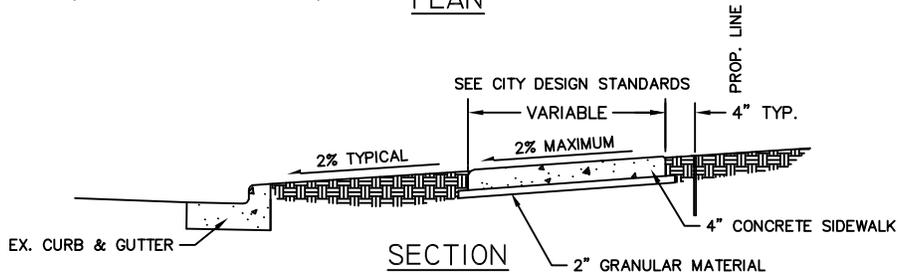


W = THE WIDTH OF THE SIDEWALK JOINT SPACING SHOULD BE EQUAL TO THE WIDTH OF THE SIDEWALK. (EXCEPTIONS SEE NOTE BELOW)

EXPANSION JOINTS SHALL BE PLACED AT 50 FOOT INTERVALS, OR TO THE NEAREST TOOLED JOINT.

PLAN



SECTION

NOTES:

LOCATION OF SIDEWALK FROM CURB LINE WILL VARY, HOWEVER, IN MOST INSTANCES THE SIDEWALK WILL BE LOCATED 4" OFF THE PROPERTY LINE. VERIFY SIDEWALK LOCATIONS WITH THE CITY ENGINEERS OFFICE BEFORE PROCEEDING.

ALL SIDEWALKS SHALL HAVE A 5' MINIMUM WIDE PATH WHICH WILL SERVE AS THE PEDESTRIAN ACCESS ROUTE. THIS PEDESTRIAN ACCESS ROUTE SHALL BE CLEAR OF ALL OBSTRUCTIONS SUCH AS LIGHT POLES, SIGNAL POLES, METER POSTS, ETC. ADDITIONALLY, THE MAXIMUM CROSS SLOPE ON THE PEDESTRIAN ACCESS ROUTE IS 2%. POSITIVE DRAINAGE MUST BE MAINTAINED ON ALL SIDEWALKS.

SIDEWALK PLACED DIRECTLY BEHIND THE CURB AND GUTTER SHALL BE A MINIMUM OF 6" IN DEPTH.

ISOLATION JOINTS SHALL EITHER INTERSECT STRUCTURES OR BE A MINIMUM ONE FOOT CLEAR OF STRUCTURE.

CONTRACTION JOINTS SHALL BE FORMED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK. WHEN THE DISTANCE DOES NOT WORK OUT TO AN EVEN NUMBER OF SPACES, THE DISTANCE BETWEEN JOINTS SHOULD BE ADJUSTED SO THAT ALL THE JOINTS LOOK UNIFORM.

THE SUBGRADE ON WHICH THE CONCRETE IS TO BE LAID SHALL BE COMPACTED AND OF THE PROPER DEPTH TO OBTAIN THE DESIRED THICKNESS. THE GRADE SHALL BE FREE OF VEGETATION, BRICK, ASPHALT, BROKEN CONCRETE, AND ANY OTHER ITEM THAT MAY BE DETRIMENTAL TO THE NEW CONCRETE.

NOTE: Sidewalk width is 5' unless stated otherwise in the plans or approved by Engineer.

