

SOUTH DAKOTA



STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

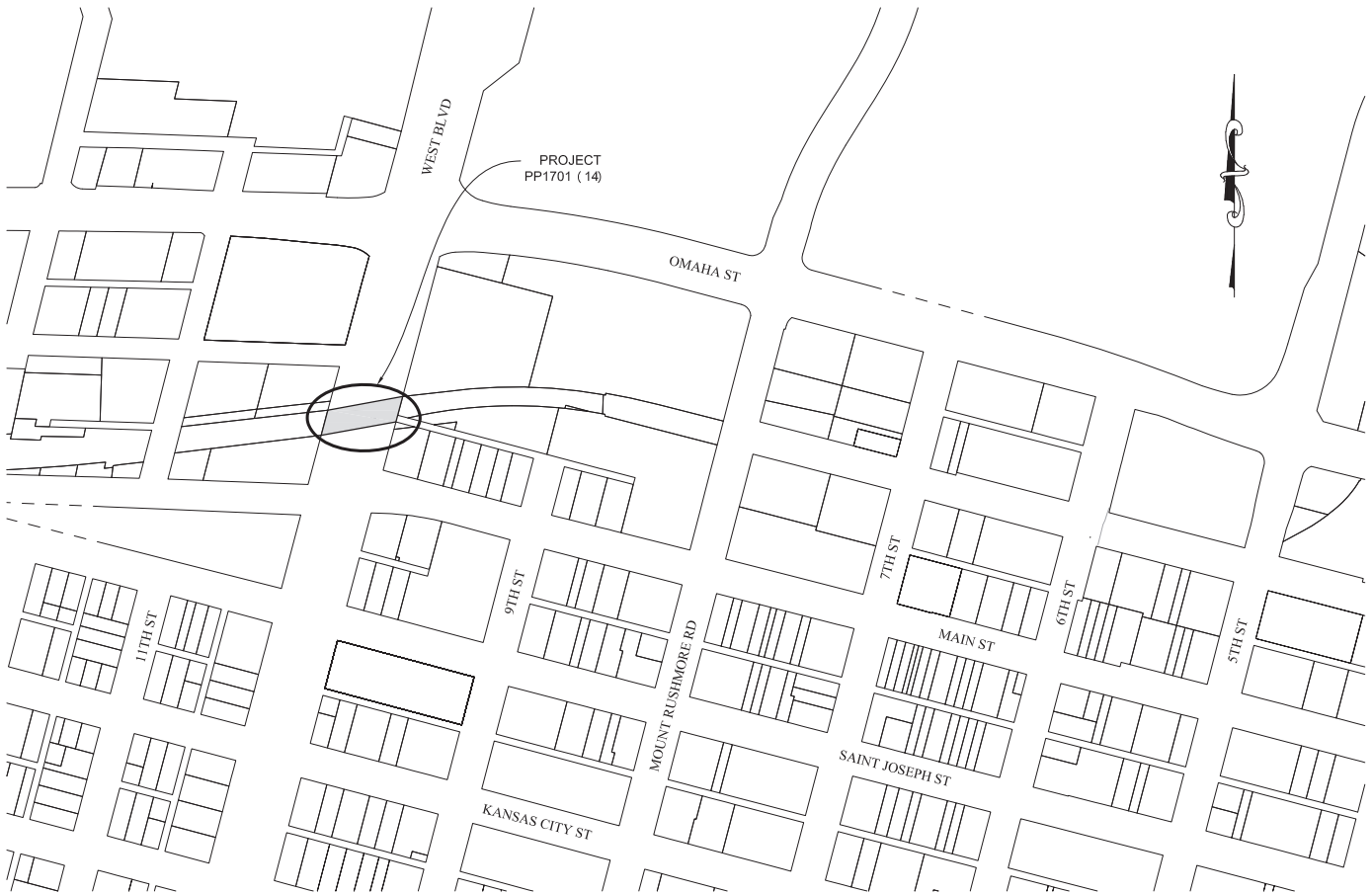
PROJECT PP 1701 (14)
WEST BOULEVARD PENNINGTON COUNTY
RAILROAD CROSSING UPGRADES

PCN 05JX

STORM WATER PERMIT
NONE REQUIRED

INDEX OF SHEETS

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RAPID CITY

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PP 1701 (14)	2	15

Estimate of Quantities

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0300	Remove Concrete Curb And/or Gutter	169.4	Ft
110E1010	Remove Asphalt Concrete	18	SqYd
110E1100	Remove Concrete Pavement	61.0	SqYd
110E1140	Remove Concrete Sidewalk	90.3	SqYd
260E1010	Base Course	25.0	Ton
320E1200	Asphalt Concrete Composite	106.4	Ton
380E3545	8" Reinforced PCC Approach Pavement	23.0	SqYd
380E4070	9" PCC Fillet Section	23.5	SqYd
380E6500	Planing PCC Pavement	492	SqYd
633E0010	Cold Applied Plastic Pavement Marking, 4'	317	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	58.0	Ft
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	317	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	58	Ft
634E0110	Traffic Control Signs	175.3	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0280	Type 3 Barricade, 8' Single Sided	14	Each
634E0410	Type B Advance Warning Arrow Board	2.0	Each
634E1002	Detour Signing	169.5	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
650E0090	Type B69 Concrete Curb And Gutter	169.4	Ft
651E0040	4" Concrete Sidewalk	664	SqFt
651E0160	6" Reinforced Concrete Sidewalk	150	SqFt
651E7000	Type 1 Detectable Warnings	20	SqFt
734E0845	Sediment Control at Inlet with Frame and Grate	3.0	Each
998E0100	Railroad Protective Insurance	Lump Sum	LS

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project If perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental

Office. The environmental commitments associated with this project are as follows:

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the Public ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project Number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PP 1701 (14)	3	15

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered

Species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

COMMITMENT K: RAPID CITY AREA AIR QUALITY CONTROL ZONE

Administrative Rule of South Dakota (ARSD) 74:36:18:03 states that "no state facility or state contractor may engage in any construction activity or continuous operation activity within the Rapid City air quality control zone which may cause fugitive emissions of particulate to be released into the ambient air without first obtaining a permit issued by the board or the secretary." More information is provided at www.rcgov.org

Construction activity is defined as any temporary activity at a state facility, which involves the removal or alteration of the natural or pre-existing cover of one acre or more of land. One acre of surface area is based on a cumulative area of disturbance to be completed for the entire project. Construction activity shall include, but not be limited to, stripping of topsoil, drilling, blasting, excavation, dredging, ditching, grading, street maintenance and repair, or earth moving. Construction activity is generally completed within one year. It also includes stockpiles, access roads, and disposal areas. An off-site disposal area of excess material will require an additional permit.

Action Taken/Required:

In order to be considered eligible for authorization to conduct a construction activity under the terms and conditions of this permit, the owner operator must submit a Notice of Intent (NOI) form. The form must be submitted to the address below at least seven business days prior to the anticipated date of beginning the construction activity.

South Dakota Department of Environment and Natural Resources Air Quality Program
523 East Capitol, Joe Foss Building
Pierre, SD 57501-3181
Phone: 605-773-3151

The permit requires the Contractor to use reasonably available technology to control fugitive dust emissions. The Contractor is required to use control measures for track out, paved areas, unpaved roads, unpaved parking lots, disturbed areas, and for material handling and

storage. The control measures that the Contractor is required to use are listed in the permit.

SCOPE

The scope of this project is to make surface, sidewalk and other related improvements (signal improvements and track adjustments by Rapid City, Pierre and Eastern Railroad) to one (1) of the railroad crossings in downtown Rapid City. The location and details are included within these Detailed Specifications and plan sheets.

