

# GUIDE TO STANDARD LIGHT RAIL AND BUS RAPID TRANSIT IMPROVEMENTS IN PUBLIC STREETS



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# Section 1. Introduction

## 1.1 Purpose

The Portland Bureau of Transportation (PBOT), in association with Tri-County Metropolitan Transportation District (TriMet), has developed this *Guide to Standard Light Rail and Bus Rapid Transit Improvements in Public Streets* as the basis for adoption of light rail transit (LRT) and bus rapid transit (BRT) improvements in the public right-of-way of the city of Portland. Improvements will strive to establish the appropriate level of LRT and BRT facilities designed for cost-effective implementation and operation, minimum energy consumption, and minimum disruption of local facilities and communities. Design should be consistent with passenger safety, system reliability, service comfort, mode of operation, type of LRT and BRT vehicle to be used, and maintenance.

This guide contains key parameters for LRT/BRT improvements in the public right-of-way, including standards that are under the jurisdiction of the PBOT and TriMet. LRT/BRT improvements generally include trackways, stations, and structures.

It is intended that this document provide guidance for those elements that could be considered standard transit elements in the City of Portland's public right-of-way. Other elements that would be proposed by TriMet for use in the right-of-way will be considered non-standard. Those require additional review and evaluation prior to approval of their use.

In September 2022, TriMet opened the FX2-Division route, which is a frequent express service route and represents the first iteration of a BRT project in Portland. TriMet expects to expand FX service to other parts of the region. Approaches, elements, and treatments used in the FX2-Division route project will evolve as forthcoming FX service projects are planned and delivered.

For all future projects within public right-of-way, it is expected that TriMet will continue to work closely with PBOT on the design and installation of all transit-related features. The final approval to add or remove standard or non-standard elements from the public right-of-way remains the authority of the City engineer and will require issuance of permits to TriMet. The acceptance of this catalog of standard versus non-standard transit elements by PBOT does not alter this authority.

The substitution or addition of a new type of feature for one that is currently considered standard (i.e., a new type of bus shelter) will require additional City review and comment to ensure that aesthetic and other issues are addressed. This will also be necessary for use of standard elements in a non-standard manner. Subsequently, this document will be updated to reflect those changes.

Over time elements that were approved by the City as standard or non-standard may no longer be considered as the current best practice. Those elements that have fallen from best practice status will remain in the guide as a historic marker, but its text will be *grayed* in both the matrix and in its specific section. Additionally the photo image will be *washed out*, and include the notation “**No Longer Best Practice**,” so that future users of the guide will understand that its not to be replicated in future projects.

All transit facilities that are within a “D” overlay zone (design district), or other special zoning designation, will require an additional level of scrutiny by the City. Use of a previously designated standard element within a D overlay zone shall be reviewed with PBOT and may not require additional comment or input by the Design Commission. However, PBOT will obtain advice and comment from the Design Commission for the consideration of proposed new standard elements in a D overlay zone. Elements within the D overlay zone determined to be “non-standard improvements” would be subject to a formal regulatory design review process.

This guide contains a section of elements used solely on the Portland Transit Mall. Transit elements used in this area, although considered as standard for the Mall, are non-standard elsewhere. Their installation outside of the Mall must be approved by PBOT with the input and advice from the Design Commission. It is

understood that due to the addition of BRT and LRT to the existing Transit Mall, along with the LRT extension south to Portland State University (PSU), certain standard elements were added, modified, or deleted as part of its 2009 revitalization project. This guide has been updated to reflect those changes. There are also non-standard or atypical elements that are Mall-specific that were added to this section (art pieces are an example). In all cases, proposed alterations to Mall elements will go to the Design Commission for feedback or through a regulatory process, as specifically required.

TriMet uses the following design principles as tools to understand how its myriad of components, equipment, ensembles, and materials are coordinated across its regional transit system; **Elements of Consistency versus Elements of Distinction, and Fixed Elements versus Flexible Elements.**

- **Elements of Consistency:** The transit system comprises elements that establish and reinforce its identity and brand. They establish and maintain a consistent level of quality, with being responsive to Operations and Facilities maintenance budgets and thereby help with the management of capital costs. They also greatly contribute to safety and security of patrons, general public, and TriMet operations; e.g., illumination, durability, and clarity of purpose. They also contribute to patron comfort providing good weather protection and clear information. Finally, they greatly contribute to TriMet's Operational imperatives of clear and easy boarding, deboarding, and effective circulation.
- **Elements of Distinction:** These systems, materials, and ensembles emphasize and reinforce where patrons are within the regional system. Elements might be created through TriMet's Art Program. They may respond to urban design plans and programs, and contribute to specific Station Area Planning goals and strategies. They also may be specific strategies that advance sustainability and renewable energy initiatives.
- **Fixed Elements:** These are systems, materials, and ensembles that ensure compliance with regulatory requirements; e.g., building codes, accessibility, operational efficiencies, the transit system identity, and its ongoing maintenance.
- **Flexible Elements:** These are mainly materials, ensembles, and elements that change by degree to meet context-sensitive goals, specific community and neighborhood planning goals, and help the system respond to adjacent transit-oriented developments.

### 1.1.1 How to Use this Guide

The guide is organized into two sections that describe the many elements used in LRT and BRT alignments. Sections 2 to 6 describe the elements for LRT. Sections 7 to 11 describe the elements for BRT. A Section description is provided to introduce the elements (this varies in length and detail as appropriate). An element is considered either a 'Standard' or 'Non-Standard' improvement in the right-of-way as defined above. Also described is where these elements have been used with approval in Design and Historic Overlay Zones. Each element is listed to indicate its current, approved status by PBOT (and Design Review where applicable) within the right-of-way. Updates to these sections will be on an element-by-element basis and will be updated for the various projects that use them.

## 1.2 Standard Environments

### 1.2.1 Urban Core (Central City)

An urban area is a neighborhood of workers, residents, government agencies, and retail and entertainment businesses tightly clustered in a network grid of streets. The urban area neighborhood places great value on sidewalks, shops, and lively streets for pedestrians. Parks and streets are the front yards and gardens for this community and the businesses and residents who want to cultivate the character and dynamism of the Central City.

The key characteristics of quality urban design can also apply to the trackway, guideway, roadway, structures, and stations.

In more concrete terms, the Central City urban environment can be characterized by the following:

- Highest residential and employment densities in the region, as defined by persons per acre;
- A strong mix of uses that are both beside and on top of each other, including employment, services, retail, institutional, attractions, and residential uses;
- Large volumes of pedestrians;
- Buildings that are built close to the street or property edge;
- Property is in a consistent grid pattern;
- Frequent pedestrian access to transit on sidewalks;
- Transit typically shares space with vehicles in the street and in mixed traffic lanes;
- Boarding or deboarding transit riders share sidewalk space with general pedestrians; and
- Transit fixtures and furnishings complement general pedestrian fixtures and furnishings.

Examples of the Central City urban environment include SW Morrison Street, SW First Avenue, NE Holladay Street, and the close-in neighborhoods of Eliot along North Interstate Avenue, and Hosford-Abernathy along SE Division Street.

### 1.2.2 Emerging Urban Area

Areas outside the Central City urban area comprise the second environment. Compared to the urban core, the emerging urban area is less dense, greener, and more oriented to automobile traffic. There is more land area between buildings for green space and parking; distances in the area prohibit walking and transit service. The design guidelines are planned to help these areas emerge into transit-supportive areas. As a consequence, they share many qualities and principles with the urban guidelines.

The emerging urban area environment can be characterized by:

- Open trackway between the emerging urban stations;
- Moderate to low densities, although planning for higher densities around LRT/BRT stations;
- Typically separated land uses, including employment, services, retail, residential, manufacturing, and institutional;
- Low pedestrian volumes and unconnected pedestrian circulation to transit;
- Buildings that are set back from the street, often with landscaped parking in front;
- Vehicular circulation is dominant;
- Buildings that are often built back from the street;
- Bus transit shares space with vehicles in mixed traffic lanes, though queue jump lanes, business access transit (BAT) lanes, and bus-only lanes may be used in certain situations, especially for BRT applications;
- LRT is usually separated from traffic and may run in the median of a larger street or in its own right-of-way;
- Boarding or deboarding transit riders most typically have sidewalk space separate from other pedestrians;
- Transit fixtures and furnishings are minimal for standard bus transit;
- BRT station platforms have an enhanced amenity package with various other improvements that include, but are not limited to, station markers, enhanced lighting, signage and wayfinding, shelters, trash receptacles and seating; and
- LRT stops are more elaborate with information kiosks and pylons, ticket machines, route planners, and electrification support.

Examples of the emerging urban area environment include NE 82nd Avenue and North Expo Road.

### 1.3 LRT Standard Plan References

TriMet's *Light Rail Design Criteria Manual* (March 2017) establishes basic criteria to be used in the design of LRT systems. In addition to this guide, the designer must comply with all other applicable engineering codes and standards, including those of the various federal and state agencies and the City of Portland.

Specific codes and standards include, but are not limited to, the following:

- Americans with Disabilities Act
- U.S. Department of Transportation Final Rule – Transportation for Individuals with Disabilities
- American Association of State Highway and Transportation Officials Standard Specifications for Highway Bridges
- Standard Specifications for Structural Supports for Highways, Signs, Luminaries, and Traffic Signals
- Oregon Department of Transportation (ODOT) Standard Specifications for Highway Construction
- ODOT Standard Plans
- ODOT Highway Design Manual
- ODOT Hydraulics Manual – Publication 79-3
- ODOT Manual of Instructions, Division 3: Design
- International Building Code
- City of Portland Standard Construction Specifications
- City of Portland Design Guidelines for Public Street Improvements
- City of Portland Municipal Code
- American Railway Engineering and Maintenance-of-Way Association (AREMA) *Manual for Railway Engineering*
- AREMA *Portfolio of Trackwork Plans*
- American Public Transit Association *Guidelines for Design of Rapid Transit Facilities*
- American Standard for Nursery Stock ANSI 260.1, 1973 or later, as adopted by the American Association of Nurserymen, Inc.
- Transit Planting Manual, UMTA Report No. VA-06-0006-73-1
- National Fire Protection Association, Publication 130

### 1.4 BRT Standard Plan References

Codes and standards for BRT design are typically tied to the authority having jurisdiction over the right-of-way where BRT is planned and are identical to those associated with design and construction of LRT in public right-of-way listed above, less those related to rail design. However, local codes and standards are typically silent to BRT design practice. To fill this gap, a number of guidance documents has been developed by various organizations. These documents provide valuable information on best practices, design guidelines, and performance standards for BRT systems.

Below are examples of BRT guidance documents:

- City of Portland
  - Portland Pedestrian Design Guide 1998
  - Portland Pedestrian Design Guide *Draft* (2022)
- TriMet
  - TriMet Design Criteria
  - Signage Graphic Standards and Station Amenities
  - Safety & Security Certification Checklists
  - Guide to Standard Light Rail Transit Improvements in Public Streets
- American Public Transportation Association Bus Transit System Standards:
  - APTA-BTS-BRT-RP-001-10 – BRT Branding, Imaging, and Marketing
  - APTA-BTS-BRT-RP-002-10 – Bus Rapid Transit Stations
  - APTA-BTS-BRT-RP-003-10 – Designing Bus Rapid Transit Running Ways



- APTA-BTS-BRT-RP-004-10 – Bus Rapid Transit Service Design and Operations
- APTA-BTS-BRT-RP-005-10 – Implementing BRT Intelligent Transportation Systems
- Institute for Transportation and Development Policy (ITDP) BRT Standard
- National Association of City Transportation Officials (NACTO) Transit Street Design Guide
- National Bus Rapid Transit Institute (NBRTI) Design and Operation Guidelines
- Transit Cooperative Research Program:
  - TCRP Research Report 215 – Minutes Matter: A Bus Transit Service Reliability Guidebook
  - TCRP Report 118 – Bus Rapid Transit Practitioner’s Guide
  - TCRP Report 165 – Transit Capacity and Quality of Service Manual
  - TCRP Synthesis 83 – Bus and Rail Transit Preferential Treatments in Mixed Traffic
  - TCRP Synthesis 164 – BRT Current State of Practice

## 1.5 Matrix of Standard versus Non-Standard Elements

### 1.5.1 Light Rail Transit

The LRT matrix (Table 1) itemizes all the elements documented in this guide. It notes when the element was last updated. It identifies where an element has authorization to be used inside or outside a Design overlay zone, and whether the element is to be considered standard or non-standard. Designed elements may only be used within Design Overlay districts in the city with approval by the City’s Department of Transportation, and with advice from the Design Commission (as noted in Section 1.1).

**Table 1. Matrix of LRT Standard versus Non-Standard Elements  
(Used outside or inside Design (D) or Historic (H) Overlay Districts)**

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
<b>Section 2 Trackway</b>						
<b>2.1- Open Tie and Ballast</b>						
2.1-P1	Ballast Configuration of Open Track	X				01/2007
2.1-P2	Retained Track Typical Sections	X				01/2007
2.1-P3	Open Track Rail	X				01/2007
2.1-P4	Open Track Rail at Platform	X		D: Gateway		12/2015
2.1-P5	Open Track Rail at Platform	X		D: Halprin Open Space		02/2017
<b>2.2- Rail</b>						
2.2-P1	Open Track Rail	X				01/2007
2.2-P2	Paved Track Girder Rail	X		D: Downtown, Lloyd H: Kenton, OTCT, Russell St. Yamhill		01/2007
<b>2.3- Paved Track</b>						
2.3-P1	Paved Track with Belgian Blocks				D: Downtown H: OTCT, Yamhill	01/2007
2.3-P2	Paved Track with Concrete Surface	X		D: Downtown, Lloyd District H: Kenton, Russell St.		01/2007
2.3-P3	Skidmore Station Fountain Area				H: Skidmore	01/2007
2.3-P4	Rail Cross in Open Track	X				01/2007
2.3-P5	Sandset Precast Concrete Pavers	X		D: Lloyd		01/2007
2.3-P6	Paved Trackway		X		D: Downtown	01/2007
2.3-P7	Paved Trackway	X		D: Downtown		2/2017

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
2.3-P8	Paved Trackway	X		D: Downtown		2/2017
<b>2.4- Fixed Trackway</b>						
2.4-P1	Embedded Concrete Tie Track	X				01/2007
2.4-P2	Embedded Concrete Tie Track	X		D: Lents		12/2015
<b>2.5- Warning Strip</b>						
2.5-P1	Warning Domes	X		D: Downtown H: Yamhill		01/2007
2.5-P2	Mountable Curb Along Interstate MAX	X		H: Kenton, Russell St.		01/2007
<b>2.6- Vehicle Crossings</b>						
2.6-P1	Vehicle Pedestrian Grade Crossing in an Urban Environ.				H: Skidmore	01/2007
2.6-P2	Vehicle Crossing in Bus Environ.	X		D: Rose Quarter		01/2007
2.6-P3	Precast Concrete Paved Rail at Vehicle Intersection	X		D: Lloyd		01/2007
2.6-P4	Angled Vehicle Crossing	X		D: Kenton H: Yamhill		01/2007
2.6-P5	Heavy Rail and Vehicle Crossing		X			01/2007
2.6-P6	Multi-Modal Crossing	X		D: Halprin Open Space		2/2017
2.6-P7	Multi-Modal Crossing	X		D: South Waterfront		2/2017
2.6-P8	Multi-Modal Crossing	X				2/2017
2.6-P9	Vehicle Crossing with Bike Lanes	X				2/2017
<b>2.7- Pedestrian Crossing</b>						
2.7-P1	"Z" Crossing	X		D: Kenton		01/2007
2.7-P2	Pedestrian Crossing of Open Track at a Station	X		D: Gateway		01/2007
2.7-P3	Signalized Pedestrian Crossing	X				01/2007
2.7-P4	Pedestrian Crossing to a Center Platform	X		H: Russell St.		01/2007
2.7-P5	Station Area Crosswalk (Outside of Downtown)	X		D: Lloyd H: Kenton, Russell St.		01/2007
2.7-P6	Unsignalized Pedestrian Crossing	X				01/2007
2.7-P7	Typical Ladder Striping		X		D: Kenton H: Kenton, Russell St.	01/2007
2.7-P8	Signalized Pedestrian Crossing	X		D: Gateway		12/2015
2.7-P9	Non-Signalized Pedestrian Crossing to a Center Platform	X		D: Halprin Open Space		2/2017
2.7-P10	Signalized Pedestrian Crossing to a Center Platform	X		D: Halprin Open Space		2/2017
2.7-P11	Signalized Pedestrian Crossing to a Center Platform	X		D: South Waterfront		2/2017
2.7-P12	Signalized Pedestrian and Bike Path Crossing to Center Platform	X				2/2017
2.7-P13	Non-Signalized Z-Crossing at Open Track	X				2/2017
2.7-P14	Non-Signalized Pedestrian Crossing to a Center Platform	X				2/2017
2.7-P15	Station Area Crosswalk	X				2/2017
<b>2.8- Guard Rail</b>						
2.8-P1	Guard Rail	X				01/2007

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
<b>2.9- Pedestrian Control Devices</b>						
2.9-P1	Bollards and Chain				D: Rose Quarter	01/2007
2.9-P2	Trackway Bollard and Chain	X		D: Lloyd H: Kenton		01/2007
2.9-P3	Trackway Bollard and Cable				D: Lloyd	01/2007
2.9-P4	Trackway Pedestrian Control Railing		X		H: Kenton	01/2007
2.9-P5	Ornamental Iron Bollards				H: Skidmore	01/2007
2.9-P6	Bollard and Cable with Illuminated Bollards				D: Lloyd	01/2007
2.9-P7	Railing	X		D: Downtown H: Kenton, Russell St.		01/2007
2.9-P8	Trackway Pedestrian Crossing Warning Signage	X				01/2007
2.9-P9	Street Pedestrian Crossing Warning Signage	X		D: Lloyd H: Kenton, Russell St.		01/2007
2.9-P10	Traffic Bollard	X		D: Lloyd H: Kenton, Russell St.		01/2007
2.9-P11	Bollards and Chain		X		H: Lents	12/2015
2.9-P12	Trackway Pedestrian Control Railing		X		H: Kenton	12/2015
2.9-P13	Railing On Platform	X		D: Downtown H: Russell, Kenton		12/2015
2.9-P14	Trackway Pedestrian Crossing Warning Signage	X		H: Lents		12/2015
2.9-P15	Trackway Pedestrian Control Railing		X		H: Lents	12/2015
2.9-P16	Trackway Pedestrian Control Railing		X		H: Lents	12/2015
2.9-P17	Trackway Pedestrian Control Gates		X		H: Lents	12/2015
2.9-P18	Railing	X		D: Gateway		12/2015
2.9-P19	Pedestrian Safety Mirror		X		D: Gateway	12/2015
2.9-P20	Trackway Pedestrian Control Railing		X		D: Gateway	12/2015
2.9-P21	Trackway Pedestrian Crossing Warning Signage		X		D: Gateway	12/2015
2.9-P22	Trackway Bollards and Chain	X		D: Halprin Open Space		2/2017
2.9-P23	Traffic Bollards	X		D: South Waterfront		2/2017
2.9-P24	Traffic Bollards	X				2/2017
2.9-P25	Traffic Bollards	X		D: Halprin Open Space		2/2017
2.9-P26	Bollards on Platform	X				2/2017
2.9-P27	Bollards	X		D: Halprin Open Space		2/2017
2.9-P28	Railing	X		D: South Waterfront		2/2017
2.9-P29	Railing	X		D: South Waterfront		2/2017

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
2.9-P30	Railing for Bicycle/Transit Separation	X		D: South Waterfront		2/2017
2.9-P31	Railing at Belvedere Location	X		D: South Waterfront		2/2017
2.9-P32	Railing	X		D: South Waterfront		2/2017
2.9-P33	Railing	X		D: South Waterfront		2/2017
2.9-P34	Railing	X				2/2017
2.9-P35	Railing	X				2/2017
2.9-P36	Railing	X				2/2017
2.9-P37	Railing	X				2/2017
2.9-P38	Railing	X				2/2017
2.9-P39	Railing	X				2/2017
2.9-P40	Ornamental Railing	X				2/2017
2.9-P41	Fence	X				2/2017
2.9-P42	Pedestrian Safety Intrusion Device	X		D: Halprin Open Space		2/2017
2.9-P43	Trackway Pedestrian Control Gates	X				2/2017
2.9-P44	Trackway Pedestrian Control Railing	X				2/2017
2.9-P45	Trackway Pedestrian Warning Signage	X				2/2017
2.9-P46	Trackway Pedestrian Warning Signage	X				2/2017
2.9-P47	Pathway Delineation	X				2/2017
2.9-P48	Pathway Delineation	X		D: South Waterfront		2/2017
2.9-P49	Trackway Pedestrian Crossing Warning Signage	X				2/2017
2.9-P50	Pedestrian Delineation at Belvedere	X		D: South Waterfront		2/2017
2.9-P51	Joint Use (Bike & Pedestrian) Delineation across the Tilikum Crossing			D: South Waterfront		2/2017
2.9-P52	Trackway Pedestrian Crossing Warning Signage	X				2/2017
2.9-P53	Trackway Pedestrian Crossing Warning Signage	X		D: Halprin Open Space		2/2017
2.9-P54	Trackway Pedestrian Crossing Warning Signage	X		D: Halprin Open Space		2/2017
<b>2.10- Color Light Signals</b>						
2.10-P1	Color Light Signal	X				01/2007
<b>2.11- Rail Signals</b>						
2.11-P1	Rail Signal on Catenary Pole	X		D: Lloyd H: Kenton, Russell St., OTCT, Skidmore, Yamhill		01/2007
2.11-P2	Rail Signal on Light Pole	X		D: Downtown, Lloyd H: OTCT, Skidmore, Yamhill		01/2007
2.11-P3	Rail Signal With Crossing Gate		X			12/2015
2.11-P4	Rail Signal		X			12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
2.11-P5	Rail Signal	X		D: Halprin Open Space, South Waterfront		2/2017
2.11-P6	Rail Signal on Bridge	X		D: South Waterfront		2/2017
2.11-P7	Rail Signal on Light Pole	X		D: South Waterfront		2/2017
<b>2.12- System Cabinets</b>						
2.12-P1	Off Platform in Trackway Electrical/Systems Cabinet	X				01/2007
2.12-P2	Platform Electrical/T-Signals Cabinet	X		D: Downtown H: Kenton, Russell St., OTCT, Skidmore, Yamhill		01/2007
2.12-P3	Off Platform Electrical/Systems Cabinet	X		D: Downtown, Lloyd H: Kenton, Russell St.		01/2007
2.12-P4	Systems Cabinet	X		D: Downtown, Lloyd H: Kenton, Russell St.		01/2007
2.12-P5	Platform Electrical/T-Signals Cabinet	X		D: Downtown H: Russell St, Kenton		12/2015
2.12-P6	Off Platform in Trackway Electrical/Systems Cabinet		X			12/2015
2.12-P7	Electrical Transformer		X		D: Downtown	12/2015
2.12-P8	Off Platform Electrical/Systems Meter		X		H: Lents	12/2015
2.12-P9	Off Platform Electrical/Systems Cabinet		X		H: Lents	12/2015
2.12-P10	Off Platform Electrical/Systems Cabinet	X				12/2015
2.12-P11	On Platform Electrical/Systems Cabinet	X		D: Halprin Open Space		2/2017
2.12-P12	On Platform Electrical/Systems Cabinet	X				2/2017
2.12-P13	Off Platform Electrical/Systems Cabinet	X		D: Halprin Open Space		2/2017
2.12-P14	Off Platform Electrical/Systems Cabinet	X		D: Halprin Open Space		2/2017
2.12-P15	Off Platform Electrical/Systems Cabinet	X		D: South Waterfront		2/2017
2.12-P16	Off Platform Electrical/Systems Cabinet	X		D: South Waterfront		2/2017
2.12-P17	Off Platform Electrical/Systems Cabinet	X				2/2017
2.12-P18	Off Platform Electrical/Systems Cabinet	X		D: South Waterfront		2/2017
2.12-P19	Off Platform Electrical/Systems Cabinet	X				2/2017
2.12-P20	Off Platform Electrical/Systems Cabinet	X				2/2017
<b>2.13- Catenary Poles</b>						
2.13-P1	H-Section Poles	X				01/2007

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
2.13-P2	Taper Pole Joint-Use Design	X		D: Lloyd H: Kenton, Russell St.		01/2007
2.13-P3	Ornamental Strain Poles				D: Downtown, Lloyd H: OTCT, Skidmore, Yamhill	01/2007
2.13-P4	Catenary Wire Protection Screen	X		D: Downtown, Lloyd H: OTCT, Skidmore		01/2007
2.13-P5	Pedestrian Protection Screen from Catenary Wire	X				01/2007
2.13-P6	Catenary Wire Support on Structure	X		D: Downtown, Lloyd H: OTCT, Skidmore		01/2007
2.13-P7	H-Section Poles	X				12/2015
2.13-P8	Faceted Tapered Pole – Galvanized Finish	X				2/2017
2.13-P9	Faceted Tapered Pole	X				2/2017
2.13-P10	Station Integrated Pole – Painted Finish	X		D: Halprin Open Space		2/2017
2.13-P11	Faceted Tapered Pole – Painted Finish	X		D: Halprin Open Space		2/2017
2.13-P12	Faceted Tapered Pole – Painted Finish	X		D: Halprin Open Space		2/2017
2.13-P13	Joint Use Faceted Tapered Catenary/Light Pole – Galvanized Finish	X		D: South Waterfront		2/2017
2.13-P14	Catenary Poles with Ornamental Lighting	X				2/2017
2.13-P15	Ornamental Strain Pole – Painted Finish	X		D: South Waterfront		2/2017
2.13-P16	Ornamental Strain Pole	X		D: South Waterfront		2/2017
<b>2.14- Light Poles</b>						
2.14-P1	Standard Light Pole	X		D: Downtown, Gateway		01/2007
2.14-P2	Standard Light Pole	X		H: Kenton, Russell St.		01/2007
2.14-P3	Park and Ride Standard Pole	X		D: Gateway		01/2007
2.14-P4	Bridge Standard Pole	X				01/2007
2.14-P5	Ornamental Pole				D: Downtown, Lloyd H: OTCT, Skidmore, Yamhill	01/2007
2.14-P6	Ornamental Pole	X				01/2007
2.14-P7	Park and Ride Ornamental Pole	X				01/2007
2.14-P8	Park and Ride Painted Aluminum Pole	X				01/2007
2.14-P9	Bridge Aluminum Pole	X				01/2007

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
2.14-P10	Joint Catenary/Light Pole				D: Downtown, Lloyd H: OTCT, Skidmore, Yamhill	01/2007
2.14-P11	Joint Catenary/Light Pole		X		H: Lents	12/2015
2.14-P12	Park and Ride Painted Aluminum Pole	X		D: Gateway		12/2015
2.14-P13	Park and Ride Ornamental Pole		X			12/2015
2.14-P14	Standard Light Pole	X				2/2017
2.14-P15	Standard Light Pole	X				2/2017
2.14-P16	Joint Catenary/Light Pole	X		D: South Waterfront		2/2017
2.14-P17	Joint Catenary/Light Pole with Anemometer and Vertical Axis Wind Turbine	X		D: South Waterfront		2/2017
2.14-P18	Joint Catenary/Light Pole	X		D: Halprin Open Space		2/2017
2.14-P19	Joint Catenary/Light Pole	X		D: South Waterfront		2/2017
2.14-P20	Joint Catenary/Light Pole	X		D: South Waterfront		2/2017
2.14-P21	Joint Catenary/Light Pole	X				2/2017
2.14-P22	Light Pole with CCTV Cameras	X		D: Halprin Open Space, South Waterfront		2/2017
2.14-P23	Ornamental Pole		X		D: Halprin Open Space	2/2017
2.14-P24	Ornamental Pole		X		D: Halprin Open Space	2/2017
2.14-P25	Ornamental Pole	X		D: South Waterfront		2/2017
2.14-P26	Ornamental Pole		X			2/2017
2.14-P27	Aluminum Pole	X				2/2017
2.14-P28	Park and Ride Painted Aluminum Pole	X				2/2017
2.14-P29	Park and Ride Painted Aluminum Pole	X				2/2017
2.14-P30	Park and Ride Painted Aluminum Pole					2/2017
<b>2.15- Track Drainage</b>						
2.15-P1	Paved Track Storm Drain	X		D: Downtown, Lloyd H: Kenton, Russell St.		01/2007
2.15-P2	Paved Track Storm Drain	X		D: Downtown, Lloyd H: Kenton, Russell St.		01/2007
2.15-P3	Storm Drain in Belgian Block Paved Pattern				H: OTCT, Skidmore, Yamhill	01/2007
2.15-P4	Rose Quarter Pavers	X		D: Lloyd		01/2007
2.15-P5	Stormwater Bio-filtration	X				01/2007

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
2.15-P6	Paved Track Storm Drain	X		D: Halprin Open Space, South Waterfront		2/2017
2.15-P7	Eco-Track	X		D: Halprin Open Space		2/2017
<b>2.16- Landscaping</b>						
2.16-P1	Trackway Landscaping	X				01/2007
2.16-P2	Trackway Landscaping	X		D: Lloyd		01/2007
2.16-P3	Pocket Park		X		H: Kenton	01/2007
2.16-P4	Trackway Landscaping	X		H: Kenton		01/2007
2.16-P5	Trackway Landscaping	X		H: Kenton		01/2007
2.16-P6	Street Trees	X		D: Lloyd		01/2007
2.16-P7	Street Trees with Pavers	X		D: Lloyd H: Kenton, Russell St.		01/2007
2.16-P8	Trackway Landscaping at Station	X		D: Lloyd		01/2007
2.16-P9	Trackway Landscaping at Street Intersection	X		D: Lloyd		01/2007
2.16-P10	Planters Along Trackway	X		D: Downtown H: OTCT		01/2007
2.16-P11	Trees on the Platform	X		D: Downtown, Lloyd H: Kenton, Russell St.		01/2007
2.16-P12	Urban Tree Well				D: Downtown, Lloyd H: OTCT, Yamhill	01/2007
2.16-P13	Pocket Park		X		H: Lents	12/2015
2.16-P14	Stormwater Bio-filtration		X			12/2015
2.16-P15	Stormwater Bio-filtration At Parking Space		X			12/2015
2.16-P16	Street Tree with Grate	X		D: Halprin Open Space		2/2017
2.16-P17	Street Tree with Large Scale Planters	X				2/2017
2.16-P18	Stormwater Bio-Filtration with Street Trees	X				2/2017
2.16-P19	Stormwater Bio-Filtration with Street Trees Adjacent to Private Property	X		D: Halprin Open Space		2/2017
2.16-P20	Roadway and Sidewalk Adjacent Stormwater Bio-Filtration Inlets	X		D: Halprin Open Space		2/2017
2.16-P21	Sidewalk Adjacent Stormwater Bio-Filtration with Trees	X		D: South Waterfront		2/2017
2.16-P22	Roadway and Sidewalk Adjacent Stormwater and Bio-Filtration Landscaping	X		D: South Waterfront		2/2017
2.16-P23	Station Specific Stormwater and Bio-Filtration Landscaping with Trees	X				2/2017
2.16-P24	Interim Landscaping at Adjacent Private Property	X				2/2017
2.16-P25	Stormwater Bio-Filtration Outfall	X				2/2017
2.16-P26	Large Stormwater Bio-Filtration Pond	X		D: South Waterfront		2/2017



Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
2.16-P27	Large Stormwater Bio-Filtration Filtration Treatment Facility			D: South Waterfront		2/2017
2.16-P28	Station Adjacent Landscaping	X				2/2017
2.16-P29	Station Adjacent Landscaping	X				2/2017
2.16-P30	Integrated Trackway Landscaping	X				2/2017
2.16-P31	Landscape at Systems Facility	X		D: South Waterfront		2/2017
2.16-P32	Landscape Species Diversification	X				2/2017
2.16-P33	Landscape Species Diversification	X				2/2017
2.16-P34	Street Trees with Historic Belgian Block	X				2/2017
2.16-P35	Sidewalk and Trackway Adjacent Landscaping with Belgian Block	X				2/2017
2.16-P36	Landscape as a Buffer	X				2/2017
2.16-P37	Stormwater Bio-Filtration Boulevard Boundary with Temporary Pathway	X		D: Halprin Open Space		2/2017
2.16-P38	Pathway Adjacent Safety Enhancements	X		D: South Waterfront		2/2017
2.16-P39	Pathway Adjacent Safety Enhancements	X		D: South Waterfront		2/2017
2.16-P40	Bike Shelter Adjacent Landscaping with Erosion Control Treatments	X		D: South Waterfront		2/2017
2.16-P41	Pathway Adjacent Landscaping at Systems Building	X				2/2017
2.16-P42	Stormwater Bio-Filtration Outfall	X				2/2017
2.16-P43	Landscape with Climbing Vines at Mechanically Stabilized Earth Retaining Wall	X				2/2017
2.16-P44	Landscape as Habitat	X				2/2017
2.16-P45	Landscape as Habitat	X				2/2017
2.16-P46	Porous Pathway Treatment	X				2/2017
2.16-P47	Access Drive for Maintenance	X				2/2017
<b>Section 3 Stations</b>						
<b>3.1- Design Elements (no images used)</b>						
<b>3.2- Platform</b>						
3.2-P1	Center Platform			'Ensembles' only		01/2007
3.2-P2	Center Platform			'Ensembles' only		01/2007
3.2-P3	Side Platform in Tunnel		X			01/2007
3.2-P4	Side Platform	X		D: Downtown, Gateway, Lloyd H: OTCT, Kenton, Skidmore		01/2007
3.2-P5	Side Platform	X		D: Downtown, Gateway, Lloyd H: OTCT, Kenton, Skidmore		01/2007
3.2-P6	Split Platform	X				01/2007
3.2-P7	Split Platform	X				01/2007
3.2-P8	Wide Platform to Accommodate Commercial Development	X		D: Downtown, Lloyd H: OTCT, Kenton		01/2007
3.2-P9	Wide Platform		X		D: Downtown, Lloyd H: Skidmore	01/2007
3.2-P10	Center Platform	X		D: Halprin Open Space		2/2017

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
3.2-P11	Side Platform, Multimodal Station	X		D: South Waterfront		2/2017
3.2-P12	Grade Separated Platform	X				2/2017
<b>3.3- Platform Elements</b>						
3.3-P1	Tactile Pavers - Synthetic Stone	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill		01/2007
3.3-P2	Polycarbonate Resin Tactile Paver	X		D: Lloyd H: Kenton, Russell St.		01/2007
3.3-P3	Headhouse Design	X		D: Hollywood		01/2007
3.3-P4	Platform Stormwater Drain	X		D: Downtown H: OTCT, Skidmore, Yamhill		01/2007
3.3-P5	Elevator Doors	X		D: Hollywood		01/2007
3.3-P6	Ingress/Egress Stairs	X		D: Hollywood		01/2007
3.3-P7	Junction Box Lid	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.3-P8	Electrical Cabinet	X		D: Downtown, Gateway, Lloyd H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.3-P9	Hydrant Lid	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.3-P10	Precast Concrete Tactile Paver	X		D: Downtown H: OTCT		12/2015
3.3-P11	Junction Box Lid	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore Fountain, Yamhill, Kenton, Russell Street		12/2015
3.3-P12	Surface Mounted Light Fixture		X		H: Lents	12/2015
3.3-P13	Headhouse Design		X		H: Lents	12/2015
3.3-P14	Tactile Paver – Precast Concrete	X		D: Downtown, Halprin Open Space H: Lents		2/2017
3.3-P15	Elevator Doors	X				2/2017
3.3-P16	Ingress/Egress Stairs	X				2/2017

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
<b>3.4- Reader Boards</b>						
3.4-P1	Readerboard	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.4-P2	Flat Screen Readerboard	X		D: Downtown, Lloyd		01/2007
3.4-P3	Historic District Readerboard	X		D: Downtown, Lloyd H: OTCT, Yamhill		01/2007
3.4-P4	Readerboard on a Confined Platform	X		D: Downtown		01/2007
3.4-P5	Interstate MAX Readerboard	X		D: Lloyd H: Kenton, Russell St.		01/2007
3.4-P6	Flat Screen Readerboard	X		H: Lents		12/2015
3.4-P7	Flat Screen Readerboard	X		D: Halprin Open Space, South Waterfront		2/2017
<b>3.5- Station Furnishings</b>						
3.5-P1	Ticket Vending Machine and Validator			D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.5-P2	Platform Handrails	X		D: Lloyd H: Kenton		01/2007
3.5-P3	Trash Receptacle	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.5-P4	Cable and Bollards	X		D: Lloyd		01/2007
3.5-P5	Trash Receptacle with High Security Designation	X		D: Lloyd		01/2007
3.5-P6	Typical Bench on Platform	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.5-P7	Typical Bench – World's Fair Bench on Platform	X		D: Downtown, Lloyd, Hollywood H: OTCT		01/2007
3.5-P8	Custom Bench on Platform		X		D: Downtown	01/2007
3.5-P9	Typical Telephone Cabinet	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
3.5-P10	Typical Telephone Cabinet	X		D: Gateway, Hollywood H: OTCT Skidmore Fountain, Yamhill, Kenton, Russell Street		12/2015
3.5-P11	Trash Receptacle	X		D: Downtown H: OTCT		12/2015
3.5-P12	Ticket Validator	X		D: Downtown, Lloyd, Hollywood, Gateway H: OTCT Skidmore Fountain, Yamhill, Kenton, Russell Street		12/2015
3.5-P13	Typical Bench Bus Shelter	X		D: Downtown, Gateway, Lloyd H: OTCT		12/2015
3.5-P14	Typical Bench off Platform	X		D: Downtown, Gateway, Lloyd H: OTCT, Skidmore Fountain, Yamhill		12/2015
3.5-P15	Trash Receptacle off Platform		X			12/2015
3.5-P16	Fire Hydrant	X		D: Downtown, Lloyd, Hollywood, Gateway H: OTCT Skidmore Fountain, Yamhill, Kenton, Russell Street		12/2015
3.5-P17	Typical Bench – World’s Fair Bench on Platform	X		D: Downtown, Lloyd, Hollywood H: OTCT Skidmore Fountain, Yamhill		12/2015
3.5-P18	Bench on Platform	X		D: Halprin Open Space, South Waterfront		2/2017
3.5-P19	Shelter Integrated Bench on Platform	X				2/2017
3.5-P20	Leaning Rail	X				2/2017
3.5-P21	Leaning Rail for Narrow Platform	X		D: Halprin Open Space, South Waterfront		2/2017
3.5-P22	Ticket Vending Machine and Fare Validator	X		D: Halprin Open Space, South Waterfront		2/2017

