



DRAFT Seattle Pedestrian Master Plan Issue Paper: Construction Zones November 1, 2008

Introduction

The following is a review of the role that pedestrian accommodation in construction zones plays in creating a walkable city. This is an issue that has received a considerable amount of attention recently due to increased redevelopment occurring throughout Seattle. The Seattle Pedestrian Master Plan examined City of Seattle policies and practices related to the pedestrian environment and experience, specifically focusing on the American Disabilities Act (ADA) transition plan, construction zones, lighting, intersection design, maintenance, snow and icy conditions, speed and signage, street types, and trees and sidewalks. This process was also informed by discussions with staff of the Inter-Agency Team¹ and the Pedestrian Master Plan Advisory Group².

Construction zones that result in sidewalk closures can significantly impact the pedestrian environment by impeding the public right-of-way. Construction zones that impact pedestrians can either be a result of building sites or street construction and reconstruction. The removal of a pedestrian route to accommodate a construction zone, even for a short time, may severely limit or totally preclude pedestrian access to residences, employment centers, schools and commercial establishments. Forcing pedestrians to navigate around construction zone obstructions increases travel time for walking and exposure for pedestrians if it means crossing to the other side of the street.

Current construction zones in Seattle range from complete closure to full protected access. Recent examples have utilized covered walkways to maintain access, as well as closures that might have been avoidable or resolved differently. The City regulates construction zones as part of its responsibility to keep the right-of-way in a state of good repair and free from unnecessary encumbrances. SDOT Street Use Division accomplishes this by managing activities and construction occurring in the right-of-way through permit issuance, inspection, project coordination, enforcement, public outreach, utility record keeping, and plan review. The design and planning of construction zones is regulated in the Seattle Municipal Code's Traffic Control Manual and more guidance is provided in the Seattle Right-of-Way Improvements Manual.

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¹ The Inter-Agency Team consists of staff from eighteen agencies and departments within the City of Seattle, King County, and Washington State.

² The Pedestrian Master Plan Advisory Group (PMPAG) is an ad hoc group appointed by the City of Seattle, consisting of twenty-three members representing various groups and organizations.



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The City of Seattle's Office of City Auditor recently completed a report outlining recommendations and action plan items to improve issues related to construction zones. This report was undertaken to assess the City's effectiveness in minimizing the duration and impact of street and sidewalk closures on pedestrians and bicyclists. The report identifies alternative solutions for better pedestrian access, given the current volume of construction activity in the City's downtown core. Included below is information gleaned from the Office of Auditor's report, supplemented with the findings of this analysis.

Current Programs and Goals

Current Programs

Seattle Department of Transportation (SDOT)

SDOT has many programs and policies that impact construction zones and street closures in Seattle. A street use permit is required for any work or occupation in the public right-of-way. A traffic control plan is required for construction sites that impact arterial streets and there is an established fee structure for sidewalk and street closures available on the City of Seattle's website. The Traffic Control Manual for In-Street Work outlines requirements for in-street network. Additional information on SDOT programs that impact construction zones and street closures is included below.

- The *Pedestrian Program* seeks to improve pedestrian safety and to encourage more walking by creating an environment where pedestrians can walk safely and comfortably. The program deals with all pedestrian-related issues, including construction zones.
- Traffic control plans are reviewed by a team of plan reviewers from the *SDOT Traffic Management Division*.
- The *Street Use Division* manages activities and construction occurring in the right-of-way through permit issuance, inspection, project coordination, enforcement, public outreach, utility record keeping, and plan review. New procedures for Street Use Inspectors were implemented starting November 2007. An improved audit procedure is currently being implemented, guided by recommendations included in the Office of City Auditor's report. The Operations Unit is also closely involved in the planning and implementation of construction zones and street closures throughout Seattle.
- The *Sidewalk/Right-of-Way Improvement Permit Process Improvement Project (Sidewalk/ROWI)* is an interdepartmental effort to improve Seattle's permitting process.
- The *Construction Coordination and Mapping Tool (CCM)* is an effort to improve SDOT coordination of construction projects and their effects on the right-of-way.



