Connecting Our Future
A Regional Transit Plan for Central Maryland

APPENDIX C
PUBLIC ENGAGEMENT TECHNICAL REPORT
DECEMBER 2022

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND TRANSIT ADMINISTRATION

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ENGAGEMENT APPROACH ON GOALS AND OBJECTIVES DEVELOPMENT

Pre-Work Conversations held by MDOT MTA in early 2021 guided the creation of a public survey for the study to support the development of the goal and objectives.

The goals and objectives are designed to serve two main purposes:

- Capture community/stakeholder values that reflect needs and expectations of:
  - current and potential transit users,
  - institutions and businesses that support the region's economy and competitiveness as a major metropolitan region, as well as
  - the neighborhoods and commercial districts that can potentially benefit from or be impacted by major capital investment in transit.
- Provide a basis for a set of metrics for evaluating and comparing alternatives.

The survey was a scientific survey with a sampling plan, and in total 596 survey responses were completed between May 18, 2021, and June 15, 2021. Survey results supported the goals and objectives as written.

1. Half or more of both riders and non-riders (50% and 53%, respectively) said that a major transit investment should "focus on areas with greatest need, including low-income communities and populations that don't have access to cars" versus trying to serve as many areas as possible.
2. More than half of both riders and non-riders (51% and 55%, respectively), said that a major transit investment should connect places where there are many jobs.
3. Both riders and non-riders wanted a major transit investment to balance creating new opportunities for development and redevelopment and serving existing jobs and housing concentrations.

MDOT MTA'S CORE VALUES

Integrating feedback form the public into project plans aligns with each of MDOT MTA's Core Values:

- **Customer Focused** – We will deliver a positive customer experience by listening and responding to the needs of others.
- **Safe** – We will maintain and promote safety in our policies, procedures, and daily actions.
- **Respectful** – We will demonstrate civility, kindness, and empathy in all our interactions.
- **Equitable** – We will create an environment that promotes fair and just outcomes.
- **Continuously Improving** – We will use our experience, talent, skill, and creativity to adopt smarter and more efficient ways to get the job done.

ENGAGEMENT APPROACH ON PRELIMINARY ALTERNATIVES

Public engagement is a cornerstone of MDOT MTA's planning efforts, and the East-West Corridor Study is no exception. To gauge public support for the seven preliminary alternatives, MDOT MTA solicited public comment between June 1, 2022, and August 1, 2022. This technical memo details how MDOT MTA collected public comment and summarizes the results of that feedback.

Overview

Engagement efforts for this project fell under two categories: **virtual** (principally referring to data collected through a public survey on the project website, virtual public meetings, as well as any comments received

via email) and **in-person** (referring to all in-person outreach, including intercepting riders at transit stops and attendance at open houses, pop-ups or other community events).

At the conclusion of the public comment period, the project team reviewed every survey, comment card, letter, and voicemail about the preliminary alternatives. Comments were reviewed through the following lenses:

- Support for individual alternatives
- Support for different modes of transit (bus rapid transit, or BRT; light rail transit, or LRT; and heavy rail transit, or HRT)
- Support for project goals
- Preference for different locations served
- Preference for different treatments (transit street, tunneling, and surface)
- Frequency of keywords or topics.

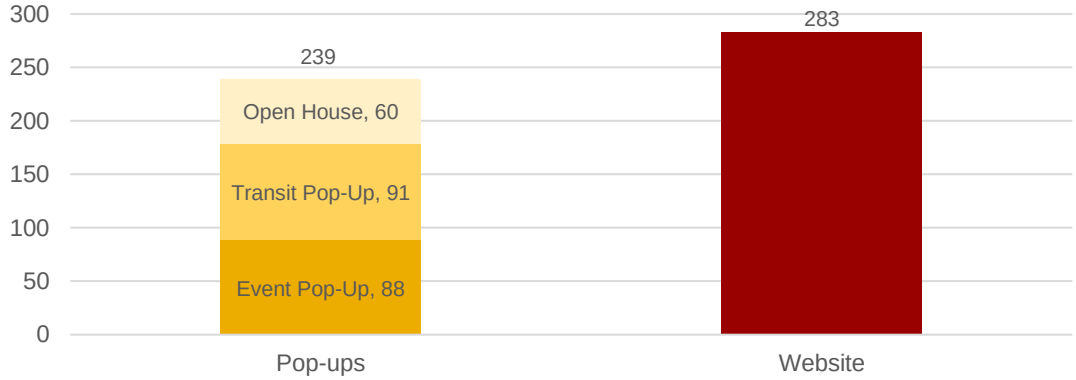
After analyzing this feedback, the project team reviewed and modified the preliminary alternatives.

Figure 1: Transit Pop-up at West Baltimore MARC Bus Loop

Data Collection

Members of the public submitted comments via a website survey, or at an event pop-up, transit-pop up, or open house, where outreach team members recorded attendees' feedback on comment cards. The open-ended nature of many questions on the survey tools allowed respondents to introduce topics freely rather than being limited to consider a particular issue. In total, the outreach team collected 283 responses through the website survey and 239 between various in-person events, which are collectively referred to as "pop-up" in the data analysis section (Figure 2).

