U000-275-R26

NO PLAN PROJECT
TOWN OF ORANGE
ADA CURB RAMP IMPROVEMENTS
UPC 106688

CONSTRUCTION: X **MAINTENANCE:** ____

DISTRICT: Culpeper CITY/COUNTY: Orange UPC NO.: 106688

FUNCTIONAL CLASS Rural Local FHWA 534 DATA 03004/14004 TYPE CODE U000

ROUTE: VARIOUS PROJ. # U000-275-R26 FEDERAL NO.: N/A

FROM: Various ADA Curb Ramp Locations TO: Madison Rd. & Selma Rd.

LENGTH (FEET): N/A MILES N/A

TOPO: Rolling DESIGN SPEED (MPH): N/A VPD (YEAR) 16000 (2013) & 2300 (2012)

PROJECT MGR: John Cooley (Town of Orange) R/W DONATION: Existing

Utilities N/A and/or Railroads N/A are involved in the construction of this project.

This project is to be constructed in accordance with the Department's 2007 Road and Bridge Specifications, 2008 Road and Bridge Standards, 2009 MUTCD, 2011 Work Area Protection Manual and as amended by contract provisions and the complete plan assembly.

Design features relating to construction or to regulation and control of traffic may be subject to change as deemed necessary by the Town.

LOCALLY ADMINISTERED PROJECTS	
TOWN OF ORANGE	
NAME OF LOCALITY	
JOHN COOLEY	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
8-7-2015	DIRECTOR OF COMMUNITY DEVELOPMENT
DATE	TITLE OF POSITION

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TOWN OF ORANGE
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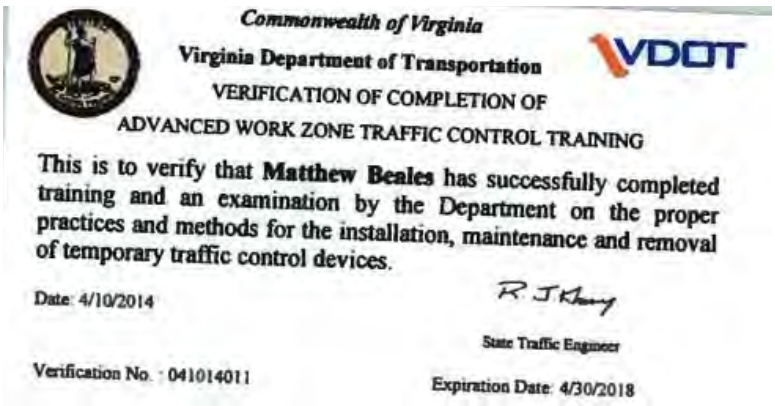
SEALING AND SIGNING SHEET



Commonwealth of Virginia

Virginia Department of Transportation

VERIFICATION OF COMPLETION OF

ADVANCED WORK ZONE TRAFFIC CONTROL TRAINING

This is to verify that **Matthew Beales** has successfully completed training and an examination by the Department on the proper practices and methods for the installation, maintenance and removal of temporary traffic control devices.

Date: 4/10/2014

State Traffic Engineer

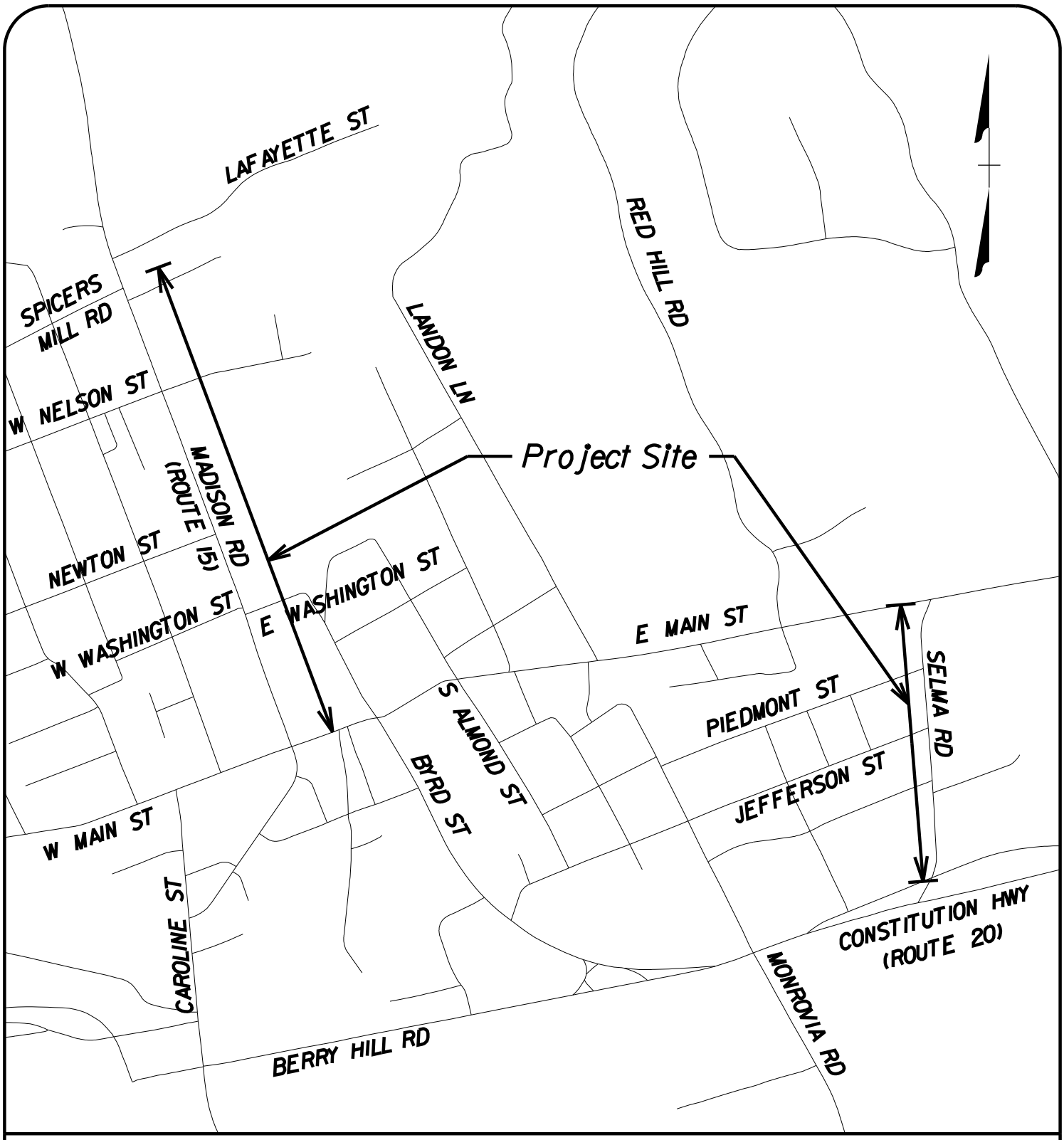
Verification No. : 041014011

Expiration Date: 4/30/2018

Sealed and Signed by:

Brian P Komar
2015.08.10 16:58:55 -04'00'

Rinker Design Associates
Fredericksburg, Virginia
Roadway/Hydraulics Design Engineer



VICINITY MAP

ADA CURB RAMP IMPROVEMENTS

TOWN OF ORANGE, VA

SCALE: 1" = 2750'

Rinker Design Associates, P.C.

Engineering * Surveying * Land Planning * Transportation * Environmental Services

9385 Discovery Boulevard, Suite 200, Manassas VA, 20109 on the web @ www.rdacivil.com

Telephone: (703) 368-7373 Fax: (703) 257-5443

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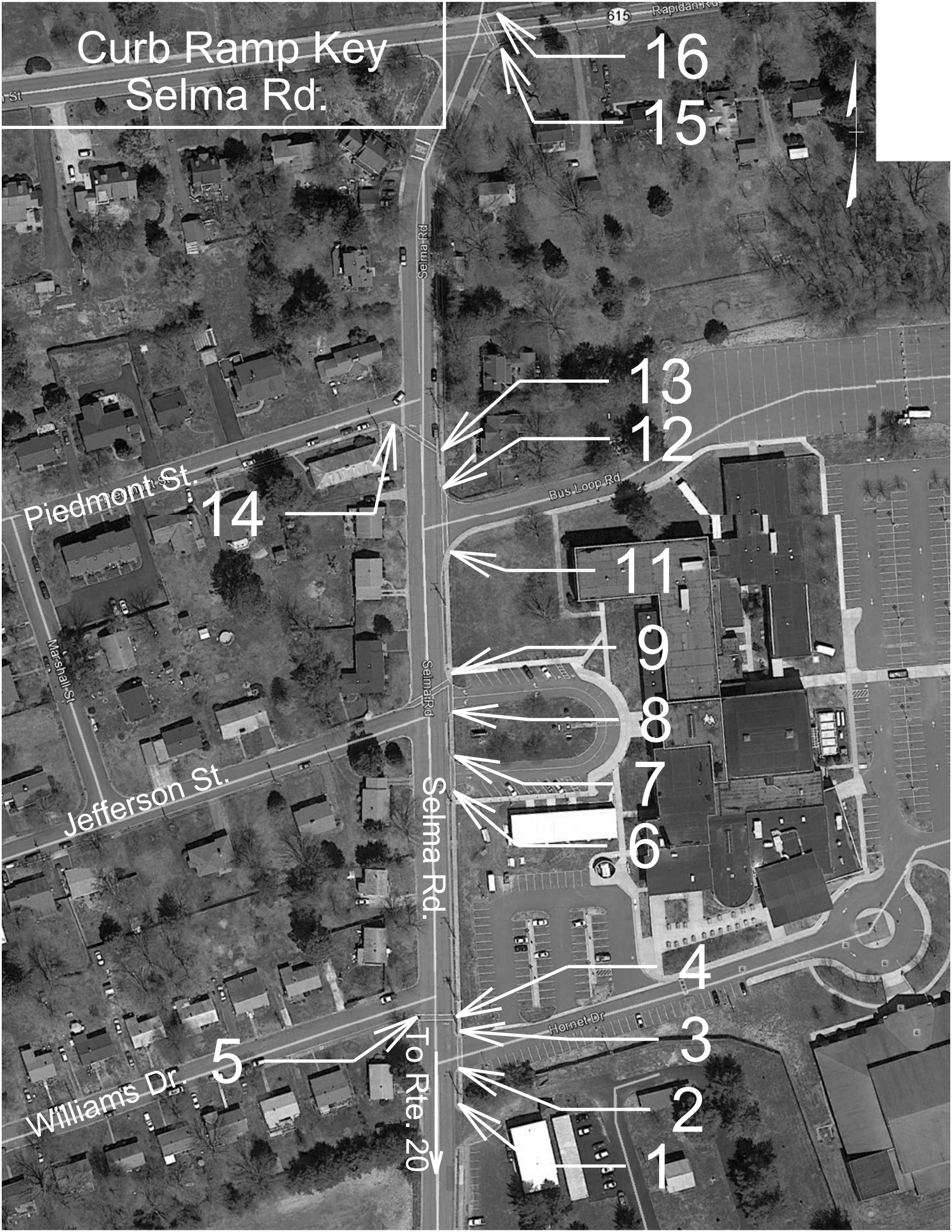
Curb Ramp Key
Selma Rd.
16
15
13
12
14
11
9
8
7
6
4
3
5
2
1
Rapidan Rd
615
Selma Rd
Bus Loop Rd
Piedmont St.
Marshall St
Jefferson St.
Selma Rd.
Hornet Dr
Williams Dr.
To Rte. 20

Curb Ramp Key
Madison Rd.

GENERAL NOTES

1. All construction shall conform to the Virginia Department of Transportation standards and specifications.
2. Existing crosswalk locations and striping are to remain in place except where specifically called out in exhibit.
3. Contractor is not to disturb any traffic signs, utility poles, guy wires, drainage structures, water main etc. unless otherwise noted on the exhibits.
4. All private and commercial entrances are to remain open during construction.
5. Damaged pavement, to be replaced as a result of the demolition of existing curb, shall be incidental to the cost of removing curb & gutter.
6. A substantial amount of construction on Selma Road shall be completed before the contractor is authorized to begin work on Madison Road.
7. Any necessary Erosion & Sedimentation controls shall be incidental to the lump sum grading bid item.
8. Contractor to work within existing right of way on all curb ramp improvements. Existing right of way is located on the back of all existing sidewalks on Selma Road. The existing right of way is at the back of existing sidewalk on Madison in the location of proposed curb ramps number two and four. Curb ramp locations number one and three on Madison Road have existing right of way one foot behind existing sidewalk. In addition to the existing right of way, the Town of Orange has procured an additional five feet of easement for construction on ADA Curb Ramps # 5 & # 14.

