

“Up Out of the Mud” Street by Street Initiative

November, 2012



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Portland’s Dirt and Gravel Street Problem

Of the 2,070 centerline miles of City streets, approximately sixty (60) are still dirt and gravel streets. Forty five (45) centerline (cl) miles of unpaved streets are in single family residential areas, on “residential streets” and 167 cl miles of residential streets are paved without any curb or sidewalk. The remaining residential streets have curb with sidewalk fragments, a sidewalk on one side, or two complete sidewalks. Many of these dirt and gravel streets are from more recently annexed areas of the city, such as the Cully neighborhood and the outer eastside. Others are from areas like southwest Portland, which have significant topography, drainage or lack of infrastructure constraint, which limits the ability to implement the existing, one-size fits all, design standard for residential streets - the “traditional residential street standard”.

For adjacent property owners, dirt and gravel streets can be a problem for a variety of neighborhood livability issues, including the quality of local access, property values, and traffic management. At the neighborhood level these streets are the weak links the City’s local street transportation and stormwater management networks. For transportation networks, this includes all modes of travel, particularly pedestrians. Good street connectivity, one of the foundations of the City’s Transportation policy, depends on public rights-of way that both exist *and* are improved, so that pedestrians do not have walk through the mud to get somewhere.



*All streets in Portland:
2,070 centerline miles*

*Local “residential” streets:
1,006 centerline miles*

*Local residential streets that are
unpaved:
45 centerline miles*

*Local residential streets that have no
curb or sidewalk:
167 centerline miles*

Since the founding of the city, improvement of all local streets has been the responsibility of the adjacent property owners, either as a single property owner through a public works permit or more commonly through a Local Improvement District 'LID', which has multiple property owners participating.

One size does not fit all

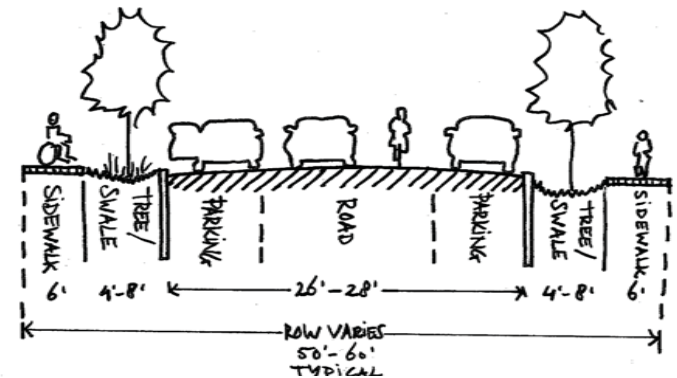
Currently, property owners who want to form an LID to improve their streets, for the most part, have just one design standard to use- the 'traditional residential street' standard, regardless of what part of the City the street is in. While the existing standard provides a high level of quality for transportation purposes and stormwater management, it is also very expensive to make work in many parts of the City. The average cost estimate for this design is \$1,500/ lineal feet, which works out to be approximately \$300/month/20 years through the Local Improvement District Program (based on a typical 50 ft frontage).

Simply allowing dirt streets to be improved with gravel does not meet the City's needs for two key reasons. First, gravel streets deteriorate quickly, thus they are a poor investment in terms of maintenance. Second, these streets do not meet Americans with Disabilities Act (ADA) standards.

Street by Street Initiative:

Create more flexible/affordable design standards

It has been and remains the policy of the City of Portland that streets are constructed at the expense of abutting property owners and are maintained by abutting property owners until street improvements are constructed to the standards of, and accepted for maintenance by, the City. [City Code Chapter 17.42, Property Owner Responsibility for Streets, paragraph .010 A., Policy].



Traditional Residential Street design standard

Approximate typical LID cost per property owner:

\$300/month/20 years

(based on 50 ft of street frontage)

The Street by Street Initiative was developed to create a more effective process for improving unpaved (dirt and gravel) and streets paved but without curb and sidewalk. This starts with developing new design standards that achieve two basic purposes. First is to provide more design flexibility, because most local streets in Portland are unique, in terms of how they function within the surrounding street network, the local topography, existing right-of-way widths and stormwater conditions.

Something is Better than Nothing

Second, by allowing more basic design options that at least meet our minimum needs for local and emergency response access, the cost to participate in an LID can be greatly reduced. By reducing the cost, we can encourage greater participation in the formation of LIDs and more quickly reduce the miles of dirt and gravel streets.

What is Out of the Mud doing?

- Expanding the City's residential streets styles
- Expanding resident's options for funding and city backed financing
- Establishing a policy of an optional In Lieu of improvements fee for infill development
- Promoting the hiring of private contracting to build residential streets

New Design Standards

Eligibility criteria

The two new design standards, in addition to the existing 'Traditional Residential Street' will be available to residential streets that meet the following criteria:

- Zoning: streets to be improved must be in areas where the adjacent zoning is single family residential (R-5 etc.).
- Street classification: streets to be improved must be classified in the *Transportation System Plan* (TSP) as ‘Local Service Streets’ for all modes. Local Service Streets that are also within Pedestrian Districts are not eligible.

Brief History of Design Standards

- On July 31, 1991, City Council passed Resolution 34885 authorizing the Bureau of Transportation to implement Performance Standards for neighborhood streets and adopted “skinny” street standards and a transformation began how residential streets were thought of - narrower streets with queuing travel lanes.
- On July 31, 1991 City Council passed Resolution 34886 authorizing the Bureau of Transportation to implement a contract streets program, allowing residents of an existing neighborhood to build and maintain, where appropriate, a temporary “substandard” street. This resolution resulted from Ordinance 162651, (passed by City Council January 10, 1990), authorizing the Bureau to proceed with development of a program to enable residents of existing neighborhoods to construct non-city-maintained streets under City permit.
- On January 20, 1995 City Council passed Resolution 35360 endorsing the Cheap and Skinny Streets Program and directed implementation of a pilot project in Brentwood-Darlington. The

60 miles of unpaved street exist in the City because:

- Streets may have been annexed into the City in this condition
- People may prefer the restricted slower and lower traffic
- High cost of pavement, curb, sidewalks, storm systems to improve
- Neighbor agreement is necessary to collectively fund a street improvement, even with some “obligated” with a waiver of remonstrance
- Infill development is not assigned the burden of fully improving streets to standard

partnership with Bureaus of Transportation, Environmental Services, and Community Development, provided full urban street improvements including drainage, narrow streets, and sidewalks on both sides and relied upon investment of Bureau of Housing and Community Development (BHCD) funds for financing 70% of the total costs.

- In 1998 the Bureau of Transportation adopted the Pedestrian Design Guidelines, an element of the Pedestrian Master Plan, and established 11ft sidewalk corridors (0.5' curb, 4.0' furnishings zone, 6.0' through pedestrian zone (paved sidewalk), and 0.5' frontage zone) as the recommended width on the residential street.
- Portland's Stormwater Management Manual (SWMM) was adopted by the Bureau of Environmental Services on July 1, 1999, and revised in 2004 and 2008. The SWMM outlines the City's stormwater management requirements for all development and redevelopment projects on both private and public property and emphasizes the use of vegetated surface facilities, often swales for existing neighborhood redevelopment, fit within in the sidewalk corridor zone.
- In 2004 the Bureau of Transportation adopted Administrative Rule TRN-1.09 - Design Standards for Public Streets and Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process as the design standards for public streets and established right of way and street widths for residential streets at 26ft wide roadway and 11ft sidewalk corridors.

