



CHAPEL HILL TRANSIT
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CHAPEL HILL TRANSIT PUBLIC TRANSIT COMMITTEE
NOTICE OF COMMITTEE MEETING AND AGENDA
OCTOBER 24, 2023 – 10:00 A.M. to 11:00 A.M. (VIRTUAL MEETING)

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8. Adjourn	



MEETING SUMMARY OF A VIRTUAL MEETING OF THE PUBLIC TRANSIT COMMITTEE

AUGUST 29, 2024 – 10:00 A.M.

Present: Marie Parker, Assistant Town Manager for Town of Carrboro
Loryn Clark, Town of Chapel Hill Deputy Town Manager
Gordon Merklein, Associate Vice Chancellor for Real Estate and
Campus Enterprises at UNC
Theodore Nollert, Chapel Hill Town Council
Randee Haven-O'Donnell, Carrboro Town Council
Jason Merrill, Carrboro Town Council
Chassem Anderson, UNC Transportation and Parking

Absent: Camille Berry, Chapel Hill Town Council
Melissa McCullough, Chapel Hill Town Council
Cheryl Stout, UNC Transportation and Parking

Staff present: Brian Litchfield, Transit Director
Nick Pittman, Deputy Assistant Director
Katy Fontaine
Tim Schwarzauser
Caroline Dwyer

Guests: None

1. Approval of June 6, 2024, Meeting Summary: Minutes Accepted by Committee.
2. Employee Recognition
3. Consent Items
 - A. July Financial Report: Provided to Committee. On target for this fiscal year.
4. Discussion Items
 - A. Public Transportation Agency Safety Plan (PTASP) Update: Provided to Committee. Minor updates in this revision. Will be approved by CH Town Council in the Fall. Committee member asked about barrier use on buses. We are still using them as they provide operator protection. Committee member asked about increases in operator assault. No, we have not seen an increase in the number of assaults but have heard increased concerns about assaults. We continue to

explore barrier and safety options to keep operators safe. Committee member asked if we have protocols in place for assaults. Yes, we have a robust protocol in place. We provide de-escalation training and work closely with Police & Crisis. We have our own Transit Crisis Unit person.

- B. North South Bus Rapid Transit Update: Provided to Committee. Design files within next 6 months. Working with DOT and FTA. Federal Funding was removed by house for this upcoming FY25, not indicative of our project just politics, hopeful for FY26. Project was not removed just the funding.

5. Information Items

- A. Chapel Hill Transit 50th Anniversary Update: Provided to Committee. Committee member added the Daily Tarheel is working on an article about this!
- B. Project Updates: Provided to Committee. Triennial review findings were minor and are being resolved. 95k Grant funding coming from Orange County. Finished 17 bus stop improvements last FY. Bus stop inventory was completed. Received two grants for the next round of bus stop improvements. TEX kicks off next weekend, cashless option in place.

6. Departmental Monthly Reports

- A. Operations: Provided to Committee.
- B. Community Outreach: Provided to Committee.
- C. Planning: Provided to Committee.

7. Next Meeting – October 24th, 2024 (10:00 a.m. – 12:00 p.m. – Virtual Meeting)

8. Adjourn

3A. September Financial Report

Staff Resource: Nick Pittman, Assistant Director
Tim Schwarzauber, Business Services Manager

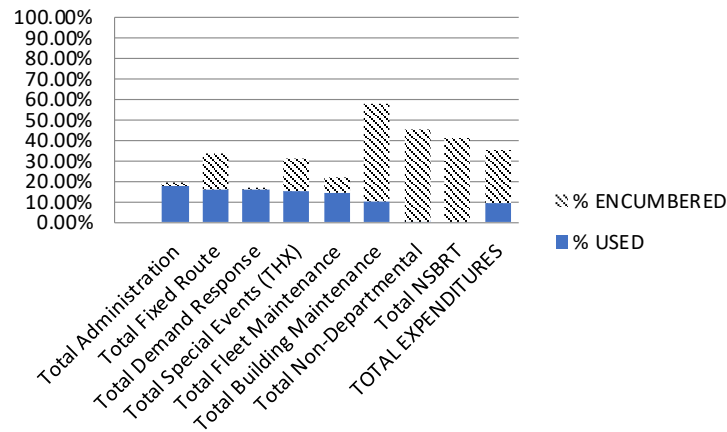
September 2024

- Expenses for the month of September were \$1,464,953. This aggregation of expenses and encumbrances is consistent with years past and is perfectly in line with what we would expect.
- NSBRT expenses are zero for the current fiscal year as staff is reconciling invoices from our consultant for the first 3 and we expect to pay those in October.
- The revised budget includes carryforward of projects not completed in FY24. This includes bus and LTV purchases, BRT design consultants, and other various projects. We expect to pay for our most recent deliver of three (3) diesel buses in October.
- The Non-Departmental category includes bus purchase encumbrances from the previous fiscal year that will be expended in FY25.
- The attached data exhibits the financial information by divisions and should be a useful tool in monitoring our patterns as the year progresses and is a high-level representation of the data used by our division heads.