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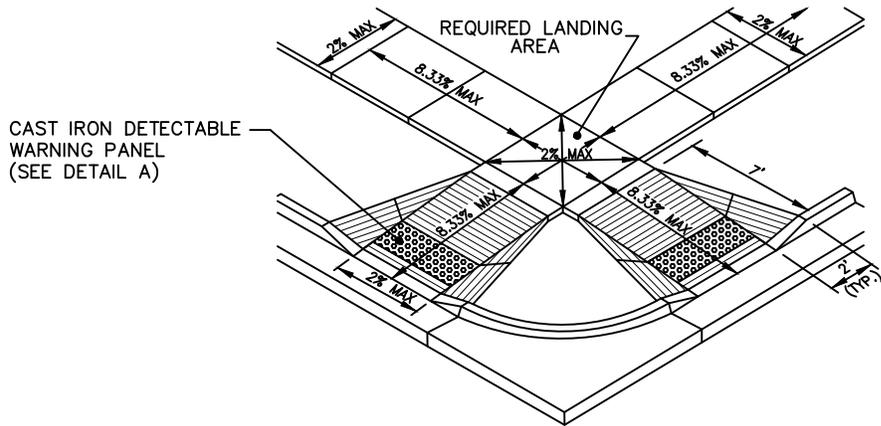
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ENGINEERING DIVISION  
SIDEWALK LAYOUT DETAILS

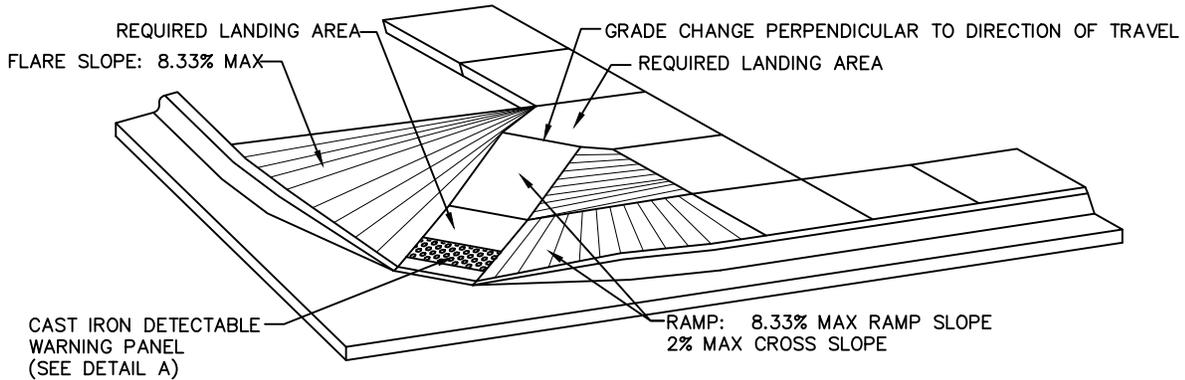
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THE FOLLOWING PERSPECTIVE VIEWS ARE ILLUSTRATIONS OF DIFFERENT TYPES OF INSTALLATIONS INCORPORATING THE MANDATORY REQUIREMENTS.



- \* 2% = 1/4" per Foot
- \* 8.33% = 1" per Foot
- \* These Slopes are MAXIMUM and can be Less.

PERSPECTIVE VIEW - BOULEVARD SIDEWALK RAMP



PERSPECTIVE VIEW - BOULEVARD AND CURBSIDE COMBO SIDEWALK RAMP

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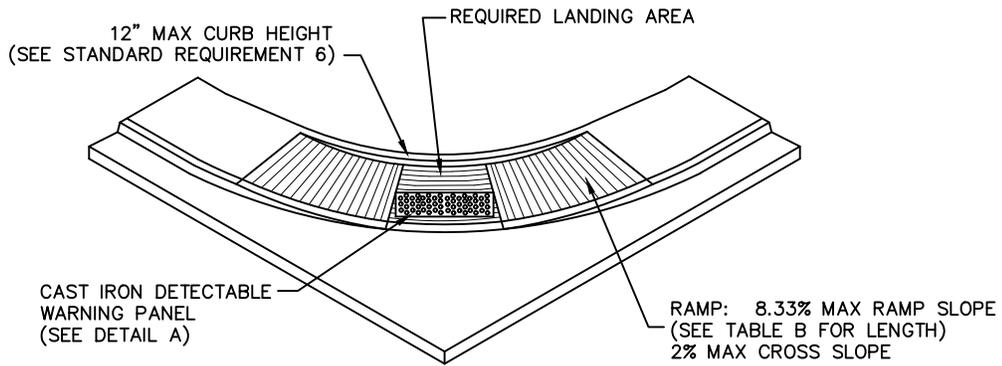


