

Sound Transit Architecture Standards

Seattle Design Commission

1/16/20

What we'll cover today...

- ***Introduction to Sound Transit***
- ***Link Design Standards***
- ***Sample Link Station Designs***

Julie Montgomery, AIA

Director of Architecture and Art

- With Sound Transit for over 4 years
- Previously with The Portico Group, Miller Hull, Cutler Anderson Architecture, SERA Architects, and my own firm
- Mostly native Seattleite
- Degrees in architecture from UW & UO plus one in music from Evergreen
- Versatile architect who values great design in service to the owner's goals

ST Architecture and Art Group

With ST3 the team has grown to

- 4 Principal Architects
- 5 Architects
- 6 Public Art Team
 - Barbara Luecke
- 2 Capital Signage Team
 - Candace Toth



Design and Engineering Division

Groups in ST Design and Engineering include

- Architecture and Art
- Civil and Structural Engineering
- Systems Integration Engineering
- Engineering Standards Management



Sound Transit

- Provide regional transit to King, Pierce and Snohomish Counties
- Our Mission: Connecting more people to more places to make life better and create equitable opportunities for all.



Link light rail

- Gets you out of traffic: UW to Westlake in 6 minutes
- Every six minutes in peak hour
- 76,000 average weekday boardings in 2018

Link is a people mover

1 light rail train (4 train cars)



10 buses



500 cars





Sounder trains

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



ST Express regional bus

- 28 routes
- 63,000 average weekday boardings in 2018



Bus Rapid Transit - Stride

- Opening 2023 along I-405 and SR 522
- Online



Current service

Link light rail

- University of Washington, Capitol Hill, Downtown Seattle, Sea-Tac Airport, Angle Lake
- Tacoma Dome to Theater District

Sounder rail

- Everett to Seattle
- Lakewood/Tacoma to Seattle

ST Express bus

- 28 regional bus routes



2041

Serving a region of over 3.8 million people

Link Light Rail

- 116-mile regional system with 50 stations.
- Connecting Bellevue, Redmond, Kirkland, Issaquah, Tacoma, Everett, Ballard and West Seattle.

Tacoma Link extensions to Hilltop and TCC

- 12 new stations.

Sounder commuter rail

- 91 miles of commuter rail.
- Expansion of service, 40% capacity increase.
- Parking and access improvements.
- Platform extensions.

Bus

- Bus Rapid Transit serving 12 cities.
- Bus-on-Shoulder opportunities.

***Sound Transit
Current Design Standards***

Sound Transit Values

COLLABORATION

CUSTOMER FOCUS

INCLUSION & RESPECT

SAFETY

INTEGRITY

QUALITY

Design Standards Supporting ST Values

Greater focus on consistency and efficiency in

- Customer experience
- Maintenance and Operations practices
- Materials and equipment
- Work by design consultants
- Construction
















Primary Standards Documents

Documents include

- Design Criteria Manual (2018)
- Directive and Standard Drawings (2019)
- Standard and Guidance Specifications (2018)
- Available at <https://www.soundtransit.org/get-to-know-us/doing-business-with-us/design-standards>
- Minor updates issued as needed
- Regular revisions issued every 2-3 years

