



North Carolina Turnpike Authority
*Mandatory RTCS Pre-Proposal
Scope of Services Meeting*

April 28, 2016



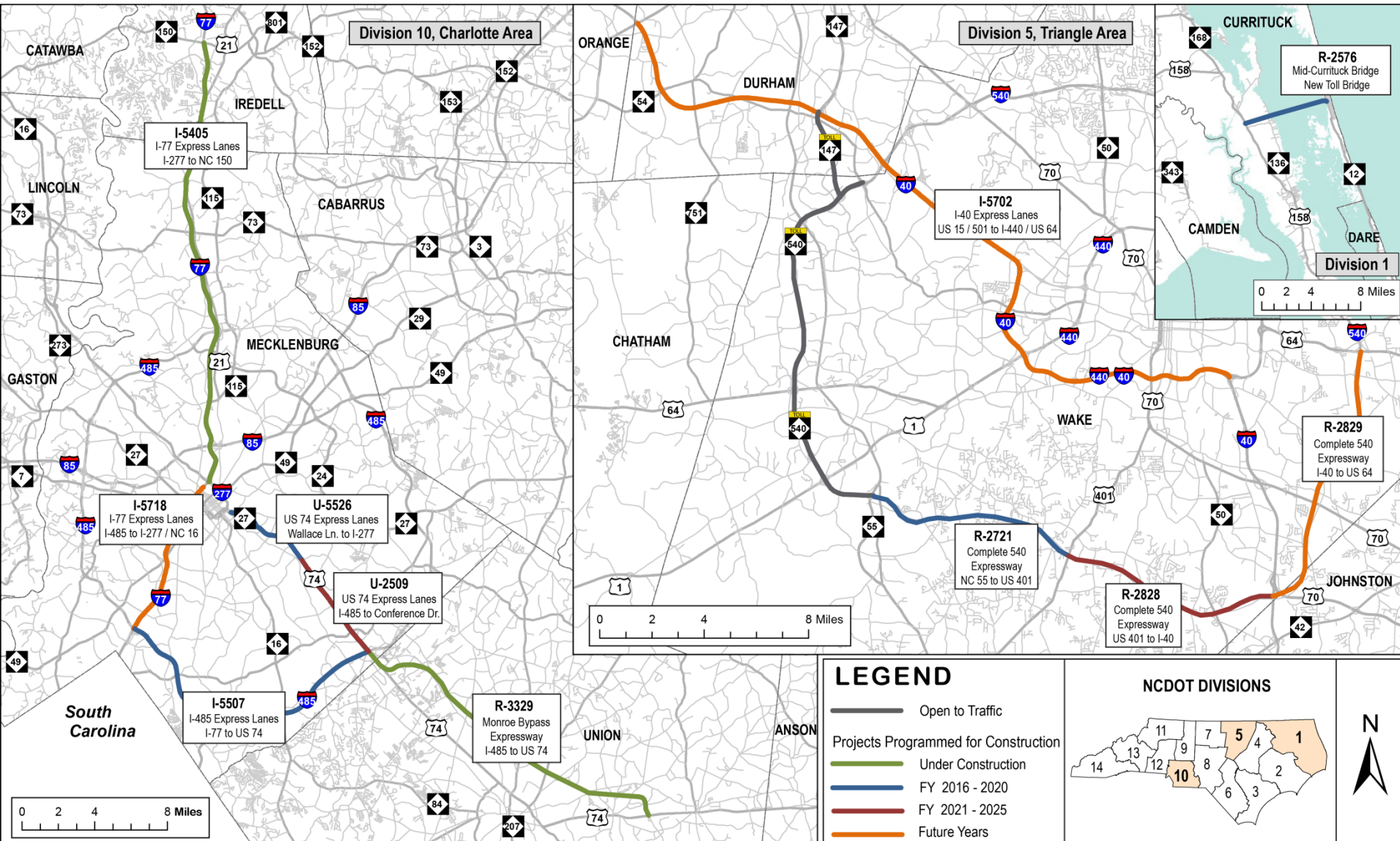
Welcome

Beau Memory

Executive Director



North Carolina Turnpike Authority



Introductions & Roles



NCTA Staff and Roles

- Marvin Butler – Deputy Executive Director
- Susan Pullium – Director of Customer Service
- Andy Lelewski – Director of Toll Road Operations
- Bill Carman – Roadside System Manager
- Kristen Pearce – Toll Systems Manager
- John Stansberry – Regional Toll Road Manager
- Cathy Tripodi – Director of Business Affairs



Staff Introductions (cont.)

Consultant Support:

■ Atkins:

☐ Dave Jones

■ HNTB:

☐ Seth Fisher

☐ Daniel Robicheaux

☐ Susan Carlson

☐ Jenna Oskowitz



Agenda

- Purpose and Requirements
- Project Overview
- RFP Administrative Overview
- Scope of Work (SOW) Details
- Closing



Purpose and Requirements



Purpose of Pre-Proposal Meeting

- Provide an overview of the solicitation
 - ☐ Solicitation goals
 - ☐ Structure and organization of the RFP
 - ☐ Highlight key elements of the RFP and Scope of Work and Requirements
 - ☐ Highlight key Proposal requirements
 - ☐ Review Schedule of Procurement Events
- Respond to Proposers' questions



