



**ORANGE COUNTY GOVERNMENT  
TRANSPORTATION SERVICES DEPARTMENT**



**Orange County Working Group**

**Meeting Agenda**

**June 17th, 2024**

**11:00am 1:00pm**

**Bonnie B Davis Environment and Agricultural Center**

**1020 US70 Hillsborough, NC**

**Multi-Purpose Room 104**

1. **Call to Order/Roll Call (10:00am-10:05am)** **Doug Plachcinski, DCHC MPO**
2. **Adjustments to the Agenda (10:05am-10:10am)** **Doug Plachcinski, DCHC MPO**
3. **Public Comment (10:10am-10:15am)** **Doug Plachcinski, DCHC MPO**
4. **Administrative**
  - a. **SWG Administration** **Darlene Weaver, Orange Co**
    - I. **April minutes (10:15am-10:20am)**
    - II. **Schedule approval (10:20am-10:30am)**
      - a) **FY25 SWG Meeting**
      - b) **FY25 Annual Work Program Amendment**
      - c) **FY26 Annual Work Program Development**

**Recommended Action: Approval**
    - III. **Public Engagement and Communication (10:30am-10:35am)**
  - b. **Go Triangle** **Katie Urban, Go Triangle**
    - I. **Financial Report schedule Update (10:40-10:50)**
    - II. **Regional Technology Plan (10:50am-11:00am)** **Austin Stanion, Go Triangle**
    - III. **Transit Assistance Program (11:00am-11:05am)** **Meg Scully, Go Triangle**
5. **Project Sponsor Updates (11:05 am-11:10am)** **Doug Plachcinski, DCHC MPO**
  - a. **Chapel Hill**
  - b. **Mebane**
  - c. **Hillsborough**
  - d. **Carrboro**
6. **Next Meeting – August 21<sup>st</sup> 2024**
7. **Adjournment**

ORANGE STAFF WORK GROUP  
Monday April 22, 2023, 6:30 pm

1 **Attendance: Members Present**

2			
3	Doug Plachcinski (Chair)	✓	DCHC MPO
4	Nishith Trivedi (Voting Member)	✓	Orange County
5	Steven Schlossberg (Voting Member)	✓	GoTriangle
6	Margaret Scully (Voting Member)	✓	GoTriangle
7	Caroline Dwyer (Voting Member)	✓	Chapel Hill
8	Josh Mayo (Voting Member)	✓	Chapel Hill
9	Matt Efird (Voting Member)	✓	Hillsborough
10	Christina Moon (Voting Member)	✓	Carrboro
11	Elisabeth Raskopf	✓	GoTriangle
12	Darlene Weaver	✓	Orange County
13	Kate Urban		GoTriangle
14	Ashley Ownbey	✓	Mebane
15	Rachel Gaffney		Mebane
16	Hathir Pfau	✓	Orange County
17	Jay Heikes		GoTriangle
18	Landon Clarke Coley		UNC-CH
19	Ellen Beckmann		Durham
20	Kelly Fomenko	✓	DCHC MPO

21

22 **1. Call to Order/Roll Call**

23 D. Plachcinski called the meeting to order. Voting members and virtual attendees were introduced and  
24 acknowledged.

25

26 **2. Adjustments to the Agenda: None**

27

28 **3. Public Comments: None**

29

30 **4. Orange Staff Work Group Administration**

31 **a. March 2024 Minutes**

32 Motion: N. Trivedi                      Seconded: C. Dwyer

33 Vote Unanimous

34

35 **b. CPA & Global Agreement (Operating & Capital)**

36 SWG advised that the CPA needs to change Durham to Orange County in sections 6. 01 and 2.16 and  
37 send each members a clean copy.

38

39 D. Weaver asked if there was any input to the global agreements & then advised she sent out several  
40 copies of the agreements. The agreements are necessary to get the funding based on the CPAs. The  
41 agreements are referenced by the CPA to get reimbursements. The implementing party is the project  
42 sponsor.

43

44 N. Trivedi reminded everyone that Orange County Board of County Commissioners authorized the  
45 County Manager to sign the Global Agreements and submitted the Operating one to Go Triangle, earlier

46 this year and each project sponsor is welcomed to do it their own way. Each town could authorize their  
47 Mayors to sign it or go before their town council/commissioners for signature.

48  
49 Chapel Hill advised the global agreements are for anyone doing a project. The Global agreement needs  
50 to be executed every year and thus far Orange County has not received the ones for Fiscal 2025 signed  
51 by the other municipalities. As Chapel Hill project sponsors are Chapel Hill Transit and Town of Chapel  
52 Hill, they have separate sets of agreements to sign. N. Trivedi asked if Brian Litchfield would sign for  
53 Chapel Hill Transit.

54  
55 C. Moon advised that Carrboro's Town attorney doesn't want them to sign it yet. S. Schlossberg advised  
56 that's fine, but they won't get any reimbursement. D. Weaver & N. Trivedi advised the same.  
57 The agreements are due when the municipalities want to be reimbursed. With the FY25 Annual Work  
58 Program approved, if anyone wants reimbursements in FY25 during the first quarter, they need to submit  
59 signed Global Agreements before submitting reimbursement requests. Reimbursement requests will not  
60 be approved in FY25 without a signed global agreement from project sponsors.

61  
62 It was agreed that it would be beneficial to send a quick message to advise who is doing which projects  
63 and needs signatures.

### 64 **C. Public Engagement**

65  
66 Orange County discussed their first round of public engagement for the Short Range Transit Plan, hosted  
67 by with Nelson Nygaard. N. Trivedi thanked everyone for their participation and support in the public  
68 process.

69  
70 Chapel Hill advised they were working through their 60% design for the BRC, and then targeted outreach  
71 once they'd completed the designs for each of the corridor segments through social media, meetings,  
72 newsletters, postcards, and open houses eventually. Currently in the process of negotiating temporary  
73 access agreements and construction rights of ways.

74  
75 GoTriangle stated that they were publishing the returning to fares on July 1 and have been pushing that  
76 and it covers a lot of different areas including youth, low wealth fare program, etc. For the triangle mobility  
77 hub, they are working on public engagement for the move to a different location to RTP. With the return  
78 to fares, they are also rolling out mobile ticketing (UMO app). They are also still taking cash fares, and  
79 may have an incentive for the public to sign up for the UMO app before July 1. DCHC MPO The  
80 Engagement Team will be out this week talking to the public in person. Raleigh doesn't have a date yet  
81 for their implementation. They advised that they'd done a series of workshops regarding coordinated  
82 plans and expected to release it next month for public comment.

83  
84 It was suggested that the annual surveys focus on Raleigh and the GoTriangle market next.

## 85 **5. Project Sponsor Updates**

- 86  
87  
88 **a.** Chapel Hill: None.  
89 **b.** Mebane: Finished budget meetings with small requests for extending linked transit services  
90 into Mebane. Hoping to get formally approved.  
91 **c.** Hillsborough: None.  
92 **d.** Carrboro: None.  
93 **e.** GoTriangle: Park and Ride is considering the next phase of who does what.