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- Project managers assigned to *SDOT capital projects* coordinate activity in the area impacted by their project.

Department of Planning and Development (DPD)

- The *Design Review Program* provides a forum for citizens, developers and the City to review and guide the design of qualifying commercial and multifamily development projects, many of which will include closures as part of the construction process.
- DPD permit-related work impacts pedestrian obstructions and construction zones, for example through public notice and involvement for master use permits, design review, permit approval for construction, site development, and approval for signs and billboards.
- DPD compliance-related work also impacts construction zones, for example responding to land use violations and addressing building code, site development, and other technical code violations.

Other City of Seattle Programs

- The Seattle Police Department establishes enforcement efforts throughout the city, including traffic laws around construction sites.
- *SDOT Client Assistance Memos (CAMs) 2110 and 2111* outline the process for obtaining a traffic control plan. These memos are available at http://www.seattle.gov/transportation/stuse_docs.htm.
- *CAM 2101 for Inspections* outlines requirements for inspections and construction activities.
- *CAM 2205 Street Openings* and *SDOT Director Rule 04-02 on Street Openings* provides information on acceptable, restoration of street, and sidewalk pavement openings
- *Client Assistance Memo 2109*, street use permit applicants are currently required to notify all potentially affected residents and businesses at least one week before starting work in the public right-of-way.
- The City of Seattle provides on line information on vehicular traffic congestion and current City construction projects at <http://www.seattle.gov/html/citizen/traffic.htm>.

Regional Coordination

- Monthly *utilities coordination meetings* take place with representatives from SDOT Street Use, Capital Projects, and Street Maintenance Divisions, public and private utility companies (Seattle Public Utilities, Seattle City Light, Puget Sound Energy, Seattle Steam, Comcast, Qwest, and Broadstripe), and King County Metro to discuss and coordinate upcoming work in the City's right-of-way.
- *King County/Metro Transit's Office of Construction Coordination* is responsible for construction impacts to transit corridors, services, zones (including bus stops and layovers), and trolley overhead system.

State of Washington



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- The *Washington State Department of Transportation (WSDOT)* plans, designs, builds, and maintains state roads in Seattle. Construction and maintenance of state roads can at times require street and sidewalk closures and rerouting.
- The WSDOT *Pedestrian and Bicycle Program* coordinates the statewide vision for pedestrian transportation and provides safety resources, funding and educational opportunities to encourage walking throughout the State of Washington. It provides funding for pedestrian projects as well as pedestrian design information and other resources.

Federal Government

- The *Federal Highway Administration* is charged with the broad responsibility of ensuring that America's roads and highways continue to be safest and technologically up-to-date.
- Traffic control plans must conform to the City of Seattle's Traffic Control Manual for In-Street Work (SDOT Traffic Management Division: 2005), which is based on the U.S. *Department of Transportation Federal Highway Administration's Manual for Uniform Traffic Control Devices (MUTCD)*.
- The *Americans with Disabilities Act Accessibility Guidelines* include steps to address the needs of persons with disabilities in cases where sidewalk closures are necessary.
- *United States Access Board Accessible Public Rights of Way Planning and Designing for Alterations* also identifies maintenance accessible paths for pedestrians. <http://www.access-board.gov/prowac/alterations/guide.pdf>

Goals Identified in the City of Seattle Comprehensive Plan

- Uniform design principals should be implemented that help everyone navigate around obstructions.
- Americans with Disabilities Act (ADA) accessibility standards for pedestrians should be followed and enforced.
- Maintenance of pedestrian traffic should be given the same level of attention as maintenance of motor vehicle traffic, with the goal of reducing out-of-direction pedestrian travel as much as possible.
- Pedestrian and bicycle mobility should be considered a priority.
- Coordination efforts between multiple projects located in the same area should be improved.
- Inspection and enforcement should be improved.
- Communication with the public should be improved.

