1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

King County

KING COUNTY

Signature Report

Ordinance 19012

Proposed No. 2019-0410.2 **Sponsors** Gossett and McDermott

AN ORDINANCE establishing the alignment and station locations of, and meeting federal assistance conditions for, the RapidRide G Line (Seattle).

STATEMENT OF FACTS:

1. Via Ordinance 18449, enacted January 23, 2017, the King County council adopted and executive signed King County Metro's long-range transit service and capital plan, METRO CONNECTS, which identifies an expanded network of future RapidRide lines for implementation, including the G Line, serving the Madison Street corridor, which connects employment and educational institutions with regional transit in Seattle.

2. Via Ordinance 18301, enacted June 16, 2016, the council approved the 2015 update to Metro's Strategic Plan for Public Transportation 2011-2021 and associated Service Guidelines. The plan describes current and future planning work required to implement additional RapidRide bus rapid transit service in King County.

3. Via Ordinance 18409, enacted November 27, 2016, the council adopted and executive signed the 2017-2018 Biennial Budget Ordinance, included Section 132, Provisos P4 and P5 requiring the Metro transit department to submit reports describing the process for implementing new RapidRide

lines.

4. Via Motion 14956, enacted September 18, 2017, the council approved Proviso P5, titled Implementation of New RapidRide Lines/METRO CONNECTS RapidRide Expansion, which identifies the G Line as one of the first two next generation RapidRide lines to be implemented.

5. Via Ordinance 18835, enacted November 13, 2018, the council adopted and executive signed the 2019-2020 Biennial Budget, including the capital project 1132324 to implement the RapidRide G Line.

6. Starting in 2014, Metro and the Seattle Department of Transportation ("SDOT") conducted public outreach concerning proposed alignment and station locations for the RapidRide G Line in the Madison Street and Spring Street corridors. SDOT as the lead agency conducted several rounds of community engagement regarding station locations and proposed right of way improvements, street and facility design and proposed transit priority treatments, consistent with bus rapid transit concepts. Those engagement efforts included engagement with transit riders, non-transit riders, institutions, hospitals, businesses and community organizations.

7. The Proviso P5 report states that specific routing shall be determined by the council and be consistent with the corridor descriptions in the Proviso P5 report.

8. The proposed G Line alignment is consistent with the corridor descriptions in the Proviso P5 report.

9. The RapidRide G Line will compete to receive $60,000,000 in federal grant funding from the Federal Transit Administration's Small Starts grant program, with the goal of entering into a Small Starts grant agreement in 2020.

10. The Federal Transit Administration requires that Small Starts grant-funded projects operate transit service at the level specified in the grant agreement for a defined period of performance. The period of performance for such service level commitments is at the discretion of the Federal Transit Administration and is a prescribed condition of receiving federal financial assistance.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. The RapidRide G Line (Seattle) alignment, including general station locations, substantially as set forth in Attachment A to this ordinance, is hereby approved to allow design and construction of RapidRide infrastructure and facilities design and construction.

SECTION 2. Before the implementation of RapidRide service, the executive shall notify the King County council and the affected city of any substantial changes to station locations. The notice to the council shall be filed in the form of a paper original and an electronic copy to the clerk of the council, who shall retain the original and provide an electronic copy to all councilmembers. Following implementation, the Metro transit department shall consult with the affected city before making any changes to the routing or station locations.

SECTION 3. Before the start of RapidRide G Line service, the executive shall

submit a service change ordinance in accordance with K.C.C. 28.94.020 that identifies hours of operation and service levels by period of the day.

SECTION 4. For the purpose of securing federal financial assistance for the development and implementation of RapidRide G Line capital projects as documented in the six-year capital improvement program, the executive or designee is authorized to enter into a RapidRide G Line project agreement that includes defined service level commitments as a prescribed condition of receiving federal funds provided that the following conditions are met:

A. The contractual service commitment does not exceed the period of performance specified in the federal grant agreement; and

B. The contractual service commitment does not exceed five years from the opening of revenue service.

Ordinance 19012 was introduced on 10/9/2019 and hearing held/closed and passed by the Metropolitan King County Council on 11/13/2019, by the following vote:

Yes: 8 - Mr. von Reichbauer, Mr. Gossett, Ms. Lambert, Mr. McDermott, Mr. Dembowski, Mr. Upthegrove, Ms. Kohl-Welles and Ms. Balducci
Excused: 1 - Mr. Dunn

METROPOLITAN KING COUNTY COUNCIL King County Washington

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Rod Dembowski, Chair

ATTEST:

Melani Pedroza, Clerk of the Council

RECEIVED
2019 NOV 26 PM 3:07
CLERK
KING COUNTY COUNCIL

APPROVED this 25 day of NOVEMBER, 2019.

Dow Constantine, County Executive

Attachments: A. RapidRide G Line Overview, B. RapidRide G Line Alignment Public Engagement Summary

RapidRide G Line

Madison Street Bus Rapid Transit (Madison Street BRT) will provide fast, frequent, reliable, and safe public transportation between 1st Ave in downtown Seattle and Martin Luther King Jr Way East. The route will serve medical and educational institutions and other employment centers, densely developed neighborhoods in downtown Seattle, First Hill, Capitol Hill, the Central Area, and Madison Valley. It will connect to dozens of bus routes, Link light rail, the First Hill Streetcar, and ferry service at the Colman Dock Ferry Terminal.

Station Locations

There will be a total of 21 stations, including the western terminal (1st Avenue) and 10 stations in each direction. From west to east (outbound, away from downtown), stations are proposed to be located at:

- **1st Ave and Spring Street**
- **Madison Street and 3rd Ave**
- **Spring Street and 3rd Ave**
- **Madison Street and 5th Ave**
- **Spring Street and 5th Ave**
- **Madison Street and 8th Ave**
- **Spring Street and 8th Ave**

The following three stations on Madison Street will utilize center island platforms serving both inbound and outbound service on respective sides of the platform.

- **Madison Street and Terry St**
- **Madison Street between Summit Avenue and Boylston Avenue**
- **Madison Street between 12th Avenue and 13th Avenue**

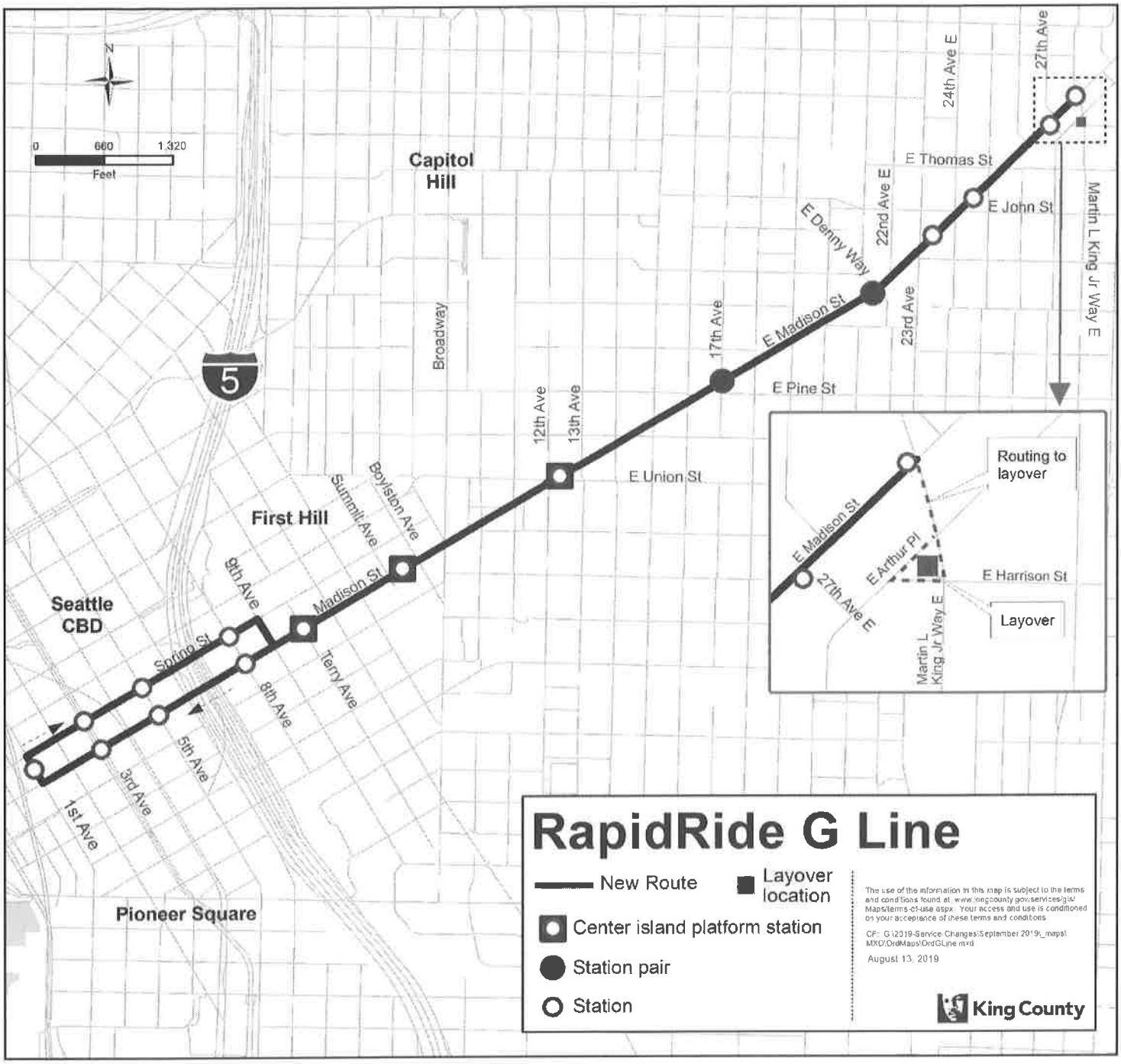
The following intersections will have a station pair located on either side of Madison Street.

- **Madison Street and 17th Ave**
- **Madison Street and E Denny Way/22nd Ave**
- **Madison Street and 24th Ave**

The western most station pair is separated by a block to accommodate transit transfers and traffic operations at the Madison Street and Martin Luther King Jr Way E intersection.

- **Madison Street and 27th Ave** (Outbound away from downtown)
- **Madison Street and Martin Luther King Jr Way E** (Inbound towards downtown)

G Line stations have an average spacing of less than one-fourth of a mile apart. This station spacing reflects consideration of RapidRide design standards, and a number of factors that guide RapidRide stop/station optimization, including development density, development patterns, potential ridership, safety, traffic control, and customer accessibility.


N
0
660
1,320
Feet
Capitol Hill
First Hill
Seattle CBD
Pioneer Square
Broadway
Boylston Ave
Summit Ave
9th Ave
Madison St
Spring St
8th Ave
Terry Ave
5th Ave
3rd Ave
1st Ave
12th Ave
13th Ave
E Union St
17th Ave
E Madison St
E Pine St
E Denny Way
22nd Ave E
23rd Ave
24th Ave E
27th Ave
E Thomas St
E John St
Martin L King Jr Way E
Routing to layover
E Madison St
E Arthur Pl
27th Ave E
E Harrison St
Layover
Martin L King Jr Way E
RapidRide G Line
New Route
Layover location
Center island platform station
Station pair
Station
The use of the information in this map is subject to the terms and conditions found at www.kingcounty.gov/services/gis/Maps/terms-of-use.aspx. Your access and use is conditioned on your acceptance of these terms and conditions.
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August 13, 2019
King County

RapidRide G Line Alignment Public Engagement Summary

Background

Madison Street Bus Rapid Transit (Madison St BRT) will provide fast, frequent, reliable, and safe public transportation between 1st Ave in downtown Seattle and Martin Luther King Jr Way E. The route will serve densely developed neighborhoods in downtown Seattle, First Hill, Capitol Hill, the Central Area, and Madison Valley. It will connect to dozens of bus routes, the First Hill Streetcar, and ferry service at the Colman Dock Ferry Terminal.

The Madison St corridor was identified as a priority for implementation of high-capacity transit in the 2012 Seattle Transit Master Plan (TMP). Bus rapid transit was selected as the transit mode due to the steep grades in segments of the corridor, which preclude rail service. By improving travel times, reliability, frequency of service, passenger amenities and visibility, bus rapid transit can emulate many of the features and service characteristics of high-quality rail.

The Madison St BRT Project was initially developed by the Seattle Department of Transportation (SDOT) as a City of Seattle project. This memo summarizes outreach led by SDOT. SDOT and Metro agreed to make the project a RapidRide project as Metro developed the long-range plan, METRO CONNECTS, adopted in 2017.

Long Range Vision for the Madison St Corridor

City of Seattle Department of Transportation Transit Master Plan (TMP)

Adopted by the City of Seattle in 2012, the Seattle TMP[1] recommends strategies, projects, and policies that will make Seattle a more affordable, cleaner, vital, equitable, and enjoyable place to live and do business. The development of the TMP included an in-depth process to study travel for successful high- and medium-capacity transit service. The evaluation used measures grouped under Community, Economy, Environment and Human Health, Social Equity, and Efficiency. These measures were used to identify corridor capital investment priorities where SDOT will prioritize speed and reliability improvements.

The TMP is consistent with King County Metro's Strategic Plan for Public Transportation 2011-2021[2], which calls for the agency to invest resources in corridors that have the highest potential to generate ridership, as well as to serve regional equity and environmental goals. The TMP also builds on King County Metro's RapidRide program, recommending 7 new bus rapid transit corridors for development under the RapidRide brand in Seattle. The Madison St Corridor Bus Rapid Transit Study was identified by the TMP as a as a priority for implementation of high-capacity transit.

METRO CONNECTS

METRO CONNECTS[3], **adopted by King County Council in 2017**, is a vision for bringing more and better transit service to King County over the next 25 years. People across King County helped shape this

[1] https://www.seattle.gov/Documents/Departments/SDOT/TransitProgram/TMPSupplmtALL2-16FINAL.pdf
[2] http://metro.kingcounty.gov/planning/pdf/2011-21/2015/metro-strategic-plan-042816.pdf
[3] https://issuu.com/metro-transit/docs/metro-connects-jan2017/1?e=2675565/43536973

vision. In 2015 and 2016, Metro invited transit customers, bus drivers, King County cities, Sound Transit and other transportation agencies, businesses, and more to join them in imagining the future public transportation system. Thousands of participants shared their needs, hopes, and ideas for getting around better. The Madison St corridor is included in this plan as part of the RapidRide network envisioned by METRO CONNECTS.

Corridor description

Madison St extends from Alaskan Way, adjacent to the Colman Dock Washington State Ferries Terminal on Elliott Bay, to Lake Washington at Madison Park Beach.

Madison St is unique among Seattle streets in two key ways. First, it is the only street in the Center City grid to continue east without changing direction, at an angle diagonal to the grid that exists in the rest of the city from Broadway east to Lake Washington. Second, Madison St is the only street to extend between Elliott Bay and Lake Washington. For both reasons, Madison St is a major east-west route, connecting relatively low-density residential and neighborhood-oriented retail areas in the east (Madison Park and Madison Valley) to denser, more mixed-use districts in its central segments (the Central District, Capitol Hill and First Hill) and the office towers of Center City to the west. Running 3.7 miles, Madison St contains steeps grades on the western section and multiple uniquely configured, complex intersections in the eastern portion.

Madison St is classified by SDOT as a Principal Arterial, its current configuration provides up to 4 through travel lanes, plus turn lanes. One-way AM peak-hour traffic volumes reach approximately 1,800 vehicles per hour westbound In the segment crossing Interstate 5 (I-5).

Several major employers are located in the corridor including regional medical centers such as Virginia Mason Hospital, Kaiser Permanente Capitol Hill Campus, and Swedish Medical Center, as well as the campus of Seattle University and Seattle Central College. Census tracts directly south of the Madison St contain a percentage of persons of color (36 – 57%) higher than the Seattle average (34%). Further, Madison Street historically served as a "red line" for housing in the area. The practice of redlining and restrictive covenants diminished in the 1960s, but its effects on the racial makeup of the neighborhood can still be seen today. More recently, economic growth and private development in these neighborhoods has dramatically changed the demographics of the neighborhood and caused tension between community members and with the City as well.

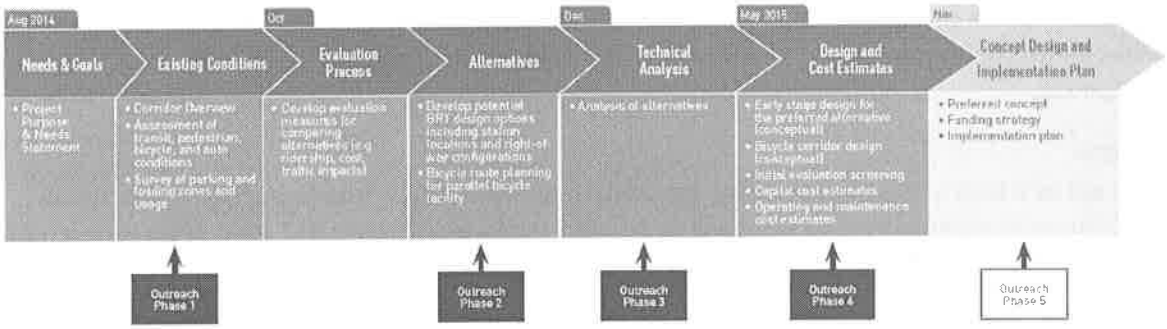
Locations north of the Madison St contains a persons of color ratio (25 – 32%) lower than the Seattle average (34%). The transit connection created by the Madison St corridor will go beyond its project area and influence population throughout different neighborhoods of Seattle, offering Seattle's diverse population more affordable and accessible transit options.

Madison St BRT / RapidRide G Line

Madison St BRT is a partnership between the City of Seattle and King County Metro. King County Metro will operate service on Madison St as RapidRide G Line. **This project began development in 2014** and represents one of the largest capital/operating partnerships the two agencies have developed together. When this effort is complete, SDOT will have delivered one of the nation's premier urban bus transit corridors. King County Metro then will own and operate the transit service on the corridor under its successful and nationally recognized RapidRide brand.

Locally Preferred Alternative

The Madison St BRT Study was a local planning process that defined the capital project and operations and positioned the City to pursue federal funding. A management decision-making body was utilized within SDOT to advance key project decisions within the agency. The Project Steering Committee was comprised of SDOT deputy directors and division directors of Policy and Planning, Traffic Management, Transit and Mobility, Project Development, Major Projects, and Capital Projects and Roadway Structures. The Steering Committee was responsible for approving key decisions and endorsing the final draft Locally Preferred Alternative (LPA) recommendation. In addition, key SDOT technical staff provided input and consultation throughout the planning process. The Madison St BRT Study also incorporated public outreach at key milestones and worked with agency partners including King County Metro Transit and Sound Transit. A depiction of the LPA planning process is provided below.



To determine the LPA, an evaluation framework was developed to compare project alternatives based on the Purpose and Need statement of the project. The framework also considered public feedback and focused on five major decision points:

- The basic configuration of bus lanes and stations and the design of the street in the central segment of the corridor
- The eastern terminal of the BRT corridor
- The eastbound alignment of BRT downtown (westbound buses would be on Madison St).
- The western or downtown/waterfront terminal
- Where to locate a station between 3rd Ave and Terry Ave

Approval of the LPA by the Mayor and Seattle City Council was required to advance the Project. **Review by the City Council Transportation Committee happened in early 2016**. The council-approved LPA corridor included Madison St between 1st Ave and Martin Luther King Jr Way E as well as Spring St between 1st Ave and 9th Ave and 1st Ave and 9th Ave between Madison St and Spring St. The downtown /First Hill loop would operate clockwise – westbound on Madison St, northbound on 1st Ave, eastbound on Spring St and southbound on 9th Ave. Please see the LPA Summary Report (Appendix A) for additional details.

Service Plan

Bus rapid transit projects are a combination of capital corridor improvements and service investments. Madison St BRT will upgrade the existing service levels along the corridor. Once implemented Madison St BRT will be one of Metro's most frequently served corridors.

Existing Service in the corridor during daytime service

- Route 11 (E Pine St to E Blaine St) – 15 minute headways
- Route 12 (1st Ave to 19th Ave) – 15 minute off peak and 10 minute peak headways

Key project service aspects are:

- Service between 1st Ave and Martin Luther King Jr Way E
- 6 minute headways between 6 a.m. and 7 p.m. on weekdays
- 15 headways during all other hours of operation
- Monday through Saturday up to 20 hours of service (5 a.m. to 1 a.m.)
- Sundays/Holidays up to 17 hours of service (6 a.m. to 11 p.m.)

Once the Madison St BRT project is complete, King County will work with the community to determine what other service changes are appropriate with the introduction of the G Line. This project is expected to take metro approximately 14-18 months long and will begin approximately 24 months prior to the G Line opening.

Stations

There will be a total of 21 stops, including the western terminal and 10 stops in each direction. About 85% of those boarding at existing stops will be no more than a block from a BRT stop. From west to east (outbound from downtown), stations would be located at:

- **1st Ave:** A northbound stop between Madison St and Spring St

Then on both Madison St and Spring St at:

- **3rd Ave:** On the far side of 3rd Ave in both directions, on the sidewalk. The stop on Spring St would be on a bulb out extending from the sidewalk
- **5th Ave:** On the near side of 5th Ave in both directions
- **8th Ave:** West of 8th Ave, the Madison St stop would be on an island between the bus lane and travel lanes, while the Spring St stop would be on a sidewalk extension

Then on Madison St at:

- **Terry St:** On the east side of Terry St, on a center median island
- **Summit St/Boylston St:** Between Summit St and Boylston St, on a center median island
- **12th Ave/13th Ave/E Union St:** Between 12th Ave and 13th Ave and northeast of E Union St, on a center median island
- **17th Ave:** Far-side in both directions
- **22nd Ave:** Far-side in both directions
- **24th Ave:** East of 24th Ave, on sidewalk extensions
- **27th Ave/Martin Luther King Jr Way E:** Near-side at Martin Luther King Jr Way E eastbound and far-side at 27th Ave westbound

There would be two basic types of station, each with a full suite of RapidRide station amenities including branded custom shelters, off-board fare payment, and real-time arrival and other forms of passenger information.

- **Sidewalk stations** would generally be on curb extensions, approximately 60 feet long
- **Island stations** would be platforms in the center median of the street, generally bidirectional and at least 60 feet long, with longer stops at busier locations on First Hill and at 12th Ave/E Union St. Island stops would be a minimum of 9 feet wide

Public involvement

The project background presented above was developed with the community through a comprehensive public involvement and engagement process. Public and stakeholder input was integral to decision-making at each stage of the alternative's evaluation. Outreach strategies during the LPA included a series of stakeholder interviews (see Appendix B), 3 public open houses, 2 rounds of neighborhood-based meetings and charrettes, several walking/biking tours of the corridor, 2 online surveys, and additional briefings with community leaders and organizations.

Open houses and neighborhood meetings and design workshops were held in a range of locations to attract participation from a diverse array of stakeholders. Two web-based surveys soliciting input on project design priorities and options were also posted in January-February and April 2015. Feedback from these public involvement activities informed development of the alternatives. The events are described below. Summaries of each phase of outreach provide additional detail and are available in the appendices.

SDOT has continued outreach as design advanced since adoption of the LPA, continuing to incorporate community input into design decisions. Summaries of these efforts are also available in the appendices.

Race and Social Justice Initiative

SDOT led outreach from 2014-2015 consistent with SDOT policies and practices at that time which were outlined in the Seattle Race and Social Justice (RSJ) initiative. The vision of the Seattle RSJ Initiative is to eliminate racial inequity in the community. To do this requires ending individual racism, institutional racism and structural racism. The Racial Equity Toolkit (RET) lays out a process and a set of questions to guide the development, implementation and evaluation of policies, initiatives, programs, and budget issues to address the impacts on racial equity. This project followed the RET process and completed an assessment in Fall 2015 (see Appendix C for additional information).

In 2015, SDOT looked to expand their outreach efforts for the design and construction phases of the project and hire a public involvement team with experience doing inclusive outreach to traditionally underrepresented populations along the corridor. SDOT encouraged Disadvantaged Business Enterprise (DBEs) to submit proposals. In 2016, the outreach team developed an Inclusive Outreach and Public Engagement (IOPE) plan. This plan detailed stakeholders and key populations in the project area, their anticipated concerns, and the project relationship to racial and social equity. Please see Appendix D for additional information.

LPA Engagement

The table below summarizes outreach conducted as part of the LPA process. Additional details are available in the summary text. Full summaries for each round of outreach are available in the appendices.

Timing	Events/activities	Topics for public feedback	How feedback was used
September 2014	Open house	• Transit routing in the corridor • Existing services • Traffic • Streetscape/Pedestrian improvements • Bike facilities • Parking • Specific locations in the corridor needing attention • Purpose and Need	• Considered when finalizing the project's Purpose and Need. • Helped inform the early project design.
November 2014	• 3 design workshops • 1 open house	• Station locations and amenities • Route alignment • Early design concepts	Considered by team as they advanced the early design concepts
January 2015	Online survey	• Transit needs along the corridor • End-of-line routing • Bikeway routing options • Corridor improvement priorities • Importance of various transfers	Considered in the refined project concept
May - June 2015	• 4 invitation-based community meetings • 1 open house • 1 online survey	• Center-vs. side-running alignment • Downtown eastbound pathway • Eastern terminus • Western terminus • Downtown/First Hill stations • BRT Features and amenities • Impacts on traffic • Preferred bike facility configurations	Incorporated into the design concept where possible.
Fall 2015	• Breakfast for stakeholders • Open house	• Updated project concept	To confirm project concepts

Outreach round 1- September 2014

The first Madison St BRT open house was held on September 30, 2014. The open house included a presentation with an overview of the study process and an orientation to the open house. The event also included a series of stations with information about the study process, bus rapid transit, stakeholder input, existing conditions, and draft purpose and need statements. Finally, there was a

corridor map where participants could identify and comment on specific locations in the corridor needing attention. Participants were offered multiple ways to comment, including written comment cards, writing on the map of the corridor, and sending a message to the project email account. The meeting was advertised through a mailer, email, the Seattle Transit Blog, the First Hill Improvement Association, and SDOT's website.

Summary of participation and key themes

A total of 90 participants signed into the meeting. The most common participant ZIP codes were 98122 (Capitol Hill/Central District), 98104 (Downtown/First Hill), and 98112 (Madison Park/northern Madison Valley). Several themes emerged through comment cards, follow-up e-mails, and conversations with meeting attendees:

- Overall, there was very strong support for making Madison St a high-quality bus rapid transit project. The majority of comments emphasized speed and reliability as very high priorities, including emphasizing dedicated transit lanes, even if it meant taking parking or travel lanes
- Transit connections were important, including seamless transfers and connectivity to other services in Downtown Seattle
- There was support for removing parking along Madison St
- Concern about the project was limited but centered on traffic impacts and changes to existing service, including route and stop consolidation
- With regard to service design, most comments favored some version of an "open" service design where many routes may operate in the BRT corridor, and routes operating in the corridor may operate outside of it
- There was some support for continued service to Madison Park or at least Martin Luther King Jr Way E without needing a transfer
- There was very strong interest in pedestrian and streetscape improvements, as sidewalks are narrow and uncomfortable in many locations
- Sentiment was mixed on whether a bicycle facility should be on Madison St or on lower-traffic streets. Grades were the primary concerns mentioned with regard to facility design
- A number of specific intersections were mentioned as needing improvement, including 12th and Madison St, 15th Ave and Madison St, and 23rd -24th Ave and Madison St

The project team used this feedback as they finalized the project's Purpose and Need. Public comment also helped inform the early project design. See Appendix E for additional details.

Outreach round 2 – November 2014

On November 19 and 20, 2014, design workshops were held in three key segments of the corridor: Downtown, First Hill, and Capitol Hill/Central District. In the design workshops, participants developed conceptual bus rapid transit designs with assistance from project team members. In so doing, they addressed design challenges including potential bus rapid transit alignments and station locations, connections to major destinations and other transit lines, right-of-way constraints, pedestrian and bicycle accommodations, and grades. The workshops were advertised through emails to project stakeholders.

Following the workshops, an open house was held for members of the public to comment on the outputs of the design workshops, suggest additional alternatives, and provide input on other aspects of

project design and development. Participants at the open house, meanwhile, contributed a variety of comments on each corridor segment, as well as on specific topics included on the open house comment card, such as station amenities and the overall project. The meetings were advertised through a Capitol Hill blog ad, SDOT blog post, a press release, and emails to the project listserv.

Summary of participation and key themes

In total 38 people attended the design workshops. Downtown workshop participants focused on alignment and design of the segment west of I-5 and produced several design concepts. All of the Downtown alignment concepts assumed stations at 3rd Ave and stations at either 1st Ave or Western Ave.

The First Hill workshop focused on Madison St between Minor St and Broadway. The design alternatives produced included stops at either Summit St or Boylston St.

Capitol Hill design concepts focused on the area between 10th Ave and 14th Ave, which was mentioned many times in previous outreach as a particularly challenging section of Madison St. The multi-legged intersections created by Madison St's diagonal cut through the street grid create a number of challenges and opportunities. Concepts developed during the workshop included station locations at 11th Ave, 12th Ave, and 13th Ave.

In total 31 people attended the open house. Participants contributed a variety of comments on each corridor segment, as well as on specific topics included on the comment card, such as station amenities and the overall project. Participants generally expressed interest in system legibility and station design, including level platforms.

The project team used this feedback to advance the design of the project. See Appendix F for additional details.

Outreach round 3 – January 2015

Between January 19 and February 6, 2015, SDOT conducted an online survey for the Madison St Corridor BRT Study. The survey instrument was developed in SurveyMonkey and a print survey version was distributed for those without access to a computer. The survey was advertised through the Seattle Transit Blog, an email to the project listserv, an Urbanist article, and a Seattle Transit Blog post.

The purpose of the survey was to better understand the community's transit need along the Madison St corridor, determine community preferences for end-of-line routing and bikeway routing options. Question topics included general travel behaviors, terminus routing preferences, corridor improvement priorities, and importance of various transfers. At the end of the survey, respondents were directed to an interactive web-mapping tool hosted by Wikimaps to provide comments on specific locations in the corridor.

Summary of participation and key themes

The survey was completed by 1,660 respondents. Most surveys were completed using SurveyMonkey; 16 completed on paper forms. The survey respondent sample was generally consistent with the actual age distribution for those living along the corridor. According to American Community Survey data from 2013, residents between the ages of 25 and 34 are the largest age group in the study area, at 28%. They were also well-represented in the survey, where 31% of respondents are in this same age group. Residents aged 35 to 44 are overrepresented in the sample by 8 percentage points. The survey sample is

very close to the actual ethnic make-up, but slightly under represents the Hispanic/Latino population of the area (by 2 percentage points). Geographically, survey respondents live in close proximity to the study area. About 55% of respondents live in the five closest ZIP codes to the corridor. This signals that the responses generated from the survey are reflective of the immediate community's needs and preferences.

Key findings from the survey include:

- **High existing transit use.** Most respondents use transit at least once per week, indicating existing demand for transit service in the corridor.
- **Transit service and safety improvements**. Transit service and pedestrian safety are ranked as the two most important corridor improvements, followed closely by sidewalk conditions and transit passenger comfort. These improvements indicate the importance of transit and the pedestrian realm for survey respondents.
- **Importance of transfers.** Respondents communicated the need to connect the Madison St BRT to Seattle's regional transit network. The top four transfer points ranked by survey respondents would provide connections to the Downtown Seattle Transit Tunnel, the Seattle Streetcar, multiple bus lines, and Washington State Ferries. Additionally, there was a significant volume of comments on the mapping exercise suggesting that planned stations should move as close as possible to major intersections to facilitate existing or future transfers.
- **Preference for Martin Luther King Jr Way E as eastern terminus.** There is strong support for the Martin Luther King Jr Way E terminus option. Over 50% of respondents supported the eastern terminus option at Martin Luther King Jr Way E, compared to only 15% who supported the 23rd Ave terminus. The mapping exercise also revealed strong preferences for a terminus at Martin Luther King Jr Way E as well as demand for destinations beyond Martin Luther King Jr Way E, particularly the Arboretum and Madison Park.
- **Balanced support for two western terminus options.** There was almost equal support of each western terminus routing option, although Spring St was preferred by corridor residents, 41% to 30%.
- **Preference for E Union St bicycle route.** More than half of respondents supported developing a bicycle route using E Union St (Alternative 2).
- **Station locations.** The mapping exercise indicated that survey respondents care first and foremost that station locations facilitate transfers and minimize walking to major north-south corridors (even those without existing transit service). Respondents indicated support for decreasing stop spacing in Downtown and First Hill to allow for a second downtown stop near 5th Ave and revised spacing in First Hill (8th Ave/9th Ave, Boren St, and Broadway were all popular stops).

In response to this feedback and other consideration, the project team decided to continue to consider a Martin Luther King Jr Way E terminus, the Spring St option on the west, and include stops at 5th Ave and 8th Ave in Downtown. See Appendix G for additional details.

Outreach round 4 – May 2015

Public meetings

From May 4-6, 2015, four stakeholder meetings were held in the Downtown, First Hill and Capitol Hill/ Central District segments of the corridor, and an open house for the entire corridor. The primary purpose of these meetings was to share key findings from the technical analysis of project alternatives completed prior to the meetings, and to ask the public for input on major decision points in preparation for identification of a preferred alternative. The public meeting was advertised by a postcard mailed to 21,000 people, a SDOT blog post, and an email to the project listserv.

Formats were as follows:

- Segment-based meetings: A presentation was made, and questions were taken both during and after the presentation
- Open house: A similar presentation was made, but including a formal interactive polling exercise, with participants voting using clickers. Informational boards and "rollplot" plan-view drawings of project alternatives were also on display, and staff and consultants were available to answer questions. Attendees submitted comments using comment cards and post-it notes placed on roll-plot drawings.

Summary of participation and key themes

Polling was used during the meeting to collect demographic information and feedback. Approximately 70 people responded to the poll the majority of which (77%) live within 10 blocks of Madison St. Participants were generally older, with a quarter of respondents aged 65 or older, a third aged 45-64, and 39% aged 24-44. Only 1% were below age 24. The polling exercise indicated that very few attendees (only 10%) live in households of more than two people. Half live in households of two people, and 41% live in households of one person.

A total of 29 comment cards were submitted at the open house. The majority of comment cards were submitted by residents in the immediate vicinity of the Madison St corridor east of Broadway (zip codes 98122 and 98112). Respondents ranged in age from 25 to 80 and were two thirds male.

Key findings from the polls and comment cards include:

- **Center-vs. side-running alignment**. Center-running was slightly more popular, expressed in 56% of the poling and comment card responses. The comments indicated that center-running was supported for its benefits to transit speed and reliability, while side-running was supported due to lower cost and impacts to auto travel times, as well as due to potential fears about access to center platforms for pedestrians and persons with disabilities.
- **Downtown eastbound pathway**. Both comments and the polling exercise showed strong support for a Spring St Downtown Eastbound Pathway.
- **Eastern terminus**. Both the polling exercise and comments confirmed strong support for a Martin Luther King Jr Way E eastern terminus, as opposed to a terminus at 23rd Ave. Commenters expressed additional support for a Martin Luther King Jr Way E terminus as well as some concerns about implementation and impacts to East Arthur Place, where buses would turn around and layover if the terminus were at Martin Luther King Jr Way E.

- **Western terminus**. 70% of polling exercise respondents supported one of the Spring St alternatives. The most popular option was Spring St/Alaskan Way (33%), followed by Spring St/1st Ave (22%), and Spring St/Western Ave (15%). There was only one comment regarding the western terminus options on the comment cards.
- **Downtown/First Hill stations**. A station near 8th Ave had greater support than one near 6th Ave. Other comments related to station locations emphasized the importance of locating stations where transfers to other routes will be most convenient.

See Appendix H for additional details.

Online survey

A second online survey was also made available between May 3 and June 1, 2015.

The purpose of the survey was to better understand the community's preferences for transit service along Madison St, and what features and characteristics the public would like to see included in the locally preferred alternative for the project in development. Question topics included bus rapid transit features and amenities, major project design decision points including downtown alignment options, station locations, terminus options, and preferred transit lane configuration, impacts on traffic and preferred bike facility configurations. The survey was completed by 414 respondents.

Summary of participation and key themes

Key findings from the survey include:

- **Bus rapid transit features.** Real-time arrival information, level-boarding, and high-quality stations were seen as important elements of bus rapid transit by the majority of respondents. Whereas, public enhancements (art, landscaping, etc.) were not seen as important.
- **Eastbound pathway.** The Spring St eastbound pathway was preferred over the Marion St pathway.
- **Downtown terminus.** Respondents slightly preferred the Spring St and 1st Ave terminus (25%) followed by Spring St and Alaskan Way (21%).
- **I-5 vicinity station**. More respondents preferred a station west of I-5 near 6th Ave (45%) than a station east of I-5 near 8th Ave (36%).
- **Eastern terminus**. Most respondents preferred Martin Luther King Jr Way E as the eastern terminus (76%) over the 23rd Ave terminus (15%).
- **Transit lanes between 8th Ave and 20th Ave**. Most respondents preferred transit lanes in the center of the street (68%) over side of street lanes (24%).

In response to this feedback and other considerations, the project team decided to include center-running alignment, the Spring St pathway (eastbound), a Martin Luther King Jr Way E terminus to the east, a Spring St and 1st Ave terminus to the west and stops at 5th Ave and 8th Ave in Downtown. See Appendix I for additional details.

Outreach round 5 – Fall 2015

A fifth round of outreach was held in Fall 2015. This round consisted of a September breakfast for stakeholders and a third corridor-wide open house on November 16 at the Seattle Public Library. The purpose of this outreach was to share the proposed LPA with members of the public. The open house

was advertised through a postcard sent to about 25,000 people (within half a mile of the corridor) and an email to the project listserv.

In total 181 people attended the open house. Seventy-six comments were submitted at the open house, and additional comments were written on detailed maps of the corridor and on 31 post-it notes. The public also submitted comments by e-mail to SDOT staff during the month of November.

Summary of participation and key themes

Below are the key themes the project team heard:

- **General support.** Comments provided overwhelming support for the project and expressed optimism in how the bus rapid transit project would solve existing transit issues along the corridor.
- **Extent of transit-only lanes.** Many attendees commented on the need for transit-only lanes to be extended along a wider portion of the project. People were concerned that operating bus rapid transit in mixed traffic or in Business Access and Transit lanes would reduce the speed and reliability of the line.
- **Bike and pedestrian concerns.** There was general concern for the safety of people walking and people riding bicycles along the corridor. The most common locations of concern for the commenters were Madison St and E John St, Madison St and 27th Ave, E Union St and 24th Ave, and along E Union St.
- **Automobile access/capacity**. Comments related to automobile access and capacity were generally supportive of eliminating parking and reducing lane widths. There were some comments that questioned the impact of the bus rapid transit project on emergency vehicles and some commenters who opposed the project based on increased travel time and reduced capacity.
- **Terminus.** There was general support for the terminal location at Martin Luther King Jr Way E. However, some concerns were raised about the impact to residential neighborhoods.
- **Service**. There was overall support for the proposed bus rapid transit service hours along the Madison St corridor. One commenter expressed concern that the Madison St BRT project would result in the reduction or elimination of service elsewhere.
- **Timeline/implementation**. One commenter wanted the project's timeline to be shortened, while another believed the timeline was too quick.
- **Madison Park extension**. The majority of commenters supported an eventual extension to Madison Park. People support the extension because of existing travel patterns, a need for improved service on the east end of the Madison St corridor, and existing crowding on buses to Madison Park.

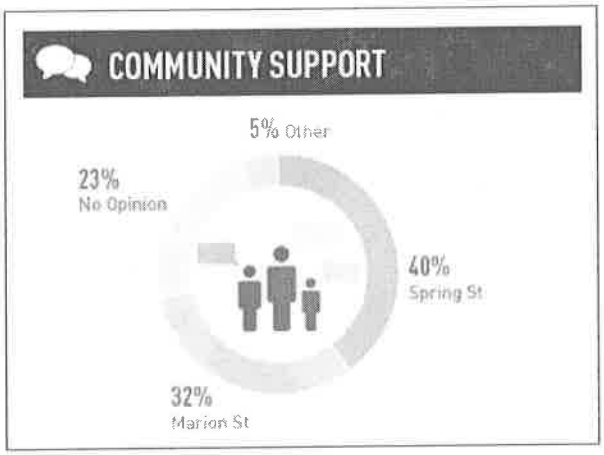
See Appendix J for additional details.

Summary

The public played a key role in shaping the alignment of the Madison St BRT Project. The following graphics summarize the decisions that were influenced by public feedback collected at in-person meetings and through online surveys.

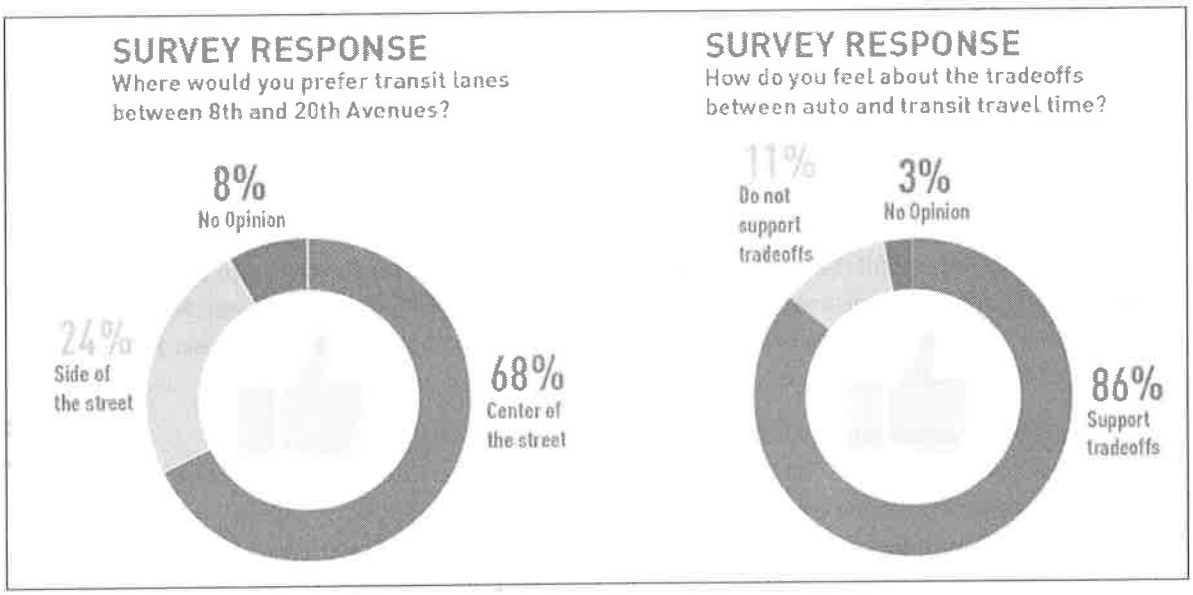
Downtown eastbound pathways

The project will use Spring St as the eastbound pathway in Downtown.



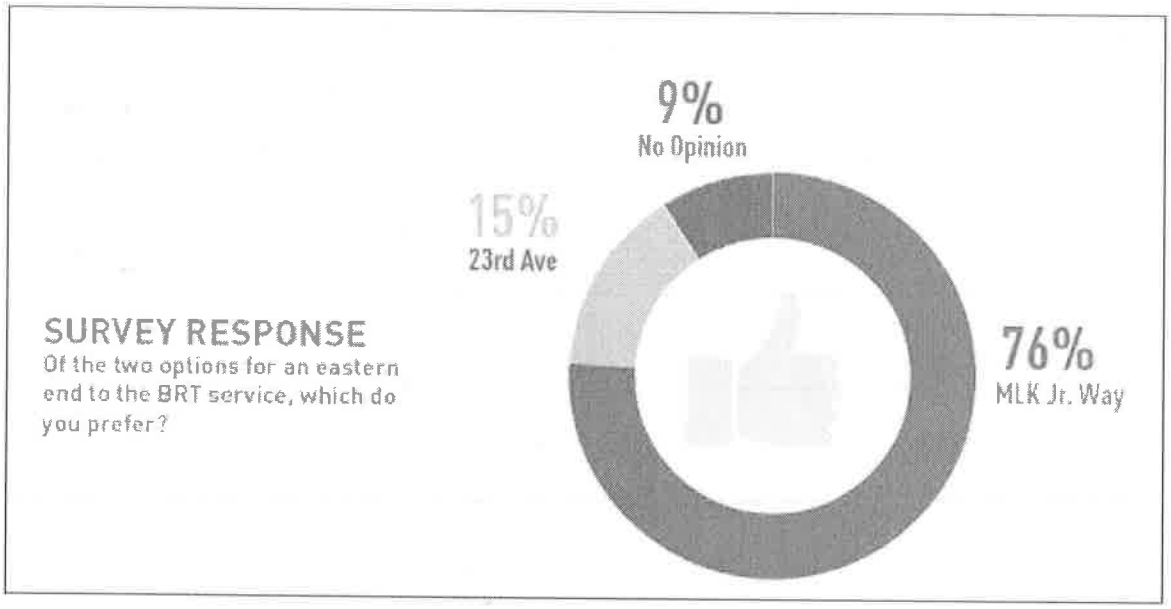
Center transit lanes

The project will use center transit lanes between 8th Ave and 20th Ave.



Eastern terminus

The project will terminate on the east at Martin Luther King Jr Way E. The project will also include an additional station pair and crossing improvements at 24th Ave in response to public feedback.



Design Phase Outreach

Following the LPA process, the project team, in conjunction with the Department of Neighborhoods, continued to engage the public during the design phase. Outreach during design consisted of:

August 2016 design outreach

The 3 open houses were held at Seattle University (August 3), Town Hall (daytime on August 4) and at Meredith Mathews YMCA (August 9). SDOT ran an online open house from August 2 – 16 that provided people who could not attend the open houses a chance to view the same information and provide comment. SDOT also had interpreters at the open houses for Spanish, Chinese, Korean, Somali and Hindi-speaking attendees, and we offered translated materials both in-person and online. The events were advertised through:

- Email notifications and mailers (translated into 6 languages)
- 12 web and print ads in local media outlets, 7 of which were translated and placed in ethnic media outlets directing users to translated webpages
- Door-to-door outreach to businesses on or near Madison St to reach owners and employees whose schedules might prevent them from attending the open houses

SDOT received over 350 comments on the design updates via comment cards, emails, online comments, and at our open houses. Broad support for the project has been expressed in both the comments received and during our briefings and door-to-door outreach; comments explicitly supporting the project's aims far outnumbered those opposing the project. Comments addressed the following topics and themes:

- Bus rapid transit stations and service
- Bus features
- Transit integration and changes to King County Metro service
- Bicycle infrastructure

- Pedestrian infrastructure and access
- Lane configuration and congestion
- Parking and hospital access
- Construction

Based on this feedback, the project team reexamined 2 Madison St intersections (12th Ave and 24th Aves) for ways to improve the intersection for all users. The team also be reached out to business owners regarding parking, loading, and other curb space management impacts. The project team used the public feedback to refine the design, specifically focusing on sidewalk and pedestrian access, parking and loading zones, station design, and the bus layover area near Arthur Pl and Martin Luther King Jr Way. See Appendix K for additional information.

Fall 2016 and Winter 2017

Aiming for as smooth of a construction experience as possible, the Madison St BRT team gathered feedback from business and property owners along the project corridor to inform the project's construction phasing plan.

In winter 2017, area leads from the outreach team surveyed almost 300 businesses and parcels along Madison St. Most parcels on the corridor were businesses. Some parcels were apartment and condominium buildings that border Madison St. Property managers and owners were contacted for these buildings, with limited information gathered; therefore, the survey results do not fully capture residential perspectives.

In January and February 2017, the project and outreach teams invited property owners along the corridor to small group meetings organized by area. The meetings were designed to elaborate on the details obtained in the survey and gather input on construction staging preferences. Property representatives shared more specific information on their needs and had an opportunity to ask construction questions of the project team.

The input gathered at the small group meetings included seasonal preferences for construction, best and worst times of the week and day for construction, preferred construction intensity (intense and fast or less intense and slower), parking and loading needs, equipment staging location ideas, and other important information such as ADA access needs.

March 2017 updated design outreach

In March 2017, the Madison Street BRT team returned to the public with an updated project design and a preliminary draft construction phasing plan. The updated design reflected changes made over the winter in response to feedback received during a similar public comment period held in summer 2016. The preliminary draft construction phasing plan was the project team's first attempt at synthesizing community preferences for construction timing and sequencing, safety requirements, and technical constraints.

Design conversations continued in May and June 2017 when the project team held 2 walking tours. On May 19, a small group of neighbors and community stakeholders toured the intersection of E Madison St, E John St, and 24th Ave to discuss the updated design. On June 29, the project team met another group of neighbors and stakeholders. They toured the E Madison St, E Union St, and 12th Ave

intersection and the E Madison St and 14th Ave intersection to discuss the current design, which had been updated following the public comment period in March.

Members of the public submitted comments in several ways:

- At open houses held March 9 at Town Hall and March 15 at First AME Church
- Online via an online open house, from March 8 – 22
- Via email to the project inbox (MadisonBRT@seattle.gov)
- Verbally during the walking tours and via follow-up emails

In March 2017, we received 622 total comments and 452 unique comments on the updated design (the difference between the two totals is due to the project receiving 170 identical form letters regarding bicycle infrastructure). Comments that touched on multiple topics were counted in each topic as appropriate; therefore, each person's feedback is counted in at least 1 topic and up to 11 topics:

- 12th Ave, E Union St, and E Madison St intersection
- 14th Ave and E Madison St intersection
- 24th Ave E, E John St, and E Madison St intersection
- Bus layover and Martin Luther King Jr Way E intersections
- Restricted left turns, channelization, and diversion
- Other pedestrian and bicycle infrastructure
- Parking and loading
- Construction and schedule
- BRT station design and other king county metro routes

The project team used this feedback to continue to refine the design. See appendix L for specific responses to each theme heard.

August 2019 updated design outreach

Beginning in August 2019 and extending through the fall, the Madison Street BRT team will conduct outreach regarding the 90% design of the project. This outreach will be then lead into to the final design prepared for construction.

Ongoing outreach

The project team continues to offer briefings to organizations and property owners along the corridor as needed and host drop-in sessions to share new information with future riders. See Appendix M for a complete list of activities hosted by the project team.

Appendices

- Appendix A. Madison Corridor BRT Study LPA Summary Report
- Appendix B. Madison Corridor BRT Study Stakeholder Interview Summary
- Appendix C. Racial Equity Toolkit Assessment Worksheet
- Appendix D. Inclusive Outreach and Public Engagement Plan
- Appendix E. Madison Corridor BRT Study Open House #1 Summary
- Appendix F. Madison Corridor BRT Study Open House #2 And Design Workshop Summary
- Appendix G. Madison Corridor BRT Study Transit Survey
- Appendix H. Madison Corridor BRT Study May Outreach Report

- Appendix I. Madison Corridor BRT Study Survey Summary Report
- Appendix J. Madison Corridor BRT Study November Outreach Report
- Appendix K. Madison Street BRT Design Progress Outreach Summary
- Appendix L. Madison Street BRT Updated Design Outreach Summary
- Appendix M. Madison Street BRT Design Activities

Appendix A.

Madison Corridor BRT Study
LPA SUMMARY REPORT

The Seattle Department of Transportation

Madison Corridor BRT Study

LPA SUMMARY REPORT

December 2015

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TABLE OF CONTENTS

PROJECT OVERVIEW

1

INTRODUCTION

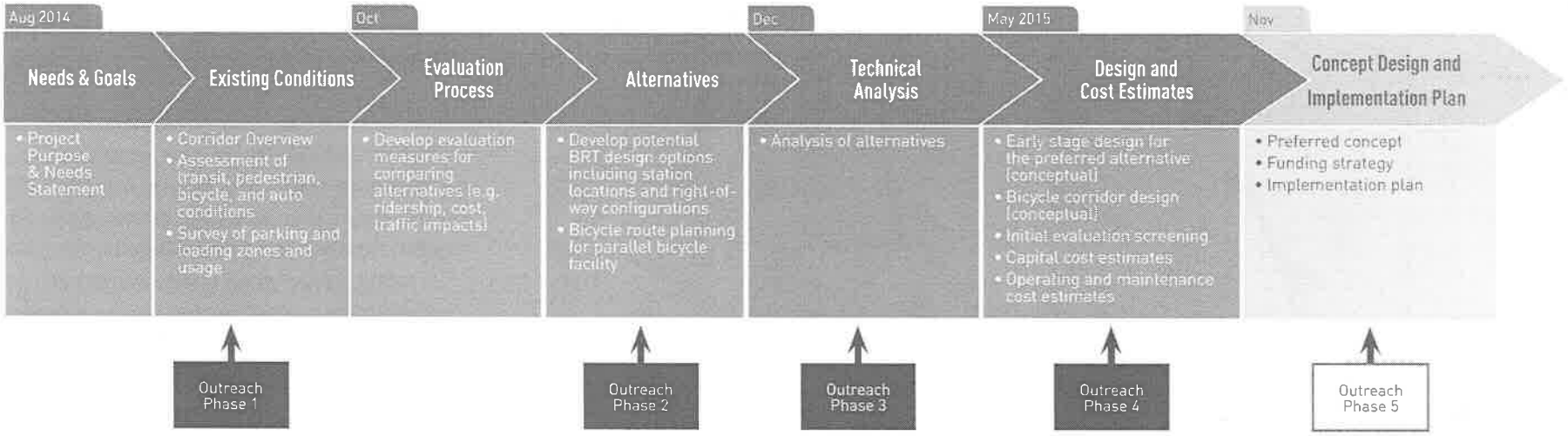
The Madison Street Bus Rapid Transit Study is a project of the Seattle Department of Transportation (SDOT). The purpose of the Study was to identify a Locally Preferred Alternative (LPA) for BRT service in the Madison corridor between the waterfront and 23rd Avenue or Martin Luther King Jr. Way. Service is proposed to begin in 2019.
The Madison corridor was identified as a priority for implementation of high capacity transit in the 2012 Seattle Transit Master Plan (TMP). BRT was selected as the transit mode due to the steep grades in segments of the corridor, which preclude rail service. By improving travel times, reliability, frequency of service, passenger amenities and visibility, BRT is able to emulate many of the features and service characteristics of high-quality rail.

Madison Street cuts across the street grid at an angle, connecting downtown and First Hill and the residential neighborhoods to the east. It is a busy street for all users. The corridor is also rapidly growing, as the City has targeted it for dense, infill development. Transit service in the corridor currently consists primarily of Route 11 to the east (continuing downtown via the Pike/Pine corridor) and Route 12 to the west, from downtown to 19th Avenue.

This Study has developed and evaluated BRT alternatives that include transit facilities and operations, streetscape and pedestrian improvements, and an alternate bike facility. The study process has included ongoing community engagement, particularly at key decision points.

This report describes the draft LPA and the technical and outreach steps taken to arrive at an LPA recommendation.

FIGURE 1-1. MADISON CORRIDOR BRT STUDY

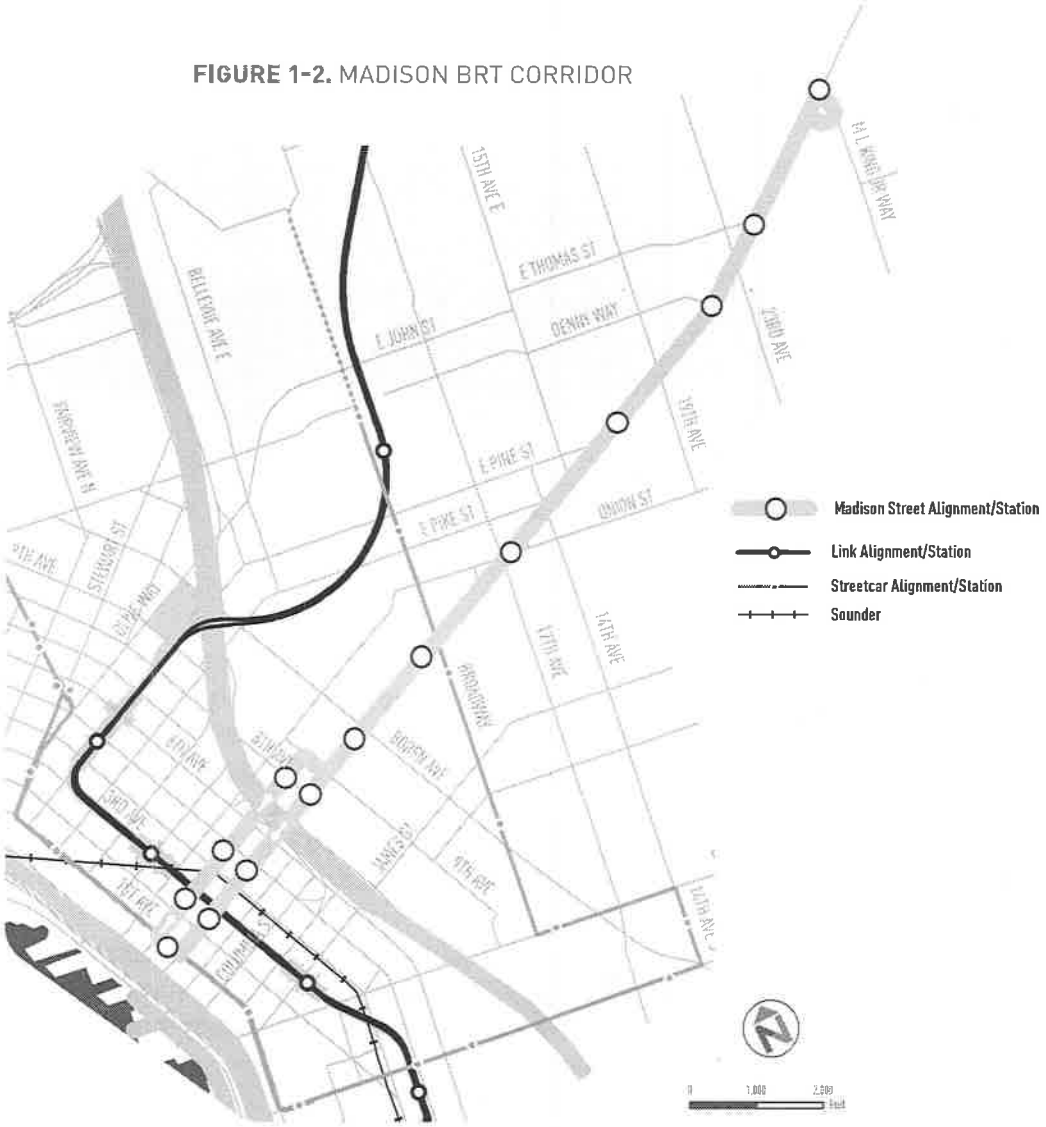


CORRIDOR DESCRIPTION

As defined for this study, the Madison corridor extends from the waterfront – defined as between Alaskan Way, adjacent to the Colman Dock Washington State Ferries Terminal, and First Avenue – east-by-northeast to 23rd Avenue East or Martin Luther King Jr. Way. The study area includes Madison itself as well as adjacent segments of other streets.

Madison is unique among Seattle streets in two key ways. First, it is the only street in the Downtown/First Hill grid to continue east without changing direction, at an angle diagonal to the grid that exists in the rest of the city from Broadway east to Lake Washington. Second, Madison is the only street to extend from Elliot Bay east to Lake Washington. For both reasons, Madison is a major east-west route, connecting relatively low-density residential and neighborhood-oriented retail areas in the east (Madison Park and Madison Valley) to denser, more mixed-use districts in its central segments (the Central District, Capitol Hill and First Hill) and the office towers of Downtown to the west. Between Broadway, where the grids transition, and 22nd Avenue, where Madison turns due northeast, the street is oriented 32 degrees counterclockwise of east-west, resulting in a series of uniquely configured, complex intersections.

FIGURE 1-2. MADISON BRT CORRIDOR



The street is also characterized by steep grades, primarily in its westernmost segment between the waterfront, Downtown and the summit of First Hill. It is the steep grades in this segment that precluded consideration of a rail alternative as part of this study. Several regional medical centers are located atop First Hill, including Virginia Mason Hospital and Swedish Medical Center along Madison, as well as the campus of Seattle University.

In all, Madison Street runs 3.7 miles. Along the way, it connects to major north-south and east-west streets including Martin Luther King Jr., 23rd Avenue, 15th Avenue, Union Street, 12th Avenue, Broadway, Boren Avenue, and Downtown avenues from Sixth downhill to First. Similarly, transit service operating on Madison is able to connect to a number of routes running both north-south and east-west, including King County Metro Route 2 on Union and Route 48 on 23rd Avenue, or, alternately, to branch off of Madison onto north-south or east-west streets, as both Routes 11 and 12 currently do.

This configuration of streets and transit routes is reflected in the demand for travel within the corridor. Madison is classified by SDOT as a Principal Arterial, its current configuration provides up to four through travel lanes, plus turn lanes, and one-way AM peak-hour traffic volumes reach approximately 1,800 vehicles per hour westbound in the segment crossing Interstate 5 (I-5). As of 2013-2014, meanwhile average weekday ridership on Route 11 was 3,200, and on Route 12 it was 3,500.

POLICY FRAMEWORK

High-quality, high-capacity transit service in Seattle's busiest corridors is essential if the City is to maintain a high quality of life for residents, workers and visitors; if it is to remain competitive in the global economy; and if it is to achieve its ambitious goals for ecological sustainability, social equity, and public health.

Seattle has developed a series of transportation planning documents in support of these aims. They informed this project and include the following:

- Seattle Comprehensive Plan
- Seattle Transit Master Plan (2012) and Seattle Transit Plan (2005)
- Move Seattle
- Seattle Jobs Plan
- Climate Action Plan
- Bicycle Master Plan
- Pedestrian Master Plan
- Seattle Race and Social Justice Initiative (RSJI)
- Freight Master Plan (under development)

Further detail on the plans and projects described in this section can be found in the Detailed Evaluation Report.

PUBLIC INVOLVEMENT

Public and stakeholder input was integral to decision-making at each stage of the alternatives evaluation. Outreach strategies included a series of stakeholder interviews, three public open houses, two rounds of neighborhood-based meetings and charrettes, several walking/biking tours of the corridor, two online surveys, and additional briefings with community leaders and organizations.

Open House, Design Workshops and Surveys

Open houses and neighborhood meetings and design workshops were held in a range of locations to attract participation from a diverse array of stakeholders. Two web-based surveys soliciting input on project design priorities and options were also posted in January-February and April 2015. Feedback from these public involvement activities informed development of the alternatives. The events are described below.

Round 1
The first Madison BRT open house was held on September 30, 2014. The open house included a brief presentation with an overview of the study process and an

orientation to the open house. The event also included a series of stations with information about the study process, BRT, stakeholder input, existing conditions, and draft purpose and need statements. Finally, there was a corridor map where participants could identify and comment on specific locations in the corridor needing attention. Participants were offered multiple ways to comment, including written comment cards, writing on the map of the corridor, and sending a message to the project email account.

Round 2

On November 19 and 20, 2014, design workshops were held in three key segment of the corridor: Downtown, First Hill, and Capitol Hill/Central District. Following the workshops, an open house was held for members of the public to comment on the outputs of the design workshops, suggest additional alternatives, and provide input on other aspects of project design and development.

In the design workshops, participants developed conceptual BRT designs with assistance from project team members. In so doing, they addressed design challenges including potential BRT alignments and station locations, connections to major destinations and other transit lines, right-of-way constraints, pedestrian and bicycle accommodations, and grades.

Participants at the open house, meanwhile, contributed a variety of comments on each corridor segment, as well as on specific topics included on the open house comment card, such as station amenities and the overall project.

Round 4

From May 4-6, 2015, four meetings were held: invitation-based community meetings in the Downtown, First Hill and Capitol Hill/ Central District segments of the corridor, and an open house for the entire corridor.

A second online survey was also made available between May 3 and June 1, 2015.

The primary purpose of the meetings was to share key findings from the technical analysis of project alternatives completed prior to the meetings, and to ask the public for input on major decision points in preparation for identification of a preferred alternative. Formats were as follows:

- **Segment-based meetings:** A presentation was made, and

FIGURE 1-3. MAY OPEN HOUSE ATTENDEES

questions were taken both during and after the presentation.

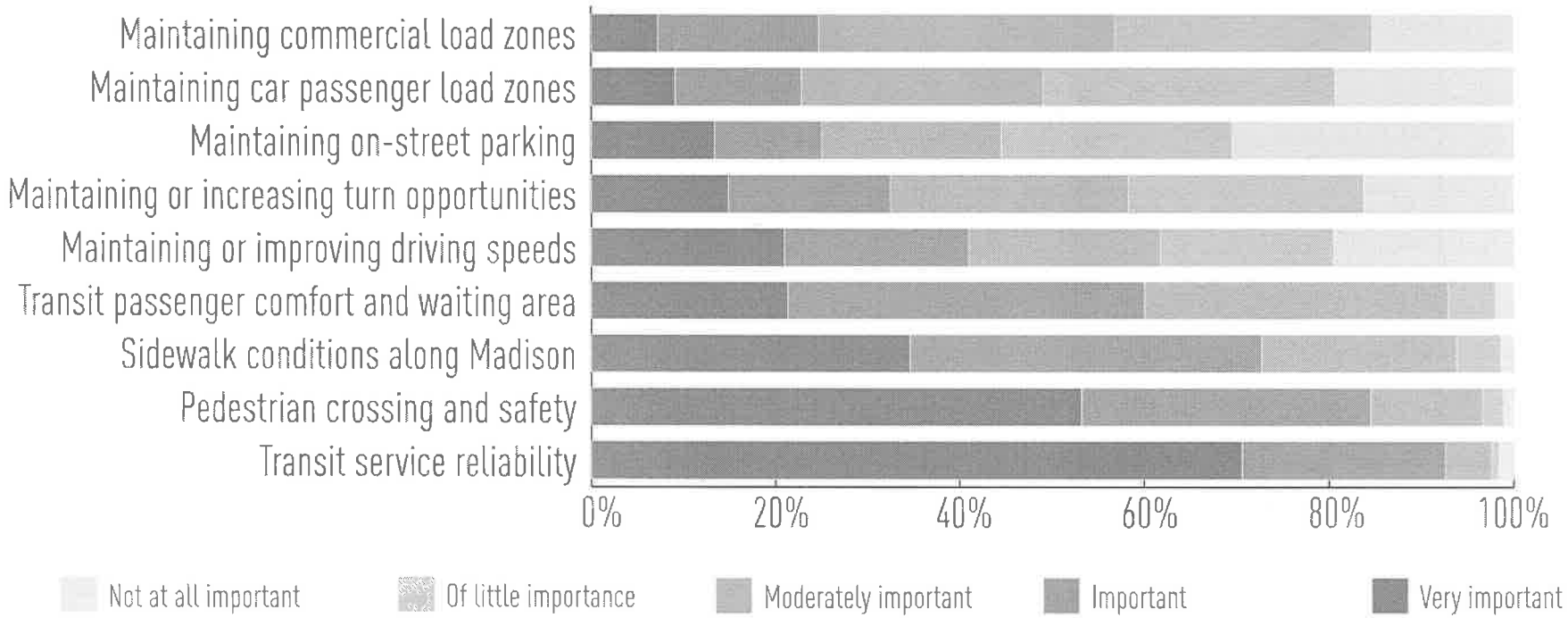
- **Open house:** A similar presentation was made, but including a formal interactive polling exercise, with participants voting using clickers. Informational boards and "roll-plot" plan-view drawings of project alternatives were also on display, and staff and consultants were available to answer questions. Attendees submitted comments using comment cards and post-it notes placed on roll-plot drawings.

The purpose of the survey was to better understand the community's preferences for transit service along Madison Street, and what features and characteristics the public would like to see included in the locally preferred alternative for the project now in development. Question topics included BRT features and amenities, major project design decision points including downtown alignment options, station locations, terminus options, and preferred transit lane configuration, impacts on traffic and preferred bike facility configurations. The survey was completed by 414 respondents.

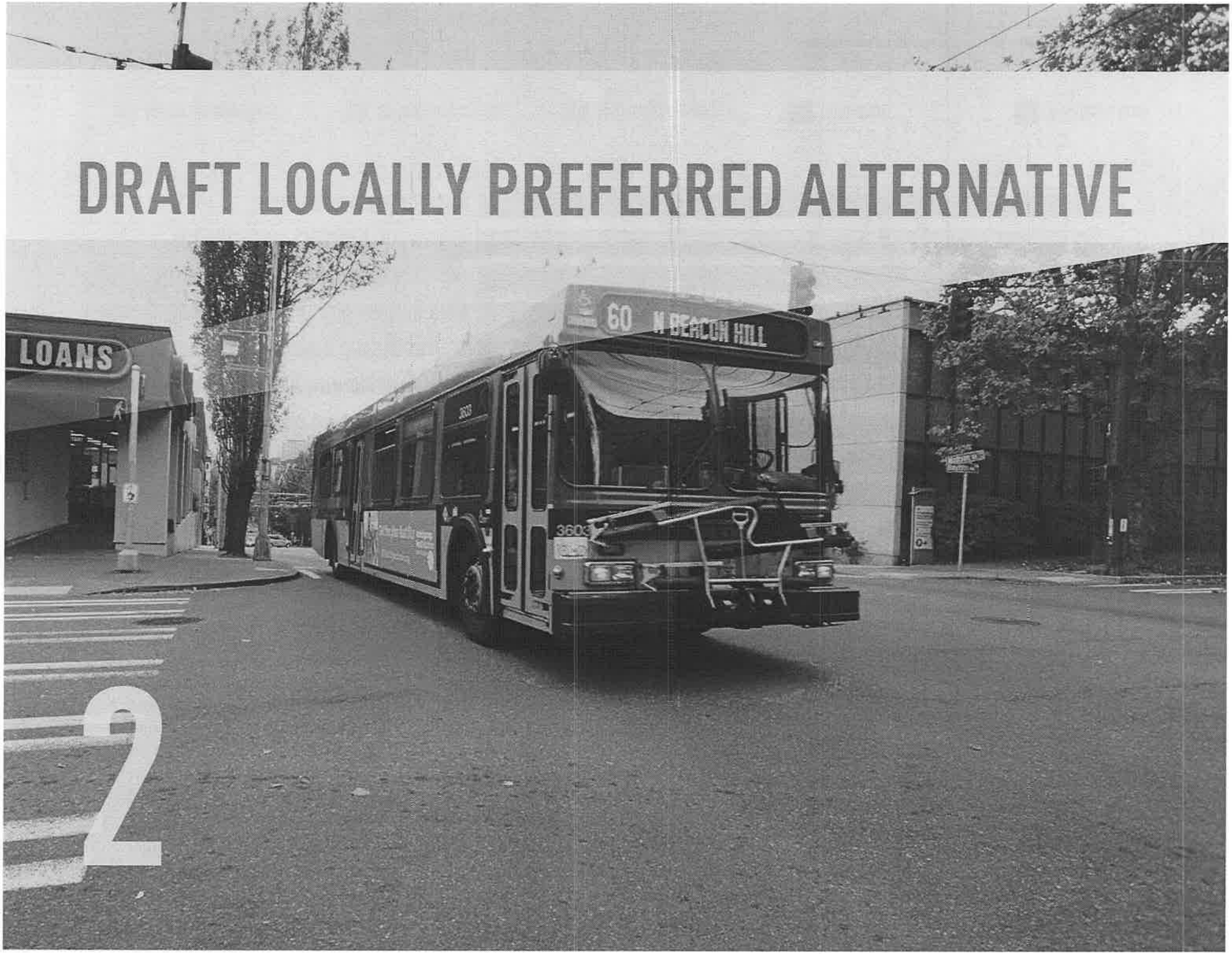
Round 5

A fifth round of outreach was held in November 2015. This round consisted of a third corridor-wide open house, the purpose was to share the proposed LPA with members of the public.

FIGURE 1-4. JANUARY SURVEY RESIDENT RESPONSES: IMPROVEMENT PRIORITIES



DRAFT LOCALLY PREFERRED ALTERNATIVE



LPA DECISION PROCESS

The Madison BRT Study is a local planning process that will 1) define the capital project and operations, and 2) position the City to pursue federal funding.