94

95

Steven Schlossberg reminded the OSWG that the Orange County amendments approved have been sent to the audit and finance committee to be presented on May 1, 2024 and he requests that someone from Orange County and Chapel Hill call into the meeting to answer any questions the committees might have.

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100

Staff Work Group Administrator Darlene Weaver reminded all members FY24 Q3 reimbursements are due on the 30th. S. Schlossberg advised estimates for Q4 would be emailed within the next two weeks.

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102

103

**6. Next Meeting**

104

May 15, 2024

105

106

**7. Adjournment**

107

Meeting ended at 10:51 am

**Orange County Staff Working Group**  
**Meeting Schedule**  
**July 1, 2024 - June 30, 2025**

Meeting Time: 10:00am -12:00pm

Meeting Place: Orange County Admin II Building  
300 West Tryon Street  
2<sup>nd</sup> floor, main Board Room.  
Hillsborough, NC

Meeting Schedule:

July 17, 2024

August 21, 2024

September 18, 2024

October 16, 2024

November 13, 2024 (2<sup>nd</sup> wk.)

December 11, 2024 (2<sup>nd</sup> wk.)

January 15, 2025

February 19, 2025

March 19, 2025

April 16, 2025

May 21, 2025

June 18, 2025

\*Location of meetings is subject to change.

Questions or Comments may be directed to the following staff:

Darlene Weaver, Transportation Planning Manager

[dweaver@orangecount.gov](mailto:dweaver@orangecount.gov)

Office (919) 245-2002

**FY2025 Orange County Transit Work Program Amendment Schedule**

<b>Cycle</b>	<b>Submission Deadline to SWG Admin</b>	<b>SWG Reviews Submitted Amendment(s)</b>	<b>Public Town Meetings</b>	<b>Public Review Period Begins</b>	<b>Public Review Period Ends</b>	<b>SWG Recommends Amendment(s) to Governing Boards</b>	<b>Go Triangle Subcommittee</b>	<b>SWG Recommends Approval to Orange County BOCC at Work Session</b>	<b>Orange County BOCC Approves Amendment(s)</b>	<b>Go Triangle Board of Trustees Approves Amendment(s)</b>
Q2	August 30, 2024	September 1 -September 20, 2024	Mebane September 9, 2024 Chapel Hill September 11, 2024 Hillsborough September 09, 2024 Carrboro September 17, 2024	September 21, 2024	October 11, 2024	October 16, 2024	October 31, 2024	November 4, 2024	November 19, 2024	November 22, 2024
Q3	November 29, 2024	December 1- December 20, 2024	Mebane January 8 2025 Chapel Hill January 08, 2025 ,Hillsborough January 13, 2025 Carrboro January 14, 2025	December 21,2024	January 10, 2025	January 15, 2025	January 30, 2025	February 4, 2025	February 18, 2025	February 21, 2025
Q4	February 28, 2025	March 1- March 20, 2025	Mebane March 3, 2025 Chapel Hill March 5, 2025 Hillsborough March 10, 2025 Carrboro March 18 , 2025 ,	March 21, 2025	April 10, 2025	April 17, 2025	May 2, 2025	May 6, 2025	May 20, 2025	May 23, 2025

## ORANGE STAFF WORKING GROUP WORK PROGRAM DEVELOPMENT & APPROVAL SCHEDULE

Task	Meeting Date
<b>September 2024</b>	
Go Triangle Finance creates Project Sheet templates	
SWG-Admin Develops Works Program Timeline - confirms with SWG	
SWG reviews adopted transit plan to determine applicability for upcoming FY (particularly new capital projects that are set to begin)	<b>September 11-18, 2024</b>
<b>SWG Meeting</b>	<b>September 18, 2024</b>
<b>October 2024</b>	
<b>SWG distributes and reviews with towns</b> Hillsborough-September 09,2024 Chapel Hill- September 11,2024 Mebane September 09, 2024, Carrboro September 17, 2024 (Tentative)	Towns provide information to citizens. (towns determine)
SWG-Admin distributes finalized project sheet template with due date	<b>September 23, 2024</b>
Go Triangle Finance shares current financial actuals and prelim financial forecast for upcoming year	
<b>SWG Meeting</b>	<b>October 16, 2024</b>
<b>November 2024</b>	
<b>SWG Admin convenes Financial Subcommittee (County &amp; Go Triangle financial teams)</b>	<b>November 1, 2024</b>
<b>SWG Meeting (holiday schedule)</b>	<b>November 13, 2024</b>
<b>December 2024</b>	
<b>Transit partners complete project sheets for new and ones requiring budget adjustment</b>	<b>December 6, 2024</b>
SWG Admin complete project sheets for continuing projects with no major budget change	<b>December 6, 2024</b>
<b>SWG Admin reviews continuing projects with transit partners</b>	<b>December 11, 2024</b>
Project sheets due from transit partners, Go-Triangle and DCHC MPO	<b>December 20, 2024</b>
<b>SWG Meeting (holiday schedule)</b>	<b>December 11, 2024</b>
<b>January 2024</b>	
Go Triangle Finance creates consolidated project sheet	
SWG Admin staff convert project sheets into In Design for easier readability	
SWG Admin reviews project sheets with transit partners (special meeting)	<b>January 10, 2025</b>
SWG-Admin drafts narrative for draft Work Program	<b>January 15, 2025</b>
<b>SWG Meeting</b>	<b>January 15, 2025</b>
SWG- Admin due draft packet to County Manager	<b>January 30, 2025</b>
SWG releases draft Work Program for public comment	<b>January 31, 2025</b>
<b>February 2024</b>	
<b>County Public Meetings (Mebane, Chapel Hill, Carrboro, Hillsborough)</b> Hillsborough- February 12, 2024, Mebane-February 5, 2024 Chapel Hill - February 7, 2024, Carrboro- February 13, 2024 (Tentative)	Towns provide the information to citizens ( towns determine)
SWG-Admin conducts public comment and reviews the Work Program with elected boards. (Orange County BOCC for Orange County Work Program/Durham County BOCC for Durham County Work Program)	<b>February 19, 2025</b>

