

**RESOLUTION ON TOLL RATES FOR OLD HOLLY SPRINGS – APEX ROAD  
INTERCHANGE ON TRIANGLE EXPRESSWAY**

**WHEREAS**, the North Carolina Turnpike Authority (the “*Authority*”) is duly organized and existing under the laws of the State of North Carolina (the “*State*”) within the State Department of Transportation, and is authorized under Article 6H (Turnpike Authority and Toll Projects) of Chapter 136, as amended (the “*Act*”), of the North Carolina General Statutes (the “*NCGS*”), to acquire, construct and operate “turnpike projects,” as defined in the Act;

**WHEREAS**, the Authority has financed the construction of its Triangle Expressway System as a turnpike project under the Act through the issuance of its revenue bonds and entry into a loan agreement with the U. S. Department of Transportation, among other agreements and contracts;

**WHEREAS**, the Secretary of Transportation, pursuant to Section 143B-10 and 143B-349 of the NCGS, has delegated to the Board of the Authority certain powers including the power to fix, revise, charge, and collect tolls and fees for the use of turnpike projects;

**WHEREAS**, the Authority on September 17, 2008, adopted a policy for adopting toll schedules and any adjustments to toll schedules (the “*Toll Rate Policy*”) and the Toll Rate Policy provides that under the direction of the Authority a Traffic Consultant shall prepare a Traffic and Revenue Study forecasting projected traffic for each turnpike project and the toll revenues to be generated and after receipt of such Traffic and Revenue Study the Authority will adopt a toll rate schedule for the use of the turnpike project based upon factors it determines appropriate, including but not limited to, the location of the turnpike project for which the toll is collected, the type of vehicles anticipated to use the turnpike project, the method of collection of the toll (electronic, video, cash or other method) and other factors; and

**WHEREAS**, the Traffic and Revenue Study for the Triangle Expressway System, prepared by CDM Smith, is dated April 2009, and has been supplemented, including by a CDM Smith report dated March 31, 2016, containing a proposed toll rate schedule for the new Old Holly Springs – Apex Road interchange to be opened on the Triangle Expressway;

**NOW THEREFORE, THE BOARD OF THE NORTH CAROLINA TURNPIKE  
AUTHORITY HEREBY RESOLVES:**

1. The Board hereby approves and authorizes the proposed toll rate schedule for the new Old Holly Springs – Apex Road interchange as presented.
2. The Chairman, the Executive Director, the Finance Office and other members, staff and employees of the Authority are authorized and directed to take such action and to execute and deliver any documents, certificates, undertakings, agreements or other instruments as they, with the advice of counsel, may deem necessary and appropriate to effect the purposes of this resolution.
3. This resolution shall take effect immediately upon its passage.

Adopted August 4, 2016

## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The proposed project would widen and add Express Lanes to Independence Boulevard (US 74) from Conference Drive in Charlotte to I-485 in Matthews, a distance of approximately 6.3 miles. This project is the second phase of the US 74 Express Lanes system and is also part of an overall Express Lanes network that includes planned Express Lanes on I-77 and I-485.

### IMPORTANT FACTS

Contract Award: Fiscal Year 2022

Projected Cost: \$405M (STIP)

Open to Traffic: TBD

Type of Tolling: Express Lanes

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### PLANNING/DESIGN/CONSTRUCTION

- Support the Project Development and Environmental Analysis (PDEA) Unit on developing alternatives for study
- Support the PDEA Unit on preparation of the Environmental Assessment (EA)
- Participate in Stakeholder Meetings

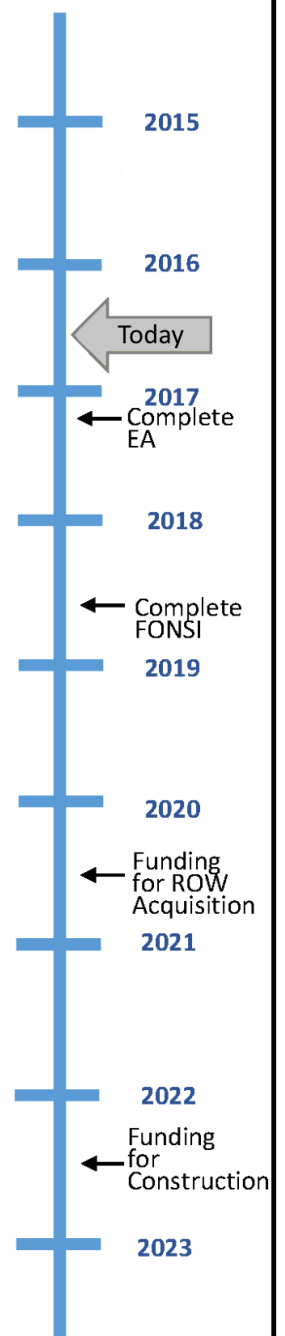
#### FINANCE

- Develop Traffic & Revenue (T&R) Study with CDM Smith (complete by October of 2016)
- Prepare cost estimates (Capital, Operations and Maintenance)
- Develop Preliminary Plan of Finance with PFM (NCTA financial advisor)

