



NORTH CAROLINA

Department of Transportation



Board of Directors Meeting

North Carolina Turnpike Authority

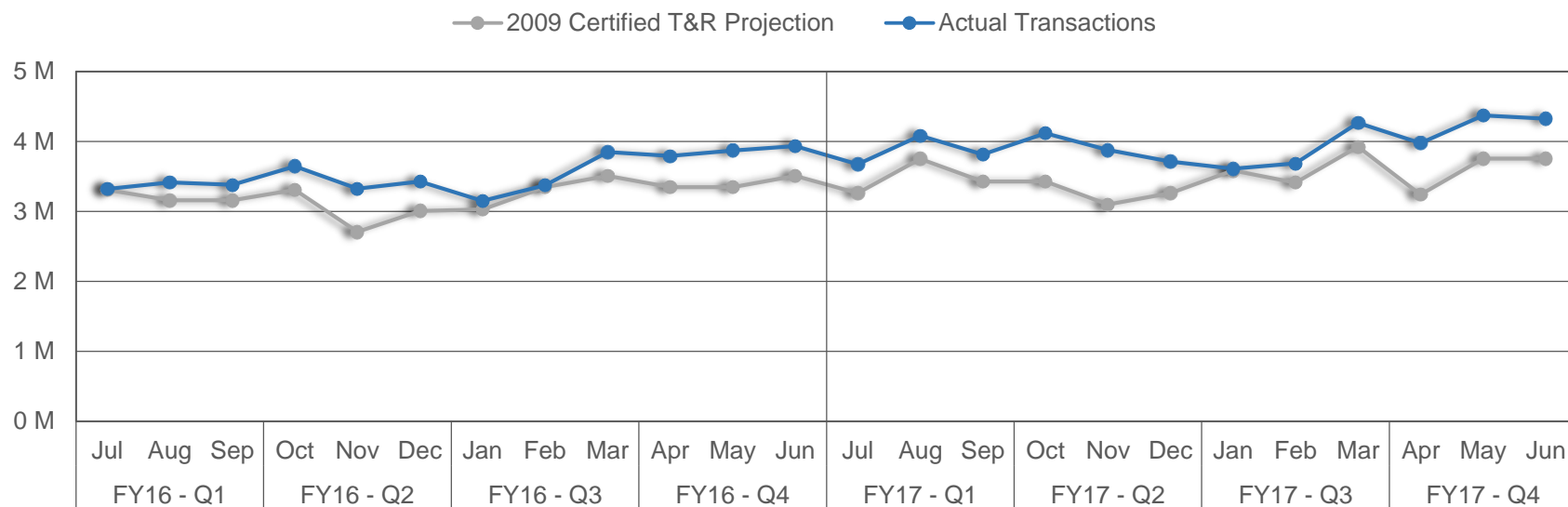
August 3, 2017

Triangle Expressway – 4th Quarter Operations

Andy Lelewski, PE

Director of Toll Road Operations

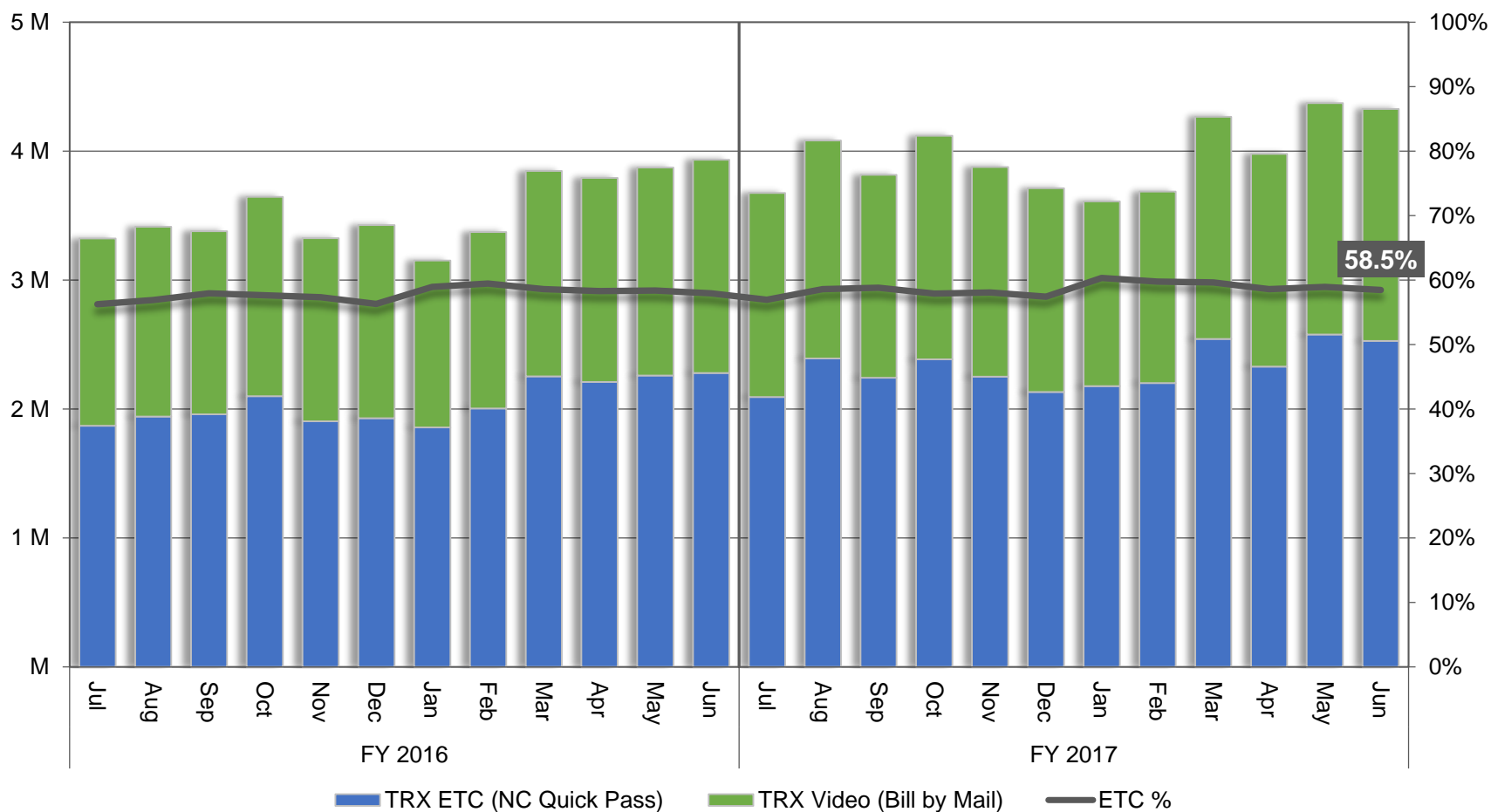
Transaction Statistics



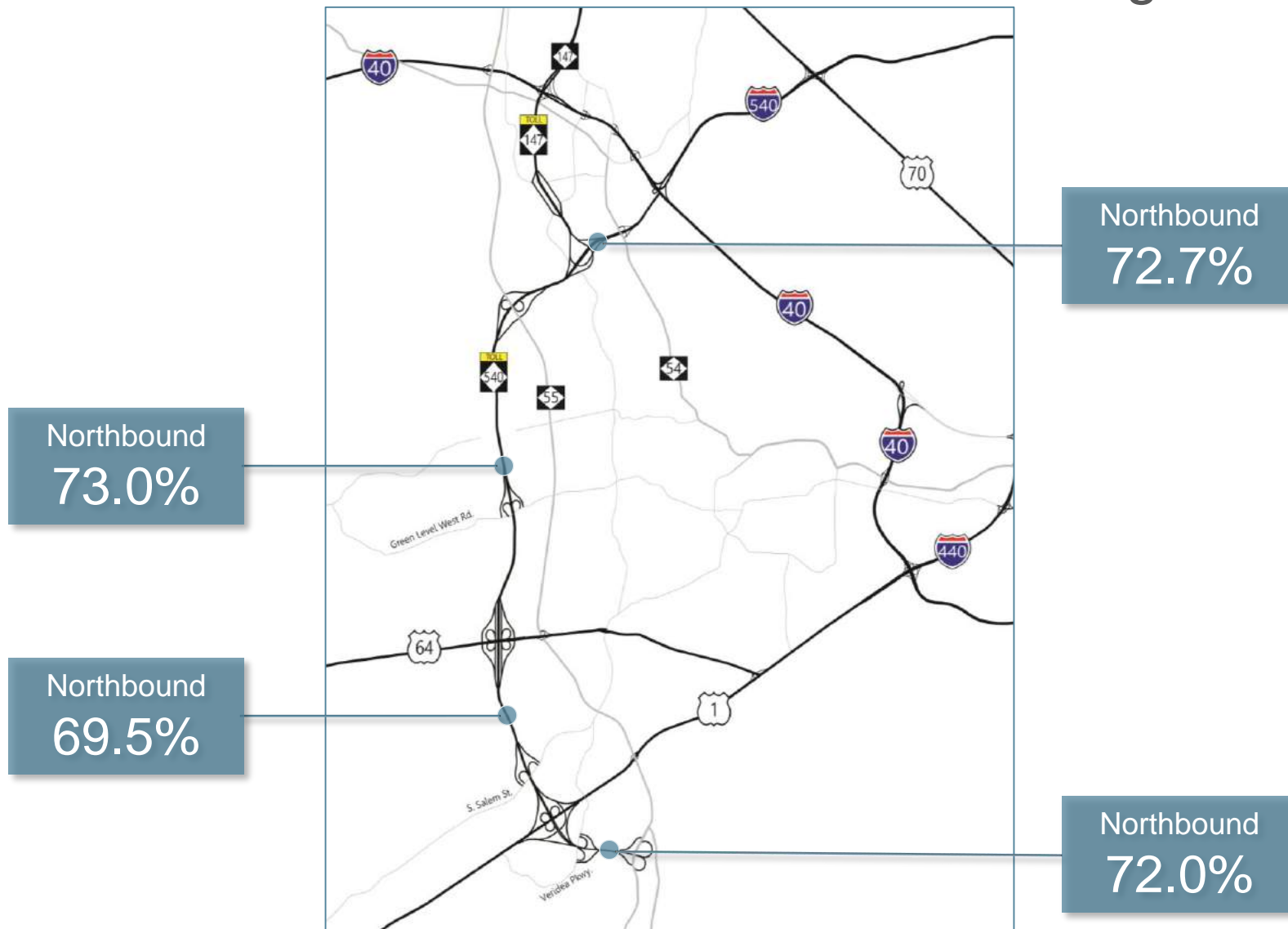
	FY16 - Q1	FY16 - Q2	FY16 - Q3	FY16 - Q4	FY17 - Q1	FY17 - Q2	FY17 - Q3	FY17 - Q4
Actual Transactions	10,114,193	10,393,787	10,370,030	11,596,894	11,570,102	11,706,855	11,561,253	12,675,376
2009 Certified Traffic and Revenue¹	9,623,134	9,021,687	9,882,200	9,695,119	10,210,606	10,802,362	10,918,982	10,748,373
Delta	491,059	1,372,100	487,830	1,901,775	1,359,496	904,493	642,271	1,927,003
Percent of Actual vs. 2009 Base Case	105%	115%	105%	120%	113%	108%	106%	118%

¹Target monthly transaction data based on annualized numbers contained in the 2009 Certified Traffic and Revenue Report developed by CDM Smith

