Bicycle & Pedestrian Facilities

Bike/Ped Planning as Part of the Context Sensitive Solutions for US 31 Hamilton County Major Moves Project
What do we know about CSS?

- Green3 is prequalified with INDOT
- Worked on CSS, Trails, Streetscapes as part of many teams
- Understands the INDOT process and FHWA requirements
- Scott has worked on the US 31 project since 2008
“Clear cutting of the human forest”
-Earl Swift, author of The Big Roads: The Untold Story of the Engineers, Visionaries, and Trailblazers Who Created the American Superhighways

Last Chance for 50 Years

Bringing the interstate through the Old North Side and Fountain Square neighborhoods in Indianapolis
Proof Positive: People Prefer Pedaling

Bike commuter on the Hagan-Burke Trail during construction on US 31
Bike/Ped Can Drive Economic Development

Check out the Pedestrian and Bicycle Information Center for more detail
The Message from on High

United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations

Signed on March 11, 2010 and announced March 15, 2010

Purpose

The United States Department of Transportation (DOT) is providing this Policy Statement to reflect the Department's support for the development of fully integrated active transportation networks. The establishment of well-connected walking and bicycling networks is an important component for livable communities, and their design should be a part of Federal-aid project developments. Walking and bicycling foster safer, more livable, family-friendly communities; promote physical activity and health; and reduce vehicle emissions and fuel use. Legislation and regulations exist that require inclusion of bicycle and pedestrian policies and projects into transportation plans and project development. Accordingly, transportation agencies should plan, fund, and implement improvements to their walking and bicycling networks, including linkages to transit. In addition, DOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Transportation programs and facilities should accommodate people of all ages and abilities, including people too young to drive, people who cannot drive, and people who choose not to drive.

Policy Statement

The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

Authority

This policy is based on various sections in the United States Code (U.S.C.) and the Code of Federal Regulations (CFR) in Title 23—Highways, Title 49—Transportation, and Title 42—The Public Health and Welfare. These sections, provided in the Appendix, describe how bicyclists and pedestrians of all abilities should be involved throughout the planning process, should not be adversely affected by other transportation projects, and should be able to track annual obligations and expenditures on nonmotorized transportation facilities.
The US 31 Process
Planning for Bicycle and Pedestrian Facilities
FEIS and Plan Evaluation

The ROD from the 2010 FEIS laid the groundwork for bike/ped facilities to be included as part of the project.

4.0 Measures to Minimize Harm

Following is a summary of the mitigation measures associated with the Selected Alternative for the New US 31 Hamilton County Project.

4.1 Traffic and Transportation

A Transportation Management Plan (TMP) Team will be assembled to develop a traffic maintenance strategy for construction of the project. The Team will include representatives from the City of Carmel, the City of Westfield, Hamilton County, and the City of Indianapolis. The TMP Team will meet during the design phase to address the proposed traffic maintenance plan, alternative traffic control applications, the effect traffic will have on other facilities, and local concerns.

Pedestrian access will be provided at all over/underpasses and interchanges. Bicycle access will be coordinated with respective local plans during the final design phase of the project. Details regarding sidewalks and shared use paths will be developed in consultation with the Pedestrian/Trails Subcommittee.

From Page 18 of the New US 31 Hamilton County Project Record of Decision
Table 4.2-1: Planned Pedestrian and Bicycle Facilities in or Adjacent to the US 31 Corridor.

CATP = City of Carmel Alternative Transportation Plan, 2003
CBRP = City of Carmel Bicycle Route Plan, 2003
WTP = City of Westfield Thoroughfare Plan, 2007
HATP = Hamilton County updated Alternative Transportation Plan, 2007

103rd Street:
Land Use: residential
CATP: Overpass incorporating separated grade ped. crossing

106th Street - Underpass Interchange:
Land Use: commercial
CBRP: Sidewalk/path constructed
CATP: Interchange incorporating separated grade ped. crossing
HATP: Shared roadway paths; Two 10’ paths and/or 5’ paths

111th Street - Overpass:
Land Use: commercial
CATP: Overpass incorporating separated grade ped. crossing

116th Street - Underpass Interchange:
Land Use: commercial office and hospital
CATP: Interchange incorporating separated grade ped. crossing