Infill and small land divisions dominate single family development activity. In the last three (3) years eighty percent (80%) of the new lots formed through subdivisions were created by small lot (< 10) subdivisions and none formed from large lot (>50) subdivisions.

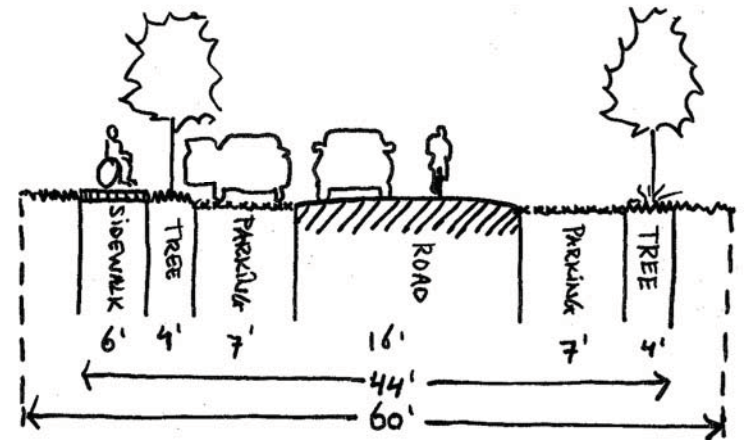
- On Aug 29 2012 Council passed Resolution 36952 adopting the recommendations of the Cully Neighborhood Local Street Plan and that the Cully Local Street Plan will serve as the strategy guiding development of the transportation system in the Cully Neighborhood by improving network connectivity and safety for all travel modes, exploring more context-based options for improving local streets, and focusing investments based on community priorities. The Plan recommends, in concept, the “separated” residential street, “shared” residential street or walkway only, as approved options for improving substandard streets in Cully.
- Equity in the Portland Plan calls for public agencies to aim to provide basic services to all Portlanders, which, due to the history of annexations and development, public services are not distributed equally across the city.

Title II of the Americans with Disabilities Act (ADA) prohibits discrimination on the basis of disability by State and local government entities, and when public entities build new or alter existing facilities, Title II requires the new construction/alterations be made accessible to individuals with disabilities. The ADA does not require public agencies to provide pedestrian facilities when none currently exists; however, when a public agency provides a pedestrian facility, it must be accessible to persons with disabilities to the extent technically feasible.

Separated Residential Street

The separated residential street provides the basic elements of an improved local street. This design is estimated to reduce the typical property owner cost for participating in a street improvement LID by as much as 70% over the traditional design, where it meets the design criteria, including drainage.

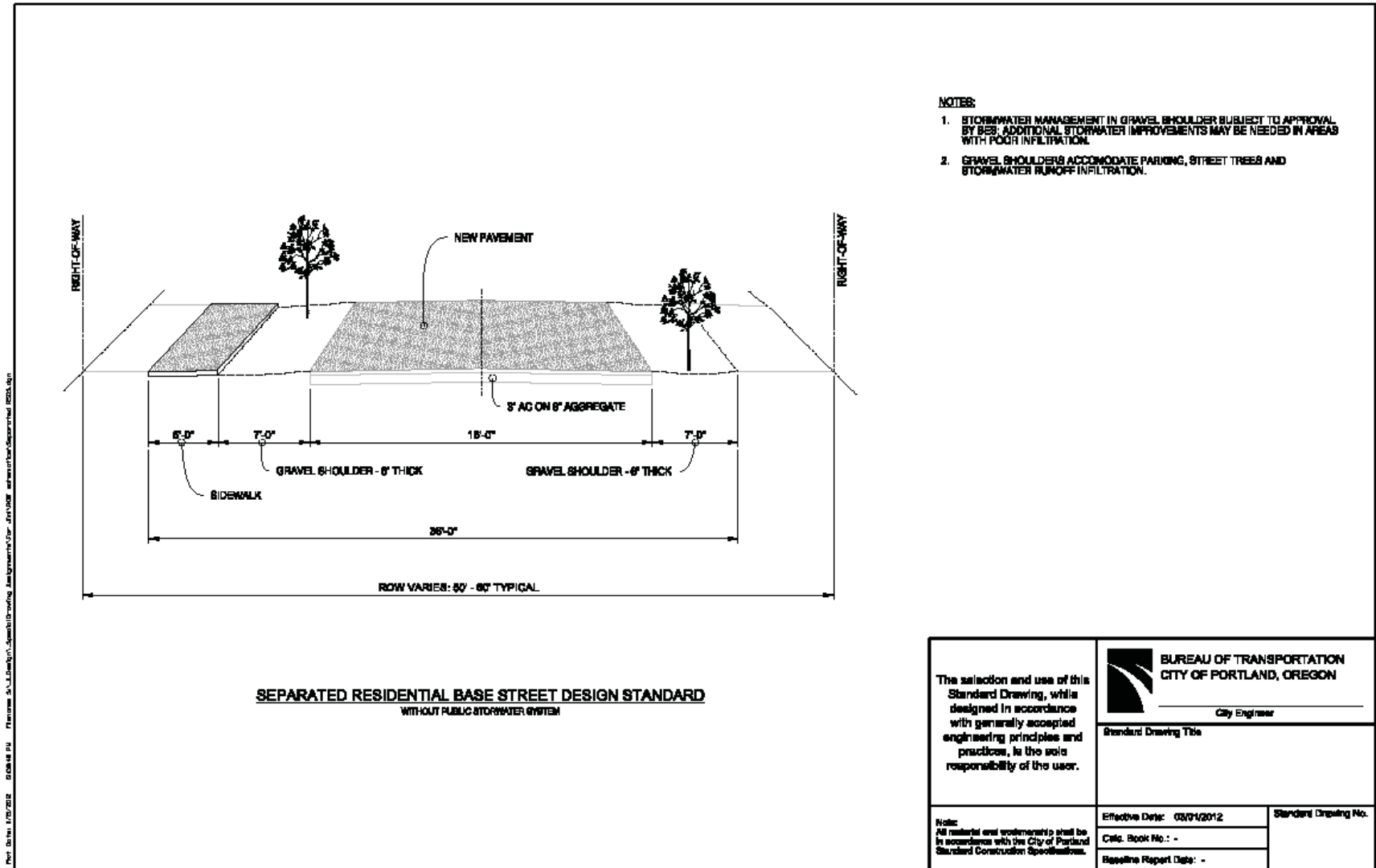
- The paved roadway (4 inches of asphalt on 8 inches of compacted rock) portion of the street is 16 ft in width, without curbs.
- On both sides of the paved roadway are gravel shoulders with a minimum width of 7ft. The primary purpose of the shoulder area is for on-street parking, street trees and stormwater management. The intent is also to allow secondary uses, such as landscaping, basketball hoops, and benches, subject to additional City approval.
- On one side of the street will be a 6 ft wide minimum concrete sidewalk, separated from the paved roadway by the gravel shoulder area.
- Stormwater management: All stormwater runoff is intended to be managed with the gravel shoulder area through infiltration. Additional stormwater management improvements to accommodate drainage may be required as needed on a case by case basis, as determined by a Bureau of Environmental Services review.