Toll Transactions by Type

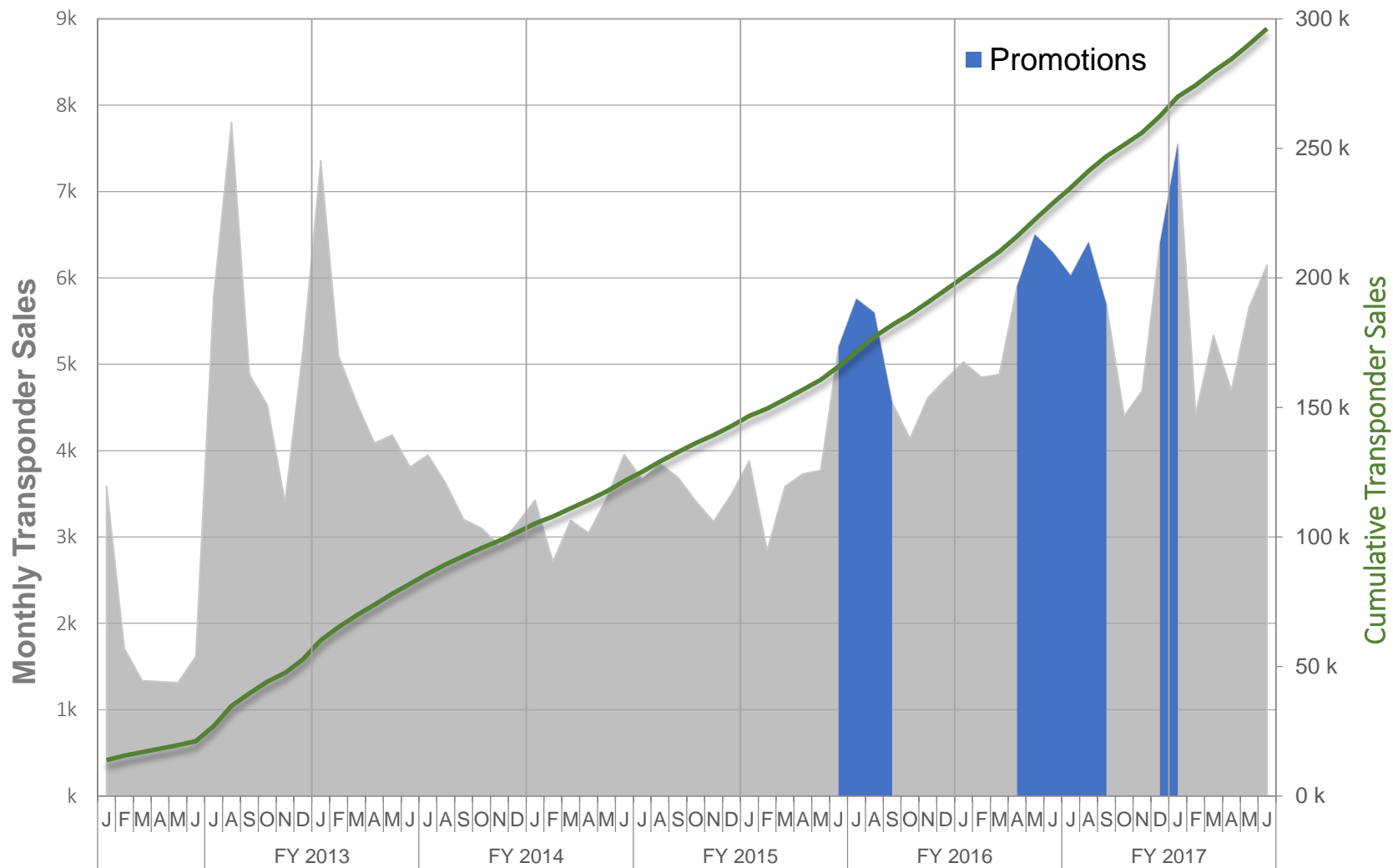


AM Peak Hour NC Quick Pass[®] Usage



Triangle Expressway Mainline Toll Zones
7:00 AM – 8:00 AM, June 7, 2017

TOTAL TRANSPONDERS SOLD



NC Quick Pass® Outreach Events

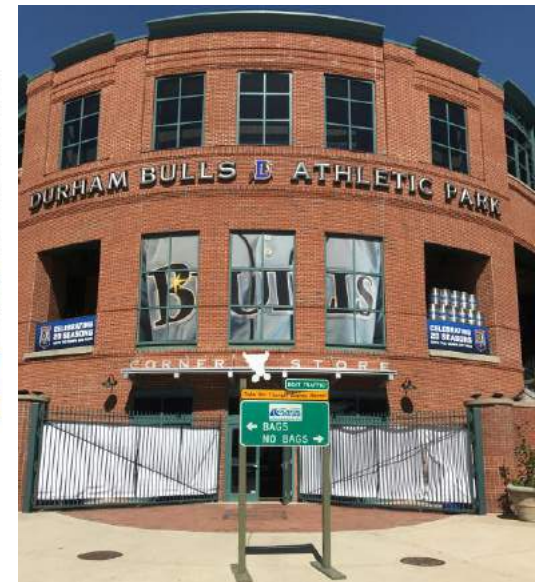
- Holly Springs Salamanders
 - First Pitch raffle
 - Information Booth at select games
- Continued sponsorship with Durham Bulls
- Cary Lazy Daze Information Booth
 - August 26th & 27th
- Holly Springs Holly Fest Information Booth
 - October 28th



Salamanders Baseball @HSSalamanders · Jun 10
Limited tickets remain for tomorrow's Star Wars Night game! First pitch is at 5:40 and gates open 1 hour prior. Get your tickets now!



