2012 ROADWAY ENGLISH STANDARD DRAWINGS

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

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

STD.NO.	TITLE
DIVISION 2	- EARTHWORK
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
240.01	Guide for Berm Ditch Construction
DIVISION 3	- PIPE CULVERTS
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
	- MAJOR STRUCTURES
422.10	Reinforced Bridge Approach Fills
	- SUBGRADE, BASES AND SHOULDERS
560.01	Method of Shoulder Construction – High Side of Superelevated Curve – Method I
	- ASPHALT BASES AND PAVEMENTS
654.01	Pavement Repairs
	- INCIDENTALS
815.03	Pipe Underdrain and Blind Drain
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11 838.27	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew Reinforced Concrete Endwall - for Single 60" Pipe 90 Skew
838.57	Reinforced Brick Endwall - for Single 60" 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 Concrete Open Throat Catch Basin – 12" thru 48" Pipe
840.04 840.05	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
840.24 840.25	Frames and Narrow Slot Sag Grates Anchorage for Frames – Brick or Concrete or Precast
840.26	Brick Grated Drop Inlet Type 'A' – 12" thru 72" Pipe
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.30	Driveway Drop Inlet
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32 840.34	Brick Junction Box - 12" thru 66" Pipe Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35	Traffic Bearing Grated Drop Inlet – for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.71 846.01	Concrete and Brick Pipe Plug Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
848.01	Concrete Sidewalk
848.03	Driveway Turnout - Drop Curb Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb & Gutter
848.06	Curb Ramp – Existing Curb & Gutter
850.01 850.10	Concrete Paved Ditches Guide for Berm Drainage Outlet - 15" and 18" Pipe
850.11	Guide for Berm Drainage Outlet - 24" and 30" Pipe
852.01	Concrete Islands
852.04	Method for Placement of Drop Inlets in Grassed Median - Using 1'-6" Curb and Gutter
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
862.01 862.02	Guardrail Placement Guardrail Installation
862.03	Structure Anchor Units (Use Detail Sheets 2C-11 & 2C-12 in lieu of
332400	Standard Shts. 2, 3, 4, & 5 of 7)
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units
866.02	Woven Wire Fence - with Wood Post
866.03	Woven Wire Fence - with Steel Post
876.01	Rip Rap in Channels
876.02 876.04	Guide for Rip Rap at Pipe Outlets Drainage Ditches with Class 'B' Rip Rap

GENERAL NOTES:

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

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 III.

### SUPERELEVATION:

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

#### SHOULDER CONSTRUCTION:

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

#### SIDE ROADS:

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

#### 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.

### UNDERDRAINS:

UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

### DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON 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: DUKE ENEGRY (DISTRIBUTION); BLUE RIDGE EMC (TRANSMISSION); FRONTIER GAS; WILKES COMMUNICATION; CENTURYLINK; CHARTER COMMUNICATIONS; BLUE RIDGE WATER ASSOCIATION; MULBERRY - FAIRPLAINS WATER ASSOCIATION; TOWN OF NORTH WILKESBORO

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. PROJECT REFERENCE NO. SHEET NO. R-2603 /-A

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ROADWAY DESIGN ENGINEER

SHEET NUMBER TITLE SHEET INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS CONVENTIONAL PLAN SHEET SYMBOLS 1C-1 THRU 1C-5 SURVEY CONTROL SHEETS /11/2015 2A-1 THRU 2A-8 PAVEMENT SCHEDULE AND TYPICAL SECTIONS DETOUR PLANS & PROFILES (-LDETOUR-, -Y7DET-, Y9DET-, & -Y16DET-) 2B-1 THRU 2B-4 2B-5 THRU 2B-8 INTERSECTION DETAIL SHEETS 2B-9 THRU 2B-10 CROSSOVER DETAILS (-XOVR1- & -XOVR2-) 2C-1 DETAIL OF 2'-9" CONCRETE CURB & GUTTER 2C-2 DETAIL OF 2'-9" TO 2'-6" CURB & GUTTER TRANSITION SECTION 2C-3 DETAIL OF 1'-6" TO 2'-9" CURB & GUTTER TRANSITION SECTION 2C-4 DETAIL TO CONVERT EXISTING DI, CB, OTCB, OR GI TO JUNCTION BOX (MANOLE OPTIONAL) DETAIL OF JUNCTION BOX CONNECTING EXISTING 4' x 3' RCBC TO 48" RCP 2C-5 w/MANHOLE, DRAINAGE STRUCTURE #0903 2C-6 DETAIL OF JUNCTION BOX CONNECTING EXISTING 4' x 3' RCBC TO 48" RCP w/CATCH BASIN. DRAINAGE STRUCTURE #0914 DETAIL OF CONCRETE ENDWALL FOR SINGLE 48" RCP & 18" RCP. DRAINAGE STRUCTURES #0916 & #0917 2C-8 DETAIL OF TRAFFIC BEARING JUNCTION BOX CONNECTING EXISTING 4' x 3' RCBC TO 54" RCP, DRAINAGE STRUCTURE #1422 DETAIL OF TRAFFIC BEARING JUNCTION BOX CONNECTING EXISTING 4' x 4' RCBC 2C-9 TO 60" RCP. DRAINAGE STRUCTURE #1627 DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE 2C-10 2C-11 THRU 2C-12 DETAILS IN LIEU OF STANDARDS (STD. 862.03 - STRUCTURE ANCHOR UNITS) DETAIL SHOWING COAL COMBUSTION PRODUCT PLACEMENT 2C-13 2G-1 DETAIL OF STANDARD TEMPORARY SHORING 2H-1 DETAIL OF TEMPORARY CONTAINMENT OF CONTAMINATED SOIL EARTHWORK SUMMARY 3B-2 GUARDRAIL SUMMARY SUMMARIES OF SHOULDER BERM GUTTER, ASPHALT PAVEMENT REMOVAL, WOVEN WIRE FENCE, AND CHAIN LINK FENCE 3D-1 THRU 3D-11 ..... LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER) LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 54 INCHES & OVER) SUMMARIES OF GEOTEXTILE FOR PAVEMENT STABILIZATION, SUBSURFACE DRAINAGE, 3G-1 AND AGGREGATE SUBGRADE/STABILIZATION PARCEL INDEX SHEET 4 THRU 20 PLAN SHEETS 21 THRU 36 PROFILE SHEETS TMP-1 THRU TMP-60 TRANSPORTATION MANAGEMENT PLANS PAVEMENT MARKING PLANS EROSION CONTROL PLANS

PMP-1 THRU PMP-18 EC-1 THRU EC-41 SIGN-1 THRU SIGN-10 SIGNING PLANS SIG-1.0 THRU SCP.6 SIGNAL PLANS UC-1 THRU UC-28 UTILITY CONSTRUCTION PLANS UO-1 THRU UO-18 UTILITIES BY OTHERS PLANS CROSS SECTION INDEX X-1B THRU X-1F CROSS SECTION EARTHWORK VOLUME SUMMARIES X-1 THRU X-159 CROSS SECTIONS C-1 THRU C-10 CULVERT PLANS

STRUCTURE PLANS

WALL PLANS

S-1 THRU S-47

W-1 THRU W-10

INDEX OF SHEETS

876.04

Drainage Ditches with Class 'B' Rip Rap