

Burke-Gilman Trail Missing Link Project



The Levy to
MOVE SEATTLE



Design Advisory Committee Meeting #4
July 27, 2017



Seattle
Department of
Transportation

Agenda

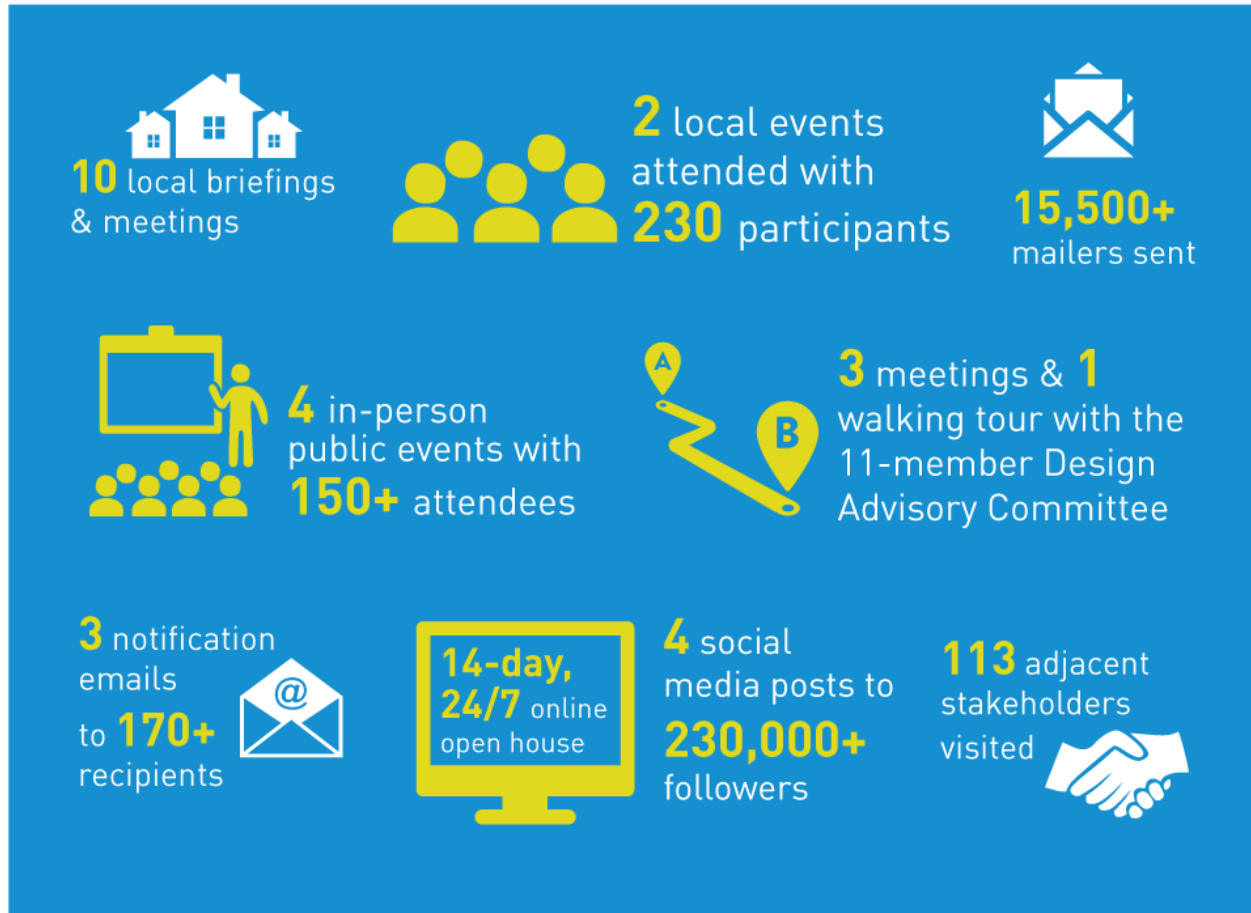
Time	Item
2:30 – 2:45 p.m.	Introductions
2:45 – 3:05 p.m.	Corridor Outreach & Key Concerns
3:05 – 4:05 p.m.	30% Design Update
4:05 – 4:15 p.m.	Independent Design Advisor
4:15 – 4:20 p.m.	Public Comment
4:20 – 4:30 p.m.	Wrap Up
4:30 p.m.	Adjourn



Corridor Outreach & What We've Heard



Corridor Outreach To Date: What we did



Corridor Outreach To Date:

The results



1,000+ total
conversations



360 unique
comments
submitted



87 door-to-door
surveys completed



What We've Heard – Segment 1

- Visually and physically separate the trail from traffic
- Improve safety and predictability for all users at the intersection of NW Market St and NW 54th St
- Concerns about reducing NW Market St to three traffic lanes
- Preserve existing access, loading, and parking
- NW Market St and 24th Ave NW: improve congestion, safety, and crossing for ped/bike



What We've Heard – Segment 2

- Improve safety and predictability at intersection of 24th Ave NW, NW Market St, and Shilshole Ave NW
- Preserve existing parking
- Accommodate truck movements, loading, and sightlines, especially when pulling out of driveways across the trail
- Consider center turn lanes throughout Shilshole Ave NW
- Minimize impact of drainage and storm water runoff from the trail
- Install traffic signal at 17th Ave NW



What We've Heard – Segment 3

- Create safer crossings of the train tracks for bicyclists
- Reestablish two-way traffic on NW 45th St
- Accommodate existing truck movements and loading; create safe sightlines for trucks at driveways
- Preserve existing building access
- Improve safety for all users at the intersection of 11th Ave NW and NW 45th St



What We've Heard – Corridor Wide

- Make the trail safe for all users, vehicles, and businesses that navigate the corridor daily
- Do not inhibit the operations of the existing maritime industrial district
- Minimize impacts to parking and reduce congestion
- Prioritize visibility and grade separation of trail
- Promote safe behaviors from people bicycling and driving