2 ❤️ 5

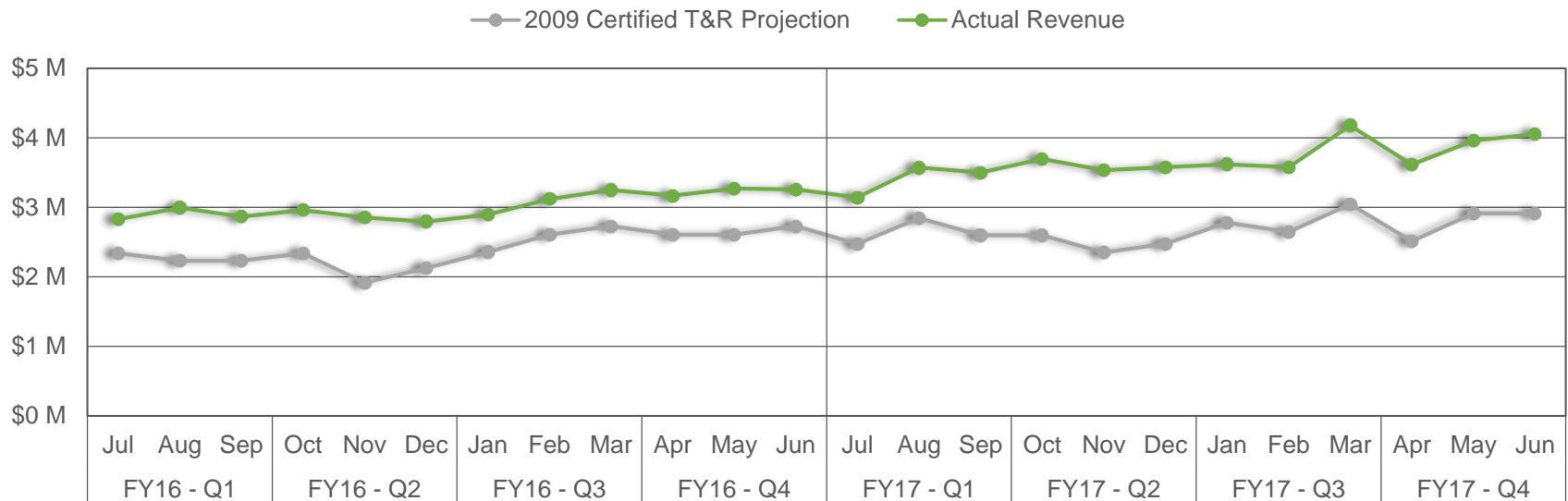


Triangle Expressway – 4th Quarter Financials

David Roy

Director of Finance and Budget

Revenue Statistics

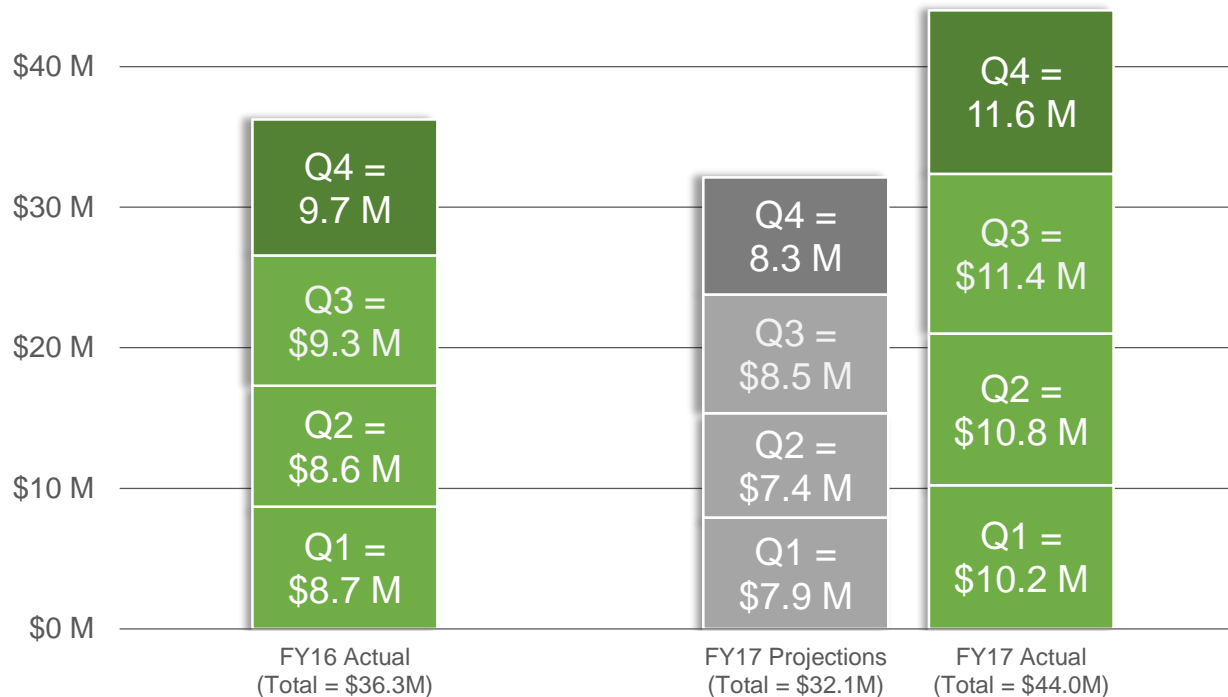


	FY16 - Q1	FY16 - Q2	FY16 - Q3	FY16 - Q4	FY17 - Q1	FY17 - Q2	FY17 - Q3	FY17 - Q4
Actual Revenue¹	\$ 8,689,600	\$ 8,607,686	\$ 9,262,129	\$ 9,695,119	\$10,210,606	\$10,802,362	\$11,371,706	\$11,625,254
2009 Certified Traffic and Revenue²	\$ 6,807,444	\$ 6,381,979	\$ 7,690,252	\$ 7,938,325	\$ 7,913,993	\$ 7,419,368	\$ 8,468,479	\$ 8,336,160
Delta (\$)	\$ 1,882,156	\$ 2,225,707	\$ 1,571,877	\$ 1,756,794	\$ 2,296,613	\$ 3,382,994	\$ 2,903,227	\$ 3,289,094
Percent of Actual vs. 2009 Base Case	128%	135%	120%	122%	129%	146%	134%	139%

¹Actual revenue is reported on a cash basis

²Target monthly revenue data based on annualized numbers contained in the 2009 Certified Traffic and Revenue Report developed by CDM Smith

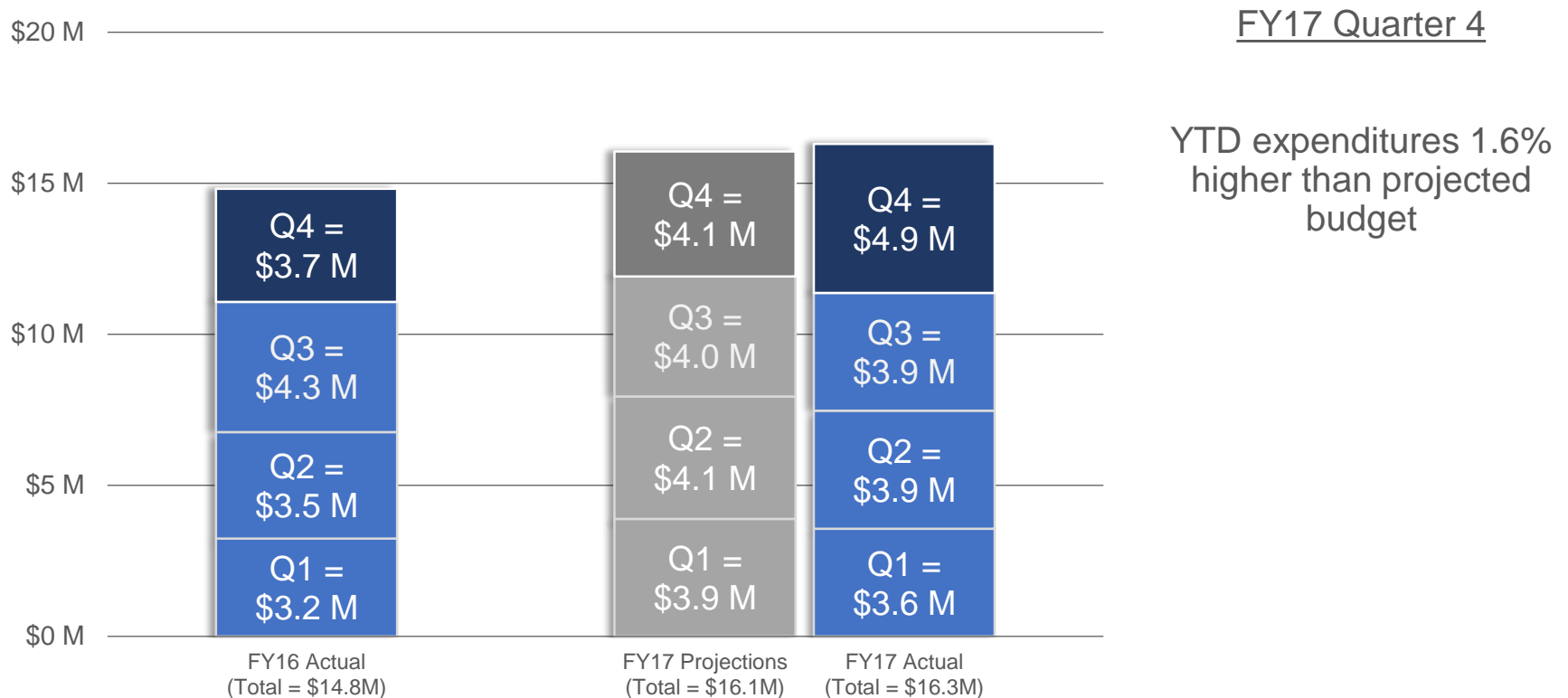
Revenue Statistics



- YTD revenues 37% higher than financing base case projections
- YTD revenues up 21.4% year-over-year

- Revenue figures are inclusive of all toll revenue and fees, but exclude transponder revenues (YTD = \$663,161.50)
- Actual revenues reported on a cash basis

