

ORANGE COUNTY
SHORT RANGE TRANSIT PLAN

Appendix B:
Strategies Evaluation

October 2024

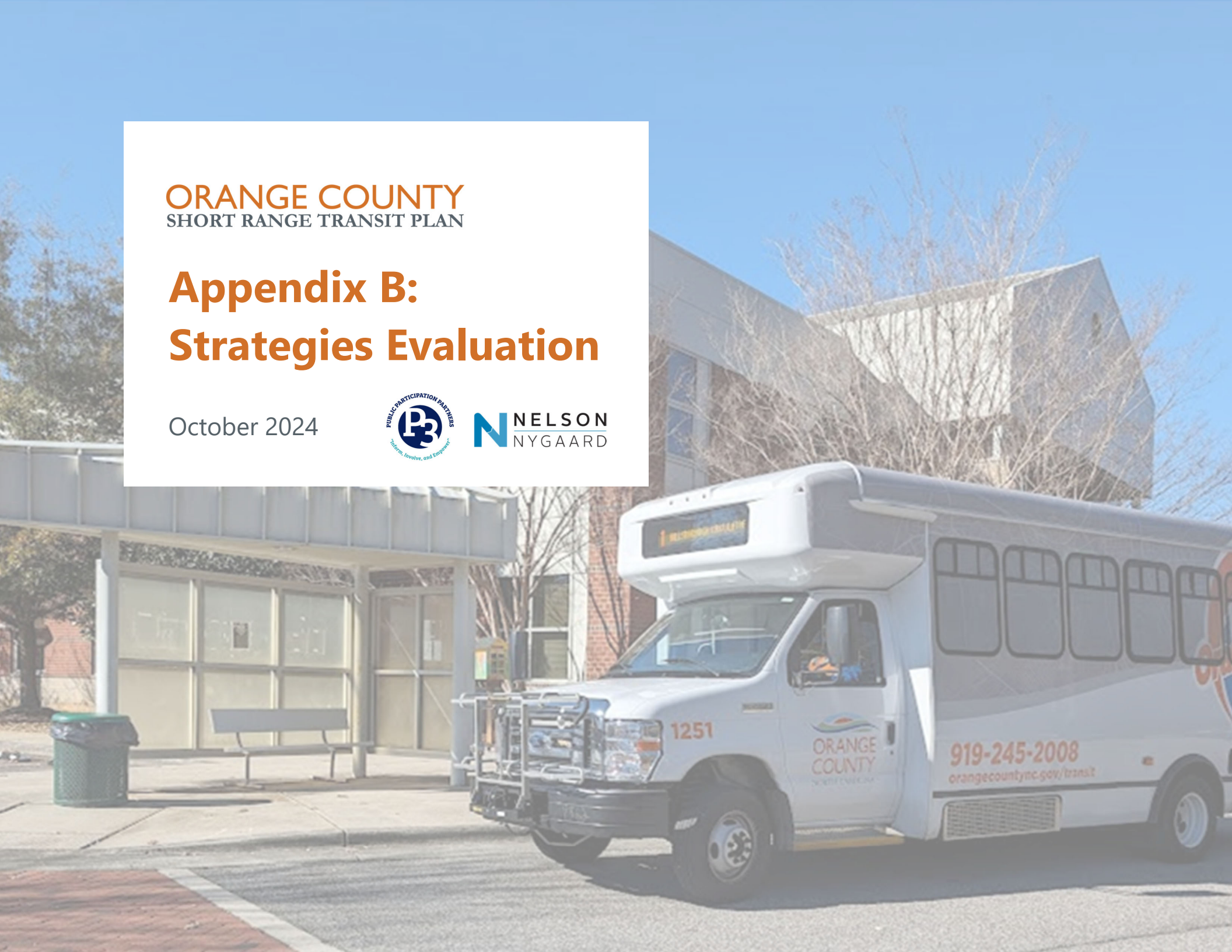


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1 STRATEGY DEVELOPMENT

A broad range of strategies for improving public transportation in Orange County were developed based on findings from the Existing Conditions report, the first round of public engagement, and other adopted transportation plans. Strategies were categorized into three types: 1) transit service, 2) policies and programs, and 3) capital improvement projects.

