

# Part II: Title VI Policies

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This section provides the following policies and standards, as approved by the TriMet board:

1. Major Service Change Policy
2. Disparate Impact Policy
3. Disproportionate Burden Policy
4. System-wide Service Standards
5. System-wide Service Policies

Policies on Major Service Change, Disparate Impact, and Disproportionate Burden have been shared for public information, awareness, and comment. They were informed by staff presenting at several community meetings (both English and Spanish), a dedicated website<sup>5</sup>, and a questionnaire sent to community service providers in spring and summer 2019, as well as feedback gathered since TriMet's last submittal in 2016. Information about the Title VI process, complaint procedures, and the proposed standards and policies have been made available via the TriMet website as well by calling the customer service phone number or emailing a dedicated email address.

## MAJOR SERVICE CHANGE POLICY

All changes in service meeting the definition of "Major Service Change" are subject to a Title VI Equity Analysis prior to Board approval of the service change. A Title VI Equity Analysis will be completed for all Major Service Changes and will be presented to the TriMet Board of Directors for its awareness, consideration and included in the subsequent TriMet Title VI Program report with a record of action taken by the Board.

TriMet defines a Major Service Change as:

1. A change to 15% or more of a line's route miles. This includes routing changes where route miles are neither increased nor reduced (i.e. re-routes), or;
2. A change of 15% or more to a line's span (hours) of service on a daily basis for the day of the week for which a change is made, or;
3. A change of 15% or more to a line's frequency of service on a daily basis for the day of the week for which a change is made, or;
4. A single transit route is split into two or more transit routes.
5. A new transit route is established as defined in the Introduction.
6. A transit route is eliminated or retired from service.

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<sup>5</sup> <https://trimet.org/equity/title6update>

A Major Service Change occurs whether the above thresholds are met:

- a) Within a single service proposal, or;
- b) Due to a cumulative effect of routing, span, or frequency changes over the three years prior to the analysis.

The following service changes are exempted:

1. Standard seasonal variations in service are not considered Major Service Changes.
2. In an emergency situation, a service change may be implemented immediately without an equity analysis being completed. An equity analysis will be completed if the emergency change is to be in effect for more than 180 days and if the change(s) meet the definition of a Major Service Change. Examples of emergency service changes include but are not limited to those made because of a power failure for a fixed guideway system, the collapse of a bridge over which bus or rail lines pass, major road or rail construction, or inadequate supplies of fuel.
3. Experimental service changes may be instituted for 180 days or less without an equity analysis being completed. An equity analysis will be completed prior to continuation of service beyond the experimental period if the change(s) meet the definition of a Major Service Change.

## Public Participation and Board Approval

The strategy TriMet employed to inform the Major Service Change threshold in 2016 was asking community members and non-profit service providers to describe a change in the recent past from which they or the clients they serve felt the impacts (either positive or negative). The idea to lower the Major Service Change threshold to 15 percent (previously 25 percent) arose from community feedback that even relatively small service changes can have significant impacts on those who rely most on TriMet to meet their transportation needs.

In 2019, staff proposed adding the following “a transit route is eliminated or retired from service” to its Major Service Change policy. Although TriMet’s current policy is one of the most sensitive across transit agencies, this change will make the way TriMet handles major service changes an industry standard. It will also help to make the designation easier for internal staff and the public to understand. To inform the policy change, staff sought out feedback from the Transit Equity Advisory Committee and a dedicated web page.

## DISPARATE IMPACT POLICY

The Disparate Impact Policy establishes a threshold for determining whether a given action has a potential Disparate Impact on minority populations.

In the course of performing a Title VI equity analysis for possible Disparate Impact, TriMet will analyze how the proposed Major Service Change or fare change action could impact minority populations, as compared to non-minority populations.

