COMPLETE STREETS PLAN

PLANNING COMMISSION
MAY 27, 2016
BACKGROUND

- City adopts many policies in Comprehensive Plan related to street design and “complete streets”
- Complete Streets
  - Streets are designed with consideration of all modes and users of all ages and abilities
- City Council passes Complete Streets resolution
- State passes complete streets legislation
- City of Saint Paul accredited by APWA
- TIGER II Grant funded project
- Project kicked off five years ago
OUTREACH & DEVELOPMENT

- Transportation Committee is an advisory committee
- Six pilot projects
  - Five design workshops
    - ~100 participants
  - Enhanced Better Block pilot project
    - ~250-300 participants
- Interdepartmental technical committee
  - Public Works
  - Parks (Design & Forestry)
  - PED
  - Fire
The **Street Design Manual** is based on “complete streets” principles and:

- Establishes the Street Design Manual as Saint Paul’s best design practices.
- Provides a reference for guiding manuals and standards.
- Illustrates street improvements.
- Explains how street elements affect multiple transportation modes.
- Provides examples of multimodal projects.
- Living document that will be updated regularly and administratively.
- Will be approved by City Council by resolution.
ACTION PLAN

• The **Complete Streets Action Plan**:  
  • Guides City staff on next steps for implementing Complete Streets policies.  
  • Based on the work to complete the Street Design Manual and Pilot Projects

• Nine recommendations  
  • Short-term (1 year)  
  • Medium-term (2 years)  
  • Long-term (3-5 years)
QUESTIONS?

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TESTIMONY

- No written comments
- 2 comments
  - Highland District Council
    - Action Plan Item 6
      - Further differentiate between pedestrian and Bike data
  - Ward 4 Office
    - Action Plan Item 2
      - Shift to neighborhood schools has not reduced bussing
    - Action Plan Item 7
      - City has begun collecting more comprehensive pedestrian and bike crash data
DRAFT MANUAL SUMMARY

- “Living Document”
- Links to founding documents
- Focus on design elements rather than idealized cross-sections
Most relevant manuals and guidelines that control street design:
- Federal down to local
- Link to actual document

**State of Minnesota Standards and Guidelines**

**Minnesota MUTCD**
- Issuing Agency/Organization: Minnesota Department of Transportation
- Level of Authority: Guidelines
- Overview: The Minnesota MUTCD is a comprehensive resource for the design of streets, highways, and traffic control devices. It is based on the Federal Highway Administration's MUTCD, with some modifications to better fit Minnesota's needs.

**Minnesota Department of Transportation Road Design Manual**
- Issuing Agency/Organization: Minnesota Department of Transportation
- Level of Authority: Guidelines
- Overview: The Road Design Manual provides detailed guidance on the design of roads and streets, including recommendations for traffic calming, pedestrian safety, and other aspects of road design.

**Minneapolis Street Design Manual**
- Issuing Agency/Organization: City of Minneapolis
- Level of Authority: Guidelines
- Overview: The Street Design Manual is a comprehensive resource for the design of streets in Minneapolis, with a focus on pedestrian and cyclist safety.

**LRFD Bridge Design Manual**
- Issuing Agency/Organization: Minnesota Department of Transportation
- Level of Authority: Guidelines
- Overview: The LRFD Bridge Design Manual provides detailed guidance on the design of bridges, including load and resistance factor design principles.

**Minneapolis Bridge Manual**
- Issuing Agency/Organization: City of Minneapolis
- Level of Authority: Guidelines
- Overview: The Bridge Manual provides detailed guidance on the design and construction of bridges in the City of Minneapolis.
Bicycle Parking

Definition

Bicycles are often the cheapest and most efficient mode of transportation available, allowing bicycle parking in various locations. It is an important aspect of a multi-modal transportation system that allows bicyclists to secure their bicycles at their destination, whether that is their place of work, shopping or recreation, or a transit station. Bicycle parking is provided in a variety of forms depending on the location and type of use. Short-term parking may consist of individual or multiple bike racks provided within the furniture or building frontage zones of a street or high capacity areas placed within the street itself (where there is a defined sector parking lanes). Long-term parking may consist of racks or an area where they may be sheltered and placed in off-street locations such as parking garages, lots, or at train station entrances. Long-term parking may be secured controlled.

