## INDEX OF SHEETS

SHEET NUMBERS SHEETS TITLE SHEET (R-2552B / R-2552C) INDEX OF SHEETS, (PART 1), (PART2) GENERAL NOTES, LIST OF ROADWAY 1-A STANDARDS (R-2552B / R-2552C)

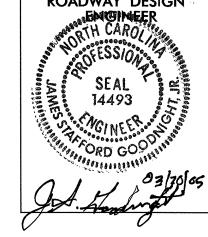
SUMMARY OF QUANTITIES (R-2552B / R-2552C)

CONVENTIONAL SYMBOLS

PROJECT REFERENCE NO. R-2552B/R-2552C

ROADWAY DESIGN

SHEET NO.



EFF. 01-15-02

REV.11-23-04

**PART** (R-2552B) TITLE SHEET (R-2552B) 1-A & 1-B SURVEY CONTROL SHEETS 1-C CENTERLINE COORDINATE LIST PAVEMENT SCHEDULE, WEDGING DETAILS AND TYPICAL SECTIONS 2 THRU 2-D DETAILS OF SHOULDER DRAINS AND PROPOSED 2-E UNDERCUT AT GRADE POINT 2-F THRU 2-H DETAILS OF DITCHES, SWALES, FALSE SUMPS, PREFORMED SCOUR HOLE, RIPPED RAPPED ENERGY DISSIPATOR BASINS, AND LEVEL SPREADERS 2-I THRU 2-K DETAILS OF STREAM RELOCATION PROPOSED ALIGNMENT, PROPOSED STRUCTURES, TYPICAL SECTIONS, STREAM PROFILE, J-HOOK VANE, CHANNEL BLOCK, COIR FIBER MAT, BOULDER WALL, ROCK CROSS VANE, AND A-VANE DETAIL OF MODIFIED CONCRETE FLUME DETAIL OF ROCK PLATING 2-M DETAIL OF DRIVEWAY -DR3-DETAIL OF BRIDGES IN RELATION TO PAVEMENT 2-O SHEAR POINT DIAGRAMS 2-P & 2-Q DETAIL OF SETTLEMENT GAUGE 2-R DETAIL OF GUIDE FOR GRADING SUBGRADE 2-S 2-T & 2-U DETAIL OF REINFORCED BRIDGE APPROACH FILLS **DETAIL OF STRUCTURE ANCHOR UNITS** 2-V & 2-W 2-X THRU 2-AA DETAIL OF GUARDRAIL INSTALLATION 2-BB THRU 2-GG DETAILS OF CABLE GUARDRAIL DETAIL OF 14.0m MEDIAN GUIDERAIL TRANSITIONS 2-HH WITH SUPERELEVATION AND/OR FALSE SUMPS DETAIL FOR ASPHALT SHOULDERS MILLED RUMBLE 2-11 2-JJ THRU 2-MM DETAIL OF PRECAST REINFORCED CONCRETE BARRIER DETAIL OF GUARDRAIL ANCHOR UNIT TYPE B-77 3-A THRU 3-J DRAINAGE QUANTITIES 3-K SUMMARIES OF CABLE GUIDERAIL, ASPHALT PAVEMENT 3--L REMOVAL, AND WOVEN WIRE FENCE SUMMARY OF EARTHWORK 3-M PARCEL INDEX SHEET 3-N PLAN SHEETS 4 THRU 25

