



ROADWAY NOT IMPROVED

# COMMUNITY TOOLKIT

A RESIDENT'S GUIDE TO UNIMPROVED STREETS

June 2010

~ Dedicated to the Woodstock Neighborhood ~

Roadway Not Improved is a project of LARKE Planning, a group of five Portland State University graduate students in urban and regional planning. Between January and May of 2010, LARKE worked with the Woodstock Neighborhood Association to explore temporary uses and community-based strategies for unimproved streets.



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October 29, 2010

Welcome to the Roadway Not Improved Community Toolkit.

This document reflects the inspired and thoughtful work of LARKE Planning – a group of Portland State University (PSU) Masters of Urban and Regional Planning students. The students started their work in January 2010 with a goal of exploring the opportunities and challenges of unimproved streets in the City of Portland, focusing on the Woodstock neighborhood as a case study. Community outreach and assessments of the physical conditions of unimproved streets in Woodstock coupled with LARKE Planning's extensive research led to their creation of two documents – one to inform local decision-makers, and the other, this Community Toolkit, designed as a resource for property owners and residents living adjacent to unimproved streets.

Through their creation of the toolkit, LARKE Planning balances an analysis of City programs, practical considerations and creative thinking with community-based discussion and decision-making techniques. Their work highlights a partnership between the City and PSU and our joint efforts to facilitate opportunities for planning students to assist community clients with real-world planning issues. We hope that you enjoy this document and find the information useful and thought-provoking.

We'd also like to point out a few important details:

- First of all, please remember that although City staff worked with LARKE Planning on this project, it is ultimately a student effort. The reports have not been adopted or approved by the City.
- The toolkit is very timely. It reflects on-going conversations about active and green transportation, incomplete street networks and streets serving a broader range of community purposes which are occurring as part of the Portland Plan, the City's strategic plan for 2035. We'll continue to discuss these topics as the Portland Plan progresses and as we enter the subsequent update to the City's Comprehensive Plan next year.
- The Portland Bureau of Transportation (PBOT) has several programs related to the maintenance and improvement of unimproved streets. A couple of the overall design concepts included in the Community Toolkit may be allowed without a permit through PBOT's expanded maintenance program, others would require a permit, engineering and review, while others are not allowed at this point in time. **In all cases, if you are considering work on your unimproved street please call PBOT's Permitting Manager, Kurt Krueger at 503-823-6964.**
- And finally, LARKE Planning includes rough cost estimates for each of their different design concepts. These estimates represent a do-it-yourself approach, one which doesn't factor in permits, engineering, or planning. They also do not reflect overhead, insurance and other factors which the City must include when pricing its projects.

Thank you again for your interest in the Roadway Not Improved Community Toolkit. We hope that you stay involved as this project evolves and as Portland Plan conversations continue.

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# Acknowledgments

## CLIENT

**Terry Griffiths**, Woodstock Neighborhood Association, Land Use Committee Chair

## WOODSTOCK RESIDENTS

*Thanks to everyone from the Woodstock neighborhood who participated in our Discovery Session, Open House, survey, focus group, and interviews. Your willingness to share your stories and provide feedback was fundamental to the success of this project.*

*Special thanks to the following individuals:*

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## The Woodstock Neighborhood

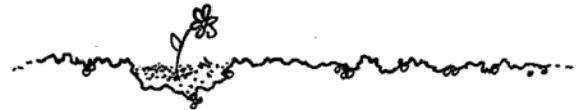
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## HOW TO USE THIS TOOLKIT

This Toolkit is intended to serve as a resource for property owners and residents along unimproved streets. It provides guidance neighbors to start a conversation about issues, concerns, and opportunities for collaboration on a shared unimproved street. The Toolkit was developed through extensive research in the Woodstock neighborhood, as well as conversations with City of Portland staff, evaluation of existing policies, and research into best practices from Portland and around the world. The Toolkit includes five sections intended to provide a framework for residents and property owners along a section of roadway to discuss interests, evaluate the existing conditions of the street, consider the larger impacts of decisions, evaluate appropriate design alternatives, and potentially reach a decision about the street.

The Toolkit is primarily geared toward exploring alternative strategies for on an individual block or series of blocks. However, the prospect of projects on individual street segments raises larger questions for the neighborhood’s street system as a whole, and city policy. The “Neighborhood Approach” and “Advocacy” sections of the Toolkit provide some information about how to move beyond a block-by-block approach. Strategies range from things that would require no city permit to projects that would require a high degree of collaboration with, or approval from, city agencies.

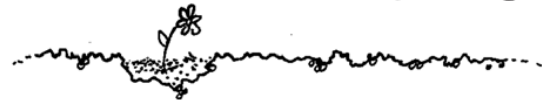
Developing common visions around streets is difficult given the complex and sometimes conflicting interests at play in the right-of-way. However, we believe unimproved streets present opportunities to explore new visions for neighborhood streets – as green spaces, as shared spaces, and as spaces that can become neighborhood assets. Our hope is that this toolkit will provide a starting point for neighbors to identify common interests and weigh the costs and benefits of alternative solutions for improving, maintaining, and using unimproved streets. Although the Toolkit includes information that is specific to the Woodstock neighborhood, we hope it will be a useful resource for community members throughout Portland.

### Toolkit Goals

- » Help property owners and residents along unimproved streets understand their **rights and responsibilities** under current city policy
- » Provide information about street **design options**, potential **funding strategies**, and **resources** for projects on unimproved street segments
- » Give people tools for starting a **conversation with neighbors**, and provide **criteria** for considering **collaborative actions** on unimproved streets
- » Provide resources for exploring **neighborhood-wide solutions** in areas with a high concentration of unimproved streets
- » Provide tools for **raising awareness** about unimproved streets and **advocating for policy change**

*All photos in the Toolkit were taken by the LARKE team in the Woodstock neighborhood, unless otherwise noted.*

# Introduction



As used by the City of Portland, the term “unimproved street” refers to any street that is not paved to city standards. These streets are not maintained by the City of Portland. Instead, adjacent property owners are responsible for maintenance and liable for any problems that might occur in the right-of-way.

**S**treets make up the largest portion of public space in the City of Portland, representing 18% of the city’s land area. Approximately 128 miles of streets (2% of the city’s streets) are unimproved, meaning they have not been paved to city standards. These rights-of-way (ROW) typically lack curbs, sidewalks, and stormwater facilities, and have a surface of dirt, gravel, or pavement. Some unimproved streets have vehicle access, while others have footpaths or no paths at all.

As used by the City of Portland, the term “unimproved street” reflects both the physical quality of a street segment, as well as the party responsible for street maintenance. Under current policies, the City does not adopt streets for maintenance until they have been improved to city standards. Like other streets, unimproved streets are public spaces conveyed through an easement; however, adjacent property owners are responsible for maintenance up to the centerline of the ROW, and property owners are also liable for any problems that might occur in the street. For the purpose of this project, the term “unimproved street” is generally used to denote any street that is not paved to city standards or maintained by the City, with the primary focus of the project being on unimproved neighborhood streets.

## WHY ARE SO MANY STREETS UNIMPROVED?

The majority of Portland’s unimproved streets are residential neighborhood streets. Unimproved streets are the product of development and annexation patterns, evolving city policies, and financial constraints. Although some streets have been improved through the private development process, and to a lesser extent, the Local Improvement District (LID) process, additional unimproved streets have been added to the Portland street system through annexation.

Residential streets provide for an interconnected network of low-volume streets that ensures access to homes, allows flexible route choices, and helps to distribute traffic evenly. Although residents along unimproved streets typically enjoy the low traffic volumes on their streets, many have concerns about the lack of adequate access for pedestrians, bicycles, cars, and emergency vehicles. Additionally, many unimproved roadways have drainage issues that result from the compaction of soil and lack of proper stormwater drainage facilities.

Over time, expectations for streets have expanded as urban leaders, planners, and citizens have come



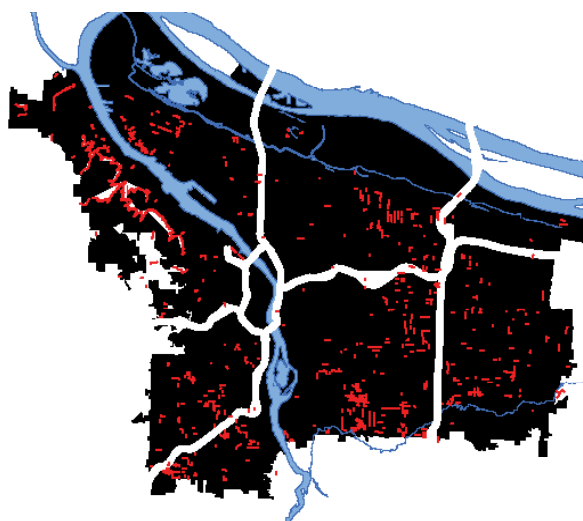
to recognize the value of streets beyond simply accommodating vehicle travel. Increasingly, streets serve as travel corridors for non-motorized transportation, as stormwater management systems, and as community gathering spaces. Unfortunately, funding streams have not grown at the same pace as our ambitions. In the current economic climate, it is unlikely that developer requirements or voluntary assessment districts will result in extensive street improvements. It is also unlikely that city general funds will be allocated toward street improvement. The Portland Bureau of Transportation (PBOT) estimates that it would cost \$1.6 billion to improve all unimproved streets to current city standards.

## CURRENT POLICY

Although the city policy stating that the City is not responsible for improvement or maintenance of unimproved streets has been consistent since Portland's founding, specific rules, regulations, and practices affecting unimproved streets have changed over time. In the latter part of the 20th century, it was common practice to vacate unimproved streets. This process erased the public interest in the right-of-way (ROW), fully transferring the property to the adjacent property owners. However, a renewed policy emphasis on promoting connectivity and walkability has made street vacations a more rare occurrence, only used in special circumstances.

As a general rule, property owners are not provided with financial assistance for the maintenance or improvement of unimproved streets. Despite policy emphasis on promoting connectivity and walkability, the current approach toward getting streets improved is incremental in nature, relying on development requirements and voluntary investment by adjacent property owners.

## Unimproved Streets in Portland



Source: Portland Bureau of Transportation

A Local Improvement District (LID) is a special assessment district which allows residents to share in the cost of infrastructure improvements, such as paving the street, building sidewalks, and installing a stormwater management system. Forming an LID requires majority consensus among affected property owners. If an LID is formed for a standard street improvement, the Portland Bureau of Transportation (PBOT) will facilitate the planning, financing, and construction of the project.

Developers are frequently given waivers for half-street improvement requirements, given the impracticality of paving only one-fourth or one-sixth of a street segment. In order to receive a waiver, developers must sign a non-remonstrance agreement consenting to automatically vote yes to an LID if and when the decision is made to improve the street.

As a result of the fact that many unimproved streets have remained unimproved for over a century, PBOT has created guidelines for the maintenance of unimproved streets. Title 17 of the City Charter outlines the property owner's responsibility for maintenance of unimproved streets adjacent to their property. The "Expanded Maintenance Program" provides property owners along unimproved streets with guidelines for maintaining the unimproved street adjacent to their home. For example, a property owner may pave the street alongside their home without a permit, as long as he or she can find some evidence of pavement previously being present.

However, many residents are either not aware of these options or find them too expensive or inflexible to meet their needs. As a result, many streets are not maintained at all. Lacking public or private stewards, the fate of these streets is left to be determined through individual actions (and inaction), rather than collective vision.

Lacking defined edges, unimproved streets tend to serve as a battleground between public and private space. In some areas, the vehicle pathway is unnecessarily wide as a result of drivers veering to avoid potholes. In other areas, residents are using the ROW as an extension of their yards, for purposes such as gardening, compost, and yard debris. In some cases, adjacent property owners have constructed permanent structures, such as fences or basketball courts, in the ROW.



## UNIMPROVED = OPPORTUNITY

Unimproved streets present an opportunity to explore alternative street designs that serve environmental and social purposes. The current popularity of concepts like green streets, 20-minute neighborhoods, and urban agriculture have led to a growing demand for streets to become more flexible spaces. Rather than paving unimproved streets to a vehicle oriented standard that is quickly becoming obsolete, unimproved streets could serve as a testing ground for creative ideas. Because unimproved streets require minimal to no removal of pavement, implementing pilot concepts on unimproved streets could be less expensive than retrofitting streets that are already paved to city standards.

## PROJECT BACKGROUND

The *Roadway Not Improved* project was undertaken between January and June of 2010. The purpose of the project was to explore opportunities and challenges presented by unimproved streets in Portland, using the Woodstock neighborhood of southeast Portland as a case study. The vast majority of public input provided during the course of the project came from Woodstock residents who live adjacent to unimproved streets.

### *LARKE Planning*

The project team, LARKE Planning, consists of five students pursuing a Master of Urban and Regional Planning degree from Portland State University (PSU). The project was undertaken in accordance with requirements of the program's capstone workshop course. Workshop projects are intended to be projects of professional quality performed for community clients.

### *Project Origin & Community Client*

The initial project proposal was generated by Matt Wickstrom, the southeast district liaison at the Portland Bureau of Planning and Sustainability (BPS), as a result of ongoing conversations with members of the Woodstock Neighborhood Association (WNA). Matt Wickstrom served as the project advisor.

Although unimproved streets are a concern citywide, unimproved streets are abundant in the Woodstock neighborhood, accounting for 8% of neighborhood roadway. The WNA served as the client for the project, represented by Terry Griffiths, the chair of the WNA Land Use Committee.

### *Technical Advisory Committee*

*Roadway Not Improved* benefitted from consultations with the project advisor, Matt Wickstrom, and input from numerous city staff members. Several professionals served as members of the Technical

Advisory Committee (TAC), providing feedback at a collective meeting on April 16th, 2010.

#### **TAC Members:**

Kurt Krueger (PBOT)  
 Rich Eisenhauer (PBOT)  
 David Nassif (PBOT)  
 David Elkin (BES)  
 Ginny Peckinpaugh (Office of Mayor Sam Adams)  
 Cary Turkon (Office of Councilor Amanda Fritz)  
 Harris Hyman (professional civil engineer)  
 Terry Griffiths (WNA)

### **Final Products**

*Roadway Not Improved* resulted in the creation of two final products: this Toolkit, and a Final Report. Geared towards residents on unimproved streets, the Toolkit seeks to inform property owners about their rights and responsibilities and assist them in making good decisions about street improvements and maintenance.

However, property owners' choices are defined by a regulatory framework that is beyond their control. The purpose of the Final Report is to provide municipal decision-makers with an understanding of issues relevant to unimproved streets.

The Final Report includes:

- » Historical and political context of unimproved streets
- » Findings and recommendations for city policy
- » Description of the project, including public outreach, research, and community products

### **Design Concepts**

The design concepts in this toolkit were developed through outreach in the Woodstock community and refined based on feedback from city staff about political and technical feasibility. Although city employees and advisory committee members provided feedback, this does not mean that the design concepts would meet with instant city approval. Many of the ideas presented in the Toolkit push the boundaries of conventional street design and use. These projects would require some level of approval from, or partnership with, city bureaus. By pursuing such projects with a clear understanding of costs and benefits, residents can help to reshape the way the city looks at neighborhood streets.

### **Neighborhood-Level Planning**

The Toolkit is primarily geared toward exploring alternative strategies for an individual block, or series of blocks, of unimproved roadway; however, the prospect of moving toward coordination on individual street segments raises questions for the neighborhood's street system as a whole:

- » How do you determine which streets are necessary for connectivity and which streets present opportunities for nontraditional configurations and uses?
- » What opportunities exist for neighborhood-wide collaboration around unimproved streets?

The "Neighborhood Approach" section of the toolkit provides a starting point for thinking about circulation patterns in the neighborhood and exploring collaborative, community models for implementing street projects.

### **Advocating for Policy Change**

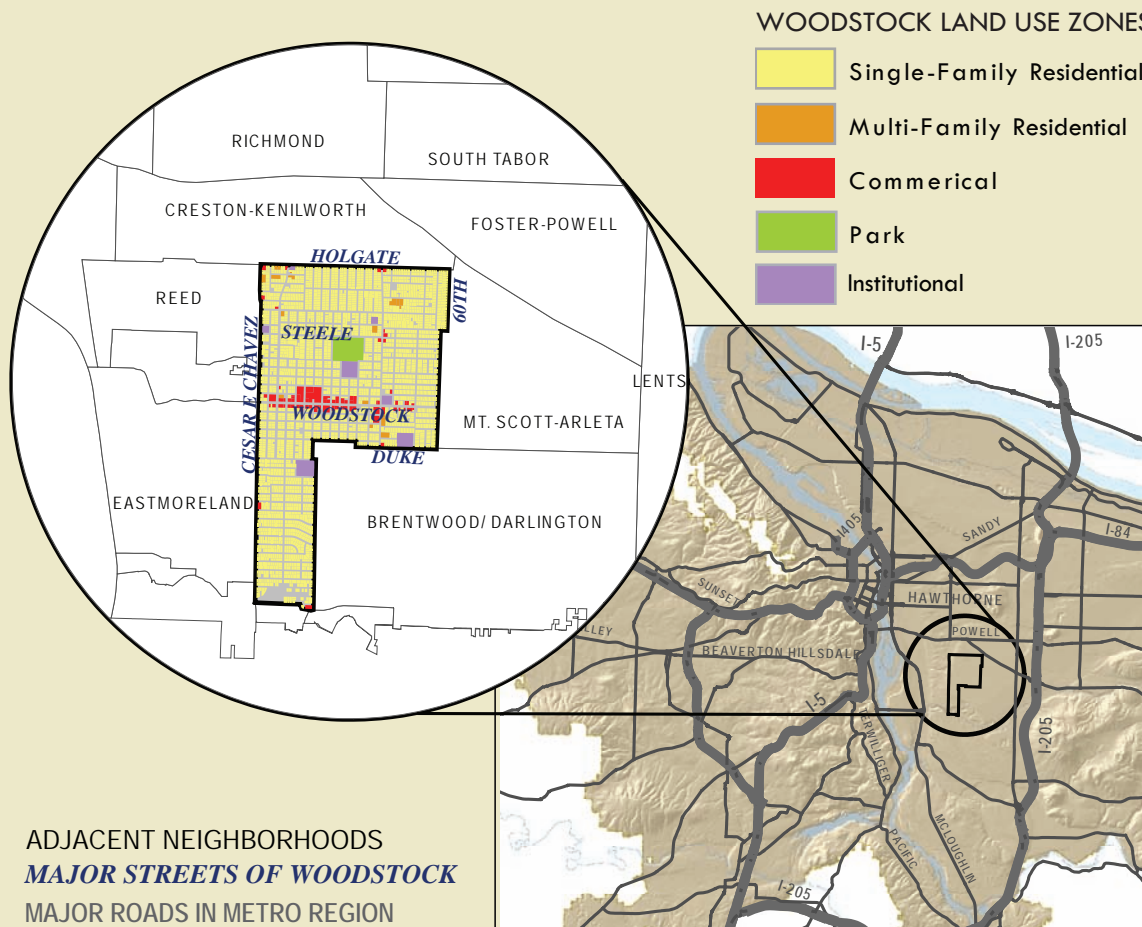
In addition to actions taken within the neighborhood, community members may be interested in advocating for policy changes to better address their needs relevant to improving, maintaining, or using unimproved ROWs. The "Advocacy" section of the Toolkit provides general information about organizing people around interests and tips for public testimony, as well as specific information that could be useful in advocating for changes to the policies governing unimproved streets.





# The Woodstock Neighborhood

The Toolkit was developed through extensive research, observation, and outreach in the Woodstock community. While 2% of streets are unimproved citywide, 8% of streets in Woodstock are unimproved, including some areas where unimproved streets are so concentrated as to prevent a choice of alternative routes. The following pages provide background information about the Woodstock neighborhood. Highlights from the *Roadway Not Improved* observations and outreach in Woodstock are presented throughout the Toolkit.



## Location

Located five miles southeast of Portland's central business district, the Woodstock neighborhood comprises 823 acres bisected by a commercial spine, Woodstock Blvd., and bound by SE Holgate Blvd. on the north, SE 39th Ave./Cesar Chavez Blvd. on the west, SE 60th and SE 45th to the east, and Johnson Creek on the south.

## Physical Profile

Business and civic activity is concentrated along Woodstock Blvd. between 39th/Cesar Chavez and 52nd Ave. Churches, the public library, and the Woodstock Community Center are interspersed with large and small commercial establishments offering a wide range of goods and services and including longstanding as well as newer businesses.

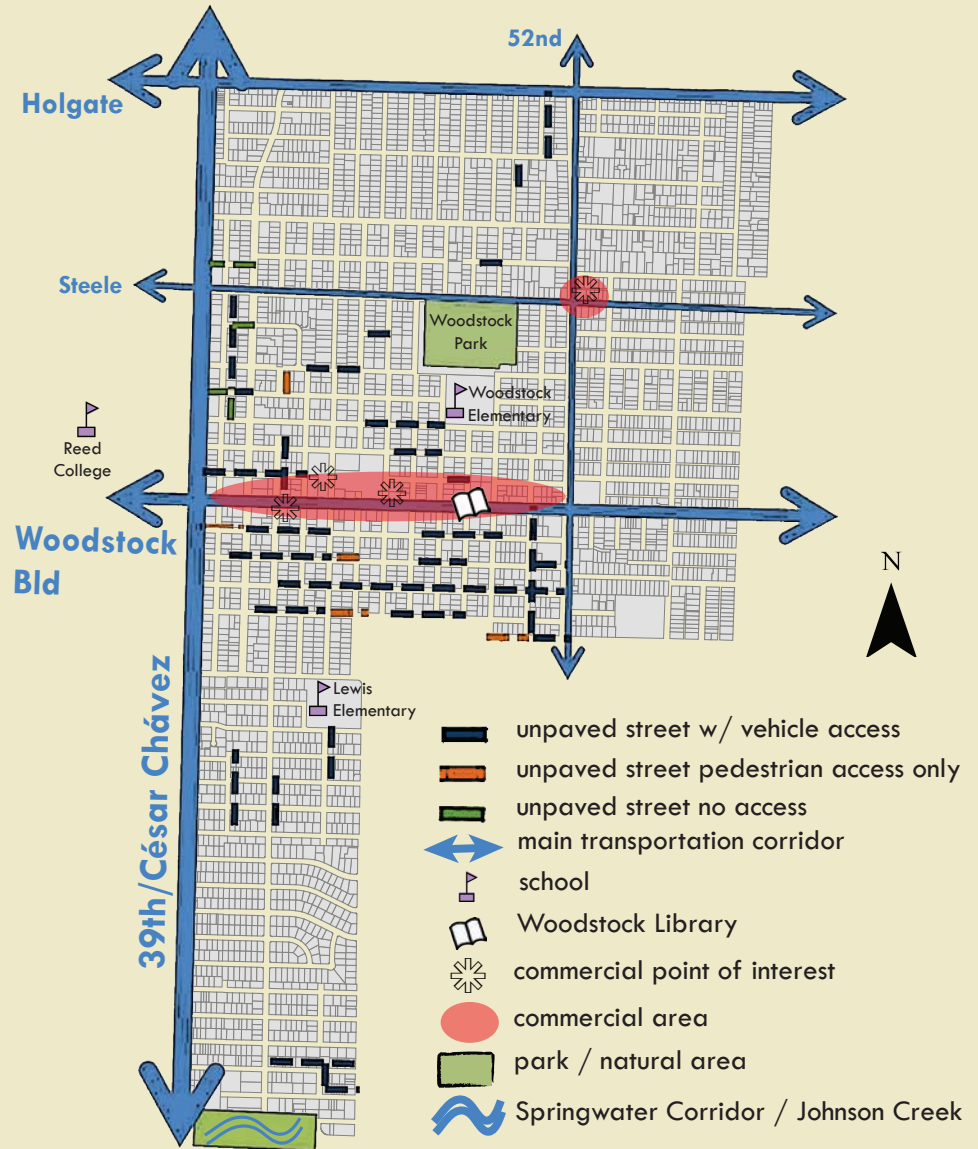
Single-family and multi-unit residential development surround the commercial core, with most multi-unit dwellings located one or two blocks off of Woodstock Blvd. The neighborhood

has two elementary schools located within easy walking distance of the commercial core. Woodstock Park serves as a central open space, located five blocks north of Woodstock Blvd. Reed college (to the west) and the Springwater Corridor (to the south) are popular nearby destinations.

