IMPLEMENTING COMPLETE STREETS
MAKING IT HAPPEN
(Module 6)

- Organize implementation
- Process and procedure changes
- Update design guidance
- Offer training opportunities
- Create new performance measures
Getting from here...
...to there!
Getting from here...
...to there!
Getting from here...
Getting from here...
...to there!
From policy to practice

Effective implementation means:

1. Organize implementation activities
2. Restructure procedures, policies, and programs
3. Rewrite or update design guidance
4. Offer training opportunities to transportation staff, community leaders, and the general public
5. Create new performance measures
1. Organize implementation

Committee or person to “guide” activities, ensure accountability

External or internal; new or new responsibilities
Implementation Committees

Bring together different departments (buy-in)

Clear coordination and accountability

Need appropriate level of staff
  • High-level: authority, demonstrate commitment, but delegates work
  • Mid-level: more familiar with projects and stakeholders, but doesn’t have authority

Share work in identifying gaps and fixing them

Multi-disciplinary review of exceptions
Implementation Committees

Internal stakeholders:

• Engineering/Public Works
• Transportation planners, land use planners
• Transit agencies
• Accessibility (ADA) compliance
• Parks, recreation, trails
• Economic development
• Public health
Implementation Committees

**Internal**: Easier to manage expectations, achieve goals

**External**: Builds stronger community and political will

- State/MPO/other staff
- Bike-walk advocates
- Disability advocates
- Older adult organization
- Realtors & developers

- YMCA/health promotion
- Enviro: Sierra Club
- Smart Growth groups
- Churches/faith-based
- Neighborhood orgs
1. Organize Implementation

Committee or person to “guide” activities, ensure accountability

- External or internal; new or new responsibilities

**Benchmarking audit**

- Checklists, procedures, plans, processes, design guidance, performance measures
1. Organize Implementation

Committee or person to “guide” activities, ensure accountability

- External or internal; new or new responsibilities

Benchmarking audit

- Checklists, procedures, plans, processes, design guidance, performance measures currently used

Develop a plan
Implementation plans

Best practices:

• List of documents, policies, procedures needing update

• Timeline for action

• Assign responsibilities to people/positions/departments

Clear path forward

Measure internal changes as well as built projects

Communication tool
**Implementation plan: Cobb County, GA**

<table>
<thead>
<tr>
<th>Best Practices</th>
<th>Related Documents</th>
<th>Coordination Status</th>
<th>Implementation Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a Unified Street Design Manual</td>
<td>Development Regulations, Engineering Procedures Manual, Comprehensive Transportation Plan, Zoning Codes, Bike &amp; Pedestrian Plan</td>
<td>Currently no unified design manual exists. Greater flexibility in design is needed. Design should be context sensitive and surrounding coordinated with land uses (See Appendix E for Examples)</td>
<td>Immediate Use ITE CSS to supplement AASHTO guidelines and allow greater design flexibility and begin process for creating Cobb Street Design Manual</td>
</tr>
<tr>
<td>Project Prioritization</td>
<td>Comprehensive Transportation Plan, Bike &amp; Pedestrian Plan, SPLOST Program</td>
<td>Projects are appropriately linked to Comprehensive Transportation Plan and the Bicycle &amp; Pedestrian Plan</td>
<td>Immediate Focus prioritization of improvements on access to schools, major activity centers, ADA accessibility in conjunction with safety and congestion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mid-Term Link 5 year CIP to implementation strategies from CTP and Bike &amp; Pedestrian Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Long-Term Continue to update CIP based on updates of Transportation Plans</td>
</tr>
</tbody>
</table>

| Research and Secure Appropriate Funding | Zoning Codes, Design Manual, Capital Improvement Plan, Special Purpose Local Option Sales Tax Program | Funding sources are clearly organized in Capital Improvement Plan and Special Purpose Local Option Sales Tax program | Immediate Apply for Transportation Enhancement and Safe Routes to School funding |
| | | | Mid-Term Amend zoning codes to provide incentives to developers that included bike lanes and public sidewalks in new projects. Monitor GDOT, ARC and FHWA for new funding opportunities |
| Inter-Departmental Coordination | Capital Improvement Plan, Comprehensive Transportation Plan, Bike and Pedestrian Plan | Coordination exists in County funded projects in initial planning. Additional coordination in the prioritization phase by coordinating plans with other departments and utility companies | Immediate Evaluate what current projects can be consolidated. Determine where road diets can be made on any current repaving projects |
| | | | Mid-Term Determine where sidewalk and bike lanes can be installed in conjunction with storm water, sewer, or utility projects |

