

# ***2024 Service Plan Phase 2***

***1 Line capacity improvements &  
ST Express Service Plan***

*Rider Experience & Operations Committee*

*3/07/2024*

# *Why we're here*

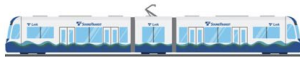
- To respond to Board direction in R2023-24 to mitigate anticipated crowding on the 1 Line.
- To request recommendation for Board approval of major ST Express service changes for fall 2024 service change.

# Context: Potential crowding on 1 Line

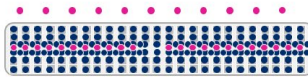
In 2023, we identified how lower service levels caused by fleet storage limitations could affect the passenger experience.

## How we think about crowding

On cars  
● = one rider

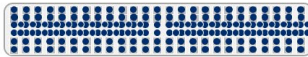


Very crowded, may not be room to board.



74 seats full + more than 120 riders standing

Challenges getting on and off.



74 seats full + 74 - 120 riders standing

People standing, but you can still get on.



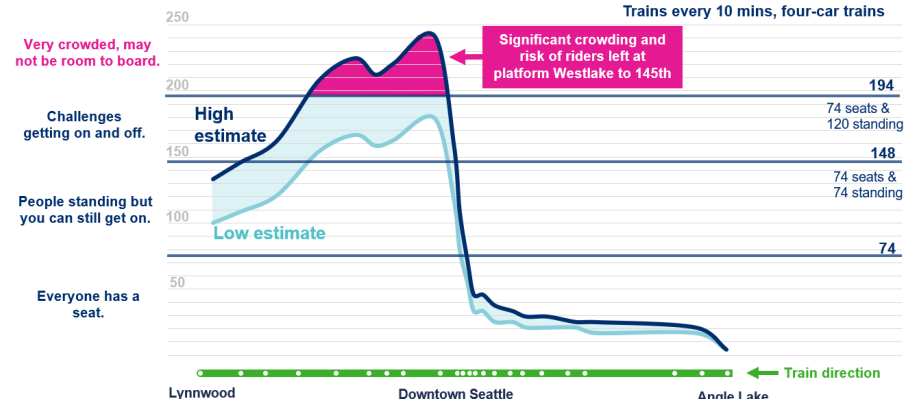
74 seats full + up to 74 riders standing  
**Board-adopted crowding standard**

Everyone has a seat.



Less than 74 seats full, few people standing

## 2024 Northbound 1 Line\*



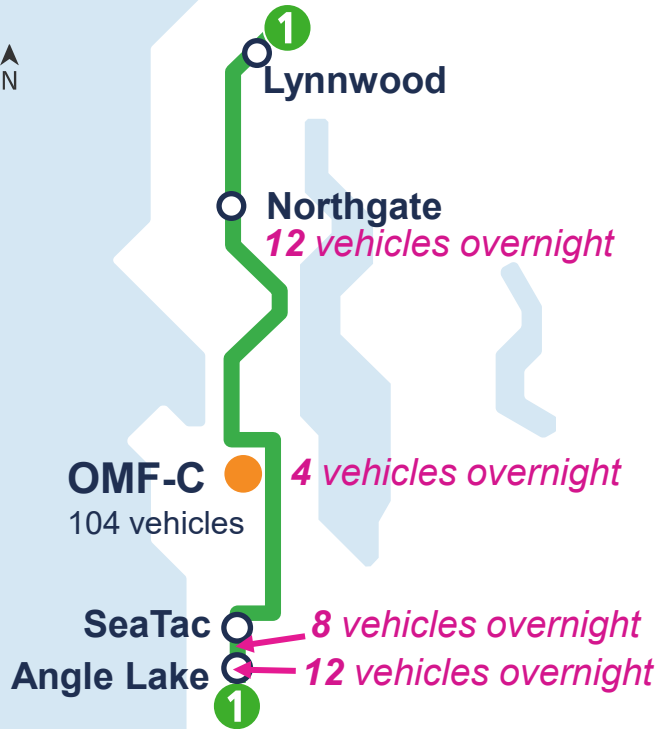
# ***Board directed staff to mitigate 1 Line crowding***

***R2023-24 identified three strategies for improving service when the 1 Line extends to Lynnwood.***

- **Increase capacity on Link**, focusing on the peak hour when we anticipate highest ridership on the 1 Line.
- **Provide alternative bus service** between Snohomish County and downtown Seattle and defer ST Express restructure proposal that terminated all I-5 north service at Lynnwood.
- **Develop communication plans** to provide passengers with actionable information about transit alternatives.