Approximate typical LID cost per
property owner:

\$85/month/20 years

(based on 50 ft of street frontage)

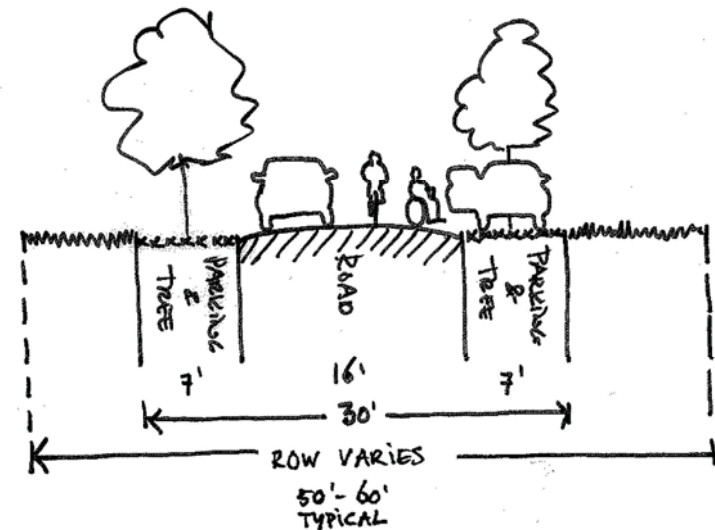


Shared Residential Street

The 'Shared Residential' street design is provided as another option to help further reduce the cost by eliminating the sidewalk entirely. Because this will require all modes of travel to potentially mix within the paved roadway, there are additional criteria for eligibility and standard for design:

- Additional eligibility criteria: The traffic volume is projected to be 500 vehicles/day or less.
- Additional design standards:
 - To ensure a low speed traffic environment, traffic calming elements are also required. At a minimum this includes speed bumps. These streets will also have a posted speed limit of 15 mph. The cost of the speed bumps is incorporated into the \$65/month LID estimate.
 - To ensure good visibility of pedestrians using the street, a sight distance analysis will be performed.
- The community has recommended shared streets be evaluated post construction and after a period of time after they have been in use to inform recommended best practices for maintenance such as in the edge treatment, landscaping, and smoothness of surfacing.

ORS 811.111, requires a 15 mph speed limit when driving on an alley or a narrow residential roadway, 18ft wide or less at any point.

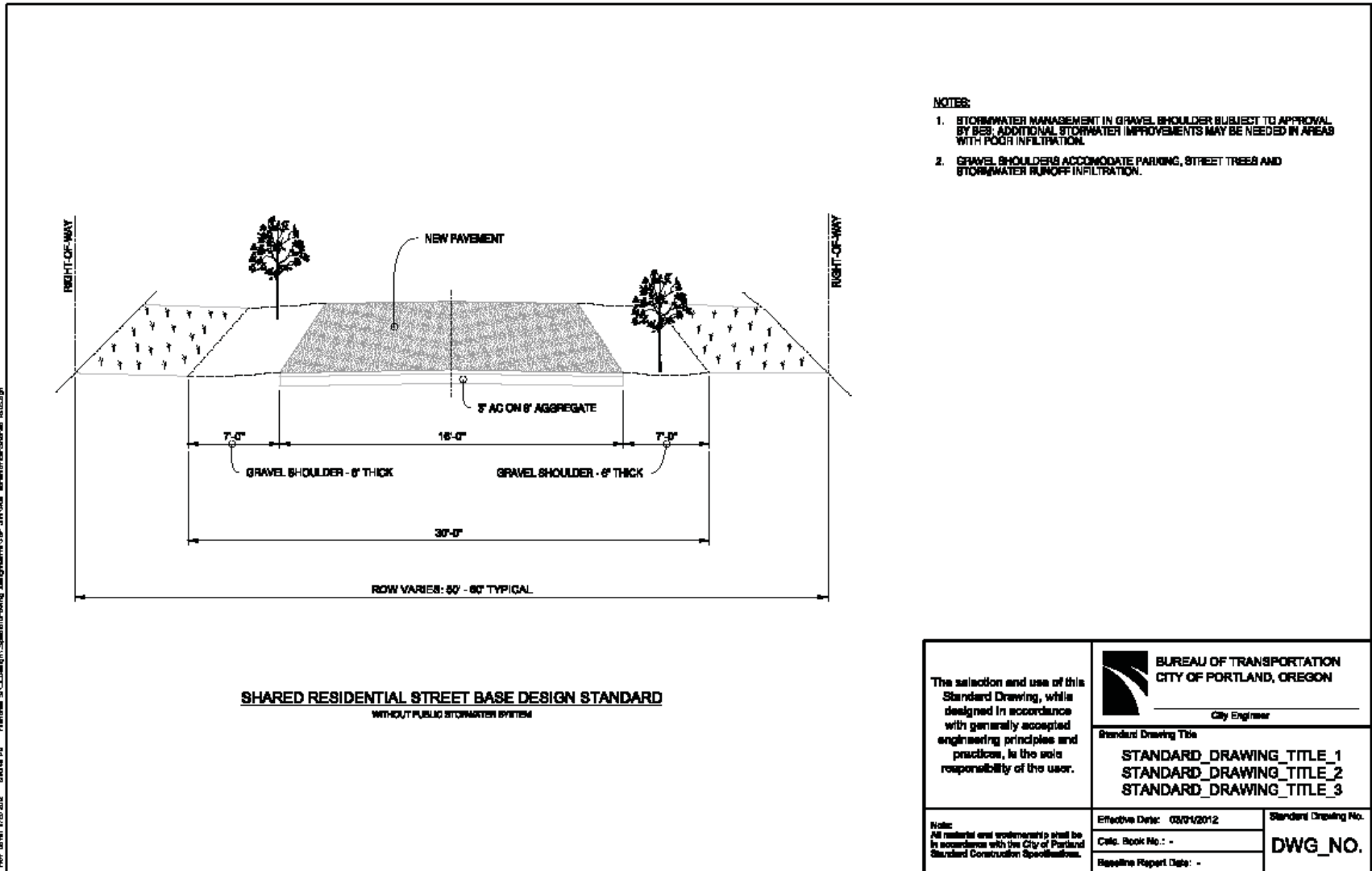


Shared Residential Street

Approximate typical LID cost per property owner:

\$65/month/20 years

(based on 50 ft of street frontage)



Traffic Calming

Separated Residential Street

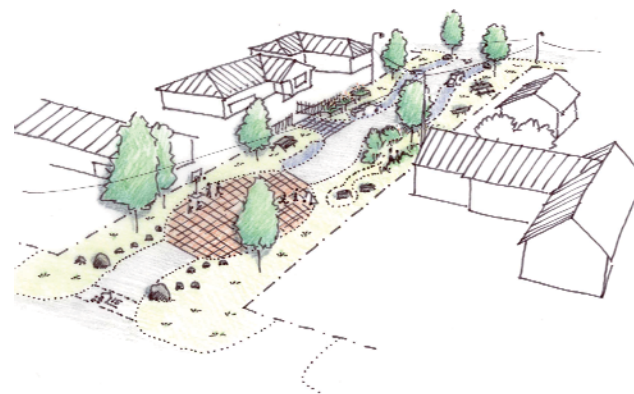
Traffic calming is an optional upgrade for the Separated Residential Street, based on the desires of the adjacent property owners and City Traffic Engineer approval. A wide variety of potential traffic calming tools, from speed bumps to 'chicane' alignments and pinch points that allow only bike and pedestrian through traffic in the middle of the block, will be available to slow traffic speeds. Any traffic calming added to the street design would be an additional cost to the basic design.