CITY OF WATERTOWN  
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SIDEWALK RAMPS

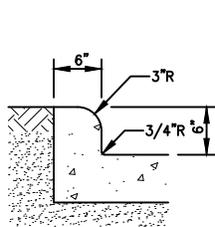
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TABLE B  
FOR CURBSIDE SIDEWALK ONLY

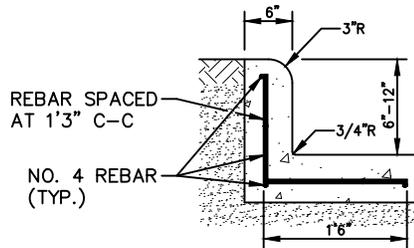
STREET GRADE	RAMP LENGTH 8.33% MAX SLOPE	
	LOW SIDE	HIGH SIDE
1%	6'-0"	7'-2"
2%	6'-0"	8'-4"
3%	6'-0"	10'-0"
4%	6'-0"	12'-6"
5% +	6'-0"	15'-0"



PERSPECTIVE VIEW - CURBSIDE SIDEWALK RAMP



6" CURB DETAIL



6"-12" CURB DETAIL

CURB DETAIL NOTES:

- 1) SIDEWALK SHALL BE A MINIMUM OF 4" THICK WHEN CURB HEIGHT IS LESS THAN 6".
- 2) SIDEWALK SHALL BE A MINIMUM OF 6" THICK WHEN CURB HEIGHT IS GREATER THAN 6".
- 3) ALL REINFORCING STEEL SHALL HAVE A MINIMUM OF 2" CLEAR COVER.
- 4) THE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
- 5) ALL COSTS INCURRED FOR FURNISHING & INSTALLING THE REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR THE CORRESPONDING CONCRETE SIDEWALK BID ITEM; NO SEPARATE PAYMENT WILL BE MADE.

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## STANDARD REQUIREMENTS

- 1) ALL RAMPS ARE REQUIRED TO HAVE A LANDING AREA WITH NO MORE THAN A 2% SLOPE IN ANY DIRECTION. THE LANDING AREA SHALL BE A MINIMUM OF 4' BY 4'. TYPICALLY, THE LANDING AREA SHALL BE LOCATED WHERE A PEDESTRIAN MAKES A TURNING MOVEMENT TO LINE UP WITH THE CURB OPENING. FOR EXAMPLE, THE LANDING AREA SHALL BE LOCATED WHERE 2 BOULEVARD SIDEWALKS JOIN AND CONNECT TO THE RAMP. THE LANDING AREA ON A CURB SIDE SIDEWALK SHALL BE LOCATED AT THE CURB OPENING. IT MAY BE NECESSARY TO HAVE MULTIPLE LANDING AREAS WHEN COMBINING BOULEVARD AND CURBSIDE SIDEWALKS. GRADE CHANGES FROM THE CONNECTING SIDEWALK OR RAMP TO THE LANDING AREA MUST BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
- 2) ALL RAMPS HAVE A MAXIMUM RUNNING SLOPE OF 8.33% (1" PER FOOT) WITH THE FOLLOWING EXCEPTION: ON BACK OF CURB SIDEWALKS, THE CURB RAMP LENGTH MAY NEED TO BE EXTENDED ACCORDING TO TABLE B TO ACHIEVE THE MAXIMUM SLOPE OF 8.33% THE CURB RAMP LENGTH WILL BE LIMITED TO A MAXIMUM LENGTH OF 15'.
- 3) ALL SIDEWALKS AND RAMPS HAVE A MAXIMUM CROSS SLOPE OF 2% (1/4" PER FOOT).
- 4) INSTALL CAST IRON DETECTABLE WARNING PANELS IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS. THE CITY ENGINEER'S OFFICE HAS AN APPROVED LIST OF MANUFACTURES ON FILE. SEE DETAIL A AND TABLE A FOR DETECTABLE WARNING PANEL SIZE AND LOCATION. DETECTABLE WARNING PANELS SHALL BE NATURAL OR BRICK RED COLOR EXCEPT IN LOCATIONS WHERE THE ADJOINING CONCRETE SIDEWALK IS RED OR DARK IN COLOR. AT THESE LOCATIONS THE DETECTABLE WARNING PANEL SHALL BE A CONTRASTING COLOR APPROVED BY THE CITY ENGINEER. THE SIDEWALK DEPTH SHALL BE A MINIMUM OF 6" FOR A 2' AREA ADJACENT TO THE DETECTABLE WARNING PANEL.
- 5) OBSTRUCTIONS SUCH AS SIGNAL POLES, LIGHT POLES, TRAFFIC CONTROLLER CABINETS, ETC. CAN NOT BE LOCATED IN THE LANDING AREA OR THE RAMP SLOPE. ALL SIDEWALKS SHALL HAVE A 4' MINIMUM WIDTH FREE OF OBSTRUCTIONS TO ACCOMMODATE PEDESTRIAN TRAVEL.
- 6) DEPENDING ON ADJOINING GRADES AND EXISTING CONDITIONS A CURB WITH A MAXIMUM HEIGHT OF 12" MAY NEED TO BE INSTALLED ON THE BACK OF THE LANDING AREA AND CONNECTING SIDEWALK. THIS CURB MAY ALSO NEED TO BE INSTALLED TO ENSURE STREET DRAINAGE DOES NOT OVERFLOW THE AREA BEHIND THE LANDING AREA AND RAMP.

