

U.S. 74 Express Lanes – Phase 1 STIP Project No. U-5526A Mecklenburg County

P & D: TGS ENGINEERS

DESIGN: ATKINS/HNTB

TRAFFIC ANALYSIS: AECOM

TRAFFIC & REVENUE: STANTEC

NATURAL RESOURCES: KIMLEY-HORN

In Design

Updated: August 3, 2017

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 currently being constructed under STIP Project U-209B.

IMPORTANT FACTS

Contract Let: November 2017 (On Hold)

Open to Traffic: Late 2018

Projected Cost: \$28.8M (Total)

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 mid-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
- Initiate Level II Traffic & Revenue (T&R) Study as a part of the U-2509 project which extends Express Lanes east to I-485

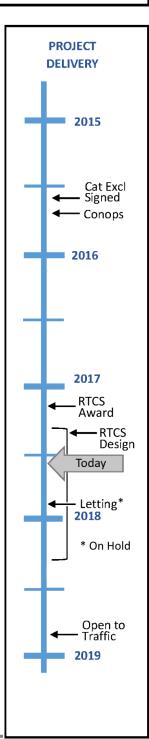
ALL-ELECTRONIC TOLLING

- Produce, negotiate and execute Extra Work Orders for Back Office System (BOS), and Toll Operations (OPS)
- Manage Roadside Toll Collection System (RTCS) & Electronic Toll Collection System (ETCS) contracts

• Contracts executed early March 2017; design underway

OPERATIONS

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





Under Construction

Updated: August 3, 2017

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. CONTRACTOR: MONROE BYPASS CONSTRUCTORS** CEI: SUMMIT TRAFFIC & REVENUE: CDM SMITH P & D: ATKINS **

** see page 2 for further information

IMPORTANT FACTS

Construction Started: May 2015

Projected Cost: \$731M Type of Tolling: Fixed tolls

Open to Traffic: November 2018 (or earlier)

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

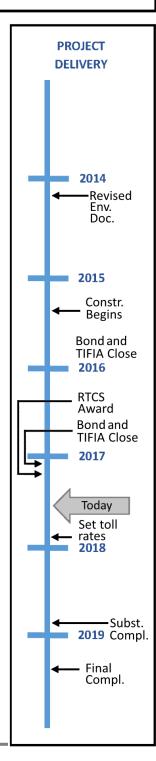
- Review of design submittals for All-Electronic Tolling (AET) infrastructure, Intelligent Transportation Systems (ITS), Signing & Aesthetics
- Coordinate with Roadside Environmental Unit (REU) on approach to landscaping and procurement strategy
- Attend meetings to monitor progress and address toll-related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

FINANCE

- Complete financial reporting documents as required:
 - Quarterly Construction Progress Report (for Wells Fargo)
 - Consulting Engineer's Report (for bond rating agencies)
 - o Annual Financial Plan Update

ALL-ELECTRONIC TOLLING

- Manage Roadside Toll Collection System (RTCS) and Electronic Toll Collection System (ETCS) contracts
- Prepare for contract modifications to:
 - Back Office System (BOS)
 - Toll Operations (OPS) incl. planning for Monroe area toll storefront
- Implement Wrong-Way Detection & Notification system





Under Construction

Updated: August 3, 2017

Additional Design-Build Team Information:

- JOINT VENTURE PARTNERS: UNITED INFRASTRUCTURE GROUP, ANDERSON-COLUMBIA, BOGGS PAVING
- LEAD DESIGNER RK&K
- SECONDARY ROADWAY DESIGNER MULKEY (now CALYX)
- SECONDARY STRUCTURAL DESIGNERS SIMPSON ENGINEERING, KCI, MULKEY (now CALYX), MORRIS ISRAELNAIM
- SIGNING & ITS DESIGN RKK, DRMP
- STRUCTURAL CONTRACTORS DELLINGER, DANE, SLOAN, UNITED, MOUNTAIN CREEK
- ROADWAY CONTRACTOR ES WAGNER, VECELLIO AND GROGAN, SLOAN
- ELECTRICAL CONTRACTOR T&H ELECTRIC
- GEOTECH AND GEOENVIRONMENTAL, PAVEMENT DESIGN AMEC-FOSTER-WHEELER, F&ME
- PERMITTING & ENVIRONMENTAL THE CATENA GROUP (now THREE OAKS)
- SYSTEMS INTEGRATION T&H ELECTRIC, PROTRONIX

