

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES & LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
RW02-C THRU RW69	SURVEY, ROW AND PERMANENT EASEMENT CONTROL SHEETS
2A-1 THRU 2A-13	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-3	DETAIL OF BRIDGE IN RELATIONSHIP TO PAVEMENT
2B-4 THRU 2B-6	DETAIL OF ROUNDABOUT
2B-7	DETAIL OF CURB
2B-8 THRU 2B-14	SHEAR POINT DIAGRAMS
2B-15 THRU 2B-21	TEMPORARY ALIGNMENTS AND PROFILES
2B-22 THRU 2B-23	DETAIL OF GUARDRAIL PLACEMENT FOR I-40 DMS SIGNS
2C-1	DETAIL OF TYPE III REINFORCED APPROACH FILLS
2C-2	DETAIL OF STRUCTURE ANCHOR UNITS
2C-3	DETAIL OF GUARDRAIL INSTALLATION
2C-4	DETAIL OF GUARDRAIL PLACEMENT
2C-5	DETAIL OF AT-1 SYSTEM
2C-6	DETAIL OF 25' CLEAR SPAN GUARDRAIL PLACEMENT
2C-7	DETAIL OF GUARDRAIL ANCHOR UNIT MODIFIED B-77 TYING TO MEDIAN CONCRETE BARRIER
2C-8	DETAIL OF MEDIAN HAZARD PROTECTION AND BARRIER TRANSITION
2C-9	DETAIL OF CONCRETE GRADE DROP INLET TYPE 'A' MINIMUM DEPTH
2C-10	DETAIL OF TRAFFIC BEARING GRATED INLET FOR PIPES UP TO 54"
2C-11	DETAIL OF CONCRETE MEDIAN DROP INLET TYPE "A" EXTRA DEPTH OVER 12' to 25'
2C-12	DETAIL OF MINIMUM DEPTH CONCRETE CATCH BASIN 12" THRU 84" PIPE
2C-13	DETAIL OF REINFORCED CONCRETE ENDWALL FOR 84" PIPE - 90 SKEW
2C-14	DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE
2C-15	DETAIL OF COAL COMBUSTION PRODUCE PLACEMENT
2D-2 THRU 2D-5	DRAINAGE DETAILS
2D-6 THRU 2D-31	DETAIL OF TEMPORARY DRAINAGE FOR PHASED CONSTRUCTION
2G-1	STANDARD TEMPORARY SHORING
2G-2 THRU 2G-4	STANDARD TEMPORARY WALL
2G-5	ROCK EMBANKMENTS
2N-1 THRU 2N-3	NOISE WALL ENVELOPES
3B-1 THRU 3B-5	EARTHWORK, PAVEMENT REMOVAL, WOVEN WIRE FENCE, PAVEMENT REMOVAL/BREAKING, CHAIN LINK FENCE, SHOULDER BERM GUTTER, AND 2'6" CURB & GUTTER SUMMARIES
3B-6 THRU 3B-8	GUARDRAIL SUMMARIES
3D-1 THRU 3D-55	DRAINAGE SUMMARY SHEETS
3G-1 THRU 3G-3	SUBSURFACE DRAINAGE, GEOTEXTILE, & AGGREGATE SUBGRADE SUMMARIES
3P-1 THRU 3P-3	PARCEL INDEX SHEETS
14 THRU 47 AND 54 THRU 69	PLAN SHEETS
70 THRU 142	PROFILE SHEETS
TMP-1 THRU TMP-46C	TRANSPORTATION MANAGEMENT PLANS
PMP-1, PMP-16 THRU PMP-22	I-5878 PAVEMENT MARKING PLANS
AND PMP-54 THRU PMP-58	
PMP-1, PMP-22 THRU PMP-33	I-5883 PAVEMENT MARKING PLANS
AND PMP-59 THRU PMP-65	
PMP-1, PMP-34 THRU PMP-47	I-5986B PAVEMENT MARKING PLANS
AND PMP-66 THRU PMP-69	
E-1 THRU E-12	ELECTRICAL PLANS
EC-1 THRU EC-124	I-5878 EROSION CONTROL PLANS
EC-1 THRU EC-131	I-5883 EROSION CONTROL PLANS
EC-1 THRU EC-135	I-5986B EROSION CONTROL PLANS
RF-1	I-5986B REFORESTATION PLANS
SIGN-1 THRU SIGN-21	I-5878 SIGNING PLANS
SIGN-1 THRU SIGN-21	I-5883 SIGNING PLANS
SIGN-1 THRU SIGN-24	I-5986B SIGNING PLANS
SIG-1 THRU SCP-12	SIGNAL PLANS
ITS-1 THRU ITS-32	I-5986B ITS PLANS
UC-1 THRU UC-28	I-5878 UTILITY CONSTRUCTION PLANS
UC-1 THRU UC-29	I-5883 UTILITY CONSTRUCTION PLANS
UC-1 THRU UC-18	I-5986B UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-16	I-5878 UTILITY BY OTHERS PLANS
UO-1 THRU UO-19	I-5883 UTILITY BY OTHERS PLANS
UO-1 THRU UO-19	I-5986B UTILITY BY OTHERS PLANS
X-1	CROSS-SECTION INDEX SHEET
X-1A THRU X-1Y	CROSS-SECTION SUMMARY SHEETS
X-217 THRU X-433	I-5878 CROSS-SECTIONS
X-500 THRU X-738	I-5883 CROSS-SECTIONS
X-800 THRU X-1000	I-5986B CROSS-SECTIONS
S1-1 THRU S1-35	I-5878 STRUCTURE PLANS - SPRING BRANCH ROAD
S2-1 THRU S2-34	I-5878 STRUCTURE PLANS - I-95 OVER US 421
S1-1 THRU S1-35	I-5883 STRUCTURE PLANS - JONESBORO ROAD
S2-1 THRU S2-33	I-5883 STRUCTURE PLANS - HODGES CHAPEL ROAD
S1-1 THRU S1-57	I-5986B STRUCTURE PLANS - I-95 OVER MINGO SWAMP
S2-1 THRU S2-28	I-5986B STRUCTURE PLANS - SOUTH MARKET STREET
S3-1 THRU S3-44	I-5986B STRUCTURE PLANS - I-95 OVER DRIVING BRANCH
C1-1 THRU C1-6	I-5878 CULVERT UNDER -NBCD-
C2-1 THRU C2-8	I-5878 CULVERT UNDER I-95 (-L- 1042 +08.93)
C1-1 THRU C1-7	I-5883 CULVERT UNDER I-95 (-L- 1220 +34.00)
C1-1 THRU C1-5	I-5986B CULVERT UNDER -Y33-
W-1 THRU W-28	I-5878 WALL PLANS
W-1 THRU W-10	I-5883 WALL PLANS
W-1 THRU W-8	I-5986B WALL PLANS
NW-1 THRU NW-4	I-5883 SOUND BARRIER WALL PLANS
NW-1 THRU NW-4	I-5986B SOUND BARRIER WALL PLANS