Transit service strategies included new services as well as operating improvements to existing services for all three types of transportation offered by OCTS: fixed-route buses, rural demand response, and Mobility On Demand (MOD). The following transit service strategies were brought forward for evaluation:

- Hillsborough Circulator Service Improvements
- Hillsborough Circulator Saturday Service
- Hillsborough Circulator US-70 Corridor Study Proposal
- Hill to Hill Consolidation Phase 1: Orange-Chapel Hill Connector Alignment Change
- Hill to Hill Full Consolidation
- Orange-Alamance Conversion to Mobility On Demand
- Orange-Alamance Service Expansion
- Mebane Circulator
- Mobility On Demand Service Improvements
- Mobility On Demand Service Span Expansion
- Demand Response Weekend Service

Not all improvements to transit occur through changes to service operation. Transit is also improved through changes to an agency's policies or through administrative programs. The following strategies recommended policies or programs that OCTS could implement:

- Transit Information Campaign
- Improve Demand Response booking
- Mobility Manager
- Discount MOD Fares
- Fare Payment Improvements

The third category of strategies were capital improvement projects. Each strategy represented a type of capital improvement with multiple locations recommended for each type. These strategies do not include capital projects that are required for basic operation of the transit service strategies, such as new bus stops for new services. Capital improvement strategies brought forward for evaluation included:

- Walking Access to Transit (8 locations)
- Bus Stop Improvements (4 locations)
- Rural Mobility Hubs (10 locations)

All strategies were presented to the Core Technical Team and adjusted based on feedback before moving to evaluation.

2 EVALUATION FRAMEWORK

An evaluation framework allows Orange County to prioritize recommendations and evaluate projects, policies, and programs for their ability to achieve the goals and values of the Orange County Transit Plan and Orange County Strategic Plan. The Core Community Values from the Orange County Transit Plan Update provided the foundation for evaluating the proposed strategies, and objectives for each value were taken directly from either the Transit Plan Update or the multimodal transportation section of

the Strategic Plan. For evaluation purposes, metrics were created to measure how well a project supported each objective. The metrics aim to balance qualitative and quantitative inputs for the wide variety of strategies to be evaluated. Figure 1 lists the five core values, seven objectives, and nine metrics.

Based on the methodology detailed in Figure 2, each strategy was scored from one to three points per metric. Methods of measurement varied depending on the type of strategy, and both quantitative and qualitative approaches were used. Final scores based on the evaluation framework helped to prioritize different strategies and spend Orange County’s funds in accordance with their core values.

Figure 1 Evaluation Framework

Core Value	Objective	Metric
Equity	Prioritize the transit needs of underserved or transit-dependent residents; includes historically disinvested communities of color, lower-income neighborhoods, seniors, and rural communities.	Environmental Justice Communities of Concern served
Economic Prosperity	Prioritize increasing access to jobs and opportunities	Jobs served
Environmental Sustainability	Prioritize accessible and convenient transit service in areas with existing or planned higher density development.	People served
	Increase community awareness of all modes of transportation including transit, bike and pedestrian, vehicle, and all other modes	Does this make transit easier and safer to use?
Transportation & Access for All	Prioritize transit service that increases transit access for the most people to the most places	Does this improve regional connections?
		Does this improve local transit?

		Does this reduce duplication?
Affordable & Attainable Quality of Life	Prioritize transit service connections to affordable housing, recreation, and arts and cultural opportunities.	Activity centers served
	Identify priorities and resources necessary to implement the Orange County Transit Plan.	Strategy Cost

Figure 2 Evaluation Metrics

Metric	Policy/Program	Transit Service & Capital Improvements	Data Source
Environmental Justice Communities of Concern	High-Medium-Low: Does the project target these groups?	Average number of Communities of Concern in the block groups served by a project	<i>DCHC MPO 2020 Environmental Justice Report</i>
Jobs Served	High-Medium-Low improvement of transit access to job opportunities	Sum of jobs within the project service area	<i>CAMPO 2020 Triangle Regional Model</i>
People served	High-Medium-Low improvement of access to transit service for residents	Sum of people within the project service area	<i>CAMPO 2020 Triangle Regional Model</i>
Does this make transit easier and safer to use?	High-Medium-Low improvement of service levels, access to information, or rider safety and comfort		-
Does this improve regional connections?	High-Medium-Low improvement of connecting to other regional transit services or long distance trips		-
Does this improve local transit?	High-Medium-Low improvement of transit within municipalities or for shorter, local trips		-
Does this project reduce duplication?	High: Reduces duplication, Medium: no impact, Low: duplicates service		-
Activity Centers served	High-Medium-Low improvement of transit access to activity centers	Number of key activity centers within the project service area	<i>Appendix A: Existing Conditions</i>
Strategy Cost	Estimate program cost, high-medium-low compared to other policies and programs; low cost scores the highest, while high cost strategies score lower	Difference in annual operating cost of proposal from existing as programmed Estimated project cost for strategy type	<i>Transit Service: OCTS Capital Improvements: Wake Bus Plan, 2022</i>

Project service area is defined as within ½ mile buffer of each stop for fixed route transit, ½ mile buffer of the capital improvement, or countywide for Mobility on Demand.