COORDINATION AND PROJECT SCHEDULING

This project will require precise coordination with the Rapid City, Pierre and Eastern Railroad (RCP&E). The primary contacts for RCP&E are Gary Bate (605) 515-3864 or Bill Held (605) 515-3864 (office) or (605) 321-8463 (cell). Mr. Held will also be the contact for coordinating a railroad right of way flagger. All work taking place in RCP&E right of way must be under the supervision of an RCP&E flagger. A pre-construction conference will be held prior to the start of construction. Participation of the Contractor and Sub-Contractor's key project personnel is required

NOTE; The Contractor will be required to saw cut and remove existing concrete or asphalt pavement prior to RCP&E commencing track work. Phasing and coordination with RCP&E will be necessary for both their maintenance crews and the Contractor to work together. RCP&E will supply the railroad crossing flagger for the duration of the project in order for the Contractor to accomplish their portion of work.

At the pre-construction conference the Contractor shall submit a construction schedule. *The Contractors schedule will be heavily influenced by RCP&E. schedule and availability of their equipment. The Contractor will not be held responsible for any time extension required by RCP&E.* The schedule shall indicate starting dates, duration, and completion dates for all activities.

See Sheet 7 for I-190 and Mount Rushmore Road Contractor Contacts.

TRAFFIC CONTROL

Requests to deviate from the sequence of operations shall be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence shall be submitted for review a minimum of one week prior to potential implementation.

Unless otherwise stated in these plans, no work will be allowed during hours of darkness.

Existing guide, route, informational logo, regulatory, warning signs and delineation shall be temporarily reset and maintained during construction

As directed by the Engineer. Removing, relocating, salvaging and resetting of the above items shall be the responsibility of the Contractor.

Non-applicable traffic control devices shall be completely covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 2 calendar days.

All regulatory signs shall have a minimum mounting height of 5' in rural locations, even when mounted on portable supports.

All materials and equipment shall be stored a minimum distance of 30' from the traveled way during nonworking hours.

The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

All haul trucks shall be equipped with a second flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights shall be incidental to the various related contract bid items.

All construction operations shall be conducted in the general direction of traffic movement.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD – whichever is more stringent shall be used, as determined by the Engineer.

Temporary Flexible Vertical Markers (Tabs) shall be used for lane closure tapers or lane shift tapers and shall be installed at 5' spacing. Tabs used for tapers and shifts will not be measured for payment. All costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove all markers will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

ITEMIZED LIST FOR DETOUR SIGNING

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT	SQFT
				PER SIGN	
M4-9	DETOUR with ARROW L	5	30" x 24"	5.0	25.0
M4-9	DETOUR with ARROW R	4	30" x 24"	5.0	20.0
M4-9	DETOUR with ARROW	4	30" x 24"	5.0	20.0
M4-9BL	PEDESTRIAN DETOUR with ARROW, L	4	30" x 24"	5.0	20.0
M4-9BR	PEDESTRIAN DETOUR with ARROW, R	4	30" x 24"	5.0	20.0
	SPECIAL MADE SIGNS – WEST BLVD	10	54" x12"	4.5	45
	WEST BLVD N.B.	3	78" x 12"	6.5	19.5
		CONVENTIONAL ROAD DETOUR SIGNING SQFT			169.5

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R9-9	SIDEWALK CLOSED	4	24" x 12"	2.0	8.0
R11-2	ROAD CLOSED	4	48" x 30"	10.0	40.0
R11-4	ROAD CLOSED TO THRU TRAFFIC	2	60" x 30"	12.5	25.0
W12-1	DOUBLE ARROW	1	30" x 30"	6.3	6.3
W20-2	DETOUR AHEAD	3	48" x 48"	16.0	48.0
W20-3	ROAD CLOSED AHEAD	3	48" x 48"	16.0	48.0
		CONVENTIONAL ROAD DETOUR SIGNING SQFT			
		175.3			

3 BARRICADES

ITEM DESCRIPTION	QUANTITY
Type 3 Barricade, 8' Single Sided (R11-2)	12
Type 3 Barricade, 8' Single Sided (R11-4)	2

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD – whichever is more stringent shall be used, as determined by the Engineer.

PRESS RELEASES: The Engineer will publish all Press Releases. The Contractor will notify the Engineer a minimum of four (4) days in advance of any planned roadway restrictions and alley/street closures.

EROSION AND SEDIMENT CONTROL

As construction may deviate from the design plan, additional devices may be used as needed to provide erosion and sediment control of the construction site.

OUTLET/INLET PROTECTION: All storm sewer inlets shall be protected to prevent sediment-laden runoff from entering the storm sewer system. Inlet protection devices shall be maintained by the Contractor in accordance with the manufacturer’s recommendations.

The Contractor shall confirm that the device is installed properly. Payment for this work shall be at the contract unit price per each for Sediment Control at Inlet with Frame and Grate.

PAVEMENT, SIDEWALK AND CURB REMOVAL

This project consists of the removal and disposal of concrete or asphalt paving, curb & gutter and sidewalk, then the installation of asphalt pavement and/or other items as shown in these Plans and Detailed Specifications.

The contractor shall take extra precautions to avoid damaging any existing electrical conduits that may exist under these crossings. Prior to excavation the contractor shall field verify exact location of all utilities whether or not shown on these drawings. The contractor shall protect all utilities during construction.

SIDEWALK AND CURB CONSTRUCTION

Curb & Gutter construction shall match in kind the existing Curb & Gutter... ‘P’ gutter will be paid as for at the contract unit price per foot for Type B69 Concrete Curb & Gutter. Sidewalk and median pavement installed as part of this project will be four (4) inches thick will be paid for as 4” sidewalk. The exception of the sidewalk adjacent to the track pads at the West Boulevard site, where six (6) inch reinforced sidewalk will be required. Median pavement will be paid for at the contract unit price per square foot for 4” concrete sidewalk

SPECIAL NOTE; RCP&E Railroad will determine the final track elevation.

PLACEMENT OF BASE COURSE AND ASPHALT PAVEMENT TIE-INS

Base course shall be placed, moisture conditioned and compacted under the concrete fillets, curb and areas where asphalt pavement is placed. The asphalt pavement tie-ins shall be placed and compacted in three (3) inch maximum lifts of Asphalt Concrete Composite. A leveling course will be required prior to the two (2) inch overlay at the West Boulevard site.

Per Section 320; the final asphalt lift surface shall be checked with a 10 foot straightedge. The variation of the surface from the straightedge between any two contact points shall not exceed 0.02 foot (1/4”).

The exact location and scope of all work for this project will be as indicated by marking in the field or detailed drawings.

UTILITIES: SOUTH DAKOTA ONE-CALL - 1-800-781-7474

All utilities within the limits of the proposed construction are to be adjusted by the owner unless otherwise indicated on these plans. The Contractor will be required to coordinate work with private utility companies and the City of Rapid City.

Prior to excavation, the contactor shall field verify exact location of all utilities whether or not shown on these drawings. The Contractor shall protect all utilities during construction. The contractor shall support or tunnel under existing utilities in a manner that the existing utilities are not damaged or disturbed. Unless otherwise noted, any disturbance or replacement of existing utilities shall be incidental to the project.

