Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process

Portland Office of Transportation Development Services 504-823-7004 July 2002

Creating Public Streets and Pedestrian Connections through the Land Use Process

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

This document provides a range of design information and practices that support public street design through the land use and building permit process. This information is used by Development Services to establish street improvement requirements for land use reviews and building permits.

Information provided is based largely on existing documents and adopted practices. A list of references is included. Because not all possible scenarios can be anticipated, the reference documents and practices are considered the basis for decision making.

CONTENTS

Section	n I - Connectivity and street/pedestrian improvements	Page 1	
Section	n II - Criteria for determining street/pedestrian width and improvements	Page 2	
А.	RF - R7 zoning	Page 4	
B.	R5 zoning	Page 8	
C.	R3 - RX zoning	Page 12	
D.	Any zoning other than residential	Page 16	
Section	n III - Documents summary	Page 20	
Section IV - Administrative review process for technical decisions made under the authority of the City Engineer			

<u>SECTION I</u> CONNECTIVITY AND STREET/PEDESTRIAN IMPROVEMENTS

The Transportation Planning Rule and Metro's Regional Transportation Plan require local jurisdictions to provide for safe and convenient pedestrian, bicycle and vehicle circulation. The City's Transportation Element of the Comprehensive Plan supports this goal through policy language stating that new and redeveloping areas should be served by interconnected public streets.

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.

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

In addition, a site may have frontage on a street or right-of-way that is not improved to current standards. Adjacent properties are responsible for their frontage improvements (see Title 17.88.010). Where the right-ofway 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.

Possible connectivity and widening requirements should be researched early in the development process to avoid expensive alterations to plans at a later stage. If you have specific questions regarding a site, you may call 503-823-7884.

SECTION II 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 charts are the needed width for the full street improvement.

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

<u>Terms</u>

ADT – Average Daily Traffic is the vehicle count over a 24 hour period (typically counted on a weekday) for the segment of road in question

Bicycle Classification – the street classification in the Transportation Element of the Comprehensive Plan related to the desired bicycle use for the street

Connecting Street Length – the length of a dead-end street from the nearest public street intersection to the terminus of the dead-end street

Official Zoning Maps - maps showing comprehensive Plan and Zoning designations

Pavement Diameter - the width of the pavement across a turnaround or cul-de-sac bulb

Pedestrian Classification - the street classification in the Transportation Element of the Comprehensive Plan related to the desired pedestrian use for the street

Pedestrian Connection – a public walkway not adjacent to a street. It may connect between two public streets, or between a public street and a public facility such as a school, library, park, community center, etc. The standard pedestrian connection includes a sidewalk and landscaped buffers on each side (which may also provide access for maintenance). Pedestrian connections may include other items (such as street lighting) which are not listed as elements

Roadway- the paved area typically reserved for vehicle use, including bicycles

Sidewalk Corridor- the area from the edge of the roadway to the edge of the right-of-way. Sidewalk corridors usually include the curb zone, the furnishing zone, the through pedestrian zone and the frontage zone (Portland Pedestrian Design Guide, 1998)

Street Improvements – items to be constructed to create a new street or pedestrian connection, or to widen or extend an existing street or pedestrian connection. The standard full-width street improvement includes vehicle travel lanes, parking lanes on one or more sides, and a sidewalk corridor on each side. Bicycle lanes may also be included. Street improvements also include many other items (such as street lighting and storm drainage) which are not listed as elements

Traffic Classification – the street classification in the Transportation Element of the Comprehensive Plan related to the desired passenger vehicle use for the street

Travel ways - defines whether an alley will carry one-way or two-way traffic

The following charts cover only the most common cases. In addition, exceptions may be made where there are topographic or existing development constraints, or where proposed improvements should match or transition to existing facilities. In any case, 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 this document.

