



# Board of Directors Operations Committee Meeting

## North Carolina Turnpike Authority

June 21, 2018

# Monroe Expressway Roadway Toll Collection System Overview

Andy Lelewski, P.E.

Director of Toll Operations

Greg Vari  
Consultant

# Monroe Expressway

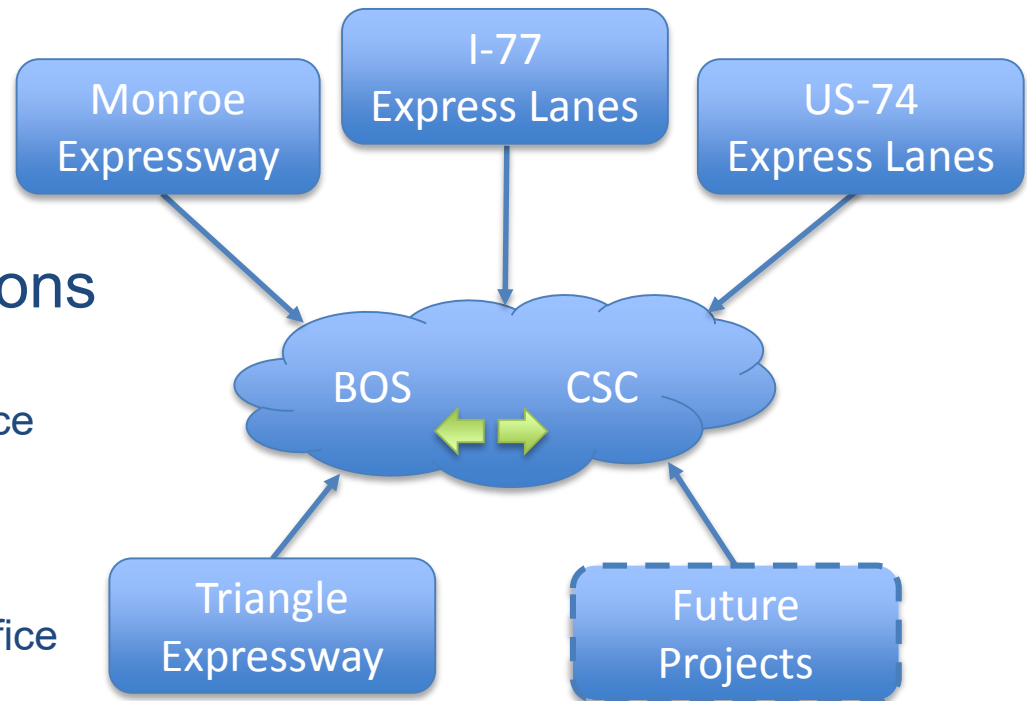


# The Complete Transaction

- Fully formed transactions generated at the lane and delivered to the Back Office

## Monroe Accuracy Metrics

- Transponder Transactions
  - 99.99% Accuracy
  - 2 hours from lane to back office
- Image Transactions
  - 99.8% Accuracy
  - 72 hours from lane to back office