Additional P & D Subconsultants:

- INDIRECT AND CUMULATIVE EFFECTS ASSESSMENT, COST ESTIMATION HNTB
- NATURAL RESOURCES ENVIRONMENTAL SERVICES, INC.
- HISTORIC ARCHITECTURAL RESOURCES SURVEY MATTSON, ALEXANDER, AND ASSOCIATES
- PRELIMINARY TRAFFIC AND REVENUE STUDY AND TRAFFIC FORECASTS WILBUR, SMITH AND ASSOCIATES (now CDM SMITH)
- TRAFFIC FORECASTS MARTIN/ALEXIOU/BRYSON (now VHB)
- RELOCATION REPORTS CAROLINA LAND ACQUISITION
- INDIRECT AND CUMULATIVE EFFECTS BAKER
- CULTURAL RESOURCES NEW SOUTH ASSOCIATES
- BIOLOGICAL ASSESSMENT FOR ENDANGERED SPECIES THE CATENA GROUP (now THREE OAKS)
- RIGHT OF WAY ACQUISITION: HNTB, CAROLINA LAND ACQUISITIONS, ATKINS, PROFESSIONAL PROPERTY SERVICES



I-485 Express Lanes STIP Project No. I-5507 Mecklenburg County

PROJECT STATUS SHEET

Pre-Construction

P & D: RS&H

Updated: August 3, 2017

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) from I-77 to US 74 (Independence Boulevard), for approximately 17 miles.

IMPORTANT FACTS

Contract Award: FY 2018 (anticipated)

Open to Traffic: 2020

Projected Cost: \$289.5M (from STIP)

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

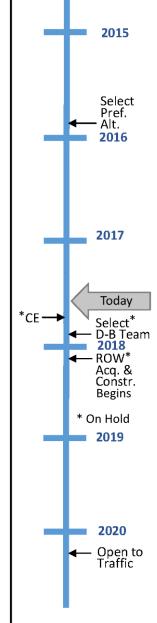
FINANCE

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

ALL-ELECTRONIC TOLLING

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

TRAFFIC ANALYSIS: RS&H TRAFFIC & REVENUE: STANTEC ** see page 2 for further information rom STIP) nes ths in order 201





I-485 Express Lanes STIP Project No. I-5507 Mecklenburg County

Pre-Construction

Updated: August 3, 2017

Additional P & D Subconsultants:

- AIR QUALITY ANALYSIS VHB
- NATURAL RESOURCES ENVIRONMENTAL SERVICES, INC.
- TRAFFIC FORECAST CLEARBOX
- TRAFFIC OPERATIONS ANALYSIS PATRIOT ENGINEERING

Design-Build Scope & Concept Preparation:

- SIGNING HNTB
- ITS & AET ATKINS



I-77 Express Lanes (South) STIP Project No. I-5718 Mecklenburg County

Pre-Construction

Projected Cost: \$1.2B

Type of Tolling: Express Lanes

Updated: August 3, 2017

PROJECT STATUS SHEET

PROJECT DESCRIPTION

The purpose of the project 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

Construction Begins: 2027

Open to Traffic: TBD

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

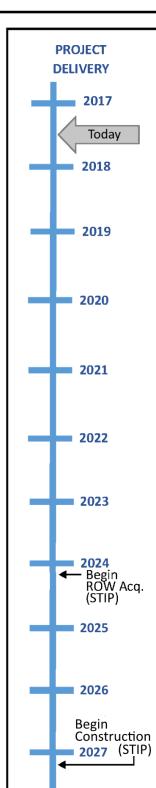
No activities anticipated

ALL-ELECTRONIC TOLLING

• No activities anticipated

P&D:HDR

TRAFFIC ANALYSIS: TBD TRAFFIC & REVENUE: TBD





I-77 Express Lanes STIP Project No. I-3311C, I-5405, I-4750AA **Mecklenburg & Iredell Counties**

P3

Updated: August 3, 2017

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.

