5/28/99

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

U-2412A 1A

RW SHEET NO.

ROADWAY DESIGN
ENGINEER

SHEET NO.

SEAL 27391

Docusioned WGINEE

5/3/2014/1984000

PROJECT REFERENCE NO.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

2018 SPECIFICATIONS

EFFECTIVE: 01-16-2018

Prepared in Office of:

Prepared in the Office of:

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Fuquay-Varina, NC 27526
www.mottmac.com/americas
MACDONALD LICENSE NO. F-0669

GRADE LINE:
GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

REVISED:

CLEARING:

GENERAL NOTES:

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 & 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 & 560.02

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.

DRIVEWAYS:

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

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING

THE RADII NOTED ON PLANS.

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 WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

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 NORTH STATE (COMMUNICATIONS),

TOWN OF JAMESTOWN (WATER AND SEWER), CITY OF HIGH POINT (ELECTRIC),

CITY OF HIGH POINT (WATER AND SEWER), DUKE ENERGY (ELECTRIC DISTRIBUTION), DUKE ENERGY (TRANSMISSION)

SPECTRUM (COMMUNICATIONS), AND PIEDMONT NATURAL GAS (DISTRIBUTION GAS).

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.

INDEX OF SHEETS EFF. 01-16-2018 DESCRIPTION SHEET NUMBER 2018 ROADWAY ENGLISH STANDARD DRAWINGS TITLE 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 INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS CONVENTIONAL SYMBOLS and by reference hereby are considered a part of these plans: 1C-1 THRU 1C-6 SURVEY CONTROL SHEETS CENTERLINE COORDINATE LIST STD.NO. TITLE DIVISION 2 - EARTHWORK 2A-1 THRU 2A-7 PAVEMENT SCHEDULE AND TYPICAL SECTIONS 200.03 Method of Clearing - Method III 2C-1 COAL COMBUSTION DETAIL 2C-2 EXTRA DEPTH DROP INLET DETAIL 225.01 Guide for Grading Subgrade - Interstate and Freeway 2C-3 TYPE III REINFORCED APPROACH FILLS 225.02 Guide for Grading Subgrade - Secondary and Local GUARDRAIL INSTALLATION (W-BEAM) 225.04 Method of Obtaining Superelevation - Two Lane Pavement 2C-4 2D-1 THRU 2D-3 DRAINAGE DETAILS 225.05 Method of Obtaining Superelevation - Divided Highways ROCK EMBANKMENT DETAIL 2G-1225.09 Guide for Shoulder and Ditch Transition at Grade Separations 240.01 Guide for Berm Ditch Construction STOCKPILE CONTAINMENT DETAIL 3B-1 THRU 3B-2 EARTHWORK SUMMARY 275.01 Rock Plating GUARDRAIL SUMMARY DIVISION 3 - PIPE CULVERTS 3B-3 300.01 Method of Pipe Installation ROADWAY SUMMARIES 3D-1 THRU 3D-13 DRAINAGE SUMMARIES 310.10 Driveway Pipe Construction GEOTECHNICAL SUMMARIES DIVISION 4 - MAJOR STRUCTURES 422.01 Bridge Approach Fills - Type I Standard Approach Fill 3P-1 THUR 3P-2 PARCEL INDEX SHEETS 422.03 Reinforced Bridge Approach Fills - Type A Alternate Approach Fill for Integral Abutment 4 THUR 39 PLAN SHEET AND PROFILE SHEET TMP-1 THRU TMP-25 TRAFFIC MANAGEMENT PLANS DIVISION 5 - SUBGRADE, BASES AND SHOULDERS PMP-1 THRU PMP-26 PAVEMENT MARKING PLANS 560.01 Method of Shoulder Construction - High Side of Superelevated Curve - Method I EC-1 THRU EC-45 EROSION CONTROL PLANS 560.02 Method of Shoulder Construction - High Side of Superelevated Curve - Method II RF-1 THRU RF-3 REFORESTATION PLANS DIVISION 6 - ASPHALT BASES AND PAVEMENTS SIGN-1 THRU SIGN-30 SIGNING PLANS 610.03 Guide for Paving Shoulders Under Bridges - Method III SIG-1 THRU SIG-13.2 SIGNAL PLANS 654.01 Pavement Repairs M1 THRU M8 METAL POLE SHEETS DIVISION 8 - INCIDENTALS SCP-1 THRU SCP-10 SIGNAL COMMUNICATION PLANS 815.02 Subsurface Drain UC-1 THRU UC-24 UTILITIES CONSTRUCTION PLANS Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew UO-1 THRU UO-15 UTILITIES BY OTHER PLAN Concrete Endwall and Sluice Gate – 15" thru 36" Pipe 90 Skew 838.11 Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew X-1ACROSS-SECTION INDEX OF SHEETS X-1B THRU X-1E CROSS-SECTION SUMMARIES 838.21 Reinforced Concrete Endwall - for Single 54" Pipe 90 Skew X-1 THRU X-184 CROSS-SECTIONS 838.27 Reinforced Concrete Endwall - for Single 60" Pipe 90 Skew S1-1 THRU S1-62 STRUCTURE PLANS (SITE 1) 838.33 Reinforced Concrete Endwall - for Single 66" Pipe 90 Skew S2-1 THRU S2-63 STRUCTURE PLANS (SITE 1) 838.51 Reinforced Brick Endwall - for Single 54" Pipe 90 Skew S3-1 THRU S3-45 STRUCTURE PLANS (SITE 2) 838.57 Reinforced Brick Endwall - for Single 60" Pipe 90 Skew 838.63 Reinforced Brick Endwall - for Single 66" Pipe 90 Skew S4-1 THRU S4-46 STRUCTURE PLANS (SITE 2) S5-1 THRU S5-36 STRUCTURE PLANS (SITE 3) 838.80 Precast Endwalls - 12" thru 72" Pipe 90 Skew S6-1 THRU S6-37 STRUCTURE PLANS (SITE 3) 840.00 Concrete Base Pad for Drainage Structures S7-1 THRU S7-37 STRUCTURE PLANS (SITE 4) 840.02 Concrete Catch Basin - 12" thru 54" Pipe C-1 THRU C-5 CULVERT PLANS 840.03 Frame, Grates and Hood - for Use on Standard Catch Basin W-1 THRU W-4 MSE RETAINING WALL NO. 1 PLANS 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 840.20 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 840.31 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 840.45 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 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 852.02 Concrete Mountable Median - for Use with Rigid or Flexible Pavement 852.06 Method for Placement of Drop Inlets in Concrete Islands 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 866.01 Chain Link Fence - 4', 5' and 6' High Fence 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