**Notes:**
- Immediate: Provide training through Local and National Complete Streets and CSS Seminars before a formal manual is written.
- Mid-Term: Continue to provide on-going training. When the Design Manual is complete, conduct an orientation session with all personnel.
- Long-Term: Have new hires attend Complete Streets seminars and training, and Cobb Street Design Manual orientation.
### Implementation plan: Cobb County, GA (cont)

<table>
<thead>
<tr>
<th>Performance Evaluation</th>
<th>Design Manual, Comprehensive Transportation Plan, Bike &amp; Pedestrian Plan, Engineering Procedures Manual</th>
<th>The Engineering Procedures Manual does not require bike or pedestrian counts before or after infrastructure improvements</th>
<th>Immediate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Amend the Engineering Procedures Manual to require pedestrian and bicycle counts before sidewalk and bike lane additions/improvements and/or road diets</td>
<td></td>
</tr>
<tr>
<td>Mid-Term</td>
<td></td>
<td>Conduct bike and pedestrian counts after major maintenance, construction, or road diets. Measure miles of sidewalk and bike lanes to track progress of expanding bike and pedestrian network. Measure transit ridership and land use changes along streets where improvements are made</td>
<td></td>
</tr>
<tr>
<td>Long-Term</td>
<td></td>
<td>Analyze data from bike and pedestrian counts and crash data to determine the effectiveness of improvements and make adjustments where necessary</td>
<td></td>
</tr>
</tbody>
</table>
## Implementation plan: MnDOT

### Design

<table>
<thead>
<tr>
<th>What Needs To Be Done</th>
<th>Responsible Party</th>
<th>Timeline for Work Items</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Integrate CS into HPDP process</td>
<td>Director of CSS, Web Developer, Tech Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Interview Director of CSS</td>
<td>Project Manager</td>
<td>February, 2010</td>
<td></td>
</tr>
<tr>
<td>• E-Learning module for CSS awareness</td>
<td>Director of CSS</td>
<td>June, 2010</td>
<td></td>
</tr>
<tr>
<td>• Look for opportunity to move CSS webpage to HPDP process</td>
<td>Tech Support</td>
<td>Feb/March, 2010</td>
<td>March, 2011</td>
</tr>
</tbody>
</table>

### Funding/Planning

<table>
<thead>
<tr>
<th>What Needs To Be Done</th>
<th>Responsible Party</th>
<th>Timeline for Work Items</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Review funding sources and how each can be used/constraints for local projects</td>
<td>Federal Aid Engineers, Government Relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Interview with Federal Aid Engineer</td>
<td>Project Manager</td>
<td>March, 2010</td>
<td></td>
</tr>
<tr>
<td>• Develop list of sources</td>
<td>Federal Aid Engineers, Government Affairs</td>
<td>Spring, 2010 &amp; ongoing</td>
<td></td>
</tr>
<tr>
<td>• List ways to access funding &amp; the restrictions</td>
<td></td>
<td>Spring, 2010 &amp; ongoing</td>
<td></td>
</tr>
</tbody>
</table>

### Training/Support

<table>
<thead>
<tr>
<th>What Needs To Be Done</th>
<th>Responsible Party</th>
<th>Timeline for Work Items</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Integrate CS in existing CSS and flexible design training for Mn/DOT staff</td>
<td>Director of CSS, LTAP Director, Consultants</td>
<td>Enhanced as we go</td>
<td></td>
</tr>
<tr>
<td>• Interview with Director of CSS</td>
<td>Project Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Overview for speaking engage includes CS</td>
<td>Director of CSS, Technical Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Training module includes CS</td>
<td>Director of CSS, Technical Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Advanced training includes CS</td>
<td>Director of CSS, Technical Support</td>
<td></td>
<td></td>
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<tr>
<td>•</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>•</td>
<td></td>
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</tr>
</tbody>
</table>
2. Process & procedure changes

Update documents to comply with CS

RFPs, plans, regulations, codes, project scope
2. Process & procedure changes

Update documents to comply with CS RFPs, plans, regulations, codes, project scope

Modify process, procedures, and documents
Holistic project-development process

1. Define Land Use Context
2. Define Transportation Context
3. Identify Deficiencies
4. Describe Future Objectives
5. Define Street Type and Initial Cross-Section
6. Describe Trade-Offs and Select Cross-Section
Change project procedures

- Planning
- Programming
- Scoping
- Design
- Construction
- Maintenance*
- Operations*

- Capital projects
  - New, retrofit, reconstruction
  - Repair, resurfacing, restoration, rehabilitation
  - Bridges

*More opportunities than with CIP/TIP projects!
Modify procedural documents

• Checklists
  • Roadway design, signals, streetscaping, ADA, development reviews, etc.

