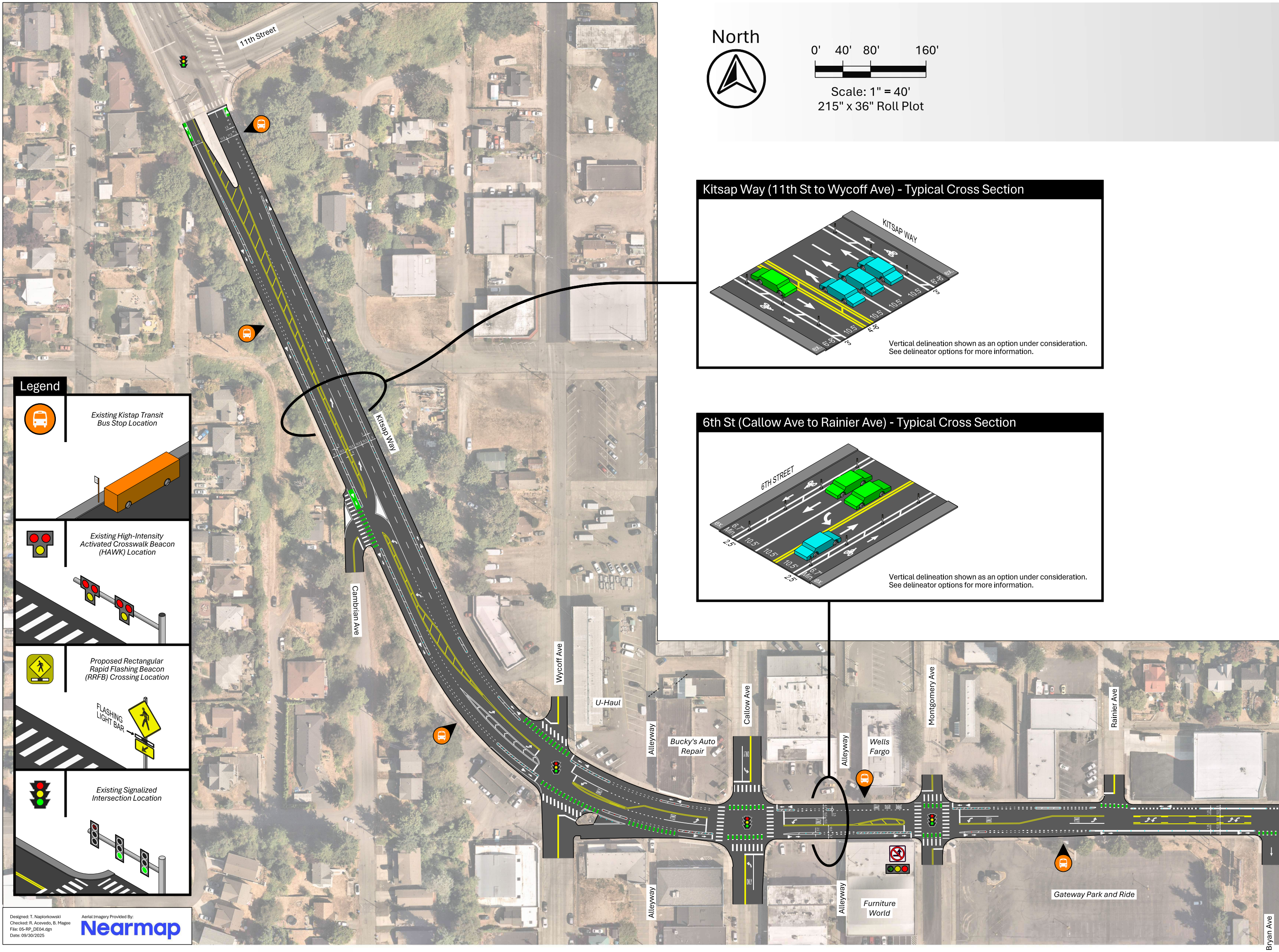

11th Street
Kitsap Way
Cambrian Ave
Wycoff Ave
U-Haul
Alleyway
Bucky's Auto Repair
Callow Ave
Alleyway
Wells Fargo
Montgomery Ave
Rainier Ave
Alleyway
Furniture World
Alleyway
Gateway Park and Ride
Bryan Ave
0'
40'
80'
160'
KITSAP WAY
ex.
6'-8'
3'
10.5'
4'-8'
10.5'
10.5'
10.5'
3'
6'-8'
ex.
6TH STREET
ex.
6.7' Min.
2.5'
10.5'
10.5'
10.5'
2.5'
6.7' Min.
ex.
FLASHING LIGHT BAR

North

Scale: 1" = 40'
215" x 36" Roll Plot

Kitsap Way (11th St to Wycoff Ave) - Typical Cross Section

Vertical delineation shown as an option under consideration.
See delineator options for more information.