#### ALL-ELECTRONIC TOLLING

- No activities anticipated

#### PROJECT DELIVERY



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

NCDOT has requested that HNTB North Carolina, P.C. design an upgrade to the existing SB exit ramp from I-540 to NC 55 east of the Old Holly Springs Apex Road proposed interchange. The project consists of approximately 1,000' of ramp plan and profile upgrades in the southwest quadrant of the existing interchange of NC 55 and I-540. The project will improve the ramp sight distance and increase the radius of the curve at the foot of the ramp, thereby improving motorist safety. The Intelligent Transportation System (ITS) trunkline and an ITS device will be impacted therefore ITS plans will be part of the package.

### IMPORTANT FACTS

Construction to Start: April 2016

Project Cost: \$1,307,262.21

Open to Traffic: November 2016

Type of Tolling: N/A

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### DESIGN/CONSTRUCTION

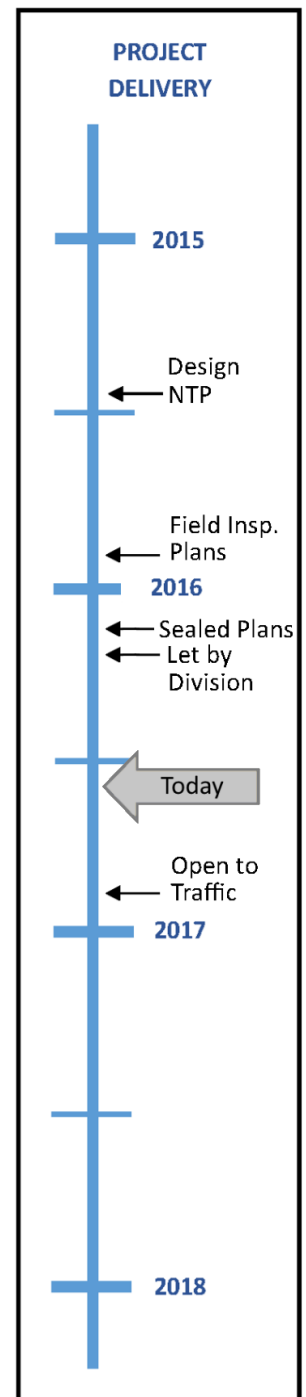
- Coordinate with R-2635D project and warranty work
- Track/inspect ITS construction
- Review ITS, signing, & pavement marking project submittals
- Ensure maintenance of traffic (MOT) operations do not inhibit toll road traffic

#### FINANCE

- No activities anticipated

#### ALL-ELECTRONIC TOLLING

- No activities anticipated



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The purpose of STIP Project U-5315 is to extend Morrisville Parkway and construct an interchange with Triangle Expressway (Toll NC 540) in Wake County (Phases specified below) to provide increased connectivity and access. Planning and Design were managed by the Town of Cary in coordination with NCDOT. Project will be let to contract by NCDOT. NCTA is participating in funding for U-5315B only.

### IMPORTANT FACTS

Construction Start: 2017

Projected Cost: \$22.8M (U-5315B)

Open to Traffic: 2018

Type of Tolling: Fixed tolls

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### PLANNING/DESIGN/CONSTRUCTION

- Coordinate with Town of Cary, Division, and Local Programs Management Office for Right of Way and other municipal agreements as needed

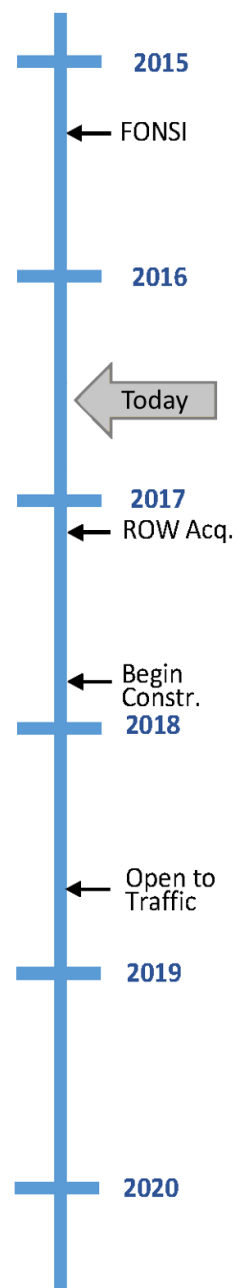
#### FINANCE

- No activities anticipated

#### ALL-ELECTRONIC TOLLING

- Begin preparation for other toll-related contract modifications:
  - Roadside Toll Collection System (RTCS)
  - Back Office System (BOS)
  - Electronic Toll Collection System (ETCS)
  - Toll Operations (OPS)