Pre-Proposal Meeting Requirements

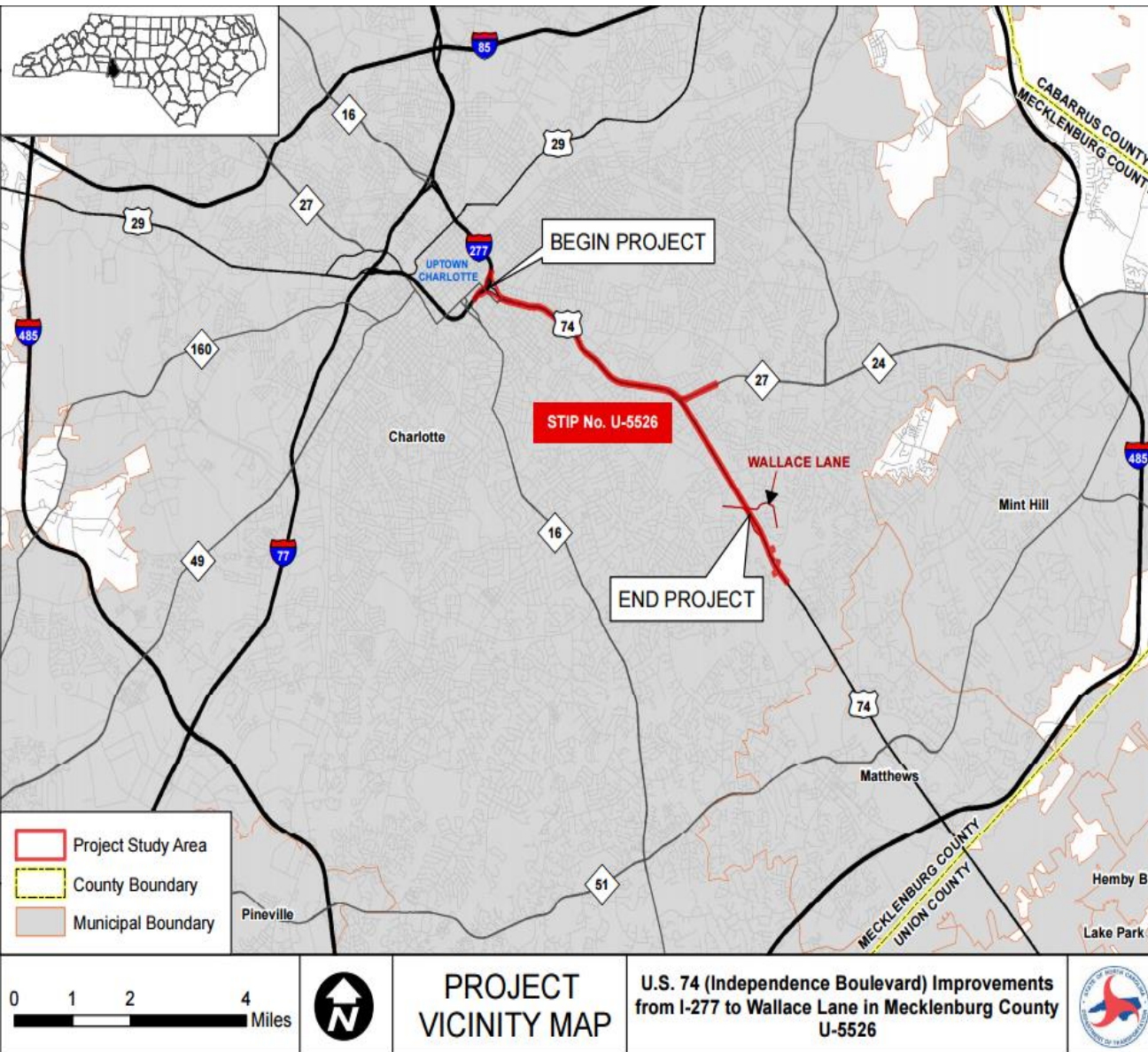
- All attendees must sign in
- Proposers may submit questions, using notecards, to be answered during the Q&A period (Use box provided)
- All verbal comments, questions and responses are non-binding
- Official responses will be made in writing and posted to the website
- Copies of this presentation and sign-in sheets will be posted on the website