## ORANGE STAFF WORKING GROUP WORK PROGRAM DEVELOPMENT & APPROVAL SCHEDULE

TASK	Meeting Date
Public Hearing held by the respective County BOCCs at the last business meeting of the month to hear public comments collected over public comment period	February 24, 2025
SWG Meeting	February 19, 2025
<b>March 2025</b>	
SWG-Admin finalizes draft Work Program based on public comment	February 28, 2025
Towns review draft of work program to approve- Hillsborough-March 12, 2024, Mebane- March 4, 2024, Chapel Hill -March 6,2024 Carrboro - Meeting March 5, 2024 (Tentative)	Towns provide the information to citizens ( towns determine)
SWG reviews final Work program and sends to County BOCC for approval as part of annual work program process	March 14, 2025
SWG Admin sends final Work program to Go Triangle Finance	March 17, 2025
Go Triangle Finance conducts first budget reading to Go Triangle Operations & Finance Committee, which includes the final Work program	March 18, 2025
SWG Admin to facilitate a City-County work session with the representatives of Go Triangle Boards to discuss ahead of approval by the BOCC.	March 18, 2025
SWG Meeting	March 19, 2025
<b>April 2025</b>	
Go Triangle Finance holds first budget workshop with the Go Triangle Board of Trustees, which includes the final Work program	
County BOCC Approval Step - SWG Admin presents and seeks approval to the final work program, with two options: 1) approval and advances it to Go Triangle Finance, or 2) suggests changes and moves to Contingency 1 [Step 1] (Below)	
Contingency 1 [Step 1] - SWG & staff to make edits based on comments received from County BOCC that were not made during public comment/hearing, then goes back to "County BOCC Approval Step"	
SWG Meeting	April 16, 2025
BOCC Approval of Work Program	April 23, 2025
<b>May 2025</b>	
Go Triangle Finance presents the Budget and final Work Program changes to the O&F Committee	
Go Triangle Finance receives final Work Program and incorporates it into the final budget to go into the June Board Agenda packet	
SWG Meeting	May 21, 2025
<b>June 2025</b>	
Go Triangle BOT approves Work Program	
SWG Meeting and Global Agreements signed and emailed to SWG Admin	June 18, 2025

## Notes

- Items in **Bold** text represent new steps in the process.
- Items highlighted in yellow represent steps that require BOCC or town/city governments involvement and/or approval.

Triangle Tax District - Orange County  
For the Quarter Ending March 31, 2024 (Q3)  
For the Fiscal Year Ending June 30, 2024

	<b>ORANGE</b>
Cash & Investments	\$ 21,337,920

**REVENUES, BUDGET TO ACTUAL, ACCRUAL BASIS<sup>1</sup>**

	Current Year	Prior Year	Difference
<b>1/2 ¢ Sales Tax</b>			
Budget & Transit Plan Alloc	\$ 9,500,000	\$ 8,800,000	\$ 700,000
Actual (Q3) <sup>1,2</sup>	7,363,638	6,830,257	533,381
Percent of Budget Rec'd	77.51%	77.62%	
Percent Δ over Prior Year	7.81%		
<b>Vehicle Rental Tax</b>			
Budget & Transit Plan Alloc	\$ 739,941	\$ 586,800	\$ 153,141
Actual (Q3) <sup>1,3</sup>		523,120	(523,120)
Percent of Budget Rec'd	0.00%	89.15%	
Percent Δ over Prior Year	-100.00%		
<b>\$7 Vehicle Registration Tax</b>			
Budget & Transit Plan Alloc	\$ 831,178	\$ 818,895	\$ 12,283
Actual (Q3) <sup>1</sup>	597,282	611,891	(14,609)
Percent of Budget Rec'd	71.86%	74.72%	
Percent Δ over Prior Year	-2.39%		
<b>\$3 Vehicle Registration Tax</b>			
Budget & Transit Plan Alloc	\$ 358,222	\$ 350,958	\$ 7,264
Actual (Q3) <sup>1</sup>	255,981	262,239	(6,258)
Percent of Budget Rec'd	71.46%	74.72%	
Percent Δ over Prior Year	-2.39%		
<b>Total Revenue</b>			
Budget	\$ 11,429,341	\$ 10,556,653	\$ 872,688
Actual (Q3) <sup>1</sup>	8,216,901	8,227,507	(10,606)
Percent of Budget Rec'd	71.89%	77.94%	

<sup>1</sup>Actual Revenue for July to February.

<sup>2</sup>Sales tax revenues are seasonal and do not follow a straight line trend.

<sup>3</sup>FY24 Vehicle Rental Tax Actuals are under Review.

**Triangle Tax District --- Orange Operating**  
**For the Quarter Ending March 31, 2024 (Q3)**  
**For the Fiscal Year Ending June 30, 2024**  
**OPERATING EXPENDITURES, BUDGET TO ACTUAL, ACCRUAL BASIS\***

