Complete Streets Implementation

Resource Guide

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# TAP Members

**TAP Chair:**
Jeff Hulsether  
City of Brainerd

<table>
<thead>
<tr>
<th>NAME</th>
<th>ORGANIZATION</th>
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<tbody>
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<td>Cindy Zerger</td>
<td>U of M</td>
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Why are Complete Streets Gaining Momentum?

- 40% of Minnesotans do not drive
- Aging population
- ADA compliance
- Increase in obesity
- Government agencies need to do more with less
Research Guide Goals

- Assist local agencies develop a complete streets implementation process tailored to their community’s specific needs and conditions
Chapter 1: An Overview of Complete Streets
Chapter 2: Representative Minnesota Complete Street Policies
Chapter 3: Terms and Definitions
Chapter 4: Implementation
Chapter 5: Synthesis of Minnesota Complete Streets
Appendix A: Complete Streets Worksheet
Research Guide Contents

Chapter 1: An Overview of Complete Streets

- Facts and trends
- Definition
- Relationship to federal and state objectives
- Benefits and challenges
- Integration with other planning policies/processes
"Complete streets" is the planning, scoping, design, implementation, operation, and maintenance of roads in order to reasonably address the safety and accessibility needs of users of all ages and abilities. Complete streets considers the needs of motorists, pedestrians, transit users and vehicles, bicyclists, and commercial and emergency vehicles moving along and across roads, intersections, and crossings in a manner that is sensitive to the local context and recognizes that the needs vary in urban, suburban, and rural settings (MINN. STAT. 174.75, Subd. 1.)
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10 Policy Elements

- Sets a vision
- Specifies all users
- All projects
- Exceptions
- Creates a network
- All agencies and all roads
- Design criteria
- Context-sensitive
- Performance measures
- Implementation
Representative Agencies

- Hennepin County
- City of Rochester
- City of Big Lake
Research Guide Outline
Chapter 5: Synthesis of Minnesota Complete Streets

- Complete street studies/resources in Minnesota
- Summary of Minnesota communities with complete street policies/resolutions
Complete Streets Implementation Process

- Effective public engagement is necessary throughout the entire implementation process
Complete Streets Implementation Process

Planning Phase
1. Develop a complete streets network plan
2. Develop street and area typologies and circumstantial exceptions, as needed
3. Define project types that may trigger complete streets implementation
4. Integrate and institutionalize a complete streets approach

Project Phase
5. Implement individual projects
6. Post Implementation
Complete Streets Implementation Process

Planning Phase
Complete Streets Implementation Process: Planning Phase

1. Develop a complete streets network plan

- Bicycle
- Pedestrian
- Bus
- Truck
- Automobiles
Complete Streets Implementation Process: Planning Phase

2. Develop street and area typologies and circumstantial exceptions, as needed
Complete Streets Implementation Process: Planning Phase

Area and Street Typologies

Designer must understand and balance 3 primary factors:

- Area type
- Roadway types
- Access control
Access Minneapolis – Place Typologies

- Activity Centers
- Commercial Corridors
- Community Corridors
- Neighborhood Commercial Nodes
- Transit Station Areas
- Growth Center
- Major Retail Centers
- Industrial Employment Districts
Complete Streets Implementation Process: Planning Phase

Access Minneapolis – Street Typologies

- Commuter Street
- Commerce Street
- Activity Area Street
- Community Connector
- Neighborhood Connector
- Industrial Connector
- Local Street
- Traditional Downtown Street
## Complete Streets Implementation Process: Planning Phase