## GENERAL NOTES

THE CONTRACTOR MUST HAVE AN ELECTRONIC LEVEL ON SITE TO ENSURE THE SPECIFIED SLOPES ARE MAINTAINED.

CARE SHALL BE TAKEN TO ENSURE THE SURFACE OF THE DETECTABLE WARNING PANEL IS CLEAN AND FREE OF CURING COMPOUND AND CONCRETE RESIDUE.

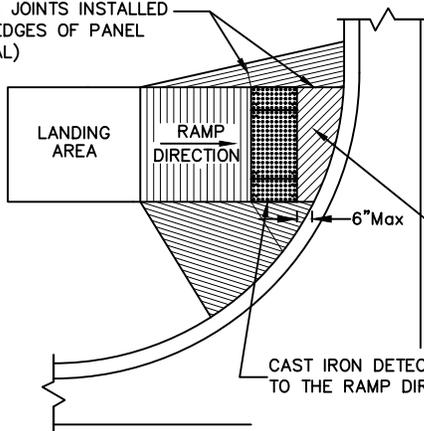
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

JOINTS SHALL BE TOOLED INTO THE CONCRETE ADJACENT TO THE DETECTABLE WARNING PANELS TO ALLEVIATE POSSIBLE CORNER CRACKING (SEE DETAIL A).

THERE WILL BE NO SEPARATE PAYMENT FOR THE SIDEWALK LANDING AREA OR RAMP. THE SIDEWALK LANDING AREA AND RAMP, INCLUDING THE DETECTABLE WARNING PANEL AREA, SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR THE CORRESPONDING CONCRETE SIDEWALK BID ITEM. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE ADDITIONAL CONCRETE DEPTH ADJACENT TO THE DETECTABLE WARNING PANEL.

THE DETECTABLE WARNING PANEL SHALL BE MEASURED TO THE NEAREST SQUARE FOOT. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR THE DETECTABLE WARNING PANELS. PAYMENT SHALL INCLUDE ALL COSTS FOR MATERIALS, LABOR, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF THE DETECTABLE WARNING PANELS.

TOOLED JOINTS INSTALLED FROM EDGES OF PANEL (TYPICAL)



DETAIL A

TABLE A

NEW OR IN PLACE SIDEWALK	RAMP OPENING	DETECTABLE WARNING PANEL DIMENSIONS
4'	4'	2' x 4'
5'	5'	2' x 5'
6'	6'	2' x 6'

UNLESS CURB RAMP IS PERPENDICULAR TO THE CURB RADIUS AN AREA OF SPECIAL SHAPING MUST BE PROVIDED AT THE BOTTOM OF THE RAMP.