#### PROJECT DELIVERY



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The purpose of this project is to construct an expressway extending nearly 20 miles from US 74 near I-485 in Mecklenburg County to US 74 between the towns of Wingate and Marshville in Union County. The four-lane divided facility will have fixed toll rates at seven mainline zones.

### IMPORTANT FACTS

Construction Started: May 2015

Projected Cost: \$731M

Open to Traffic: November 2018

Type of Tolling: Fixed tolls

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### DESIGN/CONSTRUCTION

- Review of design submittals for All-Electronic Tolling (AET) infrastructure, Intelligent Transportation Systems (ITS), Signing & Aesthetics
- Coordinate with Roadside Environmental Unit (REU) on approach to landscaping and procurement strategy
- Attend meetings to monitor progress and address toll-related concerns
- Update Project Management Plan (for Federal Highway Administration) as required

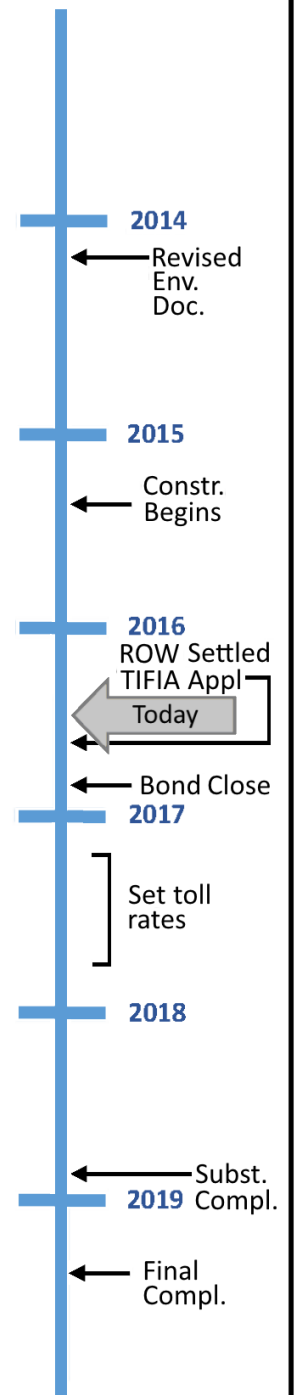
#### FINANCE

- Complete Traffic & Revenue (T&R) Study
- Go thru process of obtaining TIFIA loan to incorporate into financial plan
- Complete financial reporting documents as required:
  - Quarterly Construction Progress Report (for Wells Fargo)
  - Consulting Engineer's Report (for bond rating agencies)
  - Annual Financial Plan Update
- Prepare for toll revenue bond sale in late 2016

#### ALL-ELECTRONIC TOLLING

- Prepare Request for Proposal (RFP) for Roadside Toll Collection System (RTCS)
  - Shortlist to be announced August 5, 2016
  - Contract to be awarded in late 2016
- Begin preparing for other toll-related contract modifications in 2016:
  - Back Office System (BOS)
  - Electronic Toll Collection System (ETCS)

#### PROJECT DELIVERY



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The proposed project calls for transportation improvements in the Currituck Sound area with focus on the consideration of a Mid-Currituck Bridge. The proposed action is a seven-mile long toll project including a two-lane bridge that spans Currituck Sound connecting the Currituck County mainland with its Outer Banks, and a separate two-lane bridge that spans Maple Swamp on the Currituck County mainland connecting Aydlett to US 158, in Currituck County.