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*Disparate Impact refers to a facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, where the recipient's policy or practice lacks a substantial legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effect on the basis of race, color, or national origin...*

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In the event the proposed action has an adverse impact that affects minority populations more than non-minority populations at a level that exceeds the thresholds established in the adopted Disparate Impact Policy, or that restricts the benefits of the service change to protected populations, the finding would be considered as a potential Disparate Impact. Given a potential Disparate Impact, TriMet will evaluate whether there is an alternative that would serve the same objectives and with a more equitable impact. Otherwise, TriMet will take measures to minimize or mitigate the adverse impact of the proposed action.

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*From the Title VI Circular*

*The [Disparate Impact] policy shall establish a threshold for determining when adverse effects of fare/service changes are borne disproportionately by minority populations. The Disparate Impact threshold defines statistically significant disparity and may be presented as a statistical percentage of impacts borne by minority populations compared to impacts borne by non-minority populations. The Disparate Impact threshold must be applied uniformly... and cannot be altered until the next Title VI Program submission.*

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The Disparate Impact Policy defines measures for determination of potential Disparate Impact on minority populations resulting from Major Service Changes or any change in fares. The policy is applied to both adverse effects and benefits of Major Service Changes. Adverse effects of service changes are defined as:

1. A decrease in the level of transit service (hours, days, and/or frequency); and/or
2. Decreased access to comparable transit service, which is defined as an increase of the access distance to beyond one-quarter mile of bus stops or one-half mile of rail stations.

The determination of Disparate Impact associated with service changes is defined separately for impacts of changes on individual line, and for system-level impacts of changes on more than one line, as well as for both service reductions and service improvements:

1. In the event of potential adverse effects resulting from service reductions:
  - a) A Major Service Change to a *single line* will be considered to have a potential Disparate Impact if the percentage of impacted minority population in the service area of the line exceeds the percentage of minority population of the TriMet District as a whole by at least 3 percentage points (e.g., 32 percent compared to 29 percent).
  - b) To determine the *system-wide* impacts of Major Service Change reductions on more than one line, the percentage of the TriMet district's minority population that is impacted is compared to the percentage of the TriMet district's non-minority population that is impacted. If the percentage of the minority population impacted is at least 20 percent greater than the percentage of the non-minority population impacted (e.g., 12 percent compared to 10 percent), the overall impact of changes will be considered disparate.
  
2. In the event of service improvements:
  - a) A major service change to a *single line* will be considered to have a potential Disparate Impact if:
    - i. The improvement is linked to other service changes that have disproportionate and adverse effects on minority populations, or;
    - ii. The percentage of impacted minority population in the service area of the line is less than the percentage of minority population of the TriMet District as a whole by at least 3 percentage points (e.g., 26 percent compared to 29 percent).
  - b) To determine the *system-wide* impacts of major service change improvements on more than one line, the percentage of the TriMet district's minority population that is impacted is compared to the percentage of the TriMet district's non-minority population that is impacted. If the percentage of the minority population impacted is at least 20 percent less than the percentage of the non-minority population impacted (e.g., 8 percent compared to 10 percent), the overall impact of changes will be considered disparate.
  
3. Additional considerations to complement the quantitative Disparate Impact analysis above may include evaluating impacts to accessing employment, education, food, health care, or public parks/recreation for minority populations.

Upon determination of Disparate Impact, TriMet will either:

- a) Alter the service proposal to avoid, minimize, or mitigate potential Disparate Impacts, or;

- b) Provide a substantial legitimate justification for keeping the proposal as-is, and show that there are no alternatives that would have a less Disparate Impact on minority riders but would still accomplish the project or program goals.

## Fare Changes

For fare changes, a potential disparate impact is noted when the percentage of trips by minority riders using a fare option, in combination with the percentage price change for that option, has an impact that exceeds the comparable impact on non-minority riders. When minority populations or riders will experience a 10% (or more) greater adverse effect than that borne by the non-minority populations or riders, such changes will be considered to have a disparate impact. Where potential adverse impacts are identified, TriMet will provide a meaningful opportunity for public comment on any proposed mitigation measures, including any less discriminatory alternatives that may be available.

