1. 1101.3 Defined Terms

Comment: An earlier version of this document included a definition of "Ramp." This included the statement "Does not include public sidewalks that follow the running slope grade of the adjacent roadway, even if the running slope grade exceeds 1:20." We are in favor of having this statement included in the Defined Terms or somewhere in this document. This addition will relieve us from documenting an exception every time a sidewalk is adjacent to a street that exceeds a 5% grade.

2. 1101.3 Defined Terms

Draft Guideline: Curb Ramp. A ramp cutting through a curb or built up to it.

Comment: Amend the term for "Curb Ramp" to exclude the flares. This will distinguish it from the various requirements of a curb ramp, e.g., detectable warning surfaces are required to span the full width of a curb ramp per Section 1108.1.4.

3. <u>1102.5 Protruding Objects</u>

Draft Guideline: 1102.5.2 Post-Mounted Objects. Free-standing objects mounted on posts or pylons shall overhang circulation paths 4 inches (100 mm) maximum when located 27 inches (685 mm) minimum and 80 inches (2030 mm) maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the finish floor or ground.

EXCEPTION: This requirement shall not apply to sloping portions of handrails serving stairs and ramps.

1102.5.3 Reduced Vertical Clearance. Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm) high. The leading edge of such guardrail or barrier shall be located 27 inches (685 mm) maximum above the finish floor or ground.

Comment: As written, the requirement in Section 1102.5.2 would require installing a guardrail or barrier no more than 27 inches (685 mm) high for a sign between two posts with it's lower edge at 27 inches (685 mm) maximum. We would like clarification on the meaning of "barrier." Our concern is that the positioning of the guardrail or barrier by a sign where it is contiguous with a roadway will become a potential obstruction for a vehicle.

4. 1103 Pedestrian Access Route

Draft Guideline: 1103.3 Clear Width. The minimum clear width of a pedestrian access route shall be 48 inches (1220 mm), exclusive of the width of the curb.

Comment: This is inconsistent with Chapter 400 of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) Section 403.5.2 which requires passing space for widths less than 60 inches (1525 mm).

5. 1103.3 Clear Width

Draft Guideline: 1103.3 Clear Width. The minimum clear width of a pedestrian access route shall be 48 inches (1220 mm), exclusive of the width of the curb.

Comment: It may be practical to provide 48 inches (1220 mm) in new construction, but not for retrofit situations. Numerous retrofit situations will have an existing obstruction in the sidewalk that may be impractical or costly to relocate. We recommend a minimum clearance of 32 inches (815 mm) to an obstruction, consistent with the requirements for buildings found in ADAAG Section 403.5.

6. <u>1103.4 Cross Slope</u>

Draft Guideline: 1103.4 Cross Slope. The cross slope of the pedestrian access route shall be 1:48 maximum.

Comment: We recognize the value of this requirement for new construction. However, the 1:48 cross slope requirement poses a challenge in retrofit situations. The cost involved to reconstruct sidewalks, driveways, and other pedestrian facilities to meet this standard where the existing situation varies only slightly from standard might not be the best use of limited funding. We request research on this subject to develop a retrofit cross slope standard for continuous and short distance (e.g. driveways) situations.

7. <u>1104.3 Common Elements</u>

Draft Guideline: 1104.3.3 Surfaces. Surfaces of curb ramps, blended transitions, and landings shall comply with 302. Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutter areas within the pedestrian access route.

Comment: We support this for new construction. However, the requirement to not allow "access covers, and other appurtenances" in the curb ramp in retrofit situations will require relocation of utilities, which can greatly increase the cost of installing the facility and disrupt usage by pedestrians during relocation work. Although it is desirable to keep utilities out of the curb ramp, many times constraints exist that would require an underground utility with an access cover to be placed in the curb ramp or the flare. We recommend that for retrofit situations, that it

should be a goal to keep utilities out of the curb ramp, but not a requirement. If a utility cover is within the curb ramp or flare, the utility covers should be placed flush with the surface.