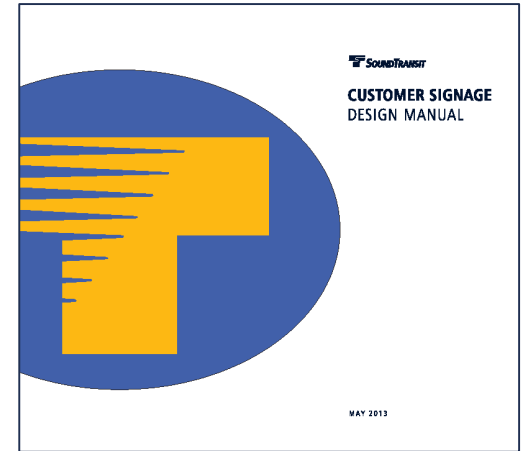
Additional Standards Documents

Standard Specifications

-  05 05 13 Shop Applied Coatings.doc
-  07 19 10 Water and Graffiti Repellents.docx
-  07 92 00 Joint Sealants.doc
-  08 11 13 Hollow Metal Doors and Frames.doc
-  08 71 00 Door Hardware.docx
-  09 21 16 Gypsum Board Assemblies.doc
-  09 96 00 High-Performance Coatings.docx
-  10 14 00 Signage .doc
-  10 81 13 Bird Control Devices.doc
-  11 24 29 Facility Fall Protection.doc
-  12 10 00 Art Coordination 2017-10-17.doc
-  14 21 00 Electric Traction Elevators.doc
-  14 24 00 Hydraulic Elevators.docx
-  14 31 00 Escalators .doc
-  32 90 00 Planting.docx

Customer Signage Manual

- Update this year to remove Regional T, add Tacoma Link and Sounder Signage



Standards Development

When developing and updating standards we...

- Collect lessons learned from capital projects and operations
- Coordinate with ST groups in customer experience, maintenance, security, safety
- Consider jurisdictional requirements



Priorities in Station Design

Focus on

- Safety and encouraging good behaviors
- Weather protection
- Lasting and maintainable buildings
- More consistency while providing neighborhood expression
- Providing human scale and interest
- Simple and intuitive pedestrian flow
- Responsible use of public funds



Design Criteria Manual Version 5

Key updates

- Vertical circulation criteria
- Canopy coverage criteria simplified and standardized by station type
- Bicycle parking requirement
- Added bird control requirements
- Miscellaneous clarifications
- Sustainability requirements updated

Public Stairs

Updated standards include

- If a station has escalators, it will also have public stairs

Public stairs at future stations

- U District Station had stairs added
- All Northgate, East Link and future stations conform to this standard
- Note: emergency egress stairs always provided per code



Escalators

Updated standards include

- Heavy duty escalators
- Upgraded durability of critical components including step chains, motors, comb plates and drive machinery
- Increased loading capacity
- Remote controllers allowing some maintenance activities without shutting down escalator
- Sleep mode to reduce energy consumption and limit wear on equipment

Elevators

Updated standards include

- Redundancy - Where one elevator is provided, a second elevator or alternate accessible path must be provided at all future Link stations
- Heavy duty loading capacity to accommodate wider range of mobility devices



Design Criteria for Sustainability

For Capitol Projects

- Envision pilots on two Link Extensions
- LEED Silver required for facilities & stations with conditioned space
- Piloting LEED for Transit



