

# Network Assessment

## Public Involvement Summary

Public engagement activities conducted for the project in 2022-2023 revealed bicycle and pedestrian conditions, including where users currently or would like to be able to walk and bike, where challenges exist to doing such, and ideas for improving bicycle and pedestrian conditions. 619 survey responses were collected as of March 9, 2023. The following provides a summary of public engagement responses:

- 74% of respondents indicated they were interested, but concerned with bicycling in Pender County and 69% of respondents indicated they were interested, but concerned with walking in Pender County
- Less than 30 participants currently bike and walk to commute to school, work, or connect to transit. Approximately 130 participants bike or walk to visit family and friends
- For the purpose of running errands, 94 participants responded that they currently bike, and 77 participants responded that they currently walk
- 31 participants said they currently bike daily, while 180 participants currently walk daily. When asked how often they would bike or walk if the network was improved, 198 participants answered that they would bike daily and 286 participants answered that they would walk daily
- The most used current mode of transportation is a single-occupant car. When participants were asked about desired commuting patterns, biking was ranked as the most desired mode of transportation if the system was improved
- The option for “Safe biking/walking routes” was the most popular choice of participants to encourage more walking or biking. Participants provided 159 comments about amenities that would encourage participants to bike or walk. Among those comments, the common themes were about safety, having well-lit trails, bathroom facilities, dedicated bike lanes, sidewalks, and crosswalks.

The following series of heat maps were created using the public survey responses. Areas that are blue had a low number of responses from survey participants, while areas that are yellow had a moderate number of responses, and areas that are red had the highest number of responses. These red areas are also referred to as hot spots and indicate a high concern area.

Public survey participants were able to identify where their trips start and where their trips end. As shown in Figure 1, most trips originate in Hampstead, specifically just east of US 17. Figure 2 shows that most trip destinations are also in Hampstead and are concentrated along US 17. Trips destinations along US 17 include grocery stores, shopping, and restaurants.