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
3.5-P23	Trash Receptacle On Platform	X		D: Halprin Open Space, South Waterfront		2/2017
3.5-P24	Typical Telephone Cabinet	X		D: Halprin Open Space, South Waterfront		2/2017
3.5-P25	Platform Railing	X		D: Halprin Open Space		2/2017
3.5-P26	Platform Railing	X		D: South Waterfront		2/2017
3.5-P27	Platform Railing	X				2/2017
3.5-P28	Platform Railing	X				2/2017
3.5-P29	Platform Railing	X				2/2017
<b>3.6- Transit Customer Information</b>						
3.6-P1	4-Sided Information Pylon	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.6-P2	3-Sided Information Pylon	X				01/2007
3.6-P3	2-Sided Information Pylon	X		D: Lloyd H: Kenton, Russell		01/2007
3.6-P4	Blade Sign	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.6-P5	Station Identification Sign on Shelter	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.6-P6	Underground Station Information Kiosk		X			01/2007
3.6-P7	Visually Impaired Information Board	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.6-P8	Basic Customer Information Display (BCID)	X		D: Downtown, Gateway, Lloyd, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.6-P9	2-Sided Information Pylon	X				12/2015
3.6-P10	Blade Sign	X				12/2015
3.6-P11	Regulatory Signs	X				12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
3.6-P12	Bus Blade Sign	X		D: Downtown, Lloyd, Hollywood, Gateway H: OTCT Kenton, Russell Street		12/2015
3.6-P13	Station Identification Sign on Shelter	X		D: Downtown, Lloyd, Hollywood, Gateway H: OTCT Skidmore Fountain, Yamhill, Kenton, Russell Street		12/2015
3.6-P14	Visually Impaired Information Sign	X		D: Downtown, Lloyd, Hollywood, Gateway H: OTCT, Skidmore Fountain, Yamhill, Kenton, Russell Street		12/2015
3.6-P15	Wayfinding Sign		X		H: Lents	12/2015
3.6-P16	Bus Bay Sign	X		D: Hollywood, Gateway H: OTCT		12/2015
3.6-P17	Station Identification Sign on Shelter	X		D: Halprin Open Space, South Waterfront		2/2017
3.6-P18	Blade Sign on Platform Light Pole	X		D: Halprin Open Space, South Waterfront		2/2017
3.6-P19	Blade Sign	X		D: South Waterfront		2/2017
3.6-P20	Bus Blade Sign	X				2/2017
3.6-P21	Visually Impaired Information Sign	X		D: Halprin Open Space, South Waterfront		2/2017
3.6-P22	Regulatory Sign	X		D: South Waterfront		2/2017
3.6-P23	Two-Sided Regulatory Sign	X		D: Halprin Open Space, South Waterfront		2/2017
3.6-P24	Station Integrated Regulatory Sign	X		D: Halprin Open Space, South Waterfront		2/2017
3.6-P25	Regulatory Sign	X		D: South Waterfront		2/2017
3.6-P26	Information Pylon	X		D: Halprin Open Space, South Waterfront		2/2017
3.6-P27	Commemorative Signage- Plaques		X		D: South Waterfront	2/2017
3.6-P28	Commemorative Signage- Bridge Name		X		D: South Waterfront	2/2017

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
<b>3.7- Bike Lockers</b>						
3.7-P1	Bicycle Locker	X		D: Downtown, Lloyd		01/2007
3.7-P2	“Clam Shell” Bicycle Locker	X		D: Gateway		01/2007
3.7-P3	Bike Locker in High Security Environments	X		D: Lloyd		01/2007
3.7-P4	Interstate MAX Bike Locker	X		D: Lloyd H: Kenton, Russell St.		01/2007
3.7-P5	“Ribbon” Shaped Bike Rack	X		D: Downtown		01/2007
3.7-P6	Bike Rack (also used as newspaper vending machine rack)	X		D: Downtown H: OTCT, Yamhill, Skidmore		01/2007
3.7-P7	Interstate MAX Bike Locker	X		D: Lloyd H: Kenton, Russell St.		12/2015
3.7-P8	“Ribbon” Shaped Bike Rack	X		O: Downtown		12/2015
3.7-P9	Bike Rack	X		D: Downtown H: OTCT, Yamhill, Skidmore		12/2015
3.7-P10	Bike Locker in High Security Environments	X		D: Lloyd		12/2015
3.7-P11	Bike Rack – Powder Coated Steel, Surface Mounted	X		D: Halprin Open Space		2/2017
3.7-P12	Bike Rack – Stainless Steel, Textured Finish. Recessed Mounted	X		D: South Waterfront		2/2017
3.7-P13	Bike Rack Cluster	X		D: South Waterfront		2/2017
3.7-P14	Station Adjacent Bike Rack Cluster	X				2/2017
3.7-P15	Sidewalk Adjacent Bike Rack Cluster, Surface Mounted	X				2/2017
3.7-P16	Bike Shelter	X				2/2017
3.7-P17	Bike Shelter	X		D: South Waterfront		2/2017
3.7-P18	Bike Racks on Grade Separated Platform	X				2/2017
3.7-P19	Bike Rack Cluster on Grade Separated Platform	X				2/2017
3.7-P20	Park and Ride Bike Cluster	X				2/2017
3.7-P21	Park and Ride Bike Shelter	X				2/2017
<b>3.8- Shelters</b>						
3.8-P1	Glass Roof Shelter	X		D: Downtown, Lloyd H: OTCT, Yamhill		01/2007
3.8-P2	Shelter with Wind Screen	X				01/2007
3.8-P3	Shelter with Freestanding Wind Screen	X				01/2007
3.8-P4	Metal Roof Shelter	X		D: Gateway, Hollywood H: Kenton, Russell St.		01/2007
3.8-P5	Wood Shelter	X		D: Lloyd		01/2007
3.8-P6	West-side Shelter with Wind Screen	X		D: Downtown		01/2007

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
3.8-P7	Metal Roof Shelter	X		D: Gateway, Hollywood H: Kenton, Russell		12/2015
3.8-P8	Vending Machine Shelter	X				12/2015
3.8-P9	Shelter with Freestanding Wind Screen	X		D: Lloyd, Kenton, Hollywood		12/2015
3.8-P10	Bus Shelter	X		D: All H: All		12/2015
3.8-P11	Shelter with Wind Screen	X				12/2015
3.8-P12	Glass Roof Shelter	X		D: Gateway		12/2015
3.8-P13	Shelter Lighting	X		D: Downtown, Lloyd, Hollywood, Gateway H: OTCT, Yamhill		12/2015
3.8-P14	Metal Roof Shelter	X		D: Lloyd H: Kenton, Russell		12/2015
3.8-P15	Vending Machine Shelter	X				12/2015
3.8-P16	Bi-Facial Solar Panel Roof Shelter with Wind Screen	X		D: Halprin Open Space, South Waterfront		2/2017
3.8-P17	Bi-Facial Solar Panel Roof Shelter with Freestanding Wind Screen	X				2/2017
3.8-P18	LED Shelter Lighting	X		D: Halprin Open Space, South Waterfront		2/2017
3.8-P19	Bi-Facial Shelter Roof Solar Panel	X		D: Halprin Open Space, South Waterfront		2/2017
3.8-P20	Vending Machine Shelter	X		D: Halprin Open Space		2/2017
<b>3.9- Curb Ramps at Station Platforms</b>						
3.9-P1	Ramp at Platform	X		H: OTCT		01/2007
3.9-P2	Station Ingress Ramp	X		D: Lloyd		01/2007
3.9-P3	Station Ingress Ramp		X			01/2007
3.9-P4	Station Ingress Ramp	X		D: Downtown		01/2007
3.9-P5	Station Ingress Ramp	X		D: Lloyd H: Kenton, Russell St.		01/2007
3.9-P6	Station Ingress Ramp	X		D: Halprin Open Space		2/2017
3.9-P7	Station Ingress Ramp	X		D: South Waterfront		2/2017
3.9-P8	Station Ingress Ramp	X				2/2017
3.9-P9	Station Ingress Ramp	X				2/2017
3.9-P10	Station Ingress Ramp	X				2/2017
3.9-P11	Station Ingress Ramp	X				2/2017
3.9-P12	Station Ingress Ramp	X				2/2017
3.9-P13	Station Ingress Ramp	X				2/2017
<b>3.10- Bus Facilities</b>						
3.10-P1	Bus Transfer Point			'Ensembles' only		01/2007
3.10-P2	Bus Bays at Transit Center			'Ensembles' only		01/2007
3.10-P3	Bus Transfer Station			'Ensembles' only		01/2007
3.10-P4	High Capacity Bus Transfer Point			'Ensembles' only		01/2007
3.10-P5	Bus Transfer along LRT alignment			'Ensembles' only		01/2007
3.10-P6	Multi-Modal Platform	X		D: South Waterfront		2/2017
3.10-P7	Multi-Modal Platform	X				2/2017



Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
<b>3.11- Park and Ride Facilities</b>						
3.11-P1	Park and Ride Lot			'Ensembles' only		01/2007
3.11-P2	Park and Ride Signage	X		D: Gateway		01/2007
3.11-P3	Park and Ride Lot Signage	X		D: Gateway		01/2007
3.11-P4	Parking Garage			'Ensembles' only		01/2007
3.11-P5	"Quick Drop" Drop-off			'Ensembles' only		01/2007
3.11-P6	"Quick Drop" Signage	X		D: Downtown, Lloyd, Gateway H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.11-P7	Surface Park and Ride Lot	X		D: Gateway		12/2015
3.11-P8	Fire Hydrant	X		D: Gateway, Hollywood H: Kenton, Russell St.		12/2015
3.11-P9	Landscaping- bioswales	X				12/2015
3.11-P10	Accessible Parking Space and Symbols	X		D: Gateway		12/2015
3.11-P11	Surface Parking Wheel Stop	X		D: Gateway		12/2015
3.11-P12	Hardy, Drought Tolerant Landscaping	X				12/2015
3.11-P13	Tacoma Park and Ride	X				2/2017
3.11-P14	Park and Ride Lot Signage	X				2/2017
<b>3.12- Alignment Terminus</b>						
3.12-P1	Terminus Point			'Ensembles' only		01/2007
3.12-P2	SW 11th Avenue Turnaround			'Ensembles' only		01/2007
3.12-P3	Bumping Post	X				01/2007
3.12-P4	South Terminus		X	D: Downtown		2/2017
<b>3.13- Standard Materials</b>						
3.13-P1	Brick at Platform	X		D: Downtown, Lloyd H: OTCT		01/2007
3.13-P2	Ceramic Tile Pavers at Platform	X		D: Downtown		01/2007
3.13-P3	Stone as an Art Feature at Platform	X	X	D: Lloyd H: Kenton		01/2007
3.13-P4	Brick and Precast Concrete Pavers at Platform	X		D: Lloyd		01/2007
3.13-P5	Broom Scored Finish Concrete at Platform	X		D: Downtown, Lloyd, Gateway, Hollywood H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		01/2007
3.13-P6	Sandset Precast Concrete Pavers at Platform	X		D: Lloyd H: Kenton, Russell St.		01/2007
3.13-P7	Precast Paver at Platform Boarding Zone		X			12/2015
<b>3.14- CCTV Camera Installations</b>						
3.14-P1	Camera on Platform Light Pole	X				12/2015
3.14-P2	Twin Cameras on Platform Light Pole	X				12/2015
3.14-P3	Single Camera on Park and Ride Light Pole	X				12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
3.14-P4	Twin Cameras on Park and Ride Light Pole	X				12/2015
3.14-P5	Twin Cameras on Park and Ride Light Pole	X				12/2015
3.14-P6	Single Cameras on Adjacent Structure	X				12/2015
3.14-P7	Single Pole Mounted Camera	X		D: Halprin Open Space		2/2017
3.14-P8	Single Pole Mounted Cameras	X		D: Halprin Open Space		2/2017
3.14-P9	Twin Cameras on Light Pole	X		D: Halprin Open Space, South Waterfront		2/2017
3.14-P10	Cameras on Light Pole with Blade Signs	X		D: Halprin Open Space, South Waterfront		2/2017
3.14-P11	Camera on Catenary Pole	X		D: South Waterfront		2/2017
3.14-P12	Camera on Park and Ride Light Pole	X				2/2017
3.14-P13	Headhouse Cameras	X				2/2017
3.14-P14	Headhouse Cameras	X				2/2017
3.14-P15	Headhouse Bike Rack Cameras	X				2/2017
3.14-P16	Camera on Train Signal Bungalow	X				2/2017
<b>3.15- eFare</b>						
3.15-P1	Mast Validator at Threshold	X		D: Hollywood		2/2017
3.15-P2	Mast Validator at Top of Stairs	X				2/2017
3.15-P3	Mast Validator at Elevator Entrance	X				2/2017
3.15-P4	Mast Validator at Plaza Entrance	X				2/2017
3.15-P5	Mast Validators on Sidewalks	X		D: D: Downtown, Lloyd, Gateway H: OTCT, Skidmore, Yamhill, Kenton, Russell St.		2/2017
3.15-P6	Mast Validator at Top or Ramp	X				2/2017
3.15-P7	Mast Validator at Top of Ramp	X		D: Halprin Open Space		2/2017
3.15-P8	Mast Validator on Platform	X		D: South Waterfront		2/2017
3.15-P9	Mast Validator off Platform	X				2/2017
<b>Section 4 Station Area Design Considerations</b>						
<b>4.2- Station Areas</b>						
4.2-P1	Introduction (no image)					
4.2-P2	South Waterfront Station Area	X		D: South Waterfront		2/2017
4.2-P3	South Waterfront/SW Moody Ave. Cycletrack and Pedestrian Crossings	X		D: South Waterfront		2/2017
4.2-P4	South Waterfront/SW Moody Ave. Cycletrack Signals	X		D: South Waterfront		2/2017
4.2-P5	South Waterfront/SW Moody Ave. Cycletrack with Pedestrian Vehicular Crossing	X		D: South Waterfront		2/2017
4.2-P6	South Waterfront/SW Moody Ave. Cycletrack with Pedestrian Access	X		D: South Waterfront		2/2017

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
4.2-P7	South Waterfront/SW Moody Ave. Cycletrack Direction Delineation	X		D: South Waterfront		2/2017
4.2-P8	South Waterfront/SW. Moody Ave. Pedestrian Access and Cycletrack Crosswalk	X		D: South Waterfront		2/2017
4.2-P9	South Waterfront/SW Moody Ave. Cycletrack Fencing	X		D: South Waterfront		2/2017
4.2-P10	Eastbank Esplanade at Tilikum Crossing Mixing Zone	X				2/2017
4.2-P11	Old Water Avenue – Mixed Bicycle and Pedestrian Access	X				2/2017
4.2-P12	Old Water Avenue at Portland Opera	X				2/2017
4.2-P13	SE Clinton Station Area	X				2/2017
4.2-P14	SE Clinton Station Area Bicycle and Pedestrian Access	X				2/2017
4.2-P15	SE Clinton Station Area Bicycle and Pedestrian Access	X				2/2017
4.2-P16	Rhine Station Area – Bicycle and Pedestrian Access	X				2/2017
4.2-P17	Rhine Station Area – Vehicular and Bicycle Traffic Delineation	X				2/2017
4.2-P18	Rhine Station Area Pedestrian Access Structure	X				2/2017
4.2-P19	Bybee Station Headhouse	X				2/2017
4.2-P20	Bybee Station Pedestrian Access	X				2/2017
4.2-P21	Tacoma Station Area – Bicycle/Pedestrian Access to Springwater Corridor	X				2/2017
4.2-P22	Tacoma Station Area – Johnson Creek Wetlands Overlook	X				2/2017
4.2-P23	Tacoma Station Area – Johnson Creek Wetlands Overlook Interpretive Signage	X				2/2017
4.2-P24	Tacoma Station Area – Pedestrian Accessible Pathway	X				2/2017
<b>4.3- Art Program</b>						
4.3-P1	Art Inserted into the Station's Standard Elements		X			01/2007
4.3-P2	Artwork Inserted into Station's Systems Elements		X			01/2007
4.3-P3	Artwork Which Modifies or Enhances the Station Shelter		X			01/2007
4.3-P4	Artwork Which is a Seamless Integration of Art and Design		X			01/2007
4.3-P5	Art as an Architectural Feature		X			01/2007
4.3-P6	Art Feature Incorporated into Paving		X			01/2007
4.3-P7	Functional Art (as bench)		X			01/2007
4.3-P8	Functional Art as an Architectural Feature		X			01/2007
4.3-P9	Functional Art as an Architectural Feature		X			12/2015
4.3-P10	Art as an Architectural Feature		X			12/2015
4.3-P11	Kinetic Art as an Architectural Feature		X			12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
4.3-P12	Kinetic Art as an Urban Design Feature		X			12/2015
4.3-P13	Kinetic Art as a Station Feature		X			12/2015
4.3-P14	Art as an Urban Design Feature		X			12/2015
4.3-P15	Functional Art as an Architectural Feature		X			12/2015
4.3-P16	Art on Station Platform		X		D : South Waterfront	2/2017
4.3-P17	Functional Art as an Architectural Feature		X		D : Halprin Open Space, South Waterfront	2/2017
4.3-P18	Art Inserted into Station's Systems		X		D : Halprin Open Space	2/2017
4.3-P19	Art as an Architectural Station Feature		X			2/2017
4.3-P20	Art as an Architectural Station Feature		X			2/2017
4.3-P21	Art as a Wayfinding Station Feature		X			2/2017
4.3-P22	Art as a Wayfinding Station Feature		X			2/2017
4.3-P23	Art as a Wayfinding Station Feature		X			2/2017
4.3-P24	Public Art on Private Property		X		D : Halprin Open Space	2/2017
4.3-P25	Art Feature Incorporated in Paving		X		D : Halprin Open Space, South Waterfront	2/2017
4.3-P26	Art as a Graffiti Mitigation Strategy		X			2/2017
4.3-P27	Art as a Graffiti Mitigation Strategy		X			2/2017
4.3-P28	Art as a Landscape Element		X			2/2017
4.3-P29	Art Integrated in Structure		X			2/2017
4.3-P30	Art Adjacent to Public Pathway		X		D : South Waterfront	2/2017
4.3-P31	Bridge Lighting as Art		X		D : South Waterfront	2/2017
<b>Section 5. Structures</b>						
<b>5.2- Signal Buildings</b>						
5.2-P1	Signal Building	X		D: Downtown, Gateway, Lloyd		01/2007
5.2-P2	Signal Building- Prefabricated	X		D: Gateway		12/2015
<b>5.3- Signal and Communications Buildings</b>						
5.3-P1	Signal/Communications- Site Built	X		D: Downtown, Lloyd		01/2007
5.3-P2	Signal/Communications- Site Built	X		D: Hollywood		01/2007
5.3-P3	Signal/Communications- Prefabricated	X				12/2015
5.3-P4	Signal/Communications- Site Built	X		D: South Waterfront		2/2017
5.3-P5	Signal/Communications- Site Built	X				2/2017
5.3-P6	Signal/Communications- Site Built	X				2/2017
5.3-P7	Signal/Communications- Site Built	X				2/2017
<b>5.4 Traction Electrification System (TES) Building</b>						
5.4-P1	TES Building- Site Built	X		D: Lloyd H: Russell St.		01/2007
5.4-P2	TES Building- Site Built	X				01/2007
5.4-P3	TES Building- Site Built	X		D: Downtown		01/2007

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
5.4-P4	TES Building- Site Built	X		D: Gateway		01/2007
5.4-P5	PGE Stadium TES- Site Built	X		D: Downtown		01/2007
5.4-P6	Airport TES- Prefabricated	X				01/2007
5.4-P7	Banfield TES- Prefabricated	X				01/2007
5.4-P8	TES Building- Prefabricated	X				12/2015
5.4-P9	TPSS Building – Site Built	X				2/2017
5.4-P10	TPSS Building – Site Built	X				2/2017
<b>5.5- Operator's and Concessions Buildings</b>						
5.5-P1	Operator's Building	X				01/2007
5.5-P2	Concessions Building	X		D: Gateway, Lloyd		01/2007
5.5-P3	Operator's Building	X		D: Gateway, Lloyd		01/2007
5.5-P4	North Terminus Bus Operator's Building	X		D: Downtown		01/2007
5.5-P5	SW 11th Street Turnaround Operator's Building	X		D: Downtown		01/2007
5.5-P6	Bus Operator's Building	X		D: Lents		12/2015
5.5-P7	Operator's Building on Private Property		X	D: Downtown		2/2017
<b>5.6- Retaining Walls</b>						
5.6-P1	Retaining Wall and Art		X		D: Downtown	01/2007
5.6-P2	Mechanically Stabilized Earth (MSE) Concrete Wall	X				01/2007
5.6-P3	Short Retaining Wall	X				01/2007
5.6-P4	Basalt Veneer Wall		X		D: Downtown	01/2007
5.6-P5	Stone Wall	X				01/2007
5.6-P6	"Keystone" Wall	X				01/2007
5.6-P7	Mechanically Stabilized Earth Wall	X				12/2015
5.6-P8	Cast-in-Place Concrete Retaining Wall	X		D: South Waterfront		2/2017
5.6-P9	Systems Building Security Wall	X		D: South Waterfront		2/2017
5.6-P10	Mechanically Stabilized Earth Wall	X		D: South Waterfront		2/2017
5.6-P11	Crash Separation Wall	X				2/2017
5.6-P12	Low Ashlar Pattern Keystone Wall	X				2/2017
5.6-P13	Gabion Basket Retaining Wall	X				2/2017
5.6-P14	Low Ashlar Pattern Keystone Wall	X				2/2017
5.6-P15	Retaining Wall	X		D: South Waterfront		2/2017
<b>5.7- Bridges</b>						
5.7-P1	Banfield MAX Structure- Precast Concrete		X		D: Lloyd	01/2007
5.7-P2	Pedestrian Bridge- Precast and Cast-in-Place		X		D: Hollywood	01/2007
5.7-P3	Vanport Bridge- Precast Concrete Girders with Cast-in-Place Concrete Piers		X			01/2007
5.7-P4	Airport MAX Bridge Over Highway- Prefabricated Steel- Painted		X			01/2007
5.7-P5	Airport MAX Bridge over Highway- Concrete Bridge		X			01/2007
5.7-P6	Airport MAX Bridge Over Highway- Concrete Bridge		X			01/2007
5.7-P7	Green Line- Weathered Steel Bridge		X			12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
5.7-P8	Green Line- Precast Concrete Girders with Cast-in-Place Concrete Piers		X			12/2015
5.7-P9	Harbor Structure		X		D: Halprin Open Space, South Waterfront	2/2017
5.7-P10	Tilikum Crossing		X		D: South Waterfront	2/2017
5.7-P11	Rhine Street Station Pedestrian Access Structure		X			2/2017
5.7-P12	Powell Boulevard Overpass		X			2/2017
5.7-P13	McLaughlin Overpass		X			2/2017
5.7-P14	Tacoma Station Overpass		X			2/2017
<b>5.8- Tunnels</b>						
5.8-P1	Robertson Tunnel			Ensembles' only		01/2007
5.8-P2	Tunnel Near Goose Hollow			Ensembles' only		01/2007
5.8-P3	Open Top Box with Retaining Walls			Ensembles' only		01/2007
<b>5.9- Parking Structures</b>						
5.9-P1	Mixed Use Parking Garage		X		D: Gateway	12/2015
<b>Section 6. Transit Mall</b>						
<b>6.2- Streets</b>						
6.2-P1	Auto Lanes		X		D: Downtown H: OTCT	01/2007
6.2-P2	Curb and Gutter		X		D: Downtown H: OTCT	01/2007
6.2-P3	Rumble Strip		X		D: Downtown	01/2007
6.2-P4	Cobblestone Trackway Paving		X		D: Downtown	01/2007
6.2-P5	Intersection Trackway Paving		X		D: Downtown	01/2007
6.2-P6	Intersection		X		D: Downtown	01/2007
6.2-P7	Crosswalk		X		D: Downtown	01/2007
6.2-P8	Stop Bars		X		D: Downtown	01/2007
6.2-P9	Inlet Grates		X		D: Downtown	01/2007
6.2-P10	Auto Pullouts		X		D: Downtown	01/2007
6.2-P11	Fire truck Turn-around; South Terminus		X		D: Downtown	12/2015
6.2-P12	Utility Lid in Brick Intersection		X		D: Downtown	12/2015
6.2-P13	Crosswalk with Bike Lane		X		D: Downtown	12/2015
6.2-P14	Crosswalk with Trackway Paving		X		D: Downtown	12/2015
6.2-P15	Intersection Trackway Paving		X		D: Downtown	12/2015
6.2-P16	Bus Only Lane- Central Mall		X		D: Downtown	12/2015
6.2-P17	Intersection Trackway Paving		X		D: Downtown	12/2015
6.2-P18	Paved Crosswalk with Diagonal Trackway		X		D: Downtown H: OTCT	12/2015
6.2-P19	Bus Only Lane- North Mall		X		D: Downtown H: OTCT	12/2015
6.2-P20	Storm drain in Paved Travel Lane		X		D: Downtown H: OTCT	12/2015
6.2-P21	Pull Out with Concrete Curb and Gutter		X		D: Downtown	12/2015
6.2-P22	Rumble Strip on Paved Travel Lane		X		D: Downtown H: OTCT	12/2015
6.2-P23	Crosswalk Paved Lane: North Mall		X		D: Downtown H: OTCT	12/2015
6.2-P24	Intersection: North Mall		X		D: Downtown H: OTCT	12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
<b>6.3- Sidewalks</b>						
6.3-P1	Curb Ramps		X		D: Downtown	01/2007
6.3-P2	Sidewalk		X		D: Downtown	01/2007
6.3-P3	Benches		X		D: Downtown	01/2007
6.3-P4	Benches		X		D: Downtown H: OTCT	01/2007
6.3-P5	Trash Receptacles		X		D: Downtown H: OTCT	01/2007
6.3-P6	Street Trees		X		D: Downtown H: OTCT	01/2007
6.3-P7	Street Tree Illumination Electrical Receptacle		X		D: Downtown	01/2007
6.3-P8	Planters		X		D: Downtown H: OTCT	01/2007
6.3-P9	Street Lights and Catenary Supports		X		D: Downtown H: OTCT	01/2007
6.3-P10	Traffic Signals on Side Mounted Pole		X		D: Downtown H: OTCT	01/2007
6.3-P11	Traffic Signal Cabinets		X		D: Downtown H: OTCT	01/2007
6.3-P12	Traffic Signs		X		D: Downtown H: OTCT	01/2007
6.3-P13	Benson Bubblers Drinking Fountains		X		D: Downtown H: OTCT	01/2007
6.3-P14	Bike Rack		X		D: Downtown H: OTCT	01/2007
6.3-P15	Bike Rack		X		D: Downtown H: OTCT	01/2007
6.3-P16	Bike Locker		X		D: Downtown	01/2007
6.3-P17	Newspaper Vending Machine Rack		X		D: Downtown H: OTCT	01/2007
6.3-P18	Newspaper Vending Box	'Private entities not governed by transit standards'				01/2007
6.3-P19	Fire Hydrant		X		D: Downtown H: OTCT	01/2007
6.3-P20	Banner Poles		X		D: Downtown	01/2007
6.3-P21	Bollards		X		D: Downtown	01/2007
6.3-P22	Street Lights and Catenary Supports		X		D: Downtown H: OTCT	12/2015
6.3-P23	Trash Receptacles: Unique TriMet Design		X		D: Downtown H: OTCT	12/2015
6.3-P24	Recycling Receptacles: Unique City of Portland Design		X		D: Downtown H: OTCT	12/2015
6.3-P25	Benson Bubblers Drinking Fountains: South Mall		X		D: Downtown H: OTCT	12/2015
6.3-P26	Planters: New, Central, South Mall		X		D: Downtown H: OTCT	12/2015
6.3-P27	Private Property Planters (extend into ROW)		X		D: Downtown	12/2015
6.3-P28	Bench (Large): Refurbished Original Mall Bench		X		D: Downtown H: OTCT	12/2015
6.3-P29	Bench (Small): Refurbished Original Mall Bench		X		D: Downtown H: OTCT	12/2015
6.3-P30	Bollards: Adapted Re-use of Original Mall Bike Bollard		X		D: Downtown	12/2015
6.3-P31	Bike Rack: Unique Portland Mall Standard		X		D: Downtown H: OTCT	12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
6.3-P32	Bike Rack Cluster: Unique Portland Mall Standard		X		D: Downtown H: OTCT	12/2015
6.3-P33	Bike Rack on Private Property, Adjacent to LRT Station Platform		X		D: Downtown	12/2015
6.3-P34	Bike Shelter		X		D: Downtown H: OTCT	12/2015
6.3-P35	Leaning Rail at Street Tree Well		X		D: Downtown H: OTCT	12/2015
6.3-P36	Leaning Rails at Back of Sidewalk		X		D: Downtown H: OTCT	12/2015
6.3-P37	Traffic Signal Cabinet		X		D: Downtown H: OTCT	12/2015
6.3-P38	Electrical Cabinet with Meter Window		X		D: Downtown H: OTCT	12/2015
6.3-P39	Cast Iron Utility Lid		X		D: Downtown H: OTCT	12/2015
6.3-P40	Cast Iron Utility Lid		X		D: Downtown H: OTCT	12/2015
6.3-P41	Cast Iron Utility Lid(s)		X		D: Downtown H: OTCT	12/2015
6.3-P42	Galvanized, Checker Plate Utility Lid		X		D: Downtown H: OTCT	12/2015
6.3-P43	Curb Ramps: North Mall		X		D: Downtown H: OTCT	12/2015
6.3-P44	Curb Ramps: South Mall		X		D: Downtown	12/2015
6.3-P45	Ornamental Lighting and Screen Wall		X		H: OTCT	12/2015
6.3-P46	Street Lights at North Terminus		X		H: OTCT	12/2015
6.3-P47	Newspaper Vending Box		X		D: Downtown	12/2015
6.3-P48	Wayfinding Kiosk: City of Portland		X		D: Downtown H: OTCT	12/2015
6.3-P49	Public Service Icons (Bill Roberts)		X		D: Downtown	12/2015
6.3-P50	Public Service Icons (Mayor Vera Katz)		X		D: Downtown	12/2015
6.3-P51	Public Service Icons (Salvation Army)		X		D: Downtown	12/2015
6.3-P52	Public Service Icons (Flag Poles)		X		D: Downtown	12/2015
6.3-P53	Tree Well with Cast Iron Grate		X		D: Downtown H: OTCT	12/2015
6.3-P54	Sidewalk Integrated Mast Validator	X		D: Downtown H: OTCT		2/2017
6.3-P55	Sidewalk Integrated Mast Validator	X		D: Downtown H: OTCT		2/2017
<b>6.4- Bus Amenities</b>						
6.4-P1	Bus Shelter		X		D: Downtown H: OTCT	01/2007
6.4-P2	Blade Signs		X		D: Downtown H: OTCT	01/2007
6.4-P3	Customer Information		X		D: Downtown H: OTCT	01/2007
6.4-P4	Bus Shelter, Type 1B Seating as Support for Straight and Curved Windscreen		X		D: Downtown H: OTCT	12/2015
6.4-P5	Bus Shelter, Type 2B Seating as Support for Straight Windscreen		X		D: Downtown H: OTCT	12/2015



Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
6.4-P6	Bus Shelter, Type 3B, Seating as Windscreen Support		X		D: Downtown H: OTCT	12/2015
6.4-P7	Bus Shelter, Type 3BS, Seating as Windscreen Support, on Side Street		X		D: Downtown H: OTCT	12/2015
6.4-P8	Bus Shelter, Type 4B, Seating as Windscreen Support, on Side Street		X		D: Downtown	12/2015
6.4-P9	Bus Shelter, on Side Street		X		D: Downtown	12/2015
6.4-P10	SW Salmon High Capacity Bus Shelter		X		D: Downtown	12/2015
6.4-P11	Adaptive Reuse of Original Mall Shelter (Coffee Shop)		X		D: Downtown	12/2015
6.4-P12	Transit Information Display Monitor		X		D: Downtown H: OTCT	12/2015
6.4-P13	Cane Detectable Guard Rail		X		D: Downtown H: OTCT	12/2015
6.4-P14	Blade Sign		X		D: Downtown H: OTCT	12/2015
6.4-P15	Blade Sign, Customer Information		X		D: Downtown H: OTCT	12/2015
6.4-P16	Blade Signs		X		D: Downtown H: OTCT	12/2015
6.4-P17	Bus Group Sign		X		D: Downtown H: OTCT	12/2015
6.4-P18	Bus Blade Sign with Jump Seat		X		D: Downtown H: OTCT	12/2015
6.4-P19	Bus Operators Break Building		X		H: OTCT	12/2015
<b>6.5- Rail Amenities</b>						
6.5-P1	Light Rail Transit Shelters		X		D: Downtown	01/2007
6.5-P2	Platform Paving		X		D: Downtown	01/2007
6.5-P3	Platform Paving Detail		X		D: Downtown	01/2007
6.5-P4	Tactile Warning		X		D: Downtown	01/2007
6.5-P5	Trench Drain		X		D: Downtown	01/2007
6.5-P6	Trash Receptacle		X		D: Downtown	01/2007
6.5-P7	Light Rail Transit Signage		X		D: Downtown	01/2007
6.5-P8	Real Time Information Display		X		D: Downtown	01/2007
6.5-P9	System's Cabinets		X		D: Downtown	01/2007
6.5-P10	LRT Shelters, Type 2L		X		D: Downtown H: OTCT	12/2015
6.5-P11	LRT Shelters, Adaptive Reuse of PSU Bus Shelter		X		D: Downtown	12/2015
6.5-P12	Building Overhang/Canopy as Transit Shelter		X		D: Downtown	12/2015
6.5-P13	Blade Signs, Customer Information		X		D: Downtown H: OTCT	12/2015
6.5-P14	Public Telephone Kiosk		X		D: Downtown H: OTCT	12/2015
6.5-P15	Seating, Freestanding		X		D: Downtown H: OTCT	12/2015
6.5-P16	Bench Seating		X		D: Downtown	12/2015
6.5-P17	Waste Receptacle		X		D: Downtown H: OTCT	12/2015
6.5-P18	Real Time Information Display Monitor, and Ticket Vending Machine		X		D: Downtown H: OTCT	12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
6.5-P19	Real Time Information Display Monitor		X		D: Downtown H: OTCT	12/2015
6.5-P20	Real Time Information Display Monitor, Freestanding with Guard Rail and Ticket Validator		X		D: Downtown	12/2015
6.5-P21	Ticket Vending Machine and Ticket Validator		X		D: Downtown	12/2015
6.5-P22	Trench Drain in Sidewalk		X		D: Downtown H: OTCT	12/2015
6.5-P23	Utility Vault Lid in Platform		X		D: Downtown H: OTCT	12/2015
6.5-P24	Communications Cabinet		X		D: Downtown H: OTCT	12/2015
6.5-P25	Electrical Cabinet		X		D: Downtown H: OTCT	12/2015
6.5-P26	Street Lighting Cabinet		X		D: Downtown H: OTCT	12/2015
6.5-P27	Train Signals on Mast Pole		X		D: Downtown H: OTCT	12/2015
6.5-P28	Train Signals on Traffic Signal Pole		X		D: Downtown H: OTCT	12/2015
6.5-P29	Train Signals on Stand Alone Pole		X		D: Downtown H: OTCT	12/2015
6.5-P30	Cross over Double Track		X		H: OTCT	12/2015
6.5-P31	Overhead Catenary Supports		X		D: Downtown H: OTCT	12/2015
6.5-P32	Overhead Catenary Supports on Joint Use Ornamental Pole		X		D: Downtown H: OTCT	12/2015
6.5-P33	Overhead Catenary on Stand Alone Pole		X		H: OTCT	12/2015
6.5-P34	Overhead Catenary Supported by Building		X		D: Downtown H: OTCT	12/2015
6.5-P35	Adaptive Reuse of Historic Building for Signal and Communications Rooms		X		H: OTCT	12/2015
6.5-P26	Mast Validator		X		D: Downtown	02/2017
<b>6.6- Art Program</b>						
6.6-P1	Art in Bioswale- South Mall		X		D: Downtown	12/2015
6.6-P2	Art as Pedestrian Safety Element- South Mall		X		D: Downtown	12/2015
6.6-P3	Art Sculpture from Recycled Mall Fountain Stone- South Mall		X		D: Downtown	12/2015
6.6-P4	Art as Functional Bench- South Mall		X		D: Downtown	12/2015
6.6-P5	Public Art on Private Property- South Mall		X		D: Downtown	12/2015
6.6-P6	Original Mall Art, Re-sited from ROW to Private Property- Central Mall		X		D: Downtown	12/2015
6.6-P7	Original Mall Art, Re-sited from Pioneer Courthouse Square- Central Mall		X		D: Downtown	12/2015
6.6-P8	Art Sculpture Embedded in Streetscape- Central Mall		X		D: Downtown	12/2015

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
6.6-P9	Art Sculpture, Pedestal Mounted, Adjacent to Building Entrance- Central Mall		X		D: Downtown	12/2015
6.6-P10	Private Art Sculpture, Sited in Public ROW- Central Mall		X		D: Downtown	12/2015
6.6-P11	Original Mall Art, Re-sited on Wide Streetscape Adjacent to New Mall Bus Shelter- Central Mall		X		D: Downtown	12/2015
6.6-P12	Art Sculpture, Pedestal Mounted, Adjacent to New Mall Bus Shelter- Central Mall		X		D: Downtown	12/2015
6.6-P13	Original Mall Art on Fountain (original siting)		X		D: Downtown	12/2015
6.6-P14	Original Mall Art, Re-sited on Wide Streetscape Adjacent to New Mall Bus Shelter- Central Mall		X		D: Downtown	12/2015
6.6-P15	Art Sculpture, Pedestal Mounted, Adjacent to New Mall Bus Shelter- Central Mall		X		D: Downtown	12/2015
6.6-P16	Art as Functional Railings- Central Mall		X		D: Downtown	12/2015
6.6-P17	Original Art Sculpture (original siting)- Central Mall		X		D: Downtown	12/2015
6.6-P18	Art Sculpture, Pedestal Mounted, on Public Streetscape- Central Mall		X		D: Downtown	12/2015
6.6-P19	Art Sculpture Grouping on Wide Streetscape- Central Mall		X		D: Downtown	12/2015
6.6-P20	Art Sculpture, Pedestal Mounted at Light Rail Platform- North Mall		X		H: OTCT	12/2015
6.6-P21	Art as Interpretive Signage along Public Streetscape- North Mall		X		H: OTCT	12/2015
6.6-P22	Original Mall Art, Re-sited on Wide Streetscape Adjacent to New Mall Bus Shelter - North Mall		X		H: OTCT	12/2015
6.6-P23	Art Sculptures, As Wayfinding Elements - North Mall		X		H: OTCT	12/2015
6.6-P24	Art Sculptures, As Wayfinding Elements - North Mall		X		H: OTCT	12/2015
6.6-P25	Art Sculptures, As Wayfinding Elements - North Mall		X		H: OTCT	12/2015

## 1.5.2 Bus Rapid Transit

The BRT matrix (Table 2) itemizes all the elements documented in this guide. It identifies where an element has authorization to be used inside or outside a Design Overlay Zone, and whether the element is to be considered standard or non-standard. Designed elements may only be used within Design Overlay districts in the City with approval by the City's Department of Transportation, and with advice from the Design Commission (as noted in Section 1.1).