Shared Residential Street

Because pedestrians will mix with bikes and cars within the 16 ft paved roadway, traffic calming is a requirement for a Shared Residential Street design. The design speed of these roadways is 15 mph, which the Oregon Vehicle Code currently requires for narrow residential streets. This design speed can be achieved with speed bumps, the minimum requirement. Speed bumps have proven to be among our most cost effective tools for speed reduction. Speed bumps are included in the estimated \$65/ month typical LID cost per property owner. The need for additional traffic calming measures will be evaluated on a case by case basis.

Stormwater Management

The intent of the two new design standards is to utilize the gravel shoulder portion for stormwater management through infiltration. This approach primarily depends on the local infiltration rate, which varies across the City. The Residential Street Based Design Standards without



There are many design options for traffic, from relatively inexpensive speed bump calming to curvilinear designs that create more flexible public spaces within the right-of-way. Paint and landscaped edges should also be further explored.

public stormwater system as shown may be applicable to about one third of the area of the city.

Given challenges of topography, landslide concerns and low infiltration rates in some areas, such as SW Portland, the costs of stormwater management required for traditional street improvements may be prohibitively expensive for repaving of streets in established neighborhoods. In response to these constraints the Bureau of Environmental Services and the Portland Bureau of Transportation are collaborating on approaches to utilize the road shoulder to convey and manage stormwater as technically feasible. These approaches depend primarily on the local site conditions and infiltration rates and would be reviewed by BES on a case by case basis. In all cases, the conveyance of a 10-year storm event must be considered in terms of downstream safety for both local residents and the right-of-way and must discharge to an approvable disposal point. Depending on site circumstances, solutions could range from simple, over-land flow, to road-side ditches, to conventional curb and gutter and underground piped systems paired with other neighborhood scale stormwater management facilities.

Maps showing stormwater management areas, infiltration rates, high ground water elevations, and topography will help inform the drainage design necessary.

Maintenance Responsibility

The City accepts maintenance responsibility for streets built to the design standard where the city has formally accepted them This currently

The City Engineer, based on findings that a standard improvement is not feasible, may allow a temporary street improvement, not maintained by the City, which requires present and future owners be counted in favor of any proposed standard improvement of said street [City Code, 17.88.020, For Buildings and Planning Actions] by agreeing to a waiver of remonstrance.

Residential Streets Maintained Today:

	Public	Private
Paved		
Without Curb	78%	22%
With Curb	99%	1%
Unpaved	0	100%
Unimproved	0	100%

includes almost all streets paved with curb and the majority of streets paved without curb. Maintenance of all unpaved local streets in Portland is the responsibility of the adjacent property owners.

Streets built to either of the two new design standards will become City maintained for the pavement portion of street. The gravel shoulders and separated sidewalk will remain the responsibility of the adjacent property owner.

Low-Income Deferral

Large percentages of dirt and gravel streets are in generally low-income neighborhoods, such as Cully, Brentwood-Darlington and outer NE/ SE Portland. Even with the significant cost reduction of the new design standards, many property owners will still find the monthly LID assessment too expensive.

The pros and cons of some financing options were explored. These are included in Appendix C.

PBOT's experience with LIDs formed since the redesign of the LID program in 2000 indicates that participation can be enhanced through program's that help with affordability, such as grants and/or low-income deferrals.

Waivers of remonstrance, (waiver), a property's obligation to not plead in objection to formation of a local improvement district and recorded against the property, exist on approximately seven percent (7%) of City parcels. The city may require development to sign a waiver of remonstrance for future street and stormwater improvements as a condition of development if the development will be benefited by the street and stormwater improvements.

Issuance by the City reached a peak in 1994 – 1997, and the most often sought developer request in public works appeals. Although it obligates the parcel into formation of an LID a waiver does not obligate Council to approve an LID; a waiver only obligates the property to be counted in favor of an LID.

On November 4 1998, City Council passed Resolution 35738 directing the Local Improvement Administrator reinvent the Local Improvement District (LID) program.

Since the LID redesign, 34 local improvement districts (LIDs) have been formed by City Council. Of the 23 with completed final assessments, all but 4 were formed with majority petition support (not relying upon waivers for formation). Two were council initiated, and two were petition-initiated with less than majority petition support, with waivers of remonstrances making up the difference.

LID Program modifications proved to be an important tool for improving local streets however their effectiveness is limited by the cost to individual property owners. LID's in low income neighborhoods have generally only been successful with a subsidy from an outside funding source.

The Street by Street Initiative recommends a new low income deferral program be made available to the LID program in areas that are not eligible for tax increment or Community Development Block Grant financing. This financing option would be eligible to all property owners participating in an LID in which a majority of households within the LID earn less than 80% of the area's median family income. The option would allow deferral of payment for the first five years after final assessment is imposed.

Americans with Disabilities Act (ADA)

Both the Separated Residential Street and the Shared Residential Street designs meet the requirements of the ADA in terms of surface treatment and cross slope.

Sidewalk(s) only

In some cases, simply adding a walkway may be appropriate on unimproved rights-of-way that provide access to no or a limited number of adjacent properties. This may allow for creation of a critical connection to a school or other neighborhood destination that does not need a strong accommodation for motorized vehicles. Construction through an LID of a roadway in need of sidewalk only will be allowable. The approximate typical LID cost per property owner is \$20/ month/ 20years (based on 50 ft of street frontage).

Utilities

The new design standards are not intended to change existing design standards or code requirements in relation of the placement of utilities.

Emergency Response Access

Portland Fire Bureau operations are regulated by Title 31 of the City Code which specify minimum street design standards for emergency response access. While a 20 ft local street width is preferred, the Fire Bureau has acknowledged that, in the case of residential dirt and gravel streets, the 16 ft width proposed is a significant enhancement to access and response time compared to the existing condition.

Work in Progress

There are several additional elements to the Bureau of Transportation's overall approach to helping dirt and gravel streets and streets that may be paved without curb and sidewalk and do not meet the design criteria of a shared street, to get improved more effectively that will require additional refinement and public involvement. These include:

In-fill Development: In-Lieu of Fee

There is a good opportunity to introduce more flexibility in terms of how in-fill development participates in the improvement of substandard and dirt and gravel streets. Under the current standards, in-fill development on an unimproved street is required to either build frontage improvements to the Traditional Residential Street standard or sign a waiver of remonstrance (which waives the property owner's right to object to the formation of an LID to improve the street). The problem with frontage improvements is that often their functionality is limited if they do not directly connect to other street improvements. It would be better if the funds used for frontage improvements were available to help form an LID that gets the entire street improved as an alternative.

The in-lieu-of fee proposal would allow the option of the City collecting a fee in-lieu of the frontage improvements that could be set aside as leverage funds for forming an LID for the entire unimproved street. Issues associated with the fee amount, how broadly it could be used (for instance on adjacent unimproved street that is more ripe for an LID), and how the broader neighborhood participates in design decision making are needed.

Information Access

To help encourage property owners interested in creating an LID to improve a dirt and gravel streets, the Street by Street Initiative proposes development of a webpage on the Bureau of

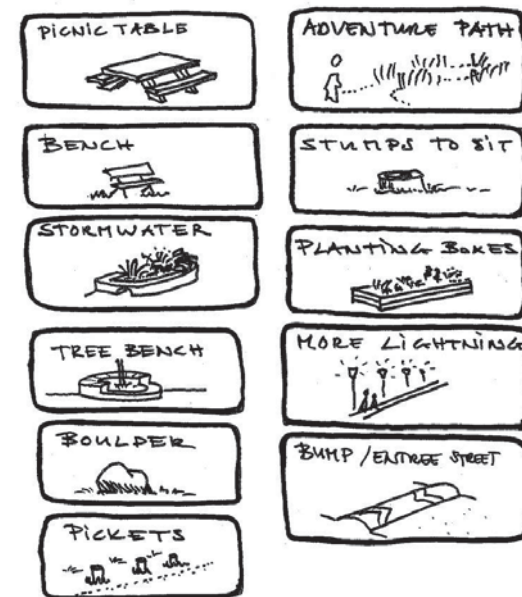
Transportation's website that allows them to more quickly and easily assess whether their street would be eligible for the new design standards. Readily available information would include maps that identify streets that would be eligible for the new design standards, as well as geographical information that would help identify potential issues such as stormwater management design, street connectivity and key destinations (see Appendix A).

