The Woonerf Concept
“Rethinking a Residential Street in Somerville”

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Originally submitted December 7, 2012
Abstract

The European concept of a woonerf—which views the street as a social space, rather than just a channel for vehicular mobility—is becoming increasingly popular in the United States. However, most of the applications of this concept have been in commercial streets. This study analyzes the woonerf’s benefits and design principles to explore the feasibility of designing a woonerf on a residential street in Somerville, Massachusetts. The aim of this study is to illustrate how a residential street can be retrofitted with the woonerf concept, and to provide a cost estimate for its implementation. A segment of Hudson Street in Somerville is selected for this analysis. Two different options are proposed. The first option transforms the street completely into a woonerf by eliminating the continuous curb and incorporating traffic calming measures, while the second option provides traffic calming elements, but only converts one segment of the street into a shared-space (i.e., no continuous curb). Both options show that it is possible to re-think a residential street’s design using the woonerf’s principles. The study estimates that option one would cost $915,431, while option two would cost around $252,315. Since implementation costs are expensive, this study also suggests what should be considered and evaluated before retrofitting a residential street into a woonerf.
Introduction

In the past years, the urban landscape has been changing slowly with the introduction of the European concept of a woonerf—or shared space—in the neighborhoods of many American cities. However, most of these efforts have been in commercial areas, leaving residential streets with a traditional auto-centric paradigm. People have recognized that many residential streets are unattractive to live on as well as unsafe for children to play in because they are designed for little more than motor vehicle access and parking.

The woonerf concept has proven to be successful in many European cities, by reclaiming the streets as public spaces for people’s use. However, would a woonerf work in a traditional residential street in Somerville, Massachusetts? This project examines the woonerf’s design principles and explores the feasibility of designing a woonerf on a segment of Hudson Street in Somerville. To create a woonerf, this project studies two options for retrofitting the street that involve reconstructing the road to varying degrees. Implementation costs for each option are also estimated.

The City of Somerville has been selected for this study because it has a stated goal to increase the available public open space by 2030. Implementing a woonerf could meet the City’s objective of providing high-quality and well-programmed community space. While Hudson Street has been chosen to introduce the woonerf concept, the goal of this project is to show schematically how a residential street could look in Somerville if woonerf design principles are applied. Therefore, this study can be used as an example of how other residential streets in Somerville—or elsewhere—could be retrofitted with the woonerf concept.

What is a Woonerf?

The concept of the *woonerf* was developed in the late 1960s in the city of Delft, Netherlands. Residents of a neighborhood were upset with cut-through traffic speeding through their neighborhood, making it unsafe. The residents took out their brick streets and replaced them with winding serpentine paths. This action initiated the woonerf—or “residential yard” in Dutch—a residential street in which the living environment predominates rather than vehicular infrastructure. Through the physical alteration of the street, the woonerf provides space for cars while fully accommodating the needs of residents. The main goal of a woonerf is to change the way streets are used and to improve the quality of life in residential streets by designing them for people, not just for traffic.

In a woonerf, the street is shared among pedestrians, bicyclists, and motor vehicles; however, pedestrians have priority over cars. The street is designed without a clear division between pedestrian and auto space (i.e., no continuous curb), so motorists are forced to slow down and travel with caution. Limiting vehicular speed not only improves residents’ feelings of safety, but also promotes greater use of the public space. This action allows more room for new features in the street such as street furniture (e.g., planters, street trees, benches) and areas for social interaction, bringing more people out on the streets to walk, bike, play, and interact with each other. In other words, a woonerf transforms the street into a livable and attractive environment for a variety of activities.

The woonerf concept in urban planning has proven to be successful in the Netherlands. As a result, it has become increasingly popular in many other countries in

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3 Biddulph, *Home Zones*, 3; "What is a Home Zone."
Europe as well as around the world. The term itself, “woonerf,” varies from one country to another. For example, a woonerf is also known as a home zone. The home zone concept was developed from the woonerf concept in Britain in the late 1990s. According to Appleyard and Cox, there is a subtle difference between the two: a woonerf in the Netherlands emphasizes creating a sense of place, while a home zone in Britain focuses more on easing traffic and reducing accidents. However, both concepts incorporate formal and informal space for children’s play and social activities. Another concept is the shared street, which is commonly used in the United States; however, this concept can be applied to residential streets as well as commercial ones. Since all these terms, as well as others, originated from the woonerf concept, they share similar principles and design characteristics, and thus they are often used interchangeably. This study focuses on transforming a residential street, so the term woonerf will be used.