### IMPORTANT FACTS

Construction Award: FY 2017

Projected Cost: \$483M (per STIP)

Open to Traffic: December 2022

Type of Tolling: Variable

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### PLANNING/DESIGN/CONSTRUCTION

- Support the Project Development and Environmental Analysis (PDEA) Unit on completing the Reevaluation Report of the Environmental Impact Statement (EIS)
- Determine procurement process for construction contract

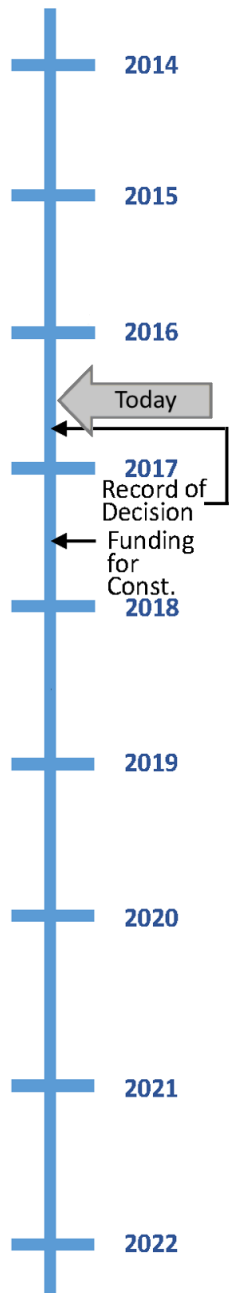
#### FINANCE

- Develop Investment Grade Traffic & Revenue (T&R) Study with Stantec
- Update cost estimates (Capital, Operations and Maintenance) (complete by October 2016)
- Update Plan of Finance with PFM (NCTA financial advisor)

#### ALL-ELECTRONIC TOLLING

- No activities anticipated

#### PROJECT DELIVERY



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The purpose of this project is to provide a reliable travel time option by constructing one Express Lane in each direction on I-485 (Charlotte Outer Loop) in Charlotte from I-77 to US 74 (Independence Boulevard), for approximately 17 miles.

### IMPORTANT FACTS

Contract Award: Q1 2017 (anticipated)

Projected Cost: \$204M (from STIP)

Open to Traffic: 2020

Type of Tolling: Express Lanes

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### PLANNING, DESIGN, CONSTRUCTION

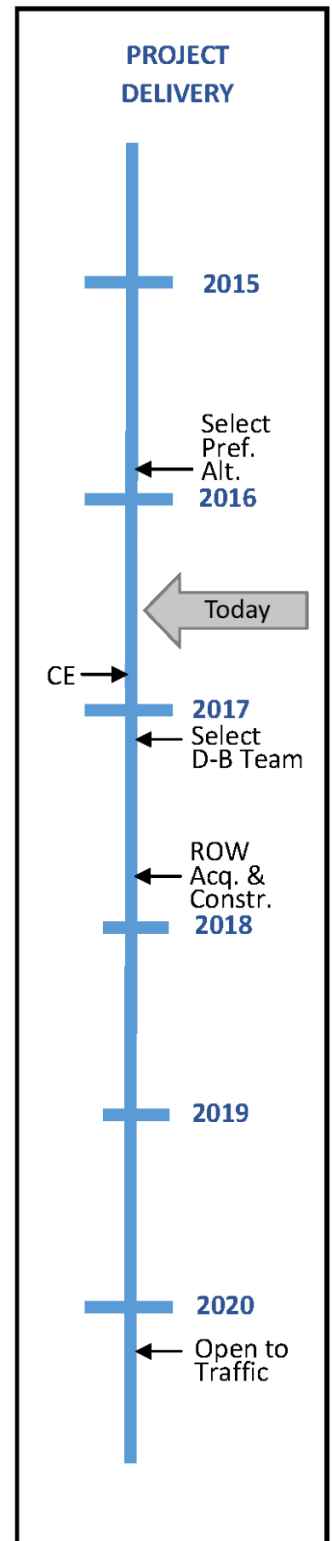
- Coordinate with PDEA, Roadway Design, Design-Build Unit, Congestion Management, and Division 10
- Attend stakeholder and public involvement meetings as needed
- Finalize Concept Plans for Signing, Intelligent Transportation Systems (ITS), and All-Electronic Tolling (AET)
- Revise/Finalize Design/Build Scopes of Work for AET and ITS
- Update NCTA AET Standard Drawings for Express Lanes
- Prepare and coordinate project cost estimation for NCDOT
- Begin work on Concept of Operations

#### FINANCE

- Level II Traffic & Revenue (T&R) Study (final draft completed)
- Complete Operations & Maintenance Model following T&R

#### ALL-ELECTRONIC TOLLING

- Complete estimates for Toll Collection System (TCS) contracts as a part of the Tolling Concept Plans



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The purpose of STIP Project I-5718 is to widen I-77 to ten lanes by constructing Express Lanes from I-485 (Exit 1) to I-277/NC 16 (Brookshire Freeway) (Exit 11). The total project length is 9.6 miles.

