

# The Design Development of a multimodal transit facility

## South Bellevue Station

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Sustainability & Multimodal Planning Workshop



# Presentation Overview

- Sound Transit & Regional Transit
- East Link Project Overview
- South Bellevue Station (Past & Present)
- Pre-Engineering Design Development
- Changes in Final Engineering Design
- Designing for Future Flexibility
- Take away



# About Sound Transit

Mode	2016 Vehicles	2016 Service Hours	2016 Boardings
ST Express	305	765,000	18.47 million
Sounder Commuter Rail	14 locomotives 58 passenger cars	10,000 – train 59,000 – vehicle	4.31 million
Tacoma Link	3	76,000	0.94 million
Link Light Rail	62	90,000 – train 204,000 – vehicle	19.01 million
Paratransit	Contracted	25,000	0.05 million
		1,063,000 vehicle hours	42.78 million



ST Express



Tacoma Link



Link Light Rail



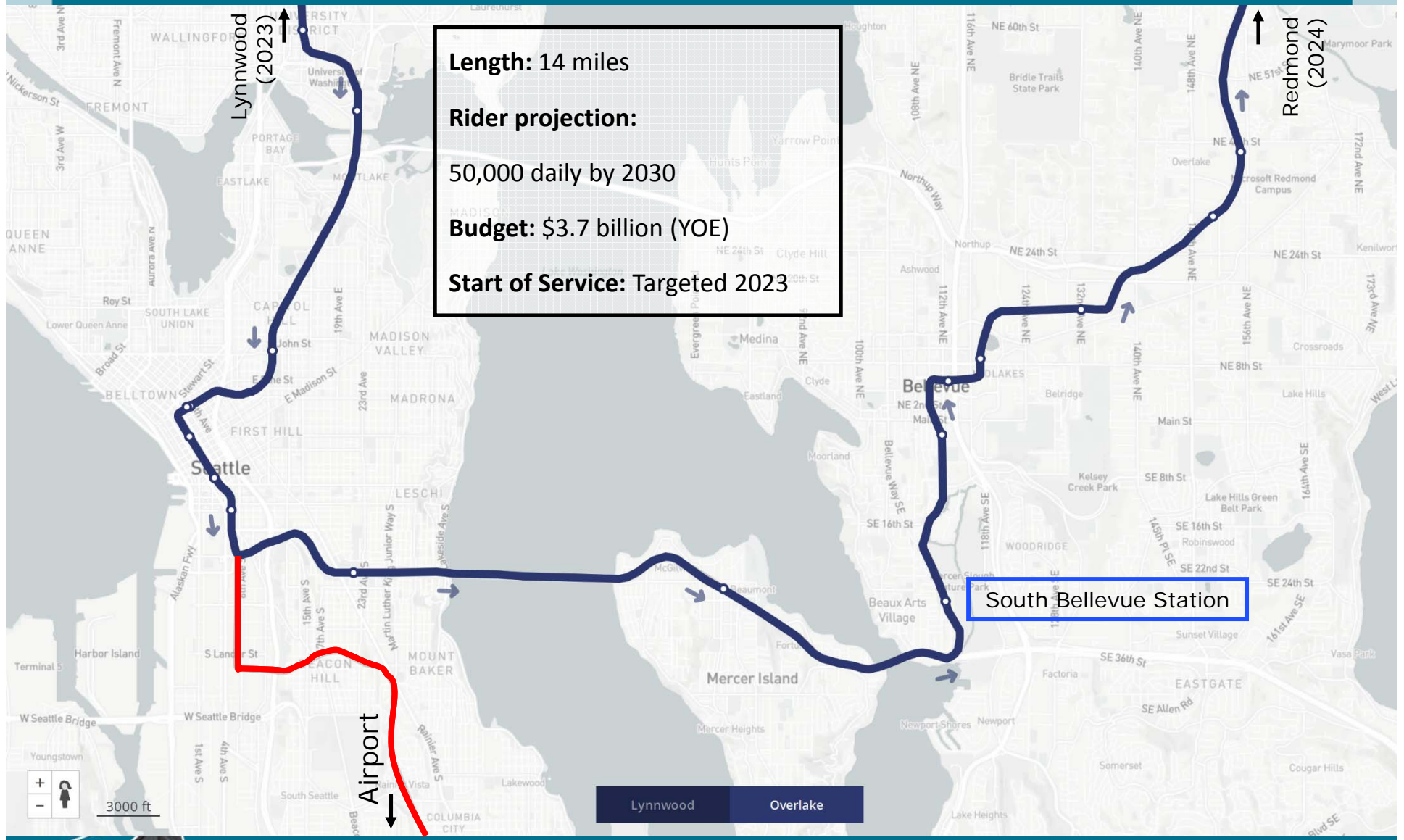
Sounder

# Regional Transit Map Better Together



Regionwide  
Ridership  
Over 208  
million in 2016

# East Link Project Overview





# South Bellevue Park and Ride

519 stalls  
104-108% usage



Paratransit



SB Bus Zone



Pick up/Drop off  
Bus Layover



Bicycle Lockers



NB Bus Zone  
Comfort Station





# South Bellevue Park and Ride

## Current Status: **CLOSED**

- Closed for construction up to 5 years
- Bus stops maintained on street
- Replacement park-and-ride lots
- Added transit service
- New commute programs and incentives available
- Paratransit Relocated