6th St (Callow Ave to Rainier Ave) - Typical Cross Section

Vertical delineation shown as an option under consideration.
See delineator options for more information.

Legend

🚌	*Existing Kistap Transit Bus Stop Location*
🚦	*Existing High-Intensity Activated Crosswalk Beacon (HAWK) Location*
🚸	*Proposed Rectangular Rapid Flashing Beacon (RRFB) Crossing Location*
🚦	*Existing Signalized Intersection Location*

Designed: T. Naplorkowski
Checked: R. Acevedo, B. Magee
File: 05-RP_DE04.dgn
Date: 09/30/2025

Aerial Imagery Provided By:
Nearmap

Olympic Ave - Alternatives Commentary

Alternative A Description

This alternative provides a curbed island in the center of the road. Left turns are prohibited in all directions with the exception of eastbound left turns.

Pros

- Provides space for an optional additional Rectangular Rapid Flashing Beacon (RRFB) in the median.
- Shortens exposed crossing distance for pedestrians.

Cons

- Not supported by emergency services due to reduction in clear street width (impacts to emergency response).
- Higher cost than Alternative B.

Alternative B Description

This alternative provides a paint only median in the center of the road. Left turns are prohibited in all directions with the exception of eastbound left turn. Optional curbing may be installed to physically restrict left turns.

Pros

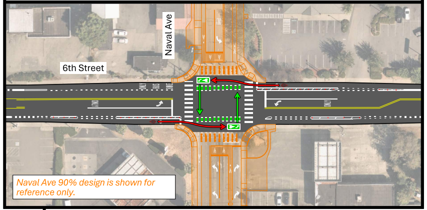
- Allows for unobstructed travel down the center of the road by emergency services.
- More cost effective than Alternative A.

Cons

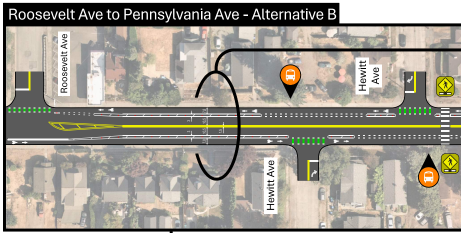
- Longer exposed pedestrian crossing distance.
- Does not provide hard-scape for added traffic calming.

Naval Ave Bicycle and Pedestrian Enhancements Project

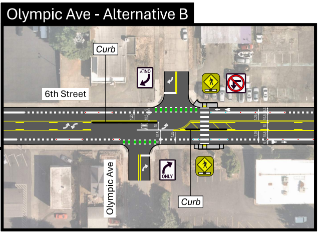
The Naval Avenue Bicycle and Pedestrian Enhancements project is a separate City project providing bike connectivity from 1st St to 15th St. The 6th St project will connect cyclists to this corridor using 2-stage bicycle left turn boxes. This removes the conflict between left turning vehicles and cyclists.


6th Street
Naval Ave
Naval Ave 90% design is shown for reference only.

Roosevelt Ave to Pennsylvania Ave - Alternative B


Roosevelt Ave
Hewitt Ave
Hewitt Ave

Olympic Ave - Alternative B


Curb
6th Street
ONLY
ONLY
Olympic Ave
Curb

Naval Ave Intersection Alternatives

What other alternatives did we consider?

Several other alternatives were evaluated at the intersection of 6th St and Naval Ave. These include:

- Eastbound "Mixing-Zone" Right Turn Lane
- Protected Intersection without Right Turn Lanes
- Protected Intersection with Right Turn Lanes

The intersection design shown below is recommended based on balancing outcomes for safety, operations, cost and schedule.

Check them out on separate Naval Avenue intersection exhibits!

Roosevelt Ave to Pennsylvania A

Alternative A Description

This alternative provides a center two-way left turn lane or painted median in the center of the road.

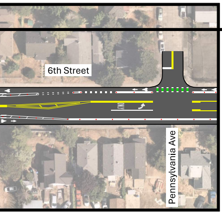
Pros

- Reduces vehicle crash risk for left turning vehicles by providing separate turn lane.
- Provides for emergency vehicle access in the center turn lane or median.
- Provides consistent cross sectional width with the adjacent segments of the 6th St corridor.

