

Attachment F: Potential Microtransit Pursuit for Teaming Partnership

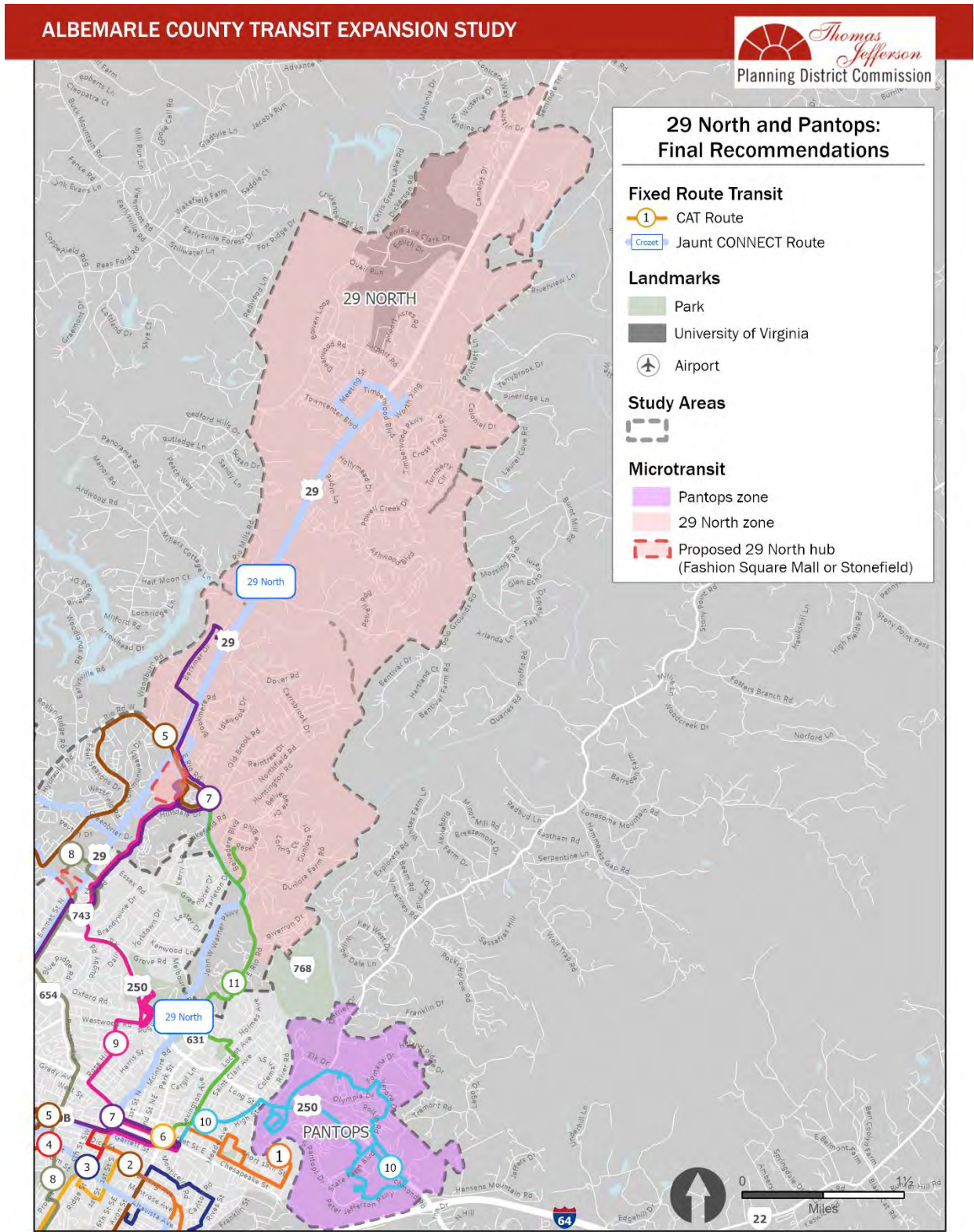
The attached microtransit demonstration is from the *Albemarle County Transit Expansion Study* sponsored by the Thomas Jefferson Planning District Commission (February 2022).

