Public Works - Administration
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Minneapolis, MN 55415

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Technical Memorandum

To: All Entities working in City of Minneapolis Right-of-Way

From: Public Works Administration – Right-Of-Way Management
Bryan Dodds, P.E. – Deputy Director / City Engineer

Date June 5, 2023

Subject: Americans with Disabilities Act (ADA) Pedestrian Curb Ramp Design, Construction, and Repair

Memo Overview

Introduction

Under the Americans with Disabilities Act (ADA) Title II regulation, it is required of the City of Minneapolis to ensure that accessibility within public right-of-way meets current federal and state legislative mandates. Specifically, Title II requires that all state and local governments maintain an ADA transition plan and provide accessible facilities and reasonable modifications, regardless of the funding source. The City of Minneapolis, Department of Public Works ensures accessible facilities by managing the use, design, and construction of sidewalks, curb ramps, traffic signals, street crossings, and roadways. An overview of the guidelines and initiatives by Public Works to accomplish this requirement can be found in the Public Works ADA Transition Plan, City of Minneapolis Street Design Guide and the Transportation Action Plan.

Purpose

This Technical Memorandum sets forth the requirements for ADA pedestrian curb ramp design, construction, repairs, and documentation within City of Minneapolis public right-of-way. The City models ADA curb ramp designs and policy guidelines from the Minnesota Department of

Transportation (MnDOT). This document is an update and modernization of the City Engineer's memo to the franchise agreement utility agencies in 2015 (Attachment E).

Implementation

The requirements described in this Technical Memorandum and attachments shall be incorporated into all design, new construction, reconstruction, and alteration threshold projects, including:

- All Public Works projects
- All work within the public right-of-way undertaken by other public agencies and private entities whether by permit or by agreement

Questions

The Right-of-Way (ROW) Management group oversees the coordination and management of ADA compliance within the public right-of-way. For information and questions regarding this technical memorandum, contact:

Aaron Johnson - Public Works Admin - Project Manager at aaron.johnson@minneapolismn.gov

Other Public Works contacts:
Brandon Schnabel - Sidewalk Inspections at brandon.schnabel@minneapolismn.gov
Utility Connections at pwutility.connections@minneapolismn.gov
Scott Kramer - Lane Use/Obstruction Permit at scott.kramer@minneapolismn.gov
Gary Long - Street Maintenance at gary.long@minneapolismn.gov
Lawrence Matsumoto, MN PE - Paving Construction at larry.matsumoto@minneapolismn.gov
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Ethan Van Offelen - ROW Management at ethan.vanoffelen@minneapolismn.gov

Attachments

Attachment A: Curb Ramp Standard Plan 5-297.25
Attachment B: ADA Curb Ramp Checklist
Attachment C: Department of Justice / Department of Transportation Joint Technical Assistance
Attachment D: Level 2 and 3 ADA Intersection Detail Attachment
Attachment E: 2015 City Engineer's (Steve Kotke) Memo

Table of Contents

I. Design and Construction Requirements

A. Thresholds of ADA Curb Ramp Replacement or Installation

The ADA requires that all work meeting the alteration threshold, at a minimum, provide or update curb ramps before or at the time of the alteration work. Public Works recognizes the following as thresholds for the project constructor or permittee to ensure the curb ramps in the project area are ADA compliant through inspection, modification, or replacement as necessary:

1. **Impacts to Non-ADA Compliant Curb Ramps**
   Any impact or alteration, including but not limited to excavation, potholing, panel replacement, saw cutting, manhole or utility box adjustments or placements, trenching, pole removals, etc. that occur on a curb ramp that is not ADA compliant will require a reconstruction of the quadrant to meet MnDOT ADA specifications (Attachment A). All development projects impacting City sidewalk must submit plans in the design phase showing they are meeting ADA accessibility requirements.

2. **New Construction**
   All new construction, whether public or private, shall be scoped to identify and address pedestrian needs, in accordance with the MnDOT ADA specifications and the City of Minneapolis Street Design Guide.

3. **Street Reconstruction**
   The City requires that all street reconstruction projects include ADA compliant curb ramps, correction of non- ADA compliant sidewalks and driveways, improvements to address sidewalk gaps within the existing network, and for all signalized intersections to be upgraded with Accessible Pedestrian Signals (APS).

4. **Resurfacing Alteration Threshold**
   Work types that meet the resurfacing alteration threshold are determined by the Department of Justice (DOJ) / Federal Highway Administration (FHWA) Joint Technical Assistance and cannot be re-categorized by the City of Minneapolis or MnDOT (Attachment C). Alterations are defined by the DOJ as changes that affect or could affect the usability of all or part of a building or facility. The DOJ classifies resurfacing as an alteration that requires curb ramps to be ADA compliant if it involves work on a street or roadway spanning from one intersection to another or through a pedestrian crossing and includes additional material to the road surface, with or without milling. Examples set by the DOJ include, but are not limited to, a new layer of asphalt, concrete pavement rehabilitation and reconstruction, open-graded surface course, micro-surfacing, and thin lift overlays.

Work types that **do not** initiate the threshold for ensuring curb ramp compliance are, but are not limited to:

- Impacts to ADA compliant curb ramps. Compliant ramps require replacement of impacted panels only, a full curb ramp reconstruct is not required.
- Routine maintenance of public and private utilities in the roadway that intersects the pedestrian crossing that does not impact the curb ramp.
- Routine maintenance of road surface that serve solely to seal and protect the road surface, improve friction, and control splash and spray. Examples include painting or striping lanes, crack filing and sealing, surface sealing, chip seals, slurry seals, fog seals, joint repairs, and pavement patching.
- Ramps that will be reconstructed as part of a street reconstruction project within the next full construction season.

If unsure of whether the work type triggers curb ramp upgrades, contact ROW Management or Sidewalk Inspections.

B. Curb Ramp Design

Curb ramps shall be built in accordance with MnDOT standards plans 5-297.250 (Attachment A), which can be found on MnDOT's Accessibility Design Guidance website. When ramps are unable to be built to current MnDOT specifications, ramps shall be built to the maximum extent feasible of the specifications and documented in the design/plans and sent to ROW Management. All applicable designs and plan sets must be signed and reviewed by a Minnesota Licensed Professional Engineer as prescribed under Chapter 1805 of the Minnesota State Statute. Ramps will be inspected post-construction, using a standard form (Attachment B), based on dimensions and slopes of the PAR, landing, ramp(s), flares, flowline, and gutter in-slope; as well as size of discontinuities, drainage issues, surface variations, truncated dome specifications, and proper size and use of joints.

1. Scoping of work

   For Public Works projects, Project Engineers shall identify all accessible pedestrian facility needs in the preliminary design phase of project development for all new construction, reconstruction, and alteration projects. Field walks and predesign efforts shall capture removal limits; level 1, 2, & 3 ramp designs; and types of curb ramps that will be required during construction. Level 1 designs can be built to MnDOT standard plates and do not require further surveying or design tabulations. Level 2 and 3 designs have horizontal and vertical constraints, respectively, that will require a full design (see Attachment C for examples of level 2 and 3 requirements). Further information on best design practices and project scoping can be found on MnDOT's ADA Accessibility webpage.

All designs by other public agencies, developers, private utilities, and privately contracted sidewalk work not part of a Public Works project shall identify level 1, 2, & 3 curb ramps in their project scope prior to applying for a Sidewalk Permit. Level 2 and 3 ramps will require a full design for review by Sidewalk Inspections before a permit is approved. For assistance with determining the level of ramp design required please contact ROW Management. Combined directional ramps or two perpendicular ramps at a quadrant are the preferred ramp types for all level 1, 2, & 3 designs if the ramp can be constructed meeting MnDOT compliance standards. Choose ramp type to best accomplish compliance standards after the combined directional has been ruled out for meeting ADA compliance.

C. Curb Ramp Construction

All construction zones must provide a Temporary Pedestrian Access Route (TPAR) when a pedestrian access route is disrupted, closed, or relocated during construction, maintenance work, or other temporary condition. Signage and devices, as necessary, shall be provided to direct pedestrians safely through or around the work zone.

Other construction considerations:

1. Curb, Gutter, and Street Construction
   All information regarding restoration requirements for restoring curb and gutter can be found at **https://www2.minneapolismn.gov/business-services/doing-business-with-the-city/construction-infrastructure/road-standard-plates/**. Contact the Street Maintenance department with questions.

2. V-Curb
   The use of v-curb between the curb ramp or sidewalk and private property introduces long-term maintenance concerns to the City and should be avoided when possible. It is recommended to use concrete or bituminous tapers of less than 5% running slope where curb ramps are adjacent to parking lots instead of v-curbs to prevent tripping hazards. Negotiated temporary construction easements for grading out the slope should be considered as an alternative to v-curbs.

3. Public and Private Utility Structures
   Surface-level elements such as manhole covers, fire hydrants, utility poles, utility vault covers or signal handholes should be kept out of the curb ramp landing and ramp areas to the greatest extent feasible. Where there are utility structures being installed in or around the curb ramp, they must not inhibit the right-of-way from being ADA compliant i.e. handholes and vaults should not cause more than a ¼ inch vertical discontinuity in the Pedestrian Access Route (PAR) and shall not keep the PAR from maintaining a minimum 3’ clear width of non-slip walking surface. The preference of placement for these structures in the curb ramp and surrounding area is as follows:

1. In boulevard adjacent to sidewalk.
2. In any sidewalk area that is not considered a ramp or a landing area.
3. In the landing of the curb ramp.
4. In the ramp of the curb ramp.
5. No utility structures should be placed in the truncated domes.

All utility structures shall be installed in coordination with surrounding utilities. Contact Gopher State One Call (811) before starting any excavation.

4. Catch Basins

a. Proposed catch basins

For all projects, the design and location of proposed catch basins shall not impact ADA curb ramp compliance.

b. Existing catch basins

For projects that include ADA curb ramp upgrades, the location of existing catch basins must be considered. If an existing catch basin is located within 1' of the 0" curb of the ramp or is within the path of travel any modifications to the catch basin or casting including removing the curb box shall be discussed with Public Works: Surface Water and Sewers. An ADA approved grate should be discussed as an option for achieving optimal ramp design and ADA compliance. Additional drainage structures may be required as ADA compliant grates capture less water than standard grates. If the catch basin is not a candidate for an ADA approved grate an alternative design will be discussed and agreed upon with ROW Management. Catch basins that are impacted by ADA curb ramp work shall be inspected for condition and repairs prior to ramp construction.

II. Permit Requirements

The replacement of curb ramps must be indicated as part of the Sidewalk Construction and Repair Inspection (Sidewalk) permit. A Sidewalk permit shall be obtained for all work performed in the City's right-of-way involving the replacement of sidewalk panels. Application for the Sidewalk permit shall be submitted by the sidewalk contractor online using the City's Sidewalk Construction and Repair Inspection Permit form.

All City crews and contractor's working for the city shall follow the same procedure/ processes as above. This also includes external agencies working inside Minneapolis including, but not limited to, the Federal Highway Administration, MnDOT, Minneapolis Park and Recreation Board, Hennepin County, Metropolitan Council, University of Minnesota, and Minnesota Pollution Control Agency. All work done for development projects disrupting the sidewalk or curb ramps within the city limits shall obtain a Sidewalk permit before pouring concrete. An Obstruction permit must be obtained through Lane Use for sidewalk closures. A Sidewalk permit must be obtained before an Obstruction permit will be granted. All contractors doing subsequent utility work impacting the City's sidewalk must first obtain a Utility

Connections permit prior to all other ROW permits. Documents and plans detailing locations of curb ramp upgrades, as outlined in Section I.B.1, are required for issuance of a Sidewalk permit. Any permitted curb ramp that cannot be built to MnDOT standard plans and/or requires a ramp that cannot meet MnDOT ADA standards due to spatial limitations or utility constraints must be accompanied with a plan detailing to the maximum extent feasible that the ramp was designed to comply with standards in the permit request.

III. Post-Construction

A. Inspections

All curb ramps will be inspected following completion and results of inspection are to be documented. Documentation is cataloged for future planning efforts and recorded in a database maintained by ROW Management. For all curb ramp constructions not built as part of a City project, ROW Management will inspect and document the work for ADA compliance. All work done for City projects will be inspected and documented by the Project Engineer's delegated staff.

B. Enforcement

Sidewalk Inspectors are authorized to issue citations and give orders to correct (Minneapolis Code of Ordinances, Title 1, Chapter 2.20) for violations to offenses in Minneapolis Code of Ordinances, Title 17, Chapter 437.

The most common issues related to this memorandum that violate Title 17, Chapter 437:

- Failure to obtain a Sidewalk permit.
- Constructing a non- ADA compliant curb ramp.
- Not completing the documentation requirements for level 2 and 3 designs.

