**CITY COUNCIL AGENDA**
**Monday, December 16, 2019**

| | |
|---|---|
| **5:00 p.m.** | **Closed session as provided by Sections 2.2-3711 and 2.2-3712 of the Virginia Code**<br>*Second Floor Conference Room* (Personnel; Boards and Commissions) |
| **6:30 p.m.** | **Regular Meeting - CALL TO ORDER**<br>*Council Chamber* |

**PLEDGE OF ALLEGIANCE**
**ROLL CALL**
**ANNOUNCEMENTS**
**PROCLAMATIONS**

| | |
|---|---|
| **1. CONSENT AGENDA*** | (Items removed from consent agenda will be considered at the end of the regular agenda) |
| a. MINUTES: | October 21, 2019 Regular meeting; October 26 Special meeting; November 4 Special meeting |
| b. APPROPRIATION: | Re-appropriation of funds from the Department of Human Services to the Department of Economic Development for the Home to Hope Program - $321,103.35 (2nd reading) |
| c. APPROPRIATION: | Victim Witness Assistance Program Grant - $265,024 (2nd reading) |
| d. RESOLUTION: | Capital Funding Transfer for the Rugby Avenue Trail project - $19,501.90 (1 reading) |
| e. RESOLUTION: | Jefferson Area Regional Transit Partnership Memorandum of Understanding (1 reading) |
| f. RESOLUTION: | Letter of support for 4H Education Center to receive State funding for essential capital safety improvement projects (1 reading) |
| g. RESOLUTION: | Home Energy Conservation Grant – Scope of Work Modifications<br>1. Approving the Housing Voucher an Energy Efficiency Pilot (1 reading)<br>2. Approving the Home Energy Conservation Grant Program Funding Agreement (1 reading) |
| h. RESOLUTION: | Alternate Appointment for Albemarle-Charlottesville Regional Jail Authority and Blue Ridge Juvenile Detention Commission (1 reading) |
| i. RESOLUTION: | Honorary Street Naming – Winneba Way (1 reading) |
| j. ORDINANCE: | Amend Section 2-6 of the Charlottesville City Code to add Christmas Eve holiday (1st of 2 readings) |
| k. ORDINANCE: | Recreation Center precinct name change to the Key Recreation Center precinct (1st of 2 readings) |

**CITY MANAGER RESPONSE TO COMMUNITY MATTERS (FROM PREVIOUS MEETINGS)**

| | |
|---|---|
| **COMMUNITY MATTERS** | Public comment is provided for up to 16 speakers at the beginning of the meeting (limit 3 minutes per speaker.) Pre-registration available for up to 8 spaces; pre-registered speakers announced by Noon the day of the meeting. The number of speakers is unlimited at the end of the meeting. |
| **2. RESOLUTION*:** | Adoption of Transit Development Plan (1 reading) |
| **3. REPORT:** | McGuffey Art Center annual report |
| **4. REPORT:** | Audit Report for Fiscal Year 2019 by City's Auditor, Brown Edwards and Company |

**OTHER BUSINESS**

**MATTERS BY THE PUBLIC**

*ACTION NEEDED

*This page intentionally left blank*

**COUNCIL CHAMBER - October 21, 2019**

**ROLL CALL**

The Charlottesville City Council met in regular session on this date with the following members present: Mayor Nikuyah Walker, Vice Mayor Hill, Dr. Wes Bellamy, Ms. Kathy Galvin and Mr. Mike Signer. Ms. Walker called the meeting to order at 6:41 p.m.

**ANNOUNCEMENTS/PROCLAMATIONS**

Ms. Hill announced the deadline for boards & commissions applications.

Dr. Bellamy made an announcement about a historic marker unveiling on October 23rd to commemorate the desegregation of Charlottesville schools.

Ms. Galvin read a Request for Proposals notice for 2020 CDBG and HOME funding.

Ms. Walker announced that Ms. Letitia Shelton, Deputy City Manager, was acting in place of Dr. Richardson.

Ms. Galvin announced the ribbon cutting on October 23rd for the oyster shell recycling bin at the McIntire Recycling Center.

Dr. Bellamy announced a co-sponsored Latin music festival at IX Art Park on November 2nd.

**CONSENT AGENDA***

Clerk of Council Kyna Thomas read the following consent agenda items into the record:

**a. MINUTES: September 9 City/County joint meeting; September 12 Budget Worksession**

Minutes - September 9, 2019 City/County joint meeting

Minutes - September 12, 2019 Budget Worksession

**b. APPROPRIATION: Parks & Recreation Gift Guide Memorials Account - $3,260 (carried)**

Agenda memo; appropriation

**c. APPROPRIATION: State Criminal Alien Assistance Program - $14,230.00 (carried)**

Agenda memo; appropriation

**d. RESOLUTION: Accepting streets within the Sunrise Park Planned Unit Development (PUD) into the City's street system**

Agenda memo; resolution; June 3, 2019 resolution; Sept. 23, 2019 correspondence

**RESOLUTION**
**Accepting Sunrise Park Lane and Carl Smith Street**
**Into the City Street System for Maintenance**

**WHEREAS**, the Sunrise Park Lane and Carl Smith Street rights-of-way have been constructed in the Sunrise Park PUD and Sunrise Park, LLC, has asked the City to accept these streets into the City street system; now, therefore,

**BE IT RESOLVED,** by the Council of the City of Charlottesville, Virginia, that Sunrise Park Lane and Carl Smith Street, as shown on the attached plat made by Roudabush, Gale & Associates, Inc. dated July 15, 2019, are hereby accepted into the City street system for maintenance.

**e. RESOLUTION: Piedmont District Baptist Association Off-cycle Funding Request - SAT Preparation Course - $2,000**

Agenda memo; resolution

**RESOLUTION**
**City Funding for SAT Preparation Workshops on Saturday, October 12, 2019 and Saturday October 26, 2019 - $2,000**

**NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of Charlottesville, Virginia that the sum of $2,000 is hereby paid from currently appropriated funds in the Council Strategic Initiatives account in the General Fund to Piedmont District Baptist Association in support of the SAT preparation workshops taking place on October 12, 2019 and October 26, 2019.

$2,000 Fund: 105 Cost Center: 10110010000

**f. RESOLUTION: Initiation of Zoning Ordinance Amendment: Strategic Investment Area - Form Based Code**

Agenda memo; resolution

**RESOLUTION**
**TO INITIATE AMENDMENT OF THE CITY'S ZONING ORDINANCE TO ADOPT A FORM BASED ZONING CODE FOR PHASE I OF THE STRATEGIC INVESTMENT AREA**

**WHEREAS**, the Charlottesville City Council hereby finds that the public necessity, convenience, general welfare or good zoning practice requires consideration of zoning map amendments and zoning text amendments, to reclassify certain land within the City's Strategic Investment Area ("Phase I") into a new zoning (form-based-code) district;

**NOW, THEREFORE**, be it resolved by the City Council of the City of Charlottesville that the zoning ordinance amendments referred to above are hereby initiated by City Council, and the amendments are hereby referred to Planning Commission in accordance with the requirements of Virginia Code §15.2-2285(B) for review, and for a joint public hearing to be conducted with City Council in November 2019. In accordance with Va. Code §15.2-2285(B) the Planning Commission will report its findings and recommendations back to City Council within 100 days of this Resolution.

**g. RESOLUTION: Rivanna Water and Sewer Authority's Observatory Water Treatment Plant, Raw Water Pumping and Piping Upgrade Cost and Capacity Allocation Agreement**

Agenda memo; resolution; proposed agreement

**RESOLUTION**

**BE IT RESOLVED** by the Council for the City of Charlottesville, Virginia, that the Mayor is hereby authorized to sign the following document, attached hereto, in form approved by the City Attorney or his designee.

An Agreement among the City of Charlottesville, the Albemarle County Service Authority, and the Rivanna Water and Sewer Authority regarding the Observatory Water Treatment Plant, Raw Water Pumping and Piping Upgrade Cost, and Capacity Allocation.

**h. ORDINANCE: Ordinance Repealing Chapter 31 Section 31-103 (Buck Mountain) Surcharge for water connections (carried)**

Agenda memo; Ordinance; joint resolution

**i. ORDINANCE: PEG Bandwidth VA, LLC - Telecommunications Franchise (2nd reading)**

Agenda memo; Ordinance

**AN ORDINANCE GRANTING A TELECOMMUNICATIONS FRANCHISE TO PEG BANDWIDTH VA, LLC, ITS SUCCESSORS AND ASSIGNS TO USE THE STREETS AND OTHER PUBLIC PLACES OF THE CITY OF CHARLOTTESVILLE, VIRGINIA FOR ITS POLE, WIRES, CONDUITS, CABLES AND FIXTURES, FOR A PERIOD OF FIVE (5) YEARS**

**j. ORDINANCE: Release of Portion of Sewer Easement - McIntire Plaza (2nd reading)**

Agenda memo; Ordinance; deed; plat

**AN ORDINANCE AUTHORIZING THE RELEASE OF A PORTION OF A SANITARY SEWER EASEMENT GRANTED TO THE CITY ACROSS PROPERTY ON ALLIED STREET (McINTIRE PLAZA)**

**k. REPORT: Rivanna Authorities Quarterly Update (written only)**

Report

At the request of Ms. Walker, Items e and f were pulled for discussion.

On motion by Ms. Hill, seconded by Mr. Signer, Council by the following vote ADOPTED the consent agenda minus Items e and f: 5-0 (Ayes: Walker, Hill, Bellamy, Galvin, Signer; Noes: none).

On motion by Ms. Galvin, seconded by Dr. Bellamy, Council by the following vote ADOPTED consent agenda Items e and f: 4-1 (Ayes: Hill, Bellamy, Galvin, Signer; Noes: Walker).

**CITY MANAGER RESPONSE TO COMMUNITY MATTERS (FROM PREVIOUS MEETINGS)**

Ms. Shelton addressed the following matters from the October 7 City Council meeting:

1. Human Services is reviewing the feasibility of notifying family members to take care of children of mothers or fathers who are temporarily incarcerated.

2. Regarding moving the John West placard at 10th Street NW and West Main Street to Hardy Drive, staff is researching the property where the placard currently resides to determine if it is private property.

3. The request for an audio signal at Preston and Rose Hill is being evaluated by staff, with findings to be reported to the City Manager by the end of the following week.

**COMMUNITY MATTERS**

Mr. Jeff Fogel, resident, ceded his time to Mr. Richard Koontz, who spoke in support of the Civilian Review Board (CRB).

Ms. Katrina Turner spoke in support of the CRB and gave background information on the initial CRB.

Ms. Kim Rolla, Attorney with the Legal Aid Justice Center ceded her time to Ms. Tonya Jackson, who shared her adverse experience with Charlottesville Police.

Nelson spoke about complaints that he has with the Chief of Police, and in support of the CRB.

Ms. Abby Guske shared her time with Mr. Don Gathers, who spoke in support of the CRB. He also spoke about the special use permit process and shared his opinion that the public should have an opportunity to speak if the developer is able to speak on the night of a vote.

Mr. Harold Folley advised that the People's Coalition supports a fully funded CRB. He ceded his time to Ms. Gloria Beard, who shared background information about the work put into the formation of the initial CRB bylaws. She spoke of the effects of gentrification.

Mr. Dave (no last name given) spoke about a statement made by Interim City Manager Mike Murphy regarding the initial CRB proposal. He demanded a public hearing to go over the differences between the comprehensive bylaws proposal from the initial CRB and the draft proposed for Council vote.

Mr. Andy Orbon spoke in favor of a strong CRB and the People's Coalition request for full funding. He also spoke about school reconfiguration and needed maintenance at Walker Upper Elementary in light of the recent proposal for a City Center Complex. He asked that school reconfiguration remain priority. He mentioned the need for a playground at Walker Upper Elementary.

Ms. Kate Fraleigh, City resident, pointed out five missing areas in the proposed bylaws and the need for the board to be representative of people who are experiencing disparate policing. She spoke about the need for transparency in the process to hire an Executive Director.

Mr. Walt Heinecke, City resident, spoke against the changes made to the bylaws and ceded his time to Mr. Josh Bowers, member of the initial Civilian Review Board, who advised that the initial board put in a lot more work than is shown in the proposal set before Council for vote.

Ms. Rosia Parker spoke in opposition to the CRB proposal set before Council, and in support of a strong CRB as proposed by the initial CRB. She shared her personal adverse experience with Charlottesville Police.

Ms. April Brah spoke as a poor disabled veteran, and asked that the CRB include oversight for all city first responders, and funding be included for sensitivity training for all first responders.

Ms. Leslie Harris Scott, City resident, spoke about the child welfare study from 2018 on the City website, particularly about disparities in outcomes for children of color. She advised of her family's struggle with the Charlottesville Department of Social Services and the foster care system.

Mr. Michael Payne, City resident, spoke in support of the draft bylaws submitted by the initial CRB. He noted concern about areas that seemed to be missing. He asked that the CRB be fully funded and fully staffed.

Ms. Nancy Carpenter spoke in support of the bylaws submitted by the initial CRB.

Ms. Robin Hoffman spoke about using Charlottesville Public Access TV (CPA-TV) as a forum for freedom of speech. She advised of an event at York Place on October 23rd.

Ms. Walker addressed comments about transparency and internal policy review.

The meeting recessed at 7:54 p.m.

The meeting reconvened at 8:20 p.m.

**PUBLIC HEARING/ORDINANCE: Releasing a gasline easement - Oakleigh development on Rio Road (carried)**

Agenda memo; Ordinance; deed of vacation of easement

Ms. Lauren Hildebrand presented the report.

Ms. Walker opened the public hearing. With no one coming forward to speak, the public hearing was closed. After discussion, Council agreed to move the item to the consent agenda for November 4, 2019.

**PUBLIC HEARING/ORDINANCE: Vacating a public utility easement on a property at Emmet Street and Barracks Road (carried)**

Agenda memo; Ordinance; deed; plat

Ms. Lauren Hildebrand presented the report.

Ms. Walker opened the public hearing. With no one coming forward to speak, the public hearing was closed. After discussion, Council agreed to move the item to the consent agenda for November 4, 2019.

**ORDINANCE: Ordinance adding Article XVI (Police Civilian Review Board) Ordinance and By-Laws to Chapter 2 (Administration) of the Code of the City of Charlottesville, 1990, as amended (carried)**

Mr. Blair made a presentation. He addressed the Bylaws and Ordinance, advising that the Ordinance is enabled by the Bylaws. He addressed concerns from the public about policy review. He asked whether there were other specific policies that should be reviewed by the CRB before its enactment by the Police Department. He addressed the Auditor position which was not proposed for immediate hiring, but would be an opportunity for the Executive Director to come to Council with a proposal, including budgetary proposal.

Dr. Bellamy suggested offering a 10-minute public response period after Council discussion. Councilors advised that they should have a chance to have discussion about the item.

Discussion ensued using the Council memo as a guide.

Councilors were in support of the Auditor function, but needed to discuss the timing of hiring the position and finding the funds to hire the Executive Director. Mr. Blair reviewed the timeline for hiring the Executive Director and setting the Board members. Councilors agreed that the current City Council should appoint the Board, and the goal was set to make appointments at the City Council meeting on December 16.

Ms. Walker made a suggestion of giving the CRB funding to hire a consultant to serve the auditor function. Mr. Blair advised that the Ordinance and Bylaws are written without a consultant. After discussion, Council agreed that allowing the Executive Director to hire professional auditing services with an interim report due mid-year. Mr. Blair advised of off-budget funding for the Executive Director. Ms. Galvin advised that direction for the Executive Director desired skill set should be outlined in the resolution. Mr. Blair advised that job descriptions are a function of the City Manager.

Council agreed that the Executive Director should be confirmed by the City Council.

Mr. Blair advised that allowing the CRB to retain its own legal counsel for some of its functions would be in the interest of public trust and to avoid the appearance of conflict. The CRB Executive Director, CRB Chair, and City Attorney would work together to retain legal counsel for the CRB. Mr. Blair recommended an amount of $10,000 for the end of the fiscal year to cover these costs.

Council agreed to move the item forward to the November 4, 2019, City Council meeting agenda for vote.

**RESOLUTION*: Resolution to establish reporting requirements for the Police Civilian Review Board's Executive Director.**

Agenda memo; Ordinance; Bylaws; Resolution

Council agreed to consider this item upon approval of the Ordinance adding Article XVI (Police Civilian Review Board) Ordinance and By-Laws to Chapter 2 (Administration) of the Code of the City of Charlottesville, 1990, as amended.

Ms. Walker opened the floor for public comment on the CRB.

Mr. Josh Bowers spoke about the Auditor position. He advised that a consultant may not be viable without a Memorandum of Understanding. He also spoke of the limited jurisdiction proposed for the CRB.

Mr. Guillermo Ubilla spoke about the initial packet submitted by the initial CRB. He advised that the initial proposal did not list which policies should be reviewed because the CRB should review all Police Department policies. He advised that the requirement for police to respond to complaints received by the CRB is missing.

Ms. Adeola Ogunkeyede spoke in response to the concern that there may not be enough initial work to justify two full-time equivalent positions – Executive Director and Auditor. She advised that data is created at every police interaction and she encouraged bringing the initial CRB back into the conversation for moving forward.

Ms. April Brah advised that the process should be expedited and Council should hold special meetings to handle this.

Mr. Walt Heinecke advised that this item should not be moved to the next Consent Agenda. He guarded against talking about hiring processes before the process and structure of the program are in place. He advised Council to go back to the initial proposal and suggested hiring an Auditor for a trial period of two years.

**RESOLUTION*: East High Streetscape - Resolution Approving Design Public Hearing**

Agenda memo; resolution; conceptual design; design public hearing transcript and comments

Mr. Brian McPeters, PE, Kimley-Horn and Associates, Inc., gave the project overview and requested approval of design modifications as a result of public hearing feedback.

As a result of the comments received, the project team suggested the following changes:

1) Replacement of understory trees with canopy trees along 9th Street between E. Market Street and Jefferson Avenue.

2) Adjustment of the planting pallet to provide more variety of species with a focus on native species.

3) Increased bike lane width to six feet (6') along 9th Street from E. High Street to the existing CFA Institute entrance.

On motion by Ms. Galvin, seconded by Ms. Hill, followed by discussion, Council by the following vote APPROVED the East High Streetscape Resolution Approving Design Public Hearing: 5-0 (Ayes: Walker, Hill, Bellamy, Signer, and Galvin; Noes: none).

**RESOLUTION**
**EAST HIGH STREETSCAPE PROJECT**
**DESIGN PUBLIC HEARING APPROVAL**

**WHEREAS,** a Design Public Hearing was conducted on June 12, 2019 in the City of Charlottesville by representatives of the City of Charlottesville and the Commonwealth of Virginia Department of Transportation after due and proper notice for the purpose of considering the proposed design of the East High Streetscape project under State project number of U000- 104-298 (UPC 10948) and Federal project number of NHPP-5104(254) in the City of Charlottesville, at which hearing aerial photographs, drawings, environmental documentation and other pertinent information were made available for public inspection in accordance with state and federal requirements; and

**WHEREAS**, all persons and parties in attendance were afforded full opportunity to participate in said public hearing; and

**WHEREAS**, representatives of the City of Charlottesville were present and participated in said hearing; and

**WHEREAS**, the Council had previously requested the Virginia Department of Transportation to program this project; and

**WHEREAS**, the Council fully deliberated and considered all such matters; now

**THEREFORE BE IT RESOLVED** that the Council of the City of Charlottesville hereby approves the major design features of the proposed project as presented at the Public Hearing with the following changes:

1) Replacement of understory trees with canopy trees along 9$^{th}$ Street between E. Market Street and Jefferson Avenue.
2) Adjustment of the planting pallet to provide more variety of species with a focus on native species.

3) Increased bike lane width to six feet (6') along E. High Street from 9th Street to the existing CFA Institute entrance.

**BE IT FURTHER RESOLVED** that the City of Charlottesville will acquire and/or furnish all right-of-way necessary for this project and certify the same to the Virginia Department of Transportation and Federal Highway Administration at the appropriate time.

**BE IT FURTHER RESOLVED** that the City Manager is hereby authorized to execute, on behalf of the City of Charlottesville, all necessary agreements required in conjunction with acquiring such rights of way, as well as all other associated standard agreements for construction activities.

**REPORT*: Review of 2020 Thomas Jefferson Planning District Commission (TJPDC) and City Council Legislative Positions**

Agenda summary; report

Mr. Blair introduced Mr. David Blount of TJPDC, who reviewed highlights of Legislative Agenda changes for 2020.

On motion by Ms. Hill, seconded by Ms. Galvin, Council by the following vote ADOPTED the 2020 Thomas Jefferson Planning District (TJPD) Program: 5-0 (Ayes: Walker, Hill, Bellamy, Signer, and Galvin; Noes: none).

On motion by Ms. Hill, seconded by Dr. Bellamy, Council by the following vote ADOPTED the Charlottesville City Council Legislative Program for the 2020 General Assembly session: 5-0 (Ayes: Walker, Hill, Bellamy, Signer, and Galvin; Noes: none).

**OTHER BUSINESS**

There were no items for Other Business.

**MATTERS BY THE PUBLIC**

With no additional matters by the public, Ms. Walker adjourned the meeting at 10:52 p.m.

**October 26, 2019**
**Charlottesville City Council Special Meeting**

A special meeting of the Charlottesville City Council was held on Saturday, October 26, 2019, at 9:00 a.m. in the Second Floor Conference Room, City Hall, 605 E. Main Street, Charlottesville, Virginia.

Mayor Nikuyah Walker called the meeting to order at 9:04 a.m. with the following members present: Mayor Nikuyah Walker, Vice Mayor Heather Hill, Ms. Kathy Galvin, and Mr. Mike Signer.

On motion by Ms. Hill, seconded by Ms. Galvin, Council voted (Ayes: Walker, Hill, Galvin and Signer. Noes: None. Absent: Bellamy) to meet in closed session as authorized by Va. Code Sections 2.2-3711 and 2.2-3712, specifically: as authorized by Virginia Code Section 2.2-3711(A)(1) to discuss the performance of the Charlottesville City Manager.

Dr. Bellamy arrived at 9:10 a.m.

Mr. Signer left the meeting at 11:45 a.m.

On motion by Ms. Hill, seconded by Ms. Galvin, Council certified by the following vote (Ayes: Walker, Hill, Bellamy, Galvin. Noes: None. Absent: Signer), that to the best of each Council member's knowledge only public business matters lawfully exempted from the open meeting requirements of the Virginia Freedom of Information Act and identified in the Motion convening the closed session were heard, discussed or considered in the closed session.

Mayor Walker adjourned the meeting at 12:40 p.m.

**November 4, 2019**
**Charlottesville City Council Special Meeting**

A special meeting of the Charlottesville City Council was held on Monday, November 4 2019, at 5:30 p.m. in the Second Floor Conference Room, City Hall, 605 E. Main Street, Charlottesville, Virginia.

Mayor Nikuyah Walker called the meeting to order at 5:41 p.m. with the following members present: Mayor Nikuyah Walker, Vice Mayor Heather Hill, Ms. Kathy Galvin, and Mr. Mike Signer.

On motion by Ms. Hill, seconded by Mr. Signer, Council voted (Ayes: Walker, Hill, Galvin and Signer. Noes: None. Absent: Bellamy) to meet in closed session as authorized by Va. Code Sections 2.2-3711 and 2.2-3712, specifically:

- as authorized by Virginia Code Section 2.2-3711(A)(8) for consultation with legal counsel concerning employment law advice about a specific City employee; and
- as authorized by Virginia Code Section 2.2-3711(A)(1) to discuss the performance of the Charlottesville City Manager.

Dr. Bellamy arrived at 6:20 p.m.

On motion by Ms. Hill, seconded by Ms. Galvin, Council certified by the following vote (Ayes: Walker, Hill, Bellamy, Galvin, Signer. Noes: None.), that to the best of each Council member's knowledge only public business matters lawfully exempted from the open meeting requirements of the Virginia Freedom of Information Act and identified in the Motion convening the closed session were heard, discussed or considered in the closed session.

Mayor Walker adjourned the meeting at 6:30 p.m.

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 2, 2019 |
| Action Required: | Reappropriation of Funds |
| Presenter: | Nikuyah Walker, Mayor |
| Staff Contacts: | Hollie Lee, Chief of Workforce Development Strategies<br>Chris Engel, Director of Economic Development |
| Title: | Reappropriation of Home to Hope Funds from the Department of Human Services to the Office of Economic Development - $321,103.35 |

**Background:**

In February 2019, City Council appropriated $405,000.00 to the Department of Human Services from the Council Reserve Fund for Racial Equity and Engagement (hereinafter "Equity Fund") for the creation of a peer support services program, Home to Hope, that would be staffed by individuals having "lived experience" with the criminal justice system. The program was seen as an opportunity to increase community capacity to provide high quality peer support services to those reentering the community from incarceration through training and the creation of a dedicated unit of peer navigators.

The funds would be used for three purposes:

1.) To create and offer a peer support training program – $30,000.00
2.) To establish a Home to Hope Peer Navigator Unit with five full-time staff – $275,000.00
3.) To provide flexible funds to address the needs of people returning to the community including things such as: clothing, first month's rent and security deposit, transportation, health care, etc. – $100,000.00

**Discussion:**

As a result of the appropriation, a seven-week Home to Hope training program was administered from mid-August 2019 to early October by the Office of Economic Development (OED). Eight individuals with lived experience were selected for the program, and all eight successfully graduated. The students received a Peer Support Specialist Certificate, a Wellness and Recovery Action Plan Facilitator's Certificate, a Basic Administration and Computer Literacy Certificate, and training in workplace readiness and public speaking.

Ultimately, four individuals were selected for employment with the City of Charlottesville Department of Human Services as full-time Peer Navigators to staff the Home to Hope program. The four Home to Hope staff began employment with the Department of Human Services on Monday, October 21, 2019.

Mayor Walker and City Manager, Dr. Richardson, consulted on Home to Hope on several occasions

over a period of about two months and mutually decided to move the program and four full-time Peer Navigators from the Department of Human Services to the Office of Economic Development/Downtown Job Center in mid-November. As a result of this consultation, it is recommended that the funds originally allocated to the Department of Human Services be reappropriated to the OED.

The funds to be moved are as follows:

| Description | Amount |
|---|---|
| Original Appropriation - February 2019 | $ 405,000.00 |
| Funds spent in FY 2019 | (6,579.38) |
| Funds Carried over to FY 2020 | 398,420.62 |
| | |
| Funds Spent in FY20 through November 20, 2019 | (72,037.27) |
| Funds Encumbered as of November 20, 2019 | (5,280.00) |
| Funds to be moved to Economic Development ** | $ 321,103.35 |

** Note: Given that the program is still in operation and expenses will continue to be incurred until this appropriation is approved, the amount actually moved to the new project code in the General Fund (105-1621004000) will reflect the actual balance of available funds at the time the appropriation is approved.

**Alignment with Council Vision Areas and Strategic Plan:**

This effort supports City Council's "Economic Sustainability" vision and aligns directly with the SAT's *Growing Opportunity* report that was approved by City Council in 2013.

It also contributes to the following goals and objectives in the City's Strategic Plan:

Goal 1: An Inclusive Community of Self-sufficient Residents

Goal 2: A healthy and safe community.

Goal 4: A Strong, Creative and Diversified Economy

**Community Engagement:**

City staff consulted with multiple service providers, community members, and the Steering Committee for the Re-entry Council in the development of the original proposal. Additionally, since the launch of the program many community partners have been engaged including: On Our Own, The Fountain Fund, Georgia's House, Piedmont House, Offender Aid and Restoration, and The Haven.

**Budgetary Impact:**

No new funds are being requested of the General fund. Previously appropriated program funds will be transferred from the Human Services (Fund 213) and reappropriated to a separate project cost center in the General Fund (Fund 105).

**Recommendation:**

Staff recommends reappropriation of the funds.

**Alternatives**:

If the funds are not reappropriated, the OED will not be able to operate the Home to Hope program.

**Attachments**:

- City of Charlottesville City Council Agenda Memo – Home to Hope Peer Navigators - $405,000 (January 22, 2019)

**REAPPROPRIATION**
**Home to Hope Funds from the Department of Human Services to the Office of Economic Development - $**321,103.35******

**WHEREAS**, the City Council previously appropriated funds for the Home to Hope program that were transferred from the Equity Fund to the Human Services Fund in the amount of $405,000.00; and

**NOW, THEREFORE BE IT RESOLVED** by the Council of the City of Charlottesville, Virginia, that the sum of **$321,103.35**** will hereby be transferred back from the Human Services Fund (213-3413016000-561105) to a project code in the City's General Fund to be managed by the Office of Economic Development in the following manner:

**Revenue – $321,103.35****

| | | | |
|---|---|---|---|
| $321,103.35** | Fund: 105 | Cost Center: 1621004000 | G/L: 498010 |

**Expenditures - $321,103.35****

| | | | |
|---|---|---|---|
| $321,103.35** | Fund: 105 | Cost Center: 1621004000 | G/L: 599999 |

** Note: Given that the program is still in operation and expenses will continue to be incurred until this appropriation is approved, the amount actually moved to the new project code in the General Fund (105-1621004000) will reflect the actual balance of available funds at the time the appropriation is approved.

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 2, 2019 |
| Action Required*:* | Approval and Appropriation |
| Presenter: | Pat O'Donnell, Coordinator Victim and Witness Assistance Program |
| Staff Contacts: | Pat O'Donnell, Coordinator Victim and Witness Assistance Program |
| **Title:** | ***Victim Witness Assistance Program Grant $265,024*** |

## Background:

The City of Charlottesville, through the Commonwealth's Attorney's Office, has received the Victim Witness Program Grant from the Virginia Department of Criminal Justice Services in the amount of $168,018 in Federal Funds and $56,006 in State General Funds, and $41,000 supplement from the Commonwealth Attorney's operating budget for a total award of $265,024.

## Discussion:

The victim's rights movement began in the 1970s as a result of victims being re-victimized by the criminal justice process. Victims had difficulty navigating the complexities of the criminal justice system and no voice or recourse when their cases were continued or pled out without their knowledge or consent. Prosecutors did not have the time or skills to respond to victims who were traumatized, but knew that in order to proceed with their case, many victims would need more services than the prosecutor's office could provide. In response to this need, the federal Victims of Crime Act was passed in 1984 and funds became available through the Virginia Department of Criminal Justice to respond to the needs of victims. The Charlottesville Victim/Witness Assistance Program was established in 1989 and has been meeting the needs of Charlottesville crime victims ever since. The Program is one of more than 60 such programs in the state that provides crisis intervention and advocacy, information and support during and after criminal justice proceedings, access to compensation and restitution, referrals to local community agencies and ensures victims are afforded their rights as outlined in Virginia's Crime Victim and Witness Rights Act. The Program also provides training on victim issues to law enforcement and allied agencies. It regularly serves more than 800 victims and 20 witnesses each year.

## Alignment with City Council's Vision and Strategic Plan:

Approval of this agenda item aligns directly with Council's vision for Charlottesville to be America's Healthiest City, a Community of Mutual Respect and a Smart, Citizen-Focused Government. According to the Bureau of Justice Statistics, the total economic loss to crime victims was $1.19 billion for violent offenses and $16.2 billion for property crime in 2008. Statistics vary on the amount of intangible losses victims accumulate, such as the effects of the crime on their sense of security, mental health and relationships. The Charlottesville Victim Witness Assistance Program contributes

to the health of the community by connecting crime victims with medical and mental health providers through the Criminal Injury Compensation Fund. The Program helps create a **Community of Mutual Respect** by responding to the needs of crime victims and helps achieve a **Smart, Citizen-Focused Government** by ensuring their rights are recognized throughout the local criminal justice system, including police, prosecution, judges and probation.

**Community Engagement:**

The Victim Witness Assistance Program is engaged daily with victims of crime who access services through referrals from police, court services, social services and other allied agencies. Program staff contacts crime victims within 48 hours of their reported victimization. Program staff serves on several coordinating councils, such as the Multi-Disciplinary Team on Child Abuse, the Domestic Violence Coordinating Council, the Sexual Assault Response Team, the Monticello Area Domestic Violence Fatality Review Team and the Charlottesville/Albemarle Evidence Based Decision Making Policy Team. The program regularly provides outreach in the forms of government services day, training and speaking engagements at U.V.A., P.V.C.C. and other allied agencies as requested.

**Budgetary Impact:**

There is no impact to the General Fund. The City's match of $41,000 was previously appropriated as part of the Commonwealth's Attorney's Office F.Y. 2020 Adopted Budget. The Victim Witness Assistance Program Grant is renewed annually and the funds will be received and expensed in the grants fund.

**Recommendation:**

Staff recommends approval and appropriation of grant funds.

**Alternatives**:

If grant funds are not appropriated, Charlottesville crime victims will have no access to compensation, advocacy or services afforded to them under Virginia's Crime Victim and Witness Rights Act.

**Attachments:**

Appropriation Memorandum

**APPROPRIATION**

**Charlottesville Victim Witness Assistance Program Grant**

**$265,024**

**WHEREAS,** The City of Charlottesville, through the Commonwealth Attorney's Office, has received an increase in the Victim Witness Program Grant from the Virginia Department of Criminal Justice Services in the amount of $224,024; and

**WHEREAS**, the City is providing a supplement in the amount of $41,000, the source of which is the Commonwealth's Attorney's operating budget;

**NOW, THEREFORE BE IT RESOLVED** by the Council of the City of Charlottesville, Virginia that the sum of $224,024 is hereby appropriated in the following manner:

**Revenues**

| | | | |
|---|---|---|---|
| $ 56,006 | Fund: 209 | Cost Center: 1414001000 | G/L Account: 430110 |
| $168,018 | Fund: 209 | Cost Center: 1414001000 | G/L Account: 430120 |
| $ 41,000 | Fund: 209 | Cost Center: 1414001000 | G/L Account: 498010 |

**Expenditures**

| | | | |
|---|---|---|---|
| $251,000 | Fund: 209 | Cost Center: 1414001000 | G/L Account: 519999 |
| $ 14,024 | Fund: 209 | Cost Center: 1414001000 | G/L Account: 599999 |

**Transfer from:**

| | | | |
|---|---|---|---|
| $ 41,000 | Fund: 105 | Cost Center: 1401001000 | G/L Account: 561209 |

**BE IT FURTHER RESOLVED**, that this appropriation is conditioned upon the receipt of $224,024 from the Virginia Department of Criminal Justice Services.

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Approval of Resolution |
| Presenter: | Chris Gensic, Parks and Recreation |
| Staff Contacts: | Chris Gensic, Parks and Recreation<br>Ryan Davidson, Office of Budget and Performance Management |
| **Title:** | **Capital Funding Transfer for the Rugby Avenue Trail project - $19,501.90** |

**Background:**

The City of Charlottesville, through Parks and Recreation, has received an award from the Virginia Department of Transportation (VDOT) in the amount of $317,160 to assist with construction of a bicycle and pedestrian trail along Rugby Avenue into McIntire Park. The current project cost estimate is more than the amount in the Rugby Avenue trail fund Capital Improvement Program (CIP) account. A number of older Park and Recreation CIP accounts have remaining funds in them that can be moved over to ensure this project can be completed. If approved, $19,501.90 will be appropriated into the Rugby Avenue Trail Account P-00977

**Discussion:**

The Parks and Recreation CIP projects that have remaining project balances, and no additional expenditure needs include:

| | | |
|---|---|---|
| P-00148 | Park Plan | $717.00 |
| P-00599 | Azalea Park | $6,975.00 |
| P-00717 | Rives Park | $180.00 |
| P-00892 | McIntire Softball Field Lighting | $1,800.00 |
| P-00673 | McIntire Railroad bridge | $9,838.90 |
| TOTAL | | $19,501.90 |

After the funds are transferred to the new project account, the above CIP accounts will be closed.

The Rugby Avenue trail project is in need of additional funding to meet the cost estimate (currently ~$400,000 with a CIP account balance of $388,297) and get the project to bid. It is a high priority to complete this year so that the federal funding is not lost and also so that the current traffic patterns

and detours in place can be brought to a permanent alignment. Once the project is complete, this CIP account will also be closed out.

**Community Engagement:**

The bicycle, pedestrian and trail master plan was developed with multiple public meetings and was approved by council to be an addendum to the City Comprehensive Plan.

**Alignment with City Council's Vision and Strategic Plan:**

Construction of this trail will further council goals of being a Connected City by establishing a portion of the bicycle and pedestrian trail system that enhances our residential neighborhoods.

**Budgetary Impact:**

No new funding is being appropriated. All funds will be transferred from funding previously appropriated in the Capital Improvement Program Fund.

**Recommendation:**

Staff recommends appropriation of funds.

**Alternatives**:

If grants funds are not appropriated, Parks and Recreation will have to find other CIP funds to complete the Rugby Avenue project.

**Attachments**:

Appropriation

**RESOLUTION**
**Capital Funding Transfer for the Rugby Avenue Trail project**
**$19,501.90**

**WHEREAS**, the City of Charlottesville, through Parks and Recreation, has been awarded $317,160 from the Virginia Department of Transportation to construct the Rugby Avenue Trail; and

**NOW, THEREFORE BE IT RESOLVED** by the Council of the City of Charlottesville, Virginia, that the sum of $19,501.90 is hereby appropriated in the following manner:

**Expenditures**

**Transfer From:**

| | | | |
|---|---|---|---|
| $717 | Fund: 425 | WBS: P-00148 | G/L Account: 599999 |
| $6,975 | Fund: 426 | WBS: P-00599 | G/L Account: 599999 |
| $9,838.90 | Fund: 426 | WBS: P-00673 | G/L Account: 599999 |
| $180 | Fund: 426 | WBS: P-00717 | G/L Account: 599999 |
| $1,800 | Fund: 426 | WBS: P-00892 | G/L Account: 599999 |

**Transfer to:**

| | | | |
|---|---|---|---|
| $19,501.90 | Fund: 426 | WBS: P-00977 | G/L Account: 599999 |

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Resolution Adoption |
| Presenter: | John C. Blair, II, City Attorney |
| Staff Contacts: | John C. Blair, II, City Attorney<br>Garland Williams, CAT Director |
| **Title:** | **Jefferson Area Regional Transit Partnership Memorandum of Understanding** |

**Background:**

On October 30, 2017, the City of Charlottesville, Albemarle County, JAUNT, Inc, and the Thomas Jefferson Planning District Commission established the Jefferson Area Regional Transit Partnership (RTP) in cooperation with the Virginia Department of Rail and Public Transportation. The RTP is an official advisory board that provides guidance to decision-makers on regional transit-related matters.

**Discussion:**

The RTP recently recommended that the University of Virginia (hereinafter "U.Va.") be added as a party to the RTP Memorandum of Understanding. U.Va. would be provided one of eight seats on the RTP's voting membership. The proposed board would contain two members each from the City of Charlottesville, Albemarle County, and JAUNT, Inc. U.Va. and the Department of Rail and Public Transportation would each have one seat on the board.

**Budgetary Impact:**
None.

**Alternatives**:
The Council could decline to adopt the amended Memorandum of Understanding.

**Attachments**:
Resolution
Proposed Memorandum of Understanding

**RESOLUTION TO APPROVE AN AMENDED MEMORANDUM OF UNDERSTANDING ON THE JEFFERSON AREA REGIONAL TRANSIT PARTNERSHIP**

**BE IT RESOLVED** by the Council of the City of Charlottesville, Virginia that it hereby approves the revised Memorandum of Understanding on the Jefferson Area Regional Transit Partnership, and authorizes the City Manager to execute the revised Memorandum of Understanding after it is approved as to form and substance by the City Attorney.

**Charlottesville-Albemarle Metropolitan Planning Organization**
**of the Thomas Jefferson Planning District Commission**
POB 1505, 401 E. Water St, Charlottesville, VA 22902 www.tjpdc.org
(434) 979-7310 phone ● (434) 979-1597 fax ● info@tjpdc.org email

---

**MEMORANDUM OF UNDERSTANDING**
**ON THE JEFFERSON AREA**
**REGIONAL TRANSIT PARTNERSHIP (RTP)**

This agreement is made and entered into as of [Date TBD], by and between the Charlottesville-Albemarle Metropolitan Planning Organization hereinafter referred to as the MPO, the City of Charlottesville hereinafter referred to as the CITY, the County of Albemarle hereinafter referred to as the COUNTY, JAUNT, Inc hereinafter referred to as JAUNT, with JAUNT and Charlottesville Area Transit together hereinafter referred to as the PUBLIC TRANSIT OPERATORS, and the Thomas Jefferson Planning District Commission serving as planning and administrative staff to the MPO, hereinafter referred to as the TJPDC.

WHEREAS, in 2016, the Planning and Coordination Council (PACC) asked TJPDC to review and recommend opportunities for improved communication, coordination and collaboration on transit matters.; and,

WHEREAS, the TJPDC completed work on a Regional Transit Coordination Study, where the main recommendation from this study was to establish a Regional Transit Partnership (RTP) hereinafter referred to as the PARTNERSHIP, consisting of an Advisory Board and whose charge is to provide a venue for continued communication, coordination and collaboration between transit providers, localities and other stakeholders.; and,

WHEREAS, City Council and the Albemarle Board of Supervisors held a joint meeting on February 14th, 2017, where both bodies voted to support development of the PARTNERSHIP and asked TJPDC to develop an MOU; and,

WHEREAS, on October 30, 2017, the Charlottesville-Albemarle Metropolitan Planning Organization, the City of Charlottesville, the County of Albemarle, JAUNT, Inc, and the Thomas Jefferson Planning District Commission did enter into an original Memorandum of Understanding defining the vision, roles and responsibilities for the Regional Transit Partnership; and

WHEREAS, on [Date TBD], these parties amend this Memorandum of Understanding to include the University of Virginia hereinafter referred to as UVA among the PUBLIC TRANSIT OPERATORS and signatories of this agreement.

NOW THEREFORE, be it recognized and agreed that the MPO, CITY, COUNTY, JAUNT, and UVA hereby establish the Jefferson Area Regional Transit Partnership (RTP), in accordance with the following articles.

**Article 1**
**Staffing, Funding and Boundaries**

The MPO is responsible, as the lead, for staffing and programming for the PARTNERSHIP, with Section 5303 program funding from the Federal Transit Administration (FTA) and Virginia Department of Rail and Public Transportation (DRPT). Funding will be a regular item in the MPO's Unified Planning Work Program (UPWP). The PARTNERSHIP's program area is limited to the Charlottesville-Albemarle metropolitan transportation planning area (MPA) that includes the CITY and the urbanized portions of the COUNTY.

**Article 2**
**Function and Authority**

The PARTNERSHIP will be an advisory board that provides recommendations to CITY, COUNTY, PUBLIC TRANSIT OPERATORS and other stakeholders, such as the University of Virginia (UVA). The

PARTNERSHIP shall not have any inherent decision-making powers and does not supersede management over the PUBLIC TRANSIT OPERATORS.

## Article 3
## Membership and Voting Structure

The composition of the PARTNERSHIP may change with time, as the Advisory Board meets and identifies an improved membership structure. At a later date, the PARTNERSHIP may extend to surrounding counties and towns, as needed. Expansion of Advisory Board members will require written amendments to this MOU. The PARTNERSHIP roster includes voting and non-voting membership. Each voting member is permitted one vote on all matters addressed by the PARTNERSHIP. All individuals on the Advisory Board have equal voting powers, with no weighted privileges given to any members.

Voting membership includes *eight* representatives, including:

- Charlottesville City Council – *two representatives*
- Albemarle Board of Supervisors – *two representatives*
- JAUNT Corporation Board – *two representatives*--one urban & one rural representative with at no time having both serve from the same governmental jurisdiction.
- Department of Rail and Public Transportation (DRPT) – *one representative*
- University of Virginia – *one representative*

There shall also be a nonvoting representative as designated by the PARTNERSHIP.

The designating body of each member locality or agency, having appointed the appropriate number of representatives to the PARTNERSHIP, as indicated in this ARTICLE, whether voting or nonvoting, may appoint an alternate member(s). Voting privileges for alternates shall be the same as for the regular member in the absence of the regular member.

There are no set term-limits for members of the PARTNERSHIP Advisory Board. Each member locality or agency shall reassess membership to the PARTNERSHIP, according to their own processes.

## Article 4
## Meeting Schedule and Bylaws

The PARTNERSHIP will set a meeting schedule that is coordinated with the MPO Policy Board meeting schedule. The PARTNERSHIP shall convene at least four times in a given fiscal year.

This MOU will serve as the main guiding documents for the PARTNERSHIP. The PARTNERSHIP may adopt bylaws, to aid in management of meetings. Unless otherwise determined by the PARTNERSHIP, TJPDC will facilitate and manage meetings. Voting and parliamentary procedure will be conducted according to simplified Robert's Rules of Order.

## Article 5
## Deliverables and Roles

As recurring responsibilities, the PARTNERSHIP will be responsible for the following:

- *Building the CITY/COUNTY Relationship*. The PARTNERSHIP will help the region build relationships and momentum for future successes.
- *Create a formal means of sharing information.* Created by an MOU, the PARTNERSHIP will create and maintain a formal mechanism for exchanging information between transit providers, localities and other stakeholders.
- *Address pressing issues immediately*. The PARTNERSHIP will provide immediate attention to pressing concerns and issues, as laid out in the Regional Coordination Study, conducted by TJPDC.
- *Facilitate transit planning.* The PARTNERSHIP will provide recommendations, assessments and guidance on transit-related matters to the CITY, COUNTY and PUBLIC TRANSIT OPERATORS.

- *Integrating transit into other decision-making.* The PARTNERSHIP will ensure that transit will receive increased consideration in regional and local planning efforts.
- *Test an RTA structure.* The PARTNERSHIP will provide a sample model version of a Regional Transit Authority (RTA) that allows all parties to become more familiar with the concept of a consolidated transit system.
- *Preparing for an RTA.* Within the PARTNERSHIP, the region will have a venue for negotiating and studying an RTA that could benefit all partners in the region.

Specific deliverables include but are not limited to:

- *Drafting Formal Agreements:* The PARTNERSHIP will review existing arrangements and transit relationships, reviewing and drafting if necessary, formal contracts and agreements. The initial and primary task would be to address the most pressing problem, the complicated web of arrangements.
- *Integrating Transit into Decision-Making:* The PARTNERSHIP will work to integrate greater transit considerations into planning efforts around the region. The PARTNERSHIP will have involvement with the MPO's Long Range Transportation Plan (LRTP), vetting transit-related recommendations. It would also provide recommendations to local planning efforts and projects.
- *Coordinated Transit Development Plans and Strategies:* Currently, the three transit providers have entirely separate planning documents. PUBLIC TRANSIT OPERATORS must update their Transit Development Plan (TDP) or Transit Strategic Plans (TSP) every five years. Whether done through the TDP or as a document that later consolidates planning recommendations, the PARTNERSHIP is responsible for overseeing the region's transit planning process.
- *Update RTA Study:* The PARTNERSHIP, in coordination with the MPO, will update the RTA Study and develop a new report that will help the region determine if an RTA is feasible.
- *RTP Bylaws and Mission:* The PARTNERSHIP may develop bylaws and mission statement.

**Article 6**
**Amendments**

Amendments to this AGREEMENT, as mutually agreed to, may be made by written agreement between all parties of this AGREEMENT.

IN WITNESS WHEREOF, all concerned parties have executed this AGREEMENT on the day and year first written above.

**Signatures:**

_____ WITNESS BY _____
Ann Mallek,

Chair
Charlottesville-Albemarle Metropolitan Planning Organization

_____ WITNESS BY _____
Ned L Gallaway,
Chair
County of Albemarle Board of Supervisors

_____ WITNESS BY _____
Nikuyah Walker,
Mayor
City of Charlottesville, and on behalf of the Charlottesville Transit Service

_____ WITNESS BY _____
Patricia Thomas,
President
JAUNT, Inc.

_____ WITNESS BY _____
Dale Herring,
Chair
Thomas Jefferson Planning District Commission

_____ WITNESS BY _____
Jennifer Wagner Davis,
EVP-COO
University of Virginia

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Resolution Adoption |
| Presenter: | John C. Blair, II, City Attorney |
| Staff Contacts: | John C. Blair, II, City Attorney |
| **Title:** | **Holiday Lake 4-H Education Center Resolution** |

**Background:**

Holiday Lake 4-H Educational Center (hereinafter "Holiday Lake") was constructed in 1941 to serve 4-H activities in Central Virginia including the City of Charlottesville.

Holiday Lake serves City of Charlottesville residents. Thirty two (32) City of Charlottesville youth participated in its 2019 overnight summer camp. Five City of Charlottesville youth participated in Holiday Lake's recently concluded weekend Christmas Camp.

**Discussion:**

Holiday Lake is seeking a $332,000 appropriation from the Virginia General Assembly to embark upon capital improvement projects. The attached resolution expresses the Council's support for this request.

**Budgetary Impact:**
None.

**Alternatives**:
The Council could decline to adopt the proposed resolution.

**Attachments**:
Proposed Resolution

**RESOLUTION IN SUPPORT OF A REQUEST**
**BY HOLIDAY LAKE: 4-H EDUCATIONAL CENTER (HL4HEC)**
**TO THE COMMONWEALTH OF VIRGINIA**
**FOR ESSENTIAL CAPITAL SAFETY IMPROVEMENT PROJECTS**

**WHEREAS**, the Holiday Lake 4-H Educational Center's (HL4HEC) mission is to improve the quality of life by education of youth and adults in a natural setting and it has served the youth and adults of Central Virginia since 1941; and

**WHEREAS**, HL4HEC hosted thirty-two (32) City of Charlottesville youth at its 2019 summer overnight camp; and

**WHEREAS**, in 2011, HL4HEC was registered as a Virginia Historic Landmark and listed on the National Register of Historic Places; and

**WHEREAS**, HL4HEC requires funding for capital improvement projects; and

**WHEREAS**, upon receiving capital improvement funds and completing the necessary capital improvements, the HL4HEC can increase the Center's useful life and continue to serve the youth and adults of Charlottesville and Central Virginia.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Charlottesville, Virginia that it hereby supports HL4HEC's request for the General Assembly to appropriate $332,000 in the 2020-22 biennial budget for essential capital improvements.

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Resolutions |
| Presenter: | Erin Atak, Grants Coordinator, Neighborhood Development Services<br>Chris Meyer, Executive Director, Local Energy Alliance Program (LEAP) |
| Staff Contacts: | Erin Atak, Grants Coordinator, Neighborhood Development Services<br>Susan Elliott, Climate Protection Program Manager, Public Works |
| **Title:** | **Home Energy Conservation Grant - Scope of Work Modifications** |

**Background:**

The City of Charlottesville contracts with the Local Energy Alliance Program ("LEAP") to administer the Assisted Home Performance Program to help low income homeowners to improve their homes' safety and comfort while reducing their energy bills. The Assisted Home Performance program is funded by a Home Energy Conservation Grant of $125,000/year from the CIP (Other Governmental Improvements) fund. The original Home Energy Conservation Grant agreement with the City was signed with LEAP in January 20, 2009.

LEAP is requesting the following approvals:

(1) revision of the Grant Agreement that expired in June 2018 for continuation of services with City funding; and
(2) modifications to the Grant Agreement - Scope of Work:
    - to increase the number of Assisted Home Performance projects that are allowed to exceed the $5,000 project funding limit, pursuant to approval by the NDS Director, from three (3) projects to ten (10) projects; and
    - to expand the scope of work to include a new pilot program called the Housing Voucher and Energy Efficiency Pilot (VEEP); and
    - authorize a one-time reallocation of $50,000 from the existing Assisted Home Performance Program's FY20 budget to fund an initial round of VEEP
(3) Approval of the VEEP program to which a portion of the Assisted Home Performance funding will be allocated.

If approved, the Home Energy Conservation Grant funds for FY20 would be allocated as such:

| | | |
|---|---|---|
| Assisted Home Performance Program: | 60% | $75,000 |
| Housing Voucher and Energy Efficiency Pilot (VEEP): | 40% | $50,000 |

**Discussion:**

***Increase the Number of Assisted Home Performance Projects that are allowed to exceed $5,000***

Project costs have steadily been increasing since the start of the program. Labor, tools, and costs of goods/services have increased to the point where the $5,000 cap on projects is no longer feasible. LEAP has been relying on additional funding sources to support the extra costs in labor to close out projects. Raising the funding cap will help LEAP cover the costs of projects without having to seek outside funding sources (i.e., Dominion utility).

Project History

| Grant Cycle | Number of Projects | Average Project Cost |
|---|---|---|
| FY 15/16 | 28 | $4,692 |
| FY16/17 | 25 | $4,627 |
| FY 17/18 | 27 | $4,528 |
| FY 18/19 | 20 | est. $6,000 |

***Expand the scope of work to include VEEP***

VEEP hopes to improve the energy performance and comfort of low-income rental homes as well as increase landlord interest in accepting voucher holders from the Charlottesville Supplemental Rental Assistance Program (CSRAP), Housing Choice Vouchers program (HCV), and Thomas Jefferson Area Coalition for the Homeless program (TJACH) by providing an incentive to landlords through applicable funding for energy improvements to rental units within the City limits of Charlottesville. As an example, CSRAP - administered by CRHA - has a long list of potential voucher holders actively seeking rental property in the City, but few landlords are accepting them. The VEEP program concept has been endorsed by the Housing Advisory Committee (HAC).

Energy bills can be a significant burden to low income households and can impact residents' ability to pay for basic needs (rent) and lead to health and safety issues. Many income restricted households do not own their own homes, which creates a split incentive between the entity who would pay for upgrades (the property owner) and the entity that would receive the benefit (the tenants). As a result, income restricted rental households rarely see improvements made to their housing that would reduce their energy bills and improve the residents' comfort and safety.

The proposed modified scope of work will allow Home Energy Conservation Grant funding to be used for the pilot VEEP program to pay for energy efficiency improvements to rental housing. In exchange for the energy improvements, landlords will commit to accepting CSRAP, HCV, or TJACH housing vouchers for a term of 5-years. Eligible home energy improvements and proposed terms are included in Exhibit 2A of the attached Grants Agreement. Energy bill savings, if not directly benefiting the renters (for example, if the property is master metered), must be passed on to them by the landlord through lower rent.

The City's investment in the energy efficiency improvements is secured through a forgivable loan that is released in a pro-rata manner. No landlord would be able to receive the improvements and stop accepting vouchers in the middle of their 5-year commitment without repaying the equivalent pro-rata share of the loan. If a voucher holder graduates from the program, the renter would not be forced to move nor would the landlord be forced to find a new voucher holding tenant. Rather, only when the previous voucher renter choses to move would the landlord be required to take another voucher holder.

The initial pilot for VEEP aims to engage ten new participants, utilizing up to $50,000 ($5,000/household on average) of the FY20 $125,000 Home Energy Conservation grant allocation.

LEAP will work with voucher program administrators, such as CRHA, to ensure proper reporting and tracking of landlord acceptance of vouchers. LEAP will coordinate all energy improvements and landlord

documentation requirements. A quarterly report will be provided to the City's Grants Coordinator on the VEEP's implementation using the following metrics:

- Household's annual income
- Project costs per household
- Household's energy audit
- Providing a marketing plan detailing the recruitment of new landlords to the VEEP
- Number of new landlords accepting HCV, TJACH or CSRAP vouchers
- Number of new landlords accepting HCV, TJACH or CSRAP vouchers who are utilizing VEEP
- Number of HCV, TJACH and CSRAP voucher holders removed from the current waiting list
- List of energy improvements provided per household
- Annual energy cost-savings per household for voucher recipients – as dollars saved and as percentage of annual energy costs
- Annual reduction of kWh and therms per household – as unit reductions and as percentage of annual energy use
- Reduced Green House Gas emissions from households in the pilot, and the carbon factors used to calculate

While the VEEP proposed by LEAP, C3 and the Housing Advisory Committee (HAC) included a provision for a 5-year deferred loan payment based on a $5,000 per household on average project/program, this provision does not comply with the City of Charlottesville Housing Assistance Program Policies, Procedure, Protocols and Rehabilitation Standards (HAP), as approved by the City Council in 2015. The attached Grant Agreement and exhibits have been revised to reflect consistency with the HAP.

**Alignment with City Council's Vision and Strategic Plan:**

VEEP supports the City Council's "Green City" and "Quality Housing Opportunities for All" visions. It contributes to Goal 1 of the Strategic Plan, to be an inclusive and self-sufficient community, and Objective 1.3 to increase affordable housing options.

**Community Engagement:**

The Charlottesville Climate Collaborative (C3) and LEAP created a draft concept note for consultation with stakeholders throughout the city. Over a two-month period, landlords and their representatives were consulted 1-on-1 in-person and through phone interviews, as well as HAC committee members and the HAC's Policy subcommittee. CRHA and TJACH were also consulted during the creation of the final concept note, which was later presented to the HAC's Policy subcommittee where it was endorsed as a final step in its development.

**Budgetary Impact:**

This has no impact on the general fund. It modifies existing CIP grant funding and the associated scope of work.

**Recommendation:**

Staff recommends the following:

(1) approve revision to the Grant Agreement to cover the current fiscal year and allocated program funding

(2) approve modifications to the scope of work as outlined in the attached resolution for the program
(3) only approve the VEEP subject to a deferred loan payment period consistent with the approved City of Charlottesville Housing Assistance Program Policies, Procedures, Protocols & Rehabilitation Standards (HAP), approved by City Council in 2015. The HAP outlines a deferred payment loan of one year for projects up to $5,000; three years for projects $5,001 to $10,000; five years for project $10,001 to $15,000, etc. The LEAP/C3/HAC proposal included a requirement for a deferred-loan/Deed of Trust for 5-years on a $5,000/household on average project. Staff recommends the VEEP program only be approved with a revision that the deferred payment loan on projects be consistent with the HAP.

**Alternatives**:

Council can approve portions of the requested changes or not approve the requested changes.

**Attachments**:

1. Grant Agreement (with amended Scopes of Work)
   Exhibit 1A – Assisted Home Performance Program
   Exhibit 1B – Assisted Home Performance Deferred Payment Loan Terms
   Exhibit 2A – Housing Voucher and Energy Efficiency Pilot (VEEP)
   Exhibit 2B – Housing Voucher and Energy Efficiency Pilot (VEEP) Deferred Payment Loan Terms

2. Resolution - Approving the Housing Voucher and Energy Efficiency Pilot (VEEP)

3. Resolution - Approving the Home Energy Conservation Grant Program Funding Agreement for the Fiscal Year beginning July 1, 2019

**GRANT AGREEMENT**

This grant agreement provides the terms and conditions upon which the City of Charlottesville ("City") will provide funding to the Local Energy Alliance Program ("Recipient") related to the Home Energy Conservation Fund, as approved by City Council as part of Other Governmental Commitments in the Capital Projects Fund on April 11, 2017.

**Section 1**. Time for Performance: July 1, 2019 through June 30, 2020.

**Section 2.** City Funding Amount: $125,000, distributed as grants of up to $5,000 to eligible beneficiaries (see Section 3.A below) except where noted in Section 3.B.

**Section 3**. Conditions of City Funding:

A. **Beneficiaries Who Receive City Funding (Eligibility):** Acceptable beneficiaries include the following:
    a. an owner occupant (including those with a recorded life estate interest) whose household income is 80% or less of the current HUD Area Median Income for Charlottesville[1] and whose property is in the City of Charlottesville. Note that the housing unit to be assisted must be the principal place of occupancy for the owner/applicant and proof of ownership and occupancy must be provided. All property taxes, fees, fines, interest and outstanding liens owed to the City must be paid in full or a payment plan established with evidence of satisfactory on-time payments. Proof of adequate fire/hazard insurance coverage for the property must be provided at the time the assistance is being provided; or
    b. a rental property owner ("owner" includes those with a recorded life estate interest) who agrees to accept an eligible voucher program tenant (see Exhibit 2A) for a minimum of 5 years. The property must be in the City of Charlottesville. All property taxes, fees, fines, interest and outstanding liens owed to the City must be paid in full or a payment plan established with evidence of satisfactory on-time payments. Proof of adequate fire/hazard insurance coverage for the property must be provided at the time the assistance is being provided. (VEEP only).

B. **For assistance above $5,000:** Up to ten (10) beneficiaries per fiscal year may receive assistance above the $5,000 maximum upon approval from the Director of Neighborhood Development Services (NDS), subject to availability of funding, per program. These cases must comply with the terms set forth in Exhibit 1A and Exhibit 2A.

C. **Obligations of Recipient** (Local Energy Alliance Program):
    a. All terms as set forth in Exhibit 1A and Exhibit 2A provided by Recipient (and Recipient shall be obligated to ensure that all sub-contractors also adhere to these terms).
    b. Use the City funding only in accordance with the terms and conditions set forth within this grant agreement.
    c. Work performed under this agreement should adhere to the City of Charlottesville Housing Assistance Program Policies, Procedure, Protocols and Rehabilitation Standards (HAP).
    d. Submit quarterly reports electronically to the Grants Coordinator, with information regarding program/project progress, as deemed appropriate and sufficient to determine what work has been performed. Quarterly reports will further detail total amount awarded to each household and demographic characteristics of each household served (income, household size, race, female headed status, elderly status and percent of

1 Determination of income will be based on HUD's Part 5 definition found at 24 CFR Part 5.

energy efficiency improvement).

e. Be accessible and responsive to communication and feedback from the City.
f. Inform the City of potential changes or updates to the program/project.
g. Recipients are encouraged to seek publicity about programs/projects assisted by the City. This can be done by distributing a press release to local media and/or publicizing information on recipient website(s) and/or social media. Publicity helps increase awareness of your program and an announcement of support from the City may help you leverage additional dollars for your program/project.

**Section 4:** Payment and Reporting:

Quarterly reports are due by the 15th of the Month following the end of each calendar quarter (October, January, and April). Such reports may cover a time period ending no more than thirty (30) days prior to the end of the calendar quarter. Payments will be released after receipt and review of the reports. No new funds will be released until all funds from previous payments have been expended. A final report on accomplishments since the third quarter and to summarize yearlong accomplishments is due on July 31, 2020. Invoices, reports, and related documentation will be submitted electronically to the Grants Coordinator at atake@charlottesville.org.

**Section 5:** Terms and Contracts

A. Subcontracts and Assignments: LEAP may subcontract with AHIP to assume certain obligations of the Grant Agreement which will streamline reporting, payments scheduling, and project completion. AHIP may serve as the sole source subcontractor for work performed pursuant to the Grant Agreement; however, it is recognized that AHIP may, from time to time, need to contract construction specialty work (such as HVAC, insulation, electrical, and plumbing) to others. No benefit or obligation of this grant agreement may be assigned or subcontracted by the Recipient to another subcontractor without prior written approval of the City at its sole discretion.
B. Termination of Grant Agreement: Either party may terminate this grant agreement at any time, by giving written notice to the other party of such termination and specifying the effective date thereof, at least 90 days before the effective date of such termination. If the grant agreement is termination by either party, the Recipient will promptly return all unexpended funds provided pursuant to this grant agreement.
C. Indemnification: to the extent permitted by law, the Recipient hereby agrees to defend, indemnify and save the City (including its officers, agents, officials, employees and agents) harmless from and against any and all liability loss, claim, suit, damage, charge or expense which the City may suffer, sustain, incur or in any way be subjected to, on account of death or of injury to any person (including, without limitation, City officers, agents, employees, licensees and invitees) and for damage to, loss of, and destruction of any property whatsoever, which arises out of, results from, or is in any way connected with actions taken by the Recipient in the performance of its obligations under this grant agreement, or which occurs as a consequence of any negligence, omission or misconduct of the Recipient and any of the Recipient's subcontractors, agents or employees in the performance of the Recipient's obligations under this grant agreement.
D. Public Disclosure of Grant Agreement Documents: The Recipient acknowledges and understands that this grant agreement, and all related public proceedings and records, shall be open to the inspection of any citizen or any interested person, firm or corporation, in accordance with the Virginia Freedom of Information Act (Va. Code §2.2-3700, *et seq.)* and the Virginia Public Procurement Act (Va. Code §2.2-4300, *et seq.)* to the extent that either of those laws applies.
E. City Access to Records: The Recipient agrees that duly authorized representatives of the City shall have access to any books, documents, papers, and records which are directly pertinent to this grant agreement for the purpose of making audits, examinations, excerpts and transcriptions, throughout the term of the grant agreement and for a period of two years thereafter.

F. Non-Discrimination: During the performance of this grant agreement the Recipient agrees that it will not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, national origin, age, disability or any other basis prohibited by law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The Recipient agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Also, the Recipient, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that it is an equal opportunity employer.

G. Drug-Free Workplace: During the performance of this grant agreement the Recipient agrees as follows: (i) to provide a drug-free workplace for its employees; (ii) to post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Recipient's workplace and specifying the actions that will be taken against employees for violations of such prohibition; and (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Recipient that it maintains a drug-free workplace. For the purposes of this paragraph, "drug-free workplace" means a site for the performance of work done in connection with the contract awarded to a contractor in accordance with this transaction, where the contractor's employees are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

H. No Waiver of Rights: No failure on the part of the City to enforce any of the terms or conditions set forth in this grant agreement shall be construed as or deemed to be a waiver of the right to enforce such terms or conditions. No waiver by the City of any default or failure to perform by the Recipient shall be construed as or deemed to be a waiver of any other and/or subsequent default or failure to perform. The acceptance of the performance of all or any part of this grant agreement by the City, for or during any period(s) following a default or failure to perform by the Recipient, shall not be construed as or deemed to be a waiver by the City of any rights hereunder, including, without limitation, the City's right to terminate this grant agreement.

I. Independent Contractor: Neither the Recipient, not its agents, employees, assignees or subcontractors shall be deemed employees or agents of the City by virtue of the contractual relationship established by this grant agreement. The Recipient shall have sole responsibility for its staff, employees and volunteers including their work, personal conduct, directions and compensation.

J. Severability: In the event that any term, provision, or condition of this grant agreement, or the application thereof to any person or circumstance shall be held by a Court of competent jurisdiction to be invalid or unenforceable, the remainder of this grant agreement, and the application of any term, provision or condition contained herein to any person or circumstance other than those to which it has been held invalid or unenforceable, shall not be affected thereby.

K. Non-Appropriation: The payment obligations of the City of Charlottesville in future fiscal years are expressly conditioned upon the availability of and appropriation by the City Council of sufficient public funds therefore in succeeding fiscal years. When public funds are not appropriated or are otherwise unavailable to support continuation of grant payment(s) by the City in a subsequent fiscal year, this grant agreement and the City's obligations hereunder shall automatically expire; without liability or penalty to the City. Within a reasonable time following City Council's adoption of a budget, the City shall provide the Recipient with written notice of any non-appropriation or unavailability of funds affecting this grant agreement

L. Governing Law: This grant agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia. All litigation arising out of this grant agreement

shall be commenced and prosecuted in the federal, state or local court(s) having jurisdiction within the City of Charlottesville, Virginia

M. Entire Agreement: This grant agreement represents the entire agreement between the parties and there are no other agreements or understandings between the parties, either verbal or written, which have not been incorporated herein.

**OFFERED/AGREED BY THE CITY OF CHARLOTTESVILLE:**

Director of Finance: _____ Date: _____

**ACCEPTED/AGREED BY RECIPIENT:**

Recipient Representative (printed): _____

Recipient Representative (Signature): _____ Date: _____

**FUNDS AVAILABLE:** **APPROVED AS TO FORM:**

| | | | |
|---|---|---|---|
| _____ | _____ | _____ | _____ |
| (Signature) | Date | City Attorney | Date |

**EXHIBIT 1A**

**Scope of Work: Assisted Home Performance Program**

- Background: The City of Charlottesville's Assisted Home Performance Program has developed from the Home Performance with ENERGY STAR Program (HPwES) - a national program administered by the U.S. Department of Energy in conjunction with the U.S. Environmental Protection Agency. From 2002 to 2009, over 275,000 homeowners have improved their homes' energy efficiency with whole house solutions to improve comfort and indoor air quality while reducing energy bills. Their homes are warmer in the winter, cooler in the summer, and more affordable to operate all year.

- The Assisted Home Performance Program's goal is to retrofit 25 households per year with a minimum efficiency gain of 20%. LEAP will comply with applicable City of Charlottesville Housing Assistance Program Policies, Procedures, Protocols and Rehabilitation Standards with regard to service delivery and administrative funding.

  Program Scope of Work includes:
  - Pre-qualification of homeowners
  - Collection of utility usage from the year prior to work commencing (to the greatest extent feasible, when data is available)
  - Comprehensive Home Energy Audit performed by LEAP staff or a participating contractor in LEAP's network. Audit shall meet Building Performance Institute standards and provide a cost/benefit analysis and prioritize recommendations for improvements to the contractor. Energy conservation, water conservation, and health and safety improvements based upon recommendations from the energy audit report could include:
    - Air sealing
    - Duct sealing
    - Adding insulation where needed (attic, walls, basement, crawl space)
    - Encapsulating the crawl space
    - HVAC system tune-up
    - HVAC system replacement
    - Ductwork reconfiguration
    - Water heater replacement
    - Insulating water heater and the supply and distribution pipes
    - Installing ventilation where needed (bath fans, kitchen range exhaust, etc.)
    - Installing CO and smoke detectors
    - Weather stripping doors and adding door sweeps
    - Weather stripping and sealing windows Installing faucet aerators and low-flow showerheads
  - Approval of contractor pricing and scope of work prior to work commencing
  - Post-retrofit testing for air reduction measurement and health + safety issues. Quality assurance on work performed included in this visit. Post-test results provided to contractor
  - LEAP will use the Mid Atlantic Technical Resource Manual (TRM) for measuring energy savings from the different installations and actions taken.
  - Provide the City of Charlottesville with an annual total of retrofits performed and energy saved
  - Provide the City of Charlottesville with demographic information regarding homes' occupants.

- Provide the City of Charlottesville at least once annually with a per project listing of:
  - Annual income
  - Project costs
  - Energy improvements provided
  - Annual energy cost-savings – as dollars saved and as percentage of annual energy costs
  - Annual reduction of kWh and therms – as per unit reductions and as percentage of annual energy use
  - Reduced Green House Gas emissions from households, and the carbon factors used to calculate

# EXHIBIT 1B

## Assisted Home Performance Program Deferred Payment Loan Terms

Up to ten (10) beneficiaries per year may exceed the $5,000 maximum expenditure for extraordinary costs if approved by the Director of Neighborhood Development Services (NDS). These cases will require the following terms.

1. Deferred Payment Loan

Home Energy Conservation assistance will be offered in the form of a Deferred Payment Loan. Given the level of economic distress of potential borrowers, it is assumed that the borrower has limited or no ability to assist with housing repair/rehabilitation costs; however, should financial participation be deemed feasible, the City may require financial participation including use of an installment loan.

A Deferred Payment Loan is a loan that has no monthly payments, and becomes payable in full whenever the property is sold, transferred, devised or otherwise vacated by the applicant: The maximum term for a Deferred Payment Loan shall be thirty (30) years, but is subject to pro-rata reduction (see 1.A.iv, following below).

At the expiration of the loan term period the Deferred Payment Loan shall be forgiven and the deed of trust lien released. The Borrower will be responsible for requesting a Certificate of Satisfaction from the City and for recordation of the Certificate of Satisfaction in the Charlottesville Circuit Court Clerk's Office, as well as all costs associated with the release of the lien.

All Home Energy Conservation loans will be evidenced by a promissory note and, if the loan amount exceeds five thousand dollars ($5,000), secured by a recorded deed of trust.

A. Terms for Deferred Payment Loans

i. Evaluation of Eligibility Throughout Loan Term
During the term of the loan, it is the borrower's responsibility to disclose a change in financial status to the City so that the ability to pay can be re-evaluated at such time.

ii. Prepayment
The Deferred Payment Loans may be paid prior to the expiration of the loan term during the occupancy of the Borrower in order to remove the lien on the property. A loan administration fee equal to 3% of the original loan amount will be due to the City of Charlottesville at the time the loan is paid off.

iii. Due in Full
Deferred Payment Loans provided to owner occupants shall become due and payable in full on conveyance or transfer of the property by the borrower. Should the property be leased, become vacant or undergo a change of occupancy, the Borrower shall immediately repay the loan in full based on the eligible pro-rata reduction. On transfer of the property by inheritance, the loan is due in full and payable by the heirs to the property within six (6) months. If the property is transferred to heirs (who are occupants of the house or become occupants of the house) who qualify under the income guidelines of the program for a deferred payment loan, the heir(s) may assume the loan under the same terms in the

sole discretion of the City. In the case of rental rehab assistance, Deferred Payment Loans shall become due and payable in full if Eligibility Requirements per section 3.A of this agreement are not met.

iv. Loan Term and Pro Rata Reduction in Deferred Payment Loan
The amount due on a Deferred Payment Loan shall be in accordance with the following schedule (a.k.a. loan term). If a Borrower is in compliance with the policies, procedures and protocols, the amount of the Deferred Payment Loan will be reduced each year of the loan term by an amount equal to the original loan amount divided by the number of years in the loan term.

Up to $5,000- one year
$5,001 to $10,000- three years
$10,001 to $15,000- five years
$15,001 to $25,000- ten years
$25,001 to $40,000- fifteen years
$40,001 and over- not permitted by this Grant Agreement

Example: on a 20 year loan of $40,500 the loan balance would be reduced by 1/20 of $40,000 (or $3,375) for each full year (12 month period) that the loan is in effect. After 5 years, if the property is sold or transferred, the loan balance due would be $23,625.

v. Subordination of Lien
The City's secured lien may be subordinated, at the sole discretion of the City, under limited circumstances. Refinancing of the primary mortgage will not be sufficient reason to approve subordination unless certain criteria are met, including but not limited to, lower mortgage payment, lower mortgage interest rate, and/or reduction of the loan term. If the Borrower is receiving cash back from the refinanced mortgage in excess of $1,000.00, the subordination request will be denied unless the Borrower can prove to the City's satisfaction that the cash funds will be spent solely on home repairs or improvements.

vi. End of Loan Term
The Borrower will receive a certificate of satisfaction from the City upon request. Borrower is responsible for recordation of the certificate of satisfaction and the cost thereof.

