

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Adopting the Preferred Option for the 185 th Street Multimodal Corridor Strategy
DEPARTMENT:	Public Works
PRESENTED BY:	Nora Daley-Peng, Senior Transportation Planner
ACTION:	<input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution <input checked="" type="checkbox"/> Motion <input type="checkbox"/> Discussion <input type="checkbox"/> Public Hearing

PROBLEM/ISSUE STATEMENT:

The purpose of this agenda item is to provide the City Council with the refinements to the Preferred Option for 185th Street Multimodal Corridor Strategy (185th MCS). Over a year-long process, the study team assessed the corridor's existing conditions, developed draft corridor options, conducted a fall and spring outreach series to receive community and stakeholder input on draft corridor options, and used public and stakeholder feedback to develop a hybrid set of mid-block cross sections along the corridor reflecting the best mix of elements from the draft options. On July 22, 2019, Council selected the Preferred Option of mid-block cross sections for staff to further analyze and refine; and develop a strategy for its funding and implementation.

During summer 2019, the team refined the Preferred Option's mid-block cross sections and further analyzed the Preferred Option in respect to transit speed and reliability, traffic level of service (LOS), preliminary roadway design, intersection control scenarios, incremental redevelopment coordination, State Environmental Policy Act (SEPA) non-project review, right-of-way (ROW) needs, cost estimate, project delivery approach, and funding strategy. As part of the preliminary roadway design, the team developed and analyzed two intersection design scenarios that will work with the Preferred Option's mid-block cross sections. Additional analysis during design engineering will be required to determine the best treatment for key intersections.

Tonight, staff is seeking Council's adoption of the Preferred Option mid-block cross sections for the 185th MCS in order to prepare the final report and begin the next steps of the 185th MCS implementation process.

Once Council has adopted the Preferred Option, the study team will prepare the 185th MCS Report, which will feature the Preferred Option and its supporting documents, including existing conditions, public outreach process, analysis of draft options, Preferred Option's mid-block cross sections, future transit service compatibility, traffic LOS analysis, preliminary roadway design, intersection control analysis, incremental redevelopment coordination, ROW needs, planning-level cost estimate, SEPA non-project checklist, conceptual design guidelines, community gathering places concepts, project delivery approach, and funding strategy.

Once the 185th MCS Report is complete, the project delivery approach will implement the corridor vision in logical, incremental, and strategic steps in the near term (zero to five years), midterm (five to 10 years), and long term (10+ years).

RESOURCE/FINANCIAL IMPACT:

This study has a total budget of \$533,275 from the City of Shoreline (City) Roads Capital Fund. There is no additional financial impact associated with continued work to complete this study. There is no immediate financial impact associated with Council's adoption of the Preferred Option.

RECOMMENDATION

Staff recommends that Council move to adopt the Preferred Option mid-block cross sections for the 185th Street Multimodal Corridor Strategy.

Approved By: City Manager **DT** City Attorney **MK**

INTRODUCTION

City staff is working to create a vision for the 185th Street Corridor that is future-focused and considers the needs of multiple transportation modes including motorists, pedestrians, bicyclists, and transit operators and riders. The 185th Street Corridor is anchored by the future light rail station on the east side of Interstate 5 (I-5) and composed of three roads: N/NE 185th Street, 10th Avenue NE, and NE 180th Street. For this study, the term “185th Street Corridor” is used to succinctly describe the collection of these three streets.

Currently, there is no designated Capital Improvement Plan (CIP) funding for improvements to the corridor. Changes to the 185th Street Corridor will happen incrementally over time as redevelopment occurs. The 185th MCS will serve as a guide to ensure that future public and private development projects contribute to a cohesive vision and will help the City competitively seek funding opportunities. The 185th MCS will serve as the basis of design for a future design development phase when the City advances this study into a CIP project.

Council previously discussed the 185th MCS’s outreach series, draft mid-block cross section options, and concepts for community gathering places at their March 25, 2019 Council meeting. The staff report for that discussion can be found at the following link: <http://cosweb.ci.shoreline.wa.us/uploads/attachments/cck/council/staffreports/2019/staffreport032519-8a.pdf>.

Council previously discussed and selected the Preferred Option of mid-block cross sections along the corridor at their July 22, 2019 Council meeting. The staff report for that discussion can be found at the following link: <http://cosweb.ci.shoreline.wa.us/uploads/attachments/cck/council/staffreports/2019/staffreport072219-8a.pdf>.

This staff report provides a summary of refinements to the Preferred Option in the Discussion section and its supporting analysis, project delivery approach, and funding strategy in the Preferred Option Analysis section.

Once Council has adopted the Preferred Option, the study will culminate in a 185th MCS Report to guide how future developments, both public and private, will relate to the 185th Street Corridor and ensure that it is developed in a cohesive way. The 185th MCS will serve as the basis of updates to the Engineering Development Manual (EDM) which will guide development requirements that meet the corridor vision and serve a future design development phase when the City advances this study into CIP projects.

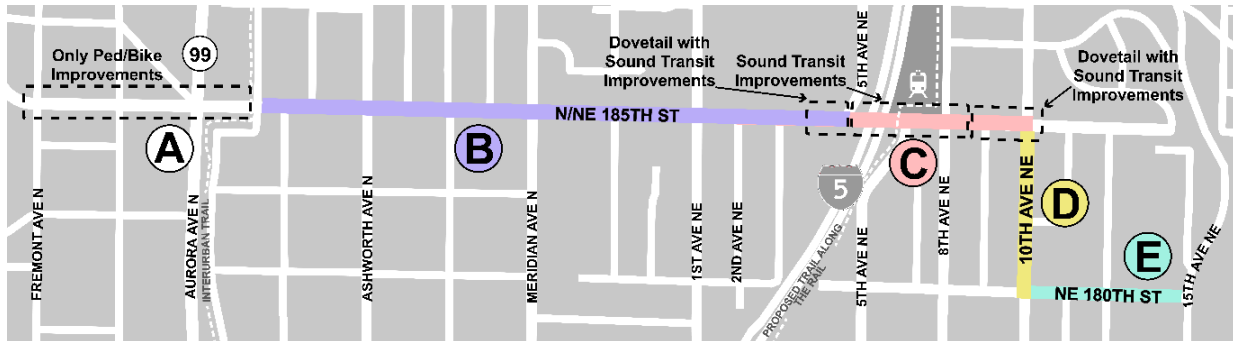
BACKGROUND

The 185th MCS will provide a vision for the corridor that is safe for pedestrians and bicyclists, supports frequent and reliable bus and light rail service, addresses traffic flow, creates gathering spaces, and encourages neighborhood businesses. The 185th MCS takes into consideration the future Shoreline North/185th Station, which is expected to open in 2024 and related amenities, and the additional transportation

demands created as a result of the station, as well as new demands based on anticipated population growth from the 185th Street Station Subarea rezoning.

Corridor Segments

The 185th Street Corridor has distinct characteristics throughout. No “One Size Fits All” design can work along the entire corridor for all modes of transportation or land uses. The study team divided the corridor into five segments (see A through E in map below) for this study. Since the July 22, 2019 Council Meeting, the study team has modified the extents of Segment B and C to better accommodate future traffic movements (see *Traffic LOS Analysis* section for more details).



Process and Schedule

Over a year-long process, the study team developed the 185th MCS (see schedule below). In fall 2018, the study team assessed the corridor’s existing conditions and conducted Outreach Series 1 to receive initial community and stakeholder input. During winter 2019, the study team developed draft mid-block cross section options and evaluation criteria. In spring 2019, the study team conducted Outreach Series 2 to gain input on the draft mid-block cross section options. The study team used public and stakeholder feedback from Outreach Series 2 to develop a hybrid set of mid-block cross sections along the corridor reflecting the best mix of elements from the draft options. On July 22, 2019, Council selected the Preferred Option of mid-block cross sections for staff to further analyze and refine. During summer 2019, the team refined the Preferred Option’s mid-block cross sections and further analyzed the Preferred Option in respect to transit speed and reliability, traffic level of service, preliminary roadway design, intersection control, incremental redevelopment coordination, ROW needs, planning-level cost estimate, SEPA non-project review, project delivery approach, and funding strategy.



Tonight, staff is seeking Council’s adoption of the Preferred Option mid-block cross sections for the 185th MCS in order to prepare the final report and begin the next steps of the 185th MCS implementation process.

DISCUSSION

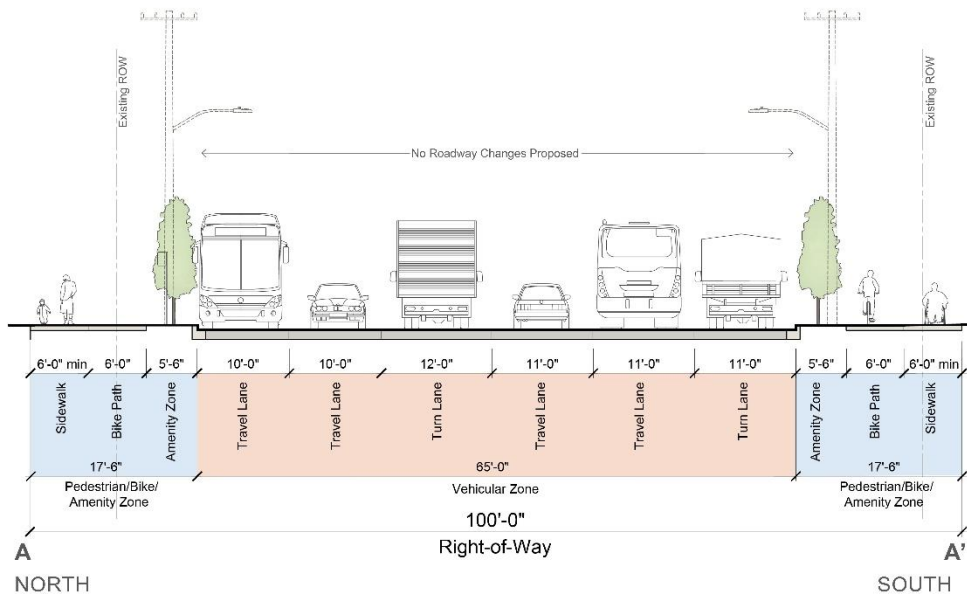
Refinements to the Preferred Option

Refinements to the Preferred Option mid-block cross sections for the 185th Street Corridor segments are provided in *Attachment A*. The Preferred Option shows typical mid-block cross sections for each corridor segment’s overall right-of-way width including dimensions for its roadway component (curb to curb) and its non-motorized component that includes sidewalks, bicycle facilities, and amenity zones. Cross sections will typically be wider approaching and through intersections to accommodate left, right, and U-turns. Over summer 2019, staff developed and analyzed two intersection design scenarios that will work with the Preferred Option’s mid-block cross sections (see *Traffic LOS Analysis* section for more details).