Differences in the use of fare options between minority populations and non-minority populations include all such differences that are documented as statistically significant at the 95 percent confidence level.

## Public Participation and Board Approval

Feedback on this Program and the policies therein generally did not differ between how TriMet should treat analysis of disparities based on race (Disparate Impact) and income (Disproportionate Burden). Thus, the two policies remain equivalent.

In 2019, TriMet sent a questionnaire to staff at the 103 organizations participating in the agency's Access Transit fare program for low-income transit riders (see Attachment P). The questionnaire asked about Title VI program awareness, observations of changes to service or fares that have had a significant impact on clients served, thoughts on what else should be considered when making service changes, and examples of evaluating policies for potential disproportionate impacts to low-income persons and/or persons of color.

After reviewing survey responses, TriMet decided to expand its access considerations list to include parks, public recreation, and green spaces when performing an equity analysis. Moreover, participants supported the former population-based approach (i.e., looking at the low-income and minority population living by transit lines proposed for changes was a good way to measure potential impacts) as well as the inclusion of access to jobs, education, food and health care when conducting equity analysis.

The process to choose the 10 percent threshold for the Disparate Impact policy for fare changes started with researching policies from 15 comparable transit agencies and consulting with over 50 Title VI staff leads from FTA Region 9 and 10 transit agencies. The research found a range of thresholds from 5 percent to 35 percent. TriMet staff consulted with the Transit Equity Advisory Committee (April 9, 2019 and July 9, 2019) on what percentage would establish a high standard for identifying differential impacts in the event of fare changes. The feedback received noted that a percentage under 12% would be a good starting point and should serve as a baseline. Additional comments included that the policy should state that TriMet will work to minimize any potential impacts on minority populations for all fare changes. After considering this input and how it would impact the equity analysis process going

forward, TriMet opted to establish a lower threshold (10%) for fare changes. TriMet also opted to not include major and minor fare change definitions given the minimal support from TEAC and community partners.

## DISPROPORTIONATE BURDEN POLICY

The Disproportionate Burden Policy establishes a threshold for determining whether a given action has a potential Disproportionate Burden on low-income populations.

In the course of performing a Title VI equity analysis for possible Disproportionate Burden, TriMet will analyze how the proposed Major Service Change or fare change action could impact low-income populations, as compared to non-low-income populations.

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### *From the Title VI Circular*

*The [Disproportionate Burden] policy shall establish a threshold for determining when adverse effects of fare/ service changes are borne disproportionately by low-income populations. The disproportionate burden threshold defines statistically significant disparity and may be presented as a statistical percentage of impacts borne by low-income populations as compared to impacts born by non-low-income populations.... The disproportionate burden threshold must be applied uniformly... and cannot be altered until the next [Title VI] program submission....*

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In the event the proposed action has an adverse impact that affects low-income populations more than non-low-income populations at a level that exceeds the thresholds established in the adopted Disproportionate Burden Policy, or that restricts the benefits of the service change to protected populations, the finding would be considered as a potential Disproportionate Burden. Given a potential Disproportionate Burden, TriMet will evaluate whether there is an alternative that would serve the same objectives and with a more equitable impact. Otherwise, TriMet will take measures to minimize or mitigate the adverse impact of the proposed action.

The Disproportionate Burden Policy defines measures for determination of potential Disproportionate Burden on low-income populations resulting from Major Service Changes or any change in fares. The policy is applied to both adverse effects and benefits of Major Service Changes. Adverse effects of service changes are defined as:

1. A decrease in the level of transit service (hours, days, and/or frequency); and/or
2. Decreased access to comparable transit service, which is defined as an increase of the access distance to beyond one-quarter mile of bus stops or one-half mile of rail stations.