Erosion & Sediment Control Plan Narrative

Project Description
This project will consist of constructing fifteen (16) curb cuts and handicap ramps along Selma Road and four (4) curb cuts and handicap ramps along Madison Road in the Town of Orange. Curb ramps will be constructed to meet existing Virginia Department of Transportation's requirements, regulations, and specifications regarding ADA compliant.

Project Location
This project is located along Madison Road and Selma Road in the Town of Orange. Latitude 38°14'46" N, Longitude 78°06'41" W.

Project Area
The project will be built within existing right of way along Madison Road & Selma Road.

Existing Site Conditions
The existing site on Madison Road is a two lane urban roadway with a center turn lane and existing sidewalk with combined curb and gutter. The existing site on Selma Road is a two lane urban roadway with combined curb and gutter with a sidewalk running on the East side of the road.

Soils
The soil located within the project limits is:

Soil Symbol: DdC3
Soil Name: Davidson Clay
HSG: B
K-Factor: 0.15
Drainage Class: Well Drained
Slopes: 7% to 15%

Soil Symbol: Ee
Soil Name: Elbert Silt Loam
HSG: C/D
K-Factor: 0.43
Drainage Class: Poorly Drained
Slopes: 2% to 10%

Runoff from the project will discharge to: Upper Rappahannock River

Adjacent Areas
The project on Madison Road is adjacent to commercial properties.
The project on Selma Road is adjacent to residential properties to the West, and the Town of Orange High School to the East.

Critical Areas
There are no critical areas within the project limits.

Erosion & Sediment Control Plan

- Provide minimum grubbing to allow E&S installation.
- If required, perimeter controls shall be installed prior to slope disturbances.
- If required, temporary silt fence shall be utilized at the toe of slopes.
- The project shall be stabilized in accordance with VDOT Specification 303.03(b) and 303.03(e)
- All E&S controls shall be removed within 5 days after the project has been stabilized.
- All disturbed areas will be stabilized with seed and mulch in accordance with the Roadside development sheet.
- For additional guidance on E&S controls, refer to IIM-LD-11.28.

CORE MIX

MIX	LBS./ ACRES	DESCRIPTION
1	▲	✖ 100% CERTIFIED FINE FESCUE
2	▲ 100	100% CERTIFIED TALL FESCUE
3	▲	50% CERTIFIED TALL FESCUE ✖ 50% CERTIFIED FINE FESCUE
4	▲	50% ORCHARDGRASS 50% CERTIFIED KENTUCKY BLUEGRASS
5	▲	100% BERMUDAGRASS
TEMPORARY		
3/1 – 5/16 and	50	50% CERTIFIED TALL FESCUE
8/16 – 3/1	50	50% BARLEY, WINTER RYE OR WINTER WHEAT
5/16 – 8/16	50	50% FOXTAIL MILLET
	50	50% CERTIFIED TALL FESCUE

▲ ALL RATES TO BE SPECIFIED BY THE DISTRICT ROADSIDE MANAGER

✖ FINE FESCUES INCLUDE CHEWINGS, CREEPING RED, HARD, SHEEP

ADDITIVES

TYPE	LBS./ ACRES	DESCRIPTION
A	▲	100% LOVEGRASS
B	▲ 20	100% BARLEY, WINTER RYE OR WINTER WHEAT
C	▲ 20	100% FOXTAIL MILLET
D	▲ 20	100% ANNUAL RYEGRASS
E	▲	100% CROWNVETCH (LEGUME)
F	▲	100% SERICEA LESPEDEZA (LEGUME)
G	▲	100% BIRDSFOOT TREFOIL (LEGUME)
H	▲	
I	▲	
J	▲	
K	▲	

SECTION OF SEED LOCATIONS

SEEDING SCHEDULE

	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE
	SPRING MONTH & DATE 4/1 – 6/1		SUMMER MONTH & DATE 6/1 – 9/15		FALL & WINTER MONTH & DATE 9/15 – 4/1	
PROJECT NUMBERS 106688	2D	2D	2C	2C	2B	2B

ROADSIDE DEVELOPMENT

ADA CURB RAMP IMPROVEMENTS

TOWN OF ORANGE, VA

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NOTES:

APPROXIMATELY 0.02 ACRES WILL BE DISTURBED ON THIS PROJECT AND WILL REQUIRE THE ESTABLISHMENT OF GRASSES AND /OR LEGUMES.

NOTES FOR FIELD USE ONLY

OVER SEEDING RATES SHALL BE 100% OF THE SEED MIXTURE SUPPLIED WITHOUT FERTILIZER.

THE ENGINEER WILL REQUIRE THE CONTRACTOR TO PERFORM SUPPLEMENTAL SEEDING WHEN LESS THAN 75 PERCENT UNIFORM STAND OF THE PERMANENT GRASS SPECIFIED IN THE MIXTURE OBTAINED. (ANNUAL SPECIES SUCH AS, RYE AND MILLET ARE TEMPORARY VARIETIES AND REQUIRE SUPPLEMENTAL SEEDING.)

NOTES APPLY TO SCHEDULE

LEGUME SEED MIXES (BIRDSFOOT TREFOIL, CROWN VETCH AND SERICEA LESPEDEZA) AND WEEPING LOVEGRASS SHALL NOT BE USED ON SHOULDERS AND OTHER LOCATIONS FLATTER THAT 3:1 SLOPE.

LEGUME SEED SHALL BE INOCULATED WITH THE APPROPRIATE STRAIN AND RATE OF BACTERIA. FOR HYDROSEEDING, USE FIVE TIMES THE DRY SEEDING RATE OF INOCULANT.

A TEMPORARY MIX OF EROSION CONTROL MULCH, AS DIRECTED BY THE ENGINEER, IS TO BE USED ONLY ON AREAS THAT ARE TO BE REGRADED OR LATER DISTURBED, IF LEFT DORMANT FOR MORE THAN 15 DAYS.

EROSION CONTROL MULCH, AS DIRECTED BY THE ENGINEER, IS TO USED ON AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 15 DAYS BETWEEN DECEMBER 1 AND FEBRUARY 28.

SPRING AND SUMMER FALL AND WINTER DEFINED FOR THE PURPOSE OF DETERMINING WHETHER HULLED OR UNHULLED BERMUDA AND SERICEA LESPEDEZA SEED IS REQUIRED:

SPRING & SUMMER 4/1 – 9/15 – USE HULLED SEED
FALL & WINTER 9/15 – 4/1 – USE UNHULLED SEED

ROADSIDE DEVELOPMENT - NOTES

ADA CURB RAMP IMPROVEMENTS

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NOTES:

TYPE I MULCH (STRAW) TO BE USED ON NEWLY SEEDED AREAS ADJACENT TO ALL WATERWAYS, WETLANDS, SWAMPS, OR ANY AREA IN WHICH DRAINAGE FLOWS TOWARD AREAS UNDER THE JURISDICTION OF THE ENVIRONMENTAL REGULATORY AGENCIES.

TYPE I MULCH SHALL BE APPLIED TO PROVIDE A MINIMUM 90% COVERAGE.

TYPE I MULCH SHALL BE TACKED WITH FIBER MULCH AT THE RATE OF 750 LBS. PER ACRE
AND/OR MULCH TACKIFER.

TYPE II MULCH SHALL BE APPLIED AT A RATE OF 4000 LBS. OR 2 TONS (NET DRY WEIGHT) PER ACRE TO PROVIDE A MINIMUM OF 90 PERCENT COVERAGE, AND SHALL BE APPLIED IN A SEPARATE APPLICATION.

EROSION CONTROL MULCH, AS LISTED ON THE VDOT APPROVED PRODUCTS LIST, SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

EROSION CONTROL MULCH SHALL PROVIDE 100% COVERAGE OF ALL DENUDED AREAS.

ALL TOPSOIL IS TO BE FREE OF HARD LUMPS, CLODS, ROCKS AND FOREIGN DEBRIS AND IS TO BE HAND RAKED TO TIE INTO EXISTING LAWNS.

ROADSIDE DEVELOPMENT - NOTES

ADA CURB RAMP IMPROVEMENTS

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Summary of Quantities
Project: Curb Ramp Improvements

ITEM NUMBER	Description	U.O.M	Quantity
00100	MOBILIZATION	L.S.	1
00125	GRADING	L.S.	1
12020	STD. CURB CG-2 (WALL BEHIND S/W)	LF	327
12600	STD. COMB. CURB & GUTTER CG-6	LF	99
12610	RAD. COMB. CURB & GUTTER CG-6	LF	76
13108	CG-12 DETECTABLE WARNING SURFACE	SY	25
13220	HYDR. CEMENT CONC. SIDEWALK 4”	SY	139
14100	REMOVAL OF SIDEWALK AND ENTRANCE	SY	128
14120	REMOVAL OF COMB. CURB AND GUTTER	LF	217
14440	SAW CUT SIDEWALK	LF	132
14450	SAW CUT CURB, GUTTER AND ENTRANCES	LF	56
24265	MAINTENANCE OF TRAFFIC	L.S.	1
27102	REGULAR SEED	LB	5
27103	OVERSEEDING	LB	5
27215	FERTILIZER	LB	5
27250	LIME	LB	5
54037	PAVEMENT MARKING - TY. B, CL. I, 8”	LF	88
54105	ERAD. OF EXIST. PAVE. MARKING	LF	50

Transportation Management Plan General Notes

1. The work zone of the contract is along Madison Road between Main Street and Spicers Mill Road, and Selma Road between Constitution Highway and Main Street. This is a Type “A” Traffic Management Plan. Off-site detours are not needed.

2. Unless otherwise approved or directed by the Engineer, the Contractor shall plan and prosecute the work in accordance with the following:

   a. Generally, construction activities will be conducted while highway travel is temporarily limited. Notification shall be in accordance with the VDOT permit.

   b. It is anticipated that the following 2011 Virginia Work Area Protection Manual typical traffic control applications will be used to perform the contract work: TTC-5.1 (Selma Road) and TTC 22.1 (Madison Road). During periods that operations are performed under traffic, the speed limit shall be, as posted. In addition, “ROAD WORK AHEAD” signs shall be placed in advance of the work zone.

   c. All traffic control devices and signs necessary for the maintenance of traffic are to be supplied, installed, maintained and removed by the contractor.

   d. Construction signs shall be fabricated and installed in accordance with the Manual of Uniform Traffic Control Devices 2009 Edition, Standard Highway Sign Manual 2011 Edition, Virginia Work Area Protection Manual 2011 Edition, 2008 Road and Bridge Standards and the 2007 Road and Bridge Specifications.

   e. All signs will be either removed from the roadway when not needed or covered per section 6F.04 of the Virginia Work Area Protection Manual, 2011 Edition.

   f. Traffic primarily consists of residents, delivery trucks, and school buses. During peak hours however daily commuters are the prevailing traveler on these roadways.

3. Work activity in the roadway will be allowed from 8:00 am and 8:00pm Monday thru Saturday for both Selma Road and Madison Road prior to August 26th. Beginning August 26th, work activity on Selma Road will be allowed from 8:30am and 2:30pm on all scheduled school days. For alternate work hours the contractor must submit in writing the proposed alternate hours to the Town of Orange for review and approval. Holiday restrictions outlined in the 2007 Road and Bridge Specifications Section 108.02.