Design Enhancements

In 1990, the National Association of Home Builders, the Urban Land Institute, and the American Society of Civil Engineers joined to publish a milestone in urban street design, *Residential Streets*, which advocates: designing to minimize traffic volumes and speeds in residential areas; properly scaled streets; streets planned to avoid excessive stormwater runoff; streets which can serve as meeting places and centers of community activity.

The new design standards are intended to also allow for more creative use of the public right-of-way. Based on the desires of the neighborhood, these street designs also provide opportunities for additional design elements that can enhance the aesthetics and livability of streets.

For several decades now, Europe has been developing street designs that build on the shared street standard by encouraging additional non-transportation uses that enhance the overall quality of life for the adjacent residents. Known as 'home zones', and woonerfs, these streets not only are designed to minimize traffic speeds but to become safe spaces for a wide range of activities. (see Appendix E)



Potential additional design elements that could be considered if desired, as part of the new street designs to which could assist streets serving as meeting places and centers of community activity.

Design Approval Process & Public Involvement

A process for involving the residents of a street and the broader neighborhood in decision making around the specific design of the shared streets, particularly in relation to the types of traffic calming tools used and design enhancements, needs to be developed to ensure the design functions well within the surrounding street network -

In 2004 the Bureau of Transportation adopted Administrative Rule TRN-1.09 - Design Standards for Public Streets and Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process as the design standards for public streets and established right of way and street widths for residential streets at 26ft wide roadway and 11ft sidewalk corridors, a “Traditional Residential Street Standard”.

For Buildings and Planning Actions the City Engineer, based on findings that a standard improvement is not feasible, [due to drainage, topography, lack of infrastructure, or other conditions], may allow a temporary street improvement, not maintained by the City[City Code, 17.88.020].

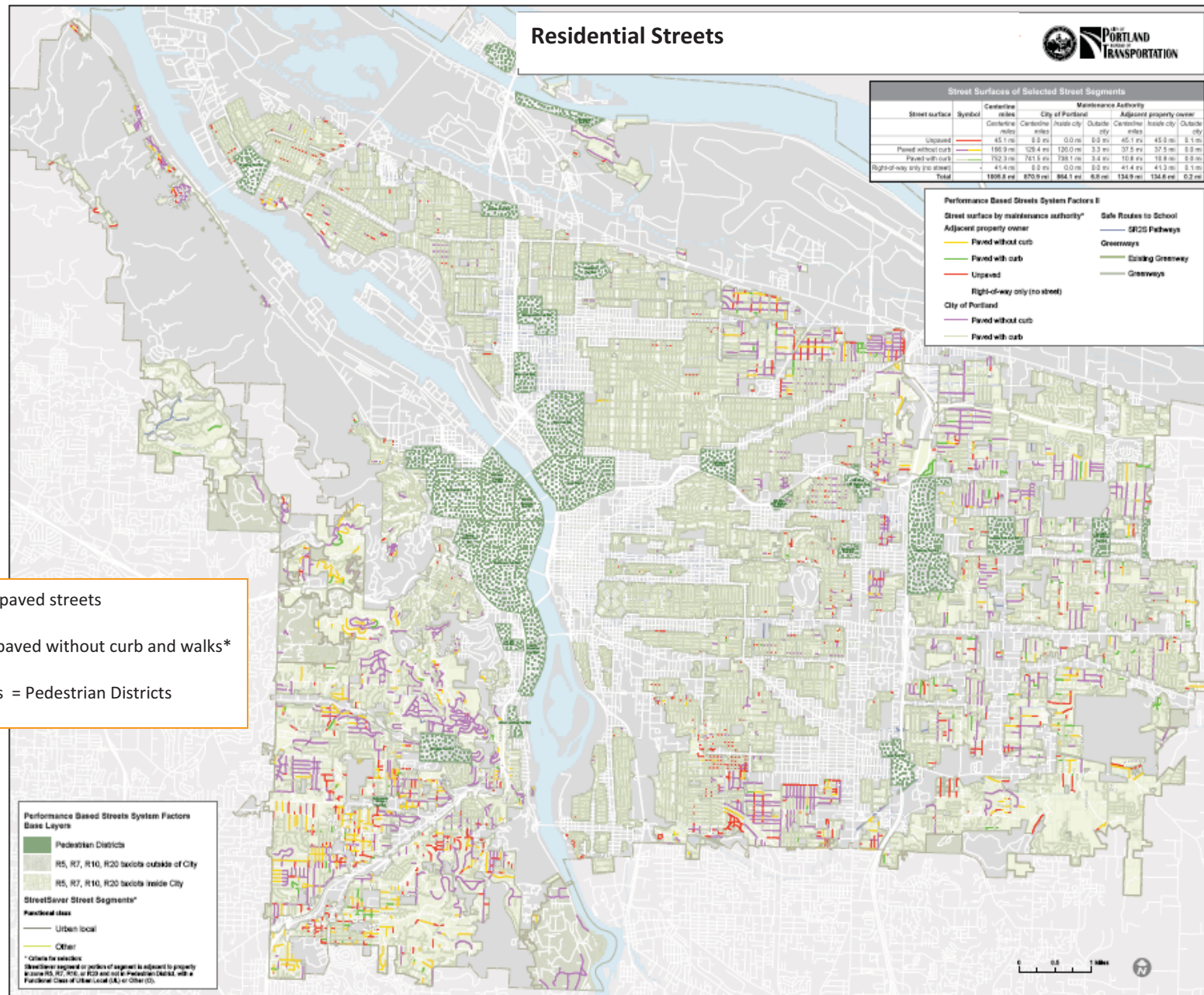
It may be in the City’s interest to consider also for buildings and planning actions, for the City Engineer, based on findings that a traditional residential standard improvement is not feasible, to consider other types of residential street improvements that are appropriate to their context and constructed to the standards of and accepted for maintenance by the City. It also may be in the City’s interest to consider the same for streets improved as LIDs, not just for building and planning action-related streets, which are typically public works permits.

Whereas the LID program includes provisions to consider public input of the residents of a particular street proposed for improvements, as part of the residential street context street improvements required by building and planning actions do not have a public input opportunity.

Cost Estimates

The Bureau's level of confidence in the cost estimates for this project is low. Despite the best efforts of developing efficient and effective cost estimates, each street is unique and must be designed and constructed to address the context of issues and unique environment that presents itself.