Figure 2: Comments Received by Type



Website Survey

The website survey was hosted through the Regional Transit Plan's website and was accessible through MDOT MTA's website. The website included a detailed and interactive comparison of the seven preliminary alternative alignments, and the website survey popped up to prompt feedback from visitors as they reviewed information. The website presented an overview of each alignment as well estimates for travel time, ridership, cost, construction time, and trips shifted to transit, as well as data on the number of all households and transit-critical households within a half-mile of proposed stations. The survey collected 283 responses across the survey collection period.

The survey prompted respondents to indicate what they liked and disliked about each alternative. The survey also asked respondents to rank the following goals for the corridor developed with stakeholder input:

- Improve the connectivity and operations of existing transit network
- Expand the reach and connectivity of the regional transit network
- Prioritize the needs of existing transit riders and transit-critical populations
- Maximize the economic and environmental benefit of a major transit investment

Lastly, the website survey provided a field for "other comments."

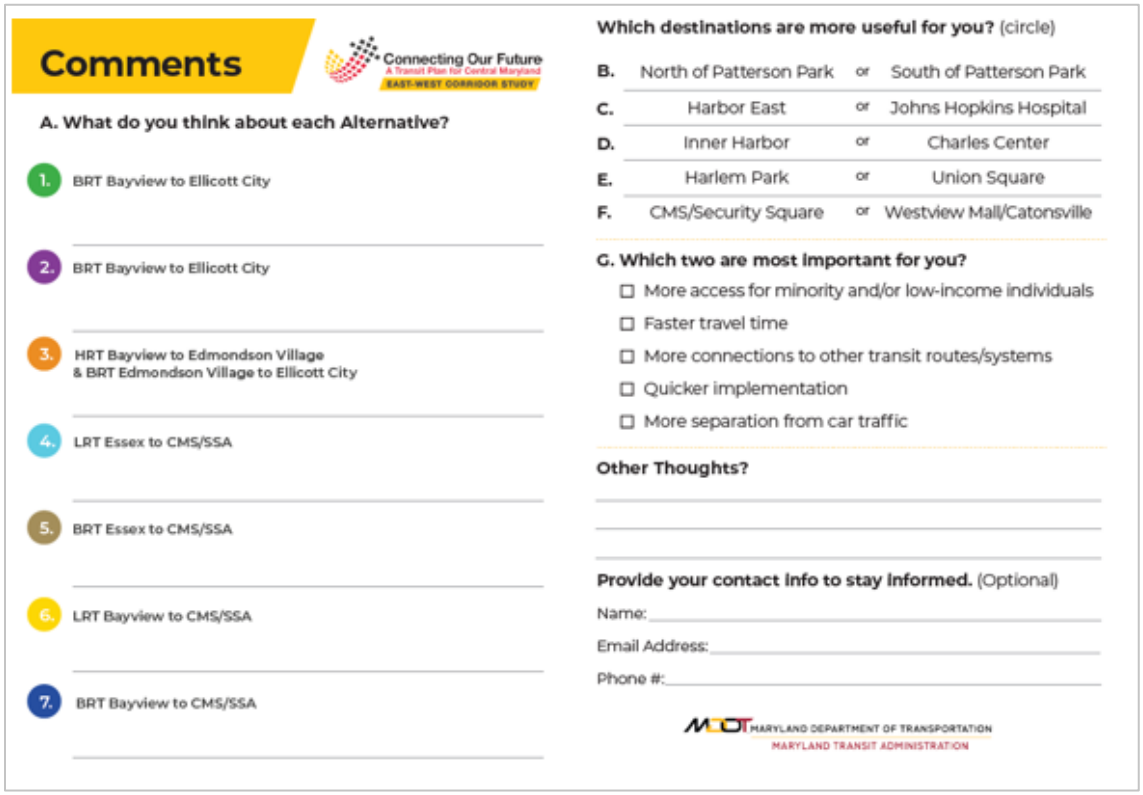
Pop-Up Events

Across the three different types of pop-up types, 239 comments were recorded. Event pop-ups, such as outreach tables set up at farmers' markets (Figure 3) and transit stations, provided an opportunity to engage both current transit riders and non-riders. Finally, project partners hosted two open houses with MDOT MTA about the study and solicited comments from attendees.

At all events, members of the outreach team recorded feedback on comment cards (Figure 4). The cards contained four sections. In the first section, respondents were asked for open-ended feedback about each of the seven alternatives. In the second section, respondents were provided with a series of destination pairs; for each pair, respondents were asked which destination was more useful. The third section asked respondents to choose the most important of five suggested goals for a new transit service. Lastly, the card provided space for general comments and contact information.

Figure 3: Pop-up at JFX Farmers Market

Figure 4: Comment Card for Pop-Up Events



Comments

Connecting Our Future
A Transit Plan for Central Maryland
EAST-WEST CORRIDOR STUDY

A. What do you think about each Alternative?

1. BRT Bayview to Ellicott City
2. BRT Bayview to Ellicott City
3. HRT Bayview to Edmondson Village & BRT Edmondson Village to Ellicott City
4. LRT Essex to CMS/SSA
5. BRT Essex to CMS/SSA
6. LRT Bayview to CMS/SSA
7. BRT Bayview to CMS/SSA

Which destinations are more useful for you? (circle)

B.	North of Patterson Park	or	South of Patterson Park
C.	Harbor East	or	Johns Hopkins Hospital
D.	Inner Harbor	or	Charles Center
E.	Harlem Park	or	Union Square
F.	CMS/Security Square	or	Westview Mall/Catonsville

G. Which two are most important for you?

- ☐ More access for minority and/or low-income individuals
- ☐ Faster travel time
- ☐ More connections to other transit routes/systems
- ☐ Quicker implementation
- ☐ More separation from car traffic

Other Thoughts?

