REMOVE AND REPLACE AT EXISTING LOCATION
		SUBTOTAL																											
		ANCHOR DEDUCTIONS																											
		TOTAL																									378		
		SAY																									400		
ADDITIONAL POSTS = 10 EA																													
CONTINGENCY ITEM - STRAIGHT GUARDRAIL = 100 LF																													

18-DEC-2015 14:45
Standard: 2015_15505-I 85-Rowan\Plansheets\15505_ddc_quantities.dgn
User: [illegible]

COMPUTED BY: RJN	DATE:
CHECKED BY: WAB	DATE:

D9CAD268308

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
I-5741	3D-1

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

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

STATION	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL
L 490+14	LT	0401		758.3	755.50		
		0401	0402			751.3	
L 493+63	LT	0403		768.4	765.60		
		0403	0404			732.7	
L 496+70	LT	0405		778.7	775.90		
		0405	0406			744.2	
L 501+83	LT	0502		785.4	782.60		
		0502	0501			778.32	
L 507+30	RT	0503		783.7	780.9		
		0503	0504			765.2	
L 514+96	RT	0601		765.8	763		
		0601	0602			751.8	
SHEET TOTALS							

Size / Thickness or Gauge columns:

STRUCTURE NO. FROM	TO	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS III 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV 12"	15"	18"	24"	30"	36"	42"	48"	DI PIPE 18"	24"
THICKNESS OR GAUGE											.064	.064	.064	.064	.079	.079	.109	.109																		
0401																																				
0401	0402																											12								
0403																																				
0403	0404											80																								
0405																																				
0405	0406											84																								
0502																																				
0502	0501																											216								
0503																																				
0503	0504											42																								
0601																																				
0601	0602											42																								
SHEET TOTALS												248																228								

STRUCTURE NO. FROM	TO	** " R.C. PIPE (CLASS V)	***" RC PIPE CULVERTS, CONTRACTOR DESIGN	***" RC PIPE CULVERTS, CONTRACTOR DESIGN	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION DROP INLET	CATCH BASIN	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH TWO GRATES STD. 840.20	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	C.S. PIPE ELBOWSNO. AND SIZE				SIDE DRAIN PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
0401								1												1		1													
0401	0402																																		TIE TO EXIST. MH
0403								1												1		1													
0403	0404																										2 @ 15"								ROD AND LUG CONNECTOR
0405								1												1		1													
0405	0406																										2 @ 15"								ROD AND LUG CONNECTOR
0502								1												1		1													
0502	0501																																		TIE TO EXIST. 2GI
0503								1												1		1													
0503	0504																										2 @ 15"								ROD AND LUG CONNECTOR
0601								1												1		1													
0601	0602																										2 @ 15"								ROD AND LUG CONNECTOR
SHEET TOTALS								6												6		6					8 @ 15"								

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

PROJECT REFERENCE NO.	SHEET NO.
I-5741	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025499
William A. Blanton
1/5/2016
DocuSigned by: William A. Blanton
CC86371B19FC44D...

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 022000
W. Galen Cail
1/7/2016
DocuSigned by: Galen Cail
05F097D904114D5...