Penalties for failing to obtain a Sidewalk Construction Permit are outlined in Chapter 437.20 including obtaining a new permit, doubling of said permit fee, doubling of all other permit fees associated with work being done, payment of any damages, and future denial of permits. Penalties for constructing a non- ADA compliant curb ramp or not providing level 2 and 3 designs are enforceable under Chapter 437.20 and Chapter 437.30 as a reasonable condition for acceptance of permitted work as ADA compliance is mandated by the Department of Justice. Failure to comply with these provisions may result in an order to correct, permit cancelation, administrative fines, denial of future permits, doubling of permit fees, or administrative fines. If a ramp is not compliant due to a contractor's performance but could be, the ramp will need to be made compliant. The remediated work shall be done within 30 days of the final non-compliance inspection or an agreed upon timeline with Sidewalk Inspections when circumstances require an extended timeline. If there is an immediate safety concern, appropriate signage will be placed to provide for public safety and work to address the safety concern shall begin immediately. All costs for correction of these violations will be the responsibility of the permittee.

Public Works Division Director Approval

DocuSigned by:
Don Elwood
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Donald Elwood — 5/9/2023
Director of Transportation Engineering & Design — Date

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Annika M. Bankston
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Annika Bankston — 5/8/2023
Director of Water Treatment & Distribution Services — Date

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Director of Surface Water & Sewers — Date

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Jenifer Hager — 5/10/2023
Director of Transportation Planning & Programming — Date

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Director of Traffic & Parking Services — Date

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Joe Paumen
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Joseph Paumen — 5/15/2023
Director of Transportation Maintenance & Repair — Date

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Bryan Dodds — 5/23/2023
Deputy Director / City Engineer — Date

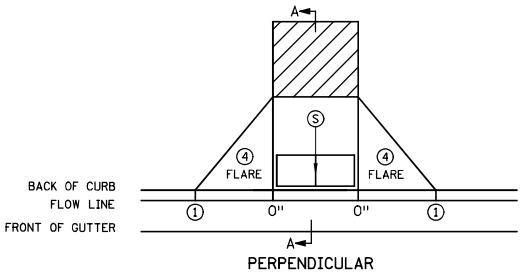
Attachment A:

MnDOT Curb Ramp Standard Plan 5-297.250

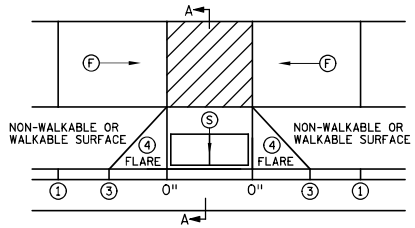
City of Minneapolis: Public Works

ROW Management

2023



PERPENDICULAR



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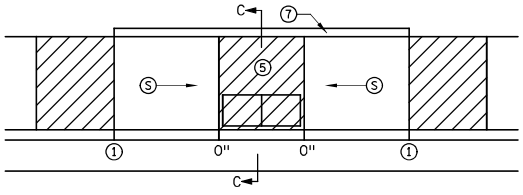
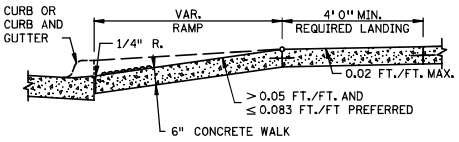
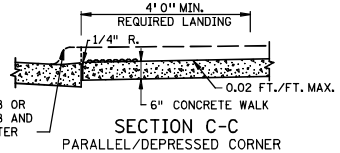


PARALLEL



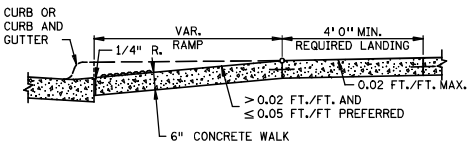
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



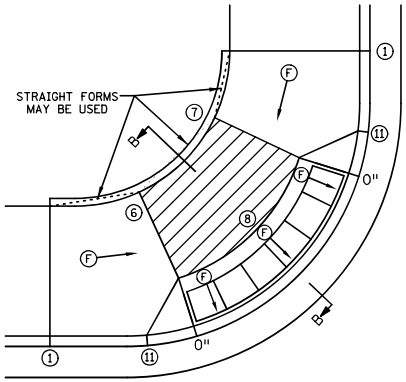
SECTION C-C

PARALLEL/DEPRESSED CORNER

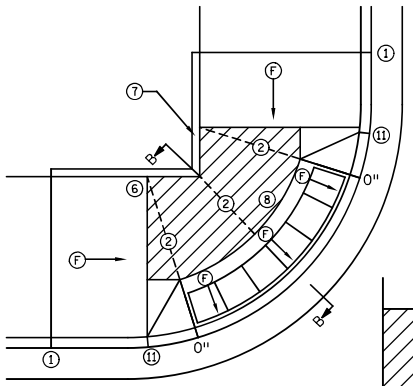


SECTION B-B

FAN

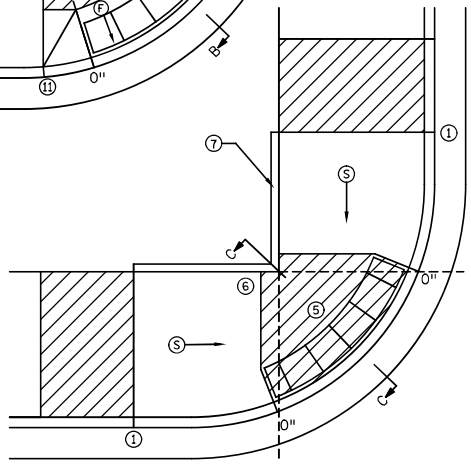


FAN⑩



MODIFIED FAN ⑩

USED WHEN RIGHT-OF-WAY IS CONSTRAINED



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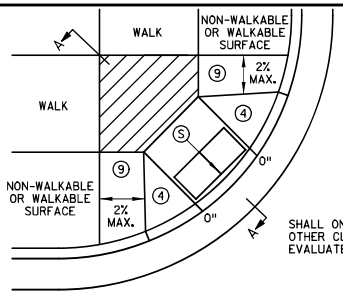


DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN ⑥ BELOW.

TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.

WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

① MATCH FULL HEIGHT CURB.

② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.

③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.

④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.

⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.

⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)

⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.

⑨ PAVE FULL WALK WIDTH.

⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

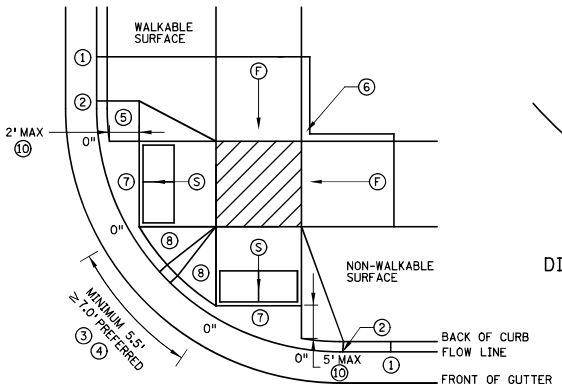
THOMAS STYRBICKI
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.250 | 1 OF 6

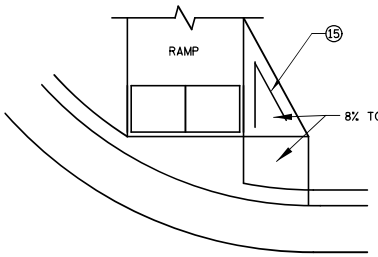
APPROVED: 11-04-2021
REVISED:

PEDESTRIAN CURB RAMP DETAILS

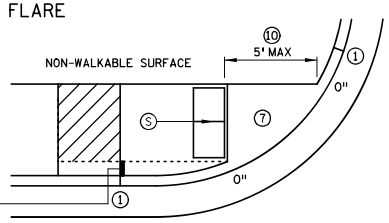
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS



COMBINED DIRECTIONAL

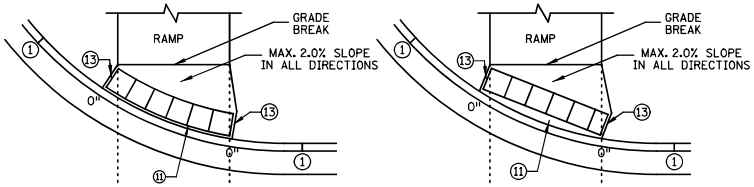


DIRECTIONAL RAMP WALKABLE FLARE



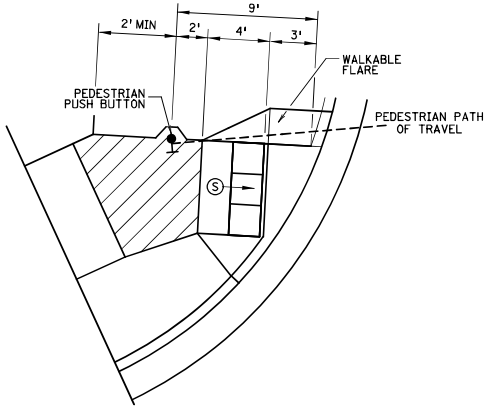
IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.

STANDARD ONE-WAY DIRECTIONAL ⑨



DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

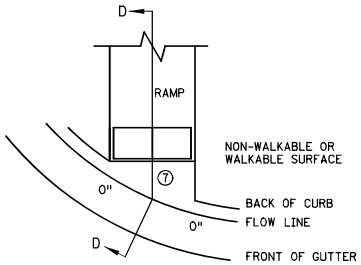
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

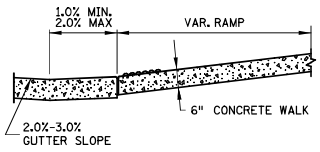


SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)





SECTION D-D

CURB FOR DIRECTIONAL RAMPS ⑭

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

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JEFFREY PERKINS
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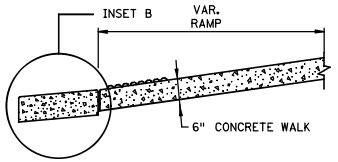
THOMAS STYRBICKI
STATE DESIGN ENGINEER

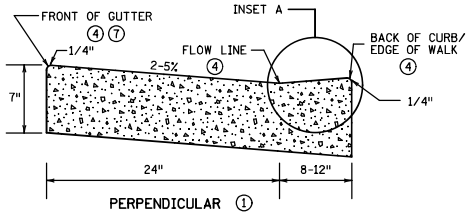
STANDARD PLAN 5-297.250 | 2 OF 6

APPROVED: 11-04-2021
REVISED:

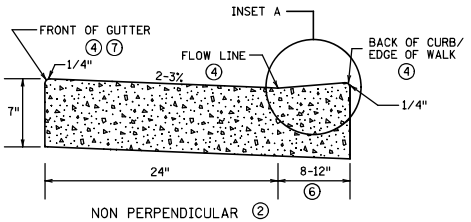
PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS



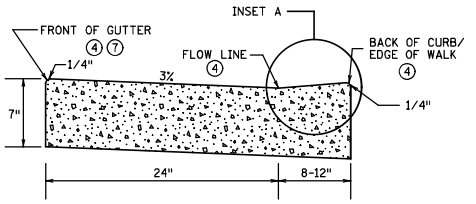


PERPENDICULAR ①

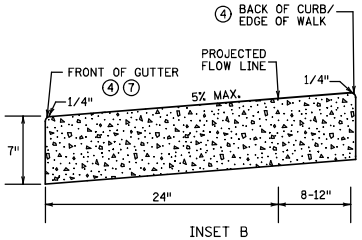


NON PERPENDICULAR ②

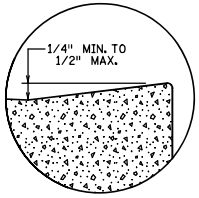
PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



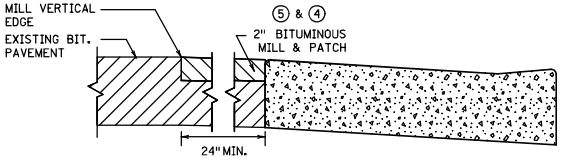
FOR CURB MACHINE PLACEMENT AROUND RADIUS ③
(REGARDLESS OF RAMP TYPE)

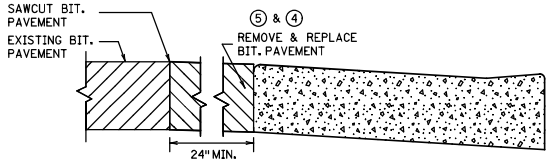


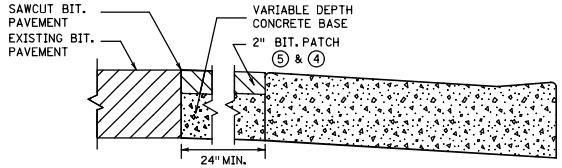
INSET B
OUTFLOW GUTTER ⑧

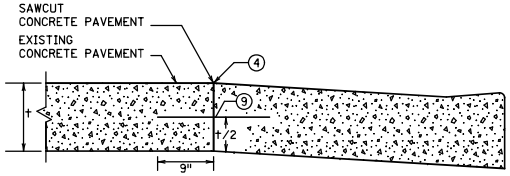


INSET A



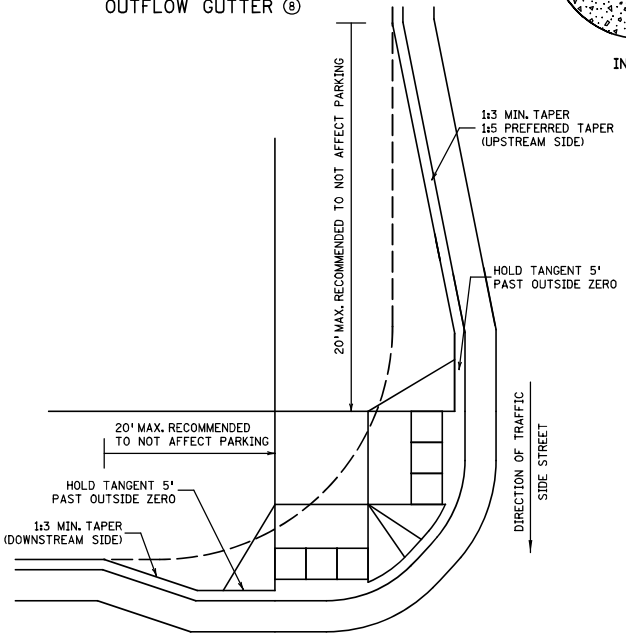




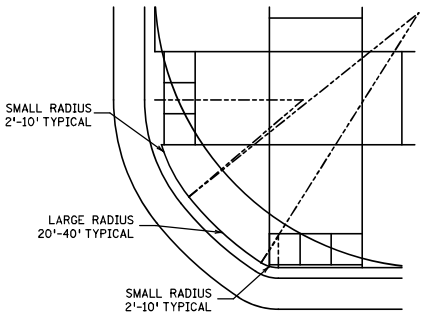


ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER
FOR USE ON CURB RAMP RETROFITS



ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) ⑪



COMBINED DIRECTIONAL ⑩
(COMPOUND RADIUS)

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.

NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.

② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.

③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.

④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".

⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.

⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.

⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.

⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.

⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.

⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

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STATE DESIGN ENGINEER

STANDARD PLAN 5-297.250 | 3 OF 6

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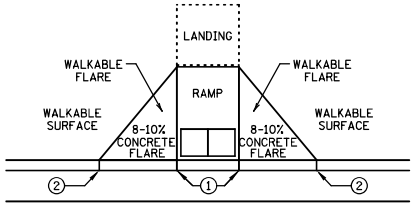
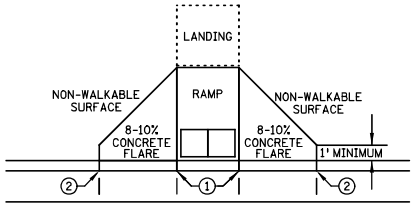
PEDESTRIAN CURB RAMP DETAILS

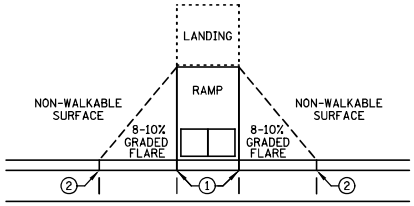
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS



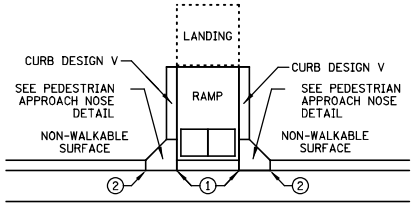
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

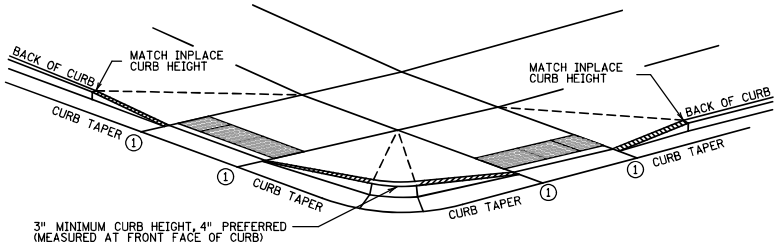


GRADED FLARES

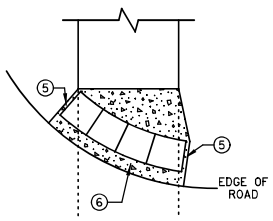


RETURNED CURB ④

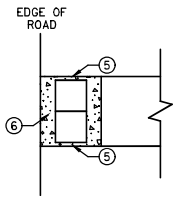
TYPICAL SIDE TREATMENT OPTIONS ③ ⑩



DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

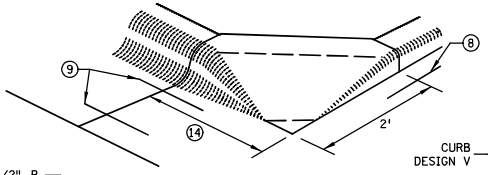


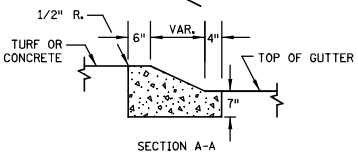
RADIAL DETECTABLE WARNING



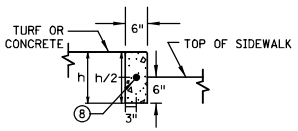
RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

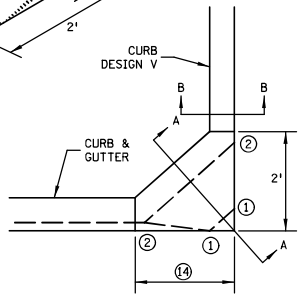




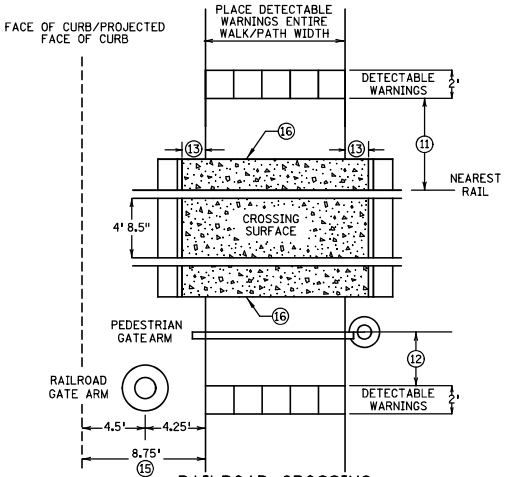
SECTION A-A



SECTION B-B



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.

② FULL CURB HEIGHT.

③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

④ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS. AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.

⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.

⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

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OPERATIONS DIVISION

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STANDARD PLAN 5-297.250 | 4 OF 6

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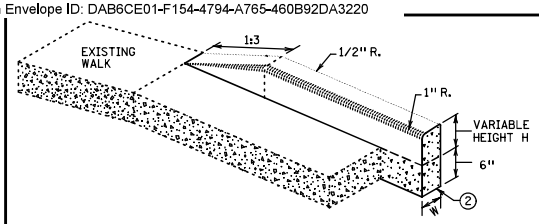
REVISED:

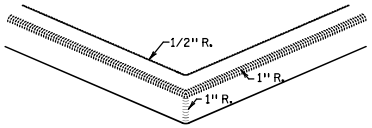
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

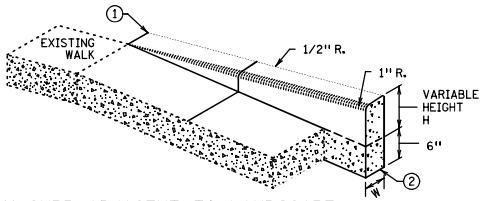


V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS

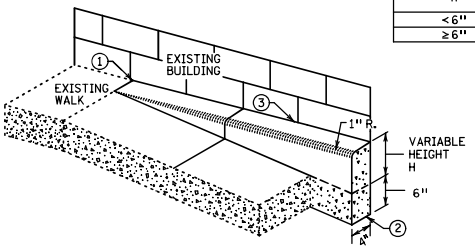


V CURB INTERSECTION

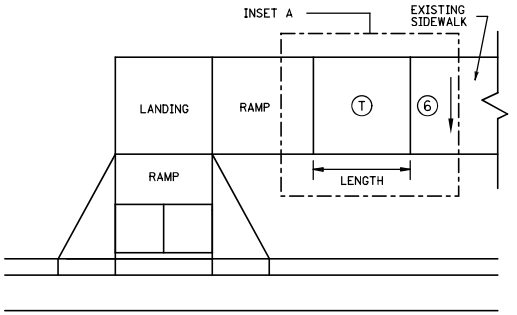
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"

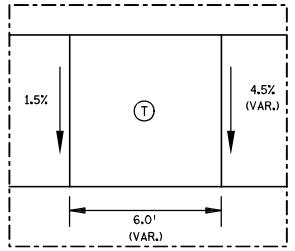


V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS



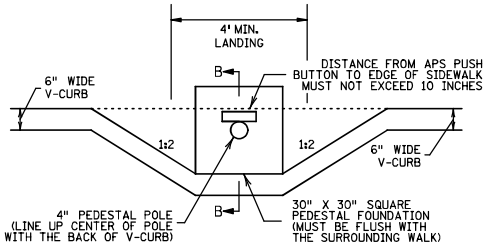
V CURB ADJACENT TO BUILDING OR BARRIER



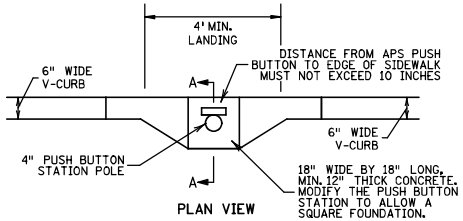


TRANSITION PANEL ④⑤

INSET A



PLAN VIEW



PLAN VIEW

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

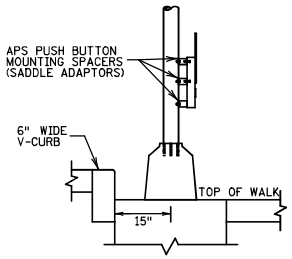
ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

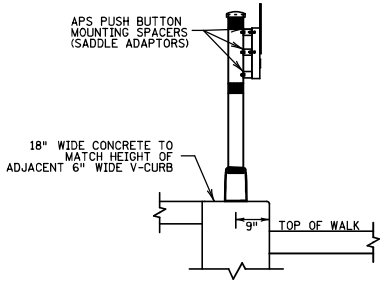
V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

1. END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
2. ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
3. CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.
4. THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
5. TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
6. EXISTING CROSS SLOPE GREATER THAN 2.0%.



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

LEGEND
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.
(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
(T) TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

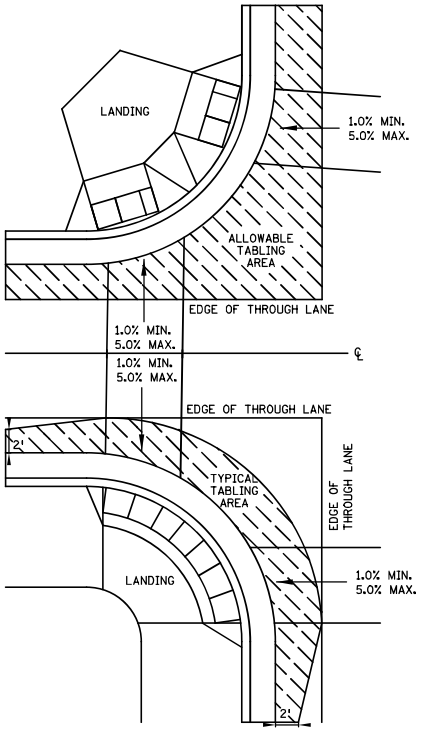
STANDARD PLAN 5-297.250 | 5 OF 6

APPROVED: 11-04-2021
REVISED:

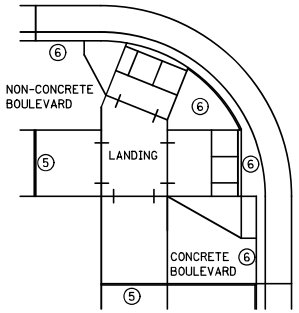
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

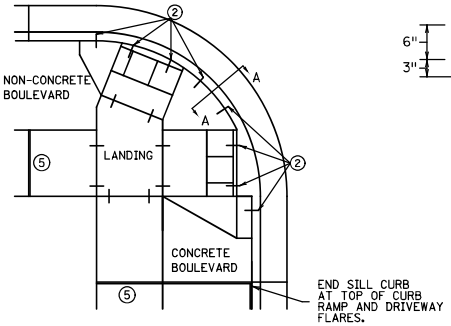
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS



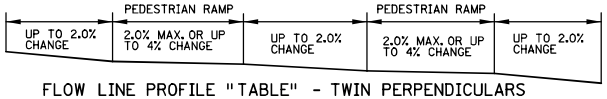
CURB LINE AND ROAD CROSSING ADJUSTMENTS



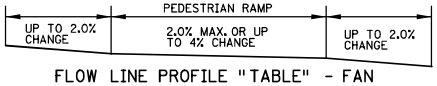
EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS



CURB LINE REINFORCEMENT ④ PLACEMENT ON BITUMINOUS ROADWAYS



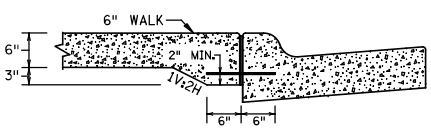
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



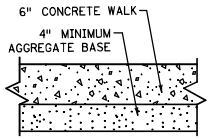
FLOW LINE PROFILE "TABLE" - FAN

FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS

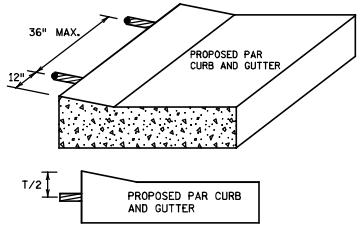
FLOW LINE PROFILE RAISE - FAN



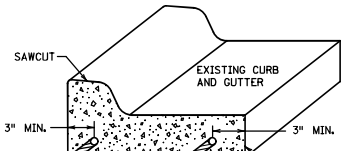
SECTION VIEW A-A
THICKENED SECTION
THROUGH CURB RAMP FLARES



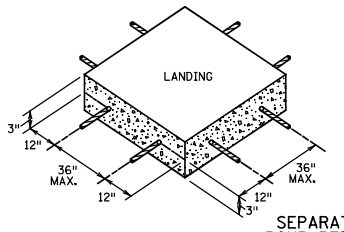
TYPICAL SIDEWALK SECTION
WITHIN INTERSECTION CORNER

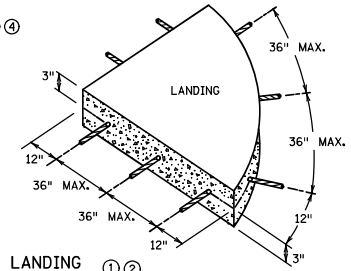


CURB RAMP REINFORCEMENT DETAILS ②④



CURB AND GUTTER REINFORCEMENT ③





SEPARATE LANDING POUR REINFORCEMENT ①②

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.

② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.

③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.

④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.

⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 6 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

Attachment B:

ADA Curb Ramp Checklist

City of Minneapolis: Public Works

ROW Management

2023

Minneapolis
Public Works

ROW Management
505 4th Ave S – Room 410
Minneapolis, MN 55415
Office 612-673-2396
Email: aaron.johnson@minneapolismn.gov

ADA Curb Ramp Compliance Checklist

Permit Information

Permit #:	Contractor:
Project Owner:	

Ramp Location

Street 1:	Street 2:
Quadrant:	Infrastructure Type:

Ramp Detail

Ramp Type:	Construction Year:

Is a 4' wide minimum pedestrian access route (PAR) maintained?	◯ Yes	◯ No						
Does landing meet 4'X 4' minimum and perpendicular grade breaks?	◯ Yes	◯ No						
Are landings located at the top of each ramp, changes in direction and at inverse grades?	◯ Yes	◯ No						
	Initial	Secondary		Initial	Secondary		Street 1	Street 2
Landing slopes (%): * > 2% is non-compliant						Gutter flow line slope (%): * > 2% is non-compliant		
Ramp running slope (%): * > 8.3% is non-compliant	Street 1			Street 2 *(if required)*			Gutter inslope (%): * > 5% is non-compliant:		
Ramp cross slope (%): * > 2% is non-compliant							Roadway cross slope (%): * > 5% is non-compliant		
Do truncated domes cover the entire curb openings and are they properly oriented?	◯ Yes	◯ No						
Are gutter line and ramps draining properly?	◯ Yes	◯ No						
Are there any vertical discontinuities greater than 1/4"?	◯ Yes	◯ No						
Do ramps comply with MnDOT Spec. 2521.3?	◯ Yes	◯ No						

Are ramps fully compliant? ◯ Yes ◯ No

If no, check why: ☐ Topography ☐ Structures ☐ Utilities ☐ Contractor ☐ Tree ☐ City

Explain why the ramp didn't meet compliance and how the ramp has been improved from the pre-construction condition.
(See MnDOT ADA Compliance Checklist Guidance[Curb Ramps] for more information and attach pages if needed.)

Was the curb ramp able to be built to the plan details? *(If no custom plan, refer to MnDOT Standard Plans.)* ◯ Yes ◯ No
If no, please explain:

CERTIFICATION STATEMENT

☐ By checking this box, I certify all information entered on this form is true and accurate to the best of my knowledge and that I fully understand the checklist standards and I am qualified to carry out the inspection.

Printed Name:	Date:

Revised 04/05/2023

Attach all relevant documents of the completed quadrant including photos of the ramp and concrete stamp with approximate location of stamp.

Attachment C:

Department of Justice / Department of Transportation Joint Technical Assistance

on the Title II of the Americans with Disabilities Act Requirements To Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing

City of Minneapolis: Public Works

ROW Management

2023

U.S. Department of Justice
Civil Rights Division
Disability Rights Section

U.S. Department of Transportation
Federal Highway Administration

Department of Justice/Department of Transportation Joint Technical Assistance[1] on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing

Title II of the Americans with Disabilities Act (ADA) requires that state and local governments ensure that persons with disabilities have access to the pedestrian routes in the public right of way. An important part of this requirement is the obligation whenever streets, roadways, or highways are *altered* to provide curb ramps where street level pedestrian walkways cross curbs.[2] This requirement is intended to ensure the accessibility and usability of the pedestrian walkway for persons with disabilities.

An alteration is a change that affects or could affect the usability of all or part of a building or facility.[3] Alterations of streets, roads, or highways include activities such as reconstruction, rehabilitation, *resurfacing*, widening, and projects of similar scale and effect.[4] Maintenance activities on streets, roads, or highways, such as filling potholes, are not alterations.

Without curb ramps, sidewalk travel in urban areas can be dangerous, difficult, or even impossible for people who use wheelchairs, scooters, and other mobility devices. Curb ramps allow people with mobility disabilities to gain access to the sidewalks and to pass through center islands in streets. Otherwise, these individuals are forced to travel in streets and roadways and are put in danger or are prevented from reaching their destination; some people with disabilities may simply choose not to take this risk and will not venture out of their homes or communities.

Because resurfacing of streets constitutes an alteration under the ADA, it triggers the obligation to provide curb ramps where pedestrian walkways intersect the resurfaced streets. See Kinney v. Yerusalim, 9 F 3d 1067 (3rd Cir. 1993). This obligation has been discussed in a variety of technical assistance materials published by the Department of Justice beginning in 1994.[5] Over the past few years, state and local governments have sought further guidance on the scope of the alterations requirement with respect to the provision of curb ramps when streets, roads or highways are being resurfaced. These questions have arisen largely due to the development of a variety of road surface treatments other than traditional road resurfacing, which generally involved the addition of a new layer of asphalt. Public entities have asked the Department of Transportation and the Department of Justice to clarify whether particular road surface treatments fall within the ADA definition of alterations, or whether they should be considered maintenance that would not trigger the obligation to provide curb ramps. This Joint Technical Assistance addresses some of those questions.

Where must curb ramps be provided?

Generally, curb ramps are needed wherever a sidewalk or other pedestrian walkway crosses a curb. Curb ramps must be located to ensure a person with a mobility disability can travel from a sidewalk on one side of the street, over or through any curbs or traffic islands, to the sidewalk on the other side of the street. However, the ADA does not require installation of ramps or curb ramps in the absence of a pedestrian walkway with a prepared surface for pedestrian use. Nor are curb ramps required in the absence of a curb, elevation, or other barrier between the street and the walkway.

When is resurfacing considered to be an alteration?

Resurfacing is an alteration that triggers the requirement to add curb ramps if it involves work on a street or roadway spanning from one intersection to another, and includes overlays of additional material to the road surface, with or without milling. Examples include, but are not limited to the following treatments or their equivalents: addition of a new layer of asphalt, reconstruction, concrete pavement rehabilitation and reconstruction, open-graded surface course, micro-surfacing and thin lift overlays, cape seals, and in-place asphalt recycling.

What kinds of treatments constitute maintenance rather than an alteration?

Treatments that serve solely to seal and protect the road surface, improve friction, and control splash and spray are considered to be maintenance because they do not significantly affect the public's access to or usability of the road. Some examples of the types of treatments that would normally be considered maintenance are: painting or striping lanes, crack filling and sealing, surface sealing, chip seals, slurry seals, fog seals, scrub sealing, joint crack seals, joint repairs, dowel bar retrofit, spot high-friction treatments, diamond grinding, and pavement patching. In some cases, the combination of several maintenance treatments occurring at or near the same time may qualify as an alteration and would trigger the obligation to provide curb ramps.

What if a locality is not resurfacing an entire block, but is resurfacing a crosswalk by itself?

Crosswalks constitute distinct elements of the right-of-way intended to facilitate pedestrian traffic. Regardless of whether there is curb-to-curb resurfacing of the street or roadway in general, resurfacing of a crosswalk also requires the provision of curb ramps at that crosswalk.

---

1 The Department of Justice is the federal agency with responsibility for issuing regulations implementing the requirements of title II of the ADA and for coordinating federal agency compliance activities with respect to those requirements. Title II applies to the programs and activities of state and local governmental entities. The Department of Justice and the Department of Transportation share responsibility for enforcing the requirements of title II of the ADA with respect to the public right of way, including streets, roads, and highways.

2 See 28 CFR 35.151(*i*)(1) (Newly constructed or altered streets, roads, and highways must contain curb ramps or other sloped areas at any intersection having curbs or other barriers to entry from a street level pedestrian walkway) and 35.151(i)(2) (Newly constructed or altered street level pedestrian walkways must contain curb ramps or other sloped areas at intersections to streets, roads, or highways).

3 28 CFR 35.151(b)(1).

4 2010 ADA Accessibility Standards, section 106.5.

5 See 1994 Title II Technical Assistance Manual Supplement, Title II TA Guidance: The ADA and City Governments: Common Problems; and ADA Best Practices Tool Kit for State and Local Governments: Chapter 6, Curb Ramps and Pedestrian Crossings under Title II of the ADA, available at archive.ADA.gov.

July 8, 2013

U.S. Department of Justice
Civil Rights Division
Disability Rights Section

U.S. Department of Transportation
Federal Highway Administration

QUESTIONS & ANSWERS
Supplement to the 2013 DOJ/DOT Joint Technical Assistance on the Title II of the Americans with Disabilities Act Requirements To Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing

The *Department of Justice (DOJ)/Department of Transportation (DOT)* *Joint Technical Assistance on the Title II of the Americans with Disabilities Act [ADA] Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing* *(Joint Technical Assistance)* was published on July 8, 2013. This document responds to frequently asked questions that the Federal Highway Administration (FHWA) has received since the technical assistance document was published. In order to fully address some questions, the applicable requirements of Section 504 of the Rehabilitation Act of 1973 that apply to public entities receiving Federal funding from DOT, either directly or indirectly, are also discussed. This document is not a standalone document and should be read in conjunction with the 2013 Joint Technical Assistance.

Q1: ***When a pavement treatment is considered an alteration under the ADA and there is a curb ramp at the juncture of the altered road and an existing sidewalk (or other prepared surface for pedestrian use), but the curb ramp does not meet the current ADA Standards, does the curb ramp have to be updated to meet the current ADA Standards at the time of the pavement treatment?***

A1: It depends on whether the existing curb ramp meets the appropriate accessibility standard that was in place at the time it was newly constructed or last altered.

When the Department of Justice adopted its revised title II ADA Regulations including the updated ADA Standards for Accessible Design (2010 Standards,[1] as defined in 28 CFR 35.151), it specified that "(e)lements that have not been altered in existing facilities on or after March 15, 2012, and that comply with the corresponding technical and scoping specifications for those elements in either the 1991 Standards or in the Uniform Federal Accessibility Standards (UFAS) … are not required to be modified in order to comply with the requirements set forth in the 2010 Standards." 28 C.F.R. 35.150(b)(2)(i). As a result of this "safe harbor" provision, if a curb ramp was built or altered prior to March 15, 2012, and complies with the requirements for curb ramps in either the 1991 ADA Standards for Accessible Design (1991 Standards, known prior to 2010 as the 1991 ADA Accessibility Guidelines, or the 1991 ADAAG) or UFAS, it does **not** have to be modified to comply with the requirements in the 2010 Standards. However, if that existing curb ramp did not comply with either the 1991 Standards or UFAS as of March 15, 2012, then the safe harbor does not apply and the curb ramp must be brought into compliance with the requirements of the 2010 Standards concurrent with the road alteration. *See* 28 CFR 35.151(c) and (i).

Note that the requirement in the 1991 Standards to include detectable warnings on curb ramps was suspended for a period between May 12, 1994, and July 26, 1998, and again between December 23, 1998, and July 26, 2001. If a curb ramp was newly constructed or was last altered when the detectable warnings requirement was suspended, and it otherwise meets the 1991 Standards, Title II of the ADA does not require that the curb ramp be modified to add detectable warnings in conjunction with a road resurfacing alteration project. *See* Question #14 however, for a discussion of the DOT Section 504 requirements, including detectable warnings.