### Access Minneapolis – Street Typologies

**Figure 2-4 Street Design Type Characteristics**

<table>
<thead>
<tr>
<th>Proposed Street Types</th>
<th>Description</th>
<th>Equivalent Functional Class</th>
<th>Through Traffic Lanes</th>
<th>Target Operating Speed</th>
<th>Transit</th>
<th>Pedestrian Facilities</th>
<th>Bicycle Facilities</th>
<th>Freight</th>
<th>Connection to Freeway System</th>
<th>Median</th>
<th>Turn Lanes</th>
<th>Curb Parking*</th>
<th>Curb Extensions</th>
<th>Driveway Access</th>
<th>Trees and landscaping</th>
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</thead>
<tbody>
<tr>
<td>Commuter Street</td>
<td>High capacity; carries through traffic, serves longer trips and provides limited access to land uses</td>
<td>Principal or A Minor Arterial</td>
<td>4-6*</td>
<td>40 mph</td>
<td>PTN</td>
<td>Yes</td>
<td>Yes (on Parallel paths)*</td>
<td>Regional truck routes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Limited; access from alleys or access lanes</td>
<td>Yes</td>
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<tr>
<td>Commerce Street</td>
<td>Medium capacity; supports retail, service commercial and higher intensity residential land uses on a corridor basis</td>
<td>A and B Minor Arterials</td>
<td>2-4</td>
<td>30 mph</td>
<td>PTN and Local routes</td>
<td>Yes</td>
<td>Yes if in Master Plan</td>
<td>Local truck routes</td>
<td>Yes</td>
<td>Optional</td>
<td>Optional</td>
<td>Yes</td>
<td>Yes</td>
<td>Limited; access from alleys</td>
<td>Yes</td>
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<tr>
<td>Activity Area Street</td>
<td>Medium capacity: provides access to abutting properties in activity centers, growth centers, transit station areas, and neighborhood commercial nodes</td>
<td>A and B Minor Arterials, Collectors, and Locals</td>
<td>2-4</td>
<td>30 mph</td>
<td>PTN and Local routes</td>
<td>Yes</td>
<td>Yes if in Master Plan</td>
<td>Local delivery</td>
<td>Provisional</td>
<td>Optional</td>
<td>Optional</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Community Connector</td>
<td>Medium capacity: connects neighborhoods together and with commercial corridors and other districts, districts with each other; serves as the main street of a neighborhood commercial node. Some streets have a commuter function that require special frontage design</td>
<td>B Minor Arterials and Collectors</td>
<td>2-3*</td>
<td>30 mph</td>
<td>PTN and Local routes</td>
<td>Yes</td>
<td>Yes if in Master Plan</td>
<td>Local truck routes</td>
<td>Provisional</td>
<td>Optional</td>
<td>Optional</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Neighborhood Connector</td>
<td>Low capacity; connects neighborhoods with each other. Some streets have a commuter function that require special frontage design</td>
<td>Collectors</td>
<td>2</td>
<td>30 mph</td>
<td>PTN and Local routes</td>
<td>Yes</td>
<td>Yes if in Master Plan</td>
<td>Local deliveries</td>
<td>Provisional</td>
<td>Optional</td>
<td>Optional</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Industrial Connector</td>
<td>Low capacity; connects districts with neighborhoods and serves abutting property in single use (industrial/employment) districts</td>
<td>Collectors</td>
<td>2-3*</td>
<td>30 mph</td>
<td>PTN and Local routes</td>
<td>Yes</td>
<td>Yes if in Master Plan</td>
<td>Local truck routes</td>
<td>Provisional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Parkway Street</td>
<td>Low-capacity thoroughfare designed to provide circulation adjacent to and through parkland</td>
<td>Locals</td>
<td>1-2</td>
<td>25 mph</td>
<td>Provisional</td>
<td>Yes</td>
<td>Yes (on Parallel paths)</td>
<td>Local deliveries</td>
<td>No</td>
<td>No</td>
<td>Optional</td>
<td>Optional</td>
<td>Recessed in bays</td>
<td>Yes</td>
<td>Optional</td>
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<tr>
<td>Local Street</td>
<td>Low capacity; serves abutting property in residential neighborhoods or single use (industrial/employment) districts</td>
<td>Locals</td>
<td>1-2*</td>
<td>30 mph</td>
<td>Local Routes</td>
<td>Yes</td>
<td>Yes if in Master Plan</td>
<td>Local deliveries</td>
<td>No</td>
<td>No</td>
<td>Optional</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Alley</td>
<td>Property and parking access</td>
<td>Locals</td>
<td>1-2</td>
<td>5 mph</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Local deliveries</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**LOCAL ROAD RESEARCH BOARD**
Complete Streets Implementation Process: Planning Phase area and street typologies

**Smart Transportation Guidebook (MassDOT)**

**Regional Arterial (In Suburban Corridor Context)**
- Desired operating speed: 30-55 mph
- Average trip length: 15-35 miles
- Volume: 10,000-40,000
- Intersection Spacing: 660-1,320 ft
- Roadways in this category would be considered “Principal Arterial” in traditional functional classification.