CAST IRON DETECTABLE WARNING PANELS SHALL BE INSTALLED PERPENDICULAR TO THE RAMP DIRECTION. SET 6" MAXIMUM BACK FROM CURB.

NOTE: Design Parameters Permit a MAXIMUM Grade of 8.33% for a Distance of 30' before a level landing must be Installed.

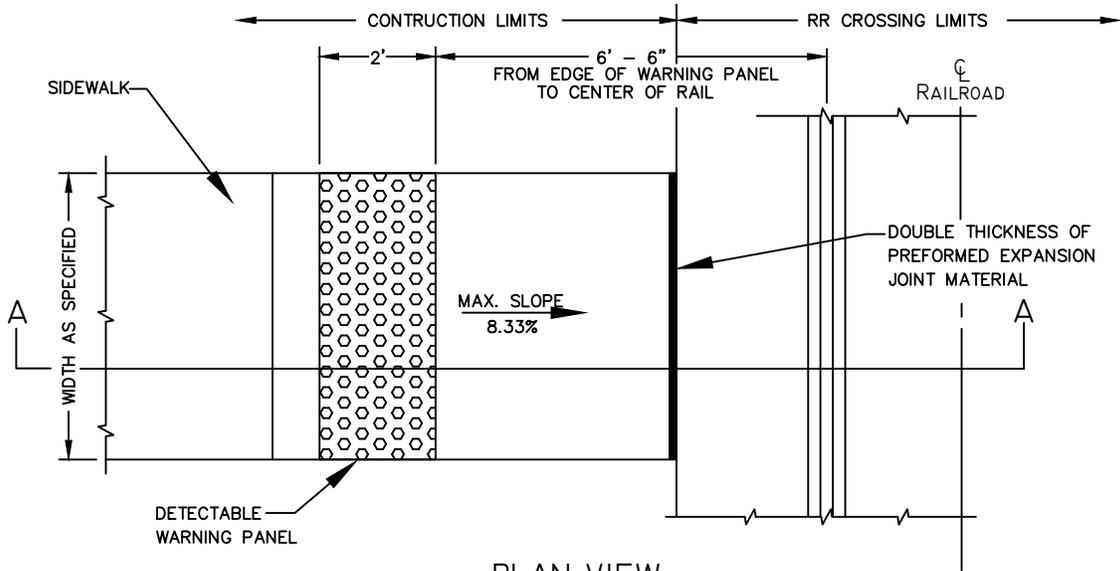
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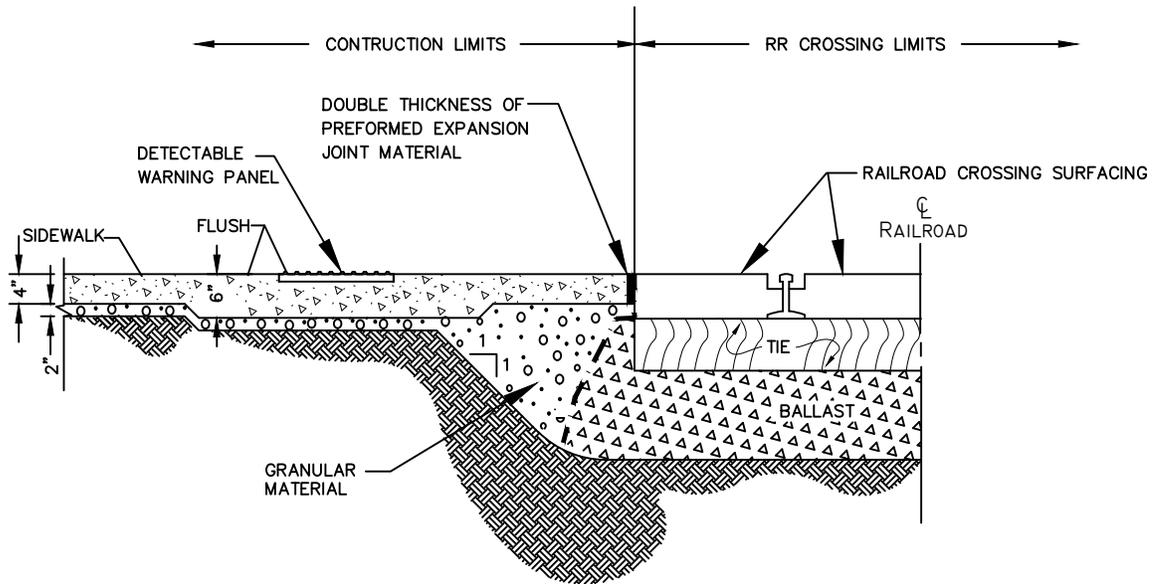


