



Sound Transit - Operations Overview

EnoMAX – Tuesday, August 6, 2019

 **SOUNDTRANSIT**

Leadership Journey



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Executive Director
of Operations



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Executive Director,
Transportation &
Maintenance

Sound Transit

- Serving Puget Sound Region
 - Pop: 2.8 million
 - Square Miles: 1,080
 - Founded: 1996
- Modes:
 - ST Express bus
 - Sounder commuter rail
 - Tacoma Link streetcar
 - Link light rail
- Funding:
 - Local taxes – 0.9% sales tax
 - Federal partnerships: grants, TIFIA

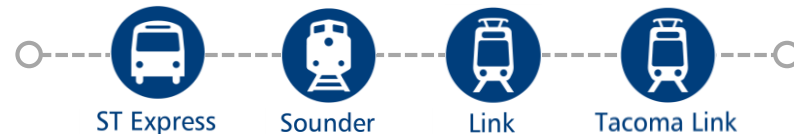


Operations Department

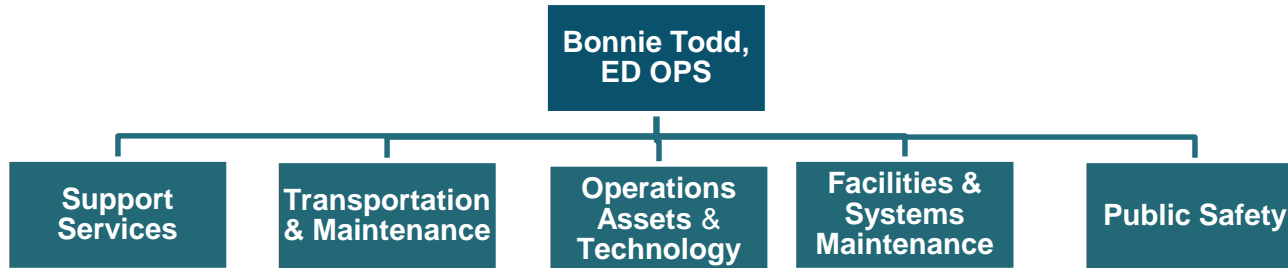
- Sound Transit trains and buses carried more than **48 million** people in 2018, a 2.9% increase from 2017. Nearly **160k** on the average weekday.
- Total agency ridership target for 2019 is **52.26 million** riders.
- By 2024, light rail will extend between Seattle, Bellevue, and downtown Redmond, north past Northgate all the way to Lynnwood, and south to Federal Way.
- When complete, Central Puget Sound will have a **116-mile** light rail system with more than **80 stations**.

Mission:

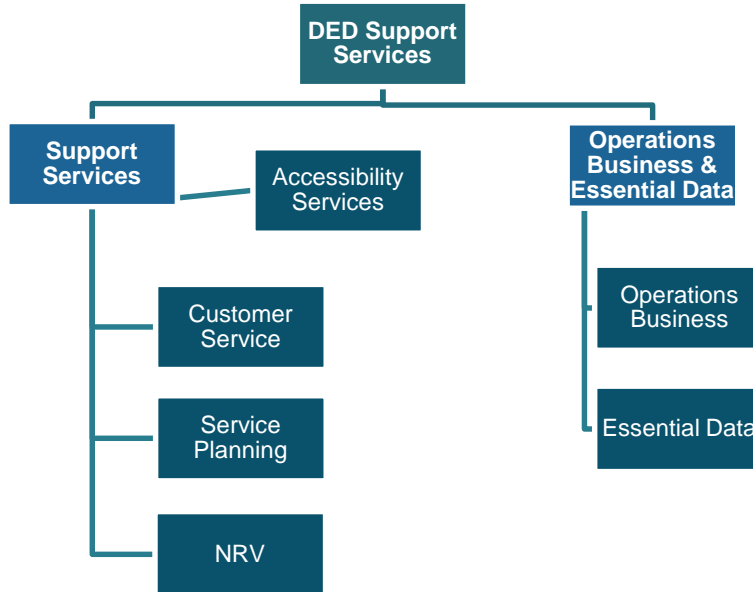
*The Operations Department mission is to **ensure** that the **operation** of Sound Transit services is performed **safely, reliably and efficiently** and that all necessary operational support systems and processes are identified, developed and implemented.*



Executive Director's Office



Support Services



Customer Service:

- Email and phone support
- Receptionists
- Emergent rider updates

Service Planning:

- Designs, plans and implements service
- Monitors and evaluates service performance
- Assists bus and rail in day-to-day service & operational issues

NRV:

- Manages and administers non-revenue vehicle fleet

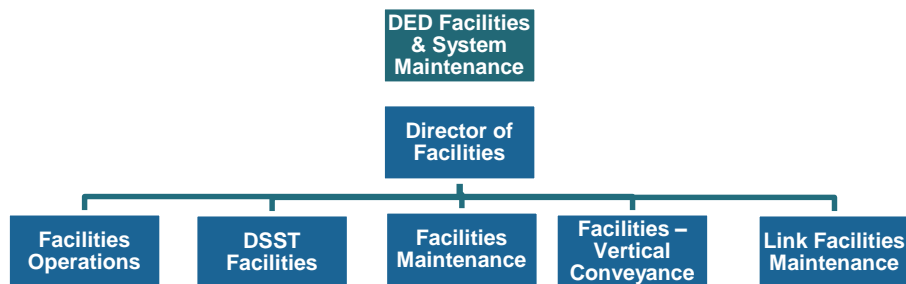
Business Services:

- Provides budgetary, financial, analytical, and administrative support
- Serves as financial and administrative liaison with other departments in the agency

Essential Data:

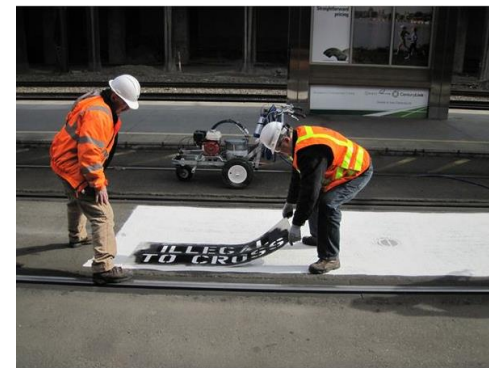
- Ensures accurate data collection and organization, report development, and business analysis focused on performance of various transit modes, enterprise asset management, state of good repair, and total cost of ownership
- Leads the data collection efforts for NTD reporting
- Drives the development and implementation of the Agency's Enterprise Asset Management System

Facilities and System Maintenance

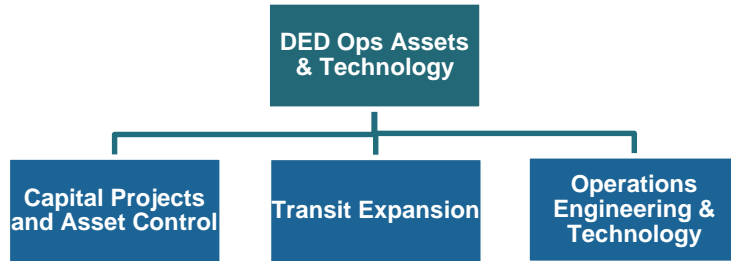


Year	Project	Miles	Stations	Garages
2020	DSTT		4	
2019-20	OMF East			
2021	Northgate	4.3	3	1
2022	Tacoma Link	2.4	6	
2023	East Link	14	10	3
2024	Lynnwood Link	8.5	4	2
2024	Federal Way Extension	7.8	3	2
2024	Downtown Redmond		2	1
Totals		37	32	9

- Responsible for the maintenance of **63** facilities located in King, Pierce and Snohomish Counties
 - Administrative buildings, OMF buildings, MOW building, temporary surface parking lots, multi-story garages, bus storage lot, parking garages, Link and Tacoma Link stations, Sounder stations, transit center facilities and ST Express stations*
- Performs oversight activities on the King County staff members assigned to Link Light Rail
- Responsible for all Facilities related start-up activities



Operations Assets & Technology



Capital Projects & Asset Control:

- Provides project management tasks from inception to completion for capital and small works projects
- Focuses on transitioning the existing facilities from completion of construction to transition to operations, individual projects for maintaining or expanding facilities, and asset management for all systems and infrastructure pertaining to the operation of rapid transit
- Provides space planning and furniture supply tasks
- Establishes and maintains a 5 year capital replacement plan