Agency	Project Description	Workplan Project ID	Budget + YTD Amendments	Q1 Actuals	Q2 Actuals	Q3 Actuals	Q4 Actuals	YTD Total Spent	% of Budget Spent YTD	Budget Remaining	Progress Report
<b>Tax District Administration</b>											
GoTriangle	Tax District Administration - Financial Oversight Staff	21GOTAD1	\$ 192,000	\$ 30,209	\$ 29,283	\$ 10,268	\$ -	\$ 69,760	36%	\$ 122,240	On Schedule / Completed
GoTriangle	Tax District Administration - Financial Oversight - Support Services (O)	21GOTAD11	\$ 77,388	\$ 15,871	\$ 19,347	\$ 19,347	\$ -	\$ 54,564	71%	\$ 22,823	On Schedule / Completed
GoTriangle	Tax District Administration - Audit Services	21GOTAD22	\$ 8,200	\$ 5,157	\$ 1,863	\$ -	\$ -	\$ 7,020	86%	\$ 1,180	On Schedule / Completed
GoTriangle	Tax District Administration - Financial Services	21GOTAD21	\$ 43,665	\$ -	\$ 3,080	\$ -	\$ -	\$ 3,080	7%	\$ 40,585	On Schedule / Completed
<b>Total Tax District Administration</b>			\$ 321,253	\$ 51,237	\$ 53,572	\$ 29,614	\$ -	\$ 134,424	42%	\$ 186,829	
<b>Transit Plan Administration</b>											
Chapel Hill / CHT	Planner I (Transit Planning Support Staff)	24CHTTS13	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 90,000	Not Started
Chapel Hill / CHT	Bus Stop Amenities Technician (Project Implementation Staff)	24CHTTS14	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 60,000	Not Started
DCHC MPO	Orange County Staff Working Group Participation	24MPO_AD1	\$ 39,806	\$ 10,826	\$ 3,416	\$ 2,173	\$ -	\$ 16,414	41%	\$ 23,392	On Schedule / Completed
GoTriangle	Transit Plan Administration - Program Management Staff	20GOTAD2	\$ 25,625	\$ 2,820	\$ 3,226	\$ 946	\$ -	\$ 6,991	27%	\$ 18,634	On Schedule / Completed
GoTriangle	Transit Plan Administration - Project Implementation Staff	21GOTAD3	\$ 173,533	\$ 33,723	\$ 37,015	\$ 13,991	\$ -	\$ 84,729	49%	\$ 88,803	On Schedule / Completed
GoTriangle	TPA - Transit Planning - Support Services	20GOTAD13	\$ 32,390	\$ 22,535	\$ 2,333	\$ 2,015	\$ -	\$ 26,883	83%	\$ 5,507	On Schedule / Completed
GoTriangle	TPA - Legal and Real Estate - Support Staff	21GOTAD4	\$ 120,697	\$ 20,289	\$ 22,259	\$ 10,337	\$ -	\$ 52,885	44%	\$ 67,812	On Schedule / Completed
GoTriangle	TPA - Marketing, Communication and PE - Support Staff	21GOTAD5	\$ 53,505	\$ 10,092	\$ 10,103	\$ 4,024	\$ -	\$ 24,218	45%	\$ 29,287	On Schedule / Completed
GoTriangle	TPA - Marketing, Communication and PE - Support Services	21GOTAD12	\$ 32,390	\$ 15,825	\$ 2,392	\$ 962	\$ -	\$ 19,179	59%	\$ 13,211	On Schedule / Completed
GoTriangle	TPA - Regional Technology and Administration - Support Staff	21GOTAD6	\$ 78,310	\$ 581	\$ 607	\$ 647	\$ -	\$ 1,835	2%	\$ 76,475	On Schedule / Completed
GoTriangle	Customer Surveys	19GOTO02	\$ 11,890	\$ 2,244	\$ -	\$ -	\$ -	\$ 2,244	19%	\$ 9,646	On Schedule / Completed
Orange County / OPT	Transit Plan Administration (SWG Administrator)	24OPTS1	\$ 61,100	\$ 15,275	\$ -	\$ 30,525	\$ -	\$ 45,800	75%	\$ 15,300	On Schedule / Completed
<b>Total Tax District Administration</b>			\$ 779,245	\$ 134,209	\$ 81,350	\$ 65,620	\$ -	\$ 281,179	36%	\$ 498,066	
<b>Transit Operations</b>											
Chapel Hill / CHT	HS Route - Weekend service	24CHTTS1	\$ 9,414	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 9,414	On Schedule / Completed
Chapel Hill / CHT	Increased Cost of Existing Services (ICES)	19CHTTS2	\$ 775,336	\$ 186,388	\$ 186,388	\$ 186,388	\$ -	\$ 559,165	72%	\$ 216,171	On Schedule / Completed
Chapel Hill / CHT	Chapel Hill Transit Service Expansion FY13-21	22CHTTS1	\$ 1,742,418	\$ 435,605	\$ 435,605	\$ 435,605	\$ -	\$ 1,306,814	75%	\$ 435,605	On Schedule / Completed
GoTriangle	Route 800 Improvements	20GOT_TS2	\$ 430,262	\$ 49,578	\$ 51,208	\$ 50,667	\$ -	\$ 151,452	35%	\$ 278,810	On Schedule / Completed
GoTriangle	Route 400 Improvements	20GOT_TS3	\$ 368,812	\$ 93,198	\$ 92,647	\$ 95,339	\$ -	\$ 281,184	76%	\$ 87,628	On Schedule / Completed
GoTriangle	Route ODX	20GOT_TS5	\$ 201,530	\$ 50,408	\$ 49,747	\$ 50,542	\$ -	\$ 150,698	75%	\$ 50,832	On Schedule / Completed
GoTriangle	Route CRX Improvements	20GOT_TS6	\$ 69,379	\$ 11,853	\$ 10,950	\$ 11,894	\$ -	\$ 34,696	50%	\$ 34,683	On Schedule / Completed
GoTriangle	Route 405 Improvements	20GOT_TS9	\$ 23,237	\$ 5,443	\$ 6,106	\$ 5,380	\$ -	\$ 16,930	73%	\$ 6,307	On Schedule / Completed
GoTriangle	Paratransit expansion	19GOT_TS8	\$ 23,893	\$ 886	\$ 12,367	\$ 7,191	\$ -	\$ 20,443	86%	\$ 3,450	On Schedule / Completed
GoTriangle	Youth Gopass	21GOT_OO1	\$ 6,143	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 6,143	On Schedule / Completed
GoTriangle	Fare Collection Improvements (O)	21GOT_OO2	\$ 5,475	\$ 60	\$ 120	\$ 60	\$ -	\$ 240	4%	\$ 5,235	Project Behind Schedule / On Target
Orange County / OPT	Continuation of Transit Services	19OPTS1	\$ 365,686	\$ 207,297	\$ 144,965	\$ 13,398	\$ -	\$ 365,660	100%	\$ 26	On Schedule / Completed
Orange County / OPT	Increase Cost of Existing Services (ICES)	19OPTS2	\$ 39,772	\$ -	\$ -	\$ 20,124	\$ -	\$ 20,124	51%	\$ 19,648	On Schedule / Completed
Orange County / OPT	Hillsborough Circulator Expansion	20OPTS4	\$ 161,920	\$ 49,222	\$ 46,980	\$ 65,685	\$ -	\$ 161,887	100%	\$ 33	On Schedule / Completed
Orange County / OPT	OPT Mobility on Demand	20OPTS6	\$ 132,800	\$ 56,115	\$ 52,635	\$ 24,012	\$ -	\$ 132,762	100%	\$ 38	On Schedule / Completed
<b>Total Transit Operations</b>			\$ 4,356,076	\$ 1,146,052	\$ 1,089,718	\$ 966,285	\$ -	\$ 3,202,055	74%	\$ 1,154,021	
<b>Total Operating Expenses</b>			\$ 5,456,574	\$ 1,331,498	\$ 1,224,641	\$ 1,061,519	\$ -	\$ 3,617,658	66%	\$ 1,838,916	

\* Represents expenditures reimbursed or accrued by End of Quarter unless otherwise footnoted

- No Project activity to date and no activity is anticipated
- No Project activity to date, but the project sponsor still intends to deliver the project
- Project is behind, and not on target to meet the timeline originally programmed in the Work Plan
- Project is behind, but on target to meet the timeline originally programmed in the Work Plan
- Project is on schedule, on target to meet the timeline originally programmed in the Work Plan, or project is complete

**Triangle Tax District --- Orange Capital**  
**For the Quarter Ending March 31, 2024 (Q3)**  
**For the Fiscal Year Ending June 30, 2024**  
**CAPITAL EXPENDITURES, BUDGET TO ACTUAL, ACCRUAL BASIS \***