The map to the right shows streets with no pavement in relation to transportation corridors and neighborhood landmarks (not including unimproved streets that are paved but lack curbs and/or sidewalks). The majority of these street segments have some level of vehicle access; however, some have only footpaths, and a few have no paths at all. While unpaved streets are scattered throughout the neighborhood, they are particularly clustered along east-west streets immediately south of Woodstock Blvd. On the northwestern edge of the neighborhood, some unimproved right-of-way segments consist of steep, wooded ravines along the eastern edge of 39th/Cesar Chavez.



### Major Transportation Corridors, Landmarks, and Unpaved Streets in the Woodstock Neighborhood



## Development Patterns

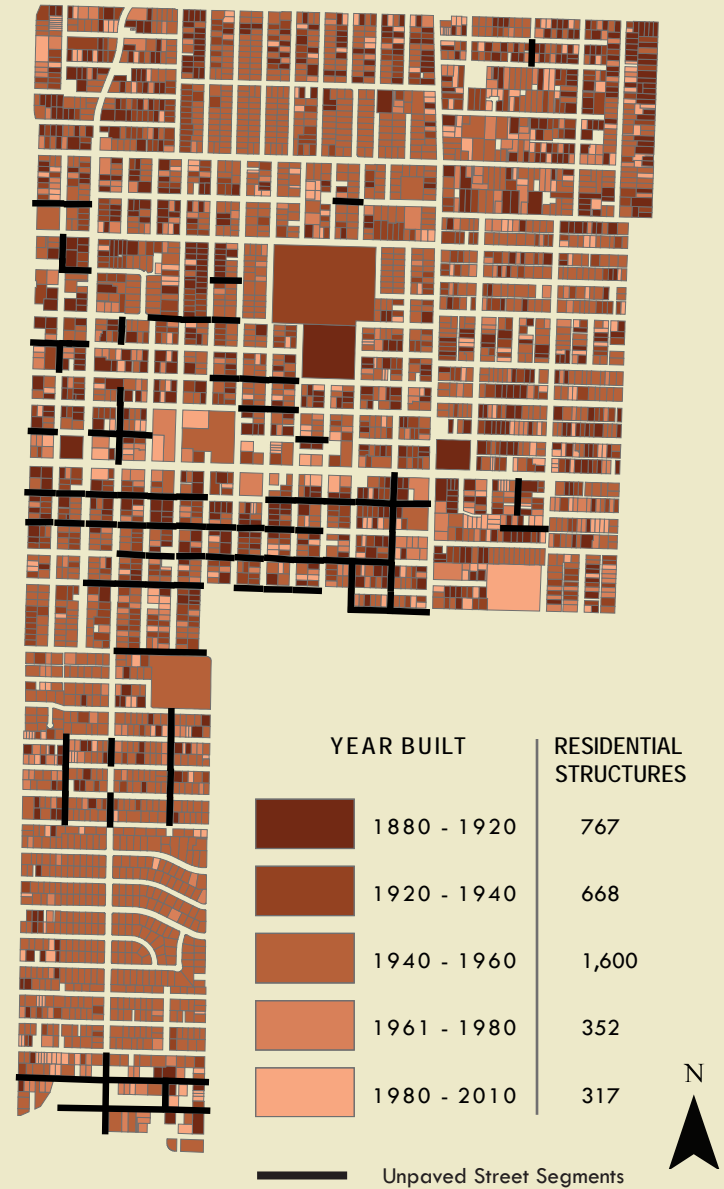
Woodstock was first platted in 1889 and annexed between 1890 and 1910. However, much of Woodstock did not fully develop until the 1940s and 1950s, and the neighborhood character reflects its incremental development. Along Woodstock Blvd., many commercial buildings are oriented toward the street, as was common during the streetcar era, while others (such as Bi-Mart and Safeway) are set back from the street with large parking lots, reflecting the auto-oriented development patterns of the 1950s.

The neighborhood's streetcar-era homes are most heavily concentrated in the areas surrounding Woodstock Blvd. and along the western and northeastern corner, with post-World War II homes most prevalent in the neighborhood's northern center and southern panhandle. More recent infill housing development is scattered throughout the neighborhood, but is most common in areas with older homes, rather than those first developed between 1940-1960.

Since development occurred intermittently and development requirements for street improvements changed over time, the neighborhood's street conditions are discontinuous and fragmented, with segments of fully built out streets connecting to unpaved dirt roads. During the post-war period, developers were not required to construct sidewalks. More recently, some new development projects have resulted in the construction of sidewalks adjacent to the property; however, it is not uncommon for these sidewalks to end abruptly at the end of the property line. Many roadways appear to have once been paved, but since degraded. Since the 1970s, only one street in Woodstock has been improved through the Local Improvement District (LID) process.



### Woodstock's Unpaved Streets in Relation to Year Built of Structures



## Neighborhood Demographics & Trends

As of the 2000 Census, Woodstock was home to 8,472 residents, or 3,652 households. The neighborhood had a higher population density (10 people/acre) and lower vacancy rate (4.0%) compared to the city of Portland as a whole (8 people/acre and 5.7%, respectively). The neighborhood also had a higher rate of homeownership (74%) than the city (56%). The Metro regional government's designation of Woodstock Blvd. as a Main Street in the 2040 Regional Growth Concept means the blocks surrounding Woodstock could see infill housing and higher population density in years to come, increasing the demands on neighborhood transportation infrastructure.

Woodstock is home to two growing population groups: families and older adults. As of the 2000 census, 16% of residents were 65 and older, and an additional 31% of residents were in the 40-64 age range. According to the Portland Office of Neighborhood Involvement, the percentage of households composed of families in Woodstock grew from 64% in 1990 to almost 70% in 2000. Both of these groups have specific mobility needs that are impacted by the quality of neighborhood streets.

Census Tract 4.02. U.S. Census FactFinder. 2000. <http://factfinder.census.gov>  
 Portland Office of Neighborhood Associations (ONI). 1990 Neighborhood Social Profiles: Woodstock. <http://www.portlandonline.com/oni/index.cfm?c=35280&a=58090>

### Demographic Characteristics of Woodstock Compared to the City of Portland (2000 Census)

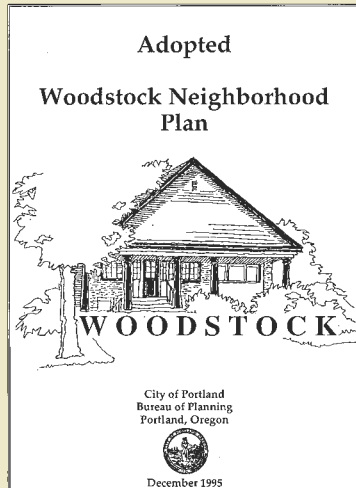
	WOODSTOCK	CITY OF PORTLAND
Density	10 ppl/acre	6 ppl/acre
Homeownership	74%	56%
Vacancy	4.0%	5.7%
Ave. Household Size	2.3	2.3
Families	70%	53%

## Woodstock Neighborhood Plan

Completed in 1995, the Woodstock Neighborhood Plan was intended to serve as a blueprint for community development 20 years into the future. The plan identified transportation as one of the key areas of concern for community development, with specific challenges relating to traffic speed, truck parking, and the lack of safe pedestrian crossings on Woodstock Boulevard, the latter of which has been addressed through streetscape improvements that occurred in 2000.

The plan also identified unimproved streets as a challenge, drawing attention to the fact that the Local Improvement District (LID) mechanism for financing street improvements has not been a successful tool for increasing connectivity throughout the neighborhood's residential streets. The plan called for the exploration of neighborhood-wide assessment districts ("halo" LIDs) and public-private partnerships as alternative funding mechanisms to the single-block LID. The plan also identified the need for a strategic plan to improve bicycle connectivity and the pedestrian environment throughout the neighborhood.

For more information about the Woodstock Neighborhood Plan, visit: <http://www.woodstockpdx.org/resources.html>.





# Rights & Responsibilities

Property owners on unimproved streets are responsible for maintenance of the right-of-way up to the centerline of the street. If property owners want to have the street adopted for city maintenance, the Portland Bureau of Transportation will assist them in improving it to city standards, at the property owner's expense.

**B**ased on connectivity goals in current plans, the Portland Bureau of Transportation (PBOT) is generally supportive of improving all streets to current city standards. However, it would cost taxpayers an estimated \$1.6 billion to implement standard improvements for all of the city's unimproved streets, which include unpaved rights-of-way (ROWs), as well as streets that currently have substandard pavement or lack curbs and sidewalks. Funding for such a massive infrastructure project does not exist within the current city budget. As a result, the City continues to promote incremental street improvements through development requirements and Local Improvement Districts (LIDs), and it has also created rules and regulations governing the maintenance of unimproved streets.

## A RESIDENTS GUIDE TO CITY POLICY

City policies that date back to the founding of Portland place responsibility for unimproved streets on adjacent property owners. The Portland Bureau of Transportation (PBOT) has historically taken a "hands-off" approach to unimproved streets, despite the fact that many current long-term planning goals clearly support the improvement of neighborhood streets to support neighborhood connectivity, walkability, and safety.

***The City of Portland is not responsible for maintenance on unimproved streets.***

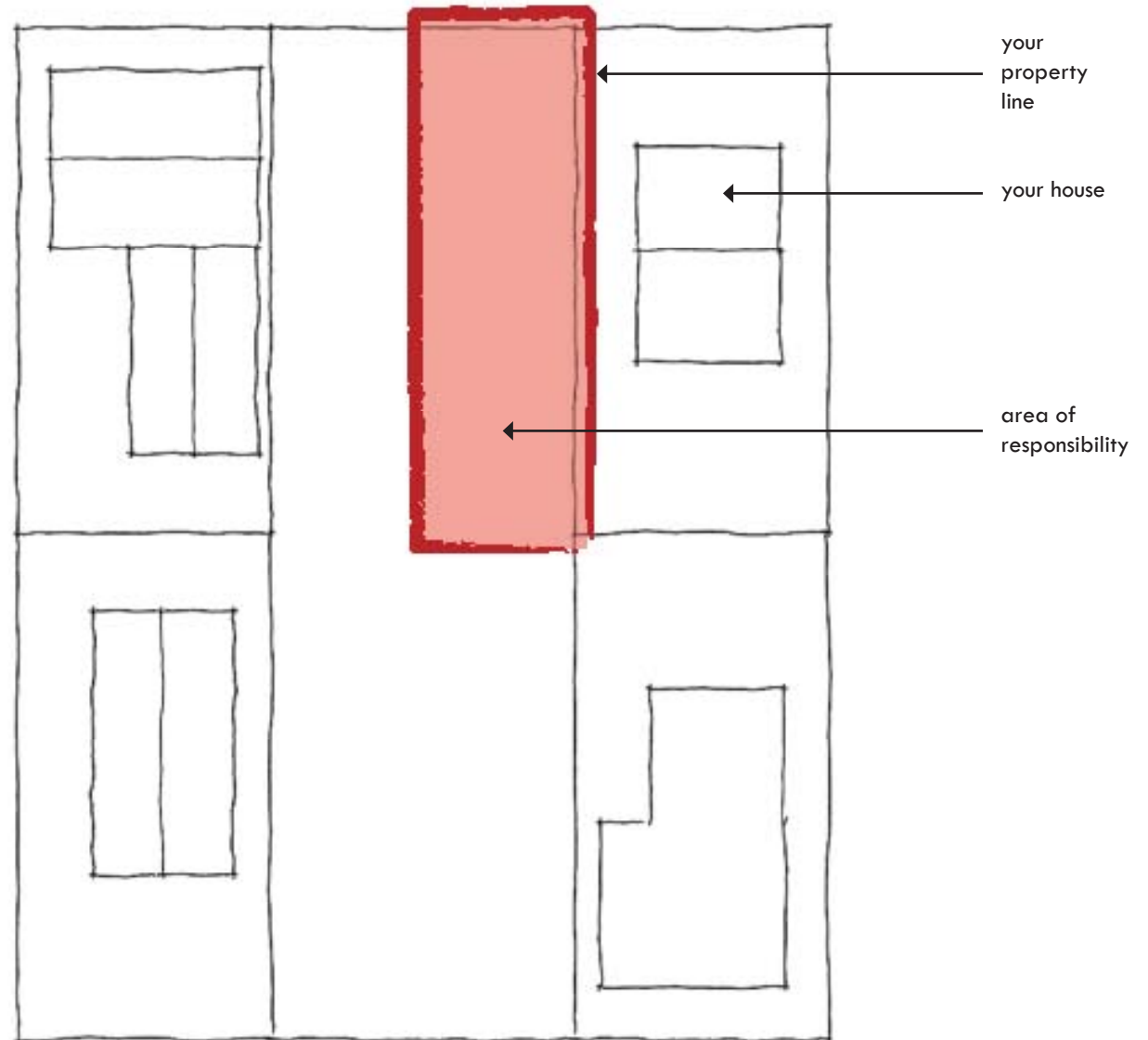
Maintenance of unimproved streets is the responsibility of adjacent property owners up to the centerline of the right-of-way (ROW). The City offers no maintenance services for unimproved streets.



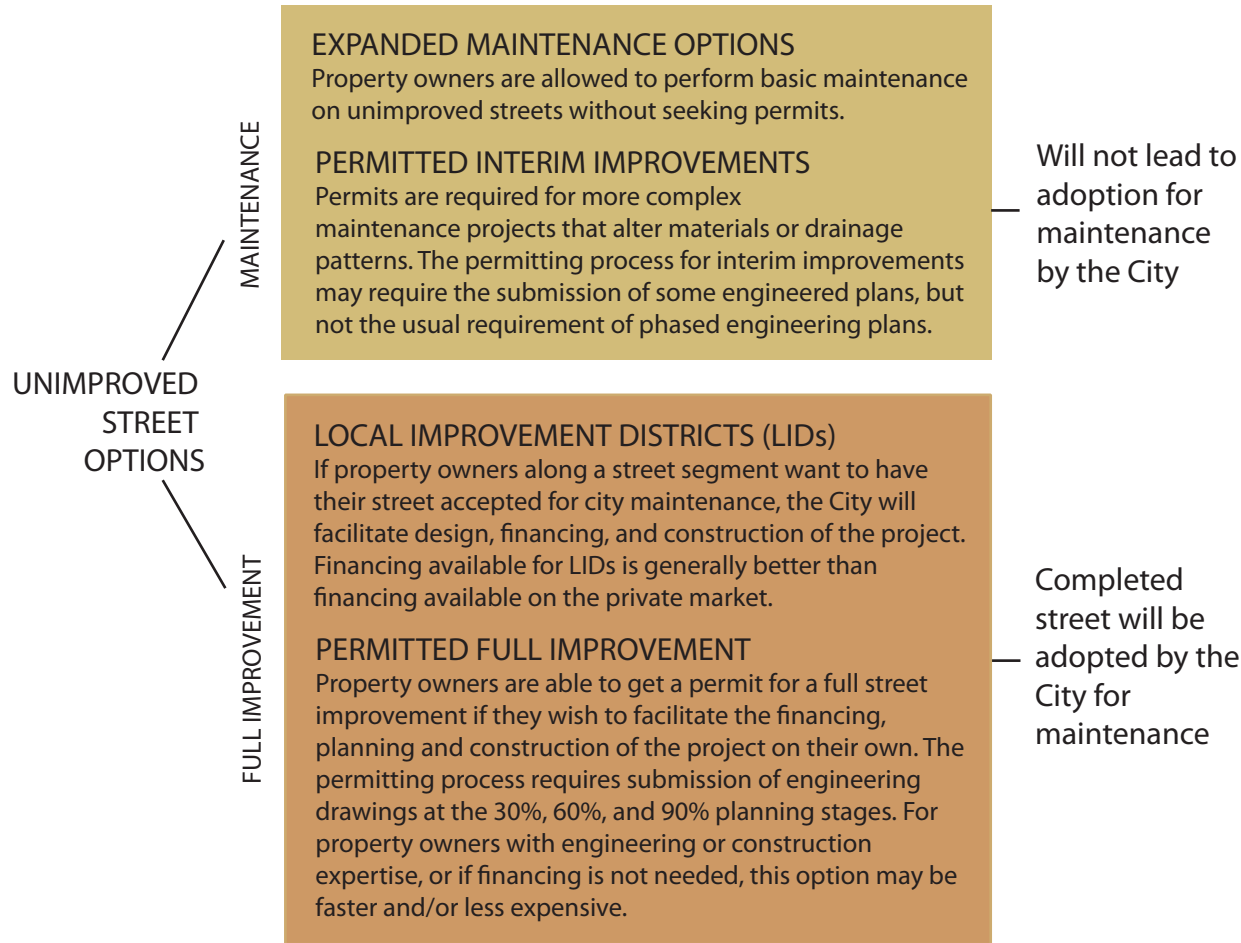
*The City of Portland is not liable for damage to people or belongings because of the lack of maintenance on an unimproved street.*

Although complaints of damage are rarely submitted, city policy makes it clear that the City is in no way liable for any damage occurring on poorly maintained unimproved streets. Property owners on unimproved streets are held liable for any damage which occurs on the street.

Property Owner's Area of Responsibility & Liability Along an Unimproved Street



The City of Portland provides options for property owners along unimproved streets to maintain or improve their street.



**Expanded Maintenance Options**

(Chapter 17.42.020 Maintenance Restrictions)

Residents and property owners along unimproved streets may perform routine maintenance if their street has not been accepted for maintenance by the City or any other jurisdictions, provided the following conditions are met:

1. The travel lane width of the unimproved portion of the street remains the same;
2. There is no resulting change in existing drainage patterns outside the public right-of-way;
3. Drainageways located within public rights-of-way are not filled in or otherwise altered in any manner that could impact the flow of water;
4. The materials used for maintaining the street are equivalent to the existing street materials, except that gravel may be used to resurface a dirt road;
5. Asphalt, concrete or other man-made materials may not be applied to existing dirt or gravel surfaces, nor may existing dirt or gravel surfaces be converted to a paved surface;
6. The maintenance activities and resulting condition of the street do not adversely affect surrounding properties;
7. Trees in the public right-of-way are not removed except as provided in Section 20.40.090; and
8. Speed bumps or other types of devices intended to slow traffic are not constructed."

Portland City Charter & Code. <http://www.portlandonline.com/auditor/indexcfm?c=28869>

**Local Improvement District (LID) Financing**

An LID is a property tax assessment district that allows residents to share in the cost of infrastructure improvements. Forming an LID requires a majority consensus among affected property owners. The cost of new street construction is divided among property owners, who may pay up front for their portion of the cost, or through a lien on their property to be paid off in 5, 10, or 20 years. Per household costs for LIDs vary depending on the scope and complexity of the project, but can be between \$20K and \$40K per household for a full street improvement on a typical unpaved block.

## DEALING WITH UNCERTAINTY

When considering regular maintenance or a more complex improvement project, it is important to understand the level of uncertainty involved in the street.

### *City-Sponsored Street Projects*

Because the City retains legal access over the right-of-way (ROW) through an easement, the City may at any time do its own maintenance work in the street, pave the street, or install infrastructure or facilities within the ROW. It is also important to note that just because a city bureau does work in the street, this does not mean that the City is adopting the street for maintenance. Unless PBOT accepts the street as up to full city street standards, the responsibility and liability for the street is still in the hands of the adjacent property owners.

### *Developer Requirements*

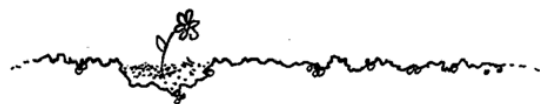
Some unimproved streets with new development may be more likely to undergo full improvement through a Local Improvement District (LID). This is because the City sometimes issues developers waivers to the street improvement requirement on unimproved streets. Developers who receive a waiver are then required to sign a non-remonstrance agreement that requires the owner of the property to vote “yes” to an LID at a future date (for more information, see p. 30). In addition to streets with recent development, streets with vacant lots may be more likely to see future infill development, which could result in street improvements.

### *Transportation System Improvements*

On unimproved streets that present particular barriers to neighborhood connectivity, neighborhood or city leaders may take actions to promote full street improvements. Although the City of Portland does not currently have a policy or program aimed at paving unimproved streets to improve neighborhood connectivity, this does not mean it isn't a future possibility. This is something to keep in mind when considering individual projects or block-wide collaboration around the street.



# Good Neighbor Advice



Being a good neighbor means maintaining your portion of the right-of-way and considering the effects of how you use the street on your neighbors and those who pass through the street.

Regardless of whether or not you and your neighbors are interested in pursuing collaborative street improvements and maintenance agreements, there are some basic actions you can take on your own to contribute to the quality of the environment along your street and to nurture positive relationships with your neighbors. At its most basic level, being a good neighbor along an unimproved street means keeping your portion of the right-of-way (ROW) clear of obstructions and considering the effects of how you use the street on your neighbors and those who pass through the street. Additional actions, such as filling potholes and planting gardens, can help improve the quality of the environment along your stretch of the street, and it can set an example for other community members to do the same.

## THE BASICS

Due to the lack of formal boundaries, unimproved streets tend to feel less like public spaces than paved streets with curbs and sidewalk. As a result, it can

be easy to treat these spaces as private lands, and it may require careful consideration to think about how your decisions affect the environment along the ROW.

***Maintain your portion of the right-of-way by keeping it clear of trash, overgrown vegetation, and abandoned vehicles.***

“Broken windows” theories explore the impact of visible deterioration on how private and semi-public spaces are used. The presence of trash piles, abandoned vehicles, overgrown vegetation, and other signs of neglect can exaggerate the unmaintained appearance of unimproved streets, conveying a feeling of abandonment that may lead to undesirable use of the space by visitors.

For more information about crime prevention through environmental design, visit [http://en.wikipedia.org/wiki/Crime\\_prevention\\_through\\_environmental\\_design](http://en.wikipedia.org/wiki/Crime_prevention_through_environmental_design).

## ***Respect the boundary between your property and the right-of-way (ROW).***

Because unimproved streets lack the defined edges of standards streets with sidewalks, it is often difficult to tell where private space ends and public space begins. Fences built into the ROW represent an encroachment of private uses into public space. Encroachments take space away from the pedestrian realm, and they have the potential to generate tensions with neighbors on the other side of the street, if the drivable lane is pushed closer to their yard as a result. If someone complains about an encroachment on your property, the City of Portland may ask you to remove the structure.

There is a difference between temporary and permanent encroachments. Unimproved streets have a surplus of underutilized space, and city policies acknowledge that some encroachments, such as planter beds, provide public benefits. These private uses are generally tolerated by the city so long as they do not take away from the pedestrian realm or incur any safety hazards in the ROW.