Provide your contact info to stay informed. (Optional)

Name:
Email Address:
Phone #:

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Letters and Emails

The project team received 21 letters and emails: 16 from members of the public[1] and five from other stakeholders such as advocacy organizations, non-profits, and elected officials. The six pieces of correspondence from stakeholders were signed by the Central Maryland Transportation Alliance and Bikemore (who submitted a joint comment); the Chesapeake Bay Foundation; District 44B; Mark Edelson, the nominee for District 46 Delegate; the Greater Washington Partnership and Greater Baltimore Committee (who submitted a joint comment); and Johns Hopkins University.

Among public commenters, three of the 16 wrote to convey their support for the idea of a new transit service along an East-West corridor. Four wrote to express support exclusively for expanding the metro. Four comments expressed a desire for the alternatives to provide more and easier connections with Baltimore's existing public transportation systems. One commenter worried that Baltimore's declining population makes it a poor candidate for new public transportation.

Three commenters wrote to say that economic development ought to be the primary goal of any new transit investments. Two saw HRT as being the most effective driver of investment. The other requested that MDOT MTA assess the impact the transit street would have on the businesses along the proposed alignments.

OUTREACH SUMMARY

Over the course of June and July 2022, the project team conducted or distributed:

- **3 canvassing days** with 30 interactions with the public and 400 postcards distributed
- **8 in-reach events** at bus divisions to reach current MDOT MTA bus operators
- **10** pop-ups at **transit stops**
- **5** pop-ups at **community events**
- **2 open houses** with 30 participants between them
- **2 virtual public meetings** with 89 unique participants between them
- **4 presentations** at advocacy or advisory meetings
- **3 email-blasts** to about 1,250 individuals, with a 45 to 55 percent open rate and a 6 to 15 percent click rate

[1] This count excludes follow-up emails from the same commenter.

Coding and Analysis

To aggregate and analyze open-response data, the project team performed a sentiment analysis.

To identify they most common themes, the outreach team first read through the comments and tallied the number of times various topics were mentioned. Then, the team added fields for the most common themes, re-read the comments, and tagged them according to the following procedures:

Figure 5: Transit Pop-up in Highlandtown

1. **Sentiment about each alternative alignment.** For each alternative, each comment was coded as "approve," "neutral," or "disapprove." Only comments that indicated an explicit positive or negative opinion about an alignment were coded as "approve" or "disapprove." The alignment approval fields were left blank if, for example, a respondent indicated they liked Alternative 1 because it involved a bus but included no mention of destinations that would be served by the alternative. In many cases, a preference was indicated for one alignment but not all. In those cases, only alternatives that received direct mention were tagged; the rest were left blank. Comments that included both positive and negative opinions of a given alignment were coded "neutral."
2. **Mode preference.** Neither survey instrument included a question about transit mode, instead, respondents' preferences about mode were gleaned from open-ended comments. The outreach team recorded respondents' preferences (heavy rail, light rail, and bus rapid transit) as "approve," "neutral," or "disapprove." Comments that included both positive and negative opinions of a given mode were coded "neutral." Mode preference fields were left blank if no mention was made of a particular mode.
3. **Treatment.** The outreach team analyzed comments for preferences as to whether a proposed alignment ran above ground, below ground, or along a proposed transit street. Following the procedure used for mode and alternative preference, codes were attached only if the respondent made explicit mention of the topic.
4. **Other topics.** For each comment, the outreach team indicated whether each survey respondent mentioned any of the following topics.

    - Property taking
    - On-time performance or reliability
    - Implementation time
    - Environmental sustainability
    - Concern about impact from construction
    - Cost
    - Connectivity with existing transit service

RESULTS

Support for Individual Alternatives

Figure 6 shows support for each alternative among all respondents; Figure 7 and Figure 8 break out support by respondent type (pop-up or website).