A. <u>RF – R7 Zoning</u>

Traffic ClassificationOn-street ParkingRoadway width HPedestrian ClassificationSidewalk Corridor W widthR	Standard Through Street <u>-OR-</u> Dead-end less than 300' in length (RF-R7 zoning)							
	kight-of- Vay vidth*							
Local ServiceNone or one lane20'Local Service Street NOT in a Pedestrian District10' each frontage40	0'							
Local ServiceNone or one lane20'Local Service Street in a Pedestrian District12' each frontage44 44StreetIaneImageImageImageImageImageImageImage	4'							
Local ServiceTwo lanes26'Local Service StreetNOT in a10' each40StreetPedestrian Districtfrontage	6'							
Local ServiceTwo lanes26'Local Service Street in a Pedestrian District -OR- City Walkway12' each frontage50	0'							
^発 Additional width for bicycle lanes in the roadway								
Traffic ClassificationBicycle ClassificationADTAdditional Right-of-Way neededLocal Service StreetCity Bikeway< 3000	Additional Right-of-Way needed							
Local Service StreetCity Bikeway ≥ 3000 5' each bike lane*	ane*							
** 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.								
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will	be							

Other cases not listed above are designed on a case-by-case basis

Standard Dead-end Street 300' or more in length (RF-R7 zoning)

Traffic Classification	On-street Parking	Road- way width	Pedestrian Classification	Sidewalk Corridor width	Right-of- Way width*	
Local Service Street	No on-street parking	20'	Local Service Street <u>NOT</u> in a Pedestrian District	10' each frontage	40'	
Local Service Street	No on-street parking	20'	Local Service Street in a Pedestrian District <u>-OR-</u> City Walkway	12' each frontage	44'	
Local Service Street	One lane	28'	Local Service Street <u>NOT</u> in a Pedestrian District	10' each frontage	48'	
Local Service Street	One lane	28'	Local Service Street in a Pedestrian District <u>-OR-</u> City Walkway	12' each frontage	52'	
Local Service Street	Two lanes	32'	Local Service Street <u>NOT</u> in a Pedestrian District	10' each frontage	52'	
Local Service Street	Two lanes	32'	Local Service Street in a Pedestrian District <u>-OR-</u> City Walkway	12' each frontage	56'	
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be needed. See Subsection E, Other Technical Information.						
Other cases not lis	sted above are des	igned on a o	case-by-case basis			

Section II.A. (RF-R7 zoning) continued

Standard (Standard Cul-de-Sac (turnaround on a dead-end street) (RF-R7 zoning)						
Traffic Classification	Connecting Street Length	Pavement Diameter	Pedestrian Classification	Sidewalk Corridor width	Right-of- Way width (dia.)*		
Local Service Street	300' or greater	70'	Local Service Street <u>NOT</u> 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 <u>NOT</u> in a Pedestrian District	6.5' combination curb/sidewalk with 5' clear zone at the back of walk	49`*		
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,*		
* For cases in w needed. See Sub	hich swales are resection E, Other	equired for stormwate Technical Informatio	er management, a greater right-c n.	of-way width dedicatio	n will be		
** Width determ	nned on a case-b	y-case basis					

Other cases not listed above is designed on a case-by-case basis

Alley (RF-R7 zoning)					
Travel ways	Parking	Full Alley Width	Right-of-Way Width*		
Two-way	No parking allowed	19' + 1' for curbs and/or buffer	20'		
One-way No Parking allowed 11' + 1' for curbs and/or buffer 12'					
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be					

needed. See Subsection E, Other Technical Information.

Other Street Types (RF-R7 zoning)

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.

Partial Width Streets (RF-R7 zoning)

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 been built already or where widths should more appropriately reflect adjacent existing street segments (as determined by the City Engineer).

Pedestrian Connections (RF – R7 zoning)						
Zone	Sidewalk (Walkway) Width	Buffer width (edge of walkway to property line	Right-of-Way Width*			
RF – R7	6'	4.5' each side	15'			
* For cases in which swales a	re required for stormwater managem	ent, a greater right-of-way width ded	lication will be			
needed. See Subsection E, Other Technical Information.						
For all zoning categories, care must be taken to ensure that the proposed alignment for a public pedestrian connection						
provides clear visibility throu	gh the length of the connection.					

B. R5 Zoning

Standard Through Street <u>-OR-</u> Dead-end less than 300' in length (R5 zoning)							
Traffic On-street Classification Parking		Road-way width ^H	Pedestrian Classification		Sidewalk Corridor width	Right-of- Way width*	
Local Service Street	None or one lane	20'	Local Service Str Pedestrian Distric	reet <u>NOT</u> in a	a 11' each frontage	42'	
Local Service Street	ice None or one 20' Local Service Street in a lane Pedestrian District - OR- City Walkway		reet in a ct vay	12' each frontage	44"		
Local Service Street	Two lanes	26'	Local Service Street <u>NOT</u> in a Pedestrian District		a 11' each frontage	48'	
Local Service Street	Two lanes	26'	Local Service Street in a Pedestrian District -OR- City Walkway		12' each frontage	50'	
#Additional	width for bicyc	cle lanes in the	e roadway				
Traffic Class	ification	Bicycle Class	sification	ADT	Additional Right-of-Way	needed	
Local Service	e Street	City Bikewa	у	< 3000	No additional width		
Local Service	e Street	City Bikewa	у	<u>> 3000</u>	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.							
* For cases in which	th swales are req	uired for storm	water management	t, a greater ri	ght-of-way width dedicatio	n will be	
Other cases not list	ed above are des	igned on a cas	e-by-case basis				