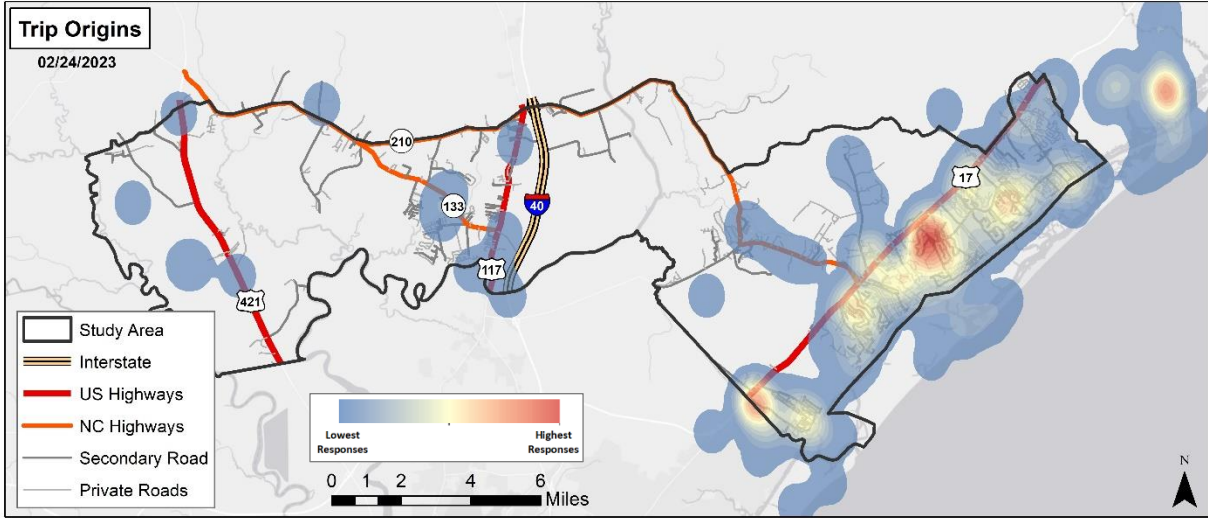


Figure 1: Trip Origins

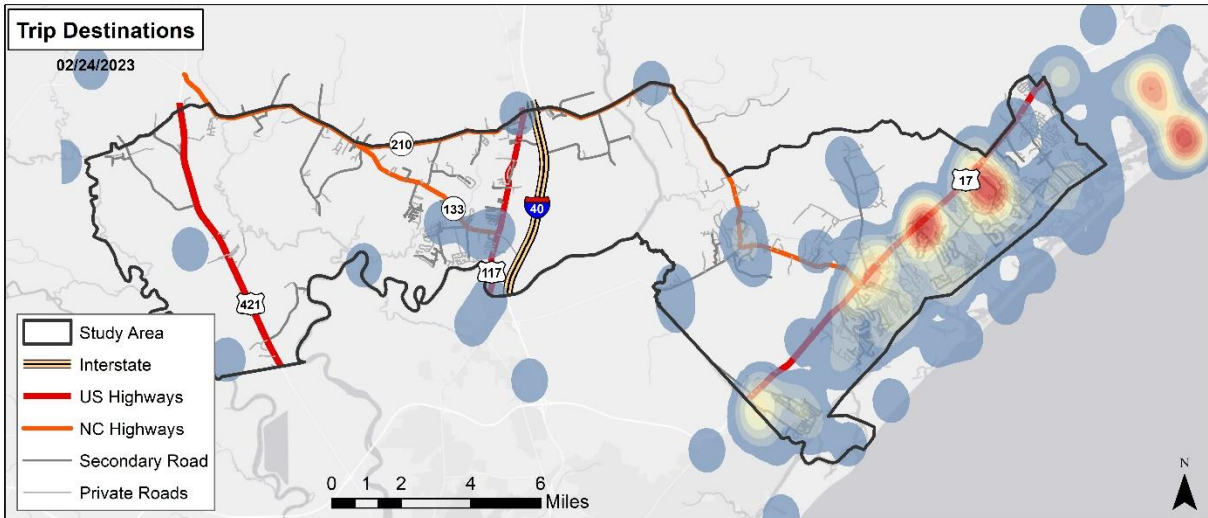


Figure 2: Trip Destinations

Figure 3 shows the destinations that survey participants would like to bike or walk to. These destinations are concentrated along US 17 and into the residential areas east of US 17. Figure 4 shows places of interest in the project area including schools, recreational facilities, and commercial destinations. Grocery stores, like Food Lion and Lowes Food, along US 17 are high priority destinations for residents. In the western half of the project area, the Food Lion shopping center and Millers Pond Park are noted as destinations individuals would like to bike or walk to.

