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Bureau of Development Services
Land Use Services

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PERMANENT RULE

Private Rights-of-Way - Streets, Alleys, Shared Courts, Common Greens and Pedestrian Connections

Appendix A - Figures

Note: The figures contained in this appendix are intended to provide examples of how private rights-of-way could be designed. The figures are not prescriptive. The design of private rights-of-way will vary with the conditions of each site and must also conform to other applicable City regulations.

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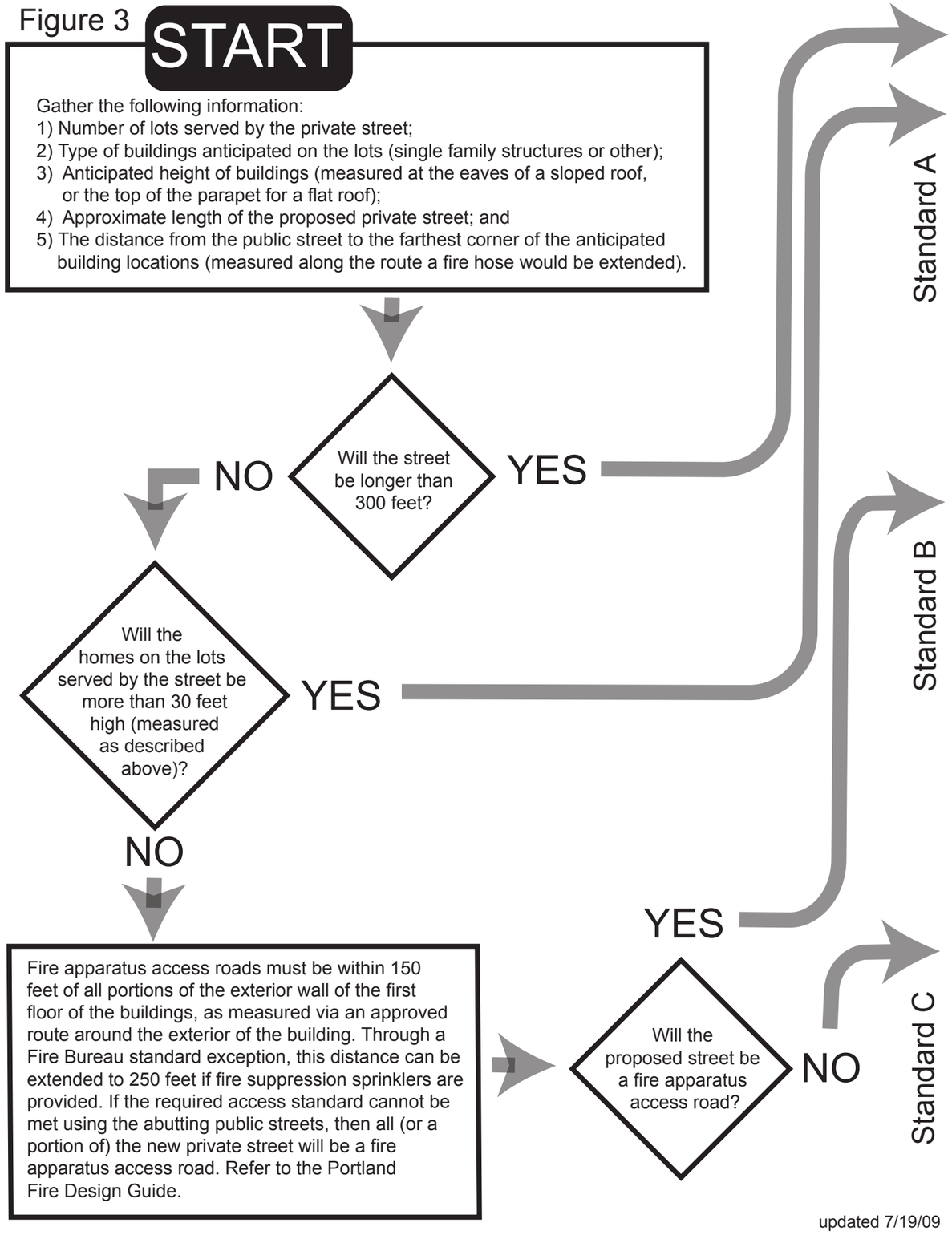
updated 7/19/09

Figure 3



updated 7/19/09

A

These minimum vehicle roadway widths apply to streets longer than 300 feet long, and/or streets that serve buildings anticipated to be over 30 feet high (measured at the eaves of a sloped roof, or the top of the parapet for a flat roof).

number of lots served by the street (including the front corner lot)	type of development served by the street	
	single family lots (attached or detached homes)	other lots (multifamily, commercial, industrial)
1 to 3 lots	20 or 26 feet per Portland Fire Design Guide, with no on-street parking	26 or 33* feet per Portland Fire Design Guide, with on-street parking on one side
4 or more lots	26 or 33* feet per Portland Fire Design Guide, with on-street parking on one side	26 or 33* feet per Portland Fire Design Guide, with on-street parking on one side

*Where the street is more than 500 feet long the minimum vehicle roadway width is 26 feet, with no on-street parking. A reduction to 20 feet may be allowed in environmentally sensitive areas, or on step slopes, subject to Fire Bureau approval. Parking may be provided in parking bays as shown in Figure 12. Where buildings will be over 30 feet high, parking may be prohibited on both sides of the street in the immediate vicinity of the building, to provide aerial apparatus access. Where buildings over 30 feet are anticipated, a specific access and parking plan must be provided. Where parking is prohibited on both sides, the width may be reduced to 26 feet.

B

These minimum vehicle roadway widths apply to streets up to 300 feet long that will be Fire Apparatus Access Roads, but where the buildings are not anticipated to be over 30 feet high (measured at the eaves of a sloped roof, or the top of the parapet for a flat roof).

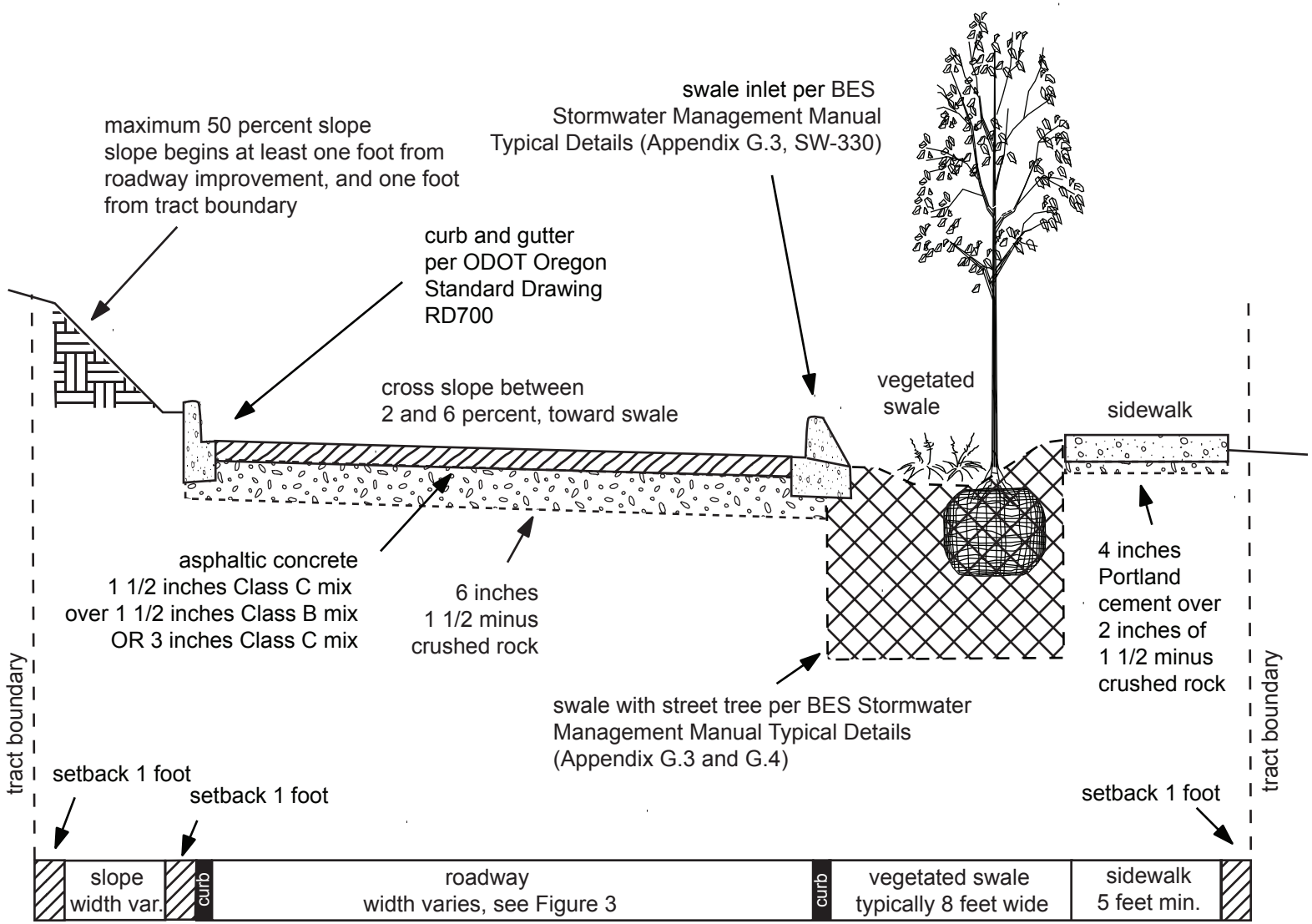
number of lots served by the street (including the front corner lot)	type of development served by the street	
	single family lots (attached or detached homes)	other lots (multifamily, commercial, industrial)
1 to 3 lots	20 feet, with no on-street parking	28 feet, with on-street parking on one side
4 or more lots	28 feet, with on-street parking on one side	28 feet, with on-street parking on one side

C

These minimum vehicle roadway widths apply to streets up to 300 feet long that will not be a Fire Apparatus Access Road, and if the buildings are also not anticipated to be over 30 feet high (measured at the eaves of a sloped roof, or the top of the parapet for a flat roof).

number of lots served by the street (including the front corner lot)	type of development served by the street	
	single family lots (attached or detached homes)	other lots (multifamily, commercial, industrial)
1 to 3 lots	16 feet, with no on-street parking	24 feet, with on-street parking on one side
4 or more lots	24 feet, with on-street parking on one side	28 feet, with on-street parking on one side

Typical Private Street Section



total tract width varies as necessary to accommodate required right-of-way elements - see Table 1

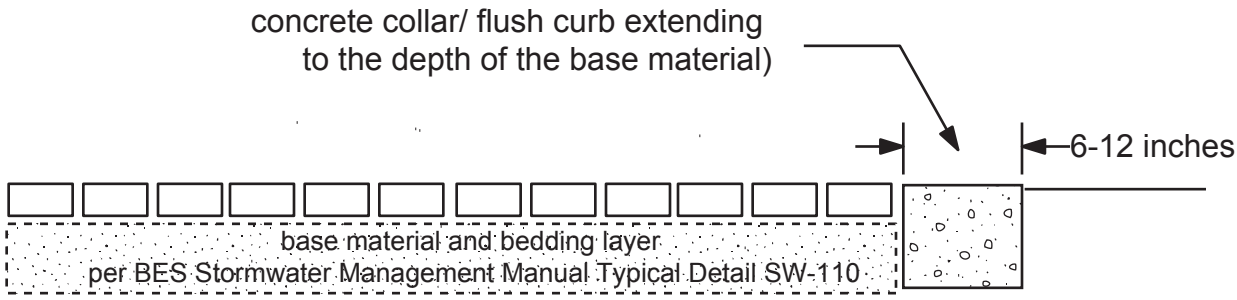
Notes:

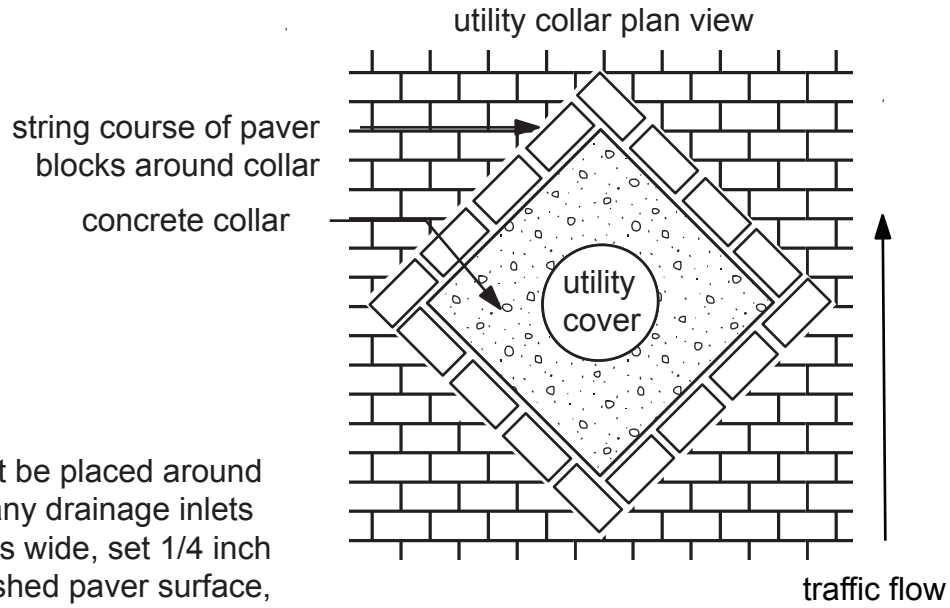
1) Longitudinal slope shall be between 1% and 15%.
2) Utility trenching backfilled with 3/4 minus crushed rock compacted to at least 90% of the max. dry density determined by ASTM D1557
3) Soils shall be compacted to at least 90 percent of the max. dry density determined by ASTM D1557
4) See BES Stormwater Management Manual for specific stormwater management requirements (this drawing does not reflect all possible site conditions or design options).