2. Loan to Value (LTV) Ratio Policy2

Deferred Payment Loans will only be approved for property owners when there is sufficient value/equity in the home to cover the amount of the promissory note/deed of trust for the proposed improvements, based on a LTV of 110%. Sufficient value/equity of the property will be determined by taking 110% of assessed value less any recorded debt. A third-party appraisal can also be used to establish value for the purposes of determining compliance with this policy; however, this should only be done when assessed value is deemed to be significantly lower (i.e., greater than 10%) than the current market value.

For applicants who cannot otherwise qualify for assistance because the loan to value ratio for proposed rehabilitation improvements would exceed 110%, a waiver can be granted by City staff to allow repairs to address immediate health and safety hazards that may exist. In these instances, any

2 As adopted by the City of Charlottesville City Council on July 15, 2013.

additional work to be undertaken would be limited to 110% LTV and would be based on a reduced scope of work as approved by City staff. All rehabilitation expenditures would be included in the promissory note/deed of trust; regardless of repayment potential.

**EXHIBIT 2A**

**Scope of Work: Housing Voucher and Energy Efficiency Pilot (VEEP)**
**An Energy Equity and Affordable Housing Initiative**

---

## Pilot Overview

The goals of this pilot are to increase the amount of properties accepting rental vouchers and reduce low-income renters' utility bills. Rental property owners that either currently accept Housing Choice Vouchers (HCV), vouchers from Thomas Jefferson Area Coalition for the Homeless (TJACH) or Charlottesville Supplemental Rental Assistance Program (CSRAP), or other eligible voucher programs acceptable to the City ("Rental Vouchers"), or are interested in accepting any of these Rental Vouchers, would be eligible to receive funding for necessary renovations that incorporate energy efficiency improvements. This funding would not require repayment, but rather, the property owner makes a binding commitment to continue accepting Rental Vouchers for a minimum of 5 years. The "loan" will be forgiven in full after the term of commitment to accept Rental Vouchers ends. Additionally, this agreement would uphold the terms of affordability currently utilized by the Charlottesville Redevelopment and Housing Authority (CRHA) for HCV properties, which limits affordable housing rent increases relative to market value rates, in order to ensure sustained easement of residents' energy burden.

## Methodology

Participation

The pilot of this housing and climate initiative will target the participation of at least 10 new landlords and/or units within the city limits of Charlottesville. The units must be free of any existing affordability terms to qualify for the program. In order to gain a robust perspective of how a large-scale program would function, the improvements of these initial 10 landlords' properties should be selected to include a variety of projects and loan amounts.

In the event that a tenant vacates the property prior to the end of the applicable loan term, the property-owner is responsible for notifying the program administrator while seeking another tenant with a rental voucher.

Community Partners

The success of this pilot program is dependent on the collaboration of community partners to administer the funds, conduct home energy assessments, manage projects, communicate with contractors, and oversee loan terms and agreements. Other community partnerships, such as CRHA, will be leveraged in order to support oversight of the loan terms and agreements (to be reviewed annually or at each lease renewal) and to support the pilot's evaluation. LEAP shall have written agreement from community partners as to terms, expectations and duties in executing this program.

Financing Models & Sample Loan Terms

Loan terms for this pilot program will include a minimum 5-year commitment to accepting

Rental Vouchers, and will be forgiven at the rate referenced in Exhibit 2B. Rental properties with multiple units may be treated as multiple properties but only if each unit houses a Rental Voucher holder.

Eligible improvements for any one property will be determined through a home energy assessment executed by the administrator, and other funding sources may also be used.

Release from Agreement

Property owners may be released from the obligations of this program when the loan is completely forgiven; if the property is sold and money is paid back to the City; or if a non-qualified renter resides in the improved property and the money is paid back to the City. Voucher acceptance is required to remain in good standing, but includes continuation of a lease to previous voucher users who have graduated from the Rental Voucher programs.

Evaluation

The City, LEAP and community partners should review the pilot program six (6) months after the completion of improvement projects and produce an evaluation for the Grants Coordinator. To track the success of this initiative, data should be gathered throughout the length of the pilot including, but not limited to:

- Household's annual income
- Project costs per household
- Household's energy audit
- Providing a marketing plan detailing the recruitment of new landlords to the VEEP
- Number of new landlords accepting Rental Vouchers
- Number of new landlords accepting Rental Vouchers who are utilizing VEEP
- Number of Rental Voucher holders removed from the current waiting list
- List of energy improvements provided per household
- Annual energy cost-savings per household for voucher recipients – as dollars saved and as percentage of annual energy costs
- Annual reduction of kWh and therms per household – as unit reductions and as percentage of annual energy use
- Reduced Green House Gas emissions from households, and the carbon factors used to calculate

The evaluation should aim to summarize:

- Degree to which desired outcomes were met
- Challenges in recruiting participants
- Usefulness of loan model for property owners
- Proposed adjustments needed for large-scale deployment

# EXHIBIT 2B

## Housing Voucher and Energy Efficiency Pilot (VEEP) Deferred Payment Loan Terms

Up to $50,000 of the Home Energy Conservation Grant funding can be used for the VEEP program (Exhibit 2A). Qualifying Rental Voucher holding tenants would come from the Rental Voucher programs referenced in Exhibit 2A of the Grant Agreement. Loans from VEEP will be in average amounts of $5,000; in no event will any loan exceed $7,500.

Deferred Payment Loan as part of VEEP

Home Energy Conservation Grant assistance to Rental Voucher-accepting landlords will be offered in the form of a Deferred Payment Loan.

A Deferred Payment Loan for the VEEP is a loan that has no monthly payments and becomes payable in full whenever the property is sold, transferred, or the landlord chooses to not continue accepting eligible housing Rental Vouchers. The maximum term for a Deferred Payment Loan, and pro-rata reduction shall be as specified in the City Council approved City of Charlottesville Housing Assistance Program Policies, Procedures, Protocols & Rehabilitation Standards (HAP).

At the expiration of the loan term period, the Deferred Payment Loan shall be forgiven and the deed of trust lien released. The Borrower will be responsible for requesting a Certificate of Satisfaction from the City and for recordation of the Certificate of Satisfaction in the Charlottesville Circuit Court Clerk's Office, as well as all costs associated with the release of the lien.

All VEEP loans will be evidenced by a promissory note and, if the loan amount exceeds five thousand dollars ($5,000), secured by a recorded deed of trust. No loan in excess of $5,000 may be approved unless a cost/benefit analysis is provided to justify the need for additional expenditures.

Terms for Deferred Payment Loans

i) Evaluation of Eligibility Throughout Loan Term

LEAP and Charlottesville Housing and Redevelopment Authority (CRHA) will review and maintain that the landlord is in good standing in regards to having a Rental Voucher using tenant or one who graduated from using the Rental Voucher in that location previously. It is the responsibility of the landlord to contact approved Rental Voucher lists to find individuals qualified for a voucher and searching for a rental. If there are no persons on the noted Rental Voucher waiting lists, landlords are released of their responsibility until the unit becomes available again and the Rental Voucher lists reviewed for potential tenants once again. Landlords should document their efforts to fill their rentals with Rental Voucher holders and ensure rent reasonableness using HUD’s fair market housing rates for the duration of the

program/project.

ii) Prepayment

The Deferred Payment Loans may be paid prior to the expiration of the loan term in order to remove the lien on the property. In this situation, a loan administration fee equal to 3% of the original loan amount will be due to the City of Charlottesville at the time the loan is paid off.

iii) Due in Full

Deferred Payment Loans provided to the landlord shall immediately become due and payable in full on conveyance or transfer of the property by the borrower, or on the date as of which the property is not leased to a Rental Voucher recipient. If the property is transferred upon the Borrower's death to heirs (who are occupants of the house or become occupants of the house) who qualify under the income guidelines of the program for a deferred payment loan, the heir(s) may assume the loan under the same terms in the sole discretion of the City. The City will be entitled to a loan administration fee equal to 3% of the original loan amount, in return for processing an assumption of the loan, and if the City is required to initiate proceedings to collect loan amounts due and payable to it.

iv) Loan Term and Pro Rata Reduction in Deferred Payment Loan

The amount due on a Deferred Payment Loan shall be in accordance with the following schedule (a.k.a. loan term). If a Borrower is in compliance with the policies, procedures and protocols, the amount of the Deferred Payment Loan will be reduced each year of the loan term by an amount equal to the original loan amount divided by the number of years in the loan term.

Up to $5,000- one year
$5,001 to $10,000- three years
$10,001 and over- not permitted by this Grant Agreement

v) Subordination of Lien

The City's secured lien may be subordinated, at the sole discretion of the City, under limited circumstances. Refinancing of the primary mortgage will not be sufficient reason for the City to consider subordination. The City will require some financial benefit that will support the affordability of the unit, such as lower mortgage payment, lower mortgage interest rate, and/or reduction of a mortgage term.

vi) End of Loan Term

The Borrower will receive a certificate of satisfaction from the City upon request. Borrower is responsible for recordation of the certificate of satisfaction and the cost thereof.

**RESOLUTION**

**APPROVING THE HOUSING VOUCHER AND ENERGY EFFICIENCY PILOT (VEEP)**

**WHEREAS**, on January 20, 2009 the Council of the City of Charlottesville approved the adoption of the Home Energy Conservation Grant Program pursuant to Charlottesville City Charter section 50.7, Virginia Code section 15.2-956(A), and 24 C.F.R. 570.202 (2008);

**WHEREAS**, City Council approved $125,000 in funding from the Other Governmental Commitments in the Capital Improvements Projects (CIP) Fund to promote energy conservation and assist very low-, low- and moderate-income households with implementing home energy conservation measures to be administered by the Local Energy Alliance Program ("LEAP");

**WHEREAS**, the terms and conditions under which the LEAP will administer the Home Energy Conservation Grant are set forth within a written grant effective for the fiscal year beginning July 1, 2019 which has been reviewed by City Council on this same date;

**WHEREAS**, LEAP shall coordinate the Housing Voucher and Energy Efficiency Pilot (VEEP) under the Home Energy Conservation Grant endorsed by the Housing Advisory Committee (HAC);

**NOW, THEREFORE, BE IT RESOLVED** by City Council of the City of Charlottesville, Virginia, **THAT**:

1. Funding for the VEEP, a sum of $50,000 of the Home Energy Conservation Grant funding, will be approved in the adopted budget FY19-20;
2. The funds expended in VEEP are only to assist very low-, low-, and moderate-income households, as defined in CDBG criteria;
3. Loans from VEEP will be in average amounts of $5,000 and in no event exceed $7,500;
4. VEEP shall undergo a review six (6) months after the completion of improvement projects and produce an evaluation for the Grants Coordinator;
5. The pilot program will include a minimum 5-year commitment to accepting Rental Vouchers.

Approved by City Council
December 16, 2019

_____
Clerk of City Council

**RESOLUTION**

**APPROVING THE HOME ENERGY CONSERVATION GRANT PROGRAM FUNDING AGREEMENT**

**FOR THE FISCAL YEAR BEGINNING JULY 1, 2019**

**WHEREAS**, on January 20, 2009 the Council of the City of Charlottesville approved the adoption of the Home Energy Conservation Grant Program pursuant to Charlottesville City Charter section 50.7, Virginia Code section 15.2-956(A), and 24 C.F.R. 570.202 (2008);

**WHEREAS**, City Council approved $125,000 in funding from the Other Governmental Commitments in the Capital Improvements Projects (CIP) Fund to promote energy conservation and assist very low-, low- and moderate-income households with implementing home energy conservation measures to be administered by the Local Energy Alliance Program ("LEAP");

**WHEREAS**, the terms and conditions under which the LEAP will administer the Home Energy Conservation Grant are set forth within a written grant effective for the fiscal year beginning July 1, 2019 which has been reviewed by City Council on this same date;

**NOW, THEREFORE, BE IT RESOLVED** by City Council of the City of Charlottesville, Virginia, **THAT**:

1. The Home Energy Conservation Grant Program shall be administered by LEAP in accordance with the revised terms and conditions set forth within the grant agreement effective for the fiscal year beginning July 1, 2019, which is hereby approved by this City Council; and
2. The Housing Voucher and Energy Efficiency Pilot program ("VEEP") will be included in the Home Energy Conservation Grant Program Scope of Work;
3. That grant amounts may be up to $5,000 per household, except that grants may be made up to $10,000 per household for costs if approved by the Director of NDS;
4. The number of Assisted Home Performance projects able to be approved to exceed the target $5,000 per project limit will be increased to ten (10) from three (3).

Approved by City Council
December 16, 2019

_____
Clerk of City Council

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Resolution Adoption |
| Presenter: | John C. Blair, II, City Attorney |
| Staff Contacts: | John C. Blair, II, City Attorney |
| **Title:** | **Alternate Appointment for Albemarle-Charlottesville Regional Jail Authority and Blue Ridge Juvenile Detention Commission** |

**Background:**

**Jail Authority**

The City of Charlottesville, Albemarle County, and Nelson County are the member jurisdictions of the Albemarle-Charlottesville Jail Authority. The Jail Authority Board exercises the Jail Authority's powers. Pursuant to the Jail Authority Agreement (hereinafter "Agreement"), the City Manager is a member of the Jail Authority Board.

The Agreement provides that the City Manager may designate another City employee to act as their alternate who may attend and vote in place of the City Manager at Jail Authority Board meetings. Pursuant to the Agreement, the City Council must approve the City Manager's alternate.

**Detention Center**

The City of Charlottesville, Albemarle County, Culpeper County, Fluvanna County, and Greene County established the Blue Ridge Juvenile Detention Commission to govern the Blue Ridge Juvenile Detention Center. The City Manager is a member of the Commission and may appoint an alternate upon approval by the City Council.

**Discussion:**

Dr. Richardson has selected Letitia Shelton, Deputy City Manager/Chief Operating Officer to serve as his alternate on the Jail Authority Board as well as the Blue Ridge Juvenile Detention Commission.

**Budgetary Impact:**

None

**Attachments**:

Proposed Resolution

**RESOLUTION**
**APPOINTING LETITIA SHELTON AS AN ALTERNATE ON THE ALBEMARLE-CHARLOTTESVILLE REGIONAL JAIL AUTHORITY BOARD AND THE BLUE RIDGE JUVENILE DETENTION COMMISSION**

**BE IT RESOLVED**, by the Council of the City of Charlottesville, Virginia that Letitia Shelton is appointed as the City's alternate on the Albemarle-Charlottesville Regional Jail Authority Board and the Blue Ridge Juvenile Detention Commission.

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Resolution Adoption |
| Presenter: | Kyna Thomas, Clerk of Council |
| Staff Contacts: | Kyna Thomas, Clerk of Council<br>John C. Blair, II, City Attorney |
| **Title:** | **Honorary Street Naming- 6 ½ Street, SW** |

**Background:**

On December 1, 2019, the Charlottesville City Council received a Request for Honorary Street Name Designation from Justin G. Reid. Mr. Reid is the Charlottesville Sister Cities Commission Winneba Liaison.

**Discussion:**

Mr. Reid proposes the honorary renaming of 6 ½ Street, SW to Winneba Way in honor of Winneba, one of Charlottesville's Sister Cities.

The Sister Cities Commission ultimately seeks to have honorary street names for each of its active Sister Cities. This effort began in 2018 with Rue de Besancon on 2nd Street. The Sister Cities Commission hopes to unveil Winneba Way on March 6, 2020, Ghana's Independence Day, at a community dedication with Charlottesville and Winneba officials.

Charlottesville City Code Section 28-4 provides the City Council plenary authority for the naming and renaming of city streets.

**Alternatives**:
The Council could decline to adopt the proposed resolution.

**Attachments**:
Proposed Resolution

**RESOLUTION**
**Honorary Street Name Designation**
**6 ½ Street SW to Winneba Way**

**WHEREAS**, City Council adopted a policy for Honorary Street Name Designation; and

**WHEREAS**, City Staff has reviewed the application for appropriateness and verified the historical information; and

**WHEREAS**, Charlottesville City Code Section 28-4 provides City Council with the authority to name and rename streets including the authority for honorary renaming of street;

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Charlottesville, Virginia, that that 6 ½ Street SW, shall be given the honorary name WINNEBA WAY.

# City of Charlottesville

## Request for Honorary Street Name Designation

Applicant Name: Justin Reid

Applicant Address: 120 Danbury Ct, Charlottesville, Virginia 22902

Applicant Telephone: 434-390-6443 (Daytime) 434-390-6443 (Evening)

1. Honorary Street names are restricted to:
   Individuals
   Organizations
   Entities
   Events
   Of local and long lasting significance to Charlottesville

   A. For whom/what are you recommending this designation?

   Winneba (Charlottesville's Ghanaian Sister City)

   B. What is the reason for this recommendation? (Applicants should complete a short essay of approximately 500 words that provides justification for the proposed honorary designation. The completed essay should be attached to this application form).

   See attachment.

2. Location of Proposed honorary street name designation:

A. Street Name 6 ½ Street SW (Example: Kirby Avenue)

B. Between _____ and _____
(example: between Neil and Wright)

OR

All of the street 6 ½ Street SW

C. What is the proposed name?

Winneba Way

Please complete and mail the attached form to:

Clerk of City Council
City of Charlottesville
P. O. Box 911
Charlottesville, VA 22902

Justin G. Reid
120 Danbury Court
Charlottesville, VA 22902

December 1, 2019

Clerk of City Council
City of Charlottesville
P.O. Box 911
Charlottesville, VA 22902

Dear Charlottesville City Government:

Charlottesville's founding, like the country's, is inextricably linked to Indigenous, African and European peoples and cultures. At present, however, there exists no City commemorative marker or other physical acknowledgement devoted to Charlottesville's connection and indebtedness to Africa. This honorific street naming would be the first in the City's 257-year history.

As the City Council-appointed liaison to Charlottesville's Ghanaian Sister City, Winneba, and as a public historian of African American and African Diasporic history, I wish to recommend that 6 ½ Street SW be honorarily named *Winneba Way.*

Winneba Way's location in the historically Black neighborhood of Fifeville would serve as a visible reminder of the community's past and present ties to West Africa. The Ghana Association of Charlottesville was founded on 6 ½ Street and continues to meet and host educational and cultural events at nearby Tonsler Park. Winneba Way would also intersect Cherry Ave, one of the City's busiest corridors, thus ensuring high visibility for this first of its kind honor.

The Sister Cities Commission ultimately seeks to have honorary street names for each of our active Sister Cities. This effort began in 2018 with *Rue de Besancon* on 2nd Street. We hope to unveil Winneba Way on March 6, 2020, Ghana's Independence Day, at a community dedication with Charlottesville and Winneba officials.

Thank you for considering this positive addition to the City's commemorative landscape.

Sincerely,

Justin G. Reid
Winneba Liaison
Charlottesville Sister Cities Commission

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Ordinance Amendment |
| Staff Contacts: | Dr. Tarron Richardson, City Manager<br>John Blair, City Attorney |
| Presenter: | Dr. Tarron Richardson, City Manager |
| **Title:** | **Amend Section 2-6 of the Charlottesville City Code** |

**Background:**

On September 20, 1933, the Charlottesville City Council adopted a resolution recognizing five official City holidays: New Year's Day, Independence Day, Labor Day, Thanksgiving and Christmas.

On January 4, 1971, the Charlottesville City Council enacted City Code Section 2-189.1 (Current City Code Section 2-6) codifying the legal holidays observed by the City of Charlottesville.

Since 1971, the Council has amended the City's holiday ordinance several times, most recently on July 1, 2019 when the Council deleted the observance of April 13 as Thomas Jefferson's Birthday and added March 3 as a holiday observing Freedom and Liberation Day.

**Discussion:**

The proposed ordinance would have two effects. The first effect concerns business operations. Since it is a proposed legal holiday, City Hall would not be open for the transaction of business by the public.

The second effect would be human resources related. Regular full-time and part-time City employees would receive a paid holiday. Public safety and other regular full-time and part-time City employees would be paid time and a half for their hours worked on December 24. Additionally, those employees who work on December 24 would be permitted to take off an alternative day with their Department Director's approval.

The addition of December 24 as an official City holiday would increase the City's total official holidays in a calendar year to twelve. Regular full-time and part-time employees receive one additional holiday (a floating holiday which is approved by the employee's Department Director) every fiscal year (July 1-June 30).

**Budgetary Impact:**

An additional city holiday would have a budgetary impact of approximately $62,500 in the Fiscal Year for which the holiday is enacted.

**Attachments**:
Proposed Ordinance adding December 24 as an official City holiday

**AN ORDINANCE**
**AMENDING SECTION 2-6**
**OF CHAPTER 2 (ADMINISTRATION)**

**BE IT ORDAINED** by the Council for the City of Charlottesville, Virginia, that:

Section 2-6 of Chapter 2 of the Code of the City of Charlottesville (1990) is amended as follows:

**Sec. 2-6. - Legal holidays.**

In each year, the first day of January (New Year's Day), the third Monday in January (Martin Luther King, Jr. Day), the third Monday in February (George Washington Day), the third day of March (Freedom and Liberation Day), the last Monday in May (Memorial Day), the fourth day of July (Independence Day), the first Monday in September (Labor Day), the eleventh day of November (Veterans Day), the fourth Thursday in November (Thanksgiving Day), the Friday after the fourth Thursday in November, the twenty-fourth day of December (Christmas Eve), the twenty-fifth day of December (Christmas Day) or, whenever any of such days shall fall on Saturday, the preceding Friday shall be a legal holiday, and whenever such days shall fall on Sunday, the Monday next following such day shall be a legal holiday.

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Ordinance Enactment & Resolution Adoption |
| Presenter: | John C. Blair, II, City Attorney |
| Staff Contacts: | John C. Blair, II, City Attorney |
| **Title:** | **Recreation Precinct Name Change** |

**Background:**

The Recreation Precinct was established in the Charlottesville City Code on October 18, 1962. On November 15, 2004, City Council adopted a resolution changing the name of the Downtown Recreation Center to the Herman Key Recreation Center. On April 4, 2011, the City Council amended Section 9-27 of the Charlottesville City Code to reflect that the building hosting the Recreation Precinct is the Herman Key Recreation Center.

**Discussion:**

On November 16, 2019, the City Council received a request to rename the Recreation Precinct to the Key Recreation Precinct. The purpose of renaming the precinct is to honor Herman Key. This would be similar to the Carver Precinct which contains the formal name of Carver Recreation Center. The City's Director of Elections and General Registrar, Melissa Morton, does not have any objection to the precinct's name change.

The proposed precinct name would be Key Recreation Precinct.

**Budgetary Impact:**

The name change will cost approximately $2029 due to notices of the name change that will be sent to the 4,058 registered voters in that precinct. These notices are required pursuant to Virginia Code Section 24.2-306.

**Alternatives**:
The Council could decline to adopt the proposed ordinance.

**Attachments**:
Proposed Ordinance

**AN ORDINANCE**
**AMENDING SECTION 9-27**
**OF CHAPTER 9 (ELECTIONS)**

**BE IT ORDAINED** by the Council for the City of Charlottesville, Virginia, that:

Section 9-27 of Chapter 9 of the Code of the City of Charlottesville (1990) is amended as follows:

**Sec. 9-27. – First ward.**

(a) *Clark precinct.* The Clark precinct of the first ward shall embrace all territory in the first ward lying south of the centerline of the Chesapeake & Ohio Railway Company right-of-way. The voting place for this precinct shall be the Clark Elementary School.

(b) *Key Recreation precinct.* The Key Recreation precinct of the first ward shall embrace all territory in the first ward lying north of the centerline of the Chesapeake & Ohio Railway Company right-of-way. The voting place for this precinct shall be the Herman Key Recreation Center at 800 East Market Street.

*This page intentionally left blank*

**CITY OF CHARLOTTESVILLE, VIRGINIA**
**CITY COUNCIL AGENDA**

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Resolution Adoption |
| Presenter: | Garland Williams, CAT Director |
| Staff Contacts: | Garland Williams, CAT Director<br>John Blair, City Attorney |
| **Title:** | **Transit Development Plan Adoption** |

**Background:**

The Virginia Department of Rail and Public Transportation (hereinafter "DRPT") required any public transit operator receiving DRPT funding to prepare, adopt, and submit a Transit Development Plan at least once every six years.

The Transit Development Plan serves as a guide for transit agencies regarding the ongoing and future operations of the agency. The Transit Development Plan provides a review of the agency's operational performance and an analysis of the socioeconomic and demographic factors affecting the agency's transit services.

**Discussion:**

Charlottesville Area Transit staff have spearheaded the development of the Transit Development Plan and input has been solicited in collaboration with the Thomas Jefferson Planning District Commission, stakeholders, partners, and current and potential patrons. The attached Transit Development Plan was prepared for Charlottesville Area Transit by Foursquare ITP and Michael Baker International. If adopted by the City Council, the Transit Development Plan will be submitted to DRPT to fulfill the six year submission requirement.

The Transit Development Plan identifies projects, expansions, and capital expenditures that the Charlottesville Area Transit system anticipates pursuing over the course of a ten-year period.

**Budgetary Impact:**
The adoption of the Transit Development Plan authorizes DRPT to annually appropriate funding to support the current transit model.

**Alternatives**:
The Council could decline to adopt the Resolution.

**Attachments**:
Resolution
Transit Development Plan

**RESOLUTION**
**TO ACCEPT THE TRANSIT DEVELOPMENT PLAN**

**WHEREAS**, the Charlottesville Area Transit system receives funding assistance from the Virginia Department of Rail and Public Transportation, hereafter referred to as the **STATE**, for public transportation; and

**WHEREAS**, the **STATE** requires that the governing body of the transit system, the Charlottesville City Council, hereafter referred to as the **CITY COUNCIL**, adopt and submit a Transit Development Plan to identify projects, expansions, and capital expenditures that the Charlottesville Area Transit system anticipates pursuing for the following ten-year period; and

**WHEREAS**, the **STATE** has provided funding to assist with the preparation of this Transit Development Plan; and

**WHEREAS,** the Charlottesville Area Transit staff have spearheaded the development of the Transit Development Plan and input has been solicited in collaboration with the Thomas Jefferson Planning District Commission, stakeholders, partners, current and potential patrons; and

**WHEREAS**, adoption of this plan does not obligate or commit the **CITY COUNCIL** to the recommendations or expenditures of the plan.

**NOW THEREFORE**, **BE IT RESOLVED** by the **CITY COUNCIL** of Charlottesville, Virginia that it hereby adopts the Transit Development Plan prepared by Michael Baker International and FOURSQUARE ITP; and

**BE IT FURTHER RESOLVED** by **CITY COUNCIL** that the Transit Director is authorized, for and on behalf of the City of Charlottesville's City Manager and **CITY COUNCIL** to submit to the **STATE**, the completed Transit Development Plan covering fiscal years 2019 through 2028.

# Transit Development Plan

September 2018


Prepared by:

FOURSQUARE ITP
INTEGRATED TRANSPORTATION PLANNING

Michael Baker
INTERNATIONAL

*Page Intentionally Left Blank*

# Contents

**Transit Development Plan**
FY 2019 – FY 2028

**Transit Development Plan**
FY 2019 – FY 2028

*Page Intentionally Left Blank*


# Executive Summary


*Page Intentionally Left Blank*

## Executive Summary

Virginia's Department of Rail and Public Transportation (DRPT) requires that any public transit operator receiving state funding prepare, adopt, and submit a Transit Development Plan (TDP) at least once every six years.

A TDP serves as a guide for transit agencies regarding the ongoing and future operations of their transit services. It provides both a broad and specific review of an agency's operational performance, and a thorough understanding of the socioeconomic and demographic situations in which transit services are offered.

This document consists of seven chapters, corresponding to the plan requirements outlined by the DRPT:

- **Chapter 1 –** Overview of Transit Sytem
- **Chapter 2 –** Goals, Objectives, and Service Design Standards
- **Chapter 3 –** Service and System Evaluation
- **Chapter 4 –** Service and Capital Improvement Plan
- **Chapter 5 –** Implementation Plan
- **Chapter 6 –** Financial Plan
- **Chapter 7 –** Regional Coordination

### KEY FINDINGS AND RECOMMENDATIONS

Charlottesville Area Transit (CAT) operates thirteen fixed-routes, including a free trolley connecting downtown with the University of Virginia. All routes operate Monday through Saturday between approximately 6:30 a.m. and 6:30 p.m., with nine routes continuing night service until 10:00 p.m., 11:00 p.m. or 12:00 a.m. Four routes operate on Sundays, including Route 2, Route 9, Route 12, and the Free Trolley. Service characteristics for weekdays and Saturdays are very similar. However, on Saturdays, Routes 4, 8, 9, and 11 operate less frequently and with slightly different operating hours.

CAT has made no major service changes since the implementation of recommendations from the 2013 Route Analysis Study in 2014.

CAT ridership has been trending downward in recent years. In 2017, the system carried 21.52 passengers per revenue hour – down from 23.18 in 2015. CAT's ridership losses are in line with national trends. Low unemployment, sustained lower gas prices, and, perhaps most importantly, the increasing availability, affordability, and popularity of alternative mobility options such as bicycles and app-based ride-hailing services are all combining to reduce demand for transit.

These new options create a challenge, in the form of competition, for traditional transit operators like CAT, but they also create opportunities by allowing transit providers to better align their services with market demands. Traditional fixed route service is not necessarily the best mobility solution for every environment, and the availability of new, more flexible, mobility models now let fixed route providers focus their services where they can do best.

The proposed weekday/Saturday and Sunday system maps shown in **Error! Reference source not found.**and Figure 2reflect the recommendations presented in this document. These recommendations are based on service and market opportunities identified in Chapter 3, as well as public and stakeholder feedback received throughout the project. Overall, the recommendations are intended to simplify CAT's services in order to make them easier to use and more intuitive to understand.





**Figure 1 | Proposed Weekday/Saturday System**

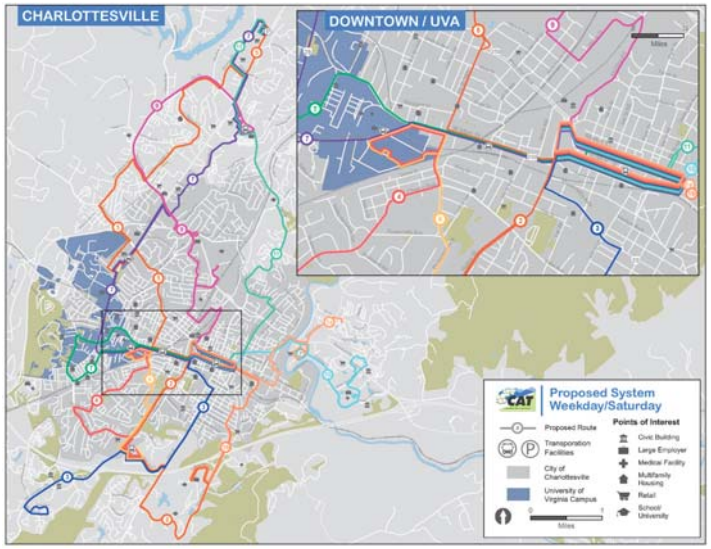
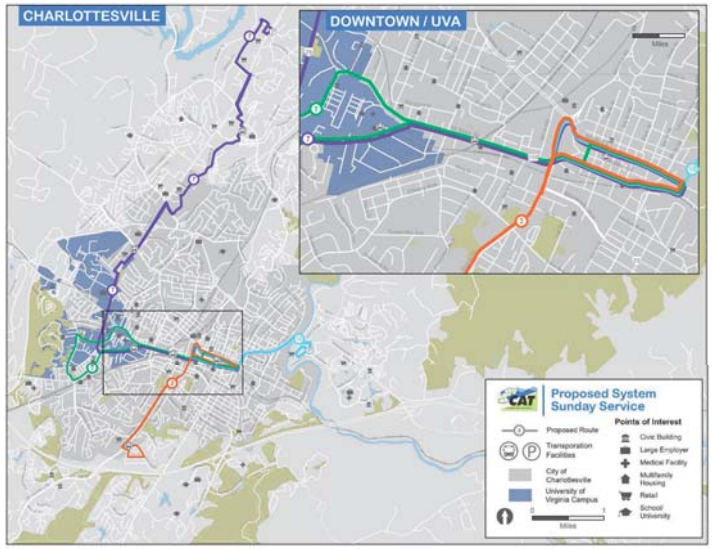


Figure 2 | Proposed Sunday System








The TDP also recommends a number of initaives that can be implemented in the shorter term to make the region's transit services more seamless and accessible. These include the following:

- **Regional Travel Planning –** A one-stop regional transit planning tool could provide users with information, including real-time vehicle locations, for CAT, JAUNT, UTS, and Greene County Transit services.
- **Regional Mobile Ticketing –** With mobile ticketing, a regional fare category can be established and overlaid on the fare structures of CAT, JAUNT, and Greene County transit, even if all other fares remain unique to each system. Revenues can be divided among the three providers based on an agreed-upon fare allocation formula.
- **US-29 BRT Servive –** Through a regional partnership between CAT, JAUNT, and UVA, JAUNT's 29 Express brand could evolve into limited-stop Bus Rapid Transit service and provide relief to CAT's heavily used Route 7 (which could continue to provide local all-stop service).
- **Subsidized TNCs and Microtransit –** Given that JAUNT is sub-recipient of CAT for Federal funding, it may be necessary for CAT to play a role in any future contracts with TNCs or app-based microtransit providers. Such an agreement may take the form of a three-party contract where CAT contracts with a TNC or other app-based provider for purchased service, and concurrently with JAUNT to manage the servicehrough a regional partnership between CAT.

Overall, this document is intended to be both a practical, immediately implementable plan, and a strategic document guiding CAT's future development.


# Chapter 1

## Transit System Overview: Charlottesville Area Transit


*Page Intentionally Left Blank*

# 1 Overview of the Transit System

## 1.1. HISTORY

In 1975 the City of Charlottesville created the Charlottesville Transit Service (CTS) as a division of the Department of Public Works following a private transit company ceasing operations. CTS began service using six buses purchased from the private operator. The stated goal of CTS in 1975 was to provide bus service within five blocks of every City residence. Initially, all routes ran on one-hour headways.

In 1978, Albemarle County contracted with the City to begin a route serving locations along Route 29 to the north of the City. This agreement represented the first major geographic expansion of CTS and the first cooperative effort between the City and the County for fixed route transit service.

In 1985, the City's Transit Division assumed responsibility for the operation of school bus transportation in addition to CTS.

In 1999, the agency initiated a free shuttle route (using green-painted trolley-style buses) connecting downtown with the University of Virginia.

In 2006, in response to the City of Charlottesville and Albemarle County having adopted resolutions expressing a commitment to establish a Regional Transit Authority (RTA) for the greater Charlottesville area, the first Transit Development Plan was prepared for CTS. The plan followed a route study conducted the previous year that analyzed ridership patterns and undertook an evaluation of existing route structures.

Figure 3 | Organizational Timeline


The TDP noted that the findings were that traffic congestion had resulted in unreliable service and duplication with bus service existed with the University of Virginia's (UVA) own student bus system often serving common locations and trip markets. The TDP recommended strategies for improving the existing routes, both day and night, and improved service expansion alternatives.

In 2007, the University Transit Service (UTS) and CTS entered into an open ridership agreement that allows UVA students, faculty, and staff to ride CTS for free by showing a valid UVA ID card. The Downtown Transit Station (DTS) also opened next to the former Chesapeake & Ohio railroad depot as part of the East End Downtown Mall Improvement Project.

In 2009, the General Assembly passed legislation to allow for the creation of a transit authority between





Albemarle and Charlottesville. The legislation, however, did not approve a requested voter referendum on a sales tax to fund it. Without a dedicated funding source the progress toward an RTA stalled.

In 2010, CTS was re-branded as Charlottesville Area Transit (CAT), with a new dogwood and mountain logo. The City also built a new Transit Operations Center for CAT on 6 acres of land purchased just south of the City.

In 2011, a second TDP was prepared for CAT, extending through FY 2017. The TDP conclusion reached from the service analysis was that conversion of the CAT transit system to a trunk and feeder system was not yet feasible. Also, should the system continue to grow into Albemarle County, it would be appropriate to create satellite transfer facilities, with the introduction of community circulators and crosstown routes that do not go to the Downtown Transit Station (DTS). Following completion of this TDP, City Council elected to conduct additional route analysis.

The results of additional route analysis and new service recommendations were completed in 2013. As a response, in 2014 CAT underwent a major realignment to make bus routes more direct and to establish a new regional hub at the UVA Hospital in addition to the existing Downtown facility. The overall intent was to increase route reliablity and efficiency.

Ridership peaked in FY2013 at 2.6 million passengers, following steady increases since 1996. Recent ridership estimates (FY 2016) report 2.4 million annual passengers.

Today, CAT provides bus service to the greater Charlottesville area on 13 routes within the city, to certain areas of Albemarle County and to the grounds of UVA. CAT buses operate seven days a week. The newest expansions include a new route to a retail complex (Fifth Street Station) and route adjustments to serve a new Piedmont Family YMCA facility. The Thomas Jefferson Planning District Commission has recently concluded a study of the operations of CAT, JAUNT and the UTS to explore how they might work better together. In September 2017, the Albemarle Board of Supervisors and the Charlottesville City Council agreed to enter into a formal partnership to help advise on improvements to bus service throughout the region.

### 1.1.1. Current Initiatives

**Regional Transit Partnership**: An agreement was established in 2017 between the Charlottesville-Albemarle Metropolitan Planning Organization (CA-MPO), the City of Charlottesville, the County of Albemarle, JAUNT, Inc, and the Thomas Jefferson Planning District Commission (TJPDC). Recurring responsibilities of this partnership are to:

- Create a formal means of exchanging information between transit providers, localities and other stakeholders.
- Facilitate transit planning through recommendations, assessments and guidance on transit-related matters to the city, county and public transit operators.
- Integrate transit into other decision-making and help ensure that transit will receive increased consideration in regional and local planning efforts.
- Test a RTA structure, allowing parties to become more familiar with the concept of a consolidated transit system.

**I-81/I-64 Inter-Regional Public Transportation Proposal:** The Central Shenandoah Planning District Commission (CSPDC) led the development of a transit feasibility study and service plan in FY2016-FY2017 to explore creation of a public transportation link between Harrisonburg and Charlottesville. The service is envisioned to provide for a variety of trip needs including work, education, access to Greyhound and Amtrak, and access to medical care. CAT would

continue in a support role, providing future feeder connections, dependent upon the connections determined for Charlottesville.

## 1.2. GOVERNANCE

CAT is owned and operated by the City of Charlottesville and housed under the City's Transit Department, which also operates Charlottesville Pupil transportation serving Charlottesville City schools.

Decisions regarding CAT service are ultimately made by the City Council. The Charlottesville City Council consists of five members who are elected on an at-large, non-partisan basis for staggered four-year terms. The City Council elects the Mayor and Vice Mayor as well as appoints the City Manager.

The Charlottesville Area Transit (CAT) Advisory Board is also appointed by City Council. The Board is charged with recommending policies to City Council regarding the services to be provided and the appropriate procedure for implementing CAT service and operating plans. The CAT Advisory Board annually recommends a public transportation budget for the succeeding fiscal year in accordance with the City's annual budget process. Any service planning changes must be advanced by the board and brought before City Council at least sixty (60) days prior to the proposed date of implementation. The service plans provide information on anticipated costs, ridership, routing, schedules, personnel needs, and budget amendments that may be required. The CAT Advisory Board may also make recommendations on other revenue sources such as grants, fares, and advertising policies.

The day-to-day CAT operations are administered through the Transit Director who reports to the Assistant City Manager.

The policy making body of the CA-MPO is its Board, which consists of five voting members. The voting membership of the Policy Board consists of two representatives from the City of Charlottesville and two representatives from the County of Albemarle. The fifth representative is from the Virginia Department of Transportation (VDOT). CAT is a non-voting member including the Department of Rail and Public Transportation (DRPT).

## 1.3. ORGANIZATIONAL STRUCTURE

Total CAT employment consists of 106 employees, representing an almost 13 percent increase since a new transit director started in 2013. There are 11 administrative positions, with three vacancies currently existing for an Assistant Operations Manager – Maintenance, Safety/Training Coordinator, and Transit Dispatcher/Scheduler. CAT has backfilled positions to meet needs while these vacancies are being filled.

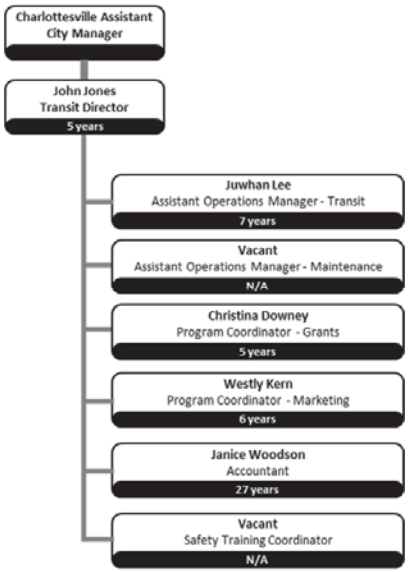
There are a total of 85 vehicle operators, 41 full-time and 44 part-time. Operators provide both CAT service and operate the Charlottesville School District buses with separate runs for school types (elementary, middle, and high school), special needs, and after-school activities. All CAT employees are City employees.

To address shortages of operators, the Growing Opportunity (GO) Driver Program was established as a five-week training program that prepares City residents for a career as a bus driver with CAT, UTS, and JAUNT. The program is entirely free for eligible participants. After successful completion of this program, graduates will initially be considered for relief transit operator positions and will be next in line as full-time openings become available with CAT.





Figure 4 | Organizational Chart




## 1.4. SERVICES PROVIDED, AND AREAS SERVED

### 1.4.1. Fixed Route Bus

CAT operates thirteen routes, including a free trolley route called the "Free T." The routes reflect input from the most recent Route Analysis Study (2013) and the subsequent changes CAT made based upon those recommendations which were implemented in 2014.

All routes operate Monday through Saturday between approximately 6:30 a.m. and 6:30 p.m., with nine routes continuing night service until 10:00 p.m., 11:00 p.m. or 12:00 a.m. Four routes now operate on Sundays, including Route 2, Route 9, Route 12, and the "Free T" trolley. Service characteristics for weekday and Saturday are very similar. However, on Saturday, Routes 4, 8, 9, and 11 operate at less frequent service levels in the peak periods, and with slightly different operating hours.

CAT routes are classified as one of three types: Key Routes, Local Routes, and Lifeline Routes. This classification captures service frequency, operating characteristics, and the needs being served by the route. Service guidelines have been established for each service type. Following the implementation of service recommendations in 2014, CAT has made no changes in 2015 and only minor changes (stop locations and timepoints) in 2016. CAT route descriptions based upon scheduled services include:

**UVA FREE Trolley**: The UVA Free Trolley or "Free T" operates between downtown Charlottesville and the UVA campus. This route operates at frequent (15-minute) service and is fare-free for all riders. The Free Trolley features the highest-frequency and highest ridership of any route in the CAT system. The route is also partially funded by the University of Virginia. The UVA Free Trolley is one of four routes that operate on Sunday and one of nine routes that have late operating hours.

**Route 1 PVCC and Woolen Mills:** This route operates between Piedmont Virginia Community College (PVCC) and Riverview Park via downtown Charlottesville. The route connects with the Woolen Mills area via East Market Street, and PVCC via Monticello Avenue. This route operates at 60-minute frequencies.

Figure 5 | System Map

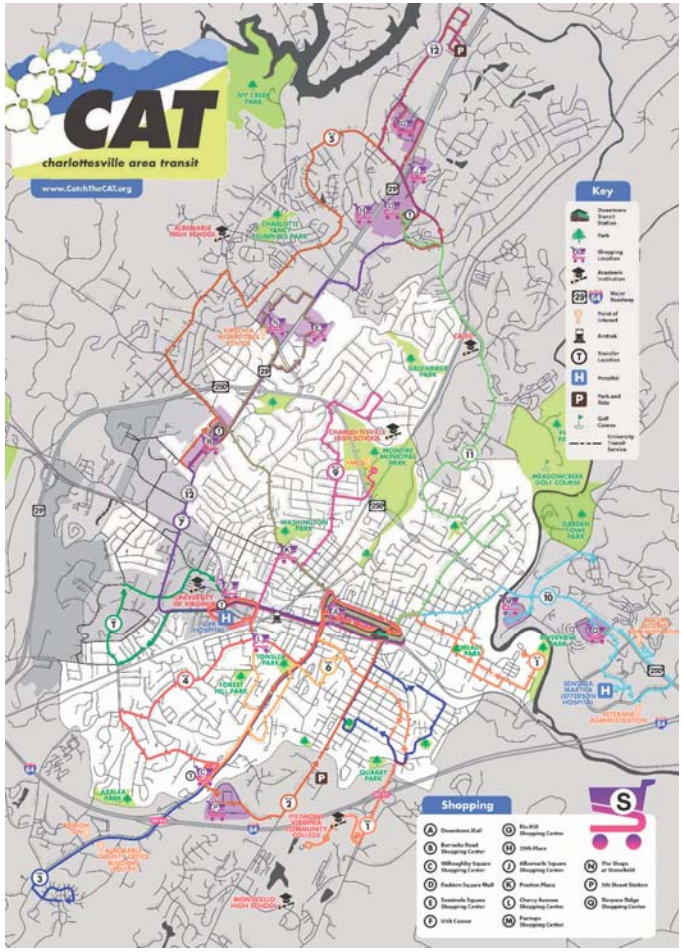







Table 1-1 | Fixed Route Service Summary

| 13 ROUTES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Service Days/Times | | | | | | | |
| | | Mon.-Fri. | | | | | | | |
| Route | Route Type | Peak | Midday | Sat. | Sun. | Late PM | Mon.-Fri. Span (Hrs.) | Mon.-Fri. Freq. (Mins.) | Peak Vehicles |
| 1 - PVCC & Woolen Mills | Local | ● | ● | | | ● | 16:00 | 60 | 1 |
| 2 - 5th Street Station | Key | ● | ● | ● | ● | ● | 17:07 | 30 | 1 |
| 3 - Southwood & Belmont | Local | ● | ● | ● | | ● | 17:45 | 30-60 | 2 |
| 4 - Cherry Avenue & Harris Road | Local | ● | ● | ● | | ● | 17:38 | 23-70 | 3 |
| 5 - Commonwealth Drive | Local | ● | ● | ● | | ● | 16:45 | 30 | 3 |
| 6 - Ridge Street & Prospect Avenue | Local | ● | ● | ● | | ● | 17:30 | 60 | 1 |
| 7 - Emmet Street & Seminole Trail | Key | ● | ● | ● | | ● | 17:07 | 20 | 5 |
| 8 - Preston Avenue & Emmet Street | Local | ● | ● | ● | | | 12:27 | 60 | 2 |
| 9 - The Heatlh Department & YMCA | Local | ● | ● | ● | ● | ● | 17:00 | 70 | 1 |
| 10 - Pantops | Local | ● | ● | ● | | ● | 16:57 | 60 | 1 |
| 11 - Locust Avenue & Rio Road | Lifeline | ● | ● | ● | | | 15:27 | 60 | 1 |
| 12 - Seminole Trail | Key | | | | ● | | 10:00* | 60* | 2 |
| Free T - West Main Street & UVA | Key | ● | ● | ● | ● | ● | 16:57 | 15 | 3 |

**Route 2 5th Street Station**: Route 2 operates from downtown Charlottesville in a rectangular alignment around the Belmont Park neighborhood, the 5th street Station via Avon Street, the Willoughby Square Shopping Center, and the Tonsler Park neighborhood, via 5th St SW. Free parking is provided at the Park & Ride on Avon Street Extended. Frequencies are 30-minutes Monday through Saturday, from 6:35 a.m. to 11:45 p.m. and on Sunday from 7:35 a.m. to 5:45 p.m.

**Route 3 Southwood and Belmont:** Route 3 operates between downtown and the Albemarle County Office Building southwest of the city via Ridge and 5th Streets, and the Belmont and Belmont Park neighborhoods south of downtown via Monticello, Hinton and Alvavista Avenues. This route operates at 30-minute frequencies Monday through Friday, and on 30 to 60 minute frequencies on Saturday, depending on the time of day. This route does not operate on Sundays.

**Route 4 Cherry Ave and Harris Road:** This route serves downtown Charlottesville, Tonsler Park neighborhood and Willoughby Square Shopping Center via Cherry Ave and Harris Rd. Route 4 operates at 23-minute frequencies Monday through Friday, 6:36 a.m. through 6:37 p.m. and during peak periods on Saturday. Route 4 operates on 60 minute frequencies after 6:37 p.m. Monday through Friday and during off-peak hours. This route does not operate on Sundays.

**Route 5 Commonwealth Drive:** Route 5 is the only route that does not interact with the Downtown Transit Station. This route operates Monday through Saturday at 30-minute frequencies between Barracks Road Shopping Center and Walmart and Sam's Club to the north. The Greenbrier Drive and Four Seasons areas, Fashion Square Mall, and the Rio Hill and Albemarle Square Shopping Centers are all served by Route 5. Route 5 is fully funded by Albemarle County and is one of ten routes that have late operating hours. Although this route does not operate on Sundays, Route 12 provides service to most areas serviced by Route 5.

**Route 6 Ridge Street and Prospect Avenue:** Route 6 operates between downtown Charlottesville and the Ridge Street/Jordan Hills Park area, 5th Street Station, Willoughby Square Shopping Center, and UVA Hospital. The route operates from 6:30 a.m. to 12:00 a.m. Monday through Saturday. Frequencies are every 60 minutes.

**Route 7 Emmet Street and Seminole Trail:** Route 7 operates between the Downtown Transit Station and Fashion Square Mall via West Main Street and US 29 (Emmet Street North/Seminole Trail). UVA, Barracks Road Shopping Center and Seminole Square Shopping Center are all served by Route 7. This route operates at frequent (20-minute) service until the evening period when frequency is reduced to 30 minutes, Monday through Saturday. Route 7 does not operate on Sundays; however, Route 12 provides service to these areas instead. Route 7 is one of nine routes that have late operating hours.

**Route 8 Preston Avenue and Emmet Street:** This route operates between downtown Charlottesville, and Barracks Road and Seminole Square Shopping Centers via Preston Avenue, Barracks Road and US 29 (Emmet Street North/Seminole Trail). Frequencies are every 30 minutes during peak periods and 60 minutes otherwise, Monday through Friday. Frequencies are every 60 minutes on Saturdays and there is no service on Sundays.

**Route 9 The Health Department and YMCA:** Route 9 serves downtown Charlottesville, UVA Hospital, Washington Park neighborhood, the Health Department, the YMCA and McIntire Park, and Charlottesville High School. Service is offered at hourly frequencies Monday through Saturday from 6:00 a.m. to 11:00 p.m., and at hourly frequencies from 11:20 a.m. to 5:40 p.m. on Sundays.

**Route 10 Pantops:** This route operates between downtown and the Richmond Road corridor area via High Street. The Pantops Shopping Center is served by this route as is Santara Martha Jefferson Hospital. Frequencies are hourly Monday through Saturday from 6:30 a.m. to 11:27 p.m. This route does not operate on Sundays. Albemarle County contributes funding to this route.

**Route 11 Locust Avenue and Rio Road:** This route operates from downtown Charlottesville north on Locust Avenue and Rio Road, near McIntire and Pen Parks, CATEC, and Fashion Square Mall. This route is serviced every 60 minutes from 6:00 a.m. to 9:27 p.m. Monday through Friday, and 6:00 a.m. to 6:27 p.m. on Saturday. This route does not operate on Sundays.

**Route 12 Seminole Trail:** This route provides dedicated Sunday service to areas typically serviced by Routes 5 and 7. The route operates from downtown Charlottesville, to UVA Hospital via W Main Street, to UVA Campus, and north on US 29 (Emmet Street North/Seminole Trail) to Barracks Road Shopping Center, Seminole Square Shopping Center, Fashion Square Mall, Albermarle Shopping Center, and Rio Hill Shopping Center. Service is provided every 60 minutes from 7:45 a.m. to 5:45 p.m. on Sundays.



Transit Development Plan
FY 2019 – FY 2028

Table 1-2 | Summary of Service Changes Since Last TDP

| Year | Route | Service Change Summary |
|---|---|---|
| 2014 | Route 1 | Returned service to Monticello Road. The route now serves Monticello Road on its return trip from PVCC. The service day was extended from 9:30 PM to 10:00 PM, Monday through Friday. |
| | Route 4 | The route now ends at Willoughby Square Shopping Center instead of the UVA Hospital. The service day was extended from 11:45 PM to 12:00 AM Monday through Saturday. |
| | Route 7 | Increased frequency from every 20 minutes to every 15 minutes Monday through Saturday between the times of 6:25 AM and 7:40 PM. |
| | Route 10 | Extended service day from 6:30 PM to 11:30 PM. The increase in service hours allows evening access to Martha Jefferson Hospital. |
| | Free T | On Sunday afternoons, the Free Trolley now operate every 25 minutes instead of every 45 minutes. |
| 2015 | Route 7 | Discontinued the 11:10 PM departure from the Downtown Transit Station. The change was made to streamline the schedule. |
| | Route 10 | Shifted routing alignment to serve the Food Lion in the Pantops Shopping Center first. |
| 2016 | Route 2 | New Route - Travels from the Downtown Transit Station (DTS) to a new shopping center connecting 5th Street to Avon Street Extended (5th Street Station). |
| | Route 5 | No longer directly serves the Barracks Road Shopping Center bus stop in front of Kroger. |
| | Route 6 | No longer serves Willoughby Square Shopping Center twice an hour. Instead the shopping center is only served on the inbound trip from Jordan Hall (UVA Hospital) to the Downtown. Transit Station. |
| | Route 7 | No longer directly serves the Barracks Road Shopping Center bus stop in front of Kroger. Sunday service was rebranded as Route 12 and added service to Sam's Club and Walmart. Sunday service now operates on a 60-minute service frequency rather than a 30-minute frequency. |
| 2017 | Route 4 | Increase in service frequency during the morning and evening commutes while midday and late night service has a reduction in frequency. |
| | Route 9 | Added service to the new YMCA, West Main Street, and the Downtown Mall. Areas north of Kenwood Lane no longer receive service. The route now operates seven days a week, an increase from the previous six days a week. |

## 1.4.2. Other Transportation Services

Two other public transit agencies, University Transit Service for the University of Virginia and JAUNT Paratransit Service, have major presences in the Charlottesville area.

**University of Virginia University Transit Service (UTS):** Covering the main arteries of the UVA Grounds with as many as 27 buses in service at any given time, UTS is a free shuttle bus service for UVA students, faculty, and staff. The UTS service area includes the UVA Grounds, north to the Barracks Road Shopping Center area, south along Jefferson Park Avenue and east to UVA's Hospital. UTS is funded through student activity fees, thus there is no fare collected on-board the buses. The public is also permitted to ride "fare-free" through a reciprocal agreement with CAT.

UTS operates under different schedules throughout the year. During academic semesters, UTS runs Full

Service. On most holidays, including Reading Days, Winter Break, and Summer Vacation, UTS operates Holiday Service. In addition, during exams and finals, UTS runs exam service and on Friday and Saturday nights, UTS runs extended late-night service. UTS operates six routes while classes are in session, with weekday frequencies ranging from 8 – 15 minutes. Service is generally provided between approximately 6:00 a.m. and 8:00 p.m. except for the Northline and U-Loop, which run on a reduced frequency schedule (15 minutes) until 12:30am. The Northline and U-Loop also provide limited weekend service.

Figure 6 | UTS Bus


**JAUNT:** JAUNT is a regional transportation system providing service to Charlottesville, Albemarle, Louisa, Nelson, Fluvanna and Buckingham counties. JAUNT, initially owned by the local governments that it serves, became a public corporation in 1982. CAT partners with JAUNT to provide their required ADA Paratransit Services, with pass-through FTA funding. This agreement is mutually beneficial by allowing CAT to avoid investments in smaller buses and take advantage of JAUNT's existing paratransit services. JAUNT likewise benefits by receiving additional funding to serve one of its core functions. JAUNT provides a 50% match with local and state funds and receives 24% of CAT's annual Section 5307 operating allocation from FTA. JAUNT submits requests for reimbursement to the City, with CAT conducting audits twice a year.

In addition to ADA paratransit service, JAUNT provides human service agency transportation, rural demand response service, and commuter route service. Most of JAUNT's commuter routes, as well as midday rural demand response service, provide public transportation between the outlying rural areas and Charlottesville. Most recently in 2016, JUANT started the 29 Express running from the Forest Lakes/Hollymead area to UVA and the Downtown Library.

Figure 7 | JAUNT Van


### 1.4.3. Transit Hubs/Downtown Station

In 2007, CAT began operating out of the Downtown Transit Station (DTS) located at 615 East Water Street. All but one route serves the DTS. This facility is Leadership in Energy and Environmental Design (LEED) designated at the Gold level, reflecting a variety of sustainable approaches during planning and design, site preparation, and construction. The DTS, located at the easternmost end of the Charlottesville pedestrian mall, lies approximately ½ mile east of the Greyhound Bus Terminal and 1 mile east of the Charlottesville Amtrak station.

The indoor facilities of the DTS are open Monday through Saturday from 7:00 a.m. to 8:00 p.m. and Sundays from 9:00 a.m. to 5:00 p.m. There are times when CAT service is still operating and the indoor DTS facility is closed to the public. When open, bathrooms are located in the DTS as well as a small customer service office to provide route information, reduced



Transit Development Plan
FY 2019 – FY 2028

fare applications, CAT paratransit cards, and daily and monthly passes.

Figure 8 | CAT Downtown Transit Station


The DTS features a linear configuration with a single elongated pull-out bay capable of holding as many as six buses at any given time. Since the pull-out bay is on the westbound side of Water Street, all buses must approach the DTS in the westbound direction. As such, all buses operating to or from the DTS must circulate around the perimeter of downtown via a loop bounded by 10th Street NE to the east and Ridge Street-McIntyre Road to the west.

Since the 2013 Route Study, CAT has been investigating efforts that would minimize the circuitousness of existing CAT service in the downtown area, created by the limited crossings of the downtown pedestrian mall. An envisioned project from this study was the creation of a transit-accessible northbound passage between Water Street and Market Street that would minimize time delays associated with navigating the current downtown loop.

### 1.4.4. Bus Stops and Shelters

CAT has 325 bus stops encoded in their bus stop arrival application. This app works off a unique five-digit number that is assigned and displayed on each CAT bus stop sign and included in the printed CAT schedules. In 2014, CAT partnered with the City of Charlottesville's IT department to release a free mobile app. based upon this bus stop data, providing estimated arrival information from CAT's Automatic Vehicle Location (AVL) system. A display screen at the DTS also reports next bus arrival times.

Many of CAT's bus stops are common to two or more routes, especially on West Main Street, Water Street, and Market Street. The 2013 Route Study found that many of CAT's bus stops are placed very close together, and in some cases, only a block or less apart. CAT has since been eliminating and consolidating stops, with an approximately 15 percent reduction in overall bus stops from what was reported in the 2011 TDP.

The 2013 Route Study further recommended that CAT develop three transfer hubs at key locations where passenger transfer activity would be increased and where substantially more passengers would likely be waiting for service. These enhancements represent a more substantial level of investment at individual locations than basic bus stop signage and amenities. The proposed hub locations included the UVA Hospital, Market Street at 5th Street and the Willoughby Square Shopping Center.

Placement of shelters and other amenities are generally within the City's right-of-way and usually dictated by higher ridership or activity level or customer requests. Some bus stops are placed via agreement with private entities, such as at the Fashion Square Mall.

CAT has approximately 40 shelters system-wide. As part of the annual Tom Tom Founders Festival, sixteen bus shelters throughout Charlottesville are selected to be turned into unexpected art galleries.

### 1.4.5. Park and Ride Facilities

Charlottesville has six park and ride lots in the urbanized area, however most are modest in size and only one lot is served by CAT. Park and Ride information, along with additional commuter assistance, is provided by the Rideshare Program jointly administered by TJPDC and CSPDC. The most recent Park and Ride addition is located on City property at 1505 Avon Street Extended and served by the new Route 2.

**Table 1-3 | Park and Ride Locations**

| Park and Ride Lot | Location | Spaces | CAT Routes |
|---|---|---|---|
| Avon Street Extended | Avon Street and Mill Creek | 12 | 2 |
| Azalea Park | 5th Street Extended and Old Lynchburg Road | 5 | None |
| Darden Towe Park | Route 20 North and Route 250 East | 11 | None |
| Forest Lakes North | Route 29 North and Route 649 | 7 | None |
| Route 29 and I-64 | Route 29 South and Teel Lane | 20 | None |
| Walmart South Lot | Route 29 North and Hilton Heights Road | 10 | 5 |

## 1.5. FARE STRUCTURE

CAT buses currently accept cash fares and smart card passes. Multi-day passes are programmed on smart cards and are available for purchase at the DTS. Base fare for a one-way trip is 75 cents; reduced base fares are 35 cents. Day passes are available for $1.50 while monthly passes cost $20.00. Reduced rates for these passes are 75 cents and $10.00, respectively. Those aged 65 and older, youth under 12, persons with disabilities and holders of Medicare cards are eligible for reduced fares.

Free rides are available for:

- Youth 12 and under (no ID required)
- Youth 13 to 17 upon presenting a valid Youth Smart Card
- City employees upon presenting a valid City ID
- American Disability Act (ADA) certified individuals upon presenting a valid CAT ID
- University of Virginia students, faculty and staff upon presenting a valid University ID card

CAT's Fare structure last changed in 2015, with the introduction of new EZ fareboxes from Trapeze. Passengers previously could only purchase monthly, three-month or yearly passes. The passes were made of paper and lacked flexibility with a finite life span. With the new fareboxes, CAT now offers new pass options (3-day and 7-day). The new system allows passes to be activated upon first use rather than from when they are purchased. With a total farebox revenue reported as $718,703 in FY 2016, the average fare for all CAT riders was $0.30. This reflects a nine percent decrease from 2015.

Fares for JAUNT trips varies by residency and distance. The fare for a JAUNT ADA trip is $1.50 for qualifying passengers within the city and within the Charlottesville Urbanized area. The base fare for the public within the urbanized area is $15.00. Fares for rural Albemarle destinations can vary by due to total trip distance depending upon ultimate destinations.

## 1.6. FLEET

CAT owns and operates an active revenue fleet of 37 buses. The oldest vehicles (9) were purchased in 2008 with the most recent vehicle (1) purchased in 2016. The average fleet age is 5.88 years. The average fleet mileage is just over 191,000 as of this report. No vehicle exceeds 35-feet in length.





**Table 1-4 | CAT Fixed Route Fleet**

| Make/Model | Year | Type | Fuel | Seats | Quantity | Average Miles |
|---|---|---|---|---|---|---|
| Gillig | 2008 | Low Floor 35-ft. | Clean Diesel | 32 | 7 | 294,830 |
| Gillig | 2008 | Low Floor 29-ft. | Clean Diesel | 27 | 1 | 293,426 |
| Optima Opus | 2008 | 30-ft. Trolley Replica | Diesel | 21 | 1 | 172,558 |
| Gillig | 2010 | Low Floor 35-ft. | Clean Diesel | 32 | 4 | 291,598 |
| Gillig | 2010 | Low Floor 29-ft. | Hybrid Electric | 27 | 2 | 211,039 |
| Gillig | 2011 | Low Floor 29-ft. | Hybrid Electric | 27 | 4 | 231,611 |
| GM-Goshen | 2011 | Body-on-Chassis 26-ft. | Diesel | 16 | 1 | 100,506 |
| Gillig | 2012 | Low Floor 29-ft. | Hybrid Electric | 27 | 3 | 202,076 |
| GM-Goshen | 2012 | Body-on-Chassis 26-ft. | Diesel | 16 | 1 | 66,259 |
| GM-Goshen | 2013 | Body-on-Chassis 26-ft. | Diesel | 16 | 1 | 58,926 |
| Gillig | 2014 | Low Floor 35-ft. | Clean Diesel | 32 | 2 | 123,649 |
| Gillig | 2014 | Low Floor 29-ft. | Hybrid Electric | 27 | 1 | 125,999 |
| Gillig | 2014 | Low Floor 35-ft. Trolley Replica | Clean Diesel | 32 | 3 | 114,128 |
| Gillig | 2015 | Low Floor 35-ft. | Clean Diesel | 32 | 4 | 77,638 |
| Gillig-Arboc | 2016 | Body-on-Chassis 26-ft. | Gasoline | 16 | 1 | 16,635 |
| Gillig-Arboc | 2017 | Body-on-Chassis 26-ft. | Gasoline | 16 | 1 | 799 |

Only a few vehicles are due for replacement (5 total) before 2019. In the years 2020-2022 approximately 58 percent of the fleet will be due for replacement. In 2020, the largest annual total of nine vehicles will reach the end of their useful life.

Ten Gillig hybrid-electric buses have been purchased from 2010 to 2014. CAT has expressed a desire to discontinue the acquisition diesel-electric hybrid vehicles due to maintenance cost concerns and in 2015 resumed the purchase of clean diesel fueled vehicles. All buses on every CAT route are fully accessible. Each bus also has a two-bicycle rack installed on the front. Table 1-4 summarizes the existing CAT fixed-route revenue fleet. As previously noted, the City does not directly operate paratransit service, and thus owns no paratransit vehicles.

## 1.7. EXISTING FACILITIES

CAT's new Administration, Maintenance and Operations Base is located at 1545 Avon Street Extended near Interstate 64. The facility includes a vehicle maintenance facility, bus storage and parking, a washing station, a fueling station, and houses the administration and dispatcher's offices. This facility opened in 2010. As with the DTS, the facility is LEED Gold certified.

The 27,000 square foot Charlottesville Area Transit Service Operations Center includes four buildings—one each for administration, vehicle maintenance, vehicle washing, and vehicle servicing. Together with a parking area for 60 buses, these buildings occupy six acres along one of the city's major entrance corridors.

## 1.8. TRANSIT SECURITY PROGRAM

CAT has a Safety Hazard and Security Plan in place that establishes policies, organization, roles and responsibilities for incidents, countermeasures and strategies. The plan also includes a section that addresses periodic assessments and review of the Safety Hazard and Security Plan.

CAT indicated in its last FTA Triennial Review (2015) that it does not expend one percent or more of its Section 5307 Urbanized Area Formula Grant funds for transit security per FTA guidance. CAT indicated that

the Charlottesville Police Department monitors CAT's safety and Security Protocol and compliance.

CAT's Facilities Maintenance Program, updated in 2012, provides for assurance of proper operation of facility security equipment. CAT's operational facility is secured with cameras, key cards, secure perimeter fencing and automatic gate openers.

Data from the National Transit Database indicated that CAT had two reportable incidents related to safety and security in 2015.

## 1.9. INTELLIGENT TRANSPORTATION SYSTEM (ITS) PROGRAM

In 2016, City Council approved CAT's effort to secure a transit planning platform, called Remix. The software offers interactive maps that will allow CAT to identify routes, service hours and stops that best serve the public. Remix provides cost estimates for various inputs, providing instant analysis on proposed transit services. Modifications and assessment of route adjustments and service hours are readily displayed and can more easily be quantified and compared against other operating scenarios. The City secured this powerful software in coordination with JAUNT, who contributed to acquiring the license. In addition to sophisticated route planning software, CAT also is employing farebox and real-time arrival systems that not only enhance the customer experience but also improve in the assessment and reporting on the existing service.

### 1.9.1. Fareboxes

CAT installed new fareboxes in 2015. In addition to more pass options and smartcard capabilities, the enhanced fareboxes also enable CAT to determine where people are boarding, at what time, and with what kind of pass. CAT intends to use this capability to report better data to the FTA. The new fareboxes also include a feature to allow the driver to keep track of passengers who board with a bicycle, and passengers in wheelchairs. This capability is used to enable CAT to monitor demand and determine if they need to install shelters or other amenities at bus stops.

CAT is currently coordinating its Smart Media/AVL capabilities with JUANT, to help with seamless transfers between the two systems and allow for digital payments.

### 1.9.2. Real Time Arrival Information

CAT has also developed a real time web map and free mobile application to search for nearby bus stops and real-time arrival predictions. The CAT mobile application was developed in-house by the City of Charlottesville's IT Department and won a 2015 Governor's Technology Award. The application allows riders to locate where their bus is, bookmark favorite bus stops, and discover alternative route options. In addition, notifications for detours and service changes are regularly pushed out. As of 2017, UTS routes have been added to the application for UVA students, faculty, and staff to be able to use one app. for both transit systems.

## 1.10. DATA COLLECTION, RIDERSHIP AND REPORTING METHODOLOGY

Report data for Ridership is collected through CATs Trapeze farebox system. In addition to fare information, the system also captures stop level data to determine bus stop utilization and inform service planning. Verification of ridership counts are done by Operations Supervisors by conducting spot checks, which include riding a route and taking a ridership count, which can then be compared against the report data from Trapeze.

The EZFare system from Trapeze transitioned CAT to a new automated fare collection system the reduced fraud as well as decreased the cost of fare collection.





Reported improvements included the ability to process 64,000 monthly University of Virginia ID transactions with a 0.006 percent failure rate.

CAT prepares a monthly ridership reports of transit operations, including ridership, revenue hours, passenger trips per revenue hour, and cost per passenger trip. The reporting further classifies routes as local, key, or lifeline services. Information is presented to the University, City Council and the Board of Supervisors.

## 1.11. COORDINATION WITH OTHER TRANSPORTATION SERVICE PROVIDERS

The City of Charlottesville and Albermarle County have collaborated on several route projects that have enabled the expansion of public transportation services to the residential and commercial growth areas in the urban ring surrounding the City. Expanding transit services to these areas has greatly enhanced the mobility of County residents and has afforded City residents mobility into these areas for employment, shopping, and recreational activities.

The Albermarle County Board of Supervisors and Charlottesville's City Council have agreed to create a partnership between the area's bus systems; one step toward a possible regional transit authority. The CA-MPO was charged by the Planning and Coordination Council (PACC) of the City, County, and University to prepare a Regional Transit Organizational study. The goal of the study is to review organizational, decision-making and formal communication options for the transit service organizations in the region and to explore partnership opportunities between CAT, JAUNT and UTS.

## 1.12. PUBLIC OUTREACH

The City of Charlottesville engages the public prior to the implementation of any CAT fare change or major service change in accordance with specific public outreach procedures that comply with 49 USC Chapter 53, Section 5307 (d)(1)(I), and with FTA guidelines for small urban grant recipients. This process of identifying the magnitude of the service change, notifying the public, holding a City Council Meeting(s) and incorporating public comment into the service decisions was most recently and effectively engaged during the implementation of numerous service changes in 2014.

In 2009, CAT conducted a Transit Marketing Study to ascertain the effectiveness of its marketing, branding and communications programs. The study developed a profile of CAT's key ridership markets and a Marketing Plan that outlined a set of strategies to improve CAT's marketing. Stakeholder interviews revealed that CAT needed improvement in the areas of customer awareness, customer knowledge, and overall customer image of public transit in Charlottesville. CAT since has developed outreach materials and filmed/edited videos to help supplement increased awareness.

CAT conducted a transit customer service survey from March 26 – April 17, 2017. The survey gathered information both on rider profiles, trip purpose, general opinions on customer experience items and specific trip behavior questions related to recent service changes. Respondents indicated that the Free Trolley and Route 7 were the most heavily utilized. Most respondents did not have access to an automobile and a little over a third of respondents had a UVA ID card. Thus, the survey showed a mix of responses that reveal how transit provides a much-needed service to the local community while also providing transportation alternatives to UVA students and faculty. Additional cross-tabulation could further reveal correlations, such as if UVA affiliated riders where the predominant users of the mobile app. and if the route directness affects one group versus another.

CAT is also an active participant in the Tom Tom Founders Festival's 'City as Canvas' initiative. This annual event transforms public spaces through murals, public performance, art installations, and innovative collaborations with local organizations. An inaugural Art Bus, completed in 2015 by prolific Richmond muralist Mickael Broth, had 28,000 riders and reached an estimated 300,000 viewers. CAT has participated every year since and observed a lot of positive public engagement from each event.

**Figure 9 | CAT Tom Tom Festival Art Bus**





*Page Intentionally Left Blank*


# Chapter 2

## Transit System Overview: Charlottesville Area Transit


*Page Intentionally Left Blank*

# 2 Goals, Objectives and Service Design Standards

To facilitate review and assure sufficient coverage, the goals and objectives in this section have been categorized into six areas of activity for the public transit operator. These categories summarize the wide variety of goal/objective statements present in the relevant agency, municipal, and regional planning documents. Areas with limited coverage were targeted for enhanced goal/objective development during the TDP process. These categories are:

**GROWTH / NEW OPPORTUNITIES (GO):** Objectives related to the expansion of service geographically or in terms of frequency, including development of new ridership markets, new connections with other service providers, or expanded facilities and fleet.

**OPERATIONAL EXCELLENCE (OE):** Objectives that enhance the training and effectiveness of the workforce, address the monitoring and continual improvement of service delivery, and utilize studies or resources to support streamlined operations or project implementation.