College Avenue:
Land Use: commercial office and hospital
CATP: Separated grade ped. crossing

126th Street - Underpass:
Land Use: mixed commercial hotels, retail and office
CBRP: Recommended on-street route
CATP: Overpass incorporating separated grade ped. crossing
HATP: Shared roadway paths; Two 10’ paths and/or 5’ paths

131st Street - Overpass Interchange:
Land Use: mixed commercial hotels and office
CATP: Interchange incorporating separated grade ped. crossing

136th Street - Underpass Interchange:
Land Use: commercial
CATP: Overpass incorporating separated grade ped. crossing
HATP: Shared roadway paths; Two 10’ paths and/or 5’ paths

MONON Trail:
Land Use: residential
CBRP: Greensways Trail Constructed
CATP: Separated grade ped. crossing
HATP: Separated paths

Rangeline Road - Underpass:
Land Use: multi-family residential and commercial
CBRP: Sidewalk/path to be constructed
CATP: Overpass incorporating separated grade ped. crossing

146th Street - Overpass:
Land Use: commercial
CATP: Interchange incorporating separated grade ped. crossing
WTP: Interchange; Bike/ped. accommodation within road ROW
HATP: Shared roadway paths; Two 10’ paths and/or 5’ paths

E. Greyhound Pass:
Land Use: commercial
WTP: Interchange

151st Street - Overpass Interchange:
Land Use: commercial
WTP: Interchange; Bike/ped. accommodation within road ROW;
Pedestrian corridor to South Union St/Western Way/156th St.

South Union Street/Western Way:
Land Use: commercial
WTP: Overpass

Cool Creek Trail:
Land Use: residential
WTP: Bike/ped. accommodation within offstreet ROW

161st Street - Overpass Interchange:
Land Use: residential
WTP: Interchange; Bike/ped. accommodation within road ROW
HATP: Shared roadway paths; Two 10’ paths and/or 5’ paths

169th Street - Underpass:
Land Use: commercial
WTP: Overpass; Westfield Monon-Midland Trail Loop (regional trail)
Midland Trace Trail:
Land Use: commercial
HATP: Separated paths

SR 32 - Overpass Interchange:
Land Use: commercial and school
WTP: Interchange; Bike/ped. accommodation within road ROW
HATP: Two 10’ paths and/or 5’ paths

181st Street - Overpass:
Land Use: school
WTP: Overpass; Westfield Monon-Midland Trail Loop (regional trail)
HATP: Two 10’ paths and/or 5’ paths

191st Street - Overpass Interchange:
Land Use: limited commercial
WTP: Interchange; Bike/ped. accommodation within road ROW
HATP: Two 10’ paths and/or 5’ paths

196th Street:
Land Use: residential
WTP: Overpass; Bike/ped. accommodation within road GW
HATP: Two 10’ paths and/or 5’ paths

200th Street:
Land Use: agriculture/residential
WTP: Overpass (new road); Bike/ped. accommodation within road ROW
HATP: Two 10’ paths and/or 5’ paths

SR 39 - Underpass Interchange:
Land Use: open space
WTP: Interchange; Bike/ped. accommodation within road ROW
HATP: Two 10’ paths and/or 5’ paths
## CSS and Preliminary Design