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 4

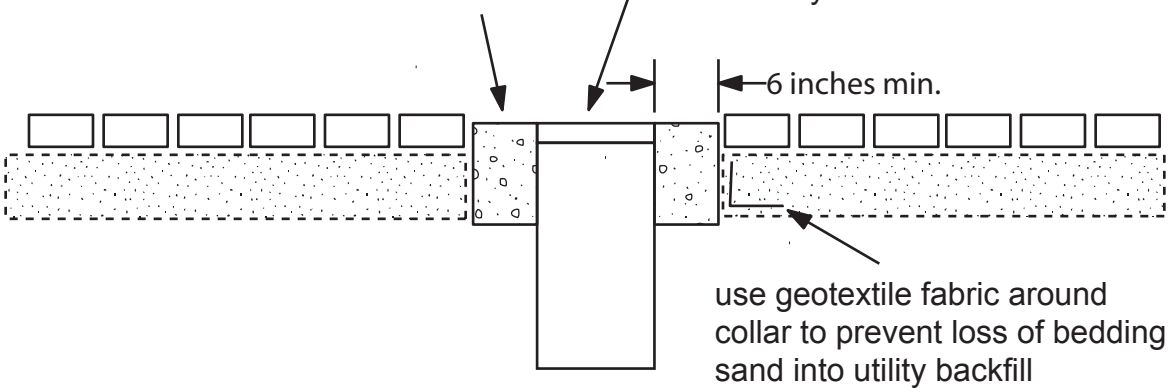
updated 1/4/09

Curbing and Edge Restraint for Concrete Paving Block Roadway Surface





a square concrete collar must be placed around utility covers and any drainage inlets (minimum 6 inches wide, set 1/4 inch below top of finished paver surface, extending to the depth of the base material)



Notes:

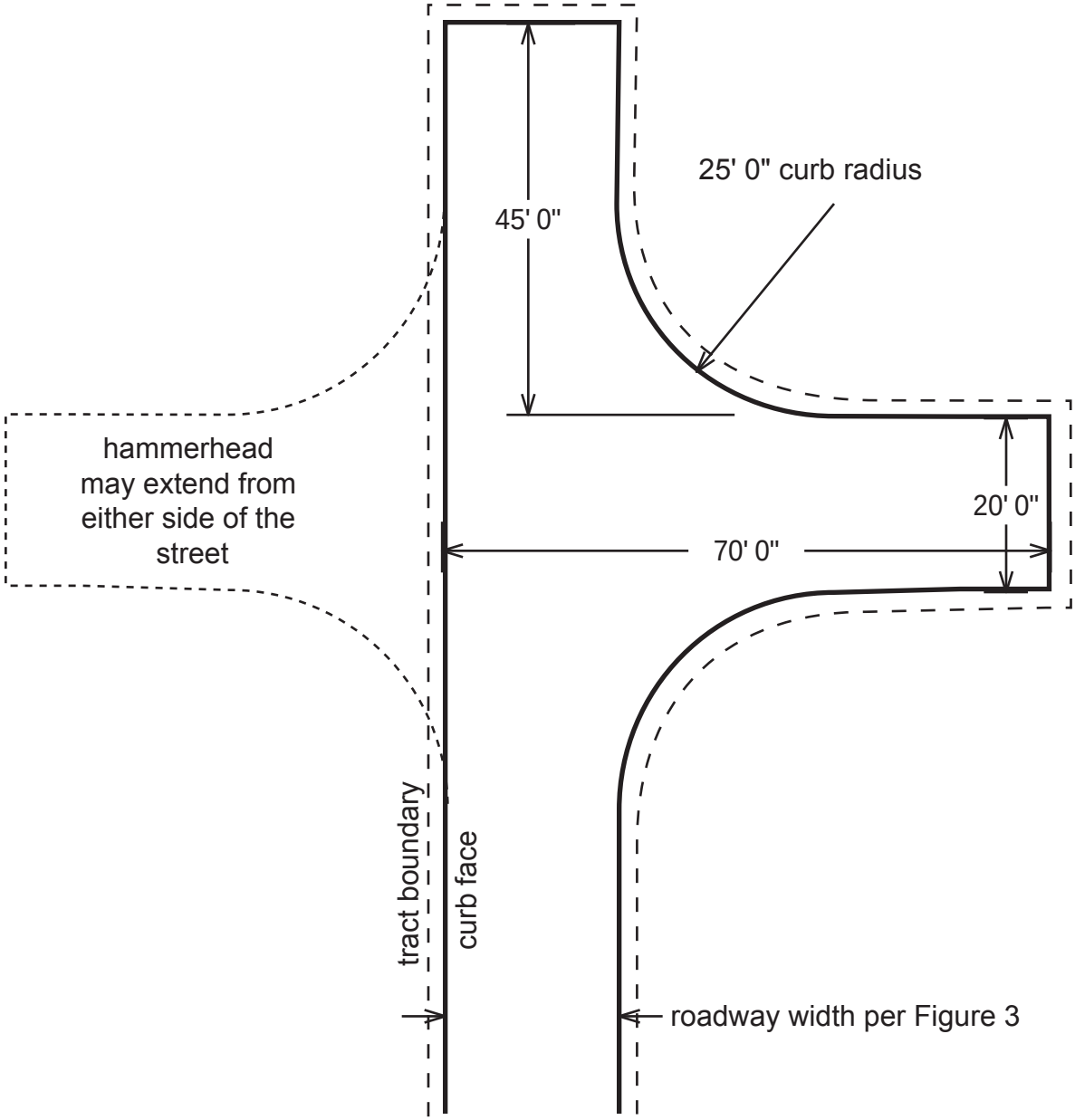
1) See Chapter 2 of the BES Stormwater Management Manual for stormwater management requirments, and facility design specifications.

City of Portland, Bureau of Development Services
Private Street Administrative Rule

Figure 5

updated 1/4/09

Hammerhead Turnaround for Private Streets More Than 300 Feet Long

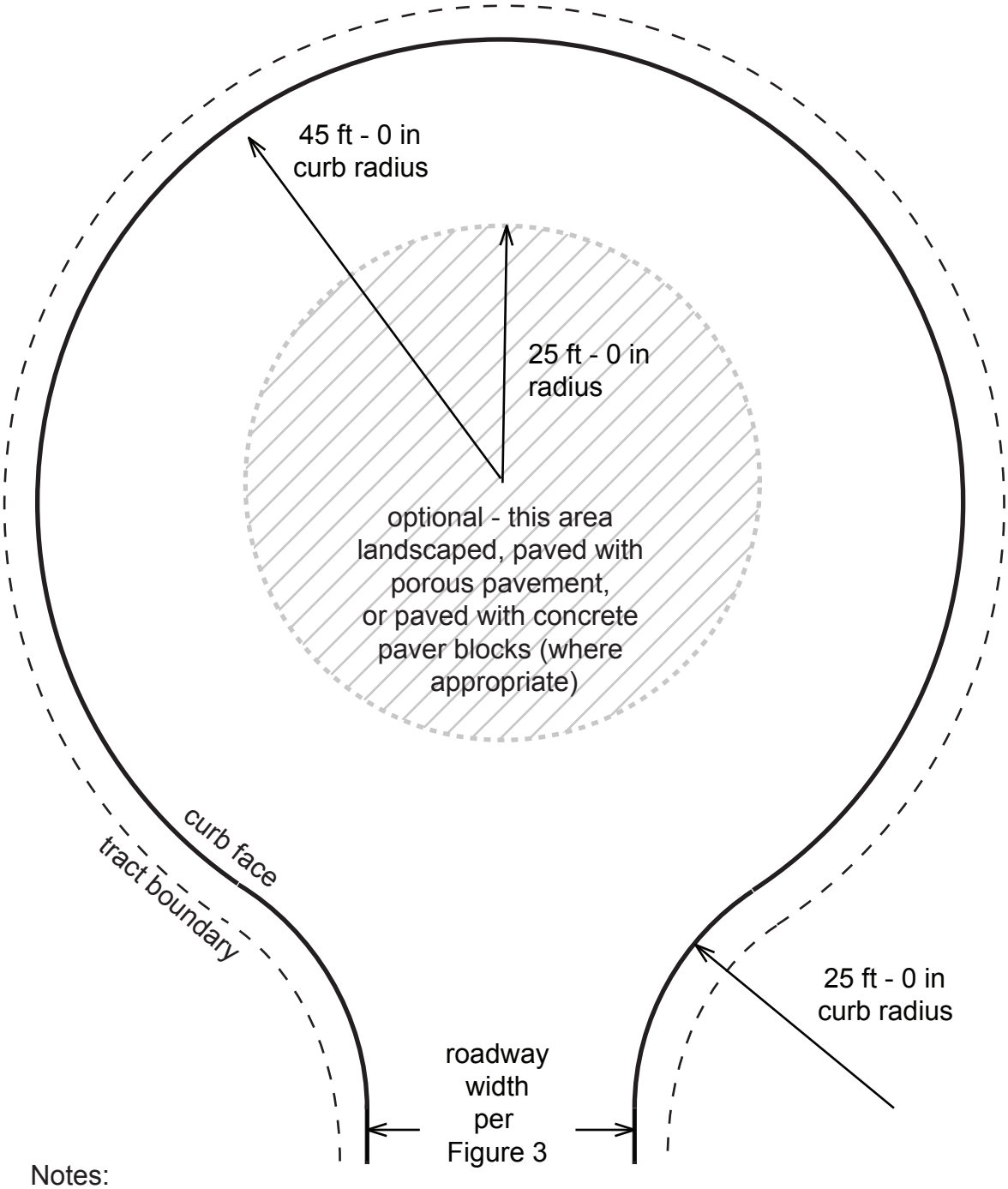


Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 6

updated 12/26/08

Circular Cul-de-Sac Turnaround for Private Streets More Than 300 Feet Long



Notes:

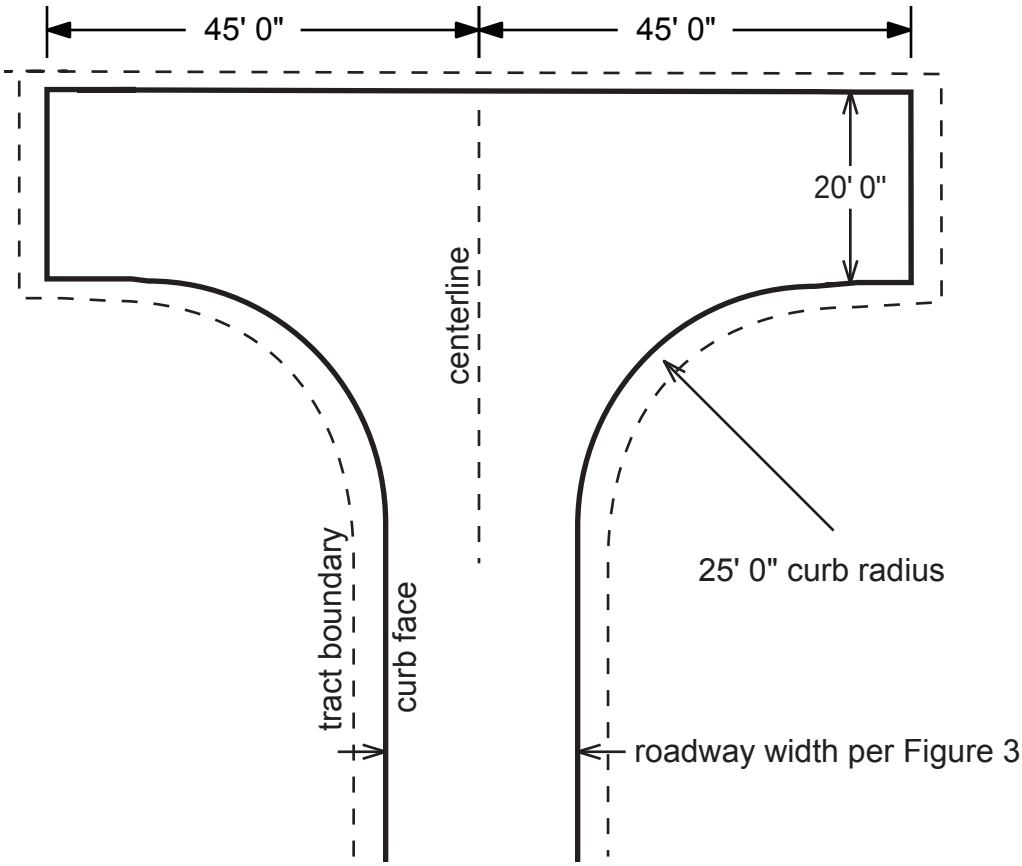
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.

