Memorandum

To: Russell Dalton
Town of Apex
73 Hunter Street
Apex, NC 27502

Date: July 29, 2025

Project #: BO-2416 Tingen Road Bicycle and Pedestrian Crossing

From: VHB Engineering NC, P.C.

Re: Public Engagement Summary

Engagement Activities Summary

Public engagement for BO-2416 has included outreach to identified key stakeholders for targeted input and as well as a public meeting. This round of engagement solicited feedback on high-level design concepts for four crossing alternatives.

Project Website

The Town's Sidewalk, Bike, and Transit Projects website includes a project overview and notification of the public meeting, along with a link to the project specific information website which is also hosted by the Town within the Apex, NC Engagement Hub through PublicInput.com. The project website informed the public about the feasibility study, provided illustrations of the feasibility design alternatives, and included information about the design charrette. The website was advertised by postcards mailed to nearby property owners and current residents. The site also included project staff contact information and a digital comment form. The "Get Involved" page includes all materials that were used at the design charrette and public meeting, including an option to provide comments.

The online comment form was open from June 3 – June 17, 2025. 17 individuals submitted responses.

Stakeholder Design Charrette

In addition to the website, a Stakeholder Design Charrette was conducted on May 22, 2025 at the Town's Senior Center. The Town hosted a Design Charrette from 1-3 PM, inviting a group of key stakeholders to meet with the project team and provide input on the project and conceptual design options from the perspective of their role in the community. 17 people attended the meeting, including representatives from the Town, Apex Elementary School, NCDOT Rail Division, CAMPO and the Justice Heights neighborhood. The project team presented project background, conducted a virtual site visit, and held interactive discussions regarding project vision and design concept reviews. Attendees were also asked to complete a short input survey at the end of the formal meeting.

During an open discussion about the need and vision for the project from the standpoint of the key stakeholders, attendees discussed valuable benefits, potential impacts or burdens, as summarized below.

Valuable Benefits

- Maintenance of multimodal connectivity, both in the immediate project vicinity and as part of the regional greenway network
- Provision of a safe crossing of the railroad
- Act as a gateway to Downtown Apex, supporting local businesses
- Serve the local community that depends on multimodal travel options, not vehicles only
- Keep pedestrian/bicycle travel routes to Downtown Apex shorter, avoiding Apex Peakway or NC 55 options

Potential Impacts or Burdens

- A need to protect and secure the water supply infrastructure, given the proximity to the water tower
- Project cost implications, including construction and maintenance costs, as well as competing for priority with other projects for funding
- Design constraints in the area that could affect/dictate grade and accessibility
- Potential visual and property impacts affecting local neighborhood
- Need for safety and security considerations for future users
- Complexity of construction

Finally, stakeholders defined user experience, cost and safety as the primary evaluation criteria to be considered in selecting a preferred alternative.

Community Benefits & Public Art

Overall, the stakeholder group agreed that the crossing project was needed and would be a positive addition to the community and the overall active transportation network within Apex as well as regionally by providing a safe and consistent access option. The crossing could provide numerous benefits such as a parking demand reduction in Downtown if residents are choosing to walk or bike and the opportunity to create an inviting public space by incorporating art alongside a functional connective design. The public art could highlight the history and culture of the project area. Some stakeholders voiced a preference for a bridge option, which is likely more expensive, but could provide a greater visual impact, creating a "gateway" into Downtown from the project area.

Preliminary, relative cost comparisons show that the tunnel, Alternative 4, is likely to be the most cost-effective option, which was also appealing to the stakeholders.

Direct Route & Safety

During the stakeholder charrette, it was also discussed that the tunnel option would provide the most direct route with the shortest overall crossing distance and structure length. Comments were made about how people may decide to make an unsafe, at-grade option if a bridge with a long or steep path was constructed. While attempts would be made to block these unsanctioned crossings, such as bollards, guard rail or fencing, it is unlikely that all unsafe crossings would be prevented. It was also noted that a bridge may be perceived as a safer option by the public compared to a tunnel.

