

# IMPLEMENTATION STRATEGIES and REGULATIONS

# 6

## INTRODUCTION

The Transportation System Plan (TSP) is a set of policies, strategies, projects, and procedures that guide the development and management of the transportation infrastructure. This chapter describes the existing and new tools that help implement the TSP policies and strategies. The chapter includes amendments to City codes, amendments to the City's Comprehensive Plan, project development procedures, street standards and guidelines, and practices that support sustainable infrastructure.

### **Amendments to City Codes and the Comprehensive Plan**

Amendments to several City codes and the Comprehensive Plan will help implement the TSP policies and strategies. Three City codes are being amended – Title 16: Vehicles and Traffic, Title 17: Public Improvements, and Title 33: Planning and Zoning. Commentary accompanies the amendments to explain the differences between existing and new code language. The commentary is adopted with the code changes to explain legislative intent. In the Comprehensive Plan, minor word changes are being made to a few policies and objectives and three terms are being deleted to ensure that references and terms are consistent with the TSP.

### **Project Development**

Following the code and Comprehensive Plan amendments, this chapter summarizes the project development guidelines the Portland Office of Transportation (PDOT) uses to develop transportation projects; street standards and guidelines used to construct streets; and excerpts from a report on PDOT's approach to sustainable infrastructure.

Street improvements evolve from conceptual plans to final engineered construction plans through the final plan review process. Streets are designed to meet both street standards (number of lanes, width of sidewalk, pavement thickness) and traffic design criteria. The considerations for traffic design include driveway access, design speed, street grades, design vehicles/intersection geometry, guardrail design, street lighting, and traffic signals. The Design Guide for Public Street Improvements includes the City's traffic speeds policy. That policy elaborates on Policy 6.11, Street Design Classification Descriptions; Policy 6.13, Traffic Calming; and Policy 6.15, Transportation System Management (contained in Chapter 2 of this document).

### **Street Standards and Guidelines**

Street standards and guidelines are derived from a number of documents, including:

- Pedestrian Design Guide
- Bicycle Master Plan—Appendix A
- Design Guide for Public Street Improvements

- Standard Construction Specifications
- Title 16: Vehicles and Traffic
- Title 17: Public Improvements
- Green Streets Handbook
- Oregon Department of Transportation (ODOT) Standard Specifications for Highway Construction
- American Association of State Highway and Transportation Officials (AASHTO) Guide for Design of Pavement and Structures
- AASHTO Roadside Design Guide

The City's street standards are summarized in a new document called *Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process*. The content of that document is provided in this chapter, but is not adopted as part of the Comprehensive Plan or City codes.

### **Sustainable Infrastructure**

PDOT, the Bureau of Water Works, the Bureau of Environmental Services, and the Office of Sustainable Development have identified the elements of 'sustainable infrastructure.' This chapter's section on sustainable infrastructure summarizes sustainable practices relating to the transportation system.

## CODE AMENDMENTS

This section contains code amendments for Title 16: Vehicles and Traffic, Title 17: Public Improvements, and Title 33: Planning and Zoning. The majority of the amendments make changes to terms and definitions to bring them into consistency with the TSP and the State Transportation Planning Rule (TPR).

The TPR directs local jurisdictions to:

adopt land use or subdivision regulations for urban areas to provide for safe and convenient pedestrian, bicycle and vehicular circulation consistent with access management standards and the function of affected streets, to ensure that new development provides on-site streets and accessways that provide reasonably direct routes for pedestrian and bicycle travel in areas where pedestrian and bicycle travel is likely . . . and which avoids wherever possible levels of automobile traffic which might interfere with or discourage pedestrian or bicycle travel.

Title 33 was amended in 2001 and 2002 to revise land division regulations that had previously been in Title 34: Subdivision and Partitioning Regulations. Those changes are in effect beginning July 1, 2002. The changes to Title 17 mirror the connectivity regulations for land divisions and apply to land as it develops or redevelops, but not subdivided. The beginning of the section on Title 33 summarizes other code revisions to address TPR requirements. Some of these regulations are being modified to better accomplish the TPR and TSP goals of improving opportunities for alternatives to the automobile by providing convenient pedestrian and bicycle circulation and access to transit.

The combination of previous code changes (listed on page 6-33) and the changes detailed in this chapter fulfill the requirements of the TPR and Metro's 2000 Regional Transportation Plan (RTP) for regulatory changes.

Where substantive changes are being made to the City codes, commentary on the left facing page explains the policy intent behind the change and how the change implements the TSP. Language being deleted is shown with a ~~strike through~~, and new language is underlined.



**Title 16: Vehicles and Traffic, Amendments**

The current definitions use many different words to describe the concept of transportation within the context of what PDOT does. The intent of the amendments is to provide some simplification by reducing the number of words or phrases used. Reliance is placed most heavily on the term ‘movement’ as a function, modified by ‘access’ or ‘through’ when necessary; on terms applying to facilities, such as ‘way’, ‘street’, and ‘road’, and upon terms applying to the user of a facility, such as ‘traffic’, ‘vehicle’ (including bicycle), ‘pedestrian’, and ‘goods’.

**Commentary****16.10.020 Where Regulations Apply**

The correct plural of right-of-way is rights-of-way.

**16.90.015 Alley**

An alley is a facility for the movement of vehicles, which may or may not be established within a right-of-way. The word public is unnecessary, Section 16.10.020 has established that the application of these regulations is to public areas and facilities, hence, the definitions also apply to public areas and facilities.

**16.90.030 Bicycle Boulevard**

The above is recommended for inclusion in the bicycle definitions of Title 16. It is a new combination of existing terms, denoting a specific treatment for a bicycle travel facility. Similar language was established in the Bicycle Master Plan, Bikeway Classification Descriptions and is in Goal 6, Transportation, Bicycle Street Classifications (TSP) and Descriptions.

**16.90.032 Bicycle Lane**

A minimal change is recommended to provide clarification between this existing definition and variations of the bicycle lane that are not necessarily identified by official signs or markings.

**16.90.034 Bikeway, Shoulder****16.90.036 Bikeway, Extra Width Curb Lane**

These two definitions are added to clarify the terms used and for consistency with the Bicycle Master Plan.

**16.90.035 Bicycle Path****16.90.040 Bicycle Trail****16.90.038 Bikeway, Off-Street Path**

The two preceding definitions (deleted .035 and .040) are combined in the Bicycle Master Plan, Bikeway Classification Descriptions, under the term Off-Street Path (new .038). The classification Off-Street Path is repeated in the Bicycle Street Classification Descriptions used in proposed Goal 6, Transportation (TSP). Additionally, bicycle lane is defined elsewhere. The combined definition 'Bikeway, Off-Street Path' is more concise and consistent.

**AMEND CHAPTER 16.10 ADMINISTRATIVE PROVISIONS****16.10.020 Where Regulations Apply.**

(Amended by Ordinance No. 172976, effective December 23, 1998.) The regulations of this chapter apply to all public rights-of-ways, other designated public areas in the City of Portland and to private property specifically noted in this chapter.

**AMEND CHAPTER 16.90 DEFINITIONS****16.90.015 Alley.**

A ~~public right-of-way~~ facility primarily intended to provide access to the rear or side of lots or buildings in urban areas and not intended for through vehicular ~~traffic~~ movement.

**16.90.030 Bicycle Boulevard.**

A roadway with low vehicle traffic volumes where the movement of bicycles is given priority.

**~~16.90.030~~ 032 Bicycle Lane.**

The part of the street designated by official signs or markings for the movement of use by persons riding bicycles except as otherwise specifically provided by law.

**16.90.034 Bikeway, Shoulder.**

A street upon which the paved shoulder, separated by a four-inch stripe and no bicycle lane markings, is used for the movement of persons riding bicycles. Auto parking is also allowed on shoulders marked in this manner.

**16.90.036 Bikeway, Extra Width Curb Lane.**

A wider than normal curbside travel lane provided to give extra room for the movement of persons riding bicycles where there is insufficient space for a bicycle lane or shoulder bikeway.

**~~16.90.035~~ Bicycle Path.**

~~A public way, not part of a street or highway, that is designated by official signs or markings for use by persons riding bicycles except as otherwise specifically provided by law.~~

**~~16.90.040~~ Bicycle Trail.**

~~A publicly owned and maintained lane or way designated and assigned for use as a bicycle route, and may include both a bicycle lane and a bicycle path.~~

**16.90.038 Bikeway, Off-Street Path.**

An off-street path for the movement of persons riding bicycles that is physically separated from motorized vehicular traffic by an open space or barrier and either within a street right-of-way, but not in the roadway, or within an independent right-of-way or dedicated easement.

**Commentary****16.90.040 Bikeway, Signed Connection**

A new category of bicycle facility using common existing terms combined to make a specific new definition. It should be included for clarification and distinction consistent with the Bicycle Master Plan.

**16.90.250 Pedestrian**

The phrase "non-motorized" is inserted to clarify that pedestrian devices do not include motors and to distinguish between motorized scooters (motorcycles with wheels less than 14 inches in diameter) and pedestrian scooters. The term "conveyance" is replaced with the term "vehicle" to be consistent with other sections of this code.

**16.90.255 Pedestrian Way**

A pedestrian way may be established within a right-of-way or easement, but is not itself a right-of-way, and the word "movement", rather than "traffic" is recommended for consistency.

**16.90.302 Right-of-Way**

Title 33 (33.910, Definitions) states a right-of-way is:

"A public or private area that allows for the passage of people or goods. Right-of-way includes passageways such as freeways, streets, bike paths, alleys, and walkways. A public right-of-way is a right-of-way that is dedicated or deeded to the public for public use and under the control of a public agency."

The Title 16 definition is more precise and yet covers more than does Title 33. However, Title 16 unnecessarily limits the meaning of right-of-way to the public interest, exclusive of private rights-of-way, when the facility itself is not so limited.

Essentially, what is recommended in this circumstance is a generic definition followed by paragraphs that relate the generic definition to the more specific status of public or private. The above-recommended change does not obligate PDOT in any manner to private facilities. Section 16.10.020 recognizes that Title 16 may describe or define facilities that are not public

**16.90.040 Bikeway, Signed Connection.**

A bikeway upon which signing is placed to direct bicyclists to a destination or another bikeway.

**16.90.250 Pedestrian.**

A person afoot; a person operating a pushcart; a person riding on or pulling a coaster wagon, sled, scooter, tricycle, bicycle with wheels less than 14 inches in diameter, or a similar non-motorized conveyance vehicle; or on roller skates, skateboard, wheelchair, or a baby in a carriage.

**16.90.255 Pedestrian Way.**

A right-of-way facility intended for pedestrian traffic movement.

**16.90.280 .302 Public Right-of-Way.**

The area between property lines of a street, an easement, or other area dedicated for public use.

- A. The area between property lines of a street, easement, tract or other area dedicated to the movement of vehicles, pedestrians and/or goods.
- B. A public right-of-way is dedicated or deeded to the public for public use and under the control of a public agency.
- C. A private right-of-way is in private ownership, for use by the owner and those having express or implied permission from the owner, but not by others.

**Commentary****16.90.305 Roadway**

Title 33 (33.910, Definitions) states that a roadway is:

"The portion of a street that is improved for motor vehicular travel. Roadway includes vehicle travel lanes and on-street parking areas. Roadway does not include area devoted to curbs, parking strips, or sidewalks."

The two definitions are compatible and without conflict. The word public is unnecessary, Section 16.10.020 has established that the application of these regulations is to public areas and facilities, hence, the definitions also apply to public areas and facilities. The phrase "the parking lane" assumes that all streets have a parking lane, which is not the case. The Title 16 definition is more concise and inclusive than is the Title 33 definition.

**16.90.350 Street or Highway**

Title 33 (33.910, Definitions) defines street as:

"A public or private right-of-way that is intended for motor vehicle travel or for motor vehicle access to abutting property. Street includes all the area within the right-of-way, such as roadways, parking strips, and sidewalks. For the purposes of this Title, street does not include alleys, rail rights-of-way that do not also allow for motor vehicle access, or the interstate freeways and the Sunset highway including their ramps."

The two definitions are compatible and without conflict. The Title 16 definition is more concise, relying on other definitions in this same section to identify the parts of a street or highway. The word public is unnecessary, Section 16.10.020 has established that the application of these regulations is to public areas and facilities, hence, the definitions also apply to public areas and facilities. New language is recommended to be consistent with the use of words in other definitions in this Title.

**16.90.365 Traffic**

It was suggested that streetcars be added because they are not light rail vehicles. However, 'vehicles' is a very inclusive term (See: 16.90.425, Vehicles, following) which by its inclusive nature accommodates all present vehicles and any that may appear that we haven't yet anticipated.

**16.90.305 Roadway.**

The portion of a public street or highway improved for motor vehicle movement, including the any parking lane. On an improved street, the area between the curbs or edge lines of a street.

**16.90.350 Street or Highway.**

~~The entire width between the property lines of every public right-of-way when any part thereof is open to the use of the public for purposes of use by vehicular traffic.~~

The entire width of a right-of-way when any portion thereof is intended for motor vehicle movement or motor vehicle access to abutting property.

**16.90.365 Traffic.**

Pedestrians, ridden or herded animals, and vehicles, ~~light rail, motor buses, and other conveyances~~, either singly or together, while using any street or highway for purposes of ~~travel~~ movement or parking.

**Commentary****16.90.390 Traffic Lane**

The reference to 12 feet is simply too limited. Travel lane width has frequently been something determined by review and City Engineer approval. A reference to a specific lane width is unnecessary in this definition and may be confusing or the basis for protest of some other decision by the City Engineer.

**16.90.425 Vehicle**

The word public is unnecessary, Section 16.10.020 has established that the application of these regulations is to public areas and facilities, hence, the definitions also apply to public areas and facilities. While bicycle is more specifically defined, that does not mean it is not a vehicle.

**16.90.440 Way**

A new definition to explain that various words can be and are used to identify facilities for the movement of vehicles, pedestrians and goods.

**16.90.390 Traffic Lane.**

An area of a street or highway, designated by official signs or markings, as dedicated to the movement of one vehicle at a time ~~or a width of roadway greater or equal to 12 feet.~~

**16.90.425 Vehicle.**

Every device in, upon, or by which any person or property is or may be transported or drawn upon any public street or highway, ~~except bicycles.~~ Bicycle is more specifically defined in Section 16.90.025.

**16.90.440 Way.**

A facility for the movement of pedestrians, vehicles or goods, the specific user or users being determined by modifying words, such as road, bicycle, pedestrian, etc. Path and lane are synonyms for way, and likewise may be given a more specific meaning through use of a specified user or specific definition. See: Roadway, Pedestrian Way, Traffic Lane, Bicycle Path, et. al.



**Title 17: Public Improvements, Amendments**

Title 17 gives the City Engineer authority to regulate activities in the right-of-way and to require new streets. Changes to Title 17 are needed to ensure that as areas develop or redevelop, new street connections will be created and street improvements will be made to support the development. The requirements for connectivity mirror the language in the land division chapters of Title 33: Planning and Zoning.

**Commentary****17.08.030 Scope of Improvements**

Recommends change of bureau name from Bureau of Transportation Engineering to Transportation Engineering and Development.

The reference to pedestrian way, was too limited, a pedestrian way is a specific pedestrian facility. "Pedestrian or bicycle facility" provides a broader more inclusive terminology.

The reference to the Bureau of Transportation Engineering is no longer accurate, hence the recommended change to the present bureau name.

**17.24.230 Design Standards**

Recommends change of reference only. Reference to the Arterial Streets Classification Policy is no longer accurate, this document has been replaced by the Transportation Element of the Comprehensive Plan.

**17.25.020 Definitions**

Recommends deletion of reference to specific zones and change of mall area boundary reference.

The recommendation in Paragraph C is to allow sidewalk cafes in sidewalk areas adjacent to where restaurants are allowed, as long as the siting requirements are or can be met.

Paragraph C refers to a very broad range of specific zones (that no longer exist) and their successor zones. Which successor zones should be included depends on interpretation, since the zones were changed in a fashion that does not provide a one-to-one correlation. Employment and commercial zones allow commercial activities, including restaurants and cafes.

Any potential for conflict between sidewalk cafes and pedestrian use of sidewalks is addressed in the regulations for permitting sidewalk cafes.

Paragraph D is recommended for a change that recognizes that the northern limit of the Mall is now NW Irving.

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**AMEND CHAPTER 17.08, LOCAL IMPROVEMENT PROCEDURE**
**17.08.030 Scope of Improvements.**

In any public place, or within any street, parallel streets, or series of such streets and intersecting street areas, the scope of a local improvement is:

- A. A street improvement may include grading or regrading, excavating, filling, surfacing or resurfacing by any material, graveling or regrading, installation of curbs, crosswalks, sidewalks, street drainage systems and storm sewers for street drainage, overpasses, underpasses, bridge work relating to a street ~~or pedestrian way~~, pedestrian or bicycle facilities, and any other roadway improvement or reconstruction, or any portion or combination thereof, and any other transportation facility, within any street area in the City. The Bureau of Transportation Engineering and Development is the Responsible Bureau for street improvements.
- B. – F. [No change]

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**AMEND CHAPTER 17.24, PERMITS**
**17.24.230 Design Standards.**

- A. [No change]
- B. Structural driveways shall have a minimum load rating of H-15 except that in cases where the structural driveway accesses only one single family residential structure from a Local Service Traffic Street as defined by the ~~Arterial Streets Classification Policy~~ Transportation Element of the Comprehensive Plan, the City Engineer may allow a structural driveway in conformance with Uniform Building Code standards if, in the opinion of the City Engineer, the circumstances are such that the lower rating will not create a hazard to the public or users of the structural driveway and permanent vehicle barriers are installed to prevent access to the structure by vehicles exceeding eight feet in height.
- B. [No change]

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**AMEND CHAPTER 17.25, SIDEWALK CAFES**
**17.25.020 Definitions.**

- A. – B. [No change]
- C. **Commercial zone.** Commercial zone means abutting property which is zoned ~~M, C1 or C2-C~~, Commercial, or E, Employment pursuant to Title 33, Planning and Zoning of this Code or any other zone which may be created as a successor zone to such existing commercial zones.
- D. **Mall area.** Mall area means that area bounded by SW Broadway on the west, ~~West Burnside Street~~ NW Irving on the north, SW Fourth Avenue on the east, and SW

**Commentary****17.25.030 Permit Fee**

Replaces out-of-date language with language consistent with other parts of Title 17 relating to fees.

**17.26.020 Definitions**

Recommends deletion of reference to specific zones.

The recommendation in Paragraph *C* is to allow sidewalk vendors in sidewalk areas adjacent to where restaurants are allowed, as long as the siting requirements are or can be met.

Paragraph *C* refers to a very broad range of specific zones (that no longer exist) and their successor zones. Which successor zones should be included depends on interpretation, since the zones were changed in a fashion that does not provide a one-to-one correlation. Employment, and commercial zones allow commercial activities.

**17.26.090 Design Review**

Recommends change to references that are no longer correct.

The Bureau of Planning is no longer the correct agency for planning and zoning permits, that function is now part of the Office of Planning and Development Review. The Design Review Committee is now titled the Portland Design Commission.

**17.27.020 Definitions**

Recommend change to boundaries of the mall area. The northern limit of the mall is now NW Irving.

Madison Street on the south, but not including the street and sidewalk areas of SW Broadway and SW Fourth Avenue.

### **17.25.030 Permit Fee.**

The permit fee for operating a sidewalk café shall be \$10, this fee to become effective January 1, 1981. Fees for operating a sidewalk café are established by the City Engineer. Fees are assessed as prescribed in Section 17.24.010.

## **AMEND CHAPTER 17.26, SIDEWALK VENDORS**

### **17.26.020 Definitions.**

A. – B. [No change]

C. **"Commercial zone."** Commercial zone means abutting property which is zoned ~~M, C1, C2 or C3~~ C, Commercial, or E, Employment, pursuant to Title 33, Planning and Zoning, of this Code or any other zone which may be created as a successor zone to such existing commercial zones.

D. – E. [No change]

### **17.26.090 Design Review.**

A. The applicant for a sidewalk vendor permit shall submit detailed scale drawings of the device to be used, material specifications, and an isometric drawing in color of at least two views showing all four sides of the vending device and any logos, printing or signs which will be incorporated and utilized in the color scheme. The City Engineer shall submit the isometric drawings of the vending device to the ~~Bureau of Planning~~ Office of Planning and Development Review for approval prior to issuing a permit. Vending devices shall be measured by the City Engineer prior to the issuance of a permit or the renewal of a sidewalk vendor's permit to ensure compliance with Section 17.26.090 A of this Chapter.

B. The ~~Bureau of Planning~~ Office of Planning and Development Review shall furnish the City Engineer standards required by the ~~Design Review Committee~~ Portland Design Commission to be incorporated in the sidewalk vendors application packet.

## **AMEND CHAPTER 17.27, KIOSKS**

### **17.27.020 Definitions.**

As used in this Chapter, the following terms shall have the following definitions.

A. – F. [No change]

G. **"Mall area"** means that area bounded by SW Broadway on the west, ~~West Burnside~~ NW Irving on the north, SW Fourth Avenue on the east, and SW Madison on the south,

**Commentary****17.28.010 Sidewalk Defined**

Minor wording change.

**17.28.065 Bicycle Parking**

This is a new provision. This clarifies that the City Engineer has authority to require bicycle parking in the sidewalk furnishing zone when it is needed to provide additional short-term bicycle parking. The intent is to require the standard "staple" racks to be placed in the sidewalk when properties are developing or redeveloping. The bicycle parking will be required only where the sidewalk is wide enough to accommodate the parking (usually 10-feet or wider) and the building being developed is built to the property line.

**17.28.110 Driveways - Permits and Conditions**

C.1. Recommends an allowed minimum driveway width of 9 feet.

The Planning and Zoning Code, Section 33.266.120, Development Standards for Houses, Attached Houses, and Duplexes, Paragraph D, identifies a minimum 9-foot-wide driveway:

**"D. Parking space sizes.** The minimum size of a required parking space is 9 feet by 18 feet. Where nonrequired parking is provided on a site, at least one parking space must meet the minimum size for required spaces. The minimum driveway width on private property is 9 feet."

For consistency, an allowance for a 9-foot-wide minimum public driveway is shown in the Table under Section C. Width of driveways, Paragraph 1. Residential driveway.

The language of the paragraph following the table has been changed to correct a grammatical error and to coincide with the language following the commercial driveway table (subparagraph 2, of this section).

but not including the street and sidewalk areas on SW Broadway and SW Fourth Avenues.

**AMEND CHAPTER 17.28, SIDEWALKS, CURBS AND DRIVEWAYS**

**17.28.010 Sidewalk Defined.**

A "**sidewalk**" means the portion of the street area or a portion thereof intended for the use of pedestrians. Unless the street area has been designated as a pedestrian mall, or unless the entire street has been designated primarily for pedestrian use, for the purpose of this Chapter, "sidewalk" is that part of a street on the side ~~thereof~~ intended for the use of pedestrians, improved by surfacing.

**17.28.065 Bicycle Parking**

Bicycle parking in the right-of-way adjacent to multifamily, commercial, institutional, employment, or industrial land uses helps to achieve the City’s goal of making the bicycle an integral part of daily life in Portland. Bicycle parking in the right-of-way provides convenient, accessible, and clearly visible parking in areas where buildings are generally built to the sidewalk.

A. As a part of street improvements adjacent to developing or redeveloping property, the City Engineer may, where determined appropriate and practicable, require one or more bicycle racks.

B. The location and type of rack shall be determined by the City Engineer based on sidewalk width, location of other elements in the right-of-way, and adjacent land uses.

**17.28.110 Driveways - Permits and Conditions.**

Upon appropriate application and payment of fees, as provided in Chapter 17.24, the City Engineer may issue a permit to construct a driveway in the street area subject to the following conditions:

A. – B. [No change]

C. Width of driveways. A permit to construct a driveway in the street area is subject to the following width provisions:

1. Residential driveway:

Private Property Frontage	Minimum Width	Maximum Width
50 ft. or less	± 9 ft.	20 ft.
51 ft. to 75 ft.	± 9 ft.	25 ft.
76 ft. to 100 ft.	± 9 ft.	30 ft.

If more than one driveway is desired, for frontage up to 100 feet, the maximum width of driveways shall be 15 feet with not more than two such driveways permitted within

**Commentary****17.28.110 Driveways - Permits and Conditions**

5. Clarifies the City Engineer's authority to require shared driveways to preserve the desired functioning of a street.

D. Recommends a reference to State access authority. Authority for access to state facilities is recommended for inclusion in the actions the City Engineer may require of an applicant. A requirement may be made, and the code includes acknowledgement of state authority, but the City is not obligated.

**17.45.010 Definitions**

Recommend change to boundaries of the banner area within the Mall. The northern limit of the banners within the Mall is now NW Irving.

**17.52.010 Clearances**

Recommend changes to phrasing and designated street categories.

Arterial refers to any street with the designation of Neighborhood Collector or above. The intent of the regulation was to apply only to higher classified streets - Regional Trafficway, Major City Traffic Street, and District Collector.

The phrase 'from the sidewalk' is changed to 'above the sidewalk' to be more accurate and more consistent with the following phrase 'above the roadway', when describing the minimum height above the sidewalk or road surface for tree limbs.

such frontage, provided however, that no less than 5 feet of straight curb must separate service driveways ~~under one~~ regardless of ownership. Each 100 feet of frontage, or fraction thereof, under single ownership shall, for purposes of this Chapter, be considered a separate frontage.

2. – 4. [No change]

5. The City Engineer may require joint or shared use of a driveway by two properties in separate ownership. The City Engineer may recommend such conditions regarding the number and use of driveways necessary to ensure the safe and orderly flow of traffic, preserve on-street parking, and reduce pedestrian conflicts.

D. The City Engineer may refer any driveway permit application to the City Traffic Engineer and/or the Oregon Department of Transportation as appropriate, for a review of the location and width. The City Traffic Engineer shall recommend such conditions and limitations regarding the location and operation of driveways as are in his or her judgment necessary to insure the safe and orderly flow of pedestrian and vehicular traffic and preserve on-street parking.

E. – G. [No change]

#### AMEND CHAPTER 17.45, BANNER STANDARDS

##### 17.45.010 Definitions.

As used in this Section,

- A. **"Banner standards"** are structures in the Mall area of downtown Portland, located on SW Fifth and SW Sixth Avenues between SW Taylor and ~~West Burnside~~ NW Irving Streets, designed for the display of hanging pennants or banners.
- B. **"Mall area"** means that area bounded by SW Broadway on the west, ~~West Burnside~~ NW Irving on the north, SW Fourth Avenue on the east, and SW Madison on the south, but not including the street and sidewalk areas of SW Broadway and SW Fourth Avenues.

#### AMEND CHAPTER 17.52, TREES

##### 17.52.010 Clearances.

It is unlawful for ~~any person~~ owners or occupants to permit any tree upon or in front of ~~any~~ their premises ~~of which he is the owner or occupant~~, to interfere with or come in contact with wires belonging to the City, or to permit the branches of such trees to be less than 7-1/2 feet ~~from~~ above the sidewalk, or 11 feet above the roadway; provided, however, that on any street which is designated as ~~an arterial, an alternate arterial~~ a Regional Trafficway, Major City Traffic Street, or a District Collector, or a one-way street, and where parking has been prohibited, limbs of trees shall be trimmed to a height of 14 feet above the crown of the street. Whenever the City Engineer finds that a condition prohibited by this Section exists,

**Commentary****17.72 Parking Lots**

Recommend deleting all of 17.72, Parking Lot. The bulk of these regulations are in conflict with other regulations, obsolete, unused, or all three. Additionally, Chapter 17.28, Sidewalks, Curbs and Driveways provides the required regulatory authority, permit and fee requirements for any work involving sidewalks, curbs or driveways, including when incidental to parking lots.

**17.72.010 Definition**

The inclusion of both vehicle parking and vehicle sales conflicts with land use regulation distinctions, 33.920, Description of the Use Categories. Paragraph .250, identifies car sales lots as retail sales and service, not parking, and Paragraph .270, identifies impound lots (and others) as vehicle storage, not parking. Title 33, Planning and Zoning identifies parking as either a primary use (commercial parking) or an accessory use (a use that may be permitted only in conjunction with a primary use, such as the parking lot for a store or apartment complex). Parking, as an accessory use, is required for virtually all identified primary uses in Title 33.

**17.72.020 Requirements**

A reference to building requirements without a reference to zoning requirements is incomplete and misleading. Most requirements for parking lot development (layout, striping, landscaping, setbacks) are contained in Title 33. Structural requirements (paving, etc.) are contained in Title 24.

**17.72.030 Paved Parking Lots****17.72.040 Permits**

The stated requirements for striping, barricades and fences conflicts with specific requirements for development of parking lots in 33.266, Parking and Loading. The concept of waiting 15 days before it automatically becomes an official parking lot is vague and in conflict with 33.266, Parking and Loading and 33.296, Temporary Activities.

Application of fees and review for access (driveway/curbcut, sidewalk and street impacts, construction or alteration) would not necessarily be hampered by elimination of conflicting regulations addressing parking lots on private property. Development on private property is more appropriately addressed in Titles 24 and 33.

These regulations do not appear to be the regulations that BTM/BTSM has applied in the recent past when participating in parking lot review. That participation has promoted development very similar or the same to those of 33.266 regarding layout and striping, and included ITE or other engineering standards dealing with travel lane and parking stall dimensions (amongst other things).

the condition is a public nuisance. In addition to the penal enforcement of this Title, the Commissioner of the department under whom the Office of the City Engineer is administered may take steps in accordance with the procedures set forth in Title 29 concerning abatement of nuisances, including assessment of cost of abatement against the property on which or in front of which the tree is located.

#### DELETE CHAPTER 17.72, PARKING LOTS

##### **17.72.010 Defined.**

**"Parking lot"** means any open property upon which any motor vehicle is parked or stored commercially or for hire, or upon which motor vehicles are placed for sale, whether or not such property is used in connection with another purpose, and whether or not such parking lot use is full time, part time or periodic.

##### **17.72.020 Requirements to Establish and Maintain.**

It is unlawful for any person to establish and maintain any parking lot without complying with the provisions of this Chapter, paying the applicable fees for permits as prescribed in Section 17.24.020, and also complying with the building regulations and paying any fees for permits thereunder where applicable. Failure to comply with the provision of this Chapter shall constitute the maintenance of the parking lot to a public nuisance.

##### **17.72.030 Paved Parking Lots.**

**A.** On all parking lots paved with a hard surface paving material to the property line or lines adjoining a street or streets, that portion used for parking or sale purposes shall have painted and maintained thereon a yellow strip 12 inches wide for the entire length of that portion of the property adjoining the street and used for parking or sale purposes. This yellow strip shall be so located that its outer edge is upon private property. It is unlawful to park or permit to be parked, or displayed for sale, any motor vehicle extending beyond the outer edge of the yellow strip.