# **1** *Line capacity improvements*

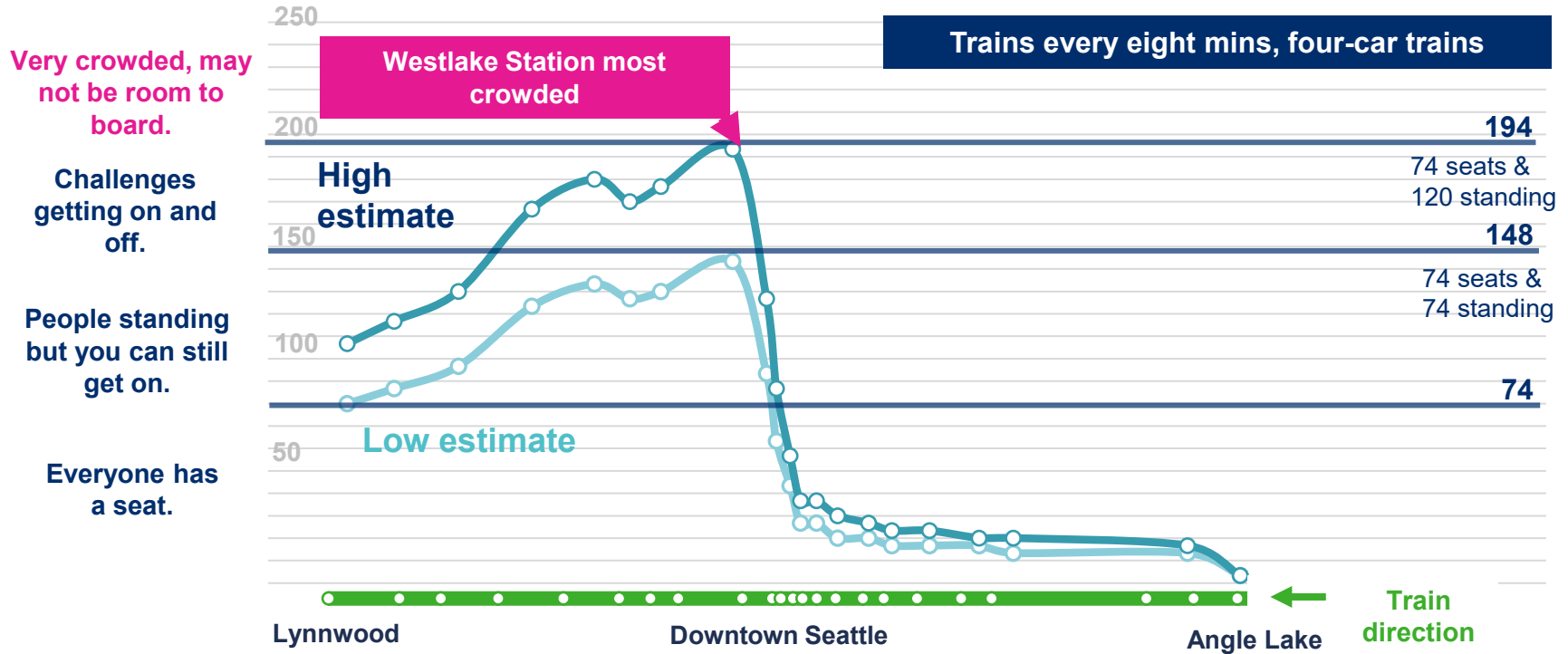
# More vehicle storage identified; improved peak frequency



- Sound Transit and Metro staff located **temporary storage sites for 36 light rail vehicles** outside OMF-C along the 1 Line.
- More vehicles can be used to shorten headways and carry more passengers during peak hours.
- When the 1 Line opens to Lynnwood, we are now planning to provide **eight-minute peak headways with four-car trains**.

