Author: Todd Grugel
Date Revised: 1/30/11

Mn/DOT ADA Compliance Checklist for Curb Ramps

S.P.:_____ **Construction Date: _____**

Intersection: _____ **Quadrant: _____**

1) Ramp's Running Slope: _____ _____ _____ _____

2) Ramps comply with Spec 2521.3: YES NO

3) Ramp's Cross Slope: _____ _____

4) Gutter Flow Line Slope: _____ _____

5) Landing Slopes: _____ _____ _____ _____

6) Landing Dimensions are a minimum 4' X 4': YES NO

7) Landing(s) are located at the top of each ramp: YES NO

8) Truncated domes cover the entire curb opening and are properly oriented: YES NO

9) Gutter line and ramps are draining properly and not holding water(check after rain event): YES NO

10) Are there any vertical discontinuities greater than 1/4"? : YES NO

**11) Ramps are compliant?: YES NO if no, circle one of the following reasons why, explain why the ramp didn't meet compliance, and how the ramp has been improved from the pre-construction condition(attach pages if needed):

A) Surrounding Geography B) Limited Scope of Project C) Contractor Performance D) Other

Printed Name: _____

Signature: _____

Date: _____

***For non-compliant ramps, attach a photograph of the pre-construction facility and documentation of the pre-construction grades.*

Mn/DOT ADA Compliance Checklist for Curb Ramps - Guidance

1) Check the ramps' running slope (slope in the direction of travel). This must be less than or equal to **8.3%** (1 inch per foot). Use a **10 foot** straight edge with a smart level to check this.

2) When checking the running slope with a **10 foot** straight edge, make sure the surface is compliant with **Spec. 2521.3C**, which says "The surface shall not vary more than **3/16"** from a **10 foot** straight edge." Look for any bellies or ridges in the concrete ramp surface greater than **3/16"**. Also, the joints in the walk should be being finished with a **1/4"** radius jointing/edging tool and contraction joints should be approximately **1/8"** wide per **Spec. 2521.3C**.

3 & 4) Check the ramps' cross slope at the midpoint of the ramp. This must be less than or equal to **2.0%.** In cases where the grade of the gutter flow line exceeds 2.0%, the ramp cross slope adjacent to the gutter may exceed 2.0%, but should not exceed the slope of the flow line and should transition to a 2.0% cross slope as soon as is practical. Be sure to document this condition when it exists.

5 & 6) Check the landing dimensions and slopes. The landing must be a minimum 4' X 4' and not have a slope greater than **2.0%** in any direction.

7) Check the landing location. Landings must be located at the top of each ramp.

8) Check truncated dome placement and orientation:

The domes must cover the entire curb opening (anywhere that the curb height = 0). The domes should be oriented in the direction of travel whenever possible, but should be within **1-2 feet** of the back of curb if there is nothing obstructing the pedestrian from entering the street from the side of the ramp. If there is turf or another obstruction next to the ramp that would keep a person from approaching the ramp from the side, then the domes can be placed in the direction of travel with one corner 3 inches from the back of curb and the other corner up to **5 feet** from the back of curb. The grade break for the ramp should occur at the front edge of the dome and any "triangular" shaped concrete area between the front edge of the domes and the back of curb should have a slope of **2%** or less in all directions (except in cases where the flow line grade exceeds 2% as mentioned above).

Note 1: Whenever square domes are placed around a radius, the backs of each section of domes should be touching to form a "continuous" detectable warning around the radius. Radial domes should be used in this case if available.

Note 2: Some corners may have multiple ramps and multiple landings to get from the street elevation up to the adjacent sidewalk elevation. If this is the case be sure to check all ramps, landing areas, and sidewalks for compliance.

9) After a rain event, check the completed ramps to make sure that neither the ramps nor the gutters are holding water and everything appears to be draining properly.

10) Check for vertical discontinuities. Anything greater than **½"**, and the panel should be removed and replaced. Anything between **¼"- ½"** should be beveled at a 1:2 slope.

11) If any portion of the ramp is not compliant and cannot be made to be compliant, be sure to document the pre-construction and post-construction ramp conditions and explain why the ramp cannot be constructed so that it is "fully compliant". Also, circle one of the given reasons that best describes why the ramp isn't compliant.

A) Surrounding Geography – The ramp couldn't be constructed to be compliant because of the surrounding geography. For example, having to tie the walkway into nearby doorways/entrances or, the roadways adjacent to the walkway have steep slopes so that it is impossible to construct the ramps using maximum slopes and staying within 30 feet of the back of curb.

B) Limited Scope of Project – Upgrading the ramp to meet standards would have required work that is outside the scope of the project. For example, utilities, such as fire hydrants, street light poles, traffic signal poles, manhole covers, etc., that could not be moved as part of the project.

C) Contractor Performance – The ramp could have been constructed to be compliant but the contractor failed in constructing the ramp.

D) Other – Any reasons that don't fit into the three categories listed above. Include a description of the situation that caused the ramp to be constructed non-compliant.

Author: Todd Grugel
Date Revised: 1/30/11

Mn/DOT ADA Compliance Checklist for APS

S.P.:_____ **Construction Date: _____**

Intersection: _____ **Quadrant: _____**

1) Push button stations are properly placed and the push button faces are oriented properly: YES NO

2) Distance from crosswalk edge to push button face: _____ _____

3) There is a 4' X 4' landing adjacent to the push button: YES NO

4) Distance from the push button to the back of curb: _____ _____ (if greater than 6' justify below)

5) Distance between the push buttons: _____

6) Push button height: _____

7) Is APS system compliant?: YES NO if no, explain why the system isn't compliant and why it cannot be constructed so that it is fully compliant:

Printed Name: _____

Signature: _____

Date: _____

Mn/DOT ADA Compliance Checklist for APS - Guidance

1) When facing the intersection, the push button for the crosswalk on your left should also be located to your left on the outside edge of the crosswalk, and the push button for the crosswalk on your right should be located to your right on the outside edge of the crosswalk. The push button face should also be aligned parallel with the direction of travel.