The City of Portland is currently developing guidelines for acceptable Private Encroachments in the Public Right-of-Way. Original drafts of this document were primarily relevant only for improved streets; however, some information may apply to unimproved streets. For more information, visit <http://www.portlandonline.com/transportation/indexcfm?c=38718&a=301520>.

## ***Try to deal with neighborly tensions and conflicts directly before filing complaints.***

The City of Portland has a number of hotlines you can call to file complaints about undesirable uses of the ROW. However, filing a complaint about a neighbor should be considered a last resort, to be taken after other options have been exhausted. Before filing a complaint, try talking to your neighbor or sending a friendly note that explains your concerns.

For more information about methods for talking to your neighbors, check out the following resources:

Preventing Conflicts With Your Neighbors:  
[http://southeastuplift.org/files/u1/Preventing\\_Conflict\\_with\\_Your\\_Neighbors.pdf](http://southeastuplift.org/files/u1/Preventing_Conflict_with_Your_Neighbors.pdf)

Resolutions Northwest offers free neighborhood mediation services and facilitation training and services.  
[www.resolutionsnorthwest.org](http://www.resolutionsnorthwest.org)

If you perceive that a neighbor's actions in the ROW are creating a safety hazard, and/or if the neighbor is not responsive to your efforts to communicate directly, the City of Portland offers these resources:

Abandoned Vehicle Hotline	503-823-6814
Animal Services	503-988-7387
Noise Problems	503-823-7350
Nuisance Properties	503-823-7306
Non-Emergency Police	503-823-3333
Parking Patrol	503-823-5195

## SMALL STEPS & ACTIONS

There are a number of small actions you can take to help promote a functional and enjoyable street.

### *Fill potholes.*

Filling a pothole is a relatively easy action you can take to create a minimal level of vehicle access along your street, and to help prevent a small pothole from growing into a travel barrier. If you live on an unimproved street with some form of paving, you should first try submitting a request to the City for repairs. Although it is not part of the City's policy to repair potholes on unimproved streets, there is a chance the City will respond anyway.

City of Portland Pothole Hotline: (503) 823-BUMP (2867). Response time is usually within 48 hours.

The City of Portland "Citizen Reports" iPhone App allows users to submit a photo and description of issues or problems with publicly maintained infrastructure. Even though the City is not required to respond to requests on unmaintained streets, it doesn't hurt to try. Download "Citizen Reports" at <http://www.portlandonline.com/bts/index.cfm?c=51917>

### *Plant a garden!*

A garden or planter box can help to reinforce the feeling that the street is cared for by someone. Gardens can be located in planter boxes along the pedestrian zone at the edge of the ROW, or they can serve as a nice boundary between your yard and the street.



### *Leave a light on.*

A well lit street can help reinforce the feeling of "eyes on the street" and deter unwanted behavior. The City of Portland does not currently install street lights on unimproved streets. Residents that pursue a full street improvement may subsequently request that lighting be installed by the City; however, residents along unimproved streets must rely on their own resources if they want to increase lighting on the street. Leaving an outdoor light on can help maintain a basic level of light on the street. However, be conscious of how the light from your property affects neighboring properties, as stargazing neighbors, or neighbors with bedroom windows facing the street, may be particularly sensitive to light pollution.

# THE ART OF POTHOLE MAINTENANCE

Potholes form when the sub-layers (underground layers) of a roadway are stressed and become structurally weak, leading to deterioration. Heavy vehicles and high traffic volumes, combined with wet weather conditions, expedite pothole formation. Uneven surfaces may cause water to pool in the roadway. Unrepaired, some potholes may grow to surprising proportions. In the Woodstock neighborhood, one “pothole” was observed to span the entire, 60-foot width of an unimproved street. Because the root of the problem lies in unstable sub-layers, simply paving over unimproved streets without tilling (or re-working) the sub-layers is only a temporary solution. Until these sublayers are tilled, and a more durable surface created through grading and graveling and/or paving the street, potholes are likely to be a recurring part of the life of an unimproved street.

## Anatomy of a Pothole

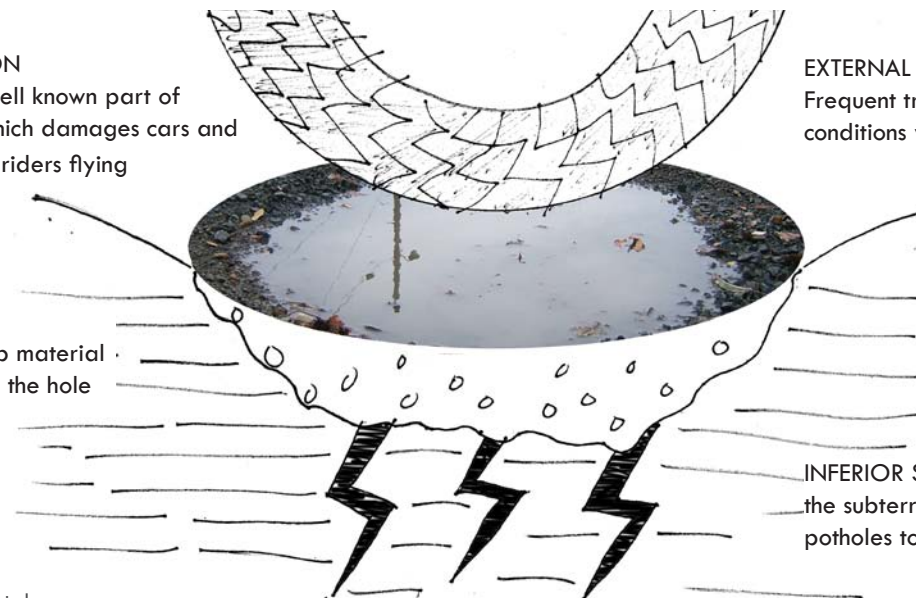
**DEPRESSION**  
The most well known part of pothole, which damages cars and sends bike riders flying

**DEBRIS**  
All of the broken up material that finds its way in the hole

**EXTERNAL STRESSORS**  
Frequent traffic, heavy vehicles, and wet conditions weaken the roadway

**SLOPE**  
Creates water pools that hasten pothole formation

**INFERIOR SUBSTRATE**  
the subterranean cracks that cause potholes to form



## Pothole Repair, Step by Step

- 1 **ASSESS STREET DRAINAGE PATTERNS**  
If the surrounding slope is such that low points on the roadway are causing water to pool, redirecting drainage pattern so that water flows off the roadway will reduce the formation of potholes. Also, it's best to repair potholes in dry conditions.
- 2 **REMOVE LOOSE DEBRIS**  
Debris compromises the integrity of the fill and makes it more difficult to compact. If the sides of the pothole are loose, pound them down to create firm edges.
- 3 **ADD FILL**  
There are a variety of fill types, ranging from crushed rock to clay-based to synthetic mixes. Climate, surface material (paved vs. dirt or gravel), and the extent and severity of the pothole should all factor into the selection of the most appropriate fill material.
- 4 **COMPACT FILL**  
Once the fill is added to the depression, it needs to be compacted. If you lack tools, one simple solution is to drive over the pothole several times.
- 5 **CHECK SURFACE LEVEL**  
After compaction, make sure the pothole is level with the surrounding roadway. Filling the depression above the roadway surface is sometimes recommended in anticipation of additional settling.

For more information, visit:  
[http://www.ehow.com/how\\_118635\\_fix-pothole-dirt.html](http://www.ehow.com/how_118635_fix-pothole-dirt.html)



# 1 Start a Conversation

Regardless of whether or not you wish to pursue collaborative action on your unimproved street, simply checking in with your neighbors can help to ensure that everyone is informed about city policy and aware of any desires or concerns their neighbors have about the street.

**S**imply put, the maintenance of a full street segment is not an appropriate endeavor for one household to undertake on its own without the approval of neighbors. Property owners are legally responsible for maintaining unimproved streets adjacent to their property up to the centerline of the right-of-way (ROW). However, some degree of agreement or collaboration is necessary if residents wish to maintain some level of uniformity from one end of the street to the other. Unimproved streets represent an opportunity for you to engage in a creative dialogue with your neighbors about how you want your shared street to function.

Regardless of whether neighbors decide to discuss opportunities for collaborative action, communicating with neighbors on your street can help to avoid tensions and complaints, such as those that could arise as a result of ambiguous boundaries. Having a conversation could be as simple as checking in to make sure everyone is happy with the current state of the street. It could help to inform or remind individual

property owners about the rules and regulations governing unimproved streets. Finally, if one or more neighbors have the desire to do any kind of maintenance or improvements to a full street segment, doing so would require permission from all of the property owners along the street.

In order to ensure shared responsibility and a street that will meet everyone's needs, you will want to talk to your neighbors to identify common concerns and interests, assess the current physical characteristics of the street, and evaluate the resources and capacity of individuals to contribute toward improvements and maintenance. It's important that conversations with neighbors serve as a starting point for any decisions regarding the future of the street.



# FROM STARTING A CONVERSATION TO MAKING A DECISION

The following five sections of the Toolkit (pp. 22-65) are designed to provide a step-by-step framework for neighbors to talk about a shared unimproved street.

- 1 Start a conversation.** Get your neighbors together to take a look at the current condition of the street and discuss any concerns or ideas that individuals have for the future of the street.
- 2 Discuss any special considerations that may inform decisions you make about the street,** including parking, access for driveways and emergency vehicles, infrastructure currently present or planned, and the potential for improvements that may result from new development.
- 3 Evaluate the larger impacts of potential choices by considering criteria** related to connectivity and traffic, safety and security, access, health, placemaking, public/private space, nature, environmental quality, and durability and maintenance.
- 4 Consider the range of design concepts possible on your street,** and think about how various design elements relate to the unique characteristics of your street, as well as what criteria are important to you in making a decision about the street.
- 5 Make a decision** about whether or not, and how, individual households want to make changes to the current physical characteristics and maintenance of the street.



## Possible Outcomes of A Conversation With Your Neighbors

### AWARENESS

Even if no decisions are made or actions taken, simply raising awareness about the perceptions, concerns, needs, and desires of all residents and property owners along the street is a worthwhile endeavor.

### INDIVIDUAL ACTIONS

Residents along the block may not be willing or able to make a financial investment into street improvements. However, through constructive dialogue, neighbors may identify simple actions that each household along the block could take to improve the quality of environment in a way that provides common benefits.

### AGREEMENT &

### INDIVIDUAL/COLLABORATIVE ACTION

Residents and property owners could have varying willingness to contribute to actions taken to improve or maintain the street. If one or some of the property owners are willing to contribute the time, resources, or financing to make improvements on the entire block, it will be necessary to gain approval from the other residents and property owners along the block.

### CONSENSUS & COLLABORATIVE ACTION

On some blocks or street segments, property owners could find that they all agree about a project they would like to implement along their street. Collaborative agreements could take a variety of forms, and the contributions of each household participating in the agreement would not necessarily need to be identical.

## JUST SAY HELLO!

Simply saying “hi” to your neighbors when you see them around the neighborhood, on the street, or in their yard can be a great way to break the ice.

### Participatory Decision-Making

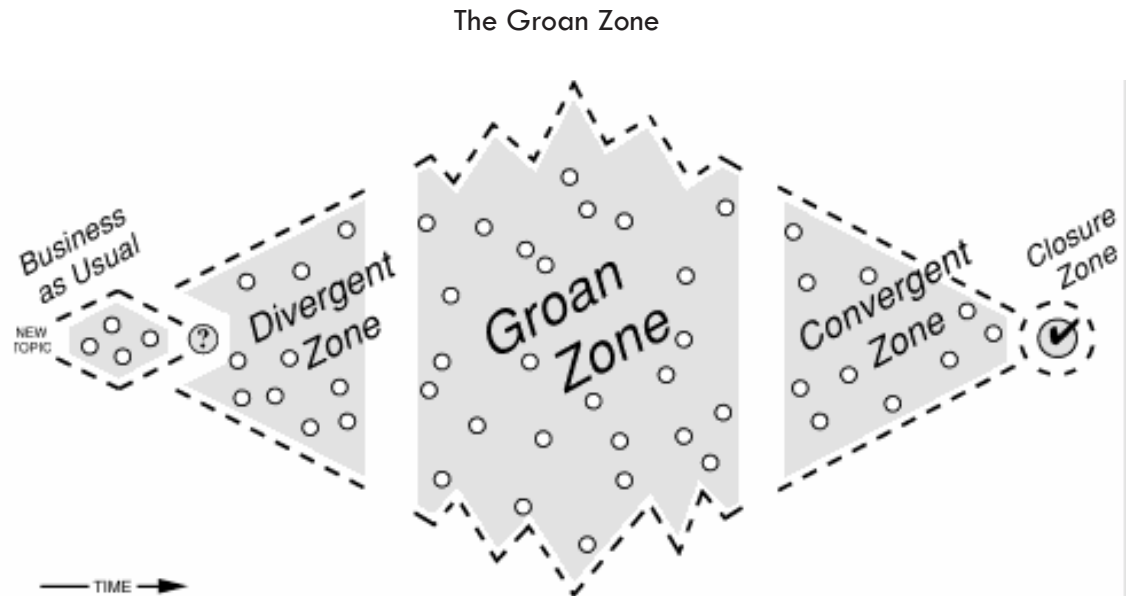
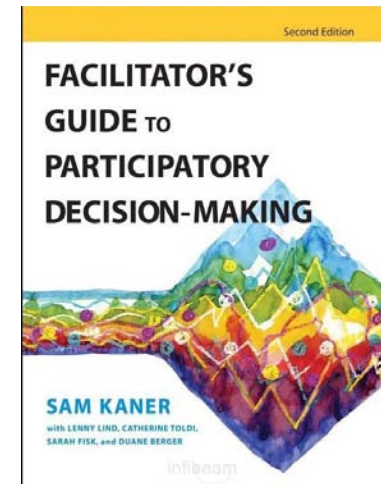
In starting a group conversation about your street, it is important to set the tone so that everyone will feel comfortable contributing and no one will feel pressured to move toward consensus at the end of the process. For example, you could start the conversation by saying, “The purpose of this gathering is to make sure we are all in communication about the current state and any future plans that might be considered for our shared street. The purpose is not to reach agreement, and I hope everyone will be comfortable voicing their opinions, even if they are different from the rest of the members of the group.”

### Discuss Interests

To get a better sense of how individuals feel about the current state of the street, the first step in your conversation should be a basic discussion of what people like and dislike about the current condition of the street. This discussion will help the group identify common interests and areas where neighbors have differing perceptions, interests, or needs.

## Facilitating an Open Discussion

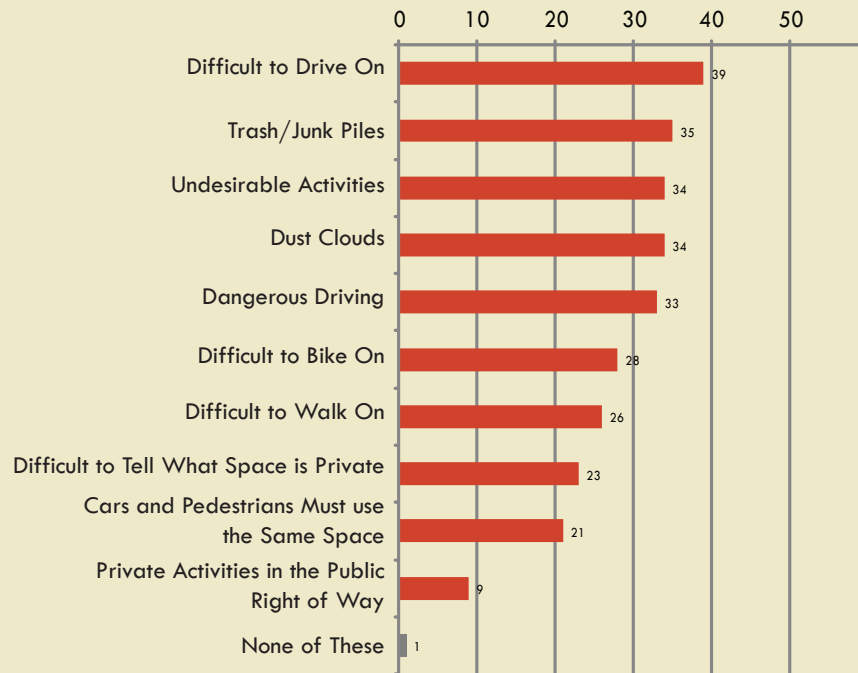
The *Facilitator’s Guide to Participatory Decision-Making* is an excellent resource for small group decision-making. One of the ideas presented in the book is the notion of the “groan zone.” In short, this concept illustrates how breaking out of “business as usual” often requires that participants in a discussion enter a moment in conversation in which divergent ideas are expressed. When discussions reach this point, it is not uncommon for group members to become defensive or insensitive to opposing ideas. Simply acknowledging that expressing differing opinions is a challenging, but necessary, step for moving beyond the status quo can help participants feel more comfortable accepting differing opinions while moving toward shared understanding.



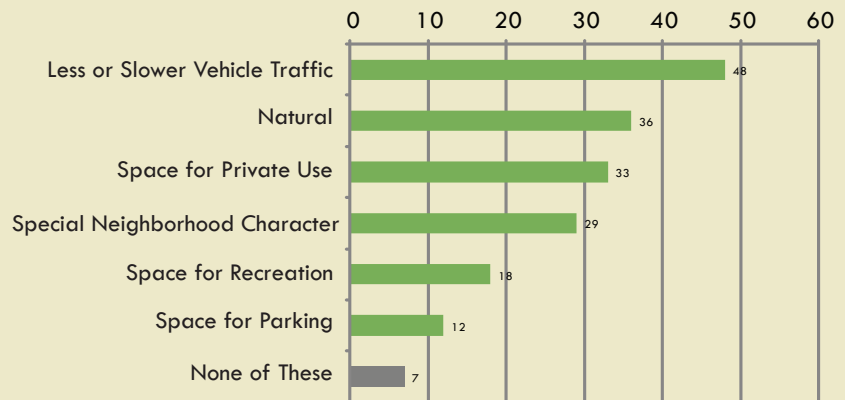
For more information about participatory decision-making, check out *Facilitators Guide to Participatory Decision Making*, by Sam Kaner, ISBN# 086571 3472.

# Survey Results - Woodstock

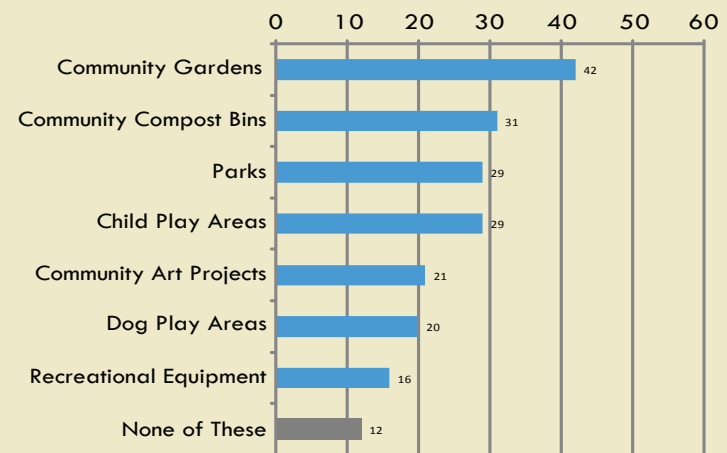
Do you think that any of these are NEGATIVE aspects of unpaved streets in Woodstock?



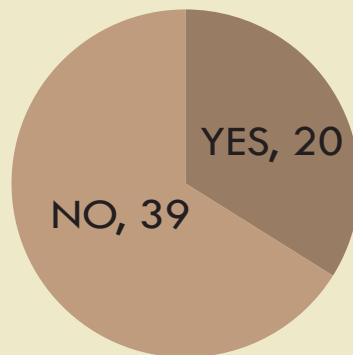
Do you think that any of these are POSITIVE aspects of unpaved streets in Woodstock?



If money were not a concern, do you think space in unpaved streets should be used for any of the following non-transportation neighborhood uses?



If money were not a concern, would you prefer that ALL streets in the Woodstock Neighborhood were paved with curbs and sidewalks?



## CONDUCT A STREET AUDIT

As you consider street improvements, take some time to assess the current conditions of the street. Look for opportunities and challenges specific to the unique characteristics of the your right-of-way (ROW). Surveying the street is a great way to familiarize yourself with the physical constraints present in the ROW and to begin thinking about the feasibility of various options for street improvements or ongoing maintenance. Conducting the audit with your neighbors will ensure that findings reflect conditions and problem areas as they are perceived by everyone along the street. In addition, conducting a street audit could help build momentum around the potential for collaborative projects.

Example of a Street Audit



## What to Consider

Here's a list of things to consider when conducting a street audit. Keep in mind that most residential streets have a right-of-way (ROW) width of 60 feet. If the edge of the ROW is not clear, an easy way to estimate this width is to look at where the sidewalks should be. The inner edge of the sidewalk (plus an additional two feet) constitutes the boundary between your private property and the ROW.

### ADJACENT PROPERTIES:

It's important to know the number and location of all buildings and properties adjacent to the street. Coordination and communication are hallmarks of successful improvement projects. Be aware of any households or businesses that use the unimproved street as an access point.

### SURFACE CHARACTERISTICS:

What condition is the street in? Is the surface composed of dirt, gravel, or pavement? What are the drainage patterns? Are there potholes? What is the visibility from one end of the street to the other? Does the street have significant slope? How wide is the current vehicle pathway? Are there any other noteworthy characteristics (e.g. dust, lighting, etc.)?

### ACCESSIBILITY:

Is the street accessible to... Cars? Bikes? Pedestrians? Wheelchairs? Strollers?

### USES:

How are current residents/businesses using the ROW for purposes such as parking or gardening?

**CURRENT MAINTENANCE:** What are property owners/residents currently doing to maintain the street? What ideas do you have?

## Interests & Skills

This checklist is designed to help you gauge the skills and interests of neighbors.

### Do you own or rent your home?

own       rent

### If you rent, what is the landlord's/property manager's/owner's contact information?

Name:

Address:

Phone Number:

### How long have you lived at your residence?

### Are you planning on renovating or selling your home in the near future? If so, when?

### Household Mobility/Disability Issues (optional):

### Household Size

Adults:

Children:

Pets:

### Are you interested in/do you have skills in any of the following areas:

	Interests	Skills
Gardening/Composting	_____	_____
Landscape Design	_____	_____
Stormwater Management	_____	_____
Animal Husbandry (chickens, goats)	_____	_____
Civil Engineering	_____	_____
Land Use Planning	_____	_____
Grantwriting	_____	_____
Finance/Accounting	_____	_____
Facilitation	_____	_____

Other:

## EVALUATE RESOURCES & CAPACITY

If neighbors are interested in considering collaborative action, the next step is to assess capacity, or participants' abilities and willingness to invest knowledge, time, or money into the street. You will also want to begin considering external resources, including funding opportunities and non-profit organizations that could provide other forms of support for projects on unimproved streets.

### Owners & Renters

Owners and renters are different categories of residents that may have different capacities and motivations related to collaborative efforts on a street. Since the owner of each house is the party that is legally responsible for the street adjacent to his or her property, owners of rental properties need to be involved in the process. Homeowners' needs and future plans also have implications for their willingness to contribute to improvements and ongoing maintenance, and it is important to discuss future potential relocation as well as any planned alterations to their property that could have implications for the right-of-way (ROW).

### Individual Capacity

Participants will want to consider and discuss their own capacity to contribute to the street, both in terms of financial investments and ongoing maintenance. It is unlikely that all property owners along a single block will have the same ability and willingness to pay for street improvements. In addition, some residents may have special skills or knowledge to contribute.