**COMMUNITY INTEGRATION (CI):** Objectives that further coordinate transit with economic development and local land use preferences and represent participation in studies or locally-based planning initiatives.

**FINANCIAL ACCOUNTABILITY (FA):** Objectives that address efficiency of operations and cost recovery, as well as the pursuit of expanded or new revenue sources.

**REGULATORY COMPLIANCE (RC):** Objectives that support meeting the agency's regulatory requirements. These should align with guidance and reporting requirements while and establishing or exceeding any applicable performance metrics.

**ENVIRONMENTAL STEWARDSHIP (ES):** Objectives that seek to reduce emissions via technology, promote travel alternatives other than driving alone, and reduce energy consumption at facilities.

The results of a review of relevant and recent planning documents that addressed transit goals, objectives, and service standards for the region are presented in the following sections.

## 2.1. PREVIOUS GOALS AND OBJECTIVES

The previous TDP for Charlottesville Area Transit (CAT) outlined regional and local goals and objectives that related to the provision of public transit. However, the plan did not specifically assign goals and objectives for CAT. As guidance, the previous TDP referenced the 2008 City Budget and P3 (Plan, Perform, Perfect) process, which identified four established goals pertinent to all departments of the City of Charlottesville government. These goals included:

1. Reliable and Safe Operations and Infrastructure
2. Planned Sustainable and Environmentally Sensitive Community
3. Great Place to Work
4. Efficient and Effective Service Delivery





The previous TDP noted that the initiative was still relatively new (2008) and that the various city departments were still working with the city on establishing performance measures or to further refine goals. At the time of publication, CAT was working with the City on goals one, three and four. The second goal, "Planned, Sustainable, and Environmentally Sensitive Community," had two performance measures relatable to CAT, namely: Passenger Trips (or passengers) per Gallon of Fuel (PPG) and Overall Passenger Trips.

At publication time of the previous TDP, the City of Charlottesville and Albemarle County had preexisting transit-related goals and objectives in their respective comprehensive plans. CAT-specific, measurable goals and objectives, summarized at the conclusion of the previous TDP, are listed in Table 2-1 alongside activity area categories and the status of each initiative.

**Table 2-1 | City and County CAT-related Goals/Objectives**

| Goal/Objectives | Category | Status |
|---|---|---|
| GOAL #1 – Increase regional access to transit for regional travel and limit the use of non-renewable fuel for vehicles, specifically gasoline. (City of Charlottesville) | | |
| Increase alternative fuel access, develop a plan to replace City vehicles with vehicles that are more environmentally friendly. | ES | One-time |
| Actively participate in the establishment of a Regional Transit Partnership and encourage bicycle, pedestrian and transit connections (including attention paid to Sunday and night service) between the County and City. | CI, GO | Ongoing |
| Cooperate with the County in exploring express bus lanes and other transit improvements north of the City. | GO | One-time |
| Continue to expand transit service and increase ridership. | GO | Ongoing |
| GOAL #2 - Implement County related recommendations of the Charlottesville Transit Development Plan and participate in its update which occurs every five years. (Albemarle County) | | |
| Identify methods of funding transit services and develop a funding structure/program to support transit in the County. | FA | Ongoing |
| Expand transit service in the Urban Area, and to the Hollymead, Cedar Hill Mobile Estates and Piney Mountain Communities. | GO | Ongoing |
| Utilize the Transit Development Plan and other studies to assist in determining the location and timing for the | OE | Ongoing |

| | | |
|---|---|---|
| provision of transit services. | | |
| Consider expansion of service hours to include nights and weekends on appropriate routes to improve ridership and service. | GO | Ongoing |

## 2.2. ALIGNMENT WITH REGIONAL GOALS/REGULATIONS (STATE, FEDERAL)

This section reviews the alignment of the previous goals and objectives developed for CAT with relevant transit/transportation goals for the region, including those developed by localities within the service area. This TDP update will afford the opportunity to further incorporate and/or strengthen CAT goals, objectives, and service standards to align with the strategic planning elements of these adopted plans, especially those adopted since the last major TDP update. The new Regional Transit Partnership (RTP), established in 2017, will also assist CAT with its stated purpose: to "allow local officials and transit staff to work together with other stakeholders to craft regional transit goals."

**Table 2-2 | LRTP 2045 - Public Transit Goals / Objectives**

| Goal/Objectives | Category | Status |
|---|---|---|
| Improve access to transit for all users. Ensure the diverse needs of a changing population are met (elderly, disabled, limited English proficiency, and persons lacking access to private vehicles). | GO, CI | Ongoing |
| Continue to support efforts to enhance access to intra-regional transit services, to include bus, rail, and air services. | GO, CI | Ongoing |
| Incorporate environmentally/context-sensitive design into roadway, bicycle/ pedestrian facilities and transit improvements. | ES | Ongoing |

**Charlottesville/Albemarle MPO DRAFT 2045 Long Range Transportation Plan (LRTP) (2017):** The 2045 LRTP outlines the region's long-range transportation vision and lists all future projects anticipated in the region over the next 20 to 30 years to attain that vision. The existing LRTP 2040 Plan was adopted in 2009. In May 2017, the CA-MPO kicked off the update process for this plan. Draft goals and objectives were developed in July 2017. The draft goals and objectives that relate to public transit – alongside activity area categories and statuses – are listed below:

**City of Charlottesville Strategic Plan (FY 2018-20):** This city-wide planning effort has identified two goals, three strategic plan objectives, and seven performance measures for CAT, which include:





**Table 2-3 | City of Charlottesville Strategic Plan - CAT Goals / Objectives**

| Objectives | Category | Performance Metrics |
|---|---|---|
| GOAL #3: A Beautiful and Sustainable Natural and Built Environment | | |
| Provide a variety of transportation and mobility options | OE, GO | ▪ CAT passenger satisfaction;<br>▪ Ridership trends: total CAT unlinked passenger trips;<br>▪ Total revenue service hours; and<br>▪ Total revenue service miles. |
| Be responsible stewards of natural resources | ES | ▪ Unlinked passenger trips per revenue service hour; and<br>▪ Unlinked passenger trips per revenue service mile. |
| GOAL #5: A Well-Managed and Responsive Organization | | |
| Provide responsive customer service | OE | ▪ CAT driver courtesy |

**Federal Transit Administration Rulemaking (2016):** In August, 2016, FTA published a final rule for the Public Transportation Safety Program, which provides the overall framework for FTA to monitor, oversee, and enforce safety in the public transportation industry. This builds upon implementing a Safety Program that is both scalable and flexible through the application of Safety Management System (SMS) principles. SMS builds on existing transit safety practices by using data to proactively identify, avoid, and mitigate risks to safety.

Just prior to this rulemaking, in July 2016, the FTA published a Final Rule for Transit Asset Management (TAM). The rule requires FTA grantees to develop asset management plans for their public transportation assets, including vehicles, facilities, equipment, and other infrastructure. FTA's national Transit Asset Management System Rule:

- Defines "state of good repair";
- Requires grantees to develop a TAM plan;
- Establishes performance measures;
- Establishes annual reporting requirements to the National Transit Database; and
- Requires FTA to provide technical assistance.

These federal rules also inform DRPT updates of TDP guidance and performanced-based monitoring of transit grantees throughout the Commonwealth.

**Albemarle County Comprehensive Plan (2015):** This plan emphasizes the priorities and importance of key areas to the County and provides guidance on how stated strategies can work to achieve objectives and goals. The plan's Transportation Goal states that: "Albemarle's transportation network will be increasingly multimodal, environmentally sound, well maintained, safe and reliable." Specific transit objectives are listed below alongside activity area categories and statuses.

Table 2-4 | Albemarle County Comprehensive Plan - Public Transit Goals / Objectives

| Objective | Category | Status |
|---|---|---|
| Continue to use planning studies to determine the location and timing for the provision of transit services. | OE | Ongoing |
| Continue to provide public transit service hours at night and on weekends on appropriate routes to improve ridership and service. Continue to provide service to the Rio Road area. | OE | Ongoing |
| Expand transit service to the Hollymead Development Area, airport, Cedar Hill Mobile Home Park, south of I-64 on Avon Street Extended, and Route 250 West. | GO | Ongoing |
| Continue to recognize JAUNT as the primary public transportation provider for rural Albemarle County. | CI | Ongoing |
| Participate in the formation of a Regional Transit Partnership. | CI | Ongoing |
| Increase and expand transit network efficiency and use throughout the region. | OE, GO | Ongoing |
| Continue to provide and enhance rural transit opportunities for elderly and disabled residents. | GO, CI | Ongoing |

**City of Charlottesville Comprehensive Plan (2013):** This plan provides a vision for the City of Charlottesville's transportation network, noting that it provides the fundamental framework for creating a safe, livable community while reinforcing more sustainable land use patterns. It further notes that the transportation system should be designed for everyone, whether young or old, motorist or bicyclist, walker or wheelchair user, bus rider or shopkeeper. The plan sees a multimodal transportation network as an effective, flexible framework for building community and creating places in the City. The transit section goal is to: "Create a transit system that increases local and regional mobility and provides a reliable and efficient alternative for Charlottesville's citizens." A total of 10 objectives to support this goal are listed below alongside activity area categories and statuses.

Table 2-5 | City of Charlottesville Comprehensive Plan - Public Transit Goals / Objectives

| Objective | Category | Status |
|---|---|---|
| Continue to expand transit service and increase ridership. | GO | Ongoing |
| Evaluate transit services: including Sunday and after-dark bus service and route restructuring. | GO | Ongoing |



Transit Development Plan
FY 2019 – FY 2028

| Objective | Category | Status |
|---|---|---|
| Continue to work with Albemarle County and the TJPDC to develop a transit system that adequately serves residents. This includes the continued study of light rail and Bus Rapid Transit (BRT). | GO, CI | Ongoing |
| Work closely with state government, regional organizations and adjacent jurisdictions to support transit-oriented and transit-accessible employment. | CI | Ongoing |
| Accommodate the travel needs of all residents and employees, including low-income populations, the elderly and those with disabilities. | CI | Ongoing |
| Encourage the development of transit-oriented/ supportive developments. | CI | Ongoing |
| Explore the development of a dedicated funding source for future transit needs. | FA | Ongoing |
| Work closely with new developments to provide an accessible path from nearby transit stops to the building. | CI | Ongoing |
| Evaluate the use of Intelligent Transportation System (ITS)/transit signal priority to promote transit efficiency. | OE | Ongoing |
| Explore innovative approaches to increasing ridership of public transit, especially for first time riders. | OE | Ongoing |

An update for this plan will occur in 2018.

**Charlottesville Transit Study (2013):** The primary goal of this study was to determine how CAT services should be organized to be most effective for Charlottesville residents and visitors. The study followed the completion of the last TDP to address community discussions regarding whether more significant changes should be made. The City Council ultimately desired an evaluation of more significant alterations, commissioning the study to examine far-reaching system changes. Additionally, as part of this effort, a stand-alone set of Service Guidelines was created. CAT noted in annual update letters to DRPT that this study replaced the goals and objectives for the FY2012 – FY 2017 TDP period.

The broad study goals were listed as:

- Make the service easier to use;
- Make the service faster and more direct;
- Make the service easier to understand;
- Make the service more convenient; and
- Better match service to demand.

The study's seven objectives, are listed below alongside activity area categories and initiative statuses.

**Table 2-6 | Charlottesville Transit Study (2013) Goals / Objectives**

| Objective | Category | Status |
|---|---|---|
| Operate service consistently throughout the day. | OE | Ongoing |
| Improve reliability and directness. | OE | Ongoing |
| Consolidate duplicative services. | OE | Ongoing |
| Expand service to new areas. | GO | Ongoing |
| Adjust service frequencies and spans to match demand. | OE | Ongoing |
| Develop a new transfer hub at UVA Hospital. | OE, CI | One-time COMPLETED |

## 2.3. RATIONALE FOR CHANGE

Upon review of additional plans and studies, it was determined that CAT may benefit from additional diversity in its goals and objectives. As a result of the 2013 Transit Study, CAT has primarily reported its progress in terms of operational excellence goals and objectives. Areas such as Financial Accountability, Regulatory Compliance, and Environmental Stewardship, currently receive less attention. In addition, in CAT-established materials or other plan documents, CAT lacks specific Organizational Excellence goals or objectives related to system safety and security.

Changes in the Federal and State regulations can also be incorporated in CAT goals and objectives through this TDP update. While the City has established some performance objectives for CAT since the last TDP, there is now an opportunity to further modify or add CAT performance objectives to include the newest State and Federal regulations. For example, the CAT goals, objectives, and standards could explicitly address the principles of maintaining their Transit Asset Management (TAM) standards to demonstrate compliance.

This TDP update effort seeks to consolidate and repackage goals and objectives to allow for targeted measures, strategies, and timelines, and to show continued success or progress toward desired results. In this reorganization, service standards are now directly associated with an objective to provide the measurable target that is proposed. These goals and objectives were developed with input from CAT and in consideration of the results of the agency-led stakeholder outreach as part of the TDP update process.

Certain elements are outside CAT's ability to control or influence. While CAT can accomplish most of goals and objectives in this TDP update without dependence on outside actors, any goals or objectives that may require assistance, approval, or coordination are indicated as such.

## 2.4. NEW GOALS AND OBJECTIVES

While goals generally define a longer-term purpose toward which an endeavor is directed, objectives provide additional details, or targets for how the goal will be achieved and in what intermediate timeframe. The goals and objectives presented in this chapter represent an iterative process with CAT staff in balancing operations objectives representing near-term, relatively low-cost strategies that provide immediate improvements to the transportation system and longer-term improvement objectives that may require time to fully achieve. Goals and objectives are revisited on an annual basis, and historically have a strong emphasis on the implementation and status of projects to advance outcomes.

New goals and objectives that incorporate agency, regional, and state priorities were developed. This





section provides examples of potential measures, desired targets, and strategies for reaching and maintaining targets in a timely fashion. Additional detail is provided on potential sources of data or technology necessary to facilitate the measurements. Measures have been selected that best reflect CAT's unique operating environment. For example, the new goals and objectives preserve an emphasis on organizational excellence that CAT wishes to maintain. In one case, an operational need to contain costs and maintain efficient maintenance outweighs a regional emphasis on the environmental policies such as alternatively-fueled vehicles. Additionally, many measures presented relate directly to the service design standards found in the next section. Goals and objectives, coupled with specific measures, targets, and strategies, are listed below.

| GOAL #1 – Monitor and adjust service to improve efficiency, customer convenience, and system reliability/safety. | | | |
|---|---|---|---|
| **Measure** | **Target** | **Strategy** | **Data Sources** |
| Objective 1.1: Continue to employ service evaluation guidelines in the regular assessment of the performance of all routes. (FA, OE) | | | |
| System metrics compiled for passengers per hour, passengers per mile, fare revenue to operating expense ratio, and passenger miles divided by platform miles. | Conduct service adjustments for the system should metrics drop below 95% of rolling historic average to include the last three years. | Collect for each category of route (Local, Key, Lifeline) and incorporate as part of monthly reporting, with no less than annual implementation of coordinated service adjustments. | Operations logs, financial data |
| Objective 1.2: Monitor and improve safety on transit service and with facilities. (OE) | | | |
| Preventable bus accident rate per 100,000 vehicle miles. | Less than 1 per 100,000 miles. | Establish/maintain driver safety recognition program, conduct refresher training for routes/operators as needed. | Operations logs |
| Total safety incidents per 100,000 boardings. | Less than 0.7 per 100,000 boardings. | Identify locations or practices disproportionately contributing to incidents and target awareness campaigns or physical improvements. | |
| Objective 1.3: Provide appropriate amenities in response to service demand. (GO) | | | |

| | | | |
|---|---|---|---|
| Percent of stops with shelters that exceed service standards for such amenities. | 50 percent of stops with over 50 boardings (within City of Charlottesville) have a shelter; 50 percent of stops with over 35 boardings (outside the City) have a shelter. | Monitor and identify locations where additional investment is needed. Proactively engage partners as needed to accommodate upgrades. | Manual counting/field inspections, bus stop/facility database |
| Objective 1.4: Seek continual improvements to overall network design to promote schedule consistency, improve directness of routes, reduce necessity for transfers, and minimize duplicative services. (OE) | | | |
| Percent of city population within one-quarter mile of higher frequency (30 minutes or less) service at least four hours during weekday span. | 70 percent of the city's population. | Conduct GIS analysis and network redesign as needed to balance access with higher quality (speed/directness). | Census/City demographic data, route mapping, operations logs |
| Routes per street segment. | No more than one route on the same street when serving common destinations, except for approaches to the Downtown Transit Station, other urban/transit centers, or park and ride facilities. | Consider route consolidation/frequency adjustments where applicable. | |

| GOAL #2 – Strengthen/pursue regional partnerships to improve access to existing services and plan future enhancements. | | | |
|---|---|---|---|
| **Measure** | **Target** | **Strategy** | **Data Sources** |
| Objective 2.1: Collaborate on efforts that advance regional transit planning and regional initiatives. (CI) | | | |
| Participation in coordination studies. | Identify one coordination pilot project per year. | Develop new/more efficient service delivery options collaboratively. | RTP reporting, in-house data |
| Objective 2.2: Preserve accessibility and service coverage to population areas/ridership markets with heightened need for essential transit service. (OE) | | | |
| Percent of service hours/miles by route category. | Provide a minimum of 30 percent of service (hours/miles) as Lifeline designated routes. | Pursue in conjunction with Objective 1.4 to assure a balance between productivity enhancements and preserving system coverage. | GIS analysis, route mapping, operations logs/summary reporting |





| GOAL #3 – Be a good steward of financial resources and demonstrate accountability. | | | |
|---|---|---|---|
| **Measure** | **Target** | **Strategy** | **Data Sources** |
| Objective 3.1: Contain operating costs by monitoring and adjusting system performance while exploring cost savings measures. (FA) | | | |
| Operating expense growth (non-fuel). | Overall costs not to exceed four percent growth per year. | Monitor cost trends, adjust service accordingly to maintain budgetary constraints. | Financial data, CAD/AVL system, operations logs |
| Operating expense per revenue hour/revenue mile. | Below VA average for all NTD reporting agencies. | Compare with statewide NTD reporting. | |
| Objective 3.2: Maximize and preserve the existing transit system. (OE) | | | |
| State of Good Repair backlog as a percentage of overall budget. | No more than 10 percent of annual budget. | Track items needing attention as indicated in TAM database/reporting. | Maintenance logs, TAM reporting, fleet inventory |
| Miles between service road calls. | 6,500 miles. | Maintain preventative maintenance schedules. | |
| Percent of fleet exceeding lifespan (years/miles). | No more than 20 percent of fleet. | CAT conducts vehicle condition assessments per TAM plan. Adherence to FTA Useful Life Benchmarks (ULB) for vehicle classifications. | |
| Missed trips due to operational failures. | 98 percent or more of all scheduled trips operated. 98 percent of all pull outs dispatched. | Reconcile schedule data with operating data/dispatch logs monthly. | |

| GOAL #4 – Continue the use of innovation and technology to enhance the customer experience and encourage a favorable perception of transit. | | | |
|---|---|---|---|
| **Measure** | **Target** | **Strategy** | **Data Sources** |
| Objective 4.1: Provide more comfortable, more efficient, and safer operation to include a focus on security, cleanliness, and efficient customer service. (OE) | | | |
| **Number of customer complaints per 100,000 boardings by mode.** | Less than 20 verified customer complaints. | Continued quality control for vehicle cleanliness, monitoring and correction of any recurring scheduling issues (see Objective 1.4). | In-house documentation/survey, CAD/AVL system, NTD reporting |

| | | | |
|---|---|---|---|
| **On-time performance.** | Greater than 90 percent. | Monitor and adjust schedules as needed. | |
| **Average number of monthly systemwide NTD Reportable Crimes.** | Less than one. | Adherence to a consolidated System Security Program. | |
| Objective 4.2: Improve communication with customers via technology applications, website enhancements, social media presence and call center information dissemination. (OE) | | | |
| **Uptime of website, smartphone applications.**<br>**Call center wait time.** | 99.9 percent website uptime.<br>Call wait time of 30 seconds. | Monitor applications, refresh content of website daily, push out service alerts. Monitor call logs for JAUNT provided ADA service. | Telephony logs, in-house documentation |
| Objective 4.3: Demonstrate energy efficiency and positive environmental impacts. (ES) | | | |
| **Ratio of vehicle miles / total fuel consumption (gallons).** | No net decrease from previous year. | Monitor annually, investigate fuel conservation practices to achieve overall fleet fuel efficiency. | Manual counting, financial data, maintenance logs, fleet data |

## 2.5. SERVICE DESIGN STANDARDS

Service design standards are critical planning tools to evaluate the effectiveness of existing service and to assure impartiality in service modification decisions. Service standards are typically developed in several categories of service, such as service coverage, passenger convenience, fiscal condition, and passenger comfort. The most effective service standards are straightforward and relatively easy to calculate and understand. Service standards reinforce the performance measurement necessary to meet many of CAT's objectives.

Guidance for setting service/performance standards was provided in the previous CAT TDP. The service design philosophy reflected the Regional Transit Authority (RTA) Plan conducted in 2008. The RTA Plan suggested performance standards that focused on the following categories:

- **Service Coverage** – includes measures that address service availability, service frequency and span of service;
- **Patronage Convenience** – includes measures that address bus operating speeds, bus load factors, bus stop spacing, service dependability (on-time performance, missed trips), and accident ratio;
- **Fiscal Condition** – includes measures that address farebox recovery ratios, service productivity measures (passenger trips per bus-hour), and average fleet age; and
- **Passenger Comfort** – includes measures that address number of passenger shelters, bus stop signage, revenue equipment features and condition, and public information features.

CAT's service design standards have also been informed by the 2013 Transit Study, the City of Charlottesville's P3 Strategic Initiatives, historical agency guidelines, published industry best practices, and application of professional knowledge and judgment.

The initial CAT service design guidelines in place at the beginning of this TDP update have been listed in **Table 2-7**. The status column of this table indicates if these initial standards are to be maintained or modified. Modifications are underlined to identify any proposed changes. Any newly proposed standards developed during this TDP update have been included in this table and identified as "new" in the status column. Each measurable service standard is also associated with the most relevant objective.

**Table 2-7 | Proposed Service Standards**

| SERVICE STANDARD | Status | Objective |
|---|---|---|
| **Span of Service** | | |
| ▪ Core Service: 6:00 AM – 6:00 PM (Core service)<br>▪ Select Routes: 6:00 PM-11:00 PM (no less than 60 min. headway) | Maintain | 1.1 |
| **Frequency of Service** | | |
| ▪ Local Routes – 30 min. peak, 60 min. off-peak<br>▪ Key Routes – 20 min. peak, 30 min. off peak<br>▪ Lifeline Routes – Not to exceed 60 min. | New | 1.1 |
| **Bus Stop Spacing** | | |
| ▪ Local Routes – 800-1,000 feet<br>▪ Key Routes – 1,000-1,300 feet<br>▪ Lifeline Routes – 1,000-1,300 feet | Maintain | 1.3 |
| **Route Directness** | | |
| **Deviations from a direct path from end-to-end of the route shall account for no more than one-quarter of the end-to-end travel time of the route.** | Modified | 1.4 |
| **Total Route Travel Time** | | |
| Maximum of 60 min. one-way | Maintain | 1.4 |
| **Bus Stop Amenities** | | |
| **Bus stops with more than 50 passengers boarding daily should have a bus shelter within the City of Charlottesville.** | Maintain | 1.3 |
| Bus stops with more than 35 passengers boarding outside the City of Charlottesville should **be explored for inclusion of** a bus shelter. | Modified | 1.3 |
| **Load Factor** | | |
| The loading standard should be a maximum average load factor of **1.2** (ratio of total passengers to seated passengers) **during the weekday peak periods, and 1.0 at all other time periods.** | Modified | 1.1 |
| **Dependability** | | |
| **90%** on-time service (0 to 5 minutes late) -- **No trips leaving early.** | Modified | 1.1 |
| **Maintain fewer than 6,500 miles between service road calls.** | New | 3.2 |
| Less than five percent missed trips due to operational failures. | New | 3.2 |
| No more than 10 percent of fleet exceeding the FTA ULB for its vehicle classification. | New | 3.2 |

| SERVICE STANDARD | Status | Objective |
|---|---|---|
| **Farebox Recovery** | | |
| ▪ Review and modify, if possible, services that exhibit less than 60 percent of average.<br>▪ Review and modify, if warranted, services between 60 percent and 80 percent of average. | New | 1.1 |
| **Productivity (Passengers per Revenue Hour/Mile)** | | |
| ▪ Review and modify, if possible, services that exhibit less than 60 percent of average of route type.<br>▪ Review and modify, if warranted, services between 60 percent and 80 percent of average of route type. | New | 1.1 |
| **Cost Effectiveness (Cost per Revenue Hour/Mile)** | | |
| Review and modify, if possible, services that exhibit less than 60 percent of route type average. | New | 1.1 |
| **Safety** | | |
| 0.10 or fewer "reportable incidents" per 100,000 miles, as defined by the National Transit Database. | New | 1.2 |
| **Customer Service** | | |
| Less than 20 customer complaints per 100,000 trips. | New | 4.1 |
| Maximum reservation wait time less than 30 seconds (ADA). | New | 4.1 |
| **Fleet Age (Fixed Route)** | | |
| No more than 20 percent of fleet in excess of the FTA Useful Life Benchmarks (ULB) for the vehicle classification. | New | 3.2 |

## 2.6. MEASURING PERFORMANCE

This section provides additional details on the definition and measurement approaches for some of the service standards presented in Table 2-2. These approaches should be monitored on a recurring basis with adjustments made to avoid any excessively cumbersome data collection and/or measurement practices. Where possible, the agency will leverage technology (operations, maintenance, or financial systems) to streamline measurements. The measurement methodology should be documented in agency policies and procedures and the results should be reported at least quarterly, unless otherwise noted.

### Dependability

The system should be resilient to impacts caused by accidents, breakdowns, traffic delays, driver/vehicle availability, and other factors that could cause a scheduled trip to be missed. Service should also not be curtailed due to the unavailability of either a driver or a vehicle upon initial pull out from the garage or home location for a scheduled pick up. A final component to system reliability is the average distance in service miles between when all vehicles in revenue service incur component failures that prevent starting or finishing a run.

***Measurement Approach***

- Logs shall be maintained and updated daily to accurately reflect vehicle status at the start of the trip. Vehicles unable to begin their assigned trip or that require an additional vehicle to be dispatched due to operability shall be reported as a missed trip.
- An operations/maintenance log shall be maintained to record all service failures of a vehicle in revenue service. This measurement can be calculated each month by dividing the number of revenue miles operated by the number of road calls.

### Passengers Per Revenue Hour

The minimum level of ridership a category of service should attract is expressed as the average number of passengers for each hour of revenue service provided. This measure is an industrywide standard used to assess overall performance and route efficiency. While current CAT guidelines base route-level performance on established percentages of the system average, the use of specific passengers per hour targets for each route category is advised.

***Measurement Approach***

- Look at historic CAT system trends by route category in conjunction with financial data to establish appropriate benchmarks of productivity considering expected financial outcomes of operating that route (ridership vs. coverage). A conservative target starting point can be 80 percent of the historic average to identify the need for potential service adjustments.

### Safety

The National Transit Database (NTD) defines a reportable incident as one in which one or more of the following conditions applies: 1) A fatality; 2) Injuries requiring medical attention away from the scene for one or more persons; or 3) Property damage equal to or exceeding $25,000.

***Measurement Approach***

- CAT should maintain and review quarterly safety logs of all incidents and report this information to NTD. As necessary, CAT should use additional incident forms to record whether incidents were preventable, caused by other drivers, or caused by outside influences. For preventable incidents, the measurement should also identify operators who may need additional training following one or more occurrences.

### Route Directness

Circuitous transit routings can lengthen travel times and decrease the attractiveness of transit as compared to automobile travel. Transit travel times should be no more than 20-25 percent longer than comparable trips by automobile. Generally, bus routes should not serve off-route stops where a substantial number of through riders would be delayed. Service should be provided in both directions on the same street wherever possible to maximize customer convenience and service effectiveness. One-way routes, loops, and "snakes" should be avoided when designing bus routes except where required by street configurations or route terminals, since they increase travel times for through riders.

***Measurement Approach***

- Use either straight distance vs. route distance between two destinations (using Goggle mapping and one-way route miles) or use automobile travel times (via Google Maps) in comparison with scheduled transit times.
- More complicated calculations are possible to determine if the stop boardings at circuitous deviations are worth the inconvenience to through passengers. For CAT, this approach applies primarily to the key routes. Industry practice states that the total additional travel time for all through passengers should not exceed three minutes for each rider boarding or alighting along the deviation. The calculation is:



**Transit Development Plan**
FY 2019 – FY 2028

*Through Passengers. * Additional One-way Travel Time Boarding Passengers*

## Load Factor

Load standards are thresholds of the ratio of passengers on board to seats available. A fully seated passenger load would have a load factor of 1.0. Other considerations include the timing of maximum load and allowing for higher loads at peak periods. Also, CAT and other properties have historically considered the overall length of time the bus operates above a 1.0 load factor, with a desire to limit the maximum time a passenger may be left standing.

***Measurement Approach***

On-board surveys can be conducted in conjunction with NTD sampling. Passenger counters can help target the most crowd-prone times/routes, but observation is also required to determine length of individual standees and other issues that come from excessive loads (such as increased dwell times or pass bys,).





*Page Intentionally Left Blank*


# Chapter 3

## Service and System Evaluation


*Page Intentionally Left Blank*

# 3 Service and System Evaluation

## 3.1. SERVICE OVERVIEW

As described in Chapter 1, CAT provides fixed-route transit service in Charlottesville and parts of the urban ring of Albemarle County. According to the 2015 National Transit Database (the most recent year for which data is available), the CAT serves a service area is 38 square miles, with a population of 87,755 residents. The population density of the service area is 2,673 residents per square mile.

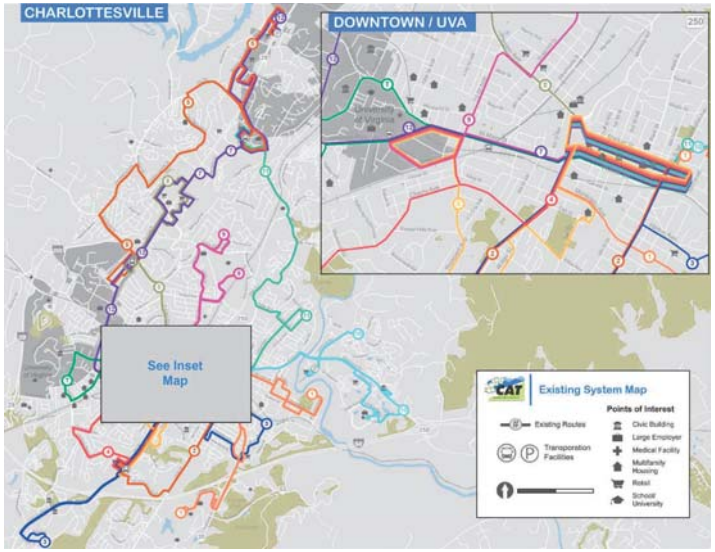
### 3.1.1. Fixed Route Service

**Figure 10**Error! Reference source not found. shows the current CAT system map. The current network consists of 13 fixed-routes, including 12 routes requiring a fare and one free trolley connecting the Downtown area and UVA campus.



Transit Development Plan
FY 2019 – FY 2028

Figure 10 | CAT System Map



**Half** of the 12 weekday routes operate past 11:00 PM.

Headways across the service day range from 15 to 70 minutes. During peak periods, Route 7, Route 4, and the free Trolley provided 23, 20, and 15-minute service frequency, respectively. Four routes provide 30-minute peak-period frequency and four others operate hourly. At 70-minutes, Route 9 is the only route to provide less-than-hourly service frequency during peak periods.

During off-peak periods, Route 9 and Route 4 both operate every 70 minutes. Six routes operate hourly in the off-peak, and two provide 30-minute service. Routes 7 and the Trolley continue to provide 20 and 15-minute service frequency (respectively) during the off-peak.

**Table 3-1** summarizes the weekday level of service provided on each CAT route. All weekday service begins in the 6:00 AM hour, with a variety of end times ranging from just before 7:00 PM to just after midnight. Half of the 12 weekday routes operate past 11:00 PM.

Headways across the service day range from 15 to 70 minutes. During peak periods, Route 7, Route 4, and the free Trolley provided 23, 20, and 15-minute service frequency, respectively. Four routes provide 30-minute peak-period frequency and four others operate hourly. At 70-minutes, Route 9 is the only route to provide less-than-hourly service frequency during peak periods.

During off-peak periods, Route 9 and Route 4 both operate every 70 minutes. Six routes operate hourly in the off-peak, and two provide 30-minute service. Routes 7 and the Trolley continue to provide 20 and 15-minute service frequency (respectively) during the off-peak.

**Table 3-1 | Weekday Level of Service**

| Route | Trips | Span | Headway (Minutes) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | *Early* | *AM Peak* | *Midday* | *PM Peak* | *Evening* | *Late Night* |
| 1 | 17 | 6:15 AM-10:05 PM | -- | 60 | 60 | 60 | 60 | -- |
| 2 | 35 | 6:35 AM-11:42 PM | -- | 30 | 30 | 30 | 30 | 30 |
| 3 | 25 | 6:00 AM-11:45 PM | -- | 30 | 60 | 30 | 60 | 60 |
| 4 | 31 | 6:25 AM-12:03 AM | -- | 23 | 70 | 23 | 70 | 70 |
| 5 | 51 | 6:15 AM-11:00 PM | -- | 30 | 30 | 30 | 30 | -- |
| 6 | 18 | 6:30 AM-12:00 AM | -- | 60 | 60 | 60 | 60 | 60 |
| 7 | 55 | 6:30 AM-11:15 PM | -- | 20 | 20 | 20 | 30 | -- |
| 8 | 19 | 6:30 AM-6:57 PM | -- | 30 | 60 | 30 | -- | -- |
| 9 | 12 | 6:00 AM-11:00 PM | -- | 70 | 70 | 70 | 70 | -- |
| 10 | 17 | 6:30 AM-11:27 PM | -- | 60 | 60 | 60 | 60 | 60 |
| 11 | 16 | 6:00 AM-9:27 PM | -- | 60 | 60 | 60 | 60 | -- |
| 12 | Sunday Service Only | | | | | | | |
| Trolley | 36 | 6:35 AM-11:30 PM | -- | 15 | 15 | 15 | 15 | 15 |



**Transit Development Plan**
FY 2019 – FY 2028

Error! Reference source not found. summarizes Saturday and Sunday service levels for CAT routes. With the exception of Route 1, all weekday routes operate on Saturdays as well. Only Routes 2, 9, 12, and the Trolley provide Sunday service.

Saturday service is generally similar in span and frequency to weekday service, beginning as early as 6:00 AM and ending as late as just after midnight. Saturday service frequency ranges from 15 minutes to 70 minutes. Sunday service begins as early as 7:35 AM and ends as late as 5:47 PM. Frequencies on Sunday range from every 25 to every 70 minutes

.

**Table 3-2 | Weekend Level of Service**

| Route | Trips | Span | | Base Headway (minutes) | |
|---|---|---|---|---|---|
| | | *Saturday* | *Sunday* | *Saturday* | *Sunday* |
| 1 | Weekday Service Only | | | | |
| 2 | 55 | 6:35 AM-11:42 PM | 7:35 AM-5:42 PM | 30 | 30 |
| 3 | 18 | 6:00 AM-11:45 PM | -- | 60 | -- |
| 4 | 17 | 6:25 AM-12:03 AM | -- | 70 | -- |
| 5 | 51 | 6:15 AM-11:00 PM | -- | 30 | -- |
| 6 | 18 | 6:30 AM-12:00 AM | -- | 60 | -- |
| 7 | 55 | 6:30 AM-11:15 PM | -- | 20 | -- |
| 8 | 12 | 6:30 AM-6:57 PM | -- | 60 | -- |
| 9[1] | 12 | 6:00 AM-11:00 PM | 10:40 AM-5:40 PM | 70 | 70 |
| 10 | 17 | 6:30 AM-11:27 PM | -- | 60 | -- |
| 11 | 11 | 6:00 AM-9:27 PM | -- | 60 | -- |
| 12 | 10 | -- | 7:45 AM-5:45 PM | -- | 60 |
| Trolley | 53 | 6:35 AM-11:30 PM | 8:00 AM-5:47 PM | 15 | 25 |

## Operating Statistics

### *Vehicle Fleet*

As discussed in **Chapter 1**, CAT's fleet of transit vehicles consists of 36 vehicles, including 17 35-foot coaches, 11 30-foot coaches, four 26-foot coaches, three 35-foot replica trolleys, and one 30-foot replica trolley.

Six CAT routes require just one vehicle during peak-period service; three require two vehicles. Route 5 requires three vehicles to provide 30-minute service and Route 7 requires five vehicles for 20-minute service. Overall, CAT requires 23 vehicles during peak-period operations. **Table 3-3** lists the number of peak vehicles required on weekdays for each CAT route.

**Table 3-3 | Weekday Peak Vehicle Requirement**

| Route | Peak Vehicle Requirement |
|---|---|
| 1 | 1 |
| 2 | 1 |
| 3 | 2 |

[1] Route 9 began providing revenue service on Sundays as of August 5, 2017. At the time of publication, Sunday operating statistics were not available for this route.

| Route | Peak Vehicle Requirement |
|---|---|
| 4 | 2 |
| 5 | 3 |
| 6 | 1 |
| 7 | 5 |
| 8 | 2 |
| 9 | 1 |
| 10 | 1 |
| 11 | 1 |
| 12 | N/A |
| Trolley | 3 |
| **System Total** | **23** |

***Operating Costs***

In FY2017, CAT expended $7.5 million to operate fixed-route service. On weekdays and Saturdays, Route 7 and the Trolley (CAT's most frequent routes) are the most expensive services to operate. CAT reports that Routes 2 and 9, which each require just one vehicle are the least expensive services to operate. On Sundays, Routes 12 and 2 are respectively the most and least expensive services to operate. **Table 3-4** summarizes annual operating expenses by route and day type.

**Table 3-4 | Annual Operating Cost**

| Route | Annual Operating Cost | | |
|---|---|---|---|
| | *Weekday* | *Saturday* | *Sunday* |
| 1 | $283,026 | N/A | N/A |
| 2 | $231,407 | $45,562 | $28,126 |
| 3 | $424,152 | $64,116 | N/A |
| 4 | $530,190 | $64,116 | N/A |
| 5 | $866,364 | $174,564 | N/A |
| 6 | $318,114 | $64,116 | N/A |
| 7 | $1,414,098 | $303,732 | N/A |
| 8 | $335,916 | $42,744 | N/A |
| 9 | $212,076 | $42,744 | Not Available |
| 10 | $300,570 | $60,580 | N/A |
| 11 | $273,996 | $40,976 | N/A |
| 12 | N/A | N/A | $79,145 |
| Trolley | $1,069,410 | $215,540 | $52,745 |
| System Total | **$6,259,319** | **$1,118,790** | **$160,016** |

***Revenue and Non-Revenue Hours***

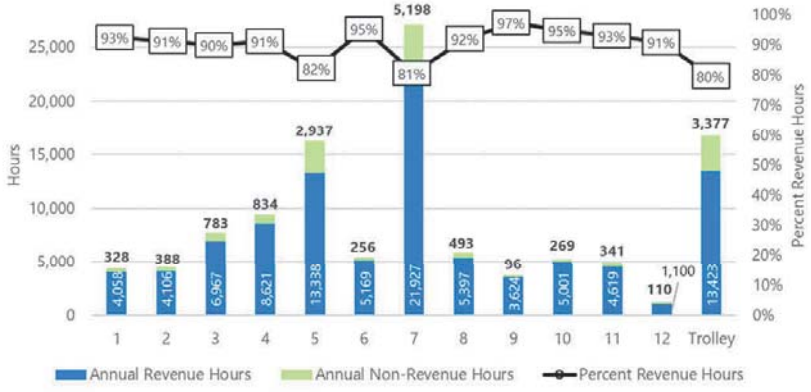
A vehicle is considered in revenue service when operating on a route and available to passenger. Non-revenue service generally refers to buses traveling to or from a garage without passengers. To save valuable funds and provide efficient service, agencies try to maximize time and miles spent in revenue service.

In FY2017, CAT logged over 92,000 total vehicle hours, approximately 86 percent of which were attributed to revenue service. **Figure 11** shows annual total vehicle revenue and non-revenue hours, as well as the percentage of vehicle hours operated in revenue service. Route 7 operates the greatest number of revenue hours per year, but also has the greatest number on non-revenue hours. This is most directly a function of the number of vehicles operating on the route, as each vehicle brings with it a number of non-revenue hours associated with daily travel to and from the CAT garage before and after revenue service.





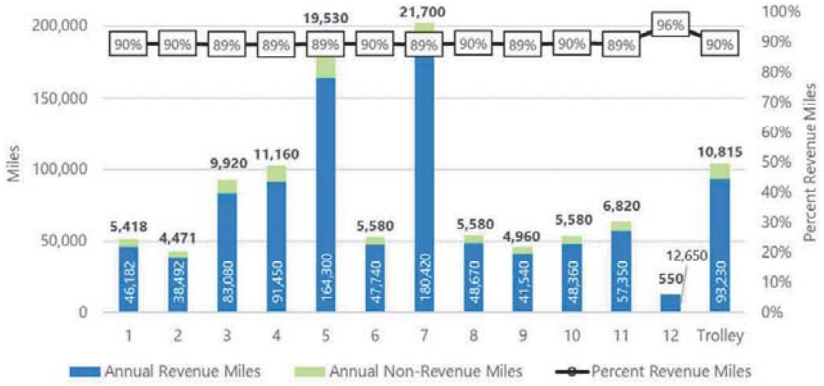
**Figure 11 | Annual Revenue and Non-Revenue Hours**




***Revenue and Non-Revenue Miles***

In FY2017, CAT logged over 878,000 total vehicle miles, approximately 89 percent of which were attributed to revenue service. Error! Reference source not found.**Figure 12** shows total annual revenue and non-revenue miles along with the percentage of annual miles operated in revenue service. For all CAT routes, the percentage of miles spent in revenue service hovers around 89 to 90 percent, reaching a high of 96 percent on Route 12, which also operates the fewest total number of revenue miles. As with revenue hours, Route 7 ranks highest in terms of total revenue miles. Route 5 and the Trolley respectively rank second and third in total revenue miles.

Figure 12 | Annual Revenue and Non-Revenue Miles




### 3.1.2. Paratransit Service

CAT's ADA-mandated complementary paratransit service is provided by Jefferson Area United Transportation (JAUNT) through a pass-through funding arrangement. The paratransit service is available to qualified individuals who are unable to access fixed CAT fixed-route service due to physical or cognitive disabilities. Paratransit service is available within a ¾-mile buffer of each fixed-route, and fares are $1.50 for each one-way trip.

JAUNT ADA paratransit service is available from 6:30 AM to 12:00 AM Mondays through Saturdays and from 9:00 AM to 5:00 PM on Sundays (with Sunday service restricted to areas served by the Trolley and Route 7). During Fiscal Year 2017, JAUNT provided 143,061 total ADA paratransit trips, accounting for 52,410 revenue hours.

## 3.2. SYSTEM ANALYSIS

In the following system analysis, weekday ridership and service productivity data is derived from data collected during the week of September 11, 2017.

### 3.2.1. Ridership

#### Annual Ridership

In FY2017, CAT provided 2,189,612 total unlinked passenger trips. **Figure 13** summarizes annual ridership by route and by service day type. Overall, the free Trolley carried the most passengers, with 737,714 unlinked trips for the year. Route 7 was second with 582,307 total riders in FY2017. The lowest annual ridership was recorded on Route 12, which recorded 16,073 unlinked trips for the year.

#### Average Daily Ridership

On average, CAT carried over 8,100 riders on a typical weekday in FY2017. Typical Saturdays saw over 4,600 trips, and nearly 1,300 passengers rode CAT routes on a typical Sunday.

The free Trolley transports the greatest number of passengers (2,838) on an average weekday; Route 7 ranks second with 2,187 passenger trips. With just 126 weekday passenger trips, Route 9 carries the fewest average weekday riders. **Figure 14** shows that Saturday ridership rankings are similar to weekdays, but with lower total volumes. Of the routes that





operate on Sundays, the Trolley has the highest daily ridership (707 passenger trips), and Route 9 has the lowest (18 passenger trips).

#### Ridership by Trip

On average, CAT carries over 11.5 riders per trip on weekdays, 7.8 riders per Saturdays, and 14.9 riders per trip on Sundays, during which only four routes operate. On weekdays and Saturdays, the free Trolley attracts the highest number of riders per trip (78.8 and 36.0, respectively). The most productive route on Sundays is Route 12, with 46.7 passengers per trip. Route 2 carries the fewest passengers per trip on Saturdays (4.5); Route 9 carries the fewest on Sundays (1.5). **Figure 15** summarizes the average ridership per trip for all routes on weekdays and weekends.

#### Ridership by Stop

**Figure 16** shows a heatmap of ridership activity throughout the CAT network. Ridership activity is highest in downtown Charlottesville and in the vicinity of UVA. In addition, the US 29 corridor features several high-ridership destinations including the Barracks Road Shopping Center, Seminole Square, The Shops at Stonefield, Fashion Square Mall, and Walmart. The highest ridership location outside of downtown/UVA and the Route 29 corridor is at 5th Street SW, near Willoughby Square and 5th Street Station.

Figure 13 | Annual Ridership

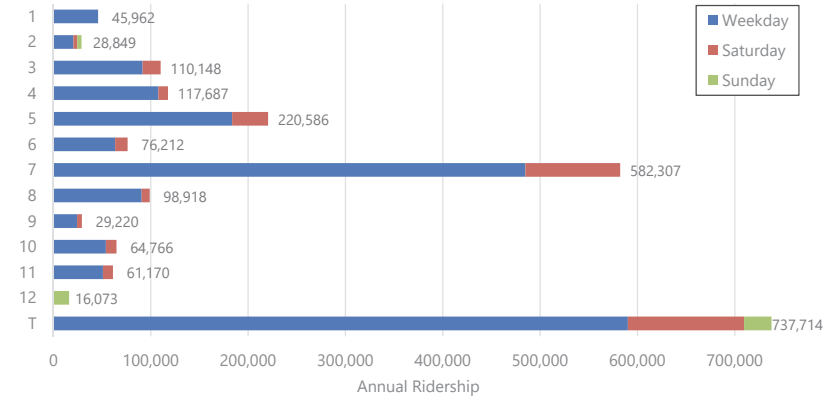
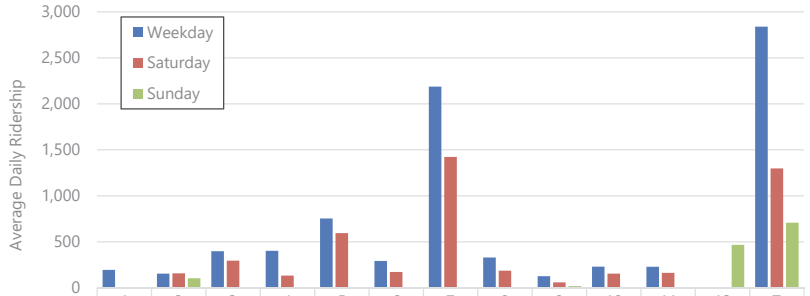
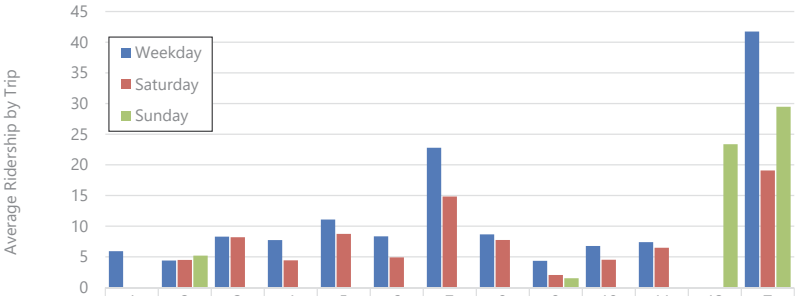


**Figure 14 | Average Daily Ridership**




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Weekday | 195 | 154 | 398 | 402 | 753 | 292 | 2,187 | 329 | 126 | 230 | 229 | 0 | 2,838 |
| Saturday | 0 | 157 | 295 | 133 | 594 | 172 | 1,423 | 186 | 59 | 154 | 162 | 0 | 1,297 |
| Sunday | 0 | 104 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 467 | 707 |

**Figure 15 | Average Ridership by Trip**

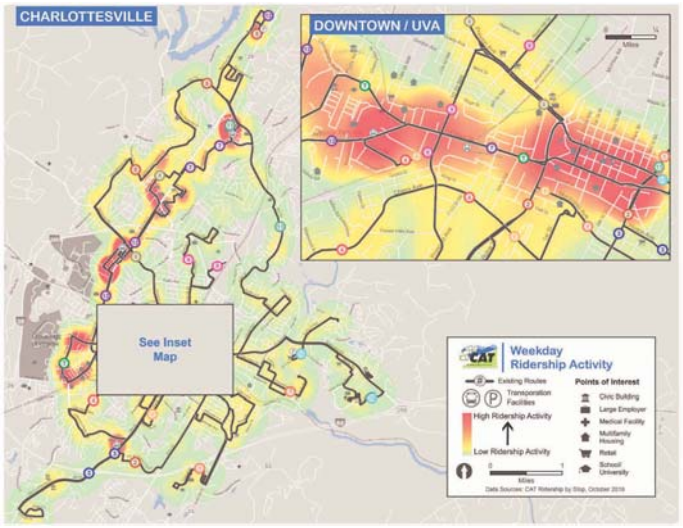



| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Weekday | 5.9 | 4.4 | 8.3 | 7.7 | 11.1 | 8.3 | 22.8 | 8.7 | 4.3 | 6.8 | 7.4 | 0.0 | 41.7 |
| Saturday | 0.0 | 4.5 | 8.2 | 4.4 | 8.7 | 4.9 | 14.8 | 7.8 | 2.0 | 4.5 | 6.5 | 0.0 | 19.1 |
| Sunday | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 23.4 | 29.5 |





**Figure 16 | Average Weekday Ridership Activity**



### 3.2.2. Service Effectiveness

Service effectiveness, expressed in terms of passengers per revenue hour and passengers per revenue mile, is essentially a measure of CAT's return on investment. Each CAT route requires an investment of resources (quantified by revenue hours and revenue miles). The relative success of each investment is measured by the ridership that each route generates.

#### Passengers per Revenue Hour

On average, CAT carries 20.8 passengers per revenue hour on weekdays, 12.8 passengers per revenue hour on Saturdays, and 25.1 passengers per revenue hour on Sundays. **Figure 17** shows the ridership per revenue hour of each CAT route by service day type. As with other ridership metrics, the free Trolley performs best in terms of weekday, Saturday, and Sunday passengers per revenue hour (70.5, 32.2, and 41.6, respectively). On weekdays, Route 2 carries the fewest number of passengers per revenue hour (9.6). On Saturdays, this distinction belongs to Route 4 (4.8), and on Sundays, Route 2 carries a system-low 10.4 passengers per hour. No data is shown for Route 9 on Sunday because it only began providing revenue service on August 5, 2017, and service effectiveness data was not yet available as this document was being prepared.

A new service standard proposed in **Chapter 2** recommends that CAT:

- review and modify, if possible, services that exhibit less than 60 percent of the average passengers per revenue hour/per revenue mile values; and
- review and modify, if warranted, services that exhibit between 60 percent and 80 percent of the average values for these metrics.

**Chapter 2** also recommends assessing ridership per revenue hour and other service effectiveness metrics by service category, so that routes are compared against peers with similar service characteristics, rather than against routes with very different levels of service. While CAT does designate three service types - local, key, and lifeline – routes in each category do not share similar service characteristics, other than days of service. For example, Route 9 and Route 7 are both considered key routes, but the former operates every 70 minutes all day, while the later operates every 20 minutes. Thus, in this chapter, the performance of all routes is analyzed as one group. If CAT revises its service categories in the future to group routes with similar service characteristics, similar analyses should be done by service category, rather than system-wide.

On weekdays, Routes 4, 10, and 11 fall between 60 and 80 percent of the system-wide average for passengers per hour (between 12.5 and 16.7); Routes 1, 2, and 9 fall below 60 percent of the average (below 12.5). On Saturdays, Routes 2 and 10 fall between 60 and 80 percent of the average (between 7.7 and 10.2); Routes 4 and 9 fall below 60 percent (below 7.7). Notably, the average value for this metric is driven substantially upward by the free Trolley, CAT's highest ridership service.

#### Passengers per Revenue Mile

The free Trolley carries the greatest number of passengers per revenue mile on weekdays (10.0), Saturdays (4.6), and Sundays (7.1). On weekdays and Saturdays, Route 9 reports the lowest number of passengers per mile (0.9 and 0.4, respectively); on Sundays, Route 12 carries a system-low 2.0 passengers per mile. **Figure 18** shows passengers per revenue mile by day type.

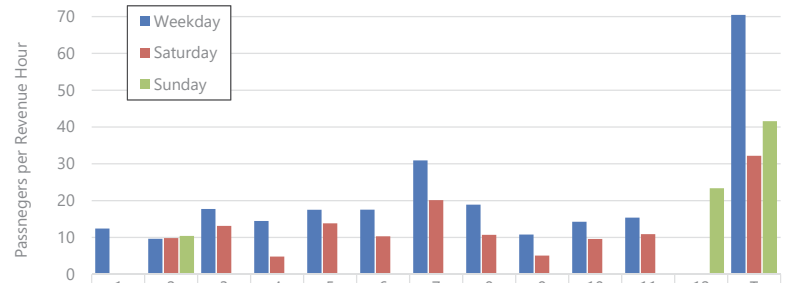
If assessing the current CAT network by the proposed service standards discussed in Chapter 2, Routes 3, 5, and 10 fall between 60 and 80 percent of the system-wide average for weekday passengers per revenue mile (between 1.4 and 1.9); Routes 1, 2, 4, 9, and 11 fall below 60 percent of the weekday average (below 1.4). On Saturdays, Routes 2, 3, 10, and 11 fall between





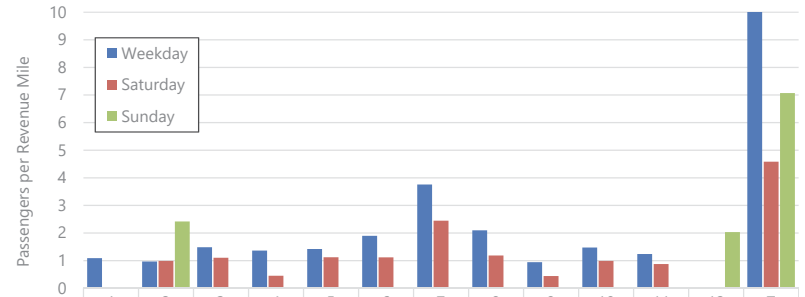
60 and 80 percent of the average (between 0.8 and 1.1) for that service day; Routes 4 and 9 fall below 60 percent of the Saturday average (below 0.8). On Sundays, Route 12 carries a system-low of two passengers per revenue mile. As is the case with passengers per revenue hour, the average value for this metric is raised significantly by the free Trolley, CAT's highest ridership service.

**Figure 17 | Passengers per Revenue Hour**




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Weekday | 12.4 | 9.6 | 17.7 | 14.5 | 17.5 | 17.5 | 30.9 | 18.9 | 10.8 | 14.3 | 15.4 | 0.0 | 70.5 |
| Saturday | 0.0 | 9.8 | 13.1 | 4.8 | 13.8 | 10.3 | 20.1 | 10.7 | 5.0 | 9.6 | 10.9 | 0.0 | 32.2 |
| Sunday | 0.0 | 10.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.4 | 41.6 |

**Figure 18 | Passengers per Revenue Mile**




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Weekday | 1.1 | 1.0 | 1.5 | 1.4 | 1.4 | 1.9 | 3.8 | 2.1 | 0.9 | 1.5 | 1.2 | 0.0 | 10.0 |
| Saturday | 0.0 | 1.0 | 1.1 | 0.5 | 1.1 | 1.1 | 2.4 | 1.2 | 0.4 | 1.0 | 0.9 | 0.0 | 4.6 |
| Sunday | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 7.1 |

## 3.2.3. Cost Efficiency

### Farebox Recovery

During FY2017, the CAT system generated $457,391 in farebox revenue. $152,367 of this revenue came from pass sales, while $305,024 came from on-board fare purchases. **Figure 19** summarizes farebox revenue on CAT services during FY2017. On weekdays and Saturdays, Routes 7, 5, and 3 generate the highest fare revenue among CAT routes. On Sundays, Route 12 is the top fare generator.

The cost recovery ratio statistic measures the percentage of operating expenses recovered by fare revenue, determining a service's cost effectiveness. In FY2017, the overall fixed-route cost recovery ratio for CAT was 6.16 percent.

Newly-proposed service standards in **Chapter 2** call for CAT to review and modify, if possible, services that exhibit less than 60 percent of the average farebox recovery level, and to review and modify, if warranted, services that exhibit between 60 and 80 percent of the average for this metric. On weekdays, the average farebox recovery ratio is 4.0 percent. Excluding the Trolley, for which a fare is not charged, on weekdays, Routes 2, 4, and 9 fall between 60 and 80 percent of the average farebox recovery (between 2.4 and 3.2 percent); no routes that charge a fare fall below 60 percent of the average (below 2.4 percent). On Saturdays, Routes 2 and 4 fall between 60 and 80 percent of the average (between 2.0 and 2.7 percent); Route 9 falls below 60 percent of the average (below 2.0 percent).

### Net Cost per Passenger

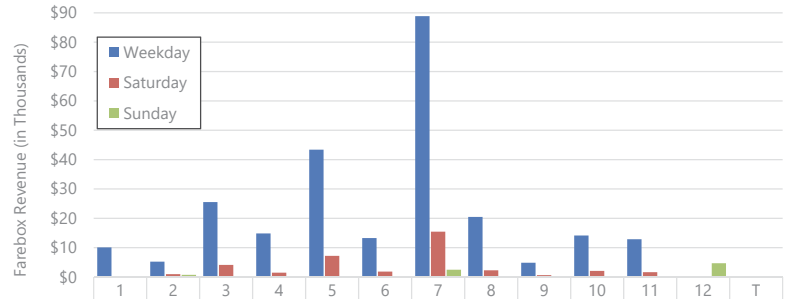
Net cost per passenger is calculated by subtracting annual fare revenue from annual operating costs, and subsequently dividing that total by the number of unlinked passenger trips. The average subsidy per passenger can offer further insight into the cost effectiveness of a service. shows net cost per passenger over FY2017. Over this fiscal year, CAT averaged a $5.20 net cost per passenger on weekdays, $5.23 on Saturdays, and $4.26 on Sundays.

On weekdays and Saturdays, Routes 2 and 9 require the greatest subsidy per passenger. Route 2 is the least cost-effective service on Sundays as well. The Trolley and Route 7 require the lowest subsidy per passenger trip. Although the Trolley is a free service, CAT passengers have the ability to purchase passes on-board Trolley vehicles. This purchase appears as farebox revenue for the service.



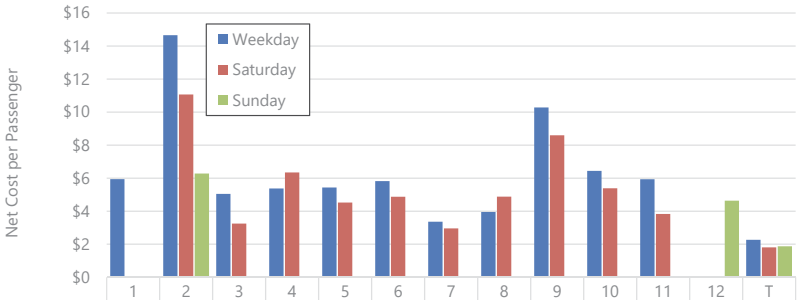


**Figure 19 | Annual Farebox Revenue (in Thousands of Dollars)**




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Weekday | $10.07 | $5.21 | $25.53 | $14.85 | $43.36 | $13.28 | $88.87 | $20.48 | $4.85 | $14.15 | $12.87 | $0.00 | $0.29 |
| Saturday | $0.00 | $0.99 | $4.13 | $1.49 | $7.22 | $1.84 | $15.43 | $2.27 | $0.63 | $2.09 | $1.65 | $0.00 | $0.04 |
| Sunday | $0.00 | $0.72 | $0.00 | $0.00 | $0.00 | $0.00 | $2.48 | $0.00 | $0.00 | $0.00 | $0.00 | $4.68 | $0.00 |

**Figure 20 | Net Cost per Passenger**




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Weekday | $5.94 | $14.66 | $5.05 | $5.37 | $5.43 | $5.82 | $3.36 | $3.95 | $10.28 | $6.44 | $5.93 | $0.00 | $2.27 |
| Saturday | $0.00 | $11.07 | $3.25 | $6.34 | $4.52 | $4.87 | $2.96 | $4.88 | $8.59 | $5.38 | $3.83 | $0.00 | $1.80 |
| Sunday | $0.00 | $6.28 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $4.63 | $1.87 |

## 3.2.4. Service Quality

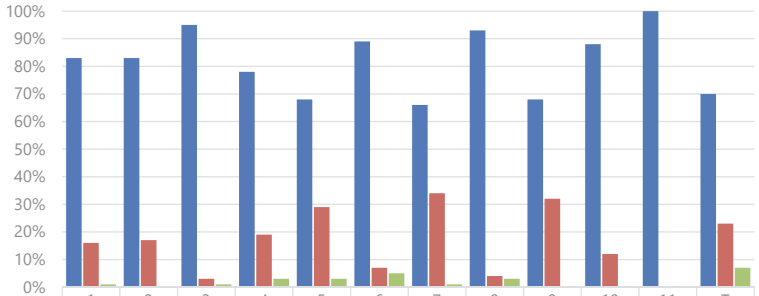
### On-Time Performance

CAT defines a bus to be "on-time" if it serves a timepoint within a six-minute window of the scheduled service time. Buses can arrive up to one minute early and up to five minutes late and still be considered on-time. While the agency has historically strived to achieve an on-time performance rate of 85

percent, in **Chapter 2**, a modified service standard of 90 percent on-time service is proposed. System-wide, in FY2017, CAT routes averaged on-time performance rates of 82 percent on weekdays, 92 percent on Saturdays, and 97 percent on Sundays.

**Figure 21** summarizes weekday on-time performance by route based on the September 2017 ride check. Route 11 is the only route to report a 100 percent on-time rate; Routes 3 (95 percent) and 8 (93 percent) rank just below. With 66 percent of trips arriving on-time and 34 percent arriving early, Route 7, one of CAT's busiest routes, has the lowest on-time performance rate. Three routes – Route 3, Route 8, and Route 11 – meet the 90 percent on-time performance service standard proposed in **Chapter 2**.

**Figure 21 | Weekday On-Time Performance**




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| On-Time | 83% | 83% | 95% | 78% | 68% | 89% | 66% | 93% | 68% | 88% | 100% | 70% |
| Early | 16% | 17% | 3% | 19% | 29% | 7% | 34% | 4% | 32% | 12% | 0% | 23% |
| Late | 1% | 0% | 1% | 3% | 3% | 5% | 1% | 3% | 0% | 0% | 0% | 7% |

### Overloaded Trips

The seating capacity of the 35-foot buses assigned to most CAT routes is 32 passengers.





**Table** 3-5 summarizes trips on which the maximum passenger load exceeded this capacity during the September 2017 ride check period. Overloaded trips occurred on two routes and 14 total trips: Route 7 in the northbound direction (three trips); and the Trolley (11 trips). As noted in **Chapter 2**, the CAT modified load factor service standard suggests a load factor of 1.2 during weekday peak periods and a load factor of 1.0 during all other periods. Trips with maximum loads exceeding 38 passengers (approximately 32 multiplied by a factor of 1.2) are marked in **bold** in the table below.

**Table 3-5 | Overloaded Trips**

| Route | Trip Time | Max Load |
|---|---|---|
| 7 (NB) | 4:15 PM | **46** |
| | 4:35 PM | 33 |
| | 4:55 PM | 36 |
| Trolley | 8:20 AM | **40** |
| | 8:35 AM | **50** |
| | 9:20 AM | **54** |
| | 10:05 AM | **50** |
| | 10:20 AM | **45** |
| | 4:50 PM | 35 |
| | 5:35 PM | 35 |
| | 6:35 PM | **53** |
| | 7:20 PM | **36** |
| | 10:35 PM | **44** |
| | 11:20 PM | **51** |

## 3.3. TREND ANALYSIS

This section provides a three-year (Fiscal Year 2015 through Fiscal Year 2017) retrospective analysis of system-wide CAT fixed-route service based on the following metrics:

- Annual ridership;
- Passengers per revenue hour;
- Passengers per revenue mile;
- Annual Operating Cost;
- Passenger Revenue; and
- Net Cost per Passenger.

From an efficiency and productivity standpoint, this assessment sheds light on how CAT services have performed over time.

### 3.3.1. Service Productivity

#### Annual Ridership

Annual ridership figures provide a baseline on which to track the overall usage of a system. **Table 3-6** shows annual CAT ridership from FY2015 to FY2017. Over the three-year period, ridership slowly, but steadily, decreased, dropping overall by 10 percent.

**Table 3-6 | Annual Ridership, FY15-FY17**

| Fiscal Year | Annual Ridership |
|---|---|
| 2015 | 2,423,740 |
| 2016 | 2,356,730 |
| 2017 | 2,189,612 |
| % Change | **-10%** |

#### Passengers per Revenue Hour



**Transit Development Plan**
FY 2019 – FY 2028

**Table** 3-7 summarizes passengers per revenue hour on CAT fixed-route service from FY2015 to FY2017. Calculated by dividing annual unlinked passenger trips by annual vehicle revenue hours, this metric measures how productively CAT vehicles spend their time in service. Passengers per revenue hour dropped seven percent over the analysis period, from 23.18 to 21.52. This decline can be attributed to decreases in both total unlinked passenger trips (by 10 percent) and vehicle revenue hours (by three percent) from FY2015 to FY2017.

Table 3-7 | Passengers per Revenue Hour, FY15-FY17

| Fiscal Year | Passengers per Revenue Hour |
|---|---|
| 2015 | 23.18 |
| 2016 | 22.84 |
| 2017 | 21.52 |
| % Change | **-7%** |

### Passengers per Revenue Mile

**Table 3-8** summarizes passengers per revenue mile on CAT fixed route service from FY2015 to FY2017. This metric, calculated by dividing annual unlinked passenger trips by annual vehicle revenue miles, measures how productively CAT vehicles spend their distance (rather than their time) in service. Passengers per revenue mile decreased by five percent – from 2.32 to 2.20 – over the analysis period, or by slightly less than the percentage decrease associated with passengers per revenue hour. Coupled with an overall decrease in ridership, CAT's passengers per revenue mile decreased by five percent over the three-year timeframe.

Table 3-8 | Passengers per Revenue Mile, FY15-FY17

| Fiscal Year | Passengers per Revenue Mile |
|---|---|
| 2015 | 2.32 |
| 2016 | 2.25 |
| 2017 | 2.20 |
| % Change | **-5%** |

## 3.3.2. Cost Efficiency

### Annual Operating Cost

From FY2015 to FY2016, costs to operate CAT services decreased slightly. However, over the succeeding fiscal year, costs increased, resulting in a three percent rise in annual operating costs over the entire three-year period. **Table 3-9** reports on CAT's operating costs from FY2015 through FY 2017.

Table 3-9 | Annual Operating Costs, FY15-FY17

| Fiscal Year | Annual Operating Costs |
|---|---|
| 2015 | $7,188,651 |
| 2016 | $6,998,445 |
| 2017 | $7,421,700 |
| % Change | **3%** |

### Passenger Revenue

**Table 3-10** summarizes revenue received from CAT passengers – from both pass sales and on-board fare purchases – over the three-year analysis period. During this timeframe, pass sales decreased by 16 percent, while farebox revenue decreased by 17 percent.

Table 3-10 | Passenger Revenue, FY15-FY17

| Fiscal Year | Pass Sales | Farebox |
|---|---|---|
| 2015 | $182,126 | $369,437 |
| 2016 | $163,900 | $340,311 |
| 2017 | $ 152,367 | $305,024 |
| % Change | **-16%** | **-17%** |

### Net Cost per Passenger

Net cost per passenger, also known as subsidy per passenger and reported as a dollar value, is calculated by subtracting annual fare revenue from annual operating costs, and subsequently dividing that total by the number of unlinked passenger trips. Assessing the average subsidy per passenger trip provides an indication of the cost effectiveness of a service in relation to the local, state, federal, or dedicated operating funding devoted per passenger.

**Table 3-11** reports on CAT's system-wide net cost per passenger from FY2015 through FY2017. CAT's net cost per passenger rose from $2.74 to $3.18, or by 16 percent, during the analysis period. This metric increased most significantly during the latter two fiscal years, a period over which total ridership dropped by seven percent. Along with this decrease in unlinked trips, the system saw a nine percent drop





in fare revenue coupled with a six percent rise in operating costs. Together, these factors accounted for a significant overall increase in cost per passenger. In addition, from FY2015 to FY2017, operating costs rose by three percent overall, and fare revenue dropped by 17 percent overall.

Table 3-11 | Net Cost per Passenger, FY15-FY17

| Fiscal Year | Net Cost per Passenger |
|---|---|
| 2015 | $2.74 |
| 2016 | $2.76 |
| 2017 | $3.18 |
| % Change | **16%** |

## 3.3.3. Trend Analysis Conclusion

As CAT ridership decreased from FY2015 to FY2017, so did total fare revenue, revenue hours, and revenue miles. Over this same time frame, operating costs increased, causing CAT's cost-effectiveness to decrease.

While the exact sources of these trends are not discernable, a contextual look at CAT service changes sheds some light on possible explanations. In 2013, prior to the analysis period, CAT completed the Charlottesville Transit Study to improve the effectiveness and quality of its services. Recommended actions sought to make service more consistent, improve reliability and directness, consolidate duplicative service, expand the reach of service, adjust service frequencies to match demand, and develop a new transfer hub at UVA Hospital, from August 2014 to January 2015, CAT implemented a series of changes that included route realignments, discontinuances, and service hour extensions.

From FY2014 to FY2015, overall ridership increased by 6.5 percent, indicating a positive response to the changes. In FY2016, CAT implemented Route 2 to serve the 5th Street Station shopping center. The agency also realigned and extended Route 7, designating Sunday service on the route as Route 12.

It is possible that changes to Routes 2 and 7 may not have attracted originally projected ridership. In addition, the extension of Route 7 may have contributed to its relatively poor on-time performance, which may have alienated some passengers. Additionally, the three-year analysis period was one of declining transit ridership nation-wide. This national trend has been attributed to a prolonged period of low gas prices coupled with the growing popularity of alternative mobility options such as ride-hailing apps (Uber, Lyft, etc.) and cycling.

# 3.4. TRANSIT POTENTIAL ANALYSIS

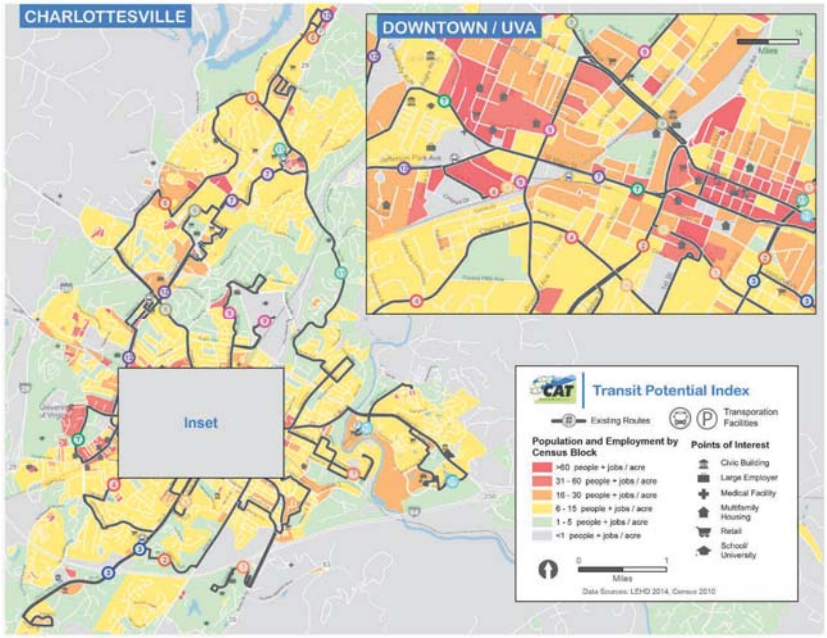
Fixed-route transit service is generally most effective in areas with high concentrations of residents and/or businesses. Combining both residential and employment densities shows the locations with the highest potential to support fixed-route transit service and generate strong transit ridership

**Figure 22** shows the transit potential, by Census block, of the CAT service area. As a general rule, a density of more than five people and/or jobs per acre is needed to support a base level (service every 60 minutes) of fixed-route transit service. Areas with higher density can support more robust service, and areas with lower densities may be more suitable for other service types such as demand response service.

Overall, CAT service appears to operate in corridors that are well-suited for transit service based on population and employment density. Route 11 serves a stretch of Rio Road that appears to be very low-density. However, this corridor has seen new residential development in recent years that is not yet reflected in the Census-based population data. In addition, there are plans for a large new Senior Center to be built in the Belvedere neighborhood near East Rio Road. On the southern end of the service area, Route 1 appears to serve a low-density area south of I-64, but this is a large Census block that includes Piedmont Virginia Community College. The size of the

block and the greenspace surrounding the college dilutes the employment density of the area, but community colleges are key destinations for transit riders.

