



# **Sustainable Street Width Policy**

Common Council Presentation

June 2011

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# Basic Premises of Street Policy

- Streets are the primary transportation method for our community, including walking, rolling, bicycling, and driving
- The design of streets has a direct impact on pedestrian safety
- The design and condition of streets can impact the livability of neighborhoods
- Streets are a primary cause of stormwater pollution

# Basic Goals of Sustainable Streets Policy

- Streets that exhibit the highest degree of safety
- Multi-use Streets that enable healthy, physical transportation options
- Streets that improve neighborhoods
- Streets that minimize environmental damage
- Streets that meet the needs of the complete community

# Street Width Presentation Outline

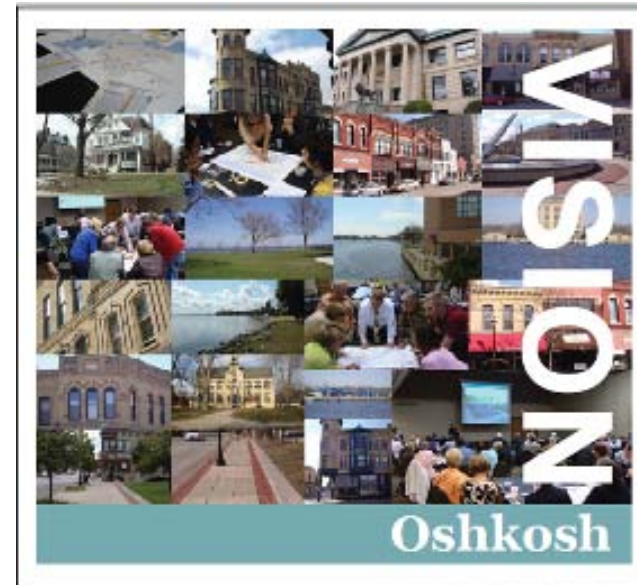
- A. Oshkosh Resident Guidance
- B. Oshkosh Area School District & Safe Routes to Schools Recommendations
- C. Municipal Policy
- D. Environmental Data
- E. Street Width Data
- F. SAB Recommendations



# A. Oshkosh Resident Guidance

The Vision Oshkosh Survey completed in 2009 represents one of our city's most expansive citizen opinion outreach efforts.

Feedback from residents revealed significant support for inclusion of bicycle lanes, green terraces, and pedestrian alternatives to automobile use, including the following findings:



## A. Oshkosh Resident Guidance

### 1. Vision Oshkosh: Multi-Use Streets

- *“Bicycle Paths consistently ranked well in the Visual Preference Survey. The development of a comprehensive network of multi use trails and paths will provide a real alternative to using an automobile for local trips, improving personal health and reducing air pollution” (pg 15)*
- *“Images depicting bicycling and bicycle infrastructure received some of the highest scores during the Visual Preference Survey” (pg 23)*
- *“95%\* and 93%\* of public meeting participants highly support or support additional walking and bicycle amenities, respectively” (pg 61)*
- *“The street regulating plan should strive to ensure all streets in Oshkosh become “Complete Streets.” Complete streets are defined as streets that are designed and operated to enable safe access for all users – pedestrians, bicyclists, motorists and bus riders of all ages and abilities”. (pg 27)*

## A. Oshkosh Resident Guidance

### 2. Vision Oshkosh: Improved Safety

- *“Excessive noise and speed generated from vehicular traffic were identified as problems on many of the City’s roadways. Similarly, the current configuration of many streets and intersections has resulted in several pedestrian-vehicle conflict areas” (pg 23)*
- *“From the questionnaire, 94% of participants support more walking. Sidewalks must be safe, interesting and accommodating. In all the images, the priority must be a design which buffers the pedestrian from passing traffic by use of trees, lighting, terraces, or bollards. (pg 44)*
- *“Narrow sidewalks without a buffer between the pedestrian and traffic contributes to a negative rating.” (pg 45)*
- *“narrow existing drive lane widths in order to calm traffic and accommodate on-street parking, striped bicycle lanes, wider sidewalks, with specific emphasis on wider planting terraces, street trees, and snow storage” (pg 27)*

