

STATE OF SOUTH DAKOTA	PROJECT		SHEET NO.	TOTAL SHEETS
	037-151	027-151	1	11

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED**

**PROJECT 037-151 & 027-151
SD HIGHWAY 37 & 27**

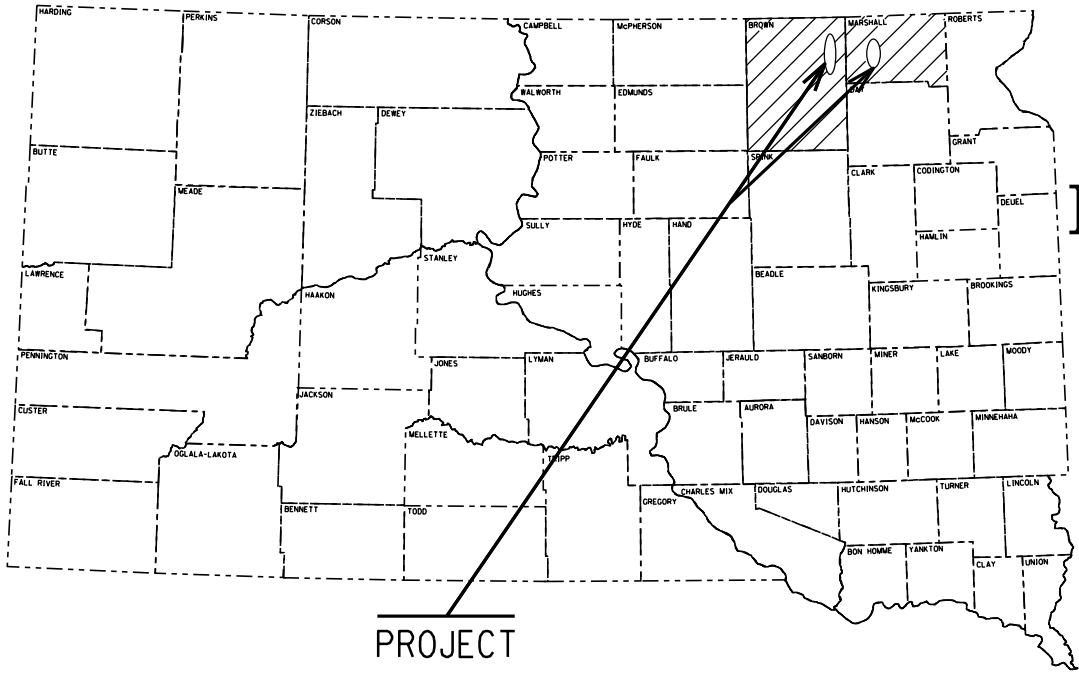
BROWN & MARSHALL COUNTIES

COLD MILLING ASPHALT CONCRETE &
ASPHALT CONCRETE RESURFACING

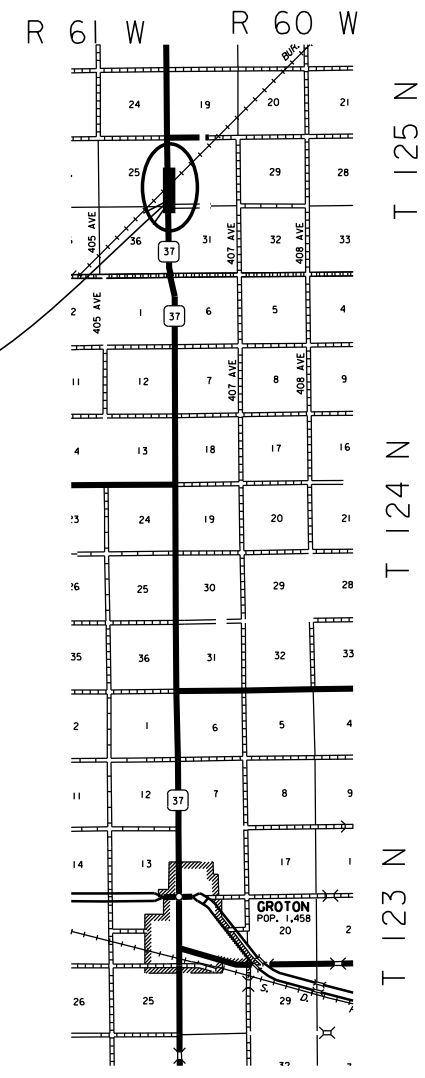
PCN 148L & 14CQ

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- Sheet 2-3 Estimate of Quantities and Environmental Commitments
- Sheet 4-6 Plan Notes/Tables
- Sheet 7-8 Traffic Control
- Sheet 9-11 Detail Drawings/Standard Plate