### New park-and-ride options during East Link construction

Park-and-Ride Location	Service
<b>Cross of Christ Lutheran Church Park-and-Ride</b> 441 168th Ave NE, Bellevue Served by Metro 226, 245 Service to Downtown Bellevue and transfers to Downtown Seattle Capacity: 50 parking spaces M-F hours: 6 a.m. – 7 p.m.	
<b>Saint Andrew's Lutheran Church Park-and-Ride*</b> 2034 168th Ave SE, Bellevue Served by Metro 221, 226, 245, 271 Service to Downtown Bellevue and transfers to Downtown Seattle Capacity: 50 parking spaces M-F hours: 6 a.m. – 7 p.m.	
<b>Lake Hills Baptist Church Park-and-Ride</b> 506 168th Ave SE, Bellevue Served by Metro 245, 889 Transfer service to buses across I-90 Capacity: 50 parking spaces M-F hours: 6 a.m. – 7 p.m.	
<b>Overlake Park Presbyterian Church Park-and-Ride</b> 1835 158th Ave NE, Bellevue Served by Metro 245, RapidRide B Line (within 1/4 mile) Service to Downtown Bellevue and transfers to Downtown Seattle Capacity: 50 parking spaces M-F hours: 7 a.m. – 7 p.m.	
<b>The Neighborhood Church Park-and-Ride</b> 621 168th Ave NE, Bellevue Served by Metro RapidRide B Line (within 1/4 mile), 889 Service to Downtown Bellevue and transfers to Downtown Seattle Capacity: 50 parking spaces M-F hours: 6 a.m. – 7 p.m.	
<b>Bellevue FourSquare Church Park-and-Ride*</b> 2015 Richards Rd, Bellevue Served by Metro 240, 821, 824, 887 Transfer service to buses across I-90 Capacity: 50 parking spaces M-F hours: 7 a.m. – 7 p.m.	
<b>Renton Bible Church Park-and-Ride</b> 573 Union Ave NE, Renton Served by Metro 105, 114 Service to Downtown Seattle Capacity: 50 parking spaces M-F hours: 6 a.m. – 8 p.m.	
<b>Holy Trinity Church Park-and-Ride</b> 17311 NE 2nd St, Redmond Served by Metro 249 Service to Downtown Bellevue and transfers to Downtown Seattle Capacity: 17 parking spaces M-F hours: 6 a.m. – 7 p.m.	

### Existing park-and-rides near you

For a comprehensive list of park-and-ride facilities, and their specific destinations served, visit King County Metro's park-and-ride information page at [metro.kingcounty.gov/topsp/parkandride](http://metro.kingcounty.gov/topsp/parkandride).

Park-and-Ride Location	Service to
<b>Eastgate Congregational Church</b> 13118 SE Newport Way, Bellevue	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Holy Spirit Lutheran Church</b> 18021 NE 124th St, Kirkland	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Houghton Park-and-Ride</b> 1024 170th Ave NE, Kirkland	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Kirkland Way P&amp;R</b> NE Kirk St & Kirkland Way, Kirkland	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Westgate Community Church</b> 12805 SE East Creek Pkwy, Bellevue	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Neptune Hills Community Church</b> 1831 119th Ave SE, Bellevue	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Neptune Hills Park-and-Ride</b> 5115 118th Pl SE, Bellevue	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Overlake Park-and-Ride</b> 2003 152nd Ave NE, Redmond	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Redmond City Municipal Garage</b> 605 S 2nd St, Redmond	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Sammamish Hills Lutheran Church P&amp;R</b> 22818 SE 8th St, Sammamish	Seattle ✓ Bellevue ✓ Redmond ✓
<b>South Sammamish Park-and-Ride</b> 3015 228th Ave SE, Sammamish	Seattle ✓ Bellevue ✓ Redmond ✓
<b>St. Luke's Lutheran Church</b> 3003 Bellevue Way NE, Bellevue	Seattle ✓ Bellevue ✓ Redmond ✓
<b>St. Matthew's Lutheran Church</b> 2116 NE 160th St, Bellevue	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Takoma East Park-and-Ride</b> 1675 Newport Way NW, Issaquah	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Takoma Valley Park</b> 965 12th Ave NW, Issaquah	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Reverie Church/Redmond Family Church</b> 17100 Redmond Woodside NE, NE, Redmond	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Redmond Ridge P&amp;R</b> NE Cedar Park Center & Redmond Ridge Dr NE	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Cottage Lake Assembly of God</b> 15737 Ashtabula Road NE, Woodinville	Seattle ✓ Bellevue ✓ Redmond ✓
<b>Woodinville United Universalist Church</b> 19020 NE Woodinville-Central Rd, Woodinville	Seattle ✓ Bellevue ✓ Redmond ✓