Why a Woonerf?

Research on different case studies of woonerven in Europe has shown that they have a positive effect on the street environment as well as on residents’ lives by:

- **Reducing driving speeds and increasing levels of safety:** By incorporating different traffic calming measures into the street, residents feel more confident

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5 Appleyard and Cox, "At Home in the Zone," 32.
6 Ibid.
7 Ibid.
8 “Case Studies: Home Zones.”
9 The plural of woonerf in Dutch.
using the streets for different activities. Research from the Netherlands indicates that vehicle speeds were reduced to an average of 8 to 15 mph.\textsuperscript{10}

- **Creating more efficient use of space:** The street design balances the need of street space for vehicles with the provision of street space for other users and activities. Since the street does not make distinction between travel lanes, children play across the whole width of the environment,\textsuperscript{11} turning the streets into a valued public space, and not just a channel for vehicular mobility.

- **Increasing socialization and activities:** Research has observed that people stay for longer periods of time in the streets and also engage in more verbal communication. In fact, Biddulph (2012) in his research “Street Design and Street Use” compares street activity in two very similar streets over exactly the same period using time lapse cameras; however, one is a home zone and the other a traffic-calmed street. He found that residents stayed in the home zone for longer periods, engaging in optional activities and also socializing. In contrast, the traffic-calmed street showed no significant change in the way that the street was being used.\textsuperscript{12}

- **Creating a more attractive street:** A total of 70% of residents living in woonerven in the Netherlands, as well as 80% of residents living in home zones in the UK, find their living environment to be attractive or highly attractive.\textsuperscript{13} Furthermore, while residents appreciate low traffic volumes and the absence of cut-through traffic, they

\textsuperscript{11} Biddulph, *Home Zones*, 18.
\textsuperscript{12} Biddulph, “Street Design and Street Use,” 231.
\textsuperscript{13} Biddulph, *Home Zones*, 18.
considered the provision of larger play areas for children as well as the improvements to the street environment to be the most important benefits.$^{14}$

Other benefits include:

- Increasing natural surveillance, which deters casual crime.$^{15}$

- Enabling the elderly and others with limited mobility to have better access and mobility within in their own street environment.$^{16}$

- Improving the environmental quality of urban streets, helping to increase the demand for urban living.$^{17}$ However, this may increase property values, which can generate both positive and negative impacts.

While woonerven offer significant benefits, they are not without drawbacks or controversy. In the UK, it has been reported that home zone schemes have delayed the response rate of emergency services to the street.$^{18}$ Other reports have described residents complaining about both the lack of parking spaces close to their homes and occasional traffic congestion caused by traffic calming measures. Additionally, some people fear accidents due to the mix of transportation modes.$^{19}$

**Design elements of a Woonerf**

Most of the examples of woonerven are in the Netherlands, Germany and the United Kingdom, but the concept has spread through Europe as well as Japan, Australia and

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$^{15}$ “What is a Home Zone.”
$^{16}$ Ibid.
$^{17}$ “Concept: What are Home Zones?”
$^{18}$ Ibid.
While each country has implemented the woonerf scheme, there is no cookie-cutter design for a woonerf. This means that each country—and place—has transferred the core concepts of a woonerf and created their own safe areas according to their needs and local culture. Each woonerf implementation requires a distinct approach to street design, so the woonerf core concepts are clear and adaptable; and they consist of the following guidelines:

- **Have a clear and distinct entrance:** A woonerf should be marked by some kind of entrance so people going into the street will know that this area is not a typical neighborhood. This can be achieved by incorporating gateway features such as trees and planters, curbs extensions to make the carriageway narrow, and a ramp up to the shared surface. Any of these approaches should be also accompanied by a sign indicating the woonerf status. Exits from the woonerf should therefore also include a sign indicating the end of the status.