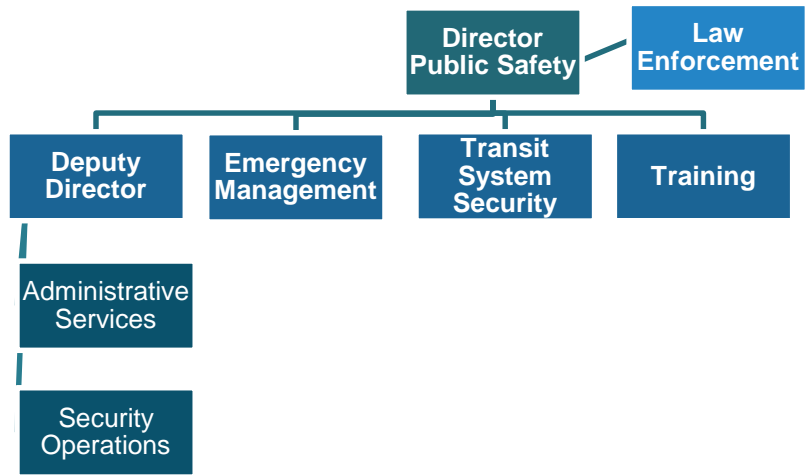
Operations Engineering & Technology:

- Provides technical and engineering support to Operations
- Serves as Operations customer representative for DECM Engineering Service Requests
- Ensures the state of good repair and configuration management of critical transportation control systems (SCADA, CCTV, emergency phones, Building Management, PA/VMS, etc.)

Transit Expansion:

- Focuses on the agency needs for operations in project development for Link Light Rail, Sounder Commuter Rail, and Bus Rapid Transit
- Coordinates with design reviewers and agency subject matter experts as projects progress through project development, construction, and into revenue service, ensuring consistency across corridors, and a mutual understanding of potential system-wide impacts

Public Safety



ST Police (KCSO):

- Enhancement to local jurisdiction
- Deployed throughout both systems
- Detectives, plainclothes and patrol deputies
- Current staffing 65 FTEs

Emergency Management:

- Planning, training, drills, and workshops
- Tabletop and full scale exercises
- After Action Reports / Improvement Plans

Transit System Security:

- Review plans/design for future facilities
- CPTED and operational perspective
- Site inspections for future and existing facilities

Security / Fare Enforcement

- Transit Security Unit
- Fare Enforcement Unit
- Security Operations Center

Training:

- Manage and provide training as needed across the division, department and agency

Transportation and Maintenance



Commuter Rail, Bus, and
Paratransit



DED Transportation &
Maintenance

Tacoma Link

Link Rail Operations



Business Model - Link

- King County Metro
 - Light rail operations and supervision
 - LRV maintenance
 - ROW/SCADA/Signals and Facilities maintenance
- ST Retained scope
 - Policy and service plan
 - Oversight of daily operations
 - Risk/insurance
 - Spare parts
 - Security
 - Fare enforcement
- New IGA July 2019 – December 2024



62 Kinkisharyo
152 Siemens (on order)

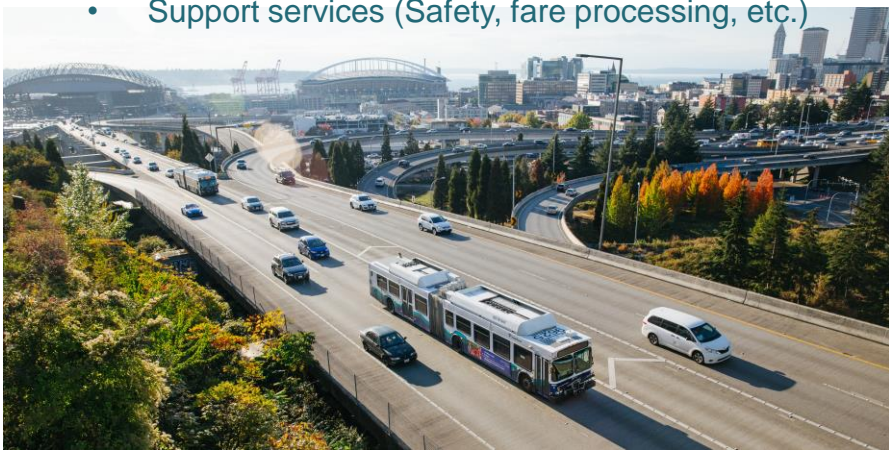


Fun Facts!

