

-- STATE OF NORTH CAROLINA--
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

**REQUEST FOR PROPOSALS, VOLUME II
BOOK 3, SPECIFICATIONS, STANDARDS, MANUALS AND
GUIDELINES**



TIP I-3311C, I-5405, I-4750AA

August 8, 2013



**Addendum No. 1: Issued August 29, 2013
Addendum No. 2: Issued November 13, 2013
Addendum No. 3: Issued December 20, 2013
Addendum No. 4: Issued January 27, 2014**

DATE AND TIME OF PROPOSAL SUBMISSION:

Technical Proposal Due Date: **FEBRUARY 20, 2014 BY 3:00 PM**

Financial Proposal Due Date: **MARCH 13, 2014 BY 3:00 PM**

CONTRACT ID: C 203406

WBS ELEMENT NO. 45454.3.P3S1

FEDERAL-AID NO. NHPF-077-1(216)

COUNTY: Mecklenburg and Iredell Counties

ROUTE NO. I-77 and I-277

LOCATION: I-77 from I-277 to Exit 36, and I-277 from I-77 to Exit 3A/B

TYPE OF WORK: PUBLIC PRIVATE PARTNERSHIP FOR I-77 HOT LANES AS SPECIFIED IN THE RFP

NOTICE:

ALL PROPOSERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE PROPOSER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE PROPOSAL IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. PROPOSERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOT WITHSTANDING THESE LIMITATIONS ON BIDDING, THE PROPOSER WHO IS AWARDED ANY PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF ANNOUNCEMENT OF APPARENT BEST VALUE PROPOSER, REGARDLESS OF FUNDING SOURCES.

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1 INTRODUCTION

The following pages provide a non exclusive list of Specifications, Standards, Manuals and Guidelines to be used for the Project.

1.1 North Carolina Department of Transportation (NCDOT)

NAME
• Approved Product List
• Best Management Practices for Construction and Maintenance Activities
• Bridge Inspection Manual
• Bridge Maintenance Manual
• Cement and Lime Stabilization of Sub-Grade Soils
• Complete Streets Planning and Design Guidelines
• Concrete Pavement Survey Manual
• Congestion Management Capacity Analysis Guidelines
• Construction Manual
• DCP QA Testing Lime-Treated Soils Test Method #1-2005
• Digital Imagery Distress (Pavement) Evaluation Handbook
• Emergency Response and Procedures Manual
• Erosion Control Design and Construction Manual
• Erosion and Sediment Control Details
• Erosion and Sediment Control Field Guide
• Geotechnical Guidelines for Design-Build Projects
• Geotechnical Standard Drawings & Cells List
• GPS Survey Guidelines
• Guidelines and Procedures Manual for Subsurface Investigations

NAME
• Guidelines for Managing Hydrodemolition Water
• Guidelines for Planting within Highway Right of Way
• Guidelines for the Preparation of Signing Plans for Design-Build Projects
• Guidelines for Preparation of Traffic Control and Pavement Marking Plans for Design-Build Projects
• Guidelines for Preparation of Traffic Signal & Intelligent Transportation System Plans on Design-Build Projects
• Guidelines for Transportation Management Plan Development
• Guidelines for Work Zone “Variable” Speed Limits for NC Highway Construction and Maintenance Activities on High Speed Facilities
• Handbook of Design for Highway Surface Drainage Structures-1973
• Interim Pavement Design Procedure, Nov. 2007
• (Landscape) Plant List
• LRFD Driven Pile Foundation Design Policy
• Maintenance Operations Manual
• Maintenance / Utility Traffic Control Guidelines
• Minimum Sampling Guide
• NC Floodplain Mapping Program MOA
• NC Supplement to the MUTCD
• North Carolina Division of Highways Guidelines for Drainage Studies and Hydraulics Design-1999 (and addendum)
• North Carolina Incident Management Assistance Patrol (IMAP) Standard Operating Guidelines
• Off-Site Reclamation Procedures
• Pavement Condition Survey Manual (Asphalt)
• Pedestrian Policy Guidelines