Link to project website:

<https://storymaps.arcgis.com/stories/85862f72f1c6488bbc7aac5f37ed6c24>

It is possible this will be solicited by local municipalities and would be a joint pursuit with Jaunt per this RFP. *Jaunt may elect not to pursue this.*

Figure 42: Proposed Microtransit Pilot Zones



Implementation and Operating Costs

There are two primary operating models for microtransit service. The first is a turn-key approach also known as Transportation as a Service (TaaS). This is an operating model in which a contracted provider is responsible for providing and maintaining all elements of the service, including ADA-accessible vehicles, drivers, and supporting technology. The second approach is a technology-only model, also known as Software as a Service (SaaS) – this is a service model where a vendor provides just the technology platform to support app-based direct dispatching, but not the service vehicles or drivers.

For agencies like CAT that have experience in transit service operations and access to vehicles, the Software as a Service model is usually the most cost-effective approach. This approach requires a one-time initiation fee to set up the software and on-vehicle tablets, as well as a recurring monthly fee per vehicle. Additional costs associated with the service are the annual vehicle operating costs and advertising costs needed to inform and educate the community about the new service type. The estimated costs of implementing and operating the US-29 North and Pantops microtransit services are shown in **Table 2**.

Table 2: Cost Associates with Microtransit Implementation and Operations

Line Item	Year 1 Cost	Year 2+ Cost	Notes
Service Initiation Fee	\$50,000	-	Average of multiple providers. Final fee depends on provider and set up options.
Annual Operation Cost (Pantops)	\$425,000	\$425,000	Based on 1 vehicle at \$100/hour
Annual Software Fee (Pantops)	\$7,500	\$7,500	Typical fee was approximately \$600/vehicle/month.
Total Software + Operating Costs (Pantops)	\$432,500	\$432,500	
Annual Operation Cost (US-29 North)	\$1,300,000	\$1,300,000	Based on 3 vehicles at \$100/hour
Annual Software Fee (US-29 North)	\$22,500	\$22,500	Typical fee was approximately \$600/vehicle/month.
Total Software + Operating Costs (US-29 North)	\$1,322,500	\$1,322,500	
Advertising	\$135,000	\$100,000	Based on advertising needs suggested by CAT staff.
TOTAL (Approx.)	\$1,940,000	\$1,855,000	

Implementation Funding

DRPT's Transit Demonstration Project Assistance program was identified as the most likely funding source for at least the first year of service. This program is intended to assist in the development and launch of projects, or pilot programs, for new service or for improvements in technology and innovation. The purpose of the Demonstration Project Assistance program is to "support local efforts to improve transit reliability, connections to housing and employment centers, and transit mobility options." Additional service in Albemarle, especially in the form of microtransit, falls under both "new service" and "technology and innovation" for the purposes of the demonstration project application.

The Transit Demonstration Project Assistance program typically covers the first year of service for selected projects, allowing for buffer time prior to the launch of the service. This buffer time allows for proper training, advertising, and other initialization activities to ensure the success of the service. The Transit Demonstration Project Assistance program requires a 20 percent match from a local organization. The estimated cost of the first year of service, including service initiation fee and additional advertising, is estimated at \$1,940,000. This would make Albemarle County's local match approximately \$390,000.

A variety of factors were considered when determining the most appropriate service provider and grant applicant for the microtransit pilot. These factors, detailed below, included the geography of the area, the readiness of the provider to launch the service, and the long-term options for continuing the service beyond a pilot program. Ultimately, CAT was selected as the recommended provider after discussion with partners, including Albemarle County and DRPT.

Geography of Zones

The two microtransit zones for Phase 1 - Pantops and US-29 North—are both entirely in the urbanized area. CAT is the provider of service in the City of Charlottesville-Albemarle County Urbanized Area and thus is the recipient of FTA 5307 formula funding. Jaunt does provide service in urbanized areas, and is thus eligible for FTA 5307 funds, but the money is funneled through CAT by way of a service agreement. Thus, future operation of these particular microtransit services would be eligible and potentially funded via FTA 5307 funds.