**Table 2. Matrix of BRT Standard versus Non-Standard Elements  
(Used outside or inside Design (D) or Historic (H) Overlay Districts)**

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
<b>Section 7. Bus Rapid Transit Roadway</b>						
<b>7.2- Signals and Priority Treatments</b>						
7.2-P1	Traffic Signal Cabinet			X	Central Eastside Industrial	03/2023
7.2-P1	Pedestrian Activated Signal					03/2023
7.2-P1	Bus Queue Jump					03/2023
7.2-P1	Business Access and Transit Lane	X				03/2023
<b>7.3- Transit-related Infrastructure and Treatments</b>						
7.3-P1	Protected Bike Lane	X				03/2023
7.3-P2	Stormwater Planter	X				03/2023
7.3-P3	Protected Intersection	X				03/2023
7.3-P4	Concrete Bus Pad	X				03/2023
7.3-P5	Bus Berthing Mark			X	Central Eastside Industrial	03/2023
<b>Section 8. Bus Rapid Transit Stations</b>						
<b>8.2- Platform Types</b>						
8.2-P1	Pedestrian Pass-Through Station				D: H: Ladd's Addition	03/2023
8.2-P2	Pedestrian By-Pass Station				D: H: Ladd's Addition	03/2023
8.2-P3	Island Station	X				03/2023
8.2-P4	Shared Bicycle and Pedestrian Platform Station	X				03/2023
8.2-P5	Shared Bicycle and Pedestrian Platform Station (ODOT)	X with exception	X		SE Division at I-205 overpass	03/2023
<b>8.3-Platform Elements</b>						
8.3-P1	24-inch Tactile Paver at Boarding Zone (replaceable cast-in-place)	X				03/2023
8.3-P2	Directional Tile Paver (replaceable cast-in-place)			X	Central Eastside Industrial	03/2023
8.3-P3	Freestanding Tactile Marker			X	Central Eastside Industrial	03/2023
8.3-P4	Tactile Marker Sign			X	Central Eastside Industrial	03/2023

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
8.3-P5	Trash Receptacle			X	Central Eastside Industrial	03/2023
8.3-P6	Station Marker			X	Central Eastside Industrial	03/2023
8.3-P7	Digital Information Display			X	Central Eastside Industrial	03/2023
8.3-P8	Station Electrical and Communications Cabinet			X	Central Eastside Industrial	03/2023
8.3-P9	Station Benches			X	Central Eastside Industrial	03/2023
8.3-P10	Bike Staples	X				03/2023
8.3-P11	Shelter			X	Central Eastside Industrial	03/2023
8.3-P12	Etched Windscreen Glass			X	Central Eastside Industrial	03/2023
8.3-P13	Graphic Interlay Windscreen Glass	X				03/2023
8.3-P14	Freestanding Windscreen	X				03/2023
8.3-P15	Shelter Canopy Glass	X				03/2023
8.3-P16	Platform Handrail	X				03/2023
8.3-P17	Station Railing	X				03/2023
8.3-P18	Station Platform Step	X				03/2023
8.3-P19	Station Platform Ingress/Egress Ramp			X	Central Eastside Industrial	03/2023
8.3-P20	Shared Bicycle Pedestrian Platform Markings and Signage	X				03/2023
8.3-P21	Protected Bicycle Lane and Shared Bicycle and Pedestrian Platform Interface (Tuff Curb)	X				03/2023
8.3-P22	Protected Bicycle Lane and Shared Bicycle and Pedestrian Platform Interface	X				03/2023
8.3-P23	Shared Bicycle Pedestrian Platform Markings (ODOT)	X				03/2023
8.3-P24	Shared Bicycle Pedestrian Platform Blue Tactile (ODOT)	X				03/2023
8.3-P25	Removable Bollards at Island Station	X				03/2023
8.3-P26	Concrete Seating Wall	X				03/2023
8.3-P27	Freestanding Leaning Rail	X				03/2023
8.3-P28	Station Identification Signage (Shelter)			X	Central Eastside Industrial	03/2023
8.3-P29	Station Identification Signage (No Shelter)	X				03/2023
8.3-P30	Transit Mall FX Signage			X	River, Downtown	03/2023
8.3-P31	Standard Bus Stop FX2 Blade Sign			X	River, Downtown	03/2023

Element		Used Outside of Overlay District		Used Inside of Overlay District		Last Updated
		Standard	Non-Standard	Standard	Non-Standard	
8.3-P32	System Map Display (Station Marker)			X	Central Eastside Industrial	03/2023
8.3-P33	Station Shelter Regulatory Signage			X	Central Eastside Industrial	03/2023
8.3-P34	Terminus "Drop-off Only" Signage			X	River	03/2023
8.3-P35	Bricks at Shelter Columns and Station Marker			X	Central Eastside Industrial	03/2023
8.3-P36	Utility Lids in Platform			X	Central Eastside Industrial	03/2023
8.3-P37	CCTV Camera (Shelter)			X	Central Eastside Industrial	03/2023
8.3-P38	CCTV Camera (Station Marker)			X		03/2023
8.3-P39	Station Shelter Lighting			X	Central Eastside Industrial	03/2023
8.3-P40	Station Marker Down Light			X	Central Eastside Industrial	03/2023
8.3-P41	Station Marker Pylon Lighting (Map Case and Branding)					03/2023
7.3-P42	Catch Basin at Shared Bike and Pedestrian Platform					03/2023
<b>Section 9. Bus Rapid Transit Station Area</b>						
<b>9.2- Station Landscaping</b>						
9.2-P1	Station Landscaping					03/2023
<b>9.3- Station Placemaking</b>						
9.3-P1	Station Placemaking					03/2023
<b>Section 10. Bus Rapid Transit and Transit Mall</b>						
<b>10.2- Stations</b>						
10.2-P1	Stations					03/2023
10.2-P2	Transit Signal Priority Bus Signals					03/2023
10.2-P3	Drop-off Only Signage					03/2023
10.2-P4	Station Blade Signage					03/2023

## Section 2. Trackway

### 2.1 – Open Tie and Ballast

**Description:**

No. 4 (3.4" to 1-1/2") ballast conforming to AREA specifications. Main tracks should use concrete cross ties spaced 30 inches from center to center. Switch ties should be concrete or timber of various lengths conforming to the requirements of the turnout used.

**Location:**

Outside of design or historic overlay districts and downtown areas. Generally used in industrial, emerging-urbs, and suburban areas. Use in outer portions of Banfield and Burnside MAX, along Lower N Albina, and the outer portions of Interstate MAX.

**Figure 2.1-P1**

**Ballast Configuration of Open Track**

Location: Lower Albina  
 Project(s): Red, Blue, and Yellow lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: None  
 Historic Overlay District: None



**Figure 2.1-P2**

**Retained Track Typical Sections**

Location: Airport MAX  
 Project(s): Red, Blue, and Yellow lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: None  
 Historic Overlay District: None



**Figure 2.1-P3**

**Open Track Rail**

Location: Lower Albina  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: None  
 Historic Overlay District: None




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**Approval Date:**  
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 PBOT/Design Review

<b>Figure 2.1-P4</b> <b>Open Track Rail At Platform</b> Location: Gateway Project(s): Green, Blue, Red, Yellow Lines Standard Element: Yes Nonstandard Element: No Design Overlay District: Yes (Gateway) Historic Overlay District: None			
<b>Status:</b> Approved	<b>Approval Date:</b> December 2015	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review

<b>Figure 2.1-P5</b> <b>Open Track Rail At Platform</b> Location: Lincoln Station Project(s): Orange Line Standard Element: Yes Nonstandard Element: No Design Overlay District: Yes (Downtown) Historic Overlay District: None			
<b>Status:</b> Approved	<b>Approval Date:</b> February 2017	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review



## 2.2 – Rail

### Description:

Rail for open track should be 115 RE section, control-cooled carbon steel rail. Rail for paved track should be R159 girder rail, 115RE section or an approved equivalent. Open track rail is more cost effective, consequently it is the majority of the track used throughout the system.

### Location:

Open track used outside of Downtown, Lower and Outer N Interstate Avenue, and beyond the Lloyd District. Rail for paved track used Downtown, Lloyd District, Upper Interstate, and Russell Historic District.

#### Figure 2.2-P1

##### Open Track Rail

Location Shown: Banfield  
 Project(s): Red, Blue, and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

Other Locations: Lower and Outer Interstate Ave.



#### Figure 2.2-P2

##### Paved Track Girder Rail

Location Shown: Lloyd Center  
 Project(s): Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: Yes (Kenton, Old Town/Chinatown, Russell Street, Yamhill)



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## 2.3 – Paved Track

### Description:

Figure 2.3-P1 shows paved track with Belgian blocks, which is a non-standard treatment in the Downtown area. Figure 2.3-P2 shows paved track with a concrete surface, which is typical of the existing MAX along NE Holladay Street. In a street running segment, trackways are typically configured as an exclusive transit lane and are paved with a material that is urban street-scaled (such as mortar-set unit pavers or scored concrete) to differentiate the trackway lane from the street lane. An exception to this rule is where the trackways run across a public open space or historic area, such as Skidmore Fountain, where trackway paving and profile grades may be integrated with the overall plaza paving to provide a uniform surface that indicates a transit-way to pedestrians. Figure 2.3 – P6 shows how unique street conditions may require special trackway paving.

### Location:

Downtown (from East Portal to Lloyd District), Russell Street, and Upper N Interstate Avenue.

#### Figure 2.3-P1

##### Paved Track with Belgian Blocks

Location Shown: Yamhill

Project(s): Blue Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: Yes (Old Town/Chinatown, Yamhill)

Other Locations: Old Town/Chinatown



#### Figure 2.3-P2

##### Paved Track with Concrete Surface

Location Shown: Lloyd Center

Project(s): Blue and Yellow Lines

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Downtown, Lloyd District)

Historic Overlay District: Yes (Kenton Street, Russell Street)



#### Figure 2.3-P3

##### Skidmore Station Fountain Area

Location Shown: Old Town/Chinatown

Project(s): Blue Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: No

Historic Overlay District: Yes (Full Streetscape - includes trackway, roadway, and specific pedestrian areas)



**Figure 2.3-P4**

**Rail Cross in Open Track**

Location Shown: Lower Albina  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: Banfield, Burnside,



**Figure 2.3-P5**

**Sandset Precast Concrete Pavers**

Location Shown: Rose Quarter  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: No

While this can be used as a standard design element, it must be reviewed and approved in design overlay districts.



**Figure 2.3-P6**

**Paved Trackway**

Location Shown: SW Yamhill at Broadway  
Project(s): Red, Blue and Yellow Lines  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No

Other Locations: SW Morrison, 1<sup>st</sup> Avenue, 18<sup>th</sup> Avenue





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<p><b>Figure 2.3-P7</b>  <b>Paved Trackway</b>  Location Shown: SW1<sup>st</sup> Avenue at Morrison Bridgehead, westside  Project(s): Red, Blue lines  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>			
<p><b>Figure 2.3-P8</b>  <b>Paved Trackway</b>  Location Shown: SW1<sup>st</sup> Avenue at Morrison Bridgehead, Westside  Project(s): Red, Blue lines  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

## 2.4 – Fixed Trackway

### Description:

Embedded concrete tie track is standard for trackwork in tunnels. This utilizes a second pour method of construction that is designed to provide the anchorage that vehicle clearance envelopes need. Recycled plastic embedded concrete tie used at approach to Tacoma Station.

### Location:

Primarily used in paved track areas that do not require full embedment.

#### Figure 2.4-P1

##### Embedded Concrete Tie Track

Location Shown: Robertson Tunnel  
 Project(s): Red, Blue, and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Kenton)  
 Historic Overlay District: No



Other Locations: Vanport Bridge, Airport Bridge at I-205, Upper Interstate Avenue

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#### Figure 2.4-P2

##### Embedded Concrete Tie Track

Location Shown: I-205 Lents Station Bridge  
 Project(s): Green, Yellow, Red, Blue lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lents)  
 Historic Overlay District: No



Other Locations: Vanport Bridge, Airport Bridge at I-205, Upper Interstate Avenue, Flavel Bridge at I-205

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## 2.5 – Warning Strip

### Description:

The warning strip is made of precast concrete and used on mixed-traffic streets with a street running trackway. The warning strip is a border strip located on the outside edges of the trackway at intersections. When adjacent to a traffic lane on streets, the raised dome shape acts as an audible warning when vehicle tires begin to drive into the trackway. On streets with speeds up to 25 mph, the warning border alternates between a dome-shaped paver and a smooth, flush paver along block lengths. Figure 2.5-P1 shows the warning domes. On streets with speeds up to 35 mph, the placement of the dome-shaped pavers is uninterrupted. On streets with speeds up to 45 mph, 1 foot high by 1.5 feet wide raised curbs are used to separate vehicles from the track instead of dome-shaped pavers where at a modest grade separation is necessary (six to twelve inches) the mountable curb design can be used. Modest signage informs vehicles to stay out of the trackway.

### Location:

Downtown where the trackway is adjacent to the roadway and along N Interstate Avenue.

#### Figure 2.5-P1

##### Warning Domes

Location Shown: 1<sup>st</sup> Avenue

Project(s): Blue, Red, Yellow Lines

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Downtown)

Historic Overlay District: Yes (Yamhill)

Other Locations: 18<sup>th</sup> Avenue, Morrison, Yamhill



No Longer Best Practice

#### Figure 2.5-P2

##### Mountable Curb Along Interstate MAX

Location Shown: Upper Interstate Avenue

Project(s): Yellow Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: Yes (Kenton, Russell Street)

Other Locations: Russell Street



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## 2.6 – Vehicle Crossings

### Description:

The optimum street crossing configuration is perpendicular to the street direction, although slight angled crossings (such as used in Kenton) may be necessary. Vehicle crossings will have paved track and must accommodate various modes of transport. Precast crossing panels may be used in constrained construction duration areas that have heavy vehicular traffic.

### Location:

Throughout the City.

#### Figure 2.6-P1

##### Vehicle Pedestrian Grade Crossing in an Urban Environment ( Away from legal intersections / crosswalks)

Location Shown: Old Town/Chinatown

Project(s): Blue, Red, Yellow Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: No

Historic Overlay District: Yes (Skidmore Fountain)



#### Figure 2.6-P2

##### Vehicle Crossing in Bus Environment

Location Shown: Rose Quarter

Project(s): Blue and Yellow Lines

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Rose Quarter)

Historic Overlay District: No

In complex transit environments, like transit centers where trains and buses operate, special treatments and signage need to be provided to allow private vehicular access.



#### Figure 2.6-P3

##### Precast Concrete Paved Rail at Vehicle Intersection

Location Shown: Outer Burnside

Project(s): Blue and Yellow Lines

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Lloyd District)

Historic Overlay District: No

Other Locations: Going Street



**Figure 2.6-P4**  
**Angled Vehicle Crossing**  
 Location Shown: Outer Burnside\*  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Kenton Street)  
 Historic Overlay District: Yes (Yamhill)

\*Use is limited and shall be reviewed with PBOT  
 Other Locations: Cascade/Mt. Hood, Kenton Street, Yamhill Street



**Figure 2.6-P5**  
**Heavy Rail and Vehicle Crossing**  
 Location Shown: Stark/Burnside \*  
 Project(s): Red and Blue Lines  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: No

\* Heavy rail crossings require specific permitting and are individually designed  
 Other Locations: Airport Way/82<sup>nd</sup> Avenue



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**Figure 2.6-P6**  
**Multi-Modal Crossing**  
 Location: Naito Parkway  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No  
 Black concrete used in trackway at vehicular crossing.





**Figure 2.6-P7**  
**Multi-Modal Crossing**  
 Location: SW Moody Ave.  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No

Black concrete used in trackway at vehicular crossing.





<p><b>Figure 2.6-P8</b>  <b>Multi-Modal Crossing</b>  Location: Old Water Ave.  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p> <p>Black concrete used in trackway at vehicular crossing.</p>			
<p><b>Figure 2.6-P9</b>  <b>Vehicle Crossing with Bike Lanes</b>  Location: Milwaukie Ave.  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b>  Approved</p>	<p><b>Approval Date:</b>  February 2017</p>	<p><b>Revision:</b>  Final Draft</p>	<p><b>Approved by:</b>  PBOT/Design Review</p>

## 2.7 – Pedestrian Crossings

### Description:

The optimum street crossing configuration is perpendicular to the street direction, which provides the shortest and clearest route across the street. Angled crossings, or “Z-Crosswalks,” are preferred at un-signalized intersections for rail crossings and should be defined with stop bars or distinct paving. Crosswalks will be provided at areas where pedestrians will be crossing mainline tracks. The crosswalks are to be located on tangent track, if possible, and away from special trackwork areas. Crosswalks may be painted, cast-in-place or prefabricated and made of materials sufficiently durable for pedestrian and vehicular traffic. Panels are to be constructed with regard to ability to remove for track maintenance and non-interference with electrical track circuits and rail fastenings.

### Location:

Throughout the City.

#### Figure 2.7-P1

##### “Z” Crossing

Location Shown: Interstate MAX  
 Project(s): Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Kenton Street)  
 Historic Overlay District: No

The “Z” Crossing concept may be provided when a pedestrian crossing is necessary at non-signalized or non-intersection locations.

Review with PBOT for approval.



#### Figure 2.7-P2

##### Pedestrian Crossing of Open Track at a Station

Location Shown: Burnside  
 Project(s): Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No

\* Other locations (Expo Center, Gateway, Delta Park/ Vanport)



#### Figure 2.7-P3

##### Signalized Pedestrian Crossing

Location Shown: Burnside  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.7-P4**  
**Pedestrian Crossing to a Center Platform Station**

Location Shown: Burnside  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: Yes (Russell Street)

Where pedestrians have to cross traffic and trackways, special treatments are necessary to accentuate the crossing to motorists, rail agents, and pedestrians.

Other Locations: Lower Albina, Upper Interstate Avenue



**Figure 2.7-P5**  
**Station Area Crosswalk (Outside of Downtown)**

Location: Burnside  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: Yes (Kenton Street, Russell Street)

Other Locations: Interstate Avenue, Lloyd District, Mt. Hood/Cascade, Rose Quarter



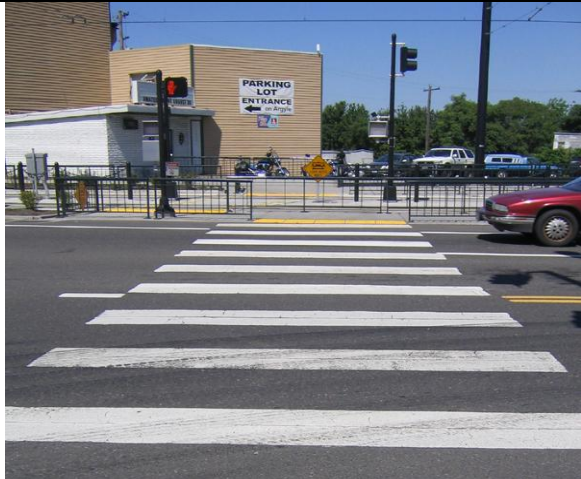
**Figure 2.7-P6**  
**Unsignalized Pedestrian Crossing**

Location: Lloyd District, Interstate MAX  
Project(s): Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: Yes (Kenton)



**Figure 2.7-P7**  
**Typical Ladder Striping**  
 Location: Interstate MAX  
 Project(s): Yellow Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Kenton Street)  
 Historic Overlay District: Yes (Kenton Street, Russell Street)

Special permission was granted by PBOT for Interstate MAX to use ladder striping in signalized crossing rather than regular stop bar striping.



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**Figure 2.7-P8**  
**Signalized Pedestrian Crossing**  
 Location Shown: Gateway  
 Project(s): Green and Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No



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**Figure 2.7-P9**  
**Non-Signalized Pedestrian Crossing to a Center Platform**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open District)  
 Historic Overlay District: No



**Figure 2.7-P10**  
**Signalized Pedestrian Crossing to a Center Platform**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open District)  
Historic Overlay District: No



**Figure 2.7-P11**  
**Signalized Pedestrian Crossing to a Center Platform**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No

Multi-modal transit and bikeway.



**Figure 2.7-P12**  
**Signalized Pedestrian and Bike Path Crossing to Center Platform**

Location Shown: OMSI Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Multi-modal transit and bikeway.



**Figure 2.7-P13**  
**Non-Signalized Z-Crossing at Open Track**  
 Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.7-P14**  
**Non-Signalized Pedestrian Crossing to a Center Platform**  
 Location Shown: Rhine Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.7-P15**  
**Station Area Crosswalk**  
 Location Shown: Rhine Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

With warning signal activated by pedestrian/bicyclist.



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## 2.8 – Guard Rail

### Description:

All mainline tracks with a centerline radius of 500 feet or less have an inner guardrail mounted adjacent to the low rail in accordance with AREA plans and specifications. The flange way is set at 1-5/8 inches wide to engage the back of the inside wheel. Emergency guardrails will also be installed on tracks adjacent to all major structures that may cause extensive damage to a car or its passengers in the event of a derailment. Emergency guardrails will begin 60 feet prior to the major structure and provide a 10-inch gap between the railheads.

### Location:

Throughout the city.

### Figure 2.8-P1

#### Guard Rail

Location Shown: Hollywood  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: Open tract at curves and underpasses



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## 2.9 – Pedestrian Control Devices

### Description:

Bollards and Cable are principally used to protect pedestrians from dangerous crossings. This design was first established on the Banfield System, it was then applied on NE Holladay Street and the Westside Project. Bollards and Chain is a variation of the Bollard and Cable. The chain is more visible at night.

### Location:

Throughout the City.

#### Figure 2.9-P1

##### Bollards and Chain

Location Shown: Rose Quarter  
 Project(s): Yellow Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Rose Quarter)  
 Historic Overlay District: No

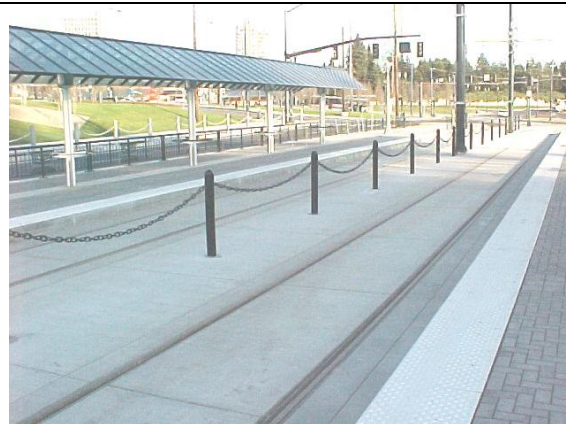
The use of pedestrian control devices on sidewalks or other off platforms used by the public requires special review and approval by PBOT.



#### Figure 2.9-P2

##### Trackway Bollard and Chain

Location Shown: Interstate MAX  
 Project(s): Blue, Red, Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: Yes (Kenton)



#### Figure 2.9-P3

##### Trackway Bollard and Cable

Location Shown: 7<sup>th</sup> & Holladay  
 Project(s): Blue Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: No





**Figure 2.9-P4**

**Trackway Pedestrian Control Railing**

Location Shown: Interstate MAX - Lombard Street Station

Project(s): Yellow Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: No

Historic Overlay District: Yes (Kenton)

In design overlay districts; the use of pedestrian control devices in the trackway and adjacent roadways requires special review and approval by PBOT.



**Figure 2.9-P5**

**Ornamental Iron Bollards**

Location Shown: Old Town/Chinatown

Project(s): Blue Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: No

Historic Overlay District: Yes (Skidmore Fountain)

The use of pedestrian control devices (like cast iron bollards) in the trackway and sidewalk require special review and approval by PBOT and the Landmarks Commission.



**Figure 2.9-6**

**Bollard and Cable with Illuminate Bollards**

Location Shown: 7<sup>th</sup> and Holladay Platform

Project(s): Blue Line

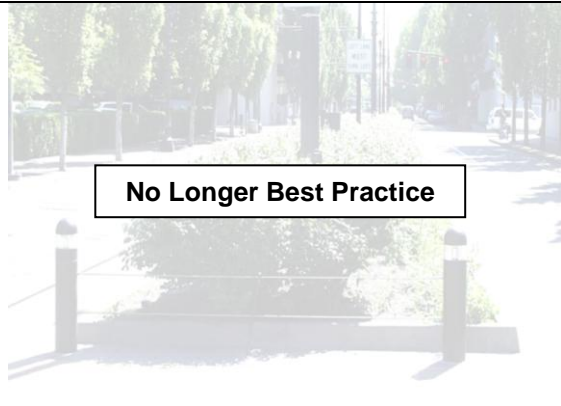
Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Lloyd District)

Historic Overlay District: No

No Longer Best Practice



**Figure 2.9-P7**

**Railing**

Location Shown: Goose Hollow

Project(s): Blue Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Downtown)

Historic Overlay District: Yes (Russell, Kenton)

Delineate pedestrian wayfinding separated from trackway.



**Figure 2.9-P8**  
**Trackway Pedestrian Crossing Warning Signage**

Location Shown: Burnside  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.9-P9**  
**Street Pedestrian Crossing Warning Signage**

Location Shown: Interstate MAX - Prescott Street Station  
 Project(s): Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: Yes (Russell Street, Kenton)

Use in street locations to be reviewed by PBOT for approval.



**Figure 2.9-P10**  
**Traffic Bollard**

Location Shown: Lower Albina  
 Project(s): Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: Yes (Russell St., Kenton)

Use in street locations to be reviewed by PBOT for approval.



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**Figure 2.9-P11**

**Bollards and Chain**

Location Shown: Fuller Park And Ride  
Project(s): Green Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: Yes

The use of pedestrian control devices on sidewalks or other off platforms used by the public requires special review and approval by PBOT.



**Figure 2.9-P12**

**Trackway Pedestrian Control Railing**

Location Shown: Fuller Park And Ride  
Project(s): Green Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: Yes (Kenton)

In design overlay districts; the use of pedestrian control devices in the trackway and adjacent roadways requires special review and approval by PBOT.



**Figure 2.9-P13**

**Railing On Platform**

Location Shown: Fuller Park And Ride  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Russell, Kenton)

Delineate pedestrian way finding separated from trackway.  
In design overlay districts; the use of pedestrian control devices in the trackway and adjacent roadways requires special review and approval by PBOT.



**Figure 2.9-P14**

**Trackway Pedestrian Crossing Warning Signage**

Location Shown: Main Street  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: Yes (Lents)



**Figure 2.9-P15**

**Trackway Pedestrian Control Railing**

Location Shown: Lents TC  
Project(s): Green and Yellow Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: Yes (Kenton, Lents)

In design overlay districts; the use of pedestrian control devices in the trackway and adjacent roadways requires special review and approval by PBOT.



**Figure 2.9-P16**

**Trackway Pedestrian Control Railing**

Location Shown: Lents TC  
Project(s): Green and Yellow Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: Yes (Kenton, Lents)

In design overlay districts; the use of pedestrian control devices in the trackway and adjacent roadways requires special review and approval by PBOT.



**Figure 2.9-P17**

**Trackway Pedestrian Control Gates**

Location Shown: Lents TC  
Project(s): Green Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: Yes (Lents)

Use in street locations to be reviewed by PBOT for approval.



**Figure 2.9-P18**

**Railing**


Location Shown: Gateway  
Project(s): Green and Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Gateway)  
Historic Overlay District: No

Delineate pedestrian wayfinding separated from trackway.



**Figure 2.9-P19**  
**Pedestrian Safety Mirror**  
 Location Shown: Gateway  
 Project(s): Green and Blue Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No

Use in street locations to be reviewed by PBOT for approval.




**Figure 2.9-P20**  
**Trackway Pedestrian Control Railing**  
 Location Shown: Gateway  
 Project(s): Green and Blue Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No

In design overlay districts; the use of pedestrian control devices in the trackway and adjacent roadways requires special review and approval by PBOT.



**Figure 2.9-P21**  
**Trackway Pedestrian Crossing Warning Signage**  
 Location Shown: Gateway  
 Project(s): Green and Blue Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No



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**Figure 2.9-P22**  
**Trackway Bollards and Chain**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No

Made with recycled plastic materials.



**Figure 2.9-P23**

**Traffic Bollards**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 2.9-P24**

**Traffic Bollards**

Location Shown: Holgate Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 2.9-P25**

**Traffic Bollards**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No



**Figure 2.9-P26**

**Bollards on Platform**

Location Shown: Bybee Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 2.9-P27**  
**Bollards**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No

Made with repurposed wood for the Halprin Sequence.



**Figure 2.9-P28**  
**Railing**  
 Location Shown: SW Moody Ave.  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 2.9-P29**  
**Railing**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No

Bolted attachment for removal when TOD follows on.



**Figure 2.9-P29**  
**Railing for Bicycle/Transit Separation**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No

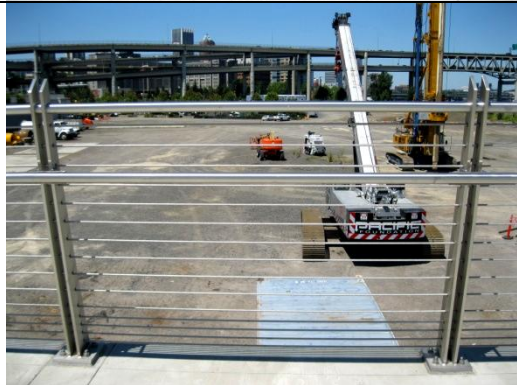


**Figure 2.9-P31**  
**Railing at Belvedere Location**  
 Location Shown: Tilikum Crossing  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No

Includes foot rail.



**Figure 2.9-P32**  
**Railing**  
 Location Shown: Tilikum Crossing  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No







**Figure 2.9-P33**  
**Railing**  
 Location Shown: Tilikum Crossing  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No












**Figure 2.9-P34**  
**Railing**  
 Location Shown: OMSI Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No





<p><b>Figure 2.9-P35</b>  <b>Railing</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.9-P36</b>  <b>Railing</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.9-P37</b>  <b>Railing</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.9-P38</b>  <b>Railing</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	

<p><b>Figure 2.9-P39</b>  <b>Railing</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.9-P40</b>  <b>Ornamental Railing</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.9-P41</b>  <b>Fence</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.9-P42</b>  <b>Pedestrian Safety Intrusion Device</b>  Location Shown: Lincoln Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space)  Historic Overlay District: No</p>	

<p><b>Figure 2.9-P43</b>  <b>Trackway Pedestrian Control Gates</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	 A photograph showing two metal gates with yellow diamond-shaped signs that read 'LOOK BOTH WAYS'. The gates are set on a yellow-painted concrete surface. A red sign on the ground reads 'STOP HERE' with a white circle in the middle.
<p><b>Figure 2.9-P44</b>  <b>Trackway Pedestrian Control Railing</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	 A photograph of a metal railing with yellow reflective markers. A sign attached to the railing reads 'TO DISCOURAGE' with a bicycle icon and a pedestrian icon. The railing is set on a concrete surface.
<p><b>Figure 2.9-P45</b>  <b>Trackway Pedestrian Warning Signage</b>  Location Shown: Rhine Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	 A photograph of a yellow-painted concrete surface with the text 'DON'T STAND HERE' and two circular icons with a slash through them, indicating no standing.
<p><b>Figure 2.9-P46</b>  <b>Trackway Pedestrian Warning Signage</b>  Location Shown: Rhine Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	 A photograph of a concrete surface with a black sign that reads 'LOOK' with a white arrow pointing to the right. The sign is flanked by yellow tactile paving.
<p><b>Figure 2.9-P47</b>  <b>Pathway Delineation</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	 A photograph of a concrete pathway with a yellow diamond-shaped sign and several circular icons with arrows, including a bicycle icon, indicating a shared path for pedestrians and bicycles.

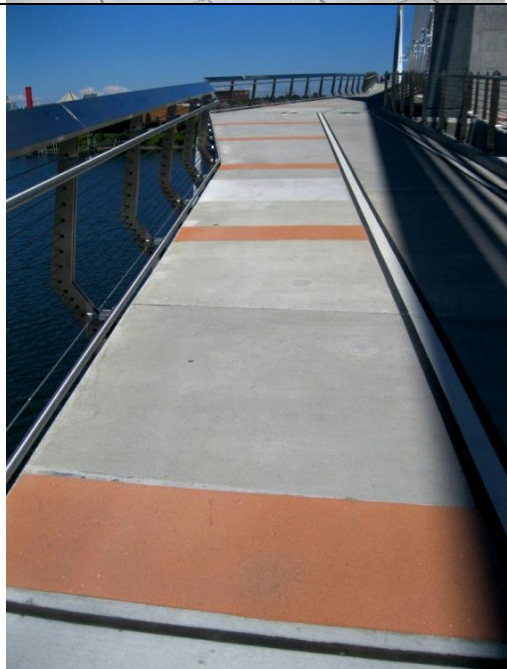
**Figure 2.9-P48**  
**Pathway Delineation**  
 Location Shown: SW Moody Ave.  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



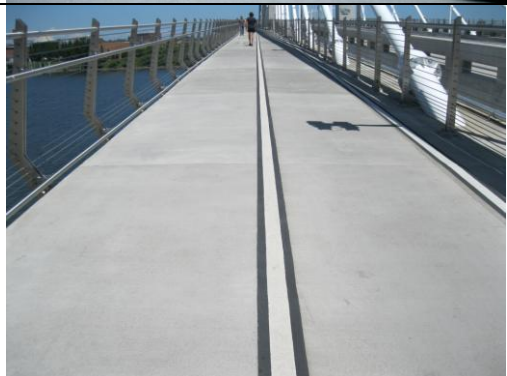
**Figure 2.9-P49**  
**Trackway Pedestrian Crossing Warning Signage**  
 Location Shown: OMSI Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.9-P50**  
**Pedestrian Delineation at Belvedere**  
 Location Shown: Tilikum Crossing  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 2.9-P51**  
**Joint Use (Bike & Pedestrian) Delineation across the Tilikum Crossing**  
 Location Shown: Tilikum Crossing  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No





**Figure 2.9-P52**  
**Trackway Pedestrian Crossing Warning Signage**

Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.9-P53**  
**Trackway Pedestrian Crossing Warning Signage**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No



**Figure 2.9-P54**  
**Trackway Pedestrian Crossing Warning Signage**  
 Location Shown: Naito Parkway  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No



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## 2.10 – Color Light Signals

**Description:**

Standard railway color light, high signals including backgrounds, ladders, and maintenance platforms, will be provided for Automatic Train Protection (ATP) sections and interlocking in open-track sections used in exclusive transit.

**Location:**

Throughout the City.

**Figure 2.10-P1**

**Color Light Signal**

Location Shown: Burnside  
 Project(s): Red, Blue and Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

Other Locations: Lower Albina, Vanport/Expo



**Status:**

Approved

**Approval Date:**

December 2005

**Revision:**

Final Draft

**Approved by:**

PBOT/Design Review

## 2.11 – Rail Signals

### Description:

Railway-type, color-light, two directions should be provided at all mainline switches in open track ATP sections in vehicular streets. Each rail signal should display a green indication if that particular switch is lined and locked normal and yellow if the switch is lined and locked reverse.

### Location:

Throughout the City.

#### Figure 2.11-P1

##### Rail Signal on Catenary Pole

Location Shown: Lloyd District  
 Project(s): Blue and Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: Yes (Kenton Street, Old Town/Chinatown, Russell Street, Skidmore Fountain, Yamhill)

Rail signal on pole (standard). Pole type may/may not be standard.



#### Figure 2.11-P2

##### Rail Signal on Light Pole

Location Shown: Lloyd District  
 Project(s): Blue and Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill)

Rail signal on pole (standard). Pole type may/may not be standard.



### Status:

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### Approval Date:

December 2005

### Revision:

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### Approved by:

PBOT/Design Review

#### Figure 2.11-P3


##### Rail Signal With Crossing Gate


Location Shown: Flavel  
 Project(s): Green Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: No


Rail signal on pole (standard). Pole type may/may not be standard.





<p><b>Figure 2.11-P4</b>  <b>Rail Signal</b>  Location Shown: Flavel  Project(s): Green Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: No</p> <p>Rail signal on pole. Pole type not standard.</p>			
<b>Status:</b> Approved	<b>Approval Date:</b> December 2015	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review

<p><b>Figure 2.11-P5</b>  <b>Rail Signal</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront, Halprin Open Space)  Historic Overlay District: No</p>			
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<p><b>Figure 2.11-P6</b>  <b>Rail Signal on Bridge</b>  Location Shown: Tilikum Crossing  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>			
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<p><b>Figure 2.11-P7</b>  <b>Rail Signal on Light Pole</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>			
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<b>Status:</b> Approved	<b>Approval Date:</b> February 2017	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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## 2.12 – System Cabinets

### Description:

On a tie-and-ballast trackway foundation, systems equipment is exposed in either on-grade vault boxes or above-grade cabinets. Systems and electrical cabinets can also be located on platforms.

### Location:

Throughout the City.

#### Figure 2.12-P1

#### Off Platform in Trackway Electrical/Systems Cabinet

Location Shown: Banfield  
Project(s): Blue, Red, and Yellow lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



#### Figure 2.12-P2

#### Platform Electrical/T-Signals Cabinet

Location Shown: Russell Street  
Project(s): Red, Blue and Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown, Yamhill, Skidmore Fountain, Russell St., Kenton)






#### Figure 2.12-P3


#### Off Platform Electrical/Systems Cabinet

Location Shown: Prescott  
Project(s): Yellow  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



<p><b>Figure 2.12-P4</b>  <b>Systems Cabinet</b>  Location: Burnside  Project(s): Blue, Red  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown, Lloyd District)  Historic Overlay District: Yes (Russell Street, Kenton)</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>
<p><b>Figure 2.12-P5</b>  <b>Platform Electrical/T-Signals Cabinet</b>  Location Shown: Fuller Park and Ride  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Lents, Russell St., Kenton)</p>			
<p><b>Figure 2.12-P6</b>  <b>Off Platform in Trackway Electrical/Systems Cabinet</b>  Location Shown: Fuller Park and Ride  Project(s): Green Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 2.12-P7</b>  <b>Electrical Transformer</b>  Location: Fuller Park and Ride  Project(s): Green Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown, Lloyd District)  Historic Overlay District: No</p>			

<p><b>Figure 2.12-P8</b>  <b>Off Platform Electrical/Systems Meter</b>  Location Shown: Lents  Project(s): Green Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: Yes (Lents)</p>			
<p><b>Figure 2.12-P9</b>  <b>Off Platform Electrical/Systems Cabinet</b>  Location Shown: Lents  Project(s): Green Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: Yes (Lents)</p>			
<p><b>Figure 2.12-P10</b>  <b>Off Platform Electrical/Systems Cabinet</b>  Location Shown: Holgate Park and Ride  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 2.12-P11</b>  <b>On Platform Electrical/Systems Cabinet</b>  Location Shown: Lincoln Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space)  Historic Overlay District: No</p> <p>With station area art panels mounted on cabinet.</p>	
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**Figure 2.12-P12**  
**On Platform Electrical/Systems Cabinet**  
 Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.12-P13**  
**Off Platform Electrical/Systems Cabinet**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No

Within the transit way.



**Figure 2.12-P14**  
**Off Platform Electrical/Systems Cabinet**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No

Sidewalk adjacent.



**Figure 2.12-P15**  
**Off Platform Electrical/Systems Cabinet**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No

In sidewalk furnishing zone.



<p><b>Figure 2.12-P16</b>  <b>Off Platform Electrical/Systems Cabinet</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p> <p>In sidewalk furnishing zone.</p>	
<p><b>Figure 2.12-P17</b>  <b>Off Platform Electrical/Systems Cabinet</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p> <p>Within station area.</p>	
<p><b>Figure 2.12-P18</b>  <b>Off Platform Electrical/Systems Cabinet</b>  Location Shown: South Waterfront  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p> <p>Off the station area, on systems building site.</p>	
<p><b>Figure 2.12-P19</b>  <b>Off Platform Electrical/Systems Cabinet</b>  Location Shown: Tilikum Crossing  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p> <p>Adjacent to pedestrian/bike pathway.</p>	

**Figure 2.12-P20**  
**Off Platform Electrical/Systems Cabinet**

Location Shown: Tilikum Crossing  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

Adjacent to pedestrian/bike pathway.



<b>Status:</b> Approved	<b>Approval Date:</b> February 2017	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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## 2.13 – Catenary Poles

### Description:

There are three standard catenary poles used in the LRT system; H-Section Poles, Tapered Poles, and Ornamental Strain Poles. H- Section poles are the most economical and are used in non-urban or open locations. Figure 2.13-P1 shows H-Section poles along Interstate MAX. Figure 2.13-P2 shows tapered poles used in the N Albina and Upper N Interstate Avenue track areas. Ornamental strain poles are used in downtowns where a special urban design character is desired. Figure 2.13-P3 shows an ornamental strain pole. There are several strategies to protect the public from catenary wires.

### Location:

Throughout the City.

### Figure 2.13-P1

#### H-Section Poles

Location: Delta Park/Vanport  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: Banfield



### Figure 2.13-P2

#### Taper Pole Joint-Use Design

Location Shown: Kenton Street  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: Yes (Kenton, Russell Street)





**Figure 2.13-P3**

**Ornamental Strain Poles**

Location Shown: Yamhill Street  
Project(s): Blue Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Lloyd District, Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill)  
  
Other Locations: Morrison Street, 1<sup>st</sup> Avenue



**Figure 2.13-P4**

**Catenary Wire Protection Screen**

Location Shown: 1<sup>st</sup> Avenue  
Project(s): Blue and Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Lloyd District)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain)  
  
Other Locations: Lower Albina, Rose Quarter





**Figure 2.13-P5**


**Pedestrian Protective Screen from Catenary Wire**

Location Shown: Banfield/NE 60<sup>th</sup> Avenue  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



<p><b>Figure 2.13-P6</b>  <b>Catenary Wire Support on Structure</b>  Location Shown: Broadway Bridge  Project(s): Blue and Yellow Lines  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown, Lloyd District)  Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain)</p> <p>Other Locations: Banfield</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 2.13-P7</b>  <b>H-Section Poles</b>  Location: Fuller Park and Ride  Project(s): Green and Blue Lines  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p> <p>Other Locations: Banfield, Airport Max, Interstate Max</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 2.13-P8</b>  <b>Faceted Tapered Pole – Galvanized Finish</b>  Location: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p> <p>On the platform.</p>			
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**Figure 2.13-P9**

**Faceted Tapered Pole**

Location: Clinton Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Off the platform in the trackway.