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PLAN VIEW



SECTION A-A

GENERAL NOTES:

THE MAXIMUM ALLOWABLE CROSS SLOPE OF THE SIDEWALK IS 2%.

THE CONTRACTOR MUST HAVE AN ELECTRONIC LEVEL ON SITE TO ENSURE THE SPECIFIED SLOPES ARE MAINTAINED.

IF CURB AND GUTTER IS ADJACENT TO THE SIDEWALK, THEN A CURB TRANSITION SHALL BE USED WITH A MAXIMUM LONGITUDINAL SLOPE OF 8.33%. THE SURFACE OF THE CURBSIDE SIDEWALK SHALL MATCH THE SLOPE OF THE CURB TRANSITION.

BALLAST MATERIAL SHALL NOT BE DISTURBED DURING CONSTRUCTION WORK ADJACENT TO THE RAILROAD CROSSING UNLESS THE ADJACENT WORK INVOLVES RECONSTRUCTION OR MAINTENANCE OF THE RAILROAD CROSSING.

CARE SHALL BE TAKEN TO ENSURE THE SURFACE OF THE DETECTABLE WARNING PANEL IS CLEAN AND FREE OF CURING COMPOUND AND CONCRETE RESIDUE.

THE DETECTABLE WARNING PANEL SHALL BE THE WIDTH OF THE SIDEWALK AND BRICK RED IN COLOR.

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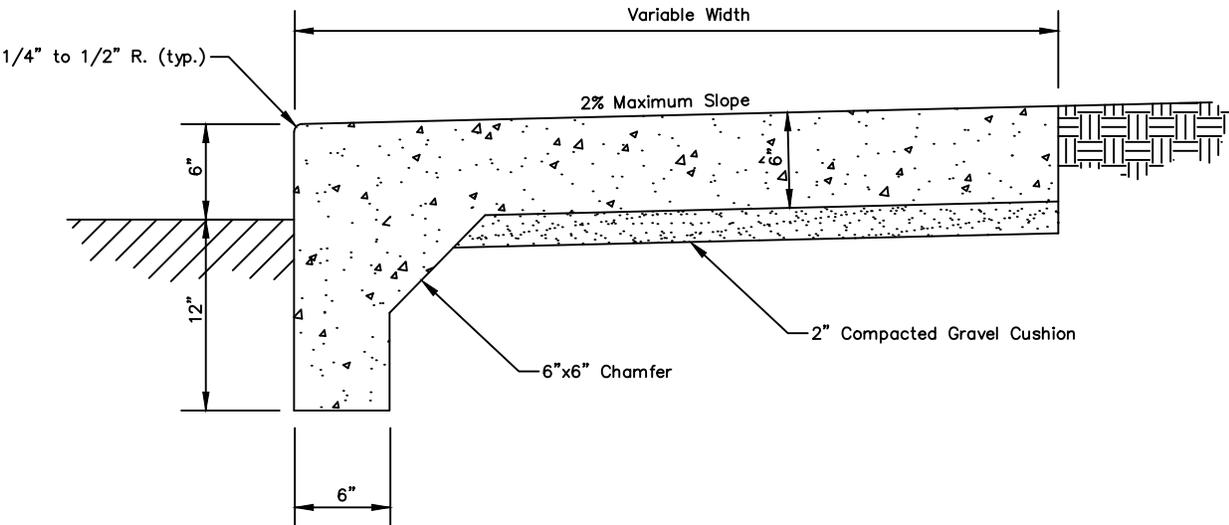
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PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
SIDEWALK ADJACENT TO  
RAILROAD CROSSING

