



TECHNICAL APPENDIX COMMUNITY TRANSPORTATION PLAN



HarrisburgNC
The right side of opportunity

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APPENDIX A

PUBLIC WORKSHOP SUMMARY



Public Workshop 1 Summary

Date: October 24, 2019
Location: Harrisburg Town Hall, Council Chambers
Time: 6-7:30 pm

Meeting Purpose

This drop-in workshop helped to educate attendees about the Harrisburg Community Transportation Plan development process and allowed them to participate in a series of interactive stations. Information generated from the participants supplemented the feedback gathered during the first Steering Committee meeting, town council briefings, and the survey. The feedback contributed to the initial phase of the planning process, including the creation of guiding statements and understanding of existing conditions. Attendees were given an informational handout and survey at sign-in and were encouraged to visit each station to provide feedback. The survey was an opportunity for attendees to identify their visions and goals for Harrisburg's transportation systems. The results of the survey have been summarized.

Meeting Objectives

1. Educate participants on the planning process
2. Identify community values through a variety of interactive exercises and the survey
3. Gather feedback on existing conditions

Meeting Notice and Advertisement

The meeting was advertised through the distribution of the public workshop flyer and online at Harrisburgnc.org.

Activities and Summary of Results

Sign-In

- **Intent:** Gather a record of attendees.
- **Description:** A welcome station was posted by the entrance to the Council Chambers. Attendees were asked to sign-in by providing their name and email address. Email addresses collected were added to a notification list for future project meetings. Participants were also given their information handout and survey.
- **Outcome:** This exercise provided a record of attendees for future use in the planning process. 21 people attended the meeting.

Scrolling Presentation

- **Intent:** Welcome participants, describe the planning process, and encourage their active participation.
- **Description:** A scrolling presentation was set up on a loop for participants to view. The presentation included a collection of slides that describes the planning process and explained the existing transportation conditions of Harrisburg.
- **Outcome:** This station informed participants about the planning process and set the stage for more meaningful input at the activity stations.

Priority Ranking

- **Intent:** Allow individuals to express a priority for guiding principles of the CTP which are as follows:
 - Address congestion along major roadways
 - Foster a sense of place by offering options to walk or bike
 - Promote access to places outside the community
 - Ensure easy access, connectivity, safety for all modes of transportation
 - Integrate land use decision making and transportation investment strategies
- **Description:** Participants were asked to rank the five guiding principles in order from least to most important on their personal game board. Once completed, participants turned in their game boards for documentation in CTP development. It was emphasized that planning themes at the bottom of the pyramid will not be discarded and will be addressed in the plan.
- **Outcome:** The exercise gathered input into the guiding principles. Following the workshop, feedback during this exercise and other stations was used to develop a set of goals and objectives. In the chart below, responses are ranked based on participants' priority (first, second, or third) of the planning themes. These were then combined to gain a sense of the public's ranking of the guiding principles.
- **Key Takeaways:** People placed a high value on addressing congestion along major roadways. This is likely connected to the traffic that travels on NC 49 through downtown Harrisburg.

Guiding Principles	Total Respondents			Overall Rank
	Top Priority	Second Tier Priority	Third Tier Priority	
Address congestion along major roadways	11	4	0	1
Integrate land use decision making and transportation investment strategies	1	5	4	2
Foster a sense of place by offering options to walk or bike	2	3	1	3
Promote access to places outside the community	1	1	5	4
Ensure easy access, connectivity, safety for all modes of transportation	0	2	5	5

Needs Identification

- **Intent:** Identify issues related to traffic flow, travel choices, and safety.
- **Description:** Participants viewed two maps and placed colored dots to note concerns with the transportation system. These dots represented traffic flow (i.e. congestion), travel choices (i.e. bicycle, pedestrian, and transit needs), and safety. Post-It notes were provided to encourage participants to provide specific feedback.
- **Outcome:** This exercise yielded specific areas and corridors in the study area that represent issues related to the guiding statements. While dots were placed throughout the map geography, clusters of dots emerged in certain areas where participants identified areas of greater concern. This information was compared with projects in past planning efforts to help shape preliminary recommendations.
- **Key Takeaways:** The predominant issues mentioned pertained to congestion issues on NC 49, NC 49 at Harrisburg Veterans and Roberta Road, and congestion related to school traffic, and safety on Roberta Road and Main Street, Tom Query Road and Caldwell Road, and safety on the curves on Rocky River Road. The third predominate issue was a lack of travel choices on NC 49, Hickory Ridge Road, and on Stallings Road.

Comments

Danger left out of Main Street

Danger out of Rocky Rover Crossing Subdivision at Morehead Road and Roberta Road

Danger on Stallings Road at Hickory Ridge Road

Congestion on NC 49 in town limit

Roberta Road at NC 49 has congestion in all four directions

Congestion on NC 49 from Morehead Road to Blackwelder Road

Create pedestrian overpasses at NC 49/Roberta Road and at NC 49 and the new Amtrak Station

Speed limit on NC 49 stops semitrucks too often

Main Street and Professional Boulevard need either speed bumps or stop signs (four-way stops) since people are trying to avoid NC 49

Add a safe crosswalk from the town center to the new train stop

Realign drive to connect to Parallel Drive for DOT to install traffic signal

Safety issues at Bradford Park curve - will only increase with Farmington going in

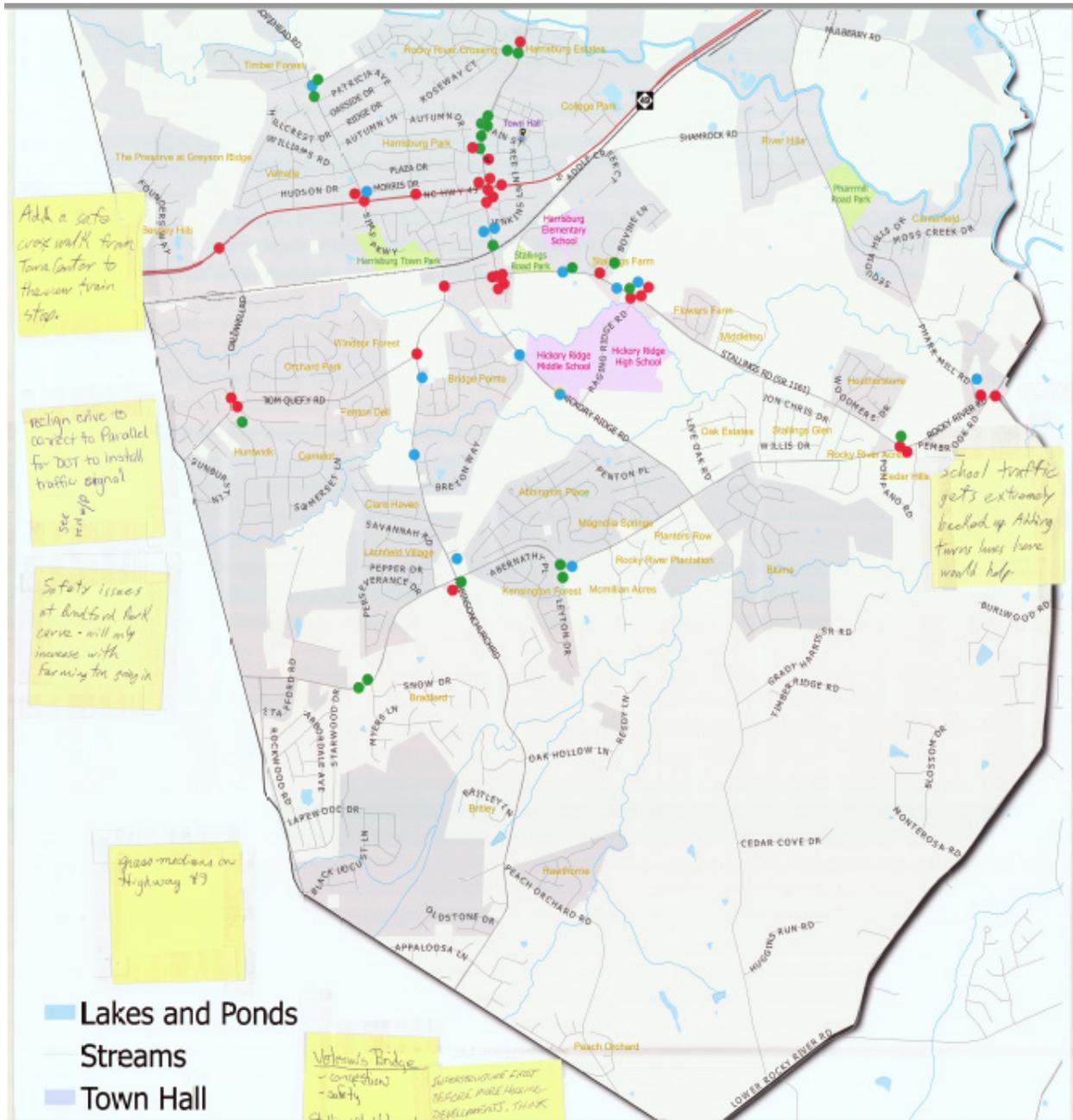
Grass medians on NC 49

School traffic gets extremely backed up. Adding turn lanes at Rocky River Road and Stallings Road would help.