Appendix A1: Residential Street Surfaces Map

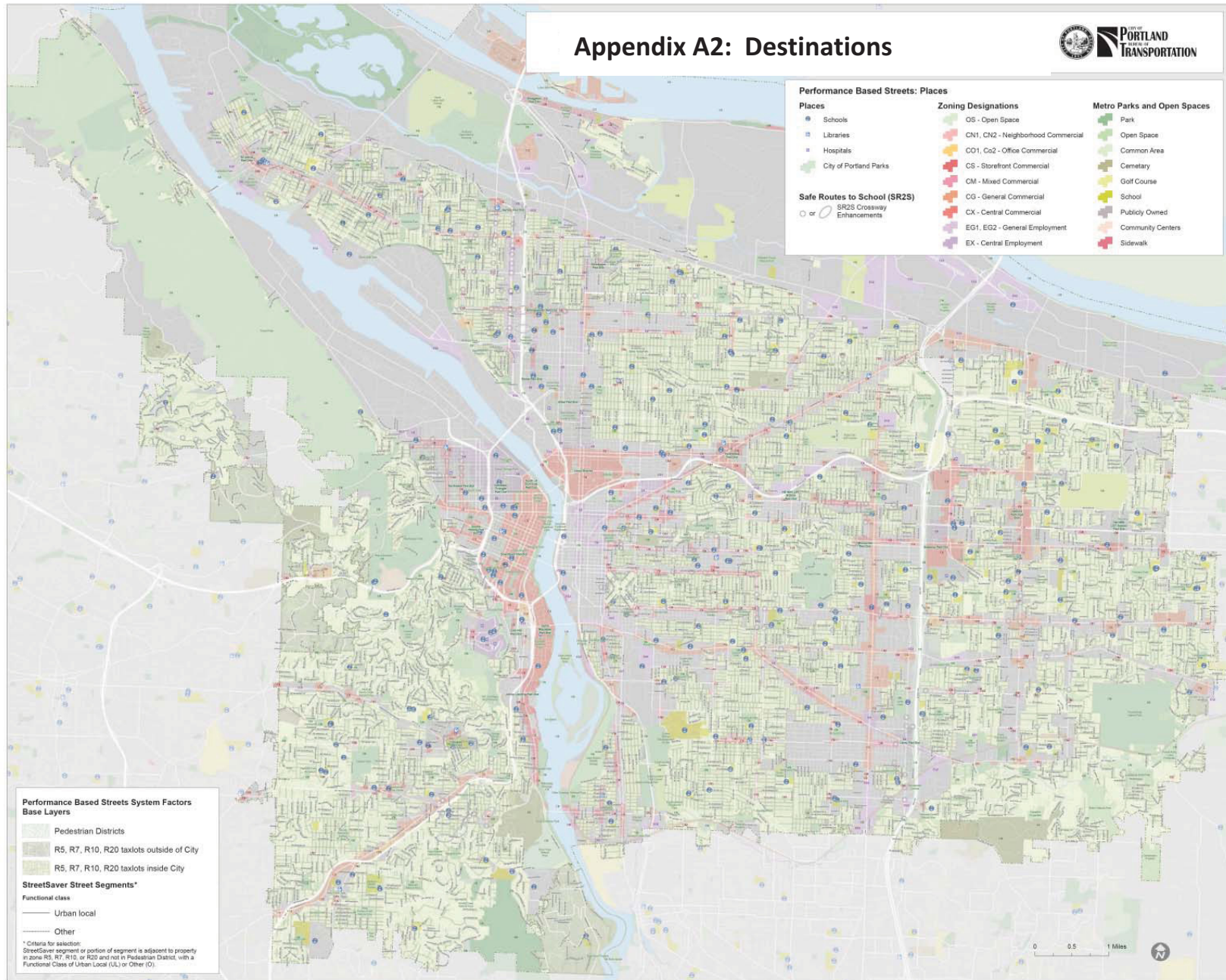


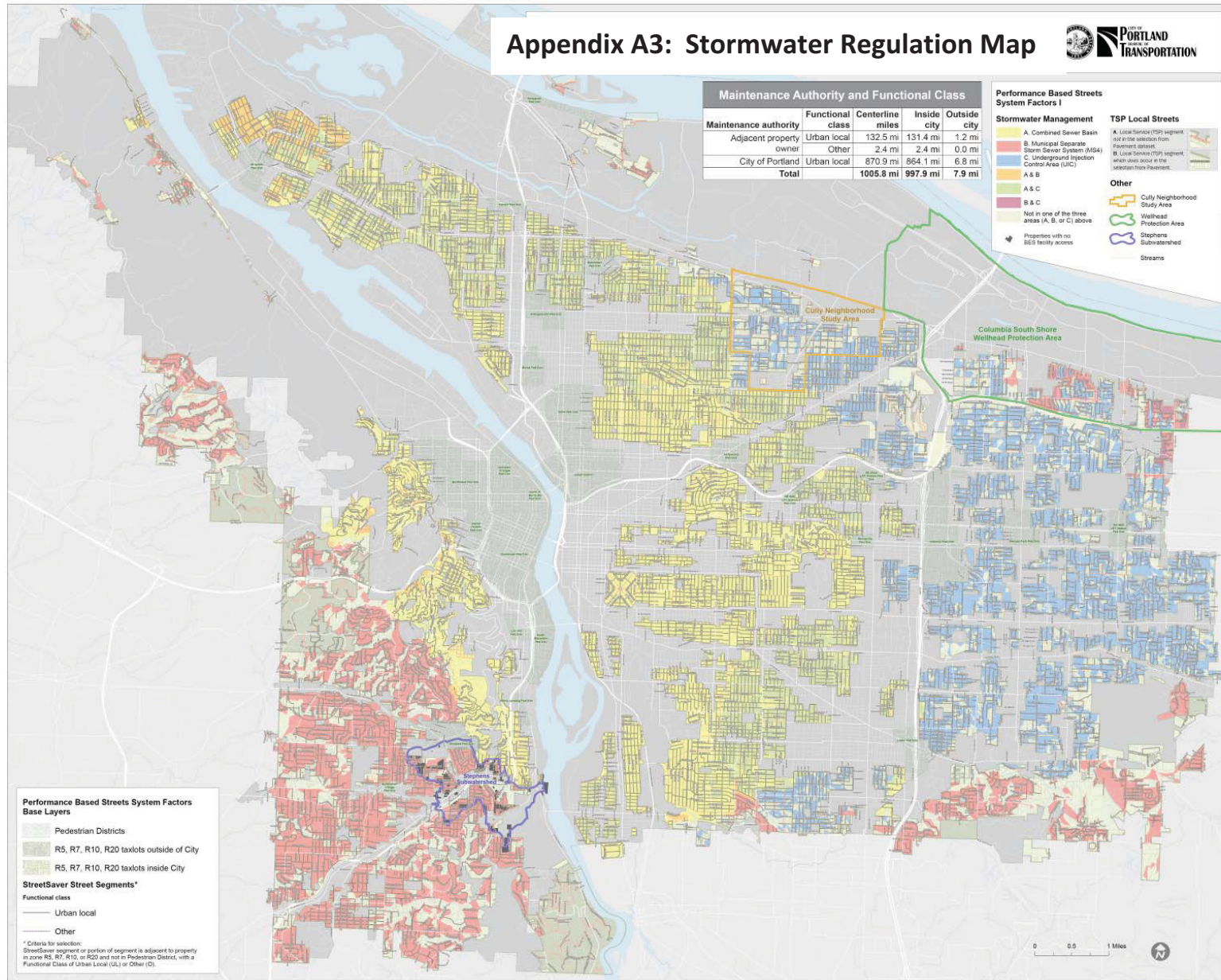
Red streets = unpaved streets

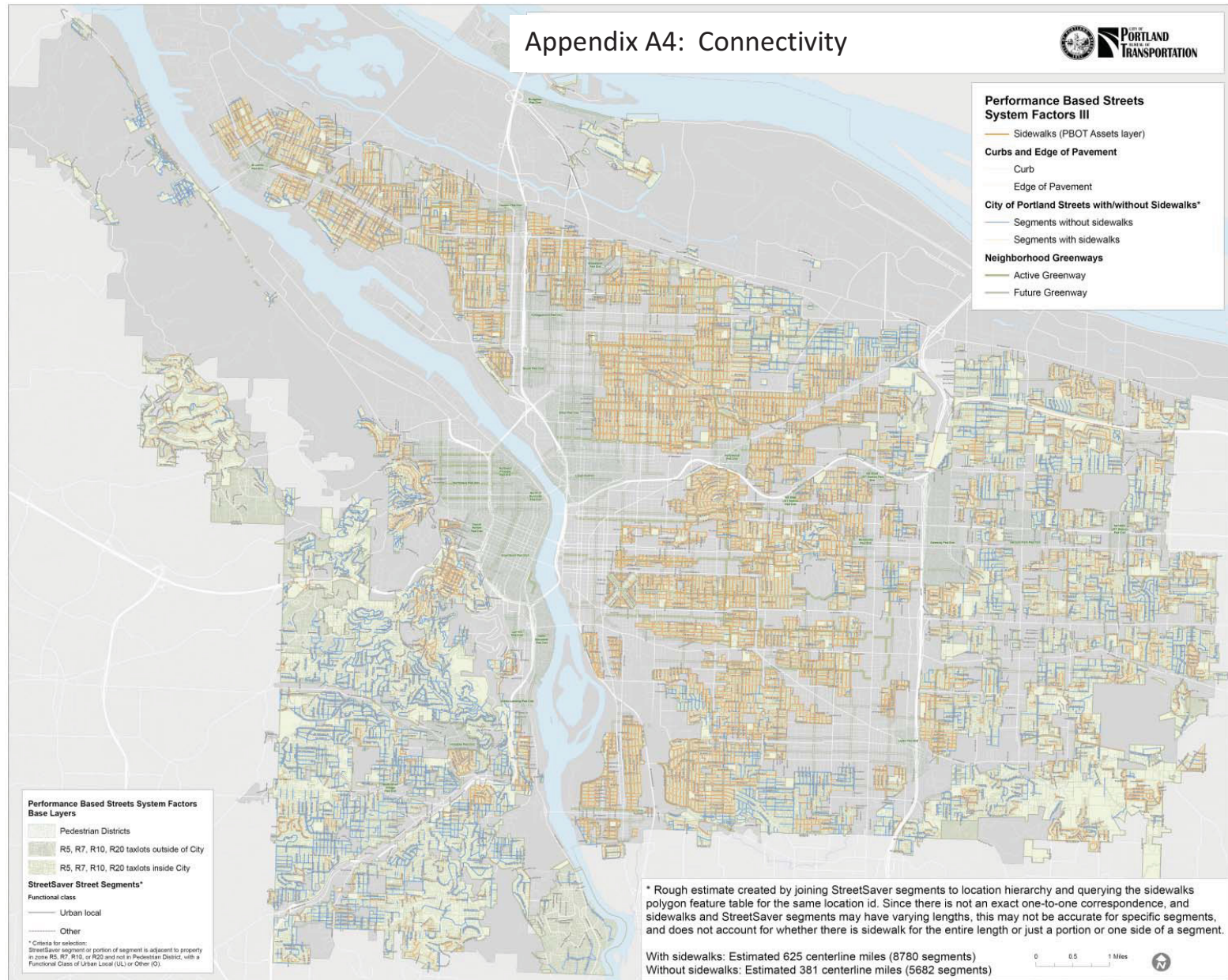
Purple streets = paved without curb and walks*

Dark Green areas = Pedestrian Districts

