

Contents

I. Overview	3
II. Key Findings	6
III. Open House Meetings	8
IV. Survey Results.....	24
V. Summary of New Ideas.....	41
VI. Lessons Learned	41

Appendices

Appendix A	Open House Exhibits, Meeting Sign-In Sheets, Scanned Worksheets, Station Signs, Yard Signs
Appendix B	Submitted Open House Comments
Appendix C	Open House Mapping Exercise Results
Appendix D	Feedback Form Data
Appendix E	Online Survey
Appendix F	Open House and Online Survey Participant Ideas

I. Overview

In December 2019, Metro solicited public input on preliminary concepts for improvements to the Blue, Orange, and Silver lines through two types of public feedback:

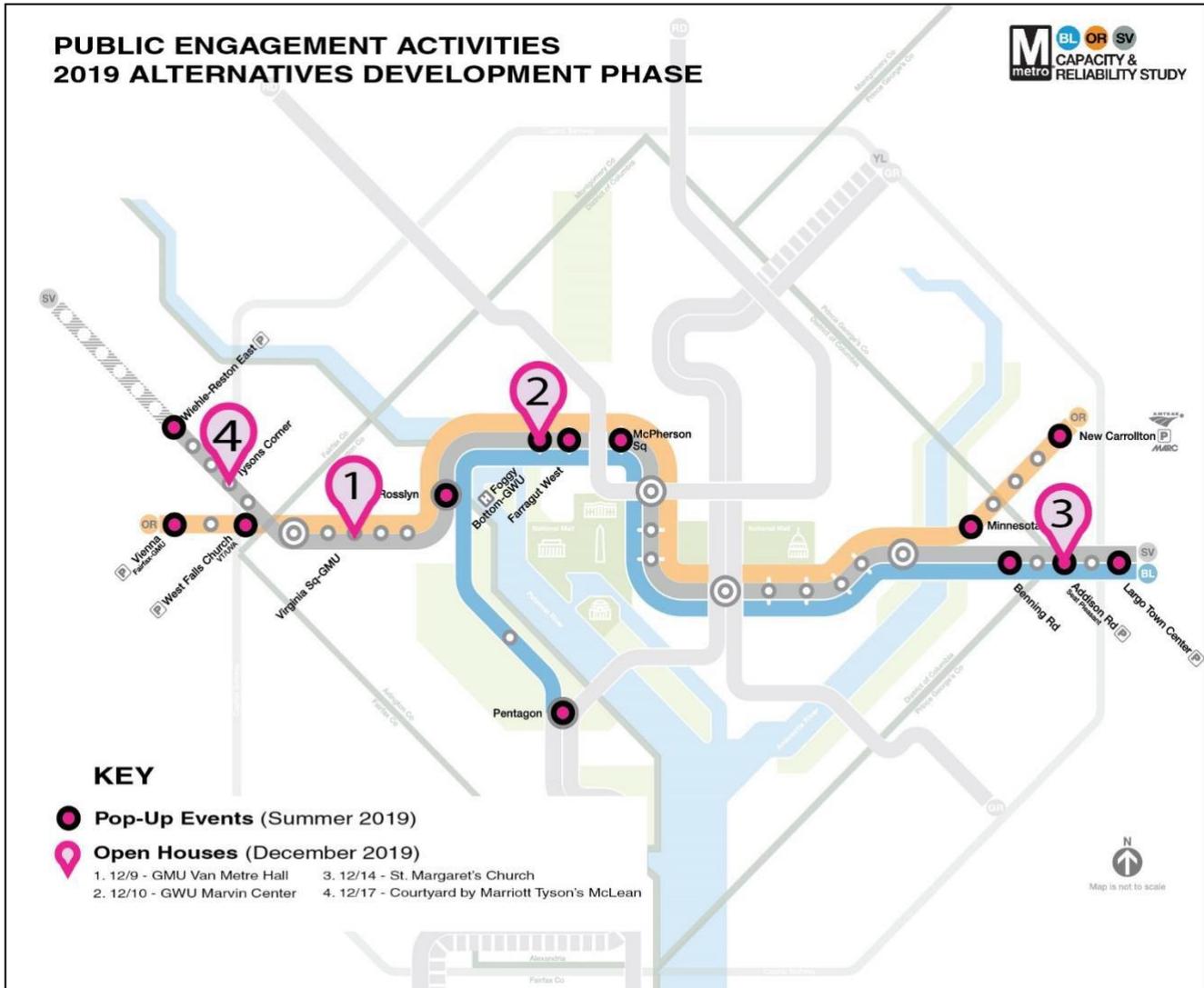
- A series of four public open house meetings, held throughout the study area on December 9, 10, 12, and 17, 2019.
- An online survey that was open between December 5, 2019 and January 6, 2020

A. Goals and Purpose

At this stage of the BOS Study process, Metro has identified a number of alternative concepts for addressing the study's stated Purpose and Need. The open houses and survey were structured (1) to enhance public awareness of the alternative concepts and of the opportunities available for providing input, (2) to collect meaningful feedback from a range of interested stakeholders on the current set of concepts being considered, and (3) to solicit additional ideas regarding other options to be considered that might effectively attain the study goals. Input collected from this round of public engagement will inform subsequent screening, narrowing, and refinement of the alternatives to be carried forward for more-detailed analysis.

B. Public Engagement To Date

This round of public engagement builds on a series of pop-up events conducted at Metrorail stations in the summer of 2019 to inform the public of the study. The accompanying map illustrates locations and nature of public engagement activities conducted to date for the study.



Additional meetings with internal and external stakeholder committees informed the development and evolution of the concepts that were the focus of this round of public engagement.

C. Target Populations

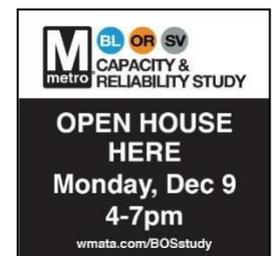
Through the four open houses and the survey, Metro sought feedback from current and potential Metro customers on the Blue, Orange, and Silver Lines, including:

- Residents
- Workforce/employers
- Students
- Transit-dependent/no-car households
- Minorities
- Low-income populations
- Spanish-speaking LEP populations

D. Marketing and Promotion of the Open Houses and Survey

Primary mechanisms for advertising the open houses and survey included the following:

- **Study Webpage:** Metro posted updated content and announcements of the initial concepts input phase on the B/O/S study webpage. Content included information about the upcoming open houses as well as a link to the online survey.
 - **Press Release:** To announce the input process, Metro issued a press release advertising both the open houses and the launch of the survey. The press release subsequently resulted in numerous articles and discussions about the study and upcoming engagement opportunities in online, radio, and television media.
 - **Print Promotion:** An easy-to-print full-page flier was created in English and Spanish versions, with logistical information about the Open houses and survey.
 - **Email and Eblasts:** Both the open houses and survey were advertised through a series of emails to BOS study committee members external to WMATA, as well as through Metro eblasts to community-based organizations, local government information officers, and a subset of SmarTrip® holders who typically ride the Blue, Orange, and Silver Lines.
 - **Survey Incentives:** To incentivize survey responses, all promotional materials noted that survey respondents would have the opportunity to win one of three \$50 SmarTrip® cards through a drawing following the survey. The study home page also promoted and featured logistical details about the Open house events with a link to the proposed Eventbrite registration, as described in the Social Media Promotion section (below).
 - **Social Media Promotion:** Leading up to each Open house date, and during the work prior to the deadline for completing the surveys, Metro issued a series of social media posts via its Twitter and Facebook accounts.
- In addition, Eventbrite pages were established for each of the Open house events for promotion purposes and to anticipate and plan for an approximate number of attendees.
- **Station and Venue Signage:** 24" x 36" posters advertising the meetings were displayed outside the faregate areas of all Metrorail stations in the study area. Additionally, yard signs were installed outside meeting venues in the days prior to each meeting (with the exception of the George Washington University venue, as the University prohibits exterior signage displays).



II. Key Findings

A. Participant Priorities and Preferences

- Expanding the Metro system emerged as the outcome the public would prioritize, as reflected by the stated preferences regarding priority outcomes and by the concepts receiving the broadest public support. Other top priorities, as stated, included increasing the frequency of Metro service and encouraging transit-oriented development in the region.
- Overall, the public's lowest-priority outcomes included fewer transfers, providing more cost-effective service, and reducing crowding.
- Concept 3 (New Blue Line Regional Connections) and Concept 6 (New Silver Line Connections, South of I-66) received the most support from the public, while Concept 4 (New Core Loop) also received strong support.
- Concept 1 (Optional Train "Turnbacks"), Concept 2 (NoVa Circulator), and Concept 5 (New Silver Line Connections, North of I-66) received the lowest levels of support.
- While optional train turnbacks (Concept 1) did not receive broad public support as a preferred strategy for addressing the system's challenges, many commenters did express support for turnbacks as an interim measure that could be combined with other longer-term improvements that address expansion of the Metro system.
- When asked whether or not they are in favor of a series of operational strategies and general, systemwide improvements that may address the study goals (in addition to the proposed concepts), pocket tracks and crossovers received the most support. Enhancing connections to stations and expanding core stations also received high levels of support. Strategies receiving lower levels of support included reconfiguring train seats, enhanced train control, and enhanced parallel bus service.
- Open house participants and survey respondents generated more than 275 new concept ideas and variations on existing concepts that will inform the concepts ultimately included in a screening process of study alternatives. The range and extent of these ideas are visualized in **Figure 7** on page 39.

B. Participant Demographics

- In total, 2,025 survey respondents and 140 public open house participants provided input on preliminary concepts and their overall priorities.
- Arlington County had the largest share of survey respondents (32 percent), followed by the District of Columbia (19 percent).

- The most-utilized Metro stations among survey respondents included Metro Center, Pentagon City, Rosslyn, and Ballston. Collectively, survey respondents reported using all stations in the Metro system.
- Over three quarters (78 percent) of survey respondents identified themselves as frequent transit riders (defined as those who ride Metrorail or bus at least three times per week).
- Regarding race, 67 percent of survey respondents identified as white, while 14 percent identified as non-white, which is lower than the overall share of non-white Metrorail riders overall (39 percent). In addition, 6 percent of survey respondents identified as Hispanic or Latino, which is slightly below the percentage of Hispanic or Latino Metrorail riders overall (7 percent).
- When asked to share their income range, 2.6 percent of survey respondents identified as low-income (defined as having an annual income less than \$30,000), which is below the percentage of low-income Metrorail riders overall (11 percent).

III. Open House Meetings

The four open house meetings were held during the first two weeks in December 2019. The primary objectives of the open houses were to engage members of the public in discussions and to solicit feedback regarding the alternative concepts. The agenda for each meeting is described in detail below.

A. Venue Selection Criteria

The four open house meeting venues were identified and selected by consultants in discussion with WMATA staff during the months preceding the events. The selection process targeted locations in areas where the open houses could capture the greatest number of the target populations (described above under “Target Populations”).

A number of other criteria were applied during a screening process to ensure that the meetings attracted a diverse segment of the public. Key criteria included:

- Metrorail accessibility: Venues located within walking distance, or no more than ½ mile of Metro stations, were prioritized.
- Geographic and jurisdictional distribution of open house locations: The team sought to avoid clustering venues within a single jurisdiction or portion of the corridor.
- Metro line distribution: The team sought to ensure that open house locations were equitably distributed across all three lines in the study area to ensure that feedback reflected the Metro rider experience on all lines.
- Workforce and residential populations: Where possible, the team sought to hold open houses at times and locations that could capture both workers from nearby employment centers and residents who live nearby.
- Areas affected by the preliminary concepts: To the extent possible given other criteria, the team sought to locate meetings in or near areas where specific preliminary concepts would be implemented.
- Continuity with summer 2019 pop-up events: Where possible, in light of other criteria, venues near stations used for pop-up events in Summer 2019 were weighted in order to achieve continuity with populations who had already been informed of the study during the earlier stage of public engagement.

After applying all of these factors, practical considerations such as venue accessibility, availability and cost were applied to the list of potential venues. Efforts were made to select venues that fit within the selection criteria identified; however, venue availability and accessibility were barriers affecting several of the venues initially “shortlisted” during the search.