A. Montana Dakota Utilities Co., P.O. Box 1060, Rapid City, South Dakota 57709-1060
Contact: Wade Jutila, telephone # 605/355-4021 & 390-5084

B. Black Hills Power & Light Co., P.O. Box 1400, Rapid City, South Dakota 57709-1400
Contact: Glynda Rahn telephone # 605/721-2270 or “Line Service” @ 721-2238

C. Midcontinent Communications, 1624 Concourse Ct., Rapid City, South Dakota 57701
Contact: Terry Hofer, telephone # 605/791-7123

D. Century Link, 1627 Creek Drive, Rapid City, South Dakota 57709-0100
Contact: Keith Nelson, telephone # 605/394-4720

E. City of Rapid City, 300 Sixth Street, Rapid City, South Dakota 57701
Contact: Chip Petrik or Lany Reber, telephone # 605/394-4163

F. Vast Broadband, PO Box 2115, Rapid City, South Dakota 57709
Contact: Julie Burckhard, telephone # 605/721-2722

INCIDENTAL WORK

Included in the bid item 'Incidental Work, Lump Sum', but not necessarily limited to are; any permit fees, saw cuts needed to accomplish the work, cushion material for sidewalks, disposal of excess excavation, rock, concrete and asphalt removals; expansion joints, concrete drilling, reinforcing steel, tack coat required prior to placing asphalt or any other items referred to as 'Incidental Work' in the Standard Specifications and/or these Detailed Specifications.

Type 1 Detectable Warnings

Product	Manufacturer
Detectable Warning Tile Composite Replaceable Wet-Set	ADA Solutions, Inc. North Billerica, MA 01862 800-372-0519 http://www.adatile.com
Access Tile Composite Replaceable Cast in Place	Access Products Inc. 241 Main Street, Suite 100 Buffalo, NY 14203 888-679-4022 http://www.accesstile.com/
Armorcast Detectable Warning Tile Composite Replaceable Wet-Set	Armorcast Products Company 13230 Saticoy Street North Hollywood, CA 91605 818-982-3600 http://www.armorcastprod.com/

CONTROL DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP 100	12 Inch Spike	651088.64	1206343.36	3242.043
CP 101	12 Inch Spike	650330.75	1206192.20	3246.812
CP 110	12 Inch Spike	650629.21	1208360.86	3227.950
CP 111	12 Inch Spike	650509.21	1208817.45	3223.527
4505	Nail and Tassel	651041.16	1206424.62	3242.612

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone (NAD 83/11); epoch 2010
Geoid 12B; SF = 0.999787729
The elevations shown on this sheet are based on NAVD 88.

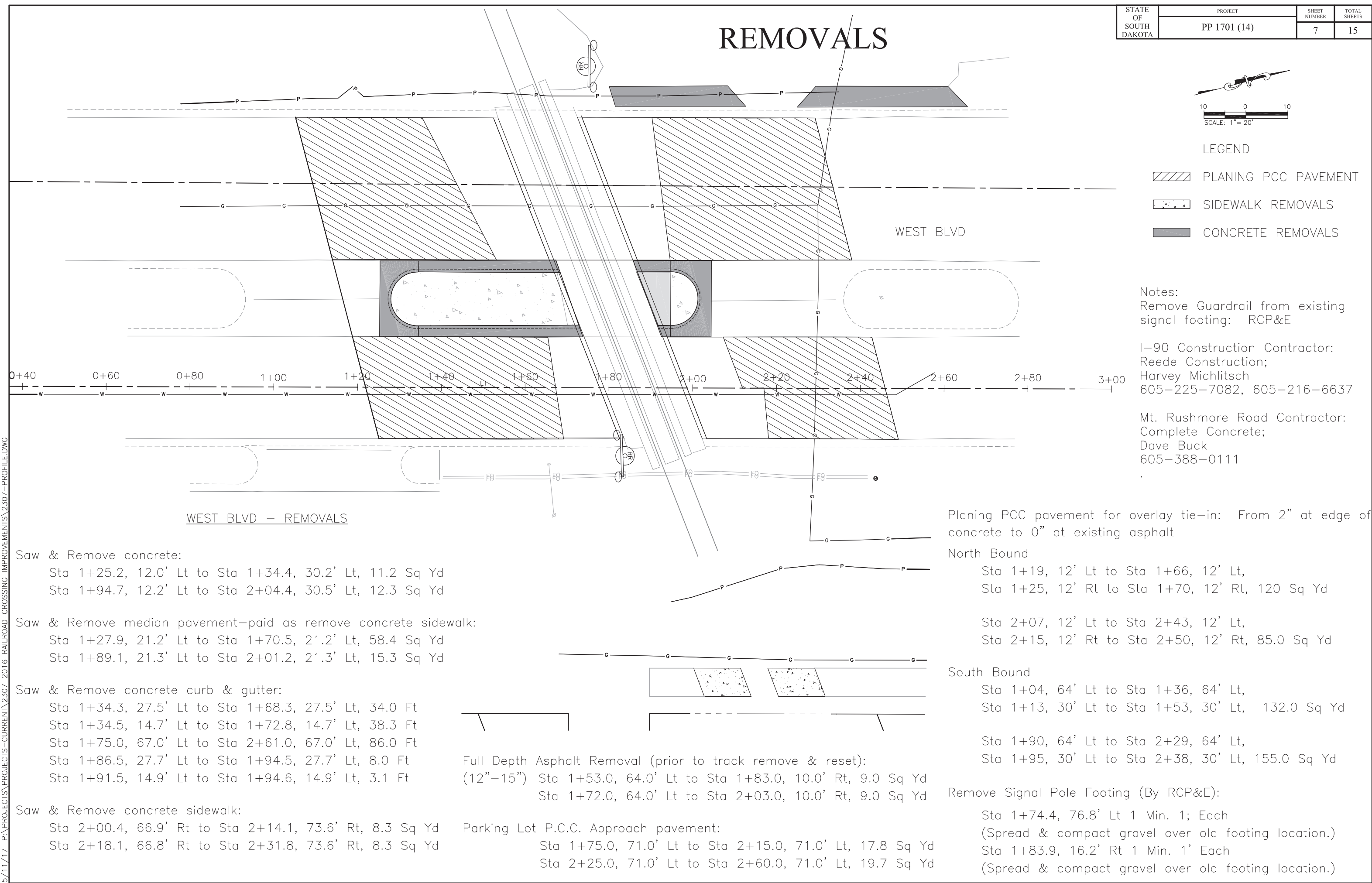
HORIZONTAL ALIGNMENT DATA

MAINLINE

<u>Type</u>	<u>Station</u>			<u>Northing</u>	<u>Easting</u>
POB	0+00.00			650795.312	1206339.887
		TL= 300.00	N 14°51'08" E		
POE	3+00.00			651085.284	1206416.783

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. Xxxx Zone (NAD 83/xx); epoch 20 xx.xx; Geoid xxx; SF = 0.xxxxxxxxxx

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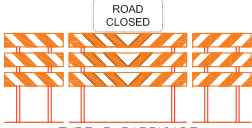
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TRAFFIC CONTROL AND DETOUR LAYOUT


TRAFFIC SIGNS

R11-2




TYPE 3 BARRICADE
RC

R11-4




TYPE 3 BARRICADE
RCT

W20-3




A

W20-2




B

M4-9bL




H1

M4-9bR



H2



G

Contractor to post message boards on West Boulevard announcing closure and detour at least 4 calendar days in advance.