Figure 6: Alternative Support - All Comments

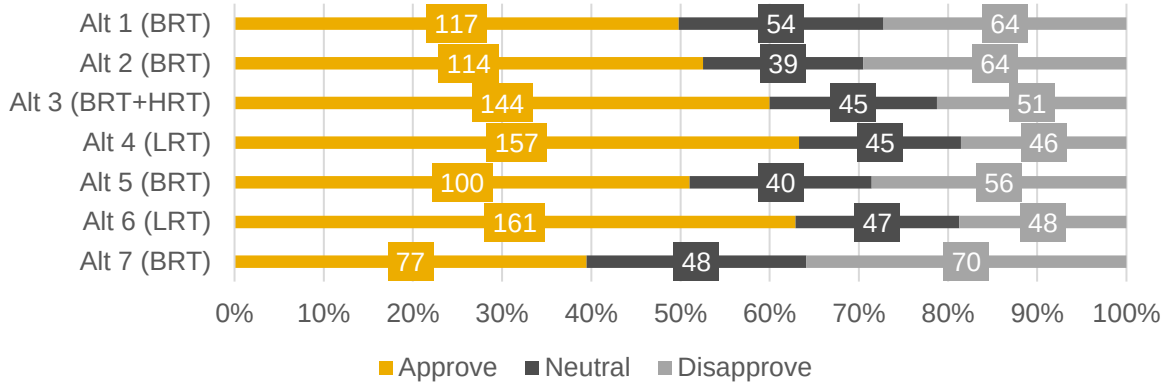


Figure 7: Alternative Support - Pop-up Comments

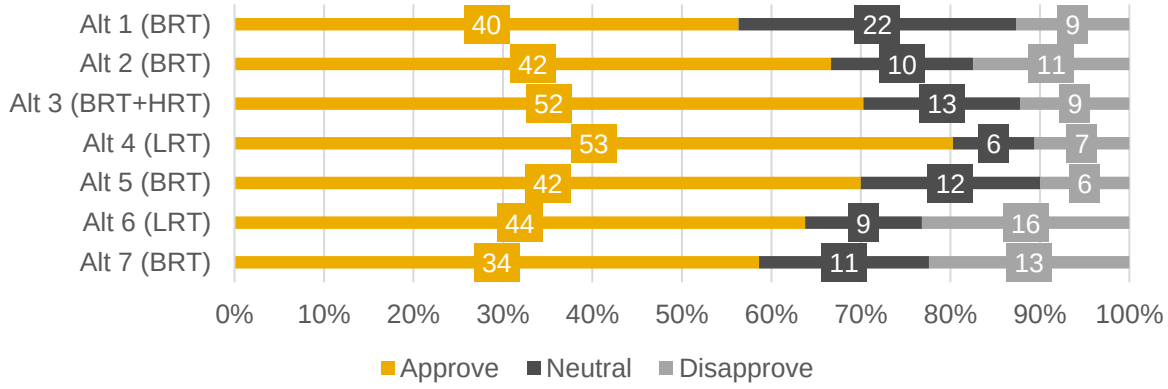


Figure 8: Alternative Support - Website Comments

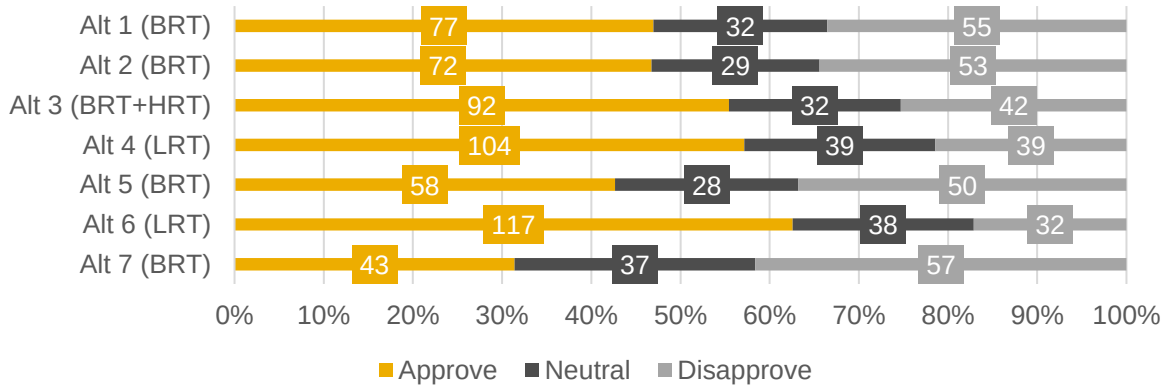


Table 1 shows the overall ranking of alternatives from highest support (1) to lowest support (7) based on respondent type.

Table 1: Ranking of Alternatives by Respondent Type

Rank	Overall	Website	Pop-up
1	Alternative 4	Alternative 6	Alternative 4
2	Alternative 6	Alternative 4	Alternative 3
3	Alternative 3	Alternative 3	Alternative 5
4	Alternative 2	Alternative 1	Alternative 2
5	Alternative 5	Alternative 2	Alternative 6
6	Alternative 1	Alternative 5	Alternative 7
7	Alternative 7	Alternative 7	Alternative 1

Findings

- When analyzing all comments together, Alternatives 4 and 6 had the most support.
- When analyzing just website comments, Alternatives 4 and 6 still had the most support, but Alternative 6 had slightly more overall. Alternative 6 had significantly less support among pop-up commenters.
- When analyzing all comments together, Alternatives 1 and 7 had the least support.
- Alternatives 5 and 6 had the most variation in support between the two types of commenters. Among website respondents, Alternative 6 ranked first, but among pop-up respondents, it ranked fifth. Among website respondents, Alternative 5 ranked sixth, but among pop-up respondents, it ranked third.

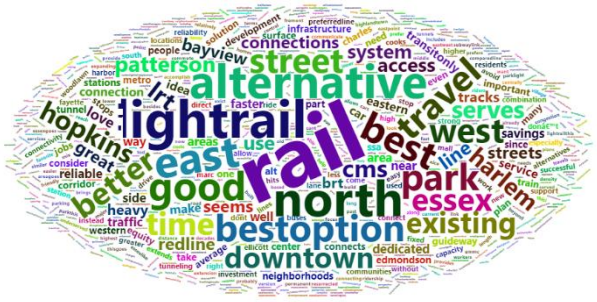
Alternative 1 received positive feedback for its lower costs, its quicker implementation time, and the multiple destinations it served, including Catonsville, the Center for Medicare & Medicaid Services (CMS) and the Social Security Administration (SSA), and Ellicott City. However, there was a general lack of trust in BRT as a solution, and respondents expressed concern that the route's length and circuitous alignment would lead to unreliability. Respondents also disliked the route's lower equity score and lack of service in Essex or Westview.