Project Overview



US-74 Express Lanes

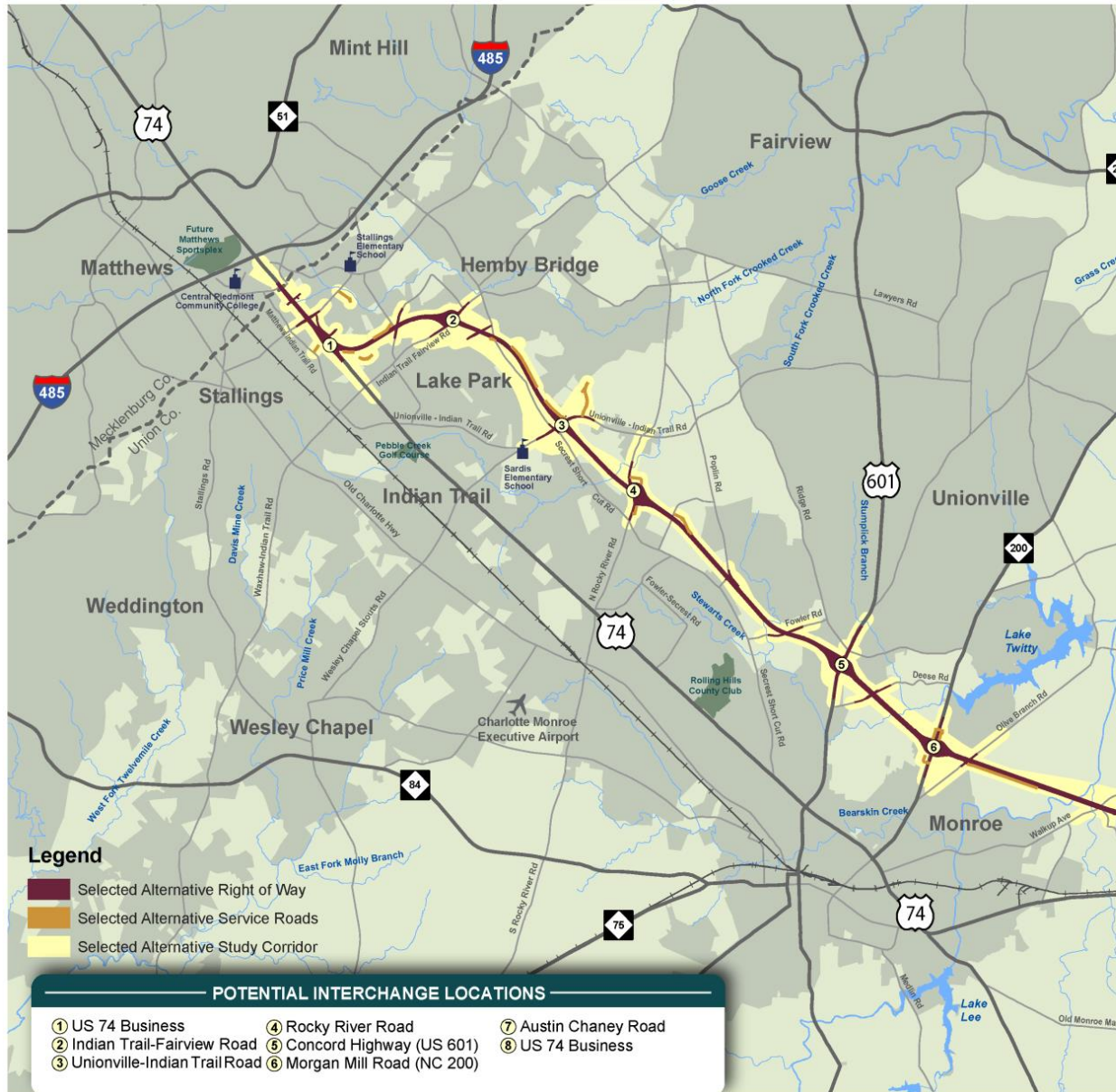


- Project length: 5.8 miles;
- Conversion of an existing bus lane to a reversible Express Lane
 - One Tolling Location with two Toll Zones with single reversible lanes and
 - Automated Vehicle Identification (AVI) and image-based tolling
- Dynamic Pricing





Monroe Expressway

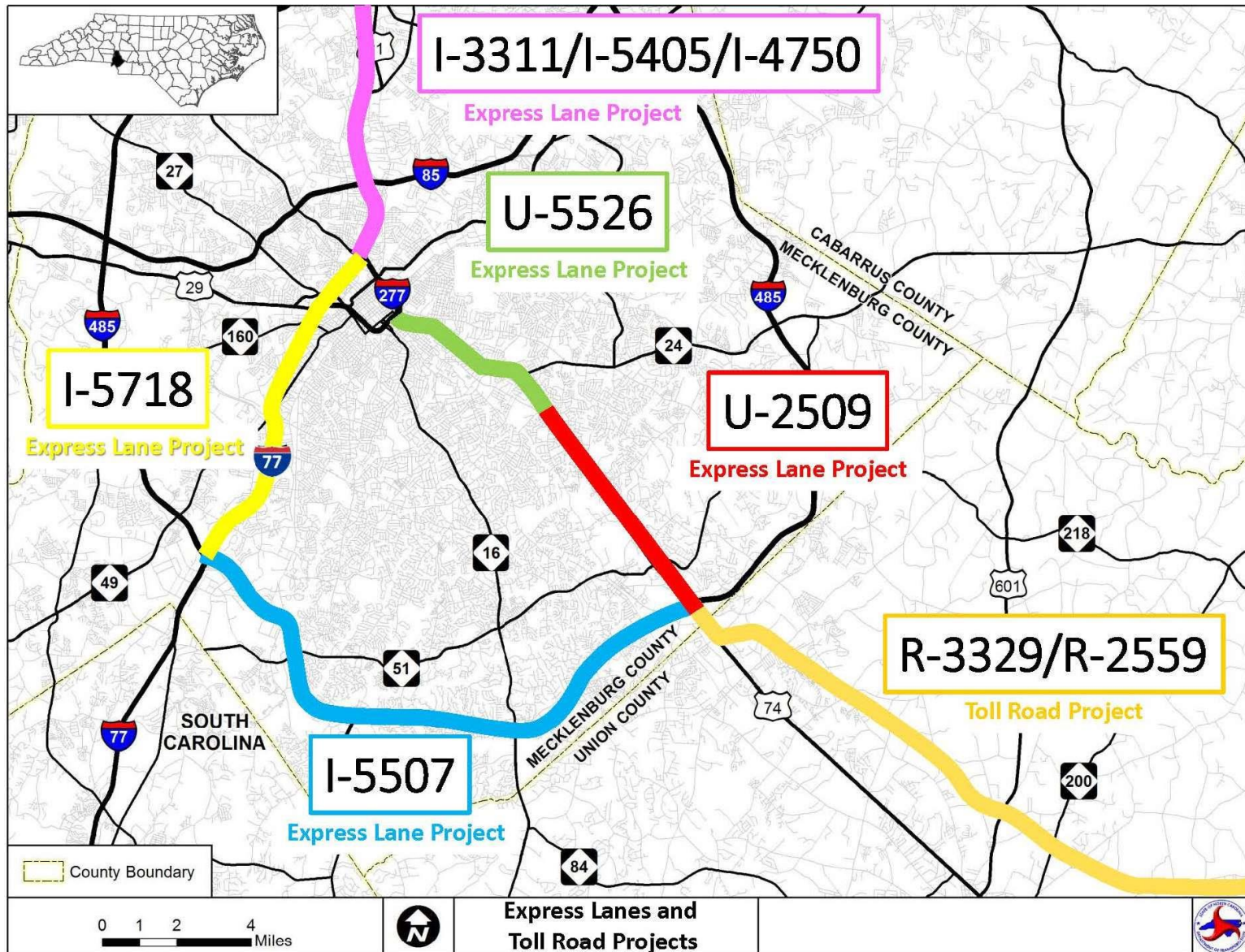


- New 21.1 mile corridor
- All-Electronic Tolling (AET)
 - Automated Vehicle Identification (AVI) and image-based tolling
 - Seven (7) barrier-based Toll Locations for a total of fourteen (14) total Toll Zones