4. Lane closures will not be permitted with the exception of work being performed under TTC 22.1 on Madison Road

5. No objects, equipment, or stored materials may interfere with sight distance of entrances and intersections.

6. Town of Orange will not assist contractor in securing staging area for equipment and materials within the R/W.

7. Contractor shall maintain access to private entrances during operations.

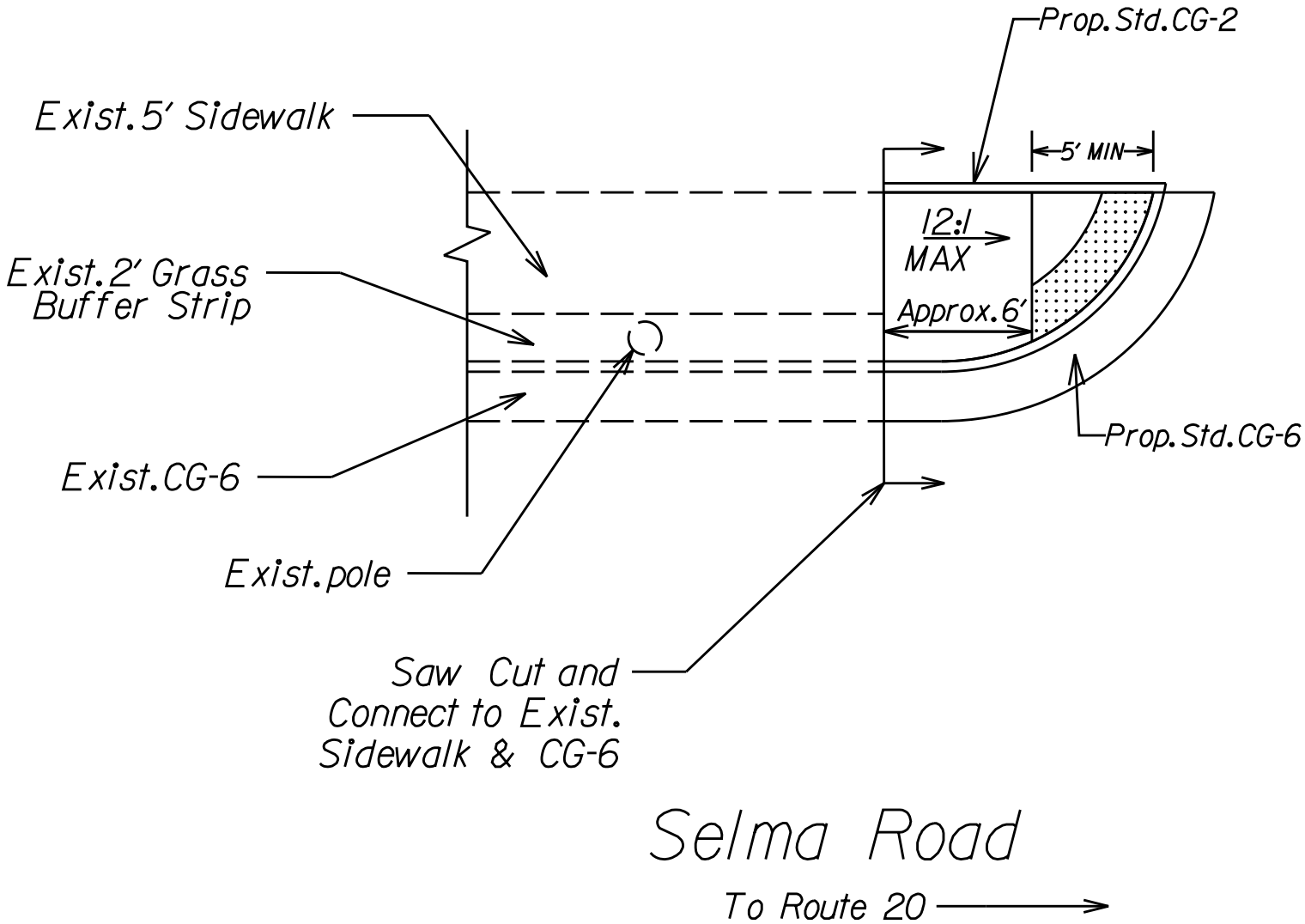
8. All areas excavated below existing pavement surfaces at the conclusion of each workday shall be backfilled to form a 4:1 wedge against pavement surface for the safety and protection of vehicular traffic.

9. The contractor shall provide temporary drainage as required to prevent ponding of water on the roadway and adjacent properties at no cost to Town of Orange.

10. Maintenance of traffic shall be done in accordance with the Virginia Work Area Protection Manual dated 2011 and the 2009 Edition of the Manual of Uniform Traffic Control Devices and will be paid for as lump sum. The lump sum maintenance of traffic shall include, but not limited to, signing, pavement marking, and traffic control devices necessary to adhere to the requirements herein.

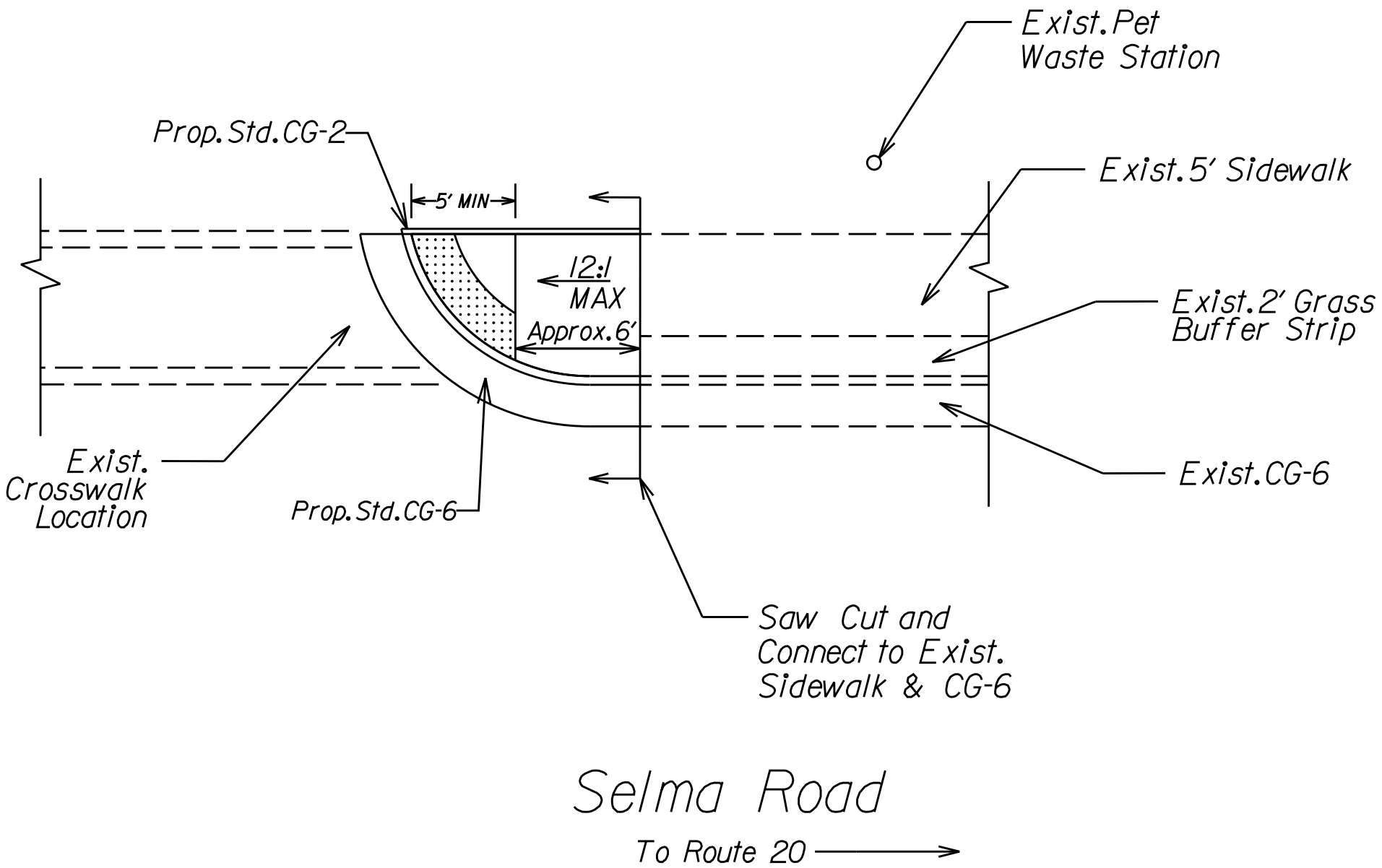
11. This Traffic Management Plan was prepared by Matthew Beales who successfully completed the Advanced WZTC in 04/10/2014.

ADA Curb Ramp Improvements
Selma Road #1
Prop.Std.CG-12 Type "B" Parallel



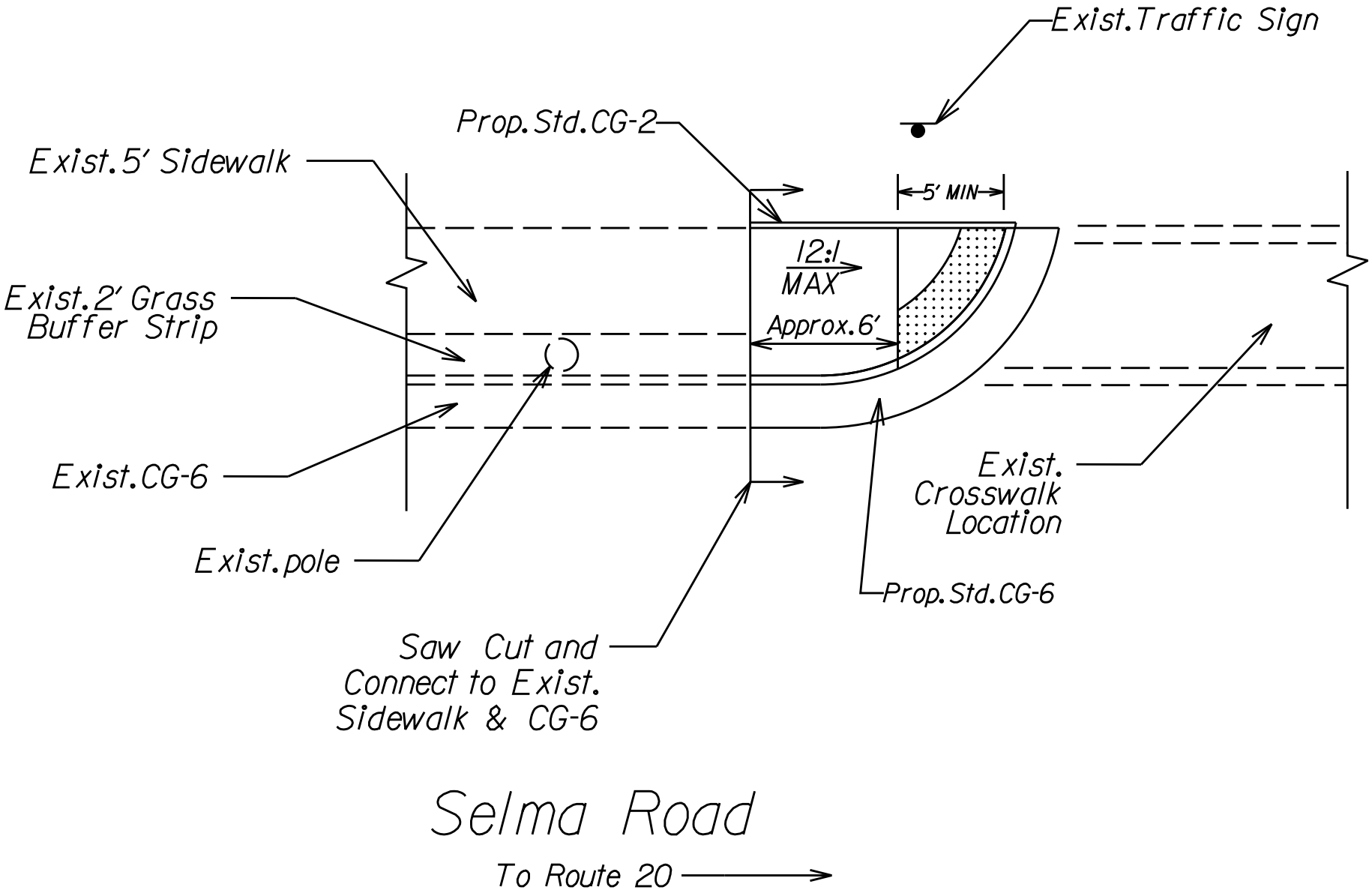
N.T.S.

ADA Curb Ramp Improvements
Selma Road #2
Prop. Std. CG-12 Type "B" Parallel



N.T.S.

ADA Curb Ramp Improvements
Selma Road #3
Prop.Std.CG-12 Type "B" Parallel



N.T.S.