Q2: ***The Joint Technical Assistance states that "[r]esurfacing is an alteration that triggers the requirement to add curb ramps if it involves work on a street or roadway spanning from one intersection to another, and includes overlays of additional material to the road surface, with or without milling." What constitutes "overlays of additional material to the road surface" with respect to milling, specifically, when a roadway surface is milled and then overlaid at the same height (i.e., no material is added that exceeds the height of what was present before the milling)?***

A2: A project that involves milling an existing road, and then overlaying the road with material, regardless of whether it exceeds the height of the road before milling, falls within the definition of "alteration" because it is a change to the road surface that affects or could affect the usability of the pedestrian route (crosswalk). *See Kinney v. Yerusalim*, 9 F.3d 1067 (3rd Cir. 1993). Alterations require the installation of curb ramps if none previously existed, or upgrading of non-compliant curb ramps to meet the applicable standards, where there is an existing pedestrian walkway. *See* also Question 8.

Q3: ***If a roadway resurfacing alteration project does not span the full width of the road, do I have to put in curb ramps?***

A3: It depends on whether the resurfacing work affects a pedestrian crosswalk. If the resurfacing affects the crosswalk, even if it is not the full roadway width, then curb ramps must be provided at both ends of the crosswalk. *See* 28 CFR 35.151(i).

Public entities should not structure the scope of work to avoid ADA obligations to provide curb ramps when resurfacing a roadway. For example, resurfacing only between crosswalks may be regarded as an attempt to circumvent a public entity's obligation under the ADA, and potentially could result in legal challenges.

If curb ramp improvements are needed in the vicinity of an alteration project, it is often cost effective to address such needs as part of the alteration project, thereby advancing the public entity's progress in meeting its obligation to provide program access to its facilities. *See* Question 16 for further discussion.

Q4: ***When a road alteration project triggers the requirement to install curb ramps, what steps should public (State or local) entities take if they do not own the sidewalk right-of-way needed to install the required curb ramps?***

A4: The public entity performing the alteration is ultimately responsible for following and implementing the ADA requirements specified in the regulations implementing title II. At the time an alteration project is scoped, the public entity should identify what ADA requirements apply and whether the public entity owns sufficient right-of-way to make the necessary ADA modifications. If the public entity does not control sufficient

right-of-way, it should seek to acquire the necessary right-of-way. If a complaint is filed, the public entity will likely need to show that it made reasonable efforts to obtain access to the necessary right-of-way.

Q5: ***The Joint Technical Assistance is silent on when it becomes effective. Is there an effective date for when States and local public entities must comply with the requirements discussed in the technical assistance?***

A5: The Joint Technical Assistance, as well as this Supplement to it, does not create any new obligations. The obligation to provide curb ramps when roads are altered has been an ongoing obligation under the regulations implementing title II of the ADA (28 CFR 35.151) since the regulation was initially adopted in 1991. This technical assistance was provided to respond to questions that arose largely due to the development of a variety of road surface treatments, other than traditional road resurfacing, which generally involved the addition of a new layer of asphalt. Although the Joint Technical Assistance was issued on July 8, 2013, public entities have had an ongoing obligation to comply with the alterations requirements of title II and should plan to bring curb ramps that are or were part of an alteration into compliance as soon as possible.

Q6: ***Is the curb ramp installation work required to be a part of the Plans, Specifications and Estimate package for an alteration project or can the curb ramp work be accomplished under a separate contract?***

A6: The curb ramp installation work can be contracted separately, but the work must be coordinated such that the curb ramp work is completed prior to, or at the same time as, the completion of the rest of the alteration work. *See* 28 CFR 35.151(i).

Q7: ***Is a curb ramp required for a sidewalk that is not made of concrete or asphalt?***

A7: The Joint Technical Assistance states that "the ADA does not require installation of ramps or curb ramps in the absence of a pedestrian walkway with a prepared surface for pedestrian use." A "prepared surface for pedestrian use" can be constructed out of numerous materials, including concrete, asphalt, compacted soil, decomposed granite, and other materials. Regardless of the materials used to construct the pedestrian walkway, if the intent of the design was to provide access to pedestrians, then curb ramps must be incorporated where an altered roadway intersects the pedestrian walkway. *See* 28 CFR 35.151(i).

Q8: ***If an existing curb ramp is replaced as part of a resurfacing alteration, is there an obligation to address existing obstacles on the adjacent sidewalk at the same time?***

A8: No. The Joint Technical Assistance addresses those requirements that are triggered when a public entity alters a roadway where the roadway intersects a street level pedestrian walkway (28 CFR 35.151(i)). Public entities are required to address other barriers on existing sidewalks, such as steep cross slopes or obstructions, as part of their on-going program access and transition plan obligations under title II of the ADA and Section 504 and in response to requests for reasonable modifications under the ADA or reasonable accommodations under Section 504. *See* 28 CFR 35.105, 35.130(b)(7), and 35.150(d); *see also* 49 CFR 27.7(e), 27.11(c)(2).

Q9: ***Several pavement preservation treatment types are not listed in the technical assistance. If the treatment type is not specifically on the list of maintenance treatments, is it an alteration?***

A9: New treatments are always being developed and the best practice is for the City or other local public entity conducting the work, the State transportation agency, and FHWA to work together to come to an agreement on a reasonable determination of whether the unlisted treatment type is an alteration or maintenance and document their decisions. If the new treatment can be deemed to be the equivalent of any of the items listed as alterations, it is a reasonable interpretation that they are in fact alterations and should be treated as such.

Q10: ***When does a combination of two or more 'maintenance' treatments rise to the level of being an alteration?***

A10: The list of the pavement types that are considered maintenance, as stated in the 2013 Joint Technical Assistance document, are Chip Seals, Crack Filling and Sealing, Diamond Grinding, Dowel Bar Retrofit, Fog Seals, Joint Crack Seals, Joint Repairs, Pavement Patching, Scrub Sealing, Slurry Seals, Spot High-Friction Treatments, and Surface Sealing. The combination of two or more maintenance treatments may rise to the level of being an alteration.

The best practice is for the City or other local public entity conducting the work, the State transportation agency, and FHWA to work together to come to an agreement on a reasonable determination, document their policies, and apply that determination consistently in their locality.

Q11: ***When will utility trench work require compliance with ADA curb ramp requirements?***

A11: The answer to this question depends on the scope and location of the utility trench work being done. If the utility trench work is limited to a portion of the pavement, even including a portion of the crosswalk, repaving necessary to cover the trench would typically be considered maintenance and would not require simultaneous installation or upgrading of curb ramps. Public entities should note that the ADA requires maintenance of accessible features, and as such, they must ensure that when the trench is repaved or other road maintenance is performed, the work does not result in a lesser level of accessibility. *See* 28 CFR 35.133(a). If the utility work impacts the curb at a pedestrian street crossing where no curb ramp exists, the work affecting the curb falls within the definition of "alteration," and a curb ramp must be constructed rather than simply replacing the curb. *See* 28 CFR 35.151(b) and 35.151(i).

If a public entity is unsure whether the scope of specific trench work and repair/repaving constitutes an alteration, the best practice is for the public entity to work together with the State transportation agency and the FHWA Division to come to an agreement on how to consistently handle these situations and document their decisions.

Q12: ***Is full-depth pavement patching considered maintenance?***

A12: The answer to this question depends on the scope and location of the pavement patch. If the pavement patch work is limited to a portion of the pavement, even including a portion of the crosswalk, patching the pavement would typically be considered maintenance and would not require simultaneous installation or upgrading of curb ramps. Public entities should note that the ADA requires maintenance of accessible features, and as such, they should ensure that when the pavement is patched or other road maintenance is performed, the work does not result in a lesser level of accessibility. *See* 28 CFR 35.133(a). If the pavement

patching impacts the curb at a pedestrian street crossing where no curb ramp exists, the work affecting the curb falls within the definition of "alteration," and a curb ramp must be constructed rather than simply replacing the curb. *See* 28 CFR 35.151(b) and 35.151(i).

If a public entity is unsure whether the scope of specific full-depth pavement patching constitutes an alteration, the best practice is for the public entity to work together with the State transportation agency and the FHWA Division to come to an agreement on how to consistently handle these situations and document their decisions.

Q13: ***Do any other requirements apply to road alteration projects undertaken by public entities that receive Federal financial assistance from DOT either directly or indirectly, even if such financial assistance is not used for the specific road alteration project at issue?***

A13: Yes, if a public entity receives any Federal financial assistance from DOT whether directly or through another DOT recipient, then the entity must also apply DOT's Section 504 requirements even if the road alteration project at issue does not use Federal funds. *See* 49 CFR 27.3 (applicability of DOT's Section 504 requirements) and 27.5 (definition of "program or activity").

DOT's Section 504 disability nondiscrimination regulations are found at 49 CFR Part 27. These regulations implement Section 504 of the Rehabilitation Act of 1973 (Section 504). In 2006, DOT updated its accessibility standards by adopting the 2004 Americans with Disabilities Act Accessibility Guidelines (2004 ADAAG[2]) into its Section 504 regulations at 49 CFR 27.3 (referencing 49 CFR Part 37, Appendix A). These requirements replaced the previously applicable ADA Standards for Accessible Design (1991) (formerly known as 1991 ADAAG). At that time, DOT's regulation adopted a modification to Section 406 of the 2004 ADAAG which required the placement of detectable warnings on curb ramps.

The revised DOT Section 504 regulation also provided a "safe harbor" provision (similar to the ADA provision discussed in Question 1) that applies to curb ramps that were newly constructed or altered by entities receiving Federal financial assistance from DOT and that were in compliance with the 1991 ADAAG requirements prior to November 29, 2006. If the "safe harbor" applies, these curb ramps are still considered compliant and do not have to be modified to add detectable warnings unless they are altered after November 29, 2006. The DOT "safe harbor" provision is found at 49 CFR 37.9(c). DOT's Section 504 regulations (49 CFR 27.19(a)) require compliance with 49 CFR Part 37.

The Section 504 safe harbor does not apply, however, if, at the time of the road alteration project, the existing curb ramp does not comply with the 1991 ADAAG and at that time it must be brought into compliance with the current DOT Section 504 requirements (2004 ADAAG) including detectable warnings.

Q14: ***Does the Section 504 safe harbor apply to curb ramps built in compliance with 1991 ADAAG during the time period when the requirement for detectable warnings was suspended and the roadway is now being resurfaced where it intersects the pedestrian walkway?***

A14: If the curb ramps that were built or altered prior to November 29, 2006 were fully compliant with 1991 ADAAG at the time that the detectable warnings requirements were suspended, then the DOT Section 504

safe harbor applies to them and the recipient does not have to add detectable warnings as a result of a resurfacing project.

Q15: ***In addition to the obligations triggered by road resurfacing alterations, are there other title II or Section 504 requirements that trigger the obligation to provide curb ramps?***

A15: In addition to the obligation to provide curb ramps when roads are resurfaced, both DOJ's title II ADA regulation and DOT's Section 504 regulation (applicable to recipients of DOT Federal financial assistance), require the provision of curb ramps if the sidewalk is installed or altered at the intersection, during new construction, as a means of providing program accessibility, and as a reasonable modification under title II or a reasonable accommodation under Section 504.

New Construction and Alterations

DOJ's title II ADA regulation provides that newly constructed or altered streets, roads, and highways must contain curb ramps or other sloped areas at any intersection having curbs or other barriers to entry from a street level pedestrian walkway. In addition, the regulation provides that newly constructed or altered street level pedestrian walkways must contain curb ramps or other sloped areas at intersections to streets, roads, or highways. *See* 28 CFR 35.151(i). These curb ramps must comply with the 2010 Standards.[3]

DOT's Section 504 Federally assisted regulation also requires the provision of curb ramps in new construction and alterations. *See* 49 CFR 27.19(a) (requiring recipients of DOT financial assistance to comply with DOJ's ADA regulation at 28 CFR Part 35, including the curb ramp requirements at 28 CFR 35.151(i)); 49 CFR 27.75 (a)(2) (requiring all pedestrian crosswalks constructed with Federal financial assistance to have curb cuts or ramps).

Program Accessibility

Both DOJ's title II ADA regulation and DOT's Section 504 regulation require that public entities/recipients operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities. This obligation, which is known as providing "program accessibility," includes a requirement to evaluate existing facilities in the public right-of-way for barriers to accessibility, including identifying non-existent or non-compliant curb ramps where roads intersect pedestrian access routes (sidewalks or other pedestrian walkways). After completing this self-evaluation, a public entity/recipient must set forth a plan for eliminating such barriers so as to provide overall access for persons with disabilities. *See* 28 CFR 35.150, and 49 CFR 27.11(c).

Since March 15, 2012, the DOJ title II regulation requires the use of the 2010 Standards for structural changes needed to provide program access. However, in accordance with the ADA safe harbor discussed in Question 1, if curb ramps constructed prior to March 15, 2012 already comply with the curb ramp requirements in the 1991 Standards, they need not be modified in accordance with the 2010 Standards in order to provide program access, unless they are altered after March 15, 2012.

