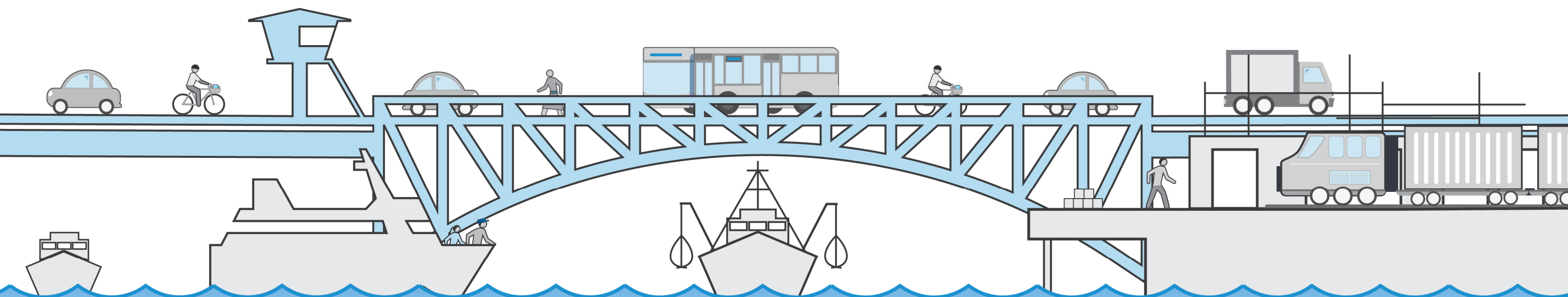


Ballard-Interbay Regional Transportation System Study

Interagency Team Meeting #5



SDOT Policy & Planning
October 1, 2020

Visit www.tinyurl.com/BallardInterbay to provide comment!



Meeting agenda

- 11:30 Welcome
- 11:45 Final Report Development and Schedule
- 12:00 Draft Transportation Recommendations
- 12:25 Timeline and Funding Strategy Development
- 1:05 ****Public Comment****
- 1:25 Next Steps and Action Items

Meeting objectives

- Provide clear information about project status, including work remaining until November submittal
- Gather feedback on the draft transportation recommendations
- Collect input on the timeline and funding strategy and discuss risks and opportunities



Welcome & Meeting Protocols

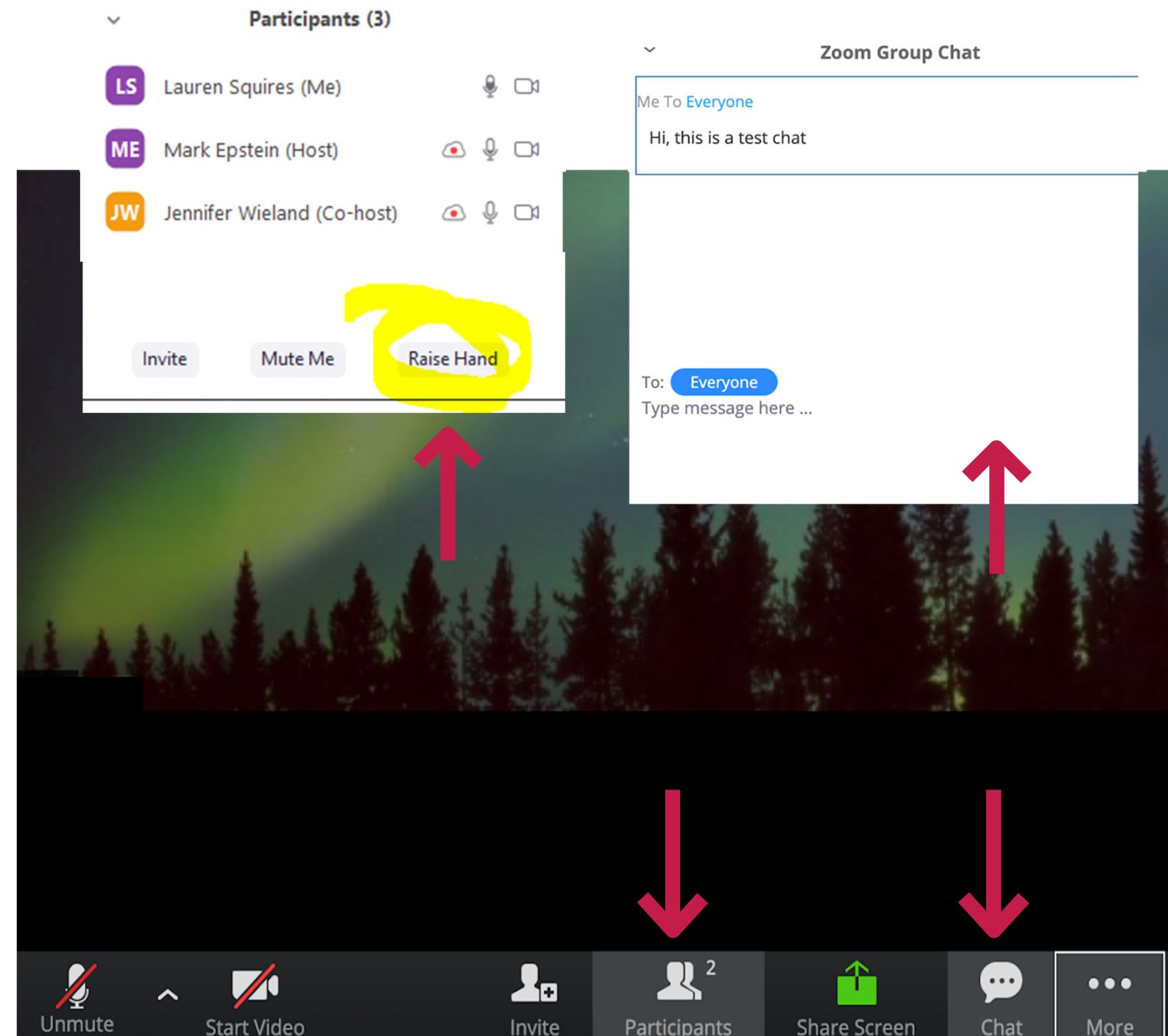
- What do you hope to get out of today's meeting?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Meeting protocols

For IAT members:

- Use video when possible
- Raise your hand if you have a question
- Pose topics for group discussion or share comments in the chat window throughout the meeting
- Interrupt if we're not "seeing" you!