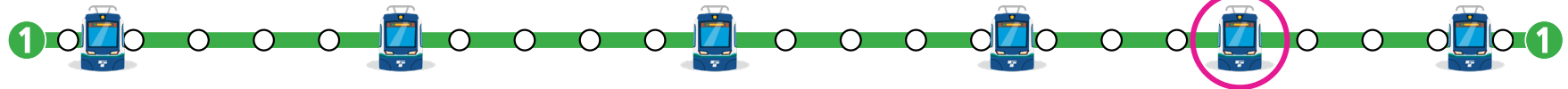
# Updated 1 Line crowding projections

25% more capacity than earlier assumptions, more room on trains



# Additional trains during peak

- To be deployed during **busiest part of the peak** when platform crowding is identified by the Link Control Center (LCC).
- **Gap trains** and **extra trains**, when available, can alleviate crowding.
- Similar techniques are used **during events** such as UW Husky Games.



*LCC deploys train*



*Extra train added*



*Shorter waits and more capacity  
when and where it's needed most.*



# ***OMF-C will exceed design capacity by 35%***

## ***Off-peak frequency and “service span” reductions are required to meet peak demand***

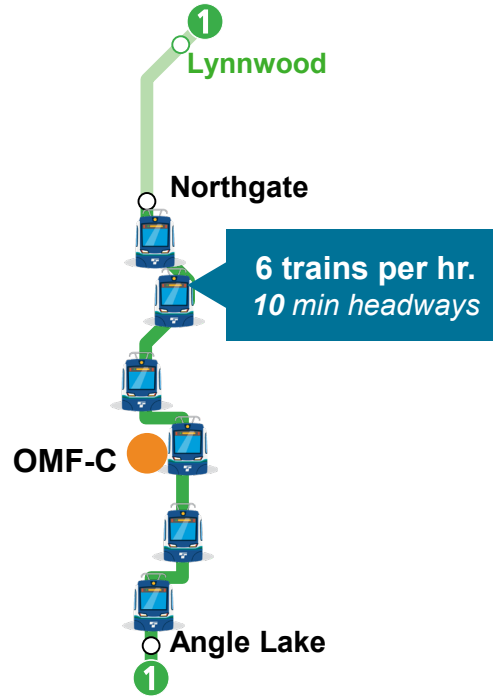
- OMF-C was designed for **104 vehicles**. With the additional storage locations, **140 vehicles** will be assigned to OMF-C.
- Because the OMF only has a certain amount of capacity, maintaining additional vehicles requires us to reduce off-peak service levels.
- By reducing some service when demand is lower, we can provide more peak service when demand is higher, addressing R2023-24.

# Evening headway change required

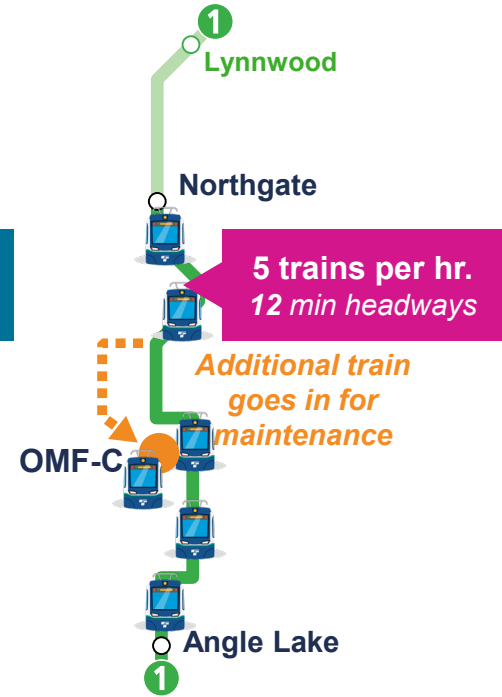
Effective March 2024 to support pre-revenue service

- Starting around 8 p.m., we will move from 10-minute to **12-minute headways**.
- More vehicle maintenance in the evening means more passengers served during peak hours.
- Reduces mileage on vehicles, resulting in less maintenance.
- On average, 1 minute longer wait for approximately 4,500 riders.

FALL 2023 6-10 p.m.