DEVELOPER: I-77 MOBILITY PARTNERS ** CONTRACTOR: SUGAR CREEK CONSTRUCTION CEI: RK&K

P & D: ATKINS/RK&K **

** see page 2 for further information

IMPORTANT FACTS

Construction Started: November 16, 2015

Open to Traffic: 1st segment Sept 2018** Early 2019 for all 3 segments Type of Tolling: Express Lanes

** could be ready earlier

Projected Cost: \$665M

KEY NCTA ACTIVITIES

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

CONSTRUCTION

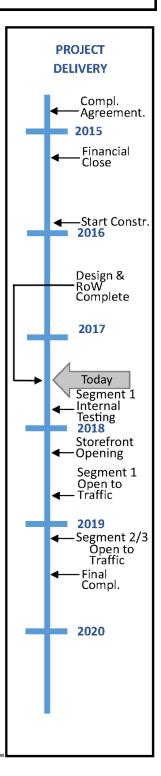
- Participating in project meetings with I-77 Mobility Partners (I77MP)
- Conducting reviews of All-Electronic Tolling (AET) System, Intelligent Transportation System (ITS), Pavement Marking and Signing plans
- Expanding the Morrisville CSC to accommodate I-77 operations (to be • ready by January 1, 2018)
- I-77 Storefront under construction, expected completion Sept. 2017

FINANCE

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

ALL-ELECTRONIC TOLLING

- Continue preparation of toll-related contract modifications in 2017:
 - **Back Office System (BOS)** 0
 - **Interface Control Document and Processing Business Rules** between I-77 and BOS (100% complete pending any changes)
 - **Electronic Toll Collection System (ETCS)** 0
 - Factory Acceptance Tests (FAT) for the roadside toll collection completed; ITS FAT completed



(see Page 2)



PROJECT STATUS SHEET

Updated: August 3, 2017

OPERATIONS

- Toll Operations Determining staff requirements for I-77 Storefront
- Expanding the Morrisville CSC to accommodate increased call center requirements due to implementation of I-77
- Co-locating NCTA Storefront in I77MP Administration & Maintenance Building (to open for operations March 2018)
- Developing system communications requirements I77MP to NCTA CSC

Additional Developer Team Information:

- PRIMARY DEVELOPER: CINTRA INFRAESTRUCTURAS, SA
- JOINT VENTURE PARTNERS: FERROVIAL AGROMAN, S.A. & W.C. ENGLISH, INC.
- LEAD DESIGNER LOUIS BERGER
- FIELD SYSTEMS INTEGRATOR KAPSCH
- FIELD SYSTEMS CIVIL CONSTRUCTION GANNETT FLEMING
- FIELD SYSTEMS INSTALLATION WORLD FIBER
- GEOTECH, PAVEMENT DESIGN, QUALITY CONTROL INSPECTION AND TESTING PSI
- RIGHT OF WAY ACQUISITION AMEC-FOSTER-WHEELER
- DEVELOPER'S COMMISSIONING AGENT KILAN SOLUTIONS

Additional P & D Subconsultants:

• NOISE ANALYSIS, PRELIM. HYDRAULIC ANALYSIS, NATURAL RESOURCES, TRAFFIC OPERATIONS - RK&K

P3

- AIR QUALITY ANALYSIS KIMLEY-HORN AND ASSOCIATES
- HISTORIC ARCHITECTURAL RESOURCES SURVEY URS (now AECOM)
- FINANCIAL PLAN AND INVESTMENT STRATEGIES PFM GROUP