Monroe Expressway – Construction Updates



Future Potential Toll Locations (Examples)



Major Project Elements

- Roadside Toll Collection System (RTCS) for US-74 Express Lanes
 - Dynamic Pricing
- RTCS for Monroe Expressway
- Completed Transactions (AVI and Image-based)
- Turnkey Maintenance and Operations
 - Toll System Maintenance
 - ITS Maintenance
 - Toll Facilities Maintenance (Monroe Expressway)
 - AVI and Image-based Transaction Processing Operations



Planned Implementation Schedule

- Contract Execution: November 2016
- US-74 Express Lanes Go-Live: March 2018
- Monroe Expressway Go-Live: November 2018
- US-74 Express Lanes System Acceptance: August 2018
- Monroe Expressway System Acceptance: January 2019
- Bonus opportunity for on-time completion of Monroe Expressway
- *Dates are subject to change, including Go-Live dates*



Contract Term (Base and Optional Extensions)

- Implementation Phase – From Contract execution through System Acceptance on each roadway;
- Operations and Maintenance Phase – Up to five (5) years from initial System Acceptance
- Options to Extend – Two 3-year optional Operations and Maintenance extensions



RFP Administrative Overview



Procurement Schedule

Event or Due Date	Date
RFP Issued	April 14, 2016
Mandatory Pre-Proposal Scope of Services Meeting	April 28, 2016 (2:00 p.m. to 4:00 p.m. EDT)
Proposer Questions Due	May 24, 2016 (4:00 p.m. EDT)
NCTA Responses to all Questions Completed	June 7, 2016
Proposal (Technical and Price) Due	June 24, 2016 (4:00 p.m. EDT)
Notification of Proposers Shortlisted for Oral Presentations	July 22, 2016
Oral Presentations (Proposers to be notified as to the specific schedule within the time period identified)	Week of August 15, 2016
Ranking of Proposers for Negotiations	August 2016
Award of Contract	November 2016
Notice to Proceed	November 2016



Procurement Requirements

- Question and Answer Process
- Proposer Minimum Requirements
- RFP Format
- Forms to be Completed
- Required Technical Proposal Format
- Technical Proposal Submission Requirements
- Price Proposal
- Price Proposal Submission
- Best Value Evaluation Process



Question and Answer Process

- Proposers must submit all questions in writing to the RFP Contact person
- Use the form provided in Exhibit D-8 Forms for all questions
- All questions and responses will be provided by NCTA on website



Proposer Minimum Requirements

- The Proposer shall have successfully developed and delivered at least one (1) AET or ORT (or a combination thereof) multi-travel lane system implementation project. The project must include AVI and image-based transactions. The Proposer shall have maintained the system for at least one (1) year.
- The Proposer, in combination with its Subcontractors, shall have successfully developed and delivered at least one (1) dynamically priced toll project that includes AVI and image-based transactions, toll rate calculation, transaction packaging and processing, and ITS elements and devices such as variable toll message signs and detectors. The Proposer shall have maintained the system for at least one (1) year.
- See Section IV-1.2 Content of Technical Proposal Content for additional details.



RFP Format

- RFP “Front-End” document including:
 - ☐ Section I Administrative
 - ☐ Section II Definitions and Acronyms
 - ☐ Section III Scope of Work and Requirements
 - ☐ Section IV Proposal Contents
 - ☐ Section V Terms and Conditions



RFP Format (cont.)

■ Additional RFP documents:

☐ Four (4) RFP exhibits

- Exhibit A Project Implementation Schedule
- Exhibit B Payment Schedule
- Exhibit C Price Proposal Instructions
- Exhibit D Forms

☐ Twenty (20) Scope of Work attachments

☐ Three (3) informational appendices



RFP Format (cont.)

- More information on the forms:
 - Forms provided in fillable PDF or bookmarked Excel file formats
 - Use Table 4-3 which is a checklist of all submittals and forms to be included in the Proposal



Forms to be Completed

Form #	Form/Submittal Name	Location in RFP	Location of Form/Submittal in Proposal
Forms to be Submitted			
D-1	Proposal Cover Sheet	Exhibit D-1	Technical Proposal Envelope with Original of Proposal
D-2	List of Subcontractors and R-2 Form	Exhibit D-2	Technical Proposal Section 7
D-3	Recent Client List	Exhibit D-3	Technical Proposal Section 7
D-4	Reference Forms Part 1	Exhibit D-4	Technical Proposal Section 7
D-5	Reference Forms Part 2	Exhibit D-5	Technical Proposal Section 7
D-6	Requirements Conformance Matrix	Exhibit D-6	Technical Proposal Section 6
D-7	Price Proposal	Exhibit D-7	Price Proposal Envelope
D-8	Proposer Questions Forms	Exhibit D-8	N/A: To be used for submission of Proposer questions to NCTA
D-9	Non-Collusion Forms	Exhibit D-9	Technical Proposal Section 7
D-10	Surety Commitment Letter	Exhibit D-10	Technical Proposal Section 7
D-11	Acknowledgment of Receipt of Addenda	Exhibit D-11	Technical Proposal Section 7



Required Technical Proposal Format

- Cover Letter
- Executive Summary
- Proposal Section 1: Firm Qualifications
- Proposal Section 2: Key Team Qualifications
- Proposal Section 3: Approach to Scope of Work and Requirements
- Proposal Section 4: Approach to Project Plan and Implementation
- Proposal Section 5: Approach to Operations and Maintenance
- Proposal Section 6: Adherence to the Scope of Work and Requirements, Terms and Conditions and Requirements Conformance Matrix
- Proposal Section 7: Forms and Submittals
- Proposal Appendices



Technical Proposal Submission Requirements

- Page Limits: 100 pages for Proposal Sections 1-5
- Review Table 4-1, Proposal Page Limitations
- Adhere to Proposal format and numbering requirements
- Respond as thoroughly as possible
- Seven (7) copies and one (1) CD/DVD to be submitted