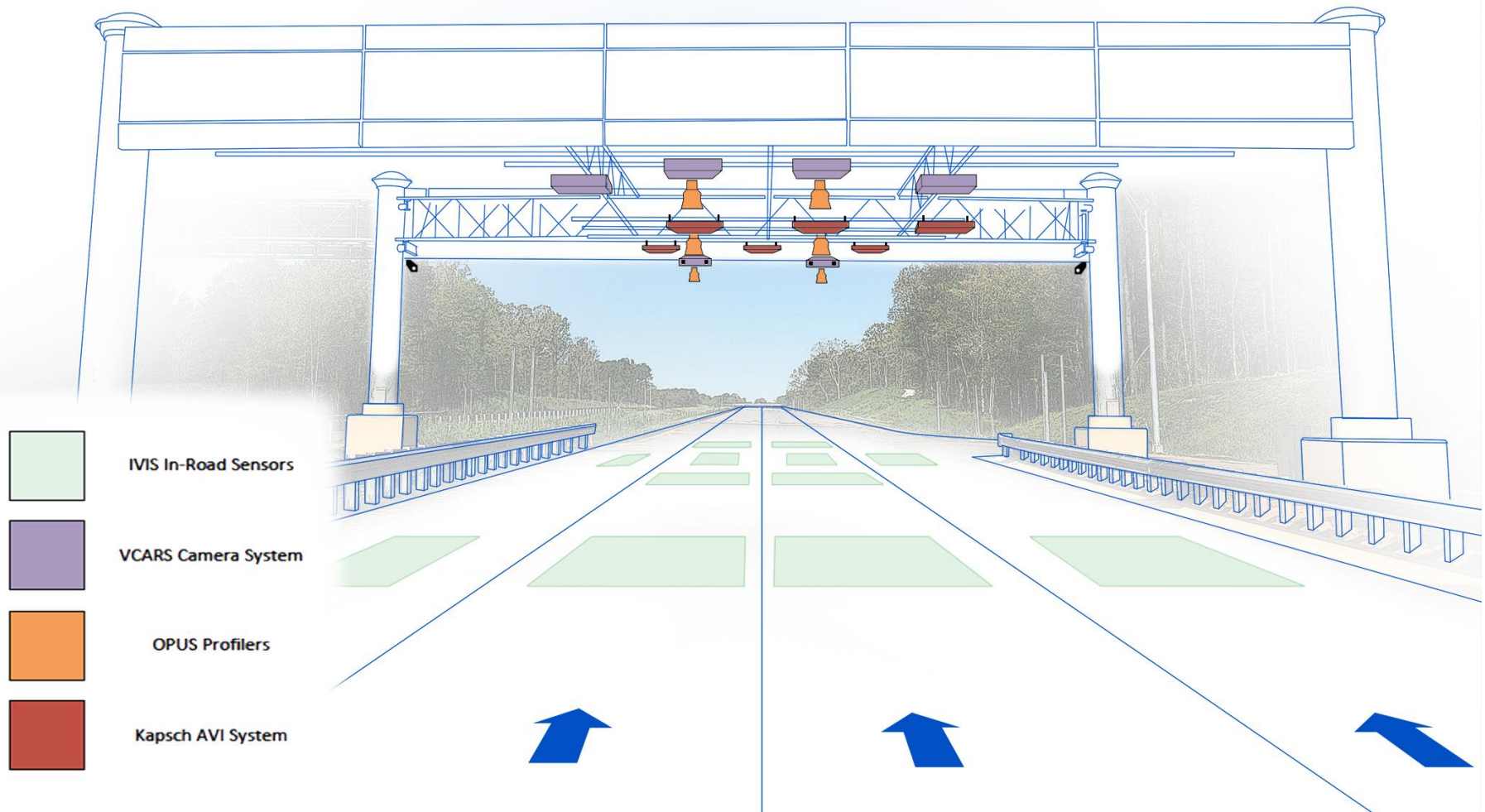
# Project Procurement

- RFP issued April 14, 2016
- Three proposals submitted to NCTA
- TransCore identified as best value
- Best and Final Offer executed March 9, 2017





# Key Components



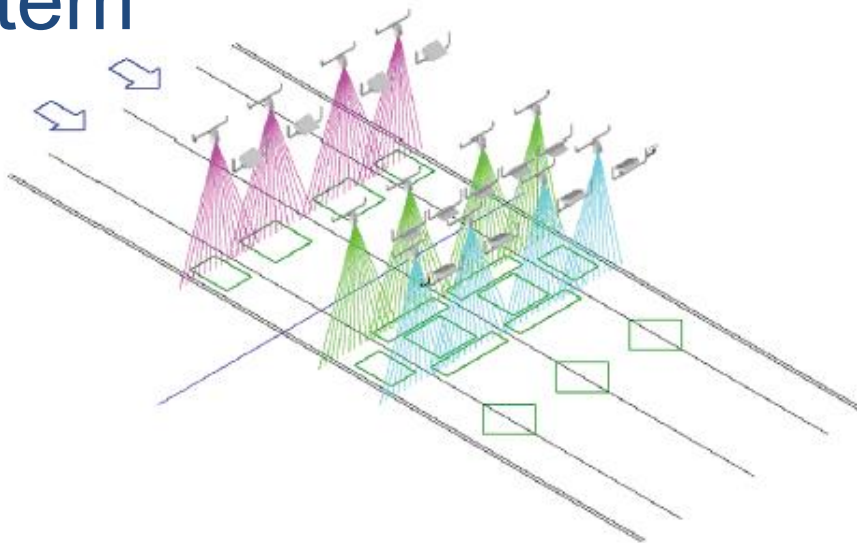
# VCARS – Vehicle Capture and Recognition System