• Decision trees

• Design vehicle

• Standard operating procedures

• Project development forms
2. Process & procedure changes

Update documents to comply with CS RFPs, plans, regulations, codes, project scope

Modify process, procedures, and documents

Prioritize projects that achieve CS goals
Complete Streets prioritization

• Use same budget, but \textit{better}

• Clear and transparent decisions
  • Stakeholder input on criteria

• Align with larger community goals, not just “mobility”

• Award points to multimodal projects, projects that fill gaps in walking, biking networks

• Prioritize for submission to TIP
2. Process & procedure changes

Update documents to comply with CS RFPs, plans, regulations, codes, project scope

Modify process, procedures, and documents

Prioritize projects that achieve CS goals

Clarify exceptions process, accountability

Implementation committee can help!
2. Process & procedure changes

Update documents to comply with CS RFPs, plans, regulations, codes, project scope

Modify process, procedures, and documents

Prioritize projects that achieve CS goals

Clarify exceptions process, accountability

Adopt or update relevant/supporting plans and policies
2. Process & procedure changes

Update documents to comply with CS RFPs, plans, regulations, codes, project scope

Modify process, procedures, and documents

Prioritize projects that achieve CS goals

Clarify exceptions process, accountability

Adopt or update relevant/supporting plans and policies

Take advantage of maintenance and operations opportunities
Opportunity: repaving
Opportunity: repaving

Colorado Springs:

- Bike lanes added after resurfacing projects
- 2-3% of network per year
Opportunity: preventative maintenance

Reno, NV

- Chip seals, slurry seals
- 10’ lanes
- Center turn lanes
- Parking
- Add sidewalks with later capital project
Opportunity: utilities work

Sidewalk added after fiber optic cable laid
3. Update design guidance

Create new document or revise existing

Custom

Time- and resources-intensive

Buy-in from staff
Build Your Own Guidelines

Complete Streets Chicago
Department of Transportation

Design Guidelines

Complete Streets DESIGN GUIDELINES
FOR LIVABLE COMMUNITIES

PHILADELPHIA COMPLETE STREET DESIGN HANDBOOK

Complete the Streets
3. Update design guidance

Create new document or revise existing

Reference latest and best national/state guides

- Less work
- Great examples ready for adoption
- Move on to other activities sooner
Adopt / Adapt National Best Practices
Refer to state standards

If appropriate for local needs...
3. Update design guidance

Create new document or revise existing

Reference latest and best national/state guides

Public and private development

Update related land use and development codes, parking policies, zoning, station design plans
3. Update design guidance

Create new document or revise existing
Reference latest and best national/state guides
Public and private development
Set new standard templates
3. Update design guidance

Create new document or revise existing
Reference latest and best national/state guides
Public and private development
Set new standard templates
Pilot new designs
Pilot designs

Boulder’s “Living Laboratory” to test ideas and collect data:

- Back-in angled parking
- Protected bike lanes
- Bike box
Interim strategies: moving the curb

Traffic calming
Narrow drainage channel
Traffic calming, via bike corral

“Daylight” an intersection when placed at corner

Can benefit local businesses
Parklets

Relieve sidewalk congestion
Property owners enter into agreement with city
Can be seasonal
3. Update design guidance

Create new document or revise existing
Reference latest and best national/state guides
Public and private development
Set new standard templates
Pilot new designs
Integrate new techniques into practice
4. Offer training

Identify different training needs

- Department heads, managers, program staff
- Planning/design staff
- Construction/field operations staff
- Cooperating agencies (health, transit, etc.)
4. Offer training

Formal & informal training for all staff levels

- Staff retreat
- Series of technical training sessions
- Walk/bike tours and audits
- Conferences, webinars
- Walk to lunch with coworker
4. Offer training