B. Dates and Locations

Dates and locations for the open house events were as follows:

Public Open House #1

Monday, December 9

4:00 PM - 7:00 PM

George Mason University - Van Metre Hall (Multipurpose Room)

3351 Fairfax Drive

Arlington, VA 22201

Stations: Virginia Square-GMU, Clarendon, Ballston (OR, SV)

Public Open House #2

Tuesday, December 10
4:00 PM – 7:00 PM
George Washington University (Marvin Center, Room 301)
800 21st Street NW
Washington, DC 20052
Station: Foggy Bottom-GWU (BL, OR, SV)

Public Open House #3

Thursday, December 12
4:00 PM – 7:00 PM
St. Margaret’s Church (Omega Room)
410 Addison Road South
Capitol Heights, MD 20743
Station: Addison Road (BL, SV)

Public Open House #4

Tuesday, December 17
4:00 PM – 7:00 PM
Northern Virginia Chamber of Commerce
Baker Tilly Conference Room
7900 Westpark Drive, Ste. A550
Tysons, VA 22102
Metro Station: Tysons Corner and McLean (SV)
Station: McLean / Tysons Corner (SV)



C. Meeting Agenda and Participant Experience

Each of the meetings was structured in an open house format from 4:30 PM to 7:30 PM, enabling participants to come and go at their preferred times. Two presentation opportunities, at 5:00 and 6:30 PM (the same presentation was given at both times), explained the need for the project, the alternatives analysis process and the alternative concepts developed to date, while providing opportunities for questions and answers.

Upon arrival, participants were greeted at a registration table and received a worksheet with an outline of topic-specific stations. Signs were placed outside each venue to advertise the meeting and identify its location. As needed, 1-2 staff were stationed outside each meeting venue, or just inside the front door, to direct participants to the meeting space and look out for arriving attendees needing special assistance.

At the sign-in table and entrance to the meeting space, greeters guided participants through each station (see meeting space layouts in **Appendix A**), and facilitators were on hand to answer questions and guide participants through each activity.

Meeting exhibits and activities were organized as five “stations,” as follows:

- **Station 1: Welcome!** At this station, arriving attendees signed in, received their participant worksheet, and received a brief orientation about the agenda, format, and layout of the meeting.
- **Station 2: Study Needs & Process.** This station included several exhibit boards providing background on the study needs, goals, and objectives. A final board listed a series of priority outcomes related to Metrorail improvements and asked participants to indicate their top three priorities by placing sticker “dots” next the priorities they consider to be the most important.
- **Station 3: Preliminary Concepts.** Exhibits at this station included a board describing each preliminary concept and how each achieved the goals of capacity, reliability, and flexibility. Participants were asked to review the concepts and discuss them with a facilitator at this station. They were also encouraged to share their feedback on these concepts both on the participant worksheet and via the survey, which participants could complete at Station 5.
- **Station 4: Your Ideas.** This station featured maps of the Blue, Orange and Silver lines on tables, with markers and sticky notes for providing input. Participants were asked to share their ideas for any additional concepts they thought should be considered through either drawing their ideas on a map or writing them on sticky notes placed on the maps. Participants also had the opportunity to write additional comments in a space provided on the front side of the worksheet.
- **Station 5: Take the Survey!** At this final station, participants were encouraged to take the online survey using several tablet computers provided for this purpose. This survey was same survey posted online during the December 5, 2019 to January 6, 2020 period.

Each meeting venue also included a screen and seating for the two presentations, which provided a more in-depth overview of the material in the meeting exhibits and included an opportunity for the audience to ask questions.

A bilingual member of the consultant team was present at each meeting to serve as a Spanish-language interpreter, as needed. In addition, a Spanish version of the meeting agenda was available on the sign-in table next to a sign in Spanish indicating that Spanish interpretation services were available.



Open House Results

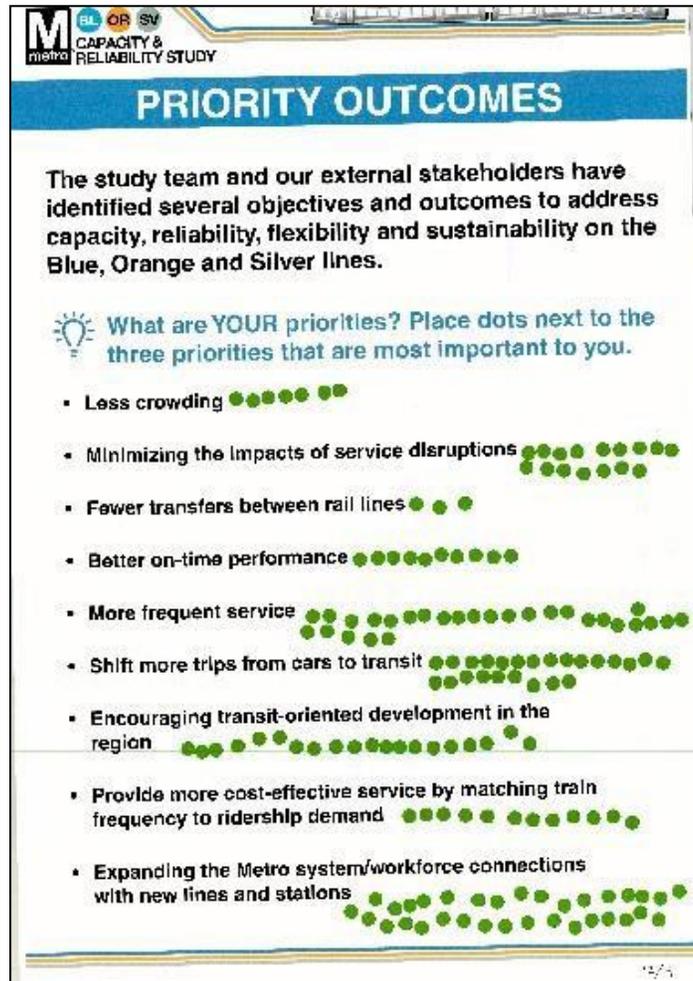
Participation Totals

The table below summarizes participation totals for the four open house sessions:

Meeting Date	Attendees	Worksheets
9-Dec	63	30
10-Dec	30	22
12-Dec	14	8
17-Dec	33	18
TOTAL	140	78

Priority Outcomes Dot Exercise

At each meeting, a display board presented a list of potential priority outcomes resulting from Blue, Orange, and Silver line improvements. Participants were asked to place up to three dot stickers next to their most preferred outcomes for the study. Across all four open houses, participants offered the following feedback on the nine example priorities listed on the board: “Expanding the Metro system/workforce connections with new lines and stations” and “More frequent service” were the two ideas that received the most dots, at 68 and 52 dots, respectively. Tied for third place at 43 dots was “Shift more trips from cars to transit” and “Encouraging transit-oriented development in the region.” Coming in last place, at 8 dots, was “Fewer transfers between rail lines.” Results are summarized in the accompanying table.



PRIORITY OUTCOMES	TOTAL
Less crowding	13
Minimizing the impacts of service disruptions	31
Fewer transfers between rail lines	8
Better on-time performance	26
More frequent service	52
Shift more trips from cars to transit	43
Encouraging transit-oriented development in the region	43
Provide more cost-effective service by matching train frequency to ridership demand	20
Expanding the Metro system/workforce connections with new lines and stations	68

Concept-Specific Comments

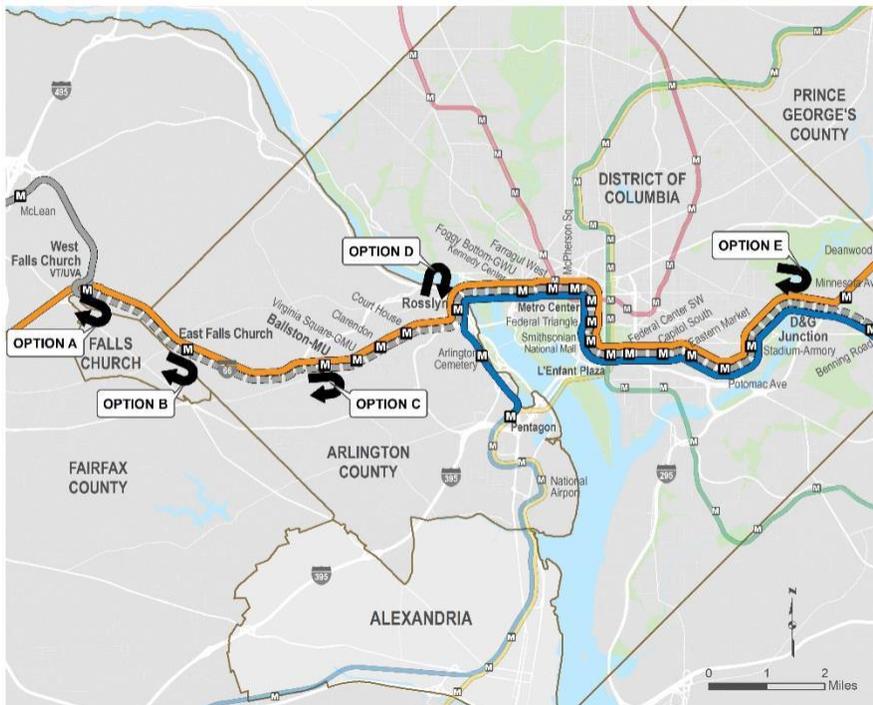
Participants were shown a series of illustrative concept maps on display boards which summarized each of the preliminary improvement options being considered for the study. Each of the concept boards included a summary, further descriptions of any sub-level options, and a brief summary of benefits and tradeoffs.

Overall, based on a limited number of concept-specific comments, Concepts 1, 4, and 6 received the most favorable comments. However, many participants chose to reserve their concept-specific feedback for the survey, as described in the following section.

Concept 1: “Optional Train ‘Turnbacks’”

Concept 1 featured a series of turnback options for B/O/S trains in Northern Virginia and Maryland.

CONCEPT #1: OPTIONAL TRAIN “TURNBACKS”



Concept : Install the appropriate infrastructure so that trains could “turn back” at different areas along the Orange, Blue or Silver Lines.

“Turnbacks” could be located at West Falls Church Station (**Option A**), East Falls Church Station (**Option B**), Ballston-MU Station (**Option C**), Rosslyn Station (**Option D**), or outside Stadium-Armory Station (**Option E**).

Benefits and Trade-offs

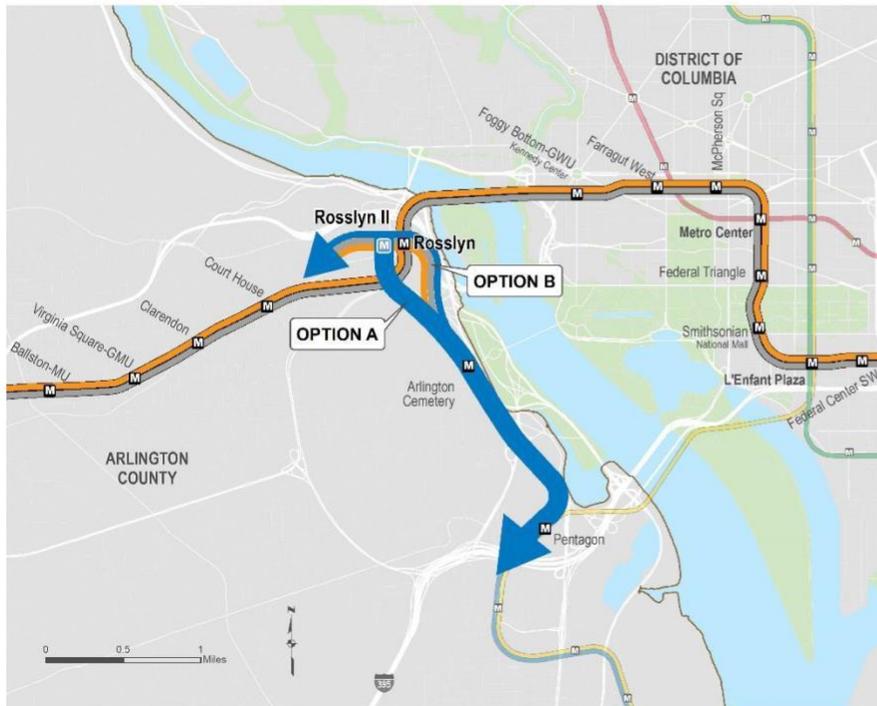
- Requires new crossovers, pocket tracks, and platforms
- Crossovers and pocket tracks *minimize service impacts* from construction and maintenance
- Allows for new and *more cost-effective* service patterns
- May allows Metro to run *more Silver Line Trains* between Dulles and Tysons

Comments on this concept reflected a mixed response to the proposed turnback options. While participants were generally in favor of turnbacks both as a concept and as a potential interim or “near-term” solution, three commenters proposed new turnback location options in addition to (or as alternatives to) those illustrated. One commenter questioned why there were 4 turnbacks in Northern Virginia and none in Prince George’s County. Several commenters noted that, while they like this concept, they prefer that Metro pair it with one of the long-term options.