City of Portland, Bureau of Development Services
Private Street Administrative Rule

Figure 7

updated 12/26/08

Hammerhead Turnaround for Private Streets More Than 300 Feet Long ("T" Alternative)

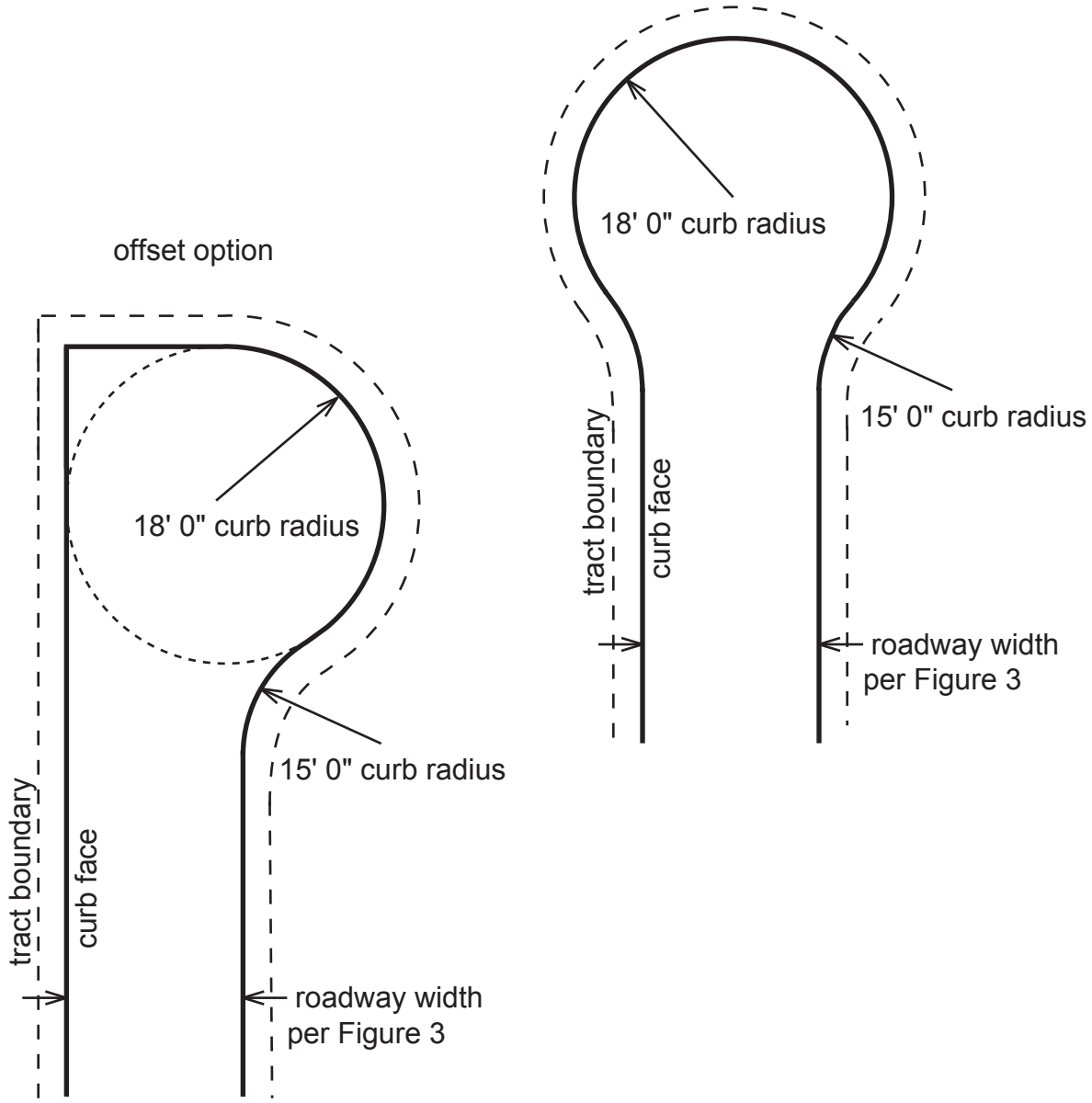


Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 8

updated 12/26/08

Circular Cul-de-Sac Turnaround for Private Streets that Do Not Exceed 300 Feet Long

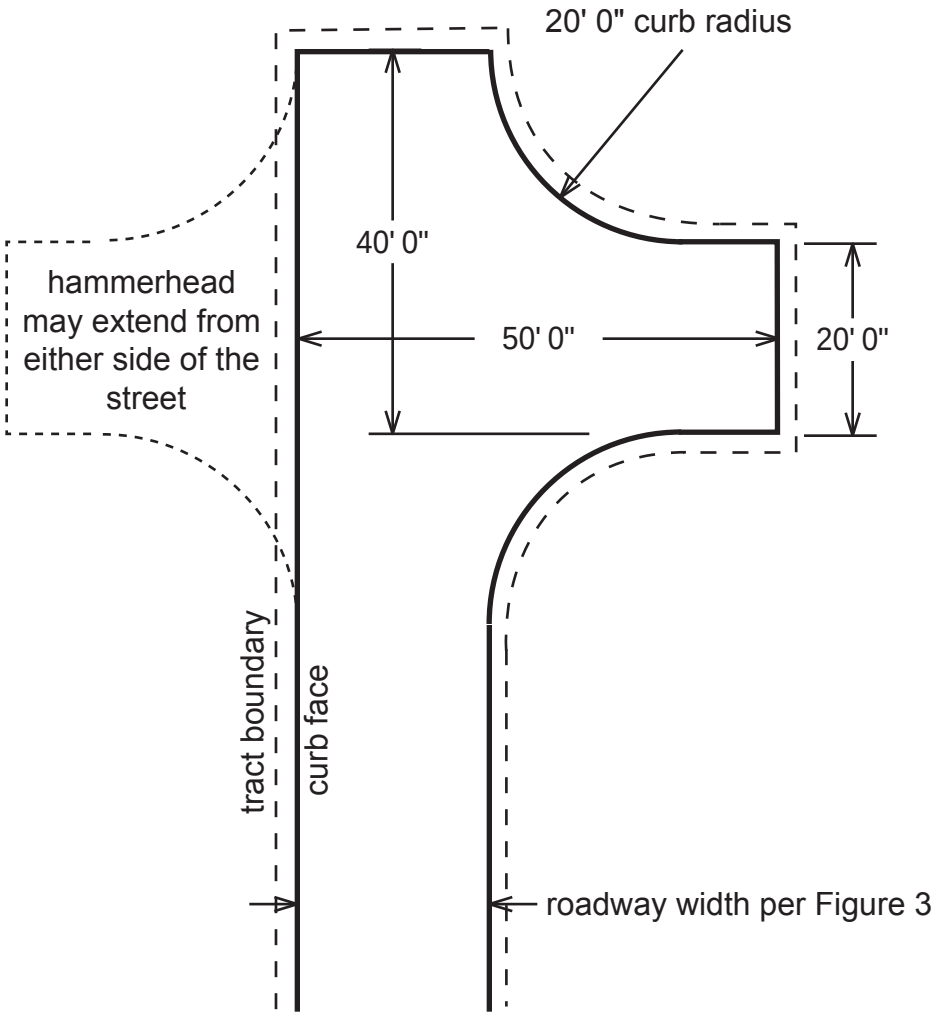


Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 9

updated 10/10/08

Hammerhead Turnaround
for Private Streets that Do Not Exceed 300 Feet Long

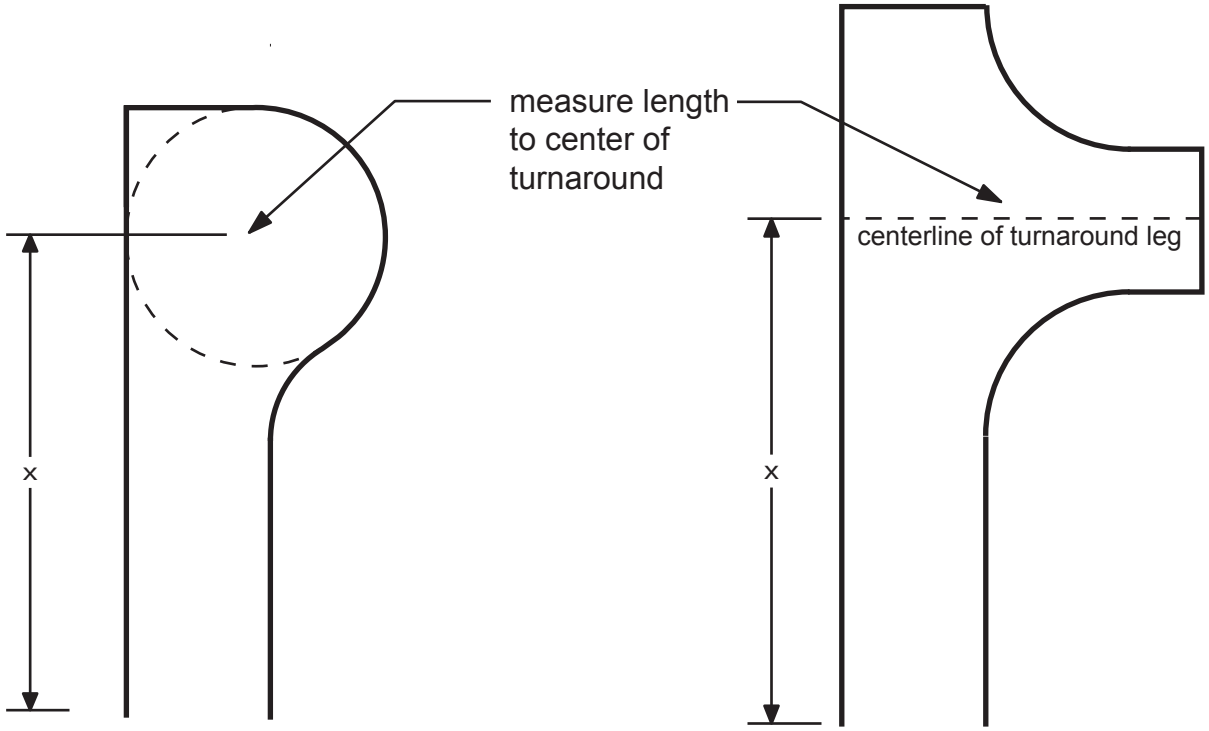


Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 10

updated 10/10/08

Dead End Streets
(Measuring Length)



