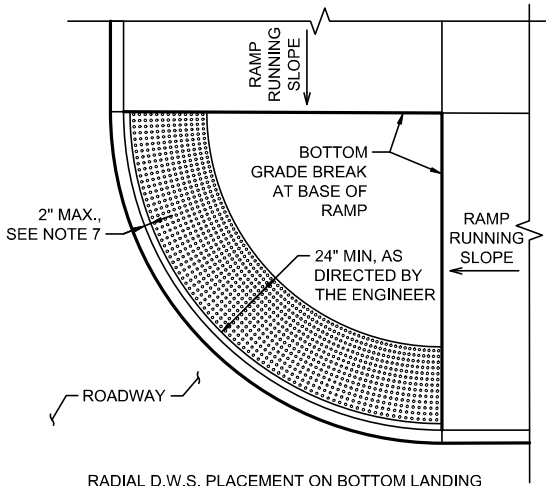


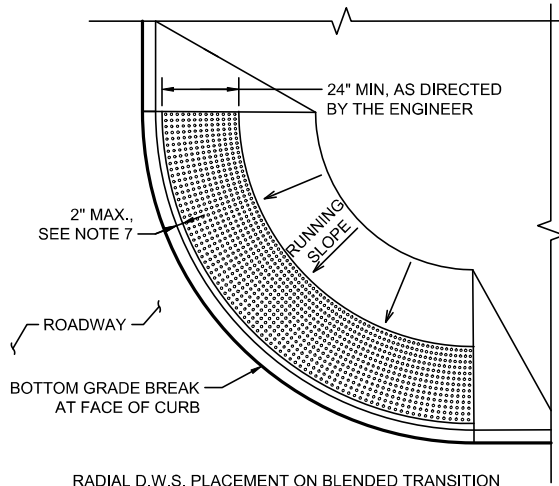
D.W.S. PLACEMENT ON RAMP

W D.W.S. PLACEMENT - PLAN DETAIL
SCALE: N.T.S.

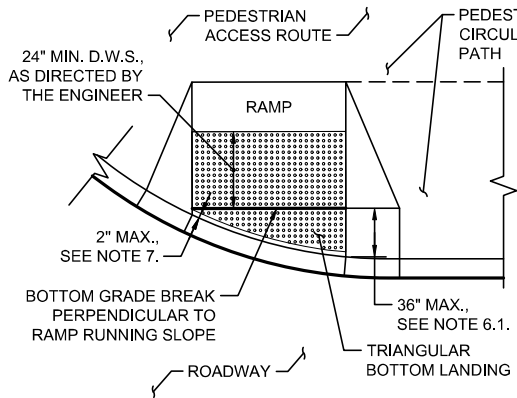


RADIAL D.W.S. PLACEMENT ON BOTTOM LANDING

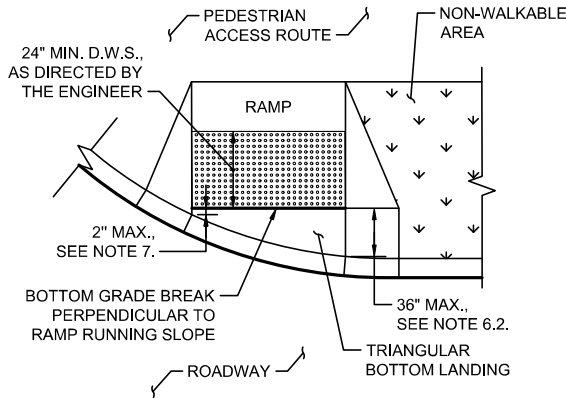
X RADIAL D.W.S. PLACEMENT - PLAN DETAIL
SCALE: N.T.S.