ADA Curb Ramp Improvements
Selma Road #4
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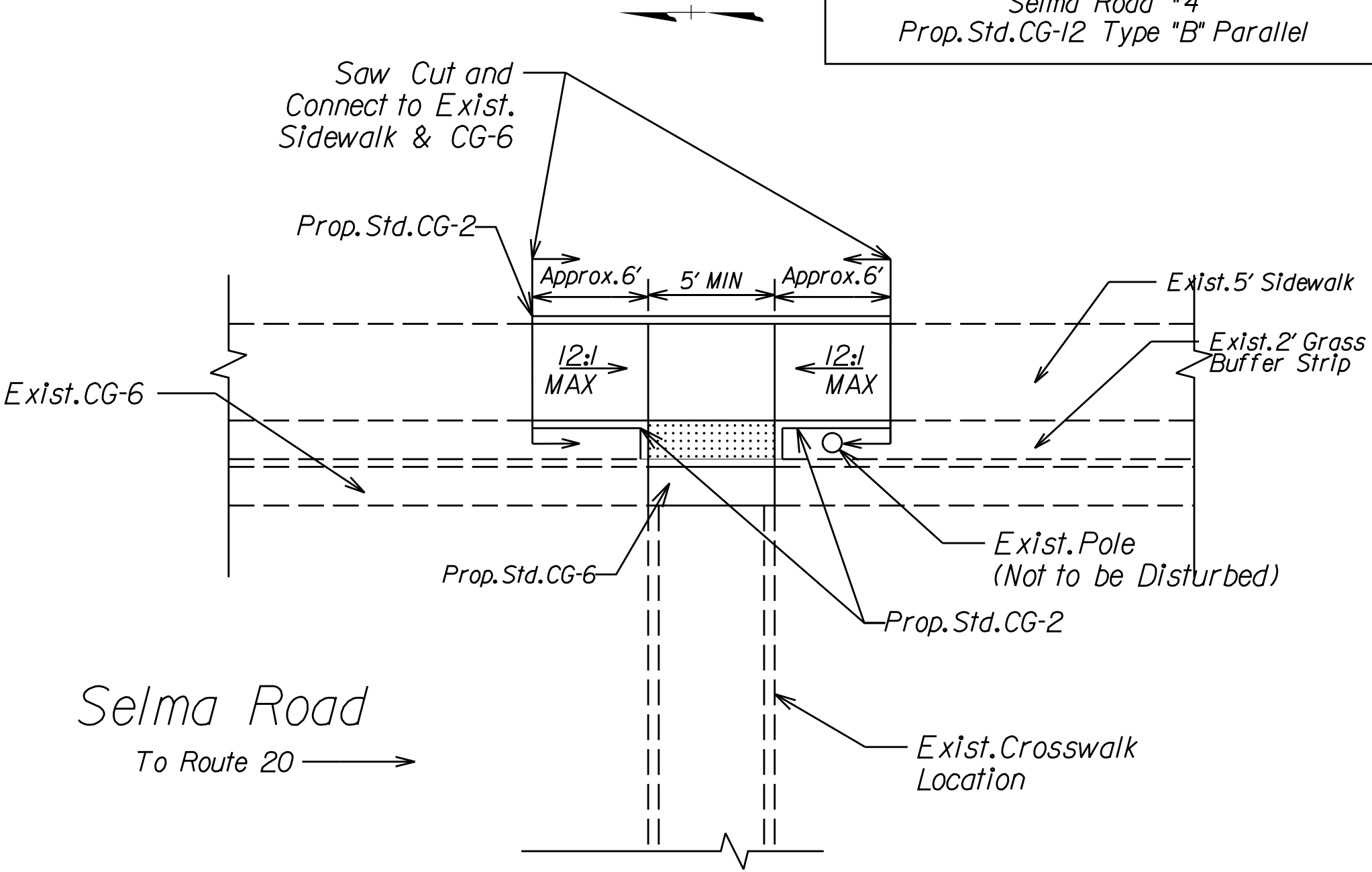

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ADA Curb Ramp Improvements
Selma Road #5
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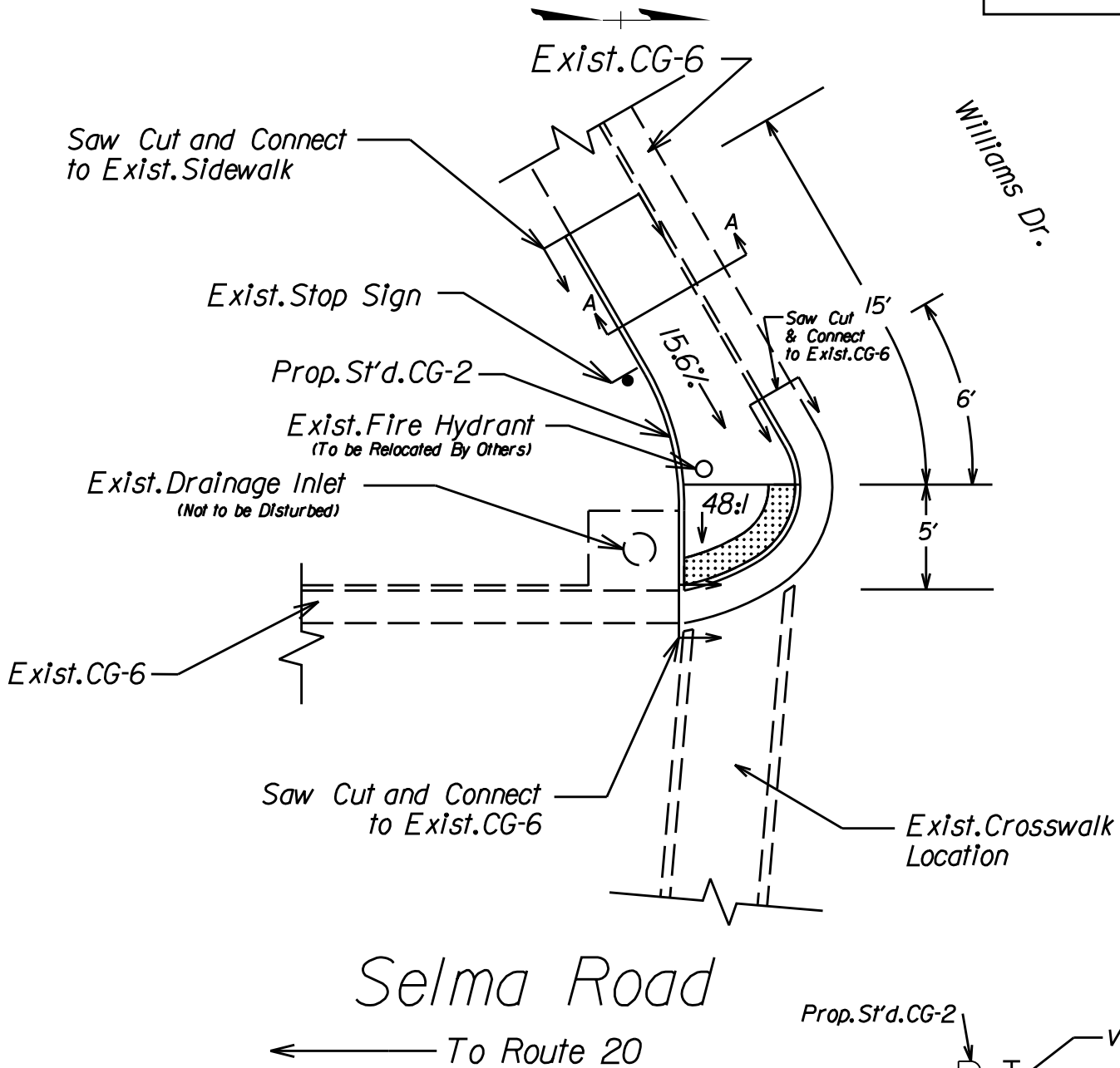

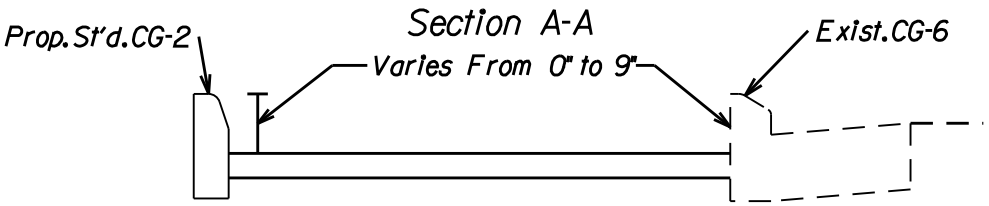

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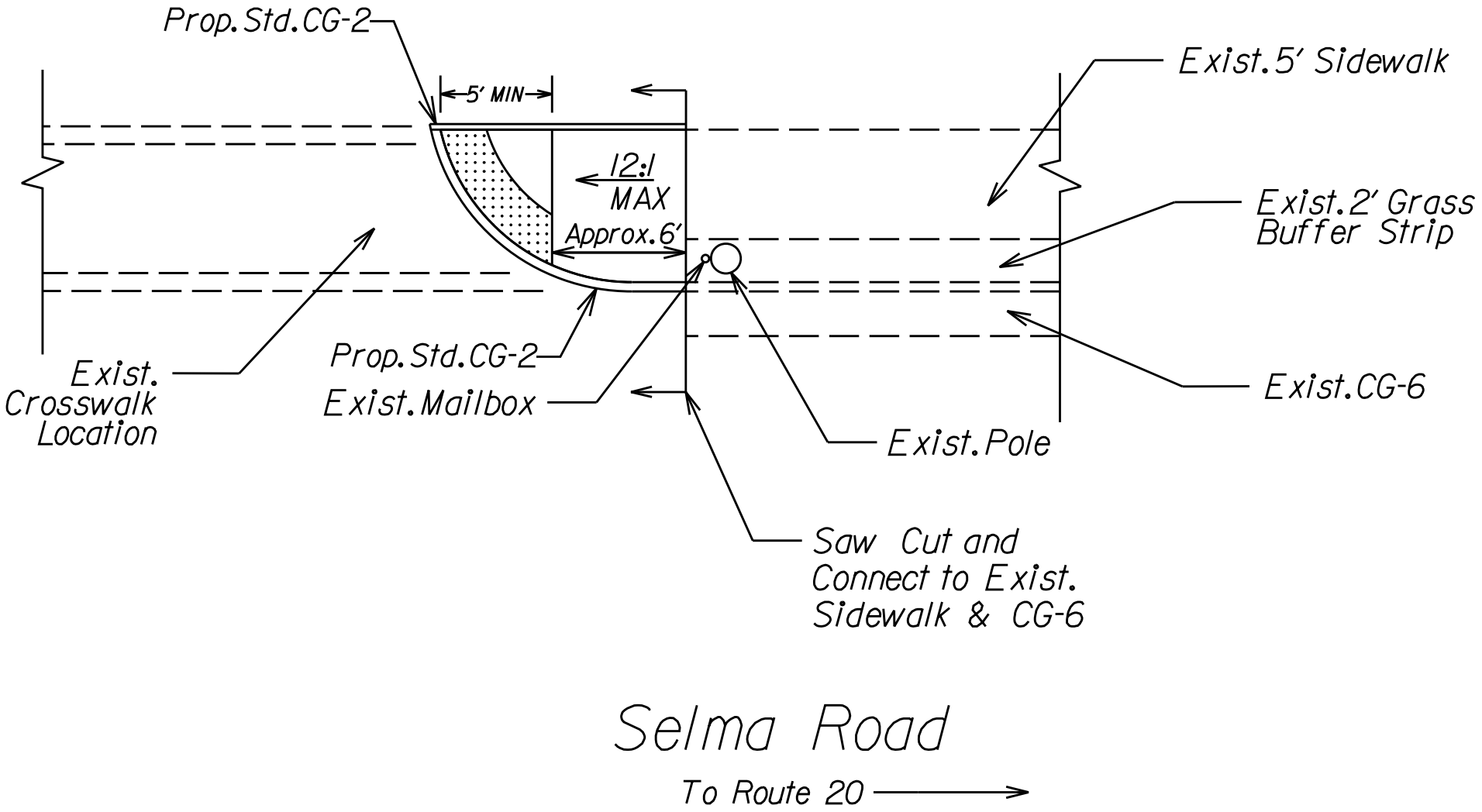
ADA Curb Ramp Improvements
Selma Road #6
Prop. Std. CG-12 Type "B" Parallel



N.T.S.