30% Design Update



SEGMENT 1

NW 54TH ST / NW MARKET ST

NW 54th St - Existing



Market St - Existing



Segment 1 – Input and Changes

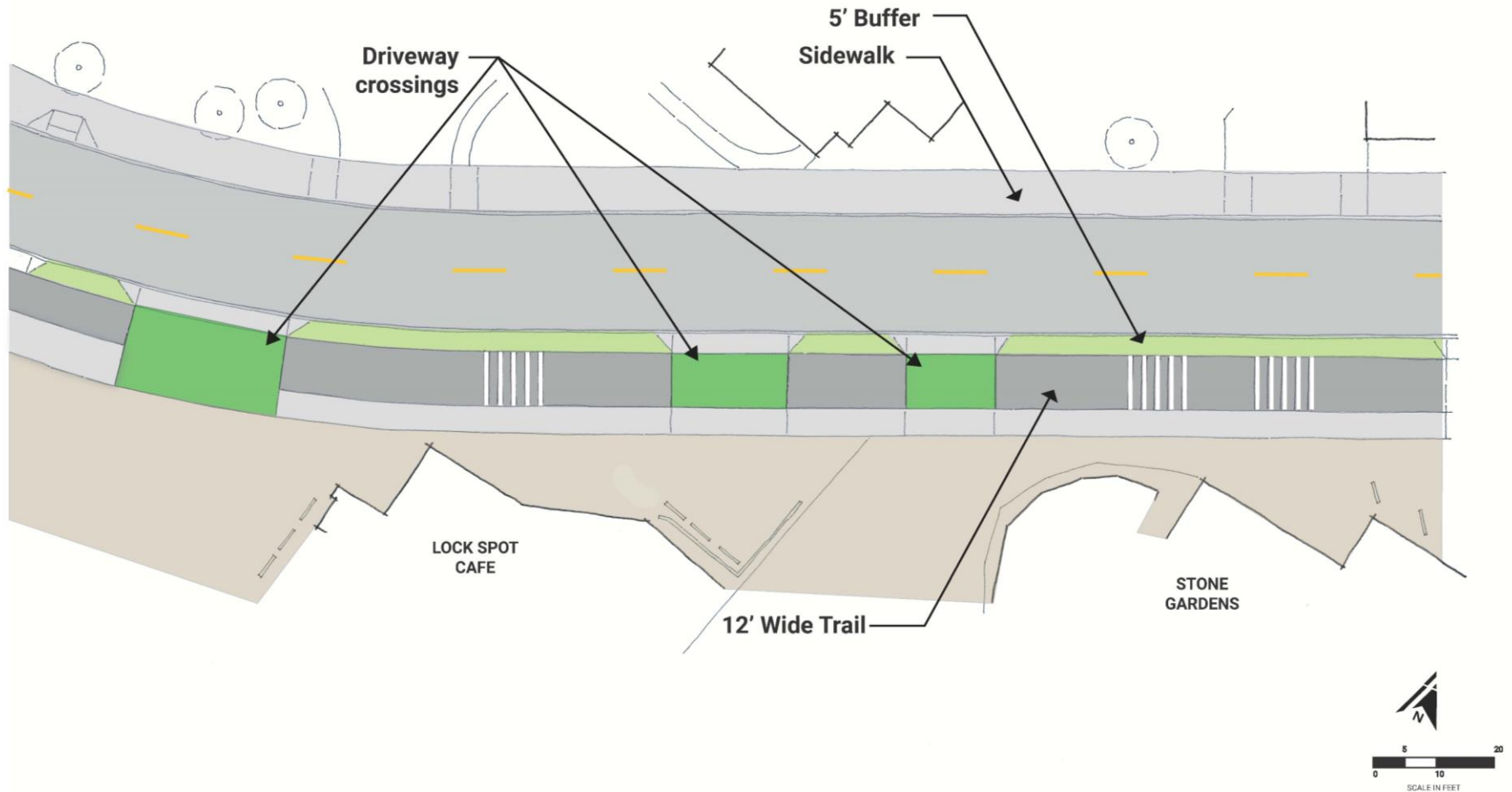
- **Maintain charter bus/metro layover parking spaces in front of the Locks**
 - This was shown as being removed in the FEIS design, but has been maintained in the 30% design.
- **Maintain 10' wide parking lane on north side of Market between 54th and 28th for Metro bus layover**
 - FEIS design had 8' parking lane, 30% design includes 10' parking lane.
- **Add westbound left turn lane at Market/28th with protected signal phase**
 - Included in 30% design
- **Coordinate design/construction with the Nordic Heritage Museum (NHM)**
 - Weekly meetings with the Nordic since June 2017, interim and final conditions included in the Nordic SIP and 30% BGT design
- **Use concrete instead of asphalt for Market St trail**
 - Included in 30% design, internal discussion ongoing