Cons

- Narrower separation between vehicles and cyclists than in Alternative B.

Olympic Ave
Naval Ave
Hewitt Ave
Olympic Ave - Alternative A
ONLY
ONLY
Alleyway
Olympic Ave
6th Street
Alleyway
Naval Ave
U.S. Bank
ARCO Gas Station
Roosevelt Ave to Pennsylvania Ave - Alternative A
Roosevelt Ave
Hewitt Ave -
ONLY
Hewitt Ave


6th Street
Pennsylvania Ave

ve - Alternatives Commentary

Alternative B Description

This alternative removes the two-way left turn lane and provides a bike lane buffer with wider bike lanes.

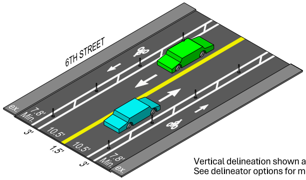
Pros

- Improves safety and comfort for cyclists.

Cons

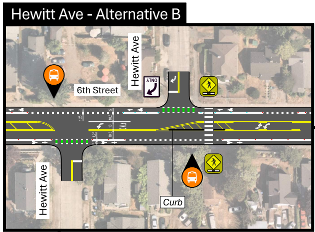
- Inconsistent cross sectional width with the adjacent segments of the 6th St corridor.
- Increased crash risk for vehicles due to no separate turn lane.
- Does not allow painted or paved center island at Hewitt marked crosswalk.
- Not supported by Bremerton Fire Department due to reduced street width (emergency response impacts).

Roosevelt Ave to Pennsylvania Ave - Alternative B Typical Cross Section


6TH STREET
ex.
7.8' Min.
3'
10.5'
1.5'
10.5'
3'
7.8' Min.
ex.

Vertical delineation shown as an option under consideration.
See delineator options for more information.

Hewitt Ave - Alternative B


Hewitt Ave
6th Street
ONLY
Hewitt Ave
Curb

Hewitt Ave - Alternatives Commentary

Alternative A Description

This alternative provides a curbed pedestrian refuge island in the center of the road. Left turns are prohibited into and out of Hewitt Ave (north).

Pros

- Shortens exposed crossing distance for pedestrians.

Cons

- Opposed by emergency services due to concern around increased response times.
- Higher cost than Alternative B.

Alternative B Description

This alternative provides a paint only median in the center of the road. Left turns are prohibited into and out of Hewitt Ave (north). Optional curbing may be installed to physically restrict these left turns.

Pros

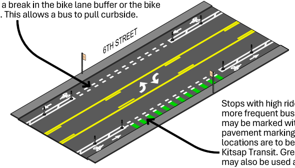
- Allows for unobstructed travel down the center of the road by emergency services.
- Lower cost than Alternative A.

Cons

- Longer exposed pedestrian crossing distance.
- Curb required to physically restrict left turns.

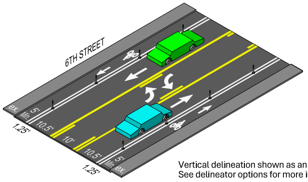
Typical Corridor Wide Transit Stop Alternatives Under Considerati

Typical curbside stop locations are marked with a "dashed line" either as a break in the bike lane buffer or the bike lane edge line. This allows a bus to pull curbside.