## Asking Questions during Pre-Engineering Design

- Two bus zones and layover for five buses
- Parking Capacity – 1400
- Bicycle Facility
- 4-car train platform per direction
- Passenger Drop-off and pick up
- Paratransit operation





# Pre-Engineering Design Product

1400 stalls



4-car train



Elevated station

NB & SB Bus Zones  
(under train platform)



Paratransit  
(Share with bus zone)



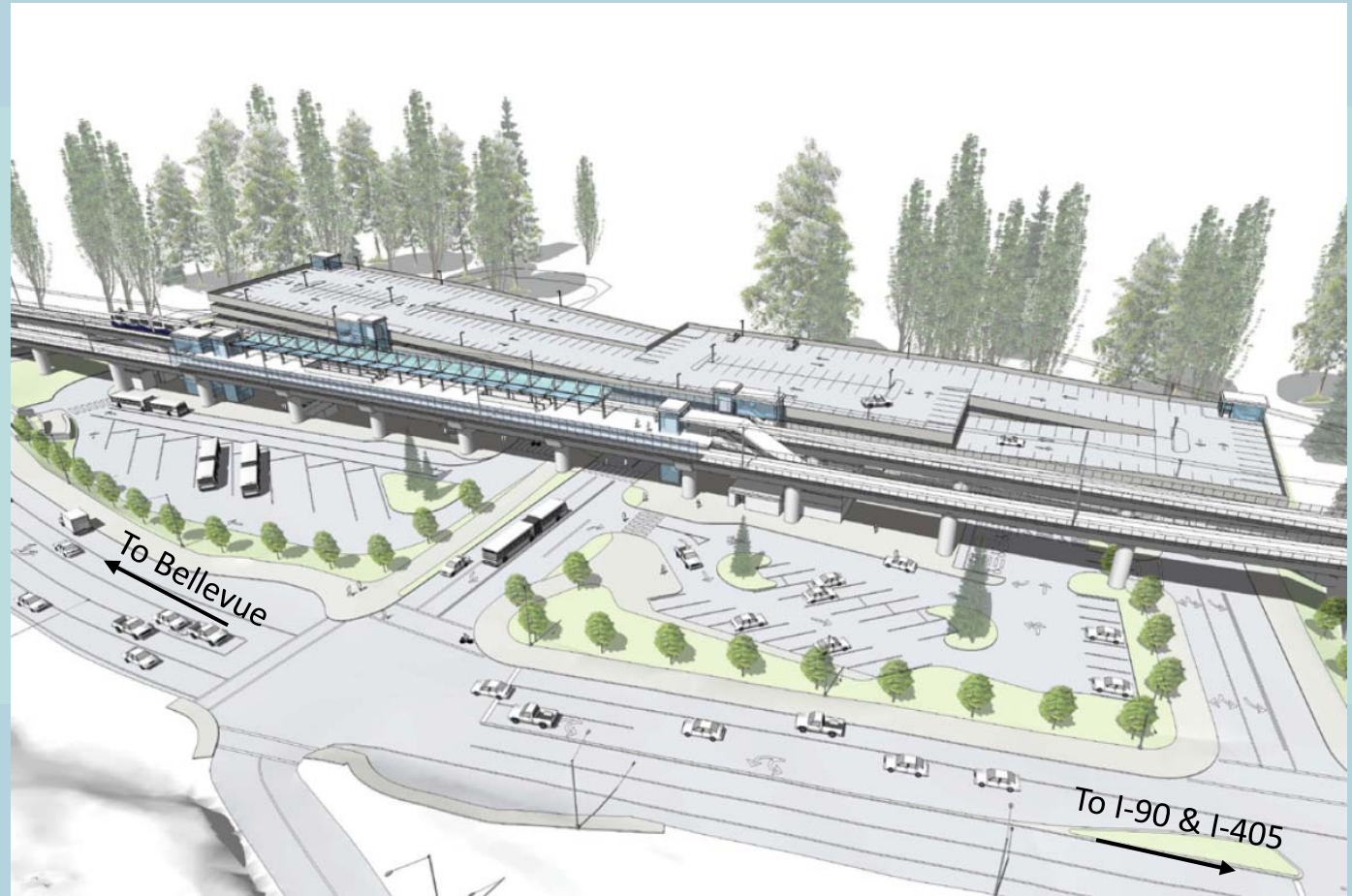
Layover - Bus (5)  
Paratransit (5)