ADA Curb Ramp Improvements
Selma Road #7
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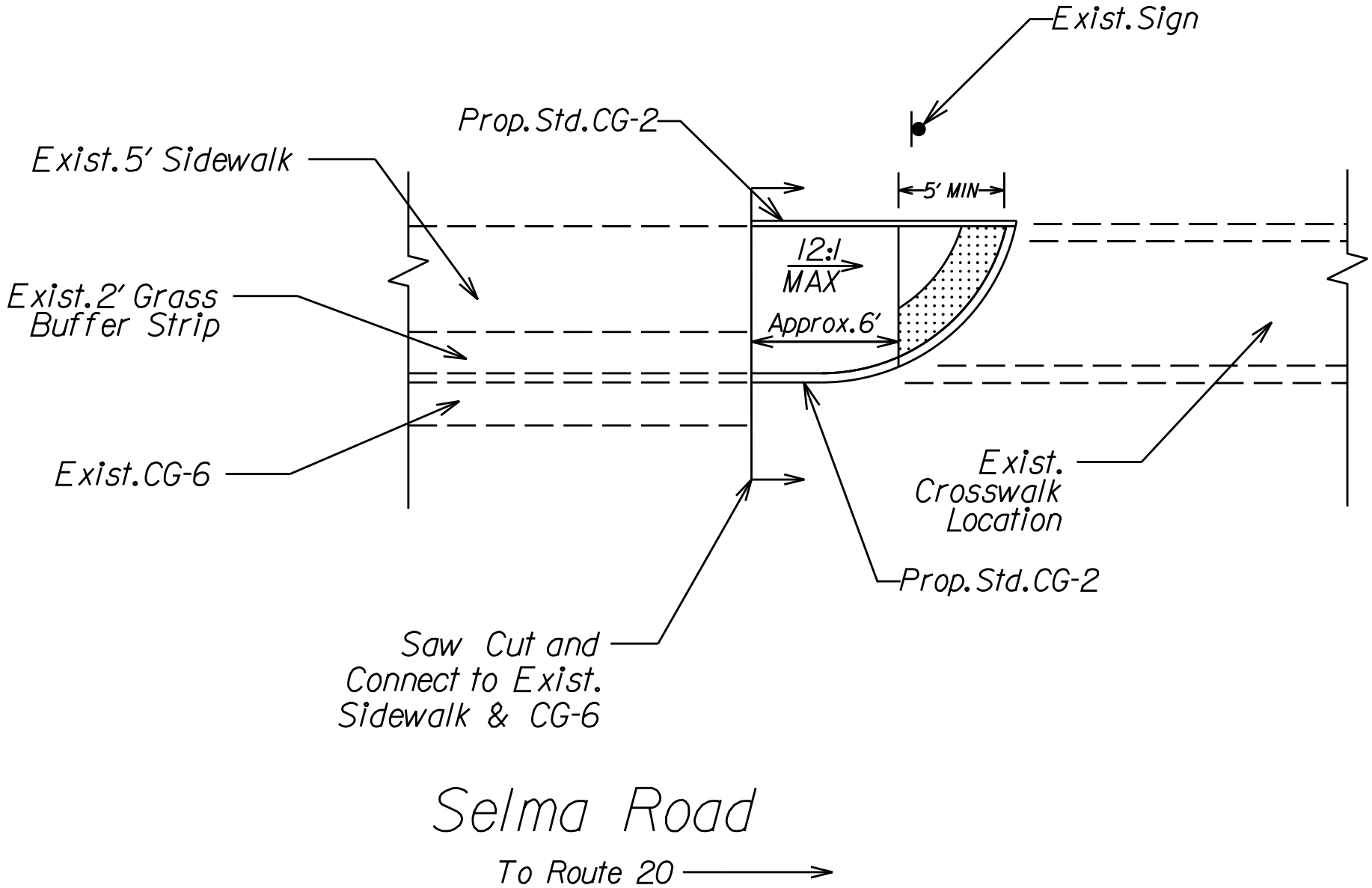

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ADA Curb Ramp Improvements
Selma Road #8
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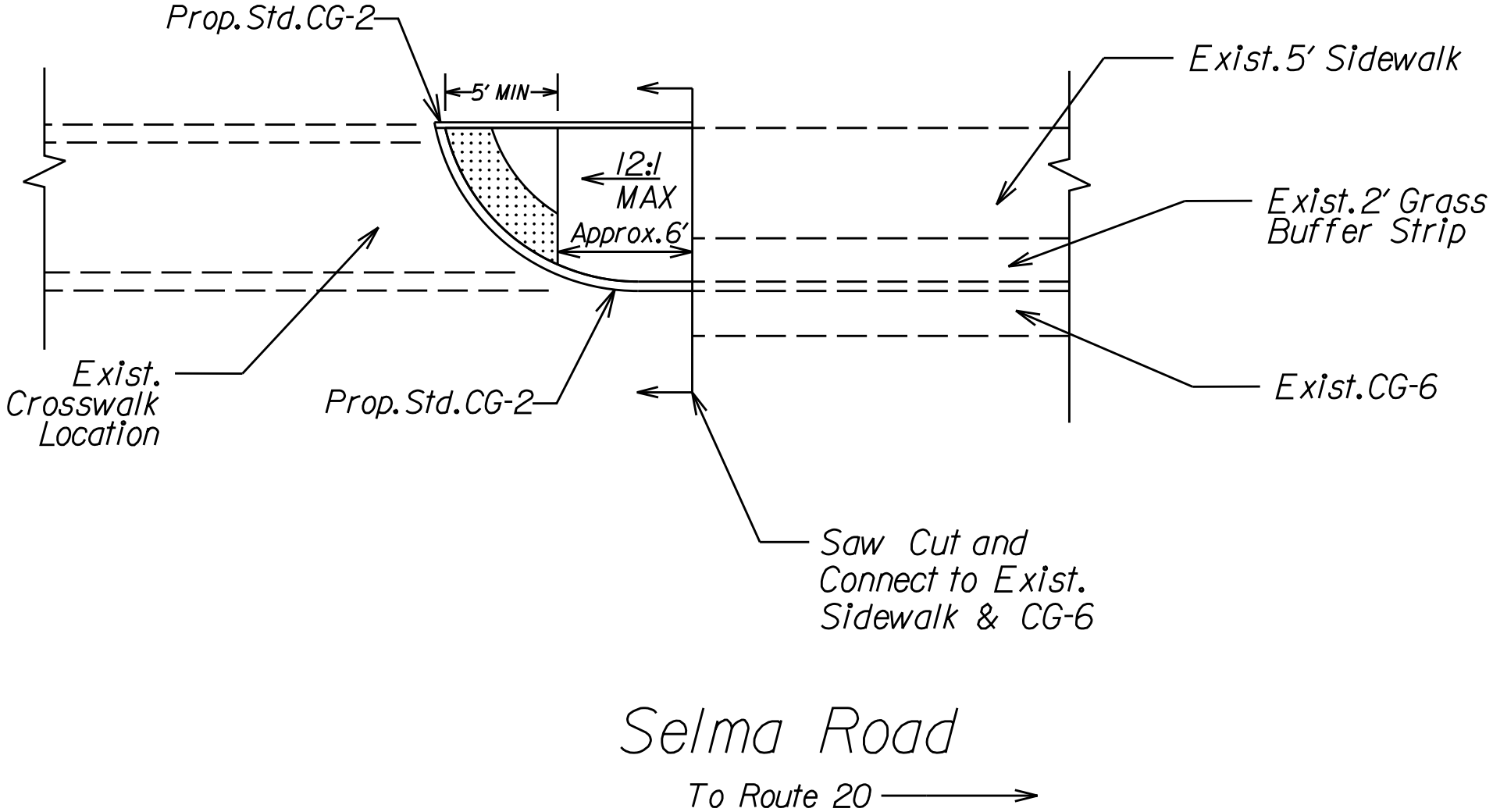

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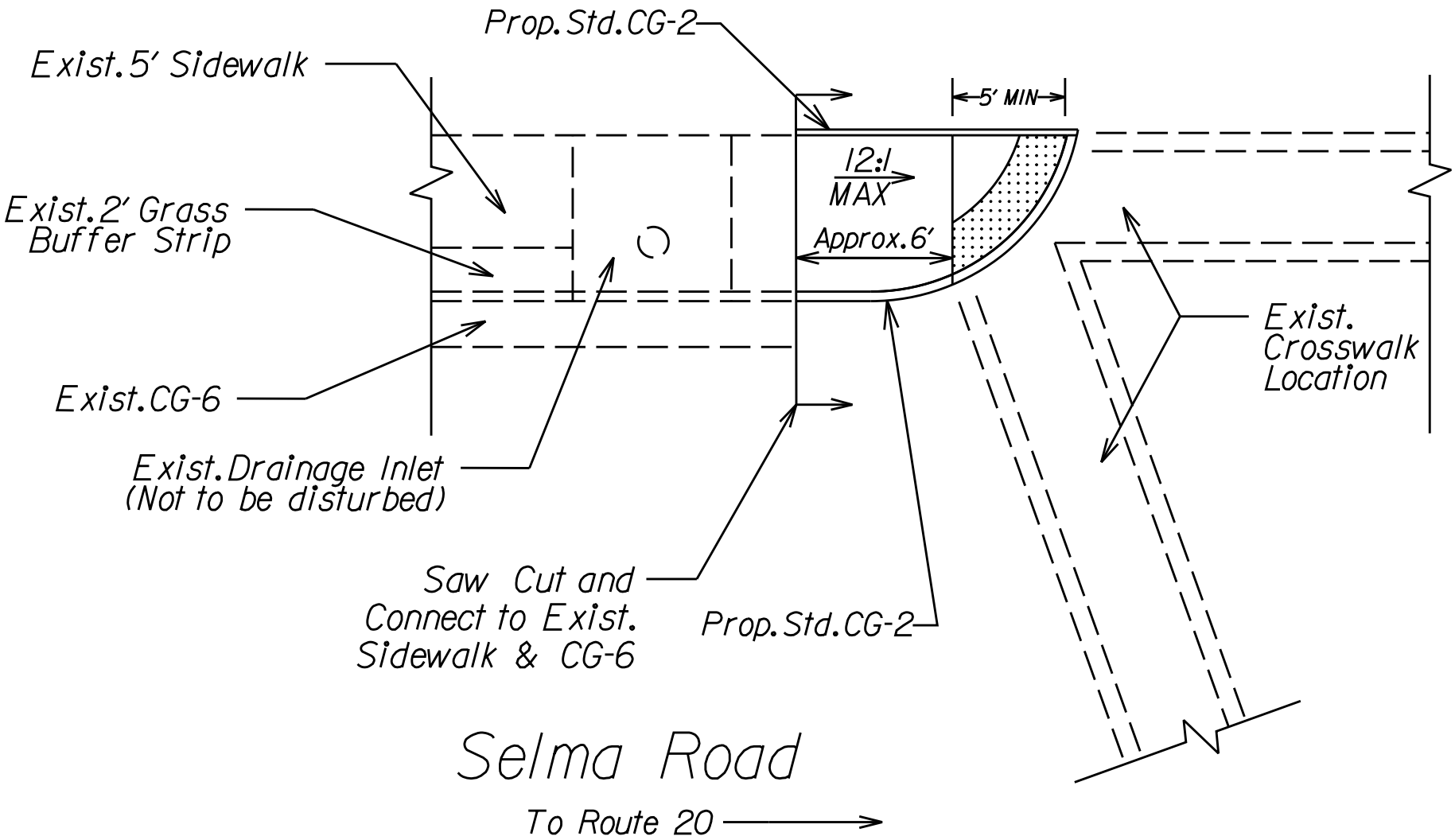
ADA Curb Ramp Improvements
Selma Road #9
Prop.Std.CG-12 Type "B" Parallel



