

LID ELEMENT #9: REQUIRE SIDEWALKS ON ONLY ONE SIDE OF THE STREET

OBJECTIVE

Minimize the amount of impervious surface associated with street sidewalks.

CONSIDERATIONS

Standard practice in the City of Olympia is to construct sidewalks on both sides of new streets. Missing segments of sidewalk on existing streets are installed when possible creating a robust and inviting pedestrian network which is important to long-term transportation planning in our community. Although this memo specifically references reducing impervious area associated with sidewalks by requiring them on only one side of the road, other alternatives to impervious area reduction related to sidewalk construction such as use of permeable paving for sidewalks are also available. Use of permeable pavement for sidewalks is addressed in Element 14 Permeable Paving.

RELATED ELEMENTS

Element 4 Restrict Maximum Impervious Surface Coverage

TRADITIONAL APPROACH TO STREET SIDEWALKS

Typically, urban roadway cross sections include sidewalks on both sides of the street. Providing sidewalks on both sides of the roadway is generally thought to encourage and support pedestrian traffic. The presence of sidewalks on both sides of a street is also perceived as being safer as more direct access is provided to properties – homes, businesses, services, public buildings, parks, schools, etc. This direct access reduces pedestrian street crossings, both legal and illegal.

“Studies indicate that pedestrian accident rates are similar in areas with sidewalks on one or both sides of the street. Limited assessments suggest that there is no appreciable market difference between homes with sidewalks on the same side of the street vs. homes with sidewalks on the opposite side of the road. The Americans with Disabilities Act does not require sidewalks on both sides, but rather at least one accessible route from the public streets.”

Low Impact Development Technical Guidance Manual for Puget Sound (2012)

CODES AND STANDARD REVIEWED

Engineering Design and Development Standards (EDDS) Chapter 4
City of Olympia Comprehensive Plan Transportation Section, December 2014

BENEFITS OF REDUCING IMPERVIOUS SURFACES ASSOCIATED WITH SIDEWALKS

Many of the benefits related to reducing the impervious surface associated with sidewalks are the same as those of Element 4 (Restrict Maximum Impervious Surface Coverage). Reduced impervious areas

allow opportunities for increased green space that enhance infiltration, and increased opportunities to retain mature trees that facilitate transpiration and evapotranspiration.

By limiting sidewalks to only one side of the road, the following example reductions in impervious area for various street sections could be achieved:

- 2-lane arterial - 16% impervious area reduction for street section
- 2-lane major collector – 13% impervious area reduction for street section
- Local access street – 17% impervious area reduction for street section

OLYMPIA CODE ANALYSIS

The Transportation Section of the City of Olympia Comprehensive Plan has several goals and policies related to pedestrians. Key Comprehensive Plan goals and policies include:

- All streets are safe and inviting for pedestrians and bicyclists.
- As new streets are built and existing streets are reconstructed, add multimodal features.
- The street network is a well-connected system of small blocks, allowing short, direct trips for pedestrians, bicyclists, transit users, motorists, and service vehicles.
- System capacity improvements focus on moving people and goods more efficiently, minimizing congestion by replacing car trips with walking, biking and transit trips, and by increasing operational efficiency and reliability.
- A mix of strategies is used to concentrate growth in the city, which both supports and is supported by walking, biking and transit.
- Walking is safe and inviting, and more people walk for transportation.
- Sidewalks make streets safe and inviting for walking. Build all new streets with inviting sidewalks on both sides of the street.

The design requirements for streets are specified in Chapter 4 and 9 of the EDDS and in standard plans 4-2A through L. Typical road sections for the City require sidewalks on both sides of the street. Sidewalk widths vary from 5-10 feet, depending on street type. Exceptions are sometimes granted to allow narrower or no sidewalk to protect streams, wetlands and other critical areas, and adjacent to parks and open space where alternative trails or pathways are provided or not needed.

Many of the goals of the Transportation Section of the Comprehensive Plan highlight making streets safe and inviting for pedestrians.

Additionally, one sided sidewalks are required on local access streets in the Green Cove and Chambers basins. These basins are subject to specific environmentally-derived street standards. Their application is limited.

HURDLES TO REQUIRING SIDEWALKS ON ONLY ONE SIDE OF THE STREET

The challenges to this LID strategy vary by type of road. High volume arterials have different concerns than local access roads. Therefore, we have broken this analysis into two sections.