8. <u>1104.3.6 Counter Slopes</u>

Draft Guideline: 1104.3.6 Counter Slopes. The counter slope of the gutter area or street at the foot of a curb ramp or blended transition shall be 1:20 maximum.

Comment: We support this for new construction. In retrofit situations, the 1:20 slope at the bottom of the curb ramp is impractical in many cases. A crowned roadway that is resurfaced multiple times over a period of time will exceed the 1:20 slope. Also, hydraulic design may require an adjoining gutter slope that exceeds 1:20 in order to prevent a flooded width into the traveled lane or curb ramp. Requiring a 5% maximum shoulder slope is most common in new construction.

9. <u>1105.2 Crosswa</u>lks

Draft Guideline: 1105.2.3 Running Slope. The running slope shall be 1:20 maximum measured parallel to the direction of pedestrian travel in the crosswalk.

Comment: We recommend consistency with the ramp-landing requirement in ADAAG Section 405 that allows a 1:12 running slope up to 760 mm. The 1:20 maximum is impractical for a crosswalk because resurfacing of the roadway over a period of time could results in slopes exceeding 1:20. The 1:12 maximum running slope should be allowed here with a vertical limitation of 760 mm. The 1:20 maximum may also be impractical where a crosswalk occurs at a curve and a super elevation is present that exceeds 1:20.

10. <u>1105.3 Pedestrian Signal Phase Timing</u>

Draft Guideline: 1105.3 Pedestrian Signal Phase Timing. All pedestrian signal phase timing shall be calculated using a pedestrian walk speed of 3.0 feet per second (0.91 m/s) maximum. The total crosswalk distance used in calculating pedestrian signal phase timing shall include the entire length of the crosswalk plus the length of the curb ramp.

Comment: The 3 ft/s (0.91 m/s) and the distance measurement conflicts with the current Manual of Uniform Traffic Control Devices (MUTCD) requirement. The MUTCD, the national standard for traffic control devices, allows for flexibility in reducing pedestrian walk speed below their standard 4 ft/s (1.22 m/s) to accommodate slower moving and disabled pedestrians and the flexibility should be continued.

Adopting a standard of 3 ft/s (0.91 m/s) would: (1) have a negative impact on traffic flow at congested signalized intersections, (2) have negative impact on coordinated signal systems, (3) be very costly if existing signals must be re-timed, and (4) change pedestrian expectations from one signal to the next.

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11. 1105.5 Overpasses and Underpasses

Draft Guideline: 1105.5.2 Running Slope. The running slope shall not exceed 1:20 maximum.

Comment: The flexibility of ADAAG Section 405 should be allowed here. The 1:20 maximum is not compatible for structures on a vertical curve where only a small portion may exceed 5%. The structure may exceed 1:20, but not for more than a 760 mm rise, in which case it would be compliant with the ramp-landing requirement in ADAAG Section 405. This flexibility may allow us to build pedestrian overcrossings with more options in design and possibly with not having to acquire additional right of way.

12. 1105.5 Overpasses and Underpasses

Draft Guideline: 1105.5.3 Approach. Where the approach exceeds 1:20, the approach shall be a ramp 48 inches (1220 mm) minimum in width and shall comply with 405. Where the rise of a ramped approach exceeds 60 inches (1525 mm), an elevator complying with 407, or a limited-use/limited-application elevator complying with 408 shall be provided.

Comment: We have experienced security problems with elevators in metropolitan areas. If this provision is changed to an option, we can consider relative factors such as safety, maintenance, and operating cost. Also, we request information on how the 60 inches (1525 mm) threshold was selected.

13. 1105.6 Roundabouts

Draft Guideline: 1105.6.1 Separation. Continuous barriers shall be provided along the street side of the sidewalk where pedestrian crossing is prohibited. Where railings are used, they shall have a bottom rail 15 inches (380 mm) maximum above the pedestrian access route.