Selected Goals Identified in the Transportation Strategic Plan

- S6. Plan, Permit and Inspect Work in Seattle's Transportation Rights-of-Way. The City of Seattle strives to keep public rights-of-way in a state of good repair and free from unnecessary encumbrances in order to provide for the health, safety, and well being of its citizens, to maintain the integrity of its streets, and the appropriate use of the rights-of-way. SDOT Street Use division endeavors to accomplish these goals by managing activities and construction occurring in the right-of-way



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through issuance of permits, inspection, project coordination, public outreach, utility record keeping, and plan review.

- TR2. Prioritize Transit Service Investment to Achieve Basic Mobility and Ridership Goals. Item d. Center City Mitigation – Center City bus capacity constraints and major project construction impact mitigation will require route investments that will shift trips to transit through construction areas and will increase seat utilization of existing Center City transit services.
- W5. Provide for Routine Accommodation of Pedestrian Facilities. Make pedestrian accommodations a routine part of transportation planning, design, construction, operations and maintenance activities... Routine accommodation for pedestrian and bicycle facilities affects the following projects and programs: Capitol Improvement Projects; corridor and sub-area planning; transit speed and reliability projects; utilities pole placement; signal optimization projects; high-hazard accident location projects; arterial parking restrictions projects; construction management plans; and, Master Use and Street Use Permits.
- W12. Review Right-of-Way Improvement Manual to Design Criteria Support Pedestrian Safety and Access Concerns. Determine whether the Right-of-Way Improvements Manual, the Land Use Code, and the “Standard Plans and Standard Specifications for Road, Bridge, and Municipal Construction” provide street improvement designs that support the full range of pedestrian needs and facilities, including appropriate standards. Involve the Seattle Pedestrian Advisory Board in these project updates. See Strategy S5 for more information on the Right of Way Management (ROWM) Initiative and the Right-of- Way Improvements Manual.
- W17. Accommodate Pedestrians During Project Construction in Public Rights-of-Way. Maintain safe pedestrian access during construction of transportation facilities and new development, including City of Seattle projects. Multiple street crossings due to multiple sidewalk closures not only are an inconvenience to pedestrians, but increase the risk of pedestrian/vehicle conflicts. Sidewalks should generally remain open during construction unless sidewalk repair or access to other utilities is necessary. Under no circumstance, should the sidewalk be closed on both sides of the same block or more than one corner of an intersection be blocked. Construction projects should make special effort to maintain access in cases where crossing distances are long (for example, multi-lane arterials) as well as where the projects take up less than the length of a block.

Applicable/Related Regulations and Guidelines *Seattle Municipal Code*

Seattle Municipal Code’s Traffic Control Manual outlines requirements for construction zones.



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- SMC 11.16.240: Traffic Engineer -- Authority -- Review and recommend. D. Prepare and approve traffic-control layout and detour plans;
- SMC 11.16.340: Traffic Engineer -- Authority -- Traffic-control devices. The Traffic Engineer is authorized under the supervision of the Director of Transportation to: E. Determine and order the closure of certain crosswalks to pedestrians; O. Determine the placement of official traffic-control devices as may be deemed appropriate to regulate, warn, or guide traffic for construction, detours, emergencies, and special conditions (SB 3211, Section 47(2));
- SMC 11.52.110: Speed limit in roadway construction zones. No person shall drive a vehicle in a roadway construction zone at a speed greater than that allowed by traffic control devices. (RCW 46.61.527(2))
- SMC 15.14.090: Newsstand policy in the Downtown Zones. It shall be the policy of the City to consider the location of newsstands and the practicality of integrating newsstands into structures being erected in the planning for projects in the Downtown Zones (SMC Chapter 23.49) involving the construction or reconstruction of a substantial segment of sidewalk or other open area for pedestrian use, and to utilize such integrated structures wherever practical in such areas, and wherever appropriate to encourage the replacement of single publication newsstands with attractive modular units.
- *Title 22 - BUILDING AND CONSTRUCTION CODES Subtitle VIII Grading and Drainage Control Chapter 22.802 - Storm water, Drainage, and Erosion Control.* g. Whenever construction vehicle access routes intersect paved roads, the transport of sediment onto the paved road shall be minimized. If sediment is transported onto a paved road surface, the roads shall be cleaned thoroughly at the end of each day. Sediment shall be removed from paved roads by shoveling or sweeping and shall be transported to a controlled sediment disposal area. Street washing shall be allowed only after sediment is removed in this manner; j. In the construction of underground utility lines, where feasible, no more than five hundred (500) feet of trench shall be opened at one time, unless soil is replaced within the same working day, and where consistent with safety and space considerations, excavated material shall be placed on the uphill side of trenches. Trench dewatering devices shall discharge into a sediment trap or sediment pond.