- Gets you out of traffic: UW to Westlake in **6** minutes
- Every **6** minutes in peak hour
- **76,000** average weekday boardings

Business Model – ST Express

- Since 1999
- Non-competitively procured service agreements:
 - King County Metro
 - Pierce Transit
 - Community Transit
- ST provides fleet, service plan
- Partners provide:
 - Operations and Maintenance
 - Supervision
 - Maintenance Base
 - Support services (Safety, fare processing, etc.)



2018 Platform Hours

Community Transit	151,000
King County Metro	305,000
Pierce Transit	344,000

Fleet – 307 total buses

40' Diesel/CNG/Hybrid	82
60' Diesel/Hybrid	137
45' MCI Over-the-road	51
42' Double Deck Coaches	37

Fun Facts!

- **28** routes
- **63,000** average weekday boardings

Pros and Cons of Current Model

Pros:

- + Partners follow FTA requirements
- + Institutional knowledge of business
- + Focus on quality of service, not profit
- + Handle day to day issues
- + Did not have to initially build a base

Cons:

- Limited control of brand
- Limited involvement in decision-making
- Constraints on fleet choice
- Partner needs come first
- No liquidated damages
- Long-term planning
- Less predictability in costs
- No seat at table in labor negotiations
- High costs

Business Model - Sounder

- BNSF:
 - Ownership of ROW from Everett to Tacoma
 - Train Crews
 - Centralized Dispatch from Texas

- Amtrak:
 - Fleet Maintenance
 - Layover Service, Storage
 - Spare Parts
 - Fueling

- Sound Transit:
 - Ownership of ROW from Tacoma to Nisqually
 - Security and fare enforcement
 - Facilities Maintenance
 - Contracted ROW Inspection & Maintenance
 - Layover tracks in Lakewood
 - Future: Maintenance Facility

Fleet

Locomotives	14
CEM Cab Cars	9
Cab Cars	18
Coaches	40



Fun Facts!

- Service from Lakewood and Everett to Seattle
- Primarily during commute hours
- Special sports game-day trains
- Served over **18,000** daily riders in 2018

Business Model – Tacoma Link

- Only mode directly operated by Sound Transit
- 22 full-time staff
- Facilities maintenance
- Security (no fare enforcement)

Expansion in 2021

- 5 additional vehicles (Brookville Equipment Corp – PA)
- 2.4 additional miles
- 7 new stations in the median
- Expanded maintenance facility

Fun Facts!

- **2.7** miles of mixed ROW
- **6** stations
- **3** Skoda vehicles
- Served over **898k** riders in 2018

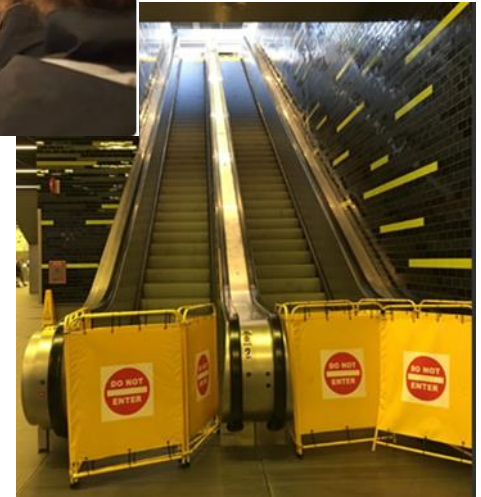


Challenges

- Challenges that come with success
 - Crowded trains and buses
 - Bikes
 - Special events
- Downtown tunnel transfer from King County to ST
- Maintenance challenges
 - Elevators and escalators
 - Strain on fleet maintenance due to more cars in service
 - Unique system features—power and the downtown tunnel
- For buses, increased congestion leading to longer running times, degrading service quality and eroding schedule recovery time – ST Express speeds slowed by 10% in last 6 years
- Tension between daily operations and taking part in future growth
- Operations participation in project delivery / “the Triangle”



@SoundTransit any chance of more cars online during morning commute? Crowded from Othello station to Westlake.



Downtown Tunnel

The downtown tunnel is a 1.3 mile-long pair of tunnels for public transit that run north and south under 3rd Avenue through Downtown Seattle.

- It was used only by buses from its opening in 1990 until 2005, and since 2009 was shared by buses and light rail
- It was one of two tunnels in the United States shared by buses and trains (other is Mount Washington Transit Tunnel in Pittsburgh)
- Tunnel became rail-only in March 2019; ST Public Safety took over in the tunnel
- Tunnel transfer and maintenance agreements with King County currently being negotiated