Concept 2: “NoVA Circulator”

Concept 2 featured a second Metrorail station, labeled “Rosslyn II”, which would be connected to the existing Rosslyn station by a pedestrian tunnel.

CONCEPT #2: NOVA CIRCULATOR



Concept : Build a new “Rosslyn II” Station and realign rail service around Rosslyn Station to better support travel demand within Northern Virginia.

A new “Rosslyn II” Station with direct pedestrian links to the adjoining station would allow for different service patterns:

Option A - Run the Blue Line between Franconia-Springfield to the new “Rosslyn II” Station only.

Option B - Build a new track connection between Arlington Cemetery, “Rosslyn II,” and Court House stations. This would permit some trains to offer one-seat rides between Tysons, Rosslyn-Ballston, Pentagon, Crystal City, National Airport, and Franconia-Springfield.

Benefits and Trade-offs

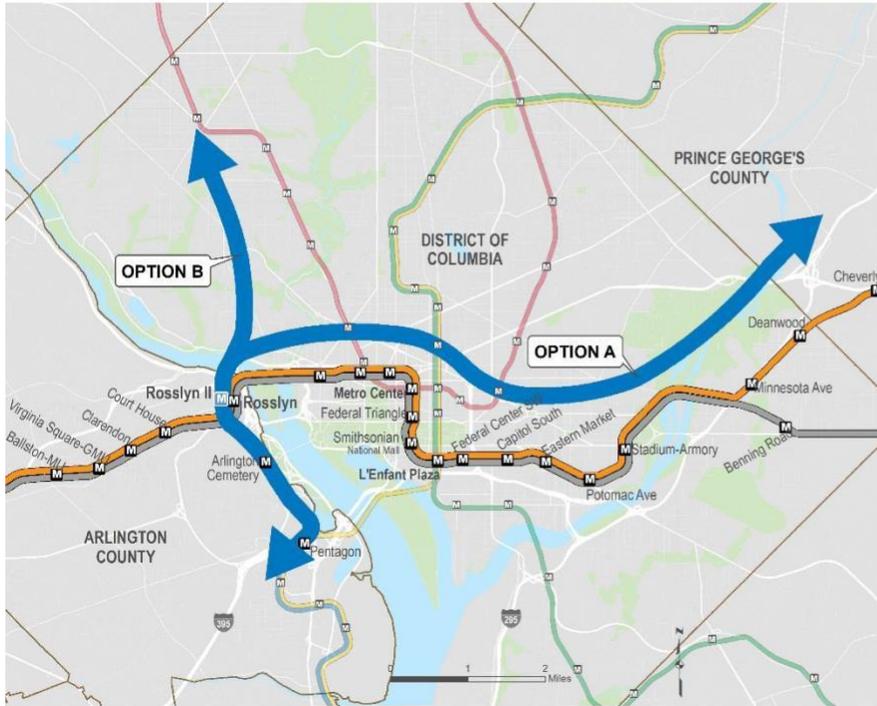
- Separates BL/OR/SV Lines *reducing potential for delays* on Blue Line to impact Orange/Silver Lines and vice-versa
- Allows Metro to *run more trains* west of Rosslyn but not any more trains across the Potomac River
- Blue Line riders to DC or Maryland would have to transfer to Orange/Silver Lines

Concept 2 was specifically identified in two comments: one commenter rated Concept 2 as a top-tier choice, while the other expressed his/her disapproval with it altogether. The relatively low feedback received for this concept was supported in part by the Priority Outcomes boards, which showed that participants place less value on “one-seat rides” than all of the other priority options displayed.

Concept 3: “New Blue Line Regional Connections”

Concept 3 highlighted two options for new Blue Line connections. Beginning at Rosslyn, these options explored the possibility of a new Potomac River crossing into DC and Maryland.

CONCEPT #3: NEW BLUE LINE REGIONAL CONNECTIONS



Concept : Build a new “Rosslyn II” Station with a direct pedestrian link to the existing Rosslyn Station. Extend the Blue Line service through a new tunnel under the Potomac River into DC and Maryland.

A new, adjoining station with a new tunnel under the Potomac River would separate the three lines at Rosslyn, provide new capacity across the Potomac, and allow for different service patterns.

Option A - Blue Line service would run from “Rosslyn II” to Georgetown, Mid-City DC, and Union Station, then continue through Northeast DC into Prince George’s County.

Option B - Blue Line service would run from the “Rosslyn II” Station through Georgetown and along or near Wisconsin Avenue to connect with the Red Line at Friendship Heights or Bethesda.

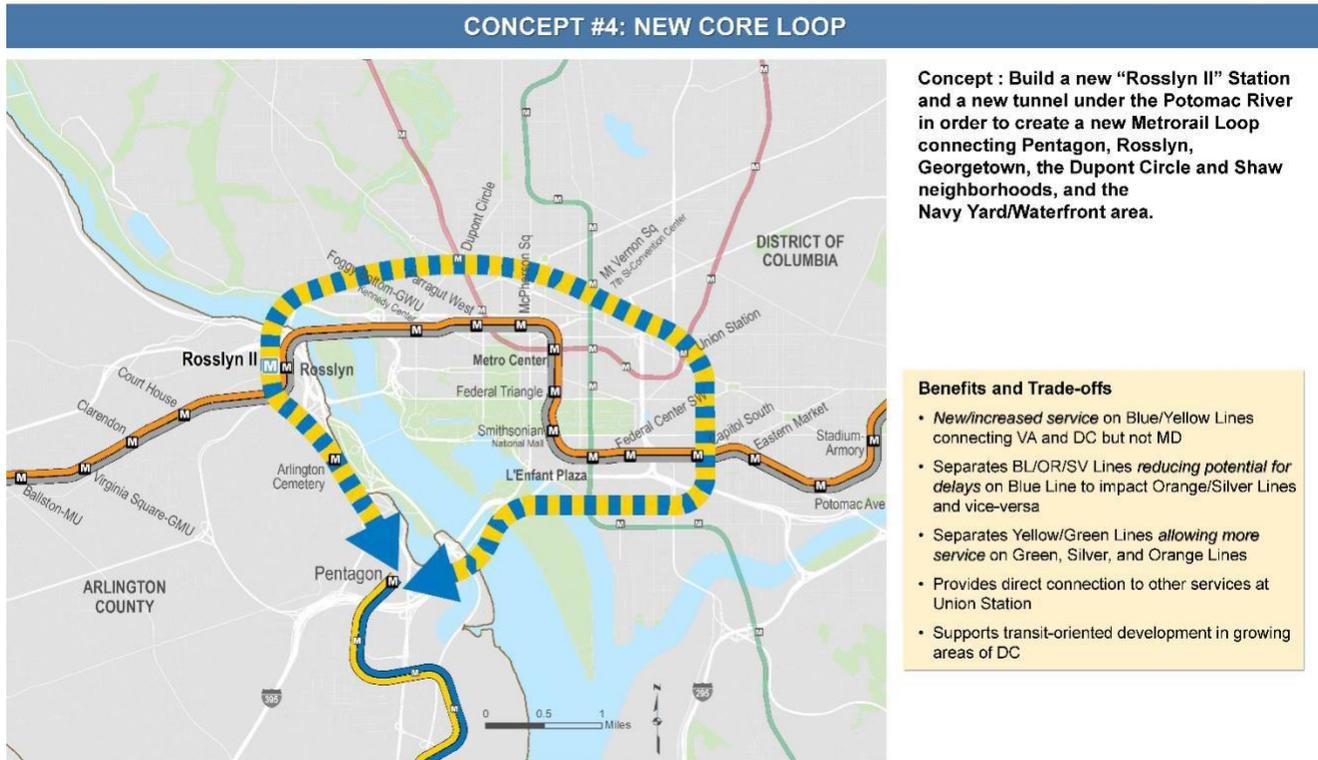
Benefits and Trade-offs

- *New/increased service* on Blue Line connecting VA, DC, and MD and increased service on Orange/Silver Lines
- Option A connects to other services at Union Station
- Option B connects to MD but *may not address BL/OR/SV travel demand*
- Separates BL/OR/SV Lines reducing potential for delays on Blue Line to impact Orange/Silver Lines and vice-versa

While only one comment indicated a specific preference between options A and B, three comments expressed support for Concept 3 as a long-term solution. There was a general consensus from commenters that this concept should be explored in greater detail.

Concept 4: “New Core Loop”

Concept 4 included a loop that would serve to increase circulation within the system’s core.

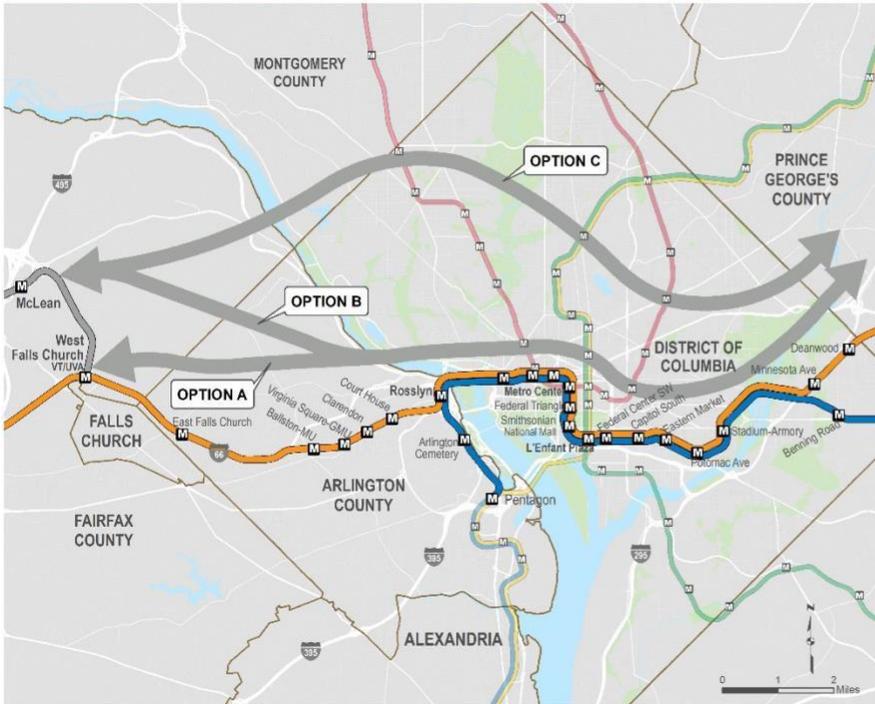


A number of commenters expressed support for some version of a “New Core Loop”. Four commenters identified Concept 4 as their favorite long-term improvement option, with some caveats. For example, one commenter voiced a desire to combine Concept 4 with an express train on the Silver Line from Loudoun. Another commenter added that Metro should consider offering alternative transfer points from Metro Center and L’Enfant Plaza, while avoiding any reduction in service to Maryland.

Concept 5: “New Silver Line Connections, North of I-66”

Concept 5 featured the first of two concepts outlining various options for new connections on the Silver Line. Options shown for this concept are all located north of Interstate 66.

CONCEPT #5: NEW SILVER LINE CONNECTIONS, NORTH OF I-66



Concept : Provide new Silver Line service through a new tunnel under the Potomac River into DC and Maryland, north of I-66.

A new tunnel under the Potomac River would provide a new Silver Line “corridor” north of I-66 that could operate as local service, express service or a mix, with different service options:

Option A - Operate new Silver Line service between West Falls Church, Mid-City DC, Union Station, Northeast DC and Prince George’s County.

Option B - Similar to Option A, but Silver Line service would operate from McLean instead of West Falls Church.

Option C - Operate new Silver Line service between Tysons, Bethesda or Friendship Heights, northern DC and Prince George’s County.