Similarly, DOT's Section 504 "safe harbor" allows curb ramps that were newly constructed or altered prior to November 29, 2006, and that meet the 1991 ADAAG to be considered compliant.[4] Elements not covered

under the safe harbor provisions may need to be modified to provide program access and should be incorporated into a program access plan for making such modifications. 49 CFR 27.11(c)(2).

Under Section 504, self-evaluations and transition plans should have been completed by December 29, 1979. Under the ADA, transition plans should have been completed by July 26, 1992, and corrective measures should have been completed by January 26, 1995. While these deadlines have long since passed, entities that did not develop a transition plan prior to those dates should begin immediately to complete their self-evaluation and develop a comprehensive transition plan.

Reasonable Modification /Accommodation

In addition to alteration and program accessibility obligations, public entities may have an obligation under title II and Section 504 to undertake curb ramp construction or alteration as a "reasonable modification/accommodation" in response to a request by, or on behalf of, someone with a disability. Such a request may be made to address a non-compliant curb ramp outside of the schedule provided in the public entity's transition plan. A public entity must appropriately consider such requests as they are made. 28 CFR 35.130(b)(7); 49 CFR 27.7(e).

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1 The 2010 Standards can be found on DOJ's website at http://www.ada.gov/2010ADAstandards_index.htm.

2 In 2004, the United States Architectural and Transportation Barriers Board (U.S. Access Board) published the Americans with Disabilities Act Accessibility Guidelines (2004 ADAAG), which serve as the basis of the current enforceable ADA standards adopted by both DOT and DOJ.

3 The 2010 Standards include a provision on equivalent facilitation that allows covered entities to use other designs for curb ramps if such designs provide equal or greater access. *See* section 103 of the 2010 Standards.

4 The DOT "safe harbor" provision is found at 49 CFR 37.9(c). DOT's Section 504 regulations (49 CFR 27.19(a)) require compliance with 49 CFR Part 37.

Deccember 1, 2015

Attachment D:

MnDOT Level 2 and 3 Intersection Details

City of Minneapolis: Public Works

ROW Management

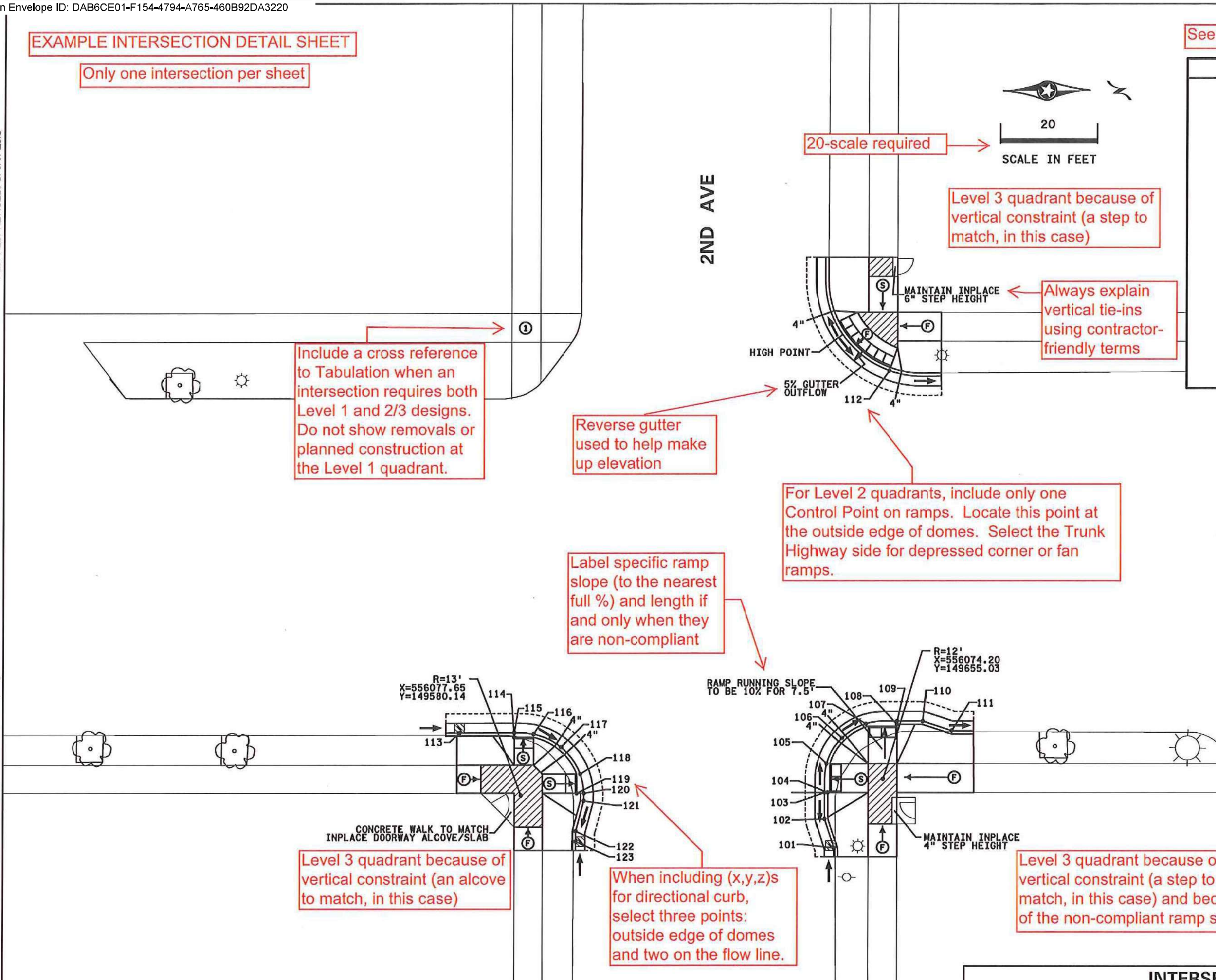
2023

* Document mark ups created by MnDOT and may not reflect all current design standards of City of Minneapolis: Public Works. For reference use only for examples of level 2 and 3 designs.

EXAMPLE INTERSECTION DETAIL SHEET

Only one intersection per sheet

See MnDOT Standard Legend on ADA website



LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- BITUMINOUS TREATMENT-SEE TABULATIONS
- X" — CURB HEIGHT
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- (S) — INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- (F) — INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- DRAINAGE FLOW ARROW

GUTTER CONTROL POINTS

POINT NUMBER	X	Y	ELEVATION
NE CORNER			
101	556102.00	149645.05	950.34
102	556088.97	149645.03	950.78
103	556088.49	149644.99	950.90
104	556088.10	149644.89	950.87
105	556088.02	149644.87	950.83
106	556082.95	149643.18	950.72
107	556082.48	149643.06	950.68
108	556082.00	149643.03	950.39
109	556077.00	149643.03	950.17
110	555990.10	149682.87	950.90
111	555952.27	149593.11	950.87
NW CORNER			
112	555990.10	149682.87	-
SE CORNER			
113	556064.73	149553.76	951.46
114	556064.73	149567.38	951.40
115	556064.66	149578.76	951.32
116	556064.73	149579.39	951.28
117	556064.92	149582.76	951.25
118	556067.61	149588.39	951.17
119	556073.17	149592.34	951.10
120	556077.17	149593.13	950.74
121	556077.17	149591.39	950.65
122	556064.73	149553.76	951.46
123	556064.73	149567.38	951.40

① SEE TABULATION X FOR CURB RAMP CONSTRUCTION QUANTITIES.

z's provided when curb flow lines are changed vertically/horizontally

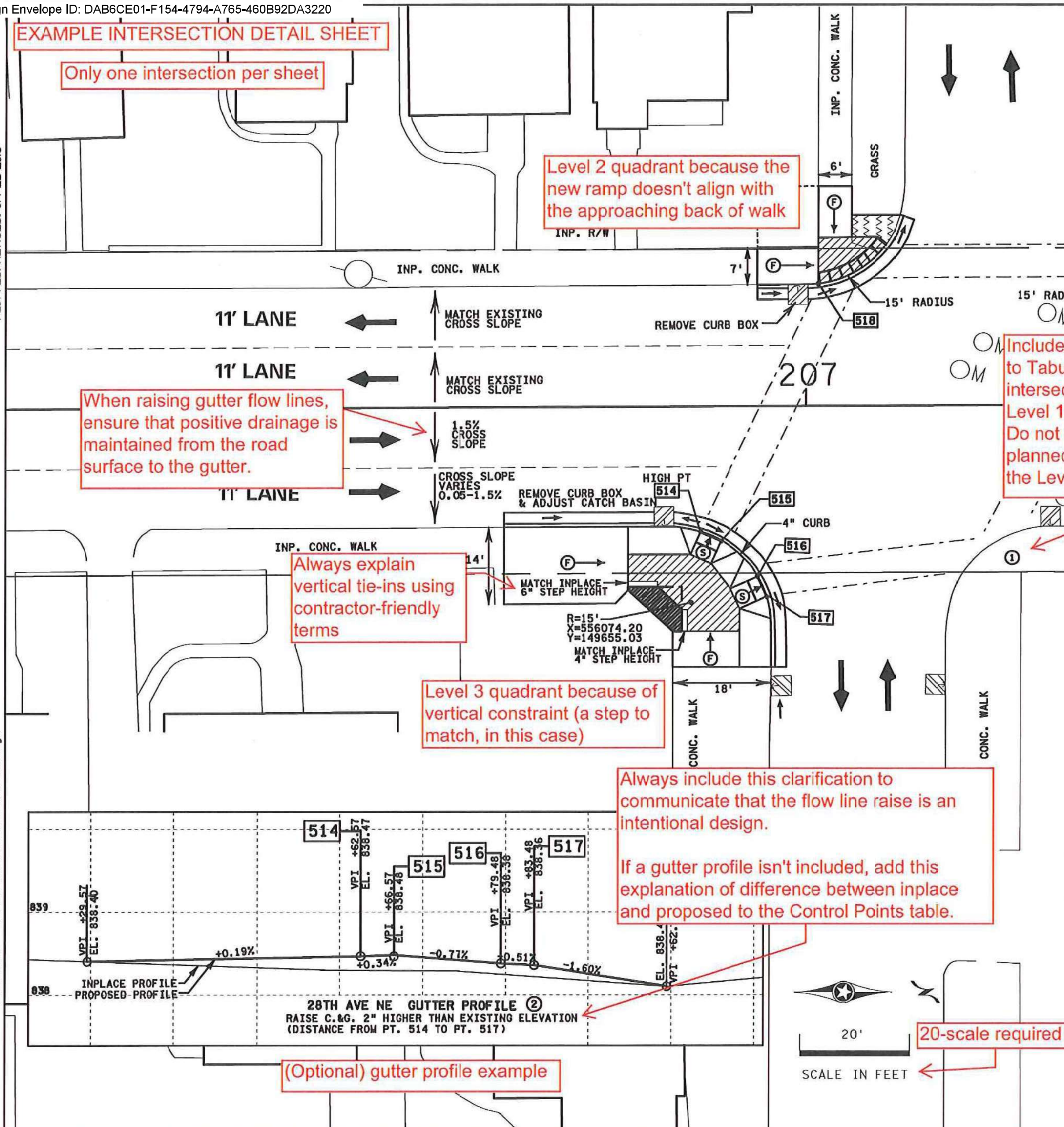
PLOTTED/REVISED: 31-JAN-2013

DISTRICT #: INSERT DISTRICT NAME HERE
IPLOT NAME: lvl23
FILENAME: IP_PWP:d1446403\randolph.dgn

INTERSECTION A

INTERSECTION DETAILS

DRAWN BY:	CHECKED BY:	CERTIFIED BY ______ LICENSED PROFESSIONAL ENGINEER LIC. NO. XXXXX DATE ______	STATE PROJ. NO. XXXX-XX (T.H. XX)	SHEET NO. XX OF XX SHEETS



See MnDOT Standard Legend on ADA website

INP. CONC. WALK

INP. R/W

LEGEND

- XXX — DETAIL POINTS
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CROSSWALK
- TRAFFIC DIRECTION
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- DRAINAGE FLOW ARROW
- REGRADE AND REPLACE WITH SOD
- 5' T.E. MEASURED FROM BACK OF SIDEWALK

① SEE TABULATION X FOR CURB RAMP CONSTRUCTION QUANTITIES.