NW 54th St – Plan/Section Location

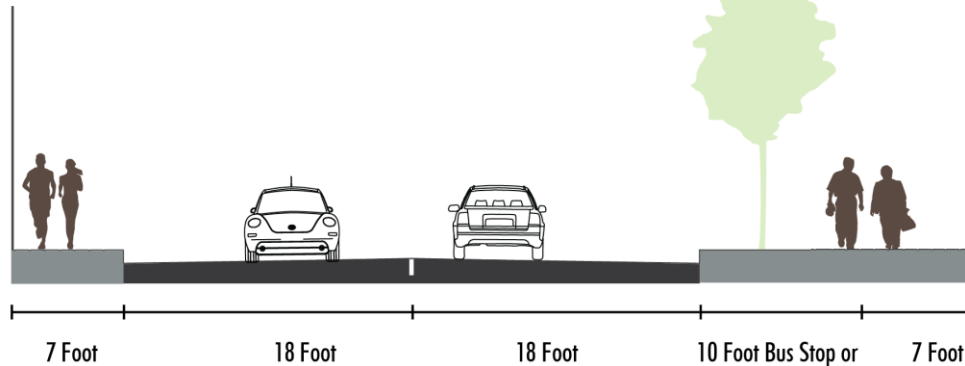


NW 54th - Plan

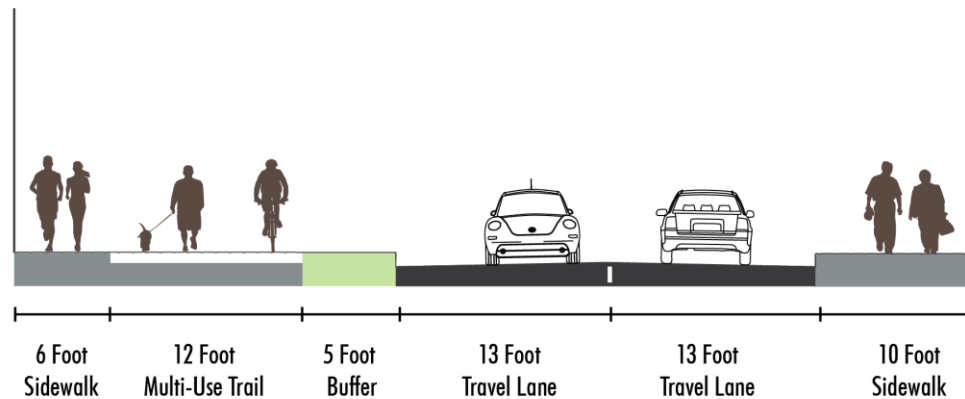


NW 54th - Section

Existing Conditions NW 54th St Cross Section 60 Foot Right-of-Way



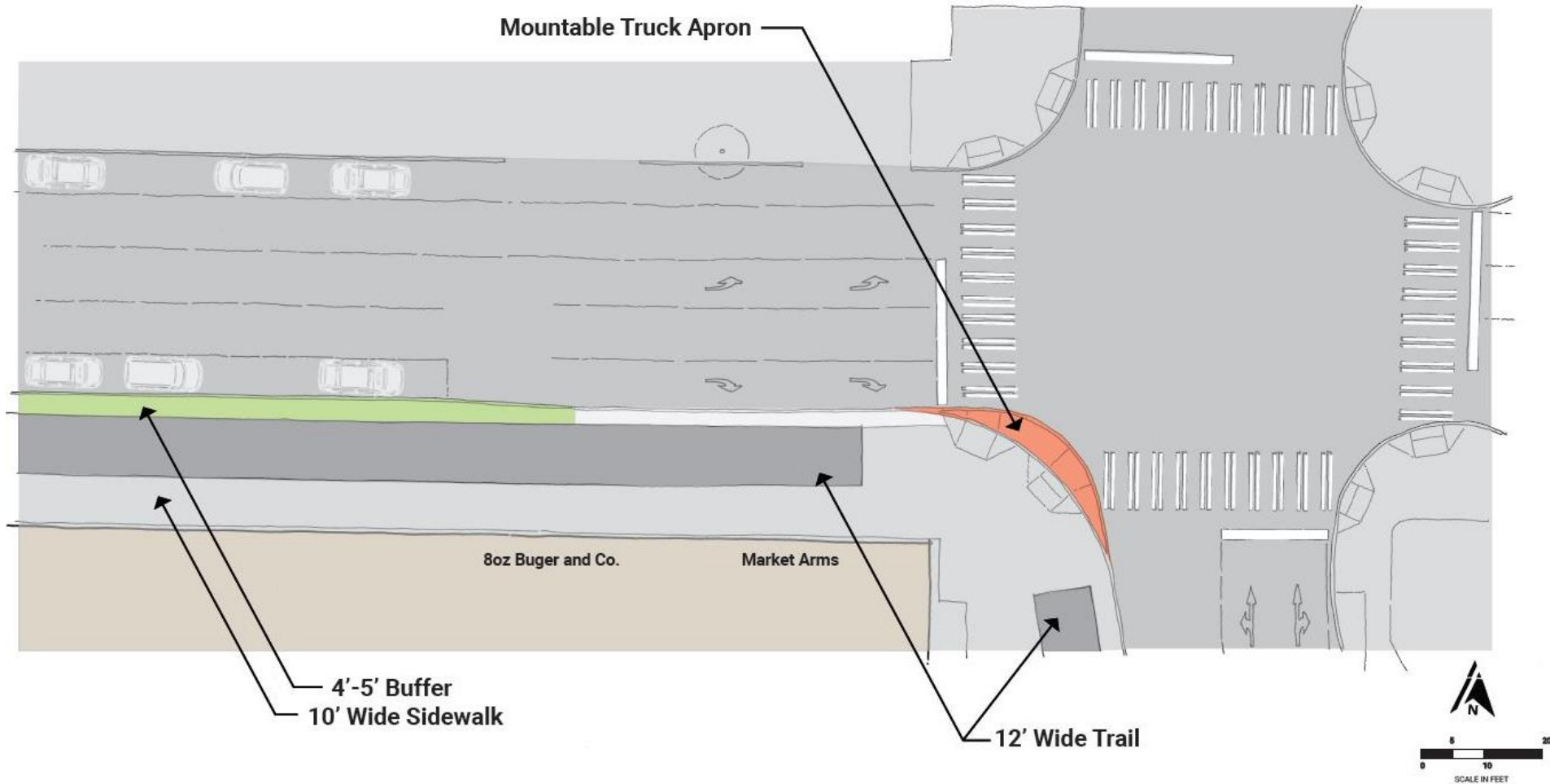
Missing Link Proposed Condition NW 54th St Cross Section 60 Foot Right-of-Way