### US 31 Proposed Bicycle and Pedestrian Facilities Chart

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>105th Street</td>
<td>Under</td>
<td>Interchange</td>
<td>6</td>
<td>6</td>
<td>South Side: 10 North Side: 6 Build</td>
<td>10’ sidewalk with 5’ utility strip provided on south side. Utility strip is removed under US 31 bridge, and sidewalk is moved adjacent to curb. Without purchasing additional ROW we provide width for a future 6’ sidewalk with 5’ utility strip on the north side. The US 31 abutment is offset to provide for the future condition of a 6’ sidewalk adjacent to curb.</td>
</tr>
<tr>
<td>111th Street</td>
<td>Over</td>
<td>Overpass</td>
<td>10</td>
<td>6</td>
<td>South Side: 6 North Side: 10 Provide Width</td>
<td>10’ sidewalk with 5’ utility strip provided on north side. Utility strip is removed over US 31 bridge, and sidewalk is moved adjacent to curb. Without purchasing additional ROW we provide width for a future 6’ sidewalk with 5’ utility strip on the south side. The US 31 abutment is offset to provide for the future condition of a 6’ sidewalk adjacent to curb.</td>
</tr>
<tr>
<td>116th Street</td>
<td>Under</td>
<td>Interchange</td>
<td>6</td>
<td>6</td>
<td>South Side: 10 North Side: 6 Build</td>
<td>10’ sidewalk with 5’ utility strip provided on south side. Utility strip is removed under US 31 bridge, and sidewalk is moved adjacent to curb. 6’ sidewalk with 5’ utility strip provided on north side. Utility strip is removed under US 31 bridge, and sidewalk is moved adjacent to curb.</td>
</tr>
<tr>
<td>129th Street</td>
<td>Over</td>
<td>Overpass</td>
<td>10</td>
<td>6</td>
<td>South Side: 6 North Side: 10 Build</td>
<td>10’ sidewalk with 5’ utility strip provided on south side. Utility strip is removed under US 31 bridge, and sidewalk is moved adjacent to curb. 6’ sidewalk with 5’ utility strip provided on north side. Utility strip is removed under US 31 bridge, and sidewalk is moved adjacent to curb.</td>
</tr>
<tr>
<td>131st Street</td>
<td>Over</td>
<td>Interchange</td>
<td>10</td>
<td>6</td>
<td>South Side: 10 none Build</td>
<td>10’ sidewalk with 5’ utility strip provided on south side. Utility strip is removed on 131st bridge, and sidewalk is moved adjacent to curb. Depending on the Roundabout Bridge shape, a buffer area may be available between the roadway and sidewalk.</td>
</tr>
<tr>
<td>139th Street</td>
<td>Under</td>
<td>Interchange</td>
<td>10</td>
<td>6</td>
<td>South Side: 6 North Side: 8 NA Build</td>
<td>8’ Asphalt walk on north side of 139th and 5’ of 6’ concrete walk west of Richer. Reconstructed to match existing on new alignment. See PDF for proposed plan.In curbed areas provide rough grading of 4’ form or to clear zone to meet clear zone requirements near residential properties.</td>
</tr>
<tr>
<td>Monon Trail Crossing</td>
<td>Under</td>
<td>Overpass</td>
<td>N/A</td>
<td>N/A</td>
<td>South Side: N/A North Side: N/A NA NA</td>
<td>Plan to maintain existing trail service while new structure is removed and new structure is placed. See EIS and ROD discussion of this item.</td>
</tr>
<tr>
<td>Rangeline Road</td>
<td>Under</td>
<td>Interchange</td>
<td>10</td>
<td>6</td>
<td>South Side: 6 North Side: 5 None Build</td>
<td>Construct 5’ sidewalk on north half of road to connect existing walkway systems. See PDF.</td>
</tr>
</tbody>
</table>
EXISTING CONDITIONS

- Existing 10' sidewalk on South side of 106th Street
- No Existing sidewalk on North side of 106th Street.
- 8' walk along East side of Pennsylvania.
**PROPOSED DESIGN**

- South Side:
  - Building to match existing conditions (10’ walks).
  - Under US 31 bridges, walk will be measured from face of curb to include 2’ shy distance, totaling 12’.
  - This will tie into existing 8’ sidewalk East side of Pennsylvania.

- North Side:
  - Since US 31 is going over, the bridge opening will be wide enough for Carmel to provide a 10’ sidewalk on the North side. The design will grade for a 6’ sidewalk beyond the bridge limits.

**Map Key**
- 10’ walk (build)
- 10’ walk (provide width)
- 6’ walk (provide width)

Bicycle and Pedestrian Facilities

106th Street Proposed Design
CSS and Preliminary Design: Visualizing the Experience
Visualizing the Experience
Local Coordination

W10-1 SIGN (15" DIA.), REPLACE RAILROAD SYMBOL WITH HAGAN-BURKE TRAIL, AS SHOWN

W1-6 SIGN, REDUCE PANEL SIZE FROM 12"X24" TO 6"X12"

STANDARD U-CHANEL POST MOUNT SIGNS PER MUTCD DIRECT BURY
Final Design
Final Design
Final Design
Lessons Learned

- Community desire vs. the standard approach
- Coordinate early and often
- So many opportunities
- Think of safety from a pedestrian’s perspective
Community difference maker

Getting across I-465
Thank You!