- **Eliminate the continuous curb:** Pedestrian and auto space should be on the same level. Shared surfacing encourages drivers to travel more slowly and carefully since there is no clear definition of the travel lane. Using different colors or textures in pavement material is also important for guiding the users of the street within the carriageway (e.g., pedestrian vs. auto lanes). By eliminating the continuous curb, residents—especially children—can move freely across the entire space.

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20 Appleyard and Cox, "At Home in the Zone," 32.
• **Use traffic calming measures:** The design of the street should add slight curves to break up the sightlines of a driver and also introduce physical and visual features that will encourage people to drive slowly and with greater caution.\(^2^4\) These measures include chicanes, speed bumps and cushions, narrow travel lanes, small corner radii, different pavement treatments, as well as other elements such as street trees, bollards and furniture.\(^2^5\) According to Biddulph (2001), these measures should be located less than 160 feet apart so there is no length that would allow drivers to think they have priority over pedestrians and bicyclists, but at the same time they should be designed so they do not represent a hazard if they are passed at an inappropriate speed.\(^2^6\) Furthermore, these traffic calming measures cannot be an obstacle for emergency responders. It is recommended that planners and architects engage emergency responders in a collaborative approach to designing traffic-calming elements.\(^2^7\)

• **Provide on-street parking:** Parking should be provided intermittently rather than continuously so the car is not the predominant element in the street.\(^2^8\) Areas in which parking is permitted should be indicated by physical elements (e.g., bollards) and/or different pavement material. Parking arrangements should also be used as a mechanism to calm traffic.\(^2^9\) There are a few common strategies to arrange parking

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\(^{2^4}\) Appleyard and Cox, "At Home in the Zone," 32.
\(^{2^5}\) Biddulph, *Home Zones*, 54.
\(^{2^7}\) Appleyard and Cox, "At Home in the Zone," 35.
\(^{2^8}\) *Ibid.*, 32.
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(Figures 1 and 2); the strategy adopted will depend on the dimensions of the street as well as code allowance.

- **Incorporate outdoor furnishings and landscaping:** Street trees and planters make the street look more attractive as well as calm traffic. Tree planting should be carefully coordinated with existing or planned underground utilities to avoid conflict.\(^\text{30}\) Seating also should be included to encourage people to use and stay in the street for other activities. Seating areas should be protected from cars, using bollards or other physical barriers.\(^\text{31}\)

Appleyard and Cox summarize well the woonerf design principles in Figure 3.

\(^\text{31}\) Ibid., 57.
According to Biddulph (2001), a woonerf works better in areas in where there is resident support as well as existing street activity such as children playing on the streets. It also works better if the street’s current traffic is considered dangerous by the residents, discouraging people from going out. Also, a woonerf would be more successful if there is little or no open spaces available close by. As a result, woonerf implementation should not be applied in isolation—instead, it should be part of a wider strategy such as an area-wide traffic calming initiative, a related safety initiative (e.g., Safer Route to School), or an expanded pedestrian and cyclist network, among other possibilities.

Research also suggests that streets need to be used by fewer than 100 vehicles per hour at peak times. In addition, the area treated should be less than 1,968 feet long (600 meters). However, Appleyard and Cox (2006, 35) recommend a length of 300 to 500 feet. Even though there is no clear justification for determining the street limit, research suggests that shorter distances might reduce driver frustration at having to drive slowly through the woonerf.