**Figure 2.13-P10**

**Station Integrated Pole – Painted Finish**

Location: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No

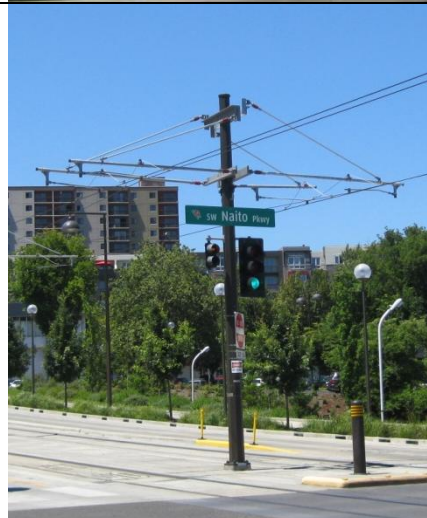


**Figure 2.13-P11**

**Faceted Tapered Pole – Painted Finish**

Location: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No

Off the platform, in the station area. Painted with design district color theme.



**Figure 2.13-P12**

**Faceted Tapered Pole – Painted Finish**

Location: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No

Off the platform, in the station area. Painted with design district color theme.



**Figure 2.13-P13**

**Joint Use Faceted Tapered Catenary/Light Pole – Galvanized Finish**

Location: Tilikum Crossing  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 2.13-P14**

**Catenary Poles with Ornamental Lighting**

Location: OMSI Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Station area specific urban design feature.



**Figure 2.13-P15**

**Ornamental Strain Pole – Painted Finish**

Location: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No

Off the platform, in the station area. Painted with design district color theme.

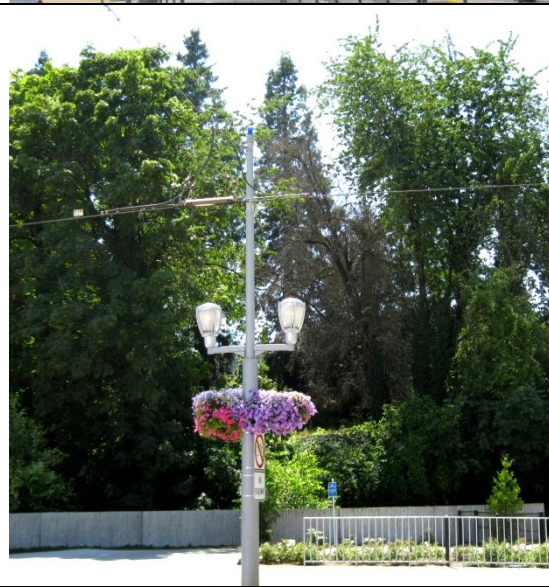


**Figure 2.13-P16**

**Ornamental Strain Pole**

Location: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No

Off the platform, in the station area. Painted with design district color theme.



**Status:**

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**Approval Date:**

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PBOT/Design Review

## 2.14 – Light Poles

### Description:

There are three standard light poles used in the LRT alignment: standard light poles, ornamental light poles, and joint catenary/light poles. The concrete light pole is the most commonly used throughout the TriMet LRT system. Figure 2.14-P1 shows a standard light pole at a station. Ornamental light poles are used in downtown or other locations where a special urban design character is desired. Figure 2.14-P2 shows an ornamental light pole. Joint-use light poles are provided when tangent (straight line) sections occur. Figure 2.14-P3 shows a joint catenary/light pole. In Upper N Interstate Avenue and N Albina, a tapered-joint-use light pole will be provided.

Park and Rides use standard light poles, paint aluminum light poles, and variations of ornamental light poles. Bridges use standard light poles and aluminum light poles.

### Location:

Throughout the City.

#### Figure 2.14-P1

##### Standard Light Pole

Location Shown: Gateway

Project(s): Blue line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Gateway, Downtown)

Historic Overlay District: No

No Longer Best Practice



#### Figure 2.14-P2

##### Standard Light Pole

Location Shown: Interstate MAX

Project(s): Yellow Line




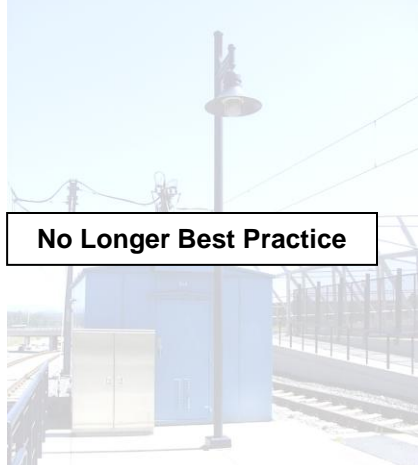
Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: Yes (Kenton Street, Russell Street)

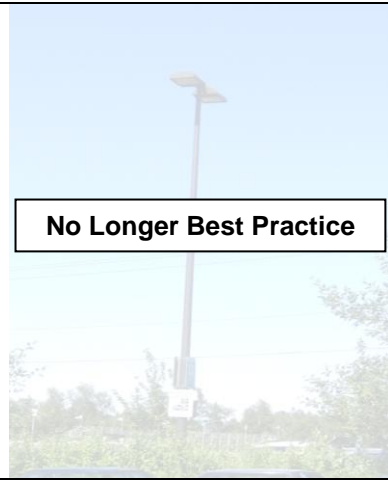


<p><b>Figure 2.14-P3</b>  <b>Park and Ride Standard Pole</b>  Location: Gateway  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Gateway)  Historic Overlay District: No</p> <p>Other Locations: Burnside</p>	 <div data-bbox="803 420 1166 472" style="border: 1px solid black; padding: 2px; text-align: center;"> <b>No Longer Best Practice</b> </div>
<p><b>Figure 2.14-P4</b>  <b>Bridge Standard Pole</b>  Location Shown: Banfield  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.14-P5</b>  <b>Ornamental Pole</b>  Location Shown: Holladay Park Station  Project(s): Blue Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown, Lloyd District)  Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill)</p>	
<p><b>Figure 2.14-P6</b>  <b>Ornamental Pole</b>  Location Shown: Parkrose station  Project(s): Red Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	 <div data-bbox="803 1564 1177 1617" style="border: 1px solid black; padding: 2px; text-align: center;"> <b>No Longer Best Practice</b> </div>

**Figure 2.14-P7**  
**Park and Ride Ornamental Pole**  
 Location Shown: Parkrose Park & Ride  
 Project(s): Red Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.14-P8**  
**Park and Ride Painted Aluminum Pole**  
 Location Shown: Delta Park/Vanport  
 Project(s): Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.14-P9**  
**Bridge Aluminum Pole**  
 Location Shown: Vanport Bridge on Interstate-5  
 Project(s): Red and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No






<p><b>Figure 2.14-P10</b>  <b>Joint Catenary/Light Pole</b>  Location Shown: Yamhill Street  Project(s): Blue Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown, Lloyd District)  Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill)  Other Locations: Morrison Street, 1<sup>st</sup> Avenue</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 2.14-P11</b>  <b>Joint Catenary/Light Pole</b>  Location Shown:  Project(s): Green Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: Yes (Lents)</p>			
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<p><b>Figure 2.14-P12</b>  <b>Park and Ride Paint Aluminum Pole</b>  Location Shown: Fuller Park and Ride  Project(s): Green Yellow and Blue Lines  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Gateway)  Historic Overlay District: No</p>			
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<p><b>Figure 2.14-P13</b>  <b>Park and Ride Ornamental Pole</b>  Location Shown: Division  Project(s): Green and Red Lines  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: No</p>			
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<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>
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**Figure 2.14-P14**

**Standard Light Pole**

Location: Clinton Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 2.14-P15**

**Standard Light Pole**

Location: Tacoma Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 2.14-P16**

**Joint Catenary/Light Pole**

Location: Tilikum Crossing  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 2.14-P17**  
**Joint Catenary/Light Pole with Anemometer and Vertical Axis Wind Turbine**

Location: Tilikum Crossing  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 2.14-P18**  
**Joint Catenary/Light Pole**

Location: Harbor Structure  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No



**Figure 2.14-P19**  
**Joint Catenary/Light Pole**

Location: SW Moody Ave.  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 2.14-P20**

**Joint Catenary/Light Pole**

Location: SW Moody Ave.  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 2.14-P21**

**Joint Catenary/Light Pole**

Location: OMSI Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 2.14-P22**

**Light Pole with CCTV Cameras**

Location: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 2.14-P23**

**Ornamental Pole**

Location: Lincoln Station Area  
Project(s): Orange Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No



**Figure 2.14-P24**

**Ornamental Pole**

Location: Lincoln Station  
Project(s): Orange Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No



**Figure 2.14-P25**

**Ornamental Pole**

Location: Harbor Structure  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 2.14-P26**

**Ornamental Pole**

Location: OMSI Station  
Project(s): Orange Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: No

This is a pole selected for the Eastbank Esplanade



**Figure 2.14-P27**

**Aluminum Pole**

Location: OMSI Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Used in collaboration with Portland Streetcar and OMSI





**Figure 2.14-P28**

**Park and Ride Painted Aluminum Pole**

Location: Tacoma Park and Ride  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



<p><b>Figure 2.14-P29</b>  <b>Park and Ride Painted Aluminum Pole</b>  Location: Tacoma Park and Ride  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 2.14-P30</b>  <b>Park and Ride Painted Aluminum Pole</b>  Location: Tacoma Park and Ride  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

## 2.15 – Track Drainage

### Description:

Stormwater needs to be effectively removed from the trackway. In open track, stormwater filters through the ballast or special gravel set pre-cast concrete pavers. In paved track, grating is utilized and can be galvanized steel or cast bronze.

### Location:

Throughout the City.

#### Figure 2.15-P1

##### Paved Track Storm Drain

Location Shown: Lloyd District  
Project(s): Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Lloyd District)  
Historic Overlay District: Yes (Kenton Street, Russell Street)



#### Figure 2.15-P2

##### Paved Track Storm Drain

Location Shown: Lloyd District  
Project(s): Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Lloyd District)  
Historic Overlay District: Yes (Kenton Street, Russell Street)





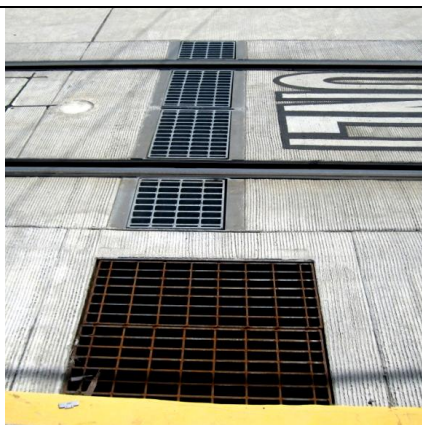

#### Figure 2.15-P3

##### Storm Drain in Belgian Block Paved Pattern

Location Shown: Skidmore Fountain  
Project(s): Blue Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain)





<p><b>Figure 2.15-P4</b>  <b>Rose Quarter Pavers</b>  Location Shown: Rose Quarter  Project(s): Yellow Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Lloyd)  Historic Overlay District: No</p> <p>While this can be used as a standard design element, it must be reviewed in design overlay districts.</p>			
<p><b>Figure 2.15-P5</b>  <b>Stormwater Bio-filtration</b>  Location Shown: Delta Park/Vanport, Prescott  Project(s): Yellow  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>
<p><b>Figure 2.15-P6</b>  <b>Paved Track Storm Drain</b>  Location Shown: Tilikum Crossing  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space, South Waterfront)  Historic Overlay District: No</p>			
<p><b>Figure 2.15-P7</b>  <b>Eco-Track</b>  Location Shown: Lincoln Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space)  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2107</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

## 2.16 – Landscaping

### Description:

Whenever possible, landscaping design on all TriMet properties should incorporate water-wise landscaping (xeriscaping) principles. Landscaping considerations along the trackway include the following:

- Provide for maintenance accessibility to landscape areas;
- Utilize plant material that grows to a desirable mature height and form to minimize pruning requirements;
- Utilize plant material with low water and fertilizer requirements;
- Encourage the use of native plants;
- Climbing vines must adhere to sound wall/retaining walls along trackway;
- Plants within 4 feet of the track should mature to a minimum of 4 feet-by-4 feet.
- Use mulch, groundcover, and turf sparingly, if at all (unless in highly visible areas such as intersections);
- Avoid over-planting by planting only the amounts of vegetation necessary to meet the site requirements;
- Plant materials shall be selected, positioned and maintained to permit proper visibility for TriMet security, patron safety, and vehicular traffic safety; and
- Some design overlay districts may require specific materials and treatments.

### Location:

Throughout the City.

**Figure 2.16-P1**

#### Trackway Landscaping

Location Shown: Burnside

Project(s): Blue Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: No



**Figure 2.16-P2**

#### Trackway Landscaping

Location Shown: Holladay Street- Lloyd District

Project(s): Blue Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Lloyd District)

Historic Overlay District: No



**Figure 2.16-P3**

**Pocket Park**

Location Shown: Prescott station  
Project(s): Yellow Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: Yes (Kenton)



**Figure 2.16-P4**

**Trackway Landscaping**

Location Shown: Kenton Station  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: Yes (Kenton Street)



**Figure 2.16-P5**

**Trackway Landscaping**

Location Shown: Portland Boulevard Station  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: Yes (Kenton)



**Figure 2.16-P6**

**Street Trees**

Location Shown: Rose Quarter  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: No



**Figure 2.16-P7**

**Street Trees with Pavers**

Location Shown: Portland Avenue Station  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: Yes (Kenton, Russell Street)



**Figure 2.16-P8**

**Trackway Landscaping at Station**

Location Shown: Rose Quarter  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: No



**Figure 2.16-P9**  
**Trackway Landscaping at Street Intersection**

Location Shown: Rose Quarter  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: No



**Figure 2.16-P10**  
**Planters Along Trackway**


Location Shown: PGE Park Station  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 2.16-P11**  
**Trees on the Platform**


Location Shown: Expo Station  
Project(s): Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Lloyd District)  
Historic Overlay District: Yes (Kenton Street, Russell Street)



<p><b>Figure 2.16-P12</b>  <b>Urban Tree Well</b>  Location Shown: Transit Mall  Project(s): Blue Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown, Lloyd)  Historic Overlay District: Yes (Old Town/Chinatown, Yamhill)</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 2.16-P13</b>  <b>Pocket Park</b>  Location Shown: Lents TC  Project(s): Green Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: Yes (Lents)</p>			
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<p><b>Figure 2.16-P14</b>  <b>Storm water Bio-Filtration</b>  Location Shown: Holgate Park and Ride  Project(s): Green and Yellow Lines  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: No</p>			
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<p><b>Figure 2.16-P15</b>  <b>Storm water Bio-Filtration At Parking Space</b>  Location Shown: Powell Park and Ride  Project(s): Green and Yellow Lines  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: No</p>			
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<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>
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**Figure 2.16-P16**  
**Street Tree with Grate**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No



**Figure 2.16-P17**  
**Street Tree with Large Scale Planters**  
 Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.16-P18**  
**Storm Water Bio-Filtration with Street Trees**  
 Location Shown: Holgate Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 2.16-P19**  
**Storm Water Bio-Filtration with Street Trees Adjacent to Private Property**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No



**Figure 2.16-P20**  
**Roadway and Sidewalk Adjacent Storm Water Bio-Filtration Inlets**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No



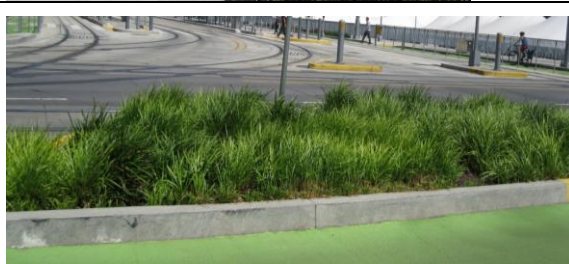
**Figure 2.16-P21**  
**Sidewalk Adjacent Storm Water Bio-Filtration with Trees**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 2.16-P22**  
**Roadway and Sidewalk Adjacent Storm Water and Bio-Filtration Landscaping**



Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No





<p><b>Figure 2.16-P23</b>  <b>Station Specific Storm Water and Bio-Filtration Landscaping with Trees</b>  Location Shown: OMSI Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		
<p><b>Figure 2.16-P24</b>  <b>Interim Landscaping at Adjacent Private Property</b>  Location Shown: OMSI Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		
<p><b>Figure 2.16-P25</b>  <b>Storm Water Bio-Filtration Outfall</b>  Location Shown: OMSI Station  Project(s): Orange Lines  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		
<p><b>Figure 2.16-P26</b>  <b>Large Storm Water Bio-Filtration Pond</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>		
<p><b>Figure 2.16-P27</b>  <b>Large Storm Water Bio-Filtration Treatment Facility</b>  Location Shown: SW Moody Ave.  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>		

<p><b>Figure 2.16-P28</b>  <b>Station Adjacent Landscaping</b>  Location Shown: Rhine Street Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.16-P29</b>  <b>Station Adjacent Landscaping</b>  Location Shown: Holgate Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.16-P30</b>  <b>Integrated Trackway Landscaping</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.16-P31</b>  <b>Landscape at Systems Facility</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>	
<p><b>Figure 2.16-P32</b>  <b>Landscape Species Diversification</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	

<p><b>Figure 2.16-P33</b>  <b>Landscape Species Diversification</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.16-P34</b>  <b>Street Trees with Historic Belgian Block</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.16-P35</b>  <b>Sidewalk and Trackway Adjacent Landscaping with Belgian Block</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.16-P36</b>  <b>Landscape as a Buffer</b>  Location Shown: Rhine Street Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 2.16-P37</b>  <b>Storm Water Bio-Filtration Boulevard Boundary with Temporary Pathway</b>  Location Shown: Lincoln Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space)  Historic Overlay District: No</p>	

**Figure 2.16-P38**  
**Pathway Adjacent Safety Enhancements**  
 Location Shown: Harbor Structure  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 2.16-P39**  
**Pathway Adjacent Safety Enhancements**  
 Location Shown: Harbor Structure  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No






**Figure 2.16-P40**  
**Bike Shelter Adjacent Landscaping with Erosion Control Treatments**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 2.16-P41**  
**Pathway Adjacent Landscaping at Systems Building**  
 Location Shown: Rhine Street Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



<p><b>Figure 2.16-P42</b>  <b>Storm Water Bio-Filtration Outfall</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		
<p><b>Figure 2.16-P43</b>  <b>Landscape with Climbing Vines at Mechanically Stabilized Earth Retaining Wall</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		
<p><b>Figure 2.16-P44</b>  <b>Landscape as Habitat</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		
<p><b>Figure 2.16-P45</b>  <b>Landscape as Habitat</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		

			
<p><b>Figure 2.16-P46</b>  <b>Porous Pathway Treatment</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 2.16-P47</b>  <b>Access Drive for Maintenance</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

## Section 3. Stations

### 3.1 – Design Elements

This section of the Design Standards details the minimum standards and design policies to govern the engineering, materials, and construction standards for stations and interfaces with other elements of TriMet's LRT system, including buses.

These considerations have been developed as a technical guide to safe and efficient station design while promoting community spirit, continuity, and the quality and enjoyment that have been recognized within the existing MAX system. Stations are the focus of the LRT system in that they are central to modal interchange and that thousands of passengers circulate through rail platform areas daily. It is essential to the operation of the entire transit system that the station and bus platform areas are easily understood, friendly, and efficient for passengers as well as TriMet staff. Station design should not only consider the functional and operational efficiencies, but integrate humanistic and community spirit. Design goals are presented in three categories: Architecture, Interchange Function, and Community Relationships. Many of these characteristics are essential to the bus system, but will vary depending on the level of service.

#### **Architecture Goals include:**

- Creating a civic architecture that is permanent, has a characteristic thread, and contributes to its context – one that is not entirely derivative of the transit system, but of the neighborhoods and community of which it is a part;
- Utilizing the existing family of parts that are interchangeable and allow for the individual character of each neighborhood or community;
- Protecting transit passengers from adverse weather conditions and vehicular traffic;
- Making transit safe, secure, friendly, fun, and accessible to all, including users with disabilities;
- Developing systems that use low-maintenance materials and minimize lifecycle costs; and
- Providing an architectural and urban design framework that defines and encourages joint development opportunities.

#### **Interchange Function Goals include:**

- Providing a safe, efficient, and convenient station configuration for intermodal transfer;
- Providing clear and easily understood transit information that can be referenced quickly and minimizes disorientation;
- Developing operational efficiencies that simplify modal interchange and passenger processing; and
- Providing the best service possible at a reasonable cost.

#### **Community Relationship Goals include:**

- Promoting development that is desired;
- Promoting transit-related uses that are proximate to stations;
- Initiating and coordinating programs with the community that limit local traffic impacts and minimize disruption during and after the implementation phase; and
- Utilizing local jurisdictional and agency processes throughout project design and implementation.

Design objectives are identified as a means to achieving the basic goal of LRT station design. The following includes criteria for paving, platforms, shelters, and buildings:

- **Quality Objectives**
  - Maximize personal comfort
  - Maximize aesthetic quality
  - Maximize civil quality
  - Maximize safety
- **Maintenance Objectives**
  - Maximize ease of replacement

- Maximize ease of construction
- Maximize the use of available materials and finishes
- Encourage the use of durable materials and finishes
- Minimize the number of components
- Minimize lifecycle costs
- Maximize the use of materials that are interchangeable with existing TriMet construction
- **Bus System**
  - The level of service will indicate the relative importance of the preceding goals, objectives, and criteria
  - Features will vary depending on scale of ridership, adjacent context, and modal transfers

<b>Status:</b> Approved	<b>Approval Date:</b> December 2005	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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### 3.2 – Platform

#### Description:

There are three basic platform arrangements within the overall system; 1) center platform, where the trackways are on either side of the platform; 2) side platform, where the platforms are on either side of the trackways; and 3) split platform, where the platforms are shifted off center and are arranged on either side of the trackway. Other platform arrangements, which are more complex variations of these three basic themes, are also used. For example, at Washington Park the center platform is utilized, but is spread out so each platform direction is its own entity. At Gateway and Expo side platforms are combined with center platforms. This is done to accommodate special event trains, short duration trains, or multiple trains serving various destinations.

The following 3.2 descriptions are 'ensembles', and as such still need to be reviewed for standard vs. non-standard elements by PBOT.

#### Location:

Throughout the City.

#### Figure 3.2-P1

##### Center Platform

Location Shown: King's Hill Station  
Project(s): Red, Blue and Yellow Lines



#### Figure 3.2-P2

##### Center Platform

Location Shown: Prescott Street Station  
Project(s): Red, Blue and Yellow Lines

Specific consideration needs to be taken as platform dimensions can become very constrained when the standard amenities and system requirements are included.



**Figure 3.2-P3**

**Side Platform in Tunnel**

Location Shown: Washington Park Station  
Project(s): Blue Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: No

Special considerations are needed for entry/exit, lighting, fire controls, signage and art.



**Figure 3.2-P4**

**Side Platform**

Location Shown: Holladay Street Station  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd District)  
Historic Overlay District: Yes (Kenton, Old Town/Chinatown, Skidmore Fountain)

The use of non-standard elements, like design overlay and historic district specific bollards, requires special review and approval by the City of Portland.



**Figure 3.2-P5**

**Side Platform**

Location Shown: Kenton Station  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Lloyd District)  
Historic Overlay District: Yes (Kenton, Old Town/Chinatown, Skidmore Fountain)

When side platforms are located along public sidewalks and adjacent to public and private property, care needs to be taken. A variety of standard elements may be used to create an effective public realm.



**Figure 3.2-P6**  
**Split Platform**  
 Location Shown: SE 122<sup>nd</sup> Station  
 Project(s): Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

These platforms are center platforms offset on either side of a common intersection.

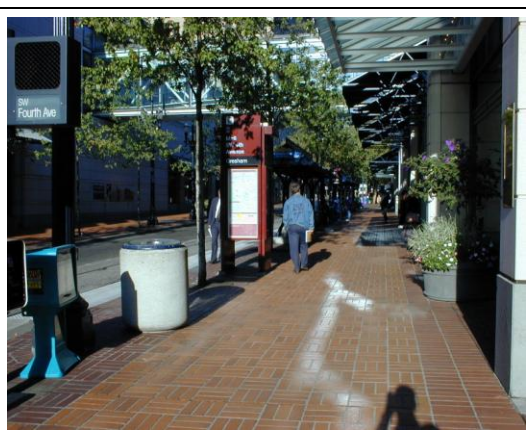


**Figure 3.2-P7**  
**Split Platform**  
 Location Shown: Killingsworth Station  
 Project(s): Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

In tight or restricted rights-of-way this platform concept helps to make the most of the available space.



**Figure 3.2-P8**  
**Wide Platform to Accommodate Commercial Development**  
 Location Shown: Yamhill (EB) at 5<sup>th</sup> Avenue  
 Project(s): Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: Yes (Kenton, Old Town/Chinatown)  
 Extra wide platforms and sidewalks are provided to allow for a transit and pedestrian through zone.



**Figure 3.2-P9**  
**Wide Platform**  
 Location Shown: Pioneer Square  
 Project(s): Blue Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Skidmore Fountain)  
 In special cases the transit platform can function as an important part of a larger civic place.

Other Locations: PGE Park, Skidmore Fountain






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**Approval Date:**  
 December 2005

**Revision:**  
 Final Draft

**Approved by:**  
 PBOT/Design Review

<p><b>Figure 3.2-P10</b>  <b>Center Platform</b>  Location Shown: Lincoln Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space)  Historic Overlay District: No</p>			
<p><b>Figure 3.2-P11</b>  <b>Side Platform, Multimodal Station</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p> <p>Unique in sharing four transport modes: LRT, bus, streetcar and bike.</p>			
<p><b>Figure 3.2-P12</b>  <b>Grade Separated Platform</b>  Location Shown: Bybee Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>3.3 – Platform Elements</b></p>
<p><b>Description:</b></p> <p><b>Platform Edge:</b> The platform edge should provide a 24-inch detectable warning paver assembly, using FTA approved truncated dome pavers running the length of the platform edge. This detectable warning edge assembly may incorporate an accommodation for the deployment of LRV bridgeplate. Concessions should be located off of the platform and in an area adjacent to the flow of passengers. As much as possible of the platform should be kept clear of fixed elements such as furniture, signage, shelters, etc.</p> <p><b>Exits:</b> When side platforms adjacent to sidewalks are not possible, exits should be located at both ends of the platform to provide uncontested passenger movement whenever possible. Exits should provide safe exiting from trains and platforms under normal operational and emergency conditions. Platforms and exits should be sized to comply with NFPA 130 and allow passengers to completely clear the platform prior to the arrival of the next train.</p> <p><b>Lighting:</b> Station platforms should have a luminance of 40 average horizontal foot-candles. Platform area lighting should be in waiting and loading areas. The lighting elements should extend the entire length of the platform, demarcate the platform, and emphasize the platform edge, vertical vehicle surfaces, and</p>

landings associated with elevators and stairs. A typical station will have two 35 lamps and four 12 accent lights. Signals at station platforms that do not have to be viewed from a distance can be dwarf-type railway color light signals on pedestal bases.

**Electrical Cabinets:** Electrical cabinets are typically located on the platform for adjacency to the platform elements that they serve and for safe maintenance. However, off platform locations can be used when platform space is limited. There can be up to four electrical cabinets per station.

**Hydrants:** J-Boxes and hydrants in platforms provided connection points to facilitate installation and maintenance. They should be set flush to minimize trip hazards.

**Location:**

Throughout the City.

**Figure 3.3-P1**

**Tactile Pavers—Synthetic Stone**

Location Shown: Skidmore Fountain

Project(s): Red and Blue Lines

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Downtown, Gateway, Lloyd District, Hollywood)

Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill)



**Figure 3.3-P2**

**Polycarbonate Resin Tactile Paver**

Location Shown: Rose Quarter

Project(s): Red and Yellow Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Lloyd District)

Historic Overlay District: Yes (Kenton, Russell Street)



**Figure 3.3-P3**

**Headhouse Design**

Location Shown: Hollywood  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Hollywood)  
Historic Overlay District: No

Other Locations: 60<sup>th</sup>, 82<sup>nd</sup> Avenue



**Figure 3.3-P4**

**Platform Stormwater Drain**

Location Shown: Oak Street  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill)



**Figure 3.3-P5**

**Elevator Doors**

Location Shown: Hollywood  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Hollywood)  
Historic Overlay District: No

Other Locations: 60<sup>th</sup>, 82<sup>nd</sup> Avenue, Washington Park



**Figure 3.3-P6**

**Ingress/Egress Stairs**

Location Shown: Hollywood  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Hollywood)  
Historic Overlay District: No

Other Locations: 60<sup>th</sup>, 82<sup>nd</sup> Avenue



**Figure 3.3-P7**

**Junction Box Lid**

Location Shown: Killingsworth  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)





**Figure 3.3-P8**


**Electrical Cabinet**

Location Shown: Goose Hollow  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd District)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



<p><b>Figure 3.3-P9</b>  <b>Hydrant Lid</b>  Location Shown: Hollywood  Project(s): Red, Blue and Yellow Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown, Lloyd, Gateway, Hollywood)  Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 3.3-P10</b>  <b>Precast Concrete Tactile Paver</b>  Location Shown: Division  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Oldtown/Chinatown)</p>	
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<p><b>Figure 3.3-P11</b>  <b>Junction Box Lid</b>  Location Shown: Division  Project(s): Green, Yellow, Red and Blue Lines  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)</p>	
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<p><b>Figure 3.3-P12</b>  <b>Surface Mounted Light Fixture</b>  Location Shown: Lents TC  Project(s): Green Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: Yes (Lents)</p>	
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**Figure 3.3-P13**  
**Headhouse Design**  
 Location Shown: Lents TC  
 Project(s): Green Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: Yes (Lents)  
  
 Other Locations: 60<sup>th</sup>, 82<sup>nd</sup> Avenue



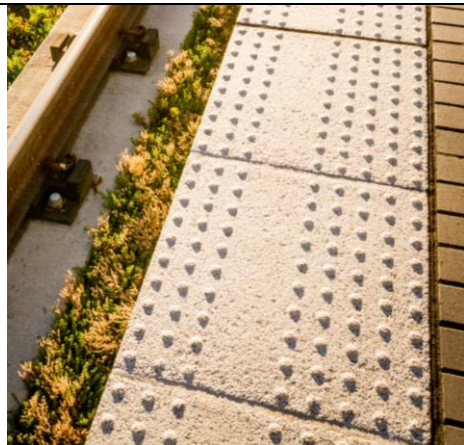
**Status:**  
 Approved

**Approval Date:**  
 December 2015

**Revision:**  
 Final Draft

**Approved by:**  
 PBOT/Design Review

**Figure 3.3-P14**  
**Tactile Paver- Precast Concrete**  
 Location Shown: Lincoln Street Station  
 Project(s): Orange, Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Lents)  
  
 Other Locations: 60<sup>th</sup>, 82<sup>nd</sup> Avenue



**Figure 3.3-P15**  
**Elevator Doors**  
 Location Shown: Bybee Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 3.3-P16**

**Ingress/Egress Stairs**

Location Shown: Bybee Station

Project(s): Orange Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: No



**Status:**

Approved

**Approval Date:**

February 2017

**Revision:**

Updated

**Approved by:**

PBOT/Design Review

### 3.4 – Readerboards

**Description:**

Readerboards provide up-to-date train and bus arrival information and notify patrons of service interruptions. There are up to two reader boards per LRT station platforms and a single reader board for bus shelters.

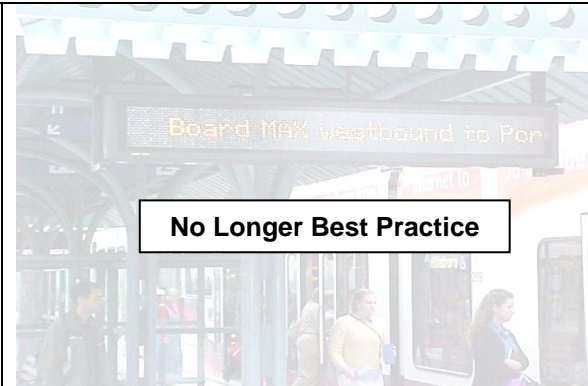
**Location:**

Throughout the City

**Figure 3.4-P1**

**Readerboard**

Location Shown: 82<sup>nd</sup> Avenue  
 Project(s): Red, Blue and Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd, Hollywood, Gateway)  
 Historic Overlay District: Yes (Kenton, Russell St., OTCT, Skidmore, Yamhill )

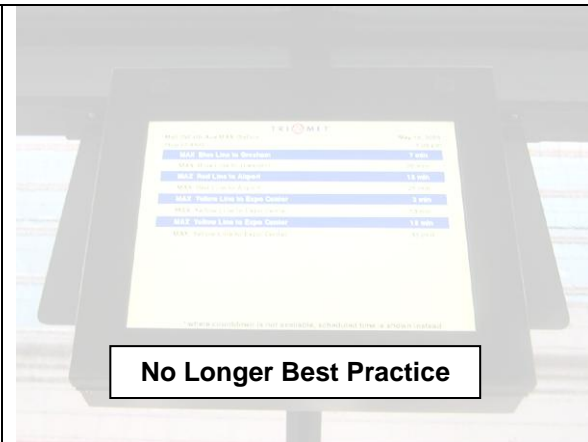


**Figure 3.4-P2**

**Flat Screen Readerboard**

Location Shown: 5<sup>th</sup> and Yamhill Station  
 Project(s): Red, Blue and Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: No

Flat screen readerboards include audio and are used for multiple LRT lines and bus route locations.

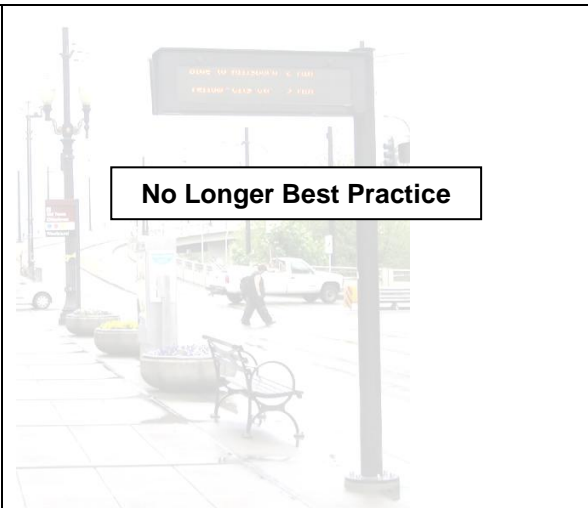


**Figure 3.4-P3**

**Historic District Readerboard**

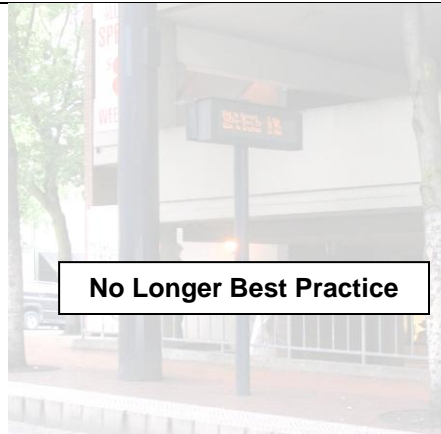
Location Shown: Old Town/Chinatown  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: Yes (Old Town/Chinatown, Yamhill)

Review and approval by City of Portland required for 'flag' positioned, pole mounted signs



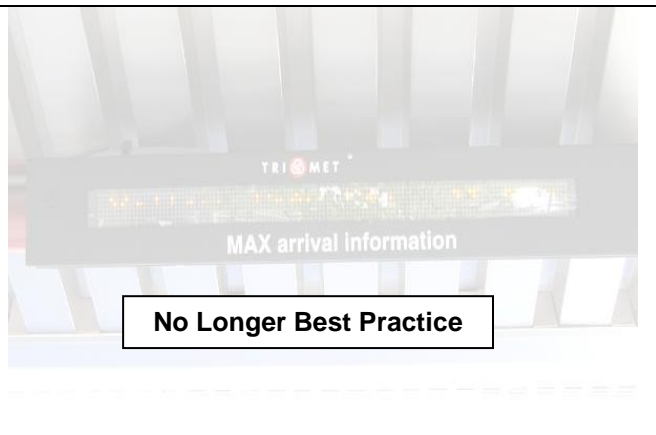
**Figure 3.4-P4**  
**Readerboard on a Confined Platform**  
 Location Shown: Library  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No

When pedestrian through zones are restricted by tight platform dimensions an off-set pole mounted readerboard is acceptable; special review and approval by the City of Portland is required.



**Figure 3.4-P5**  
**Interstate MAX Readerboard**  
 Location: Overlook  
 Project(s): Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: Yes (Kenton, Russell Street)

This is a variation of Figure 3.4-P1 where readerboards are bracketed to the shelter and parallel to the trackway. Audio is included.



<b>Status:</b> Approved	<b>Approval Date:</b> December 2005	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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**Figure 3.4-P6**  
**Flat Screen Readerboard**  
 Location Shown: Main Street Park and Ride  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: Yes (Lents)

Flat screen readerboards include audio and are used for multiple LRT lines and bus route locations.



<b>Status:</b> Approved	<b>Approval Date:</b> December 2015	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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**Figure 3.4-P7**

**Flat Screen Readerboard**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



<b>Status:</b> Approved	<b>Approval Date:</b> February 2017	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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### 3.5 – Station Furnishings

**Description:**

Fixed objects, such as furniture, signage, shelters, etc. should be located in a furniture zone while maintaining adequate distance between elements for circulation. There are one to six ticket machines located at each station (see Figure 3.5-P1).

Guardrails and handrails are to be installed in accordance with ADA, UBC, and federal and state codes and regulations in all hazardous locations such as elevated walkways, at the end of station platforms, and to protect sides of platforms adjacent to street traffic (see Figure 3.5-P2).

Trash receptacles are standard elements found at a station. Figure 3.5-P3 shows a special TriMet trash receptacle with recycling bin. There are two to twelve trash cans located at each station.

Benches are typical furnishings found at stations. Typical benches have to be comfortable and very durable. Benches may be five feet long with manufactured or designed seating.

Typical telephone cabinets are standard at stations. TriMet will be phasing in an upgrade to TTY telephones to comply with ADA guidelines. There is an average of two phones per station.

**Location:**

Throughout the City.

**Figure 3.5-P1**

**Ticket Vending Machine and Validator**

Location Shown: 7<sup>th</sup> and Holladay Platform

Project(s): Red, Blue and Yellow Lines

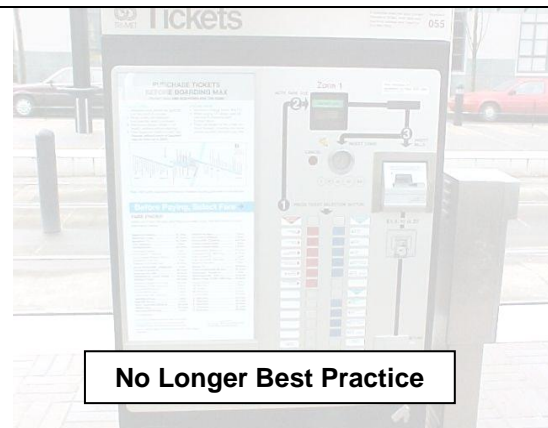
Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Downtown, Lloyd, Hollywood, Gateway)

Historic Overlay District: Yes (Old

Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



**Figure 3.5-P2**

**Platform Handrails**

Location Shown: Rose Quarter

Project(s): Yellow Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Lloyd District)

Historic Overlay District: Yes (Kenton)

\*Ensure separation between platform and vehicular way.