The determination of Disproportionate Burden associated with service changes is defined separately for impacts of changes on individual line, and for system-level impacts of changes on more than one line, as well as for both service reductions and service improvements:

1. In the event of potential adverse effects resulting from service reductions:
  - a) A Major Service Change to a *single line* will be considered to have a potential Disproportionate Burden if the percentage of impacted low-income population in the service area of the line exceeds the percentage of low-income population of the TriMet District as a whole by at least 3 percentage points (e.g., 31 percent compared to 28 percent).
  - b) To determine the *system-wide* impacts of Major Service Change reductions on more than one line, the percentage of the TriMet district's low-income population that is impacted is compared to the percentage of the TriMet district's non-low-income population that is impacted. If the percentage of the low-income population impacted is at least 20 percent greater than the percentage of the non-low-income population impacted (e.g., 12 percent compared to 10 percent), the overall impact of changes will be considered disparate.
2. In the event of service improvements:
  - c) A major service change to a *single line* will be considered to have a potential Disproportionate Burden if:
    - iii. The improvement is linked to other service changes that have disproportionate and adverse effects on low-income populations, or;
    - iv. The percentage of impacted low-income population in the service area of the line is less than the percentage of low-income population of the TriMet District as a whole by at least 3 percentage points (e.g., 25 percent compared to 28 percent).
  - d) To determine the *system-wide* impacts of major service change improvements on more than one line, the percentage of the TriMet district's low-income population that is impacted is compared to the percentage of the TriMet district's non-low-income population that is impacted. If the percentage of the low-income population impacted is at least 20 percent less than the percentage of the non-low-income population impacted (e.g., 8 percent compared to 10 percent), the overall impact of changes will be considered disparate.
3. Additional considerations to complement the quantitative Disproportionate Burden analysis above may include evaluating impacts to accessing employment, education, or health care for low-income populations.

Upon determination of Disproportionate Burden, TriMet will either:

- c) Alter the service proposal to avoid, minimize, or mitigate potential Disproportionate Burdens, or;

- d) Provide a substantial legitimate justification for keeping the proposal as-is, and show that there are no alternatives that would have a less Disproportionate Burden on low-income riders but would still accomplish the project or program goals.

## Fare Changes

For fare changes, a potential disparate impact is noted when the percentage of trips by low-income riders using a fare option, in combination with the percentage price change for that option, has an impact that exceeds the comparable impact on higher income riders. When low-income populations or riders will experience a 10% (or more) greater adverse effect than that borne by the higher income populations or riders, such changes will be considered to have a disparate impact. Where potential adverse impacts are identified, TriMet will provide a meaningful opportunity for public comment on any proposed mitigation measures, including any less discriminatory alternatives that may be available.

Differences in the use of fare options between low-income populations and higher income populations include all such differences that are documented as statistically significant at the 95 percent confidence level.

## Public Participation and Board Approval

Feedback on this Program and the policies therein generally did not differ between how TriMet should treat analysis of disparities based on race (Disparate Impact) and income (Disproportionate Burden). Thus, the two policies remain equivalent.

In 2019, TriMet sent a questionnaire to staff at the 103 organizations participating in the agency's Access Transit fare program for low-income transit riders (see Attachment P). The questionnaire asked about Title VI program awareness, observations of changes to service or fares that have had a significant impact on clients served, thoughts on what else should be considered when making service changes, and examples of evaluating policies for potential disproportionate impacts to low-income persons and/or persons of color.

After reviewing survey responses, TriMet decided to expand its access considerations list to include parks, public recreation, and green spaces when performing an equity analysis. Moreover, participants supported the former population-based approach (i.e., looking at the low-income and minority population living by transit lines proposed for changes was a good way to measure potential impacts) as well as the inclusion of access to jobs, education, food and health care when conducting equity analysis.