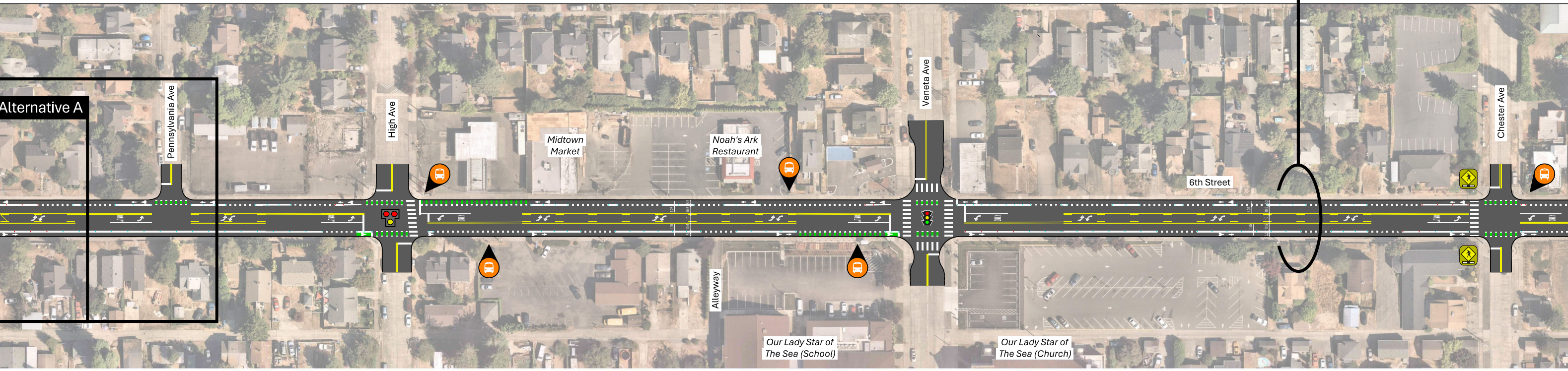


Stops with high ridership that have more frequent bus movements may be marked with green pavement markings. These locations are to be confirmed with Kitsap Transit. Green markings may also be used at nearside stops at signalized intersections.

6th St (Rainier Ave to Warren Ave) - Typical Cross Section


6TH STREET
ex.
5' Min.
1.25'
10.5'
10'
10.5'
1.25'
5' Min.
ex.

Vertical delineation shown as an option under consideration.
See delineator options for more information.


Alternative A
Pennsylvania Ave
High Ave
Midtown Market
Noah's Ark Restaurant
Veneta Ave
6th Street
Chester Ave
Alleyway
Our Lady Star of The Sea (School)
Our Lady Star of The Sea (Church)

6th Street Active Transportation

Open House -

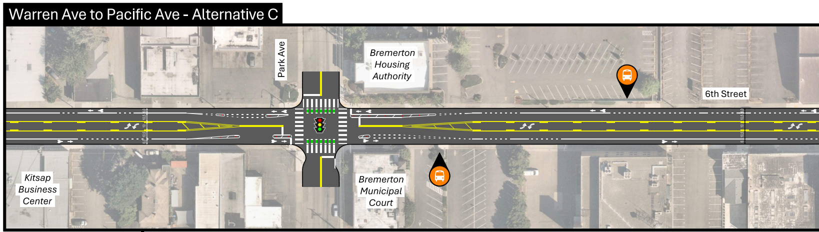
ion

What else was considered?

"In-lane" transit stop build outs were investigated as a viable treatment for the corridor. These ramp cyclists up to the sidewalk level and have buses stop in-lane. These come as both permanent curb constructions and semi-permanent "bolt-down" rubber products. These were determined to be non-viable across the project due to:

- Cost prohibitive across 19 stops locations.
- Potentially negative drainage implications.
- Restricts Kitsap Transit's ability to relocate or move stop locations.
- Triggers other stop upgrade obligations, which would require a ROW phase.

Warren Ave to Pacific Ave - Alternative C


Park Ave
Bremerton Housing Authority
6th Street
Kitsap Business Center
Bremerton Municipal Court