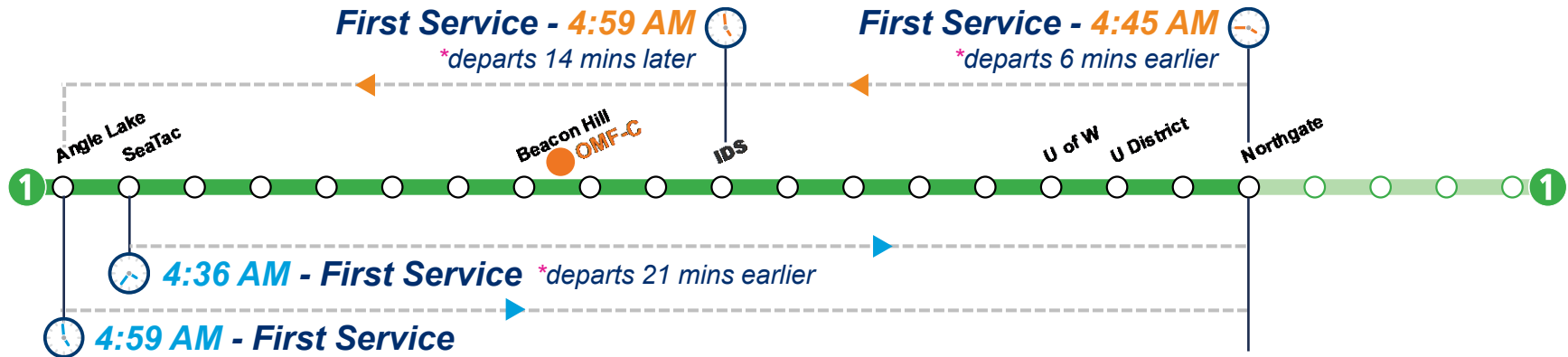
SPRING 2024 8-10 p.m.



# Required service span adjustments

Effective March 2024 to support pre-revenue service

## First weekday morning train

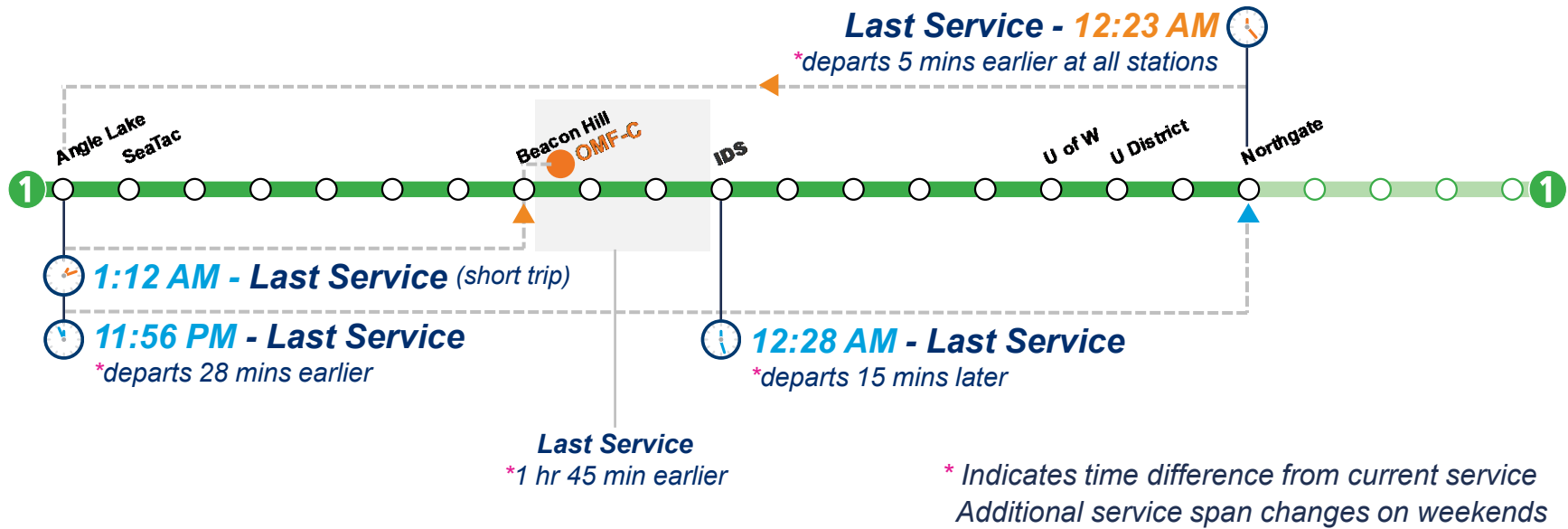


\* Indicates time difference from current service  
Additional service span changes on weekends