A management decision-making body was utilized within the Seattle Department of Transportation (SDOT) to advance key project decisions within the agency. The Project Steering Committee was comprised of SDOT deputy directors and division directors of Policy and Planning, Traffic Management, Transit and Mobility, Project Development, Major Projects, and Capital Projects and Roadway Structures. The Steering Committee was responsible for approving key decisions and endorsing the final draft Locally Preferred Alternative (LPA) recommendation. In addition, key SDOT technical staff provided input and consultation throughout the planning process.
Approval of the LPA by the Mayor and Seattle City Council is required to advance the Project. Review by the City Council Transportation Committee is anticipated in early 2016.

The Madison BRT Study also involved key agency partners including King County Metro Transit and Sound Transit.

LPA PROJECT DESCRIPTION

The LPA is a key policy document that provides a description of the Madison BRT project. This section describes the roadway and transit capital improvements and operating characteristics of the recommended LPA. The following pages describe key elements of the recommended LPA for Madison BRT.

Overview

The proposed LPA combines elements of the alternatives studied, as well as new elements developed through the evaluation process. Specifically, it includes:

- A western terminal at 1st Avenue, shared with the Center City Connector
- Eastbound operation on Spring between 1st Avenue and 9th Avenue
- Stations near I-5 at both 5th Avenue and 8th Avenue
- Center-running transit-only lanes from 9th Avenue to 15th Avenue
- An eastern terminal at Martin Luther King, Jr. Way

Alignment

The LPA corridor includes Madison Street between 1st Avenue and Lake Washington Boulevard as well as Spring Street between 1st Avenue and 9th Avenue and 1st Avenue and 9th Avenue between Madison and Spring. The downtown /First Hill loop would operate clockwise – westbound on Madison, northbound on 1st Avenue, eastbound on Spring and southbound on 9th Avenue.

Stations

There would be a total of 21 stops, including the western terminal and 10 stops in each direction. From west to east (outbound from downtown), stations would be located at:

- **1st Avenue:** The Center City Connector (CCC) northbound stop between Madison and Spring. The platform would be shared by CCC streetcars and BRT vehicles, allowing for seamless transfers.

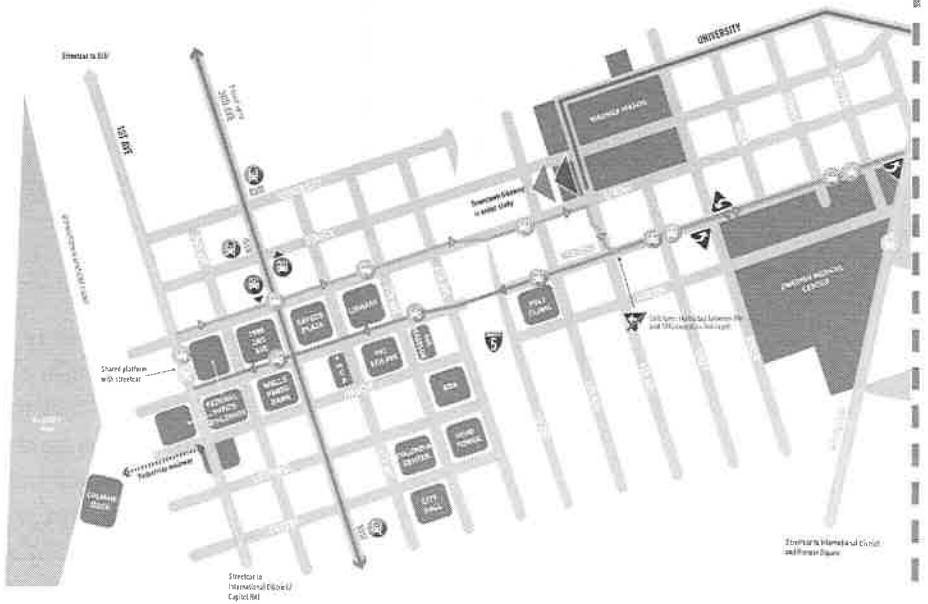
Then on both Madison and Spring at:

- **3rd Avenue:** On the far-side of 3rd Avenue in both directions, on the sidewalk. The stop on Spring would be on a bulbout extending from the sidewalk.
- **5th Avenue:** On the near-side of 5th Avenue in both directions. The Madison stop would be on a sidewalk extension, while the Spring stop would be on an island between the BRT and travel lanes.
- **8th Avenue:** West of 8th Avenue. The Madison stop would be on an island between the BRT and travel lanes, while the Spring stop would be on a sidewalk extension.

Then on Madison at:

- **Terry:** On the east side of Terry, on a center median island.
- **Summit/Boylston:** Between Summit and Boylston, on a center median island.
- **12th Avenue/13th Avenue/Union:** Between 12th Avenue and 13th Avenue and northeast of Union, on a center median island.
- **17th Avenue:** Far-side in both directions.
- **22nd Avenue:** Far-side in both directions.
- **24th Avenue:** East of 24th Avenue,

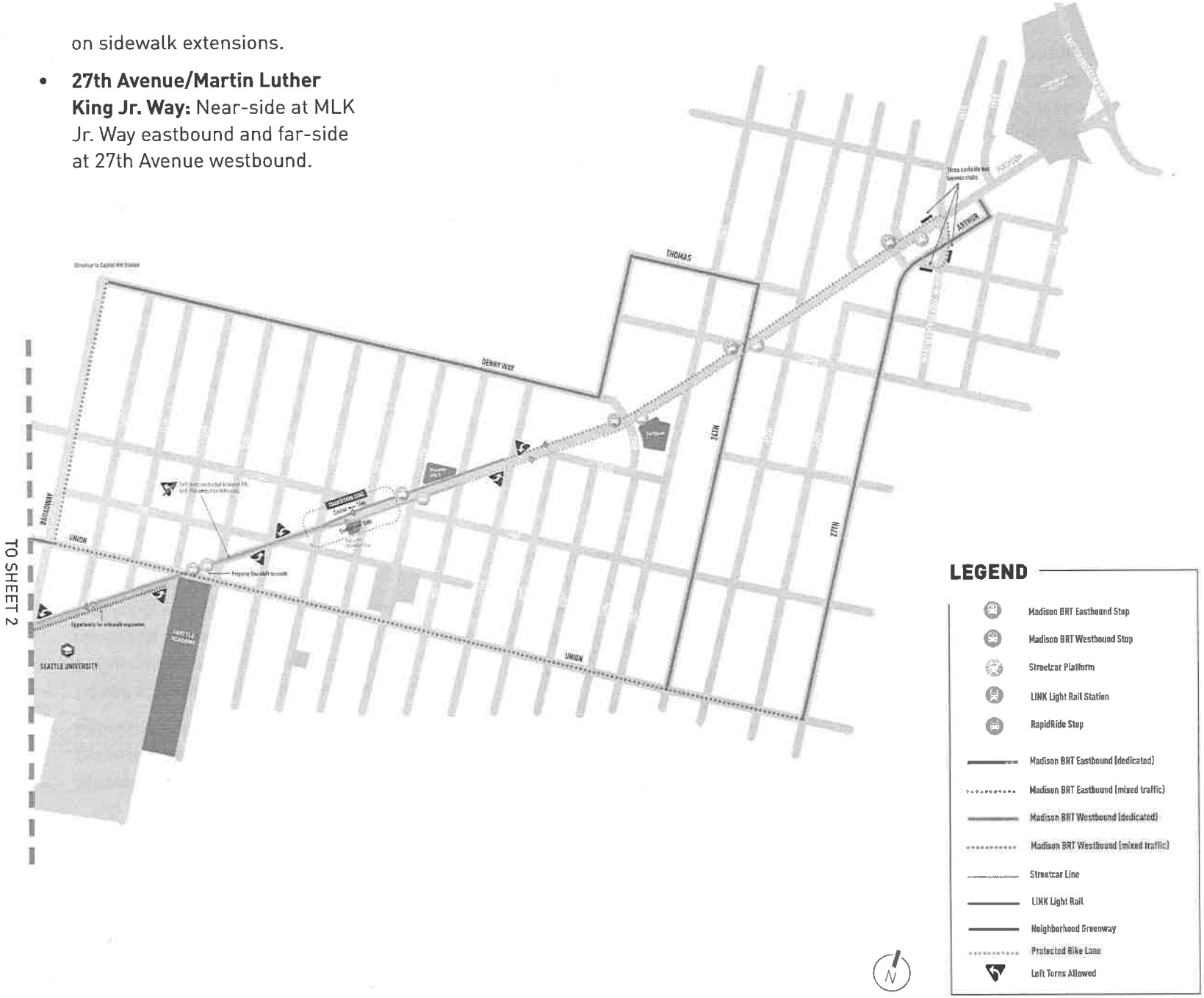
FIGURE 2-1. LPA ALIGNMENT AND STATIONS



TO SHEET 1

on sidewalk extensions.

- **27th Avenue/Martin Luther King Jr. Way:** Near-side at MLK Jr. Way eastbound and far-side at 27th Avenue westbound.



Other than at 1st Avenue (where the already-planned streetcar stop would be used), there would be two basic types of station, each with a full suite of BRT station amenities including branded custom shelters, off-board fare payment machines, and real-time arrival and other forms of passenger information.

- **Sidewalk stations** would generally be on curb extensions, approximately 60 feet long,
- **Island stations** would be platforms in the center median of the street, generally bidirectional and at least 60 feet long, with longer stops at busier locations on First Hill and at 12th Avenue/Union. Island stops would be a minimum of nine feet wide.

Transit Priority

Madison BRT will feature exclusive or semi-exclusive Transit Only Lanes (TOL) for much of its length. Exclusive running way for transit is a core component of the Project, providing a high level of operational reliability and a transit travel time that is highly competitive with auto travel.

The extent of the transit lanes was based on the 2012 Master Plan analysis and was updated as part of this study. The lanes will be a combination of fully exclusive center median lanes and side-running Business Access & Transit (BAT) lanes allowing auto access to turn lanes, curb cuts and curbside parking.

- Center lanes will extend from 9th Avenue to 15th Avenue eastbound and from 15th Avenue to 6th Avenue westbound.
- BAT lanes will extend from 1st Avenue to 6th Avenue downtown.
- BAT lanes will extend from 15th Avenue to 18th Avenue.

In addition to running in exclusive transit lanes, Madison BRT will employ transit signal priority (TSP) treatments at all signalized corridor intersections. Signal priority will be used to hold lights green for approaching BRT vehicles and shorten red times for BRT vehicles stopped at intersections. Separate "queue jump" transit-only phases will be employed where BRT vehicles need to go in advance of auto-traffic, for example where transitioning from exclusive transit lanes to general-purpose lanes.

Cross-Sections/Roadway Configurations

Cross-sections will vary depending on right-of-way constraints as well as project design (e.g., center- vs. side-running lane segments).

Lane widths would also vary, but general-purpose lanes would be a minimum of 9 feet, 6 inches wide, while transit lanes would be a minimum of 10 feet wide at stops, and 10 feet, 6 inches between stops. Both types of lanes would be wider in most places.

Combination through-turn or dedicated turn lanes would be provided where turns are permitted. On Madison between 6th Avenue and 15th Avenue, left turns would be prohibited except where noted in the segment descriptions below.

Sidewalks would generally be unchanged except at sidewalk stations and new corner bulbouts where they would be extended; at three locations (Boren, Broadway and Union) where they would be narrowed slightly to accommodate left-turn lanes; and on the south side of Madison between 12th Avenue and 13th Avenue, where the right-of-way would be reconfigured and a new 12-foot sidewalk constructed.

Intersection improvements for pedestrians and bicyclists are described in the following section, Pedestrian and Bicycle Improvements.

Following are basic cross-sections by segment:

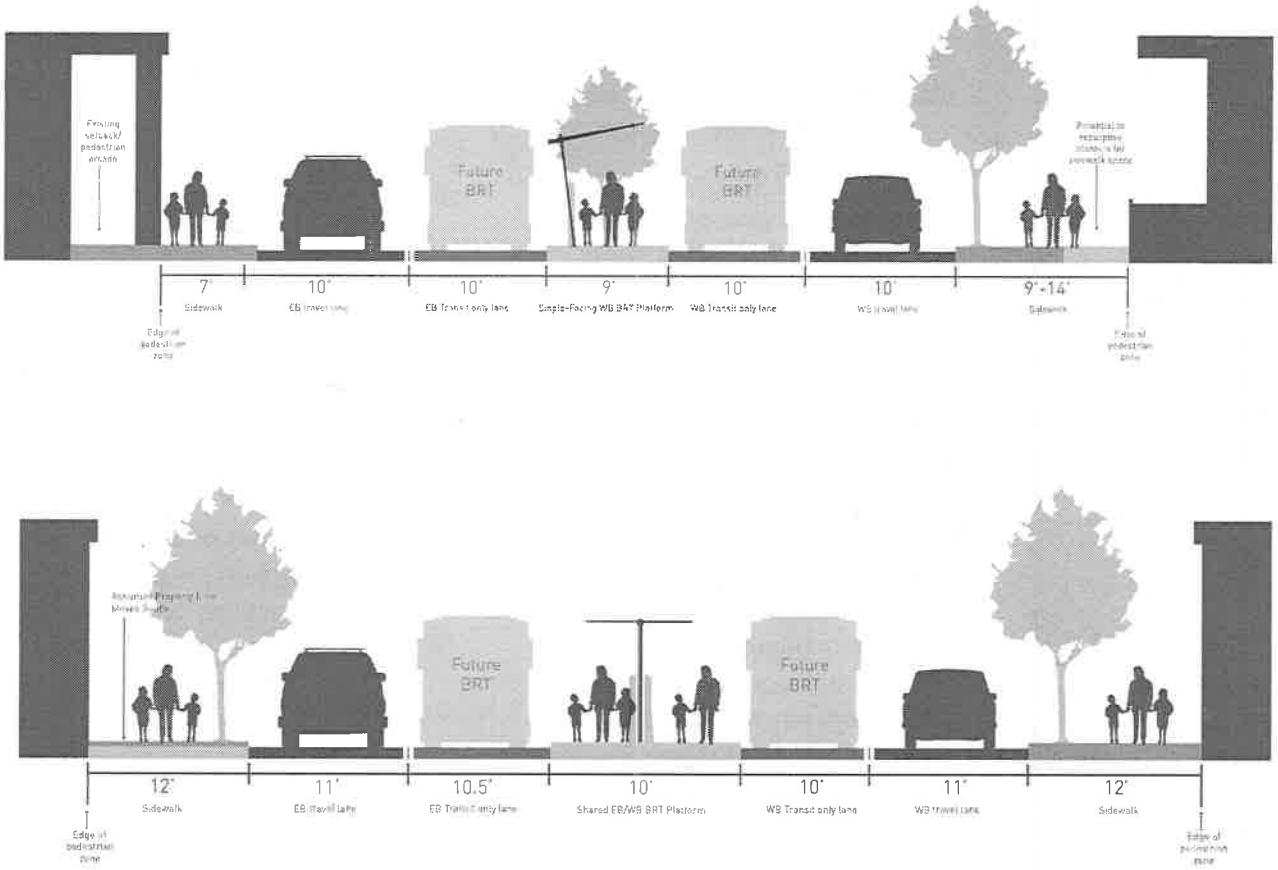
- West of 6th Avenue, where BRT would operate westbound on Madison and eastbound on Spring in BAT lanes, the basic cross-section would consist of the BAT lane on the

north side of the street (the right side westbound on Madison, and the left side eastbound on Spring) accompanied by two general-purpose travel lanes in the same direction. On Madison, existing angled parking would be replaced by parallel parking, while on Spring, there would be a Protected Bicycle Lane or PBL on the south side of the street from 1st to 4th Avenues. BRT vehicles would operate in the northbound transit-only lane on 1st.

- Between 6th Avenue and 9th Avenue, BRT would operate westbound in a center lane on Madison and eastbound in general-purpose lanes on Spring. On Madison, there would be two general-purpose lanes increasing to three between 7th Avenue and 8th Avenue on the approach to I-5, and one eastbound general-purpose lane. On Spring there would be two eastbound general-purpose lanes, parallel parking on both sides, and a bicycle lane on the left side. On 9th Avenue, BRT would operate southbound in a center lane transitioning to a shared left-turn lane.
- Between 9th Avenue and 15th Avenue, the basic cross-section would consist of a center-running transit lane and general-purpose lane in each direction, with dedicated left-turn lanes at Boren, Broadway, 12th Avenue (eastbound only) and 14th Avenue (westbound via Pike). Left turns would be prohibited elsewhere. There would be no parking on Madison. Stations in this segment would be center-island platforms. At Terry, the platform would extend into the intersection, with left turns prohibited. At 12th Avenue/13th Avenue/Union,a number of changes would be made:
  - » The existing triangular parcel on the south side of Madison would be reconfigured, requiring modifications to the property.
  - » Union between 12th Avenue and 13th Avenue would be redesigned to accommodate protected bicycle lanes, and westbound traffic would be diverted to 13th Avenue.
- Between 15th Avenue and 17th Avenue, BRT would transition from center to BAT lanes. Westbound, there would be two general-purpose lanes, which BRT vehicles would use to merge from the BAT to center lane. Eastbound, the transit and general-purpose lanes would switch or change places just east of 15th Avenue, with BRT vehicles using a queue jump to go ahead of traffic.
- Between 17th Avenue and 18th Avenue, BRT vehicles would operate in a BAT lane. At 18th Avenue, they would transition to a general-purpose lane. Parallel parking will be removed from 18th Avenue to 22nd Avenue to create an additional travel lane for BRT vehicles and general-purpose traffic. Left turns will be allowed at 19th Avenue.
- East of Denny/22nd Avenue, BRT would operate in general-purpose lanes. There would be a single general-purpose lane in each direction, plus parallel parking on both sides of the street. There would be an eastbound left-turn lane at 23rd Avenue. BRT vehicles would turn around at Martin Luther King, Jr. Way using the traffic island at MLK Jr. Way, Harrison and Arthur Place, and would layover there and on Madison at MLK Jr. Way.

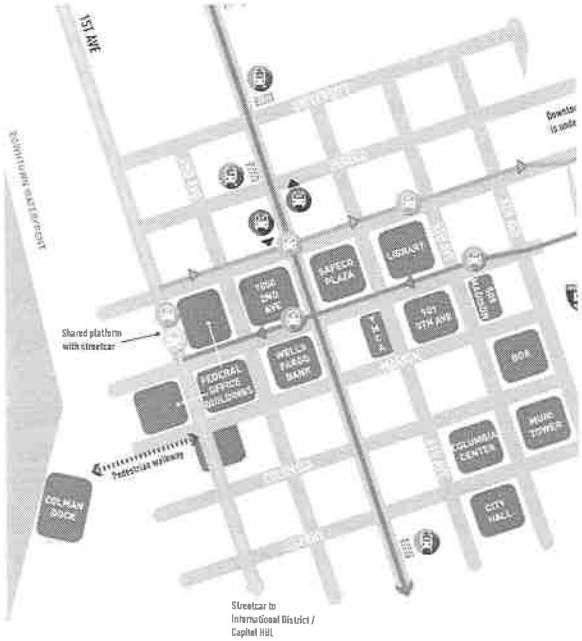
Two representative cross-sections showing the center island stations at Boylston and at 12th/Union are shown in Figure 2-2.

FIGURE 2-2. LPA CROSS-SECTIONS

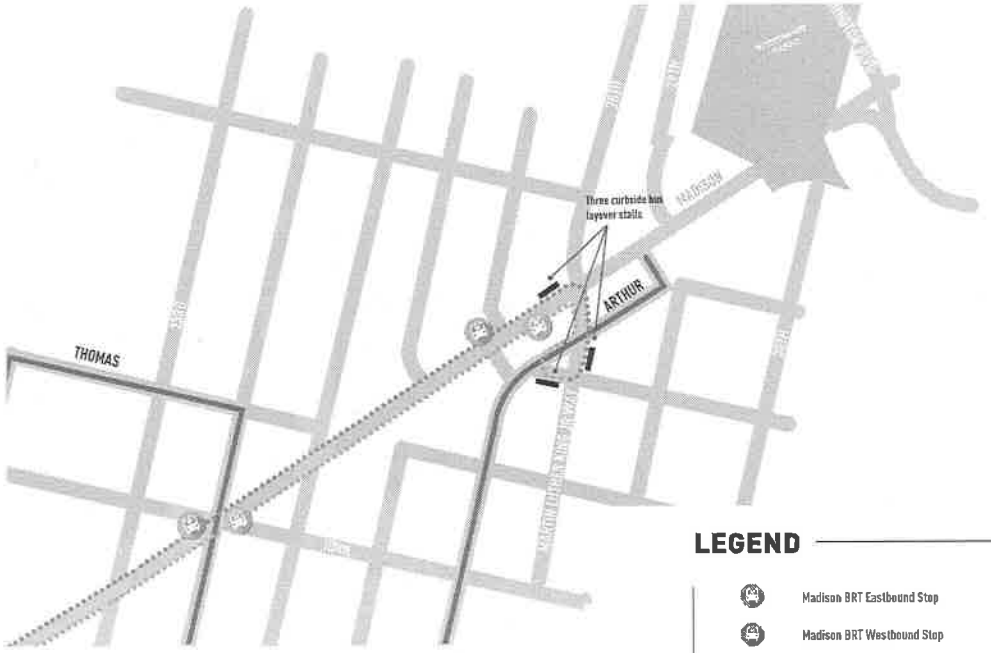


Configurations of the western and eastern terminals at 1st and at Martin Luther King, Jr. Way are represented diagrammatically in Figure 2-3 below.

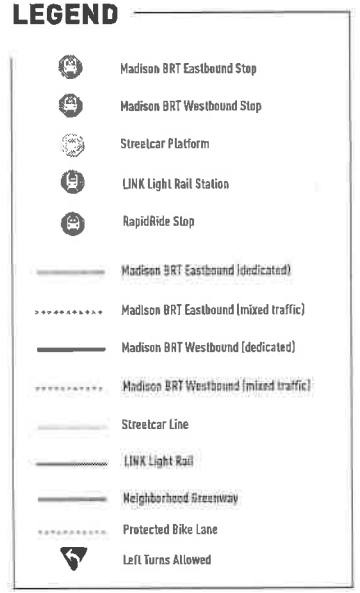
FIGURE 2-3. LPA TERMINALS



WESTERN TERMINAL



EASTERN TERMINAL



Service Plan

The proposed daily span of service is:

- Monday through Saturday up to 20 hours (5 a.m. to 1 a.m.)
- Sundays/Holidays up to 17 hours (6 a.m. to 11 p.m.)

Proposed headways are:

- Every six minutes between 6 a.m. and 7 p.m. on weekdays
- Every 15 minutes during all other hours of operation

The LPA does not require any specific changes to King County Metro bus service currently operating in the corridor. The analysis assumes that BRT service replaces Route 12.

Vehicle Technology

Madison BRT will be operated using 60-foot articulated low-floor buses with three doors on the right side of the vehicle and two on the left, allowing for loading and unloading using either side of the vehicle. Each vehicle will be custom-branded and may be equipped with on-board bicycle racks. Capital cost estimates assume purchase of eight of these vehicles, based on a projected peak fleet requirement of six, plus a 25 percent spare ratio.

These vehicles will be electrically powered, using either electric trolleybus (ETB) technology requiring overhead contact systems (OCS) or some combination of ETB/OCS and emerging battery-powered technology allowing for substantial "off-wire" operation. ETB infrastructure currently extends from 1st Avenue to 19th Avenue.

A 60-foot BRT vehicle with dual-side doors is shown in Figure 2-4.

FIGURE 2-4. CLEVELAND HEALTHLINE VEHICLE AT CENTER RUNNING STATION

Operations and Maintenance Facilities

It has been assumed that BRT vehicles could be accommodated at an existing King County Metro base used for storage and maintenance of ETB vehicles.

Fare Collection/Policy

Madison BRT will employ a "proof-of-payment" policy based on off-board fare payment, all-door boarding and fare enforcement officers. Along with near-level boarding, this will serve to greatly reduce dwell times.

The LPA assumes that Madison BRT will be fully integrated into the regional transit fare collection system. Central Puget Sound Transit agencies have developed a coordinated fare payment system. This partnership led to the 2009 launch of the ORCA ("One Regional Card for All") card, which is a contactless, stored value smart card used for payment of public transport fares for eight separate transit providers in the Puget Sound area.

ORCA uses modern RDFI technology to store value on personal cards that function as an E-purse. ORCA-equipped stations and vehicles use an RDFI card reader on board or at the stop/station to track personal trips. Fare revenues are allocated using card data to the respective agencies providing recorded trips.

Further exploration of the fare payment options will be conducted during project development and will be a key element of the operations finance plan development.

Transit, Pedestrian and Bicycle Connections

Madison BRT will provide enhanced east-west connectivity between downtown and the dense and rapidly developing mixed-use neighborhoods of First Hill, Capitol Hill and the Central District, with service extending to Madison Valley.

It will also provide key east-west connections between major north-south transit corridors including the Center City Connector/First Avenue Streetcar (with which it would share a platform, enabling seamless transfers), Link (via a roughly 400-foot walk to University Street Station), the 3rd Avenue transit spine, and the First Hill Streetcar on Broadway (again, via a walk of about 400 feet). Its western terminal would also be about 1,000 feet from the Colman Dock Washington State Ferries terminal.

Pedestrian and bicycle access are further described in a following section. However, Madison BRT will be highly accessible to pedestrians using the generally well-connected, gridded street network and complete sidewalk system within the corridor. All stations will be accessed at signalized intersections or marked mid-block crossings and will be ADA-accessible. Protected bicycle lanes (PBLs) and greenways will run near and connect to the corridor.

Pedestrian and Bicycle Improvements

The Project would include a number of improvements for pedestrians and bicyclists. In addition to the construction of corner-bulbout sidewalk extensions at a number of locations, the following major improvements would be made as part of or in relation to the Project:

- A parallel bicycle facility would be provided including:
  - » A protected bicycle lane (PBL) on Spring between 1st and 4th Avenues;
  - » A neighborhood greenway on 9th, University, and Union west of Broadway;
  - » A neighborhood greenway on Denny and Thomas between Broadway and 24th;
  - » A potential future PBL on Union between Madison and 27th; and
  - » A potential future neighborhood greenway on 27th, Arthur and 29th from Union to Madison

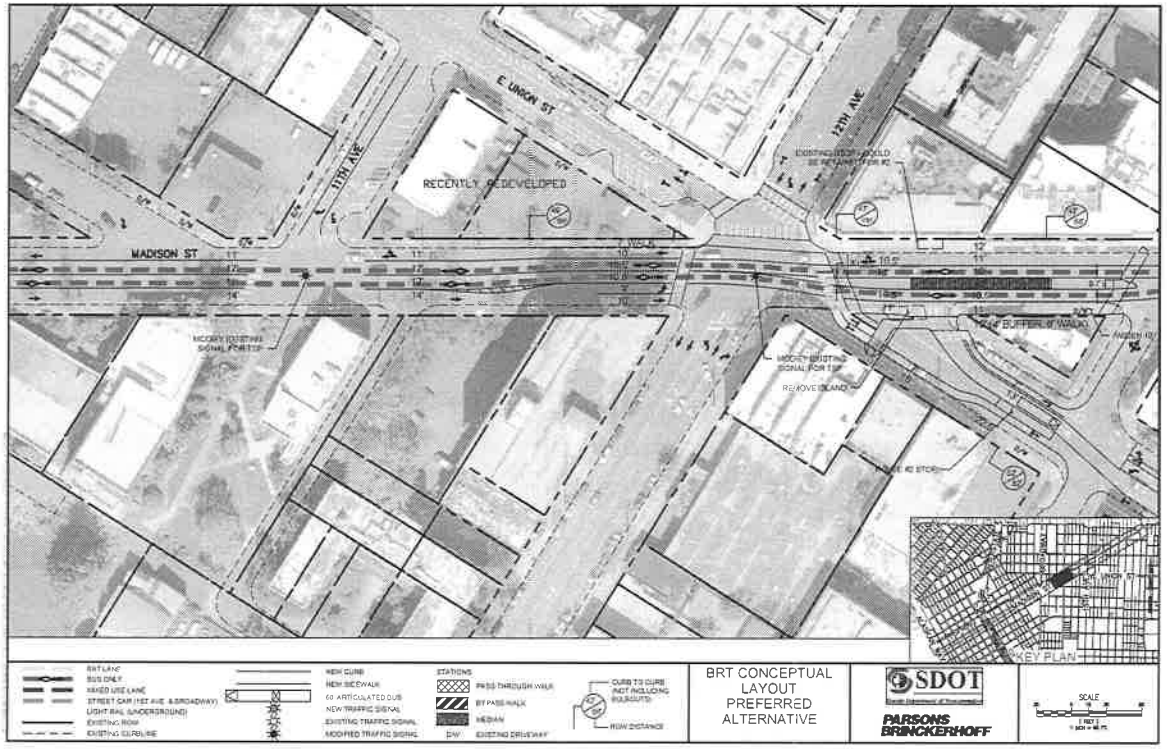
- The intersection of 12th and Union would include an additional crosswalk and bicycle crossings. There would also be a wide crosswalk on Madison on the east side of the intersection enabling transitions between the bike facilities on Union to the east across Madison and 12th Avenues.
- At 24th, a short segment of bicycle lane would be striped through the intersection of 24th and John and improvements to the sidewalk on Madison west of the intersection would be included in order to facilitate through movements on the 24th Avenue Greenway.

Parking and Loading

As indicated by Figure 2-6, the draft LPA would remove approximately 227 total on-street parking spaces between 1st Avenue and Martin Luther King, Jr. Way. Of this estimated total, 12 would be passenger or delivery loading spaces, 120 would be parking spaces that are available all day, and 95 would be spaces that are restricted during peak periods. By segment:

- Downtown, a total of 58 spaces would be removed on Madison and Spring, of which 40 would be all-day parking spaces, 15 would be peak-restricted spaces, and three would be loading spaces. Diagonal parking spaces on Madison would be partially replaced by parallel parking. Nineteen existing carpool spaces would be removed.
- On First Hill, a total of 67 spaces would be removed, 59 of them on Madison. Of these 67 spaces, 19 would be all-day parking spaces and five would be loading spaces. Forty-three, or 64 percent, would be peak-restricted spaces.
- Between Broadway and 23rd Avenue, near Capitol Hill and the Central District, a total of 74 spaces would be removed, of which 33 would be all-day parking spaces, four would

FIGURE 2-5. 12TH AVENUE/UNION INTERSECTION DESIGN

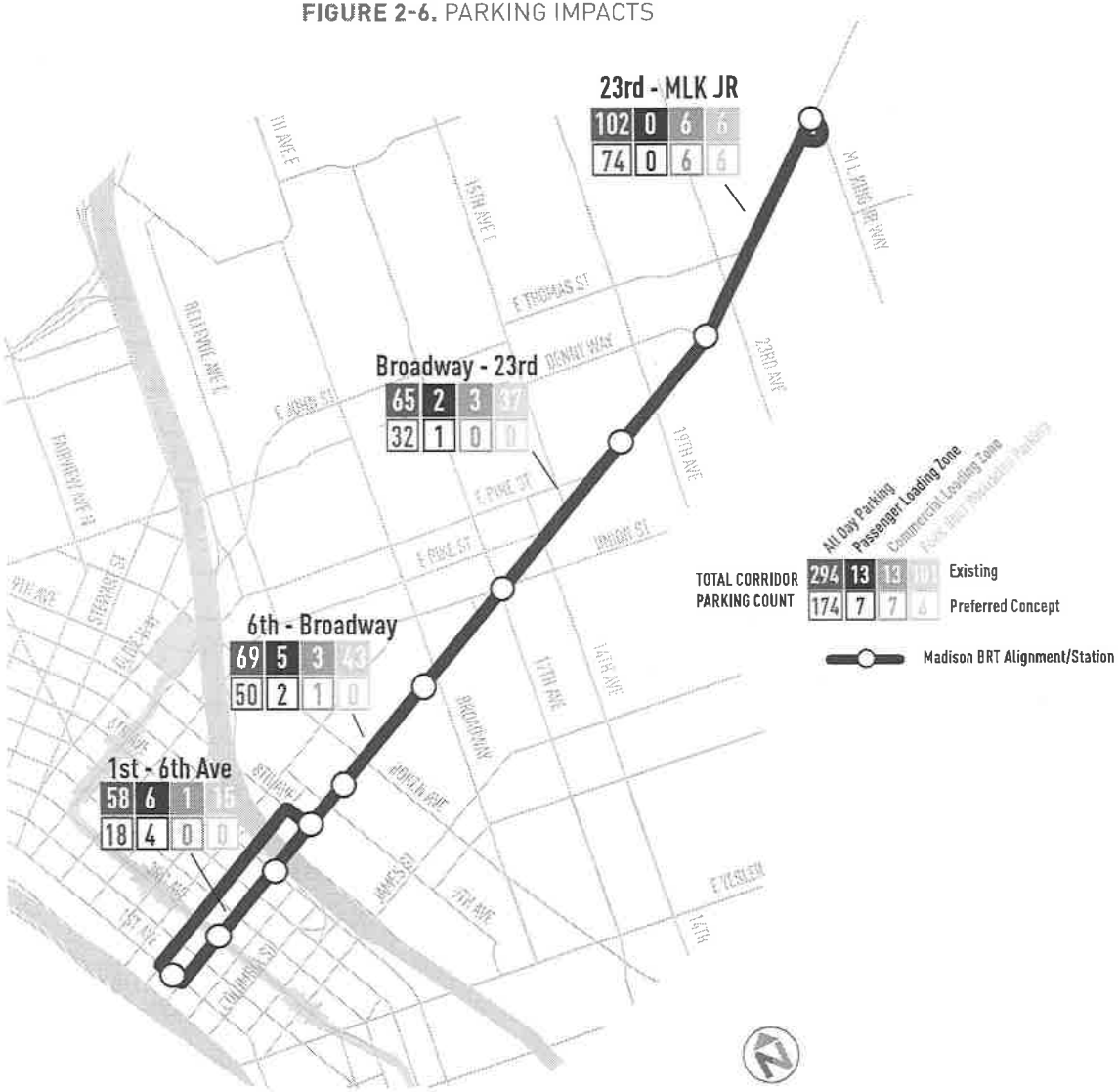


be loading spaces, and 37 or half would be peak-restricted spaces.

- In Madison Valley, a total of 28 spaces would be removed, all of them all-day parking spaces.

A number of mitigation strategies will be evaluated in future phases to mitigate the impact of parking loss in the corridor. This could include conversion of short segments of select two-way streets into one-way streets with both angled and parallel parking.

FIGURE 2-6. PARKING IMPACTS



LPA Capital Improvement Summary

Figure 2-7 provides a summary of transit capital improvements proposed as part of the LPA.

FIGURE 2-7. TRANSIT CAPITAL IMPROVEMENTS

Attribute	Amount
Right-of-Way	
Miles of Center Transit Only Lane (unidirectional)	1.98
Miles of Business Access and Transit (BAT) Lane (unidirectional)	1.14
Stations	
Island (bidirectional)	3
Island (unidirectional)	2
Sidewalk	13
Fleet	
BRT Vehicles	8
Overhead Contact System	

Capital Costs

The estimated capital cost for the draft LPA is $120 million. This is a year-of-estimate (2015) cost. Consistent with FTA guidance on capital cost estimation, it includes estimated costs for:

- BRT Guideways/Lanes
- Stations
- Sitework and Special Conditions
- Systems (e.g. overhead contact systems)
- Right-of-Way
- Vehicles
- Professional Services

The estimate assumes partially colored concrete transit lanes and an extension of the existing OCS from 19th Avenue to Martin Luther King, Jr. Way, requiring an additional substation. Construction costs account for approximately $61 million of the total, while right-of-way and vehicle purchases account for $13 million and soft costs including project development and design account for $27 million. These figures include FTA-mandated category-specific contingencies ranging from 15 to 40 percent. The FTA-required unallocated contingency of 20 percent adds another $20 million to the project cost.

EVALUATION FRAMEWORK

3

This chapter briefly describes the method used to evaluate project alternatives, including the project's Purpose and Need statement.

PROJECT PURPOSE

The Madison Street Bus Rapid Transit (BRT) corridor is one of five High Capacity Transit (HCT) corridors identified for priority implementation in the City of Seattle's 2012 Transit Master Plan (TMP). The purpose of the Madison BRT project is to improve transit capacity, travel time, reliability, connectivity, comfort, visibility and legibility in the Madison corridor, while also making related improvements to pedestrian and bicycle access as well as the streetscape and public realm. In so doing, the project would improve overall mobility in a dense and rapidly developing corridor that spans diverse neighborhood districts from Center City to First Hill, Capitol Hill, the Central District, and east of the study area to the Madison Valley and Madison Park.

PROJECT NEED

The Madison BRT project is based on the following needs:

- **Residents, employees, visitors, students, and shoppers all need frequent, reliable transit service.** Bus service can be slow, unreliable and crowded during peak hours, and service could be more frequent.
- **People using transit in the corridor need to make east-west connections to major transit hubs.** Madison BRT would connect Colman Dock, RapidRide, Link, Downtown transit corridors, and the First Hill Streetcar, helping to form a network of frequent, high-capacity transit.
- **Intensifying land use necessitates a robust multi-modal transportation network for the Madison corridor.** The Madison corridor connects Downtown Seattle with dense and growing mixed-use neighborhoods. Large-scale infill development is occurring throughout the corridor and more is expected. The transit network and supporting non-motorized facilities are needed to accommodate this growth.
- **Pedestrian and bicycle improvements are needed to support the transit network and improve safety and comfort.** Pedestrian and bicycle volumes are high and growing, and the Pedestrian and Bicycle Master Plans identify needed improvements to support these modes.
- **Public realm improvements would help support the transit investment, livability, and economic development.** The corridor could be made a more pleasant place to spend time by adding more green space, places to sit, and more comfortable and attractive bus stops.
- **Affordable access is needed to Center City jobs and the health, social services and educational facilities on First Hill.** Higher-quality transit service could ensure that employees, patients, visitors, students and staff have an affordable and convenient travel option.
- **Greenhouse Gas (GhG) emissions are on the rise.** Seattle's Climate Action Plan relies on high-capacity transit in major corridors, including Madison, to meet targets.

DECISION POINTS

Following development of project alternatives and based in part on the Purpose and Need statement described in the previous section and public engagement process described in the previous chapter, an evaluation framework was developed focused on major decision points:

- **The basic configuration of bus lanes and stations and the design of the street in the central segment of the corridor.** Both center and side running alternatives were under consideration in the central segment

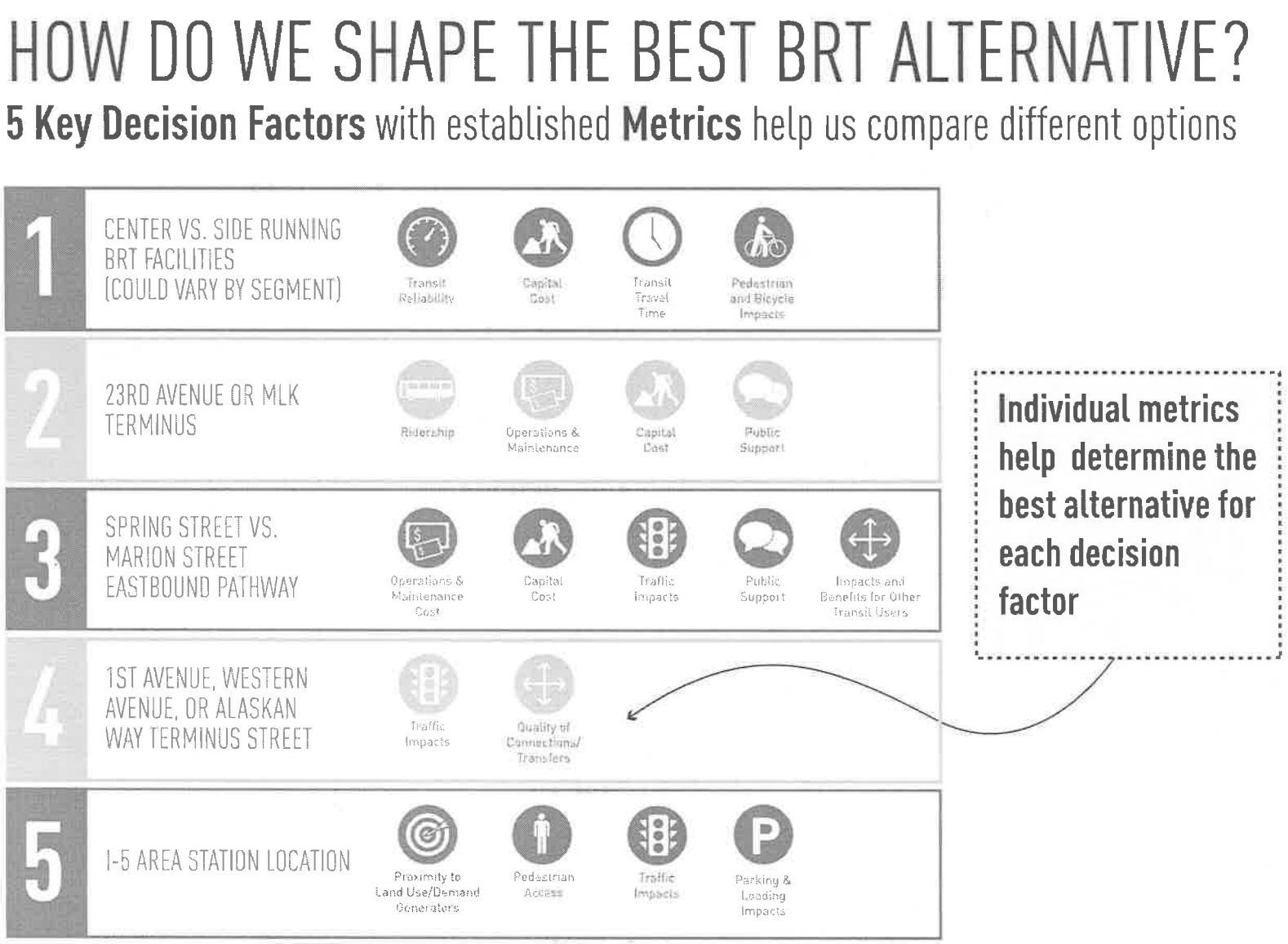
of the corridor, between 8th and 20th Avenues. The side and center running alternatives differed in where BRT lanes and stations would have been located: on each side, or in the center of the street. Under the side running alternative, the curb lanes would have been converted to bus lanes, and the station would have been on both sidewalks. Under the center running alternative, the center lanes would have been converted to bus lanes, and the station would have been in the street, either on an island between the bus lanes or on separate platforms to the right of the bus lanes, between the bus and traffic lanes. Regardless of alternative, stations would have been in the same general locations, at the same intersections.

- **The eastern terminal of the BRT corridor.** Under the alternatives, there were two options for the eastern terminus: 23rd Avenue or Martin Luther King Jr. Way. Some or all BRT vehicles could have turned around at these locations. If vehicles turned around at 23rd Avenue, they would have made a clockwise loop using 23rd and Olive, "laying over" at the end of the line on Olive just east of 20th. If they continued to Martin Luther King Jr. Way, there would have been layover on Arthur Place between MLK Jr. Way and 29th Avenue.
- **The eastbound alignment of BRT downtown (westbound buses would be on Madison).** Downtown, BRT vehicles will travel west on Madison, as Route 12 does today. However, vehicles could have traveled east on either Marion or Spring. Under the alternatives, if vehicles used Marion, BRT buses would have connected back to Madison using 6th Avenue. If BRT used Spring, they would have connected back using 8th or 9th Avenues. BRT vehicles would use side running bus lanes and stations on either street.
- **The western or downtown/ waterfront terminal.** The western terminus, downtown near the waterfront,could have been in any of five locations: between Madison and Marion southbound on Western, between Madison and Marion southbound on 1st Avenue, or between Madison and Spring northbound on 1st Avenue, Western, or Alaskan Way. Vehicles were not planned to layover at the western terminal.
- **Where to locate a station between 3rd and Terry Avenues.** Under the alternatives, BRT stations were proposed for 3rd Avenue and Terry Avenue—a half mile with no interim stops to serve major employment clusters. However, I-5 represents a major barrier between these two stations. A station on the downtown side would have been more accessible to downtown, but less accessible to First Hill – and vice versa.

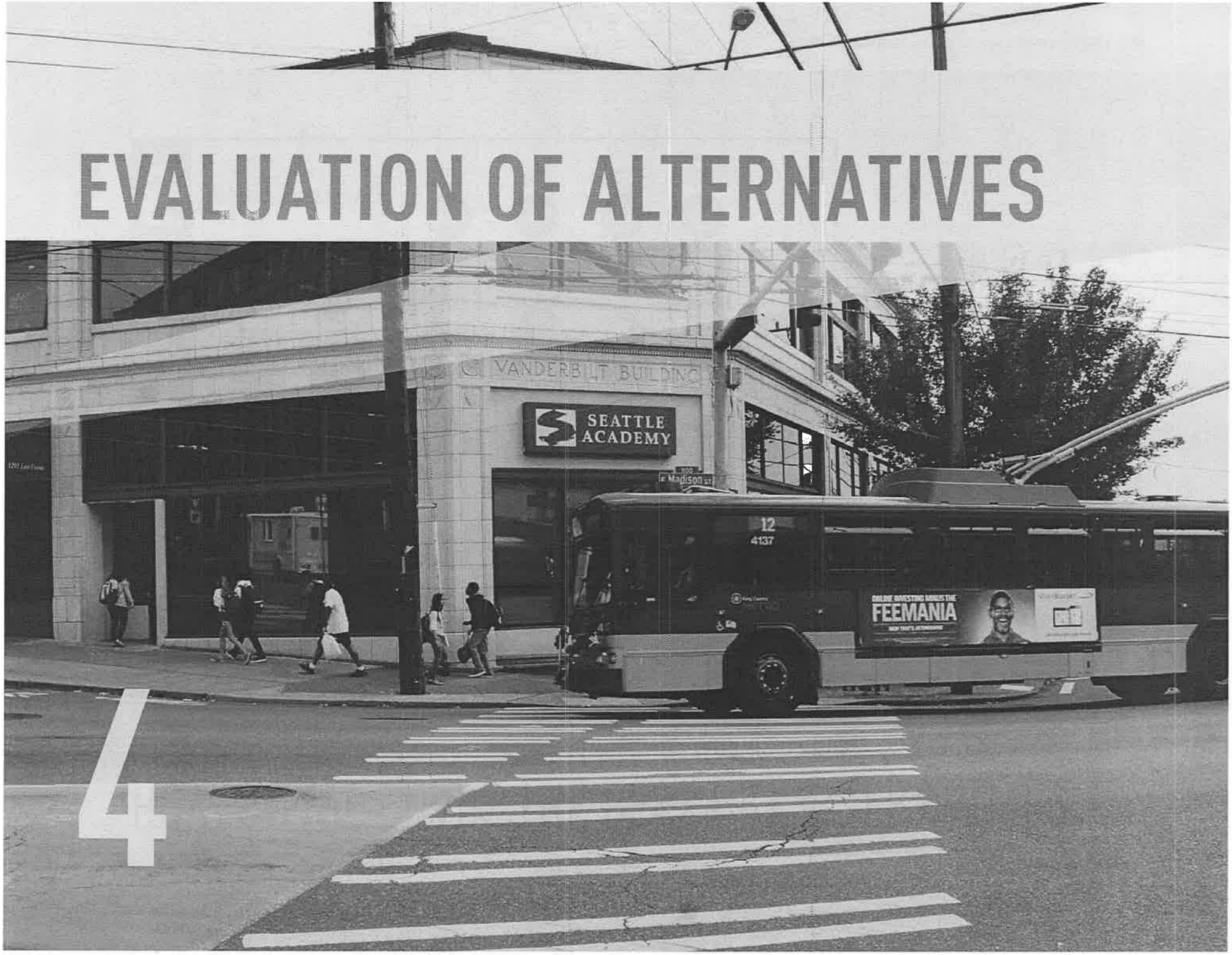
METRICS

In order to conduct the evaluation, a number of performance measures were identified and associated with one or more of the decision points. These metrics were chosen on the basis of relevance, importance, and their ability to serve as differentiators between the alternatives. Results of the evaluation based on these metrics can be found in the following chapter.

FIGURE 3-1. EVALUATION FRAMEWORK



EVALUATION OF ALTERNATIVES



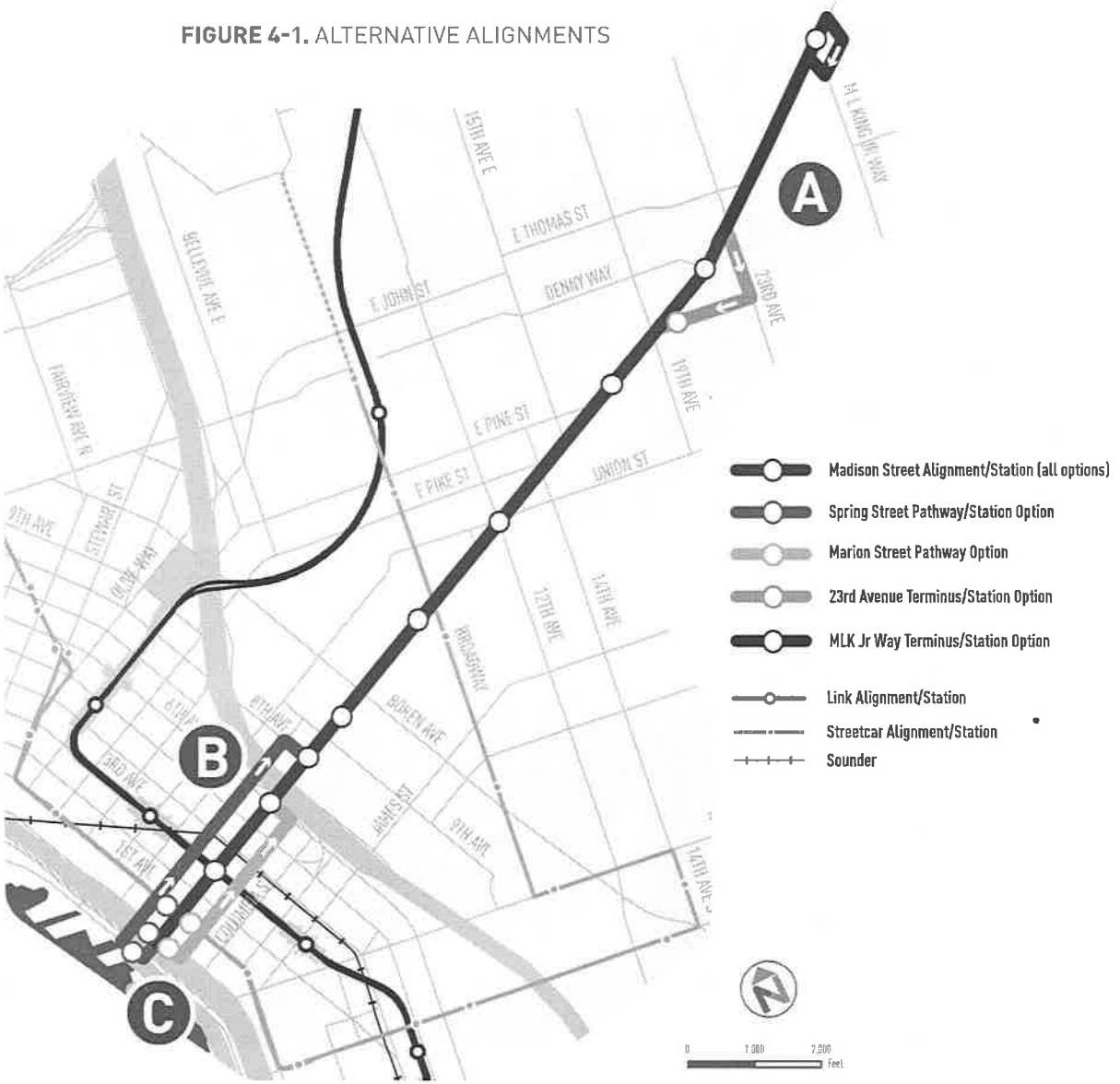
4

This chapter summarizes the evaluation of project alternatives.

Alternative alignments are shown in Figure 4-1, including the eastern terminal options (labeled "A"), the downtown eastbound pathway options ("B") and the western terminal options ("C"). The side vs. center running alternatives would have applied to the central segment between 8th and 20th avenues. I-5 station options are shown at 6th and 8th.

Renderings illustrating the basic configurations of side and center running alternatives are shown in Figure 4-2. Note that the center running alternative could have included median island platforms or unidirectional right-side island platforms.

FIGURE 4-1. ALTERNATIVE ALIGNMENTS



SIDE VS. CENTER RUNNING ALTERNATIVES

Transit Travel Times

Using a transportation operations model, analysis was conducted of transit travel times between 1st and 23rd Avenues (eastbound) and 20th and 1st Avenues (westbound) during the PM peak hour of 5 to 6 p.m. The modeling found that both the Center and Side Running alternatives would improve PM peak hour transit travel times by nearly 40 percent, with slightly greater improvement under the Center Running alternative.

Transit Reliability

Analysis of transit travel time reliability was conducted in the core segment of the corridor, between 6th and 13th Avenues where traffic congestion, transit delay and loads aboard transit vehicles are all at or near their highest points. Today, the same transit trip in this relatively short segment may take as little as 7 minutes and as much as 14 minutes westbound during the PM peak (based on model results). Under both the center and side running alternatives, there was found to be little variability under either alternative – less than a minute – although performance of the Side Running Alternative would degrade as numbers of conflicts with pedestrians and right-turning vehicles increased.

FIGURE 4-2. SIDE AND CENTER RUNNING CROSS SECTIONS

Auto Travel Times

Using a travel model, analysis was conducted of auto travel times between 1st and 23rd Avenues (eastbound) and 20th and 1st Avenues (westbound) during the PM peak hour of 5 to 6 p.m. Impacts on traffic were found to vary significantly by segment, BRT alternative and direction. Overall, the side running alternative had fewer impacts, as it would have allowed left turns at most intersections, while the center running alternative would have allowed lefts between 8th and 20th only at select locations.

Capital Costs

Capital costs for the project were estimated using Move Seattle estimates and the FTA Standard Cost Category (SCC) template. Estimated costs for the center and side running alternatives between Western and 23rd Avenue using the Marion downtown eastbound pathway are shown in Figure 4-3. As Figure 4-3 shows, capital costs for the center running alternative were projected to be approximately 22 percent higher than for the side running alternative. This is primarily because it would have required more extensive reconstruction of both the roadway and sidewalk around stations, including utility relocation.

FIGURE 4-3. AUTO TRAVEL TIMES

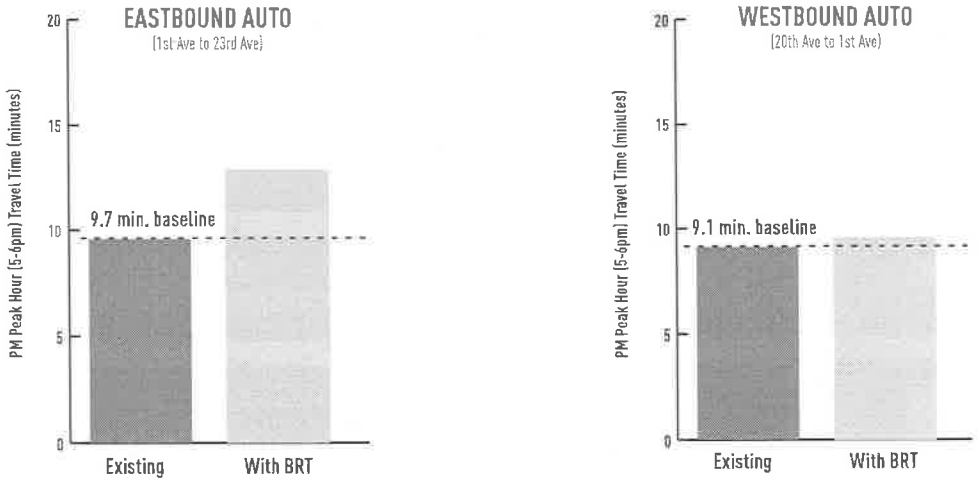


FIGURE 4-4. SIDE VS. CENTER RUNNING ALTERNATIVES: CAPITAL COSTS

Scenario	2015 Cost
Center Running	$120M
Side Running	$98M

Conclusions

The center running alternative was found to provide greater benefits for transit, including greater improvements in travel times and reliability. Traffic impacts and capital costs were somewhat higher than for the side running alternative.

WESTERN TERMINAL OPTIONS

Traffic Impacts

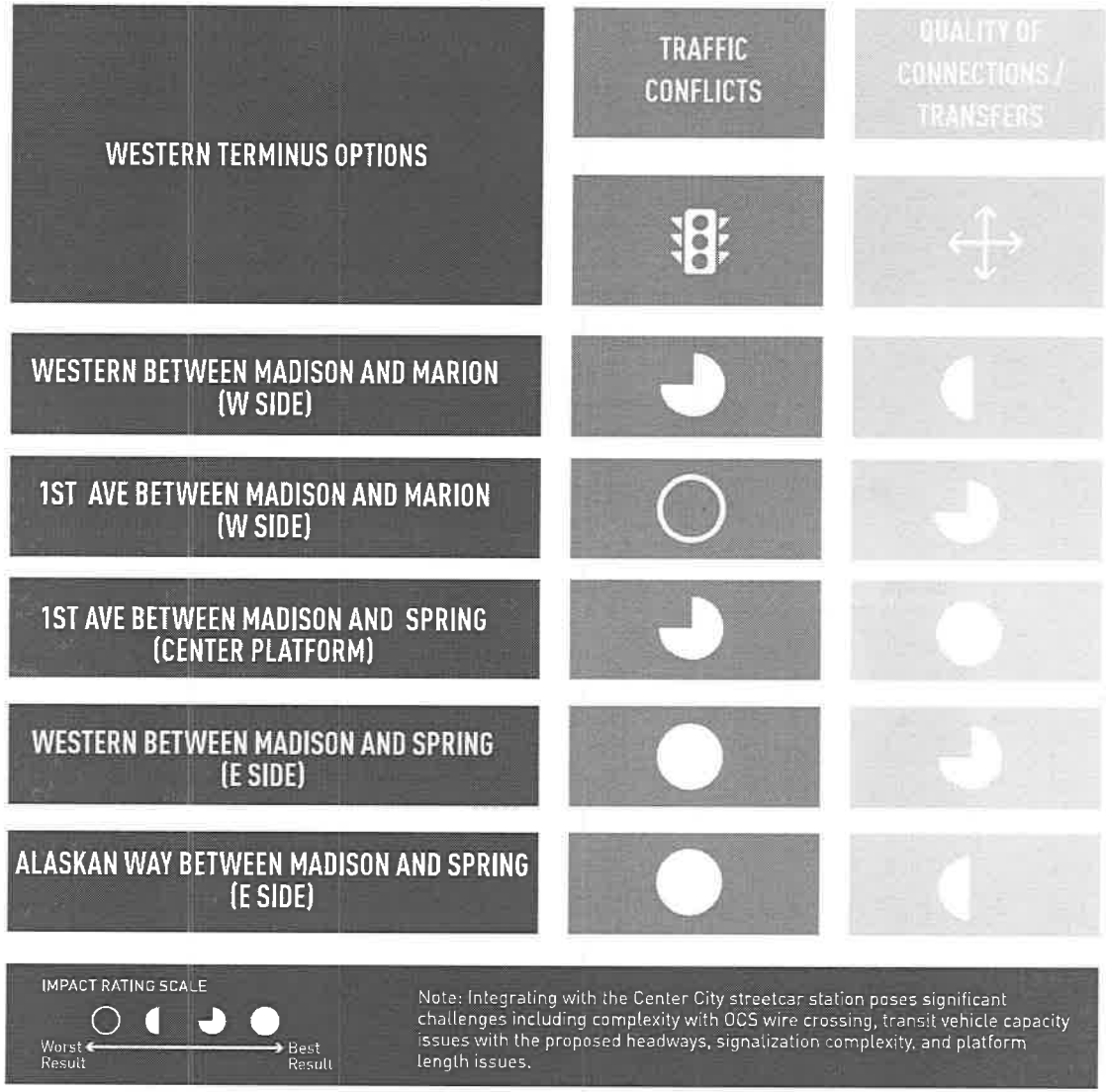
Impacts on traffic from terminals at Western (under either alternative) or Alaskan Way (under the Spring alternative) were found to be relatively minor, as there is relatively little traffic west of 1st Avenue that could be impacted by transit operations. Impacts from a terminal on 1st Avenue were found to vary by alternative. Under the Spring alternative, BRT vehicles could operate in the transit-only lanes already planned for the Center City Connector project. Under the Marion alternative, BRT vehicles would have stopped in the southbound traffic lane, impacting traffic.

Impacts on transit from traffic were also found to vary. Under the Marion alternative, BRT vehicles would have needed to make a series of left turns, from Madison to Western, then from Western to Marion. Under the Spring alternative, vehicles would have only needed to turn right, although they would have had to cross lanes of traffic to access the transit lane on the north side of Spring.

Quality of Connections/Transfers

Western is relatively close to both Colman Dock and the future Center City Connector streetcar. Access to Colman Dock could be enhanced by a staircase connecting to the Colman Dock predestrian bridge, which is planned to be reconstructed as part of the

FIGURE 4-5. WESTERN TERMINAL OPTIONS: TRAFFIC CONFLICTS AND QUALITY OF CONNECTIONS/TRANSFERS



Alaskan Way project. A 1st Avenue terminus would allow for same platform transfers to streetcars if coupled with the Spring alignment. Alaskan Way, meanwhile, is within sight of Colman Dock, but some distance from the 1st Avenue streetcar line.

Conclusions

A 1st Avenue terminal coupled with the Spring Downtown Eastbound Pathway was deemed most desirable, as it would both allow for seamless transfers to streetcars and have little impact on traffic. It allows for a level, one-block walk to the Colman Dock pedestrian bridge.

DOWNTOWN EASTBOUND PATHWAY ALTERNATIVES

Operating and Maintenance Costs

There was found to be little to no annual difference in cost between the Marion and Spring alternatives. This is because the travel time differences between the alternatives were found to be so slight as to have no impact on numbers of vehicles required to operate service, limiting cost differences to relatively minor areas such as numbers of intersections with transit signal priority.

Capital Costs

Use of Spring rather than Marion was found to increase project costs by approximately $5.8 million, or 5 to 6 percent. The difference in cost was largely based on additional overhead wires, transit lane costs and transit-priority signals.

Traffic Impacts

While conversion of travel lanes to transit lanes can reduce traffic capacity, impacts on traffic vary, as left-turn restrictions and dedicated turn lanes can help keep through traffic flowing. Using a transportation operations model, analysis was conducted of auto travel times if BRT service were on Marion or Spring. As Figure 4-6 indicates, Spring was found to have a greater impact on auto travel times.

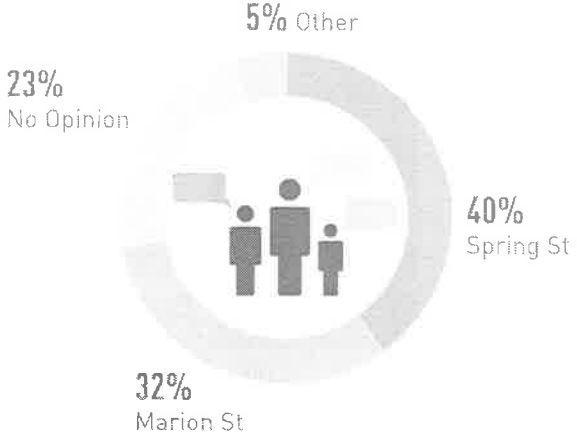
Public Support

In January and February, an online survey was conducted in which participants were asked a number of questions about the BRT project. There were a total of 1,660 respondents. One of the questions asked was which western alignment respondents would prefer. As indicated by Figure 4-7, respondents to this question expressed a preference for the Spring alternative, with 40 percent selecting it vs. 32 percent for Marion. Spring was also preferred by corridor residents, 41 percent to 30 percent. Among non-residents, there was a slight preference for Marion (42 percent vs. 36 percent),

FIGURE 4-6. DOWNTOWN EASTBOUND PATHWAY ALTERNATIVES: AUTO TRAVEL TIMES

	Eastbound	
Scenario	Minutes	% Change
Downtown (1st Ave-8th Ave), Eastbound		
Spring	+1.87	+54%
Marion	+0.25	+7%

FIGURE 4-7. DOWNTOWN EASTBOUND PATHWAY ALTERNATIVES: PUBLIC SUPPORT



although again, there were far fewer non-resident respondents.

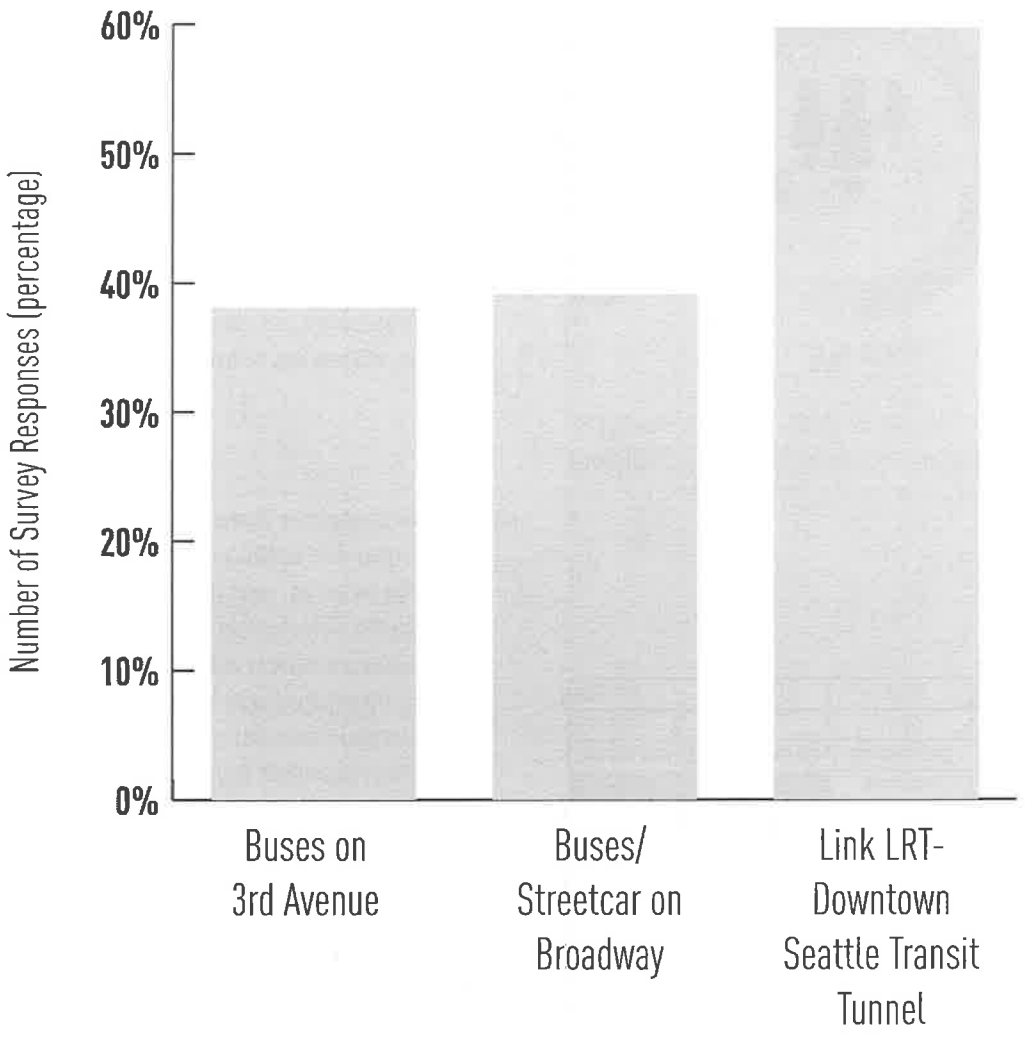
Impacts and Benefits for Other Transit Users

The Spring alternative was found to provide greater connectivity, as an eastbound stop at 3rd Avenue would be one block or approximately 310 feet closer to a Link station entrance than an eastbound stop on Marion. The Marion alternative was found to provide greater connectivity to ferry service at Colman Dock, but there are fewer ferry riders than there are Link users – and Link ridership will only continue to grow as the system is expanded. Additionally, online survey respondents identified their top transfer points as the Downtown Seattle Transit Tunnel (DSTT) followed by the CCC Streetcar, multiple bus lines, and Washington State Ferries. However, the Spring alternative could eliminate service on Marion downtown.

Conclusions

While it would be more expensive and would have a greater impact on traffic, a Spring Downtown Eastbound Pathway was found to provide greater benefits for transit, in terms of greater connectivity to Link. It also enjoyed more public support.

FIGURE 4-8. DOWNTOWN EASTBOUND PATHWAY ALTERNATIVES: SURVEY RESPONSES RE: HIGHEST PRIORITY TRANSFER POINTS

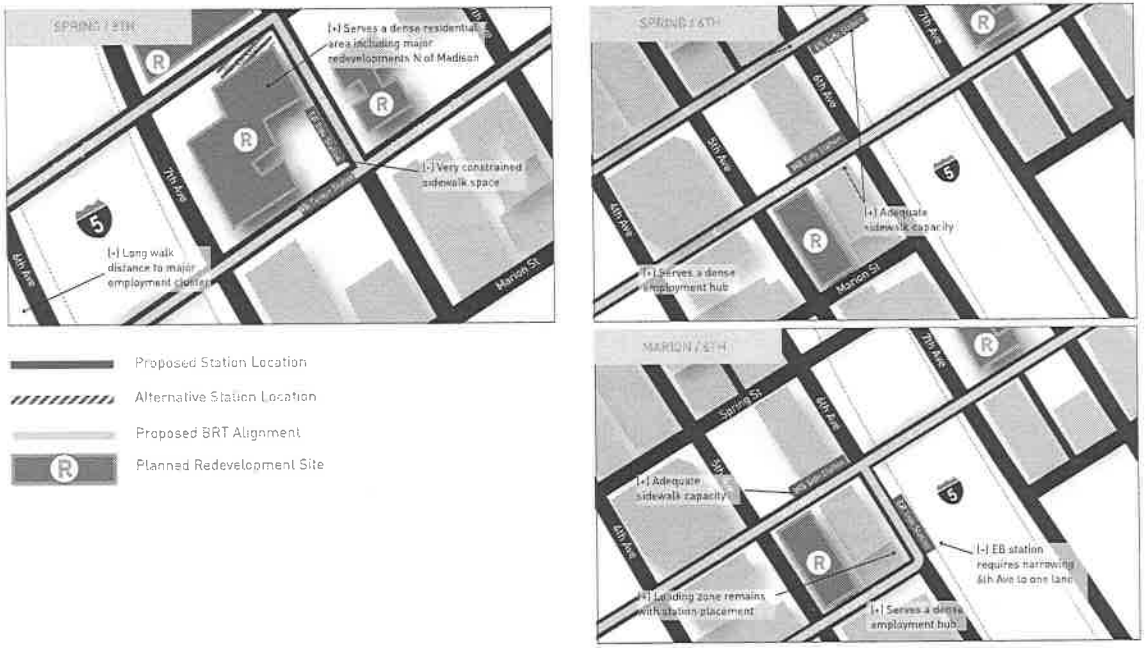


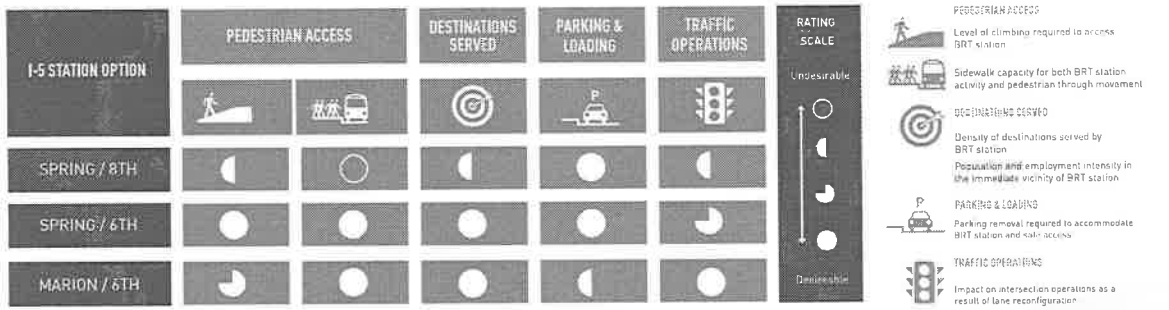
I-5 STATION LOCATION OPTIONS

Pedestrian Access, Destinations Served, Parking and Loading, and Traffic Operations

The evaluation of I-5 station location options is described in Figure 4-9. As the figure indicates, locations west of I-5 would provide gentler grades and greater access to other transit routes and destinations, while parking and and traffic impacts would vary.