Pedestrian Crossings of S Salem Street at Tingen Road/Justice Heights Street

Another open discussion topic was the desire to maintain the pedestrian crossing features at the existing S. Salem Street/Tingen Road/Justice Heights Street intersection. There was a general consensus that some kind of signalized crossing was preferred at this location to maintain connectivity for underserved neighborhoods in the vicinity, connecting these neighborhoods with each other as well as destinations such as Downtown and West Street Park. It was noted that the existing pedestrian infrastructure could likely remain; but coordination with NCDOT should be pursued if the project moves forward. The eventual connection of Justice Heights Street to Apex Peakway may provide continued justification for signalized pedestrian crossings at this location, due to conflicts between pedestrian and vehicular movements.

Memorandum

Design Considerations

Regardless of the alternative chosen, it should be noted that there is a 16" waterline present in the project area, and coordination should be undertaken early and often to ensure the protection of that waterline and the overall security of the water tower as a primary source of water for the Town.

A few design specific comments were also offered, including the minimization of crossings needed for pedestrians to cross from the project to the west side of Salem Street and the suggestion to include "runnels" in the design which are channels designed alongside or within staircases to allow cyclists to easily wheel their bikes up or down the steps.

Key Takeaways & Next Steps

Input from the discussions as well as the survey was recorded, reviewed and is being incorporated into project development. In general, it is agreed the crossing is needed and is a viable project that will work in coordination with the overall greenway and pedestrian connectivity plans of the Town, with cost and safety implications being key considerations.

Public Design Charrette

Following the Stakeholder Design Charette, an open-house style public meeting was held from 4-6 PM. 46 people attended the meeting. The project team facilitated conversations at six information stations including:

- Sign-in/Welcome Table
- Project Overview
- Purpose and Vision
- Virtual Site Visit
- Alternative Designs
- Comment Table

These stations had a combination of hardcopy, large format information boards, digital visuals and options for attendees to provide input on the boards with markers, sticky notes and colored dots.

Specifically, at the Purpose and Vision station, attendees could write their thoughts on the same questions posed to the stakeholders at their meeting and tag them onto a board. These responses are summarized below.

<u>Valuable Benefits</u>

- Maintenance of multimodal connectivity, both in the immediate project vicinity and as part of the regional greenway network; connect multiple local neighborhoods to downtown and each other, creating a sense of community
- Provide safe access to Apex Elementary School and Downtown Apex
- Create an inviting space through visual interest using art
- Encourage an overall decrease in traffic if more people bike and walk due to the crossing
- Less noise from the trains as-grade crossings will no longer occur.

<u>Potential Impacts or Burdens</u>

- Need for safety and security considerations for future users; cleanliness of crossing structure
- Need connectivity to proposed side paths

Memorandum

- Potential visual and property impacts affecting local neighborhood; increased light at entrance points to a tunnel; maintain as many trees as possible
- Concern if the crossing produces a new roadway crossing that is not at a signal
- Concern that grades, even 5%, are too steep for bikers
- Cost, obtaining funding
- Construction impacts on traffic, particularly around Apex Elementary School

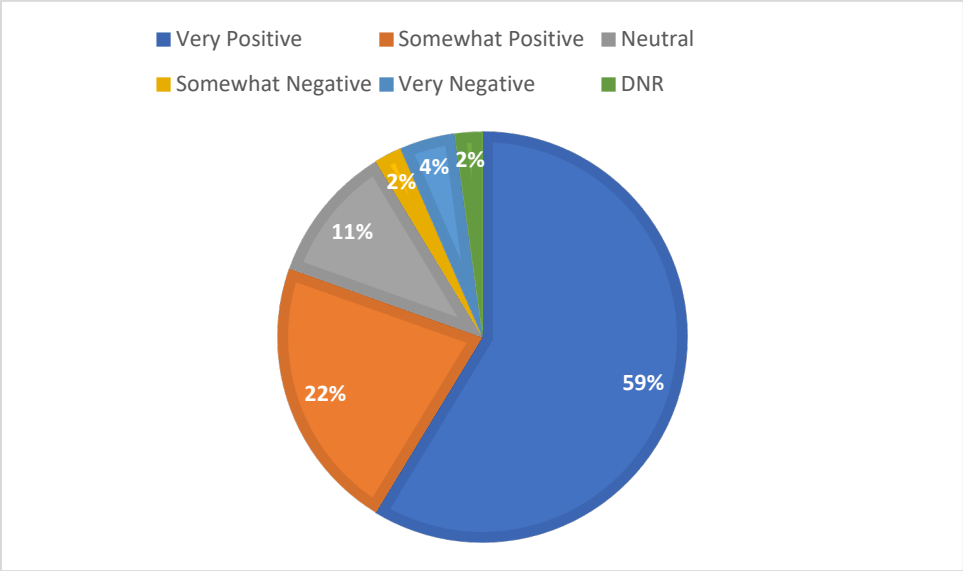
Attendees noted generally the same primary evaluation criteria that were important to be considered in selecting a preferred alternative as the stakeholders, including safety and cost.