- Key Features
  - Stereoscopic, dual camera license plate capture for each travel lane
  - Full redundancy to minimize revenue loss



# Automatic Vehicle Classification

- IVIS – Intelligent Vehicle Identification System
- OPUS – Overhead Profile Unifying System





# Janus Multi-Protocol Reader

- Key Features
  - Full multiprotocol functionality
    - Reads TDM, 6C and SeGo toll transponders
  - High Accuracy, High Reliability



# Installation Status





# Installation Status



# Installation Status





# Installation Status





# Operations and Maintenance

- TransCore assessed monthly based on 15 key performance measures

Category	Key Performance Indicator	Points
Availability	AET Lanes	0
	Express Lanes	0
	Variable Toll Message Signs and Cameras	0
	Roadway Support System	0
	Dynamic Pricing System	0
	<b>TOTAL No. of Points Assessed</b>	<b>0</b>
Completeness	Toll Facility Maintenance	0
	<b>TOTAL No. of Points Assessed</b>	<b>0</b>
Operations	ITS Complete and Timely Data Transmission	0
	AVI Transaction Complete and Timely Transmission	0
	Image Transaction Complete and Timely Transmission	0
	AVI Transaction Accuracy	0
	Image Transaction Accuracy	0
	Image Rejection Accuracy	0
	Image Quality	0
	Back Office File Receipt and Processing	0
	Wrong-Way Vehicle Detection and Notification	0
	<b>TOTAL No. of Points Assessed</b>	<b>0</b>
	<b>TOTAL No. of Points Assessed – ALL CATEGORIES</b>	<b>0</b>
	<b>PERFORMANCE ADJUSTMENT PERCENTAGE BASED ON PERFORMANCE LEVEL</b>	<b>0 %</b>

- Support Team

- Raleigh: System Auditing and Compliance Monitoring
- Charlotte MRTMC: Roadway Operations and Traffic Management
- Monroe: TransCore Maintenance Facility

[illegible]

# Project Schedule



**Procurement**

**Project Design and Development**

**FAT Site Installation**

**Factory Acceptance Testing**

**Remaining Installation**

**Tolling Readiness**

**Acceptance Testing**

# Charlotte Area Outreach

Andy Lelewski, P.E.