## Commercial Businesses

If any of the property owners on the street are commercial properties, you will want to consider how much traffic is generated by businesses compared to residents. Do businesses have a need for additional parking, or do business visitors currently use the unimproved street for parking? Do businesses have special interests or capacity to contribute to improvement or maintenance?



In an unusual marketing campaign in 2009, Kentucky Fried Chicken (KFC) began filling potholes in Louisville, KY, painting each pothole with a stencil that reads, "Re-freshed by KFC" [http://adage.com/article?article\\_id=135534](http://adage.com/article?article_id=135534)

### External Funding & Resources

The "Neighborhood Approach" section provides an overview of local organizations that might lend support for projects on unimproved streets, local and national grant opportunities currently available, and how to seek and apply for grants (see pp. 62-64).



## 2 Special Considerations

Parking, driveway, emergency vehicle access, and infrastructure currently present or planned in the street are all important factors that could influence the feasibility of various options.

Once you have conducted a street audit and evaluated capacity, there are some special considerations you will want to discuss with neighbors. Parking, driveway, and emergency vehicle access, as well as infrastructure currently present or planned in the street, are all important factors that could influence the feasibility of various options.

### VEHICLE ACCESS

Many unimproved streets currently have no vehicle access or very limited vehicle access. These streets present opportunities to explore street configurations that redistribute right-of-way (ROW) space and prioritize the pedestrian environment. However, in considering such options, you need think about the vehicle access needs of everyone who lives along the street.



City of Portland. Pedestrian-Prioritized street in Chinatown.

## Parking & Driveways

Parking needs along the street can dictate the kinds of street configurations that are appropriate. In evaluating design alternatives, you will want to consider:

- » How many cars are parked on the street on a typical day?
- » How many driveways front onto the unimproved street?
- » Is there any possibility that a lot will be subdivided in the future? If so, could there be additional need for parking or driveway access?

## Mid-Block Access

Considerations for subdivided and mid-block lots are especially important since the only access to homes in these lots may be from the unimproved street. You will want to consider driveway and emergency vehicle access needs for homes that only have vehicle access along the unimproved street.

Narrowing the roadway could help to ensure low traffic speeds and enhance the pedestrian realm; just make sure you have reviewed city guidelines contained within the Expanded Maintenance Program (see p. 16) and discussed any potential conflicts with neighbors. Finally, be sure to consider how any future possibilities for additional lot subdivision or infill development might influence vehicular access needs along the block.



## Emergency Vehicles

For some service providers, the federal government has requirements for minimum vehicle path widths in order to ensure adequate space for fire trucks, school buses, and ambulances. The Portland Bureau of Transportation (PBOT) recommends a width of 20' to allow adequate space for fire trucks. However, large vehicle access may not be necessary along unimproved streets that are located on blocks of 200' or less, as the majority of blocks in inner Portland are. This is because fire hoses can reach up to 150.'

To identify your fire district, visit the online interactive map at <http://www.portlandonline.com/fire/index.cfm?c=26322&a=56350>

For more information about emergency vehicle needs, contact your service provider.  
Portland Fire Department: 503-823-3700  
Portland Emergency Management: 503-823-3882

## DEVELOPMENT REQUIREMENTS

The City of Portland has development requirements designed to ensure that necessary street improvements are made as new buildings are developed. If you live on a street that has any relatively new development, or you live on a street with vacant lots that could be developed in the future, the likelihood of your street being improved to city standards through a Local Improvement District (LID) could be higher as a result of properties with non-remonstrance agreements attached to them.



### Non-Remonstrances and the Likelihood of an LID

Most street improvements occur as a result of development requirements. When a property is developed, developers are required to install street improvements, in addition to stormwater and sewer improvements. However, the Portland Bureau of Transportation (PBOT) has occasionally issued waivers to developers, temporarily relieving them of the obligation to improve streets. This often occurs because piecemeal improvements can be expensive and inefficient, resulting in short segments of streets and sidewalks “to nowhere.” In exchange for this waiver, the property owner must sign a non-remonstrance agreement.

Street improvements through Local Improvement Districts (LIDs) are often more efficient than those associated with single properties, because of economies of scale. When an LID is proposed, all affected property owners are given the opportunity to vote for or against the LID. A vote against an LID is called a remonstrance. The word *remonstrate* means to oppose or protest.

When a property owner signs a non-remonstrance agreement, the property owner forfeits the right to vote against any future LID for street improvements. The non-remonstrance agreement is recorded with the title of the affected property and stays with the land rather than the property owner. All future property owners are bound by this agreement.

Non-remonstrance agreements are usually associated with properties that have been recently developed along unimproved roads or streets without sidewalks. If you are unsure whether a non-remonstrance agreement affects your property, you can research your property title or contact the LID Administrator at PBOT.

If you and your neighbors are discussing potential changes to your street, you will want to determine whether any of your neighbors' properties are affected by non-remonstrance agreements. The more non-remonstrance agreements there are, the more likely an LID will succeed in your area in the future, resulting in the full improvement of the street. This fact may affect your decision to invest in intermediate maintenance and improvements.



# PortlandMaps.com

PortlandMaps.com provides public access to data for the Portland Metropolitan Statistical Area (MSA), including:

- » Assessor/tax lot information
- » Aerial photography
- » Building footprints
- » Building permits
- » Crime data
- » Elevation
- » Schools
- » Underground storage tanks
- » Water/sewer
- » Zoning maps

PortlandMaps also provides residents with various overlays for infrastructure plans:

## TRANSPORTATION SYSTEM

**PLAN:** the Portland Bureau of Transportation's (PBOT's) comprehensive long-range plan guiding transportation infrastructure improvements

**CAPITAL IMPROVEMENT PROJECTS:** PBOT's list of priority projects for centers and main streets, freight, local street development, neighborhood livability, preservation and rehabilitation, safety, and congestion management

**PUBLIC WORKS PROJECTS:** Construction and funding schedule for citywide priority stormwater, wastewater/sewer, and natural gas projects.



# UTILITIES & INFRASTRUCTURE

Although the City of Portland does not generally undertake the work of paving unimproved streets, various city bureaus do undertake other projects that may have implications for the ROW beside your home. Before undertaking any project on the street, you will want to get a good idea of what is currently under the street, and any plans the city has that relate to your street.

## “Call Before You Dig”

Before you consider doing any work in the street, find out if there are any utilities located under the ground.

Call 1-800-332-2344 to get information about underground utilities.



# 3 Criteria

“As we are faced with ever rising gas prices and mounting evidence that how we have planned and shaped our communities over the last 50 years is a major contributing factor in the degradation of our natural and human environments, more and more people are beginning to recognize that this is a key moment to make wise transportation decisions that will influence our quality of life for years to come. This is imperative because America now faces a public health crisis; uncertain energy supplies; global climate change; loss of our natural environment; ever-increasing social inequity; and declining civic and community engagement. Planning transportation for community outcomes, rather than merely moving cars, will help protect our nation’s irreplaceable cultural and historic resources and serve as an economic catalyst for towns and cities.”

-Project for Public Spaces  
<http://www.pps.org>

**A**s the most prevalent form of public space in the city, rights-of-way (ROWs) serve a variety of transportation and community oriented purposes. Unimproved streets offer an opportunity to approach this space with a clean slate, thinking about what functions streets can and should serve.

The physical characteristics and use of residential streets most directly impact people who live adjacent to the streets. However, the street grid also plays an important role in contributing to walkability and social interaction at the neighborhood scale, and it impacts the urban form of the city in a way that has larger implications for mobility, health, and the environment.

The criteria in this section provide a lens for considering the larger implications of the existing condition of, and any potential changes to, the makeup of your street. These criteria can also help a group of neighbors move beyond a conversation about personal priorities to consider the larger impacts of decisions.

# CONNECTIVITY & TRAFFIC



As the city grows, an interconnected street network distributes traffic evenly throughout the city, helping people to reach their destinations with ease. There is an inherent tension between connectivity and the desire of to keep through traffic off residential streets. Residents want to be able to travel conveniently to their destinations; however, they want the street next to their home to be a quiet place where cars move slowly and children are safe to roam freely. This tension should not prevent residents from considering improvements to streets that are currently unpaved.

The street grid is key to promoting walkable neighborhoods, and places where more people are out walking and biking are places where cars drive more carefully. Bumps, whether speed bumps or potholes, are not the only way to ensure that traffic will move slowly. For neighborhoods with unimproved streets, conducting a neighborhood circulation assessment can set the stage for prioritizing areas that need connectivity improvements while identifying portions of the ROW that might be repurposed to other uses.

**“Unpaved streets act as a traffic calming device and restrict the amount and speed of neighborhood traffic.”**

-Woodstock Resident

**“Not all need paving...just some. It would be nice to have some paved east-west connectors.”**

-Woodstock Resident

## Shared Space

Many unimproved streets currently function as shared spaces in a way that was not planned, and many residents appreciate the streets for this reason. Maintaining shared space could be a strategy for maintaining the qualities of the streets people like while still improving access for bicycles, strollers, and wheelchairs.



Dutch woonerf. [www.panoramio.com/photo/26352333](http://www.panoramio.com/photo/26352333)

Several residents of the Woodstock neighborhood cited the Dutch concept of the “woonerf” as a potential model. In the Netherlands, woonerven, or “living streets,” are typically located in medium-density residential neighborhoods. Drivers, cyclists, pedestrians, and recreating residents share a single space without delineations. Vehicles are legally subordinate to cyclists and pedestrians, and are required to travel at low speeds. Narrow widths, sometimes created by planters and outdoor furniture, further encourage low vehicle speeds. In the United Kingdom, streets called “home zones” replicate the Dutch tradition.

More recently, the “shared space” model has gained traction in Dutch transportation planning. Sometimes called “naked streets” or “naked roads,” these streets are characterized by a lack of signage or mode separation. Like the woonerf, the shared space prioritizes non-motorized travel, but solely through physical features, rather than explicit signage. It is thought that uncontrolled spaces generate uncertainty, more interaction among road users, and more cautious travel behavior.

Domestically, the “skinny streets” model parallels many of the effects of woonerven and shared spaces. The skinny streets movement seeks to reduce lane width requirements in localities across the United States. Traditionally, it was thought that mode segregation and wide lanes would decrease potential conflicts between road users, while providing convenient access for emergency service providers. However, advocates of skinny streets note that wide lanes often encourage high vehicle speeds, creating safety hazards and reducing the quality of the pedestrian environment. In 2000, the state of Oregon developed “Neighborhood Street Design Guidelines: An Oregon Guide for Reducing Street Widths.” Developed in partnership with the emergency service providers, the document provides guidelines for Oregon towns and cities seeking to create standards appropriate for neighborhood streets.

For more information about the origins of shared space, check out [http://www.nytimes.com/2005/01/22/international/europe/22monderman.html?\\_r=1](http://www.nytimes.com/2005/01/22/international/europe/22monderman.html?_r=1)

# SAFETY & SECURITY



**R**esidential streets – particularly unimproved streets – commonly serve as an extension of people’s yards. These are places where children play and pets roam. Many residents have come to value unimproved streets as a safe haven from vehicle traffic, viewing potholes as free traffic calming devices. Pedestrians generally feel comfortable walking in the middle of these streets. However, streets that are paved but lack sidewalks tip the balance of the right-of-way (ROW) in favor of cars and create a walking environment less suited to children playing in the street or walking to school.

Street improvements should consider the balance between vehicle access and pedestrian safety. If vehicle access is improved without consideration of the pedestrian realm, it can create an unsafe environment, particularly for young children.

In addition to creating a more walkable environment, there are a number of steps residents can take to create an environment that will deter unwanted activity while still encouraging desirable use of the space. Improvements to lighting and landscaping, and elimination of litter, can help prevent perceptions of unimproved streets as abandoned space.



**“Unpaved streets give idiots with their SUVs a chance to use the 4wd. I cannot tell you how many times some yahoo feels the need to drive down my street, splashing through puddles or creating a huge dust cloud. We have small children and think the streets create a real safety hazard.”**

-Woodstock Resident

# ACCESSIBILITY



[http://blog.oregonlive.com/oregonianextra/2008/01/large\\_arthur.jpg](http://blog.oregonlive.com/oregonianextra/2008/01/large_arthur.jpg)

Unimproved streets present access problems for vulnerable populations, such as children, older adults, and people with disabilities. These challenges will become increasingly important as more people opt to age in place rather than moving into a retirement community. They also impede access for alternative transportation modes, including bicycles and strollers.

## Universal Design

The Americans with Disabilities Act (ADA) of 1990 set a new precedent for public space design to meet the needs of people with disabilities. Any new project constructed by the City of Portland must meet the standards set forth by ADA. For an independent project on an unimproved street, meeting all ADA requirements would probably not be feasible given the added cost. However, some universal design tips you may want to consider include:

- » limiting the slope of paths and sidewalks
- » separating pedestrian paths from roadways through vegetation or other physical barriers
- » for paved pedestrian walkways, a minimum of three feet in width is necessary for wheelchair access.

**“By 2030, one in five people in the Portland Metro Area will be 65 or older.”**

-Portland Institute on Aging. “Needs, Costs, and Funding Alternatives for Transportation Services for Older Adults and People with Disabilities in Urban and Rural Oregon.” <http://www.pdx.edu/ioa/past-projects>

**“Unpaved streets in ANY neighborhood represent a safety hazard which risks the life and well-being of our most vulnerable. Imagine the challenges that someone in a wheelchair is faced with. Or a mother pushing a stroller with children.”**

-Woodstock Resident

**“Imperative to consider that it is impossible for wheelchair navigation.”**

-Woodstock Resident

**“Turn them all into bike routes, please.”**

-Woodstock Resident

# HEALTH



[www.tamiasoutside.com/category/tdb/page/3/](http://www.tamiasoutside.com/category/tdb/page/3/)

There is a growing awareness of the relationship between the built environment and public health. Streets can promote healthy communities by facilitating active transportation (biking and walking) and providing space for local food production. Reducing vehicle traffic can also improve air quality. Along dirt and gravel roadways, vehicle traffic impacts air quality not only through emissions, but also through the creation of dust.

Currently, only 15% of Portland’s population lives within a quarter-mile of a community garden. Over 1,300 people are on the waiting list for garden plots managed through the city’s Community Gardens program. Unimproved streets present opportunities to create new urban gardening spaces – whether in planter boxes or through the repurposing of underutilized ROWs to community garden space. Increasing community gardening can help to promote healthy food choices, as well as providing a forum for community interaction.

**“The dust... THE DUST....”**

-Woodstock Resident

# PLACEMAKING



limestonephoto.wordpress.com/2009/09/29/188/

**P**lacemaking is a funny word that urban planners invented in the 1970s to describe the way that design can enhance ability of public spaces to foster social interaction. Unimproved streets present special opportunities to enhance the role of streets as neighborhood gathering spaces and reduce problems associated with a lack of “eyes on the street.” Integrating furniture and community art into the streetscape can help reinforce neighborhood character and create a network of public spaces that encourages social interaction in the street.

Low-volume residential streets that are located close to public destinations like schools and libraries present opportunities for creating shared spaces that prioritize the pedestrian environment. By integrating the pedestrian and automobile zones, shared space designs can discourage high traffic volumes and fast driving. Such a space could eventually be transformed into an urban plaza if, in the future, it becomes recognized that the street is not necessary for vehicle connectivity.



A City Repair Intersection project in the Sunnyside neighborhood of SE Portland. <http://cityrepair.org/>



Share-It Square in SE Portland. <http://cityrepair.org/>

“I think unimproved roads are a wonderful part of Woodstock’s culture.”

-Woodstock Resident

“Don’t pave ‘em! Unimproved streets slow traffic, and potentially make nice mini-parks and walkways. Neighbors should be encouraged to take care of them in creative ways, allowing public access.”

-Woodstock Resident

“The public realm of residential streets is often where neighbors most frequently interact on a casual basis. Children play on sidewalks as well as in the roadway of quiet streets, and play activity often takes place across sidewalks and front yards. In older neighborhoods, this public realm area of interaction also includes the porches and stoops of residences. Planting strips are sometimes extensions of front gardens, or are used to grow vegetables, blurring distinctions between the publicly- and privately-owned parts of the public realm.”

-City of Portland,  
Portland Plan Urban Form Background Report

“I am unclear about trees/fences/private paving in terms of city regulations as well as how to implement when boundaries are unclear.”

-Woodstock Resident



## PUBLIC/PRIVATE



Lacking clearly defined edges, unimproved streets often become battlegrounds between public and private space. As cars veer to avoid potholes, the driving lane widens and can eventually spread into adjacent yards.

Conversely, many property owners use non-drivable portions of the right-of-way (ROW) as extensions of their backyards, for such purposes as gardening, compost, and recreation. In some cases, property owners have constructed fences in the ROW. Such permanent structures are described in city policy as “encroachments” and considered an unacceptable use of public space. If the encroachment is perceived as a nuisance by neighbors, the City may require residents to remove such structures.

In considering community oriented uses for unimproved streets, keep in mind that some community members place a high value on privacy. You will want to discuss privacy concerns before beginning any conversation about repurposing the ROW to uses that would invite people to linger in the space rather than just passing through. Examples of community uses that could cause privacy concerns for some neighbors include linear parks, community gardens, or even the addition of a bench to the edge of the ROW.

# NATURE



The Olmsted Plan of 1903, one of Portland's most enduring plans, called for an interconnected system of open spaces throughout the city. Today, city planners continue to consider strategies for expanding green space in neighborhoods and increasing the green connections between parks and open spaces.

Residential streets are characterized by a “green edge” of landscaped yards. The presence of street trees and vegetation can enhance the public realm by ensuring continuity of natural features between private and public space and incorporating nature into the neighborhood fabric. Incorporating natural elements into the street can also alter the visual environment along the street in a way that encourages slower driving. In addition to providing physical and psychological health benefits for residents, natural elements also contribute to the environmental health of an urban area through improvements to air quality and stormwater infiltration.

“It would be great to see the space used as green space/gardens. Narrow them to make more green space and slow traffic. Produce local food in the gardens. Plant them with more trees.”

-Woodstock Resident

## Seattle Street Edge Alternatives

Developed by Seattle Public Utilities in 2001, the Street Edge Alternatives (SEA) pilot project aims to reduce impervious surfaces and incorporate natural drainage systems into residential streets. SEA projects narrow the roadway in order to incorporate landscaping that is both functional and beautiful, including a variety of grasses, sedges, and rushes that filter pollutants out of stormwater. SEA landscapers followed the concept of “right plant, right place,” selecting noninvasive species that can survive with little maintenance in our local climate.

The project has also encouraged social interaction among neighbors and public education about stormwater. Local residents along the street have taken responsibility for maintenance and care for the plants through weeding, mulching and mowing when necessary.

Through a pilot project for three blocks on 2nd Ave NW, between NW 117th and 120th Streets, the project transformed a traditional street into a green street featuring:

- » Narrow (14'), curvilinear vehicle path
- » Angled parking spaces interspersed in clustered breaks in the planting strip, placed based on parking surveys conducted by project planners
- » Extensive planting zone and street trees
- » Swales and culverts channeling water to an existing nearby ditch and culvert system
- »

For more information, visit [http://www.seattle.gov/util/About\\_SPU/Drainage\\_&\\_Sewer\\_System/GreenStormwaterInfrastructure/NaturalDrainageProjects/StreetEdgeAlternatives/](http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/GreenStormwaterInfrastructure/NaturalDrainageProjects/StreetEdgeAlternatives/)



City of Seattle. NE 117th Street.

“I like the ‘country feel’ of them.”

-Woodstock Resident

“Unpaved is an opportunity to give the neighborhood room to breathe.”

-Woodstock Resident



## Portland Green Streets

Green Streets are characterized by their environmentally sensitive design, often evident by the inclusion of natural stormwater treatment and infiltration facilities. Such facilities often calm traffic while improving the quality of the pedestrian realm. In 2007, the Portland City Council adopted a policy promoting and incorporating the use of green street facilities in public and private development.

The Green Street approach aims to:

- » Reduce impervious surface so stormwater can infiltrate to recharge groundwater and surface water
- » Protect watershed health by preventing polluted stormwater from entering Portland's rivers and streams
- » Divert stormwater from the sewer system to reduce basement flooding and sewer backups and overflows while also reducing maintenance costs for the city's sewer system
- » Improve pedestrian and bicycle safety
- » Increase urban green space
- » Improve air quality and reduce air temperatures

For more information, visit <http://www.portlandonline.com/bes/index.cfm?c=44407>



City of Portland. NE Siskoyou St.

# ENVIRONMENTAL QUALITY



The physical components and configurations of streets have important implications for stormwater runoff, air quality, greenhouse gas emissions, and use of natural resources. Paving a dirt or gravel roadway results in a decrease in sediment yield and airborne dust; however, there are also negative ecological consequences associated with increases in impervious surfaces, including stormwater runoff and habitat fragmentation. Stormwater runoff can lead to pollution of rivers and can cause excess burden on the city's sewage system.

At a higher level, street design impacts the environment through indirect influences on travel behavior. Streets that promote non-motorized forms of travel can help reduce pollution and greenhouse gases associated with automobile emissions, while increasing vegetation and trees can help improve air quality and reduce "heat island effects."

The degree of resource intensity should also be a consideration in street design. For examples, plants that require minimal water can help keep ongoing maintenance costs to a minimum while reducing unnecessary use of natural resources. Additionally, you can consider the "life cycle" impact of the products used in street improvements.

"Let's get creative with plantings, not pavement!"

-Woodstock Resident

"It's good for runoff water as well; because they are not paved."

-Woodstock Resident

## Selecting the Right Pavement

	<b>CONCRETE</b>	<b>ASPHALT</b>	<b>POROUS ASPHALT</b>
<b>WHAT IS IT?</b>	Concrete is made up of water, aggregate (sand, rock or gravel) and Portland cement.	Asphalt is a petroleum byproduct. It is a hydrocarbon mixture that is heated until it is the consistency of tar. In roads, asphalt is mixed with aggregate (sand, rock or gravel) to make road surface.	Porous asphalt is made with standard asphalt that has been screened and reduced to create voids in the material, making it 16% more permeable than conventional asphalt.
<b>WHERE DOES IT COME FROM?</b>	Concrete is generally produced locally and can be obtained from several Portland area manufacturers or in small amounts from hardware stores. Concrete generally has a lower environmental impact than asphalt because it is not produced from petroleum.	As a biproduct of oil production, asphalt is generally produced in the eastern states. Asphalt production takes a substantial amount of energy and produces large amounts of carbon dioxide emissions. Asphalt can be recycled and reused to make more asphalt.	Porous asphalt is produced in several locations throughout the United States. Porous asphalt starts with same elements as conventional asphalt but is further refined to make it more permeable.
<b>CLIMATE</b>	Resistant to high temperatures. If installed incorrectly, concrete is susceptible to frost heaves in low temperatures.	More adapted to colder climates. Constant exposure to high temperatures tends to make asphalt soft, leading to cracks and grooves that require regular maintenance.	Best suited in locations with highly permeable and dry soils.
<b>DURABILITY</b>	If properly maintained, concrete surfaces on low volume residential streets can last 24-30 years.	If properly maintained and sealed, asphalt surfaces on low volume residential streets can last up to 12-15 years.	With regular maintenance including vacuuming of the surface to remove sedimentation, porous asphalt can last 20 years or more. Not well suited for areas where sediment will be deposited by vehicles (i.e. on an unimproved street surrounded by unpaved streets)
<b>MAINTENANCE</b>	Sealing required every 3 years. Concrete cracks can be difficult to repair. Concrete can also be cleaned using a variety of products.	Must generally be sealed every 4 to 5 years. Asphalt is very elastic at the time of installation, but over time, the oils oxidized and lose moisture. Relatively easy to repair cracks.	Best practices include installation of a geotextile subgrade material below asphalt, regular vacuuming, and a sediment control plan. Potholes and cracks in surface can be patched with traditional asphalt patching mix.
<b>OPTIONS</b>	Concrete pavers are pervious in nature and are available in several different shapes, sizes and colors. Eliminates the need for other stormwater facilities. Good for low traffic areas. Pervious concrete generally has a higher up-front cost than regular concrete, but generates cost savings in the long run.	Asphalt is available stamped, printed, textured and in a rainbow of colors. Colored and treated asphalt can cost \$3.00-\$12.00/SF	
<b>COST</b>	\$3.00-\$10.00/SF (regular concrete)	\$1.00-\$5.00/SF (regular asphalt)	\$1.00-5.00/SF

# DURABILITY & MAINTENANCE



**U**nderstanding the durability and maintenance requirements of alternative street improvements is key to weighing the costs and benefits of various options. Short of a standard improvement, there are a variety of options for improving drivable surfaces, including grading the street and laying down gravel or asphalt. When considering surface materials, durability and level of maintenance are of particular concern. A one-inch layer of asphalt generally will not last longer than a year, whereas a three-inch layer of asphalt poured over gravel may not require maintenance for another five years.