Public Meeting Comments and Response to Comments

Of the 46 public meeting attendees, 30 completed comment forms at the meeting and 26 provided an open-ended comment form response. In addition to the comments received in person at the public meeting, comments were also received via the online comment form.

Respondents were asked to give their overall impression and support of the project. Of the 46 individual responses (30 from the in-person meeting and 17 online submittals), 81% responded with "very positive" or "somewhat positive" support for the project, as shown in Table 1.

Table 1 – Overall Impression of the Proposed Project



Respondents were also asked to rank their preference for the presented alternatives. In person meeting respondents ranked only their top preference, while those submitting via the website had the option to rank some or all alternatives in preference order. Table 2 summarizes the preference rankings received at the public meeting and via the website. Table 3 presents a summary of the top preference only for those rankings.

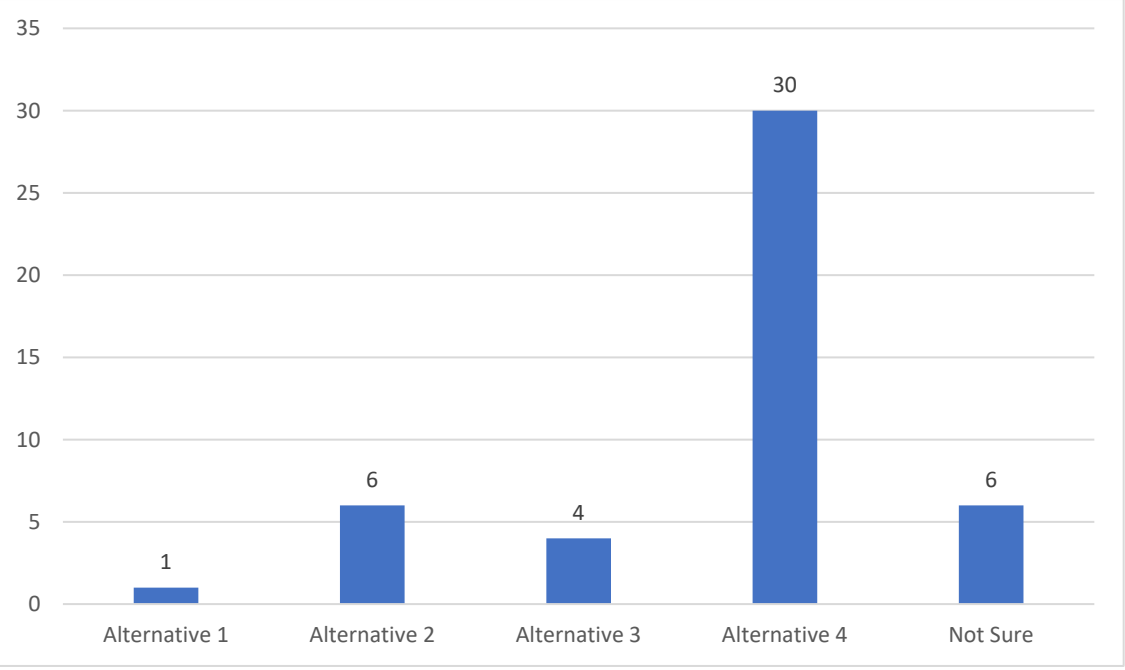
Memorandum

Table 2 – Alternative Preferences

Alternative	Public Meeting Responses (top preference)	Website Responses*			
		Rank 1	Rank 2	Rank 3	Rank 4
Alternative 1 - North Overpass Loop	1	0	3	3	1
Alternative 2 - Bridge without Loops	4	2	3	2	0
Alternative 3 - North and South Overpass Loops	3	1	1	2	3
Alternative 4 - Tunnel	19	11	2	0	2
Not sure/Did not respond	3	3	1	1	0
Total Respondents	**30**	**17**	**10***	**8***	**6***

*Some, but not all, respondents gave rankings to all alternatives. Every commentor provided at least a top choice, while some ranked 2, 3 or all 4 in preference order; thus, the total respondent counts per rank do not each add to 17.

