Tips for Successfully Navigating Complete Streets Projects

Panel Members:

Marissa Pfaffinger, P.E. – CTDOT – Highway Management Unit
Hugh Hayward, P.E. – CTDOT – Local Roads – LOTCIP
Michael Cherpak, P.E. – CTDOT – State Highway Design
Michael Cherpak, P.E. – CTDOT – State Highway Design
Tips for Successfully Navigating Complete Streets Projects

A focus on Initiating State Projects

Marissa Pfaffinger, P.E. – CTDOT
Agenda

Introductions and Organization

Overview of State-Initiated Projects

Questions and Answers
Introductions and Organization

Marissa Pfaffinger, P.E.
Transportation Supervising Engineer
Introductions and Organization

- Finance and Administration
- Policy and Planning
- Engineering and Construction
- Highway Operations
- Public Transportation
Introductions and Organization

Division of Highway Design

Consultant Design Unit
- Major Projects
- State Highways
- Local Roads

State Design Unit
- Capital Improvement Projects

Highway Management Unit (HMU)
- Identify, Scope, Initiate Projects
Our projects are primarily roadway focused - They are not standalone bridge, traffic signal or pavement rehabilitation projects

- BUT –

Our projects often include those elements (and more!)
How Projects Become Projects

“Hello, there is a problem with ... can you do anything about it?”
How Projects Become Projects

Step 1: Notification and Request

- Existing DOT Plans and Information
  - Corridor Studies/Planning Documents
  - Data-Driven Analysis
    - High-Frequency Crash Locations
    - Recurring Congestion Corridors
    - Condition-Based Improvements
    - Sub-Standard Geometrics
- Councils of Government (COGs)
- Legislator Requests
- Town Requests
Step 2: Information Gathering

- Crash History (UCONN Repository)
- Traffic Counts & Congestion Data
- Survey/LiDAR – Existing Ground Information
- Property Lines/Available ROW
- Coordination – Other DOT Bureaus
- Research – Town and Regional Plans
- Field Review

Goal: Define Deficiencies and Clarify Intent
(what are we trying to solve – and why)
How Projects Become Projects

Step 3: Scoping – Develop Alternatives

• Identify - Data-Driven Solutions, Best Practices
• Simulate/Model Existing and Future Conditions
• Internal Coordination within DOT
  • Bureau of Policy and Planning
    • Bicycle and Pedestrian Needs Travel Assessment Form
    • Early Resource Screening
  • Office of Rights-of-Way (ROW)
• Conduct Outreach – Town and Stakeholder
  • Gauge Public Support
• Develop Cost Estimates
• Internal Vetting and Review
• Define Preferred Alternative

Source: https://company.ptvgroup.com/en/resources/newsroom
How Projects Become Projects

Step 4: Project Initiation

- Prepare Final Scoping Report
  - Report Documents Background, Alternatives Analysis, Coordination, Decision Making, Etc.
- Proposed Project Information (PPI) Form Completed – Includes Estimate, Schedule, and Critical Location Information for Funding
- Bureau of Finance and Administration Reviews Eligibility Requirements for Various Funding Sources – State and Federal – Programs Project
- Once Funding is Available, Design Phase Begins!
How Projects Become Projects

Concept Development Phase
- Notification and Request
- Information Gathering
- Concept Development
- Project Initiation

Duration Depends on Complexity

Approximate 2-3 Year Duration

Design Phase

<table>
<thead>
<tr>
<th>Preliminary</th>
<th>Final</th>
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<tbody>
<tr>
<td>Rights-of-Way (ROW)</td>
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Typical 1-2 Year Duration

Construction Phase
- Maintenance and Protection of Traffic
- Utility Relocation
- Construction Activities
- Inspection

Duration Depends on Complexity
How Can We Better Insure a Complete Streets Approach?

“We are developing solutions. Are we considering all users?”
How Can We Better Insure a Complete Streets Approach

**PURPOSE AND NEED**

In “our world”, project goals and their justification are defined as

“Taking into consideration various data, input, and experiences, alternatives are discussed internally and publicly and the one that best meets the project goals is selected” - Texas DOT

“Decision makers require justification to support the expenditure of taxpayers’ money and the environmental impacts involved.” - FHWA
How Can We Better Insure a Complete Streets Approach

What is a PURPOSE AND NEED Statement

“Purpose” can be defined as the reason to conduct the project

e.g.: The purpose of the project is to reduce congestion and improve mobility at the intersection of Town Road and Main Street

“Need” can be defined as the identification of deficiencies of the project supported by facts or data

e.g.: This project is needed because the capacity of the intersection of Town Road and Main Street is inadequate to meet current and future traffic volumes, resulting in congestion, reduced mobility and Level of Service D on this stretch of highway.

A Purpose and Need can consist of both primary and secondary goals. If the primary goal of a project isn’t directly bicycle or pedestrian related, additional information is vital to justify that secondary need.
How Can We Better Insure a Complete Streets Approach

IMPORTANT OF PURPOSE AND NEED STATEMENT

A Project May...