2) The push button should be within 5 feet of the projected outer crosswalk edge.

3) The push button should have a 4' X 4' landing with less than a 2% cross slope in all directions and should be centered on the landing if possible.

4) The push button should be 1.5 feet to 10 feet from the back of curb and ideally it will approximately 6 feet from the back of curb.

5) The push buttons should have at least 10' of separation between them.

6) The push buttons should be at a height of 42" plus or minus 2".

7) If any of these specifications are violated, provide an explanation describing which parameters were violated and why.

	2009 Federal MUTCD All MUTCD language in this section uses "should" not "shall" and is italicized indicating that it is guidance	PROWAG	Better Design Recommendations
SETBACK	• Between 1.5 and 6 feet from the edge of curb, shoulder, or pavement • Note: Where there are physical constraints that make it impractical to place the pedestrian pushbutton between 1.5 and 6 feet from the edge of the curb, shoulder, or pavement, it should not be farther than 10 feet from the edge of curb, shoulder, or pavement.	SILENT	Place button up to 10 feet to: • Keep out of truck turning radius, keep from obstructing walk/trail • Make use of a mast arm pole located in the vicinity that the button can be mounted on • Maintain 6' MAR (Maintenance Access Route) • Center button on landing
OFFSET	• Between the edge of the crosswalk line (extended) farthest from the center of the intersection and the side of a curb ramp (if present), but not greater than 5 feet from said crosswalk line;	• R306.2.1 Location. Accessible pedestrian signals shall be located so that the vibrotactile feature can be contacted from the level landing serving a curb ramp, if provided, or from a clear floor or ground space that is **in line with the crosswalk line adjacent to the vehicle stop line.**	• Commonly move crosswalks away from intersection to use a mast arm pole and meet this requirement or to achieve button separation
LANDING/ CLEAR SPACE	• Unobstructed and adjacent to a level all-weather surface to provide access from a wheelchair • Where there is an all-weather surface, a wheelchair accessible route from the pushbutton to the ramp **• ALSO: Where there are physical constraints that make it impractical to place the pedestrian pushbutton adjacent to a level all-weather surface, the surface should be as level as feasible.**	• R306.2.1 Location. Accessible pedestrian signals shall be located so that the vibrotactile feature can be contacted from the level landing serving a curb ramp, if provided, or from a clear floor or ground space that is in line with the crosswalk line adjacent to the vehicle stop line. • Surfaces of clear spaces shall comply with R301.5 and shall have a **slope and cross slope of 2 percent maximum.** • The clear space shall be 760 mm (**30 in**) minimum by 1220 mm (**48 in**) minimum. • Unless otherwise specified, clear space shall be positioned for either forward or parallel approach to an element. • One full unobstructed side of the clear space shall adjoin a pedestrian access route or adjoin another clear space.	• Use 4 feet by 4 feet landing that serves the ramp and is connected to the PAR for landing at button and center button on the landing

	2009 Federal MUTCD All MUTCD language in this section uses "should" not "shall" and is italicized indicating that it is guidance	PROWAG	Better Design Recommendations
SEPARATION	• Where two pedestrian pushbuttons are provided on the same corner of a signalized location, the pushbuttons should be separated by a distance of at least 10 feet. • Where there are physical constraints on a particular corner that make it impractical to provide the 10-foot separation between the two pedestrian pushbuttons, the pushbuttons may be placed closer together or on the same pole.	• Accessible pedestrian signal devices shall be 3.0 m (10.0 ft) minimum from other accessible pedestrian signals at a crossing. • The control face of the accessible pedestrian signal shall be installed to face the intersection and be parallel to the direction of the crosswalk it serves. • Accessible pedestrian signals located in medians and islands shall be 1.5 m (5.0 ft) minimum from other accessible pedestrian signals.	• This guidance is generally followed, however when a mast arm pole is used the 10 foot separation often pushes the other button further away from the intersection than is ideal. 7-8' separation is fairly common, but is not acceptable.
HEIGHT	At a mounting height of approximately 3.5 feet, but no more than 4 feet, above the sidewalk.	Where a clear space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 1220 mm (48 in) maximum and the low side reach shall be 380 mm (15 in) minimum above the finish surface. An obstruction shall be permitted between the clear space and the element where the depth of the obstruction is 255 mm (10 in) maximum.	• Mount at 42 inch height (+/- 2") • If mounting button on existing mast arm pole, make sure that button height will not exceed 48 inches
OTHER ISSUES	1) Using the mast arm pole often results in odd or nonexistent landings. 2) Using the mast arm pole for both buttons generally results in the buttons being placed on the inside of the crosswalks and no separation. 3) Using the mast arm pole often results in a button face orientation that doesn't parallel the crosswalk. 4) mast arm poles may be in the vicinity (+/- 2') of the requirements so adding a ped station is often undesirable for some groups. 5) Added ped station reduces walkable area/MAR 6) Seems to be a reluctance to "reconstruct" these quadrants, most people want minimal disturbance when installing APS and are willing to violate the criteria to minimize impacts to surrounding area.		