Applicability and Use

While designed and placed bicycle parking promotes a more orderly transportation system, it preserves the pedestrian right-of-way and prevents damage to trees and shrubs.

In general, locating one or two racks at multiple locations along the street makes it easier for people to park their bicycles at one location, ensuring there are adequate parking to meet demand, parking requirements should be periodically assessed, and additional parking should be provided where demand is high.

In areas with high bicycle parking demand and limited space behind the curb, and limited street car parking, in-street racks or other high capacity bike rack systems may be considered. In-street facilities require a right-of-way permit. Bike racks may present an opportunity for bicycle rack installations.

Placemaking / Public Art Opportunity

Bike racks present an opportunity for public art, however, the bike design considerations outlined on the next page should be adhered to.

Design Considerations

- Bicycle racks should be placed on concrete or other similarly paved surfaces. Racks should not be placed on a great basement.
- In-lane bicycle parking may be necessary where there is on-street parking and high bicycle parking demand and limited other locations for public and private bike parking.
- In -street bicycle racks should be placed on non-paved, paved, or other similarly paved surface. Racks should not be placed on a great basement.
- In -street bicycle racks may be used to accommodate the needs of people who may be distressed, and may be removed during inclement weather or cold temperatures.
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Related Treatments

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References

- MoDOT Design Manual
- AASHTO Guide for the Development of Bicycle Facilities
- Comprehensive Plan

Public art relevance & guidance

Specific design guidance

Measured drawing or table

Parameters for use
Marked Crosswalks

Design Considerations continued

Uncontrolled Crossing Locations

The design of marked crosswalks at uncontrolled locations should incorporate additional crossing treatments depending on the number of travel lanes, vehicle speed, and the volume of vehicles in a given location. The table below contains guidelines for intersection and mid block locations with no traffic signals or stop signs on the approach to the crossing. They do not apply to school crossings. A two-way center turn lane is not considered a median. Crosswalks should not be installed at locations that could present an increased safety risk to pedestrians, such as where there is poor site distance, complex or conflicting roadway geometry, substantial volumes of heavy trucks, or other design, without first providing adequate design features and/or traffic control devices. Adding crosswalks alone will not make a crossing safer, or necessarily result in more vehicles stopping for pedestrians. Whenever marked crosswalks are installed, it is important to consider other pedestrian facility enhancements, such as sidewalks, to improve the safety of the crossing (e.g., raised medians, traffic signals, roadway narrowing, enhanced crosswalk lighting, traffic calming measures, bump outs).

- These are general recommendations; good engineering judgment should be used in individual cases for deciding where to site crosswalks.
- Where speed limit exceeds 40 mph, marked crosswalks alone should not be used at unsignalized locations.

<table>
<thead>
<tr>
<th>Number of Lanes</th>
<th>Vehicle ADT</th>
<th>Speed Limit</th>
<th>Speed Limit</th>
<th>Speed Limit</th>
<th>Speed Limit</th>
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<tr>
<td></td>
<td>5,000 or Less</td>
<td>9,000 - 15,000</td>
<td>12,000 - 15,000</td>
<td>More than 35,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 mph</td>
<td>35 mph</td>
<td>40 mph</td>
<td>30 mph</td>
<td>35 mph</td>
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<tr>
<td>Two Lanes</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Three Lanes</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Four or More Lanes with Raised Median</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Four or More Lanes with Raised Median</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
</tbody>
</table>

A = Indicates site for marked crosswalk. Marked crosswalks must be installed carefully and selectively. Before installing new marked crosswalks, an engineering study is needed to show whether the location is suitable for a marked crosswalk. For an engineering study, a site review may be sufficient at some locations, while a more in-depth study of pedestrian volumes, vehicle speeds, sight distance, vehicle mix, etc., may be warranted at other sites.

B = Possible increase in pedestrian crash rate may occur if crosswalks are added without other pedestrian facility enhancements. These locations should be closely monitored and enhanced with other pedestrian crossing improvements, if necessary, before

Section
Street Design: Behind the Curb
Street Design: Between the Curbs
Street Design: Intersections
Implementation

Street Type Application
Downtown
Mixed Use Corridor
Residential Corridor
Neighborhood
Industrial
Parkway

Related Treatments
Roadway Lighting
Curb Radii
Rectangular Rapid Flashing Beacon
HAWK Signal
Mid-Block Crossings
Sidewalk and the Zone System
Bump Outs

References
MnDOT Design Manual
State Aid Manual
Comprehensive Plan
Standard Plates
MN MUTCD

Saint Paul Street Design Manual
RECOMMENDATION 1

• **Goal:** The City and community should explore traffic problems and options together, resulting in recommendations that will be the most likely to achieve the neighborhood’s objectives (Comprehensive Plan – Transportation Chapter, Policy 4.11).