Arterials and Other Major Roads:

Conflicts with Comprehensive Plan – Many of the goals in the Transportation Chapter of the Comprehensive Plan highlight making streets safe and inviting for pedestrians. One policy specifically states that all new streets should be built with sidewalks on both sides. Therefore, placing sidewalks on only one side of the street would be in direct conflict with the goals and policies of the Comprehensive Plan.

Less Direct and Safe Access to Properties – Pedestrians seeking to gain access to properties on both sides of the street need safe crossings. If frequent crossings are not provided, mid-block pedestrian crossings will likely occur. For high volume roads, mid-block pedestrian crossings can be unsafe.

Less Direct and Safe Access to Transit Stops – Transit stops are typically located on both sides of the street. If sidewalks are only constructed on one side of the street one transit stop would not have direct pedestrian access. This could encourage mid-block pedestrian crossings if a crosswalk is not provided in direct proximity to the transit stop. In addition, state requirements for safe walking routes to school and school bus stops are easier to meet with dual sidewalks.

Less Supportive of Walking – Olympia strives to be a walkable community. Safe and inviting sidewalks enhance walkability. Providing sidewalks on only one side of a street could reduce the walkability of Olympia. Providing a wide range of transportation options is a high priority for the City.

Impacts to Available Funding – Many road projects in the City are constructed with the financial assistance of grants from the Transportation Improvement Board (TIB). TIB grant funding is available only to projects that meet the standards of the funding agency, which typically includes sidewalks on both sides of the road. Olympia may not qualify for such grant opportunities if proposed projects do not include sidewalks on both sides of street. Waivers to this requirement can be requested from the TIB, but generally sidewalks on both sides of the street are preferred.



Olympia strives to be a walkable community. Providing sidewalks on only one side of the street could reduce the walkability of Olympia.

Could Encourage Walking In Street – If sidewalks are not provided on one side of the road, pedestrians may opt to walk on the roadway shoulder rather than cross to where a sidewalk is provided. This practice can be unsafe, especially on high volume streets.

ADA Accessibility – If sidewalks are only on one side of the road, wheel chair access is limited. Accessing facilities on the “no sidewalk” side of a road could be precluded for pedestrians with mobility challenges except when traveling to that destination by vehicle.

Local Access Streets

Local access roads are low volume roads serving largely residential uses. In this setting, mid-block pedestrian crossings are common occurrences which are often encouraged by the placement of central mailbox clusters and requirements to place solid waste receptacles on one side of the road. Therefore, many of the concerns related to placing sidewalk on only one side of high volume roads are not applicable to local access roads. However, limitations on sidewalks do affect ADA accessibility and providing safe walking routes to schools in residential areas. In addition, the value of a house on a “non-sidewalk” side of the road could be diminished as compared to a house with a sidewalk at the front of the house. Residents generally appreciate sidewalks in their front yard.

OPTIONS CONSIDERED

Another consideration to reducing impervious area related to sidewalks is use of permeable paving. The options related to permeable paving for sidewalks are discussed in the memo for Element 14 (Permeable Paving).

The following options are considered:

- Option 1: No change; continue to construct sidewalks on both sides of new streets.
- Option 2: Allow sidewalks to be placed on one side of the street for low pedestrian volume areas with no existing or planned transit routes.

ANALYSIS

Option 1 (no change) would maintain the status quo. Implementation of LID is one of many goals the City must balance. Requiring sidewalks on only one side of the street conflicts with other City goals. Other approaches to LID associated with sidewalks such as construction of pedestrian facilities using permeable paving could achieve the same goal of impervious area reduction without impact to the City’s walkability. See Element 14 (Permeable Paving) for more discussion on using permeable paving for sidewalks.

Implementation of Option 2 (allow sidewalks to be placed on one side of the street) will require updates to EDDS road section details. This could be achieved with notations that sidewalks on one side of the road may be approved in specific areas. A specific threshold of pedestrian traffic volumes would be needed to determine when sidewalks on just one side of the road is allowed. In addition, developers

would need to provide expected pedestrian use. Because transit generates pedestrian activity, information regarding existing and planned transit routes would also be needed for the City to determine if the alternative is allowed.

Option 2 would likely have limited applicability and would require additional work for both the developer and the City. This limited applicability would likely result in negligible reductions in impervious surfaces.

RECOMMENDATION

Staff recommends Option 1. The expected reductions in impervious area related to providing sidewalk on one side of the road are not significant enough to outweigh the conflicts this element would create with other City policies and goals. The City of Olympia strives to be walkable. In addition there are other ways to reduce the impervious area associated with sidewalks such as permeable paving. Option 2 would be difficult to regulate and administer, and thresholds would need to be established.