DETOUR SIGNS

M4-9 R



C

M4-9 R



C1

M4-9 MOD



D

M4-9 MOD



D1

M4-9 L

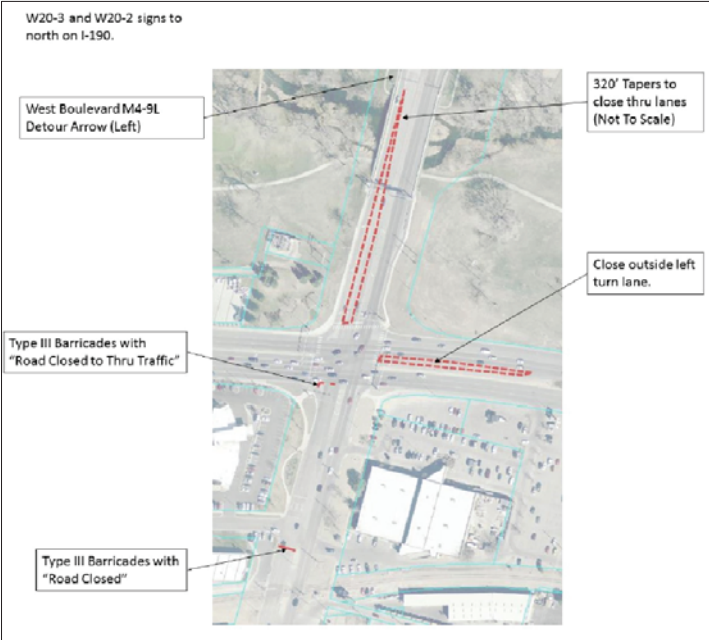


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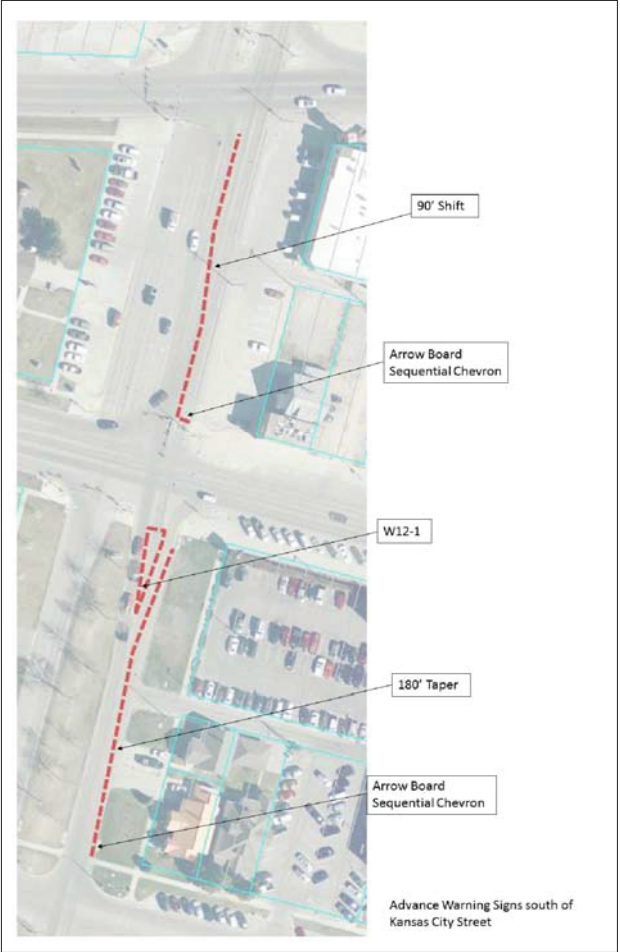
M4-9 L



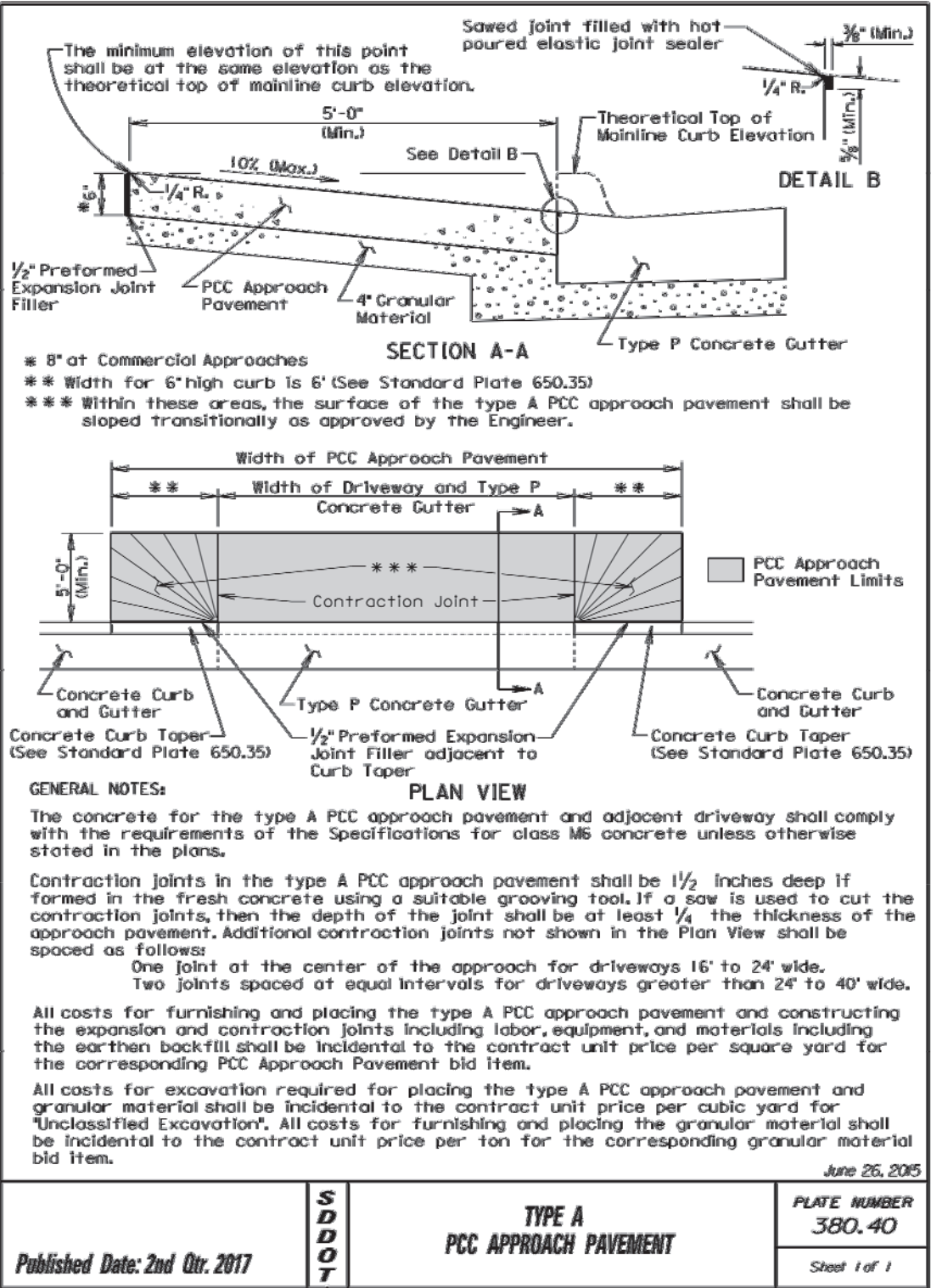
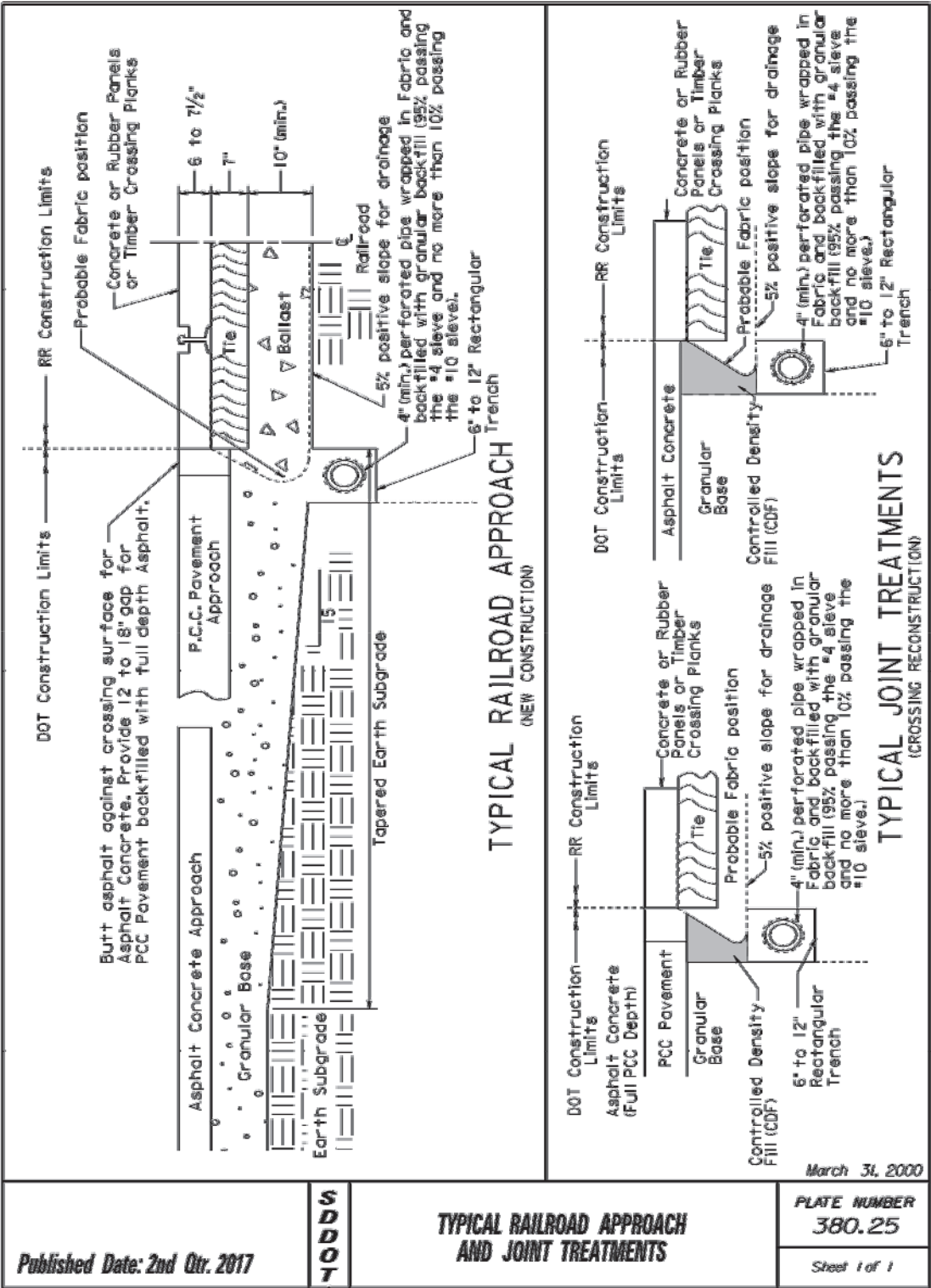
E1