Comment: It is recommended that the term "barrier" not be used here. In our industry, the term "barrier" is frequently thought of as a guardrail or some other high object. If these are the types of barriers intended by this requirement, the barrier could pose a driver sight problem for vehicles entering or exiting the roundabout and would make it more difficult for motorists and pedestrians of short stature (children, people in wheelchairs) to see each other. We concur with the FHWA publication "Roundabouts: An Informational Guide," where a landscape planted area can be a useful separation between the sidewalk and the roadway. We also believe that if a landscape strip cannot be provided, a curb or dike placed between the walkway and roundabout can provide warning to a visually impaired individual to prevent them from entering the roundabout.

14. 1105.6 Roundabouts

Draft Guideline: 1105.6.2 Signals. A pedestrian activated traffic signal complying with 1106 shall be provided for each segment of the crosswalk, including the splitter island. Signals shall clearly identify which crosswalk segment the signal serves.

Comment: We concur with the AASHTO recommendation to wait until the NCHRP project 3-65 is completed before developing a standard.

15. 1106 Accessible Pedestrian Signal System

Draft Guideline: This section contains various provisions regarding Pedestrian Signal Devices, Location, Reach and Ground Space, Audible Walk Indication, Tones, Volumes, Pushbuttons, Locator Tones, Size and Contrast, Optional Features, Directional Information Signs, Arrow, Street Name, and Crosswalk Configuration.

Comment: We concur with the desire to include audible devices with the installation of new signals with pedestrian signal indication where warranted. We believe that retrofitting existing signals should be analyzed on a case-by-case basis based on the needs at the particular signal. Mandating the retrofit of every signal will exceed the funds available, which will prevent agencies from placing their limited funds where they can provide the most benefit for the disabled. Existing signals could be placed on a transition plan and be upgraded over time based on priority and funds available as is currently done for signal installation. We also believe that any standard developed for audible signals should not mandate the use of a particular technology. We have experimented with some systems and have found various problems regarding reliability, operation, and maintenance. Mandating a particular technology could also limit the industry's ability to develop newer and better systems than the one mandated.

16. <u>1109 On-Street Parking</u>

Draft Guideline: 1109.1 General. Car and van on-street parking spaces shall comply with 1109.

Comment: The number of accessible parking spaces required to be provided is not specified in this section, but is referenced in Section 1102.14. We concur with AASHTO's comments on Section 1102.14 regarding the need to more clearly define the number of accessible on-street parking spaces.

17. 1109.2 Parallel Parking Spaces

Draft Guideline: 1109.2 Parallel Parking Spaces. An access aisle at least 60 inches (1525 mm) wide shall be provided at street level the full length of the parking space. The access aisle shall connect to a pedestrian access route serving the space. The access aisle shall not encroach on the vehicular travel lane.

EXCEPTION: An access aisle is not required where the width of the sidewalk between the extension of the normal curb and boundary of the public right-of-way is less than 14 feet (4270 mm). When an access aisle is not provided, the parking space shall be located at the end of the block face.

Comment: Since 12 feet (3.6 m) is needed for a perpendicular curb ramp and top landing at a 6 inch (150 mm) high curb, the 14 feet (4270 mm) number should be changed to 17 feet (5.1 m) to include the 60 inches (1525 mm) aisle.

18. 1111 Alternate Circulation Path

Draft Guideline: 1111.3 Location. The alternate circulation path shall parallel the disrupted pedestrian access route, on the same side of the street.

Comment: In most cases there is not enough space to provide an alternate circulation path on the same side of the closed sidewalk or pedestrian facility. If we were not allowed to redirect the pedestrians to the sidewalk or pedestrian facility on the other side of the street, the only alternative would be to close access to all pedestrians. This decision is not just a matter of space; it is generally one of safety.