Bike Lane Vertical Delineation Under Consideration

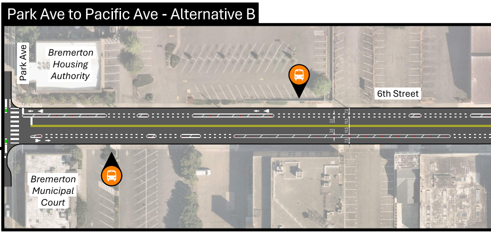
Vertical Delineation Feasible

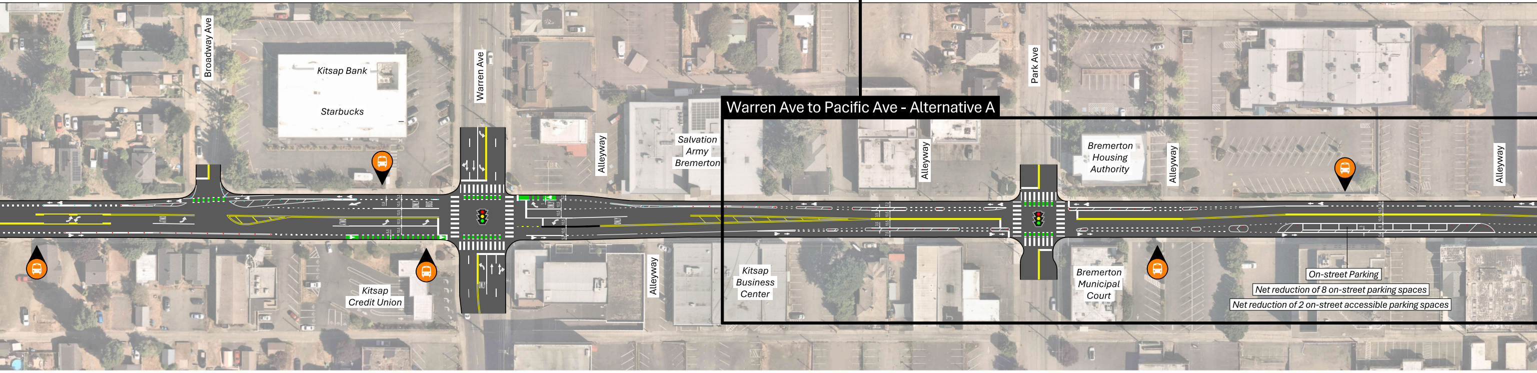
- Meets recommended NACTO/AASHTO requirements where proposed bike lane buffer is greater than 3'.
- Reduced cyclist operating space with vertical delineation where bike lane buffer is less than 3'.
- Vertical delineation may be omitted while maintaining buffer.

Vertical Delineation Impacts to Emergency Response

- Locations not currently supported by the Bremerton Fire Department.
- Installation of vertical delineations in these locations would restrict adequate clear street width for emergency response.
- Vertical delineation may be omitted while maintaining buffer.
- Vertical delineation may be substituted with raised pavement markers to allow vehicles to pull to curb during emergency response.

Park Ave to Pacific Ave - Alternative B


Park Ave
Bremerton Housing Authority
6th Street
Bremerton Municipal Court


Broadway Ave
Kitsap Bank
Starbucks
Warren Ave
Alleyway
Salvation Army Bremerton
Kitsap Credit Union
Alleyway
Park Ave

Warren Ave to Pacific Ave - Alternative A

Alleyway
Bremerton Housing Authority
Alleyway
Alleyway
Kitsap Business Center
Bremerton Municipal Court

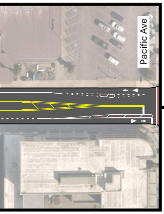
On-street Parking

Net reduction of 8 on-street parking spaces

Net reduction of 2 on-street accessible parking spaces

n Improvements Project

September 2025 - Design Alternatives Exhibit


Pacific Ave

Warren Ave to Pacific Ave - Alternatives Commentary

Alternative A Description

This alternative provides a buffered bicycle lanes between Warren Ave and Park Ave. Parking protected bike lanes are provided between Park Ave and Pacific Ave.

Pros

- Increases separation for cyclists.
- Partially retains on-street parking.

Cons

- Lack of center turning lane may increse vehicle crash risk compared to Alternative C.
- Frequent left turns may cause traffic delays.

Alternative B Description

This alternative provides buffered bike lanes and omits parking and a two-way left turn lane. Vertical bike lane delineation such as flex posts or curb is not provided.

Pros

- Maximizes separation for cyclists.

Cons

- Lack of center turning lane may increse vehicle crash risk compared to Alternative C.
- Frequent left turns may cause traffic delays.
- Does not retain on-street parking.

Alternative C Description

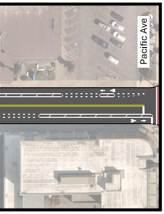
This alternative provides a center Two-Way Left Turn Lane (TWLTL) between Warren Ave and Pacific Ave. No left turn lanes are provided at intersections consistent with traffic engineering assessment.

Pros

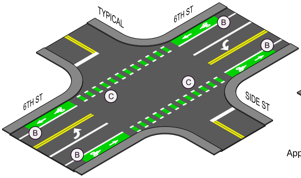
- Allows for unobstructed travel down the center of the road by emergency services.
- Reduces rear-end crash risk.

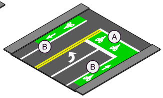
Cons

- Limited separation for cyclists compared to Alternatives A and B.
- Does not retain any on-street parking.
- Restricts ability for bike lane buffer and vertical delineators adjacent to center turn lane.