Readiness of Service Provision

CAT indicated that it was in the process of ordering four body-on-chassis vehicles for future unidentified service. These vehicles are one of the preferred options for microtransit service and thus would be available for use when the service is launched. It is estimated that four vehicles will be necessary between the two zones to maintain appropriate wait times (one for Pantops, three for US-29 North). Given a preference for always having at least two vehicles for any microtransit zone, the third vehicle from the US-29 North zone would be used as a "swing" vehicle to support Pantops service when needed.

With CAT already in the process of purchasing vehicles that could be employed for microtransit service, this made the estimated cost of the service cheaper as it only required the procurement of software as a service instead of a full turn-key service. This was another reason CAT was selected as the service provider.

Future Funding Options

Typically, DRPT's expectation is that a new service being funded through a demonstration grant would be continued into future years. This means a future funding strategy needs to be in place prior to securing the demonstration grant. The estimated operating cost for the second year of service is approximately \$1,855,000. At this time, CAT has indicated that this cost would be unlikely to be included in its 5307 funding program beginning in the second year of service. Options for covering and/or offsetting the operation costs for future years include:

- Partnerships between CAT and stakeholders in the county, including Albemarle County, hospitals, developers, major employers, and others in the Pantops and US-29 North communities

- Advertising revenue, which may be specific to the microtransit service/vehicles
- Farebox revenue from the microtransit service; the farebox recovery rate for microtransit service is generally higher than other forms of transit, but it is still variable
- Other funding and grant programs, either offered through the Commonwealth of Virginia or the FTA

Implementation Schedule

The first step in the implementation of the microtransit service in Pantops and the US-29 North zones is to submit an application for DRPT’s Transit Demonstration Project Assistance program. For FY23, the application is due February 1. If awarded, the funds would be available in July 2022. It is recommended that the grant period should be 18 months, which would allow for six months of initialization and 12 months of service.

Figure 43 shows a recommended schedule for the implementation of the microtransit pilot program. For the latter half of 2022 (first half of FY23), activities would include the following:

- Advertising the service—which is new and likely unfamiliar to a majority of potential riders in Albemarle County
- Obtaining the vehicles (estimated for the final quarter of 2022)
- Procuring microtransit software, tablets,
- Software installation, training, and testing

Under this recommended schedule, the service would begin January of 2023 and the pilot program would last through the end of the year.

Figure 43: Recommended Implementation Schedule

	2022												2023												2024																
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
DRPT Grant Application (Feb 1)			■																																						
Grant Funding Awarded (Jul 1)								■																																	
Grant Duration (18 Month Request)							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
Pilot Program Advertising & Development							■	■	■	■	■	■	■																												
Vehicle Delivery										■	■	■	■																												
Pilot Program (Year 1)													■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
DRPT Grant Application Extension Request															■																										
Grant Funding Awarded if awarded																																									
Grant Duration (18 Month Request) if awarded																																									
Pilot Program (Year 2) if awarded																																									

Phase 2 – Longer-Term Recommendations

While microtransit service in the US-29 North corridor and Pantops would have the largest and most immediate impact on expanding and improving mobility in the urbanized areas of Albemarle County, additional transit improvement opportunities were identified both through the technical analyses and stakeholder engagement conducted over the course of this study. The following longer-term recommendations should be considered for more detailed study as additional resources become available in the region.