Pick up/Drop off

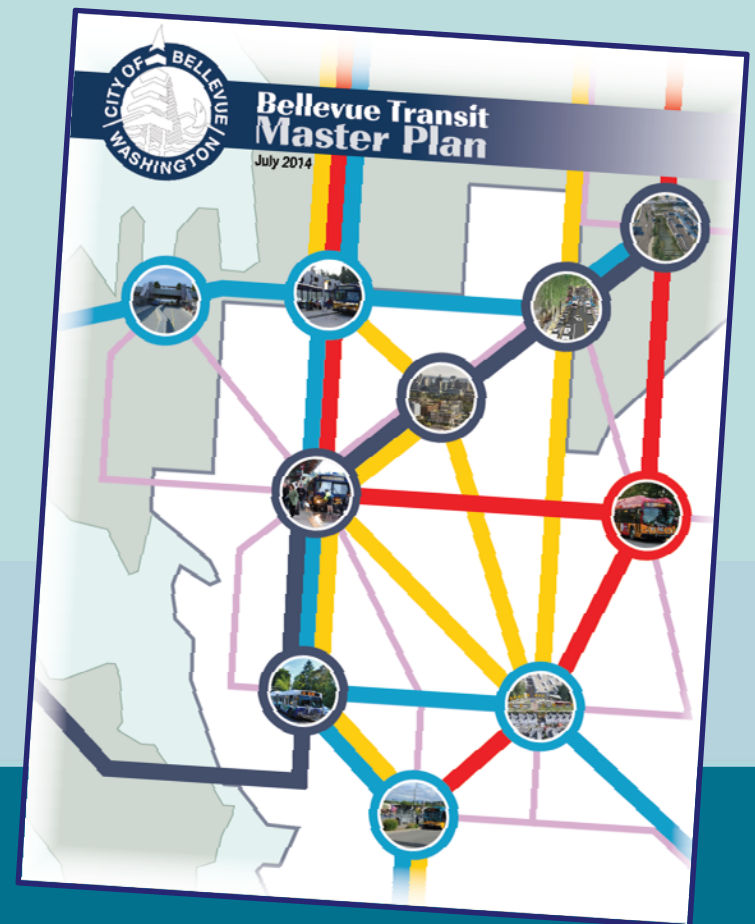


Bicycle Plaza

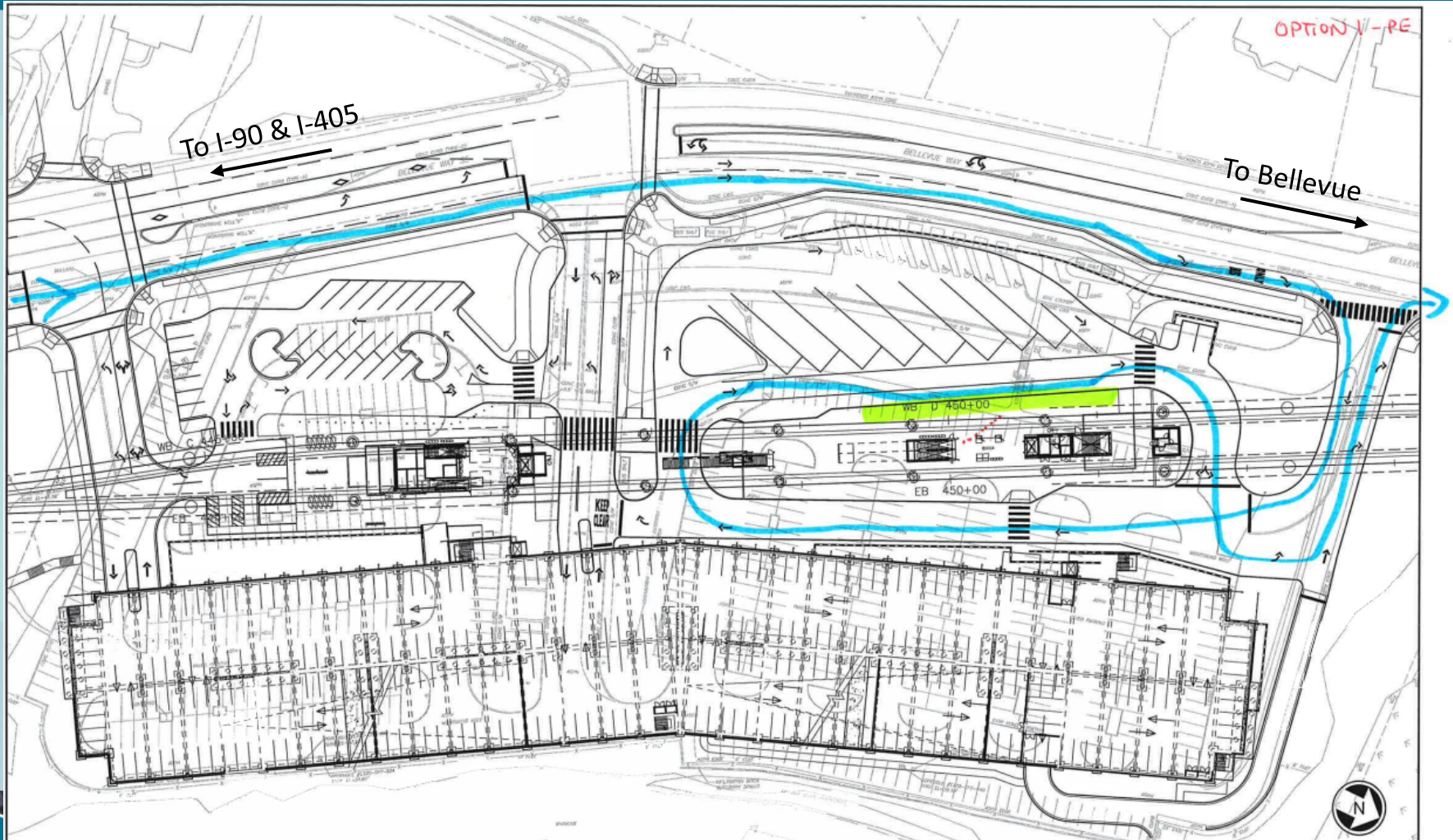


# Asking **More** Questions during **Final** Engineering Design

- City of Bellevue Transit Master Plan
  - More frequent bus service
  - BRT service
  - More frequent bus service with pass-through routes rather than terminated routes
- Paratransit Transit Hub
- Future Transit Technology