Comments for **Alternative 2** showed support for the route's faster and more direct connections as well as its inclusion of Ellicott City, but respondents disliked that it bypassed downtown and other major destinations. Additionally, similar concerns were expressed about BRT not being the desired solution.

Comparatively, **Alternative 3** was a more favored option given the fast nature of heavy rail and the ability to utilize existing tunnels. However, respondents disliked the need for a transfer between HRT and BRT and expressed concerns about the project's high costs and potential inability to make it to completion. Respondents also noted the station spacing being a concern. The overall support for Alternative 3 related most to the HRT mode rather than the alignment itself.

Alternative 4 was favored by many due to a general preference for light rail and its ability to connect to existing light rail service. Many respondents liked that the alternative provided a more permanent solution than BRT while also producing the highest average travel time savings, extending to Essex, and focusing on equity impacts. However, there were concerns about tunnelling and higher cost and construction timelines compared to BRT, and some felt that this alignment duplicated existing MDOT MTA services. Figure 9 shows a word cloud of the positive comments about Alternative 4.

Figure 9: Alternative 4 Positive Comments



Alternative 5's similar BRT alignment was liked for its cheaper and faster implementation and the benefit of not requiring any property takings. However, respondents seemed to generally prefer light rail over BRT service, with one comment explaining "in 5 years, you'd regret not having made it a rail line."

Figure 10: Alternative 6 Positive Comments

Support for **Alternative 6** was high, with many comments favoring the route's destinations, travel time, and dedicated right of way for light rail. However, there were mixed preferences for travelling north versus south of the park and whether the service should extend to CMS/SSA given remote working. There were also many concerns about the impacts of tunnelling and that the route prioritizes waterfront communities. Figure 10 shows a word cloud of the positive comments about Alternative 6.

In comparison, **Alternative 7** was liked for the cheaper and faster implementation of BRT service as well as the shorter and potentially more reliable route. However, concerns remained about the alignment's lower equity score, lack of service to Essex, and a general distrust of bus service compared to LRT. Figure 11 shows a word cloud of the positive comments about Alternative 7.

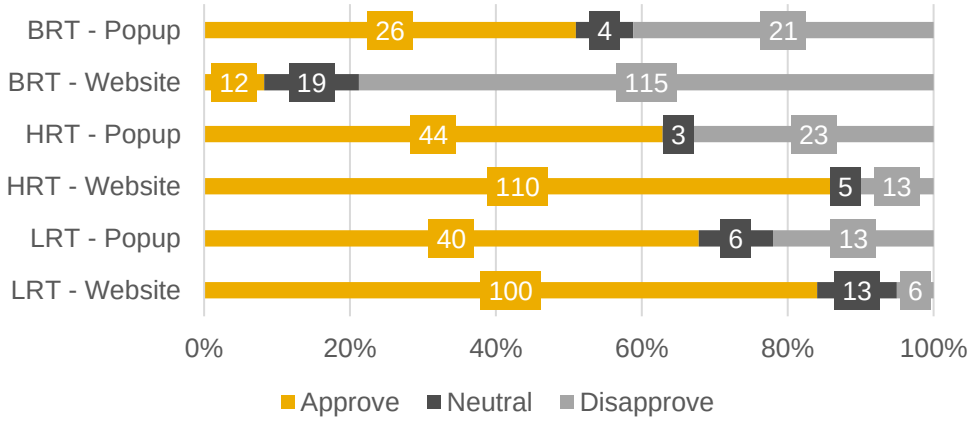
Figure 11: Alternative 7 Critical Comments

Support for Modes of Transit

The outreach team analyzed comments for support of the three transit modes proposed in the alternatives: BRT, LRT, and HRT. While some respondents showed support for BRT given its quicker implementation time, most felt that BRT would not be capable of providing efficient and reliable transit across the region. Given these concerns, respondents were more supportive of HRT and LRT alignments due to faster speeds and more permanent infrastructure. Between the two rail modes, LRT was the more favored option. While support for HRT was generally high, there were concerns about construction costs, implementation timeline, and environmental impacts. Therefore, LRT received the most overall support for having a lower cost and faster implementation time compared to HRT and better reliability compared to BRT.

Figure 12 shows the support for each mode broken out by pop-up respondents and website respondents.

Figure 12: Mode Support by Comment Source



Findings

- Respondents at pop-ups approved and disapproved of BRT in about equal number.
- Website respondents overwhelmingly disapproved of BRT.
- A large majority of website respondents supported both LRT and HRT.
- Although most pop-up respondents approved of both rail modes, LRT received more support.

Transit Goals

In the website survey, respondents were asked to rank the goals for the project from highest (1) to lowest (4). Goals with the *lowest* average ranking have the highest level of support. Average rankings are shown in **Table 2**.

Table 2: Average Score by Goal - Website Survey Responses

Goal	Average Ranking
Improve connectivity and operations of the existing transit network	2.3
Expand the reach and connectivity of the regional transit network	2.3
Prioritize the needs of existing transit riders and transit-critical populations	2.6
Maximize the economic and environmental benefits of a major transit investment	2.8

Based on the goals provided, respondents ranked “Improving the connectivity and operations of the existing transit network” and “Expanding the reach and connectivity of the regional network” the highest. This shows that respondents care most about the ability to make reliable and efficient connections throughout the region. However, the remaining two goals were close behind, with “Prioritizing the needs of existing transit riders and transit-critical populations” ranking slightly higher than “Maximizing the economic and environmental benefit of a major transit investment.” The nearly even distribution shows that respondents find all options to be important goals, with only a slightly higher priority placed on local and regional connectivity.