Harrisburg Veterans Road bridge has congestion and safety issues

Infrastructure first before more housing developments

Needs Identification – Map 2



APPENDIX B

PUBLIC SURVEY SUMMARY



Survey Results Summary

As an element in the development of the Harrisburg Comprehensive Transportation Plan, an online survey was used to gain public feedback. The survey ran from October 24, 2019 to November 21, 2019. Information gathered from the survey will help to establish a vision for the transportation system in Harrisburg, identify needs and deficiencies, guide growth and development, recommend specific projects and strategies, and create an action plan for implementation. 201 individuals participated, navigating through a series of 18 questions both online and via a paper version made available at the public workshop. The questions were transportation oriented with an emphasis on common interests and future needs for the Town.

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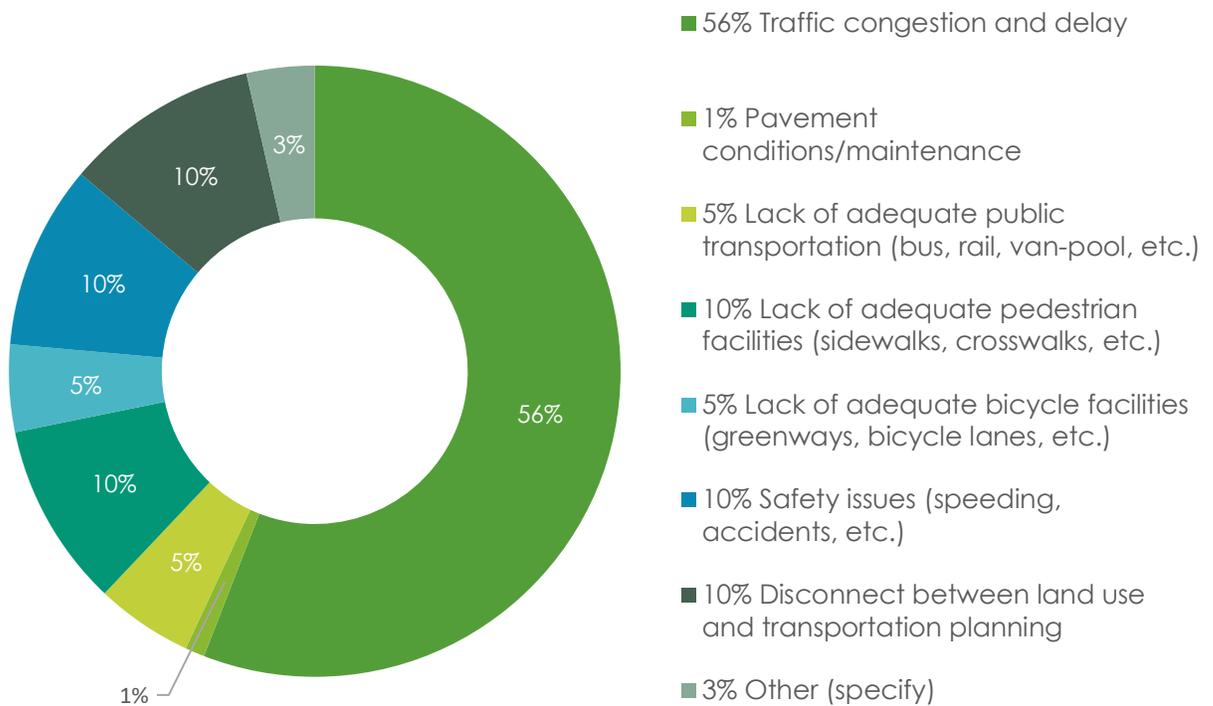
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Survey Results

Transportation

General

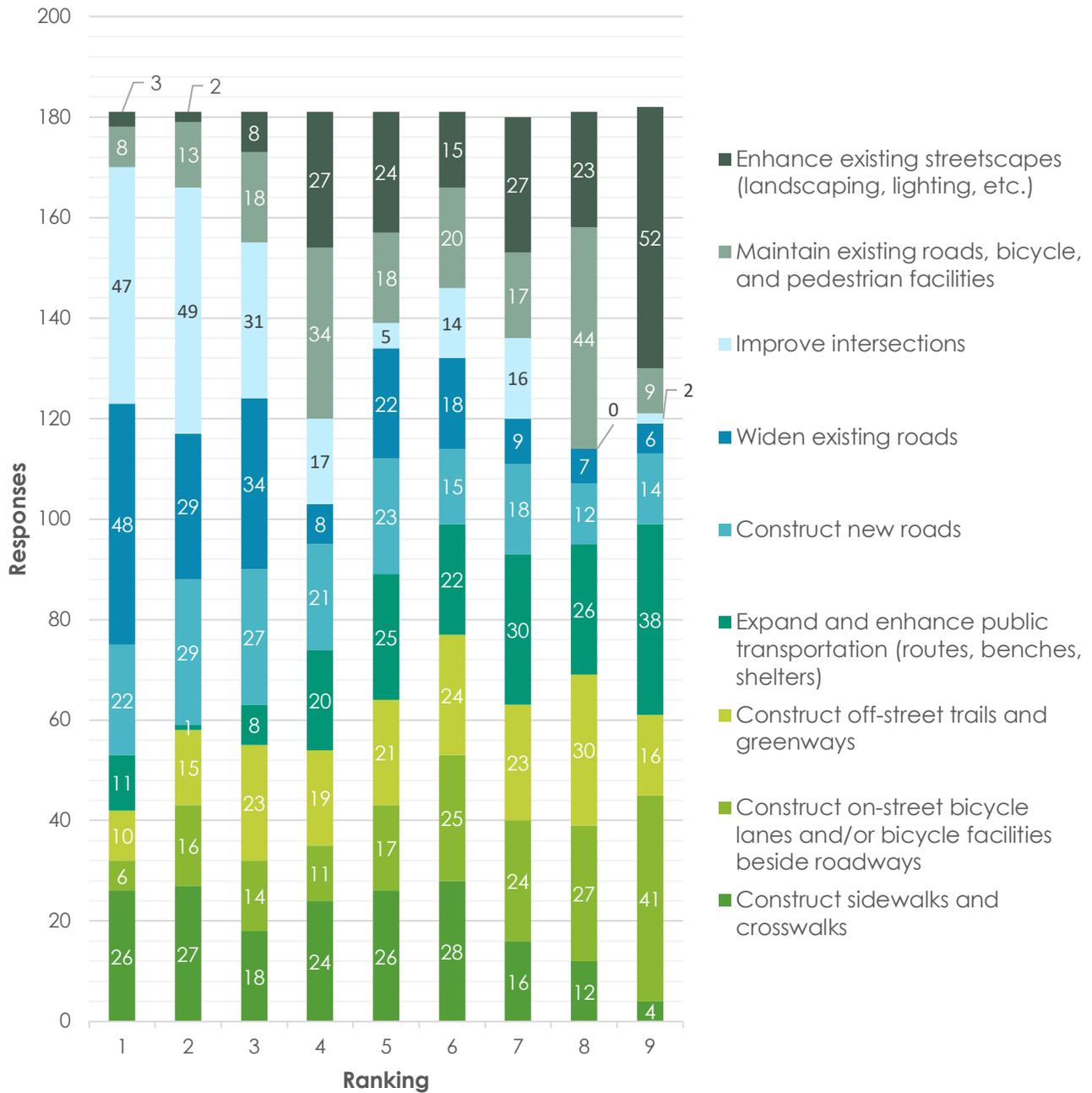
Question 1: What is the most important transportation issue facing Harrisburg? (check one)



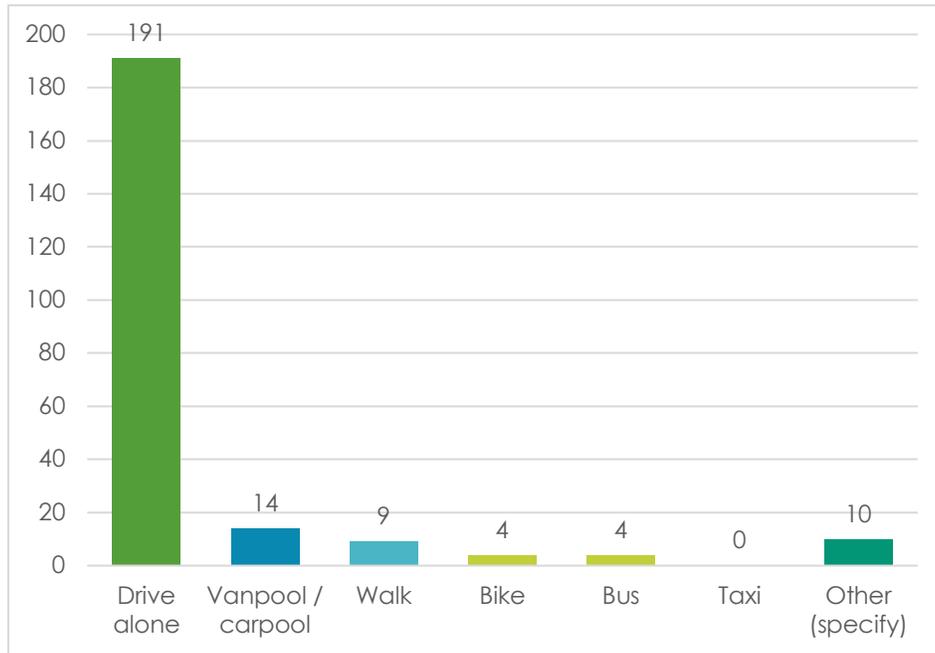
“Other” comments noted that Harrisburg experiences excessive development, and that there is a combination of lacking multi-modal facilities and unsafe driving habits. The comments also mentioned the need for focused transportation planning.