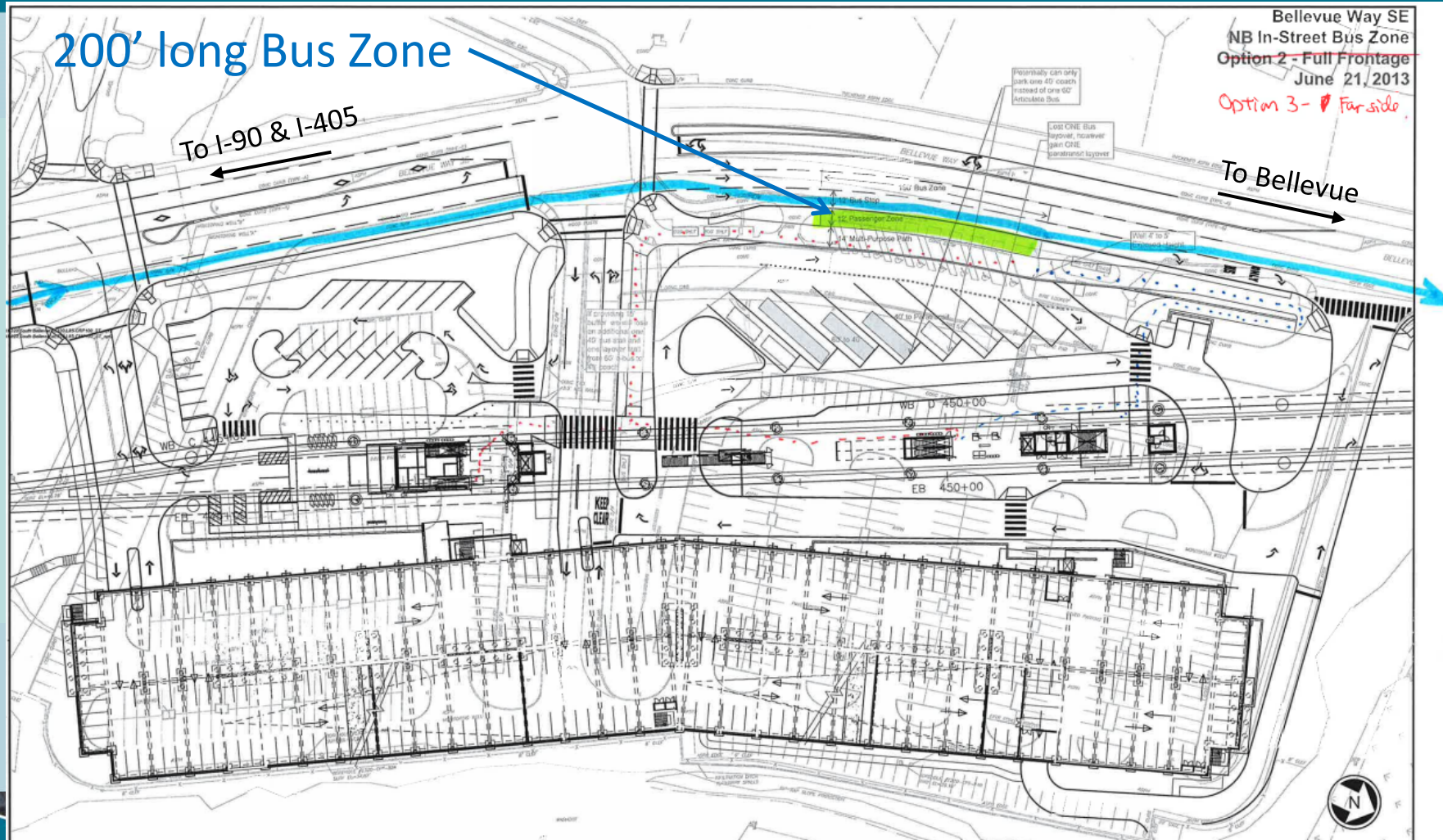
# Design Changes – NB Routing



Pre-Engineering Design



# Design Changes – NB Routing



Final Design

# Design Changes - Layover

## Pre-Engineering Design



- Rely on operating policy for dependent arrival/departure

Paratransit Platform

NB In-Street Bus Zone

- Rearrange to an aisle configuration
- Total 430 LF layover aisle (80', 150' and 200')
- Efficient use of layover space with different size and length of buses