Pacific Ave

Green Bike Pavement Marking Alternatives


TYPICAL
6TH ST
B
B
C
C
6TH ST
SIDE ST
B
B



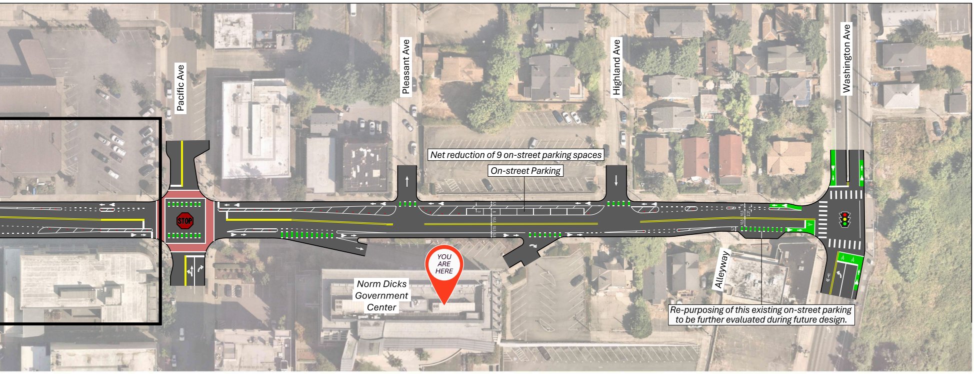
Approach markings to signalized intersectoin

Green Pavement Markings

Green pavement markings highlight bicycle space and conflict points. Because they are costly, their use may be applied selectively to stay within budget; the examples shown are illustrative and may evolve as design advances.

Areas under consideration for green markings are:

- Ⓐ Bicycle left turn boxes (Washington Ave only)
- Ⓑ Bike lane approach and departure markings
- Ⓒ Bike lane intersection crossing markings
- Ⓓ Transit stop markings
  (Refer to transit stop inset centered in roll plot)