### IMPORTANT FACTS

ROW Acquisition: 2024

Projected Cost: \$1.2B

Open to Traffic: TBD

Type of Tolling: Express Lanes

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### PLANNING, DESIGN, CONSTRUCTION

- Coordinate with PDEA and Division 10 once project is re-started in planning process
- Attend stakeholder and public involvement activities as needed

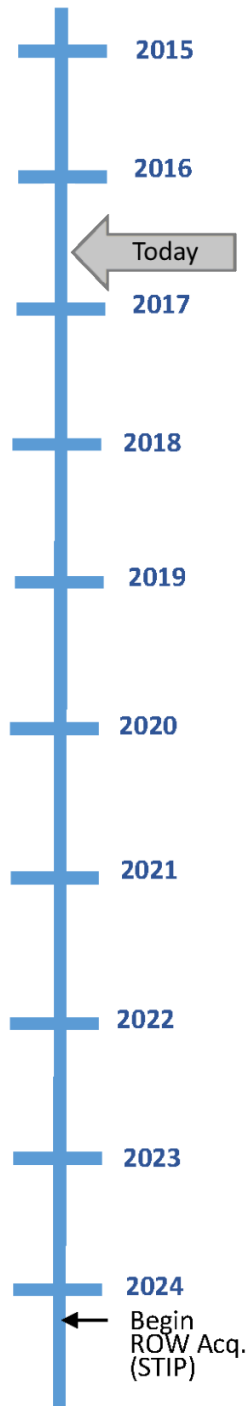
#### FINANCE

- No activities anticipated

#### ALL-ELECTRONIC TOLLING

- No activities anticipated

#### PROJECT DELIVERY





## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The Old Holly Springs-Apex Road Interchange project (also known as “Access 540”) will add a new interchange to the NCTA’s Triangle Expressway (Toll NC 540) in southwest Wake County, near the southern end of the toll road. The interchange will include two new ramp toll zones.

### IMPORTANT FACTS

Contract Award: June 2015

Projected Cost: \$24.4M (Total)

Open to Traffic: December 2016 (new ramps) Type of Tolling: Fixed tolls

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### DESIGN/CONSTRUCTION

- Review of construction submittals for All-Electronic Tolling (AET) infrastructure, Intelligent Transportation Systems (ITS), Signing, and Pavement Markings
- Attend design meetings to monitor project progress and address toll related concerns
- Track/inspect ITS/AET construction activities; AET site construction has started
- Coordinate with NC-55 Bypass SB ramp reconstruction and warranty work

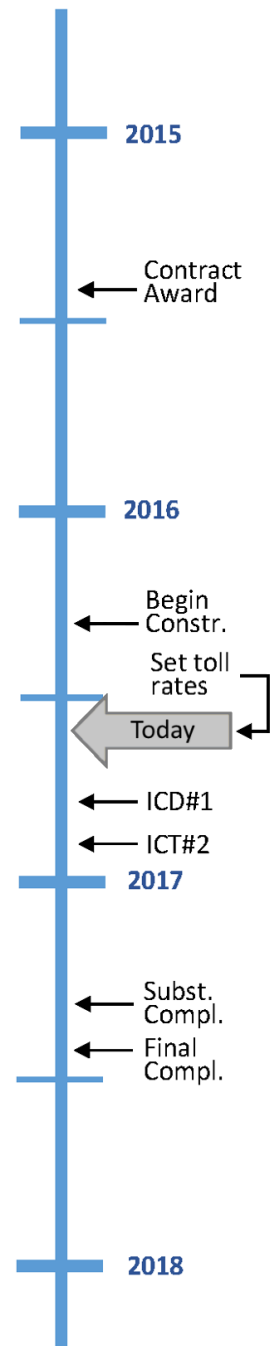
#### FINANCE

- Update Operations & Maintenance Model if needed
- Obtain NCTA Board approval of toll rates for new ramp toll zones (August)

#### ALL-ELECTRONIC TOLLING

- Negotiate and execute Extra Work Orders (EWO) for Roadside Toll Collection System (RTCS), Electronic Toll Collection System (ETCS) and Back Office System (BOS) for new and revised toll zones
  - RTCS EWO #2 (modify existing mainline toll zone) complete
  - RTCS design for new toll zones (EWO #1) being finalized
  - RTCS design for modified mainline toll zones (EWO #3) being finalized
  - ETC EWO executed in June

#### PROJECT DELIVERY



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The purpose of this project is to convert the bus lanes in the median of Independence Boulevard (U.S. 74) in Charlotte from I-277 to Wallace Lane to Express Lanes. This conversion will include the bus lanes that currently exist between I-277 and Albemarle Road (NC 27), as well as the bus lanes that are currently being constructed from Albemarle Road to Wallace Lane, under STIP Project U-209B.