Operating Expenditures



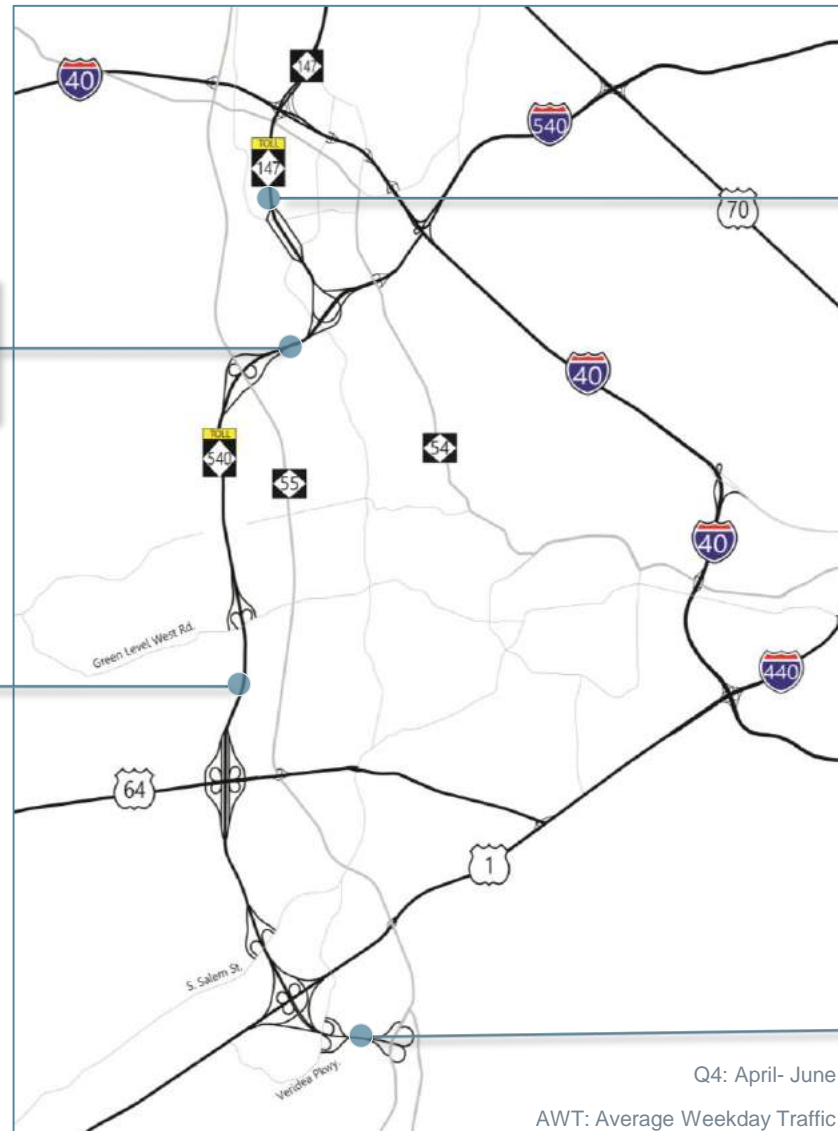
- Actual operating expenditures reported on a cash basis

Triangle Expressway – 4th Quarter Maintenance Report

Dennis Jernigan, PE

Director of Highway Operations

Mainline Traffic Statistics



FY16 Q4 AWT = 17,060
FY17 Q4 AWT = 18,030
6% Increase

FY16 Q4 AWT = 45,910
FY17 Q4 AWT = 48,910
7% Increase

FY16 Q4 AWT = 17,750
FY17 Q4 AWT = 19,210
22% Increase

FY16 Q4 AWT = 29,880
FY17 Q4 AWT = 36,590
8% Increase

Roadway Maintenance Statistics

	Q4 FY 2016	Q1 FY 2017	Q2 FY 2017	Q3 FY 2017	Q4 FY 2017
Road Surface	100.0	99.1	97.7	97.8	100.0
Unpaved Shoulders and Ditches	100.0	100.0	100.0	95.6	95.5
Drainage Structures	91.0	87.9	93.8	86.7	92.3
Roadside	83.4	90.0	93.7	90.3	87.4
Traffic Control Devices	96.1	90.5	88.3	91.4	88.5
Overall	94.7	93.4	93.9	92.7	92.7





Monroe Expressway – Project Update

Christopher D. Sweat, P.E.

Summit Design and Engineering Services

Monroe Expressway Overview

- 20-mile long expressway
- 4 to 6 lanes wide (expandable to median)
- 37 bridges
- 21 box culverts
- 8 interchanges
- Open Road Tolling

Important Dates

- **Phased ITS Integration**
 - May 2018 thru September 2018
- **Substantial Completion**
 - November 27, 2018
- **Final Completion**
 - May 28, 2019

Monroe Bypass Constructors, LLC



Monroe Bypass Constructors is a Joint Venture comprised of three companies:



United Infrastructure Group, Inc.



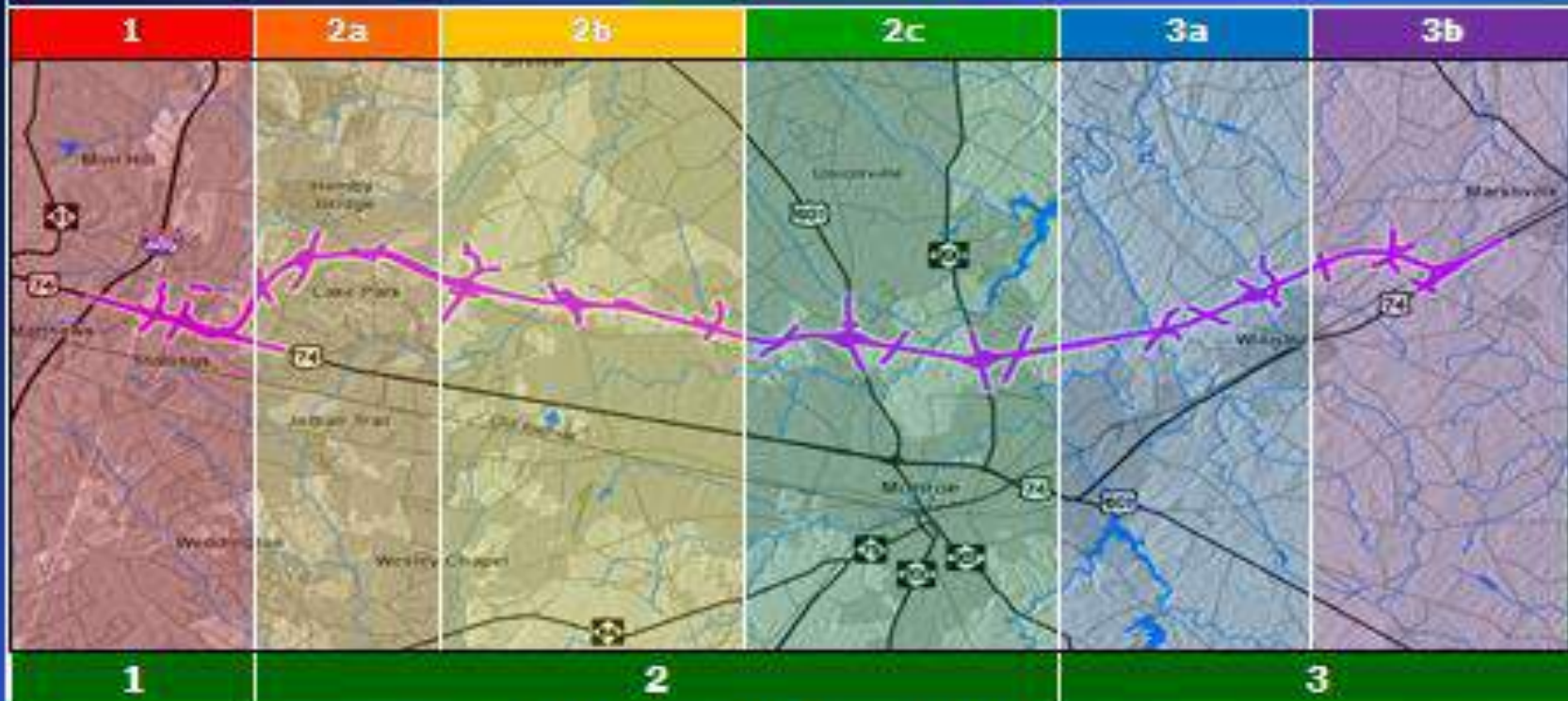
Anderson Columbia Company, Inc.