Question 2: How should your tax dollars be spent on transportation in Harrisburg?
 Number the options from 1-9 with 1 being the most important to you and 9 being the least important. (prioritize)

The graph below displays the number of responses each category (legend on the right) received in the respective ranking.



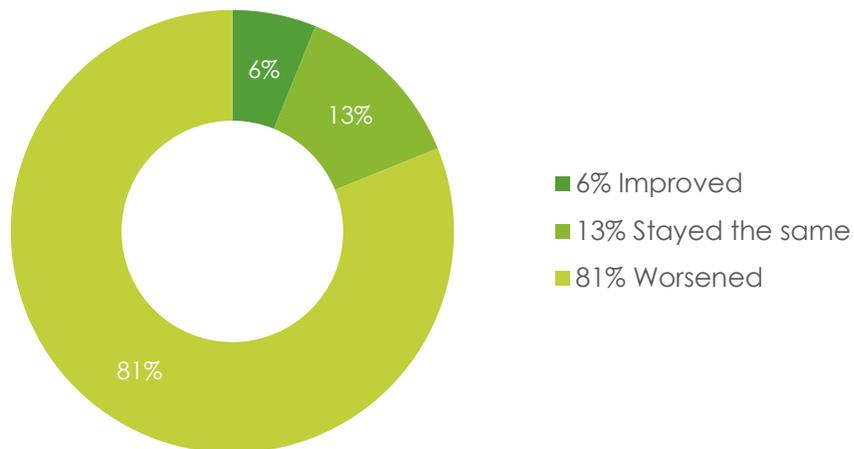
Question 3: What modes of transportation do you use to travel to work or school in a typical week? (check all that apply)



Several “other” responses noted that some people take the light rail and others work from home.

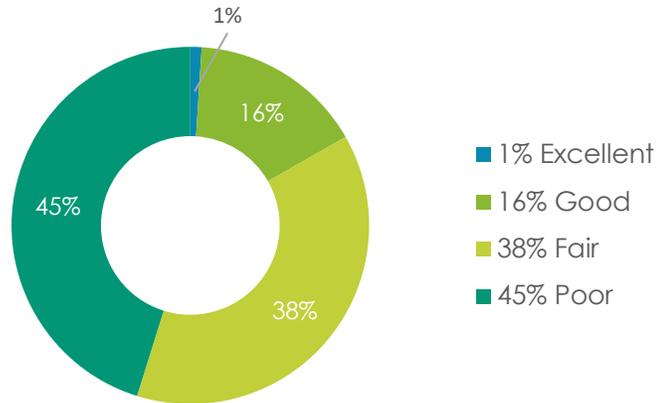
Roads

Question 4: In the last five years, has transportation improved, stayed the same, or worsened? (check one)

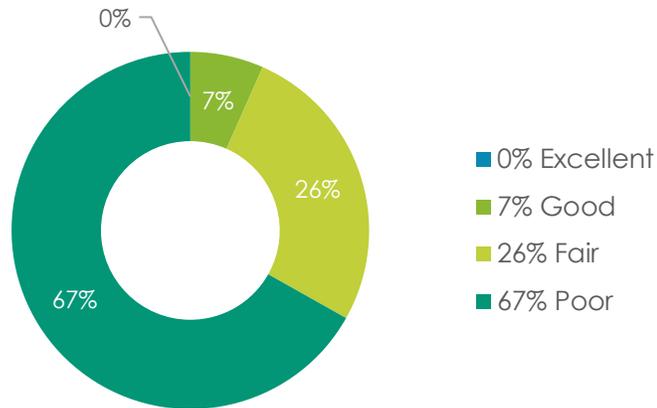


Question 5: Rate each of the following transportation conditions in Harrisburg out of these categories: Excellent, Good, Fair, Poor