The process to choose the 10 percent threshold for the Disproportionate Burden policy for fare changes started with researching policies from 15 comparable transit agencies and consulting with over 50 Title VI staff leads from FTA Region 9 and 10 transit agencies. The research found a range of thresholds from 5 percent to 35 percent. TriMet staff consulted with the Transit Equity Advisory Committee (April 9, 2019 and July 9, 2019) on what percentage would establish a high standard for identifying differential impacts in the event of fare changes. The feedback received noted that a percentage under 12% would be a good starting point and should serve as a baseline. Additional comments included that the policy should state that TriMet will work to minimize any potential impacts on low-

income populations for all fare changes. After considering this input and how it would impact the equity analysis process going forward, TriMet opted to establish a lower threshold (10%) for fare changes. TriMet also opted to not include major and minor fare change definitions given the minimal support from TEAC and community partners.

# Part III: System-Wide Service Policies and Standards

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In December 2014, the TriMet Board adopted the following five priority considerations for service planning decision-making (Attachment N provides TriMet's full Service Guidelines Policy):

- Equity
- Demand
- Productivity
- Connections
- Growth

These considerations guide how TriMet identifies and executes service changes, and are incorporated into each year's Annual Service Plan.

Beyond these priority considerations, TriMet has also established standards and policies as set forward in FTA Circular 4702.1B covering:

Standards:     Vehicle Loads  
                  Service Frequency  
                  On-Time Performance  
                  Service Availability

Policies:        Distribution of Amenities  
                  Vehicle Assignment

These standards and policies assist in guiding the development and delivery of service in support of TriMet's mission to provide valued transit service that is safe, dependable, and easy to use. They also provide benchmarks to ensure that service design and operations practices do not result in discrimination on the basis of race, color, or national origin. They establish a basis for monitoring and analysis of service delivery, availability, and the distribution of amenities and vehicles to determine whether or not any Disparate Impacts are evident.

Each standard and policy is described, following. Please refer to Part IV: Service Monitoring for a description of the current analysis of performance/outcomes for each respective standard and policy, comparing the service and amenities provided for minority and non-minority populations respectively, and the conclusions in regard to any Disparate Impacts.

## STANDARD – VEHICLE LOADS

Standards for passenger capacity are used to determine if a bus or train is overcrowded. Table III- III-1 shows passenger capacities for buses, light rail cars, and commuter rail cars as the average

maximum numbers of persons seated and standing during the peak one-hour in the peak direction. Maximum load factors represent the maximum achievable capacity, and are calculated by dividing the total capacity by the seated capacity of the vehicle.

Vehicle passenger load is measured by the average load and the ratio of average load to seated capacity (load/seat ratio) during weekday a.m. peak, midday, and p.m. peak periods, respectively. Maximum load factors should not be exceeded during any period, including a.m. and p.m. peak periods on weekdays when highest passenger loads are typically experienced.

Bus and MAX loads are monitored using automatic passenger counters linked to vehicle location technology. WES passenger counts are taken by a train crew member.

**TABLE III-1: VEHICLE CAPACITIES BY MODE AND TYPE**

Vehicle Type	Passenger Capacities			
	Seated	Standing	Maximum Achievable Capacity	Maximum Load Factor
30-ft. Bus	28	2	30	1.1
40-ft. Bus	39	12	51	1.3
MAX Light Rail 2-Car Train	128	138	266	2.1
WES Commuter Rail - 1 Car Train	70	0	70	1.0
WES Commuter Rail - 2 Car Train	146	0	146	1.0
<i>Notes: All MAX operates as 2-car trains. WES may operate as a single-car or a 2-car train.</i>				

## STANDARD – SERVICE FREQUENCY

Vehicle headway is the measurement of the frequency of service and is the scheduled time between two vehicles traveling in the same direction on the same line at a given location.

TriMet headway standards for lines designated as “frequent service” is that these lines should operate 15-minute or better service for most of the day, seven days a week.