**Figure 22 | Charlottesville Transit Potential**




## 3.5. TRANSIT PROPENSITY ANALYSIS

Above all else, public transportation is a mobility tool. Certain population subgroups have a higher likelihood or propensity to use transit as their primary means of local and regional transportation than the population in general. In addition, certain environmental factors such as congestion and parking cost/availability cause commuters to seek out alternatives to driving alone. The Transit Propensity analysis considers the following factors to determine where transit trips are relatively more and less likely to occur:

- Where transit-oriented population trips originate (Transit-Oriented Populations Index);
- Where commuter trips originate (Commuter Populations Index);
- Where workplace destinations are located (Work Destinations Index); and
- Where non-work destinations are located (Non-Work Destinations Index).





### 3.5.1. Transit-Oriented Populations Index

The transit-oriented population index considers six categories: population, age, households, income, vehicle ownership, and disability status. Areas with higher populations or household densities, as well as higher concentrations of seniors, youth, persons living in poverty, households with reduced vehicle access, and disabled persons, will have a greater propensity toward transit ridership. This index utilizes the following equally weighted inputs:

- Population (where all residents live and where minority residents live);
- Age (where youth and senior populations live);
- Number of households;
- Income (number of residents living in poverty);
- Vehicle ownership (number of zero- or one-car households); and
- Number of disabled residents.

**Figure 23** shows the transit-oriented population across the CAT service area. High transit-oriented population areas include:

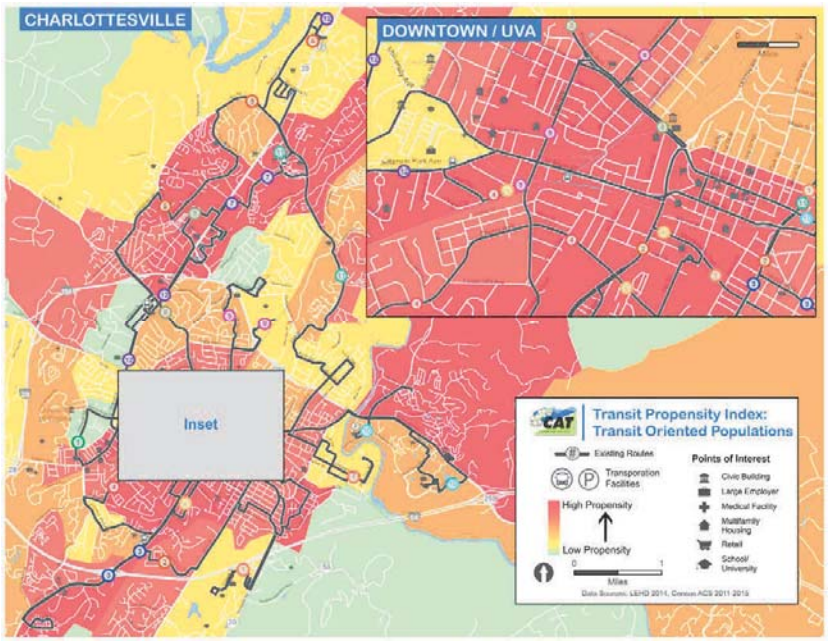
- Downtown (served by Routes 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, and the Trolley);
- The Stony Point Road corridor and north of Richmond Road (served by Route 10);
- The 5th Street Corridor, just south of Downtown (served by Routes 2, 3, 4, and 6);
- Southeast of Old Lynchburg Road (served by Route 3); and
- The Seminole Trail (Route 29) corridor, north of Route 250 (served by Routes 7, 8, 11, and 12).

Areas with a lower transit-oriented population index include:

- North of Grove Road and Dairy Route (served by Route 9);
- West of Emmet Street (Route 29), south of Route 250 (served by Routes 7 and 12); and

East of Scottsville Road, south of I-64 (served by Route 1)

Figure 23 | Transit Oriented Populations Index




### 3.5.2. Commuter Populations Index

The commuter population index consists of two categories: labor force and non-single occupant vehicle (SOV) commute mode. Employed persons, commuters, and transit commuters all contribute to this index, which is indicative of where traditional peak hour commuters live, and where those that currently use non-automobile modes to commute live.

**Figure 24** shows the commuter populations index across the CAT service area. Areas with a high commuter index within the service area tend to have both a higher employed population and a higher percentage of residents commuting by transit. These include:

- Downtown, surrounding the intersection of Main Street and 10th Street (served by Routes 4, 6, 7, 9, 12, and the Trolley);
- The Jefferson Park Avenue corridor (served by the Trolley);
- South of Cherry Avenue and Ridge Street (served by Routes 4 and 6);
- The Seminole Trail (Route 29) corridor, north of Route 250 (served by Routes 7, 8, 11, and 12); and
- Surrounding the I-64 and Old Lynchburg Road corridors (served by Route 3).

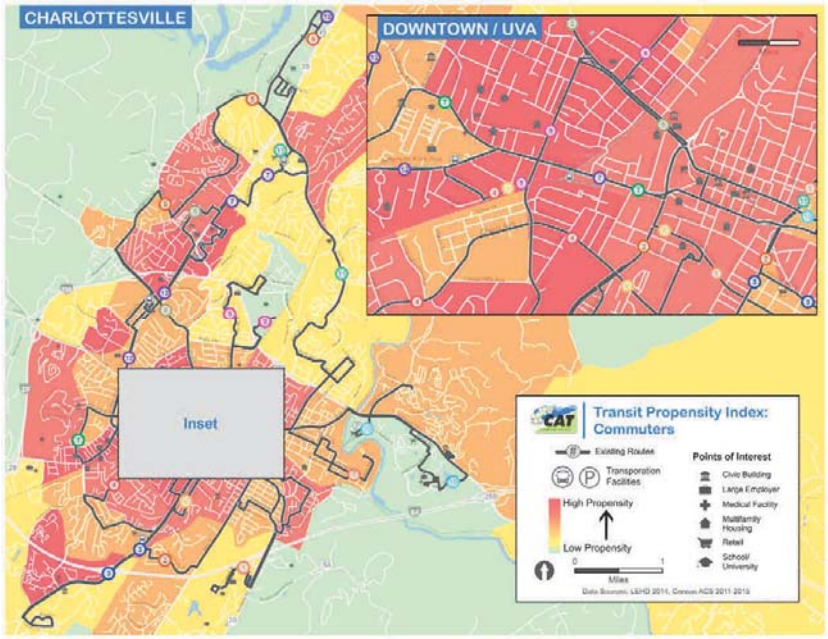




Areas with a lower commuter population index include:

- East of Grove Road and Route 250 (served by Route 9);
- North of Rio Road and Route 29 (served by Routes 5 and 12); and
- South of Richmond Road and Cherry Point Road (served by Route 10).

Figure 24 | Commuter Populations Index




### 3.5.3. Work Destinations Index

The work destinations index identifies areas with high levels of employment activity and thus high propensities for attracting transit work trips. As this index is used as an indicator of the density of job locations, its only input is employment.

**Figure 25** depicts the results of this index. Regions with a higher work destinations index value generally have a high employment density. These areas include:

- East of Jefferson Park Avenue (served by Routes 4, 6, 7, 12, and the Trolley);
- Between Main Street/Water Street and Route 250, east of Rose Hill Drive (served by Routes 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, and the Trolley); and

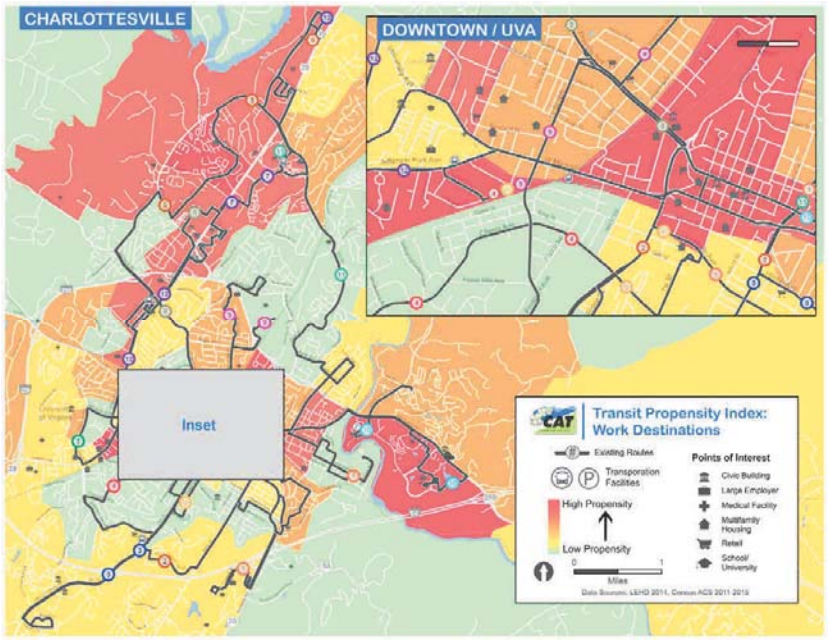
- South of Richmond Road and Cherry Point Road (served by Route 10).

Areas with a lower work destinations index include:

- North of Grove Road and east of Rio Road (served by Routes 9 and 11);
- East of Meade Avenue, south of Richmond Road (served by Route 1); and

The Cherry Avenue, 5th Street, and Avon Street corridors, south of Elliott Avenue (served by Route 2, 3, 4, and 6).

**Figure 25 | Work Destinations Index**




### 3.5.4. Non-Work Destinations Index

The non-work destinations index evaluates five destination types that indicate where residents might travel if going somewhere other than work. The index is based on the number of retail/restaurant, recreation, healthcare/social assistance, education, and government jobs in each block group.

**Figure 26** depicts the results of this index. The highest work destinations index value can be found between Main Street/Water Street and Route 250, west of Park Street and east of 7th Street. This area is served by Routes 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, and the Trolley. Other areas with relatively high concentrations of non-work destinations include the Seminole Trail

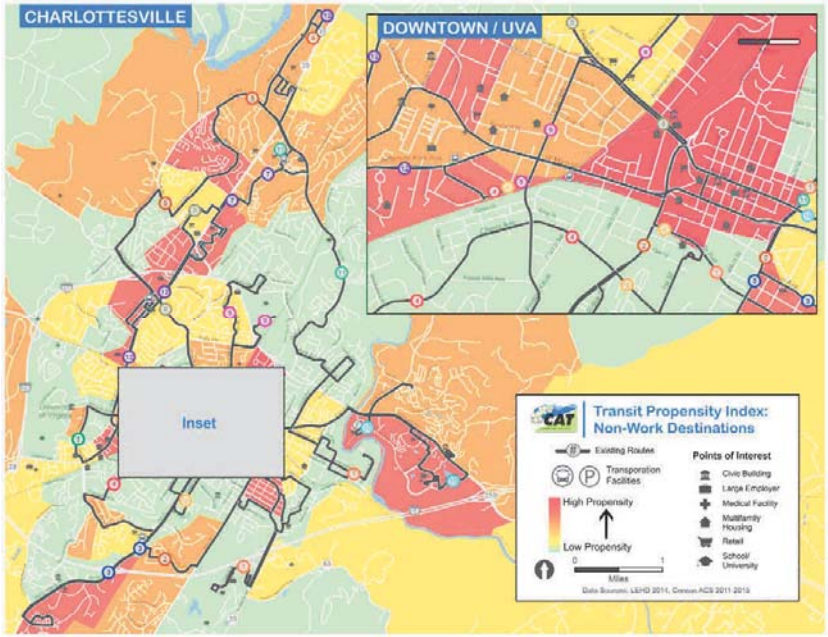




(Route 29) corridor and south of Richmond Road, but many block groups within the CAT service area have moderate to low concentrations of non-work destinations.

It should be noted that block-group size can impact the various transit propensity analyses by effectively diluting the reported concentrations of key demographics or destinations, especially in outlying areas where block-groups tend to be larger. For this reason, key points of interest are also included on the maps in this chapter. These icons represent land-uses that tend to generate a high rate of transit trips. For example, while the area south of I-64 near Scottsville Road is shown as having a low propensity for transit trips, it is the site of Piedmont Virginia Community College, and represented by icons for "School/University" and "Major Employer."

**Figure 26 | Non-Work Destinations Index**




## 3.6. RIDER SURVEYS

### 3.6.1. On-Board Survey

An on-board survey was conducted on all CAT routes in September 2017 to assess who is using the system, how it is being used, and what the preferences and perceptions are of current riders. A summary of the survey results is presented below. The full survey results can be found in **Appendix A.**

370 surveys were returned in all, with the largest number of surveys collected on Route 7 (116 surveys), the Trolley (43 surveys), and Route 10 (38 surveys). 67 percent of respondents indicated that they use CAT services almost every day, and 63 percent reported beginning their journey at a place of residence. A lack of car ownership was the most commonly cited reason for using CAT services.

Customer satisfaction with CAT services varied depending on the metric. Approximately 75 percent of respondents agreed that service is dependable. However, just 65 percent indicated that schedules generally met travel needs. Regarding future service, customers indicated preferences for more frequent service, rather than longer service hours; more weekend service, over more weekday service; more bus stops for a shorter walk between stop and destination, rather than fewer bus stops for faster bus travel times; more frequent bus service on fewer streets, instead of less frequent bus service on more streets; and the improvement of existing service, over service to new areas.

A large majority of respondents (93 percent) identified as English speakers. While the age of rider respondents varied, 71 percent identified as being at least 26 years old. In contrast, although CAT serves a large university community, just 20 percent of respondents identified as being between the ages of 18 and 25. Similarly, 65 percent of respondents identified as being employed full- or part-time, while only 16 percent identified as students.

### 3.6.2. Online Regional Transit Survey

In September 2017, a regional transit survey was launched online, aimed at CAT and JAUNT riders, as well as non-riders. The survey will remain active throughout this study, but the following summary reflects responses through January 2018.

The online survey was similar in design to the on-board survey conducted on CAT buses, but included additional questions aimed at non-riders. The survey yielded 246 total responses. 35 percent of respondents identified as current CAT riders, 4 percent identified as JAUNT riders, and over 60 percent identified as non-riders. Common reasons given for using CAT service included a lack of parking at a destination, gas costs and car maintenance, a lack of car ownership, a sense of doing one's part for the environment, and a preference to spend time on activities other than driving. Reasons provided for not using transit included a lack of service near home, a general lack of interest in transit, a need for more information on transit, and a bad previous experience with transit service.

Of current riders, most reported using CAT to travel to or from home and work, with social/recreational trips ranking high among destinations as well. Nearly a third indicated using transit a few times per month, less than a quarter reported using transit several times per week, and one fifth reported using it nearly every day. Commonly used CAT routes among online respondents included the free Trolley as well as Routes 4, 5, 11, and 7.

To assess customer satisfaction, respondents were asked to rate a series of CAT service metrics on a scale of "Strongly Disagree" to "Strongly Agree." Over three quarters of respondents agreed that service was dependable. A slightly smaller percentage agreed that routes got passengers where they needed to go. Less than half of respondents agreed that schedules met travel needs.

Respondents were also prompted with a series of trade-off questions that requested an indication of preference given various scenarios. Overall, online respondents preferred the following:

- More frequent bus service, over longer service hours;
- More weekend service, over more weekday service;





- Fewer bus stops for faster bus service, over more bus stops for a shorter walk to or from stops; and
- Service to new areas, over the improvement of existing service.

In addition, respondents were fairly evenly split on whether buses should run more frequently but on fewer streets or whether buses should run on more streets but less frequently.

## 3.7. GAPS ANALYSIS

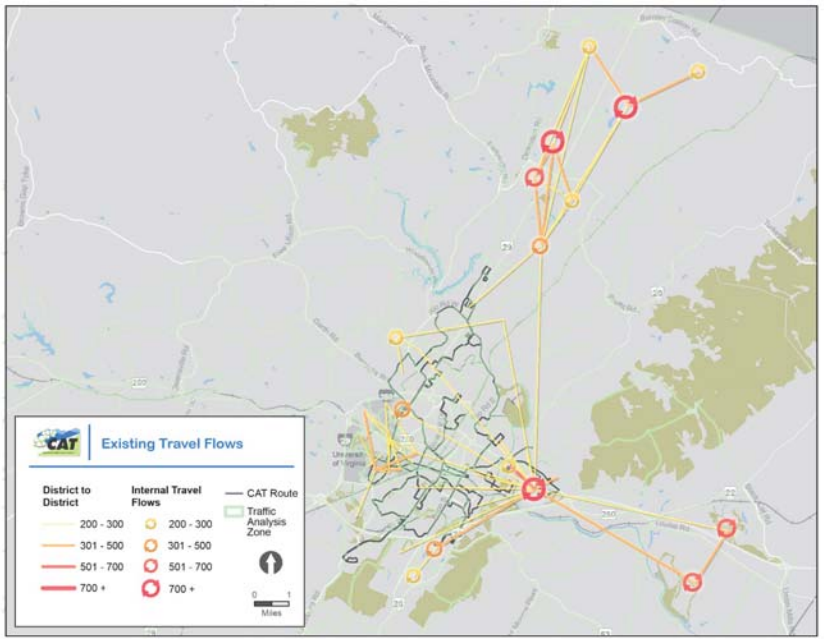
The gaps analysis is aimed at identifying disconnects between the availability of CAT service, and the geographic and temporal distribution of transit need and transit potential in the service area. This analysis combines inputs from the regional travel demand model; the transit potential and transit propensity analyses; and surveys responses from rider and non-riders. While coverage gaps include missing connections between geographic areas, service level gaps include inadequate headways or spans based on operating characteristics. By outlining where new service is needed, the gap analysis will assist in determining the overall vision for CAT's service and capital improvement plans.

### 3.7.1. Coverage Gaps

As a first step in the gap analysis, a review of the Charlottesville/Albemarle Metropolitan Planning Organization (CA-MPO) regional travel demand model was conducted to assess how well the CAT network meets the needs of travelers in the region. All trips, regardless of mode or direction of travel were depicted using centroid-to-centroid transportation analysis zone (TAZ) connections (**Figure 27**). The most prevalent travel flows were then compared to the existing CAT network to assess whether any major connections between geographic areas remained unserved by transit.

Major travel flows include internal circulation in the area bound by I-64, US 250, and the Rivanna River (this area includes Martha Jefferson Hospital and is served by Route 10); internal circulation in the area near PVCC (served by Route 1; and internal circulation in the vicinity of Barracks Road Shopping Center (served by Routes 5, 7, 8, and 12). Most of the top zone-to-zone travel flows begin or end neat Martha Jefferson Hospital or UVA. It should be noted that TAZ zones are generally smaller in more urban areas. For example, downtown Charlottesville is divided into 10 zones. So, the lack of an apparent major travel flow lines emanating from downtown Charlottesville is a function of the fact that trips are divided among many small zones. In aggregate, these trips would have resulted in downtown showing up as a major anchor.

Figure 27 | Regional Travel Flows in the CAT Service Area




### 3.7.2. Service Level Gaps

Service level gaps include potential deficiencies in the frequency or span of a service. Key factors when identifying service level gaps include the market for transit service, existing service performance, and service preferences expressed through rider and non-rider surveys.

#### Frequency/Span Analysis

To assess how well existing CAT service frequencies, align with transit potential and transit need, weekday peak-period frequencies were overlaid onto the results of the transit potential index (**Figure 28**) and the transit-oriented populations index (**Figure 29**).

The highest service frequency in network is provided by the free Trolley (service every 15-minutes), which together with Route 7's 20-minute peak frequency results in service every five to ten minutes between downtown and UVA. This corridor also includes the region's highest transit potential based on population and employment density. Much of the CAT service area has moderate transit potential, and appears well-matched to the moderate service frequency provided on most routes.

When comparing service frequency with service need, as expressed by the transit-oriented propensity index, it appears that service on Route 10 is somewhat insufficient relative to the high concentration of





transit-oriented populations north of Richmond Road.

Beyond the system-level gap analysis, each route can be analyzed to identify its strengths and weaknesses in terms of serving its intended markets. **Appendix B** includes a set of detailed diagnostic route profiles that examine each route by stop and by trip. The profiles not only identify service gaps, but also present potential service improvement opportunities that formed the foundation for the recommendations in **Chapter 4**.

Figure 28 | CAT Route Weekday Peak Frequencies and Transit Potential Index

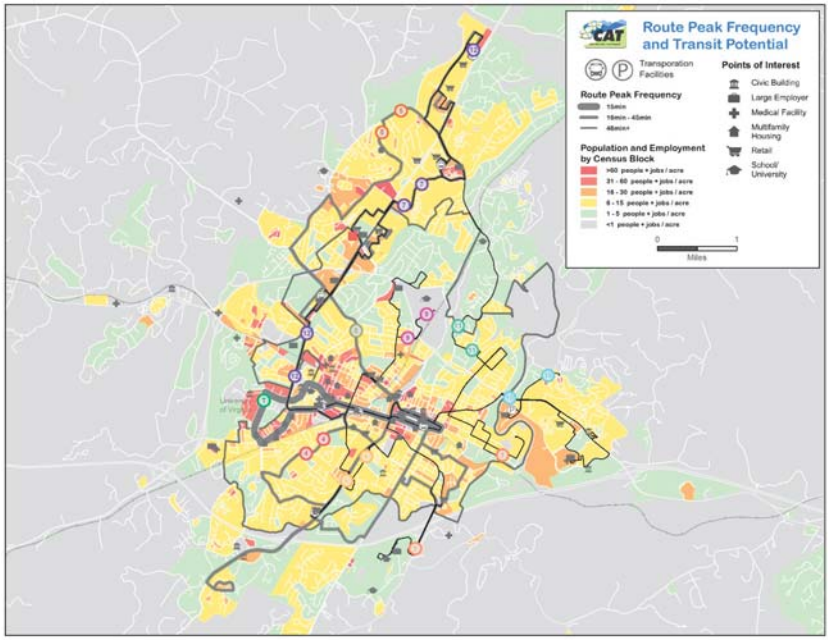
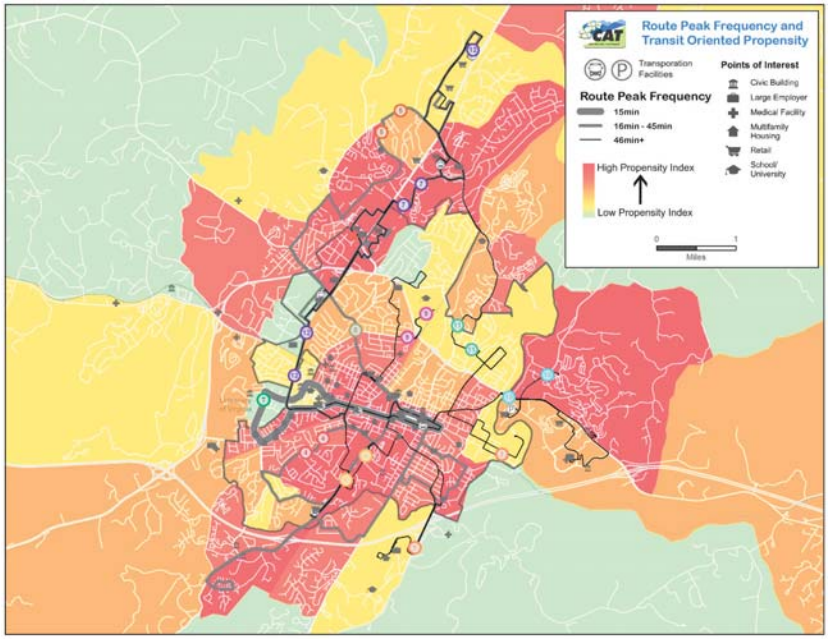


**Figure 29 | CAT Route Weekday Peak Frequencies and Transit Oriented Propensity (TOP) Index**




## Survey Analysis

Combined responses to several questions on the CAT on-board and online surveys indicated a perceived need for service level modifications to improve rider access and increase route frequencies. 65 percent of on-board survey takers agreed that schedules meet their travel needs. However, respondents also indicated a preference for more frequent service over longer service hours, and for buses running more frequently on fewer streets rather than less frequently on more streets. Current riders also indicated a preference for improving existing service over serving new areas (although non-riders had the opposite preference in the online survey).

Online survey respondents, which included both riders and non-riders, were much less supportive of current schedules. Less than six percent of online respondents strongly agreed that current schedules meet travel needs; 38 percent merely agreed with this statement.

In response to these survey results, CAT should consider increased frequency on key corridors, even if it means a "thinner" network with fewer deviations from major arterials.


# Chapter 4

## Service and Capital Improvement Plan


*Page Intentionally Left Blank*

# 4 Service & Capital Improvement Plan

As described in Chapter 3, CAT ridership has been trending downward in recent years. Between 2015 and 2017 total ridership declined by seven percent. In part, this can be attributed to a reduction in service as revenue hours and revenue miles were reduced by three and five percent, respectively, during this period. However, even when normalized for service availability, CAT's productivity has fallen. In 2017, the system carried 21.52 passengers per revenue hour – down from 23.18 in 2015.

CAT's ridership losses are in line with national trends, which saw total transit ridership decline by five percent and bus-only ridership decline by eight percent between 2015 and 2017. Factors driving these national trends include growing rates of employment, sustained lower gas prices, and, perhaps most importantly, the increasing availability, affordability, and popularity of alternative mobility options such as bicycles and app-based ride-hailing services.

These new options create a challenge, in the form of competition, for traditional transit operators like CAT, but they also create opportunities by allowing transit providers to better align their services with market demands. Traditional fixed route service is not necessarily the best mobility solution for every environment, and the availability of new, more flexible, mobility models now let fixed route providers focus their services where they can do best.

The recommendations in this chapter are based on the service and market opportunities identified in Chapter 3. The recommendations are also informed by the public and stakeholder feedback received throughout the project, including on-board survey responses documented in Chapter 3. Overall, the recommendations are intended to simplify CAT's services in order to make them easier to use and more intuitive to understand.

The recommendations are also aimed at ensuring that each route has strong anchors and a good mix of origins and destinations. As Charlottesville's population continues to grow (**Table 4-1**), CAT's ridership can grow as well, as long as service is well-aligned with the market for fixed route transit.

**Table 4-1 | Projected Population Growth (Source: University of Virginia)**

| Jurisdiction | Projection | | |
|---|---|---|---|
| | *2020* | *2030* | *2040* |
| City of Charlottesville | 52,839 | 54,563 | 55,501 |
| Albemarle County | 110,669 | 126,988 | 141,221 |

## 4.1 SHORT-TERM (1-3 YEARS) SERVICE IMPROVEMENTS AND NEEDS IDENTIFICATION

Chapter 3 includes a set of detailed diagnostic route profiles that examine each route by stop and by trip. The profiles not only identify service gaps for each route, but also present potential service improvement opportunities that formed the foundation for the recommendations in this chapter.

The service improvements in this section can be implemented in the short-term, as they are cost-neutral in terms of operating cost, and require no additional peak vehicles. **Figure 30** and **Figure 31** respectively show the proposed weekday/Saturday and Sunday system maps. These are followed by detailed descriptions of the changes recommended for each route.





**Figure 30 | Proposed Weekday/Saturday System**

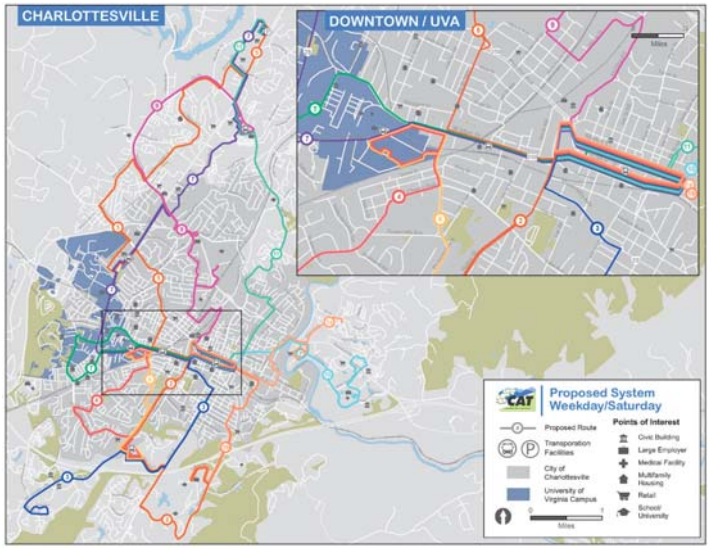
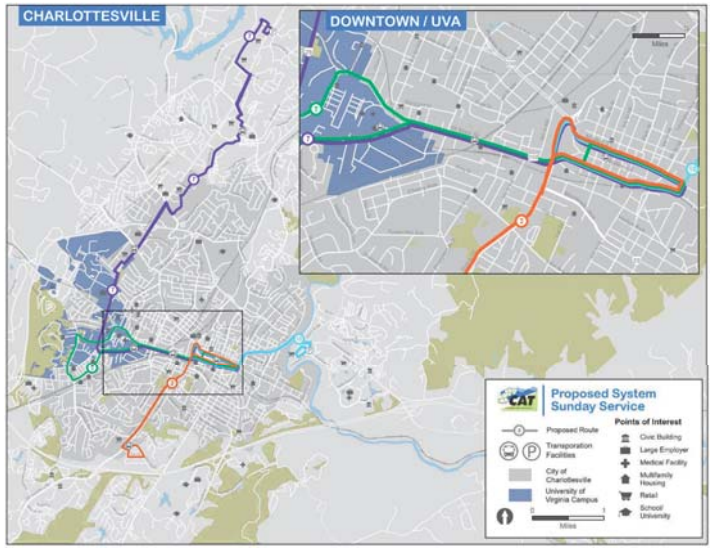


Figure 31 | Proposed Sunday System








### 4.1.1. Recommendation: Split Route 1 Into Two Routes; Streamline Alignments; Serve Pantops Area

Route 1 would be split into two routes (referred to as 1A and 1B in this document, with actual names to be determined by CAT staff). The proposed Route 1A (Figure 32) would operate between Charlottesville's Downtown Transit Station and the Avemore Apartments on Fontana Drive and Stoney Point Road, via the Woolen Mills neighborhood. This is a substantially new alignment, combining portions of the Woolen Mills service of the current Route 1 and the Stoney Point service of the current Route 10. The proposed route would link the Woolen Mills neighborhood and the Avemore Apartments directly to grocery and retail destinations at Pantops Shopping Center. Route 1A would operate hourly throughout the service day on weekdays and Saturdays (**Table 4-2**). Key destinations along the proposed alignment include:

- Downtown Transit Station
- East Market Street
- Meade Park
- Onesty Family Aquatic Center
- Pantops Shopping Center
- Goodwill
- Avemore Apartments

Figure 32 | Route 1A Proposed Alignment

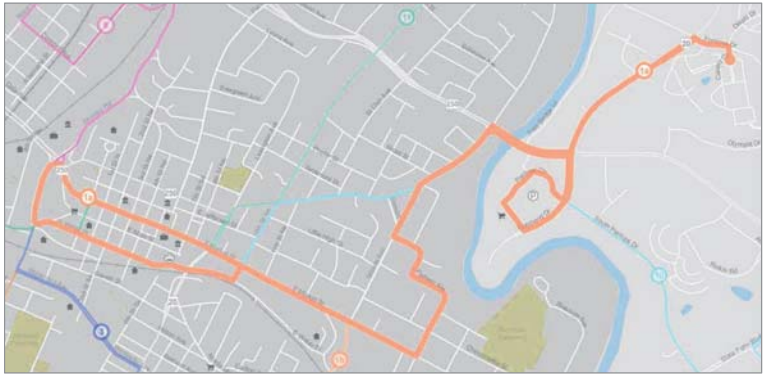


Table 4-2 | Route 1A Proposed Service Levels

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 60 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 60 |
| *Evening* | 7:00 pm – 10:00 pm | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |
| **Sunday** | -- | -- |

The proposed Route 1B (**Figure 33**) would operate between Charlottesville's Downtown Transit Station and Piedmont Virginia Community College, via the Belmont Neighborhood. This alignment is similar to the southern branch of the current Route 1, but shifts service from Monticello Avenue, north of Carlton Road, to Carlton Road and Market Street. In addition, the route consolidates service between Carlton Road and Druid Avenue onto Monticello Avenue, rather than splitting northbound and southbound service between Monticello Road and Monticello Avenue, respectively.

Route 1B would operate hourly throughout the service day on weekdays and Saturdays (**Table 4-3**). Key destinations along the proposed alignment include:

- Downtown Transit Station
- East Market Street
- Worksource Enterprises
- Belmont Neighborhood
- Quarry Park
- PVCC

**Figure 33 | Route 1B Proposed Alignment**

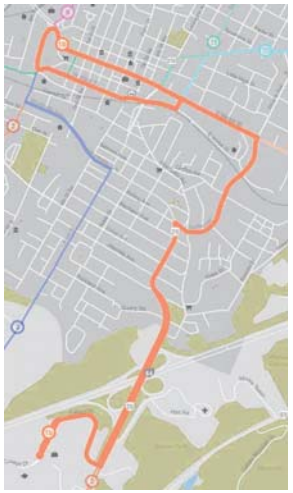


**Table 4-3 | Route 1B Proposed Service Levels**

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 60 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 60 |
| *Evening* | 7:00 pm – 10:00 pm | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |
| **Sunday** | 8:00 am – 6:00 pm | 60 |





### 4.1.3. Recommendation: Extend Route 2 to Mill Creek and PVCC; Provide Bi-Directional Service

The proposed Route 2 (**Figure 34**) would operate between Charlottesville's Downtown Transit Station and Piedmont Virginia Community College, via 5th Street Station. The proposed route would provide bi-directional service along nearly its entire alignment, compared to the current Route 7, which operates clockwise only along 5th Street and Avon Street. It would also introduce new service south of I-64, along Avon Street Extended and Mill Creek Drive.

As shown in **Table 4-4**, Route 2 would operate every 30 minutes during weekday peak periods, and hourly in the off-peak and on Saturdays. Sunday service would operate hourly and only between downtown Charlottesville and 5th Street Station.

Key destinations along the proposed alignment include:

- Downtown Transit Station
- Tonsler Park
- Blue Ridge Commons
- Willoughby Square
- 5th Street Station
- Southside Shopping Center
- Monticello High School
- PVCC

**Figure 34 | Route 2 Proposed Alignment**

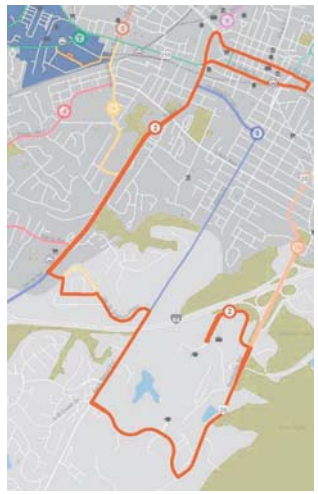


**Table 4-4 | Route 2 Proposed Service Levels**

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 30 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 30 |
| *Evening* | 7:00 pm – 10:00 pm | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |
| **Sunday** | 8:00 am – 6:00 pm | 60 |

### 4.1.4. Recommendation: Shift Route 3 Service to Avon via 5th Street Station; End Route in Downtown Charlottesville

The proposed Route 3 (**Figure 35**) would operate between Charlottesville's Downtown Transit Station and the Southwood Mobile Home Park, via 5th Street Station. This is a substantially new alignment, combining portions of the Avon Street service of the current Route 2 and the Old Lynchburg Road service of the current Route 3. The proposed route would provide direct and bi-directional access to grocery and retail destinations, as well as CAT transfer opportunities, at 5th Street Station from neighborhoods along Avon Street and the Old Lynchburg Road corridor, including the Southwood Mobile Home Park.

Route 3 would operate every 30 minutes during weekday peak periods, and hourly in the off-peak and on Saturdays (**Table 4-5**).

Key destinations along the proposed alignment include:

- Downtown Transit Station
- Friendship Court Apartments
- Belmont Park
- CAT Offices
- 5th Street Station
- Willoughby Shopping Center
- Albemarle County Offices
- Region 10 CSB
- Southwood Mobile Home Park

**Figure 35 | Route 3 Proposed Alignment**

**Table 4-5 | Route 3 Proposed Service Levels**

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 30 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 30 |
| *Evening* | 7:00 pm – 10:00 pm | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |
| **Sunday** | -- | -- |





### 4.1.6. Recommendation: Extend Route 4 to 5th Street Station; Eliminate Service Between UVA Hospital and Downtown Charlottesville

The proposed Route 4 (**Figure 36**) would operate between UVA Hospital and 5th Street Station, via Cherry Avenue and Harris Road. The primary changes from the current alignment include an extension of the route from its current terminus at Willoughby Square Shopping Center to 5th Street Station, and the elimination of service between UVA Hospital and downtown Charlottesville, which would continue to be linked by the Route 7 and free Trolley.

The proposed route would provide improved access to grocery and retail destinations at 5th Street Station, as well as transfer opportunities to other CAT routes at both 5th Street Station and UVA Hospital.

Route 4 would operate hourly throughout the service day on weekdays and Saturdays (**Table 4-6**).

Key destinations along the proposed alignment include:

- UVA Hospital
- Smith Aquatic Center
- Boys and Girls Club of Central Virginia
- Fry's Spring Beach Club
- Willoughby Shopping Center
- 5th Street Station

**Figure 36 | Route 4 Proposed Alignment**

**Table 4-6 | Route 4 Proposed Service Levels**

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 60 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 60 |
| *Evening* | 7:00 pm – 10:00 pm | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |
| **Sunday** | -- | -- |

### 4.1.7. Recommendation: Eliminated Route 5 Service to Fashion Square Mall; Consolidate with Route 8

The proposed Route 5 (**Figure 37**) would operate between Charlottesville's Downtown Transit Station and the Walmart Supercenter on Seminole Trail and Hilton Heights Road, via Barracks Road Shopping Center. The primary changes from the current alignment include an extension of the route from its current terminus at Barracks Road Shopping Center to downtown Charlottesville using the current Route 8 alignment, and the elimination of service to Fashion Square Mall. In addition, the proposed route would operate along 10th Street and Main Street rather than Preston Avenue, between Grady Avenue and downtown.

The proposed route would provide more direct access to Walmart from neighborhoods along Preston Avenue and Commonwealth Drive, as well as for riders transferring from UTS service at Barracks Road Shopping Center.

Route 5 would operate every 30 minutes throughout the service day on weekdays and Saturdays (**Table 4-7**).

Key destinations along the proposed alignment include:

- Downtown Transit Station
- Washington Park Recreation Center
- Barracks Road Shopping Center
- Shops at Stonefield
- Rio Hill Shopping Center
- Walmart Supercenter

**Figure 37 | Route 5 Proposed Alignment**

**Table 4-7 | Route 5 Proposed Service Levels**

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 30 |
| *Midday* | 9:00 am – 3:00 pm | 30 |
| *PM Peak* | 3:00 pm – 7:00 pm | 30 |
| *Evening* | 7:00 pm – 11:00 am | 30 |
| **Saturday** | 6:00 am – 11:00 pm | 30 |
| **Sunday** | -- | -- |





### 4.1.8. Recommendation: Provide Bi-Directional Route 6 Service Between UVA Hospital and 5th Street Station; Eliminate Service between Downtown Charlottesville and UVA Hospital

The proposed Route 6 (**Figure 38**) would operate between UVA Hospital and 5th Street Station, via Prospect Avenue. The proposed route would provide bi-directional service along nearly its entire alignment, but would not serve downtown Charlottesville as the current Route 6 does. Instead, service between Willoughby Square and downtown would be provided by proposed Route 2.

The proposed Route 6 would improve service for neighborhoods along Prospect Avenue, including the Blue Ridge Commons Apartments, by providing access to and from grocery, retail, and medical destinations. By comparison, the current route allows residents to travel to Willoughby Square Shopping Center, but not back home without first traveling to downtown.

Route 6 would operate hourly throughout the service day on weekdays and Saturdays (**Table 4-8**).

Key destinations along the proposed alignment include:

- UVA Hospital
- Forest Hills Park
- Blue Ridge Commons Apartments
- Willoughby Square Shopping Center
- 5th Street Station

**Figure 38 | Route 6 Proposed Alignment**

**Table 4-8 | Route 6 Proposed Service Levels**

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 60 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 60 |
| *Evening* | 7:00 pm – 10:00 am | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |
| **Sunday** | -- | -- |

### 4.1.9. Recommendation: Eliminate Route 7 Service to the Shops at Stonefield; Extend Route to Walmart; Replace Route 12 on Sundays

The proposed Route 7 (**Figure 39**) would operate between Charlottesville's Downtown Transit Station and the Walmart Supercenter on Seminole Trail and Hilton Heights Road, via UVA and Barracks Road Shopping Center. The primary changes from the current alignment include an extension of the route from its current terminus at Fashion Square Mall to the Walmart Supercenter. In addition, the route would utilize the Hillsdale Drive extension, and operate south/east of Seminole Trail from Fashion Square Mall to Hydraulic Road. Service to the Shops at Stonefield would be provided by proposed Route 9.

Route 7 would operate every 30 minutes throughout the service day on weekdays, Saturdays, and Sundays (**Table 4-9**). Key destinations along the proposed alignment include:

- Downtown Transit Station
- Amtrak Station
- UVA Medical Center
- University of Virginia
- Barracks Road Shopping Center
- Seminole Square Shopping Center
- Fashion Square Mall
- Rio Hill Shopping Center
- Walmart Supercenter

Figure 39 | Route 7 Proposed Alignment

Table 4-9 | Route 7 Proposed Service Levels

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 30 |
| *Midday* | 9:00 am – 3:00 pm | 30 |
| *PM Peak* | 3:00 pm – 7:00 pm | 30 |
| *Evening* | 7:00 pm – 11:00 am | 30 |
| **Saturday** | 6:00 am – 11:00 pm | 30 |
| **Sunday** | 8:00 am – 6:00 pm | 30 |





### 4.1.10. Recommendation: Extend Route 9 to Fashion Square Mall via Hydraulic Road; Add Service to McIntire/Harris Area

The proposed Route 9 (**Figure 40**) would operate between Charlottesville's Downtown Transit Station and Fashion Square Mall, via McIntire Plaza, Brooks Family YMCA, and the Shops at Stonefield. This is a substantially new alignment combining portions of the current Route 9 service to the YMCA and Route 5 service to Fashion Square Mall.

The proposed route would introduce new service to McIntire Road and Harris Street, and link Albemarle High School and Charlottesville High School to the YMCA and Fashion Square Mall. However, Charlottesville High School would be served via a pedestrian path from the YMCA, rather than from Grove Road. Service to UVA Hospital would be eliminated, but frequent service between downtown and UVA Hospital would continue to be available via Route 7 and the free Trolley.

Route 9 would operate hourly throughout the service day on weekdays and Saturdays (**Table 4-10**).

Key destinations along the proposed alignment include:

- Downtown Transit Station
- McIntire Plaza
- Charlottesville Health Department
- Brooks Family YMCA
- Charlottesville High School
- Shops at Stonefiled
- Albemarle High School
- Fashion Square Mall

Figure 40 | Route 9 Proposed Alignment

Table 4-10 | Route 9 Proposed Service Levels

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 60 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 60 |
| *Evening* | 7:00 pm – 10:00 am | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |

### 4.1.11. Recommendation: Provide Bi-Directional Route 10 Service; Shift Service to Avemore Apartments to Route 1A

The proposed Route 10 (**Figure 41**) would operate between Charlottesville's Downtown Transit Station and the Social Security Administration office on Richmond Road, via Pantops Shopping Center and Martha Jefferson Hospital. The primary changes from the current alignment include bidirectional service between Pantops Shopping Center and the Social Security office, and the elimination of service along Stoney Point Road to the Avemore Apartments. The Avemore Apartments would instead be served by the proposed Route 1A.

The proposed route's bidirectional service would more directly link multifamily housing communities along Pantops Drive to employment, medical, and retail destinations along the route, compared to the current route which includes a large counter-clockwise loop that only allows riders to travel in one direction. As shown in **Table 4-11**, Route 10 would operate every 30 minutes during weekday peak periods, and hourly during off-peak periods and on Saturdays. Sunday service would operate hourly between downtown Charlottesville and Pantops Shopping Center.

Key destinations along the proposed alignment include:

- Downtown Transit Station
- Pantops Shopping Center
- State Farm Operations Center
- Martha Jefferson Hospital
- Virginia Department of Motor Vehicles
- Social Security Administration

**Figure 41 | Route 10 Proposed Alignment**

**Table 4-11 | Route 10 Proposed Service Levels**

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 30 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 30 |
| *Evening* | 7:00 pm – 10:00 am | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |
| **Sunday** | -- | -- |





### 4.1.12. Recommendation: Streamline Route 11; Extend Service to Walmart

The proposed Route 11 **(Figure 42**) would operate between Charlottesville's Downtown Transit Station and the Walmart Supercenter on Seminole Trail and Hilton Heights Road, via Locust Avenue, Rio Road, and Fashion Square Mall. The primary changes from the current alignment include an extension of the route from its current terminus at Fashion Square Mall to the Walmart Supercenter, and the elimination of a mid-route loop along Locust Avenue, Peartreet Lane, and St. Clair Avenue.

The proposed route would provide the most direct option for travel between downtown and the Walmart Supercenter. It would also streamline service for residents in neighborhoods and apartment complexes along Rio Road, to both downtown and retail destinations including Walmart and Fashion Square mall.

Route 11 would operate hourly throughout the service day on weekdays and Saturdays (**Table 4-12**).

Key destinations along the proposed alignment include:

- Downtown Transit Station
- Charlottesville Catholic School
- Charlottesville-Albemarle Technical Education Center
- Fashion Square Mall
- Rio Hill Shopping Center
- Walmart Supercenter
- Albemarle High School
- Fashion Square Mall

**Figure 42 | Route 11 Proposed Alignment**

**Table 4-12 | Route 11 Proposed Service Levels**

| Service Day | Approximate Span of Service | Frequency (minutes) |
|---|---|---|
| **Weekday** | | |
| *AM Peak* | 6:00 am – 9:00 am | 60 |
| *Midday* | 9:00 am – 3:00 pm | 60 |
| *PM Peak* | 3:00 pm – 7:00 pm | 60 |
| *Evening* | 7:00 pm – 10:00 am | 60 |
| **Saturday** | 7:00 am – 10:00 pm | 60 |
| **Sunday** | -- | -- |

### 4.1.13. Short-Term Operating Plan

The short-term recommendations described in this section rely heavily on interlining to maximize the amount of service that can be provided with existing resources. Interlining is the practice of operating a single bus or group of buses on multiple routes. Interlining is often used to optimize cycle times and recovery times. For example, if one route has insufficient recovery time while another has excessive recovery time, interlining the routes can result in a cycle with an optimal mix of running time and recovery time.

Cycle times that are factors or multiples of 60 allow for the greatest range of clock-face schedules. Clock-face schedules are schedules that result in buses serving a particular stop at the same time or times past every hour (e.g. 1:10, 2:10, 3:10, etc., or 1:00, 1:30, 2:00, 2:30, etc.). Clock-face frequencies make it easy for riders to remember schedules, and make it easier to coordinate connections at key hubs.

Clock-face schedules are proposed for all of the recommended routes, and recovery times are projected to fall between 10 and 20 percent of total cycle time for nearly every route. When recovery time is less than 10 percent of total cycle time, there is a high risk of poor on-time performance because there is insufficient buffering between trips. With insufficient recovery time, one late trip can lead to another, causing a bus to get further and further behind schedule. On the other hand, if there is more than 20 percent recovery time in a schedule, buses are sitting unproductively for long periods of time.

The recommended short-term service redesign scenario would require 21 peak vehicles, and would result in 319 weekday revenue hours, 273 Saturday revenue hours, and 50 Sunday revenue hours. By comparison, the existing CAT service requires 23 peak vehicles and includes 313 weekday revenue hours, 297 Saturday revenue hours, and 47 Sunday revenue hours. Assuming 251 weekday, 52 Saturday, and 52 Sunday service days per year, the proposed service would result in 0.43 percent more annual revenue hours than the current service. In other words, the proposed service is essentially cost-neutral compared to current service.

**Table 4-13, Table 4-14**, and **Table 4-15** show the proposed weekday, Saturday, and Sunday service characteristics of each route, including peak vehicles and daily revenue hours. Routes that are shown together (using the '+' symbol) are proposed for interlining.





#### Weekday Operating Plan

**Table 4-13 | Proposed Weekday Service Characteristics: Short-Term**

| Proposed Route | Avg. Round Trip Miles | Est. Avg. Speed | Run Time | Min. Recovery Time | Min. Cycle Time | Even Cycle Time | Actual Recovery Time | Actual % Recovery | Peak Freq. | Peak Hours | Peak Trips | Peak Vehicles | Off-Peak Freq. | Off-Peak Hrs. | Off-Peak Trips | Off-Peak Vehicles | Daily Trips | Daily Hrs. Serv. | Rev. Hrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **5+7** | 37.1 | 12.5 | 2:58 | 0:17 | 3:15 | 3:30 | 0:31 | 15% | 0:30 | 7:00 | 14 | 7.0 | 0:30 | 10:00 | 20 | 7.0 | 34 | 17:00 | 119:00 |
| **4+6** | 11.4 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 12% | 1:00 | 7:00 | 7 | 1.0 | 1:00 | 9:00 | 9 | 1.0 | 16 | 16:00 | 16:00 |
| **9+1B** | 24.9 | 14 | 1:46 | 0:10 | 1:57 | 2:00 | 0:13 | 11% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 9:00 | 9 | 2.0 | 16 | 16:00 | 32:00 |
| **3** | 11.3 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 13% | 0:30 | 7:00 | 14 | 2.0 | 1:00 | 9:00 | 9 | 1.0 | 23 | 16:00 | 23:00 |
| **11+1A** | 23.3 | 13 | 1:47 | 0:10 | 1:58 | 2:00 | 0:12 | 10% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 9:00 | 9 | 2.0 | 16 | 16:00 | 32:00 |
| **10+2** | 22.4 | 13 | 1:43 | 0:10 | 1:53 | 2:00 | 0:16 | 14% | 0:30 | 7:00 | 14 | 4.0 | 1:00 | 9:00 | 9 | 2.0 | 23 | 16:00 | 46:00 |
| **T** | 6 | 12 | 0:30 | 0:03 | 0:33 | 0:45 | 0:15 | 33% | 0:15 | 7:00 | 28 | 3.0 | 0:15 | 10:00 | 40 | 3.0 | 68 | 17:00 | 51:00 |

## Saturday Operating Plan

**Table 4-14 | Proposed Saturday Service Characteristics: Short-Term**

| Proposed Route | Avg. Round Trip Miles | Est. Avg. Speed | Run Time | Min. Recovery Time | Min. Cycle Time | Even Cycle Time | Actual Recovery Time | Actual % Recovery | Peak Freq. | Peak Hours | Peak Trips | Peak Vehicles | Off-Peak Freq. | Off-Peak Hrs. | Off-Peak Trips | Off-Peak Vehicles | Daily Trips | Daily Hrs. Serv. | Rev. Hrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **5+7** | 37.1 | 13.5 | 2:44 | 0:16 | 3:01 | 3:30 | 0:45 | 21% | 0:30 | 7:00 | 14 | 7.0 | 0:30 | 10:00 | 20 | 7.0 | 34 | 17:00 | 119:00 |
| **4+6** | 11.4 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 12% | 1:00 | 7:00 | 7 | 1.0 | 1:00 | 8:00 | 8 | 1.0 | 15 | 15:00 | 15:00 |
| **9+1B** | 24.9 | 14 | 1:46 | 0:10 | 1:57 | 2:00 | 0:13 | 11% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 8:00 | 8 | 2.0 | 15 | 15:00 | 30:00 |
| **3** | 11.3 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 13% | 1:00 | 7:00 | 7 | 1.0 | 1:00 | 8:00 | 8 | 1.0 | 15 | 15:00 | 15:00 |
| **11+1A** | 23.3 | 13 | 1:47 | 0:10 | 1:58 | 2:00 | 0:12 | 10% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 8:00 | 8 | 2.0 | 15 | 15:00 | 30:00 |
| **10+2** | 22.4 | 13 | 1:43 | 0:10 | 1:53 | 2:00 | 0:16 | 14% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 8:00 | 8 | 2.0 | 15 | 15:00 | 30:00 |
| **T** | 6 | 13.5 | 0:26 | 0:02 | 0:29 | 0:30 | 0:03 | 11% | 0:15 | 7:00 | 28 | 2.0 | 0:15 | 10:00 | 40 | 2.0 | 68 | 17:00 | 34:00 |





## Sunday Operating Plan

**Table 4-15 | Proposed Sunday Service Characteristics: Short-Term**

| Proposed Route | Avg. Round Trip Miles | Est. Avg. Speed | Run Time | Min. Recovery Time | Min. Cycle Time | Even Cycle Time | Actual Recovery Time | Actual % Recovery | Peak Freq. | Peak Hours | Peak Trips | Peak Vehicles | Off-Peak Freq. | Off-Peak Hrs. | Off-Peak Trips | Off-Peak Vehicles | Daily Trips | Daily Hrs. Serv. | Rev. Hrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **7** | 17.2 | 13.5 | 1:16 | 0:07 | 1:24 | 1:30 | 0:13 | 15% | 0:30 | 10:00 | 20 | 3.0 | 0:30 | 0:00 | 0 | 3.0 | 20 | 10:00 | 30:00 |
| **2+10** | 10.5 | 13 | 0:48 | 0:04 | 0:53 | 1:00 | 0:11 | 19% | 1:00 | 10:00 | 10 | 1.0 | 1:00 | 0:00 | 0 | 1.0 | 10 | 10:00 | 10:00 |
| **T** | 6 | 13.5 | 0:26 | 0:02 | 0:29 | 0:30 | 0:03 | 11% | 0:30 | 10:00 | 20 | 1.0 | 0:30 | 0:00 | 0 | 1.0 | 20 | 10:00 | 10:00 |

### 4.1.14. Short-Term Ridership Estimates

To estimate the expected ridership of the proposed short-term network, a three-step process was used. First, current system ridership was redistributed among the proposed routes based on geographic coverage (**Table 4-16**). If the service area of an existing route is proposed to be picked up by one or more new routes, the current ridership from that route is reassigned proportionally to the new route or routes that will cover the service area. In some cases, some ridership is assumed lost if a current route segment is not covered at all in the proposed redesign. Ridership loss for the proposed network is minimal.

In the second step, the redistributed ridership calculated in Step 1 forms a new baseline (**Table 4-17**). New ridership is then added to this baseline wherever there is new service coverage (**Table 4-18**). In newly served areas, ridership was estimated based on the average boardings at stops that serve similar neighborhoods and destinations. For example, if new service is being added to an apartment complex that was not previously served, the estimated ridership for the new stop is based on the current ridership at similarly sized apartment complexes that are currently being served. A second new ridership baseline is established at the end of Step 2. This baseline reflects the impacts of only the geographic coverage changes to the routes.

The third step of the process estimates the ridership impact of service characteristics such as schedule changes and directness of service. Each service characteristic was assigned an impact factor based on TCRP research and the experience of the study team with past service redesigns. Increased service frequency was expected to increase ridership, while decreased service reduced ridership. Routes that provide more direct connections between major destinations were also anticipated to have increased ridership over previous alignments. The impact factors (listed in several tables by day type in **Appendix C**) are generally assigned in a binary fashion (i.e. if a route is made more frequent, the impact factor is applied to it, and if it is not made more frequent the factor is not applied). However, in some cases a factor is partially applied, or doubly applied. For example, if a route's frequency is improved during the peak period, but not during the off-peak period of the day, then only half of the frequency impact factor is applied. Similarly, if a route is made more direct, and also made bidirectional at the same time, then the directness factor is applied twice. Finally, all the applicable factors are applied to the ridership baseline established at the end of Step 2 to arrive at a final projected ridership (**Table 4-19**) that reflects both the changes in geographic coverage and service characteristics of each route.

Based on the process described above, the proposed short-term network will increase ridership by 3 percent on weekdays, 19 percent on Saturdays, and 16 percent on Sundays. **Table 4-16** through **Table 4-27** outline the abovementioned process in steps by day type.





#### Weekday Ridership Estimates

**Table 4-16 | Weekday Ridership, Step One: Ridership Redistribution by Geographic Coverage**

| Existing Ridership | | Proposed Route & Distribution Factor | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Route | Daily Ridership | 1A | 1B | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | T |
| **1** | 195 | 0.40 | 0.50 | -- | 0.05 | -- | -- | -- | -- | -- | -- | -- | -- |
| **2** | 154 | -- | -- | 0.70 | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- |
| **3** | 398 | -- | 0.20 | 0.25 | 0.50 | -- | -- | -- | -- | -- | -- | -- | -- |
| **4** | 402 | -- | -- | -- | -- | 0.90 | -- | -- | 0.05 | -- | -- | -- | -- |
| **5** | 753 | -- | -- | -- | -- | -- | 0.80 | -- | -- | 0.20 | -- | -- | -- |
| **6** | 292 | -- | -- | 0.20 | -- | -- | -- | 0.75 | | | -- | -- | -- |
| **7** | 2,187 | -- | -- | -- | -- | -- | -- | -- | 0.85 | 0.10 | -- | -- | -- |
| **8** | 329 | -- | -- | -- | -- | -- | 0.90 | -- | -- | 0.05 | -- | -- | -- |
| **9** | 126 | -- | -- | -- | -- | -- | 0.10 | -- | 0.10 | 0.75 | -- | -- | -- |
| **10** | 230 | 0.45 | -- | -- | -- | -- | -- | -- | -- | -- | 0.50 | -- | -- |
| **11** | 229 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.95 | -- |
| **T** | 2,838 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.00 |
| **Total** | **8,133** | | | | | | | | | | | | |

**Table 4-17 | Weekday Ridership, Step One (Continued): New Baseline Ridership Based on Geographic Coverage**

| Existing Ridership | | Proposed Route & Baseline Ridership | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Route | Daily Ridership | 1A | 1B | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | T | **Total** |
| **1** | 195 | 78 | 98 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **2** | 154 | 0 | 0 | 108 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **3** | 398 | 0 | 80 | 100 | 199 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **4** | 402 | 0 | 0 | 0 | 0 | 362 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | |
| **5** | 753 | 0 | 0 | 0 | 0 | 0 | 602 | 0 | 0 | 151 | 0 | 0 | 0 | |
| **6** | 292 | 0 | 0 | 58 | 0 | 0 | 0 | 219 | 0 | 0 | 0 | 0 | 0 | |
| **7** | 2,187 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1859 | 219 | 0 | 0 | 0 | |
| **8** | 329 | 0 | 0 | 0 | 0 | 0 | 296 | 0 | 0 | 16 | 0 | 0 | 0 | |
| **9** | 126 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 13 | 95 | 0 | 0 | 0 | |
| **10** | 230 | 104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 | 0 | 0 | |
| **11** | 229 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 218 | 0 | |
| **T** | 2,838 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2838 | |
| **Total** | **8,133** | 182 | 177 | 266 | 255 | 362 | 911 | 219 | 1,892 | 480 | 115 | 218 | 2,838 | **7,914** |





**Table 4-18 | Weekday Ridership, Step Two: New Ridership Based on Added Geographic Coverage**

| Proposed Route | Estimated Daily Riders (Baseline) | Estimated New Daily Riders (Coverage) | Estimated Total Daily Riders |
|---|---|---|---|
| **1A** | 182 | 15 | 197 |
| **1B** | 177 | 0 | 177 |
| **2** | 266 | 30 | 296 |
| **3** | 255 | 10 | 265 |
| **4** | 362 | 10 | 372 |
| **5** | 911 | 0 | 911 |
| **6** | 219 | 10 | 229 |
| **7** | 1,892 | 20 | 1,912 |
| **9** | 480 | 15 | 495 |
| **10** | 115 | 0 | 115 |
| **11** | 218 | 20 | 238 |
| **T** | 2,838 | 0 | 2,838 |
| **Total** | **7,914** | **130** | **8,044** |

**Table 4-19 | Weekday Ridership, Step Three: Ridership Adjustment Based on Service Characteristics**

| Proposed Route | Estimated Daily Riders Based on Geographic Coverage | Impact Factor from Service Characteristics Impact Calculator[2] | Projected Ridership |
|---|---|---|---|
| **1A** | 197 | 0.10 | 216 |
| **1B** | 177 | 0.10 | 195 |
| **2** | 296 | -0.05 | 281 |
| **3** | 265 | 0.00 | 265 |
| **4** | 372 | 0.03 | 383 |
| **5** | 911 | 0.00 | 911 |
| **6** | 229 | 0.00 | 229 |
| **7** | 1,912 | -0.05 | 1,816 |
| **9** | 495 | 0.63 | 807 |
| **10** | 115 | 0.45 | 167 |
| **11** | 238 | 0.10 | 261 |
| **T** | 2,838 | 0.00 | 2,838 |
| **Total** | **8,044** | -- | **8,369** |

[2] *Factors based on *TCRP 66: Fixed-Route Transit Ridership Forecasting and Service Planning Methods* and industry/analogous project experience





## Saturday Ridership Estimates

**Table 4-20 | Saturday Ridership, Step One: Ridership Redistribution by Geographic Coverage**

| Existing Ridership | | Proposed Route & Distribution Factor | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Route | Daily Ridership | 1A | 1B | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | T |
| **1** | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **2** | 157 | -- | -- | 0.70 | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- |
| **3** | 295 | -- | 0.20 | 0.25 | 0.50 | -- | -- | -- | -- | -- | -- | -- | -- |
| **4** | 133 | -- | -- | -- | -- | 0.90 | -- | -- | 0.05 | -- | -- | -- | -- |
| **5** | 594 | -- | -- | -- | -- | -- | 0.80 | -- | -- | 0.20 | -- | -- | -- |
| **6** | 172 | -- | -- | 0.20 | -- | -- | -- | 0.75 | -- | -- | -- | -- | -- |
| **7** | 1,423 | -- | -- | | -- | -- | -- | -- | 0.85 | 0.10 | -- | -- | -- |
| **8** | 186 | -- | -- | -- | -- | -- | 0.90 | -- | -- | 0.05 | -- | -- | -- |
| **9** | 59 | -- | -- | -- | -- | -- | 0.10 | -- | 0.10 | 0.75 | -- | -- | -- |
| **10** | 154 | 0.45 | -- | -- | -- | -- | -- | -- | -- | -- | 0.50 | -- | -- |
| **11** | 162 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.95 | -- |
| **T** | 1,297 | -- | -- | -- | -- | | | | | | | | 1.00 |
| **Total** | **4,632** | | | | | | | | | | | | |

**Table 4-21 | Saturday Ridership, Step One (Continued): New Baseline Ridership Based on Geographic Coverage**

| Existing Ridership | | Proposed Route & Baseline Ridership | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Route | Daily Ridership | 1A | 1B | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | T | Total |
| **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **2** | 157 | 0 | 0 | 110 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **3** | 295 | 0 | 59 | 74 | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **4** | 133 | 0 | 0 | 0 | 0 | 120 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | |
| **5** | 594 | 0 | 0 | 0 | 0 | 0 | 475 | 0 | 0 | 119 | 0 | 0 | 0 | |
| **6** | 172 | 0 | 0 | 34 | 0 | 0 | 0 | 129 | 0 | 0 | 0 | 0 | 0 | |
| **7** | 1,423 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,210 | 142 | 0 | 0 | 0 | |
| **8** | 186 | 0 | 0 | 0 | 0 | 0 | 167 | 0 | 0 | 9 | 0 | 0 | 0 | |
| **9** | 59 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 44 | 0 | 0 | 0 | |
| **10** | 154 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | |
| **11** | 162 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 154 | 0 | |
| **T** | 1,297 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,297 | |
| **Total** | **4,632** | 69 | 59 | 218 | 195 | 120 | 649 | 129 | 1,222 | 315 | 77 | 154 | 1,297 | **4,503** |





**Table 4-22 | Saturday Ridership, Step Two: New Ridership Based on Added Geographic Coverage**

| Proposed Route | Estimated Daily Riders (Baseline) | Estimated New Daily Riders (Coverage) | Estimated Total Daily Riders |
|---|---|---|---|
| **1A** | 69 | 90 | 159 |
| **1B** | 59 | 80 | 139 |
| **2** | 218 | 15 | 233 |
| **3** | 195 | 5 | 200 |
| **4** | 120 | 5 | 125 |
| **5** | 649 | 0 | 649 |
| **6** | 129 | 5 | 134 |
| **7** | 1,222 | 10 | 1,232 |
| **9** | 315 | 8 | 322 |
| **10** | 77 | 0 | 77 |
| **11** | 154 | 10 | 164 |
| **T** | 1,297 | 0 | 1,297 |
| **Total** | **4,503** | **228** | **4,730** |

Table 4-23 | Saturday Ridership, Step Three: Ridership Adjustment Based on Service Characteristics

| Proposed Route | Estimated Daily Riders Based on Geographic Coverage | Impact Factor from Service Characteristics Impact Calculator | Projected Ridership |
|---|---|---|---|
| **1A** | 159 | 1.00 | 319 |
| **1B** | 139 | 1.00 | 278 |
| **2** | 233 | -0.30 | 163 |
| **3** | 200 | 0.00 | 200 |
| **4** | 125 | 0.53 | 191 |
| **5** | 649 | 0.00 | 649 |
| **6** | 134 | 0.00 | 134 |
| **7** | 1,232 | 0.22 | 1,503 |
| **9** | 322 | 0.63 | 525 |
| **10** | 77 | 0.20 | 92 |
| **11** | 164 | 0.10 | 180 |
| **T** | 1,297 | 0.00 | 1,297 |
| **Total** | **4,730** | -- | **5,531** |





## Sunday Ridership Estimates

Table 4-24 | Sunday Ridership, Step One: Ridership Redistribution by Geographic Coverage

| Existing Ridership | | Proposed Route & Distribution Factor | | | |
|---|---|---|---|---|---|
| **Route** | Daily Ridership | 2 | 7 | 10 | T |
| **2** | 104 | 0.60 | -- | -- | -- |
| **9** | 18 | -- | 0.20 | -- | -- |
| **12** | 467 | -- | 0.85 | -- | -- |
| **T** | 707 | -- | -- | -- | 1.00 |
| **Total** | **1,296** | | | | |

Table 4-25 | Sunday Ridership, Step One (Continued): New Baseline Ridership Based on Geographic Coverage

| Existing Ridership | | Proposed Route & Baseline Ridership | | | | |
|---|---|---|---|---|---|---|
| **Route** | Daily Ridership | 2 | 7 | 10 | T | **Total** |
| **2** | 104 | 62 | 0 | 0 | 0 | |
| **9** | 18 | 0 | 4 | 0 | 0 | |
| **12** | 467 | 0 | 397 | 0 | 0 | |
| **T** | 707 | 0 | 0 | 0 | 707 | |
| **Total** | **1,296** | **62** | **401** | **0** | **707** | **1,170** |

Table 4-26 | Sunday Ridership, Step Two: New Ridership Based on Added Geographic Coverage

| Proposed Route | Estimated Daily Riders (Baseline) | Estimated New Daily Riders (Coverage) | Estimated Total Daily Riders |
|---|---|---|---|
| **2** | 62 | 10 | 72 |
| **9** | 401 | 0 | 401 |
| **12** | 0 | 35 | 35 |
| **T** | 707 | 0 | 707 |
| **Total** | **1,170** | **45** | **1,215** |

Table 4-27 | Sunday Ridership, Step Three: Ridership Adjustment Based on Service Characteristics

| Proposed Route | Estimated Daily Riders Based on Geographic Coverage | Impact Factor from Service Characteristics Impact Calculator | Projected Ridership |
|---|---|---|---|
| **2** | 72 | -0.30 | 51 |
| **9** | 401 | 0.60 | 641 |
| **12** | 35 | 1.00 | 70 |
| **T** | 707 | 0.05 | 742 |
| **Total** | **1,215** | -- | 1,504 |





## 4.2. MID-TERM (3-10 YEARS) SERVICE IMPROVEMENTS AND NEEDS IDENTIFICATION

With the implementation of the short-term recommendations, CAT service will be well-aligned geographically with the market for transit in the service area. However, a common theme in the rider survey responses presented in Chapter 3 was a desire for more service, including more frequent service on weekdays, and Sunday service on more routes.

The mid-term recommendations build on the network proposed in the short-term recommendations but add 30-minute peak-period service to every route. Saturday service remains unchanged from the short-term recommendations. Sunday service in the mid-term mimics Saturday service, but with an abridged span of service (12 hours for each route). **Table 4-28**, **Table 4-29**, and **Table 4-30** show the mid-term service plans for weekday, Saturday, and Sunday service respectively.

## Weekday Operating Plan

**Table 4-28 | Proposed Weekday Service Characteristics: Mid-Term**

| Proposed Route | Avg. Round Trip Miles | Est. Avg. Speed | Run Time | Min. Recovery Time | Min. Cycle Time | Even Cycle Time | Actual Recovery Time | Actual % Recovery | Peak Freq. | Peak Hours | Peak Trips | Peak Vehicles | Off-Peak Freq. | Off-Peak Hrs. | Off-Peak Trips | Off-Peak Vehicles | Daily Trips | Daily Hrs. Serv. | Rev. Hrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5+7 | 37.1 | 12.5 | 2:58 | 0:17 | 3:15 | 3:30 | 0:31 | 15% | 0:30 | 7:00 | 14 | 7.0 | 0:30 | 10:00 | 20 | 7.0 | 34 | 17:00 | 119:00 |
| 4+6 | 11.4 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 12% | 0:30 | 7:00 | 14 | 2.0 | 1:00 | 10:00 | 10 | 1.0 | 24 | 17:00 | 24:00 |
| 9+1B | 24.9 | 14 | 1:46 | 0:10 | 1:57 | 2:00 | 0:13 | 11% | 0:30 | 7:00 | 14 | 4.0 | 1:00 | 10:00 | 10 | 2.0 | 24 | 17:00 | 48:00 |
| 3 | 11.3 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 13% | 0:30 | 7:00 | 14 | 2.0 | 1:00 | 10:00 | 10 | 1.0 | 24 | 17:00 | 24:00 |
| 11+1A | 23.3 | 13 | 1:47 | 0:10 | 1:58 | 2:00 | 0:12 | 10% | 0:30 | 7:00 | 14 | 4.0 | 1:00 | 10:00 | 10 | 2.0 | 24 | 17:00 | 48:00 |
| 10+2 | 22.4 | 13 | 1:43 | 0:10 | 1:53 | 2:00 | 0:16 | 14% | 0:30 | 7:00 | 14 | 4.0 | 1:00 | 10:00 | 10 | 2.0 | 24 | 17:00 | 48:00 |
| T | 6.0 | 12 | 0:30 | 0:03 | 0:33 | 0:45 | 0:15 | 33% | 0:30 | 7:00 | 14 | 1.5 | 0:15 | 10:00 | 40 | 3.0 | 54 | 17:00 | 40:30 |





## Saturday Operating Plan

**Table 4-29 | Proposed Saturday Service Characteristics: Mid-Term**

| Proposed Route | Avg. Round Trip Miles | Est. Avg. Speed | Run Time | Min. Recovery Time | Min. Cycle Time | Even Cycle Time | Actual Recovery Time | Actual % Recovery | Peak Freq. | Peak Hours | Peak Trips | Peak Vehicles | Off-Peak Freq. | Off-Peak Hrs. | Off-Peak Trips | Off-Peak Vehicles | Daily Trips | Daily Hrs. Serv. | Rev. Hrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5+7 | 37.1 | 13.5 | 2:44 | 0:16 | 3:01 | 3:30 | 0:45 | 21% | 0:30 | 7:00 | 14 | 7.0 | 0:30 | 10:00 | 20 | 7.0 | 34 | 17:00 | 119:00 |
| 4+6 | 11.4 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 12% | 1:00 | 7:00 | 7 | 1.0 | 1:00 | 8:00 | 8 | 1.0 | 15 | 15:00 | 15:00 |
| 9+1B | 24.9 | 14 | 1:46 | 0:10 | 1:57 | 2:00 | 0:13 | 11% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 8:00 | 8 | 2.0 | 15 | 15:00 | 30:00 |
| 3 | 11.3 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 13% | 1:00 | 7:00 | 7 | 1.0 | 1:00 | 8:00 | 8 | 1.0 | 15 | 15:00 | 15:00 |
| 11+1A | 23.3 | 13 | 1:47 | 0:10 | 1:58 | 2:00 | 0:12 | 10% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 8:00 | 8 | 2.0 | 15 | 15:00 | 30:00 |
| 10+2 | 22.4 | 13 | 1:43 | 0:10 | 1:53 | 2:00 | 0:16 | 14% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 8:00 | 8 | 2.0 | 15 | 15:00 | 30:00 |
| T | 6.0 | 13.5 | 0:26 | 0:02 | 0:29 | 0:30 | 0:03 | 11% | 0:15 | 7:00 | 28 | 2.0 | 0:15 | 10:00 | 40 | 2.0 | 68 | 17:00 | 34:00 |

## Sunday Operating Plan

**Table 4-30 | Proposed Sunday Service Characteristics: Mid-Term**

| Proposed Route | Avg. Round Trip Miles | Est. Avg. Speed | Run Time | Min. Recovery Time | Min. Cycle Time | Even Cycle Time | Actual Recovery Time | Actual % Recovery | Peak Freq. | Peak Hours | Peak Trips | Peak Vehicles | Off-Peak Freq. | Off-Peak Hrs. | Off-Peak Trips | Off-Peak Vehicles | Daily Trips | Daily Hrs. Serv. | Rev. Hrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5+7 | 37.1 | 13.5 | 2:44 | 0:16 | 3:01 | 3:30 | 0:45 | 21% | 0:30 | 7:00 | 14 | 7.0 | 0:30 | 5:00 | 10 | 7.0 | 24 | 12:00 | 84:00 |
| 4+6 | 11.4 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 12% | 1:00 | 7:00 | 7 | 1.0 | 1:00 | 5:00 | 5 | 1.0 | 12 | 12:00 | 12:00 |
| 9+1B | 24.9 | 14 | 1:46 | 0:10 | 1:57 | 2:00 | 0:13 | 11% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 5:00 | 5 | 2.0 | 12 | 12:00 | 24:00 |
| 3 | 11.3 | 13 | 0:52 | 0:05 | 0:57 | 1:00 | 0:07 | 13% | 1:00 | 7:00 | 7 | 1.0 | 1:00 | 5:00 | 5 | 1.0 | 12 | 12:00 | 12:00 |
| 11+1A | 23.3 | 13 | 1:47 | 0:10 | 1:58 | 2:00 | 0:12 | 10% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 5:00 | 5 | 2.0 | 12 | 12:00 | 24:00 |
| 10+2 | 22.4 | 13 | 1:43 | 0:10 | 1:53 | 2:00 | 0:16 | 14% | 1:00 | 7:00 | 7 | 2.0 | 1:00 | 5:00 | 5 | 2.0 | 12 | 12:00 | 24:00 |
| T | 6 | 13.5 | 0:26 | 0:02 | 0:29 | 0:30 | 0:03 | 11% | 0:30 | 7:00 | 14 | 1.0 | 0:30 | 5:00 | 10 | 1.0 | 24 | 12:00 | 12:00 |





### 4.2.1. Mid-Term Ridership Estimates

Using the projected ridership for the short-term recommendations as a starting point, the mid-term recommendations are expected to increase ridership an additional 8 percent on weekdays, and 81 percent on Sundays (**Table 4-31** and **Table 4-32**).