PROJECT

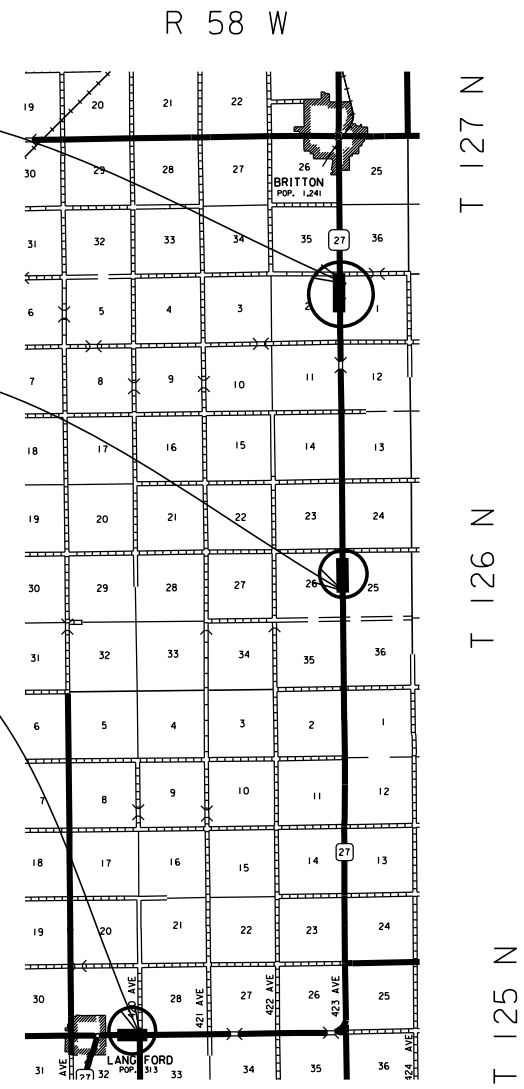


Project 037-151
MRM 218.92+0.00

Project 027-151
Site 3
MRM 228.45+0.00

Project 027-151
Site 2
MRM 224.39+0.00

Project 027-151
Site 1
MRM 214.54+0.00



DESIGN DESIGNATION SD 37

ADT (2016)	790
ADT (2036)	1030
DHV	123
D	50%
T DHV	13.8
T ADT	30.3%
V	65 MPH

DESIGN DESIGNATION SD 27

ADT (2015)	657
ADT (2035)	731
DHV	87
D	50%
T DHV	4.3
T ADT	9.4%
V	65 MPH

STORM WATER PERMIT

None Required

PROJECT 037-151

GROSS LENGTH	400 FEET	0.076 MILES
LENGTH OF EXCEPTIONS	0 FEET	0 MILES
NET LENGTH	400 FEET	0.076 MILES

PROJECT 027-151

GROSS LENGTH	73112.16 FEET	13.847 MILES
LENGTH OF EXCEPTIONS	72512.16 FEET	13.733 MILES
NET LENGTH	600 FEET	0.114 MILES

PLOT SCALE - 1:11931.6

PLOTTED FROM - TRABINT01

PLOT NAME - 1

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT		SHEET NO.	TOTAL SHEETS
	037-151	027-151	2	11

ESTIMATE OF QUANTITIES

037-151 PCN I48L

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	20	CuYd
260E1010	Base Course	40.0	Ton
320E1200	Asphalt Concrete Composite	175.0	Ton
332E0010	Cold Milling Asphalt Concrete	780	SqYd
633E1300	Pavement Marking Paint, White	2	Gal
633E1305	Pavement Marking Paint, Yellow	1	Gal
634E0010	Flagging	80.0	Hour
634E0110	Traffic Control Signs	150.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0640	Temporary Pavement Marking	200	Ft
998E0100	Railroad Protective Insurance	Lump Sum	LS

027-151 PCN I4CQ

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	60	CuYd
260E1010	Base Course	120.0	Ton
320E1200	Asphalt Concrete Composite	520.0	Ton
332E0010	Cold Milling Asphalt Concrete	2,334	SqYd
633E1300	Pavement Marking Paint, White	3	Gal
633E1305	Pavement Marking Paint, Yellow	3	Gal
634E0010	Flagging	240.0	Hour
634E0110	Traffic Control Signs	450.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0640	Temporary Pavement Marking	600	Ft

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 B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pit, or staging site associated with the project, cease construction activities in the affected area until the Whooping Crane departs and contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

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.