Choosing Between Location Pairs

As part of the feedback process, comment cards provided pairs of locations and asked respondents to indicate which one destination in the pair they would rather be served by the alternative. Each pair consisted of two parallel locations that could not both be served by the same service.

One of the more conflicted location pairs was north of Patterson Park versus south of Patterson Park. Comments showed that both options were about equally supported, with alignments going north of the park being only slightly favored. While some respondents preferred the waterfront service south of the park, others expressed apprehension that the potential pushback from residents might derail the construction of the alternative.

In the next location pair, there was slightly more support for serving Johns Hopkins Hospital rather than Harbor East, with many people citing service to Hopkins as a priority.

Respondents rated serving the Inner Harbor as more important than Charles Center, with comments referring to the Inner Harbor as the “centerpiece of the city.” Despite this preference, respondents still stressed the importance of providing connections to the existing Metro Subway and Light Rail in the downtown area.

Respondents preferred staying along Route 40 and serving Harlem Park rather than providing service to Union Square via Baltimore Street west of Martin Luther King Jr Boulevard (MLK).

Lastly, respondents slightly preferred service to Westview and the Catonsville commercial area over service to the Center for Medicare and Medicaid Services / Social Security Administration (CMS/SSA) area, citing lower commute levels to CMS/SSA due to an increase in remote working.

Figure 13 to Figure 17 show preferences for various segment tradeoffs along the corridor.