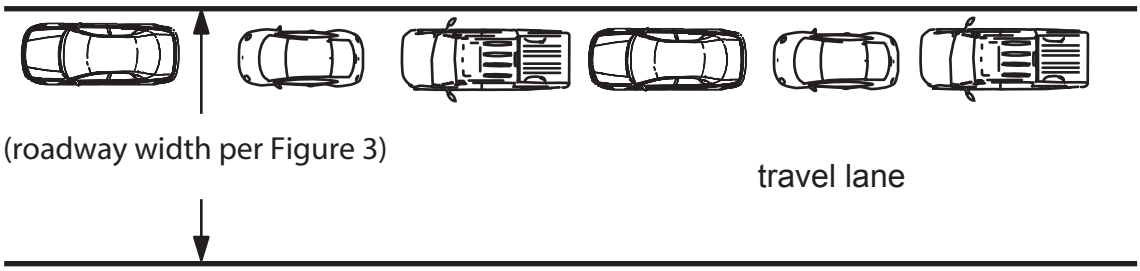
Notes:
1) Where there is no turnaround, street length is measured to the end of pavement.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 11

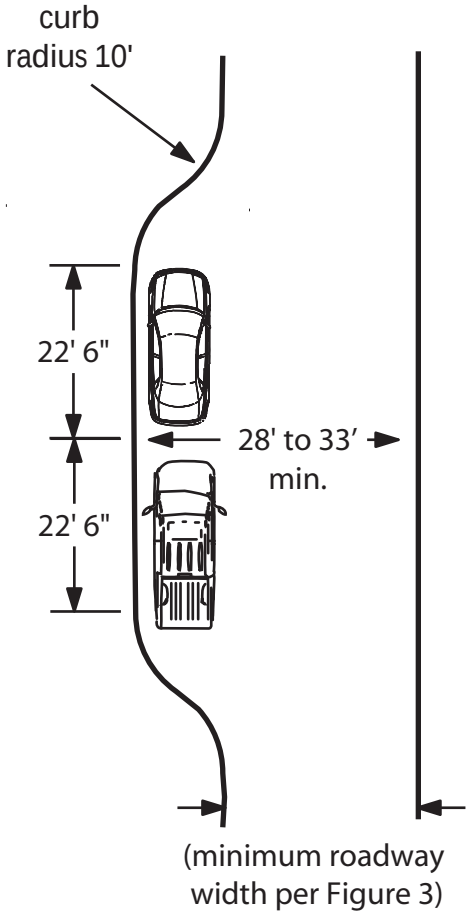
updated 10/17/08

Allowed On-Street Parking Configurations

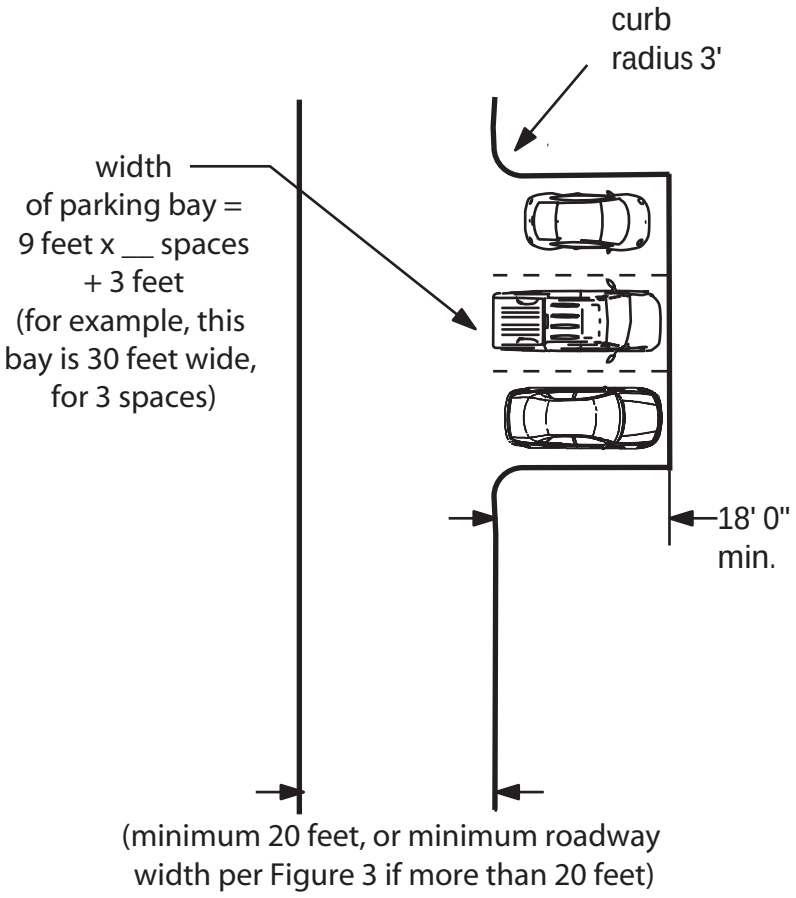
parking lane option



parallel parking bay option



perpendicular parking bay option



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Private Street Administrative Rule

Figure 12

updated 7/19/09

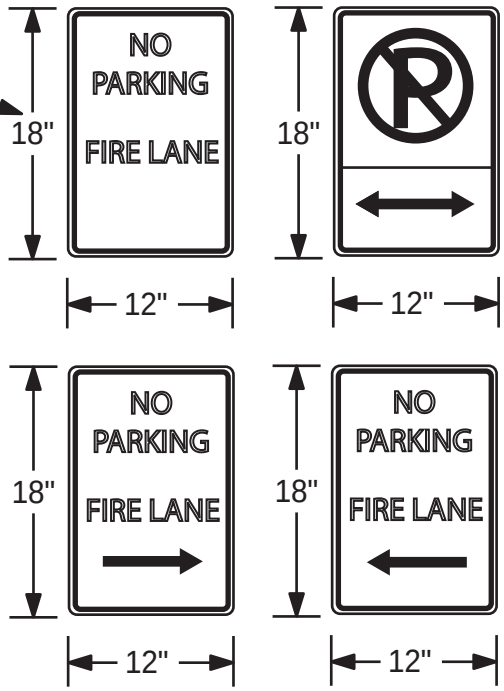
Private Street Signs

street name sign

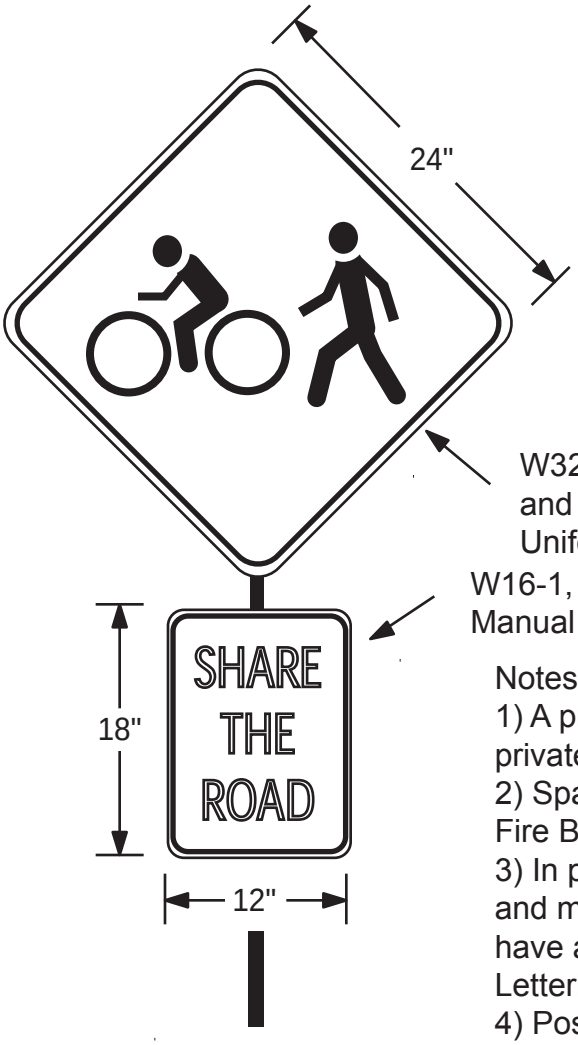
retro-reflective weather resistant material, with green lettering at least 4 inches high on a white background

no parking signs

red lettering on a white reflective background see OFC D103.6



shared court sign



W3262, diamond-shaped with a black legend and border on a yellow background (see Manual on Uniform Traffic Control Devices).

W16-1, black lettering on a yellow background (see Manual on Uniform Traffic Control Devices).

Notes:

1) A private street name sign shall be posted at the private street entrance.

2) Spacing for no parking signs as approved by the Fire Bureau.

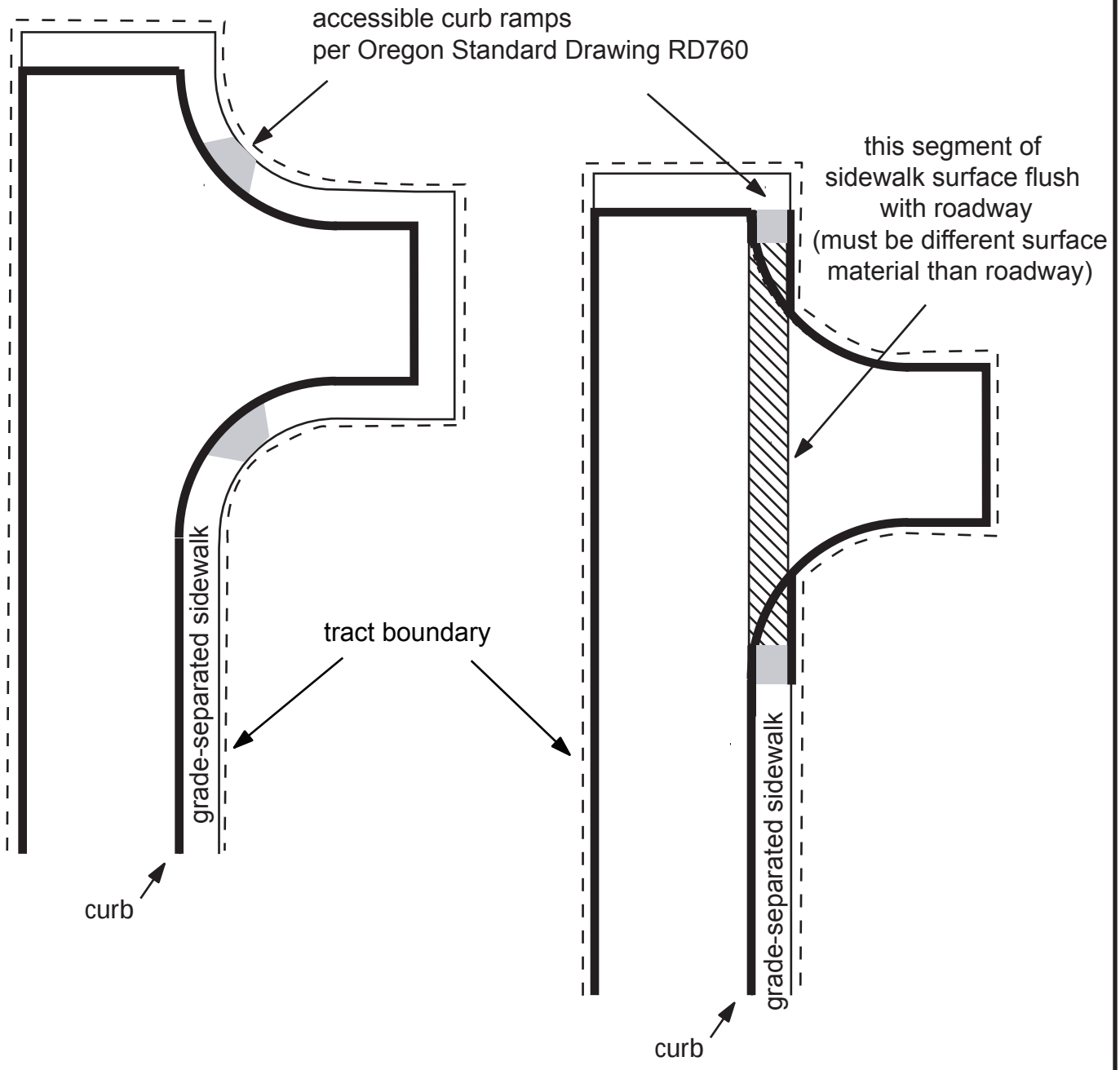
3) In place of no parking signs, curbs may be painted red and marked “NO PARKING FIRE LANE”. Lettering shall have a stroke of not less than 1 inch wide by 6 inches high. Lettering shall be white on red background (OFC 503.3).