Table 3 – Top Alternative Preference



Results taken from in-person and website responses to alternative ranking question

Table 4 summarizes of all open-ended comments received and responses to those comments, as needed. Comments were grouped into themes and sub-themes:

Memorandum

Table 4 – Public Comments and Responses

Comment	Frequency	Response
1. Project Costs		
a. Is the cost a good investment? Is the cost justified given the limited number of users?	4	The current at-grade crossing of the CSX railroad is required to be permanently closed, and CSX has indicated the intent to install fencing, which would sever pedestrian connectivity if left unaddressed. If Town Council recommends proceeding with final design, construction of the project would ultimately be subject to the Town's annual Capital Improvement Program (CIP) prioritization. The CIP prioritization process considers the availability of both local and non-local funding and compares against the needs for other capital projects based on a variety of factors. The project inventoried existing and planned active transportation infrastructure, pedestrian activity centers, and transit-oriented development within the study area. The area features an existing sidewalk network, crossing improvements at signalized intersection, an elementary school, and a planned mobility hub as part of the S-Line at E. Moore Street. Preserving north-south pedestrian connectivity aligns with the Town of Apex's Vision Zero, a commitment to eliminating traffic deaths and serious injuries, and the Advance Apex: The 2045 Transportation Plan's recommendation to provide sidewalks in areas within ½ mile of existing and planned schools, ensuring a safe route to school is available.
2. Pedestrian Network Connectivity and Safety Concerns		
a. Children should have safe access to Apex Elementary; if a bridge alternative is selected, ensure that children cannot jump.	5	The current at-grade crossing of the CSX railroad is required to be permanently closed, which would sever north-south pedestrian connectivity. The project team examined a quarter-mile walkshed and determined the neighborhoods north of the CSX railroad would lose efficient access to Apex Elementary School under the No-Action alternative, as the nearest railroad crossing would be along E. Williams Street. The construction of a pedestrian crossing would support a safer and more efficient route to Apex Elementary School. The bridge alternatives include a minimum railing height of 54 inches. The portion over the railroad and/or roadway could be fully enclosed if it is determined necessary by local officials and the community.
b. Avoid creating a space for panhandlers.	1	A key objective of the feasibility study is to enhance pedestrian and bicycle safety. The project includes landscaping, which promotes visibility and accessibility, an effective

Memorandum

Comment	Frequency	Response
		practice in crime prevention through environmental design (CPTED). The project will continue to work with local authorities to incorporate CPTED.
c. Requests that the tunnel alternative include adequate or abundant lighting and art to reduce crime, improve safety, visibility, and comfort for pedestrians and bicyclists. General tunnel safety concern.	10	The Town of Apex and the project design team are committed to developing a pedestrian crossing that is safe and welcoming to all users. The shortest feasible tunnel length would be used to allow pedestrians and bicyclists to see from end to end, ensure it feels open, and maximize the amount of natural light. To ensure the tunnel is inviting, Alternative 4 – Tunnel would include lighting and staff recommend that artwork either be included or accommodated for future installation in the tunnel design. Staff will work with the Public Art Committee to identify potential public art locations and process to incorporate art either as part of the project or following the project. In response to feedback from residents, the project team is examining motion-activated lighting. Lastly, regular maintenance of tunnels, including cleaning, repairing, and landscaping, is an effective practice of CPTED that has been shown to deter crime.
3.Design Comments, Concerns or Recommendations		
a. Will the project connect to the sidewalk or, better yet, a greenway? Will pedestrian access to Justice Heights Street be maintained?	4	The project would connect to the existing sidewalk network along S. Salem Street to the north, James Street to the south, and Tingen Road to the south. A pedestrian crossing would preserve north-south pedestrian connectivity, and in the long term, could provide a north-south connection for planned greenways in the vicinity of the railroad crossing. A map of the Town's existing and planned greenways is available online at: https://www.apexnc.org/DocumentCenter/View/31725/Bicycle-and-Pedestrian-System-Plan-Map-PDF. A sidewalk connection would be maintained to Justice Heights Street at the intersection with Tingen Road.
b. Repurpose Tingen Road to provide the pedestrian and bicycle path.	1	The current at-grade crossing of the CSX railroad is required to be permanently closed, and without a pedestrian crossing of the CSX railroad, any pedestrian and bicycle improvements along Tingen Road would lack north-south connectivity.
c. Utilize the existing right-of-way along Tingen Road, as it would shorten the crossing and save money.	1	The crossing of CSX railroad needs to be approximately perpendicular and that requires a shift either east or west of the existing crossing. The design team examined the nearest possible perpendicular crossing, minimizing impacts to homes, businesses, and utilities. Constructing the pedestrian crossing west of Tingen Road would avoid residential relocations and minimize utility relocations, thereby reducing construction costs. In addition, Alternative 2 – Bridge without Loops examined a direct approach and a limited