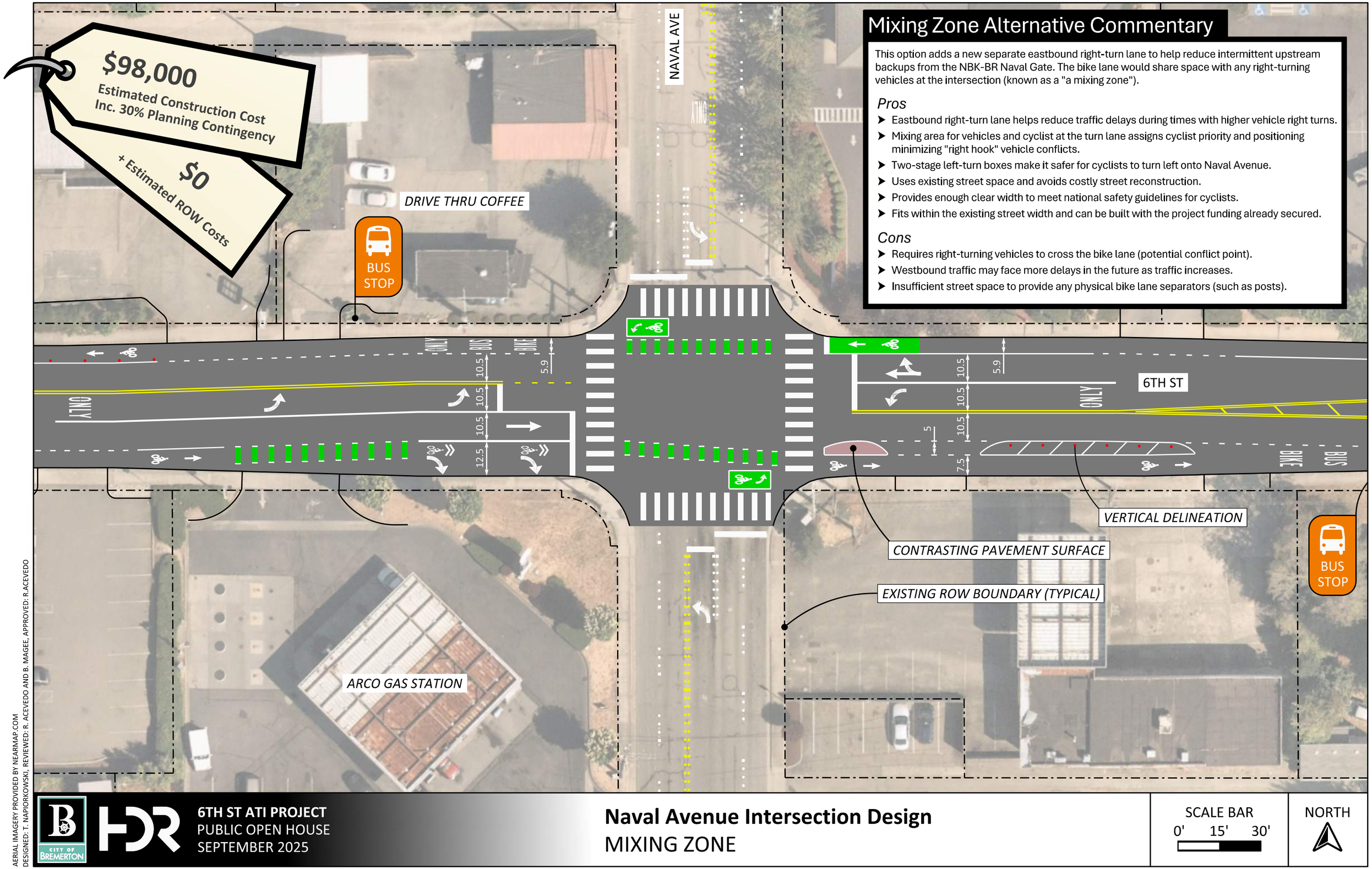

Pacific Ave
Pleasant Ave
Highland Ave
Washington Ave
STOP
YOU ARE HERE
Alleyway

Net reduction of 9 on-street parking spaces

On-street Parking

Norm Dicks Government Center

Re-purposing of this existing on-street parking to be further evaluated during future design.



Mixing Zone Alternative Commentary

This option adds a new separate eastbound right-turn lane to help reduce intermittent upstream backups from the NBK-BR Naval Gate. The bike lane would share space with any right-turning vehicles at the intersection (known as a "a mixing zone").

Pros

- Eastbound right-turn lane helps reduce traffic delays during times with higher vehicle right turns.
- Mixing area for vehicles and cyclist at the turn lane assigns cyclist priority and positioning minimizing "right hook" vehicle conflicts.
- Two-stage left-turn boxes make it safer for cyclists to turn left onto Naval Avenue.
- Uses existing street space and avoids costly street reconstruction.
- Provides enough clear width to meet national safety guidelines for cyclists.
- Fits within the existing street width and can be built with the project funding already secured.

Cons

- Requires right-turning vehicles to cross the bike lane (potential conflict point).
- Westbound traffic may face more delays in the future as traffic increases.
- Insufficient street space to provide any physical bike lane separators (such as posts).

6TH ST ATI PROJECT
PUBLIC OPEN HOUSE
SEPTEMBER 2025

Naval Avenue Intersection Design
MIXING ZONE

SCALE BAR 0' 15' 30'

NORTH

AERIAL IMAGERY PROVIDED BY NEARMAP.COM
DESIGNED: T. NAPIORKOWSKI, REVIEWED: R. ACEVEDO AND B. MAGEE, APPROVED: R.ACEVEDO

Protected Bike Lane Alternative Commentary

This option adds protected bike lane approaches in both directions on 6th Street, using painted buffers and physical separators (such as posts). It fits within the current street width and construction budget. However, it does not include an eastbound right-turn lane, which may increase traffic delays during peak travel times.

Pros

- Adds protected bike lanes with painted buffers and physical separators to improve safety and comfort for cyclists.
- Removes the separate eastbound right-turn lane and "mixing zone" in Option 1 leading to a reduction in vehicle / cyclist conflict at the intersection approach.
- Two-stage left-turn boxes make it safer for cyclists to turn left onto Naval Avenue.
- Places bike stop line ahead of cars at the signal, so cyclists are more visible and safer from right-turning vehicles.
- Fits within the existing street width and can be built with the project funding already secured.

Cons

- Without an eastbound right-turn lane, backups at the NBK-BR Naval Gate would be more likely to delay through traffic.
- Cyclist positioning to the right of eastbound right-turning vehicles increases the potential for "right hook" conflicts.
- Does not provide the full set of safety features that a completely protected intersection would offer.

$93,000
Estimated Construction Cost
Inc. 30% Planning Contingency

$0
+ Estimated ROW Costs

NAVAL AVE
ONLY
DRIVE THRU COFFEE
BUS STOP
8.6
9.1
10.5
ONLY
BUS
BIKE
10.5
ONLY
10.5
2.5
6.8
6TH ST
6.8
2.5
10.5
10.5
ONLY
2.5
10.5
6.6
VERTICAL DELINEATION
BUS STOP
EXISTING ROW BOUNDARY (TYPICAL)
ARCO GAS STATION

Note:
Refer to Open House Roll Plot for notes regarding bike lane vertical delineation shown.