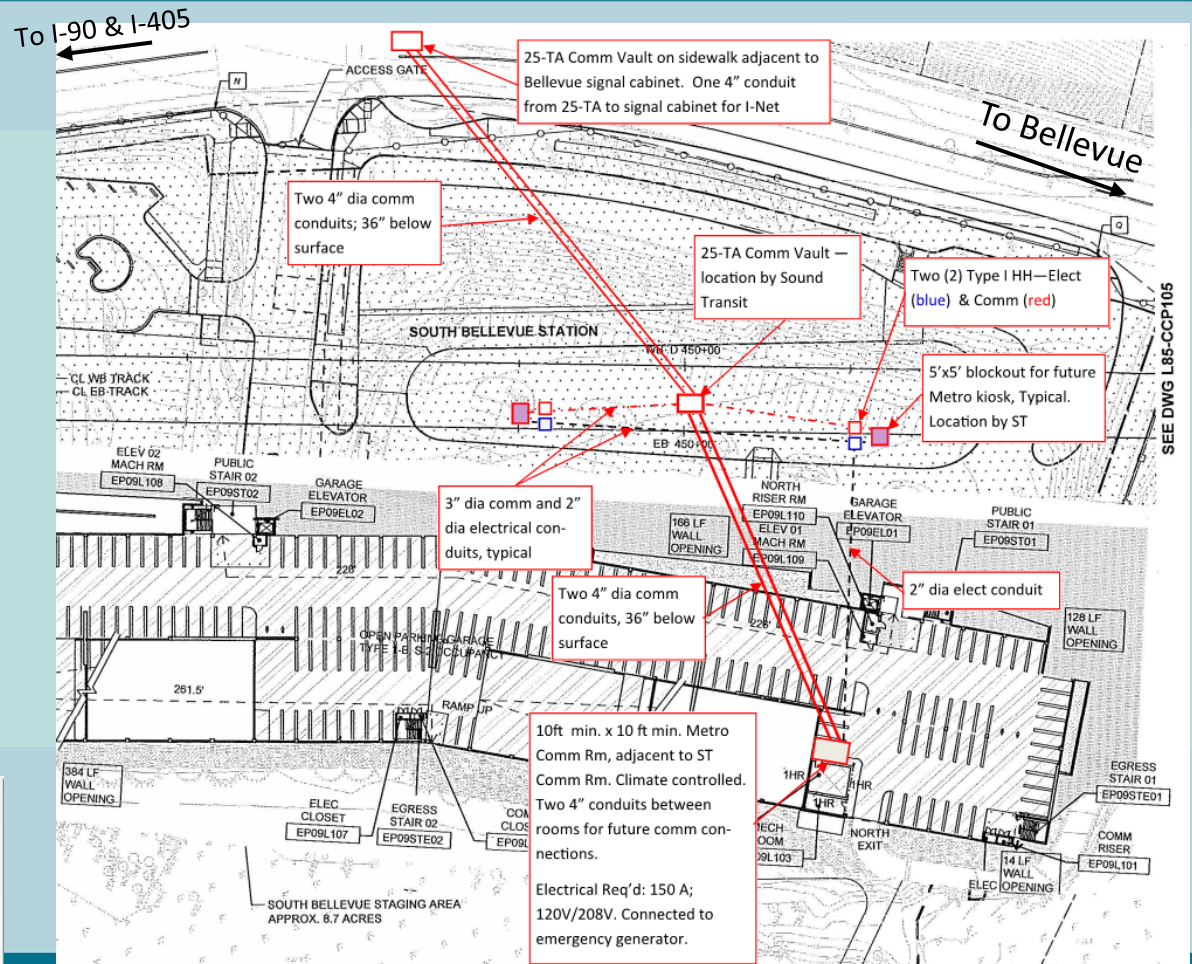
## Final Design





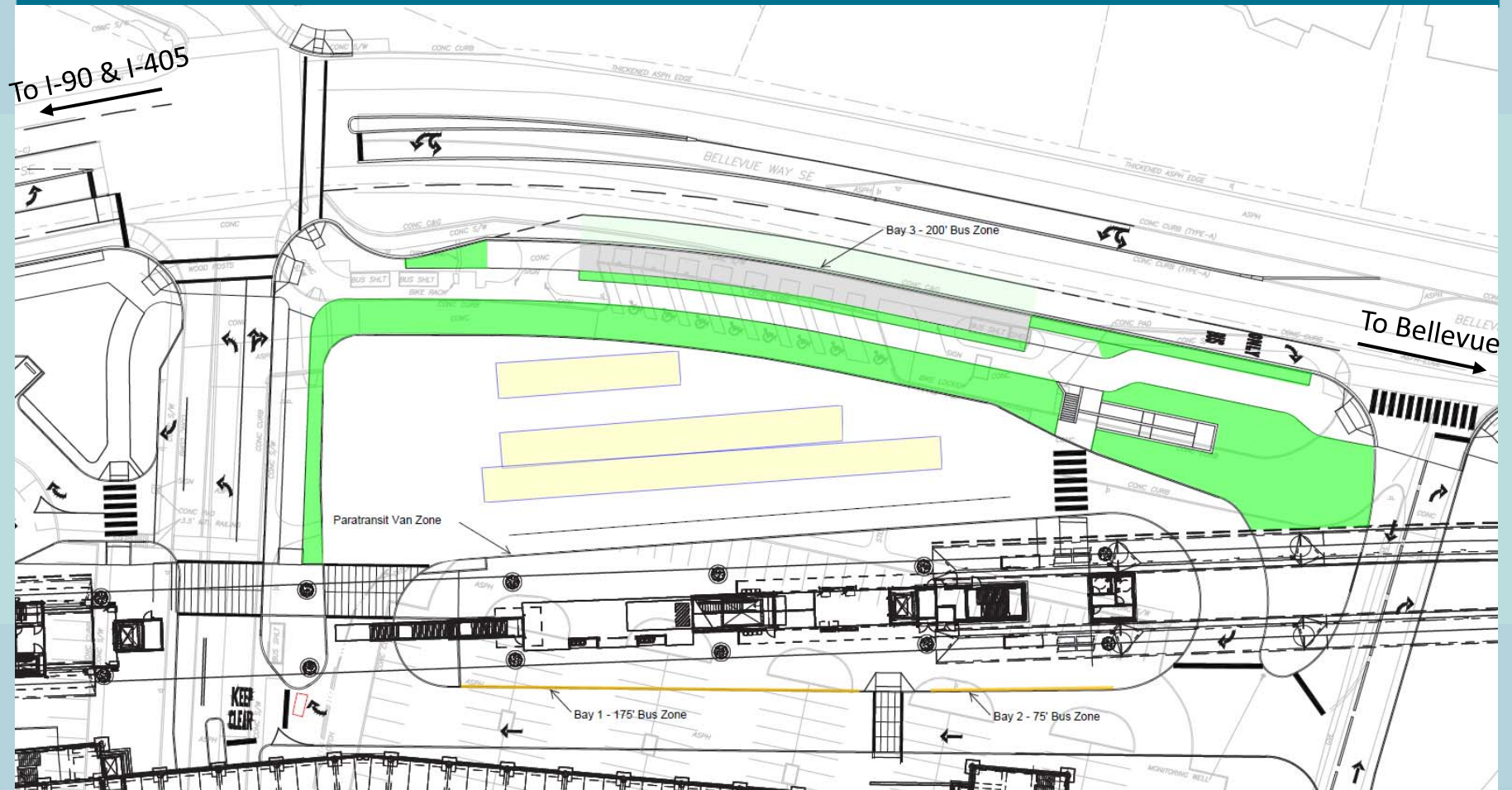
# Design Changes – Transit Technology

- Install conduit for future transit technology
- Minimize future tear-out
- Small investment now saves for the future





# Future Flexibility – More bus bays



**Under Construction**

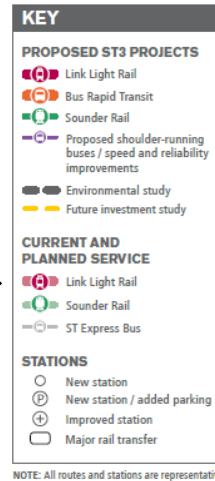
Site plan of the proposed bus station at the intersection of Bellevue Way SE and I-90/I-405. The plan shows four bus bays: Bay 1 (175' long, yellow), Bay 2 (75' long, yellow), Bay 3 (200' long, green), and a New Bay (200' long, blue). A Paratransit Van Zone is also indicated. The plan includes details for bus shelters, bike racks, and various curb types. Arrows indicate traffic flow, including 'To I-90 & I-405' and 'To Bellevue'.