**B.** In lieu of a painted strip, the occupant of the property may erect a barricade or fence. The barricade or fence shall not exceed 5 feet in height; if the barricade or fence is located within 3 feet of the street line, the barricade or fence shall be not less than 20 inches in height. Any barricade or fence shall be located entirely upon private property and shall be so located and constructed that no part of a parked or for sale motor vehicle can extend beyond the street property line. If a barricade or fence has not been constructed, upon a second conviction of violation of Subsection (a) of this Section, the City Engineer shall notify the occupant of the property and the property owner to erect a barricade or fence. If the barricade is not erected as required by the notice within 30 days after the notice, continued use of the property as a parking lot shall be a public nuisance. Thereafter the City Engineer may summarily abate such public nuisance by constructing the necessary barricade. The cost of such construction, computed in accordance with the provisions of the finance regulations may be assessed against the property in accordance with the provisions of Title 29 relating to abatement of nuisances.

**C.** Use of property as a parking lot more than 15 days without the painted strip required under Subsection A of this Section or a fence or barricade in lieu thereof as set forth in Subsection B of this Section shall constitute such as a public nuisance. Such nuisance may be abated by painting the required strip. The property shall be subject to abatement of such nuisance and assessment of costs of abatement in accordance with the provisions of Title 29 relating to abatement of public nuisances.

**Commentary****17.88 Street Access**

This Chapter is being restructured to add a purpose statement and definitions and to include additional connectivity language as required by the Transportation Planning Rule and the 2000 RTP.

**17.88.001 Purpose**

The purpose is consistent with state, regional, and City goals for street connectivity.

**17.88.010 Definitions**

Exceptional habitat quality is a term used in the recently adopted RTP to define areas with such significant qualities that the regional connectivity standards can be reduced. The term was developed as part of the *Greenstreets* handbook by Metro with the participation of local jurisdictions.

**17.72.040 Permit.**

(Amended by Ordinance No. 140207, effective Aug. 1, 1975.) It is unlawful for any person to construct or maintain a barricade or fence upon the street side of a parking lot or to paint a parking lot strip as required by this Chapter, without first obtaining a permit from the City Engineer and paying the fees therefor elsewhere prescribed in Section 17.24.020. Issuance of a permit by the City Engineer shall not excuse the permittee from compliance with the provisions of the building regulations applicable to the barricade or fence, nor from paying the fees prescribed in said regulations. The application shall be in writing upon a form provided by the City Engineer and shall, when practicable, be accompanied by a design, sketch or drawing showing the exact location of the property, its boundaries, and where it is proposed to establish the parking lot painted strip, barricade or fence. Upon approval by the City Engineer of paint and materials to be used, location, type, height, and length of barricade, fence or painted strip, and payment of the fees elsewhere prescribed in Section 17.24.020, the City Engineer shall issue the appropriate permit.

### AMEND CHAPTER 17.88, STREET ACCESS

**Sections:**17.88.001 Purpose17.88.010 Definitions17.88.010-020 For Buildings and Planning Actions17.88.020-030 Location of Multiple Dwellings17.88.030-040 Through Streets17.88.050 Transportation Impact Study17.88.040-060 Dedication Prior to Construction17.88.050-070 Routes of Travel in Park Areas**17.88.100 Purpose**

The purpose of this chapter is to describe the requirements for a transportation impact study, to ensure an adequate level of street connections to serve land uses, and to ensure that improvements to these streets are made in conjunction with development.

**17.88.010 Definitions**

As used in this Chapter, the following terms shall have the following definitions:

**A. “Exceptional Habitat Quality” for connectivity purposes:**

1. Riparian-associated wetlands protected with environmental zones;
2. Locally or regionally rare or sensitive plant communities;
3. Important forest stands contributing multiple functions and values to the adjacent water feature habitats of sensitive, threatened or endangered wildlife species; or
4. Habitats that provide unusually important wildlife functions, such as (but not limited to) a major wildlife crossing/runway or a key migratory pathway.

**Commentary****17.88010 Definitions**

B. The Transportation System Plan defines 'mixed-use areas' as, "compact areas of development that include a mix of uses, either within buildings or among buildings, and include residential development as one of the components. "By definition (i.e., allowed primary uses in Title 33) 'mixed-use areas' includes all commercial zones and the EX, Central Employment Zone. All other employment and industrial zones, and the Open Space Zone will be exempt from these provisions. These regulations would also apply to institutional development under conditional use review.

C. 'Significant alterations' is added to address the need for street frontage improvements when sites partially redevelop but do not necessarily increase occupancy. The threshold for 'significant alterations' is based on the Title 33, Planning and Zoning, code for when nonconforming development must be brought into conformance.

**17.88.020 For Buildings and Planning Actions**

The recommended change gives the City Engineer authority to require frontage improvements when an existing development is undergoing significant alterations. A new definition, 17.88.010.B, Significant alternation, defines this a changes to property that are 35 percent or greater than the assessed value of existing improvements n the site. This change is consistent with the nonconforming development standards in Title 33 that require upgrades up property as it redevelops.

**17.88.040 Through Streets**

Paragraph A.

Deleted reference to a particular street width; width will be determined by the City Engineer. Changed reference to street spacing to coincide with regional requirements.

New Paragraph B.

Partial streets are required when full width streets can not due to parcel size or alignment. Over time, as development or redevelopment occurs on abutting parcels, additional dedication and improvements will result in full width streets.

New Paragraph C.

Language is added to reflect new state and regional requirements for establishing street connectivity standards. The recommended language closely matches the regional requirements adopted by Metro applicable to Portland.'

- B. “Mixed-Use Area” is compact development that allows a mix of uses, either within buildings or among buildings, and includes residential development as one of the potential components. Mixed-use areas include all commercial zones (CN1 and 2, CO1 and 2, CM, CS, CG, and CX), the EX, Central Employment Zone, and the IR, Institutional Residential Zone. All other employment zones, industrial zones, and the Open Space Zone are not included.
- C. “Significant alterations” are changes to property that are 35 percent or greater than the assessed value of all improvements on the site. Mandatory improvements for fire, life safety and accessibility do not count toward the threshold.

**17.88.010-020 For Buildings and Planning Actions.**

No single family, multiple dwelling, industrial or commercial building shall be constructed, or altered so as to increase its number of occupants, or make significant alterations to a building without resulting in increased occupancy, on property that does not have direct access by frontage or recorded easement with not less than 10 feet width of right-of-way to a street used for vehicular traffic. . .

**17.88.020-030 Location of Multiple Dwellings**

[No change]

**17.88.030-040 Through Streets.**

Street connectivity provides access to adjacent properties and reduces out-of-direction travel. New or expanding development must include the following:

- A. Through streets in width designated as required by the City Engineer but at least 50 feet in width, and not more than 600 feet apart connecting existing dedicated streets, or at such locations as designated by the City Engineer, shall be provided for any development or redevelopment tract utilized for multiple dwellings or accessory buildings hereafter erected.
- B. Partial-width streets as required by the City Engineer where full-width streets could reasonably be provided in the future with the development or redevelopment of abutting property.
- C. New residential development or development in existing or future mixed-use areas that will require construction of new street(s) must:
- Respond to and expand on the adopted street plans, applicable to the site or area, or in the absence of such plan, as directed by the City Engineer;
  - Provide for street connections no further apart than 530 feet, except where prevented by barriers such as topography, railroads, freeways, pre-existing development, or natural features where regulations do not allow construction of or prescribe different standards for streets;
  - Provide bicycle and/or pedestrian connections when full street connections are not possible, no further apart than 330 feet, except where prevented by barriers as noted above;
  - Limit the use of cul-de-sac or closed street systems; and
  - Include street cross section(s), as directed by the City Engineer.

### Commentary

#### 17.88.040 Through Streets

D. Metro recently adopted modifications to the RTP to incorporate the concepts from *Green Streets: Innovative Solutions for Stormwater and Street Crossings*. Paragraph C. modifies the street and pedestrian/bicycle connectivity standards in the RTP to address sensitive environmental areas.

#### 17.88.050 Transportation Impact Study

This new section incorporates the language that was previously in Title 33, Chapter 641, Transportation Impacts, that was added as a part of the land division code rewrite. The 1996 Transportation Element, Implementation section, includes the language relating to the need for transportation impact studies for land use reviews that "appreciably affect the routing or volume of automobile or transit traffic and establishes the thresholds that would trigger the study. The changes consolidate the requirement in one location.

A. PDOT requires the study based on potential impacts and provides the applicant with guidance about the scope of the study. Placing the requirement in Title 17 clarifies that practice.

B. Limited scope transportation studies may also be needed for development proposal where there are identified safety concerns such as site distance or turning conflicts. The City Engineer already has the authority to require such a study. This language clarifies that authority.

#### 17.88.050 Dedication Prior to Construction

Recommends change of language to reflect new state and regional requirements for street frequency and connectivity. This section is changed to include reference to development in all areas subject to street development.

#### 17.92.030 Designation of Streets, Avenues, Boulevards and Drives

Recommends addition of reference to *Greenscape Street*.

The term *Greenscape Street* is added to the fourth sentence, because this term will become an official Street Design classification and will likely become even more common in use as the City and region becomes more officially responsive to certain environmental needs and benefits. The term has also most frequently been used in the context of what we have typically identified as boulevards in the past.

The sentences have been reordered, placing the two sentences with the directive 'shall' first and the two sentences using the term 'may' last.

**D. Street and pedestrian/bicycle spacing standards may be modified in areas of exceptional habitat quality to the following standards:**

- Where streets must cross over protected water features, provide crossings at an average spacing of 800 to 1,200 feet, unless exceptional habitat quality or length of crossing prevents a full street connection.
- Pedestrian and bicycle connections that cross protected water features should have an average spacing of no more than 530 feet, unless exceptional habitat quality or length of crossing prevents a connection.

**17.88.050 Transportation Impact Study**

The traffic impacts of dividing or developing land may warrant a transportation impact study. The purpose of a transportation impact study is to assess the effects of development in the vicinity of a site on traffic conditions and operations; transit, pedestrians, and bicycle movement; and neighborhood livability. A transportation impact study may be required under the following situations:

**A. Where approval criteria for a land use review include a requirement of adequacy of transportation services and the development proposed through the review meets or exceeds the following thresholds:**

1. Trip generation threshold. More than 100 new vehicle trips will be generated in the peak direction (inbound or outbound) during the site's peak traffic hour; or
2. Neighborhood traffic threshold. More than 250 new trips will be generated per day that are likely to use predominantly residential Local Service Traffic Streets.

**B. Safety or operational impacts. Where the City Engineer has identified potential safety or operational concerns that may be impacted by the layout of a site or the location or size of driveways for a proposed development.**

**17.88.040-060 Dedication Prior to Construction.**

No permit shall be issued for the construction of any ~~multiple dwelling or dwellings or accessory~~ buildings upon any lot, block, tract or area within the City where the establishment of access streets are required as outlined in this Chapter, unless and until the location of the streets is approved by the City Engineer and the area of the streets dedicated to the public for street purposes.

**17.88.050-070 Routes of Travel in Park Areas.**

[No change]

**AMEND CHAPTER 17.92, STREET DESIGNATION**

**17.92.030 Designation of Streets, Avenues, Boulevards and Drives.**

- A.** All streets within the corporate limits of the City running in an easterly and westerly direction shall hereafter be designated as "streets," and all streets running in a northerly and southerly direction shall be designated as "avenues;" ~~provided, however, that the term "drive," "court," "land," "terrace," or "way" may be used to~~

**Commentary**

~~designate winding or circuitous streets; and provided, further, that all streets lying between two consecutively numbered streets shall be designated as "place" and shall take the lesser number of said two numbered streets. Scenic or arterial streets may be designated as "boulevards" or "drives" in lieu of the term "streets" or "avenues."~~ Streets lying between two consecutively numbered streets shall be designated as "place" and shall take the lesser number of said two numbered streets. The terms "drive," "court," "lane," "terrace" or "way" may be used to designate winding or circuitous streets. Scenic, arterial or greenscape streets may be designated as "boulevards" or "drives" in lieu of the term "streets" or "avenues".



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## Title 33: Planning and Zoning, Amendments

Title 33: Planning and Zoning, is intended to implement Portland's Comprehensive Plan and related land use plans in a manner that protects the health, safety, and general welfare of the citizens of Portland. Title 33 applies to all land and water within the City, with some exceptions.

A number of changes to Title 33 have been made in the years since the TPR was first adopted in 1991. The changes in this chapter refine those changes as needed and include additional requirements that were added to the TPR and RTP since that time.

The previous Title 33 amendments include:

### 1996 Amendments

- Setbacks from transit streets
- Main entrance orientation
- Ground floor window requirements
- Short-term and long-term bicycle parking
- Carpool parking
- Onsite pedestrian circulation
- Transit-supportive plazas substituting for required parking
- Limiting parking between buildings and transit streets

### 2000 Amendments

- Minimum and maximum parking ratios

### 2001-2002 Amendments

- Street connectivity in land divisions
- Pedestrian connectivity in land divisions

**Commentary****33.10 Legal Framework and Relationships**

New approval criteria for park-and-ride facilities for mass transit are being added to 33.815, *Conditional Uses*, to address the unique characteristics of this use. Park-and-ride facilities for mass transit are conditional uses on private property in the OS and R zones, but are not regulated in rights-of-way, regardless of zoning. Substantial portions of the I-205 right-of-way are zoned open space. This could result in park-and-ride facilities being constructed in the right-of-way in open space zoned areas without public review. Because of the significant potential impacts associated with park-and-ride facilities, a land use review is needed and appropriate. This change will clarify that park-and-ride facilities for mass transit in the OS and R zones, even when in the right-of-way, will be regulated through a conditional use process with the approval criteria listed in 33.815.222.

**33.100.010 Purpose**

The Transportation Element classifications for bicycles and pedestrians includes *Off-Street Paths through City parks and open space* where the connections provide a transportation function. Without the connections, parks and open space can create barriers to connectivity.

**AMEND CHAPTER 33.10, LEGAL FRAMEWORK AND RELATIONSHIPS****33.10.030 When the Zoning Code Applies**

- A. [No change]
- B. **Clarification for rights-of-way.** Land within private rights-of-way, including rail rights-of-way and utility rights-of-way, is regulated by Title 33. Land within public rights-of-way is regulated by Title 17, Public Improvements, and not by Title 33, except in the following situations where both Titles apply:
1. [No change]
  2. Development within design districts when specified in Chapter 33.825, Design Review; ~~and~~
  3. Structures that project from private property over rights-of way, such as projecting signs-; and
  4. Proposals for park-and-ride facilities for mass transit.
- C. - D. [No change].

**AMEND CHAPTER 33.100, OPEN SPACE ZONE****33.100.010 Purpose**

The Open Space zone is intended to preserve and enhance public and private open, natural, and improved park and recreational areas identified in the Comprehensive Plan. These areas serve many functions including:

- Providing opportunities for outdoor recreation;
- Providing contrasts to the built environment;
- Preserving scenic qualities;
- Protecting sensitive or fragile environmental areas; ~~and~~
- Preserving the capacity and water quality of the stormwater drainage system; and
- Providing pedestrian and bicycle transportation connections.

**Commentary****33.110.245 Institutional Development Standards**

Since the pedestrian requirements in the Transportation Planning Rule (TPR) apply to institutional buildings, establishing maximum setbacks along transit streets and streets in Pedestrian Districts helps to comply with the rule.

The transit street and pedestrian street setbacks adopted in 1996 included an incorrect reference that caused confusion to staff, developers, and the public. The original intent of the maximum setbacks is to create areas "where the general public is welcomed and encouraged." Where there were multiple transit street frontages, the original regulations allowed the applicants to choose which street to orient to. The new language clarifies that the transit street with the highest transit classification must be chosen because, in some cases, transit service may not be present on lower-classified transit streets. The result could be buildings that orient to streets with less pedestrian activity.

The original regulations also allowed an applicant to have parking at a corner in some cases, even when the intersecting streets were both transit streets. The intent of the changes is to 'create a corner with building facades and parking to the side or rear of buildings.

**AMEND CHAPTER 33.110, SINGLE-DWELLING ZONES****33.110.245 Institutional Development Standards**

**A. - B.** [No change]

**C. The standards.**

1. [No change]

2. Setbacks on a transit street or in a Pedestrian District. [No change]

a. [No change]

~~b. Measurement. Building setbacks from a transit street, or from any street in a Pedestrian District, are measured from the curb, not the lot line. Where there is no curb, the setback is measured from the lot line, and both the minimum and maximum setbacks are reduced by 6 feet.~~

b. Building setbacks on a transit street or in a Pedestrian District. Buildings on a transit street or in a Pedestrian District must meet the provisions of 33.130.215.B.2.a. through d.

c. [No change]

~~d. Maximum setback standard. At least 50 percent of the length of the ground level wall of buildings must be within the maximum setback.~~

~~e. Frontage on one transit street. Where the site is adjacent to one transit street, the standard of Subparagraph C.2.d, above, must be met on the transit street frontage.~~

~~f. Frontage on more than one transit street. Where the site is adjacent to more than one transit street:~~

~~(1) If two or more of the transit streets intersect, the standard of Subparagraph C.2.d, above, must be met along two of the intersecting transit streets, but does not have to be met along others;~~

~~(2) If none of the transit streets intersect, the standard of Subparagraph C.2.d, above, must be met along one of the transit streets; the applicant may choose which street.~~

~~g. In a Pedestrian District. Where the site is in a Pedestrian District:~~

~~(1) If the site is adjacent to one or more transit streets, the regulations of Subparagraph C.2.f, above, apply.~~

~~(2) If the site is not adjacent to any transit street, it will be regulated as if all streets adjacent to the site are transit streets, and the regulations of Subparagraph C.2.f, above, apply.~~

## Commentary

**Table 110-5 Institutional Development Standards**

Measuring from the curb (or making adjustments to that measurement when a curb was not present) has caused confusion for staff and applicants. Measuring from street lot lines is consistent with how other setbacks are determined. The maximum setback can then be reduced to 10 feet since the width of the sidewalk is no longer taken into consideration, reducing confusion and making measuring simpler.

**33.110.245 Characteristics Of The Zone**

- B. R2 zone.** Low density multi-dwelling zoning should be located in proximity to transit streets to encourage the use of transit.
  
- C. R1 zone.** Medium density zoning should only be located in proximity to transit streets to encourage the use of transit and provide alternatives to the auto for people without motor vehicles.
  
- F. IR zone.** Sites with IR zoning are typically large campuses that generate a significant number of motor vehicle trips. Institutional campuses should locate on District Collector or higher classified traffic streets to reduce the impacts of traffic generated by the site on adjacent local streets that are typically residential in character. People coming and going to these sites should have access to transit service to reduce auto trips.

<b>Table 110-7 Institutional Development Standards [1]</b>	
Minimum Site Area for New Uses	[No change]
Maximum Floor Area Ratio [2]	
Maximum Height [3]	
Minimum Building Setbacks [2]	
Maximum Building Setback {6} Street Lot Line Transit Street or Pedestrian District {6}	None 25 ft 10 ft.
Maximum Building Coverage [2]	[No change]
Minimum Landscaped Area [2,4]	
Buffering from Abutting Residential Zone [5]	
Buffering Across a Street from a Residential Zone [5]	
Setbacks for All Detached Accessory Structures Except Fences	
Parking and Loading	
Signs	

Notes:

[1] - [5] [No change]

[6] — Setbacks from street lot lines are measured from the lot line. Setbacks from Transit Streets or streets in Pedestrian Districts are measured from the curb. See 33.110.245.C.2.

**AMEND CHAPTER 33.120, MULTI-DWELLING ZONES**

**33.120.030 Characteristics Of The Zones**

- A. [No change]
- B. **R2 zone.** The R2 zone is . . . Generally, R2 zoning will be applied near Major City Traffic Streets, Neighborhood Collector and District Collector streets, and local streets adjacent to commercial areas ~~or major streets and transit streets~~.
- C. **R1 zone.** The R1 zone is . . . Generally, R1 zoning will be applied near Neighborhood Collector and District Collector streets, and local streets adjacent to commercial areas, ~~or major streets and transit streets~~.
- D. - E. [No change]
- F. **IR zone.** The IR zone is . . . IR zones will be located near one or more streets that are designated as District Collector Streets, Transit Access Streets, or streets of higher classification. . . .

Commentary

33.120.100 Primary Uses

- B. **Limited uses.** The Transportation Element of the Comprehensive Plan identifies light rail stations and stops as 'Transit Stations'. The names in the code need to match the classification description name.

**33.120.100 Primary Uses**

**A.** [No change]

**B. Limited uses.**

1. [No change]
2. Retail Sales and Service and Office uses in the RH zone. This regulation applies to all parts of Table 120-1 that have note [2].
  - a. [No change]
  - b. [No change]
    - (1) - (2) [No change]
    - (3) The site must be located within 1,000 feet of a ~~light rail Transit Station or stop~~ light rail Transit Station.
3. Retail Sales and Service and Office uses in the RX zone. [No change]
  - a. – b. [No change]
  - c. Commercial uses in new multi-dwelling development. Adjustments to the regulations of this subparagraph are prohibited.
    - (1) Limited uses. [No change]
    - (2) Conditional uses.
      - [No change];
      - If the entire site is within 500 feet of a ~~light rail Transit Station or stop~~ light rail Transit Station, up to 50 percent of the net building area of a new multi-dwelling development may be in Retail Sales and Service or Office uses if approved as a conditional use.
  - d. – f. [No change]
4. – 14. [No change]

**Commentary****Table 120-3 Development Standards in Multi-dwelling Zones**

Measuring from the curb (or making adjustments to that measurement when a curb was not present) has caused confusion for staff and applicants. Measuring from street lot lines is consistent with how other setbacks are determined. The maximum setback can then be reduced to 10 feet since the width of the sidewalk is not considered, reducing confusion and making measuring simpler.

<b>Table 120-3 Development Standards in Multi-Dwelling Zones [1]</b>						
<b>Standard</b>	<b>R3</b>	<b>R2</b>	<b>R1</b>	<b>RH</b>	<b>RX</b>	<b>IR</b>
Maximum Density (See 33.120.205)	[No change]					
Minimum Density (See 33.120.205)						
Minimum Lot Size (See 33.120.210)						
Maximum Height (See 33.120.215)						
Minimum Setbacks (See 33.120.220)						
Minimum Setbacks - Front building setback - Street building setback - Side and rear building setback. <del>[18]</del> [17] - Garage entrance setback [10] (See 33.120.220)						
Maximum Setbacks (See 33.120.220) Transit Street or Pedestrian District	<del>25 ft. 10 ft.</del> [17]					
Max. Building Coverage (See 33.120.225)	[No change]					
Max. Building Length (See 33.120.230)						
Min. Landscaped Area (See 33.120.235)						
Required Outdoor Area (See 33.120.240)						

Notes:

[1] to [[16] [No change]

~~[17] Setbacks from Transit Streets and streets in Pedestrian Districts are measured from the curb, street lot line. See 33.120.220.~~

~~[18] [17]~~ [No change]

**Commentary****33.120.220 Setbacks****B. Building setback standard.**

2. The transit street and pedestrian street setbacks adopted in 1996 included an incorrect reference that caused confusion to staff, developers, and the public. The commentary adopted with the 1996 amendments states that the intent of the maximum setbacks is to create areas "where the general public is welcomed and encouraged." Where there are multiple transit street frontages, the original regulations allowed an applicant to choose which transit street to orient a building to. The new language clarifies that the transit street with has the highest transit classification must be chosen because, in some cases, transit service may not be present on lower-classified transit streets. The result could be buildings that orient to streets with less pedestrian activity.

The original regulations also allowed an applicant to have parking at a corner in some cases, even when the intersecting streets were both transit streets. The intent of the changes is to 'create a corner' with building facades and parking to the side or rear of buildings.

**33.120.220 Setbacks**

**A.** [No change]

**B. Building setback standard.** [No change]

1. [No change]

~~2. Maximum building setbacks from a transit street or a street in a Pedestrian District apply only to buildings and are regulated as follows:~~

~~a. Measurement.~~

~~(1) To ensure that the environment near automobile travel lanes is inviting to pedestrians, building setbacks from a transit street, or from any street in a Pedestrian District, are measured from the curb, not the lot line.~~

~~(2) Where there is no curb, the setback is measured from the lot line, and both the minimum and maximum setbacks are reduced by 6 feet.~~

~~(3) Where the distance between the street lot line and the curb is more than 25 feet, the maximum setback is zero.~~

~~(4) Where an existing building that meets the standard of this paragraph is being altered, the standard of this paragraph applies to the ground level, street-facing façade of the entire building. Where the existing building does not meet the standard of this paragraph, see Section 33.258.070.C. See Figures 120-1 and 120-2.~~

~~(3) Where there is more than one building on the site, the standard of this paragraph applies to the combined ground level, street-facing facades of all of the buildings. Where existing buildings do not meet the standard of this paragraph, see Section 33.258.070.C. See Figure 120-3.~~

~~b. Standard. At least 50 percent of the length of the ground level street facing facade of buildings must be within the maximum setback.~~

~~c. Frontage on one transit street. Where the site is adjacent to one transit street, the standard of Subparagraph B.2.b, above, must be met on the transit street frontage.~~

~~d. Frontage on more than one transit street. Where the site is adjacent to more than one transit street:~~

~~(1) If two or more of the transit streets intersect, the standard of Subparagraph B.2.b, above, must be met along two of the intersecting transit streets, but does not have to be met along others;~~

**Commentary****33.120.220 Setbacks****B. Building setback standard.**

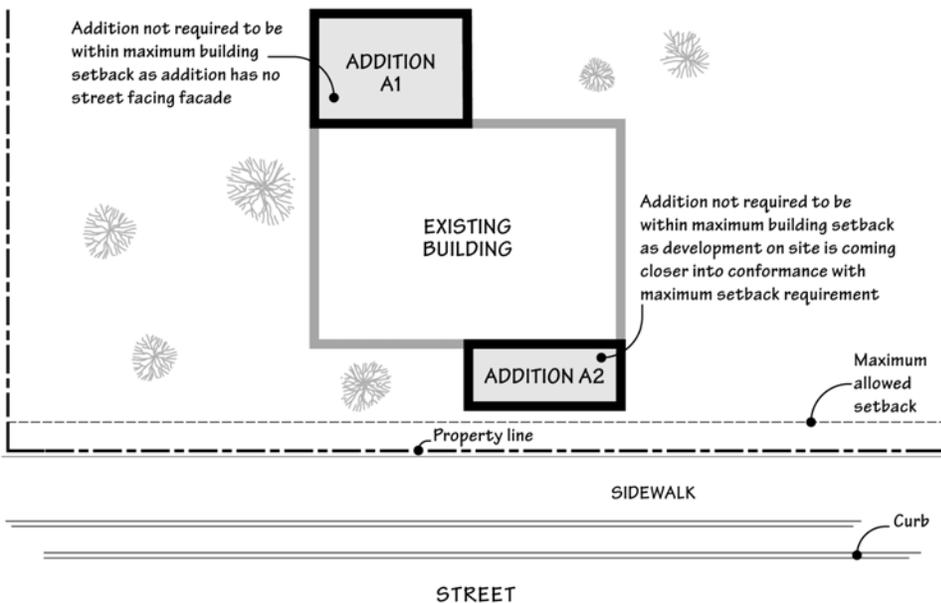
2. This subsection has been restructured to clarify regulations and provide more assurance that buildings will be oriented to streets with transit service and that buildings will be built to corners, creating a more interesting pedestrian experience.
  - a. **Measurement.** The first three paragraphs are being deleted because measurement will be from the street lot line rather than from the curb. This section is being renumbered and revised to explain that the Figures 120-2, 120-3, and 120-4 are to be used in situations where there are additions being made to a building or where there are multiple buildings on the site.

- ~~(2) If none of the transit streets intersect, the standard of Subparagraph B.2.b, above, must be met along one of the transit streets; the applicant may choose which street.~~
- e. ~~In a Pedestrian District. Where the site is in a Pedestrian District:~~
- ~~(1) If the site is adjacent to one or more transit streets, the regulations of Subparagraph B.2.d, above, apply.~~
- ~~(2) If the site is not adjacent to any transit street, it will be regulated as if all streets adjacent to the site are transit streets, and the regulations of Subparagraph B.2.d, above, apply.~~
2. Building setbacks on a transit street or in a Pedestrian District. The maximum setback standards of this paragraph apply to buildings that are enclosed on all sides. The building setbacks on a transit street or in a Pedestrian District are as follows:
- a. Measurement.
- (1) Where an existing building that meets the standards of this paragraph is being altered, the standards apply to the ground level, street-facing façade of the entire building. See Figures 120-1 and 120-2.
- (2) Where there is more than one building on the site, the standards of this paragraph apply to the combined ground level, street-facing facades of all of the buildings. See Figures 120-3 and 120-4.

Commentary

**Figure 120-2 Alterations to Existing Building**

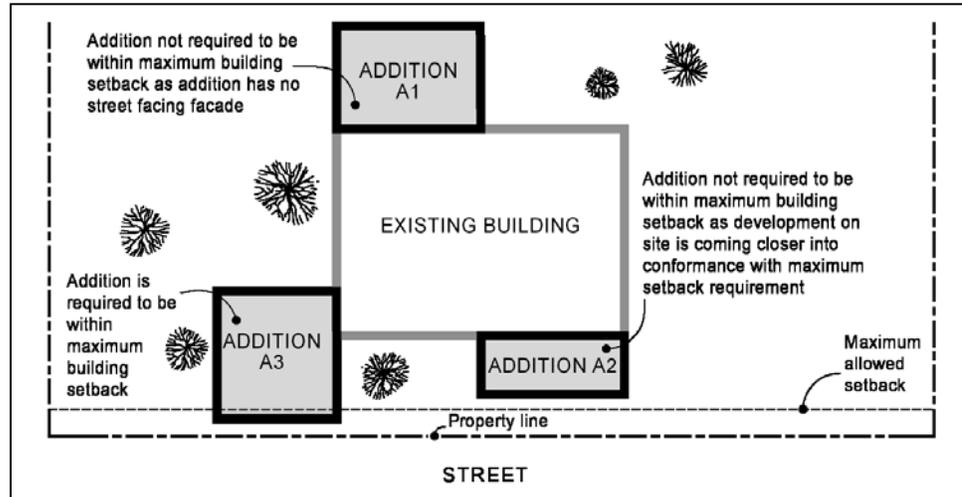
Figure 120-2 is being revised to show that additions that are next to (rather than in front of or behind an existing building) must meet the maximum setback for 100 percent of its street facing façade until the total building façade (existing and addition) meet the 50 percent standard. The existing figure is shown below. Addition 3 shows the situation where an addition creates additional street frontage. In that case, the addition must meet the maximum transit setback for its entire length. Once the overall street frontage meets the applicable standard - 1 or 2



The figure is being revised so that the notes inside and outside the boxes are not duplicative. The notes inside the figure state whether the addition is required to or not required to meet the maximum setback. The Notes explain why the addition is or is not required to meet the maximum setback standard.