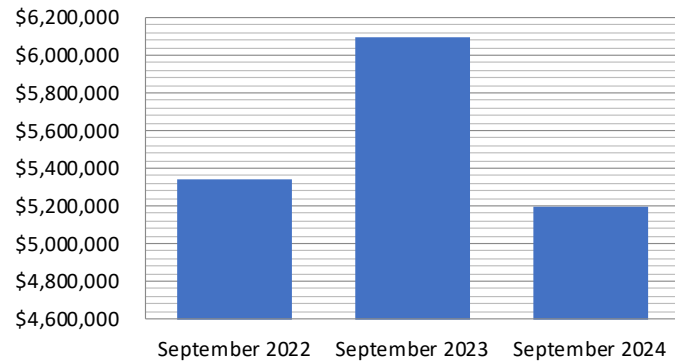
Transit 640 Fund Budget to Actual at end of Sept 2024

	ORIGINAL BUDGET	REVISED BUDGET	ACTUAL YTD EXPENSES	ACTUAL MONTH EXPENSES	CURRENT ENCUMBRANCES	BALANCE AVAILABLE	% USED OR ENCUMBERED Sept 25.00%	% USED	% ENCUMB ERED
Total Administration	2,705,051	2,708,265	475,675.53	151,073.77	48,749.79	2,183,840	19.40	17.56%	1.80%
Total Fixed Route	17,915,950	19,852,452	3,144,175.93	847,291.43	3,557,607.43	13,150,669	33.80	15.84%	17.92%
Total Demand Response	2,906,671	3,408,495	540,334.80	161,674.17	19,920.95	2,848,239	16.40	15.85%	0.58%
Total Special Events (THX)	317,845	318,056	47,922.03	31,761.73	50,931.88	219,202	31.10	15.07%	16.01%
Total Fleet Maintenance	5,697,185	5,903,250	822,806.70	243,359.53	447,363.15	4,633,080	21.50	13.94%	7.58%
Total Building Maintenance	929,213	1,089,546	109,360.81	29,793.16	519,689.34	460,496	57.70	10.04%	47.70%
Total Non-Departmental	2,184,523	18,295,459	53,379.00	0.00	8,175,838.04	10,066,242	45.00	0.29%	44.69%
Total NSBRT	4,000,000	6,696,567	0.00	0.00	2,721,567.10	3,975,000	40.60	0.00%	40.64%
TOTAL EXPENDITURES	36,656,438	58,272,090	5,193,654.80	1,464,953.79	15,541,667.68	37,536,768	35.60	8.91%	26.67%

CHT Sept 2024 YTD Expenses as % of Budget



CHT Total YTD Expenses - Previous Years Comparison



4A. Electric Bus Performance Overview

Staff Resource: Nick Pittman – Assistant Director

Electric Bus Pilot Background

In March of 2022, Transit added three (3) Gillig battery electric buses (BEB) to our in-service fleet. These buses were joined in February 2023 by a fourth BEB and in December 2023 with seven (7) additional buses bringing our total to 11 BEBs. Charging for the BEBs is provided at the Lee Transit Center via “slow” or “depot” chargers (usually less than 100 kilowatts per hour (kWh)) that average 6-8 hours per charging session.

During the first 30 months of revenue service the BEB fleet has accumulated 226,000 miles, with our highest bus operating 33,000 miles. While in service, the BEBs had an overall average efficiency of 2.8 kWh per mile, which equates to a fuel economy of 13.8 miles per diesel gallon equivalent (mpdge). For comparison, our diesel fleet has an average fuel economy of 4.50 miles per gallon.

During our pilot we have experienced some issues and lessons learned.