Benefits and Trade-offs

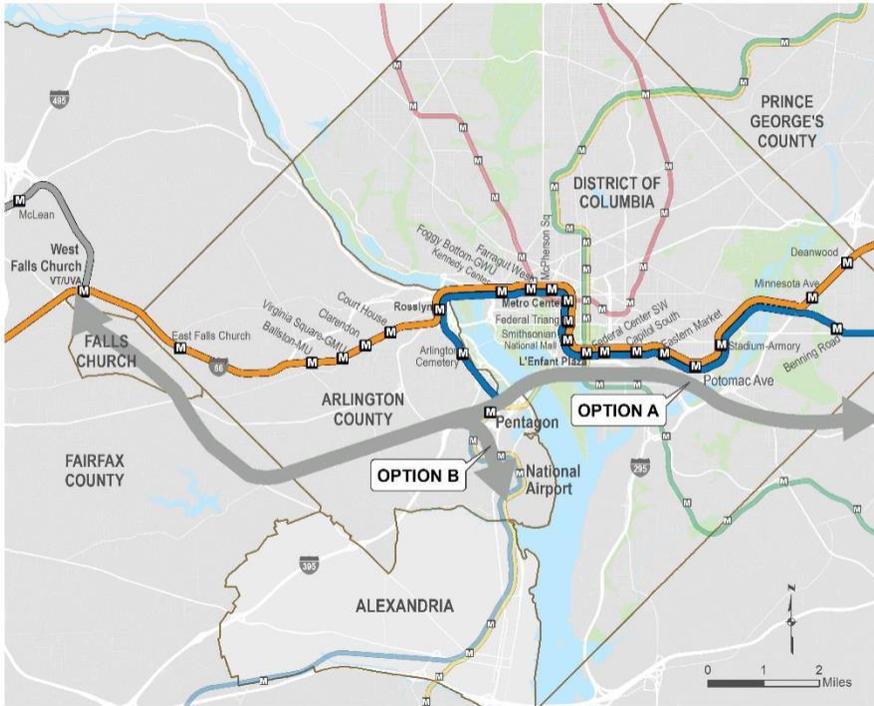
- *New/increased service* on Silver Line connecting VA, DC, and MD
- Separates BL/OR/SV Lines *reduce potential for delays* on Silver Line to impact Orange/Blue Lines and vice-versa
- Options A & B provide direct service from Tysons to DC and MD
- Option C reduces crowding on Orange/Silver Lines but *may be too far north to address BL/OR/SV travel needs*

Three comments expressed support for New Silver Line Connections North of I-66. One comment indicated support for *Option A*, but offered a specific alignment recommendation along New York Avenue from Georgetown to the existing Orange Line, citing potential cost savings.

Concept 6: “New Silver Line Connections, South of I-66”

Concept 6 featured the second of two concepts outlining various options for new connections on the Silver Line. Options shown for this concept are all located south of Interstate 66.

CONCEPT #6: NEW SILVER LINE CONNECTIONS, SOUTH OF I-66



Concept : Provide new Silver Line service through a new tunnel under the Potomac River into DC and Maryland, south of I-66.

A new tunnel under the Potomac River would provide a new Silver Line “corridor” south of I-66 that could operate as local service, express service or a mix, with different service options:

Option A - Operate new Silver Line service from West Falls Church along Route 7 and Columbia Pike, then across the Yellow Line Bridge to Southeast DC and Prince George’s County.

Option B - Similar to Option A, but the Silver Line would turn southward to Crystal City and National Airport rather than heading to DC.

Benefits and Trade-offs

- Both options separates BL/OR/SV Lines *reducing potential for delays* on Silver Line to impact Orange/Blue Lines and vice-versa
- Both options allow *increased service on* Blue/Orange/Silver Lines
- Both options *serve new areas* with strong transit markets
- Option A connects VA, DC, and MD while Option B connects Tysons, Crystal City, and National Airport

Overall, open-ended comments seemed to favor Concepts 1, 4, and 6. One comment expressed concern that Concept 6 extends to “areas that are already densely populated” and suggested that the Silver Line could be run further south near areas such as Landmark, Skyline, and Alexandria West End. Two commenters suggested the Silver Line should have its own set of tracks to enable express service patterns.

System-wide and Operational Improvements Ideas

In addition to the mapped concepts, an additional board presented a range of ideas for non-capital system-wide and operational improvements that could help address the study's goals.

ADDITIONAL OPERATIONAL AND SYSTEMWIDE IMPROVEMENTS

Operational strategies and general, systemwide improvements are identified that may increase capacity, reliability, flexibility, and sustainability on the Blue, Orange, and Silver Lines.



Pocket tracks and crossovers
Install more pocket tracks and crossovers to allow Metro to better recover from incidents and minimize extent of single-tracking.
Implementation: 5-10 years*



Expand core stations
Create new entrances and pedestrian connections in the highest-traffic Blue, Orange, and Silver stations, to reduce crowding and move people faster.
Implementation: 5 years*



Reconfigure train seats
Reduce number of train seats or reconfigure seating arrangements to provide more space.
Implementation: Depends on train overhaul schedule



Enhanced train control
Explore the potential costs and benefits of implementing new train control technology. Note: this would be a very large and expensive capital project.
Implementation: 10-20 years*



Enhance connections to stations
Build or improve bike and pedestrian connections to stations. This will grow ridership by expanding the neighborhoods in easy walking and biking distance from stations, and support transit-oriented development.
Implementation: 1-5 years, ongoing*



Enhancing parallel bus service
Reduce crowding on rail by transferring some ridership demand to higher-frequency bus routes.
Implementation: 1-2 years*

* - implementation timeframes are approximate.

A number of comments offered in the “Additional Feedback” section of the worksheet applied to system-wide and operational improvement concepts. Several comments in this category related to expanding bus service, expanding operating hours for Metro, and support for more eight-car train service. One comment suggested open gangways in all Metrorail cars but urged the study team to make informed decisions based on data such as Metro ridership numbers. One commenter expressed support for less expensive solutions to crowding such as eight-car trains. While there was overall support for greater regional coverage, opinions varied somewhat on where this new growth should occur.

D. Mapping Exercise/ Additional Ideas

A mapping exercise was conducted at Station 4 of each open house to collect ideas from the participating public. A set of large Metro system paper maps with the BL/OR/SV Lines highlighted, sticky notes, and markers were provided to encourage participants to draw and write additional ideas, project concepts, and desire lines. The map markups from the open houses are shown in **Appendix C**.

Recorded ideas included Metrorail line extensions beyond the existing Blue, Orange, and Silver line termini; proposed new Metrorail corridors serving new market areas; connections and links to the existing lines; and new ideas regarding interlining, or how trains from three lines could share tracks.

Participants were also encouraged to share their ideas through online survey responses and comment sheets at the open house; others emailed ideas directly to the project team. All of the ideas shared with the project team through all of these means are aggregated and analyzed in greater detail in Section V of this document.

During a subsequent screening process, the ideas collected will be sorted to identify those that are potential solutions for the BOS corridor needs and should be incorporated into the draft recommendations for further analysis.



E. Other Project-Specific Feedback

Many of the comments received offered detailed input or feedback which could not be easily categorized.

Specific support for new connections along Columbia Pike appeared in three comments, with overall support for a more robust network throughout Northern Virginia and Southeast DC. Many of the “core” system ideas entailed additional connections between existing stations within the system core. Three comments reflected a desire for more compact development around the stations, encouraging Metro to serve both existing and expected future growth areas. Others called for Metro to incorporate a phased approach to growth with one commenter in particular recommending the construction of “transfer station shells, even if the second line won’t be built for a while.”

Finally, some comments included process suggestions, recommending partnerships for the study or additional feedback mechanisms. One comment suggested Metro hold a “hack-a-thon” to generate new and exciting ideas for the Metrorail system.

F. Meeting Feedback Form Results

On the second page of the participant worksheet, participants were asked to complete a feedback form with a series of questions addressing their overall satisfaction with the meeting, how they had heard about it, as well as specific demographic information. In addition, the feedback form included additional space for comments. General comments related to the open houses, public engagement, and the BOS study are summarized below. Complete data from the feedback forms is included in **Appendix D**, while technical/substantive comments related to Metrorail improvements and the concepts are addressed in the following section along with other comments received on the first side of the worksheet.

Satisfaction with Meetings, Presentation Boards, and Staff

Almost all attendees who completed the feedback form expressed satisfaction with their experience at the open houses. A total of 75 people responded to the question, “How satisfied are you with the opportunity to provide feedback today?” Of these, 74 of 75 indicated that they were either “Satisfied” or “Very Satisfied,” with 34 responding that they were “Very Satisfied” and 40 indicating that they were “Satisfied.” One individual responded that he/she was “Unsatisfied” but did

How satisfied are you with the opportunity to provide feedback today?	Total
Extremely Satisfied	34
Satisfied	40
Unsatisfied	1
Very Unsatisfied	0
TOTAL RESPONSES	75
*3 participants left blank	

not comment on the reasons for this response. No respondents expressed dissatisfaction with the open houses, while three attendees who submitted a worksheet chose not to respond to this question.

Participants were also asked whether they agreed with the statement, “*The presentation boards were easy to understand.*” Of the 72 people who responded to this question, 48 respondents “strongly agreed” with this statement and 22 “somewhat agreed,” while two indicated that their feelings about the presentation boards were “neutral.” No respondents expressed disagreement, while six attendees chose not to respond to this question.

Finally, participants were asked whether they agreed with the statement, “*Staff were knowledgeable and professional.*” Fifty-seven of the 74 participants who responded to this question indicated that they “strongly agreed” with this statement, while 15 “somewhat agreed and two responded that they were “neutral.” Four attendees chose not to respond to this question.

Related Comments

Comments related to attendees’ level of satisfaction were largely positive (“Thanks for doing this! Super informative.”; “Very good location, presentation. Glad a Spanish-language interpreter was provided”; “Thanks!”). Two attendees commented specifically on the mapping exercise, one positively (“Lots of fun with markers and maps!”) and one suggesting that “the mapping exercise would be more useful w/density shading so people can see population centers on the map.”

Two additional commenters specifically asked to be kept informed about “which option(s) are chosen” and “any additional studies/developments”.

How Attendees Heard about the Open Houses

The survey included a question asking open house attendees how they had heard about each session. Thirty-two of the 75 respondents to this question (43 percent) indicated that they learned of the meeting through media coverage, 17 received emails about the open houses, and 10 learned of the open houses from signs posted in Metro stations. An additional 17 attendees responded that they learned of the meeting through “other” means. Of these respondents, many cited online/digital sources of information, including Facebook or Twitter (4 total), the WMATA website, Arlington Now, Eventbrite, a Google search, and an unspecified “online article.” Other sources of information cited by respondents included a yard sign outside the St. Margaret’s church meeting venue, the Ballston Civic Association, and through word-of-mouth via friends, family members or others (3).

Related Comments

One commenter noted that the study was “not widely publicized” and that there was “no mention in the Washington Post.”

Demographic Composition of Open House Attendees

The feedback form included two demographic questions asking attendees to share their race/ethnicity and household income. Of 75 total responses, 52 (69 percent) identified as “White/Caucasian,” while 16 (21 percent) identified as minorities (African-American, Hispanic/Latino, Asian) or “Other.” Seven respondents (9 percent) indicated that they “prefer not to answer” this question. An additional three attendees chose not to respond to this question.

When asked about their household income, 63 of 76 total respondents (83 percent) reported an income of greater than \$30,000, while seven respondents (9 percent) reported an income of less than \$30,000.

An additional six respondents indicated that they “prefer not to answer” this question. An additional two attendees chose not to respond to this question.

IV. Survey Results

The study team conducted an online survey, hosted on the QuestionPro platform, between December 5, 2019 and January 6, 2020 in English and Spanish versions. The survey asked members of the public how they would:

- prioritize a list of improvement outcomes identified to enhance Metrorail service in the region,
- react to a series of preliminary conceptual improvement scenarios on the Blue, Orange, and Silver lines, and
- suggest their own ideas for improving the Blue, Orange, and Silver lines via open-ended comment.

A total of 2,025 responses were received during this time period.