Construction or demolition activities should not take place during the Seasonal Work Restriction listed in the below table to avoid conflicts with spawning fish. If flows during this time are nonexistent or extremely low, the seasonal use restriction may not be applicable. The Contractor shall not conduct in-stream work during the Seasonal Work Restriction without prior approval from the SDDOT Environmental Office.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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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.

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.

PLOT SCALE - 1:62,841.3

PLOTTED FROM - TRABINT01

PLOT NAME - 3

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Informational Breakdown of Quantities

SBI Nbr	SBI Desc	037-151	027-151			Item Qty	Units
			Site 1	Site 2	Site 3		
009E0010	Mobilization	Lump Sum	Lump Sum			Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	20	20	20	20	80	CuYd
260E1010	Base Course	40	40	40	40	160.0	Ton
320E1200	Asphalt Concrete Composite	175	171	178	171	695.0	Ton
332E0010	Cold Milling Asphalt Concrete	780	767	800	767	3,114	SqYd
633E1300	Pavement Marking Paint, White	2	1	1	1	5	Gal
633E1305	Pavement Marking Paint, Yellow	1	1	1	1	4	Gal
634E0010	Flagging	80	80	80	80	320.0	Hour
634E0110	Traffic Control Signs	150	150	150	150	600.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	Lump Sum			Lump Sum	LS
634E0640	Temporary Pavement Marking	200	200	200	200	800	Ft
998E0100	Railroad Protective Insurance	Lump Sum	-	-	-	Lump Sum	LS

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SCOPE OF WORK

The intent of this project is to improve the ride of these locations for the traveling public. It will be the Contractors responsibility to use cold milling and placement methods that ensure a smooth ride.

Work on this project involves cold milling of in place asphalt concrete for 100 feet both on each end of the rail road crossing or bridge and 200 continuous feet over a box culvert. The Contractor shall be responsible to mill out enough material to remove the bump and place a minimum of 4 inches of asphalt. The in place pavement markings will then be replicated on the new surface.

Quantities and notes have been added to the plans in the event less than 4 inches of asphalt is encountered or the underlying material is unstable.

TRAFFIC CONTROL

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost of this work shall be incidental to the various contract items unless otherwise specified in the plans. Delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

Work activities during non-daylight hours are subject to prior approval.

The bottom of signs on portable or temporary supports shall not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas. Portable sign supports may be used as long as the duration is less than 3 days. If the duration is more than 3 days the signs shall be on fixed location, ground mounted, breakaway supports.

Traffic Control signs, as shown in the Itemized List for Traffic Control Signs, are estimates. Contractor's operation may require adjustments in quantities, either more or less. Payment will be for those signs actually ordered by the Engineer and used.

Bump signs shall be placed at each end of the cold milling limits immediately prior to starting cold milling operations.

REFLECTORIZED SHEETING REQUIREMENTS FOR TEMPORARY TRAFFIC CONTROL DEVICES

Delete the first paragraph of Section 984.1 and replace with the following:

Temporary traffic control devices, including signs, drums, cones, tubular markers, barricades, vertical panels, and direction indicator barricades shall be reflectORIZED with sheeting applied to a satisfactory backing. Flat surfaced temporary traffic control devices including, but not limited to; signs, barricades, vertical panels, and direction indicator barricades shall be reflectORIZED with super/very high intensity reflectORIZED sheeting meeting the standards of Type XI as defined by AASHTO M 268 (ASTM D4956). Round surfaced temporary traffic control devices including, but not limited to; drums, cones, and tubular markers shall be reflectORIZED with high intensity reflectORIZED sheeting meeting the standards of Type IV as defined by AASHTO M 268 (ASTM D4956). All orange colored material shall be fluorescent.

SHOULDER PREPARATION

Vegetation and accumulated material adjacent to the existing surface edge shall be removed to the satisfaction of the Engineer prior to placement of mainline surfacing. Any remaining windrow of accumulated material shall be re-spread evenly on the inslope adjacent to the asphalt shoulder to the satisfaction of the Engineer prior to the application of the flush seal.

Any vegetation damaged outside of the asphalt concrete limits shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

This shoulder work shall be incidental to other contract items. Separate measurement and payment will not be made.