FIGURE 4-9. I-5 STATION LOCATION OPTIONS: PEDESTRIAN ACCESS, DESTINATIONS SERVED, PARKING AND LOADING, AND TRAFFIC OPERATIONS





Stop Spacing

A mapping exercise conducted as part of the online survey found support for decreasing stop spacing in Downtown and First Hill to allow for a second downtown stop near 5th Avenue, as well as revised spacing in First Hill (8th/9th Avenue, Boren, and Broadway were all popular stops).

Conclusions

Stations on both sides of I-5 would enjoy strong support and would have only a minor impact on running times.

EASTERN TERMINAL OPTIONS

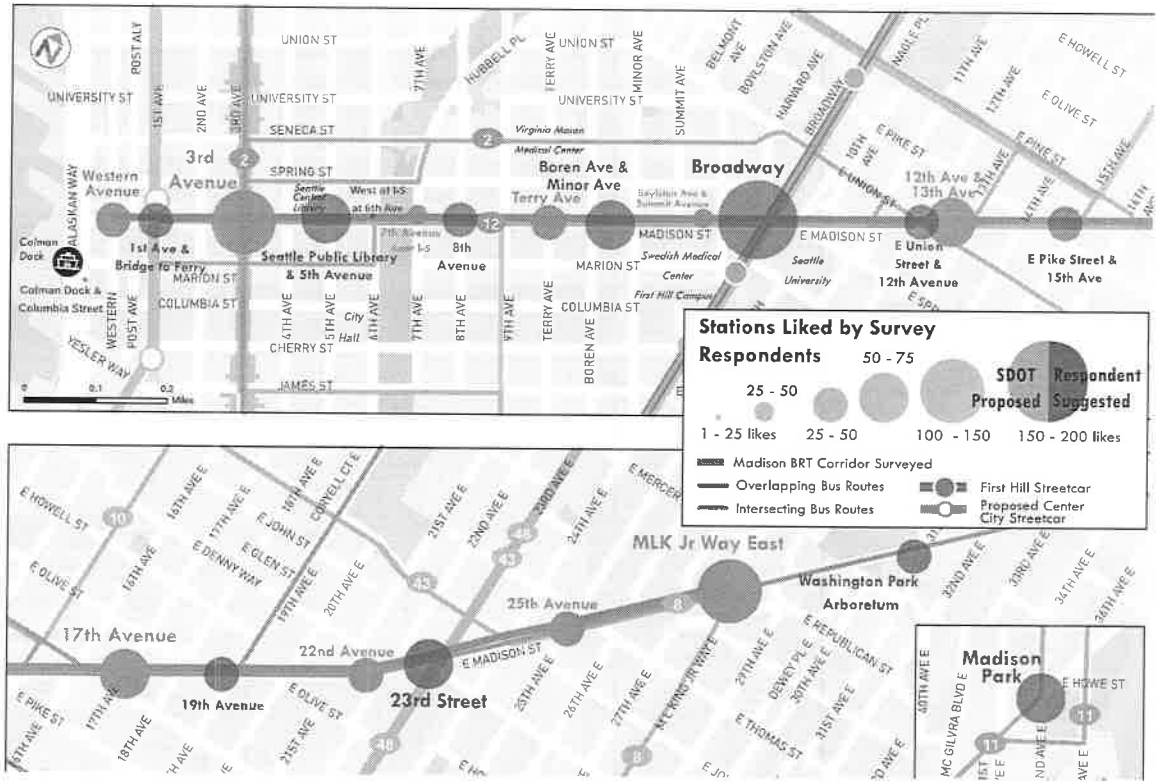
Ridership

Ridership estimation conducted using the FTA Stops model found that extension from 23rd Avenue to Martin Luther King Jr. Way would increase BRT ridership by approximately 1,000 boardings per day.

Operating and Maintenance Costs

Annual differences in cost between the 23rd Avenue and Martin Luther King Jr. Way alternatives were estimated to range from approximately $40,000 to as much as $340,000 more (in year 2015 dollars) for MLK Jr. Way. This was a factor of whether the extension would merely introduce additional station maintenance-related costs, which are relatively minor, or would require an

FIGURE 4-10. I-5 STATION LOCATION OPTIONS: SURVEY RESPONSES RE: STOPS AND STOP SPACING



additional vehicle in operation at times, which would incur greater cost.

Capital Costs

Extension to Martin Luther King Jr. Way was found to increase project costs by approximately $13.4 million, or 11 to 14 percent. The difference in cost was largely based on additional overhead wires, a power substation, and added stations.

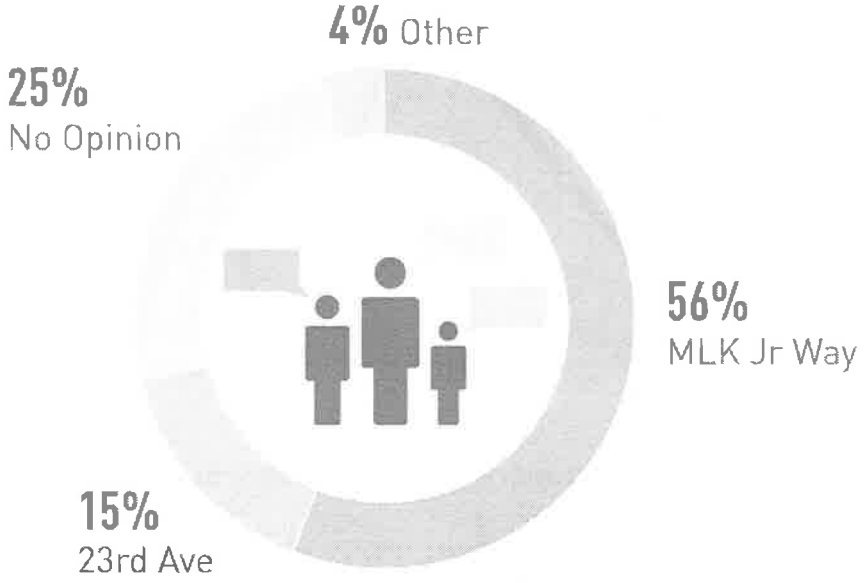
Public Support

In January and February, an online survey was conducted in which participants were asked a number of questions about the BRT project. There were a total of 1,660 respondents. One of the questions asked was which eastern terminus respondents would prefer. Results are shown in Figure 4-10. As indicated by Figure 4-10, respondents to this question expressed a clear preference for the Martin Luther King Jr. Way alternative, with 56 percent selecting this alternative vs. just 15 percent for the 23rd Avenue alternative (25 percent had no opinion). This preference was shared by corridor residents and non-residents alike, although among nonresidents, a greater number of respondents (50 percent) had no opinion than those expressing a preference for MLK Jr. Way (32 percent). Non-residents, however, made up a relatively small share of the sample, just 265 of the 1,543 respondents to this question. Among the 1,278 residents who responded to the question, 61 percent preferred the MLK Jr. Way alternative.

Conclusions

While a Martin Luther King, Jr. Way eastern terminal would be more expensive, it was found to generate significant additional ridership and to enjoy much greater public support.

FIGURE 4-11. EASTERN TERMINAL OPTIONS: PUBLIC SUPPORT



PARALLEL BIKEWAY OPTIONS

In addition to the transit project alternatives, bicycle path improvements in the corridor were also evaluated.

The Madison corridor is intended to support travel for multiple modes, including people on bikes. Right-of-way limitations prevent Madison Street from being considered for bikeway improvements. The Madison BRT study includes the identification of a "parallel" bikeway facility. As a diagonal street in a grid network, it is not possible to develop a precise parallel route to Madison for bicyclists. However, with a suite of targeted bikeway investments and intersection enhancements, improved bicycle access to existing destinations and the future bus rapid transit service on Madison Street is possible. The goal of this bikeway is to improve bicycle access for people of all ages and abilities. The proposed bikeway configuration is shown in Figure 4-13.

FIGURE 4-12. PARALLEL BIKEWAY ALIGNMENT

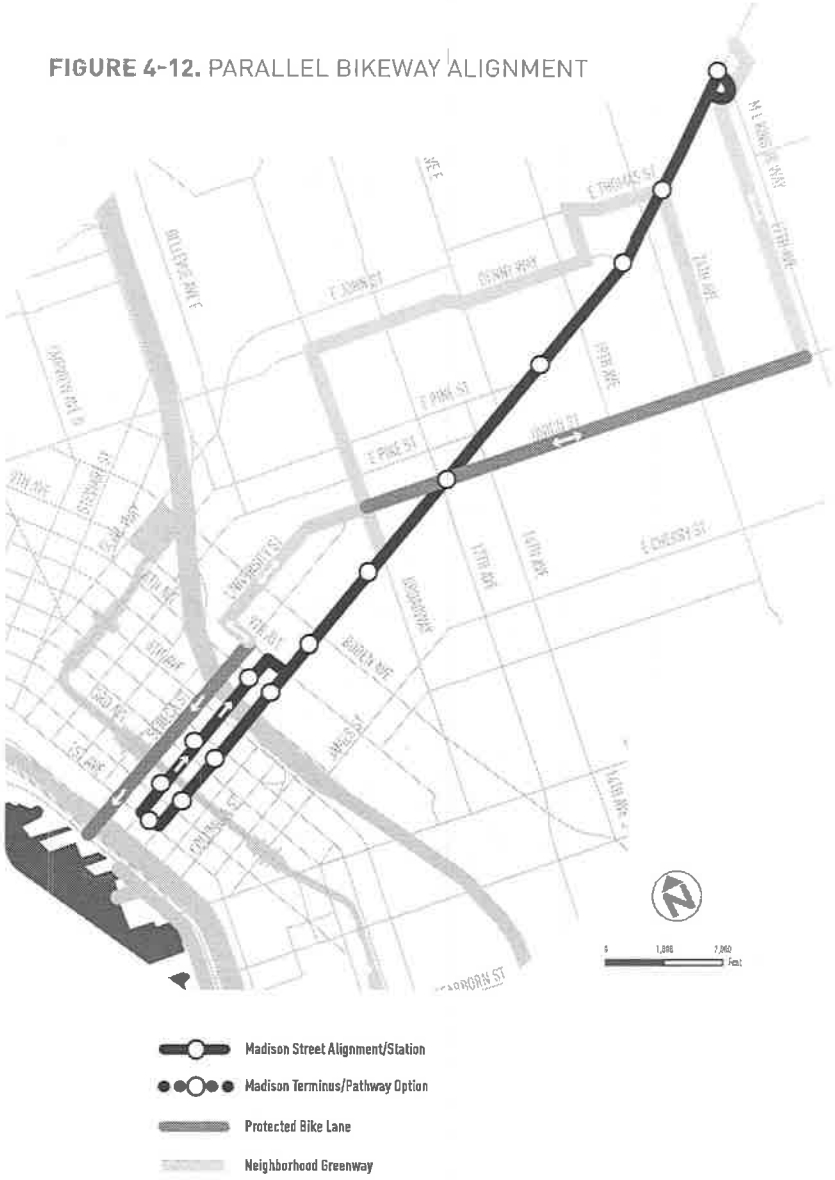


FIGURE 4-13. PARALLEL BIKEWAY ALIGNMENT: ONE-WAY PROTECTED BIKE LANE CONCEPT

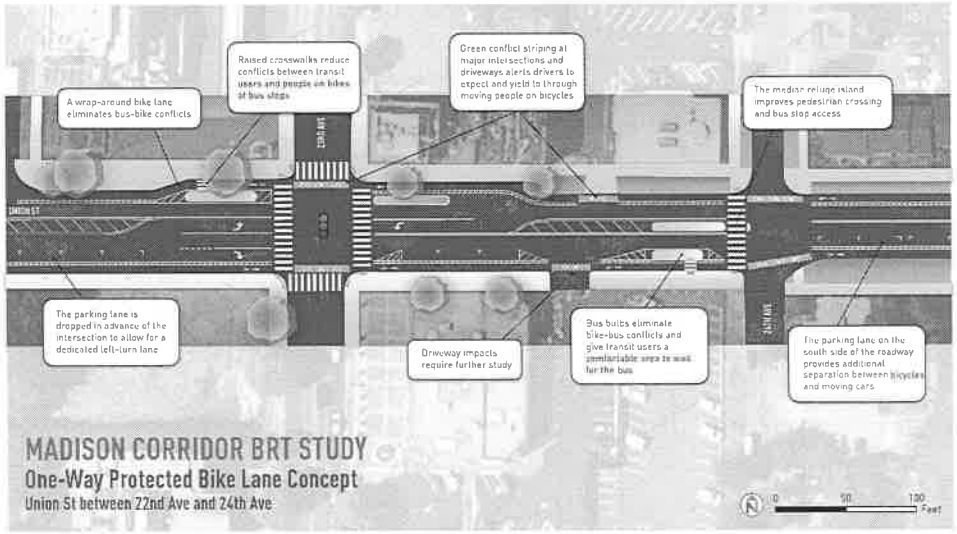
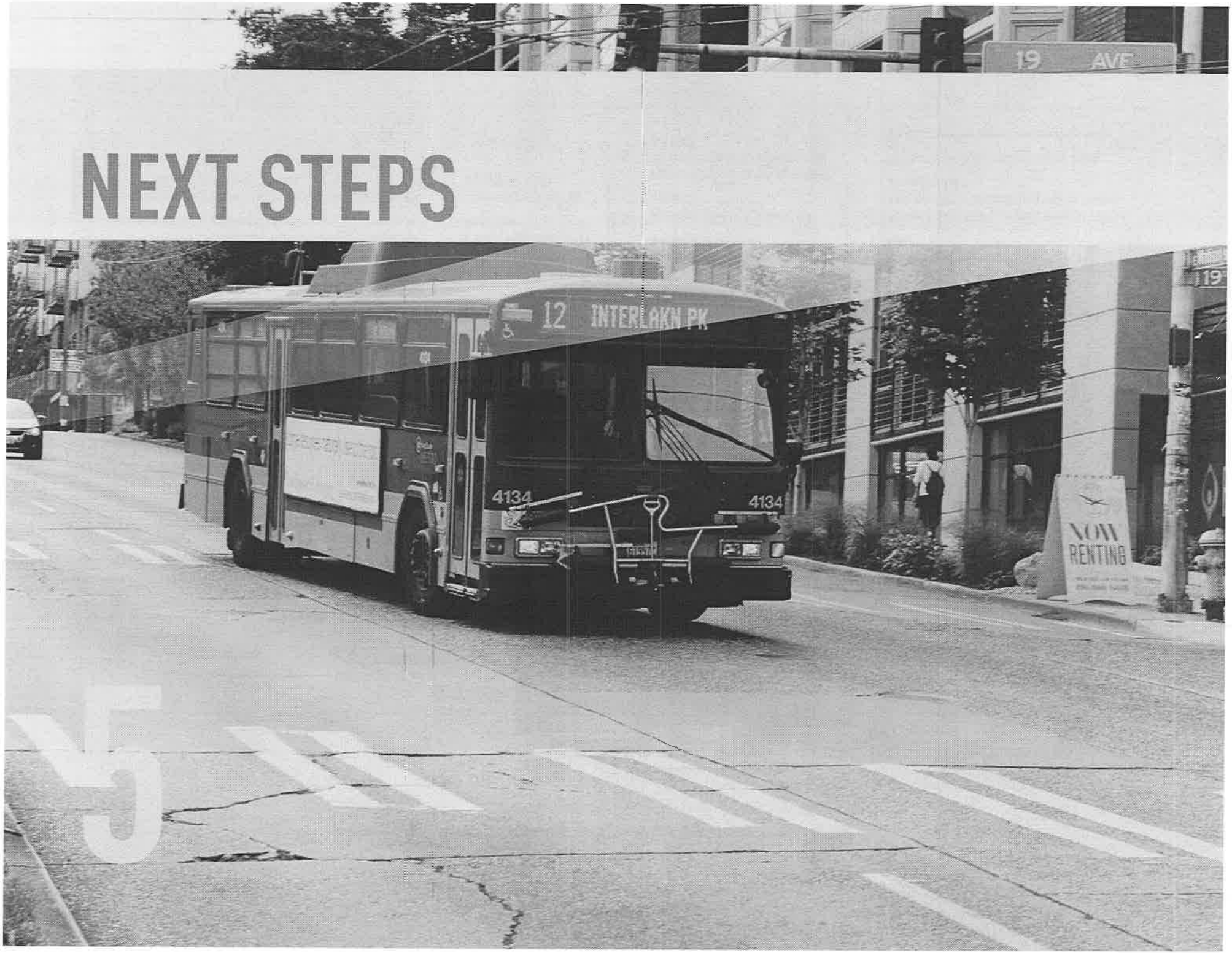


FIGURE 4-14. PARALLEL BIKEWAY ALIGNMENT OPTIONS BY SEGMENT

SEGMENT	DOWNTOWN	FIRST HILL	EAST OF BROADWAY	
	• Spring Street 1st to 4th • Additional routes TBD, per Center City Bike Network Project	• University Street from 9th Avenue to Broadway	• Phase 1: Denny/Thomas	• Phase 2: Union Street from Broadway to 27th • 27th Avenue
CONCEPTS	• Recommended design: Improve safety for existing Spring Street bike lane from 1st to 4th by upgrading existing bike lane to protected bike lane, as part of the Madison BRT project • Additional routes downtown to be determined through the Center City Bike Network Project currently underway	• Recommended design: Greenway treatments from 9th to Broadway • Implementation in 2017, as part of BMP program	• Recommended design: Greenway treatments from Broadway to 24th • Implementation in 2019, as part of BMP program • Madison BRT project will include pedestrian and bicycle crossing improvements at 24th & Madison	• Recommended design: Two one-way PBLs – safety key factor • Madison BRT Project will include protected bike lanes on Union from 12th to 14th, where project will be changing the roadway design • 2015 next steps: Assess additional funding options • If funding identified, advance a corridor design study

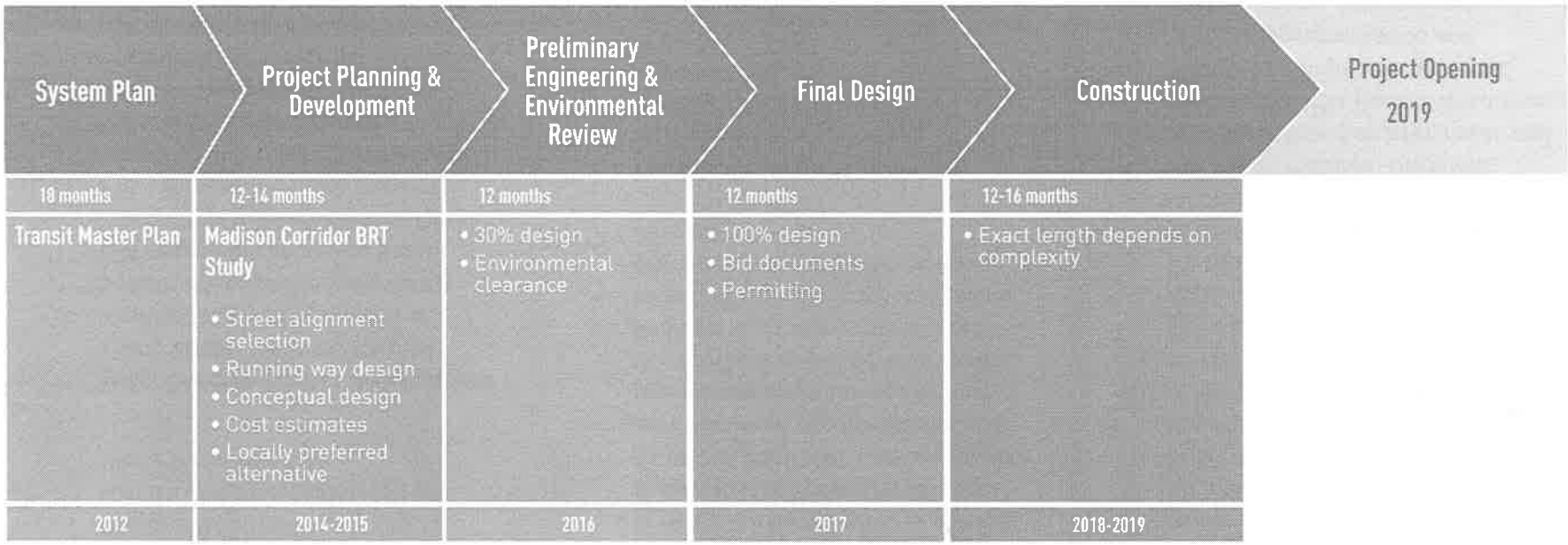
NEXT STEPS



The adoption by the Seattle City Council of a Locally Preferred Alternative is a critical step for the Madison BRT Project and represents completion of an important local planning phase. As part of the Madison BRT Study process, the City of Seattle has coordinated with the Federal Transit Administration (FTA). Once the City Council has adopted the Madison BRT LPA, SDOT plans to submit a formal request to FTA to enter into Project Development, which ensures next project phases are developed consistent with Federal requirements to receive grant funding. City Council adoption of the LPA and the FTA's approval to enter Project Development will enable the City to commence preliminary engineering and required environmental analyses.

Figure 5-1 illustrates the progression of the Project from identification in the Transit Master Plan to construction and completion. The current identified year of opening is 2019.

FIGURE 5-1. MADISON BRT PROJECT DEVELOPMENT TIMELINE



The following are key next steps in advancement of the Madison BRT Project.

- **City Council Adoption of the LPA (Early 2016).** The Seattle City Council will consider adoption of the LPA in early 2016.

- **Entry into FTA Project Development (Early 2016).** After City Council approval of the LPA, the City of Seattle will submit a letter to the FTA requesting entry into Small Starts Project Development. Once FTA approves the City's request to advance into Project Development, the project sponsor has two years to complete the National Environmental Policy Act (NEPA) process and submit sufficient information on the cost, financial commitments, and project rating to qualify for a Project Construction Grant Agreement (PCGA).
- **Develop and refine finance plan (2015-2016).** FTA evaluates projects on the local capacity to finance and build the Project and the level of commitment for the local sources of funding. The project sponsor's financial commitment to the Project includes capital and operations. Formal financial commitments are not necessary to advance into Project Development. During Project Development, the project sponsor must produce formal commitments of the local capital funds and funding for 20 years of operation for the system. The local sponsors commit to operate the Project for 20 years as part of the PCGA. Concurrent with environmental documentation and preliminary engineering and final design, the City will develop capital and operating plans that commit local funds to match federal capital grant funds and support service operations.

  The City has begun to evaluate local capital and operating funding options. Capital financing scenarios assume that a portion of the Project cost will be funded through an FTA Small Starts grant, which provides grants up to $75 million for transit projects with a total project cost not exceeding $250 million. A number of local, regional, and state sources are being evaluated to provide local match.
- **Conduct 30% Design and Environmental Analysis (2016-2017).** In order to submit the FTA Small Starts Templates to receive federal grant funding to construct the Madison BRT project, SDOT is required to conduct federal and state environmental assessment according to NEPA regulations. This process is typically conducted in concert with the next phase of project design, which will advance corridor designs to a 30% engineering level. An initial step in this process will be formal agreement with FTA regarding the class of action or type of NEPA evaluation required. Based on conversations with the FTA, the City expects that an Environmental Assessment or Documented Categorical Exclusion level of NEPA documentation will be appropriate for this project and that a full EIS will not be required. Once that formal decision has been made and documented, the Project will advance through required environmental analysis, documentation and public findings, and assuming all impacts can be mitigated, develop the documentation of a Finding of No Significant Impact (FONSI).
- **Submit the project for FTA Small Starts funding (September 2016).** The FTA Section 5309 Grant Program provides funding for transit capital projects on a competitive basis. The Madison Corridor BRT study fits into the Small Starts category under this program. Fifty percent of the FTA Small Starts Project rating is based on the strength of the City's capacity to finance

and deliver the Project, while the remaining 50 percent is based on an assessment against the following six criteria (each valued equally).

- **Land Use**. Criterion includes existing density and zoned development capacity.
- **Economic Development.** Criterion includes the potential for economic development to occur as part of the transit development. Project sponsors are allowed to submit economic development scenarios that project specific development for a mode investment like streetcar.
- **Cost Effectiveness.** The criterion for cost effectiveness for Small Starts projects is the cost/ride for the federal share of the Project. To achieve a high rating, the cost per ride must be below $1.00.
- **Mobility Benefits.** Mobility benefits are determined by the number of people served or benefitted by the investment.
- **Environmental Benefits.** Environmental benefits are determined by the use of the mode and the effectiveness in reducing environmental impacts. The benefits of the development are not included in this criterion which is limited to evaluating the mode being utilized.
- **Congestion Relief.** No rules or guidelines have been established as this criterion was added to MAP-21 late in the process and were not included in preliminary notice of the rule making. FTA intends to issue special guidance on this criterion.

- **Commence Preliminary** Engineering and Final Design (2016-2017). The City's 30% design team will be positioned to carry project engineering into final stages of design. The project schedule targets completion of that work in 2017 allowing for construction activities in 2018.
- **Project Construction (2018-2019).** Project construction would begin in 2018 and conclude in 2019. A plan for construction phasing and mitigation of impacts would be developed during the Preliminary Engineering and Environmental Assessment process.
- **Project Opening (2019).** Madison BRT opens for service.

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NYGAARD

SDOT
Seattle Department of Transportation

Appendix B.

Madison Corridor BRT Study

STAKEHOLDER INTERVIEW SUMMARY

The Seattle Department of Transportation

Madison Corridor BRT Study

Stakeholder Interview Summary

September 2014

SDOT
Seattle Department of Transportation

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Madison Corridor Bus Rapid Transit Study – Stakeholder Interview Summary

Following is a summary of the Madison Street Bus Rapid Transit (BRT) Conceptual Design Study stakeholder interviews conducted between July 15 and September 3rd, 2014. Interviews were conducted at the Seattle Municipal Tower or by phone and during a meeting of the First Hill Improvement Association (FHIA). Stakeholder interviews were conducted with the following interviewees:

Alex Brennan	12th Ave Stewards/Capitol Hill Housing
Alex Hudson	FHIA Coordinator
Alfonso Lopez	Seattle Bicycle Advisory Board
Andi Pratt	Downtown Seattle Association
Andrew Taylor	East District Council
Anne Knight	Route 2 rider
Anne Ornsby	FHIA, Horizon House resident
Betsy Braun	Virginia Mason
Bill Zosel	Central District Council Chair & 12th Avenue Neighborhood Plan Stewardship Committee
Brenna Davis	Virginia Mason
Chance Hunt	Seattle Public Library
Chauncey DeVitis	Silver Cloud Inn
Chris Rogers	Seattle Town Hall
Cindi Raykovich	Sound Sports
Colleen Walsh	Bullitt Center
Cynthia Klever	Downtown Seattle YMCA
Detra Segar	FHIA
Devor Barton	Seattle Pedestrian Advisory Board
Diane Snell	Advisory Council on Aging
Don Blakeney	Capitol Hill Resident
Edward Wolcher	Seattle Town Hall
Eva Strickland	Key Bank
Genevieve Rucki	WSDOT
Glenn Osako	Seattle Public Library
Jackie Claessens	FHIA, Community Relations and Marketing Officer, Horizon House
Jessica Szelag	Commute Seattle
Jim Erickson	Chair of FHIA Open Space Working Group
Jim Mueller	JC Mueller LLC
Joanna Cullen	Central Area Resident and President of the Squire Park Community Council

Jon Scholes	Downtown Seattle Association
Kendall Baker	FHIA Transportation Working Group Chair
Karen Lee Kimber	FHIA, Swedish Hospital
Kathy O'Kelley	Hines Property / DTA member
Lara Branigan	Seattle University
Liat Nikolayevsky	JC Mueller LLC
Linda Mitchell	Downtown Residents Association
Maggie Walker	Central Waterfront Committee
Mark Adreon	Seattle Commission for People with Disabilities
Mary Cutler	Seattle Town Hall
Mary Ellen Hudgins	First Hill resident and FHIA Board President
Matt Stoner	Property Owner
Merlin Rainwater	Seattle Central Greenways
Michael Wells	Capitol Hill Resident / Capitol Hill Community Council
Mirel Gutarra	Downtown Seattle Families
Monisha Harrell	Community Activist
Pamela Banks	Urban League of Metropolitan Seattle
Pat Feary	FHIA, First Hill Plaza resident
Ray Deardof	WSDOT
Rene Neidhard	Renaissance Seattle Hotel
Rob Johnson	Transportation Choices Coalition
Robert Canamar	Seattle Commission for People with Disabilities, Transportation Commission
Ross Baker	FHIA, Virginia Mason
Shalimar Gonzalez	YMCA East Madison
Sherry Williams	Swedish Hospital
Steve Cook	Schnitzer West Madison Centre
Theresa Mayer	Seattle Public Library
Tom Gibbs	FHIA, Skyline resident

Executive Summary

Stakeholder interviews were designed to follow a general "script," which is attached as an appendix to this memorandum. Topics included perceptions of existing transit service, possible benefits and tradeoffs from the BRT project, project design elements, and community concerns. The findings in this document primarily represent common themes expressed over many interviews. There were numerous dissenting viewpoints, which are also represented.

Overall, there was general consensus among stakeholders that the Madison corridor would benefit from improvements to transit. However, there were differing opinions as to the project's priority relative to other needs such as impending Metro service cuts, as well as uncertainty about how BRT would work in a corridor that is already constrained and congested for all modes. High-priority improvements for most stakeholders included improvements to transit service (more reliable, more frequent, later service, better waiting

areas) as well as avoidance of traffic congestion, pedestrian conditions, personal security, and opportunities to add open space, enhance urban design, and better connect neighborhoods. Parking was a concern for many stakeholders, although there were mixed opinions on the subject.

Major themes included:

- There was support from stakeholders for the concept of Bus Rapid Transit in the Madison corridor; people were quick to clarify that more frequency, better reliability and a greatly enhanced passenger experience on- and off-vehicle were top transit improvement priorities. A few stakeholders went so far as to suggest that there was the need for an east-west connection that was frequent enough to act as a "moving sidewalk" between Capitol Hill and downtown. It was also apparent that stakeholders had varying perceptions and misconceptions about BRT.
- The corridor itself is generally perceived somewhat negatively, which people saw as both a challenge and an opportunity for the corridor to "remake" itself. Personal safety is a major concern, particularly on First Hill. The street is also viewed as a "speedway" and a "cut across" threatening pedestrian safety and acting as a barrier between neighborhoods. The built environment on First Hill is viewed as institutional and sterile, and there is a lack of street trees and open space all along the corridor.
- Several interviewees expressed significant frustration and concern about traffic congestion in the corridor, particularly around Center City and I-5. People seemed intellectually challenged to imagine greatly improved transit in a corridor that has severe traffic congestion in certain locations. Some indicated concern that BRT might make the problem worse by worsening congestion on Madison. Many felt the City of Seattle lacked a clear vision or coherent strategy for improving mobility.
- There are relatively few intersection "hot-spots," but conditions at them are very challenging. The area around I-5 was viewed as especially problematic for two reasons: one, traffic congestion associated with I-5 ramps; and two, the steep grades leading up First Hill. Being able to communicate design solutions for this will be a key challenge.
- Several interviewees expressed similar levels of frustration with pedestrian conditions, both in the corridor and citywide, describing Center City and neighborhoods east of I-5 as unnecessarily disconnected from one another. Interviewees who had previously lived in cities with more walkable neighborhoods were most likely to cite this as a concern, and felt that transit and pedestrian improvements could work synergistically to overcome geographic obstacles and improve mobility in the study area.
- There is concern about changes to curb uses on Madison. Some were concerned about potential impacts on business access and on surrounding neighborhoods from spillover parking. Others view curbside parking as an important buffer between pedestrians and traffic. Those who strongly support transit, active transportation and urban development were less concerned about parking loss. Interestingly, a few commenters expressed a sense of resignation about potential parking removal,

noting that significant amounts of parking had already been removed from the corridor. Others, meanwhile, noted that the relatively few cars parked on Madison act as traffic bottlenecks, and some commenters expressed a belief that parking should not be allowed on major arterial streets.

- There are perceived to be several distinct travel markets within the corridor. Longer-distance commute trips between the residential neighborhoods to the east and Center City make up one large market. Trips between Center City and the major institutions on First Hill are another. Most believed there was less demand for travel within segments to the east of First Hill.

It is important to note that the opinions expressed in this memorandum simply restate the views expressed in stakeholder interviews. There has been no attempt to "fact check" or change the opinions expressed in these interviews.

Detailed Summary

Proposed Project and Project Need

1. While stakeholders generally agreed that Madison is a key corridor and transit improvements would be beneficial, opinion was mixed as to whether the level of investment was necessary and whether it is technically and politically feasible to implement a meaningful level of BRT.
    a. Political feasibility was seen as limited by parking and vehicular traffic concerns, as well as neighborhood opposition.
    b. With regard to technical feasibility, many stakeholders expressed skepticism that a transit-only lane would provide meaningful benefits for transit. At the same time, several stakeholders opined that dedicated lanes would be critical to project success.
2. Despite some uncertainty about whether the project is necessary and how it would be designed, there was consensus that the project could provide important benefits:
    a. Improved transit service would benefit residents, employees, and visitors, would improve travel options, and could contribute to reduced auto travel and traffic congestion within the corridor. Several participants noted that they currently avoid the corridor due to congestion, so any improvements to travel options would be beneficial.
    b. High-priority service improvements included increased frequency, later service, more reliable service, and ability to operate in inclement weather. Use of a dedicated facility by emergency vehicles would also be a potential benefit.
    c. Nearly all participants cited potential improvements to the pedestrian environment and overall urban design within the corridor as key potential project benefits. The corridor is perceived as uninteresting and institutional from a design perspective. Pedestrian facilities and current stops are not seen as comfortable. The topography is also challenging.

d. Improved bicycle facilities were seen as a potential benefit. Most stakeholders agreed that there is not enough room on Madison to accommodate a bicycle facility, so a parallel facility would be desirable. Some riders currently reach First Hill using elevators at Freeway Park and inside of First Hill institutions.

e. BRT was also viewed as a potential contributor and complement to economic development. In general, there was interest in ensuring that investment in infrastructure kept up with the pace of development (particularly developments with little or no parking), and in the greater freedom of movement associated with increased mobility options (e.g., enhanced access to neighborhood shopping districts and open space), especially where there are barriers to pedestrian travel. Planned development also represents an opportunity to coordinate improvements within the corridor and make streetscape improvements.

f. Several stakeholders commented on the potential of the project to better connect Capitol Hill and the Central District, as well as improve connections to the waterfront, First Hill, Madison Valley, and Capitol Hill. For most stakeholders, the ability to make off-peak trips was of greater interest than peak-period travel. First Hill and Downtown employers and major institutions were most interested in peak-period travel.

Perceptions of Existing Transit and Needed Improvements

1. Stakeholders identified several general weaknesses and strengths of the current service structure. Many of the interviewees are not regular riders in the corridor, so did not offer specific suggestions or locations for changes to the transit system.

    a. For some stakeholders, the benefits of having both Route 12 and Route 2 operating in different corridors are substantial. The current Metro service reduction proposal would consolidate these two routes, which is a source of great concern for some stakeholders, particularly in First Hill. Benefits to Route 2 include a one-seat ride to Queen Anne, better connections to Link Light Rail, more opportunities for boarding at level sites, rather than on slopes, and better access to senior and medical facilities (The methadone clinic on Summit and Seneca has 800 daily patients, who are often accompanied by others. Sometimes patients are directed to use Route 2 so as to avoid drug-dealing activity on and around Route 12.) Some stakeholders identified improved schedule coordination at shared stops as an issue.

    b. Numerous stakeholders identified legibility and reliability as key issues with current service. For some, not being able to immediately understand service in the corridor is a barrier to using transit. Some perceive the Pike/Pine corridor as easier to navigate. Several stakeholders said they would visit destinations along the Madison corridor more frequently if they knew they would be able to make a return trip on transit.

   c. Capacity is a significant issue, with reports of pass-ups at peak hours. There was some interest in exploring feasibility of articulated vehicles on the corridor to increase capacity.

2. For many stakeholders, the need for improvements to pedestrian facilities and the overall urban environment of the corridor is even greater than the need to improve transit service. (This is discussed in greater detail in subsequent topics.)
3. Safety both aboard buses and at stops is an issue for many stakeholders. For example, one stakeholder noted that in winter months and evenings, there are fewer female visitors to her facility due to lack of safe travel options. Stakeholders suggested pedestrian-scale lighting, better-programmed open space, and increased security presence on buses as potential needs. The methadone clinic on Summit Avenue was cited numerous times as a source of safety concerns.
4. The corridor currently serves a wide array of passengers and travel needs:
   a. The ridership is seen as very diverse. Passenger markets include downtown commuters, students (Seattle University, Seattle Central Community College), employees and visitors of medical facilities on First Hill, residents, and seniors. Because of the significant travel demand associated with First Hill's medical facilities and significant senior housing along the corridor, accessibility for passengers with reduced mobility is extremely important.
   b. Travel within the corridor includes both trips through the corridor end-to-end between Downtown and Madison Valley/Madison Park as well as more local neighborhood connections. Given the topography in the area, numerous stakeholders expressed concern about removal of stops and resulting longer walks to stops.
   c. For some, the street is viewed as a barrier between the Central District and Capitol Hill, largely due to its width and speeding traffic.
   d. There are numerous unique neighborhoods within the Madison corridor, so knitting these together is one potential project benefit.

Potential Project Conflicts and Tradeoffs

1. Stakeholder opinions on the potential tradeoffs that may be necessary varied widely. Parking and traffic were the top concerns, cited by nearly all stakeholders.
   a. Those who travel by car are very concerned about vehicle capacity and flow. Several stakeholders noted that this concern is more likely to affect those who live farther away than those who live within the corridor. Some stakeholders were hopeful that the project could provide opportunities to address known bottlenecks and signal timing issues. For example the intersections at Boren, 12th and 14th avenue and around Interstate 5 were identified repeatedly as bottlenecks.
   b. There was skepticism that vehicular capacity could be reduced without major impacts, both to congestion on Madison and in terms of spillover onto other streets. Some noted that the existing substandard traffic lanes effectively reduce capacity by discouraging use of the curb lanes, where there is more

friction. Turning movements at some locations are also unclear and contribute to delays. Motorists also sometimes try to turn left from Madison onto 6th Avenue (signage at that location may not be adequate). Concern was expressed about emergency vehicle access to First Hill hospitals. Some felt that where there is a grid allowing left-turn movements to be made using a series of right turns, left turns could be restricted.

c. Nearly all stakeholders expressed concern about parking and loading zones, particularly for their importance to local businesses. On the other hand, on-street parking is perceived as very limited in the corridor already, so many stakeholders were prepared for this parking to be eliminated. In some cases, the few on-street spots contribute to bottlenecks for congestion, so some stakeholders hoped that these spots would be removed (for example just east of Boren). Aside from concern for businesses, very few stakeholders expressed a personal interest or need in retaining on-street parking. Parking reductions could also negatively impact customers with disabilities. Several stakeholders had specific access concerns regarding their property. The center turn lane on First Hill is used for loading.

d. Several stakeholders suggested that parking could spillover into adjacent neighborhoods, and mitigation for this possibility as well as mitigation for reduced commercial parking should be considered. First Hill has very high parking occupancy for metered spaces, in part due to high disability placard use. Some stakeholders mentioned that there could be unused capacity in existing garages.

e. Parking was also identified as a pedestrian amenity by several stakeholders, who noted that curbside parking buffers pedestrians who are already on very narrow sidewalks. Removal of this parking buffer was a concern for some.

2. Several stakeholders expressed concern about construction impacts. Numerous projects in the area including the First Hill Streetcar, repaving, and the Capitol Hill Link Light Rail station have caused construction detours and delays recently.
3. There was generalized concern about whether the City was successfully integrating all of the new travel options being implemented (streetcars, BRT, bikes, etc.). "How it all fits together" was expressed as a top concern by several stakeholders.

BRT Amenities and Design

1. First Avenue was viewed by most as a logical terminus which is relatively accessible from Colman Dock (there were concerns about the impact of a Colman Dock-area transit lane on ferry access). Connections to Colman Dock are important to waterfront and downtown stakeholders, while stakeholders farther to the east are concerned that the route would primarily serve this market at the expense of local riders. MLK was seen as a better eastern terminus than 23rd, because that is where residential density begins to decline and connections can be made north-south.
2. Several stakeholders noted dissatisfaction with the Rapid Ride stations, which were described as "sterile". Station suggestions included:

   a. Stations that better-represent the "unique" nature and personality of the city, incorporating natural elements.
   b. Real-time information, off-board payment and improved lighting were also cited as key station amenities. There was some concern about off-board payment in terms of enforcement and usability (it was suggested on-board readers should also be available).
   c. Other design considerations include not blocking businesses, providing some weather protection without blocking the sidewalk (Portland's transit mall was cited as an example), and sheltering passengers from street traffic.
3. Level boarding at platforms would be viewed as a major improvement. Stakeholders believed this would be very important to reducing dwell time and improving the passenger experience for transit riders with reduced mobility. Being able to bring bikes and strollers on board easily would also be desirable. Noise from wheelchair lifts could be reduced.
4. The need for major infrastructure improvements was questioned by several stakeholders, who suggested incremental improvements or smaller changes to improve speed and reliability on existing service. On the other hand, several stakeholders felt that a dedicated lane is necessary and the only way to make a meaningful improvement.
5. Stop spacing is a considerable concern for some stakeholders. Initial project materials represented theoretical stop locations, which some felt were not frequent enough. There is concern in some areas that their neighborhood will be skipped over in order to improve travel times, as well as that passengers with disabilities or mobility impairments will have reduced access to fixed-route transit, and in some cases, may need to use dial-a-ride service.
6. Vehicles themselves are not of huge interest to most stakeholders. Current vehicles are satisfactory and cleaner than in the past. Reducing seating is not desirable for some, especially in First Hill. Audible signals at stop locations should be considered to help passengers with low vision safely access stops. Several stakeholders mentioned that they like the trolleybuses, and many stakeholders mentioned that they would like to see clean-fuel vehicles. Air conditioning in the summer would be nice. An increase in capacity is also needed at peak.
7. Any design solution should accommodate emergency vehicles.
8. Any median dedicated lane should include measures to prevent sudden left- or U-turns by motorists across the lane.

Bicycle Facilities

1. A bicycle assist of some kind was viewed by some as an attractive amenity, although several stakeholders expressed concerns about maintenance and mentioned negative experiences with maintenance of city-owned assets in the area.
   a. Virginia Mason Hospital allows bicycles during open hours to utilize elevators as a hill climb. There are also elevators at Freeway Park, although there are some safety and maintenance concerns with public elevators.

   b. One stakeholder mentioned they had seen cyclists grab hold of pickup trucks going uphill on Madison.

2. Although there was some consensus that Madison should not be the primary route for cyclists (and some felt it should not be used by cyclists at all), several stakeholders felt that cyclists would continue to ride there and should be accommodated. For alternate routes, greenways are perceived positively. Traffic on shared streets is a deterrent, and grades are an issue. There are a number of north-south corridors existing or in development, including Broadway and the 23rd Avenue corridor, but there are fewer east-west routes.
   a. The intersections of Madison and 17th and 21st avenues were identified as difficult crossings where north-south greenways are planned.
   b. Possible route suggestions included Seneca for crossing over I-5 (compared to Madison), Spring, which currently has sharrows but is quite steep, and University.
3. Wayfinding and improvements to ensure that facilities for cyclists in the corridor are more than just sharrows would be important to stakeholders who bicycle. Some of the major institutions on First Hill have significant numbers of bicycle commuters. Shifts at these locations are around the clock, so lighting and safety are important.
4. Several stakeholders expressed skeptical attitudes toward the new cycletrack on Broadway, saying they would take a "wait and see" approach but noting that it seems lightly used up to this point. Some stakeholders also had safety concerns about a Broadway-style design.
5. There was interest in bikeshare as a "last mile" solution that might be integrated with and extend the reach of the project.

Pedestrians/Public Realm

1. The pedestrian environment was one of the most important issues for many stakeholders. Sidewalks are generally viewed as too narrow, adjacent land uses/facades in parts of First Hill are institutional (blank walls or empty plazas), corporate or vacant, and I-5 is a barrier.
   a. Virginia Mason plans to widen the sidewalk adjacent to its campus, and Swedish redevelopment may create additional space.
   b. Numerous stakeholders described the corridor's character as "dull" and suggested façade improvements and vibrant activities at street level. The lack of setbacks contributes to a cold feeling in some areas.
2. While some would welcome new landscaping and seating, others feel existing trees should be removed to improve pedestrian flow (or that sidewalks should be better designed to accommodate tree roots). Existing bus stops are viewed as bottlenecks and in some cases unsafe due to loiterers.
3. Lighting and security in general are issues. Nearly all stakeholders mentioned safety as a concern within the corridor and on transit in particular. Smoking at bus stops is also an issue for families.

4. Open space is important, although many stakeholders are cautious about when and where it would be appropriate. Several parcels are being considered by the Parks Department, and triangular parcels to the east were viewed as potential locations for new open spaces and/or stops. Any open spaces would need to be managed to deter drug use and illicit activity.
5. The highway (I-5) is a significant barrier between downtown and First Hill, and prevents easy trip-making between the two areas. Connections over I-5 should be improved, including efforts to improve the pedestrian experience on overpasses.
6. There is a shortage of wheelchair ramps in the corridor, and existing ramps are too narrow.

Hotspots and Trouble Locations

1. The complex intersection of 12th Avenue and Union was repeatedly raised as problematic. The 12th Avenue Stewards have been looking at this location for potential redesign. Problems include:
    a. Vehicle speeds are high through this intersection, where the roadway appears wider.
    b. Crossings for pedestrians and cyclists are challenging. There are sometimes children crossing to and from the Seattle Academy.
    c. Turning movements are unclear and often cause traffic delays.
    d. Transit service is confusing here. Both Route 2 and 12 now serve the same stop.
2. Intersections near I-5 are congested by freeway-bound traffic and signals timed for ramp access as well as by valet parking queues at the hotel at 6th and Marion, although the shuttle loading zone is valued by the hotel.
3. The area of Pike Street, Pine Street, 16th Avenue and Madison is busy, complicated, and unsafe due to traffic speeding downhill.
4. The area around 10th and 11th avenues is a "dead zone" between Seattle University and the Pike/Pine corridor, and pedestrian access to the campus is problematic. Several stakeholders identified this area and nearby stops as an area with potential for improvement.

Other Comments

1. Signage at Madison and 6th should be improved; one stakeholder regularly observes near collisions when cars try to turn left onto 6th, which is one way in the opposite direction. There were additional comments that signage and markings could be improved around I-5 entrances.
2. Communication and public outreach are important. Sound Transit has done a good job with outreach for the First Hill Streetcar.
3. Major development and redevelopment is projected on First Hill, and it will need direct access to transit.

4. Continued collaboration between King County and SDOT will be necessary to ensure that service is coordinated, transfers are easy, and wayfinding makes navigating the system simple.
5. One stakeholder mentioned they would like to see advertising in the right-of-way.
6. Transportation is a public health issue. There are opportunities for synergies with the large concentration of medical providers within the corridor.
7. Costs for Access ADA paratransit service are very high, so the City and Metro should be careful not to force seniors currently using fixed-route service to switch to demand-response.
8. There was some skepticism about the city's long-term growth projections, and whether the projected levels of growth could be accommodated.
9. The existing RapidRide vehicles are viewed by some as problematic for wheelchair users.

Additional Groups and Stakeholders to Involve

Stakeholders were asked to suggest groups and individuals who should be involved in the planning process. Those groups included in the stakeholder interview process suggested by other interviewees are not included in this list. Suggestions included:

- Mt. Zion
- Saint James Cathedral
- First AME
- Young professionals/new residents
- Madison Valley restaurants
- Dave Meinert, Capitol Hill restaurant owner
- Madison Valley Merchants Association
- Madison Park Business District
- Harrison Footwear
- Pike/Pine Urban Neighborhood Council
- John Hajduk, Seattle Academy
- Cascade Bicycle Club
- Pioneer Square Alliance
- Plymouth Congregational
- Women's University Club
- Sunset Club
- YWCA
- Northwest School
- O'Dea High School
- Madrona Community Council
- Capitol Hill Eco-District

- Polyclinic
- Serrento Hotel
- Emerald City Crossfit
- Michael Troyer, Rainier Club
- Seattle Transit Blog
- Social Service Housing (Jefferson Place, Yesler Terrace)
- Squeaky Wheels
- Ferry advisory committees
- Friends of the Waterfront
- Hotel associations
- 12th Avenue Stewards
- Sustainable Capitol Hill
- Seattle Mental Health
- Squire Park community group
- Bailey-Boushay House
- Minority Business Association
- Seattle/King County Commission on Homelessness
- Center for Neighborhood Technology
- Deaf/blind services center
- Puget Sound Blood Center
- Trader Joes
- Madison Co-op
- East District Community Council
- Washington Council of the Blind
- National Federation of the Blind Washington

APPENDICES

APPENDIX A STAKEHOLDER INTERVIEW SCRIPT

Introduction

The Seattle Department of Transportation (SDOT) is in the process of initiating a one-year study of options for Bus Rapid Transit (BRT) service in the Madison Street corridor. Madison is one of five corridors in the City of Seattle identified as priority locations for introduction of high-capacity transit service by the City's 2012 Transit Master Plan. Madison was identified as a high priority corridor because of the potential for increased ridership and significant travel time savings for transit riders with capital improvements. The Madison BRT Conceptual Design Study will identify a preferred transit design concept including bicycle, pedestrian and streetscape elements on Madison and parallel and adjoining streets. Transit improvements will be designed to enhance the speed and reliability of service as well as connectivity to other services and the overall passenger experience.

Study Background, Content and Process

SDOT and a consultant team led by Nelson\Nygaard Consulting Associates completed the TMP in 2012. In addition to priority corridors, the study identified preferred modes of transit. In the Madison corridor, high-capacity bus service was recommended due to the steep grades.

As defined for purposes of the Madison BRT Conceptual Design Study, the corridor includes Madison from the waterfront to 23rd as well as a segment of Marion Street downtown. Related bicycle and pedestrian improvements may also be recommended on adjacent streets.

BRT improvements may consist of a range of measures, from speed- and reliability-related treatments such as transit-only lanes and transit priority at traffic signals to more elaborate "station"-style stops with off-board fare payment and other amenities and custom-designed stops and vehicles. In general, BRT improvements are intended to enable bus transit service to perform more like traditional rail service.

BRT improvements may require changes to the configuration of the street, including improvements for transit riders and other users as well as possible impacts in areas including traffic and parking capacity. In addition to transit performance, potential benefits and impacts for pedestrians, bicyclists, motorists, business and property owners, residents and employees in the corridor will be the subject of a rigorous process of technical analysis and evaluation. An extensive outreach process will be a critical part of this process.

The study is scheduled to be completed in July 2015, at which point a preferred design concept and cost estimate will allow the City to evaluate options for early implantation of some elements and a strategy to secure funding to advance the project. The Madison BRT Conceptual Design Study is a critical first step in the process of securing federal and local resources for improvements in the corridor.

Stakeholder Meetings

The purpose of these stakeholder meetings is to discuss and document perceptions of transit and other needs in the Madison corridor, including any issues that stakeholders believe are relevant to the Study and of which the project team should be made aware. These include perceptions of potential benefits and impacts from the BRT project, perceptions of existing transit service, broader mobility and access needs and any other location-specific issues.

In order to allow for stakeholders to speak freely and in confidence, quotations will not be attributed.

Discussion Topics

[Note: Not all topics or questions are relevant for all stakeholders. Also, additional questions may be asked of certain types of stakeholders, for example merchant representatives who may be asked questions specific to local businesses.]

Stakeholder Name:

Organization/Role:

Contact Information:

1. Do you foresee possible benefits from improvement of transit service in the Madison corridor? If so, what do you think those might be?
2. What are your perceptions of existing transit service in the corridor? Is there room for improvement? If so, what needs to be improved? Is the service frequent or reliable enough? Does it run early or late enough? Does it go where people want to go? Are stops and vehicles comfortable enough? Are there security or other issues?
3. In your view, who uses transit service in the corridor? What destinations are transit riders and others trying to access?
4. In a broader sense, how do people travel within the corridor? What are their needs, and where is there room for improvement?
5. In addition to benefits, changes to Madison Street could have negative impacts. Are you concerned that there might be such impacts? If so, what sorts of impacts do you believe could occur?
6. What are the major challenges you believe this study will face in terms of "trade-offs" between conflicting priorities?
7. Are there locations with specific issues, challenges or opportunities that we should be cognizant of?
8. Are there groups, neighborhoods, institutions or other organizations with specific issues of which we should be made aware?
9. In addition to improvements to mobility and access for transit users, this project will seek to make improvements for other users of the street as well as improvements to

the streetscape itself. It will also seek to identify changes that might be beneficial to the social, economic, and environmental health of the community. What do you believe our priorities should be in these areas? How do you believe a transit and streetscape project can contribute to broader community needs?

10. In addition to your responses to questions, we are collecting relevant information on land uses, demographics and other key contextual factors. Do you have any data, materials or other information that you believe might be helpful to us, and that you would be willing to share?
11. What haven't we covered that's important to you?
12. Any other comments, questions or concerns?

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SDOT
Seattle Department of Transportation

10.15.2014

Appendix C.

RACIAL EQUITY TOOLKIT ASSESSMENT WORKSHEET

RACE & SOCIAL JUSTICE INITIATIVE

Racial Equity Toolkit

to Assess Policies, Initiatives, Programs, and Budget Issues

Our vision is to eliminate racial inequity in the community. To do this requires ending individual racism, institutional racism and structural racism. The Racial Equity Toolkit lays out a process and a set of questions to guide the development, implementation and evaluation of policies, initiatives, programs, and budget issues to address the impacts on racial equity.

When Do I Use This Toolkit?

Early. Apply the toolkit early for alignment with departmental racial equity goals and desired outcomes.

How Do I Use This Toolkit?

With Inclusion. The analysis should be completed by people with different racial perspectives.

Step by step. The Racial Equity Analysis is made up of six steps from beginning to completion:

Step 1. Set Outcomes.
Leadership communicates key community outcomes for racial equity to guide analysis.

Step 2. Involve Stakeholders + Analyze Data.
Gather information from community and staff on how the issue benefits or burdens the community in terms of racial equity.

Step 3. Determine Benefit and/or Burden.
Analyze issue for impacts and alignment with racial equity outcomes.

Step 4. Advance Opportunity or Minimize Harm.
Develop strategies to create greater racial equity or minimize unintended consequences.

Step 5. Evaluate. Raise Racial Awareness. Be Accountable.
Track impacts on communities of color overtime. Continue to communicate with and involve stakeholders. Document unresolved issues.

Step 6. Report Back.
Share information learned from analysis and unresolved issue with Department Leadership and Change Team.

Racial Equity Toolkit Assessment Worksheet

Title of policy, initiative, program, budget issue: Madison Street Corridor Bus Rapid Transit (BRT) study

Description:

Aiming to improve overall mobility in a dense and rapidly developing corridor that spans diverse neighborhood districts from Center City to First Hill, Capitol Hill, the Central District, and east of the study area to the Madison Valley and Madison Park, the city conducted a project study from June 2014 - November 2015 to evaluate roadway channelization options, station locations and features, bicycle and pedestrian facilities, and streetscape improvements for the Madison corridor. The study also engaged transit agencies, stakeholder, and the broader community to discuss options and trade-offs. Ultimately, the study carried out evaluated implementation options, including phased speed, reliability improvements, and funding opportunities.

Department: Seattle Department of Transportation

Contact Name: Maria Koengeter **Contact Email:** Maria.Koengeter@seattle.gov

Type: ☐ Policy ☐ Initiative ☒ Program ☐ Budget Issue

Step 1. Set Outcomes.

1a. What does your department define as the most important racially equitable community outcomes related to the issue? *(Response should be completed by department leadership in consultation with RSJI Executive Sponsor, Change Team Leads and Change Team. Resources can be found at: rsji/toolkit/outcome.htm)*

Outcome 1: Provide reliable transit options for people and neighborhoods who historically lacks it.

Outcome 2: Increase the mobility of students, residents, employees, and shoppers along in the Center city, First Hill, Capitol Hill, the Central District, and east of the study area to the Madison Valley and Madison Park.

Outcome 3: Improve pedestrian and bicycle safety and comfort for all commuters and transit users.

Outcome 4: Provide affordable access to Center City jobs as well as health, social services, and educational facilities on First Hill and Capital Hill

Outcome 5: Enhance East-West connections, and a more complete Seattle transit network for all.

Outcome 6: Support more mixed-use developments supported by robust multi-modal transportation network.

Outcome 7: Reduce greenhouse gas emissions

1b. Which racial equity opportunity area(s) will the issue primarily impact?

- ☒ Education
- ☒ Community Development
- ☒ Health
- ☒ Environment
- ☐ Criminal Justice
- ☒ Jobs
- ☒ Housing

1c. Are there impacts on:

- ☐ Contracting Equity
- ☐ Workforce Equity
- ☒ Immigrant and Refugee Access to Services
- ☒ Inclusive Outreach and Public Engagement

Please describe:

The study engaged stakeholders through five rounds of outreach which included: individual stakeholder interviews, open houses, design workshops, stakeholder and neighborhood forums, and individual meetings.

Step 2. Involve stakeholders. Analyze data.

2a. Are there impacts on geographic areas? ■ Yes ☐ No

Check all neighborhoods that apply *(see map)*:

☐ All Seattle neighborhoods	☐ Lake Union	■ East District
☐ Ballard	☐ Southwest	☐ King County (outside Seattle)
☐ North	☐ Southeast	☐ Outside King County
☐ NE	☐ Delridge	Please describe:
■ Central	☐ Greater Duwamish	Downtown

2b. What are the racial demographics of those living in the area or impacted by the issue?
(See Identifying Stakeholder and Data Resources sections)

The Madison BRT corridor passes through seven census tracts and three neighborhoods. 14 census tracts are within the 0.5 mile distance from Madison street (from 1st ave to MLK). Figure 1 in the attachment shows project's adjacent census tracks and their person of colors ratio in comparison to the Seattle average.

Census tracks directly south of the Madison street primarily contains a percentage of persons of color higher than the Seattle average (36% - 57%). These geographic locations also contains important institutions such as the Swedish Medical Center, Harborview Medical Center, and the Seattle University. Locations north of the Madison street contains a persons of color ratio lower than the Seattle average (25 - 32%), and institutions such as Virginia Mason,Seattle Central College, and Group Health Capitol Hill Campus. Furthermore, the transit connection created by the Madison BRT corridor will go beyond its project area and influence population throughout different neighborhoods of Seattle, offering Seattle's diverse population more affordable and accessible transit options.

2c. How have you involved community members and stakeholders?
(See Identifying Stakeholders section for questions to ask community/staff at this point in the process to ensure their concerns and expertise are part of analysis.)

SDOT staff have hosted four rounds of community outreach and attended a number of community meetings to provide presentations on the project and discuss the project opportunities and concerns with stakeholders. Each round included multiple events at different times of day and at various locations to provide a range of opportunities to participate. The outreach also included an online input opportunity at each phase. Community feedback and outreach summaries were analyzed, incorporated into the project, and published on the Madison BRT website.

Through these means, we secured participation from corridor residents, property and business owners, the broader transit-riding community, and neighborhood organizations.

2d. What does data and your conversations with stakeholders tell you about existing racial inequities that influence people's lives and should be taken into consideration?
(See Data Resources Section. King County Opportunity Maps for information based on geography, race and income.)

Downtown Seattle, Central District, First Hill, and Uptown area has all been identified as having relatively low index of health, housing, and economic opportunity by the King County Opportunity Maps. According to Figure 1, half of the neighborhoods influenced by this project contains a percentage of people of color higher than that of the Seattle average. According to 2013 ACS data from project's adjacent census tracks, the population by race contains 71% of white, 11% of Black/African American, 1% of American Indian/Alaska Native, 11% Asian, 0% Native Hawaiian Pacific Islander, and 6% others. By age, the ACS data indicated that 57% of young and median-age adults from the age of 18 to 45, who may be hard to reach during work hours. Moreover, 20% of the population are under 18 or above 65 years old. These people are likely to have more barriers to participation.

From our conversation with stakeholders, we learned that roadway disconnection, lack of walkability, and lack of transit reliability all greatly hinters the living conditions and mobility of people from these neighborhoods, many as indicated in figure 1, are people of colors. Madison is perceived as a barrier and the "edge" of neighborhoods. There is hope that reinvestment in the corridor itself could help soften the edges and improve connectivity across Madison.

2e. What are the root causes or factors creating these racial inequities?
Examples: Bias in process; Lack of access or barriers; Lack of racially inclusive engagement.

- Madison's historical role as the "red line" for housing loans
- Underrepresentation during public engagement process
- Difficulty securing participation is planning processes for eastern part of corridor

Staff found that neighborhoods in the western/central part of the corridor (downtown, First Hill, Capitol Hill) had more formal, established neighborhood or business groups who were actively mobilized to participate in this type of planning process. They had identified leaders who made time available to discuss the project with staff, regular meeting times where staff could connect, and a purpose/mission aligned with participation in a planning process. In the Central Area, staff reached out to churches, the chamber of commerce, and other community organizations for participation, but had difficulty getting a response. Relying on community groups with primary missions other than overall neighborhood planning (i.e. religious, social service) limits the ability to get active engagement in the process. Further, the City's Neighborhood Districts have Madison as the boundary in the Central Area, furthering the challenge of getting interest in a project along Madison.

Step 3. Determine Benefit and/or Burden.

Given what you have learned from data and from stakeholder involvement...

3. How will the policy, initiative, program, or budget issue increase or decrease racial equity?
What are potential unintended consequences? What benefits may result? Are the impacts aligned with your department's community outcomes that were defined in Step I?

As shown in figure 1, there is distinguishable north-south racial differences geographically divided by Madison Street. Being located in between of Capitol Hill and Central District, connecting to the Downtown regional transit center and job center, the Madison BRT project is facing the challenge of identifying and balancing the diverse interests that come from different racial groups, from people who lives nearby and lives in the region, and from people who come to the downtown area for different needs. The Madison BRT project, if done successfully, will largely improve the transit access for neighborhoods south of the Madison corridor, which as indicated in figure 1, contains a higher-than-average person of colors. It will also create more reliable transit options for Downtown, Capitol hill and north Central district, which contains large amount of daily activities and is already highly congested. The project, as explained, will provide mobility for the city and the region in a much greater scale as it connects to the regional transit centers and various important institutions. It provides yet another transit option for people from under-privileged neighborhoods to connect to schools, medical centers, and jobs in the Downtown, Capitol Hill, and First Hill area. Through community outreach process with people who frequents this area, we will learn about other needs in addition to transit improvements, and identify them to be part of the project scope moving forward.

To the extent that the project supports redevelopment along the corridor and contributes to increased property values, the project may contribute to displacement and gentrification in the corridor. The project will also reduce parking which may disproportionately impact those without off-street parking. Construction impacts will be borne by those closest to Madison Street itself, which may be disproportionately those of lower income than a few blocks away from Madison itself.

Step 4. Advance Opportunity or Minimize Harm.

4. How will you address the impacts (including unintended consequences) on racial equity?
What strategies address immediate impacts? What strategies address root causes of inequity listed in Q.2e? How will you partner with stakeholders for long-term positive change? If impacts are not aligned with desired community outcomes, how will you re-align your work?

Program Strategies?

-Work with the Transit and Project Development outreach teams to develop ways to engage communities with limited historical participation in planning processes.
-Work to develop community capacity for participation in corridor studies through stipends, internships, etc.

Policy Strategies?

- Promote more discounted bus fare for seniors, students, and people of disability and low-income
- Require a study of demographics of the project areas and a published report on outreach strategies prior to the start of the outreach process.
- Require a publishable report on the demographics of project outreach participants.
-Recommend additional budget for RSJI outreach in future budget process

Partnership Strategies?

Partner with other projects, specifically the Cayton Corner Park Project, to coordinate outreach and engagement on design issues.
Seek POEL participation in future design phases.
Utilize KC Metro outreach resources to raise awareness.

Step 5. Evaluate. Raise Racial Awareness. Be Accountable.

5. How will you evaluate and be accountable? How will you evaluate and report impacts on racial equity over time? What is your goal and timeline for eliminating racial inequity? How will you retain stakeholder participation and ensure internal and public accountability? How will you raise awareness about racial inequity related to this issue?

- Collect race data from the population reached through project outreach, keep track of the race ratio in sample vs. population, and ensure that each race are sufficiently represented in the project outreach.
- Closely monitor the implementation of Madison BRT project and conduct outreach events through different phases of the project, ensure that people of different race, age, and ethnicity can be reached through those outreach efforts.
- Analyze the demographic profiles of the population that has been reached through previous outreach processes, ensure future outreach fills the gap of the population that has been underrepresented.
- Ensure that the results of this study and the future outreach are properly summarized and used to guide implementation.
- Set performance measures or inclusion goals for future outreach during the project implementation process.

5b. What is unresolved? What resources/partnerships do you still need to make changes?

The lack of resources and institutional structure to engage communities of color are ongoing unresolved issues. We need resources in budget processes for outreach teams to engage communities and Department-wide or City-wide programs to support capacity within these communities to participate in planning processes.

Step 6. Report Back.

6. Share analysis and report responses from Step 5 with Department Leadership and Change Team Leads and members involved in Step 1.

Opportunities to increase success in engaging communities of color in planning process require additional resources for outreach and institutional capacity to implement. Assigning the full responsibility to individual project managers for this outreach limits the potential impact of the effort. There are significant opportunities for Department or City-wide efficiencies if there was a dedicated team to helping achieve the outreach objectives, including staff to plan outreach, prepare materials, and execute the inclusive engagement plan.

Creating Effective Community Outcomes

Outcome = the result that you seek to achieve through your actions.

***Racially equitable* community outcomes = the specific result you are seeking to achieve that advances racial equity in the community.**

When creating outcomes think about:

- What are the greatest opportunities for creating change in the next year?
- What strengths does the department have that it can build on?
- What challenges, if met, will help move the department closer to racial equity goals?

Keep in mind that the City is committed to creating racial equity in seven key opportunity areas: **Education, Community Development, Health, Criminal Justice, Jobs, Housing, and the Environment.**

Examples of community outcomes that increase racial equity:

OUTCOME	OPPORTUNITY AREA
Increase transit and pedestrian mobility options in communities of color.	Community Development
Decrease racial disparity in the unemployment rate.	Jobs
Ensure greater access to technology by communities of color.	Community Development, Education, Jobs
Improve access to community center programs for immigrants, refugees and communities of color.	Health, Community Development
Communities of color are represented in the City's outreach activities.	Education, Community Development, Health, Jobs, Housing, Criminal Justice, Environment
The racial diversity of the Seattle community is reflected in the City's workforce across positions.	Jobs
Access to City contracts for Minority Business Enterprises is increased.	Jobs
Decrease racial disparity in high school graduation rates	Education

Additional Resources:

- **RSJI Departmental Work Plan:** http://inweb/rsji/departments.htm
- **Department Performance Expectations:** http://web1.seattle.gov/DPETS/DPETSWEbHome.aspx
- **Mayoral Initiatives:** http://www.seattle.gov/mayor/issues

Identifying Stakeholders + Listening to Communities of Color

Identify Stakeholders

Find out who are the **stakeholders** most affected by, concerned with, or have experience relating to the policy, program or initiative? Identify racial demographics of neighborhood or those impacted by issue. *(See District Profiles in the Inclusive Outreach and Public Engagement Guide or refer to U.S. Census information on p.7)*

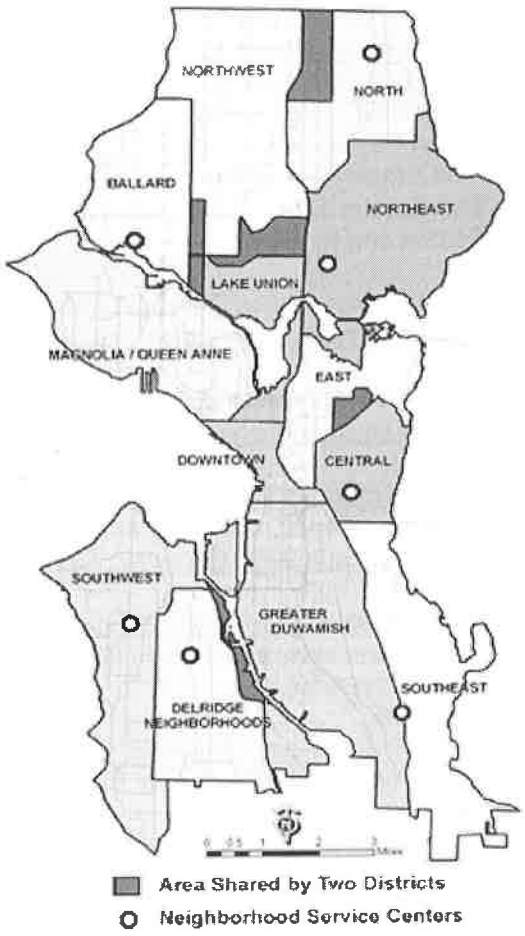
Once you have indentified your stakeholders ....

Involve them in the issue.
Describe how historically underrepresented community stakeholders can take a leadership role in this policy, program, initiative or budget issue.

Listen to the community. Ask:
1. What do we need to know about this issue? How will the policy, program, initiative or budget issue burden or benefit the community? *(concerns, facts, potential impacts)*

2. What factors produce or perpetuate racial inequity related to this issue?

3. What are ways to minimize any negative impacts (harm to communities of color, increased racial disparities, etc) that may result? What opportunities exist for increasing racial equity?



Tip: Gather Community Input Through...

- Community meetings
- Focus groups
- Consulting with City commissions and advisory boards
- Consulting with Change Team

Examples of what this step looks like in practice:

- A reduction of hours at a community center includes conversations with those who use the community center as well as staff who work there.
- Before implementing a new penalty fee, people from the demographic most represented in those fined are surveyed to learn the best ways to minimize negative impacts.

For resources on how to engage stakeholders in your work see the **Inclusive Outreach and Public Engagement Guide:** http://inweb1/neighborhoods/outreachguide

Data Resources

City of Seattle Seattle's Population and Demographics at a Glance:
http://www.seattle.gov/dpd/Research/Population_Demographics/Overview/default.asp
Website updated by the City Demographer. **Includes: Housing** Quarterly Permit Report • **Employment data** • 2010 Census data • **2006-2010 American Community Survey** • 2010 Census: Demographic highlights from the 2010 Census; Basic Population and Housing Characteristics Change from 1990, 2000, and 2010 – PDF report of counts of population by race, ethnicity and over/under 18 years of age as well as a total, occupied and vacant housing unit count; Three-page subject report – PDF report of detailed population, household and housing data • American Community Survey: **2010 5-year estimates and 2009 5-year estimates** • Census 2000 • Permit Information: Comprehensive Plan Housing Target Growth Report for Urban Centers and Villages; Citywide Residential Permit Report • Employment Information: Comprehensive Plan Employment Target Growth Report for Urban Centers and Villages; Citywide Employment 1995-2010 • The Greater Seattle Datasheet: a report by the Office of Intergovernmental Relations on many aspects of Seattle and its region.