## USEFUL WEBSITES

Context Sensitive Solutions: [www.contextsensitivesolutions.org](http://www.contextsensitivesolutions.org)  
Living Streets: <http://www.livingstreets.org.uk/>  
The Walkable and Livable Communities Institute: <http://www.walklive.org>  
Road Diets: <http://www.roaddiets.com/>  
U.S. Environmental Protection Agency Green Streets: [http://www.epa.gov/npdes/pubs/gi\\_arra\\_green\\_streets.pdf](http://www.epa.gov/npdes/pubs/gi_arra_green_streets.pdf)  
Chicago Green Alley Handbook: <http://csc.usc.edu/GreenAlleyHandbook.pdf>  
Vancouver, B.C. Neighborhood Greenways: <http://vancouver.ca/engsvcs/streets/greenways/neighbourhood/index.htm>



# 4 Design Concepts

The typical right-of-way (ROW) measures 60 feet. This space provides for a wide variety of possible configurations that could respond to varying contexts, desires, and needs.

The design concepts in this toolkit were developed through outreach in the Woodstock community and refined based on feedback from city staff about political and technical feasibility. The purpose of the concepts is to provide visual examples of possible configurations of space within a 60-foot right-of-way (ROW). All of the concepts could be adapted based on the specific characteristics of any given street segment.

With the exception of two concepts that are frequently implemented by the City of Portland, cost estimates were calculated for most of the concepts based on pricing information gathered from local material sources. These are rough cost estimates for the total cost of the materials needed to implement a project, and they don't include planning, engineering, or permitting costs. You may want to hire a professional to calculate a more accurate cost estimate for any planned interim improvements, particularly for more complex projects.

Although several city employees provided feedback on the concepts, this does not mean that proposed projects would meet with instant city approval. Many of the ideas presented in the concepts push the boundaries of conventional street design and use, and these projects would require some level of approval from, or partnership with, city bureaus.

Concepts that fall outside of the realm of general acceptability within existing city policies, such as the Shared Court concept, are noted. By pursuing such projects with a clear understanding of costs and benefits, residents can help to reshape the way the city looks at residential streets.

# DESIGN MENU

The typical right-of-way measures 60 feet wide. The curb-to-curb width of a standard street is only 32', including space for two lanes of traffic and a parking zone on both sides. However, this width may not be necessary for some low-volume residential streets that don't have a high demand for on-street parking. Think about the allocation of space in the ROW. Space not used for transportation functions could be considered for non-transportation uses.

## BICYCLE FACILITY TYPES

The Portland Bicycle Plan for 2030 includes several new design concepts for bicycle facilities:

- car-free street
- bicycle boulevard
- cycle track
- bike lane
- contraflow bike lane
- off-street path
- advisory bike lane
- buffered bike lane
- climbing bike lane
- enhanced shared

Bicycle Plan for 2030 - Suggested Facility Types:  
<http://www.portlandonline.com/transportation/index.cfm?c=44672&a=237592>

## DRIVABLE SURFACE MATERIALS

- gravel
- asphalt (stamped, pervious, colored)
- concrete (stamped, pervious)

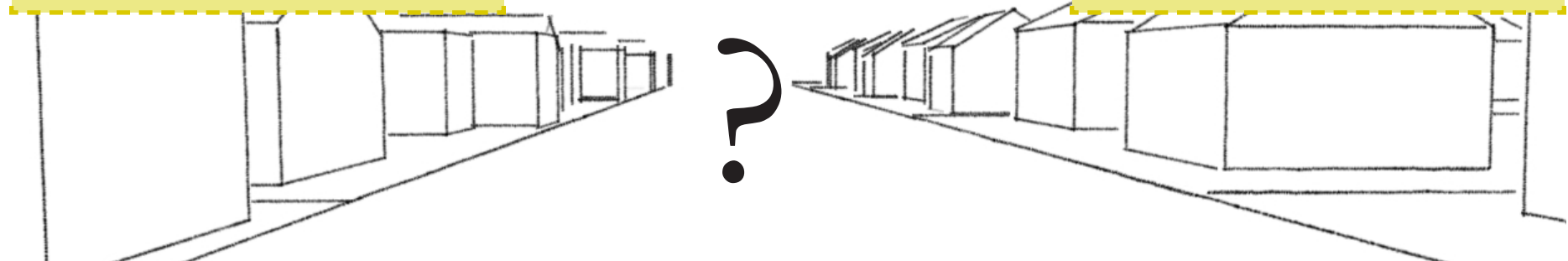
## DRIVABLE WIDTH

- Standard street width is 32', including two driving lanes and parking on either side
- Minimum 20' width recommended for emergency vehicle access

## PEDESTRIAN FACILITIES

On streets which lack sidewalk infrastructure, the Pedestrian Design Guidelines suggest off-street paths as an interim solution. In addition to providing direct pedestrian routes to destinations, good pathways are clearly public, accessible, durable, and compatible with the existing environment.

Portland Pedestrian Design Guidelines,  
<http://www.portlandonline.com/shared/cfm/image.cfm?id=84048>



## STORMWATER FACILITIES

- raingarden
- swale
- infiltration planter

## LIGHTING

- path lighting
- post lighting
- attached lighting
- street lights (available for streets maintained by the City)

## AMENITIES

- benches
- community art
- trees
- bird baths
- play equipment
- dog agility course

## LOCAL FOOD PRODUCTION

- planter box
- community garden
- compost bin
- chicken coop

## EDGES

- curbs
- railroad ties and other salvaged materials
- planter boxes
- landscaping

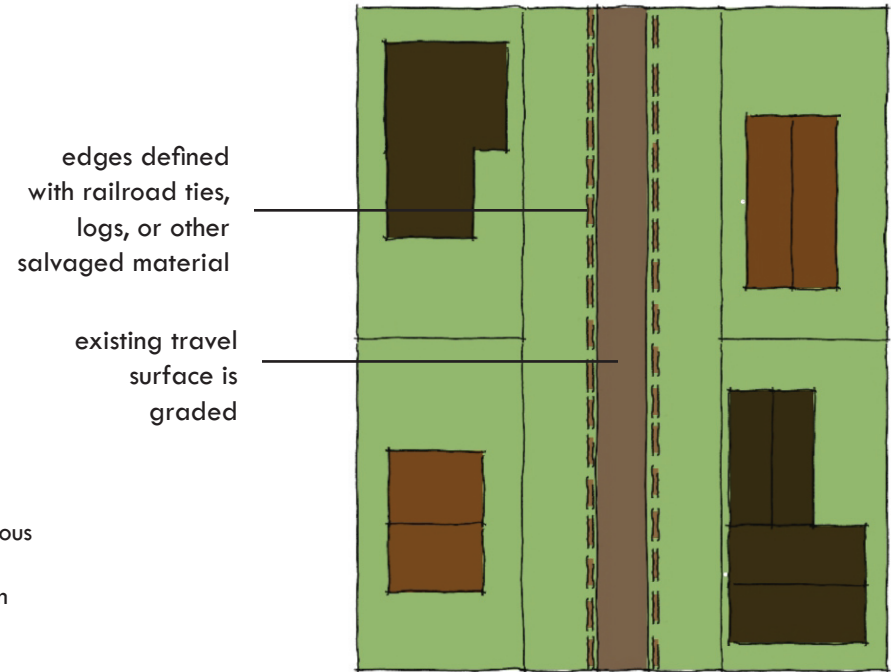


*Existing travel lane graded, with edges defined by markers and flexible use of right-of-way space*

Do-It-Yourself (DIY) Street is a minimalist design concept aimed to enhance the navigability and aesthetics of an unimproved street. This concept could help to encourage stewardship of the ROW by adjacent property owners.

**CONSIDERATIONS:**

- » Could be maintained indefinitely, or installed as a interim step to gravel, asphalt, pervious pavement, and/or improvement to city standards (see p. 53 for the Phased Approach)
- » Costs per household would be lower if rental of equipment were coordinated among an entire block or series of blocks.



**ADVANTAGES:**

- » Encourages low vehicle speeds
- » Prevents widening of the travel lane
- » Allows for flexible use of the ROW edges
- » Requires minimal collaboration or planning
- » Does not require city permit

**DISADVANTAGES:**

- » Unfavorable conditions for bicycles and strollers
- » Inadequate ADA access
- » Creates dust
- » Requires regular maintenance
- » Does not provide stormwater management
- » Will not be maintained by the City

**MATERIAL COST ESTIMATE: \$712-\$744**

- » Travel lane (dirt/existing surface): \$0
- » Grading: \$500/half-day
- » Gravel for filling potholes: 1-2cy (6" depth): \$32-\$64
- » Railroad Ties or Recycled Lumber (36 x \$5/each): \$180

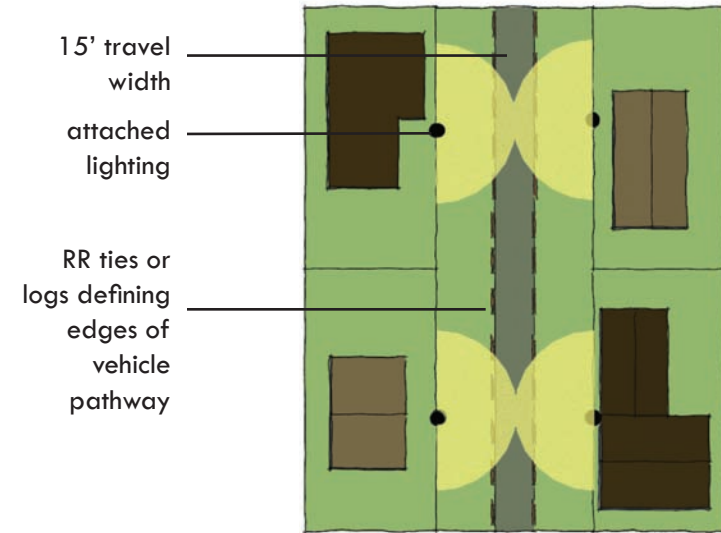
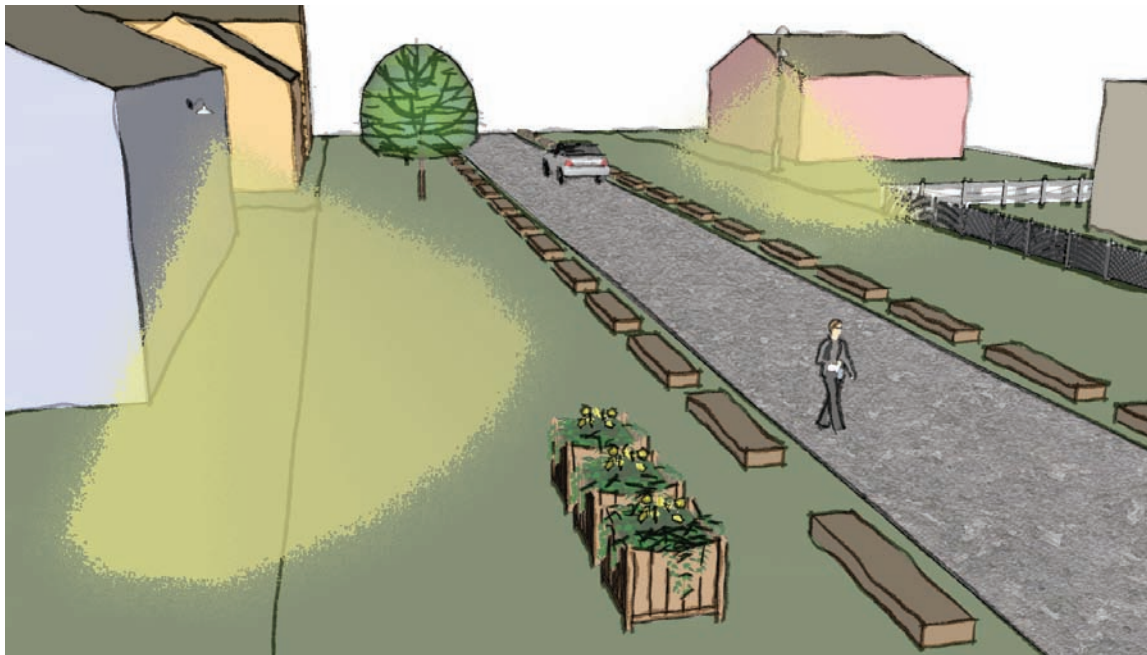


*Narrow gravel travel lane with edges defined by markers, and lit by fixtures located on adjacent properties*

The Gravel concept is designed to provide an inexpensive option for improving the surface of the roadway by eliminating potholes and providing a clearly defined travel area for vehicles and pedestrians. Lighting is included to improve visibility and security.

#### CONSIDERATIONS

- » Recommend grading of surface and installation of 6" of gravel to increase durability and reduce ongoing maintenance
- » Could be maintained indefinitely as gravel surface, or installed as an interim step to asphalt, pervious pavement, and/or full standard improvements (see p. 53 for the Phased Approach)



#### ADVANTAGES

- » Encourages low vehicle speeds
- » Prevents widening of the travel lane
- » Allows for flexible use of the ROW edges
- » Increases visibility through lighting and passive surveillance
- » Provides stormwater management by preventing compaction and allowing infiltration
- » Requires minimal collaboration or planning
- » Does not require City permit

#### DISADVANTAGES:

- » Unfavorable conditions for bicycles and strollers
- » Inadequate ADA access
- » Creates dust
- » Requires regular maintenance (several times per year)
- » Will not be maintained by City

#### OPTIONS:

- » Recycled asphalt could be an inexpensive and sustainable alternative to gravel

#### MATERIAL COST ESTIMATE: \$2,236

- » Travel lane (3,000 SF gravel/6" depth): \$1,776
- » Grading: \$500/half-day
- » Railroad Ties or Recycled Lumber (36 x \$5/each): \$180
- » 4 lights attached to homes: \$280



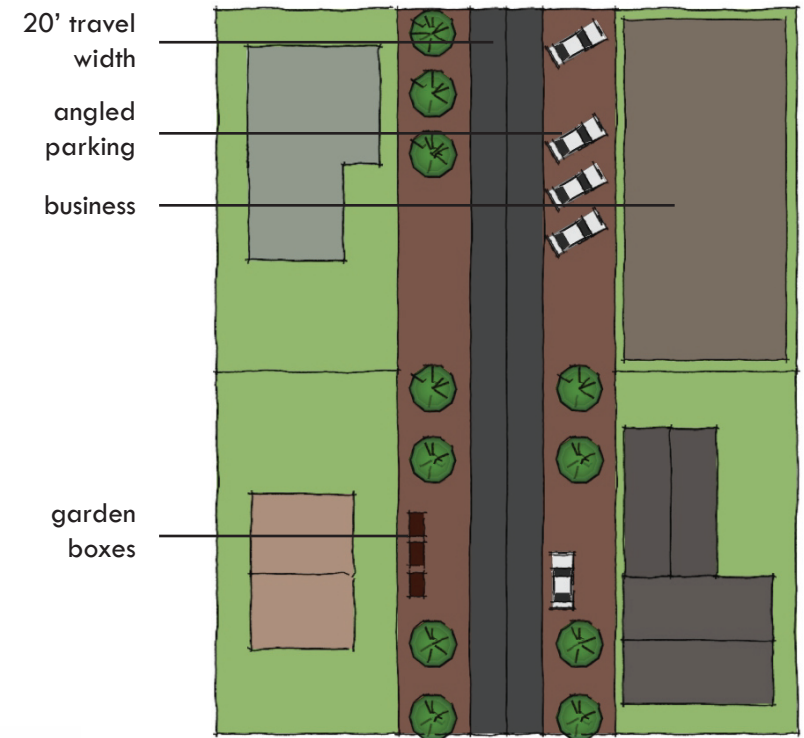
# Interim Pavement

*Narrow asphalt vehicle lane with dirt or vegetation at edges*

Interim pavement provides a paved surface for multiple travel modes at reasonable cost and could serve as a building block for a standard improvement. It does not include curbs or sidewalks, but allows for flexible use of additional ROW space.

## CONSIDERATIONS:

- » Recommended to include grading of surface and installation of 6" of gravel, and 3" of asphalt to increase durability, reduce compaction of soil, and reduce ongoing maintenance
- » Requires collaborative decision-making about funding, maintenance and use of edge space
- » Could be maintained indefinitely, or installed as an interim step to full improvement to City standards (see p. 53 for the Phased Approach)
- » Design should include driveway access where necessary



## ADVANTAGES:

- » Accommodates bicycles and strollers
- » Prevents widening of the travel lane
- » Allows for flexible use of the right-of-way edges
- » More affordable than paving to full city standard

## DISADVANTAGES:

- » Potentially alters drainage patterns
- » Current conditions may necessitate engineering analysis
- » Requires maintenance (every few years)
- » Requires city permit if no evidence of previous paving
- » Will not be maintained by City

## MATERIAL COST ESTIMATE: \$11,371

- » Gravel subgrade (4,000 SF gravel/6" depth): \$2,358
- » Travel lane (4,000 SF of asphalt/3" depth): \$8,427
- » Grass seed for 8,000 SF of edge space (80 lbs.): \$256
- » Trees (11 x \$30/each from Friends of Trees): \$330



# Shared Court

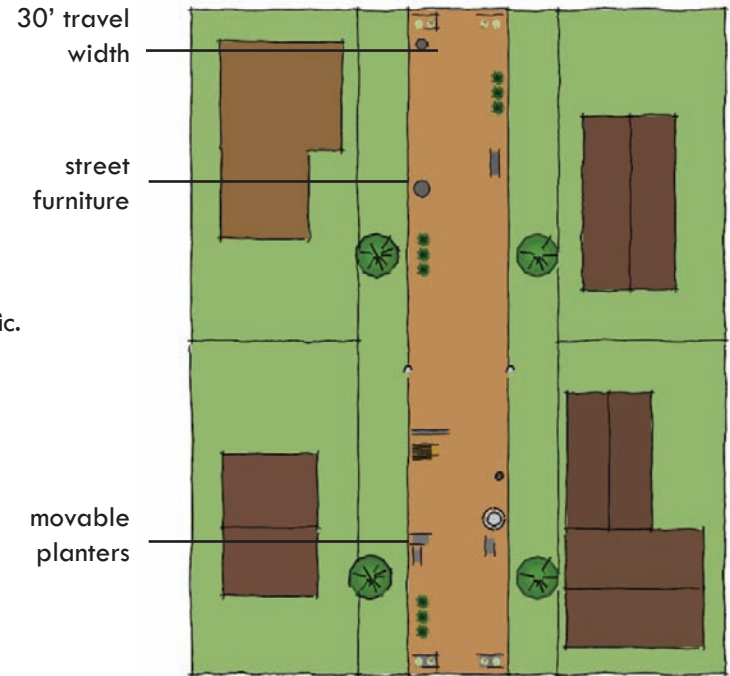
*Multi-purpose courtyard space, hardscaped with colored asphalt, that prioritizes pedestrian use and includes significant traffic calming elements.*

The purpose of a Shared Court is to encourage active use of the street as a shared community space designed to accommodate a variety of transportation modes, while deterring through traffic.

## CONSIDERATIONS:

- » Recommended to include grading of surface and installation of 6" of gravel and 2" of pavement to increase durability and reduce ongoing maintenance
- » Requires collaborative decision-making about funding, maintenance and use of the space, and may be better achieved at a neighborhood scale
- » Design works well with adjacent commercial uses (i.e. sidewalk café)
- » Including drive access may be necessary on some streets

**CAUTION!** The City of Portland's Expanded Maintenance Options do not currently allow for the installation of traffic calming devices. Placing furnishings in the travel zone may violate the Expanded Maintenance Options and the City's encroachment policies. Currently, the City of Portland enforces these policies on a complaint basis, so if someone were to submit a complaint about furnishings located in the ROW, the City could tell you to remove these objects.



## ADVANTAGES:

- » Provides access for all modes, but deters through traffic
- » Accommodates bicycles and strollers
- » Creates open space for community interaction
- » Adds aesthetic value
- » Encourages low vehicle speeds and discourages through traffic

## DISADVANTAGES:

- » Potentially alters drainage patterns
- » Current conditions may necessitate engineering analysis
- » Requires maintenance (every few years)
- » Requires City permit with no evidence of previous asphalt
- » Will not be maintained by City

## MATERIAL COST ESTIMATE: \$17,134

- » Gravel subgrade: (6,000 SF gravel/6" depth): \$3,552
- » Travel lane (6,000 SF or 55.5 CY of colored, stamped asphalt): \$12,640
- » Planters, tables, & salvaged furnishings: \$500
- » Garden treatments: \$250
- » Grass seed (60 lbs.): \$192

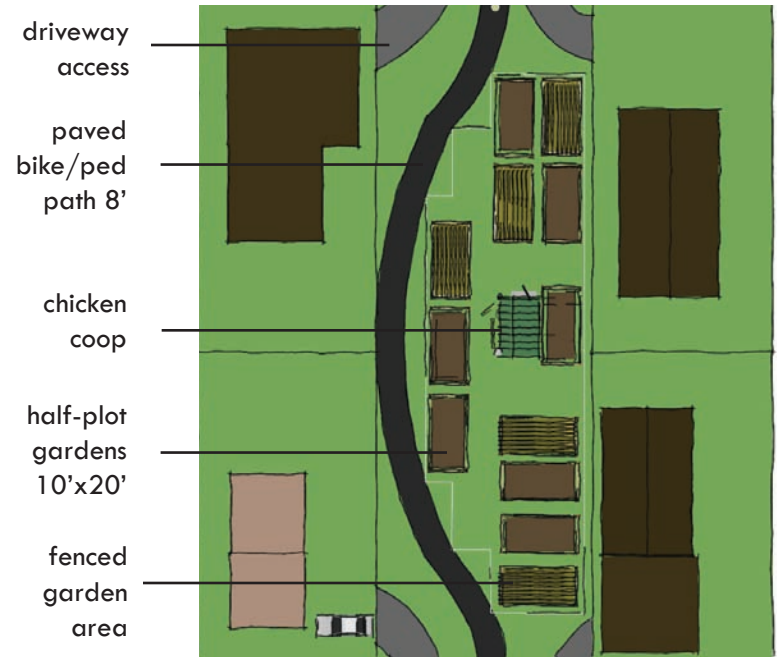
# Community Garden

*Repurposing of entire right-of-way for garden space, with paved pedestrian and bicycle facilities*

Both Woodstock and Portland as whole have expressed demand for community garden space. Under-developed rights-of-way (ROWs) offer an opportunity to create gardens, while increasing bicycle and pedestrian connectivity and aesthetic value.