4) Post signs W3262 and W16-1 at entance to shared court.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 13

updated 6/26/10

Sidewalk Location Options for Hammerhead Turnarounds



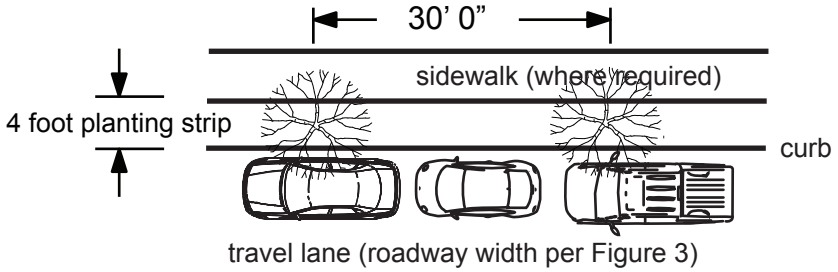
City of Portland, Bureau of Development Services
Private Street Administrative Rule

Figure 14

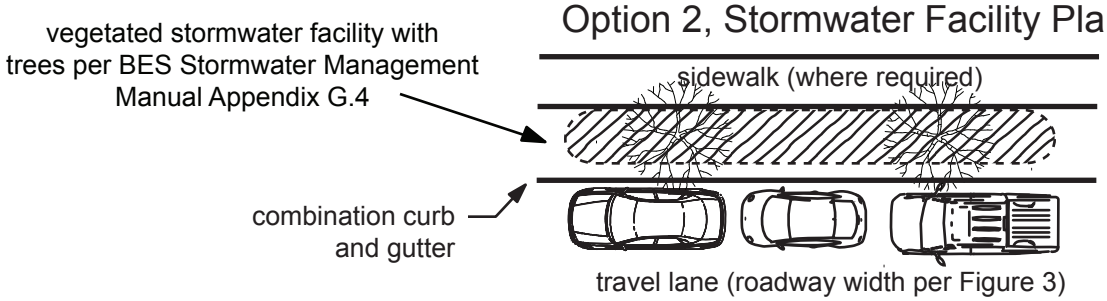
updated 12/26/08

Street Tree Configuration Options

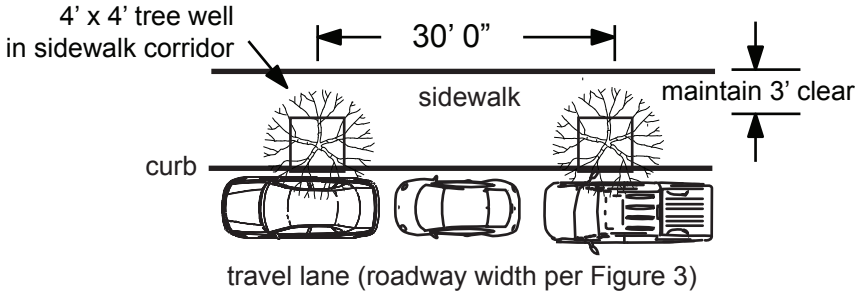
Option 1, Tree Planting Strip



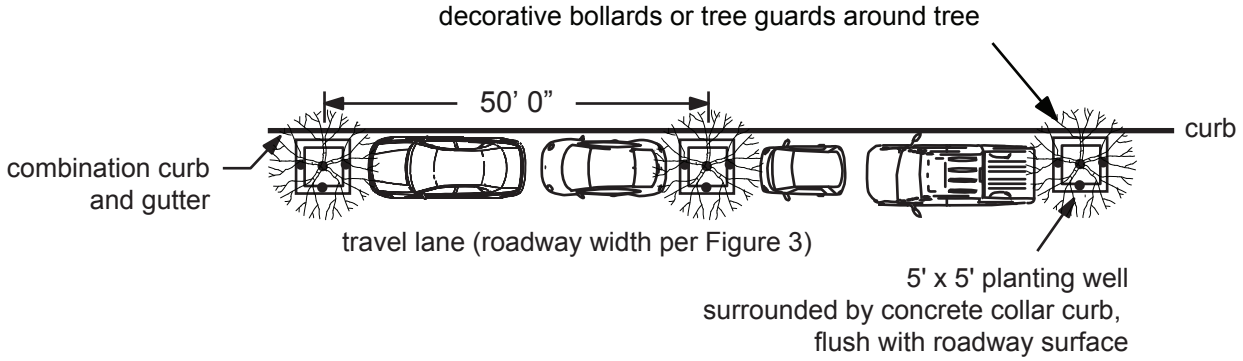
Option 2, Stormwater Facility Planting



Option 3, Sidewalk Tree Wells



Option 4, Parking Lane Tree Wells



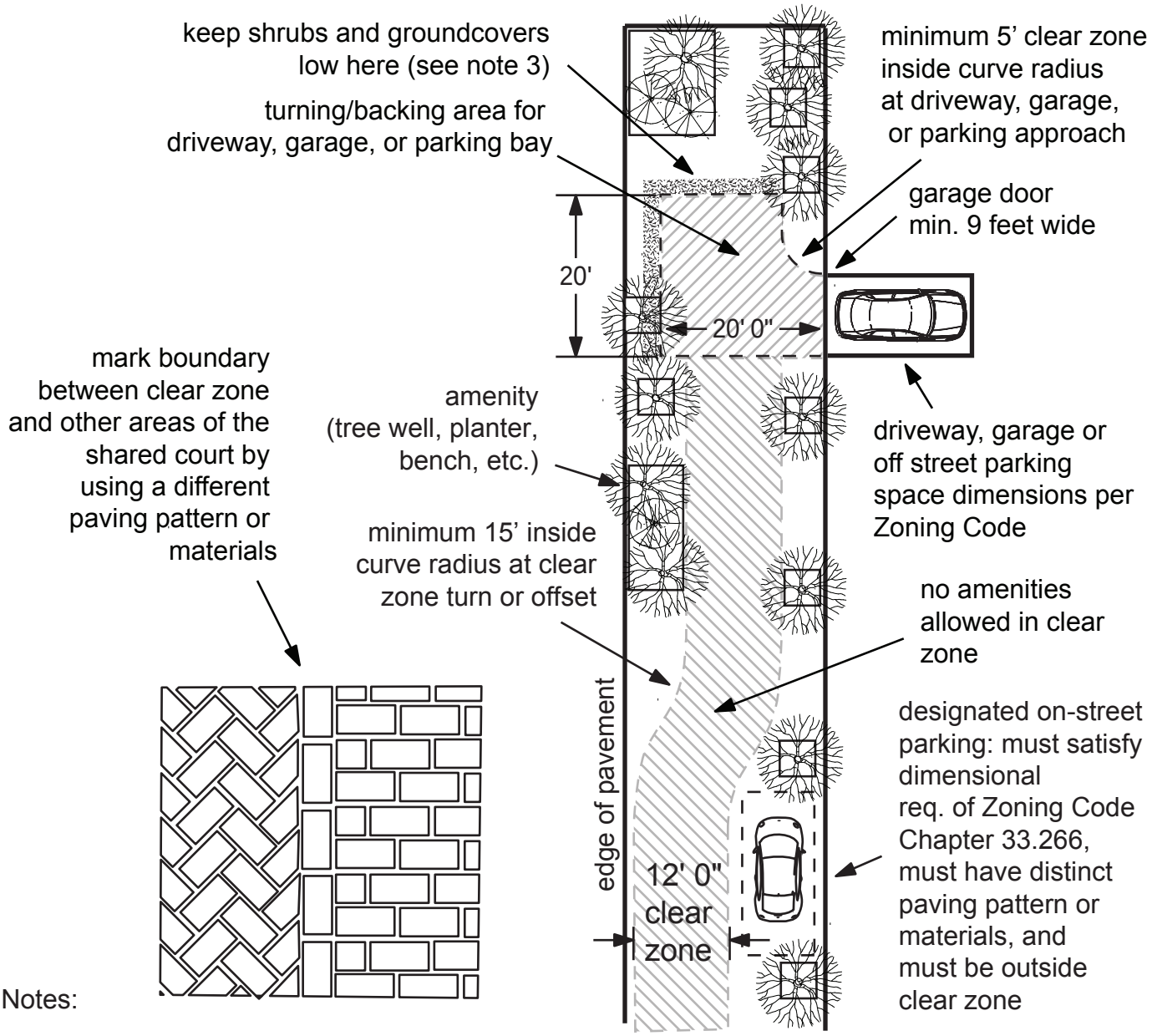
Note: Trees that are planted must provide a 13' 6" clearance for fire department access and must not interfere with aerial apparatus access for buildings that exceed 30 feet in height.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 15

updated 6/26/10

Shared Court Clear Zone

(indicated on this drawing by diagonal lines)



Notes:

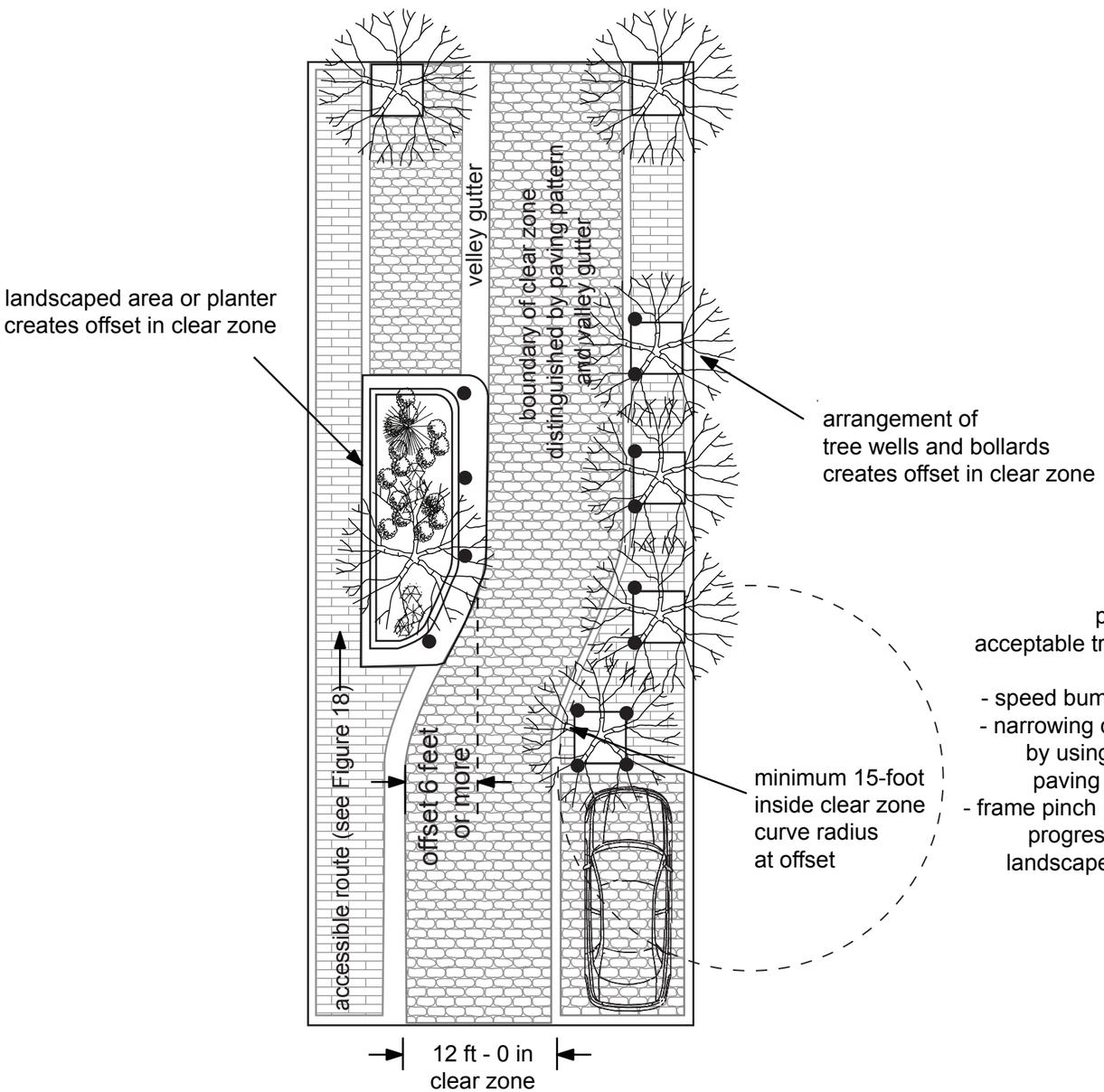
1) Planters, benches, and other similar amenities shall be designed to retain clear sight lines between 2 feet and 6 feet above grade, both within and outside the clear zone.
2) Trees, shrubs and groundcover planting within the tract shall be a species with an expected growth pattern that will not place dense foliage between 2 feet and 6 feet above grade.
3) Shrubs and groundcover planting shall be less than 1 foot tall in any area within 2 feet of a clear zone that may be used as a vehicle backing area, in order to avoid a bumper hitting.
4) Underground utilities are typically located within the clear zone. Utility requirements may dictate that the clear zone be wider than 12 feet.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 16