South of I-64 Microtransit Service

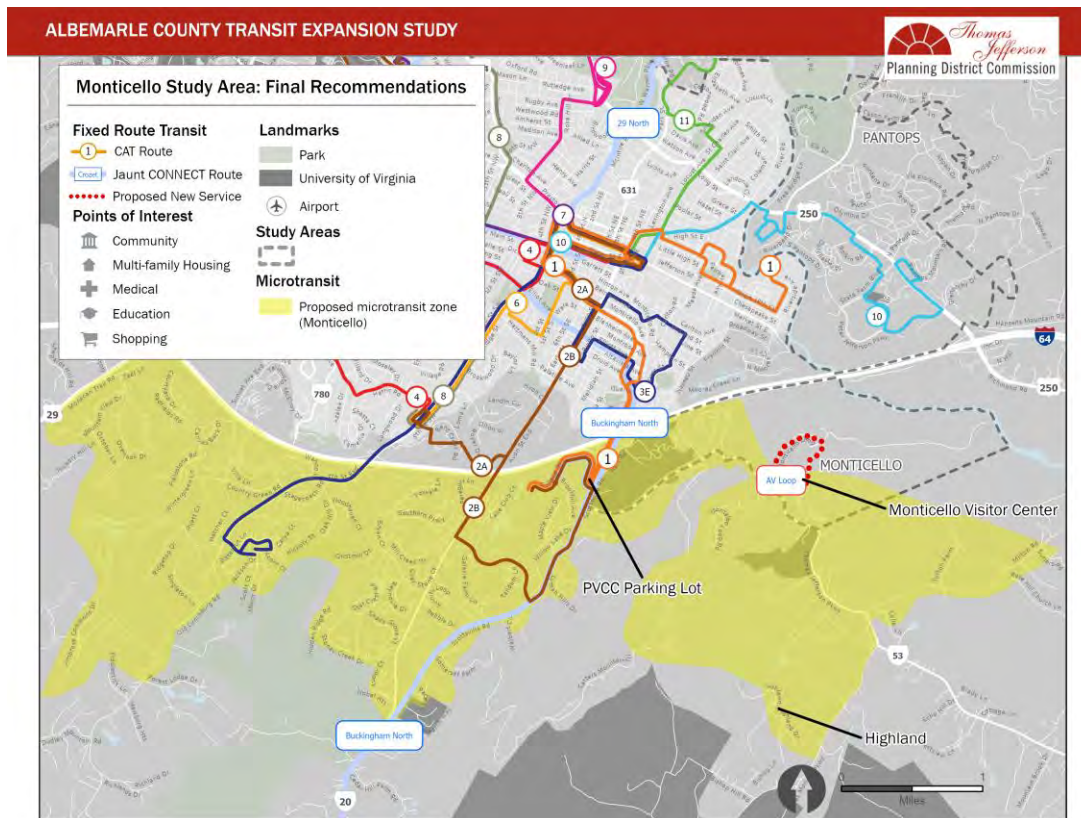
Areas of Albemarle County south of I-64 are generally automobile-oriented and difficult to service by traditional fixed-route service. However, the area east of US-29 and west of the Rivanna River includes a growing population base, a regional high school and community college, and two important cultural/tourism

destinations in Monticello and James Madison’s Highland. With two vehicles, microtransit could serve the eight square-mile area highlighted in **Figure 44** with 15-minute average wait times. The estimates operating cost of weekday-only service, operating with two vehicles for 15 hours per day, is approximately \$850,000 annually, including software fees.

Monticello Autonomous Vehicles

The Monticello historical site is currently served by a shuttle system connecting visitors from the Monticello Visitor Center and parking area to Thomas Jefferson’s historical home. Over the past two years, Monticello has had some difficulty retaining the staff necessary to support this shuttle operation. A potential solution for this dilemma is to deploy autonomous vehicles on the shuttle route. While autonomous vehicles appear to be on the cusp of main-stream adoption, the industry is still fairly new and somewhat unstable. In fact, over the course of this study a leading manufacturer of autonomous vehicles in the United States ceased operations. Other challenges to autonomous vehicle applications are their relatively slow speeds (up to 35 miles per hour, currently) and limited carrying capacity (8 to 21 passengers). All of these issues may improve in coming years, making autonomous vehicles a viable option for the Monticello shuttle, not only to transport passengers between visitor attractions at Monticello, but also as an attraction for visitors itself. The estimated cost of electric autonomous vehicles is approximately \$400,000 per vehicle with an additional annual support costs of \$8,500 (not including electricity).

Figure 44: Monticello Recommendations



Expanded Commuter Service in the US-29 North Corridor

Jaunt currently provides three commuter trips in the morning and three trips in the afternoon on its 29 CONNECT Route between Hollymead Town Center and key hubs in Charlottesville including UVA, the UVA