Other cases not listed above are designed on a case-by-case basis

Standard Dead-end Street 300' or more in length (R5 zoning)						
Traffic Classification	On-street Parking	Roadway width	Pedestrian Classification	Sidewalk Corridor width	Right-of- Way width*	
Local Service Street	No on-street parking	20'	Local Service Street <u>NOT</u> in a Pedestrian District	11' each frontage	42'	
Local Service Street	No on-street parking	20'	Local Service Street in a Pedestrian District <u>-OR-</u> City Walkway	12' each frontage	44'	
Local Service Street	One lane	28'	Local Service Street <u>NOT</u> in a Pedestrian District	11' each frontage	50'	
Local Service Street	One lane	28'	Local Service Street in a Pedestrian District <u>-OR-</u> City Walkway	12' each frontage	52'	
Local Service Street	Two lanes	32'	Local Service Street <u>NOT</u> in a Pedestrian District	11' each frontage	54'	
Local Service Street	Two lanes	32'	Local Service Street in a Pedestrian District <u>-OR-</u> City Walkway	12' each frontage	56'	
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be needed. See Subsection E, Other Technical Information.						
Other cases not liste	ed above are designed	ed on a case-by-	case basis			

Section II.B. (R5 zoning) continued

Standard Cul-de-Sac (turnaround on a dead-end street) (R5 zoning)							
Traffic Classification	Connecting Street Length	Pavement Diameter	Pedestrian Classification	Sidewalk Corridor width	Right-of-Way width (dia.)*		
Local Service Street	300' or greater	70'	Local Service Street <u>NOT</u> 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 <u>NOT</u> in a Pedestrian District	11'	58'**		
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'**		
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be needed. See Subsection E. Other Technical Information.							
** Width determin	ed on a case-by-ca	se basis					
Other cases not lis	ted above is design	ed on a case-by-case basis					

Alley (R5 zoning)					
Travel direction	Parking	Full Alley Width	Right-of-Way Width*		
Two-way	No parking allowed	19' + 1' for curbs and/or buffer	20'		
One-way	No Parking allowed	11' + 1' for curbs and/or buffer	12'		
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be					
needed. See Subsection	E, Other Technical Information.				

Other Street Types (R5 zoning)

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.

Partial Width Streets (R5 zoning)

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 been built already or where widths should more appropriately reflect adjacent existing street segments (as determined by the City Engineer).

Pedestrian Connections (R5 zoning)						
Zone	Sidewalk (Walkway) Width	Buffer width (edge of walkway to property line	Right-of-way Width*			
R5	6'	4.5' each side	15'			
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be needed. See Subsection E, Other Technical Information.						
For all zoning categories, care provides clear visibility throu	e must be taken to ensure that the pro- gh the length of the connection.	pposed alignment for a public pedestr	ian connection			