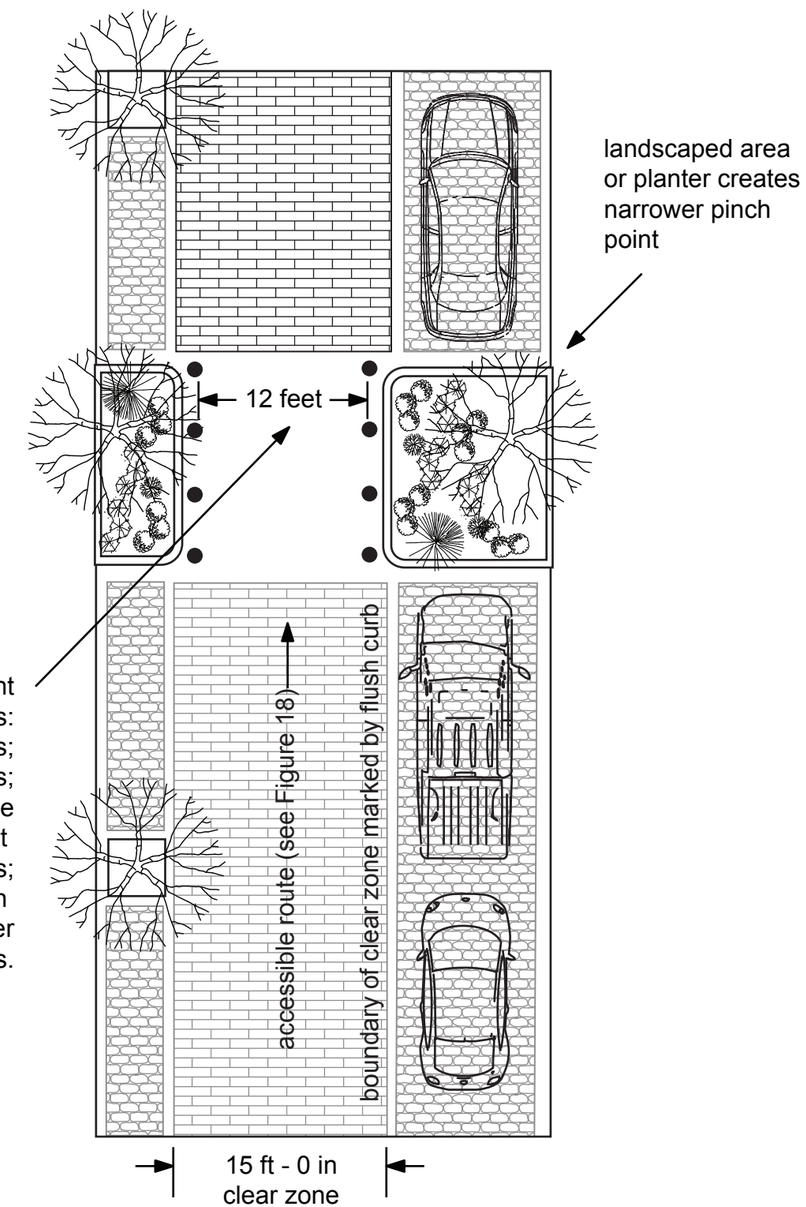
updated 7/3/09

Traffic Calming Measures for Shared Courts Over 100 Feet Long

Chicane Offset Option (example)



Pinch Point Option (example)



updated 7/3/09

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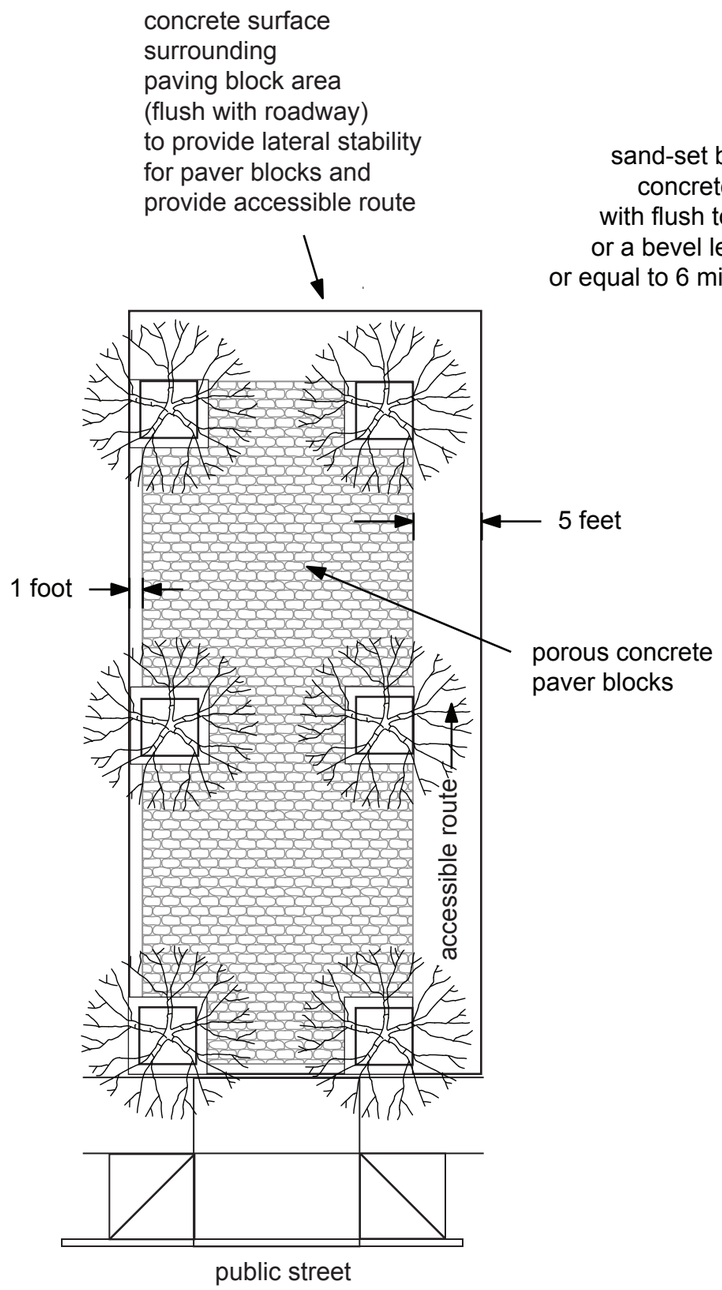
Private Street Administrative Rule
Figure 17

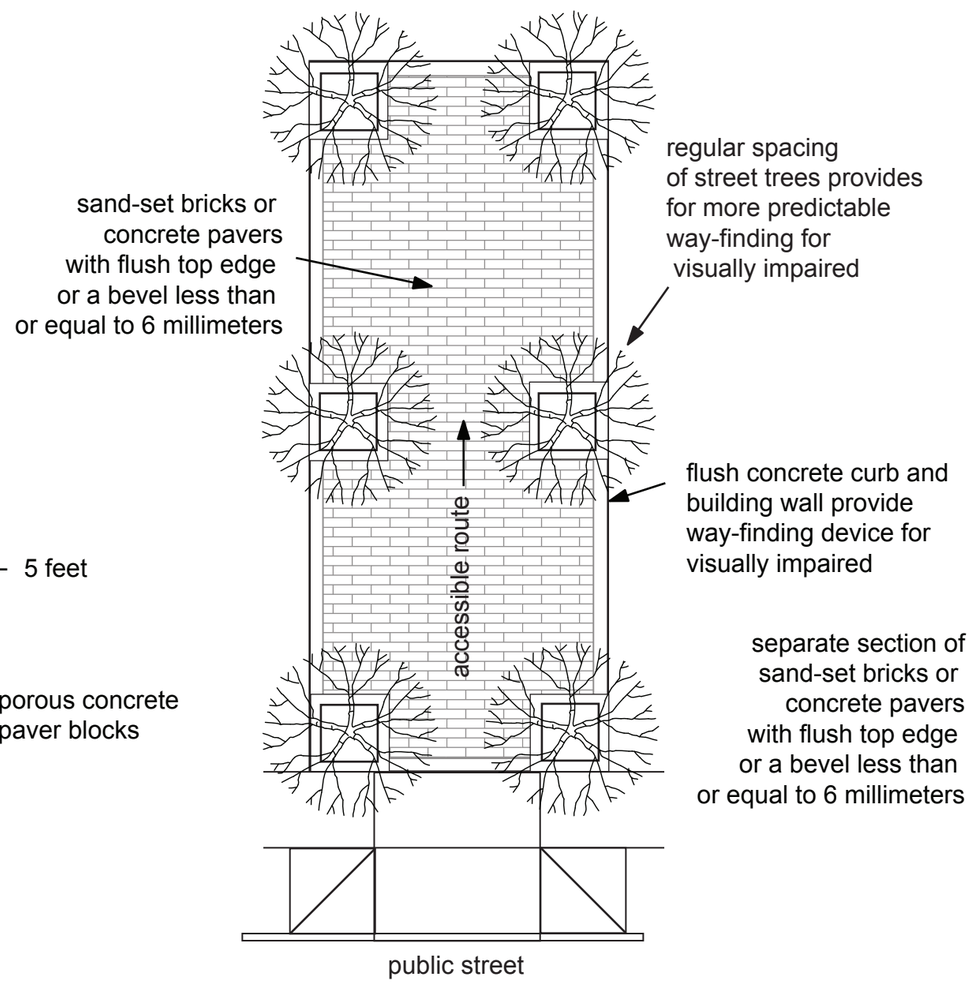
Shared Court Accessibility Options

Note: Tree limbs shall be at least 6 fet above the street surface at the trunk of the tree.

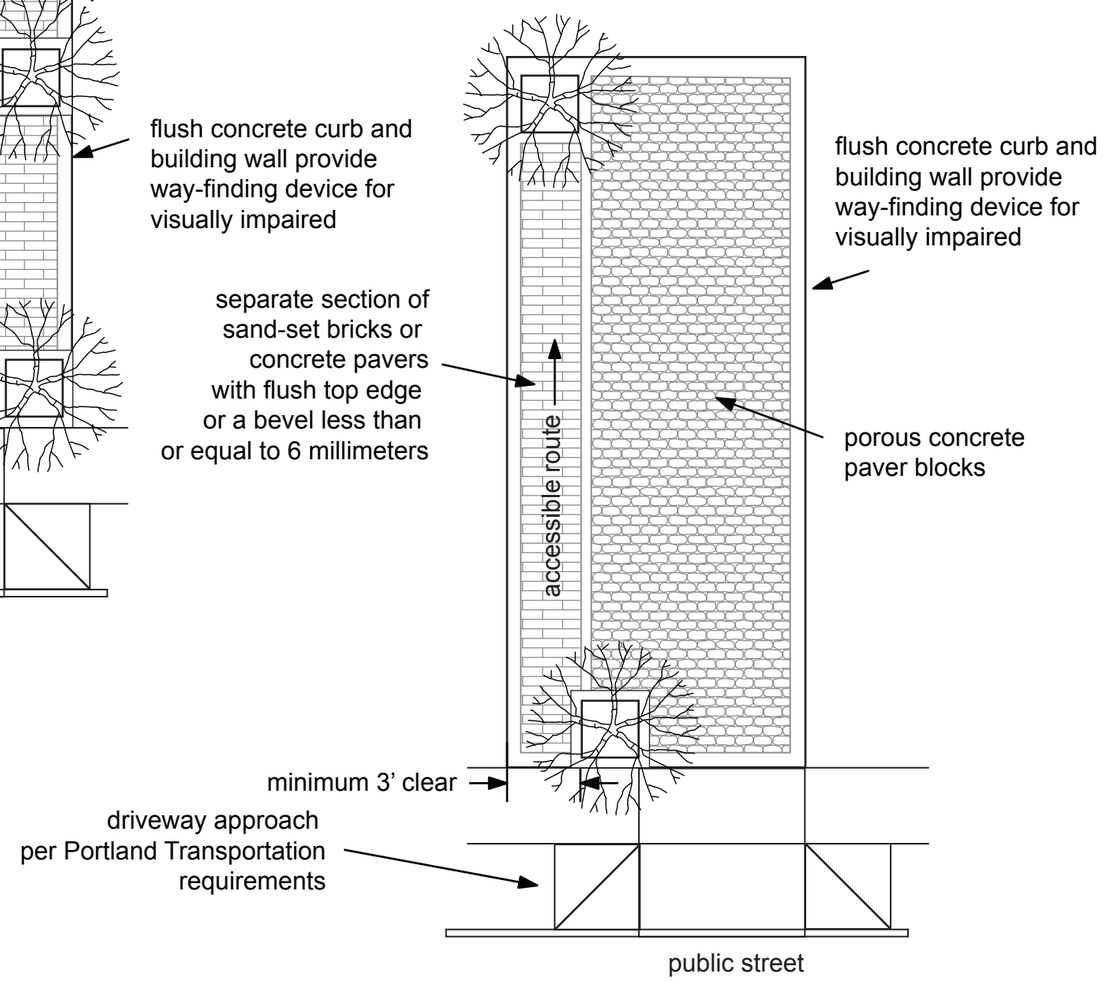
use concrete path within court (not grade separated)