**Delete existing Figure 120-2 and replace with new Figure.**

**Figure 120-2  
Alterations to Existing Building**



**Notes:** (These notes should be below the graphic, in 9 pt.)

**Addition A1.** Not subject to maximum setback standard because addition has no street facing façade.

**Addition A2.** Brings building closer to conformance with maximum setback standard because it does not increase the length of the street-facing façade, and it brings building closer to maximum building setback line.

**Addition A3.** Because addition increases length of street-facing façade, 100 percent of addition facade must be within maximum setback until maximum setback standard for entire building is met.

**Changes to the notes inside the graphic:**

**A1: Addition not required to be within maximum building setback**

**A2: Addition not required to be within maximum building setback**

**A3: Addition required to be within maximum building setback**

**Commentary****Figure 120-4 New Buildings on Sites with Buildings That Do Not Meet the Maximum Building Setback Standard**

Figure 120-4 is a new figure that illustrates a situation where the maximum building setback standard is not being met by new building A1 but is being met by new building A2. The intent of the regulations is to place new buildings on a site in conformance with the maximum building setback standard. Until the maximum building setback standard is met for all buildings on the site as shown in Figure 120-3, above, all new building facades must be within the maximum building setback.

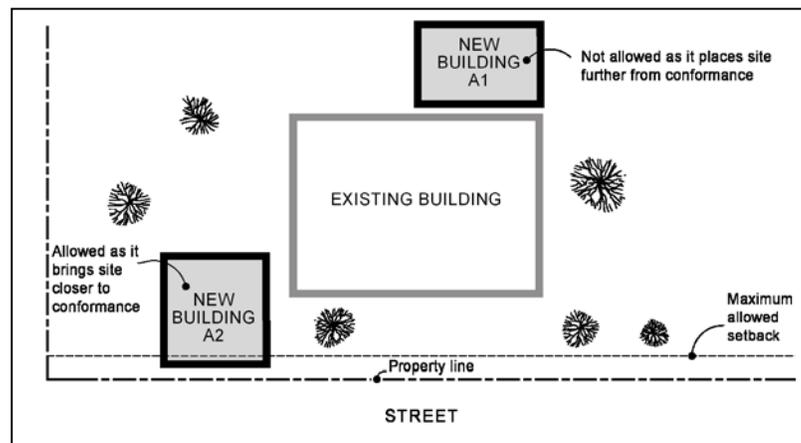
The notes inside and below the figure are being revised to eliminate redundancy.

**33.120.220 Setbacks**

- b. Standards. There are two standards now instead of one. Standard 1 is the original standard. Standard 2 is applied to the street with the highest transit classification. The intent is to 'create a corner' by requiring all of one building frontage and half of the other to meet the maximum transit setback. The result is that most buildings will orient to the corner of the intersecting streets in order to meet the standards.
- c. Outside a Pedestrian District. The new name for this subsection clarifies that there are two sets of requirements, one for development inside Pedestrian Districts and another set outside of Pedestrian Districts. City Walkways are streets that provide pedestrian access to transit or other destinations in a neighborhood. Applying Standard 1 to a City Walkway that intersects a transit street creates a more attractive pedestrian environment in areas with significant pedestrian activity.

**New Figure 120-4**  
**Renumber existing Figures 120-4 through 120-10 to 120-5 through 120-11, and**  
**change references to the figures**

**Figure 120-4**  
**New Buildings on Sites with Buildings That Do Not Meet the**  
**Maximum Building Setback**



**Notes: (These notes should be below the graphic, in 9 pt.)**

**New Building B1.** Not allowed because it moves site further out of conformance with maximum setback standard.

**New Building B2.** Because building length of combined street-facing façade on the site, 100 percent of building façade must be within maximum setback until maximum setback standard for site is met.

**Changes to the notes inside the graphic:**

**Buildings become “New Building B1” or B2**

**B1: Not allowed**

**B2: Allowed**

- b. Standards. There are two standards. Subparagraphs B.2.c and d specify where each standard applies:
- (1) Standard 1: At least 50 percent of the length of the ground level street facing facade of the building must be within the maximum setback;
  - (2) Standard 2: 100 percent of the length of the ground level street facing facade of the building must be within the maximum setback.
- c. Outside a Pedestrian District. Where the site is not in a Pedestrian District:
- (1) One transit street. Where the site is adjacent to one transit street, the standard of Standard 1 must be met on the transit street frontage;
  - (2) Two non-intersecting transit streets. Where the site is adjacent to two transit streets that do not intersect:

## Commentary

- (3) By having Standard 1 apply on one transit street and Standard 2 apply on an intersecting transit street, a building will generally 'create a corner' with parking to the side or rear of the building.
- d. In a Pedestrian District. Deleted language is not clear as both subparagraphs refer to the same standard. The intent is to always orient to two intersecting streets when a site has more than one street frontage. New language clarifies this intent and assures that buildings will orient to the transit street with the highest classification. Generally, this will result in buildings orienting to a street that has high-quality transit service and the highest level of pedestrian activity. For sites that have intersecting street frontages, buildings will orient to a corner, even when none of the streets are transit streets.

- Standard 1 must be met on the frontage of the street with the highest transit classification. If both streets have the same highest classification, the applicant may choose on which street to meet the standard;
  - If one of the transit streets intersects a City Walkway, Standard 1 must be met along both the street with the highest transit classification and the City Walkway;
- (3) Two or more intersecting transit streets. Where the site is adjacent to two or more intersecting transit streets, Standard 2 must be met on the frontage of the street with the highest transit classification and Standard 1 must be met on an intersecting transit street. If two streets have the same highest transit classification, the applicant may choose on which street to meet the standard;
- d. In a Pedestrian District. Where the site is in a Pedestrian District:
- (1) One street. Where the site is adjacent to only one street, Standard 1 must be met on that street frontage;
- (2) Through lot with one transit street. Where the site is a through lot and one frontage is a transit street and one is a non-transit street Standard 1 must be met on the frontage of the transit street;
- (3) Through lot with two transit streets. Where the site is a through lot and both frontages are on transit streets, Standard 1 must be met on the frontage of the street with the highest transit classification. If both streets have the same highest classification, the applicant may choose on which street to meet the standard;
- (4) Through lot with no transit streets. Where the site is a through lot and neither frontage is on a transit street, Standard 1 must be met on the frontage of one of the frontages. The applicant may choose on which street to meet the standard;
- (5) Two or more intersecting transit streets. Where the site is adjacent to two or more intersecting transit streets, the following standards must be met on the frontage of the street with the highest transit classification and any intersecting transit street:
- Standard 2 must be met on the frontage of the street with the highest transit classification. If both transit streets have the same highest classification, the applicant may choose on which street to meet the standard; and
  - Standard 1 must be met on an intersecting transit street;

**Commentary**

(7) Two or more frontages, no transit streets. This change clarifies that in Pedestrian Districts, transit setbacks are used to create a pedestrian-friendly environment.

**33.120.275 Development Standards for Institutions**

The transit setback standards are not rewritten here, but for simplicity and consistency reference the regulations of 33.130.215, *Setbacks*, in *C* zones.

- (6) Three or more frontages, two non-intersecting transit streets. Where the site has three or more frontages, and two of them are transit streets that do not intersect, the following standards must be met on the frontage of the street with the highest transit classification and one intersecting street:
- Standard 2 must be met on the frontage of the street with the highest transit classification. If both streets have the same transit classification, the applicant may choose on which street to meet the standard; and
  - Standard 1 must be met on an intersecting street;
- (7) Two or more frontages, no transit streets, two or more intersecting streets. Where the site has two or more frontages, none of them are transit streets, and two or more of the streets intersect, the following standards must be met on the frontage of one street and one intersecting street:
- Standard 2 must be met on the frontage of one street; and
  - Standard 1 must be met on an intersecting street.

~~f.e.~~ [No change]

**C. – D.** [No change]

### **33.120.275 Development Standards for Institutions**

**A. – B.** [No change]

**C. The standards.**

1. [No change]
2. Setbacks on a transit street or in a Pedestrian District.
  - a. [No change]
  - b. ~~Measurement. Building setbacks from a transit street, or from any street in a Pedestrian District, are measured from the curb, not the lot line. Where there is no curb, the setback is measured from the lot line, and both the minimum and maximum setbacks are reduced by 6 feet.~~

**Commentary****Table 120-5 Institutional Development Standards**

Measuring from the curb (or making adjustments to that measurement when a curb was not present) has caused confusion for staff and applicants. Measuring from street lot lines is consistent with how other setbacks are determined. The maximum setback can then be reduced to 10 feet since the width of the sidewalk is no longer taken into consideration, reducing confusing and making measuring simpler.

- e b. [No change]
- ~~d. Maximum setback standard. At least 50 percent of the length of the ground level wall of buildings must be within the maximum setback.~~
- ~~e. Frontage on one transit street. Where the site is adjacent to one transit street, the standard of Subparagraph C.2.d, above, must be met on the transit street frontage.~~
- ~~f. Frontage on more than one transit street. Where the site is adjacent to more than one transit street:
 
  - ~~(1) If two or more of the transit streets intersect, the standard of Subparagraph C.2.d, above, must be met along two of the intersecting transit streets, but does not have to be met along others;~~
  - ~~(2) If none of the transit streets intersect, the standard of Subparagraph C.2.d, above, must be met along one of the transit streets; the applicant may choose which street.~~~~
- ~~g. In a Pedestrian District. Where the site is in a Pedestrian District:
 
  - ~~(1) If the site is adjacent to one or more transit streets, the regulations of Subparagraph C.2.f, above, apply.~~
  - ~~(2) If the site is not adjacent to any transit street, it will be regulated as if all streets adjacent to the site are transit streets, and the regulations of Subparagraph C.2.f, above, apply.~~~~

3. – 6. [No change]

<b>Table 120-5</b> <b>Institutional Development Standards [1]</b> Development standards for Institutional Campuses with Impact Mitigation Plans located in the IR zone are given on Table 120-3.	
Minimum Site Area for New Uses	[No change]
Maximum Floor Area Ratio [2]	
Maximum Height [3]	
Minimum Building Setbacks [2,6]	None 25 ft 10 ft.
Maximum Building Setback	
Street Lot Line	
Transit Street or Pedestrian District [6]	[No change]
Maximum Building Coverage [2]	
Minimum Landscaped Area [2,4]	
Buffering from Abutting Residential Zone [5]	
Buffering Across a Street from a Residential Zone [5]	
Setbacks for All Detached Accessory Structures Except Fences	
Parking and Loading	
Signs	

Notes:

[1] – [5] [No change]

[6] Setbacks from street lot lines are measured from the lot line. Setbacks from Transit Streets or streets in Pedestrian Districts are measured from the curb. See 33.120.275.C.2



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**AMEND CHAPTER 33.130, COMMERCIAL ZONES****33.130.030 Characteristics of the Zones**

- A.** [No change]
- B. Neighborhood Commercial 2 zone.** The Neighborhood Commercial 2 (CN2) zone is. . . Development is expected to be predominantly auto accommodating, except where the site is adjacent to a transit street or in a Pedestrian District. . . .
- C. Office Commercial 1 zone.** The Office Commercial 1 (CO1) zone is . . .  
Development should be oriented to pedestrians along transit streets and in Pedestrian Districts.
- D. Office Commercial 2 zone.** The Office Commercial 2 (CO2) zone is a low and medium intensity office zone generally located on ~~for~~ Major City Traffic Streets as designated by the ~~Arterial Streets Classification Policy~~ Transportation Element of the Comprehensive Plan. Uses are limited to those in the Office category and may have a local or regional emphasis. The zone is intended to prevent the appearance of strip commercial development by allowing office uses but not other commercial uses. Commercial uses are also restricted to limit detrimental impacts on nearby residential areas. Development is expected to be generally somewhat auto-accommodating, ~~except w~~Where the site is adjacent to a transit street or in a Pedestrian District, development should be oriented to pedestrians. The development standards allow for more intense development than in the CO1 zone, but not so intense as the CG zone.
- E - F.** [No change]
- G. General Commercial zone.** The General Commercial (CG) zone is . . .  
Development is expected to be generally auto-accommodating, except where the site is adjacent to a transit street or in a Pedestrian District. . .

**Commentary****Table 130-3 Development Standards**

Table 130-3 is being amended to remove the [8] footnote from the Minimum Building Setbacks since minimum transit setbacks are being deleted. The Pedestrian Design Guide and Title 17 implement wider sidewalks when property develops or redevelops, removing the need for a minimum setback from the curb. The maximum transit setback is being added to this table since a separate table is no longer needed.

**Table 130-5 Street Setbacks from Transit Streets and Streets in Pedestrian Districts in the CN, CO, CG, and CX zones**

The minimum setback is being deleted because its intent is being carried out through application of the Pedestrian Design Guide sidewalk standards.

Table 130-3 Development Standards [1]								
Standard	CN1	CN2	CO1	CO2	CM	CS	CG	CX
Maximum FAR [2] (see 33.130.205)	[No change]							
Maximum Height (see 33.130.210)								
Min. Building Stbks (see 33.130.215) Street Lot Line[8]	0[8]	10 ft.[8]	10 ft.[8]	10 ft.[8]	0	0	5 ft.[8]	0[8]
Lot Line Abutting an OS, RX, C, E, or I Zone Lot	[No change]							
Lot Line Abutting other R Zoned Lot [9 8]								
Max. Building Stbks (see 33.130.215) Street Lot Line[8] Transit Street or Pedestrian District	None[8] 10 ft.	None[8] 10 ft.	None[8] 10 ft.	None[8] 10 ft.	10 ft. [5]	10 ft. [5]	None[8] 10 ft.	None[8] 10 ft.
Building Coverage (see 33.130.220)	[No change]							
Min. Landscaped Area (see 33.130.225)								
Landscaping Abutting an R Zoned Lot [6] (see 33.130.215.B.)								
Ground Floor Window Stds. Apply (see 33.130.230)								
Pedestrian Requirements (see 33.130.240)								
Required parking [7]								

Notes:

[1] to [7] [No change]

[8] Setbacks from Transit Streets or streets in Pedestrian Districts are stated in Table 130-5.

[9 8] [No change]

Table 130-5 Street Setbacks from Transit Streets and Streets in Pedestrian Districts in the CN, CO, CG, and CX zones [1]	
Minimum Setback	15 ft. [2]
Maximum Setback	25 ft. [2] 10 ft.

Notes:

[1] Setbacks in this table do not apply in CM and CS zones. Refer to Table 130-3.

[2] Setbacks in this table are measured from the curb. See 33.130.215.

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**Commentary****33.130.215 Setbacks****B. Building setback standard.**

Table 130-5 is being deleted so the reference to the table is also being removed.

1. Transit setbacks will now be measured from the street lot line, eliminating the need for a reference to a different measuring standard. This section is no longer needed so it is being deleted.
  
1. (new)The transit street and pedestrian street setbacks adopted in 1996 included an incorrect reference that caused confusion to staff, developers, and the public. The commentary adopted with the 1996 amendments states that the intent of the maximum setbacks is to create areas "where the general public is welcomed and encouraged." Where there are multiple transit street frontages, the original regulations allowed an applicant to choose which transit street to orient a building to. The new language clarifies that the transit street with has the highest transit classification must be chosen because, in some cases, transit service may not be present on lower-classified transit streets. The result could be buildings that orient to streets with less pedestrian activity.

The original regulations also allowed an applicant to have parking at a corner in some zones, even when the intersecting streets were both transit streets. The intent of the changes is to 'create a corner' with building facades. Parking to the side or rear of buildings ensures that the pedestrian environment is not dominated by parking.

- a. Measurement.
  - (1) is being deleted because it is a purpose statement. The purpose for the transit setbacks is stated in 33.130.215.A.
  - (2) and (3) are being deleted because measuring from the curb (or street lot line when there was no curb) created confusion for applicants and staff. The curb line may not be parallel to the property line or the location of the curb line may not be known at the time of application for permits.
  - (5) is being amended to reference a new figure, Figure 130-4.

**33.130.215 Setbacks**

A. [No change]

**B. Building setback standard.** The required minimum and maximum building setbacks, if any, are stated in Table 130-3. ~~However, the minimum and maximum setbacks along transit streets or in Pedestrian Districts are stated in Table 130-5.~~ The setback standards apply to all buildings and structures on the site except as specified in this section. Setbacks for exterior development are stated in 33.130.245 below, and for parking areas in Chapter 33.266.

~~1. Setbacks from the lot line. Except for setbacks from a transit street, or from any street in a Pedestrian District, setbacks are measured from the lot line.~~

2 1. Building setbacks on a transit street or in a Pedestrian District. The maximum setback standards of this subparagraph ~~B.2.b, below,~~ applies to buildings that are enclosed on all sides. ~~The minimum setback standard of Table 130-5 applies to buildings and structures.~~ These setback standards apply to all zones outside the Central City plan district. Inside the Central City plan district, ~~this~~ these standards applies to all zones except the CX zone. The maximum building setbacks on a transit street or in a Pedestrian District are as follows:

a. Measurement

~~(1) To ensure that the environment near automobile travel lanes is inviting to pedestrians, setbacks from a transit street or from any street in a Pedestrian District are measured from the curb.~~

~~(2) Where there is no curb, the setback is measured from the lot line, and both the minimum and maximum setbacks are reduced by 6 feet.~~

~~(3) Where the distance between the street lot line and the curb is more than 25 feet, the maximum setback is zero.~~

~~(4)~~ (1) Where an existing building that meets the standards of this paragraph is being altered, the standards applies to the ground level, street-facing façade of the entire building. ~~Where the existing building does not meet the standard of this paragraph, see Section 33.258.070.C. See Figures 130-1 and 130-2.~~

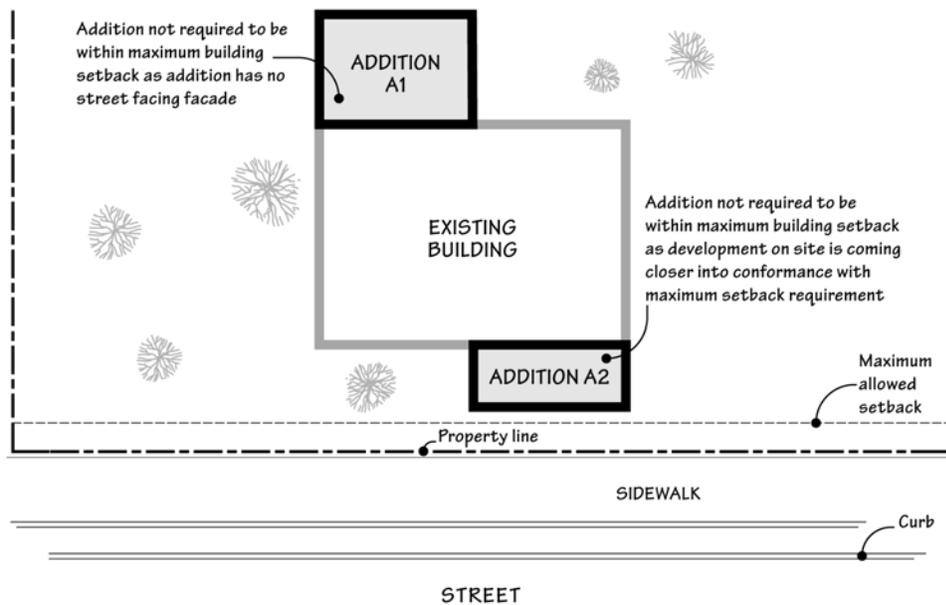
~~(5)~~ (2) Where there is more than one building on the site, the standards of this paragraph applies to the combined ground level, street-facing facades of all of the buildings. ~~Where existing buildings do not meet the standard of this paragraph, see Section 33.258.070.C. See Figures 130-3 and 130-4.~~

~~(6)~~ (3) [No change]

Commentary

**Figure 130-2 Alterations to Existing Building**

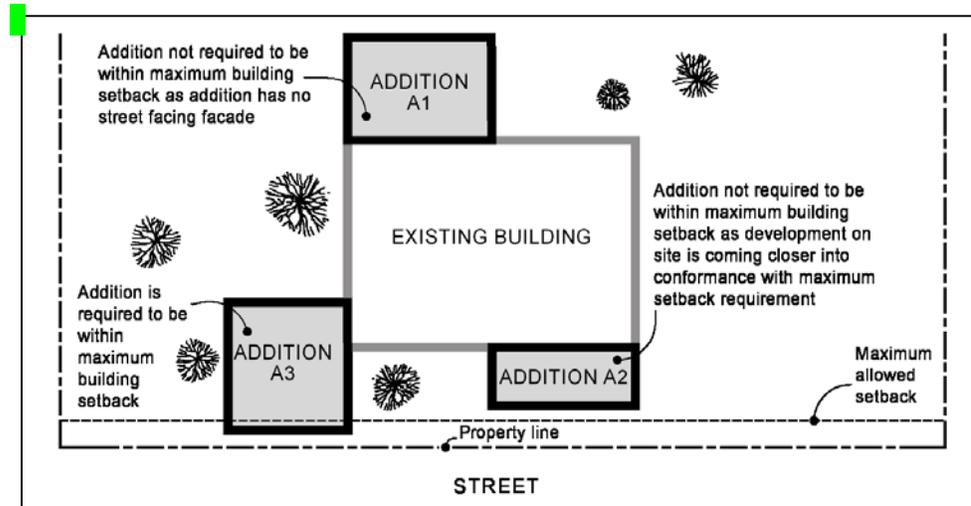
Figure 130-2 is being revised to show that additions that are next to (rather than in front of or behind) an existing building must meet the maximum setback for 100 percent of its street facing façade until the total building façade (existing and addition) meet the 50 percent standard. The existing figure is shown below. Addition 3 shows the situation where an addition creates additional street frontage. In that case, the addition must meet the maximum transit setback for its entire length. Once the overall street frontage meets the applicable standard - 1 or 2



The notes inside the figure and the Notes below the figure are being revised to eliminate redundancy. The notes inside the figure tell whether or not the maximum transit setback applies. The Notes below the figure explain why the maximum transit setback applies in each situation.

**Delete existing Figure 130-2 and replace with new Figure.**

**Figure 130-2**  
**Alterations to Existing Building**



**Notes:** (These notes should be below the graphic, in 9 pt.)

**Addition A1.** Not subject to maximum setback standard because addition has no street facing facade.

**Addition A2.** Brings building closer to conformance with maximum setback standard because it does not increase the length of the street-facing facade, and it brings building closer to maximum building setback line.

**Addition A3.** Because addition increases length of street-facing facade, 100 percent of addition facade must be within maximum setback until maximum setback standard for entire building is met.

**Changes to the notes inside the graphic:**

**A1: Addition not required to be within maximum building setback**

**A2: Addition not required to be within maximum building setback**

**A3: Addition required to be within maximum building setback**

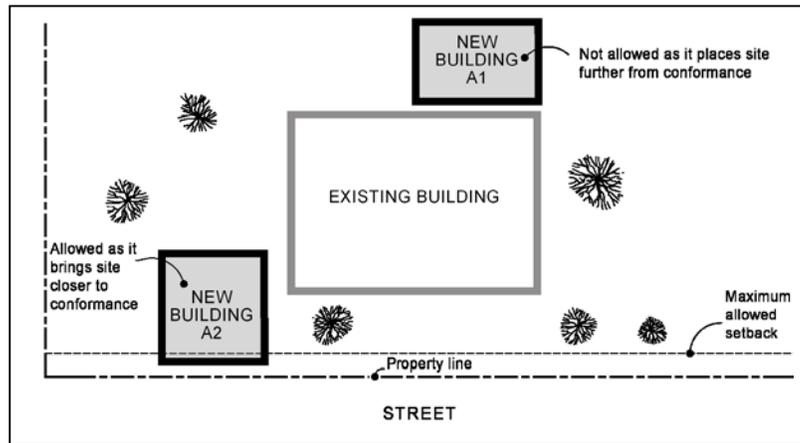
**Commentary****Figure 130-4 New Buildings on Sites with Buildings That Do Not Meet the Maximum Building Setback Standard**

Figure 130-4 is a new figure that illustrates a situation where the maximum building setback standard is not being met by new building B1 but is being met by new building B2. The intent of the regulations is to place new buildings on a site in conformance with the maximum building setback standard. Until the maximum building setback standard is met for all buildings on the site as shown in Figure 130-3, all new building facades must be within the maximum building setback.

The notes inside the figure and the Notes below the figure are being revised to eliminate redundancy. The notes inside the figure tell whether the location of a new building is allowed or not allowed. The Notes below the figure explain why the building location is allowed or not allowed.

**New Figure 130-4**  
**Renumber existing Figures 130-4 through 130-11 to 130-5 through 130-12, and**  
**change references to the figures.**

**Figure 130-4**  
**New Buildings on Sites with Buildings That Do Not Meet the**  
**Maximum Building Setback**



**Notes: (These notes should be below the graphic, in 9 pt.)**

**New Building B1.** Not allowed because it moves site further out of conformance with maximum setback standard.

**New Building B2.** Because building increases length of combined street-facing façade on the site, 100 percent of building façade must be within maximum setback until maximum setback standard for site is met.

**Changes to the notes inside the graphic:**  
**Buildings become “New Building B1” or B2**  
**B1: Not allowed**  
**B2: Allowed**

**Commentary**

- b. Standards. There are two standards now instead of one. Standard 1 is the original standard. Standard 2 is applied to the transit street with the highest classification. The intent is to 'create a corner' by requiring all of one building frontage and half of the other to meet the maximum transit setback. The result is that most buildings will orient to the corner of the intersecting streets in order to meet the standards.
  
- c. Outside a Pedestrian District. The new name for this subsection clarifies that there are two sets of requirements, one for development inside Pedestrian Districts and another set outside of Pedestrian Districts. City Walkways are streets that provide pedestrian access to transit or other destinations in a neighborhood. Applying Standard 1 to a City Walkway that intersects a transit street creates a more attractive pedestrian environment in areas with significant pedestrian activity.

- ~~b. Standard. At least 50 percent of the length of the ground level street facing facade of the building must be within the maximum setback. Except as provided in Subsection D, below, no structures are allowed within the minimum setback.~~
- ~~e. Frontage on one transit street. Where the site is adjacent to one transit street, the standard of Subparagraph B.2.b, above must be met on the transit street frontage.~~
- ~~d. Frontage on more than one transit street. Where the site is adjacent to more than one transit street, the following standards apply.~~
- ~~(1) If two or more of the transit streets intersect, the standard of Subparagraph B.2.b, above, must be met along two of the intersecting transit streets but does not have to be met along others; the applicant may choose which intersection; and~~
- ~~(2) If none of the transit streets intersect, the standard of Subparagraph B.2.b, above, must be met along one of the transit streets; the applicant may choose which street.~~
- ~~e. In a Pedestrian District. Where the site is in a Pedestrian District:~~
- ~~(1) If the site is adjacent to one or more transit streets, the regulations of Subparagraph B.2.d, above, apply.~~
- ~~(2) If the site is not adjacent to any transit street, it will be regulated as if all streets adjacent to the site are transit streets, and the regulations of Subparagraph B.2.d, above, apply.~~
- b. Standards. There are two standards. Subparagraphs B.2.c and d specify where each standard applies:
- (1) Standard 1: At least 50 percent of the length of the ground level street facing facade of the building must be within the maximum setback;
- (2) Standard 2: 100 percent of the length of the ground level street facing facade of the building must be within the maximum setback.
- c. Outside a Pedestrian District. Where the site is not in a Pedestrian District:
- (1) One transit street. Where the site is adjacent to one transit street, the standard of Standard 1 must be met on the transit street frontage;
- (2) Two non-intersecting transit streets. Where the site is adjacent to two transit streets that do not intersect:
- Standard 1 must be met on the frontage of the transit street with the highest classification. If both streets have the same classification, the applicant may choose which street;

**Commentary**

- (3) By having Standard 1 apply on one transit street and Standard 2 apply on an intersecting transit street, a building will generally 'create a corner' with parking to the side or rear of the building.
- d. In a Pedestrian District. Deleted language is not clear as both subparagraphs refer to the same standard. The intent is to always orient to two intersecting streets when a site has more than one street frontage. New language clarifies this intent and ensures that buildings will orient to the transit street with the highest classification. Generally, this will result in buildings orienting to a street that has high-quality transit service and the highest level of pedestrian activity. For sites that have intersecting street frontages, buildings will orient to a corner, even when none of the streets are transit streets.

- If one of the transit streets intersects a City Walkway, Standard 1 must be met along both the street with the highest transit classification and the City Walkway;
- (3) Two or more intersecting transit streets. Where the site is adjacent to two or more intersecting transit streets, Standard 2 must be met on the frontage of the street with the highest transit classification and Standard 1 must be met on an intersecting transit street. If two streets have the same, highest transit classification, the applicant may choose on which street to meet the standard.
- d. In a Pedestrian District. Where the site is in a Pedestrian District:
- (1) One street. Where the site is adjacent to only one street, Standard 1 must be met on that street frontage;
- (2) One transit street and one non-intersecting non-transit street. Where the site is adjacent to one transit street and one non-intersecting non-transit street Standard 1 must be met on the frontage of the transit street;
- (3) Through lot with two transit streets. Where the site is a through lot and both frontages are on transit streets, Standard 1 must be met on the frontage of the street with the highest transit classification. If both streets have the same highest classification, the applicant may choose on which street to meet the standard;
- (4) Through lot with no transit streets. Where the site is a through lot and neither frontage is on a transit street, Standard 1 must be met on the frontage of one of the frontages. The applicant may choose on which street to meet the standard;
- (5) Two or more intersecting transit streets. Where the site is adjacent to two or more intersecting transit streets, the following standards must be met on the frontage of the street with the highest transit classification and any intersecting transit street:
- Standard 2 must be met on the frontage of the street with the highest transit classification. If both transit streets have the same highest classification, the applicant may choose on which street to meet the standard; and
  - Standard 1 must be met on an intersecting transit street.

**Commentary****C. Alternative maximum setback for large retailers.**

1. Purpose. The purpose is being expanded to address connectivity needs.

2. Regulation.

b. Internal circulation system.

(3) Two options are available with the changes. One option would have planting strips and trees between the curb and sidewalk and the other alternative allows 10-foot sidewalks with trees in tree wells consistent with RTP requirements for large parking lots. Both of these options would be consistent with the RTP requirements for parking areas that exceed three acres in size.