## CONSIDERATIONS:

- » Requires sun exposure, which design should take into account
- » Most suitable for streets currently lacking vehicle access
- » Potential conflicts between public use of right-of-way and private residential uses
- » Requires high degree of organization and collaborative decision-making about funding, maintenance, and use of space
- » Design should consider accessibility to neighboring properties
- » Potential coordination with City (Parks & Recreation/Bureau of Transportation)



## ADVANTAGES:

- » Engages people with nature and outdoor activity
- » Creates space for social interaction
- » Accommodates bicycles, strollers, and wheelchairs
- » Adds aesthetic value (neighborhood character)
- » Increases local food production

## DISADVANTAGES:

- » No vehicle connection or on-street parking

## MATERIAL COST ESTIMATE: \$21,400

- » Bicycle/Pedestrian Path (1,700 SF porous pavement): \$11,050
- » Mulch for garden area (3,825 SF/23 CY): \$2,530
- » Garden plots (five 10x20' standard plots x \$120/each): \$600
- » Chicken coop (x1): \$300
- » Chickens (3/household x 4 households): \$180
- » Compost bins (x4): \$160
- » Bollards (2 permanent "Type III" barricades): \$820
- » Chain-link security fence (392 linear feet): \$5,760

Of all nine concepts in the Toolkit, the Community Garden concept was the most popular concept at the Roadway Not Improved open house in the Woodstock neighborhood.





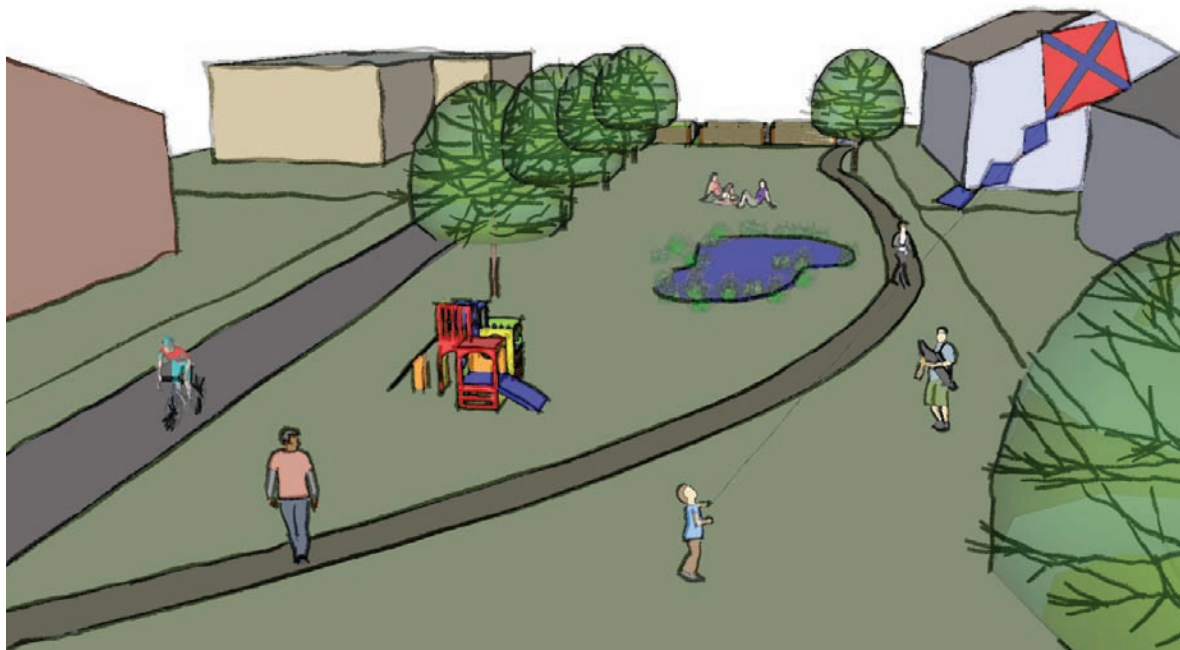
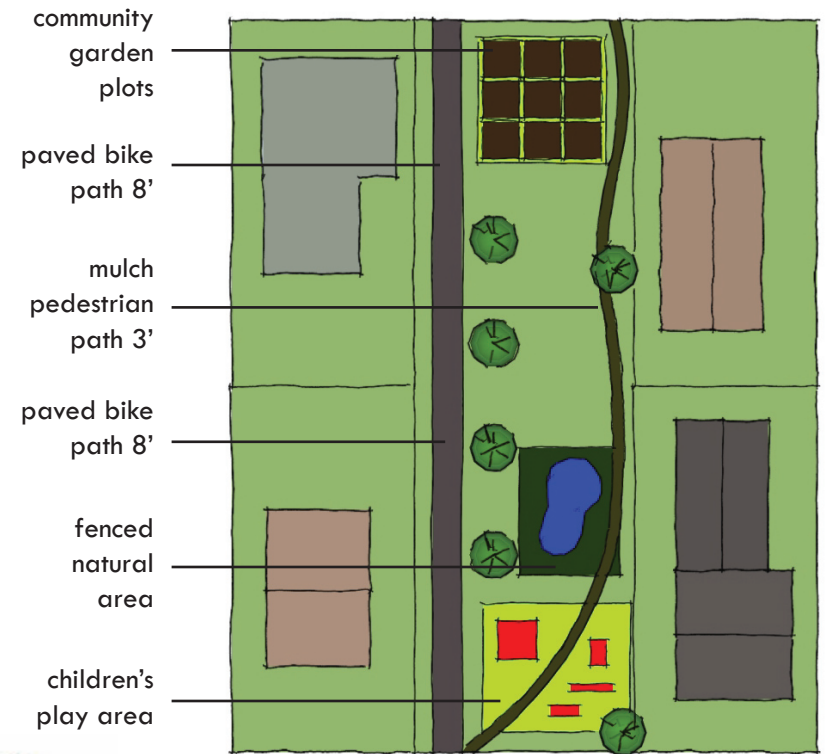
# Linear Park

*Re-purposing of entire right-of-way to public green space, with paved pedestrian and bicycle facilities*

The Linear Park concept is geared toward rights-of-way (ROW) that are not necessary for connectivity purposes. Many developed neighborhoods of Portland have been identified as park deficient. Transforming unimproved ROW segments into parks can create neighborhood open space while still providing bicycle and pedestrian connectivity.

## CONSIDERATIONS:

- » Most suitable for streets that do not currently have vehicle access
- » Potential conflicts between public use of ROW and residential uses
- » Requires collaborative decision-making about funding, maintenance and use of the space, and may be better achieved at a neighborhood scale
- » Requires coordination with City (Parks and Recreation and/or Bureau of Transportation) or other organization for maintenance and liability responsibilities
- » Future changes to surrounding properties may require vehicle access



## ADVANTAGES:

- » Creates space for social interaction and recreation
- » Increases natural amenities
- » Adds aesthetic value
- » Accommodates bicycles and strollers

## DISADVANTAGES:

- » No vehicle connection or on-street parking

## MATERIAL COST ESTIMATE: \$9,048

- » Subgrade for 8' bike lane (1,600 SF): \$447
- » Paved 8' bike lane (1,600 SF): \$2,164
- » Mulch for pedestrian path (650 SF): \$440
- » Wood chips (1,600 SF play area): \$990
- » Grass (5,450 SF): \$174
- » Chain-link fence (144 linear feet): \$2,117
- » 10'x10' garden plots (9 x \$60/each): \$540
- » Trees (6 x \$30/each from Friends of Trees): \$180
- » Children's play equipment: \$447



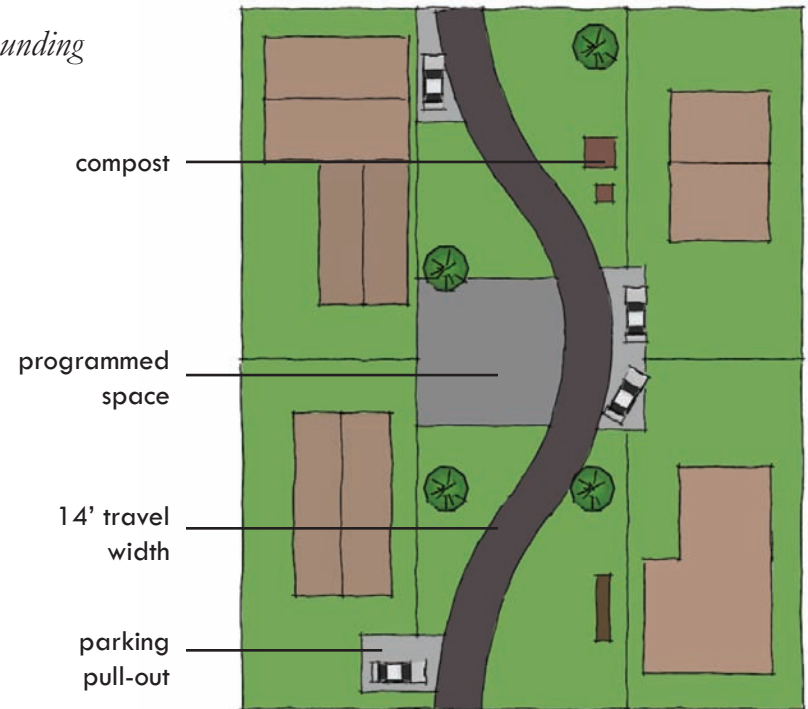
# Serpentine Street w/ green space

*Curving, single travel lane with surrounding ROW space occupied by coordinated community uses and open spaces*

The Serpentine Street concept could provide a solution for a right-of-way (ROW) that has a tree growing in the area where the vehicle path would otherwise be located. The curves of a serpentine street may make construction more difficult, but could serve as a traffic calming device. The street provides multi-modal access and opportunity for flexible or programmed space of the remaining right-of-way.

## CONSIDERATIONS:

- » Could be tailored to existing conditions, accommodating driveways and existing travel areas
- » Inclusion of recreational facilities could create liability concerns
- » Requires collaborative decision-making about funding, maintenance and use of the space
- » Most suitable for streets with little elevation change, and clear visibility
- » Costs could vary considerably, depending on selected materials and amenities
- » Potential for coordination with City on pilot project



## ADVANTAGES:

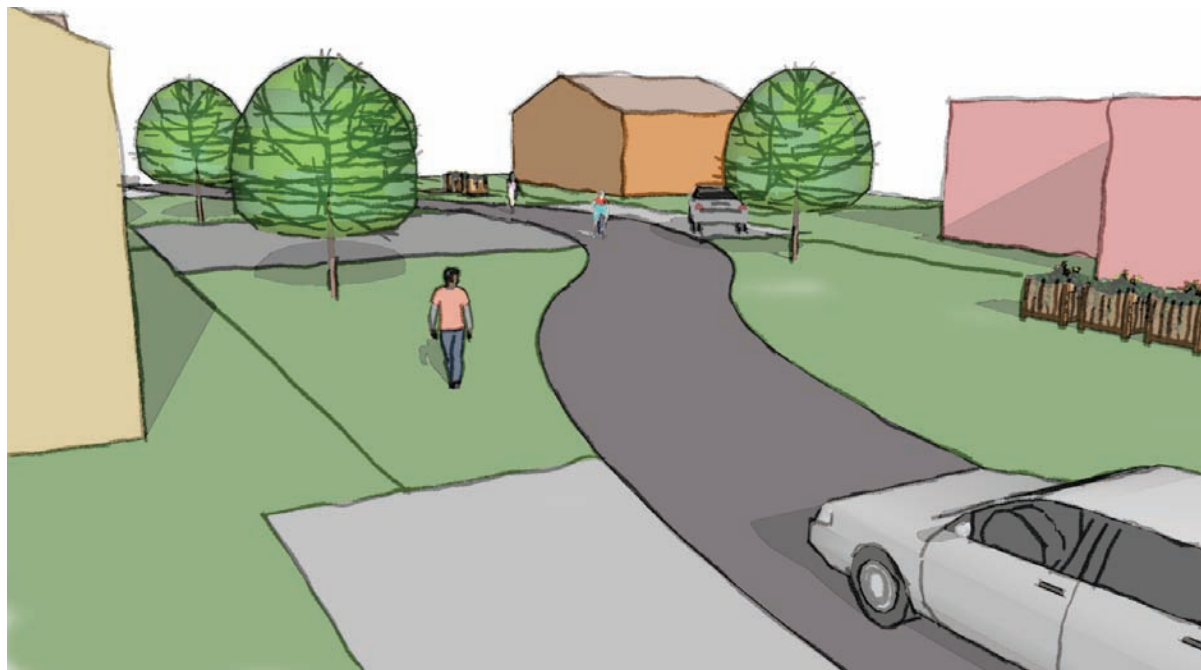
- » Responds to existing conditions of the ROW, such as a tree planted in the middle of the space
- » Provides access for all modes
- » Adds aesthetic value
- » Encourages low vehicle speeds and discourages through traffic
- » Creates a more intentional, coordinated, shared use of the ROW

## DISADVANTAGES:

- » Only allows for passage of a single vehicle, requiring full visibility from roadway entrance
- » Would require significant legwork to gain city approval

## MATERIAL COST ESTIMATE: \$17,118

- » Subgrade: \$1,728
- » Travel lane (2,900 SF of asphalt/3" depth): \$6,150
- » Flexible courtyard space (1,800 SF concrete): \$9,120
- » Trees (4 x \$30/each from Friends of Trees): \$120





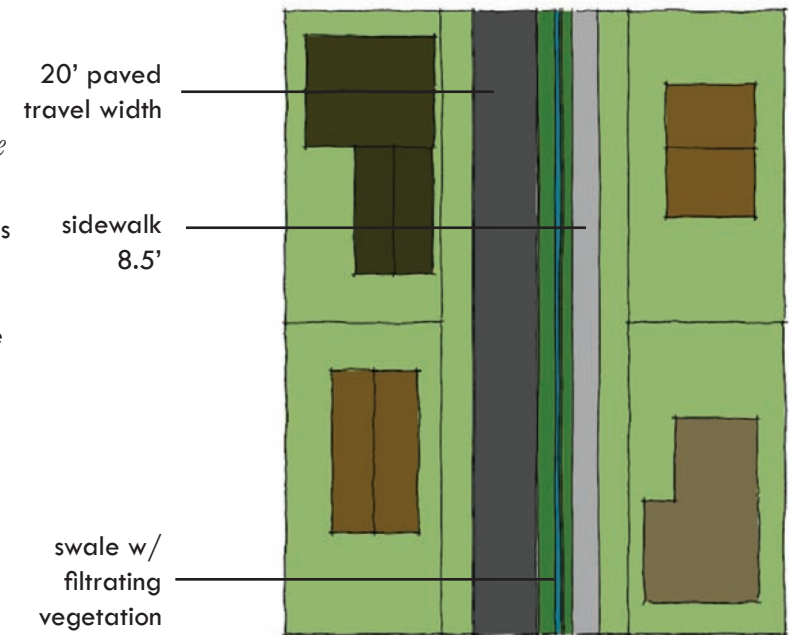
# Shed Street

*Two-lane paved vehicle pathway with a curb and parking on one side and a sidewalk and stormwater management facility on the other side*

Shed streets are traditionally used in areas where the right-of-way width is constrained. This concept allows for an efficient provision of stormwater facilities and pedestrian amenities on streets with an existing cross-slope for which sidewalks on both sides of the street are unnecessary. Paved shed streets with a flush curb and sidewalk on one side of the street are eligible for adoption by the City for maintenance and liability.

## CONSIDERATIONS:

- » Most suitable for street that has an existing cross-slope, where engineering costs may be lower (otherwise, cost may be equivalent to cost of full improvement to City standard)
- » From the standpoint of the City, most acceptable in situations where pedestrian access is not necessary on both sides of the street (such as when no homes on that side of the street face onto the street).
- » Requires collaborative decision-making about funding, maintenance and design
- » Asymmetrical design could create challenges for building consensus



## ADVANTAGES:

- » Provides designated pedestrian area separated from vehicle lanes
- » Accommodates bicycles and strollers
- » Provides stormwater management
- » Potential adoption by the City for future maintenance

## DISADVANTAGES:

- » Enables high vehicle speeds
- » Potentially expensive, due to engineering costs
- » Limits pedestrian access to one side of street

## TOTAL COST ESTIMATE: \$59,918

- » Subgrade (4,000 SF): \$1,564
- » Travel lane (4,000 SF): \$5,238
- » Sidewalk (1,700 SF): \$10,200
- » Curb & curb cuts: \$6,100
- » Bioswale (2,300 SF): \$23,000
- » Seeds, fertilizers, & mulch: \$976
- » Street trees (10 from City of Portland): \$3,700
- » Labor: \$4,062
- » Contingency: \$5,078



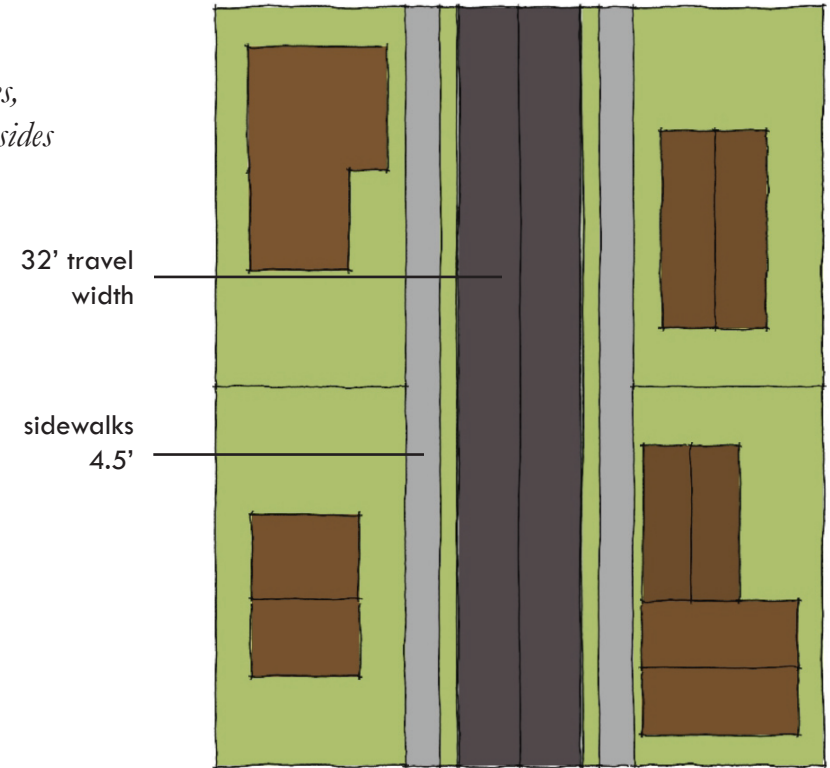
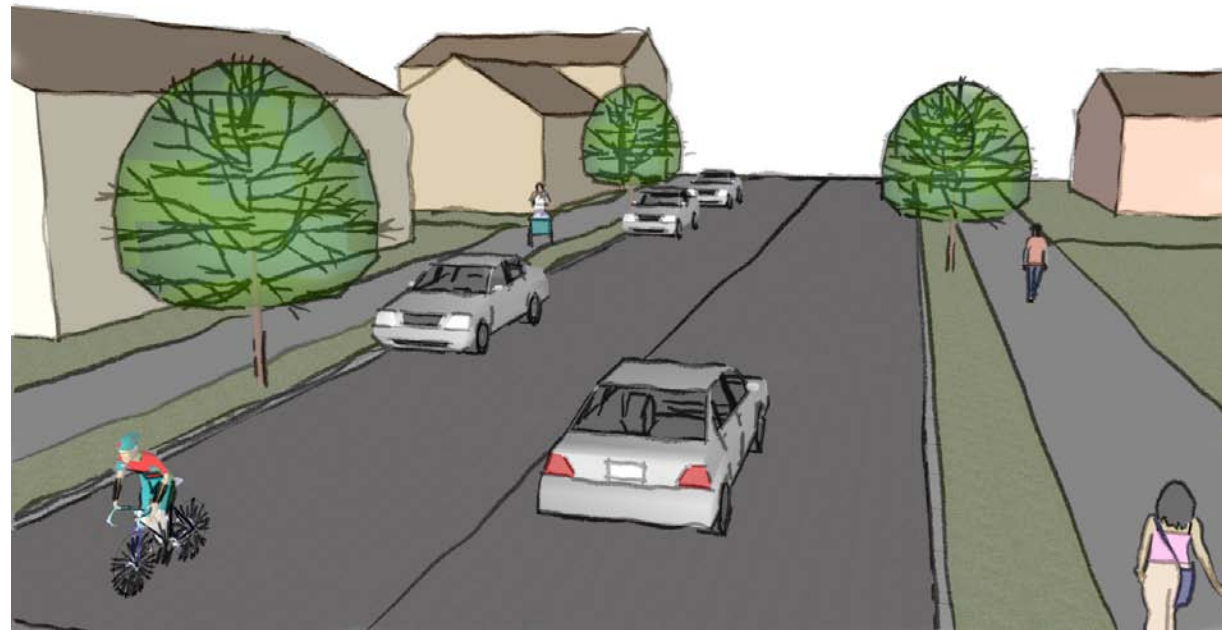
# Standard Improvement

*Fully paved street with two vehicle lanes, parking, curbs and sidewalks on both sides*

The Standard Improvement concept brings unimproved streets up to the conditions necessary for the City to accept the street for maintenance. It improves the overall grid structure of city streets, increases connectivity for all modes, and provides a predictable process for planning and implementation.

## CONSIDERATIONS:

- » Requires engineering and coordination with the City
- » City inherits full maintenance and liability responsibilities
- » City responsible for minimum lighting requirements once a street is fully improved
- » Street trees in planting strip included in standard improvement
- » Not effective at increasing connectivity if surrounding streets are unimproved



## ADVANTAGES:

- » Increases connectivity for all modes
- » Creates designated pedestrian zone
- » Meets ADA standards
- » Maintained by the City after completion
- » City will install street trees and lighting
- » Creates neighborhood street uniformity
- » Dust control

## DISADVANTAGES:

- » Cost-prohibitive for many community members
- » Possibility of increased traffic
- » Very little flexibility in design
- » Environmental impacts (impervious surface)
- » Eliminates "country lane" appeal

**TOTAL COST ESTIMATE: \$80,000-\$120,000**  
(includes planning, engineering, and construction)

## PHASED APPROACH

If standard improvement is a long-term goal but presently unattainable, it is possible to make incremental improvements that can eventually be fully improved at a later time. Below is an example of a three-step approach to achieving city standard improvement.

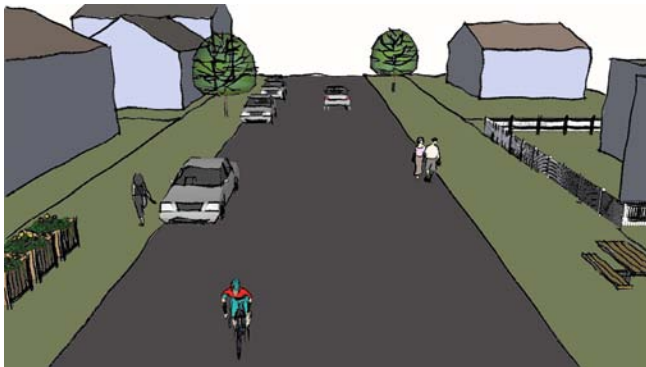
1



### GRADE & GRAVEL

The roadway is graded and graveled, providing an even and durable driving surface. If a sufficient layer of gravel is applied (about 6”), the gravel could later transition to being the base layer of the paved surface.