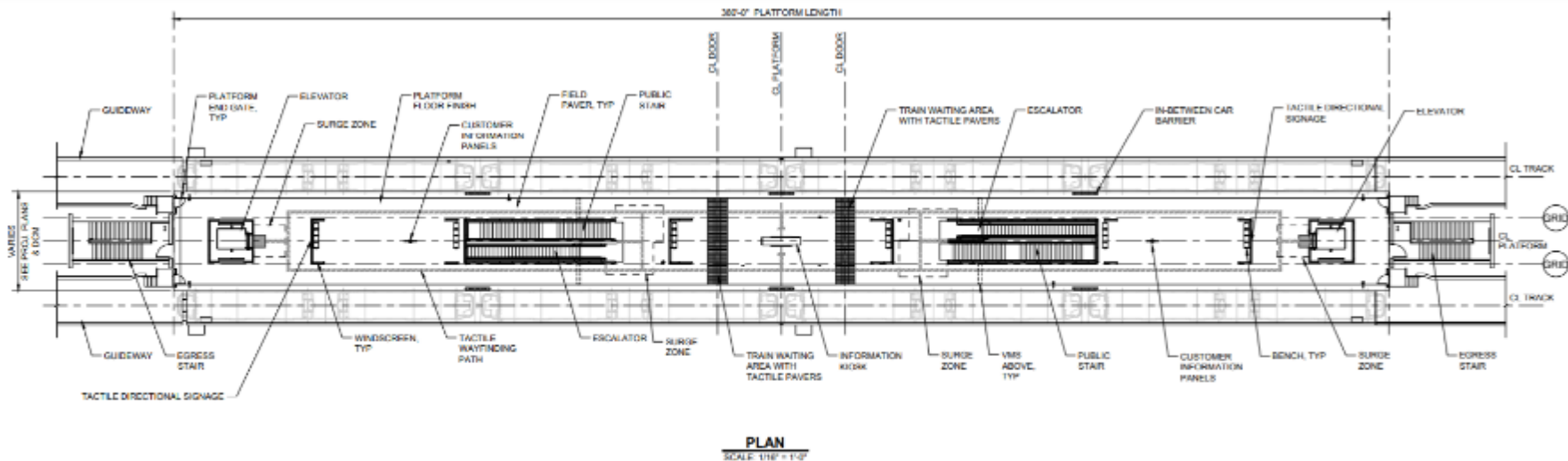
New Architectural Guidance Drawings

Goals of the Directive and Standard Drawings

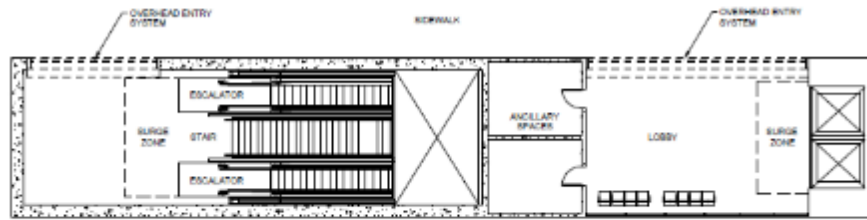
- Directive drawings intended to be starting point for design while allowing flexibility for topography, adjacent buildings, roads, etc
- Creating consistency between station layouts



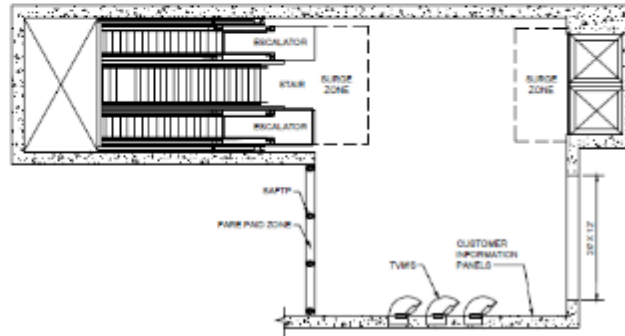
Directive Drawing – Center Platform



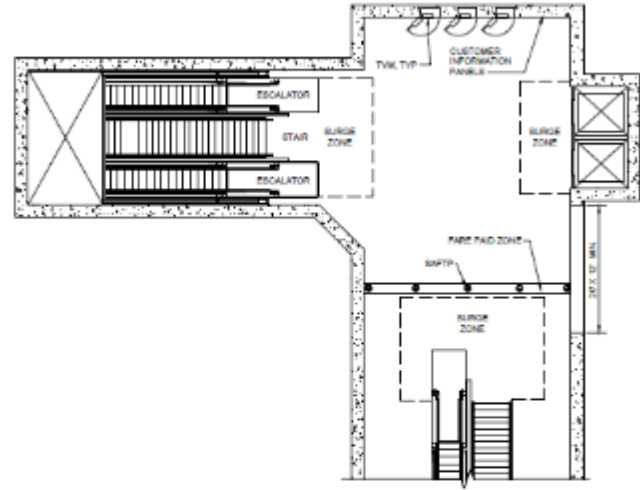
Directive Drawing – Station Entry



SURFACE LEVEL
SCALE 1/8" = 1'-0"



MEZZANINE LEVEL - TYPE 1
SCALE 1/8" = 1'-0"



MEZZANINE LEVEL - TYPE 2
SCALE 1/8" = 1'-0"

STart Program

For station and neighborhood expression

- Fundamental for helping communities express what they are and want to be
- Recent Link Extension projects have included early research and engagement through STart
- Art locations selected to enhance customer experience and assist in wayfinding