• **Issue:** There is a wide variation in neighborhood capacity around transportation-related issues.

• **Action:** **Support District Councils’ capacity for transportation issues by providing training to transportation committees particularly around safety and arterial roads.**
RECOMMENDATION 2

• Goal: Provide safe citywide connections to schools, libraries, parks, and recreation centers, with improved crossings and comfortable pedestrian environments at high demand destinations (Comprehensive Plan – Transportation Chapter, Policy

• Issue: Some neighborhoods are missing the infrastructure necessary to allow children to walk to school.

• Action: Develop a Safe Routes to School or similar program.
RECOMMENDATION 3

• Goal: Design should be sensitive to the context and community in which it is located. Performance standards should be established with measurable outcomes (Comprehensive Plan – Transportation Chapter, Policy 1.1).

• Issue: Reports to Transportation Committee provide minimal information and do not allow for tracking project characteristics related to complete streets.

• Action: Modify Transportation Committee report to explicitly include how projects are meeting complete streets policies.
RECOMMENDATION 4

• Goal: Support transit-oriented design through zoning and design guidelines. Compact, street-oriented design should be emphasized to promote walkability and transit use, especially in commercial corridors. Standards for building placement and design based primarily on the needs of the pedestrian should be enforced and expanded (Comprehensive Plan – Transportation Chapter, Policy 2.2).

• Issue: Traffic studies done as part of site plan review typically are only for auto traffic and pedestrian accommodation is limited to sidewalks.

• Action: Review and implement pedestrian-oriented features adjacent to development projects as part of site plan review.
RECOMMENDATION 5

• **Goal:** Develop a strategy for investing in a broad range of infrastructure projects, including, but not limited to, street and traffic improvements to support the growth of existing employment, services, parks, and schools (Comprehensive Plan – Transportation Chapter, Policy 2.4).

• **Issue:** Public Works has not as standard practice coordinated with other departments in the street design process.

• **Action:** Build on recent efforts of inter-departmental collaboration by continuing project planning coordination meetings and scoping retreats for upcoming street projects. This collaboration facilitates identifying “win-wins,” implementing plans, and designing streets that live up to the City’s vision.
RECOMMENDATION 6

- **Goal:** Collaborate with non-profit, volunteer, and business organizations to coordinate bicycle counts at sample intersections and on selected routes. Regular counts will help the City better understand trends in bicycling citywide and prioritize improvements and maintenance (Comprehensive Plan – Transportation Chapter, Policy 3.14).

- **Issue:** Very limited biking and walking data impair decision making processes.

- **Action:** Establish a practice of bike and pedestrian counts including frequency and methodology.
RECOMMENDATION 7

• Goal: Increase pedestrian, bicycle, and motorist safety through effective law enforcement, detailed crash analysis, and engineering improvements to reduce the risk of crashes (Comprehensive Plan – Transportation Chapter, Policy 1.14).

• Issue: Projects have been prioritized based on pavement quality rather than safety especially the safety of those most vulnerable.

• Action: Refine data-driven methodology to rank street projects for citywide programs.
RECOMMENDATION 8

- Goal: Connect neighborhoods that have poor sidewalks or little access to trails and bike routes, especially east and north of Downtown (Comprehensive Plan – Transportation Chapter, Policy 4.7).

- Issue: Many gaps in sidewalk infrastructure exist throughout the city.

- Action: *Initiate a Comprehensive Pedestrian Plan.*
RECOMMENDATION 9

• Goal: Define parkway character, features, and amenities; clarify parkway designations; and assign improvement responsibilities and resources (Comprehensive Plan – Parks Chapter, Policy 6.10).

• Issue: Policies guiding parkway design and management are confusing and do not identify goals.

• Action: Develop specific guiding policies and priorities for parkways as part of the 2040 Comprehensive Plan update.