- **Chargers** – Charger technology continues to evolve during our pilot. While we currently have enough chargers for the current bus fleet, we will need to install an additional six (6) chargers for the buses we have on order. We have also experienced software and reliability issues that have limited our ability to charge buses. These challenges also impact the availability of buses for service. We also learned through the charger installation process that engineering and design process requires dedicated planning and review as we navigate through utility providers (OWASA and Piedmont Electric) along with Town permitting requirements.
 - **Redundancy** – With the charging infrastructure need increasing, we also are beginning to think about methods of redundant power supply for the chargers. Staff has had initial conversations understanding power options, such as battery backups and permeant power generators that would be necessary to charge our current and future fleet should we experience grid power outages.
- **Operator Training** – BEBs operate slightly different from their diesel counterparts so specialized training was required for all operators related to the BEBs. Our Operator training is ongoing and is developing as we better understand the most efficient ways to operate these vehicles.
- **Bus Availability** – Due to the demand for BEBs and supply chain issues related to the manufacturing process, we have experienced build times of 18-24 months for BEB

purchases. Because of the extended time from order to delivery, we must plan earlier for future bus purchases to maintain our expected delivery from our Capital Plan (2019).

- Cost – Current pricing for our BEB 40 foot buses are \$1,400,000 and the Diesel 40 foot buses are \$603,443. Based on demand and available federal funding for zero-emission buses, along with the growing increases for parts and components, we do not anticipate the difference shrinking in the future. We would likely continue to recommend purchasing BEBs when federal funding is available and diesel when using non-federal sources. We are also monitoring the cost of charging our BEBs. Our average cost per kWh is \$0.05 meaning that the average daily cost to charge a bus is around \$15.00. For a full year, we estimate that this would increase our electric bill by \$41,000 (for 11 vehicles). Currently, we are able to do almost all off-peak charging, but as the fleet size increases, we may be required to do some peak hour charging.
- Operations Planning – Staff has continued to work to better understand the ranges associated with our BEBs. During ideal conditions, our BEBs will operate approximately 140-215 miles on a single charge. Through our experience, we are seeing daily usable bus ranges of 100 to 175 miles per charge. This does not provide enough range to operate on all our daily routes. Over 25 (40%) of our daily bus blocks travel over 100 miles. Along with issues related to daily range, we have learned of the impacts that our internal heating and cooling systems have on the range of the vehicles. During our coldest months, our range can be decreased by as much as 40% due to the energy requirements of the heating systems. We will monitor this over the next several months to see how our newest buses perform during the colder months.

Next Steps

We continue to learn more about this new technology as our pilot progresses, staff has increased our data analysis for monthly reporting and efficient utilization of these vehicles. Our experiences are similar to those of other peers and generally consistent with what we expected prior to undertaking the pilot. Currently, we have seven (7) additional BEBs on order, with an estimated arrival date of May 2025 and we have funding to purchase an additional 2 buses BEBs. We also need to identify funding for six (6) charging stations as some of our grant awards have not allowed for the purchase of charging infrastructure. This will bring us close the maximum number of electric buses and charging stations our current facility can handle without expanding our parking area.

4B. Holiday Schedule Update

Staff Resource: Nick Pittman – Assistant Director

Background

Each year Chapel Hill Transit staff works closely with our Partners to develop a holiday schedule that provides for adequate levels of service to our customers, is consistent with the Town's holiday policies and allows our employees the opportunity to observe the holidays with their families. Chapel Hill Transit staff will coordinate the distribution of information on our holiday schedules with our Partners. The Partners Committee adopted the following holiday schedule during the February 29, 2024, Meeting:

2024 Holiday Schedule (remaining):

- Thanksgiving Day – Thursday, November 28 – No Service
- Day after Thanksgiving – Friday, November 29 – Sunday Routes (No U, NU and Safe Rides) and EZ Rider: 8:15a.m. – 6:52p.m.

Winter Break December 16, 2024 – January 6, 2025: Weekday NU will not operate, Safe Rides and the Saturday/Sunday NU routes will not operate.

- Monday, December 23 – Local Service Only¹, no Express service²
- Christmas Eve – Tuesday, December 24 – Sunday Routes (No U, NU and Safe Rides)
- Christmas Day – Wednesday, December 25 – No Service
- Day after Christmas – Thursday, December 26 – Sunday Routes (No U, NU and Safe Rides)
- Friday, December 27 – Local Service Only¹, no Express service²
- Saturday, December 28 – Saturday Routes (No U, NU, Safe Rides)
- Sunday, December 29 – Sunday Routes (No U, NU, Safe Rides)
- Monday, December 30 – Local Service Only¹, no Express service²
- Tuesday, December 31 – Local Service Only¹, no Express service²

2025 Holiday Schedule:

- New Year's Day – Wednesday, January 1 – No Service
- Martin Luther King, Jr. Day – Monday, January 20 – Sunday Routes (No U and NU) and EZ Rider: 8:15 a.m. – 6:52 p.m.