**Figure 3.5-P3**

**Trash Receptacle**

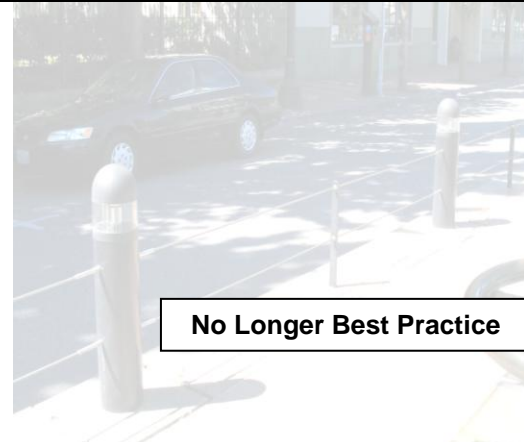
Location Shown: Prescott  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



**Figure 3.5-P4**

**Cable and Bollards**

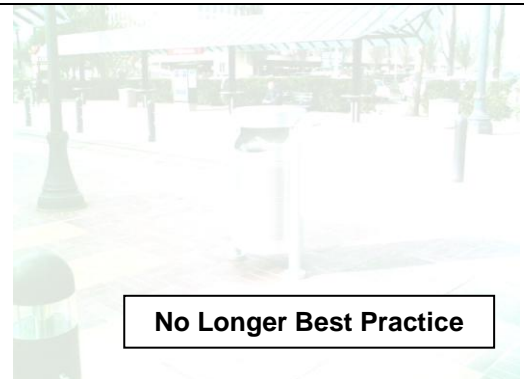
Location Shown: 7<sup>th</sup> and Holladay Platform  
Project(s): Blue Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: No



**Figure 3.5-P5**

**Trash Receptacle with High Security Designation**

Location Shown: 7<sup>th</sup> and Holladay Platform  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: No



**Figure 3.5-P6**

**Typical Bench on Platform**

Location Shown: Holladay Park Station  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



**Figure 3.5-P7**

**Typical Bench – World’s Fair Bench on Platform**

Location Shown: Civic Station  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Lloyd District, Hollywood)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 3.5-P8**

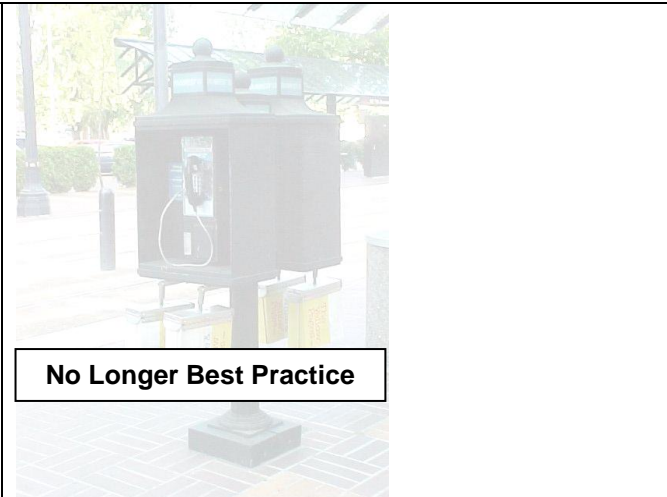
**Custom Bench on Platform**

Location Shown: Goose Hollow Station  
Project(s): Blue Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No





**Figure 3.5-P9**  
**Typical Telephone Cabinet**  
 Location Shown: 7<sup>th</sup> and Holladay Platform  
 Project(s): Red, Blue and Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



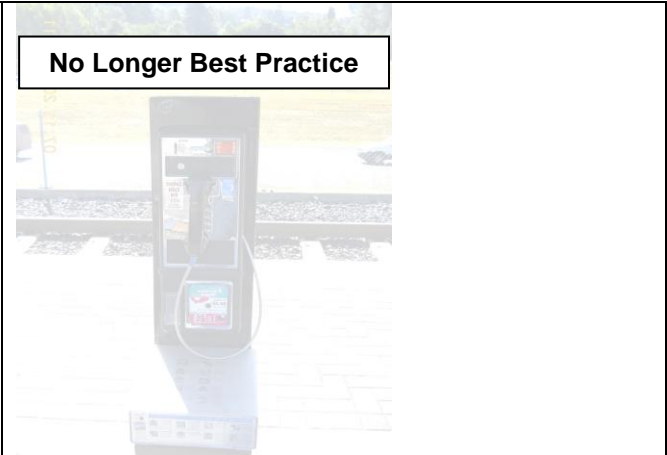
**Status:**  
 Approved

**Approval Date:**  
 December 2005

**Revision:**  
 Final Draft

**Approved by:**  
 PBOT/Design Review

**Figure 3.5-P10**  
**Typical Telephone Cabinet**  
 Location Shown: SE Holgate Blvd Station  
 Project(s): Green, Yellow, Blue and Red Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway, Hollywood)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



**Figure 3.5-P11**  
**Trash Receptacle**  
 Location Shown: SE Holgate Blvd Station  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 3.5-P12**  
**Ticket Validator**  
 Location Shown: SE Holgate Blvd Station  
 Project(s): Green, Red, Yellow and Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd, Hollywood, Gateway)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



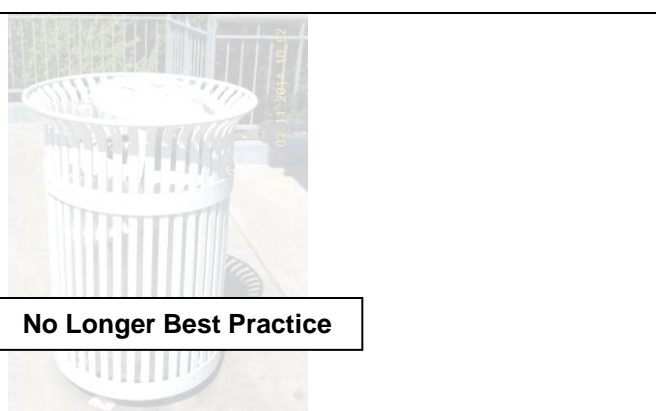
**Figure 3.5-P13**  
**Typical Bench Bus Shelter**  
 Location Shown: SE Flavel St  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Gateway, Lloyd)  
 Historic Overlay District: Yes (Old Town/Chinatown)




**Figure 3.5-P14**  
**Typical Bench off Platform**  
 Location Shown: Lents  
 Project(s): Green Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Gateway, Lloyd)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill)



**Figure 3.5-P15**  
**Trash Receptacle off Platform**  
 Location Shown: Lents  
 Project(s): Green Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: No



<p><b>Figure 3.5-P16</b>  <b>Fire Hydrant</b>          Location Shown: Lents Town          Project(s): Green Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Downtown, Lloyd, Hollywood, Gateway, Kenton)          Historic Overlay District: Yes (Downtown, Lloyd, Hollywood, Gateway, Kenton)</p>	
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<p><b>Figure 3.5-P17</b>  <b>Typical Bench – World’s Fair Bench on Platform</b>          Location Shown: Gateway          Project(s): Green and Blue Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Downtown, Lloyd District, Hollywood)          Historic Overlay District: Yes (Old Town/Chinatown, Yamhill, Skidmore )</p>	
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<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>
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<p><b>Figure 3.5-P18</b>  <b>Bench on Platform</b>          Location Shown: Lincoln          Project(s): Orange Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Halprin Open Space, South Waterfront)          Historic Overlay District: No</p>	
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<p><b>Figure 3.5-P19</b>  <b>Shelter Integrated Bench on Platform</b>          Location Shown: Clinton Station          Project(s): Orange Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: No          Historic Overlay District: No</p>	
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**Figure 3.5-P20**

**Leaning Rail**

Location Shown: Holgate Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.5-P21**

**Leaning Rail for Narrow Platform**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.5-P22**

**Ticket Vending Machine and Fare Validator**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.5-P23**

**Trash Receptacle On Platform**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.5-P24**

**Typical Telephone Cabinet**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.5-P25**

**Platform Railing**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No



**Figure 3.5-P26**

**Platform Railing**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



<p><b>Figure 3.5-P27</b>  <b>Platform Railing</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 3.5-P28</b>  <b>Platform Railing</b>  Location Shown: Bybee Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 3.5-P29</b>  <b>Platform Railing</b>  Location Shown: SE 102nd Station  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

### 3.6 – Transit Customer Information

#### Description:

Information Pylons provide customers system information and tactile way-finding maps for vision-impaired users. Pylons should be sized to accommodate standard TriMet information materials, including LRT and bus system maps and schedules and to accommodate internal maintenance that may be required. Pylons will be located in the platform half at the front end of the train with one each for in-bound and out-bound platform. Additional 2-sided pylons should be located at other pedestrian entry points or double entry platforms. Two freestanding or integrated blade signs should be posted at each platform to cover the areas that are not covered by pylons. Station identification signs should provide system, station, and destination information.

#### Location:

Throughout the City.

#### Figure 3.6-P1

##### 4-Sided Information Pylon

Location Shown: Portland Boulevard Station

Project(s): Red, Blue and Yellow Line

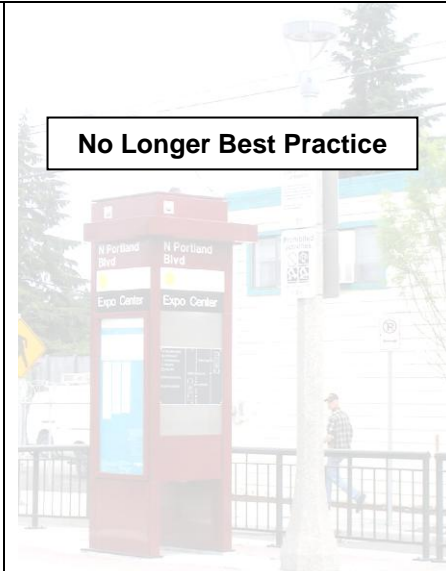
Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)

Historic Overlay District: Yes (Old

Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



#### Figure 3.6-P2

##### 3-Sided Information Pylon

Location Shown: Portland Boulevard Station

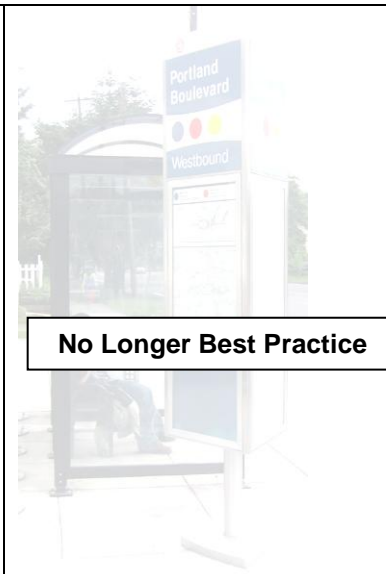
Project(s): Yellow Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: No



**Figure 3.6-P3**

**2-Sided Information Pylon**

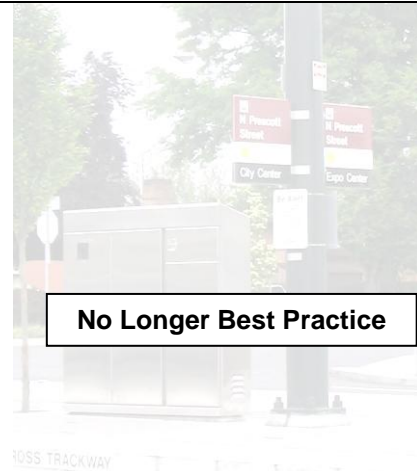
Location Shown: Expo Center Station  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd)  
Historic Overlay District: Yes (Kenton, Russell Street)



**Figure 3.6-P4**

**Blade Sign**

Location Shown: Prescott Street Station  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



**Figure 3.6-P5**

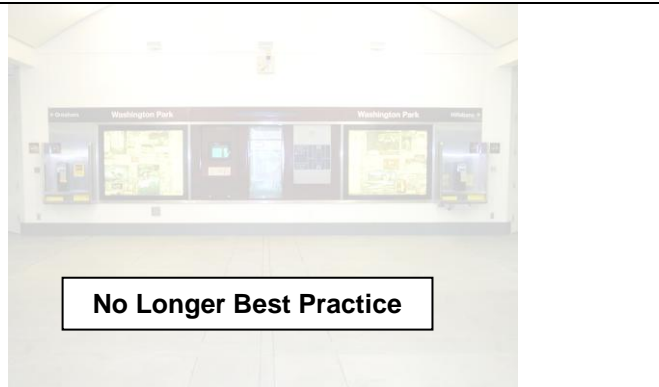
**Station Identification Sign on Shelter**

Location Shown: Delta Park/Vanport Station  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)

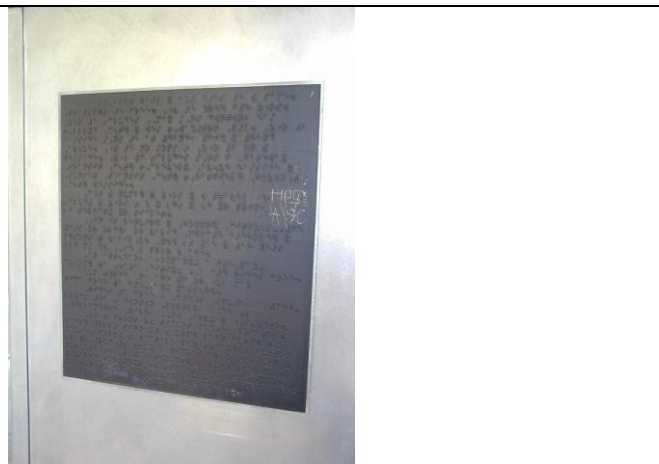




**Figure 3.6-P6**  
**Underground Station Information Kiosk**  
 Location Shown: Washington Park Station  
 Project(s): Blue Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 3.6-P7**  
**Visually Impaired Information Board**  
 Location Shown: Washington Park Station  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



**Figure 3.6-P8**  
**Basic Customer Information Display (BCID)**  
 Location Shown: Rose Quarter  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



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 PBOT/Design Review

**Figure 3.6-P9**

**2-Sided Information Pylon**

Location Shown: Fuller  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.6-P10**

**Blade Sign**

Location Shown: Fuller  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.6-P11**

**Regulatory Signs**

Location Shown: Fuller  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.6-P12**

**Bus Blade Sign**

Location Shown: Lents  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
Historic Overlay District: Yes (Old Town/Chinatown, Kenton, Russell Street)



**Figure 3.6-P13**  
**Station Identification Sign on Shelter**  
 Location Shown: Flavel  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



**Figure 3.6-P14**  
**Visually Impaired Information Sign**  
 Location Shown: Flavel  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)  
 Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)



**Figure 3.6-P15**  
**Way finding Sign**  
 Location Shown: Flavel  
 Project(s): Green Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: Yes (Lents)



**Figure 3.6-P16**  
**Bus Bay Sign**  
 Location Shown: Gateway  
 Project(s): Green, Red and Blue Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway, Hollywood)  
 Historic Overlay District: Yes (Old Town/Chinatown)



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**Figure 3.6-P17**  
**Station Identification Sign on Shelter**  
 Location Shown: Holgate Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
 Historic Overlay District: No



**Figure 3.6-P18**  
**Blade Sign on Platform Light Pole**  
 Location Shown: Rhine Street Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
 Historic Overlay District: No

Includes CCTV camera support arms.



**Figure 3.6-P19**  
**Blade Sign**  
 Location Shown: South Waterfront  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 3.6-P20**

**Bus Blade Sign**

Location Shown: Bybee Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.6-P21**

**Visually Impaired Information Sign**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.6-P22**

**Regulatory Sign**

Location Shown: South Waterfront  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 3.6-P23**

**Two-Sided Regulatory Sign**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.6-P24**

**Station Integrated Regulatory Sign**

Location Shown: Holgate Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.6-P25**

**Regulatory Signs**

Location Shown: Tilikum Crossing  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No





**Figure 3.6-P26**

**Information Pylon**

Location Shown: Holgate Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



<p><b>Figure 3.6-P27</b>  <b>Commemorative Signage- Plaques</b>  Location Shown: Tilikum Crossing  Project(s): Orange Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes ( South Waterfront)  Historic Overlay District: No</p>			
<p><b>Figure 3.6-P28</b>  <b>Commemorative Signage- Bridge Name</b>  Location Shown: Tilikum Crossing  Project(s): Orange Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes ( South Waterfront)  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

### 3.7 – Bike Lockers

**Description:**

Clamshell and standard bike lockers can be found at LRT stations and Park & Rides. They provide secure protection for transit users, as well as weather protection. The clamshell locker can be used by any transit user with a lock, whereas TriMet rents the standard locker to regular commuters. Both regular commuters and choice riders can use the next generation lockers on the Interstate MAX. There are up to 14 bike lockers and four bike racks at a station. Their quantity is determined on a project-by-project basis. City of Portland may have specific criteria or requirements for “covered and secure storage rooms” in urban or transit oriented design areas.

**Location:**

Throughout the City.

**Figure 3.7-P1**

**Bicycle Locker**

Location: Burnside and NE 122nd  
 Project(s): Red and Blue Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: No



**Figure 3.7-P2**

**“Clam Shell” Bicycle Locker**

Location Shown: Gateway  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No



**Figure 3.7-P3**

**Bike Locker in High Security Environments**

Location Shown: Rose Quarter  
 Project(s): Blue, Red Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: No



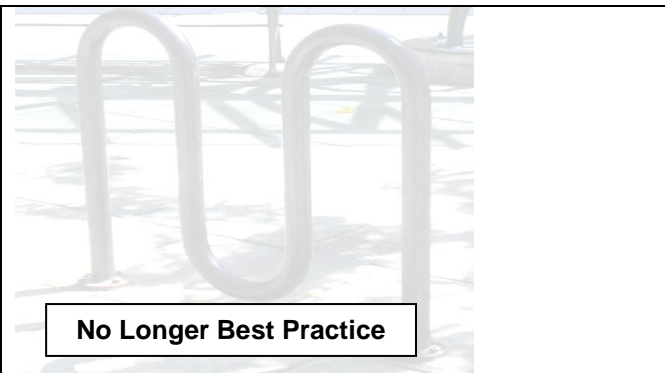
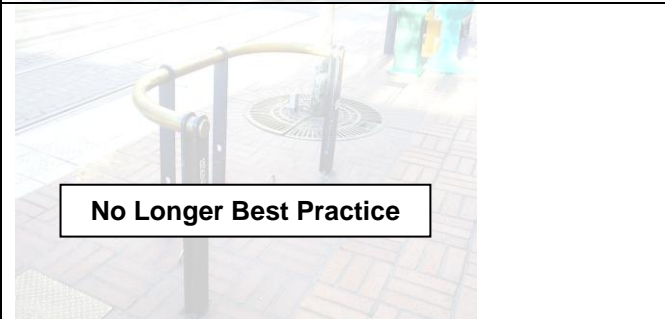
**Figure 3.7-P4**


**Interstate MAX Bike Locker**


Location Shown: Delta Park/Vanport Station  
 Project(s): Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: Yes (Kenton, Russell Street)

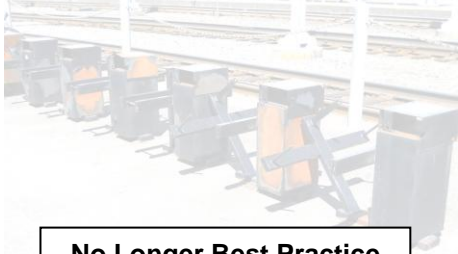




<p><b>Figure 3.7-P5</b>  <b>“Ribbon” Shaped Bike Rack</b>  Location Shown: PGE Park Station  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>			
<p><b>Figure 3.7-P6</b>  <b>Bike Rack (Also Used As Newspaper Vending Machine Rack)</b>  Location Shown: Oak Street  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Old Town/Chinatown, Yamhill, Skidmore Fountain)</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 3.7-P7</b>  <b>Interstate MAX Bike Locker</b>  Location Shown:  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Lloyd District)  Historic Overlay District: Yes (Kenton, Russell Street)</p>	
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<p><b>Figure 3.7-P8</b>  <b>“Ribbon” Shaped Bike Rack</b>  Location Shown:  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	
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<p><b>Figure 3.7-P9</b>  <b>Bike Rack</b>          Location Shown:          Project(s): Green Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Downtown)          Historic Overlay District: Yes (Old Town/Chinatown, Yamhill, Skidmore Fountain)</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p> <p style="text-align: right; font-size: small;">07.11.2014 15:55</p>
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<p><b>Figure 3.7-P10</b>  <b>Bike Locker in High Security Environments</b>          Location Shown:          Project(s): Green Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Lloyd District)          Historic Overlay District: No</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p>
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<b>Status:</b> Approved	<b>Approval Date:</b> December 2015	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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<p><b>Figure 3.7-P11</b>  <b>Bike Rack – Powder Coated Steel, Surface Mounted</b>          Location Shown: Lincoln Station          Project(s): Orange Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Halprin Open Space)          Historic Overlay District: No</p> <p>City of Portland’s standard rack.</p>	
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

<p><b>Figure 3.7-P12</b>  <b>Bike Rack – Stainless Steel, Textured Finish, Recessed Mounted</b>          Location Shown: South Waterfront Station          Project(s): Orange Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (South Waterfront)          Historic Overlay District: No</p> <p>TriMet’s standard rack.</p>	
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

<p><b>Figure 3.7-P13</b>  <b>Bike Rack Cluster</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p> <p>OHSU's standard rack.</p>		
<p><b>Figure 3.7-P14</b>  <b>Station Adjacent Bike Rack Cluster</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		
<p><b>Figure 3.7-P15</b>  <b>Sidewalk Adjacent Bike Rack Cluster, Surface Mounted</b>  Location Shown: Rhine Street Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		
<p><b>Figure 3.7-P16</b>  <b>Bike Shelter</b>  Location Shown: OMSI Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>		

<p><b>Figure 3.7-P17</b>  <b>Bike Shelter</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>	
<p><b>Figure 3.7-P18</b>  <b>Bike Racks on Grade Separated Platform</b>  Location Shown: Bybee Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 3.7-P19</b>  <b>Bike Rack Cluster on Grade Separated Platform</b>  Location Shown: Bybee Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 3.7-P20</b>  <b>Park and Ride Bike Cluster</b>  Location Shown: Tacoma Park and Ride  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	

**Figure 3.7-P21**

**Park and Ride Bike Shelter**

Location Shown: Tacoma Park and Ride

Project(s): Orange Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: No



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### 3.8 – Shelters

#### Description:

Shelters have many objectives including providing protection for the fare equipment and passengers, providing identify for the station and surrounding area, and providing a feeling of security and means of surveillance. Shelters are standard elements of every station. There are two standard types of shelters, metal roof and glass roof.

#### Location:

Throughout the City.

#### Figure 3.8-P1

##### Glass Roof Shelter

Location Shown: 7<sup>th</sup> and Holladay Platform  
Project(s): Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Lloyd District)  
Historic Overlay District: Yes (Old Town/Chinatown, Yamhill)

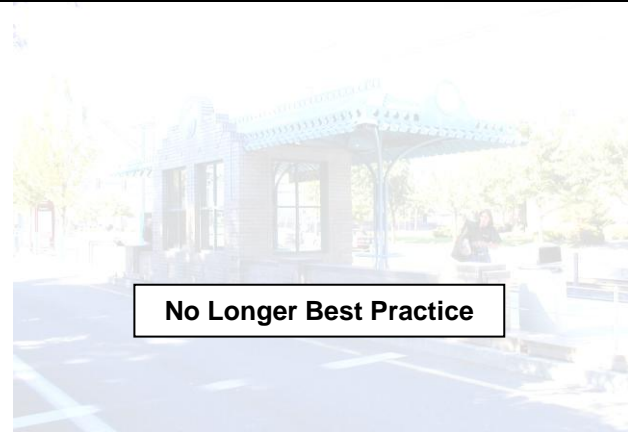
Other Locations: Convention Center



#### Figure 3.8-P2

##### Shelter with Wind Screen

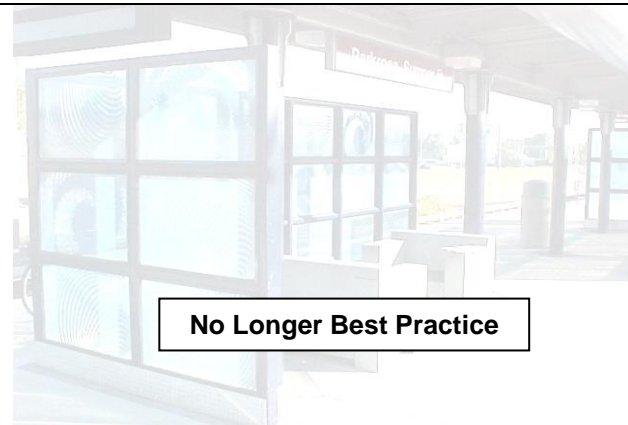
Location Shown: Burnside and NE 122nd  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



#### Figure 3.8-P3

##### Shelter with freestanding Wind Screen

Location Shown: Parkrose  
Project(s): Red, Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.8-P4**

**Metal Roof Shelter**

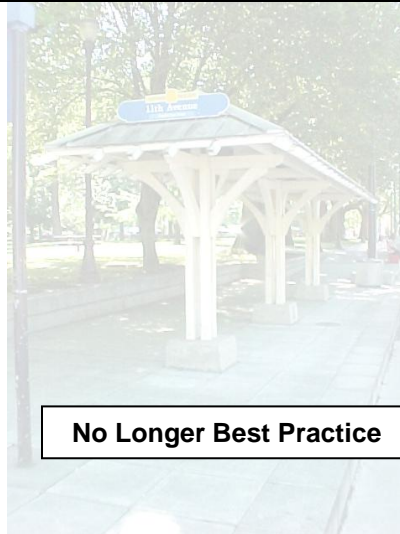
Location Shown: Killingsworth Station  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Gateway, Hollywood)  
Historic Overlay District: Yes (Kenton Street, Russell Street)



**Figure 3.8-P5**

**Wood Shelter**

Location Shown: Holladay Park  
Project(s): Blue Line (Portland Trolley)  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: No



**Figure 3.8-P6**

**West-Side Shelter with Wind Screen**

Location Shown: Goose Hollow Station  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



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**Figure 3.8-P7**

**Metal Roof Shelter**

Location Shown: SE Holgate Blvd Station  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Gateway, Hollywood)  
Historic Overlay District: Yes (Kenton Street, Russell Street)



**Figure 3.8-P8**

**Vending Machine shelter**

Location Shown: SE Holgate Blvd Station  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.8-P9**

**Shelter with freestanding Wind Screen**

Location Shown: SE Holgate Blvd Station  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

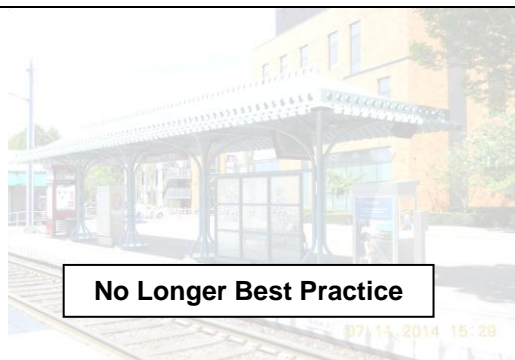




**Figure 3.8-P10**  
**Bus Shelter**  
 Location Shown: SE Flavel St  
 Project(s): Green Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (All)  
 Historic Overlay District: Yes (All)



**Figure 3.8-P11**  
**Shelter with Wind Screen**  
 Location Shown: Gateway Transit Center  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway, Hollywood)  
 Historic Overlay District: No



**Figure 3.8-P12**  
**Glass Roof Shelter**  
 Location Shown: Gateway Transit Center  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No



**Figure 3.8-P13**  
**Shelter Lighting**  
 Location Shown:  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd, Hollywood, Gateway)  
 Historic Overlay District: Yes (OTCT, Yamhill)



**Figure 3.8-P14**  
**Metal Roof Shelter**  
 Location Shown: SE Division Blvd Station  
 Project(s): Green Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd)  
 Historic Overlay District: Yes (Kenton Street, Russell Street)



**Figure 3.8-P15**  
**Vending Machine Shelter**  
 Location Shown: SE Division Blvd Station  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



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**Figure 3.8-P16**  
**Bi-Facial Solar Panel Roof Shelter with Wind Screen**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
 Historic Overlay District: No



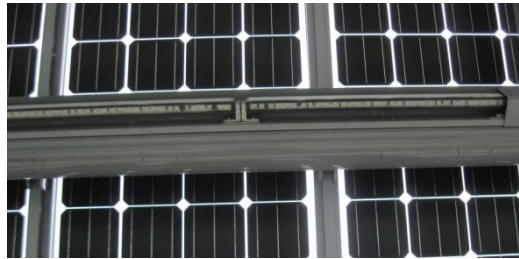
**Figure 3.8-P17**  
**Bi-Facial Solar Panel Roof Shelter with Free Standing Wind Screen**

Location Shown: Holgate Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.8-P18**  
**LED Shelter Lighting**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.8-P19**  
**Bi-Facial Shelter Roof Solar Panel**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space, South Waterfront)  
Historic Overlay District: No



**Figure 3.8-P20**

**Vending Machine Shelter**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No



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### 3.9 – Curb Ramps at Station Platforms

**Description:**

Any part of an accessible route with a slope greater than 1:20 is considered a ramp and needs to comply with the Federal Transit Administration’s Part 37 “Standards for Accessible Transportation Facilities”. The least possible slope should be used for any ramp. The maximum slope allowed is 1:12. The maximum rise for any ramp is 30 inches. The preferred maximum gradient is six percent. Ramps used by physically impaired patrons will have four foot long level landings for rest and safety at 30-foot intervals and whenever turnouts are unavoidable. A five-foot-by-five-foot landing is desirable at the top of a ramp with six feet of straight clearance at the bottom. Handrails should be provided on both sides and should be continuous above nonskid surface of ramp. The minimum design capacity of a ramp would be for Fruin level of service C, ten to fifteen pedestrians per foot of effective width per minute.

Starting with the Westside project (eventually designated as the ‘Blue Line’) railings were added to ingress ramps to channel patrons to designated track and vehicular crossings.

**Location:**

Throughout the City.

**Figure 3.9-P1**

**Ramp at Platform**

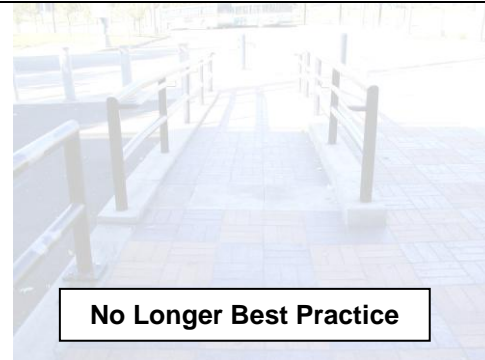
Location Shown: Skidmore Fountain Station  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 3.9-P2**

**Station Ingress Ramp**

Location Shown: Rose Quarter  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: No



**Figure 3.9-P3**

**Station Ingress Ramp**

Location Shown: Prescott \*  
Project(s): Yellow Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: No

\* Artistic design treatment combined with a 'standard' format makes this application 'Nonstandard'.



**Figure 3.9-P4**

**Station Ingress Ramp**

Location Shown: Goose Hollow  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 3.9-P5**

**Station Ingress Ramp**

Location Shown: Killingsworth  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: Yes (Kenton, Russell Street)



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**Figure 3.9-P6**  
**Station Ingress Ramp**  
 Location Shown: Lincoln Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Halprin Open Space)  
 Historic Overlay District: No



**Figure 3.9-P7**  
**Station Ingress Ramp**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 3.9-P8**  
**Station Ingress Ramp**  
 Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 3.9-P9**  
**Station Ingress Ramp**  
 Location Shown: Rhine Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



<p><b>Figure 3.9-P10</b>  <b>Station Ingress Ramp</b>  Location Shown: Holgate Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 3.9-P11</b>  <b>Station Ingress Ramp</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 3.9-P12</b>  <b>Station Ingress Ramp</b>  Location Shown: E 102<sup>nd</sup> Ave. Station  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 3.9-P12</b>  <b>Station Ingress Ramp</b>  Location Shown: E 102<sup>nd</sup> Ave. Station  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>



### 3.10 – Bus Facilities

#### Description:

Bus transfer points such as Burnside and NE 122<sup>nd</sup>, and at the N Killingsworth and N Portland stations on Interstate MAX, are primarily multi-modal transfer connections between bus and light rail.

The following 3.10 descriptions are 'ensembles', and as such still need to be reviewed for standard vs. non-standard elements by PBOT.

#### Location:

Throughout the City.

#### Figure 3.10-P1

##### Bus Transfer Point

Location Shown: Burnside and NE 122nd

Project(s): Blue Line, Red, Yellow



#### Figure 3.10-P2

##### Bus Bays at Transit Center

Location Shown: Hollywood TC

Project(s): Blue, Red, Yellow Lines



#### Figure 3.10-P3

##### Bus Transfer Station

Location Shown: Rose Quarter

Project(s): Blue, Red, Yellow Lines



**Figure 3.10-P4**  
**High Capacity Bus Transfer Point**  
 Location Shown: Killingsworth Station  
 Project(s): Yellow Line



**Figure 3.10-P5**  
**Bus Transfer along LRT alignment**  
 Location Shown: Lower Albina  
 Project(s): Blue, Red, Yellow Line



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**Figure 3.10-P6**  
**Multi-Modal Platform**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No

Bus and light rail with adjacent platforms.






**Figure 3.10-P7**  
**Multi-Modal Platform**  
 Location Shown: OMSI Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



Bus and light rail with adjacent platforms.



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### TRIMET'S BUS STOP CLASSIFICATION GUIDELINES

Stop Type	Illustration	TriMet Managed Bus Stop Features	Externally Managed Features	Use/Stop Type Designation Criteria
<b>Under-Developed</b>		No pavement; inadequate shoulder; visibility blocked; poor lighting; insufficient ADA clearances; undue exposure to weather/ traffic; shared pole; one sided visibility	No clear, safe pedestrian access; no logical, safe street crossing; unsafe topography; standing water; unpleasant site conditions	Poor, or lack of, supporting land uses; few or no boarding rides; closely spaced with another stop
<b>Basic</b>		Pavement meets ADA clearances; bus stop sign on dedicated pole	Safe street crossing (corner, ADA ramps); sidewalk or safe shoulder access	All stops meeting spacing/siting criteria
<b>Level 1</b>		<i>Preceding features plus:</i> Standard (A or B) shelter (larger if justified); lighting (utility pole or shelter); route and schedule display; trash can; free standing bench; pad for rear door, when physically possible	<i>Preceding features plus:</i> sidewalk connections; curb extensions; crosswalks	High use stops (35 or more boarding rides / day); significant employer program participant; apartments; institutions; hospitals; shopping centers; major business; minor park & ride lots (shared use); stops with significant usage by riders who are disabled or elderly

<p><b>Level 2</b></p>		<p><i>Preceding features plus:</i> Double or high capacity shelter; route and schedule display and/or real time information; trash can; bike rack; public telephone (dial out only); free standing bench; potential art work</p>	<p><i>Preceding features plus:</i> streetscape enhancements ; community bulletin board; newspaper vending bins</p>	<p>Major stops (200 or more boarding rides / day); transit mall; major park &amp; ride lot; all transfer points; stops with active lift or ramp usage, most Frequent Bus stops</p>
<p><b>Level 3</b></p>		<p><i>Preceding features plus:</i> "Station" style shelter; free standing bench(s); bike lockers, lids or other long-term storage; operator building and restroom as needed; ticket vending machine; artwork elements</p>	<p><i>Preceding features plus:</i> concession or nearby shop(s); landscaping; public restroom; U.S. mail box</p>	<p>Bus Rapid Transit service; transit centers; high volume park &amp; ride lots; major transfer hubs</p>

### 3.11 – Park and Ride Facilities

**Description:**

Park and ride lots may be surface or structured parking. They need to be safe and attractive with low maintenance designs. “Quick Drop” and accessible parking spaces are located for direct access to transit platforms.

The following 3.11 descriptions are ‘ensembles’ (except 3.11- P3 & P4), and as such still need to be reviewed for standard vs. non-standard elements by PBOT.

**Location:**

Throughout the outer parts of the City.

**Figure 3.11-P1**

**Park and Ride Lot**

Location Shown: Delta Park/Vanport  
Project(s): Red, Blue and Yellow Lines



**Figure 3.11-P2**

**Park and Ride Lot Signage**

Location Shown: Parkrose Sumner TC  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Gateway)  
Historic Overlay District: No



**Figure 3.11-P3**

**Park and Ride Lot Signage**

Location Shown: Gateway  
Project(s): Blue, Red, Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Gateway)  
Historic Overlay District: No



**Figure 3.11-P4**

**Parking Garage**

Location Shown: Gateway  
Project(s): Blue Line





**Figure 3.11-P5**

**“Quick Drop” Drop-Off**

Location Shown: Parkrose  
Project(s): Red Line



<p><b>Figure 3.11-P6</b>  <b>Quick Drop</b>  Location: Downtown  Project(s): Blue, Red, Yellow Lines  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown, Gateway, Lloyd)  Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill, Kenton, Russell Street)</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 3.11-P7</b>  <b>Surface Park and Ride Lot</b>  Location Shown: Main Street Station P &amp; R  Project(s): Green line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Gateway)  Historic Overlay District: No</p>	
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<p><b>Figure 3.11-P8</b>  <b>Fire Hydrant</b>  Location Shown: Main Street Station P &amp; R  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Gateway, Hollywood)  Historic Overlay District: Yes (Kenton, Russell St.)</p>	
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<p><b>Figure 3.11-P9</b>  <b>Landscaping- bioswales</b>  Location Shown: Main Street Station P &amp; R  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
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**Figure 3.11-P10**  
**Accessible Parking Space & Symbols**  
 Location Shown: Main Street Station P & R  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No



**Figure 3.11-P11**  
**Surface Parking Wheel Stop**  
 Location Shown: Main Street Station P & R  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No



**Figure 3.11-P12**  
**Hardy, Drought Tolerant Landscaping**  
 Location Shown: Main Street Station P & R  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



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**Figure 3.11-P13**  
**Tacoma Park and Ride**  
 Location Shown: Tacoma Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No





**Figure 3.11-P14**  
**Park and Ride Lot Signage**  
 Location Shown: Tacoma Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



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### 3.12 – Alignment Terminus

**Description:**

There are two basic configurations: End of the line (Expo TC), and 'Turn Back' (SW 11<sup>th</sup> Avenue turnaround). End of the line equipment includes safety features to protect pedestrians and vehicles. The following 3.12 descriptions are 'ensembles' (except 3.12- P3), and as such still need to be reviewed for standard vs. non-standard elements by PBOT.

**Location:**

Expo TC, Downtown

**Figure 3.12-P1**

**Terminus Point**

Location Shown: Expo Center  
Project(s): Red, Blue and Yellow Lines



**Figure 3.12-P2**

**SW 11<sup>th</sup> Avenue Turnaround**

Location Shown: SW 11<sup>th</sup> Avenue, between SW Yamhill and SW Morrison  
Project(s): Red, Blue and Yellow Lines

The turnaround can be embedded or tie and ballast. The design overlay district may require specific treatments along with embedded track.



**Figure 3.12-P3**

**Bumping Post**

Location Shown: Expo  
Project(s): Yellow and Blue Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



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**Figure 3.12-P4**

**South Terminus**

Location Shown: South Terminus  
Project(s): Orange, Yellow Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



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### 3.13 – Standard Materials

The following is a list of standard types of materials and finishes to be used in station platform areas.

#### Paving

- Concrete
- Asphalt
- Brick Pavers
- Truncated dome tactile pavers
- Pre-cast concrete pavers
- Stone
- Permeable pavers

#### Standard Structure Material

- Wood
- Reinforced concrete
- Pre-cast concrete
- Concrete frame with masonry infill
- Concrete masonry units
- Steel framing
- Aluminum framing
- Wall finishes
- Exposed architectural concrete
- Brick masonry
- Metal panel
- Ceramic tiles
- Safety glass
- Concrete masonry unit
- Cement plaster
- Paint
- Inorganic wall coating
- Stainless steel railings
- Stainless steel cabinets
- Stainless steel lighting
- Wire mesh gabions
- Permeable planking walkway
- Laminated solar photovoltaic

#### Color Palette

- *Painted Metal TriMet Black*: Guardrail, Benches, TVM Sides
- *Painted Metal TriMet Blue*: Shelters, Guardrail, Benches, TVM Sides, Dual Use Street Lights, On Platform/Traffic Nosing
- *Painted Metal TriMet Deep Red*: Information Pylons, Blade Signs
- *Glazed Roof/Laminated Glass*: Rose Quarter Shelter Roof, Holladay Shelter Roof, Downtown Shelter Roof
- *Precast Concrete Natural Color*: Trash Receptacles, Light Poles
- *Porcelain Enamel Finish, Deep Red*: Shelter Identification Signs
- *Galvanized/Aluminum*: Shelter Eave Fascia, Chain and Bollard, I-Beam Catenary Poles, Bollards
- *Satin Stainless Steel Pipe*: Shelter Leaning Rail
- *Bend Blast Stainless Steel Pipe*: Shelter Leaning Rail
- *Brass*: Shelter Leaning Rail
- *Scored, Broom Finish Concrete*: Ramps, Landings, Curbs, Crosswalk/Road, Furnishings Strip, Warning Strips
- *White Amour-Tile Paver with Bridge Plate Strip*: LRT Warning Strip Tiles

- *Natural Gray Grout: Joints*
- *Natural Gray Sealant: Joints*
- *Charcoal Gray Concrete Pavers: 4x8, 4x4 Herringbone Platform Paving*
- *Natural Gray Concrete Pavers: 8x8 Feature Strip*
- *Alternate Color Concrete Pavers (Ruby Red, Tan, Brown): 4x8, 4x4 Herringbone Platform Paving*
- *Black colored concrete*
- *Weathered steel*
- *Stainless steel bead blast*
- *Stainless steel satin finish*
- *Black colored concrete*
- *Glazing*

**Figure 3.13-P1**

**Brick at Platform**

Location Shown: 7<sup>th</sup> and Holladay Platform  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: Yes (Old Town/Chinatown, Yamhill)

The pattern, size and color of the brick may vary to meet design or historic overlay district requirements.