SDOT Census 2010 Demographic Maps (by census blocks): Race, Age (under 18 and over 65) and Median Income http://inweb/sdot/rsji_maps.htm

Seattle's Population & Demographics Related Links & Resources (From DPD website: http://www.seattle.gov/dpd/Research/Population_Demographics/Related_Links/default.asp)

Federal

- American FactFinder: The U.S. Census Bureau's main site for online access to population, housing, economic, and geographic data.
- Census 2000 Gateway: The U.S. Census Bureau's gateway to Census 2000 information.

State

- Washington Office of Financial Management: OFM is the official state agency that provides estimates, forecasts, and reports on the state's population, demographic characteristics, economy, and state revenues.

Regional

- Puget Sound Regional Council: PSRC is the regional growth management and transportation planning agency for the central Puget Sound region in Washington State.

County

- King County Census Viewer: A web-based application for viewing maps and tables of more than 100 community census data indicators for 77 defined places in King County.
- King County Department of Development and Environmental Services: the growth management planning agency for King County.
- Seattle & King County Public Health - Assessment, Policy Development, and Evaluation Unit: Provides health information and technical assistance, based on health assessment data
- King County Opportunity Maps: A Study of the Region's Geography of Opportunity. Opportunity maps illustrate where opportunity rich communities exist, assess who has access to those neighborhoods, and help to understand what needs to be remedied in opportunity poor neighborhoods. Puget Sound Regional Council.

City

- The Greater Seattle Datasheet: A Seattle fact sheet courtesy of the City of Seattle's Office of Intergovernmental Relations.

Other

- Seattle Times Census 2000: articles, charts related to Census 2000 and the Seattle/Puget Sound region.

Glossary

Accountable- Responsive to the needs and concerns of those most impacted by the issues you are working on, particularly to communities of color and those historically underrepresented in the civic process.

Community outcomes- The specific result you are seeking to achieve that advances racial equity.

Contracting Equity- Efforts to achieve equitable racial outcomes in the way the City spends resources, including goods and services, consultants and contracting.

Immigrant and Refugee Access to Services- Government services and resources are easily available and understandable to all Seattle residents, including non-native English speakers. Full and active participation of immigrant and refugee communities exists in Seattle's civic, economic and cultural life.

Inclusive Outreach and Public Engagement- Processes inclusive of people of diverse races, cultures, gender identities, sexual orientations and socio-economic status. Access to information, resources and civic processes so community members can effectively engage in the design and delivery of public services.

Individual racism- Pre-judgment, bias, stereotypes about an individual or group based on race. The impacts of racism on individuals including white people internalizing privilege and people of color internalizing oppression.

Institutional racism- Organizational programs, policies or procedures that work to the benefit of white people and to the detriment of people of color, usually unintentionally or inadvertently.

Opportunity areas- One of seven issue areas the City of Seattle is working on in partnership with the community to eliminate racial disparities and create racial equity. They include: Education, Health, Community Development, Criminal Justice, Jobs, Housing and the Environment.

Racial equity- When social, economic and political opportunities are not predicted based upon a person's race.

Racial inequity-When a person's race can predict their social, economic and political opportunities and outcomes.

Stakeholders- Those impacted by proposed policy, program or budget issue who have potential concerns or issue expertise. Examples might include: specific racial/ethnic groups, other institutions like Seattle Housing Authority, schools, community-based organizations, Change Teams, City employees, unions, etc.

Structural racism - The interplay of policies, practices and programs of multiple institutions which leads to adverse outcomes and conditions for communities of color compared to white communities that occurs within the context of racialized historical and cultural conditions.

Workforce Equity- Ensure the City's workforce diversity reflects the diversity of Seattle

Appendix D.

INCLUSIVE OUTREACH AND PUBLIC ENGAGEMENT PLAN

MADISON STREET BUS RAPID TRANSIT PUBLIC INVOLVEMENT PLAN

DRAFT FOR INTERNAL REVIEW: August 25, 2016

SDOT
Seattle Department of Transportation

BACKGROUND

Appendix A: Project Area & Context

Madison Street Bus Rapid Transit (BRT) service will provide fast, frequent, all-day, reliable, and safe public transportation from First Ave to Madison Valley. The Madison corridor was identified in the 2012 Seattle Transit Master Plan as a priority corridor for BRT service. From 2014-2015, we completed a design concept study, including public and stakeholder engagement. Feedback from stakeholders was incorporated in the Locally Preferred Alternative (LPA), including extending the route to Martin Luther King Jr Way and using Spring St for eastbound travel through downtown Seattle. City Council adopted the LPA in February 2016.

SDOT is moving forward with design and environmental review while pursuing funding opportunities, such as a Federal Transit Administration (FTA) Small Starts grant. The preferred route for Madison Street BRT uses Madison and Spring streets downtown, then travels along E Madison St to Martin Luther King Jr Way; extension to Madison Park is not currently planned but remains an option for future consideration. Implementing Madison Street BRT service will reduce and stabilize transit travel times and improve pedestrian and bike facilities through one of the city's densest and most diverse corridors.

KEY MESSAGES

- Madison Street BRT will provide fast, frequent, all-day, reliable, and safe public transportation between First Ave and Madison Valley.
- The project will improve transit access for neighborhoods south of the Madison corridor, and create more reliable transit options for Downtown, Capitol Hill, and north Central Area.
- BRT stations will have comfortable seating, weather protection, platforms that allow passengers to step directly onto the bus without climbing steps, and real-time information so that passengers know when the next bus will arrive.
- The project will also make the nearby areas more passenger-friendly, including improvements to sidewalks, curb ramps, landscaping and bicycle facilities.
- Community input has and will continue to be an integral part of the design process. We will continue to work with nearby neighborhoods and communities to design the best possible BRT service.
- We will work actively with nearby communities to plan for construction, with the goal of minimizing impacts to businesses and residents to the greatest extent possible.
- The voter-approved 9-year Levy to Move Seattle partially funds this project. We are pursuing other funding sources for final design and construction, particularly FTA funding.
- BRT service on Madison St will help alleviate the lack of transit service in the Central District and Madison Valley, which are less served than neighborhoods of similar density and size.

PROJECT TEAM

Project manager:	Jeff Lundstrom, SDOT
Engineer:	Amy Yamabe, SDOT and Ron Leimkhuler, KPFF
Environmental lead:	Sandra Gurkewitz, SDOT
PIO:	Emily Reardon, SDOT
Outreach support:	Lauren Stensland, Consultant Outreach Lead, EnviroIssues with support from Latina Creative Agency, Rule Seven, G3 and Associates, 3 Square Blocks

PUBLIC OUTREACH

Objectives

- Involve nearby communities in design process via neighborhood-specific outreach strategies
- Engage the potential ridership of Madison Street BRT service in design process
- Maintain community support and project momentum
- Listen, gather feedback, and communicate equitably with all project stakeholders

Anticipated Concerns
Appendix B: Anticipated Construction Impacts & Concerns

- Temporary construction impacts: Noise, parking restrictions, traffic impacts, hospital access, business impacts (including customer walking/driving access, visibility to the public, dust, loading zones, utility disruptions, etc.), temporary construction easements
- Quality of life impacts: Changes to local traffic patterns, neighborhood development/gentrification, potential service access restrictions
- Roadway impacts: Changes to existing bus routes and stops, curb uses, traffic routing (particularly for car travelers), and bus layover siting concerns
- Concern that Madison Street BRT does not go far enough to achieve gold-standard BRT status, including limited number of bus-only lanes
- Bicycle and pedestrian facilities: Mixed concern and support for biking infrastructure, but lack of consensus on routing
- Equitable engagement and consideration of all populations in the corridor

Media & Stakeholders
Appendix C: Stakeholder List

- Stakeholders: Adjacent businesses and residences on Madison St, Spring St and 9th Ave (within half mile radius), 23rd Ave Action Community Team, etc.
- Medical: Virginia Mason and Swedish hospitals, etc.
- Schools: Seattle University, TT Minor Elementary School (currently under construction), Seattle Academy for the Arts & Sciences (SAAS), the Northwest School, etc.
- Media: Seattle Times, Capitol Hill Times, Capitol Hill Seattle Blog, Madison Valley News, The Stranger, Seattle Gay News, Seattle Transit Blog, The Seattle Medium, Runta, etc.

Public Project Contact

Name: Emily Reardon, PIO
Email: madisonBRT@seattle.gov

Demographics
Appendix D: Demographic Information

Zip code(s):	Census tract(s):	Translation need(s):
98101, 98121, 98122, 98134, 98104, 98144, 98109, 98191, 98112, 98124, 98102, 98154, 98122	62, 63, 64, 65, 66, 72, 73,74.01, 74.02, 75, 76, 77, 78, 79, 80.02, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95	Spanish (16%) Chinese (12%) Hindi (7%) French (7%) German (6%) Korean (5%)

BUDGET

Total Funds Planning-level capital cost: $120 million

Funding sources $15 million Move Seattle Levy; applying for state and federal funding grants for the remaining

TABLE 1: PLANNED MAJOR OUTREACH ACTIVITIES
Appendix E: Activities Log & IOPE Elements

When	What	Why	Complete
Spring 2016	Reconvene 10% design stakeholders; conduct roundtables, property owner meetings, briefings	Re-engage key stakeholders and broaden audience for public involvement	☒
Summer-Fall 2016 (30%)	3 public meetings, online open house, pop-up outreach at community events, adjacent property owner and tenant outreach, briefings, text message outreach	Share 30% design plans and gather input; raise awareness about the project; provide feedback opportunities	☒
Fall 2016-Winter 2017 (final design)	Reconvene roundtables; continue adjacent property owner and tenant outreach	Provide updates on progress through 30% design; generate support for kick-off of final design phase	☐

Ongoing activities	Web updates, email updates, social media content, quarterly blog post	Support outreach events; keep communities informed and engaged; encourage communication	☐

SCHEDULE & MAJOR MILESTONES

30% design | July 2016 (We are here) **60% design** | 1Q 2017 **90% design** | 3Q 2017 **Construction:** | 1Q 2018

What is happening now:

- ✓ Developing IOPE plan
- ✓ Compiling contact/email list
- ✓ Updating web content and suite of project materials
- ✓ Property owner meetings, particularly Spring St between 3rd and 6th avenues, and properties that did not receive individual outreach touches during planning
- ☐ Briefings/meetings with major stakeholders
- ☐ Follow up from 30% design public meetings and outreach series

Webpage: **URL:** www.seattle.gov/transportation/MadisonBRT.htm **Live?** Yes

PLEASE NOTE

This is a living document intended to guide SDOT staff through the public involvement process. The contents of this Public Involvement Plan cover sheet are intended to provide an overview of the public involvement/ outreach plan, but in some cases does not demonstrate the full extent of work. In such cases, the appendices should be referenced for a full project description.

SDOT is committed to being efficient, effective, and responsible. This document is guided by the Inclusive Outreach and Public Engagement (IOPE) policy and illustrates a methodology that aims to build strong and sustainable relationships and partnerships.

Please check with the *project manager* or *public information officer* to ensure that you have the latest version of the Public Involvement Plan cover sheet and associated content before messaging this document to other City departments or the general public.

MADISON STREET BRT

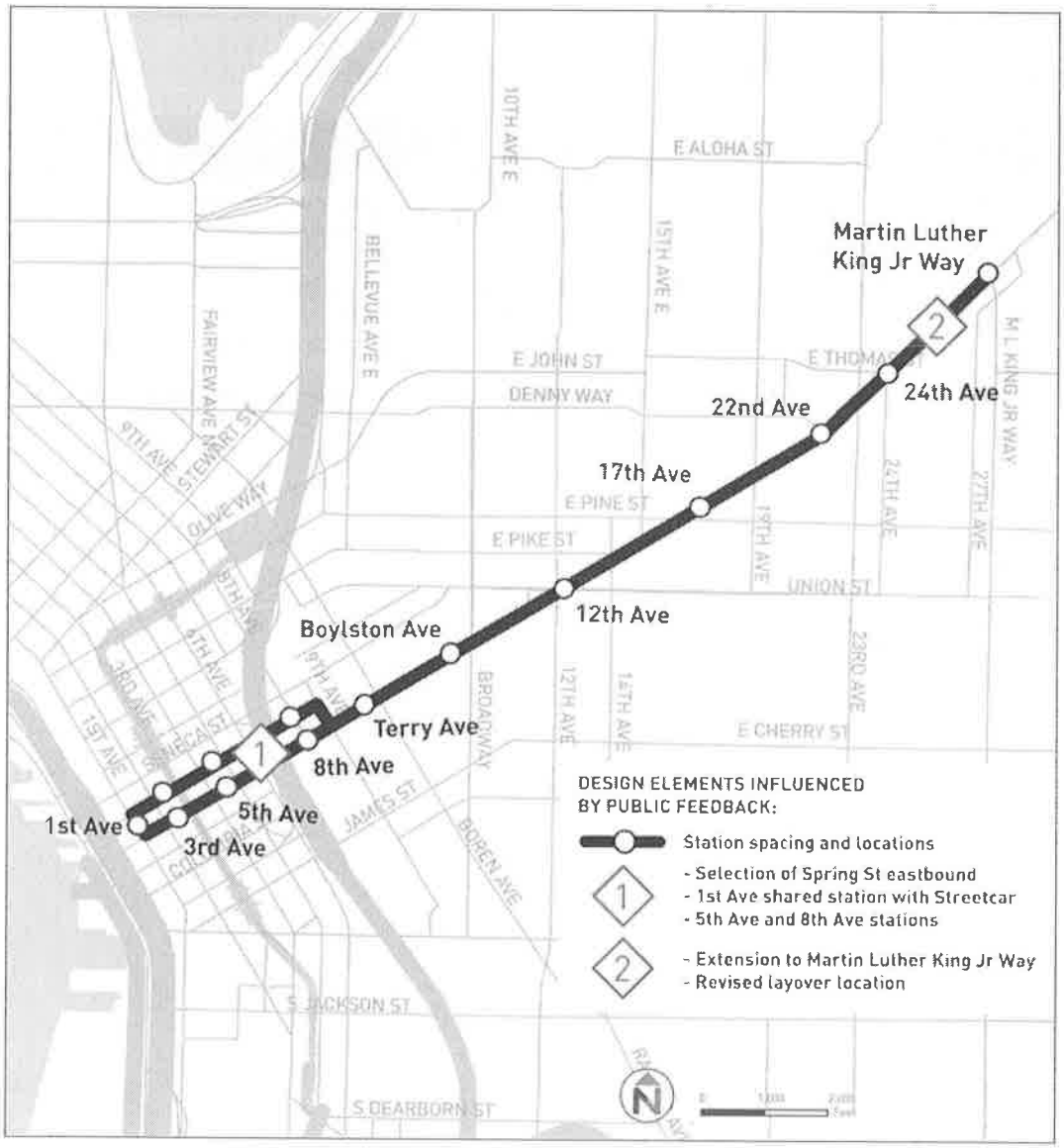
APPENDIX A: PROJECT AREA & CONTEXT

BACKGROUND

The 2012 Seattle Transit Master Plan identified Madison St between Colman Dock Ferry Terminal in downtown Seattle and 23rd Ave E as a future high-capacity bus rapid transit (BRT) corridor. The City of Seattle based the proposed transit investment on an evaluation of the Madison St Corridor's potential to generate ridership. In the evaluation, we considered the corridor's land use and demographic characteristics, and potential transit modes, including factors such as passenger carrying capacity and constructability.

Madison Street BRT service will run between First Ave and Madison Valley (see Project Map below). This corridor includes densely populated neighborhoods, including Downtown, First Hill, Capitol Hill, the Central Area, and Madison Valley.

FIGURE 1: PROJECT MAP



MADISON STREET BRT

APPENDIX A: PROJECT AREA & CONTEXT

The project team has made multiple decisions based on public feedback and will continue to do so throughout the project, including;

- Selecting the eastern terminus of the project area (Martin Luther King Jr Way in Madison Valley) based on feedback from a public survey (extension to Madison Park remains an option for future consideration)
- Focusing on improving the intersections of Madison with 12th, 23rd, and 24th avenues
- Choosing Spring St instead of Marion St for western turnaround based on a public workshop

The original stakeholder group included businesses and organizations along the corridor, as well as public workshop attendees and public survey participants. The project was not originally planned to extend past 13th Ave, so many stakeholders east of First Hill were not included in the original outreach. The outreach strategies covered by this document will aim to identify and include new stakeholders as well as engage existing stakeholders.

CONTEXT BY NEIGHBORHOOD: DOWNTOWN & FIRST HILL

Downtown and First Hill are home to a mix of residents and both major commercial and small businesses, including a large hub of hospitals and emergency services on First Hill. Many stakeholders in this section of the corridor have been positive about Madison Street BRT and its potential to improve transit travel time and traveler experience, and these neighborhoods were active in shaping the Locally Preferred Alternative. In the Downtown area, public input led to changing the eastbound route from Marion Street to Spring Street and moving the westernmost station from the waterfront up to First Avenue. On First Hill, public input informed route alignment and station locations.

Stakeholders in both neighborhoods were concerned about continued access to parking garages and loading zones for delivery vehicles, access to hotels and proposed changes to on-street parking. The Seattle Public Library in particular has expressed concern about access to and from its parking garage on Spring St. Interest was also expressed about the future of King County Metro bus service and the need for traffic signal improvements to benefit transit and pedestrians. First Hill stakeholders noted it was important for Madison Street BRT to serve the neighborhoods and not just pass through it – particularly considering service to intuitions such as Seattle University and Swedish Hospital facilities. Access for emergency vehicles entering and exiting hospitals is critical on First Hill.

Two City projects, the Center City Mobility Plan and Center City Connector, will affect construction and BRT service on Madison St. The project team will work directly with staff on these adjacent projects during outreach and construction.

CONTEXT BY NEIGHBORHOOD: CAPITOL HILL & CENTRAL AREA

Capitol Hill and the Central Area both include dense and rapidly-developing residential properties, as well as long-standing small businesses and new businesses opening, including larger developments such as Whole Foods at Broadway and Madison and the Bullitt Center at 16th and Madison. These communities have experienced not only rapid private development but also significant public infrastructure projects, such as SDOT's 23rd Avenue Corridor Improvement Project, First Hill Streetcar, and Broadway Cycle Track, as well as Sound Transit's Capitol Hill Station.

Madison Street BRT construction will be coordinated with current and existing public infrastructure projects. Particularly for communities impacted by the 23rd Avenue Corridor Improvement Project, there is significant concern around the impacts of construction on small businesses. Concerns include loss of parking for businesses that rely on customers to patronize business by car, new street configurations and route stops that might make it more difficult for people to patronize some businesses (i.e. limiting access to First AME Church parking lot). Residents and businesses alike are concerned with equitable treatment and communication during design and construction processes.
Further, Madison Street historically served as a "red line" for housing in the area. The practice of redlining and restrictive covenants diminished in the 1960s, but its effects on the racial makeup of the neighborhood can still be seen today.

More recently, economic growth and private development in these neighborhoods has dramatically changed the demographics of the neighborhood and caused tension between community members and with the City as well.

CONTEXT BY NEIGHBORHOOD: MADISON VALLEY/MADISON PARK

The Madison Valley and Madison Park neighborhoods include busy small-business districts immediately adjacent to E Madison St. Further east, single family residences populate the area immediately adjacent to E Madison St.

Different from other sections of the corridor, this area has not been as extensively engaged about Madison Street BRT. When reaching out to this area of the project, it will be important to clearly articulate project benefits, explain how community input could influence the final design, and explain how potential construction impacts and the final condition of transit stops and bus layover areas could affect existing curb and lane usage.

The businesses in this section of the corridor are most likely concerned about construction impacts that could affect how people access their shops. Residents in the area most likely want to make sure they have reliable service to and from their places of work, including accessible bus stops for persons who are disabled and/or elderly, especially on steep hills or inclines.

KEY LOCATIONS IN PROJECT DESIGN

Stakeholder coordination, particularly with adjacent property owners, will be informed by the variations in project design throughout the corridor. Key design elements relevant to project outreach include:

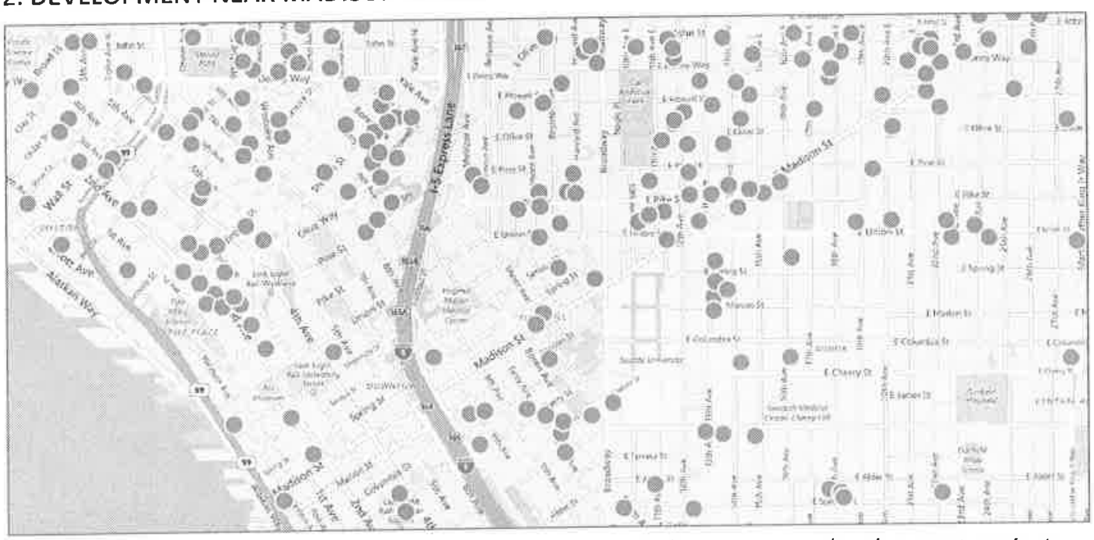
- **Downtown:** Buses travel on Madison and Spring streets between 1st and 9th avenues downtown:
  - BRT service travels west on Madison St. The western end will be at 1st Ave, using a platform shared with the Center City Streetcar. BRT service travels eastbound on Spring St.
  - There will be stations at 3rd, 5th (shared stop with Metro Route 2), and 8th avenues on both Madison and Spring streets. Stations will be left- or right-door boarding, depending on the station location.
  - Limited parking will remain on Madison and Spring streets in this section of the corridor. The project will also make safety improvements to the existing Spring St bike lane from 1st to 4th avenues, further emphasizing it as a protected bike lane.
- **First Hill and Capitol Hill:** BRT service will travel in center-running, transit-exclusive lanes from 9th to 14th Ave:
  - Center, left-door boarding stations will be located at Terry, Summit/Boylston, and 12th/13th avenues.
  - Dedicated left turns would be provided at key intersections, including Boren, Broadway, 12th, and 19th.
  - Parking will be removed from Madison St in this section of the corridor.
- **Central Area to Madison Valley:** East of 14th Ave, BRT service will transition to side-running transit lanes serving a station at 17th Ave.
  - East of 18th Ave, BRT service will travel in mixed traffic to Madison Valley with stations at 22nd, 24th/25th, and Martin Luther King Jr Way.
  - Some parking will be removed in portions of the corridor.
- **Madison Park:** Extension to Madison Park is not included in this phase, but we request and invite additional public input regarding extending BRT service to Madison Park, which remains an option for future expansion.

ANTICIPATED TEMPORARY CONSTRUCTION IMPACTS AND STAKEHOLDER CONCERNS

The project team anticipates the following impacts during construction throughout the entire project corridor; to the best of SDOT's ability we will provide advanced notice of all such temporary construction impacts:

- Temporarily restricted parking
- Temporary vehicle, bike, and pedestrian detours
- Temporary noise, dust, and vibration during daytime work hours
- Temporarily restricted access to businesses and residences (this will require coordination with each individual business and resident to try to schedule the impact at a time of day they estimate will be least impactful)
- Temporary bus stop relocations and service interruptions
- Temporary utility interruptions
- Temporary economic impacts to businesses
- Temporary impacts of multiple development and construction projects, including private development. As the map below shows, there is extensive private development underway in this area.

FIGURE 2: DEVELOPMENT NEAR MADISON STREET



Ongoing development near Madison Street; blue circles indicate private development projects.

Additional temporary construction concerns anticipated in neighborhoods along the corridor include:

- **Downtown:** I-5 entrance access and associated delays during construction, as well as difficulty accessing residential buildings, community organizations, and businesses
- **First Hill:** Emergency vehicle access to hospitals, Americans with Disabilities Act (ADA) and pedestrian access, and equitable involvement, especially of those who are elderly, low-income, or face mobility challenges
- **Capitol Hill:** Impacts on the weekends and late at night, and impacts to existing transit
- **Central Area**: Construction fatigue from 23rd Ave, equitable involvement, and impacts to existing transit
- **Madison Valley/Madison Park**: Access to parks and schools

ANTICIPATED PERMANENT CORRIDOR REVISIONS AND STAKEHOLDER CONCERNS

The following concerns regarding the permanent project revision are anticipated throughout the entire project corridor:

- Revisions to emergency vehicle access
- Revisions to existing transit service and stop locations
- Revised access to businesses, residences, and services
- Revisions to pedestrian and cyclist routes
- Removal of some street trees (new trees will be planted to replace any trees removed)
- Permanent loss of 227 on-street parking spaces between 1st Ave and Martin Luther King Jr Way

MADISON STREET BRT

APPENDIX C: STAKEHOLDER LIST

Server path to Stakeholder List: https://el2.envirolytical.com/#

TABLE 2: STAKEHOLDER CHECKLIST

Incorporated? (Y or N)	Audiences to Consider	**Examples** (full list will be developed over project life)
Y	Adjacent property owners and tenants, including businesses and residents	**Downtown:** Alexis Hotel, Martin Smith Inc (Holyoke Building), Watermark Tower Condos, 1100 1st Ave building, Martin Selig Management (1000 2nd Ave building), 2nd & Spring building, Henry M. Jackson building, 1000 Hotel, Urbis Partners, Wells Fargo Center, Abraham Lincoln building, 4th and Madison building, Madison Financial Center, Hotel Monaco, Pacific Plaza Hotel, W Hotel, Olympic Hotel and parking garage, Madison Center JV/West, Safeco Plaza, Women's University Club, Nakamura US Courthouse, Seattle Renaissance Hotel, **First Hill:** Madison Apartments (and corner retail), 1000 8th Ave apartments, Vito's, 1004 Spring building, Silver Cloud Inn, First Hill Plaza, Horizon House, Tate Mason, Sorrento Hotel **Capitol Hill:** Pony Bar, Trace Lofts, Bullitt Center, Key Bank, Sorrento Hotel, Trader Joe's, Central Coop **Central Area:** Tougo Coffee, New City Theater, Views at Madison Apartments **Madison Valley/Park:** Kate's Day Spa, Luc's, Fast Frame, City People's Garden Store, Café Flora, Essential Bakery, Aegis Living, Safeway
Y	Typical users of project area	Pedestrians, cyclists, freight, drivers, commuters, tourists, employees, medical/dental patients, senior citizens, nightlife patrons
Y	District Councils	Downtown District Council, Central Area Neighborhood District Council, East Neighborhood District Council
Y	Community groups and neighborhood organizations	**Capitol Hill:** Squire Park Community Council **Central Area:** Squire Park Community Council, 23rd Ave Action Community Team (ACT) **Madison Valley:** Madison Park Council **Citywide:** Neighborhood Greenways
Y	Cultural and religious organizations	**First Hill:** First Presbyterian Church, St. James Cathedral, Summit at First Hill

		Capitol Hill: First AME Methodist Church **Central Area:** Temple DeHirsch Sinai, Mount Zion Baptist Church, Madison Park Church of Christ **Madison Valley:** Madison Temple Church
Y	Chambers of commerce and local business organizations	**Downtown:** Downtown Seattle Association, Metropolitan Improvement District (MID), Building Owners and Managers Association (BOMA) **First Hill:** First Hill Improvement Association **Capitol Hill:** Capitol Hill Chamber of Commerce, 12th Ave Neighborhood Plan Stewardship Council, 12th Ave Stewards, **Central Area:** Central Area Chamber of Commerce, Central Area Land Use Review Committee **Madison Valley:** Madison Valley Merchants' Association, Madison Valley Community Council **Madison Park:** Madison Park Business Association
Y	City of Seattle Departments	SDOT (including Construction Hub Program), Seattle Public Utilities, City Light, Department of Parks and Recreation, Fire Department, Police Department, Department of Neighborhoods, Department of Planning and Development
Y	Other agencies	WSDOT, King County Metro Transit, King County Council, Sound Transit, Community Transit, Port of Seattle, Federal Office Building, Federal Reserve Building, Washington Trust for Historic Preservation, Historic Seattle Preservation, University of Washington (for Washington Park Arboretum)
Y	Other transportation/utility companies	Puget Sound Energy, charter bus companies, Amazon/Microsoft/other company shuttles, Solid Ground Downtown Circulator, taxis/Uber/Lyft, Pronto
Y	Universities and institutions	Seattle University, Seattle Central College
Y	Public facilities	Seattle Public Library
Y	Schools and childcare facilities	**Capitol Hill:** The Northwest School **Central Area:** Seattle Academy of Arts and Sciences, TT Minor Elementary **Madison Valley:** The Bush School, the Valley School
Y	Hospitals/Medical Facilities	**First Hill:** Harborview, Swedish, and Virginia Medical Centers, Polyclinic, M Street Medical Building, 1101

		Madison Medical Tower, Puget Sound Blood Bank, Nordstrom Tower, etc. **Central Area:** Gaffney House **Madison Valley:** Bailey-Boushay
Y	Social service organizations and facilities (including those serving people with disabilities)	**Citywide:** Boys and Girls Club, Lighthouse for the Blind, Low Income Housing Institute, Commission for People with Disabilities **Downtown:** Downtown YMCA **First Hill:** Town Hall **Central Area:** Meredith Matthews YMCA, Planned Parenthood NW, Hearing, Speech and Deafness Center
Y	Bicycle and pedestrian advocacy groups/transit groups	Cascade Bicycle Club/WA State Bicycle Alliance, Feet First, Commute Seattle, Transportation Choices Coalition
Y	City of Seattle Advisory Boards	Bicycle, Pedestrian, Freight, LGBTQ Advisory Council
Y	Major developers/property owners	Vulcan, Lake Union Partners, Clise, Holland Partner Group
Y	Construction companies	CA Carey, Merlino, etc.
Y	Major employers	Area hospitals (see Hospitals)
Y	Event Centers	Benaroya Hall, Town Hall
Y	Freight	Ballard Interbay Northend Manufacturing/Industrial Center (BINMIC)
Y	Media Outlets	Seattle Times, PI, Capitol Hill Times, FACTS, The Seattle Medium, La Raza, Capitol Hill Seattle Blog, Seattlish, Madison Valley News, The Stranger, Seattle Gay News, Seattle Transit Blog, MyNorthwest.com, The Urbanist, etc. (see Appendix F: Ethnic Media Plan)
Y	Populations that may need targeted outreach to due to cultural barriers, language differences, etc.	See Appendix D: Demographic Data

MADISON STREET BRT

APPENDIX D: DEMOGRAPHIC INFORMATION

GUIDING QUESTIONS

1. **What are the goals of the project?**
    - Provide a fast, frequent, all-day, reliable, and safe public transit option for people and neighborhoods
    - Increase mobility of students, residents, employees, patrons/customers, medical patients, persons with disabilities, elderly persons, and persons with low incomes along the corridor
    - Improve pedestrian and bicycle safety and comfort for all commuters and transit users
    - Provide affordable access to Center City jobs as well as health, social services, and educational facilities on First Hill and Capitol Hill
    - Enhance east-west connections
    - Design and install transit-oriented improvements on Madison St and adjacent roadways
    - Improve sidewalks, ADA access, and bicycle facilities on Madison St and adjacent roadways
    - Use inclusive and neighborhood-specific outreach strategies to include underrepresented populations in the process and seek feedback on design and improvements

2. **What racial or social inequities currently exist in the project area?**
    - The Madison St corridor is currently served by fewer bus routes and less reliable bus service than other areas with similar population density.
    - Downtown Seattle, Central Area, First Hill, and Uptown area have all been identified as having relatively low index of health, housing, and economic opportunity by the King County Opportunity Maps. Based on demographics, these people are likely to have more barriers to participation in the project.
    - From our conversation with stakeholders, we learned that roadway disconnection, lack of walkability, and lack of transit reliability all greatly hinders the living conditions and mobility of people from these neighborhoods, many of whom are people of colors. Madison St is perceived as a barrier and the "edge" of neighborhoods. There is hope that reinvestment in the corridor itself could help soften the edges and improve connectivity across Madison St.
    - Root causes of the racial and social inequities in the project area include:
        - Madison St's historical role as the "red line" for housing loans
        - Underrepresentation during public engagement process
        - Difficulty securing participation in planning processes for eastern part of corridor

3. **How do the project goals address or consider the existing racial or social inequities? How will the project increase or decrease racial or social equity?**
    - Madison Street BRT, if done successfully, will largely improve the transit access for neighborhoods south of the Madison corridor, which contains a higher-than-average proportion of people of colors. It will also create more reliable transit options for Downtown, Capitol Hill, and north Central Area, which contains a large amount of daily activities and is already highly congested. The project, as explained, will provide mobility for the city and the region in a much greater scale as it connects to the regional transit centers and various important institutions. It provides yet another transit option for people from under-privileged neighborhoods to connect to schools, medical centers, and jobs in the Downtown, Capitol Hill, and First Hill areas. Through a community outreach process with people who frequent this area, we will learn about other needs in addition to transit improvements, and identify them to be part of the project scope moving forward.
    - To the extent that the project supports redevelopment along the corridor and contributes to increased property values, the project may contribute to displacement and gentrification in the corridor. The project will also reduce parking which may disproportionately impact those without off-street parking.

- Construction impacts will be borne by those closest to Madison St itself, which may be disproportionate to those of lower income than for those a few blocks away from Madison St itself.

4. **How will you address the project's impacts (including unintended consequences) on racial or social equity?**
   - Develop ways to engage communities with limited historical participation in the planning processes, led in part by Area Leads with relationships in each neighborhood along the corridor. Involve communities early and directly in this process, using the City of Seattle's Racial Equity Toolkit as a guideline.
   - Promote more discounted bus fare for seniors, students, persons with disabilities, and persons with low incomes
   - Work with the Transit and Project Development outreach teams to develop ways to engage communities with limited historical participation in planning processes.
   - Work to develop community capacity for participation in corridor studies through stipends, internships, etc.
   - Promote more discounted bus fare for seniors, students, and people of disability and low-income
   - Require a study of demographics of the project areas and a published report on outreach strategies prior to the start of the outreach process.
   - Require a publishable report on the demographics of project outreach participants.
   - Recommend additional budget for Race and Social Justice Initiative (RSJI) outreach in future budget process
   - Partner with other projects, specifically the Cayton Corner Park Project, to coordinate outreach and engagement on design issues.
   - Seek Public Outreach and Engagement Liaison (POEL) participation in future design phases.
   - Utilize King County Metro outreach resources to raise awareness.

5. **How will you evaluate the project's impacts on racial and social inequities? How will you be accountable to reducing negative impacts and promoting racial and social equality?**
   - Record demographic data during outreach activities
   - Write a publishable report on the demographics of outreach participants and which tools were used for outreach
   - Closely monitor the implementation of Madison Street BRT and conduct outreach events through different phases of the project; ensure that people of different race, age, and ethnicity can be reached through those outreach efforts.
   - Analyze the demographic profiles of the population that has been reached through previous outreach processes; ensure future outreach fills the gap of the population that has been underrepresented.
   - Ensure that the results of this study and the future outreach are properly summarized and used to guide implementation.
   - Set performance measures or inclusion goals for future outreach during the project implementation process.
   - Employ an outreach strategy and tactics to engage those who may be hard-to-reach, mistrustful of government, and have limited historical participation in planning and construction processes. This includes but is not limited to:
     - Develop, implement, and manage an ethnic media plan to reach a broader segment of the population
     - Work with trusted neighborhood organizations and individuals through Area Leads to share information, answer questions, develop changes to planning, design or construction, and, when appropriate, meet with community members

- Maintain a project phone line and inbox, with messages in multiples languages about what the project is and how to participate in the process
- Complete post-project evaluation and make any necessary adjustments

TABLE 3: LANGUAGE NEEDS – ENTIRE PROJECT AREA

Projects are required to provide materials and information in languages other than English if 5 (or more) percent of the population in that project area speaks a given language. For any project, materials in other languages are available upon request.

Languages Spoken Corridor-Wide	Total Percentage
Spanish	16%
Chinese	12%
Hindi	7%
French	7%
German	6%
Korean	5%

TABLE 4: LANGUAGE NEEDS BY NEIGHBORHOOD

Site	Zip Code(s)	Census Tract(s)	Translation Needs
Downtown	98101, 98121, 98122, 98134, 98104, 98144, 98109, 98191, 98112, 98124, 98102	72, 73, 75, 80.02, 81, 82, 83, 84, 85, 86, 90, 91, 92, 93	Spanish (5%) Chinese (5%)
First Hill	98154, 98101, 98122, 98102, 98112	75, 82, 83, 84, 85, 86	Spanish (6%)
Capitol Hill	98102, 98112, 98122, 98191, 98101, 98154, 98104	62, 64, 65, 66, 74.01, 74.02, 75, 76, 79, 83, 84	N/A
Central Area	98122, 98144, 98112, 98102	63, 75, 77, 78, 79, 86, 87, 88, 89, 90, 94, 95	N/A
Madison Valley	98112, 98122	62, 63, 64, 76, 77, 79	N/A
Madison Park	98112	62, 63	N/A

SOURCES: 1. US CENSUS LANGUAGE MAP | 2. CITY OF SEATTLE LANGUAGE MAP | 3. 2008-2012 AMERICAN COMMUNITY SURVEY

TABLE 5: ADDITIONAL LANGUAGE ANALYSIS

Area	Language	Tracts
Downtown	Spanish	Tract 75 = 6% Tract 80.02 = 5% Tract 82 = 7%

		Tract 85 = 10% Tract 86 = 8% Tract 93 = 8%
	Chinese	Tract 82 = 5% Tract 90 = 7% Tract 91 = 34% Tract 92 = 14% Tract 93 = 12%
	Japanese	Tract 90= 7% Tract 91 = 5%
	Other Asian languages	Tract 72 = 5%
First Hill	Spanish	Tract 75 = 6% Tract 82 = 7% Tract 85 = 10% Tract 86 = 8%
	Chinese	Tract 82 = 5%
	Hindi	Tract 85 = 6%
Capitol Hill	Spanish	Tract 74.02 = 5% Tract 75 = 6%
Central Area	Spanish	Tract 75 = 6% Tract 78 = 7% Tract 86 = 8% Tract 87 = 5% Tract 88 = 6% Tract 89 = 5% Tract 94 = 6%
	Hindi	Tract 77 = 5% Tract 90 = 5% Tract 95 = 8%

TITLE VI

In accordance with Title VI and to gain a more complete picture of the communities in the corridor, additional demographic data may be part of environmental review analysis. Additional data points could include:

- Race
- Ethnicity
- Income and poverty level
- Gender/sexual orientation
- Car ownership and transit dependence
- Commute methods and hours

The American Community Survey features a dataset that includes the data points listed above by census tract.

TRANSLATIONS THRESHOLD

This policy is evolving – the current expectation is to consider some form of translation for any language spoken by more than 5% of the population when the population speaks English "less than very well." The following thresholds were used on the 2015 Microsurfacing project for a single language and are provided here for reference. The final decision on the translations threshold will be determined by the Project Manager and Public Information Officer with an explanation of

this decision (e.g. Translations of major project materials in Spanish; translations upon request; only those languages on SPU Language Map).

- <5% of the population: Provide standard translation block only (standard sentence in Spanish, Chinese, Vietnamese, and Tagalog)
- 5-15% of the population: Translate a one-paragraph summary of the key project impacts, schedule, what to expect, and contact information; include the standard translation block as well
- >15% of the population: Translate the entire document or material, focusing on the project factsheet, construction notices, major project updates, and key meeting materials; provide standard translation block for any of the four languages without a complete translation
- >20% of the population: Translate the entire document or material for all new or updated materials; provide standard translation block for any of the four languages without a complete translation

MADISON STREET BRT

APPENDIX E: ACTIVITIES LOG & IOPE ELEMENTS

IOPE ELEMENTS

In addition to the outreach activities listed on the cover sheet, the project team will ensure that the project's public participation opportunities are inclusive of the affected stakeholders. Accordingly, outreach activities will include:

Events

- Provide translated materials at all project open houses; consider interpreters as well
- Host meetings or briefings with religious organizations, i.e. on Sundays after church service or Saturdays after temple service
- Offer briefing to the Hearing, Speech and Deafness Center
- Offer site walks with the Seattle Lighthouse for the Blind
- Work with trusted neighborhood liaisons to encourage attendance and/or participation in the project
- Have public events in each community along the corridor

Mailings

- Include translated text on mailings
- Include web addresses that link to translated surveys
- Send translated mailings to areas with high populations of those speaking languages other than English

Web

- Include all translated materials on project webpage and develop project webpage containing translated text block explaining additional project materials in other languages can be provided upon request
- Use online open house tool, including translated text
- Create translated surveys
- Post translated social media posts to Facebook and Twitter (if possible)

Advertising/ Media

- Run translated ads in local media outlets and on social media
- Partner with local media to cover events and project topics (see Appendix F, Ethnic Media Plan)
- Coordinate with local establishments to post advertisements on public bulletin boards

MADISON STREET BRT

APPENDIX F: ETHNIC MEDIA PLAN

ETHNIC MEDIA PLAN

Ethnic Media priorities will be dictated by the total percentage of cultural and language make-up of the population corridor-wide.

The priorities will be:

1. Spanish
2. Chinese
3. Hindi
4. African American

Paid Media

Use paid print and digital/social media to drive people to destination (website) that informs them of plan and possibly also collects their feedback through survey or poll. This should only occur if materials and poll/survey options are available in the same languages as the print/digital/social media sources.

Activities

- Design ad buy based on budget
- Translate and adapt English-language ad copy
- Ensure that ads are culturally-appropriate and that imagery reflect the community targeted
- Drive community to destination that is easy for them to navigate in-language
- Measure by print circulation, digital/social impressions/actions and activity on destination site (please note that most ethnic media sources do not subscribe to monitoring services)

Outlets

- La Raza
- El Mundo
- Chinese Seattle News
- Seattle Chinese Times
- Runta
- The Seattle Medium
- International Examiner

Earned Media

Use earned media (aka. non-advertising, reporter-based media) to tell stories of how the Madison Street BRT will improve life and community. Ensure that ethnic media attends any media events that are relevant to targeted populations.

Activities

- Extend invitations to ethnic media outlets to attend any media events (briefings, press conferences, etc.) that Madison Street BRT will be hosting for general market media
- Create culturally-appropriate messaging/pitch based on overall talking points but that speaks to each community
- Work with community-serving organizations to identify in-language sources to serve up to media
- Provide translated and adapted visual assets to media
- Measure by print circulation, digital/social impressions/actions and activity on destination site (please note that most ethnic media sources do not subscribe to monitoring services)

MADISON STREET BRT

APPENDIX F: ETHNIC MEDIA PLAN

Outlets

- Siete Dias
- La Raza
- El Mundo
- Univision Seattle (KUNS)
- Chinese Seattle News
- Seattle Chinese Times
- The China Press
- Runta
- The Seattle Medium
- International Examiner
- Northwest Asian Weekly
- Let's Talk Downtown
- Inside Belltown
- Capitol Hill Seattle Blog
- Denny Triangle Neighborhood
- Alliance for Pioneer Square
- Waterfront Blog
- Seattle Latino/a Networking Meetup
- Spanish/French Seattle Group
- Seattle Chinese Meetup Group
- Seattle Mandarin Chinese Meetup
- Seattle Japanese Language and Culture Meetup
- Bollywood & Beyond
- Rainier Valley Radio
- South Seattle Emerald

Please note that while there are several neighborhood-focused outlets, there are very few neighborhood-specific and ethnic-focused and/or in-language outlets. Most ethnic-focused and/or in-language outlets usually serve communities region wide.

Other local and citywide outlets that are most likely on the general media plan include:

- Seattle Times
- Seattle PI
- Capitol Hill Times
- Capitol Hill Seattle Blog
- Madison Valley News
- The Stranger
- Seattle Weekly
- Seattle Gay News
- Seattle Transit Blog
- MyNorthwest.com
- The Urbanist
- Crosscut
- KUOW

Appendix E.

Madison Corridor BRT Study

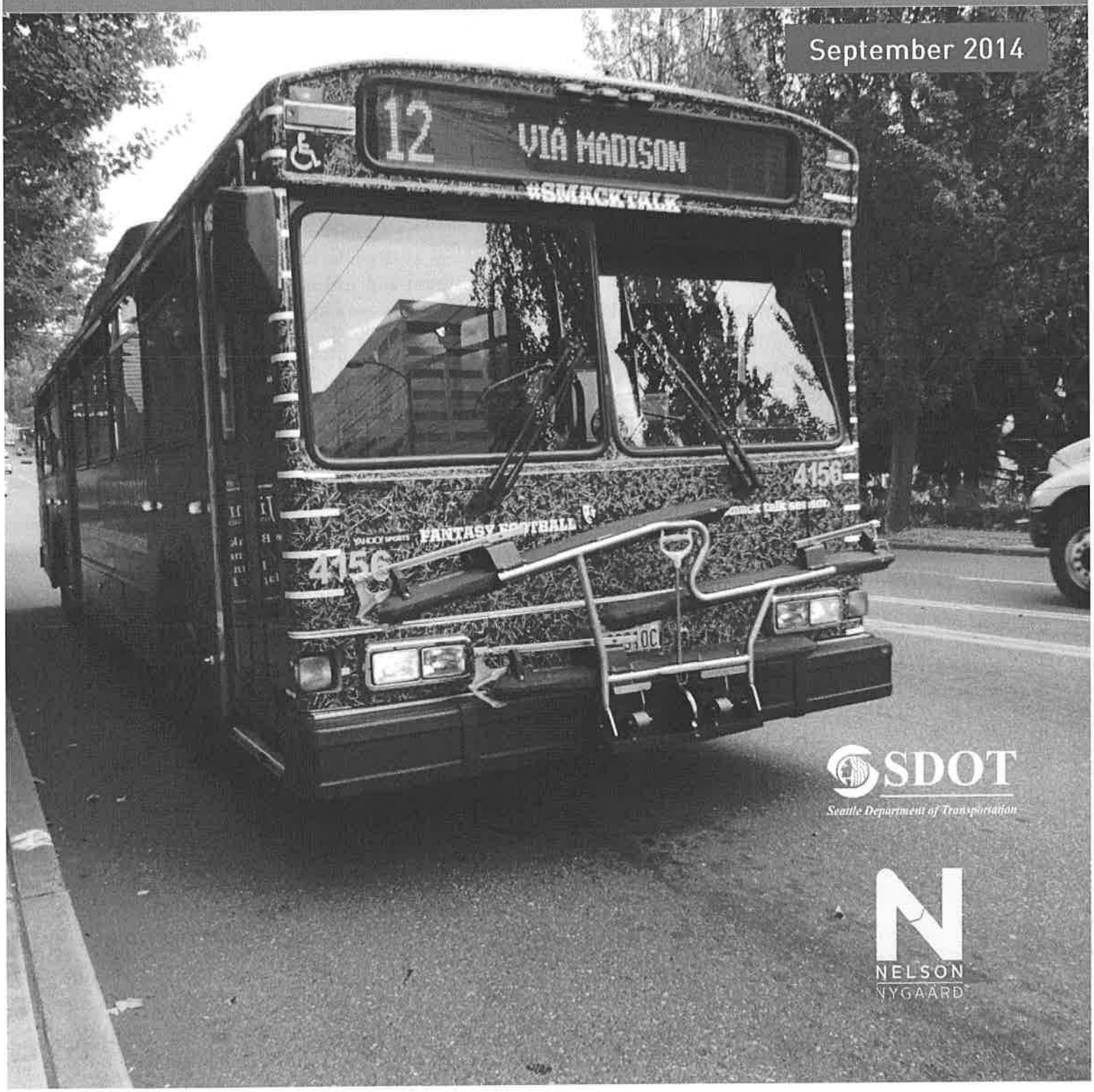
OPEN HOUSE #1 SUMMARY

The Seattle Department of Transportation

Madison Corridor BRT Study

Open House #1 Summary

September 2014



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Seattle Department of Transportation

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Madison Corridor Bus Rapid Transit Study– Open House #1 Summary

Prepared For: City of Seattle

Prepared By: Steve Boland and Briana Lovell

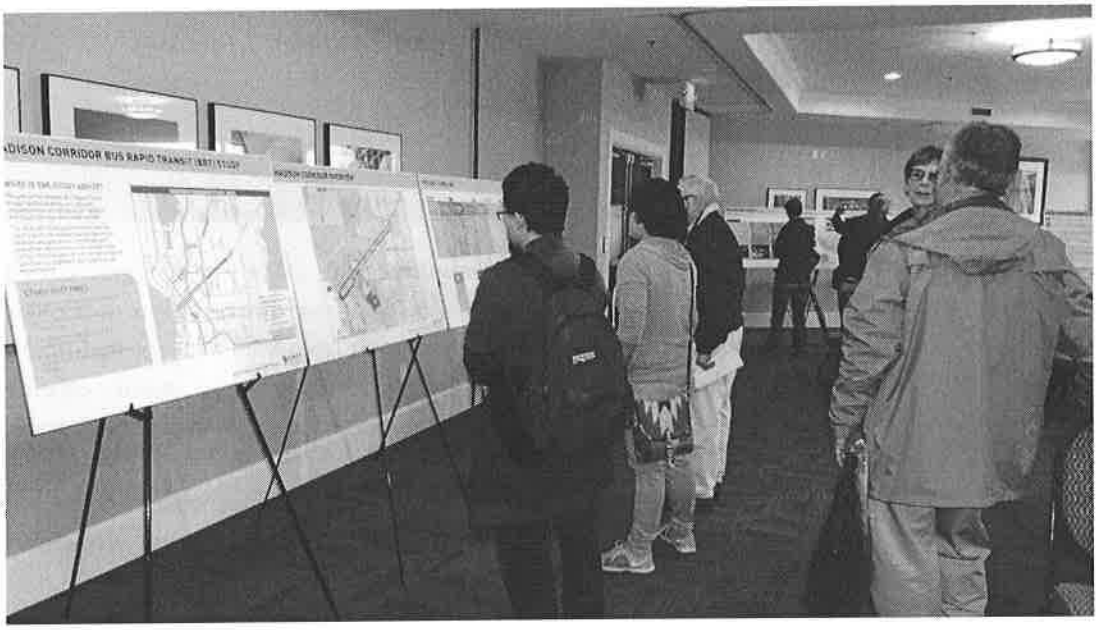
Date: November 14, 2014

1 EXECUTIVE SUMMARY

The first open house for the Madison Corridor Bus Rapid Transit Study was held on September 30th, 2014. Meeting attendees were asked to complete an open-ended comment card. Several themes emerged through comment cards, follow-up e-mails, and conversations with meeting attendees:

- Overall, there is very strong support for making Madison a high-quality BRT project. The majority of comments emphasized speed and reliability as very high priorities, including emphasizing dedicated transit lanes, even if it means taking parking or travel lanes.
- Transit connections are important, including seamless transfers and connectivity to other services in Downtown Seattle.
- There is support for removing parking along Madison.
- Concern about the project was limited, but centered on traffic impacts and changes to existing service, including route and stop consolidation.
- With regard to service design, most comments favored some version of an "open" service design. There is some support for continued service to Madison Park or at least MLK without needing a transfer.
- There is very strong interest in pedestrian and streetscape improvements, as sidewalks are narrow and uncomfortable in many locations.
- Sentiment was mixed on whether a bicycle facility should be on Madison or on lower-traffic streets. Grades were the primary concerns mentioned with regard to facility design.
- A number of specific intersections were mentioned as needing improvement, including 12th and Madison, 15th and Madison, and 23rd – 24th and Madison.

Several photos of the open house are included on the following pages.



Source: SDOT

Source: SDOT

2 DETAILED OPEN HOUSE SUMMARY

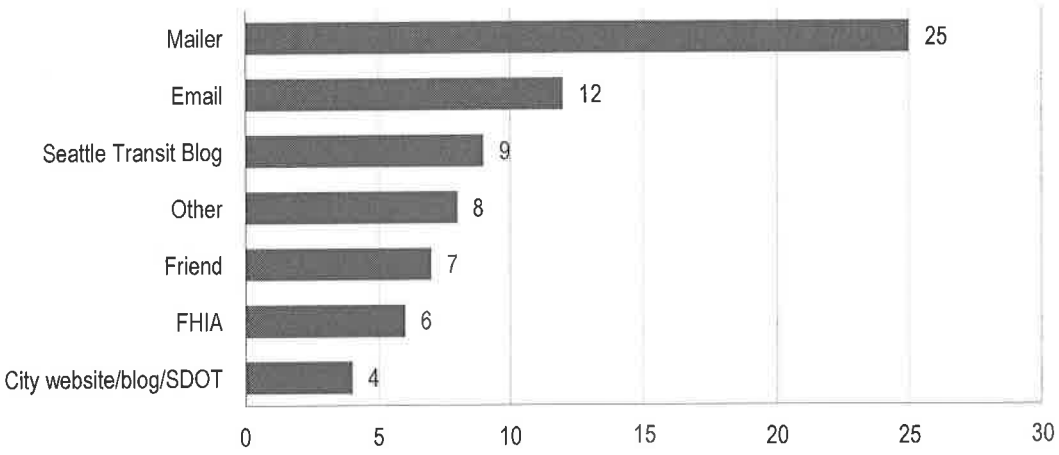
The first Madison BRT open house was held on September 30, 2014 at the Silver Cloud Hotel on Broadway and Madison. The open house included a brief presentation to provide an overview of the study process and an orientation to the open house. The event included a series of stations about the study process, bus rapid transit, stakeholder input, existing conditions, and draft purpose and need statements. There was also a corridor map where participants could identify and comment on specific locations in the corridor needing attention. Participants were offered multiple ways to comment, including written comment cards, writing on the map of the corridor, and sending an email to the project website. A total of 90 participants signed in to the meeting.

Figure 1 shows the total participants by ZIP code. The most common ZIP codes were 98122, 98104, and 98112. As shown in Figure 2, the largest group of participants (25) heard about the meeting through the mailer sent by SDOT to addresses near the Madison corridor. Other ways that people hard about the meeting included e-mail, the Seattle Transit Blog, friends, the First Hill Improvement Association, the City of Seattle website or blog, and "other".

Figure 1 ZIP Codes of Meeting Participants

Zip Code	Count
98122	32
98104	19
98112	11
Blank	10
98101	8
98108	2
98102	2
98144	1
98123	1
98118	1
98117	1
98105	1
98103	1
Grand Total	**90**

Figure 2 How did you hear about this event?



Comment Cards

Meeting attendees were asked to complete a comment card that had space for open-ended comments.

Comments on Bus Rapid Transit

There was general support for the Madison Corridor Bus Rapid Transit project, and considerable consensus among supporters of the project that dedicated transit lanes are a top or even essential element of the project. Comments expressed the sentiment that the project would not be worth building without dedicated transit lanes for part or all of the corridor to improve speed and reliability, and that these lanes should be clearly marked and enforced. Reasons for supporting transit-only lanes included making transit more appealing to new riders and the potential throughput of a bus-only lane compared to an auto lane, as well as the ability of emergency services vehicles to use the lanes. Although few comments included specific opinions regarding the system design, several attendees liked the idea of a center-running BRT that would utilize right-side doors.

Relatively few comments addressed transit vehicles and station amenities, but there was support for electric vehicles and the full suite of BRT amenities such as well-lit shelters with improved safety, off-board payment, seating, and real-time arrival information. Aside from those concerned about traffic impacts (discussed in a following section), only one commenter expressed general objection to the project. Comments on the BRT project and design included:

- General support for project (7)
- Support for dedicated lanes and transit priority (17)

- Support high/5-minute frequency (4)
- BRT vehicles
  - Use electric vehicles (2)
  - Stress the difference in BRT vehicles/cool vehicles (2)
- Center/Side-Running
  - Support center-running buses with right-side doors like San Francisco, allowing the "best of both worlds" (3)
- Amenities
  - Do not invest in shelters unless necessary (1)
  - Off-board payment (2)
  - Light and visible stops and shelters (3)
  - Trash/recycling at stops (1)
  - Real-time arrival information (1)
  - Seating (1)
  - Develop innovative design for persons with limited mobility
- Not sure Madison is the best place for BRT (1)

Transit Service Design

There were many different ideas and suggestions for transit routing in the Madison Corridor. Numerous comments mentioned preferences for an "open" system with continued service on existing routes or routes very similar to existing service. There is interest in maintaining service on Route 2 as well as service to Madison Park/Madison Valley without a transfer. One attendee noted that if an open system is pursued, strategic improvements should be made outside of the corridor to protect reliability of routes using Madison.

Connectivity between transit systems and other modes was also mentioned as important. Sentiment was mixed with regard to stop spacing, with some meeting attendees supporting stop consolidation, while others were concerned about the impacts of stop consolidation on persons with limited mobility and did not want to lose local service.
Comments on transit service design included:

- Transit connections
  - Provide a direct connection to Link (3)
  - Provide a better connection to 3rd Avenue spine/retail core (3)
  - General support for good transit connections (3)
  - Support a 1st Avenue turnaround to improve Colman Dock connectivity (1)

  - Not sure ferry passengers are connecting to 23rd (1)
  - Integrate fare payment so passengers don't pay multiple times (1)
  - Need a stop at 3rd (1)
  - Ensure good connections across modes e.g. transit, bicycle, bikeshare (1)
- Stop spacing
  - Concern about stop consolidation/losing local service (2)
  - Consolidate stops (3)
  - Consider skip-stop or underlying local service (2)
- Maintain Route 2 (6)
- Suggestions for Downtown operations
  - Two-way on Madison w/contraflow lane (1)
  - Consider a Madison-Seneca-9th live loop instead of Madison-Marion-6th and put Route 2 on it (1)
- Simple, legible route is important (1)
- Prefer open system (2)
  - Extend service at least to MLK (3)
  - Extend service/trolley wire to Madison Valley/Madison park (5)
  - Maintain service on 19th (2)
    - Consider shifting route 10 to 19th avenue around Aloha to terminate at Route 12 terminus (1)
  - New service requests
    - Service to 15th north of Madison (1)
    - Service on 12th south of Madison (1)
- Western terminus
  - Turn around at Colman dock, build terminus into new ferry terminal (1)
- Eastern terminus
  - Move the tail of Route 12 to 23rd and turn around at East Mercer Street
  - Consider layover on East Thomas between 20th and 21st near Miller Park
  - Consider a turnaround at John Street to connect to Route 8
- Corridor
  - Consider Union east of 12th instead of Madison

Existing Transit Service Performance

There were very few comments on the current performance of transit service in the corridor; perhaps because some stakeholders perceive service in the Madison corridor positively already. Several attendees noted issues with crowding as well as a lack of coordination between services currently operating in the corridor. These comments included:

- Buses are crowded at peak (2)
- Sync up the 11 & 12 schedules
- Address bus bunching (1)

  10, 49, 11 arrive at the same time

Traffic

Although there were few comments expressing concern about traffic impacts, some attendees were concerned that removing parking to accommodate bus-only lanes would have negative impacts on traffic on Madison as well as possible traffic diversion to other streets. Some expressed frustration with other projects that have reduced travel lanes and in some cases increased the impact of transit operations in the remaining mixed-traffic lane.

- Removing lanes near I-5 entrance will increase congestion (1)
- Consider changing lane flow by time of day to help traffic (1)
- General concern about traffic impacts (4)

Streetscape/Pedestrian Improvements

There was strong interest and support in improvements to the streetscape and pedestrian environment that could be associated with the Madison BRT project. As outlined in the project need, pedestrian conditions in many parts of the corridor include narrow and cracked sidewalks and unpleasant streetscape characteristics, sentiment echoed in many comments. Suggestions and comments regarding the streetscape included:

- Support potential for streetscape improvements (6)
  - More greenery/trees (3)
  - Consider moving sidewalks/escalator like the existing Mid-Levels escalators in Hong Kong (2)
  - Lid or deck over freeway (1)
- Pedestrian Improvements
  - Improve connections through and across neighborhoods (1)
  - Sidewalks are too narrow/widen sidewalks (3)
  - Improve sidewalk quality (4)
  - Building exhausts into sidewalk zone are annoying (1)

  - Pedestrian crossings need improvement (4)
  - Would like to see more pedestrian priority, e.g. limit right turns on red, leading pedestrian intervals, etc. (1)
- Land Use
  - Rezone along line to add density (1)

Bicycle Facility

In general there was support and interest in a bicycle facility, although few comments proposed specific routing. Several comments preferred a facility on Madison (including one design for a cross-section with bike lanes), or noted that some cyclists will likely continue to use Madison regardless of the parallel facility design. However other comments indicated support for a parallel facility, particularly on a lower-traffic street with manageable grades. The steep grades in both the eastern and western portions of the corridor are significant concerns, even to the corridor's current bicycle commuters.

- General support/interest in a bicycle facility as part of this project (3)
- Comment that hill has been a barrier to cycling in the corridor/easy grades needed (3)
- Specific routing suggestions
  - Use Seneca (2)
  - Would like facility on Madison or at least to not preclude one in the future (4)
  - Support a lower-traffic/parallel street (4)
  - Eastern portion of Madison is the best way to climb this hill (2)
  - Grades east of 23rd are almost too steep to ride (1)
- Specific facility suggestions
  - Cycletrack (1)

Parking

Although there was mixed opinion on whether to retain or eliminate parking on Madison, the vast majority of comments favored eliminating parking. There is a strong feeling among stakeholders that parking is a significant cause of transit as well as auto delays on Madison, causing bottlenecks where traffic merges. The few comments opposed to parking removal emphasized the role of parking for local businesses as well as the current constraints on parking supply for residents. One comment noted that between 17th and 23rd, the occasional parked car allows the curb lane to function as a de-facto bike lane. Sentiments expressed related to parking included:

- Eliminate parking

  - Eliminate all parking (11)
  - Eliminate all parking and replace with bus only lanes (2)
  - Eliminate parking at least during peak hours (3)
  - Turn parking lane in east Madison into bike lane (1)
- Retain parking/mitigate loss
  - Provide mitigation for parking loss (2)
  - Do not remove parking on Madison (1)

Specific Locations

Comments that referred to specific locations within the corridor identified several locations where improvements are desired, with the most commonly-mentioned the intersection of 12th and Madison. Comments on this location and others mentioned in the comment cards included:

- 23rd and Madison
  - This intersection is unpleasant for anyone not in car; doesn't have wheelchair ramps (1)
- 19th and Madison
  - Clayton Corner Park is in design and should be coordinated with this work (2)

    (Note: Steering Committee meets the first Wednesday of the month at Miller Park Community Center)
- 14th and Madison
  - Crossing at 14th is difficult; pedestrian signal is too short and diagonal crossing is tricky (1)
  - Have noticed people trying to turn left on 14th, perhaps because turning on 12th is so hard
- 12th and Madison
  - A turn lane or left turn light is needed (4)
  - This intersection is a problem (2)
  - A walkway plan was done for PSRC 10 years ago or more, please incorporate
- 11th and Madison
  - Connect to the green street between SU campus and Cal Anderson & Capitol Hill Eco District (1)
- 6th and Madison
  - Eastbound, a bus-only lane from 6th into Downtown could reduce congestion that slows Route 12 (1)

- 2nd and Madison
  - Intersection at 2nd and Marion is a mess, especially with valet parking service. Confusing for all modes (1)

Purpose and Need

There were very few comments on the project purpose and need:

- "Reason for project: Seattle needs more frequent, consistent, and fast east-west transit"
- "My main request is to not make this watered-down "BRT" such as what RapidRide turned into. Make people want to take the bus, not feel like they have to. Please do this well and keep your priorities in order. In order of importance:

  1. Pedestrians
  2. Cyclists
  3. Transit
  4. Freight
  5. Private motor vehicles
  6. Parking"

Meeting/Planning Process

Several attendees offered specific suggestions and comments related to the meeting itself as well as the larger planning process:

- Provide bicycle parking at transportation events; there are no bike racks here
- More chairs
- This project doesn't recognize the residents on First Hill and their needs or help them
- First Hill needs a neighborhood-specific outreach effort
- This project can't be done in a vacuum; what's going on with Metro is huge (cutting service, over-crowded, poor on time performance)
- SDOT should reach out to college-aged and young people who can design the system they want to use long-term
- Make sure to involve the Seattle Commission for People with Disabilities from early stages

Other

- Consider a streetcar (1)
- Help homeless so they don't have to live in bus shelters (1)
- Provide full cost comparison for trolleys compared to clean diesel buses to justify trolley investment (1)
- Would like to see American-made products used as much as possible in the project (1)
- Improve signal timing for autos and transit (1)

3 MAPPING EXERCISE

Participants were also asked to make comments on a large map of the corridor denoting where they would like to see improvements. The comments and map mark-up were transcribed and are represented in Figure 4-Figure 7. The mapping instructions are shown in Figure 3.

Figure 3 Map Mark-Up Instructions

INSTRUCTIONS

This map shows the Madison Bus Rapid Transit Study area. BRT service operating on Madison could extend beyond the study area.

Using sticky dots and notes, please identify locations:
- **(1) where there are issues with transit (overloading, frequent delays, etc.) (red dots)**
- **(2) that are unsafe or uncomfortable as a pedestrian or cyclist, particularly accessing transit (blue dots)**
- **(3) where there are concerns about loading or on-street parking (yellow dots)**
- **(4) where there are needs or opportunities for public space or streetscape improvements (green dots)**

Several common themes emerged from the comments on the map, although many comments addressed specific issues at different locations within the corridor.