Notes:

- Sunday Routes: A, CM, CW, D, J, N and NS.
- ^[1] Routes that will operate: A, B, CL, CM, CW, D, F, G, HS, J, N, NS, RU, S, T, and U
- ^[2] Routes that will not operate: CCX, FCX, JFX, and NU

4C. North South Bus Rapid Transit Project Update

Staff Resource: Katy Fontaine, Transit Development Manager

NSBRT Progress Report

NSBRT's 60% Design phase is successfully advancing, with significant progress being made in several key focus areas. Recently, Transit staff and their consultant team have:

- Completed Internal Risk Workshop
- Continued coordination with NCDOT regarding NC-86 improvements
- Continued to discuss station placement and design, utility locations, and potential impacts with UNC staff
- Reviewed detailed BRT station renderings to share with public
- Completed several FTA Project Management Plans, including Safety and Security Management Plan and Fleet Management Plan.
- Identified permits and agreements with third-parties needed for project completion

NSBRT Funding Update

In March 2024, staff received notification that NSBRT was included in both the US DOT's Annual Report on Funding Recommendations and in President Biden's FY25 Recommended Budget. A funding recommendation in the President's budget is a major milestone demonstrating FTA's confidence in our project and a substantial step towards a future grant award. While it is difficult to predict the Congressional funding actions, there are several possibilities for Federal Fiscal Year (FFY)25: full funding in FFY25, incremental funding starting in FFY25, or funding moved to a future year. In the current House Budget Resolution, NSBRT remains unfunded for FFY25 and we are working with Representative Foushee and Senator Tillis to determine if there are approaches to potentially secure funding in FFY25. Our project timeline currently anticipates that the project will be funded FFY26 as work continues to progress. Staff will continue to work with Federal agencies and local/regional advocates and Federal delegation to try and ensure the best possible outcome for NSBRT.

Transit has also requested non-federal funding for NSBRT through NCDOT's ongoing Strategic Transportation Prioritization (SPOT) process in the Divisional Needs project category. Projects submitted to NCDOT for consideration are currently being reviewed and scored and staff are working closely with NCDOT Division 7 staff, the DCHC MPO, and other funding partners to ensure NSBRT remains among the region's highest project priorities. These discussions suggest the project enjoys strong support from staff and key decision makers who have assured us they will

continue advocating for the funding needed to close the remaining gap in committed funds (\$5.5 million). Preliminary funding announcements are anticipated in early 2025.

NSBRT Internal Risk Workshop

In 2025, the NSBRT will undergo FTA's Risk Readiness Workshop. The purpose of the workshop is to identify potential risks within the project process and have proper mitigation strategies in place to reduce the impact on cost and schedule of the project. The findings of this workshop will determine how much of a contingency budget the project will need to carry. Transit staff currently has 30% contingency budget set aside and the goal is to reduce the amount we will need.

To help prepare for the workshop, Transit staff hosted an Internal Risk Workshop with our consultant team in September 2024. The purpose of this workshop was to identify the potential risks across all NSBRT project phases and identify strategies mitigating and/or reducing the impact of risk. Representatives from various Town departments, NCDOT, GoTriangle, Carrboro and several other external entities met to share their experience with capital and construction projects. The consultants have developed a risk register based on the feedback provided, and Transit staff will be working to develop the mitigation strategies.

NSBRT Next Steps

As staff continues to move forward with 60% design, there are several important project milestones upcoming:

- **October 15th:** Technical Committee Meeting
- **November 12th:** Technical and Policy Committee Meetings

4D. Project Updates

Staff Resource: Nick Pittman, Assistant Director
Tim Schwarzauber, Business Services Manager

New Diesel Buses

We have taken delivery of three (3) new diesel buses. These buses are going through inspections and testing and should be available for service in the next couple of months. We also have five (5) diesel articulated buses on order that are expected to be built in the first half of 2025 and seven (7) electric buses on order.

Classification and Compensation Study

The Town of Chapel Hill is undertaking a Classification and Compensation Study with the interest of having recommendations to be considered as part of the FY26 budget process. As we have shared with the Transit Partners Committee, recruitment and retention remain significant marketplace drivers. While we have made some good progress over the last couple of years with support from Partners, Council and Manager, there is still work to be done.