Price Proposal

- Follow Price Proposal Instructions (Exhibit C)
- Workbook contains the following elements:
 - ☐ Roadside
 - ☐ Roadway Support Systems
 - ☐ Roadside System Hardware Maintenance and Software Support Services
 - ☐ Roadway Support Systems Maintenance and Software Support Services
 - ☐ ITS Maintenance
 - ☐ Toll Facilities Maintenance
 - ☐ Transaction Processing - per transaction pricing for AVI and Image-based transactions
 - ☐ Future Roadside Pricing



Price Proposal Submission

- Separate sealed envelope from Technical Proposal
- Price Proposal quantities:
 - ☐ Submit two (2) hard copies of the Price Proposal
 - ☐ Submit one (1) electronic version in Excel 2010
- Include Bid Bond in Price Proposal envelope



Best Value Evaluation Process

- Pass / Fail screening
- Preliminary Technical Proposal evaluation
- Short-listing of Proposers based on minimum Technical score
- Oral Interviews/Presentations for Short-Listed Proposers
- Updated Technical Proposal scoring



Best Value Evaluation Process (cont.)

- Price Proposal evaluation
- Consolidated Technical and Price Proposal evaluation
- Best Value determination
- Negotiation and Best and Final Offers (BAFOs)
- Contract Award



Scope of Work Details



Scope of Work

- Roadside Toll Collection System (RTCS)
 - Roadside Systems
 - Roadway Support Systems (RSS)
- Project Management
- Testing Overview
- Maintenance and Operations
 - Toll System Maintenance and Image Processing Operations
 - ITS Maintenance
 - Toll Facilities Maintenance
- Performance Measurement
- Roadway Operations
- Interface to Existing CSC Operations
- Construction Details



Roadside Systems to be Provided

- Roadside Systems to be provided:
 - ☐ Tolling Zone Controller
 - ☐ Image Capture & Processing Systems (ICPS)
 - ☐ Automatic Vehicle Detection and Classification (AVDC)
 - ☐ Transaction Status Indicator beacons for US-74 Express Lanes
 - ☐ Interfaces to roadside wrong-way vehicle electronic signs and alert/warning notification processing
 - ☐ Supporting electronics, devices, UPS, and communications Equipment
 - ☐ Optional Facility Servers to support transaction and image processing, storage, and forwarding from the roadside Tolling Locations
- Note: AVI System provided by NCTA for integration and installation by the Contractor



Roadway Support Systems to be Provided

- Roadway Support Systems (RSS) to be provided:
 - ❑ Toll Host System
 - ❑ Dynamic pricing module including Dynamic Pricing Algorithm, Sign Control, Traffic Monitoring Dashboard
 - ❑ Integrated Digital Video Audit System (DVAS)
 - ❑ Integrated Maintenance Online Management System (MOMS)
 - ❑ Critical Environmental Monitoring System
 - ❑ Access Control and Security Monitoring System (ACSMS) for Tolling Locations and equipment vaults
 - ❑ All required LAN, MAN, and WAN networks



Integration to be Provided

- Integration to be provided by Contractor with:
 - Existing NCTA CSC Back Office
 - US-74 Express Lane ITS elements
 - Variable Toll Message Signs and cameras
 - Traffic detectors
 - Gate control software
 - Monroe Expressway back-up generators, heating ventilation and air conditioning (HVAC), and uninterruptible power supply (UPS) located in equipment vaults



Project Management Requirements

- Project Management requirements:
 - Project Management Office in Monroe or Charlotte area
 - Staffing and Key Personnel to be identified in Proposal
 - Close coordination with NCTA (Raleigh) and Constructors (Monroe Expressway and US-74 Express Lanes)



Overview of Testing to be Provided

- Overview of testing to be provided:
 - Contractor provided Master Test Plan
 - Tests include:
 - Factory Acceptance Test (FAT)
 - Onsite Installation Test (OIT)
 - Installation and Commissioning Test
 - Operational and Acceptance Test



RTCS Operations and Maintenance

- Turnkey Maintenance provided by Contractor
 - RTCS Hardware, Equipment, and infrastructure
 - Network Maintenance Services for the RTCS, including LAN, MAN, and WAN
 - Dynamic Pricing monitoring and Maintenance
 - RTCS System, Server and Database Administration Services
 - Software Support Services for the RTCS System



RTCS Operations and Maintenance (cont.)

- Image and AVI processing operations for provision of Completed Transactions
- Maintenance of ITS elements on both projects as applicable, including: CCTV cameras, reversible gates (Hardware and Software interfaces), Monroe Expressway and US-74 Express Lanes roadway detectors (Express Lanes and general purpose lanes)
- Toll Facility Maintenance on Monroe Expressway including: Equipment vaults (seven), (back-up generators, heating, ventilation and air conditioning (HVAC), etc.



Performance Requirements

- Complete, timely, and accurate transactions
- Intent of NCTA to provide Performance Requirements that are not overly prescriptive
- Reflect the minimum tolerable expected performance
- Contractor required to provide performance compliance reporting for a systematic approach to verification
- Performance Requirements:
 - ❑ Testing – SOW Section 6.6
 - ❑ Maintenance and Operations – SOW Section 8
 - Performance Scorecard
 - Non-compliance Adjustments



Roadway Operations

- Monitoring facilities remotely from Raleigh
- Facility Maintenance
- Metrolina Regional Transportation Management Center (MRTMC) Operations
- Incident Management
- Use of ITS data



Interface to Existing CSC Back Office Operations

- Triangle Expressway
- Networking
 - ☐ All toll data WAN links are responsibility of Contractor
 - ☐ All communication links shall be in accordance with DOT IT Policies
 - ☐ See Attachment 12 for WAN/Network Links
 - ☐ Includes redundant communication links in case of failure
 - ☐ All switching on the “hard” tolls network is responsibility of Contractor
- Monroe Expressway
- US-74 Express Lanes