Agency	Project Description	Workplan Project ID	Budget + YTD Amendments	Orange Actuals Q1	Orange Actuals Q2	Orange Actuals Q3	Orange Actuals Q4	Orange YTD Total	Percent of Budget Spent YTD	Budget Remaining	Progress Report
<b>Capital Planning</b>											
Chapel Hill / CHT	CHT Short Range Transit Plan Update	24CHTCD14	\$ 100,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 100,000	Not Started
Chapel Hill / CHT	Safe Streets for All (SS4A) Supplemental Grant	24CHTCD15	\$ 50,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 50,000	Not Started
GoTriangle	ERP System - Transit Plan	19GOT_CD01	\$ 69,971.00	\$ 29,235	\$ 19,113	\$ 9,623	\$ -	\$ 57,971	83%	\$ 12,000	On Schedule / Completed
GoTriangle	Origin Destination Survey	21GOT_CD01	\$ 245,000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 245,000	Not Started
GoTriangle	GoTriangle Short Range Transit Plan	21GOT_CD02	\$ 4,802	\$ 2,918	\$ 1,865	\$ -	\$ -	\$ 4,783	100%	\$ 19	On Schedule / Completed
GoTriangle	Transit Facilities Study	21GOT_CD03	\$ 21,434	\$ 2,732	\$ -	\$ -	\$ -	\$ 2,732	13%	\$ 18,702	On Schedule / Completed
Orange County / OPT	Planning for new Transit Plan	20OPT-AD2	\$ 122,444	\$ -	\$ -	\$ 122,444	\$ -	\$ 122,444	100%	\$ -	On Schedule / Completed
Orange County / OPT	OPT AVL	19OPT_AD1	\$ 43,073	\$ -	\$ -	\$ 43,073	\$ -	\$ 43,073	100%	\$ -	Project Behind Schedule / On Target
Orange County / OPT	FAST 2 Study	24OPTAD06	\$ 105,000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 105,000	Not Started
<b>Total Capital Planning</b>			<b>\$ 761,725</b>	<b>\$ 34,885</b>	<b>\$ 20,978</b>	<b>\$ 175,141</b>	<b>\$ -</b>	<b>\$ 231,003</b>	<b>30%</b>	<b>\$ 275,722</b>	
<b>Transit Infrastructure</b>											
Chapel Hill / CHT	CHT ADA Bus Stop Upgrades	19OPT_CD2	\$ 448,815	\$ -	\$ 448,815	\$ -	\$ -	\$ 448,815	100%	\$ -	On Schedule / Completed
Chapel Hill / CHT	Lighting in Bus Shelters	20CHT_CD01	\$ 53,148	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 53,148	Project Behind Schedule / On Target
Chapel Hill / CHT	Bus Stop Sign and Design Replacement	20CHT_CD2	\$ 84,741	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 84,741	Project Behind Schedule / On Target
GoTriangle	Hillsborough Park and Ride	18GOT_CD08	\$ 50,394	\$ 14,637	\$ 25,911	\$ 6,544	\$ -	\$ 47,092	93%	\$ 3,303	On Schedule / Completed
GoTriangle	Mebane Bus Stop Improvement	18GOT_CD11	\$ 233	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 233	On Schedule / Completed
GoTriangle	Bus Stop Improvements (Orange County)	18GOT_CD12	\$ 247,222	\$ 27,661	\$ 40,078	\$ -	\$ -	\$ 67,739	27%	\$ 179,484	On Schedule / Completed
GoTriangle	New Regional Transit Facility (Orange County share)	23GOTCD04	\$ 240,000	\$ -	\$ -	\$ 7,583	\$ -	\$ 7,583	3%	\$ 232,417	Not Started
GoTriangle	Mobile Ticket Validators - Orange share (includes Route 420)	20GOT_CD3	\$ 43,372	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 43,372	On Schedule / Completed
GoTriangle	Priority Transit Access Improvements	22GOT_CD2	\$ 100,000	\$ -	\$ -	\$ 360	\$ -	\$ 360	0%	\$ 99,640	On Schedule / Completed
GoTriangle	Regional Fleet and Facilities Study Implementation - Nelson Road	23GOT_CD02	\$ 500,000	\$ 3,135	\$ 4,614	\$ -	\$ -	\$ 7,749	2%	\$ 492,251	On Schedule / Completed
Orange County / OPT	Trapeze	24OPTTS12	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 200,000	Not Started
Orange County / OPT	OPT Bus Stop Improvements (five stops)	19OPT_CD1	\$ 31,759	\$ -	\$ -	\$ 31,759	\$ -	\$ 31,759	100%	\$ -	On Schedule / Completed
Orange County / OPT	OPT Bus Stop Signs	20OPT_CD1	\$ 1,594	\$ -	\$ -	\$ 1,594	\$ -	\$ 1,594	100%	\$ -	Project Behind Schedule / On Target
Orange County / OPT	Hillsborough Park and Ride	20OPT_CD2	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 800,000	Project Behind Schedule / On Target
TownofCarrboro	Estes Drive Bike-Ped Improvements	18TOC_CD1	\$ 252,373	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 252,373	Not Started
TownofCarrboro	Estes Drive Transit Access Corridor Study	18TOC_CD2	\$ 106,296	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 106,296	Not Started
TownofCarrboro	Morgan Creek Greenway	18TOC_CD4	\$ 260,216	\$ 3,400	\$ 27,612	\$ 2,690	\$ -	\$ 33,702	13%	\$ 226,514	Project Behind Schedule / On Target
TownofCarrboro	South Greensboro Street Sidewalk	18TOC_CD5	\$ 478,921	\$ -	\$ 7,794	\$ 15,694	\$ -	\$ 23,488	5%	\$ 455,433	Project Behind Schedule / On Target
TownofCarrboro	Carrboro HAWK Signal	20TOCCD01	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	100%	\$ -	On Schedule / Completed
TownofHillsborough	Hillsborough Train Station	18TOH_CD1	\$ 481,668	\$ 13,850	\$ 42,544	\$ 890	\$ -	\$ 57,284	12%	\$ 424,384	Project Behind Schedule / On Target
<b>Total Transit Infrastructure</b>			<b>\$ 4,530,753</b>	<b>\$ 62,683</b>	<b>\$ 747,367</b>	<b>\$ 67,114</b>	<b>\$ -</b>	<b>\$ 877,164</b>	<b>19%</b>	<b>\$ 3,515,699</b>	
<b>Vehicle Acquisition</b>											
GoTriangle	Vehicle acquisition and replacement	21GOT_VP1	\$ 766,166	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 766,166	Project Behind Schedule / On Target
Orange County / OPT	Vehicle Acquisition & Replacement (5 new MOD minivans)	24OPTCD21	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 250,000	Not Started
<b>Total Vehicle Acquisition</b>			<b>\$ 1,016,166</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 766,166</b>					
<b>Other Projects</b>											
Chapel Hill / CHT	North-South BRT	20CHT_CD1	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ 4,000,000	On Schedule / Completed
GoTriangle	Light Rail Transit	20GOT_CD2	\$ 141,777	\$ 870	\$ 1,073	\$ 230	\$ -	\$ 2,173	2%	\$ 139,604	On Schedule / Completed
<b>Total Other Projects</b>			<b>\$ 4,141,777</b>	<b>\$ 870</b>	<b>\$ 1,073</b>	<b>\$ 230</b>	<b>\$ -</b>	<b>\$ 2,173</b>	<b>0%</b>	<b>\$ 4,139,604</b>	
<b>Total Capital Expenditures</b>			<b>\$ 10,450,421</b>	<b>\$ 98,438</b>	<b>\$ 769,418</b>	<b>\$ 242,485</b>	<b>\$ -</b>	<b>\$ 1,110,341</b>	<b>11%</b>	<b>\$ 8,697,191</b>	

\* Represents expenditures reimbursed or accrued by End of Quarter unless otherwise footnoted  
 \* Budget Column includes FY23 Prior Year Carryover

- No Project activity to date and no activity is anticipated
- No Project activity to date, but the project sponsor still intends to deliver the project
- Project is behind, and not on target to meet the timeline originally programmed in the Work Plan
- Project is behind, but on target to meet the timeline originally programmed in the Work Plan
- Project is on schedule, on target to meet the timeline originally programmed in the Work Plan, or project is complete

## Regional Technology Plan Update – Scope : Focus Areas

Version: June 12, 2024

### **Audit Process Across Focus Areas**

The Audit process of **Passenger Real-Time, Transit Service Planning Tools, Transit Signal Priority, and Integrating Mobile Payments** should include:

- Facilitated discussions with regional operating partners about their current resources, future needs, and vision for the future of regional technology integration. These discussions should be documented for future use.
- Outline of best practices in the region and barriers to interoperability in real-time and trip planning systems.
- Document IT department restrictions on technology procurement for each operating partner.
- Lengths of existing contracts and identify windows of opportunity for shared procurement of real-time and trip planning technologies.
- Highlight potential challenges of a regional procurement of real time software with multiple municipalities

**Commented [AS1]:** Document IT procurement restrictions

### **Passenger Real-Time & Trip Planning [Fall 2025 Priority]**

- Research and analyze case studies of successful collaboration in passenger real-time and trip planning tools from comparable regions.
- Conduct an audit of existing real-time and trip planning systems in the Triangle area, including interviews with key stakeholders.
- Conduct a cost-benefit analysis comparing promoting existing free tools like Google Maps versus paying for a dedicated transit application (such as Transit App) for real-time and trip planning.
- Develop clear interoperability standards for operating partners and funding expectations for Wake, Durham, and Orange County Transit Plans. Develop standards for CAD/AVL related hardware, including frequency of GTFS pings.
  - Develop budget recommendations for Wake, Durham, and Orange County Transit Plans for real time projects.
- Highlight the benefits and limitations of regional collaborations as well as the impacts of fragmentation.
  - Develop “resiliency plan” for passenger real time solutions anticipating potential roadblocks (example: vendor’s service offering changes). Include recommendations to maximize resiliency of adopted solutions.

**Commented [AS2]:** Add facilitation/discussion step to Audit Process throughout. Could be each partner individually or all together.

**Commented [AS3R2]:** Consultant documents discussions for future use

**Commented [AS4]:** include resiliency plan (TransLoc example)

**Commented [AS5]:** what data on board hardware / cad/avl produces, including frequencies of pings

**Commented [AS6]:** Benefits and drawbacks of collaboration

- Create a roadmap with actionable steps for the implementation of regional technical solutions for real-time and trip planning.

#### Transit Service Planning Tools [Fall 2025 Priority]

- Research and analyze successful collaboration examples for transit service planning tools from comparable regions. Include tools for scheduling, run cutting, optimizing run times, optimizing on time performance, implementing service changes, publishing schedules and GTFS, and rider engagement related to transit service planning.
- Conduct an audit of existing transit service planning tools in the Triangle area.
  - Outline best practices and barriers to interoperability in planning tools.
- Develop clear interoperability standards for operating partners and funding expectations for Wake, Durham, and Orange County Transit Plans.
  - Develop budget recommendations for Wake, Durham, and Orange County Transit Plans for service planning tools.
- Highlight the benefits and limitations of regional collaborations as well as the impacts of fragmentation.

Commented [AS7]: run cutting , scheduling, etc

Commented [AS8R7]: OTP

Commented [AS9]: Benefits and drawbacks of collaboration

#### Transit Signal Priority (TSP)

- Research and analyze successful collaboration examples for Transit Signal Priority from other regions, focus on regions with multiple transit operators crossing multiple municipal boundaries. Include examples of Bus Rapid Transit lines that cross municipal boundaries.
- Conduct an audit of existing TSP solutions in the Triangle area,
  - Audit should include assessment of capabilities of existing CAD/AVL systems.
  - During Audit, engage with municipal emergency services staff, and transportation staff responsible for signal infrastructure. Document their needs and perspectives.
- Identify opportunities for interoperability given existing infrastructure and investment.
- Identify barriers to implementation given existing infrastructure and investment.
- Develop clear interoperability standards for operating partners and funding expectations for Wake, Durham, and Orange County Transit Plans.
  - Include standards for new signal technology investments
  - Develop budget recommendations for Wake, Durham, and Orange County Transit Plans for TSP projects.

Commented [AS10]: add emergency services

Commented [AS11]: Highlight BRT

- Highlight the benefits and limitations of regional collaborations as well as the impacts of fragmentation.
  - Develop “resiliency plan” for TSP anticipating potential roadblocks (example: vendor’s service offering changes). Include recommendations to maximize resiliency of adopted solutions.
- Create a roadmap with actionable steps for the implementation of interoperable regional TSP.

Commented [AS12]: Benefits and drawbacks of collaboration

Commented [AS13]: Add section: engagement

### Integrating Mobile Payments with Cash Collection and Trip Planning

- Research and analyze successful collaboration examples for payments integration from comparable regions containing Bus Rapid Transit services.
- Conduct an audit of existing payment integration and cash collection systems in the Triangle area.
  - Outline best practices and barriers to interoperability in payment integration and cash collection systems.
- Conduct a market analysis to inform recommendations
  - Include analysis and recommendation: Should trip planning and payments be combined in one app? What options are available, what are the pros and cons?
  - Include analysis and recommendation:
    - What options exist to integrate fixed route fare payments with first mile last mile solutions such as microtransit and TNC?
    - What options exist to implement open payments (credit card tap), especially for BRT boardings.
    - How can technological solutions be convenient and equitable for unbanked and cash-based riders?
- Develop clear interoperability standards for operating partners and funding expectations for Wake, Durham, and Orange County Transit Plans.
  - Develop budget recommendations for Wake, Durham, and Orange County Transit Plans for mobile payments projects.
- Highlight the benefits and limitations of regional collaborations as well as the impacts of fragmentation.
  - Develop “resiliency plan” for mobile payment solutions anticipating potential roadblocks (example: vendor’s service offering changes). Include recommendations to maximize resiliency of adopted solutions.
- Create a detailed roadmap with actionable steps for the implementation of regional technical solutions for payment integration and cash collection.

Commented [AS14]: include Open Payments / Credit Card in Mobile Payments

Commented [AS15]: Emphasize BRT

Commented [AS16]: add: unbanked

Commented [AS17]: Benefits and drawbacks of collaboration

## Open Transit Data Portal

- Research and analyze successful collaboration examples for open transit data portals from other regions, focusing on solutions that pull data from disparate sources (multiple transit operators).
- Audit existing shared data sources
  - We have limited existing tools. The regional bus stop database is one example.
- Outline intended audiences and benefits to these audiences for the open data portal. Audiences should include: other government entities, universities & nonprofits, businesses & entrepreneurs, and the general public.
- Identify what types of data should be prioritized for open data sharing
  - Develop reporting standards for identified data types
- Highlight the benefits of regional collaborations and the impacts of fragmentation.
- Develop budget recommendations for Wake, Durham, and Orange County Transit Plans for open data.
- Create a phased roadmap with actionable steps for the development and launch of the open data portal. Phase One should be possible within 1-2 years. Phase Two within 2-3 years. Phase Three within 4-5 years.
  - Implementation should include guardrails to avoid cybersecurity risks associated with publishing open data to the internet.