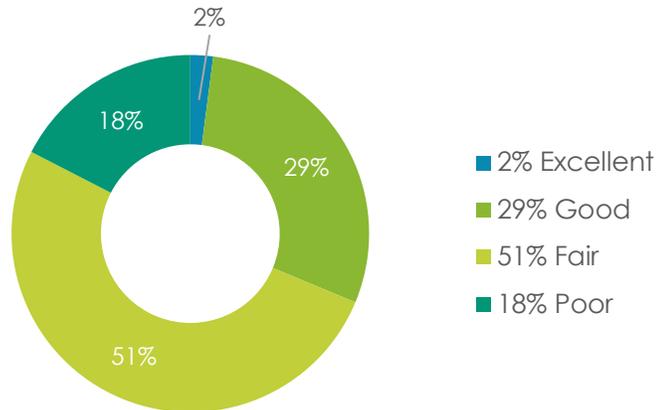
Congestion on local roads



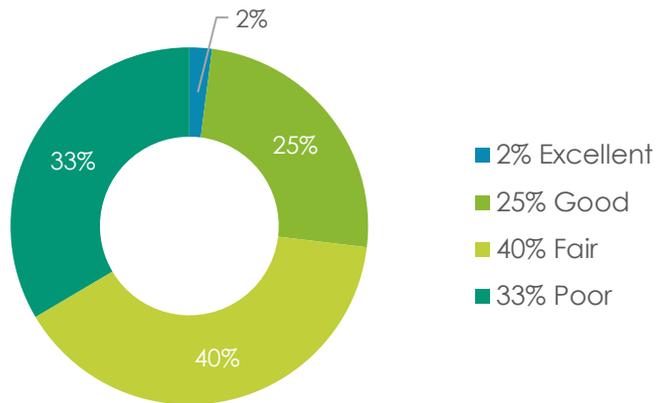
Congestion on Major Roads



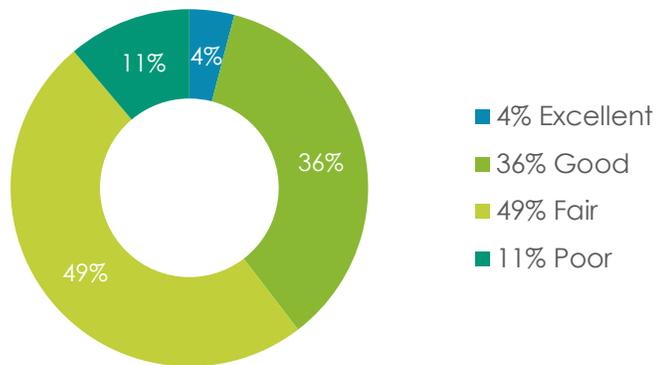
Attractiveness of Roads



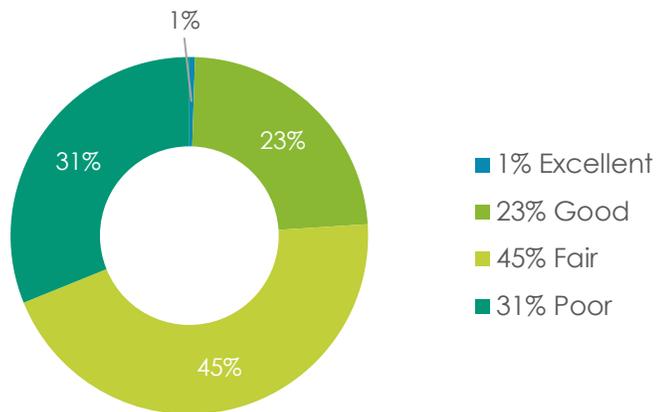
Traffic Safety



Roadway Maintenance

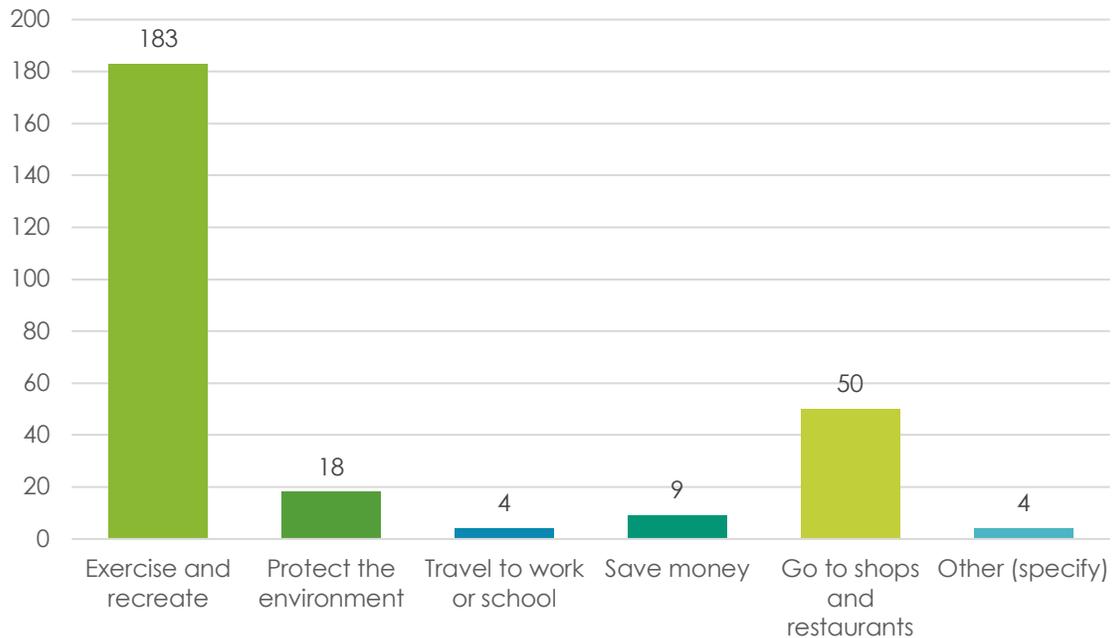


Traffic Signal Timing

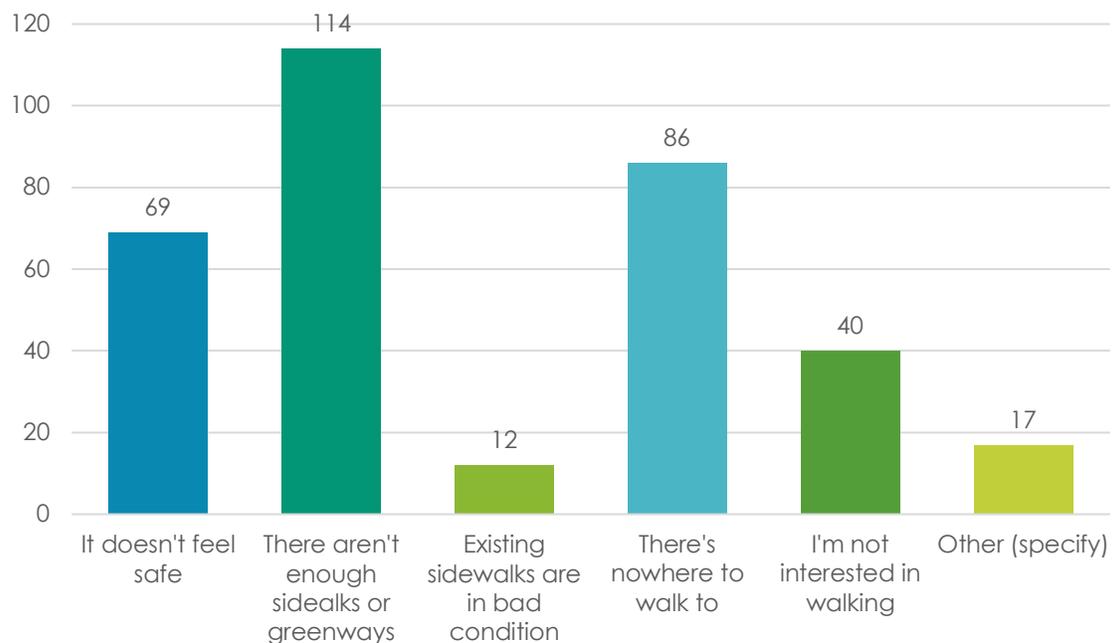


Bicycle and Pedestrian

Question 6: When I walk, it's to... (check all that apply)

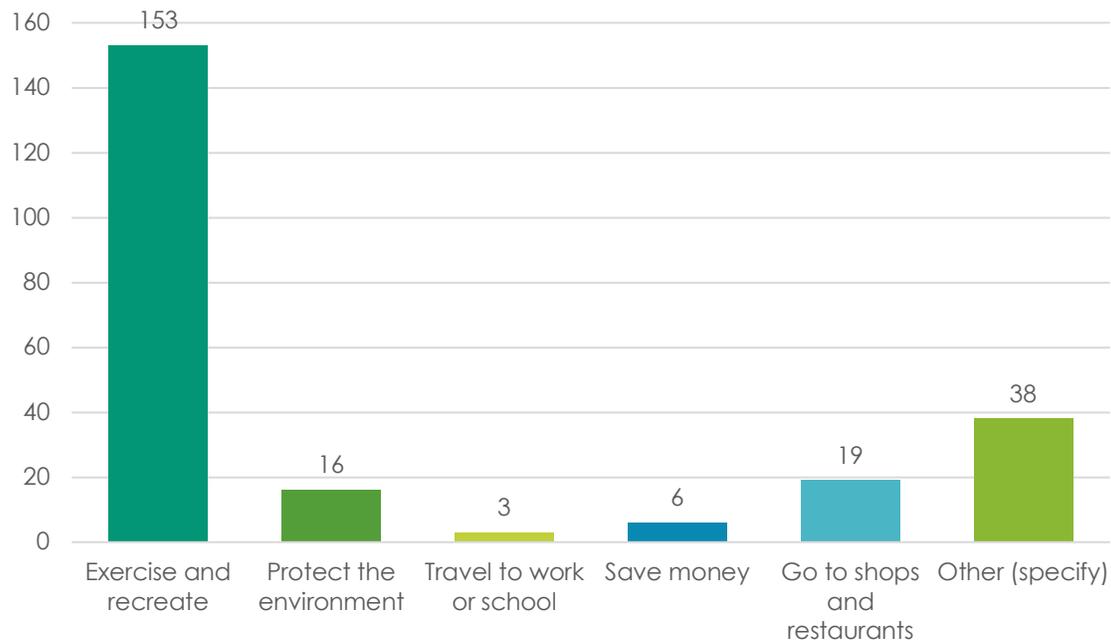


Question 7: When I don't walk, it's because... (check all that apply)



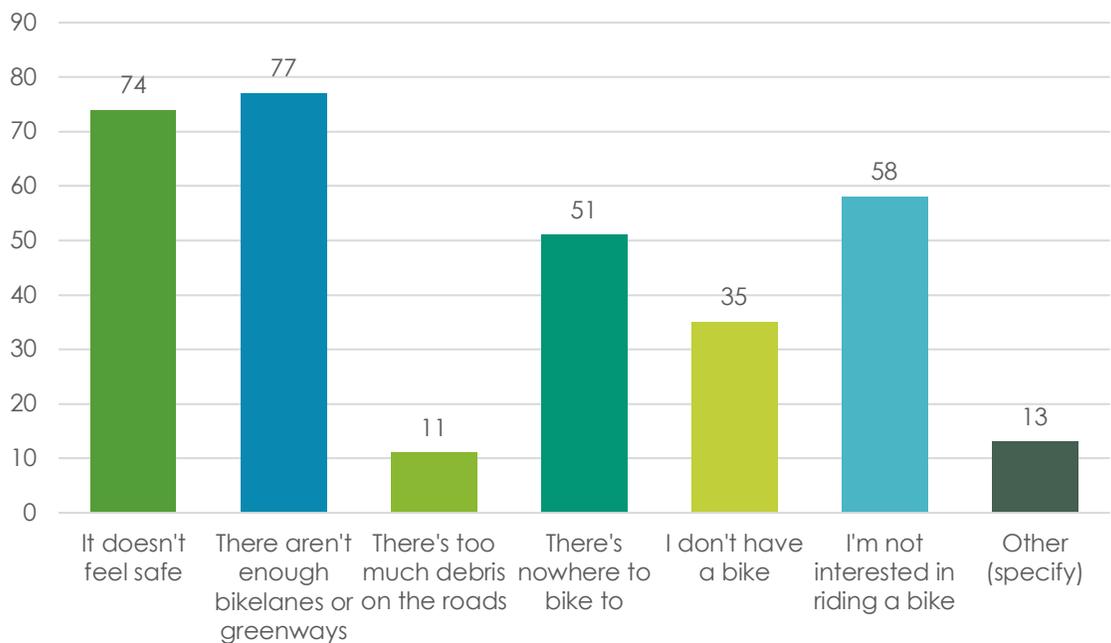
“Other” responses noted that there are not adequate facilities to walk and a lack of locations to walk to. Some respondents also noted that they are not in physical condition to walk.

Question 8: When I ride a bike, it's to... (check all that apply)



The majority of "other" comments noted that the responded does not ride a bike or does not own a bike

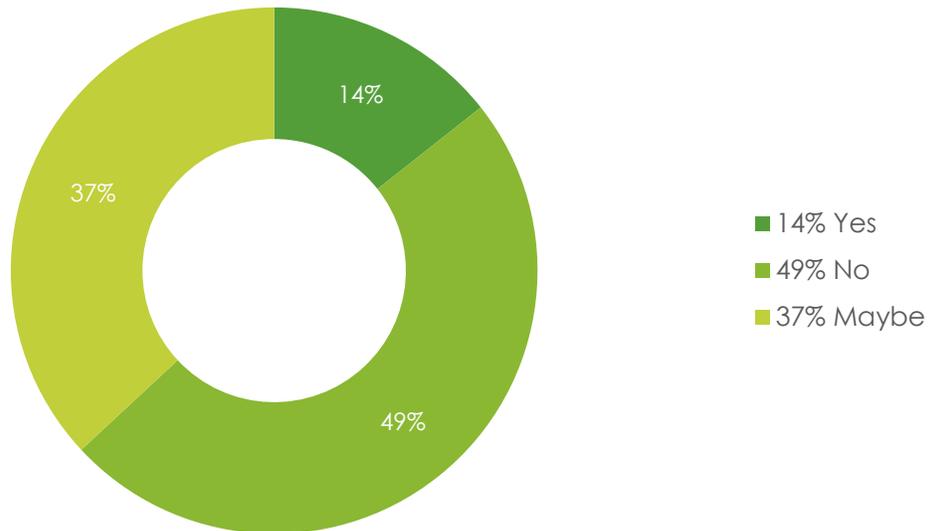
Question 9: When I don't ride a bike, it's because... (check all that apply)



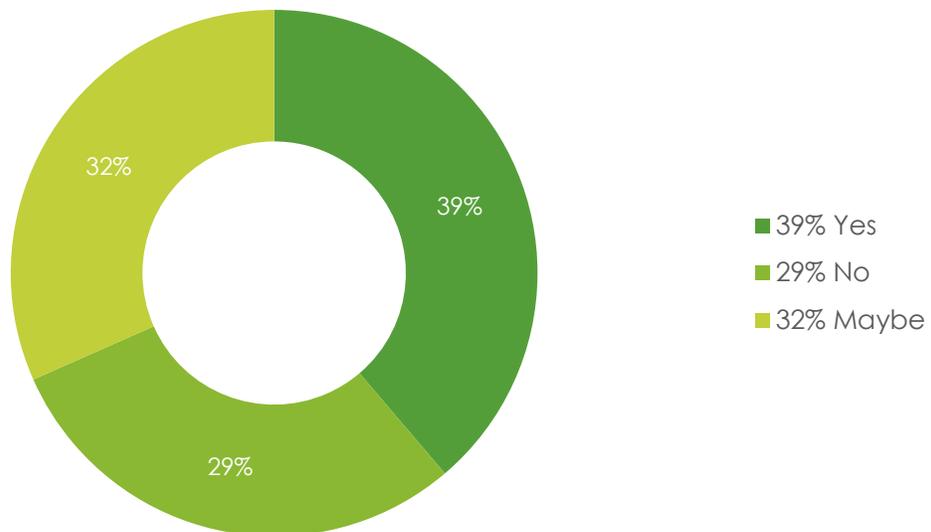
Respondents who wrote "other" comments noted that aggressive and unsafe driving inhibits. Other comments indicated that they did not feel bikes and cars should share the road.

