State of the Practice in Accommodating Pedestrians and Cyclists Through Work Zones

Balancing Constructability and Impacts to All Users
A brief introduction
Work Zone Policies

Network User Impacts

Contractor Staging & Mobilization
Network Users
• Safety
• Accessibility
• Prioritization (or Equality?) of Users
• ADA/PROWAG Compliance
• Constructability
• Coordination Across Projects

General Work Zone Principles
MUTCD Chapter 6D:

- Alternate routes must be provided
- Maintain access to adjacent properties
- Provide notification/signage of closures
- Maintain accessibility and detectability for pedestrians with disabilities
- Maintain access to public transit stops
- Use good engineering judgment

MUTCD Guidance

Source: Shaw, Chitturi, Han, Bremer & Noyce (TRB, 2015)
MUTCD Chapter 6D:

It must be recognized that pedestrians are reluctant to retrace their steps to a prior intersection for a crossing or to add distance or out-of-the-way travel to a destination.
MUTCD Guidance

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MUTCD Guidance

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• 3 ft minimum width (ADAAG)
• 4 ft minimum width (PROWAG)
• 5 ft passing zones at 200 ft intervals
• 2% maximum cross-slope
• Firm, stable, slip-resistant surface
• Detectable channelization and closures
- Austin, TX
- Nashville, TN
- Phoenix, AZ
- Portland, OR
- Raleigh, NC
- San Francisco, CA
- Seattle, WA
- Vancouver, BC
- Washington, DC

Peer Cities
- Prioritization of Modal Impacts
- Requirements for Work Zone Routing Facilities
- Special Closures
- Permit Requirements

Components of Work Zone Policies
The blockage of a sidewalk or bicycle facility shall be treated in the same manner as the closure of a motor vehicle lane by applying similar temporary traffic control practices as would be applied to the closure of a motor vehicle lane.

Prioritization of Impacts

Nashville: Ord# BL-2016-240
Portland: TRN-8.12 (III)
Washington DC: DCMR 3315.2
Providing safe accommodations for pedestrians should be prioritized as follows:

1. Protect the existing pedestrian route
2. Provide a protected route in parking lane
3. Provide a shared-use path in a bike lane
4. Provide a route in a bike lane and merge bikes with traffic
5. Provide a route in an existing traffic lane
6. Provide a detour route on different block

Closure/Work Zone Facilities
Requirements: Sidewalks

- Construction Fencing
  - Fence footings
  - Gates swing inward
- Ped Railing or Barrier
- Continuous Illumination
- Maintain Pushbutton & Ped Signal Access
- Maintain Access to City and Private Utilities
Requirements: Covered Walkways

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DENVER
THE MILE HIGH CITY
Reasonable accommodation for bicyclists shall be prioritized as follows:

1. Reroute to adjacent (closed) parking lane
2. Narrow traffic lanes and shift bike lane laterally, maintaining 10 ft min. lanes
3. Reroute to adjacent (closed) travel lane
4. Merge the bike lane and adjacent travel lane into a shared lane, maintaining 14 ft min. width
5. Detour bicyclists onto an adjacent roadway, replicating the level of safety found on the original bicycle route

Requirements: Bike Lane Detour
When bus stop access cannot be maintained, it is the responsibility of the contractor to prove that closure is necessary, and to locate a safe and reasonable alternative walkway that is fully accessible to a sight-impaired person or pedestrian in a wheelchair.

Special Closures: Transit Access
Special Closures: Crosswalks

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(Seattle) Post a “Sidewalk Closed Ahead” sign at the preceding intersection in such a way that it does not impede pedestrian access. If pedestrian access is maintained mid-block, post a “Sidewalk Open Ahead” sign at the preceding intersection. Where business access is maintained during a mid-block closure, post a “Business Open Ahead” sign at the preceding intersection.

(San Francisco) Requests for a permit to close a sidewalk in the middle of the block are generally not accepted because this results in pedestrians having to walk around the work site, usually out into the street, to continue down the sidewalk.

Special Closures: Partial Blocks
<table>
<thead>
<tr>
<th></th>
<th>Austin, TX</th>
<th>Portland, OR</th>
<th>Wash, DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 ft Sidewalk</td>
<td>$125</td>
<td>$330</td>
<td>$360</td>
</tr>
<tr>
<td>8 ft Parking Lane</td>
<td>$250</td>
<td>$630</td>
<td>$330</td>
</tr>
<tr>
<td>5 ft Bicycle Lane</td>
<td>no cost</td>
<td>$278</td>
<td>$300</td>
</tr>
<tr>
<td>12 ft Drive Lane</td>
<td>$1,872</td>
<td>$488</td>
<td>$600</td>
</tr>
</tbody>
</table>

Example Scenario:
- 5-day closure
- 300 foot long CBD block face
- No parking meters

Permit Requirements - Costs
Permit Requirements - Justification

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Other Policy Considerations

- Districts of high bicycle and/or pedestrian use
- Coordination between adjacent projects
- Special events
- Ability to easily adjust fees, districts, etc.
- Traffic control device placement and storage
What’s Next?

- Peer City Survey
- Permit Workload Comparison
- Contractor Input
- Advocacy & Advisory Group Input
Questions?

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