In 2003 TriMet worked with stakeholders and adopted criteria to guide the expansion of frequent service. The most important factor in the criteria is potential ridership, but another consideration is the density of transit-dependent population as measured by proportion of low-income residents, seniors, or persons with disabilities. To meet the criteria for frequent service, a line must be projected to generate high ridership and serve areas with high employment/population density; areas with streets that are friendly to pedestrians and transit service; areas with a high proportion of transit

dependent population and activities, and areas that meet other criteria specified in TriMet's Service Guidelines Framework.

Fifteen bus lines and all five MAX lines are considered frequent service. TriMet has not adopted headway standards for lines that do not meet the criteria for frequent service; however, at minimum lines should operate with headways of no more than 60 minutes during weekday peak periods.

Due to budget constraints resulting from the Great Recession, beginning in 2009 TriMet was forced to reduce service on most frequent service bus and MAX lines during off-peak hours and on weekends. However, because TriMet made a commitment to prioritize the restoration of frequent service once resources were available, the agency has now fully restored this service to 15 minutes or better, most of the day, every day.

Given that MAX lines and frequent service bus lines are designed and operated to serve maximum ridership, these lines also serve above-average shares of minority and poverty populations. Frequent service bus lines and all MAX lines taken together serve 48 percent of the population of the TriMet Service District (about 720,000 of a total of 1.5 million). Among populations served by frequent service, 55 percent are minority and 65 percent are low-income as defined by TriMet. These shares are greater than the overall minority (29 percent) and low-income (22 percent) population in the TriMet District.

## **STANDARD – ON-TIME PERFORMANCE**

TriMet has established measures and standards for on-time performance of bus, MAX light rail and WES commuter rail service. For bus and MAX service, on-time is defined as vehicle arrivals no more than one minute before to five minutes after scheduled time at all points. TriMet's on-time performance objective is 90 percent or greater. TriMet continuously monitors for on-time performance and system results are included as part of monthly performance reports covering all aspects of operations. For WES commuter rail, train arrivals at the respective end-of-line stations are noted and all arrivals no more than four minutes before or after the scheduled time are considered as on-time.

## **STANDARD – SERVICE AVAILABILITY**

TriMet's standard for availability of service is that persons residing within one-half mile of bus stops and/or rail stations are considered served. Service availability is expressed as number and percentage of District-wide population and is determined by mode; for bus, MAX, and WES respectively. The calculation of distance is based on March 2018 stop locations and the residential address points within a half-mile buffer around stops. There is no absolute standard for service availability; however the expectation in the context of Title VI is that the share of minority population within the TriMet District with service available should be no less than the share of non-minority populations with service available.

## **AMENITY PLACEMENT GUIDELINES**

TriMet has written guidelines that form a framework for the deployment of amenities as part of its projects and programs. The following sections briefly summarize the major policy documents that govern the deployment of amenities on TriMet transit system. Note that the use of the term amenities

is limited to the Title VI definition for the purposes of this document. This section is generally organized by mode, but also includes a summary of customer information deployment policy. It should also be noted that project development often requires a scope of deliberation regarding amenities placement to include considerations not accounted for in these written policies.

## Bus Stop Classification Guidelines

It is important that bus stops are easily identifiable, safe, accessible and a comfortable place to wait for the bus. TriMet’s Bus Stop Classification Guidelines (Table III-2) identify elements of the TriMet bus stop, set guidelines for the design of bus stops and the placement of bus stop amenities, and describe the process for managing and developing bus stops.