Refinements to the Preferred Option mid-block cross sections since the July 22, 2019 Council Meeting are described below.

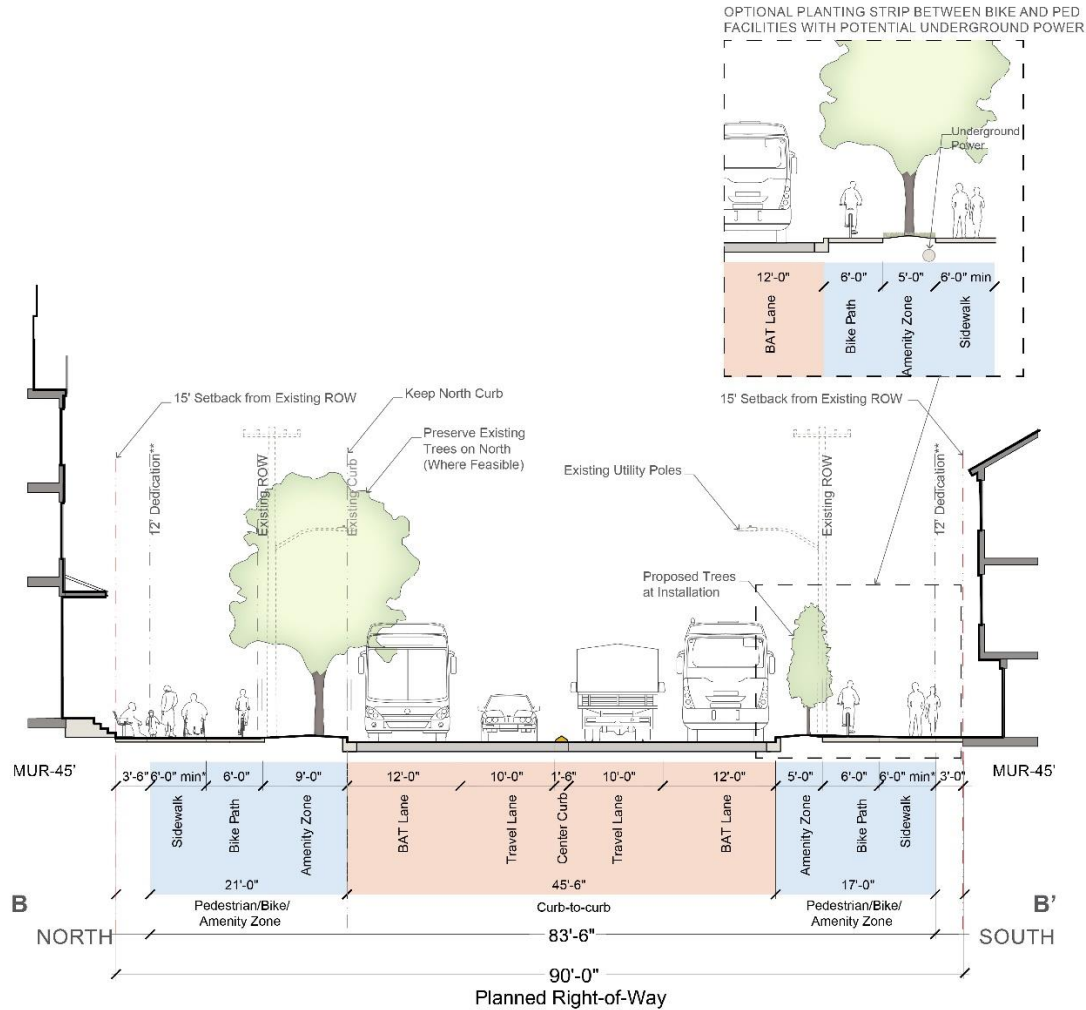
N/NE 185th Street

- Segment A - Fremont Avenue N to Midvale Avenue N



- No curb-to-curb roadway changes are proposed for this segment because the current lane configuration sufficiently accommodates present and future (year 2035) traffic volumes and turning movements through this segment.
- Refinements to Segment A include:
 - Adds off-street bike paths to fill Segment A’s gap in the 185th Street bike network.
 - Specifies amenity zones and six-foot wide minimum sidewalks on both sides of the street.

- Segment B - Midvale Avenue N to 5th Avenue NE (west of I-5)

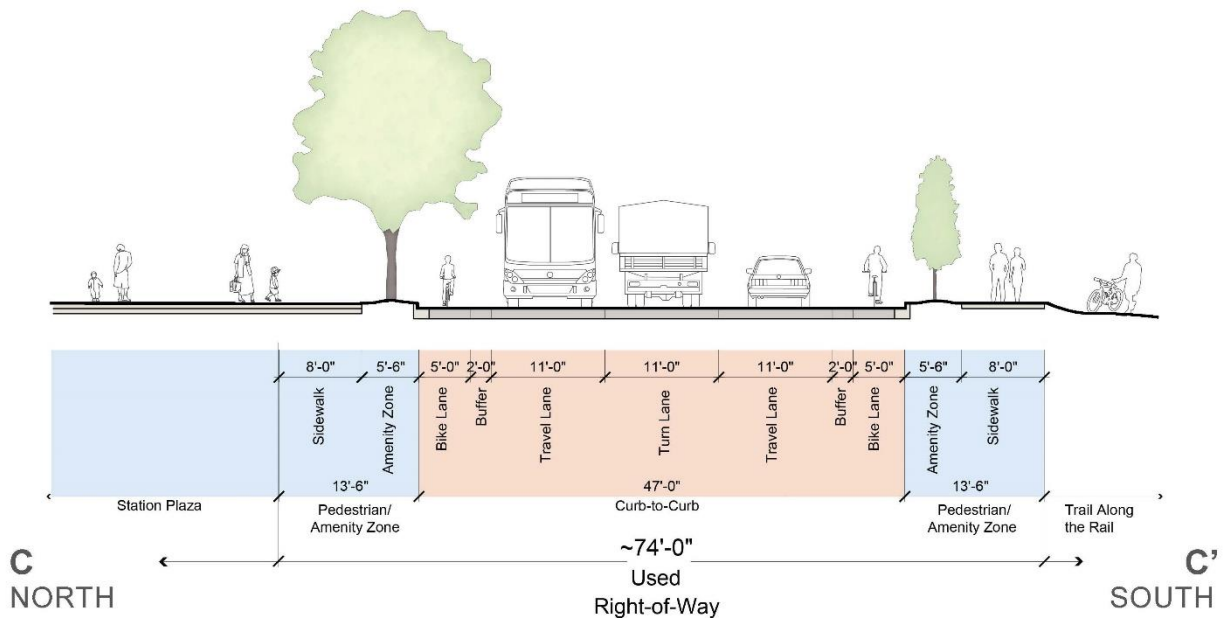


- Preferred Option for this segment is a four-lane section (two travel lanes and two Business Access and Transit [BAT] lanes), amenity zones, off-street bike lanes, and sidewalks.
- Refinements to Segment B include:
 - Transitions from four-lanes to three-lanes at 5th Avenue NE (west of I-5) and the bridge to better accommodate traffic flow, turning movements, and transit speed and reliability. Please note that the previously proposed transition was between 1st Avenue NE and 2nd Avenue NE. The refined extents of Segment B are from Midvale Avenue N to 5th Avenue NE (west of I-5).
 - Increases the proposed curb-to-curb width to 45.5 feet to accommodate a center curb where needed for future access control. Please note that the previously proposed curb-to-curb width was 44 feet.
 - Re-dimensions amenity zones, off-street bike paths, and sidewalks to fit within a proposed 12-foot dedication from the existing ROW on both sides of the street. This refinement will help coordinate incremental redevelopment frontage improvements with the full

build out of the corridor vision (see *Coordinated Incremental Redevelopment* section for more details).

- Specifies six-foot wide minimum sidewalks. Please note, eight-foot sidewalks may be required when adjacent to large-scale redevelopment and/or adjacent to MUR-70'. Also note, greater dedication may be required at intersections, bus stops, etc.
- Continues to hold northside curb to preserve existing street trees where feasible and increases the northside amenity zone to nine feet (previously five feet) more room around the root zone to construct frontage improvements.
- Leaves approximately three feet of unprogrammed space behind the sidewalk on both sides of the street to be coordinated with incremental redevelopment. Please note, this space was previously specified as a flex zone within the planned ROW. This change allows for more collaboration with developers on how to integrate frontage improvements with entryway hardscaping and landscaping.
- Provides an option to place the amenity zone between the bike path and sidewalk on the southside of street. This option would provide more separation of bicycle and pedestrian facilities and allow space to underground power, which in turn would accommodate growth of large canopy street trees on the southside of street. Staff recognizes that a Council decision as to whether to underground power along 185th Street requires more information, analysis, and policy discussions. This option accommodates flexible outcomes.

- Segment C – 5th Avenue NE (west of I-5) to 10th Avenue NE



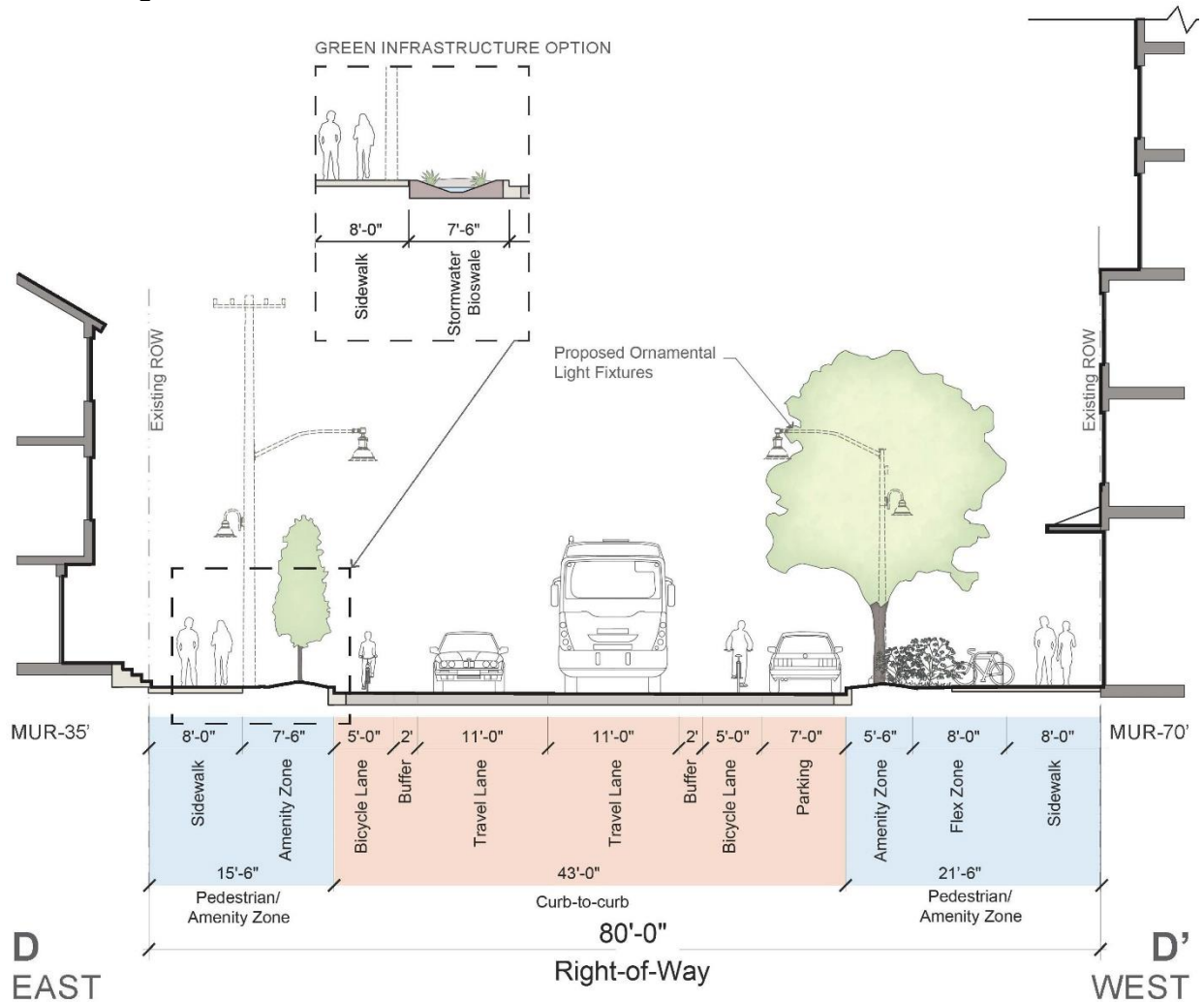
- In the near term, Sound Transit (ST) will restripe NE 185th Street into a three-lane section with buffered bike lanes between 2nd Avenue NE and 8th Avenue NE. Ultimately, Segment B's roadway four-lane configuration