3 PRIORITIZED STRATEGIES

After finalizing the Evaluation Framework, all proposed strategies were evaluated quantitatively and qualitatively. Figure 3 lists all evaluated strategies in descending order based on the total score. The qualitative or quantitative result for each metric is listed with

Figure 3 Prioritized Strategies with Detailed Scores

Strategy Name	Communities of Concern	Jobs Served	People served	Easy and Safe	Regional Connections	Local Transit	Reduces Duplication	Activity Centers	Strategy Cost	Total Score
MOD Service Improvements	2 (2)	392,734 (3)	24,978 (3)	High (3)	Medium (2)	High (3)	Low (1)	16 (2)	\$0 (3)	22
Orange Alamance Conversion to MOD	2.13 (2)	31,586 (2)	16,375 (2)	Medium (2)	Medium (2)	Low (1)	High (3)	47 (3)	-\$307,500 (3)	21
Hill to Hill Consolidation Phase 1	1.93 (1)	256,691 (3)	86,670 (3)	Medium (2)	Medium (2)	Low (1)	High (3)	12 (2)	-\$61,500 (3)	20
Hill to Hill Consolidation (Full)	1.93 (1)	256,691 (3)	86,670 (3)	High (3)	High (3)	Low (1)	High (3)	12 (2)	\$738,000 (1)	20
MOD Service Span Expansion	2 (2)	392,734 (3)	24,978 (3)	Low (1)	Medium (2)	Medium (2)	Medium (2)	16 (2)	\$1,228,775 (1)	18
Rural Mobility Hubs*	2.5 (3)	391 (1)	1,262 (2)	High (3)	Medium (2)	Medium (2)	Medium (2)	2 (1)	\$111,758 (2)	18
Hillsborough Circulator Service Improvements	2.2 (2)	4,273 (2)	6,350 (2)	Medium (2)	Low (1)	High (3)	Medium (2)	16 (2)	\$1,168,500 (1)	17
Hillsborough Circulator Saturday Service	2.2 (2)	4,273 (2)	6,350 (2)	Low (1)	Low (1)	High (3)	Medium (2)	16 (2)	\$204,672 (2)	17
Mebane Circulator	2.33 (3)	3,461 (2)	7,122 (2)	Low (1)	Low (1)	High (3)	Medium (2)	16 (2)	\$338,250 (1)	17
Demand Response Weekend Service	Medium (2)	Low (1)	Medium (2)	Medium (2)	Medium (2)	Medium (2)	Medium (2)	Medium (2)	\$92,078 (2)	17
Improve Demand Response Trip Booking	Medium (2)	Low (1)	Medium (2)	Medium (2)	Medium (2)	Medium (2)	Medium (2)	Low (1)	Low cost (3)	17

the ordinal score from 1 to 3 in parentheses. The total score for each strategy is the sum of its ordinal scores.

After prioritization, strategies were slotted into the available budget and timeline and reviewed by stakeholders and the public. Final strategies found in the Short Range Transit Plan may differ slightly from those in the table based on engagement feedback and technical considerations.

Strategy Name	Communities of Concern	Jobs Served	People served	Easy and Safe	Regional Connections	Local Transit	Reduces Duplication	Activity Centers	Strategy Cost	Total Score
Mobility Manager	Medium (2)	Low (1)	Medium (2)	High (3)	Medium (2)	Medium (2)	Medium (2)	Low (1)	Medium (2)	17
Transit Information Campaign	1 (1)	Low (1)	High (3)	High (3)	Medium (2)	Medium (2)	Medium (2)	Medium (2)	High cost (1)	17
Bus Stop Improvements*	1.58 (1)	1,363 (2)	1,579 (2)	High (3)	Low (1)	High (3)	Medium (2)	1 (1)	\$45,360 (2)	17
Orange Alamance Service Expansion	2.36 (3)	3,341 (2)	6,137 (2)	Low (1)	Medium (2)	Low (1)	Low (1)	19 (2)	\$184,500 (2)	16
Discount MOD Fares	High (3)	Low (1)	Medium (2)	Low (1)	Medium (2)	Medium (2)	Medium (2)	Low (1)	Medium (2)	16
Alternative Fare Payment	Medium (2)	Low (1)	Low (1)	Medium (2)	Medium (2)	Medium (2)	Medium (2)	Low (1)	Low cost (3)	16
Walking Access to Transit*	1.69 (1)	2,337 (2)	2,931 (2)	High (3)	Low (1)	High (3)	Medium (2)	3 (1)	\$254,470 (1)	16
Hillsborough Circulator US-70 Proposal	2.2 (2)	4,273 (2)	6,827 (2)	Medium (2)	Low (1)	Medium (2)	Low (1)	14 (2)	\$1,107,000 (1)	15

* The scores for Capital Improvement strategies were calculated based on the quantitative metrics of the individual project locations for each type, which are listed in detail in the following section.