## A. Oshkosh Resident Guidance

### 3. Vision Oshkosh: Livability

- *“This particular street (referring to a street image) most likely received low scores because of its overly wide driving lanes encourages speeding, lack of street trees, frequent curb cuts...” (pg 26)*
- *“These images of neighborhood residential streets received high ratings during the Visual Preference Survey and illustrate many characteristics that are appropriate for residential development in Oshkosh – continuous sidewalks, wide terraces that can accommodate regularly spaced street trees” (pg 29)*

## A. Oshkosh Resident Guidance

### **4. Vision Oshkosh: Environmental**

- *“Set design standards to require street trees on all streets”*
- recommendations that the city incorporate environmentally sustainable management practices into road designs, including storm water management such as bioswales and rain gardens, continuous tree planting, expansion of terrace widths to 4-6 feet (pgs 28, 29, 48, 50, 59 )

## A. Oshkosh Resident Guidance

### 5. League of Women Voters Recommendations

- In a February 2010 statement provided to the city of Oshkosh, the LWV recommended that the city consider during road reconstruction the following: reductions in impervious surfaces; terrace expansion; tree planning, installation of rain gardens



## B. Oshkosh Area School District / OSRTS

The Oshkosh Area School District is a primary stakeholder in the city's street policy discussion, serving as the destination and departure site for thousands of pedestrian walkers and bicyclists every day.

The District has partnered with the city, community members, and regional planners in the creation of a "Safe Routes To Schools" plan that identifies ways to improve our community's safety while encouraging bicycling and walking of children.



## B. Oshkosh Area School District / OSRTS

- The Oshkosh Safe Routes To Schools Plan recognizes the need for infrastructure changes to improve pedestrian safety, citing *“There are a few non-motorized transportation facilities located within the Oshkosh area. The City of Oshkosh recognizes the need for non-motorized transportation facilities as being a major transportation facilities as well as recreation facilities”* (pgs 16, 25)
- The #1 Goal identified in the Oshkosh Safe Routes to School Plan is *“To provide safe and adequate routes leading to schools so that more students are able to safely walk or bike to school”* (pg 21)

## C. Municipal Policy

The primary guiding policy for municipal policy to conform with is the comprehensive plan, an extensive and elaborate community document drafted with professional guidance and involving the participation of many community leaders and knowledgeable residents.

The city's comprehensive plan supports the sustainable streets system proposed by the SAB.



## C. Municipal Policy

- The City of Oshkosh Comprehensive Plan “Vision for Oshkosh” states that *“Oshkosh will maintain and create a safe, efficient, effective and environmentally sensitive transportation system”*
- The Comprehensive Plan states that the city will *“develop a bicycle and pedestrian circulation that improves the options and safety for non-motorized transportation”*
- Street infrastructure policy has a direct connection to stormwater management practices and can play an important part of the sustainable management of Oshkosh’s water resources (Comprehensive plan pgs 139, 161, 182, 183)

## D. Environmental Data

City streets are a primary cause of stormwater issues, including water pollution, serving as the primary flowage avenue for polluted stormwater into our water systems. Pollutants may include motor oil, antifreeze, pesticides, pet waste, paint, household chemicals, trash, and construction debris (UW Oshkosh)

An effective and responsible street policy will take steps to reduce environmental harm.



## D. Environmental Data

- The US EPA has reported that approximately 70% of all water pollution occurs as a result of storm water runoff.
- Green Streets (streets designed with landscape areas that capture, filter and allow for infiltration of stormwater runoff) are recognized as an effective way to help manage stormwater volume and water quality.
- UW Extension research has demonstrated that every 5% increase in tree canopy reduces storm water flow by at least 2%. This number increases if the canopy is covering an impervious surface.
- The US Forest Service has reported that the regular placement of trees can help reduce flooding and storm water pollution:

*“Trees reduce water runoff and flooding by capturing and storing rainfall in the canopy and releasing water into the atmosphere through evapotranspiration. In addition, tree roots and leaf litter create soil conditions that promote the infiltration of rainwater into the soil. The presence of trees also helps to slow down and temporarily store runoff, which further promotes infiltration, and decreases flooding and erosion downstream. Trees reduce pollutants by taking up nutrients and other pollutants from soils and water through their roots, and by transforming pollutants into less harmful substances.”*

## E. Street Width Data

A street width policy is much more than a calculation based upon width of automobiles and amount of traffic. As demonstrated in this presentation, a street width policy must consider safety, health, neighborhood livability, and environmental

Implications. In most cases, a deliberate policy to reduce the width of roads will meet the complete needs of a community street policy while actually saving the city money.