Right-of-Way Improvements Manual

Seattle Right-of-Way Improvements Manual details requirements for construction zones.

- Chapter 5: Construction and Maintenance. 5.1 Introduction. Both public and private construction may require use of the street right-of-way for activities such as utility installation, roadway work, and project staging. Access through construction zones and to residences, public properties and businesses during construction must also be accommodated. This chapter includes information or links to other resources that must be considered



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when doing construction or maintenance work in the street right-of-way including:

- Traffic control plans; see Client Assistance Memos (CAM):
 - CAM 2110 - Steps to an Approved Traffic Control Plan:
<http://www.seattle.gov/transportation/cams/CAM2110.pdf>
 - CAM 2111 – Traffic Control Plan Checklist:
<http://www.seattle.gov/Transportation/cams/CAM2111.pdf>
 - CAM 2112 – Traffic Control Vendors:
<http://www.seattle.gov/Transportation/cams/CAM2112.pdf>
- Pre-construction activities;
- Construction coordination: CAM 2100 – Permittee Responsibilities:
<http://www.seattle.gov/Transportation/cams/CAM2109.pdf>
- Inspections and construction activities:
 - CAM 2101 – Inspection Costs:
<http://www.seattle.gov/transportation/cams/cam2101.pdf>
 - Maintenance and repair of property frontage, including sidewalks, street trees, landscaping and utilities;
 - Acceptable, restoration of street and sidewalk pavement openings; CAM 2205 Street Openings:
<http://www.seattle.gov/transportation/cams/cam2205.pdf>
 - SDOT Director's Rule 04-01 on Street Openings:
<http://www.seattle.gov/transportation/docs/PORR8-23-2005FINALGCcomplete2.pdf>
- Temporary erosion and sediment control
 - DPD CAM 502:
<http://www.ci.seattle.wa.us/dclu/Publications/cam/cam502.pdf>

In many cases, construction and maintenance in the street right-of-way will require one or more permits, especially if a street or street right-of-way closure is proposed. The City of Seattle issues permits for the construction of improvements in the street right-of-way and inspects new improvements, including roadway and utility work and the installation of street trees and landscaping. The City also works proactively to coordinate utility work within the street right-of-way to make the most efficient use of resources and minimize the impacts to the traveling public.

Hazardous Materials Contamination

If suspected contamination is discovered during construction activities, work shall cease and the City inspector shall be notified. Upon consultation with SDOT Environmental Services, the inspector may require the



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contractor to sample for contaminants and report the results to the City. The City may then require additional sampling to determine potential impacts to the right-of-way.

Office of City Auditor – Seattle Report: City Should Take Steps to Enhance Pedestrian and Cyclist Mobility Through and Around Construction Sites.

The Office of City Auditor report identified four main recommendation areas, including: 1. Making Pedestrian and Cyclist Mobility a Priority; 2. Coordinating Multiple Projects Located in the Same Area; 3. Improving Inspection and Enforcement, and 4. Communicating with the Public. The Action Plan items below cover these four recommendation areas.

Summary of Action Plan Items

- Develop a set of preferred and alternative methods for pedestrian protection based on the Washington D.C. model.
- Enforce Americans with Disabilities (ADA) accessibility standards for pedestrians.
- Dedicate a street use inspector to coordinate multiple construction projects located in the same area.
- Develop a policy for waiving inspections.
- Require applicants for street use permits to submit a notification plan.
- Make information on sidewalk closures and alternative routes available on SDOT website.