Other:

NCDOT CONTRACT REVIEW CONSULTANT – MERCATOR ADVISORS LLC



Morrisville Parkway/NC 540 Interchange STIP Project No. U-5315 Wake County

PROJECT STATUS SHEET

In Design

Updated: August 3, 2017

PROJECT DESCRIPTION

The purpose of the project is to extend Morrisville Parkway and construct an interchange with Triangle Expressway (Toll NC 540) in Wake County to provide increased connectivity and access. Planning and Design are being 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 (interchange) only.

P & D: RK&K

DESIGN: RK&K CONTRACTOR: TO BE DETERMINED

** see page 2 for further information

IMPORTANT FACTS

Construction Start: Early 2018

Open to Traffic: 2020

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

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

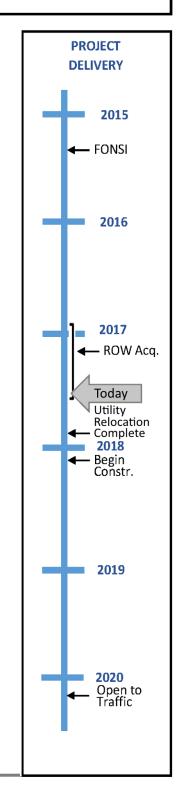
- Coordinate with Town of Cary, Division 5, and Local Programs Management Office for relocation of utilities, construction scheduling, and municipal agreements as needed
- Review final design submittals and construction consultation as needed

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 STATUS SHEET

Morrisville Parkway/NC 540 Interchange STIP Project No. U-5315 Wake County

In Design

Updated: August 3, 2017

Additional P & D Subconsultants:

- EA & FONSI VHB
- GEOTECHNICAL FALCON
- USACE 404 PERMIT: URS (now AECOM)
- ROW ACQUISITION RIGHT OF WAY CONSULTANTS
- SURVEYS, PLATS, LEGAL DESCRIPTIONS ESP



Mid-Currituck Bridge STIP Project No. R-2576 Currituck County

Pre-Construction

Projected Cost: \$489M (per STIP)

Type of Tolling: Variable

Updated: August 3, 2017

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.

P & D: WSP/PB **

TRAFFIC ANALYSIS: WSP/PB TRAFFIC & REVENUE: STANTEC

** see page 2 for further information

IMPORTANT FACTS

Construction Award: FY 2018

Open to Traffic: December 2022

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) and Record of Decision
- Determine procurement process for construction contract

FINANCE

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

ALL-ELECTRONIC TOLLING

• No activities anticipated





Pre-Construction

Updated: August 3, 2017

PROJECT STATUS SHEET

Additional P & D Subconsultants:

- HURRICANE EVACUATION MODELING ATKINS
- NATURAL RESOURCES CZR
- PUBLIC INVOLVEMENT FITZGERALD & HALLIDAY, INC.
- PLAN OF FINANCE PFM

Preliminary Engineering:

- ROADWAY DESIGN PLANS LOCHNER
- HYDRAULIC DESIGN WETHERILL
- GEOTECHNICAL DESIGN GOLDER
- COASTAL & HYDRAULIC ENGINEERING, ENVIRONMENTAL MITIGATION, PERMIT APPLICATIONS MOFFAT & NICHOL



US 74 Express Lanes – Phase 2 STIP Project No. U-2509 Mecklenburg County

Pre-Construction

Updated: August 3, 2017

PROJECT STATUS SHEET

PROJECT DESCRIPTION

The proposed project would widen and add Express Lanes to Independence Boulevard (US 74) from Wallace Lane 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.