will extend from Midvale Avenue N to 5th Avenue NE (west of I-5) and then transition into Segment C's three-lane configuration before the bridge. ST will install temporary traffic control measures at the intersection of NE 185th Street and 10th Avenue NE to accommodate detoured traffic during the reconstruction of 5th Avenue NE (east of I-5).

- Refinements to Segment C include:
 - Changes the extents of Segment C from 5th Avenue NE (west of I-5) to 10th Avenue NE to dovetail with refined extents of Segment B.
 - Gaps in pedestrian/bicycle/amenity zones may be completed overtime through incremental redevelopment and/or CIP.
 - Permanent traffic control measures at the intersection of NE 185th Street and 10th Avenue NE may be completed overtime through CIP.

10th Avenue NE

- Segment D - NE 185th Street to NE 180th Street

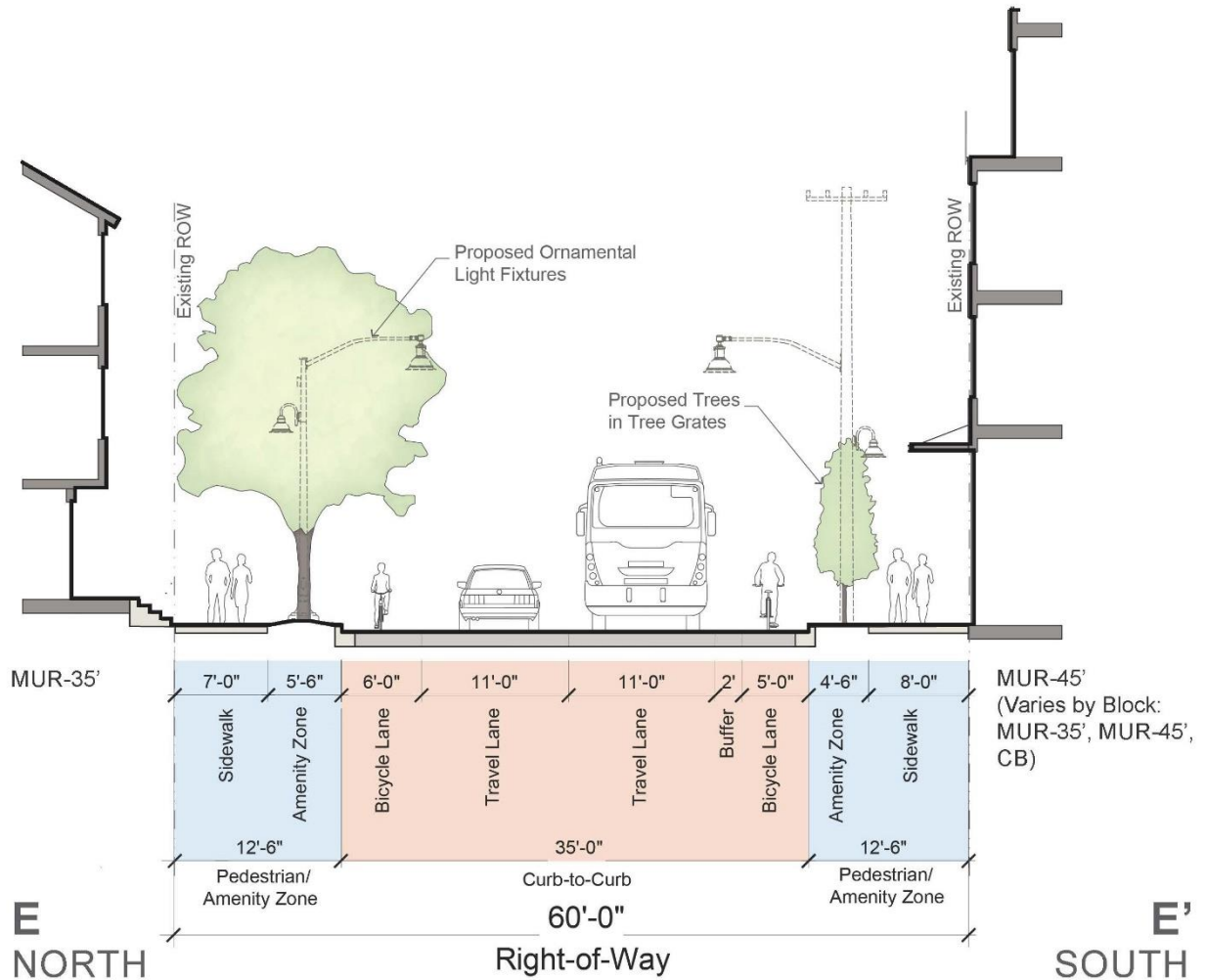


- Preferred Option for this segment is a two-lane section (two travel lanes) with buffered bike lanes, on-street parking (westside only), amenity zones, sidewalks, and additional flex zone on the westside of the street.
- Refinements to Segment D include:

- Increases width of sidewalk on eastside of street from five to eight feet to promote walkability within the 185th Street Station Subarea.
- Updates the location of existing utility pole on the eastside of street to correctly show it at eight feet from the existing ROW. Increases the amenity zone width from five and a half feet to seven and a half feet to accommodate optional stormwater feature.

NE 180th Street

- Segment E - 10th Avenue NE to 15th Avenue NE



- Preferred Option for this segment is a two-lane section (two travel lanes) with enhanced bike lanes, amenity zones, and sidewalks.
- Refinements to Segment D include:
 - Increased sidewalk width on southside of street from 7.5 feet to eight feet.

PREFERRED OPTION ANALYSIS

The study team developed the Preferred Option based on Council’s input and community and stakeholder feedback received throughout the study process (see *Stakeholder Outreach* section for more details). In addition, the team developed the

Preferred Option to be forward-compatible with the 185th Street Station Subarea zoning, City plans, King County Metro (Metro) and Community Transit (CT) future service plans, and utility providers and emergency responder service needs. The team also evaluated environmental and community benefits and potential impacts.

During summer 2019, the team further analyzed the Preferred Option in respect to transit speed and reliability, traffic LOS, preliminary roadway design, intersection control, incremental redevelopment coordination, EDM Update, ROW needs, planning-level cost estimate, SEPA non-project review, project delivery approach, and funding strategy. The following section provides a briefing on these key components.

Transit Speed and Reliability

The expected opening of the future Shoreline North/185th Station in 2024 has been the impetus for planning efforts to optimize bus connections to and from the light rail station. Metro's long-range plan envisions both local and frequent service connections to/from the Shoreline North/185th Station. In addition, Metro is considering a frequent service route (a bus every 15 minutes or less) from the Shoreline North/185th Station east to 10th Avenue NE to NE 180th Street to North City Business District and beyond to Lake Forest Park. CT is planning an extension of its Swift Blue Line (Bus Rapid Transit [BRT] line) that would make frequent connections (a bus every eight (8) minutes or less) to/from the Shoreline North/185th Station.

The Preferred Option supports future frequent transit service by proposing corridor improvements that would optimize the speed and reliability of transit service, as well as strengthen pedestrian and bicycle access to/from transit stops. In particular, the Preferred Option provides a minimum of 11-foot wide lanes for buses (Segment B provides 12-foot wide BAT lanes, Segment C, D, and E provides 11-foot wide lanes), accommodates bus turning movements at intersections, and allows adequate room for future bus stops.

Traffic LOS Analysis

Concurrency is one of the goals of the Growth Management Act and refers to the timely provision of public facilities and services relative to the demand for them. To maintain concurrency requires adequate public facilities are in place to serve new development as it occurs or within a specified time period.

The March 25, 2019 and July 22, 2019 staff reports discussed the City of Shoreline's adopted traffic LOS for measuring traffic concurrency and provided general-purpose traffic V/C (volume to capacity) ratios (which compares roadway demand for general-purpose vehicle volumes to roadway supply or carrying capacity) for each of the 185th MCS Segments. For reference, a V/C of 1.0 indicates the roadway facility is operating at its capacity. A V/C of 0.9 is generally considered an appropriate threshold and greater than 1.0 would indicate "over-capacity".

The general-purpose traffic V/C ratio outcomes for each of the Preferred Option Segments is summarized below (see *Attachment B* for more details). It should be noted that the V/C ratios indicate peak hour travel and reflect how well general-purpose traffic will flow through the individual street segments without factoring in the performance of the corridor's intersections, which may affect results.

N/NE 185th Street – Segment B and C

- The Preferred Option will result in a 1.92 V/C ratio for general-purpose traffic that far exceeds the City's current LOS standard for this segment. However, it is important to note that N/NE 185th Street Preferred Option provides dedicated BAT lanes that would allow transit to operate fast and reliable service well below the acceptable standard 0.90 V/C ratio. The roadway segment V/C ratio assumes standard trip generation methods associated with the type of redevelopment anticipated within the 185th Street Station Subarea. As such, there is an assumption of high vehicle use and dependency; however, this can and likely will shift over time, especially if walking, biking, or riding the bus becomes more economical and efficient than driving alone.
- It should be noted that none of the options studied would meet the City's LOS. Creating an option that would meet the City's current V/C ratio would require a greater than 5-lane roadway configuration for general-purpose vehicles that would compromise the safety, access, and mobility of pedestrians, bicyclists, and reliable transit; and have a much larger roadway footprint than is economically feasible.
- If Council adopts the Preferred Option, a follow up action will need to be taken to set a specific LOS for N/NE 185th Street in the City's Comprehensive Plan.