Transit

Question 10: Would you like to use public transportation to get around Harrisburg?
(check one)



Question 11: Would you like to use public transportation to get between Harrisburg and regional destinations? (check one)

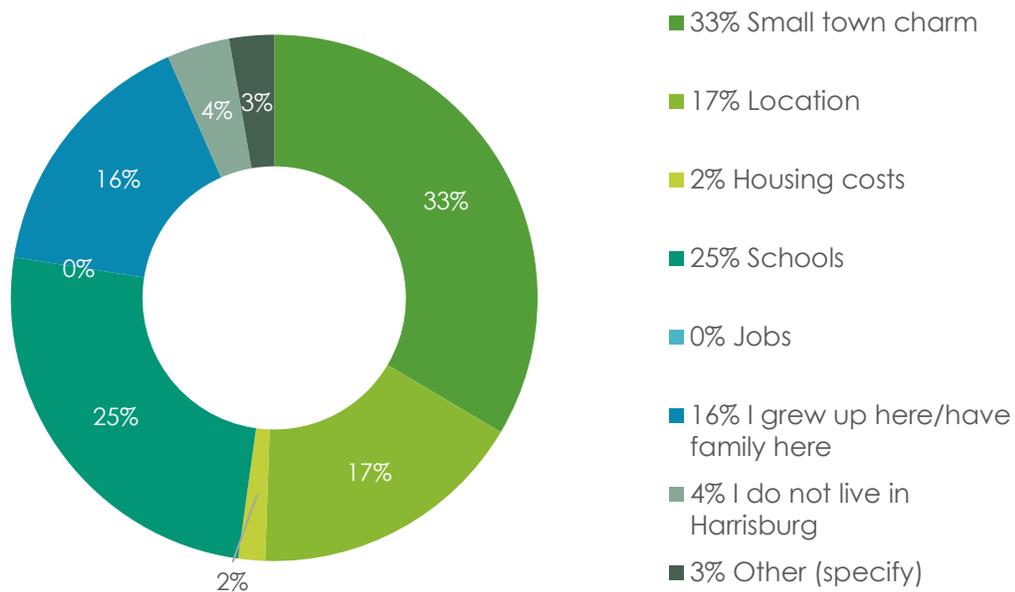


Vision & Objectives

Question 12: What is ONE WORD that describes your vision for Harrisburg in the future?

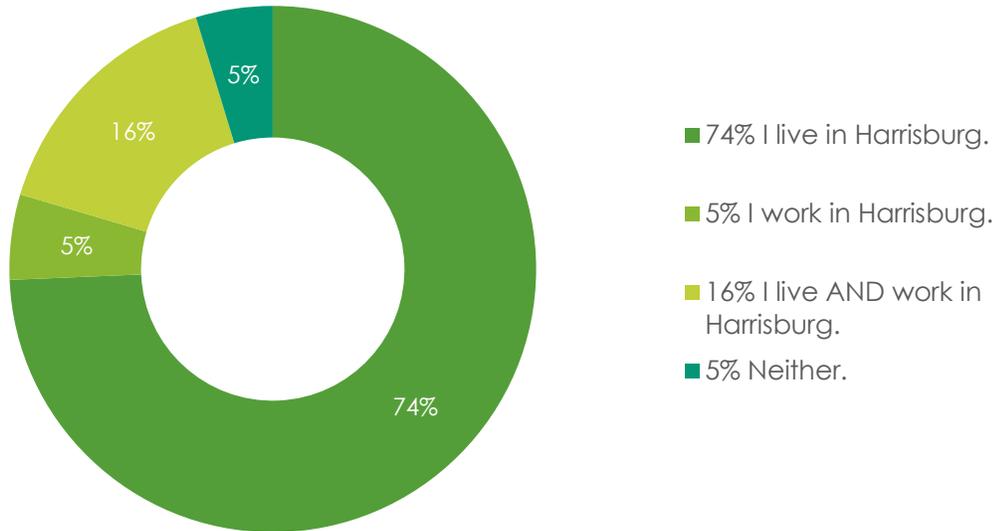
Responses with similar definitions were combined and one word was chosen to represent their meanings most accurately. Words in large font appeared more frequently than words in small font. Responses with more than one word were condensed into a single word.

Question 13: The main reason I choose to live in Harrisburg is: (select one)

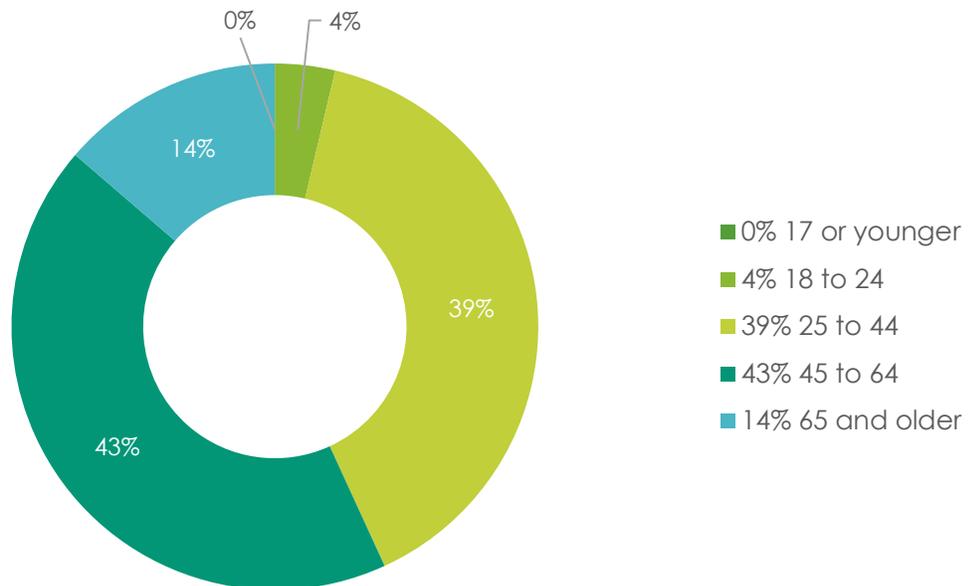


Demographics

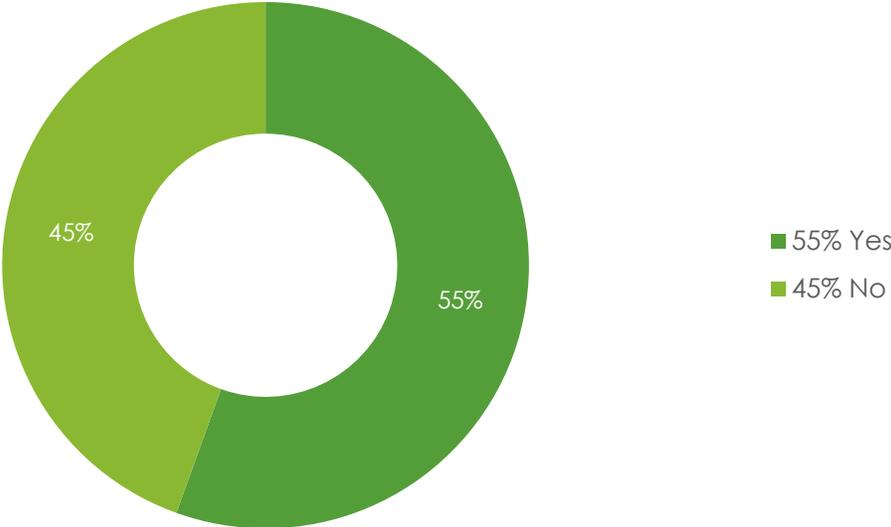
Question 14: Do you live and/or work in Harrisburg? (check one)