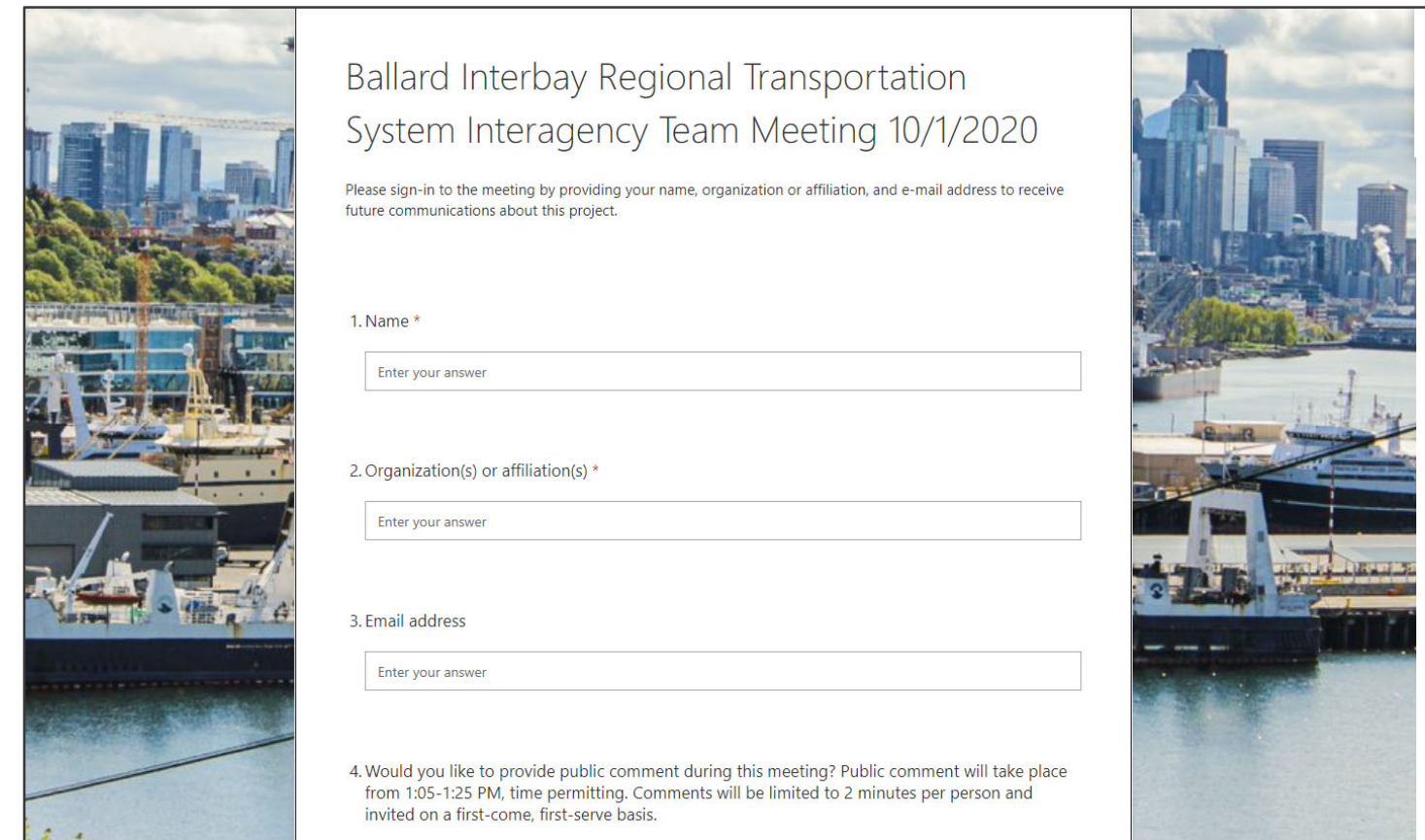


Meeting protocols

For community members:

- Guests are muted throughout the meeting to support presentation and IAT discussion
- Public comments will be invited at 1:05 PM for a 20-minute period
- You can sign up at the link below to speak or indicate interest in the chat window
- Additional comments may be submitted in writing at any time

www.tinyurl.com/BallardInterbay



Ballard Interbay Regional Transportation System Interagency Team Meeting 10/1/2020

Please sign-in to the meeting by providing your name, organization or affiliation, and e-mail address to receive future communications about this project.

1. Name *

2. Organization(s) or affiliation(s) *

3. Email address

4. Would you like to provide public comment during this meeting? Public comment will take place from 1:05-1:25 PM, time permitting. Comments will be limited to 2 minutes per person and invited on a first-come, first-serve basis.

IAT member introductions

- Share one thing that signals the beginning of Fall to you (no pumpkin spice!)
- Identify one take-away you hope to have from today's meeting



Ballard-Interbay Regional Transportation System (BIRT) Study

The Washington State Legislature asked SDOT to develop a report on how to improve travel for people and goods in Ballard-Interbay.



Project elements

JANUARY -
MARCH

Review Existing Plans & Previous Studies

- Summarize findings and document guiding assumptions



APRIL -
JUNE

Forecast & Assess Multimodal Integration

- Forecast future conditions
- Assess traffic, freight, and multimodal strategies



JULY -
AUGUST

Analyze Impacts & Benefits of Bridge & System

- Conduct social and economic cost/benefits analysis



SEPTEMBER

Bridge Replacement Timeline & Funding Strategy

- Develop timeline and funding approach for replacement of bridges



OCTOBER -
NOVEMBER

Report to WA Legislature

- Draft in October, submit November 1, 2020



Final Report Development and Schedule

- What questions do you have about the report's organization and appendices?
- How can we support your organizations in providing timely review and comments?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Report chapters

- 1: Introduction and Purpose
- 2: Ballard-Interbay Context
- 3: Network Needs and Opportunities
- 4: Transportation and Land Use Scenarios
- 5: Social and Economic Impacts
- 6: Transportation Recommendations
- 7: Timeline and Funding Strategy

Excerpt from Chapter 2

We reviewed previous plans and studies (2010-2020)



... with a focus on these three elements



Anticipated Transportation Investments

Sound Transit's West Seattle and Ballard Link Extension
 King County Metro bus routes and capital improvements
 Bicycle/pedestrian trails



Land Use and Development Plans

The Armory Development Terminal 91
 Expedia Campus
 Fisherman's Terminal Redevelopment