10th Avenue NE – Segment D

- The Preferred Option will result in a 1.12 V/C ratio for general-purpose traffic that exceeds the City's current LOS standard for this segment.
- If Council adopts the Preferred Option, a follow up action will need to be taken to set a specific LOS for 10th Avenue NE in the City's Comprehensive Plan.

180th Street – Segment E

- The Preferred Option will result in a 0.61 V/C ratio for general-purpose traffic that meets City's current LOS standard for this segment.

Preliminary Roadway Design Analysis

During the Preferred Option refinement period, the study team further analyzed the LOS of the 185th Street Corridor. Additional traffic analysis showed a need to extend the Segment B's four-lane cross section to 5th Avenue NE west of the bridge in order to allow the most benefit to transit. The transition from four to three lanes can happen seamlessly through an intersection upgrade at NE 185th Street and 5th Avenue NE west of the bridge.

While the Preferred Option's four-lane cross section offers N/NE 185th Street clear multimodal benefits, one of the tradeoffs is the elimination of the center turn lane, which currently facilitates vehicular turns to and from the corridors to/from driveways and side streets. As the corridor develops, access restrictions and driveway consolidations will likely be necessary. Given this, attention to intersections and specifically how intersections can accommodate U-turn movements will be an important consideration during the design engineering phase of N/NE 185th Street.

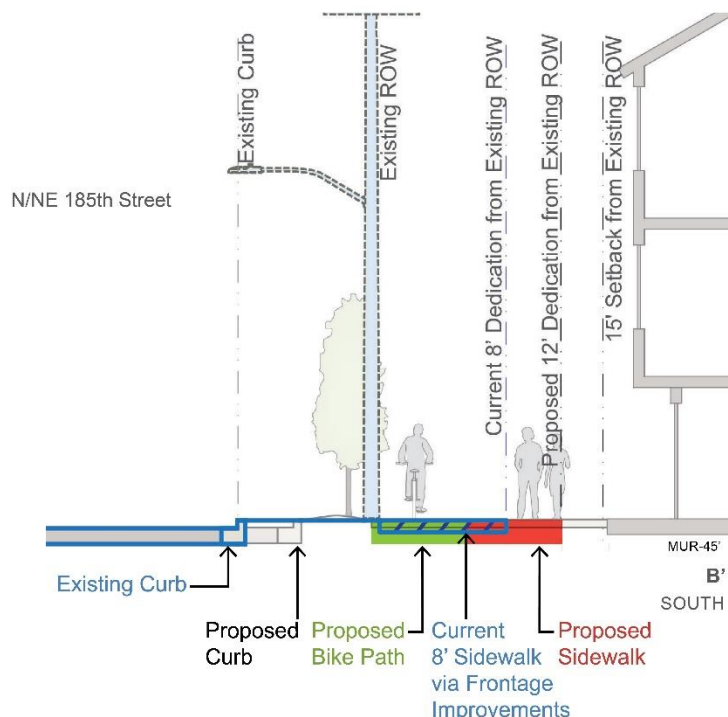
Intersection Control Analysis

Two intersection control scenarios were analyzed (see *Attachment C*); one that primarily utilizes roundabouts and another that uses a mix of roundabouts and signals. Both result in approximately seven-minute travel times for transit between Aurora Avenue and the future Shoreline North/185th Station, even considering typical traffic volume growth assumptions. Additional analysis during design engineering will be required to determine the best treatment for key intersections.

Incremental Redevelopment Coordination on 185th Street

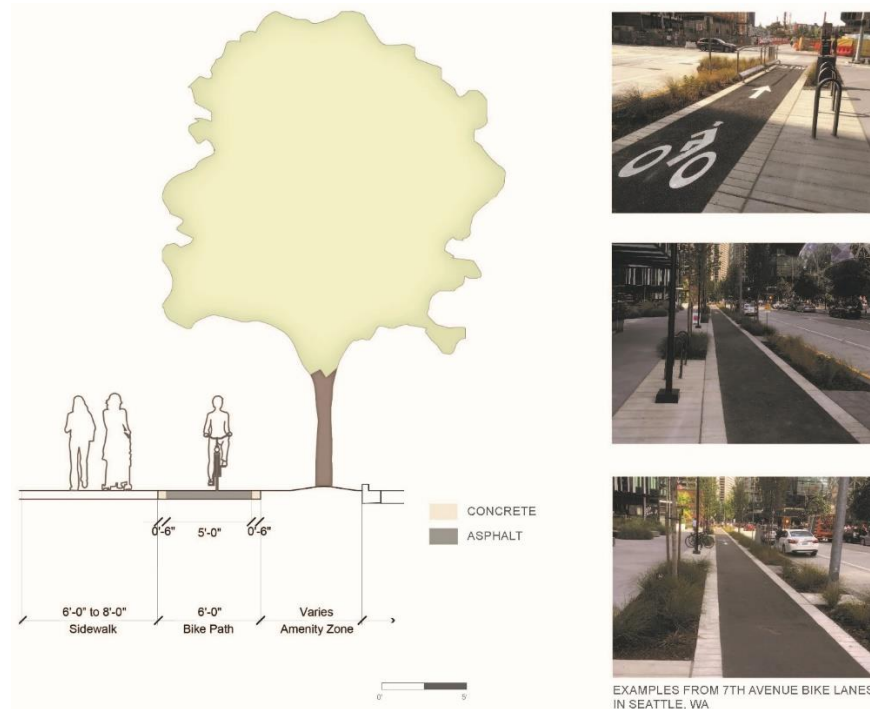
Recognizing that redevelopment takes a significant role in providing corridor improvements and that City CIP projects will be smaller and in select locations on the corridor, the 185th MCS takes a practical approach to the incremental redevelopment of the 185th Street Corridor. 185th MCS will guide how future developments, both public and private, will relate to the 185th Street Corridor and ensure that it is developed in a cohesive way.

A ROW dedication in the City of Shoreline is a perpetual easement that is dedicated for public uses (vehicular and pedestrian traffic, drainage, public or private utilities, lighting, signage, landscaping, and other public uses permitted within the public ROW). The City does not own the land; it still belongs to the adjacent property owner. Currently, when properties are redeveloped along 185th Street, the permit applicant is asked to dedicate eight (8) feet from the existing ROW for frontage improvements. The following illustration shows how the current approach of building an eight-foot sidewalk from the back of an eight-foot dedication is incompatible with the build out of Segment B's ped/bike/amenity zones. To solve this issue, the study team re-dimensioned Segment B's ped/bike/amenity zones to fit within a proposed 12-foot dedication from the ROW on both sides of the street. This solution allows Segment B's ped/bike/amenity zones to be built incrementally with each redevelopment's frontage improvements.



Engineering Development Manual (EDM) Update

The City's EDM contains Standard Plans to specify ROW improvements. The Preferred Option's off-street bike path adjacent to a sidewalk (see the following illustration) is a new type of pedestrian and bike facility for the City and thus the EDM Update will include a Standard Plan for this new facility type.



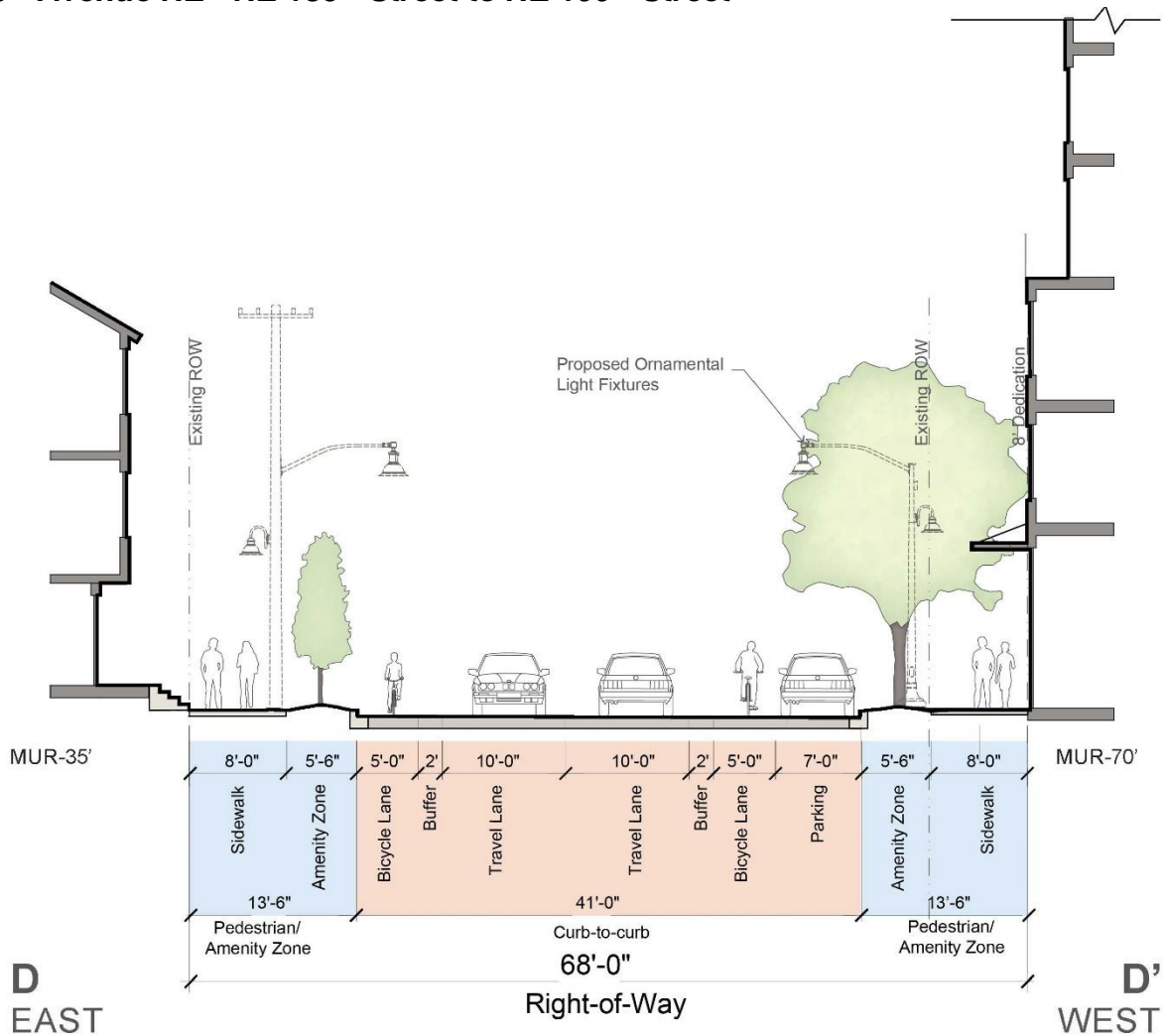
The City's EDM contains Appendix F – Street Matrix that denotes required widths, on both sides of the road, for sidewalks, the amenity zone, curb, parking, travel lane, bicycle lane, etc. for each City roadway or defers the establishment of these widths to later planning or development activities. The next update to the EDM is scheduled for 2020.