### IMPORTANT FACTS

Contract Award: May 2017

Projected Cost: \$28.8M (Total)

Open to Traffic: Early 2018

Type of Tolling: Express Lanes

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### PLANNING/DESIGN/CONSTRUCTION

- Conduct and complete Final Design of Intelligent Transportation System (ITS), Gate Control System, and All-Electronic Toll (AET) (by early 2017)
- Coordinate with NCDOT on the civil & signing design
- Coordinate with other ongoing Express Lane projects in the Charlotte metro area

#### FINANCE

- Update State Transportation Improvement Plan (STIP) with new project costs
- Refine Operations & Maintenance Model if needed
- Complete Level II Traffic & Revenue (T&R) Study (by late 2016) as a part of the U-2509 project which extends Express Lanes east to I-485

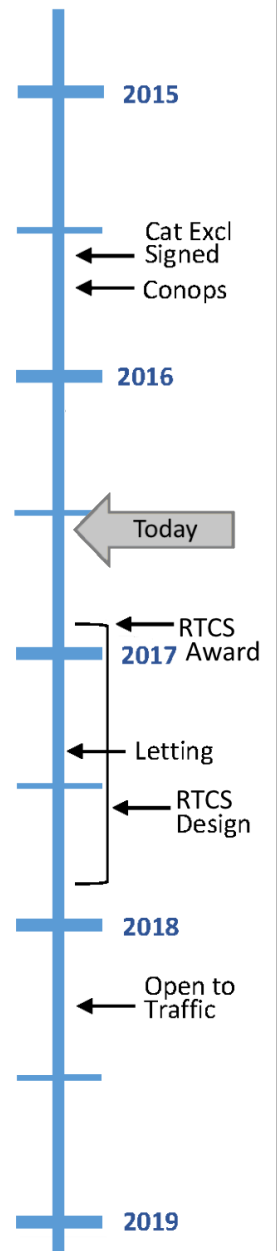
#### ALL-ELECTRONIC TOLLING

- Produce, negotiate and execute Extra Work Orders for:
  - Back Office System (BOS), Electronic Toll Collection System (ETCS), and Toll Operations (OPS)
  - Roadside Toll Collection System (RTCS) & Dynamic Pricing Software
    - Shortlist to be announced August 5, 2016
    - Award contract late 2016

#### OPERATIONS

- Prepare for Express Lane Operations by coordinating with NCDOT Division 10 and the local transportation management centers
- Plan for Charlotte area tolling storefront

#### PROJECT DELIVERY



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The purpose of this project is to add capacity to the corridor between I-277 (Exit 11) in Charlotte (Mecklenburg County) and N.C. 150 (Exit 36) in Iredell County (26 miles). This project offers drivers the option of using the existing general purpose lanes for free, or paying a toll to enter and exit the I-77 Express Lanes at various points.

### IMPORTANT FACTS

Construction Started: November 16, 2015

Projected Cost: \$665M

Open to Traffic: 1<sup>st</sup> segment November 2017,  
Late 2018 for all segments

Type of Tolling: Express Lanes

### KEY NCTA ACTIVITIES

Listed below are key activities currently being conducted by NCTA in order to bring the project on line.

#### CONSTRUCTION

- Participate in project meetings
- Conduct reviews of All-Electronic Tolling (AET), Intelligent Transportation System (ITS), Pavement Marking and Signing plan submittals as needed

#### FINANCE

- Determine Operations and Maintenance (O&M) costs for processing Electronic Toll Collection (ETC) and Bill by Mail (BBM) video transactions
- Cost estimate developed for Charlotte/I-77 area NC Quick Pass Storefront

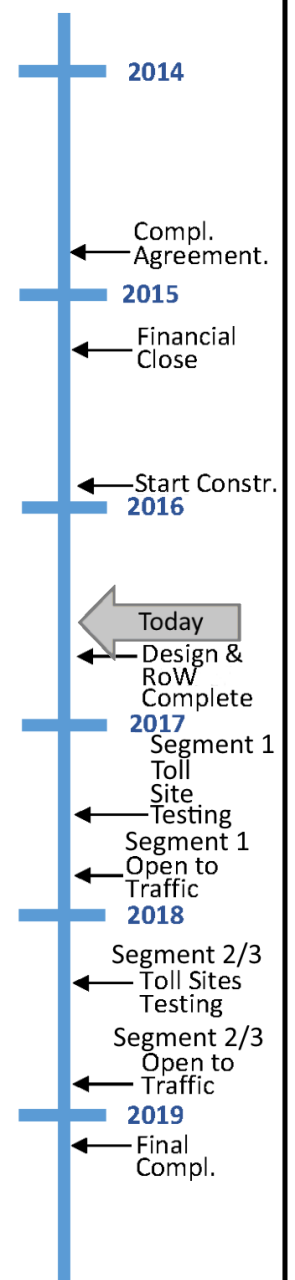
#### ALL-ELECTRONIC TOLLING

- Continue preparation of toll-related contract modifications in 2016:
  - Back Office System (BOS)
    - Finalize Interface Control Document and Processing Business Rules between I-77 and BOS (August 2016)
  - Electronic Toll Collection System (ETCS)
    - Receive HOV declaration technology via mobile apps from I-77 Mobility Partners