AERIAL IMAGERY PROVIDED BY NEARMAP.COM
DESIGNED: T. NAPIORKOWSKI, REVIEWED: R. ACEVEDO AND B. MAGEE, APPROVED: R.ACEVEDO

CITY OF BREMERTON
HDR

6TH ST ATI PROJECT
PUBLIC OPEN HOUSE
SEPTEMBER 2025

Naval Avenue Intersection Design
PROTECTED BICYCLE LANE APPROACHES

SCALE BAR
0' 15' 30'

NORTH

$2,300,000
Estimated Construction Cost
Inc. 30% Planning Contingency

$700,000
+ Estimated ROW Costs

Protected Intersection Alternative Commentary

This option builds a fully protected intersection without separate right-turn lanes in both directions. This option was developed to evaluated physical and financial impact versus Option 4.

OPTION NOT RECOMMENDED FOR INFORMATION ONLY

NAVAL AVE

FULL PARCEL ACQUISITION

BUILDING IMPACT

US BANK

PROPOSED ROW BOUNDARY

RETAINING WALL

TEMPORARY IMPACT AREA - REPAIR AREA (TYPICAL)

BUS PLATFORM

BUS STOP

6TH ST

ROOSEVELT AVE

VERTICAL DELINEATION

MOUNTABLE TRUCK APRON (TYPICAL)

PROPOSED ROW BOUNDARY

ARCO GAS STATION

RETAINING WALL

PROPOSED ROW BOUNDARY

EXISTING ROW BOUNDARY (TYPICAL)

PROPOSED ROW BOUNDARY

BUS STOP

AERIAL IMAGERY PROVIDED BY NEARMAP.COM
DESIGNED: T. NAPIORKOWSKI, REVIEWED: R. ACEVEDO AND B. MAGEE, APPROVED: R.ACEVEDO

CITY OF BREMERTON

HDR

6TH ST ATI PROJECT
PUBLIC OPEN HOUSE
SEPTEMBER 2025

Naval Avenue Intersection Design
PROTECTED INTERSECTION WITHOUT RIGHT TURN LANES

SCALE BAR
0' 25' 50'

NORTH

$2,600,000
Estimated Construction Cost
Inc. 30% Planning Contingency

$700,000
+ Estimated ROW Costs

Protected Intersection Alternative Commentary

This option builds a fully protected intersection and adds new separate right-turn lanes in both directions. The eastbound right-turn lane would help reduce backups at the NBK-BR Naval Gate from blocking traffic, while the westbound right-turn lane would reduce travel delays as traffic increases in the future.

Pros

- Provides a fully protected intersection design for the highest level of bike and pedestrian safety.
- Adds separate right-turn lanes that reduce backups near the Naval gate and allow room for future traffic growth.
- Keeps traffic delays at a manageable level well into the future.
- Includes all the same bike and pedestrian safety features as Option 3, such as buffered lanes, curbs, and no shared bike/car zones.

Cons

- Would require buying adjacent property and building retaining walls, which could impact nearby properties.
- Would require rebuilding the intersection, traffic signal, and adding larger turning space for trucks.
- Cannot be built with the current project budget, so it would need more funding and would delay the project timeline.
- Would require striping realignment with future Naval Avenue Project.

NAVAL AVE
FULL PARCEL ACQUISITION
PROPOSED ROW BOUNDARY
US BANK
BUILDING IMPACT
BUS STOP
BUS PLATFORM
RETAINING WALL
TEMPORARY IMPACT AREA - REPAIR AREA (TYPICAL)
PROPOSED ROW BOUNDARY
ROOSEVELT AVE
6TH ST
PROPOSED ROW BOUNDARY
PROPOSED ROW BOUNDARY
VERTICAL DELINEATION
BUS STOP
MOUNTABLE TRUCK APRON (TYPICAL)
ARCO GAS STATION
PROPOSED ROW BOUNDARY
RETAINING WALL
RETAINING WALL
PROPOSED ROW BOUNDARY
EXISTING ROW BOUNDARY (TYPICAL)
PROPOSED ROW BOUNDARY

AERIAL IMAGERY PROVIDED BY NEARMAP.COM
DESIGNED: T. NAPIORKOWSKI. REVIEWED: R. ACEVEDO AND B. MAGEE. APPROVED: R.ACEVEDO

CITY OF BREMERTON
HDR
6TH ST ATI PROJECT
PUBLIC OPEN HOUSE
SEPTEMBER 2025

Naval Avenue Intersection Design
PROTECTED INTERSECTION WITH RIGHT TURN LANES

SCALE BAR
0' 25' 50'

NORTH