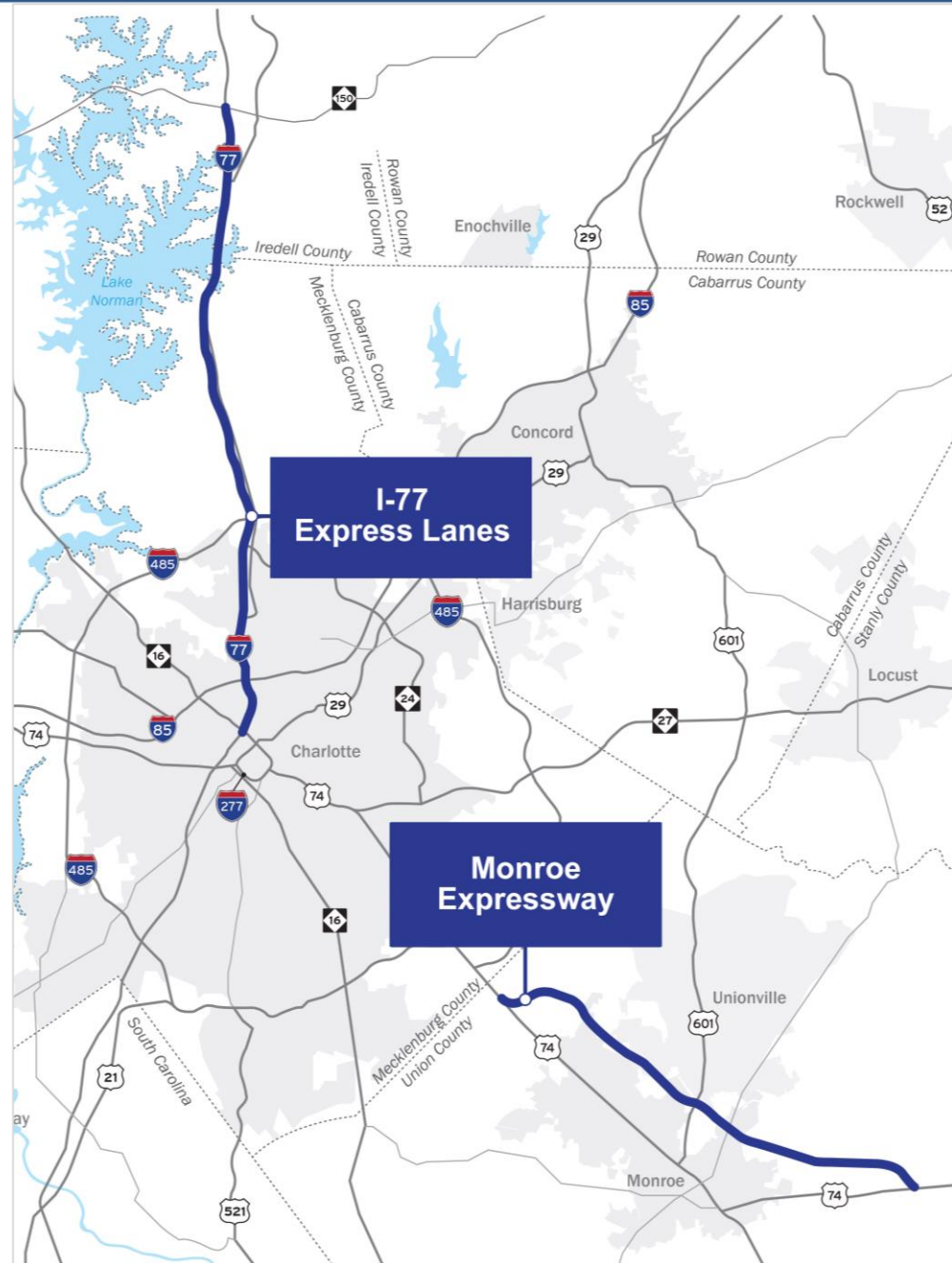
Director of Toll Operations

Kathryn Lorbacher

Consultant

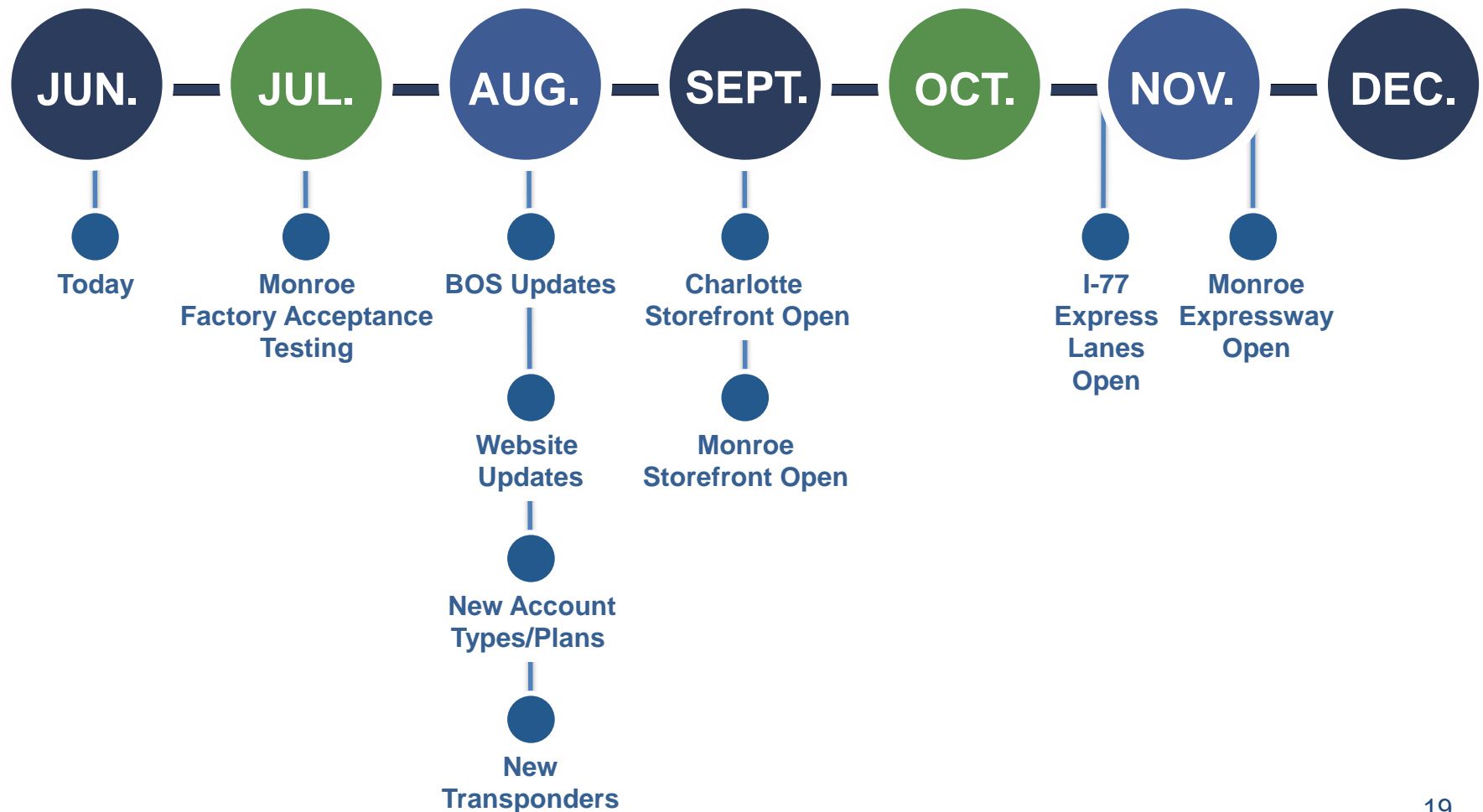
# Projects

- Monroe Expressway
  - November 2018
- I-77 Express Lanes
  - November 2018





# Milestones



# NC Quick Pass Program Updates

- Account types/plans
- Transponders
- Remote storefronts

# Account Types/Plans

Account Type	Plan	Payment
<b>Personal</b>	Standard ( <i>max 5 transponders</i> )	Prepaid
	Motorcycle	Prepaid
<b>Business</b>	Standard	Prepaid
	Government	Postpaid
	Transit	Postpaid
	First Responder ( <i>Non-Revenue</i> )	n/a
<b>HOV</b>	HOV Only ( <i>incl. Motorcycle</i> )	n/a

 New account type/plan

\*NC Quick Pass transponders will be required for all account types and plans

# Transponders

Transponder		Cost to Customer
Standard		FREE
Headlamp		FREE
First Responder*		FREE
Transit*		FREE

 New transponder

*\*Not available to public, NCTA approval required*

# Transponders

Transponder	Cost
<b>E-ZPass</b> (Interior) 	\$7.40 +tax
<b>E-ZPass</b> (Front Bumper Mount) 	\$13.49 +tax
<b>E-ZPass Flex</b> (Switchable) 	\$16.49 +tax

 New transponder



# Outreach Challenges

- Remote storefronts
- New market unfamiliar with:
  - Tolling
  - NC Quick Pass
  - Bill by Mail
- New High Occupancy Tolling (HOT) program
- Coordination with private concessionaire

# NC Quick Pass Storefronts

Charlotte



Monroe







**NC Quick Pass Brand Awareness**

**Outreach (municipalities, businesses, first responders, transit)**

**Community Events**

**Sponsorships**

**Advertising Campaign**



# NC Quick Pass Brand Awareness

- Social media
- BBM inserts
- Website
- Promotional materials





# Advertising Campaign Considerations

- Digital marketing
- Direct mailers
- Print advertisements
- Radio advertisements
- Partnership with transit agencies