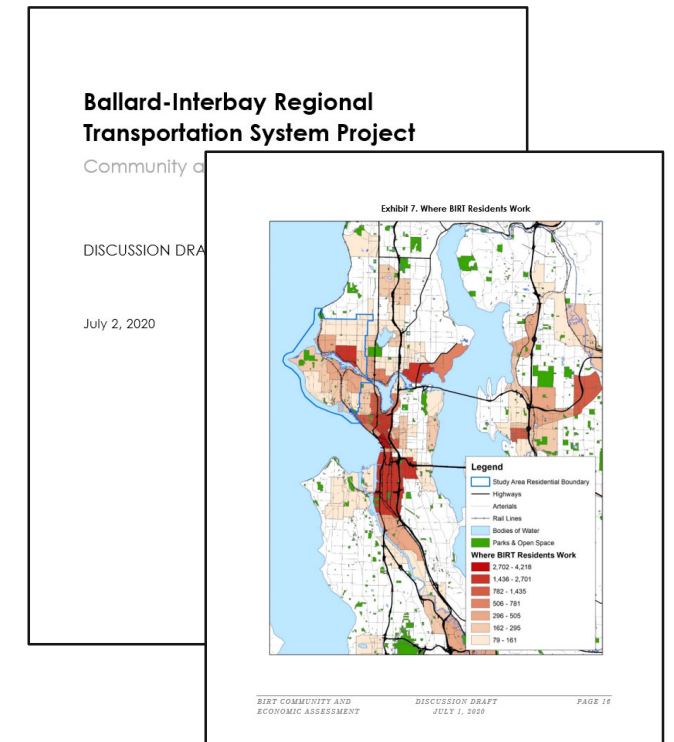
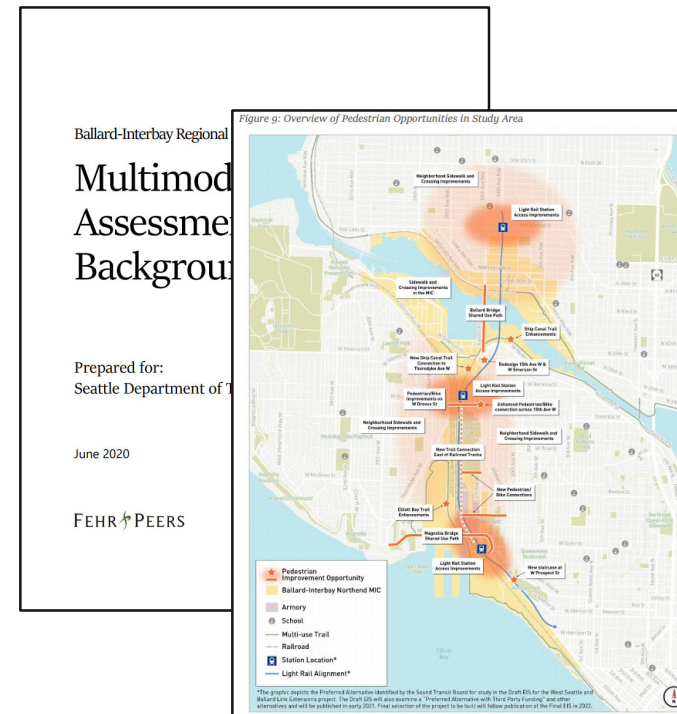
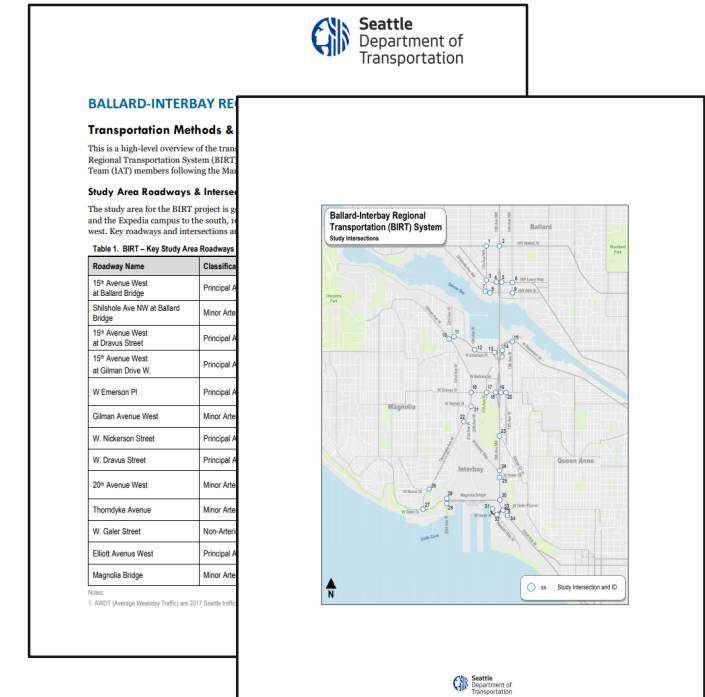
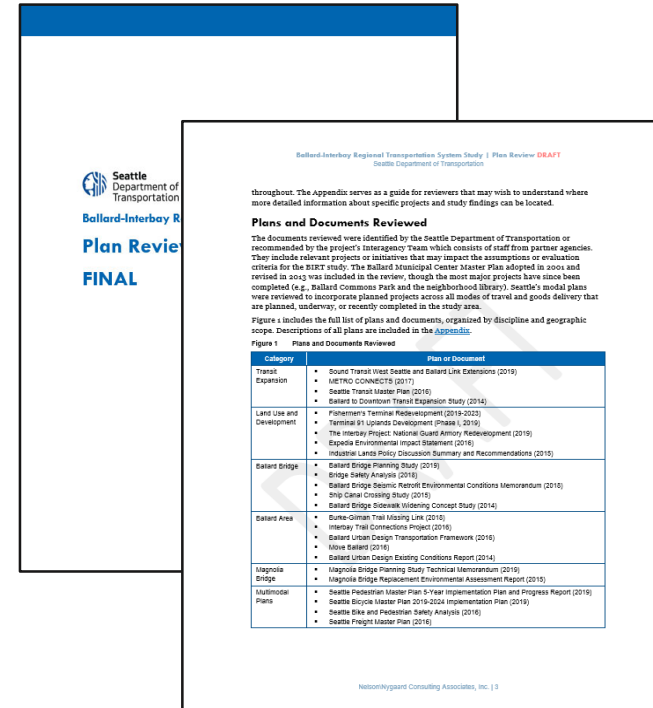


Demographic Data

Population
 Housing markets
 Income
 Commute patterns
 Industry and employment

Report appendices

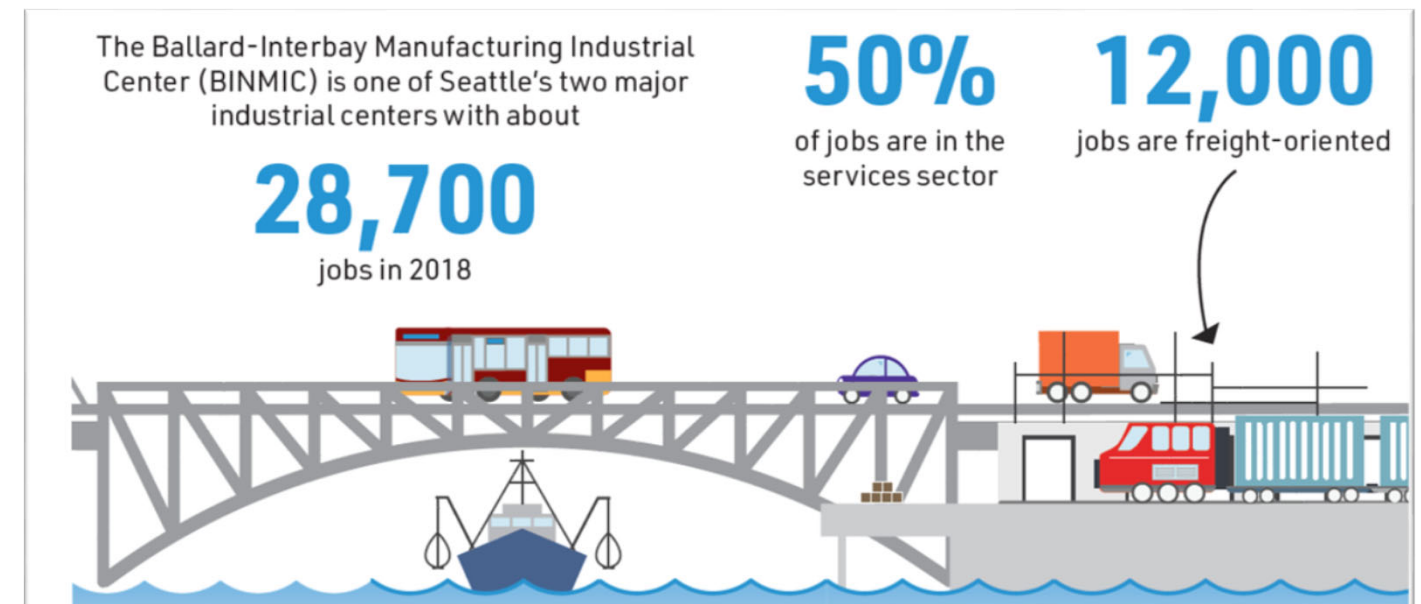
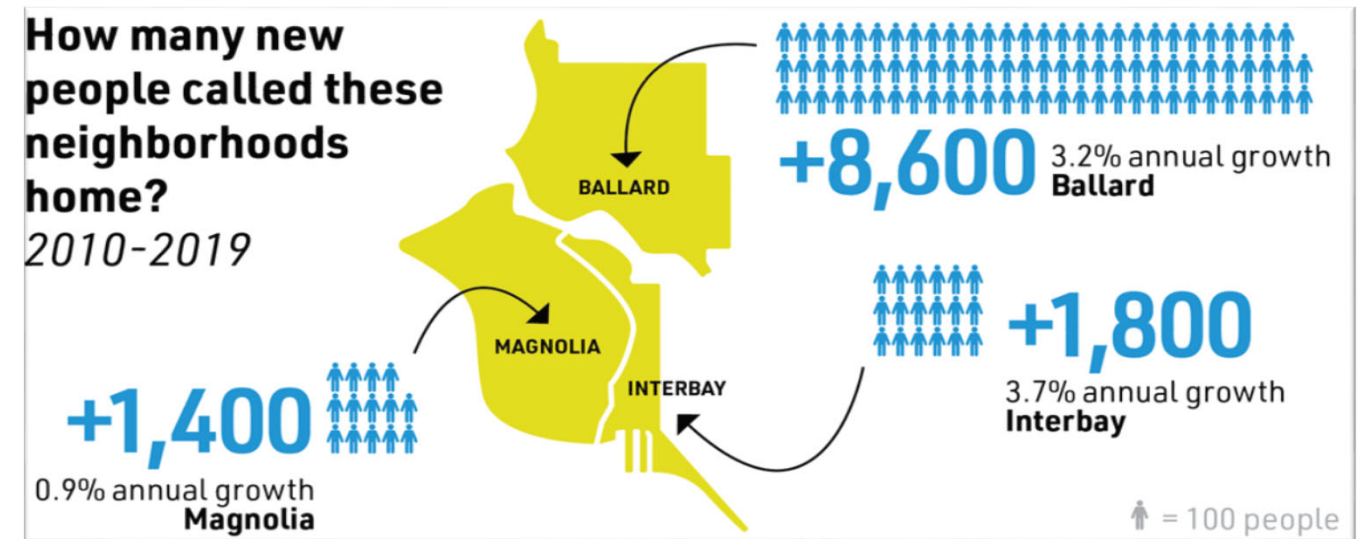
- A: Public Involvement Plan
- B: Plan Review and Context
- C: Methods and Assumptions Memo
- D: Multimodal Needs Assessment
- E: Social and Economic Baseline
- F: Corridor Management Strategies
- G: Full Project List and Descriptions
- H: Social and Economic Impacts Analysis