- Parking creates bottlenecks at several locations within the corridor, particularly around Madison and Boren/Minor.
- In the eastern portion of the corridor, comments noted desire for BRT service to extend at least to MLK, and for service to continue to the Madison Valley.
- In First Hill, there were numerous comments supporting continued transit service on Seneca.
- Pedestrian and bicycle conditions are poor around 23rd and Madison and 12th and Madison.
- Pedestrian crossings and narrow sidewalks create challenging conditions for pedestrians throughout the corridor

Figure 4 Downtown Segment Comment Map

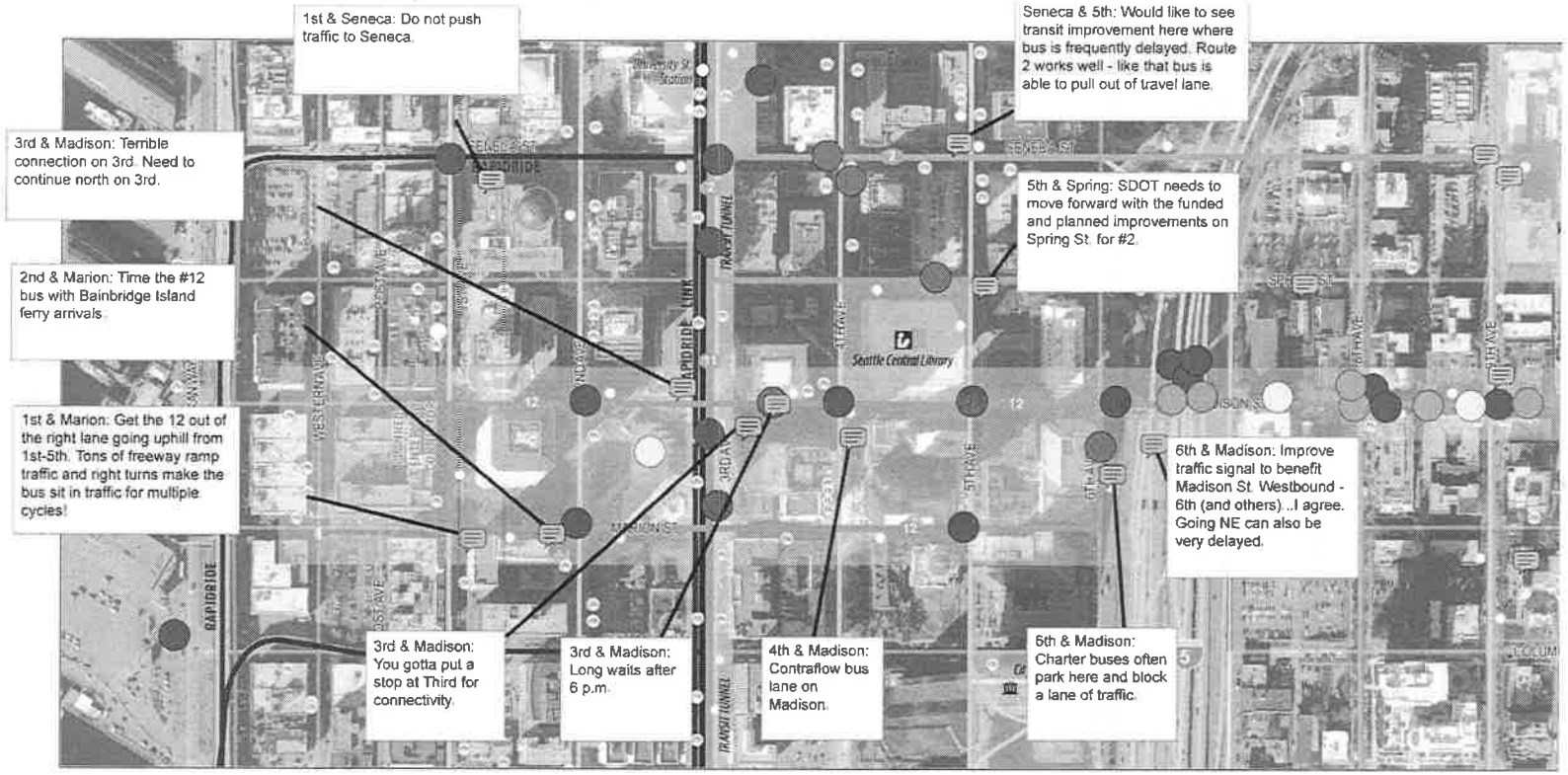


Figure 5 First Hill Segment Comment Map

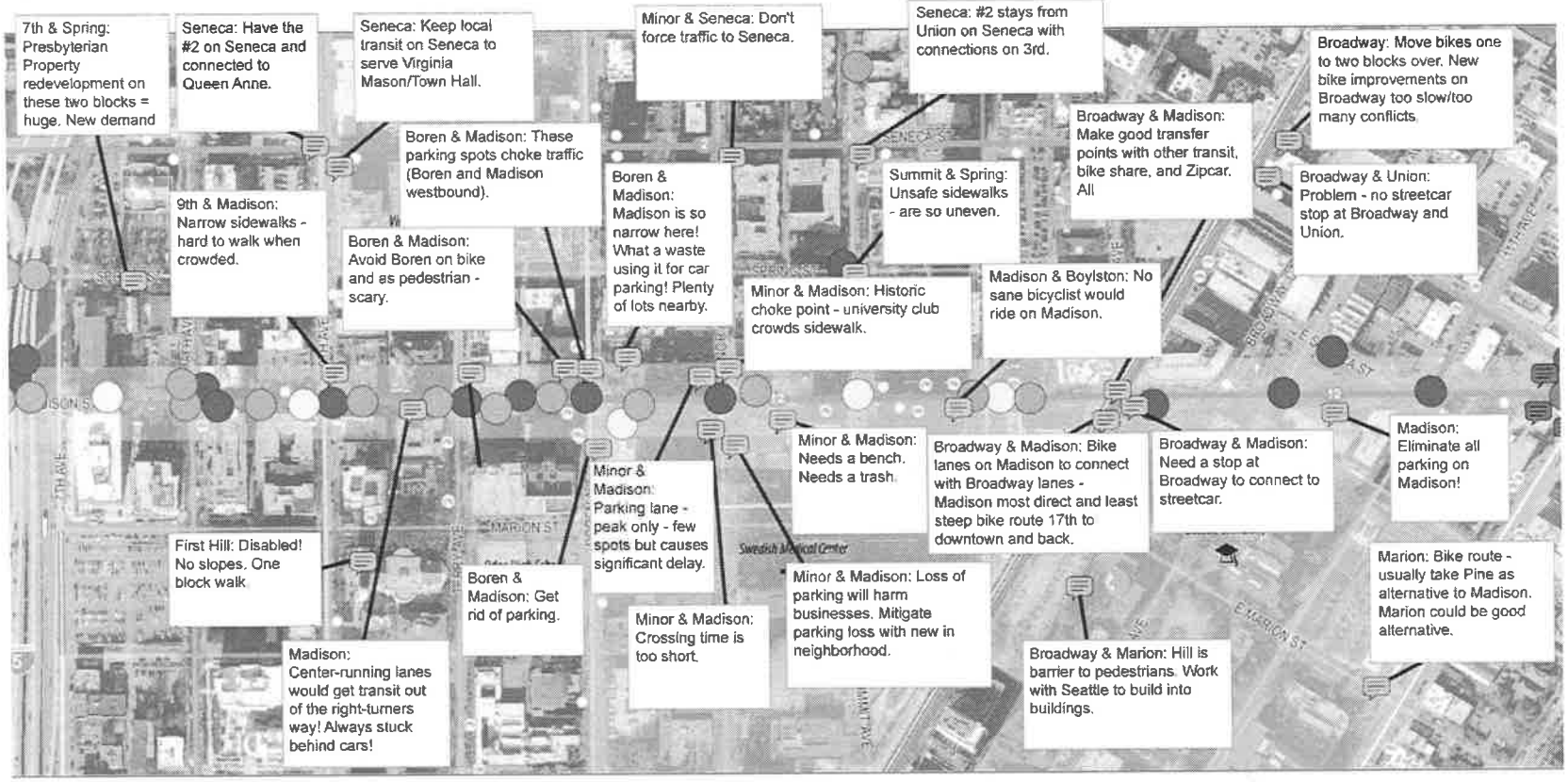


Figure 6 Central East Segment Comment Map

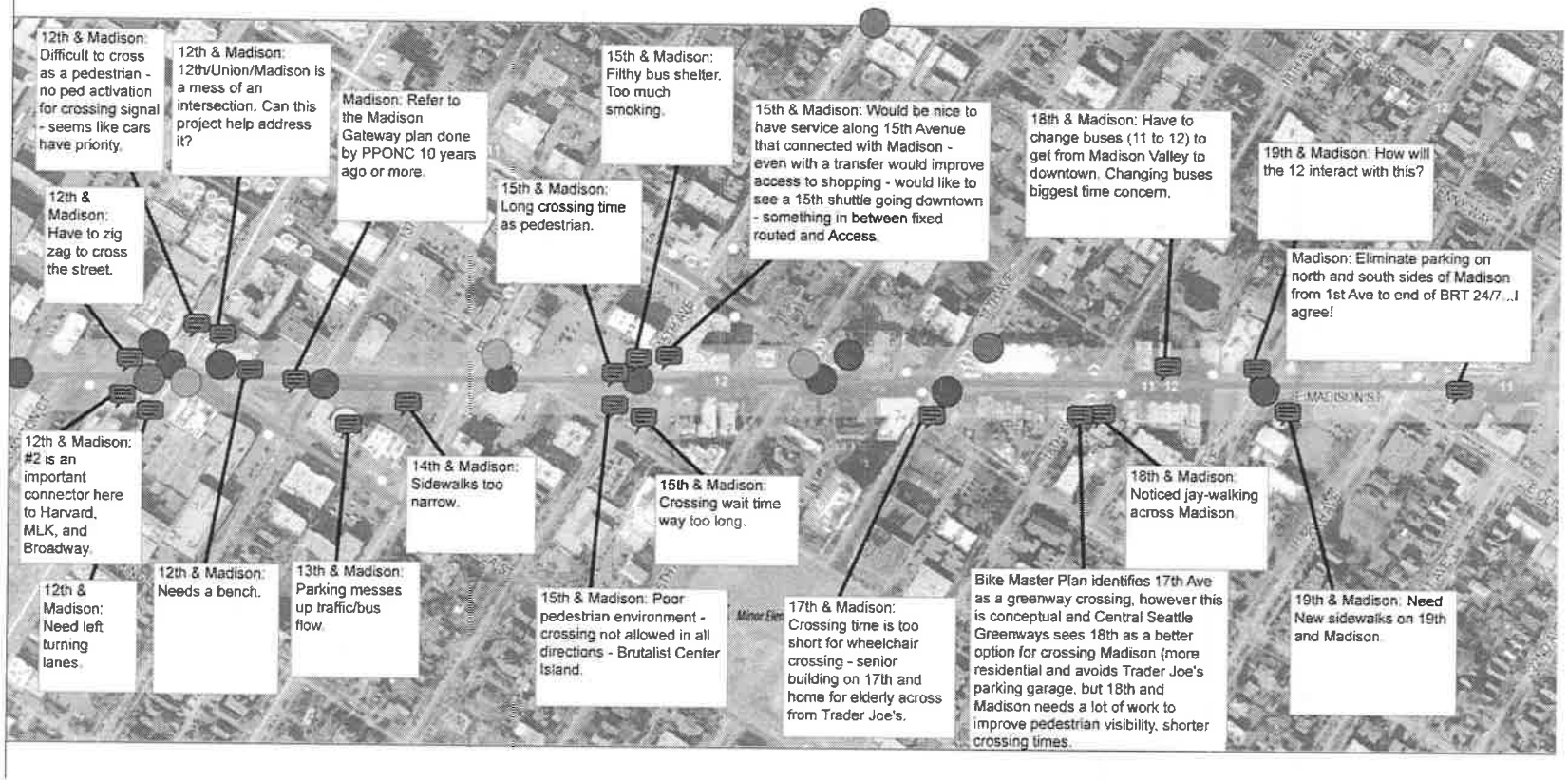
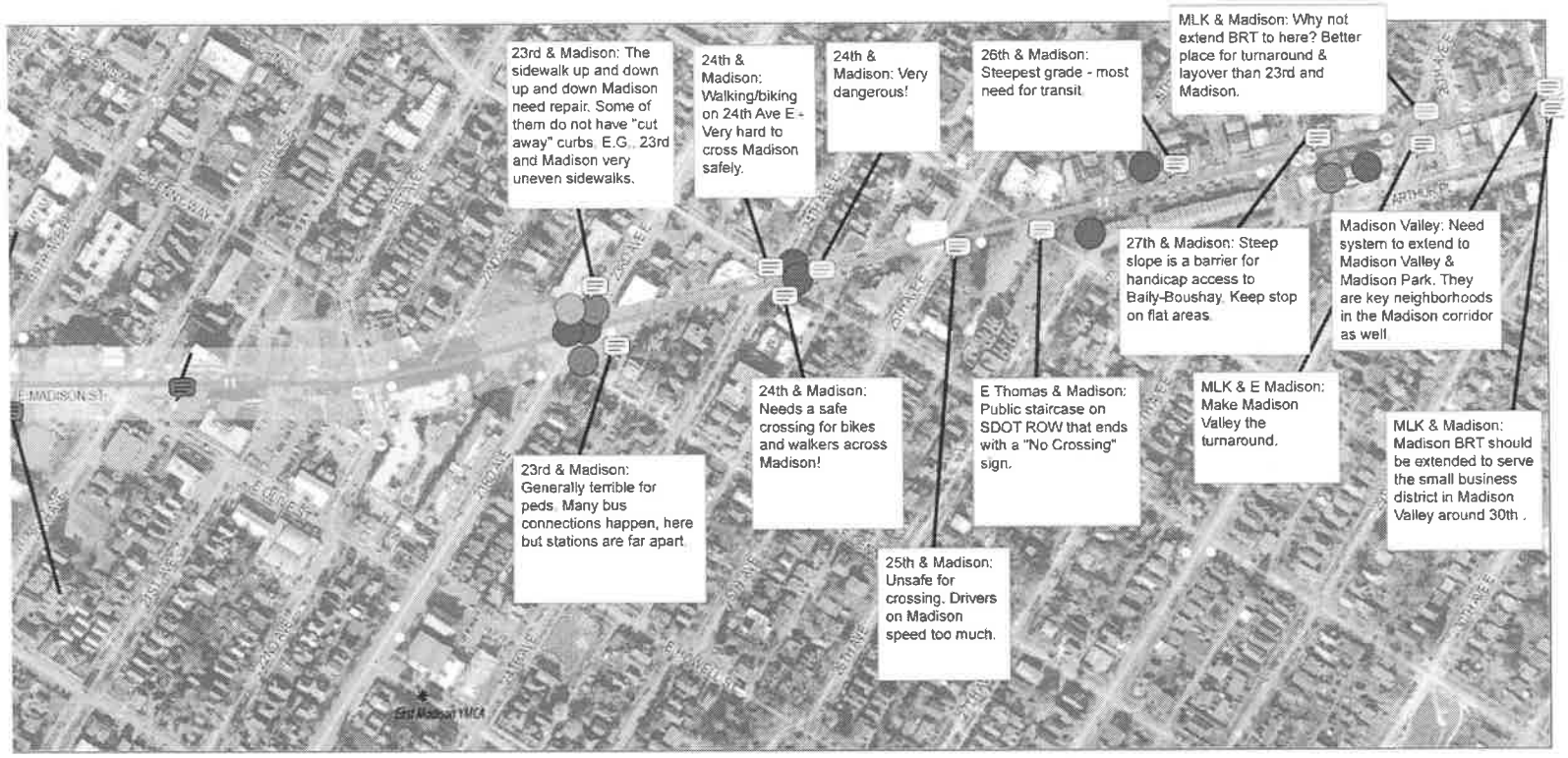


Figure 7 East Segment Comment Map



Appendix F.

Madison Corridor BRT Study

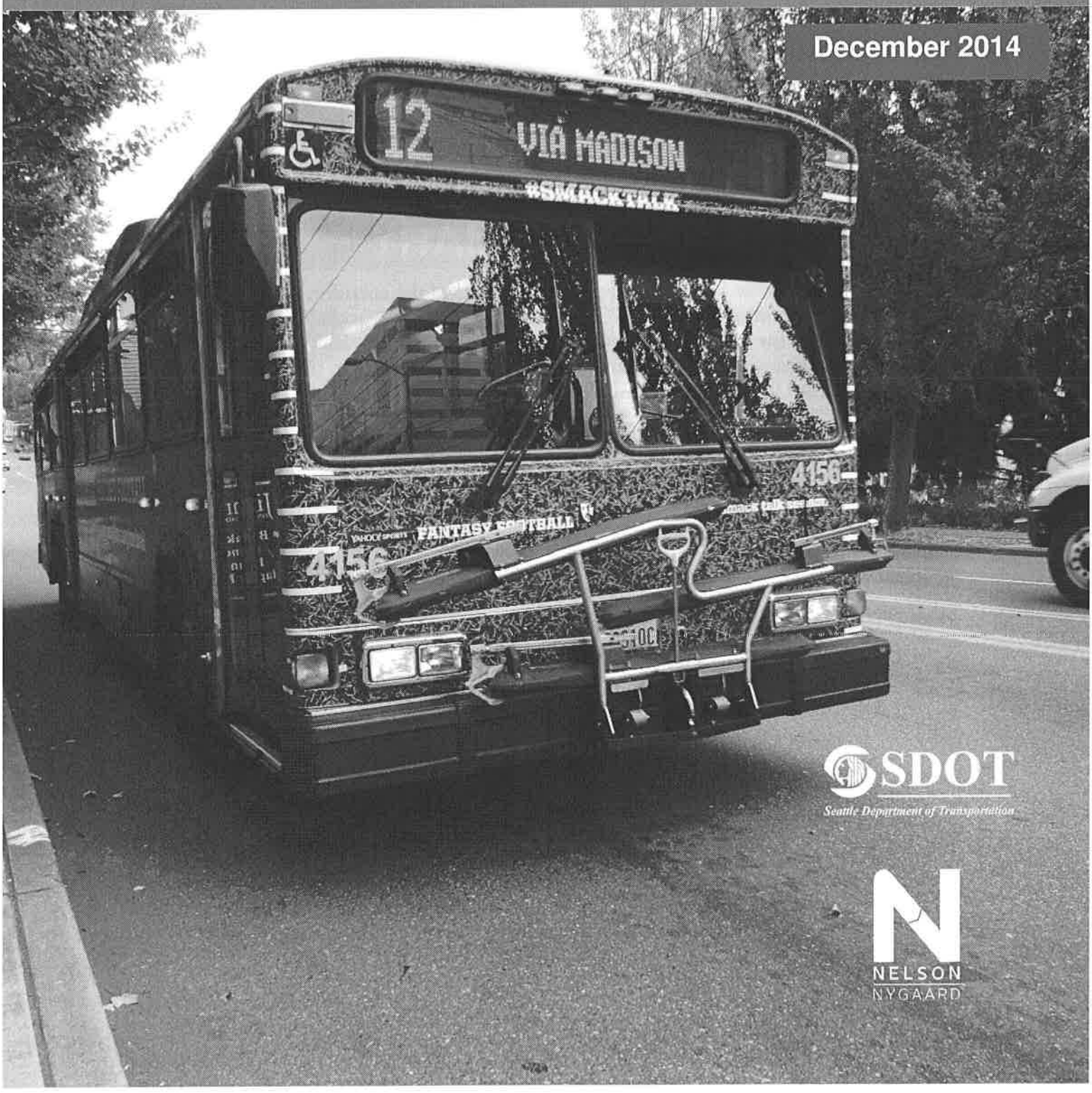
OPEN HOUSE #2 AND DESIGN WORKSHOP SUMMARY

The Seattle Department of Transportation

Madison Street Corridor BRT Study

Open House #2 and Design Workshop Summary

December 2014



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MEMORANDUM

Madison Corridor BRT – Summary of Design Workshops and Open House #2

Prepared For: **City of Seattle**

Prepared By: Steve Boland, Briana Lovell

Date: December 18, 2014

This memorandum provides an overview of public and stakeholder engagement events held for the Madison Corridor BRT Study during November 2014. Events included three segment-based design workshops and a public open house, the second held for the project. All events were held on November 19 and 20, 2014.

Design concepts and input from these workshops will be used to develop alternatives to be analyzed in detail during the next phase of the study.

1 EXECUTIVE SUMMARY

Design workshops were held in three key segments of the corridor: Downtown, First Hill, and Capitol Hill/Central District. Following the workshops, an open house was held for community members to comment on the ideas developed during the design workshops, to suggest additional ideas, and to provide input on other aspects of project design and development.

A brief summary of takeaways from each event follows.

Downtown Workshop:

- Participants developed four alternatives using different combinations of downtown streets and side- vs. center-running transit lane configurations. Key design challenges addressed during the workshop included automobile access to I-5, steep grades, pedestrian safety, and potential BRT alignments and station locations.

First Hill Workshop:

- Three design concepts were developed including two concepts with BRT running in a curb-side lane and one with BRT running in center lanes. Station locations between Summit and Boylston were also developed. Design discussions focused on providing level-grade pedestrian access to key medical facilities and campus portals and developing a high quality connection to the streetcar stop at Broadway and Marion.

Capitol Hill/Central District Workshop:

- The Capitol Hill/Central District workshop produced three center-running concepts and one side-running concept, with stations considered at 11th, 12th, and 13th avenues. Design discussions focused on reducing pedestrian exposure to traffic, right-of-way changes needed to accommodate BRT

stations, and bicycle movements through the Madison, Union, 12th Ave intersection.

Open House:

- Participants at the open house contributed a variety of comments on each corridor segment, as well as on specific topics included on the comment card, such as station amenities and the overall project. Participants generally expressed interest in system legibility and station design, including level platforms.

2 DETAILED OUTREACH SUMMARY

Three workshops were held in each segment of the corridor: Downtown, First Hill, and Capitol Hill/Central District. Invitations were sent to the project mailing list, which includes all community members and stakeholders that have participated in previous outreach events or expressed interest in the project. Each of the design workshops included a project introduction and overview, a tour of a "focus location" (with the exception of the Downtown workshop), and a design session in which planners and designers from the project team facilitated small group discussions and developed concepts for how BRT transit-only lanes and stations could be located in the corridor.

Figure 1 shows the Capitol Hill/Central District design workshop.

Figure 1 Capitol Hill/Central District Design Workshop

The workshops did not address each block of the corridor; rather the focus was on unique opportunity areas where creative design ideas could be developed to reflect community interests and unique opportunities. Lessons learned from the workshops will be applied by the project team in other parts of the corridor.

Following the workshops, an open house was held for community members to comment on the draft drawings, add comments, or suggest additional design ideas.

Detailed descriptions of each event follow.

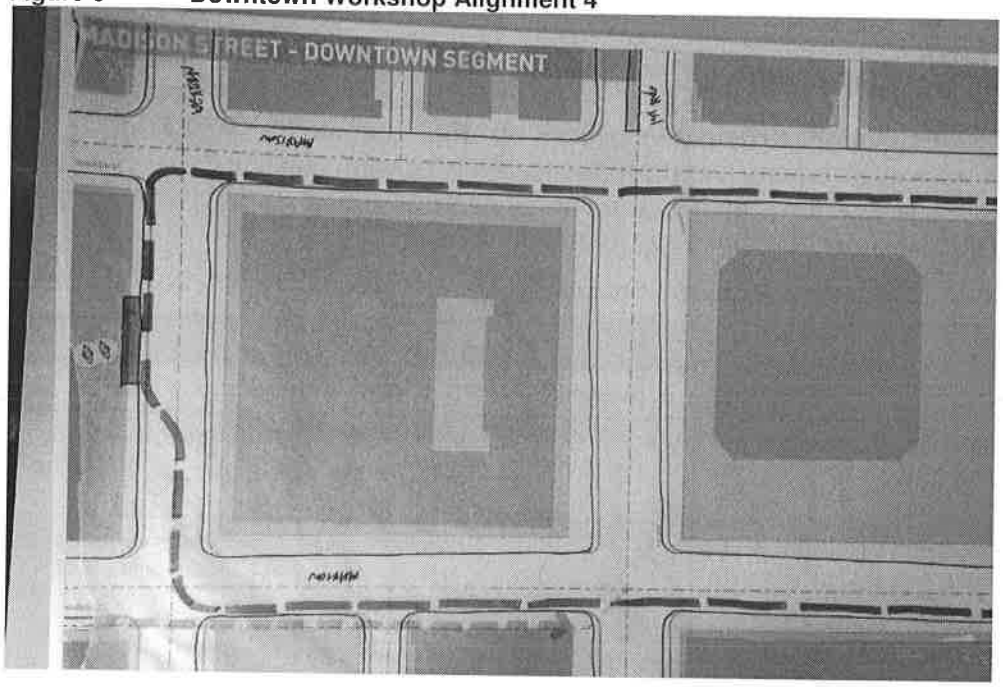
Downtown Workshop

Downtown workshop participants focused on alignment and design of the segment west of Interstate 5 and produced several design concepts, described in Figure 2. All of the Downtown alignment concepts assumed stations at Third Avenue and stations at either First Avenue or Western.

Figure 2 Downtown Alignment Concepts

#	Description	Location Details		
		Western	1st Ave	3rd Ave
1	Madison/Spring side-running, terminus at 1st		Center platform on 1st at NE corner Madison	Curb platform on Madison W of 3rd
2	Madison/Spring side running W of 3rd, center east of 3rd, terminus at 1st		Center platform on 1st at NE corner Madison	Curb platform on Madison W of 3rd and on Spring W of 3rd
3	Madison/Seneca side-running, EB turns from Seneca to Spring at 3rd. Terminus at 1st		Center platform on 1st at NE corner Madison	Curb platform on 3rd S of Seneca and on Madison at W of 3rd
4	Madison/Marion side-running, terminus at Western	Curbside platform on W side of Western	Center platform on SW corner Madison at 1st	Center platform on SW corner Madison W of 3rd, side platform on Marion at W of 3rd

Figure 3 Downtown Workshop Alignment 4



Key feedback from Downtown workshop participants is summarized below:

BRT transit lanes and stations: Participants had a number of ideas and concerns related to alignment, locations of stations, and connections to major destinations and other transit services.

- Westbound on Madison approaching Sixth Avenue, traffic can back up to Boren, or even Broadway. A left-side bus-only lane could be used to ameliorate this.
- The transition from Marion to Madison for buses at Sixth is very slow.
- A station at the Third Avenue transit spine is important.
- A strong connection is needed to the future Center City Connector streetcar on First Avenue.
- A station at First Avenue was also viewed as important for access to SODO stadiums.
- A station at Western Avenue could help to "energize" the area and could provide good access to Colman Dock with an improved connection to the Marion Street Pedestrian Causeway.
- Some thought service should terminate at Colman Dock, but recognized the challenges of creating a reliable turn-around on or west of Alaskan Way.
- Some felt that stations are needed every two-to-three blocks downtown due to steep grades.

Pedestrian and bicycle: There were a variety of concerns, particularly about grades and pedestrian safety.

- Designs should take into account grade-related issues including ADA accessibility and escalator access through buildings.
- Designs must also take into account pedestrian safety, particularly where there are turning lanes near stations.
- There were concerns about maintenance of street infrastructure in the area and how heavier bus volumes might affect street maintenance in the future.

Traffic: In general, there were concerns about BRT designs that would reduce lane capacity for general purpose traffic on downtown streets.

- There were concerns that limiting traffic on Madison, in particular, would create spillover problems onto James and other streets, as it is a major access route to I-5.
- Building access for parking and loading is an important issue along the Madison and Marion corridors, as is access to I-5.

Urban design: Participants provided input related to general design issues in the segment.

- Madison Street in downtown is "a great place to see the city and see the water."
- I-5 creates a significant gap in urban form and an inhospitable pedestrian crossing, the project could help to improve this condition.
- The Seattle Public Library is a unique asset that should be taken into account. Work is planned to make the 5th Ave entry to the Library more prominent.

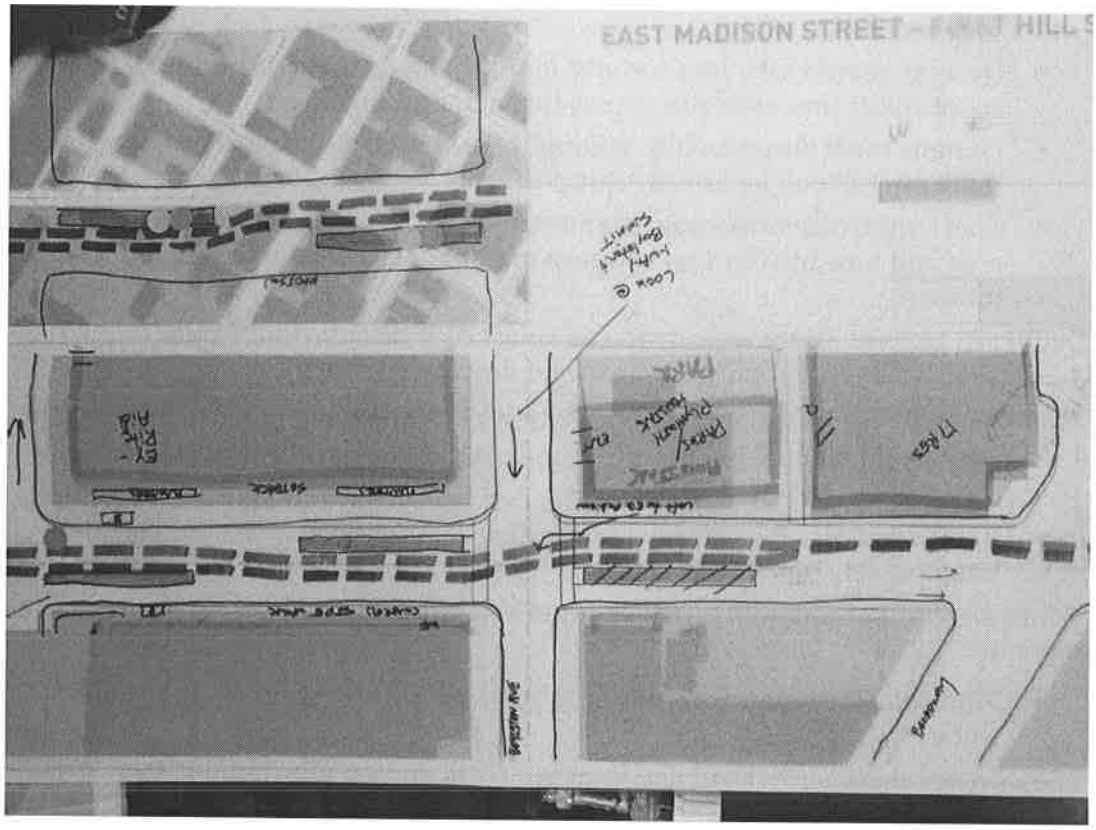
First Hill

The First Hill workshop focused on Madison between Minor and Broadway. The design alternatives, described in Figure 4, produced included stops at either Summit or Boylston. Figure 5 shows a segment of one of the design alternatives.

Figure 4 First Hill Alignment Concepts

#	Description	Location Details	
		Summit	Boylston
1	Center-running	EB side platform E of Summit	WB side platform W of Boylston; EB stop E of Boylston
2	Side-running		EB side platform E of Boylston; WB side platform W of Boylston
3	Side-running	WB side platform E of Summit	EB side platform W side of Boylston

Figure 5 First Hill Alignment 1



Additional notes and comments received by participants in the First Hill workshop follow:

BRT transit lanes and stations: Participants provided input on service design as well as the physical design of the BRT project. Participant sentiments on center-running compared to side-running alternatives were mixed; some felt that center-running BRT forces people to change the way they access transit, while others prefer side-running for the potential for improvements to sidewalk and pedestrian environment. The increased transit travel speed and reliability of a center-running BRT line was attractive to participants.

- A BRT station at Terry Avenue was seen as desirable. Redevelopment in this area could provide more space for a BRT station and create a high-quality pedestrian environment.
- First Hill stakeholders and public participants were strongly supportive of eastbound and westbound stations being located between Boylston and Summit. They felt this location provided a level boarding environment with relatively wide sidewalks and overhead coverage on the south side of Madison. The location also provides quality pedestrian access to a prominent pedestrian access way at Swedish Hospital.

Traffic: As in the Downtown workshop, participants expressed concern about traffic volumes on Madison and the impact that BRT could have on traffic and I-5 access, particularly during peak travel periods.

- Participants noted that First Hill is a destination that many people visit by car, so project planning should recognize auto access needs.
- The major medical institutions are significant drivers of access demand and future development on First Hill. Participants noted the need to review the traffic volumes for institutions along route and expressed about the need to ensure maintenance of emergency vehicle access.
- To address vehicular access needs and increase on-street parking and loading zone supply, some participants suggested examining the conversion of some north – south streets to one-way travel and the addition of angled parking on side streets.

Urban design: Participants also had a number of comments related to general design issues in the segment.

- Participants noted that First Hill is short of open space and that the project should look for opportunities to create pocket parks and develop new public spaces.

Capitol Hill/Central District

Capitol Hill design concepts focused on the area between 10th and14th Avenues, which was mentioned many times in previous outreach as a particularly challenging section of Madison. The multi-legged intersections created by Madison's diagonal cut through the street grid create a number of challenges and opportunities. Concepts developed during the workshop, summarized in Figure 7, included station locations at 11th, 12th, and 13th. Figure 6 shows the Capitol Hill/Central District site visit.

Figure 7 Capitol Hill/Central District Concepts

#	Description	Location Details		
		11th	12th	13th
1	Center-running east of 12th, side running in N (WB) lanes west of 12th	WB side platform E of 12th, EB center platform E of 12th		
2	Center-running west of 12th, side-running in N lanes (WB) East of 12th		WB side platform E of 12th; EB center platform E of 12th	
3	Center-running		WB center platform E of 12th	EB center platform W of 13th
4	Side-running			WB Side platform W of 13th; EB side platform W of 13th

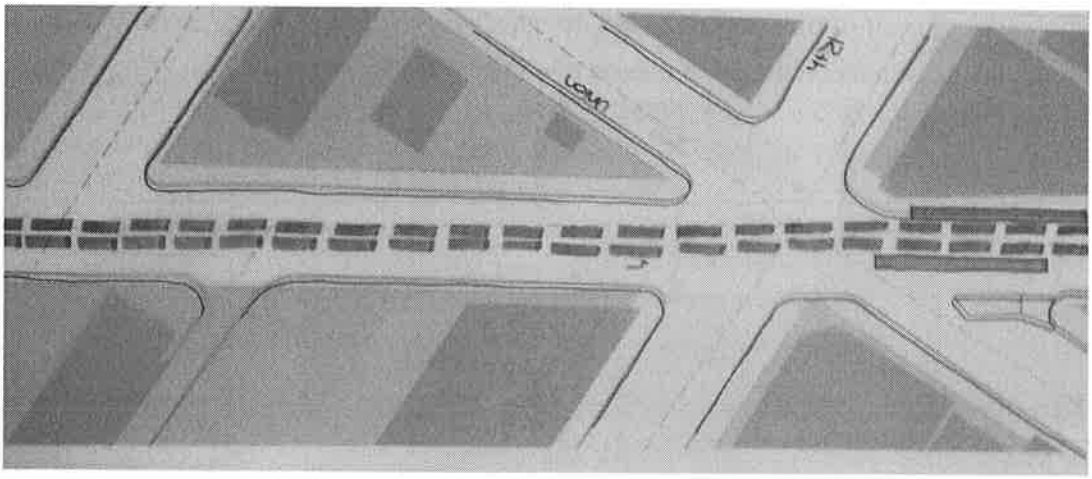
Figure 7 describes the designs developed during the workshop, while Figure 8 shows a segment of one of the design alternatives.

Figure 6 Capitol Hill/Central District Site Visit

Figure 7 Capitol Hill/Central District Concepts

#	Description	Location Details		
		11th	12th	13th
1	Center-running east of 12th, side running in N (WB) lanes west of 12th	WB side platform E of 12th, EB center platform E of 12th		
2	Center-running west of 12th, side-running in N lanes (WB) East of 12th		WB side platform E of 12th; EB center platform E of 12th	
3	Center-running		WB center platform E of 12th	EB center platform W of 13th
4	Side-running			WB Side platform W of 13th; EB side platform W of 13th

Figure 8 Capitol Hill Workshop Alignment 2



Additional notes and comments from the Capitol Hill/Central District workshop are below:

BRT transit lanes and stations: BRT design issues included questions about the project need as well as specific suggestions for routing and station locations.

- Most participants supported a center-running option compared to side-running.
- Some participants liked the concept with split stations between 12th and 13th.
- The current westbound bus stop at Madison and 12th was mentioned as important as it provides a quality transfer location for passengers using Route 2.

Pedestrian and cycling environment: Improving pedestrian and bicycle movements across and along Madison were a key topic of workshop exploration.

- Center stations were seen as a possible means to reducing pedestrian crossing challenges, slowing traffic, and providing a median refuge.
- There was strong interest in an all-walk pedestrian crossing at the intersection of Madison, Union, and 12th.
- A better pedestrian crossing at 14th and Madison was also mentioned as a needed improvement.
- High speed eastbound right turns from Madison to Union could be slowed by extending the curb and requiring vehicles to make a sharper, slower right turn movement.

Traffic: Unlike the Downtown and First Hill workshops, traffic was not mentioned as a significant concern in the Capitol Hill/Central District workshop. However, it was noted that some participants felt strongly that it is important to retain eastbound traffic on Union between 12th and Madison and 13th Avenue.

Urban design: A number of concepts were explored that would increase the amount of public space in this segment.

- A concept that gained particularly strong support from participants was to eliminate westbound travel on Union between 13th Avenue and Madison. Because of the current right-turn only restriction, this street carries low volumes of traffic. It could be repurposed for open space and/or a better bicycle facility.

Open House

Following the workshops, an open house event was held at which members of the public could view and comment on the design concepts developed during the workshops. Comments received on post-it notes attached to drawings and comment cards included the following comments about each corridor segment.

The following comments are taken directly from participant notes.

Downtown

- Bus only lanes are great. Spring and Madison for the route downtown is a great idea, no left turns.
- It is imperative for downtown stations to be closely spaced. Perhaps have the inbound stations spread so people can walk down hill to their destinations, but outbound stations should maintain current spacing.
- I like the Madison and Spring routing concept- avoids the congestion on Madison at 6th and Madison jog, and avoids trouble of not having enough room for exclusive lanes on Madison bridge across I-5.
- The Madison/Spring concept downtown looks great! Better connection to Link/DSTT, no left turns.
- Run eastbound BRT up Spring Street to 9th Ave then south on 9th to Madison and continue east on Madison. Shares improvements on Spring Street with the Route 2 and improves speed uphill and directly serves the public library, is closer to light rail station and more level platforms.

First Hill

- Three stations on First Hill, net zero parking loss, BRT up Seneca, follow #2, right on 9th, extend to MLK.
- Would like to maintain left turn at Minor. At the least, if left is restricted remove restrictions at Spring and Boren – maintain ways to cross Madison.
- 8th Ave station is important, expected to be densely populated.

Capitol Hill/Central District

- Depict how Route 2 bus stops will be integrated into planned East Union bike lane. Always be respectful and conscious of current transit infrastructure.
- All-walk for pedestrians at Madison/12th/Union.
- Please study the Madison/John/24th Ave intersection, this is the walk/bike route to YMCA, Garfield High School, consider an all way walk. Please study bike-pedestrian crossings at Union and 24thAve E and 27thAve E for Greenways.
- Keep King County Metro route 12 all the way through 19th. It is the only bus down Madison corridor, downtown, 10 and 43 not substitution, keep left turns on Madison.

Station Elements

The comment card asked respondents to comment on which station elements they think are most important to the project. The following comments were taken directly from comment sheets received at the project open house:

- Shelters, recycle, trash bins, ticket machines, level boarding.
- Cohesion with current Metro theme, level boarding, high-end shelters are excessive if frequency is every 5 minutes, and branding should not be kitschy.
- Shelter transparency – please spend more on sidewalk and pedestrian improvements than on stations and branding.
- Covered shelters, lots of lighting, ticket vending machines, where you can tag your ORCA card, schedules like one bus away.
- I like center lanes, split platforms.
- Good architecture, bold, positive, distinctive, want to feel proud, compared to Rapid Ride, which is a visual embarrassment.
- Small stations on Madison, right side on Madison.
- Stations located to make it easy to get to popular destinations or to transfer to other buses.
- Shelters, lighting, wayfinding, public art, sense of place and history, open space improvement and neighborhood beautification.
- Exclusive right of way is top priority in order to avoid traffic congestion. Right now, I walk to work (4th and James) from Madison Valley because it's just as fast as bussing. I want buses to get from Madison Valley to Madison Street and 3rd Ave as fast as possible.
- Level boarding is very important. I like the center-running split platform ideas for this, plus they shorten the street crossing distances and make them safer. Shelters, ORCA readers, and benches are important, as are real-time signs.

- I guess what doesn't slow down cars the most. I don't think visibility of stations is an issue.
- Off-board payment, lighting, safe/clean, next bus signs, name it the "M".
- Pedestrian friendly, bike friendly, smooth connections, prioritize reliability over speed. Could head west on Madison to 5th, south to Columbia, west to 1st, north to Spring, and Spring to 9th.
- Transit priority over entire corridor – all with a bus lane in each direction. Center-running lanes maximized. Quality, convenient transfers as close as possible to connecting lines – must be at 3rd Ave, Broadway, etc. Physical separation where space permits; add lots of street trees.
- Level boarding is highly desirable. Shelters need visibility (transparency), and lighting.

General Comments

Additional comments from the open house comment cards are below:

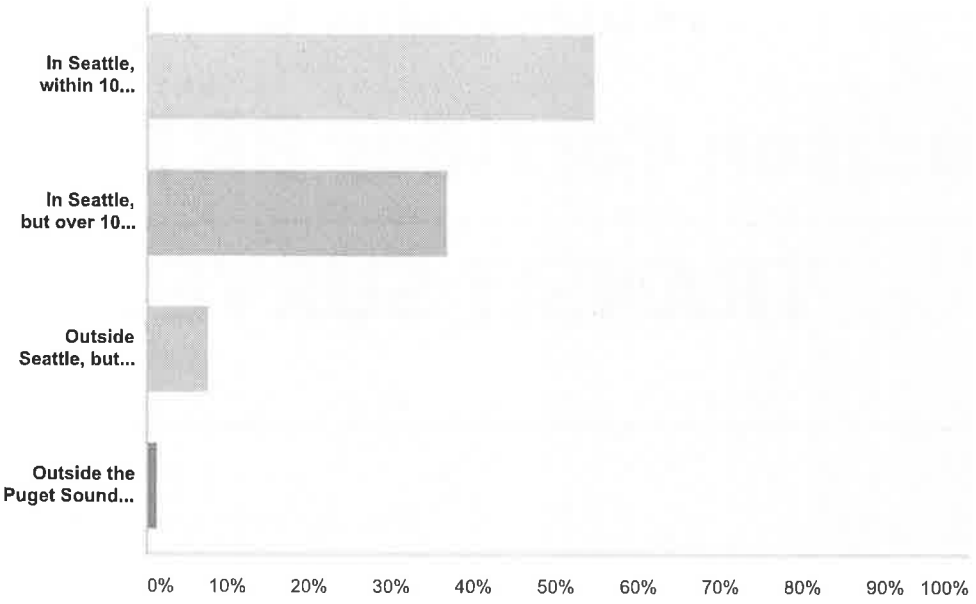
- Side stations probably make more sense, with opportunities for pedestrian/sidewalks improvements. Give us a much better pedestrian experience.
- Dedicated lanes for buses are essential for moving through traffic. A lot of bus lanes lines are unreliable because they have to fight car traffic. Center-running BRT would probably be best.
- Make sure stations are not crime attractors, we've had issues. Stop blocking sidewalks for construction, revoke permits for this.
- Madison BRT should have an attractive name, positive branding, no traditional "transit" terms, modern, contemporary station architecture that feels like it belongs in Seattle.
- It's too short, especially for something which will get separate branding. It's just a glorified shuttle. Extend it into the Central District.
- I'd like to see routes continue past 23rd & Madison (e.g. like the current 43, 48, 8, 11, etc.) even if there are no BRT improvements. That way people wouldn't have to transfer to another bus.
- Pedestrian accessibility from neighboring streets is very important (crosswalks, signals, etc.) I like the center-running ideas better, but both are good as long as there are exclusive lanes.
- Center-running lanes as much as possible, less crossing for pedestrians and less impacts from traffic. Must design best route for transit – don't let SOV convenience drive the design, if turn lanes must be removed then so be it, the more you accommodate SOVs the more you get clogging the street. Madison- Marion Route. Must be a more direct transfer at Broadway/Madison to connect the streetcar. Route the 2, 11, and 12 on the transitway service to Madison Park, 19th, and Union via Madison.

- The plan needs to accommodate other bus services that operate directly to locations beyond BRT. (How many people want to ride to 23rd and Madison?) The route to Western Ave may meet needs of ferry rides, but a lot of us on First Hill need to get to the Pike/Pine shopping area.
- Dream big! Make sure this serves residential needs, not just major institutions

Appendix G.
Madison Corridor BRT Study
TRANSIT SURVEY

Q1 Where do you live?

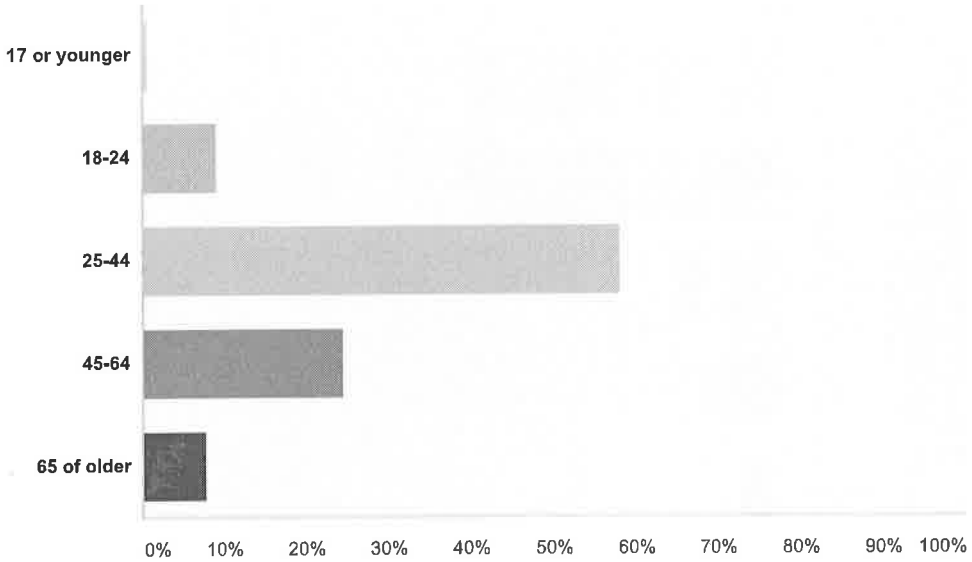
Answered: 412 Skipped: 2



Answer Choices	Responses	
In Seattle, within 10 blocks of Madison Street	**54.61%**	225
In Seattle, but over 10 blocks from Madison Street	**36.65%**	151
Outside Seattle, but in the Puget Sound area	**7.52%**	31
Outside the Puget Sound area	**1.21%**	5
Total		**412**

Q2 What is your age?

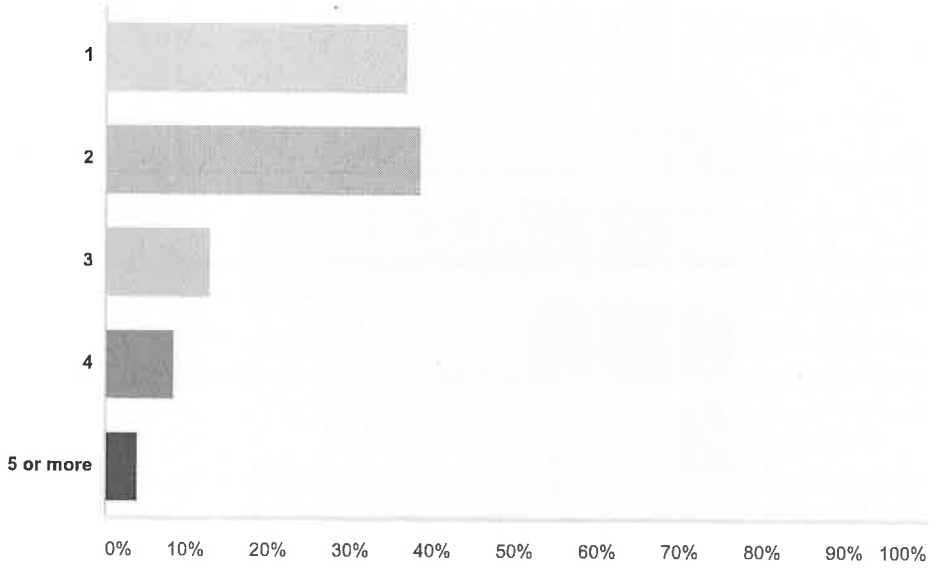
Answered: 412 Skipped: 2



Answer Choices	Responses	
17 or younger	**0.73%**	3
18-24	**8.98%**	37
25-44	**58.01%**	239
45-64	**24.51%**	101
65 of older	**7.77%**	32
Total		**412**

Q3 How many immediate family members live in your household (including you)?

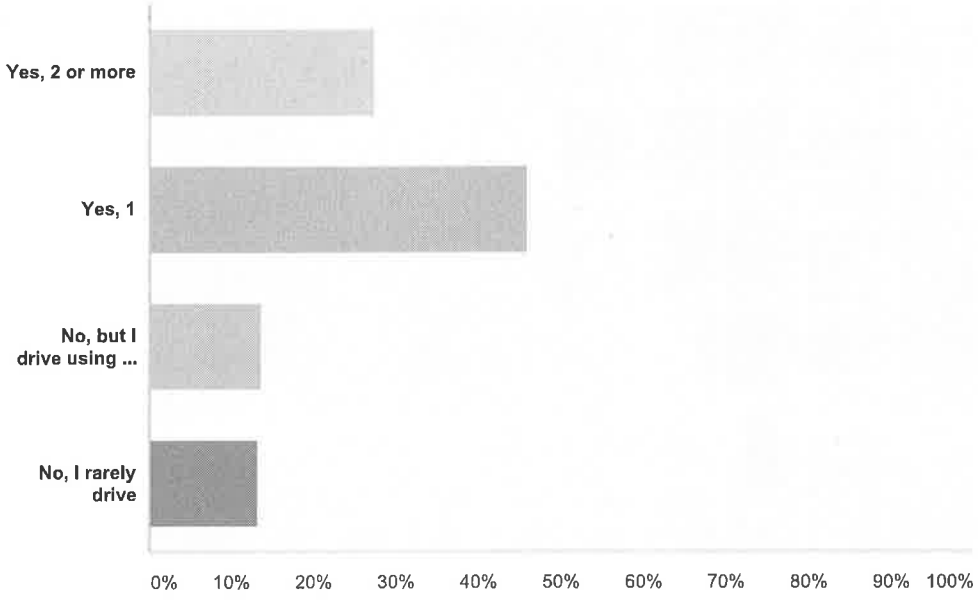
Answered: 411 Skipped: 3



Answer Choices	Responses	
1	36.74%	151
2	38.44%	158
3	12.65%	52
4	8.27%	34
5 or more	3.89%	16
Total		411

Q4 Do you own a vehicle (car, pickup, or motorcycle)?

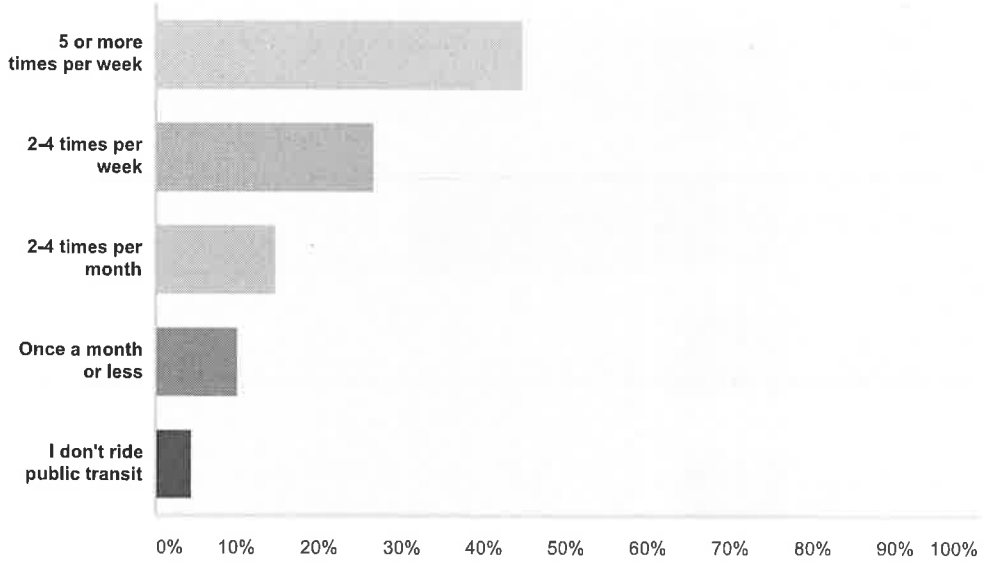
Answered: 411 Skipped: 3



Answer Choices	Responses	
Yes, 2 or more	**27.25%**	112
Yes, 1	**45.99%**	189
No, but I drive using car sharing and/or rental cars	**13.63%**	56
No, I rarely drive	**13.14%**	54
Total		**411**

Q5 How often do you travel on public transit (one-way trips)?

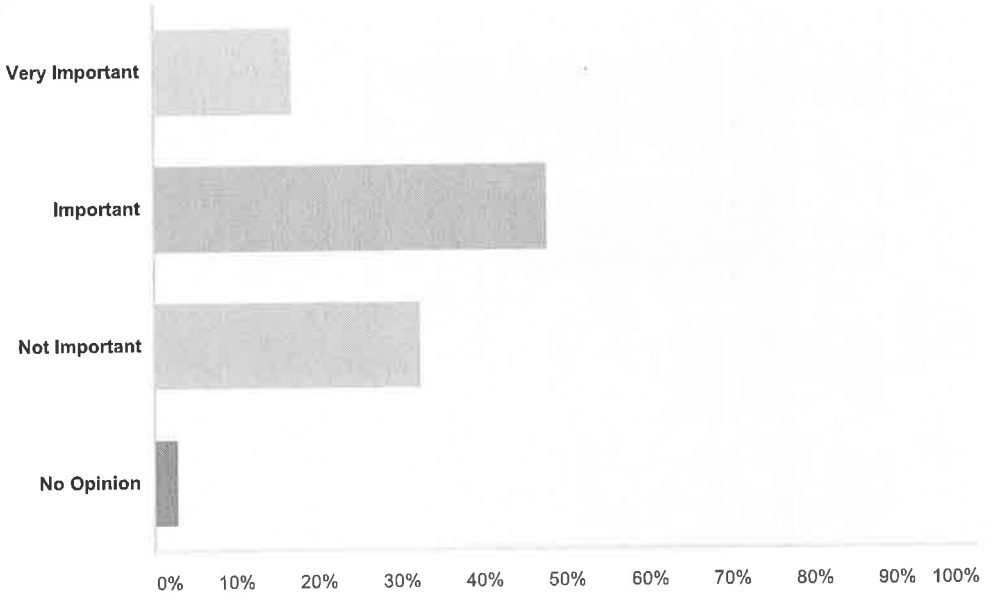
Answered: 412 Skipped: 2



Answer Choices	Responses	
5 or more times per week	**44.66%**	184
2-4 times per week	**26.46%**	109
2-4 times per month	**14.56%**	60
Once a month or less	**9.95%**	41
I don't ride public transit	**4.37%**	18
Total		**412**

Q6 More spacious platforms with high-quality shelters, amenities, and lighting.

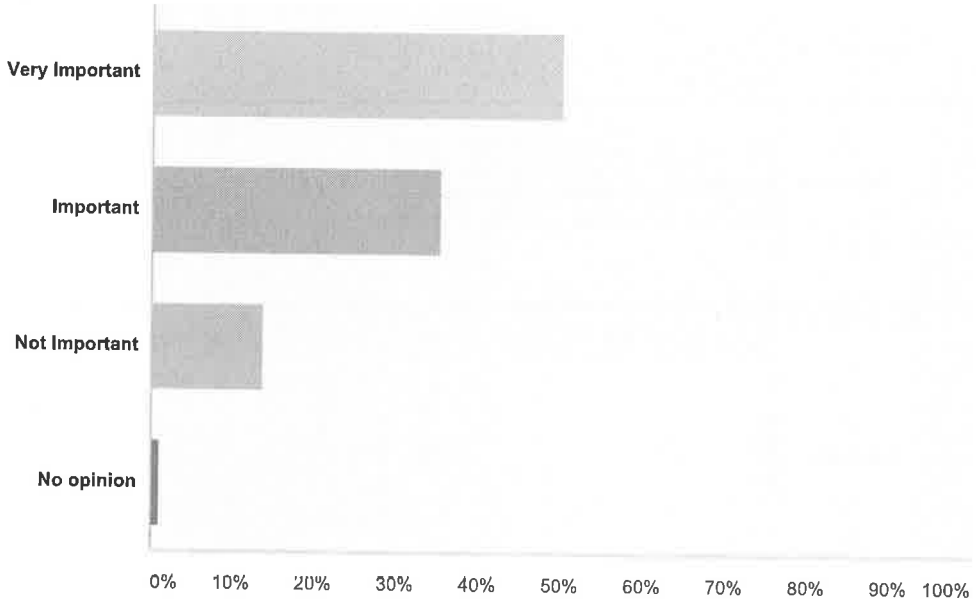
Answered: 408 Skipped: 6



Answer Choices	Responses	
Very Important	16.91%	69
Important	47.79%	195
Not Important	32.35%	132
No Opinion	2.94%	12
Total		408

Q7 Rail-style platforms and near level boarding, which reduces time to load passengers by 50%.

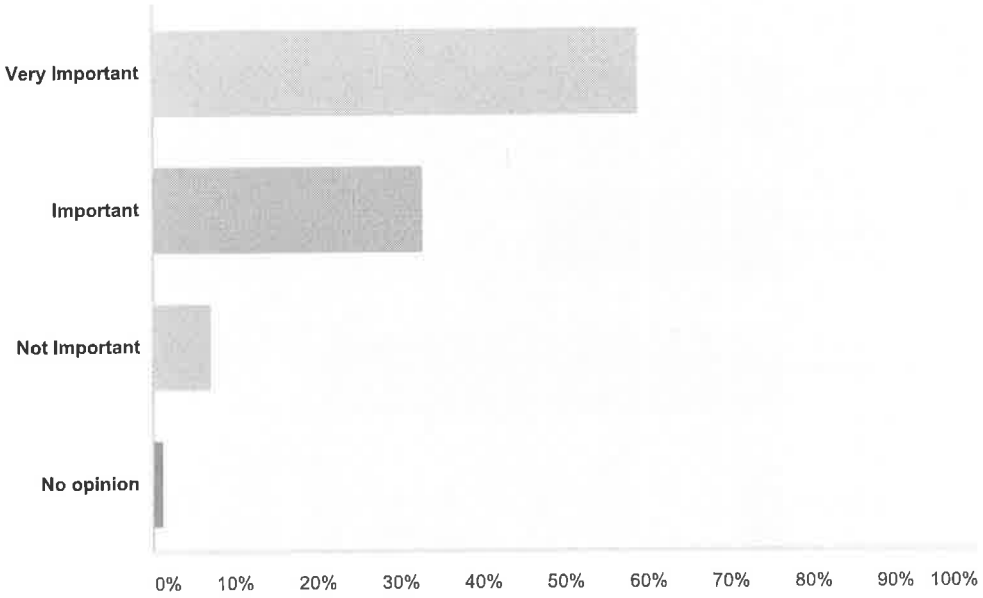
Answered: 407 Skipped: 7



Answer Choices	Responses	
Very Important	50.12%	204
Important	35.38%	144
Not Important	13.51%	55
No opinion	0.98%	4
Total		407

Q8 Real-time arrival information and better transit system signage at each station.

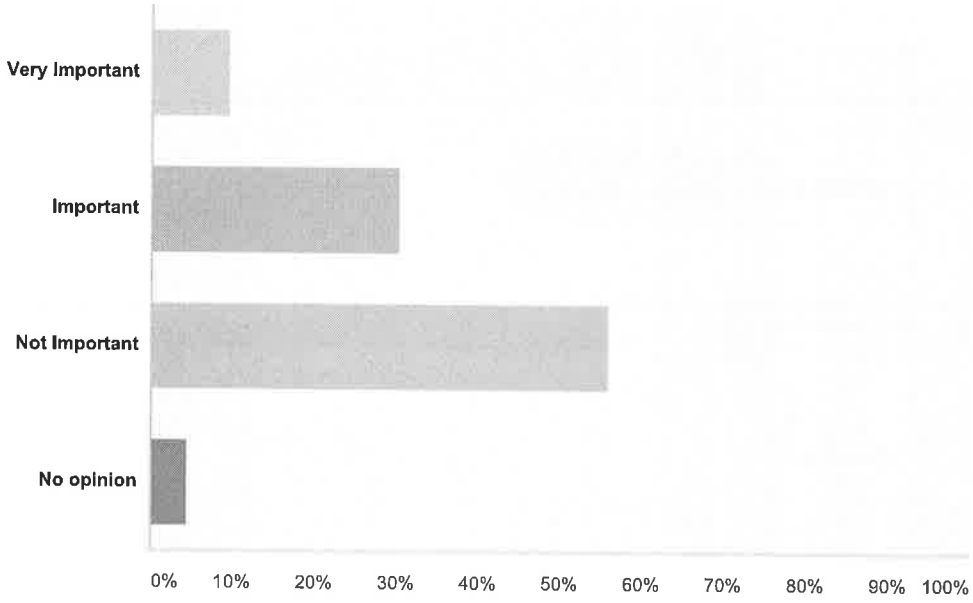
Answered: 406 Skipped: 8



Answer Choices	Responses	
Very Important	58.87%	239
Important	32.76%	133
Not Important	7.14%	29
No opinion	1.23%	5
Total		406

Q9 Public realm enhancements such as public art features, landscaping, and street trees.

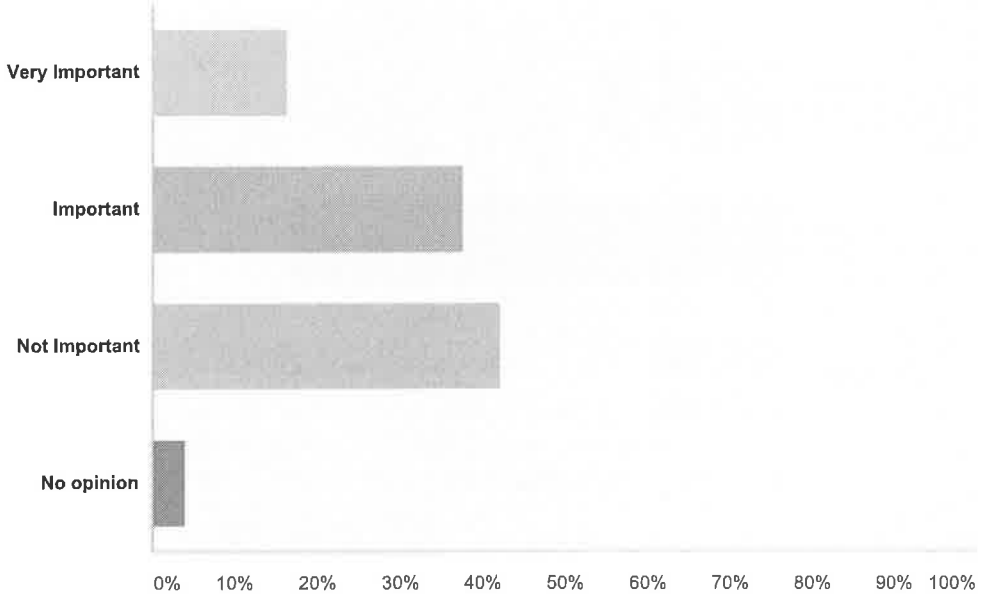
Answered: 406 Skipped: 8



Answer Choices	Responses	
Very Important	9.36%	38
Important	30.30%	123
Not Important	55.91%	227
No opinion	4.43%	18
Total		406

Q10 Special BRT vehicles with more capacity and distinct look.

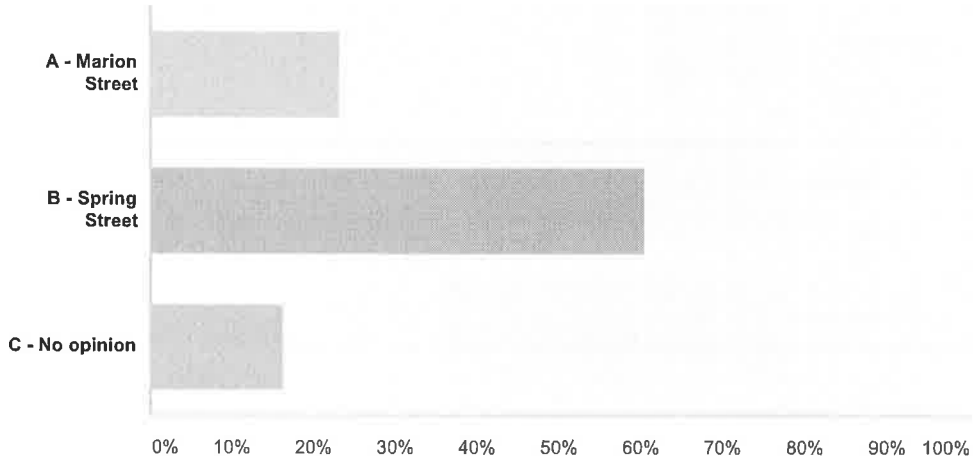
Answered: 405 Skipped: 9



Answer Choices	Responses	
Very Important	**16.30%**	66
Important	**37.53%**	152
Not Important	**42.22%**	171
No opinion	**3.95%**	16
Total		**405**

Q11 Of the two options for an eastbound BRT pathway in downtown, which do you prefer?

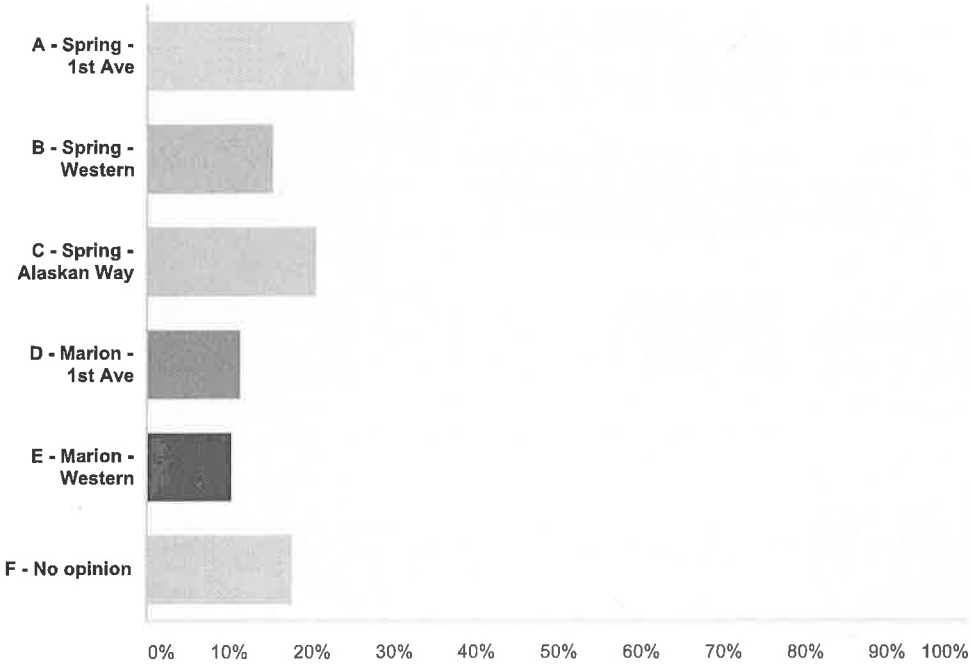
Answered: 400 Skipped: 14



Answer Choices	Responses	
A - Marion Street	**23.25%**	93
B - Spring Street	**60.50%**	242
C - No opinion	**16.25%**	65
Total		**400**

Q12 Of the five options for downtown terminus station, which do you prefer?

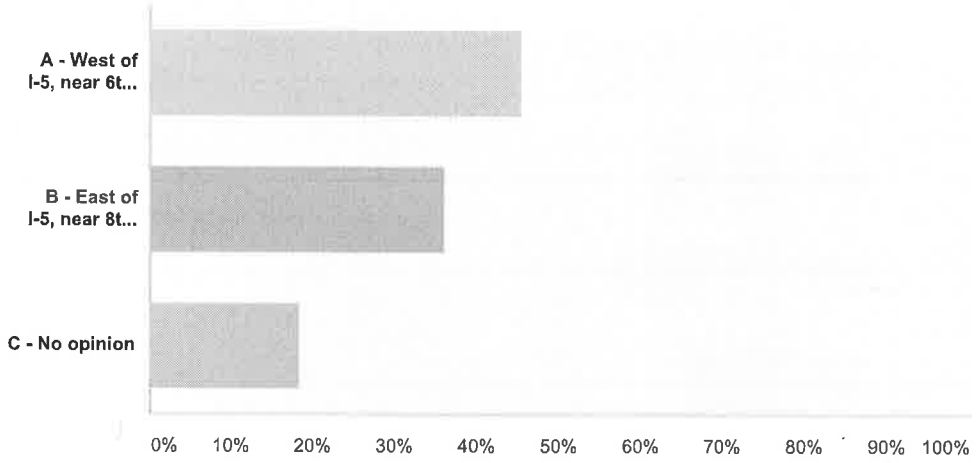
Answered: 399 Skipped: 15



Answer Choices	Responses	
A - Spring - 1st Ave	25.06%	100
B - Spring - Western	15.29%	61
C - Spring - Alaskan Way	20.55%	82
D - Marion - 1st Ave	11.28%	45
E - Marion - Western	10.28%	41
F - No opinion	17.54%	70
Total		**399**

Q13 Of the two options for a station in the vicinity of I-5, which do you prefer?

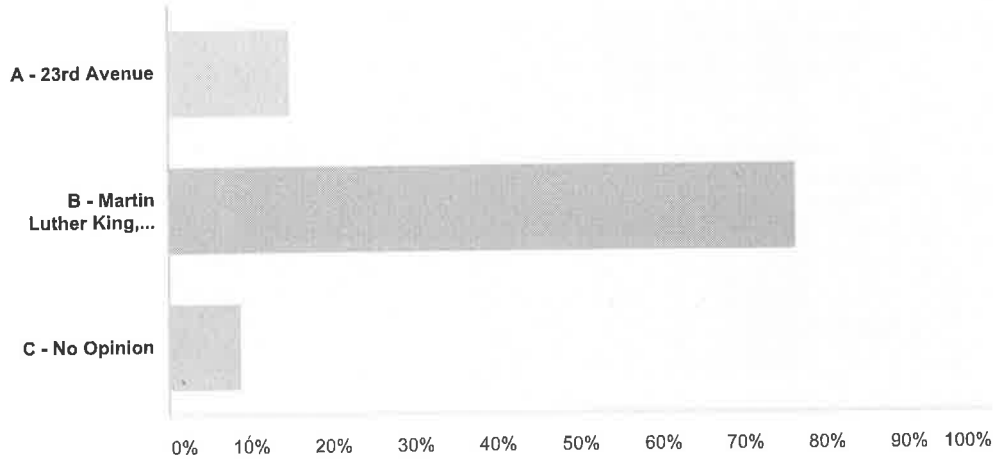
Answered: 398 Skipped: 16



Answer Choices	Responses	
A - West of I-5, near 6th Ave	45.48%	181
B - East of I-5, near 8th Ave	36.18%	144
C - No opinion	18.34%	73
Total		398

Q14 Of the two options for an eastern end to the BRT service, which do you prefer?

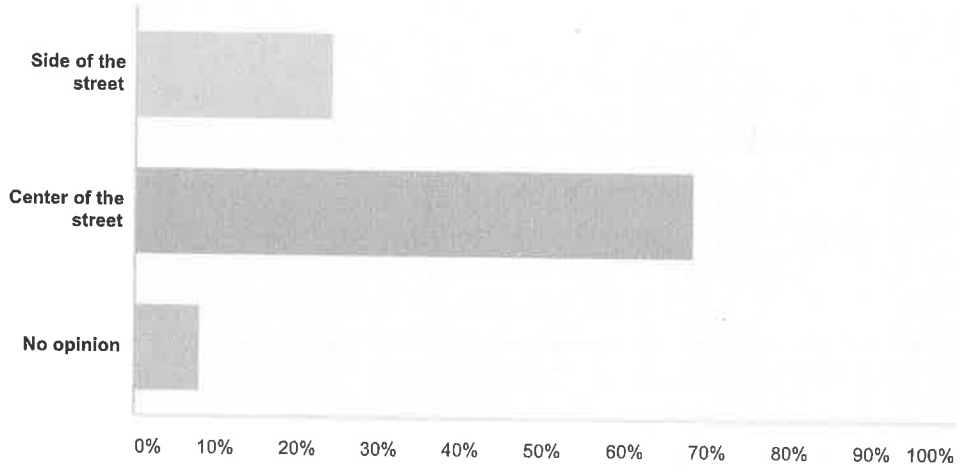
Answered: 397 Skipped: 17



Answer Choices	Responses	
A - 23rd Avenue	14.86%	59
B - Martin Luther King, Jr. Way	76.32%	303
C - No Opinion	8.82%	35
Total		397

Q15 Where would you prefer transit lanes between 8th and 20th Avenues?

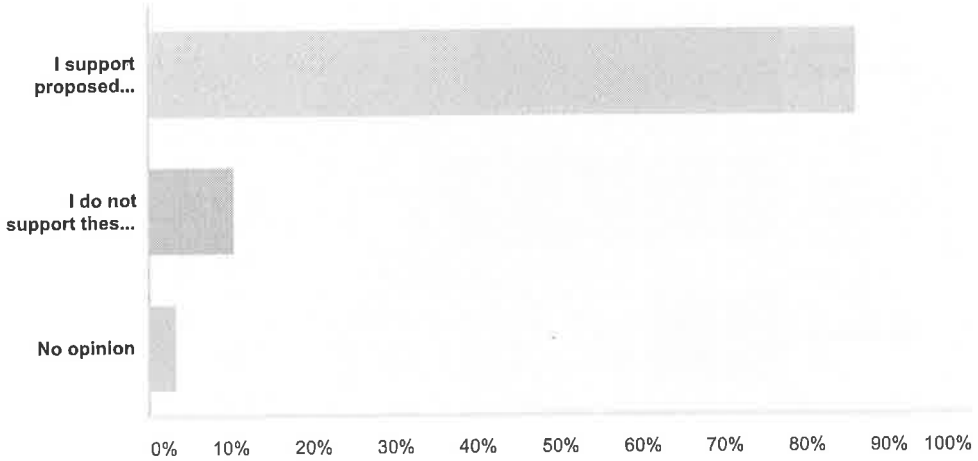
Answered: 393 Skipped: 21



Answer Choices	Responses	
Side of the street	23.92%	94
Center of the street	68.19%	268
No opinion	7.89%	31
Total		393

Q16 How do you feel about the tradeoffs between auto and transit travel time?

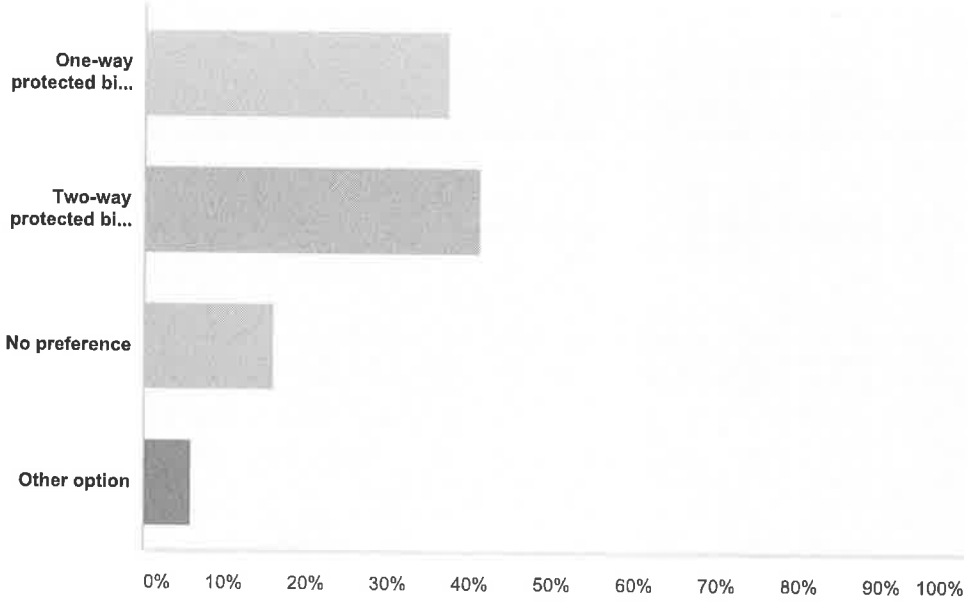
Answered: 392 Skipped: 22



Answer Choices	Responses	
I support proposed changes to improve transit speed and reliability	86.22%	338
I do not support these changes	10.46%	41
No opinion	3.32%	13
Total		392

Q17 Which design option do you prefer for Union Street?

Answered: 390 Skipped: 24



Answer Choices	Responses	
One-way protected bike lane	**37.18%**	145
Two-way protected bike lane	**41.03%**	160
No preference	**15.90%**	62
Other option	**5.90%**	23
Total		**390**

Appendix H.