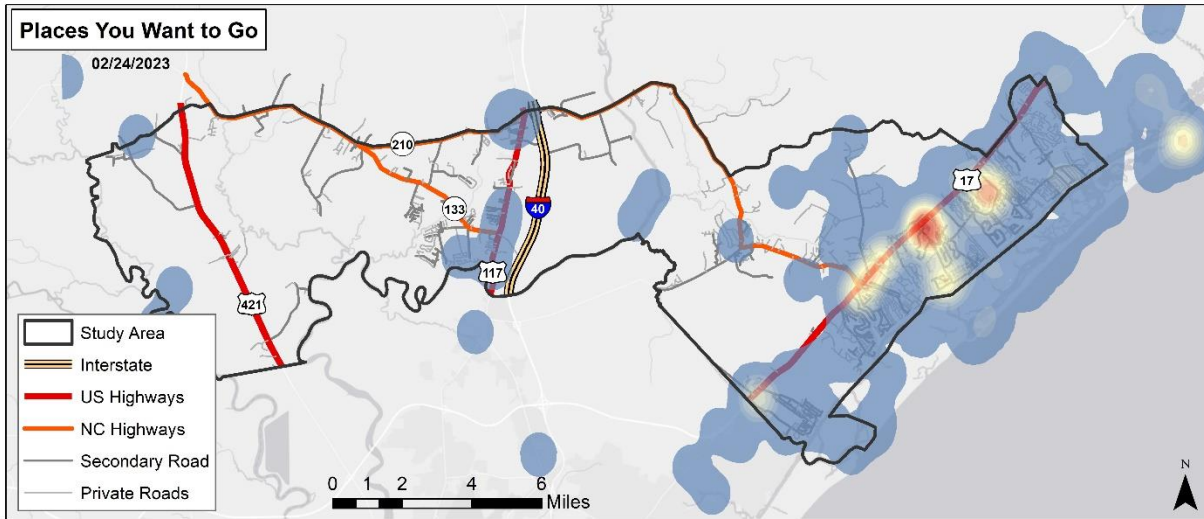


Figure 3: Places participants want to walk or bike to

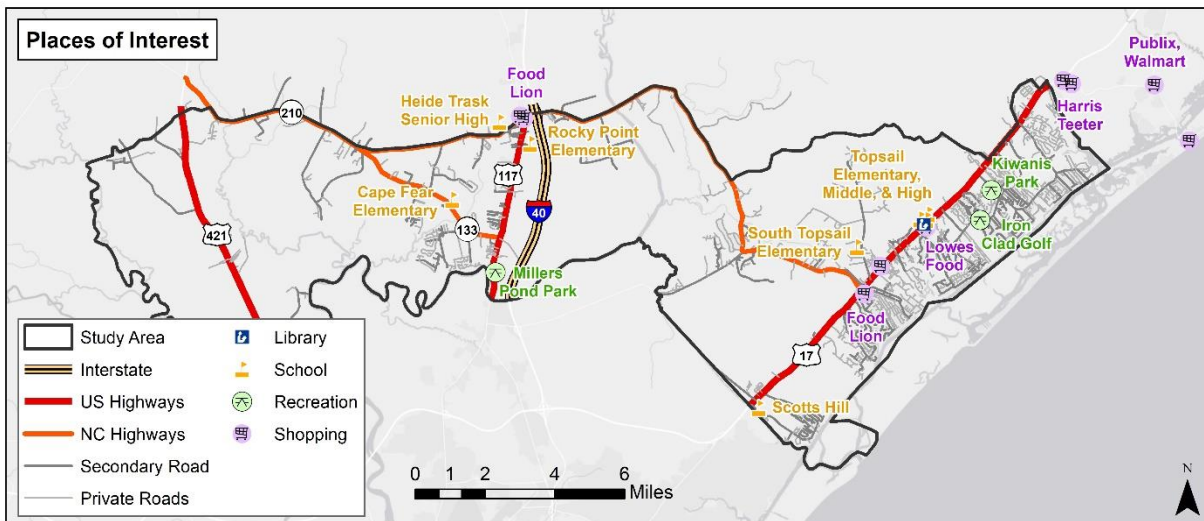


Figure 4: Places of Interest

Figure 5 and Figure 6 show areas that participants identified as biking or walking challenges. US 17, particularly around Lowes Food, Topsail Elementary, Topsail Middle, and Topsail High, is a hotspot for biking challenges. The area around Scotts Hill and near the US 17-NC 210 intersection were also identified as challenge areas for biking. The area around Kiwanis Park is a hotspot for walking challenges. The areas around Lowes Food and Topsail schools, the US 17-NC210 intersection, and Scotts Hill were also identified as moderate concern areas for walking.