Figure 13: Segment Tradeoff - North or South of Patterson Park

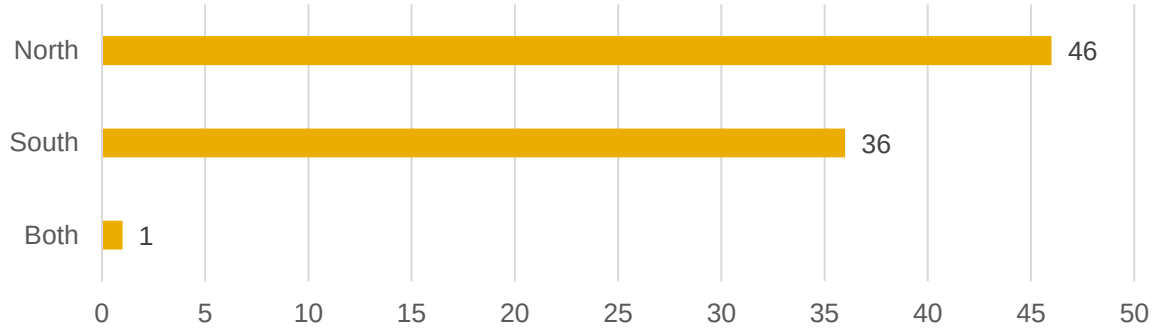


Figure 14: Segment Tradeoff - Johns Hopkins Hospital or Harbor East

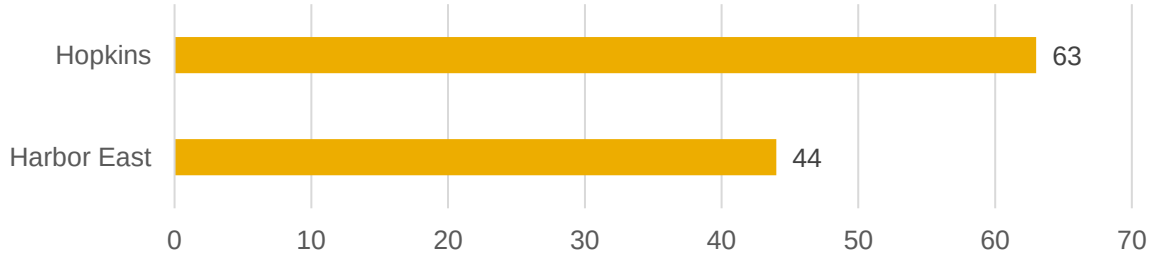


Figure 15: Segment Tradeoff - Charles Center or Inner Harbor

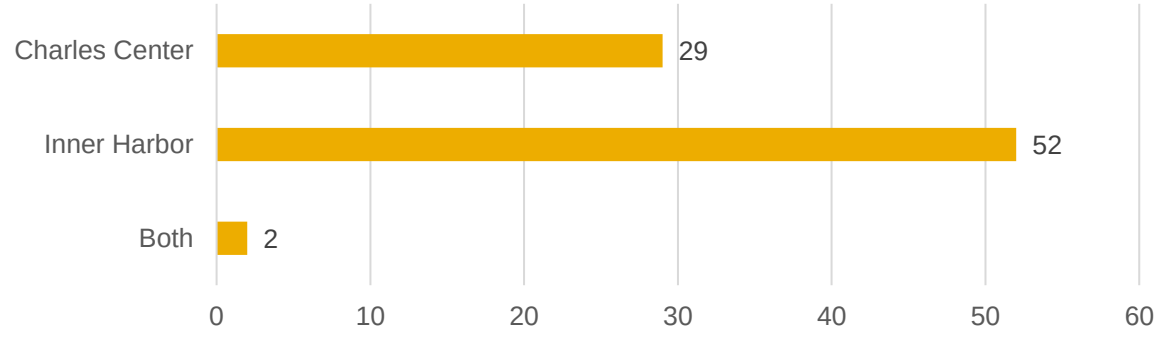


Figure 16: Segment Tradeoff - Harlem Park or Union Square

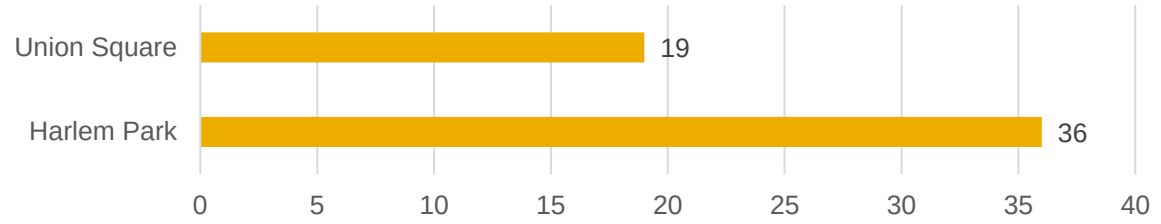
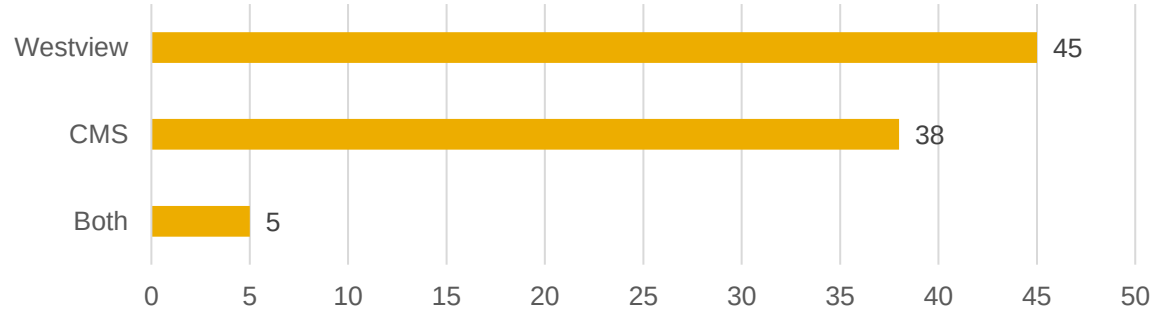


Figure 17: Segment Tradeoff: CMS/SSA or Westview/Catonsville



Findings

- There was roughly equal support for north vs. south of Patterson Park.
- Serving Johns Hopkins Hospital was slightly more supported than going to Harbor East.
- Serving the Inner Harbor was more important than Charles Center. However, many respondents did note the importance of connecting to the existing Metro Subway and Light Rail.
- Staying along Route 40 and the Highway to Nowhere (Harlem Park) was preferred nearly twice as often as serving Baltimore Street west of MLK (Union Square).
- Westview and the Catonsville commercial area were more important than serving CMS/SSA (Woodlawn) area.

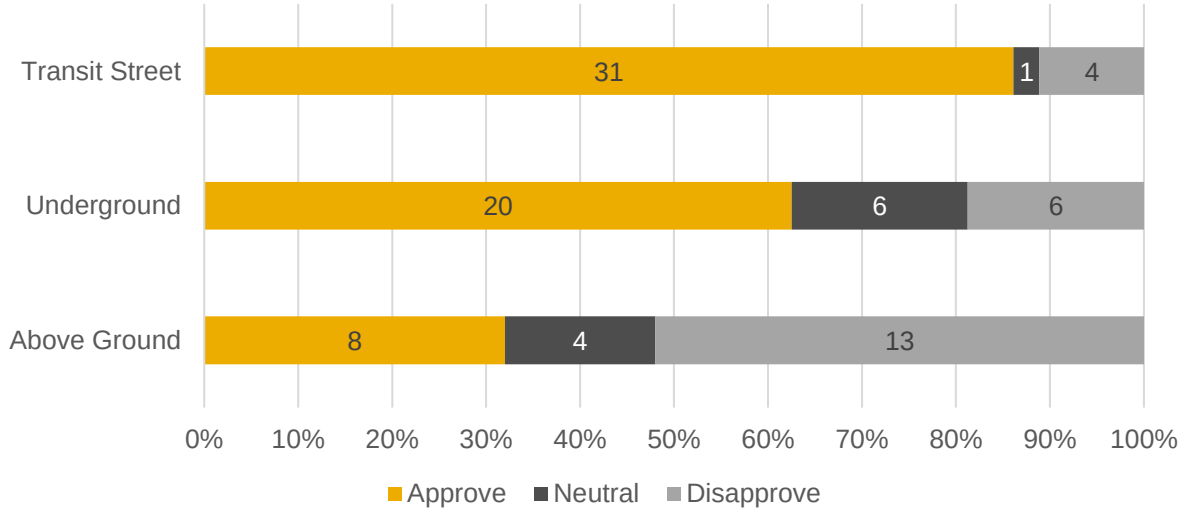
Treatment Preference

Respondents' preferences about treatment—i.e., whether the proposed alignments traveled above ground, underground, or along a dedicated transit street—were captured via open-response questions and coded by the outreach team.

The proposed transit-only street along Baltimore Street received the strongest support among all treatment options, with many respondents voicing their approval and citing it as a "major need" for the downtown area. Underground treatments received mostly positive feedback, but there were several disapproving comments that expressed concern over the environmental impacts and high costs involved with tunnelling. Lastly, above-ground treatments received a mixed reaction, with slightly more respondents disapproving. Concerns were centered around potential unreliability and slower service due to mixing with non-transit traffic.