## Possible Modification during Operation

## SOUND TRANSIT 2

### SOUND TRANSIT 3

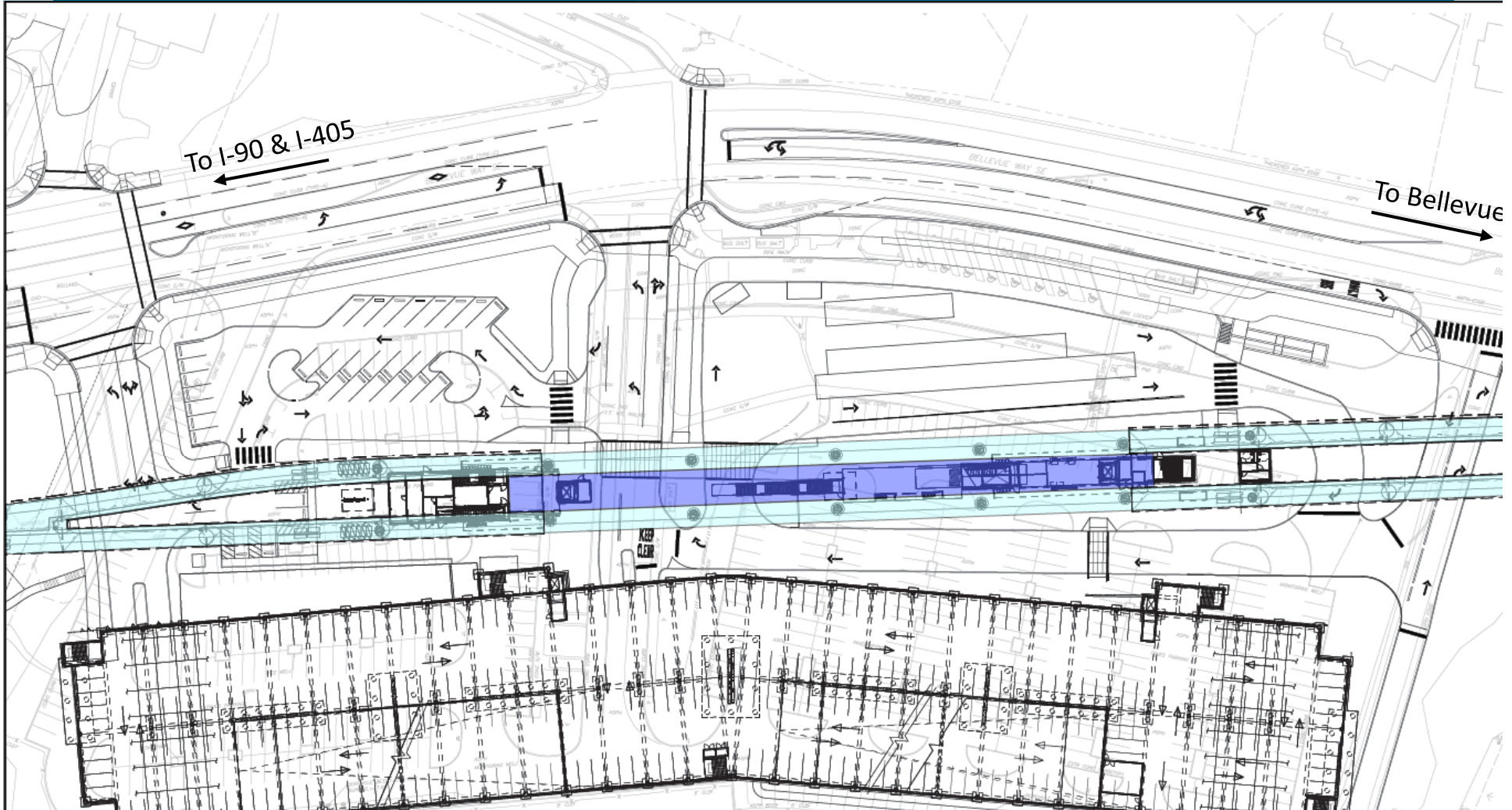
## PLAN MAP

[View Interactive Map](#) 

Sound Transit 3: The Regional Transit System Plan for Central Puget Sound



# Future Flexibility – Sound Transit 3



**Under Construction**

## Possible future modification

# Take-Aways

- **Don't** assume all **Engineers** are **Transit Planners**
- **Don't** assume all **Engineers** knows **Transit Operations** and all kinds of coaches
- **Do** ensure **jurisdictional transportation staff** are engaged in design development
- **Do** maintain **two-way communication** between operation planners and engineers
- **Do collaborate** and get more for all, the *Earlier the Better Together*



# Thanks!

- Do share this case study with your engineers



# East Link Project Overview



# East Link Construction Timeline