4 PRIORITIZED CAPITAL PROJECTS

Within the three overarching Capital Improvement strategies, there are multiple proposed project locations. Costs were estimated for each type of capital project based on data collected

on materials and construction costs from national and regional sources, such as the Wake Bus Plan, and adjusted for inflation. Site specific considerations, such as existing infrastructure and property ownership, were taken into account after initial prioritization when creating the implementation plan. Once these projects move into design and implementation phases, costs will be adjusted to meet location-specific needs.

Figure 4 Prioritized Capital Projects with Detailed Scores

Project Type and Location	Communities of Concern	Jobs Served	People served	Easy and Safe	Regional Connections	Local Transit	Reduces Duplication	Activity Centers	Strategy Cost	Total Score
Walking Access to Transit: Faucette Mill Road/Cornelius Street	3 (3)	256 (2)	549 (3)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$254,470 (1)	19
Bus Stop Improvements: Mebane Community Park	0 (1)	188.5 (2)	267.5 (2)	High (3)	Low (1)	High (3)	Medium (2)	1 (2)	\$45,360 (3)	19
Bus Stop Improvements: Cornelius St/Rainey Ave	2.5 (2)	183.5 (2)	415 (3)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$45,360 (3)	19
Bus Stop Improvements: Orange Grove Rd	2.33 (2)	48 (1)	775 (3)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$45,360 (3)	19
Bus Stop Improvements: NC 86 Cornerstone Court	1.5 (1)	943 (3)	121 (2)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$45,360 (3)	19
Rural Mobility Hubs: Supper Club Blvd	3 (3)	97 (1)	531 (3)	High (3)	Medium (2)	Medium (2)	Medium (2)	0 (1)	\$111,758 (2)	19
Walking Access to Transit: Mebane Food Lion	0 (1)	129 (2)	342 (2)	High (3)	Low (1)	High (3)	Medium (2)	2 (3)	\$254,470 (1)	18
Rural Mobility Hubs: Fairview Park/Dorothy Johnson Community Center	4 (3)	22 (1)	127 (2)	High (3)	Medium (2)	Medium (2)	Medium (2)	0 (1)	\$111,758 (2)	18
Rural Mobility Hubs: NC Driver's License Office	2.67 (2)	59 (1)	145 (2)	High (3)	Medium (2)	Medium (2)	Medium (2)	1 (2)	\$111,758 (2)	18

Project Type and Location	Communities of Concern	Jobs Served	People served	Easy and Safe	Regional Connections	Local Transit	Reduces Duplication	Activity Centers	Strategy Cost	Total Score
Rural Mobility Hubs: Efland Hub	3 (3)	22 (1)	63 (1)	High (3)	Medium (2)	Medium (2)	Medium (2)	1 (2)	\$111,758 (2)	18
Walking Access to Transit: Lakeshore Drive	2.67 (2)	157 (2)	300 (2)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$254,470 (1)	17
Walking Access to Transit: Orange Grove Rd	2.33 (2)	34 (1)	851 (3)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$254,470 (1)	17
Walking Access to Transit: NC 86 Aldi	1.5 (1)	681 (3)	223 (2)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$254,470 (1)	17
Walking Access to Transit: NC 86 Cornerstone Court	1.5 (1)	930 (3)	123 (2)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$254,470 (1)	17
Rural Mobility Hubs: Mebane Memorial Garden	3 (3)	90 (1)	35 (1)	High (3)	Medium (2)	Medium (2)	Medium (2)	0 (1)	\$111,758 (2)	17
Walking Access to Transit: Scotswood Blvd	1.5 (1)	84 (1)	329 (2)	High (3)	Low (1)	High (3)	Medium (2)	1 (2)	\$254,470 (1)	16
Rural Mobility Hubs: Efland-Cheeks Community Center	2 (2)	22 (1)	63 (1)	High (3)	Medium (2)	Medium (2)	Medium (2)	0 (1)	\$111,758 (2)	16
Rural Mobility Hubs: Cedar Grove Community Center	2.67 (2)	1.7 (1)	12 (1)	High (3)	Medium (2)	Medium (2)	Medium (2)	0 (1)	\$111,758 (2)	16
Rural Mobility Hubs: Orange High School	1 (1)	66 (1)	216 (2)	High (3)	Medium (2)	Medium (2)	Medium (2)	0 (1)	\$111,758 (2)	16
Rural Mobility Hubs: Mebane Oaks Rd	2 (2)	5.5 (1)	23 (1)	High (3)	Medium (2)	Medium (2)	Medium (2)	0 (1)	\$111,758 (2)	16
Walking Access to Transit: Orange High School	1 (1)	66 (1)	214 (2)	High (3)	Low (1)	High (3)	Medium (2)	0 (1)	\$254,470 (1)	15
Rural Mobility Hubs: Dodsons Crossroads	1.5 (1)	6 (1)	47 (1)	High (3)	Medium (2)	Medium (2)	Medium (2)	0 (1)	\$111,758 (2)	15