Memorandum

Comment	Frequency	Response
		bridge length. The resulting approach grade is 8 percent, which is considered steep and may be difficult for some users to travel.
d. Recommendations on where the project should connect to existing sidewalks. (1) A connection to the west side of S. Salem Street would provide better access and reduce the need for additional sidewalk construction. (2) A connection to Tingen Road instead of Salem Street would provide more direct access downtown.	5	(1) The project team examined a midblock crossing of S. Salem Street. It was determined that maintaining pedestrian crossings at Tingen Road and S. Salem Street, a signalized crosswalk, would be the safer option. (2) Under each alternative, pedestrian access to Tingen Road is maintained. Alternative 3 – North and South Overpass Loops and Alternative 4 – Tunnel would construct additional sidewalk along S. Salem Street that would connect pedestrians to Tingen Road.
e. Recommendation for the design to account for the high speeds encountered on grades, especially as related to braking and turning speeds for skateboards, rollerbladers and other users that do not have mechanical braking systems, noting that the tunnel alternative is safest for these users.	3	The design team will work to minimize the grades used in the design, especially for alternative user needs.
f. Concern regarding impacts on trees affecting wildlife, noise, and/or community character.	3	Construction of a pedestrian crossing would result in the removal of trees. The project team is working to minimize tree removal to the extent possible. If the design of the pedestrian crossing is advanced, the project will conduct ecological surveys to ensure that no adverse impacts on wildlife or essential/critical habitats occur. Following construction, the project would include tree replanting and landscaping to help reduce the number of trees removed.
g. Comments that expressed a preference for the shortest path.	5	The project team will consider travel distance as a major factor when selecting the preferred alternative. Path lengths from James St to S. Salem Street (Bicycle/ADA, Walk with staircase): • Alt 1 – North Overpass Loop: 1,880 ft, 850 ft • Alt 2 – Bridge without Loops: 1,355 ft, 880ft • Alt 3 – North and South Overpass Loops: 2,020 ft, 1,520 ft • Alt 4 – Tunnel: 1,115 ft, 780 ft
h. Comments that expressed project support.	11	Thank you for your comment.

Memorandum

Comment	Frequency	Response
i. Comments that are not related to design or funding of the potential pedestrian and bicycle crossing.	5	Thank you for your comment.

Table 5 outlines the reasons for support or opposition for each alternative as included in the written comments received at the public meeting and online submittals.

Table 5 – Public Comment on Reasons for Support or Opposition of Crossing Alternatives

Alternative	**Reasons to Support**	**Reasons to Oppose**
Alternative 1 - North Overpass Loop	n/a	Expensive (4) Long/steep crossing distance (4) User safety
Alternative 2 - Bridge without Loops	Shortest bridge option	Expensive (3) Long/steep crossing distance (3) User safety
Alternative 3 - North and South Overpass Loops	Enhances community character	Expensive (3) Long/steep crossing distance (3) User safety (3)
Alternative 4 - Tunnel	Lowest cost/cost effective (4) Positive visual impact, opportunity to incorporate art (3) Simplest solution (2) Lowest overall impact Most direct/shortest crossing option Safest option	User safety (3) Expensive (2) Long crossing distance Potential Vandalism Potential smell Negative visual impact Drainage concerns

(X) indicates total number of times reason was mentioned