Stop Type	Illustration	Externally Managed Features	Potential Bus Stop Features	Stop Conditions & Usage
Under-Developed		No clear pedestrian access; no logical, safe street crossing; constrained topography	No pavement; inadequate shoulder; visibility blocked; poor lighting; insufficient ADA clearances; exposure to weather/traffic; shared pole	Poor, or lack of, supporting land uses; few or no boarding rides; closely spaced with another stop
Basic		Legal street crossing (corner ramps); sidewalk or safe shoulder access	Pavement meets ADA clearances; most bus stop signs on dedicated poles; free standing bench	All stops meeting siting criteria
Level 1		<i>Preceding features plus:</i> sidewalk connections; curb extensions; crosswalks	<i>Preceding features plus:</i> Standard (A or B) shelter (larger if justified); shelter lighting; rear door landing when physically possible	High use stops (50+ Ons/day); significant employer program participant; apartments; institutions; hospitals; shopping centers; major business; stops with significant usage by riders who are disabled or elderly
Level 2		<i>Preceding features plus:</i> transit plazas and active public space	<i>Preceding features plus:</i> double B or higher capacity shelter; printed schedule; trash can; additional free standing bench	Major stops (150+ Ons/day); transfer points; stops with significant bus ramp usage
Level 3		<i>Preceding features plus:</i> concession or nearby shop(s); landscaping; robust public and pedestrian infrastructure	<i>Preceding features plus:</i> high capacity shelter; free standing bench(s); bike storage lockers; artwork elements	High Capacity Stops (250+ Ons/day) Bus Rapid Transit service; transit centers; major transfer hubs; transit mall

TABLE III-2: BUS STOP CLASSIFICATION GUIDELINES - 2018

## LIGHT RAIL (“MAX”) STATION DESIGN

TriMet’s Design Criteria governs the design of light rail projects including requirements for amenities. The following is a summary of the deployment requirements by type of amenity.

Seating – Provide benches on platforms and in bus waiting areas (associated with light rail stations); benches are to be 5’ in length with a mid-armrest

Shelters/canopies – Criteria text does not specifically require the provision of shelters, but practice has been to provide cover at light rail stations. Cover is often provided by one or more stand-alone shelters on the platform, but has also provided by cover mounted to adjacent buildings. Stand-alone

shelters vary in size. Two stand-alone shelters is the most typical practice, but single stand-alone structures and building mounted canopies have also been used.

Escalators – There are no escalators on TriMet’s system. As such there are no specific criteria related to their deployment.

Elevators – Criteria reference the ADA with respect to deployment of elevators. In practice, TriMet seeks to limit deployment of elevators to only those situations where specifically required by ADA and/or necessary because of project constraints, due to security and maintenance concerns.

Trash Cans – Criteria requires deployment of two 33-gallon “waste receptacles” (trash cans) at all light rail station platforms; while no standard product is cited, criteria includes an extensive list of performance characteristics including 20-year life expectancy, low-life cycle cost, high quality design, considering security, and others that in practice result in high quality receptacles being consistently deployed.

## COMMUTER RAIL (“WES”) DESIGN

TriMet has one commuter rail line. There is no mode-specific policy guidance exists for amenities associated with commuter rail. In practice, the design of the WES project considered the light rail design criteria and followed them where practical, relevant, and possible in consideration of the other constraints of the project. See Light Rail Station Design, preceding, for a summary.

## CUSTOMER INFORMATION

TriMet’s Design Criteria governs the design of light rail projects, is also a key reference for Commuter Rail, and contains the bulk of requirements for customer information items for signage and graphics. TriMet’s Bus Stops Guidelines govern the design of bus stops and contains considerations for customer information. Subsections below summarize typical customer information deployment practices by mode. In addition to these practices, TriMet also considers unique usage factors, transfer locations, service frequency, schedule reliability, special needs, and the specific location of a given stop along a route when identifying placement of customer information amenities.

### Bus

Bus catcher information displays (BCIDs): Displays that include route number; route name; direction; route-specific maps; route schedules; stop name; Stop ID numbers for use with TransitTracker™ via phone, text or at trimet.org; and call-to-action. BCIDs are placed at bus stops with minimum boarding rides of 100 per day, at Transit Centers where multiple bus lines converge, as well as rail at some locations.

Variable stop ID signs: Signs include route number; route name; direction; stop name; Stop ID number for use with TransitTracker™ via phone, text or trimet.org; and call-to-action. These signs are located at bus stops where a standard blue bus stop pole and/or shelter unit is unable to be installed due to existing environmental constraints.