PART II (R-2552C) SHEET NUMBERS SHEETS TITLE SHEET (R2552C) 1-A THRU 1- C SURVEY CONTROL SHEETS 1 - D CENTERLINE COORDINATE LIST TYYPICAL SECTIONS, PAVEMENT SCHEDULE, WEDGING DETAILS. 2 THRU 2-G FALSE SUMP DETAILS, SHOULDER DRAIN DETAIL 2-H THRU 2-K Y4 TEMPORARY CONSTRUCTION INTERCHANGE SHEAR DIAGRAM 2-L THRU 2-N **BRIDGE DETAILS** CONCRETE BRIDGE APPPROACH DROP INLET - 300mm THRU 600mm PIPE 2-Q MILLED RUMBLE STRIPS 2-R & 2-S REINFORCED BRIDGE APPROACH FILLS 2-T EXPRESSWAY GUTTER TRANSITION FOR DROP INLET PRECAST REINFORCED ONCRETE BARRIER-1.0m SINGLE FACE 2-U & 2-X 2-Y **GUARDRAIL ANCHOR UNIT TYPE B-77** 2-Z CHAIN LINK SECURITY FENCE 2- AA MODIFIED CONCRETE FLUME DROP INLET INSTALLATION IN EXPRESSWAY GUTTER DETAIL TO CONVERT EXISTING DROP INLET OR CATCH BASIN TO JUNCTION BOX 2-AD THRU AG **GUARDRAIL INSTALLATION** STRUCTURE ANCHOR UNITS 2-AH THRU AI GUIDE FOR GRADING SUBGRADE 2-AK THRU 2-AP CABLE GUIDERAIL TEMPORARY SHORING DETAIL SUMMARY OF DRAINAGE QUANTITIES 3-A THRU 3-L SUMMARY OF GUARDRAIL SUMMARY OF EARTHWORK 3-O THRU 3-P PARCEL INDEX SHEET 3-Q THRU 3-R RIGHT OF WAY AREA DATA SHEET SUMMARY OF FENCING, PAVEMENT REMOVAL, AND BREAKUP 4 THRU 61 PLAN & PROFILE SHEETS EROSION CONTROL PLANS EC-1 THRU EC-54 REFORESTATION PLANS FOR R-2552C UC-1 THRU UC-26 UTILITY CONSTRUCTION PLANS FOR R-2552C UTILITY CONFLICT PLANS FOR R-2552C CROSS-SECTION INDEX AND SUMMARY X-1A THRU X-1D X-1 THRU X-290 CROSS-SECTIONS

STRUCTURE PLANS FOR R-2552C

CULVERT PLANS

S-184 THRU S-431

C-17 THRU C-42

DETAIL OF 14.0M MEDIAN GUIDERAIL TRANSITIONS WITH SUPERELEVATION AND/OR SUMPS

GRADING AND SURFACING OR RESURFACING AND WIDENING:

2002 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 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.

**EFFECTIVE: 01-15-02** 

REVISED: 05-14-03

CLEARING:

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

SUPERELEVATION:

**GENERAL NOTES:** 

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 OR 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 AND EARTH SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01 OR 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 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.

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 SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS IN PLANS AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER

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" OR "TEMPORARY SHORING-BARRIER SUPPORTED" DEPENDING UPON THE LOCATION OF THE 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 WATER: JOHNSTON COUNTY SANITARY SEWER: JOHNSTON COUNTY

UTILITIES BY OTHERS:

1. PROGRESS ENERGY 2. SPRINT CAROLINA TELEPHONE & TELEGRAPH 3. TIME WARNER TELECOMMUNICATIONS

4. ITC TELECOMMUNICATIONS 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.

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 15, 2002 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.

DIVISION 2 - EARTHWORK 200.03 Method of Clearing - Method III Guide for Grading Subgrade - Secondary and Local

Method of Obtaining Superelevation - Two Lane Pavement Method of Obtaining Superelevation - Divided Highways Method of Grading Sight Distance at Intersections Grading for False Cut at Grade Separations

225.08 Earth Berm Median Pier Protection 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 - Method 'A

840.03

300.02 Method of Pipe Installation - Method 'B' 310.10 Driveway Pipe Construction

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 610.01 Guide for Paving Shoulders Under Bridges - Method I 610.03 Guide for Paving Shoulders Under Bridges - Method III

654.01 Pavement Repairs DIVISION 8 - INCIDENTALS

Pipe Underdrain and Blind Drain Concrete Pads - for Shoulder Drain Installation Aggregate Shoulder Drain

Markers for Drainage Structure and Concrete Pad Drain Installation in Shoulder Berm Gutter Conc. Endwall for Single and Double Pipe Culverts - 375mm thru 1200mm Pipe 90 Skew Brick Endwall for Single and Double Pipe Culverts - 375mm thru 1200mm Pipe 90 Skew Reinforced Concrete Endwall - for Single 1350mm/1400mm Pipe 90 Skew

Reinforced Concrete Endwall - for Single 1500mm Pipe 90 Skew 838.33 Reinforced Concrete Endwall - for Single 1650mm Pipe 90 Skew 838.51 Reinforced Brick Endwall – for Single 1350mm/1400mm Pipe 90 Skew