GUTTER CONTROL POINTS

PT NO.	QUAD	X	Y	ELEVATION
T.H. XX AND 28TH AVE NE				
514	SE	531116.8046	179802.4751	838.47
515	SE	531117.7912	179806.4751	838.44
516	SE	531122.7409	179814.0921	838.39
517	SE	531125.7125	179816.1107	838.38
518	SW	531072.4314	179827.0358	-
519	NW	531071.8900	179887.8420	-

20'
SCALE IN FEET
20-scale required

DISTRICT #: INSERT DISTRICT NAME HERE
IPLOT NAME: raise
FILENAME: IP_PWP:d1446403\d272669_ada10.dgn

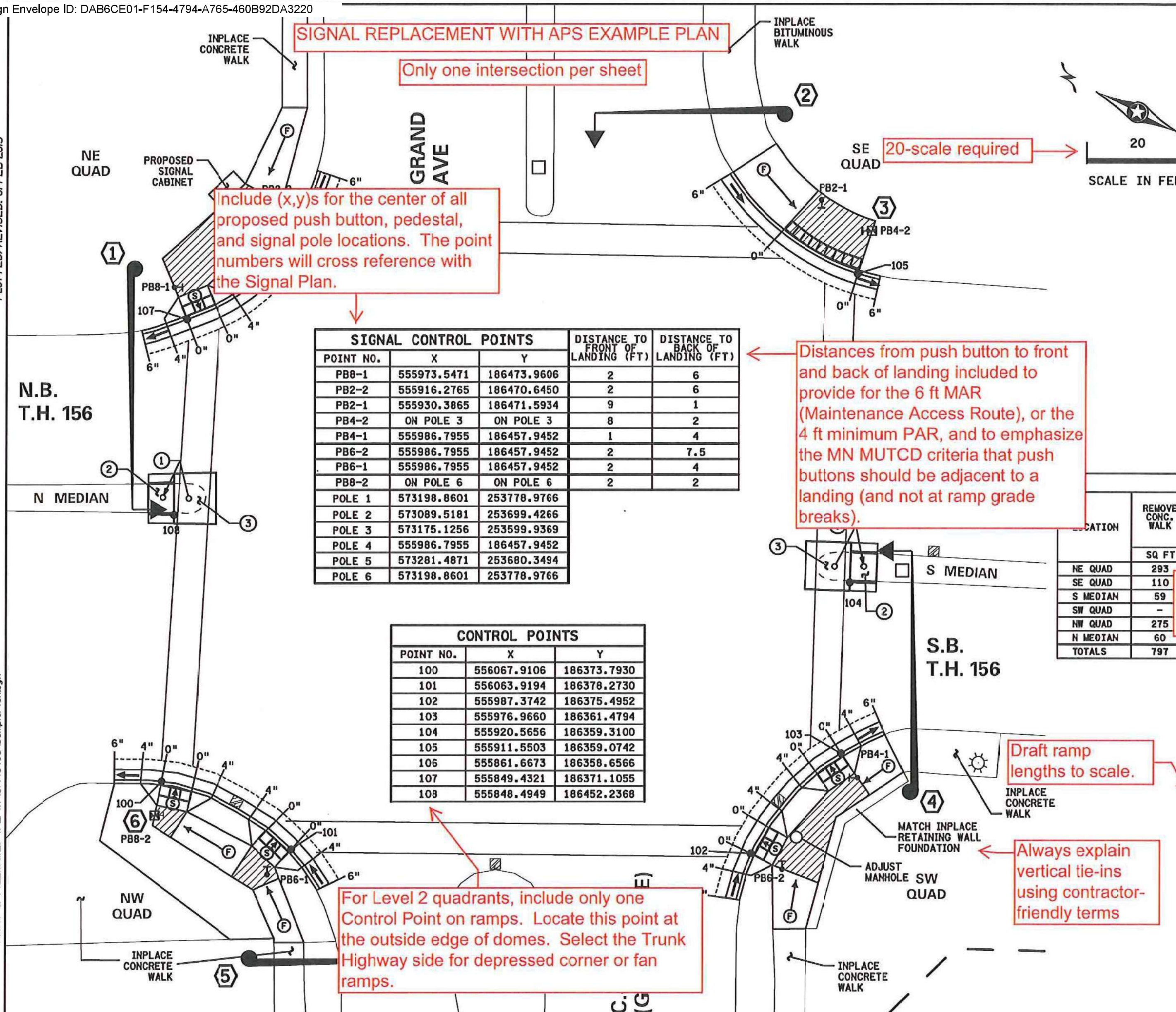
T.H. XX & 28TH AVE NE

PEDESTRIAN RAMP PLAN

DRAWN BY:	CHECKED BY:	CERTIFIED BY ____ LICENSED PROFESSIONAL ENGINEER	LIC. NO. ____	DATE ____	STATE PROJ. NO.	(T.H. XX)	SHEET NO. OF	SHEETS

SIGNAL REPLACEMENT WITH APS EXAMPLE PLAN

Only one intersection per sheet



20-scale required

Include (x,y)s for the center of all proposed push button, pedestal, and signal pole locations. The point numbers will cross reference with the Signal Plan.

Distances from push button to front and back of landing included to provide for the 6 ft MAR (Maintenance Access Route), or the 4 ft minimum PAR, and to emphasize the MN MUTCD criteria that push buttons should be adjacent to a landing (and not at ramp grade breaks).

SIGNAL CONTROL POINTS			DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
POINT NO.	X	Y		
PB8-1	555973.5471	186473.9606	2	6
PB2-2	555916.2765	186470.6450	2	6
PB2-1	555930.3865	186471.5934	9	1
PB4-2	ON POLE 3	ON POLE 3	8	2
PB4-1	555986.7955	186457.9452	1	4
PB6-2	555986.7955	186457.9452	2	7.5
PB6-1	555986.7955	186457.9452	2	4
PB8-2	ON POLE 6	ON POLE 6	2	2
POLE 1	573198.8601	253778.9766		
POLE 2	573089.5181	253699.4266		
POLE 3	573175.1256	253599.9369		
POLE 4	555986.7955	186457.9452		
POLE 5	573281.4871	253680.3494		
POLE 6	573198.8601	253778.9766		

CONTROL POINTS		
POINT NO.	X	Y
100	556067.9106	186373.7930
101	556063.9194	186378.2730
102	555987.3742	186375.4952
103	555976.9660	186361.4794
104	555920.5656	186359.3100
105	555911.5503	186359.0742
106	555861.6673	186358.6566
107	555849.4321	186371.1055
108	555848.4949	186452.2368

For Level 2 quadrants, include only one Control Point on ramps. Locate this point at the outside edge of domes. Select the Trunk Highway side for depressed corner or fan ramps.

Draft ramp lengths to scale.

Always explain vertical tie-ins using contractor-friendly terms

See MnDOT Standard Legend on ADA website

- PROPOSED SIGNAL POLE
- PROPOSED PEDESTAL
- PEDESTRIAN PUSH BUTTON STATION
- PEDESTRIAN PUSH BUTTON
- XXX — CONTROL POINTS AT GUTTER FLOW LINE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- BITUMINOUS TREATMENT-SEE TABULATIONS
- X" CURB HEIGHT
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- DRAINAGE FLOW ARROW

Quantity tabulation included only if it's a standalone signal project. ADA pay item quantities are otherwise included in the Plan Tabulations and SEQ.

TABULATED QUANTITIES								
LOCATION	REMOVE CONC. WALK	REMOVE CONC. CURB & GUTTER	MILL AND PATCH BITUMINOUS PAVEMENT	CONCRETE WALK	CONCRETE CURB & GUTTER	CONCRETE CURB DESIGN V	TRUNCATED DOMES SQUARE	TRUNCATED DOMES 35' RAD SECTION
	SQ FT	LIN FT	LIN FT	SQ FT	LIN FT	LIN FT	SF	SF
NE QUAD	293	45	45	548	45	–	24	–
SE QUAD	110	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40
S MEDIAN	59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–
SW QUAD	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–
NW QUAD	275	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–
N MEDIAN	60	[illegible]	–	29	10	–	–	–
TOTALS	797	168	983	1440	136	–	72	40

GENERAL NOTES:

- PROVIDE A SAWCUT AT THE REMOVAL LIMIT OR THE NEAREST JOINT OF THE CONCRETE WALK AND CONCRETE CURB & GUTTER. ALL SAWCUTS SHALL BE INCIDENTAL.
- LANDINGS SHALL BE CONNECTED TO EXISTING SIDEWALKS MAINTAINING A 4' WIDE (MINIMUM) PEDESTRIAN ACCESS ROUTE WITH A CROSS SLOPE THAT DOES NOT EXCEED 2.0% AND A RUNNING SLOPE THAT DOES NOT EXCEED 8.3%.
- ALL PERPENDICULAR RAMPS ARE 4' LONG UNLESS OTHERWISE NOTED.
- LOCATE ALL NEW HANDHOLES OUTSIDE OF THE PAR.
- THE OUTSIDE EDGE OF CROSSWALK MARKINGS SHALL LINE UP WITH THE OUTSIDE EDGE OF TRUNCATED DOMES.

(1) SALVAGE AND INSTALL SIGN.

(2) SHORTEN MEDAIN NOSE TO MAKE ROOM FOR NEW CROSSWALK. CONSTRUCT CONCRETE NOSE - SEE STANDARD PLATE 7113.

(3) CONSTRUCT CONCRETE PAVEMENT TO FILL THE AREA WHERE THE CONCRETE MEDIAN NOSE IS TO BE REMOVED. MATCH INPLACE PAVEMENT THICKNESS.

BY	DATE	REVISIONS

SYSTEM ID: 20937 T.E. 5112
METER ADDRESS: 236 STATE HWY 156
MASTER ID: 21720 T.E.

PEDESTRIAN CROSSWALK DETAILS
TRAFFIC CONTROL SIGNAL SYSTEM
T.H. 156 AT C.S.A.H. 14 (GRAND AVE.)
IN SOUTH ST. PAUL, DAKOTA COUNTY

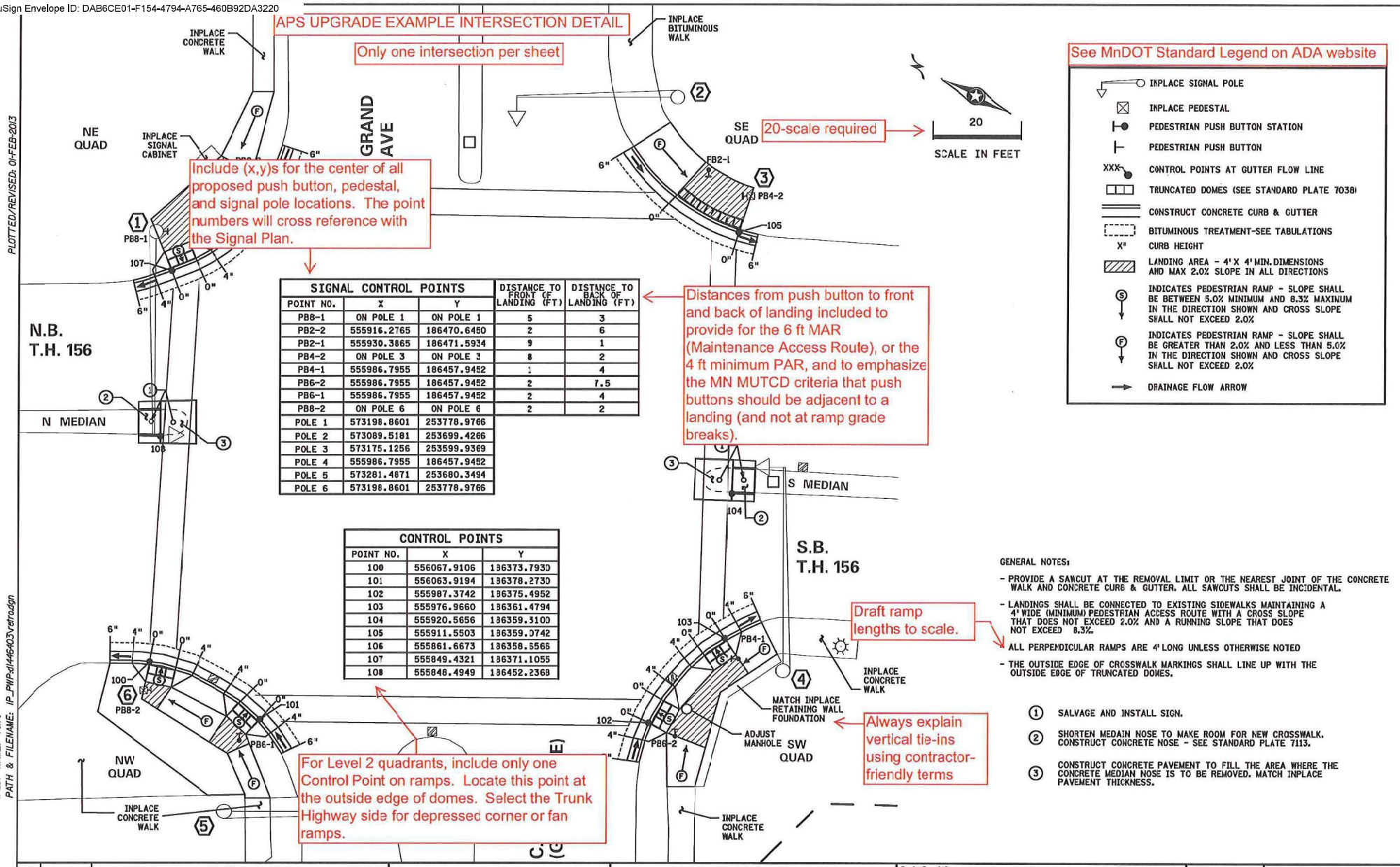
S.A.P. NO. | DRAWN BY: | CKD BY: | DATE:
CERTIFIED BY ______ LICENSED PROFESSIONAL ENGINEER | LIC. NO. ______ | DATE: ______
STATE PROJ. NO. XXXX-XX (T.H.XXX) SHEET NO. X OF XX SHEETS

PLOTTED/REVISED: 01-FEB-2013

DISTRICT #: INSERT DISTRICT NAME HERE
IPLOT NAME: rebuild
PATH & FILENAME: IP_PWP:d1446403\SamplePlan.dgn

APS UPGRADE EXAMPLE INTERSECTION DETAIL

Only one intersection per sheet



SIGNAL CONTROL POINTS			DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
POINT NO.	X	Y		
PB8-1	ON POLE 1	ON POLE 1	5	3
PB2-2	555916.2765	186470.6450	2	6
PB2-1	555930.3865	186471.5934	9	1
PB4-2	ON POLE 3	ON POLE 3	8	2
PB4-1	555986.7955	186457.9452	1	4
PB6-2	555986.7955	186457.9452	2	7.5
PB6-1	555986.7955	186457.9452	2	4
PB8-2	ON POLE 6	ON POLE 6	2	2
POLE 1	573198.8601	253778.9766		
POLE 2	573089.5181	253699.4266		
POLE 3	573175.1256	253599.9369		
POLE 4	555986.7955	186457.9452		
POLE 5	573281.4871	253680.3494		
POLE 6	573196.8601	253778.9766		

Distances from push button to front and back of landing included to provide for the 6 ft MAR (Maintenance Access Route), or the 4 ft minimum PAR, and to emphasize the MN MUTCD criteria that push buttons should be adjacent to a landing (and not at ramp grade breaks).