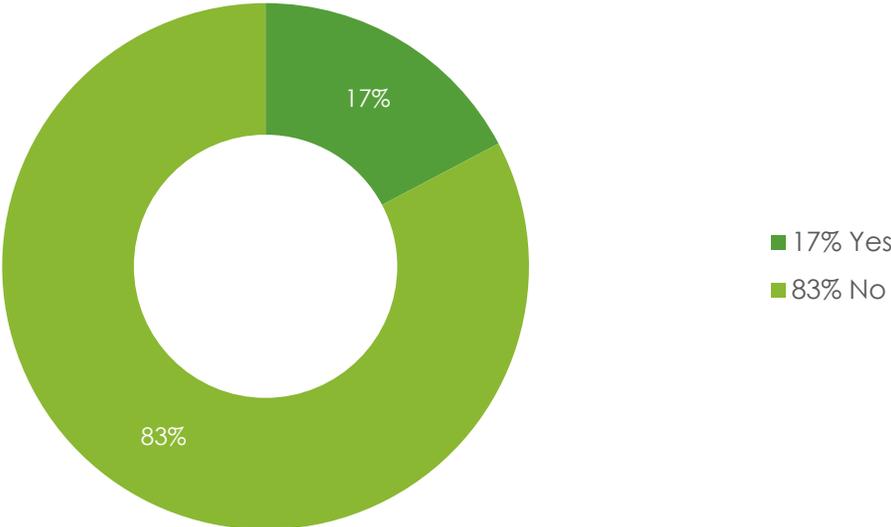
Question 15: Please choose your age group. (check one)



Question 16: Do any children under the age of 18 live in your household? (check one)



Question 17: Are you or any members of your household over the age of 65? (check one)



APPENDIX C

DRAFT DOCUMENT COMMENTS

#1

COMPLETE

Collector: Embedded Survey 1 (Website Survey)
Started: Tuesday, June 16, 2020 8:06:38 AM
Last Modified: Tuesday, June 16, 2020 8:18:32 AM
Time Spent: 00:11:53
IP Address: [REDACTED]

Page 1

Q1

Comments regarding the Community Transportation Plan DRAFT may be entered into the text box below. All comments are appreciated and will be taken into consideration.

I appreciate the additional sidewalks and bike trails. The places you have identified for them make sense. I hope that if there is "extra money" the possibility of adding sidewalks and bikelanes to other areas (connecting neighborhoods along Robinson Church Road to Harrisburg Park & Rocky River Road, extending the proposed bikepath along Hickory Ridge to allow neighborhood access to Stallings Road Park, etc) will be considered.

Q2

Please provide your email address.

[REDACTED]

Q3

Please provide your name.

[REDACTED]

#2

COMPLETE

Collector: Embedded Survey 1 (Website Survey)
Started: Tuesday, June 16, 2020 1:20:54 PM
Last Modified: Tuesday, June 16, 2020 1:51:24 PM
Time Spent: 00:30:30
IP Address: [REDACTED]

Page 1

Q1

Comments regarding the Community Transportation Plan DRAFT may be entered into the text box below. All comments are appreciated and will be taken into consideration.

Love that the plan is addressing the needs of connecting walking and biking people with Harrisburg proper. This Covid time has shown us that we like to make our way around with our families on bikes, scooters, and by walking. The more we can connect neighborhoods and school areas by paths and sidewalks, the less traffic we will see on our roads. Too bad we couldn't get a pedestrian bridge over the train tracks to connect areas south of the new park complex with the park. Are we looking at ways to blend in with the Carolina ThreadTrail group?

Q2

Please provide your email address.

[REDACTED]

Q3

Please provide your name.

[REDACTED]

#3

COMPLETE

Collector: Embedded Survey 1 (Website Survey)
Started: Tuesday, September 15, 2020 11:35:50 PM
Last Modified: Tuesday, September 15, 2020 11:38:08 PM
Time Spent: 00:02:17
IP Address: [REDACTED]

Page 1

Q1

Comments regarding the Community Transportation Plan DRAFT may be entered into the text box below. All comments are appreciated and will be taken into consideration.

The intersection at the Food Lion is awful for walkers and bike riders. The make shift cross walk doesn't do locals any good with folks driving like idiots and almost being run over by folks in a hurry.

Q2

Please provide your email address.

[REDACTED]

Q3

Please provide your name.

[REDACTED]

#4

COMPLETE

Collector: Embedded Survey 1 (Website Survey)
Started: Wednesday, September 16, 2020 7:43:09 PM
Last Modified: Wednesday, September 16, 2020 7:53:20 PM
Time Spent: 00:10:11
IP Address: [REDACTED]

Page 1

Q1

Comments regarding the Community Transportation Plan DRAFT may be entered into the text box below. All comments are appreciated and will be taken into consideration.

Love the idea of extending Roberta Road directly to Hickory Ridge Road and to Raging Ridge Road. That would eliminate so many backups at Stallings since cars would go straight down the road and not have to turn at the Stallings intersection. It would create an unobstructed North/South corridor to all of the Hickory Ridge schools. Plus, it would create sidewalks to connect to Harrisburg proper from any neighborhood along the way. Fixing Roberta Road north of 49 should also help traffic flow through the areas outside the Town Center, which is horrible in the afternoon. Reworking 49 through the town would really improve the look of the town (giving it a Mint Hill feel) and will improve the flow of traffic and pedestrians through town. I also love the possibility of a pedestrian bridge from the Robinson Church Road area across the tracks to the park. If this bridge project was connected south of the tracks with a pathway or trail along Stallings and then behind the neighborhoods south of the tracks, you would allow people to ride bikes, push strollers, and jog from south of the tracks right into the new and improved park, which would greatly increase its use, decrease the need for cars, and improve the quality of life in this town. We continue to grow, but embracing walkability will stitch the various neighborhoods together and make our great little town feel like a tighter place.

Q2

Please provide your email address.

[REDACTED]

Q3

Please provide your name.

[REDACTED]

#5

COMPLETE

Collector: Embedded Survey 1 (Website Survey)
Started: Saturday, September 19, 2020 10:12:08 AM
Last Modified: Saturday, September 19, 2020 10:17:13 AM
Time Spent: 00:05:05
IP Address: [REDACTED]

Page 1

Q1

Comments regarding the Community Transportation Plan DRAFT may be entered into the text box below. All comments are appreciated and will be taken into consideration.

There is no walkability past Veterans Bridge on the SE side of the bridge. The sidewalks need to be extended down Stallings to the school and in the other direction to Robinson. Also down Hickory Ridge to the sidewalk at the middle school. People have to walk in ditches and grass to get to Veterans

Q2

Please provide your email address.

[REDACTED]

Q3

Please provide your name.

[REDACTED]

#6

COMPLETE

Collector: Embedded Survey 1 (Website Survey)
Started: Sunday, September 20, 2020 1:53:24 PM
Last Modified: Sunday, September 20, 2020 1:56:41 PM
Time Spent: 00:03:17
IP Address: [REDACTED]

Page 1

Q1

Comments regarding the Community Transportation Plan DRAFT may be entered into the text box below. All comments are appreciated and will be taken into consideration.

Information provided to make assessments seems extremely outdated (approx. 6 years in some cases). I suggest deferring the vote until we have 2020 census data to rely upon. I am sure the demographics have changed dramatically since 2014/2015.

Q2

Please provide your email address.

[REDACTED]

Q3

Please provide your name.

[REDACTED]

#7

COMPLETE

Collector: Embedded Survey 1 (Website Survey)
Started: Tuesday, September 22, 2020 7:13:02 PM
Last Modified: Tuesday, September 22, 2020 7:29:39 PM
Time Spent: 00:16:37
IP Address: [REDACTED]

Page 1

Q1

Comments regarding the Community Transportation Plan DRAFT may be entered into the text box below. All comments are appreciated and will be taken into consideration.

I understand that Harrisburg is growing and in order to stay ahead of that growth, we must plan. However, our growth has slowed since 2016. Traffic is a major issue in Harrisburg but largely due to people who do not even live here that are passing through.

1. Two million dollars is quite a hefty pricetag and serious debt to hand down to our children and grandchildren on top of the park renovation, new signage and the building of Veterans Park so I'm inclined to ask you to rethink voting in favor of this plan.
 2. This particular plan was poorly written and not well thought out for the \$75,000 spent on it. It was loaded with discrepancies.
 3. This is a very unsure time not just for America but for the entire world and I think the timing for this project is wrong.
 4. When Mr. Smith commented to the Kimly-Horn representative that he thought the two million was a lot of money, the representative began to talk about "free money". There's no such thing! We will be taxed for this free money some way or another. I'm asking you to vote no for this project.
-

Q2

Please provide your email address.

[REDACTED]

Q3

Please provide your name.