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WATERTOWN MODIFIED SDDOT  
MONOLITHIC SIDEWALK & CURB DETAIL  
NOT TO SCALE



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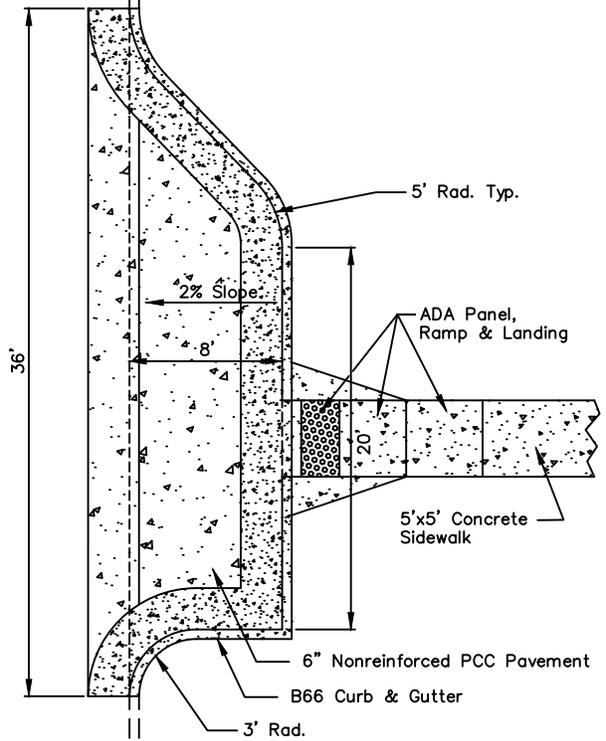
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ENGINEERING DIVISION  
MONOLITHIC SIDEWALK & CURB

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Notes: C&G=45.5 L.F.  
6" PCC=21.5 S.Y.



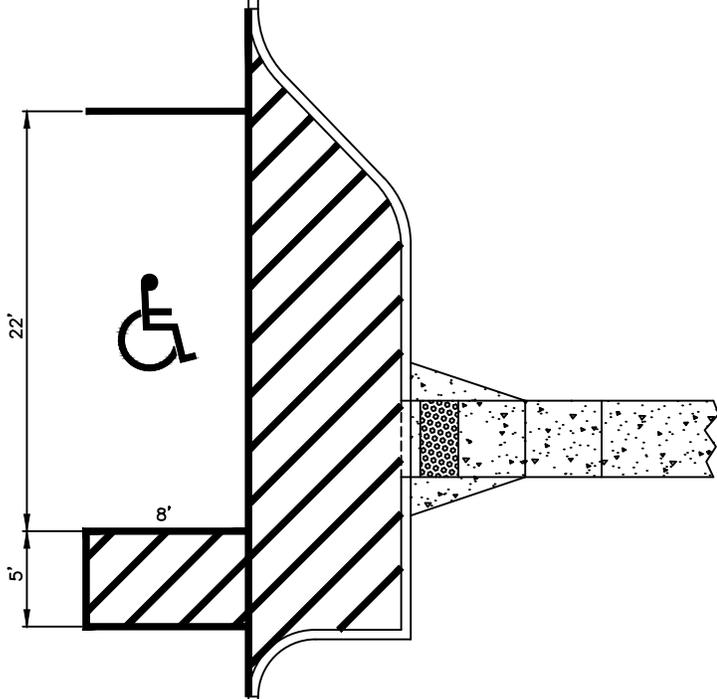
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Note:  
Paint Striping & Signing by City