Madison Corridor BRT Study

MAY OUTREACH REPORT

Seattle Department of Transportation

Madison Street Corridor Bus Rapid Transit Study

May Outreach Report

June 2015

DRAFT

SDOT

Seattle Department of Transportation

NELSON NYGAARD

in association with:

PB

VIA

SASASKI

Table of Contents

Table of Figures

1 INTRODUCTION

This memorandum summarizes comments received from members of the public during the fourth round of outreach for the Madison BRT Study, held May 4-6, 2015. Four meetings were held: invitation-based stakeholder meetings in the Downtown, First Hill and Capitol Hill/Central District segments of the corridor, and an open house for the entire corridor.

The primary purpose of these meetings was to share key findings from the technical analysis of project alternatives completed prior to the meetings, and to ask the public for input on major decision points in preparation for identification of a preferred alternative.

Formats were as follows:

- Stakeholder meetings: A presentation was made, and questions were taken both during and after the presentation.
- Open house: A similar presentation was made, but including a formal interactive polling exercise, with participants voting using clickers. Informational boards and "roll-plot" plan-view drawings of project alternatives were also on display, and staff and consultants were available to answer questions. Attendees submitted comments using comment cards and post-it notes placed on roll-plot drawings.

2 STAKEHOLDER MEETINGS

Downtown

Major topics of discussion at this meeting included:

- *Branding*. Commenters suggested that BRT service should use the existing Metro RapidRide brand.
- *Interoperability with Route 2*. One of the perceived possible advantages of the Spring Street alignment is the opportunity for Route 2 to use BRT lanes. If BRT lanes were located on the north side of Spring, requiring left-door boarding, stops could not be shared with Route 2.
- *Location of BRT lanes on Spring*. While some suggested that BRT could use transit-only lanes already planned for the south side of the street, others noted that this result in conflicts with I-5 bound traffic.
- *Traffic on Marion*. Commenters noted that Route 12 currently has difficulty turning left onto 6th Avenue during the PM peak. BRT on Marion would have to make this same turn in mixed traffic. Traffic unloading from ferries also receives priority on Marion at Western.
- *Access to properties*. A number of commenters expressed concerns about potential impacts of BRT, depending on design, on access to their properties.

This could take two forms: direct access to garages or loading areas, or reduced access in terms of parking loss. A commenter from the YMCA noted that its clientele were generally not wealthy, and that having to pay for garage parking vs. cheaper on-street parking would be a burden.

- *I-5-bound traffic.* In addition to the queues on Spring, traffic backs up on Madison westbound in the PM peak, on First Hill above I-5, and commenters were concerned that BRT vehicles attempting to turn left onto Madison from 8th (as proposed under the Spring option) would be blocked from doing so.
- *Grades at stops and ADA access.* Commenters were concerned about the ability of wheelchair-using passengers to use stops on east-west streets downtown, with their steep grades.
- *Signal timing.* Some noted that traffic flow downtown might be improved by making changes to signal timing.
- *Protected bike lane.* Some suggested that in order to create more space for BRT on Spring, the protected bike lane planned there might be located on another street – perhaps in both directions on Seneca, rather than eastbound on Spring and westbound on Seneca, or on University, although the latter is interrupted between Downtown and First Hill by Freeway Park.
- *Station locations.* A commenter asked why stations couldn't be provided at both 6th and 8th Avenues. The answer: this would increase travel times. Another expressed support for a stop at the main library between 4th and 5th Avenues, where Route 2 currently stops.
- *Madison bridge over I-5.* A commenter asked if it could be widened. It could, but the idea has been studied and was found to be very expensive. Another commenter suggested that parking could be prohibited during peak hours to increase capacity; however, BRT designs already call for parking to be removed on the bridge in order to make room for BRT lanes.
- *Madison vs. MLK Jr. Way eastern terminal.* While not located downtown, these alternate locations for an eastern terminal of BRT were of interest to downtown commenters, who expressed a preference for a terminal at MLK Jr. Way providing BRT access to Madison Valley.
- *Ridership projections.* A commenter asked whether the 1st Avenue streetcar was included in ridership modeling (it was).
- *Move Seattle.* A commenter asked where the BRT project fit into the Move Seattle proposal. The answer: it would be included in an early phase.
- *Carpool parking.* Commenters were concerned that reserved spaces for carpoolers would be reduced or eliminated in the corridor as part of the project.

Capitol Hill/Central District

Major topics of discussion at this meeting included:

- *Methodology and data.* There were a number of questions related to the technical analysis, including: the methodology for estimating ridership; current validity of on-time performance data; availability of data on transit reliability; and how information was collected on current and planned development. Additionally, one commenter wondered why bicycle access to Madison wasn't asked about in the previous online survey.
- *Loading on First Hill.* There were concerns that removal of the existing two-way turn lane on First Hill could impact loading, as it is sometimes used for deliveries.
- *Project alternatives.* There were a number of questions related to project design. In particular, commenters wondered why a shorter project with an eastern terminal at Broadway or 12th Avenue had not been studied, as well as a no-build alternative. There was strong interest among several commenters in a more "incremental" approach without transit lanes, or with lanes only in some segments of the corridor. One asked if different types of lanes could be used in different segments, i.e. center-running in one segment and side-running in another (the answer is yes).
- *Interoperability with other transit services.* There were several questions regarding whether other routes would be able to use BRT lanes and stations. It has not yet been determined.
- *Coordination between SDOT and Metro.* There were questions regarding the extent to which SDOT and King County Metro staff were coordinating in their planning efforts. SDOT staff who were present noted that the latest U-Link integration proposal for an "all-Madison" Route 11 was based on discussions with SDOT regarding BRT service.
- *Trolley wire in Madison Park.* There was disagreement among attendees regarding the expected level of opposition to installation of overhead wires in Madison Park, with one commenter stating that they would be strongly opposed, while another said that many years had passed since the last effort to introduce wires to the neighborhood.
- *Relative value of different BRT elements.* Commenters questioned the value of BRT stations, noting that service frequency is the greatest driver and indicator of transit ridership, along with service reliability.
- *Station locations.* Support was expressed for a station at 25th Avenue, between proposed stations at 22nd and MLK Jr. Way. As at the downtown meeting, there was also support for stations at both 6th and 8th, and at the downtown library. There was general concern about impacts of stop removal on access, particularly for those with mobility difficulties.
- *Parking impacts.* Concern was expressed about removal of parking.

- *Union Street configuration*. One commenter asked if Union would be closed to cars. The answer is that as currently proposed, it would be closed to westbound traffic on one block, between Madison and 13th.
- *Connections between Madison Park and Downtown*. Support was expressed for a continuous "one-seat" ride between Madison Park and downtown, as exists today on Route 11. One commenter stated that Madison Park service should continue to connect to the Pike/Pine corridor, with its major retail destinations.
- *Route network configuration*. One commenter stating that his primary concern was a "network that works," in terms of direct connections between important origin-and-destination pairs. Consultants emphasized that a route network is not being proposed as part of this project (although different configurations have been analyzed in order to, for example, estimate operating cost impacts). Closer to the point of project implementation, an integration plan would need to be developed like that developed for U-Link.
- *Protected bike lanes on Union*. There were a number of questions about the design of the proposed protected bike lanes on Union. There was a preference expressed for separate one-way lanes, rather than a two-way facility, and there were concerns about conflicts at transit stops. The project team noted that bike lanes could go behind the transit stop, like on Dexter.
- *Impacts on autos*. There was concern that autos would not be able to pass buses blocking a single shared lane, where this would occur. Staff noted that this would have a traffic calming effect.
- *Center vs. side-running lanes*. Noting the relatively slight difference in performance between the alternatives in areas including transit travel times, commenters expressed a preference for the side-running alternative, which would have less of an impact in areas including auto travel times.
- *Modal priorities*. Commenters stated their opinion that bikes and loading should receive priority over transit in the corridor east of Broadway, where there is less existing demand for transit.
- *Impacts on larger transportation system*. There were general concerns about the potential for impacts on the larger transportation network, including both traffic congestion and transit routings, from the project. There was a clear preference among several attendees for preservation of existing transit alignments and stops, and concern that the BRT project was being planned in isolation rather than being integrated with the rest of the transportation system.
- *Transit connections*. Commenters stated that transfers between BRT and the Broadway streetcar should be optimized. The BRT station is planned to be at Boylston rather than Broadway, actually putting it slightly closer to the streetcar stop at Marion.

First Hill

Major topics of discussion at this meeting included:

- *Travel patterns.* A commenter asked whether origin and destination data were available to inform the decision making process. Yes, travel market analysis was conducted.
- *Station locations.* Commenters expressed a preference for a station at 8th Avenue, citing the steep grades and many senior and disabled residents in the area. One commenter asked if Polyclinic representatives had been consulted (yes). One participant noted that a station on 6th Avenue would have ADA access issues, and would require removal of the existing tour bus parking there. Another commenter said that stops were needed at both 8th and 5th, by the library. Staff noted that one option would be to place a westbound stop by the courthouse at 6th, and an eastbound, uphill stop at 8th. Who will make the final decision, attendees asked? SDOT staff will decide, although City Council will have to approve a final preferred alternative.
- *Traffic.* Commenters asked how much of the traffic on Madison was related to I-5 ramp access, how much was related to cross streets, and how BRT would impact these relationships.
- *Project schedule/process.* A commenter asked about process. A preferred alternative will be developed prior to another round of public meetings in July. Another asked when the environmental process would occur (subsequent to council adoption of a locally preferred alternative in September).
- *Custom vehicles.* An attendee asked whether center-running lanes would require custom vehicles. They would if center islands were used, requiring doors on the left side of the vehicle.
- *Extent of transit lanes.* A commenter asked how far east transit lanes might run (A: 20th Avenue). Another asked why lanes were not proposed over I-5 (A: to provide additional traffic capacity for I-5 on-ramp access).
- *Frequency of service.* A commenter asked how often service would operate. A: As frequently as every 5 to 6 minutes peak (6 to 10 minutes off-peak).
- *Interoperability with other transit routes.* Again, some expressed a preference for side-running lanes that could be used by multiple routes.
- *Sidewalk impacts.* There was concern about reduction of sidewalks on First Hill, which are already very narrow in places. There has been discussion about widening the sidewalk in places using the underutilized parking lane.
- *8th vs. 9th Avenue alignment.* Several commenters observed that 8th Avenue is a relatively quiet, residential street, while 9th is a busier street that already have overhead wires. Additionally, service on 8th would result in too many buses near Town Hall. If the Spring alternative were chosen, why not have eastbound buses return to Madison at 9th rather than 9th?

- *Financial impacts on other services.* There were concerns that the cost of implementing BRT service could require reductions in service on other routes, including Route 2.
- *Open space opportunities.* Interest was expressed in identifying opportunities to provide additional open space associated with BRT stations, possibly at the Presbyterian parking lot or an adjacent commercial parking lot.
- *Operating costs.* One attendee asked why analysis had found that annual operating costs for service to MLK Jr. Way might be several hundred thousand dollars higher than for 23rd Avenue. The answer is that extending service to MLK might require an additional bus and operator to be in service at some times.
- *Terminal operations/impacts.* There were concerns about the impacts to surroundings from a BRT terminal with bus layover as well as operator break facilities, including impacts from "hide and ride" commuter parking.
- *Route configuration.* There was support for extending service as far east as possible. Some also wanted to see BRT service branch to serve different corridors.
- *Trolley wire in Madison Park.* As at the Capitol Hill meeting, a participant stated that any proposal to extend overhead wires to Madison Park would likely face community opposition.
- *Pedestrian conditions.* An attendee asked about opportunities to provide pedestrian scrambles and leading intervals. A "mini-scramble" is proposed at 12th Avenue.
- *Parking.* There were concerns about impacts on parking and there was interest in mitigation to reduce those impacts. Several commenters asked about ways to curtail abuse of disabled parking placards. There was a discussion about the strategy pursued in Portland, where abuse has been curtailed. One commenter stated that there is a black market in stolen residential parking permits.
- *Loading.* Similarly, there were concerns about delivery access, particularly to restaurants and bars. In general, commenters said potential impacts on businesses needed to be clearly understood.
- *Madison Park extension.* Support was expressed for BRT service to Madison Park.
- *Service for hospital workers.* Nurses at hospitals in the area work 12-hour shifts, starting at 7 a.m. and continuing to 7 p.m., and would need transit service available at both times in order to use it. Hospitals have legally binding mode share targets they must achieve, but it's difficult when transit trips require a transfer downtown.
- *Bike route.* One commenter asked where the proposed bike facility on First Hill would go. It would be on Spring and Seneca below 9th Avenue, and University above it. Treatments would be needed on University.
- *I-5 lid.* Another commenter expressed interest in decking over I-5 as part of the project. This would be prohibitively expensive.
- *Transit connections.* One commenter stated that the connection to ferries at Colman Dock was a very important one.

- *Character of Spring*. One commenter was very concerned about impacts on Spring, which is a relatively quiet, calm street compared to Madison, from additional transit service.

3 OPEN HOUSE

In this section, comments received on comment cards, roll-plot comments and through the interactive polling exercise are synthesized in order to provide a more complete portrait of the demographics and positions of meeting attendees.

Figure 1 Open House Attendees

Respondent Demographics

Comment Cards

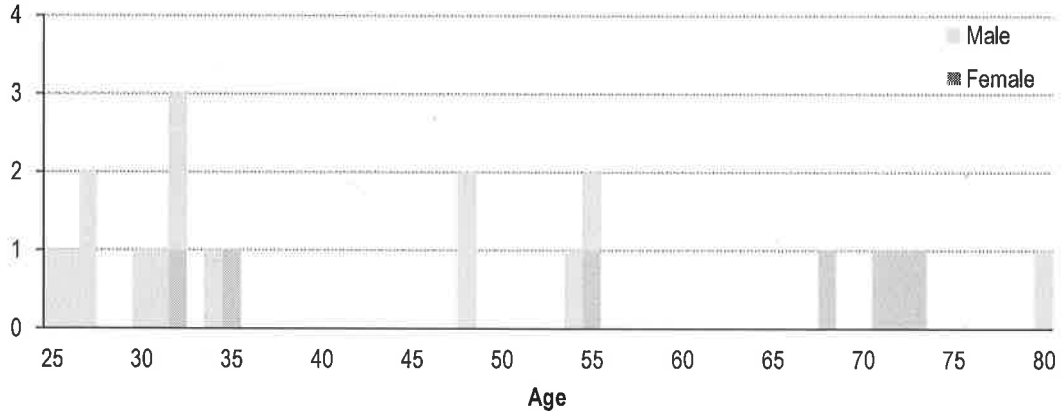
Comment cards requested information on respondents including the zip codes in which they lived, their ages and genders. A total of 29 cards were submitted at the open house. Figure 2 shows responses by zip code. The majority of comment cards were submitted by residents in the immediate vicinity of the Madison corridor east of Broadway (zip codes 98122 and 98112).

Figure 2 Comment Card Response by ZIP Code

ZIP Code	County
98122	11
98112	7
98104	2
98105	2
98102	1
98146	1
Total	24

Figure 3 shows the age and gender of respondents. Respondents ranged in age from 25 to 80 and were two thirds male.

Figure 3 Comment Card Response by Age and Gender



Polling Exercise

There were approximately 70 responses for each question in the interactive exercise. Figure 4 shows that the majority (77 percent) of respondents live within 10 blocks of Madison Street.

Figure 4 Polling Exercise Home Location

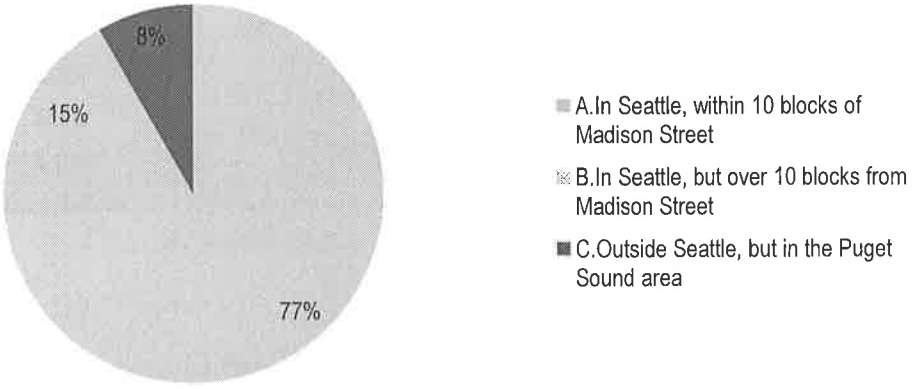
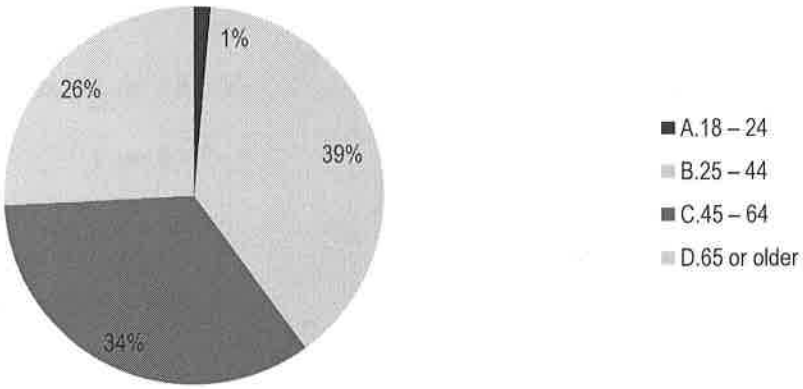


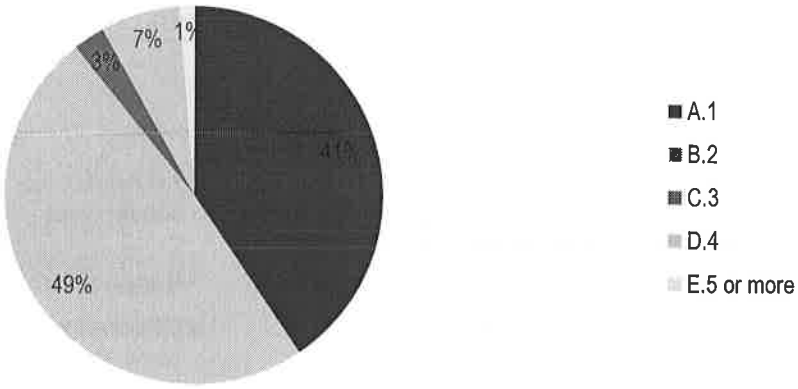
Figure 5 shows that participants were generally older, with a quarter of respondents aged 65 or older, a third aged 45-64, and 39 percent aged 24-44. Only 1 percent were below age 24.

Figure 5 Polling Exercise Age



The polling exercise indicated that very few attendees (only 10 percent) live in households of more than two people. Half live in households of two people, and 41 percent live in households of one person.

Figure 6 Polling Exercise Household Size



Over half of those polled own one vehicle, with an additional 14 percent who own two or more. Nearly a quarter of respondents, however, not only do not own a car but do not drive at all, while 10 percent do not own a car but do drive. The majority of respondents are frequent transit riders: 40 percent ride five or more times a week, while 27 percent ride two to four times a week. An additional 19 percent ride two to four times a month, 11 percent ride once a month or less, and 3 percent do not ride public transit.

Figure 7 Polling Exercise Vehicle Ownership

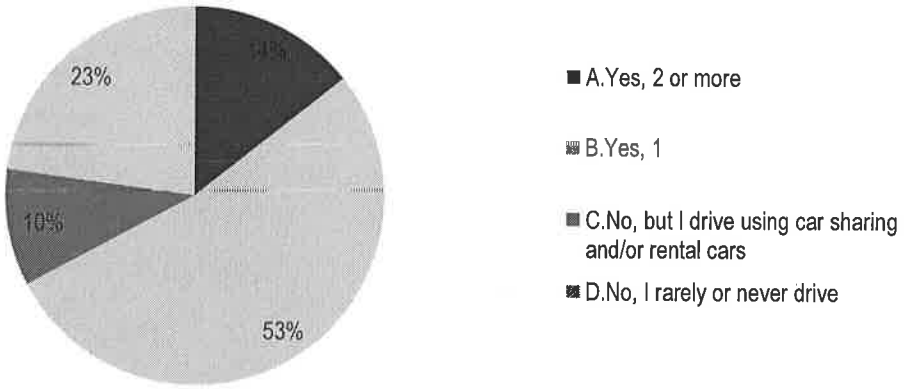


Figure 8 Polling Exercise Auto Use

Comments and Polling Results

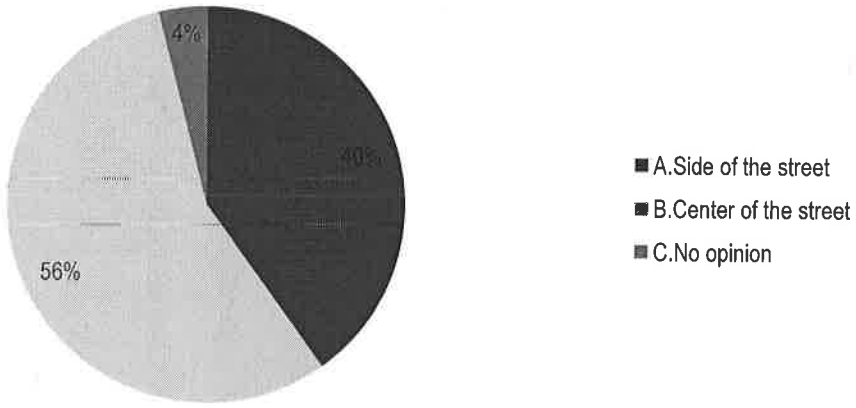
In this section, responses to project-related questions are summarized using charts showing responses to the multiple-choice questions asked during the interactive polling exercise, as well as lists of comments received on comment cards and on post-it notes placed on the roll-plot plan-view drawings of the proposed alternatives. Polling exercise participants were asked a series of questions related to major project design decision points. Comments have been edited only for spelling and grammar.

Center- vs. Side-Running Alignment

The polling results, comment cards and roll plot post-it notes indicated a relatively even divide in preference, with center-running slightly more popular. In the polling exercise, 56 percent preferred center-running, while 40 percent preferred side-running and 4 percent had no preference. A total of seven comment card and roll-plot respondents, meanwhile, expressed a preference for side-running, while five expressed a preference for center-running.

This topic garnered the most comments on comment cards. The comments indicated that center-running was supported for its benefits to transit speed and reliability, while side-running was supported due to lower cost and impacts to auto travel times, as well as due to potential fears about access to center platforms for pedestrians and persons with disabilities.

Figure 9 Polling Exercise and Comment Card Responses: Center vs. Side-Running Alignment



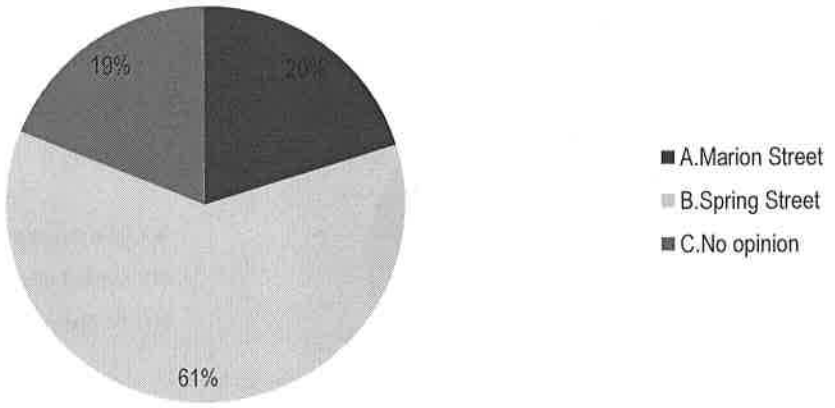
Comment	Number of Comments
Prefer Center-Running: ▪ I voted for middle options, BUT when I have used such transit, I find it scary to cross the street and then wait in the middle of the street. ▪ I have a slight preference for the center-running BRT lane but am split on whether the stations should be center or side platforms. I like the idea of allowing other bus routes to interline with the BRT route, potentially routes that don't feature fancy BRT vehicles ▪ Center-running with regular right side door boarding, so as to use standard buses - islands between transit lanes and general traffic lanes. ▪ Reliability is the most important factor for transit. The center alignment keeps cars out of the travel lane and should be the obvious choice for implementation. ▪ Center lanes for east of Broadway	5
Prefer Side-Running ▪ I strongly prefer a side-station model, particularly east of Broadway. I believe it gives the greatest flexibility in several ways-allows other buses to use the stations, makes it feasible for bikes to use the bus lanes, and allows you to start with mixed-travel lanes and add bus lane-only paint as needed. ▪ It only makes sense to look at the side running. It is $22M cheaper, dramatically reduces transit time and has minimal increase in auto travel times. ▪ I think the outcome of the poll on center vs. side lanes would have been substantially different if information on car travel times had been made available. This information needs to be made readily available through other input venues (online, e.g.). Given the lack of noticeable benefits of center lanes, I strongly support side lanes. I don't like the idea of potentially having to run across the street to catch a bus (rather than along the sidewalk). ▪ Prefer side, not center platforms. ▪ I'm worried that middle lanes would be hard to reach in a wheelchair.	7

Comment	Number of Comments
Prefer Side-Running (cont.) ▪ Side lanes are better because of the flexibility with other bus routes and the benefits to pedestrian space on the sidewalk. Love the station design ideas. ▪ Please consider side lanes east of Broadway even if center lane is used in First Hill.	
▪ Side vs. center - choose what is best for speed and reliability.	1

Marion vs. Spring Downtown Eastbound Pathway

Both comments and the polling exercise showed strong support for a Spring Street Downtown Eastbound Pathway. In the polling exercise, 61 percent of respondents supported Spring Street compared to 20 percent who supported Marion. None of the comments in comment cards or post-it notes expressed support for Marion, compared to five supporting Spring Street.

Figure 10 Polling Exercise and Comment Card Responses: Marion vs. Spring Downtown Eastbound Pathway

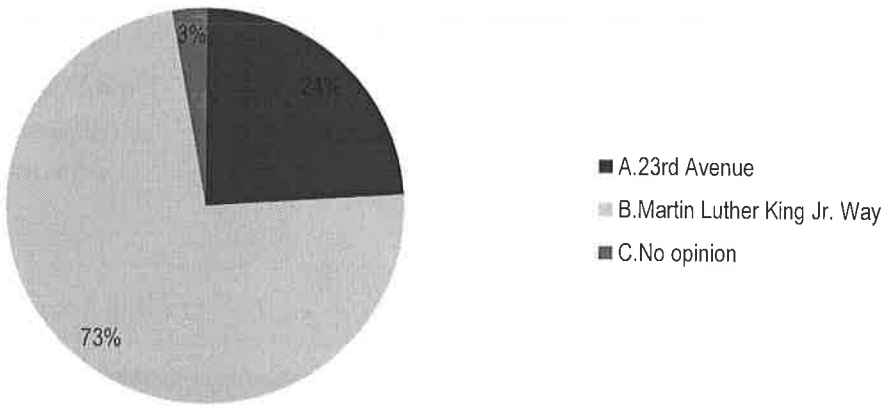


Comment	Number of Comments
Support for the Spring Street Alignment ▪ Definitely like the Spring St alignment. ▪ Spring is better than Marion. The DSTT and library are very important destinations and will probably get more riders and a wider cross-section of the public throughout the day than the ferry terminal. ▪ Spring St Route. ▪ Spring St looks like a clear winner for downtown routing. ▪ Please use the Spring/1st terminal for better connections to other transit options.	5
▪ Neither Marion/Madison nor Spring/Madison are close enough to Link to be good transfer locations.	1
▪ Spring vs Marion - choose an option that is best for bus speed and reliability.	1

23rd Avenue vs. Martin Luther King Jr. Way Eastern Terminus

Both the polling exercise and comments confirmed strong support for an MLK Jr. Way eastern terminus, as opposed to a terminus at 23rd Avenue. Only 3 percent of those polled preferred 23rd Avenue, while 73 percent preferred MLK, and 24 percent had no opinion. Commenters expressed additional support for an MLK Jr. Way terminus as well as some concerns about implementation and impacts to East Arthur Place, where buses would turn around and layover if the terminus were at MLK Jr. Way.

Figure 11 Polling Exercise and Comment Card Responses: 23rd Avenue vs. Martin Luther King Jr. Way Eastern Terminus



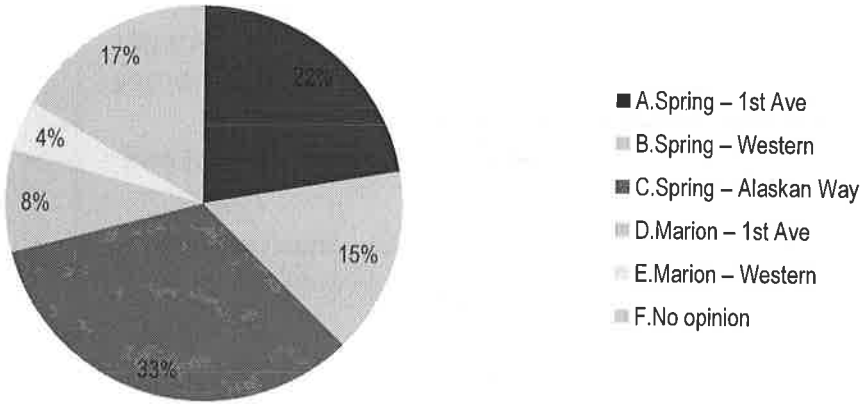
Comment	Number of Comments
Prefer MLK terminus ▪ Definitely like the MLK Jr terminus. ▪ MLK terminus is important to serve the most kinds of trips. ▪ Please continue the line to MLK. ▪ Choose MLK negligible cost difference but more riders and serves commercial node. ▪ MLK Extension is critical for expanding the area that can quickly access downtown jobs. It should be combined with an upzone. ▪ I support the MLK terminal, it seems much better than ending at 20th/21st. Better connections and station locations for neighborhoods west of 19th.	6

Comment	Number of Comments
Concern about East Arthur Place Terminus ▪ There is a daycare with pickup & dropoff traffic at 2825 E Arthur. ▪ East Arthur Place is too small to accommodate bus traffic. Multiple acute angle turns required. Turning right from E Arthur to an immediate left onto Madison will effectively block the MLK & Madison intersection while the buses wait for oncoming southbound traffic. This will exacerbate wrong way traffic on E Arthur Pl. ▪ Consider not having overhead wires off of Madison (not on E Arthur). ▪ Tight turns on MLK/Arthur terminus – how much parking loss? Make sure cars can back out of driveways.	4
Extend Service to Madison Park ▪ Extend trolley wire. Busway terminus at MLK (if not further east). ▪ This study is the Madison BRT, therefore it should serve all of Madison Street, Lake Washington to Puget Sound. MLK and Madison is one of the lowest elevations on the east side of the city, access from MLK to 23rd is essential with a 400' ft elevation change. ▪ #11 unreliable. ▪ Sure, residents opposed the #11 electrification but that was 30 years ago!	4
▪ If using 23rd terminus, consider a terminus using 24th Avenue and E Denny Way to save the big loop.	1

1st Avenue, Western or Alaskan Way Western Terminus

Seventy percent of polling exercise respondents supported one of the Spring Street alternatives. The most popular option was Spring/Alaskan Way (33%), followed by Spring/1st Avenue (22%), and Spring/Western (15%). There was only one comment regarding the western terminus options on the comment cards.

Figure 12 Polling Exercise and Comment Card Responses: 1st Avenue, Western or Alaskan Way Western Terminus

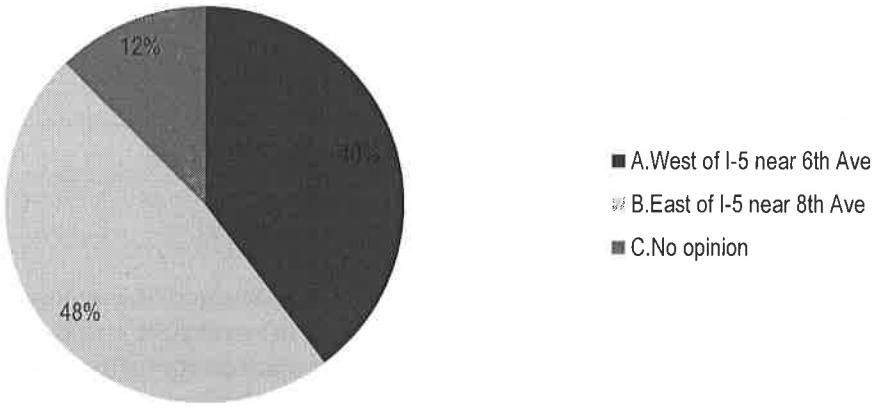


Comment	Number of Comments
▪ Prefer Alaskan Way Western terminus	1
▪ Alaskan Way terminus would make WSF connections easier	1
▪ First Avenue shared streetcar stop would require wrong-side doors! Expensive?!	1
▪ Shouldn't both Alaskan and 1st have stations given the steep hill?	1

Downtown/First Hill Station Locations

A station near 8th Avenue had greater support than one near 6th Avenue. Among polling exercise respondents, 12 percent supported the 6th Street station and 42 percent had no opinion. Based on the comments, it is possible that some of the respondents who indicated "no opinion" would prefer that both locations be selected. Other comments related to station locations emphasized the importance of locating stations where transfers to other routes will be most convenient.

Figure 13 Polling Exercise and Comment Card Responses: Downtown/First Hill Station Locations



Comment	Number of Comments
▪ Library Stop: Both 5th-6th and 8ths! It's a steep hill and the library needs access/5th Avenue needs a stop for library access.	1
▪ Should have stops at both 6th and 8th.	1
▪ Also, regarding station placement, connections to high-frequency perpendicular corridors should have priority over connections to lower frequency facilities like Colman Dock.	1
▪ Station location – really prefer 8th Ave stop on east side of I-5,	1
▪ Tossup between 8th Ave or 6th Ave stop.	1
▪ Station at 6th/8th should be away from I-5 as it is terrible place.	1
▪ Locate station at Broadway for easy transfer.	1
▪ Stop at Spring & Third should be shifted as far east as possible to leave clear pocket for turning Route 2 if BRT bus	1

is at the stop.	

Capitol Hill Station Locations

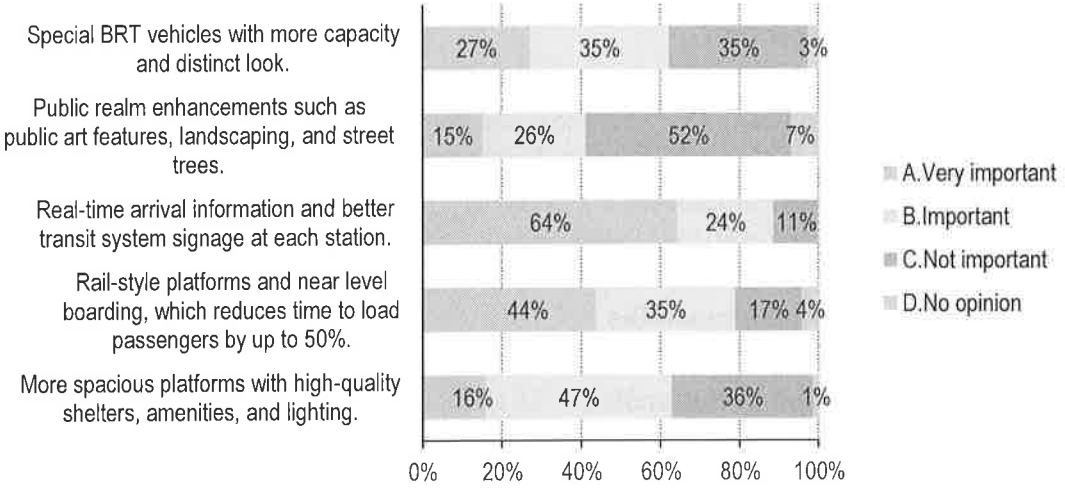
Commenters also expressed opinions regarding station locations farther east on Capitol Hill.

Comment	Number of Comments
Station and Madison and 12th ▪ Move station to existing stop west of 12th at Madison and 13th EB. ▪ Put station between 12th and 11th EB to coincide with Route 2 and serve Route 2.	2
▪ Station at Broadway – Transfer to Streetcar – Whole Foods	1

BRT Features

The polling exercise asked respondents to rate the importance of a series of BRT features. Support was strongest for real-time arrival information and better transit system signage at each station, with 64 percent of respondents rating this as "very important". Other important attributes were rail-style platforms and near level boarding, with 44 percent rating this as "very important" and 35 percent as "important". A majority of participants did not feel that public realm enhancements such as public art, landscaping, and street trees were important, with 35 percent rating this as "not important." Special BRT vehicles and more spacious platforms with high-quality shelters, amenities, and lighting were also rated as "not important" by more participants than those rated them "very important."

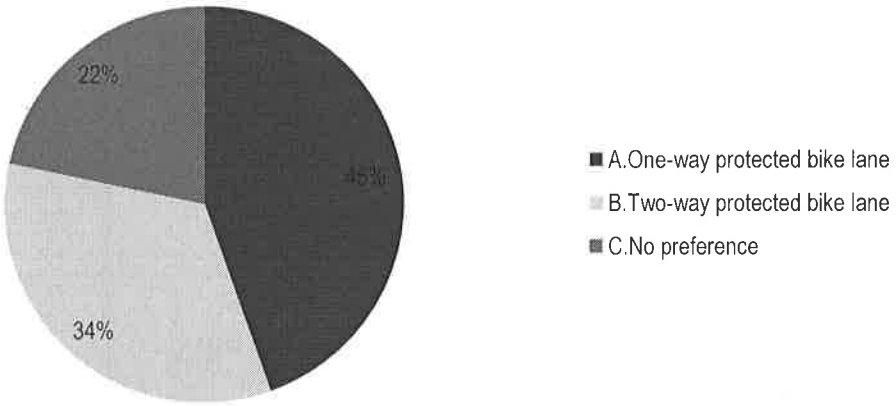
Figure 1 Polling Exercise Responses: BRT Features



Bicycle/Pedestrian Issues

In the polling exercise, support was highest for the one-way protected bike lane on Union Street, with 45 percent of respondents supporting a one-way facility, 34 percent supporting a two-way facility, and 22 percent expressing no preference. Numerous comments were made regarding the design of the intersection of Madison, 12th, and Union. Additional comments were made supporting the one-way facility on Union as well as a variety of pedestrian improvements.

Figure 16 Polling Exercise and Comment Card Responses: Bicycle/Pedestrian Issues



Comment	Number of Comments
Madison/Union/12th Intersection ▪ Excellent rendering of the east end of Union at 12th and Madison - more eastbound turners further into Madison will greatly improve safety and comfort for pedestrians. ▪ I'd also like to see pedestrian advance signals at 12th/Madison/union - or right-turn. advances (as at 15th and John) - whatever makes sense to keep vehicles from careening into pedestrian crosswalks. ▪ Fix the pedestrian nightmare at Union and 12th - very dangerous to cross union at this spot. ▪ Accommodate bus (route 2) and vehicle travel from Madison to Union both east and westbound.	11

Comment	Number of Comments
Madison/Union/12th Intersection (cont.) ▪ E Union at 12th and Madison connection does not work!!! As shown cars and buses need more direct traffic flow . ▪ Install scramble to connect south side of Madison @ 12th. ▪ Left on 12th or 14th Westbound. ▪ Right turn phasing of peds and vehicles at 12th and Madison. ▪ Need to accommodate emergency vehicle access and bus access at Union and Madison. ▪ Advanced ped light at 12th and Madison. ▪ Scramble on north of Madison doesn't work, would impede all access to Union.	
▪ Improve pedestrian experience along Madison. Allow streateries and other amenities to be developed!	
One-Way versus Two-Way Protected Bike Lane ▪ 2-Way PBL on Union is problematic. Consider 1-way PBLs east of 13th Ave. ▪ Split to one-way PBL at 13th and Union	2
▪ I am pro better foot access on the biased intersections between Broadway & 15th.	1

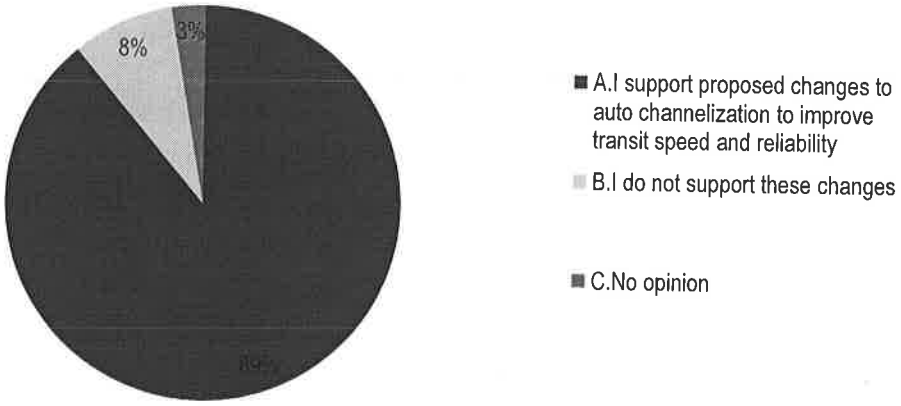
▪ I walk, bus, and drive the Madison Corridor. I am very concerned about cars moving about this area especially left turns east bound on 19th and 15th. I'm really concerned about left turns on 12th and 14th Westbound. Traffic has to move left between 12th and 19th. A huge number of people live there. Traffic has to be able to move. People need to move on foot, bus, and car. Left turn lights at these intersections would be great.	1
▪ Keep bikes off Madison.	1
▪ At the intersection of Madison and 16th Avenue, move the stop line for eastbound traffic to the west side of 16th.	1

Support for Overall Project and Other Issues

Overall, open house attendees expressed strong support for the project. In the polling exercise, nearly 90 percent of respondents supported the proposed changes to auto channelization to improve transit speed and reliability, while only 8 percent opposed the changes.

A wide variety of comments related to the project and the open house itself were also received on the comment cards and post-it notes.

Figure 2 Polling Exercise and Comment Card Responses: Overall Project



Comment	Number of Comments
Left Turns ▪ Be mindful of left-turn needs on Madison ▪ Left on 19th eastbound. ▪ Co op exist needs to be able to go east – turn left on Madison or left on 16th. ▪ There's no lefts for cars allowed between 23rd and Broadway. This might force a lot of turning traffic to Broadway and overload the intersection. Maybe add a left at 14th? ▪ Keep as many left turn options as possible (10th and Madison) ▪ Left on 12th or 14th westbound	6

Comment	Number of Comments
Transit Lanes ▪ No mixed use lanes! Exclusive only even if it means removing parking! ▪ Don't choose an alternative with a mixed-use lane! The bus will still get stuck in traffic! Just like now! ▪ Exclusivity of lanes - don't use mixed-use lanes because traffic will delay buses. The point of this project is fast and reliable service so use exclusive lanes the entire route. Impacts to free on-street car storage are not important.	3
Implementation ▪ I strongly encourage you to implement some of the changes immediately - try bus-only lanes on the sides of Madison on First Hill, implement signal changes at 12th & Madison to reduce pedestrian/car conflicts, for example ▪ Build this project as fast as you can! The people of Seattle need better transit now! Expand BRT to every bus route! ▪ Look to building this more cheaply with paint than doing a full street rebuild. We need quality dedicated transit now! Tactical urbanism way like the 2nd Ave bike lanes but for buses - a demonstration project first then permanent build. Doesn't a dedicated transitway save operating costs by preventing wasted operating hours stuck in traffic!?	3
Overhead Wires ▪ Add express wire (2 sets of wire in each direction) and passing wires (reduces/eliminates wheelchair delays). ▪ If fixed route on corridor overlaid make sure separate overhead wire system	2
Open House ▪ I am impressed with the effort to get public input, but the vast majority of potential riders are absent, ie persons between 25 and 40 ▪ Impressed by the thorough presentation ▪ I enjoyed the clicker exercise, but shutting questions down cold was borderline rude. Next time, start the presentation on time instead of being so strict.	3
▪ Aurora and 15th need to be upgraded.	1

Comment	Number of Comments
▪ Concerned about transfers to/from the 48 (23rd Ave). People shouldn't have to walk a block or two.	1
▪ 10min peak/off peak is better. Off-peak frequency has been persistently neglected, and your study shows more passengers for lower cost.	1
▪ For me this is all within walking distance. I would only use the bus if I can't physically walk or the weather is wretched. That said, I totally support frequent bus service as the best way to minimize reliance on cars. Other important considerations: level boarding, pay outside. Glamorous buses are great but not as essential as other station amenities (covered, lean bars).	1
▪ Give this project to Metro so it becomes a new RapidRide line.	1
▪ I think the best alternative is not a Madison BRT. A lot less money could buy us many more buses and services on and near Madison on existing routes.	1
▪ Avoid too many brands. Rapid Ride, Swift, ST's future BRT are already too many. Coordinate with ST and Metro.	1
▪ 2+1 seating to fit more people and make it easier to get on/off.	1
▪ Parking "loss" is irrelevant - no mitigation is needed. It only accommodates more auto traffic and usage to clog up central Seattle streets - it is car owners taking away parking from other car owners. ▪ Auto travel time is absolutely irrelevant. It is cars clogging up the streets which only encourages auto use and absolutely is counter to this transit project and the goals of making neighborhoods more walkable. ▪ Make this busway a trunk line for multiple routes like the current at union, 11- Madison Park. 12-19th Ave, the branches can be in mixed traffic.	1
▪ I lived ON Madison. It is noisy. I call it "siren alley". How do you accommodate emergency vehicles with the proposed BRT?	1

Comment	Number of Comments
▪ I am very concerned about any impact this has to the #12. It is very unfriendly to older, less able & women. I will not transit crosshill after dark. The 12 is the only bus that traverses Cap Hill and goes to south Downtown.	1
▪ Be aware of increased "park & ride" incidences/situations in neighborhoods east of 23rd & Madison	1
▪ Make sure you buy nice buses and make payment off-board or on-board but after boarding. No queues to board!	1
▪ Build & aspire to best BRT line in the country.	1
▪ Thanks so much for the presentation. Preserve Route 2!!	1
▪ I am concerned about parking between 23rd and MLK on Madison. It is already extremely limited.	1
▪ Consolidate 7 & 9 into a Boren service that connects to Link.	1
▪ Can bus order leverage other funds and broaden fleet modernization? Economy of scale.	1
▪ Don't increase auto travel time at the expense of transit. Transit can be improved with little or no impact on auto travel times.	1
▪ How will crossing bus routes be affected?	1

4 E-MAIL COMMENTS

A number of e-mail messages were received following the open house. These messages are summarized below. Due to the length of the e-mail messages received, comments have been paraphrased and reduced in length.

Several themes emerged from the follow-up e-mail and comments after the open house:

- Residents of East Arthur Place wrote to say they did not receive notice that their street was under consideration as a terminus/layover location earlier in project planning and expressed serious concern about a variety of potential quality of life impacts and impacts to businesses.
- Several residents wrote to ask or express concern that the Route 11 and service to Madison Park would be eliminated as part of this project (note: this project will not result in an operating plan, and service to Madison has not been proposed for elimination).
- Several comments felt that the traffic analysis was not sufficient to evaluate potential cut-through traffic and diversion impacts.
- Several comments expressed support for a one-way bicycle facility instead of a bidirectional facility.
- Some comments expressed general concern about transportation planning and impacts to auto traffic.

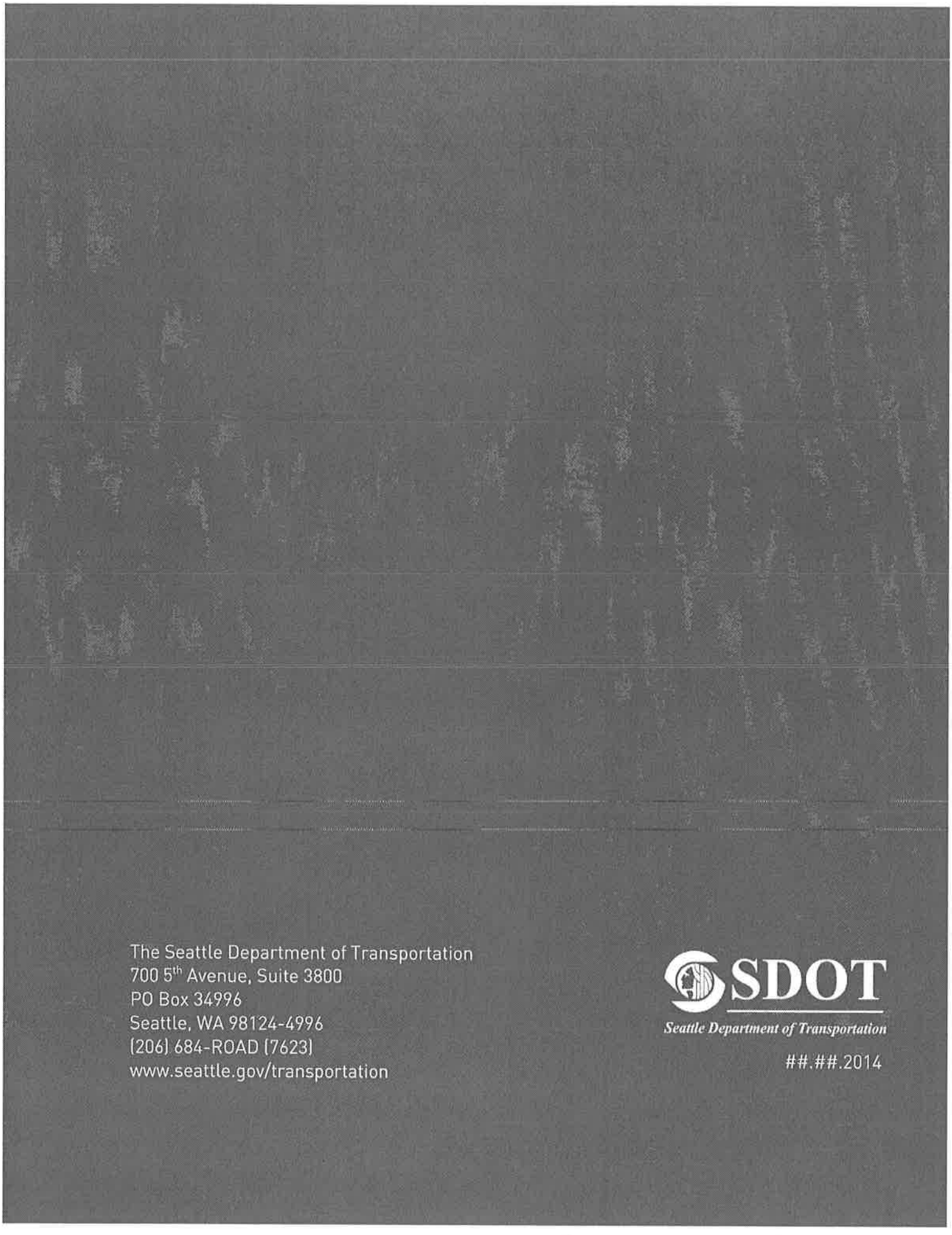
Comment	Number of Comments
Pedestrian Facilities ▪ A commenter noted that pedestrians need a walkway 2 meters wide (6'-6")as much as possible.	1
East Arthur Place Terminus ▪ One resident and property owner of E Arthur Place was strongly opposed to a bus layover location on E Arthur Pl. Objections included lack of notification about potential impacts, challenges for buses turning back onto Madison due to heavy traffic, impact to the residential character of the neighborhood, impact to the patio at Jae's restaurant, parking removal, impact to recycling and other trucks using the street to serve businesses, lower property values, and noise.	5

Comment	Number of Comments
East Arthur Place Terminus (cont.) ▪ Another resident cited similar concerns included the narrowness of the street, the fact that it was originally converted to one-way to stop drivers from avoiding the light at MLK and Madison - however many still do - so changing the direction would increase the number of cars speeding through, impacts to the daycare center, noise and quality of life disruption from buses, reduced parking, increased bus and auto traffic, and idling buses. ▪ A resident of Madison Valley was disappointed with outreach surrounding the open house (residents of E Arthur Pl. did not receive notice and have heard about the project through word-of-mouth) and by the lack of information available regarding parking impacts, wiring on Madison, other Madison Valley layover alternatives, an extension to 43rd, consideration of driveway access, consideration of utility trucks, plans for the MLK and Madison intersection, and concern about the daycare and music school. The comment included concern about other impacts of the terminus such as noise, idling, etc. ▪ A comment from the music school on E Arthur Pl. mentioned that the site has hundreds of kids being dropped off and picked up for music every day, in addition to the need to move music equipment in and out of the building. Because of this the commenter would support a terminus on another street but not on Arthur. ▪ Another homeowner expressed concern that an E Arthur Pl. terminus would force residents to relocate and sell their homes at reduced value due to the severity of impacts such as increased traffic, removal of parking, and buses laying over. The concern is amplified by the narrowness of the street and residential character with existing traffic concerns due to cut-through traffic.	
Western Terminus ▪ A comment from the Waterfront Place Residential Condominium Association expressed concern about access to the passenger, delivery, and moving access on the west side of Western, halfway between Madison and Spring.	1

Comment	Number of Comments
BRT Design and Amenities ▪ One comment expressed support for 18-meter long (60') buses, effective transit priority, off-board payment including fare vending machines, stops that are 30-35 cm high, high frequency service (5-7.5 minutes at peak, 10-15 minutes off-peak). ▪ Another comment supported bus-only lanes but did not support stop consolidation, especially at 12th, 17th, 20th, and 23rd in order to maintain access. This comment also supported side-running lanes, at least east of Broadway. ▪ One comment would like to see a station at 3rd Avenue; stations at 1st and 6th/8th leaves quite a gap. This comment also suggested extending the line farther east to McGilvra or Madison Park. The comment also cautioned against building fancy stations in favor or something more similar to Swift stations because they are comfortable, efficient, stylish, and have good brand identity and passenger flow. ▪ A Madison Park resident expressed the opinion that the BRT project is fatally flawed and will not serve Madison Park residents, particularly due to stop consolidation. This comment also suggested that removing parking and stop consolidation alone could solve most of the problems the BRT project is addressing. The same commenter expressed strong preference for improvements to Route 11 instead of BRT and a desire to avoid a forced transfer from Madison Park. ▪ Two comments expressed concern that the Route 11 would go away entirely, leaving Madison Park without service. ▪ One comment questioned why a streetcar wasn't under consideration.	7
23rd Avenue Terminus ▪ A business and property owner expressed support for a layover location on 20th and Madison, noting that park improvements/trash collection would be necessary. This person would not support a stop location and further east of the stop and questioned whether 4 parking spots would provide layover for 3 buses.	1

Comment	Number of Comments
23rd Avenue Terminus ▪ A business and property owner expressed support for a layover location on 20th and Madison, noting that park improvements/trash collection would be necessary. This person would not support a stop location and further east of the stop and questioned whether 4 parking spots would provide layover for 3 buses.	1
Bicycle Facility ▪ A citizen who learned of the project through the Seattle Bike Blog strongly supported two one-way bicycle facilities instead of a bi-directional path due to safety concerns about a bi-directional path, citing findings from the Organization for Economic Cooperation and Development (OECD) recommending that bi-directional facilities be avoided. Specific concerns include downhill speeds, passing in oncoming traffic, slower travel speeds. The writer was also concerned that cyclists will not use a two-way facility for the above reasons, which provokes harassment from drivers. ▪ Another comment supported a bicycle facility buffered by a curb, not just bollards or parking. This person preferred a wide protected bike lane of 3.5 meters minimum with good drainage and colored pavement. A protected intersection/roundabout concept was also suggested. This comment also suggested bicycle parking, including possibly secure bicycle lockers at each BRT stop. ▪ A comment from the Seattle Bicycle Advisory Board supported a one-way bicycle facility due to safety concerns particularly regarding the speed difference between downhill and uphill cyclists, and also due to ease of entering and exiting the protected bike lane and safety at intersections.	3
Auto Impacts ▪ A commenter expressed opposition to anything that would increase auto travel times on Madison and to expenditures on special buses and stops. ▪ Another comment expressed support for increased transit service, but was doubtful that the traffic analysis sufficiently analyzed potential traffic diversion from the project.	4

Comment	Number of Comments
Auto Impacts (cont.) ▪ One comment was concerned generally with the city's approach to transportation planning and impacts to auto travel. ▪ A comment expressed concern about cut-through traffic and questioned the assumption that increasing transit service will prevent a noticeable increase in traffic and congestion in the future.	4



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SDOT
Seattle Department of Transportation

##.##.2014

Appendix I.

Madison Corridor BRT Study

SURVEY SUMMARY REPORT

The Seattle Department of Transportation

Madison Street Corridor Bus Rapid Transit Study

Survey Summary Report

March 2015

SDOT
Seattle Department of Transportation

NELSON
NYGAARD

In association with:

PB
PKS
LTK
VIA
SASAKI

Table of Contents

Table of Figures

1 INTRODUCTION AND METHODOLOGY

Between January 19 and February 6, 2015, SDOT conducted an online survey for the Madison Corridor BRT Study. The survey instrument was developed in SurveyMonkey and a print survey version was distributed for those without access to a computer.

This report summarizes survey results and key findings. The purpose of the survey is to better understand the community's transit need along the Madison Street corridor, determine community preferences for end-of-line routing and bikeway routing options. Question topics included general travel behaviors, terminus routing preferences, corridor improvement priorities, and importance of various transfers. The survey was completed by 1,660 respondents. Most surveys were completed using SurveyMonkey; only 16 completed on paper forms.

At the end of the survey, respondents were directed to an interactive web-mapping exercise hosted by Wikimaps. The final section of this report summarizes the results of the mapping exercise.

Respondent Demographics

A comparison of the ages of the survey respondents to the age of people living near the planned BRT line[1] is presented in Figure 1-1. The survey respondent sample is generally consistent with the actual age distribution for those living along the corridor. According to American Community Survey data from 2013, residents between the ages of 25 and 34 are the largest age group in the study area, at 28%. They were also well-represented in the survey, where 31% of respondents are in this same age group. Residents aged 35 to 44 are over-represented in the sample by 8 percentage points.

Figure 1-1 Age, Survey Sample vs. Population

	Under 18	18-24	25-34	35-44	45-54	55-64	65-74	75 and over
Sample	0%	4%	31%	23%	16%	14%	8%	4%
Population[(a)]	9%	14%	28%	15%	12%	11%	6%	5%

Data source: (a) 2013 ACS 5-Year Estimates, Table B01001

Figure 1-2 shows the proportion of Hispanics/Latinos represented in the sample compared to their actual share of the population. The survey sample is very close

[1] For the purpose of this analysis, the population living near the planned alignment are all residents of 2013 ACS Block Groups that intersect a 3/8 mile buffer of Madison St between Western Avenue and MLK Jr Way.

to the actual ethnic make-up, but slightly under represents the Hispanic/Latino population of the area (by 2 percentage points). Figure 1-3 shows the percent of respondents by race compared to the actual share of the population in the study area.

Figure 1-2 Ethnicity, Survey Sample vs. Population

	Not Hispanic/ Latino	Hispanic/ Latino
Sample	95%	5%
Population[(a)]	93%	7%

Data source: (a) 2013 ACS 5-Year Estimates, Table B03002

Figure 1-3 Race, Survey Sample vs. Population

	White	Black/ African American	American Indian/ Alaska Native	Asian	Native Hawaiian/ Pacific Islander	Other
Sample	59%	9%	3%	26%	3%	0%
Population[(a)]	71%	11%	1%	11%	0%	6%

Data source: (a) 2013 ACS 5-Year Estimates, Table B03002

Geographically, survey respondents live in close proximity to the study area. Fifty-five percent of respondents live in the five closest ZIP codes to the corridor (see Figure 1-4). This signals that the responses generated from the survey are reflective of the immediate community's needs and preferences.

Figure 1-4 Top home ZIP codes

ZIP Code	Number	Percentage
98122	352	21.5%
98112	266	16.2%
98104	132	8.0%
98101	90	5.5%
98102	75	4.6%

2 KEY FINDINGS

Overall, the respondents to the survey use a mix of transportation modes to meet their daily mobility needs. Walking, transit and driving were the most common modes used by the respondents. This transportation mix influenced respondents decisions for selecting the issues related to BRT on Madison Street. Key findings from the survey include:

- **High existing transit use**. Most respondents use transit at least once per week, indicating existing demand for transit service in the corridor.
- **Transit service and safety improvements**. Transit service and pedestrian safety are ranked as the two most important corridor improvements, followed closely by sidewalk conditions and transit passenger comfort. These improvements indicate the importance of transit and the pedestrian realm for survey respondents.
- **Importance of transfers.** Respondents communicated the need to connect the Madison BRT to Seattle's regional transit network. The top four transfer points ranked by survey respondents would provide connections to the Downtown Seattle Transit Tunnel (DSTT), the Seattle Streetcar, multiple bus lines, and Washington State Ferries. Additionally, there was a significant volume of comments on the mapping exercise suggesting that planned stations should move as close as possible to major intersections to facilitate existing or future transfers.
- **Preference for MLK as eastern terminus**. There is strong support for the MLK terminus option. Over 50% of respondents supported the eastern terminus option at MLK Jr Way, compared to only 15% who supported the 23rd Avenue terminus. The mapping exercise also revealed strong preferences for a terminus at MLK as well as demand for destinations beyond MLK, particularly the Arboretum and Madison Park.
- **Balanced support for two western terminus options**. There was almost equal support of each western terminus routing option.
- **Preference for Union bicycle route**. More than half of respondents supported developing a bicycle route using Union (Alternative 2).
- **Station locations**. The mapping exercise indicated that survey respondents care first and foremost that station locations facilitate transfers and minimize walking to major north-south corridors (even those without existing transit service). Respondents indicated support for decreasing stop spacing in Downtown and First Hill to allow for a second downtown stop near 5th Avenue and revised spacing in First Hill (8th/9th Avenue, Boren, and Broadway were all popular stops).

General Travel Behavior

The respondents to the survey use a variety of modes for their personal mobility (Figure 2-1 and Figure 2-2).

- More than half (53%) of the respondents who live in Seattle use public transit three or more times a week; 72% of non-Seattle resident respondents ride transit at least three times a week.
- Only 41% of Seattle respondents drive a car three or more times a week; 53% of non-Seattle respondents drive three or more times a week.
- Two-thirds (67%) of Seattle respondents walk at least three times a week, but only 48% of non-Seattle respondents do so.
- Very few respondents to the survey bike, use taxis, car-share, or other on-demand transportation services, but Seattle residents use these modes at greater frequencies than non-Seattle residents.

Figure 2-1 Frequency of mode use; Resident respondents

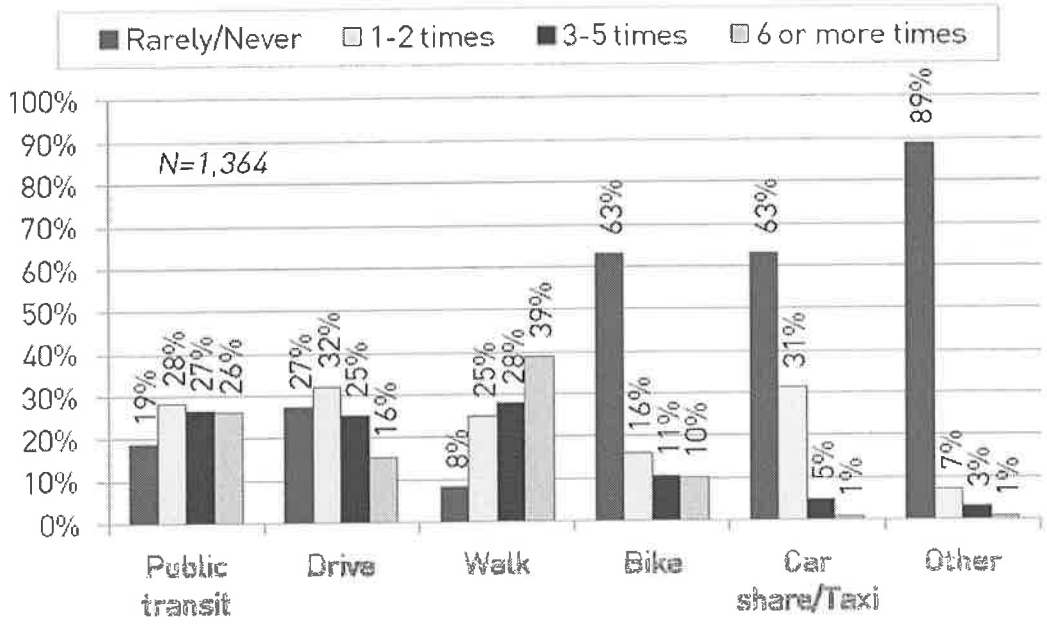
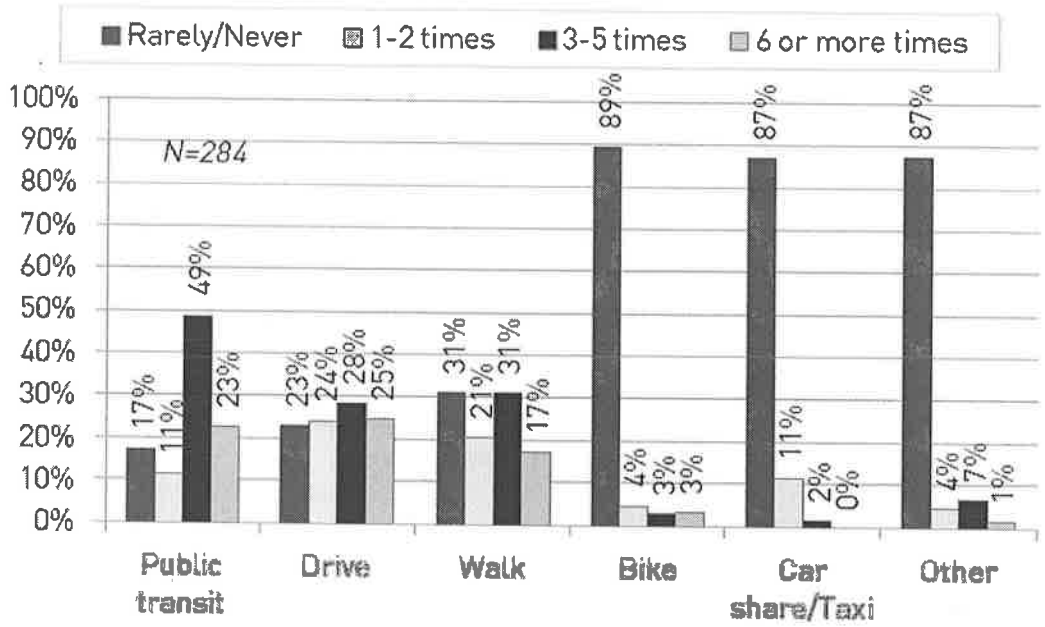


Figure 2-2 Frequency of mode use, Non-resident respondents



Local Transportation Issues

Survey respondents were asked to rate the level of importance for various transit, street, access, and mobility improvements in the Madison Corridor.

Two items respondents believed were most important were transit service reliability and pedestrian crossings and safety (Figure 2-3 and Figure 2-4). These two were considered very important by more than half of respondents (72% and 55%, respectively), with non-Seattle residents supporting these more than Seattle residents.

Sidewalk conditions along Madison Street and transit passenger comfort and waiting areas were two other highly rated improvements, both considered very important, important or moderately important by more than 90% of respondents living in and out of Seattle.

The improvement which had the highest share of respondents indicating it was of little importance or not at all important was maintaining on-street parking. Non-Seattle residents rate this the lowest (39% indicated it was very important or important), although they did rate this higher than Seattle residents (25%). This signals that respondents are willing to reduce on-street parking supply in exchange for better transit facilities.

Figure 2-3 Corridor improvements; Resident respondents

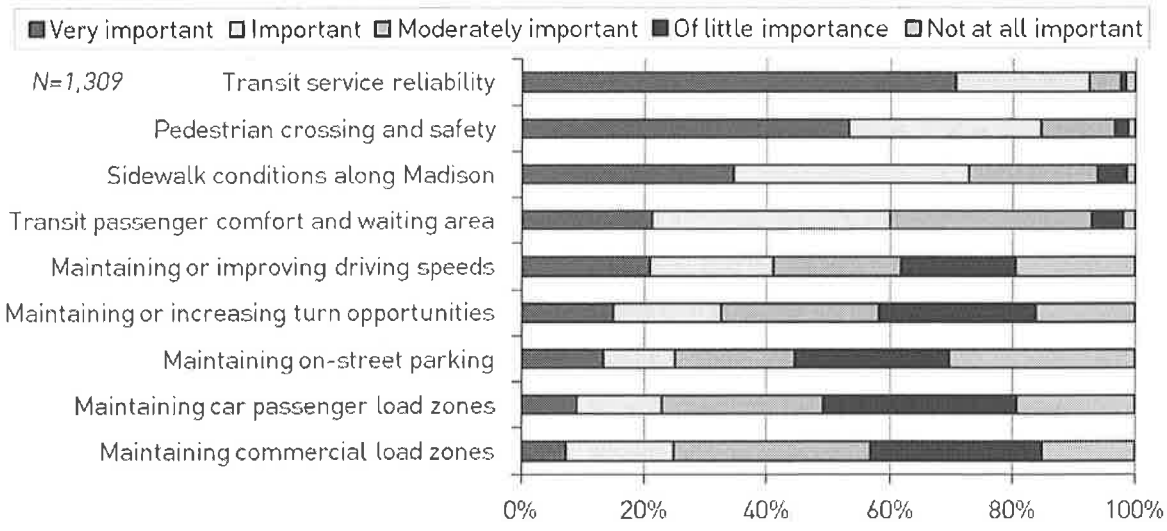
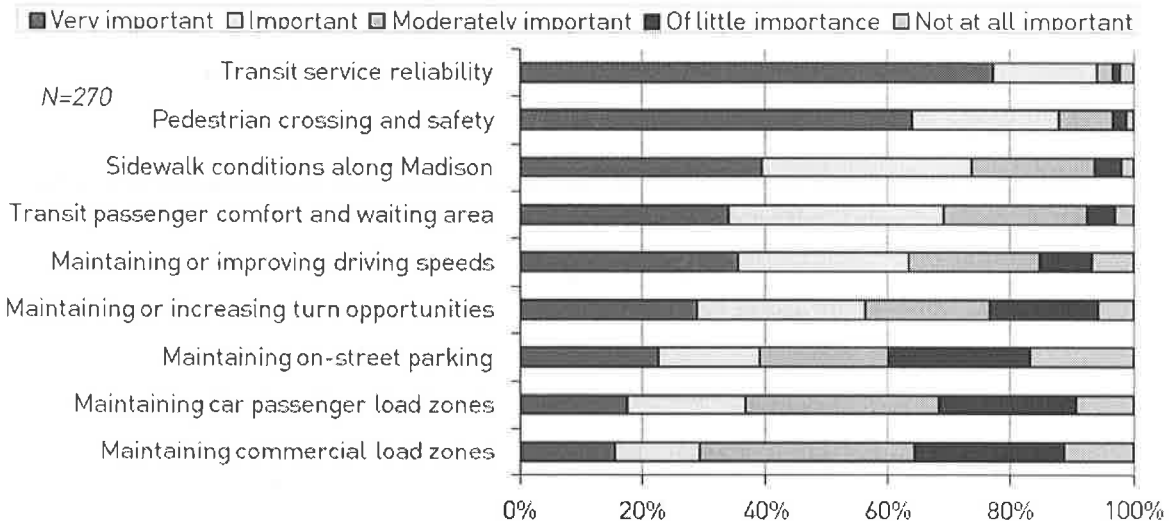


Figure 2-4 Corridor improvements; Non-resident respondents



Survey respondents who use transit often (three or more times per week) indicated that transit service reliability was the most important corridor improvement, followed by pedestrian safety, sidewalk conditions and transit passenger comfort.

For those respondents who only use transit two or fewer times per week, they also chose transit reliability, pedestrian safety and passenger comfort as their top choices. Infrequent transit users were more likely to support maintaining turn opportunities and driving speeds.