Reinforced Brick Endwall – for Single 1500mm Pipe 90 Skew Reinforced Brick Endwall – for Single 1650mm Pipe 90 Skew Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70 Precast Endwalls - 300mm thru 1800mm Pipe 90 Skew

Concrete Base Pad for Drainage Structures 840.00 840.01 Brick Catch Basin - 300mm thru 1350mm Pipe Concrete Catch Basin - 300mm thru 1350mm Pipe

Concrete Catch Basin with Single and Multiple Pipes - 300mm thru 1200mm Pipe 840.04 Brick Catch Basin with Single and Multiple Pipes – 300mm thru 1200mm Pipe 840.05 Concrete Drop Inlet - 300mm thru 750mm Pipe

Frame, Grate, and Hood - for Use on Standard Catch Basin

Brick Drop Inlet - 300mm thru 750mm Pipe Drop Inlet Frame and Grates – for use with Std. Dwg 840.14 and 840.15 840.17 Concrete Median Drop Inlet Type 'A' - 300mm thru 1800mm Pipe Concrete Median Drop Inlet Type 'B' - 300mm thru 900mm Pipe

Concrete Median Drop Inlet Type 'D' - 300mm thru 900mm Pipe Frames and Wide Slot Flat Grates 840.22 Frames and Wide Slot Sag Grates

840.24 Frames and Narrow Slot Sag Grates Anchorage for Frames - Brick or Concrete Brick Median Drop Inlet Type 'A' - 300mm thru 1800mm Pipe

Brick Median Drop Inlet Type 'B' - 300mm thru 900mm Pipe Brick Median Drop Inlet Type 'D' - 300mm thru 900mm Pipe Frames and Narrow Slot Flat Grates Concrete Junction Box - 300mm thru 1650mm Pipe

Brick Junction Box - 300mm thru 1650mm Pipe Traffic Bearing Junction Box - for Use with Pipes 1050mm and Under Traffic Bearing Drop Inlet – for Cast Iron Double Frame and Grates

Traffic Bearing Junction Box - for Steel (840.37) Double Frame and Grates 840.36 Steel Grate and Frame 840.37 840.45 Precast Drainage Structure Traffic Bearing Precast Drainage Structure

Manhole Frame and Cover 840.66 Drainage Structure Steps 840.71 Concrete and Brick Pipe Plug Pipe Collar

846.01 Concrete Curb, Gutter and Curb & Gutter Street Turnout Concrete Paved Ditches

Guide for Berm Drainage Outlet - 400mm and 450mm Pipe 850.11 Guide for Berm Drainage Outlet - 600mm and 800mm Pipe Concrete Islands

862.01 **Guardrail Placement** 

866.01 Chain Link Fence – 1.2m, 1.5m, and 1.8m High Fence 866.02 Woven Wire Fence - with Wood Post 876.01 Rip Rap in Channels

Guide for Rip Rap at Pipe Outlets 876.03 Drainage Ditches with Class 'A' Rip Rap 876.04 Drainage Ditches with Class 'B' Rip Rap

26 THRU 46

TCP-1 THRU TCP-51

PM-1 THRU PM-16

RF-1 THRU RF-2

SIGN-1 THRU SIGN-41

SIG-1 THRU SIG-10

UC-1 THRU UC-13

UO-1 THRU UO-13

X-1A & X-1B

X-2 THRU X-119

C-1 THRU C-16

S-1 THRU S-184

PROFILE SHEETS

EC-1 THRU PHASE II EC-25 EROSION CONTROL PLANS FOR R-2552B

TRAFFIC CONTROL PLANS FOR R-2552B AND R-2552C

REFORESTATION PLANS FOR R-2552B

SIGNING PLANS FOR R-2552B AND R-2552C

SIGNAL PLANS FOR R-2552B AND R-2552C

UTILITY CONSTRUCTION PLANS FOR R-2552B

UTILITIES BY OTHERS PLANS FOR R-2552B

CROSS SECTION SUMMARY SHEETS

STRUCTURE PLANS FOR R-2552B

CROSS SECTION INDEX

CROSS SECTIONS

**CULVERT PLANS** 

PAVEMENT MARKING PLANS FOR R-2552B AND R-2552C