Report format

The Final BIRT Report will include:

- Maps and graphics to communicate existing and future conditions
- A summary of analyses and project recommendations
- A timeline and funding options for replacement of the Ballard and Magnolia Bridges
- Accessible, screen-reader friendly document for people with visual impairments



Report development

Date	Milestone	Detail
Sept. 11, 2020	DRAFT 1	<ul style="list-style-type: none">• SDOT Review• Chapters 1-7 text and graphics in Word
Oct. 1, 2020	IAT Meeting	<ul style="list-style-type: none">• Review timeline and funding strategy
Oct. 9, 2020	DRAFT 2	<ul style="list-style-type: none">• IAT Review• Layout with full appendices• Circulated within agencies as needed
Oct. 21-22, 2020	Public Meetings	<ul style="list-style-type: none">• Share final plan and recommendations
Nov. 1, 2020	FINAL DRAFT	<ul style="list-style-type: none">• Submit to WA Legislature

Discussion and next steps

- What questions do you have about the report's organization and appendices?
- How can we support your organizations in providing timely review and comments?







Draft Transportation Recommendations

- Do you have comments about how projects are organized and presented?
- Do you notice any fundamental conflicts or omissions in recommended projects?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Scenario modeling

Scenario	Ballard Bridge	Magnolia Bridge	Land Use			Transportation Infrastructure
			Housing/Jobs	Armory Site Concepts	Growth Constants	
Scenario 1	Mid-Level	In-Kind Replacement		A: Maintained Industrial	Regional land uses (PSRC), Terminal 91 Uplands Redevelopment, Fisherman's Terminal Redevelopment, Expedia site	Sound Transit's WSBLE, SDOT's Bicycle Master Plan, King County Metro's METRO CONNECTS 2040 Network
Scenario 2	Low-Level	New Armory Way Bridge		A: Maintained Industrial		
Scenario 3	Low-Level	New Armory Way Bridge		B: Future of Industry		
Scenario 4	Low-Level	New Armory Way Bridge		C: Mixed Use Neighborhoods		

**Land uses consistent with Mayor's Maritime & Industrial Strategy re: zoning for future housing and employment*

Scenario modeling summary

- Scenarios 1 and 2 are consistent with Comprehensive Plan land use projections
- Scenarios 3 and 4 envision higher zoning or land use intensity associated largely with the Armory site redevelopment
- The corridors with the greatest impacts include Dravus St and 15th Ave

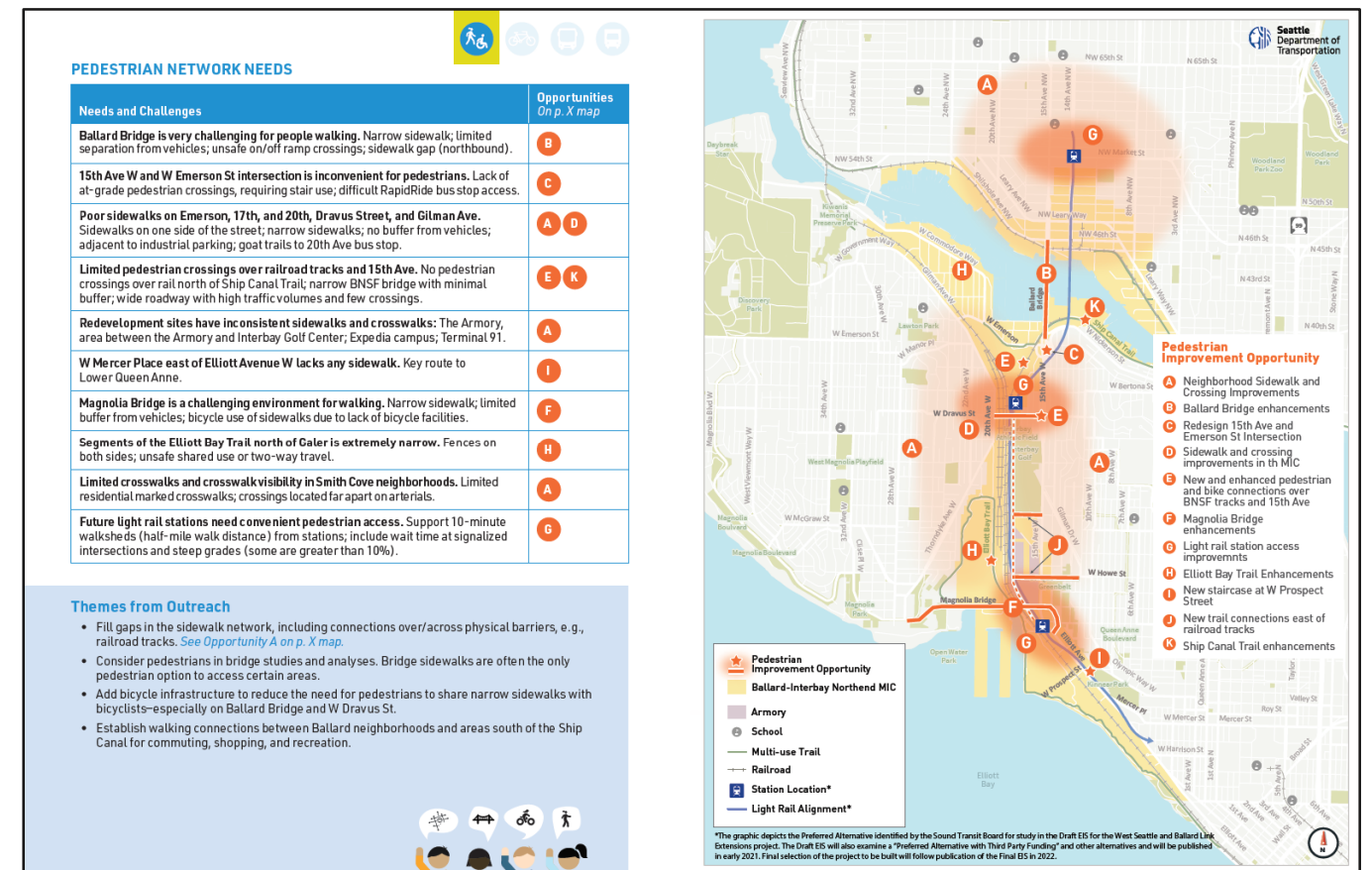
Strategies to optimize performance on 15th Ave and Dravus St:

- Partnerships to improve corridor operations
- Transit priority investments
- Policies to discourage driving and reduce single-occupancy vehicles (SOV) and vehicle miles traveled (VMT)

Approach to presenting recommendations

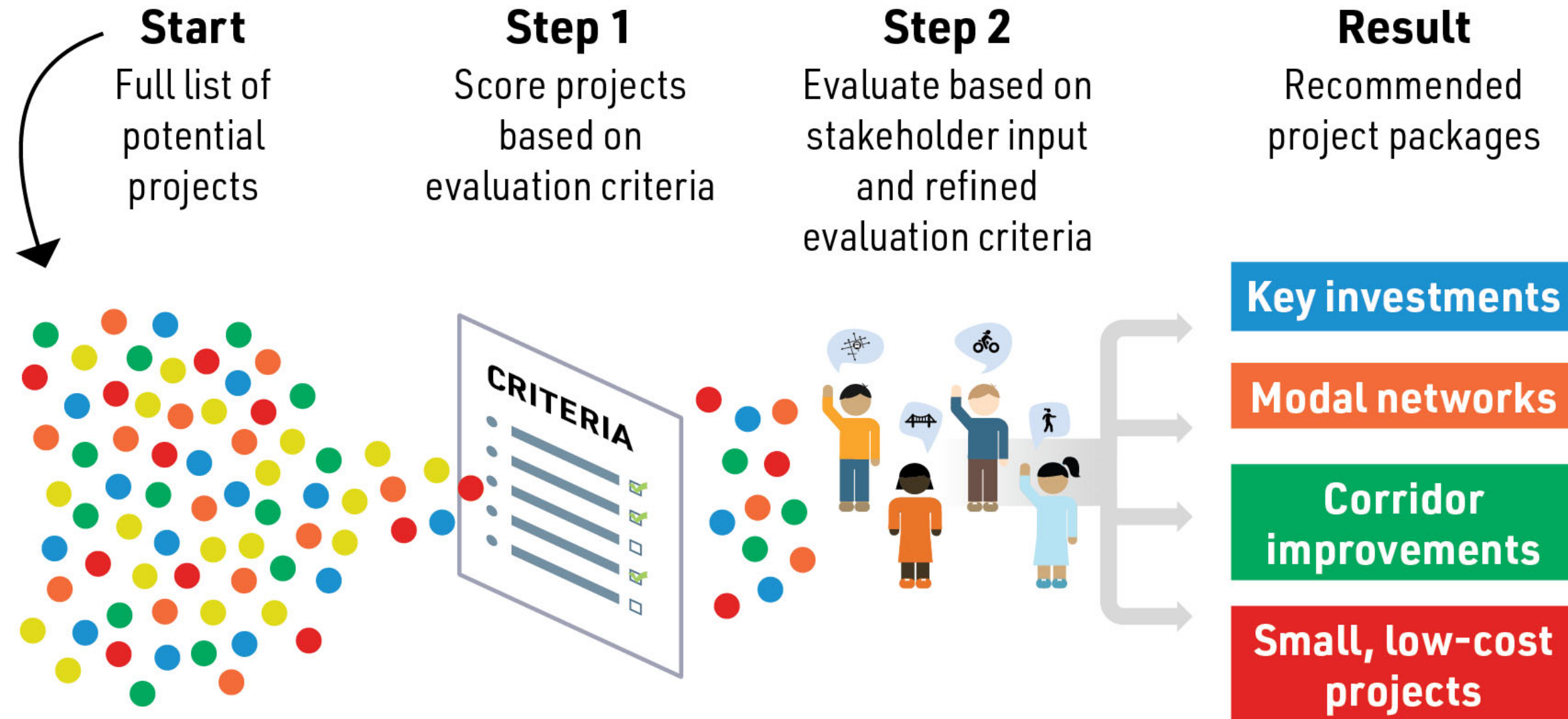
The final report will include recommendations in 3 categories:

- **Key investments:** bridge options, corridor-wide investments
- **Top investments by mode:** active transportation, transit, freight, auto/corridor
- **Smaller, low cost projects:** low-cost, and/or programmatic projects for any mode, some of which could be implemented in near-term



Sample spread of projects by mode

Project identification



Two alternatives for each bridge



Low-Height Ballard Bridge



- 1 Similar access on northern section as with baseline conditions
- 2 Enhanced access on southern section
- 3 W Nickerson/W Emerson St will include a modified single point urban interchange (SPUI)



Mid-Height Ballard Bridge



- 1 Northbound off-ramp at NW 49th St on the east side
- 2 Southbound on-ramp from 17th Ave NW & NW Leary Way; two new signals at 17th Ave NW at Leary Way
- 3 Longer on and off ramps from 15th Ave W on the southern end of the bridge
- 4 W Nickerson/W Emerson St will include a modified single point urban interchange (SPUI)



Magnolia Bridge In-Kind Replacement



- 1 New bridge built immediately south of existing Magnolia Bridge
- 2 Connections at the east and west would be similar to existing bridge



Armory Way Bridge Alignment



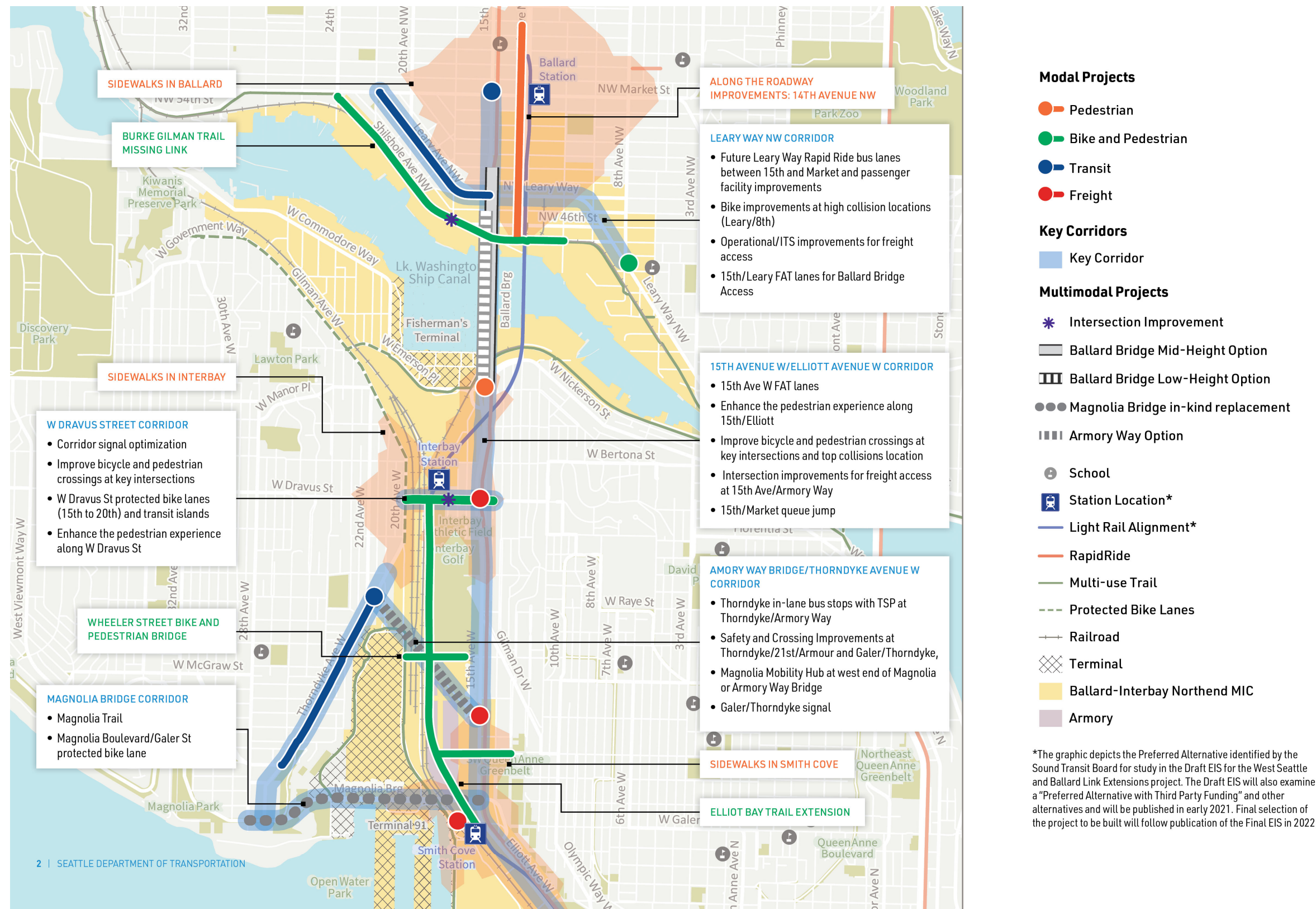
Elevated northbound-left movement from 15th Ave W, which is then at-grade on part of Armory Way to allow local access to and from the bridge, then is elevated over the tracks and up the hillside