Market St – Plan/Section Location

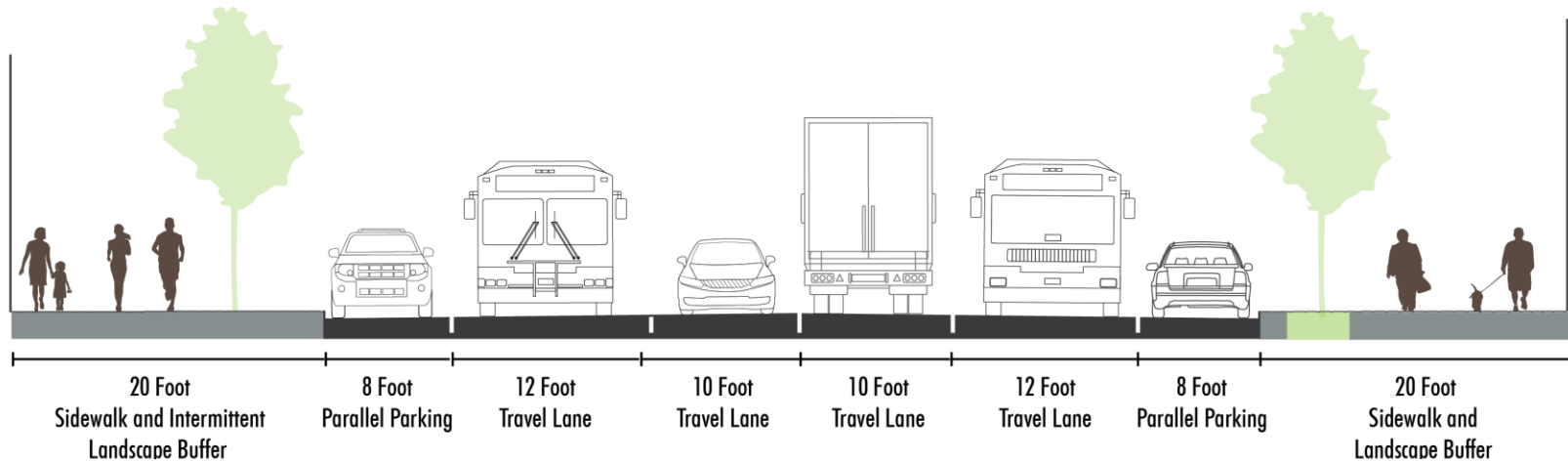


Market St - Plan

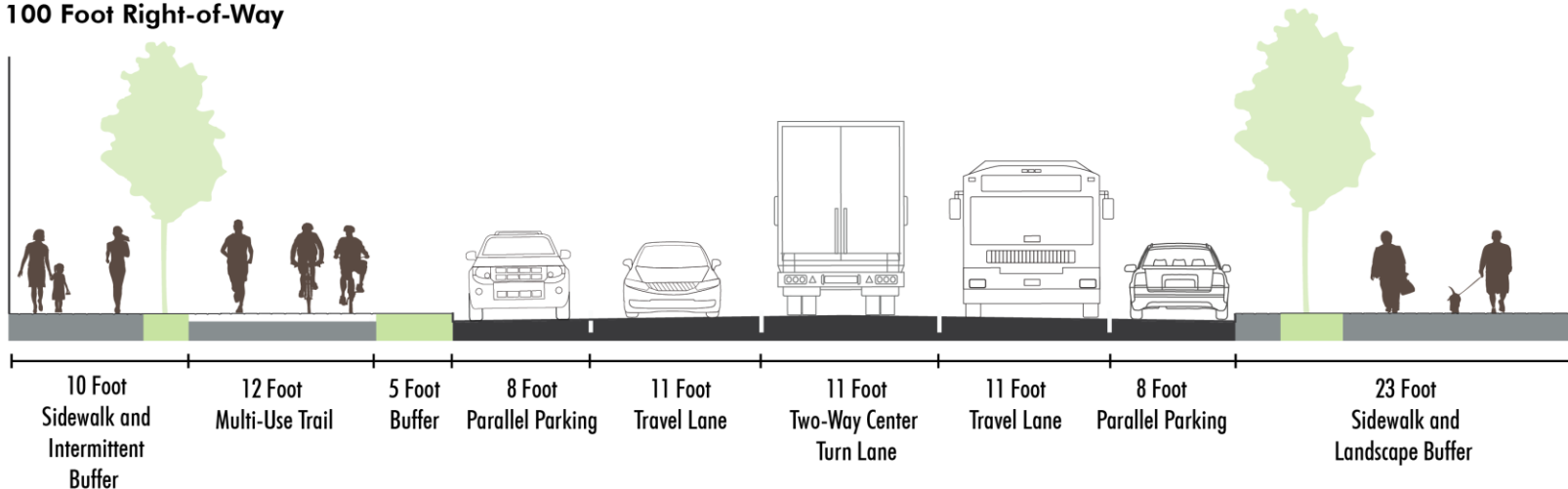


Market St - Section

Existing Conditions NW Market St Cross Section 100 Foot Right-of-Way



Missing Link Proposed Condition NW Market St Cross Section 100 Foot Right-of-Way



Paving Alternatives



Mountable Curbs

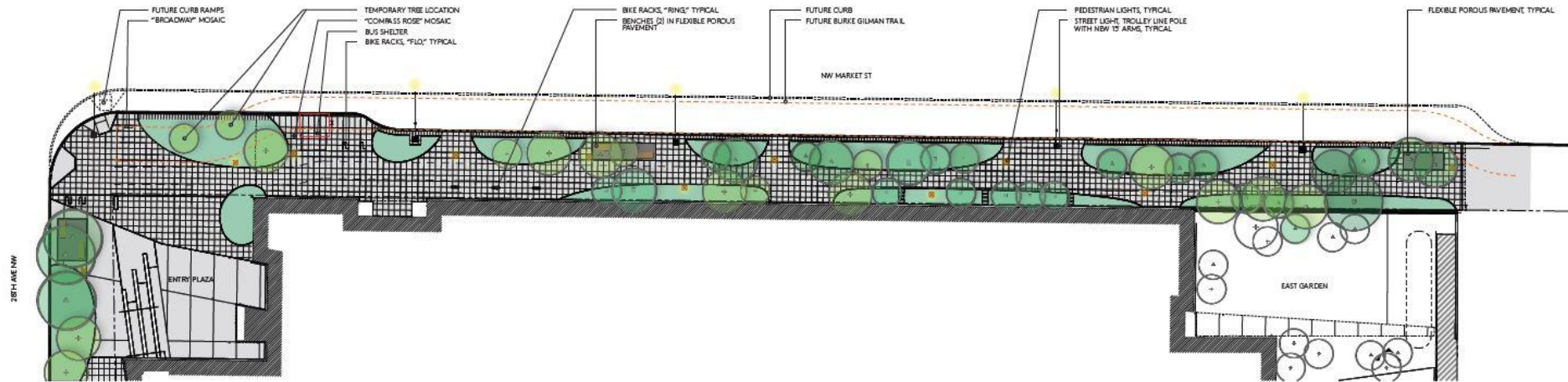


Traffic Counts

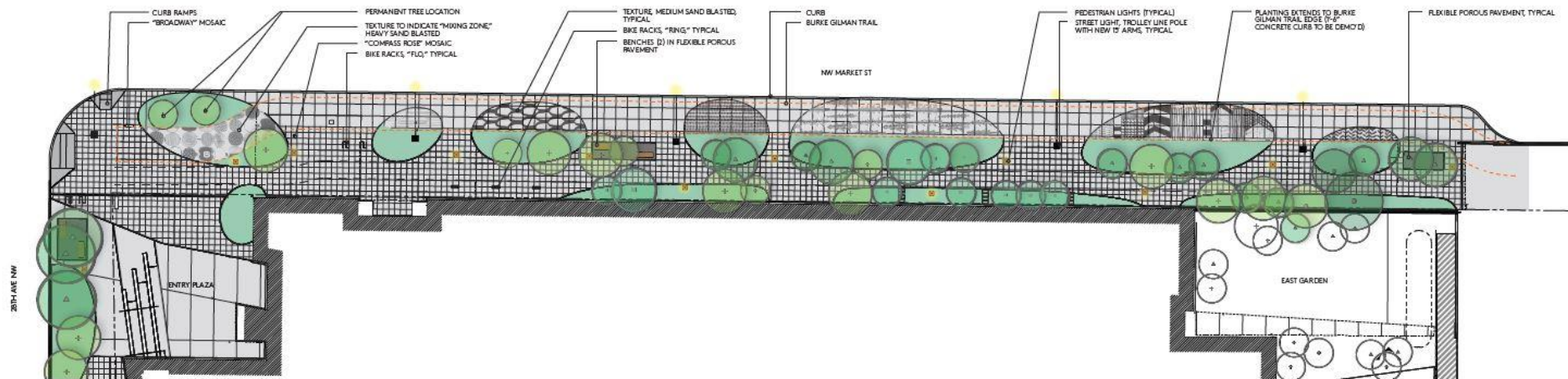
- Concern about **Market St traffic counts** being outdated and/or recorded in non-peak season
 - Previous counts in June 2009, February 2013, April 2013
 - City ordered additional counts between June-July 2017 (including 4th of July weekend!)
 - Data shows increased levels in the block between 26th-24th during peak season, but all counts are still below the SDOT road rechannelization Average Daily Traffic thresholds



Nordic Heritage Museum



SIP ADDENDUM - INTERIM CONDITION



BURKE GILMAN TRAIL BUILD OUT



SEGMENT 2

SHILSHOLE AVE NW

Shilshole - Existing



Shilshole - Existing



Segment 2 – Input and Changes

- **Maximize parking along Shilshole**
 - Added striping for parking on north side of Shilshole to maximize number of parking space and better enforce driveways and loading zones
 - Confirmation that SDOT will allow unregulated parking south of the trail to remain unregulated
 - Approximately 20 stalls added on the 54th extension plan
- **Add signal and west leg to intersection of Shilshole and Vernon** to accommodate future development of Stimson Marina
 - Included in 30% design. New signals should increase frequency of gaps in traffic and improve ability for trucks to enter/exit driveways.
- **Improve safety at Shilshole driveways**
 - Included 8 flashing LED warning signs for trail users at key locations along Shilshole in 30% design. Locations and method of triggering signs (options include, manual remote, motion activated, bollards, etc.) to be studied further in 60% design



Segment 2 – Input and Changes

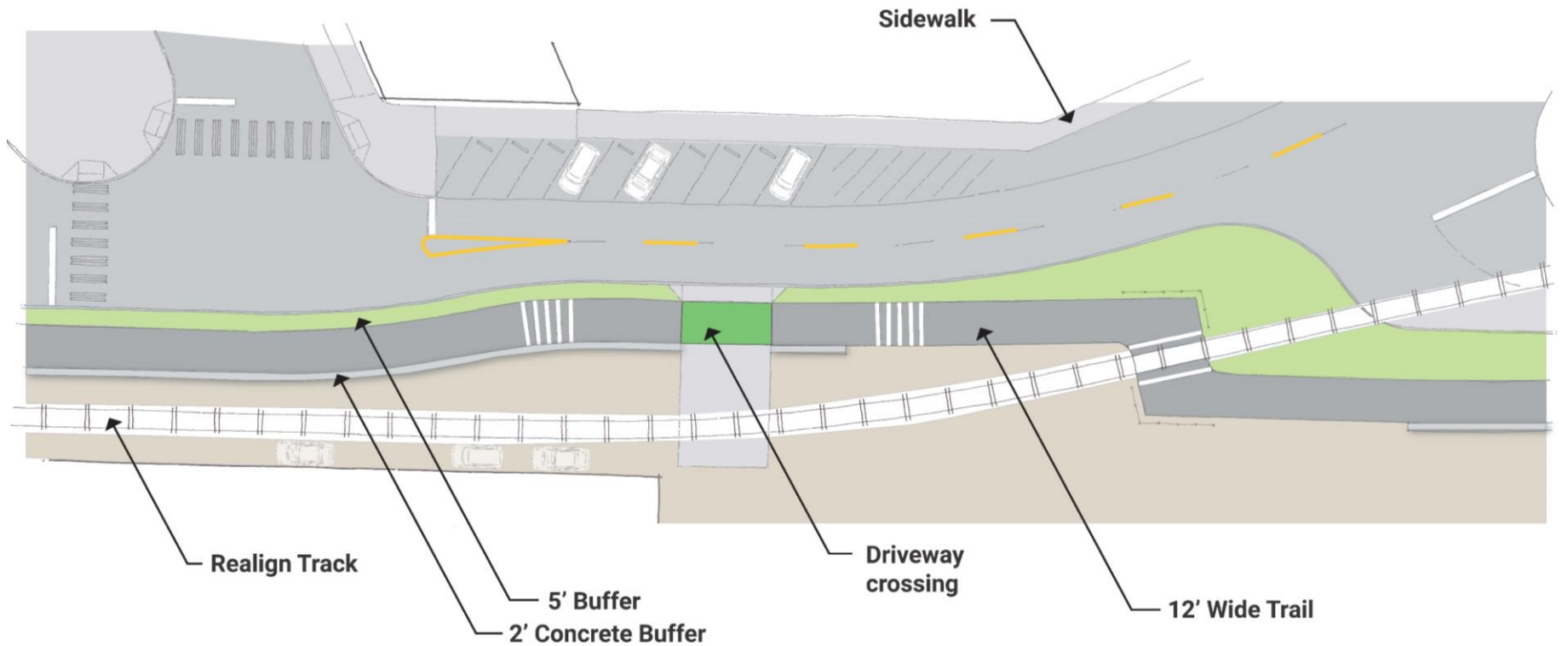
- **Improve safety at Shilshole/24th**
 - 30% design includes an option to close 24th and build a new roadway along the rail line (“54th extension”). Still studying WB67 movements or reroutes.
- **Improve rail crossing for bicyclists**
 - Added fencing and widened trail at the crossing
- **Maintain staging and parking space**
 - 20’ – 30’ of ROW will be unused and unregulated on the south side of Shilshole between approximately Vernon and 46th. This space can continue to be used for staging, loading, and/or parking.
- **Avoid drainage impacts to property owners**
 - Trail will drain toward the street and runoff will be captured in SPU managed storm drains.