Boggs Paving, Inc.

Project Segments & Sections

DESIGN SECTIONS



CONSTRUCTION SEGMENTS

MONROE
BYPASS CONSTRUCTORS

ORT Progress

- All of the vaults have been set.
- Paving has started at 8 and 7. Base stone 6, 5, and 4.
- Generators are set at all sites.
- Power has been run to Sites 2, 3 and 4.
- All 42 gantry foundations are set.
 - 18 caps – Site 8, 7, and 6
 - Gantry structures will be arriving this week. (August 1st)
- Toll site lighting has begun at Sites 5-7.
- Screen wall piles will be completed in August.

Expressway Bridge over CSX RR and US 74WB (3B)



Forest Hills Sch. Rd. Overpass & Phifer Rd. (3B)



Austin Chaney Rd. Interchange (3A)



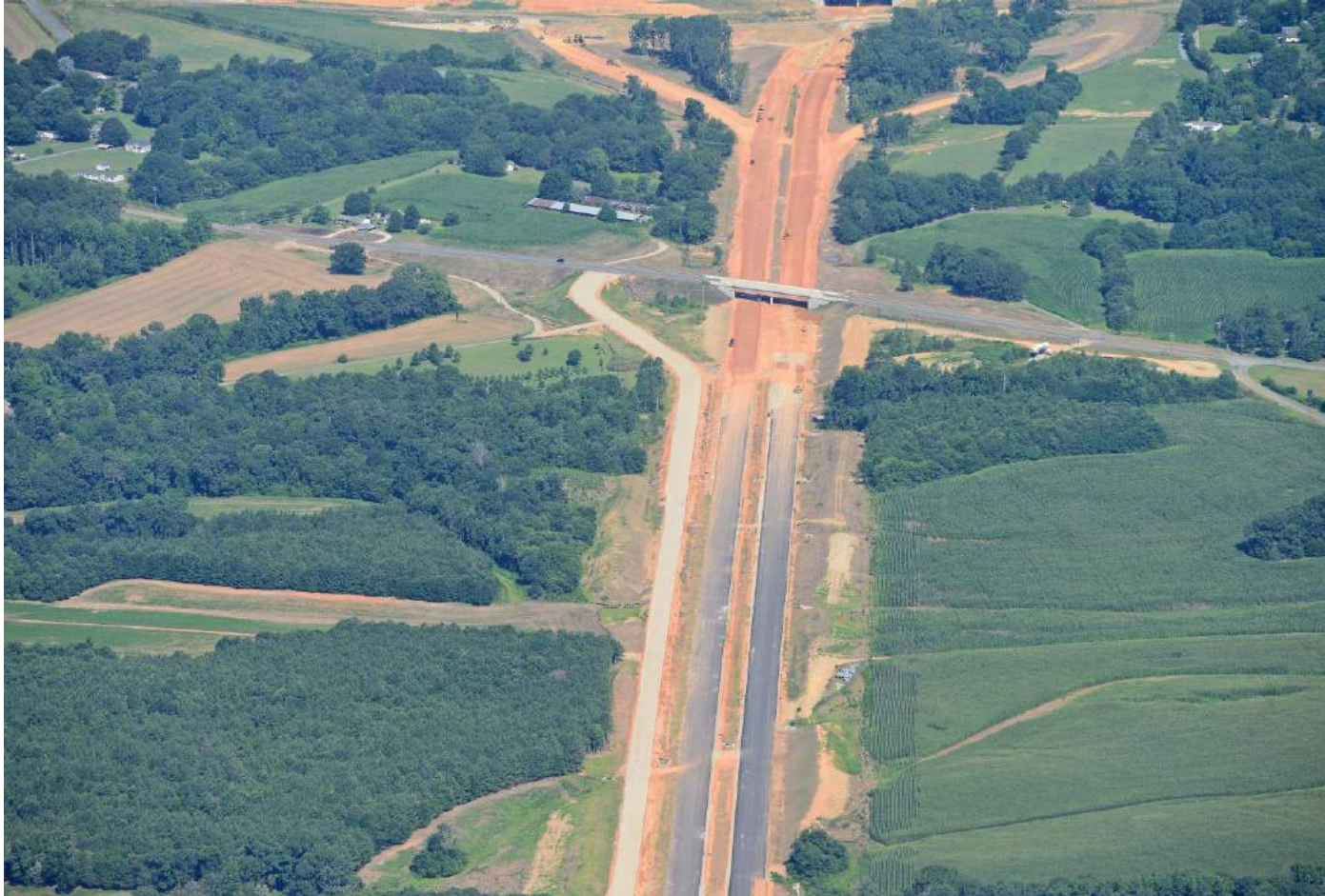
Monroe-Ansonville Rd. (3A)



Toll Zone 7 (3A)



Olive Branch Rd. (2C)



NC 200 (2C)



Toll Site between NC 200 & US 601 (2C)



US 601 Interchange (2C)



Sound Wall near Fowler Rd. (2C)



Rocky River Road Interchange (2B)



Unionville-Indian Trail Road Interchange (2B)



Faith Ch. Rd. & Secrest Shortcut Rd. (2A)



Stinson Hartis Rd. (2A)



US 74 Interchange (1)



Stallings Rd. (1)



Elevated Section (1)



Triangle Expressway – Appropriations Refunding Update

David Roy

Director of Finance and Budget

Policy for Adopting Express Lane Tolling Methodologies

David Roy

Director of Finance and Budget

Overview of Draft Policy

- Policy for adopting Express Lane tolling methodologies and making adjustments to Express Lane tolling methodologies
- The North Carolina Turnpike Authority is authorized to fix, revise, charge and collect tolls and fees for the use of Express Lane projects pursuant to G.S. § 136-89.183(5)
- Prior to, the date an Express Lane Project opens for service, the Authority will adopt the Tolling Methodology for use on the Express Lane Project. Such Tolling Methodology may provide for toll rates based upon the factors the Authority determines appropriate.
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Overview of Draft Policy

- Such Final Traffic and Revenue Study shall propose a Tolling Methodology that addresses, among other things, the following:
 - The **financial components** of the Express Lane Project including forecasted revenue, forecasted operational costs, statement of financial impacts to any other existing or proposed toll projects, including other Express Lane Projects and the project flow of funds;
 - The **operational components** of the Express Lane Project including tolling locations, toll system operational concept, minimum toll rates and escalation schedule, vehicle eligibility assumptions, and toll system viability assessment; and
 - The **customer-related components** of the Express Lane Project including project benefit, toll cost expectations and variability, and communication approach.