Elevated connection to Thorndyke Ave W from 15th Ave W & Armory Way

Additional improvements to Thorndyke Ave W, 20th Ave W, West Uplands Perimeter Rd, and the W Galer St overpass and flyover

Key investments

- Represents the top projects across all modes, inclusive of both bridge scenarios
- Includes corridor-wide improvements



*The graphic depicts the Preferred Alternative identified by the Sound Transit Board for study in the Draft EIS for the West Seattle and Ballard Link Extensions project. The Draft EIS will also examine a "Preferred Alternative with Third Party Funding" and other alternatives and will be published in early 2021. Final selection of the project to be built will follow publication of the Final EIS in 2022.

Bicycle and pedestrian projects

- Sidewalks within 10-min walk of future light rail stations and Along the Roadway improvements at 3 locations
- Dravus St and 17th Ave Roundabout
- W Dravus St Protected Bike Lane
- Elliott Bay Trail Extension and Upgrades
- W Emerson Street Pedestrian Bridge and Overpass Stairs
- Interim Ballard Bridge Improvements
- Ballard Locks Connection



Transit and freight projects

- 15th Ave NE and Market St Queue Jump
- Route 40 NW Leary Way Bus Lanes
- Transit Signal Priority at Thorndyke Ave/Armory Way
- Magnolia Mobility Hub at Armory Way Bridge
- Dravus St Signal Optimization and Bridge Replacements
- 15th Ave W/NW FAT Lanes
- Intersection and Signal Improvements at 15th Ave/W Dravus St, Shilshole Ave/17th Ave, Alaskan Way W/ W Galer St, and W Galer St Flyover



Small, low cost projects

- Pedestrian crossing improvements at signalized and unsignalized intersections and high-collision locations
- Bicycle improvements at high-collision locations
- Stay Healthy Streets
- Wayfinding to WSBLE stations
- Ship Canal to Thorndyke Connection
- W Emerson St / W Nickerson St Corridor Management Strategies



Example: W Emerson St / W Nickerson St Corridor Management Strategies

Signal Operations

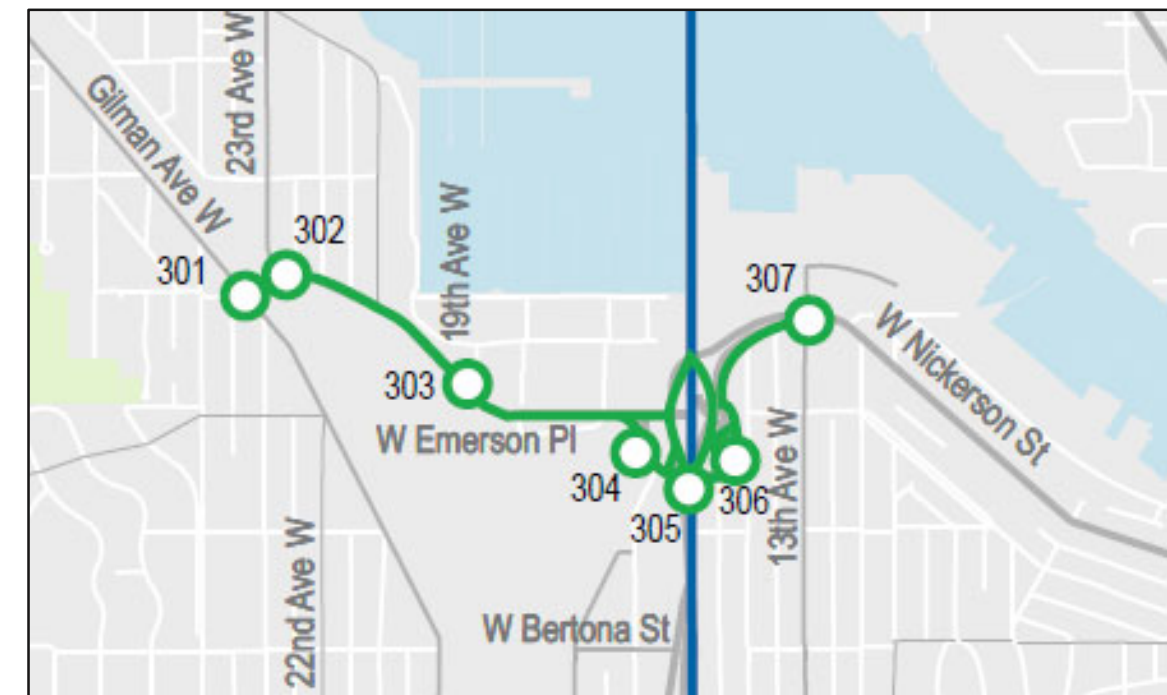
- **W Emerson Pl/23rd Ave NW:** Coordinate timing to optimize gaps for mid-block side streets
- **W Emerson St/19th Ave W:** Maintain maximum green time for Emerson Pl approaches

ITS Strategies

- **W Nickerson St at 13th Ave W:** Monitor queues and conflicts with Ship Canal Trail, local business access points; consider queue detectors

Traffic Control

- **W Emerson Pl/Gilman Ave NW:** Install traffic signal to improve multimodal interaction and replace all-way stop control



Corridor management strategies listed here are not bridge-related

Discussion and next steps

- What comments or questions do you have about the recommended projects?
- Is anything missing? Should any projects be revised to include additional elements?
- Are projects in conflict with one another?



Timeline and Funding Strategy Development

- Does this approach make sense to you?
- Do you have questions about the timeline assumptions?
- Do you have questions about the funding sources and assumptions?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Seattle's bridge inventory

- SDOT owns and manages 124 bridges
- 70+ are more than 50 years old, and 40 are greater than 80 years old
- The Ballard Bridge opened in 1917 and is over 100 years old
- The Magnolia Bridge was built 90 years ago with structural updates roughly 60 years ago (in 1957)



Ballard Bridge under construction in 1916

Approach to preparing strategies

- Per legislation, report must provide “*recommendations on a timeline for constructing new Magnolia and Ballard bridges*”
- Costs come from *Ballard Bridge Planning Study* and *Magnolia Bridge Planning Study*
- Report will stress there is **no funding available to advance bridge design or to replace/rehabilitate the bridges**

Ballard Bridge replacement estimate: \$471 (Low) to \$971 Million (Mid-Height)

Magnolia Bridge replacement estimate: \$266 (Armory) to \$398 Million (In-Kind)



NEW Bridge Audit Report released Sept 11, 2020

Key stages of a bridge project

- Any bridge replacement or major rehabilitation has similar key steps
- The timeline to move through them varies

Planning

Examines feasibility, alignment, multimodal connectivity, traffic operations, and high-level cost.