RADIAL D.W.S. PLACEMENT ON BLENDED TRANSITION

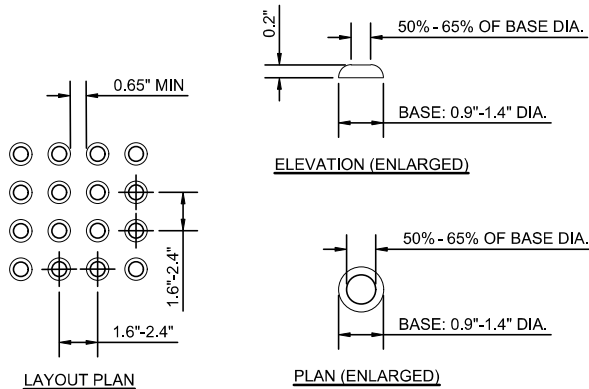


D.W.S. ON RAMP AND TRIANGULAR BOTTOM LANDING



D.W.S. ON RAMP


Y D.W.S. PLACEMENT AT DIRECTIONAL RAMP - PLAN DETAIL
SCALE: N.T.S.




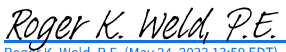
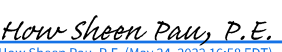
Z DETECTABLE WARNING DOMES - DETAIL
SCALE: N.T.S.

NOTES:

- FOR INDEX OF DRAWINGS, SLOPE LIMITS, LEGEND, GLOSSARY, GENERAL NOTES, SEE DWG. NO. H-1011-1.
- DETECTABLE WARNING SURFACE (D.W.S.) NOTES:**
 - D.W.S. MUST BE INSTALLED AT ALL FLUSH CURB LOCATIONS, WHERE THE PEDESTRIAN CIRCULATION PATH CROSSES A ROADWAY, RAILWAY, OR TRAFFIC CONTROLLED DRIVEWAY.
 - D.W.S. MUST BE INSTALLED ACROSS THE FULL WIDTH OF FLUSH CURB, INCLUDING FULL RAMP WIDTH, FULL BOTTOM LANDING WIDTH, FULL BLENDED TRANSITION WIDTH, AND FULL CUT-THROUGH WIDTH (WHERE APPLICABLE).
 - D.W.S. MUST BE INSTALLED ACROSS THE FULL WIDTH OF THE PEDESTRIAN CIRCULATION PATH, AT ANY STOP, YIELD CONTROLLED, OR SIGNALIZED DRIVEWAY. D.W.S. MUST NOT BE INSTALLED AT UNCONTROLLED DRIVEWAYS.
 - D.W.S. MUST BE INSTALLED FOR A MINIMUM LENGTH OF 24 INCHES IN THE DIRECTION OF PEDESTRIAN TRAVEL. D.W.S. MUST BE INSTALLED OR OMITTED AT ISLAND AND MEDIAN CUT THROUGHS IN ACCORDANCE WITH NOTE 12 ON DWG. NO. H-1011-6, AS DIRECTED BY THE ENGINEER.
 - TO PROVIDE A CONTINUOUS DETECTABLE EDGE BETWEEN THE PEDESTRIAN CIRCULATION PATH AND THE ROADWAY AT THE FLUSH CURB OF A DIRECTIONAL RAMP, THE D.W.S. MUST BE INSTALLED AS FOLLOWS, AS DIRECTED BY THE ENGINEER.
 - WHEN THE TRIANGULAR BOTTOM LANDING OF A DIRECTIONAL RAMP ADJOINS A PEDESTRIAN CIRCULATION PATH ON THE SIDEWALK, THE D.W.S. MUST BE INSTALLED ON THE RAMP AND THE TRIANGULAR BOTTOM LANDING WITH THE FOLLOWING EXCEPTION: D.W.S. MAY BE OMITTED FROM THE TRIANGULAR BOTTOM LANDING AT LOCATIONS WHERE VERTICAL OBSTRUCTIONS TO PEDESTRIAN TRAVEL ARE LOCATED NO MORE THAN 18 INCHES (18") FROM THE WIDE EDGE OF THE TRIANGULAR BOTTOM LANDING.
 - WHEN THE TRIANGULAR BOTTOM LANDING OF A DIRECTIONAL RAMP ADJOINS A NON-WALKABLE AREA ON THE SIDEWALK, THE D.W.S. MAY BE OMITTED FROM THE TRIANGULAR BOTTOM LANDING.
 - WHERE PROPOSED AT THE BACK OF CURB, D.W.S. MUST BE INSTALLED WITH A TWO INCH (2") MAXIMUM OFFSET FROM THE EXPANSION JOINT OR TOOLED RADIUS.
 - D.W.S. MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES AS DIRECTED BY THE ENGINEER. D.W.S. MAY BE CUT OR TRIMMED TO MEET THE REQUIREMENTS OF THIS DETAIL, AS DIRECTED AND APPROVED BY THE ENGINEER.
 - THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF TRUNCATED DOMES DEPICTED ON THE D.W.S. IS FOR ILLUSTRATION ONLY.
 - D.W.S. MUST PROVIDE COLOR CONTRAST WITH THE ADJOINING SIDEWALK. FOR D.W.S. REQUIREMENTS INCLUDING COLOR CONTRAST, SEE NYC DOT STANDARD HIGHWAY SPECIFICATION ITEM NO. 4.13 DE.
 - ON SLOPES OF FIVE PERCENT (5%) OR GREATER, TRUNCATED DOMES MUST BE ALIGNED WITH THE LOWER GRADE BREAK OF THE RAMP. ON SLOPES LESS THAN FIVE PERCENT (5%), TRUNCATED DOMES DO NOT NEED TO BE ALIGNED WITH THE LOWER GRADE BREAK OF THE RAMP.
 - D.W.S. MUST BE PROVIDED AT RAILROAD CROSSING IN ACCORDANCE WITH NEW YORK STATE AND FEDERAL RAILROAD ADMINISTRATION REQUIREMENTS. D.W.S. LAYOUT AT RAILROAD CROSSINGS MUST BE SUBMITTED TO NYS DOT FOR REVIEW AND APPROVAL PRIOR TO ITS CONSTRUCTION.
 - EMBEDDED D.W.S. MUST BE INSTALLED ON A PLANAR SURFACE TO PREVENT WARPING. ANY CROSS SLOPE TRANSITIONS (WARPING) WITHIN A RAMP OR TURNING SPACE MUST BE EXCLUSIVE OF THE D.W.S., AT A MAXIMUM RATE OF ONE PERCENT (1.0%) PER LINEAR FOOT.
 - PRE-FABRICATED RADIAL D.W.S. MAY BE USED FOR RADIAL D.W.S. PLACEMENT. WHERE PROCUREMENT OF PRE-FABRICATED RADIAL D.W.S. IS NOT FEASIBLE, RECTANGULAR TILE ARRAYS MAY BE USED TO PROVIDE RADIAL D.W.S. PLACEMENT, AS DIRECTED BY THE ENGINEER. WHERE USED, RADIAL D.W.S. OF ANY TYPE MUST MEET ALL APPLICABLE REQUIREMENTS ON THIS SHEET, INCLUDING DOME SPACING.
 - DETECTABLE WARNING DOMES (TRUNCATED DOMES) MUST MEET THE REQUIREMENTS OF DETAIL Z.
 - WHERE AN EXISTING UTILITY CASTING IS LOCATED WITHIN THE PROPOSED LOCATION OF A D.W.S., THE CONTRACTOR MAY CUT THE D.W.S. TO ACCOMMODATE THE UTILITY CASTING; SEE NOTE 5.

CHECKED BY: 
HWS-H1011

REVISION NO.	DESCRIPTION	DATE	APPROVED

		New York City Department of Transportation	
PEDESTRIAN RAMPS DETECTABLE WARNING SURFACES			
Approved:  Roger K. Weld, P.E. (May 24, 2022 13:59 EDT) Chief Engineer Department of Transportation		Approved:  How Sheen Pau, P.E. (May 24, 2022 16:58 EDT) Assistant Commissioner Infrastructure/Design Department of Design + Construction	
Date Issued: 6/06/2022		Scale: AS SHOWN	Drawing #: H-1011-9