**Neighborhood Collector (In Suburban Neighborhood Context)**
- Desired operating speed: 20-30 mph
- Average trip length: < 7 miles
- Volume: < 6,000
- Intersection Spacing: 300-660 ft
- Similar in appearance to local roadways.
- Typically considered a “Minor Collector” in traditional functional classification.
FHWA Circumstantial Exceptions:

- Accommodation is not necessary on corridors where non-motorized use is prohibited, such as freeways.

- When the cost of accommodation will be excessively disproportionate to the need or probable use.

- When minimal population or other factors indicate an absence of need.
3. Define project types that may trigger complete streets implementation
   • New construction
   • Reconstruction
   • Some types of rehabilitation
   • Resurfacing and changes in the allocation of pavement space on an existing roadway
4. Integrate and institutionalize a complete streets approach
   • Visioning and planning documents (comprehensive plans, neighborhood plans, active living plans, and transportation plans)
   • Community’s ordinances (zoning code, subdivision ordinances)
   • Design manuals
Complete Streets Implementation Process

Project Phase

www.pedbikeimages.org / Laura Sandt
5. Implement individual projects
## Project Information

<table>
<thead>
<tr>
<th>Project Location (municipality):</th>
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<tbody>
<tr>
<td>Roadway Jurisdiction:</td>
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<tr>
<td>Project/Roadway Name:</td>
</tr>
<tr>
<td>Project Start Point:</td>
</tr>
<tr>
<td>Project End Point:</td>
</tr>
<tr>
<td>Project Manager</td>
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</tbody>
</table>

**Define Existing and Future Land Use and Urban Design Context**

1. Do any adopted plans call for the development of bicycle, pedestrian, transit or roadway facilities on, crossing, or adjacent to, the proposed project? If yes, list the applicable plan(s).
   - Guidance: Possible sources of this information include Comprehensive Plans, Transportation Plans, Bicycle or Pedestrian Master Plans, or area-specific studies developed by applicable City, County and/or State Agencies.

2. Are there any local, county, state-wide or federal policies that call for incorporating multimodal facilities?
   - Guidance: Policies at the state and federal level may impact a project due to funding sources.

![Example Cross Section]

18. Sketch in or attach the initial cross-section(s) that depicts desired street elements.
   - Guidance: Initial cross-section should be clearly dimensioned and indicate any additional right-of-way required. Additional cross-sections are advisable for specific situations or if corridor segments greatly vary.

19. Describe any constraints associated with the initial cross-section.
   - Guidance: Potential constraints include lack of right-of-way, existing structures, existing mature trees or environmental features, topography or number of driveways.

20. Sketch in or attach alternative cross-sections.
   - Guidance: Alternative cross-sections should be modifications of the initial cross-section that respond to identified constraints. All modes should receive equal consideration and accountability in the development of alternatives.
6. Post Implementation
   • Evaluation
     o Informal observation and feedback
     o Before and after studies
     o Goal attainment measurements
   • Maintenance
### Complete Streets Implementation Process

<table>
<thead>
<tr>
<th>Implementation Process</th>
<th>Community Size</th>
</tr>
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<tr>
<td></td>
<td>Small</td>
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<tr>
<td><strong>Planning Phase</strong></td>
<td></td>
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<tr>
<td>Create a complete streets network plan</td>
<td><strong>X</strong></td>
</tr>
<tr>
<td>Develop street and area typologies and circumstantial exceptions as needed</td>
<td>Street typologies</td>
</tr>
<tr>
<td>Determine project types that will trigger complete streets implementation</td>
<td><strong>X</strong></td>
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<tr>
<td>Integrate and institutionalize a complete streets approach</td>
<td>Informal</td>
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<tr>
<td><strong>Project Phase</strong></td>
<td></td>
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<tr>
<td>Implement individual projects</td>
<td><strong>X</strong></td>
</tr>
<tr>
<td>Post implementation:</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>Informal</td>
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<tr>
<td>Maintenance</td>
<td><strong>X</strong></td>
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Complete Streets Implementation Resource Guide for Minnesota Local Agencies

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