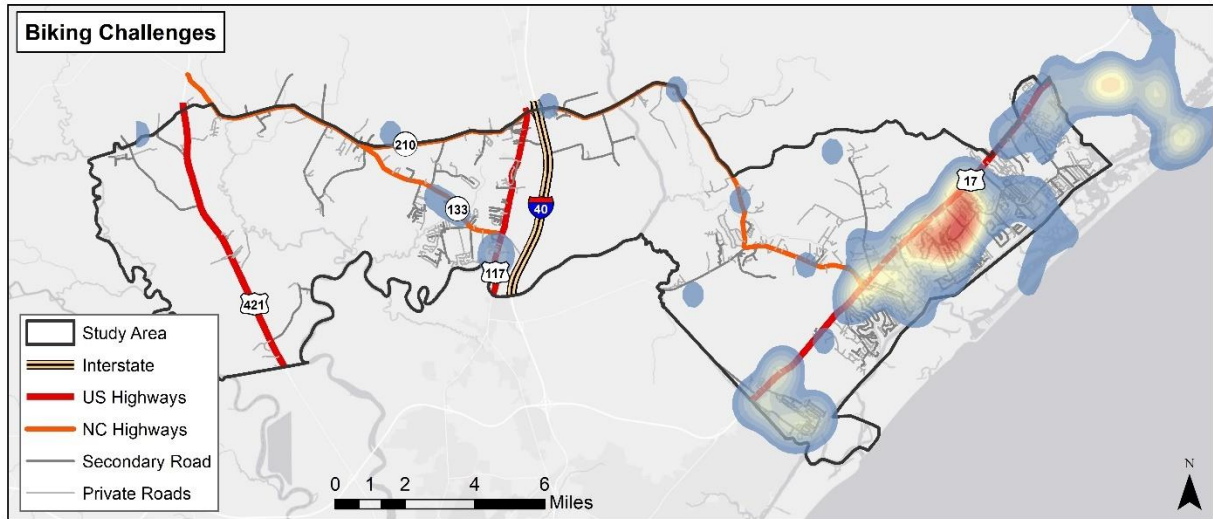


Figure 5: Biking Challenges

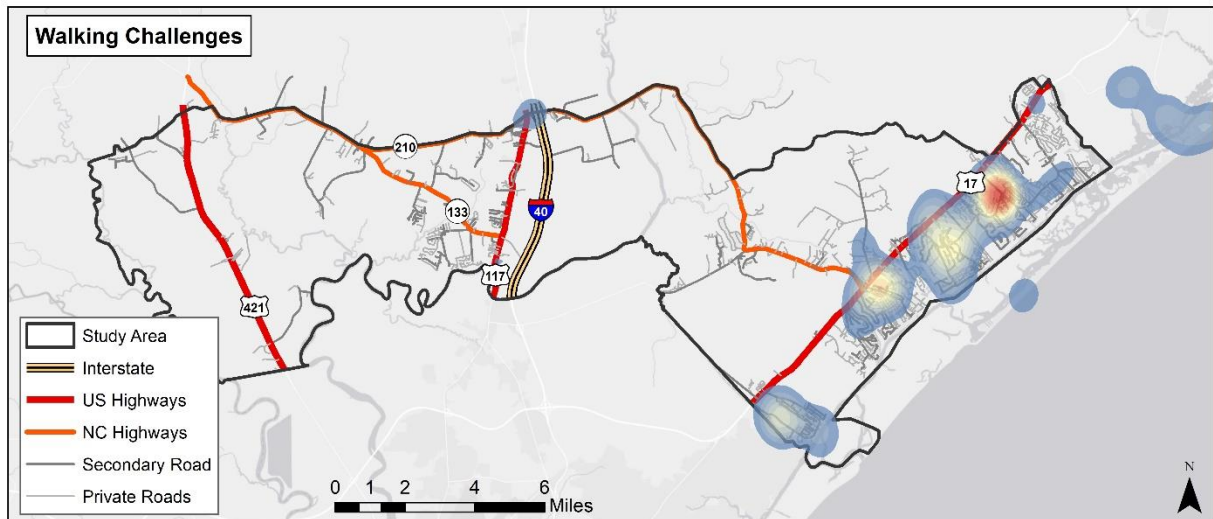


Figure 6: Walking Challenges

Figure 7 shows areas where needed improvements were identified. Hot spots are noted along US 17 near Lowes Food and Topsail schools, the US 17-NC210 intersection, and Scotts Hill. Other noted improvements needed included east of US 17 near Kiwanis Park and along US 117.