G. About the Respondents

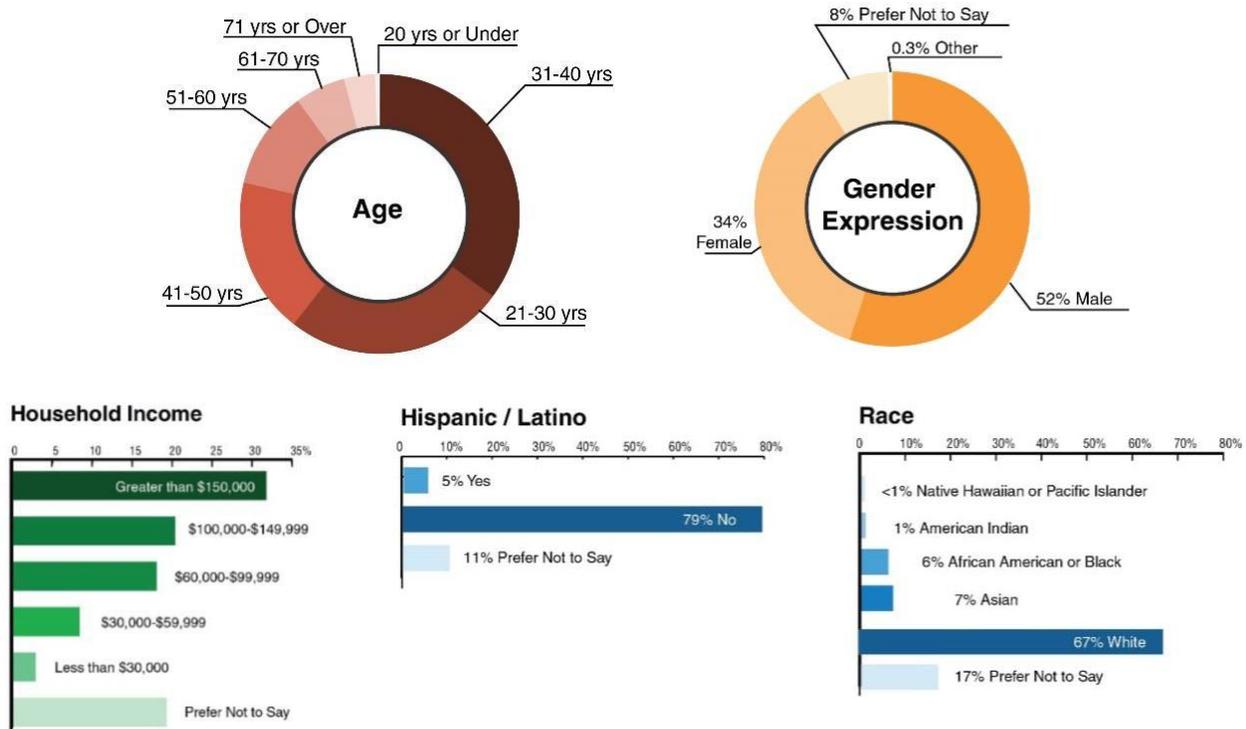
Basic profile of survey respondents

Figure 1 contains the basic demographic characteristics of survey respondents, for those who chose to share this information. As the survey was open to anyone and this sample is unweighted, the characteristics represented here serve to provide context for the survey results alone; they do not necessarily represent the region, Metrorail riders, or any other population.

Among respondents who provided demographic information, 35 percent of respondents were Minority (defined as Non-white or Hispanic). Three percent of respondents were low-income (defined as having an annual income of less than \$30,000). Approximately two thirds of respondents were between the ages of 21 and 40. A higher percentage of respondents were male (52 percent). Of the 2,025 responses provided, the majority (99 percent) were completed in English.

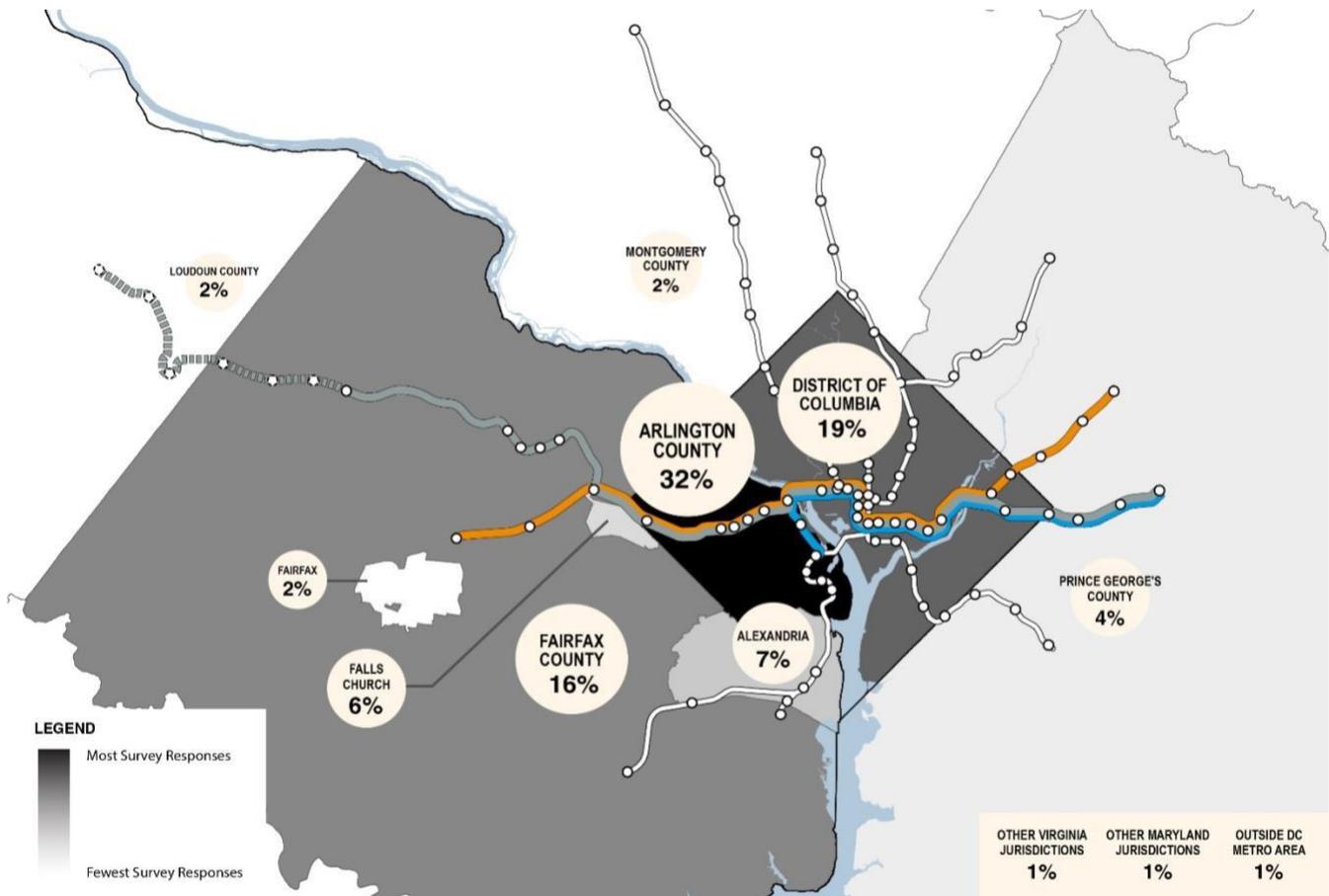
On average, the survey took about 15 minutes for respondents to complete. The majority of responses were received during the first half of December; response rates were highest on days preceding one of the four open houses.

Figure 1: Demographic Characteristics of Respondents



Thirty-two percent of respondents who shared their home zip code live in Arlington County (**Figure 2**), which was the highest reporting jurisdiction for the survey. The next highest jurisdiction was the District of Columbia (19 percent of respondents), followed by Fairfax County (16 percent), City of Alexandria (7 percent), and Prince George’s County (4 percent).

Figure 2: Home Jurisdiction of Respondents



There are several possible reasons for the uneven distribution of the survey sample across the region. One potential factor examined was the large number of survey responses received around the time of the public open houses, as they were advertised simultaneously. Another possible factor was higher online mobilization rates among Arlington and District of Columbia residents.

Basic Travel Information

The survey also asked respondents about their travel behavior on Metrorail. Respondents were asked to indicate how often they used bus and rail, and which three Metrorail stations they use most frequently (**Figures 3 and 4**). The majority of respondents (78 percent) used Metrorail three or more days per week, while 20 percent used Metrobus three or more days per week. Of the responses received, the top four most popular stations among respondents were Metro Center, Ballston-MU, Pentagon City, and Rosslyn.

Figure 3: Metrorail and Metrobus Usage Frequency (Per Week)

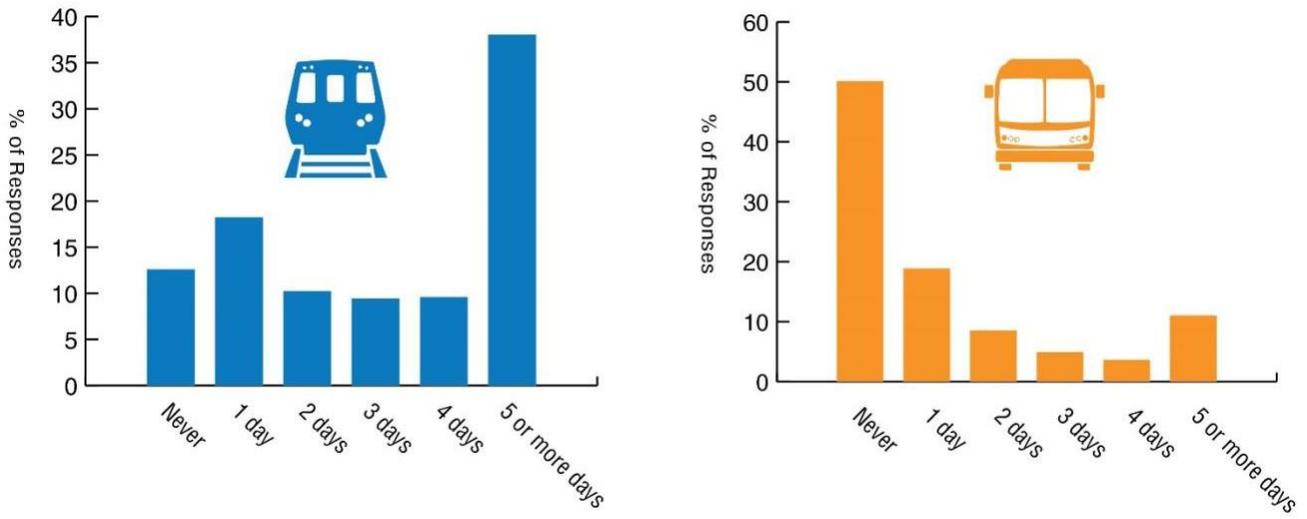
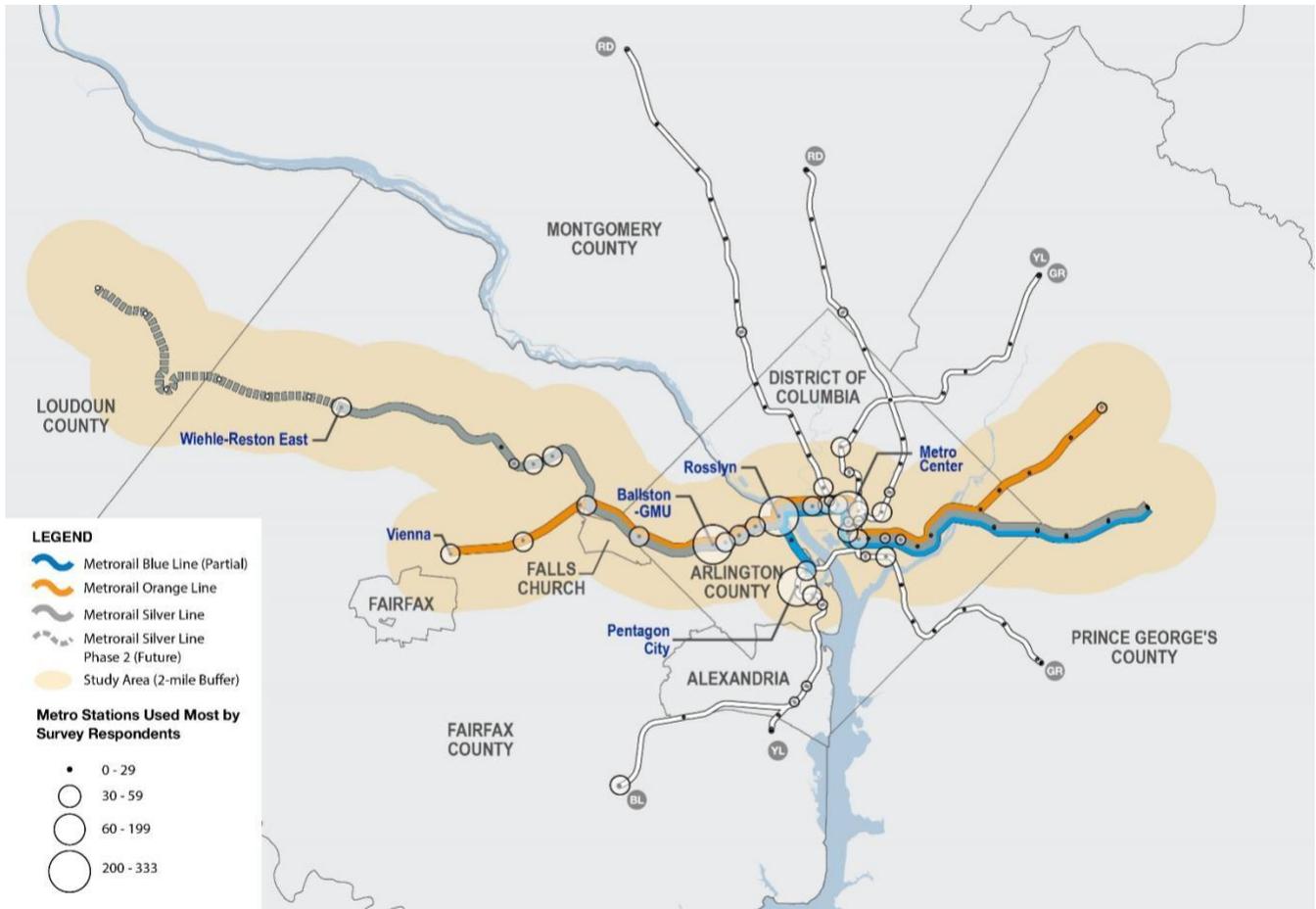