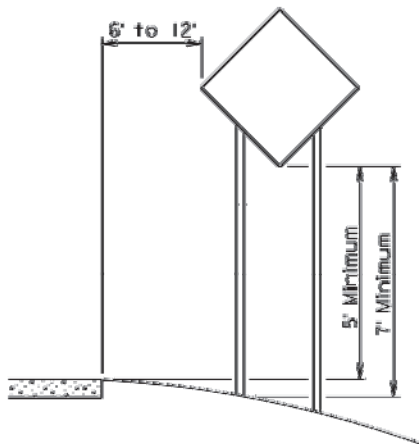
SOUTH BOUND



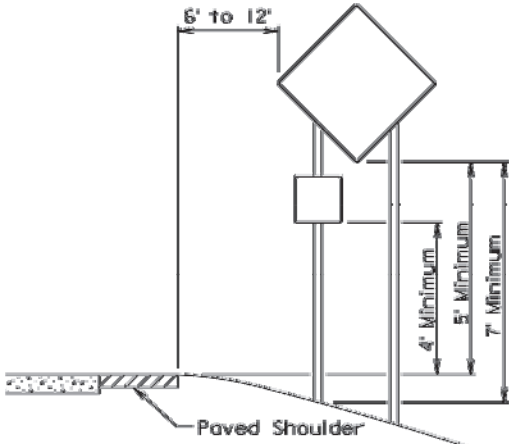
NORTH BOUND



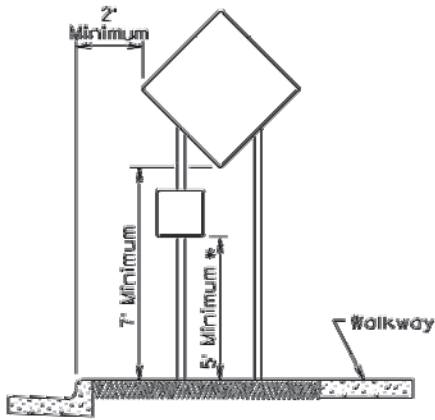
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RURAL DISTRICT

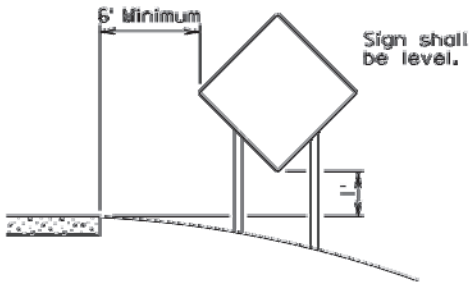


RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



URBAN DISTRICT

* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.



RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

September 22, 2014

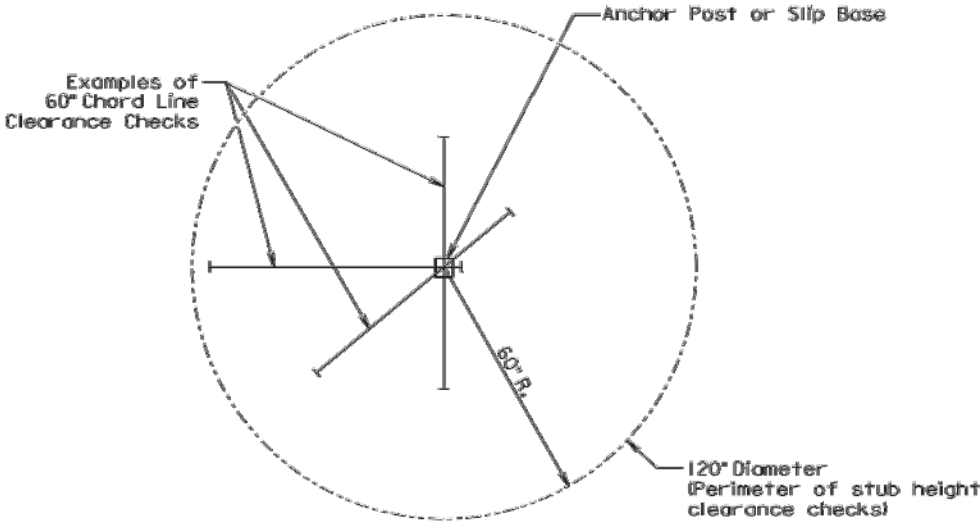
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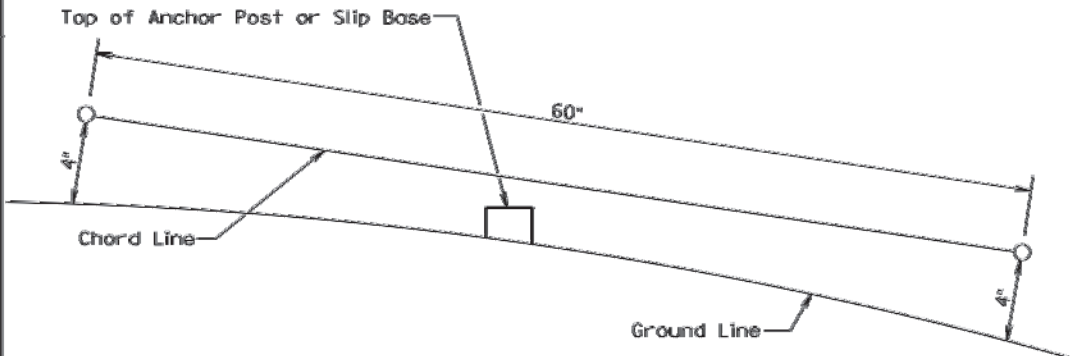
CRASHWORTHY SIGN SUPPORTS
(Typical Construction Signing)