The American Experience

Most of the woonerven implemented in the United States are shared streets in commercial areas. Good examples are found in Asheville, NC (Wall Street), San Francisco, CA (Linden Street) and Cambridge, MA (Palmer and Winthrop Street). However, woonerf implementation in residential areas is rare. Two known cases are The Cottages and

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32 Biddulph, Home Zones, 15.
34 Biddulph, Home Zones, 15.
35 Ibid.
37 Langdon, “Shared-Space’ Streets cross the Atlantic.”
Bridgewalk in Boulder. Both projects were built based on the woonerf concept; however, both had some difficulties applying the concept. For example, in the case of Bridgewalk, houses already had backyards, porches, and other areas for people to congregate, so the shared street was used more by cars than people.38

Another example is on Appleton Street in Boston, where the street and house typology are very similar to a European street. It was converted into a woonerf in the 1980s.39 Appleton Street’s design includes a raised entrance (Figure 4), traffic calming measures, and angled and parallel on-street parking. While it does have different pavement materials, there is a continuous curb (Figure 5).

The most useful example is the Borderline Neighborhood Shared Streets Project in Santa Monica developed by Nelson\Nygaard Consulting Associates in collaboration with other consultants.40 The project retrofitted four connected streets into a community front yard that promotes walkability, adds sustainable landscaping, and provides community gathering space. The project raised the roadbed to eliminate vertical curbs and used

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40 “Feature Projects: Borderline Neighborhood Shared Street Project.”
decorative pavers to delineate walking, driving, and socializing spaces (Figure 6). It also incorporates sustainable features such as urban runoff retention elements, permeable concrete and pavers and solar lighting.\(^4\) The project took nearly six years to be completed and cost $2.1 million.\(^5\)

![Figure 6: Borderline Neighborhood Shared Streets Project | Source: Blackbird Architects http://www.bbird.com](image)

**A Woonerf in Somerville, MA**

Somerville is the most densely populated municipality in New England, but only 123 acres of the city's 4.1 square miles are considered public open space.\(^6\) Somerville's Comprehensive Plan for 2010-2030 states they would like to increase the available public open space to 125 acres by 2030.\(^7\) Two of their goals are to “design and maintain a healthy and attractive public realm” and to “create and program a network of vibrant

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\(^4\) “Feature Projects: Borderline Neighborhood Shared Street Project.”

\(^5\) “Current News Items.”

\(^6\) “Five Year Consolidated Plan 2008-2013: Section Four: Parks & Open Space,” 123.

\(^7\) “SomerVision Comprehensive Plan 2010-2013,” 16.
public open spaces and shared use paths throughout the city.” A woonerf could be one strategy to accomplish the City’s goal.

For this study, a segment of Hudson Street (660 feet long) between Cedar Street and Lowell Street was selected (Figure 7). The selection criteria were: (1) the street is a part of a “Somerville Neighborways” plan; (2) the street is located two and a half blocks from the Somerville Community path; (3) the street has less than 100 vehicles per hour; (4) residents perceive the cars on the street as driving too fast; (5) most of the houses have driveways; and (6) has the potential for a design intervention.

Hudson Street is a 30 feet wide, one-way street with parallel parking. On one street segment, the road is wider, having a triangular shape. There are 27 houses in this segment, of which only four houses do not have parking on their property. The street provides a total

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46 The “Somerville Neighborways” plan was developed by Tufts students as part of Spring and Fall 2012 Transportation Planning class at Tufts University. Information about the plan and the “Hudson Street Pilot” can be found at: [http://sites.tufts.edu/neighborways/](http://sites.tufts.edu/neighborways/).
47 On Monday, November 5, 2012, 73 vehicles were counted from 18:30 to 19:30.
48 Personal communication with Todd Easton, a resident of Hudson Street, Friday, October 26, 2012.
of 38 on-street parking spaces for its residents (Figure 8). The number of cars parked on the street was counted twice for this study. The total number of cars identified was 23 and 28 respectively.\(^{49}\) For the purpose of this study, it is assumed that residents are willing to lose some on-street parking spaces in order to transform the street into a woonerf.

\(\textbf{Schematic 1 | A woonerf}\)

In this option, the continuous curb is eliminated by re-paving the street completely. A clear and distinctive entrance with a tight curb extension and ramp up to the shared surface is provided to alert drivers of the woonerf status. Parking was re-arranged, taking into account Somerville’s Zoning Ordinances.\(^{50}\) Without blocking driveways and fire hydrants, the number of parking spaces is reduced to 23 on-street spaces. Based on the street width (30’), the parking strategy adopted is parallel parking (22’ x 8’) and 90° parking (18’ x 9’), reducing the street width to 12 feet. Parking is provided 30 feet from the intersection with Cedar Street to allow fire trucks to make the turn. Also, parking has been re-arranged in a

\(^{49}\) First count was made on Monday, November 5, 2012 at 18:30. Second count was made on Sunday, November 25, 2012 at 22:00.