Type, Size, and Location Study

Includes drawings that depict the general type and size of a bridge, its location, and the proposed work to be done.

Engineering Design

Requires several major design phases that build on the Type, Size, and Location plans:

- Completion to 30%
- Completion to 60%
- Completion to 90%
- Final Design and Bid Documents

Environmental Assessment

Typically runs in parallel to 30% and 60% design.

Bid Process

The agency solicits bids for construction from private companies or partnerships.

Right-of-Way Aquisition

Begins process of acquiring any additional right-of-way needed for the bridge alignment, supports, or accessways.

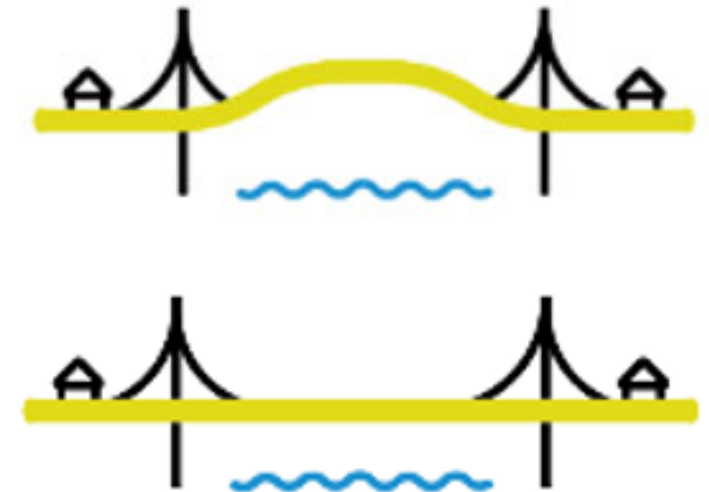
Construction

- Construction management
- Construction mitigation
- Construction (various construction activities depending on bridge type, size, location)

Bridge alternative phasing

Ballard Bridge

- The *Mid-Level alternative* cannot be phased
- *Low-Level alternative* could be constructed in separate phases, such as:
 - Pedestrian cantilevers
 - Single-point urban interchange (south end)
 - Bridge approaches



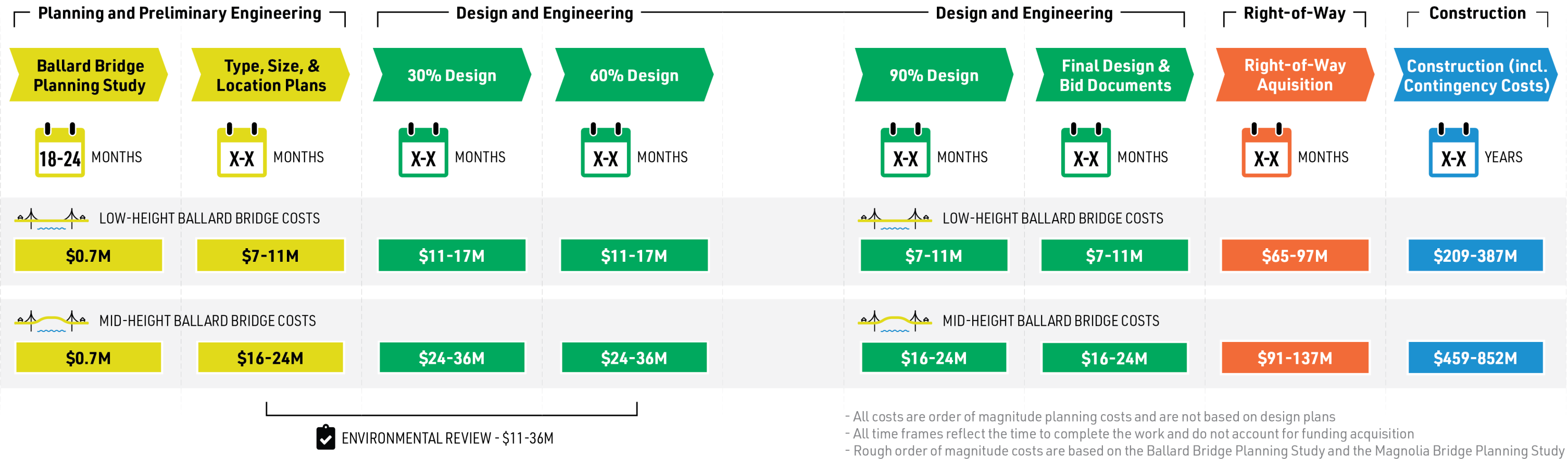
Magnolia Bridge

- The *In-Kind Replacement alternative* cannot be phased
- The *Armory Way alternative* could be constructed in phases:
 - Construction could happen while existing bridge is operational
 - Elements such as T-91 access at Garfield Street and Thorndyke could be phased or constructed separately



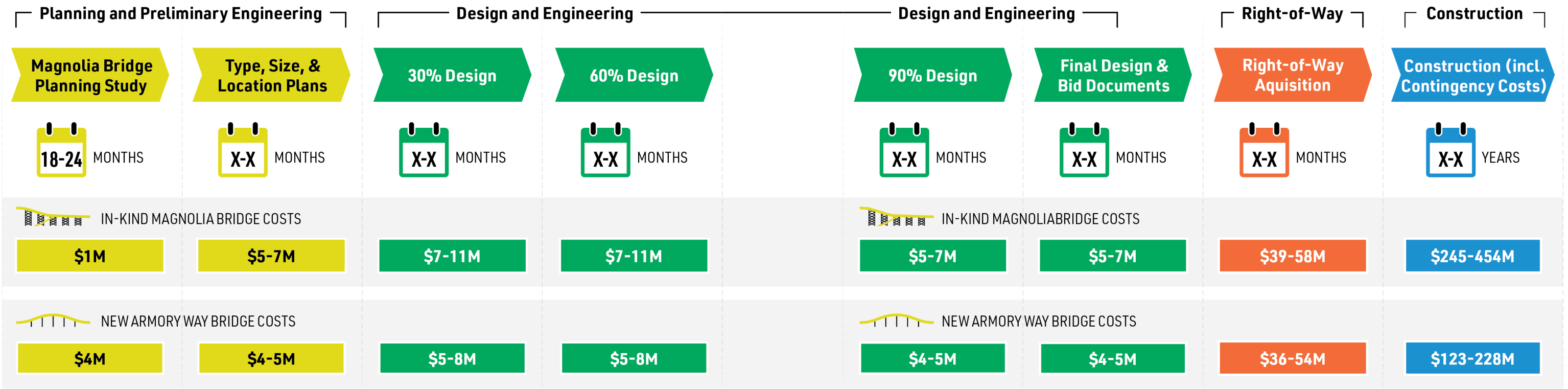
Ballard Bridge conceptual replacement timeline

DRAFT



Magnolia Bridge conceptual replacement timeline

DRAFT



ENVIRONMENTAL REVIEW - \$5-11M

- All costs are order of magnitude planning costs and are not based on design plans
- All time frames reflect the time to complete the work and do not account for funding acquisition
- Rough order of magnitude costs are based on the Ballard Bridge Planning Study and the Magnolia Bridge Planning Study

Funding bridge replacement/rehabilitation

- SDOT will need to pursue **local, regional, state, and federal** sources to pay for the replacement of each bridge
- Funding partnerships will be critical
- Like peer cities and across the U.S., Seattle is challenged to maintain aging infrastructure in the face of decreased federal support
- Parallel to the development of this study, SDOT is working under emergency orders to repair or replace the West Seattle High Bridge (WSHB)
- WSHB repair or replacement will be a priority for any available bridge funding