Once Council has adopted the Preferred Option, a logical next step is to update the EDM's Street Matrix to reflect the Preferred Option's ROW allocations for the 185th Street Corridor. In addition, the study team will recommend updates to the Street Matrix on N 185th Street between Fremont Avenue N and Dayton Avenue N to fill the gap in the pedestrian/bike facilities and on NE 180th Street between 10th Avenue NE and 5th Avenue NE to strategically connect with the Proposed Trail Along the Rail.

10th Avenue NE North and South of the Study Area

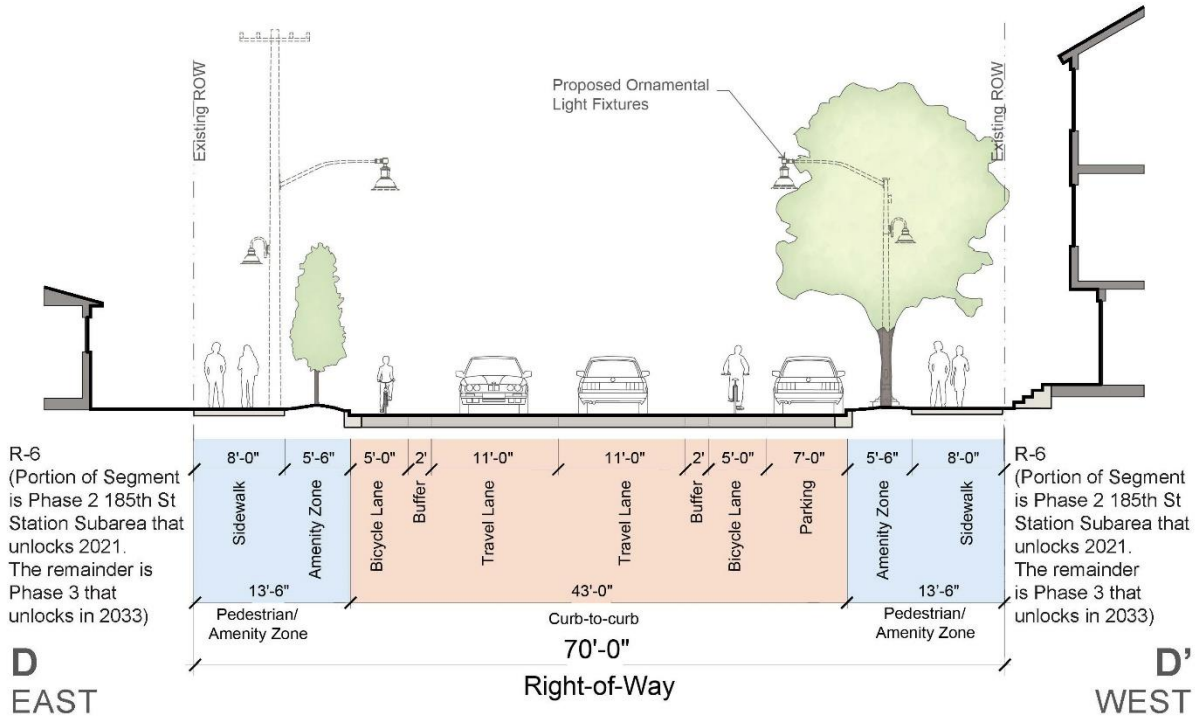
After the July 22, 2019 City Council meeting, the study team developed the following recommended EDM Street Matrix updates to 10th Avenue NE north and south of the 185th MCS study area.

10th Avenue NE - NE 185th Street to NE 190th Street



- Recommended Option for this segment is a two-lane section (two 10-foot travel lanes) with buffered bike lanes, on-street parking (westside only), amenity zones, and eight-foot sidewalks.
- Travel lanes were reduced from 11 feet to 10 feet wide to help with traffic calming and is appropriate for this road segment that doesn't accommodate transit.
- Flex zones were removed from this segment to create a narrower cross section.
- The current ROW is 60 feet. An eight-foot dedication is proposed on the westside of the street which is zoned for MUR-70'.

10th Avenue NE - NE 180th Street to NE 175th Street



- Recommended Option for this segment is a two-lane section (two 11-foot travel lanes) with buffered bike lanes, on-street parking (westside only), amenity zones, and eight-foot sidewalks.
- Flex zones were removed from this segment to fit within a 70-foot ROW.

ROW Needs

Preliminary analysis of ROW requirements (see *Attachment D*) are based on the anticipated impacts of the Preferred Option on existing property lines and vehicular access.

Cost Estimate

A planning-level cost estimate of the Preferred Option by Segment (see *Attachment E*) includes design, environmental review, right-of-way acquisition, and construction costs. The estimated cost to underground power is provided as an optional line item. Please note, that the estimated increase to a Shoreline average rate payer for undergrounding power on N/NE 185th Street, 10th Avenue NE, and NE 180th Street is \$4.07 per month over the next 25 years.

SEPA Checklist

On September 18, 2019, the City of Shoreline issued a Notice of Application including an optional SEPA Determination of Nonsignificance (DNS) for the 185th MCS with a request for public comments by October 2, 2019. No comments were received. On October 8, 2019, the City issued a SEPA DNS on the non-project action for the 185th MCS, which will serve as a guide for future development.

Project Delivery Approach

The project delivery approach (see *Attachment F*) looks at implementing the corridor vision in logical, incremental, and strategic steps in the near term (zero to five years), midterm (five to 10 years), and long term (10+ years).

- Near Term (zero to five years): During the near term, the update to plans and policies will set the direction for redevelopment frontage improvements that contribute to the ultimate 185th MCS vision. In addition, the City will engage with CT and Metro's frequent transit service planning and capital investments along the 185th Street Corridor.
- Midterm (five to 10 years): During the midterm, the City may utilize Transportation Impact Fees (TIF) from growth projects along the 185th Street Corridor, potential transit agency partnership funding, and/or grants to fund design and potentially construct portions of the 185th Street Corridor.
- Long Term (10+ years): During the long term, the City may seek grants and loans to help fund the implementation of the full 185th Street Corridor vision.

Funding Strategy

The 185th Street Corridor improvements will be implemented through redevelopment and City capital projects. The City of Shoreline takes a comprehensive approach to planning the implementation of capital improvement projects through the Transportation Improvement Plan (TIP) and Capital Improvement Plan (CIP). The TIP and CIP identify projects and funding for improvements over the next six years and are updated annually to reflect ongoing changes and additions. They also detail the work to be done for each project and an expected time frame for completion.

It is important for the City to maintain a balanced and sequenced approach to implementing capital projects, so it has the resources to complete projects and fulfill associated funding obligations successfully. Currently, the City has many capital projects that are on the path toward implementation. Some notable planned corridor improvement projects include the 145th Street Corridor, the 145th Street / I-5 Interchange, and the 175th Street Corridor. These projects are targeted to be constructed in phases over the next 10+ years. The fundamental strategy to implementing the 185th MCS is to avoid competing with resources needed to deliver the City's obligated corridor improvement projects, mentioned above, by utilizing a schedule that will follow behind them.

Potential grant funding sources for project design engineering and implementation include Puget Sound Regional Council Transportation Alternatives Program (PSRC TAP), Washington State Department of Transportation (WSDOT) Pedestrian/Bicycle Program, Transportation Improvement Board (TIB) Urban Arterial, Sidewalk, and Complete Streets programs, regional and countywide Surface Transportation Program/ Congestion Mitigation and Air Quality (STP/CMAQ), and Federal Transit Administration-FAST.

STAKEHOLDER OUTREACH

Staff used a variety of outreach events and activities to engage and inform the community throughout the 185th MCS process.

Staff used public and stakeholder feedback from Outreach Series 1 and 2, stakeholder meetings, two online surveys, as well as technical analysis to develop and refine the Preferred Option. To help keep the public informed and engaged throughout the process, the study's webpage was regularly updated and a Frequently Asked Questions (FAQs) was disseminated at public and stakeholder meetings, City Hall's Public Work's information carousel, and posted to the webpage. The 185th MCS webpage can be found at the following link: <http://www.shorelinewa.gov/185corridor>

COUNCIL GOAL(S) ADDRESSED

The 185th MCS directly supports two of the 2018-2020 City Council Goals:

- *Goal 2: Improve Shoreline's infrastructure to continue the delivery of highly-valued public service.*
 - Currently, the 185th Street Corridor inadequately supports non-motorized travel and requires improvements to effectively serve all travel modes in the future.
- *Goal 3: Continue preparation for regional mass transit in Shoreline.*
 - The 185th MCS will identify multimodal transportation improvements necessary to support growth associated with the 185th Street Station Subarea Plan and the Shoreline North/185th Station.

RESOURCE/FINANCIAL IMPACT

This study has a total budget of \$533,275 from the City of Shoreline (City) Roads Capital Fund. There is no additional financial impact associated with continued work to complete this study. There is no immediate financial impact associated with Council's adoption of the Preferred Option.