Figure 2-5 Corridor improvements; Frequent transit users

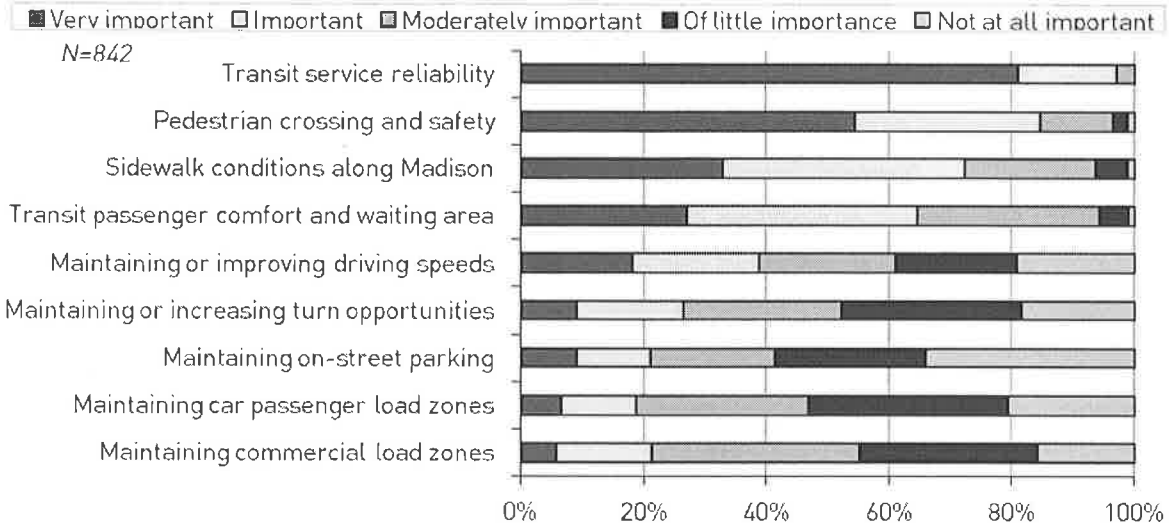
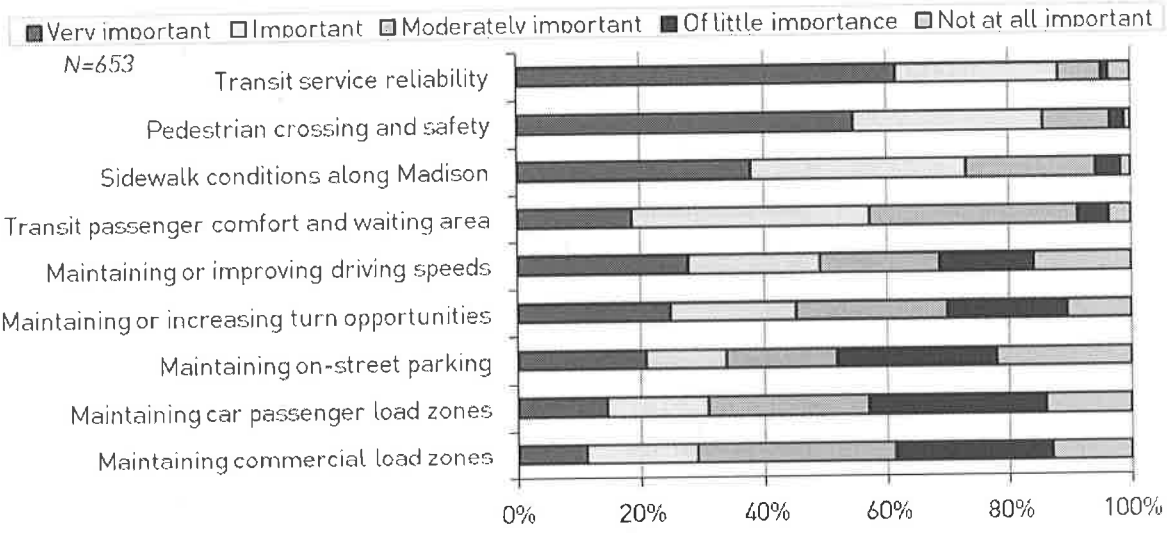


Figure 2-6 Corridor improvements; Infrequent transit users

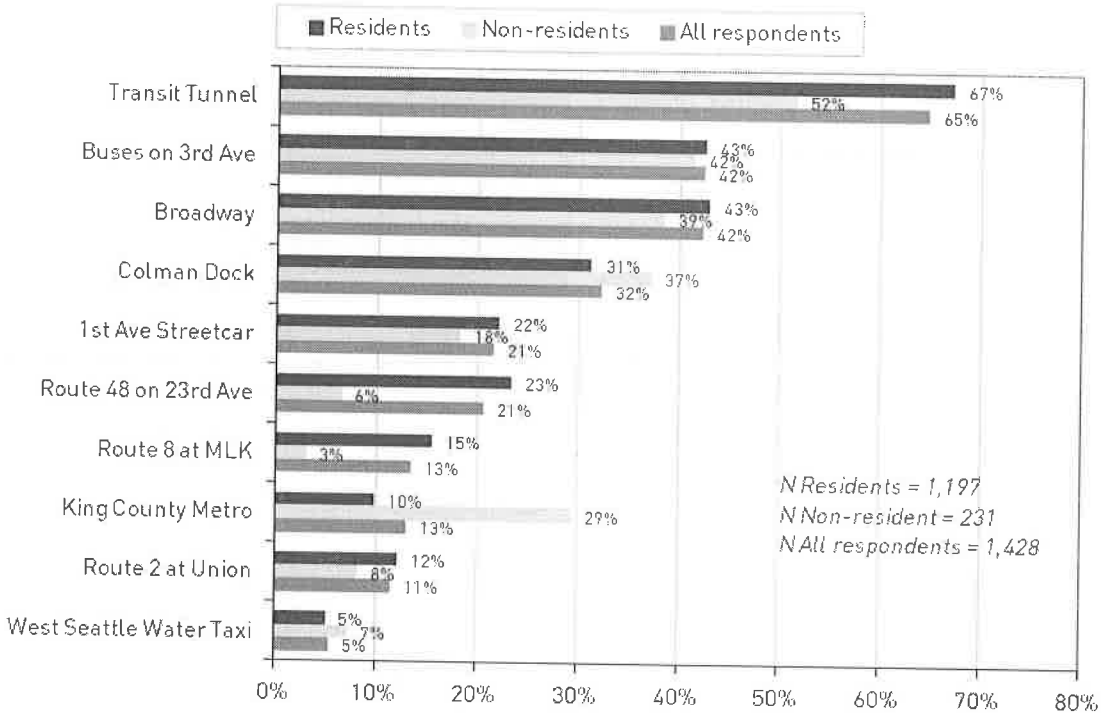


Respondents were asked to select the transit transfer points that were most important for connecting to or from a future Madison BRT line (Figure 2-7). The top three locations were:

- The Downtown Seattle Transit Tunnel (65%)
- 3rd Avenue (42%)
- Broadway (42%).

Response rates were similar between Seattle and non-Seattle residents, though Seattle residents were much more likely to want to transfer to the Transit Tunnel, Route 48, and Route 8. Non-Seattle residents were more likely to want to transfer to King County Metro routes.

Figure 2-7 Importance of transfer points along Madison



Survey respondents were also asked to provide their input on the BRT alignment at both ends of the line (Figure 2-8 and Figure 2-9 show the alignment options). Survey respondents were almost equally supportive of both options at the west end in downtown Seattle, with the Madison/Spring couplet having more support by 8 percentage points. Non-Seattle residents, though, were more likely to support the Madison/Spring couplet (Figure 2-10).

In responses regarding the eastern terminus, there was a noticeable difference between Seattle residents and non-Seattle residents (Figure 2-11). Sixty-one percent of Seattle residents supported the MLK Jr Way terminus, while 50% of non-Seattle residents had no opinion. Only 15% of all respondents supported the 23rd Avenue/Olive terminus.

Figure 2-8 Western alignment options

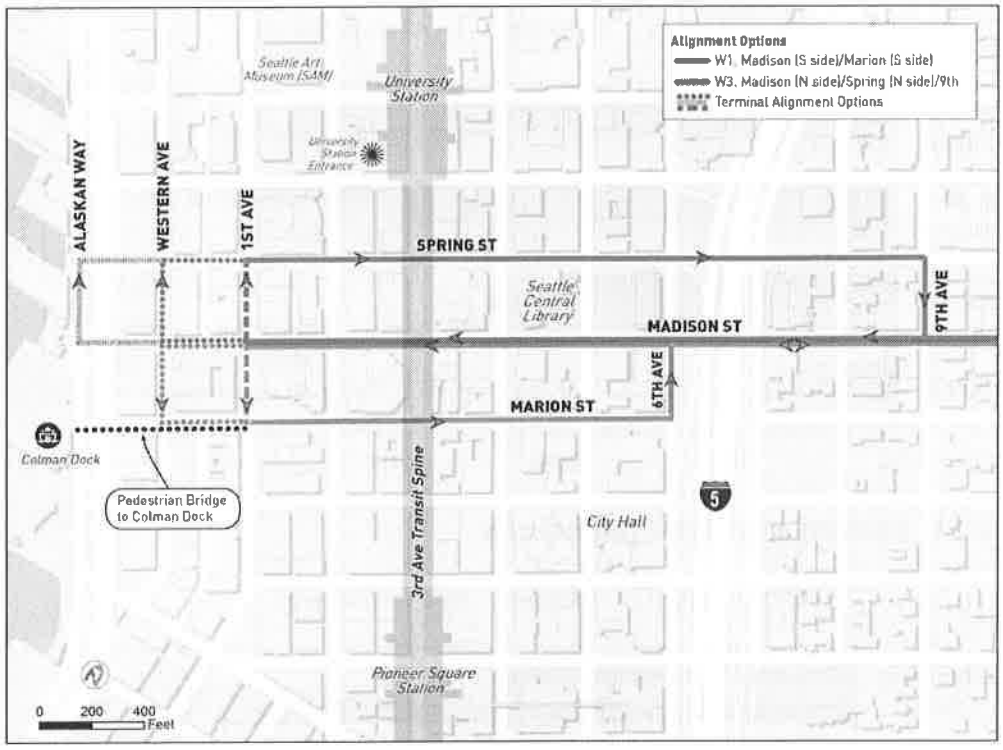


Figure 2-9 Eastern alignment options

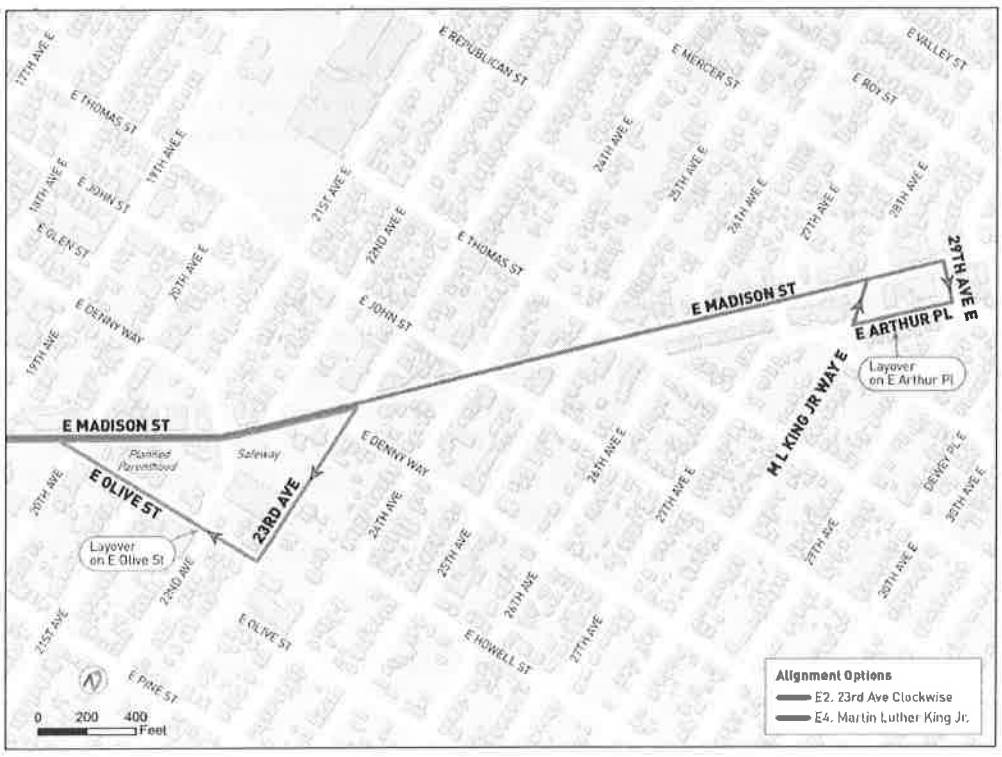


Figure 2-10 Western alignment preference

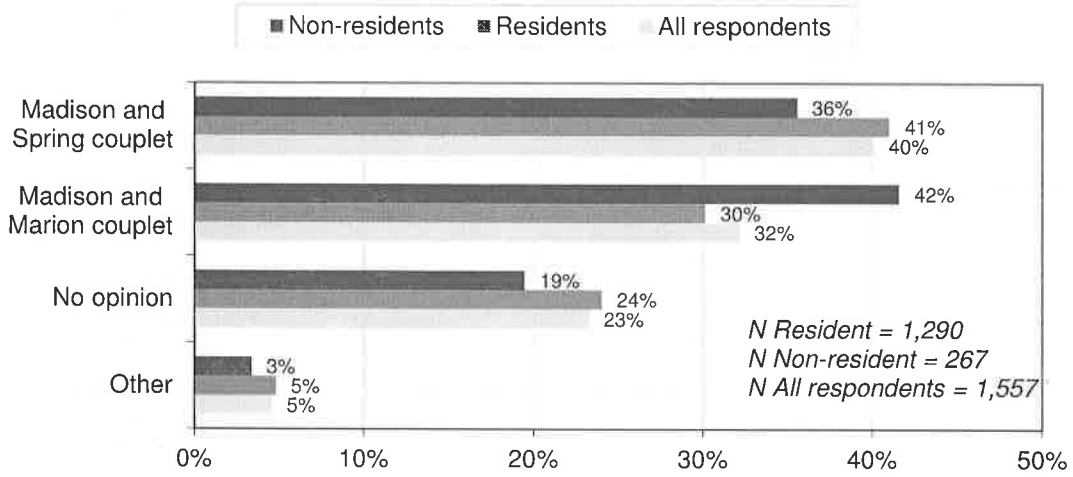
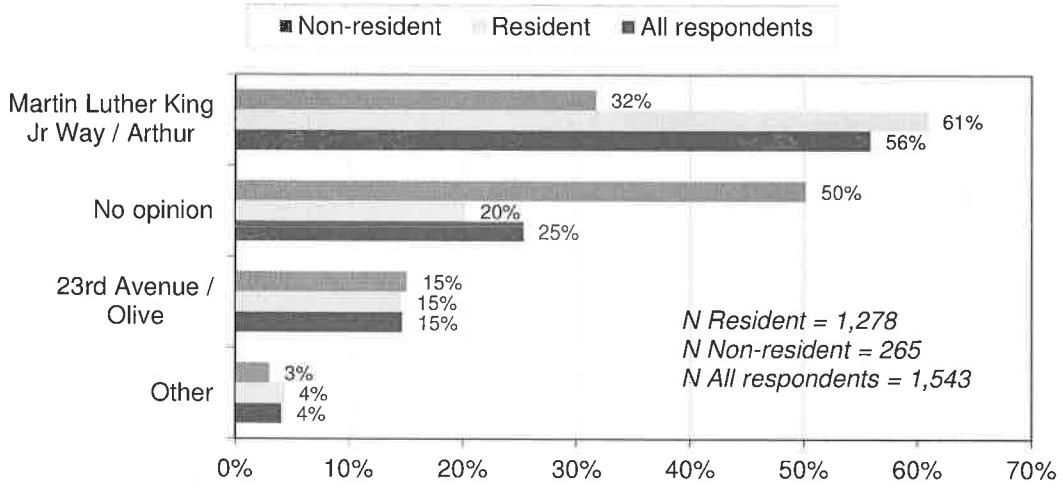


Figure 2-11 Eastern alignment preference



As part of the Madison Corridor BRT project, SDOT is planning improvements on one east/west bicycle facility in the general vicinity of the Madison Street corridor (Figure 2-12). The survey presented two options for improved bicycle access. Of the respondents who indicated an opinion[2], Alternative 2 received the most support with 63% of Seattle residents and 52% of non-Seattle residents (Figure 2-13). This option would enhance bicycle facilities along Union St, 27th Ave and Arthur Pl. Alternative 1 (which would improve Broadway, Denny Way, 21st Ave, Thomas St, and 24th Ave) was supported by roughly three-tenths of respondents.

[2] 40% of respondents to this question indicated "No opinion." The data presented here ignores these responses and calculated the percent of people who selected Alternative 1, Alternative 2 or Other.

Figure 2-12 Bicycle route options

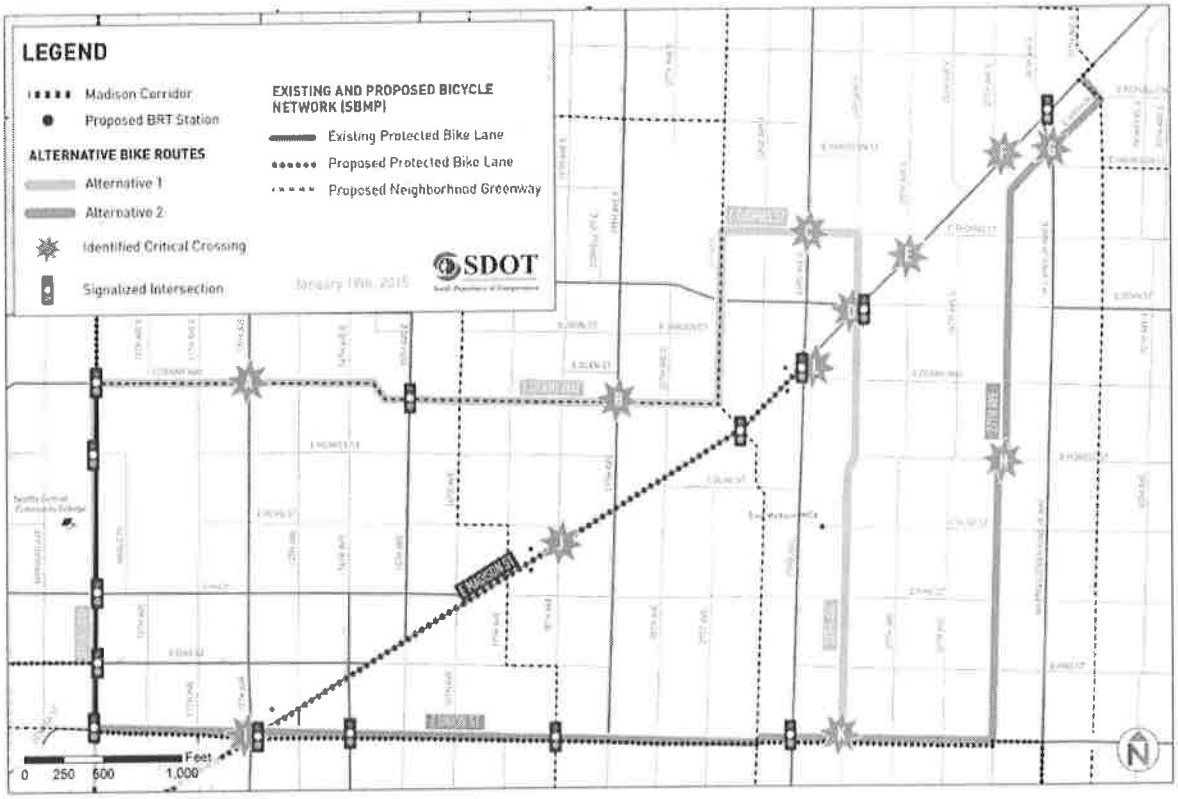
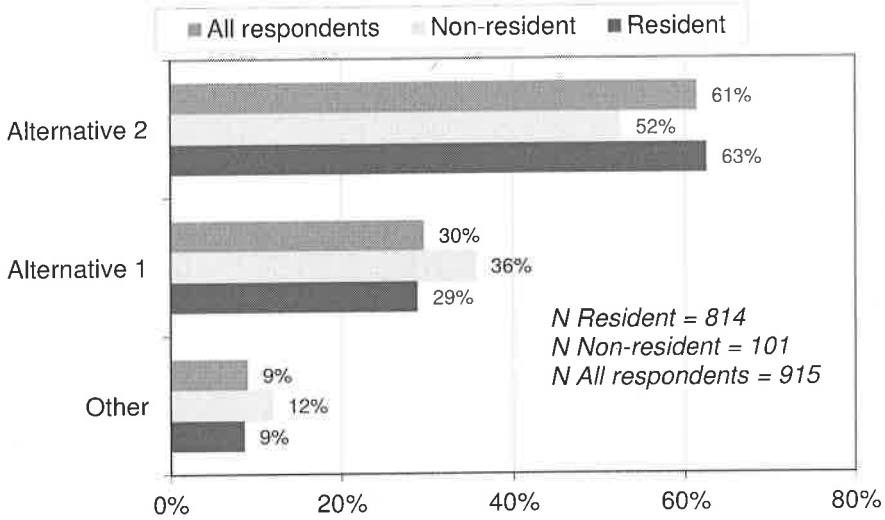
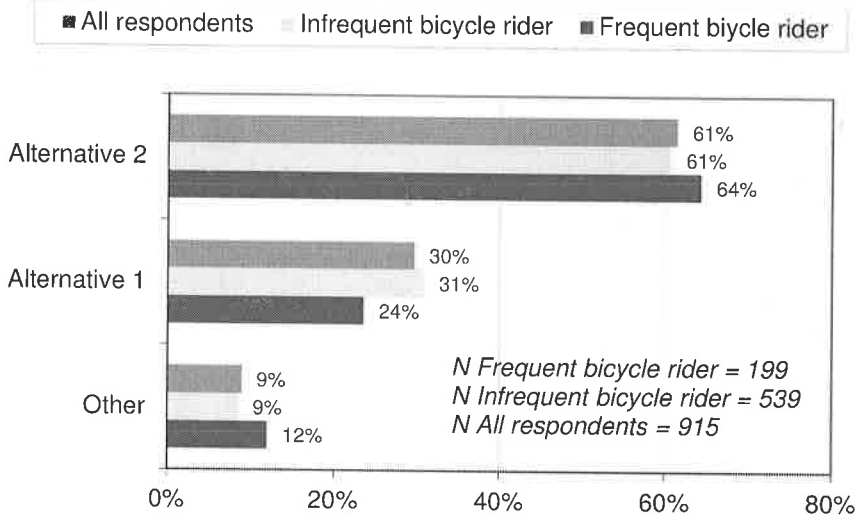


Figure 2-13 Bicycle route preference



There was minimal difference between frequent and non-frequent bicycle riders in the route selected for improvements (Figure 2-14). More than 60% of both frequent and infrequent bicycle users[3] selected Alternative 2 as their top choice.

Figure 2-14 Bicycle route preference, by frequency of bicycle use



Additionally, the survey asked respondents to select the intersections which are most important to enhance access and improve safety for people traveling on foot and by bicycle (Figure 2-15). The intersection of 12th Avenue and Madison Street was selected by three-fifths of respondents, followed by 23rd Avenue and Madison and 12th Avenue and Denny. These rates were very similar for people who are frequent bicycle riders and those who are not (Figure 2-16).

[3] Frequent riders are those who indicated they ride a bicycle at least three times a week. Infrequent riders ride two or fewer times per week.

Figure 2-15 Intersection enhancement preference

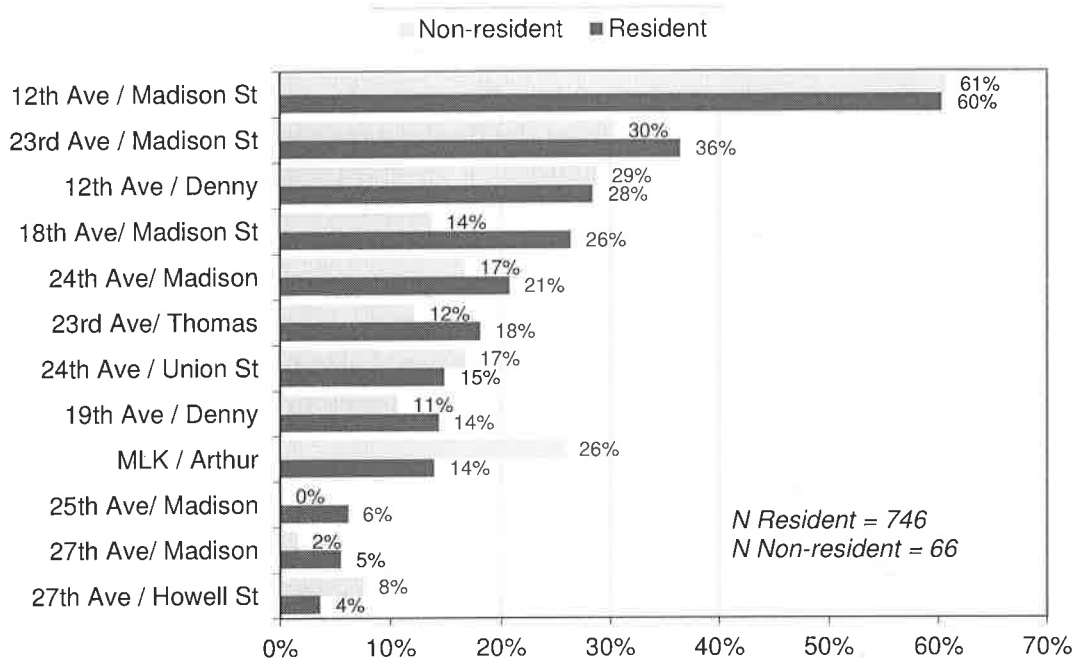
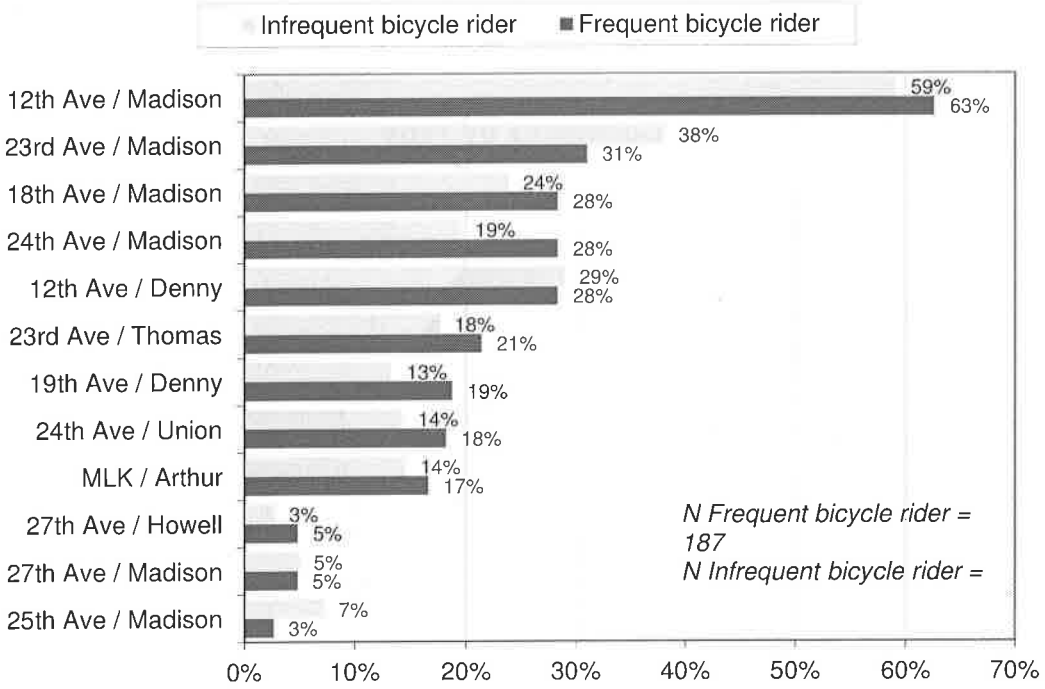


Figure 2-16 Intersection enhancement preference, by frequency of bicycle use



3 WIKIMAP SUMMARY

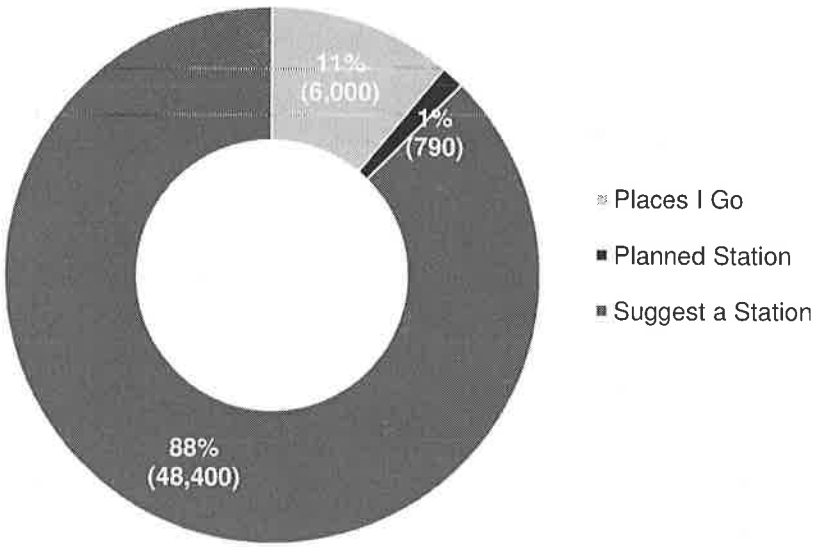
Overview

The Madison Street Corridor BRT Study's online survey was supplemented by a web-based mapping exercise, linked from the final survey page. The mapping exercise was hosted on the Wikimap platform, a program that allows people to place new content on a map and vote (agreed or disagree) on other's content. Survey participants were asked to comment on three topics:

- **Planned Stations.** Survey respondents could vote "like" or "dislike" for planned stations but could not add comments.
- **New Proposed Stations**. Respondents could also propose new station locations and comment and vote on those proposed by previous survey respondents.
- **Destinations.** Respondents were asked to identify places they travel to in the Madison corridor, which other participants could also vote and comment on.

A total of nearly 3,000 votes and comments were added to the online map from nearly 500 respondents, including 170 points for suggested stations and 397 points for destinations. The majority of votes and comments were related to user suggested stations (Figure 3-1). Some stations attracted as many as 200 votes and comments from survey participants. Planned (proposed) station comments are low because respondents could not comment on an existing station; rather they could suggest a station in the same location to add a comment. Some "suggested" stations are placed to comment on proposed station locations.

Figure 3-1 Total Votes and Comments by Type



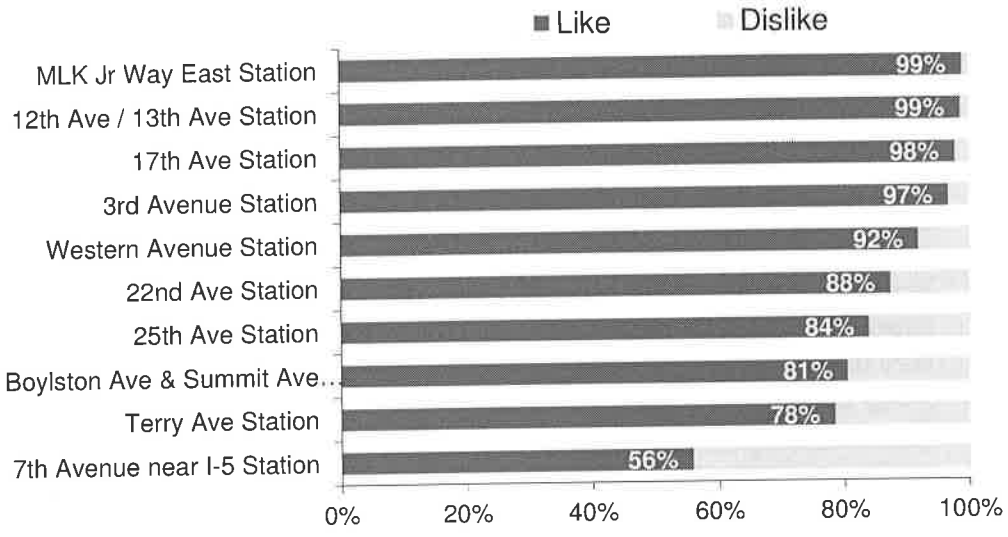
Proposed Stations

A total of 10 proposed stations were shown in the mapping exercise (general locations), and respondents were able to indicate their like or dislike of the proposed station locations. Figure 3-2 and 3-3 (on page 3-20) show survey results by station. The most popular stations, in terms of percentage of voters who liked the station, were the stations at MLK Jr. Way East, 12th/13th Avenue, 17th Avenue, and 3rd Avenue. The 3rd Avenue station and MLK Jr. Way East station both received the highest number of total votes, indicating strong preference for ensuring Madison BRT provides easy transfer opportunities to the 3rd Avenue Transit. There was also significant support for extending the corridor past 23rd Avenue to MLK Jr. Way.

The station receiving the lowest support was the station located on 7th Avenue. The comments in this area (detailed further in the following section) suggest that many survey respondents would like a station at 5th or 6th Avenue downtown, and/or a station at 8th or 9th Avenue.

Although 78% of respondents liked the Terry station location, suggestions for stations at 8th, 9th, and Boren avenues were also popular, indicating that some would prefer these locations to Terry. Several other stations had less than90% agreement (Boylston & Summit, 25th Avenue, and 22nd Avenue), although this is does not represent significant disagreement with these station locations.

Figure 3-2 Proposed Station Voting Summary



Suggested Stations

A total of 174 points were provided as suggested stations. A total of 260 likes and comments were made on points further than a half mile from the study corridor, compared to 1,050 within a half mile. Other streets that attracted a significant number of suggested stations included Seneca downtown and in First Hill, E Union to Madrona Beach, and Broadway north of Madison. These stations included locations in Lower Queen Anne, Belltown, South Lake Union, Capitol Hill, SODO, and the Central District.

There were over 250 likes and comments related to improving transfer opportunities. This input suggests that many survey respondents do not envision making trips that start and end on Madison, but rather using the line the reach other transit routes. There appears to be a preference to locate stations as close as possible to major intersections and north-south corridors, regardless of whether there is current transit service.

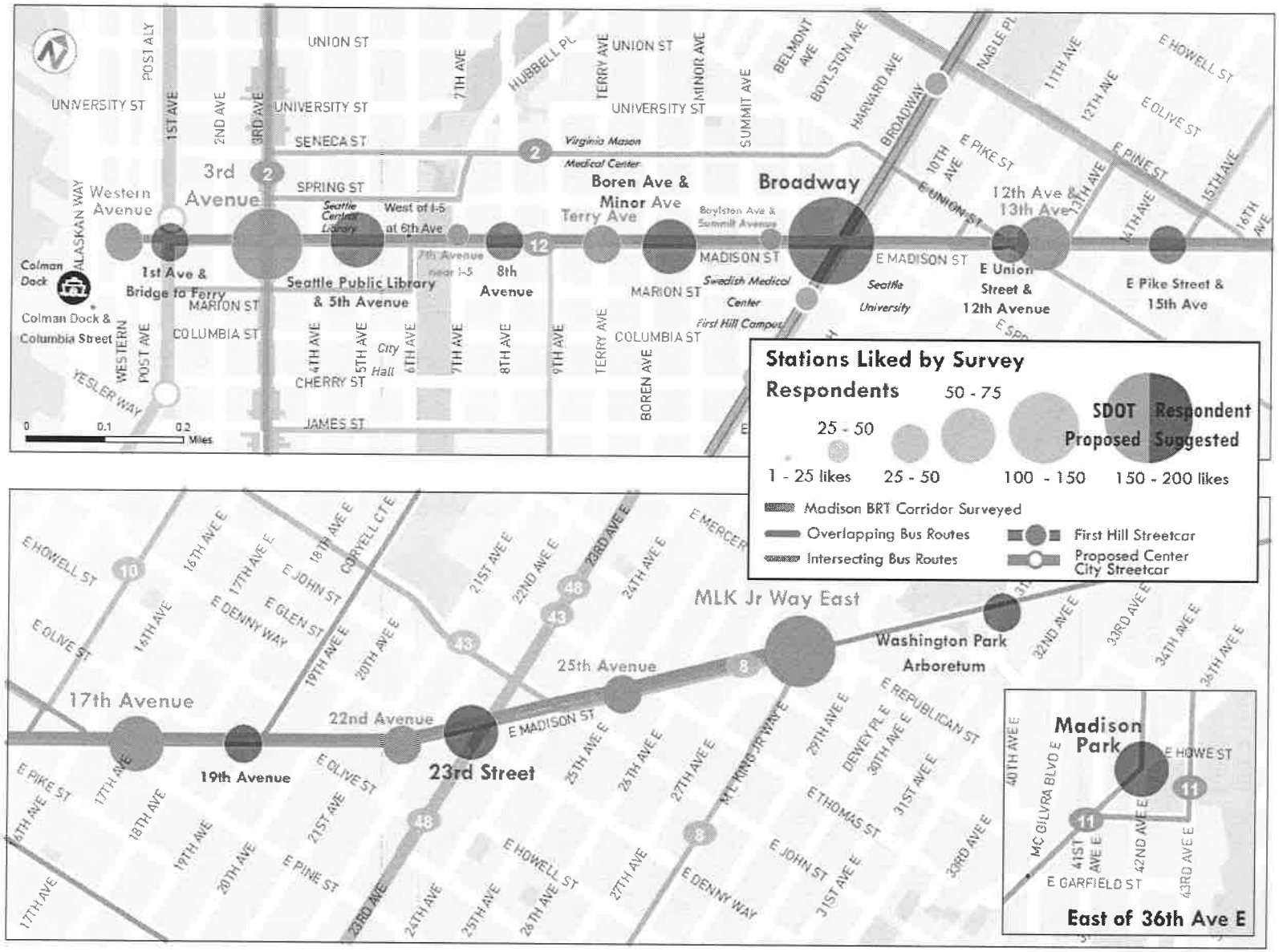
Top station suggestions and their relation to planned stations are summarized below and are shown in Figure 3-3.

- **Broadway & Madison (related to the proposed Boylston & Summit station).** A significant number of respondents supported moving the proposed Boylston & Summit station closer to Broadway (211 votes and comments). Respondents noted that Broadway serves Seattle University and Central Seattle students as well as a planned Whole Foods development. However, the primary component of support for a Broadway station is the transfer opportunities provided at Broadway, with over 100 comments and "I agree" votes for a Broadway station. The First Hill Streetcar, which has a planned station at Broadway and Marion, was mentioned by numerous survey respondents, although Routes 9, 60, and a variant of Route 43 also serve Broadway. (It should be noted that Boylston provides a shorter and flatter connection to the streetcar and bus stops).
- **23rd & Madison (related to the proposed 21st & Madison station).** Several station locations were suggested east of the proposed 21st & Madison station. There were 80 total comments and "I agree" votes in support. Many comments indicated that transfer activity at this location is very important, particularly to Route 48, but also to Routes 43 and 8.
- **5th & Madison (related to the proposed 7th Avenue/I-5 station).** There were 63 total comments and "I agree" votes for station at 5th and Madison. While the primary attraction is the Seattle Central Library, a stop at 5th Avenue would also serve other downtown destinations uphill from 3rd Avenue; there is an approximately 70ft elevation gain between 3rd and 5th.
- **Boren & Madison (related to the proposed Terry Avenue station).** There were 73 comments and votes in favor of a station at Boren instead of Terry. Comments emphasized that this location seems

like a more intuitive station location. Commenters stated that this station location serves more destinations and bus transfers and better positions passengers to make the hill connection to Swedish Hospital.

- **Arboretum Station.** There were 70 votes in favor of a station near the Arboretum at Lake Washington Boulevard and E Madison.

Figure 3-3 Proposed and Suggested Stations Input Map



Corridor Destinations

Respondents who participated in the mapping exercise were also asked to indicate the places they regularly visit along the Madison corridor. A total of 400 destinations were added to the map, with nearly 600 additional comments and likes. Destinations pinpointed by respondents are mapped in Figure 3-4.

Destinations in downtown were concentrated heavily along Madison Street, with smaller concentrations north along 1st and 3rd Avenues and south of Madison where a number of office towers are concentrated. In comments, a number of people indicated destinations along 1st Avenue, such as the Seattle Art Museum, and Pike Place Market (30 votes), and along 3rd Ave including the Downtown Seattle Transit Tunnel. Colman Dock drew 20 votes.

First Hill destinations fell mostly south of the corridor, with the exception of Virginia Mason. Other notable destinations included the Polyclinic (15 votes), Town Hall (10 votes), Horizon House, and several destinations on Cherry Street.

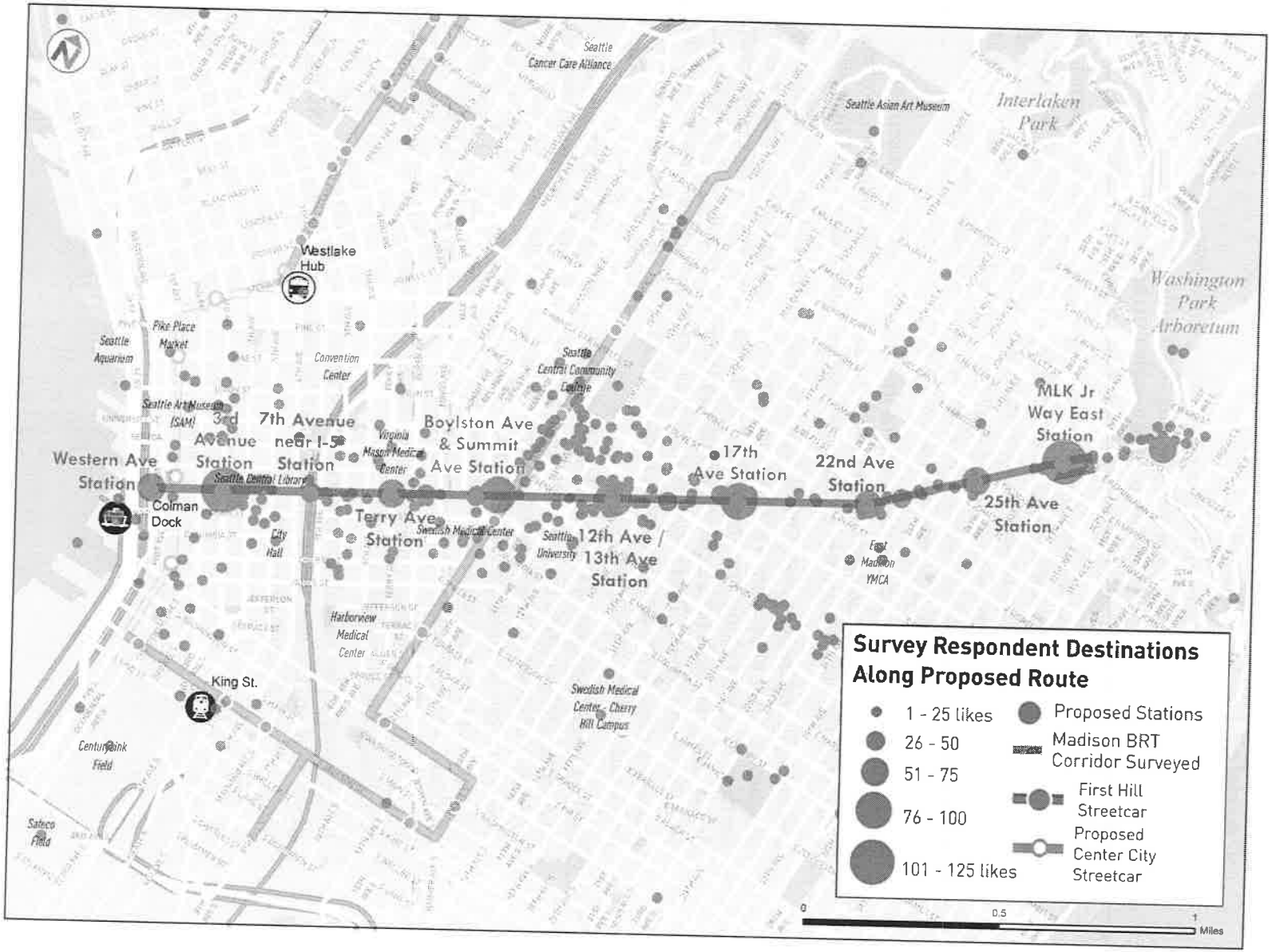
Capitol Hill destinations were most concentrated on the corridor with the highest number of votes at proposed station locations. Other significant vote areas were north of Madison along Broadway, Pike, and Pine (80 votes) with many smaller destinations such as bars and restaurants in the Pike/Pine area several blocks from Madison Street. There were two large clusters of destinations around the grocery stores at 17th and Madison, specifically at the Central Co-op (40 votes) and Traders Joes (50 votes).

In the eastern portion of the corridor, destinations were much more closely clustered, with pockets on E. Union between 20th and 23rd (53 votes) composed primarily of small businesses including several bars, shops, a post office, and movie theater. Around 22nd and Madison where there is a Safeway grocery store with apartments and several other services (46 votes), and around MLK and Madison where this also a concentration of small businesses (64 votes).

The area at the southern tip of the Arboretum, just beyond the potential MLK terminus, also attracted 50 votes.

Respondents also added numerous destinations outside of the corridor, particularly to the east along Madison in the Madison Park area (40 votes) and north on 19th Avenue (30 votes).

Figure 3-4 Destinations Input Map



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Appendix J.

Madison Corridor BRT Study

NOVEMBER OUTREACH REPORT

The Seattle Department of Transportation

Madison Corridor Bus Rapid Transit (BRT) Study

November Outreach Report

December 2015

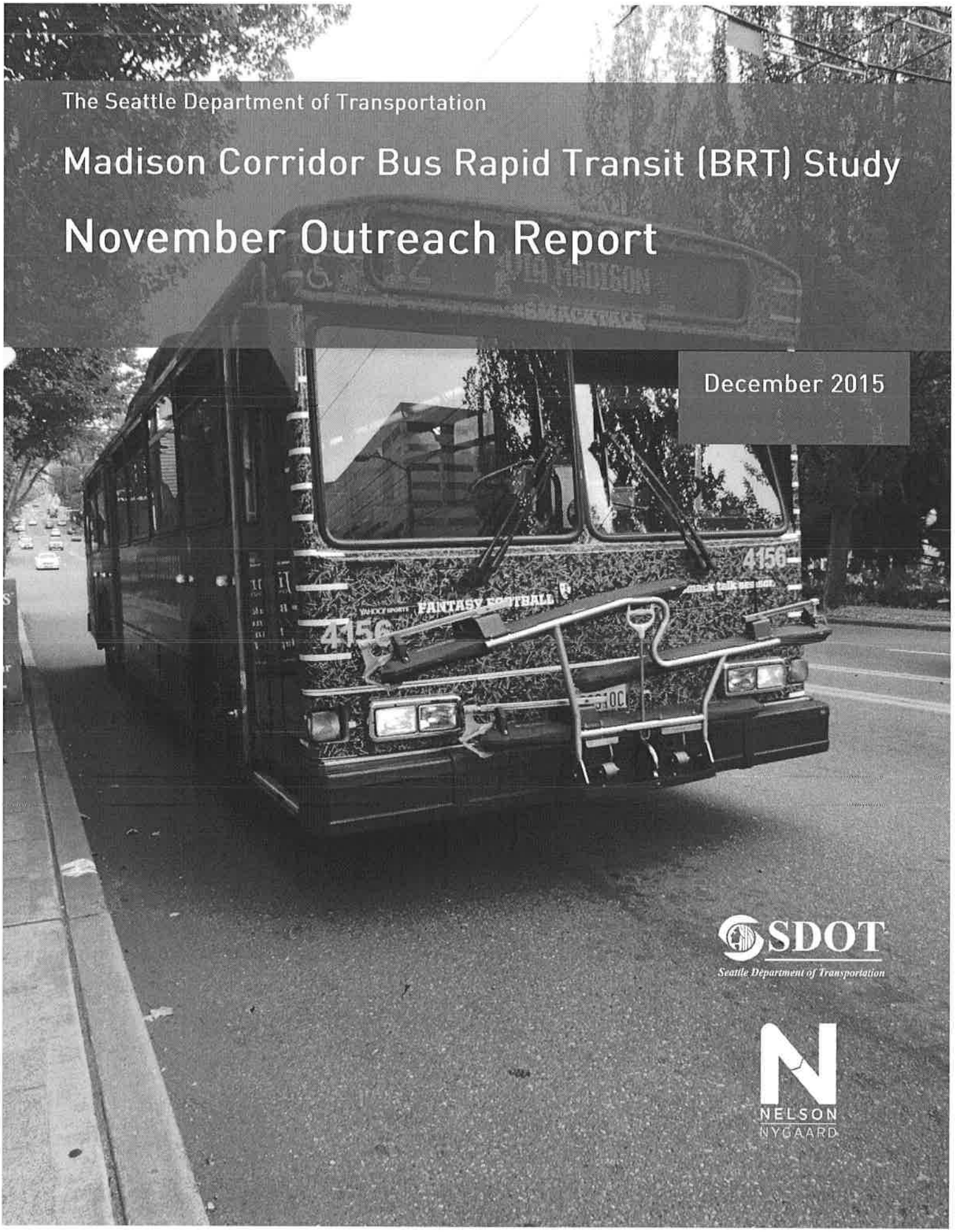

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Table of Contents

1 INTRODUCTION

This report summarizes comments received from members of the public during the fifth round of outreach for the Madison BRT Study, including comments received at the open house held on November 16, 2015 at the Seattle Public Library from 5 to 7 p.m. Seventy-six comments were submitted at the open house, and additional comments were written on detailed maps of the corridor and on 31 post-it notes. The public also submitted comments by e-mail to SDOT staff during the month of November.

The primary purpose of the open house was to present the draft locally preferred alternative (LPA) for the Madison BRT project, show how SDOT had responded to previous community input, and receive additional public comments. A brief presentation was made describing the proposed project at a summary level, and a number of boards and drawings were on display providing additional detail.

Figure 1 November 16 Open House

2 KEY THEMES

Below are the key themes the project team heard. These themes are discussed in more detail in Section 3.

- **General support** – Comments provided overwhelming support and general praise for the project and expressed optimism in how the BRT project would solve existing transit issues along the corridor.
- **Extent of transit-only lanes** – Many attendees commented on the need for transit-only lanes to be extended along a wider portion of the project. People were concerned that operating BRT in mixed traffic or in Business Access & Transit (BAT) lanes would reduce the speed and reliability of the line.
- **Bike and pedestrian concerns** – There was general concern for the safety of people walking and people riding bicycles along the corridor. The most common locations of concern for the commenters were Madison St and John St, Madison and 27th Ave, Union and 24th Ave, and along Union St.
- **Automobile access/capacity** – Comments related to automobile access and capacity were generally supportive of eliminating parking and reducing lane widths. There were some comments that questioned the impact of the BRT project on emergency vehicles and some commenters who opposed the project based on increased travel time and reduced capacity.
- **Terminus** – There was general support for the terminal location at MLK Jr Way. However, some concerns were raised about the impact to residential neighborhoods.
- **Service** – There was overall support for the proposed BRT service hours along the Madison Street corridor. One commenter expressed concern that the Madison BRT project would result in the reduction or elimination of service elsewhere.
- **Timeline/implementation** – One commenter wanted the project's timeline to be shortened, while another believed the timeline was too quick.
- **Madison Park extension** – The majority of commenters supported an eventual extension to Madison Park. People support the extension because of existing travel patterns, a need for improved service on the east end of the Madison St corridor, and existing crowding on buses to Madison Park.

3 COMMENT FORMS

This section summarizes the written feedback received at the meeting. The SDOT-provided comment form asked attendees to respond to three items:

1. Share your comments on the preferred design concept (LPA).
2. Do you support a potential future extension of service to Madison Park?
3. Share any additional comments.

Comments on Locally Preferred Alternative

Responses received on comment forms are grouped below by theme and topic. The most common concern expressed by respondents was regarding the extent of transit-only lanes, followed by pedestrian and bicycle-related access and safety concerns, and automobile access and capacity along the corridor.

General support

Several individuals expressed general support for the project and said they believed that BRT would solve problems with existing Route 12 service, that the proposed project would maximize the benefits of BRT while also effectively addressing public and stakeholder comments, and that by using Spring Street it would successfully address space constraints downtown. One person indicated that the proposed frequency of every six minutes was worthy of a BRT project.

Transit-only lanes

A significant number of respondents were opposed to operating BRT in mixed traffic or in Business Access & Transit (BAT) lanes. Many commenters opined that SDOT was diluting the quality of BRT service and that it would not be valid to consider the proposed project a "full" BRT project. While some called for transit-only lanes to be extended in specific segments (e.g., east to 23rd Ave), others asked for transit-only lanes to be implemented along the entire length of the corridor from 1st Avenue to MLK Jr. Way.

The configuration of transit lanes in downtown specifically was commented upon by several attendees. They suggested that BAT lanes would not be effective because the volume of vehicles that would use the lanes to turn would severely delay BRT vehicles. Many commenters said they valued fast and reliable transit over free-flowing traffic, and said the City should not sacrifice elements of high-quality BRT to appease motorists.

Others comments related to transit-only lanes were more nuanced. Several called for strict enforcement of BAT lanes to ensure the ongoing reliability and timeliness of buses along Madison. One person asked for performance metrics to be established that would help determine whether mixed traffic lanes should be converted to BAT lanes and whether BAT lanes should be turned into exclusive lanes.

Only one commenter asked for transit-only lanes to be eliminated. According to this person, the streets in the corridor are not wide enough to provide space for both private vehicles and buses, and there are too few buses to warrant a dedicated lane.

Bike and pedestrian concerns

Many comments raised concerns relating to the safety of pedestrians and bicyclists along the corridor. Most of these comments related to specific locations. The intersection of Madison St, 24th Ave and John St was a concern for several commenters. Part of a future greenway corridor, many believe this intersection is unsafe and uncomfortable for those crossing on foot. One commenter requested that the proposed stops at this location be moved, because a stopped bus

could prevent a driver making a right turn around the bus from seeing a pedestrian or bicyclist in the crosswalk.

Other intersections where safety concerns were raised included Madison and Union St, Union and 24th Ave, and Madison and 27th Ave. One commenter asked that more consideration be shown for those who are visually impaired and for people who use wheelchairs.

Union St, part of the parallel bicycle facility proposed as part of the project, was also mentioned by several commenters. Some supported protected bike lanes on both sides of Union, and one individual said that too many stop signs for those going downhill are dangerous and may encourage cyclists to use other routes.

Automobile access/capacity

The third most common issue addressed in the comments was automobile access and capacity. Some wanted to reduce auto speeds by reducing lane widths to 9 feet, and to eliminate parking downtown along Madison and Spring Streets. Several commenters brought up issues related to emergency services and people who are making medical-related trips by car. These people were concerned about reduced speed and capacity for these vehicles.

One commenter questioned the methodology of the traffic forecasts, suggesting that they were unrealistic or inaccurate. This person noted that eliminating a lane of traffic that is operating at capacity should dramatically increase travel time, instead of slightly increasing it as SDOT has projected.

A few commenters were opposed to the project on the basis of increased vehicular travel time and reduced traffic capacity. One resident noted that SDOT had not provided information on the impact of BRT on traffic using parallel routes. This individual suggested that the bike lanes on those streets should be eliminated in order to accommodate the increases in vehicles volumes that are expected there.

Terminus

There were several comments related to the proposed terminus at MLK Jr Way. Most were supportive of the terminal location, though a few raised concerns. One person suggested that buses turn around at Olive St and 22nd Ave instead, as this location is less residential, would be easier for bus operations, and is at the boundary of the Capitol Hill neighborhood. Another was concerned that the proposed terminus would effectively convert surrounding neighborhood streets into an informal park-and-ride. This commenter asked SDOT to aggressively enforce parking permit requirements in order to reduce opportunities for people to use the streets to park their vehicles. One resident noted that the area is residential and asked for buses to be turned off when drivers are on layover.

Transferring opportunities

Only two commenters mentioned transfer opportunities. One commenter praised the level of integration BRT service would have with the Center City Streetcar. Another person indicated that they would need to make two transfers to travel from their home near Lake Washington to their work location in South Lake Union.

Station locations

One commenter raised the issue of stop placement. This individual indicated that a stop was needed at 8th Ave due to the significant growth that is occurring in that area, and because the steep slopes nearby would reduce the distance many people would be willing to walk (note: stops are proposed at 8th Ave).

Service

One commenter asked for "round-the-clock" service, and another was concerned that BRT would result in the decrease or elimination of service on other routes that serve First Hill and Capitol Hill. This person asked for BRT to be added to existing service and not replace or change any other routes.

Timeline/Implementation

Two people commented on the project's timeline. While one person thought the project should be implemented sooner than planned, another was concerned that the timeline was not realistic.

Support for extension to Madison Park

On the issue of extending BRT service to Madison Park, a majority of those who stated an opinion were in support. The most common reasons cited for support were: the future growth in travel demand to and from Madison Park; that the proposed corridor for the first phase is too short to be effective; that transit service to Madison Park has always been lacking; that existing peak-period buses are usually crowded; that the extension would help residents of Madison Park connect to Link for trips to other parts of the region; and that it would increase access to Lake Washington, businesses and summer events.

Some people who expressed support for the extension indicated that their support was conditional. They suggested that their reservations and concerns would first need to be addressed before they could entirely support the extension. Some of these conditions were:

- Center running transit lanes should be extended along the entire corridor;
- Trolley buses should be used along the entire corridor;
- Service should be extended only if demand in Madison Park warrants the service;
- Service should be extended only if surrounding areas are upzoned;
- Service should be extended only if it is less frequent than in other segments of the corridor; and
- Service should be extended only if frequency and reliability can be maintained.

A few commenters did not support the proposal to extend service to Madison Park. One said it would be too expensive, given the ridership. Another said that the funding for the project could be better spent in other parts of the city. Another suggested that shuttle service should be provided in place of the extension.

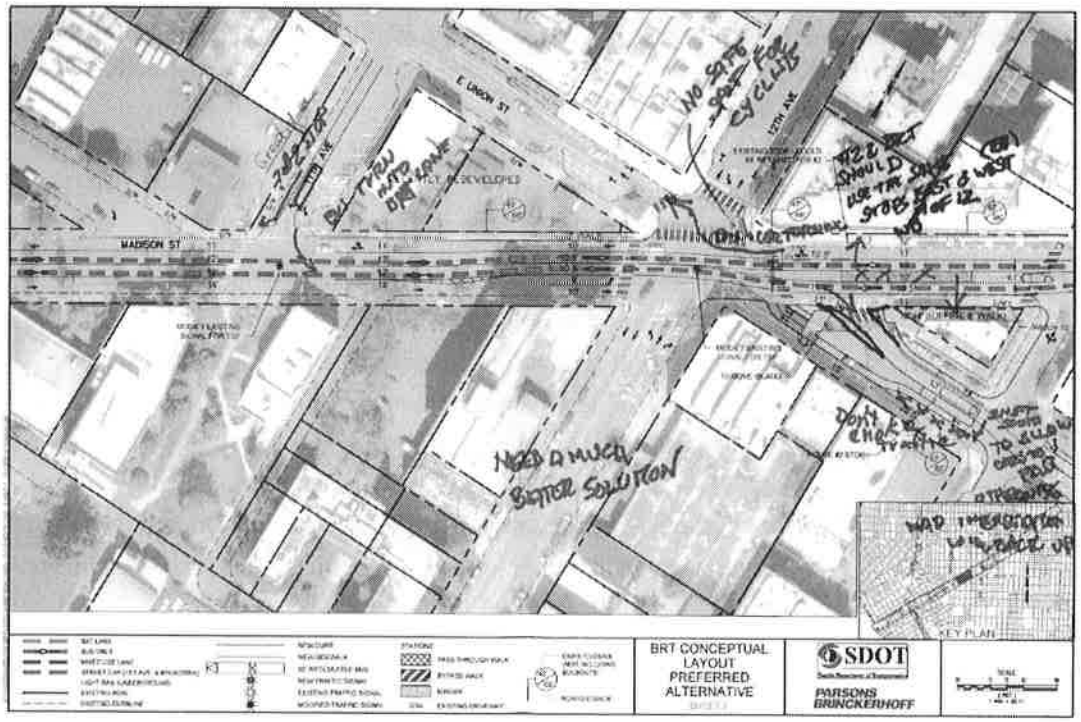
4 MAP COMMENTS

Meeting attendees were able to comment on two maps. The first was a series of 14 detailed pages, showing right-of-way, lane configurations and station locations. The second was a schematic map of the corridor where attendees were encouraged to place comments on post-it notes and place them on the map.

Relatively few comments were received on the detailed map set. Most comments were related to issues of placement and location of stops and connections:

- The parking lane on the north side of Spring east of 6th Ave should be converted to a left-turn lane so that BRT vehicles do not have to wait behind vehicles maneuvering in and out of parking spaces;
- The stop at Boylston Ave should be moved east, to be closer to Broadway;
- Route 2 and BRT should use the same bus stops at Madison and 12th Ave;
- It would not be safe for bicyclists on Madison Stat 12th Ave/Union St,
- Improved pedestrian crossings are needed on 24th Ave at Madison St;
- John St should be restricted to eastbound-only east of Madison St; and
- The westbound stop at 27th Ave should be moved closer to MLK Jr. Way to be closer to businesses.

Figure 2 Comments on Detailed Corridor Map



Many of the comments written on post-it notes echoed the comments received on the comment forms. Commenters expressed support for more center-running dedicated transit lanes and for strict enforcement of BAT lanes in order to prevent drivers from blocking them. They also expressed concern about pedestrian and bicycle safety at Madison St and 24th Ave.

Additionally:

- One commenter expressed that this plan would continue the status quo of placing poles and street furniture in walk zones, making it difficult to walk on sidewalks. The resident suggested pole consolidation and effective placement of street furniture to preserve sidewalk space.
- One commenter suggested that SDOT focus on developing dedicated transit-only lanes downtown, and invest in areas along Madison Str in the future if necessary.
- One commenter requested that the internal configuration of Madison BRT vehicles should allow for more space for standees by reducing the number of seats.

5 E-MAIL COMMENTS

SDOT staff received more than 30 comments from the public by e-mail during the November outreach period. Many comments expressed desire for exclusive center-running lanes along the entire BRT corridor and called for safety improvements at the Madison St/John St/24th Ave intersection.

Transit-only lanes

The primary issue brought up by those who submitted comments by e-mail was dedicated transit lanes. Many suggested that it was unacceptable for SDOT to develop a BRT corridor with only partial transit lanes when the public expressed support for improved transit through the Move Seattle levy. Commenters said that reliable transit was more important to them than on-street parking, and that buses should not be relegated to a status lower than automobiles. Several people predicted that delays will prove commonplace along the corridor because of the lack of transit priority and the high volume of private vehicles that will use the BAT lanes. Some expressed concern that as the first BRT project following the Move Seattle vote, Madison BRT would set an unacceptable precedent that would be repeated in the remaining Move Seattle BRT corridors. One commenter suggested that SDOT simply increase the frequency on Route 12 instead of diluting the BRT brand.

Bike and pedestrian concerns

Many people who submitted comments by e-mail said that the pedestrian and bicycle crossings at the intersection of Madison, John and 24th Ave were not safe, and called on SDOT to address their concerns. One suggestion was to move the stop bar for eastbound Madison St traffic further west.

Union St was the second most commented-upon topic relating to pedestrian and bicycle issues. Some called on SDOT to prioritize safety over convenience for motorists, and to provide separated bike lanes by removing on-street parking.

A few commenters voiced opposition to the protected bicycle lanes, expressing concerns about the congestion and traffic that might be generated as a result. One Madrona resident opined that the proposed changes to Union St would isolate the neighborhood, increase the number of people who park on area streets, make it difficult for emergency services to get through, and cause traffic to use residential streets.

Miscellaneous concerns

Issues raised in the e-mails included:

- Desire for a BRT station at 23rd Ave;
- Requests for all meeting materials to be made available ahead of the meeting;

- The terminus at Madison Park should be implemented in the first phase, in order to connect all business districts together and to avoid issues with placing a terminus in a residential area;
- A request for traffic calming along Madison to be a component of the project;
- SDOT should consider cheaper solutions than BRT, including changes to traffic signal timing, and construction of a gondola;
- Project staff should ignore objections from neighborhoods, and build whatever they think will best serve the community; and
- Support for the proposed stop locations in the First Hill area and for the improvements to the sidewalks that would occur as part of the project.

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Seattle Department of Transportation

December 2015

Appendix K.

Madison Street BRT

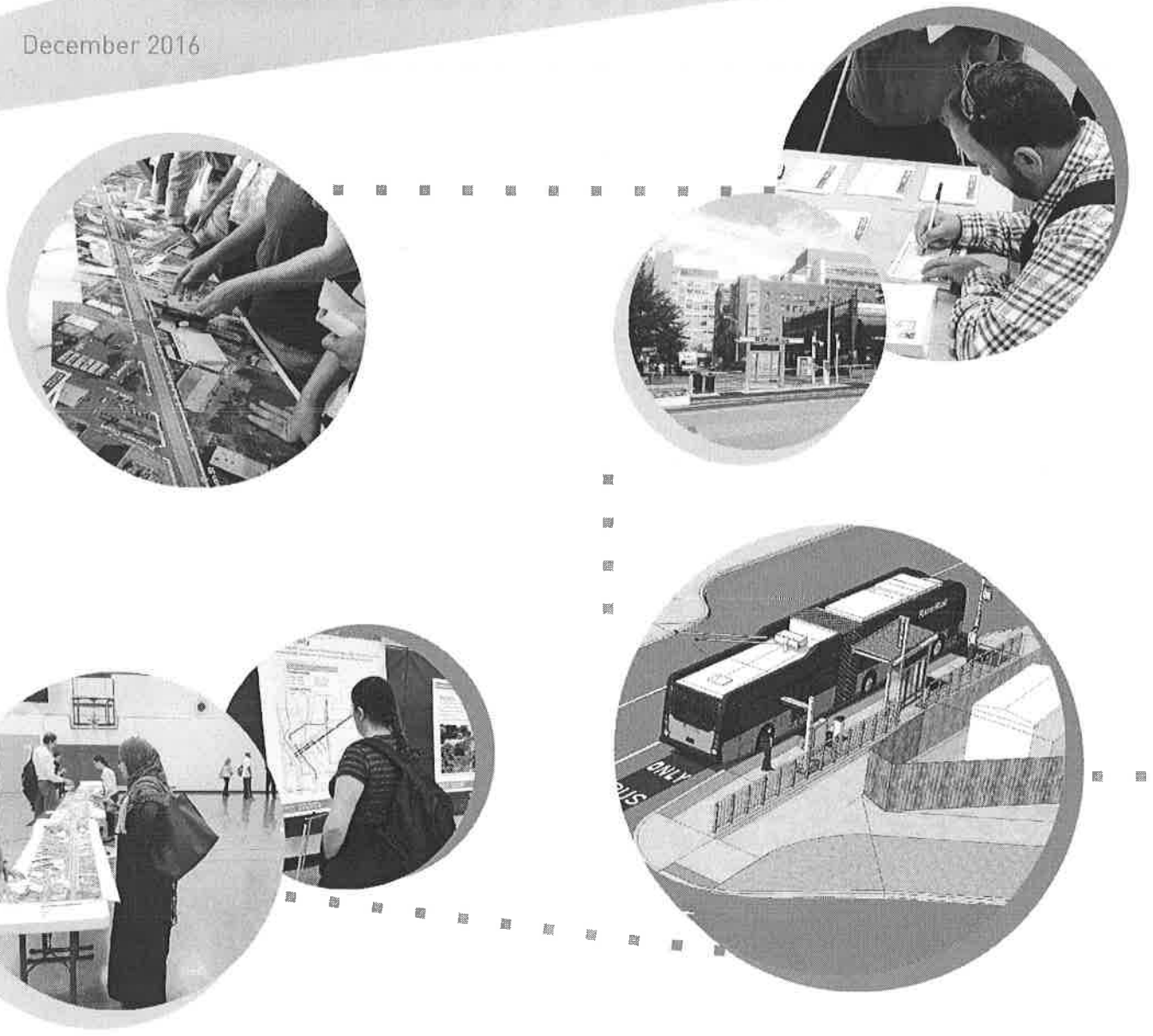
DESIGN PROGRESS OUTREACH SUMMARY

Seattle Department of Transportation

Madison Street Bus Rapid Transit (BRT)

DESIGN PROGRESS OUTREACH SUMMARY

December 2016



Seattle Department of Transportation

Introduction

The Madison St corridor in Seattle is busy, dense, and still growing. To improve travel along the corridor, Madison Street Bus Rapid Transit (BRT) will provide frequent, reliable, and safe bus service along the Madison St corridor between First Ave in downtown Seattle and Martin Luther King Jr Way in Madison Valley.

In 2015, community input was essential to the route design, resulting in several major alignment adjustments. In spring through fall 2016, the project invited additional community feedback on design updates.

Notifications and opportunities for comment included:

- Project briefings to stakeholder groups
- Email notifications to the program's distribution list announcing upcoming open houses, with translated text in Chinese, Spanish, Korean, Somali, French, and Hindi
- A corridor-wide mailing, including translated text, announcing the open houses
- 12 web and print ads in local media outlets, 7 of which were translated and placed in ethnic media outlets directing users to translated webpages
- Door-to-door outreach to businesses on or near Madison St to reach owners and employees whose schedules might prevent them from attending the open houses
- Open houses in 3 different neighborhoods along the corridor, with two opportunities for evening attendance and one mid-day. An online open house was also available.

The 3 open houses were held at Seattle University (August 3), Town Hall (daytime on August 4) and at Meredith Mathews YMCA (August 9). We ran an online open house from August 2 – 16 that provided people who could not attend the open houses a chance to view the same information and provide comment. We had interpreters at the open houses for Spanish, Chinese, Korean, Somali and Hindi-speaking attendees, and we offered translated materials both in-person and online.

We received over 350 comments on the design updates via comment cards, emails, online comments, and at our open houses. Broad support for the project has been expressed in both the comments received and during our briefings and door-to-door outreach; comments explicitly supporting the project's aims far outnumbered those opposing the project.

What follows is a high-level summary of the feedback we heard, grouped into topics and themes:

- Bus rapid transit stations and service
- Bus features
- Transit integration and changes to King County Metro service
- Bicycle infrastructure
- Pedestrian infrastructure and access
- Lane configuration and congestion
- Parking and hospital access
- Construction

Public Feedback on Design Update – Topics and Themes

TOPIC: BUS RAPID TRANSIT STATIONS AND SERVICE

We received 71 comments that discussed BRT service. Many looked forward to BRT service, especially its expected reliability and speed. Fifty-six comments discussed BRT station features and locations. The feedback submitted formally and gathered during door-to-door outreach indicated support for the BRT station features, including weather protection.

- **Theme: Madison Street BRT should extend farther into Madison Park.**
  - Project team response: The project was originally slated to end at 23rd Ave, but public feedback in the 10% design phase encouraged extension to Martin Luther King Jr Way, which was added to this design update phase. Current project funding does not allow for a further extension of the line at this time, but should the demand and funding be available in the future, the line could be extended further east.

- **Theme: Madison Street BRT should run until at least 3 AM to help people getting off work.**
  - Project team response: Operating at such hours would depend on demand and projected use. On existing RapidRide lines, King County Metro currently provides 1 to 2 trips between 1:30 AM and 4:30 AM.

- **Theme: Weather protection, safety, and seating are important factors in station design.**
  - Project team response: Each station will have at least 1 canopy, and each canopy will have seats. Buses will arrive every 6 minutes during most of the day, reducing the need for much seating. If the need for additional seating arises, those changes can be made after the start of service. The idea of "blue light" emergency phones at stations has been forwarded to the Department of Neighborhoods for consideration in future neighborhood planning.

TOPIC: BUS FEATURES

The comments we received about the buses were largely positive feedback regarding the proposed interior bicycle storage. The all-door boarding and interior bicycle storage are design elements that will decrease loading time and improve route speed and reliability.

- Theme: Interior bike racks are a good idea.
    - Project team response: Interior bike racks are one of the design elements that will decrease the time it takes to load and unload passengers, increasing route speed and reliability. We are working with King County Metro to further assess the feasibility of this proposed design feature.