\(^{50}\) While minimum dimensions were considered for parking spaces, travel lanes, and accessibility for fire trucks and larger vehicles (complying with Somerville’s Zoning Ordinances), it is important to note that redesigning the road must be done in collaboration with the City of Somerville, Traffic Engineers, the Fire Department, as well as other consultants.
way that works as a traffic calming measure by creating slight curves to break up the sightline of the driver to less than 160 feet. In those breaks, street trees and furniture—protected by bollards—were incorporated to create small areas for social interaction and activities within the street. The design also includes a larger emergency vehicle staging area in the middle of the street. Finally, in the wider area, a larger pedestrian area is incorporated for multiple uses (Figures 9 and 10).
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Figure 11: Woonerf entrance

Figure 12: An area for social activities
Schematic 2 | One segment of the street is a shared space

In this option, only the large area is converted into a shared street by eliminating the continuous curb; the rest of the street maintains the division between pedestrian and auto lanes. However, on-street parking has the same amount and arrangement of spaces as in Schematic 1, thus calming traffic visually and physically as well as creating small areas for social activities within the street. A clear and distinctive entrance, including a speed table, is also incorporated to indicate to drivers the new status of the street (Figures 14 and 15).
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**Figure 14: Schematic 2 - Plan**

- A distinctive entrance
- A large area for multiple activities
- Two small areas for social activities
- Emergency vehicle staging area

**Figure 15: Schematic 2 – 3D Model**
Figure 16: Entrance and a small area for social activities

Figure 17: Street and large area entrance beyond
How much would it cost?

Using a typical section of Winthrop Street’s transformation into a woonerf in Harvard as an example for this calculation, and considering a few items related to the excavation and repavement only (the most expensive items), Schematic 1 would cost approximately $915,431, while Schematic 2 would cost around $252,315 (Table 1).51

Other items such as soil disposal, drainage/sanitary structure adjusted, labor, and other items were not considered because their cost varies according to the current conditions of the street, requiring a deeper technical study.

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51 All calculations were made using mean prices and information from the “Construction Project Estimator” of The Massachusetts Department of Transportation Highway Division on Wednesday, December 5, 2012. Available at [http://www.mhd.state.ma.us/cpe/WeightedAverageCriteria.aspx](http://www.mhd.state.ma.us/cpe/WeightedAverageCriteria.aspx)
Conclusions

This project has shown that retrofitting a residential street into a woonerf in Somerville is feasible. Both schematic options show that it is possible to re-think the way streets are designed using the core design principles of the woonerf concept. While a complete street transformation may not be the best option for some communities, strategically implementing shared space on certain parts of a street can provide similar benefits without requiring major road renovation and funding. However, wherever the concept is applied, it is important to incorporate most of the woonerf elements; otherwise, the street will end up with less vehicular traffic but not necessarily transformed into a place that promotes livability and sense of community.
Since the woonerf implementation costs are significant, it is important to first understand what the woonerf means and what can and cannot be accomplished with this concept. In other words, its benefits (e.g., community space) and disadvantages (e.g., parking removal) should be carefully evaluated. It is also imperative to consider that this is a European model, which might not work well in the American culture. Thus, days of woonerf simulation (i.e., painting the streets to see how the woonerf will work) and/or other less costly initiatives—like “Somerville Neighborways”—should be introduced first to evaluate how people will respond to this new way of thinking about the street.

Residents should be involved in all the processes with active participation to create the street in which they want to live, meet and play. Residents will also need to get support from City officials to make it a reality. Without official support, neither financial resources nor other permission will be available to design streets that work for people as well as cars. Therefore, it helps to see the woonerf concept as a part of larger initiatives such as traffic calming, safety, and/or open space programs to make it feasible. In other words, whether a woonerf becomes accepted in Somerville, or elsewhere, will depend on whether residents and political leaders want them or not.