C. <u>R3-RX Zoning</u>

Standard Through Street <u>-OR-</u> Dead-end (R3-RX zoning)								
Traffic Classification	On-street Parking	Roadway width [#]	Pedestrian Clo	Pedestrian Classification		Sidewalk Corridor width	Right-of- Way width	
Local Service Street	t None	28' **	Local Service Pedestrian Dis	Local Service Street <u>NOT</u> in a Pedestrian District		11' each frontage ^{***}	****	
Local Service Stree	t One lane	28'	Local Service Pedestrian Dis	Street <u>NOT</u> i trict	in a	11' each frontage ^{***}	50'	
Local Service Stree	Two lanes	32'	Local Service Pedestrian Dis	Street <u>NOT</u> i trict	in a	11' each frontage ^{***}	54'	
Local Service Stree	t None	28'**	Local Service Street in a Pedestrian District - OR- City Walkway		12' each frontage	***		
Local Service Street One lane 28' Local Service Str Pedestrian District - OR - City Walky		Street in a trict lkway		12' each frontage	52'			
Local Service Stree	Two lanes	anes 32' Local Service Street in a Pedestrian District			12' each frontage	46'		
^ℋ Additional	width for bicyc	le lanes in the r	roadway			•		
Traffic Classi	fication	Bicycle Class	ification	ADT	Additic	onal Right-of-Way n	eeded	
Local Service	Street	City Bikeway		< 3000	No add	dditional width		
Local Service	Street	City Bikeway	,	<u>></u> 3000	5' each	i bike lane ^{発発}		
# # 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.								
* For cases in which	n swales are requ	ired for stormwa	ater management	, a greater rig	ght-of-w	ay width dedication	will be	
needed. See Subsection E, Other Technical Information.								
** 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, C Collector, or Major sidewalk corridor w	N1, CM ,CS, CX City Traffic stree idth on the Local	T or EX zoning et, <u>AND</u> the Loc Service Street	where the site has al Service Street frontage is 12'	as frontage of intersects wi	n a Neigl ith the T	hborhood Collector, raffic Street listed h	, District ere, the	
**** Width determine	ned on a case-by	-case basis						
0.1	1 1 1 1	1 1	1 .					

Other cases not listed above are designed on a case-by-case basis.

Alley (R3 – RX zoning)

Aney (KS – KA Zoning)						
Travel ways	Parking	Full Alley Width	Right-of-Way Width*			
Two-way	No parking allowed	19' + 1' for curbs and/or buffer	20'			
One-way	No Parking allowed	11' + 1' for curbs and/or buffer	12'			
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be						
needed. See Subsection E, Other Technical Information.						

Standard Cul-de-Sac (turnaround on a dead-end street) (R3 – RX zoning)

Traffic Classification	Connecting Street Length	Pavement Diameter	Pedestrian Classification	Sidewalk Corridor width	Right-of-Way width (dia.)*
Local Service	300' or greater	70'	Local Service Street NOT	11'	92'
Street			in a Pedestrian District		
Local Service	300' or greater	70'	Local Service Street in a	12'	94'
Street			Pedestrian District		
Local Service	Less than 300'	Typ. 36' in diameter	Local Service Street NOT	11'	58'**
Street		but designed on a	in a Pedestrian District		
		case-by case basis			
Local Service	Less than 300'	Typ. 36' in diameter	Local Service Street in a	12'	60'**
Street		but designed on a	Pedestrian District		
		case-by case basis			
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be					
needed. See Subsection E, Other Technical Information.					
** Width determined on a case-by-case basis					
Other cases not listed above are designed on a case-by-case basis.					

Section II.C. (R3 – RX) zoning) continued

Other Street Types (R3 – RX zoning)

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.

Partial Width Streets (R3 – RX zoning)

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 been built already or where widths should more appropriately reflect adjacent existing street segments (as determined by the City Engineer).

Pedestrian Connections (R3 -- RX zoning)

Zone	Sidewalk (Walkway) Width	Buffer width (edge of walkway	Right-of-Way		
		to property line	wiain*		
RX	Generally 8' – 20' but designed on a case-	Minimum 5' each side	18' – 30'**		
	by-case basis				
R3-RH	6'	4.5' each side	15'		
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be					
needed. See Subsection E, Other Technical Information.					
**Width determined on a case-by-case basis					
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.

D. Zoning other than RF – RX

Standard Through Street -OR- Dead-end (Zoning other than RF- RX)							
Traffic Classification	On-street Parking	Roadway width ^H	Pedestrian Classification		Sidewalk Corridor width	Right-of- way width	
Local Service Street	None	28' **	Local Service Street <u>NOT</u> in a Pedestrian District		11' each frontage ^{***}	*	
Local Service Street	One lane	28' minimum	Local Service Street <u>NOT</u> in a Pedestrian District		11' each frontage ^{***}	*	
Local Service Street	Two lanes	32' minimum	Local Service Street <u>NOT</u> in a Pedestrian District		11' each frontage ^{***}	*	
Local Service Street	None	28' **	Local Service Street in a Pedestrian District -OR- City Walkway		12' each frontage	*	
Local Service Street	One lane	28' minimum	Local Service Street in a Pedestrian District -OR- City Walkway		12' each frontage	*	
Local Service Street	Two lanes	32' minimum	Local Service Street <u>NOT</u> in a Pedestrian District		12' each frontage	*	
육 Additiona	l width for bicy	cle lanes in the r	oadway				
Traffic Classi	ification	Bicycle Classifi	ication	ADT	Add	itional Right-of-Way	y needed
Local Service	e Street	City Bikeway		< 3000	Noa	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.							
* Width determined on a case-by-case basis. For cases in which swales are required for stormwater management, a greater							
right-of-way width dedication will be needed. See Subsection E, Other Technical Information.							
** 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, and 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.							