Best Practices

- The District of Columbia's (DC) Construction Zone Policy outlines a set of preferred and alternative methods for pedestrian protection. The applicant has to provide a written explanation if they are not intending to utilize one of the preferred alternatives.
 - DC requires developers to reapply for construction zone permits.
- The Cities of Tucson, Arizona, Denver, Colorado, and San Jose, California convene a downtown project group to conduct monthly status meetings on ongoing and planned projects to share information on travel restrictions.
- New York, Toronto and DC have a clear policy direction to minimize disruption to normal pedestrian pathways including covered walkways.
<http://www.nyc.gov/html/dot/html/permits/stpermit.shtml>
<http://wx.toronto.ca/inter/city/events.nsf/AllEventsCalendar?OpenView&Grid=4>
http://www.ddot.dc.gov/ddot/cwp/view,a,1250,q,643044,ddotnav_gid,1756,ddotnav_|34319|.asp
- Tucson provides sidewalk closure information on the internet.
<http://www.knowyourwaydowntown.info/>

Gaps/Additions/Modifications

- Inspections in Seattle need to be improved. An improved audit procedure is currently being implemented.
- Coordination between construction zones in proximity to each other needs to be improved.



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- Information on current and planned closures should be made more readily available to City Staff, the public and other stakeholders.
- General design improvements of construction zones are needed (e.g. temporary pedestrian pathway should be maintained on the same side of the street, sidewalk obstructions should be minimized, any sidewalk or pedestrian pathway changes should be ADA compliant, conflicts between pedestrians and large vehicles entering and leaving a work site should be minimized, etc.)
- Additional requirements of developers may be needed (e.g. developers should be responsible for repairing sidewalks or streets damaged by their staging equipment, permits must have end dates and be renewed when expired etc.)
- There is a need for hands-on coordination of multiple construction sites' use of the right-of-way in the same area. SDOT Street Use Division district inspectors' schedule of daily inspections does not always allow them the flexibility and time needed to take on the additional task of hands-on coordination.
- Based on a conversation with Street Use staff at SDOT, a potential loophole should be explored regarding the existing fee structure. With the fee structure for sidewalk and street closures, contractors may only have to pay the fee once and closure can be indefinite; For example, the fee structure may be something like this: arterial streets with closures lasting ≤ 30 days have one fee rate, ≤ 60 days a higher rate, ≤ 90 days have an even higher rate. However, if contractors reopen the street for a short period of time and then close it again, the fee goes back to the first 30 day rate. Street Use would have to follow up with an inspection to verify that the closure adheres to requirements.

Potential Recommendations for Review

- Implement the following recommendations of the Office of City Auditor Report:
 - Develop a set of preferred and alternative methods for pedestrian protection based on the Washington, DC model. This would document the City's preferred methods of pedestrian protection.
 - Enforce Americans with Disabilities (ADA) accessibility standards for pedestrians.
 - Dedicate a street use inspector to coordinate multiple construction projects located in the same area.
 - Develop a policy for waiving inspections.
 - Require applicants for street use permits to submit a notification plan.
 - Make information on sidewalk closures and alternative routes available on the SDOT website.
- SDOT should take additional steps to determine whether public notification requirements are being met for each permit holder. These efforts may include: 1) developing a list of acceptable notification methods, 2) providing staff training in enforcing this requirement, and/or 3) requiring applicants to complete a checklist documenting the notification methods they used as a condition of permit approval, and 4) clarifying the area of notification.



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Links as Applicable

- Office of City Auditor Report: City Should Take Steps to Enhance Pedestrian and Cyclist Mobility Through and Around Construction Sites, available at <http://seattle.gov/audit>
- Washington, D.C.: District Department of Transportation Pedestrian Safety and Work Zone Standards: Covered and Open Walkways; see http://ddot.dc.gov/ddot/cwp/view,a,1250,q,642974,ddotNav_GID,1756,ddotNav_|34319|.asp