- (6) Three or more frontages, two non-intersecting transit streets. Where the site has three or more frontages, and two of them are transit streets that do not intersect, the following standards must be met on the frontage of the street with the highest transit classification and one intersecting street:
- Standard 2 must be met on the frontage of the street with the highest transit classification. If both transit streets have the same highest classification, the applicant may choose on which street to meet the standard; and
  - Standard 1 must be met on an intersecting street.
- (7) Two or more frontages, no transit streets, two or more intersecting streets. Where the site has two or more frontages, none of them are transit streets, and two or more of the streets intersect, the following standards must be met on the frontage of one street and one intersecting street:
- Standard 2 must be met on the frontage of one street; and
  - Standard 1 must be met on an intersecting street.

Renumber Paragraphs 3. and 4. to 2. and 3.

**C. Alternative maximum setback option for large retailers.**

1. Purpose. . . . The intent is to encourage development that will, over time, form a pedestrian-friendly main street along the perimeter of the parking blocks and provide connectivity within the site and to adjacent streets and uses.
2. Regulation. Buildings with at least 100,000 square feet of floor area in Retail Sales And Service uses are exempt from the maximum setback requirement of Table 130-5 3 if all of the following are met.
  - a. . . . For sites with frontage on more than one transit street or in a ~~p~~Pedestrian dDistrict , the regulations of Subparagraphs ~~B.2.d.~~ B.2.c. and ~~B.2.e.~~ B.2.d. above, apply. . .
  - b. Internal circulation system. [No change]
    - (1) – (2) [No change]
    - (3) Each internal accessway must have at least one auto travel lane, curbs, and unobstructed sidewalks on both sides at least 10 feet wide. One of the following must be met:
      - The sidewalks must be at least 10 feet wide and planted with trees a maximum of 30 feet on center. Trees must be planted in the center of unpaved tree wells at least 18 square feet, with a minimum dimension of 3 feet. The unpaved area may be covered with a tree grate. Tree wells must be adjacent to the curb, and

Commentary

**33.130.230 Ground Floor Windows**

- B. Minor wording change to enhance clarity.

**33.130.240 Pedestrian Standards**

- B.4. Areas between the building and a street. The pedestrian standards apply to all commercial zones, not just those listed under C.

must be located so that there is at least 6 feet of unobstructed sidewalk; or

- The sidewalks must be at least 6 feet wide. There must be a planting strip at least 4 feet wide. The planting strip must be between the curb and the sidewalk, and be landscaped to at least the L1 standard, except that trees cannot be grouped.

(4) - [5] [No change]

(6) The internal accessways are excluded from the portion of the parking and loading area used to calculate required interior landscaping.

c. [No change]

### 33.130.230 Ground Floor Windows

A. [No change]

#### B. Required amounts of window area.

1. In CN1 & 2, CO1 & 2, CM, CS, and CG zones, exterior walls on the ground level which are 20 feet or closer to the street lot line must meet the general window standard in Paragraph 3. below. However, on lots with more than one street frontage, the general standard must be met on one street frontage only. The general standard must be met on the frontage of the street that has the highest transit street classification according to the ~~Arterial Streets Classifications and Policies~~ the Transportation Element of the Comprehensive Plan. If two or more streets have the same highest transit street classification, then the applicant may choose on which street to meet the general standard. On ~~the~~ all other streets, the requirement is 1/2 of the general standard.

2. - 3. [No change]

### 33.130.240 Pedestrian Standards

A. – [No change]

B. The standards. [No change]

1. – 3. [No change]

4. Area between a building and a street lot line.

- ~~C. CN1, CO1, CM, and CG zones.~~ In the CN1, CO1, CM, and CG zones, ~~the~~ the land between a building and a street lot line must be landscaped to at least the L1 level and/or hard-surfaced for use by pedestrians. This area may be counted towards any minimum landscaped area requirements. Vehicle areas and exterior display, storage, and work activities, if allowed, are exempt from this standard.

## Commentary

**33.130.242 Transit Street Main Entrance**

- C. **Location.** For buildings with multiple tenants, each tenant space within the maximum setback must have a main entrance that meets the standard.

**33.130.260 Drive-Through Facilities**

- C. and D. are being reorganized for ease of reading from the April staff recommendation. There is no content change from that draft.
- D. **CX zone.** The CX zone is applied in areas that are intended for intense, pedestrian-oriented areas of the City, including regional and town centers. Drive-through facilities interrupt the pedestrian environment and encourage auto-oriented development inconsistent with the desired character of the area. Drive-through facilities are allowed in some districts of the Central City, such as the Central Eastside, that are more auto-oriented.

**33.130.242 Transit Street Main Entrance**

- A. Purpose.** Locating the main entrance to a building use on a transit street provides convenient pedestrian access between the building use and public sidewalks and transit facilities, and so promotes walking and the use of transit.
- B. Applicability.** [No change]
- C. Location.** A For portions of a building within the maximum building setback, at least one main entrance for each tenant space must:
1. – 3. [No change]
- D.** [No change]

**33.130.260 Drive-Through Facilities**

[No change]

- A.** [No change]
- B. CN2 zone.** In the CN2 zone, drive-through facilities are allowed on sites that are adjacent to a Major City Traffic Street or District Collector as designated by the Arterial Streets Classification Policy Transportation Element of the Comprehensive Plan. On corner sites, they are allowed if at least one of the streets is a Major City Traffic Street or District Collector. On all other streets they are prohibited.
- ~~D~~ C. CN1, CO1, CO2, CM, and CS zones.** Drive-through facilities are prohibited in the CN1, CO1, CO2, CM and CS zones.
- ~~C~~ D. CX zone.**
1. Outside of the Central City plan district. Outside of the Central City plan district, drive-through facilities are prohibited in the CX zone;
  2. In the Central City plan district. In the Central City plan district, dDrive-through facilities are allowed in the CX zone but are prohibited in certain subdistricts of the Central City plan district.

**Commentary****Table 140-3 Development Standards**

Table 140-3 is being amended to remove the [4] footnote from the Minimum Building Setbacks cells since minimum transit setbacks are being deleted. The Pedestrian Design Guide and Title 17 implement wider sidewalks when property develops or redevelops, removing the need for a minimum setback from the curb.

**Table 140-5 Street Setbacks from Transit Streets and Streets in Pedestrian Districts in the EG1 and EX zones**

This table is being deleted because the maximum transit setback is being added to Table 140-4. The minimum transit setback is being deleted because its intent is being carried out through application of the Pedestrian Design Guide sidewalk standards.

**AMEND CHAPTER 33.140 EMPLOYMENT AND INDUSTRIAL ZONES**

<b>Table 140-3 Development Standards [1]</b>						
Standard	<b>EG1</b>	<b>EG2</b>	<b>EX</b>	<b>IG1</b>	<b>IG2</b>	<b>IH</b>
Maximum FAR (see 33.140.205)	[No change]					
Maximum Height (see 33.140.210)	[No change]					
Min. Building Setbacks (see 33.140.215) --Street lot line[4]	5 ft. [4]	25 ft.	0 [4]	0	25 ft.	5 ft.
- Lot line abutting an OS, C, E, or I zoned lot	[No change]					
- Lot line abutting an R zoned lot [5 4]	[No change]					
<u>Max. Building Stbks (see 33.140.215)</u> <u>Transit Street or Pedestrian District</u>	<u>10 ft.</u>	<u>None</u>	<u>10 ft.</u>	<u>None</u>	<u>None</u>	<u>None</u>
Maximum Building Coverage (see 33.140.220)	[No change]					
Min. Landscaped Area (see 140.225)	[No change]					
Ground Floor Window Standards apply (see 33.140.230)	[No change]					
Pedestrian Standards Apply (see 33.140.240)	[No change]					
Min. Landscaping Abutting an R zoned lot (see 33.140.215.B.)	[No change]					

Notes:

[1] - [3] [No change]

[4] In the EG1 and EX zones, minimum and maximum setbacks from Transit Streets or streets in Pedestrian Districts are stated in Table 140-6

[5] No setbacks are required from an internal lot line that is also a zoning line on sites with split zoning. See 33.140.215.B.3.b.

<b>Table 140-5 Street Setbacks from Transit Streets and Streets in Pedestrian Districts in the EG1 and EX zones [1]</b>	
Minimum Setback	15 ft. [2]
Maximum Setback	25 ft. [2]

Notes:

[1] Setbacks in this table apply only in EG1 and EX zones. Refer to Table 140-3 for setback requirements in other zones.

[2] Setbacks in this table are measured from the curb. See 33.140.215..

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**Commentary****33.140.215 Setbacks****B. Building setback standard.**

1. Setbacks on transit streets and in Pedestrian Districts will be measured from the lot line rather than the curb so the deleted language is no longer needed.
2. The transit street and pedestrian street setbacks adopted in 1996 included an incorrect reference that caused confusion to staff, developers, and the public. The commentary adopted with the 1996 amendments states that the intent of the maximum setbacks is to create areas "where the general public is welcomed and encouraged." Where there are multiple transit street frontages, the original regulations allowed an applicant to choose which transit street to orient a building to. The new language clarifies that the transit street with has the highest transit classification must be chosen because, in some cases, transit service may not be present on lower-classified transit streets. The result could be buildings that orient to streets with less pedestrian activity.

The original regulations also allowed an applicant to have parking at a corner in some cases, even when the intersecting streets were both transit streets. The intent of the changes is to 'create a corner' with building facades. Parking to the side or rear of buildings ensures that the pedestrian environment is not dominated by parking.

The phrase relating to buildings that are enclosed on all sides is needed because, as previously worded, unenclosed buildings, such as transit shelters could be used to meet the standard. The intent is to place buildings where people live, shop or work near the sidewalk to encourage transit use.

- a. Measurement.
  - (1) is being deleted because it is a purpose statement. The purpose for the transit setbacks is stated in 33.130.215.A.
  - (2)and (3) are being deleted because measuring from the curb (or street lot line when there was no curb) created confusion for applicants and staff. The curb line may not be parallel to the property line or the location of the curb line may not be known at the time of application for permits.
  - (5) (the new 2) is being amended to reference a new figure, Figure 140-4.

**33.140.215 Setbacks**

A. [No change]

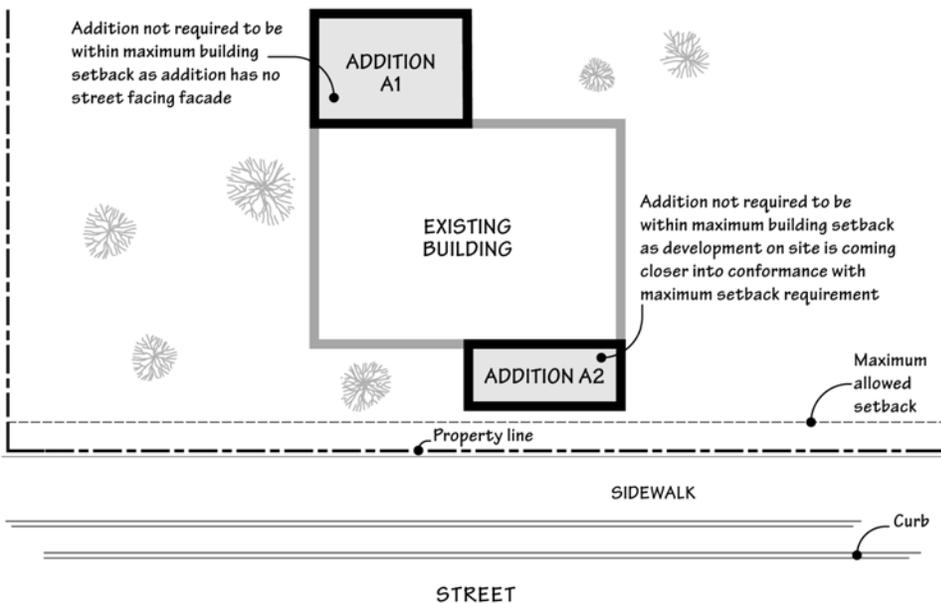
**B. The setback standards.** The required building setbacks are stated in Table 140-3. ~~However, the minimum and maximum setbacks for sites in the EG1 and EX zones that abut a transit street or a street in the Pedestrian District are stated in Table 140-5.~~ The setback standards apply to all buildings and structures on the site except as specified in this section. The building setback standards of plan districts supersede the setback standards of this chapter. Setbacks for exterior development are stated in 33.140.245 below, and for parking areas in Chapter 33.266.

1. ~~Setbacks from the lot line. Except for setbacks from a transit street, or from any street in a Pedestrian District,~~ Setbacks are measured from the lot line.
2. Building setbacks on a transit street or in a Pedestrian District. The maximum setback standards of ~~sub this paragraph B.2.b, below,~~ applies to buildings ~~that are enclosed on all sides. The minimum setback standard of Table 140-4 applies to buildings and structures.~~ These setback standards apply to the EG1 and EX zones. Except as provided in Subsection C. below, the building setbacks on a transit street or in a Pedestrian District are as follows:
  - a. Measurement.
    - (1) ~~To ensure that the environment near automobile travel lanes is inviting to pedestrians, setbacks from a transit street or from any street in a Pedestrian District are measured from the curb.~~
    - (2) ~~Where there is no curb, the setback is measured from the lot line, and both the minimum and maximum setbacks are reduced by 6 feet.~~
    - (3) ~~Where the distance between the street lot line and the curb is more than 25 feet, the maximum setback is zero.~~
    - (4)[1] ~~Where an existing building that meets the standards of this paragraph is being altered, the standards of this paragraph applies to the ground level, street-facing façade of the entire building. Where the existing building does not meet the standard of this paragraph, see Section 33.258.070.C. See Figures 140-1 and 140-2.~~
    - (5)[2] ~~Where there is more than one building on the site, the standards of this paragraph applies to the combined ground level, street-facing facades of all of the buildings on the site. Where existing buildings do not meet the standard of this paragraph, see Section 33.258.070.C. See Figures 140-3 and 140-4.~~
    - (6)[3] [No change]

Commentary

**Figure 140-2 Alterations to Existing Building**

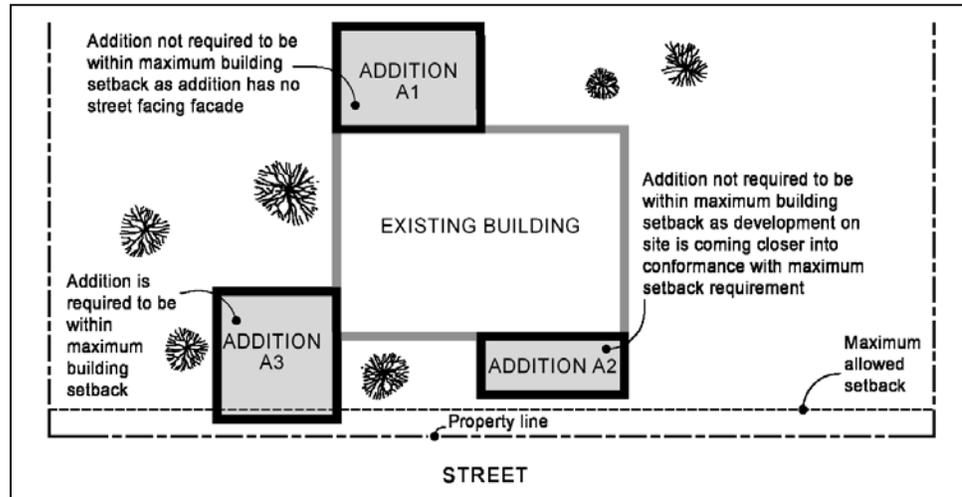
Figure 140-2 is being revised to show that additions that are next to (rather than in front of or behind an existing building) must meet the maximum setback for 100 percent of its street facing façade until the total building façade (existing and addition) meet the 50 percent standard. The existing figure is shown below. Addition 3 shows the situation where an addition creates additional street frontage. In that case, the addition must meet the maximum transit setback for its entire length. Once the overall street frontage meets the applicable standard - 1 or 2



The notes inside the figure and the Notes below the figure are being revised. The notes inside the figure tell whether an addition is required to be within the maximum transit setback. The Notes below the figure explain why the addition is required to be within the setback.

Delete existing Figure 140-2 and replace with new Figure.

**Figure 140-2**  
**Alterations to Existing Building**



**Notes:** (These notes should be below the graphic, in 9 pt.)

**Addition A1.** Not subject to maximum setback standard because addition has no street facing facade.

**Addition A2.** Brings building closer to conformance with maximum setback standard because it does not increase the length of the street-facing facade, and it brings building closer to maximum building setback line.

**Addition A3.** Because addition increases length of street-facing facade, 100 percent of addition facade must be within maximum setback until maximum setback standard for entire building is met.

**Changes to the notes inside the graphic:**

**A1:** Addition not required to be within maximum building setback

**A2:** Addition not required to be within maximum building setback

**A3:** Addition required to be within maximum building setback

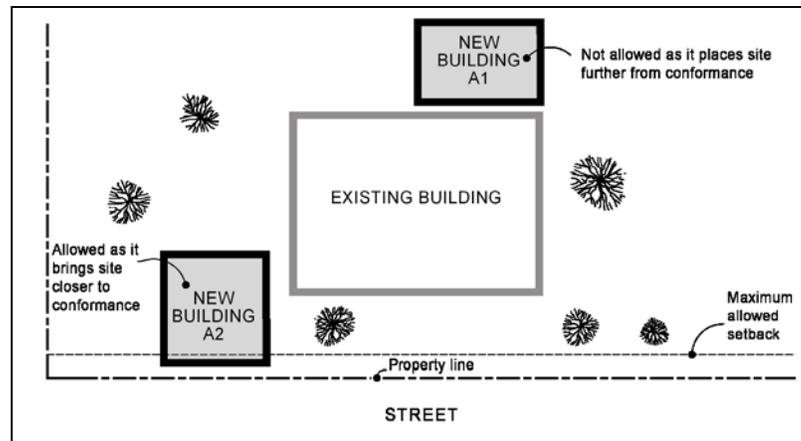
**Commentary****Figure 140-4 New Buildings on Sites with Buildings That Do Not Meet the Maximum Building Setback Standard**

Figure 140-4 is a new figure that illustrates a situation where the maximum building setback standard is not being met by new building A1 but is being met by new building A2. The intent of the regulations is to place new buildings on a site in conformance with the maximum building setback standard. Until the maximum building setback standard is met for all buildings on the site as shown in Figure 140-3, all new building facades must be within the maximum building setback.

The notes have been revised from the April staff recommendation to eliminate redundancy. The notes within the figure tell whether or not a new location is allowed or not. The Notes below the figure explain why the building location is allowed or not.

**New Figure 140-4**  
 Renumber existing Figures 140-4 through 140-11 to 140-5 through 140-12, and  
 change references to the figures.

**Figure 140-4**  
**New Buildings on Sites with Buildings That Do Not Meet the**  
**Maximum Building Setback**



**Notes: (These notes should be below the graphic, in 9 pt.)**

**New Building B1.** Not allowed because it moves site further out of conformance with maximum setback standard.

**New Building B2.** Because building increases length of combined street-facing façade on the site, 100 percent of building façade must be within maximum setback until maximum setback standard for site is met.

**Changes to the notes inside the graphic:**  
**Buildings become “New Building B1” or B2**  
**B1: Not allowed**  
**B2: Allowed**

**Commentary**

- b. Standards. There are two standards now instead of one. Standard 1 is the original standard. Standard 2 is applied to the transit street with the highest classification. The intent is to 'create a corner' by requiring all of one building frontage and half of the other to meet the maximum transit setback. The result is that most buildings will orient to the corner of the intersecting streets in order to meet the standards.
  
- c. Outside a Pedestrian District. The new name for this subsection clarifies that there are two sets of requirements, one for development inside Pedestrian Districts and another set outside of Pedestrian Districts. City Walkways are streets that provide pedestrian access to transit or other destinations in a neighborhood. Applying Standard 1 to a City Walkway that intersects a transit street creates a more attractive pedestrian environment in areas with significant pedestrian activity.

- ~~b. Standard. At least 50 percent of the length of the ground level street facing facade of the building must be within the maximum setback. Except as provided in Subsection D, below, no structures are allowed within the minimum setback.~~
- ~~e. Frontage on one transit street. Where the site is adjacent to one transit street, the standard of Subparagraph B.2.b, above must be met on the transit street frontage.~~
- ~~d. Frontage on more than one transit street. Where the site is adjacent to more than one transit street, the following standards apply.~~
- ~~(1) If two or more of the transit streets intersect, the standard of Subparagraph B.2.b, above, must be met along two of the intersecting transit streets but does not have to be met along others; the applicant may choose which intersection; and~~
- ~~(2) If none of the transit streets intersect, the standard of Subparagraph B.2.b, above, must be met along one of the transit streets; the applicant may choose which street.~~
- ~~e. In a Pedestrian District. Where the site is in a Pedestrian District:~~
- ~~(1) If the site is adjacent to one or more transit streets, the regulations of Subparagraph B.2.d, above, apply.~~
- ~~(2) If the site is not adjacent to any transit street, it will be regulated as if all streets adjacent to the site are transit streets, and the regulations of Subparagraph B.2.d, above, apply.~~
- b. Standards. There are two standards. Subparagraphs B.2.c and d specify where each standard applies:
- (1) Standard 1: At least 50 percent of the length of the ground level street facing facade of the building must be within the maximum setback;
- (2) Standard 2: 100 percent of the length of the ground level street facing facade of the building must be within the maximum setback.
- c. Outside a Pedestrian District. Where the site is not in a Pedestrian District:
- (1) One transit street. Where the site is adjacent to one transit street, the standard of Standard 1 must be met on the transit street frontage;

**Commentary**

- (3) By having Standard 1 apply on one transit street and Standard 2 apply on an intersecting transit street, a building will generally 'create a corner' with parking to the side or rear of the building.
- d. In a Pedestrian District. Deleted language is not clear as both subparagraphs refer to the same standard. The intent is to always orient to two intersecting streets when a site has more than one street frontage. New language clarifies this intent and ensures that buildings will orient to the transit street with the highest classification. Generally, this will result in buildings orienting to a street that has high-quality transit service and the highest level of pedestrian activity. For sites that have intersecting street frontages, buildings will orient to a corner, even when none of the streets are transit streets.

- (2) Two non-intersecting transit streets. Where the site is adjacent to two transit streets that do not intersect:
- Standard 1 must be met on the frontage of the transit street with the highest classification. If both streets have the same classification, the applicant may choose which street;
  - If one of the transit streets intersects a City Walkway, Standard 1 must be met along both the transit street with the highest classification and the City Walkway.
- (3) Two or more intersecting transit streets. Where the site is adjacent to two or more intersecting transit streets, Standard 2 must be met on the frontage of the transit street with the highest classification and Standard 1 must be met on an intersecting transit street. If two streets have the same, highest classification, the applicant may choose which street.
- d. In a Pedestrian District. Where the site is in a Pedestrian District:
- (1) One street. Where the site is adjacent to only one street, Standard 1 must be met on that street frontage;
- (2) Through lot with one transit street. Where the site is a through lot and one frontage is a transit street and one is a non-transit street Standard 1 must be met on the frontage of the transit street;
- (3) Through lot with two transit streets. Where the site is a through lot and both frontages are on transit streets, Standard 1 must be met on the frontage of the transit street with the highest classification. If both streets have the same classification, the applicant may choose which street;
- (4) Through lot with no transit streets. Where the site is a through lot and neither frontage is on a transit street, Standard 1 must be met on the frontage of one of the frontages. The applicant may choose on which street to meet the standard;
- (5) Two or more intersecting transit streets. Where the site is adjacent to two or more intersecting transit streets, the following standards must be met on the frontage of the transit street with the highest classification and any intersecting transit street:
- Standard 2 must be met on the frontage of the transit street with the highest classification. If both transit streets have the same classification, the applicant may choose which street; and
  - Standard 1 must be met on an intersecting transit street.

Commentary

(7) The revision clarifies the transit setback for non-transit streets in a Pedestrian District when two or more of the streets intersect.

**C. Alternative maximum setback for large retailers.**

1. Purpose. The purpose is being expanded to address connectivity needs and requirements.

(6) Three or more frontages, two non-intersecting transit streets. Where the site has three or more frontages, and two of them are transit streets that do not intersect, the following standards must be met on the frontage of the transit street with the highest classification and one intersecting street:

- Standard 2 must be met on the frontage of the transit street with the highest classification. If both transit streets have the same classification, the applicant may choose which street; and
- Standard 1 must be met on an intersecting street.

(7) Two or more frontages, no transit streets, two or more intersecting streets. Where the site has two or more frontages, none of them are transit streets, and two or more of the streets intersect, the following standards must be met on the frontage of one street and one intersecting street:

- Standard 2 must be met on the frontage of one street; and
- Standard 1 must be met on an intersecting street.

~~f.e~~ [No change]

3. – 4. [No change]

**C. Alternative maximum setback option for large retailers.**

1. Purpose. The intent of these regulations is to allow deeper street setbacks for very large retail stores locating along transit streets or in Pedestrian Districts in exchange for a pedestrian and transit-friendly main street type of development. These large retail sites can still be transit-supportive and pedestrian-friendly by placing smaller commercial buildings close to the street and by creating an internal circulation system that is similar to streets to separate the parking area into blocks. The intent is to encourage development that will, over time, form a pedestrian-friendly main street along the perimeter of the parking blocks and provide connectivity within the site and to adjacent streets and uses.
2. Regulation. Buildings with at least 100,000 square feet of floor area in Retail Sales and Service uses are exempt from the maximum setback requirement of Table ~~140-5~~ 140-3 if all of the following are met.
  - a. . . . For sites with frontage on more than one transit street or in a ~~p~~Pedestrian ~~d~~District, the regulations of Subparagraphs ~~B.2.d.~~ B.2.c. and ~~B.2.e.~~ B.2.d. above, apply. . .
  - b. Internal circulation system. An internal circulation system that meets the following standards must be provided.

(1) - (2) [No change]

**Commentary**

2. Regulation.
  - b. Internal circulation system.
    - (3) Two options are available with the changes. One option would have planting strips and trees between the curb and sidewalk and the other alternative allows 10-foot sidewalks with trees in tree wells consistent with RTP requirements for large parking lots. Both of these options would be consistent with the RTP requirements for parking areas that exceed three acres in size.

**33.140.240 Pedestrian Standards**

3. Areas between the building and a street. The pedestrian standards apply to all commercial zones, not just those listed under C.

**33.140.242 Transit Street Main Entrance**

- C. **Location.** For buildings with multiple tenants, each tenant space within the maximum setback must have a main entrance that meets the standard.

- (3) Each internal accessway must have at least one auto travel lane, curbs, and unobstructed sidewalks on both sides at least 10 feet wide. One of the following must be met:
- The sidewalks must be at least 10 feet wide and planted with trees a maximum of 30 feet on center. Trees must be planted in the center of unpaved tree wells at least 18 square feet, with a minimum dimension of 3 feet. The unpaved area may be covered with a tree grate. Tree wells must be adjacent to the curb, and must be located so that there is at least 6 feet of unobstructed sidewalk; or
  - The sidewalks must be at least 6 feet wide. There must be a planting strip at least 4 feet wide. The planting strip must be between the curb and the sidewalk, and be landscaped to at least the L1 standard except that trees cannot be grouped.
- (4) - (5) [No change]
- (6) The internal accessways are excluded from the portion of the parking and loading area used to calculate required interior landscaping.
- c. [No change]

### 33.140.240 Pedestrian Standards

- A. [No change]
- B. **The standards.** [No change]
1. - 3. [No change]
4. EG1 and EX zones. The land between a building and a street lot line must be landscaped to at least the L1 level and/or hard-surfaced for use by pedestrians. This area may be counted towards any minimum landscaped area requirements. Vehicle areas and exterior display, storage, and work activities, if allowed, are exempt from this standard.

### 33.140.242 Transit Street Main Entrance

- A. **Purpose.** Locating the main entrance to a building use on a transit street provides convenient pedestrian access between the building use and public sidewalks and transit facilities, and so promotes walking and the use of transit.
- B. **Applicability.** [No change]
- C. **Location.** A For the portion of buildings that conform to the maximum building setback, at least one main entrance for each tenant space facing the transit street must:
1. - 3. [No change]
- D. [No change]

**Commentary****33.140.255 Drive-Through Facilities**

Allowing drive-through facilities in the EX zone is not consistent with the character that is evolving in EX-zoned areas of the City. Large parts of the River District, the Lents town center, and northwest Portland are zoned EX and are developing with dense mix of residential and retail uses which are allowed by right.

**33.218.140 Standards for All Structures in the RH, RX, C and E Zones****B. Improvements between buildings and pedestrian oriented streets.**

- a. Terms are being changed to be consistent with the Transportation Element.

**33.218.150 Standards for I Zones**

- D. **Pedestrian standards.** Terms are being changed to be consistent with the Transportation Element.

**33.224.030 Setbacks and Landscaping**

- C. This change clarifies that drive-through facilities are also regulated by Chapter 33.266 as it relates to where vehicle areas are allowed in each zone.

**33.140.255 Drive-Through Facilities**

Drive-through facilities are allowed in the zones which are intended for auto accommodating development. They are not consistent with or supportive of areas where the desired character is pedestrian-oriented development. ~~Drive-through facilities are allowed in all of the E and I zones.~~ The standards for drive-through facilities are stated in Chapter 33.224, drive-Through Facilities.

**A. EG and I zones.** Drive-through facilities are allowed in the EG and I zones.

**B. EX zone.** Drive-through facilities are prohibited in the EX zone.

### AMEND CHAPTER 33.218, COMMUNITY DESIGN STANDARDS

**33.218.140 Standards for All Structures in the RH, RX, C and E Zones**

**A.** [No change]

**B. Improvements between buildings and pedestrian oriented streets.**

1. [No change]

- a. A building wall that faces a transit street or City Walkway, or is in a Pedestrian District may be set back no more than 10 feet from the street lot line. Where the site has two frontages that are on a transit street or ~~Pedestrian Path~~ City Walkway, or is in a Pedestrian District, this standard must be met on both frontages. Where there are more than two such frontages, this standard must be met on any two frontages;

b. - c. [No change]

**C. – O.** [No change]

**33.218.150 Standards for I Zones**

**A. – D.** [No change]

**E. Pedestrian standards.** Buildings that include any non-residential uses and are on a transit street, ~~Transitway~~ or ~~Pedestrian Path~~ City Walkway, or within a Pedestrian District must meet the pedestrian standards of the Employment Zones.

### AMEND CHAPTER 33.224, DRIVE-THROUGH FACILITIES

**33.224.030 Setbacks and Landscaping**

**A. – B.** [No change]

**C. Abutting a street.** ~~§~~ Where allowed by Chapter 33.266, Parking and Loading, service areas and stacking lanes must be set back 5 feet from all street lot lines. The setback must be landscaped to at least the L2 standard.

**Commentary****33.251.030 F. Vehicle and pedestrian circulation and parking.**

Internal circulation and the location of parking can affect the pedestrian circulation system. The convenience and safety of the pedestrian realm can affect the likelihood of people walking rather than driving. The Office of Transportation wants to ensure that connectivity standards in Title 17 are being met.