Alley (Zoning other than RF – RX)Travel waysParkingFull Alley Width

Two-wayNo parking allowed19' + 1' for curbs and/or buffer20'One-wayNo Parking allowed11' + 1' for curbs and/or buffer12'* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be
needed. See Subsection E, Other Technical Information.Image: Comparison of the store in the

Right-of-Way Width*

Standard Cul-de-Sac (turnaround on a dead-end street) (Zoning other than RF – RX)							
Traffic Classification	Connecting Street Length	Pavement Diameter	Pedestrian Classification	Sidewalk Corridor width	Right-of- Way width (dia.)*		
Local Service Street	300' or greater	70'	Local Service Street <u>NOT</u> 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 <u>NOT</u> in a Pedestrian District	11'	58'**		
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'**		
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be							
needed. See Subsection E, Other Technical Information.							
** Width determined on a case-by-case basis							
Other cases not liste	ed above is design	ed on a case-by-case basis					

Zoning other than RF- RX continued on next page

Section II.D. (Zoning other than RF – RX) continued

Other Street Types (Zoning other than RF – RX)

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.

Partial Width Streets (Zoning other than RF – RX)

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 been built already or where widths should more appropriately reflect adjacent existing street segments (as determined by the City Engineer).

Pedestrian Connection (Zoning other than RF – RX)						
Zone	Sidewalk (Walkway) Width	Buffer width (edge of walkway to property line	Right-of-Way Width*			
CN1, CM,	Generally 8' – 20' but designed on a case-	Minimum 5' each side	18' - 30'			
CS or CX	by-case basis		suggested			
Other	Designed on a case-by-case basis					
* For cases in which swales are required for stormwater management, a greater right-of-way width dedication will be needed. See Subsection E, Other Technical Information.						
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.						

E. Other Technical Information

The preceding charts cover only the most common cases. In addition, exceptions may be made where there are topographic, technical, or existing development constraints, or where proposed improvements should match or transition to existing facilities. In any case, 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 this document.

If swales are required for stormwater management, the actual right-of-way dedication requires specific review. To determine the additional approximate width needed, take the swale width minus 4 feet. Swales may or may not be allowed and must receive approval from the City Engineer and Bureau of Environmental Services before they are incorporated into the right-of-way.

SECTION III CODES, MANUALS AND OTHER DOCUMENTS 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. Guidelines for bicycle facilities in Appendix A.

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 (City of Portland)

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

Others:

Various street master plans and street improvement plans including but not limited to: SW and Far SE Master Street Plan River District Right-of-Way Framework Plans Barbur Boulevard Streetscape Plan NE Martin Luther King Jr. Boulevard Transportation Project Captitol Highway Plan, Multnomah County Street Plans Airport Way Secondary Infrastructure Plan Lloyd District Transportation Design Criteria

SECTION IV ADMINISTRATIVE REVIEW PROCESS FOR TECHNICAL DECISIONS FOR STREET DESIGN

If you believe a significant error was made in a decision regarding a proposed street improvement, we encourage you to contact the Transportation Development Review staff or Permit Engineer. Generally, you can obtain the name of the Transportation staff who worked on the development by calling (503) 823-7884 and providing the land use case or building permit number.

If after working with Transportation staff, you still believe a technical decision was in error, you may request a review of that decision by following this process:

- 1. Write a letter to the City Engineer (in care of the Development Services Manager). In your letter please include the land use case or building permit number, the Transportation staff person you worked with, and a clear description of the problem and why you think the decision was incorrect. If information is not documented in your letter it cannot be considered.
- 2. The Development Services Manager will review your appeal and consult with staff and the City Engineer as needed. You may be contacted for additional information. A written response will be provided. The timeline for a response may vary depending on the complexity of the issue. The City Engineer may choose to delay an impacted project while the review is being considered. Decisions made by the City Engineer for administrative reviews are final.

6/02