Overview of Draft Policy

- If toll-backed financing is being used on the Express Lane Project, the Authority shall file with the Trustee a report stating that the forecasted revenues of such Express Lane Project are maintained at the same levels as those set forth in the Final Traffic and Revenue Study.
- If toll-backed financing is being used on the Express Lane Project, the Authority shall not make a change or adjustment in the Tolling Methodology unless the Authority delivers to the Trustee:
 - A resolution of the Authority;
 - An official Certificate certifying that the Authority is in compliance with all applicable rate covenants; and
 - A report of a Traffic Consultant showing that the Authority in compliance with the requirements of the additional debt limitations.

Review of the Comprehensive Agreement between
the North Carolina Department of Transportation
and I-77 Mobility Partners LLC

Preliminary Findings and Recommendations

August 2017

Overview

NCDOT has initiated a review of the Comprehensive Agreement with I-77 Mobility Partners LLC. The objective is to identify and evaluate potential policy options that might address concerns expressed by members of the public regarding the implementation of the managed toll lanes concept and various provisions in the agreement.

This presentation highlights some of the preliminary findings from a draft report that will be posted for public review in August.

Presentation Outline

- Overview of Draft Report
- Key Findings
 - Factors that Influenced Project Development
 - Risk Allocation Assessment
 - Comparable Public-Private Partnership (P3) Projects
- Recommended Policy Options for Consideration
- Next Steps

Overview of the Draft Report

The draft report is not complete yet. Purpose of this presentation is to provide a general update and to highlight some initial findings.

The draft report, which is expected to be posted for public review in August, will include

- a review of the project development process,
- an assessment of the allocation of project risk under the P3 agreement,
- a discussion of frequently expressed questions and concerns about the Express Lanes and the P3 Agreement, and
- a description of potential policy options for NCDOT consideration.

Appendices will include illustrative examples of the calculation of the potential contract termination cost, public comments submitted to the NCDOT website, and a list of local transportation improvements not subject to a compensation claim.

Factors that Influenced Project Development

*Planning process prioritized expanding travel options
and facilitating transit and ridesharing*

2000 NCDOT/MUMPO study team identifies 50 potential improvements to address peak hour congestion along North I-77 corridor. No funding available for implementation.

2001 I-77 Sub-Area Study Final Report:

“No urban area has succeeded in curbing congestion with a roads-only strategy. New highway capacity generally only provides short-term relief - within three years or so, roads are again close to full capacity because new growth shifts to the improved corridors and commuters shift their travel back to the peak hour.”

2004 First, and only, high-occupancy vehicle (HOV) lanes in North Carolina open on I-77.

Key Factors, *continued*

- | | |
|------------|---|
| 2007-2009 | The I-77 North corridor identified as the most promising of the twelve corridors analyzed for HOV, high-occupancy/toll (HOT), or Truck Only Toll (TOT) lanes in the Charlotte Region <i>Fast Lanes</i> Study. |
| 2009 | Private developer of Augustalee proposes to fund I-77 widening between Exit 23 and Exit 28. MUMPO amends the STIP and states preference for managed lanes. |
| 2010 -2011 | Augustalee in foreclosure; NCDOT and CRTPO pursue federal grant and consider toll revenue bonds to fund HOT lanes. |
| 2012-2013 | CRTPO amends LRTP and TIP twice to facilitate the P3 option. |

“The purpose of the proposed action is to provide immediate travel time reliability along I-77 from Uptown Charlotte to the Lake Norman area. Because the project is designed to address an immediate need, the opening and design years are both proposed for 2017.”

2013 Environmental Assessment for I-77 HOT Lanes

Key Factors, *continued*

A P3 was presented as the only financially viable option

There is no formal process for identifying and screening transportation projects that are potential candidates for delivery under a P3 in North Carolina.

Subject to certain requirements under North Carolina law and oversight provisions in the P3 policy guidelines, NCDOT can initiate a P3 solicitation “for any project presuming the project selection criteria includes public need, technical and financial feasibility, transportation efficiency or efficacy, cost effectiveness, available resources, or project acceleration.”

The I-77 Express Lanes project meets the P3 selection criteria, but the rationale for undertaking the P3 was frequently stated in terms of there being no other alternative (versus being a better alternative).

“Using traditional funding, NCDOT has estimated it would cost over \$500 million to widen I-77 over the course of 15 to 20 years.”

Overview of the Comprehensive Agreement

Comprehensive Agreement (CA) between NCDOT and I-77 Mobility Partners LLC (the Private Partner) was executed on June 26, 2014.

The agreement expires 50 years after substantial completion of the Project.

The rights and responsibilities of each partner are specified in detail in the CA.

The Private Partner is responsible for final design and construction of the Project and installation of the electronic toll collection system.

After completion, the Private Partner will operate and maintain the express lanes and provide routine maintenance of the general purpose lanes.

NCDOT retained responsibility for major capital rehabilitation work on the general purpose lanes, adjacent assets and on certain overpasses and for performing winter maintenance activities.

Risk Allocation Assessment

NCDOT considered various risks and opportunities that could arise over the 50-year term of the Comprehensive Agreement (CA).

The final agreement provides appropriate incentives for the Private Partner to meet its obligations and effective remedies for potential non-performance.

Mercator's review focuses on how risk was allocated in four key areas: toll revenue, project financing, design and construction, and operations and maintenance.

One provision examined in the report is the revenue risk sharing mechanism developed by NCDOT and its advisors called the Developer Ratio Adjustment Mechanism (DRAM).

The DRAM is \$75 million of contingent public funding that can be drawn after substantial completion of the Project.

Risk Allocation Assessment, *continued*

If certain conditions are met, up to \$12 million of the DRAM can be used in any year to pay operating expenses and debt service or to make on required deposits to debt service reserve accounts.

The DRAM does not guarantee or enhance the potential return on the private equity invested in the Project.

The primary beneficiaries of the DRAM are the investors who purchased \$100 million of tax-exempt private activity bonds (PABs) and the United States Department of Transportation (USDOT), the lender for the \$189 million TIFIA loan.