Construction Coordination

- MBC is the Constructor for Monroe Expressway (D/B Team)
 - ☐ In RFP this is a “AET Facility” project
 - ☐ Michael Gantt will coordinate the AET sites for MBC
 - ☐ Summit Engineering is the NCDOT CEI
 - ☐ NCTA supplements CEI team with toll expertise
 - ☐ Weekly/monthly construction meetings
- Constructor for US-74 is TBD (Traditional Procurement)
 - ☐ In RFP this is “Express Lanes” project
 - ☐ Details of coordination with Constructor are TBD
 - ☐ Toll infrastructure is in final design

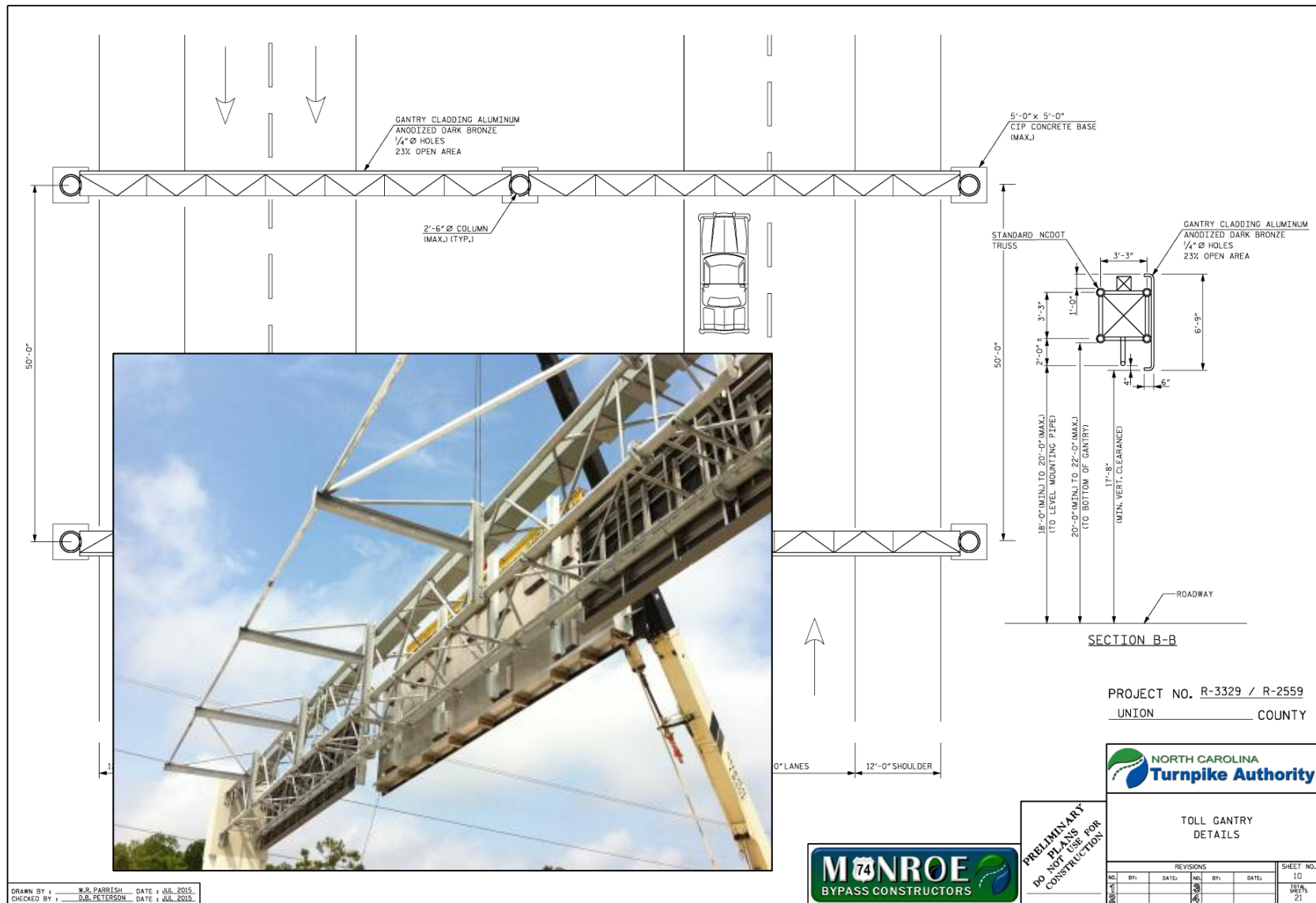


NOTE: DMS 2-1 DIMENSIONS
TO BE DETERMINED AT
A LATER DATE.