Figure 18 shows support for each of the proposed treatment options.

Figure 18: Treatment Support



Findings

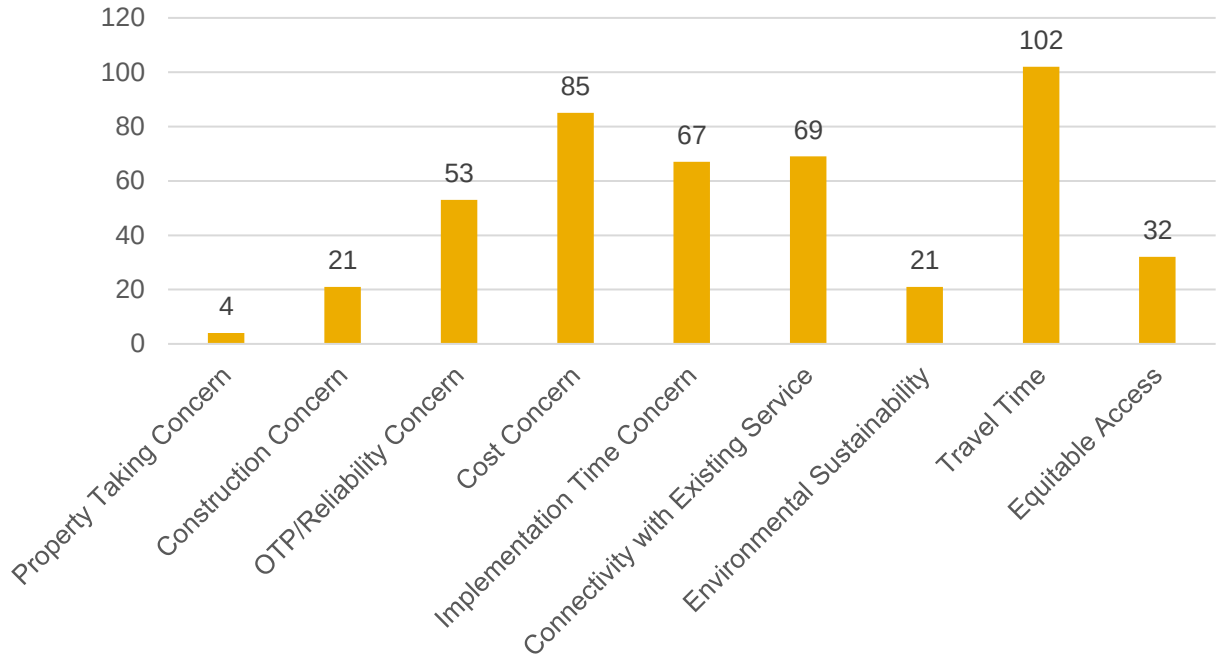
- Comments in support of the proposed Transit Street significantly outnumbered those against.
- More respondents expressed approval for alignments running underground than those whose comments were neutral or disapproving.
- Most mentions of alignments running above ground were statements of disapproval; many commenters expressed concern about transit vehicles getting stuck in traffic.

Other Topics

The project team identified nine other notable topics, beyond those already identified above, that were mentioned in multiple comments. Of these topics, the most commonly-mentioned was **travel time**, followed by **cost concern** and **connectivity with existing service.** The findings indicate that respondents are generally most concerned about making the transit network faster and more efficient. Additionally, the high volume of cost concern comments may reflect respondents' lack of trust in the feasibility of a project if costs are too high. On the other hand, the lower volume of comments regarding **environmental sustainability**, **construction concern**, and **property taking concern** indicates that respondents may view these as lower priority concerns than overall system reliability and efficiency.

Figure 19 shows the frequency of commonly mentioned topics.

Figure 19: Court of Mentions



Findings

- Travel time, cost concern, and connectivity with existing service were the most commonly-mentioned topics by respondents.
- Based on the topics analyzed, environmental sustainability, construction concern, and property taking concerns were mentioned the least.

CONCLUSION

This engagement effort yielded a variety of comments that will help the project team evaluate potential options moving forward. Some of the most notable takeaways from this outreach effort are:

- **Mode:** Rail modes received far more support than BRT, although support for HRT was tempered by its high costs and longer implementation timeline. Comments in support of BRT stressed that it was cheaper and faster to build. Many commenters identified LRT as an acceptable midpoint between the two, making it something of a “Goldilocks” option. Respondents at pop-up events—thus, current transit riders—expressed much greater support for BRT as a mode, and the shorter stop spacing that accompanies it, than online respondents.
- **Destinations served:** There was strong support for serving Essex, and limited support for serving Howard County. Many respondents also supported serving Catonsville/Westview, often at the expensive of service to CMS/SSA, given the shift to telework. There was a roughly even split of support for service north of Patterson Park versus south of Patterson Park.
- **Treatments:** There is strong support for a transit street on Baltimore Street as a means of ensuring reliability and speedy travel times. Alignments without the transit street were explicitly criticized for this omission. While tunnelling was supported as a way to fully separate the transit service from private traffic, many commenters expressed concern about the costs, property takings, and climate resiliency associated with tunnelling.
- **Goals and priorities:** Respondents want the project team to both improve the connectivity of the existing network and expand its reach while prioritizing low travel times across the region and minimizing the costs and implementation timeline associated with this project.