The limited credit support provided by NCDOT helped to secure long-term debt financing at relatively low rates which lowered the amount of upfront public investment. The average yield on the PABs is 4.55 percent and the interest rate on the TIFIA loan is 3.04 percent.

Comparable P3 Projects

The report includes discussion of comparable P3 projects in the U.S. where private investors assumed the revenue risk associated with toll lanes.

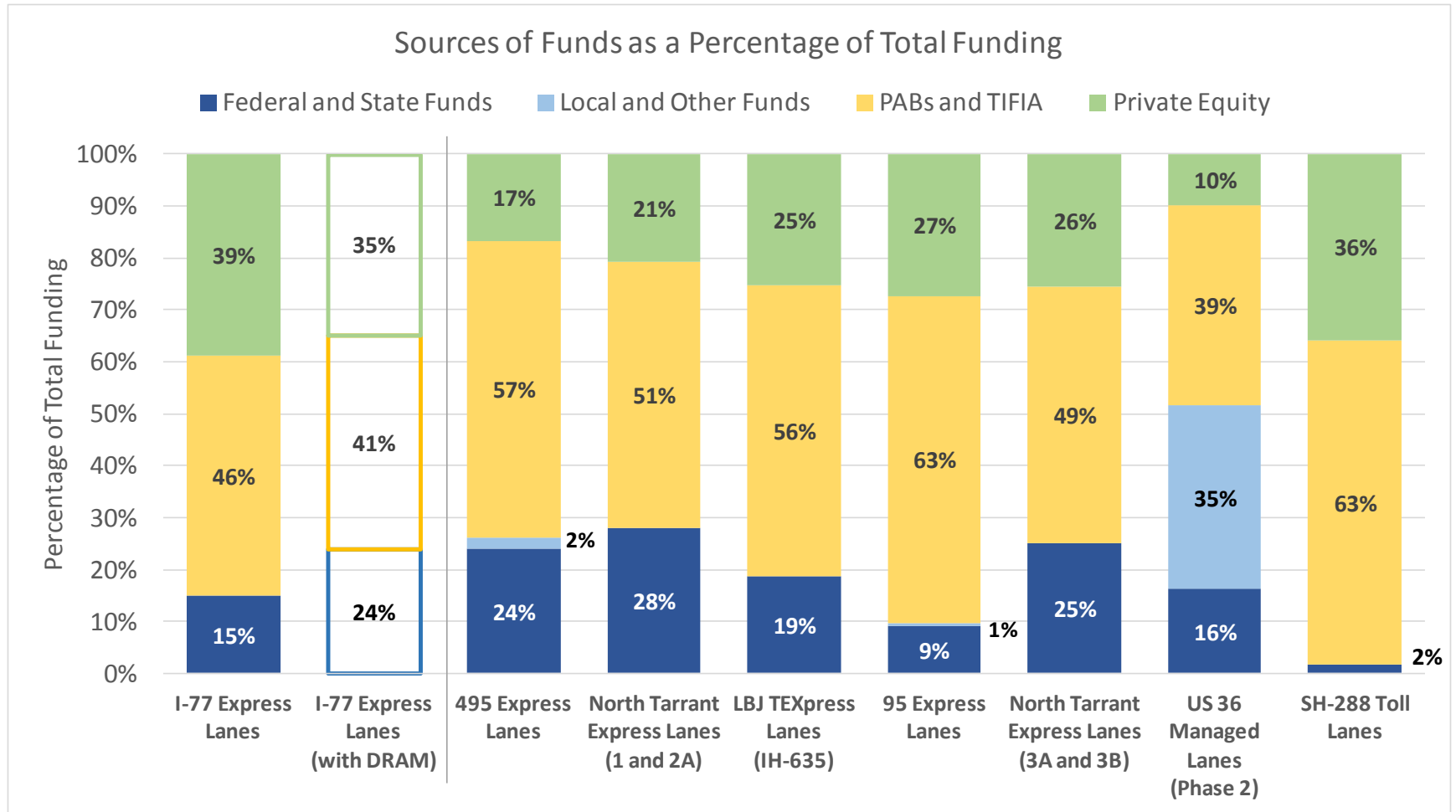
Project	State	Private Partner	Approx. Lane Miles Tolled	Financial Close	Concession Term (years)	End of Term
I-77 Express Lanes	NC	Cintra	94	2015	50 *	2068
495 Express Lanes	VA	Transurban	60	2007	80 **	2087
North Tarrant Express Lanes (1 and 2A)	TX	Cintra	53	2009	52 **	2061
LBJ TEXpress Lanes (IH-635)	TX	Cintra	60	2010	52 **	2061
95 Express Lanes	VA	Transurban	70	2012	73 *	2087
North Tarrant Express Lanes (3A and 3B)	TX	Cintra	41	2013	52 **	2061
US 36 Managed Lanes (Phase 2)	CO	Plenary	45	2014	50 *	2065
SH-288 Toll Lanes	TX	ACS	41	2016	52 **	2068

* From commencement of operations

** From execution of agreement

Comparable P3 Projects, *continued*

Projects in the peer group have a similar mix of public and private funding.



Potential Policy Options

Several policy options will be recommended for consideration:

- Terminate the Comprehensive Agreement and/ the project
- Negotiate modifications to the project scope and/or the terms of the agreement, such as:
 - Defer or eliminate tolling of certain lanes or segments,
 - Reduce financial impact on local residents by establishing frequent user discounts,
 - Encourage greater use of new capacity by allowing HOV-2 for some period of time, or
 - Eliminate or modify the compensation for unplanned revenue impacting facilities.

Potential Policy Options, *continued*

- Work with CRTPO to identify and advance additional improvements to address mobility issues in the corridor, such as:
 - constructing auxiliary lanes between interchanges or strengthening outside shoulders for peak hour use, and
 - addressing roadway bottlenecks that hamper movement of trucks.
- Develop preliminary plans to negotiate and finance the purchase the toll lanes after completion.

Potential Policy Options, *continued*

Potential Cost of Termination for Convenience?

The compensation will be the greater of the appraised Fair Market Value and the Senior Debt Termination Amount.

The Fair Market Value appraisal must be conducted by an independent third-party appraiser who, among other things, will estimate the value of the projected net toll revenue that might be generated by the Project.

The Mercator report will provide illustrative examples of the potential calculation of Fair Market Value and the Senior Debt Termination Amount.

Potential Policy Options, *continued*

Other important questions related to the termination option include:

- *What options are available for funding the cost to terminate the agreement, to pay demobilization and other associated costs, and to stabilize the work site?*
- *What is the potential process and timing for CRTPO to assess the impact of a termination on regional transportation plans and to identify and approve alternatives to the express lanes?*
- *What is the potential impact on local projects funded with bonus allocation funds if tolling is not implemented?*

Next Steps

Early August 2017

Circulate the draft report for public review

September 2017

Submit final report to Secretary of Transportation