**Figure 3.13-P2**

**Ceramic Tile Pavers at Platform**

Location Shown: Goose Hollow  
 Project(s): Blue Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 3.13-P3**

**Stone as An Art Feature at Platform \***

Location Shown: Killingsworth  
 Project(s): Yellow and Blue Line  
 Standard Element: Yes  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Lloyd District)  
 Historic Overlay District: Yes (Kenton Street)

\* Stone as a material is considered 'Standard'.  
 Art image, pattern, color, and texture is 'Nonstandard' as described in Section 4.3.




<p><b>Figure 3.13-P4</b>  <b>Brick and Precast Concrete Pavers at Platform</b>          Location Shown: 7<sup>th</sup> and Holladay Platform          Project(s): Blue Line          Standard Element: No          Nonstandard Element: Yes          Design Overlay District: Yes (Lloyd District)          Historic Overlay District: No</p>	
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<p><b>Figure 3.13-P5</b>  <b>Broom Scored Finish Concrete at Platform</b>          Location Shown: Rose Quarter          Project(s): Red, Blue and Yellow Lines          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Downtown, Gateway, Lloyd, Hollywood)          Historic Overlay District: Yes (Old Town/Chinatown, Skidmore Fountain, Yamhill Kenton, Russell Street)</p>	
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<p><b>Figure 3.13-P6</b>  <b>Sandset Precast Concrete Pavers at Platform</b>          Location Shown: Killingsworth Station          Project(s): Yellow Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Lloyd District)          Historic Overlay District: Yes (Kenton, Russell St.)</p>	
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<p><b>Figure 3.13-P7</b>  <b>Precast Pavers at Platform Boarding Zone</b>          Location Shown: Main Street Station          Project(s): Green Line          Standard Element: No          Nonstandard Element: Yes          Design Overlay District: No          Historic Overlay District: No</p>	
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### 3.14 – CCTV Camera Installations

**Description:**

Uses of CCTV cameras have grown exponentially on transit systems to serve safety and security goals. As their technology has greatly improved their placement is more critical. Clear sight lines, even quality illumination, and full coverage of platforms, station areas, and park & rides are essential for their use by TriMet's Safety & Security team. Placement goals are to capture facial recognition and color and details of people's clothing.

**Location:**

Throughout the City.

**Figure 3.14-P1**

**Camera on Platform Light Pole**

Location Shown: SE Holgate Blvd Station  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.14-P2**

**Twin Cameras on Platform Light Pole**

Location Shown: SE Holgate Blvd Station  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No




**Figure 3.14-P3**

**Single Camera on Park & Ride Light Pole**

Location Shown: SE Holgate Blvd Station  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



<p><b>Figure 3.14-P4</b>  <b>Twin Cameras on Park &amp; Ride Light Pole</b>          Location Shown: SE Holgate Blvd Station          Project(s): Green Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: No          Historic Overlay District: No</p>	
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<p><b>Figure 3.14-P5</b>  <b>Twin Cameras on Park &amp; Ride Light Pole</b>          Location Shown: SE Holgate Blvd Station          Project(s): Green Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: No          Historic Overlay District: No</p>	
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<p><b>Figure 3.14-P6</b>  <b>Single Camera on Adjacent Structure</b>          Location Shown: SE Main St Station          Project(s): Green Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: No          Historic Overlay District: No</p>	
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<p><b>Figure 3.14-P7</b>  <b>Single Pole Mounted Camera</b>          Location Shown: OMSI Station          Project(s): Orange Line          Standard Element: Yes          Nonstandard Element: No          Design Overlay District: Yes (Halprin Open Space)          Historic Overlay District: No</p> <p>Pole and bracket integrated into station amenities.</p>	
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<p><b>Figure 3.14-P8</b>  <b>Single Pole Mounted Cameras</b>  Location Shown: Harbor Structure  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space)  Historic Overlay District: No</p> <p>Pole and bracket integrated into station amenities.</p>		
<p><b>Figure 3.14-P9</b>  <b>Twin Cameras on Light Pole</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space, South Waterfront)  Historic Overlay District: No</p> <p>Pole and bracket integrated into station amenities.</p>		
<p><b>Figure 3.14-P10</b>  <b>Cameras on Light Pole with Blade Signs</b>  Location Shown: Rhine Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Halprin Open Space, South Waterfront)  Historic Overlay District: No</p> <p>Pole and bracket integrated into station amenities.</p>		



**Figure 3.14-P11**

**Camera on Catenary Pole**

Location Shown: Tilikum Crossing  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 3.14-P12**

**Camera on Park and Ride Light Pole**

Location Shown: Tacoma Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No




**Figure 3.14-P13**

**Headhouse Cameras**

Location Shown: Bybee Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



<p><b>Figure 3.14-P14</b>  <b>Headhouse Cameras</b>  Location Shown: Bybee Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 3.14-P15</b>  <b>Headhouse Bike Rack Cameras</b>  Location Shown: Bybee Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 3.14-P16</b>  <b>Camera on Train Signal Bungalow</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
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### 3.15 – eFare

**Description:**

**Location:**

Throughout the City.

**Figure 3.15-P1**

**Mast Validator at Threshold**

Location Shown: NE 60<sup>th</sup> Station

Project(s): Blue, Red, Green Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: Yes (Hollywood)

Historic Overlay District: No



**Figure 3.15-P2**

**Mast Validator at Top of Stairs**

Location Shown: Bybee Station

Project(s):

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: No



**Figure 3.15-P3**

**Mast Validator at Elevator Entrance**

Location Shown: Bybee Station

Project(s):

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: No



**Figure 3.15-P4**

**Mast Validator at Plaza Entrance**

Location Shown: Washington Park

Project(s):

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: No



**Figure 3.15-P5**

**Mast Validators on Sidewalks**

Location Shown: Portland Mall  
Project(s): Blue, Red, Green, Yellow, Orange Line(s)  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes  
Historic Overlay District: Yes



\* Brick sidewalk shown, also on concrete

**Figure 3.15-P6**

**Mast Validator at Top of Ramp**

Location Shown: E 148th  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No



**Figure 3.15-P7**

**Mast Validator at Top of Ramp**

Location Shown: Lincoln Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Halprin Open Space)  
Historic Overlay District: No



**Figure 3.15-P8**  
**Mast Validator on Platform**  
 Location Shown: SE 17<sup>th</sup> Ave and Rhine  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 3.15-P9**  
**Mast Validator off Platform**  
 Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



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## Section 4. Station Area Design Considerations

### 4.1 – Introduction

The “context” is the state of development that surrounds a prospective station site. It can be residential, commercial, industrial, agricultural, suburban, urban, or rural. Whatever the case, the character, quality, land use, and future of the context will have a direct effect on the site planning and design of LRT stations.

While all stations are to be compatible with existing TriMet facilities, each station will also be derivative of the neighborhoods and communities of which it is a part. Therefore, stations should:

- Contribute to character and quality of their context;
- Help establish new transit supportive development patterns where appropriate;
- Reinforce and guide desired and established development patterns; and
- Recognize emerging development patterns that can be complemented and that will complement station development.

Land use zoning can have a distinct effect on near term and future use of rail station or facility. While zoning designations can be changed to fit a site that has many appropriate physical attributes, it remains important to consider any emerging lands uses that may benefit or detract from station planning and design.

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## 4.2 – Station Areas

Good pedestrian circulation to, from, and across train platforms is essential for the smooth and safe operation of stations. Circulation patterns should be as simple, obvious, and as comfortable as possible. Some points that warrant careful review for applicability and consideration in achieving good pedestrian orientation and circulation follow:

- Avoid unnecessary turns and dead ends;
- Pedestrian access from bus, “Quick-Drop” areas, and Park-and-Ride areas must be as clear and as simple as possible;
- Circulation elements will use color, texture, and sight distance to increase visual wayfinding, guidance, patron safety, and security;
- Provide adequate space to avoid bottlenecks;
- Avoid cross-circulation at fare collection and decision points, generally provide right-hand circulation;
- Provide well-lighted pedestrian walkways;
- Provide ramps and elevators as required for handicapped patrons;
- Grade changes are to be minimized, and where necessary they should conform to the slope criteria for handicapped access;
- Cross flows, dead ends, and turns greater than 90 degrees are undesirable for both patron security and circulation;
- Minimum passageway width between handrails is 46 inches;
- Sidewalk enclosures should be noncombustible and permit full view of the interior; and
- The minimum design capacity of passageways would be for Fruin level of service C, ten to fifteen pedestrians per foot of effective width per minute.

Landscape considerations for station areas include the following:

- Maintain attractive landscape appearance year round;
- Minimization of turf areas;
- Create a safe, pleasant and natural setting;
- Create shade or shelter with tree canopy;
- Underground utilities;
- Width of tree grates;
- Ease of litter removal;
- Avoidance of thorny plants or low branching trees; and
- Position landscaping away from pedestrian travel paths and routes.

<b>Status:</b> Approved	<b>Approval Date:</b> December 2005	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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**Figure 4.2-P1**

### Multi-use Pathway at Station Area

Location Shown: SE Division Blvd Station  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway)  
 Historic Overlay District: No



**Figure 4.2-P2**

**South Waterfront Station Area**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No

Complex model hierarchy requires clear delineations, signage, lighting, and signals. The South Waterfront station area represents one of the most complex environments in the TriMet region.



**Figure 4.2-P3**

**South Waterfront/SW Moody Ave. Cycletrack and Pedestrian Crossings**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No



**Figure 4.2-P4**

**South Waterfront/SW Moody Ave. Cycletrack Signals**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No

Signals need to be positioned appropriately for their intended audience.



**Figure 4.2-P5**

**South Waterfront/SW Moody Ave. Cycletrack with Pedestrian Vehicular Crossing**

Location Shown: South Waterfront Station  
Project(s): Orange Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (South Waterfront)  
Historic Overlay District: No





**Figure 4.2-P6**  
**South Waterfront/SW Moody Ave. Cycletrack with Pedestrian Access**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No

Special colors and delineations may be necessary for effective communication.



**Figure 4.2-P7**  
**South Waterfront/SW Moody Ave. Cycletrack Direction Delineation**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 4.2-P8**  
**South Waterfront/SW Moody Ave. Pedestrian Access and Cycletrack Crosswalk**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No



**Figure 4.2-P9**  
**South Waterfront/SW Moody Ave. Cycletrack Fencing**  
 Location Shown: South Waterfront Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (South Waterfront)  
 Historic Overlay District: No

Positive separation between bicyclists and transit.



**Figure 4.2-P10**  
**Eastbank Esplanade at Tilikum Crossing**  
**Mixing Zone**  
 Location Shown: OMSI Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 4.2-P11**  
**Old Water Avenue – Mixed Bicycle and**  
**Pedestrian Access**  
 Location Shown: OMSI Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

Transitional urban design fencing and paver treatment.

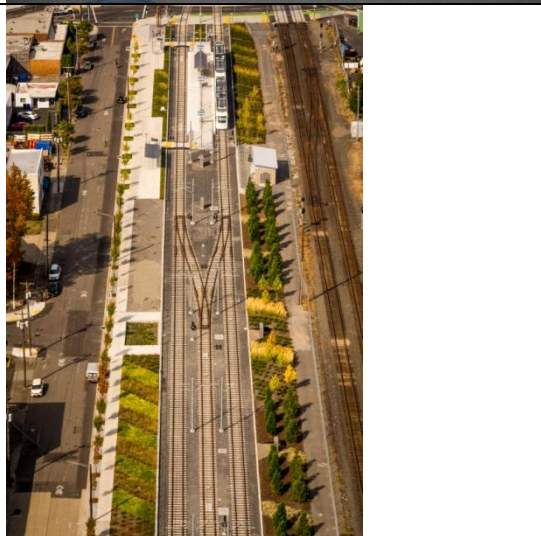


**Figure 4.2-P12**  
**Old Water Avenue at Portland Opera**  
 Location Shown: OMSI Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

Transitional urban design fencing and paver treatment.



**Figure 4.2-P13**  
**SE Clinton Station Area**  
 Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 4.2-P14**  
**SE Clinton Station Area Bicycle and Pedestrian Access**  
 Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 4.2-P15**  
**SE Clinton Station Area Bicycle and Pedestrian Access**  
 Location Shown: Clinton Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

Specific delineation to enhance wayfinding.



**Figure 4.2-P16**  
**Rhine Station Area – Bicycle and Pedestrian Access**  
 Location Shown: Rhine Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 4.2-P17**  
**Rhine Station Area – Vehicular and Bicycle Traffic Delineation**  
 Location Shown: Rhine Station  
 Project(s): Orange Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



<p><b>Figure 4.2-P18</b>  <b>Rhine Station Area Pedestrian Access Structure</b>  Location Shown: Rhine Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p> <p>Access to Rhine Station Area required new structure for safety and ADA access.</p>	
<p><b>Figure 4.2-P19</b>  <b>Bybee Station Headhouse</b>  Location Shown: Bybee Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 4.2-P20</b>  <b>Bybee Station Pedestrian Access</b>  Location Shown: Bybee Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 4.2-P21</b>  <b>Tacoma Station Area – Bicycle/Pedestrian Access to Springwater Corridor</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	

<p><b>Figure 4.2-P22</b>  <b>Tacoma Station Area – Johnson Creek Wetlands Overlook</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 4.2-P23</b>  <b>Tacoma Station Area – Johnson Creek Wetlands Overlook Interpretive Signage</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 4.2-P24</b>  <b>Tacoma Station Area – Pedestrian Accessible Pathway</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b>  Approved</p>	<p><b>Approval Date:</b>  February 2017</p>	<p><b>Revision:</b>  Final Draft</p>	<p><b>Approved by:</b>  PBOT/Design Review</p>

### 4.3 – Art Program

#### Description:

The TriMet Art Program is a collaborative effort between a team of artists and the system designers. The goal is to integrate art enhancements into the stations and surrounding station areas. Typical art projects feature a wide variety of interpretations that reflect the specific character of the community that the LRT bisects. The art may reflect cultural qualities or neighborhood history, interpret the engineering mysteries of light rail, or connect to the natural beauty of the region. Therefore, all art elements are considered 'Non-Standard'.

Typically there are three strategies of integrating art into the LRT alignment. The first is artwork that is mounted, inserted, or placed on a station's material surface. The second is when the station's standard design is modified or enhanced to incorporate an art element. The third is a seamless integration of art and design; where the art and design are integrated into a truly collaborative effort.

While TriMet's Art Program Advisory Committee governs the content of the Art Program, materials, structures, and installation locations may require City of Portland review and approval.

#### Location:

Throughout the City.

#### Figure 4.3-P1

##### Art Inserted into the Station's Standard Elements

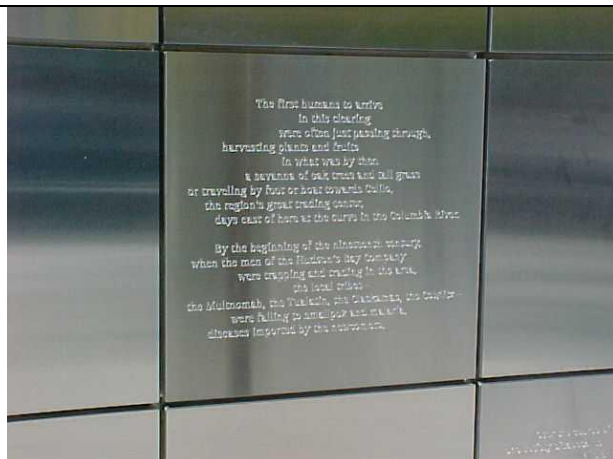
Location Shown: King's Hill Platform with Goose Hollow Neighborhood historic references  
Project(s): Red, Blue and Yellow Lines



#### Figure 4.3-P2

##### Artwork Inserted into Station's Systems Elements

Location Shown: PGE Station Plaza, Communications Building  
Project(s): Red, Blue and Yellow Line



**Figure 4.3-P3**  
**Artwork Which Modifies or Enhances the Station Shelter**

Location Shown: Goose Hollow  
Project(s): Blue Line



**Figure 4.3-P4**  
**Artwork Which is a Seamless Integration of Art and Design**

Location Shown: Washington Park Headhouse  
Project(s): Blue Line



**Figure 4.3-P5**  
**Art as an Architectural Feature**

Location Shown: Expo Center  
Project(s): Red, Blue and Yellow Lines



**Figure 4.3-P6**  
**Art Features Incorporated into Paving**

Location Shown: Prescott  
Project(s): Red, Blue and Yellow Lines



**Figure 4.3-P7**  
**Functional Art (as a Bench)**  
 Location Shown: Expo Center TC  
 Project(s): Red, Blue and Yellow Lines



**Figure 4.3-P8**  
**Functional Art as an Architectural Feature**  
 Location Shown: Vanport Bridge  
 Project(s): Yellow Line



**Status:**  
 Approved

**Approval Date:**  
 December 2005

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**Approved by:**  
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**Figure 4.3-P9**  
**Functional Art as an Architectural Feature**  
 Location Shown: Lents Town Center Station  
 Project(s): Green, and Yellow Lines





**Figure 4.3-P10**  
**Art as an Architectural Feature**  
**Location Shown:** Main Street Station  
**Project(s):** Red, Blue, Yellow, and Green, Lines






**Figure 4.3-P11**  
**Kinetic Art as an Architectural Feature**  
**Location Shown:** Main Street Station  
**Project(s):** Green Line



**Figure 4.3-P12**  
**Kinetic Art as an Urban Design Feature**  
**Location Shown:** Lents Town Center/Foster Rd Station  
**Project(s):** Green Line



<p><b>Figure 4.3-P13</b>  <b>Kinetic Art as a Station Feature</b>  <b>Location Shown:</b> Lents Town Center/Foster Rd Station  <b>Project(s):</b> Green Line</p>	 <p>A tall, blue, kinetic art sculpture with two curved arms that meet at the top, each holding a colorful, flame-like object. The sculpture is set against a clear blue sky.</p>		
<p><b>Figure 4.3-P14</b>  <b>Art as an Urban Design Feature</b>  <b>Location Shown:</b> Lents Town Center/Foster Rd Station  <b>Project(s):</b> Green Line          (Note- this art project was funded by the Portland Development Commission as a supporting element to the Lents Town Center Urban Renewal Area)</p>	 <p>A colorful mural on a grey stone wall depicting a green vine with leaves and white flowers. The mural is set against a clear blue sky.</p>		
<p><b>Figure 4.3-P15</b>  <b>Functional Art as an Architectural Feature</b>  <b>Location Shown:</b> Division Station  <b>Project(s):</b> Green Line</p>	 <p>A blue, curved, functional art sculpture made of metal mesh, located at a station platform. The sculpture is set against a clear blue sky.</p>		
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

**Figure 4.3-P16**  
**Art on Station Platform**  
Location Shown: OMSI Station  
Project(s): Orange Line



**Figure 4.3-P17**  
**Functional Art as an Architectural Feature**  
Location Shown: Lincoln Station  
Project(s): Orange Line



**Figure 4.3-P18**  
**Art Inserted into Station's Systems**  
Location Shown: Lincoln Station  
Project(s): Orange Line



**Figure 4.3-P19**  
**Art as an Architectural Station Feature**  
Location Shown: Bybee Station  
Project(s): Orange Line



**Figure 4.3-P20**  
**Art as an Architectural Station Feature**  
Location Shown: Bybee Station  
Project(s): Orange Line



**Figure 4.3-P21**  
**Art as a Wayfinding Station Feature**  
Location Shown: Tacoma Station  
Project(s): Orange Line



**Figure 4.3-P22**  
**Art as a Wayfinding Station Feature**  
Location Shown: Tacoma Station  
Project(s): Orange Line



**Figure 4.3-P23**  
**Art as a Wayfinding Station Feature**  
Location Shown: Clinton Station  
Project(s): Orange Line



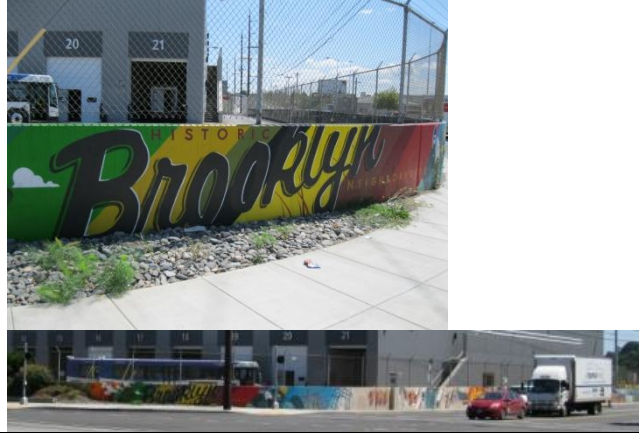
**Figure 4.3-P24**  
**Public Art on Private Property**  
Location Shown: Lincoln Station  
Project(s): Orange Line



**Figure 4.3-P25**  
**Art Feature Incorporated in Paving**  
Location Shown: Lincoln Station  
Project(s): Orange Line



**Figure 4.3-P26**  
**Art as a Graffiti Mitigation Strategy**  
 Location Shown: Holgate Station  
 Project(s): Orange Line



**Figure 4.3-P27**  
**Art as a Graffiti Mitigation Strategy**  
 Location Shown: Rhine Station  
 Project(s): Orange Line

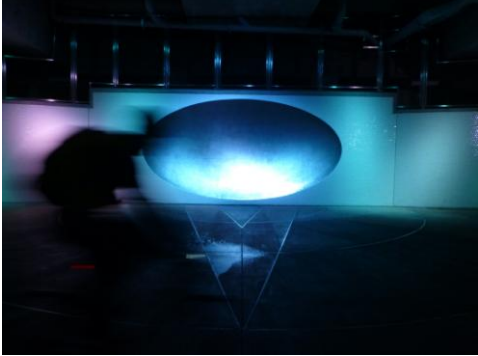



**Figure 4.3-P28**  
**Art as a Landscape Element**  
 Location Shown: Rhine Station  
 Project(s): Orange Line



**Figure 4.3-P29**  
**Art Integrated in Structure**  
 Location Shown: Tilikum Crossing; West Abutment  
 Project(s): Orange Line



<p><b>Figure 4.3-P30</b>  <b>Art Adjacent to Public Pathway</b>  Location Shown: Tilikum Crossing; West Abutment  Project(s): Orange Line</p> <p>* Combination of both the 'Sonic Dish' and Tilikum Crossing Aesthetic Lighting</p>			
<p><b>Figure 4.3-P31</b>  <b>Bridge Lighting as Art</b>  Location Shown: Tilikum Crossing  Project(s): Orange Line</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

## Section 5. Structures

### 5.1 – Introduction

There are several types of structures that are standard elements of the LRT system, including buildings, retaining walls, and bridges. Where appropriate combine substations, signal and communication functions into one building to reduce cost, maintenance, and parking spaces.

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### 5.2 – Signal Building

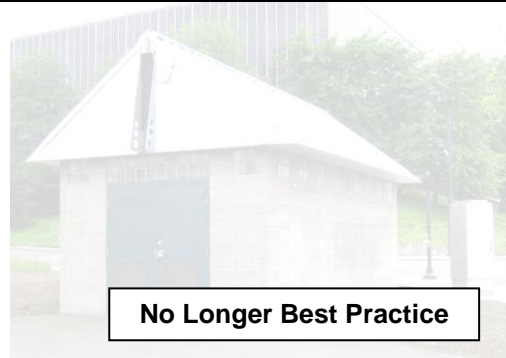
**Description:**  
Signal buildings house electrical connections to the track signals.

**Location:**  
Throughout the City.

#### Figure 5.2-P1

##### Signal Building

Location Shown: Interstate and Larabee  
Project(s): Red, Blue and Yellow Lines  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown, Gateway, Lloyd District)  
Historic Overlay District: No



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#### Figure 5.2-P2

##### Signal Building- Prefabricated

Location Shown: Gateway Station Area  
Project(s): Green Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes  
Historic Overlay District: No



<b>Status:</b> Approved	<b>Approval Date:</b> December 2015	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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### 5.3 – Signal and Communication Building

**Description:**

Signal and Communications buildings allow for the connection of trackway signals and platform audio/visual communications to TriMet’s central control.

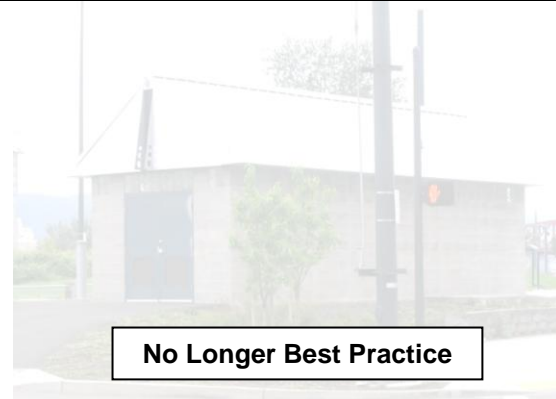
**Location:**

Throughout the City.

**Figure 5.3-P1**

**Signal/Communications- Site Built**

Location Shown: Interstate and Holladay  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown, Lloyd District)  
 Historic Overlay District: No



**Figure 5.3-P2**

**Signal/Communications- Site Built**

Location Shown: Hollywood  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Hollywood)  
 Historic Overlay District: No

In transit right-of-way only.



**Status:**

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**Approval Date:**

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**Revision:**

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**Approved by:**

PBOT/Design Review

**Figure 5.3-P3**

**Signal/Communications- Prefabricated**

Location Shown: Fuller Rd Station Area  
 Project(s): Green Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Status:**

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**Approval Date:**

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**Revision:**

Final Draft

**Approved by:**

PBOT/Design Review

<p><b>Figure 5.3-P4</b>  <b>Signal/Communications- Site Built</b>  Location Shown: South Waterfront Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p> <p>With eco-roof.</p>			
<p><b>Figure 5.3-P5</b>  <b>Signal/Communications- Site Built</b>  Location Shown: OMSI Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p> <p>Designed and built to become part of future OMSI TOD.</p>			
<p><b>Figure 5.3-P6</b>  <b>Signal/Communications- Site Built</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Figure 5.3-P7</b>  <b>Signal/Communications- Site Built</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p> <p>With eco-roof.</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

## 5.4 – Traction Electrification System (TES) Building

### Description:

The Traction Electrification System (TES) building contains equipment that transforms utility provided high voltage power to the appropriate level for the light rail electrification system. Like other transit buildings they must be highly durable, yet cost effective. Depending on the adjacent context they may be constructed of exterior materials that are appropriate to their neighborhoods.

### Location:

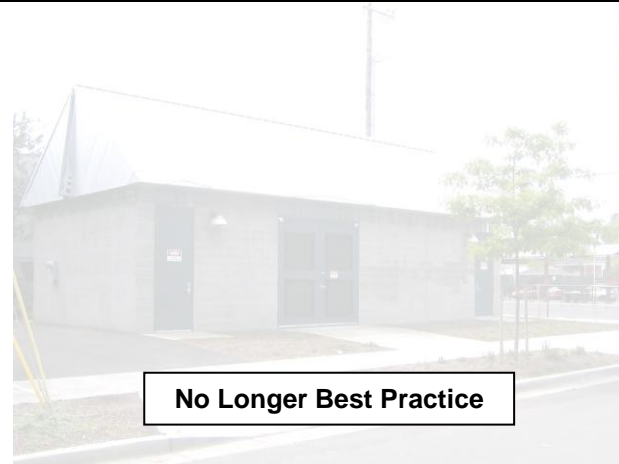
Throughout the City

#### Figure 5.4-P1

##### TES Building- Site Built

Location Shown: Interstate and Church Street  
Project(s): Yellow Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Lloyd District)  
Historic Overlay District: Yes (Russell Street)

Honed Faced CMU with 'Galvalume' Roof

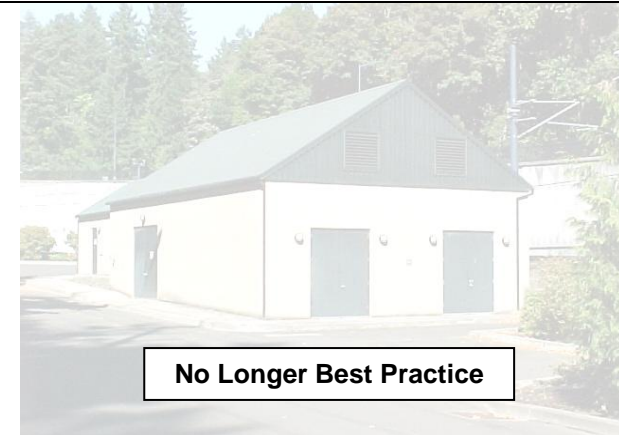


#### Figure 5.4-P2

##### TES Building- Site Built

Location Shown: East Portal  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Honed Faced CMU with Painted Standing Seam Metal Roof

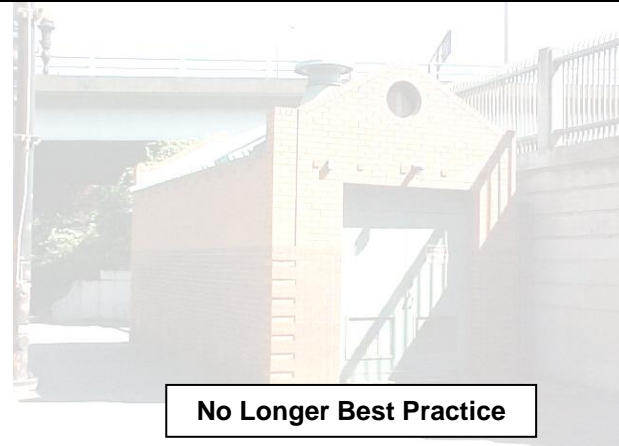


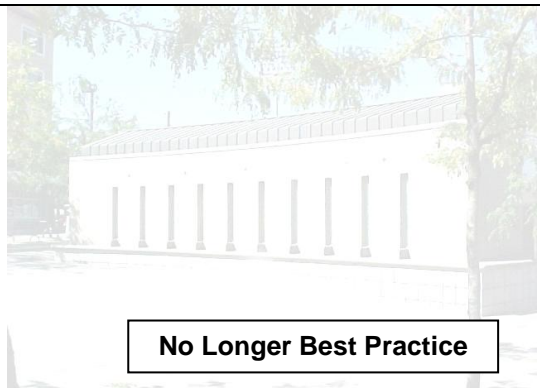

#### Figure 5.4-P3


##### TES Building- Site Built


Location Shown: Base of Morrison Bridge  
Project(s): Blue Line  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No

Brick Masonry Veneer with Painted Standing Seam Metal Roof



<p><b>Figure 5.4-P4</b>  <b>TES Building – Site Built</b>  Location Shown: Gateway Transit Center  Project(s): Red and Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Gateway)  Historic Overlay District: No</p> <p>Brick Masonry Veneer with Painted Standing Seam Metal Roof</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p>		
<p><b>Figure 5.4-P5</b>  <b>PGE Stadium TES- Site Built</b>  Location Shown: PGE Park  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p>		
<p><b>Figure 5.4-P6</b>  <b>Airport TES- Prefabricated</b>  Location Shown: Rocky Butte Area  Project(s): Red Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p>		
<p><b>Figure 5.4-P7</b>  <b>Banfield TES- Prefabricated</b>  Location Shown: Hollywood Station Area  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p>		
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<b>Figure 5.4-P8</b> <b>TES Building- Prefabricated</b> Location Shown: Fuller Rd Station Area Project(s): Green Line Standard Element: Yes Nonstandard Element: No Design Overlay District: No Historic Overlay District: No			
<b>Status:</b> Approved	<b>Approval Date:</b> December 2015	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review

<b>Figure 5.4-P9</b> <b>TPSS Building – Site Built</b> Location Shown: Between OMSI and Clinton Stations Project(s): Orange Line Standard Element: Yes Nonstandard Element: No Design Overlay District: No Historic Overlay District: No			
<b>Figure 5.4-P10</b> <b>TPSS Building – Site Built</b> Location Shown: Tacoma Station Project(s): Orange Line Standard Element: Yes Nonstandard Element: No Design Overlay District: No Historic Overlay District: No			
<b>Status:</b> Approved	<b>Approval Date:</b> February 2017	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review

## 5.5 – Operator’s and Concession’s Building

**Description:**

Operator’s buildings allow a safe and comfortable break room for TriMet’s LRT and bus operators. The building’s form and materials should be of a quality to enhance the local neighborhood or civic context. Materials may be modest (honed faced CMU, brick masonry pre-finished or painted metal roofing) but should be designed to create substantive architecture. Concessions buildings look very similar, but provide food and drink for transit patrons. During business hours, their staff contribute a security presence.

**Location:**

Throughout the City

**Figure 5.5-P1**

**Operator’s Building**

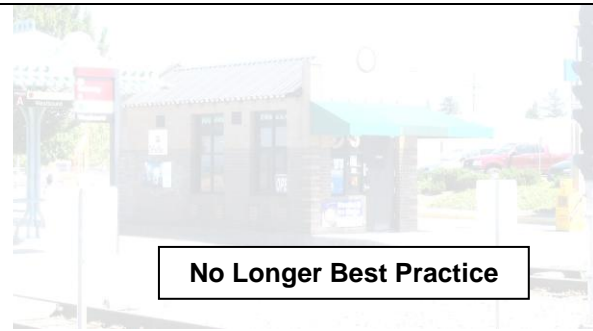
Location Shown: Expo Center  
 Project(s): Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 5.5-P2**

**Concessions Building**

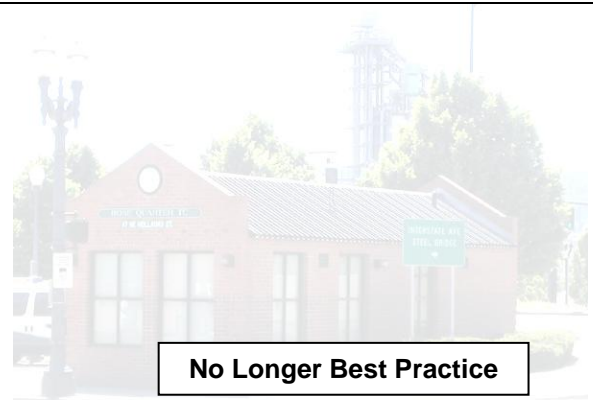
Location Shown: Gateway  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway, Lloyd)  
 Historic Overlay District: No

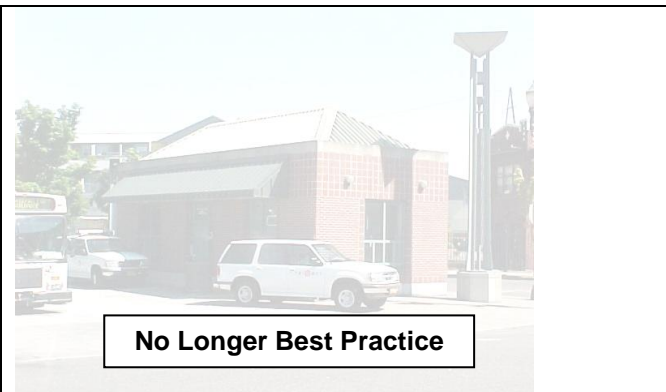
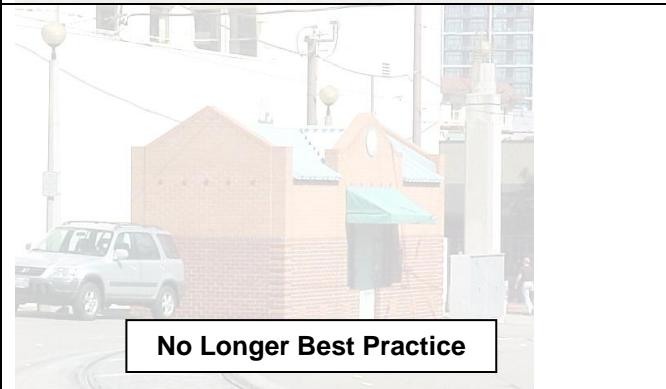



**Figure 5.5-P3**

**Operator’s Building**

Location Shown: Rose Quarter  
 Project(s): Blue Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Gateway, Lloyd)  
 Historic Overlay District: No



<p><b>Figure 5.5-P4</b>  <b>North Terminus Bus Operator's Building</b>  Location Shown: North Transit Mall  Project(s): North Bus Mall  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>			
<p><b>Figure 5.5-P5</b>  <b>SW 11<sup>th</sup> Street Turnaround</b>  Location Shown: SW 11<sup>th</sup> Avenue at Morrison &amp; Yamhill  Project(s): Blue Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> October 2000</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 5.5-P6</b>  <b>Bus Operator's Building</b>  Location Shown:  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Lents Town Center)  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

**Figure 5.5-P7**  
**Operator's Building on Private Property**

Location Shown: South Terminus  
 Project(s): Orange, Yellow Line  
 Standard Element: No  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



<b>Status:</b> Approved	<b>Approval Date:</b> February 2017	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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## 5.6 – Retaining Walls

### Description:

Structural walls are used to retain earth embankments or provide sound protection. They can be key urban design elements, like the stone veneer faced walls in the Goose Hollow neighborhood, or reinforced concrete or concrete block. Retaining wall and material selection in the right-of-way will be reviewed and approved by PBOT.

### Location:

Throughout the City.