NAME
• Pipe Burial Depths
• Policies and Procedures for Accommodating Utilities on Highway Rights of Way
• Policy for Mechanically Stabilized Earth Retaining Walls
• Policy for the Use of Dynamic and Changeable Message Signs
• Procedure for Determining Lateral Effects of a Borrow Pit on Adjacent Wetlands
• Programmatic Agreement (Environmental Impact and Related Procedures)
• Project Special Provisions – Signals and Intelligent Transportation Systems
• Real Estate Appraisal Standards and Legal Principles
• Right of Way Manual
• Rigid Pavement Rehabilitation
• Roadway Design Manual
• Roadway Design Guidelines for Design-Build Projects
• Roadway Standard Drawings
• Signing and Delineation Unit, Resources and Typical Layouts
• Snow Clearing Policy
• Special Provisions - General
• Special Provisions - Geotechnical Engineering
• Special Provisions - Roadside Environmental
• Special Provisions - Roadway
• Special Provisions - Structures
• Standard Specifications for Roads and Structures
• Stormwater BMP Toolbox

NAME
• Structures Management Unit Manual
• Structure Preservation, Rehabilitation, and Repair Provisions
• Structure Standard Drawings
• Traffic Engineering Policies, Practices and Legal Authority Resources (TEPPL)
• Traffic Noise Abatement Policy
• Traffic Noise Analysis and Abatement Manual
• Vegetation Management Manual
• Work Zone Safety and Mobility Policy

1.2 American Association of State Highway and Transportation Officials (AASHTO)

NAME
• A Guide for Transportation Landscape and Environmental Design
• A Policy on Design Standards Interstate System
• A Policy on Geometric Design of Highways and Streets
• AASHTOWare Pavement ME Design
• AWS D 1.5 – Bridge Welding Code
• Construction Handbook for Bridge Temporary Works
• Guide Design Specifications for Bridge Temporary Works
• Guide for Design of Pavement Structures
• Guide Specifications for Structural Design of Sound Barriers
• Guide for the Development of Bicycle Facilities
• Guide Manual for Bridge Element Inspection

NAME
• Guidelines for Vegetation Management
• Highway Drainage Guidelines
• Load and Resistance Factor Design (LRFD) Bridge Design Specifications
• Manual for Assessing Safety Hardware (MASH)
• Manual for Bridge Evaluation
• Mechanistic-Empirical Pavement Design Guide
• Model Drainage Manual
• Roadside Design Guide
• Roadway Lighting Design Guide
• Specifications for Design and Construction of Segmental Bridges
• Standard Specifications for Structural Supports of Highway Signs, Luminaries, and Traffic Signals

1.3 American Institute of Aeronautics and Astronautics (AIAA)

NAME
• Guide for the Preparation of Operational Concept Documents

1.4 American Nursery and Landscape Association (ANLA)

NAME
• American Standard for Nursery Stock, ANSI Z60.1

1.5 American Railway Engineering and Maintenance-of-Way Association (AREMA)

NAME
• Manual for Railway Engineering

1.6 CSX Transportation (CSXT)

NAME
<ul style="list-style-type: none">• Construction Submission Criteria
<ul style="list-style-type: none">• Design and Construction Standard Specifications
<ul style="list-style-type: none">• Public Project Information
<ul style="list-style-type: none">• Special Notes for Protection of Railroad Interest
<ul style="list-style-type: none">• Construction Contract Documents and Specifications
<ul style="list-style-type: none">• Undergrade Bridge Criteria including Ballast Decks

1.7 Department of Justice (DOJ)

NAME
<ul style="list-style-type: none">• Americans with Disabilities Act of 1990 (ADA)

1.8 Electronic Industries Alliance (EIA)

NAME
<ul style="list-style-type: none">• Electronic Industries Alliance (EIA) Standards

1.9 Environmental Protection Agency (EPA)

NAME
<ul style="list-style-type: none">• Storm Water Management For Construction Activities: Developing Pollution Prevention Plans and Best Management Practices (EPA Document 832 R 92-005)

1.10 Federal Highway Administration (FHWA) / Federal Aid Policy Guide (FAPG)

NAME
<ul style="list-style-type: none">• 23 CFR Chapter 1, Part 752, Landscape and Roadside Development

NAME
• 23 CFR 140
• 23 CFR, Part 650, National Bridge Inspection Standards
• 23 CFR 645
• 23 CFR 646
• FHWA Final Rule on Temporary Traffic Control Devices (23 CFR 630 Subpart K)
• 23 CFR Part 772, Procedure for Abatement of Highway Traffic Noise and Construction Noise
• 49 CFR Part 24