Potential local & state funding/finance options

Local	State
<ul style="list-style-type: none"> • Renewal of the Move Seattle Levy • Tax-Exempt Municipal Bonds • Facility Tolling • Congestion Pricing • Public-Private Partnership (P3) • Value Capture / LID • Regional Transportation Investment District • External or Partner Agency Contributions 	<ul style="list-style-type: none"> • Legislative Package (Connecting Washington future phase) • WSDOT Local Bridge Funding Program • Regional Mobility Grants • Freight Mobility Strategic Investment Board • Transportation Improvement Board (TIB) Urban Arterial Program (UAP)

Funding sources vary by design and construction phase, potential value, and viability/fit

Potential federal funding/finance options

Federal

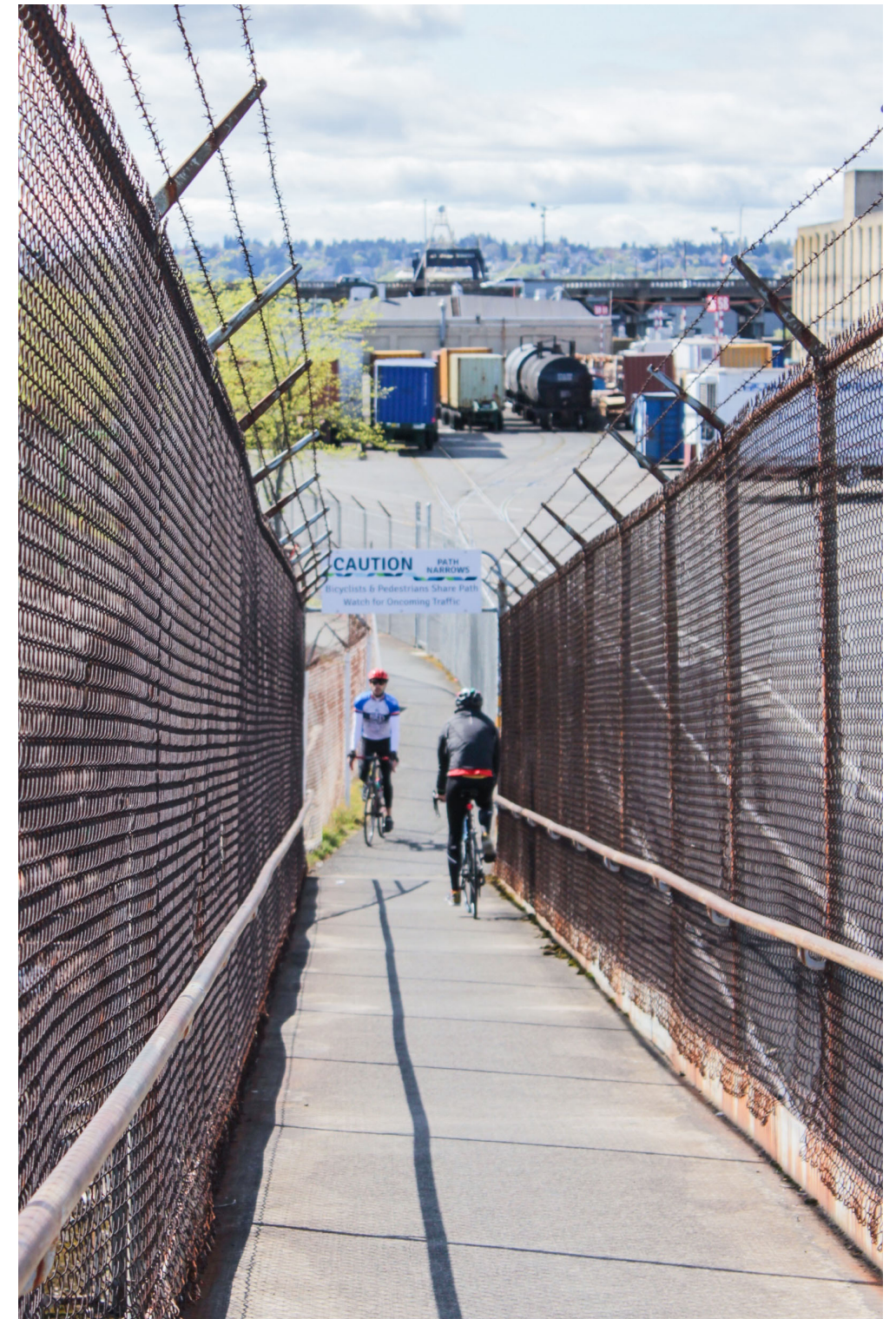
- | | |
|---|---|
| <ul style="list-style-type: none">• Surface Transportation Block Grant (STBG)• COVID Relief Funds (US Treasury)• INFRA (Infrastructure for Rebuilding America) Grant• Transportation Infrastructure Financing and Innovation Act (TIFIA)• Private Activity Bonds (PABs)• FEMA Building Resilient Infrastructure and Communities (BRIC) | <ul style="list-style-type: none">• Federal Transit Administration Various Programs (CIG, 5307)• BUILD (Better Utilizing Investments to Leverage Development) Grant• Congestion Mitigation Air Quality (CMAQ)*• Transportation Alternatives Program (TAP)* |
|---|---|

**Road capacity projects are not eligible for CMAQ or TAP funds, though sub-elements may qualify (e.g., non-motorized connections to new infrastructure)*

***Some federal sources are for roads and bridges with National Highway System Designation (NHS). 15th Ave W and Ballard Bridge are on the NHS, Magnolia Bridge is not.*

Funding non-bridge projects

- SDOT modal plans are supported by 5-year implementation plan; capital improvement program (CIP) funds are allocated across multiple modal programs, major projects, and operations and maintenance activities
- CIP revenues are 57% local with the remainder from external funding, grants, and long-term financing
- Major local sources include the Move Seattle Levy, gas tax, general fund, Real Estate Excise Tax (REET), and the commercial parking tax, among others
- ***BIRT multimodal projects that are not already included in modal plans will need to be added through future updates***



Discussion and next steps

- Do you have comments or questions about the timeline assumptions for bridge replacement?
- Are there funding sources we've missed? Are there any you think are particularly promising (or should be eliminated)?
- Where do you see opportunities for agency partnerships?



Public Comment

- What questions or comments do you have about the information presented today?
- What do you want to make sure agency partners and the project team consider?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Public comment protocol

- All: If you signed up via the online form, we will call on you in the order you completed the form
- Web participants: Indicate if you would like to provide a verbal comment by “raising your hand” or noting interest in the chat window; wait for your name to be called
- Dial-in participants: Indicate if you would like to comment by pressing *9 to “raise your hand;” we will invite you to take your turn to speak by stating the last 4 digits of your phone number (press *6 to unmute yourself)
- Comments will be limited to 2 minutes per person

Additional comments may be submitted using the form linked in the chat and on the next slide.

Public Comment

- What questions or comments do you have about the information presented today?
- What do you want to make sure agency partners and the project team consider?
- Do you have additional comments? Visit www.tinyurl.com/BallardInterbay to share them.

Next Steps & Action Items

- Is there additional information you need at this point?
- How can we support you in sharing today's content with your colleagues and leadership?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Immediate next steps

- **October 2:** Revised draft to SDOT
- **October 9:** Draft to IAT for review
- **October 15:** IAT Meeting #6 to review draft
- **October 20-21:** Final public meetings
- **October 22:** IAT comments due
- **November 1:** Submit final report



Thank you!

BallardInterbay@seattle.gov
www.seattle.gov/transportation/birt