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ADA Curb Ramp Improvements
Selma Road #11
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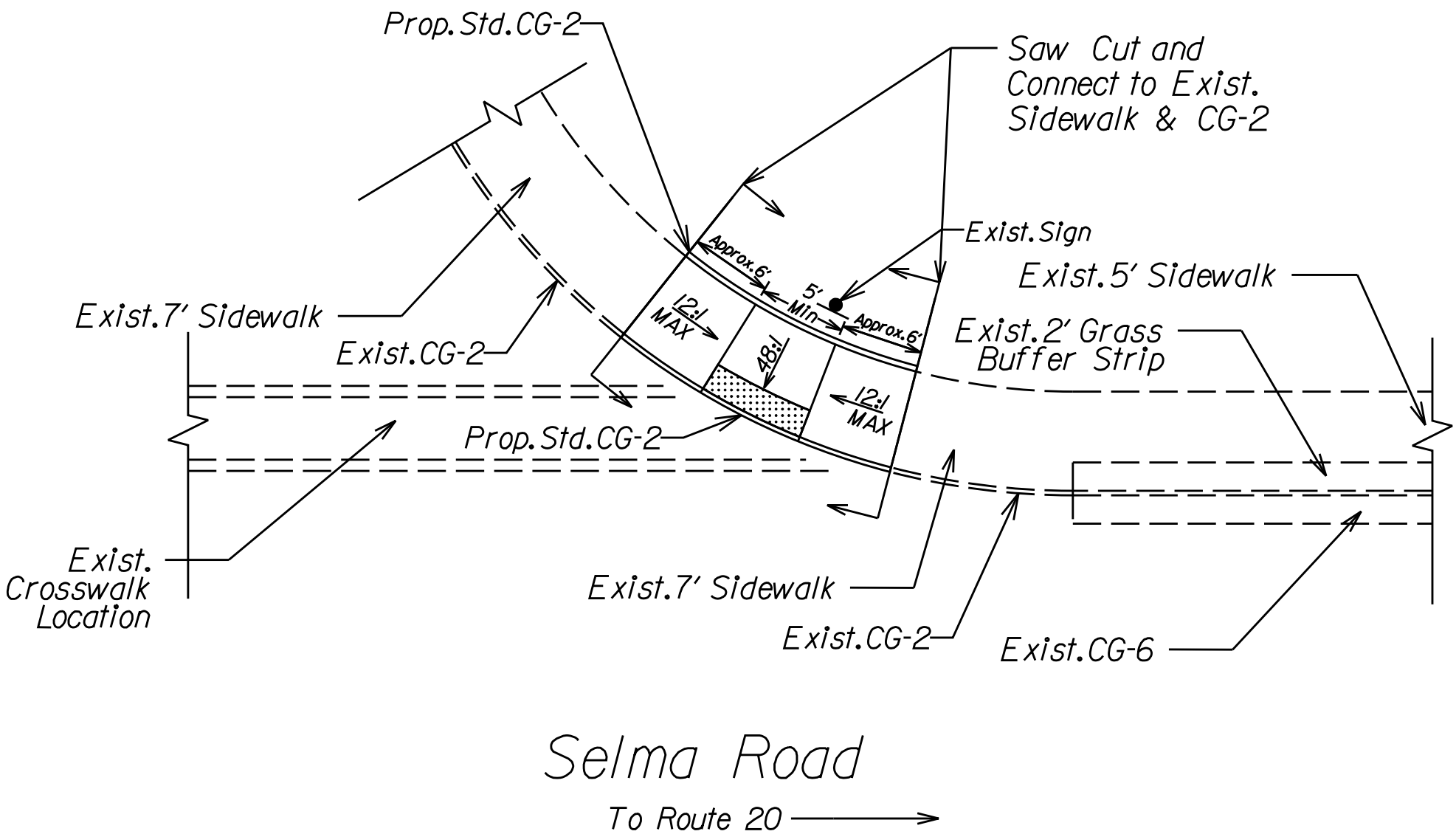

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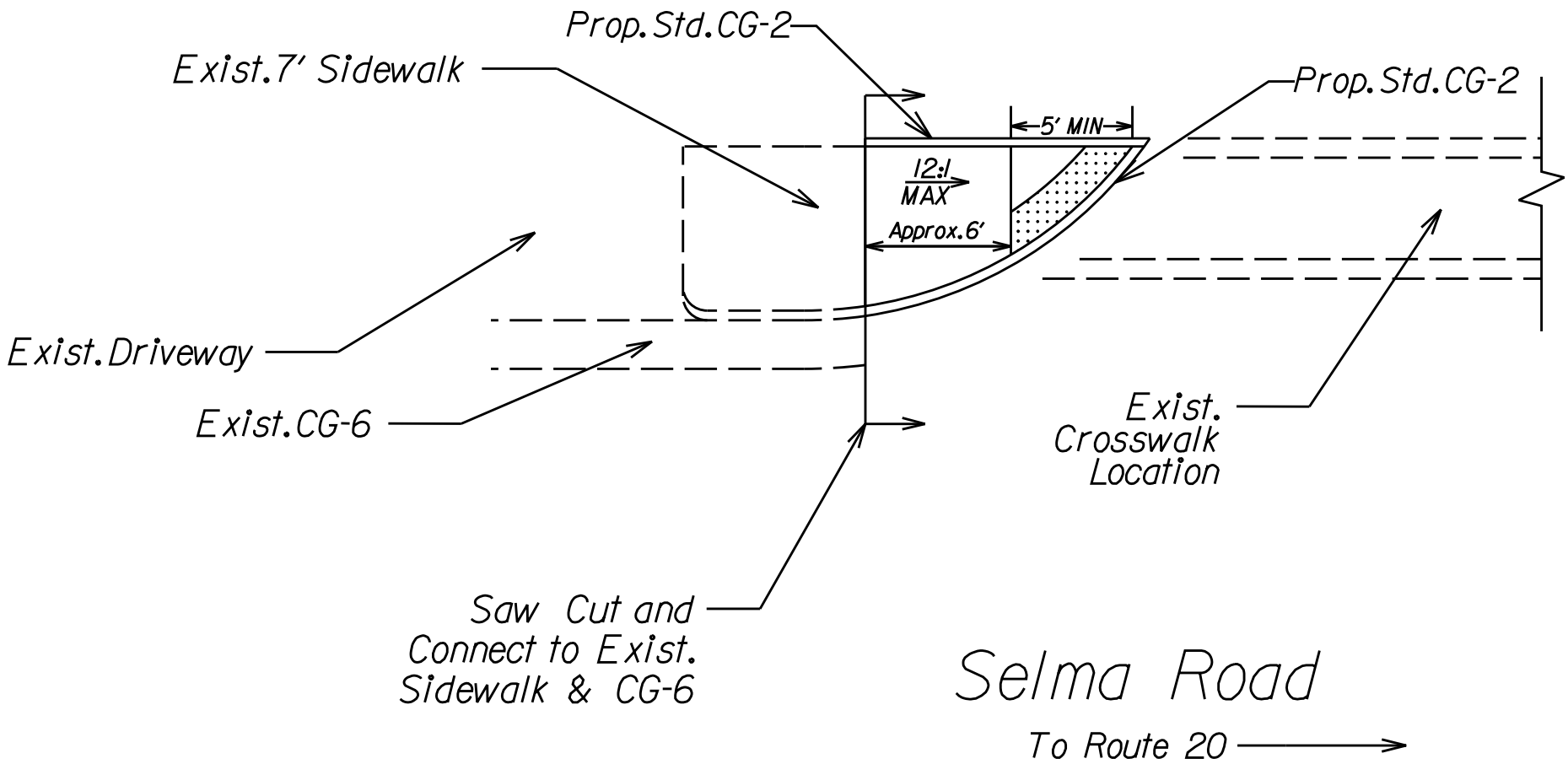
ADA Curb Ramp Improvements
Selma Road #12
Prop.Std.CG-12 Type "B" Parallel



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ADA Curb Ramp Improvements
Selma Road #13
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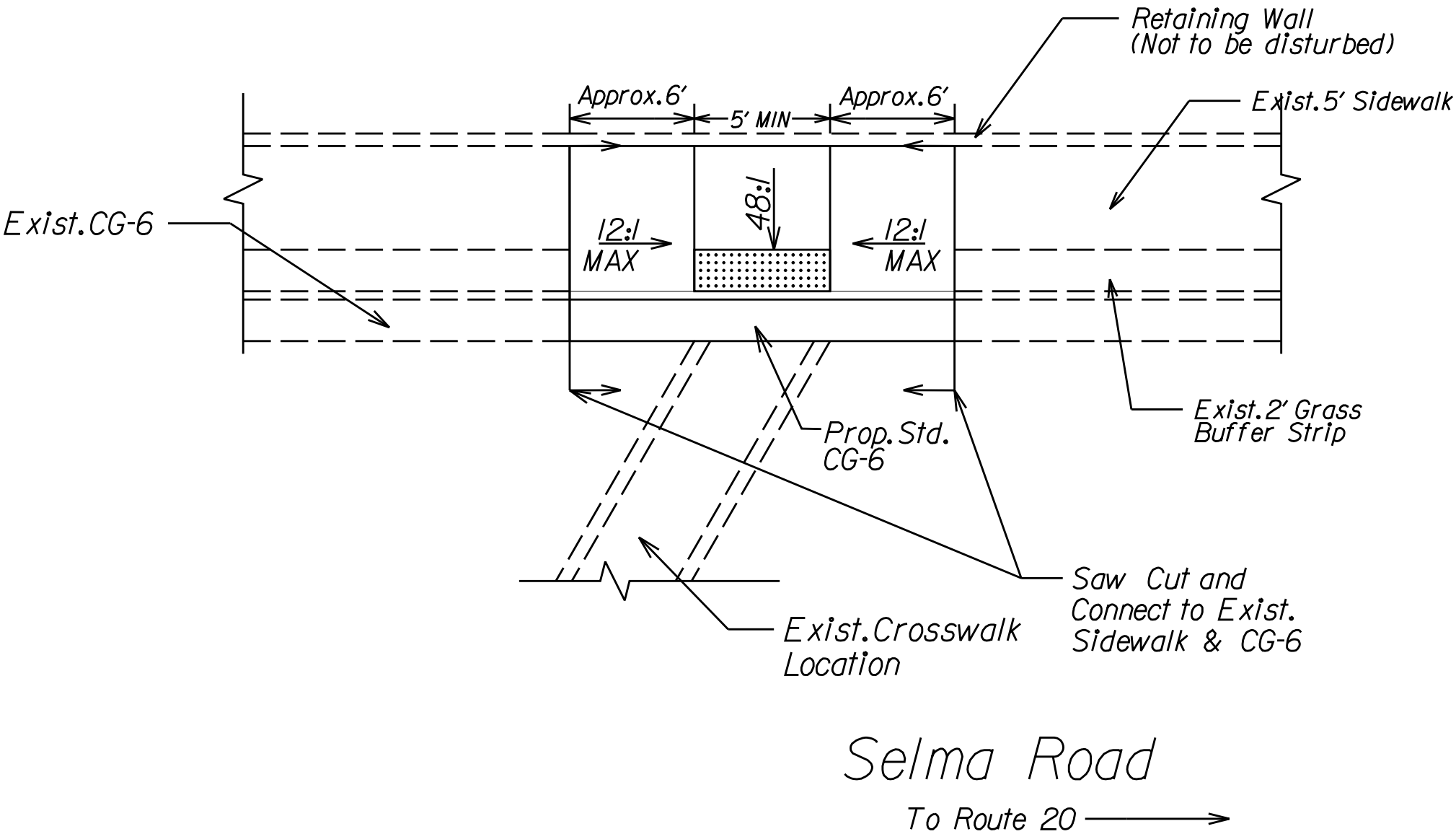