# Required service span adjustments

Effective March 2024 to support pre-revenue service

## Last weekday evening train



# ***Some negative effects for passengers***

***Passengers may experience variability in train length, timeliness, and cleanliness.***

- There may be days where we cannot put all vehicles in service.
- It may take us longer to recover from service disruptions, resulting in uneven headways.
- Since crews prioritize safety-related maintenance, light rail vehicles may not always be cleaned according to schedule.
- Over time, we may adjust the length of some trains to right-size ridership demand with our operational and maintenance pressures.

***New service proposal  
for  
I-5 north ST Express***

# New ST Express proposal provides alternatives

*Effective fall 2024 when the 1 Line extends to Lynnwood.*

## *Direct service from Snohomish County until 2 Line is complete*

- **Add new temporary Route 515** from Lynnwood, peak direction every 10 minutes.
- **Temporarily keep Route 510** from Everett, going in peak direction every 15 minutes.
- Provides additional travel options to help riders avoid 1 Line crowding.



# ST Express provides connections to Link

Effective Fall 2024 when the 1 Line extends to Lynnwood

## Move routes from Northgate to Lynnwood

- Shorten routes 512 and 513 to connect with Link at Lynnwood.
- Buses spend less time in I-5 congestion and run on time more reliably.

*Route 511 (Ash Way – Northgate) was suspended and replaced with Routes 512 and 513 serving the same stops in early 2023, due to emergency staffing shortages*





# Outreach results

## Two rounds of engagement since summer 2023

- Online open house, survey, two virtual information sessions, social media, and in-person outreach at transit hubs. Included materials in multiple languages.
- Support for transit alternatives.
  - Support for direct service to downtown Seattle until the 2 Line can provide more capacity.
  - Support for minimizing time on I-5 and connecting to Link at Lynnwood instead of Northgate.
- Some riders expressed a desire for higher service levels, particularly in off-peak directions.

 **3,475+** riders reached

 **274** survey responses

# *Results of Title VI analysis*

- Board policy requires equity analysis prior to adoption of major service changes.
- Title VI evaluations help ensure that ST activities do not result in disparate impacts for minority communities or represent a disproportionate burden on low-income populations.
- **No disparate impacts or disproportionate burden identified; no mitigations required.**

# *Summary of major service changes*

- Create **temporary new Route 515** from Lynnwood to Seattle.
- **Move Route 512** destination from Northgate Station to Lynnwood.
- **Move Route 513** destination from Northgate Station to Lynnwood.
- *Formalize emergency service suspension of Route 511 due to staffing shortages in March 2023.*
  - Routes 512 and 513 serve the same stops.

***Communicating transit  
options to riders***

# *Regional approach to passenger experience*

## *March 4 Passenger Experience Partnering Workshop*

- Learn and map out local and regional service plans for Lynnwood opening.
- Determine potential pain points; identify mitigations and action items.

## *Next steps*

- Follow up on outstanding items.
- Commitment to ongoing communication.

# Service Change Communication Plan

## *Enhanced passenger communications:*

- Timely service alerts.
- Increased platform-level communications.
- Staff augmentation.
- Ground-level signage showing ST Express, Link, and Sounder information for routes to and from downtown.
- Multiple touchpoints with CT and Metro.
- Integration with concurrent agency communication efforts.



# Today's recommendation

## Today's actions:

Recommend temporary and long-term ST Express Major Service Changes for Board approval.

- 1 Line capacity, span, and frequency changes **do not** require further Board approval, responsive to R2023-24.

## Next steps:

**Q2:** Begin pre-revenue and simulated service for 1 Line extension to Lynnwood.

**Q3:** Begin new 1 Line service and monitor ridership and ST Express performance.

**Q4:** Propose 2025 Service Plan. *Board can provide direction to preserve 1 Line span, frequency, and cleanliness, which would result in lower peak capacity. Can be implemented March 2025.*

*Thank you.*



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