Technical and non-technical issues

- Not always needed for design, but for procedures

Multi-departmental

Public outreach and education is key
Share information

System Data

Citi Bike

Miles traveled today (5 pm to 5 pm)

70000
60000
50000

Linden Ave N Cycle Track

Seattle Department of Transportation

The Seattle Department of Transportation recently completed a two-way cycle track on Linden Ave N... See more

View all sets Photos
Personal interaction
5. Performance measures

Adopt or revise transportation performance measures

Establish base data collection
Easily countable data better than none!
Project/corridor specific AND community wide
Compare over years
Transportation Performance Measures

Before/after studies: Injury rate

Before

Injury Rate (per MVM)

3.6
1.2
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

3.6

1 injury every 9 days
(41 per yr)

68% Reduction

After

1.2

1 injury every 30 days
(12 per yr)
5. Performance measures

Adopt or revise transportation performance measures
   Easily countable, compare over years

Track Complete Streets projects
Track projects

• Miles or # of facilities
  • Sidewalk blocks, ADA-accessible ramps, bike lanes, street trees
• # of intersections improved
  • Signal timing, medians, count-down timers, bulb outs
• %age of sidewalk gaps eliminated
• %age of modal plans completed
• %age of children walking/biking to school
• # of exceptions granted
## Track projects

### City of Billings Major Roadway Projects Completed During 2012 Construction Season

<table>
<thead>
<tr>
<th>Project Description</th>
<th>How Non-Motorized Roadway Users Were Considered/Accommodated</th>
<th>Additional Complete Streets Features</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pedestrians</td>
<td>Elderly + Disabled</td>
</tr>
<tr>
<td>Rimrock Road</td>
<td>New continuous sidewalk on both sides</td>
<td>ADA ramps at intersections</td>
</tr>
<tr>
<td>Reconstruction</td>
<td>(Forsythia Boulevard to 17th Street West)</td>
<td></td>
</tr>
<tr>
<td>32nd Street West</td>
<td>Existing crosswalks perpetuated</td>
<td>Striping project only</td>
</tr>
<tr>
<td>Stripping</td>
<td>(King Avenue to Broadwater Avenue)</td>
<td></td>
</tr>
<tr>
<td>Central Avenue &amp;</td>
<td>Pedestrian signals included</td>
<td>ADA accessible ramps &amp;</td>
</tr>
<tr>
<td>29th Street West</td>
<td></td>
<td>accessible ped signals</td>
</tr>
<tr>
<td>Traffic Signal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Avenue</td>
<td>Sidewalk added along north side</td>
<td>ADA ramps at intersections</td>
</tr>
<tr>
<td>(29th to 32nd Streets West)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bench Boulevard</td>
<td>Sidewalk added on one side</td>
<td>ADA ramps at intersections</td>
</tr>
<tr>
<td>Connection (a Montana Department of Transportation project)</td>
<td>Multi use trail</td>
<td>ADA ramps added at 31st St. W</td>
</tr>
<tr>
<td>Broadwater Trail</td>
<td>Project concentrates on accessibility at intersection corners; not aimed at providing continuous pedestrian path</td>
<td>46 ADA accessible ramps along major streets</td>
</tr>
<tr>
<td>-- Vermillion Dr to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zimmerman Trail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012 ADA Ramp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Curb, Gutter, Sidewalk Project</td>
<td>Installed 6,700 lineal feet of new sidewalk</td>
<td>ADA ramps where applicable</td>
</tr>
<tr>
<td>2nd &amp; 3rd Avenues North -- Conversion to 2-way traffic N 13th to N 22nd Avenue</td>
<td>Striping project only</td>
<td>Striping project only</td>
</tr>
<tr>
<td>2012 Overlay Program:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overland Avenue</td>
<td>Existing sidewalk on north side, partial sidewalk on south side</td>
<td>No specific changes</td>
</tr>
<tr>
<td>Grant Road</td>
<td>Continuous sidewalk both sides</td>
<td>Existing ramps</td>
</tr>
<tr>
<td>Gabel Road</td>
<td>Gaps in sidewalk along undeveloped lots</td>
<td>Existing ramps</td>
</tr>
<tr>
<td>Daniel/Regal from</td>
<td>Outside scope of project</td>
<td>Does not have continuous sidewalk</td>
</tr>
<tr>
<td>Central Avenue to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monad Road</td>
<td>Outside scope of project</td>
<td>No existing sidewalks</td>
</tr>
<tr>
<td>Swords Bypass (Airport Road to 6th)</td>
<td>Outside scope of project</td>
<td>No existing sidewalks</td>
</tr>
</tbody>
</table>
Track on corridor or community