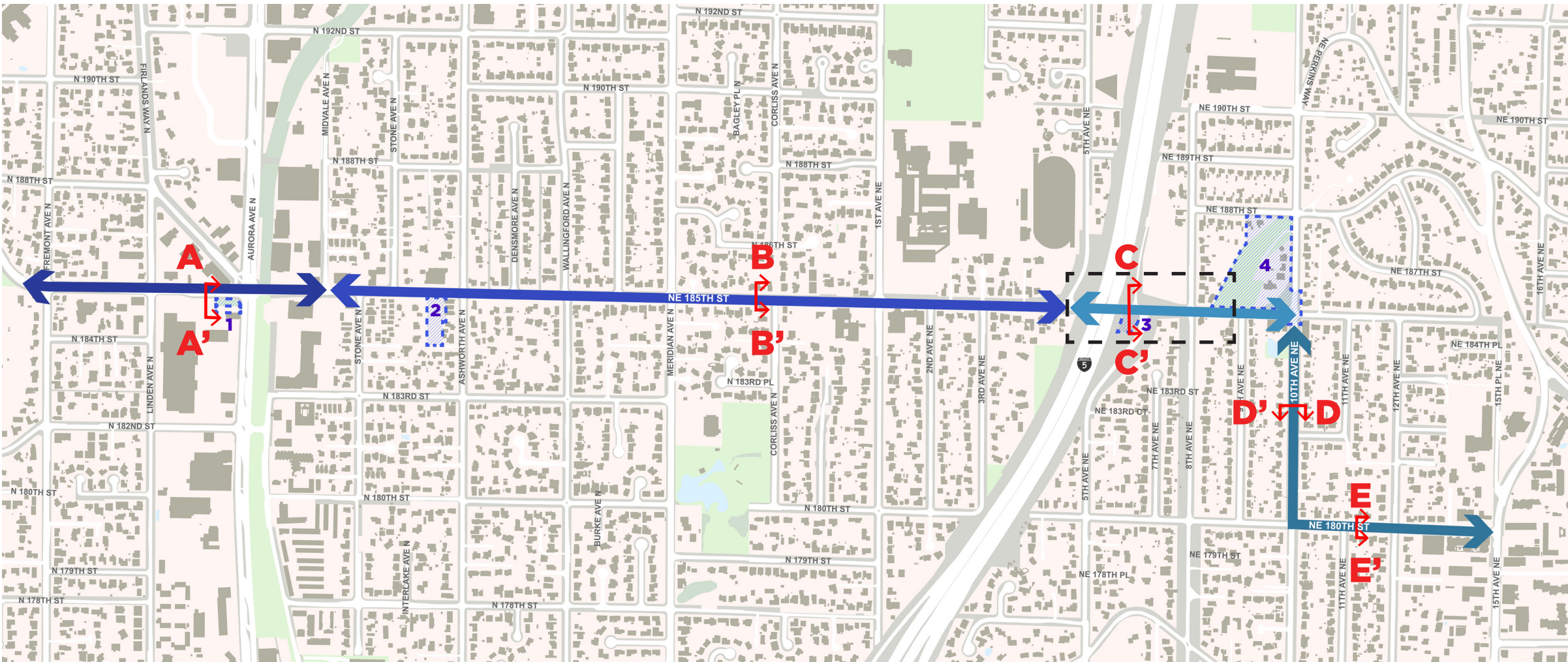
RECOMMENDATION

Staff recommends that Council move to adopt the Preferred Option mid-block cross sections for the 185th Street Multimodal Corridor Strategy.

ATTACHMENTS

Attachment A: Preferred Option Key Plan and Mid-Block Cross Sections
Attachment B: General-Purpose Traffic – Volume to Capacity Ratio Screen
Attachment C: Intersection Control Scenarios
Attachment D: ROW Needs
Attachment E: Cost Estimate
Attachment F: Project Delivery Diagram

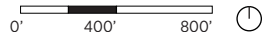
185TH STREET MULTIMODAL CORRIDOR SECTION KEY PLAN



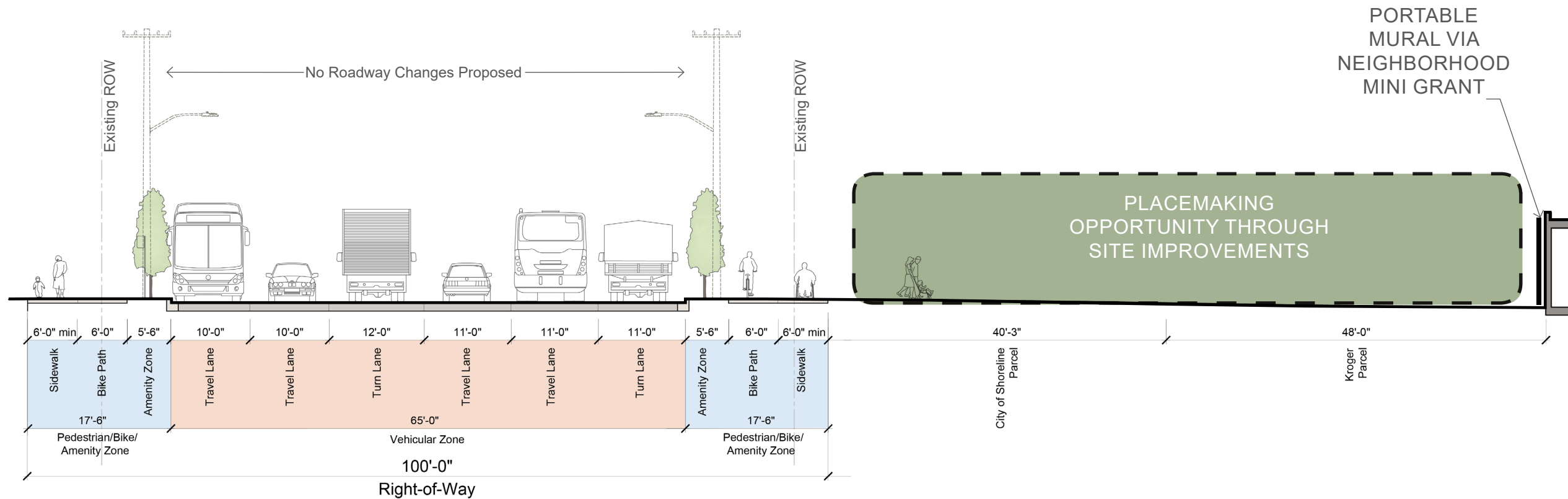
SECTION LOCATOR DIAGRAM

- SECTION CUT
- STREET SEGMENT 1
- STREET SEGMENT 2
- STREET SEGMENT 3
- STREET SEGMENT 4

- OPPORTUNITY SITE FOR COMMUNITY GATHERING PLACE
- SOUND TRANSIT LYNNWOOD LINK LIGHT RAIL PROJECT WILL BE CONSTRUCTING ROADWAY IMPROVEMENTS FOR THIS SEGMENT OF THE CORRIDOR