## Weekday Ridership Estimates

**Table 4-31 | Mid-Term Weekday Ridership Estimates**

| Proposed Route | Estimated Daily Riders | Impact Factor from Service Characteristics Impact Calculator | Projected Ridership |
|---|---|---|---|
| **1A** | 216 | 0.25 | 270 |
| **1B** | 195 | 0.25 | 244 |
| **2** | 281 | 0 | 281 |
| **3** | 265 | 0 | 265 |
| **4** | 383 | 0.25 | 479 |
| **5** | 911 | 0.25 | 1,139 |
| **6** | 229 | 0 | 229 |
| **7** | 1,816 | 0 | 1,816 |
| **9** | 807 | 0.25 | 1,009 |
| **10** | 167 | 0 | 167 |
| **11** | 261 | 0.25 | 327 |
| **T** | 2,838 | 0 | 2,838 |
| **Total** | **8,369** | -- | **9,063** |

### Saturday and Sunday Ridership Estimates

**Table 4-32 | Mid-Term Saturday and Sunday Ridership Estimates**

| Proposed Route | Saturday | | | Sunday | | |
|---|---|---|---|---|---|---|
| | Estimated Daily Riders (Baseline) | Estimated New Daily Riders (Coverage) | Projected Ridership | Estimated Daily Riders (Baseline) | Estimated New Daily Riders (Coverage) | Projected Ridership |
| **1A** | 319 | -- | **319** | -- | 159 | 159 |
| **1B** | 278 | -- | **278** | -- | 139 | 139 |
| **2** | 153 | -- | **153** | 51 | | 51 |
| **3** | 195 | -- | **195** | -- | 97 | 97 |
| **4** | 183 | -- | **183** | -- | 92 | 92 |
| **5** | 649 | -- | **649** | -- | 324 | 324 |
| **6** | 129 | -- | **129** | -- | 65 | 65 |
| **7** | 1,491 | -- | **1,491** | 641 | | 641 |
| **9** | 513 | -- | **513** | -- | 256 | 256 |
| **10** | 92 | -- | **92** | 70 | | 70 |
| **11** | 169 | -- | **169** | -- | 85 | 85 |
| **T** | 1,297 | -- | **1,297** | 742 | | 742 |
| **Total** | **5,467** | -- | **5,467** | **1,504** | **1,217** | **2,721** |

## 4.3. LONG-TERM (10+ YEARS) SERVICE IMPROVEMENTS AND NEEDS IDENTIFICATION

The US-29 corridor is the second busiest transit corridor in the region, with only the Main Street corridor between downtown and UVA generating more transit trips. Service in the corridor is provided by Route 7, which carries more than 2,100 passengers per weekday and regularly experiences loads in excess of 32 passengers (the seating capacity of a 35-foot transit bus typically assigned to the route). These high passenger loads also weigh on the route's on-time performance, which currently stands at just 66 percent.

In addition to Route 7, JAUNT operates a specially branded service, called the 29 Express, to provide commuter connections between the Forest Lakes/Hollymead area and the downtown Charlottesville/UVA area. 29 Express buses have a unique brand compared to the general JAUNT fleet and convey an image of enhanced service in the high-traffic corridor. However, the current 29 Express service includes just two southbound trips in the morning and two northbound trips in the afternoon.



Transit Development Plan
FY 2019 – FY 2028

If the 29 Express were operated with all day, limited stop service, it would help provide relief to Route 7, and would likely prove very popular with area riders. Rather than serving all stops along the corridor, as Route 7 does, the 29 Express could serve just key destinations such as downtown, UVA Hospital, UVA, Barracks Road Shopping Center, Fashion Square Mall, Walmart, CHO, and UVA Research Park. For additional destinations, passengers could transfer to Route 7 or other routes for local connections.

A benefit of the current 29 Express brand is that it is different than the standard JAUNT brand. This creates an opening for regional partners including CAT and UVA to associate with and even jointly fund the service. Over time, the 29 Express brand could evolve into Bus Rapid Transit service with specialized vehicles and station-like stops.

## 4.4. CAPITAL IMPROVEMENT PLAN

In 2018 CAT completed a ten-year capital improvement plan (CIP). The document identified several fleet replacement, fleet expansion, passenger amenity, and equipment needs. The system's existing operational facilities can accommodate the current and projected fleet needs and will not require a major capital investment. The fleet investments identified in the capital plan reflect the increase in peak vehicles (and associated contingency fleet) associated with the short- and mid-term service recommendations outlined in this chapter. The single largest expense is the replacement of transit buses at the end of their useful life (76 percent of capital needs).

**Table 4-33 | CAT Capital Improvement Plan (No recommendations for FY2019) (All costs in $ thousands)**

| Name | Details | Quantity | Total |
|---|---|---|---|
| 35-Ft Replacement Diesel Bus | Replace buses 100,102,103 | 3 | $1,275 |
| Shelters / Passenger Amenities | | - | $77 |
| <30-Ft Replacement Bus | Replace bus 309 | 1 | $124 |
| 30-Ft Replacement Bus | Replace buses 200, 201, 202 | 3 | $1,228 |
| Upgrade On-Board Bus Video System | | 1 | $544 |
| **2020 Sub-Total** | | | **$3,248** |
| 35-Ft Replacement Diesel Bus | Replace buses 101,105,106,107 | 4 | $1,739 |
| 30-Ft Replacement Bus | Replace buses 203,205,206 | 3 | $1,256 |
| **2021 Sub-Total** | | | **$2,995** |
| 30-Ft Replacement Bus | Replace buses 204,207,208 | 3 | $1,289 |
| 35-Ft Replacement Diesel Bus | Replace buses 108,109,110,111 | 4 | $1,783 |
| **2022 Sub-Total** | | | **$3,072** |
| 35-Ft Expansion Diesel Bus | Addition to fleet | 3 | $1,368 |
| 30-Ft Replacement Bus | Replace bus 209 | 1 | $440 |
| <30-Ft Replacement Bus | Replace bus 310 | 1 | $133 |
| Two-Way Communication Upgrade | Upgrade entire fleet | - | $547 |
| **2023 Sub-Total** | | | **$2,487** |
| <30-Ft Replacement Bus | Replace bus 311 | 1 | $134 |
| 30-Ft Replacement Bus | Replace bus 210 | 1 | $451 |
| 30-Ft Expansion Bus | Addition to fleet | 1 | $451 |
| **2024 Sub-Total** | | | **$1,486** |
| <30-Ft Replacement Bus | Replace bus 312 | 1 | $136 |

| Name | Details | Quantity | Total |
|---|---|---|---|
| Replacement Shop Truck | Purchase Replacement Shop Truck | 1 | $59 |
| **2025 Sub-Total** | | | **$195** |
| 35-Ft Replacement Diesel Bus | Replace buses 112,113 | 2 | $969 |
| <30-Ft Replacement Bus | Replace bus 313 | 1 | $138 |
| Replacement Replica Trolley Bus | Replace buses 401,402,403 | 3 | $2,042 |
| **2026 Sub-Total** | | | **$3,150** |
| 35-Ft Replacement Diesel Bus | Replace buses 114,115 | 2 | $992 |
| Replacement Support Vehicles | Purchase Replacement Support Vehicles | 3 | $111 |
| **2027 Sub-Total** | | | **$1,103** |
| 35-Ft Replacement Diesel Bus | Replace buses 116,117 | 2 | $1,016 |
| Replacement Support Vehicles | Purchase Replacement Support Vehicles | 2 | $78 |
| **2028 Sub-Total** | | | **$1,094** |
| 35-Ft Replacement Diesel Bus | | 2 | $1,034 |
| Replacement Support Vehicles | | 2 | $79 |
| **2029 Sub-Total** | | | **$1,113** |
| **Total** | | | **$19,942** |

*all costs in year of expenditure dollars

### 4.4.1. Other Capital Needs

There are a handful of capital investments that CAT is interested in exploring further but is not reflected in the CIP. These investments will require a cost/benefit analysis and a change in strategy by the organization.

The first possible investment is the introduction of a mid-life or end-of-life overhaul program for buses. Overhauls can range in scope from a renewal of the bus powertrain to full renovation of the entire vehicle. These investments extend the life of transit buses and improve vehicle reliability. Introducing an overhaul program will require CAT to maintain a higher spare ratio, as buses under overhaul can be out of service for months.

The second investment CAT is interested in exploring is alternative fuel vehicles. The system's existing fleet of hybrid buses have been expensive to maintain and have not resulted in the environmental or operational benefits that were anticipated. These vehicles will be replaced by conventional clean diesel buses at the end of their useful life under the current CIP. CAT sees the adoption of Compressed Natural Gas (CNG) or battery powered electric vehicles as an alternative that warrants further study.



**Transit Development Plan**
FY 2019 – FY 2028

*Page Intentionally Left Blank*


# Chapter 5

## Implementation Plan


*Page Intentionally Left Blank*

# 5 Implementation Plan

This chapter quantifies the capital improvements necessary for implementing the service enhancements identified in Chapter 4. All elements of this chapter form the basis for a capital improvement program (CIP) to guide CAT throughout a ten-year planning horizon. Primary capital components include the fleet (replacements, ongoing maintenance, and expansion) and facilities (stations, operation/ maintenance facilities, and park and rides). Essential maintenance, rehabilitation, and state of good repair projects are emphasized to inform CAT's ongoing transit asset management program. Funding for project costs will be identified from federal, state, and local sources. This chapter will distinguish those projects in the CIP which CAT reasonably anticipates local funding to be available, and those with no current funding allocated.

## 5.1. ROLLING STOCK UTILIZATION

This section presents the vehicle replacement and expansion needs to provide envisioned services throughout this TDP period. Included in this section are the implications of right-sizing the fleet/spare ratio, vehicle life-cycle maintenance, technological retrofit, and any impacts to the overall utilization of the fleet during the implementation of new services outlined in Chapter 4.

### 5.1.1. Fleet Inventory

CAT has a fleet of 36 vehicles for fixed-route revenue service. CAT also maintains a fleet of nine (9) support vehicles, including SUVs, Cargo Vans and a shop truck.

The following adjustments were made to the Federal Transit Administration Useful Life Benchmark (ULB) in this inventory reporting. A ULB of 14 years for over the road buses was used which is specified by FTA and 2-years in excess of current CAT ULB calculations. A ULB of 8 years for body-on-chassis vans was used, which is 3 years in excess of current CAT ULB calculations yet reflects a lower ULB than prescribed by the FTA. This ULB was established based on the observed actual retirement of CAT vans, which are routinely exceeding their initial 5-year benchmark. All future ULB adjustments in subsequent years should be informed with a qualitative condition assessment as part of the CAT Asset Management program.

All vehicle information for CAT's fixed route and support vehicles is provided in **Table** 5-1 and **Table 5-2.** Vehicle replacement and retirement analysis in the subsequent sections will begin starting with FY2019.



Transit Development Plan
FY 2019 – FY 2028

Table 5-1| CAT Fixed Route Fleet Inventory

| Year | Make/Model | Length (Feet) | Capacity | FTA ULB (Years) | Number of Vehicles | Unit Number |
|---|---|---|---|---|---|---|
| 2008 | Gillig Low Floor Trolley Replica Diesel | 30 | 20 | 14 | 1 | 400 |
| 2008 | Gillig Low Floor Clean Diesel | 35 | 26 | 14 | 7 | 100, 101, 102, 103, 105, 106, 107 |
| 2008 | Gillig Low Floor Clean Diesel | 29 | 20 | 14 | 1 | 200 |
| 2010 | Gillig Low Floor Hybrid Electric | 29 | 20 | 14* | 2 | 201, 202 |
| 2010 | Gillig Low Floor Clean Diesel | 35 | 26 | 14 | 4 | 108, 109, 110, 111 |
| 2011 | GM-Goshen BOC Diesel | 26 | 12 | 8 | 1 | 307 |
| 2011 | Gillig Low Floor Hybrid Electric | 29 | 20 | 14* | 4 | 203, 204, 205, 206 |
| 2012 | Gillig Low Floor Hybrid Electric | 29 | 20 | 14* | 3 | 207, 208, 209 |
| 2012 | GM-Goshen BOC Diesel | 26 | 12 | 8 | 1 | 308 |
| 2013 | GM-Goshen BOC Diesel | 26 | 12 | 8 | 1 | 309 |
| 2014 | Gillig Low Floor Hybrid Electric | 29 | 20 | 14* | 1 | 210 |
| 2014 | Gillig Low Floor Trolley Replica Clean Diesel | 35 | 26 | 14 | 3 | 401, 402, 403 |
| 2014 | Gillig Low Floor Clean Diesel | 35 | 26 | 14 | 2 | 112, 113 |
| 2015 | Gillig Low Floor Clean Diesel | 35 | 26 | 14 | 4 | 114, 115, 116, 117 |
| 2016 | GM-Arboc BOC Gasoline | 26 | 12 | 8 | 1 | 310 |
| **Total Fleet (In Service)** | | | | | **36** | |

Table 5-2 | CAT Support Vehicle Inventory

| Year | Make/Model | Use | ULB (Years) | Unit Number |
|---|---|---|---|---|
| 2006 | Ford Escape | Driver Shift Changes | 10 | 811 |
| 2015 | Ford F-350 | Shop Maintenance Truck | 10 | 813 |
| 2015 | Ford Explorer | Supervisor Response Vehicle | 10 | 814 |
| 2015 | Chevrolet Cargo Van | Street Amenities Maintenance | 10 | 815 |
| 2016 | Dodge Journey | Administration | 10 | 816 |
| 2017 | Jeep Compass | Driver Shift Changes | 10 | 817, 818. 819 |
| 2019 | Chevrolet Cargo Van | Street Amenities Maintenance | 10 | 820 |
| **Total Support Vehicles** | | | **9** | |





### 5.1.2. Vehicle Replacement

From FY2019-2029, CAT's baseline fleet requirements would entail retiring a total of 36 vehicles, but only replacing 30 vehicles. This is primarily due to a gradual reduction in the fleet size to better align with the vehicles operated in maximum service (VOMS). The reduction in fleet is gradual and intended to also offset significant vehicle retirements anticipated in FY2022. During this planning period, a spare ratio of 36.1 percent (2019) is reduced to 23.3 percent by FY2022. The lower spare ratio is maintained throughout the duration of the plan, with equal replacement for each retired vehicle resuming.

CAT is anticipated to replace retired vehicles with vehicles of a comparable size with a stated preference for maintaining a similar composition of fleet size, length and vehicle capacity. A notable exception for equivalent replacements are for the 29-foot hybrid electric vehicles. Due to excessively high lifecycle maintenance costs, CAT will replace these vehicles as expeditiously as possible and with clean diesel propulsion only. All hybrid electric vehicles are anticipated to be removed from service by 2024.

The baseline vehicle replacement schedule and analysis are presented in **Table 5-3**. This estimate differs from the CAT CIP primarily due to the gradual reduction in fleet size and the slightly longer ULB for all vehicles than previously reported. For all Baseline and Expansion scenarios, some adjustments were made to avoid large procurements in one single year. This may entail spreading expenditures across several years and extending some vehicles beyond the ULB (reported as a percent in all tables). Adjusting these expenditures does not impact the timing of new expansion projects from Chapter 4 and as further detailed in the next section.

Total replacement costs were calculated using base vehicle costs for five vehicle types delivered to CAT. All costs were inflated to FY2018 dollars. Vehicle cost estimates used in these calculations include:

- 35′ Gillig Low Floor Clean Diesel $462,000
- 35′ Gillig Low Floor Trolley Replica $531,000
- 29′ Gillig Low Floor Clean Diesel $407,000
- 26′ GM-Goshen BOC Diesel $85,000
- 26′ GM-Arboc BOC Gasoline $120,000

Future vehicle replacement costs are projected to increase at 4 percent per year beginning with FY2019. The results of the baseline vehicle replacement program, identifying the vehicle type by replacement year and subsequent overall cost is presented in **Table 5-4**.

Table 5-3 | CAT Fixed Route Baseline Vehicle Replacement Schedule

| | Fiscal Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 |
| Carryover | 36 | 36 | 35 | 34 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Retire | 1 | 3 | 4 | 9 | 4 | 4 | 2 | 0 | 0 | 5 | 4 |
| New | 1 | 2 | 3 | 5 | 4 | 4 | 2 | 0 | 0 | 5 | 4 |
| **Total Fleet** | **36** | **35** | **34** | **30** | **30** | **30** | **30** | **30** | **30** | **30** | **30** |
| VOMS | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| Spare Ratio | 36.1% | 34.3% | 32.4% | 23.3% | 23.3% | 23.3% | 23.3% | 23.3% | 23.3% | 23.3% | 23.3% |
| Exceeding ULB | 0.0% | 0.0% | 0.0% | 0.0% | 3.3% | 0.0% | 6.7% | 0.0% | 0.0% | 0.0% | 0.0% |

Table 5-4 | CAT Fleet Baseline Vehicle Replacement by Vehicle and Annual Cost

| | Fiscal Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 |
| Vehicle Type | | | | | | | | | | | |
| 35' Bus | | | | 3 | 2 | 2 | 2 | | | 2 | 4 |
| 29' Bus | | 1 | 3 | 1 | 2 | 1 | | | | | |
| BOC (Diesel) | 1 | 1 | | 1 | | 1 | | | | | |
| BOC (Gas) | | | | | | | | | | | |
| 35' Trolley | | | | | | | | | | 3 | |
| Total Vehicles | | | | 3 | 2 | 2 | 2 | | | 2 | 4 |
| **Annual Cost (000s)** | **$89** | **$532** | **$1,369** | **$2,179** | **$2,086** | **$1,756** | **$1,182** | **$-** | **$-** | **$3,523** | **$2,660** |

### 5.1.3. Vehicle Expansion

For CAT to operate the services identified in Chapter 4, the fleet would not need to be expanded above its current size. This is achieved through right-sizing the fleet and new vehicle needs being offset by the existing spare ratio. Due to an initial reduction in VOMs because of proposed route restructuring, CATs spare ratio would increase beyond current levels to 40 percent in FY2020. These spare vehicles help to offset vehicle purchase/replacement needed from FY2021-FY2023. Only two expansion vehicles are needed to be purchased, one each in FY2023 and FY2024. Following an initial decline in fleet size from FY2019-FY2022, the fleet will grow from 31 vehicles to 32 vehicles in FY2023. The fleet will then grow to 33 vehicles in FY2024 and remain at that size through the remained of the TDP horizon. VOMs will increase with the expansion vehicles, growing from 21 to 24 in FY2023. VOMs in FY2024 will be 25 vehicles.

All expansion vehicles were assumed to be 35' heavy-duty buses, which may be more conservative than the actual demand may warrant. As the spare ratio is vehicle dependent, CAT noted that initial reduction of the spare ratio would be best served by reducing this class of vehicle. Therefore, by reintroducing these larger buses into the expansion services the future fleet mix generally retains CAT's existing distribution of vehicle sizes/types.

From FY2019-FY2029 CAT's fixed route fleet expansion would require 2 additional vehicles over baseline. The expansion vehicle replacement schedule and analysis are presented in **Table 5-5**. The results of the expansion vehicle acquisitions and baseline replacement program for the existing fleet is presented in **Table 5-6**.

Table 5-5 | CAT Fixed Route Expansion Vehicle Replacement Schedule

| | Fiscal Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 |
| Carryover | 36 | 36 | 35 | 34 | 31 | 32 | 33 | 33 | 33 | 33 | 33 |
| Retire | 1 | 3 | 4 | 8 | 4 | 4 | 2 | 0 | 0 | 5 | 4 |
| New | 1 | 2 | 3 | 5 | 5 | 5 | 2 | 0 | 0 | 5 | 4 |
| **Total Fleet** | **36** | **35** | **34** | **31** | **32** | **33** | **33** | **33** | **33** | **33** | **33** |
| VOMS | 23 | 21 | 21 | 21 | 24 | 25 | 25 | 25 | 25 | 25 | 25 |
| Spare Ratio | 36.1% | 40.0% | 38.2% | 32.3% | 25.0% | 24.2% | 24.2% | 24.2% | 24.2% | 24.2% | 24.2% |
| Exceeding ULB | 0.0% | 0.0% | 0.0% | 0.0% | 3.1% | 0.0% | 6.1% | 0.0% | 0.0% | 0.0% | 0.0% |



**Transit Development Plan**
FY 2019 – FY 2028

Table 5-6 | CAT Fleet Expansion Vehicle Acquisition and Baseline Replacement by Vehicle and Annual Cost

| | Fiscal Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 |
| Vehicle Type | | | | | | | | | | | |
| 35' Bus | | | | 3 | 3 | 3 | 2 | | | 2 | 4 |
| 29' Bus | | 1 | 3 | 1 | 2 | 1 | | | | | |
| BOC (Diesel) | 1 | 1 | | 1 | | 1 | | | | | |
| BOC (Gas) | | | | | | | | | | | |
| 35' Trolley | | | | | | | | | | 3 | |
| Total Vehicles | 1 | 2 | 3 | 5 | 4 | 4 | 2 | 0 | 0 | 5 | 4 |
| **Annual Cost (000s)** | **$89** | **$532** | **$1,369** | **$2,179** | **$2,640** | **$2,329** | **$1,182** | **$-** | **$-** | **$3,523** | **$2,660** |

### 5.1.4. Baseline and Expansion Comparisons

This section contrasts baseline and expansion implementation requirements. **Figure 43** represents the total annual vehicle replacements required for the ten-year period from FY2019-FY2028 for both baseline and expansion plans. **Figure 44** represents the net effect on the total CAT fleet size over the same ten-year period because of the baseline and expansion vehicle acquisition and replacement programs. **Figure 45** represents the cumulative expenditure over the entire 10-year duration between the baseline and expansion programs.

Figure 43 | Annual Vehicle Procurements FY2019-FY2028

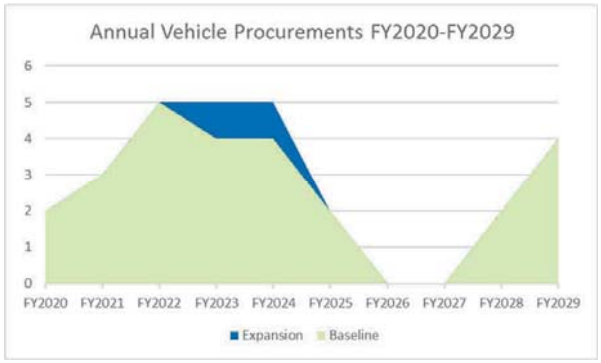
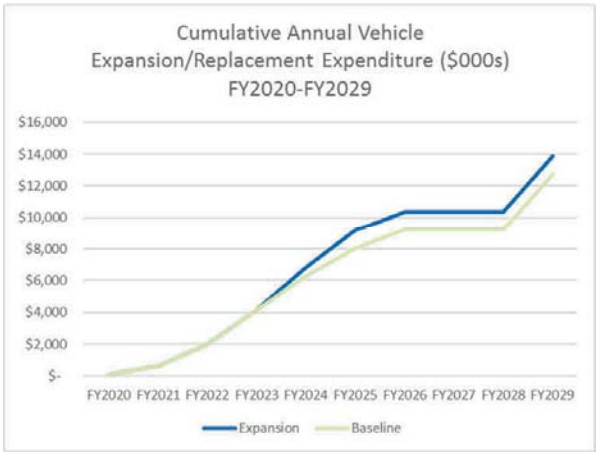



Figure 44 | Total Fleet Size FY2019-FY2028






Figure 45 | Cumulative Annual Vehicle Expansion/Replacement Expenditure FY2019-FY2028




## 5.2. MAJOR SYSTEM MAINTENANCE AND OPERATIONS FACILITIES

The CAT Operations and Maintenance Facility was recently constructed in 2010. The facility is well equipped to handle the CAT fleet and there is no need for facility expansion or improvements during the span of this TDP Update.

## 5.3. PASSENGER AMMENITIES

There are no specific recommendations for additional passenger amenities included in the CIP.

## 5.4. NEW TECHNOLOGY SYSTEMS OR UPGRADES

CAT has identified CIP project need for new surveillance and security equipment. This is an upgrade of the existing on-board video system purchased in 2011. The upgrade is planned for FY2025, with a total cost of $544,000.

CAT also anticipates in FY2022 an upgrade to the existing two-way communication system. The necessity of the upgrade stems from the systemwide P-25 Protocol upgrade and Motorola's discontinuance of the model (1500) in 2016 and discontinuance of support for that model in 2017. Total costs are estimated at $547,000.

*Page Intentionally Left Blank*


# Chapter 6

## Financial Plan


*Page Intentionally Left Blank*

# 6 Financial Plan

The purpose of the Financial Plan is to provide a planning-level forecast of CAT's costs and revenue over the 10-year TDP time-frame. The Financial Plan is composed of both an operating and capital component.

The operating budget is associated with regularly reoccurring costs such as labor, maintenance, insurance, and administration. These costs are stable over time and tend to be closely tied to the amount of service provided. The operating budget is broken further down by the cost of operating existing service and the cost associated with implementing the TDP recommendations. The additional cost associated with the TDP recommendations would require local, state, or federal funds above CAT's existing projected funding allocation.

Capital costs reflect one-off investments in procurement of replacement or expansion assets such as vehicles, buildings, and IT systems. These figures fluctuate considerably year over year.

## 6.1. DATA ASSUMPTIONS AND SOURCES

To develop this financial plan, a range of assumptions were made. Long-range budgets are a projection based on a snapshot in time, and as such should be updated regularly to ensure accuracy. Generally, certainty over costs and revenue decrease further into the future.

### 6.1.1. Operating Budget Assumptions

#### Direct Revenue

Direct operating revenue includes funds raised from fares, contracted services, sale of assets, advertising, or any other revenue-generated directly by a transit property. The direct revenue figures are based on estimates for FY2019 reported in DRPT's FY19 Six-Year Improvement Plan (SYIP). They are broken into four categories: fare revenue, advertising, contract services (direct reimbursements for services by partners like UVA), and other.

These figures have been escalated over time based on the 3% annual growth assumption suggested by DRPT in the TDP guidance. The only exception to this escalation is fare revenue, which is assumed to grow by 2.5%, CAT's four-year average growth rate.

Fare revenue for new service is based off the estimated change in ridership developed in Chapter 4, multiplied by CAT's average fare revenue per trip of 24 cents.

#### Operating Grant Revenue

The Federal government, Commonwealth of Virginia, and local jurisdictions provide operating assistance to CAT in the form of grants. The base year allocation for federal and state funding is derived from DRPT's FY19 Six-Year Improvement Plan (SYIP). Local funds cover the remaining balance after all other revenues are accounted for.

CAT's federal funding comes from Section 5307 Urbanized Area formula funds. This funding is expected to grow year-over-year by 2.1%, the nationwide average growth of the Federal Formula fund program.

State funding is escalated off the FY19 base year according to changes DRPT's projected statewide transit operating assistance budget from FY20 to FY24 as reported by the FY19 SYIP. After FY24, state operating assistance is assumed to grow by 3%.

#### Operating Costs

Operating costs are assumed to grow by 3% a year over the FY18 cost per revenue hour of $74. The operating budget assumes that the TDP short-term





recommendations are implemented in FY20, with the long-term recommendations introduced in FY24.

### 6.1.2. Capital Budget Assumptions

#### Capital Revenue

CAT relies of Federal Flexible STP funding for most of its capital needs. The capital budget assumes federal funds will continue to support 80% of capital needs, with 16% coming from state matching funds, and 4% from local matching funds.

#### Capital Costs

CAT's capital costs are derived from the CIP outlined in Chapter 4. Costs are escalated from FY18 values by 2% a year to account for inflation

## 6.2. OPERATING BUDGET

**Table 6-1** presents the 10-year operating budget forecast for CAT. The budget includes the cost of operating existing service, as well as the net cost associated with the TDP recommendations.

CAT's operating budget is primarily funded through Federal, State, and Local operating grants. Local funding is forecasted to grow faster than the other sources as State and Local funding is forecasted to grow slower than operating costs.

The Short-Term TDP recommendations are essentially cost neutral, with the total cost increase associated with the recommendations totaling only $3,000. These recommendations will yield higher ridership per revenue hour than the systemwide average.

Mid-term recommendations in FY2024 will yield a more substantial increase in net operating costs of $1.3 million. No funding has been identified to cover these costs and new sources of revenue will be required to implement the mid-term recommendations.

## 6.3. CAPITAL BUDGET

**Table** 6-2 presents the 10-year capital budget forecast for CAT. CAT's capital needs are expected to average $1.8 million over the 10-year TDP planning timeframe. Needs fluctuate considerably year-over-year based on fleet replacement needs.

## 6.4. CONCLUSION

As CAT relies extensively on grants to support its operating and capital budget, the agency is susceptible to changes in funding and policy at the state and federal level, including:

- Changes or the complete abolishment of the flexible STP program in the next highway bill
- Major increases in transit service within Virginia (e.g. Silver Line Phase II) that will reduce CAT's share of state operating assistance.
- Changes in state capital match rates.

At the local level, any fluctuations in local general fund revenue may impact the ability of jurisdictions to support CAT service. As CAT relies in part on UVA funding to support particular routes, any change to this funding agreement would also affect CAT's operating budget.





Table 6-1 | Operating Budget Forecast (Figures in 1000s)

| Fiscal Year | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Operating Revenue** | | | | | | | | | | |
| Direct Revenue | | | | | | | | | | |
| Fare Revenue | $556 | $570 | $585 | $599 | $614 | $630 | $645 | $661 | $678 | $695 |
| Advertising Revenue | $140 | $144 | $149 | $153 | $158 | $162 | $167 | $172 | $177 | $183 |
| Contract Services | $254 | $261 | $269 | $277 | $286 | $294 | $303 | $312 | $321 | $331 |
| Other | $46 | $48 | $49 | $51 | $52 | $54 | $55 | $57 | $59 | $61 |
| Ops Revenue Subtotal | $997 | $1,024 | $1,052 | $1,080 | $1,110 | $1,140 | $1,171 | $1,203 | $1,235 | $1,269 |
| Grants | | | | | | | | | | |
| Federal | $1,690 | $1,726 | $1,762 | $1,799 | $1,837 | $1,875 | $1,915 | $1,955 | $1,996 | $2,038 |
| State | $1,948 | $1,787 | $1,787 | $1,825 | $1,845 | $1,870 | $1,926 | $1,984 | $2,043 | $2,104 |
| Local | $3,558 | $3,904 | $4,091 | $4,248 | $4,429 | $4,612 | $4,770 | $4,934 | $5,103 | $5,277 |
| Grant Revenue Subtotal | $7,195 | $7,417 | $7,639 | $7,871 | $8,111 | $8,357 | $8,611 | $8,872 | $9,142 | $9,419 |
| **Revenue Total** | **$8,192** | **$8,438** | **$8,691** | **$8,952** | **$9,220** | **$9,497** | **$9,782** | **$10,075** | **$10,377** | **$10,689** |
| **Operating Cost** | | | | | | | | | | |
| Existing Service | $8,192 | $8,438 | $8,691 | $8,952 | $9,220 | $9,497 | $9,782 | $10,075 | $10,377 | $10,689 |
| Net Cost of TDP Recommendations | $0 | $3 | $3 | $3 | $4 | $1,305 | $1,345 | $1,385 | $1,427 | $1,470 |
| **Total Operating Costs** | **$8,192** | **$8,441** | **$8,694** | **$8,955** | **$9,224** | **$10,802** | **$11,126** | **$11,460** | **$11,805** | **$12,159** |
| **Additional Funding Need to Implement TDP Recommendations** | **$0** | **$3** | **$3** | **$3** | **$4** | **$1,305** | **$1,345** | **$1,385** | **$1,427** | **$1,470** |

**Table 6-2 | Capital Budget Forecast (Figures in 1000s)**

| Fiscal Year | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Capital Revenue** | | | | | | | | | | |
| Federal (Flex STP) | $0 | $2,598 | $2,396 | $2,457 | $1,990 | $828 | $156 | $2,520 | $883 | $875 |
| State | $0 | $520 | $479 | $491 | $398 | $166 | $31 | $504 | $177 | $175 |
| Local | $0 | $130 | $120 | $123 | $99 | $41 | $8 | $126 | $44 | $44 |
| **Revenue Subtotal** | **$0** | **$3,248** | **$2,995** | **$3,072** | **$2,487** | **$1,035** | **$195** | **$3,150** | **$1,103** | **$1,094** |
| | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| **Capital Costs** | **$0** | **$3,248** | **$2,995** | **$3,072** | **$2,487** | **$1,035** | **$195** | **$3,150** | **$1,103** | **$1,094** |




# Chapter 7

## Regional Coordination

*Page Intentionally Left Blank*

# 7 Regional Coordination

The transit operators of the Charlottesville region have a long history of collaboration. Since 1987, ADA complementary paratransit service within the CAT service area has been provide by JAUNT, Inc., through an inter-local agreement. More recently, the Albemarle Board of Supervisors and the Charlottesville City Council agreed to enter into a formal partnership to help advise on improvements to bus service throughout the region. The Regional Transit Partnership (RTP) was established in 2007, and includes representatives from CAT, JAUNT, UTA, CAMPO, and the TJPDC. The RTP has four main goals:

- **Establishing Strong Communication**: The Partnership provides a long-needed venue to exchange information and resolve transit-related matters.
- **Ensuring Coordination between Transit Providers**: The Partnership gives transit providers a venue to coordinate services, initiatives and administrative duties of their systems.
- **Set the Region's Transit Goals and Vision**: The Partnership allows local officials and transit staff to work together with other stakeholders to craft regional transit goals. The RTP also provides, through MPO staff and updates of the Transit Development Plans (TDPs), opportunities for regional transit planning.
- **Identify Opportunities**: The Partnership will assemble decision-makers and stakeholders to identify opportunities for improved transit services and administration, including evaluation of a Regional Transit Authority (RTA).

While a Regional Transit Authority may be a long-term goal of the region, there are a number of initiatives that can be implemented in the shorter term to make the region's transit services more seamless and accessible.

## 7.1. SEAMLESS CONNECTIONS

### 7.1.1. Regional Travel Planning

The Charlottesville region has a wide range of urban and rural transit services. While these services provide broad coverage, there are a number of barriers that make it difficult for prospective riders to seamlessly navigate the regional network. Among the first challenges, is the lack of a regional travel planning tool.

Currently, transit user and prospective users must have a general understanding of the services they are looking for, or be willing to spend a substantial amount of time gathering details from different websites to determine their various mobility options. An alternative approach gaining popularity throughout the transit industry is a one-stop regional travel planning tool like the one shown in **Figure 46**. This tool, developed for 211VetLink of Riverside County, CA, integrates bus, paratransit, ride-sharing, and walking options in one easy-to-understand portal. After the user enters their start and end locations, the website presents a table of available mobility options, including travel times, costs, and any special eligibility requirements that may apply. Users can then select a trip for additional information, and in some cases, to book the trip.

A similar tool in the Charlottesville region could provide users with information, including real-time vehicle locations, for CAT, JAUNT, UTS, and Greene County Transit services.



**Transit Development Plan**
FY 2019 – FY 2028

**Figure 46 | 211VetLink Trip Planning Website (Riverside, CA)**


### 1.1.1 Regional Fares

Once users are aware of the mobility options available to them, the next challenge in creating a seamless network is fare compatibility. Currently, CAT, JAUNT, and Greene County transit each have their own fare structures and policies (UTS service is fare-free). None of the systems accept tickets or passes from the others.

To create a compatible fare system, the three transit operators could coordinate on future farebox technology procurements to ensure to that all fareboxes are able to read and issue tickets and passes that can be read by the other systems. However, given that JAUNT and Greene County Transit do not currently have smart fareboxes, and may not have the resources for them in the future, another option to consider is mobile ticketing (**Figure 47).** Mobile ticketing allows users to purchase fares on their mobile devices. Proof of purchase can then be established by scanning the phone on a smart farebox, or presenting it to a bus driver for inspection, depending on the technology available on each transit system.

**Figure 47 | Mobile Ticketing Platform (Fayetteville, AR)**


With mobile ticketing, a regional fare category can be established and overlaid on the fare structures of CAT, JAUNT, and Greene County transit, even if all other fares remain unique to each system. Revenues can be divided among the three providers based on an agreed-upon fare allocation formula.

## 7.2. REGIONAL SERVICES

### 7.2.1. US-29 BRT Service

The US-29 corridor is the second busiest transit corridor in the region, with only the Main Street corridor between downtown Charlottesville and UVA generating more transit trips. Service in the corridor is provided by CAT Route 7 and JAUNT's 29 Express Route. Route 7 carries more than 2,100 passengers per weekday and regularly experiences loads in excess of 32 passengers (the seating capacity of a 35-foot transit bus typically assigned to the route). These high passenger loads also weigh on the route's on-time performance, which currently stands at just 66 percent.

**Figure 48 | 29 Express Branded Service**


JAUNT's 29 Express has a strong brand, but currently operates just four round-trips per day. Through a regional partnership between CAT, JAUNT, and UVA, the 29 Express brand could evolve into a Bus Rapid Transit service with specialized vehicles and station-like stops. If the 29 Express were operated with all day, limited stop service, it would help provide relief to CAT Route 7, and would likely prove very popular with area riders. Rather than serving all stops along the corridor, as Route 7 does, the 29 Express could serve just key destinations such as downtown, UVA Hospital, UVA, Barracks Road Shopping Center, Fashion Square Mall, Walmart, CHO, and UVA Research Park. For additional destinations, passengers could transfer to CAT Route 7 or other routes for local connections.

### 7.2.2. Subsidized TNCs and Microtransit

Transportation Network Companies (TNCs) such as Uber and Lyft have emerged over the past several years as viable options for travelers making short-notice trips without relying on a personal automobile. Recently, public transit agencies have begun partnering with TNCs to subsidize certain trip types that cannot be provided as effectively or efficiently with traditional transit modes. Examples of such trips include short-notice demand-response reservations, after-hours trips, or trips in low-density environments.

While subsidized TNC service can work well in urbanized areas with high saturations of Uber and Lyft vehicles, it works less-well in more rural environments where TNC availability is low or nonexistent. As an alternative to subsidized TNC service, some transit agencies are now implementing purpose-built app-based demand response services – sometimes through third-party turn-key contracts, and sometimes through the deployment of technology platforms on their own vehicles. These services, often referred to as "microtransit," provide the convenience of the now-familiar TNC app interface, but are designed specifically for public transportation purposes.

In the Charlottesville region, JAUNT has traditionally been responsible for operating demand-response services. Given that JAUNT is sub-recipient of Federal funding, it may be necessary for CAT to play a role in any future contracts with TNCs or other app-based service providers. Such an agreement may take the form of a three-party contract where CAT contracts with a TNC or other app-based provider for purchased service, and concurrently with JAUNT to manage the service.





*Page Intentionally Left Blank*


# Appendices




*Page Intentionally Left Blank*

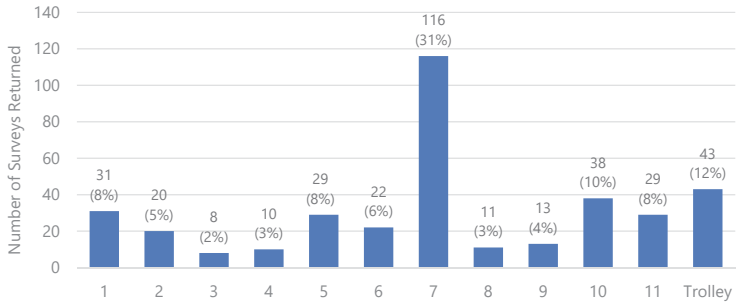
# 8 Appendix A: On-Board Survey Results

Grouped by question or prompt category, this appendix contains the full results of CAT's on-board rider survey conducted during Fall 2017. CAT riders were asked to provide a wide variety of information regarding use of the system, fare payment, satisfaction, and demographic characteristics.

## 8.1. RESPONDENT PROFILE

### 8.1.1. Surveys Returned by Route

**Figure 49 | Surveys Returned by Route (n=370)**





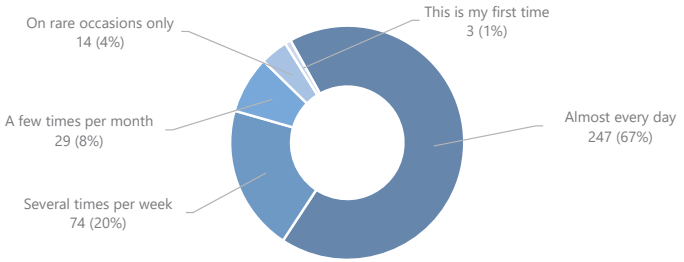

**Transit Development Plan**
FY 2019 – FY 2028

## 8.2. USE OF SYSTEM

### 8.2.1. Rider Frequency of Use

**QUESTION: How often do you ride Charlottesville Area Transit?**

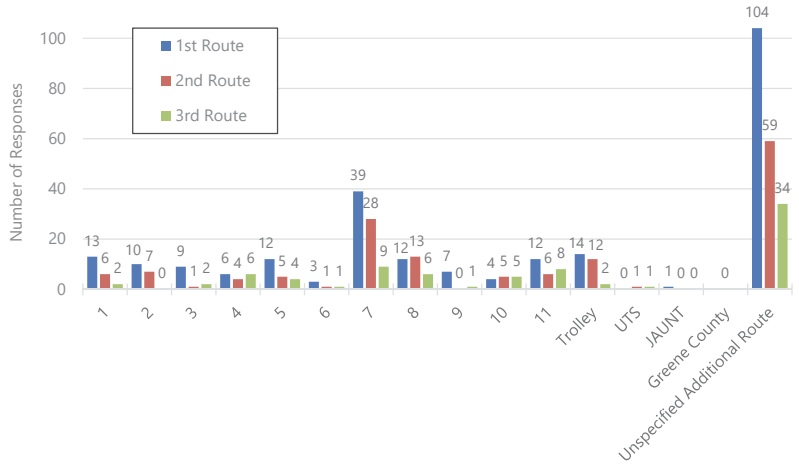
**Figure 50 | Frequency of Use (n=367)**



### 8.2.2. Routes Used for Trip

**QUESTION: Including this bus, which CAT, UTS, JAUNT, or Greene County Transit routes will you use to complete this one-way trip? [Include first route, and if applicable, second and third routes].**

**Figure 51 | Routes Used for Survey Trip (n1=246; n2=148; n3=81)**



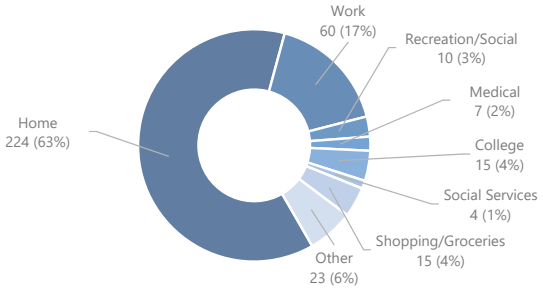





### 8.2.3. Rider Origin

**QUESTION: Where did you begin this one-way trip?**

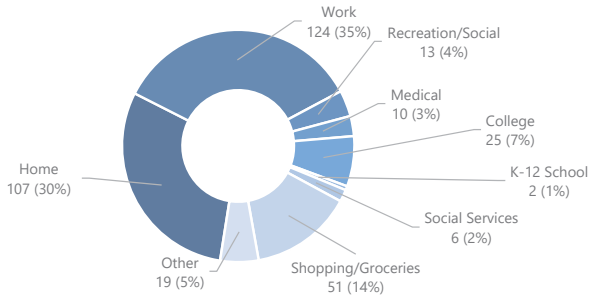
**Figure 52 | Trip Origin Type (n=358)**




### 8.2.4. Rider Destination

**QUESTION: Where is your final destination on this one-way trip?**

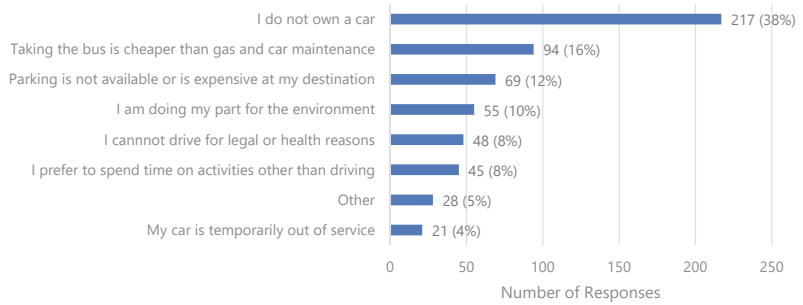
**Figure 53 | Trip Destination Type (n=357)**



### 8.2.5. Reasons to use CAT

**QUESTION: Which of the following describe the reasons that you use Charlottesville Area Transit? (Select all that apply)**

**Figure 54 | Reasons to Use CAT (n=577)**




## 8.3. FARE PAYMENT

### 8.3.1. Smart Card Usage

**QUESTION: Did you use a smart card to pay your bus fare today?**

**Table 8-1 | Smart Card Usage (n=351)**

| | Number | Percent |
|---|---|---|
| Yes | 105 | 30% |
| No | 246 | 70% |

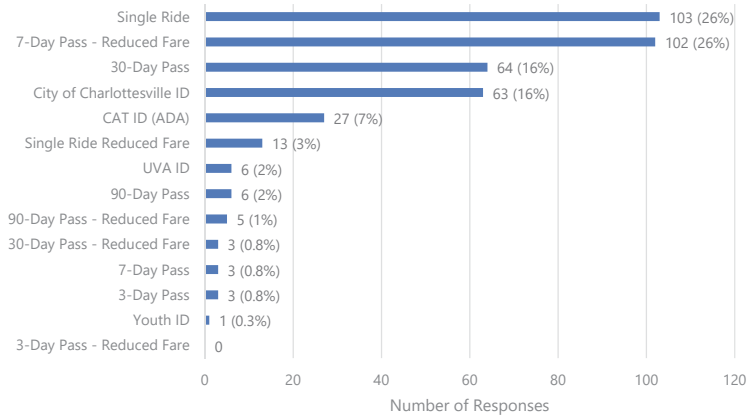




### 8.3.2. Fare Payment Type

**QUESTION: What type of bus fare did you pay today?**

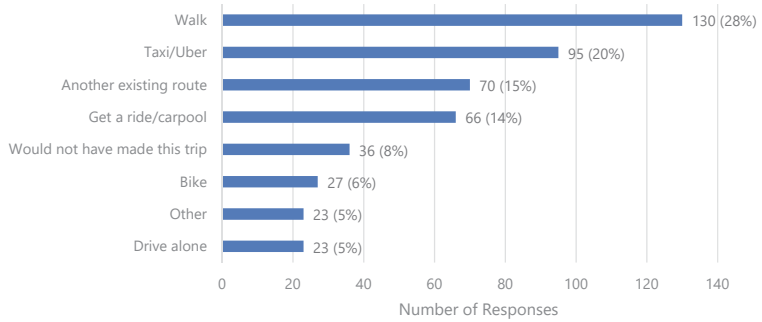
**Figure 55 | Fare Type Usage (n=399)**



### 8.3.3. Alternative Transportation Modes

**QUESTION: If this route didn't exist, how would you have made this trip?**

Figure 56 | Alternative Transportation Modes (n=470)




## 8.4. CUSTOMER SATISFACTION

### 8.4.1. Satisfaction Metrics

**QUESTION: Based on your experience riding Charlottesville Area Transit, how strongly do you agree with the following statements?**

Table 8-2 | Customer Satisfaction

| *Prompt* | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| Service is dependable (n=357) | 25 (7%) | 19 (5%) | 47 (13%) | 153 (43%) | 113 (32%) |
| Routes get me where I need to go (n=356) | 22 (6%) | 16 (4%) | 24 (7%) | 161 (45%) | 133 (37%) |
| Schedules meet my travel needs (n=354) | 27 (8%) | 29 (8%) | 68 (19%) | 142 (40%) | 88 (25%) |
| Fares are reasonable (n=355) | 22 (6%) | 7 (2%) | 36 (10%) | 130 (37%) | 160 (45%) |
| Buses are comfortable and well kept (n=353) | 28 (8%) | 14 (4%) | 53 (15%) | 136 (39%) | 122 (35%) |
| Staff is professional and courteous (n=356) | 25 (7%) | 14 (4%) | 48 (13%) | 133 (37%) | 136 (38%) |
| Maps and schedules are easy to understand (n=352) | 25 (7%) | 19 (5%) | 62 (18%) | 139 (39%) | 107 (30%) |





### 8.4.2. Customer Preferences

**QUESTION: Which of the following do you prefer?**

Table 8-3 | Customer Preferences

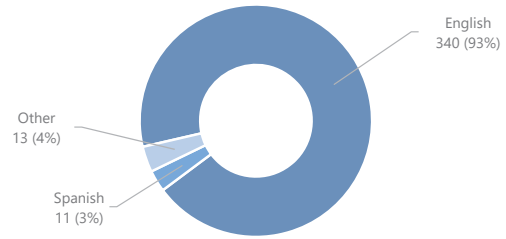
| Category | Choice | Number | Percent |
|---|---|---|---|
| Service Frequency and Span (n=307) | More frequent bus service | 178 | 58% |
| | Longer service hours | 129 | 42% |
| Weekday/Weekend Service (n=308) | More weekday service | 79 | 26% |
| | More weekend service | 229 | 74% |
| Bus Stops (n=292) | More bus stops for shorter walk distance to/from bus stops | 200 | 68% |
| | Fewer bus stops for faster bus service | 92 | 32% |
| Bus Street Coverage (n=277) | Buses running more frequently but on fewer streets | 172 | 62% |
| | Buses running on more streets but less frequently | 105 | 38% |
| Service Coverage (n=297) | Improve existing service | 163 | 55% |
| | Serve new areas | 134 | 45% |

# 8.5. DEMOGRAPHIC INFORMATION

## 8.5.1. Primary Language Spoken

**QUESTION: What is the primary language you speak at home?**

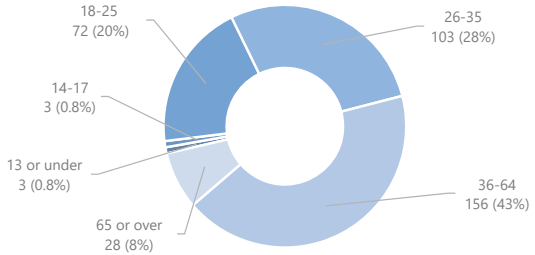
**Figure 57 | Primary Language Spoken (n=364)**




## 8.5.2. Age

**QUESTION: What is your age?**

**Figure 58 | Age (n=365)**



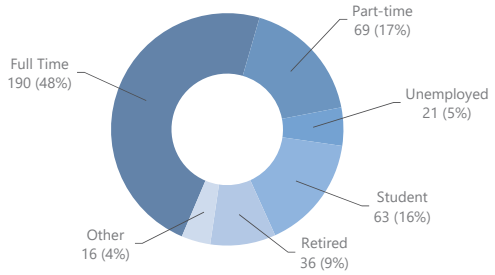





## 8.5.3. Employment Status

**QUESTION: Which of the following best describes your employment status?**

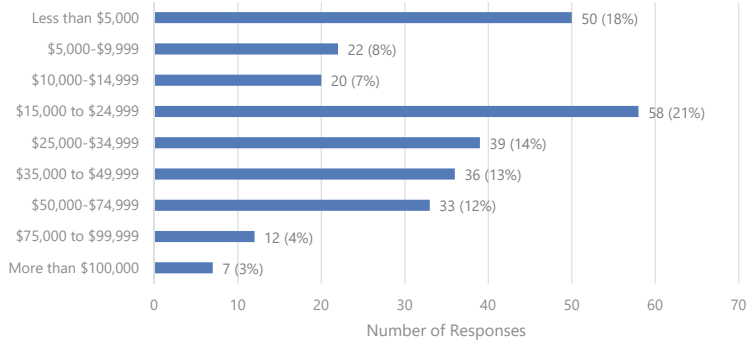
**Figure 59 | Employment Status (n=395)**




## 8.5.4. Household Income

**QUESTION: What is your approximate household income?**

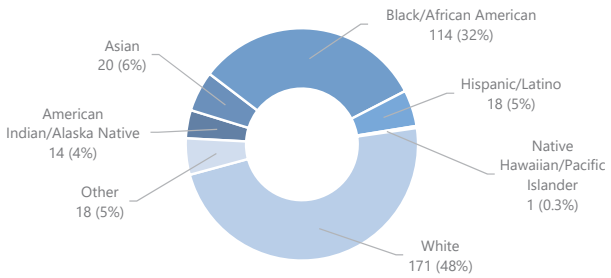
**Figure 60 | Approximate Household Income (n=277)**



### 8.5.5. Race/Ethnicity

**QUESTION: What is your race/ethnicity?**

**Figure 61 | Race/Ethnicity**




### 8.5.6. Gender

**QUESTION: What is your gender (optional)?**

**Table 8-4 | Gender (n=359)**

| | Number | Percent |
|---|---|---|
| Female | 186 | 52% |
| Male | 170 | 47% |
| Other | 3 | 1% |





## 8.6. CUSTOMER COMMENTS

**PROMPT: Please provide any additional comments you have below**

**Table 8-5 | Customer Comments**

| Customer Comments |
|---|
| THE FACT THAT YOU ONLY RUN THE 12 AND TROLLEY ON SUNDAY, AND ONLY FOR SO FEW HOURS, IS ABSURD. PEOPLE STILL NEED TO GET AROUND,THE SAME AS ANY OTHER DAY, AS MANY OF US STILL WORK (MYSELF AT KROGER; WHERE SUNDAY IS OUR BUSIEST DAY, AND THE HANDFUL OF INFREQUENT SERVICE HOURSYOU OFFER ARE NOT SOMETHING THEY WISH TO ACCOMODATE FOR PART-TIME STAFF). ALSO, YOU COULD USE BETTER TRAINING FOR SOME OF YOUR DRIVERS (MANY HAVE DRIVEN PAST STOPS THEY WERE SUPPOSED TO STOP AT), AS WELL AS BETTER NOTIFICATION OF ROUTE CHANGES (THE ONLY THING CLOSE TO A NOTICE FOR REMOVING USUAL SERVICE TO THE THORNTON HILL TROLLEY STOP WAS THE SILENT ADDITION OF A "(NIGHT STOP)" ANNOTATION TO THE APP). ADDITIONALLY, IT WOULD BE NICE (AND MAKE SENSE) TO OFFER A ROUTE TO CONNECT THE OTHER ROUTES WITH HOLLYMEAD (SO PEOPLE COULD STOP AT TARGET AND SUCH WITHOUT THE NEED OF A CAR). FINALLY, SOME DRIVERS SHOULD BE INSTRUCTED ON HOW TO STOP WITHOUT NEEDLESSLY SLAMMING OR PUMPING THE BRAKES. |
| THE CAT STAFF ARE WONDERFUL! |
| DOROTHY (DRIVES THE TROLLEY IN THE MORNING) IS FANTASTIC! COURTEOUS PROFEESIONAL AND KIND -MAKES THE MORNING A LITTLE EASIER TO DEAL WITH, MORE PANTOPS SERVICE NEEDED |
| DRIVES ARE INCONSISTENT AT TIMES THEY LEAVE THE STATION-I ARRIVE 5-7 MIN BEFORE TIME FOR THE BUS TO LEAVE BUT OFTEN THEY HAVE ALREADY LEFT MAKING MY WORK COMMUTE DIFFICULT |
| I REALLY LIKE THE CAT SERVICE BEING NEW IN TOWN-FURTHER THE STAFF IS ALWAYS NICE & HELPFUL TO NEW COMERS. BE MORE LIBERAL ON THE FOOD & DRINK RESTRICTION-JOHN E HALL 2427 SUNSET RD C'VILLE VA 22903 |
| THANK YOU FOR YOUR CONSIDERATION |
| HAVE BEEN RIDING BUS TO & FROM WORK FOR MANY YEARS-I FIND THE DRIVERS TO BE UNFRIENDLY SURELY UNHELPFUL & REALLY QUITE RUDE-THERE ARE EXCEPTIONS LIKE DOROTHY ON THE TROLLEY WHO IS EVERYTHING THE OTHER DRIVERS ARE NOT-MARY IS EXCELLENT AS WELL-MAYBE YOU SHOULD GET DOROTHY TO INTERVIEW THE APPLICANTS IN THE FUTURE-DON'T NEED THOSE CONTINEOUS ANNOUNCEMENTS ABOUT WHAT BUSES ARE ON THE ROUTE-WE ARE STOPPING! ANNOYING |
| I COULD USE MORE SERVICE ON THE WEEKEND, I WISH WE COULD HAVE A WAY TO GET HOME ALL THE WAY TO MONTICELLO VISTA APTS. |
| I HAVE A PROBLEM WITH THE MAIN POST OFFICE BUS STOP-THERE IS NO STOP OPPOSITE THE MPO GOING BACK DOWNTOWN-THERE IS ONLY A STOP IN COSTCO LOT-I SOMETIMES HAVE PROBLEMS WITH MY KNEES-THERE USED TO BE A STOP NEAR THE SHELL GAS STATION HOPE THAT WILL RETURN |
| WISH IT WAS ON WEEK ENDS TOO |
| NEED RT 1 TO SERVICE ON WEEKENDS-ALSO NEED BUSES TO GO OUT TOWARDS TARGET ALSO RT 1 NEED TO NOT LEAVE EARLY BUSES SHOULD GO FURTHER TOWARDS TARGET BE MORE STOPS IN RESIDENTIAL AREAS |
| THANKS FOR BEING AWESOME |
| I'VE NEVER HAD A PROBLEM WITH THE BUS SCHEDULES-I THINK THERE ARE PLENTY OF STOPS ALREADY ESPECIALLY IN THE DOWNTOWN AREA-IF I HAD ONE SUGGESTION IT WOULD BE TO ADD ANOTHER ROUTE |

| |
|---|
| TO PVCC BECAUSE RIGHT NOW THERE'S ONLY ONE STOP PER HOUR |
| I THANK GOD FOR THE TRANSIT-WITHOUT IT I WOULD HAVE TO EITHER WALK OR NOT GET THERE AT ALL-THAT'S HOW I GET TO WORK TO MAKE MY LIVING |
| PROVIDE COVERED/SAFE BUS STOPS & ESPECIALLY IN LOWER INCOME AREAS-THE #3 BUS STOP NEAR GAS STATION IN BELMONT IS A CRIME-IT IS UNSAFE AND MAYBE INDICATIVE OF RACISM/CLASSIONS |
| NEED MORE SUNDAY BUSES |
| WE NEED BUSES GOING TO 29 TARGET AREAS AND MORE ON WEEKEND SERVICES |
| THERE ARE WONDERFUL DRIVERS WHO SMILE & MAKE YOU FEEL COMFORTABLE THEN YOU HAVE OTHERS WHO YOU WONDER IF YOU SHOULD HAVE GOT ON THE BUS-CHILDREN WITH SPECIAL NEEDS IS A CHALLENGE<br>-MY DAUGHTER HAS ANXIETY DISORDER & IS TERRIFIED AT 16 TO RIDE BUS ALONE ALL BECAUSE A DRIVER WAS SO RUDE TO HER-MY OTHER DAUGHTER HAS ED & ADAD AS WELL AS A MOOD DISORDER-DRIVER STARTED A FULL ARGUMENT WITH HER & EVEN WITH MY EXPLAINING WHAT SHE WAS REACTING TO HE CONTINUED & LAUGHED WHEN WE REACHE OUR STOP & GOT OFF-IT TOOK ME HOURS TO GET HER BACK ON TRACK-THANK YOU! 7 TOO CROWDED-5 TOO SLOW-10 NOT ENOUGH BUSES-T TOO CROWDED-8 TOO CROWDED-4 TOO CROWDED-2 ZZZZ-NEED EASIER WAY TO GET TO WALLY WORLD BUS DRIVERS BE RUDE OMG-TOO MANY SMELLY PEEPS |
| WE NEED RTES ON SUNDAYS MORE FREQUENT RTES ON BUSES 10-3 & 1-PANLOPS BUS COMES ONCE AN HOUR<br>-IF YOU MISS IT YOU MUST WAIT ANOTHER HR-IT IS VERY SLOW-1 MORE RTE ADDED WOULD BE AWESOME-EVERY 30 MIN SHOULD BE SUFFICIENT-HTE BUS IS USUALLY CROWDED IN CERTAIN AREAS & VERY UNCOMFORTABLE-THE 1 ALSO NEEDS AN ADDITIONAL RTE OR 2-IF SERVICES THE PVCC & OTHER NEIGHBORHOODS-IT IS VERY CROWDED & VERY SLOW-EVERY 30 MIN WOULD MAKE FOR A MUCH SMOOTHER RIDE-THE 3 ISN'T THAT BAD EXCEPT FOR WKNENDS-REALLY SLOW ON SAT & DOES NOT RUN AT ALL ON SUN-JUST BECAUSE PEOPLE DON'T WORK DOES NOT MEAN WE DON'T NEED TRANSPORTATION ON THE WEEKEND - PEOPLE BE RUDE-LIKE TOTALLY-DRIVERS ARE EVIL-BUSES ARE POSSESED AND PEOPLE ARE CRAZY-SMELLY FEET - |
| I MISS 2 BUSES DURING THE DAY-ONCE AN HOUR ISN'T ENOUGH |
| THERE'S LOTS OF RUDE DRIVERS & PASSENGERS-NEED MORE ROUTES-SUNDAY ROUTES & WEEKEND TRIPS -WALMART IS IMPOSSIBLE |
| MORE COVERED AND LIT BUS ROUTES-PLEASE ADD MORE AND LONGER SUNDAY ROUTES |
| I WOULD LOVE TO HAVE MORE OVER HEADS AT BUS STOPS SO PEOPLE WOULD NOT HAVE TO STAND AND WAIT IN THE RAIN OR SNOW-GETTING ALL WET |
| RT 5 WHEN IS THIS ROUTE GOING TO SWITCH BACK TO GOING AROUND THE BACK OF SAM'S CLUB? CROSSING THE INTERSECTION BETWEEN WLMART AND SAM'S CLUB IS DANGEROUS IS NOT MARKED FOR PEDESTRIANS AND THERE ARE NO SIDEWALKS-ALSO WILL A ROUTE BE MADE TO SERVICE TARGET KOHLS HARRISS TEETER- THE AIRPORT AND THE SENTARAL MJH FACILITY AT APIRPORT ROAD? |
| 1) WHYA DO WE HAVE TO STAOP AT BARRACKS ROAD MCDONALD'S WHEN WE EXCHANGE BUSES FOR SO LONG?<br>-2) CAN WE HAVE BUSES FREQUENTLY VISITING THE STOPS WITH 15 MIN GAPS & NOT 30 MIN ONES? |
| MY BIGGEST ISSUE IS MISSING CONNECTIONS-IF I AM RIDING A BUS THAT RUNS MORE FREQUENT TIMES AND THAT BUS CONNECTS TO A BUS THAT RUNS LESS FREQUENT TIMES AND THE FIRST BUS IS LATE MAKING THE TRANSFER POINT-I HAVE TO WAIT A LOT LONGER FOR THE NEXT CONNECTING BUS (DURING BAD WEATHER IT IS A REAL PAIN |





| |
|---|
| BUS SHOULD RUN EVERY 30 MIN MANDATORILY. I HAVE WAITED FOR MORE THAN 1 HOUR MANY TIMES |
| MORE HOURS ON SUNDAY AND WEEKEND TOO |
| THAN 1 BUS EACH ON RT 9 AND RT 10-BENCHES AND SHELTERS AT ALL BUS STOPS-MORE RT 7'S |
| ALL IN ALL I'M SAFISFIED WITH CAT-NEED A LATER BUS SCHEDULFOR CERTAIN RTES THAT SERVE UVA THEIR EMPLOYEES GET OFF 11:30PM & THAT'S CUTS OFF 1 HR LATER WOULD BE HELPFUL-SERVICE ON PANTOPS ON SUNDAY WOULD BE GREAT-THERE ARE METHEDOSE CLINIC THAT IS OPEN 7 DAYS A WEEK AND IT'S HARD TO GO THERE ON SUNDAY WITH NO CAR AND NO BUS SERVICE |
| EXTEND SERVICE TIMES AT NIGHT IE ROUTES 5 AND 7-UVA HOSPITAL HAS SHIFT THAT ENDS AT 11:30 PM THE LAST ROUTE 7 LEAVES UVA HOSPITAL AT 10:45 PM |
| MUST DO SOMETHING ABOUT SMOKING AT/NEAR BUS STOPS-I HAVE ALREADY CONTACTED SOME ONE AT CAT AND I GOT A "WE ARE TAKING CARE OF IT" RESPONSE-THAT WAS MONTHS AGO AND I DON'T SEE ANY ADDITIONAL "NO SMOKING" SIGNS AROUND THE STOPS-MORE PEOPLE WOULD PROBABLY TAKE ADVANTAGE OF YOUR BUS SERVICE IF THEY COULD BE ASSURED THAT THEY WOULD NOT BE SUBJECTED TO SMOKE |
| COVERS FOR STOPS FOR EXTREME WEATHER-STREET LIGHTS AT STOPS ESPECIALLY RT 5-(PAID BY CITY/COUNTY BUSES FOR SPECIAL EVENTS (EX CARNIVAL/COLLEGEL AND HIGH SCHOOL GAMES) TRASH BINS AT POPLAR STOPS OR NEIGHBORHOODS FARE BOXES THAT WORKS AND TAKE 50 CENT PIECES |
| BUS 5 HAS BEEN CAUSING ME TROUBLES BECAUSE I USE THE APP TO SEE WHERE THE BUSES ARE AND THEY WILL DISAPPEAR AND END UP NOT SHOWING-I HAVE BEEN LATE TO WORK ALOT THIS PAST MONTH BECAUSE OF IT |
| THE ROUTE 7 10:35 PM BUS WAS OUT THE BLUE PEOPLE W/JOBS OR GETTING OFF WORK COULD REALLY USE A LATER ROUTE TIME BUSES SHOULDN'T STOP RUNNING UNTIL 12 AM-SUNDAY SHOULD BE MORE BUSES & LONGER ROUTE TIMES FOR WORKING PEOPLE-THANKS DAILY BUS RIDER |
| ITS PRETTY GOOD THE WAY IT IS |
| I WOULD LIKE TO SEE MORE BUSES ON SUNDAYS AND EASIER ROUTES TO THE MALL |
| SUNDAY ROUTES |
| WALMART BUSES-SUNDAYS BUSES |
| NEED WALMART BUSES-RUN TOO SLOW AND TAKES A REALLY LONG TIME |
| BUSES TO WALMART-NO BUSEES ON SUNDAYS-FASTER THANK YOU JOHN |
| GREAT SERVICE OVERALL-LOT BETTER THAN TIDEWATER AREA & MORE AFFORDABLE RATES ARE GREAT-WONDERFUL SERVICE AROUND THE AREA TO THE MALL/UVA HOSPITAL-THE JEFFERSON SCHOOL TOO-NICE DRIVERS OVERALL TOO A FEW RUDE ONES AT TIMES & NOT VERY HELPFUL WITH HELPING YOU KNOW WHERE TO GO ESPECIALLY IF YOU ARE NEW FROM OUT OF TOWN LEARNING THE AREA-CUSTOMER SERVICE WHEN YOU CALL CAN BE A BIT CONFUSING TOO AT TIMES-AGAIN AS YOU 'RE TREING TO LEARN AREA-MANY TIMES CUSTOMER SERVICE IS RUDE & NASTY WHEN I HAVE CALLED & TOLD ME I WSN'T LOOKING AT MAPS RIGHT TO ME THAT WAS VERY UNPLEASANT-MORE SERVICE EXTENDED ON SUNDAYS AS WELL-#6 BUS COULD RUN ON SUNDAYS TOO-DIFFICULT ROUTE & NOT RUN AS CONSISTANT AS IT SHOULD-SOME DRIVERS AREN'T REALLY NICE EITHER-THANK YOU FOR YOUR SERVICE AROUND THE AREA-REALLY APPRECIATE IT-THANK YOU |
| GREAT SERVICE OVERALL-I PUT NEUTRAL FOR THE SCHEDULE MEETING MY NEEDS BECAUSE I TYPICALLY HAVE TO BE @ WORK BY LAM (TODAY IS UNUSUAL I HAVE TO BE THERE BY 7AM WHICH IS WHY I'M ON T HE BUS THISMORNING) IT WOULD BE GREAT BUT I UNDERSTAND WHY NOT IF THE BUSES RT 7 STARTED R UNNING AT 5:30 INSTEAD OF 6:30 FOR THIS REASON |

| |
|---|
| THE BIGGEST ISSUE W/ RELIABILITY IS DURING PEAK HOURS-CONSIDER ADJUSTING ROUTE SCHEDULE TO R ESPOND TO TRAFFIC CONDITIONS OR ADD A FEW BUSES TO MAJOR ROUTES DRUING PEAK TIMES (EG 6 RT 7S DURING THIS 4:30P-6:00P) |
| I FIND THAT THE BUSES LEAVE LATE CONSISTENTLY IN THE MORNINGS-IF THAT WOULD IMPROVE THEN C USTOMER SATISFACTION WOULD-THESE IS ESPECIALLY MISERIBLE WHEN IT GETS COULD OUTSIDE-I ALSO FIND IT VERY FRUSTRATING TO WATCH STAFF SOCIALIZING WHEN IT'S TIME TO LEAVE THE TRANSIT STATION -I WILL SAY THAT THE WOMAN THAT DRIVES THE TROLLEY THAT LEAVES AT 6:35 IS AWESOME-SHE IS THE TRUE EPITOME OF A GREAT BUS DRIVER |
| MORE BUSES V HIGHER COST-THIS IS A BALANCING ACT THAT CAT HAS SEEMED TO DO FAIRLY WELL |
| I USE THE PHONE TRACKER/APP WHICH CAN BE UNRELIABLE EG SAY THE BUS IS ,2 MINUTES AWAY WHEN IT TAKES 15 + MINUTES FOR IT TO ARRIVE-THIS IS AT THE EMMET ST SOUTHBOUND STOP NEAR MOSEY RD |
| NEED A BUS STOP AT ANGUS RD -TOO FAR TO WALK TO CATCH THE 7-TOO MANY BREASK-ALWAYS LATE TO WORK-SET A CERTAIN STOPS FOR TOO LONG-ALWAYS LATE TO WORK |
| MORE WEEKEND SERVICE-ESPECIALLY ON SUNDAYS |
| THE SERVICE IS GREAT EXCEPT ON WEEKENDS YOU HAVE TO WAIT ONE HOUR TO CATCH THE SERVICE-THANK YOU |
| THE REASON I ON YOUR BUS BECAUSE I DON'T HAVE CAR-I GO DMV TO DO EXAM I FL MORE TIME TO CHARLOTTEVILLE TRANSIT I DON'T HAVE ANY COMMENT BECAUSE IT'S EXCELLENT THE BUS COME ON TIME THE DRIVERS THEY ARE NICE-I AM USE THE BUS MONDAY TO SUNDAY |
| BUS STOP BY WHOLE FOOD NEE DTO BE MOVED TO THE STOP SIGN AT HOTEL |
| SERVICE TOO STAGGERED ON SUNDAYS-ROUTE 12 SHOULD HAVE MORE BUSES & BROKEN U{ INTO 2 SEPARATE ROUTES |
| EXAMPLE 1) FASHION SQUARE MALL BUS 7 NEEDS TO WAIT ON BUS 5 GOING TO WALMART FOR 2 MORE MINUTES-SINCE BUS 5 IS THE ONLY ONE GOING THERE MONDAY THRU SATURDAY SOMETIMES BUS 5 WILL BE PULLING OFF AT FASHION SQUARE WHEN BUS 7 NOT DONES IN THE PARKING LOT-BUT UVA HOSPITAL HAS BUSES GOING 7 DAYS A WEEK -JEFERSON HOSPITAL SHOULD ALSO |
| I HAVE RIDDEN THE BUS SINCE IT WAS A 25 CENT MINI I LUV IT-THE DRIVERS USUALLY GO OUT OF THEIR WAY TO BE HELPFUL-I AM THRILLED TO HAVE MY POEMS ON BUS LINES-THE BUSES LOOK BEAUTIFUL WITH THE BOUWOOD DESIGN WE DO NEED MORE BENCHES AND SHELTERS WITH PEOPLE PAID TO KEEP THEM CLEAN-LITTLE BOXS BY BUS STOPS FINE POLLUTERS |
| I LIVE ON ALTAVISTA AVE I FEEL THE STOP AT THE TOP OF THE ROAD NEAR MONTICELLO SHOULD BE REINSTATED BECAUSE MOST OF THE PEOPLE LIVING THERE ARE DISABLED AND CAN'T WALK UP THAT STEEP HILL TO GET BACK HOME-I TRY TO USE THE ROUTE 1 TO GO HOME FOR THAT REASON BECAUSE I HAVE HAD 8 HEART ATTACKS AND CAN'T DO THAT HILL BUT THERE IS NO ROUTE 1 ON SATURDAY AT ALL EITHER |
| CREATE A KEY OF ALL STOP LOCATIONS-IMPROVE APP TO SHOW REAL-TIME LOCATIONS |
| MORE COVERED STOPS |
| THEY NEED TO HAVE THE BUS ON TIME AT NIGHT IN STEAD OF PEOPLE HAVE TO WALK HOME TO THEIR DESTINATION-NEEDS TO HAVE BUS RUNNING ON SUNDAY LATER |
| I HAVE RODE THE CAT TRANSIT SERVICES ALL 4 YOURS OF MY UNERGRAD AT UVA & WORK- I AM SATISFIED WITH IT-THERE HAVE BEEN SOME WEIRD INSTANCES WITH OTHER PASSENGERS BUT THE ONES I HAVE MET ARE REALLY NICE AND ARE A GREAT HELP INFORMATION WISE |
| ALL BUS NEED TO RUN ON SUNDAY |
| JAZZ IS A GREAT BUS DRIVER ALWAYS CHEERFUL! |