Commented [AS18]: cybersecurity risks

Commented [AS19R18]: recommended next step from tech plan: cybersecurity

## Regional GTFS Publishing Standards

- Research and analyze successful examples for regional GTFS publishing.
- Audit existing practices for GTFS publishing in the Triangle area, identifying pain-points where are GTFS feeds diverge
- Establish regional standards for GTFS publishing, including communication protocols for GTFS updates and service changes.
- Highlight the benefits and limitations of regional collaborations as well as the impacts of fragmentation.

Commented [AS20]: Benefits and drawbacks of collaboration

SCOPE OF SERVICES FOR  
GoTriangle  
June 10, 2024  
Scope of AECOM Services

## Regional Transit Technology Integration Plan Update

### Project Overview and Goals

Contractor (AECOM) will work with GoTriangle and transit agency partners to update the Regional Transit Technology Integration Plan that was previously completed in December 2019. The update will reflect technology deployments that have occurred over the last five years in the region and provide a roadmap to guide future integration of transit technologies with the goal providing an improved customer experience for transit riders across the region.

Since the pandemic, agencies have made changes to their systems and in some cases the technology they have adopted does not easily align with their neighbors' systems. The goal of this plan is to assess the current technology being used, find ways to integrate between tools if possible, and identify standards which the governing bodies throughout the region may adopt to better coordinate future transit technology deployments. This has the potential to both increase efficiency and reduce some costs.

### Project Approach

Key anticipated work tasks along with a list of deliverables are summarized below. A Project Schedule and listing of project deliverables is included at the end of this scope of work for reference.

### **TASK 1: PROJECT MANAGEMENT**

Contractor will conduct bi-weekly project coordination meetings with GoTriangle and the project team established for the project. A total of 40 one-hour project coordination meetings is anticipated throughout the project duration. Project team members and contact information will be finalized jointly with GoTriangle. Contractor support activities will include development and email distribution of meeting agendas, meeting minutes and action items, meeting presentations and other meeting handouts.

Contractor will develop a Project Management Plan for review by GoTriangle staff outlining the project team members, project schedule, and quality management approach to document reviews. Project Management Plan will identify key contacts at transit agencies in the region to be included in future agency meetings for providing input on updated transit technology plan. It is estimated that no more than 12 agencies will be included in the review and comment on the regional transit technology plan update.

The work scope and budget includes up to 7 project deliverable review meetings to occur throughout the project. Those meetings are:

#### Meeting #1 -Project Kickoff (within 2 weeks of NTP)

- Review scope, schedule, management tools, project communications, invoicing procedures, etc.
- Present draft Project Management Plan

#### Meeting #2 – Discuss Literature Review / Data Collection Process (within 6 weeks of NTP)

- Review final version of Project Management Plan
- Discuss Literature Reports gathered by project team for Literature Review
- Prepare for survey distribution to gather information from agencies

#### Meeting #3 – Review Survey Information Meeting (within 4 months of NTP)

- Review survey responses gathered from agencies
- Discuss state of the practice for transit technologies
- Prepare for agency meetings / attendees

**Meeting #4 – Agency Review Meetings / Group Meetings (within 5 months of NTP)**

- Conduct agency interviews with agencies
- Conduct regional group meeting to discuss transit technology plan update

**Meeting #5 – Transit Technology Plan Updates (within 7 months of NTP)**

- Review summary of agency meetings and input gathered
- Discuss plan for updating transit technology plan update
- Discuss recommended standards and integration needs
- Review draft of updated transit technology plan

**Meeting #6 – Review Comments on Regional Transit Technology Plan (within 8 months of NTP)**

- Review questions / comments received on transit technology plan
- Discuss recommended regional standards for technology
- Discuss final updates to be made to transit technology plan

**Meeting #8 – Final Report and Project Deliverable (within 9 months of NTP)**

- Review final updates made to transit technology plan
- Review PPT file with project summary for presentations
- Confirm recommended changes and adoptions

Bi-weekly project coordination meetings can be held virtually using Microsoft Teams. AECOM staff can also attend meetings in person at transit agency offices if requested. Contractor will have up to 3 staff attend each meeting (pending topics to be discussed). Bi-weekly meetings may be combined with deliverable review meetings where appropriate to reduce number of meetings needed.

Also, as part of this project, Contractor will conduct overall project management to ensure compliance with terms and conditions of the contract and the delivery of quality documents, on time and within budget. Project management related tasks are expected to include:

- Development of schedule, quality management plan, and health and safety plan
- Quality assurance and quality control (Quality Management Plan included in the Project Management Plan documentation)
- On-going project management, coordination and communications
- Budget, schedule and action item management
- Project administration, monthly invoicing and progress report
- Preparation of PowerPoint presentation

**Task 1 Deliverables**

- Bi-weekly project coordination meetings
- Project Management Plan
- 8 project deliverable review meetings
- Meeting agendas, minutes and other meeting materials
- Monthly invoicing
- PowerPoint presentation

**TASK 2: LITERATURE REVIEW**

Contractor will conduct a literature review of transit technology plans developed by agencies within the region. Contractor will document key findings from plan documents in a technical memorandum. These documents can include the following:

- Regional Transit Technology Integration Plan, December 2019
- Triangle Region ITS Strategic Deployment Plan Update, June 2020
- Transit Signal Priority Summary, City of Durham, April 2022
- Research Triangle Region Multi-jurisdictional and Connected TSP Pilot, October 2023
- FY 2025 Draft Wake Transit Work Plan, January 2024
- Other Research Reports Gathered

## Case Studies

- Successful collaboration of the use of passenger real-time and trip planning tools in comparable regions with multiple municipalities, multiple agencies crossing borders, and BRT
- Successful collaboration of the use of mobile payment technology that might integrate cash collection and trip planning tools in comparable regions with multiple municipalities, multiple agencies crossing borders, and BRT
- Successful collaboration of the distribution of open data in comparable regions with multiple municipalities, multiple agencies crossing borders, and BRT
- Successful collaboration of GTFS publishing standards in comparable regions with multiple municipalities, multiple agencies crossing borders, and BRT
- Successful collaboration of the implementation and use of TSP in comparable regions with multiple municipalities, multiple agencies crossing borders, and BRT

## Task 2 Deliverables

- Literature Review Technical Memorandum
- Summary and distillation of case study findings memorandum

## **TASK 3: MEETING PREPARATION / SURVEY SUMMARY / TECHNOLOGY REVIEW**

GoTriangle will send a memorandum to partner agencies to alert them of the scope of this study and ask for their participation in information gathering including from municipal and agency leaders, planning staff, operations staff, financial staff, and procurement staff. Client understands that the degree of efficient and responsive agency partnership participation will directly determine the thoroughness and quality of the final plan and will impact the ability for contractor to complete the study and report in a timely manner.

Requests may include:

- Current policies and procedures for the collection and distribution of transit data
- Existing passenger real-time and trip planning software
- Existing CAD/AVL technology provider, technical specifications, and operational tracking software
- Existing service planning tools
- Fare collection technology and technical specifications/fees including vendor for the receiving of revenue
- Current GTFS publishing and collection procedures and policies
- Existing Transit Signal Priority (TSP) technology, general list of usage, and policies and procedures for its use

Contractor will develop a list of required information from partners with a deadline at which time contractor needs the information. The contractor may ask GoTriangle for help in follow up of this request if agencies fail to respond by the set deadline.