185TH STREET PREFERRED OPTION - A-A' ENHANCED PEDESTRIAN AND BIKE FACILITIES AND AMENITY ZONES



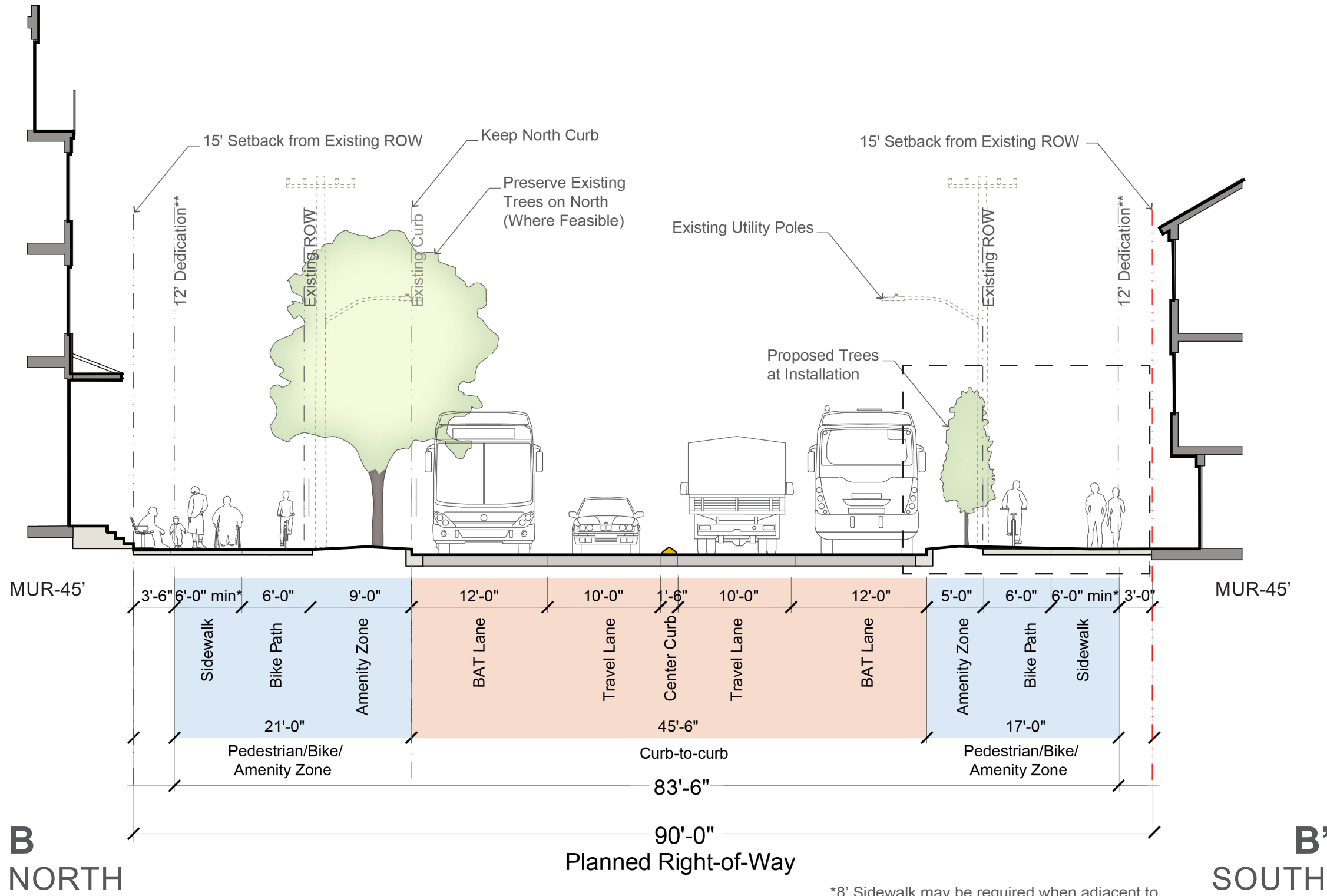
A
NORTH

A'
SOUTH

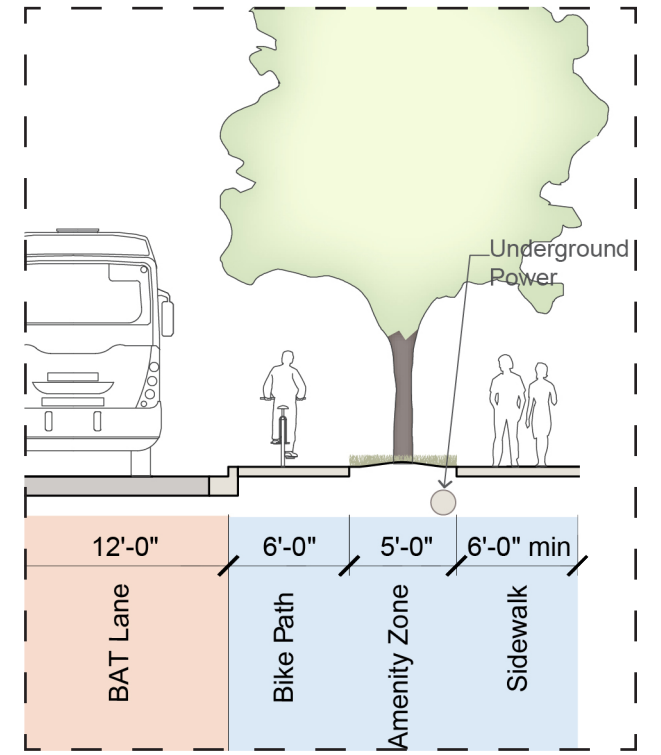
SECTION A FUTURE CONDITIONS



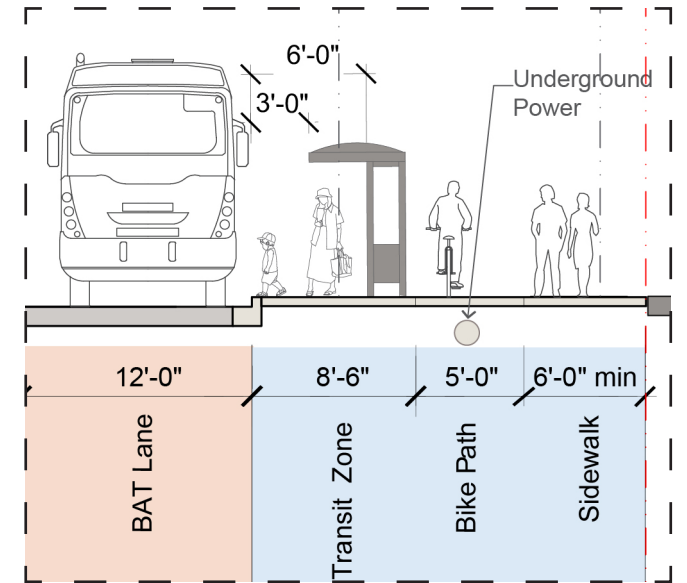
185TH STREET PREFERRED OPTION - B-B' FOUR VEHICULAR LANES INCLUDING BAT LANES, OFF-STREET BIKE LANES, AND ENHANCED PEDESTRIAN ZONES



OPTIONAL PLANTING STRIP BETWEEN BIKE AND PED FACILITIES WITH POTENTIAL UNDERGROUND POWER



CONFIGURATION AT TRANSIT STOP



SECTION B PREFERRED OPTION

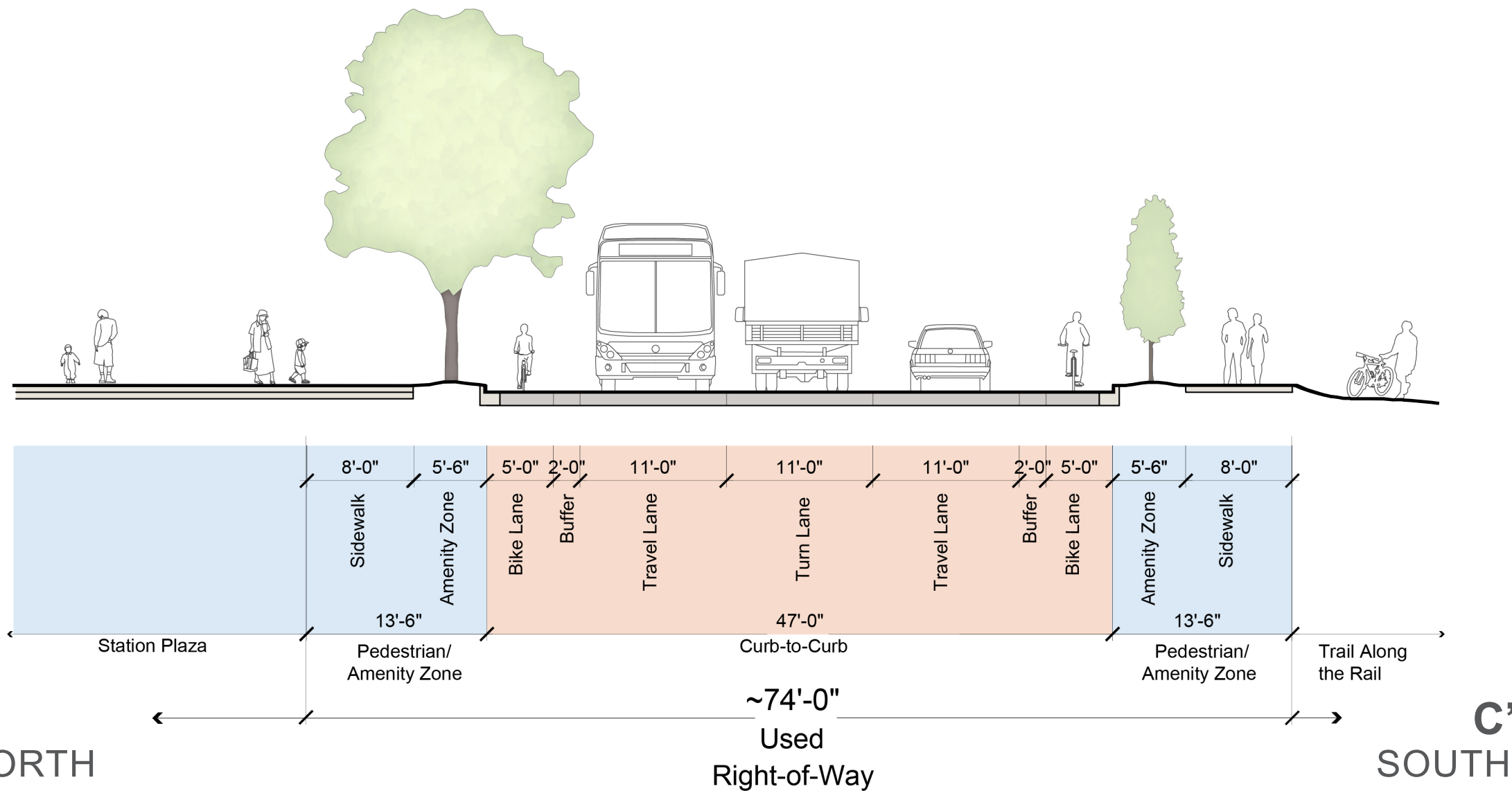
*8' Sidewalk may be required when adjacent to large-scale redevelopment and/or adjacent to MUR-70'

**Greater dedication may be required e.g. at intersections, at bus stops, etc.



185TH STREET PREFERRED OPTION - C-C' *

THREE VEHICULAR LANES INCLUDING CENTER TURN LANE, BUFFERED BIKE LANES, AND ENHANCED PEDESTRIAN ZONES

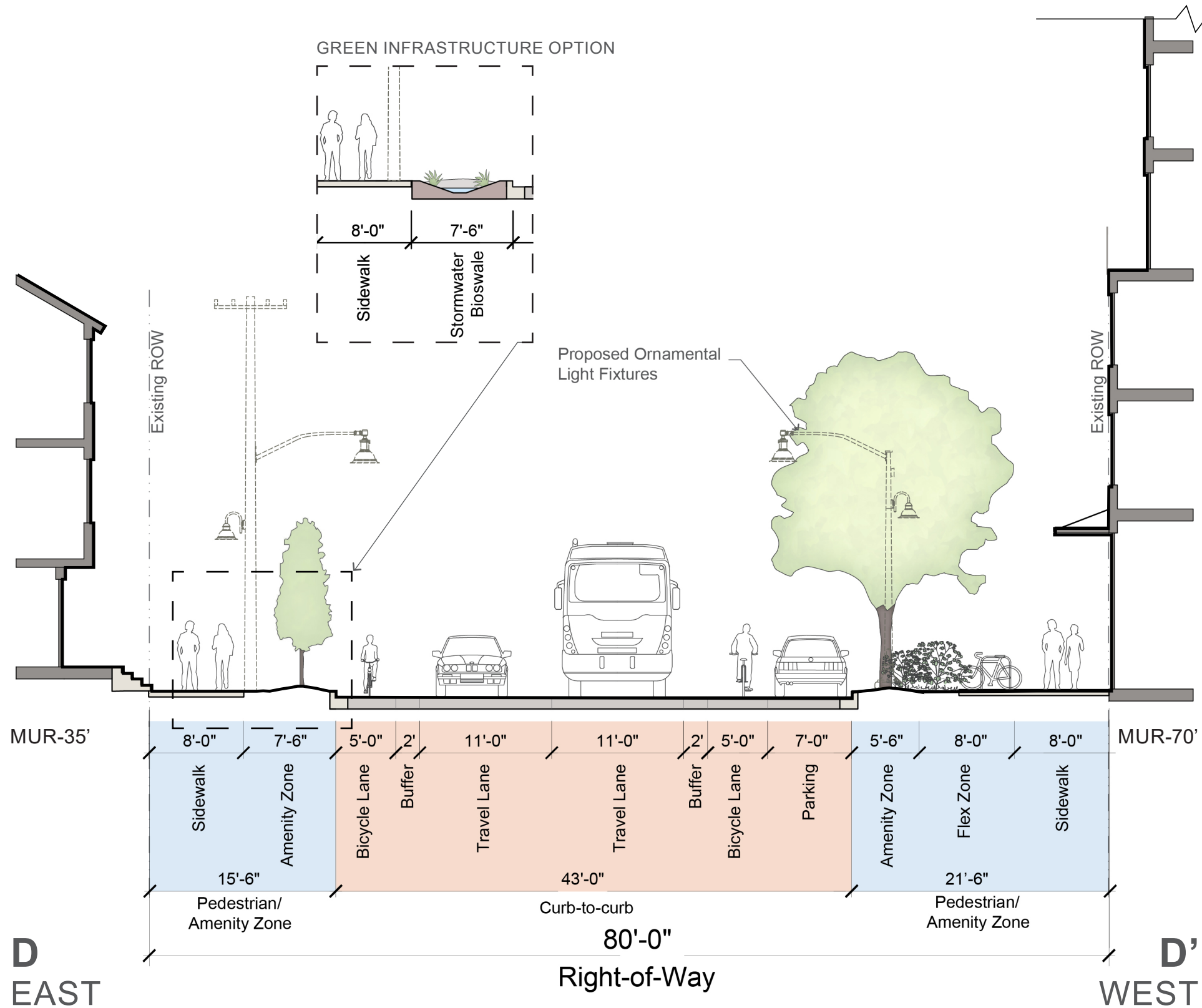


*NOTES:
 INTERSECTION OF NE 185TH ST/5TH AVE NE (WEST OF BRIDGE): DOVETAIL WITH SOUND TRANSIT-LED IMPROVEMENTS
 5TH AVE NE (WEST OF BRIDGE) TO 8TH AVE NE: SOUND TRANSIT-LED IMPROVEMENTS
 8TH AVE NE TO 10TH AVE NE: DOVETAIL WITH SOUND TRANSIT-LED IMPROVEMENTS



10TH AVENUE PREFERRED OPTION - D-D'