[REDACTED] [REDACTED]

APPENDIX D

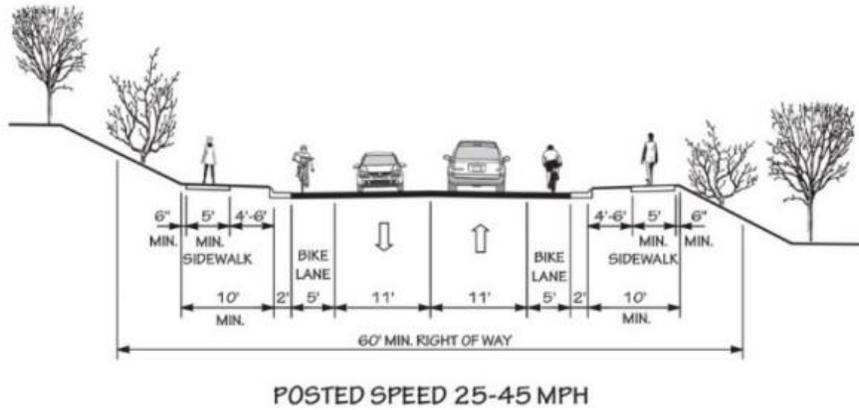
RECOMMENDED TYPICAL SECTIONS

HARRISBURG CTP

RECOMMENDED TYPICAL SECTIONS

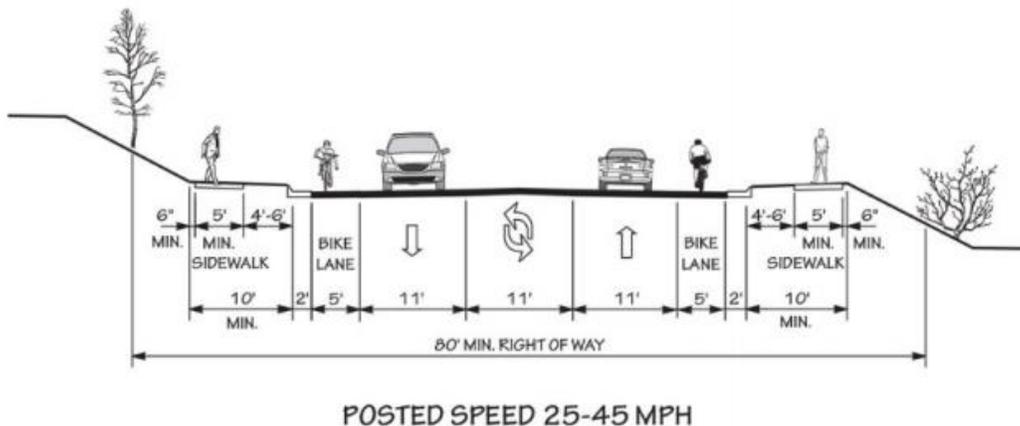
TYPICAL SECTION No. 2E

2 LANE UNDIVIDED WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS



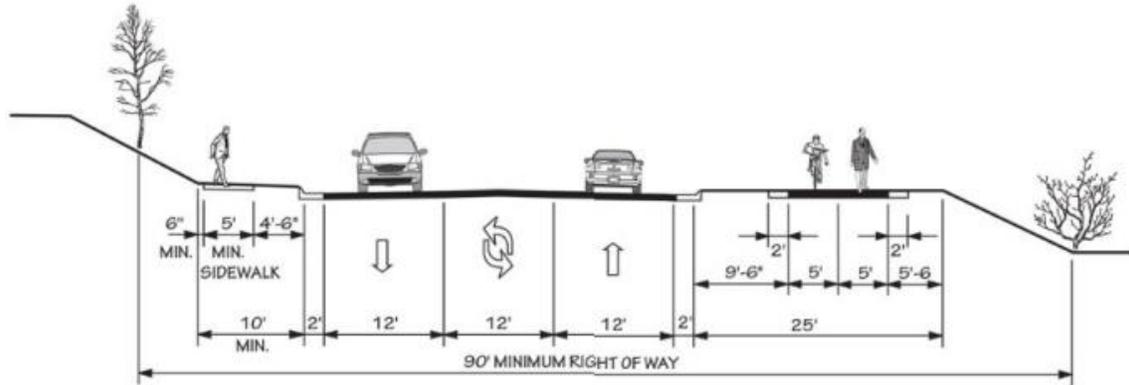
TYPICAL SECTION No. 3C

2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, BIKE LANES, AND SIDEWALKS



TYPICAL SECTION No. 3E

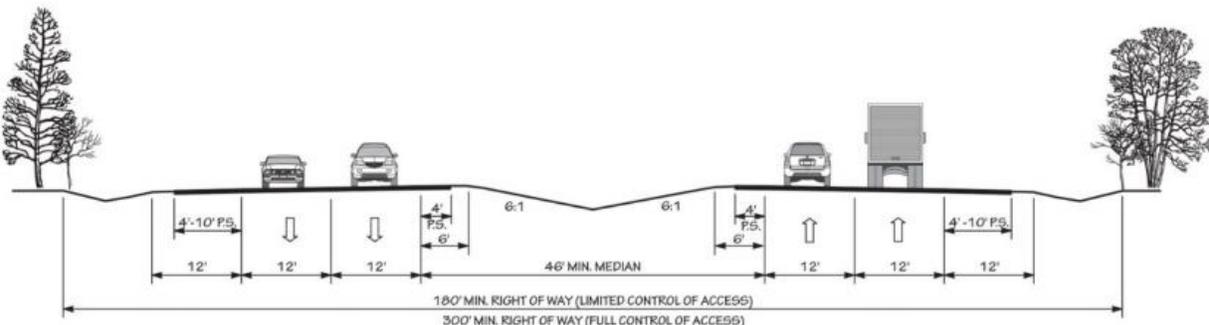
2 LANE WITH TWO WAY LEFT TURN LANE,
CURB & GUTTER, SIDEWALKS, AND SIDEPATH



POSTED SPEED 25-45 MPH

TYPICAL SECTION No. 4A

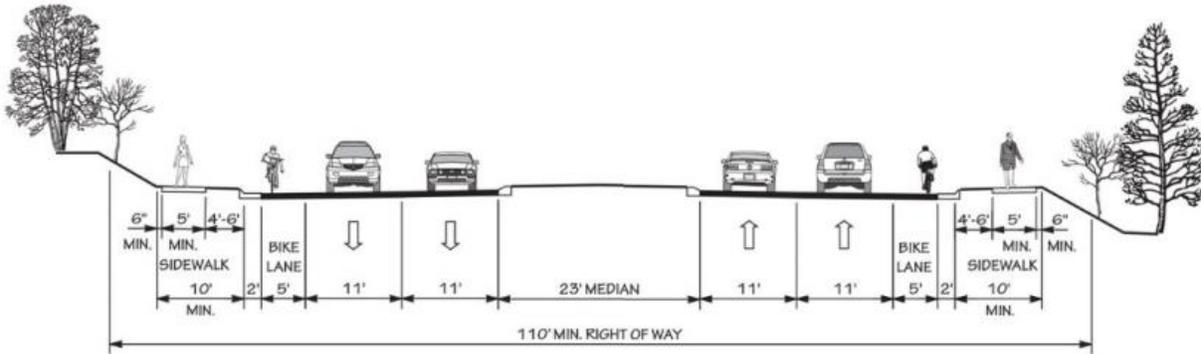
4 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS



POSTED SPEED 45-70 MPH

TYPICAL SECTION No. 4D

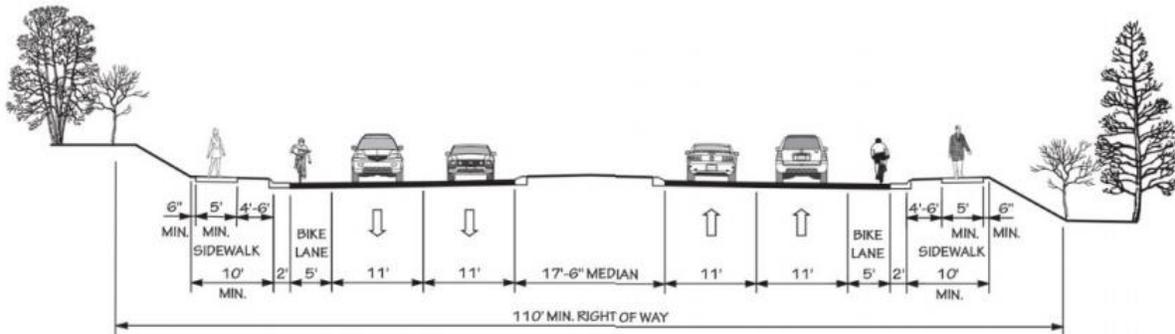
4 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS



POSTED SPEED 35-45 MPH

TYPICAL SECTION No. 4G

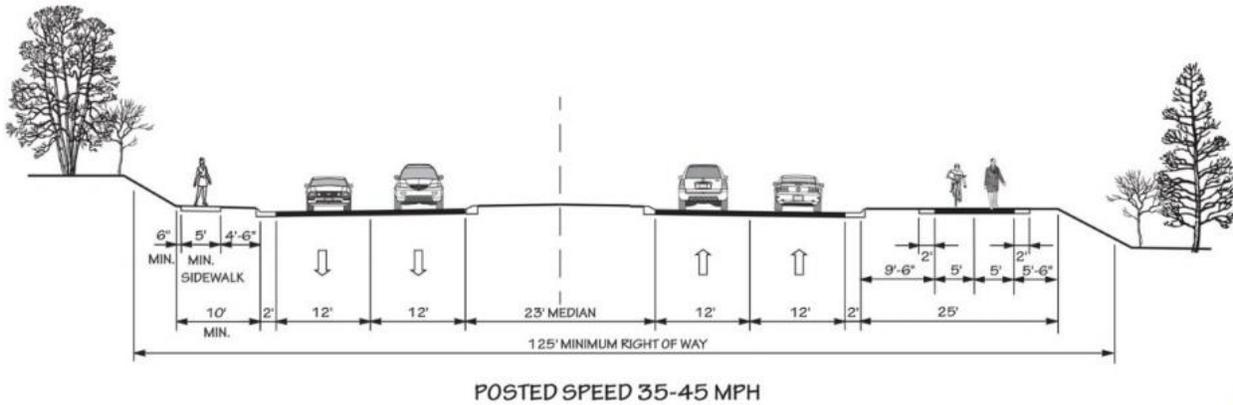
4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS



POSTED SPEED 35-45 MPH

TYPICAL SECTION No. 4J

4 LANE DIVIDED (23' RAISED MEDIAN)
WITH CURB & GUTTER, SIDEWALKS AND SIDEPATH



APPENDIX E

PRIORITIZATION METHODOLOGY

Roadway Prioritization Methodology

The assessment of roadway projects for the Harrisburg CTP uses both quantitative and qualitative metrics. The following sections define each metric used in the prioritization process.