- Theme: Will buses with left-side doors increase the project cost?
    - Project team response: Buses with doors on both sides allow for the flexibility of center-island stations to serve buses going in both directions, reducing construction costs, while accommodating traditional right-hand stations where appropriate. They also allow the BRT alignment to be straighter, avoiding right-of-way impacts at some intersections.

TOPIC: TRANSIT INTEGRATION AND CHANGES TO KING COUNTY METRO SERVICE

We received 35 comments regarding King County Metro service, many referencing Madison St and 23rd Ave specifically, a key transit connection for transit-dependent communities living or working in east Seattle. Community members were concerned BRT stations were placed far away from the bus routes they use, and would not facilitate easy transfers.

We also heard many questions about how Madison Street BRT would affect existing King County Metro bus service.

- Theme: It is important to have quick, easy, and close-by transfers to other transit services downtown, including Washington State Ferries.
    - Project team response: Madison Street BRT is designed to connect into our existing and future system. A station is planned on 1st Ave, a block away from the Marion St Terminal walkway. The University St downtown transit tunnel station will be approximately 1 block from the proposed BRT station on 3rd Ave. The project is looking at other specific station locations to see if distances to nearby transit connections can be shortened.

- Theme: Move a station closer to 23rd Ave for improved transit connections
    - Project team response: To accommodate left-turn lanes on Madison St, the eastbound and westbound BRT stations had to be located 1 block east and west of 23rd Ave (at 22nd and 24th avenues). There is not enough existing right-of-way to have sidewalks, travel lanes, left-turn lanes, and BRT stations at that intersection, and the substantial volume of traffic turning left warrants left-turn lanes. Having stations 1 block east and west also allows for a downhill or level walk to a connection.

- Theme: How will Madison Street BRT affect existing King County Metro services?
    - Project team response: King County Metro continues to analyze service options along the corridor. About a year before Madison Street BRT service begins, King County Metro will ask the community for input on any proposals for route revisions along the corridor. Transit service to Madison Park will be maintained.

TOPIC: BICYCLE INFRASTRUCTURE

Bicycle access on the corridor was a common topic, with members of the bicycle community actively participating in the feedback process. We received more than 60 comments that referenced bicycle

infrastructure along the corridor, most of which expressed the desire for more infrastructure than is included in the design updates. Many participants expressed concern for how bike facilities were presented, and how facilities may have changed since the planning and early design phase.

- **Theme: Madison St or an adjacent street needs better bike infrastructure**
  - Project team response: The project team is reevaluating the design of 2 Madison St intersections, 12th Ave and 24th Ave, based on concerns we heard about safety and accessibility for people bicycling or walking through these intersections. This winter the project team will discuss their findings with bicycle experts, then share updated designs for public comment at open houses planned for March 2017. SDOT's Bicycle Program is advancing the design of parallel bike facilities in the corridor, and more information will be available in spring 2017.

- **Theme: Extend a bike lane on Spring St east of 4th Ave.**
  - Project team response: Madison Street BRT plans follow the 2016 Seattle Bicycle Master Plan which identifies the protected bike lane extending from 1st Ave to 4th Ave to connect to the 4th Ave bike lane. The roadway lanes and parking lanes are already at or below standard widths, and there is not enough right-of-way to extend the protected bike lane further east on Spring St between 4th Ave and 5th Ave. Additional evaluation is being conducted this winter to see if there are opportunities for additional accommodations.

- **Theme: Concerns about safety for people bicycling, intersection design elements, and intersection flow at 2 key intersections: 12th Ave / Union St / Madison St, and 24th Ave and Madison St.**
  - Project team response: The project received many questions and suggestions about how to improve these intersections, and the project team is reevaluating both intersections for improvements to serve the needs of all users. The project will have more information to share about these intersections in winter 2017.

TOPIC: PEDESTRIAN INFRASTRUCTURE AND ACCESS

SDOT received 80 comments regarding pedestrian infrastructure and access, both from individuals and from organizations. Senior living centers emphasized the importance of locating stations near their residencies for ease of mobility. Most comments advocated for additional crosswalks, especially to the center-running bus stations. Many participants used the roll plot provided at the in-person open houses to point out where crosswalks could be added.

- **Theme: Improve or add crosswalks at various intersections, including 12th Ave and 24th Ave, and near station locations**
  - Project team response: The project will continue to look at pedestrian crossings during the next design phase. Some of the locations for suggested crosswalks would adversely impact BRT travel times (such as 10th Ave and Madison St). The intersection of 12th Ave / Union St / Madison St, and the intersection of 24th Ave and Madison St, are being reevaluated to address the needs of all users, including consideration of crosswalk location and crossing time.

- Theme: Improve sidewalks at various locations to improve pedestrian access to and from stations
    - Project team response: The project is planning to undertake substantial sidewalk repair and restoration work – including approximately 3.5 miles of sidewalk improvements and over 100 sidewalk ramp improvements for better accessibility. This work will include evaluating curb bulbs and sidewalk widening at various locations as appropriate. We will work closely with property owners before construction to design a construction phasing plan, and during construction to keep owners updated and minimize the impact of this work.

TOPIC: LANE CONFIGURATION AND CONGESTION

We received 71 comments about the use and expansion of bus-only lanes. Of those, 55 favored bus-only lanes, including extending them further into the Central Area and Madison Valley. A smaller number (8) expressed concern that bus-only lanes would increase congestion for drivers.

We received more than 110 comments concerning traffic, many of which expressed dismay with the existing heavy traffic in the corridor. Commenters were divided on whether the project would improve mobility or worsen traffic conditions. We also heard specific concern about Spring St between 4th Ave and 6th Ave, and traffic entering I-5.

- Theme: Increase bus-only lanes and provide more physical separation or enforcement of bus-only lanes
    - Project team response: The bus-only lanes will be marked with red paint and signs will emphasize the lane is only for buses. Additional options to indicate separation will continue to be evaluated. For the few drivers who choose to ignore the lane separation, the Seattle Police Department will enforce the restriction. Regarding expanding the bus-only lanes east of 23rd Ave, current traffic analysis indicates buses running in public traffic lanes would maintain good travel times in this stretch of the corridor. However, the city will evaluate if changes need to be made to maintain adequate bus travel times after BRT service has started.

- Theme: Removing general-purpose lanes will increase congestion
    - Project team response: This fall the project completed a draft traffic analysis examining the project's impact on travel times and diversion. The draft analysis, based on the 30% design, confirmed Madison Street BRT will improve transit reliability and travel times in both directions along Madison St. By increasing transit's speed and capacity, the project will allow Madison Street BRT to carry a higher number of people per hour compared to cars.

      Once the project opens in 2019, people riding the bus are expected to travel the corridor 5.2 and 7.3 minutes faster (eastbound and westbound, respectively) than they would if the project were not built. People driving are expected to travel the corridor 5.6 and 2.9 minutes slower (eastbound and westbound, respectively). The draft traffic analysis also finds some traffic will divert to other streets, and identifies several key intersections SDOT could improve through various treatments. More information will be posted this winter on the project website, www.seattle.gov/transportation/MadisonBRT.htm.

- Theme: Let cars use bus-only lanes during off-peak times
    - Project team response: Madison St has strong, all-day demand for transit in both directions, making bus-only lanes important for ensuring frequent and reliable transit service through a congested corridor. Allowing cars to use the bus-only lanes during off-peak times will encourage drivers to drive in those lanes during peak times as well, increasing bus travel times during non-peak time periods. During off-peak hours, the public traffic lane should provide the appropriate capacity.

- Theme: Spring St approaching I-5 needs better management to reduce congestion
    - Project team response: The design includes a right-turn vehicle lane heading to the I-5 ramp and an adjacent bus-only lane. Combined with transit signal priority, this lane configuration reduces weaving and will help keep both BRT and vehicle traffic moving more quickly.

TOPIC: PARKING AND HOSPITAL ACCESS

We received more than 40 comments concerning parking. Comments were divided between those who support removing parking for bus use and those who wanted to retain street parking. Those who supported bus-only lanes generally advocated for further removal of parking. Many business owners and Madison Valley residents favored keeping street parking in place, and expressed concern about load zones and losing access to buildings. In small group meetings with downtown stakeholders we heard questions about garage and truck loading access. We also received questions about how roadway changes would affect hospital access, especially for emergency vehicles.

- Theme: How will the project affect parking spots and loading zones?
    - Project team response: Curb space management will continue to be part of the design process and discussion, and some parking will be removed. The project team will reach out to business owners along the corridor regarding parking, loading and other potential impacts, and mitigation for removed parking spots.

- Theme: How will garage access and truck loading areas be preserved?
    - Project team response: Changes to the roadway as part of Madison Street BRT will not restrict current access to garages. Curb space management, which includes commercial vehicle load zones, will continue to be discussed during the design process, with more information available in winter 2017.

- Theme: How will emergency vehicles' access to hospitals be preserved?
    - Project team response: Emergency vehicles will be allowed to drive around the new transit island at Terry Ave and Madison St. Signal improvements will allow emergency vehicles heading to Virginia Mason to preempt signals on Spring St. Other routes that emergency vehicles currently use, such as the eastbound route from downtown to Swedish Hospitals, will be maintained.

TOPIC: CONSTRUCTION

Business owners and operators contacted through briefings and door-to-door outreach expressed concern about construction impacts, especially the duration of construction directly in front of their

doors. We did not receive many questions about construction during the in-person open houses or via the online open house.

- **Theme: How will construction affect access to my business or building?**
  - Project team response: The project team is already thinking about construction phasing, and has begun reaching out to business and property owners along the corridor to begin developing a construction phasing plan, informed by a pre-construction survey with businesses along the alignment to understand operations and needs, and discuss potential construction impacts. The project team is also working closely with the Office of Economic Development to identify small business assistance opportunities.

- **Theme: How will construction and the BRT line effect on-street parking?**
  - Project team response: The project team is performing a detailed parking analysis to inform the next phase of design. This analysis will determine the best use of available on-street parking, including commercial loading and unloading needs. We anticipate some on-street parking will be removed permanently to build and operate Madison Street BRT.

What Comes Next

We are reexamining the 2 Madison St intersections (12th and 24th avenues) for ways to improve the intersection for all users. We will return to the transit, bicycling and pedestrian communities with the results of that reexamination this winter, and we will have a full updated design to share with the public in March 2017. We will also be reaching out to business owners regarding parking, loading, and other curb space management impacts.

Concurrently with this work, we are reaching out to business owners and property owners along the corridor to begin work on a construction phasing plan. As an early step, we are conducting a pre-construction survey this fall to better understand business and property operational needs. We are also moving forward with the environmental review process.

King County Metro will be conducting their own outreach regarding service along the Madison St corridor. Beginning in 2018, Metro will engage the community in a robust discussion of potential changes to other local routes that are impacted by Madison Street BRT's implementation. The exact structure and timing of that discussion has not been established. The timeframe for that discussion is consistent with past Metro service revisions that accompany the implementation of major new transit services, such as previous RapidRide lines or the implementation of Link light rail services. That discussion will explore potential changes to the routing of existing Metro routes, new routes that may be established, the frequency and span of service on all affected routes, and the associated capital investments that might be needed to support the revised service structure.

Next steps about the project will be shared on the SDOT project website (http://www.seattle.gov/transportation/MadisonBRT.htm) where you can also sign up for the project mailing list. Questions about the open houses or the comments we heard can be sent to the project inbox at MadisonBRT@seattle.gov or by calling Emily Reardon, Public Information Officer, at 206-615-1485.

Appendix L.

Madison Street BRT

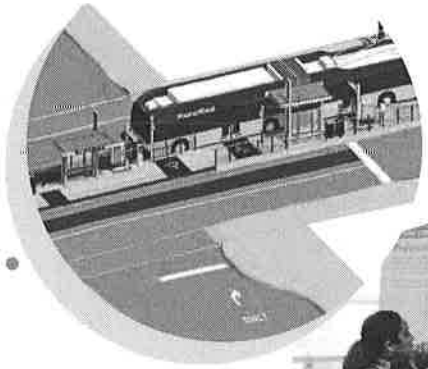
UPDATED DESIGN OUTREACH SUMMARY

Seattle Department of Transportation

Madison Street Bus Rapid Transit (BRT)

UPDATED DESIGN OUTREACH SUMMARY

July 2017



The Levy to MOVE SEATTLE

Seattle Department of Transportation

Introduction

In March 2017, the Madison Street BRT team returned to the public with an updated project design and a preliminary draft construction phasing plan. The updated design reflected changes made over the winter in response to feedback received during a similar public comment period held in summer 2016. The preliminary draft construction phasing plan was the project team's first attempt at synthesizing community preferences for construction timing and sequencing, safety requirements, and technical constraints.

Design conversations continued in May and June 2017 when the project team held 2 walking tours. On May 19, a small group of neighbors and community stakeholders toured the intersection of E Madison St, E John St, and 24th Ave to discuss the updated design. On June 29, the project team met another group of neighbors and stakeholders. They toured the E Madison St, E Union St, and 12th Ave intersection and the E Madison St and 14th Ave intersection to discuss the current design, which had been updated following the public comment period in March.

This report summarizes the feedback we heard in March into topics and themes, and provides project team responses to each theme. Where appropriate, the summary also includes feedback we heard from the 2 walking tours. Members of the public summitted comments in several ways:

- At open houses held March 9 at Town Hall and March 15 at First AME Church
- Online via an online open house, from March 8 – 22
- Via email to the project inbox (MadisonBRT@seattle.gov)
- Verbally during the walking tours and via follow-up emails

Comment types and counts

In March 2017, we received **622 total comments** and **452 unique comments** on the updated design (the difference between the two totals is due to the project receiving 170 identical form letters regarding bicycle infrastructure). Comments that touched on multiple topics were counted in each topic as appropriate; therefore, each person's feedback is counted in at least 1 topic and up to 11 topics.

Public Feedback on Updated Design – Topics and Themes

TOPIC: 12TH AVE, E UNION ST, AND E MADISON ST INTERSECTION

We received 87 unique comments addressing the intersection of E Madison St, 12th Ave, and E Union St this past spring. Commenters raised strong concerns about the design of the intersection, especially for those walking and biking. In response to those concerns, the project team met on-site with neighbors and community stakeholders on June 29, 2017 to tour the intersection and discuss concerns and updates to the design since March 2017. Key themes from the spring outreach and the June walking tour are included below; refer to Appendix A for a detailed summary of the walking tour and the project team's responses to specific questions.

Theme heard: Include crosswalk, lighting, and signal improvements in the design to make the intersection safer and more intuitive for people walking and bicycling.
In the feedback received this spring, commenters expressed concern about safety and navigability while walking or biking across the intersection. Common requests included:

- Dedicated bike lanes through the intersection
- All-way scramble signal for those biking and walking
- Better separation between people who walk and bike so those walking do not use the sidewalk at the intersection
- Widen the sidewalk on the south side of E Madison St approaching 12th Ave
- Add mid-block crosswalks on E Madison St to reach the center-running station
- Improve safety for people crossing 12th Ave on the south side of E Madison St

Project team response: Based in part on feedback received in March 2017, the design was updated to streamline navigation for and better separate those walking and biking. The current design provides a number of safety improvements over today's conditions, such as restricting left turns, extending sidewalk areas to shorten crossing distances, and increased separation between pathways for those biking and walking. Please view the handout in Appendix B for detailed responses to the comments above.

Theme heard: Allow left turns through the intersection.
Commenters expressed concern that restricted left turns will increase congestion on side streets once Madison Street BRT is in operation. However, most feedback indicated support for the proposed turn restrictions and channelization at the 12th Ave intersection.

Project team response: Left turns are restricted through the busiest part of the corridor to keep all traffic moving. The center-running bus-only lanes on Madison St prevent westbound vehicles from turning left onto 12th Ave. 12th Ave is also too narrow for left turn lanes, and allowing left turns would mean cars turning left would block the single through lane.

TOPIC: 14TH AVE AND E MADISON ST INTERSECTION

We received 20 unique comments about the 14th Ave and E Madison St intersection.

Theme heard: Preserve natural walk lines and consider a light cycle that allows those walking to cross both Madison St and E Pike St in 1 cycle.
Commenters expressed concern the design does not accommodate how people walk through the intersection, and will require those walking to wait through multiple light cycles. They requested the existing crosswalk at E Pike St and 14th Ave remain. Commenters also suggested the design allow left turns to accommodate heavy traffic prohibited from left turns nearby.

Project team response: Based in part on feedback received in March 2017, the crosswalk across E Pike St on the west side of 14th Ave has been added to Madison Street BRT design. Additionally, the triangular

island has been enlarged and will include landscaping, to make waiting for the next light signal more comfortable. Left turns are restricted through the busiest part of the corridor to keep all traffic moving.

TOPIC: 24TH AVE E, E JOHN ST, AND E MADISON ST INTERSECTION

We received 63 unique comments that mentioned the intersection of E Madison St with 23rd Ave E or 24th Ave E and E John St. Strong concerns were raised about the design of the intersection, especially for those walking and biking. In response to those concerns, the project team met on-site with neighbors and community stakeholders on May 19, 2017 to discuss design concerns and tour the intersection. Key themes from the spring outreach and the May walking tour are included below; refer to Appendix C for a detailed summary of the walking tour and the project team's responses to specific questions.

Commenters also expressed frustration that the current design does not make the intersection safe or intuitive for people walking or biking. Commenters expressed both support for and opposition of the westbound 24th Ave station's move closer to 23rd Ave.

During the May walking tour, tour participants approved of the updated design's shorter, straighter crosswalks. Participants asked if E John St could be converted to one-way, and suggested a combination of four-way stop and traffic circle at the intersection of 25th Ave E and E John St. The design team will take a further look at both of these suggestions. See Appendix C for a summary of the walking tour and design team responses to specific questions.

Theme heard: Provide a direct crossing and extend signals for those walking and biking through the intersection.

In the feedback received in spring 2017, commenters suggested the following changes to the design to create a direct crossing of the intersection for those walking and biking:

- Add crosswalk across E Madison St on the west side of 24th Ave E. Move the eastbound stop bar back to make room for the crosswalk.
- Add crosswalk across 24th Ave E on the south side of E Madison St
- Direct bike route on 24th Ave E crossing E Madison St that does not push bikes onto the sidewalk or require 2 light phases to complete
- Add a crosswalk across E John St on the north side of the intersection. Some commenters suggested a raised crossing or rapid flashing beacon to protect those walking from cars making high-speed turns from E Madison St onto E John St.
- All-way scramble signal for those walking and biking

Project team response: The current design provides several safety improvements over existing conditions. In the current design, most crosswalks are shorter and straighter than they are today, which reduces the crossing distance and makes those walking more visible. These changes also make the intersection function more like a traditional 4-way intersection than today's 5- or 6-way intersection, which improves safety by making behavior more predictable. Beyond these improvements, the design team is looking at other options that can improve the intersection while maintaining balanced functionality for all roadway users. Please view the handout in Appendix D for detailed responses to the comments above.

Theme: Make E John St one-way east of E Madison St to prevent cut-through traffic.
Commenters noted the design changes may encourage use of E John St as an alternative route and requested the project team explore design options to discourage people from using E John St as an alternative to E Madison St. They suggested making E John St a one-way street between 24th Ave E and 25th Ave E, as well as a four-way stop at the intersection of 25th Ave E and E John St.

Project team response: Both SDOT Traffic Operations and the design team continue to study this option as well as the addition of a four-way stop at 25th Ave E and E John St.

TOPIC: BUS LAYOVER AND MARTIN LUTHER KING JR WAY E INTERSECTIONS

We received 28 unique comments that touched on the intersection of E Madison St and Martin Luther King Jr Way E or the bus layover at E Arthur Pl.

Theme heard: Consider additional infrastructure such as crosswalks near the layover station.
Commenters requested additional crosswalks and improved bicycle infrastructure to facilitate safe, natural movements for those walking and biking at the intersections of Martin Luther King Jr Way E with E Arthur Pl and E Harrison St near the layover station.

Project team response: The updated design adds a crosswalk near the bus layover, at the intersection of Martin Luther King Jr Way E and E Harrison St. This is the only location near the bus layover where SDOT currently anticipates pedestrian volumes will be sufficient to warrant a crosswalk.

Theme heard: Improve traffic flow on Martin Luther King Jr Way E near E Madison St and the bus layover. Additional buses will cause congestion.
Those providing feedback expressed concern traffic will worsen on northbound Martin Luther King Jr Way E, in part due to the new light at E Harrison St and bus volume. They requested the project team reevaluate the E Harrison St signal, add a left-turn signal at Martin Luther King Jr Way E, and remove on-street parking on E Harrison St.

Project team response: An analysis done on Madison Street BRT's effect on traffic shows that the intersection of E Madison St and Martin Luther King Jr Way E will meet standards for traffic in all directions. To keep traffic moving near the layover station, through the intersection of E Harrison St and Martin Luther King Jr Way, the light will remain green for traffic on Martin Luther King Jr Way E unless a bus is ready to leave. When buses leave the layover station, they will trigger a new bus sensor in the pavement, allowing the driver to pull onto Martin Luther King Jr Way E. Left turns will be preserved from northbound Martin Luther King Jr Way E onto E Madison St. For those traveling southbound on 28th Ave E, the traffic pattern will remain as it is today, with traffic able to turn left or right, or continue straight through the intersection. SDOT will examine curb use options on E Harrison St that balance preserving traffic flow and maintaining on-street parking.

Theme heard: The design for the area near the E Arthur Pl layover does not provide sufficient space for buses to turn and those walking to navigate safely. The additional buses and layover station will be an eyesore.
Commenters noted buses currently run over the curb at the southwest corner of E Madison St and Martin Luther King Jr Way E. Due to the limited space, commenters observed it may be more difficult to see people walking and expressed concern the tight turning movements would impair pedestrian safety.

Those providing feedback also noted the combination of additional buses in the area and the facilities at the layover station would be unattractive.

Project team response: Computer modeling shows buses will be able to make the turns required for the layover station. Currently, buses often run over the curb at the southwest corner of E Madison St and Martin Luther King Jr Way E. The current design will narrow the sidewalk at the southwest corner of E Madison St and Martin Luther King Jr Way E to provide sufficient space for buses to make the turn without running over the curb. The visual look of the layover station will be determined at a later phase in the project and will be designed to blend into the area.

TOPIC: RESTRICTED LEFT TURNS, CHANNELIZATION, AND DIVERSION

We received 129 unique comments that touched on left turns, how the road is striped and painted (known as channelization), and/or diversion on side streets.

Theme heard: Changes to the location of bus-only lanes would improve traffic flow and transit performance.
In downtown and First Hill, commenters suggested separating the bus-only lanes and turn lanes to prevent turning vehicles from blocking the bus-only lanes, especially near I-5. Commenters also suggested extending the bus-only lanes farther east in the corridor, to support transit reliability.

Project team response: Bus-only lanes will be clearly indicated as bus-only with red paint and signage. SDOT will coordinate with the Seattle Police Department if behavior shows specific enforcement is required. Current traffic analysis indicates bus-only lanes are not needed for reliable transit performance east of 18th Ave, but if travel times or transit reliability worsen in the future, SDOT will consider extending the bus-only lanes.

Theme heard: Restricted turns in the current design will cause those driving to divert to nearby side streets. Surrounding streets cannot handle the diverted traffic.
Many commenters suggested changes to traffic flow on different streets near E Madison St in Capitol Hill, but no consensus recommendations emerged. Commenters expressed support for turn restrictions at E Union St / 12th Ave / E Madison St intersection; these comments are addressed in the section dedicated to that intersection.

Project team response: The traffic analysis shows there will be some diversion to neighboring streets, but surrounding streets are largely able to handle the additional traffic. SDOT will look at signal improvements at key intersections where the analysis suggests a change would improve traffic flow.

TOPIC: OTHER PEDESTRIAN AND BICYCLE INFRASTRUCTURE

We received 135 unique comments addressing pedestrian infrastructure and 200 unique comments on bicycle infrastructure. Comments specific to pedestrian and bicycle infrastructure at 12th, 14th, 23rd, and 24th avenues and Arthur Pl and Martin Luther King Jr Way E are included in those respective topics. The themes below cover feedback that applies to the entire Madison Street BRT corridor or to specific intersections not covered elsewhere.

Theme heard: Include additional crosswalks at various specific locations along the corridor and consider automatic pedestrian signals.

Commenters expressed appreciation of some of the improvements made to the design to date, but requested additional crosswalks at specific Madison St intersections, including, Terry Ave, Broadway Ct, 10th Ave, 11th Ave, 18th Ave, 25th Ave, 26th Ave, and 27th Ave. Commenters also stated crosswalk lights should not require a button to be pressed to signal the pedestrian walk sign.

Project team response: The design team is continuing to look at pedestrian improvements at certain intersections, such as 12th Ave, 14th Ave and 24th Ave, to address the needs of all roadway users. The current design includes improvements to pedestrian crossings at station locations so people can safely reach stations. Additional crosswalks may be considered in the future if pedestrian volumes suggest a crosswalk is needed. Automatic pedestrian signals are used in areas with especially high-density traffic and pedestrian volumes, such as downtown. Where traffic and pedestrian volumes are lower, automatic signals may unnecessarily increase the time those walking wait to cross the street.

Theme heard: Build additional bicycle infrastructure such as protected bike lanes and fully separate people walking and biking.

Commenters suggested various ways to improve safety for people biking on the corridor, including:

- Install protected bike lanes and bike boxes in more locations along the corridor
- Keep bike lanes out of "door zones" next to parked cars. Commenters expressed concern that placing bike lanes next to parked cars may create an unnecessary and unsafe conflict between people biking and people in parked cars.
- Fully separate people biking and people walking, with no mixing zones. Commenters expressed concern mixing zones create unnecessary conflicts between people walking and people biking.

Project team response: Bike lanes between 1st Ave and 9th Ave, and between 11th and 12th Ave on E Union St, will be separated from parked cars by a painted buffer. This will help prevent conflicts between people biking and people exiting or entering parked cars. The bike lane on Spring St will also remain on the north side of the street, to keep those biking separated from bus traffic and the I-5 on-ramp. Bike boxes are included as one of the bicycle infrastructure components along the corridor. They are placed at intersections with high traffic and bicycle volumes. Mixing zones are used to balance the needs of those walking and biking in the many areas along the corridor with limited public right of way. Where full separation is feasible and bicycle and pedestrian volumes are high, such as at the E Union St, 12th Ave and E Madison St intersection, the design has been modified to increase separation between those walking and biking.

Theme heard: Connect Madison Street BRT bicycle infrastructure to the existing and planned bike network throughout the city.

Commenters suggested various ways to improve connectivity for people biking on the corridor and emphasized their desire for new bike infrastructure to connect to the existing network. Feedback indicated concern the current design does not meet the project's original promises or fulfill Seattle's Complete Streets Ordinance.

Project team response: Based on feedback throughout the project, the current Madison Street BRT design includes additional bicycle infrastructure to better connect to the protected bike lane on Broadway, and to improve connections at the 12th and 24th avenue intersections. Connections near Madison St will continue to be planned and implemented separately.

TOPIC: PARKING AND LOADING

We received 37 unique comments about parking and 18 comments about loading zones.

Theme heard: Remove on-street parking to facilitate bus or bike lanes. However, removing on-street parking in Capitol Hill will exacerbate existing parking limitations.
Some commenters suggested removing on-street parking would create more space for bus or bike lanes. Other commenters pointed out the potential impacts on-street parking removal may have, especially on areas such as Capitol Hill, where they noted on-street parking removal would significantly reduce parking availability.

Project team response: Due to the limited right of way on Madison St, most parking west of 24th Ave E will be removed to accommodate the lane changes accompanying BRT operations. The project team will reach out to business and property owners along the corridor regarding parking, loading and other potential impacts, and mitigation for removed parking and loading. SDOT's curb space management team will continue to be part of the design process and discussion.

TOPIC: CONSTRUCTION AND SCHEDULE

We received 22 unique comments touching on construction and schedule.

Theme heard: Construction should happen soon and quickly at specific locations.
Commenters were concerned about general construction fatigue, as well as impacts to specific locations. They encouraged construction to happen as quickly as possible.

Project team response: The project team developed a preliminary draft construction phasing schedule based on conversations with property and business owners about their operations and needs. This plan went to the public for review in March and is still in development. The project team will continue to talk to businesses and properties along the corridor. The project team is also working closely with the Office of Economic Development to identify small business assistance opportunities.

TOPIC: BRT STATION DESIGN AND OTHER KING COUNTY METRO ROUTES

We received 58 unique comments concerning station locations and the design of stations, and 56 unique comments regarding other King County Metro routes. Comments specific to 12th, 14th, 23rd, and 24th avenues and Arthur Pl and Martin Luther King Jr Way E are included in those respective topics. The themes below cover feedback that applies to the entire Madison Street BRT corridor or to specific intersections not covered elsewhere.

Theme heard: Move, eliminate, or consolidate BRT stations to improve transit connections.
Commenters expressed both support for and opposition to the westbound 24th Ave station's move closer to 23rd Ave. Some commenters suggested consolidating the 22nd Ave E and 23rd Ave E BRT stations into a single stop.

Project team response: The current BRT station locations are spread along the corridor to maximize coverage while facilitating connections to current or future public transportation such as Link light rail, Seattle Streetcar, and the future RapidRide on 23rd Ave. Consolidating the 22nd and 23rd Ave stations would eliminate a BRT station, increasing the distance between stations in this hilly area. Locating the westbound Madison Street BRT station closer to 23rd Ave facilitates connections to the future RapidRide line on 23rd Ave.

Theme: Maintain service on bus routes currently serving the Madison St corridor and nearby communities.
Commenters expressed uncertainty over changes to existing service. They also suggested using limited resources to improve existing service instead of building Madison Street BRT.

Project team response: King County Metro continues to analyze service options along the corridor. About a year before Madison Street BRT service begins, King County Metro will ask the community for input on any proposals for route revisions along the corridor. The Madison St corridor is already one of the densest in Seattle and is expected to continue growing. The current bus lines on Madison St (8, 11, and 12) frequently reach capacity and are delayed by traffic, especially during the busy rush hours. Madison St was prioritized for future bus rapid transit (BRT) service in the 2012 City of Seattle Transit Master Plan in part because of the popularity of these existing bus routes and anticipated increase in ridership. Many of the planned improvements, such as level boarding at stations and dedicated bus lanes through the busiest part of the corridor, require roadway and station improvements to translate into fast, frequent, and reliable transit service on Madison St.

Theme heard: Extend Madison Street BRT east into Madison Park to better serve that neighborhood.
Commenters suggested the project extend into Madison Park to serve communities east of Madison Valley, and avoid loss of service or transfers. They noted the existing turnaround for the Route 11 could be used as the layover location.

Project team response: Transit service to Madison Park will be maintained. However, the extension of Madison Street BRT further east is currently outside the scope and available funding for the project. The design does not preclude expansion, should additional funding become available.

Next steps

Later this summer and into fall, we will continue to refine the design, incorporating public input. We will also share design progress and work to ensure neighbors are prepared for construction. The federal funding process is taking longer than originally anticipated, so we needed to adjust our construction schedule. We now expect construction to begin in mid-2018. We will continue to provide schedule updates and next steps throughout the project to provide the community with the latest information.

The latest information will also be available on our project website (www.seattle.gov/transportation/MadisonBRT.htm), which includes a form to sign up for the project contact list. Questions about the open houses or the comments we heard can be sent to the project inbox at MadisonBRT@seattle.gov or by calling 206-484-2780.

Appendix A. E Madison St/12th Ave/E Union St Walking Tour Summary

Madison Street BRT
DRAFT – Walking Tour Summary for Madison St at 12th Ave and 14th Ave

Seattle Department of Transportation

Overview

Staff from the Madison Street Bus Rapid Transit (BRT) team met with 13 community stakeholders on Thursday, June 29, 2017 to discuss the current design and suggested changes from the community, focused on the intersections of E Madison St with 12th Ave and 14th Ave (see Exhibit A for photos). Additional analysis and potential design updates as a result of this walking tour are expected in fall 2017.

Briefing Details and Attendees

ORGANIZATION	Multiple (see below)
BRIEFING DATE	Thursday, June 29, 2017
BRIEFING LOCATION	Intersection of E Madison St with 12th Ave/Union St and 14th Ave
PROJECT TEAM ATTENDEES	Eric Tweit, Project Manager Emily Reardon, Communications Lead Sara Colling, Communications Team Ron Leimkuhler, Design Team (KPFF) John McMillan, Design Team (KPFF) Chris Cunningham, Design Team (KPFF) Meagan Powers, Design Team (Concord Engineering) Tricia Tillmann, Outreach Team (EnviroIssues) Marcela Diaz, Outreach Team (G3 & Associates) Monisha Harrell, Outreach Team (Rule 7)
COMMUNITY ATTENDEES	• Brie Gyncild, Central Seattle Greenways • Joanna Cullen, Squire Park Community Council • Roland Hyre, Madison Pub • Colleen Pike, Seattle University • Anne Knight, Madrona Community Council • Zev Siegel, Union Art Co-op • Beth Gaska, Alliance Residential • Bill Zosel, 12th Ave Stewards • Katie Sullivan, Viva Apartments • Kelli Refer, Cascade Bicycle Club • Doug Ambach, Seattle Academy of Arts & Sciences • Autumn Ledbetter, State Farm Insurance • Jason Townsend, Essensuals Hair Salon

Meeting Purpose

- Listen to and understand participants' goals for the design of Madison Street BRT, focused on the intersections of Madison St with 12th and 14th avenues

- Share and understand the operational and technical requirements of the design, as well as the criteria by which the design must be evaluated
- Review the updated design for the intersection of Madison St with 12th and 14th avenues
- Discuss participants' ideas and options for design (especially intersection design)
- Discuss the feasibility of various design ideas and how they would affect intersection performance for all roadway users, given the technical and operational requirements and participants' goals for Madison Street BRT
- Identify design elements or alternatives for further analysis and traffic modeling, to determine if they will be included in the project design
- Share and understand how information gathered will be used and considered, when results of follow-on analysis will be available, and what role participants will have going forward

Handouts and Presentation Materials

- Presentation
- Meeting agenda
- Project factsheet
- Project contact card
- Handout showing current design on one side and on the other side, suggested design changes from the community and the design team response

Questions and Comments – Responses in *Italics*

E Union St, between 11th and 12th avenues

- The design of westbound E Union St between 11th and 12th avenues is now clearer.
- Cars exiting Viva Apartments wait for the garage to close before continuing. How will that operation be managed with the new bike lane?
- Garbage trucks and delivery trucks also need room to maneuver near Viva. How will that be accomplished without conflicts with those biking and buses?
- Could E Union St between 12th and 11th avenues be one-way westbound entirely, and be accessible to both buses and cars? *Allowing cars to go westbound on this block would increase the chance for pedestrian interactions and may be a safety risk; pedestrians would be less safe than in the current design. Another pedestrian signal phase would be needed as a result. The design team will assess the level of service at the intersection if this block were westbound for cars and buses, compared to the current design.*
    - In response to this suggestion, 3 participants encouraged the design remain as it is currently shown because it calms traffic. Someone observed they like the raised crosswalk as well.
- The area looks too small for all that is proposed. The suggestion was made to look for alternative loading zones near Viva Apartments.

- Prior to the meeting, Ferrari reviewed the design and emphasized they would like to preserve their driveway access on E Union St between 11th and 12th avenues. *The driveway will remain in the current design.*

- Please keep the eastbound bus stop at E Union St and 11th Ave.

Bicycle and pedestrian infrastructure

- Two participants stated they liked the pedestrian and bicycle infrastructure improvements in the current design, especially those near Mighty O donuts on the northeast corner of E Madison St and 12th Ave.

- How many bikes can stage at the northeast corner of E Madison St and 12th Ave, near Mighty O donuts? *The design team will assess and respond to this question at a later date.*

- Could there be a straight crossing between the northeast corner of E Madison St and 12th Ave (near Mighty O donuts) and the southeast corner of E Madison St and E Union St (right in front of SAAS)? This would eliminate the uphill grade and better match the way people want to naturally cross the street. *This is a design option the team has studied many times in detail. It would result in less queuing area for both those walking and biking, and would mean those walking and biking would no longer be separated as is achieved in the current design.*

E Union St, between 12th and 14th avenues

- To prevent traffic from backing up to the west, could the street be redesigned so cars can go around eastbound buses stopped at E Union St and 13th Ave E? A narrower platform may make this possible. *The current bus stop location allows for a few cars to queue behind the bus. Allowing cars to go around in this location would increase the chance of conflicts with pedestrians crossing E Union St at 13th Ave E. A pedestrian signal may be needed as a result. The design team will assess options that would allow cars to go around buses in this area.*

- For those traveling westbound on E Union St to E Madison St, they will use 13th Ave to connect. The design shows there will now be 1 lane instead of 2 lanes feeding onto E Madison St from E Union St. Will this lane reduction increase the bus queue? Could the parking on the east side of Pony Bar be removed to preserve 2 lanes feeding onto E Madison St? Could it remain 2 lanes instead? *SDOT will look into the effect on the bus queue from the proposed design.*

General feedback

- Prior to the meeting, Banner Bank and Pony Bar stated they liked the current design. Two additional participants in the meeting concurred.

- Where will traffic divert as a result of Madison Street BRT, in particular the left turn restrictions between 12th and 18th avenues? Could SDOT share the results of the traffic diversion analysis? For example, what

happens to traffic at 14th Ave and Cherry St? This area already experiences delays. *SDOT will share the results of the traffic diversion analysis.*

- Consider making 13th Ave and 14th Ave each one-way streets in opposite directions to improve traffic flow in this area. *This would be a concern for at least 2 stakeholders (Chloe and First AME Church) on or near 14th Ave.*
- How will those driving travel from the Pike/Pine corridor to the Union/Madison corridors? *14th Ave is an option.*
- Please include ORCA readers at both ends of the stations. *The current design includes ORCA readers at both ends of the station, as well as on the real-time arrival display.*
- At the southwest corner of 12th Ave and E Madison St, please consider including a buffer between the street and the sidewalk.

Actions Item(s) and Commitments

ACTION ITEM(S)/COMMITMENT(S)	ASSIGNED TO	CURRENT STATUS (as of July 26, 2017)
Share results of traffic diversion analysis	Emily Reardon	The analysis will be shared following Federal Transit Administration review.
Assess the duration of the bus queue in the current design compared to current conditions, for buses traveling westbound on E Union St via 13th Ave onto E Madison St	SDOT/KPFF	In progress
Assess options to allow cars to go around buses on eastbound Union St at 13th Ave, near the bus stop	KPFF	In progress
Determine approximately how many bikes can queue at the northeast corner of E Madison St and 12th Ave (near Mighty O donuts) in the current design	KPFF	In progress
Assess the level of service at the E Union St/E Madison St/12th Ave intersection if E Union St were accessible to both buses and cars instead of buses only	KPFF	In progress

Summary Prepared By

- Tricia Tillmann, EnviroIssues

Exhibit A. Photos

Participants discuss the current design for the southeast corner of E Madison St, E Union St, and 12th Ave.

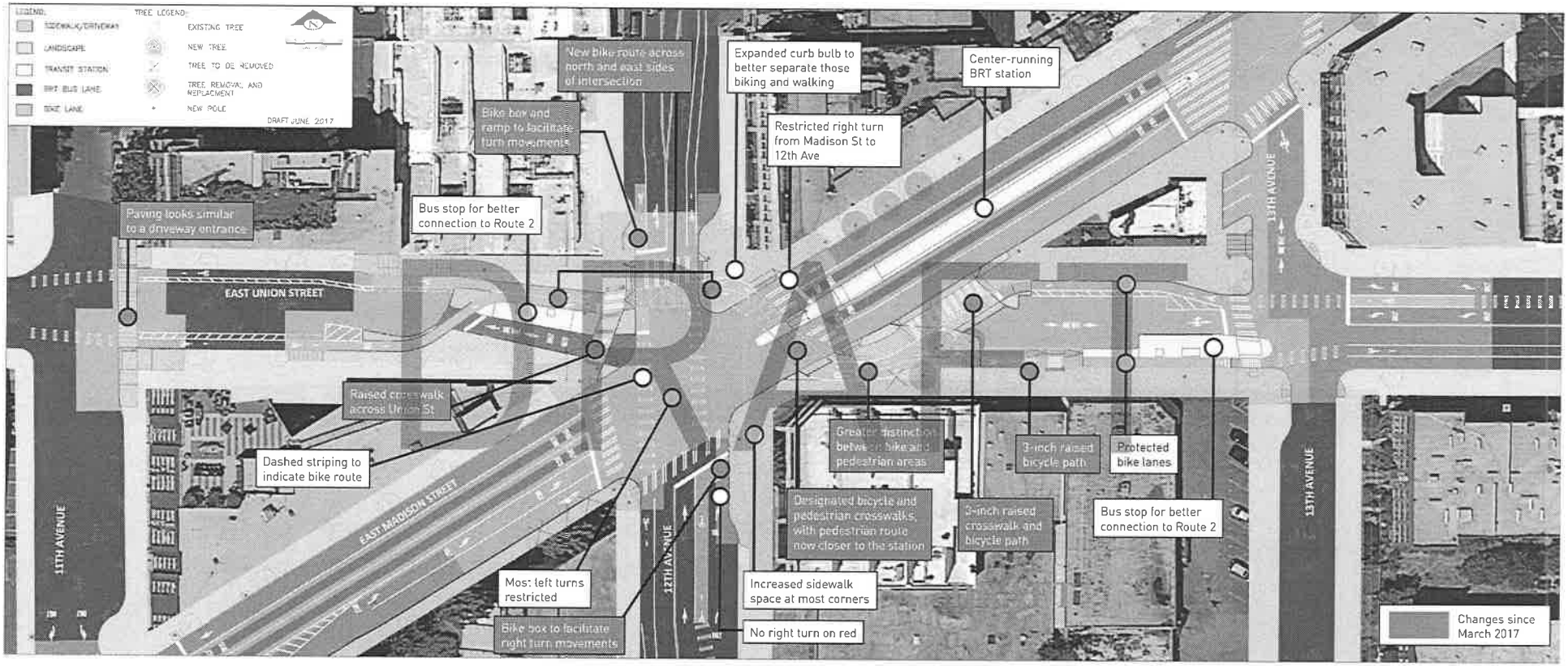
Compared to today, the current design (shown at bottom) includes shorter crossing distances, improved infrastructure for those biking and walking, and street improvements to support BRT operations.

Appendix B. E Madison St/12th Ave/E Union St Walking Tour Handout

MADISON STREET BUS RAPID TRANSIT (BRT)
CURRENT DESIGN

The Levy to MOVE SEATTLE

Seattle Department of Transportation

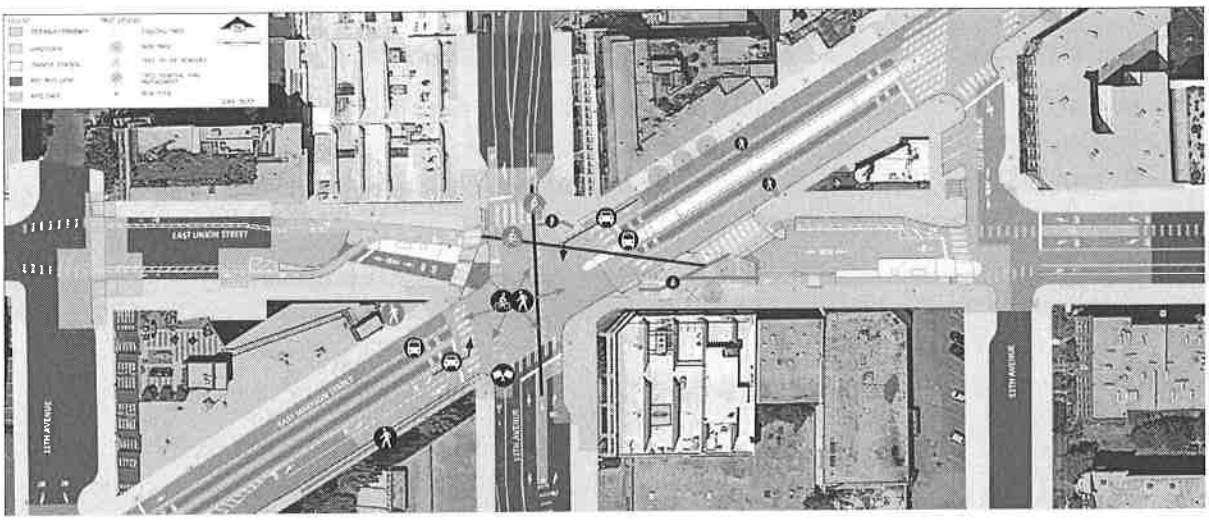


JUNE 2017

MADISON STREET BUS RAPID TRANSIT (BRT)
SUGGESTED CHANGES FROM THE COMMUNITY

MOVE SEATTLE

Seattle Department of Transportation



Map icons	Suggested change	Effect on intersection performance or project team response
	1. Dedicated bike lanes through intersection	• Dashed striping indicates 12th Ave bike route in current design • A direct crossing of Union St increases intersection complexity and would significantly delay vehicles and transit in all directions
	2. All-way scramble signal for those biking and walking	• Increases intersection complexity and significantly reduces overall intersection performance for those driving and riding transit. • The average delay at the intersection would be more than 3 minutes. Traffic would back up several blocks on E Madison St and 12th Ave. • Over half of the time in each signal phase would be used for the pedestrian crossing.
	3. Pedestrian crossing to reach the bus where it stops at the station	• A crosswalk without a signal raises safety concerns • Crosswalks in the current design are along the most common walking routes to and from the station
	4. Separation between people who walk and bike so those biking do not use sidewalk at intersection	• New, expanded curb bulb at the northeast corner better separates those biking and walking • Those biking on 12th Ave are already separated from those walking with dedicated bike lanes through the intersection • At the southeast corner, the mixing zone balances the needs of those walking and biking in an area with limited public right of way
	5. Wider sidewalk on south side of E Madison St approaching 12th Ave	• Public right of way space is limited on E Madison St and cannot accommodate a wider sidewalk at this location. However, near the intersection where trees will be removed, there will be more space to walk than there is today.
	6. Safety improvements for people crossing 12th Ave on the south side of E Madison St	• All crosswalks at the intersection will be signalized, with lights and textured curb ramps • Restricting left turns to and from 12th Ave reduces the chance of car and pedestrian interactions
	7. Include more placemaking design at the intersection to drive enthusiasm for the project	• Outreach for Madison Street BRT public art includes opportunities to discuss placemaking • Landscaping in current design provides some placemaking
	8. Allow left turns through the intersection	• Left turns are restricted through the busiest part of the corridor to keep all traffic moving • The center-running bus-only lanes on Madison St prevent westbound vehicles from turning left onto 12th Ave • 12th Ave is too narrow for left turn pockets. Turning cars would block the through lane.
	9. Remove bus-only lanes at intersection to decrease congestion and allow for more parking	• The bus-only lanes are needed in this area to ensure fast, frequent, reliable transit service
	10. Include "real time" bus arrival display at the intersection	• All Madison Street BRT stations will include real-time arrival displays

Note: A delay refers to how much longer it would take someone to cross the intersection, compared to what is expected with the current design. The results presented here are draft only and subject to change.

Madison Street BRT
DRAFT – E Madison St/24th Ave E/E John St Walking Tour Summary

Seattle Department of Transportation

Overview

Staff from the Madison Street Bus Rapid Transit (BRT) team met with 6 community stakeholders on Friday, May 19, 2017 to discuss the current design and suggested changes from the community for the intersection of E Madison St, 24th Ave E and E John St (see Exhibit A for photos). Additional analysis and potential design updates as a result of this walking tour are expected in fall 2017.

Briefing Details and Attendees

ORGANIZATION	Multiple (see below)
BRIEFING DATE	Friday, May 19, 2017
BRIEFING LOCATION	Intersection of E Madison St, E John St and 24th Ave E
PROJECT TEAM ATTENDEES	Eric Tweit, Project Manager Emily Reardon, Public Information Officer Brian Dougherty, Project Development John Marek, Traffic Operations Ron Leimkuhler, Design Team (KPFF) John McMillan, Design Team (KPFF) Nicholas Mirra, Outreach Team (EnviroIssues) Tricia Tillmann, Outreach Team (EnviroIssues)
COMMUNITY ATTENDEES	• Brie Gyncild, Central Seattle Greenways • David Seater, Pedestrian Advisory Board and Neighborhood Greenways • Joanna Cullen, First Hill Improvement Association • Kathleen Allen, Madison Parkview Condominiums • Kelsey Mesher, Cascade Bicycle Club • Merlin Rainwater, Bicycle Advisory Board

Meeting Purpose

- Listen to and understand participants' goals for the design of Madison Street BRT, focused on the intersections of Madison St with 24th Ave
- Share and understand the operational and technical requirements of the design, as well as the criteria by which the design must be evaluated
- Review the updated design for the intersection of Madison St with 24th Ave
- Discuss participants' ideas and options for design (especially intersection design)
- Discuss the feasibility of various design ideas and how they would affect intersection performance for all roadway users, given the technical and operational requirements and participants' goals for Madison Street BRT
- Identify design elements or alternatives for further analysis and traffic modeling, to determine if they will be included in the project design

- Share and understand how information gathered will be used and considered, when results of follow-on analysis will be available, and what role participants will have going forward

Handouts and Presentation Materials

- Handout showing current design on one side and on the other side, suggested design changes from the community and how they would affect intersection performance if implemented

Questions and Comments – Responses in *Italics*

- The shorter, straighter crosswalks are an improvement from current conditions.
- Would SDOT consider a crosswalk across 24th Ave E on the south side of E Madison St or across E Madison St on the west side of 24th Ave E? *Both of these options would create a delay on side streets for vehicle traffic. Traffic would back up into neighborhoods.*
    - A traffic back-up into neighborhoods does not make sense.
- Cyclists will want to cross E Madison St directly. The design should accommodate these natural movements. *The design team will re-assess options for those biking to directly cross E Madison St.*
- Could E John St be a one-way street between E Madison St/24th Ave E and 25th Ave E? *The design team will assess this option.*
- The combination of a four-way stop and traffic circle at 25th Ave E would make the intersection even safer. It has worked in other areas. Will SDOT consider it? *SDOT will assess this option.*
- It is important to facilitate easy connections to nearby routes such as the Route 8 and Route 12.

Actions Item(s) and Commitments

ACTION ITEM(S)/COMMITMENT(S)	ASSIGNED TO	CURRENT STATUS (as of July 26, 2017)
Assess making E John St a one-way street between E Madison St and 25th Ave E	SDOT Traffic Operations	Additional analysis and potential design updates are expected in fall 2017.
Assess adding a 4-way stop to the intersection of E John St and 25th Ave E	SDOT Traffic Operations	Additional analysis and potential design updates are expected in fall 2017.
Survey condominium owners about their thoughts on making E John St a one-way street between E Madison St and 25th Ave E	Kathleen Allen	Kathleen surveyed the 7 homeowners who use the E John St garage. All were in favor of making E John St a one-way street; 2 homeowners affirmed they would also like a 4-way stop at 25th Ave E.
Re-assess options for those biking to directly cross E Madison St	KPFF	Additional analysis and potential design updates are expected in fall 2017.

Summary Prepared By

- Tricia Tillmann, EnviroIssues

Seattle Department of Transportation

Exhibit A. Photos

Participants discuss the current design for the north side of the intersection, including the shorter distance to cross E John St (seen in background, looking west), driveway design across 24th Ave E, and bicycle infrastructure through the intersection.

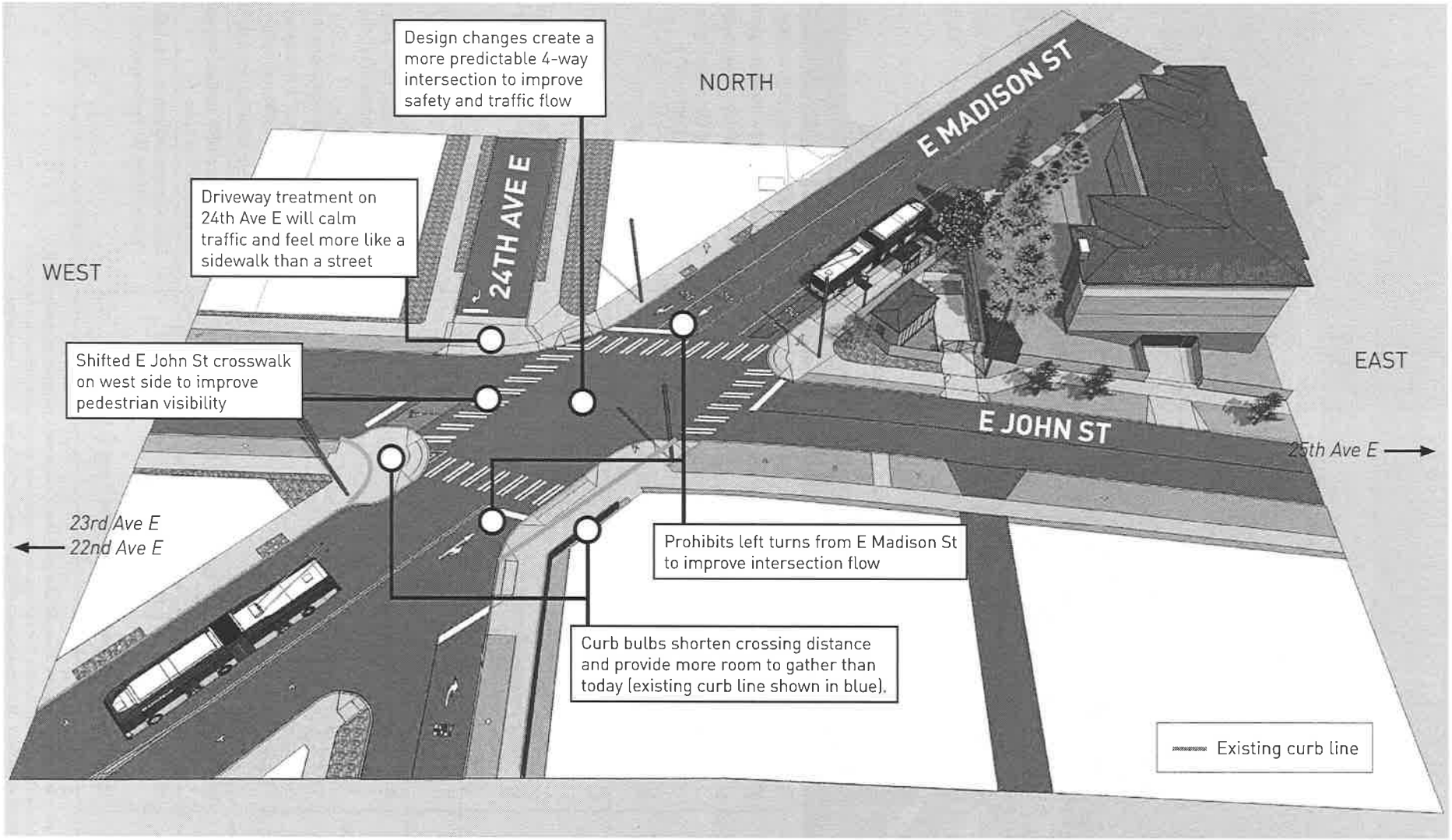
The intersection today, looking southwest (left) and west (right).

Appendix D. E Madison St/24th Ave/E John St Walking Tour Handout

MADISON STREET BUS RAPID TRANSIT (BRT)
CURRENT DESIGN

The Levy to MOVE SEATTLE

Seattle Department of Transportation



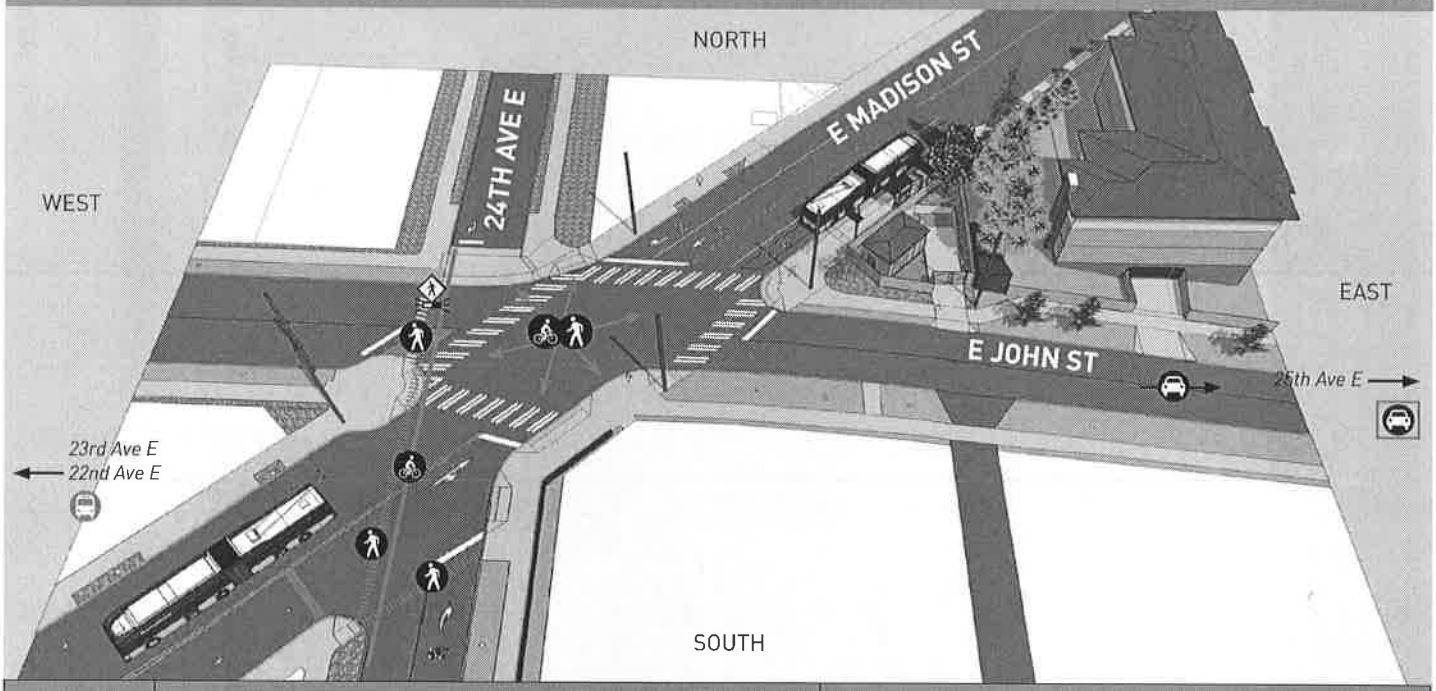
DRAFT

MARCH 2017

MADISON STREET BUS RAPID TRANSIT (BRT)
SUGGESTED CHANGES FROM THE COMMUNITY

This is to MOVE SEATTLE

Seattle Department of Transportation



Map icons	Suggested change	Effect on intersection
	1. Crosswalk across E Madison St on west side of 24th Ave E 2. Crosswalk across 24th Ave E on south side of E Madison St 3. Create direct bike route on 24th Ave E crossing E Madison St that does not push bikes onto sidewalk or require 2 light phases to complete 4. Move eastbound E Madison St stop bar back to before 24th Ave E intersection	• Recreates a 6-way intersection • Side street traffic waits longer for green light • Almost 3 min delay for eastbound E John St • Straight pedestrian crossing on 24th Ave E is too long to complete in 1 light cycle
	5. Flashing crosswalk across E John St on north side to protect those walking from cars making high-speed turns from E Madison St onto E John St 6. Raised crosswalks across E John St to protect pedestrians from cars making high-speed turns from Madison onto E John St 7. Crosswalk directly across E John St on west side of 24th Ave E	• A crossing at E John St means those walking are less visible • Current design moves crosswalk parallel to E Madison St, so those walking are more visible
	8. All-way scramble signal for bicycles and pedestrians	• Those walking would have about 45 seconds to cross; if the "no walk" signal is on, the longest wait would be about 45 seconds • Side street traffic waits longer for green light • On E John St, about 2 min delay for westbound and 5 min delay for eastbound traffic • Traffic would back up into neighborhoods
	9. Consolidate 22nd Ave E and 23rd Ave E BRT stations into one stop	• Eliminates a BRT station, increasing distance between stations in this area
	10. Make E John St one-way eastbound between 24th Ave E and 25th Ave E 11. Create a four-way stop at 25th Ave E and E John St	• One way street further simplifies intersection and calms street for those walking and biking

Note: A delay refers to how much longer it would take someone to cross the interesection, compared to what is expected with the current design. The current design improves overall intersection performance compared to today's conditions. The results presented here are draft only and subject to change.

Appendix M.
Madison Street BRT
DESIGN ACTIVITIES

Madison Stree BRT
Design Activities

Date	Name	Neighborhood	Project Phase	Type
2/4/2015	Briefing: Seattle Bicycle Advisory Board		Planning	Briefing
5/13/2015	Briefing: Seattle Pedestrian Advisory Board		Planning	Briefing
6/3/2015	Briefing: Seattle Bicycle Advisory Board		Planning	Briefing
12/16/2015	Briefing: Transit Advisory Board		Planning	Briefing
5/12/2016	Briefing: Seattle Public Library	Downtown	Design - 10%	Briefing
5/16/2016	Briefing: Olympic Hotel Garage	Downtown	Design - 30%	Briefing
6/6/2016	Email update: Project Update	Capitol Hill, Central District, Downtown, First Hill, Madison Valley	Design - 30%	Listserv update
6/15/2016	Briefing: Abraham Lincoln building	Downtown	Design - 30%	Briefing
6/15/2016	Briefing: 1111 3rd Ave Property		Design - 30%	Briefing
6/22/2016	Briefing: Central Area Land Use Review Committee meeting	Central District	Design - 30%	Briefing
6/22/2016	Corridor Tour: Federal Transit Authority Madison Corridor Tour	Capitol Hill, Central District, Downtown, First Hill, Madison Valley	Design - 30%	Field visit
6/23/2016	Briefing: Lennar Multifamily Communities	Downtown, First Hill	Design - 30%	Briefing
6/27/2016	Briefing: 23rd Ave ACT	Central District	Design - 30%	Briefing
6/27/2016	Briefing: Town Hall	First Hill	Design - 30%	Briefing
6/30/2016	Briefing: Safeco Plaza	Downtown	Design - 30%	Briefing
7/8/2016	Flyering: Madison Valley	Madison Valley	Design - 30%	Flyering
7/9/2016	Briefing: Squire Park Community Council Quarterly General Meeting	Central District	Design - 30%	Briefing
7/11/2016	Briefing: First Hill Improvement Association	First Hill	Design - 30%	Briefing
7/11/2016	Briefing: First Presbyterian Church	First Hill	Design - 30%	Briefing
7/12/2016	Briefing: 12th Ave Stewards	Capitol Hill	Design - 30%	Briefing
7/12/2016	Briefing: Downtown District Council	Downtown	Design - 30%	Briefing
7/13/2016	Briefing: Pony Bar	Capitol Hill	Design - 30%	Briefing
7/13/2016	Briefing: Women's University Club	Downtown	Design - 30%	Briefing
7/14/2016	Briefing: Central Area Neighborhood District Council	Central District	Design - 30%	Briefing
7/14/2016	BriefingL Kimpton Hotel Monaco	Downtown	Design - 30%	Briefing
7/20/2016	Flyering: Madison Valley		Design - 30%	Flyering
7/20/2016	Email Update: Join us at upcoming open houses		Design - 30%	Listserv update
7/21/2016	Briefing: Cascade Bicycle/Seattle Neighborhood Greenways		Design - 30%	Briefing
7/21/2016	Door-to-door outreach: First Hill	First Hill	Design - 30%	Field visit
7/22/2016	Briefing: Sorrento Hotel	First Hill	Design - 30%	Briefing
7/22/2016	Briefing: Bailey-Boushay House	Madison Valley	Design - 30%	Briefing
7/25/2016	Briefing: Aegis Madison	Central Area	Design - 30%	Briefing
7/26/2016	Briefing: Watermark Tower	Downtown	Design - 30%	Briefing
7/26/2016	Briefing: Transportation Choices Coalition		Design - 30%	Briefing
7/27/2016	Briefing: Seattle Public Library	Downtown	Design - 30%	Briefing
7/27/2016	Briefing: Seattle University	First Hill	Design - 30%	Briefing
7/28/2016	Drop-in session: SafeCo Plaza	Downtown	Design - 30%	Drop-in session
7/30/2016	Briefing: Tabor 100	Central District	Design - 30%	Briefing
8/2/2016	Email Update: Reminder: share your thoughts about Madison Street BRT		Design - 30%	Listserv update
8/3/2016	Open House: Seattle University	Capitol Hill, First Hill	Design - 30%	Open house/public meeting
8/4/2016	Open House: Town Hall	Downtown, First Hill	Design - 30%	Open house/public meeting
8/8/2016	Email Update: Reminder: Tomorrow is our final in-person meeting on the current design!		Design - 30%	Listserv update
8/9/2016	Open House: YMCA	Central District, Madison Valley	Design - 30%	Open house/public meeting

Madison Stree BRT
Design Activities

8/18/2016	Email Update: Thank you from Madison Street BRT!		Design - 30%	Listserv update
8/20/2016	Drop-in session: Central Area Community Fesitval	Central Area	Design - 30%	Drop-in session
9/13/2016	Briefing: McKinney Manor	Central Area	Design - 30%	Briefing
10/13/2016	Briefing: Urban League	Other	Design - 60%	Briefing
11/7/2016	Briefing: Central Area Chamber of Commerce	Central Area	Design - 60%	Briefing
11/7/2016	Briefing: Casa Latina	Central Area, Central District	Design - 60%	Briefing
11/10/2016	Briefing: First AME Church		Design - 60%	Briefing
11/11/2016	Door-to-door outreach: First Hill, Downtown	Downtown, First Hill	Design - 60%	Flyering
11/11/2016	Door-to-door outreach: Madison Valley	Madison Valley	Design - 60%	Flyering
11/16/2016	Briefing: Madison Valley Merchants' Association	Madison Valley	Design - 60%	Briefing
11/22/2016	Briefing: Centerstone	Central Area	Design - 60%	Briefing
1/9/2017	Email Update: Madison Street Bus Rapid Transit project update		Design - 60%	Listserv update
1/10/2017	Open House: Housing Affordability and Livability	Capitol Hill, First Hill	Design - 60%	Open house/public meeting
1/11/2017	Small group meeting: Central Area, 17th - 20th Aves	Central Area	Design - 60%	Briefing
1/17/2017	Small group meeting: First Hill, 9th - Minor on Spring and Madison	First Hill	Design - 60%	Briefing
1/17/2017	Small group meeting: First Hill, Minor-Broadway	First Hill	Design - 60%	Briefing
1/18/2017	Small group meeting: Downtown, 2nd-6th Aves, S of Madison	Downtown	Design - 60%	Briefing
1/23/2017	Small group meeting: First Hill, 7th-9th Aves between Seneca and Marion	First Hill	Design - 60%	Briefing
1/24/2017	Small group meeting: Downtown, Western-2nd Ave, b/w Spring and Marion	Downtown	Design - 60%	Briefing
1/24/2017	Small group meeting: Downtown, 2nd-6th Aves, along Spring	Downtown	Design - 60%	Briefing
1/26/2017	Small group meeting: First Hill/Capitol Hill	Capitol Hill, First Hill	Design - 60%	Briefing
1/30/2017	Small group meeting: Capitol Hill, 12th-14th Aves	Capitol Hill	Design - 60%	Briefing
1/30/2017	Small group meeting: Capitol Hill, 14th-17th Aves	Capitol Hill	Design - 60%	Briefing
1/30/2017	Small group meeting: Central Area/Madison Valley, 23rd-27th Aves	Central Area, Madison Valley	Design - 60%	Briefing
1/31/2017	Small group meeting: Madison Valley, 27th Ave E-MLK	Madison Valley	Design - 60%	Briefing
1/31/2017	Small group meeting: Madison Valley, MLK-29th Ave E	Madison Valley	Design - 60%	Briefing
2/1/2017	Small group meeting: Central Area, 20th-23rd Aves	Central Area	Design - 60%	Briefing
2/9/2017	Briefing: Madison Parkview Condominiums	Madison Park	Design - 60%	Briefing
2/22/2017	Email Update: Join us at a March open house!		Design - 60%	Listserv update
2/27/2017	Briefing: Ferrari and Essensuals London	Capitol Hill	Design - 60%	Briefing
3/6/2017	Briefing: First Hill Improvement Association	First Hill	Design - 60%	Briefing
3/8/2017	Briefing: Madison Valley Community Council	Madison Valley	Design - 60%	Briefing
3/8/2017	Email Update: Join us in-person or online!		Design - 60%	Listserv update
3/13/2017	Sidewalk meeting: Seattle University	First Hill	Design - 60%	Briefing
3/15/2017	Briefing: Madison Valley Merchants Association		Design - 60%	Briefing

Madison Stree BRT
Design Activities

3/21/2017	Email Update: Last day to comment online is tomorrow!		Design - 60%	Listserv update
5/18/2017	Briefing: Seattle University students	First Hill	Design - 60%	Briefing
5/18/2017	Email Update: Madison Street Bus Rapid Transit project updates		Design - 60%	Listserv update
5/19/2017	Walk: Madison & 24th Meeting		Design - 60%	Field visit
5/23/2017	Briefing: Expeditors	Downtown	Design - 60%	Briefing
6/5/2017	Briefing: Women's University Club	Downtown	Design - 60%	Briefing
6/5/2017	Open House: First Hill TOD	First Hill	Design - 60%	Open house/public meeting
6/7/2017	Geotech outreach: Madison Valley	Madison Valley	Design - 60%	Flyering
7/28/2017	Email Update: Madison Street Bus Rapid Transit project updates		Design - 60%	Listserv update
8/5/2017	Drop-in session: Umoja Fest		Design - 60%	Drop-in session
10/16/2017	Walking tour: Age Friendly Senior Walk Tour		Design - 60%	Briefing
11/3/2017	Walk through: Bailey-Boushay House	Madison Valley	Design - 60%	Briefing
11/15/2017	Briefing: Madison Valley Merchants Association	Madison Valley	Design - 60%	Briefing
11/27/2017	Email Update: Madison Street Bus Rapid Transit updates		Design - 60%	Listserv update
1/8/2018	Briefing: First Hill Improvements Association Transportation Committee	First Hill	Design - 60%	Briefing
1/9/2018	Briefing: First Hill Improvement Association	First Hill	Design - 60%	Briefing
2/1/2018	Email Update: Madison Street Bus Rapid Transit updates		Design - 60%	Listserv update
2/15/2018	Email Update: Madison Street BRT: SEPA comment period starts today (2/15)		Design - 60%	Listserv update
3/6/2018	Briefing: First Hill Improvement Association	First Hill	Design - 60%	Briefing
3/7/2018	Briefing: West Edge Neighborhood Association	Downtown	Design - 60%	Briefing
3/13/2018	Briefing: Betsy Braun	First Hill	Design - 60%	Briefing
3/20/2018	Briefing: Betsy Braun	First Hill	Design - 60%	Briefing
3/22/2018	Briefing: Brandon Mucz	Central Area, Central District, Madison Valley	Design - 60%	Briefing
6/18/2018	Briefing with Ferrari	Capitol Hill	Design - 90%	Briefing
7/21/2018	Drop-in session: Bon Odori Festival	Central District, Downtown	Design - 90%	Drop-in session
8/4/2018	Drop-in session: Umoja Fest	Central District	Design - 90%	Drop-in session
8/10/2018	Drop-in session: Madrona Farmers Market	Central District	Design - 90%	Drop-in session
12/18/2018	Briefing: Betsy Braun	First Hill	Design - 90%	Briefing
1/4/2019	Briefing: First Hill Improvement Association	First Hill	Design - 90%	Briefing
3/4/2019	Briefing: HIA Transportation Committee	First Hill	Design - 90%	Briefing
3/7/2019	Briefing: Expeditors	Downtown	Design - 90%	Briefing
3/12/2019	Briefing: General Services Administration	Downtown	Design - 90%	Briefing
5/2/2019	Briefing: Holyoke Building	Downtown	Design - 90%	Briefing