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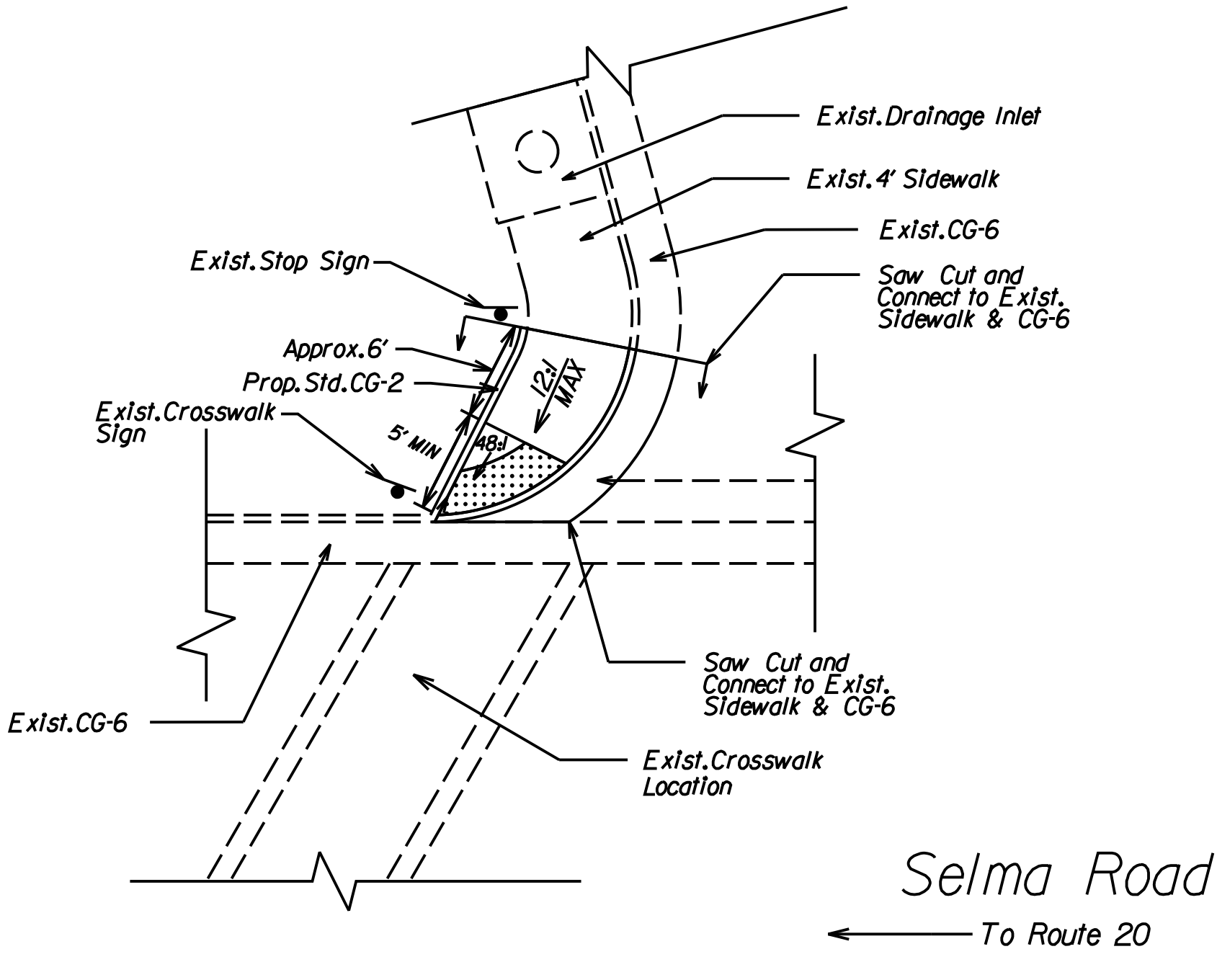
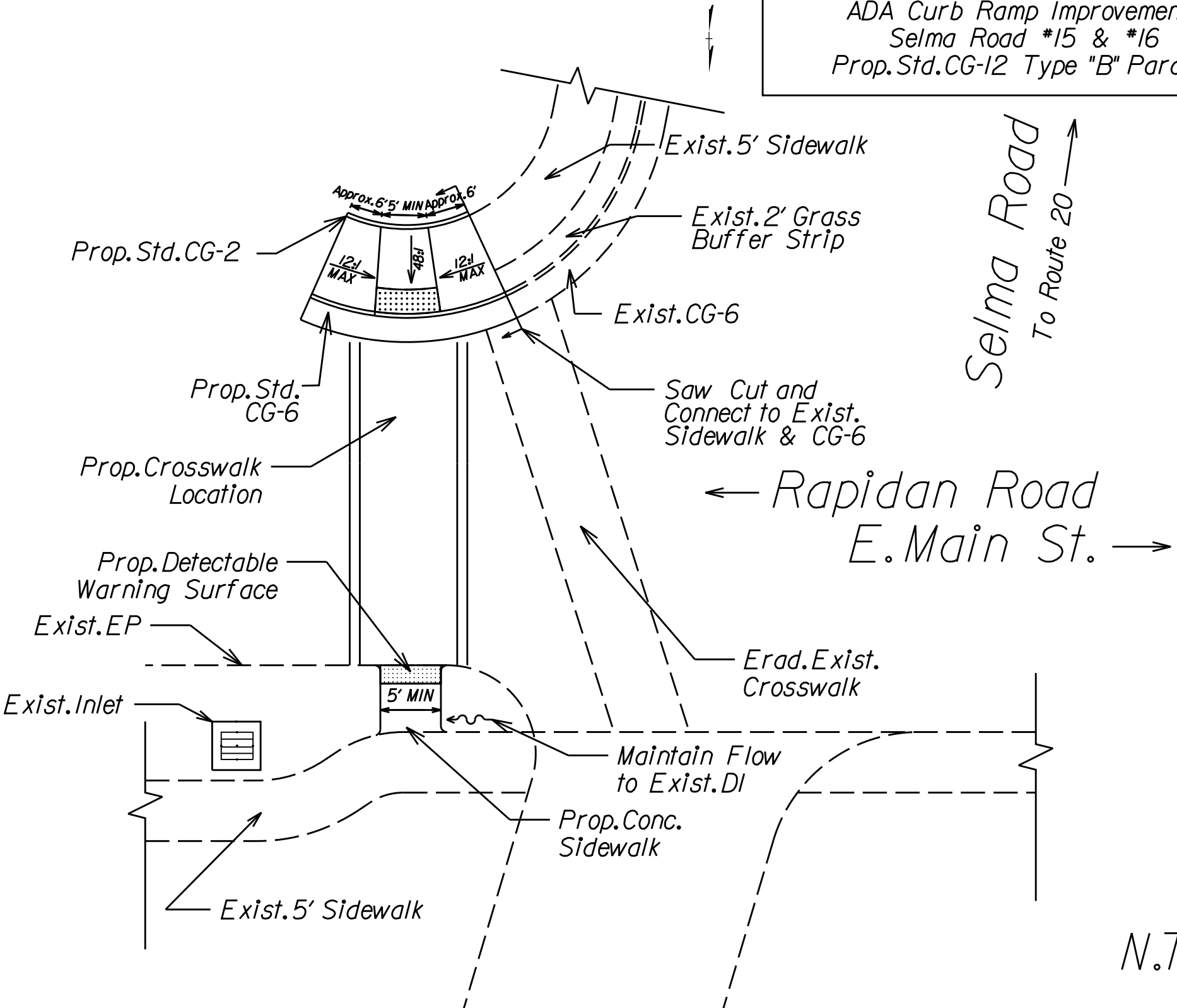
ADA Curb Ramp Improvements
Selma Road #14
Prop.Std.CG-12 Type "B" Parallel

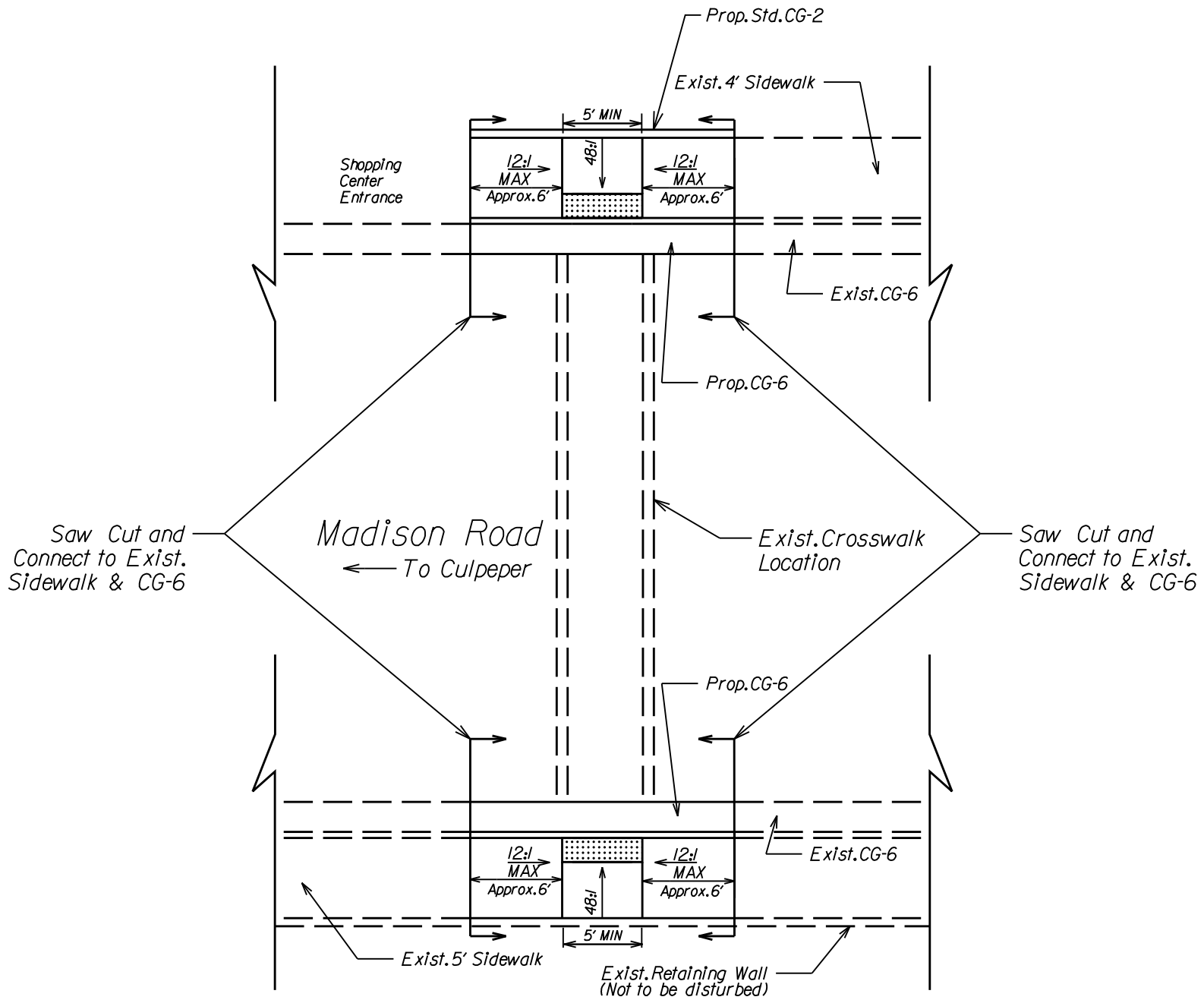


N.T.S.

ADA Curb Ramp Improvements
Selma Road #15 & #16
Prop.Std.CG-12 Type "B" Parallel

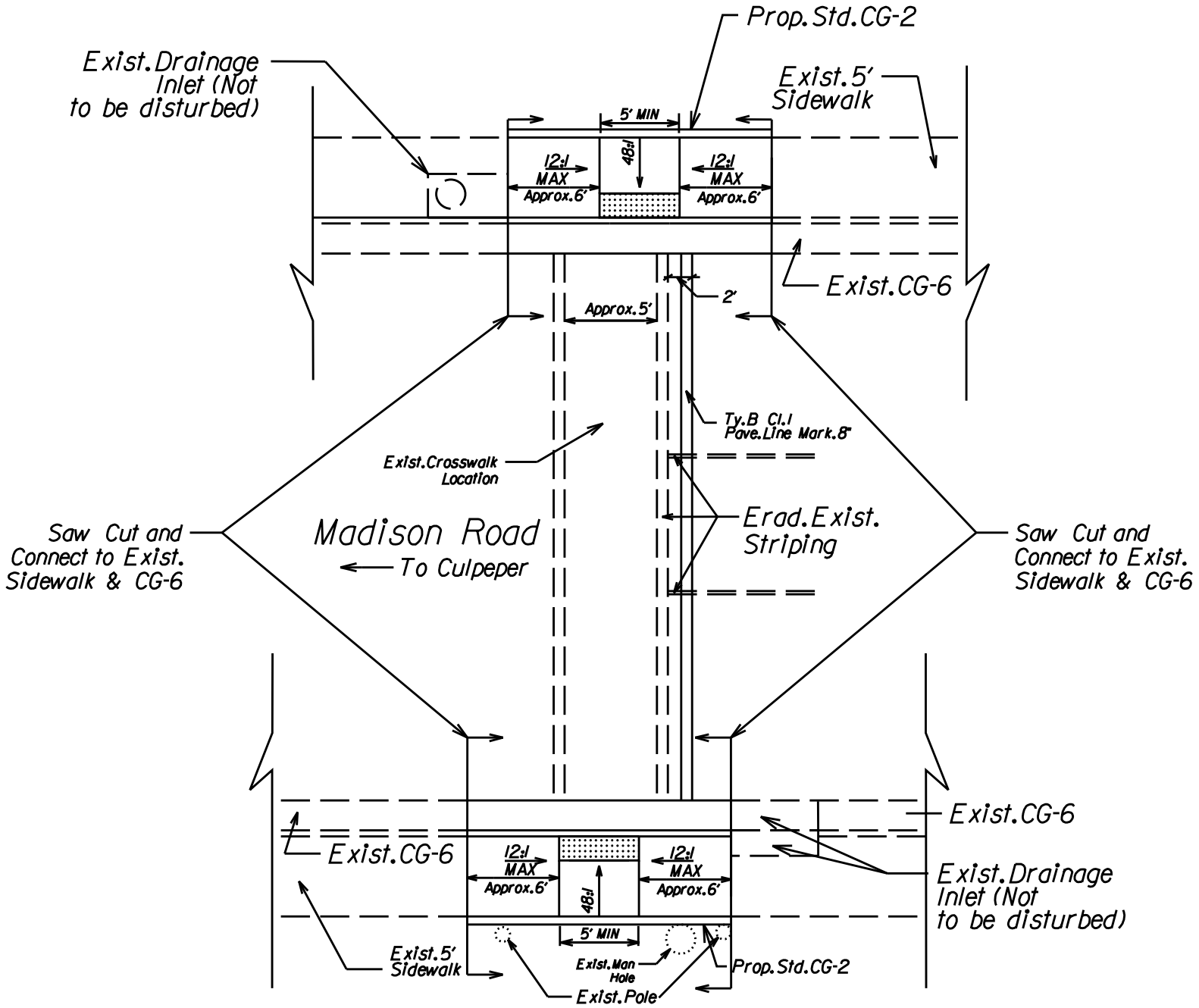


ADA Curb Ramp Improvements
Madison Road #1 & #2
Prop.Std.CG-12 Type "B" Parallel



N.T.S.