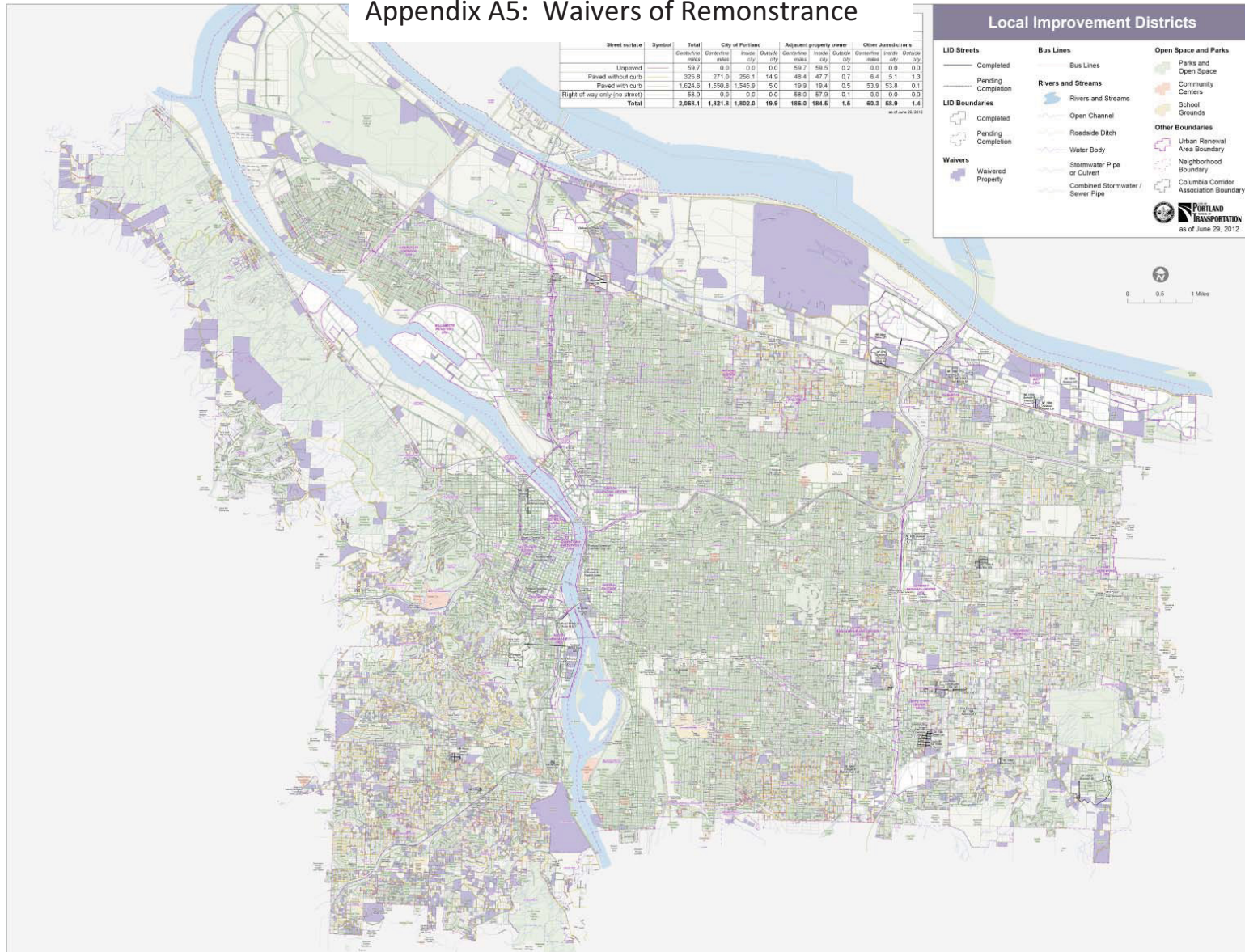
Appendix A2: Destinations







Appendix A5: Waivers of Remonstrance



Appendix B: Cost Estimating Assumptions

The cost estimates provided in this document are based on the following cost and/or design assumptions:

Included:

- Web-based information
- Assistance with alternatives (but limited program and project management)
- Review of concept proposals
- Survey, design engineering, plans preparation and contracting out proposals
- Construction and construction management
- Asphalt pavement section
- Gravel shoulders
- Driveway approaches: gravel (concrete or asphalt would be extra)
- Drainage: estimate assumes stormwater runoff can be managed through infiltration into the gravel shoulder area. This is subject to the approval of the Bureau of Transportation based on review of the Bureau of Environmental Services. Additional stormwater management improvements may be necessary.
- Shared street: includes speed bumps, 2 bumps/block
- Sufficient public right of way exists; no construction easements, acquisitions or dedications required
- Contingency: 20%
- LID financing: 5.5% (based on the City's interim interest rate)
- Utility relocation: only minor adjustments; extensions or relocations are extra.

- Street trees: not included (estimate assumes trees provided by property owner)
- Street lighting: not included.
- Retaining walls/slope adjustments: not included.
















Appendix C: Out of the Mud Council Work Session - Financing Pros and Cons

- A low confidence cost estimate to pave 45 miles of residential streets to the new standard is \$96 million.
- Colors in following tables illustrate where each alternative has its advantages (green) and disadvantages (red). Issues that are unknown at this point and/or require more research are marked in yellow.






Debt capacity:

- Pursuing any of these financing options (other than General Obligation bonds) will require careful analysis in light of limited remaining capacity for issuance of self-supporting and self-supporting limited tax debt.
- Financing plan assumes that project implementation will be phased-in over time so not all the financing will be required up front.






Financing: Bancroft Bonds

	Local Street LID	Neighborhood/District LID	Citywide LID
Legal issues			
Revenue stream			
Equity			
Public Acceptance			
Ease of Administration			
Conclusions			
<i>Local</i>	A concentration of exceptions (lower income/elderly) could create financing challenges.		
<i>District</i>	More cost effective and better at equitably dispersing traffic than local street option. Similar concern with financing challenges.		
<i>Citywide</i>	Potential legal questions as well as public acceptance concerns and lack of administration capacity make this approach difficult.		






Financing: City Gas Tax

	City Gas Tax
Legal issues	
Revenue stream	
Equity	
Public Acceptance	
Ease of Administration	
Conclusion	
<p>Requires voter approval to levy prior to January 2, 2014. Revenue stream may not be sufficient and sustainable as cars become more fuel efficient and people use alternate modes of transportation. Not viewed as equitable. Public acceptance is challenging in high fuel cost environments.</p>	






Financing: City Sales Tax (transportation related goods only)

	City Sales Tax on Auto-related goods
Legal issues	
Revenue stream	
Equity	
Public Acceptance	
Ease of Administration	
Conclusion	
<p>Legal issues are currently unclear/unknown. Revenue is not anticipated to be sufficient to support paving need. Public acceptance and perception of equity are difficult to sell to consumers and affected businesses since purchases can easily be made across city lines. Administrative infrastructure is not in place to implement this approach within the City or within the industry.</p>	

Financing: Street Maintenance Improvement Fee

	SMIF
Legal issues	
Revenue stream	
Equity	
Public Acceptance	
Ease of Administration	
Conclusion	
Previous stakeholder research indicates good public acceptance of user fees if services being financed are needed and fees are structured to be equitable.	

Financing: General Obligation Bond

	GO Bond
Legal issues	
Revenue stream	
Equity	
Public Acceptance	
Ease of Administration	
Conclusion	
Public acceptance may be challenging in current economic environment and with many other levies on the ballot.	

Appendix D: Public Involvement summary

Neighborhood Association/District Coalition presentations:

- Southwest Neighborhoods Inc.
- East Portland Neighborhood Office
- Brentwood-Darlington Neighborhood Association
- Woodstock Neighborhood Association
- Linnton Neighborhood Association
- Cully Association of Neighbors
- Collinsview Neighborhood Association
- St Johns Neighborhood Association

Other presentations:

- Public Works Appeal Panel
- Citywide Land Use/ Transportation Committee
- Accessibility in the Built Environment Sub Committee
- Portland Homebuilders Group
- Planning and Sustainability Commission
- SW Trails
- Pedestrian Advisory Committee
- City Council “Out of the Mud” Work Session

Stakeholder Advisory Committee

Alan Delatorre/ Portland Commission on Disability
Bonny McKnight/ Citywide Land Use Committee
Dave Humber, PE / MGH
Marianne Fitzgerald/ SW Neighborhoods Inc
Justin Wood/ Home Builders Association
Leah Dawkins/ SE Uplift
Lawerence Qamar/ Woodstock Neighborhood Assoc.
Roger Averbek/ SWNI
Dan Dishongh/ Linnton Neighborhood Assoc.
Nicholas Johnson/ Portland Commission on Disabilities
Rob Sadowsky/ Bicycle Transportation Alliance
Don Baack/ SW Trails
Rob Merrick/ Pedestrian Advisory Committee
Roberta Krogman/ Powellhurst Gilbert

Appendix E: Shared Streets and Streets as Meeting Places

1. In 1990, the National Association of Home Builders, the Urban Land Institute, and the American Society of Civil Engineers joined to publish a milestone in urban street design, *Residential Streets*, which advocates: designing to minimize traffic volumes and speeds in residential areas; properly scaled streets; streets planned to avoid excessive stormwater runoff; streets which can serve as meeting places and centers of community activity.
2. Streets that safely accommodate a multitude of uses and modes and are found locally and across the world:
 - a. People share streets in Portland and other parts of Oregon because streets do exist without sidewalks and on those that are narrow, they are relatively safe and people feel comfortable sharing them.
 - b. Streets that function as shared streets in Portland are not designed as a shared right of way like the European Woonerf or Home Zone.
 - c. Portland's Neighborhood Greenways are residential streets with low volumes of auto traffic and low speeds where bicycle and pedestrians are given priority. PBOT launched this program in 2009. Legislative changes were made to support safety and livability by allowing a 20 MPH speed designation on these routes, a regulatory speed of 5mph lower than statutory speed, ORS 810.180.10(10), and became effective in August 2012.
 - d. ORS 811.111, requires a 15 mph speed limit when driving on an alley or a narrow residential roadway, 18ft wide or less at any point.
 - e. Since the mid-1980s, the shared street (Woonerf) and 30-km/h (~18.5 mph) zones have been widely used in the Netherlands, Germany and other countries in Europe. The Dutch national manual for traffic provisions in built-up areas finds the risk of injury on residential streets (with maximum speeds of 30-km/h) is lower than on other "non-major" roads in urban areas and "major" roads.
 - f. In the Netherlands, the Erf, or Woonerf, exists where pedestrians and cars are equal and the impression is avoided that the road is divided into lanes and a sidewalk.
 - g. In England's Home Zones, the speed of vehicles must be low enough to satisfy the local traffic authority that any permitted activities may be enjoyed safely by people of all ages and abilities. Designated roads are recognized as places where prescribed local activities may be carried out, as well as being public thoroughfares.
3. A change to ORS 814.070 to consider pedestrians on narrow roadways as not impeding traffic would assist in advancing street by street objectives.