- Deaths and injuries by mode
- Crashes by mode and type
- Minimal walking delay at crossings
- Travel time for all modes
- Mode shift
- On-road transit performance
  - Buses running on time, average speed
- Stress or comfort indicators for bike, walk
- Corridor impact analysis
- Automobile Trips Generated (ATG)
- VMT or SOV trip reduction
- Level of Service that includes all modes
5. Performance measures

Adopt or revise transportation performance measures
   Easily countable, compare over years

Track Complete Streets projects

Collaborate on achieving community-wide goals
   Departments of Public Health, Environment; transit agencies; first responders
Collaborate with other agencies

- Air quality improvements
- Health
  - Chronic disease, physical activity
- Housing + Transportation affordability
- Emergency response time
- Transit operating costs and farebox recovery ratio
- Economic impact
  - Revenue, jobs, increased value
- Community quality of life survey
5. Performance measures

Adopt or revise transportation performance measures
   Easily countable, compare over years

Track Complete Streets projects

Collaborate on achieving community-wide goals
   Air quality, public health, economics

Communicate internal and external activities on regular basis
   Public reports, annual
Regular progress reports

Lee County:

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Action Required</th>
<th>Timeline/Deliverables</th>
<th>October 2010</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified Transportation Planning and Budgeting</td>
<td>• Modify internal transportation planning and budgeting process</td>
<td>• Report outlining modified transportation planning and budgeting process. Draft report completed. BOCC input in November 2011. • Adopt Lee Plan policies to incorporate the planning and budgeting process. Due December 2012.</td>
<td>• A Complete Streets Team has been created. This team will be reviewing the current transportation planning and budgeting process and will prepare the report with the modified process.</td>
<td>• Identified role of each Department for developing and implementing the Complete Streets Program. • Drafted a revised planning and budgeting process to integrate Complete Streets into County operations. The process has been reviewed by the Sustainability Committee’s Complete Streets Working Group and Budget Services. • Upon completion and approval of the revised planning and budgeting process, applicable policies will be incorporated into the Lee Plan.</td>
</tr>
<tr>
<td>Process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exceptions Process</td>
<td>• Develop thresholds and guidelines for design exceptions and variances from bicycle, pedestrian and public transit accommodations • Identify decision-making authority • Develop process for public access to exceptions information</td>
<td>• Status report to County Manager with proposed process and recent examples of exceptions and variances from Complete Street criteria. The paper will be reviewed by internal and external stakeholders, the Complete Streets Implementation Team, the Community Sustainability Advisory Committee, and the Bicycle and Pedestrian Advisory Committee. An exception report/list will be provided with the annual Complete Streets Report. Guidelines for exceptions from Complete Streets criteria will be developed based on the revised planning and budgeting process. Draft due July 2012.</td>
<td>• A draft white paper has been prepared and has been distributed for internal review. A draft will be distributed for review by internal and external stakeholders, the Complete Streets Implementation Team, the Community Sustainability Advisory Committee, and the Bicycle and Pedestrian Advisory Committee by mid-2011 in conjunction with the report with the modified transportation planning and budgeting process.</td>
<td>• Guidelines for exceptions from Complete Streets criteria will be developed based on the revised planning and budgeting process. An exceptions report/list is provided with the Annual Report. • The Complete Streets website was launched in May 2011. The intention of the website is to provide transparency of the Complete Streets Program, including the decision-making process for exceptions. • A Map-Based Complete Streets Evaluation Tool is being developed to facilitate project prioritization and document rationale/tradeoffs of recommendations for Complete Streets implementation. This information will be available for public access through the Complete Streets website.</td>
</tr>
</tbody>
</table>
Summary: Implementation steps

1. Organize implementation activities
2. Restructure procedures, policies, and programs
3. Rewrite or update design guidance
4. Offer training opportunities to transportation staff, community leaders, and the general public
5. Create new performance measures
Successful implementation

1. Have a champion
2. Ensure organization supports the plan
3. Focus on less – do it well
4. Align work and communicate across all stakeholders
5. Monitor progress often
6. Update plan for strength, agility, and relevance
End of Module