PLATE NUMBER
634.85

Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:
The top of anchor posts and slip bases SHALL NOT extend above a 60° chord line within a 120° diameter circle around the post with ends 4' above the ground.
At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line of the localized area adjacent to the breakaway support stub.
The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

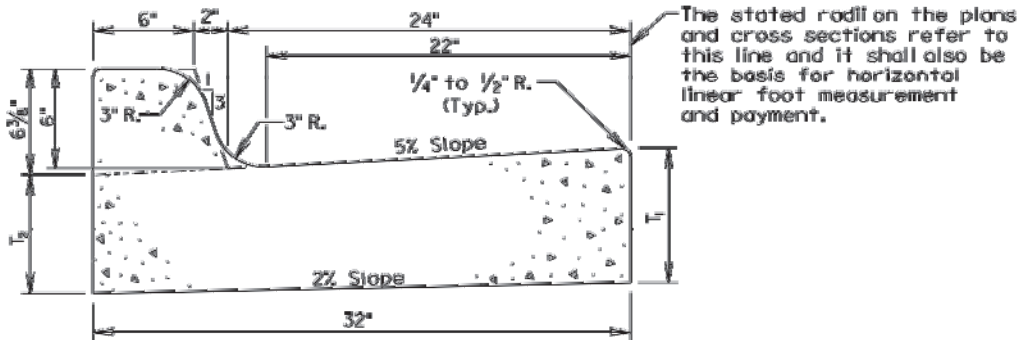
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BREAKAWAY SUPPORT STUB CLEARANCE

PLATE NUMBER
634.99

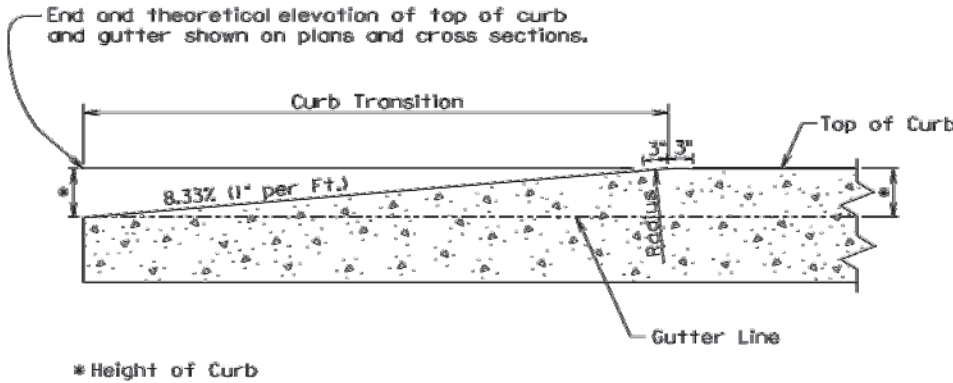
Sheet 1 of 1



Type	T ₁ (Inches)	T ₂ (Inches)	Cu. Yd. Per Lin. Ft.	Lin. Ft. Per Cu. Yd.
B66	6	5 ¹ / ₁₆	0.057	17.7
B67	7	6 ¹ / ₁₆	0.065	15.4
B68	8	7 ¹ / ₁₆	0.073	13.7
B68.5	8.5	7 ⁷ / ₁₆	0.077	13.0
B69	9	8 ¹ / ₁₆	0.081	12.3
B69.5	9.5	8 ⁷ / ₁₆	0.085	11.7
B610	10	9 ¹ / ₁₆	0.090	11.2
B610.5	10.5	9 ⁷ / ₁₆	0.094	10.7
B611	11	10 ¹ / ₁₆	0.098	10.2
B611.5	11.5	10 ⁷ / ₁₆	0.102	9.8
B612	12	11 ¹ / ₁₆	0.106	9.4

GENERAL NOTES:
When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment shall be by one of the methods shown on Standard Plate 380.11.
See Standard Plate 650.90 for expansion and contraction joints in the curb and gutter.

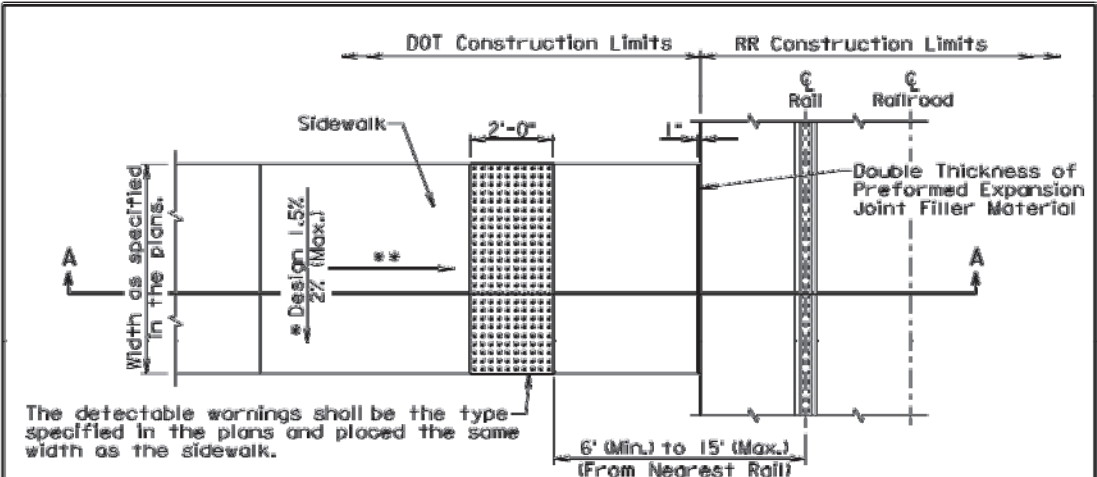
Published Date: 2nd Qtr. 2017	S D D O T	TYPE B CONCRETE CURB AND GUTTER	September 6, 2008
			PLATE NUMBER 650.01
			Sheet 1 of 1



LONGITUDINAL SECTION OF CONCRETE CURB TAPER

Published Date: 2nd Qtr. 2017	S D D O T	CONCRETE CURB TAPER	September 14, 2005
			PLATE NUMBER 650.35
			Sheet 1 of 1