use accessible pavers



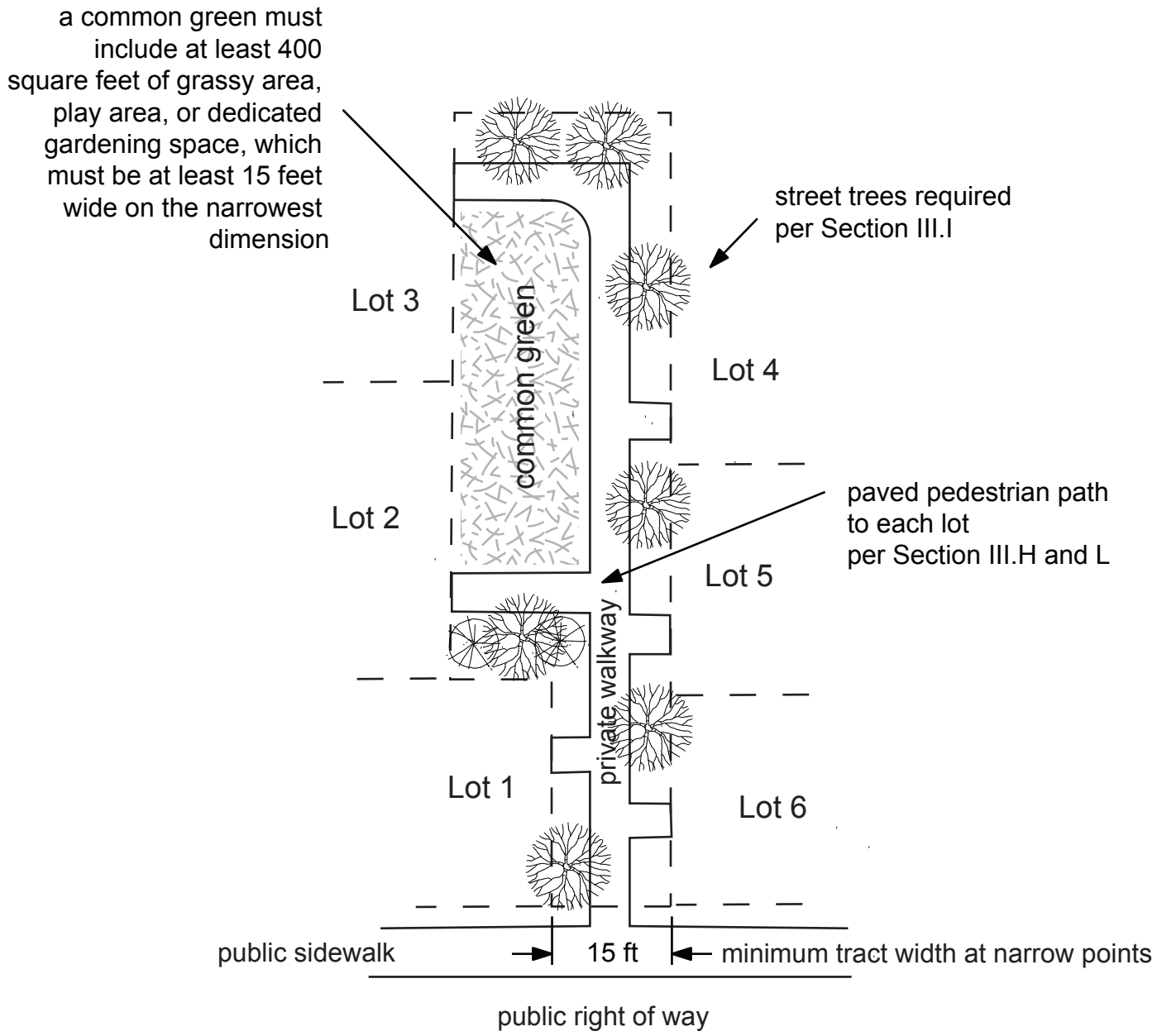
use multiple pavement sections



updated 7/3/09

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 18

Common Green and Pedestrian Connection Improvements

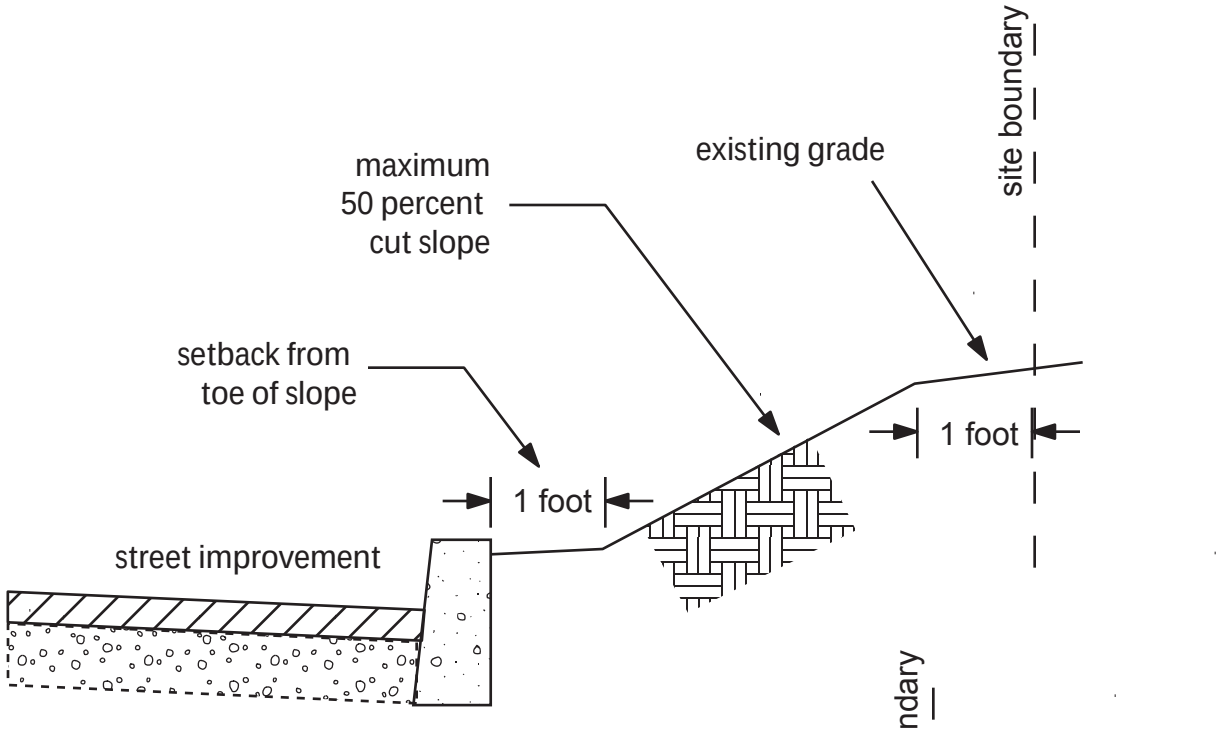


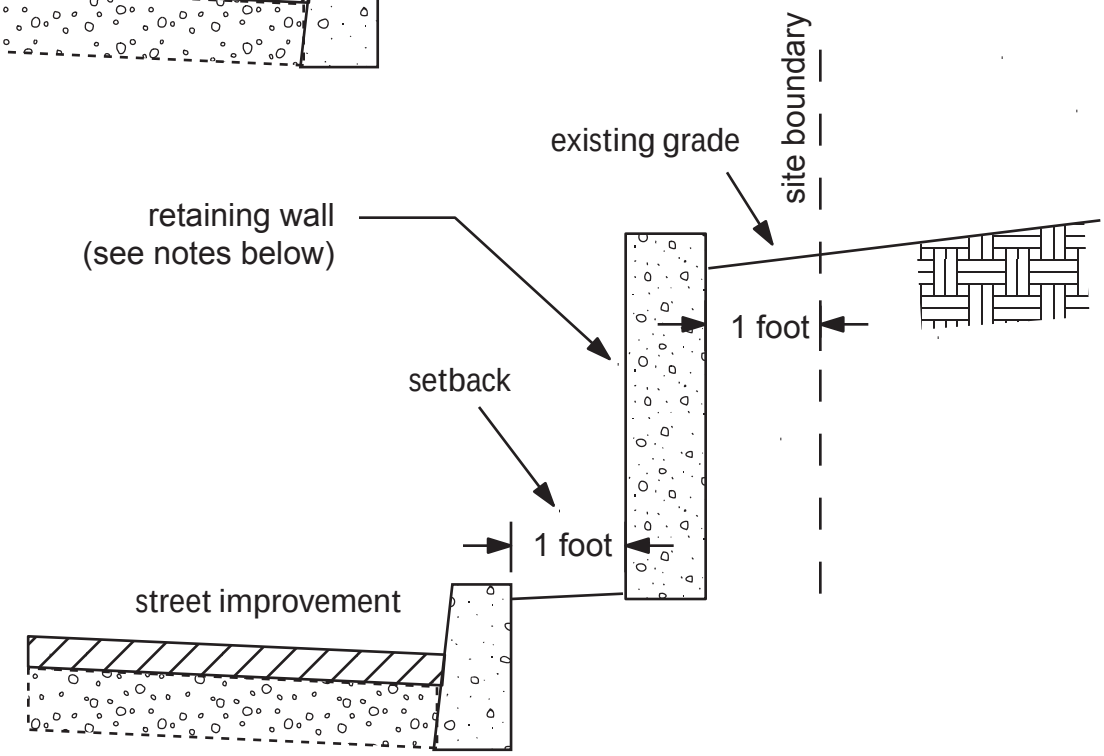
Notes:
1) Gazebos, sculptures, art installations, ornamental water features, play equipment, benches, picnic tables, and other similar structures may be located within common greens. See Section III.O.
2) Stormwater facilities may be located within common greens or pedestrian connections. See Section III.L for specific standards.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 19

updated 1/4/09

Grading at Right of Way Edge





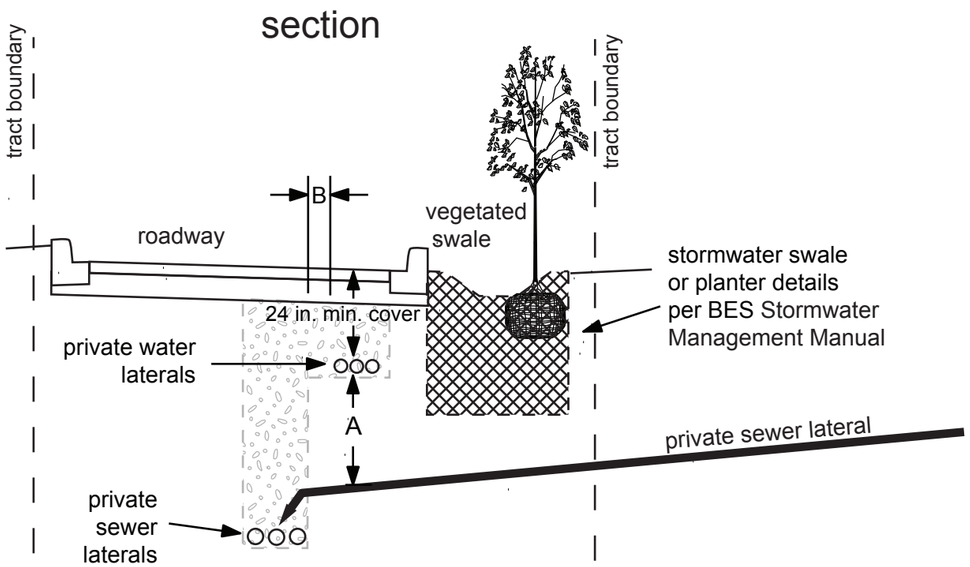
Notes:

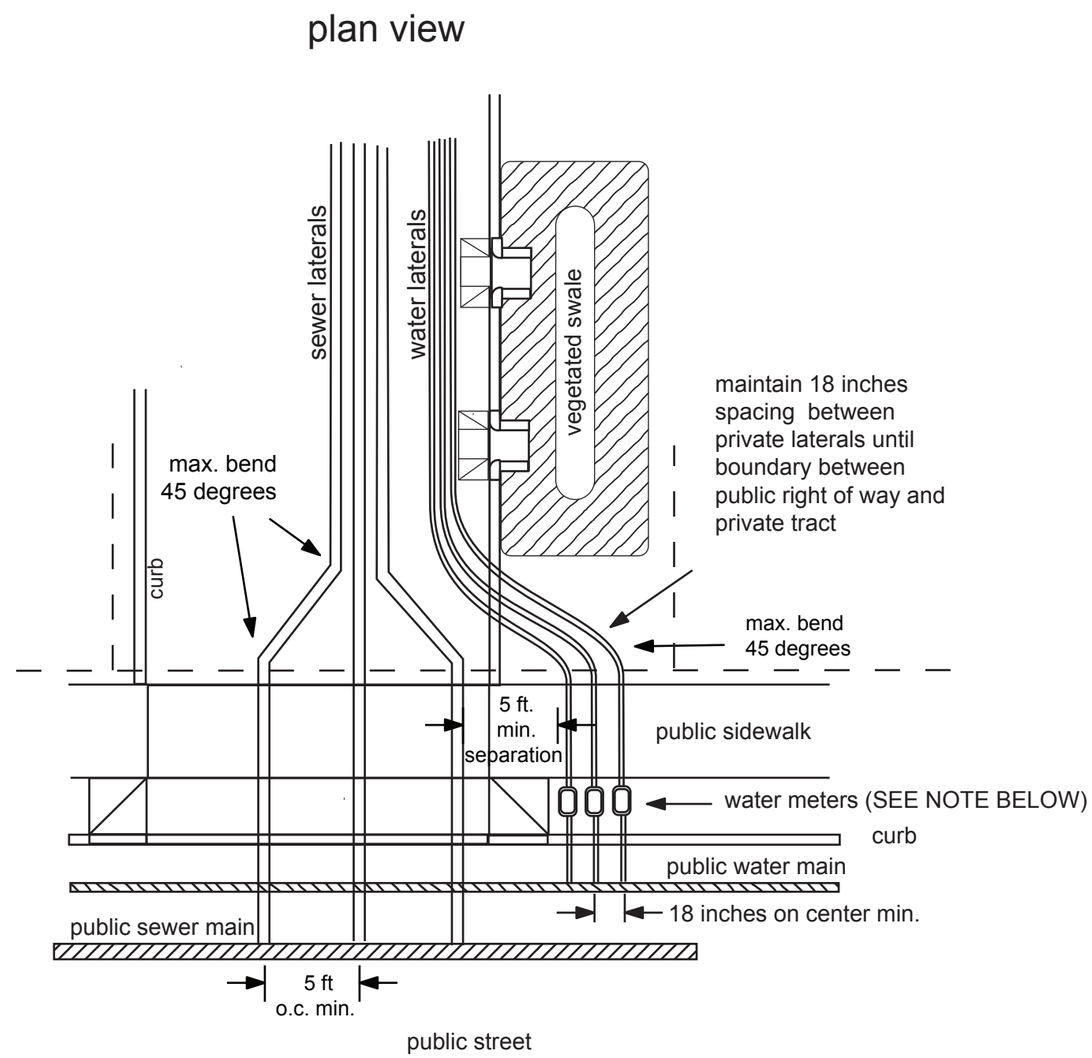
1) Engineering calculations are required for walls over 4 feet high. Engineering calculations may also be required for walls that are structurally integral to the street, where the site is steeply sloped, and for surcharged soils.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 20

updated 12/26/08

Typical Private Street Utility Configuration (3 Lots)





Utility Separation

Utility	private water lateral	private sewer lateral
private water lateral	maintain 18 inch spacing (on center) for water meters and private laterals within the public right of way laterals may be bundled in one trench within private tract	private water lateral must be 24 inches above private sewer lateral (dimension A) minimum 12 inches horizontal separation between private water and sewer laterals (dimension B)
private sewer lateral	private water lateral must be 24 inches above private sewer lateral (dimension A) minimum 12 inches horizontal separation between private water and sewer laterals (dimension B)	maintain 5 foot spacing (on center) for private sewer lateral taps into the public sewer main laterals may be bundled in one trench within private tract

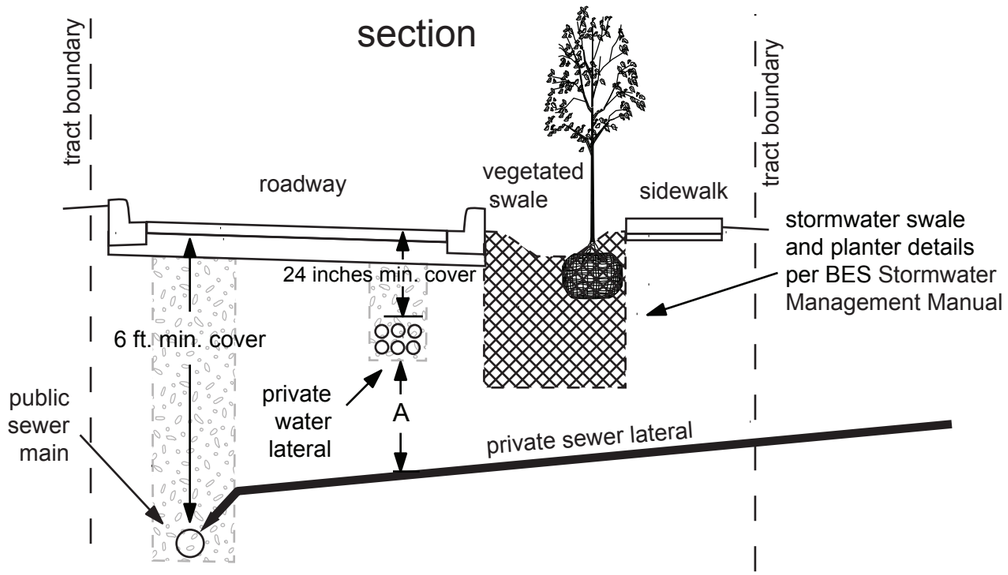
Notes:

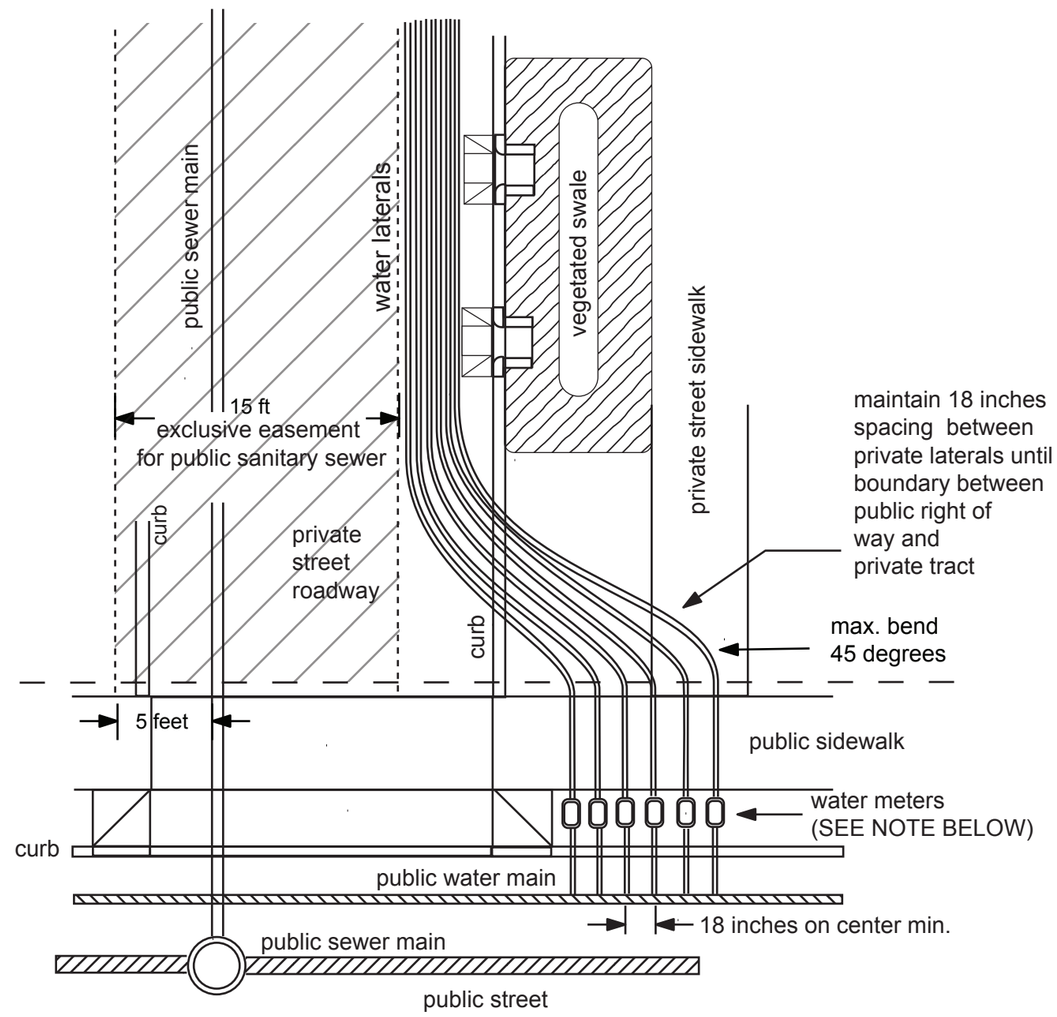
1) This drawing is intended to provide general guidance only. It is not drawn to scale. For specific standards, refer to the most current edition of the BES Sewer Design Manual, the Water Bureau Developer's Manual, and the Oregon State Plumbing Code.
2) Utility trenching is to be backfilled with 3/4 minus crushed rock compacted to 90% of the maximum dry density determined by ASTM D1557.
3) Sewer and water laterals should be routed to individual lots without crossing through stormwater swale or planters. Swales and planters should be set back from driveway locations by several feet to allow installation utility laterals.
4) Water meters must be located in the public right of way. For lots that have no public street frontage, meters must be in front of the private tract frontage. See BES Stormwater Management Manual Appendix G.3 for information about meter placement if there is a stormwater infiltration facility in the public street right of way.

updated 11/4/09

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 21

Typical Private Street Utility Configuration (6 Lots)





Utility Separation

Utility	private water lateral	private sewer lateral
private water lateral	maintain 18 inch spacing (on center) for water meters and private laterals within the public right of way laterals may be bundled in one trench within private tract	private water lateral must be 24 inches above private sewer lateral (dimension A) minimum 12 inches horizontal separation between private water and sewer laterals (dimension B)
private sewer lateral	private water lateral must be 24 inches above private sewer lateral (dimension A) minimum 12 inches horizontal separation between private water and sewer laterals (dimension B)	maintain 5 foot spacing (on center) for private sewer lateral taps into the public sewer main laterals may be bundled in one trench within private tract

Notes:

1) This drawing is intended to provide general guidance only. For specific standards, refer to the most current edition of the BES Sewer Design Manual, the Water Bureau Developer's Manual, and Oregon State Plumbing Code.
2) Utility trenching is to be backfilled with 3/4 minus crushed rock compacted to 90% of the maximum dry density determined by ASTM D1557.
3) Public sewer easements are for the exclusive use of public sewers. The Chief Engineer (BES)must approve any other utility placed within the easement area.
4) Sewer and water laterals should be routed to individual lots without crossing through stormwater swale or planters. Swales and planters should be set back from driveway locations by several feet to allow installation of laterals.
5) Water meters must be located in the public right of way. For lots that have no public street frontage, meters must be in front of the private tract frontage. See BES Stormwater Management Manual Appendix G.3 for information about meter placement if there is a stormwater infiltration facility in the public street right of way.

updated 1/4/09

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 22