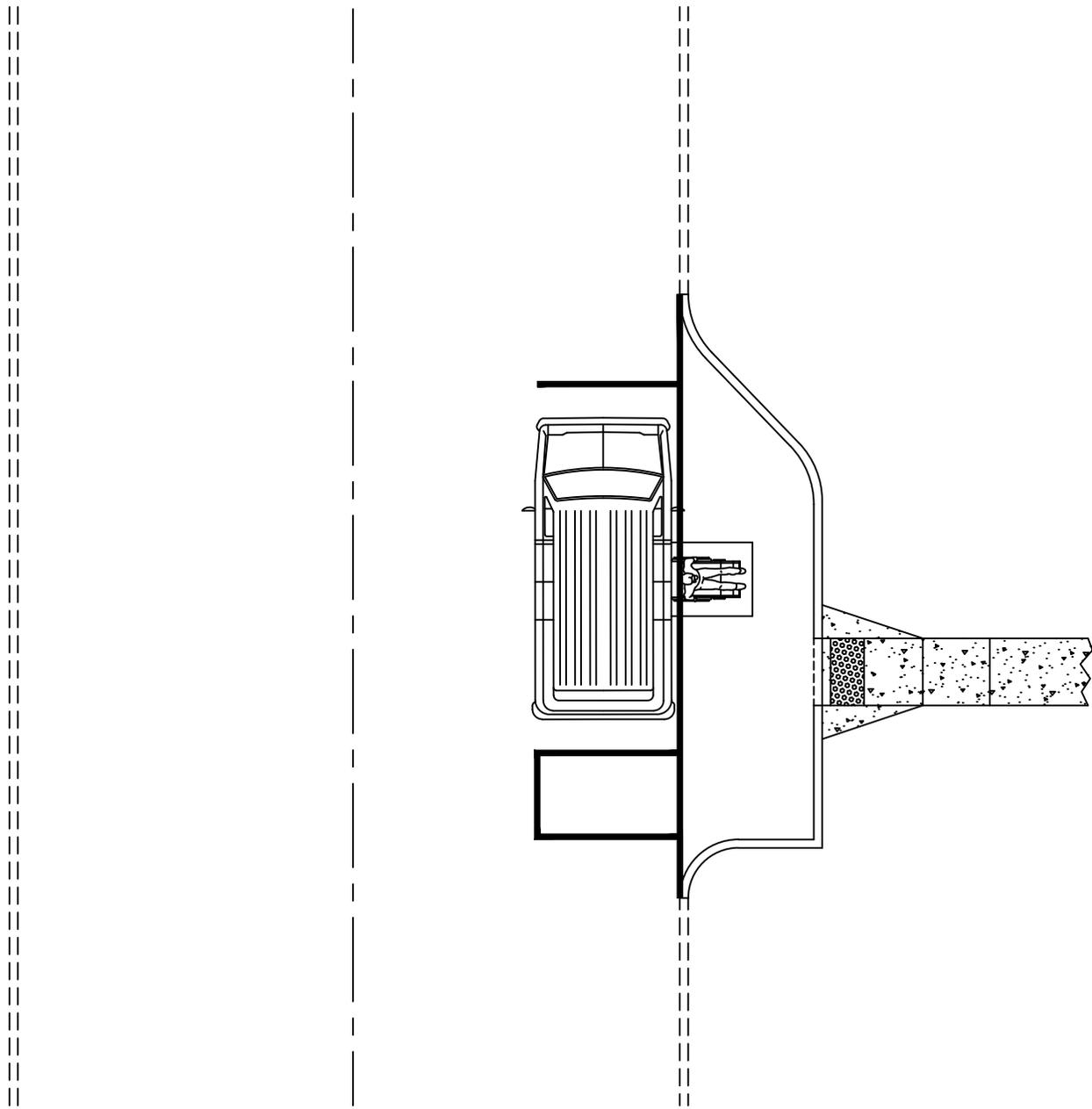
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