2018 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-16-2018 REV.

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
200.03	Method of Clearing - Method III
225.01	Guide for Grading Subgrade - Interstate and Freeway
225.02	Guide for Grading Subgrade - Secondary and Local
225.03	Deceleration and Acceleration Lanes
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.05	Method of Obtaining Superelevation - Divided Highways
225.06	Method of Grading Sight Distance at Intersections
225.07	Grading for False Cut at Grade Separations
225.09	Guide for Shoulder and Ditch Transition at Grade Separations
240.01	Guide for Berm Ditch Construction
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 4 - MAJOR STRUCTURES	
422.01	Bridge Approach Fills - Type I Standard Approach Fill
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
560.02	Method of Shoulder Construction - High Side of Superelevated Curve - Method II
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
610.04	Guide for Paving Shoulders Under Bridges - Method IV
654.01	Pavement Repairs
665.01	Asphalt Shoulders - Milled Rumble Strips
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
816.01	Concrete Pads - for Shoulder Drain Installation
816.02	Aggregate Shoulder Drain
816.04	Markers for Drainage Structure and Concrete Pad
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.21	Reinforced Concrete Endwall - for Single 54" Pipe 90 Skew
838.27	Reinforced Concrete Endwall - for Single 60" Pipe 90 Skew
838.33	Reinforced Concrete Endwall - for Single 66" Pipe 90 Skew
838.45	Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40
838.51	Reinforced Brick Endwall - for Single 54" Pipe 90 Skew
838.57	Reinforced Brick Endwall - for Single 60" Pipe 90 Skew
838.63	Reinforced Brick Endwall - for Single 66" Pipe 90 Skew
838.75	Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70
838.80	Precast Endwalls - 12" thru 72" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.04	Concrete Open Throat Catch Basin - 12" thru 48" Pipe
840.05	Brick Open Throat Catch Basin - 12" thru 48" Pipe
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.17	Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.19	Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.20	Frames and Wide Slot Flat Grates
840.22	Frames and Wide Slot Sag Grates
840.24	Frames and Narrow Slot Sag Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.26	Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.28	Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.36	Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates
840.37	Steel Grate and Frame
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
846.02	Drop Inlet Installation in Expressway Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb & Gutter
848.06	Curb Ramp - Existing Curb & Gutter
850.01	Concrete Paved Ditches
850.10	Guide for Berm Drainage Outlet - 15" and 18" Pipe
850.11	Guide for Berm Drainage Outlet - 24" and 30" Pipe
852.01	Concrete Islands
852.05	Median Curb for Catch Basin - for Use with 1'-6" Curb and Gutter
852.06	Method for Placement of Drop Inlets in Concrete Islands
854.02	Double Faced Concrete Barrier - Types 'T', 'T1' and 'T2'
854.05	Concrete Median Transition Barrier - Location of Overhead Assembly
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units
865.01	Cable Guiderail
866.02	Woven Wire Fence - with Wood Post
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	1A
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

GENERAL NOTES: 2018 SPECIFICATIONS EFFECTIVE: 01-16-2018 REVISED:

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

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

SUPERELEVATION: ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 AND 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. 560.01 AND STD. NO. 560.02

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

BERM DITCHES: BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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

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

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

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

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.

TEMPORARY SHORING: SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".

END BENTS: THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES: UTILITY OWNERS ON THIS PROJECT ARE Conterra (communications), Harnett Regional Water, City of Dunn (water & sewer), Benson Public Utilities (water & sewer), Johnston County Public Utilities (water), Duke Energy (power), South River EMC (power), Town of Benson, (power), PNG (gas), Century Link (communications), Spectrum (communications)

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

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

CURB RAMPS: CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05 and/or 848.06.