The average starting rate for bus operator in the region is around \$20.50, which is consistent with our starting rate. However, most systems' pay plans in the region move operators to around \$26-31 per hour within four (4) years. With our current pay plan, operators with 10 years of experience are making around \$25-26 per hour and operators with more than 20 years of experience are around \$30-32 per hour. Similar in maintenance, starting rates for transit mechanics in the region are around \$26-\$35 per hour. With our current pay plan, mechanics with around 20 years of experience are in the \$32-36 per hour range.

Also worth noting that while our current approved starting rate of \$20.50 per hour is above the current recommended Orange County Living Wage, we know that \$25-27 per hour is likely a more realistic living wage for our area considering rent and cost of living. We need to continue to advance our starting pay and pay for existing Team Members to be reasonably competitive in the market and provide opportunities for Team Members to live in the region.

Radio Study

The Transit radio system (dispatch to bus and bus to bus) is over 20 years old and in addition to not working effectively our equipment is no longer supported by vendors, making repairs expensive and replacement equipment difficult to impossible to find. We currently use a UHF radio system with approximately 145 Motorola vehicle radios, 20 Motorola portable radios, 4 base station units and 2 repeaters – the equivalent of tin cans and string.

We have issued a RFP for a wireless communication system study. This will allow us to identify the best replacement alternative(s), associated costs and position us to seek potential federal/state funding and discuss funding with the Transit Partners. We expect this study to be completed in early 2025.

FY26 NCDOT Grants

Transit staff have submitted grant applications to the North Carolina Department of Transportation (NC DOT) for the FY26 Advanced Technology Grant and the Urban Match grants. Funds for the Technology grant will be used to purchase additional onboard infotainment and information screens as well as real time information on bike rack availability. The Urban Match grants seek local match for buses on order – up to 20% for electric and 10% for diesel.

FY25 NCDOT Grant

Transit was awarded an Advanced Technology grant for \$250,000.00 for the purchase of up to 7 solar-powered USB charging stations for bus stops and 30 solar-powered real time vehicle locators for bus stops. 90% of this grant is funded by the NCDOT.

Triennial Update

Town staff continue to work to address all outstanding Triennial Review findings. At this time, all corrections outside of EEO have been submitted and are pending final closure. The Town is currently soliciting vendors to help assist with the correcting the Town's EEO program as part of the Class and Compensation Study. The FTA has approved an extension for these correction until the end of the calendar year.

5A. Operations

Staff Resource: Joe McMiller-Deputy Operations Manager
Melissa Patrick- Assistant Operations Manager
Peter Aube – Maintenance Manager

Fixed Route Division

- Sept 29th – Carrboro Music Festival, Operators Krystle Bigelow and Kisha Sierra provided shuttles for event.
- Sept 30th – 4 new Full Time Operators started Training Class
- Oct 5th – Tar Heel Express for UNC vs Pittsburgh
- Oct 12th – Tarheel Express for UNC vs Georgia Tech
- Oct 12th – Tar Heel Express for UNC's Blue vs White Scrimmage
- Oct 14th – 1 new Full Time Operator started Training Class
- Oct 27th – Tar Heel Express for UNC Basketball vs Johnson C. Smith
- Oct 31st – Halloween, no service impacts

Demand Response Division

- Oct 9- EZRAC meeting, actively looking for board members.
- Working with Trapeze to update the website from customer feedback.

Maintenance Sept. Data

- Demand response ran 36,178 miles in September.
- Non-revenue Gas and Diesel vehicles ran 6,4392 miles in September.
- Non-revenue Electric Cars ran 18,767 miles in September.
- Fixed route buses ran 141,336 miles in September.
- Battery Electric buses ran 17,516 miles in September.
- Maintenance performed (82) Preventive Maintenance Inspections in September (100% on-time).
- Maintenance performed (8) road calls in September, (17,667) miles between road calls for fixed route.
- Maintenance performed (1) road calls in June, (36,178) miles between road call for demand response.
- Maintenance continued interior major cleaning /Stripping waxing floors previously completed by Vendor.
- Maintenance continues working with engineers and ChargePoint on phase four depot charging station expansion.

