B-3186/B-5898	
	1A
ENGINATION OF ES	Y DESIGN NEER ARO/// S/ON AL 634 NEE 0/18/2023

PREPARED BY

AECOM

NC FIRM LICENSE No: F-0342 5438 Wade Park Boulevard, Suite 200 Raleigh, NC 27607 (919) 854-6200 -(919) 854-6259 (FAX)

EFF. 01-16-2018

Method of Clearing - Method II 200.02 Guide for Grading Subgrade - Interstate and Freeway Guide for Grading Subgrade - Secondary and Local 225.01 225.02 Method of Obtaining Superelevation - Two Lane Pavement Grading for False Cut at Grade Separations
Guide for Shoulder and Ditch Transition at Grade Separations
Guide for Berm Ditch Construction 225.07 225.09 240.01

Method of Pipe Installation DIVISION 5 - SUBGRADE, BASES AND SHOULDERS

Method of Shoulder Construction - High Side of Superelevated Curve - Method I

DIVISION 6 - ASPHALT BASES AND PAVEMENTS

Guide for Paving Shoulders Under Bridges - Method I 610.01

654.01 Pavement Repairs 665.01 Asphalt Shoulders - Milled Rumble Strips

DIVISION 8 - INCIDENTALS

Subsurface Drain 838.01

Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew Concrete Base Pad for Drainage Structures Brick Catch Basin - 12" thru 54" Pipe Concrete Catch Basin - 12" thru 54" Pipe Frame, Grates and Hood - for Use on Standard Catch Basin Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe Frames and Wide Slot Flat Grates

Brick Junction Box - 12" thru 66" Pipe 840.32

840.46

840.54

840.72 Pipe Collar Concrete Curb, Gutter and Curb & Gutter

846.04 Drop Inlet Installation in Shoulder Berm Gutter Guide for Berm Drainage Outlet - 15" and 18" Pipe 850.10

Guardrail Placement 862.01 862.02 **Guardrail Installation**

862.04

866.01 Woven Wire Fence - with Wood Post

Guide for Rip Rap at Pipe Outlets 876.02 876.04 Drainage Ditches with Class 'B' Rip Rap

2018 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, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO. **DIVISION 2 - EARTHWORK**

225.04

DIVISION 3 - PIPE CULVERTS

Method of Shoulder Construction - High Side of Superelevated Curve - Method II

815.02

838.11

840.00 840.01

840.02 840.03

840.17 840.18 840.19

840.20 840.22 Frames and Wide Slot Sag Grates

Anchorage for Frames - Brick or Concrete or Precast Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe 840.28 Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe

Frames and Narrow Slot Flat Grates 840.29 840.31 Concrete Junction Box - 12" thru 66" Pipe

Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates 840.35 840.36 Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates

840.37 Steel Grate and Frame Precast Drainage Structure
Traffic Bearing Precast Drainage Structure 840.45

Manhole Frame and Cover

840.66 Drainage Structure Steps

846.01

846.02 Drop Inlet Installation in Expressway Gutter

Precast Reinforced Concrete Barrier - 41"Single Faced 857.01

Structure Anchor Units 862.03

Anchoring End of Guardrail - B-77 and B-83 Anchor Units Chain Link Fence - 4', 5' and 6' High Fence

866.02 Rip Rap in Channels 876.01

INDEX OF SHEETS SHEET NUMBER SHEET TITLE SHEET INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS CONVENTIONAL SYMBOLS 2A-1 THRU 2A- 4 PAVEMENT SCHEDULE AND TYPICAL SECTIONS 2B-1 THRU 2B-6 TEMPORARY DETOUR DETAILS 2B-7 THRU 2B-8 ROADWAY DETAILS CONCRETE CAP FOR SINGLE FACED BARRIER FILL DETAILS 2B-9 THRU 2B-10 2C-1 **GUARDRAIL INSTALLATION DETAIL** 2C-2 DETAIL OF SHOULDER BERM GUTTER TO 2'-6" CURB & GUTTER TRANSITION SECTION DETAIL OF TEMPORARY 1" STEEL COVER 2C-3 TYPE 1 APPROACH FILL DETAIL 2C-4 2C-5 THRU 2C-6 TYPE 1A APPROACH FILL DETAIL

GENERAL NOTES:

CLEARING:

SUPERELEVATION:

SECTIONS.

INVOLVED.

SUBSURFACE DRAINS:

TEMPORARY SHORING:

APPROACHING A BRIDGE.

LOCATIONS DIRECTED BY THE ENGINEER

BERM DITCHES:

GUARDRAIL:

END BENTS:

SIDE ROADS:

SHOULDER CONSTRUCTION:

STD. NO. 560.02

PROPER TIE-IN.

2018 SPECIFICATIONS

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED

SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES

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

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH

ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT

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

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF

SUPERELÉVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01 AND

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE

BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING

WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".

AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT

CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS

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

GRADING AND SURFACING OR RESURFACING AND WIDENING:

EFFECTIVE: 01-16-2018

REVISED:

2C-7 TYPE 2 APPROACH FILL DETAIL TEMPORARY ANCHOR UNIT TYPE THRIE-BEAM DETAIL 2C-8 2D-1 THRU 2D-2 DRAINAGE DETAILS

2G-1 THRU 2G-5 GEOTECHNICAL DETAILS **ROADWAY SUMMARIES** 3B-1 THRU 3B-2 3D-1 THRU 3D-6 DRAINAGE SUMMARIES 3G-1 THRU 3G-2 **GEOTECHNICAL SUMMARIES** 3P-1

4 THRU 7 **ROADWAY PLAN SHEETS** 8 THRU 15 PROFILE SHEETS

SURVEY CONTROL, EXISTING CENTERLINES, RIGHT OF WAY, RW-1 THRU RW-8 **EASEMENT. AND PROPERTY TIES**

EROSION CONTROL PLANS

PARCEL INDEX SHEET

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RF-1 THRU RF-2 REFORESTATION PLANS

SIGN-1 THRU SIGN-9 SIGNING PLANS ITS-1 THRU ITS-29 ITS PLANS

EC-1 THRU EC-18

X-2 THRU X-170

X-1 CROSS-SECTION INDEX

X-1A THRU X-1B **CROSS-SECTION SUMMARY SHEETS**

CROSS-SECTIONS

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S-2 INDEX OF STRUCTURES S1-1 THRU S1-43 STRUCTURE 430168 PLANS S2-1 THRU S2-31 STRUCTURE 430155 PLANS S3-1 THRU S3-50 STRUCTURE 430158 PLANS SN STRUCTURE STANDARD NOTES

WALL PLANS W-1 THRU W-6C