### Figure 5.6-P1

#### Retaining Wall and Art

Location Shown: SW Salmon and SW 18th

Project(s): Blue Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No



### Figure 5.6-P2

#### Mechanically Stabilized Earth (MSE) Concrete Wall

Location Shown: Delta Park/Vanport

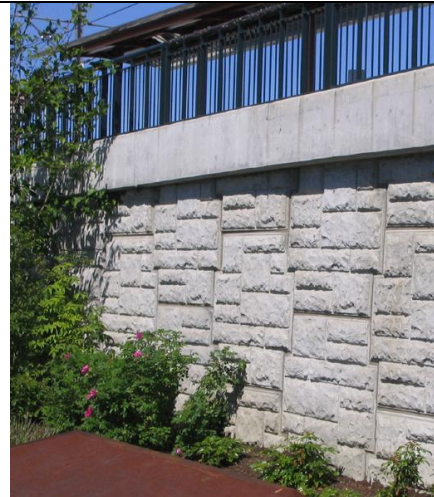
Project(s): Yellow Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: No



### Figure 5.6-P3

#### Short Retaining Wall

Location Shown: Interstate at Tillamook

Project(s): Yellow Line

Standard Element: Yes

Nonstandard Element: No

Design Overlay District: No

Historic Overlay District: Yes (Russell Street)



**Figure 5.6-P4**  
**Basalt Veneer Wall**  
 Location Shown: Goose Hollow along SW Jefferson Street  
 Project(s): Blue Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 5.6-P5**  
**Stone Wall**  
 Location Shown: Delta Park/Vanport  
 Project(s): Yellow Line  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 5.6-P6**  
**“Keystone” Wall**  
 Location Shown: Lower Albina  
 Project(s): Yellow  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No


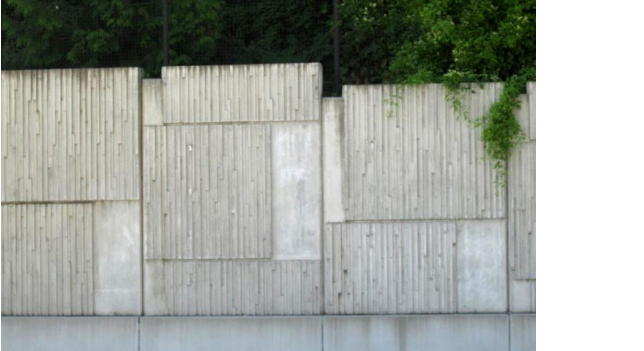








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**Approval Date:**  
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**Revision:**  
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**Approved by:**  
 PBOT/Design Review

<p><b>Figure 5.6-P7</b>  <b>Mechanically Stabilized Earth Wall</b>  Location Shown: Holgate Station Park &amp; Ride  Project(s): Green Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>
<p><b>Figure 5.6-P8</b>  <b>Cast in Place Concrete Retaining Wall</b>  Location Shown: SW Moody Ave.  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>			
<p><b>Figure 5.6-P9</b>  <b>Systems Building Security Wall</b>  Location Shown: SW Moody Ave.  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>			
<p><b>Figure 5.6-P10</b>  <b>Mechanically Stabilized Earth Wall</b>  Location Shown: Harbor Structure  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>			

<p><b>Figure 5.6-P11</b>  <b>Crash Separation Wall</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 5.6-P12</b>  <b>Low Ashlar Pattern Keystone Wall</b>  Location Shown: Clinton Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 5.6-P13</b>  <b>Gabion Basket Retaining Wall</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	
<p><b>Figure 5.6-P14</b>  <b>Low Ashlar Pattern Keystone Wall</b>  Location Shown: Tacoma Station  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>	

<p><b>Figure 5.6-P15</b>  <b>Retaining Wall</b>  Location Shown: South Waterfront Systems Building  Project(s): Orange Line  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> February 2017</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

## 5.7 – Bridges

### Description:

Several types of bridges are part of the LRT system. Bridges are used for both the trains and pedestrians. The materials and structure design are heavily influenced by the length of the span and special construction considerations. An example is the Parkrose “Fish/Bird” Transit Center’s pedestrian bridge, which needed to be long enough to span over several highway lanes and had to be prefabricated off site and then installed at night to minimize traffic impacts. Bridge structural design and material selection in the right-of-way will be reviewed and approved by PBOT.

### Location:

Throughout the City.

### Figure 5.7-P1

#### Banfield MAX Structure – Precast Concrete Girders

Location Shown: NE 15<sup>th</sup> Ave

Project(s): Blue Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Lloyd District)

Historic Overlay District: No



### Figure 5.7-P2

#### Pedestrian Bridge – Precast and Cast in Place Concrete

Location Shown: Hollywood Transit Center

Project(s): Blue Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Hollywood)

Historic Overlay District: No



### Figure 5.7-P3

#### Vanport Bridge – Precast Concrete Girders with Cast in Place Concrete Piers

Location Shown: North of Kenton Street

Project(s): Yellow Line


Standard Element: No


Nonstandard Element: Yes


Design Overlay District: No

Historic Overlay District: No




<p><b>Figure 5.7-P4</b>  <b>Airport MAX Bridge Over Highway – Prefabricated Steel - Painted</b>          Location Shown: Airport MAX at Parkrose          Project(s): Red Line          Standard Element: No          Nonstandard Element: Yes          Design Overlay District: No          Historic Overlay District: No</p>	
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<p><b>Figure 5.7-P5</b>  <b>Airport MAX Bridge Over Highway - Concrete Bridge</b>          Location Shown: Interstate 205 Bridge          Project(s): Red Line          Standard Element: No          Nonstandard Element: Yes          Design Overlay District: No          Historic Overlay District: No</p>	
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<p><b>Figure 5.7-P6</b>  <b>Airport MAX Bridge Over Highway - Concrete Bridge</b>          Location Shown: Interstate 205 Bridge          Project(s): Red Line          Standard Element: No          Nonstandard Element: Yes          Design Overlay District: No          Historic Overlay District: No</p>	
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<b>Status:</b> Approved	<b>Approval Date:</b> December 2005	<b>Revision:</b> Final Draft	<b>Approved by:</b> PBOT/Design Review
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<p><b>Figure 5.7-P7</b>  <b>Green Line- Weathered Steel Bridge</b>          Location Shown: Flavel Rd Station Area          Project(s): Green Line          Standard Element: No          Nonstandard Element: No          Design Overlay District: No          Historic Overlay District: No</p>	
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<p><b>Figure 5.7-P8</b>  <b>Green Line- Precast Concrete Girders with Cast in Place Concrete Piers</b>  Location Shown: Powell Blvd Station Area  Project(s): Green Line  Standard Element: No  Nonstandard Element: No  Design Overlay District: No  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 5.7-P9</b>  <b>Harbor Structure</b>  Location Shown: Harbor Drive/Naito Parkway  Project(s): Orange Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Halprin Open Space, South Waterfront)  Historic Overlay District: No</p>	 
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<p><b>Figure 5.7-P10</b>  <b>Tilikum Crossing</b>  Location Shown: Between South Waterfront and OMSI Stations  Project(s): Orange Line  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (South Waterfront)  Historic Overlay District: No</p>	 
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**Figure 5.7-P11**  
**Rhine Street Station Pedestrian Access Structure**

Location Shown: Rhine Station  
Project(s): Orange Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: No



**Figure 5.7-P12**  
**Powell Boulevard Overpass**  
 Location Shown: Powell Blvd.  
 Project(s): Orange Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 5.7-P13**  
**McLaughlin Overpass**  
 Location Shown: McLaughlin Blvd.  
 Project(s): Orange Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: No



**Figure 5.7-P14**  
**Tacoma Station Overpass**  
 Location Shown: Tacoma Station  
 Project(s): Orange Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: No



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## 5.8 – Tunnels

### Description:

The few examples of tunnels include the precast concrete lined Roberston Tunnel serving the Washington Park station and the cut and cover cast concrete tunnels serving the Airport Max Line. The open box retaining walls along Airport MAX by Interstate-205 Highway are a “sack finished” cast concrete. Materials and finishes are designed to acoustically damper train noise. Tunnel structural design and material selection in the right-of-way will be reviewed and approved by PBOT.

### Location:

West Hills, Rock Butte

#### Figure 5.8-P1

##### Robertson Tunnel

Location Shown: Washington Park Station  
Project(s): Blue Line



#### Figure 5.8-P2

##### Tunnel Near Goose Hollow

Location Shown: East Portal  
Project(s): Blue Line



#### Figure 5.8-P3

##### Open Top Box with Retaining Walls

Location Shown: Airport MAX at Rock Butte  
Project(s): Red Line



### Status:

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### Approval Date:

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### Revision:

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### Approved by:

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## 5.9 – Parking Structures

### Description:

Structured parking lots are an expensive method to provide parking. However, when there is a demonstrated need for higher density parking they help to achieve ridership goals. Whenever possible they should include provisions for ground floor retail/commercial uses. This encourages transit oriented development activity. The design challenge is to provide contextual design treatments that meet Design Review Commission guidelines while also meeting TriMet security, ADA, maintenance and funding requirements. Major materials are cast in place concrete with brick, tile or other feature accents. Landscaping, signage and well-designed lighting are key components. Art treatments may also be a component in enhancing the street and pedestrian environments. Parking structural design and material selection in the right-of-way will be reviewed and approved by PBOT.

### Location:

Gateway (other locations outside City of Portland: Sunset TC Parking Garage- Washington County, Gresham Central Parking Garage- Gresham, Clackamas Town Center- Clackamas County, **Park Ave - Milwaukie**)

### Figure 5.9-P1

#### Mixed Use Parking Garage

Location Shown: Gateway Transit Center

Project(s): Blue Line

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Gateway)

Historic Overlay District: No



### Status:

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### Approval Date:

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### Revision:

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### Approved by:

PBOT/Design Review

## Section 6. Transit Mall

### 6.1 Introduction

**Description:**

When the Portland Mall was completed in 1978 it represented the leading edge of a national effort to promote transit and revitalize urban downtown cores. Today the Portland Mall, or Transit Mall as it commonly known, serves many functions. It is the front door for office buildings and retail businesses. It is a transit facility with the highest concentration of bus service in the City. It is an important public space comprising a total of 17 blocks in downtown.

The Transit Mall has been expanded from its original boundaries of SW Jefferson Street to Burnside Street, with buses north to Union Station. It heavily influenced the design of light rail in the east/west direction on SW Morrison and SW Yamhill Streets. Today the zone around historic Pioneer Courthouse includes Pioneer Courthouse Square and the commercial buildings at Pioneer Place. In affect, the light rail station at Pioneer Courthouse Square and Pioneer Place may be considered part of the Transit Mall.

The design and materials along the Transit Mall were carefully developed and selected to provide high quality civic presence that would endure years of heavy use. Each element is carefully coordinated to establish a high level of urbanity along the whole Transit Mall. Any repair, revision, or addition to the Transit Mall's elements needs to reflect that original level of quality.

**Status:**

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**Approval Date:**

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**Revision:**

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**Approved by:**

PBOT/Design Review

## 6.2 Streets

### Description:

Every element and material used on the Transit Mall streets, sidewalks, furnishings and other streetscape elements are special to the Transit Mall.

### Location:

5<sup>th</sup> and 6<sup>th</sup> Avenues, from SW Jefferson Street to Union Station.

#### Figure 6.2-P1

##### Auto Lane

Location Shown: Transit Mall

Project(s): None

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: Yes (Old Town/Chinatown)



#### Figure 6.2-P2

##### Curb and Gutter

Location Shown: Transit Mall

Project(s): None

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: Yes (Old Town/Chinatown)

Concrete is used in the North Mall; granite is used in the Central Mall.



#### Figure 6.2-P3

##### Rumble Strip

Location Shown: Transit Mall at Pioneer Courthouse

Project(s): Red, Blue and Yellow Lines

Standard Element: Yes

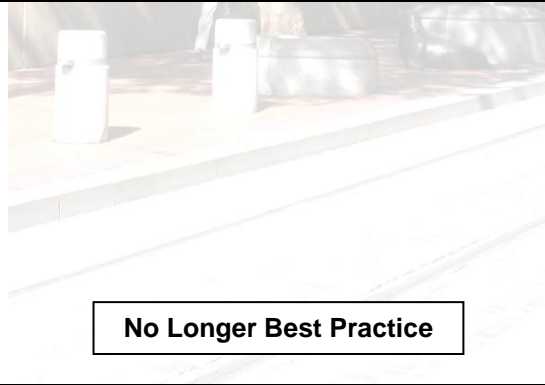
Nonstandard Element: No

Design Overlay District: Yes (Downtown)

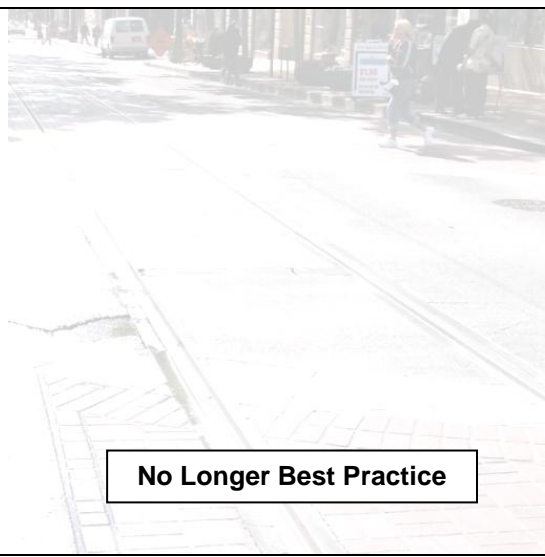
Historic Overlay District: No



**Figure 6.2-P4**  
**Cobblestone Trackway Paving**  
 Location Shown: Transit Mall at Pioneer Courthouse  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No


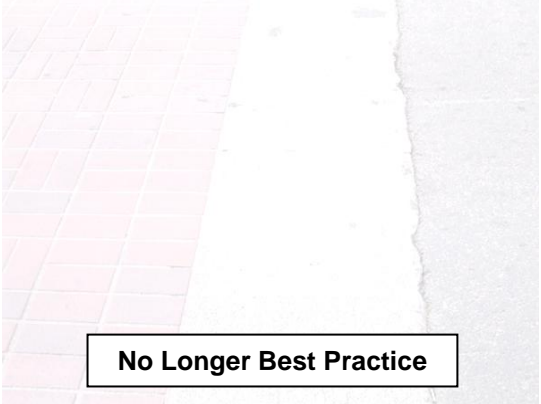



**Figure 6.2-P5**  
**Intersection Trackway Paving**  
 Location Shown: Transit Mall at Pioneer Courthouse  
 Project(s): Red, Blue and Yellow Line  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.2-P6**  
**Intersection**  
 Location Shown: Transit Mall  
 Project(s): None  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



<p><b>Figure 6.2-P7</b>  <b>Crosswalk</b>  Location Shown: Transit Mall  Project(s): None  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p>		
<p><b>Figure 6.2-P8</b>  <b>Stop Bars</b>  Location Shown: Transit Mall  Project(s): No  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p> <p>Bundle with brick paver crosswalk.</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p>		
<p><b>Figure 6.2-P9</b>  <b>Inlet Grates</b>  Location Shown: Transit Mall  Project(s): None  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District:</p>			
<p><b>Figure 6.2-P10</b>  <b>Auto Pullouts</b>  Location Shown: Transit Mall  Project(s): None  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	 <p style="text-align: center;"><b>No Longer Best Practice</b></p>		
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2005</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>



<p><b>Figure 6.2-P11</b>  <b>Fire truck Turn-around; South Terminus</b>  Location Shown: SW Jackson Street  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	
<p><b>Figure 6.2-P12</b>  <b>Utility Lid in Brick Intersection</b>  Location Shown: SW 6<sup>th</sup> Ave. at SW Market St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	
<p><b>Figure 6.2-P13</b>  <b>Crosswalk with Bike Lane</b>  Location Shown: SW 5<sup>th</sup> Ave. at SW Jackson St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	
<p><b>Figure 6.2-P14</b>  <b>Crosswalk with Trackway Paving</b>  Location Shown: SW 6<sup>th</sup> Ave. at SW Market St.  Project(s):  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	

**Figure 6.2-P15**  
**Intersection Trackway Paving**  
 Location Shown: SW 6<sup>th</sup> Ave. at SW Jefferson St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.2-P16**  
**Bus Only Lane- Central Mall**  
 Location Shown: SW 6<sup>th</sup> Ave. at SW Taylor St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)








**Figure 6.2-P17**  
**Intersection Trackway Paving**  
 Location Shown: SW 6<sup>th</sup> Ave. at SW Yamhill St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.2-P18**  
**Paved Crosswalk with Diagonal Trackway**  
 Location Shown: NW 5<sup>th</sup> Ave. at NW Hoyt St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



<p><b>Figure 6.2-P19</b>  <b>Bus Only Lane- North Mall</b>  Location Shown: NW 5<sup>th</sup> Ave. at NW Irving St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Old Town/Chinatown)</p>	
<p><b>Figure 6.2-P20</b>  <b>Storm drain in Paved Travel Lane</b>  Location Shown: SW 5<sup>th</sup> Ave. at SW Yamhill St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Old Town/Chinatown)</p> <p>Concrete is used in the North Mall; granite is used in the Central Mall.</p>	
<p><b>Figure 6.2-P21</b>  <b>Pull Out with Concrete Curb &amp; Gutter</b>  Location Shown: SW 6<sup>th</sup> Ave. at SW Morrison St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>	
<p><b>Figure 6.2-P 22</b>  <b>Rumble Strip on Paved Travel Lane</b>  Location Shown: SW 6<sup>th</sup> Ave. at SW Oak St.  Project(s): Portland Mall  Standard Element: Yes  Nonstandard Element: No  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Old Town/Chinatown)</p>	

<p><b>Figure 6.2-P23</b>  <b>Crosswalk Paved Lane: North Mall</b>  Location Shown: NW 6<sup>th</sup> Ave. at NW Davis St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>			
<p><b>Figure 6.2-P23</b>  <b>Intersection: North Mall</b>  Location Shown: NW 6<sup>th</sup> Ave. at NW Davis St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

### 6.3 Sidewalks

**Description:**

The Portland Mall sidewalks and street elements are special designs that coordinate together and refine the special urban design of the Mall.

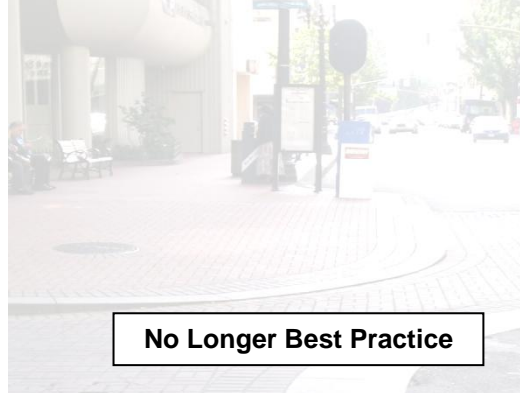
**Location:**

5<sup>th</sup> and 6<sup>th</sup> Avenues, from SW Jefferson Street to Union Station.

**Figure 6.3-P1**

**Curb Ramps**

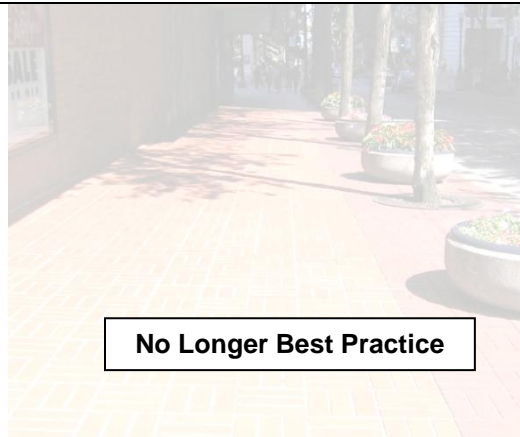
Location Shown: Transit Mall  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.3-P2**

**Sidewalk**

Location Shown: Transit Mall  
Project(s): Red, Blue, and Yellow Lines  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.3-P3**

**Benches**

Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.3-P4  
Benches**

Location Shown: Transit Mall  
Project(s): Blue Line  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P5  
Trash Receptacles**

Location Shown: Transit Mall  
Project(s): Red and Blue Lines  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P6  
Street Trees**

Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



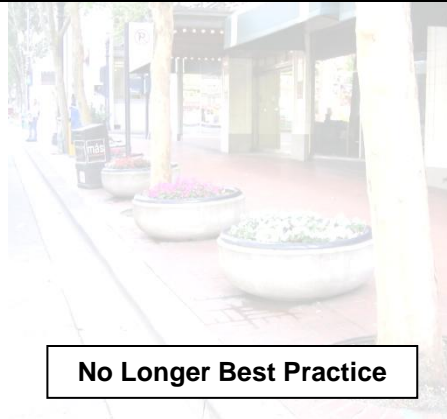
**Figure 6.3-P7**  
**Street Tree Illumination Electrical Receptacle**

Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.3-P8**  
**Planters**

Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P9**  
**Street Lights and Catenary Supports**

Location Shown: Transit Mall  
Project(s): Red, Blue and Yellow Lines  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P10**  
**Traffic Signals on Side Mounted Pole**

Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Oldtown/Chinatown)



**Figure 6.3-P11**  
**Traffic Signal Cabinets**

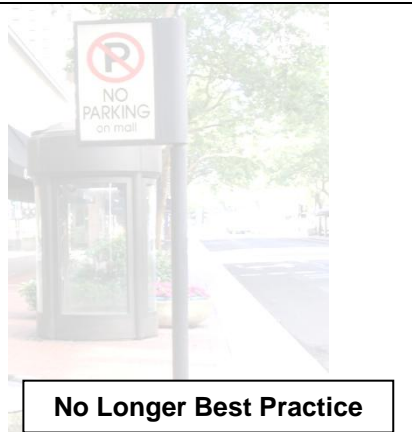
Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Oldtown/Chinatown)



**No Longer Best Practice**

**Figure 6.3-P12**  
**Traffic Signs**

Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Oldtown/Chinatown)



**No Longer Best Practice**



**Figure 6.3-P13**  
**Benson Bubblers Drinking Fountains**

Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P14**  
**Bike Rack**

Location Shown: Transit Mall  
Project(s): None  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Oldtown/Chinatown)

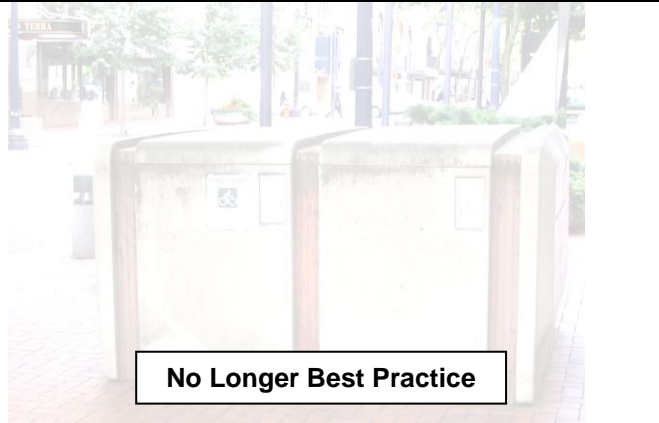


**Figure 6.3-P15**  
**Bike Rack**

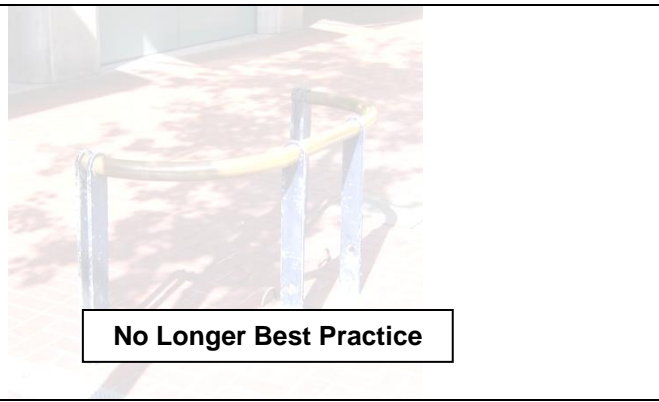
Location Shown: Transit Mall  
Project(s): None  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Oldtown/Chinatown)



**Figure 6.3-P16**  
**Bike Locker**  
 Location Shown: Transit Mall  
 Project(s): None  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.3-P17**  
**Newspaper Vending Machine Rack**  
 Location Shown: Transit Mall  
 Project(s): Red, Blue and Yellow Lines  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P18**  
**Newspaper Vending Box**  
 Location: Transit Mall  
 Project(s): Red, Blue and Yellow Lines and Transit Mall

Newspaper racks are provided by private entities and as such are not controlled by transit standards.



**Figure 6.3-P19**  
**Fire Hydrant**  
 Location Shown: Transit Mall  
 Project(s): Red, Blue and Yellow Lines and Transit Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Oldtown/Chinatown)

Fire hydrants may be painted the design or historic overlay district color. Review and approval by PBOT.



**Figure 6.3-P20**  
**Banner Poles**  
 Location Shown: Transit Mall  
 Project(s): None  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**No Longer Best Practice**

**Figure 6.3-P21**  
**Bollards**  
 Location Shown: Transit Mall  
 Project(s): None  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**No Longer Best Practice**

**Status:**  
 Approved

**Approval Date:**  
 December 2005

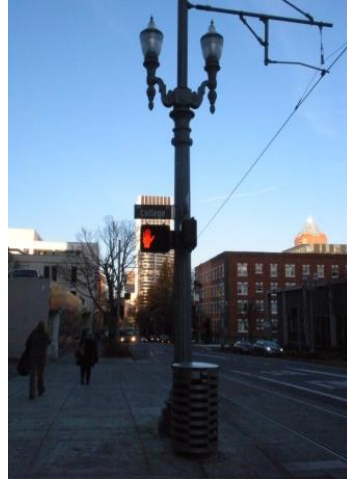
**Revision:**  
 Final Draft

**Approved by:**  
 PBOT/Design Review

**Figure 6.3-P22**

**Street Lights and Catenary Supports**

Location Shown: SW 5<sup>th</sup> Ave. at SW College St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P23**

**Trash Receptacles: Unique TriMet Design**

Location Shown: SW 6<sup>th</sup> Ave. at PSU/College  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P24**

**Recycling Receptacles: Unique City of Portland Design**

Location Shown: SW 6<sup>th</sup> Ave at PSU/College  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)







**Figure 6.3-P25**

**Benson Bubblers Drinking Fountains: South Mall**

Location Shown: SW 6<sup>th</sup> Ave at PSU/Urban Center  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



<p><b>Figure 6.3-P26</b>  <b>Planters: New, Central, South Mall</b>  Location Shown: SW 6<sup>th</sup> Ave. at SW Montgomery St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Old Town/Chinatown)  (Note- replaced original metal rimmed precast concrete planters)</p>		
<p><b>Figure 6.3-P27</b>  <b>Private Property Planters (extend into ROW)</b>  Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: No</p>		
<p><b>Figure 6.3-P28</b>  <b>Bench (Large): Refurbished Original Mall Bench</b>  Location Shown: SW 6<sup>th</sup> Ave at SW Main St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Old Town/Chinatown)</p>		
<p><b>Figure 6.3-P29</b>  <b>Bench (Small): Refurbished Original Mall Bench</b>  Location Shown: NW 6<sup>th</sup> Ave. SW Couch St.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: Yes (Downtown)  Historic Overlay District: Yes (Old Town/Chinatown)</p>		

**Figure 6.3-P30**  
**Bollards: Adapted Re-use of Original Mall Bike Bollard**  
 Location Shown: SW Main St. at SW 6<sup>th</sup> Ave.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.3-P31**  
**Bike Rack: Unique Portland Mall Standard**  
 Location Shown: SW 6<sup>th</sup> Ave. at SW Main St.  
 Project(s): Portland Mall  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old town/Chinatown)



**Figure 6.3-P32**  
**Bike Rack Cluster: Unique Portland Mall Standard**  
 Location Shown: SW 5<sup>th</sup> Avenue at SW Oak St.  
 Project(s):  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Oldtown/Chinatown)



**Figure 6.5-P33**  
**Bike Rack on Private Property, Adjacent to LRT Station Platform**  
 Location Shown: SW 5<sup>th</sup> Ave. at SW Jefferson St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.3-P34**  
**Bike Shelter**  
 Location Shown: NW 6<sup>th</sup> Ave. at NW Couch St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Oldtown/Chinatown)



**Figure 6.3-P35**  
**Leaning Rail at Street Tree Well**  
 Location Shown: NW 6<sup>th</sup> Ave. at NW Couch St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P36**  
**Leaning Rails at Back of Sidewalk**  
 Location Shown: NW 5<sup>th</sup> Ave. at NW Glisan St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P37**  
**Traffic Signal Cabinet**  
 Location Shown: NW Irving St. at NW 6<sup>th</sup> Ave.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P38**

**Electrical Cabinet with Meter Window**

Location Shown: NW Hoyt St. at NW 6<sup>th</sup> Ave.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P39**

**Cast Iron Utility Lid**

Location Shown: SW 5<sup>th</sup> Ave. at SW Oak St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P40**

**Cast Iron Utility Lid**

Location Shown: SW 5<sup>th</sup> Ave. at SW Oak St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P41**

**Cast Iron Utility Lid(s)**

Location Shown: SW 5<sup>th</sup> Ave. at SW Oak St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)





**Figure 6.3-P42**  
**Galvanized, Checker Plate Utility Lid**  
 Location Shown: SW 6<sup>th</sup> Ave at SW Morrison St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P43**  
**Curb Ramps : North Mall**  
 Location Shown: NW 6<sup>th</sup> Ave. at NW Glisan St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P44**  
**Curb Ramps : South Mall**  
 Location Shown: SW 6<sup>th</sup> Ave. at SW Mill St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.3-P45**  
**Ornamental Lighting and Screen Wall**  
 Location Shown: NW 5<sup>th</sup> at North Terminus  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P46**

**Street Lights at North Terminus**

Location Shown: NW 5th Ave. at NW Hoyt St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.3-P47**

**Newspaper Vending Box**

Location: Pioneer Courthouse Square  
Project(s): Portland Mall

Newspaper racks are provided by private entities and as such are not controlled by transit standards.



**Figure 6.3-P48**

**Wayfinding Kiosk: City of Portland**

Location Shown: NW 6<sup>th</sup> at NW Couch St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Oldtown/Chinatown)



**Figure 6.3-P49**  
**Public Service Icons (Bill Roberts)**  
 Location Shown: SW 5<sup>th</sup> Ave. at SW Yamhill St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.3-P50**  
**Public Service Icons (Mayor Vera Katz)**  
 Location Shown: SW 5<sup>th</sup> Ave. at SW Jefferson St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.3-P51**  
**Public Service Icons (Salvation Army)**  
 Location Shown: NW 6<sup>th</sup> at W. Burnside St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.3-P52**  
**Public Service Icons (Flag Poles)**  
 Location Shown: NW 6<sup>th</sup> at W. Burnside St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: No



**Figure 6.3-P53**  
**Tree Well with Cast Iron Grate**  
 Location Shown: SW 5<sup>th</sup> Ave. at SW Madison St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes  
 (Oldtown/Chinatown)



**Status:**  
 Approved

**Approval Date:**  
 December 2015

**Revision:**  
 Final Draft

**Approved by:**  
 PBOT/Design Review

**Figure 6.3-P54**  
**Sidewalk Integrated Mast Validator**  
 Location Shown: Pioneer Square North MAX Station  
 Project(s): Portland Mall  
 Standard Element: Yes  
 Nonstandard Element: No  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes  
 (Oldtown/Chinatown)



**Figure 6.3-P54**

**Sidewalk Integrated Mast Validator**

Location Shown: South Terminus  
Project(s): Portland Mall  
Standard Element: Yes  
Nonstandard Element: No  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Oldtown/Chinatown)



**Status:**

Approved

**Approval Date:**

February 2017

**Revision:**

Final Draft

**Approved by:**

PBOT/Design Review

## 6.4 – Bus Amenities

### Description:

Bus shelters on the Transit Mall are distinctive elements of the Mall. They provide generous environmental protection and contain transit system information and bus schedule display boards.

### Location:

5<sup>th</sup> and 6<sup>th</sup> Avenues, from SW Jefferson Street to Union Station.

#### Figure 6.4-P1

##### Bus Shelter

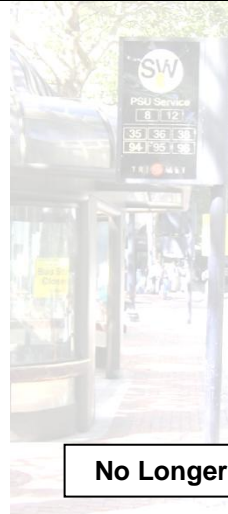
Location Shown: Transit Mall  
 Project(s): None  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



#### Figure 6.4-P2

##### Blade Signs

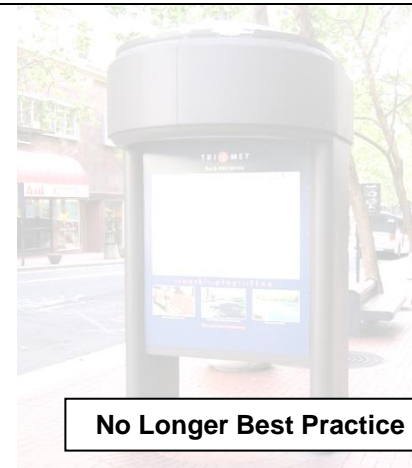
Location Shown: Transit Mall  
 Project(s): None  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



#### Figure 6.4-P3

##### Customer Information

Location: Transit Mall  
 Project(s): None  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



### Status:

Approved

### Approval Date:

October 2000

### Revision:

Final Draft

### Approved by:

PBOT/Design Review

**Figure 6.4-P4**  
**Bus Shelter, Type 1B Seating as Support for Straight and Curved Windscreen**

Location Shown:  
Project(s):  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P5**  
**Bus Shelter, Type 2B Seating as Support for Straight Windscreen**

Location Shown:  
Project(s):  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P6**  
**Bus Shelter, Type 3B, Seating as Windscreen Support**

Location Shown: SW 6<sup>th</sup> Ave. at SW Market St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P7**  
**Bus Shelter, Type 3BS, Seating as Windscreen Support, on Side Street**

Location Shown: NW Everett at NW 5<sup>th</sup> Ave.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P8**  
**Bus Shelter, Type 4B, Seating as Windscreen Support, on Side Street**

Location: SW Madison St. at SW 4<sup>th</sup> Ave.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.4-P9**  
**Bus Shelter, on Side Street**

Location Shown: SW Jefferson St. at SW 5<sup>th</sup> Ave.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No  
(Note- This shelter is one of TriMet's common, region-wide design, used here under special consideration)



**Figure 6.4-P10**  
**SW Salmon High Capacity Bus Shelter**

Location Shown:  
Project(s): Salmon Street Bus Shelter  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No  
(Note- this is a unique, one of a kind shelter, provided under a separate project)



**Figure 6.4-P11**  
**Adaptive Reuse of Original Mall Shelter (Coffee Shop)**

Location: SW 5<sup>th</sup> Ave at SW Salmon St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No  
(Note: While under the auspices of the Mall Project, this was its own permitted project in conjunction with Portland Mall Management Inc-PMMI)





**Figure 6.4-P12**

**Transit Information Display Monitor**

Location: SW 6<sup>th</sup> Ave at SW Mill St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P13**

**Cane Detectable Guard Rail**

Location Shown: NW 5<sup>th</sup> Ave. at NW Davis St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P14**

**Blade Sign**

Location Shown: SW 6<sup>th</sup> Ave at SW Jefferson St.  
Project(s):  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P15**

**Blade Sign, Customer Information**

Location Shown: NW 5<sup>th</sup> Ave. at NW Davis St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P16**  
**Blade Signs**  
 Location Shown: SW Burnside St at SW 5<sup>th</sup> Ave.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P17**  
**Bus Group Sign**  
 Location Shown: SW 6<sup>th</sup> Ave. at SW Salmon  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.4-P18**  
**Bus Blade Sign with Jump Seat**  
 Location Shown: SW 6<sup>th</sup> Ave. at SW Salmon  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)  
 (Note- While a TriMet Bust Standard Element, used through the region, its deployment is regulated by permit with the City)



**Figure 6.4-P19**  
**Bus Operators Break Building**  
 Location Shown: North Terminus  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Status:**  
 Approved

**Approval Date:**  
 December 2015

**Revision:**  
 Final Draft

**Approved by:**  
 PBOT/Design Review

## 6.5 – Rail Amenities

### Description:

Where light rail bisects the Transit Mall, many of the Mall's materials palettes are used to create a unified urban design.

### Location:

5<sup>th</sup> and 6<sup>th</sup> Avenues, from SW Jefferson Street to Union Station.

### Figure 6.5-P1

#### LRT Shelters

Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.5-P2**

**Platform Paving**

Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.5-P3**

**Platform Paving Detail**

Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.5-P4**

**Tactile Warning**

Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.5-P5**

**Trench Drain**

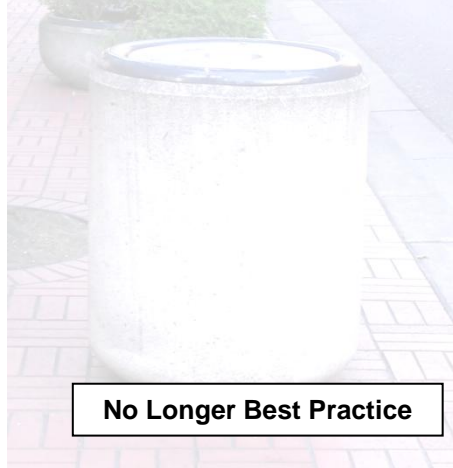
Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.5-P6**

**Trash Receptacle**

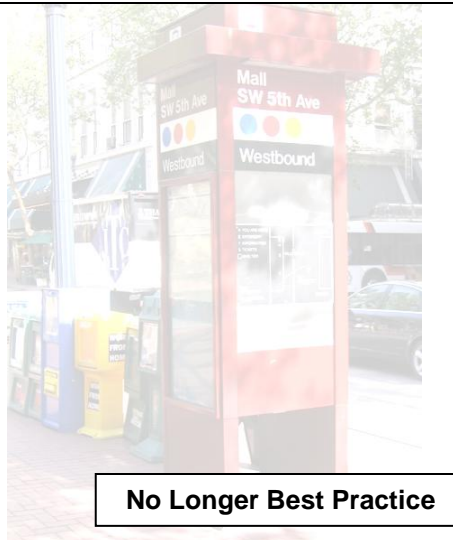
Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.5 -P7**

**LRT Signage**

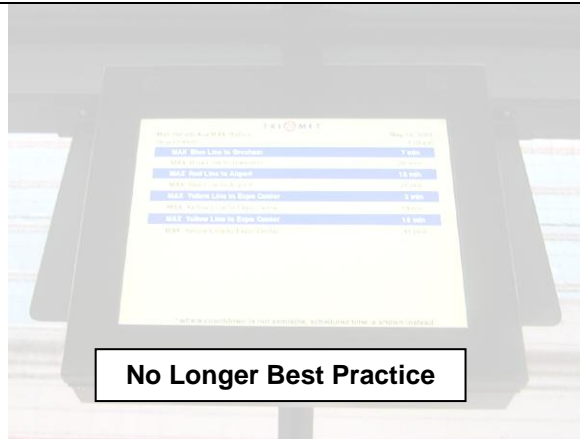
Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.5-P8**

**Real Time Information**

Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.5-P9**

**System's Cabinets**

Location Shown: Transit Mall at Pioneer Courthouse, Square and Place  
Project(s): Red, Blue and Yellow Lines at SW Morrison and SW Yamhill  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No

This photograph shows an example of a Goose Hollow Electrical Cabinet; this is a downtown example and would be similar to what is used on the Transit Mall.



**Status:**

Approved

**Approval Date:**

December 2005

**Revision:**

Final Draft

**Approved by:**

PBOT/Design Review

**Figure 6.5-P10**

**LRT Shelters, Type 2L**

Location Shown: SW 5<sup>th</sup> Ave. at SW Yamhill St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5-P11**

**LRT Shelters, Adaptive Reuse of PSU Bus Shelter**

Location Shown: SW 5<sup>th</sup> Ave. at SW Yamhill St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5-P12**

**Building Overhang/Canopy as Transit Shelter**

Location Shown: SW 6<sup>th</sup> Ave. at SW College St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No  
(Note- In a joint agreement with the adjacent development, and the City, canopy shelter is provided by the building's overhang. This occurs only at the PSU/South SW 6<sup>th</sup> & 5<sup>th</sup> Stations)



**Figure 6.5 -P13**

**Blade Signs, Customer Information**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 -P14**

**Public Telephone Kiosk**

Location Shown: SW 5<sup>th</sup> Ave at SW Jackson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P15**

**Seating, Free Standing**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P16**

**Bench Seating**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No  
(Note- In a joint agreement with the adjacent development, and the City, seating is provided by the developer. This occurs only at the PSU/South SW 6<sup>th</sup> & 5<sup>th</sup> Stations)



**Figure 6.5 –P17**

**Waste Receptacle**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5-P18**

**Real Time Information Display Monitor, and Ticket Vending Machine**

Location Shown: SW 5<sup>th</sup> Ave at SW Oak St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)





**Figure 6.5-P19**

**Real Time Information Display Monitor**

Location Shown: SW 5<sup>th</sup> Ave. at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P20**

**Real Time Information Display Monitor, Free Standing with Guard Rail and Ticket Validator**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No  
(Note- As a result of the building canopy providing shelter, the standard Mall TVM and Real Time Display had to be installed separately. This occurs only at the PSU/South SW 6<sup>th</sup> and 5<sup>th</sup> Ave. Stations.)



**Figure 6.5 –P21**

**Ticket Vending Machine and Ticket Validator**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No  
(Note- As a result of the building canopy providing shelter, the standard Mall TVM and Real Time Display had to be installed separately. This occurs only at the PSU/South SW 6<sup>th</sup> and 5<sup>th</sup> Ave. Stations.)