- Change Design Teams or Have New Decision Makers
- Uncover Unexpected Expenses or Constraints
- Get Delayed
- Compete for Funding
- Be Adjacent to Another Identified Need

How Can We Better Insure Complete Streets Components Remain in the Project Scope?

When justified, include it in the Purpose and Need!
How We Better Insure a Complete Streets Approach

Example Concept – Bishop’s Corner, West Hartford

So what’s the Purpose and Need of this Project?

The purpose of this project is to make the intersection more accessible for pedestrians without degrading vehicular operations. It is needed because the highly congested intersection leads to aggressive driver behavior and hinders the walkability of the area. Specifically, the channelized right-turn lanes on each approach do not have pedestrian actuations when crossing, and the islands themselves are not geometrically adequate.
How We Better Insure a Complete Streets Approach

Example Project – Main Street, Middletown

Route 9 congestion reduction is the primary goal, but change in traffic patterns will also effect Main Street.

Even though Route 9 alternatives are being developed, City and all users are already realizing benefits of the break-out project.

Reduced crossing distance, protection for parked and pedestrian, efficient signal operation.

2016

Present
“Those are great solutions, but can you also include...”
Finding Balance Between Needs

Not Only Are There Many Needs to Consider, Sometimes They May Conflict

- Bikers
- Transit Users
- Commutators
- Cars
- Delivery Vehicles
- Trucks
- Walkers
Finding Balance Between Needs

Not Only Are There Many Needs to Consider, Sometimes They May Conflict

- Staying in Budget
- Walkability
- Crash Reduction
- Parking
- Congestion Relief
- Bicycle Safety
- Access to Businesses
- ROW Impact
- Facility Condition
- Transit Access
- Pedestrian Amenities
- Environmental Impacts
Finding Balance Between Needs

Route 222 Thomaston
Finding Balance Between Needs

Reality Street - Today

Made with Streetmix
Finding Balance Between Needs

Reality Street - Possible

Made with Streetmix
Finding Balance Between Needs

How Do We Achieve Balance?
Must Understand Constraints and Be Able to Work Within Them

- Roadway Classification – No Pedestrians on Interstates
  *Can we identify alternative paths such as parallel routes or shared use paths?*

- High Speed Roadways or Roadway with High Volumes – May Limit Bike Facilities
  *Can we include wide shoulders to accommodate advanced bicyclists or widen sidewalks?*

- Funding Type Restriction – Sometimes $$ it is Allocated for Specific Reasons
  *We may not be able to include features in a specific project, but can we accommodate (or at least not preclude) future improvements?*

- Right of Way/Utilities/Environmental Impacts? -> Drive Up Project Cost and Extend Design Time
  *Understand the difference between a spot improvement (more flexibility) vs. a corridor project (likely more constraints) - Right-Sizing the facility requires dialog and comes back to Purpose and Need*
Finding Balance Between Needs

Bike Facility Selection Matrix - Draft

Source: CTDOT Bicycle Facility Selection and Design Guide 2020

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<th>Traffic Volume (ADT)</th>
<th>0-5,000</th>
<th>5,000-10,000</th>
<th>10,000-15,000</th>
<th>15,000-20,000</th>
<th>20,000-25,000</th>
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<th>0-25</th>
<th>26-30</th>
<th>31-35</th>
<th>36-40</th>
<th>41-45</th>
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Source: CTDOT Bicycle Facility Selection and Design Guide 2020
Finding Balance Between Needs

Even if the answer is no...

Due diligence is done to explore every avenue and document findings and decisions

“Buffered Bike Lanes Were Explored, but Ultimately a Standard Bike Lane is Recommended for the Project.

• Vehicular Speeds are Below Threshold for Additional Separation
• ROW Acquisitions along 25 parcels would be required at estimated cost of $XX,XXX.
• Larger Roadway Footprint Encroaches on Protected Wetland”
Finding Balance Between Needs

The Real Challenge

How much can we pack into a project while balancing all factors such as main purpose, secondary purposes, ROW, utilities, permitting...

...while staying within budget.
Final Take-Aways

“We’re happy with what we put forward. In the future we hope to...”
Final Take-Aways
How Can Municipalities Help?

• Develop and Publish Local Plans
  Have You Defined Your Complete Streets Goals?
  Are There Elements/Uses/Areas You Don’t Support?
  Does Your Zoning Reflect Your Goals?
  Is the Information Easily Accessible!?!?

• Regional Awareness
  What Happens At Your Borders?
  Are There Shared Goals Between Town Neighbors?
  Does Your COG Have a Plan? Did/Will You Participate?

• Internal Continuity
  Does Your LTA Know Your Town Engineer’s Priorities? (for example)
  Do Your Policies Bridge Administrations? Do You Want Them To?
Final Take-Aways
What We Are Doing to Improve

Goal is to Instill an Environment in which Designs are Sensitive To and Encompass the Needs of All Users

Early Public Outreach
Better Guidance Documents
Data Driven Approach
Balance Different Needs
Improved Coordination
Any Questions