**33.251.030 F. 2. Pedestrian Circulation.**

This is a new section in Chapter 33.251 to address the need for a on-site pedestrian circulation system that addresses the needs of residents to move within and between the manufactured home or mobile home park and adjacent uses. The standards for the system are consistent with other parts of Title 33 that regulation pedestrian circulation.

**AMEND CHAPTER 33.251, MANUFACTURED HOMES AND MOBILE HOME PARKS****33.251.030 Mobile Home Park Regulations**

**A. – E.** [No change]

**F. ~~Parking and~~ Vehicle and pedestrian circulation and parking.**

1. Vehicle circulation. Access and circulation within the mobile home park may be provided by streets, public or private, or driveways. Access must be provided to each space. All private streets and driveways which serve two or more mobile home spaces in mobile home parks must be a minimum of 20 feet in width or 30 feet if parking is allowed on the street or driveway. Streets and driveways which serve two or more mobile home spaces which do not allow parking must be posted as not allowing parking. All private streets and driveways which serve two or more mobile home spaces must be paved. All private streets must be named and posted with their names. Driveways which serve two or more mobile home spaces may be named and posted with their names. Circulation plans for mobile home parks must be approved by the Fire Bureau and Office of Transportation.
2. Pedestrian circulation.
  - a. A pedestrian circulation system must connect each space with the internal street or driveway system, to other areas of the site, such as parking areas, recreational areas, and to adjacent streets.
  - b. The pedestrian circulation system must be at least 6 feet wide and hard-surfaced. Where the pedestrian system crosses driveways, or parking areas it must be clearly identifiable through the use of elevation changes, speed bumps, a different paving material, or other similar method. Striping does not meet this requirement. Elevation changes and speed bumps must be at least 4 inches high.
  - c. Where the system is parallel and adjacent to an auto travel lane, the system must be a raised path or be separated from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised path is used it must be at least 4 inches high and the ends of the raised portions must be equipped with curb ramps. Bollard spacing must be no further apart than 5 feet on center.
  - d. The on-site pedestrian circulation system must be lighted to a level where the system can be used at night by residents.
3. Parking. One parking space per unit is required. This parking space must be located in the area designated as part of a mobile home space. The parking space must be paved.

**Commentary****33.254.030 Location and Vehicle Access**

Minor changes update terminology.

**33.254.050 Traffic Impact Study**

The changes update terms and reflect the information necessary to evaluate traffic impacts.

**33.258.070 D. Development which must be brought into conformance.**

The changes clarify that the pedestrian standards that must be brought into conformance for a site are the controlling regulations, which are not necessarily the base zone regulations. Plan district standards may control a site's development and the pedestrian standards associated with the plan district.

**AMEND CHAPTER 33.254, MINING AND WASTE-RELATED USES****33.254.030 Location and Vehicle Access**

Uses must be located so that vehicle access is restricted to Major City Traffic Streets or to streets in ~~truck Freight~~ Districts, as designated in the ~~Arterial Streets Classification Policy Transportation Element of the Comprehensive Plan~~.

**33.254.050 Traffic Impact Study**

A traffic impact study must be submitted for the proposed use. As part of the study, measures must be proposed for mitigating traffic impacts resulting from vehicles going to and from the site. The study must also include a plan and mechanisms to ensure that traffic, especially trucks, travel primarily on truck ~~routes~~ streets or Major City Traffic Streets when near the site. The traffic study must include information ~~of~~ on proposed access points, hours of operation, types of vehicles, and ~~frequency number~~ of trips.

**AMEND CHAPTER 33.258, NONCONFORMING SITUATIONS****33.258.070 Nonconforming Development**

**A. – C.** [No change]

**D. Development that must be brought into conformance.**

1. Nonconforming development with a new nonconforming use or new nonconforming residential density [No change]
  - a. – b. [No change]
  - c. Pedestrian circulation systems, as set out in the ~~base zone~~ pedestrian standards that apply to the site;
  - d. – i. [No change]
2. Nonconforming development with an existing nonconforming use, allowed use, limited use, or conditional use. [No change]
  - a. [No change]
  - b. [No change]
    - (1) [No change]
    - (2) Pedestrian circulation systems, as set out in the ~~base zone~~ pedestrian standards that apply to the site;
    - (3) [No change]

**Commentary****33.266.110 A. Purpose**

In some locations, especially along transit lines and in mixed-use areas, parking needs may be minimal. Zoning may require off-street parking and make the development or redevelopment of the site difficult. The change to the purpose statement will help to clarify in what situations it may be appropriate to have little or no parking.

**33.266.110 Minimum Required Parking Spaces****B.3 Exceptions for sties well served by transit.**

This is a new provision that carries out transportation policy in the TSP to consider eliminating off-street parking requirements "in areas of the City where there is existing or planned high-quality transit service." Eliminating parking requirements where transit service is 'planned' but not yet existing could result in parking impacts on adjacent businesses and residents. Linking the elimination of off-street parking to existing, high-quality transit will reduce potential impacts.

**B.5 The changes will clarify that qualifying transit plazas are intended to be open to the public through a public conveyance, that a minimum amount of seating must be provided, and that Tri-Met has a role in evaluating whether a shelter meet its standard for transit shelters.**

## AMEND CHAPTER 33.266, PARKING AND LOADING

**33.266.110 Minimum Required Parking Spaces**

**A. Purpose.** The purpose of required parking spaces is to provide enough on-site parking to accommodate the majority of traffic generated by the range of uses which might locate at the site over time. Sites that are located in close proximity to transit, have good street connectivity, and good pedestrian facilities may need little or no off-street parking. Transit-supportive plazas and bicycle parking may be substituted for some required parking on a site to encourage transit use and bicycling by employees and visitors to the site. The required parking numbers correspond to broad use categories, not specific uses, in response to this long term emphasis. Provision of carpool parking, and locating it close to the building entrance, will encourage carpool use.

**B. Minimum number of parking spaces required.**

1 - 2. [No change]

3. Exceptions for sites well-served by transit. There is no minimum parking requirement for sites located less than 500 feet from a transit street with 20-minute peak-hour bus, streetcar, or light rail service. Peak hour service is measured on weekdays between 7:00 AM and 8:30 AM and between 4:00 PM and 6:00 PM. Applicants requesting this exception must provide a map identifying the site and Tri-Met schedules for all transit routes within 500 feet of the site.

3.4. [No change]

4.5. Substitution of transit-supportive plazas for required parking. [No change]

a. [No change]

b. The plaza must be adjacent to and visible from the transit street. If there is a bus stop along the site's frontage, the plaza must be adjacent to the bus stop;

c. [No change]

d. The plaza must include all of the following elements:

(1) A plaza open to the public. The owner must record a public access easement that allows public access to the plaza;

(2) A bench or other sitting area with at least 5 linear feet of seating;

(3) A shelter or other weather protection. The shelter must cover at least 20 square feet. If the plaza is adjacent to the bus stop, Tri-Met must approve the shelter; and

(4) [No change]

**Commentary****33.266.110 Minimum Required Parking Spaces**

B.6 Substitution for required parking. This is a new regulation that allows, but does not require, property owners to provide motorcycle parking in lieu of some required auto parking. The intent is reduce pavement and provide parking for one type of vehicle without resulting in more parking than is necessary being provided. The changes from the April TSP clarify language but do not change content.

**33.266.115 Maximum Allowed Parking Spaces**

This is new language since the April TSP to mirror language being added to 33.266.110.B.3. Streetcar operations are similar to buses in their operational characteristics. The definitions being added to 33.910.030 reflect this similarity but this section did not.

6.5. Motorcycle parking may substitute for up to 5 spaces or 5 percent of required automobile parking, whichever is less. For every 4 motorcycle parking spaces provided, the automobile parking requirement is reduced by one space. Each motorcycle space must be at least 4 feet wide and 8 feet deep. Existing parking may be converted to take advantage of this provision.

### **33.266.115 Maximum Allowed Parking Spaces**

- A. Purpose.** . . . In particular, higher maximums are appropriate in areas that are more than a 1/4 mile walk from a frequently-served bus stop or more than a 1/2 mile walk from a frequently-served ~~light rail or streetcar stop~~ Transit Station.
- B. Maximum number of parking spaces allowed.** [No change].
1. Surface parking. [No change]:
    - a. Generally. [No change]
    - b. Exception for sites not well-served by transit. For sites located more than 1/4 mile from a ~~transit bus~~ stop with 20-minute peak-hour bus or streetcar service and more than 1/2 mile from a Transit ~~stop or~~ Station with 20-minute peak-hour light rail ~~or streetcar~~ service, the maximum number of parking spaces allowed is 125 percent of the amount stated in Tables 266-1 and 266-2. Peak hour service is measured on weekdays between 7:00 AM and 8:30 AM and between 4:00 PM and 6:00 PM. Applicants requesting this exception must provide a map identifying the site and all ~~transit bus~~ stops and Transit Stations within 1/2 mile of the site and Tri-Met schedules for all transit routes within 1/2 mile of the site.

**Commentary****Table 266-3**

With adoption of the TSP, street classification descriptions are being revised. A distinction is being drawn between traffic and transit local service streets. For purposes of Table 266-3, it is more important to not allow parking between a building and the street on transit streets rather than on traffic streets.

**33.266.130 F.5 Parking area layouts**

This is a new section to comply with the TPR and 2000 RTP. Both require parking lots of 3 acres or more to have 'street-like' features including travel lanes, curbs, sidewalks, and street trees. The 2000 RTP requires these parking lots to be divided by 'street-like' features consistent with connectivity requirements. The spacing in this section is consistent with the spacing and layout identified for "Alternative maximum setback option for large retailers" in 33.130.215.C and 33.140.215.C. Spacing was based on meeting connectivity requirements and on creating usable space for future development based on analysis done for earlier TPR implementation work in 1995.

**33.266.130 Development Standards for All Other Uses**

**A. – E.** [No change]

<b>Table 266-3 Location of Vehicle Areas [1]</b>			
<b>Zone</b>	<b>General Standard</b>	<b>Exception for Through Lots and Sites with Three Frontages</b>	<b>Exception for Full-Block Sites</b>
<b>OS, RF - R2, EG2, I</b>	No restrictions.		
<b>R1, RH, IR, CN, CO, CG, EG1</b>	Vehicle areas not allowed between the portion of the building that complies with the maximum street setback and the transit street or streets in a Pedestrian District.	May have vehicle areas between the portion of the building that complies with the maximum street setback and one Local Service <u>Transit</u> Street.	May have vehicle areas between the portion of the building that complies with the maximum street setback and two Local Service <u>Transit</u> Streets.
<b>CM, CS</b>	Prohibited between a building and any street. [2]	May have vehicle areas between the building and one Local Service <u>Transit</u> Street.	May have vehicle areas between the building and two Local Service <u>Transit</u> Streets.
<b>RX, CX, EX</b>	Not allowed between a building and any street.	May have vehicle areas between the building and one Local Service <u>Transit</u> Street.	May have vehicle areas between the building and two local Service <u>Transit</u> Streets.
<p>[1] Driveways that provide a straight-line connection between the street and a parking area inside a building are not subject to these regulations.</p> <p>[2] Existing Development: Where the vehicle area exists, and an existing building is being expanded, the location of vehicle area between the building and any street is not allowed, rather than prohibited.</p>			

**F. Parking area layouts.**

1. – 4. [No change]

5. Large parking areas in R, C, E, and IR zones. In the R, C, E, and IR zones, where a parking area on the site is more than 125,000 square feet, the parking area must contain the following elements. Parking areas in structures are not included in this total:

- a. Internal access ways must divide the parking area into smaller areas that are no greater than 55,000 square feet;
- b. These accessways must connect to the adjacent street at least every 250 feet; and
- c. Each internal accessway must have at least one auto travel lane, curbs, and unobstructed sidewalks on both sides. One of the following must be met:

**Commentary****33.266.130.G.2.c Setbacks and Perimeter landscaping**

- C.* The change would allow access between adjoining properties. Allowing access between properties may not work in all situations, therefore it is allowed, not required. This change is consistent with language in 33.130.215.C and 33.140.215.C that requires connections between sites.

- The sidewalks must be at least 10 feet wide and planted with trees a maximum of 30 feet on center. Trees must be planted in the center of unpaved tree wells at least 18 square feet, with a minimum dimension of 3 feet. The unpaved area may be covered with a tree grate. Tree wells must be adjacent to the curb, and must be located so that there is at least 6 feet of unobstructed sidewalk; or
  - The sidewalks must be at least 6 feet wide. There must be a planting strip at least 4 feet wide. The planting strip must be between the curb and the sidewalk, and be landscaped to at least the L1 standard except that trees cannot be grouped.
- d. The internal accessways are excluded from the portion of the parking and loading area used to calculate required interior landscaping.
- § 6. Office of Transportation review. The Office of Transportation reviews the layout of parking areas for compliance with the curb cut and access restrictions of Title 17.

**G. Parking area setbacks and landscaping.**

1. [No change]
2. Setbacks and perimeter landscaping.
  - a. [No change]
  - b. [No change]
  - c. Perimeter landscaping.
    - (1) Surface parking abutting streets, and C, E, and I zones. Where a surface parking area abuts a street lot line, or a C, E, or I zone lot line, the required setbacks must be landscaped. The landscaping must meet the low-screen landscaping standards of Subparagraph 33.266.130.H.3.c, below, and must be adjacent to the parking area and driveway. To provide connectivity between sites, a single driveway up to 20 feet wide may interrupt the landscaping that abuts a C, E, or I zone lot line.
    - (2) [No change]

**Commentary****33.266.220.B.2.b Location**

The ability to locate long-term bicycle parking up to 750 feet from a site has been in the code since 1996. The result has been that, in some circumstances, long-term bicycle parking has been placed much further than 750 feet from a site as a person walks. Required auto parking cannot be placed further than 300 feet from a site. Since both motorists and bicyclists become pedestrians once they leave their vehicles, it makes sense to treat them the same.

**Table 266-6**

This change reflects that park-and-ride facilities are being changed from the Basic Utilities to Community Service use category. This table was inadvertently not updated to reflect this change. There is no change to the bicycle requirements.

**B. Long-term bicycle parking.**

1. [No change]
2. Standards. Required long-term bicycle parking must meet the following standards:
  - a. [No change]
  - b. Location. Long-term bicycle parking must be located on the site or in an area where the closest point is within ~~750~~ 300 feet of the site;
  - c. – d. [No change]

<b>Table 266-6 Minimum Required Bicycle Parking Spaces</b>			
<b>Use Categories</b>	<b>Specific Uses</b>	<b>Long-term Spaces</b>	<b>Short-term Spaces</b>
<b>Residential Categories</b>		[No change.]	
<b>Commercial Categories</b>		[No change.]	
<b>Industrial Categories</b>		[No change.]	
<b>Institutional Categories</b>		[No change.]	
Basic Utilities	Light rail stations, transit centers	8	None
	<u>Park and ride</u>	<del>10, or 5 per acre</del>	<del>None</del>
Community Service		2, or 1 per 10,000 sq. ft. of net building area	2, or 1 per 10,000 sq. ft. of net building area
	<u>Park and ride</u>	<u>10, or 5 per acre</u>	<u>None</u>
Parks And Open Areas		[No change.]	
Schools		[No change.]	
Colleges		[No change.]	
Medical Centers		[No change.]	
Religious Institutions		[No change.]	
Daycare		[No change.]	
<b>Other Categories</b>		[No change.]	

Note: Wherever this table indicates two numerical standards, such as "2, or 1 per 3,000 sq. ft. of net building area," the larger number applies.

**Commentary****33.293.030 Requirements**

A.2 Materials. The minimum width of a shared bicycle/pedestrian facility (A.4 Walkways must be accessible to bicycles, or an alternative connection for bicycles must be provided) is 12 feet-wide based on the *Pedestrian Design Guide* and *Bicycle Master Plan Design and Engineering Guidelines*. Eight feet is the absolute minimum width but is not recommended in most situations.

B.3. Walkways must link all buildings to public sidewalks, adjacent superblocks, and nearby transit facilities. A public access easements ensures that the public will be allowed to use the pedestrian/bicycle system during normal hours of use.

**33.410.030 Applying the Buffer Zone**

The change of terms reflects new terminology in the TSP. Specifying "Local Service Traffic Street" is consistent with the original intent.

**AMEND CHAPTER 33.293, SUPERBLOCKS****33.293.030 Requirements**

Developments on superblocks must comply with the development standards listed below.

**A. Required walkways, landscaped areas, and plazas.** [No change]

1. [No change]
2. Materials.
  - a. The walkways system must be hard-surfaced, ~~and be~~ at least 6 12 feet wide, and unobstructed.
  - b. - c. [No change]
3. - 4. [No change]

**B. Location of walkways, landscaped areas, and plazas.**

1. - 2. [No change]
3. Walkways must link all buildings to public sidewalks, . . . . The owner must record a public access easement that allows public access to the walkways.

**AMEND CHAPTER 33.410, BUFFER ZONE****33.410.030 Applying the Buffer Zone**

The Buffer zone is to be applied primarily along the edge of a nonresidential zone abutting or located across a street from a residential zone. For industrial and employment zones, the street can be any classification of street, as classified by ~~the Arterial Streets Classification Policy~~ Transportation Element of the Comprehensive Plan. For commercial zones, the street should be a Local Service Traffic Street.

**Commentary**

**33.505.100 Commercial Uses in the RH Zone**

- A. This change updates terms.

**33.505.100 Commercial Uses in the RH Zone**

- C.4 Change of terms to reflect TSP. Collectors, traffic streets or regional trafficway are not the correct terms. 'Arterial' covers Neighborhood Collector, District Collector, Major City Traffic Street, Traffic Access Street, and Regional Trafficway.

**33.510.115 Additional Uses Allowed in the Open Space Zone**

- A. Change of term.

- B. Change to term.

**AMEND CHAPTER 33.505, ALBINA COMMUNITY PLAN DISTRICT****33.505.100 Commercial Uses in the RH Zone**

- A. Purpose.** A limited amount and type of commercial uses are allowed in new mixed commercial/residential projects along Martin Luther King Jr. Boulevard. These uses are permitted in recognition of the Boulevard's designation as a major city traffic street in the ~~Comprehensive Plan~~ Transportation Element of the Comprehensive Plan, high traffic counts on King Boulevard, and the City's desire to encourage residential development by permitting some commercial space as part of new residential projects.
- B.** [No change]
- C. Regulations for commercial uses.** Commercial development in new mixed commercial/residential projects is allowed when the following standards are met:
1. – 3. [No change]
  4. Access to parking for mixed commercial/residential development is limited as follows:
    - a. Access must be from ~~a non-local service street~~ an arterial; or
    - b. Access must be from a Local Service Traffic Street which is within 150 feet of the intersection with a street designated as ~~a collector, traffic street or regional trafficway~~ an arterial, and
  5. [No change]

**AMEND CHAPTER 33.510, CENTRAL CITY PLAN DISTRICT****33.510.115 Additional Uses Allowed in the Open Space Zone**

- A. Purpose.** Additional uses are allowed on certain sites zoned OS . . . . In some cases, more intense activities are appropriate when the open space site is located near a ~~light rail~~ Transit Station. . . .
- B. Additional uses allowed.** [No change.]
- 1 – 2. [No change.]
  3. Major Event Entertainment and Commercial Outdoor Recreation uses that comply with the standards of Chapter 33.262, Off-Site Impacts, are allowed on sites that:
    - a. [No change.]
    - b. Are within 500 feet of a ~~light rail~~ Transit Station;
    - c. - e. [No change.]

**Commentary**

**33.510.117 Retail Sales and Service and Office Uses in the RX Zone**

D.2.a.(2) Second bullet. Change to term.

**33.510.118 Use Regulations for Specified Sites in the West End Subarea**

H.3.c. Change to term.

**33.510.117 Retail Sales And Service and Office Uses in the RX Zone**

**A - C.** [No change.]

**D. Retail Sales And Service and Office uses in the RX zone.**

1. [No change.]
2. Sites not on Park Block frontages. [No change.]
  - a. New multi-dwelling development.
    - (1) Limited uses. [No change.]
    - (2) Conditional uses.
      - [No change.]
      - If the entire site is within 500 feet of a ~~light rail~~ Transit Station or stop, more than 20 and up to 50 percent of the net building area of a new multi-dwelling development may be in Retail Sales And Service or Office uses if approved as a conditional use.
  - b. [No change.]
3. Sites on Park Block frontages. [No change.]

**33.510.118 Use Regulations for Specified Sites in the West End Subarea**

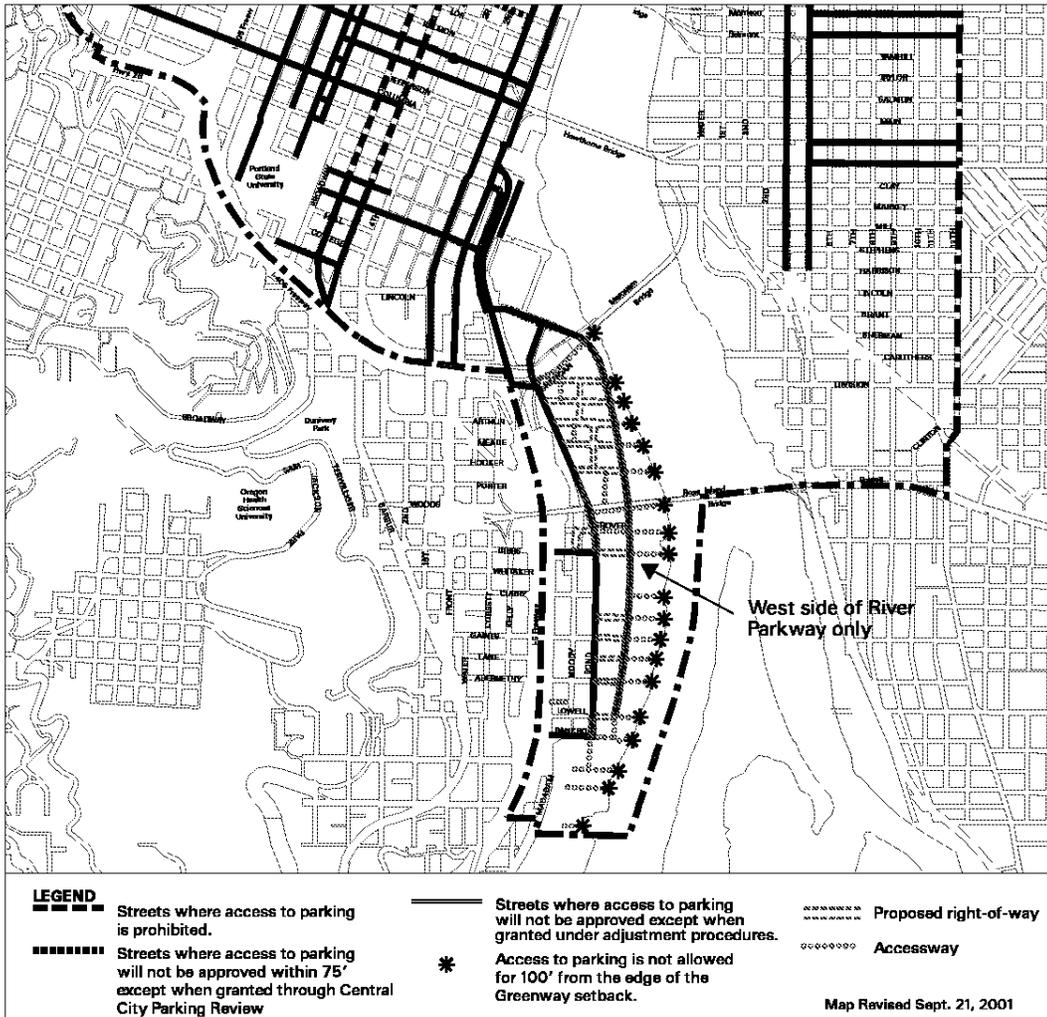
**A - G.** [No change.]

**H. Type C sites.** [No change.]

- 1 - 2. [No change.]
3. Retail Sales And Service and Office uses:
  - a - b. [No change.]
  - c. If all portions of the site are within 500 feet of a ~~light rail~~ Transit Station or stop, more than 20 percent and up to 50 percent of the floor area in Retail Sales And Service and Office uses is a conditional use, subject to the approval criteria of 33.815.110;
  - d. [No change.]
- 4 - 9. [No change.]

**Commentary****Map 510-9 2 of 2 Parking Access Restricted Streets**

SW Columbia between SW 5<sup>th</sup> and SW Jefferson was, at one time, being considered as a light rail alignment. The construction of Westside MAX removed any need to limit access along Columbia.



**Map 510-9**  
**Parking Access**  
**Restricted Streets**  
 Map 2 of 2

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Amend Map 510-9 Map 2 of 2. Parking Access Restricted Streets  
 Delete SW Columbia between SW 5<sup>th</sup> Avenue and SW Jefferson.

**Commentary**

**33.526.280 Building Design**

B.1.d. The changes make the text consistent with terms in the Transportation Element.

B.2. The changes make the text consistent with terms in the Transportation Element.

**33.535.130 Springwater Corridor Standards**

A. Purpose. The change clarifies that the Springwater Corridor has a transportation function as identified in the Transportation Element.

**AMEND CHAPTER 33.526, GATEWAY PLAN DISTRICT****33.526.280 Building Design**

- A.** [No change]
- B. Nonresidential and mixed-use developments.** In RH, RX, C, and EX zones, buildings must meet the following:
1. A building's main entrance must:
    - a. – c. [No change.]
    - d. Be oriented to nearby transit facilities as follows:
      - If there is a ~~light rail~~ Transit Station or ~~transit bus~~ stop within 200 feet of the site, the building's main entrance must be at the building's closest point to the ~~light rail~~ Transit Station or ~~transit bus~~ stop.
      - If the site is within 200 feet of both a ~~light rail~~ Transit Station and a ~~transit bus~~ stop, the building's main entrance requirement applies to the ~~light rail~~ Transit Station.
      - If the site is within 200 feet of more than one ~~transit bus~~ stop, the building entrance requirement applies to the closest ~~transit bus~~ stop.
      - If the site is the same distance from all ~~transit bus~~ stops, the applicant may choose which stop to apply this standard.
  2. Street enclosure. In Pedestrian Districts identified in the Transportation Element of the Comprehensive Plan, and at intersections where ~~pedestrian paths~~ City Walkways or transit streets cross another ~~pedestrian path~~ City Walkway or transit street:
    - a – b. [No change.]
  3. [No change.]

**AMEND CHAPTER 33.535, JOHNSON CREEK PLAN DISTRICT****33.535.130 Springwater Corridor Standards**

- A. Purpose.** This Section ensures protection of the Springwater Corridor as a transportation, recreation and scenic amenity.

**Commentary****33.641. Transportation Impacts**

This chapter is being revised to delete the sections relating to when a transportation impact study is required. This information is being moved to Title 17 and made more general in its potential application. Transportation impact studies may be required for many types of land use reviews or for building permits when there are operational issues.

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**AMEND CHAPTER 33.641, TRANSPORTATION IMPACTS**

## Sections:

- 33.641.010 Purpose
- 33.641.015 Where This Approval Criterion Applies
- 33.641.020 Approval Criterion
- 33.641.030 Mitigation
- ~~33.641.040 When a Transportation Impact Study May Be Required~~
- ~~33.641.050 Elements of a Transportation Impact Study~~

**33.641.010 Purpose.** [No change.]

**33.641.015 Where This Approval Criterion Applies.** [No change.]

**33.641.020 Approval Criterion.** [No change.]

**33.641.030 Mitigation.** [No change.]

**~~33.641.040 When a Transportation Impact Study May Be Required~~**

~~A Transportation Impact Study may be required by the City Engineer for a Type IIx or Type III land division when the development allowed through the proposed land division will exceed the following thresholds:~~

- ~~**A. Trip generation threshold.** More than 100 new vehicle trips will be generated in the peak direction (inbound or outbound) during the site's peak traffic hour.~~
- ~~**B. Neighborhood traffic threshold.** More than 250 new trips will be generated per day that are likely to use predominantly residential Local Service Streets.~~

**~~33.641.050 Elements of a Transportation Impact Study~~**

~~The elements of a transportation impact study are outlined in the Transportation Impact Study Guidelines, available from the Office of Transportation. These elements may be modified or expanded upon by the City Engineer to address the specific needs of a site and its vicinity.~~

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**AMEND CHAPTER 33.654, RIGHTS-OF-WAY**

**33.654.110 Connectivity and Location of Rights-of-Way**

**A. – B.** [No change]

**C. Approval criteria.**

1. Through streets and pedestrian connections in OS, R, C, and E zones. In OS, R, C, and E zones, through streets and pedestrian connections are required where appropriate and practicable, taking the following into consideration:
  - a. – c. – [No change]

**Commentary****33.654.110 Connectivity and Location of Rights-of-Way**

- C.1.d. Through streets and pedestrian connections in OS, R, C, and E zones. In addition to the connectivity standards contained in 33.654.110, master street plans are being developed for the City to implement connectivity requirements. As these plans are developed, they will be used in conjunction with connectivity standards to locate extensions of streets and new streets when property is being divided. Conceptual master street plans will be adopted for the entire City.
- C. 3. Pedestrian connections in I zones. The changes reflect the new transit classifications in the Transportation Element.

**33.805 Adjustments****040 Approval Criteria**

- B. Street classifications help to shape the character of a neighborhood by determining the use of the street and traffic volumes. The street classifications are part of the Comprehensive Plan, much like zoning designations.

**33.815.100 Uses in the Open Space Zone**

- B. Since 1992, the TE policies have been used as approval criteria for certain land use reviews, including conditional uses. The intent in 1992, was to incorporate the TE policy intent into the zoning code as approval criteria. The changes reflect the need to address connectivity, performance measures in addition to level of service, impacts to pedestrians, bicyclists, and transit operations, and the need to mitigate for impacts associated with development.

- d. Master street plans for the area identified in Goal 11B of the Comprehensive Plan;
  - e. Pedestrian connections should take the most direct route practicable. Users should be able to see the ending of the connection from the entrance point, if possible.
2. [No change]
  3. Pedestrian connections in I zones. In I zones, pedestrian connections to all regional transitways, ~~major city transit streets, minor transit streets~~ Major Transit Priority Streets, Transit Access Streets, Community Transit Streets, Off-Street Paths, and recreational trails within 1,300 feet of the site are required where appropriate and practicable. The connections should take the most direct route practicable. Users should be able to see the ending of the connection from the entrance point, if possible. Only the portion of the pedestrian connection that is on the land division site is required.
  4. [No change]

#### AMEND CHAPTER 33.805, ADJUSTMENTS

##### 33.805.040 Approval Criteria

[No change]

- A. [No change]
- B. If in a residential zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, or I zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; and
- C. – I. [No change]

#### AMEND CHAPTER 33.815, CONDITIONAL USES

##### 33.815.100 Uses in the Open Space Zone

[No change]

- A. [No change]
- B. **Public services.**
  1. The proposed use is in conformance with ~~either the street designations of the Arterial Streets Classification Policy or the Downtown Parking and Circulation Policy~~ Transportation Element of the Comprehensive Plan, depending upon location;

**Commentary****33.815.105 Institutional and Other Uses in the R Zones****D. Public Services.**

Since 1992, the TE policies have been used as approval criteria for certain land use reviews, including conditional uses. The intent in 1992, was to incorporate the TE policy intent into the zoning code as approval criteria. The changes reflect the need to address connectivity, performance measures in addition to level of service, impacts to pedestrians, bicyclists, and transit operations, and the need to mitigate for impacts associated with development.

2. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street capacity, ~~and~~ level of service, and other performance measures; access to arterials; connectivity; transit availability; on-street parking impacts; ~~access requirements restrictions~~; neighborhood impacts; and impacts on pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies;

3. [No change]

**C.** [No change]

2. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street capacity, ~~and~~ level of service, and other performance measures; access to arterials; connectivity; transit availability; on-street parking impacts; ~~access requirements restrictions~~; neighborhood impacts; and impacts on pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies;

3. [No change]

**D.** [No change]

### **33.815.105 Institutional and Other Uses in R Zones**

[No change]

**A. – C.** [No change]

**D. Public services.**

1. The proposed use is in conformance with ~~either the street designations of the Arterial Streets Classification Policy or the Downtown Parking and Circulation Policy, depending upon location~~ Transportation Element of the Comprehensive Plan,

2. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street capacity, ~~and~~ level of service, and other performance measures; access to arterials; connectivity; transit availability; on-street parking impacts; ~~access requirements restrictions~~; neighborhood impacts; and impacts on pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies;

3. [No change]

**E.** [No change]

**Commentary****33.815.110 Office and Retail Sales and Service Uses in the RX Zone**

- D. Since the approval would allow greater amounts of commercial uses than usual, potential transportation impacts should be taken into consideration in approving such increases. The new approval criteria is the same as for other similar conditional uses.

**33.815.115 Specified Uses in Commercial Zones**

- A. Truck trips should not be considered as a potential nuisance impact but rather as a potential transportation impact that is evaluated by Criterion D. below.
  
  
  
  
  
  
  
  
  
  
- D. This criterion is similar to the approval criteria for other conditional uses that have the potential for generating more traffic or different kinds of traffic or parking impacts than is typically found in the base zone. Truck trips is included here as a type of transportation impact to be evaluated as part of the conditional use process.

**33.815.120 Commercial Parking Facilities in the RX, CX, CG, and E Zones, Outside the Central City Plan District, the Columbia South Shore Plan District and the Cascade Station/Portland International Center Plan District.**

- B. Term change to make it consistent with the TE.

**33.815.110 Office and Retail Sales And Service Uses in the RX Zone**

[No change]

- A. – [No change]
- B. The proposed use will supply services to residents of the building or of nearby buildings; ~~and~~
- C. The appearance, location, and amount of commercial uses in the project will not by itself or in combination with nearby developments decrease the desirability of the area for the retention of existing housing or the development of new housing; ~~and~~
- D. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street designations and capacity; level of service and other performance measures; access to arterials; connectivity; transit availability; on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle and transit circulation; safety for all modes; and adequate transportation demand management strategies.

**33.815.115 Specified Uses in Commercial Zones**

[No change]

- A. The proposed use will not have nuisance impacts from noise, odor, and vibrations, ~~and truck trips~~ greater than usually generated by uses allowed by right in the zone;
- B. Based on the characteristics of the proposed use and its development, the proposal is consistent with the purpose of the commercial zone and with the character of the specific area; ~~and~~
- C. The proposed use will not significantly alter the overall commercial character of the area, based on the existing proportion of commercial and noncommercial uses and the effects of incremental changes; ~~and~~
- D. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street designations and capacity; level of service and other performance measures; access to arterials; truck impacts; connectivity; transit availability; on-street parking impacts; access restrictions; neighborhood impacts; pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies.

**33.815.120 Commercial Parking Facilities in the RX, CX, CG, and E Zones, Outside the Central City Plan District, the Columbia South Shore Plan District and the Cascade Station/Portland International Center Plan District.**

[No change]

- A. [No change]
- B. The parking facility is in conformance with ~~the Arterial Streets Classifications and Policies~~ the street designations shown in the Transportation Element of the Comprehensive Plan;

**Commentary**

- C. The approval criteria are changing to the standard language used for other conditional uses with similar impacts.

**33.815.121 Commercial Parking Facilities in the RX, CS and CX Zones in the Hollywood Plan District**

- B. The approval criteria are changing to the standard language used for other conditional uses with similar impacts.

**33.815.125 Specified Uses in Industrial Zones**

- A. Preserving truck and freight movement capacity in industrial zones is essential in supporting industrial uses. Non-industrial traffic can adversely impact the industrial activities, particularly freight movement in an industrial area.
- B. The approval criteria are changing to the standard language used for other conditional uses with similar impacts.

**33.815.126 Office Uses in the IG1 Zone in the Central City Plan District**

- A. Preserving truck and freight movement capacity in industrial zones is essential in supporting industrial uses. Non-industrial traffic can adversely impact the industrial activities, particularly freight movement in an industrial area.
- B. The approval criteria are changing to the standard language used for other conditional uses with similar impacts.

- C. The transportation system is capable of ~~safely~~ supporting the proposed facility in addition to the existing uses in the area. Evaluation factors include ~~street capacity, and level of service, and performance measures, on-street parking impacts, access requirements, neighborhood impacts, and pedestrian safety~~ street capacity, level of service; on-street parking impacts; access restrictions; connectivity; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;

D. – H. [No change]

### **33.815.121 Commercial Parking Facilities in the RX, CS and CX Zones in the Hollywood Plan District**

[No change]

- A. [No change]
- B. The transportation system is capable of ~~safely~~ supporting the proposed facility in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, on-street parking impacts, access requirements, impacts on transit operations and movement, impacts on the immediate and adjacent neighborhoods, and pedestrian and bicycle safety~~ street designations and capacity, level of service; on-street parking impacts; access restrictions; connectivity; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes; and
- C. [No change]

### **33.815.125 Specified Uses in Industrial Zones**

[No change]

- A. The proposed use will not have significant adverse effects on nearby industrial firms, and on truck and freight movement;
- B. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, lot access requirements, neighborhood impacts, and pedestrian safety~~ street designations and capacity, level of service; on-street parking impacts; access restrictions; connectivity; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies; and

C.- E. [No change]

### **33.815.126 Office Uses in the IG1 Zone in the Central City Plan District**

[No change]

- A. The proposed use will not have significant adverse effects on nearby industrial uses and truck and freight movement;
- B. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking~~

**Commentary****33.815.127 Accessory Offices and Headquarters Offices in the IH Zone in the Guild's Lake Industrial Sanctuary Plan District**

- B. The approval criteria are changing to the standard language used for other conditional uses with similar potential impacts.

**33.815.128 Retail Sales and Service Uses in the EG Zone**

- B. The approval criteria are changing to the standard language used for other conditional uses with similar potential impacts.

**33.815.130 Residential Uses in the EG1, EG2, IG2, IG2, and IH Zones**

- A. The approval criteria are changing to the standard language used for other conditional uses with similar potential impacts. Residential uses in industrial areas can have significant impacts on truck and freight movement.

~~impacts, access requirements, neighborhood impacts, and pedestrian safety street designations and capacity, level of service or other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies;~~

C. - E. [No change]

### **33.815.127 Accessory Offices and Headquarters Offices in the IH Zone in the Guild's Lake Industrial Sanctuary Plan District**

[No change]

A. [No change]

B. The transportation system is capable of ~~safely~~ supporting traffic generated by the proposed offices in addition to the existing uses in the plan district. Evaluation factors include ~~street capacity and performance standards, truck circulation, access to arterials, transit availability, on-street parking impacts, site access requirements, and pedestrian and bicycle circulation and safety~~ designations and capacity, level of service, and other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies; and

C. [No change]

### **33.815.128 Retail Sales And Service Uses in the EG Zone**

[No change]

A. [No change]

B. The transportation system is capable of ~~safely~~ supporting the recommended use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, access requirements, neighborhood impacts, and pedestrian safety~~ street designations and capacity, level of service or other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; safety for all modes; and adequate transportation demand management strategies;

C. - D. [No change]

### **33.815.130 Residential Uses in the EG1, EG2, IG1, IG2, and IH Zones**

[No change]

A. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, lot access requirements, neighborhood impacts, and pedestrian safety~~ street designations and capacity, level of service or other performance measures;

**Commentary**

**33.815.140 Specified Group Living Uses in the C and EX Zones**

*C.* The changes update references and revise approval criteria language.

**33.815.200 Aviation and Surface Passenger Terminals**

*A Airports.* The changes update references and revise approval criteria language.

access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes; and

**B. – D.** [No change]

### **33.815.140 Specified Group Living Uses in the C and EX Zones**

These criteria apply to Group Living uses which consist of alternative or post incarceration facilities in the C or EX zones.

**A. – B.** [No change]

#### **C. Public services.**

1. The proposed use is in conformance with ~~either the Arterial Streets Classification Policy or the Downtown Parking and Circulation Policy, depending upon location~~ the street designations in the Transportation Element of the Comprehensive Plan;
2. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, access requirements, neighborhood impacts, and pedestrian safety~~ street capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;
3. [No change]

**D.** [No change]

### **33.815.200 Aviation And Surface Passenger Terminals**

[No change]

#### **A. Airports.**

1. [No change]
2. Public services.
  - a. The proposed use is in conformance with ~~either the Arterial Streets Classification Policy or the Downtown Parking and Circulation Policy, depending upon location~~ the street designations in the Transportation Element of the Comprehensive Plan;
  - b. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, access requirements, neighborhood impacts, and pedestrian safety~~ street capacity, level of service or other performance measures; access to arterials; connectivity; transit availability; on-street

**Commentary**

**D. Bus, rail and ship passenger terminals.**

The changes update references and replace old criteria language with standard language.

**33.815.205 Detention Facilities**

**C. Public services.**

The changes update references and replace old criteria language with standard language.

parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes; and

c. [No change]

3. – 4. [No change]

**B. – C.** [No change]

**D. Bus, rail and ship passenger terminals.**

1. Public services.

a. The proposed use is in conformance ~~with either the Arterial Streets Classification Policy or the Downtown Parking and Circulation Policy, depending upon location~~ the street designations of the Transportation Element of the Comprehensive Plan;

b. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, access requirements, neighborhood impacts, and pedestrian safety~~ street capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;

c. [No change]

2. – 3. [No change]

**33.815.205 Detention Facilities**

[No change]

**A. - B.** [No change]

**C. Public services.**

1. The proposed use is in conformance ~~with either the Arterial Streets Classification Policy or the Downtown Parking and Circulation Policy, depending upon location~~ the street designations shown in the Transportation Element of the Comprehensive Plan;

2. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, lot access requirements, neighborhood impacts, and pedestrian safety~~ street capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;

**Commentary**

**33.815.215 Major Event Entertainment**

- A. The changes update references and replace old criteria language with standard language.

**33.815.220 Mining and Waste Related**

- F. The changes update references and replace old criteria language with standard language.

3. [No change]

### **33.815.215 Major Event Entertainment**

[No change]

#### **A. Public services.**

1. The proposed use is in conformance with ~~either the Arterial Streets Classification Policy or the Downtown Parking and Circulation Policy, depending upon location~~ the street designations shown in the Transportation Element of the Comprehensive Plan;
2. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, access requirements, neighborhood impacts, and pedestrian safety~~ street capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;
3. [No change]

#### **B. – D. [No change]**

### **33.815.220 Mining and Waste Related**

These approval criteria allow these uses in locations where their large size and potential nuisance and environmental impacts will not harm surrounding land uses. The approval criteria are as follows:

#### **A. – E. [No change]**

#### **F. Public services.**

1. The proposed use is in conformance with ~~either the Arterial Streets Classification Policy or the Downtown Parking and Circulation Policy, depending upon location~~ the street designations shown in the Transportation Element of the Comprehensive Plan;
2. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, access requirements, neighborhood impacts, and pedestrian safety~~ street capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;
3. [No change]

#### **G. – I. [No change]**

**Commentary****33.815.222 Park-and-Ride Facilities for Mass Transit**

Park-and-ride facilities have been classified as Basic Utilities; however their characteristics are not consistent with that Use Category. Unlike most Basic Utilities, park-and-ride facilities draw large numbers of motor vehicles to the site each day, typically during the peak hours. Park-and-ride lots in residential zones may be necessary as a short-term solution designed to increase transit ridership. The Transportation Element has specific policies that identify where and under what circumstances park-and-ride facilities are appropriate. The new approval criteria reflect those policies.

- F. The highest priority for accessing transit, after walking and bicycling, is the development of effective feeder bus or vanpool service. Walking distances to transit are typically  $\frac{1}{4}$  to  $\frac{1}{2}$  mile and bicycling distances are 2 to 5 miles. Where feeder bus service is not present or doesn't serve all potential riders, a park-and-ride facility may provide temporary or permanent access to transit.

**33.815.223 Public Safety Facilities**

- C. Public services. The changes update references and replace old criteria language with standard language.

**33.815.222 Park-and-Ride Facilities for Mass Transit**

Park-and-ride facilities improve access to transit for some people who live beyond walking or bicycling distance of bus or light rail lines. Park-and-ride facilities can create significant peak-hour traffic and conflict with traffic, pedestrian, and bicycle movement. The approval criteria are:

- A. The proposal will not by itself, or in combination with other on-site parking areas, significantly detract from the overall desired character of the area, including existing or planned transit-supportive, high-density residential or mixed-use development;
- B. The park-and ride facility is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;
- C. The transportation system is capable of supporting the proposed facility in addition to the existing uses in the area. Evaluation factors include street capacity, level-of-service, and other performance measures; access to arterials; connectivity; on-street parking impacts; access restrictions; neighborhood impacts; pedestrian, bicycle, and transit circulation; and safety for all modes;
- D. Transit ridership is increased and vehicle miles traveled per capita is reduced;
- E. The facility will have adequate separation, landscaping, and screening between the sidewalk and parking areas to reduce the impact on adjacent public and private spaces; and
- F. The facility is necessary because bus service is not adequate to serve those in the surrounding area who live or work beyond walking or bicycling distance of transit.

**33.815.223 Public Safety Facilities**

[No change]

**A. – B.** [No change]

**C. Public services.**

1. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors ~~include street capacity and level of service, access to arterials, transit availability, on-street parking impacts, access requirements, neighborhood impacts, and pedestrian safety~~ street designations and capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability; on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;
2. [No change]

**D. – E.** [No change]

**Commentary****33.815.230 Rail Lines and Utility Corridors**

- B. The changes reflect the need to address impacts on other modes besides motor vehicles. Rail crossings have significant impacts on traffic, transit, bicycle, and pedestrian movement.

**33.815.300 Commercial Parking Facilities in the Columbia South Shore Plan District**

- D. Updates references.
- E. Replaces old language with standard language for evaluating transportation impacts.

**33.815.301 Industrial Businesses in the Columbia South Shore Plan District**

- A. Replaces old language with standard language for evaluating transportation impacts.

**33.815.302 Professional/Technical Facilities in the Columbia South Shore Plan District**

- B. Replaces old language with standard language for evaluating transportation impacts.

**33.815.230 Rail Lines And Utility Corridors**

[No change]

- A. [No change]
- B. The rail line or utility corridor will not substantially ~~interfere with present or probable future road systems and traffic volumes~~ impact the existing or planned street system, or traffic, transit, pedestrian, and bicycle movement and safety.

**33.815.300 Commercial Parking Facilities in the Columbia South Shore Plan District**

[No change]

- A. - C. [No change]
- D. The proposed use is in conformance with the ~~Arterial Streets Classification Policy~~ street designations shown in the Transportation Element of the Comprehensive Plan;
- E. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors ~~include street capacity and level of service, access to arterials, access requirements, neighborhood impacts, and pedestrian safety~~ street capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability, on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes.

**33.815.301 Industrial Businesses in the Columbia South Shore Plan District**

[No change]

- A. There is excess capacity available in the transportation system beyond that needed to serve the development potential of Columbia South Shore. The development potential for the district is determined by Comprehensive Plan designations. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, lot access requirements, and pedestrian safety~~ street designations and capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes.

**33.815.302 Professional/Technical Facilities in the Columbia South Shore Plan District**

[No change]

- A. [No change]
- B. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, transit availability, on-street parking impacts, access requirements, and pedestrian and bicycle circulation~~ street designations and capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;

**Commentary**

33.815.302.D Clarifies that there are other TDM strategies that can be considered to reduce demand.

**33.815.303 Retail Sales and Service Uses in the Columbia South Shore Plan District**

- B. Updates approval criterion language to reflect standard language.

**33.815.305 Replacement Parking Facilities in the Central City Plan District**

- C. Updates approval criterion language to reflect standard language.

- C. [No change]
- D. The proposed transportation demand management (TDM) program is acceptable to the Office of Transportation. Examples of TDM program measures may include vanpooling, carpooling, transit subsidies, shuttle service and off-peak class scheduling or other incentives to encourage the use of alternatives to the single-occupant automobile; and
- E. [No change]

**33.815.303 Retail Sales and Service Uses in the Columbia South Shore Plan District**

[No change]

- A. [No change]
- B. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street designations and capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;
- C. – D. [No change]

**33.815.305 Replacement Parking Facilities in the Central City Plan District**

[No change]

- A. [No change]
- B. The number of spaces provided is the same or less than the number of parking spaces being removed by the light rail construction;
- C. The transportation system is capable of ~~safely~~ supporting the proposed use in addition to the existing uses in the area. Evaluation factors include ~~street capacity and level of service, access to arterials, access requirements, and neighborhood impacts~~ street designations and capacity, level of service, or other performance measures; access to arterials; connectivity; transit availability; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes. Access to the facility should be as far as possible from the light rail alignment. Access will be onto the right-of-way proposed for or containing the light rail alignment only if no other access is feasible;
- D. – F. [No change]

**Commentary****33.815.310 Industrial Uses in the IR Zone**

- F. Industrial uses in the IR zone should not generate additional traffic, particularly truck traffic beyond what was approved through the IMP or Conditional Use Master Plan.

**33.820.070 Components of a Master Plan**

- G. **Transportation and parking.** Events can have the biggest impact on the surrounding street system and adjacent residential areas as they tend to draw the largest number of visitors to the site. Mitigation can be programmatic, like a carpool program, or more like a strategy, like changing signal timing. Both have a role in mitigation.

- H. **Street vacations.** Grammar change.

**33.830.050 Approval Criteria**

**33.815.310 Industrial Uses in the IR Zone.**

[No change]

**A. – E.** [No change]

**F.** Heavy trucks are not to travel to the industrial service or manufacturing and production use site by local streets unless no other choice is available. Access for medium and heavy trucks to these activities must be addressed in the Impact Mitigation Plan. Traffic levels cannot increase above what is approved through the Impact Mitigation Plan or Conditional Use Master Plan;

**G. – H.** [No change]**AMEND 33.820, CONDITIONAL USE MASTER PLANS****33.820.070 Components of a Master Plan**

[No change]

**A. - F.** [No change]

**G. Transportation and parking.** The master plan must include information on the following items for each phase.

1. Projected transportation impacts. These include the expected number of trips (peak, events, and daily), an analysis of the impact of those trips on the adjacent street system, and proposed mitigation measures to limit any projected negative impacts. Mitigation measures may include improvements to the street system or specific programs and strategies to reduce traffic impacts such as encouraging the use of public transit, carpools, vanpools, and other alternatives to single occupant vehicles.
2. [No change]

**H. Street vacations.** The master plan must show any street vacations being requested in conjunction with the proposed use and any possible street vacations which that might be requested in conjunction with future development. (Street vacations are under the jurisdiction of the City Engineer. Approval of the master plan does not prejudice City action on the actual street vacation request.)

**I. - K.** [No change]**AMEND CHAPTER 33.830, EXCAVATIONS AND FILLS****33.830.050 Approval Criteria**

[No change]

**A. - C.** [No change]

**D.** The final contours and surface condition of the site will not preclude future development for uses allowed in the base zone; ~~and~~

**Commentary****33.830.050 Approval Criteria**

- F. Truck impacts on residential areas can be alleviated through a routing plan that minimizes the use of residential streets. Trucks have operational needs that may require out-of-direction travel. A routing plan will ensure that impacts are minimized and nearby residents know where trucks associated with the activity are expected to be.

**33.840 Hazardous Substances Review**

- D. - F. Minor wording changes. The City does not designate routes for transporting hazardous substances.

**33.848 Impact Mitigation Plans**

.070.G Clarifies that this plan is the same as the one referenced in .848.050 Approval Criteria.

- E.** Disruptions to the natural drainage pattern will be mitigated, and will not result in mud or sediment entering the City's stormwater disposal system, rivers, creeks, sloughs, or other identified waterbodies; and
- F.** A plan for routing trucks to and from the site must be submitted that minimizes the use of local residential streets in the vicinity of the site.

#### AMEND CHAPTER 33.840, HAZARDOUS SUBSTANCES REVIEW

##### 33.840.030 Evaluation Factors

Factors to be evaluated in reviewing requests include, but are not limited to:

- A. - E.** [No change]
- F.** The location of the site in relation to ~~City~~-designated routes for the transport of hazardous substances; and
- G.** [No change]

#### AMEND CHAPTER 33.848, IMPACT MITIGATION PLANS

##### 33.848.050 Approval Criteria

The approval criteria listed in this Section will be used to review impact mitigation plans. These criteria correspond to the regulations governing the content of the Impact Mitigation Plan. The approval criteria are:

- A. - I.** [No change]
- J.** The impact mitigation plan includes a design, landscape, and multi-modal transportation plans which limits conflicts between the institutional campus and residential, commercial, and industrial uses located within the same neighborhood or neighborhoods as the campus.
- K. - O.** [No change]

##### 33.848.070 Impact Mitigation Plan Requirements

[No change]

- A. - F.** [No change]
- G. Transportation.** For each phase of campus development the following must be addressed in the multi-modal transportation plan.
  1. [No change]

**Commentary****33.848.070 Impact Mitigation Plan Requirements**

*G.2 Strategies can target even casual visitors to a campus environment. Charging for parking is generally successful when coupled with incentives to transit such as free return trip tickets.*

*G.2.a. Adds carpooling as an alternative to the single-occupant vehicle.*

*G.2.c. In addition to employees and students, other people may come to a campus environment including visitors and event attendees. Incentives can be successful (if properly advertised and promulgated) in reducing trips.*

*G.2.d Incentives can be effective in reducing the need to drive to the campus by other than employees or students.*

*G.4 It may be appropriate for a large institution to provide transit facilities on site, including shelters.*

*G.4 The language being replaced does not reflect the need for connectivity on-site and connecting to the adjacent street system. The new language is consistent with other parts of the code and the Transportation Element that address connectivity.*

*G.5 Clarify that the area of impact may be more than the adjacent streets. The reference to 'policies' could be mistakenly taken to mean that all the transportation policies of the Transportation Element must be addressed. The street classifications are policy-level designations, but only the street classifications, not all transportation policies must be addressed. The other approval criteria reflect policy intent.*

*G.6 This is a new requirement. Parking supply must be balanced between providing enough parking to minimize impacts on adjacent neighborhoods from overflow parking and restricting the supply of parking to encourage the use of alternatives to the single-occupant vehicle.*

2. Strategies to reduce the number of motor vehicle miles traveled by those ~~regularly~~ traveling to and from the campus, i.e. students, patients, faculty, staff, and visitors, including:
  - a. Measures to encourage those traveling to and from the campus to use alternatives to single-occupant ~~ey~~ auto trips (walking, bicycling, carpooling and public transit);
  - b. [No change]
  - c. Incentives to be offered to employees and, where applicable, students, and others to use public transit for travel to and from the campus;
  - d. Incentives to be offered to employees and, where applicable, students, and others to travel on foot or by bicycle to and from the campus. This may include incentives for employees to live within walking distance of the campus;
3. Planned improvements to the routes used by transit patrons between transit stops serving the campus and the campus's circulation system for pedestrians and transit facilities;
4. ~~Linkage of the campus's internal circulation system for motor vehicles, bicycles and pedestrians with the Comprehensive Plan Transportation Element~~ An on-site circulation system for all modes that meets the City's connectivity standards of no more than 530 feet apart for streets and no more than 330 feet apart for pedestrian/bicycle connections where streets are not feasible, and links to adjacent streets and walkways; ~~and~~
5. Traffic impacts on the streets surrounding in the vicinity of the campus and measures which will be taken to ensure that the surrounding streets will function consistently ~~with the designations and policies found in~~ with the Comprehensive Plan Transportation Element of the Comprehensive Plan for these streets; ~~and~~
6. Parking mitigation, including an analysis of projected peak parking demand for daily activities and events, and strategies to reduce the supply of parking without impacting nearby land uses.
7. To address adequacy of transportation services, a multi-modal transportation impact study ~~may be~~ is required of the applicant by the Office of Transportation. In preparing such a study the applicant should follow the guidelines set forth in the "Transportation Impact Study Guidelines" document available from the Portland Office of Transportation.

#### AMEND CHAPTER 33.855, ZONING MAP AMENDMENTS

##### 33.855.050 Approval Criteria for Base Zone Changes

[No change]

- A. [No change]

**Commentary****33.855.050B. Adequate public services**

The transportation system consists of facilities such as bike and pedestrian paths along with capacity for automobiles. Both the presence transportation facilities and their capacity should be evaluated.

**33.900.010 List of Terms**

This adds the two new definitions to the list of Transportation-Related Definitions.

**Arterial.** Change to references and clarify that local service streets are also classified for each mode - traffic, transit, pedestrian, bicycle, trucks, emergency response, and street design. To avoid confusion, the term, 'routes', is no longer used for street classifications.

**B. Adequate public services.** Public services for water supply, transportation system ~~structure~~ facilities and capacity, and police and fire protection are capable of supporting the uses allowed by the zone or will be capable by the time development is complete, and proposed sanitary waste disposal and stormwater disposal systems are or will be made acceptable to the Bureau of Environmental Services.

**C.** [No change]

### AMEND CHAPTER 33.900, LIST OF TERMS

#### 33.900.010 List of Terms

The following terms are defined in Chapter 33.910, Definitions, unless indicated otherwise.

##### Transportation-Related Definitions

- Alley
- Arterial
- Bus Stop
- Common Green
- Dead-End Street
- Light Rail Line
- Light Rail Alignment
- Partial Street
- Pedestrian Connection
- Preferred Alternative Light Rail Alignment
- Public Access Easement
- Rail Right-Of-Way
- Right-Of-Way
- Roadway
- Street
- Streetcar Alignment
- Streetcar Line
- Through Street
- Transit Station
- Transit Street

### AMEND CHAPTER 33.910, DEFINITIONS

#### 33.910.030 Definitions

The definition of words with specific meaning in the zoning code are as follows:

##### Transportation-Related Definitions

- **Arterial.** Any street that is **not** a Local Service Traffic Street according to the ~~Arterial Streets Classifications Policies or Central City Transportation Management Plan Transportation Element of the Comprehensive Plan~~. It includes Regional Trafficways ~~and regional transitways, transit streets,~~ Major City Traffic Streets, District and Neighborhood Collectors, and Traffic Access ~~routes~~ Streets.

**Commentary**

**Bus Stop.** This is a new definition. Bus stops are mentioned in the Gateway Plan District regulations and replace the term, 'transit stop', in Chapter 266.

**Light Rail Line.** Occasionally, light rail lines may be placed in easements rather than right-of-way. The streetcar is also not treated the same as light rail.

**Transit Station.** This is a new definition. Transit Stations are referenced in Chapter 266, Parking and Loading, It also replaces the term, 'light rail station', in the Gateway Plan District.

**33.920.400 Basic Utilities**

- **Examples.** Park-and-ride facilities have different characteristics from other transportation transfer points such as light rail stations. Park-and-ride facilities draw large numbers of vehicles to the site during the most congested peak hours of the day. While they typically do not have on-site personnel, many people come to the facility. The impacts of park-and-ride facilities are more similar to other Community Service uses. Park-and-ride facilities will continue to be regulated in the same way - as a conditional use in the OS and R zones and as a use by right in the C, E, and I zones. The

- **Bus Stop.** A location where regularly-scheduled bus service or streetcar service stops to load and unload passengers. For purposes of measuring, the bus stop is the location of a sign denoting the bus stop.
- **Light Rail Line.** A public rail transit line that usually operates at grade level and that provides high capacity, regional level transit service. A light rail line is designed to share a street right-of-way although it may also use a separate right-of-way or easement. Existing and future light rail lines are designated on the Regional Transitways Map in the Transportation Element of the Comprehensive Plan. ~~Arterial Streets Classification Policy~~. Low capacity, district level, or excursion rail transit service, such as a ~~vintage trolley line~~ streetcar, is not included.
- **Light Rail Alignment.** A ~~street, or other~~ public right-of-way or easement, that has a light rail line in it, or that has been designated as a preferred alternative light rail alignment.
- **Preferred Alternative Light Rail Alignment.** A ~~street, or other~~ public right-of-way or easement, designated by City Council and the regional transit agency as a future light rail alignment after completion of a Draft Environmental Impact Statement (DEIS).
- **Transit Station.** A location where light rail vehicles stop to load or unload passengers. For purposes of measuring, the transit station consists of the station platform.
- **Transit Street.** A street that is classified in the Transportation Element of the Comprehensive Plan as:
  - A Major Transit Priority Street, or a ~~Minor Transit Street~~, according to the Arterial Streets Classifications and Policies, Transit Access Street, or Community Transit Street;
  - A ~~Major Transit Priority Street, a Transit Access Street, or an Alternative For Major Transit Priority Street in the Central City Transportation Management Plan;~~ or
  - A Regional Transitway not also classified as a Regional Trafficway, according to the Transportation Element of the Comprehensive Plan ~~Arterial Streets Classifications and Policies~~. Regional Transitways that are entirely subsurface are not included for the purposes of this Title.

#### AMEND CHAPTER 33.920, DESCRIPTIONS OF USE CATEGORIES

##### 33.920.400 Basic Utilities

- A. - B.** [No change]
- C. Examples.** Examples include water and sewer pump stations; sewage disposal and conveyance systems; electrical substations; water towers and reservoirs; water quality and flow control facilities; water conveyance systems; stormwater facilities and conveyance systems; telephone exchanges; mass transit stops or turn arounds, light rail stations, transit centers, ~~park and ride facilities for mass transit~~; and public safety facilities, including fire and police stations, and emergency communication broadcast facilities.