1.11 Federal Highway Administration (FHWA)

NAME
• Bridge Inspector's Reference Manual
• Culvert Inspection Manual
• Flexibility in Highway Design
• HEC 18 Evaluating Scour at Bridges
• HEC 20 Stream Stability at Highway Structures
• HEC 23 Bridge Scour and Stream Instability Countermeasures Experience, Selection, and Design Guidance
• Interstate System Access Information Guide
• Manual on Uniform Traffic Control Devices (MUTCD)
• National ITS Architecture
• Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges
• Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended
• Standard Highway Signs

NAME
<ul style="list-style-type: none"> Utility Relocation & Accommodations on Federal Aid Highway Projects
<ul style="list-style-type: none"> Guidelines for the Installation, Inspection, Maintenance and Repair of Structural Supports for Highway Signs, Luminaries, and Traffic Signals

1.12 Institute of Electrical and Electronics Engineers (IEEE)

NAME
<ul style="list-style-type: none"> Standard P1362 V3.2
<ul style="list-style-type: none"> Std 1512-2006, IEEE Standard for Common Incident Management Message Sets
<ul style="list-style-type: none"> Std 1512.1-2006, IEEE Standard for Common Traffic Incident Management Message Sets

1.13 Internet Engineering Task Force (IETF)

NAME
<ul style="list-style-type: none"> RFC 4648, Base-N Encodings Best Practice

1.14 National Cooperative Highway Research Program (NCHRP)

NAME
<ul style="list-style-type: none"> Report 350 – Recommended Procedures for the Safety Performance Evaluation of Highway Features
<ul style="list-style-type: none"> Mechanistic-Empirical Pavement Design Guide
<ul style="list-style-type: none"> Report 12-52 – AASHTO LRFD Design Example Horizontally Curved Steel I-Girder Bridge

1.15 National Electrical Manufacturers Association (NEMA)

NAME
<ul style="list-style-type: none"> National Electrical Manufacturers Association Standards

NAME
<ul style="list-style-type: none"> National Transportation Communications ITS Protocol (NTCIP)

1.16 National Fire Protection Association (NFPA)

NAME
<ul style="list-style-type: none"> NFPA 70 National Electric Code
<ul style="list-style-type: none"> NFPA 502 Standard for Road Tunnels, Bridges and other Limited Access Highways
<ul style="list-style-type: none"> NFPA 780 Standard for the Installation of Lightning Protection Systems

1.17 Norfolk Southern Corporation (NSC)

NAME
<ul style="list-style-type: none"> Guidelines for Design of Grade Separation Structures
<ul style="list-style-type: none"> Special Provisions for Protection of Railway Interests
<ul style="list-style-type: none"> Standard Specifications for Materials and Construction

1.18 North Carolina Administrative Code (NCAC)

NAME
<ul style="list-style-type: none"> Section 15A – Environment and Natural Resources
<ul style="list-style-type: none"> Section 19A - Transportation

1.19 North Carolina Department of Environmental and Natural Resources (NCDENR)

NAME
<ul style="list-style-type: none"> Diamond Grind/Hydrodemolition Land Application of Diamond Grinding and Hydrodemolition Operation Slurry Permit WQ0035749

NAME
• DWQ Approved PAMS/ Flocculents List
• DWQ-DEMLR Monitoring Form DEMLRDWQ (for NCG 010000)
• DWQ Stormwater BMP Manual
• Erosion and Sediment Control Planning and Design Manual
• General Permit NCG 010000
• Gravity Sewer Minimum Design Criteria
• InspectLog-NCG01-20100120-DWQ-SPU[1] (aka Inspection Record (for NCG 010000))
• Rules Governing Public Water Systems
• NCDENR Delegation Agreement 1991 Revised[1] (aka Sediment and Erosion Control Program)
• Stormwater Permit NCS000250

1.20 North Carolina General Statues (NCGS)

NAME
• Chapter 133
• General Stature 136-103

1.21 Organization for the Advancement of Structured Information Standards (OASIS)

NAME
• Emergency Data Exchange Language (EDXL) Distribution Element v1.0
• Common Alerting Protocol (CAP) v1.2

1.22 Telecommunications Industry Association (TIA)

NAME

- Fiber Optic Test Procedures (FOTP) Specifications

1.23 Underwriters Laboratory (UL)

NAME
<ul style="list-style-type: none">• UL 467 Standard for Safety Grounding and Bonding Equipment