P & D: VHB **

TRAFFIC ANALYSIS: AECOM

TRAFFIC & REVENUE: STANTEC

** see page 2 for further information

IMPORTANT FACTS

Contract Award: Fiscal Year 2020 Open to Traffic: TBD Projected Cost: \$406M (STIP) 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

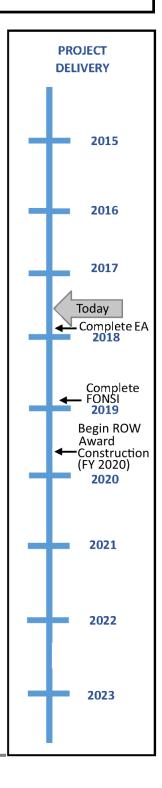
- Support the Project Development and Environmental Analysis (PDEA) Unit on developing alternatives for study
- Support the PDEA Unit on preparation of the Environmental Assessment (EA)
- Participate in Stakeholder Meetings and Public Meetings

FINANCE

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

ALL-ELECTRONIC TOLLING

• No activities anticipated





Pre-Construction

Updated: August 3, 2017

PROJECT STATUS SHEET

Additional P & D Subconsultants:

- PRELIMINARY HYDRAULIC ANALYSIS AND REPORT SUNGATE DESIGN GROUP
- ICI WATER QUALITY ASSESSMENTS, T AND E SPECIES SURVEYS, STREAM AND WETLAND DELINEATIONS – CATENA (now THREE OAKS)
- SURVEYING (STREAM AND WETLAND DELINEATIONS) TGS ENGINEERS



Complete 540 STIP Project No. R-2721, R-2828, R-2829 Wake & Johnston Counties

Pre-Construction

Updated: August 3, 2017

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.

P & D: LOCHNER **

TRAFFIC ANALYSIS: HNTB TRAFFIC & REVENUE: CDM SMITH

** see page 2 for further information

IMPORTANT FACTS

Construction to Start: FY 2020 (or earlier)

Projected Cost: \$2.2B

Open to Traffic: TBD

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

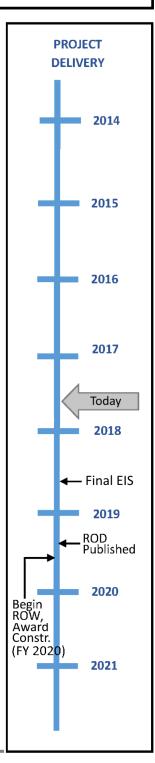
• Support the Project Development and Environmental Analysis (PDEA) Unit on preparing the Final Environmental Impact Statement (FEIS)

FINANCE

- Initiated 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

 Prepare and advertise procurement for Roadside Toll Collection System (RTCS)





Pre-Construction

Updated: August 3, 2017

PROJECT STATUS SHEET

Additional P & D Subconsultants:

List of subconsultants used to date:

- BRANDING & LEP SERVICES SPRINGBOARD/EYDO (no longer in business)
- NATURAL SYSTEMS MULKEY (now CALYX)
- HYDROLOGY (PRELIMINARY) MULKEY (now CALYX)
- MUSSEL SPECIES CATENA (now THREE OAKS)
- HISTORIC ARCHITECTURE MATTSON & ASSOCIATES
- UTILITIES HINDE ENGINEERING
- RIGHT OF WAY (DEIS) HDR
- QUANTITATIVE ICE BAKER
- BIOLOGICAL ASSESSMENT T&E SPECIES THREE OAKS
- ARCHAEOLOGY COASTAL CAROLINA RESEARCH (now COMMONWEALTH HERITAGE GROUP)
- RIGHT OF WAY (FEIS) CAROLINA LAND ACQUISITION
- PLAN OF FINANCE PFM

Potential future subconsultants for permits, hydrology, and right of way plans:

- HYDROLOGY SUNGATE DESIGN GROUP
- HYDROLOGY ECOLOGICAL ENGINEERING
- PERMITS ECOLOGICAL AND/OR SUNGATE

NCTA Advisors:

• PROJECT DELIVERY – DAWSON & ASSOCIATES