#### OPERATIONS

- Toll Operations – Determine staff requirements for storefront
- Coordination with Developer for Charlotte/I-77 area NC Quick Pass Storefront in final stages (95% complete)
  - Storefront to be co-located in I-77 Mobility Partners Administration and Maintenance Building (scheduled to open July 2017)

#### PROJECT DELIVERY



## PROJECT STATUS SHEET

### PROJECT DESCRIPTION

The proposed "Complete 540" project, also known as the Southeast Extension, would extend the Triangle Expressway from the NC 55 Bypass in Apex to the US 64/US 264 Bypass in Knightdale, completing the 540 Outer Loop around the greater Raleigh area. This proposed new location, limited-access, tolled highway would extend approximately 27 miles.

### IMPORTANT FACTS

Construction to Start: FY 2017

Projected Cost: \$2.2B

Open to Traffic: June 2020 (Phase I)

Type of Tolling: Fixed tolls

### KEY NCTA ACTIVITIES

Listed below are key activities being conducted by NCTA in the next six months in order to bring the project online.

#### PLANNING/DESIGN/CONSTRUCTION

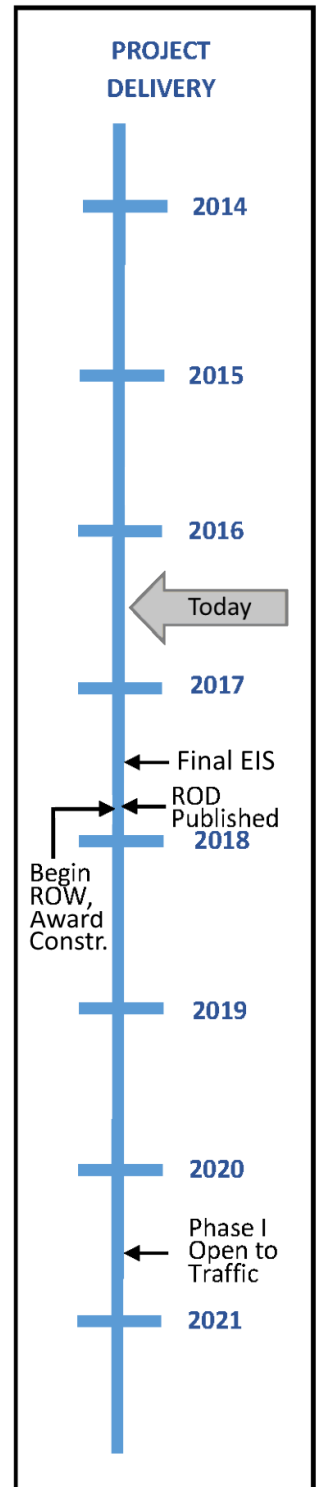
- Support the Project Development and Environmental Analysis (PDEA) Unit on preparing the Final Environmental Impact Statement (FEIS)

#### FINANCE

- Initiate Traffic & Revenue (T&R) Study with CDM Smith
- Prepare cost estimates (Capital, Operations and Maintenance)
- Develop Preliminary Plan of Finance with PFM (NCTA financial advisor)

#### ALL-ELECTRONIC TOLLING

- No activities anticipated



**RESOLUTION OF BOARD OF NORTH CAROLINA TURNPIKE AUTHORITY  
CONCERNING APPLICATION TO LOCAL GOVERNMENT COMMISSION FOR  
APPROVAL OF 2016 TOLL REVENUE BONDS AND A TIFIA BOND AND THE  
WORKING GROUP PARTICIPANTS FOR THE ISSUANCE THEREOF**

**WHEREAS**, the North Carolina Turnpike Authority (the “*Authority*”) is duly organized and existing under the laws of the State of North Carolina (the “*State*”) within the State Department of Transportation, and is authorized under Article 6H (Turnpike Authority and Toll Projects) of Chapter 136, as amended (the “*Act*”), of the North Carolina General Statutes (the “*NCGS*”) and The State and Local Government Revenue Bond Act, Article 5 of Chapters 159, as amended, of the NCGS (the “*Revenue Bond Act*”), to issue revenue bonds for the purpose of financing and refinancing the cost of acquiring, constructing and equipping “turnpike projects,” as defined in the Act;