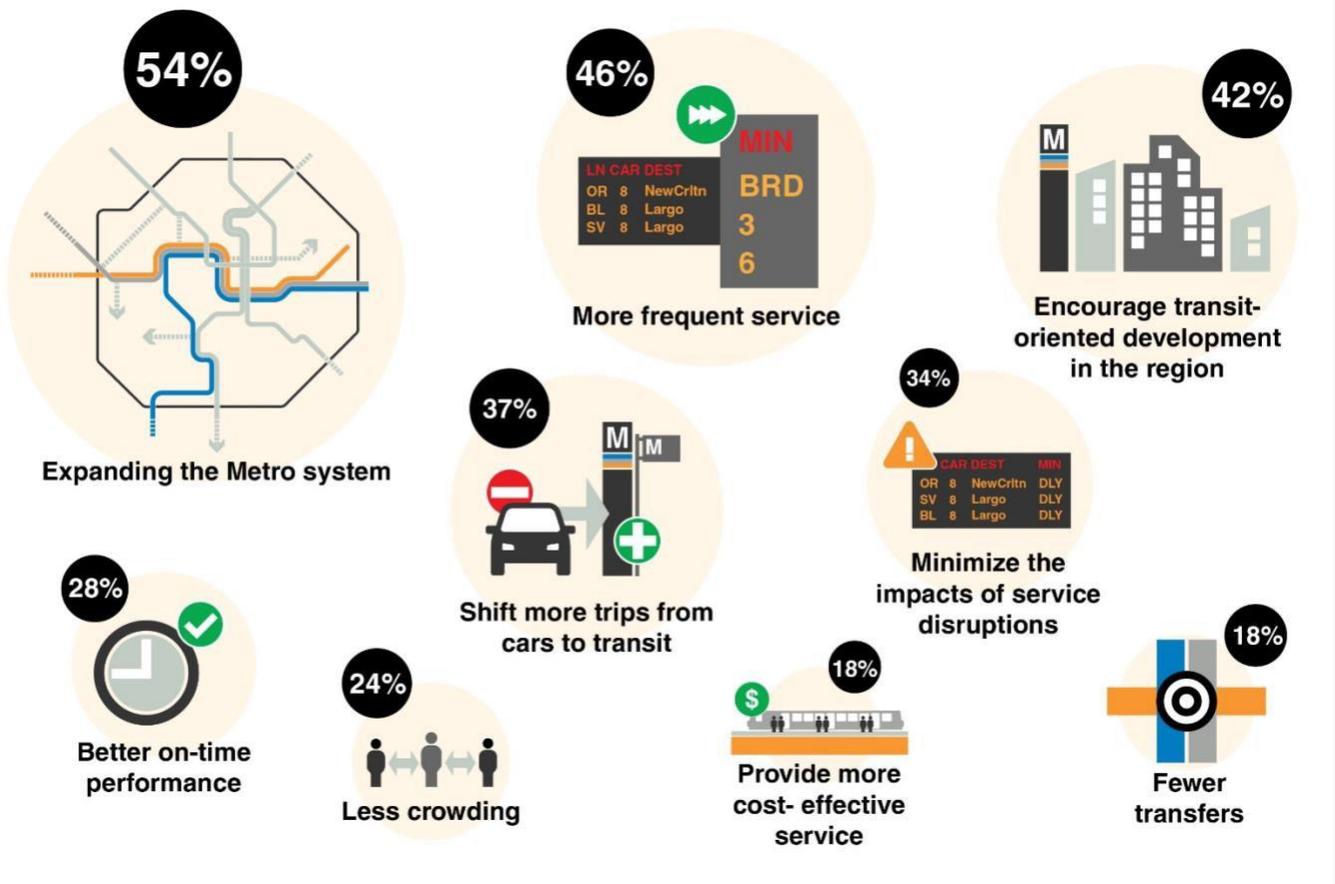
Figure 4: Most Frequently Used Metrorail Stations Among Respondents



H. Priority Outcomes

The next section of the survey asked respondents to select their highest priorities for improvements to the Blue, Orange, and Silver lines. There were six categories of priority outcomes, and respondents were asked to indicate their top three outcomes. **Figure 5** shows the breakdown of priorities by respondents to this question. Chosen by 54 percent of respondents, “Expanding the Metro system” was the most popular category, with “More frequent service” as the second most popular, followed by “Encourage transit-oriented development in the region”. The outcomes “Fewer transfers” and “Provide more cost-effective service” received the lower share of votes among the outcomes presented.

Figure 5: Results for Priority Outcomes for Ways to Improve the Blue, Orange, and Silver Lines



A summary of priority outcome feedback from three subgroups of respondents - “frequent riders”¹, minority respondents², and low-income respondents³ - offers a more nuanced comparison of the preferences of these subgroups relative to each other, as well as to the respondents as a whole:

Priority Outcome	Percentage Support			
	Frequent Riders	Minority Respondents	Low-Income Respondents	All Respondents
More frequent service	46%	49%	49%	46%
More cost-effective service	18%	21%	27%	18%
Minimize impacts of service disruptions	34%	39%	25%	34%
Expand Metro system	57%	52%	64%	54%
Fewer transfers	16%	14%	9%	18%
Less crowding	24%	23%	20%	24%
TOD	43%	37%	35%	42%
Better on-time performance	27%	32%	33%	28%
Shift more trips to transit	37%	32%	27%	37%

¹ Respondents who reported using Metrorail 3 or more days per week.

² Non-white and Hispanic/Latino respondents

³ Respondents reporting an average annual income of \$30,000 or less

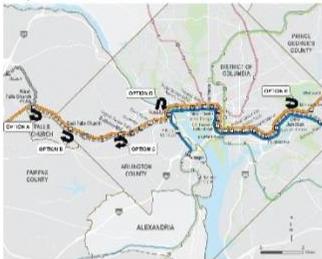
I. Concepts Feedback

Respondents were asked to provide feedback on a series of concepts (each described in Part III of this document) showing potential improvements to the Blue, Orange, and Silver lines. The question “Are you in favor of this concept?” was posed for each of the six concepts. Respondents could provide four potential answers: “Yes”, “No”, “Not Sure”, and “I don’t understand this concept.” **Figure 6** shows a summary of approval ratings for each of the concepts. Overall, Concepts 3 and 6 received the highest percentage of “Yes” responses, closely followed by Concept 4.

Figure 6: Concept Approval Ratings

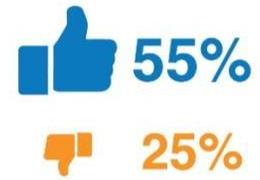
Concept 1

Optional Train “Turnbacks”



Concept 4

New Core Loop



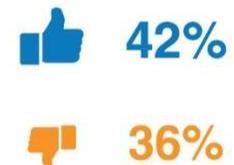
Concept 2

NOVA Circulator



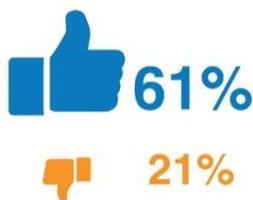
Concept 5

New Silver Line Connections, North of I-66



Concept 3

New Blue Line Regional Connections



Concept 6

New Silver Line Connections, South of I-66



As in the previous section, a summary of feedback from frequent riders, minority respondents, and low-income respondents offers a more nuanced comparison of concept approval rates, both between the other subgroups and the respondents as a whole:

Concept	Approval Rate			
	Frequent Riders	Minority Respondents	Low-Income Respondents	All Respondents
Concept #1: Optional Train "Turnbacks"	40%	41%	34%	41%
Concept #2: NoVA Circulator	44%	45%	43%	44%
Concept #3: New Blue Line Regional Connections	63%	55%	77%	61%
Concept #4: New Core Loop	57%	49%	62%	55%
Concept #5: New Silver Line Connections, North of 66	43%	41%	57%	42%
Concept #6: New Silver Line Connections, South of 66	62%	57%	53%	61%

Concept 1: Optional Train Turnbacks

Overall Impressions

Concept 1 entailed optional train turnback facilities at various stations across the study corridor. These turnback options were located at West Falls Church, East Falls Church, Ballston-MU, Rosslyn, and Stadium-Armory stations. Concept 1 received the lowest overall approval rating among the concepts presented, with 41 percent of respondents expressing their approval of the concept as it was presented.

Concept 1 Approval Ratings	
"Yes"	41%
"No"	34%
"Not sure / I don't understand this concept"	25%

Of those who provided feedback for this concept, 632 provided written comments. A variety of reasons for support and concern were expressed for the concept; many comments included both positive feedback and specific concerns. Of the five options within Concept 1, "Option E" received the most feedback⁴ (35 comments), with Options A and D receiving 18 and 17 comments apiece, respectively.

Reasons for Support

These seem like good options for when there are major problems. Metro in general should be more flexible about changing the color of trains or having them run between limited stations during major incidents.

The most common reasons for supporting Concept 1 involved its ability to reduce service disruptions (41 comments). This support seemed consolidated around Concept 1 as a relatively low-cost, near-term improvement that lessens the negative impacts of interlining on either side of the system's core. Others seemed supportive of the added reliability that pocket tracks provide given the unavoidable nature of certain delays. Respondents also cited increased flexibility as a reason for their support (22 comments). There was broad support for Concept 1 *in conjunction with* other improvements to the Blue, Orange, and Silver lines, with many respondents suggesting that this concept should serve as an interim solution or that it could be combined with other concepts.

Reasons for Concern

While Metro does need to address the frequency and severity of single tracking, this does not solve the core capacity issue, it just 'transfers' it.

Of those who provided a specific reason, the most specific concern expressed for Concept 1 was the inconvenience posed by additional transfers (124 comments). Many respondents saw turnbacks as helpful for emergencies and other occasional uses but were either skeptical of or disapproved of operating turnbacks as a daily peak hour feature. Others cited the concept's ineffectiveness in addressing the core challenges facing the corridor, reasoning that it would be of limited benefit to their home jurisdiction or regular travel patterns (54 comments). Finally, a number of comments expressed concern that Concept 1 would be too confusing, both for everyday riders and tourists alike (35 comments), due to transfers and shorter routes for some trains.

Suggested Modifications and Questions

⁴ Thirteen comments appeared to be either fully or partially coordinated.