Shilshole – Plan/Section Location

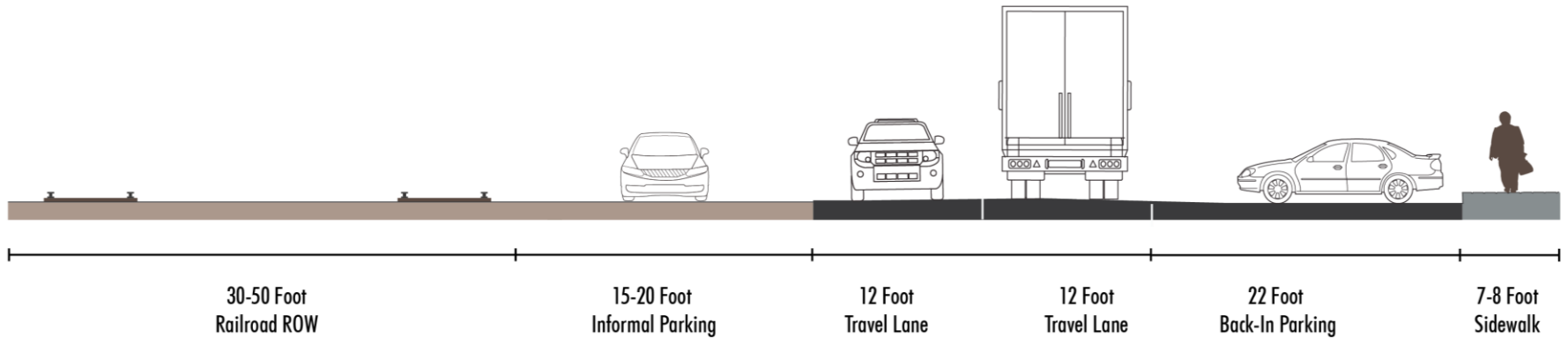


Shilshole - Plan

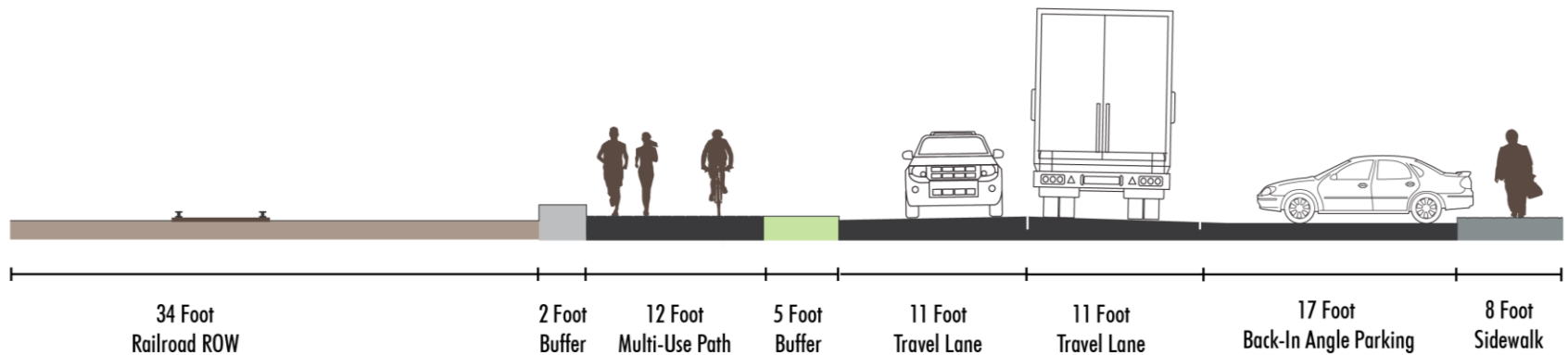


Shilshole - Section

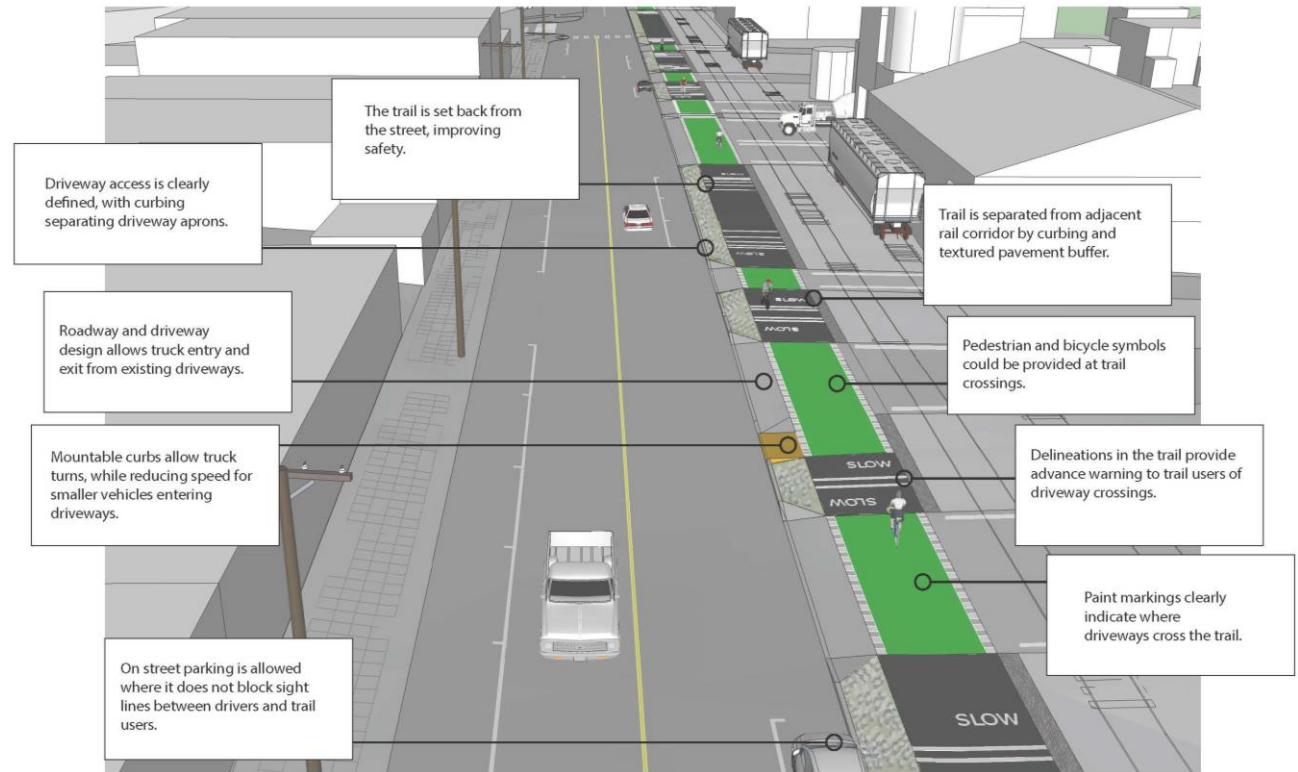
Existing Conditions Shilshole Ave NW Cross Section 110 Foot Right-of-Way



Missing Link Proposed Condition Shilshole Ave NW Cross Section 100 Foot Right-of-Way



Buffer and Raised Trail



Note: Trail design treatments shown in this graphic are illustrative only, and are intended to show one or more potential options. The final design for the trail may differ from the illustration.