# E. Street Width Data

- Research has demonstrated that narrow streets can easily accommodate residential parking demand. A single family home typically requires 2 to 2.5 parking spaces. In most residential zones, this parking demand can be easily satisfied by one parking lane on the street and driveways (US EPA, 2009)
- Research indicates that narrow streets have lower accident rates than wide streets. Narrow streets tend to lower vehicle speeds and act as traffic calming devices.(US EPA, 2009)
- Reductions in road width will reduce municipal costs. According to the US EPA, Narrower streets cost less to build than wider streets. Reductions of a mere four feet from existing streets can yield savings of more than \$35,000 per mile of residential street. In addition, since narrower streets produce less impervious cover and runoff, additional savings can be realized in the reduced size and cost of downstream stormwater management facilities. Narrower streets should slightly reduce road maintenance costs for local communities, since they present a smaller surface area to maintain and repair.

## F. SAB Recommendations

1. Strive for terrace width of 6 feet whenever possible
2. Include terrace trees whenever feasible. If street widths including parking do not permit enough terrace space, incorporate terrace bulb-outs frequently to create enough space
3. Develop curbsides to maximize rain water absorption and to reduce rain water runoff, including exploring the possibilities of bioswales, rain gardens, and native vegetation.



12 foot terrace, tree lined, natural and attractive bioswale stormwater filter plantings, sidewalk

# F. SAB Recommendations

- Improve the safety of intersections by eliminating parking within 20+ feet of intersections, increasing the placement of cross walks, and constructing raised crosswalks.
- Eliminate parking on one side in R1 & R2. Use the saved space to incorporate a bicycle lane or to reduce the road width and subsequently expand the terrace width.
- Incorporate bicycle lanes and related improvements wherever recommended by the pedestrian and bicycle plan



Raised crosswalks with clear markings greatly improves safety.

# F. SAB Recommendations

- When bicycle options are not incorporated, incorporate extended terrace bulb-outs for cross-walk safety and avoidance of passing in parking lanes.
- Discourage reductions in side-walk less than 5 feet in width, and take into consideration nearby usage, including commercial usage, larger crowd gathering such as churches and schools, and other settings and institutions that produce heavy pedestrian or heavy alternative non-motorized usage



Bulbouts (curb extension) will allow for tree planting. In this example, the bulbout helps absorb rainwater runoff while adding safety and attractiveness to neighborhood

# F. SAB Recommendations

- Foster communication and coordination among City departments to encourage consideration of watershed health and improved water quality through use of green street facilities as part of planning and design of projects
- Design road systems that create attractive streetscapes to enhance neighborhood livability by enhancing the pedestrian environment and introducing park-like elements into neighborhoods



One-way bicycle lane on each side of road, sidewalk present, tree-lined terrace

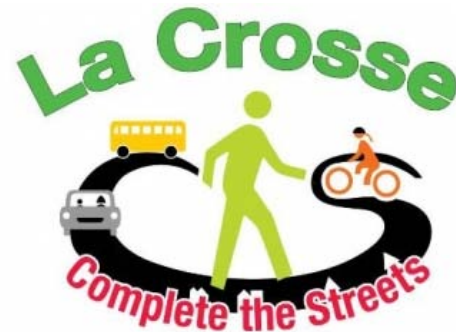
## F. SAB Recommendations

- Create landscaped pedestrian island refuges in the middle of expansive road ways to improve pedestrian safety (example of a road way benefiting this include northern section of Jackson)
- If cul-de-sacs are constructed, design an interior landscaped island that will reduce stormwater runoff and help with rainwater absorption.
- Avoid the expansion of single lane roadways into two-lane road ways in residential areas.



Curb cut-outs allow water to flow into this natural bioswale filtration area that adds an attractive and safety element to neighborhood

city of  
new haven  
**COMPLETE  
STREETS**  
DESIGN MANUAL



# Conclusion

- Recommendations reviewed by UW Extension planning staff
- Unanimously approved by SAB
- Being Implemented across the US