2



### PAVEMENT

Next, a basic layer of pavement (3” recommended) could be applied to increase connectivity while still maintaining an incremental approach to investment.

3



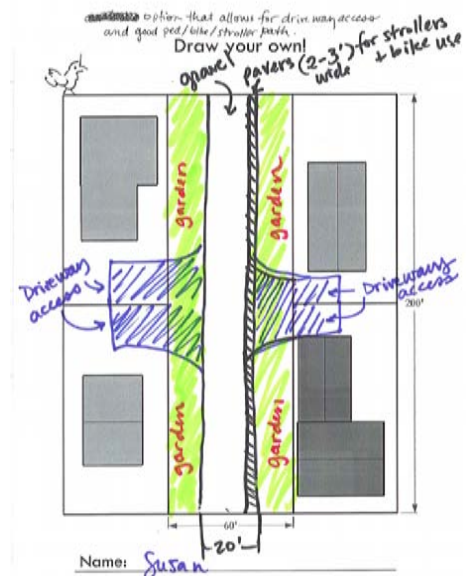
### CURBS, SIDEWALKS, & STREET LIGHTS

Finally curbs, and sidewalks could be added if property owners wish to make a standard improvement to have the street adopted for maintenance. Once the street is formally adopted by the city for maintenance, street trees and lighting can be requested from the City.

# City Permit or Process for Each Concept

The Portland Bureau of Transportation (PBOT) is the first place you will want to call with questions about a project on an unimproved street. While some of the design concepts fall under existing PBOT policies and programs, others would need to be evaluated on a case-by-case basis.

DESIGN CONCEPT	PERMIT/PROCESS
DIY STREET	No permit necessary as long as the project falls under PBOT's Expanded Maintenance Options.
GRAVEL	No permit necessary as long as the project falls under PBOT's Expanded Maintenance Options.
INTERIM PAVEMENT	No permit necessary as long as evidence of past pavement can be found (see PBOT's Expanded Maintenance Options)
SHARED COURT	The City of Portland's Expanded Maintenance Options do not currently allow for the installation of traffic calming devices. Placing furnishings in the travel zone may violate the Expanded Maintenance Options and the City's encroachment policies. Currently, the City of Portland enforces these policies on a complaint basis, so if someone were to submit a complaint about furnishings located in the ROW, the City could tell you to remove these objects.
COMMUNITY GARDEN	Would be evaluated on a case-by-case basis by the City but is most likely to be considered appropriate if no vehicle access currently exists on the street, and if the street does not play an important role in neighborhood connectivity.
LINEAR PARK	Would be evaluated on a case-by-case basis by the City but is most likely to be considered appropriate if no vehicle access currently exists on the street, and if the street does not play an important role in neighborhood connectivity.
SERPENTINE STREET	Could potentially fall under the Expanded Maintenance Options, if past evidence of pavement can be found, and if the proposed roadway follows the same path as the current roadway. Many unpaved streets are currently curvilinear because of natural constraints (such as trees).
SHED STREET	Could be pursued through a permit or a Local Improvement District (LID).
STANDARD IMPROVEMENT	Could be pursued through a permit or a Local Improvement District (LID).









# 5 Decision-Making

The process of assessing the street, evaluating capacity, considering criteria, and weighing the costs and benefits of alternative designs can help you and your neighbors to develop a shared frame of reference for thinking about the right-of-way. Although you might not agree about everything, you may be able to come to an agreement about a cooperative course of action.

**Y**ou and your neighbors have assessed the existing condition of the street, discussed your interests and identified opportunities, and considered design criteria and alternative design concepts. After reviewing all of these considerations, you will want to revisit your initial assessment of likes/dislikes to see if anyone's opinions have changed as a result of your conversations. Members of the group may not agree about everything, but the participatory process you've undergone will help to create a shared frame of reference for talking about the street.

The outcome of your conversation with neighbors could take a variety of forms, ranging from simply raising awareness of issues in the ROW to developing a plan for collaborative improvements or maintenance. It's important to remember that households along your block may have differing abilities to contribute time, resources, or funding. There may be alternative strategies for aligning the capacity of your group around common interests to create a plan for action.

## STEPS FOR MAKING A DECISION

- 1 Make a list of **common interests**; things group members generally agree about (likes/dislikes of the status quo, desires for the future of the ROW).
- 2 Use this list to develop **criteria for making a decision** (costs, maintenance considerations, impacts to individual property owners, environmental impacts, etc.).
- 3 Evaluate the **costs and benefits** of alternative options that appeal to the group.
- 4 Select a **preferred course of action**. If all participants don't agree, brainstorm opportunities for compromises that would meet everyone's needs.

## MAINTENANCE AGREEMENTS

Regardless of the scope of the project, unless you are implementing a full street improvement and handing the street over to the city for maintenance, you will need to come up with a plan for how the street will be maintained. In making this decision, there needs to be agreement among neighbors about how much work and money people are willing to invest in the project on a prolonged basis.

A maintenance agreement is a useful tool to have in place if you want to establish clear expectations among property owners. A maintenance agreement will contain a few general items including:

- » Legal description of properties sharing maintenance responsibility for the street segment
- » How responsibility for repairs is to be shared by the parties
- » How the parties will share monetary costs
- » Consequences for non-participation and maintenance

A maintenance agreement may or may not be legally binding. For the purposes of community based street improvement projects, maintenance agreements are most useful in providing a clear guide to neighborhood expectations for the unimproved street project.

### Possible Scales of Collaboration on an Unimproved Street



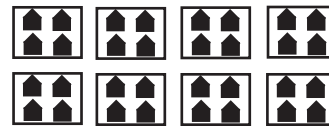
#### INDIVIDUAL PROPERTY OWNER

As individuals, property owners can maintain the portion of the street adjacent to their property, and they can monitor the use of that space.



#### BLOCK

More significant changes to the street require the agreement or collaboration of multiple property owners along the street segment.



#### CORRIDOR

In some cases, it may make sense for property owners on consecutive blocks to work together to implement consistent changes to the street.



#### NEIGHBORHOOD

A neighborhood-scale approach may be the best way to identify improvement priorities and alternative ROW uses that could benefit the community as a whole.

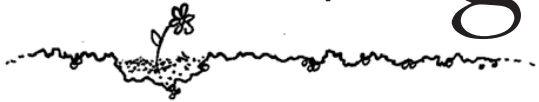


#### PARTNERSHIP WITH CITY

For special projects such as community gardens or neighborhood greenways, there is potential for neighborhoods to partner with the City.



# Neighborhood Approach



A neighborhood approach to unimproved streets could help to balance connectivity and traffic-calming goals, in addition to mobilizing a larger pool of resources and generating momentum around the issue.

In addition to working with neighbors on an individual block, some neighborhoods with a significant concentration of unimproved streets, such as Woodstock, could explore opportunities for a neighborhood scale approach to unimproved street. Led by a neighborhood association committee, this effort could help to promote coordination among property owners to ensure that decisions made on individual blocks support the larger connectivity needs of the neighborhood.

A neighborhood association could help residents to explore neighborhood-wide collaboration around unimproved streets by serving as a clearinghouse for information about current conditions, pursuing grants and public funding, pooling neighborhood resources, and exploring strategic approaches to planning, funding, and implementation of projects.

# Neighborhood Circulation Assessment

## TRAFFIC VOLUMES

- » Where does it occur?
- » At what hours?
- » Who causes it?

## UNIMPROVED STREETS

- » How many streets are unimproved, and where are they located?
- » In what locations and directions would the neighborhood benefit from increased connectivity?

## TRANSIT ACCESS

- » In what locations do unimproved streets impede pedestrian connections to transit stops?

## INTERSECTIONS

- » Are there any locations in which two unimproved streets intersect?

## STREETS WITHOUT VEHICLE ACCESS

- » What areas present opportunities for prioritizing the pedestrian environment and limiting vehicle access?
- » What streets might experience increased traffic as a result?

## WALKABILITY & PEDESTRIAN SAFETY

- » How accessible is the neighborhood by foot?
- » Are there particular areas where you feel unsafe walking?
- » What kind of pedestrian infrastructure is present along routes to schools?
- » How much traffic is typically present on school routes during drop-off/pick-up times?

## BICYCLE FACILITIES

- » What bicycle facilities currently exist or are planned in the neighborhood?

## STREET FURNITURE & LIGHTING

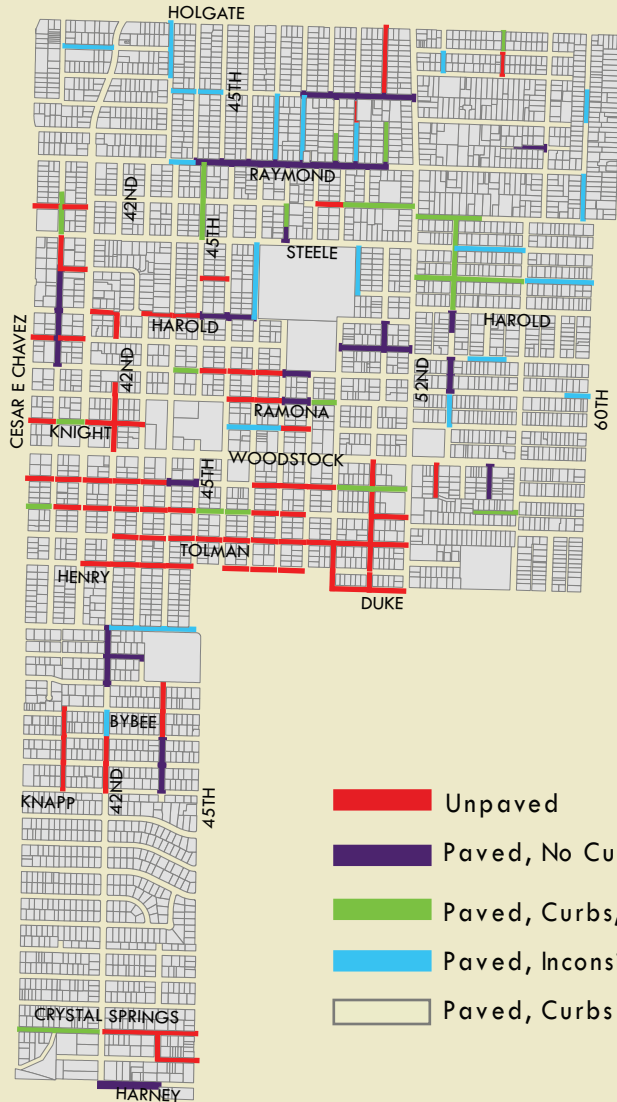
- » Where are street furniture (benches, bus shelters, water fountains, etc.) and lighting currently located throughout the neighborhood?
- » Are there areas where these amenities are currently missing and would be useful?

# UNIMPROVED STREETS INVENTORY & CIRCULATION ASSESSMENT

An unimproved streets inventory and a neighborhood circulation assessment can lay the foundation for a more systematic, neighborhood approach to unimproved streets. By assessing how the neighborhood's streets function as a whole, the community may be able to identify some streets that are not necessary for connectivity purposes and might be able to serve as community assets for non-transportation purposes.

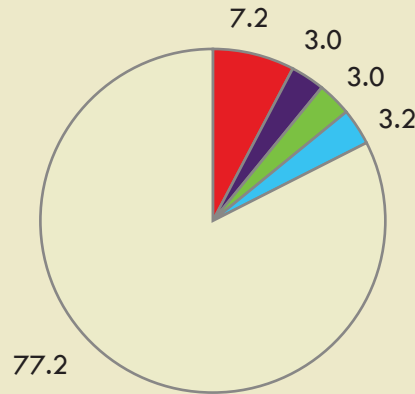
Recruiting neighborhood residents to participate in the data gathering effort can help to generate community momentum. The data can also be a useful tool in advocating for support from the City for street project. A neighborhood circulation assessment can also serve as a first step for discussing fair funding mechanisms for street improvements that benefit residents beyond the immediate property owners on that block.

# Results of a Street Inventory in Woodstock



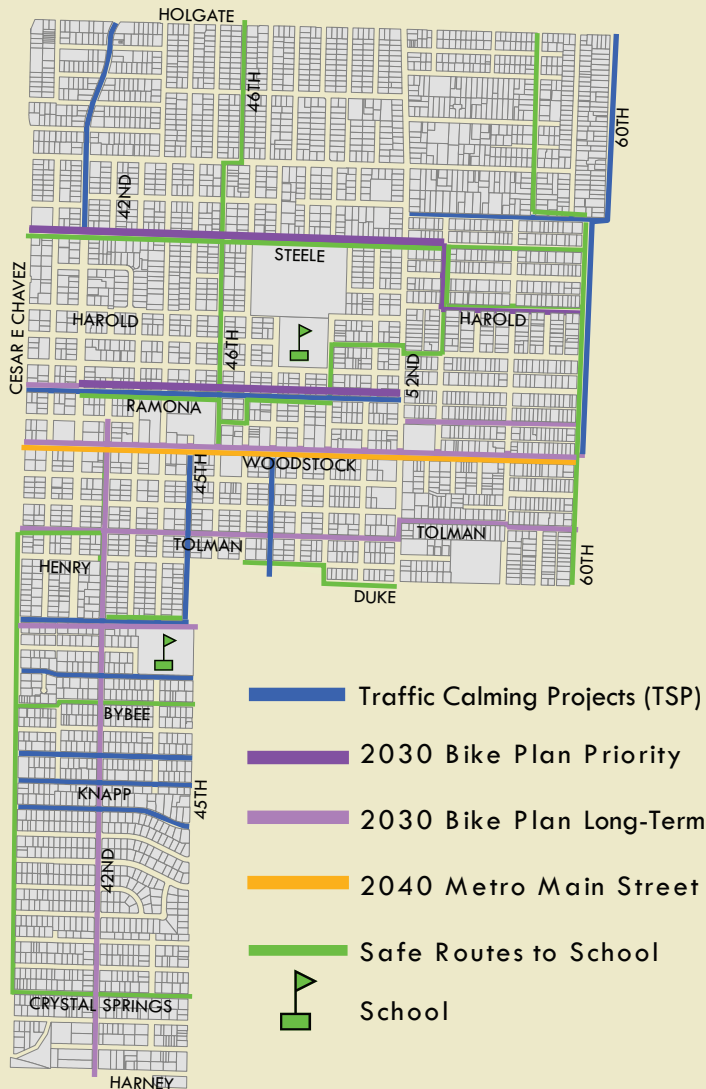
The *Roadway Not Improved* inventory of unimproved streets in Woodstock revealed a high degree of variation in the characteristics of neighborhood streets. By classifying streets based on the presence/absence of pavement, curbs, and sidewalks, four different categories of non-standard streets were identified. A comprehensive inventory of unimproved streets is a useful tool for identifying what areas are most critical for connectivity throughout the neighborhood.

STREET LENGTH (IN LANE MILES)



Approximately 8% of Woodstock streets are unpaved, with an additional 10% paved but lacking consistent curbs or sidewalks. The high clustering of unpaved streets south of Woodstock Blvd. presents an opportunity for multiple blocks to work together to implement projects at a corridor scale. If neighbors could agree to improve connectivity along one of these east-west routes, it could take the pressure off parallel routes to pursue conventional street improvements.

## Infrastructure Plans in the Woodstock Neighborhood



## “HALO” LID

While the Local Improvement District (LID) mechanism of funding street improvements has historically been mainly used for projects on individual blocks, it is possible to form an assessment district that covers a larger area, if the majority of property owners are in support. This is referred to as a “halo” LID. The City of Portland has tried to facilitate halo LIDs in some areas of Portland, but has had very little success convincing residents that don’t live alongside the proposed improvements that paying higher taxes for improved connectivity is worth their while. In order for a halo LID to be politically feasible, community members need to be in agreement about the collective benefits that will be created through the proposed improvements. Generating this kind of buy-in would require significant community outreach and information campaigns.

## EXTERNAL FUNDING

Neighborhood associations may be able to leverage external funding for projects, either through advocating for the City to prioritize projects on unimproved streets, or by applying for grants.

### Infrastructure Plans

Unimproved streets present opportunities for the City to implement pilot projects that explore alternative street designs. In many cases, retrofitting already improved streets to experiment with alternative designs could be more expensive than implementing the same project on an unimproved street, which requires no removal of existing infrastructure. In some cases, unimproved streets may present barriers for the implementation of citywide plans; in such situations, community members may be able to leverage city funding for improvements.

### Apply for Grants

Neighborhood associations could help facilitate grant proposals for projects on unimproved streets. The following pages provide tips for applying for grants, as well as some funding opportunities available as of the production of this Toolkit.

Applying for a grant requires careful planning and preparation, as well as balanced patience and persistence. Plan well in advance of the deadline to write your application components and also gather additional research. Make sure you have allotted time for

preparation to organize your thoughts and make sure to pay attention to detail and specifications of the grant instructions. If the grant has a specific deadline and timeline for when they will respond to applicants, be patient in waiting for a reply. A follow-up letter is generally well received if you do not hear back from the organization. Grant programs change frequently, so be sure to do your own search for grants that may apply to your project.

All grant processes vary so be sure you visit the organization's website for specific details. For open grants, or those reviewed on a rolling basis, the process is generally started with a letter of inquiry. In a process with a set deadline, components may include a cover letter and/or a budget for how you would allocate the grant.

### **Local Organizations**

There are a number of local organizations that may be interested in providing resources or assistance for various types of street projects. For example, City Repair sponsors community projects that incorporate ecological and placemaking elements.

### **Basic Components of a Letter of Inquiry**

- » Introduce your organization, problem/situation
- » The purpose of your proposed project and how it will address a problem of relevance to the grantmaking organization
- » Grant amount being requested and how your request/project fits the grant makers funding requirements
- » Matching or other funds you have identified (this can be used to demonstrate community support)
- » Proposed project budget and time frame (be as specific as possible and try to include dates)

### **Basic Components of a Grant Proposal**

- » Summary of proposal
- » Assessment of need demonstrating the problem/situation, opportunity for change, and community support
- » Project specifics including anticipated outcome and accomplishments in measurable terms, and how it matches the grantmaker's funding requirements
- » Description of the process that will be used to achieve the outcome anticipated, and how you will evaluate progress
- » Detailed budget/funding requirements including committed matching funds and a long-term funding plan



## Current Grant Opportunities That May Apply to Unimproved Streets

	<b>ORGANIZATION/PROGRAM</b>	<b>MISSION</b>
<b>LOCAL:</b>	NATURE IN NEIGHBORHOODS (METRO)	A regional initiative focused on restoring and protecting the region's natural assets. Neighborhoods and community groups, nonprofit organizations, schools, cities, counties and public park providers are invited to apply for grants for projects that re-green and increase natural areas in neighborhoods. <a href="http://www.oregonmetro.gov/index.cfm/go/by.web/id=18203">http://www.oregonmetro.gov/index.cfm/go/by.web/id=18203</a>
	JUBITZ FAMILY FOUNDATION	The Jubitz Family Foundation mission is "to enhance the communities in which we live by strengthening families, by respecting the natural environment, and by fostering peace." The foundation generally funds non-profits or community organizations in the three focus areas of family, environment, and peacemaking. <a href="http://jubitzff.org/">http://jubitzff.org/</a>
	TRUST MANAGEMENT SERVICES, LLC	Trust Management Services funds non-profit organizations (NPOs) throughout Oregon, by seeking grant applications with an emphasis on education, community service, cultural, youth activities and/or historical preservation. <a href="http://www.trustmanagementservices.net">http://www.trustmanagementservices.net</a>
	REGIONAL ARTS & CULTURE COUNCIL (RACC)	Works to integrate arts and culture into community life in the Metro Region through vision, leadership, and service, and provides grant awards up to \$6,000 in support of non-profit organizations and individual artists in three categories: Artistic Focus, Community Participation and Arts-In-Schools. Community Participation project grants proposals should focus on projects that involve direct community participation and "impact a variety of citizens by helping to provide them with a greater sense of self, family, community and place." <a href="http://www.racc.org/grants/project-grants">http://www.racc.org/grants/project-grants</a>
	BUREAU OF ENVIRONMENTAL SERVICES COMMUNITY WATERSHED STEWARDSHIP GRANT	Provides funds up to \$10,000 for projects that encourage enhancement and protection of watersheds in Portland. Demonstrate support for your project, as well as applications showing commitment to continued maintenance of the project site or area and favored. You must have a fiscal sponsor to apply for this type of grant. Contact your neighborhood coalition to see if they would serve as your fiscal agent to handle city funds. <a href="http://www.portlandonline.com/bes/index.cfm?c=43077">http://www.portlandonline.com/bes/index.cfm?c=43077</a>
	BUREAU OF ENVIRONMENTAL SERVICES NATIVE PLANT MINI-GRANT	Under the umbrella of the Community Watershed Stewardship Grant Program, The Bureau of Environmental Services (BES) offers \$300 grants for native plant restoration in the Portland area. All plants purchased must be native to the Willamette Valley and found on the Portland Plant List, available at <a href="http://www.portlandonline.com/bps/pdxplantlist">www.portlandonline.com/bps/pdxplantlist</a> . <a href="http://www.portlandonline.com/bes/index.cfm?c=51706&amp;">http://www.portlandonline.com/bes/index.cfm?c=51706&amp;</a>
	CITY OF PORTLAND NEIGHBORHOOD SMALL GRANTS PROGRAM	The Neighborhood Small Grants Program provides \$178,831 in small grants distributed through Portland's seven neighborhood district coalitions. Grant projects are selected based on their ability to provide neighborhoods opportunity to build community, sustain involvement, and attract new and diverse members. <a href="http://www.portlandonline.com/oni/index.cfm?c=43120">http://www.portlandonline.com/oni/index.cfm?c=43120</a>
<b>NATIONAL:</b>	BEN & JERRY'S FOUNDATION NATIONAL GRASSROOTS GRANTS	Supports grassroots, non-profit organizations aligned with social justice, environmental protection, and sustainable food systems with grants of \$15,000 for a single year. <a href="http://www.benandjerrysfoundation.org/what-we-do.html">http://www.benandjerrysfoundation.org/what-we-do.html</a>
	GARDENBURGER COMMUNITY GARDEN GRANTS	Supports community garden projects, such as Buffalo ReUse, a demolition company working to transform vacant lots into pocket parks and community gardens. <a href="http://www.gardenburger.com/Grants.aspx">http://www.gardenburger.com/Grants.aspx</a>

## Organizations



### CITY REPAIR

City Repair focuses on organized group action that educates and inspires communities and individuals to creatively transform the places where they live through artistic and ecologically oriented placemaking projects. City Repair completes many placemaking projects through the Village Building Convergence, where people gather once a year to perform intersection repairs.

<http://cityrepair.org/>



### DEPAVE

DePave, a project of City Repair, is a hub of resources created to inspire and promote the removal of unnecessary concrete and asphalt from urban areas.

<http://depave.org/>



### NEIGHBORHOOD SCHOOLS

An unimproved street segment can serve as a learning laboratory for students to study traffic safety and connectivity issues, native landscaping, and even edible gardening. Consider partnering with schools to help generate enthusiasm around the potential of unimproved streets.

<http://www.pps.k12.or.us/schools/index.htm>



### COMMUNITY CENTERS

Community Centers in neighborhoods throughout Portland serve as communication hubs for many neighborhood associations. Several neighborhood associations hold meetings at local community centers. You can organize projects such as clean-ups or repair days on unimproved streets, and post a request for volunteers at your local center.