8/17/99

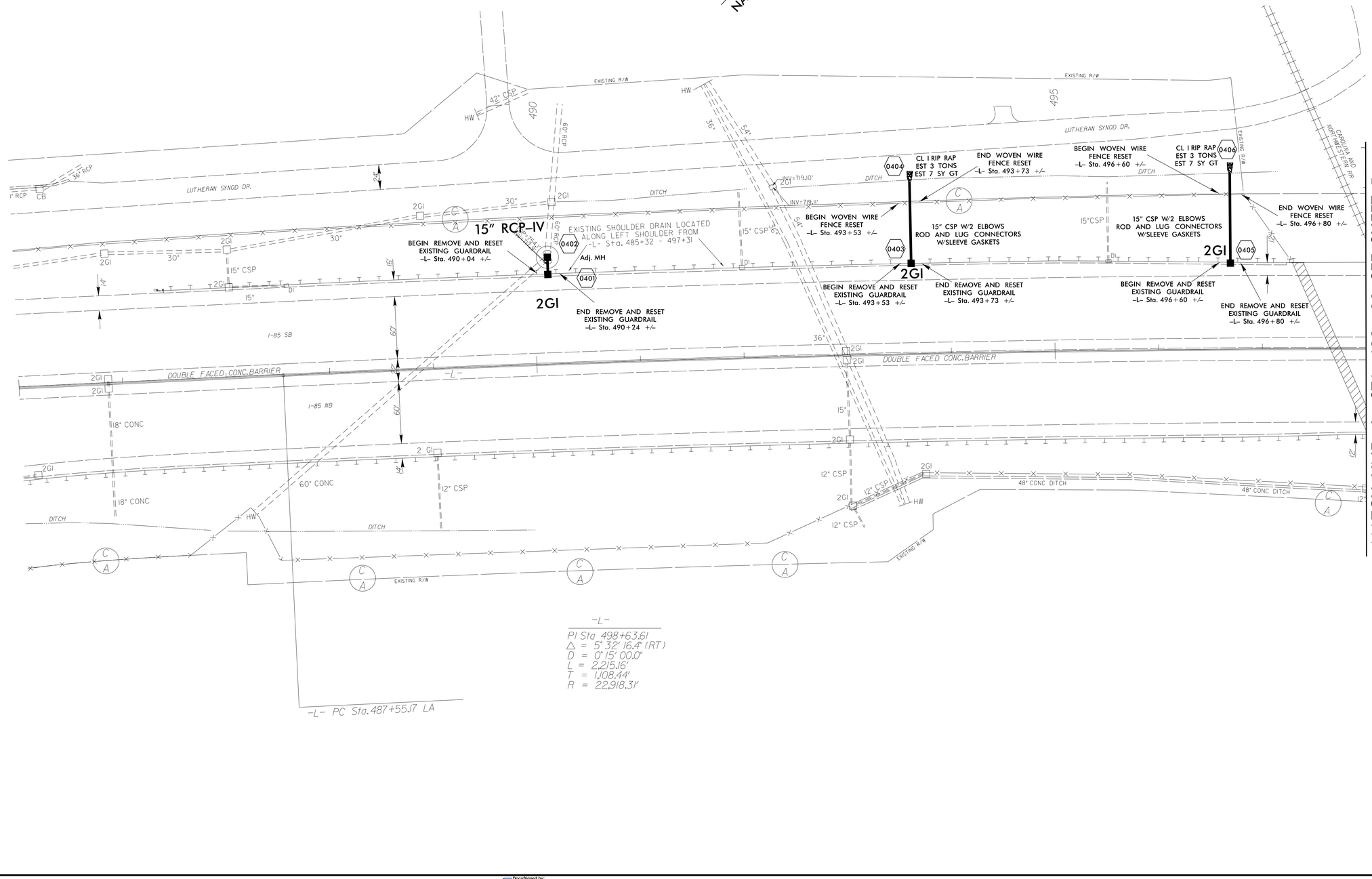
REVISIONS

1/7/2016

1/7/2016

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011



29-DEC-2015 14:56
C:\Projects\I-5741\Roan\Plansheets\I5705_ddc_psh4.dgn
$$$$USERNAME$$$$

DocuSigned by: Galen Cail

PROJECT REFERENCE NO.	SHEET NO.
I-5505	5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 025499 ENGINEER William A. Blanton
DocuSigned by: William A. Blanton 1/5/2016
CC863711B19FC44D...

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 022000 ENGINEER W. Galen Cail
DocuSigned by: Galen Cail 1/7/2016
06F097D904114D5...

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

REVISIONS 8/17/99

APPROXIMATE AREA OF PAVEMENT REPAIR.
ACTUAL AREA OF REPAIR TO BE DETERMINED
BY FIELD ENGINEER.

BEGIN PAVEMENT REPAIR
–L– STA. 499+20 +/–

END PAVEMENT REPAIR
–L– STA. 501+15 +/–

MATCH–LINE –L– STA 498+00 SEE SHEET 4

MATCH–LINE –L– STA 512+00 SEE SHEET 6

BEGIN REMOVE AND RESET EXISTING GUARDRAIL
–L– Sta. 499+05 +/–

END REMOVE AND RESET EXISTING GUARDRAIL
–L– Sta. 501+93 +/–

EXISTING SHOULDER DRAIN LOCATED ALONG LEFT SHOULDER FROM
-L- Sta. 499+95 - 502+05

0501 0502 0503 0504

15" RCP–IV

Adj. 2GI 2GI

15" RCP 18" RCP 24" RCP 30" RCP 36" RCP 42" RCP

15" CMP 18" CMP

DITCH EXISTING R/W DOUBLE FACED CONC.BARRIER

I-85 SB I-85 NB

–L– PT Sta 509+70.33

N 50° 36' 32.6" E

OLD CONCORD RD. SR 1002

CAROLINA AND NORTHWESTERN RR

TYPE XIII

BEGIN REMOVE AND RESET EXISTING GUARDRAIL
–L– Sta. 507+20 +/–

END REMOVE AND RESET EXISTING GUARDRAIL
–L– Sta. 507+40 +/–

15" CSP W/2 ELBOWS
ROD AND LUG CONNECTORS
W/SLEEVE GASKETS

CL I RIP RAP
EST 3 TONS
EST 7 SY GT

EXISTING SHOULDER DRAIN LOCATED ALONG RIGHT SHOULDER FROM
-L- Sta. 506+04 - 520+14

60' 22' 12' 14'

500 505 510

–L–
PI Sta 498+63.61
Δ = 5° 32' 16.4" (RT)
D = 0° 15' 00.0"
L = 2,215.16'
T = 1,108.44'
R = 22,918.31'

29-DEC-2015 14:57
C:\Projects\I-5505-I 85-Rowan\Plansheets\I5505_ddc_psh5.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
I-5741	6
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 025499 ENGINEER William A. Blanton
1/5/2016
DocuSigned by: William A. Blanton
CC86371B19FC44D...

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 022000 ENGINEER W. Galen Cail
1/7/2016
DocuSigned by: Galen Cail
06F097D904114D5...

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99

NAD 83/2011

MATCH-LINE -L- STA 512+00 SEE SHEET 6

515

520

525

EXISTING R/W

DITCH

SOUND BARRIER WALL

SINGLE FACED CONC.BARRIER

DOUBLE FACED CONC.BARRIER

I-85 SB

I-85 NB

-L-

BEGIN REMOVE AND RESET EXISTING GUARDRAIL -L- Sta. 514+86 +/-

END REMOVE AND RESET EXISTING GUARDRAIL -L- Sta. 515+06 +/-

EXISTING SHOULDER DRAIN LOCATED ALONG RIGHT SHOULDER FROM -L- Sta. 506+04 - 520+14

060

0602

2GI

15" CSP W/2 ELBOWS ROD AND LUG CONNECTORS W/SLEEVE GASKETS

CL I RIP RAP EST 3 TONS EST 7 SY GT

15" CMP

18" RCP

66" RCP

30"

60'

14'

BENDIX DR.

-L-
PI Sta 498+63.61
△ = 5° 32' 16.4" (RT)
D = 0° 15' 00.0"
L = 2,215.16'
T = 1,108.44'
R = 22,918.31'