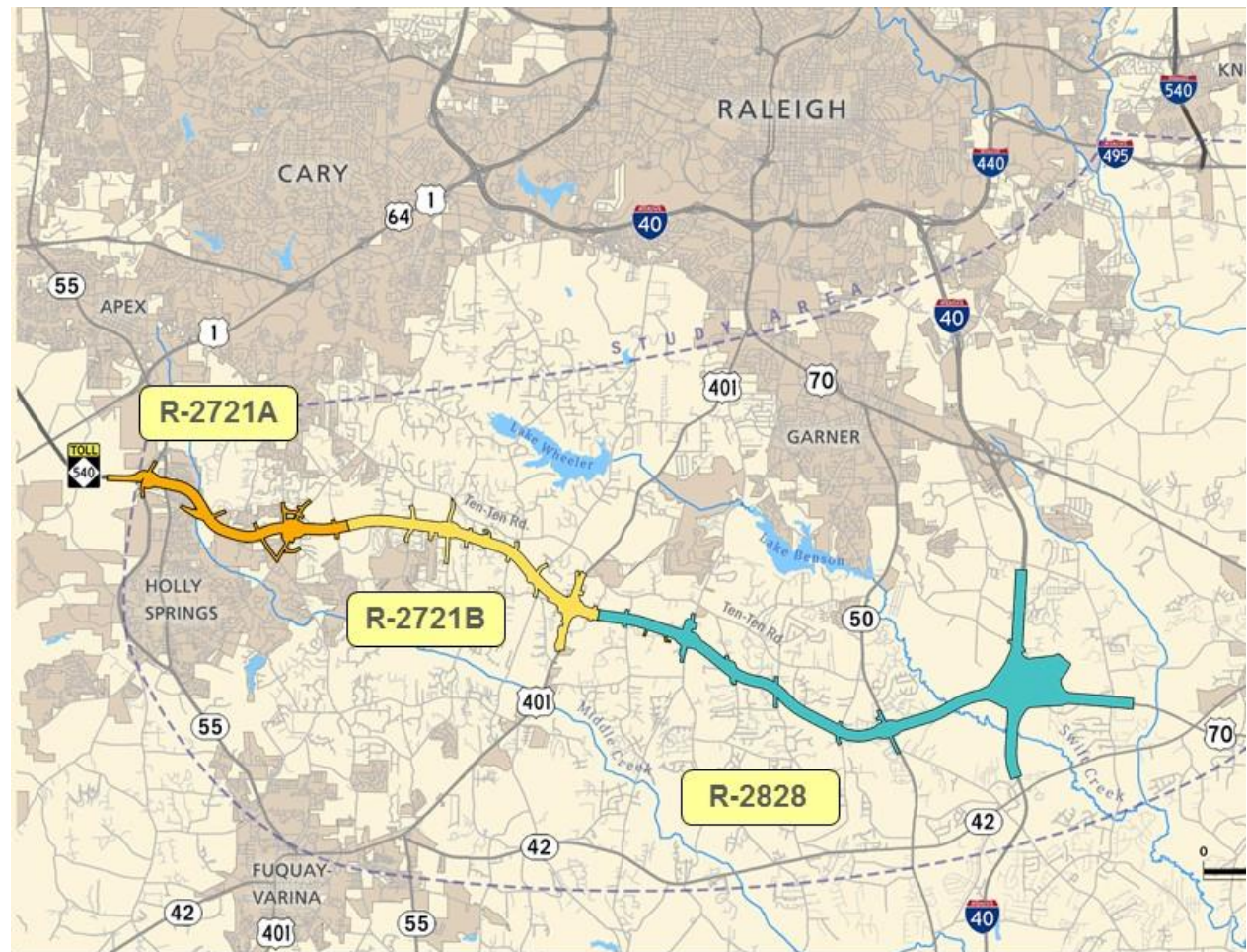
# Complete 540 Procurement Update

Rodger Rochelle, P.E.

Chief Engineer

# Complete 540

- **R-2721A**
  - 4.6 mile new location
  - ~ 190 parcels
- **R-2721B**
  - 4.9 mile new location
  - ~ 210 parcels
- **R-2828**
  - 8.6 mile new location
  - ~ 250 parcels



# Current Project Schedule

- Record of Decision: June 6, 2018
- Corridor Permit Application: Summer 2018
- Right of Way Plans for R-2721A & R-2721B: Fall 2018
- Anticipate Permits: Late 2018/Early 2019  
(phased for R-2828 & construction for R-2721A and R-2721B)
- Design-Build Contract Letting
  - R-2828: November 2018
  - R-2721B: February 2019
  - R-2721A: April 2019
  - R-2829: Future (2027)
- Complete Project Finance: Early 2019

# Status and Next Steps

	R-2828	R-2721B	R-2721A
Advertisement	✓ April 16	July 2	September 4
SOQ Due Date	✓ May 11	July 31	October 2
Shortlist Date	✓ May 24	August 14	October 18
Issue 1 <sup>st</sup> Draft RFP	✓ May 24		
Debrief Teams	✓ Week of June 4		
1 <sup>st</sup> Meeting with Teams	✓ June 7		
Issue 2 <sup>nd</sup> Draft RFP	June 26		
2 <sup>nd</sup> Meeting with Teams	July 10		



Thank you!