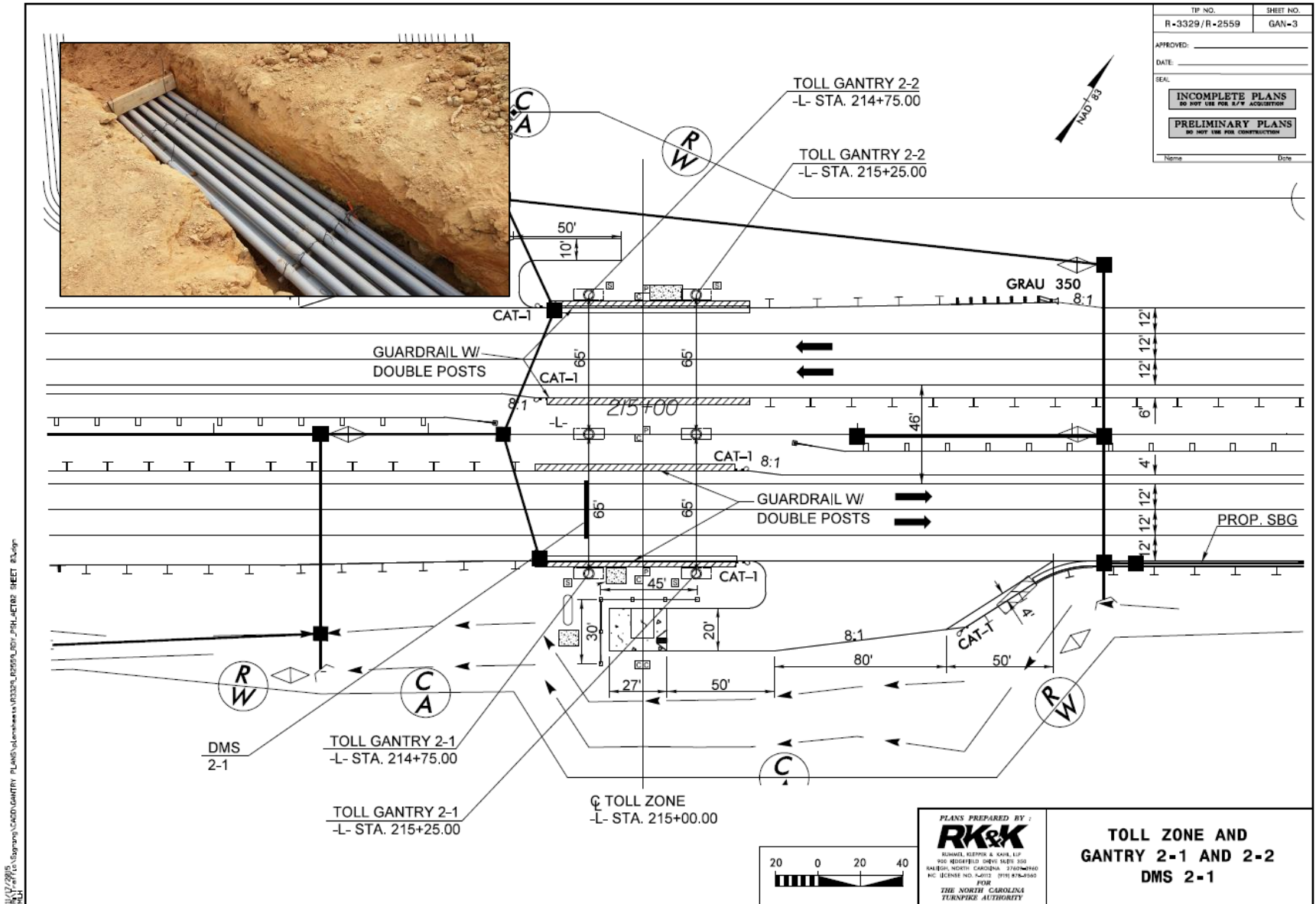


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TOLL ZONE AND GANTRY
2-1 AND 2-2 AND DMS 2-1
BY-PASS US 74

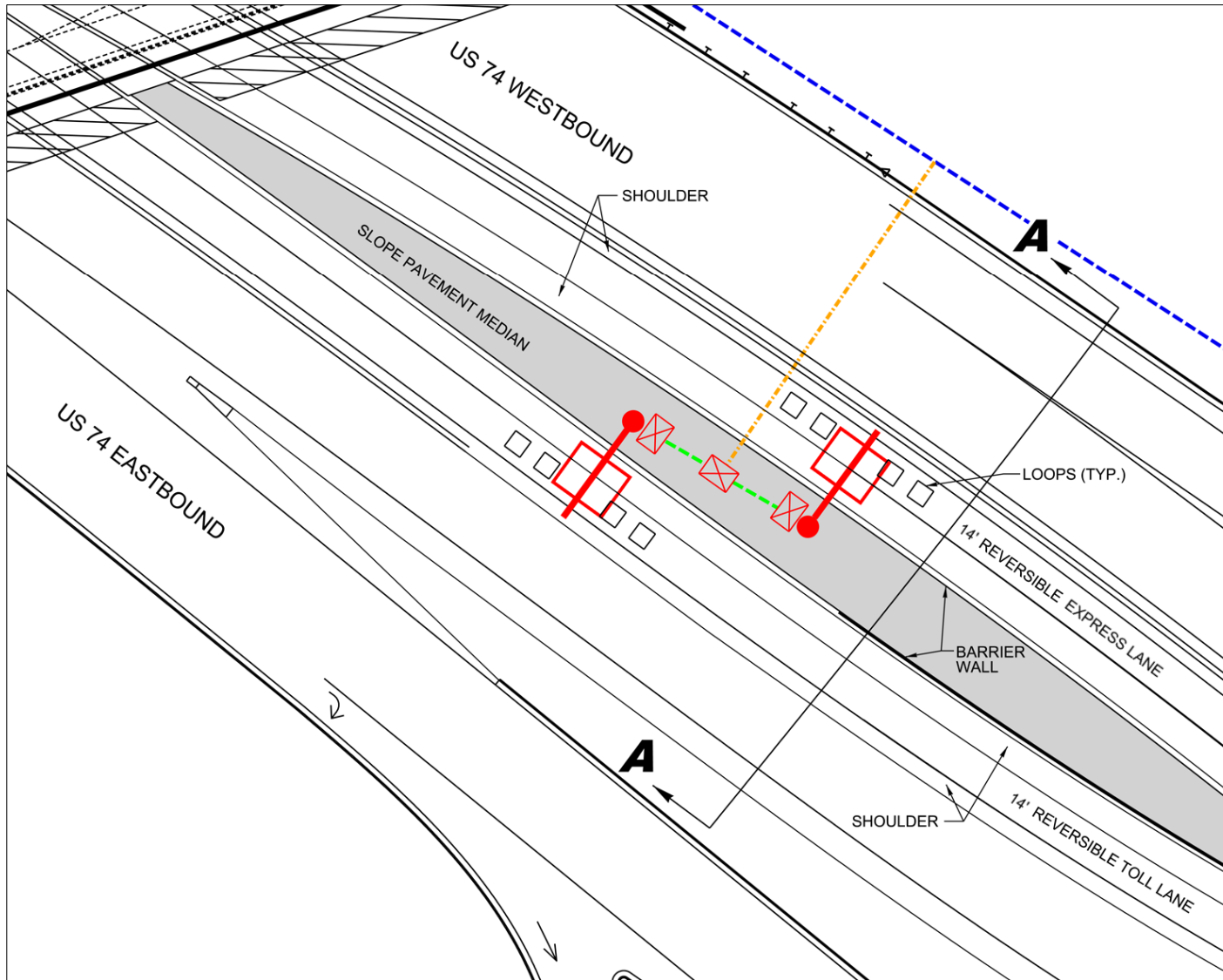
Monroe Expressway Toll Location Gantry Typical