Finally, the street should be studied carefully to understand how it works and to recognize which areas have more potential for redesigning. Aspects of traffic, landscape, utilities, activity, and ownership should be deeply analyzed. Furthermore, the street must be designed considering the needs of emergency services. It is vital to ensure that emergency vehicles can enter and exit, as well as maneuver through the street.
People increasingly seek an attractive and vibrant living environment with community space to meet and play in their own neighborhoods. Thus, it is time to rethink and reclaim the most valuable public space in the cities: our streets.
Bibliography


http://demo-restreets.migcom.com/case-studies/home-zones/


*All figures and tables by the author unless otherwise noted.
Traffic-Restricted Streets: Woonerfs and Transit Malls
Paul chasan

Traffic restricted streets offer new possibilities for creatively integrating social space with the p. Children play in the right-of-way in this European woonerf.

Image: Hamilton 2000

Streets often constitute up to 1/3 of the land use in a city yet, in our municipal landscape they are often treated as utilitarian corridors rather than vital public spaces. This chapter looks at two street typologies that challenge this axiom: Woonerfs and Transit Malls. Both of which seek to balance the functional need for movement of people and goods with the basic desire we share as individuals and communities for opportunities for social interaction and cultural exchange.

“Imagine driving down a street with no traffic lights, stop signs, lane dividers, or sidewalks. Pedestrians, cyclists, and playing children wander about the road at will, and trees and flowers are planted in the right-of-way. How do you avoid hitting anyone—or anything? Simple. You slow down, maintain eye contact with people around you, and stay alert.”

–Sierra Magazine January/February 2005

Residents living on Annas Straat in Utrecht set up temporary shelters to watch the Euro 2000 soccer championships.
Image: Hamilton 2000
Streets for People
Woonerfs are streets built with high quality urban design where the boundary between people space and car space is intentionally blurred. In doing so, the pedestrian space is extended from the sidewalk, and into the traffic zone. Whereas in a normal street, pedestrians are made to feel like guests in the cars space when they cross the street, woonerfs reverse this axiom. By designing high quality urban spaces, drivers moving through a woonerf are made to feel like guests and modify their behavior accordingly.

In Seattle and other American cities, coercive strategies are generally used to ensure safe driving in neighborhoods. Such tactics include extensive signage, traffic markings and of course traffic laws along with a fleet of traffic cops to enforce them. These methods are costly, create lackluster streets and are largely ineffective. Indeed since people tend to drive as fast as they feel they can control their vehicles, some of our tools for traffic engineering such as lane striping may encourage unsafe driving.

Rather than coerce people into driving safely, woonerfs incent them to do so by using design cues. They achieve this by using the principle of ambiguity. For example, by planting trees in the right-of-way, eliminating grade separation between sidewalk and street and/or using angled parking to carve out pocket community spaces like gardens, seating or children’s play areas, woonerfs send an implicit message to drivers: Slow down.

“...Designing streets so that walking, cycling, social activities, children’s play, parking and local car traffic could all share the same space struck me as such an eminently sensible idea...”
—Ben Hamilto
European studies have shown that woonerfs are significantly safer than traditional street configurations and surprisingly do not compromise travel time in residential settings. This is because, by eliminating stop signs, drivers are able to maintain a steady if slow constant speed that is similar to the average speed traveled in start/stop traffic over equivalent distances.

**Essential Elements**

Woonerfs offer a way for planners and designers to curb the deleterious effects cars can have on neighborhood streets.

There are several methods employed by woonerf designers use to reclaim the street right of way:

- Obscure sight lines
- Plant trees or place other features in the right of way
- Install detailed, intricate paving patterns
- Eliminate the grade separation between sidewalk and the carriage way
Challenges
Woonerfs offer an exciting lens through which planners and designers can rethink the neighborhood street and interest in replicating this European model for streets continues to grow in the United States. There are challenges that have surfaced by American attempts at building Woonerfs in the different urban context of American towns and cities. Designers should expect to grapple with how to provide access for emergency vehicles, and will need to pay attention to accessibility issues for people with disabilities. Current engineering standards can for example render it impossible to build woonerfs in many American cities. None of these issues is insurmountable. Brookline, Massachusetts, and West Palm Beach, Florida have for example successfully implemented woonerf projects. The idea is likely to continue to spread to more north American cities.