TWO VEHICULAR LANES WITH BUFFERED BIKE LANES, PARKING AND ENHANCED PEDESTRIAN ZONES

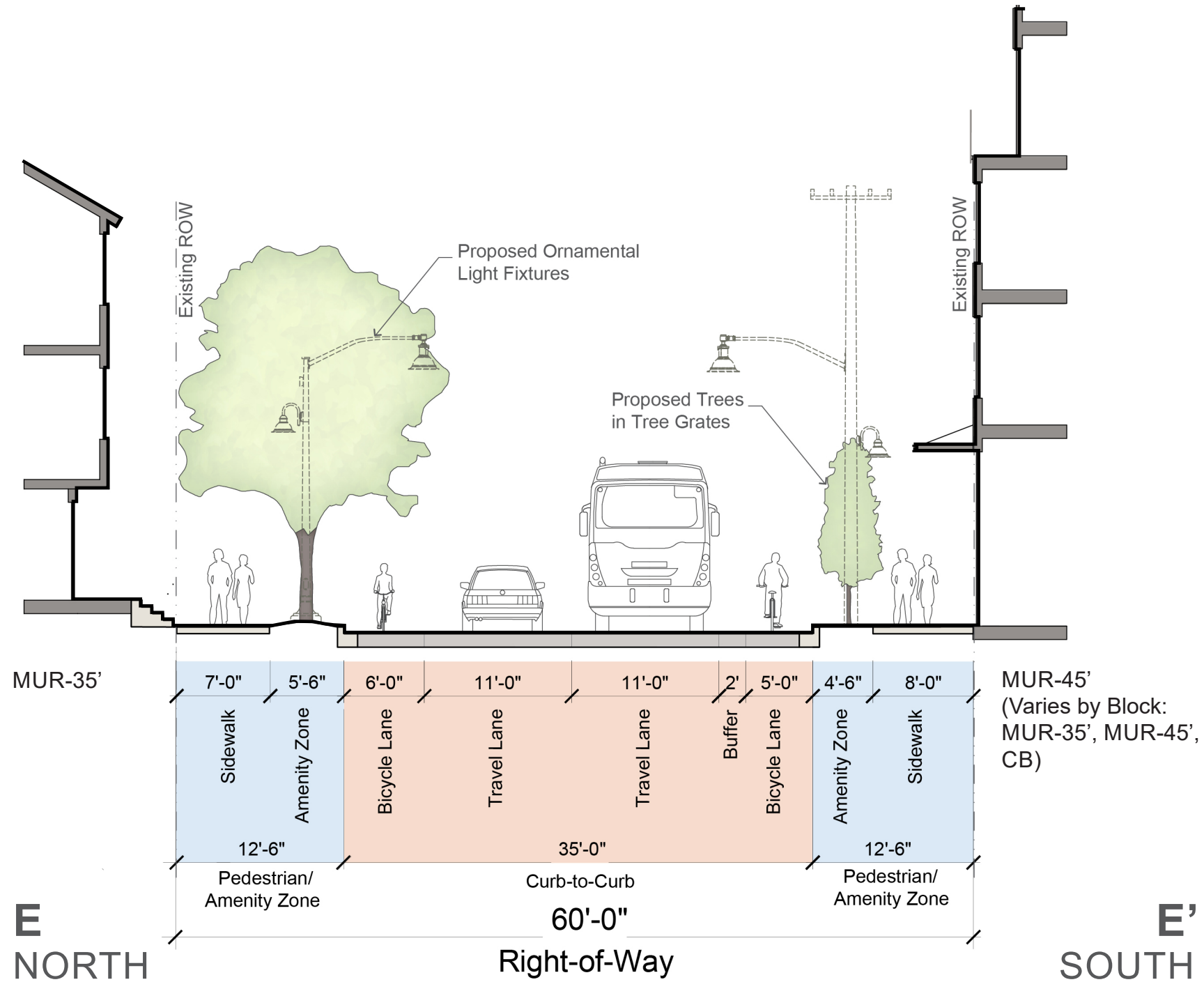


SECTION D PREFERRED OPTION



180TH STREET PREFERRED OPTION - E-E'

TWO VEHICULAR LANES WITH ENHANCED BIKE LANES AND PEDESTRIAN ZONES



SECTION E PREFERRED OPTION



General-Purpose Traffic - Volume to Capacity Ratio Screen

Segment	Location	Existing Peak Hour Volume (vehicles/hour) ¹	Future Peak Hour Volume (vehicles/hour) ¹	Existing (2018)		Preferred Option (2035)	
				V/C	LOS	V/C	LOS
Segment A	N 185th Street (Fremont Ave N to Midvale Ave N)	700	1065	0.40	A	0.61	B
Segment B	N/NE 185th Street (Midvale Ave N to 5th Ave NE [west of I-5])	595	1840	0.62	B	1.92 ²	F
Segment C	NE 185th Street (5th Ave NE [west of I-5] to 10th Ave NE)	590	1,685	0.61	B	1.76	F
Segment D	10th Avenue NE	325	785	0.54	A	1.12	F
Segment E	NE 180th Street	195	430	0.33	A	0.61	B

¹ Highest direction and peak hour volume reported for the associated segment.

² For Segment B, BAT Lane V/C would be well under .90 standard - V/C reported applies only to general purpose traffic.

Intersection Control Scenarios

Intersection	Scenario 1	Scenario 2
N 185 th St & Midvale Ave N*	Signal (minor modifications)	Signal (minor modifications)
N 185 th St & Ashworth Ave N*	Signal Added (no left turn pocket)	Signal Added (no left turn pocket)
N 185 th St & Meridian Ave N	Signal (major modifications)	Multilane Roundabout
N 185 th St & 1 st Ave N	Signal (major modifications)	Multilane Roundabout
NE 185 th & 5 th Ave NE**	Multilane Roundabout	
NE 185 th St & Transit Center**	Signal (implemented with Sound Transit project)	
NE 185 th St & 8 th Ave NE**	Roundabout (implemented with Sound Transit project)	
NE 185 th St & 10 th Ave NE**	Single Lane Roundabout	
10 th Ave NE & NE 180 th St**	Single Lane Roundabout	

*Footprint the same across both options, but scenario 2 does not designate BAT function for outer lanes.

**Intersection improvements the same across both scenarios.

185th Corridor ROW Needs

Date: 9/26/2019

Segment A: N 185th St - Fremont Ave N to Midvale Ave N	
Number of Dedications	23
Total Dedication Area (sf)	8,500
Buildings Impacted	5
Property Impacts	10
Segment B: N/NE 185th St - Midvale Ave N to 5th Ave NE (west of I-5)	
Number of Dedications	97
Total Dedication Area (sf)	140,000
Buildings Impacted	15
Property Impacts	52
Segment C: NE 185th St - 5th Ave NE (west of I-5) to 10th Ave NE	
Number of Dedications	9
Total Dedication Area (sf)	4,000
Buildings Impacted	0
Property Impacts	2
Segment D: 10th Ave NE - N 185th St to NE 180th St	
Number of Dedications	3
Total Dedication Area (sf)	700
Buildings Impacted	0
Property Impacts	13
Segment E: NE 180th St - 10th Ave NE to 15th Ave NE	
Number of Dedications	0
Total Dedication Area (sf)	0
Buildings Impacted	0
Property Impacts	2

Notes:

- Segment A: Assumes no roadway changes; only ped/bike/amenity zone improvements.
- Segment B maintains existing north curb and proposes 4-lane configuration within 90' Planned ROW.
- Segment C: ROW Impacts are not included from Sound Transit-led rechannelization between I-5 bridge and 8th Ave NE, signalized intersection at NE 185th St/5th Ave (east of I-5), NE 185th St/8th Ave NE roundabout, frontage improvements from east of I-5 to 8th Ave NE, and a temporary roundabout at NE 185th St/10th Ave NE.
- Dedication areas provided are preliminary for planning purposes and subject to change as design progresses. Dedications and building impacts may increase depending on detailed vertical/grading design, constructability of improvements, and City of Shoreline requirements.
- Dedication area is measured from existing ROW and does not include any easements required for construction or traffic improvements needed at intersections.
- Property impacts include adverse impacts to parking, landscaping, driveways, access, site walls, and accessory buildings.

**185th Corridor Cost Summary
Planning Level Opinion of Cost**

Date: 9/26/2019

	Segment A	Segment B	Segment C	Segment D	Segment E	Total All Segments
Right of Way	\$1,100,000	\$17,000,000	\$400,000	\$0	\$0	\$18,500,000
Construction	\$2,700,000	\$15,500,000	\$1,200,000	\$5,800,000	\$2,300,000	\$27,500,000
Project Development	\$1,100,000	\$6,100,000	\$500,000	\$2,300,000	\$900,000	\$10,900,000
Construction Management	\$400,000	\$2,400,000	\$200,000	\$900,000	\$400,000	\$4,300,000
Subtotal	\$5,300,000	\$41,000,000	\$2,300,000	\$9,000,000	\$3,600,000	\$61,200,000
Risk Allowance (30%)	\$1,600,000	\$12,300,000	\$700,000	\$2,700,000	\$1,100,000	\$18,400,000
Total Estimate (2019 dollars)	\$6,900,000	\$53,300,000	\$3,000,000	\$11,700,000	\$4,700,000	\$79,600,000

Utility Undergrounding	\$0	\$5,000,000	\$4,500,000	\$1,500,000	\$1,400,000	\$12,400,000
Project Development	\$0	\$1,950,000	\$1,755,000	\$585,000	\$546,000	\$4,836,000
Construction Management	\$0	\$750,000	\$675,000	\$225,000	\$210,000	\$1,860,000
Subtotal	\$0	\$7,700,000	\$6,930,000	\$2,310,000	\$2,156,000	\$19,096,000
Risk Allowance (30%)	\$0	\$2,400,000	\$2,100,000	\$700,000	\$700,000	\$5,800,000
Utility Undergrounding (2019 dollars)	\$0	\$10,100,000	\$9,100,000	\$3,100,000	\$2,900,000	\$24,900,000

Notes:

- Summary represents order of magnitude cost opinion. Final project costs will depend on actual labor and material costs, actual site conditions, productivity, competitive market conditions, final project scope, final project schedule, and other variable factors.
- Estimates based on 185th MCS Preferred Option mid-block cross sections.
- Costs are in 2019 dollars and do not include escalation, financial costs, or operations and maintenance costs.
- Right of Way costs are not based on appraisals and do not include adverse building or property impacts.
- Utility undergrounding costs assume undergrounding of existing utilities along the corridor and horizontal directional drilling under I-5.
- Project Development costs include allowances for environmental documentation, preliminary and final design engineering, agency administration, special studies, public art, and community engagement.
- Construction Management is assumed to be 15% of construction costs.
- Risk allowance is assumed to be 30% to capture design risks and unknown project costs.
- Design of intersections to be determined.

PROJECT DELIVERY DIAGRAM