Monroe Expressway Toll Location & Layout



US-74 Express Lanes Tolling Location Detail

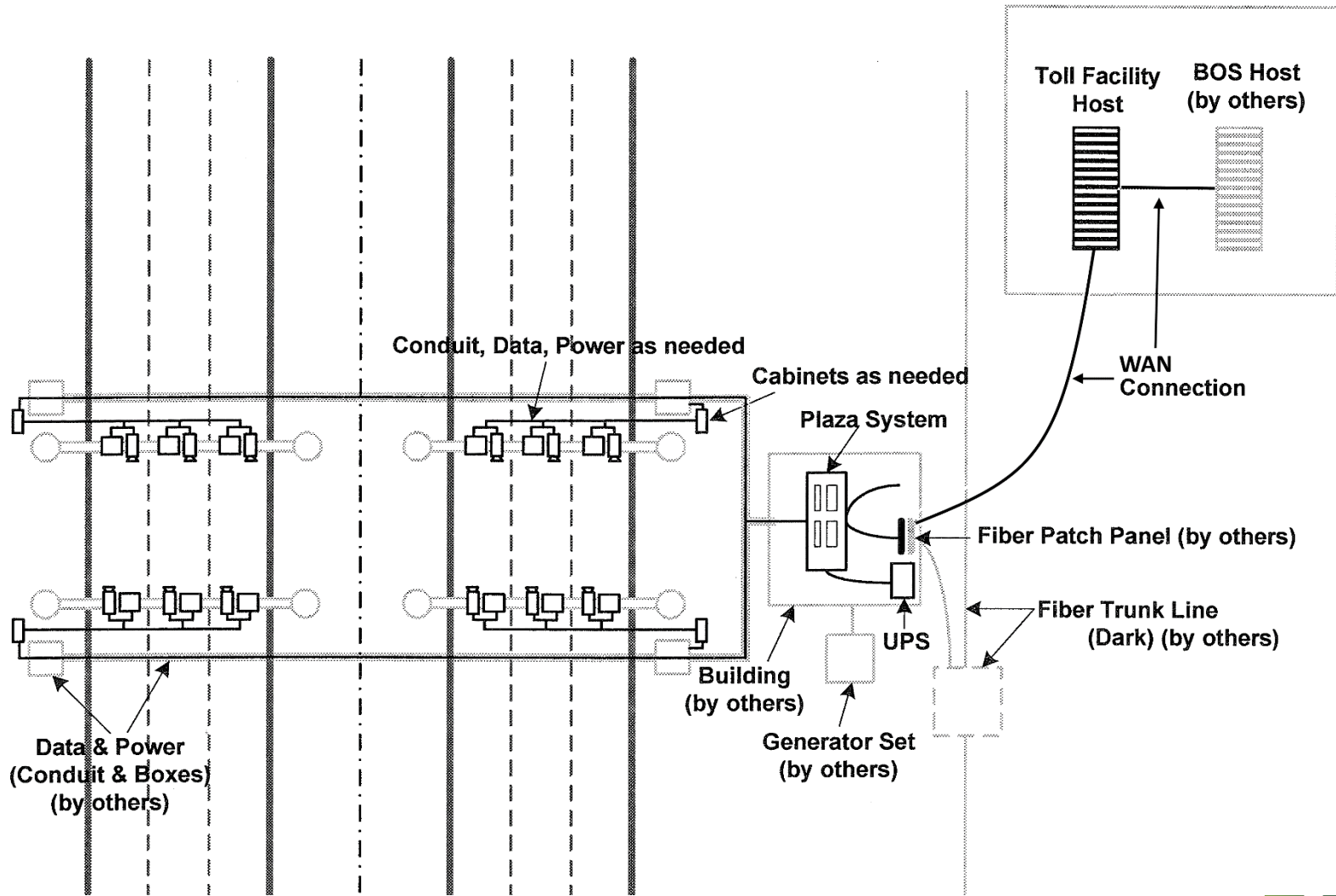


Constructor Responsibilities

- MBC will build toll infrastructure acc. to their SOW
 - Vaults, screen walls
 - Generator, propane tank, power service
 - Gentries, mounting bar, conduit, duct bank, boxes
 - Driveway, signing, lighting
- Constructor gains acceptance of the site from NCTA/CEI, turns over site to Contractor, who has a 120-day integration period
- Sites are currently planned for turnover to NCTA all at once but this is likely to change
- For US 74 process will be similar, but with less infrastructure
- See Responsibility Matrix (Attachment 9) for details on Contractor responsibilities



Toll Location Demarcation Diagram



Work Not in Scope to be Provided by Others

- AVI equipment (to be provided by NCTA for installation and integration by Contractor)
- Construction of the gantries & pavement at the toll locations
- Toll equipment vaults, including equipment such as back-up generators and propane tank
- ITS elements including CCTV cameras, reversible gates, ITS WAN, Wrong Way signs, & roadway detectors (all types)
- VTMS and VTMS cameras on US-74 Express Lanes
- Triangle Expressway toll collection system maintenance (will continue to be provided by the current contractor)
- CSC Back Office System services



Questions?