Shilshole / 24th



NW 54th (east of 24th)



NW 54th Extension



NW 54th Extension



SEGMENT 3

NW 45TH STREET

NW 45th St - Existing



NW 45th St - Existing



Segment 3 – Input and Changes

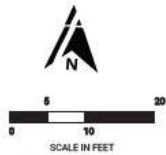
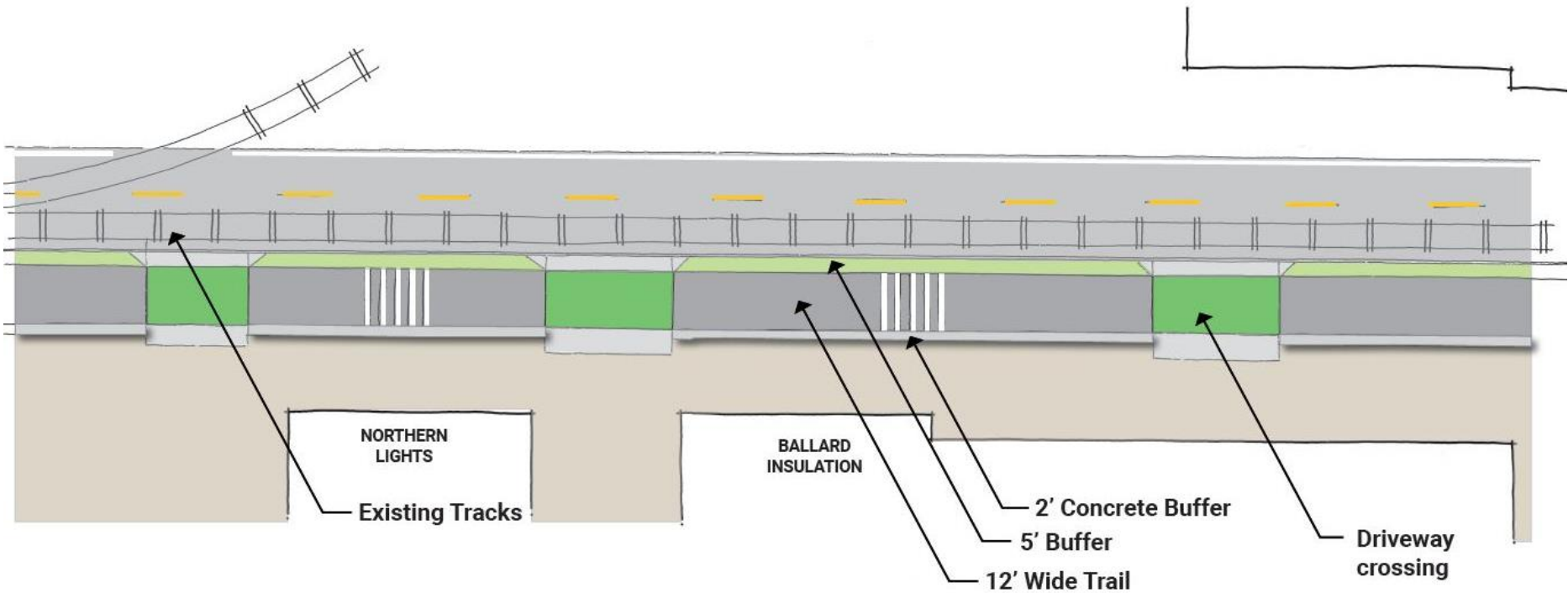
- **Increase lane width on 45th to 11 feet** to accommodate larger trucks
 - All lanes shown as 11 feet wide in the 30% design
- **Retain loading access for properties on the south side of NW 45th between 11th-14th**
 - Locking docks and access points are not impacted in 30% design. Route and movement of trucks entering / exiting loading dock to be discussed further during 60% design.
- **Maintain 4-way stop at 45th/11th**
 - Maintained in 30% design