CONTROL POINTS		
POINT NO.	X	Y
100	556067.9106	186373.7930
101	556063.9194	186378.2730
102	555987.3742	186375.4952
103	555976.9660	186361.4794
104	555920.5656	186359.3100
105	555911.5503	186359.0742
106	555861.6673	186358.5565
107	555849.4321	186371.1055
108	555848.4949	186452.2368

See MnDOT Standard Legend on ADA website

- INPLACE SIGNAL POLE
- INPLACE PEDESTAL
- PEDESTRIAN PUSH BUTTON STATION
- PEDESTRIAN PUSH BUTTON
- XXX — CONTROL POINTS AT GUTTER FLOW LINE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- BITUMINOUS TREATMENT-SEE TABULATIONS
- X" CURB HEIGHT
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- DRAINAGE FLOW ARROW

GENERAL NOTES:

- PROVIDE A SAWCUT AT THE REMOVAL LIMIT OR THE NEAREST JOINT OF THE CONCRETE WALK AND CONCRETE CURB & GUTTER. ALL SAWCUTS SHALL BE INCIDENTAL.
- LANDINGS SHALL BE CONNECTED TO EXISTING SIDEWALKS MAINTAINING A 4' WIDE (MINIMUM) PEDESTRIAN ACCESS ROUTE WITH A CROSS SLOPE THAT DOES NOT EXCEED 2.0% AND A RUNNING SLOPE THAT DOES NOT EXCEED 8.3%.
- ALL PERPENDICULAR RAMPS ARE 4' LONG UNLESS OTHERWISE NOTED
- THE OUTSIDE EDGE OF CROSSWALK MARKINGS SHALL LINE UP WITH THE OUTSIDE EDGE OF TRUNCATED DOMES.

1. SALVAGE AND INSTALL SIGN.
2. SHORTEN MEDAIN NOSE TO MAKE ROOM FOR NEW CROSSWALK. CONSTRUCT CONCRETE NOSE - SEE STANDARD PLATE 7113.
3. CONSTRUCT CONCRETE PAVEMENT TO FILL THE AREA WHERE THE CONCRETE MEDIAN NOSE IS TO BE REMOVED. MATCH INPLACE PAVEMENT THICKNESS.

PLOTTED/REVISED: 01-FEB-2013

DISTRICT =: INSERT DISTRICT NAME HERE
IPLOT NAME: retro
PATH & FILENAME: IP_PWP-d1446403.vetrodgn

BY	DATE	REVISIONS

SYSTEM ID: 20937 T.E. 5112
METER ADDRESS: 236 STATE HWY 156
MASTER ID: 21720 T.E.

PEDESTRIAN CROSSWALK DETAILS
TRAFFIC CONTROL SIGNAL SYSTEM
T.H. 156 AT C.S.A.H. 14 (GRAND AVE.)
IN SOUTH ST. PAUL, DAKOTA COUNTY

S.A.P. NO. | DRAWN BY: | CKD BY: | DATE:

CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC. NO. _____ DATE: _____

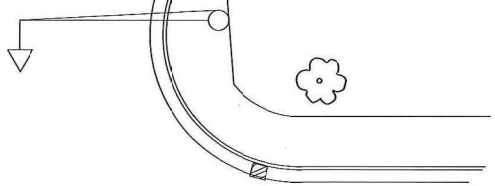
STATE PROJ.NO. XXXX-XX (T.H.XXX) SHEET NO. X OF XX SHEETS

LEVEL 3 ISLAND (A.K.A. PORK CHOP) EXAMPLE DETAIL

All quadrants on this sheet would ordinarily contain Level 2/3 details in addition to the pork chop detail.

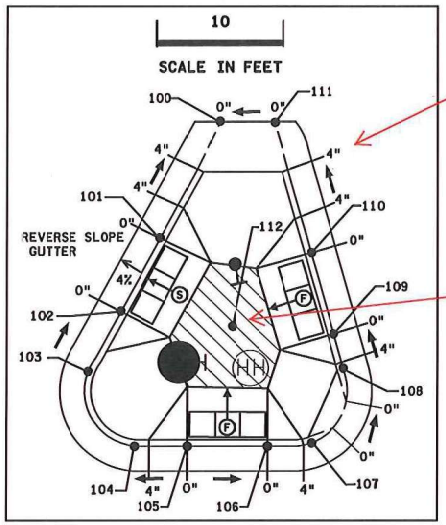
CONTROL POINTS			
	X	Y	Z
100	512723.48	212898.65	893.10
101	512729.06	212905.35	893.19
102	512729.79	212912.65	893.24
103	512729.57	212916.43	893.48
104	512734.67	212916.76	893.62
105	512719.34	212898.65	893.68
106	512717.31	212898.65	893.64
107	512718.46	212898.65	893.61
108	512718.01	212916.86	893.57
109	512718.87	212915.43	893.56
110	512719.23	212910.02	893.52
111	512719.47	212902.43	893.18
112	512722.99	212908.48	893.48

(x,y,z) included because the inplace island curb and gutter will be entirely rebuilt.



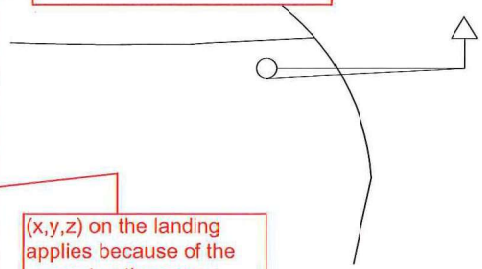
20-scale required → 20 SCALE IN FEET

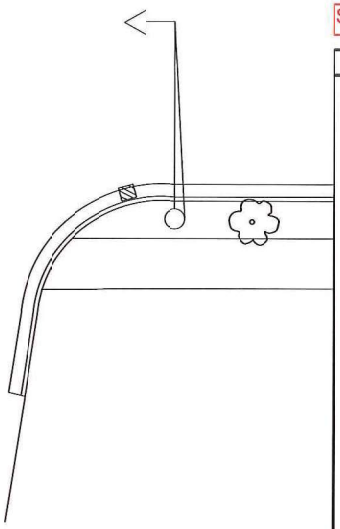
10-scale used to display details only because ramp slopes couldn't fit in on a 20-scale



4" curb height preferred for islands. 4" curb height required if design speed is 45 mph or greater, in accordance with Road Design Manual 4-4.04.

(x,y,z) on the landing applies because of the reconstruction scope. The control point on the landing is included only for and for all reconstruction projects.





See MnDOT Standard Legend on ADA website

LEGEND

- INPLACE SIGNAL POLE
- PROPOSED SIGNAL POLE
- PEDESTRIAN PUSH BUTTON STATION
- PEDESTRIAN PUSH BUTTON
- XXX — CONTROL POINTS AT GUTTER FLOW LINE
- TRUNCATED DOMES (SEE STANDARD PLATE 7033)
- CONSTRUCT CONCRETE CURB & GUTTER
- X" — CURB HEIGHT
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- (S) — INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- (F) — INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- DRAINAGE FLOW ARROW

CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC. NO. _____ DATE _____

CONSTRUCTION PLAN DETAILS

SAMPLE PLAN

Attachment E:

2015 City Engineer's Memo

Pedestrian Restoration Policy

City of Minneapolis: Public Works

ROW Management

2023

Minneapolis
City of Lakes

Public Works
350 S. Fifth St. - Room 203
Minneapolis, MN 55415
TEL 612.673.2352
www.minneapolismn.gov

Andrew Balgobin
CenterPoint Energy
700 West Linden Avenue
PO Box 1165
Minneapolis, MN 55440

September 28, 2015

Dear Mr. Balgobin,

RE: Pedestrian Ramp Restoration Policy

The City of Minneapolis is currently undertaking an effort to update its policies and procedures related to ADA Title II accessibility. As part of this initiative, it has come to my attention that sidewalk replacement work performed by utility companies following a right of way excavation triggers ADA compliance. This means that any city sidewalk ramp altered in any way by your company must be rebuilt to current ADA standards, regardless of the sidewalk's preexisting physical condition.

I am writing to request that Centerpoint Energy, along with all utility companies working in the City of Minneapolis, follow the practice of restoring city sidewalks and pedestrian ramps to current ADA standards whenever a sidewalk is altered by a utility excavation. This is the current practice among the City's own construction and maintenance operations, permitted real estate developers, and all other non-franchised utilities working within the City's boundaries. Moreover, the same practice has been adopted by MnDOT with respect to alterations of state-owned infrastructure.

The City of Minneapolis is adopting this policy as of the date of this letter, and I am requesting your support and cooperation as soon as practicably feasible. The City of Minneapolis Public Works Department continues to adopt the current version of the MnDOT Pedestrian Ramp Standard (5-297.250) dated August 6, 2014. If you have questions or concerns about any of the foregoing, please do not hesitate to contact me or Paul Ogren at 612-673-3403.

Sincerely,

Steve Kotke
Director/City Engineer
Minneapolis Public Works

cc: Paul Ogren

Minneapolis
City of Lakes

Public Works
350 S. Fifth St. - Room 203
Minneapolis, MN 55415
TEL 612.673.2352
www.minneapolismn.gov

James Nash, P.E.
Xcel Energy
1518 Chestnut Ave
Minneapolis, MN 55403

September 28, 2015

Dear Mr. Nash,

RE: Pedestrian Ramp Restoration Policy

The City of Minneapolis is currently undertaking an effort to update its policies and procedures related to ADA Title II accessibility. As part of this initiative, it has come to my attention that sidewalk replacement work performed by utility companies following a right of way excavation triggers ADA compliance. This means that any city sidewalk ramp altered in any way by your company must be rebuilt to current ADA standards, regardless of the sidewalk's preexisting physical condition.

I am writing to request that Xcel Energy, along with all utility companies working in the City of Minneapolis, follow the practice of restoring city sidewalks and pedestrian ramps to current ADA standards whenever a sidewalk is altered by a utility excavation. This is the current practice among the City's own construction and maintenance operations, permitted real estate developers, and all other non-franchised utilities working within the City's boundaries. Moreover, the same practice has been adopted by MnDOT with respect to alterations of state-owned infrastructure.

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Sincerely:

Steve Kotke
Director/City Engineer
Minneapolis Public Works

cc: Paul Ogren

Minneapolis
City of Lakes

Public Works
350 S. Fifth St. - Room 203
Minneapolis, MN 55415
TEL 612.673.2352
www.minneapolismn.gov

Duane Carlson
Vice President of Construction
Comcast Cable Communications, Incorporated
2621 Fairview Avenue N
Roseville, MN 55113

September 28, 2015

Dear Mr. Carlson,

RE: Pedestrian Ramp Restoration Policy

The City of Minneapolis is currently undertaking an effort to update its policies and procedures related to ADA Title II accessibility. As part of this initiative, it has come to my attention that sidewalk replacement work performed by utility companies following a right of way excavation triggers ADA compliance. This means that any city sidewalk ramp altered in any way by your company must be rebuilt to current ADA standards, regardless of the sidewalk's preexisting physical condition.

I am writing to request that Comcast, along with all utility companies working in the City of Minneapolis, follow the practice of restoring city sidewalks and pedestrian ramps to current ADA standards whenever a sidewalk is altered by a utility excavation. This is the current practice among the City's own construction and maintenance operations, permitted real estate developers, and all other non-franchised utilities working within the City's boundaries. Moreover, the same practice has been adopted by MnDOT with respect to alterations of state-owned infrastructure.

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Sincerely:

Steve Kotke
Director/City Engineer
Minneapolis Public Works

cc: Paul Ogren