<http://www.portlandonline.com/parks/index.cfm?c=39839>



### NEIGHBORHOOD COALITIONS & ASSOCIATIONS

Working with your neighborhood coalition or association could help draw attention to the condition of unimproved streets, and it could help individuals secure maintenance, labor, or even funding for improvements. Many coalitions have small grant funding available for community projects. Neighborhood associations can serve as a source for organizing a work party or identifying other individuals or blocks interested in street improvements.

<http://www.portlandonline.com/oni/search/>





## BARN-RAISING

A barn raising is a cooperative effort in which a community mobilizes to help an individual household build something in a single day. Barn-raising principles support community interdependence and cooperative ethics. Barn-raising were a central part of Colonial American life, and remain a lasting tradition in Amish communities. More recently, barn-raising principles have begun to be adapted by community development organizations.

In Cambridge, Massachusetts, a co-op called the Home Energy Efficiency Team (HEET) is coordinating weatherization barn-raising. In addition to mobilizing a volunteer effort, the process is intended to promote education about weatherization and give participants the tools they need to weatherize their own homes.

For unimproved streets, a barn-raising could mean mobilizing the knowledge, skills, and physical labor that exists within the community to accomplish a project on a single block. Projects could range from managing stormwater drainage to planting a garden in the ROW. By facilitating a program that encourages neighbors to work together on

unimproved streets, a barn raising approach could have a multiplier effect, helping to raise awareness and build momentum around street repairs, improvements, and placemaking efforts.

Schwarz, Jennifer. "Turning up the HEET: Environmental activists use 'barn-raising' party to weatherize homes and bring neighbors together." *The Boston Globe*. November 30, 2008. [http://www.boston.com/news/local/massachusetts/articles/2008/11/30/turning\\_up\\_heet/](http://www.boston.com/news/local/massachusetts/articles/2008/11/30/turning_up_heet/)

## CELEBRATIONS AND TEMPORARY TACTICS

Organize community projects and celebrations that help to raise awareness about unimproved streets in the neighborhood.

### *Organize a block party!*

The City of Portland encourages residents to plan and enjoy community celebrations. For more information about getting an event permit for a temporary street closure, visit: <http://www.portlandonline.com/transportation/index.cfm?c=38718&a=90017>

For creative ideas about how to build social connections in your neighborhood, check out the Neighbors Project: <http://www.neighborsproject.org/>



Pothole Gardens by Pete Dungey.  
<http://www.petedungey.com>

### *Create an intervention!*

There are many creative examples of projects people have undertaken to change the way people perceive and interact with streets.

For inspiration on guerilla tactics aimed at raising awareness, check out the following resources:

StreetsWiki - Guerilla Traffic Calming: <http://streetswiki.wikispaces.com/Guerilla+Traffic+Calming>

The Roadwitch Trial: <http://www.wormworks.com/roadwitch/index.html>

Mental Speed Bumps: <http://www.mentalspeedbumps.com/>

New Agrarian Center - Asphalt Gardening: <http://splashr.com/show/desktop/s-72157605285487102/>

Pothole Gardens: [http://www.petedungey.com/2010/project\\_pages/pothole\\_gardens.php](http://www.petedungey.com/2010/project_pages/pothole_gardens.php)

Pothole Art: <http://www.mypotholes.com/>



**“Advocacy represents the strategies devised, actions taken and solutions proposed to influence decision-making at the local & state level to create positive change for people and their environment.”**

Wisconsin Clearinghouse for Prevention Resources

You may want to push for changes in existing city policy in order to make policy more responsive to the changing needs of people who own property along unimproved streets. Being a strong advocate requires the ability to organize people around similar goals and values. The power of one person has little effect on large bureaucratic systems. The best way to be heard is to join forces with other like-minded individuals. Citizens speaking with a united voice to City Hall can help set the direction of policies and services so that they better meet the needs of citizens.

Remember: Advocacy is hard work, and it can take a long time to see results from your action. Pace yourself. Don't get discouraged if you don't see immediate results or feedback from elected officials and city employees. In a political system like Portland's, the patient and continually squeaky wheel gets the grease.

While persistence is key to effective advocacy, it is also important not to alienate your audience. Keep in mind that the city employees and politicians are also your neighbors too. If you maintain the willingness to work with people, not against them, your efforts will be more effective.

Finally, there are many great resources in Portland that offer support to neighborhood advocates. For example, the Portland Office of Neighborhood Involvement (ONI) works to bridge the gap between city government and citizens by providing resources to neighborhood associations and trainings that are open to the public.

For more information, visit <http://www.portlandonline.com/oni/>

## ADVOCACY, STEP-BY-STEP

- 1 **Start talking to people about unimproved streets.** Get involved with your neighborhood association and explore other community organizations. This is a great way to meet people who might have similar concerns and a desire for change.
- 2 **Once you have a group of interested people, craft a simply stated goal and message.** If your group wants more flexibility in maintenance regulations, make this the central message of your agenda.
- 3 **Create an elevator speech.** An elevator speech is what you would say to someone about your issue if you only had the time spent on an elevator to convince him or her that your issue is worthwhile. This will help the group deliver a concise simple message about your objectives based on your main goal.
- 4 **Leverage goals of existing long-range plans. Many plans, such as the Climate Action Plan and the Green Streets resolution, have objectives which are aligned with creative uses of unimproved streets.**

## Local Plans with Goals Relevant to Unimproved Streets

### PLAN

TRANSPORTATION SYSTEM PLAN (TSP)

SAFE ROUTES TO SCHOOLS

BICYCLE PLAN FOR 2030

GREEN STREETS

PORTLAND PLAN

CLIMATE ACTION PLAN (CAP)

PEDESTRIAN DESIGN GUIDE

### OPPORTUNITY

The TSP is the city-managed list of ranked transportation projects constructed as funding becomes available. Some projects fall on segments of unimproved streets and will be improved in the future. Citizens can lobby to get projects moved higher in rank.

Safe Routes to Schools promotes and creates programs which make walking and biking around neighborhoods and schools fun, easy, safe and healthy for all students and families while reducing reliance on cars. With flexibility in design, unimproved streets can be an asset in the creation of Safe Routes.

This plan is to increase use of bicycle transportation throughout Portland. Plan includes expansion of bikeways to 932 miles. Plan calls for a revision of the TSP list to include bikeway oriented projects. Some proposed projects fall on street segments of unimproved roadway. This plan may provide an opportunity to gain funding for significant bicycle improvements on unimproved streets.

The goal of the Green Street Policy is to promote and incorporate the use of green street facilities in public and private development. If unimproved streets are properly utilized, they can be an asset in the creation of more green streets throughout the city. Unimproved streets can be used as locations for green street pilot projects without the removal of existing infrastructure.

The Portland Plan is a 3-year process which is the first stage in re-writing the comprehensive plan which will guide planning, infrastructure and zoning in the city for the next 25 years. Within the current Portland Plan documents, there are many mentions of unimproved streets as both an opportunity and a problem. There have been no decisions about how to manage such streets in the long-term. The Portland Plan is an opportunity for citizens to create long-term creative solutions for unimproved streets and other infrastructure issues throughout the city.

Objectives of the Climate Action Plan include increasing walkability/bikability of neighborhoods, development of a funding mechanism to support investment in bike/walkability, reduction of vehicle miles traveled (VMT), expansion of urban forest canopy, expansion of local food growth and consumption. All of the CAP objectives can in part be met using space in unimproved streets.

The purpose of the Pedestrian Design Guidelines is to integrate a wide range of design criteria and practices which promote an environment conducive to walking. The Design Guide contains several criteria about the creation of paths in lieu of sidewalks. These guidelines are a useful source of information on the implementation of paths as an interim improvement in areas that lack sidewalks.

## TIPS FOR PUBLIC TESTIMONY

During Council session and in the other public meetings, there is often available time for public testimony. This is a good way to get the undivided attention of policy makers for a few minutes.

Be aware of upcoming hearings that might be related to infrastructure and transportation projects. If the Bureau of Transportation budget is being reviewed by City Council, this would be a good time for you to attend the hearing and testify if there is time available to the public.

Recommendations for strong public testimony include knowing your time limit, knowing your audience, and rehearsing what you will say before testifying. Have a prepared statement and practice it. Make sure to submit your statement to the record after testifying. Keep in mind time limits for public testimony. In general, each person is allowed 3 minutes to make a statement. The more concise you are with your statement, the clearer your message will be to decision makers.

Finally, remember your audience:

- » As elected officials, City Council members are very sensitive to public sentiment.
- » Planning Commission members are volunteers who are informed by their professional expertise in the fields like planning, design and real estate development.
- » City staff is bound by city regulations. City employees respond to clear statements about code, rather than emotional outcry.

## ROADWAY NOT IMPROVED FINAL REPORT

In addition to the Toolkit, the *Roadway Not Improved* project created a Final Report designed to provide municipal decision-makers with an understanding of issues relevant to unimproved streets. The Report provides information that would be useful for framing community advocacy efforts, including background about streets governing unimproved streets, context about the scale of the problem citywide. The Report contains a number of recommendations that could serve as the basis for advocacy efforts:

- » **Requesting periodic city-organized maintenance to unimproved streets.** This could include the provision of once-yearly gravel delivery to streets in need through a small fee or free service organized by neighborhood associations.
- » **Promoting unimproved streets as opportunity sites for infrastructure experimentation.** Unimproved streets can be used to test new kinds of community garden space, lower traffic streets and new stormwater practices. Unimproved streets can be used for pilot projects at relatively low cost with no loss to existing infrastructure.
- » **Pushing for more flexibility in the LID process to assist in building projects that will not be taken on for maintenance by the city.** The LID process could be used to construct more ambitious community based interim improvements.
- » **Requesting a change in funding policy to provide some portion of public funding to the construction of full**

**street improvements.** Although changes in funding will not occur for some time, making this a part of your appeal early on will keep the issue on the forefront of the minds of policy makers.

The *Roadway Not Improved* Final Report is available on the project website at [www.roadwaynotimproved.com](http://www.roadwaynotimproved.com).



# RESOURCES





# Directory of Resources

## CITY AGENCIES

Portland Maps: <http://www.PortlandMaps.com>  
PBOT: <http://www.portlandonline.com/transportation/>  
LID: <http://www.portlandonline.com/transportation/index.cfm?c=35715&a=82647>  
Encroachment: <http://www.portlandonline.com/transportation/index.cfm?c=38718&a=301520>  
BPS: <http://www.portlandonline.com/bps/>  
BDS: <http://www.portlandonline.com/bds/>  
BES: <http://www.portlandonline.com/bes/>  
Parks & Recreation: <http://www.portlandonline.com/parks/>  
Community gardens: <http://www.portlandonline.com/parks/index.cfm?c=39846>  
ONI: <http://www.portlandonline.com/oni/>  
Fire/EMS: <http://www.portlandonline.com/fire/>  
Police: <http://www.portlandonline.com/police/>

## CITY PLANS & PROGRAMS

Transportation Systems Plan: <http://www.portlandonline.com/transportation/index.cfm?c=52495&>  
Bicycle Master Plan: <http://www.portlandonline.com/transportation/index.cfm?c=44597>  
Green Streets: <http://www.portlandonline.com/bes/index.cfm?c=44407>  
Portland Plan: <http://www.portlandonline.com/portlandplan/>  
Climate Action Plan: <http://www.portlandonline.com/bps/index.cfm?c=49989&>

## CITY OF PORTLAND/METRO RESOURCES

### HOTLINES:

Abandoned Vehicle Hotline	503-823-6814
Animal Services	503-988-7387
Graffiti Hotline	503-823-4824
Noise Problems	503-823-7350
Nuisance Properties	503-823-7306
Non-Emergency Police	503-823-3333
Parking Patrol	503-823-5195
Traffic Control Problems	503-823-7233
Neighborhood Mediation (Northwest Solutions)	503-595-4890

### WEBSITES:

Neighborhood Organizations: <http://www.portlandonline.com/oni/search/>  
Block Parties: <http://www.portlandonline.com/ONI/index.cfm?c=33907>  
Street Lights: <http://www.portlandonline.com/transportation/index.cfm?c=47271>  
Neighborhood Clean-ups (Metro): <http://www.oregonmetro.gov/index.cfm/go/by.web/id=16383/level=2>

## LOCAL ORGANIZATIONS

City Repair: <http://cityrepair.org/>  
DePave: <http://depave.org/>  
Community Centers: <http://www.portlandonline.com/parks/index.cfm?c=39839>

## POTENTIAL FUNDING SOURCES

Metro Nature in Neighborhoods: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=18203>  
Jubitz Family Foundation: <http://www.jubitzff.org/>  
Trust Management Services: <http://www.trustmanagementservices.net/>

## BOOKS

Kaner, Sam. Facilitators Guide To Participatory Decision Making. ISBN #: 0865713472  
Johnston, Roderick. The Road Repair Handbook. ISBN #: 0-9719872-0-3

## LOCAL MATERIAL SOURCES

Grimm's Fuel Company: <http://www.grimmsfuel.com/>  
Hobbs & Hopkins: <http://www.protimelawncseed.com/>  
Cedar Grove Composting: <http://www.cedar-grove.com/>  
Portland Nursery: <http://www.portlandnursery.com/>  
The Rebuilding Center: <http://rebuildingcenter.org/>  
Oregon Decorative Rock: <http://www.oregondecorativerock.com/>

## BEST PRACTICES

Crime Prevention Through Environmental Design: <http://www.thecptedpage.wsu.edu/>  
The Neighbors Project: <http://www.neighborsproject.org/>  
Project for public spaces: <http://www.pps.org/>  
Seattle's SEA streets: [www2.cityofseattle.net/util/tours/seastreet/slide1.htm](http://www2.cityofseattle.net/util/tours/seastreet/slide1.htm)  
Context Sensitive Solutions: <http://www.contextsensitivesolutions.org>  
Living Streets: <http://www.livingstreets.org.uk>  
The Walkable & Livable Communities Institute: <http://www.wlkalive.org>  
Road Diets: <http://www.roaddiets.com>  
EPA Green Streets: [http://www.epa.gov/npdes/pubs/gi\\_arra\\_green\\_streets.pdf](http://www.epa.gov/npdes/pubs/gi_arra_green_streets.pdf)  
Chicago Green Alley Handbook: <http://csc.usc.edu/GreenAlleyHandbook.pdf>  
Urban Street Information: [http://www.urbanstreet.info/3rd\\_symp\\_proceedings/Shared-Use%20Streets.pdf](http://www.urbanstreet.info/3rd_symp_proceedings/Shared-Use%20Streets.pdf)  
Vancouver, BC Neighborhood Greenways: <http://vancouver.ca/engsvcs/streets/greenways/neighborhood/index.htm>

## CREATIVE IDEAS FOR RAISING AWARENESS

The Neighbors Project: [www.neighborsproject.org](http://www.neighborsproject.org)  
StreetsWiki - Guerilla Traffic Calming: <http://streetswiki.wikispaces.com/Guerilla+Traffic+Calming>  
The Roadwitch Trial: <http://www.wormworks.com/roadwitch/index.html>  
Mental Speed Bumps: <http://www.mentalspeedbumps.com>  
New Agrarian Center - Asphalt Gardening: <http://splashr.com/show/desktop/s-72157605285487102>  
Pothole Gardens: [http://www.petedungey.com/2010/project\\_pages/pothole\\_gardens.php](http://www.petedungey.com/2010/project_pages/pothole_gardens.php)  
Pothole Art: <http://www.mypotholes.com>





# Materials & Costs



## SURFACE MATERIALS

- Lawn/Turf Mix Grimm's Fuel Company \$28/Cubic Yard
- Grass Seed Hobbs & Hopkins \$10/2lb, \$20/5 lbs, \$160/50 lbs
- Turface (TM) Porous Material Hobbs & Hopkins \$14.95/ 15 lbs
- Gravel Grimm's Fuel Company \$32/Cubic Yard
- Drainage Rock Grimm's Fuel Company \$32/Cubic Yard
- EZ Street Asphalt (for pot holes) Ace Hardware \$19.99/ 35 lbs
- Quikrete® Concrete Mix Ace Hardware \$19.74/ 6 10lbs Blocks
- Concrete (Portland types I & II) Ace Hardware \$10- 30 per 10 lbs Block with Gravel
- NetPave (Structured Grass) Rehbein Environmental \$2.06-2.44/ Square Foot
- Porous Pavement Asphalt Magazine Equivalent to conventional pavement
- Pervious Paving Blocks The Wall



## GARDENS

- Food Grade Compost Cedar Grove \$18.45/Cubic Yard
- Earth Machine (TM) Compost Metro \$39 through Metro (reg \$80)
- Trees (2 Year Fruit) Lowes/Portland Nursery \$30-70 per Tree
- Trees (2 Year Landscape) Lowes/Portland Nursery \$30.00 per Tree
- Vegetable/Flower Seeds Portland Nursery \$1-4 per Packet
- Garden/Top Soil Cedar Grove \$20.45/Cubic Yard
- Mulch (Lawn/Garden) Cedar Grove \$21.45/Cubic Yard



## ACCENTS/ EXTRAS

- Railroad Ties Craigslist
- Lumber (Recycled) The Rebuilding Center \$.80 - \$2.30 Linear Foot
- Boulders Oregon Decorative Rock \$148/Ton
- Striping (street paint) Metro Paint \$12-\$17/ 5 Gallons

## LIGHTING

- Path Lighting (Solar) Home Depot \$4-12 per Unit
- Post Lighting Home Depot \$45-150 per Unit
- Flood Lighting Home Depot \$20-80 per Unit
- Street Lighting City of Portland





# Sample Joint Maintenance Agreement

**OWNER'S NAME/LEGAL DESCRIPTION/PARCEL:**

**OWNER'S NAME/LEGAL DESCRIPTION/PARCEL:**

Whereas, each party herto on behalf of himself or herself, wishes to contract for the maintenance of [ street sement ] for as long as said resident resides or owns respective property.

**Each Party Agrees as follows:**

**Maintenance.** The parties shall maintain and repair existing street and any new project put in place by the choice of the parties. All parties shall share equally in the expenses for normal maintenance and repair. No expense shall be incurred by any party without unanimous consent of all other parties hereto. Such consent shall be in writing, signed by all parties, with a copy delivered to each party.

**Payment.** The cost for agreed maintenance and repair shall be borne and shared equally by the owners of the parcels having equal access therefrom. In the consent to repair, the parties shall designate a party to be the agent for contracting or undertaking the agreed repair or maintenance or maintenance and to collect each party's share of the cost thereof.

**Labor.** Each party agrees to provide \_\_\_\_ hours of time for maintenance labor per quarter in order to provide regular hand tool maintenance to the unimproved street project

**Underground Utility Repair or Other City-Sponsored Street Maintenance.** It shall be the understanding of all parties that the selected unimproved street project is not secured or maintained by the City of Portland. The City at any time may do street projects within the right of way which alter residential improvement projects. Should this occur, the owners and residents shall have to reconvene and come to a new agreement about future projects in the right of way.

**Damage.** It is also understood and agreed that if the owner or resident of a parcel having maintenance responsibility over this section of right of way damages or disturbs the shared residential project, (other than normal automobile wear and tear), then he or she shall be responsible to immediately restore the street surface to as nearly possible the condition in which it existed prior to the disturbance.

**Unpaid Costs or Lack of Labor Hours.** Should any party default on their agreement to share the cost of the unimproved street project or to provide shared labor hours in the maintenance of said project, remaining parties will approach said party and renegotiate this agreement to better suit the needs, abilities, and interests of all parties along the street segment.

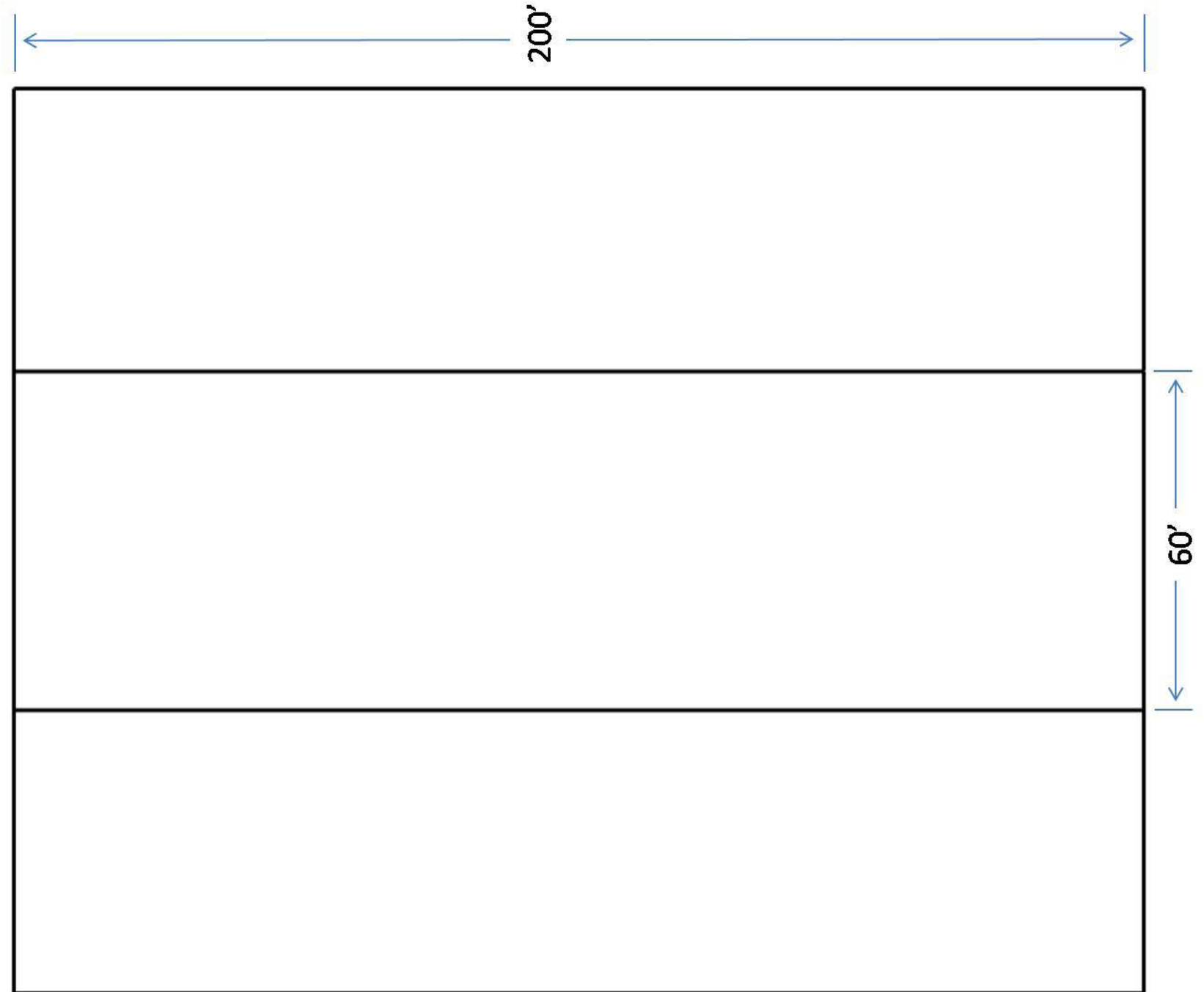
Owner's Name/Signature

Owner's Name/Signature

Owner's Name/Signature

Owner's Name/Signature

# Street Audit Form



200'

60.9'