During the development of prioritization criteria, the relationship to the plan's guiding principles was closely considered. Each of the prioritization criteria responds to one or more guiding principles. The relationship between prioritization criteria and guiding principles is detailed below.

Prioritization Criteria

Applicable Guiding Principles

Crash History	Ensure easy access, connectivity, safety for all modes of transportation.	
Existing Volume to Capacity Ratio	Address congestion along major roadways	
Volume to Capacity Reduction	Address congestion along major roadways	Promote access to places outside the community
Critical Connections	Ensure easy access, connectivity, safety for all modes of transportation.	Integrate land use decision making and transportation investment strategies
Bike/Ped Provisions	Foster a sense of place by offering options to walk or bike	Ensure easy access, connectivity, safety for all modes of transportation.
Freight Route	Promote access to places outside the community	
Outreach Score	All guiding principles	
Benefit/Cost	All guiding principles	

Quantitative Measures

Crash History

To help address existing safety concerns, crash data from 2014 and 2018 will be analyzed based on the NCDOT Planning Level Section Safety Scoring Data. The Planning Level Section Safety Scoring methodology looks at crash density, crash severity, and the critical crash rate ratio. The project areas with higher scores are considered to have poorer safety performance.

Safety Score < 33	0.25 points
33 < Safety Score < 66	0.5 points
Safety Score > 66	1 point

Existing Volume to Capacity Ratio

The existing V/C for each linear project will be obtained from the Metrolina Model and scaled using a point system. For new location roadways, parallel facilities that would be improved by the project will be identified by Town staff, and the V/C of the parallel facility used. The scoring system is defined below.

V/C < 0.6 (Not Congested)	0 points
0.6 < V/C < 0.8 (Moderately Congested)	0.5 points
V/C > 0.8 (Highly Congested)	1.0 point

Volume to Capacity Reduction

Each linear project is scored based on the volume-to-capacity reduction from the model's base year to the horizon year. Existing year V/C ratios will be obtained using the approved Metrolina Model base year model network combined with future year socio-economic data. Future year V/C ratios will be obtained from a future year full build-out model.

The project with the highest V/C reduction will be assigned a score of 1, with a relative project score assigned to the other projects.

Qualitative Measures

Critical Connections

Critical connections serve or provide new linkages for emergency services, schools, community facilities (e.g. parks), and potential activity centers (e.g. Mixed Use and Mixed Use Centers as identified in the Harrisburg Area Land Use Plan).

Projects classified as critical connections will receive a score of 1, while other projects will receive a score of 0.

Freight Route

Projects will receive a score of 1 if they are located on a designated freight route. Projects will receive a score of 0 if they are not located on a designated freight route.

Bike/Ped Provision

Projects will receive a score of 1 if they accommodate both bicyclists and pedestrians via a multiuse path, or combination of on-street bike facilities and a sidewalk. Projects that accommodate only pedestrians will be given a score of 0.5, and projects that do not provide for bicycles and pedestrians will be given a score of 0.

Outreach Score

Projects will be awarded points between 0-1 based on public feedback, obtained through in-person meetings or the online survey. 0 points will be awarded for no public feedback, 0.5 points will be awarded for low levels of public feedback, and 1 point will be awarded for moderate to high levels of public feedback.

Value/Cost

The prioritization criteria outlined in this methodology are all structured to reflect values of the project's implementation. The total value score obtained through this process will be divided by the estimated project cost to obtain a value/cost score. The project with the top value/cost score will receive a point value of 1, with a relative project score assigned to other projects.

Following the completion of this analysis, the outcome of this process may be further separated to differentiate between projects under \$1 million and projects \$1 million or over. This will be done if the outcomes appear to group projects strongly by their costs rather than values.

Prioritization Results

The prioritization process is a tool for decision-making by Town staff and elected officials. As such, weighting factors are not assigned to each criterion. Results from the prioritization process will be displayed in tabular form, allowing for easy comparison of the factors in each project. Kimley-Horn will consider the unweighted priorities to develop a draft list of near-term, mid-term, and long-term priority projects. Projects will be intentionally presented in groups rather than a scored list to show that all projects in a grouping can be considered for implementation.

APPENDIX F

PROBABLE COST OPINIONS

Probable Cost Opinions Methodology

The probable cost opinions for projects for the Harrisburg CTP were generated using NCDOT's per-mile construction costs for each typical section. This methodology is intended to generate high-level, order of magnitude estimates to be used for planning and prioritization purposes only. In addition to the per-mile construction costs, contingencies were added for mobilization, engineering, right-of-way, and utilities. The cost estimates below are summarized for large segments of the roadways. As projects progress through the project development process, corridors will be further segmented into more reasonable project lengths and costs. Additionally, many of these recommendations will happen incrementally over time as development occurs.

Corridor	Extents	Cross-Section	Length (miles)	Engineering	Construction + Mobilization	Right-of-Way + Utilities	Total Cost
NC 49	Caldwell Rd (SR 1173) to Coddle Creek	4-J	3.0	\$2,581,000	\$17,205,000	\$11,377,000	\$31,163,000
Rocky River Rd	I-485 to Lower Rocky River Rd	4-J	4.8	\$ 5,772,000	\$ 38,479,000	\$ 25,444,000	\$69,695,000
Hickory Ridge Rd (SR 1138)	Roberta Rd Ext to Raging Ridge Rd	4-J	0.7	\$ 863,000	\$ 5,737,000	\$ 3,800,000	\$10,400,000
Harrisburg Veterans Rd and Ext/Roberta Rd	Rocky River Crossing Rd to Raging Ridge Rd	4-J	2.2	\$ 2,624,000	\$ 17,492,000	\$ 11,566,000	\$31,682,000
NC 49	Mecklenburg County to Caldwell Rd (SR 1173)	4-G	0.5	\$ 500,000	\$ 1,620,000	\$ 215,000	\$2,335,000
Morehead Rd (SR 1300)	County Line to Rocky River Crossing Rd	4-D	2.4	\$ 2,773,000	\$16,910,000	\$ 9,534,000	\$29,217,000
NC 49	Coddle Creek to the east border of the Harrisburg ETJ	4-A	1.1	\$ 243,000	\$ 1,620,000	\$ 1,071,000	\$2,934,000
Pharr Mill Rd (SR 1158)	NC 49 to Rocky River Rd	3-E	2.6	\$ 2,388,000	\$ 15,919,000	\$ 10,526,000	\$14,417,000
Robinson Church Rd (SR 1168)	Mecklenburg County to Tom Query Rd (SR 1166)	3-E	3.6	\$ 21,498,000	\$ 3,226,000	\$ 14,216,000	\$38,940,000
Robinson Church Rd (SR 1166)	Tom Query Rd (SR 1166) to Stallings Rd (SR 1161)	3-E	0.4	\$ 368,000	\$ 2,449,000	\$ 1,619,000	\$4,436,000

Corridor	Extents	Cross-Section	Length (miles)	Engineering	Construction + Mobilization	Right-of-Way + Utilities	Total Cost
Stallings Rd (SR 1161)	Robinson Church Rd (SR 1166) to Rocky River Rd (SR 1139)	3-E	2.8	\$ 2,490,000	\$ 16,600,000	\$ 10,978,000	\$ 30,068,000
Caldwell Rd (SR 1173)	Tom Query Rd (SR 1166) to NC 49	3-E	0.9	\$ 754,000	\$ 5,022,000	\$ 3,321,000	\$ 9,097,000
Shamrock Rd	NC 49 to Pharr Mill Rd	3-E	1.4	\$ 1,286,000	\$ 8,572,000	\$ 5,668,000	\$ 15,526,000
Raging Ridge Rd	Robinson Church Rd to Pharr Mill Rd	3-E	3.0	\$ 3,183,000	\$ 21,220,000	\$ 14,031,000	\$ 38,434,000
Hickory Ridge Rd (SR 1138)	Raging Ridge Rd to Lower Rocky River Rd	3-C	4.1	\$ 3,700,000	\$ 24,800,000	\$ 16,400,000	\$ 44,900,000
Roberta Rd	Blackwelder Rd (SR 1307) to Rocky River Crossing Rd	3-C	1.2	\$ 1,130,000	\$ 7,533,000	\$ 4,981,000	\$ 13,644,000
Blackwelder Rd (SR 1307)	NC 49 to Roberta Rd (SR 1304)	3-C	1.3	\$ 1,224,000	\$ 8,162,000	\$ 5,396,000	\$ 14,782,000
Morehead Rd (SR 1300)	Rocky River Crossing Rd to NC 49	3-C	1.7	\$ 1,435,000	\$ 4,394,000	\$ 2,906,000	\$ 7,959,000
Pitts School Rd Ext	Blackwelder Rd (SR 1307) to Roberta Rd (SR 1304)	3-C	0.5	\$ 508,000	\$ 3,388,000	\$ 2,239,000	\$ 6,135,000
Tom Query Rd	Sunburst Ln to Robinson Church Road (SR 1166)	3-C	1.5	\$ 1,251,000	\$ 8,343,000	\$ 5,516,000	\$ 15,110,000
Lower Rocky River Rd	Peach Orchard Rd to Rocky River Rd	2-E	5.0	\$ 3,662,000	\$ 24,412,000	\$ 16,143,000	\$ 44,217,000