NW 45th St – Plan/Section Location

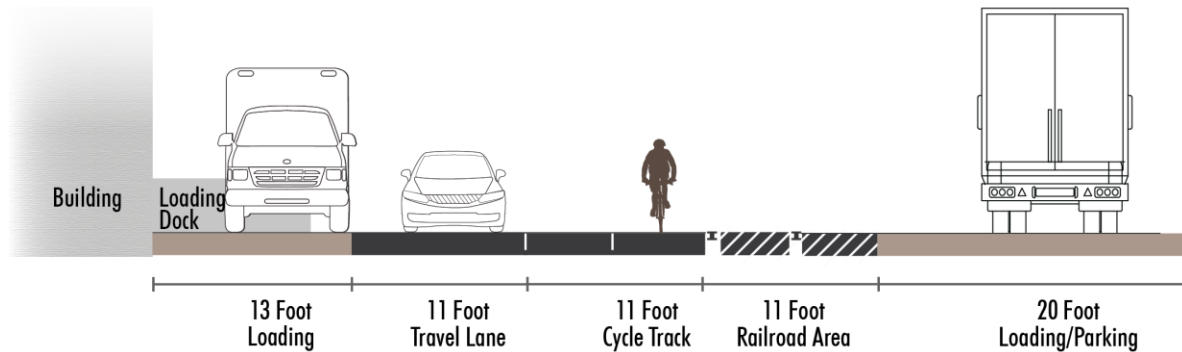


NW 45th - Plan

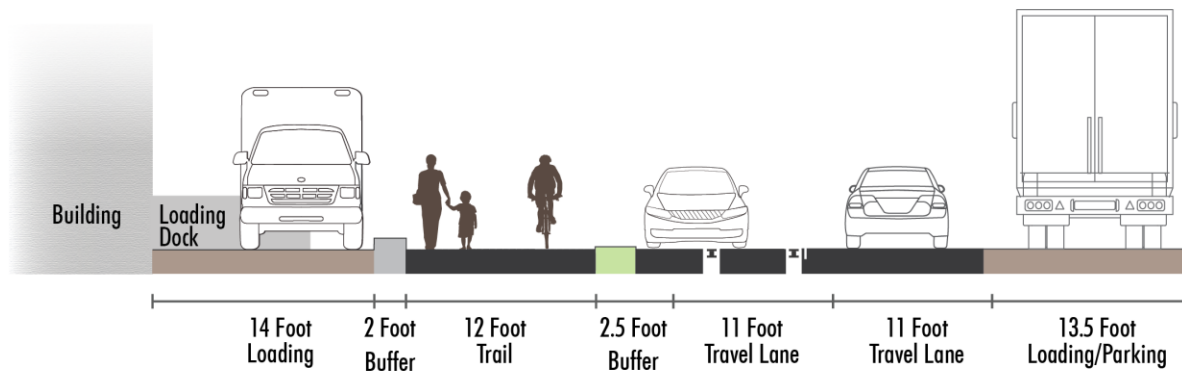


NW 45th - Section

Existing Conditions NW 45th St Cross Section 66 Foot Right-of-Way



Missing Link Proposed Condition NW 45th St Cross Section 66 Foot Right-of-Way



ALL SEGMENTS

Corridor Wide - Input and Changes

- **Extend 30% design** to allow for 3 segment workshops, a public meeting, and the DAC walking tour to occur within this phase. (DAC)
- **Run AutoTURN analyses for WB67 vehicles at various driveways**
 - We have completed the AutoTURN analyses for all of the locations and movements that were requested. During 60% design, we will refine driveway widths and length of mountable curbs outside driveways limits accordingly.
- **Apply for 1% art funding ASAP** (May 2017 DAC)
 - A kick off meeting was held with Office Arts and Culture in early July 2017 and confirmation of funding was received in late July 2017.
- **Coordinate with nearby bicycle amenities**
 - Met with Greenway Program Manager to discuss connections
 - Incorporating intersection improvements into 60% design
 - Considering all-walk at 24th/Market to connect to 24th bike lanes



Corridor Wide - Still in Progress

SEGMENT 1

- **Minimize impacts to Market Arms / 8oz Burger outdoor seating**
 - In order to maintain 6' clearance on the sidewalk the Market Arms fencing would need to be moved back 1 foot. The 8oz Burger fence would need to be moved back 2.5'-3' or removed.
- **Consider all-way walk phase at Market/24th** to improve bicycle and pedestrian connections
- **Consider reducing eastbound right turn lane queue length at Market/24th**
- **Revise loading and parking per 1:1 meeting with Lockspot owner**
 - To be flushed out in 60% design

SEGMENT 2

- **Need for and potential locations of flashing LED signs.** If selected, need to determine trigger method (options include, manual remote, motion activated, bollards, etc.) to be studied further in 60% design.
- **"54th extension" WB67 movements, potential reroutes, and continued outreach**

SEGMENT 3

- **Address new frontage improvements in front of Seattle Maritime**



Bicycle Connections



Bicycle Connections



Parking Concerns

- FEIS as a worst case scenario estimated at 344 parking stalls lost
- Initial counts on the 30% design show approximately **160 stalls lost** (less than half of the original estimate). This can still go up or down!
- We were able to gain stalls at the Ballard Locks, along the proposed NW 54th extension road, and along the north and south sides of Shilshole



1% for the Arts

- SDOT art manager presented to the Public Art Advisory Committee on 7/25/17
- Assuming approval from the PAAC for funds dedicated to this project, she will prepare scope of work and artist selection process
- 2 potential projects: Wave Rave Cave relocation and creative signage



Design Milestones

30% design is considered preliminary design, which begins the detailed design process of looking at intersection design, curb ramp layout, driveways, and conceptual traffic signal layout. Most of engineering at this point is looking at things from a “plan” view only.

60% design increases the level of design and begins to implement vertical elevation design, such as profiles, curb ramp elevations, driveway elevations, striping and signing layout, traffic signal layout with schedules, and more detailed site preparation plans.

At **90% design**, most of the details mentioned above should be close to finalization, except for final details. However, the actual layout and location of features should be final. Striping and signing is much more detailed. Locations of features such as poles are more accurate.

100% design is considered to be final on all details, and ready for construction.