The most frequently raised question for Concept 1 regarded its operational use and confusion about what turnbacks are and how they function. Representative comments included the following:

- *You need to define terms – “turnbacks” is transportation jargon.*
- *Does this increase capacity?*
- *Why not have the main transfer locations become the turnback to minimize wait time?*
- *Would this cause more crowding into/out of Downtown DC?*
- *How many turnbacks are being considered? Just one or several of these options?*
- *What does this mean for frequencies east of Stadium-Armory?*
- *How would riders know when turnback services were operating?*

Concept 2: New Blue Line Connections in Rosslyn

Overall Impressions

Concept 2 primarily involved the construction of a second Rosslyn Metrorail station (“Rosslyn II”). Two variations of this concept were presented: the first with “Rosslyn II” as a new Blue Line terminus, the second with a new track connection between Arlington Cemetery, “Rosslyn II”, and Court House Station permitting some trains to offer one-seat rides between Dulles Airport, Tysons, Rosslyn-Ballston, Pentagon, and National Airport. Concept 2 received the fourth-highest approval rating among the concepts, with 41 percent of respondents expressing approval for the concept.

Concept 2 Approval Ratings	
“Yes”	44%
“No”	35%
“Not Sure / I Don’t Understand”	19%

Of the respondents who offered feedback on this concept, 604 provided written comments. Roughly one third of these comments were identified as positive in nature, while another third of these were readily identifiable as negative in nature. The remainder were either general, offered suggestions, or asked questions. Of the 100 respondents who specified a preference among the two options presented, a clear majority preferred Option B (78 comments) over Option A (22 comments).

Reasons for Support

This is a great solution I have wanted for a while now. Get low-rider Blue trains out of the tunnel queue. Run more Orange and Silver lines through the tunnel!

Among those who provided a reason for their support of Concept 2, the most popular explanation was that the concept addresses capacity issues (26 comments). These respondents expressed the view that Concept 2 would reduce congestion at Rosslyn, either as a good intermediate step or in combination with other concepts. Other respondents expressed support for the enhanced connection the concept provides to National Airport (13 comments).

Reasons for Concern

Transferring is the most common cause for longer trips for me (especially when I travel off of peak hours). I don’t want Blue Line riders to have to transfer, especially since many of them may end up transferring again once they’ve entered DC.

Of those who expressed concern over this concept, the top reason was increased travel time (69 comments). Several respondents expressed frustration over perceived benefits or drawbacks of Concept 2; rather than being a net improvement for the Metrorail lines serving this location, the concept was seen as a “zero sum” solution, with Blue Line riders suffering a net loss as a result. Likewise, 46 comments reflected a concern over the lack of capacity Concept 2 would generate, both relative to the other concepts and in general.

Suggested Modifications and Questions

It should be noted that the concerns expressed by many respondents over Concept 2 seem to indicate unfavorable views toward the concept on its own; however, of the suggested modifications received, respondents were willing to entertain the proposition of Concept 2 implemented alongside or as a first phase of one or more of the other concepts presented. This suggests that a proposed combination of concepts may partially mitigate some of the negative feedback received for Concept 2. Another theme of the suggested modifications included new station suggestions, the majority of which were located at existing activity nodes in northern Virginia.

Comments revealed that some respondents did not fully understand this concept. Representative comments included the following:

- *Does this cut off blue line past Rosslyn? What goes through the original Rosslyn?*
- *The visual doesn't adequately explain how this concept would function.*
- *Does BL still connect to stations west of Rosslyn?*
- *Would YL trains increase frequency to compensate for less frequent blue service into DC?*

Concept 3: New Blue Line Regional Connections

Overall Impressions

Concept 3 involved new Blue Line connections via a new tunnel underneath the Potomac River. Both variations on this concept involved a new connection to the Red Line; however, while Option A showed a new connection extending eastward from Rosslyn to Union Station, Option B showed a northward extension of the Blue Line towards Bethesda and parts of upper Northwest DC. Concept 3 was tied for the highest approval rating of the concepts presented, with 61 percent of respondents expressing their approval.

Concept 3 Approval Ratings	
“Yes”	61%
“No”	21%
“Not sure / I don't understand this concept”	17%

Of the 2,015 respondents who responded to this concept, 694 provided written comments. In line with the high number of respondents who favored this concept, roughly three of every four written comments could be readily identified as positive in nature. Roughly one in five comments were identified as negative in nature. The remainder of comments were general in nature or requested additional information about the concept. Sixteen comments indicated that Concept 3 was their most preferred, while a clear majority expressed a favorable view towards Option A (119 comments) among those who specified a preference between the two options (162 total).

Reasons for Support

Adds new capacity and areas of service including in Georgetown and Prince George's County, which is needed and will help people transition to transit from driving.

Of those that provided a reason for their support of Concept 3, the most frequent explanation was that it provides access to new parts of the region and areas currently underserved by Metro (82 comments). While many of these respondents expressed support for additional Metrorail connections across the region, others wanted to see either (or both) of these proposed alignments come to fruition. Other popular explanations for support were that Concept 3 provides flexibility by adding an alternative connection to the system's core (36 comments), and that it addresses existing capacity concerns (33 comments).

Reasons for Concern

I like the idea, but I doubt it would be worth the cost. This would likely be beneath ground and cost ten billion plus, right? Way too much money.

Of those who expressed concern over this concept, the top reason was cost. Thirty-three comments specifically mentioned cost as a reason for their lack of support for Concept 3, citing concerns that fare rates would be raised to cover the costs of such an investment and proposing other, more moderate improvements in its place. Others expressed concern over the apparent alignment of the lines, saying that these areas either already have transit mode choices (as in Northwest DC) or do not require them (as in the National Arboretum). Other concerns dismissed Concept 3 as unnecessary for a variety of reasons: either a perceived lack of employment density along the proposed routes, an incremental benefit relative to high costs, or because of a disconnect between the stated benefits of the concept and the stated purpose of the study. As one respondent worded it, "If it's not about fixing the current system, it shouldn't even be on the table."

Suggested Modifications and Questions

For the most part, suggested modifications to Concept 3 offered a wide range of solutions. There was support among a few respondents for Metrorail service along Wisconsin Avenue, although opinions varied as to the optimal siting for new stations in this area. Several respondents proposed alternative alignments for the easternmost end of Option A; these routes generally followed busy thoroughfares such as New York Avenue, Rhode Island Avenue, or Route 1 east into Prince George's County.

Concept 4: New Core Loop

Overall Impressions

Concept 4 entailed a Metrorail “loop” serving the system core. This concept received the third highest approval rating of the concepts presented, with 56 percent of respondents expressing approval. Beginning at Pentagon, the proposed Yellow/Blue Line loop utilized a new station at Rosslyn, crossing into the District of Columbia via a new Potomac River tunnel. From there, the new line traversed northwest D.C. and connected to Union Station before returning back to the Pentagon station.

Concept 4 Approval Ratings	
“Yes”	56%
“No”	25%
“Not sure / I don’t understand this concept”	19%

Of the respondents who provided feedback on Concept 4, 625 provided comments. Of these, 23 comments indicated that Concept 4 was their most preferred. A number of comments also expressed approval of this concept in combination with other concepts, most often Concept 3.

Reasons for Support

I love the idea of increasing service within DC and providing circular (instead of hub-and-spoke) service. I also like how this increases capacity across the Potomac.

Among those who expressed support for Concept 4, the most frequently cited reason related to the perceived benefits of a more interconnected system on a conceptual level (48 comments), either because it filled a need they had noticed, or as a feature of other peer systems that is not currently available for Metrorail.

Others cited the various capacity gains this concept would realize for the system’s core as their reason for approval of the concept (28 comments). Many of these comments shared the view that while new connections were important, additional connections within the existing system would create additional capacity by allowing greater mobility between Metrorail lines in the system core.

Reasons for Concern

If we had done this 50 years ago I would have absolutely been in favor. Today? I think the concept is long overdue and at this point prohibitively expensive.

Many of those who expressed support for capacity gains in Concept 4 also expressed concerns. Of those expressing reservations, the most frequently cited reasons were routing (66 comments) and cost (48 comments). Specific routing concerns varied; however, the two main concerns articulated regarded the lack of regional connections and connections to underserved areas.

Suggested Modifications and Questions

While feedback for Concept 4 was highly positive, many respondents advocated for a larger loop (26 comments). These comments were split between a loop that encompasses a larger portion of the District or one that links suburban areas. A number of respondents suggested that Concept 4 be combined with another concept (13 comments), while others expressed a preference for the regional connections provided by Concept 3 (18 comments).

Concept 5: New Silver Line Connections, North of I-66

Overall Impressions

Concept 5 entailed new Silver Line service through a new tunnel under the Potomac River into DC, with variations on the entry point from northern Virginia. Option A showed a new Silver Line alignment beginning at West Falls Church, while Options B and C begin at McLean. Options A and B follow an identical alignment through the District of Columbia into Prince George’s County, while Option C proposes an alignment further north into Prince George’s County. Concept 5 received the fifth highest number of “Yes” votes of the concepts, with 42 percent of respondents expressing approval for the concept.

Concept 5 Approval Ratings	
“Yes”	42%
“No”	36%
“Not sure / I don’t understand this concept”	22%

There was mixed feedback for Concept 5. Of the 2,017 respondents who provided feedback on this concept, 672 provided written comments. Of these comments, nearly half could be reliably identified as positive while another third of these were identifiable as negative. The rest were either general in nature, offered suggestions, or asked questions.

Reasons for Support

There are a lot of people commuting between [Prince George’s] and Fairfax counties and limited options for these transit-dependent users. This is a chance to serve an underserved community.

Among the reasons most frequently cited for votes in favor of Concept 5 was that it provides Metrorail access to new parts of the region (38 comments). Respondents seemed to support the idea that Concept 5, in the words of one person, “*goes through places that do not already have transit which... would better expand development and revitalization in those areas*”. Other comments offered more specific reasons for their support, such as enhanced connections in Montgomery County (25 comments) and the additional capacity such a concept would allow (14 comments).

Reasons for Concern

Northern Virginia north of I-66 is very low-density residential. A Metro line through there would be a waste and be under-utilized.

Conversely, of the most popular reasons provided for votes not in favor of this concept was that Concept 5 would not generate sufficient new ridership to make the significant investment worthwhile (77 comments). Other comments expressed concern that Concept 5 did not adequately address underserved areas in the region (31 comments), and that it would actually *increase* overall travel time (24 comments).

Suggested Modifications and Questions

Fifteen comments offered new ideas or suggested modifications to the options presented in Concept 5. Alternative routing suggestions were the most prevalent among these comments, particularly alignments further south into Arlington County. Several of these comments were addressed in part or in full, however, by Concept 6.

Concept 6: New Silver Line Connections, South of I-66

Overall impressions

The final preliminary concept entailed a variation of the Silver Line routing options presented in the preceding concept: two new Silver Line options were shown routing south of Interstate 66 across the Potomac River into Southeastern DC and parts of Prince George’s County (Option A), and through southern Arlington County (Option B). Of the concepts presented, Concept 6 was chosen as a preference for a majority of respondents, tied alongside Concept 3 for the highest number of “Yes” votes at 61 percent of responses received. A clear majority of those who stated a preference for a particular option within this concept chose Option A.

Concept 6 Approval Ratings	
“Yes”	61%
“No”	24%
“Not sure / I don’t understand this concept”	15%

Overall, there was broad support among respondents for increasing access to Metrorail in this part of the region. Concept 6 received a total of 749 written comments. While roughly half of these comments were positive in nature, one in five comments were either wholly negative in nature or identified specific concerns. The remainder of comments were either general in nature or asked questions.

Reasons for Support

The Columbia Pike area has been sorely in need of stronger transportation connections since the opening of the system. I would support a southerly Silver Line route running along this path.

Respondents provided a variety of reasons for their support of this concept. Of these, 68 identified the concept as their most preferred among the options presented. In addition, 197 comments provided a specific reason why this concept should be implemented. Although the reason most often cited for approval of the concept was that it benefits “currently underserved areas” (165 comments), these comments can be further split between support for new regional connections and support for more transit mode options. As one respondent put it, “*Absolutely in favor of this concept. It would access a transit lacking region and alleviate strain at Rosslyn. Option A would also target areas that are underserved in Anacostia.*”

Additional reasons for support included the concept’s potential to increase capacity (13 comments), while at least one commenter cited improved flexibility, sustainability, or overall travel times as additional justifications for their support.

A subset of comments expressed conditional support for the concept, listing a broad variety of reservations or contingencies. The most frequently cited reason for conditional support was that it should be considered in tandem with other concepts. Other comments indicated support for the concept but requested a shorter implementation timeframe, more information about specific details, or were generally supportive but also asked for increased access to the system’s core.

Reasons for Concern

Don't think it would improve capacity over river, this Silver Line would miss most of Downtown DC.