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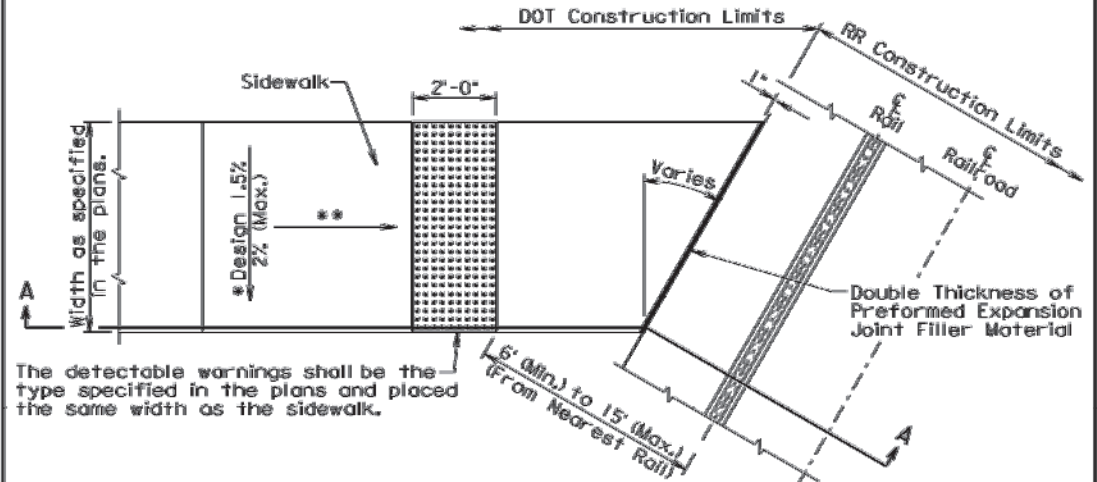


PLAN VIEW
(Railroad Crossing Not Skewed)

*The cross slope of the sidewalk shall not be steeper than 2%. Plans are designed using a 1.5% cross slope unless stated otherwise in the plans.

**If the sidewalk is curbside, then the surface of the curbside sidewalk shall match the slope of the curb transition. The longitudinal slope of the sidewalk and curb transition, where the sidewalk transitions to the railroad crossing elevation, is designed at 4.5% and shall not be steeper than 5% unless stated otherwise in the plans.

**If there is a boulevard sidewalk, then the curb and gutter transition shall be in accordance with Standard Plate 650.35. The longitudinal slope of the sidewalk, where the sidewalk transitions to the railroad crossing elevation, is designed at 4.5% and shall not be steeper than 5% unless stated otherwise in the plans.



PLAN VIEW
(Railroad Crossing Skewed)

September 6, 2015

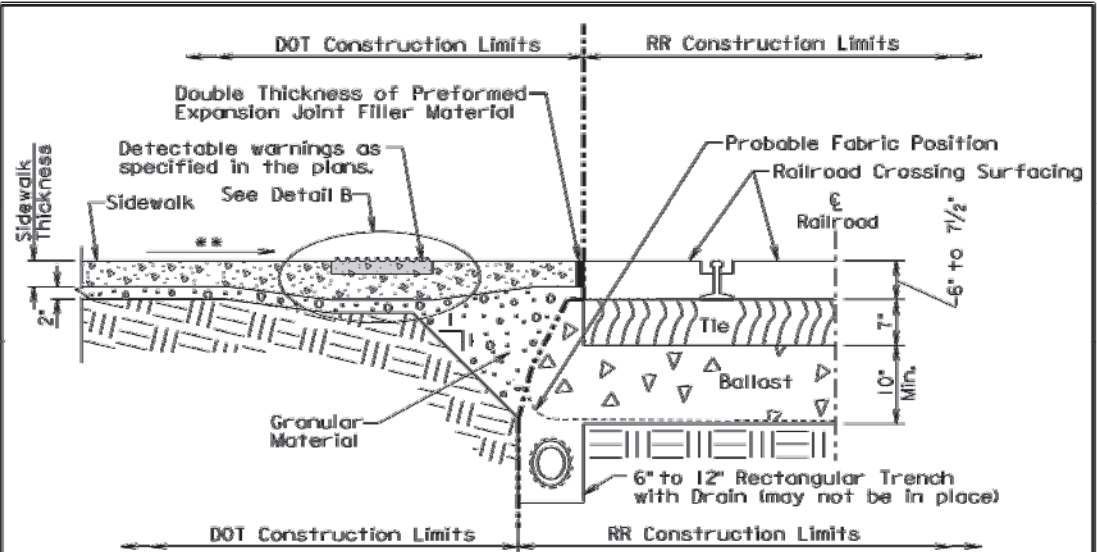
Published Date: 2nd Qtr. 2017

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SIDEWALK AND DETECTABLE WARNINGS
ADJACENT TO RAILROAD CROSSING

PLATE NUMBER
65I.20

Sheet 1 of 2



SECTION A-A

GENERAL NOTES:

For illustrative purpose only, type I detectable warnings are shown in the drawings.

Ballast material shall not be disturbed during construction work adjacent to the railroad crossing unless the adjacent work involves reconstruction or maintenance of the railroad crossing.

The sidewalk shall be placed at the location stated in the plans.

Care shall be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

If curb and gutter is required adjacent to the railroad crossing, the curb transition shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item.

The type I detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type I detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type I Detectable Warnings".

The type 2 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding shall be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

The square foot area of the detectable warnings shall be included in the measured and paid for quantity of sidewalk.