| |
|---|
| 16 THE CHOICES ARE RIDICULOUS THERE SHOULDN'T HAVE TO BE A TRADE-OFF FOR AN OVERALL BETTER SERVICE-MORE FREQUENT SERVICE AND LONGER SERVICE HOURS SHOULD BOTH BE THINGS THAT CAT SERVICES-THE SAME GOES FOR THE REST OF THE CHOICES |
| WHEN TRANSIT CLOSES @ 8 PM @ NIGHT THERE IS NO WHERE PLACE TO SIT-TO SIT OUTSIDE-NO COMFORTABLE TO SIT OUTSIDE NOT SAFE AT ALL AS A WOMAN-TRANSIT CENTER NEEDS TO STAY OPEN A LITTLE LONGER FOR SAFETY REASONS FOR PEOPLE WAITING FOR BUSES AFTER TRANSIT CLOSES |
| THANKS FOR SERVICE |
| ADA CARD BE SCAN BY THE METER-MORE STREET LIGHTS-SHELTERS AT STOPS-MORE NIGHT SERVICE |
| BUS 8 COULD RUN UINTIL AT LEAST 8 PM M-SATURDAYS-SUNDAYS SERVICE IS RIDUCULOUS IT TAKE S TOO LONG TO TRAVEL FROM DOWNTOWN TO WALMART |
| I'M PLEASED WITH THE SERVICE BUT WOULD LIKE IT TO EXPAND TO IVY AND FURTHER NORTH |
| NEED PAYMENT VIA CARD-MORE COVERED STOPS |
| I PREFER TO HAVE CAT SERVICE IN NEW AREAS |
| MORE SUNDAY BUSES |
| STOP RUNNING TO YOUR DAD |
| NEED SUNDAY BUSES |
| OVERALL-NOT BAD THE WAY IT IS-1) SUNDAYS & WEEKENDS IN GENERAL COULD USE MORE ROUTES-2) #1 BUS-ADD ANOTHER BUS POSSIBLY (EVERY 30 MIN)-3) #10 BUS-ADD ANOTHER BUS (EVERY 30 MIN)-4) #5 NOT SURE! TAKES A REALLY LONG TIME TO GET TO THE SHOPPING CENTERS AROUND WALMART AREA-MOST DRIVERS ARE VERY HELPFUL AND FRIENDLY-BASIC BUS RIDING TIPS OR PLANNING METHODS POSTED SOMEWHERE EASY TO SEE AND UNDERSTAND |
| I BELIEVE AN EXTRA BUS WOULD IMPROVE THIS ROUTE TREMENDOUSLY-EVERY 30 MIN AS OPPOSED TO ONCE AN HOUR-CROWDED & SLOW AT TIMES |
| NEED SUNDAY ROUTES-QUICKER ROUTES-EVERY 30 MIN? |
| MORE THAN 1 RT 9 & 10-BENCHES & SHELTERS AT ALL STOPS |
| APPRECIATE THE GOOD SERVIE (THAT CAT DOES FOR OUR COMMUNITY) I ENJOY RIDING THE BUS |
| YMCA STOP ADDED IS UNNECESSARY AS THERE NOW NO PASSENGER GET DOWN OR GETS UP FROM THE STOP ALSO IT TAKES EXTRA 5-7 MINTUES OF TIME |
| I RIDE THE #9 BUS 6 DAYS A WEEK-THE NEW NIGHT & SUNDAY SERVICE IS GREAT-HOWEVER THE MAIN BUS USED ON THAT ROUTE (#310) IS VERY BONE RATTLING BUMPY HARD TO BOARD AND ALL AROUND UNCOMFORTABLE-ALL CAT SUPERVISORS AND MR JONES SHOULD TEST RIDE THIS BUS! |
| SOME MORE EXPERIENCED DRIVERS ARE RUDE-REFUSE TO LOWER THE BUS-BUSES STINK (NEED AIR FRESHENERS-NEW DRIVERS AREN'T HELPFUL AND NEED MORE TRAINING ON THE BUS ARRIVAL TIMES-DRIVERS LEAVE STOPS BEFORE DUE TIME-WHY IS THE AIR STILL ON SO? THE BUSES BE WAY TO COLD FOR MID SEPT-HAPPY W THE EXTENDED 8/9 ROUTES!! |
| #9 BUS NEEDS NEW SHOCKS OR SPRINGS-VERY BOUNCY AND THE DRIVERS ARE ON THE BUS FOR HOURS -COULD SERVICE BE EXTENDED TO COMMUITER TOWNS SCOTTSVILLE-LAKE MONTICELLO-FOREST LAKES-WAYNESBORO ETC? |
| I WAS USING JAUNT BUT REMOVE ME FROM SERVICES |
| I WAS VERY DISAPPOINTED WHEN ROUTE 9 SERVICE WAS CHANGED TO DISCONTINUE STOPS NORTH OF KENWOOD DR-I USED TO BE ABLE TO USE THE BUS SERVICE MORE FREQUENTLY WHEN ROUTE 9 SERVED THE GREENBRIER ELEMENTARY SCHOOL BUS STOP |

| |
|---|
| MORE BETTER SVC & ROUTES |
| NEED TO RUN MORE & LONGER ON SUNDAYS AND SOME BUS DRIVERS NEED TO MIND THERE OWN BUSINESS |
| WOULD LIKE TO SEE THE TRANSIT STATION OPEN BY 6:30 AM |
| ON ADDITIONAL BUS ON LOCUST & CALHOUN WOULD BE NICE AND TO RUN LONGER THAN 8:30 PM |
| IF WOULD BE NICE TO HAVE A SHELTER AND SEATS AT ALL BUS STOPS-MORE SUNDAY BUSES |
| IT'S IMPORTANT FOR THE ADVERTISEMENTS TO EXPAND THIS SERVICE-MORE PPL SHD TAKE THE BUS-PLEASE EXTEND THE SYSTEM OUT TO OTHER CITIES 20 MILES PAST COUNTY-THIS WD MEAN MORE USES YET THE WOULD BE USED-RENTS TOO HIGH-THANK YOU GAIL K TUMONIZURLI |
| THE SERVICE IS GREAT |
| I SHOULD LIKE TO SEE BUS SERVICE ON SUNDAYS TO THE PANTOPS AREA EVEN IF IT'S NOT ALL DAY SERVICE |
| I WOULD LIKE RT 10 TO HAVE SUNDAY SERVICE AND EXTENDED SERVICE ON SUNDAYS SO I CAN INCREASE MY AVAILABILITY ON SUNDAY-I WOULD ALSO LIKE TO A CAT ROUTE GO TO HOLLYMEAD/FOREST LAKES/AIRPORT |
| PEOPLE WITH DIASBLE ARE HAVING HARD TIME GETTING THE FREE PASS CARD |
| NEED SUNDAY BUSES TO HIGH SCHOOL MHS AVON ST-THANK YOU-NEED MORE BENCHES NEAR THE HIGH SCHOOL FOR DISABLE PEOPLE TO SIT |
| HELO I LIVE IN BLEMONT HAVE TO GO TOO PANTOPS TO WORK BY CAR I'M ONLY 7 MINS-BUS 2 1/2 HOURS ONE WAY-I WORK ONLY PART TIME-I TRAVEL BACK N FOURTH MORE HRS THAN I WORK-NEED DESPERTLY A SUNDAY BUS TO GO TO PANTOPS-SOMETIMES IF I CAN'T FIND A RIDE IT TAKES ME AN HOUR AND 10 MINS TO WALK AND BUS 3 BELMONT BUS SHOULD BE AT THE SAME STATION AS THE OTHER BUES-NOT IN ANOTHER AREA SAFETY REASONS |
| BUS STOP NEAR HAVE TO WAIT HAS PAINS IN HIS LEGS ROUTE #5 BUS-EVEN IN THE RAIN AND COLD-WISH HAD PARK BENCH #5 ROUTE BARRACKS RD HYDRLIC RD |
| SOUNDAY ROUTE 12 IS NOT LONG ENOUGH ON END RUN TIME-IT SHOULD RUN UNTIL 7 PM INSTEAD OF 5 PM-THIS WILL HELP LOTS OF PEOPLE WHO HAVE TO WORK UNTIL 6 PM ON SUNDAY |
| BUSES NEED TO RUN LONGER 24HR SERVICE-CERTAIN BUSES NEED TO RUN LATER AND EARLIER |
| I RIDE THE #5 ON THE FIRST TRIP IN THE MORNINGS-THE BUS TRANSFERS TO THE #7 AT BARRACK'S RD-THE DRIVERS NEED TO BE AWARE NOT TO LEAVE IN THE MORNINGS UNTIL WE TRANSFER-PEOPLE DEPEND ON IT TO GET TO WORK AND OTHER APPOINTMENTS-SO THEY NEED TO COMMUNICATE BETTER SO WE CAN GET THERE ON TIME-THIS IS THE ONLY WAY SOME PEOPLE CAN GET WHERE THEY NEED SO PLEASE TRY TO LET ALL NEW DRIVERS KNOW THIS-THANKS FOR YOUR SERVICE |
| BUS SERVICE IS GREAT-GLAD HAVE BUSES TO GET AROUND-HAVE NO BIKE AND TAKE BUSES TO GET AROUND AND DISABILIED AND HOMELESS-APPRECIATE SERVICE |
| SUNDAY ROUTES!! |
| BRING BACK BUS #9 |
| THE BUS SERVICE NEEDS TO TELL PEOPLE IF THEY ARE GOING TO BE ON TIME OR NOT THROUGH THE CAT APP |
| I WOULD LIKE EVERYTHING AT #16 BUT I KNOW I AM NOT THE ONLY ONE USING THE BUS-MY ROUTE IS NOT EVERYONE ELSE'S AND THERE ARE FINANCIAL CONSTRICTIONS-I LIKE THE BUS VERY MUCH AND LOOK FORWARD TO THE 11 BUS RUNNING TWICE AN HOUR AND ALL THE OTHER IMPROVEMENT IN THE FUTURE-I DID USE THE #9 ON THE OLD RT TO FASHION SQ & MISS THAT BUT I COULD SEE IT WAS NOT TRAVELED WELL |



**Transit Development Plan**
FY 2019 – FY 2028

| |
|---|
| RTE 10 NEEDS TO BE ON A 30 MIN SCHEDULE/ADD ADDITIONAL BUS RTE 11 SERVICE NEED TO BE EXTENDED ON WEEKENDS/SATURDAY EVENING I MISSED THE 6:00 BUS TO GET HOME-HAD TO WALK @9 PM FROM CAT TO CALHOUN/SHERIDAN AVE-BUS STOPS AT 6:42 ON MY STREET-NO MORE SERVICE -SUNDAY SERVICE NEEDS TO BE EXTENDED I HAVE TO WALK TOO FAR TO CATCH THE BUS ON SUNDAYS-ADD MORE STOPS FEMALES SHOULD HAVE TO WALK FAR TO GET HOME LEADS TO POSSIBLE DANGEROUS SITUATIONS |
| DON'T LIKE BUS NOT SERVING MAIN PAT JPA GOING WEST-NEEDS TO GO THROUGH UNIVERSITY AVENUE |
| MORE PROTECTION FROM RAIN AT SOME STOPS |
| BEING ON THE 11 ITS SOMETIMES DIFFICULT TO TRANSITION TO THE 5 TO GO TO WORK AS THE 5 IS THE ONLY BUS THAT GOES THAT FAR NORTH-SO IF THE 11 IS EVEN A COUPLE MINUTES BEHIND I'M KINDA SCREWED FOR ABOUT 30 MIN |
| I WAS A DAILY RIDER WHEN I LIVED NEAR THE MALL BUT THEN I MOVED TO HOLLYMEAD & TRIED TO USE THE RT 29 EXPRESS & WALKING TO GET TO/FROM WORK ON LOCUST NEAR SYCAMORE ST-UNFORTUNATELY THE RT 29 EXPRESS SERVICE IS VERY POOR BECAUSE THE DRIVERS ARE INCONSIDERATE & KEEP THE BUS VERY HOT & THE ENTIRE COMMUTE TOOK 2.5 HRS EACH DAY-I WAS HAPPY TO BE ABLE TO CARPOOL TO THE MALL SO I COULD GO BACK TO RIDING CAT OR 11-DRIVERS ARE ALWAYS VERY THOUGHTFUL & THE BUS TEMPERATURE IS PLEASANT & THE TRIP ONLY TAKES 30 MIN EACH WAY-THANK YOU & PLEASE START SERVING HOLLYMEAD NOW THAT BERKMAR RD HAS BEEN EXTENDED |
| SERVICE IS GOOD-VERY GOOD THE BUSES I TAKE ARE GOOD-FARE IS VERY EXPENSIVE ON BUDGET-NO STRESS TAKING BUS KEEPS STRESS DOWN TAKING THE BUS-LIMIT STRESS UNLIKE TAKING CAR LOTS OF STRESS |
| I WOULD LIKE SOME RULES TO BE REINFORCED NOT EATING-USING TIGHT CONTAINERS TO DRINK-NOT CURSING-NOT USING CELL PHONE WITHOUT EARPHONES-SOME DRIVERS APPLY SOME RULES BUT NOT OTHERS-SOME DRIVERS DON'T CARE AT ALL |
| FIND THE DRIVERS TO BE POLITE & FORMAL HAVE NEVER CAME ACROSS A UNPOLITE DRIVER-MAPS UPDATED AND MAKE DETAILS-ANNOUNCEMENTS ARE HELPFUL B/C VISUAL IMPAIRED |
| THANKFUL FOR THIS SERVICE! NO CAR NEEDED |

# 9 Appendix B: Route Profiles

This appendix provides a detailed profile of each of the 12 fixed-routes operated by CAT during weekday service. Each route profile relies on ridership data collected during the week of September 11th, 2017. As ridership data was collected for weekday service only, Route 12 is not included in this set of profiles. However, as Route 12 is a Sunday-only hybrid of Routes 7 and 5, the findings of those two profiles can be applied to the analysis of Route 12.

Each route profile includes a route description, and a discussion of operating characteristics and service performance. Each profile concludes with a summary of strengths, weaknesses, and opportunities.



**Transit Development Plan**
FY 2019 – FY 2028

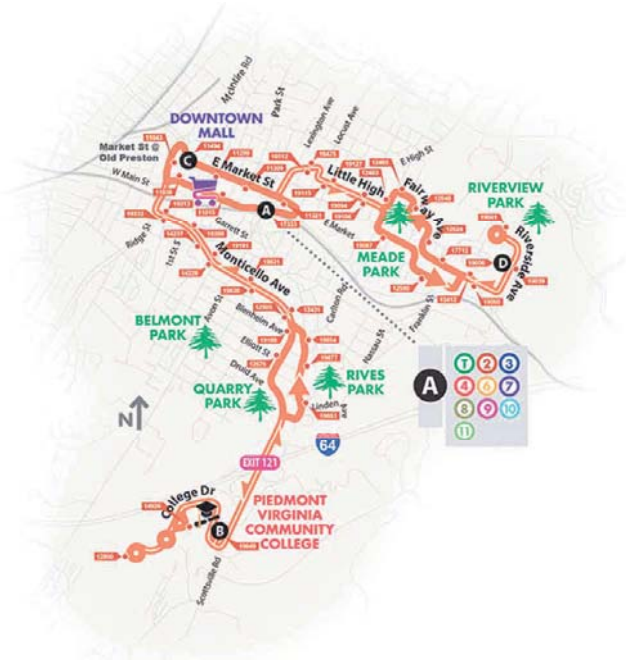
## 9.1. ROUTE 1: PVCC & WOOLEN MILLS

### 9.1.1. Service Description

Route 1 (**Figure 62**) operates on weekdays only between Piedmont Virginia Community College (PVCC) and Riverview Park, via downtown Charlottesville. The route travels primarily along College Drive, Route 20/Scottsville Road, Monticello Avenue, Little High Street, and Riverside Avenue. Some segments of Route 1, such as Market Street and Water Street, are served in one direction only. Additionally, the route is presented in maps and schedules as beginning and ending at the Downtown Transit Station, alternating service between PVCC and Riverview Park.

Passengers may transfer between Route 1 and other services at the Downtown Transit Station, which offers connections to most other CAT routes. Excluding the first trip of the day (6:15 AM) which runs solely from Riverside Avenue to the Downtown Transit Station, and the last trip of the day (9:30 PM) which skips Riverside Avenue, all Route 1 trips operate along the route's full alignment.

**Figure 62 | Route 1 Map**



### 9.1.2. Operating Characteristics

Error! Reference source not found. summarizes Route 1's operating characteristics. The route operates on an hourly frequency over the entire weekday service day. Route 1 costs $283,026 to operate per year, ranking 11th in the CAT system. The route connects to all weekday routes excluding Routes 5 and 12, and serves a several activity generators, including downtown Charlottesville, Riverview, Meade, Belmont, Quarry, Rives Parks, and PVCC.

**Table 9-1 | Route 1 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Riverview Park |
| | **To** | | Piedmont Virginia Community College |
| **Span** | **Weekday** | | 6:15 AM – 10:05 PM |
| | **Saturday** | | -- |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 60 |
| | | **Off-Peak** | 60 |
| | **Saturday** | | -- |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $283,026 |
| **Route Connections** | | | 2, 3, 4, 6, 7, 8, 9, 10, 11, Trolley |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, PVCC |

### 9.1.3. Weekday Service Productivity

With 12.4 passengers per hour, Route 1 ranks 10th in the system and falls below the system average of 20.8. The route similarly falls below average in passengers per trip (5.9), also ranking 10th. Route 1's on-time performance rate is 83 percent (16 percent early and one percent late), ranking sixth and just above the weekday system average. Finally, at $5.63 per passenger trip, Route 1 has the third-highest operating cost per passenger among CAT routes. **Table 9-2** summarizes service productivity metrics for Route 1.

**Table 9-2 | Route 1 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8; 12.4 | Average 82%; 83% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5; 5.9 | Average $4.62; $5.63 |





### 9.1.4. Ridership

Route 1 averages 195 passengers per weekday (ranking 10th) over 33 trips. The route also ranks 10th in annual ridership (45,962 riders).

#### Ridership by Stop

**Figure 63** and **Figure 64** summarize weekday passenger activity (boardings and alightings) by stop in the northbound direction. Northbound passengers tend to board at PVCC and along Monticello Road, alighting most often at stops surrounding the Downtown Mall (such as the Omni Hotel and West Market Street at Old Preston). Boardings are highest at PVCC and the intersection of Monticello Road and Carlton Road; alightings are highest at stops serving the downtown area.

**Figure 65** and **Figure 66** summarize total activity by stop in the southbound direction. In this direction, boarding activity is highest at the Downtown Transit Station and most alightings take place along Monticello Avenue and at PVCC.

**Figure 63 | Route 1 Weekday Ridership by Stop: Northbound**

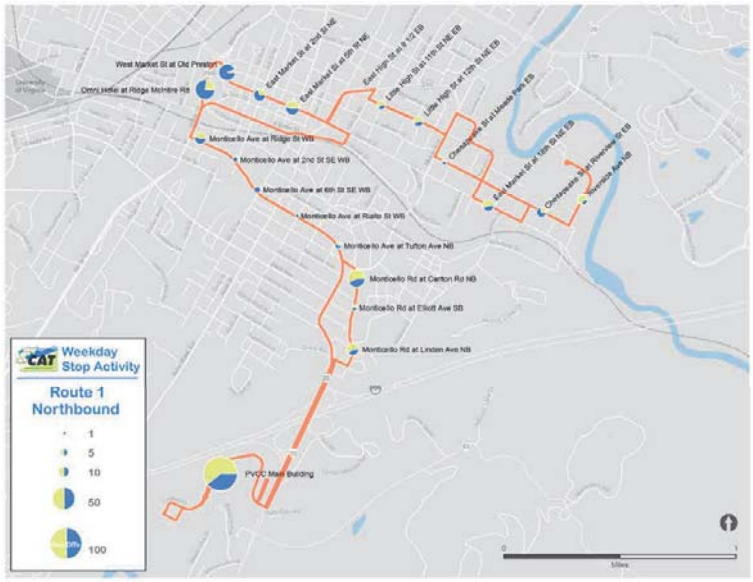


Figure 64 | Route 1 Weekday Boardings and Alightings, by Stop: Northbound

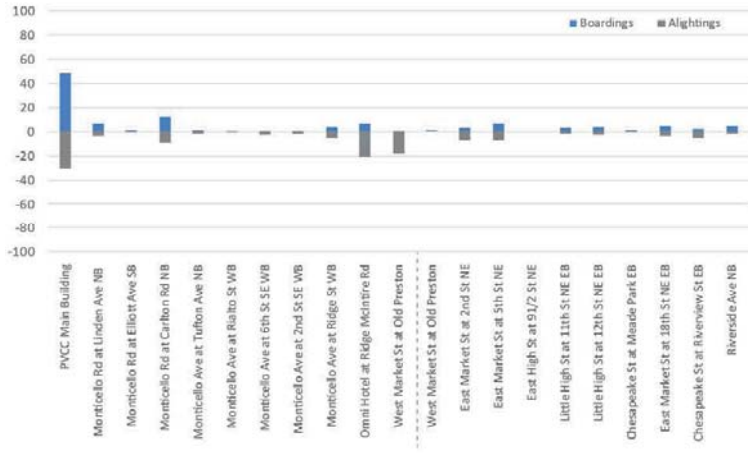







Figure 65 | Route 1 Weekday Ridership by Stop: Southbound

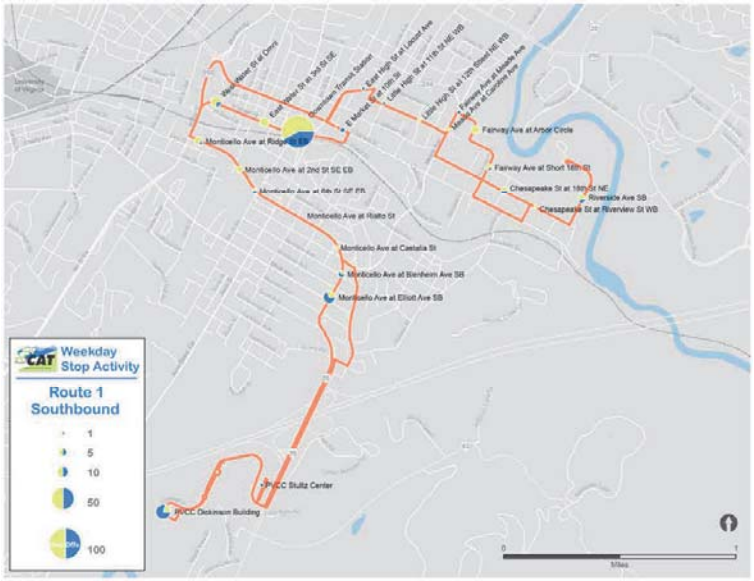



Figure 66 | Route 1 Weekday Boardings and Alightings by Stop: Southbound

## Ridership by Trip

**Figure 67** (northbound) and **Figure 68** (southbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday.[3] No Route 1 trips exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. Northbound activity is busiest between 10:00 AM and 5:00 PM; southbound activity is busiest between 8:00 AM and 2:00 PM.

[3] On certain trips profiled in this assessment, the maximum load exceeds the total number of boardings per direction for a trip. This can occur when riders board a bus traveling in one direction, but then stay on as the bus reverses direction to begin its next directional trip.

**Figure 67 | Route 1 Weekday Ridership per Trip: Northbound**

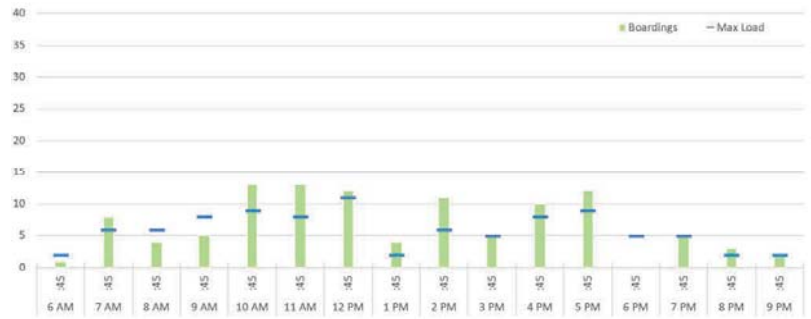
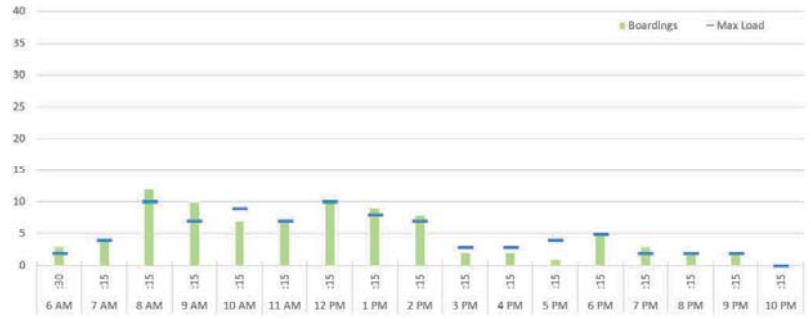



**Figure 68 | Route 1 Weekday Ridership per Trip: Southbound**




### 9.1.5. Summary of Observations

#### Strengths

- Only route with direct service to PVCC, a key regional destination
- Extensive span of service (6:15 AM – 10:05 PM)
- Easy-to-remember clock-face frequency
- Multiple connection opportunities in downtown Charlottesville

#### Weaknesses

- Service design with alternating branches makes passenger information overly complex
- Several segments of one-way service requiring passengers to board and alight route on different streets





- Below-average productivity in terms of passengers per hour and passengers per trip
- Above-average cost per passenger trip
- Relatively poor on-time performance
- No weekend service
- Difficult turn-around location at Riverside Avenue
- No direct access to major grocery stores

#### Opportunities

Potential opportunities to strengthen Route 1 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Split Route 1 into two separate routes.** The southern and eastern branches of Route 1 serve very different markets, and there appears to be relatively few through-riders between the branches. Splitting the route into two separate routes serving PVCC and Riverside Avenue, respectively, would make each resulting route easier to understand for users, and could give CAT more flexibility in terms of interlining various routes to maximize service efficiency. In addition, splitting the routes would allow for different service frequency to different markets. As PVCC is a relatively high-ridership stop, increased peak frequency may be justified in the future.
- **Simplify alignments.** Route 1 operates along different alignments, depending on direction, at several points along the route. In most cases, the ridership gained from deviating from a single consistent alignment does not appear to justify the deviation. To simplify service, Route 1 should operate along the same alignment in both directions wherever possible. For example, buses could operate along Chesapeake Street between Meade Avenue and Riverside Avenue for inbound and outbound trips.
- **Truncate route at Riverview Street.** The current end-of-the-line for Route 1 is a cul-de-sac on Riverside Avenue. When cars are parked along this cul-de-sac, there is little room for buses to turn around without being forced to perform a multi-point turn. This maneuver can be risky without a spotter, especially when it is dark. Truncating Route 1 at Riverview Street would allow for a safer turn-around via Market Street and impact relatively few riders as ridership is generally low along Riverside Avenue.
- **Interline with another route at PVCC.** PVCC is a major ridership generator, and has the potential to serve as a secondary hub for CAT. Route 1 could interline with a redesigned Route 2 to provide a one-seat ride to retail and grocery destinations at 5th Street Station.

## 9.2. ROUTE 2: 5TH STREET STATION

### 9.2.1. Service Description

Route 2 (**Error! Reference source not found.**) is a counterclockwise circulator service connecting downtown Charlottesville with the Willoughby Square Shopping Center and 5th Street Station, via 5th Street SW and Avon Street. The route operates seven days a week, and also provides access to the CAT operations and maintenance facility on Avon Road Extended.

Passengers may transfer between Route 2 and other services at several locations, including the Downtown Transit Station and Willoughby Square Shopping Center. Excluding the first weekday trip (6:35 AM) which runs from the Avon Street Extended Park-and-Ride to the Downtown Transit Station, all Route 2 trips operate along the route's full alignment.

**Figure 69 | Route 2 Map**






### 9.2.2. Operating Characteristics

**Table 9-3** minute frequency on weekdays, Saturdays, and Sundays. Sunday service begins an hour later and ends significantly earlier than Weekday and Saturday service. The route costs $231,407 to operate per year, ranking 10th in the CAT system. The route offers connections to all routes excluding Route 5, and serves a variety of activity generators, including downtown Charlottesville, Willoughby Square Shopping Center, 5th Street Station, and Belmont Park.

**Table 9-3| Route 2 Operating Characteristics**

| | | | |
|---|---|---|---|
| Destination | **From** | | Downtown Transit Station |
| | **To** | | 5th Street Station |
| Span | **Weekday** | | 6:35 AM – 11:42 PM |
| | **Saturday** | | 6:35 AM – 11:42 PM |
| | **Sunday** | | 7:35 AM – 5:42 PM |
| Frequency | **Weekday** | **Peak** | 30 |
| | | **Off-Peak** | 30 |
| | **Saturday** | | 30 |
| | **Sunday** | | 30 |
| Annual Operating Costs | | | $231,407 |
| Route Connections | | | 1, 3, 4, 6, 7, 8, 9, 10, 11, 12, Trolley |
| Key Destinations | | | Downtown Mall, Downtown Transit Station, 5th Street Station, Willoughby Square Shopping Center |

### 9.2.3. Weekday Service Productivity

With 9.6 passengers per hour, Route 2 ranks 12th in the system and falls below the system average of 20.8. The route falls well below average in passengers per trip (4.4), ranking 11th. Route 2's on-time performance rate is 83 percent (17 percent early and zero percent late), ranking sixth and just above the weekday system average. Finally, at $7.79 per passenger trip, Route 2 has the highest operating cost per passenger among CAT routes.

**Table 9-4** summarizes service productivity metrics for Route 2.

**Table 9-4 | Route 2 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8; 9.6 | Average 82%; 83% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5; 4.4 | Average $4.62; $7.79 |

### 9.2.4. Ridership

Route 2 averages 154 passengers per weekday (ranking 11th) over 35 trips; 157 passengers per Saturday (ranking eighth) over 35 trips; and 104 passengers per Sunday over 20 trips (ranking third). The route ranks 12th in annual ridership (28,849 riders).

#### Ridership by Stop

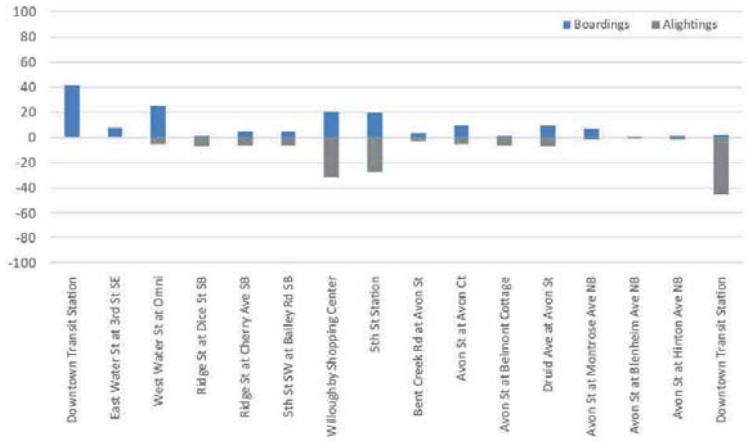
**Figure 70** and **Figure 71** summarize weekday passenger activity (boardings and alightings) by stop. On the route's northern end, passengers tend to board and alight more frequently at the Downtown Transit Station and West Water Street near the Omni Hotel. On the southern end of the route, passenger activity is heaviest at Willoughby Square Shopping Center and 5th Street Station. The route sees relatively low ridership activity at intermediate stops along 5th Street and Avon Street.

**Figure 70| Route 2 Weekday Ridership by Stop**





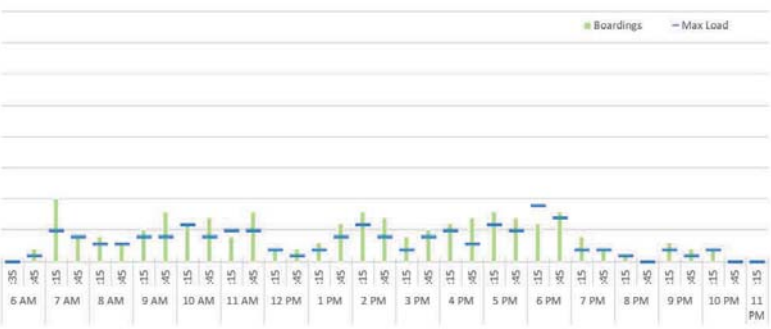

**Figure 71 | Route 2 Weekday Boardings and Alightings, by Stop**




#### Ridership by Trip

**Figure 72** shows the boardings and maximum load for each trip over the course of a typical weekday. No Route 2 trips exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. The route is busiest from 7:00 AM to 12:00 PM and from 2:00 PM to 7:00 PM.

**Figure 72 | Route 2 Weekday Ridership per Trip**



### 9.2.5. Summary of Observations

#### Strengths

- Simple and direct alignment
- Only route with direct service to 5th Street Station, a key regional destination
- Extensive span of service on Weekdays and Saturdays (6:35 AM – 11:42 PM)
- Relatively frequent service with easy-to-remember clock-face headways
- Multiple connection opportunities in downtown Charlottesville and Willoughby Square Shopping Center
- Above-average on-time performance

#### Weaknesses

- Poor productivity in terms of passengers per hour and passengers per trip
- Very low ridership before 7:00 AM and after 7:00 PM
- Above-average operating cost per trip
- One-way service design forces out-of-direction travel for residents in neighborhoods along 5th Street SW and Avon Street

#### Opportunities

Potential opportunities to strengthen Route 2 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Reduce service frequency outside of peak periods.** Route 2 averages fewer than five passengers per trip, suggesting that the Route 2 service frequency exceeds market demand. Reducing the service during off-peak hours would likely improve the route's ridership per trip and ridership per revenue hour.
- **End service earlier on weekdays and Saturdays.** Route 2 ridership drops off significantly after 7:00 PM. Ending service earlier would improve the route's over-all productivity. Stopping service in the 9:00 hour would eliminate several unproductive trips while still maintaining an extensive span of service.
- **Provide bi-directional service and extend route to PVCC.** PVCC is a major ridership generator, and has the potential to serve as a secondary hub for CAT. Route 2 could be restructured to continue south along Avon Street Extended to Mill Creek Drive, after serving 5th Street Station. The route could then continue to PVCC via Scottsville Road. This extension would also add service to several large apartment complexes, a Food Lion, and Monticello High School – all potentially strong ridership generators.





## 9.3. ROUTE 3: SOUTHWOOD & BELMONT

### 9.3.1. Service Description

Route 3 (**Figure 73**) operates Monday through Saturday, between the Southwood neighborhood and Belmont Park via downtown Charlottesville. The route travels primarily along Carlton Avenue, Avon Street, 5th Street SW, and Old Lynchburg Road. Some segments of Route 3, such as Market Street and Water Street, are served in one direction only. In addition, the Downtown Transit Center is only served when traveling toward Southwood. The route is presented in maps and schedules as beginning downtown and alternating between service to Southwood and Belmont Park.

Passengers may transfer to other services at the Downtown Transit Station and Willoughby Square Shopping Center. Excluding the first (6:00 AM) and last (11:30 PM) trips, which respectively run from Market Street at Old Preston to the Downtown Transit Station and from the Downtown Transit Station to Southwood, all Route 3 trips operate along the route's full alignment.

Figure 73 | Route 3 Map

### 9.3.3. Operating Characteristics

**Table 9-5** summarizes operating characteristics for Route 3. On weekdays, the route operates a 30-minute frequency during peak periods and hourly service off-peak; on Saturdays, service is provided hourly. At $488,268 per year, the route has the fifth-highest operating cost among CAT routes. Route 3 offers connections to all routes excluding Routes 5 and 12, and serves several activity generators, including the Albemarle County Office Building, the Region Ten Community Service Board, and Azalea, Tonsler, Rives, and Belmont Parks.

**Table 9-5 | Route 3 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Southwood |
| | **To** | | Belmont Park |
| **Span** | **Weekday** | | 6:00 AM – 11:45 PM |
| | **Saturday** | | 6:00 AM – 11:45 PM |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 30 |
| | | **Off-Peak** | 60 |
| | **Saturday** | | 60 |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $488,268 |
| **Route Connections** | | | 1, 2, 4, 6, 7, 8, 9, 10, 11, Trolley |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, 5th Street Station, Willoughby Square Shopping Center, Albemarle County Office Building, Region Ten CSB |

### 9.3.4. Weekday Service Productivity

With 17.7 weekday passengers per hour, Route 3 ranks fourth in the system but falls just below the system average of 20.8. In addition, Route 3 reports 8.3 passengers per trip, falling below average and ranking sixth. Route 3's on-time performance rate is 95 percent (three percent early and two percent late), ranking second and well above the weekday system average. Finally, at $4.13 per passenger trip, Route 3 has the fourth lowest operating cost per passenger among CAT routes. **Table 9-6** summarizes the route's weekday service productivity metrics.

**Table 9-6 | Route 3 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8; 17.7 | Average 82%; 95% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5; 8.3 | Average $4.62; $4.13 |





### 9.3.5. Ridership

Route 3 averages 398 passengers per weekday (ranking fifth) over 48 trips, and 295 passengers per Saturday (ranking fourth) over 36 trips. The route ranks fifth in annual ridership (110,148 riders).

#### Ridership by Stop

**Figure 74** and **Figure 75** summarize weekday boardings and alightings by stop in the northbound direction (southbound, east of downtown). In this direction, ridership activity is highest at the ends of the line, at the Albemarle County Office Building, near the Omni Hotel, along East Market Street and along Carlton Avenue.

**Figure 76** and **Figure 77** summarize southbound ridership activity (northbound, east of downtown). Ridership activity in this direction is highest near Belmont Park, at the Downtown Transit Station, Willoughby Square Shopping Center, and near the Albemarle County Office Building.

**Figure 74 | Route 3 Weekday Ridership by Stop: Northbound**

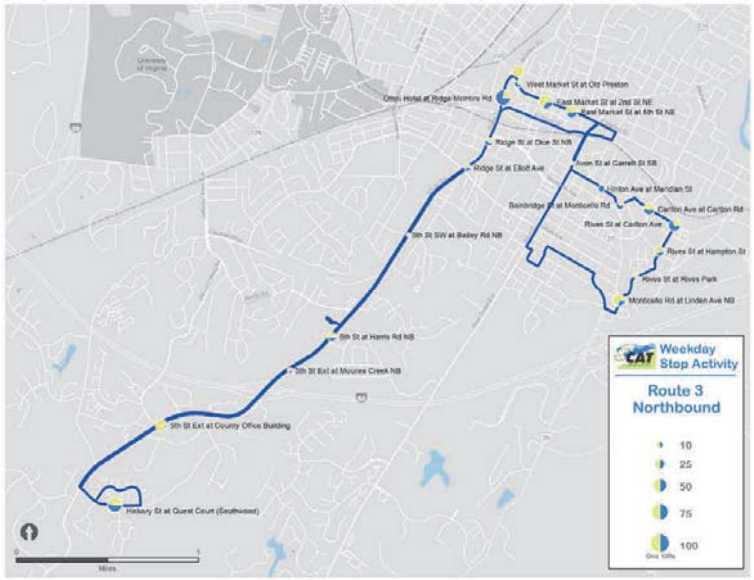


**Figure 75 | Route 3 Weekday Boardings and Alightings, by Stop: Northbound**

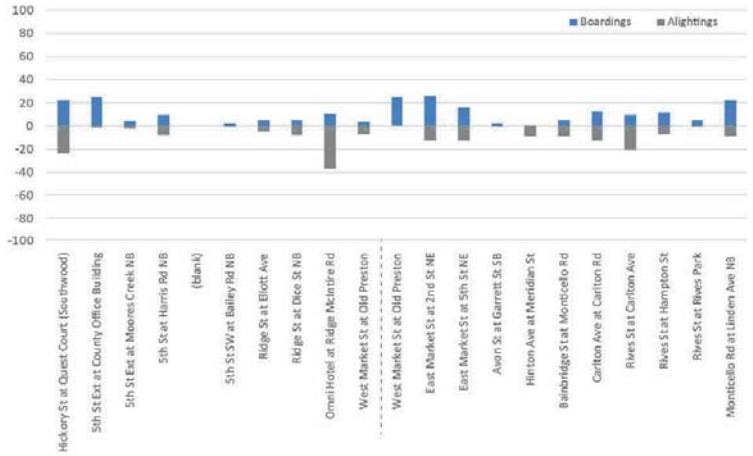







**Figure 76 | Route 3 Weekday Ridership by Stop: Southbound**

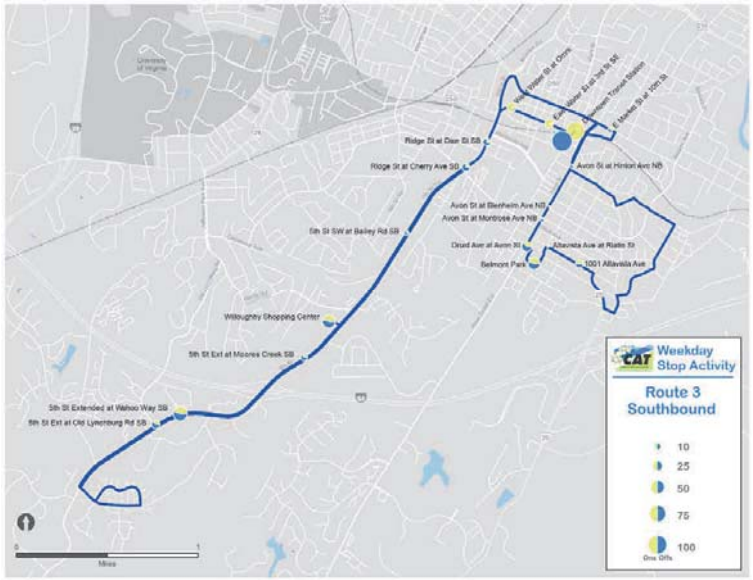
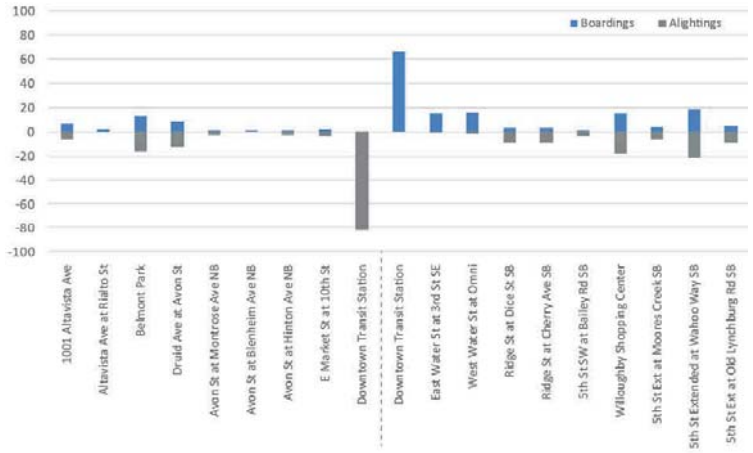


Figure 77 | Route 3 Weekday Boardings and Alightings by Stop: Southbound




## Ridership by Trip

**Figure 78** (northbound) and **Figure 79** (southbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. No Route 3 trips exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. While passenger load levels fluctuate over the service day, route activity is busier during service hours prior to 7:00 PM in the northbound direction, and prior to 10:00 PM in the southbound direction.

Figure 78 | Route 3 Weekday Ridership per Trip: Northbound

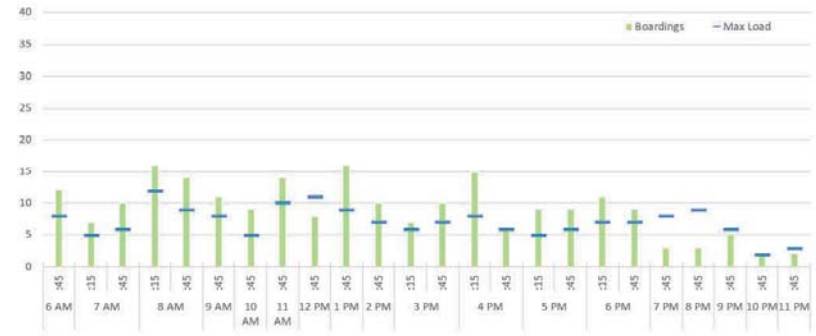
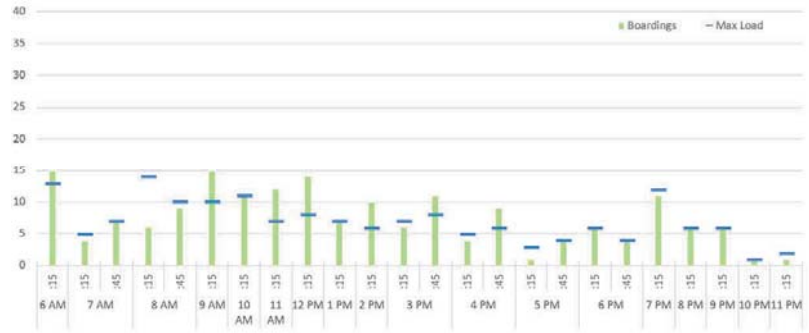







Figure 79 | Route 3 Weekday Ridership per Trip: Southbound




### 9.3.6. Summary of Observations

#### Strengths

- Only route with direct service to the Albemarle County Office Building and Region Ten CSB, key regional destinations
- Extensive span of service (6:00 AM – 11:45 PM)
- Easy-to-remember clock-face frequency
- Multiple connection opportunities in downtown Charlottesville
- Very strong on-time performance
- Below-average operating cost per passenger trip

#### Weaknesses

- Service design with alternating branches makes passenger information overly complex
- Below-average productivity in terms of passengers per hour and passengers per trip
- Difficult turn-around location at Riverside Avenue
- No direct access to major grocery stores
- Low ridership after 10:00 PM
- Infrequent stop spacing along portions of 5th Street SW

#### Opportunities

Potential opportunities to strengthen Route 3 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Split Route 3 into two separate routes.** The southern and eastern branches of Route 3 serve very different markets, and there appear to be relatively few through-riders between the branches. Splitting the route into two separate routes serving Southwood and Belmont Park, respectively, would make each resulting route easier to understand for users, and could give CAT more flexibility in terms of interlining various routes

to maximize service efficiency. In addition, splitting the routes would allow for different service frequency to different markets.

- **Add stops along 5th Street SW.** Route 3 passes by 5th Street SW entrance to Blue Ridge Commons, a large low-income apartment community. Adding stops at this location would give residents an additional transit option, and would likely result in higher ridership on Route 3.
- **Alternate service between 5th Street SW and Avon Street corridors.** Route 3 ridership is relatively low between Willoughby Square Shopping Center and downtown Charlottesville. Alternating service between the 5th Street SW and Avon Street corridors would provide more residents direct access to the County Office Building and Region TEN CSB and would provide improved access to 5th Street Station from the Southwood neighborhood. If each branch operated hourly, there would still be 30-minute service between downtown Charlottesville and the Albemarle County Office Building.
- **End service earlier.** Route 3 ridership drops off significantly after 10:00 PM. Ending service earlier would improve the route's over-all productivity. Stopping service in the 10:00 hour would eliminate several unproductive trips while still maintaining an extensive span of service.



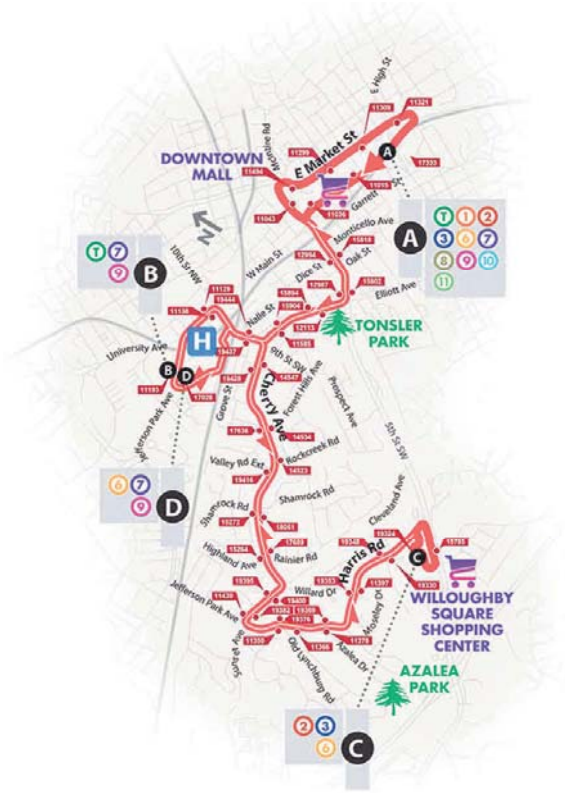


## 9.4. ROUTE 4: CHERRY AVENUE & HARRIS ROAD

### 9.4.1. Service Description

Route 4 (**Figure 80**) operates Monday through Saturday from downtown Charlottesville to Willoughby Square Shopping Center, via UVA Hospital. The route travels primarily along Ridge Street, Cherry Avenue, Jefferson Park Avenue, and Harris Road. Passengers may transfer to other services at the Downtown Transit Station, UVA Hospital, and Willoughby Square Shopping Center. All Route 4 trips operate along the route's full alignment.

**Figure 80 | Route 4 Map**



### 9.4.2. Operating Characteristics

**Table 9-7** summarizes operating characteristics for Route 4. On weekdays, the route operates every 23 minutes during peak periods and every 70 minutes during the off-peak. On Saturdays, service is provided every 70 minutes. At $594,306 per year, the route has the fourth-highest operating cost in the CAT system. Route 4 offers connections to all routes excluding Route 5 and 12, and serves several activity generators, including the Downtown Transit Station, UVA Hospital, Willoughby Square Shopping Center, and Tonsler Park.

**Table 9-7 | Route 4 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Downtown Transit Station |
| | **To** | | Willoughby Square Shopping Center |
| **Span** | **Weekday** | | 6:25 AM – 12:03 AM |
| | **Saturday** | | 6:36 AM – 12:03 AM |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 23 |
| | | **Off-Peak** | 70 |
| | **Saturday** | | 70 |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $594,306 |
| **Route Connections** | | | 1, 2, 3, 6, 7, 8, 9, 10, 11, Trolley |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, UVA Hospital, Willoughby Square Shopping Center |

### 9.4.3. Weekday Service Productivity

With 14.5 weekday passengers per hour, Route 4 ranks eighth among CAT routes and falls below the system average of 20.8. With 7.7 passengers per trip, Route 4 ranks seventh and falls below average for this metric as well. Route 4 has a below-average on-time performance rate at 78 percent (19 percent early and three percent late), ranking eighth among CAT routes. Finally, at $5.11 per passenger trip, Route 4 has the fourth-highest operating cost per passenger among CAT routes. **Table 9-8** summarizes weekday service productivity metrics for Route 4.





**Table 9-8 | Route 4 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8, 14.5 | Average 82%, 78% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5, 7.7 | Average $4.62, $5.11 |

### 9.4.4. Ridership

Route 4 averages 402 passengers per weekday (ranking fourth) over 52 trips, and 133 passengers per Saturday (ranking tenth) over 30 trips. The route ranks fourth in annual ridership (117,687 riders).

#### Ridership by Stop

**Figure 81** and **Figure 82** summarize weekday boardings and alightings by stop in the eastbound direction. Ridership activity is highest at Pinn Hall, serving the UVA Hospital. No other stops have more than 30 boardings or alightings per weekday.

**Figure 83** and **Figure 84** summarize total stop activity in the westbound direction. The westbound ridership trend is largely the reverse of the eastbound one: a good number of passengers board in the downtown area and alight at Pinn Hall. Remaining alightings are split relatively evenly among the southern portion of the route.

**Figure 81 | Route 4 Weekday Ridership by Stop: Eastbound**






**Figure 82 | Route 4 Weekday Boardings and Alightings, by Stop: Eastbound**

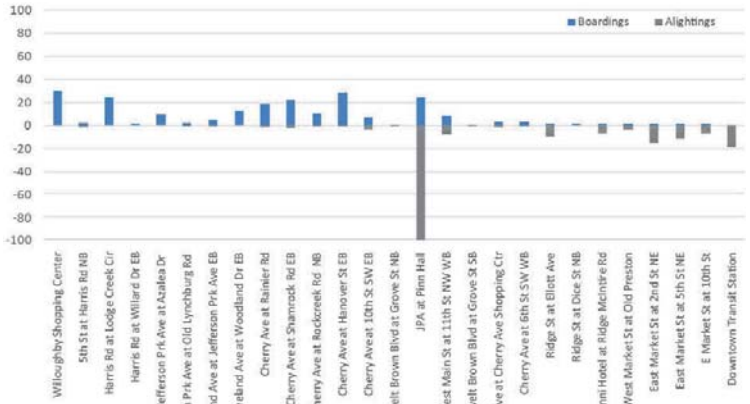


Figure 83 | Route 4 Weekday Ridership by Stop: Westbound

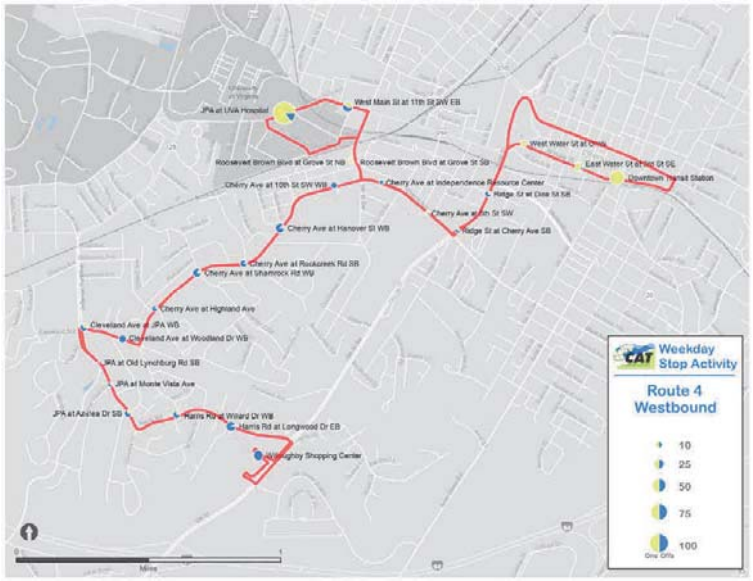
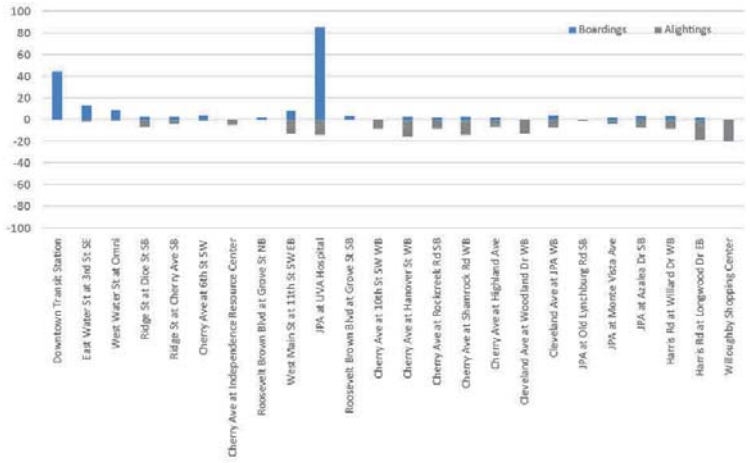







Figure 84 | Route 4 Weekday Boardings and Alightings by Stop: Westbound




## Ridership by Trip

**Figure 85** (eastbound) and **Figure 86** (westbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. No Route 4 trips exceed a maximum load of 26 passengers, the seating capacity for the 30ft. transit buses typically assigned to this route. Route activity is generally higher during the morning in the eastbound direction, and in the afternoon in the westbound direction.

Figure 85 | Route 4 Weekday Ridership per Trip: Eastbound

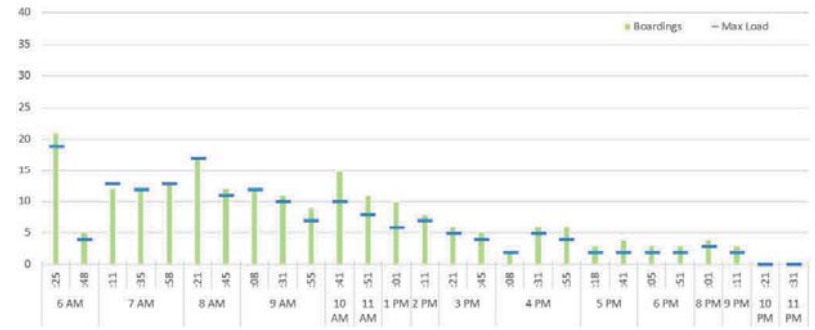
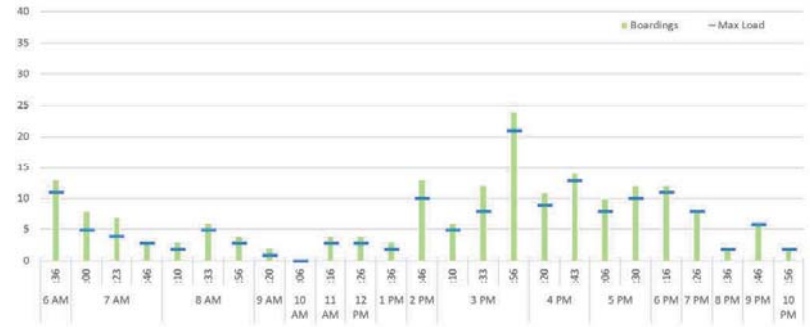


Figure 86 | Route 4 Weekday Ridership per Trip: Westbound




### 9.4.5. Summary of Observations

#### Strengths

- Links residential neighborhoods south of UVA directly to UVA Hospital
- Includes three strong anchors: downtown Charlottesville, UVA Hospital, and Willoughby Square Shopping Center
- Extensive span of service (6:25 AM – 12:03 PM)
- Multiple connection opportunities
- Strong peak-period ridership

#### Weaknesses

- Non-clock-face frequency resulting in missed connections and a difficult-to-remember schedule
- Poor mid-day frequency
- Below-average productivity in terms of passengers per hour and passengers per trip
- Above-average cost per passenger
- No direct access to major grocery stores
- Below-average on-time performance
- Low ridership after 10:00 PM

#### Opportunities

Potential opportunities to strengthen Route 4 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Interline with another route to create more regular cycle time and improve on-time performance.** Route 4 has a 70-minute cycle time results in non-clock-face frequency in both the peak and off-peak. In addition, it has below-average on-time performance, suggesting that the route requires more running and/or recovery time. Interlining Route 4 with another route could give Route 4 a more manageable cycle time. If one route has insufficient running time, and another has running time to spare, operationally linking





the routes together can optimize running time and recovery time on both routes. To interline two routes, they must have a common terminus and justify similar levels of service.

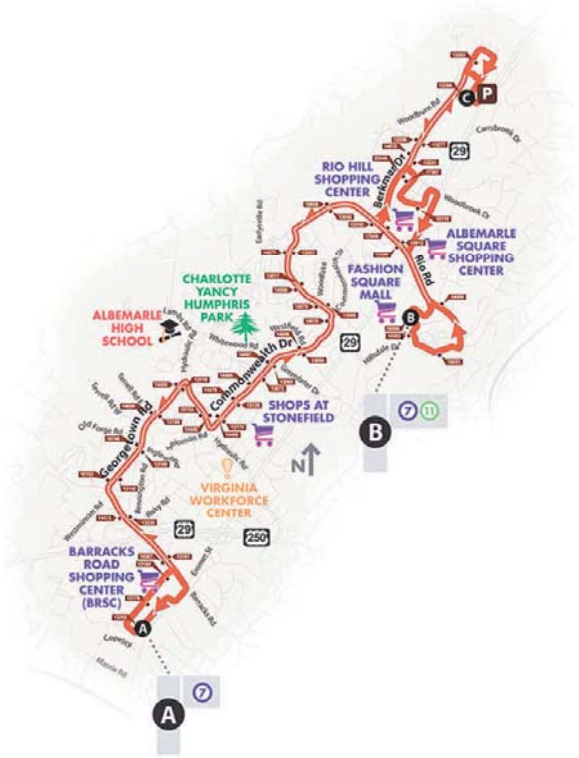
- **Extend route to 5th Street Station or PVCC.** Extending Route 4 to 5th Street Station or PVCC would add additional ridership generators to the route, and could produce a 90 or 120-minute cycle time that would allow for a clock-face frequency of 30 or 60 minutes.
- **Eliminate service between UVA Hospital and downtown Charlottesville.** Route 4 ridership is strongest between Willoughby Square Shopping Center and UVA Hospital. Eliminating service between the hospital and downtown would likely improve the route's on-time performance by reducing the route's exposure to congestion-related delays. If paired with a service extension to 5th Street Station or PVCC, truncating Route 4 at UVA Hospital could produce a more manageable cycle time. If Route 4 service is eliminated between the hospital and downtown, frequent connections between the two activity centers would still be provided by the Trolley and Route 7/12.
- **End service earlier.** Route 4 ridership drops off significantly after 10:00 PM. Ending service earlier would improve the route's over-all productivity. Stopping service in the 10:00 PM hour would eliminate several unproductive trips while still maintaining an extensive span of service.

## 9.5. ROUTE 5: COMMONWEALTH DRIVE

### 9.5.1. Service Description

Route 5 (**Figure 87**) operates Monday through Saturday from the Charlottesville Walmart to Barracks Road Shopping Center. It is the only CAT route to not serve the Downtown Transit Station. The route travels primarily along Berkmar Drive, Rio Road, Commonwealth Drive, Georgetown Road, and Barracks Road. While the second trip of the day (6:30 AM) runs from Fashion Square Mall to Barracks Road, and the final trip (10:30 PM) terminates at Fashion Square Mall, all other trips operate along Route 5's full alignment.

**Figure 87 | Route 5 Map**








### 9.5.2. Operating Characteristics

**Table 9-9** summarizes operating characteristics for Route 5. The route operates a consistent 30-minute frequency on weekdays and Saturdays. At $1,040,928 per year, the route has the third-highest operating cost in the CAT system. From Route 5, passengers may can transfer to Routes 7 and 11 at Fashion Square Mall. Route 5 serves several large retail centers, including the Barracks Road Shopping Center, Fashion Square Mall, Rio Hill Shopping Center, and Albemarle Square Shopping Center.

**Table 9-9 | Route 5 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Walmart |
| | **To** | | Barracks Road Shopping Center |
| **Span** | **Weekday** | | 6:15 AM – 11:00 PM |
| | **Saturday** | | 6:15 AM – 11:00 PM |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 30 |
| | | **Off-Peak** | 30 |
| | **Saturday** | | 30 |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $1,040,928 |
| **Route Connections** | | | 7, 11 |
| **Key Destinations** | | | Barracks Road Shopping Center, Fashion Square Mall, Rio Hill Shopping Center, Albemarle Square Shopping Centers |

### 9.5.3. Weekday Service Productivity

Route 5 ranks sixth among CAT routes for passengers per hour (17.5) and third for passengers per trip (11.1). The route's on-time performance rate is 68 percent (29 percent early and three percent late), ranking 10th and well below the weekday system average. The operating cost per passenger for Route 5 is $4.46, close to the system average. **Table 9-10** summarizes service productivity metrics for Route 5.

Table 9-10 | Route 5 Weekday Service Productivity Metrics

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8 — 17.5 | Average 82% — 68% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5 — 11.1 | Average $4.62 — $4.46 |

### 9.5.4. Ridership

Route 5 averages 753 passengers per weekday (ranking third) over 68 trips, and 594 passengers per Saturday (ranking third) over 68 trips. The route also ranks third in annual ridership (220,586 riders).

### Ridership by Stop

**Figure 88** and **Figure 89** summarize weekday boardings and alightings by stop in the northbound direction. Ridership activity is highest at Barracks Road Shopping Center, Fashion Square Mall, and Walmart. Relatively less (yet significant) boarding and alighting activity occurs along Commonwealth Drive.

**Figure 90** and **Figure 91** summarize weekday ridership activity in the southbound direction. The southbound ridership trend largely mirrors the northbound one, with the highest ridership at Walmart, Fashion Square Mall, and the Barracks Road Shopping Center.





Figure 88 | Route 5 Weekday Ridership by Stop

**Figure 89 | Route 5 Weekday Boardings and Alightings, by Stop: Northbound**

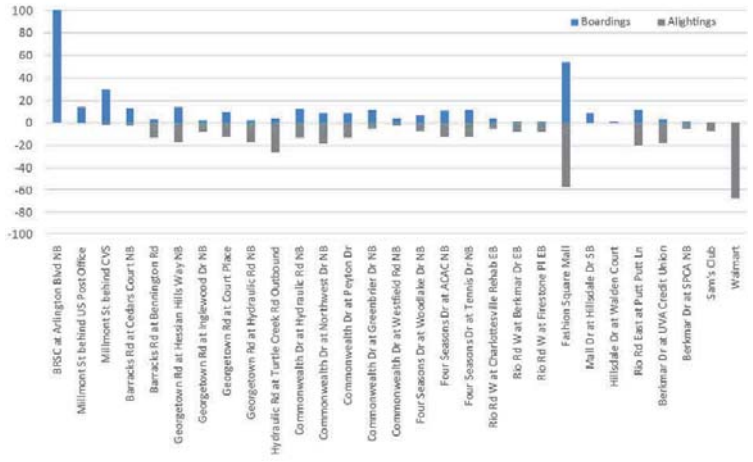
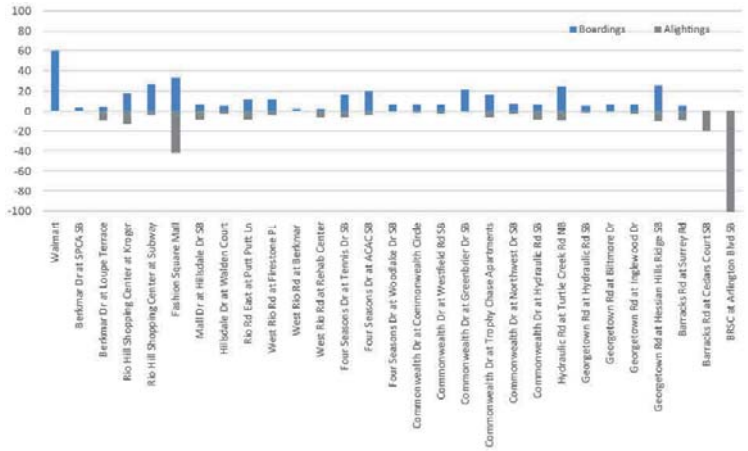







**Figure 90 | Route 5 Weekday Ridership by Stop: Southbound**

Figure 91 | Route 5 Weekday Boardings and Alightings by Stop: Southbound




## Ridership by Trip

**Figure 92** (northbound) and **Figure 93** (southbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. No Route 5 trips exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. In both directions, service is generally busiest during the 4:00 PM hour.

Figure 92 | Route 5 Weekday Ridership per Trip: Northbound

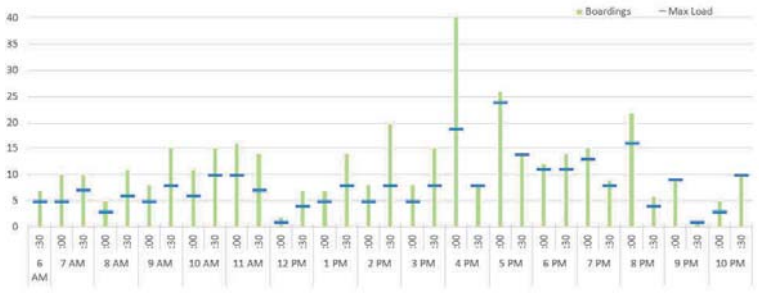
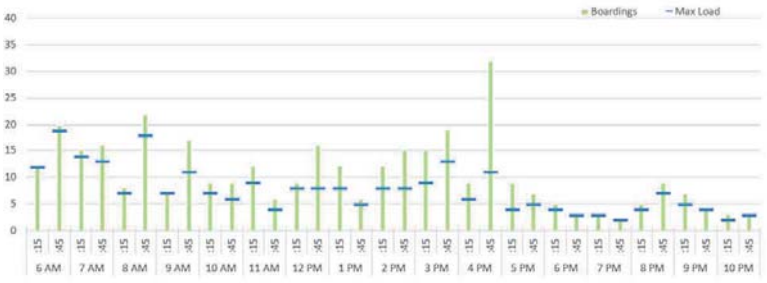







Figure 93 | Route 5 Weekday Ridership per Trip: Southbound




### 9.5.5. Summary of Observations

#### Strengths

- Provides access to several regionally-significant retail destinations
- Good mix of origins (high-density residential) and destinations (retail)
- Third-highest weekday ridership among CAT routes
- Extensive span of service (6:15 AM – 11:00 PM)
- Easy-to-remember clock-face frequency
- Relatively frequent service throughout the service day

#### Weaknesses

- Service to Fashion Square Mall and Walmart results in a circuitous alignment and significant out-of-direction deviations for some riders
- Very poor on-time performance
- Service slightly too far from Albemarle High School, a strong potential ridership generator

#### Opportunities

Potential opportunities to strengthen Route 5 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Eliminate service to Fashion Square Mall.** Route 5 has a relatively long and circuitous alignment which not only forces some riders to travel out-of-direction to reach their intended destination, but also results in poor on-time performance. Passenger can transfer between Route 5 and Route 7 at Barracks Road Shopping Center. If Route 5 service to Fashion Square Mall were eliminated, passengers would still be able to access the mall via a transfer. Streamlining Route 5 would make it simpler to understand and could also allow for better on-time performance.
- **Extend Route to YMCA.** Route 5 could be extended to the Brooks Family YMCA via Barracks Road and Rugby Avenue. This would make the YMCA more accessible to Albemarle High School (may require

alignment adjustment near the high school) and UVA students (via a connection at BRSC), and could improve ridership to this key regional destination.





## 9.6. ROUTE 6: RIDGE STREET & PROSPECT AVENUE

### 9.6.1. Service Description

Route 6 (**Figure 94**) operates Monday through Saturday from downtown Charlottesville to Willoughby Square Shopping Center via the UVA Hospital. Return trips do not serve the hospital. The route travels primarily along 1st Street, Ridge Street, Prospect Avenue, 9th Street, and 5th Street SW. Passengers may transfer to other services at the Downtown Transit Station, UVA Hospital, and Willoughby Square Shopping Center. With the exception of the final trip of the day (11:30 PM), which terminates at Pinn Hall, all Route 6 trips operate along the route's full alignment.

**Figure 94 | Route 6 Map**

### 9.6.2. Operating Characteristics

**Table 9-11** summarizes operating characteristics for Route 6. The route operates hourly throughout the day on weekdays and Saturdays. At $382,230 per year, the route has the sixth-highest operating cost among CAT routes. Route 6 offers connections to all routes excluding Route 5 and 12, and serves several activity generators, including downtown Charlottesville, UVA Hospital, Willoughby Square Shopping Center, and Tonsler and Forest Hills Parks.