**Commentary**

siting of park-and-ride facilities should conform to the policies of Tri-Met and the City. The City's siting policies are found in the Transportation Element of the Comprehensive Plan.

**D. Examples.**

This change for consistency with the change in C. above.

**33.920.510. Aviation and Surface Passenger Terminals**

This change is for consistency with the change in 33.920.400 above.

**33.930.030 Measuring Distance**

H. These measurement conventions were previously proposed as part of new definitions for bus stops and Transit Stations. They are more appropriate in this section with other measuring conventions.

**E. Exceptions.**

1. Services where people are generally present, other than mass transit stops or turn arounds, light rail stations, transit centers, ~~park-and-ride facilities for mass transit~~, and public safety facilities, are classified as Community Services or Offices.

**33.920.420 Community Services**

**A. - B.** [No change]

**C. Examples.** Examples include libraries, museums, senior centers, community centers, publicly owned swimming pools, youth club facilities, hospices, ambulance stations, drug and alcohol centers, social service facilities, mass shelters or short term housing when operated by a public or non-profit agency, vocational training for the physically or mentally disabled, crematoriums, columbariums, mausoleums, soup kitchens, park-and-ride facilities for mass transit, and surplus food distribution centers.

**D.** [No change]

**33.920.510 Aviation And Surface Passenger Terminals**

**A - C.** [No change]

**D. Exceptions.**

1. Bus and rail passenger stations for subregional service such as mass transit stops ~~and park-and-ride facilities~~ are classified as Basis Utilities. Park-and-ride facilities are classified as Community Service.
- 2 - 3. [No change]

**AMEND CHAPTER 33.930, MEASUREMENTS****33.930.030 Measuring Distances**

**A. - G.** [No change.]

**H. Measurement of distance from a bus stop or transit station.** When measuring distance from a bus stop, the measurement is taken from the bus stop sign. When measuring distance from a transit station, the measurement is taken from the edge of the platform.



## **COMPREHENSIVE PLAN AMENDMENTS**

Minor text changes are being made to a limited number of Comprehensive Plan objectives. The intent of the changes is to update and clarify terms.

Chapter 2: Transportation of the Comprehensive Plan, of the TSP documents the major changes being made to the Comprehensive Plan. Goals 6 and 11B are substantially rewritten, consistent with the TPR and the 2000 RTP. The Central City Transportation Plan (CCTMP) goal, policies, and objectives are not being rewritten at this time, but are included in Chapter 2. The CCTMP classification descriptions and maps are being revised and are also included in Chapter 2.

Other parts of the Comprehensive Plan, particularly the adopted neighborhood plans, contain references to Transportation Element classifications and terms. Changes to those plans are not being made as part of the TSP.

**Commentary****2.12 Transit Corridors**

Major transit routes is confusing because it does not refer to the Transportation Element designations. The Transportation Element is being revised to use the transit street designations from the Central City Transportation Management Plan (CCTMP) - Major Transit Priority Streets and Transit Access Streets - which are generally equivalent to the earlier TE designation, Major City Transit Streets.

**2.13 Auto-Oriented Commercial Development**

Updates name.

**2.17 Transit Stations and Transit Centers**

Updates terms. The title uses 'Transit Stations' which is the correct name. The text uses 'light rail Transit Stations'. The Transportation Element defines 'Transit Station' to mean a light rail Transit Station.

**5.4 Transportation System**

Objective D. Updates terms. The title uses 'Transit Stations' which is the correct name. The text uses 'light rail Transit Stations'. The Transportation Element defines 'Transit Station' to mean a light rail Transit Station.

## Goal 2 Urban Development

### Policy 2.12 Transit Corridors

Provide a mixture of activities along ~~major transit routes~~ Major Transit Priority Streets, Transit Access Streets, and Main Streets to support the use of transit. Encourage development of commercial uses and allow labor-intensive industrial activities which are compatible with the surrounding area. Increase residential densities on residentially-zoned lands within one-quarter mile of existing and planned transit routes to transit-supportive levels. Require development along transit routes to relate to the transit line and pedestrians and to provide on-site pedestrian connections.

### Policy 2.13 Auto-Oriented Commercial Development

Allow auto-oriented commercial development to locate on streets designated as Major City Traffic Streets by the ~~Arterial Streets Classifications and Policies~~ Transportation Element. Also allow neighborhood level auto-oriented commercial development to locate on District Collector Streets or Neighborhood Collector Streets near neighborhood areas where allowed densities will not support development oriented to transit or pedestrians. Where neighborhood commercial uses are located on designated transit streets, support pedestrian movement and the use of transit by locating buildings and their entrances conveniently to transit users, pedestrians, and bicyclists and providing on-site pedestrian circulation to adjacent streets and development.

### Policy 2.17 Transit Stations and Transit Centers

Encourage transit-oriented development patterns at ~~light rail~~ Transit Stations and at transit centers to provide for easy access to transit service. Establish minimum residential densities on residentially-zoned within one-half mile of ~~light rail~~ Transit Stations and one-quarter mile of transit centers that support the use of transit. The design and mix of land uses surrounding ~~light rail~~ Transit Stations and transit centers should emphasize a pedestrian- and bicycle-oriented environment.

## Goal 5 Economic Development

### Policy 5.4 Transportation System

[No change]

#### Objectives:

A. – C. [No change]

D. Support transit-supportive development and redevelopment along designated transit streets and in the vicinity of ~~light rail~~ Transit Stations.

E. – H. [No change]

### 5.7 Business Environment Within Designated Commercial Areas

[No change]

#### Objectives:

A. – D. [No change]

**Commentary****5.7 Business Environment Within Designated Commercial Areas**

Objective E. The terms are changing to be consistent with revised Transportation Element designations. Major City Transit Street is being dropped and the equivalent transit designations citywide will be either Major Transit Priority Street or Transit Access Street.

**5.10 Columbia South Shore**

Objective F. The capacity of the overall street system, not just highways and roads, are important to maintaining capacity. Projects identified to improve the capacity of Columbia South Shore streets are included in the Transportation System Plan.

**12.1 Portland's Character**

Objective A. Updates term.

**12.8 Community Planning**

Objective A. Updates terms.

- E. Concentrate the expansion of commercial and mixed use activities near the intersections of Major City Traffic ~~or Transit~~ Streets or Major Transit Priority or Transit Access Streets as designated by the Transportation Element, and ~~near~~ adjacent to Major Transit Priority and Transit Access Streets.
- F. [No change]

### 5.10 Columbia South Shore

[No change]

#### Objectives:

- A. – E. [No change]
- F. Protect the transportation capacity of the area's ~~highways and roads~~ street system through both review of individual ~~projects and identification~~ developments and construction of new facilities which increase the system's capacity development of projects identified in the Transportation System Plan.
- G. [No change]

## Goal 12 Urban Design

### 12.1 Portland's Character

[No change]

#### Objectives:

- A. Give form to the City and extend the intimate and human scale that typifies Portland. Preserve public access to light and air by managing and shaping the mass, height and bulk of new development. Retain the variety of alternative routes between locations that is produced by using a small block size. Focus new development at locations where necessary services already exist such as near ~~light rail~~ Transit Stations and along transit streets.
- B. – I. [No change]

### 12.8 Community Planning

[No change]

#### Objectives:

- A. Consider as part of the development of community plans the following urban design issues: the need for new design zones; the protection of significant historical resources; the location of major and minor points of transition, gateways and focal points; the protection and enhancement of scenic resources; the location of existing public attractions; good locations for possible new attractions; the location of trails, ~~pedestrian paths and bicycle routes and~~ walkways, bikeways, and off-street paths.

**Commentary****Arterial Streets Classification and Policy**

Arterial Streets Classification and Policy is the title of the 1977 document of street classifications. It was not originally part of the Comprehensive Plan. In 1992 it was incorporated into the Transportation Element of the Comprehensive Plan and renamed Arterial Streets Classifications and Policies. With this update, the Transportation Element will refer to the set of policies and maps contained in Goal 6, Goal 11B, and the CCTMP Goal. Goal 6 contains the classification descriptions and maps previously known by this name.

**Local Improvement District**

The term is being replaced with a new definition included in Chapter 2 of the TSP.

**Major City Traffic Street**

Major City Traffic Street is a traffic classification. It is defined by the policy of the same name included in Chapter 2 of the TSP.

## Appendix B Glossary

### Delete the following glossary terms

**Arterial Streets Classification Policy:**

A policy adopted by City Council in June 1977, which defines the transportation uses and level of activities on city streets.

**Local Improvement District:**

A system whereby adjacent and benefiting property owners share in the expense of public improvements.

**Major City Traffic Street:**

A city street which is intended to serve as a principal route for movement of traffic to and within major areas of the city.



## PROJECT DEVELOPMENT

Development and implementation of transportation improvement projects within Portland's boundary falls into three categories of responsibility: private, regional, and local. Private development builds a substantial share of Portland's transportation system through the permit process. PDOT approves and oversees construction of these projects, but is not directly responsible for the project development process. ODOT or Tri-Met manages transportation improvements to the regional system, such as freeways, highways and light rail. PDOT participates in the project development process, but does not directly manage these projects. Local projects occur in right-of-way owned by the City. PDOT is responsible for the implementation of these projects.

This section describes PDOT's process for developing and implementing local projects. PDOT formalized a project delivery system to provide a consistent process for implementing capital transportation improvement projects. The benefits include a well-understood process that engages citizens, improves communication, and ensures a project that meets the needs of its users. The process described below applies to major transportation projects and may be modified for smaller projects or those that do not have a planning component.

### Policy Review

Transportation improvement projects are intended to support the City's Comprehensive Plan and the region's 2040 Growth Concept. It is therefore important for the project development process to be undertaken as a policy implementation tool. A project scope refers to the range of issues the project will be designed to address. A project's initial scope is guided by the existing policies specific to the facility being planned for improvement and to the project's study area. These policies either provide the desired functional and basic design characteristics of the study area's transportation system, or identify specific issues that need to be addressed through the project development process.

Policies 6.4 through 6.11 (Street Classification and Description policies) of the Transportation Element of the Comprehensive Plan establish the functional design characteristics of each street within the study area. The project must be consistent with the functional intent of the street classifications. It may also be necessary to fulfill some or all of the provisions of the 2000 RTP's Project Development Requirements section.

Other adopted policies, contained within either the Transportation Element, neighborhood plans, plan districts, or area planning documents, often require a specific issue, or set of issues, to be resolved as part of the project development process. Together, these street classifications and area-specific policies establish the preliminary scope of the project and a preliminary set of objectives for the plan development process to consider.

A number of planning documents also serve as guidelines for developing specific project design recommendations. These guidelines and standards refine the range of design options the project should consider. Documents that provide design guidance for project development include:

- Pedestrian Design Guide
- Bicycle Master Plan- Appendix A

- Design Guide for Public Street Improvements
- Transit Preferential Streets Sourcebook
- Creating Livable Street: Street Design for 2040
- Green Streets: Innovative Solutions for Stormwater and Street Crossings
- Trees for Green Streets: an Illustrated Guide
- AASHTO Traffic Engineering Design Guidelines
- Design Guide for Public Street Improvements

## **Project Development Process**

PDOT's Transportation Planning and the Project Management Divisions share responsibility for project development, based primarily on the project's lifecycle stage. The Transportation Planning division is responsible for developing the basic plan framework from which specific projects are identified. These include planning projects that cover large subareas of the City's transportation system. The plans establish a comprehensive policy and conceptual design framework for the transportation system and its relationship to the land uses it serves. This planning process also identifies the need for specific transportation improvement projects.

Once a specific transportation improvement project has been identified, the Project Management Division is responsible for 'cradle-to-grave' implementation. This includes all subsequent steps necessary to complete the project: developing specific design recommendations, design engineering, and final construction through a single project manager or management team.

Key elements of a successful project development process include:

- Comprehensiveness

The project development process uses a multidisciplinary approach that typically draws from the fields of economics, urban design, and transportation engineering to better understand the relationships between land use and transportation issues. The process is also based on a multimodal approach that seeks to develop an overall balanced transportation system that provides choices and serves all users.

- Coordination

Interagency coordination is ensured through a technical advisory committee made up of State, regional, and local agency representatives. The technical advisory committee (TAC) is responsible for monitoring the project development process. TAC participation depends on the scale of the project, types of issues to be addressed, and potential impacts that extend beyond the operation of the transportation system.

- Public involvement

The project development process heavily relies on public involvement to ensure the project meets the needs of the residents and businesses it is intended to serve. A variety of public involvement approaches is used throughout the project development process. The citizens advisory committee (CAC) is a fundamental component. Along with the TAC, the CAC directly oversees the project development process and assists in decision making.

## Project Delivery System Process

The Project Management Division uses a basic five-step process for delivering projects to a successful completion. The process can take anywhere from 6 months to over 2 years of study and deliberation with the community. The process varies, based on the needs and complexity of each project. The five basic steps include chartering, planning, endorsement, selection of a preferred alternative, and project approval, as described below.

### 1. Chartering

Chartering refers to the initial process of building consensus with all the key stakeholders around the project's specific goal and objectives. The initial foundation for building consensus relies on existing policies contained within the Transportation Element of the Comprehensive Plan, neighborhood plans, and other policy documents that define transportation issues and preferred courses of action. The process expands on the level and detail of knowledge about the issues specific to the study area by collecting and analyzing technical data, such as traffic volumes, turn counts, and accident histories. The public involvement process provides an understanding of how the existing system relates to the community's desires and expectations of how the system should function.

These inputs are then refined into a set of project-specific goals and objectives, which serve as the basic guiding design directives for all subsequent steps in the process. Chartering is complete when the project objectives have been established, a project team with the requisite skills has been assembled, with the team's roles and responsibilities within the project development process have been defined.

### 2. Planning the Project

Once the project has been chartered, the next step is develop a detailed work program for successfully completing the project. The work program outlines all the essential inputs needed for decision making along the way and the roles and responsibilities of the project team. The work program traditionally includes three general products:

- Existing Conditions Report

Typically, an existing conditions report is prepared to document land use, environmental, demographic, and economic conditions, as well as the physical and operational conditions of the transportation system within the study area. The data provide a common technical understanding of how the transportation system currently functions and relates to the physical and social environment around it.

- Alternatives Development

With an understanding of the issues and objectives established, a broad range of conceptual design alternatives is developed. The alternatives development step allows consideration of creative and innovative design solutions to address the project objectives. The range of alternatives is refined to create a core set of design options that merit more detailed evaluation.

- Alternatives Evaluation

This step evaluates the relative performance of each alternative, using policy and the project objectives as evaluation criteria. A ‘No Build’ alternative is also analyzed for comparison purposes. The multidisciplinary approach continues to be used to look at how each alternative addresses land use and multimodal transportation issues. Traffic operations are typically modeled, using 20-year traffic volume forecasts. Economics and urban design perspectives look at how each alternative potentially supports the land use vision for the project’s study area. The evaluation also reviews compliance with applicable policies, impacts to the transportation system that surrounds the study area, potential environmental impacts, and, in many cases, order-of-magnitude cost comparisons.

### 3. Endorsement

Endorsement secures the collective commitment of stakeholders to actively support the project work program and work towards its successful completion. It is an ongoing process of developing and maintaining working relationships with stakeholders, the community, and staff. The public involvement process is a key component of project endorsement. It ensures the delivered project meets the needs of its users and the community it is intended to serve. Special attention is given to reaching out to those portions of the community that usually do not participate or have unique needs. PDOT uses a variety of forums and techniques to encourage broad public participation and comment on the development of its projects. These techniques generally include:

- Citizen Advisory Committee (CAC)

The CAC plays a central role in overseeing the project development process. Made up out of a broad range stakeholders from the community (e.g., residents, businesses, neighborhood and business associations, special interest groups), the CAC regularly meets with staff throughout the project development process to offer input and help guide decision making.

- Public Events (e.g., open houses, workshops)

To gather public input from beyond the CAC, most projects typically hold events, such as open houses and workshops, where the general public is invited to learn more about the project and offer feedback. The design and function of these events can vary from purely informational to very hands-on. The purpose is to both raise awareness about the project and give people a chance for meaningful participation without the time and energy commitment to a CAC. Notification is often through direct mail to residents and businesses within the project’s study area and press releases to community organizations and local media outlets. Most projects hold a number of these public events at key decision-making points throughout the project development process.

- Surveys

Surveys are another tool for expanding the range of public comment and participation. People who do not typically have the time to attend a public open house or workshop appreciate the ability to comment without leaving their homes or businesses. Surveys are typically used in the early stages of the plan development process to gauge public consensus on issues. Options include direct mail and door-to-door surveys.

- Neighborhood and Business Associations

The City's network of neighborhood and business associations serves as an important working link between PDOT and the community and facilitates broad dissemination of project information. PDOT regularly briefs the relevant associations and asks them to participate on the CAC. .

- Other

Press releases and project newsletters are other tools used to disseminate project information and updates to the public. PDOT is increasingly using the internet to provide easy access to project information, documents, and schedules of upcoming events and to obtain public comment.

#### 4. Selection of a Preferred Alternative

Based on the results of the alternatives evaluation and public comment, a preferred alternative is recommended. The preferred alternative is then further refined to resolve or mitigate remaining issues identified in the evaluation process. A cost estimate is then developed. An implementation strategy is typically also included, along with recommended priorities and timing (phasing) of individual project elements as the project is constructed.

#### 5. Project Approval

For most projects, the preferred alternative is presented at a public hearing before City Council for approval by some form of action, such as adoption by resolution or report to Council. Projects developed from previously adopted plans (e.g., the Bicycle Master Plan or Pedestrian Master Plan) are not presented to City Council. The City Engineer can approve smaller, less complex projects for construction.

## Implementation

The final steps in the project development process lead to construction of the adopted project recommendations. Once construction funding has been secured, preliminary and final design engineering of the project occurs before actual construction. The engineering phases prepare the construction-ready plans and documentation necessary for contracting and final construction.

- **Construction Funding**

A variety of potential funding sources exist for implementation of a transportation improvement project. Some funding sources are limited to certain types of projects. For example, urban renewal funds may be applied only to projects that support designated urban renewal districts. Given the current fiscal climate, projects typically need to rely on a phased approach and more than one source of funding before they are completed. Chapter 14: Financial Plan, of the TSP describes the sources of funding available for transportation improvement projects.

The Capital Improvement Program (CIP) developed by PDOT is the primary organizing document for the allocation of funds for transportation capital improvement projects. In most cases, projects must be identified in the CIP to be eligible for funding.

- **Preliminary and Final Design Engineering**

Detailed civil engineering drawings are prepared at this step. The project street is surveyed, and many of the final design details, such as storm drainage, landscaping, signage, and striping, are resolved. A traffic management plan for the construction phase, bid documents (if necessary), and final cost estimates are also prepared.

- **Construction**

Two basic options exist for constructing transportation improvement projects: using a private contractor or the City's Bureau of Maintenance (BOM). Most projects go to public bid for private contractors, using a competitive bidding process. BOM usually constructs smaller capital improvement projects (typically under \$100,000), such as speed bumps and related traffic calming devices. PDOT's Project Management Division continues to oversee construction until the project is completed.

- **Monitoring and Evaluation**

If the project could potentially have significant impacts on adjacent streets, PDOT may conduct performance monitoring over several months. For example, PDOT typically takes traffic counts for traffic calming projects to assess changes in traffic patterns and the potential for diversion. Adjustments to signal timing, striping, and signage can be made to fine-tune operations and safety on the project street.

- **Closeout**

PDOT conducts a final inspection of the constructed project to close out the construction contract. 'As built' drawings are prepared and entered into the City's geographic information system (GIS) database. Final costs and billings are reconciled. Finally, the project files are archived.

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## STREET STANDARDS AND GUIDELINES

Private development in the City of Portland may improve existing streets and/or create new streets. The Development Services division of the Bureau of Transportation, Engineering, and Development has the task of ensuring that the transportation network is developed appropriately.

The handbook, *Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process*, provides design information and practices that support public street design through the land use and building permit process. The Development Services division uses this information to establish street improvement requirements for land use reviews and building permits. Information in the handbook is based largely on existing documents and adopted practices. The documents and practices referenced in the handbook are the basis for decision making.

The handbook contains the following four sections:

- Section I – Connectivity and street improvements
- Section II - Criteria for determining street/pedestrian width and improvements
- Section III – Documents Summary
- Section IV – Administrative review process for technical decisions made under the authority of the City Engineer

The handbook contains street standards that meet or exceed the TPR and 2000 RTP requirements for incorporating ‘skinny streets’ into local ordinances. ‘Skinny streets’ are local streets that are narrower (especially in width of pavement) than is common in most parts of this country. According to the 2000 RTP, ‘skinny streets’ include no more than 46 feet of total right-of-way, with pavement widths of no more than 28 feet. Most streets built in Portland in the RF through R5 zones meet the ‘skinny street’ requirements. Some streets in other zones are also built with pavement widths of 28 feet or less. The density and intensity of development, as well as emergency access needs, are taken into consideration.

### Connectivity and Street Improvements

Connections should create short blocks, particularly in mixed-use areas of planned high-density development. Streets and pedestrian/bicycle accessways (where streets are not feasible) should connect to transit routes, schools, parks, and between and within residential neighborhoods and other activity centers. Metro’s adopted spacing standards are a maximum of 530 feet for streets and 330 feet for pedestrian/bicycleways where streets are not possible. In some parts of the City, street master plans provide further guidance on connectivity.

Connectivity is considered when a site is reviewed through the land use or building permit process. A new street or street extension may be required as a condition of approval.

In addition, a site may have frontage on a street that is not improved to current standards. Adjacent properties are responsible for their frontage improvements (per Title 17.88.010). Where the right-of-way width is not sufficient, a dedication may be required. Where improvements are not up to standard, the developer may be required to obtain a street improvement permit and complete frontage improvements prior to building occupancy.

### **Street Improvements and Right-of-Way Width for Public Streets**

The following tables summarize the most common criteria affecting street design elements. Elements are those items that require horizontal space, and therefore, establish the amount of width needed for the public right-of-way. The public right-of-way is land dedicated to the public for street purposes. Right-of-way widths shown in the tables are the needed width for the full street improvement.

Information is presented based on land use zoning. Zoning is identified in the City's Official Zoning Maps. Classifications (traffic, pedestrian, bicycle) are listed in the Transportation Element of the Comprehensive Plan.

The following tables cover only the most common cases. Exceptions may be made where there are topographic or existing development constraints, or where proposed improvements should match or transition to existing facilities. The City Engineer makes the final determination of elements and widths within the public right-of-way, but such determinations are not intended to support pavement widths that are wider than described in the handbook.

**Table 6.1  
Through-Street Street Standards: RF – R7 Zones  
(OR dead-end less than 300’ in length)**

<i>Traffic Classification</i>	<i>On-street Parking</i>	<i>Roadway Width<sup>1</sup></i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way Width</i>
Local Service Street	None or one lane	20’	Local Service Street <b>not</b> in a Pedestrian District	10’ each frontage	40’
Local Service Street	None or one lane	20’	City Walkway -OR- Local Service Street in a Pedestrian District	12’ each frontage	44’
Local Service Street	Two lanes	26’	Local Service Street <b>not</b> in a Pedestrian District	10’ each frontage	46’
Local Service Street	Two lanes	26’	City Walkway -OR- Local Service Street in a Pedestrian District	12’ each frontage	50’
<b><sup>1</sup> Additional width for bicycle lanes in the roadway</b>					
<i>Traffic Classification</i>		<i>Bicycle Classification</i>	<i>ADT</i>	<i>Additional Right-of-way Needed</i>	
Local Service Street, Neighborhood Collector, District Collector, Major City Traffic Street					
Neighborhood Collector, District Collector, Major City Traffic Street		City Bikeway	< 3000	No additional width	
Neighborhood Collector, District Collector, Major City Traffic Street		City Bikeway	≥ 3000	5’ each bike lane	
Additional pavement width to accommodate bicycle lanes shall be determined on a case-by-case basis. Existing parking patterns and street width, and the extent to which additional offsite right-of-way may be obtained, will be considered.					
Other cases not listed above area designed on a case-by-case basis.					

**Table 6.2  
Dead-End Street Standards: RF – R7 Zones  
(300’ or more in length)**

<i>Traffic Classification</i>	<i>On-street Parking</i>	<i>Roadway Width</i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way Width</i>
Local Service Street	No on-street parking	20’	Local Service Street <b>not</b> in a Pedestrian District	10’ each frontage	40’
Local Service Street	No on-street parking	20’	City Walkway -OR- Local Service Street in a Pedestrian District	12’ each frontage	44’
Local Service Street	One lane	28’	Local Service Street <b>not</b> in a Pedestrian District	10’ each frontage	48’
Local Service Street	One lane	28’	City Walkway -OR- Local Service Street in a Pedestrian District	12’ each frontage	52’
Local Service Street	Two lanes	32’	Local Service Street <b>not</b> in a Pedestrian District	10’ each frontage	52’
Local Service Street	Two lanes	32’	City Walkway -OR- Local Service Street in a Pedestrian District	12’ each frontage	56’
Other cases not listed above are designed on a case-by-case basis.					

**Table 6.3  
Cul-de-Sac Street Standards: RF – R7 Zones  
(turnaround on a dead-end street)**

<i>Traffic Classification</i>	<i>Connecting Street Length</i>	<i>Pavement Diameter</i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way Width (diam.)</i>
Local Service Street	300' or greater	70'	Local Service Street <b>not</b> in a Pedestrian District	6.5' combination curb/sidewalk with 5' clear zone at the back of walk	83'
Local Service Street	300' or greater	70'	Local Service Street in a Pedestrian District	12' sidewalk corridor	94'
Local Service Street	Less than 300'	Typ. 36' in diameter, but designed on a case-by case basis	Local Service Street <b>not</b> in a Pedestrian District	6.5' combination curb/sidewalk with 5' clear zone at the back of walk	49 <sup>*x</sup>
Local Service Street	Less than 300'	Typ. 36' in diameter, but designed on a case-by case basis	Local Service Street in a Pedestrian District	12' sidewalk corridor	60 <sup>*x</sup>
Any other case not listed above is designed on a case-by-case basis.					
* Width is determined on a case-by-case basis					

**Table 6.4  
Alleys and Other Street Types: RF – R7 Zones**

<b>Alley</b>			
<i>Travelways</i>	<i>Parking</i>	<i>Full Alley Width</i>	<i>ROW Width</i>
Two-way	No parking allowed	18' + 1' for curbs and/or buffer on each side	20'
One-way	No parking allowed	10' + 1' for curbs and/or buffer on each side	12'
<b>Other Street Types</b>			
Public streets, including but not limited to substandard improvements, scenic drives, and green streets, are designed on a case-by case basis, with elements and widths determined by the City Engineer.			
<b>Partial Width Streets</b>			
Partial width streets typically occur when only a single frontage or portion of frontage can be developed at one time. The partial width street components and resulting right-of-way width should be based on the appropriate parts of tables above. Exceptions may occur where portions of the partial width street have already been built or where widths should more appropriately reflect adjacent existing street segments (as determined by the City Engineer).			
<b>Pedestrian Connections</b>			
<i>Zone</i>	<i>Sidewalk (Walkway) Width</i>	<i>Buffer width (edge of walkway to property line)</i>	<i>Right-of-Way Width</i>
RF– R7	6'	4.5' each side	15'
For all zoning categories, care must be taken to ensure that the proposed alignment for a public pedestrian connection provides clear visibility through the length of the connection.			

**Table 6.5  
Through-Street Standards: R5 Zone  
(OR dead-end less than 300' in length)**

<i>Traffic Classification</i>	<i>Onstreet Parking</i>	<i>Road-way Width<sup>1</sup></i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way width</i>
Local Service Street	None or one lane	20'	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage	42'
Local Service Street	None or one lane	20'	City Walkway –OR- Local Service Street in a Pedestrian District	12' each frontage	44"
Local Service Street	Two lanes	26'	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage	48'
Local Service Street	Two lanes	26'	City Walkway –OR- Local Service Street in a Pedestrian District	12' each frontage	50'
<b><sup>1</sup> Additional width for bicycle lanes in the roadway</b>					
<i>Traffic Classification</i>			<i>Bicycle Classification</i>	<i>ADT</i>	<i>Additional Right-of-way needed</i>
Local Service Street, Neighborhood Collector, District Collector, Major City Traffic Street					
Neighborhood Collector, District Collector, Major City Traffic Street			City Bikeway	< 3000	No additional width
Neighborhood Collector, District Collector, Major City Traffic Street			City Bikeway	≥ 3000	5' each bike lane
Additional pavement width to accommodate bicycle lanes shall be determined on a case-by-case basis. Existing parking patterns and street width and the extent to which additional off-site right-of-way may be obtained will be considered					
Other cases not listed above are designed on a case-by-case.					

**Table 6.6  
Dead-End Street Standard: R5 Zone  
(300' or more in length)**

<i>Traffic Classification</i>	<i>On-street Parking</i>	<i>Roadway Width</i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way width</i>
Local Service Street	No on-street parking	20'	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage	42'
Local Service Street	No on-street parking	20'	City Walkway -OR- Local Service Street in a Pedestrian District	12' each frontage	44'
Local Service Street	One lane	28'	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage	50'
Local Service Street	One lane	28'	City Walkway -OR- Local Service Street in a Pedestrian District	12' each frontage	52'
Local Service Street	Two lanes	32'	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage	54'
Local Service Street	Two lanes	32'	City Walkway -OR- Local Service Street in a Pedestrian District	12' each frontage	56'
Other cases not listed above are designed on a case-by-case basis.					

**Table 6.7  
Cul-de-Sac Street Standard: R5 Zone  
(OR turnaround on a dead-end street)**

<i>Traffic Classification</i>	<i>Connecting Street Length</i>	<i>Pavement Diameter</i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way Width (diam.)</i>
Local Service Street	300' or greater	70'	Local Service Street <b>not</b> in a Pedestrian District	11'	92'
Local Service Street	300' or greater	70'	Local Service Street in a Pedestrian District	12'	94'
Local Service Street	Less than 300'	Typ. 36' in diameter, but designed on a case-by case basis	Local Service Street <b>not</b> in a Pedestrian District	11'	58 <sup>*</sup>
Local Service Street	Less than 300'	Typ. 36' in diameter, but designed on a case-by case basis	Local Service Street in a Pedestrian District	12'	60 <sup>*</sup>
Any other case not listed above is designed on a case-by-case basis.					
* Width is determined on a case-by-case basis					

**Table 6.8**  
**Alleys and Other Street Types: R5 Zone**

<b>Alley</b>			
<i>Travel Direction</i>	<i>Parking</i>	<i>Full Alley Width</i>	<i>ROW Width</i>
Two-way	No parking allowed	18' + 1' for curbs and/or buffer on each side	20'
One-way	No parking allowed	10' + 1' for curbs and/or buffer on each side	12'
<b>Other Street Types</b>			
Public streets, including but not limited to substandard improvements, scenic drives and green streets, are designed on a case-by case basis, with elements and widths determined by the City Engineer			
<b>Partial Width Streets</b>			
Partial width streets typically occur when only a single frontage or portion of frontage can be developed at one time. The partial width street components and resulting right-of-way width should be based on the appropriate parts of charts above. Exceptions may occur where portions of the partial width street have already been built or where widths should more appropriately reflect adjacent existing street segments (as determined by the City Engineer).			
<b>Pedestrian Connections</b>			
<i>Zone</i>	<i>Sidewalk (Walkway) Width</i>	<i>Buffer Width (edge of walkway to property line)</i>	<i>Right-of-Way Width</i>
R5	6'	4.5' each side	15'
For all zoning categories, care must be taken to ensure that the proposed alignment for a public pedestrian connection provides clear visibility through the length of the connection.			