September 6, 2015

Published Date: 2nd Qtr. 2017

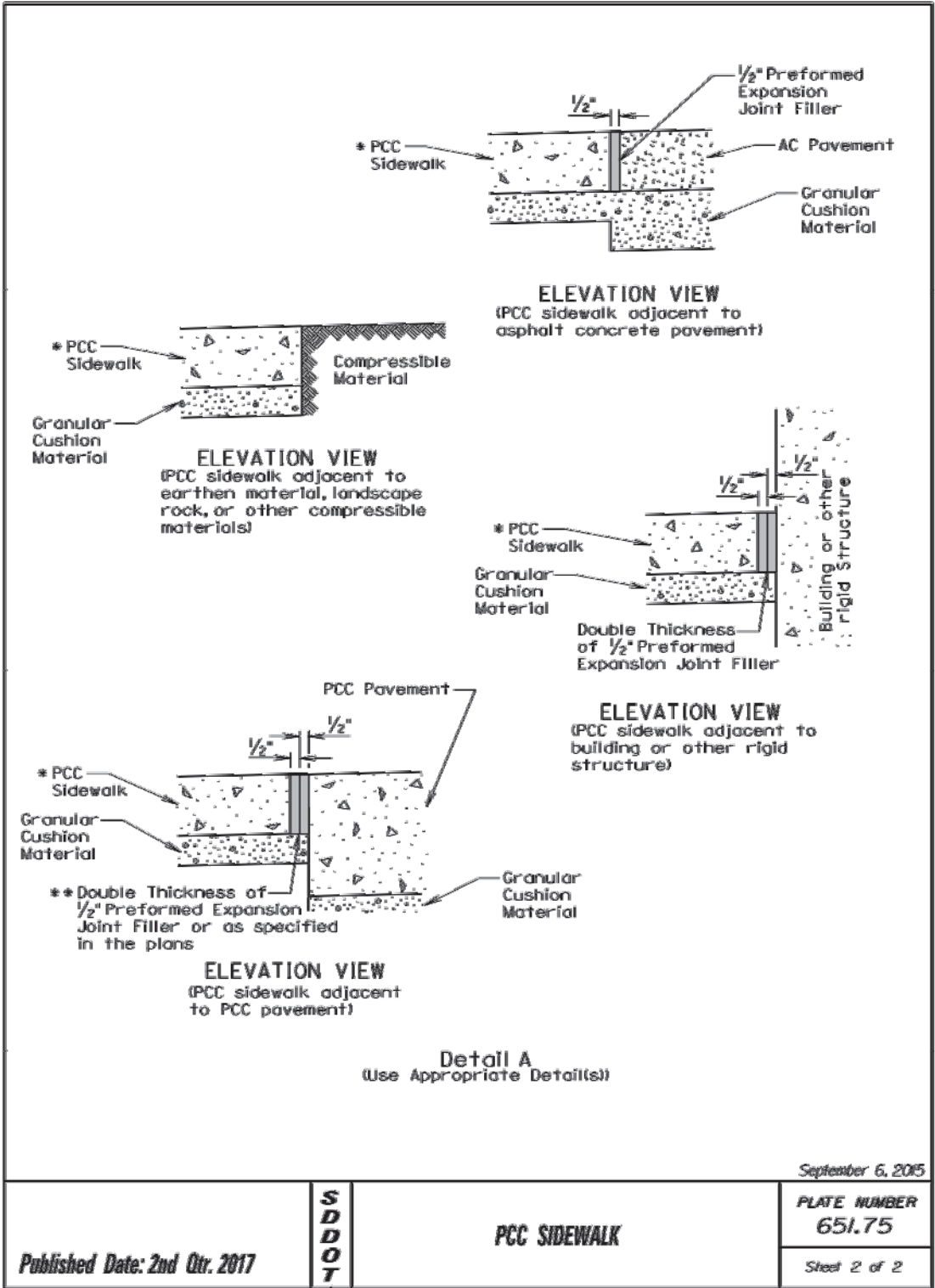
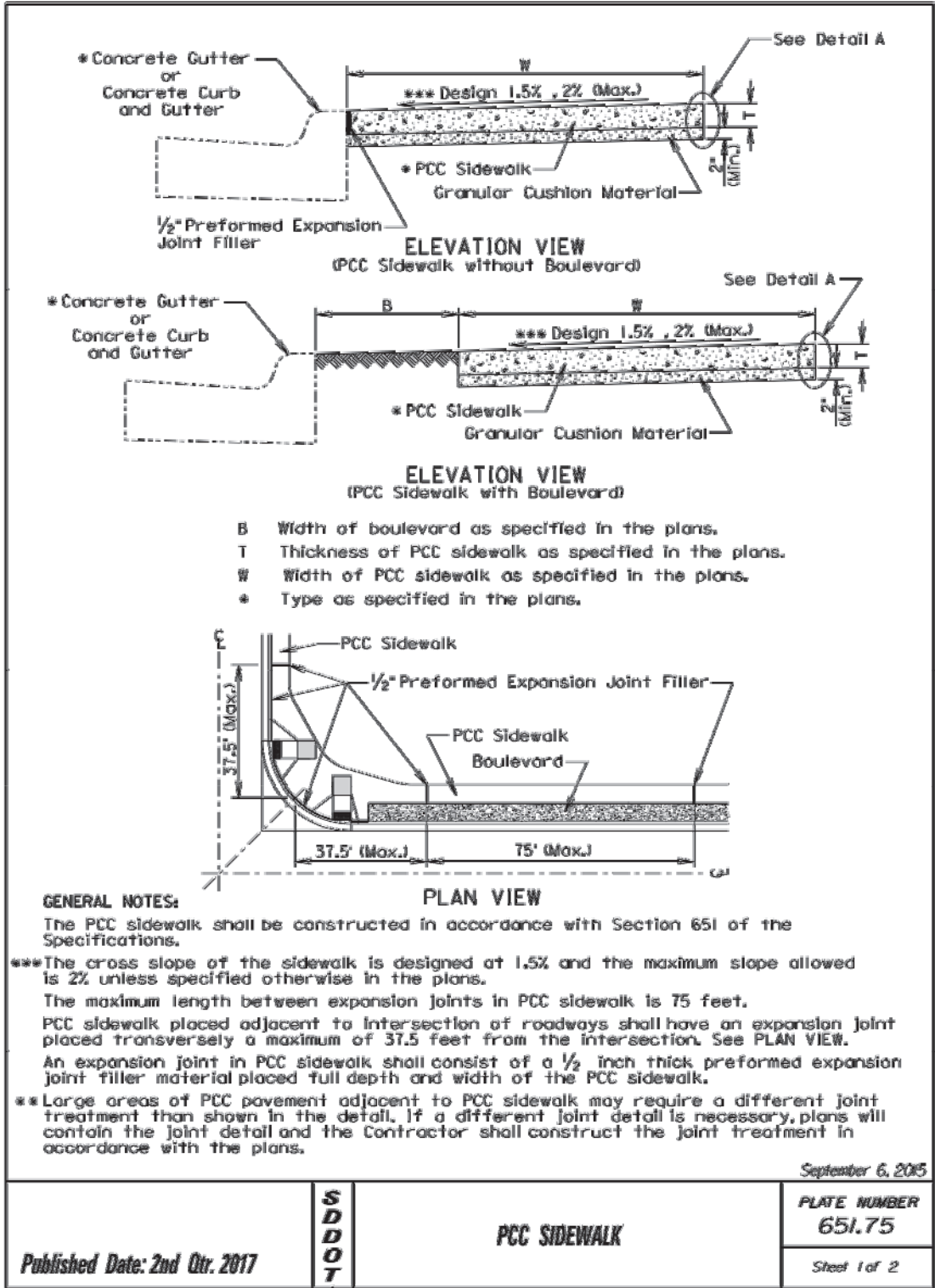
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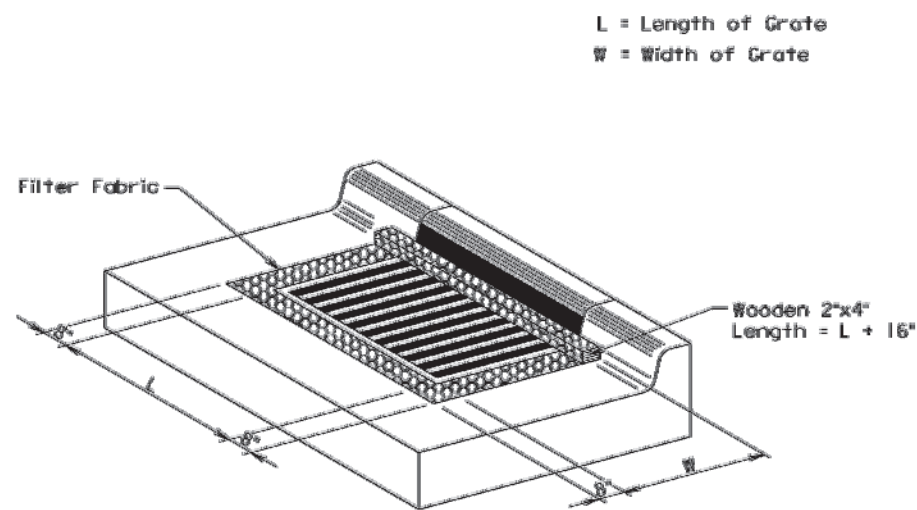
SIDEWALK AND DETECTABLE WARNINGS
ADJACENT TO RAILROAD CROSSING

PLATE NUMBER
65I.20

Sheet 2 of 2

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ISOMETRIC VIEW

GENERAL NOTES:

The grate and curb and gutter shown are for illustrative purposes only.

The sediment control at inlet with frame and grate shall be placed at locations stated in the plans or at locations determined by the Engineer.

The filter fabric shall be the type specified in the plans.

The filter fabric shall be placed in the inlet opening prior to placing the grate. Approximately 18 inches of excess filter fabric shall be wrapped around the 2"x4" and stapled securely to the 2"x4" after the grate has been placed.

The Contractor shall inspect and maintain the sediment control device once every week and within 24 hours after every rainfall event. The Contractor shall maintain the sediment control device by removing accumulated sediment and replacing torn filter fabric with new filter fabric.

The removed sediment shall be placed at a location away from the drop inlet where the sediment will not be washed back into the drop inlet or other storm sewer system.

All costs for furnishing, installing, inspecting, maintaining, removing, and replacing the sediment control device at the inlet including labor, equipment, and materials shall be incidental to the contract unit price per each for "Sediment Control at Inlet with Frame and Grate".

September 14, 2005

Published Date: 2nd Qtr. 2017	S D D O T	SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES	PLATE NUMBER 734.10
			Sheet 1 of 1