**Table 9-11 | Route 6 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Downtown Transit Station |
| | **To** | | Willoughby Square Shopping Center |
| **Span** | **Weekday** | | 6:30 AM – 12:00 AM |
| | **Saturday** | | 6:30 AM – 12:00 AM |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 60 |
| | | **Off-Peak** | 60 |
| | **Saturday** | | 60 |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $382,230 |
| **Route Connections** | | | 1, 2, 3, 4, 7, 8, 9, 10, 11, Trolley |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, UVA Hospital, Willoughby Square Shopping Center |

### 9.6.3. Weekday Service Productivity

Route 6 ranks fifth in both weekday passengers per hour (17.5) and passengers per trip (8.3), falling below average in both categories. The route's on-time performance rate is 89 percent (seven percent early and four percent late), ranking fourth and above the weekday system average. At $4.22 per passenger trip, Route 6 has the eighth-highest operating cost per passenger. **Table 9-12** summarizes weekday service productivity metrics for Route 6.

**Table 9-12 | Route 6 Weekday Service Productivity Metrics: Weekday**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8; 17.5 | Average 82%; 89% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5; 8.3 | Average $4.62; $4.22 |





### 9.6.4. Ridership

Route 6 averages 292 passengers per weekday (ranking seventh) over 35 trips, and 172 passengers per Saturday (ranking sixth) over 35 trips. The route ranks seventh in annual ridership (76,212 riders).

#### Ridership by Stop

**Figure 95** and **Figure 96** summarize weekday boardings and alightings by stop in the eastbound direction. Ridership activity is highest at the Downtown Transit Center, but is generally low at all stops.

**Figure 97** and **Figure 98** summarize weekday ridership activity in the westbound direction. Westbound ridership is highest in downtown Charlottesville, at the UVA Hospital, and along Prospect Avenue. Westbound ridership is substantially higher than in the eastbound direction, which is a reflection of the fact that the UVA Hospital and Prospect Avenue are served in the westbound direction only. In addition, Route 6 offers faster westbound service between the hospital and Willoughby Square Shopping Center than Route 4.

**Figure 95 | Route 6 Weekday Ridership by Stop: Eastbound**

Figure 96 | Route 6 Weekday Boardings and Alightings, by Stop: Eastbound

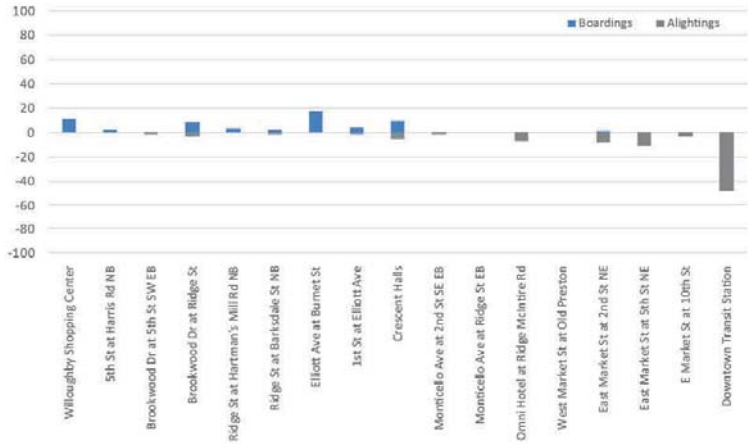







Figure 97 | Route 6 Weekday Ridership by Stop: Westbound

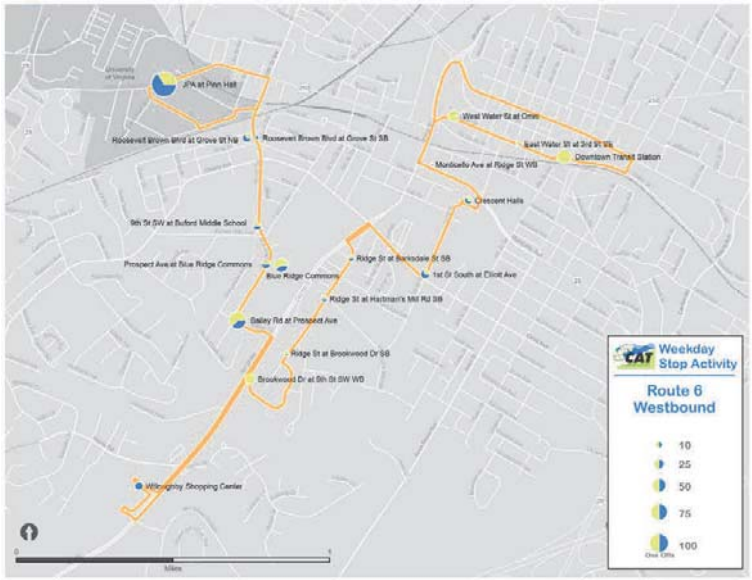
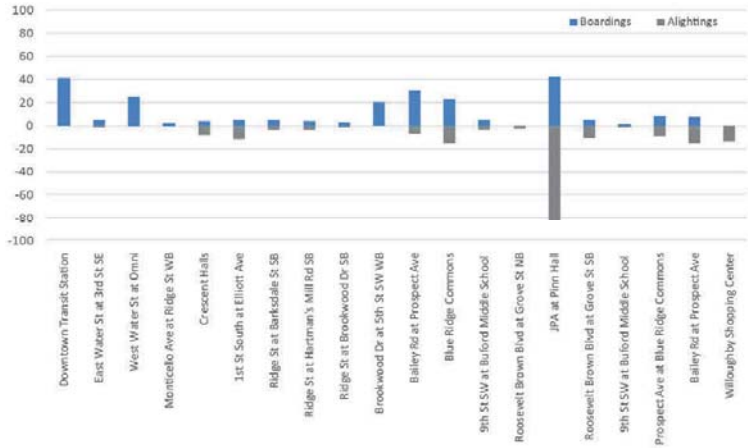


Figure 98 | Route 6 Weekday Boardings and Alightings by Stop: Westbound




## Ridership by Trip

**Figure 99** (eastbound) and **Figure 100** (westbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. No Route 6 trips exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. Route activity is generally higher in the westbound direction, peaking between 6:00 AM and 9:00 AM and between 2:00 PM and 5:00 PM.

Figure 99 | Route 6 Weekday Ridership per Trip: Eastbound

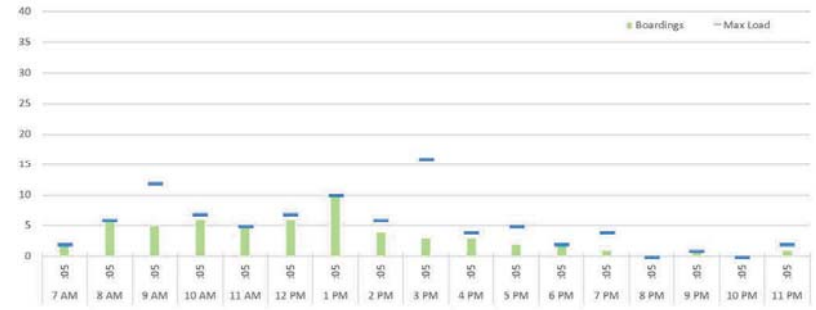
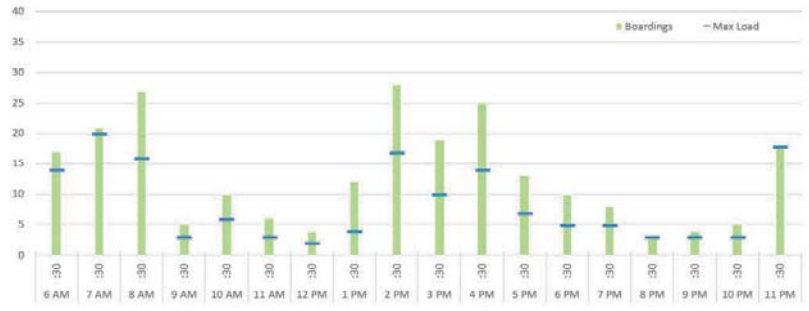







Figure 100 | Route 6 Weekday Ridership per Trip: Westbound




### 9.6.5. Summary of Observations

#### Strengths

- Includes three strong anchors: downtown, UVA Hospital, and Willoughby Square Shopping Center
- Strong on-time performance
- Extensive span of service (6:30 AM – 12:00 PM)
- Easy-to-remember clock-face frequency
- Multiple connection opportunities
- Strong ridership in the westbound direction

#### Weaknesses

- Service between UVA Hospital and Willoughby Square Shopping Center available in the westbound direction only, potentially confusing prospective riders
- Below-average productivity in terms of passengers per hour and passengers per trip
- Above-average cost per passenger trip
- Close, but not direct access to 5th Street Station, and major potential ridership generator

#### Opportunities

Potential opportunities to strengthen Route 6 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Eliminate Route 6 and reinvest resources into other routes.** The highest ridership stops on Route 4 are all within walking distance of other routes. For example, stops along Prospect Avenue and Elliott Avenue with significant ridership are both one block from 5th Street SW. Eliminating Route 6 could allow its resources to be invested into more frequent service on Route 3 along 5th Street SW.
- **Combine with Route 2.** Along 5th Street SW, Route 2 operates southbound only. Route 6 provides northbound service only, along much of the same corridor. Combining the hospital-to-Willoughby Square branch of Route 6 with the 5th Street Station and Avon Street segments of Route 2 would result in a U-

shaped bi-directional route with anchors at the UVA Hospital, 5th Street Station, and downtown Charlottesville. Ridge Street could still be served by Route 3.





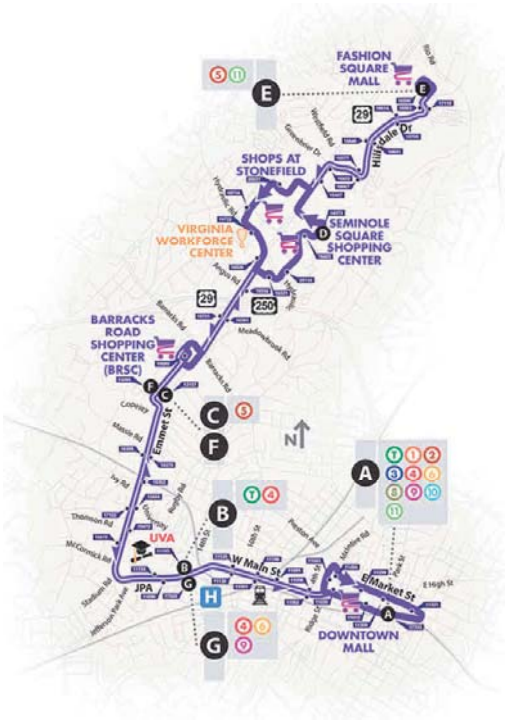
## 9.7. ROUTE 7: EMMET STREET & SEMINOLE TRAIL

### 9.7.1. Service Description

Route 7 (**Figure 101**) operates Monday through Saturday from Fashion Square Mall to the Downtown Transit Center. The route travels primarily along Hillsdale Drive, Emmet Street, Jefferson Park Avenue, and Main Street. Along the Seminole Trail corridor, Route 7 operates along different alignments in the northbound and southbound direction. Northbound, the route serves the Seminole Square Shopping Center, while southbound trips serve the Shops at Stonefield.

Passengers may transfer between Route 7 and several other routes at the Downtown Transit Station, UVA Hospital, Barracks Road Shopping Center, and Fashion Square Mall. While the majority of Route 7 trips operate along the route's full alignment, three morning trips operate shortened alignments.

**Figure 101 | Route 7 Map**



### 9.7.2. Operating Characteristics

**Table 9-13** summarizes operating characteristics for Route 7. The route operates on a 20-minute frequency for most of the service day, but shifts to half-hourly service after the evening peak. At $1,717,830 per year, Route 7 has the highest operating cost in the CAT system. Route 7 offers connections to all other weekday CAT routes and serves several activity generators, including the Downtown Transit Station, UVA Hospital, several regional shopping centers, and the Virginia Workforce Center.

**Table 9-13 | Route 7 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Fashion Square Mall |
| | **To** | | Downtown Transit Station |
| **Span** | **Weekday** | | 6:30 AM – 11:25 PM |
| | **Saturday** | | 6:30 AM – 11:25 PM |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 20 |
| | | **Off-Peak** | 30 |
| | **Saturday** | | 20/30 |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $1,717,830 |
| **Route Connections** | | | 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, Trolley |
| **Key Destinations** | | | Downtown Mall, UVA Hospital, Barracks Road Shopping Center, Seminole Square Shopping Center, Fashion Square Mall, Shops at Stonefield, Virginia Workforce Center |

### 9.7.3. Weekday Service Productivity

With 30.9 weekday passengers per hour, Route 7 ranks second in the system and is above the system average for this metric. Route 7 also ranks second for passengers per trip (22.8), again exceeding the system average. However, the route's on-time performance rate is 66 percent (33 percent early and one percent late), ranking 12th and well below the weekday system average. At $2.51 per passenger trip, Route 7 has the second-lowest operating cost per passenger among CAT routes. **Table 9-14** summarizes service productivity metrics for Route 7.

**Table 9-14 | Route 7 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8 — 30.9 | Average 82% — 66% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5 — 22.8 | Average $4.62 — $2.51 |





### 9.7.4. Ridership

Route 7 averages 2,187 passengers per weekday (ranking second) over 96 trips, and 1,423 passengers per Saturday (ranking first) over 96 trips. The route ranks second in annual ridership (582,307riders).

#### Ridership by Stop

**Figure 102** and **Figure 103** summarize weekday boardings and alightings by stop in the northbound direction. Northbound ridership activity is highest along W. Main Street, and at Barracks Road Shopping Center, Seminole Square Shopping Center, and Fashion Square Mall.

**Figure 104** and **Figure 105** summarize total stop activity in the southbound direction. Southbound ridership nearly mirrors the northbound trend, except that Seminole Square ridership activity is replaced by activity at the Shops at Stonefield.

**Figure 102 | Route 7 Weekday Ridership by Stop: Northbound**

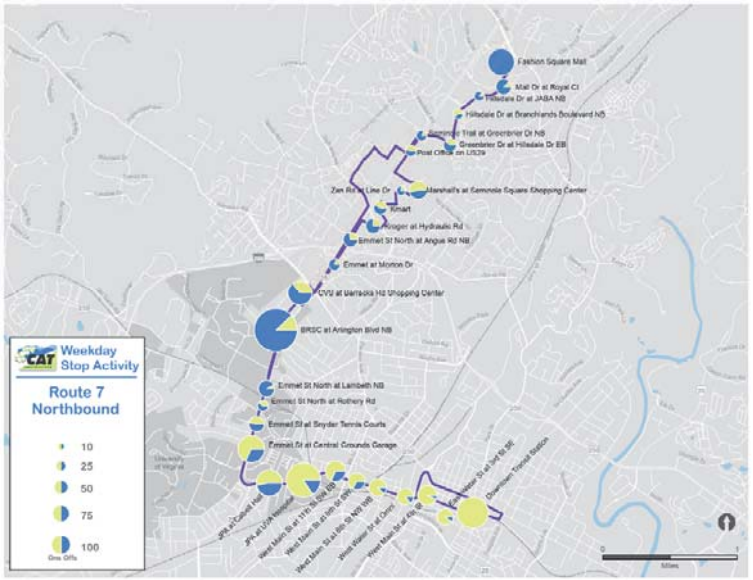


**Figure 103 | Route 7 Weekday Boardings and Alightings, by Stop: Northbound**

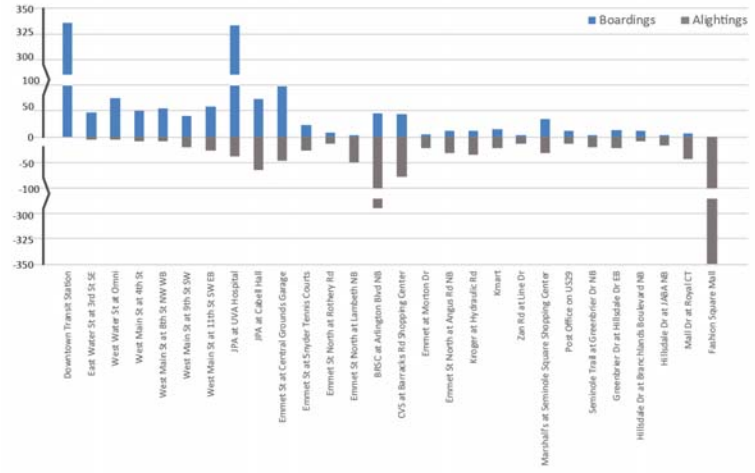







**Figure 104 | Route 7 Weekday Ridership by Stop: Southbound**

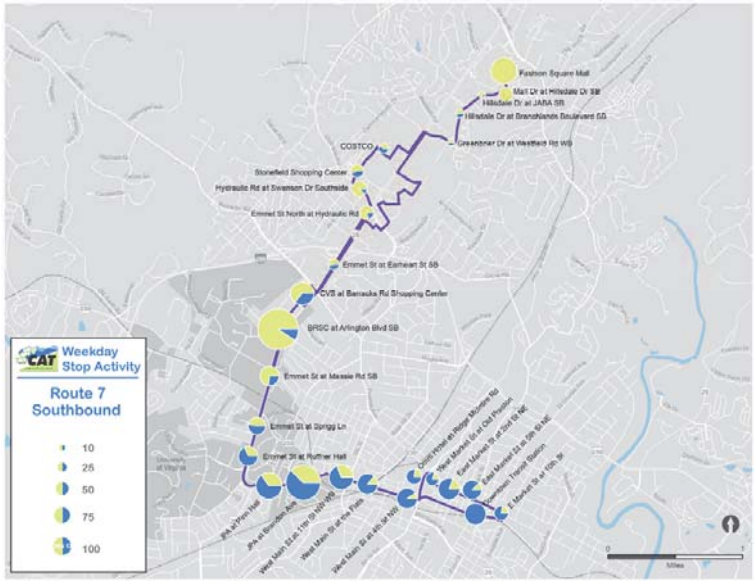
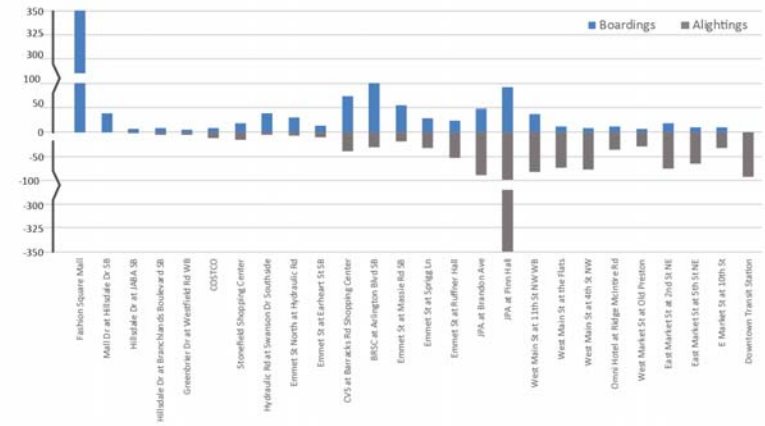


Figure 105 | Route 7 Weekday Boardings and Alightings by Stop: Southbound




## Ridership by Trip

**Figure 106** (northbound) and **Figure 107** (southbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. Three Route 7 trips in the northbound direction exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. This suggests that standing loads are not uncommon on Route 7, especially in the late afternoon.

Figure 106 | Route 7 Weekday Ridership per Trip: Northbound

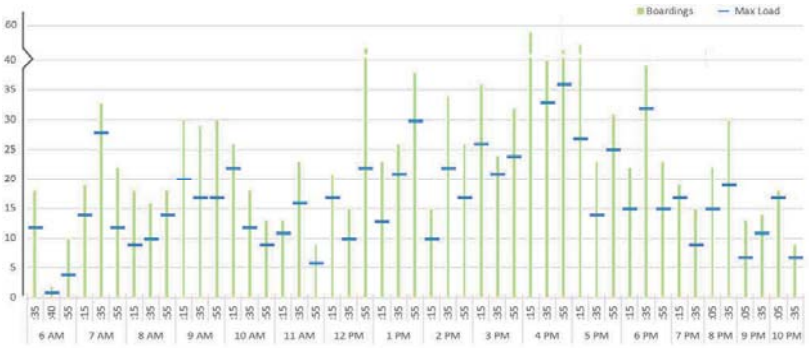
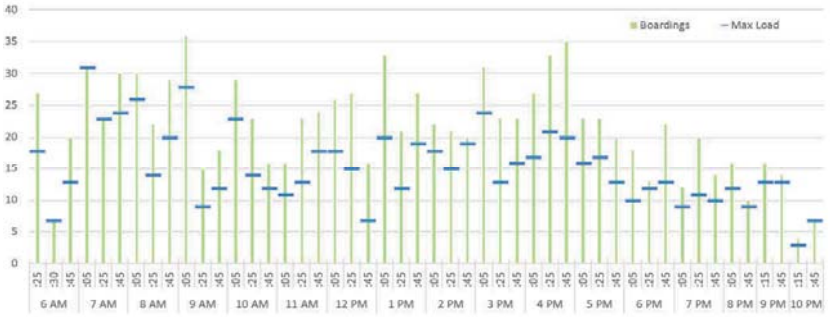







Figure 107 | Route 7 Weekday Ridership per Trip: Southbound




### 9.7.5. Summary of Observations

#### Strengths

- High ridership throughout the service day
- Several strong anchors including downtown, UVA, and multiple retail centers
- Extensive span of service (6:30 AM – 11:25 PM)
- High service frequency during most of the day
- Multiple connection opportunities in downtown Charlottesville
- Above-average ridership per hour and ridership per trip
- Below-average cost per passenger

#### Weaknesses

- Inconsistent northbound and southbound alignment along Seminole Trail corridor, forcing passengers to cross busy thoroughfare or ride out-of-direction on one leg of their trip
- Very poor on-time performance
- Standing loads on several trips

#### Opportunities

Potential opportunities to strengthen Route 7 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Coordinate with City and property owners to improve pedestrian amenities along Seminole Trail in order to streamline route.** Route 7 is a relatively long route with poor on-time performance. This is due in part to its front-door service to the retail centers it service along Seminole Court Trail. Improvements to sidewalks, crosswalks, pedestrian signals, and pedestrian access points to retail centers could allow Route 7 to provide faster, more streamlined service along the corridor.
- **Rebrand Route 7 as a BRT service.** To complement an investment in pedestrian amenities, CAT could also invest in enhanced passenger amenities in the corridor. While many destinations along the Seminole Court

Trail corridor are set a significant distance back from the thoroughfare, the presence of high-quality shelters, benches, real-time bus arrival information, etc. could provide a reasonable trade-off for passengers who would have to walk a bit farther to access the bus. These amenities could be elements of a comprehensive effort to rebrand Route 7 as a Bus Rapid Transit service providing fast, frequent, and high-quality service along CAT's top ridership corridors.

- **Extend route to Walmart.** If Route 7 is streamlined, and rebranded as a BRT service, it could also be extended to Walmart, one of the top ridership generators in the CAT service area. This would provide the route a very strong end-of-line anchor and could help establish Walmart as a secondary hub where transfers could be made to other routes (both CAT and JAUNT).
- **Increase peak-period service frequency.** Route 7 experiences heavy ridership throughout the day and has maximum loads exceeding seating capacity on several peak-period trips. Increasing service frequency from 20-minutes to 15-minutes would reduce overcrowding and also bring service levels up to what would be expected of a BRT service. Together with enhanced passenger amenities, high service frequency could make a slightly longer walk to retail destinations more palatable to riders.





## 9.8. ROUTE 8: PRESTON AVENUE & EMMET STREET

### 9.8.1. Service Description

Route 8 (**Figure 108**) operates Monday through Saturday between downtown Charlottesville and the Shops at Stonefield. The route travels primarily along Emmet Street, Barracks Road, and Preston Avenue.

Both ends of Route 8 include one-way loops. On the south end, buses circulate through downtown Charlottesville in the clockwise direction. On the north end, the route terminates with a counter-clockwise loop connecting Seminole Square Shopping Center on the east side of Seminole Trail with the Shops at Stonefield on the west side of the road.

Transfer opportunities to other routes are available at the Downtown Transit Station, and at Barracks Road, Seminole Square, and the Shops at Stonefield shopping centers.

**Figure 108 | Route 8 Map**

## 9.8.2. Operating Characteristics

**Table 9-15** summarizes operating characteristics for Route 8. On weekdays, the route operates every 30 minutes during peak periods and hourly during the off-peak. Hourly service is also provided on Saturdays. At $378,660 per year, the route has the seventh-highest operating cost among all CAT routes. Route 8 offers connections to all weekday routes except for Routes 5, and serves several activity generators, including the Downtown Mall, several shopping centers, and Washington Park.

**Table 9-15 | Route 8 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Seminole Square Shopping Center |
| | **To** | | Downtown Transit Station |
| **Span** | **Weekday** | | 6:30 AM – 6:57 PM |
| | **Saturday** | | 6:30 AM – 6:27 PM |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 30 |
| | | **Off-Peak** | 60 |
| | **Saturday** | | 60 |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $378,660 |
| **Route Connections** | | | 1, 2, 3, 4, 6, 7, 9, 10, 11, Trolley |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, Barracks Road Shopping Center, Seminole Square Shopping Center, Shops at Stonefield |

## 9.8.3. Weekday Service Productivity

Route 8 is the third-highest performing route in terms of passengers per hour (18.9), and fourth-highest for passengers per trip (8.7). However, the route is below average for both metrics. At 83 percent on-time, Route 8 ranks third in on-time performance (four percent early and three percent late), and is substantially above the weekday system average. Finally, Route 8 has a better than average operating cost per passenger at $3.96 per passenger trip. **Table 9-16** summarizes service productivity metrics for Route 8.

**Table 9-16 | Route 8 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8, 18.9 | Average 82%, 93% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5, 8.7 | Average $4.62, $3.96 |





## 9.8.4. Ridership

Route 8 averages 329 passengers per weekday (ranking sixth) over 38 trips, and 186 passengers per Saturday (ranking fifth) over 24 trips. The route ranks sixth in annual ridership (98,918 riders).

### Ridership by Stop

**Figure 109** and **Figure 110** summarize weekday boardings and alightings by stop in the northbound direction. Northbound ridership activity is heaviest in downtown Charlottesville, along Preston Avenue, and at Barracks Road Shopping Center.

**Figure 111** and **Figure 112** show weekday ridership activity in the southbound direction. In this direction, ridership activity is highest along the route's northern terminal loop, at Barracks Road Shopping Center, along Preston Avenue, and in downtown Charlottesville.

**Figure 109 | Route 8 Weekday Ridership by Stop: Northbound**

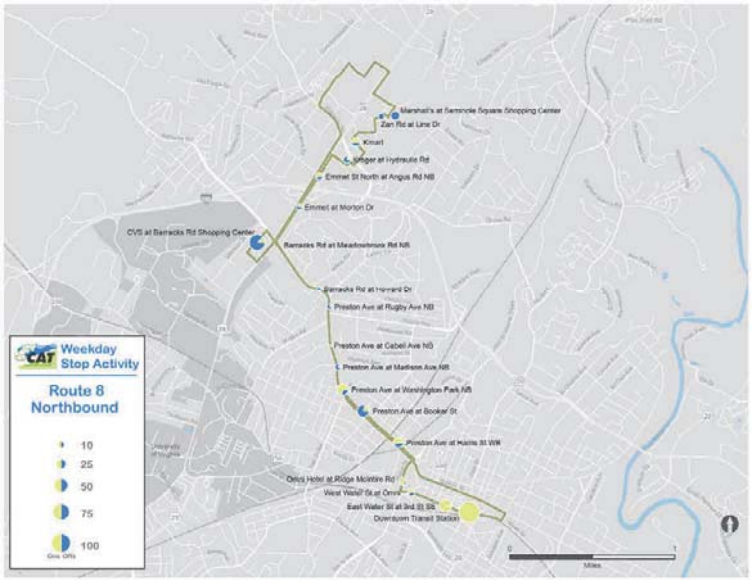


**Figure 110 | Route 8 Weekday Boardings and Alightings, by Stop: Northbound**

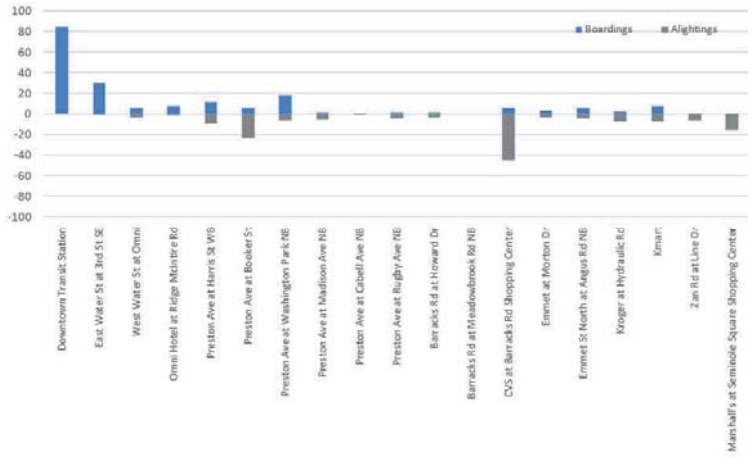







**Figure 111 | Route 8 Weekday Ridership by Stop: Southbound**

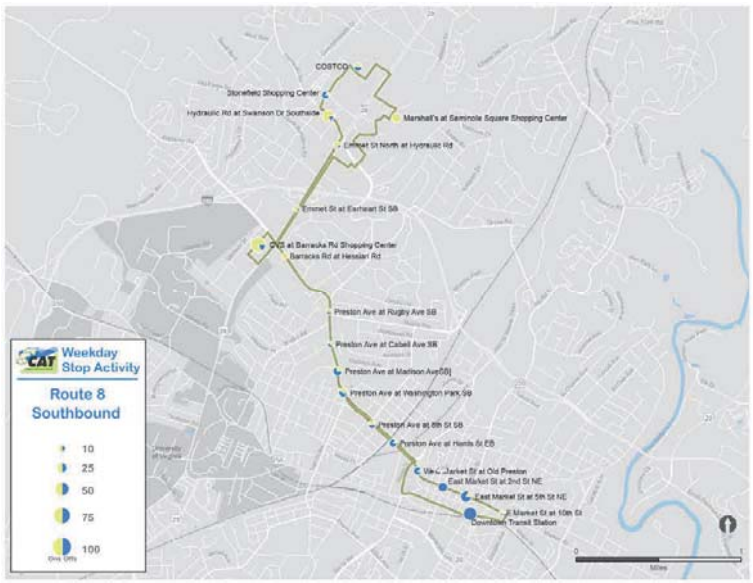
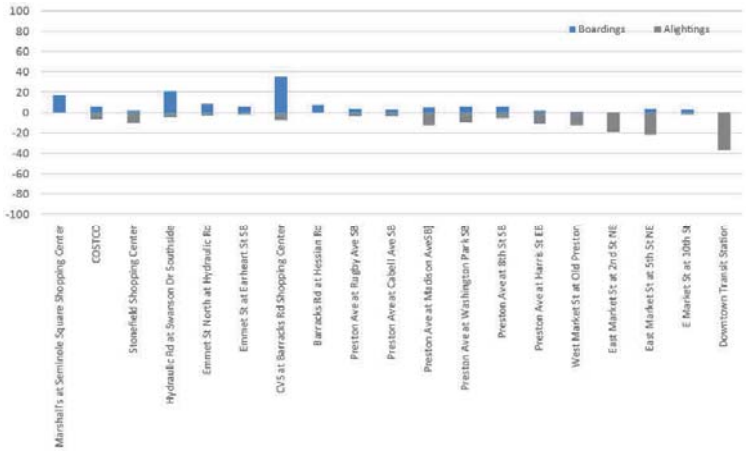


Figure 112 | Route 8 Weekday Boardings and Alightings by Stop: Southbound




### Ridership by Trip

**Figure 113** (northbound) and **Figure 114** (southbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. No Route 8 trips exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. Ridership activity is generally higher during midday hours in the northbound direction and during late afternoon hours in the southbound direction.

Figure 113 | Route 8 Weekday Ridership per Trip: Northbound

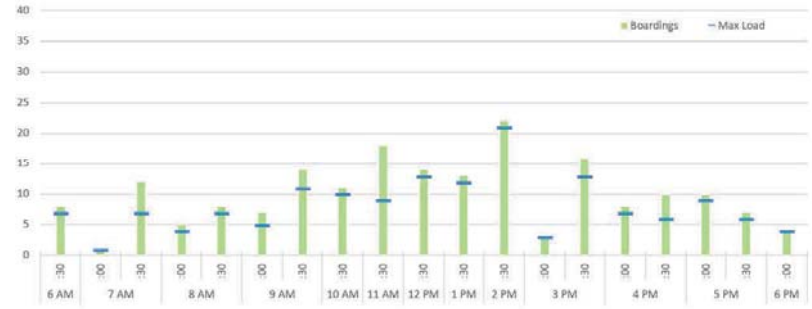
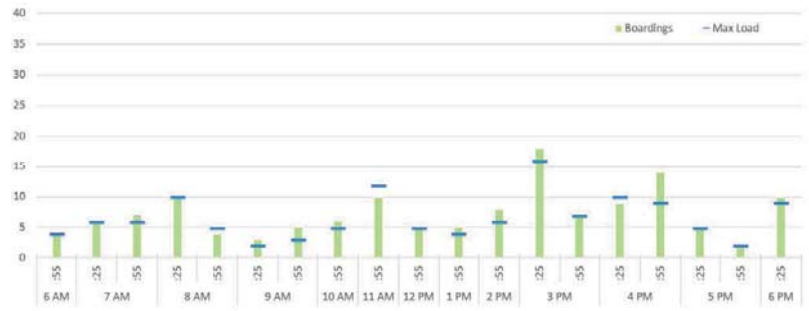







Figure 114 | Route 8 Weekday Ridership per Trip: Southbound




## 9.8.5. Summary of Observations

### Strengths

- Serves several regional retail centers
- Relatively high frequency service during peak periods
- Easy-to-remember clock-face frequency
- Very strong on-time performance
- Below-average cost per passenger trip
- Multiple connection opportunities in downtown Charlottesville and at retail destinations

### Weaknesses

- One-way terminal loop allows passengers to get from destinations on the east side of Seminole Trail to destinations on the west side, but not vice versa.
- Below-average productivity in terms of passengers per hour and passengers per trip
- Relatively limited span of service (6:30 AM – 6:57 PM)

### Opportunities

Potential opportunities to strengthen Route 8 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Reverse circulation direction of terminal loop.** Route 8 and Route 7 both allow passengers to cross from retail destinations on the east side of Seminole Trail to destinations on the west side. However, neither allows passengers to travel in the opposite direction. Operating the terminal loop of Route 8 in a clockwise direction, while leaving Route 7 to operate counter-clockwise would facilitate bi-directional travel across Seminole Trail.
- **Reduce peak-period frequency.** Few peak-period trips on Route 8 exceed 10 passengers per trip. Reducing the route's peak period frequency to match its off-peak frequency would reduce the route's operating cost and improve its overall productivity.

- **Operate some trips to YMCA instead of Emmet Street/Seminole Train.** Both Route 8 and Route 7 provide service between downtown Charlottesville and retail destinations along Seminole Train. However, Route 8 ridership is significantly lower. Rather than serving the retail destinations on every trip, some trips could instead service the YMCA via Rugby Avenue. This could allow CAT to eliminate Route 9, the system's least productive route, and reinvest its resources elsewhere.



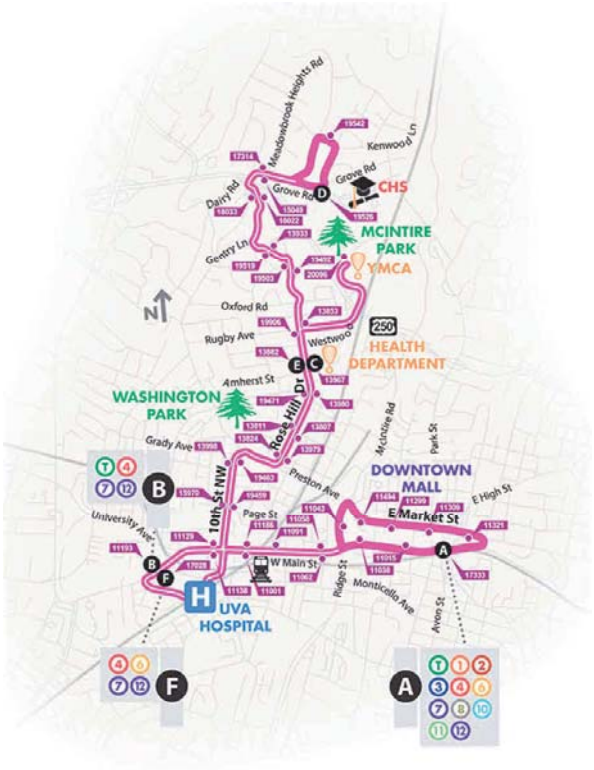


## 9.9. ROUTE 9: THE HEALTH DEPARTMENT & YMCA

### 9.9.1. Service Description

Route 9 (**Figure 115**) operates on weekdays, Saturdays, and Sundays between downtown Charlottesville and Charlottesville High School (CHS), via UVA Hospital and the Brooks Family YMCA. The route travels primarily along Rose Hill Drive, 10th Street NW, and Main Street. Passengers may transfer to other services at the Downtown Transit Station and UVA Hospital. All Route 9 trips operate along the route's full alignment.

**Figure 115 | Route 9 Map**



## 9.9.2. Operating Characteristics

**Table 9-17** summarizes operating characteristics for Route 9. The route operates on a 70-minute frequency during all service periods. Sunday service begins significantly later and ends significantly earlier than weekday and Saturday service. At $254,820 per year, Route 9 has the second-lowest operating cost among all CAT routes. Route 9 offers connections to all other weekday routes excluding Route 5. The route serves several activity generators, including downtown Charlottesville, UVA Hospital, the Charlottesville Health Department, YMCA, CHS, and McIntire and Washington Parks.

**Table 9-17 | Route 9 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Charlottesville High School |
| | **To** | | Downtown Transit Station |
| **Span** | **Weekday** | | 6:00 AM – 11:00 PM |
| | **Saturday** | | 6:00 AM – 11:00 PM |
| | **Sunday** | | 10:40 AM – 5:40 PM |
| **Frequency** | **Weekday** | **Peak** | 70 |
| | | **Off-Peak** | 70 |
| | **Saturday** | | 70 |
| | **Sunday** | | 70 |
| **Annual Operating Costs** | | | $254,820 |
| **Route Connections** | | | 1, 2, 3, 4, 6, 7, 8, 10, 11, 12, Trolley |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, UVA Hospital, Charlottesville Health Department, YMCA, CHS |

## 9.9.3. Weekday Service Productivity

With 10.8 weekday passengers per hour, Route 9 ranks 11th among CAT routes, and is significantly below the system average for this metric. At 4.3 passengers per trip, Route 9 is last among CAT routes for this metric. The route's on-time performance rate is 68 percent (32 percent early and zero percent late), ranking 10th and well below the weekday system average for on-time performance. Finally, Route 9 has the second-highest operating cost per passenger at $6.52 per passenger trip. **Table 9-18** summarizes weekday service productivity metrics for Route 9.

**Table 9-18 | Route 9 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8; 10.8 | Average 82%; 68% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5; 4.3 | Average $4.62; $6.52 |





## 9.9.4. Ridership

Route 9 averages 126 passengers per weekday (ranking 12th) over 29 trips; 59 passengers per Saturday (ranking 11th) over 29 trips; and 18 passengers per Sunday (ranking fourth) over 12 trips. The route ranks 11th in annual ridership (29,220 riders).

### Ridership by Stop

**Figure 116** and **Figure 117** summarize weekday boardings and alightings by stop in the northbound direction. In this direction, ridership activity is highest at the Downtown Transit Station and UVA Hospital. All other stops are very lightly used.

**Figure 118** and **Figure 119** summarize total stop activity in the southbound direction. Ridership is generally low outside of downtown and the UVA Hospital.

**Figure 116 | Route 9 Weekday Ridership by Stop: Northbound**

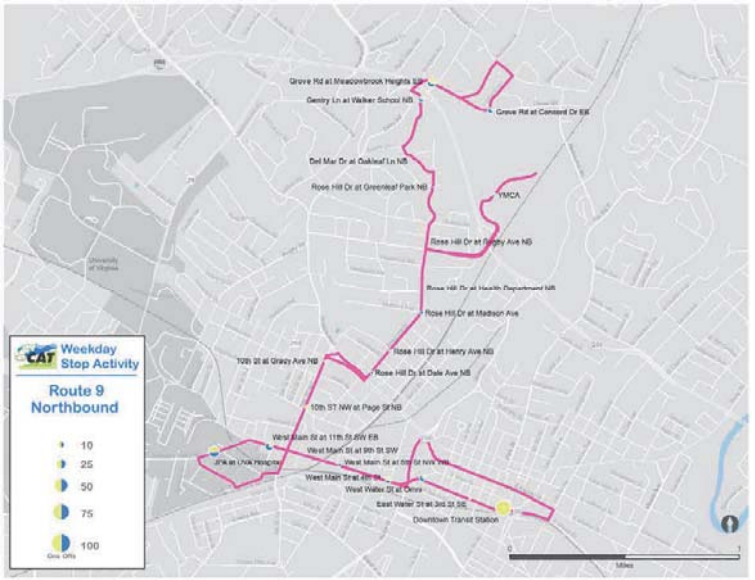


**Figure 117 | Route 9 Weekday Boardings and Alightings, by Stop: Northbound**

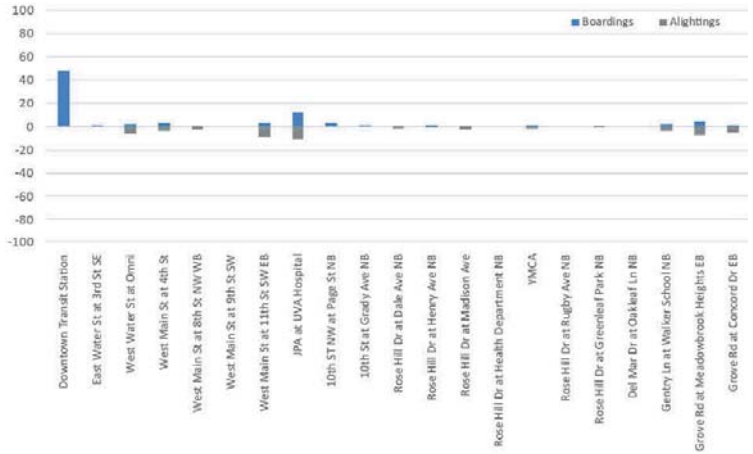







**Figure 118 | Route 9 Ridership by Stop: Southbound**

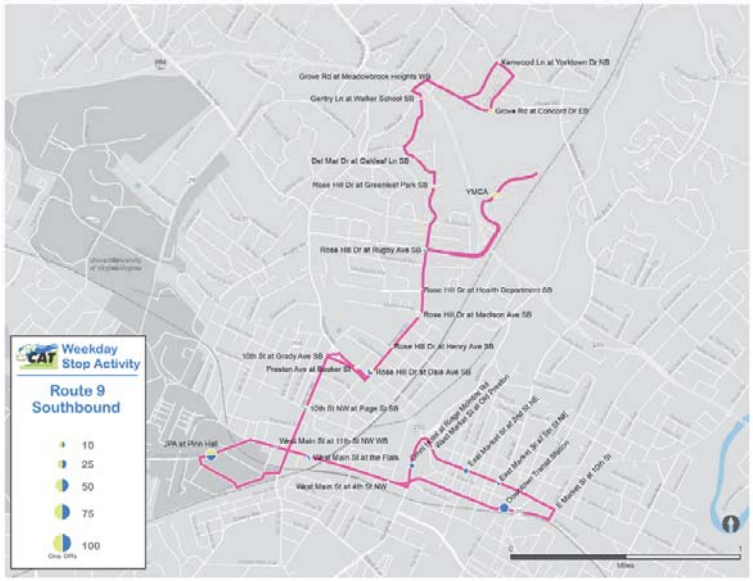
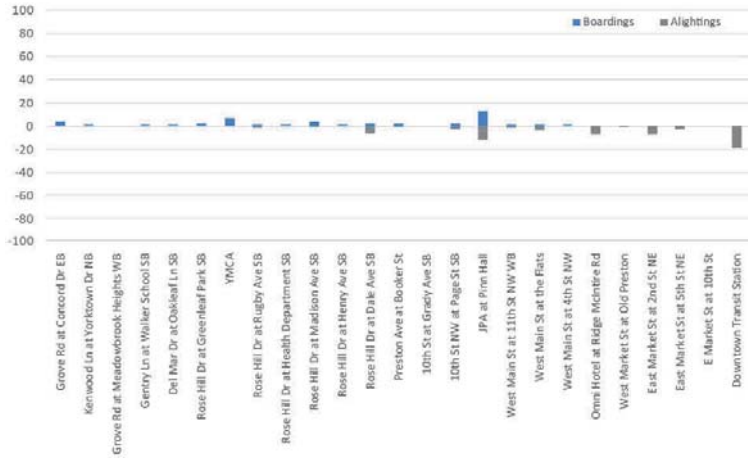


Figure 119 | Route 9 Weekday Boardings and Alightings by Stop: Southbound




## Ridership by Trip

**Figure 120** (northbound) and **Figure 121** (southbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. No Route 9 trips exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. Ridership activity is highest in the northbound direction, in the late afternoon and early evening.

Figure 120 | Route 9 Weekday Ridership per Trip: Northbound

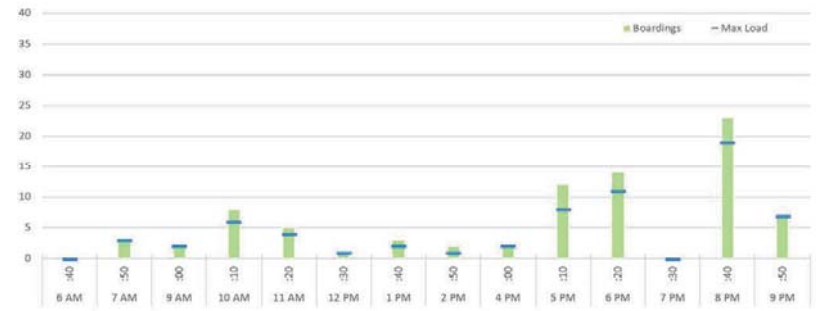
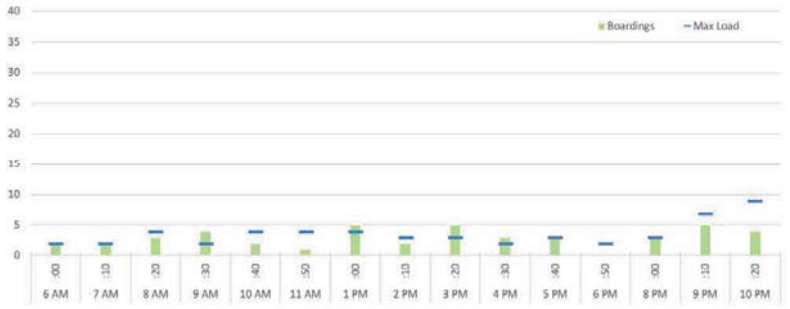







Figure 121 | Route 9 Weekday Ridership per Trip: Southbound




### 9.9.5. Summary of Observations

#### Strengths

- Only route with direct service to Charlottesville High School and the YMCA, key regional destinations
- Extensive weekday and Saturday span of service (6:00 AM – 11:00 PM)
- Multiple connection opportunities in downtown Charlottesville and at the UVA Hospital

#### Weaknesses

- Generally low ridership
- Service to YMCA results in a significant out-of-direction deviation for passengers that have to ride through
- Very low service productivity in terms of passengers per hour and passengers per trip
- Above-average cost per passenger trip
- Poor on-time performance
- No recovery time built into schedule
- No direct access to major grocery stores

#### Opportunities

Potential opportunities to strengthen Route 9 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Eliminate service to UVA Hospital.** Route 9 is one of several CAT routes connecting downtown Charlottesville to the UVA Hospital. However, it is the only route serving CHS and the YMCA. Providing more direct service between downtown, the high school, and YMCA would cut significant travel time off the route and potentially allow for a more manageable 60-minute cycle time. In addition, the shorter route would likely improve the route's poor on-time performance.
- **Replace Route 9 with two routes anchored at the YMCA.** Given the limited alignment options for serving the YMCA, the destination would service best as an end-of-line terminus. Route 9 could be split into two separate, but interlined, routes: the first would link downtown Charlottesville to the YMCA; the second would

link the YMCA to Albemarle High School and retail destinations along the Seminole Trail Corridor such as Fashion Square Mall. Given that there is a pedestrian path between the YMCA and Charlottesville High School, both destinations could be served with a single stop at the YMCA. From downtown Charlottesville, buses would operate under one route number up to the YMCA. At the YMCA, buses would change headsigns and proceed to Barracks Road Shopping Center, Albemarle High School, and Fashion Square Mall. This route would give students from both high schools improved access to after-school activities at the YMCA as well as employment opportunities at Fashion Square Mall and other retail destinations.





## 9.10. ROUTE 10: PANTOPS

### 9.10.1. Service Description

Route 10 (**Figure 122**) operates Monday through Saturday between downtown Charlottesville and the Sentara Martha Jefferson Hospital, via Pantops Shopping Center. The route travels primarily along Peter Jefferson Parkway, Richmond Road, Stony Point Road, and E. High Street. On southbound trips only, the route also serves Stoney Point Road and the Avemore Apartments.

Passengers may transfer between Route 10 and most other CAT routes at the Downtown Transit Station.

**Figure 122 | Route 10 Map**

## 9.10.2. Operating Characteristics

**Table 9-19** summarizes operating characteristics for Route 10. The route operates hourly on weekdays and Saturdays. At $361,150 per year, Route 10 has the eighth-highest operating cost among all CAT routes. Route 10 offers connections to all other weekday routes except for Route 5. It serves several key activity generators, including downtown Charlottesville, Pantops Shopping Center, the Avemore Apartments, the Social Security Administration, the VA Medical Center, and Sentara Martha Jefferson Hospital.

**Table 9-19 | Route 10 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Martha Jefferson Hospital |
| | **To** | | Downtown Transit Station |
| **Span** | **Weekday** | | 6:30 AM – 11:27 PM |
| | **Saturday** | | 6:30 AM – 11:27 PM |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 60 |
| | | **Off-Peak** | 60 |
| | **Saturday** | | 60 |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $361,150 |
| **Route Connections** | | | 1, 2, 3, 4, 6, 7, 8, 9, 11, Trolley |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, Pantops Shopping Center, Avemore Apartments, Social Security Administration, VA Medical Center, Martha Jefferson Hospital |

## 9.10.3. Weekday Service Productivity

Route 10 is below-average and ranks ninth in both passengers per hour (14.3) and passengers per trip (6.8). The route's on-time performance rate is 88 percent (12 percent early and zero percent late), ranking fifth and above the weekday system average. At $5.07 per passenger trip, Route 10 has the fifth-highest operating cost per passenger. **Table 9-20** summarizes service productivity metrics for Route 10.

**Table 9-20 | Route 10 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8 — 14.3 | Average 82% — 88% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5 — 6.8 | Average $4.62 — $5.07 |





## 9.10.4. Ridership

Route 10 averages 230 passengers per weekday (ranking eighth) over 34 trips, and 154 passengers per Saturday (ranking ninth) over 34 trips. The route ranks eighth in annual ridership (64,766 riders).

### Ridership by Stop

**Figure 123** and **Figure 124** summarize weekday boardings and alightings by stop in the eastbound direction. Ridership activity is heaviest at the Downtown Transit Station, Pantops Shopping Center and along Abbey Road. All other stops are lightly used.

**Figure 125** and **Figure 126** summarize weekday ridership activity in the westbound direction. Westbound ridership is generally lighter than in the eastbound direction. This is likely a function of the routes large one-way terminal loop. Many passengers likely board the bus at the same stop where they alighted previously and ride out of direction until the bus begins its return trip.

**Figure 123 | Route 10 Weekday Ridership by Stop: Eastbound**

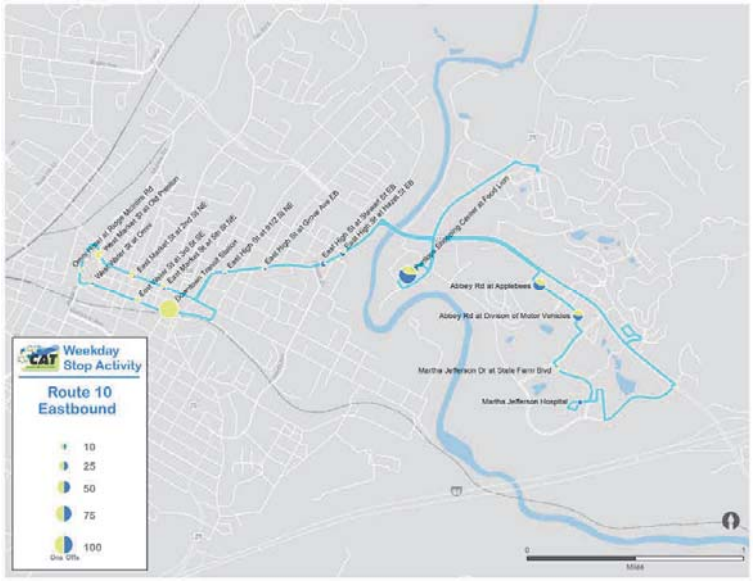


**Figure 124 | Route 10 Weekday Boardings and Alightings, by Stop: Eastbound**

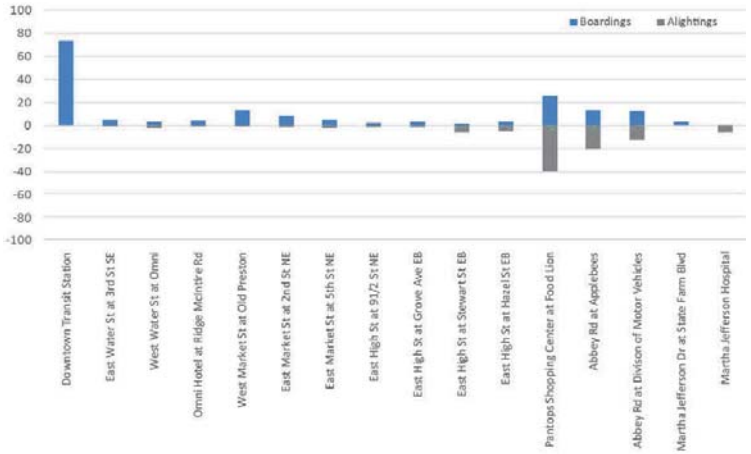







**Figure 125 | Route 10 Weekday Ridership by Stop: Westbound**

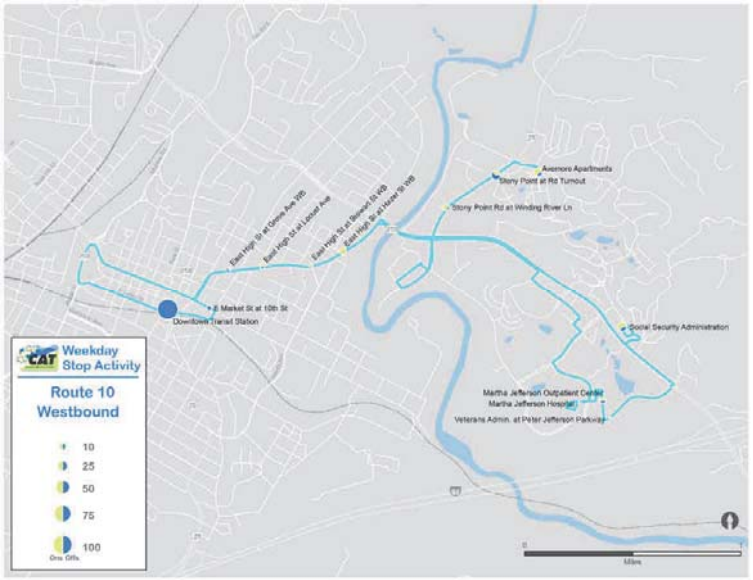
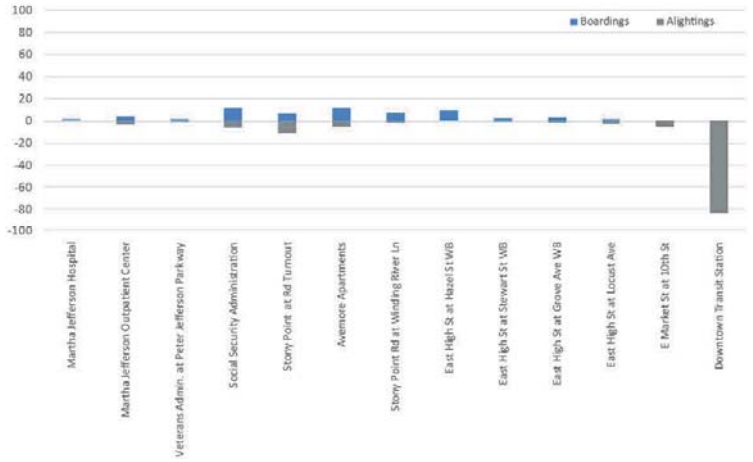


Figure 126 | Route 10 Weekday Boardings and Alightings by Stop: Westbound




### Ridership by Trip

**Figure 127** (eastbound) and **Figure 128** (westbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. No Route 10 trips exceed a maximum load of 32 passengers, the seating capacity for the 35ft. transit buses typically assigned to this route. Ridership activity is generally higher in the eastbound direction, especially during the midday period. Maximum loads exceed boardings in westbound direction as many westbound passengers board on the previous eastbound trip and stay on the bus as it returns westbound.

Figure 127 | Route 10 Weekday Ridership per Trip: Eastbound

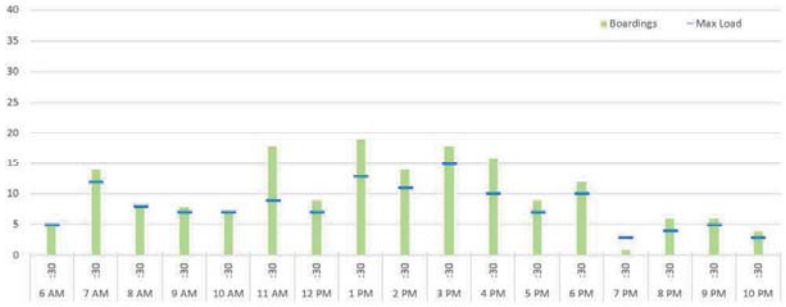
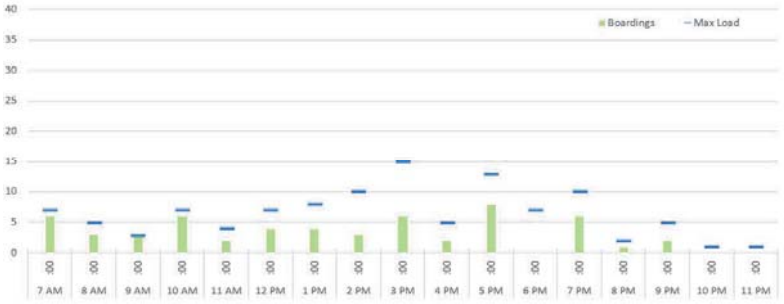







Figure 128 | Route 10 Weekday Ridership per Trip: Westbound




## 9.10.5. Summary of Observations

### Strengths

- Only route with direct service to several key regional destinations, including Sentara Martha Jefferson Hospital, the VA Medical Center, and Social Security Administration
- Strong on-time performance
- Easy-to-remember clock-face frequency
- Extensive weekday span of service (6:30 AM – 11:27 PM)
- Multiple connection opportunities in downtown Charlottesville

### Weaknesses

- Service along Stoney Point Road available in the westbound direction only, requiring out-of-direction travel for residents of the Avemore Apartments and potentially confusing prospective riders
- Above-average cost per passenger trip
- Very low ridership after 10:00 PM
- Difficult operating environment for transit due to heavily automobile-oriented land-use

### Opportunities

Potential opportunities to strengthen Route 10 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Establish secondary hub at Pantops Shopping Center.** While west Charlottesville is a destination-rich environment, its land-use and roadway network makes it very difficult to effectively connect all the destinations with a single route. Establishing a secondary or mini-hub at Pantops Shopping Center could allow CAT to develop a network of shorter routes offering bi-directional service to and from the hub. For example, one route could serve Stoney Point Road and the Avemore Apartments; one could serve Pantops Drive, Sentara Martha Jefferson Hospital, and the VA Medical Center; and one could serve Rivanna Ridge Shopping Center, the DMV, and the Social Security Administration office. Relatively frequent service

between the Pantops Shopping Center and downtown would minimize the inconvenience of a transfers at a potential mini-hub at the shopping center.

- **End service earlier.** Route 10 ridership drops off after 10:00 PM. Ending service earlier would improve the route's over-all productivity. Stopping service in the 10:00 hour would eliminate several unproductive trips while still maintaining an extensive span of service.





## 9.11. ROUTE 11: LOCUST AVENUE & RIO ROAD

### 9.11.1. Service Description

Route 11 (**Figure 129**) operates Monday through Saturday between Fashion Square Mall and downtown Charlottesville, via the Charlottesville- Albemarle Technical Education Center (CATEC). The route travels primarily along Rio Road, North Avenue, and Locust Avenue. Passengers may transfer to other CAT routes at the Downtown Transit Station and Fashion Square Mall. All Route 11 trips operate along the route's full alignment.

**Figure 129 | Route 11 Map**

## 9.11.2. Operating Characteristics

**Table 9-21** summarizes operating characteristics for Route 11. The route operates hourly on weekdays and Saturdays. At $314,972 per year, Route 11 has the ninth-highest operating cost among all CAT routes. Route 11 offers connections to all other weekday CAT routes, and serves several activity generators, including downtown Charlottesville, the Charlottesville-Albemarle Technical Education Center, McIntire and Pen Parks, and Fashion Square Mall.

**Table 9-21 | Route 11 Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Fashion Square Mall |
| | **To** | | Downtown Transit Station |
| **Span** | **Weekday** | | 6:00 AM – 9:27 PM |
| | **Saturday** | | 6:00 AM – 6:27 PM |
| | **Sunday** | | -- |
| **Frequency** | **Weekday** | **Peak** | 60 |
| | | **Off-Peak** | 60 |
| | **Saturday** | | 60 |
| | **Sunday** | | -- |
| **Annual Operating Costs** | | | $314,972 |
| **Route Connections** | | | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, Trolley |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, CATEC, Fashion Square Mall |

## 9.11.3. Weekday Service Productivity

Route 11 ranks seventh in terms of passengers per hour (15.4) and eighth in passengers per trip (7.4). Notably, Route 11 was the only CAT route with a 100 percent on-time performance rate during the survey period. At $4.64 per passenger trip, Route 11 has the system's sixth-highest operating cost per passenger. **Table 9-22** summarizes service productivity metrics for Route 11.

**Table 9-22 | Route 11 Weekday Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8 — 15.4 | Average 82% — 100% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5 — 7.4 | Average $4.62 — $4.64 |





## 9.11.4. Ridership

Route 11 averages 229 passengers per weekday (ranking ninth) over 31 trips, and 162 passengers per Saturday (ranking seventh) over 25 trips. The route ranks ninth in annual ridership (61,170 riders).

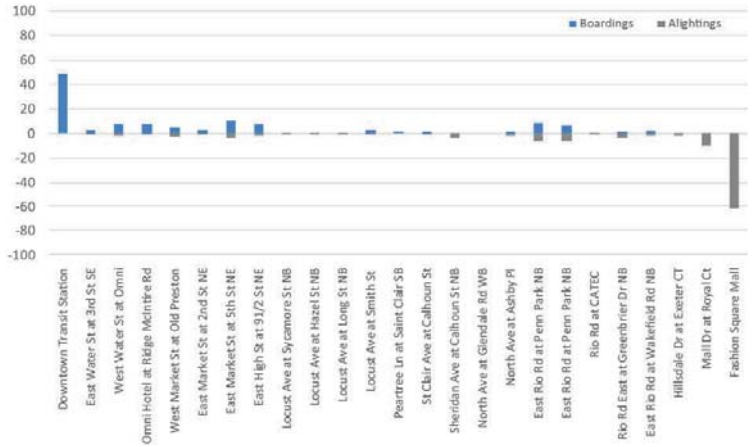
### Ridership by Stop

**Figure 130** and **Figure 131** summarize weekday boardings and alightings by stop in the northbound direction. Ridership activity is highest in downtown Charlottesville, at Fashion Square Mall and near the Treesdale Apartments on Rio Road. All other stops are very lightly used.

**Figure 132** and **Figure 133** summarize weekday ridership activity in the southbound direction. Ridership activity in this direction essentially mirrors the northbound trend.

**Figure 130 | Route 11 Weekday Ridership by Stop: Northbound**

**Figure 131 | Route 11 Weekday Boardings and Alightings, by Stop: Northbound**






**Transit Development Plan**
FY 2019 – FY 2028

**Figure 132 | Route 11 Weekday Ridership by Stop: Southbound**

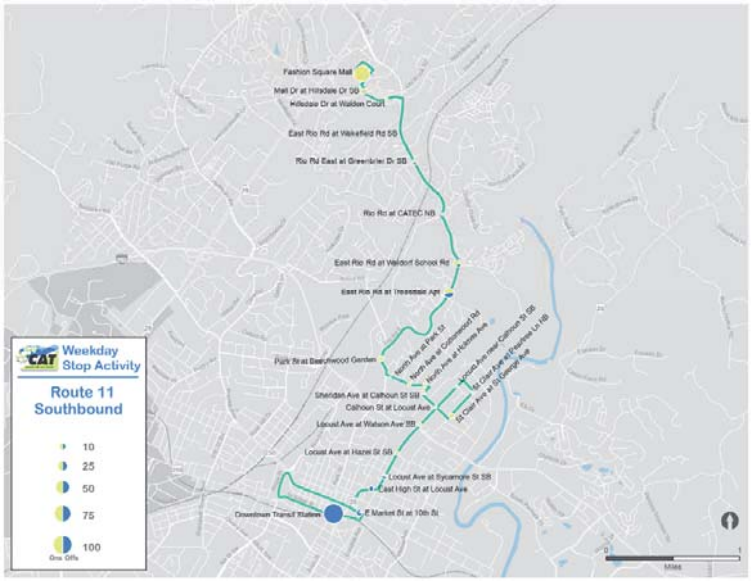
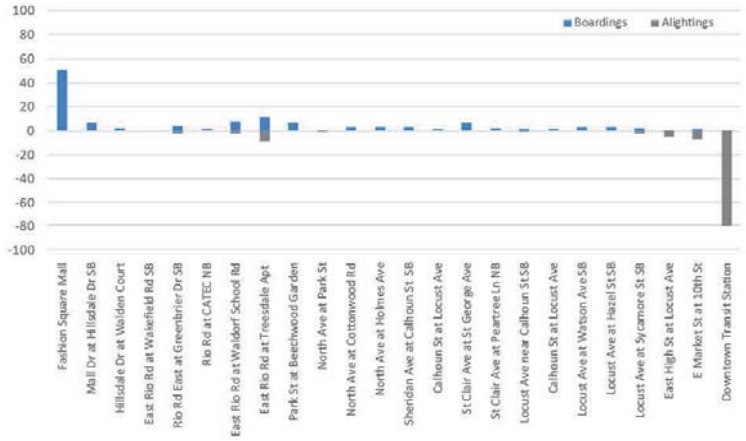


Figure 133 | Route 11 Weekday Boardings and Alightings by Stop: Southbound




## Ridership by Trip

**Figure 134** (northbound) and **Figure 135** (southbound) show the boardings and maximum load for each trip per direction over the course of a typical weekday. No Route 11 trips exceed a maximum load of 26 passengers, the seated capacity of the 30ft. coaches typically operated on this route. Route activity is fairly evenly split in both directions, reaching a peak during the 5:00 PM hour (northbound) and 8:00 AM hour (southbound).

Figure 134 | Route 11 Weekday Ridership per Trip: Northbound

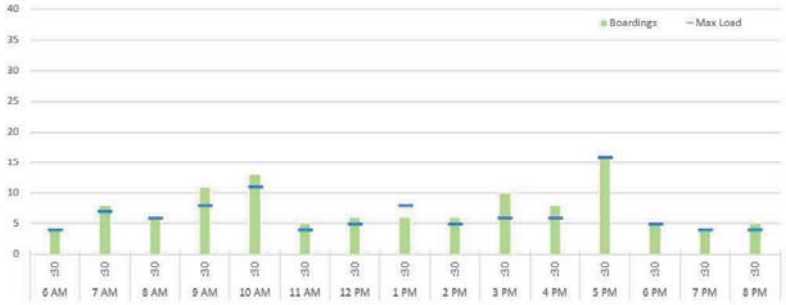
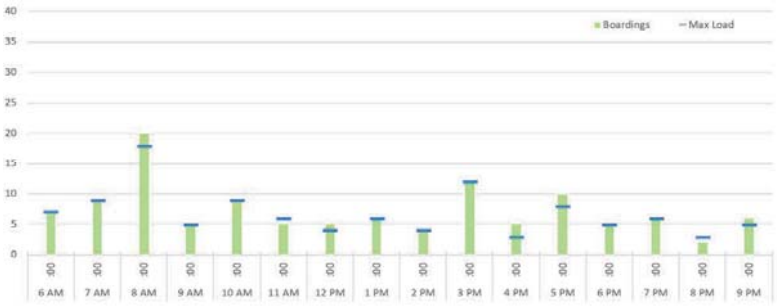







Figure 135 | Route 11 Weekday Ridership per Trip: Southbound




### 9.11.5. Summary of Observations

#### Strengths

- Only route with direct service to CATEC
- Very strong on-time performance
- Easy-to-remember clock-face frequency
- Multiple connection opportunities in downtown Charlottesville and at Fashion Square Mall

#### Weaknesses

- No direct access to grocery stores
- Relatively low overall ridership
- Below-average productivity in terms of passengers per trip and passengers per revenue hour

#### Opportunities

Potential opportunities to strengthen Route 11 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Extend route to Walmart.** Route 11 serves a number of apartment complexes and other residential communities along its alignment. It does not however provide these residents with convenient access to grocery stores. It does serve Fashion Square Mall, but non-grocery retail trips tend to occur less often than grocery shopping and thus account for fewer transit trips. Extending Route 11 to Walmart (as well as Kroger on Berkmar Drive) will give the route a better mix of origins and destinations and will likely result in higher ridership.
- **Streamline route.** Route 11 includes a mid-route loop serving Locust Avenue, Peartree Lane, St. Clair Avenue, and Calhoun Street. This loop adds travel time to the route but generates very little ridership. Eliminating the loop could make the route more attractive to most current and prospective riders by making the route more direct to key destinations.

## 9.12. FREE TROLLEY: W MAIN STREET & UVA

### 9.12.1. Service Description

CAT's Free Trolley (**Figure 136**) connects downtown Charlottesville with the University of Virginia seven days a week. The route travels primarily along W. Main Street, Jefferson Park Avenue, Alderman Road, and McCormick Road. Passengers may transfer to other services at the Downtown Transit Station and UVA Hospital. Excluding the final weekday and Saturday trip, which run from the Downtown Transit Station to UVA Hospital only, all Trolley trips operate along the route's full alignment. As shown in **Figure 136** several trolley stops are provided only after 8:00 PM.

**Figure 136 | Trolley Map**






### 9.12.2. Operating Characteristics

**Table 9-23** summarizes operating characteristics for the Free Trolley. On weekdays and Saturdays, the route operates on a 15-minute frequency. On Sundays, service is provided every 20 to 25 minutes. At $1,337,695 per year, the Free Trolley has the second-highest operating cost among all CAT routes. The Trolley offers connections to all other CAT routes except for Route 5.

**Table 9-23 | Trolley Operating Characteristics**

| | | | |
|---|---|---|---|
| **Destination** | **From** | | Downtown Transit Station |
| | **To** | | UVA |
| **Span** | **Weekday** | | 6:35 AM – 11:30 PM |
| | **Saturday** | | 6:35 AM – 11:30 PM |
| | **Sunday** | | 8:00 AM – 5:47 PM |
| **Frequency** | **Weekday** | **Peak** | 15 |
| | | **Off-Peak** | 15 |
| | **Saturday** | | 15 |
| | **Sunday** | | 20/25 |
| **Annual Operating Costs** | | | $1,337,695 |
| **Route Connections** | | | 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12 |
| **Key Destinations** | | | Downtown Mall, Downtown Transit Station, UVA Hospital, UVA Campus |

### 9.12.3. Weekday Service Productivity

The Trolley is CAT's highest ridership service. It ranks first in passengers per hour (70.5) and passengers per trip (41.7). However, the Trolley's on-time performance rate is 70 percent (23 percent early and seven percent late), ranking ninth and well below the weekday system average. Finally, at $1.46 per passenger trip, the Trolley is the least expensive service per rider that CAT operates.

**Table 9-8** summarizes the weekday service productivity metrics for the Free Trolley.

**Table 9-24 | Weekday Trolley Service Productivity Metrics**

| Passengers per Hour | On-Time Performance |
|---|---|
| Average 20.8 — 70.5 | Average 82% — 70% |
| **Passengers per Trip** | **Operating Cost per Passenger** |
| Average 11.5 — 41.7 | Average $4.62 — $1.46 |

### 9.12.4. Ridership

The Trolley averages 2,838 passengers per weekday (ranking first) over 68 trips; 1,297 passengers per Saturday (ranking second) over 68 trips; and 707 passengers per Sunday (ranking first) over 24 trips. The route ranks first in annual ridership (737,714 riders).