**Table 6.9  
Through-Street Street Standards: R3 – RX Zones  
(OR dead-end street)**

<i>Traffic Classification</i>	<i>On-street Parking</i>	<i>Roadway Width<sup>1</sup></i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way Width</i>
Local Service Street	None	28' **	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage ***	*
Local Service Street	One lane	28'	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage ***	50'
Local Service Street	Two lanes	32'	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage ***	54'
Local Service Street	None	28'**	City Walkway -OR- Local Service Street in a Pedestrian District	12' each frontage	*
Local Service Street	One lane	28'	City Walkway -OR- Local Service Street in a Pedestrian District	12' each frontage	52'
Local Service Street	Two lanes	32'	City Walkway -OR- Local Service Street in a Pedestrian District	12' each frontage	56'
<b><sup>1</sup> Additional width for bicycle lanes in the roadway</b>					
<i>Traffic Classification</i>			<i>Bicycle Classification</i>	<i>ADT</i>	<i>Additional Right-of-way Needed</i>
Local Service Street, Neighborhood Collector, District Collector, Major City Traffic Street			City Bikeway	< 3000	No additional width
Neighborhood Collector, District Collector, Major City Traffic Street			City Bikeway	≥ 3000	5' each bike lane
Additional pavement width to accommodate bicycle lanes shall be determined on a case-by-case basis. Existing parking patterns and street width and the extent to which additional offsite right-of-way may be obtained will be considered.					
*Width is determined on a case-by-case basis.					
**In some cases, it may be feasible to reduce the listed street width if parking is not needed and the Fire Bureau requirements are accommodated.					
*** For RH, RX, CN1, CM, CS, CX or EX zoning where the site has frontage on a Neighborhood Collector, District Collector, or Major City Traffic street, <b>and</b> the Local Service Street intersects with the Traffic Street listed here, the sidewalk corridor width on the Local Service Street frontage is 12'.					
Other cases not listed above are designed on a case-by-case basis.					

**Table 6.10  
Cul-de-Sac Street Standards: R3 – RX Zones**

<i>Traffic Classification</i>	<i>Connecting Street Length</i>	<i>Pavement Diameter</i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way Width (diam.)</i>
Local Service Street	300' or greater	70'	Local Service Street <b>not</b> in a Pedestrian District	11'	92'
Local Service Street	300' or greater	70'	Local Service Street in a Pedestrian District	12'	94'
Local Service Street	Less than 300'	Typ. 36' in diameter, but designed on a case-by case basis	Local Service Street <b>not</b> in a Pedestrian District	11'	58 <sup>*</sup>
Local Service Street	Less than 300'	Typ. 36' in diameter, but designed on a case-by case basis	Local Service Street in a Pedestrian District	12'	60 <sup>*</sup>

Any other case not listed above is designed on a case-by-case basis.

**Table 6.11  
Alleys and Other Street Types: R3 – RX Zones**

<b>Alleys</b>			
<i>Travel ways</i>	<i>Parking</i>	<i>Full Alley Width</i>	<i>ROW Width</i>
Two-way	No parking allowed	18' + 1' for curbs and/or buffer on each side	20'
One-way	No parking allowed	10' + 1' for curbs and/or buffer on each side	12'
<b>Other Street Types</b>			
Public streets, including but not limited to substandard improvements, scenic drives and green streets, are designed on a case-by case basis, with elements and widths determined by the City Engineer.			
<b>Partial Width Streets</b>			
Partial width streets typically occur when only a single frontage or portion of frontage can be developed at one time. The partial width street components and resulting right-of-way width should be based on the appropriate parts of charts above. Exceptions may occur where portions of the partial width street have already been built or where widths should more appropriately reflect adjacent existing street segments (as determined by the City Engineer).			
<b>Pedestrian Connections</b>			
<i>Zone</i>	<i>Sidewalk (Walkway) Width</i>	<i>Buffer Width (edge of walkway to property line)</i>	<i>Right-of-Way Width</i>
R3 – RH	6'	4.5' each side	15'
RX	Generally 8' – 20' but designed on a case-by-case basis	Minimum 5' each side	18' – 30'

For all zoning categories, care must be taken to ensure that the proposed alignment for a public pedestrian connection provides clear visibility through the length of the connection.

**Table 6.12  
Through-Street Street Standard: Zones other than RF – RX  
(OR dead-end)**

<i>Traffic Classification</i>	<i>On-street Parking</i>	<i>Roadway Width <sup>1</sup></i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way width</i>
Local Service Street	None	28' **	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage ***	*
Local Service Street	One lane	28' minimum	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage ***	*
Local Service Street	Two lanes	32' minimum	Local Service Street <b>not</b> in a Pedestrian District	11' each frontage ***	*
Local Service Street	None	28' **	City Walkway -OR- Local Service Street in a Pedestrian District	12' each frontage	*
Local Service Street	One lane	28' minimum	City Walkway -OR- Local Service Street in a Pedestrian District	12' each frontage	*
Local Service Street	Two lanes	32' minimum	Local Service Street <b>not</b> in a Pedestrian District	12' each frontage	*
<b><sup>1</sup> Additional width for bicycle lanes in the roadway</b>					
	<i>Traffic Classification</i>	<i>Bicycle Classification</i>	<i>ADT</i>	<i>Additional Right-of-Way Needed</i>	
	Local Service Street	City Bikeway	< 3000	No additional width	
	Local Service Street	City Bikeway	≥ 3000	5' each bike lane*	
Additional pavement width to accommodate bicycle lanes shall be determined on a case-by-case basis. Existing parking patterns, street width, and the extent to which additional off-site right-of-way may be obtained, will be considered.					
Other cases not listed above are designed on a case-by-case basis.					
* Width is determined on a case-by-case basis.					
** In some cases, it may be feasible to reduce the listed street width if parking is not needed and the Fire Bureau requirements are accommodated.					
*** For RH, RX, CN1, CM, CS, CX or EX zoning where the site has frontage on a Neighborhood Collector, District Collector, or Major City Traffic street, <b>and</b> the Local Service Street intersects with the Traffic Street listed here, the sidewalk corridor width on the Local Service Street frontage is 12'.					

**Table 6.13  
Cul-de-Sac Street Standards: Zones other than RF – RX**

<i>Traffic Classification</i>	<i>Connecting Street Length</i>	<i>Pavement Diameter</i>	<i>Pedestrian Classification</i>	<i>Sidewalk Corridor Width</i>	<i>Right-of-way Width (diam.)</i>
Local Service Street	300' or greater	70'	Local Service Street <b>not</b> in a Pedestrian District	11'	92'
Local Service Street	300' or greater	70'	Local Service Street in a Pedestrian District	12'	94'
Local Service Street	Less than 300'	Typ. 36' in diameter, but designed on a case-by case basis	Local Service Street <b>not</b> in a Pedestrian District	11'	58 <sup>*</sup>
Local Service Street	Less than 300'	Typ. 36' in diameter, but designed on a case-by case basis	Local Service Street in a Pedestrian District	12'	60 <sup>*</sup>

Any other case not listed above is designed on a case-by-case basis.

**Table 6.14  
Alleys and Other Street Types: Zones other than RF – RX**

<b>Alleys</b>			
<i>Travel ways</i>	<i>Parking</i>	<i>Full Alley Width</i>	<i>ROW Width</i>
Two-way	No parking allowed	18' + 1' for curbs and/or buffer on each side	20'
One-way	No parking allowed	10' + 1' for curbs and/or buffer on each side	12'
<b>Other Street Types</b>			
Public streets, including but not limited to substandard improvements, scenic drives and green streets, are designed on a case-by case basis, with elements and widths determined by the City Engineer.			
<b>Partial Width Streets</b>			
Partial width streets typically occur when only a single frontage or portion of frontage can be developed at one time. The partial width street components and resulting right-of-way width should be based on the appropriate parts of charts above. Exceptions may occur where portions of the partial width street have already been built or where widths should more appropriately reflect adjacent existing street segments (as determined by the City Engineer).			
<b>Pedestrian Connections</b>			
<i>Zone</i>	<i>Sidewalk (Walkway) Width</i>	<i>Buffer width (edge of walkway to property line)</i>	<i>Right-of-way Width</i>
CN1, CM CS, or CX	Generally 8' – 20', but designed on a case-by-case basis	Minimum 5' each side	18' – 30 <sup>*</sup>
Other	Designed on a case-by-case basis		

## Codes, Manuals, and Documents Used in the Street Design Process

The following codes, manuals, and documents are used in the street design process:

- A Policy on Geometric Design of Highways and Streets (American Association of State Highway and Transportation Officials)  
*Geometric design policy for streets, considering function, design controls, design and cross section elements, and intersections.*

- AASHTO Guide for Design of Pavement Structures (American Association of State Highway and Transportation Officials)  
*Design policy for determining pavement sections for roadways.*
- Bicycle Master Plan (City of Portland, 1998)  
*City policies and objectives regarding bicycles, recommended bikeway network, and end-of-trip facilities.*
- Central City Transportation Management Plan (City of Portland, 1995)  
*Transportation goals and policies for the Central City, including district strategies and street classifications.*
- Design Guide for Public Street Improvements (City of Portland, 1993)  
*Guide for consulting engineers, containing basic design and submittal information for street improvements, including review process, traffic design, street design, and cost estimates.*
- Manual on Uniform Traffic Control Devices (Federal Highway Administration)  
*Design and usage guide for traffic signs signals and pavement markings. This document is supplemented with the City of Portland Sign Library.*
- Pedestrian Master Plan (City of Portland, 1998)  
*Policies for pedestrian travel, improvement projects, and priorities.*
- Pedestrian Design Guide (City of Portland, 1998)  
*Guidelines for public sidewalk corridors, crosswalks, pathways, and stairs.*
- Standard Construction Specifications (City of Portland)  
*Standard construction specifications for use when designing and constructing civil infrastructure, including contract and technical requirements, streets, sewer and water, and standard drawings.*
- Title 17 of the City Code – Public Improvements  
*Authority for various regulations and improvements under the City Engineer (and the Chief Engineer for Environmental Services), including local improvements; permits; sidewalks, curbs, and driveways; street improvements; sewer and stormwater regulations; public utilities; and others.*
- Transportation Element of the Comprehensive Plan (City of Portland)  
*Part of the City’s Comprehensive Plan, it includes transportation policy, street classifications, and district policies.*
- Creating Livable Streets: Street Design Guidelines for 2040 (Metro, 2<sup>nd</sup> edition 2002)  
*A handbook developed to implement the Street Design classifications in the RTP. Local jurisdictions must consider the guidelines for regionally-significant streets and they are optional for locally funded projects.*
- Green Streets: Innovative Solutions for Stormwater and Street Crossings (Metro, 2002)  
*Recently completed handbook that provides guidance for incorporating sustainable practices into the design and construction of all types of streets. Local jurisdictions*

*must consider the guidelines for regionally-significant streets and they are optional for locally funded projects.*

- Trees for Green Streets: an Illustrated Guide (Metro, 2002)  
*Recently completed guide to appropriate street trees for Green Streets. Local jurisdictions must consider the guide for regionally-significant streets and it is optional for locally funded projects.*
- Others

Various street master plans and street improvement plans, including but not limited to:

- SW and Far SE Master Street Plans
- River District Right-of-Way Framework Plans
- Barbur Boulevard Streetscape Plan
- NE Martin Luther King Jr. Boulevard Transportation Project
- Capitol Highway Plan
- Multnomah County Street Plans
- Airport Way Secondary Infrastructure Plan
- Lloyd District Transportation Design Criteria

### **Administrative Review Process for Technical Decisions for Street Design**

This section of the Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process handbook describes the process for commenting on technical decisions made by PDOT's Development Review staff. The Development Services Manager reviews comments. The City Engineer has the authority to make final determinations on the application of street standards to specific development projects.



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## SUSTAINABLE INFRASTRUCTURE

The following discussion is taken from two recent documents: Sustainable Infrastructure Report (prepared by PDOT, the Bureau of Environmental Services, and the Water Bureau, December 2001) and Sustainable Infrastructure Supplemental Report (December 2001). The excerpts below focus on PDOT's efforts to achieve the City's goals for sustainability. The other participating bureaus' efforts are described in the documents cited above.

Developing infrastructure that is sustainable means thinking differently about how we build, what we build, and whether we build at all. It means designing and maintaining buildings, structures, and streets with an eye to resource conservation over the life of the project. It means testing new materials and practices that leave lighter impacts on the environment, yet are effective.

The goal is to encourage the bureaus to take advantage of opportunities for greener ways of doing business, and to create a place where new ideas, materials, and methods can be discussed and tested and where experts in sustainable practices can participate and help the City make good decisions.

The City's 'green building policy' directed the three infrastructure bureaus to document current and ongoing practices that minimize the use of natural resources and review opportunities for improvement in sustainable practices. The bureaus were also asked to determine the need for a rating system or set of guidelines that would provide for greener practices for infrastructure improvements.

The following text identifies actions and changes that PDOT bureaus and sections have implemented in order to operate more sustainably.

### **Bureau of Maintenance (BOM)**

#### ***Catch Basin Inserts***

While working in the street, maintenance crews are now using catch basin inserts and other products to keep asphalt grindings and other debris from entering the sewer system. Catch basin inserts are placed in the catch basins, and bio-bags are placed around the inlets. Both of these products reduce the need to clean the catch basins, and reduce harm to fish. In the past, clogged basins would need to be cleaned out by the sewer cleaning crews. BOM cleans the asphalt grinder several times per week and captures about 50 cubic yards of grinding debris per year.

#### ***Environmentally Friendly Releasing Agents***

Instead of using petroleum-based diesel, crews now use environmentally friendly releasing agents to keep hot asphalt from sticking to truck beds and hand tools. The releasing agents are biodegradable and much safer for the environment.

### ***Erosion Control***

In response to the City Code Title 10, the federal listing of salmonids as endangered species, and the City's passage of Title 10, BOM has developed erosion control measures when doing any ground-disturbing activities. These measures are intended to reduce the amount of sediment that runs off the banks into streams, where it negatively affects water quality and harms fish habitat. BOM continues to test new products, try new techniques, and implement best management practices. Examples include applying various types of mulch, installing straw wattles, and using bio-bags to prevent sediment from leaving the worksite.

### ***Reuse of Cold Milled Asphalt Grindings***

Crews currently cold mill streets to remove the excessive crowns, restore curb exposure, or simply remove the deteriorated asphalt and resurface the street. In the past, BOM disposed of a large amount of this material in landfills. BOM now sells the grindings back to the asphalt plants instead of landfilling them and using up ever-decreasing landfill space. Approximately 75,000 cubic yards of grindings are recycled and sold back to the asphalt plants. The asphalt plants use the grindings as part of their new asphalt mix. City trucks are able to deliver grindings to the plants and immediately pick up fresh asphalt to take back to the job, reducing hauling and fuel costs.

### ***Spill Response Measures***

The Clean Water Act mandates that spills be cleaned up to protect fish and water quality. Crew trucks are now equipped with spill kits to respond to emergency spills and leaks. The most common fluids are antifreeze, hydraulic fluid, oil, and brake fluid. The spill kits contain absorbent materials, plastic ties, drip pans, goggles, and gloves.

### ***Turning Off Truck Engines***

In the past, drivers would routinely drive to jobs, park, and leave the engines running, causing unnecessary gas emissions and fuel consumption. With the development of practices for clean air action days, crews are now more aware of their impact on air quality, and turn engines off when possible.

### ***Aerosol Can Recycling***

BOM has implemented a program to recycle the approximately 18,000 aerosol cans it uses per year. A special area has been set up with a puncturing device to drain any remaining can contents. The contents are collected in a barrel. When the barrel is full, it is manifested and disposed of properly. The fully aspirated can may then be crushed and recycled as scrap metal.

### ***Use Of Environmentally Safe Cleaning Products***

Instead of using heavy-duty institutional cleaning products, BOM now uses citrus-based cleaners. In addition, BOM has been working with the custodial contractor to use less caustic and more environmentally preferable cleaners. BOM uses unbleached towels with high-recycled fiber content.

### ***Use Of Environmentally Safe Oils And Fluids***

BOM uses vegetable-based oil instead of WD-40 to facilitate sewer repair work in its use of trenchless technology. The vegetable oil eases the inversion of the sewer pipe liner into the old sewer pipes. It is environmentally preferable to petroleum-based oil products because it is less toxic, renewable, and biodegradable.

### ***No-Dig Pipe Maintenance***

Crews now have the option to use trenchless technologies to repair sewer lines. The method BOM currently employs uses oil to slip a polyurethane-impregnated felt liner into a broken pipe. Once inverted and cured, the liner becomes a permanent part of the pipe. This eliminates the need to excavate the sewer and saves time, money, and materials. It also reduces the amount of ground-disturbing activity.

### ***BOM Buildings and Grounds***

BOM regularly sweeps and maintains the areas around Albina yard and the Kerby building. This minimizes the amount of airborne dust, stormwater pollution, and runoff into the sewer system.

### ***Reuse Of Barricades***

Various sections within BOM use barricades in their daily operations. When possible, BOM repairs and reuses the several thousand barricades it owns. About 500-600 of the barricades are repaired and reused per year. Some of the flashing barricades now have solar-powered light heads, reducing the demand for conventional power and disposing of fewer batteries.

### ***Reuse Of Concrete Form Lumber***

BOM's Sidewalk section creates concrete forms from lumber when installing or repairing sidewalks. BOM now reuses these forms. When the forms can no longer be reused, the wood is recycled and used for fuel at a nearby paper mill.

### ***Dechlorinated Water For Bridge Washing***

BOM is responsible for maintaining and washing bridges and other structures, such as stairs, retaining walls, and pedestrian overpasses. It now uses dechlorination tablets to reduce the chlorine in the discharge water. This reduces the negative impact on water quality.

### ***Concrete and Asphalt Recycling***

Each year, crews remove tons of cement and asphalt concrete from street maintenance and sidewalk repair projects. In the past, all this material was disposed of in landfills. Now, all concrete and asphalt rubble is screened, crushed, and recycled into an aggregate base material. This material is reused for a variety of purposes, such as base aggregate for street

maintenance activities, backfill in sewer trenches, and road shoulder maintenance. During 2000, almost 16,000 cubic yards of concrete and asphalt were crushed and reused.

### ***Recycling Aluminum Signs***

Most of the traffic control signs BOM uses are made of aluminum. When signs become dented or need to be replaced, they are sold back to the sign manufacturer for reuse instead of being put into the dumpster for disposal. This reduces both the amount and cost of disposal. About 2.6 tons of damaged aluminum signs were recycled during 2000.

### ***Paint***

BOM tries to use low volatile organic compound (VOC) paint and less toxic solvents. BOM also has a sand blasting booth and a paint booth, where items can be painted or sand blasted in a controlled environment. This prevents the spread of noxious fumes and paint chips. BOM is also using more brushes instead of sprayers to control paint flow. Some items, such as bridge rails, that used to be painted in the field are now brought to the yard for painting.

### ***Sidewalk Repair Work***

In the past, BOM and its contractors would dry-sawcut areas to be repaired. This process would generate a lot of dust. BOM crews now make wet cuts, and contractors are asked to adapt a wet cut and slurry sediment capture process. This includes using bio-bags, rock socks, catch basin inserts, and wet/dry vacuuming. Contractors are also asked to put up silt fences along the outer edge of the sidewalks to contain sediment and reduce runoff of dirt-laden water. Where possible, crews are also recycling bricks.

### ***Slurry Recovery System***

BOM staff has developed a slurry recovery system for handheld chainsaws while cutting concrete. The system includes a hydraulic power unit, a pump-vacuum system to provide water for cooling and lubricating, and a vacuum hose to vacuum slurry-laden water. Instead of draining into the stormwater system, the water is vacuumed into a metal bucket and filtered. The filtered water can be reused in the concrete cutting saw. This system has significantly decreased total water usage and the amount of concrete slurry going to the storm sewer system.

### ***Plantings***

Where possible, BOM crews save native plantings and replant them after digs. Crews are also moving toward using native species in new roadside plantings. BOM is using more drip irrigation systems and conservation-type watering systems in order to reduce water usage. Crews are also doing more handwork instead of using large pieces of equipment, resulting in less ground disturbance. Invasive plants, such as blackberry vines and ivy, are removed when possible.

### ***Solar-Powered Investigation Van***

BOM has five environmental emergency investigation trucks, one of which is equipped with solar power. The truck engine still runs on gas, but the truck is 100 percent solar powered once onsite. Solar panels replace the old gas-powered generator. Solar energy powers the onboard equipment, including the robotic cameras used to investigate sewer lines, computer monitors, printers, VCR, van flashers, vehicle lighting, heating, and air conditioning system. While conducting investigations, the vehicle has no emissions and makes no sound. It is plugged into an electrical outlet at the end of the day. The truck is taken out of service for one day a year for servicing and preventative maintenance.

### ***Solar-Powered Meter Truck***

BOM has designed and put into service a parking meter repair truck with a solar-powered generator. The truck continues to use gasoline to get to the job site, but once it arrives on the job, crews can turn off the engine to reduce emissions and noise. Crews can run electrical tools, lighting, and a heating and cooling system with the solar generator.

### ***Ice Prevention Program***

BOM now uses calcium magnesium acetate (CMA) to prevent ice from bonding to the road surface during inclement weather. CMA is a non-hazardous material and has few of the negative environmental impacts associated with salt.

### ***Absorbent Blankets To Contain Leaks***

At job sites, crews now place absorbent blankets under trailers to contain and control the spread of equipment leaks. In the past, any leaking fluid would be washed down the storm sewer. Leaking fluids are now captured and kept out of the storm sewer system.

### ***Erosion Control Trailer***

BOM's Stormwater Maintenance Section has an erosion control trailer that is taken to sites as needed. The trailer carries everything needed to control erosion, and allows crews to take enough products to deal with any problem immediately. Without the trailer in the past, the supervisor would need to send someone back to the yard to retrieve materials, delaying response to the erosion problem.

### ***Shoring***

In the past, crews used wood to shore up sewer excavations. They would need to cut timbers to fit and could use them only one or two times, per OSHA regulations. Crews now use reusable aluminum hydraulic shoring (shields) to reinforce the trenches for most projects. The shields come in many sizes and can be reused repeatedly. Crews have reduced the amount of wood used on larger, deeper projects with reusable steel beams and hydraulic cross bracing. The shields are placed in the trench and hydraulically energized until the shield sides make solid contact with the trench walls. In addition, the crews mix environmentally friendly antifreeze with shoring fluid to prevent freezing in the winter.

### ***Retrofitting Injection Wells***

Crews are adding injection wells with sediment manholes. The manholes separate oil and debris from stormwater that flows into the inlets. The sediment manholes keep the sumps cleaner and reduce the amount of oil and other debris that may permeate back into the groundwater aquifer.

### ***Sump Debris***

Debris removed from ditches, culverts, and sumps is taken to a facility where it is screened and separated into rock, sand, and foreign matter. The material is then burned, effectively removing any petroleum-based products. Once burned, the material is safe enough for reuse and can serve as medium-grade fill for certain projects.

### ***Recycled Meter Parts***

BOM manages and maintains 7,000 parking meters around the City. Each meter is powered by a 9-volt battery, which is replaced each year. BOM recycles these batteries as part of its battery recycling program. Spare meter parts are also cleaned and reused.

### ***Street Sweeping***

Frequent sweeping decreases street degradation and reduces the amount of debris that goes into the storm and sanitary sewer systems. BOM uses a type of street sweeper that makes less noise and has a regenerative air flow system (vacuum). With this system of sweeping and flushing, debris is removed with fewer particulates becoming airborne.

### ***Composting Street Sweeping Debris***

Instead of disposing street sweeping debris into a landfill, the debris is put through a trommell screen. This separates trash such as paper and plastic from the sand and dirt. The organic sweeper debris is separated after screening and taken to a composting facility. This reduces the amount of organic material that goes into the landfill. About 4,200 cubic yards of screened street sweeping debris is diverted for composting each year.

### ***Leaf Recycling***

Historically, BOM landfilled any leaves it swept up. BOM now begins its annual leaf recycling program in the fall. It collects leaves from streets in heavy leaf areas around the City. In addition, it has a leaf collection program and designates depots where the public can bring its leaves. The leaves are taken to a facility off NE Sunderland Avenue where they are processed during the winter months and turned into compost. During fiscal year 1999-2000, 13,000 cubic yards of leaves generated over 4,000 cubic yards of compost for use on BOM projects or resale to the public.

### ***Flusher Using Recycled Water***

The flusher is a truck with a water tank that washes dirt up against the curb before the street sweeper cleans along the curb. The flusher provides a high-pressure water spray across the

road to ensure that debris is moved to the curb. BOM has developed a flusher water conservation plan to be implemented during times of drought. The plan states that instead of using clean water from a hydrant, crews will fill the flusher with non-chlorinated, non-potable water from the wastewater treatment plant.

### ***Office Recycling***

BOM has set up several areas for recycling of various types of office paper, newspaper, plastic, glass, cardboard, and computer parts. BOM also donates pop cans and obsolete office supplies to neighboring schools. It has set up a recycling program for both rechargeable and non-rechargeable batteries, and recycled almost 1,000 pounds of batteries during 2000. BOM recently added a program to recycle styrofoam packing peanuts.

### ***Lamp Recycling***

BOM sells its fluorescent lamps and high intensity discharge (HID) lamps containing mercury to a vendor who separates the metals. These include building lights and street lamps. The mercury and other metals are kept out of the landfill. BOM recycled over one ton of lamps and lights during 2000.

### ***Metals Recycling***

BOM has made an extensive effort to implement recycling programs for many types of metals. Much of this material used to end up in the landfill. BOM now has designated drop-boxes and drums around the maintenance yard for recycling. The recycled metals include aluminum, aluminum guardrails and handrails, yellow brass, light copper and copper wire, mixed non-ferrous metals, steel, and cast iron. During 2000, BOM saved and recycled almost 50 tons of metals.

### ***Portable Sewer Pump Station***

BOM is in the process of designing a portable solar-powered pump station to use when assisting with sewer repairs in business or residential areas. This solar-powered system would improve on using a noisy pump or diesel generator by reducing fueling requirements and send noise upwards, reducing noise pollution.

### ***Docking Station***

BOM is designing a docking station for the solar-powered generators used on the portable sewer pump station, parking meter truck, and inspection van. During non-work hours, these pieces of equipment would be attached to the docking station and provide green power to the building and the utility grid.

### ***Wind Turbine***

BOM is preparing a permit application to the Federal Aviation Administration to construct a wind turbine at the Sunderland Recycling Facility. Adequate power would be generated to power the Sunderland office building, with excess power going to the grid. In addition to the

solar-powered machinery described previously, BOM plans to continue evaluating the use of solar power for other applications.

### ***Yard Cleanup***

BOM is looking into the installation and maintenance of catch basin inserts around the BOM yard. These inserts would reduce the amount of debris and materials that flow into the stormwater system. In addition, BOM would like to install a truck-washing facility that uses bioswale technology to capture and filter the flow of sediment-laden water and keep it out of the stormwater system.

### ***Use of Recycled Paint***

BOM currently paints over graffiti on concrete structures, bridge abutments, and columns. Instead of buying new paint for this purpose, BOM is evaluating the use of recycled latex paint available through Metro's paint program. Metro collects surplus latex paints from households and businesses and blends the leftover paints. This would make use of an otherwise useless product and cost less money.

### ***Use Of Environmentally Friendly Products***

BOM continues to explore the use of environmentally friendly products in its day-to-day operations. As more products become available, BOM will continue to test and try them.

## **Signals and Street Lighting**

### ***Refurbishment and Reuse Of Signals and Street Lighting Hardware***

Electrical maintenance crews bring old, used equipment that is removed from the field back to the maintenance facility. Staff members analyze each item and determine if it can be refurbished/reused, recycled, or (as the last resort) thrown away. This program has kept many tons of material out of the dumpster over the years it has been in place.

### ***Street Lighting Energy Savings***

The City converted nearly all streetlights from mercury vapor to high-pressure sodium light sources in the mid-1980s. The sodium vapor lights are basically twice as energy efficient as mercury vapor. This conversion is currently saving an estimated 40 million kilowatts of energy per year.

### ***Retiming Traffic Signals***

Retiming traffic signals reduces stops and delays for vehicles, which in turn reduces fuel usage and harmful air emissions. The following examples of retiming projects over the last 10 years show the annual savings that are achieved.

ARTERIAL	NUMBER OF SIGNALS	FUEL SAVED (gal/year)	CO <sub>2</sub> REDUCTION (tons/year)	CO REDUCTION (tons/year)
W Burnside St.	11	41,000	362	35
SW Front Ave.	15	50,000	443	44
NE MLK Blvd.	14	20,000	181	39
SE/NE 82 <sup>nd</sup> Ave.	27	136,000	1,197	100
SE/NE 122 <sup>nd</sup> Ave.	9	86,000	757	

### ***Traffic Signal Energy Savings***

Most pedestrian signals have been converted from incandescent to neon light sources. The annual energy savings are estimated at more than 3 million kilowatt-hours. The savings from converting traffic signals from incandescent to LED light sources is saving the City an estimated 5.3 million kilowatt hours of energy per year.

### **Transportation Options**

PDOT's Transportation Options section works to increase biking, walking, taking transit, carpooling, teleworking, and smart use of the car. Many Transportation Options programs support sustainable infrastructure. These programs are detailed in Chapter 5: Transportation Demand Management, of the TSP.

### **Summary**

Achieving 'sustainable infrastructure' is an ongoing process and a long-term commitment. Identifying the most sustainable product, practice, or policy takes time and changes as new information becomes available. Changes range from the type of infrastructure projects the City invests in (such as the Portland Streetcar rather than new road capacity) to small, but ecologically significant, changes in products used to clean equipment.

In conjunction with local jurisdictions, Metro has produced a Green Streets handbook that incorporates many sustainable concepts for building streets. The City will use this handbook for public and private street projects. Pilot projects are now underway to test the concepts of the Green Streets handbook.