Pole-mounted information displays: Displays that include route number; route name; direction; stop name; simple route map; Stop ID number for use with TransitTracker™ via phone, text or trimet.org;

and call-to-action and are placed at all bus stops without BCIDs or variable stop ID signs (complete implementation is expected as of December 2016).

Digital equipment such as electronic real-time arrival displays: Displays are placed along bus routes in complicated transit environments such as high traffic transit centers, the Portland Transit Mall, and private investment partnerships (e.g. Go Lloyd and OHSU).

## Light and Commuter Rail

Pylon information displays: Two-side or four-sided displays that include a rail-specific map; route schedules or frequency charts; Stop ID numbers for use with TransitTracker™ via phone, text or trimet.org; and call-to-action. These are placed at all MAX and WES stations.

Digital equipment such as electronic arrival displays next vehicle arrival displays: Displays are placed along rail/fixed guideway stations at all stations built since 2004. A retrofitted installation of displays at stations that currently have no electronic information began in fall 2013, in approximate order of higher to lower ridership. Stations included in the Blue Line Station Rehabilitation Project (from Hollywood/NE 42nd to Cleveland station) that do not already have displays will receive them as part of that project. Some stations have existing environmental constraints that may delay the installation of electronic information.

## VEHICLE ASSIGNMENT

Assigning vehicles to routes involves several considerations. Vehicles are domiciled at each of the three bus maintenance facilities (Center, Powell, and Merlo). For buses, ridership is the primary determinant, so those communities with the greatest need for and use of transit generally are served by newer vehicles. TriMet's fleet as of May 2019 includes 702 buses, all of which are low-floor and are equipped with automated stop announcement systems.

Bus assignments also take account of the operating characteristics of buses of various lengths, which are matched to the operating characteristics of the route. Local routes with lower ridership may be assigned 30-foot buses rather than the 40-foot buses. Some routes requiring tight turns on narrow streets are best operated with 30-foot rather than 40-foot buses.

For MAX light rail, vehicles are based at each of the two rail maintenance facilities (Ruby Junction and Elmonica) and are assigned to respective rail lines based on lines served by the facility, daily car availability, and operational efficiency. TriMet's light rail fleet includes 145 train cars of which 119 are low-floor. All cars are equipped with air conditioning, and high-floor cars are always paired with a low-floor car to provide ADA accessibility.

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*From the Title VI Circular*

*Vehicle assignment refers to the process by which transit vehicles are placed into service in depots and on routes throughout the transit provider's system. Policies for vehicle assignment may be based on the age of the vehicle, where age would be a proxy for condition. For example, a transit provider could set a policy to assign vehicles to depots so that the age of the vehicles at each depot does not exceed the system-wide average. The policy could also be based on the type of vehicle. For example, a transit provider may set a policy to assign vehicles with more capacity to routes with higher ridership and/or during peak periods. The policy could also be based on the type of service offered. For example, a transit provider may set a policy to assign specific types of vehicles to express or commuter service. Transit providers deploying vehicles equipped with technology designed to reduce emissions could choose to set a policy for how these vehicles will be deployed throughout the service area.*

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TriMet's WES commuter rail fleet includes three self-powered diesel-multiple units (DMUs) and one "trailer" non-powered car which were built in 2007 and placed in operation with the start of WES service in 2009. Two additional cars (a "married pair") were built in 1952 and 1953 and were placed in operation in 2011.

In regard to assessing the results of TriMet's vehicle assignment practices in the context of Title VI, the policy is that the average age of vehicles on "minority lines" should be no more than the average age of vehicles on "non-minority" lines. Additionally, TriMet has set the expectation that the average age of vehicles on "low-income lines" should be no more than the average age of vehicles on "higher income" lines.

In 2019, TriMet started operating its first completely electric bus serving the Line 62, which is considered a "minority and low-income line". As TriMet looks to phase in all non-diesel buses, the assignment strategy will consider how these vehicles are deployed throughout the service area to ensure equitable distribution.