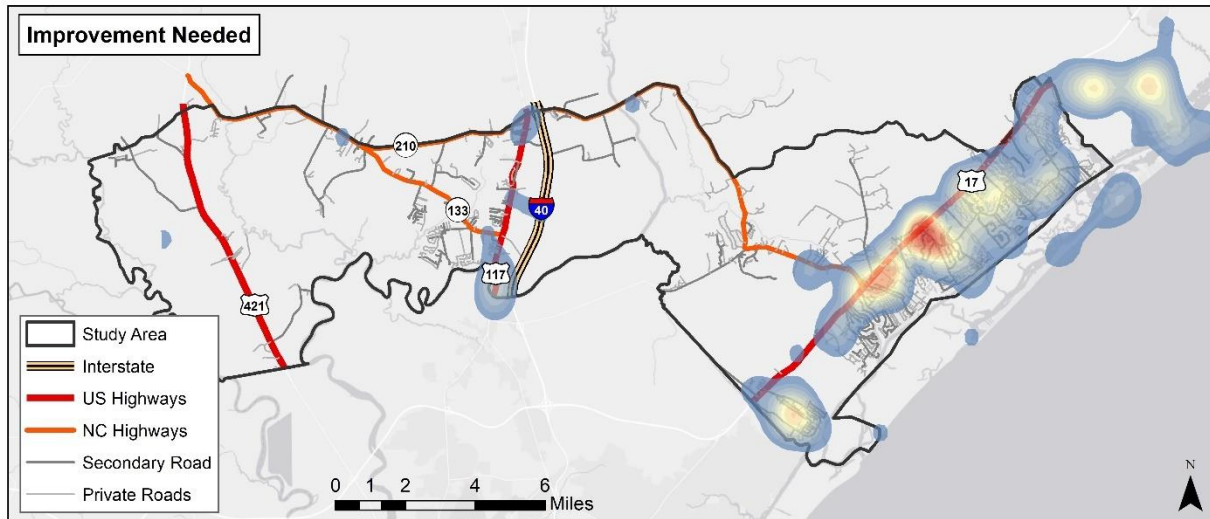


Figure 7: Improvements Needed

Participants were asked to rate their level of comfort using different bicycle and pedestrian facilities including shared lanes, wide shoulders, sidewalks, and greenways. As noted in Figure 8, participants are most comfortable using a greenway for biking and least comfortable using a shared lane. As noted in Figure 9, participants are most comfortable using a greenway for walking, followed closely by a sidepath. Participants are least comfortable using a wide shoulder for walking.