Of the comments that could be characterized as negative or expressing concerns about the concept, 136 respondents offered a specific reason. The top reason provided was not an outright rejection of the concept itself, but rather that bus rapid transit or another form of transit should be implemented here instead⁵ (38 comments). Additional reasons provided included concerns that the concept would not address capacity issues, that another concept would perform better, or that additional Metrorail service in the areas proposed is unnecessary altogether. Likewise, higher costs and travel times were cited as reasons for concern regarding the concept. Several respondents expressed a preference for concepts that increased access to the Metrorail system's core.

Among the 113 comments expressing a preference for either Option A or Option B, a clear majority (84 comments) favored Option A. Those who preferred Option A tended to express support for Metrorail expansion into underserved areas in Southeastern D.C. and Prince George's County.

Suggested Modifications and Questions

Forty-eight comments offered specific suggestions for alternative routes or changes to the concept as it was presented. The most frequently cited of these recommendations included an alternative route, though these varied considerably by respondent. Seven respondents recommended combining Concept 6 with another concept.

J. Additional Improvements and Open-Ended Feedback

Respondents were also shown a number of proposed improvements that were systemwide (all lines) or operational in nature. These proposed improvements included the following:

- Pocket tracks and crossovers
- Reconfigure train seats
- Expand core stations
- Enhance connections to stations
- Enhanced train control
- Enhanced parallel bus service

Additional Improvements

Respondents were asked to indicate whether they were in favor of these improvements. Most popular among these was "Pocket tracks and crossovers" (83.3 percent of responses), followed by "Enhance connections to stations" (76.8 percent) and "Expand core stations" (73.5 percent). Support for "Enhance parallel bus service" was mixed; while it had the fourth highest approval rating at 53.3 percent, another 26.3 percent of respondents indicated they were not in favor of enhancing parallel bus service, the second highest disapproval rating among the improvements presented. The two least popular improvements were "Enhanced train control" (47.6 percent in favor) and "Reconfigure train seats" (39.4 percent in favor), which many expressed unfavorably views towards. Train seat configuration ranked particularly poorly relative to other ideas, with 37.9 percent of respondents not in favor of the proposed improvement.

⁵ NOTE: it appears that approximately 34 of these comments were either fully or partially coordinated responses.

Open-Ended Feedback

Respondents provided open-ended comments in addition to their concept- and improvement-specific feedback. Of the 693 open-ended comments offered, roughly half were general in nature or offered new ideas. Many respondents reiterated their concept-specific feedback (94 comments), added improvement-specific feedback to their additional improvement ratings (47 comments), or offered line-specific suggestions for the Blue, Orange, or Silver lines (25 comments). A clear majority of those who offered concept-specific feedback here referenced Concept 6 (66 comments). See **Section V** on page 39 for a summary of new ideas feedback.

Several other themes emerged from the comments: many explicitly urged Metro to continue to “dream big” as concepts were analyzed further (29 comments), others made appeals for specific “rider experience” improvements throughout the system (22 comments), while others’ suggestions revolved around a variety of other transit modes (21 comments). A number of other comments expressed frustration over the lengthy completion timelines associated with most of the concepts (17 comments), which suggests that ongoing educational efforts regarding timelines for regionwide capital projects are in order.

V. Summary of New Ideas

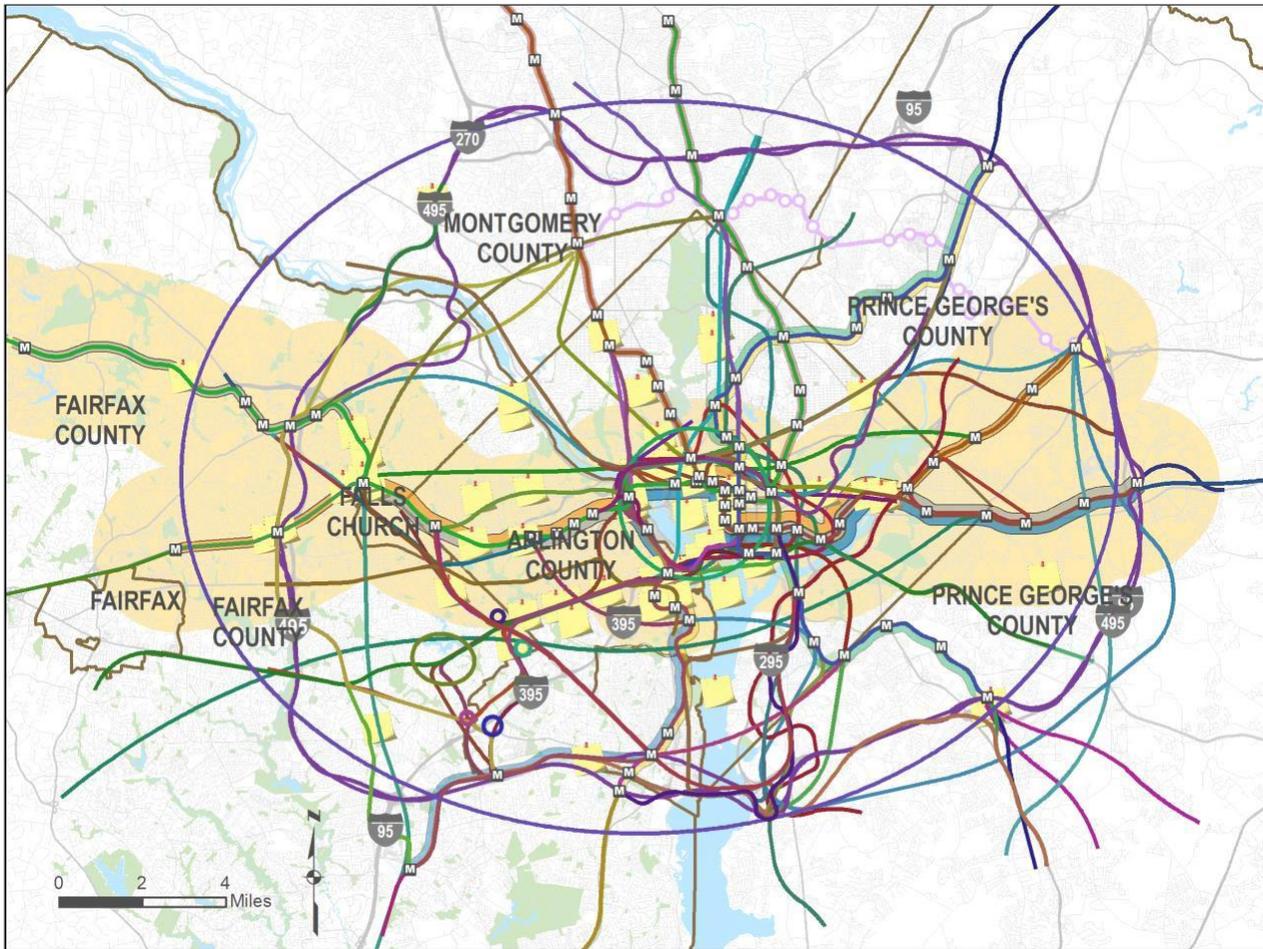
The public engagement opportunities described above offered several opportunities for the public to suggest their own ideas for corridor improvements and future transit alignments. At the open houses, participants could either sketch their ideas on maps or describe them on comment sheets. Survey respondents were invited to submit either general comments and ideas, or specific comments regarding each concept. Additional members of the public submitted ideas directly to Metro via email. **Figure 7** visualizes the range and extent of the new ideas that were suggested as part of the engagement process.

All of the specific ideas submitted are compiled in **Appendix F**. This list of comments includes a code number assigned to each for tracking purposes, a description of each suggestion, and notes regarding how the suggestion has been incorporated into the corridor planning process. Ideas addressing the project Purpose and Need, and travel modes within the Blue, Orange and Silver corridor have been included for consideration as part of the refinement of alternatives and subsequent screening process that followed the public engagement process.

All of the ideas received were reviewed and categorized follows:

- Suggestions that do not address the project purpose and need or BOS corridor travel. These suggestions will not be considered for the BOS Corridor study but may be retained by WMATA for consideration in future transit system planning.
- Suggestions that are already part of the alternatives presented at the workshops and on the project website.
- Suggestions that can be addressed through a modification or refinement to one of the existing alternatives presented at the workshops or on the project website.
- Suggestions that represent new ideas that could potentially address the BOS corridor Purpose and Need analysis and/or corridor travel. These suggestions are identified for further consideration during the alternative development and screening process.

Figure 7: Corridor Improvement Ideas Submitted by the Public



VI. Lessons Learned

Outreach and Engagement Response

Outreach Strategies

- Based on open house feedback forms and the timing of survey responses, it is clear that Metro’s press release and subsequent media coverage resulting from the press release were particularly effective in spreading the word about the open house meetings and the survey. Emails to key stakeholders, e-blasts to broader groups of stakeholders, and social media posts via Metro’s Facebook and Twitter platforms, and signs posted in stations also appear to have been effective in getting the word out.
- An e-blast to a subset of SmarTrip® holders and a subsequent follow-up email appear to have been very effective in generating survey responses. However, the timing of these e-blasts—prior to the final open house and in the days leading up to the January survey deadline—may have occurred too late in order to have been most effective in encouraging more people to attend the open houses and respond to the survey.
- Timing:
 - Due to the rethinking of two meeting venues late in the open house planning process (and ultimately one change in venue, due to concerns about bus stop accessibility), as well as the internal Metro review processes and revisions, the open house meetings were announced closer to the meeting dates than desired. Although turnout at the first open house, days later, exceeded expectations, overall attendance at this and subsequent meetings likely suffered as a result. However, the high number of survey responses during the same time period suggests that, while word was getting out about the engagement opportunities, many chose to simply respond to the survey rather than attend the meetings.
 - Holding the open houses in the weeks prior to the holidays may have also suppressed attendance numbers, due to the number of other competing events during this time of year.
 - The survey was open over the holidays when many stakeholders and the public were away from home and work. Although the response rate for the survey was still strong, the response likely would have been stronger if it had not overlapped with the holidays. Additional reminders, and a larger audience for these reminders, may have resulted in higher response rates for the survey.
 - There were pros and cons associated with releasing the survey at the same time as the open houses were announced. On the one hand, the simultaneous open house announcement and survey launch resulted in more efficient public communications, minimizing the need to go to the public multiple times. On the other hand, launching the survey prior to the open houses, may have affected people’s desire to attend the open house sessions because they had already provided their input (this may also reflect a preference for online input over attending in-person meetings).
- The number of non-white, Hispanic or Latino, and low-income participants in the engagement process fell below these groups’ representative shares of the regional population and Metro ridership. In the future, the project team needs to make a more concerted effort to reach these groups.

- Both the number of survey responses and the diversity of respondents could have been augmented by supplementary pop-up events. However, the time of year, weather, and daylight hours were not conducive to pop-up events, and neither was the survey itself; given its detailed nature, the number of concepts to digest, and the time it took to respond to all questions. For the next round, a shorter survey, fewer options to consider, and better weather/more daylight could make pop-ups a more-effective strategy and help to ensure more people know that a survey is happening.
- In the future, the project team should make a more concerted effort to track responses to advertising about engagement opportunities to identify the most effective communication channels.

Engagement Tools: Survey and Open Houses

- The survey was a more effective way of getting feedback on the concepts than were the open houses, with two notable exceptions: (1) attendees were able to draw their own ideas at the meetings, whereas survey respondents were not able to do so via the survey tool and (2) the open houses afforded more opportunity for dialogue and feedback loops among facilitators and attendees as well as opportunities to ask questions. However, the public appears to have a strong preference for participating in ways other than traditional public meetings, and the project team should consider other ways of reaching people (e.g., online strategies, smaller and/or pop-up meetings) in the next round of engagement.
- Comments suggest that respondents had a high level of understanding of transit, and of the concepts. However, there was some apparent confusion about Concepts 1, 2 and 4, as described in the summary of input for each.
- Comments and survey data suggest that the survey took many respondents longer to complete than the study team had anticipated. It is not known how many additional responses the team could have gathered with a shorter survey and fewer concepts. While there were only a small number of complaints about the length of the survey, it is possible results were skewed toward respondents with more knowledge about Metro transit issues.
- A substantial number of duplicate or highly similar comments indicate at least two separate coordinated efforts to influence survey input (i.e., through the circulation of sample/suggested responses to certain questions). However, the number and nature of these comments were such that the overall integrity of the survey results was likely not impacted, although this is difficult to determine with certainty.