Project Stakeholder Engagement

- Many workshops with stakeholders and community
- City staff and elected officials
- WSDOT staff
- King County Metro staff
- Sound Transit staff and consultant team
- Community members
- Advocacy groups

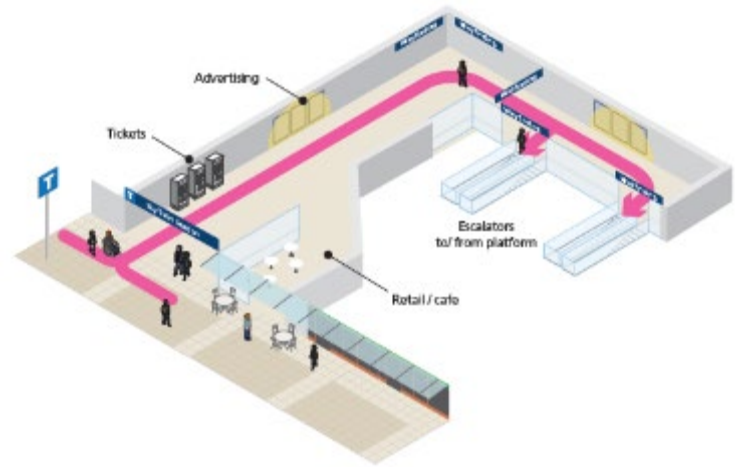


Sound Transit
Upcoming Design Standards

Future design standards document

Link Design Guidelines Document

- New ST Document
- Readable, illustrated information on Link design
- Audience: ST departments, Consultants & Stakeholders
- Provides design guidance beyond the specific details in DCM
- Identify system-wide elements of continuity & differentiation
- Develop architectural language for system buildout



Elements of Continuity

For consistency of operations, maintenance and customer experience

- Platform canopy design consistent per alignment
- Ticketing areas and information kiosks
- Stairs, elevators, escalators
- Flooring materials
- Windscreen protection and glazing sizes
- Customer signage
- Standard colors for painted steel
- Benches

Elements of Differentiation

For station and neighborhood expression

- Public art
- Entry plaza
- Accent color
- Selected solid wall materials

Connecting to stations



Link Station Designs

East Link – South Bellevue Station

- 12 stations
- All stations in Bellevue and Redmond have same canopy at platform with variations for center versus side platform



Federal Way Link - Kent/Des Moines

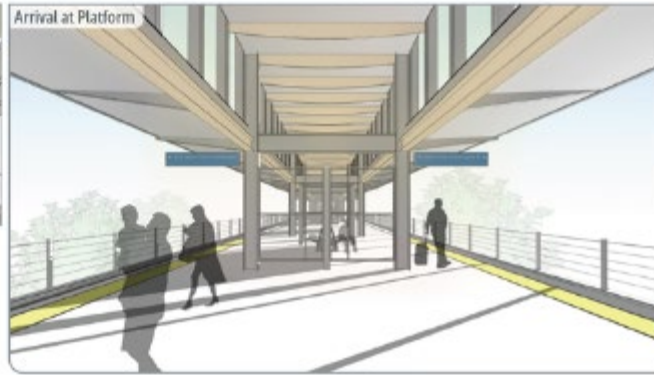
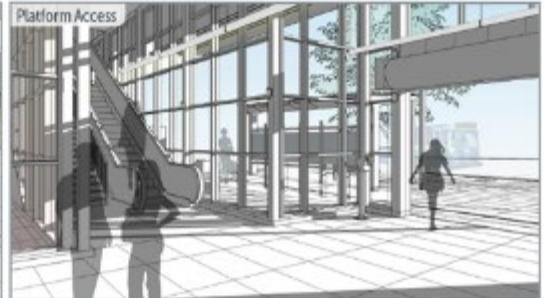


Figure 12: The balanced circulation in the aerial stations is easy to navigate and focuses on providing an intuitive user experience.

Lynnwood Link - Lynnwood City Center



Lynnwood Link - Lynnwood City Center



Thank you.

Thank you.



 soundtransit.org