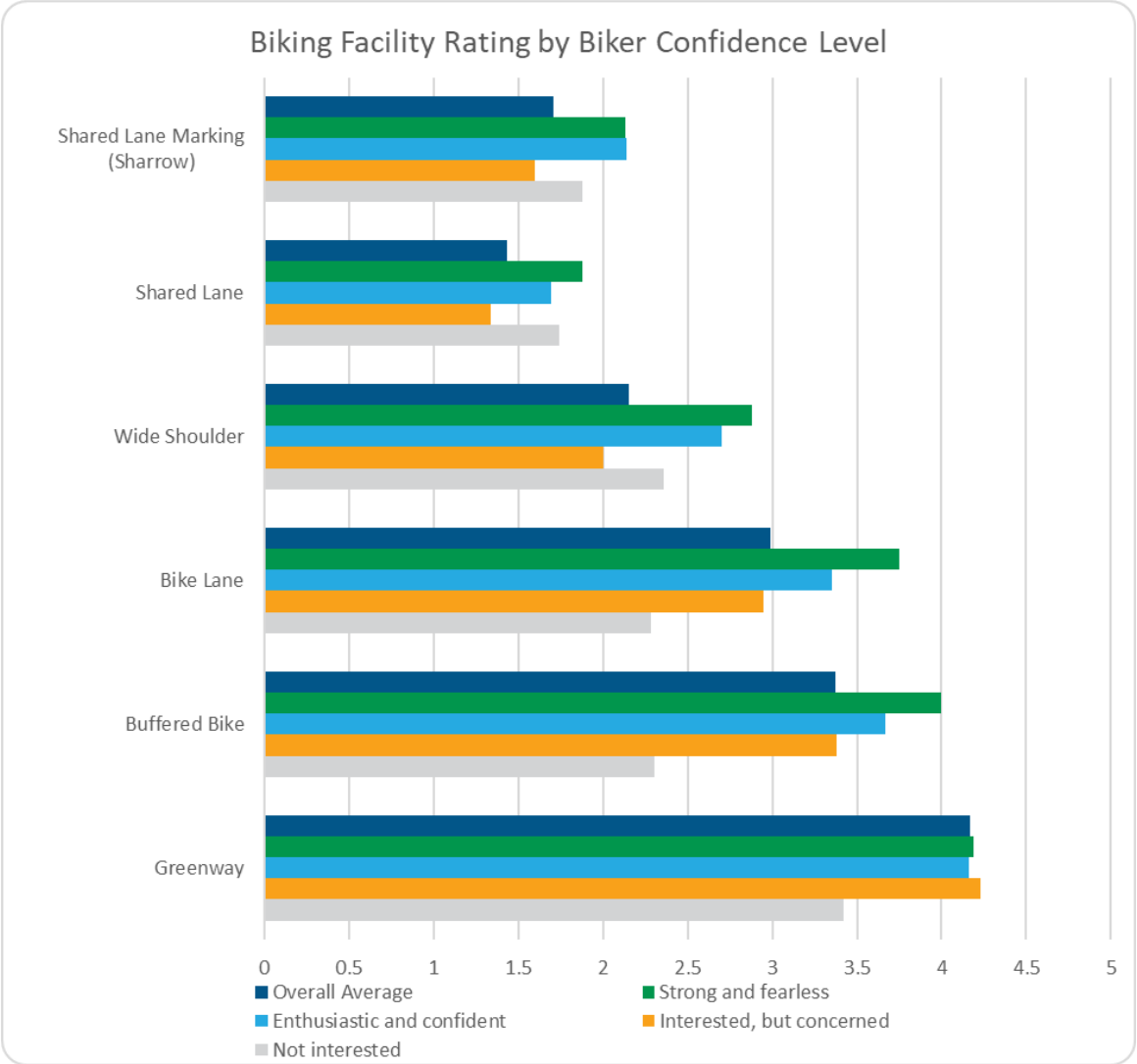


Figure 8: Bicycle Facility Rating by Biker Confidence Level

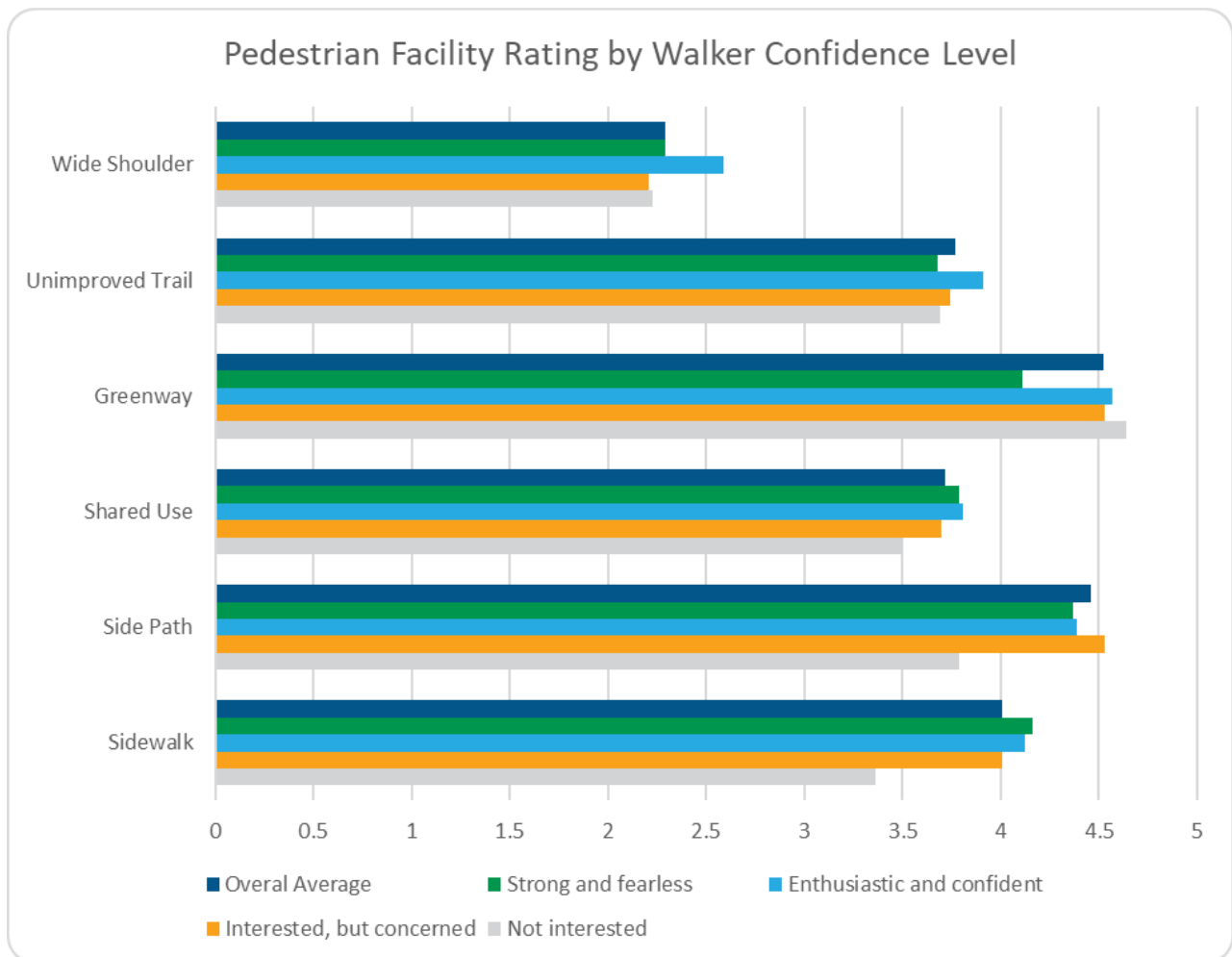


Figure 9: Pedestrian Facility Rating by Walker Confidence Level

## Steering Committee Meetings

A steering committee, comprised of Wilmington MPO staff, NCDOT staff, WAVE transit staff, residents, cyclists, business owners, and healthcare workers, met three times throughout the project to provide the team with input on the current and proposed network. The following provides summaries from each of these meetings.

February 1, 2023: 9 steering committee members, along with the project team, met to discuss the plan goals and implementation. Some key goals identified include safety for all users, reducing bicycle and pedestrian crashes, and network connectivity. The committee then identified desired locations for bicycle and pedestrian accommodations which include health care centers, schools, recreational spaces, US 17, and high development areas.

April 3, 2023: 7 steering committee members, along with the project team, met to discuss the public input received and further prioritize locations for improvements. Steering committee members completed two exercises during the meeting. The first exercise determined the top corridors they felt should be prioritized for improvements. The second exercise determined what type of facilities were preferred for specific corridor segments and locations. The results of these exercises showed that US

421, US 117, US 17, Hoover Road, and the eastern portion of NC 210 were the highest priorities for steering committee members. Spots improvements at the US 17-NC 210 intersection, US 17-Hoover Road intersection, and along US 17 at the Topsail schools were also identified as high priorities.

As part of this exercise, committee members were asked to rank their top values for the bicycle and pedestrian network out of a list of guiding values. The following guiding values were evaluated:

- Complementary: Complement and support other county initiatives and development
- Choice: Desire to not use vehicles for every trip and opportunities for walking and biking
- Comfort: Increase in facilities and amenities for walkers and bikers of all ages and abilities
- Safety: Improved bicycle and pedestrian safety and improved connections across US 17
- Connectivity: Enhanced access to commercial areas, health centers, and schools
- Equity: While most activity occurs near US 17, equitably distribute bike and pedestrian facilities across the county
- Health: Support the region's goals to improve public health
- Readiness: The plan should respond to current needs, show community supports, help prepare the county for future growth, and be fiscally feasible

Connectivity and safety ranked the highest, with six committee members ranking each as a top priority. Two committee members ranked readiness as a top priority. One committee member ranked comfort as a top priority and one committee member ranked complementary as a top priority.



*Figure 10: Steering Committee members completing a network prioritization exercise*