**WHEREAS**, the Secretary of Transportation of the State, pursuant to Section 143B-10 and 143B-349 of the NCGS, has delegated to the Board of the Authority certain powers including the power to fix, revise, charge, and collect tolls and fees for the use of turnpike projects and the power to issue bonds or notes of the Authority to finance such projects;

**WHEREAS**, the Authority has previously issued revenue bonds pursuant to the Act and the Revenue Bond Act to finance a portion of the costs of the land, easements, rights of way, capital improvements and equipment constituting a turnpike project of the Authority now known as the “Monroe Expressway” and generally consisting of an approximately 19.7 mile roadway extending from US Highway 74 at Interstate 485 in eastern Mecklenburg County, North Carolina, near the Town of Matthews to US Highway 74 near the Town of Marshville in Union County, North Carolina (the “*Project*”);

**WHEREAS**, due to unforeseen delays in construction, the cost of the Project has increased and the Authority has determined to finance such increase by the issuance of additional revenue bonds to be repaid from toll and other revenues of the Project, as well as a borrowing from the U. S. Department of Transportation (“*USDOT*”) under the Transportation Infrastructure Finance and Innovation Act of 1998 (“*TIFIA*”); with proceeds used, among other things, to pay such costs, fund reserves for the bonds and refund certain prior revenue bonds; and

**WHEREAS**, the Revenue Bond Act requires that revenue bonds thereunder be approved by the North Carolina Local Government Commission (the “*LGC*”), and that the LGC make certain findings with respect to such bonds, based, in part, on findings made by the issuer thereof; and

**WHEREAS**, the Authority’s obligation to repay to UDSOT the amount borrowed under TIFIA will be evidenced by a bond of the Authority, the issuance whereof is also subject to approval by the LGC;

**NOW, THEREFORE, THE BOARD OF THE NORTH CAROLINA TURNPIKE AUTHORITY HEREBY RESOLVES:**

1. An application to the LGC for (a) approval of the issuance of non-recourse toll revenue bonds in one or more series under the Revenue Bond Act for the purpose of financing remaining costs of the Project, with appropriate reserves and issuance costs, and secured by and payable from the toll or other revenues of the Monroe Expressway (the “*2016 Bonds*”), and (b)

approval of the issuance of a non-recourse toll revenue bond under the Revenue Bond Act for the purpose of evidencing its obligation to repay amounts borrowed from USDOT under TIFIA, secured by and payable from the toll or other revenues of the Monroe Expressway (the “*TIFIA Bond*”), is hereby authorized, approved and confirmed

2. In connection with the application to the LGC, the Board of the Authority hereby makes the following findings:

a. The Project, based in part on the General Assembly’s actions in designating it as a “turnpike project” under the Act and taking action for certain committed state appropriations, is both necessary and expedient. Further, the issuance of the 2016 Bonds and the TIFIA Bond for the purpose of financing the Project is both necessary and expedient.

b. The Project is feasible.

c. The amount of debt to be incurred in connection with the Project and the fees to be paid in connection therewith are sufficient but not excessive for the purpose of finishing acquiring, constructing and installing the Project by paying debt service on the 2016 Bonds and the TIFIA Bond from toll and other revenues.

d. The Authority has not defaulted on any debt obligation.

e. The Authority follows the debt management guidelines of the North Carolina Local Government Commission.

f. The anticipated toll revenues, based on a professional traffic and revenue study for the Project, will be sufficient to service the proposed 2016 Bonds and TIFIA Bond payable therefrom.

g. The proposed 2016 Bonds and TIFIA Bond may be issued at reasonable rates of interest.

3. The Authority hereby designates, and requests the LGC approve, to the extent necessary, the following parties working in the following capacities in connection with the 2016 Bonds and the TIFIA Bond.

Underwriters:

Senior Manager	Bank of America Merrill Lynch
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Co-Managers	Citigroup Global Markets, J.P. Morgan Securities and Wells Fargo Securities
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Financial Advisor	Public Financial Management, Inc.
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Professional Engineers	HNTB
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Traffic and Revenue Consultants	CDM Smith
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Trustee	Wells Fargo Bank, N.A.
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Underwriters' Counsel

McGuireWoods LLP

Bond Counsel

Hunton & Williams LLP

Authority Counsel

Ebony Pittman, Esq, of Attorney General's Office

4. This resolution shall take effect immediately.