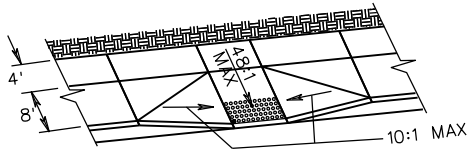
ADA Curb Ramp Improvements
Madison Road #3 & #4
Prop.Std.CG-12 Type "B" Parallel



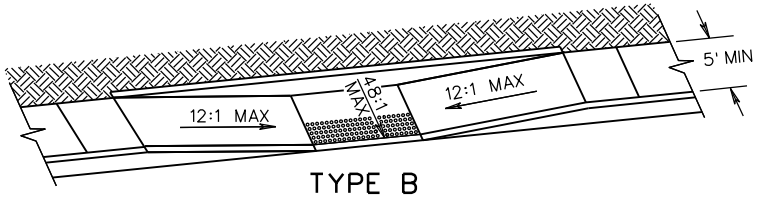
N.T.S.

GENERAL NOTES:

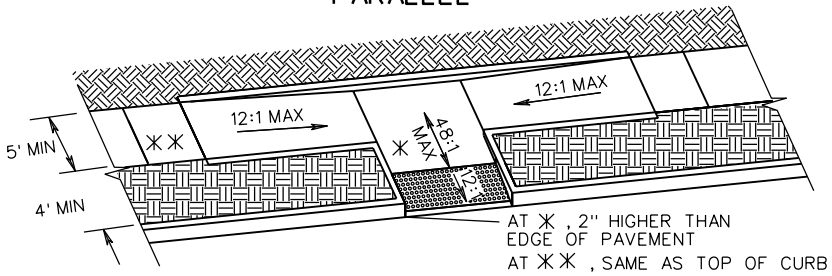
1. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.
2. DETECTABLE WARNING TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SLIP RESISTANT INTEGRAL SURFACE COVERING THE FULL WIDTH OF THE RAMP FLOOR BY 2 FOOT IN LENGTH IN THE DIRECTION OF PEDESTRIAN TRAVEL. OTHER TYPES OF MATERIAL WITH THE TRUNCATED DOMES DETECTABLE WARNING MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
3. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
5. REQUIRED BARS ARE TO BE NO. 5 X 8" PLACED 1' CENTER TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 1½".
6. CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB / CURB AND GUTTER.
7. CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED AT INTERSECTIONS WHEREVER AN ACCESSIBLE ROUTE WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY CROSSES A CURB REGARDLESS OF WHETHER SIDEWALK IS EXISTING, PROPOSED, OR NONEXISTENT. THEY MUST BE LOCATED WITHIN PEDESTRIAN CROSSWALKS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER, AND SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. ACCESSIBLE ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS.
8. RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.
9. TYPICAL CONCRETE SIDEWALK IS 4" THICK. WHEN THE ENTRANCE RADII CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, REFER TO STANDARD CG-13, COMMERCIAL ENTRANCE (HEAVY TRUCK TRAFFIC) FOR CONCRETE DEPTH.
10. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH
11. WHEN ONLY ONE CURB RAMP IS PROVIDED FOR TWO CROSSINGS (DIAGONAL), A 4' x 4' LANDING AREA SHALL BE PROVIDED TO MANEUVER A WHEELCHAIR INTO THE CROSSWALK WITHOUT GOING INTO THE TRAVELWAY. THIS 4' x 4' LANDING AREA MAY INCLUDE THE GUTTER PAN.
12. ALL CASES WHERE CURB RAMPS INTERSECT A RADIAL SECTION OF CURB AT ENTRANCES OR STREET CONNECTIONS THE DETECTABLE WARNING SURFACE SHALL HAVE A FACTORY RADIUS OR BE FIELD -MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB.



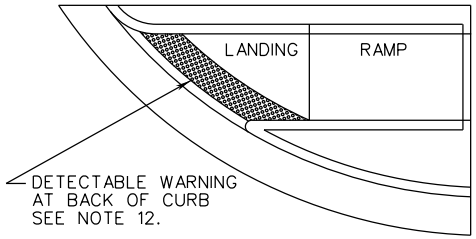
TYPE A
PERPENDICULAR



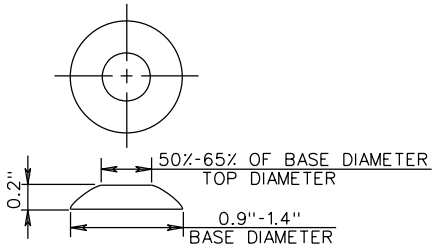
TYPE B
PARALLEL



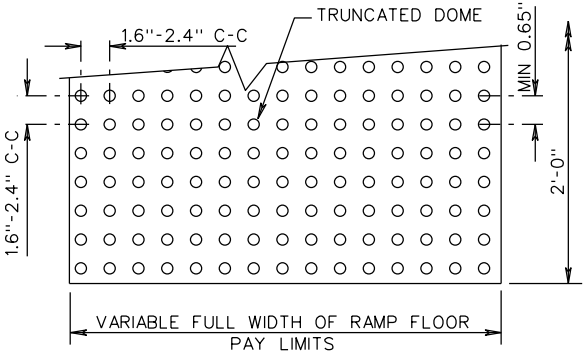
TYPE C
PARALLEL & PERPENDICULAR



DETECTABLE WARNING
INSTALLED ON A RADIUS

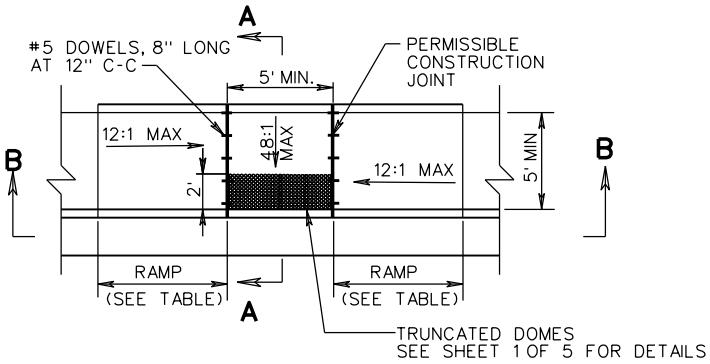


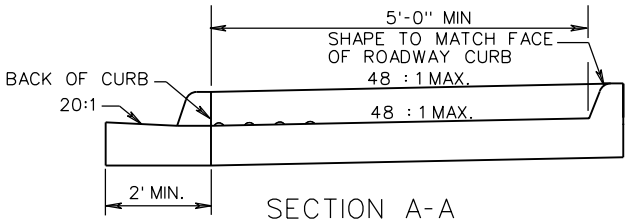
TRUNCATED DOME
DETAIL



DETECTABLE WARNING
DETAIL

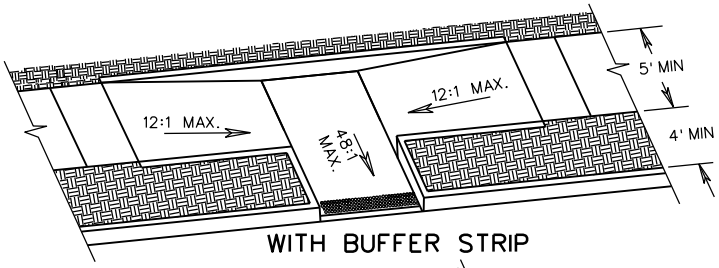
VDOT ROAD AND BRIDGE STANDARDS	CG-12 DETECTABLE WARNING SURFACE (GENERAL NOTES) VIRGINIA DEPARTMENT OF TRANSPORTATION		SPECIFICATION REFERENCE
SHEET 1 OF 5	REVISION DATE 7/11		105 502
203.05			





SECTION A-A

SECTION B-B



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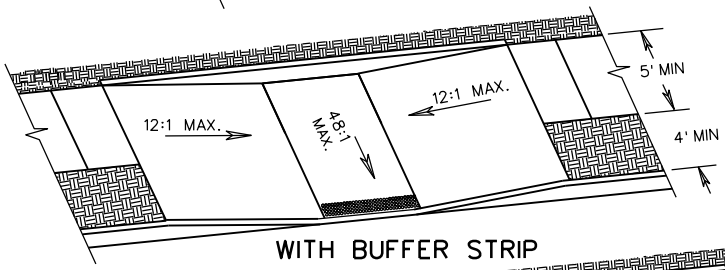

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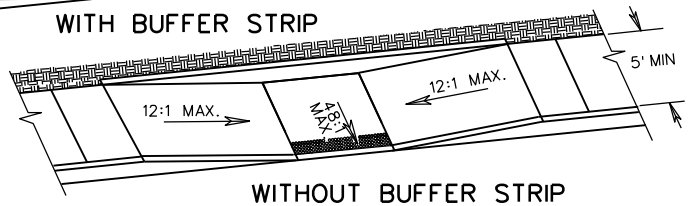

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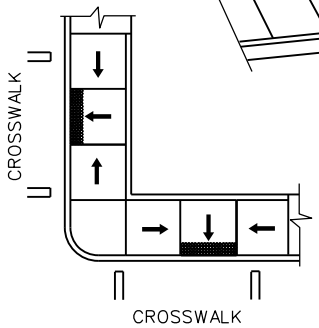
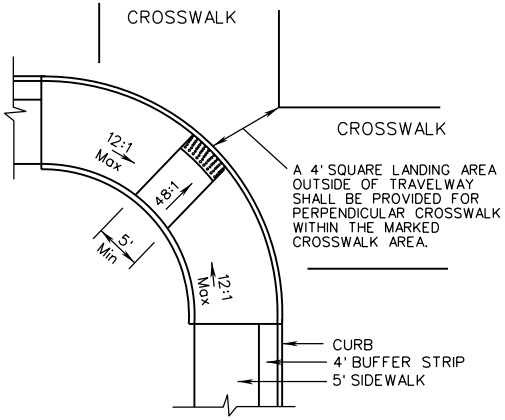


TYPICAL PLACEMENT
AT INTERSECTION
WITHIN CROSSWALK

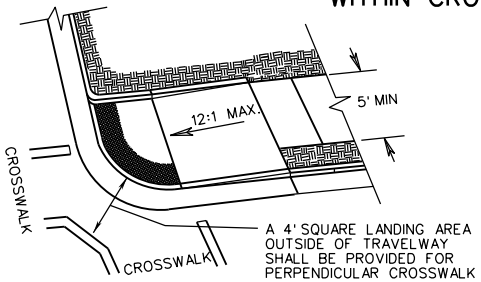


DIAGONAL PLACEMENT

NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.

TYPE B PARALLEL APPLICATION		
ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	4	6
1	5	7
2	5	8
3	6	9
4	8	12
5	10	15
6	14	15



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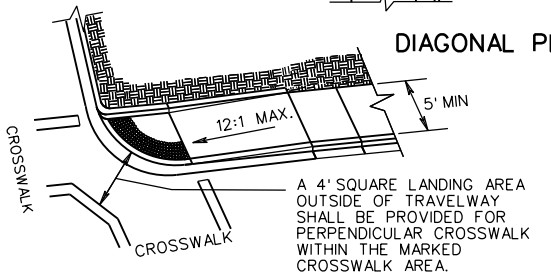

VDOT
ROAD AND BRIDGE STANDARDS

SHEET 3 OF 5
203.07

REVISION DATE
7/11

CG-12 DETECTABLE WARNING SURFACE

TYPE B (PARALLEL) APPLICATION

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE
105
502