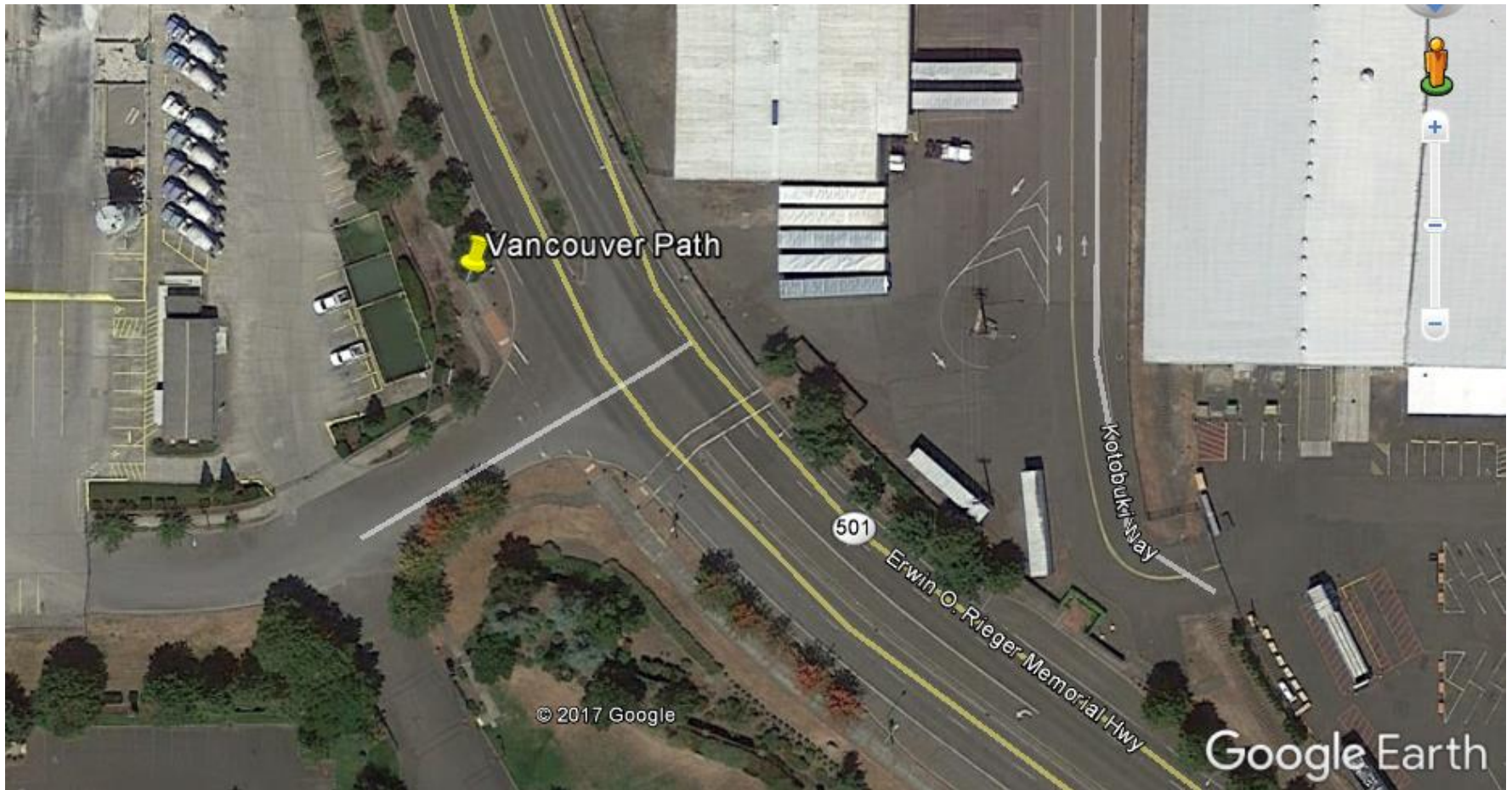


Independent Design Advisor



Successful Trails in Industrial Areas

- Vancouver, WA



Successful Trails in Industrial Areas

- Portland, OR

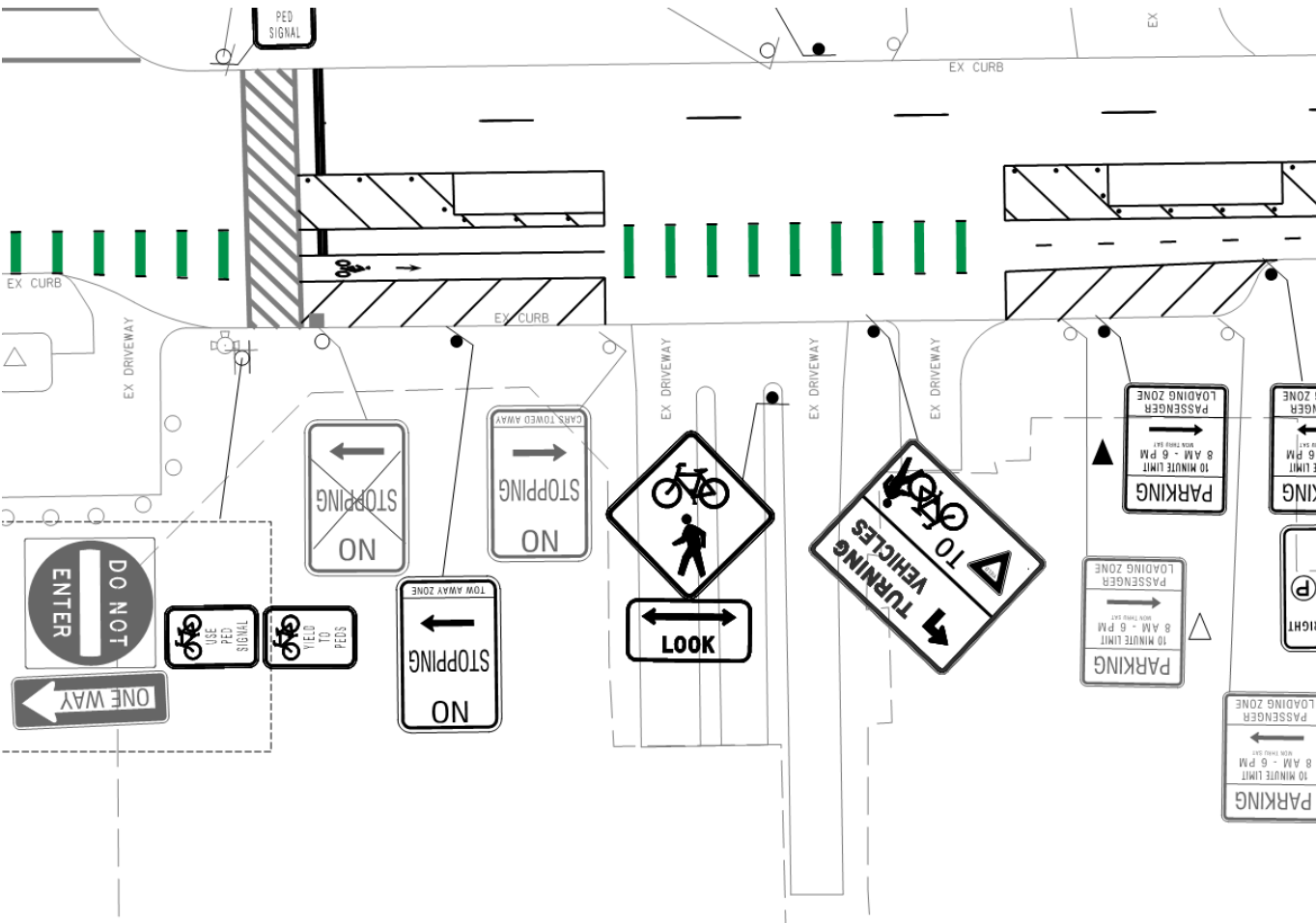


Successful Trails in Industrial Areas

- Successful collaboration between very successful industrial uses in non-motorized environment
 - As the oldest and largest tenant on Granville Island located in the heart of Vancouver's original townsite, we love to introduce our community to the world of concrete. The company is part of the fabric of the community, bringing a slice of heavy industry into an area that attracts tourists as well as Vancouverites to a cultural, culinary and shopping hub.
- <http://oceanconcrete.com/granville-island-open-house>

Treatments for Mixing Zones: Principles

- Maryland Avenue Cycle Track (Clay Street – Lexington)



Treatments for Mixing Zones: Principles

- SW Madison near SW 3rd in Portland OR
 - Add sign for right-turning vehicles yield to bicyclists and pedestrians
 - Green paint through intersection and bus stop on northbound approach
 - Warning pavement marking for bikes to watch for right-turns



Treatments for Mixing Zones: Principles

- Parking Garage Access in Portland OR
 - Mirrors for existing vehicles
 - Bells for people on sidewalks



Treatments for Mixing Zones: Principles

- Warning vehicles entering/exiting driveways
- Warning trail users
- Sight Triangles:
 - Drivers have sight distances to see users on trail
 - Sight Triangles: Trail users have sight distances to see driveway users



Treatments for Mixing Zones: Principles

- Warning vehicles entering/exiting driveways
 - R10-15: Turning into driveways
 - Warning signs exiting driveways



Treatments for Mixing Zones: Principles

- Warning trail users
 - Advance “TRUCKS” warning signs on trail
 - Pavement markings in trial
 - “SLOW”
 - Potential ITS devices: LED on warning “TRUCKS” signs for warning about driveways users (key driveways)



W11-10



Public Comment



DAC Work Plan

Current Schedule	<i>Proposed Schedule</i>
Optional DAC meeting, Aug 7	Aug 17 DAC meeting
DAC Meeting #5, Sept 7 All-Segment Workshop, Sep 28	DAC Meeting #5 combined with All-Segment Workshop, Sept 28 (DAC 2-4 PM, Workshop 4:30 – 6:30 PM)
Public Walking Tour, Oct 21	New! Public Event #2, Oct 12 Public self-guided walking tour, Oct 14 (Sat)
DAC Meeting #6, Oct 12	DAC Meeting #6, Oct 26
DAC Meeting #8, Dec 7	DAC Meeting #8, Jan 11, 2018
Public Event #3, Jan 16	Public Event #3, Jan 18
DAC Meeting #9, Jan 18	DAC Meeting #9, Jan 25

Next Steps for DAC

August DAC topics

- Research from Hermanus
- 1% for the Arts
- Discussion about disability issues
- Public/private parking
- Consultation with design team on Schematic Design to Design Development

Final DAC Discussion....

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www.seattle.gov/transportation/BGT_MissingLink.htm

www.seattle.gov/transportation



Reference



Market Traffic Studies

Market St - Traffic Counts (June/July 2017)

Ave Daily Traffic	W of 28th	W of 26th	W of 24th	E of 24th
Eastbound	7478	8662	11847	7719
Westbound	7485	8671	9206	7887
Total	14963	17333	21053	15606

Market St - Traffic Counts (April/May 2013) - EIS

Ave Daily Traffic	W of 28th	W of 26th	W of 24th	E of 24th
Eastbound			6490	5782
Westbound			5920	4234
Total	0	0	12410	10016

Market St - Traffic Counts (February 2013)

Ave Daily Traffic	W of 28th	W of 26th	W of 24th	E of 24th
Eastbound			4776	5782
Westbound			3139	4234
Total	0	0	7915	10016

Market St - Traffic Counts (June 2009)

Ave Daily Traffic	W of 28th	W of 26th	W of 24th	E of 24th
Eastbound	7652			
Westbound	8225			
Total	15877	0	0	0