#### Ridership by Stop

**Figure 137** and **Figure 138** summarize weekday boardings and alightings by stop. Ridership activity on the Trolley is very strong at virtually every stop.





**Figure 137 | Trolley Ridership by Stop**

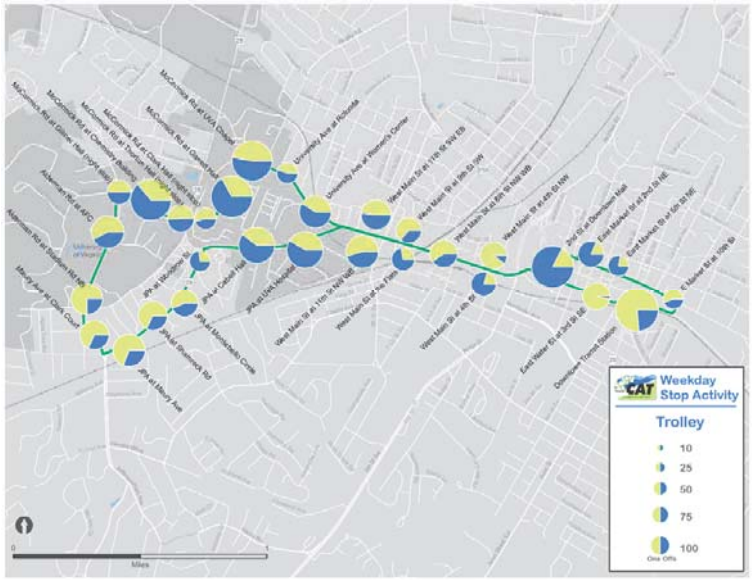
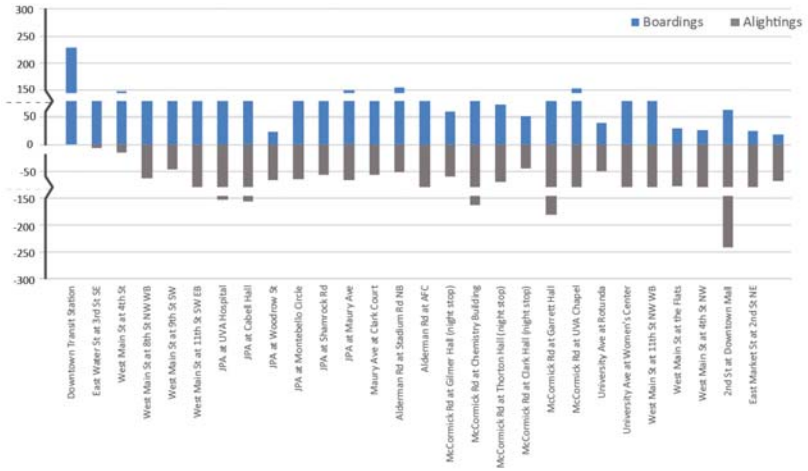


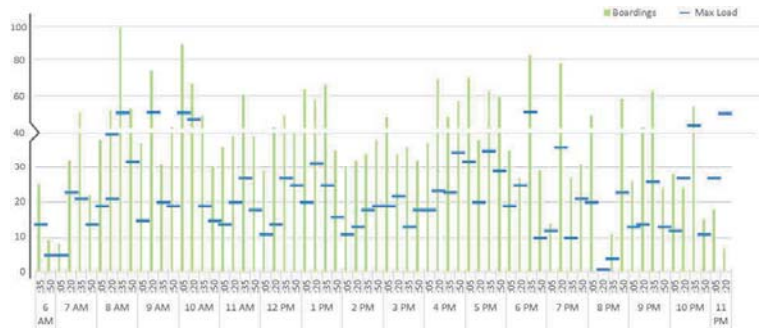
Figure 138 | Trolley Boardings and Alightings, by Stop




## Ridership by Trip

**Figure 139** summarizes the weekday boardings and maximum load for each trip per direction over the course of a service day. Both 35- and 30ft. vehicles are assigned to the Trolley route. During the survey period, Trolley trips exceed a maximum load of 32 passengers on 11 occasions. One trip reached a maximum load of 75 passengers. This suggests that standing loads occur on a regular basis on this route.

Figure 139 | Trolley Ridership per Trip








### 9.12.5. Summary of Observations

#### Strengths

- Provides fast and frequent connections between the system's main ridership generators.
- Very high ridership and productivity
- Easy-to-remember clock-face frequency
- Extensive weekday and Saturday span of service (6:35 AM – 11:30 PM)
- Seven-day-a-week service
- Multiple connection opportunities in downtown Charlottesville and at UVA Hospital

#### Weaknesses

- Poor on-time performance
- Frequent standing loads and overcrowded trips

#### Opportunities

Potential opportunities to strengthen the Free Trolley are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Add one more peak vehicle to the service.** CAT's Free Trolley is a popular route with frequent service. However, the combination of a congested operating environment and high ridership activity results in poor on-time performance. The addition of one more peak vehicle could both increase the route's peak frequency and allow for more recovery time to ensure that on-time performance issues on one trip do not impact subsequent trips.
- **Coordinate with City and property owners to implement transit-priority treatments along W. Main Street.** The W. Main Street corridor links together Charlottesville's two primary economic and activity hubs. CAT's two busiest routes carry over a million passengers a year through the corridor and contribute greatly to its vitality. However, both routes have poor on-time performance, in part because of competition with other vehicles in the corridor. A number of transit priority treatments could be considered to improve the speed and reliability of transit service along the corridor. This includes signal prioritization at intersections and dedicated lanes for transit vehicles. While it is likely not possible to include a dedicated transit lane along the entire length of W. Main Street, between downtown and UVA, much of the corridor does have on-street parking. If on-street parking is removed entirely from W. Main Street, or staggered so that it is allowed on one side of the street for one block and then then the other side of the street for the next bloc, enough space could likely be freed up to install a transit-only lane. A dedicated transit lane would not only improve on-time performance for the Trolley, it could also contribute to the rebranding of Route 7 as a BRT service, as discussed previously.

# 10 Appendix C: Impact Calculation Factors

## 10.1. SHORT-TERM IMPACT FACTORS

**Table 10-1 | Weekday Ridership Estimate Impact Factors: Short-Term**

| | Impact Factor & Original Coefficient | | | | |
|---|---|---|---|---|---|
| | *Increase Frequency* | *Straighten Route/More Direct* | *Establish Repeating Headways* | *Establish Clock-Face Headways* | *Decrease Frequency* |
| | 0.5 | 0.1 | 0.02 | 0.03 | -0.5 |
| **Proposed Route** | *Multiplier:* | | | | |
| **1A** | -- | 1 | -- | -- | -- |
| **1B** | -- | 1 | -- | -- | -- |
| **2** | -- | 2 | -- | -- | 0.5 |
| **3** | -- | -- | -- | -- | -- |
| **4** | 0.5 | -- | -- | 1 | 0.5 |
| **5** | -- | -- | -- | -- | -- |
| **6** | -- | -- | -- | -- | -- |
| **7** | -- | 2 | -- | -- | 0.5 |
| **9** | 1 | 1 | -- | 1 | -- |
| **10** | 0.5 | 2 | -- | -- | -- |
| **11** | -- | 1 | -- | -- | -- |
| **T** | -- | -- | -- | -- | -- |

**Table 10-2 | Saturday Ridership Estimate Impact Factors: Short-Term**

| | Impact Factor & Original Coefficient | | | | |
|---|---|---|---|---|---|
| | *Increase Frequency* | *Straighten Route/More Direct* | *Establish Repeating Headways* | *Establish Clock-Face Headways* | *Decrease Frequency* |
| | 0.5 | 0.1 | 0.02 | 0.03 | -0.5 |
| **Proposed Route** | *Multiplier:* | | | | |
| **1A** | 2 | -- | -- | -- | -- |
| **1B** | 2 | -- | -- | -- | -- |
| **2** | -- | 2 | -- | -- | 1 |
| **3** | -- | -- | -- | -- | -- |
| **4** | 1 | -- | -- | 1 | -- |
| **5** | -- | -- | -- | -- | -- |
| **6** | -- | -- | -- | -- | -- |
| **7** | -- | 2 | 1 | -- | -- |
| **9** | 1 | 1 | -- | 1 | -- |
| **10** | -- | 2 | -- | -- | -- |





| | | | | | |
|---|---|---|---|---|---|
| **11** | -- | 1 | -- | -- | -- |
| **T** | -- | -- | -- | -- | -- |

**Table 10-3 | Sunday Ridership Estimate Impact Factors: Short-Term**

| | Impact Factor & Original Coefficient | | | | |
|---|---|---|---|---|---|
| | *Increase Frequency* | *Straighten Route/More Direct* | *Establish Repeating Headways* | *Establish Clock-Face Headways* | *Decrease Frequency* |
| | 0.5 | 0.1 | 0.02 | 0.03 | -0.5 |
| **Proposed Route** | *Multiplier:* | | | | |
| **2** | -- | 2 | -- | -- | 1 |
| **7** | 1 | 1 | -- | -- | -- |
| **10** | 2 | -- | -- | -- | -- |
| **T** | -- | -- | 1 | 1 | -- |

## 10.2. MID-TERM IMPACT FACTORS

**Table 10-4 | Weekday Ridership Estimate Impact Factors: Mid-Term**

| | Impact Factor & Original Coefficient | | | | |
|---|---|---|---|---|---|
| | *Increase Frequency* | *Straighten Route/More Direct* | *Establish Repeating Headways* | *Establish Clock-Face Headways* | *Decrease Frequency* |
| | 0.5 | 0.1 | 0.02 | 0.03 | -0.5 |
| **Proposed Route** | *Multiplier:* | | | | |
| **1A** | 0.5 | -- | -- | -- | -- |
| **1B** | 0.5 | -- | -- | -- | -- |
| **2** | -- | -- | -- | -- | -- |
| **3** | -- | -- | -- | -- | -- |
| **4** | 0.5 | -- | -- | -- | -- |
| **5** | 0.5 | -- | -- | -- | -- |
| **6** | -- | -- | -- | -- | -- |
| **7** | -- | -- | -- | -- | -- |
| **9** | 0.5 | -- | -- | -- | -- |
| **10** | -- | -- | -- | -- | -- |
| **11** | 0.5 | -- | -- | -- | -- |
| **T** | 0.5 | -- | -- | -- | -- |

*This page intentionally left blank*

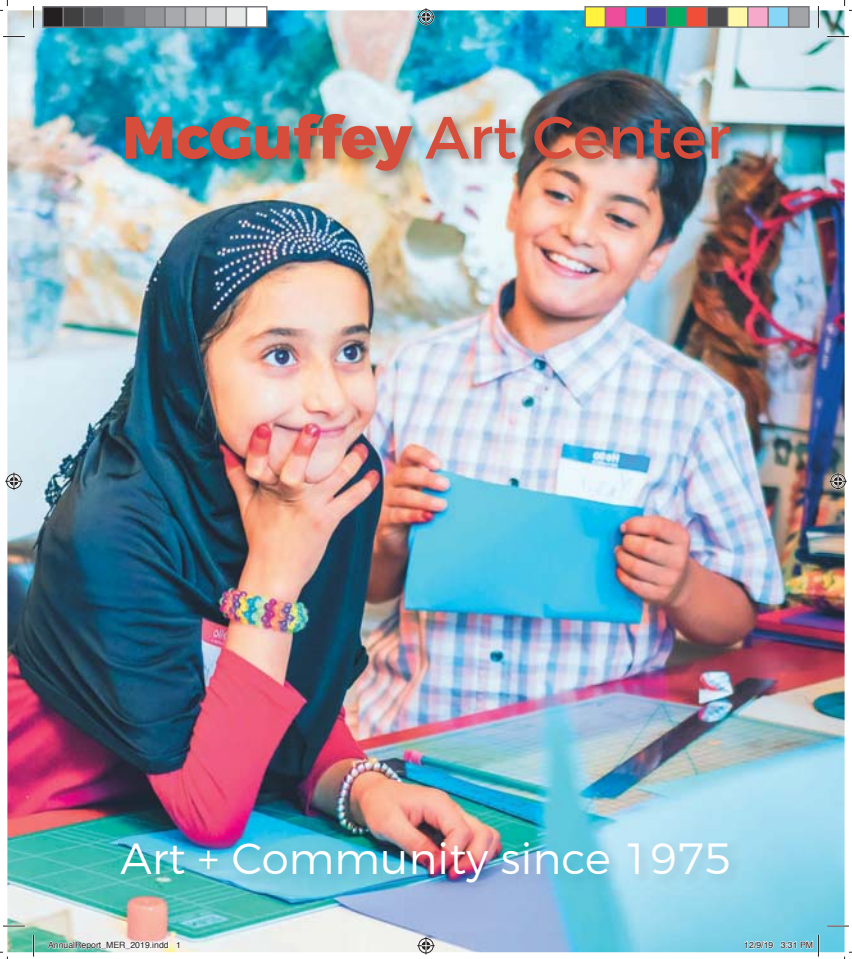



TABLE OF
# Contents

LETTER

# from Executive Council

In 1975 a group of local artists came together, and, working in partnership with the city of Charlottesville, collectively renovated an abandoned building to serve as an art center for the community. Today McGuffey Arts Center is one of the oldest artist-run organizations in the United States. Thanks to our enduring partnership with the city government we are proud to offer unique opportunities and resources for local artists, the people of Charlottesville, and the region.

Last year McGuffey's free open studios and galleries welcomed more than 12,000 walk-in visitors. We offered guided tours with artist presentations at no cost to area schools and other organizations, serving over 400 students and adults. Our galleries provided accessible monthly exhibition space for more than 30 community, solo, and group shows. Our teachers taught more than 1500 students in a dozen disciplines. Meanwhile McGuffey Art Center provided accessible, affordable studio space to renting artists and emerging artists in all stages of their careers. This is made possible by the work of our 154 associate and renting members, who staffed our committees, planned our budgets, and ran our events.

Throughout our history, while stewarding core fiscal and organizational health, McGuffey Art Center has tried to change and grow to serve the changing, growing needs of the city. In the last five years, we have committed our resources to looking outward. This year alone our artists have invested over 1500 hours in outreach programs, especially meeting marginalized and under-served communities.

Take a look in the pages that follow at some of what we've accomplished this year, and join us for the year ahead!

**3,312**
SWEAT EQUITY HOURS PER YEAR

**46**
RENTING MEMBERS

**1,541**
OUTREACH HOURS IN 2018–2019

**108**
ASSOCIATE MEMBERS

**470%**
INCREASE IN COMMUNITY OUTREACH SINCE 2017

giselle gautreau
PRESIDENT

anne megibow
1ST VP

joel jones
2ND VP

scott smith
TREASURER

brielle duflon
SECRETARY







INTERNATIONAL NEIGHBORS

# Art from the Heart

Rebekah Wostrel, longtime renting member and former President of McGuffey, is also the Director of MASI, the Mobile Art Share Initiative, now in its 5th year. For the past two years, MASI raised funds for ART from the HEART, a partnership with International Neighbors (previous community partners were Charlottesville City Schools Jackson–Via and Johnson).

McGuffey glassblower Charles Hall donated 50% of the proceeds from over 100 ornament blowing sessions. Polly Breckenridge, Vee Osvalds, L. Michelle Geiger, and Nina Frances Burke hosted workshops in their studios for 10 kids from Afghanistan and Syria, ranging in age from 6–10.

> "...participating in this program really opens up the opportunity for them to be able to express themselves...to be creative...the kids are able to just work together with their friends. Being here in a creative environment with professional artists is a really special experience for all of them, for the artists and the children."
>
> **– MARY SANDER, CREATIVE DIRECTOR, INTERNATIONAL NEIGHBORS.**

## ABOUT INTERNATIONAL NEIGHBORS

Equipping Cville's refugee & SIV Neighbors with the skills and network needed to achieve independence. Connecting Cultures & Community. Empowering refugees & SIVs (special immigrant visa holders) to **THRIVE**–not just survive.

> "Art helps everyone see the world in a different way."
>
> **– REBEKAH WOSTREL**

## MEXILACHIAN SON

# New Songs From an Emerging Virginia Culture

Estela Knott and David Berzonsky's **Lua Project** was awarded a major grant from Virginia Humanities for this multimedia project featuring interviews with Latin American immigrants of Central Virginia and the Shenandoah Valley. Lua Project, along with famed Veracruz sonero Zenen Zeferino, took inspiration from these stories to create new verses and Appalachian-infused arrangements of traditional Mexican folk songs, creating a new style of music: Mexilachian Son.

The **MexiSon** project lives on the web with an expanding collection of interview clips, musical recordings, and photographs. By studying the poetry of Son Jarocho, and by learning the stories of new immigrants, Estela and David seek to shed light on the lives and struggles of a marginalized people.

> Immigration policy and immigrants are hugely divisive political issues. It is our belief that telling the stories of these individuals and bringing them into an emerging Virginia musical tradition forwards the process of humanizing this population, and bringing them out of marginalization — to everybody's benefit.
>
> **– ESTELA KNOTT**

## ABOUT ZENEN

**Zenen Zeferino** was born in Jáltipan de Morelos, Veracruz, Mexico in a family of poets and singers, who for several generations have cultivated this form of musical and poetic expression, which has its natural space within the fandango tradition. He is a skilled composer of verses who has cultivated the different poetic forms that the jarocho tradition offers. In 2007 he was awarded the National Prize for Cultural Radio for his work as producer and host of the radio program El Sonoro Sueño Radiotelevisión de Veracruz. In 2010 he wrote and edited the children's book ***Zoóngoro Ballongo, Cuentos de Raíz Jarocha***, in which he highlighted the importance of preserving traditions and of respecting and caring for animals and the environment. The book was recently included in the official reading list for elementary school children nationwide in Mexico.

## ABOUT ESTELA + DAVID

**Estela Knott** and **David Berzonsky** have a deep love, appreciation, and understanding of global folk musical traditions. In their 19 years together, they have performed throughout North and South America, engaging in extensive study of folk music from Mexico, Peru, and Brazil. They run two organizations: **Blue Ridge Music Together**, teaching family music classes, and **Luminaria Cville**, a cultural arts project which hosts events in collaboration with members of the local Spanish speaking community. Luminaria Cville organizes an annual **Dia de los Muertos** event and the **Cville Sabroso Festival**, now a collaboration with **WTJU** and **IX Art Park**. The two perform together in their group Lua, an original music ensemble that blends elements of Latin and Appalachian song traditions. David also plays upright bass with acclaimed Gypsy jazz ensemble, **The Olivarez Trio**.







## COMMUNITY OUTREACH

# Partners

- CASA
- JABA
- UVA ART
- ARTQUEST
- ACCESS ARTS
- UVA ART MENTORS PROGRAM
- VIRGINIA HUMANITIES
- INTERNATIONAL NEIGHBORS
- PLANNED PARENTHOOD
- CVILLE SABROSO FESTIVAL
- DIA DE LOS MUERTOS FESTIVAL
- FLOW: RIVANNA RIVER FESTIVAL
- VIRGINIA FESTIVAL OF THE BOOK
- ALZHEIMER'S ASSOCIATION
- VILLAGE SCHOOL
- TOM TOM FOUNDERS FESTIVAL
- SECOND STREET GALLERY
- THE BRIDGE PAI
- THE BLACK POWER STATION
- COMPUTERS 4 KIDS
- PEABODY SCHOOL
- WESTHAVEN COMMUNITY DAY
- CHARLOTTESVILLE CITY SCHOOLS
- C'VILLE SCHOOLS LEADERSHIP CLUB
- ALBEMARLE SCHOOLS POST-HIGH PROGRAM
- PIEDMONT VIRGINIA COMMUNITY COLLEGE

**2,787**
FACEBOOK FOLLOWERS

**1,634**
INSTAGRAM FOLLOWERS

**1,573**
NEWSLETTER SUBSCRIBERS

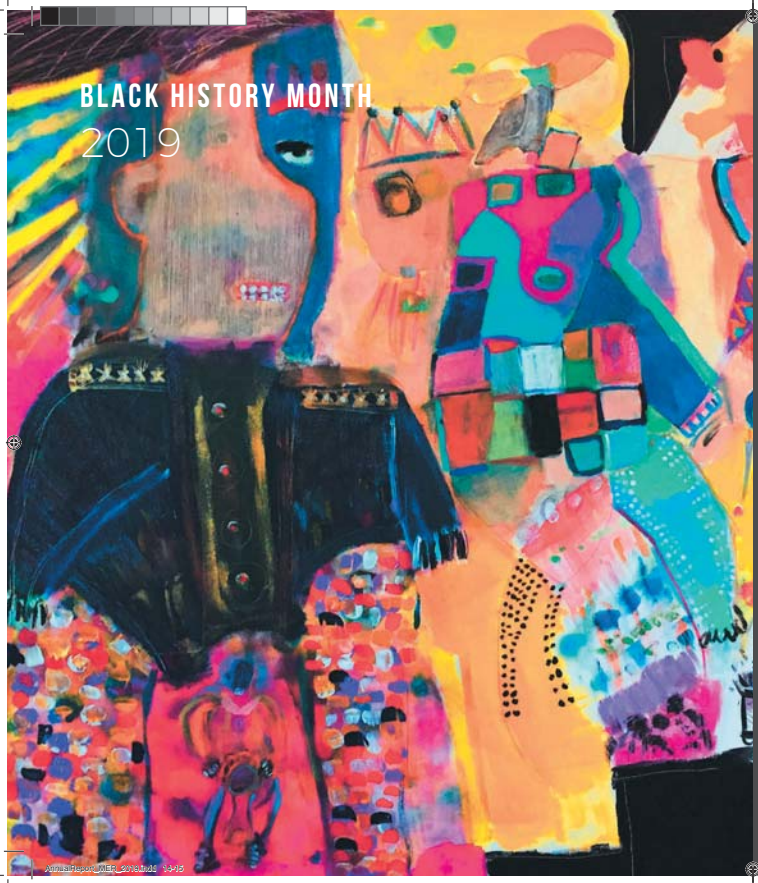


**19**
SOLO EXHIBITS

**9**
COMMUNITY EXHIBITS

**8**
GROUP EXHIBITS



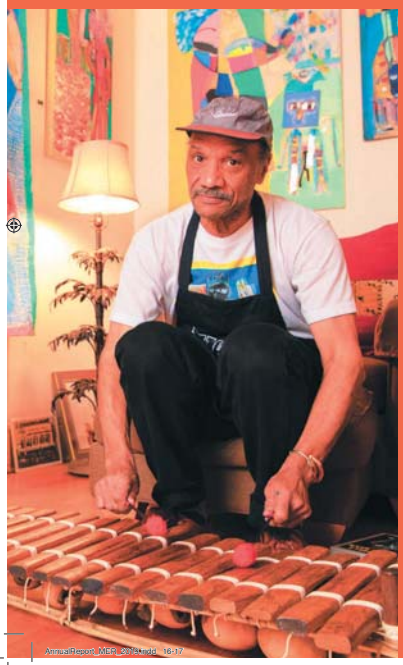





McGuffey Art Center was honored to present a month-long celebration of the black creative community in Charlottesville. We dedicated our building and the resources of our association to showing the work of black visual and performing artists, several of whom made their debut exhibits here. The artists work in various disciplines, including drawing, painting, pottery, photography, and the art of making musical instruments from gourds.

Fundraising through our fiscal sponsor, Fractured Atlas, allowed us to reach out to underrepresented artists in the community, and welcome over 1,000 visitors, some who had never been to McGuffey. Funding also allowed us to provide free admission to nine live musical performances and two storytelling programs by local artists.

## BLACK HISTORY MONTH
2019



## PARTICIPATING ARTISTS

DARRELL ROSE
ROSE HILL
MICHAEL E. WILLIAMS
PILGRIM BAPTIST MEN'S CHOIR
DENA JENNINGS
BOLANLE ADEBOYE
LIZ CHERRY JONES
SAHARA CLEMONS
CHIHAMBA
PAGE WEST HILL
BABA JAMAL KORAM
THE SOUND MACHINE
iDANCE MINISTRY
JAE JAE JOHNSON
ANTHONY SCOTT

## COMMUNITY DONORS

BEATRIX OST + LUDWIG KUTTNER
IX ART PARK
PRICE AUTOMOTIVE
REYNOLDS SUBARU ORANGE
DAVID AND JANA GIES
TARA BOYD
SOUTHERN DEVELOPMENT HOMES
PIEDMONT REALTY HOLDINGS CROZET
ROGER VOISINET
DAVID + ELIZABETH WATERS
GRIMM + PARKER ARCHITECTS
T & N PRINTING
DARRYL BROWN + CAROLYN CAPPS
JAMES BOYD
JIM PRICE CHEVROLET







## BLACK HISTORY MONTH
2020

We've got big plans! South African artist collective Black Power Station will partner with McGuffey artists and students from UVA's Global Development Studies Program for a month-long collaborative project. Visiting artists will offer free visual art, dance, and music classes for children in underserved communities, facilitated by Renee Balfour (former President of McGuffey). Children's artwork from Charlottesville and South Africa will be exhibited together. We hope to establish a long term collaboration with both communities, eventually establishing a sister city relationship.

# EXHIBITS
## 2018–19

| | |
|---|---|
| JULY/AUGUST 2018 | SAM GRAY |
| | SUMMER GROUP SHOW |
| SEPTEMBER 2018 | J.M. HENRY |
| | CENTRAL VIRGINIA WATERCOLOR GUILD |
| OCTOBER 2018 | AARON FARRINGTON |
| | WILL KERNER + ROCHELLE SUMNER |
| | DOMINIQUE ANDERSON |
| | MCGUFFEY FIGURE DRAWING GROUP SHOW |
| | DAVID CURRIER |
| NOVEMBER 2018 | MANUEL SANCHEZ |
| | LISA MACCHI |
| | CAROL GRANT |
| | UVA SCULPTURE AND POST BACCALAUREATE |
| DECEMBER 2018 | HOLIDAY MARKET |
| | WINTER GROUP SHOW |
| JANUARY 2019 | KELLY LONERGAN |
| | NEW MEMBERS GROUP SHOW |
| FEBRUARY 2019 | BLACK HISTORY MONTH |
| MARCH 2019 | LOTTA HELLEBERG |
| | MARGARET EMBREE |
| | BOOK ARTS GROUP SHOW |
| APRIL 2019 | BLAKE HURT |
| | POLLY BRECKENRIDGE |
| | A. FAITH |
| | P!NK GROUP SHOW |
| MAY 2019 | MELTING POINT: CONTEMPORARY ENCAUSTIC WORKS |
| | KELLY OAKES |
| | MADDIE RHONDEAU-RHODES |
| | ANNUAL LOCAL HIGH SCHOOL EXHIBITION |
| JUNE 2019 | SCOTT F. SMITH |
| | WOMEN'S WORK |
| | INCUBATOR RESIDENCY GROUP SHOW |







# EXHIBITS
## 2019–20

| | |
|---|---|
| JULY + AUGUST 2019 | PETER ALLEN |
| | SUMMER GROUP SHOW |
| SEPTEMBER 2019 | NINA FRANCES BURKE |
| | CENTRAL VIRGINIA WATERCOLOR GUILD |
| OCTOBER 2019 | KRISTA TOWNSEND |
| | LINDSAY FREEDMAN |
| | JOHN TRIPPEL |
| | GABRIEL ALLAN RETROSPECTIVE |
| NOVEMBER 2019 | HEATHER OWENS |
| | LEE ALTER |
| | UVA SCULPTURE COMMUNITY |
| DECEMBER 2019 | HOLIDAY MARKET |
| | WINTER GROUP SHOW |
| JANUARY 2020 | J.M. HENRY |
| | NEW MEMBERS SHOW |
| FEBRUARY 2020 | FIBER TRANSFORMED GROUP SHOW |
| | NATE SZARMACH |
| | ALISON THOMAS |
| MARCH 2020 | BLACK HISTORY MONTH |
| | RENEE BALFOUR |
| | BOOK ARTS GROUP SHOW |
| | FRED CRIST |
| APRIL 2020 | JILL KERTTULA |
| | ALBEMARLE COUNTY REGIONAL JAIL |
| | BLUE RIDGE JUVENILE DETENTION |
| | BLAKE HURT |
| | HANNAH ENGLAND |
| MAY 2020 | CAROL GRANT |
| | AARON FARRINGTON |
| | REBEKAH WOSTREL |
| | ANNUAL HIGH SCHOOL SHOW |
| JUNE 2020 | ERICA LOHAN |
| | INCUBATOR RESIDENCY GROUP SHOW |
| | VIRGINIA INSTITUTE OF AUTISM |
| | INNISFREE COMMUNITY |

## RENTING
# Members

LEE ALTER
BOB ANDERSON
DOMINIQUE ANDERSON
JANE ANGELHART
RENEE BALFOUR
FENELLA BELLE
DAVID BERZONSKY
POLLY BRECKENRIDGE
ROBERT BRICKER
CYNTHIA BURKE
NINA FRANCES BURKE
CAROLYN CAPPS
DANIELLA CHADWICK
CHARLENE CROSS
BRIELLE DUFLON
MARGARET DAVIS EMBREE
RON EVANS
STACEY EVANS
ANDY FAITH
AARON FARRINGTON
EILEEN FRENCH
NANCY GALLOWAY
GISELLE GAUTREAU
L. MICHELLE GEIGER
CAROL GRANT
SAM GRAY
CHIP HALL
MARGO HAMILTON
CHRISTOPHER HEADINGS
JOEL JONES
JILL KERTTULA
ESTELA KNOTT
LISA MACCHI
JUDY MCLEOD
ANNE MEGIBOW
SUSAN NORTHINGTON
VIESTURS OSVALDS
JEANNINE REGAN
KERNEY RHODEN
MADDIE RHONDEAU
JEAN SAMPSON
SCOTT SMITH
GUILLERMO UBILLA
LILLIE WILLIAMS/CHIHAMBA
REBEKAH WOSTREL







## ASSOCIATE
# Members

Our membership includes over **100 Associate Artists** who make up an integral part of our community. Their vital participation stimulates a diverse and creative culture at McGuffey — they exhibit in the shop and galleries, teach in our classrooms, attend Association meetings, sublet studios, and vote on our new member jury.

BOLANLE ADEBOYE
PETER ALLEN
EZE AMOS
KATHERINE ANDERS
KLAUS ANSELM
TATIANA ANTROBUS
HENRY AYRES
NINNI BAECKSTROM
NANCY BASS
JENNIFER BILLINGSLY
DAVID BORSZICH
ROBIN BRAUN
JANICE BRESDEN
SUSAN WILLIS BRODIE
ROS CASEY
DEEP WATER MOVES
ANN CHEEKS
ANN FRIEND CLARK
SUZANNE CRANE
DAVID CURRIER
LINDSAY HEIDER DIAMOND
FRED DODSON
GRAY DODSON
LAUREN DORAN
AARON EICHORST
JUDITH ELY
HANNAH ENGLAND
JOHN BORDEN EVANS
MICHAEL FIRKALY
LINDSAY FREEDMAN
BRUCE GALLOWAY
LARA CALL GASTINGER
LEE ANNE GEIGER
SOPHIE GIBSON
JOHN GRANT
M. ALEXANDER GRAY
SARAH GREEN
ELIZABETH GREGORY
LAURA LEE GUILLEDGE
SNOWDEN HALL
JOHN HANCOCK
ROBIN HARRIS
LOTTA HELLEBERG
JIM HENRY
SALENA HITZEMAN
SHERRIE HUNT
BLAKE HURT
DENA JENNINGS
ALP ISIN
JILL JENSEN
JEAN JONES
ROBERTO KAMIDE
CRI KARP MARSHALL
KIM KELLEY-WAGNER
MCCREA KUDRAVETZ
PEGGY LAY
ETTA HARMON LEVIN
AMANDA LISCOUSKI
MIKI LISZT
ERICA LOHAN
KELLY LONERGAN
CAT MAGUIRE
MELISSA MALONE
ZAP MCCONNELL
JULIA MERKEL
TIM MICHEL
MARY MICHAELA MURRAY
HINA NAEEM
KELLY OAKES
TORU OBA
HEATHER OWENS
SUSAN PATRICK
CHARLES PEALE
SUZAN PEZZOLI
MIRANDA ELLIOT RADER
MEGAN READ
MARION REYNOLDS
CHET RICKETTS
DARRELL ROSE
NAN ROTHWELL
MANUEL SANCHEZ MENDOZA
SHARON SHAPIRO
JING SHUI
KAREN SINGEL
JANE SKAFTE
ANNE SLAUGHTER
KARYN GUNTHER SMITH
ASHLIN SMITH
BRAD STOLLER
SCOTT SUPRANER
NATE SZARMACH
ALISON THOMAS
JEFF THRUSTON
KRISTA TOWNSEND
JOHN TRIPPEL
BRIGITTE TURQUOIS-FREEMAN
TRACY VERKERKE
KATHY PLUNKETT VERSLUYS
TAMARA WALKER
SONJA WEBER GILKEY
MURRAY WHITEHILL
SUSAN WIESNER
MARYANNA WILLIAMS
MICHAEL E. WILLIAMS
STEVEN WOLF
JURGEN ZEISSMAN

## INCUBATOR
Program

A one-year residency for emerging artists, now in its 6th year

**300%**

INCREASE IN APPLICANTS

**11**

MEMBER ARTISTS

Incubator Residents have gone on to big things!

**1**
SOLO SHOW AT SECOND STREET GALLERY

**1**
RHODE ISLAND SCHOOL OF DESIGN ACCEPTANCE

**1**
SOUP GRANT WINNER

**2**
RESIDENCIES AT NEW CITY ARTS

**2**
EXECUTIVE COUNCIL MEMBERS

**3**
STAFF MEMBERS





## LEARNING
Classes
Camps
Workshops

**1,500**

STUDENTS

**50+**

CLASSES

Since the beginning, McGuffey has held art classes in the building, touching on every media from metalsmithing, life drawing, dance, ceramic, and improv to glassblowing, painting, drumming, and mixed media. Now serving over 1,500 students annually, in over 50 classes.

McGuffey is the place for kids and adults to play, explore a new medium, or hone their craft in focused learning. Camps are a summer favorite for kids and teens. Workshops are a great way to learn something new even if you only have one day to play! Private instructors can create a custom experience.

## TEACHING MEMBERS

LEE ALTER
RENEE BALFOUR
BLUE RIDGE MUSIC TOGETHER
POLLY BRECKENRIDGE
ROBERT BRICKER
CHARLENE CROSS
DAVID CURRIER
STACEY EVANS
LARA CALL GASTINGER
GISELLE GAUTREAU
L. MICHELLE GEIGER
LAURA LEE GULLEDGE
CHARLES HALL
LEE HALSTEAD
JOHN HANCOCK
JOEL JONES
CAT MAGUIRE
ANNE MEGIBOW
SUSAN NORTHINGTON
JEANNINE REGAN
KERNEY RHODEN
JEAN SAMPSON
JING SHUI
JANE SKAFTE
GUILLERMO UBILLA
LILLIE WILLIAMS/CHIHAMBA
REBEKAH WOSTREL

## LEARNING
# Figure Drawing Community

McGuffey is the center of a vibrant community of local artists and students who draw from life. Three figure drawing sessions offer (for $10 or available scholarship), the opportunity to draw or paint from a live model.

All are welcome to bring drawing materials and join in the fun. The groups consist of artists of all skill levels—beginners and experienced artists are welcome. All sessions are fun, friendly, and supportive.

**1,023**

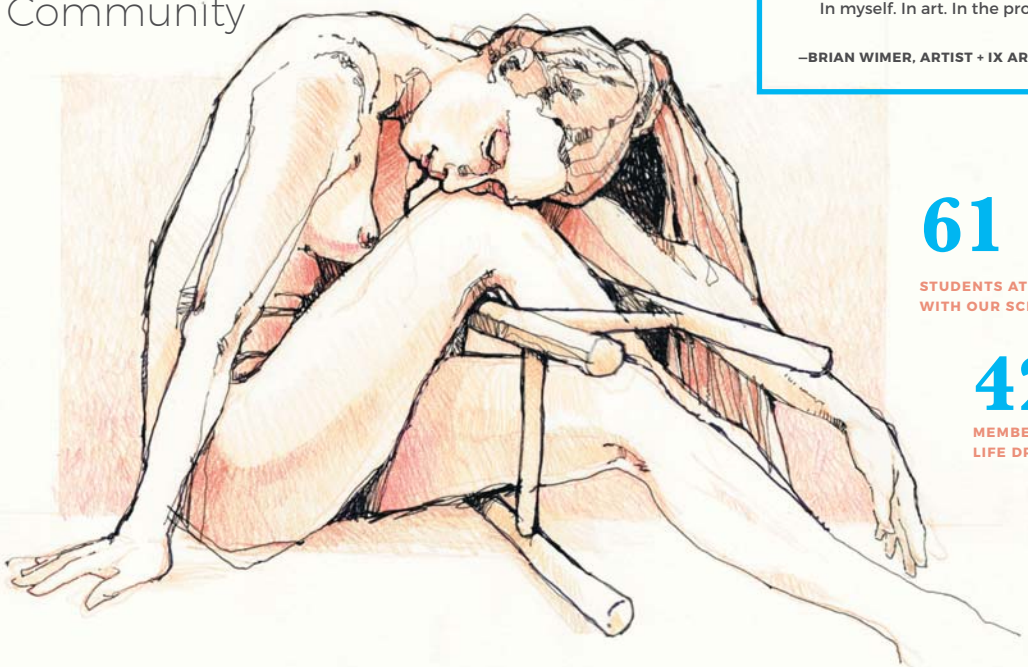
**STUDENTS THIS YEAR**



LEARNING
FIGURE DRAWING

## LEARNING
# Figure Drawing Community

> The Life Drawing program has given me hope. In myself. In art. In the process of possibility.
>
> –BRIAN WIMER, ARTIST + IX ART PARK COORDINATOR



**61**

**STUDENTS ATTENDED FREE OF CHARGE WITH OUR SCHOLARSHIP PROGRAM**

**428**

**MEMBERS IN THE CHARLOTTESVILLE LIFE DRAWING + MODELING FACEBOOK GROUP**

LEARNING
# Community Tours

LEARNING
COMMUNITY TOURS

BLUE RIDGE HOUSE/REGION 10
COMMONWEALTH SENIOR LIVING
CALE ELEMENTARY SCHOOL
TRIPLE C CAMP
PVCC KIDS COLLEGE
CHARLOTTESVILLE CITY SCHOOLS
ESL PROGRAM
LINDEN HOUSE ASSISTED LIVING
BOYS & GIRLS CLUB
BLUE RIDGE SCHOOL
BROWNSVILLE ELEMENTARY
APPOMATTOX MIDDLE SCHOOL
RENAISSANCE SCHOOL
FIRST UNITED METHODIST CHURCH
MERIWETHER LEWIS ELEMENTARY
UVA LAW SCHOOL
P.E.O. CHAPTER AQ

**425**

**TOUR PARTICIPANTS**



BY THE NUMBERS
# Fiscal Health

FINANCIAL HEALTH

McGuffey Art Center relies on the time, talents, and fiscal savvy of member artists, committee chairs, and staff to accurately plan and execute our operating budget. Careful stewardship and our fiscally responsible approach allow us to accomplish our mission of practicing the arts and passing on the creative spirit!

We finished the fiscal year at **99.6%** of projected revenue and **98.1%** of projected expenses. Our operating budget includes the projected revenue and associated expenses. For fiscal year 2018-19, projected revenue was **$184,160 (actual revenue $183,503)** and projected expenses were **$187,129 (actual expenses $183,550).**

**$184,160**

**PROJECTED REVENUE 99.6%**

**$5,944**

**SALES TAX IN 2018–19**

**$187,129**

**PROJECTED EXPENSES 98.1%**

# Financial Snapshot

McGuffey paid $5,944.13 in sales tax in fiscal year 2018-19.

McGuffey remains relevant to local emerging artists. This year, applications for the incubator studios tripled compared to last year.

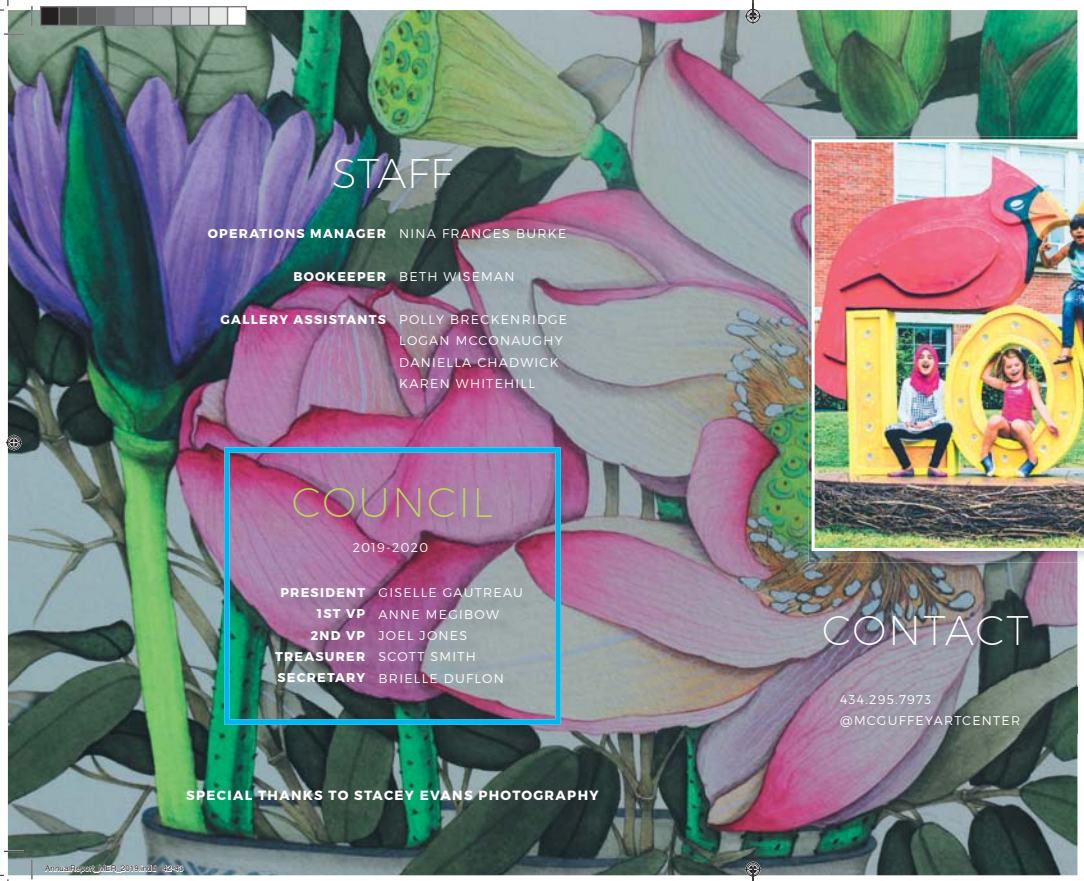
Our operating budget includes the projected revenue and associated expenses, and for fiscal year 2018/19, projected revenue was $184,160 and projected expenses were $187,129. Remarkably, McGuffey finished the fiscal year at 99.6% of projected revenue and 98.1% of projected expenses. The McGuffey Art Center relies on the time, talents and fiscal savvy of its member artists, committee chairs and staff to accurately plan and execute its operating budget. Careful planning and our fiscally conservative approach allows us to continue to accomplish our mission of practicing the arts and passing on the creative spirit!


| | |
|---|---|
| 74% | ARTIST STUDIO RENT |
| 10% | SALES COMMISSIONS |
| 6% | ASSOC DUES AND JURY FEES |
| 2% | SPECIAL PROJECT FUNDRAISING |
| 2% | CLASSROOM USE FEES |
| 2% | MISC INCOME |
| 2% | OPENINGS FEES |
| 1% | DONATIONS |
| 1% | OUTSIDE RENTALS |
| < 1% | DEVELOPMENT INCOME |

| | |
|---|---|
| 35% | WAGES |
| 34% | RENT AND UTILITIES |
| 9% | CLEANING AND MAINTENANCE |
| 9% | COMMITTEE EXPENSES |
| 3% | TAXES |
| 2% | SPECIAL PROJECT EXPENSE |
| 2% | CREDITCARD AND BANKING FEES |
| 2% | INSURANCE |
| 1% | DEVELOPMENT EXPENSES |
| 1% | OFFICE SUPPLIES |
| 1% | MISC EXPENSES |
| 1% | LICENSES AND PERMITS |





## STAFF

**OPERATIONS MANAGER** NINA FRANCES BURKE

**BOOKEEPER** BETH WISEMAN

**GALLERY ASSISTANTS** POLLY BRECKENRIDGE
LOGAN MCCONAUGHY
DANIELLA CHADWICK
KAREN WHITEHILL

## COUNCIL

2019-2020

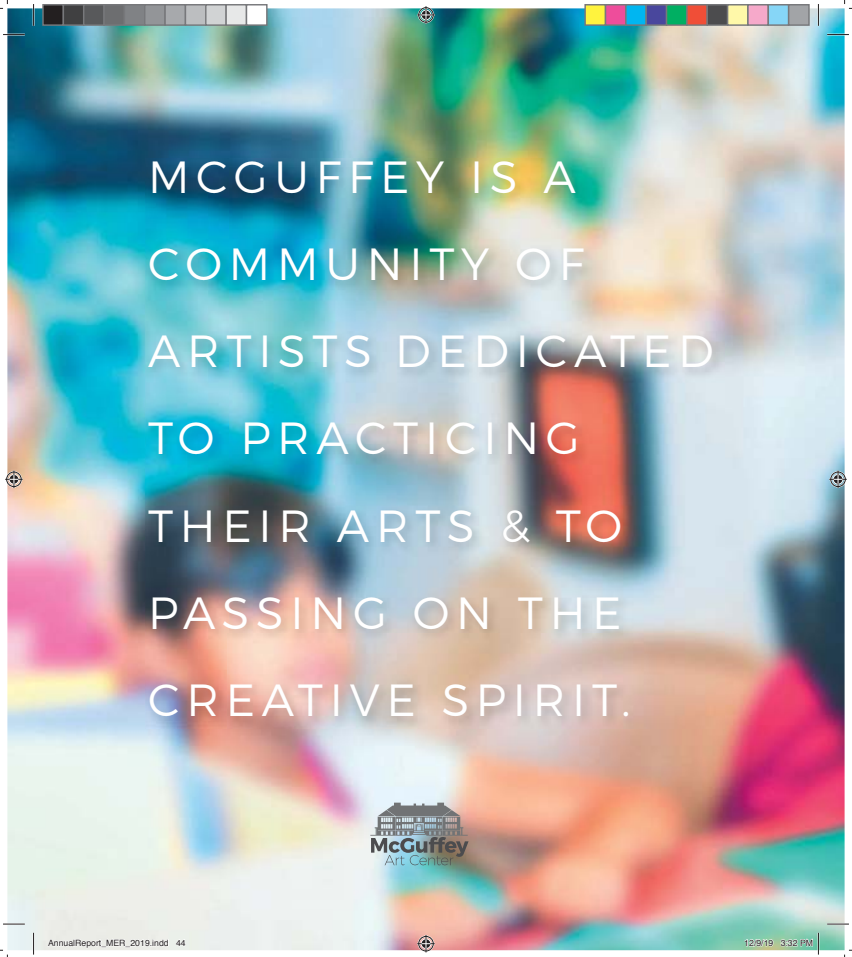
**PRESIDENT** GISELLE GAUTREAU
**1ST VP** ANNE MEGIBOW
**2ND VP** JOEL JONES
**TREASURER** SCOTT SMITH
**SECRETARY** BRIELLE DUFLON

**SPECIAL THANKS TO STACEY EVANS PHOTOGRAPHY**


## CONTACT

434.295.7973
@MCGUFFEYARTCENTER

MAC@MCGUFFEYARTCENTER.COM
**WWW.MCGUFFEYARTCENTER.COM**



*This page intentionally left blank*

# CITY OF CHARLOTTESVILLE, VIRGINIA.
# CITY COUNCIL AGENDA.

| | |
|---|---|
| Agenda Date: | December 16, 2019 |
| Action Required: | Report. |
| Presenter: | Christopher Cullinan, Director of Finance.<br>Megan Argenbright, CPA, Director, Brown Edwards and Company |
| Staff Contacts: | Christopher Cullinan, Director of Finance.<br>Glen Pack, Comptroller.<br>Gail Hassmer, Chief Accountant. |
| Title: | Audit Report for Fiscal Year 2019 by City's Auditor, Brown Edwards and Company. |

**Background:**

The Code of Virginia requires that localities have all their accounts and records audited annually as of June 30 by an independent certified public accountant in accordance with the specifications furnished by the Auditor of Public Accounts (APA).

**Discussion:**

The City's auditor is required by State Code to report to the governing body at a public session. Megan Argenbright, CPA, from Brown Edwards and Company will be presenting their report to City Council.

**Community Engagement**:

The Comprehensive Annual Finance Report (CAFR) is available on the City's website under the Finance Department. Hard copies are available upon request.

**Budgetary Impact:**

N/A.

**Alignment with Council Vision Areas and Strategic Plan:**

This report serves to report on the audit of fiscal year 2017 and as such aligns with Goal 4 of the Strategic Plan, to be a well-managed and successful organization.

**Recommendation:**

N/A.

**Alternatives:**

N/A.

**Attachments:**

1. Auditor's opinion letter.
2. Auditor's management letter.
3. Auditor's letter to those charged with governance.

BROWNEDWARDS
certified public accountants

# INDEPENDENT AUDITOR'S REPORT

To the Honorable Members of the City Council
City of Charlottesville, Virginia

## Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the City of Charlottesville, Virginia (the "City") as of and for the year ended June 30, 2019 and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; the *Specifications for Audits of Counties, Cities, and Towns*, and the *Specifications for Audits of Authorities, Boards, and Commissions* issued by the Auditor of Public Accounts of the Commonwealth of Virginia. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

***Opinions***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the City, as of June 30, 2019, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

***Other Matters***

*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements. The introductory, supplementary information as listed in the table of contents, and statistical section, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary section is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information as listed in the table of contents is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated November 22, 2019 on our consideration of the City's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control over financial reporting and compliance.

Brown, Edwards & Company, L.L.P.

CERTIFIED PUBLIC ACCOUNTANTS

Roanoke, Virginia
November 22, 2019

# CITY OF CHARLOTTESVILLE, VIRGINIA AND CHARLOTTESVILLE PUBLIC SCHOOLS

# COMMENTS ON INTERNAL CONTROL AND OTHER SUGGESTIONS FOR YOUR CONSIDERATION

**June 30, 2019**

**CONTENTS**

BROWNEDWARDS
certified public accountants

## INDEPENDENT AUDITOR'S REPORT ON COMMENTS AND SUGGESTIONS

To the Honorable Members of the City Council and School Board
Charlottesville, Virginia

In planning and performing our audit of the financial statements

of the City of Charlottesville, Virginia and Charlottesville City Public Schools as of and for the year ended June 30, 2019, in accordance with auditing standards generally accepted in the United States of America, we considered its internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in circumstances for the purpose of expressing our opinion on the financial statements and to comply with any other applicable standards, such as *Government Auditing Standards* and the regulations set forth in the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we do not express an opinion on the effectiveness of the entity's internal control.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and, therefore, material weaknesses or significant deficiencies may exist that were not identified. In addition, because of inherent limitations in internal control, including the possibility of management override of controls, misstatements due to error or fraud may occur and not be detected by such controls.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

If material weaknesses or significant deficiencies were identified during our procedures they are appropriately designated as such in this report. Additional information on material weaknesses or significant deficiencies and compliance and other matters is included in the ***Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards*** which should be read in conjunction with this report.


319 McClanahan Street, S.W. • Roanoke, Virginia 24014-7705 • 540-345-0936 • Fax: 540-342-6181 • www.BEcpas.com

Additionally, during our audit, we may have become aware of certain other matters that provide opportunities for improving your financial reporting system and/or operating efficiency. Such comments and suggestions regarding these matters, if any, are also included in the attached report, but are not designated as a material weakness or significant deficiency. Since our audit is not designed to include a detail review of all systems and procedures, these comments should not be considered as being all-inclusive of areas where improvements might be achieved. We also have included information on accounting and other matters that we believe is important enough to merit consideration by management and those charged with governance. It is our hope that our suggestions will be taken in the constructive light in which they are offered.

We have already discussed these comments and suggestions with management, and we will be pleased to discuss them in further detail at your convenience, to perform any additional study of these matters, or to assist you in implementing the recommendations. A review of the status of our prior year comments and suggestions is included on page 4.

This communication is intended solely for the information and use of the City Council, the School Board, management, and state and federal regulatory agencies and is not intended to be, and should not be, used by anyone other than those specified parties.

Brown, Edwards & Company, L.L.P.

CERTIFIED PUBLIC ACCOUNTANTS

Roanoke, Virginia
November 22, 2019

**CITY OF CHARLOTTESVILLE, VIRGINIA AND**
**CHARLOTTESVILLE CITY SCHOOLS**

**COMMENTS AND SUGGESTIONS**
**JUNE 30, 2019**

## AUDITOR ADJUSTMENTS

As part of our audit, we proposed multiple adjustments related to the improper accrual or recording of investments, capital assets, accounts payable and accrued interest on long term debt. Certain of these adjustments were related to estimates or determinations made by management that did not involve the proper accounting treatment or did not reflect actual results. We suggest management implement procedures such as periodic comparison of estimates with actual results, especially at year end, to ensure accurate financial reporting. Accounting procedures should be formulated to ensure all asset and liability accounts are either recorded in the general ledger or clearly compiled in subsidiary ledgers for entity wide balances that are not recorded on the fund level general ledger. All activities should be evaluated beyond transactional processing to focus on the financial reporting implications of those activities. Additionally, all adjustments that were made as a result of our current year audit should be reviewed during the next year as a reminder of matters needing accounting attention in preparing for the 2020 audit.

**CITY OF CHARLOTTESVILLE, VIRGINIA AND**
**CHARLOTTESVILLE CITY SCHOOLS**

**PRIOR YEAR COMMENTS AND SUGGESTIONS**
**JUNE 30, 2019**

## TIMELY GRANT REIMBURSEMENT REQUESTS

During our testing surrounding accounts receivable, we noted that reimbursement requests were not filed timely for VDOT grants. We recommend that reimbursement requests be completed more timely, on a monthly or quarterly basis.

**Current Year Status***: Condition still present in the current year.*

## CONSTRUCTION IN PROCESS

During our testing, we noted that the City places all projects in service at the end of the year for proprietary funds in order to begin depreciation. The risk is that the City is not beginning depreciation when the assets are placed in service. We recommend that a more thorough process be considered to track specific projects and begin depreciation when assets are placed in service.

**Current Year Status***: Condition still present in the current year.*

**CITY OF CHARLOTTESVILLE, VIRGINIA AND**
**CHARLOTTESVILLE CITY SCHOOLS**

**ACCOUNTING AND OTHER MATTERS**
**JUNE 30, 2019**

## CURRENT GASB PROJECTS

In this section, we would like to make you aware of certain confirmed and potential changes that are on the horizon that may affect your financial reporting and audit.

The GASB issued **Statement No. 84,** ***Fiduciary Activities*** in January 2017. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported.

This Statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities.

An activity meeting the criteria should be reported in a fiduciary fund in the basic financial statements. Governments with activities meeting the criteria should present a statement of fiduciary net position and a statement of changes in fiduciary net position. An exception to that requirement is provided for a business-type activity that normally expects to hold custodial assets for three months or less.

This Statement describes four fiduciary funds that should be reported, if applicable: (1) pension (and other employee benefit) trust funds, (2) investment trust funds, (3) private-purpose trust funds, and (4) custodial funds. Custodial funds generally should report fiduciary activities that are not held in a trust or equivalent arrangement that meets specific criteria.

A fiduciary component unit, when reported in the fiduciary fund financial statements of a primary government, should combine its information with its component units that are fiduciary component units and aggregate that combined information with the primary government's fiduciary funds.

This Statement also provides for recognition of a liability to the beneficiaries in a fiduciary fund when an event has occurred that compels the government to disburse fiduciary resources. Events that compel a government to disburse fiduciary resources occur when a demand for the resources has been made or when no further action, approval, or condition is required to be taken or met by the beneficiary to release the assets.

***The requirements of this Statement are effective for periods beginning after December 15, 2018.***

## NEW GASB PRONOUNCEMENTS

The GASB issued **Statement No. 87, *Leases*** in June 2017. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities.

### *Definition of a Lease*

A lease is defined as a contract that conveys control of the right to use another entity's nonfinancial asset (the underlying asset) as specified in the contract for a period of time in an exchange or exchange-like transaction. Examples of nonfinancial assets include buildings, land, vehicles, and equipment. Any contract that meets this definition should be accounted for under the leases guidance, unless specifically excluded in this Statement.

### *Lease Term*

The lease term is defined as the period during which a lessee has a noncancelable right to use an underlying asset, plus the following periods, if applicable:

a. Periods covered by a lessee's option to extend the lease if it is reasonably certain, based on all relevant factors, that the lessee will exercise that option.
b. Periods covered by a lessee's option to terminate the lease if it is reasonably certain, based on all relevant factors, that the lessee will not exercise that option.
c. Periods covered by a lessor's option to extend the lease if it is reasonably certain, based on all relevant factors, that the lessor will exercise that option.
d. Periods covered by a lessor's option to terminate the lease if it is reasonably certain, based on all relevant factors, that the lessor will not exercise that option.

A fiscal funding or cancellation clause should affect the lease term only when it is reasonably certain that the clause will be exercised.

Lessees and lessors should reassess the lease term only if one or more of the following occur:

a. The lessee or lessor elects to exercise an option even though it was previously determined that it was reasonably certain that the lessee or lessor would not exercise that option.
b. The lessee or lessor elects not to exercise an option even though it was previously determined that it was reasonably certain that the lessee or lessor would exercise that option.
***c.*** An event specified in the lease contract that requires an extension or termination of the lease takes place.

## NEW GASB PRONOUNCEMENTS (Continued)

### *Short-Term Leases*

A short-term lease is defined as a lease that, at the commencement of the lease term, has a maximum possible term under the lease contract of 12 months (or less), including any options to extend, regardless of their probability of being exercised. Lessees and lessors should recognize short-term lease payments as outflows of resources or inflows of resources, respectively, based on the payment provisions of the lease contract.

### *Lessee Accounting*

A lessee should recognize a lease liability and a lease asset at the commencement of the lease term, unless the lease is a short-term lease or it transfers ownership of the underlying asset. The lease liability should be measured at the present value of payments expected to be made during the lease term (less any lease incentives). The lease asset should be measured at the amount of the initial measurement of the lease liability, plus any payments made to the lessor at or before the commencement of the lease term and certain direct costs.

A lessee should reduce the lease liability as payments are made and recognize an outflow of resources (for example, expense) for interest on the liability. The lessee should amortize the lease asset in a systematic and rational manner over the shorter of the lease term or the useful life of the underlying asset. The notes to financial statements should include a description of leasing arrangements, the amount of lease assets recognized, and a schedule of future lease payments to be made.

### *Lessor Accounting*

A lessor should recognize a lease receivable and a deferred inflow of resources at the commencement of the lease term, with certain exceptions for leases of assets held as investments, certain regulated leases, short-term leases, and leases that transfer ownership of the underlying asset. A lessor should not derecognize the asset underlying the lease. The lease receivable should be measured at the present value of lease payments expected to be received during the lease term. The deferred inflow of resources should be measured at the value of the lease receivable plus any payments received at or before the commencement of the lease term that relate to future periods.

A lessor should recognize interest revenue on the lease receivable and an inflow of resources (for example, revenue) from the deferred inflows of resources in a systematic and rational manner over the term of the lease. The notes to financial statements should include a description of leasing arrangements and the total amount of inflows of resources recognized from leases.

## NEW GASB PRONOUNCEMENTS (Continued)

***Contracts with Multiple Components and Contract Combinations***

Generally, a government should account for the lease and nonlease components of a lease as separate contracts. If a lease involves multiple underlying assets, lessees and lessors in certain cases should account for each underlying asset as a separate lease contract. To allocate the contract price to different components, lessees and lessors should use contract prices for individual components as long as they do not appear to be unreasonable based on professional judgment, or use professional judgment to determine their best estimate if there are no stated prices or if stated prices appear to be unreasonable. If determining a best estimate is not practicable, multiple components in a lease contract should be accounted for as a single lease unit. Contracts that are entered into at or near the same time with the same counterparty and that meet certain criteria should be considered part of the same lease contract and should be evaluated in accordance with the guidance for contracts with multiple components.

***Lease Modifications and Terminations***

An amendment to a lease contract should be considered a lease modification, unless the lessee's right to use the underlying asset decreases, in which case it would be a partial or full lease termination. A lease termination should be accounted for by reducing the carrying values of the lease liability and lease asset by a lessee, or the lease receivable and deferred inflows of resources by the lessor, with any difference being recognized as a gain or loss. A lease modification that does not qualify as a separate lease should be accounted for by remeasuring the lease liability and adjusting the related lease asset by a lessee and remeasuring the lease receivable and adjusting the related deferred inflows of resources by a lessor.

***Subleases and Leaseback Transactions***

Subleases should be treated as transactions separate from the original lease. The original lessee that becomes the lessor in a sublease should account for the original lease and the sublease as separate transactions, as a lessee and lessor, respectively.

A transaction qualifies for sale-leaseback accounting only if it includes a sale. Otherwise, it is a borrowing. The sale and lease portions of a transaction should be accounted for as separate sale and lease transactions, except that any difference between the carrying value of the capital asset that was sold and the net proceeds from the sale should be reported as a deferred inflow of resources or a deferred outflow of resources and recognized over the term of the lease.

A lease-leaseback transaction should be accounted for as a net transaction. The gross amounts of each portion of the transaction should be disclosed.

***The requirements of this Statement are effective for periods beginning after December 15, 2019.***

## NEW GASB PRONOUNCEMENTS (Continued)

The GASB issued **Statement No. 90,** ***Majority Equity Interests***, an amendment of GASB Statements No. 14 and No. 61 in August 2018. This Statement improves the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and improves the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. A majority equity interest that meets the definition of an investment should be measured using the equity method, unless it is held by a special-purpose government engaged only in fiduciary activities, a fiduciary fund, or an endowment (including permanent and term endowments) or permanent fund. Those governments and funds should measure the majority equity interest at fair value.

For all other holdings of a majority equity interest in a legally separate organization, a government should report the legally separate organization as a component unit, and the government or fund that holds the equity interest should report an asset related to the majority equity interest using the equity method. This Statement establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit.

This Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities, and deferred inflows of resources at acquisition value at the date the government acquired a 100 percent equity interest in the component unit. Transactions presented in flows statements of the component unit in that circumstance should include only transactions that occurred subsequent to the acquisition.

***The requirements of this Statement are effective for periods beginning after December 15, 2018. The requirements should be applied retroactively, except for the provisions related to (1) reporting a majority equity interest in a component unit and (2) reporting a component unit if the government acquires a 100 percent equity interest. Those provisions should be applied on a prospective basis.***

The GASB issued **Statement No. 91,** ***Conduit Debt Obligations*** in May 2019. The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. This Statement achieves those objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures.

## NEW GASB PRONOUNCEMENTS (Continued)

A conduit debt obligation is defined as a debt instrument having all of the following characteristics:

- There are at least three parties involved: (1) an issuer, (2) a third-party obligor, and (3) a debt holder or a debt trustee.
- The issuer and the third-party obligor are not within the same financial reporting entity.
- The debt obligation is not a parity bond of the issuer, nor is it cross-collateralized with other debt of the issuer.
- The third-party obligor or its agent, not the issuer, ultimately receives the proceeds from the debt issuance.
- The third-party obligor, not the issuer, is primarily obligated for the payment of all amounts associated with the debt obligation (debt service payments).

All conduit debt obligations involve the issuer making a limited commitment. Some issuers extend additional commitments or voluntary commitments to support debt service in the event the third party is, or will be, unable to do so.

An issuer should not recognize a conduit debt obligation as a liability. However, an issuer should recognize a liability associated with an additional commitment or a voluntary commitment to support debt service if certain recognition criteria are met. As long as a conduit debt obligation is outstanding, an issuer that has made an additional commitment should evaluate at least annually whether those criteria are met. An issuer that has made only a limited commitment should evaluate whether those criteria are met when an event occurs that causes the issuer to reevaluate its willingness or ability to support the obligor's debt service through a voluntary commitment.

This Statement also addresses arrangements—often characterized as leases—that are associated with conduit debt obligations. In those arrangements, capital assets are constructed or acquired with the proceeds of a conduit debt obligation and used by third-party obligors in the course of their activities. Payments from third-party obligors are intended to cover and coincide with debt service payments. During those arrangements, issuers retain the titles to the capital assets. Those titles may or may not pass to the obligors at the end of the arrangements.

Issuers should not report those arrangements as leases, nor should they recognize a liability for the related conduit debt obligations or a receivable for the payments related to those arrangements. In addition, the following provisions apply:

- If the title passes to the third-party obligor at the end of the arrangement, an issuer should not recognize a capital asset.
- If the title does not pass to the third-party obligor and the third party has exclusive use of the entire capital asset during the arrangement, the issuer should not recognize a capital asset until the arrangement ends.
- If the title does not pass to the third-party obligor and the third party has exclusive use of only portions of the capital asset during the arrangement, the issuer, at the inception of the arrangement, should recognize the entire capital asset and a deferred inflow of resources. The deferred inflow of resources should be reduced, and an inflow recognized, in a systematic and rational manner over the term of the arrangement.

## NEW GASB PRONOUNCEMENTS (Continued)

This Statement requires issuers to disclose general information about their conduit debt obligations, organized by type of commitment, including the aggregate outstanding principal amount of the issuers' conduit debt obligations and a description of each type of commitment. Issuers that recognize liabilities related to supporting the debt service of conduit debt obligations also should disclose information about the amount recognized and how the liabilities changed during the reporting period.

***The requirements of this Statement are effective for periods beginning after December 15, 2020.***

## CURRENT GASB PROJECTS

GASB currently has a variety of projects in process. Some of these projects discussed below.

***Conceptual Framework – Recognition.***

The project's objective is to develop recognition criteria for *whether* information should be reported in state and local governmental financial statements and *when* that information should be reported. This project ultimately will lead to a Concepts Statement on recognition of elements of financial statements. The project is currently in deliberations with an exposure draft expected in February 2020, and concepts Statement draft in November 2021.

***Conceptual Framework – Disclosure.***

The project's objective is to develop concepts related to a framework for the development and evaluation of notes to financial statements for the purpose of improving the effectiveness of note disclosures in government financial reports. The framework will establish criteria for the Board to use in evaluating potential note disclosure requirements during future standards-setting activities and in reexamining existing note disclosure requirements. Those concepts also will provide governments a basis for considering the essentiality of information items for which the GASB does not specifically provide authoritative disclosure guidance. This project is currently in deliberations with an exposure draft expected in March 2021, and a Concepts Statement draft in April 2022.

***Financial Reporting Model.***

The objective of this project is to make improvements to the financial reporting model, including Statement No. 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments*, and other reporting model-related pronouncements (Statements No. 35, *Basic Financial Statements – and Management's Discussion and Analysis – for Public Colleges and Universities*, No. 37*, Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments: Omnibus,* No. 41, *Budgetary Comparison Schedules – Perspective Differences*, and No. 46, *Net Assets Restricted by Enabling Legislation, and Interpretation No. 6, Recognition and Measurement of Certain Liabilities and Expenditures in Governmental Fund Financial Statements*). The objective of these improvements would be to enhance the effectiveness of the model in providing information that is essential for decision-making and enhance the ability to assess a government's accounting and address certain application issues, based upon the results of the pre-agenda research on the financial reporting model. The project is currently in deliberations with an exposure draft expected in February 2020, and a final Statement draft in November 2021.

## CURRENT GASB PROJECTS (Continued)

***Public-Private Partnerships and Availability Payment Arrangements.***

The project's objective is to address accounting and financial reporting for public-private partnerships (PPPs) and availability payment arrangements (APAs). The project will consider: (1) potential amendments to Statement No. 60, *Accounting and Financial Reporting for Service Concession Arrangements*, and potential amended or new implementation guidance to better address accounting and financial reporting for service concession arrangements (SCAs) within its scope, (2) potential additional accounting and financial reporting guidance for other types of public-private partnerships not with the scope of Statement 60, or subject to the provisions of Statement No. 87, *Leases*, and (3) APAs. The project is currently in the exposure draft comment period with a final Statement draft expected in February 2020.

***Revenue and Expense Recognition***.

The objective of this project is to develop a comprehensive application model for the classification, recognition, and measurement of revenues and expenses. The purpose for developing a comprehensive model is (1) to improve the information regarding revenues and expenses that users need to make decisions and assess accountability, (2) to provide guidance regarding exchange and exchange-like transactions that have not been specifically addressed, (3) to evaluate revenue and expense recognition in the context of the conceptual framework, and (4) to address application issues identified in practice, based upon the results of the pre-agenda research on revenue for exchange and exchange-like transactions. The project is currently in deliberations with an exposure draft expected in September 2021, and a final Statement draft in December 2022.

BROWNEDWARDS
certified public accountants

# REQUIRED COMMUNICATION WITH THOSE CHARGED WITH GOVERNANCE

Honorable Members of City Council and School Board
City of Charlottesville, Virginia

We have audited the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the City of Charlottesville, Virginia, collectively hereafter referred to as the City, for the year ended June 30, 2019. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards, *Government Auditing Standards* and the Uniform Guidance, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated April 22, 2019. Professional standards also require that we communicate to you the following information related to our audit.

## Significant Audit Findings

*Qualitative Aspects of Accounting Practices*

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the City are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during 2019. We noted no transactions entered into by the City during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements were:

- The useful lives of capital assets are based on management's knowledge and judgment, which is based on history.
- The other post-employment benefits (OPEB) liabilities are based on third-party actuarial calculations and assumptions that utilize census data provided by management.
- The allowance for uncollectible accounts receivable and unbilled accounts receivable is based on management's knowledge of the nature of the receivable and historical experience.
- The self-insurance liability is based on information from an external third party consultant and subsequent claims information provided by the insurance carrier.
- The net pension liabilities are based on actuarial studies provided by actuaries engaged by the City and Virginia Retirement System.

**Significant Audit Findings (Continued)**

*Qualitative Aspects of Accounting Practices (Continued)*

We evaluated the key factors and assumptions used to develop these estimates in determining that they are reasonable in relation to the financial statements taken as a whole.

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements include those related to:

- Capital assets, long-term debt, commitments and contingencies, pensions, and other post-employment liabilities.

The financial statement disclosures are neutral, consistent, and clear.

*Difficulties Encountered in Performing the Audit*

We encountered no significant difficulties in dealing with management in performing and completing our audit.

*Corrected and Uncorrected Misstatements*

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. The following audit adjustments were proposed and were recorded by the City, which indicate matters that had a significant effect on the City's financial reporting process. All amounts are rounded to the nearest thousand.

Corrected Misstatements:

- An increase to accrued interest in the proprietary funds for approximately $426,000 with a corresponding increase to expense. This entry included approximately $142,000 in the Water fund, $271,000 in the Waste water fund, and $3,000 in the Gas fund, and $10,000 in the Stormwater fund.
- The City did not accrue capital asset additions to construction in progress in two proprietary funds, resulting in an audit adjustment to record the additions and accruals. The additions totaled $179,000 and $215,000 in the Stormwater and Water funds, respectively.

Management has determined that the effects of the following misstatements are immaterial to the financial statements taken as a whole.

Uncorrected Misstatements

- June sales tax from the Commonwealth was received and recorded in August. The total amount received during the City and Schools' availability period of $101,000 should be recorded as revenue while the remainder should be recorded as a liability of $101,000 at year end. It is management's policy not to report these items on the fund statements since they have an immaterial impact on fund balance or change in fund balance. For entity wide presentation, the full balance would impact change in operations and net position; however, that amount is deemed immaterial.

*Disagreements with Management*

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

## Significant Audit Findings (Continued)

*Management Representation*

We have requested certain representations from management that are included in the management representation letter dated November 22, 2019.

*Management Consultations with Other Independent Accountants*

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the City's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

*Other Audit Findings or Issues*

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management while serving as the City's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our being hired to serve as the City's auditor.

## Other Matters

We applied certain limited procedures to the management's discussion and analysis and the required supplementary information (RSI) as listed in the table of contents that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the combining and individual fund statements of the non-major and internal service funds, certain budget to actual statements, and the fund financial statements of the discretely presented component units, and the schedule of expenditures of federal awards which accompany the financial statements but are not RSI. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on the introductory and statistical sections, which accompany the financial statements but are not RSI. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

*Cybersecurity Risk Management*

In today's environment of increasingly frequent cyber-attacks, ensuring the adequacy of cybersecurity is a critical aspect of board oversight. In addition to significant business disruption, substantial response cost, negative publicity, and reputational harm, cybersecurity breaches can result in litigation, and leaders may face potential liability if they failed to implement adequate steps to protect the organization.

Evidence suggests there may be a gap between the magnitude of exposure presented by cyber-risks and steps many corporate boards have taken to address these risks. Organizational leaders should be asking themselves what they can, and should, be doing to effectively oversee cyber-risk management.

**Restriction on Use**

This information is intended solely for the information and use of the City Council, the School Board, and management of the City of Charlottesville and is not intended to be, and should not be, used by anyone other than these specified parties.

Brown, Edwards & Company, L.L.P.

CERTIFIED PUBLIC ACCOUNTANTS

Roanoke, Virginia
November 22, 2019