5B. Community Outreach

Staff Resource: Emily Powell – Community Outreach Manager

OUTREACH EVENTS**Car Free Day, September 22**

A pop-up outreach table served dual purposes in the Blue Hill district of Chapel Hill. We celebrated our 50th Anniversary with customers on the D route and encouraged people to go “car-free”. While the obvious choice is hopping on a bus, resources for combining a bus with walking and biking were distributed.

**Good Neighbor Initiative Cookout, September 26**

Poor weather moved this popular event inside the Hargraves Center, but the Outreach Team was still able to connect with many students, Northside residents, and stakeholders. Visitors at our table enjoyed seeing a small gallery of vintage photos and system maps, and some shared their stories of early transit use.



Town THRIVE visits Transit, September 24 and 27

A new, internal Town program took two groups of approximately 20 employees on a tour of Town facilities and projects. We're happy to share that seeing our Operations and hearing about the NSBRT was a big hit! Town employees have a greater understanding of how their work intersects with Transit, who to reach out to for more information, and a nice appreciation of fellow Town employees: our Operators.

Durham Pride Parade, September 29

The Town's LGBTQIA+ Employee Resource Group (ERG) participated in the Durham Pride Parade and featured our Art+Transit PRIDE bus.



Transit Train-the-Trainer for FFORC, October 7

A group from UNC-Chapel Hill's Gillings School of Global Public Health, the Food, Fitness, Opportunity Research Collaborative (FFORC), received training that they will pass along to residents of one of Chapel Hill's newest affordable housing communities. With this training, the UNC group will help residents use our system to move about Town. We will continue to work with the FFORC providing support for their goals.



EMPLOYEE EXPERIENCE

Go Pink!

Team members expressed excitement around new pink shirts to honor Cancer Awareness in October. The hot pink color and technical fabric are a welcomed upgrade to the team's uniform choices.

Town of Chapel Hill Employee Appreciation

A number of events were held at Transit headquarters to complement the Town's overall effort to recognize Employee Appreciation Month. Knowing that many of our team members would not be able to attend off-site events held by the Town, we replicated those events internally and optimized them for our Operations.



50th ANNIVERSARY

On October 17th, we hosted an event to honor Howard and Lillian Lee and commemorate our 50th anniversary with many key people in our history. A bronze plaque naming the building in their honor was unveiled and attendees heard remarks from Mayor Anderson, Dr. Ivy Taylor from UNC-CH, Carrboro Mayor Barbara Foushee, U.S Representative Valerie Foushee, and former CH Alderman Gerry Cohen.



Staff Resource: Caroline Dwyer, Transit Planning Manager

STAFFING ANNOUNCEMENTS

Henry Shriver joined the Planning Division in September as a Transit Planner I, a new position supported by Orange County Transit Tax revenues. Henry initially joined the Transit team in 2023 through the Town's Thorpe Undergraduate Intern program, staying on in a Program Support role when his internship ended. In May 2024, Henry graduated from UNC Chapel Hill earning degrees in Public Policy and Advertising and Public Relations with a minor in Geographic Information Sciences (GIS). During his time at Transit, Henry has supported several important projects, including the first comprehensive review of Transit's 500+ bus stops in over ten years. As a Transit Planner I, Henry will support a variety of projects and functions including data collection and reporting, short- and long-range service planning, special projects, bus stop assessments and planning, and the Town's grant-funded Transportation Demand Management (TDM) program. We are excited to have him on board!

UPDATE: ACTIVE PLANNING INITIATIVES*North-South Bus Rapid Transit (NSBRT)*

Staff are continuing to advance planning activities for the NSBRT's 60% design. Additional information can be found in Agenda item 4c.

Chapel Hill Transit Short Range Transit Plan Update

Staff are finalizing the scope of work for this plan update. The SRTP update will revisit the 2020 SRTP's recommendations, integrating changes to underlying assumptions and other changes that have occurred since the plan was drafted in 2019. The update will also include a microtransit feasibility study, an onboard customer survey, and a staffing capacity assessment, based on comparisons to peer transit agencies. We anticipate procurement to be complete before the end of 2024, with work commencing in early 2025. The project is supported with Orange County Transit Tax District revenues.

Chapel Hill Transit High-Capacity Transit Corridor Study

Staff are working with the DCHC MPO to develop a scope of work for this project. Funding for this project is included in the DCHC MPO UPWP, and MPO staff are administering the contracting

elements of the project. CHT staff will manage the overall project and plan development, assessing the feasibility of high-capacity transit options (including but not limited to bus rapid transit, express bus service, bus on shoulder, transit signal priority, queue jumps, etc.) in our service area's key travel corridors.