**Figure 6.5 –P22**

**Trench Drain in Sidewalk**

Location Shown: NW 5<sup>th</sup> Ave at NW Couch St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P23**

**Utility Vault Lid in Platform**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P24**

**Communications Cabinet**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P25**

**Electrical Cabinet**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P26**

**Street Lighting Cabinet**

Location Shown: SW 5<sup>th</sup> Ave at SW Jefferson St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P27**

**Train Signals on Mast Pole**

Location Shown: SW 5<sup>th</sup> Ave at SW Yamhill St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P28**

**Train Signals on Traffic Signal Pole**

Location Shown: NW 6<sup>th</sup> Ave at NW Davis St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P29**

**Train Signals on Stand Alone Pole**

Location Shown: NW 6<sup>th</sup> Ave at NW Davis St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P30**

**Cross over Double Track**

Location Shown: North Terminus.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: No  
Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P31**  
**Overhead Catenary Supports**  
 Location Shown: NW 5<sup>th</sup> Ave at NW Davis St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P32**  
**Overhead Catenary Supports on Joint Use Ornamental Pole**  
 Location Shown: SW 6<sup>th</sup> Ave at SW Yamhill St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)




**Figure 6.5 –P33**  
**Overhead Catenary Support On Stand Alone Pole**  
 Location Shown: North Terminus  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: Yes (Old Town/Chinatown)



**Figure 6.5 –P34**  
**Overhead Catenary Supported by Building**  
 Location Shown: SW 6<sup>th</sup> Ave at SW Washington St.  
 Project(s): Portland Mall  
 Standard Element: No  
 Nonstandard Element: Yes  
 Design Overlay District: Yes (Downtown)  
 Historic Overlay District: Yes (Old Town/Chinatown)



<p><b>Figure 6.5 –P35</b>  <b>Adaptive Reuse of Historic Building for Signal and Communications Rooms</b>  Location Shown: North Terminus.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: Yes (Old Town/Chinatown)</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

<p><b>Figure 6.5 –P36</b>  <b>Mast Validator</b>  Location Shown: South Mall.  Project(s): Portland Mall  Standard Element: No  Nonstandard Element: Yes  Design Overlay District: No  Historic Overlay District: Yes (Old Town/Chinatown)</p>			
<p><b>Status:</b> Approved</p>	<p><b>Approval Date:</b> December 2015</p>	<p><b>Revision:</b> Final Draft</p>	<p><b>Approved by:</b> PBOT/Design Review</p>

## 6.6 – Art Program

**Description:** In the original Transit Mall, public art was procured through the project and turned over to Regional Arts & Cultural Council (RACC) to maintain. The public art sculptures on the former Mall were temporarily removed to protect them during construction. The sculptures were cleaned and refurbished, and have been relocated along the Central Mall at sites more congenial to viewing them in the round. New art by Pacific Northwest regional artists was procured by the Portland Mall's Art Program, and sited to compliment the original art, but also to add to the Mall's urban design qualities. A number of new pieces were commissioned by the Project to be site specific. Other art was created in artist's studios, and then placed on site specific pedestals. Additionally, a private art piece was contributed to the Project and sited adjacent to the owner's building through a long term loan. Finally, new art was made from re-purposed granite from a fountain on the original Mall. And through a unique public/private agreement a piece from this ensemble is sited on private property adjacent to the rest of the ensemble, along the public streetscape.

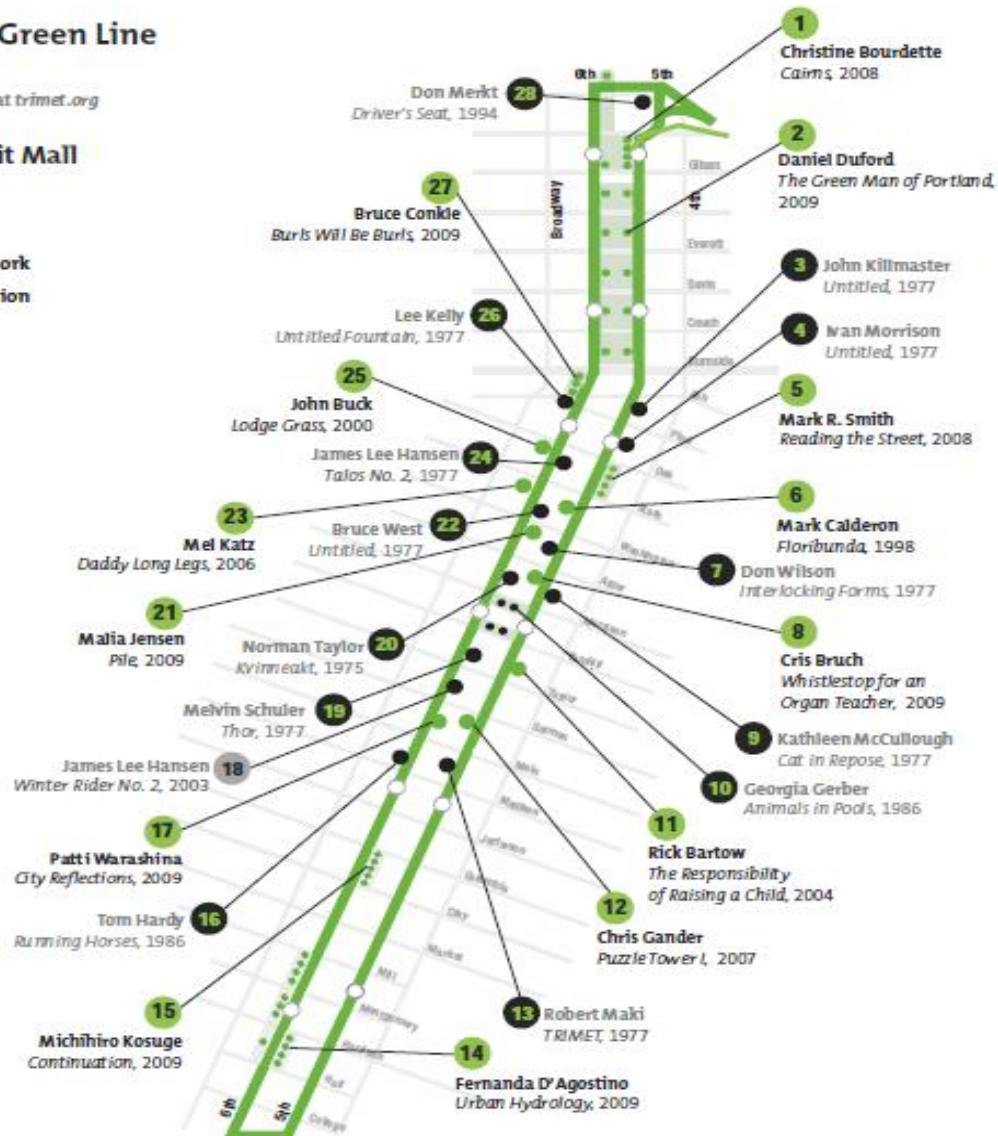
**Location:** North, Central, and South Mall- along 5<sup>th</sup> and 6<sup>th</sup> Avenues, from NW Irving Street to SW Hall Street

### TriMet MAX Green Line Public Art

Podcast available at [trimet.org](http://trimet.org)

#### Portland Transit Mall

- MAX station
- # New work
- # Multiple-part work
- # Original collection
- # On loan



**Figure 6.6-P1**

**Art in Bioswale- South Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Harrison St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P2**

**Art as Pedestrian Safety Element- South Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Hall St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P3**

**Art Sculpture from recycled Mall Fountain Stone- South Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Clay St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P4**

**Art as Functional Bench- South Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Clay St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P5**

**Public Art on Private Property- South Mall**

Location Shown: Hotel Modera, adjacent to SW 6<sup>th</sup> Ave.

Project(s): Portland Mall

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No

(Note- This public/private partnership was a 1<sup>st</sup> for TriMet)



**Figure 6.6-P6**

**Original Mall Art, Re-sited from ROW to Private Property- Central Mall**

Location Shown: Standard Insurance Building, adjacent to SW 5<sup>th</sup> Ave.

Project(s): Portland Mall

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No

(Note- Standard Insurance decided to have this art piece remove after it was installed. RACC found another 'home' outside of the Mall)



**Figure 6.6-P7**

**Original Mall Art, Re-sited from Pioneer Courthouse Square- Central Mall**

Location Shown: SW 6<sup>th</sup> Ave at SW Madison St.

Project(s): Portland Mall

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No



**Figure 6.6-P8**

**Art Sculpture Embedded in Streetscape- Central Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Main St.

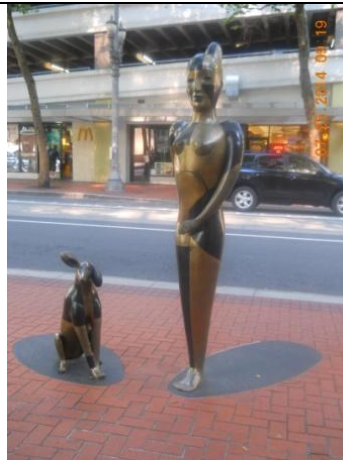
Project(s): Portland Mall

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No





**Figure 6.6-P9**  
**Art Sculpture, Pedestal Mounted, Adjacent to Building Entrance- Central Mall**

Location Shown: SW 5<sup>th</sup> Ave. at SW Taylor St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P10**  
**Private Art Sculpture, Sited in Public ROW- Central Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Salmon St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No  
(Note- This public/private partnership was a 1<sup>st</sup> for TriMet)



**Figure 6.6-P11**  
**Original Mall Art, Re-sited on Wide Streetscape Adjacent to New Mall Bus Shelter- Central Mall**

Location Shown: SW 5<sup>th</sup> Ave. at SW Washington St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P12**  
**Art Sculpture, Pedestal Mounted, Adjacent to New Mall Bus Shelter- Central Mall**

Location Shown: SW 5<sup>th</sup> Ave. at SW Alder St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P13**

**Original Mall Art on Fountain (original siting)**

Location Shown: SW Morrison St. between SW 5<sup>th</sup> & 6<sup>th</sup> Ave.

Project(s): Portland Mall

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No



**Figure 6.6-P14**

**Original Mall Art, Re-sited on Wide Streetscape Adjacent to New Mall Bus Shelter- Central Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Morrison St.

Project(s):

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No



**Figure 6.6-P15**

**Art Sculpture, Pedestal Mounted, Adjacent to New Mall Bus Shelter- Central Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Alder St.

Project(s): Portland Mall

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No



**Figure 6.6-P16**

**Art as Functional Railings- Central Mall**

Location Shown: SW 5<sup>th</sup> Ave, between SW Oak and SW Stark Streets

Project(s): Portland Mall

Standard Element: No

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: No



**Figure 6.6-P17**  
**Original Art Sculpture (original siting)-  
Central Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Pine St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P18**  
**Art Sculpture, Pedestal Mounted, on Public  
Streetscape- Central Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Oak St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P19**  
**Art Sculpture Grouping on Wide Streetscape-  
Central Mall**

Location Shown: SW 6<sup>th</sup> Ave. at SW Burnside St.  
Project(s): Portland Mall  
Standard Element: No  
Nonstandard Element: Yes  
Design Overlay District: Yes (Downtown)  
Historic Overlay District: No



**Figure 6.6-P20**  
**Art Sculpture, Pedestal Mounted at Light Rail Platform- North Mall**  
**Location Shown:** NW 6<sup>th</sup> Ave. at NW Davis St.  
**Project(s):** Portland Mall  
**Standard Element:** No  
**Nonstandard Element:** Yes  
**Design Overlay District:** No  
**Historic Overlay District:** Yes (Old Town/Chinatown)



**Figure 6.6-P21**  
**Art as 'Interpretive Signage along Public Streetscape- North Mall**  
**Location Shown:** NW 5<sup>th</sup> Ave. at NW Couch St.  
**Project(s):** Portland Mall  
**Standard Element:** No  
**Nonstandard Element:** Yes  
**Design Overlay District:** No  
**Historic Overlay District:** Yes (Old Town/Chinatown)



**Figure 6.6-P22**  
**Original Mall Art, Re-sited on Wide Streetscape Adjacent to New Mall Bus Shelter - North Mall**  
**Location Shown:** NW 5<sup>th</sup> Ave. at NW Irving St.  
**Project(s):** Portland Mall  
**Standard Element:** No  
**Nonstandard Element:** Yes  
**Design Overlay District:** Yes (Downtown)  
**Historic Overlay District:** Yes (Old Town/Chinatown)



**Figure 6.6-P23**  
**Art Sculptures, As Wayfinding Elements - North Mall**  
**Location Shown:** NW 6<sup>th</sup> Ave. at NW Davis St.  
**Project(s):** Portland Mall  
**Standard Element:** No  
**Nonstandard Element:** Yes  
**Design Overlay District:** Yes (Downtown)  
**Historic Overlay District:** Yes (Old Town/Chinatown)



**Figure 6.6-P24**  
**Art Sculptures, As Wayfinding Elements - North Mall**  
**Location Shown:** NW 6<sup>th</sup> Ave. at NW Davis St.  
**Project(s):** Portland Mall  
**Standard Element:** No  
**Nonstandard Element:** Yes  
**Design Overlay District:** Yes (Downtown)  
**Historic Overlay District:** Yes (Old Town/Chinatown)



**Figure 6.6-P25**  
**Art Sculptures, As Wayfinding Elements - North Mall**  
**Location Shown:** NW 6<sup>th</sup> Ave. at NW Davis St.  
**Project(s):** Portland Mall  
**Standard Element:** No  
**Nonstandard Element:** Yes  
**Design Overlay District:** Yes (Downtown)  
**Historic Overlay District:** Yes (Old Town/Chinatown)  
 (Note- these elements were not part of the Portland Mall Art Program, but a separate urban design effort of the Project. It's intension is to create a 'trail of crumbs' between the Pearl District and Old Town/ Chinatown)



**Status:**  
 Approved

**Approval Date:**  
 December 2015

**Revision:**  
 Final Draft

**Approved by:**  
 PBOT/Design Review

## Section 7 Bus Rapid Transit Roadway

### 7.1 Introduction

**Description:** Implementation of a bus rapid transit (BRT) line requires a comprehensive roadway approach to identify and implement key improvements that contribute to improved transit service—including better travel times, improved reliability, more enjoyable rider experience—and improved overall corridor safety.

### 7.2 Signals and Priority Treatments

**Description:**

**Figure 7.2-P1**

**Traffic Signal Cabinet**

Location Shown: SE Division at SE 135th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 7.2-P2**

**Pedestrian Activated Signal**

Location Shown: SE Division at SE 93rd  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: Throughout Division Corridor



**Figure 7.2-P3**

**Bus Queue Jump**

Location Shown: SE Division at SE 82nd  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division at 82nd Avenue eastbound (EB) and westbound (WB); 112th Avenue EB; 117th Avenue EB; 119th Avenue EB; 121st Avenue EB and WB; 142nd Avenue EB; 145th Avenue EB; 148th Avenue EB and WB; 162nd Avenue EB and WB



**Figure 7.2-P4**

**Business Access and Transit Lane**

Location Shown: SE Division at SE 112th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division at SE 110th to 122nd; SE 142nd to SE 148th, SE 162nd to SE 164th



**7.3 Transit-related Infrastructure and Treatments**

**Description:** In addition to the infrastructure improvements directly related to improving transit performance are a number of related roadway infrastructure improvements and upgrades that support long-term BRT service and an improved, safer transit corridor. These infrastructural improvements can vary and are typically corridor specific, reflecting the needs, desires, and requirements associated with a particular corridor.

**Figure 7.3-P1**

**Protected Bike Lane**

Location Shown: SE Division at SE 81st  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division between SE 81st and SE 175th



**Figure 7.3-P2**

**Stormwater Planter**

Location Shown: SE Division at SE 55th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 7.3-P3**

**Protected Intersection**

Location Shown: SE Division at SE 148th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division at SE 162nd, SE 122nd, and SE 82nd



**Figure 7.3-P4**

**Concrete Bus Pad**

Location Shown: SE Division at SE 148th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor





<p><b>Figure 7.3-P5</b>  <b>Bus Berthing Mark</b>  Location Shown: SE Division at SE 12th  Project(s): Division Transit Project  Standard Element: Yes  Non-standard Element: No  Design Overlay District: Yes (Central Eastside Industrial)  Historic Overlay District: No</p> <p>Other Locations: Transit Mall</p>	<p><b>PHOTO NEEDED – NOT INSTALLED YET</b></p>		
<p><b>Status:</b></p>	<p><b>Approval Date:</b></p>	<p><b>Revision:</b></p>	<p><b>Approved by:</b></p>

DRAFT

## Section 8. Bus Rapid Transit Stations

### 8.1 Introduction

This section of the document details the minimum standards and design approach to guide the engineering, materials, and construction standards for bus rapid transit (BRT) stations and interface with adjacent roadway and associated urban contexts. Station design and associated amenities are used to promote safe, accessible, and intuitive station environments with an intention to enhance and seamlessly integrate into the immediate streetscape and urban context. Station amenities and elements are to be of high quality that reflect a pride in community and enhances the streetscape, as well as overall rider and pedestrian experience.

Stations are focal points of a BRT system and quite often the nodal centers of a transit corridor and surrounding community. In addition, stations often are required to be interwoven into the urban fabric and existing streetscape. As such, it is imperative that station environments relate to the urban context and contribute to the overall streetscape while creating a transit environment that is safe, accessible, intuitive, and easy to use. Station design should not only consider functional and operational efficiencies, but integrate humanistic and community spirit. Design goals are presented in three categories: Architecture, Wayfinding and Functional, and Community Relationships. Many of these characteristics are essential to the bus system, but will vary depending on the level of service.

Note that the 2023 update to this Design Standards document includes platform elements from TriMet's first BRT line (FX2-Division). As such, design elements and standards within this BRT section should allow for future flexibility and refinement.

#### **Architecture Goals include:**

- Creating a civic architecture that is permanent, has a characteristic thread, and contributes to its context – one that is not entirely derivative of the transit system, but of the neighborhoods and community of which it is a part;
- Using the existing family of parts that are interchangeable and allow for the individual character of each neighborhood or community, while maintaining a level of consistency to support the BRT brand
- Protecting transit passengers from adverse weather conditions and vehicular traffic;
- Making transit safe, secure, friendly, fun, and accessible to all, including users living with disabilities;
- Developing systems that use low-maintenance materials and minimize lifecycle costs; and
- Providing an architectural and urban design framework that defines and encourages joint development opportunities when appropriate.

#### **Wayfinding and Functional Goals include:**

- Providing a safe, efficient, and convenient station layout;
- Providing clear and easily understood transit information that is intuitive and easy to understand, can be referenced quickly, and minimizes disorientation for all users;
- Developing operational efficiencies that simplify modal interchange and passenger processing; and
- Providing the best service possible at a reasonable cost.

#### **Community Relationships Goals include:**

- Promoting equitable development opportunities;
- Promoting transit-related uses that are proximate to stations;
- Initiating and coordinating programs with the community that limit local traffic impacts and minimize disruption during and after the implementation phase; and
- Using local jurisdictional and agency processes throughout project design and implementation.

Design objectives are identified as a means to achieving the basic goal of BRT station design. The following includes criteria for paving, platforms, shelters, and amenities.

- Quality Objectives
  - Maximize personal comfort
  - Maximize aesthetic quality

- Maximize civil quality
- Maximize safety
- Maintenance Objectives
  - Maximize ease of maintenance and replacement

## 8.2 Platform Types

### Description:

There are four different station types that are currently associated with the BRT system; (1) Pedestrian Pass-Through, where the pedestrian path is shared with the transit platform; (2) Pedestrian By-Pass, where the pedestrian path is behind the platform; (3) Island Station, where a bike path and pedestrian path are behind the platform; and (4) Shared Bicycle and Pedestrian (SBAP) platform, where a bike zone is situated between the passenger step-out zone and station waiting area. Note that the Oregon Department of Transportation (ODOT) requires different treatments to the SBAP platform type, and these treatments and overall use of this station type in ODOT jurisdiction is considered non-standard and under a two-year pilot program review (to be completed spring 2024).

Whenever possible, platform heights are desired to be at a near-level boarding heights of 9 inches to make boarding and alighting of the bus easier for passengers while in turn also improving bus travel times/reliability through reduced dwell times. A 9-inch platform height is desired at the time of this publication as it can serve both 60-foot articulated buses and a standard 40-foot bus.

### Figure 8.2-P1

#### Pedestrian Pass-Through Station

Location: SE Division at SE 68th  
 Project(s): Division Transit Project  
 Standard Element: Yes  
 Non-standard Element: No  
 Design Overlay District: No  
 Historic Overlay District: No

Other Locations: Throughout Division Corridor



### Figure 8.2-P2

#### Pedestrian By-Pass Station

Location: SE Division at SE 20th  
 Project(s): Division Transit Project  
 Standard Element: Yes  
 Non-standard Element: No  
 Design Overlay District: Yes (Central Eastside Industrial)  
 Historic Overlay District: No

Other Locations: Throughout Division Corridor



**Figure 8.2-P3  
Island Station**

Location: SE Division at SE 82nd  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division at SE 82nd  
and SE 122nd



**Figure 8.2-P4  
Shared Bicycle and Pedestrian  
Platform Station**

Location: SE Division Between 85th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division between SE  
85th and SE 174th



**Figure 8.2-P5  
Shared Bicycle and Pedestrian  
Platform Station (ODOT)**

Location: 93rd/SE Division (I-205  
Overpass)  
Project(s): Division Transit Project  
Standard Element: No  
Non-standard Element: Yes  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division between SE  
85th and SE 174th



*ODOT considers this station type to be non-standard as of September 2022. The use of this station typology is under review as part of a joint pilot project with Portland State University. Determination of future use to be determined after completion of study in March 2024.*

### 8.3 Platform Elements

**Description:**

A family of standard station elements are shared among all BRT platforms within a corridor. The elements should have a common language in terms of materiality and form while also relating to, complimenting, and contributing back to the existing streetscape. The placement of some station elements (shelter, station marker, seating, trash receptacle, etc.) may differ depending on station context and site constraints. However, this variability should be minimized; taking into careful consideration overall station navigability and ease-of-use while also meeting all relevant safety requirements.

**Platform Edge:** Where station platform heights are above 6 inches, a 24-inch detectable warning paver assembly is required along the length of the platform edge. This detectable warning paver assembly may incorporate an accommodation for the deployment of bus bridge plates. Concessions should be located off of the platform edge and in an area adjacent to the flow of passengers. As much as possible, the platform edge should be kept clear of fixed elements, such as furniture, signage, and shelters.

**Platform Ramps/Exits:** Safe, unrestricted exits from station platform areas should allow for uncontested passenger movements. Exits from a station area should be located at both ends of a platform and allow for safe exiting under normal operational and emergency conditions. As BRT station platforms are a part of the existing streetscape, platforms should be well coordinated and integrated within the existing sidewalk environment and the City's identified various zones (frontage zone, pedestrian through zone, and furnishing zone).

**Lighting:** BRT station platforms should be illuminated to assist with ease-of-use, navigability, and safety. Lighting elements should be used to illuminate the platform area, including all boarding areas, places of station circulation platform edge, vertical vehicle surfaces, stairs, etc. per TriMet's Chapter 27, Lighting Design Criteria.

**Figure 8.3-P1**  
**24-inch Tactile Paver at Boarding Zone**  
**(replaceable cast-in-place)**

Location Shown: SE Division at SE 148th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P2**

**Directional Tile Paver (replaceable cast-in-place)**

Location Shown: SE Division at SE 148th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor

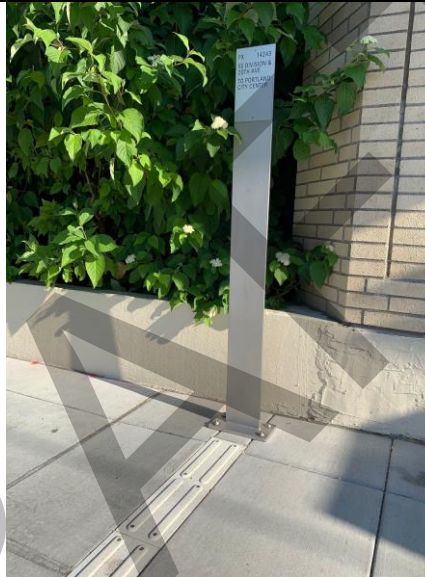


**Figure 8.3-P3**

**Freestanding Tactile Marker**

Location Shown: SE Division at SE 20th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P4**

**Tactile Marker Sign**

Location Shown: SE Division at SE 67th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P5**

**Trash Receptacle**

Location Shown: SE Division at SE 34th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P6**

**Station Marker**

Location Shown: SE Division at SE 34th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P7**

**Digital Information Display**

Location Shown: SE Division at I-205  
MAX  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P8**  
**Station Electrical and Communications Cabinet**

Location Shown: SE Division at SE 34th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P9**  
**Station Benches**

Location Shown: SE Division at SE 20th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P10**  
**Bike Staples**

Location Shown: SE Division at I-205  
MAX  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: None





**Figure 8.3-P11**

**Shelter**

Location Shown: SE Division at SE 20th

Project(s): Division Transit Project

Standard Element: Yes

Non-standard Element: No

Design Overlay District: Yes (Central Eastside Industrial)

Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P12**

**Etched Windscreen Glass**

Location Shown: SE Division at SE 20th

Project(s): Division Transit Project

Standard Element: Yes

Non-standard Element: No

Design Overlay District: Yes (Central Eastside Industrial)

Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P13**

**Graphic Interlay Windscreen Glass**

Location Shown: SE Division at SE 82nd  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE 82nd, I-205 MAX,  
SE 122nd, and Gresham Transit Center



**Figure 8.3-P14**

**Freestanding Windscreen**

Location Shown: SE Division at I-205  
MAX  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: None



**Figure 8.3-P15**

**Shelter Canopy Glass**

Location Shown: SE Division at SE 122nd  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes  
Historic Overlay District: No

Other Locations: Throughout SE Division  
Corridor



**Figure 8.3-P16**

**Platform Handrail**

Location Shown: SE Division at SE 34th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P17**

**Station Railing**

Location Shown: SE Division at SE 26th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor

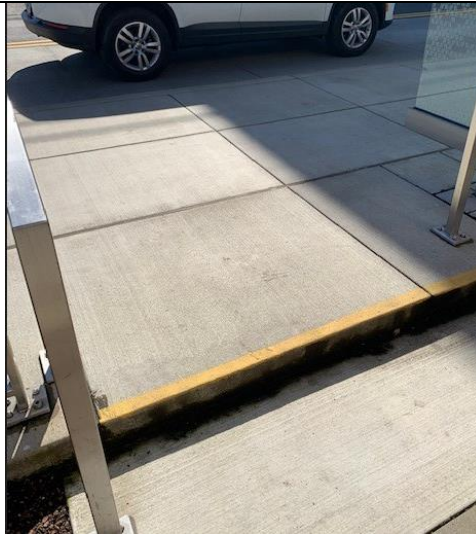


**Figure 8.3-P18**

**Station Platform Step**

Location Shown: SE Division at SE 34th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE 30th and SE 34th



**Figure 8.3-P19**

**Station Platform Ingress/Egress Ramp**

Location Shown: SE Division at SE 34th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P20**

**Shared Bicycle Pedestrian Platform Markings and Signage**

Location Shown: SE Division at SE 148th  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division between SE 85th and SE 175th



**Figure 8.3-P21**

**Protected Bicycle Lane and Shared Bicycle and Pedestrian Platform Interface (Tuff Curb)**

Location Shown: SE Division at SE 101st  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division between SE 82nd and SE 175th



**Figure 8.3-P22**  
**Protected Bicycle Lane and Shared Bicycle and Pedestrian Platform Interface**

Location Shown: SE Division at SE 101st  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division between SE 82nd and SE 175th



**Figure 8.3-P23**  
**Shared Bicycle Pedestrian Platform Markings (ODOT)**

Location Shown: SE Division at I-205 MAX  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: None



**Figure 8.3-P24**  
**Shared Bicycle Pedestrian Platform Blue Tactile (ODOT)**

Location Shown: SE Division at I-205 MAX  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: None



**Figure 8.3-P25**

**Removable Bollards at Island Station**

Location Shown: SE Division at SE 82nd  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: Island Station (SE 82nd and SE 122nd)



**Figure 8.3-P26**

**Concrete Seating Wall**

Location Shown: SE Division at SE 82nd  
(back edge of station platform)  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division at SE 30th and SE 34th



**Figure 8.3-P27**

**Freestanding Leaning Rail**

Location Shown: SE Division at SE Cesar Chavez  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: None



**Figure 8.3-P28**  
**Station Identification Signage (Shelter)**

Location Shown: SE Division at SE 20th eastbound  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (Central Eastside Industrial)  
Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P29**  
**Station Identification Signage (No Shelter)**

Location Shown: SE Division at SE 20th westbound  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: No  
Historic Overlay District: No

Other Locations: SE Division at SE Cesar Chavez



**Figure 8.3-P30**  
**Transit Mall FX Signage**

Location Shown: NW 5th at NW Hoyt  
Project(s): Division Transit Project  
Standard Element: Yes  
Non-standard Element: No  
Design Overlay District: Yes (River District)  
Historic Overlay District: No

Other Locations: Throughout FX2 stops on Transit Mall



**Figure 8.3-P31**

**Standard Bus Stop FX2 Blade Sign**

Location Shown: SW Lincoln at SW 1st

Project(s): Division Transit Project

Standard Element: Yes

Non-standard Element: No

Design Overlay District: Yes (Central Eastside Industrial)

Historic Overlay District: No

Other Locations: Downtown Portland Transit Mall, Tilikum Crossing, and OMSI Station



**Figure 8.3-P32**

**System Map Display (Station Marker)**

Location Shown: SE Division at SE 20th

Project(s): Division Transit Project

Standard Element: Yes

Non-standard Element: No

Design Overlay District: Yes (Central Eastside Industrial)

Historic Overlay District: No

Other Locations: Throughout SE Division Corridor



**Figure 8.3-P33**

**Station Shelter Regulatory Signage**

Location Shown: Gresham Transit Center

Project(s): Division Transit Project

Standard Element: Yes

Non-standard Element: No



Design Overlay District: Yes (Central Eastside Industrial)


Historic Overlay District: No

Other Locations: Throughout SE Division Corridor





<p><b>Figure 8.3-P34</b>  <b>Terminus “Drop-off Only” Signage</b>  Location Shown: NW Irving  Project(s): Division Transit Project  Standard Element: Yes  Non-standard Element: No  Design Overlay District: Yes (River District)  Historic Overlay District: No</p> <p>Other Locations: At last FX2 Terminus Stops (NW 5th at NW Hoyt)</p>	<p><b>NEED PHOTO-JESSE TO PROVIDE</b></p>
<p><b>Figure 8.3-P35</b>  <b>Bricks at Shelter Columns and Station Marker</b>  Location Shown: SE Division at SE 26th  Project(s): Division Transit Project  Standard Element: Yes  Non-standard Element: No  Design Overlay District: Yes (Central Eastside Industrial)  Historic Overlay District: No</p> <p>Other Locations: Throughout SE Division Corridor</p>	
<p><b>Figure 8.3-P36</b>  <b>Utility Lids in Platform</b>  Location Shown: SE Division at SE 30th  Project(s): Division Transit Project  Standard Element: Yes  Non-standard Element: No  Design Overlay District: Yes (Central Eastside Industrial)  Historic Overlay District: No</p> <p>Other Locations: Throughout SE Division Corridor</p>	

<p><b>Figure 8.3-P37</b>  <b>CCTV Camera (Shelter)</b>  Location Shown: SE Division at [TBD]  Project(s): Division Transit Project  Standard Element: Yes  Non-standard Element: No  Design Overlay District: Yes (Central Eastside Industrial)  Historic Overlay District: No</p> <p>Other Locations: Throughout SE Division Corridor</p>	<p><b>NEED PHOTO – Cameras not installed yet</b></p>
<p><b>Figure 8.3-P38</b>  <b>CCTV Camera (Station Marker)</b>  Location Shown: SE Division at [TBD]  Project(s): Division Transit Project  Standard Element: Yes  Non-standard Element: No  Design Overlay District: Yes (Central Eastside Industrial)  Historic Overlay District: No</p> <p>Other Locations: Throughout SE Division Corridor</p>	<p><b>NEED PHOTO – Cameras not installed yet</b></p>
<p><b>Figure 8.3-P39</b>  <b>Station Shelter Lighting</b>  Location Shown: SE Division at SE 30th  Project(s): Division Transit Project  Standard Element: Yes  Non-standard Element:  Design Overlay District: Yes (Central Eastside Industrial)  Historic Overlay District: No</p> <p>Other Locations: Throughout Division Street Corridor</p>	 <p>A photograph of a station shelter at night. The shelter is illuminated from within, showing people waiting. A sign above the shelter reads "SE 30th Ave". The background shows a building with a lit sign and streetlights.</p>

**Figure 8.3-P40**  
**Station Marker Down Light**  
 Location Shown: SE Division at SE 30th  
 Project(s): Division Transit Project  
 Standard Element: Yes  
 Non-standard Element:  
 Design Overlay District: Yes (Central Eastside Industrial)  
 Historic Overlay District: No  
  
 Other Locations: Throughout Division Street Corridor



**Figure 8.3-P41**  
**Station Marker Pylon Lighting (Map Case and Branding)**  
 Location Shown: SE Division at SE 20th  
 Project(s): Division Transit Project  
 Standard Element: Yes  
 Non-standard Element: No  
 Design Overlay District: Yes (Central Eastside Industrial)  
 Historic Overlay District: No  
  
 Other Locations: Throughout SE Division Corridor



**Figure 8.3-P42**  
**Catch Basin at Shared Bike and Pedestrian Platform (far side of platform)**  
 Location Shown:  
 Project(s): Division Transit Project  
 Standard Element:  
 Non-standard Element: Yes  
 Design Overlay District: No  
 Historic Overlay District: No  
  
 Other Locations:



<b>Status:</b>	<b>Approval Date:</b>	<b>Revision:</b>	<b>Approved by:</b>
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## Section 9. Bus Rapid Transit Station Area

### 9.1 Introduction

#### Description:

Stations are part of a preexisting streetscape and must often be woven within a complex, constrained urban environment. Each station should respond to the immediate context and be a derivative of the neighborhoods and communities of which it is a part. Therefore, stations should:

- Contribute to character and quality of their context;
- Help establish new transit supportive development patterns where appropriate;
- Reinforce and guide desired and established development patterns; and
- Recognize emerging development patterns that can be complemented and that will complement station development.

The “context” refers to the immediate surroundings of a prospective station site. This context can be either residential, commercial, suburban, urban, or rural. Regardless of this context, the character, land use, and future of the context will have a direct influence on the site planning and design of BRT stations.

Land use zoning can have a distinct effect on near term and future use of BRT station. While zoning designations can be changed to fit a site that has many appropriate physical attributes, a change can be difficult to implement, so current zoning remains important.

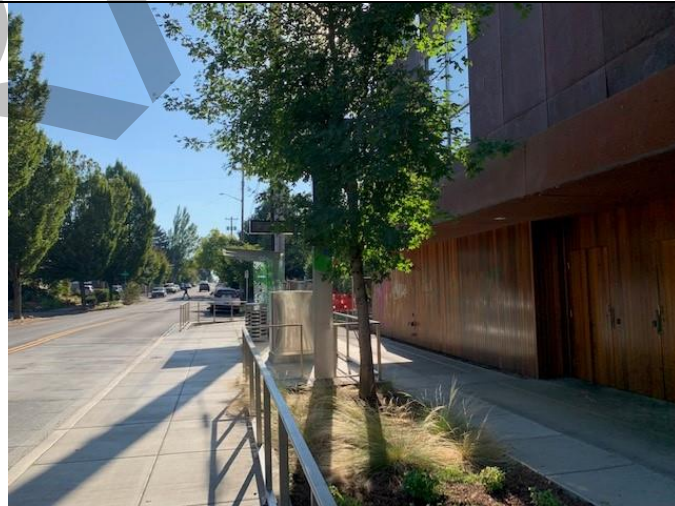
### 9.2 Station Landscaping

**Description:** Station landscaping can provide a number of benefits, including aesthetics, demarcation between pedestrian and non-pedestrian areas, and as a buffer between roadway and pedestrian areas. Maintenance responsibility, safety, context, and sightline considerations are important factors in determining when and where plantings are included in immediate surroundings of station.

#### Figure 9.2-P1

##### Station Landscaping

Location Shown: SE Division at SE 26th  
Project(s): Division Transit Project  
Standard Element: No  
Non-standard Element:  
Design Overlay District: No  
Historic Overlay District: No  
Other Locations: Throughout Division Corridor



### 9.3 Station Placemaking

**Description:** Planning and design of stations have an opportunity to reinforce and celebrate sense of place and neighborhood identity. This opportunity depends on context and is informed by community and site specifics (pedestrian/bike connectivity, adjacent residences, and business uses, etc.). Recognizing the surroundings and engagement with community provides invaluable insight into the design and planning process. Station environments should provide a valuable addition to the streetscape, enhancing the station area while recognizing/supporting the aspirations and desires of community.

**Figure 9.3-P1**

**Station Placemaking**

Location Shown: SE Division at SE 34th

Project(s): Division Transit Project

Standard Element: No

Non-standard Element: No

Design Overlay District: No

Historic Overlay District: No

Other Locations: SE 82nd, SE 34th, SE 30th, and SE 93rd (I-205)



**Status:**

**Approval Date:**

**Revision:**

**Approved by:**

DRAFT

## Section 10. Bus Rapid Transit and Transit Mall

<h3>10.1 Introduction</h3> <p><b>Description:</b> The Transit Mall is a distinct transit facility within downtown Portland and integration of BRT service is an extension of bus and LRT service that already serves this important transit hub within our city.</p> <p>BRT service is intended to seamlessly integrate with the preexisting bus and light rail service as it enters the downtown core. TriMet's first BRT service (FX2-Division) transitions to using existing station infrastructure and amenities west of SE 11th/SE Division. This includes using existing infrastructure and station elements at OMSI/SE Water, Tilikum Crossing, South Waterfront, and onto the Transit Mall.</p> <p>New, distinct BRT station elements integrated into the Transit Mall and associated stations west of SE 11th are limited to station signage and signal upgrades within the Mall to accommodate transit signal priority.</p>	
<h3>10.2 Stations</h3> <p><b>Description:</b> FX2-Division BRT uses preexisting bus stop infrastructure and associated amenities west of SE 11th/SE Division. BRT additions are limited to signage and signal upgrades.</p> <p><b>Location:</b> OMSI/SE Water, South Waterfront/South Moody, South Harbor Viaduct, 5th and 6th Avenues, from SW Lincoln to Union Station.</p>	
<p><b>Figure 10.2-P1</b> <b>Stations</b> Location Shown: Transit Mall Project(s): None Standard Element: Yes Nonstandard Element: Yes Design Overlay District: Yes (Downtown) Historic Overlay District: Yes (Old Town/Chinatown)</p>	NEED PHOTO
<p><b>Figure 10.2-P2</b> <b>Transit Signal Priority Bus Signals</b> Location Shown: Transit Mall Project(s): None Standard Element: Yes Nonstandard Element: Yes Design Overlay District: Yes (Downtown) Historic Overlay District: Yes (Old Town/Chinatown)</p>	NEED PHOTO
<p><b>Figure 10.2-P3</b> <b>Drop-off Only Signage</b> Location Shown: Transit Mall (NW Irving St) Project(s): None Standard Element: Yes Nonstandard Element: Yes Design Overlay District: Yes (Downtown) Historic Overlay District: Yes (Old Town/Chinatown)</p>	NEED PHOTO

**Figure 10.2-P4**

**Station Blade Signage**

Location Shown: Transit Mall (SW Lincoln)

Project(s): None

Standard Element: Yes

Nonstandard Element: Yes

Design Overlay District: Yes (Downtown)

Historic Overlay District: Yes (Old Town/Chinatown)



**Status:**

**Approval Date:**

**Revision:**

**Approved by:**

DRAFT