Contractor will also develop surveys to gather information from transit agencies in the region regarding their plans for future transit technologies and existing challenges with interoperability and regional cooperation. Surveys will be distributed electronically to agencies in the region and responses will be gathered and reviewed. Follow-up questions to agencies may be sent if deemed necessary for the project.

Contractor will perform a state of the practice review on transit technologies for all partner agencies.

Transit technologies can include the following:

- Computer Aided Dispatch (CAD) / Automated Vehicle Locator (AVL) Systems
- Real-time Transit Information Systems at bus stops / via smartphone applications
- Transit Service Planning Tools
- Current fare technology
- Data collection tools
- Transit Signal Priority (TSP) Systems
- Operational software tools
  - Scheduling, planning, run cuts, etc

Contractor will summarize all findings in a state of the practice document for review by transit agencies.

Task 3 Deliverables

- Survey Data Collection Summary Report
- State of the Practice Document

**TASK 4: AGENCY REVIEW MEETINGS / REGIONAL GROUP MEETINGS**

Contractor will conduct virtual agency review meetings with transit agencies to review and confirm survey inputs gathered. Input will also be gathered from meeting attendees on regional goals, objectives, and priorities for transit technologies, which can help shape updates and recommendations made within the transit technology plan. Other topics of discussion can be the potential to develop a Technology Governance Committee (TGC), as recommended in the prior technology integration plan, to oversee updates made to transit technologies over time within the region. Contractor will meet with up to 12 agencies during this task for the purposes of gathering information for the transit technology plan update.

Contractor will also schedule one regional group meeting to present information to multiple agencies in advance of making updates to the regional transit technology plan. Purpose of regional meeting would be to provide a common meeting location for multiple agencies if desired. Contractor to work with GoTriangle to determine meeting logistics of regional group meeting. Upon completion all meetings, Contractor to develop a summary document of all regional meetings.

Task 4 Deliverables

- Summary of Agency Review Meetings

## TASK 5: TRANSIT TECHNOLOGY PLAN UPDATES

Contractor will develop a draft of the Regional Transit Technology Plan based on findings from the literature review and input gathered from transit agencies in the region. It is estimated that the plan will not exceed fifty (50) pages in length, including text and graphics developed for the plan. A general table of contents for the plan may include the following:

- Executive Summary
- Introduction
  - Purpose of Plan Update
  - Summary of Transit Reports and Literature Review
    - This includes a summary and findings of case studies outlined in task 2
- Transit Technology Summary for Agencies
  - Summary of Existing and Planned Transit Technologies
    - Including summary of an audit of existing technology
  - Summary of Regional Agency Meetings and surveys
    - Including summary of agencies future needs, overall vision for regional integration, and current committed resources to the technology types
    - Current barriers for interoperability
- Regional Approach
  - Passenger facing technology
    - Regional Interoperability Standards
      - Real-time/trip planning
      - Fare technology
      - Open data
    - Cost benefit analysis of free tools versus dedicated transit applications
    - Budget recommendations
    - Roadmap for implementation
      - Real-time planning
      - Fare technology
        - Separate apps vs combined
        - Integration of first and last mile and other modes
      - Open data
        - Target audiences and public usage
  - Agency facing technology
    - Regional Interoperability Standards
      - Service planning
      - GTFS
        - Communications protocolsfor updates
        - Service changes
      - TSP
        - Interoperability options and barriers with existing technology
        - Emergency services
      - CAD/AVL
    - Budget recommendations
    - Roadmap for implementation
      - Service planning
        - Scheduling, run cutting, optimizing OTP, service changes, publishing, and engagement
      - GTFS
      - TSP
        - Capabilities with existing CAD/AVL services
        - Recommended new technology investments
- Conclusion and Summary

Contractor will format the plan document in an agreed upon format and layout with GoTriangle. Contractor will present a first draft of the plan to GoTriangle for their review and comment. Updates to the plan can be made prior to making the plan available to transit agencies for a larger group review.

### Task 5 Deliverables

- Draft Regional Transit Technology Plan

## TASK 6: AGENCY PLAN REVIEW / COMMENT PERIOD

Contractor will distribute the plan to all agencies who provided input on the project to gather input and feedback on the sections of the plan. Contractor will provide a period of between 2 to 4 weeks for review and comment on the plan. Contractor will summarize all comments received from agencies and indicate the changes made to the plan based on agency comments.

### Task 6 Deliverables

- Summary of Comments Received and Plan Updates

## TASK 7: FINAL PLAN DEVELOPMENT

Contractor will finalize regional transit technology plan based on comments received from transit agencies during the review and comment period.

### Task 7 Deliverables

- Final Draft of Regional Transit Technology Integration Plan

## TASK 8: PARTNER REQUESTED OPTIONAL ADDITIONS TO SCOPE

Contractor will complete selected deliverables within this task that have been identified by agency partners as being valuable to the update but are not included in the original scope and budget. Contractor will work with GoTriangle to address the items GoTriangle requests if there is available budget leftover after the Regional Transit Technology Plan document and study is completed or if GoTriangle expands the budget to cover the following items. Deliverables not addressed will be included as recommendations for a future study or studies.

### Task 8 Deliverables

- Develop a resiliency plan that includes passenger real-time solutions, mobile payment solutions, and TSP solutions that anticipates roadblocks and recommends ways to maximize the resiliency of adopted solutions within the governing bodies of all 12 partner agencies
- Conduct market analysis of current mobile payment and trip planning software solutions on the market and identify pros and cons for separate or combined applications based upon available information on each tools technical features at the time of the audit
- Identify benefits and drawbacks of regional collaboration on passenger real-time service tools; trip planning; service planning; integrating mobile payments with cash collection and passenger trip planning; open data collection and presentation; and TSP
- Identify and asses potential challenges of regional procurement that includes multiple municipalities with individual procurement procedures for passenger real-time service tools; trip planning; service planning; integrating mobile payments with cash collection and passenger trip planning; open data collection and presentation; and TSP
- Audit existing contracts for all 12 partner agencies for passenger real-time service tools; trip planning; service planning; integrating mobile payments with cash collection and passenger trip planning; open data collection and presentation; and TSP; and identify shared procurement opportunities
- Audit the policies and procedures for each of the 12 partner agencies to identify procurement restrictions and current standards

## LIST OF FINAL DELIVERABLES

Final deliverables will include the following:

Task #	Deliverable Name	Deliverable #
Task 1	Project Management Plan	1
	- Project Schedule	
	- Project Quality Management Plan	
Task 1	Meeting materials including agendas and minutes	1
Task 2	Literature review technical memo	2
Task 3	Survey Data Collection Summary Report	3
Task 4	Summary of Agency Review Meetings	4
Task 5	Draft Transit Technology Plan Update	5
Task 6	Summary of Questions / Comments on Plan Update	6
Task 7	Final Draft Transit Technology Plan Update	7

## COST/SCHEDULE

AECOM anticipates project not to exceed \$199,627.95 and not more than nine (9) months.