Possible / Implementation and funding Mechanisms
Green Street Projects
SPU stormwater projects
Incremental implementation following street maintenance, utility work and large construction bonds
Neighborhood matching funds
The mayors proposed downtown open space impact fee

Possible / Opportunities for Pilot Projects
UW Campus Expansion, especially the more urban southeast campus
South Lake Union redevelopment
Downtown Alleys
Yesler Terrace Reconstruction

Evolution of a System
1. Traffic flows separate calmed residential areas.
2. Major arteries are adapted to overcome severance.
3. The city as a coherent social zone; traffic volumes determined by environmental capacity

Image: Hamilton, 2000
Transit Malls are highly designed streets where busses are given their own right of way and private vehicles have limited to no access. Pictured above is the concept for Seattle’s 3rd Ave. Transit Spine. Bus stops are located on every other block with individual bus lines stopping at one of two bus-stop clusters (illustrated above in red and blue). This ensures adequate bus-stop spacing for efficient transit movement (one stop every four blocks). Private vehicles traveling on one-way cross streets are allowed to make a right turn onto blocks with no bus stops (the white areas above), and are then forced to make a right turn off the transit way. Bikes are allowed in the bus areas (illustrated in pink above) as they tend to travel at similar speeds to transit vehicles. Under its current configuration, 3rd Ave. lacks the pedestrian amenities and 24-hour restrictions on car access to qualify as a transit mall.

Transit Mall

Transit malls can be effective tools to ensure the efficient movement of transit in congested urban corridors while providing quality pedestrian and in some cases, retail environments.

With the recent closure of the bus tunnel to renovate it for light rail, Seattle has created the nascent underpinnings of a transit mall along Third Ave. downtown. Third Ave. is uniquely situated for this role as it runs the length of downtown and is roughly equidistant from the water and I-5. The new “3rd Ave. transit spine” was initially conceived as be a transit-only street throughout the day, but the city caved at the last minute and the street currently acts as a transit mall solely during peak commute times when private cars are effectively restricted from the street.

Whether or not the street will remain a transit mall when the bus tunnel reopens remains to be seen. However the City Center Circulation Report, a policy document available on SDOT’s website that was written in 2003 calls for the street to remain a bus only corridor.

Should the city choose to keep the street as a bus way, an opportunity exists to enhance the public realm with urban design treatments. Unique paving, street trees and street furniture a la San Francisco’s Market Street or the Portland Transit Mall (see case study), can cement the 3rd Ave. as Downtwn Seattle’s Main St. Such a move would make 3rd Ave. a true spine for the city both as an organizational framework for our bus system as well as in the mental maps of the residents and denizens who inhabit our downtown.
Case Study Portland:
The Portland Transit Mall was created in 1977 as the culmination of a two pronged strategy to improve transit flow downtown and spark downtown development, especially retail. Limited car access was provided in one lane on some parts of the transit-priority streets but on-street parking was removed and replaced with widened sidewalks, lavish street furniture, public art, fountains and street trees.

While the commercial space on did not develop to the degree city officials had hoped, transit flow was greatly enhanced. There have been issues with business owners along the mall wanting on-street parking. The city recently studied increasing parking supply, but decided against it because the street space was needed for a future light rail expansion.

Over time, the city has continued to tweak the transit mall’s design and is currently undergoing a design process to update the corridor.

Cities that have either implemented or are studying creating transit malls:
- Portland, OR
- Vancouver, BC
- Toronto, ON
- Sydney, Australia
- San Francisco, CA
- Seattle?
Portlands Transit mall: Limited car access, and generous pedestrian amenities.


Car Access along the Portland Transit Mall. *Image: TriMet*