EXCAVATION OF UNSTABLE MATERIAL

Included in the Estimate of Quantities are **80** Cubic Yards of Unclassified Excavation, Digouts for the necessary removal of unstable material.

Backfill shall be Base Course paid for at the contract unit price per ton.

The digout shall be extended to the shoulder and the granular material backfill shall daylight to the inslope to allow water to escape the subgrade.

After milling operations the area shall be inspect to determine if excavation is warranted. It is not anticipated that excavation will be warranted. If excavation is not completed the related contract items will be removed from the contract by construction change order.

BASE COURSE

Base Course shall conform to the specifications, except that the compaction shall be to the satisfaction of the Engineer.

Included in the Estimate of Quantities are **160** tons of Base Course for backfill of Unclassified Excavation, Digouts.

WATER FOR COMPACTION OF GRANULAR MATERIALS

Cost of water for compaction of the granular material shall be incidental to the contract unit price for the various contract items. Six percent, plus or minus, moisture will be required at the time of compaction unless otherwise directed by the Engineer.

TEMPORARY PAVEMENT MARKINGS

Maintaining size, shape, and dimension of existing pavement markings shall be the responsibility of the Contractor for both temporary and permanent pavement marking applications.

Quantities of Temporary Pavement Markings consist of:

One pass on top of the 2nd Lift of Asphalt Concrete.

Temporary Flexible Vertical Markers (Tabs) may be used as detailed in the specifications. Covers on the tabs shall be sufficiently secured to prevent traffic from dislodging the cover and when removed, the covers shall be properly disposed. The Contractor shall remove and properly dispose of the tabs after Permanent Pavement Marking is applied. Method of removal shall be nondestructive to the road surface and shall be accomplished within one week of completion of the Permanent Pavement Marking.

Any Temporary Flexible Vertical Markers (Tabs) with covers removed before the flush seal shall be replaced prior to Flush Seal application.

Cost for furnishing, applying, removing and disposing of the Temporary Flexible Vertical Markers (Tabs) shall be included in the contract unit price per foot for TEMPORARY PAVEMENT MARKING.

Flagger symbol signs (W20-7) and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights shall be positioned on the roadway shoulder in advance of workers for both directions of traffic during the installation of Temporary Flexible Vertical Markers (Tabs). The traffic control device used shall be moved to provide proper warning of the work operation. A Workers symbol sign (W21-1) shall be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work shall be approved by the Engineer.

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PERMANENT PAVEMENT MARKING

Traffic Control shall be incidental to the cost of application. The striper and advance or trailing warning vehicle shall be equipped with flashing amber lights or advance warning arrow panel.

The stop bars near the rail road crossing shall be reproduced using PAVEMENT MARKING PAINT, WHITE. Quantities of white paint for the stop bars have been included in the Estimate of Quantities.

All materials shall be applied as per manufacturer's recommendations.

The application of Permanent Pavement Marking paint may not begin until 7 calendar days following completion of final surfacing and shall be completed within 14 calendar days following completion of the final surfacing.

For each working day the application of permanent pavement marking paint remains uncompleted beyond the time limits described in the preceding paragraph, the Contractor will be assessed liquidated damages at the rate of \$250.00 per day.

The liquidated damages shall apply up to the Substantial Completion Date, as extended. After the Substantial Completion Date, liquidated damages will be assessed in accordance with Section 8.8 of the specifications, until the permanent pavement marking is completed, even though the project may be open to traffic.

The following items shall be reproduced with the Permanent Pavement Markings: 2-Stop Bars
Centerline
Edge lines

RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 2 days and within 30 days of the line application using either a portable or mobile retroreflectometer that conforms to a 30-meter geometry. If the Department chooses to take retroreflectivity readings, three retroreflectivity readings will be taken on each line at each test location. The three readings will be averaged and become the reading for that test location.

If the Department chooses to take retroreflectivity readings, three readings will be taken on the edge lines and lane lines in the direction of application. For combination solid yellow and skip yellow lines for turn lanes and for centerline markings on two-way roadways, three readings will be taken in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline markings will be averaged and become the test reading for that test location.

If the Department chooses to take readings, the minimum retroreflectivity values shall be 230 mc/m²/lux for white and 140 mc/m²/lux for yellow.

COLD WEATHER, WATERBORNE PAINT

Waterborne paint applied after October 15 shall be formulated as cold weather, waterborne paint and shall be applied in accordance with manufacturer's recommendations, including minimum temperature requirements.

Cold weather, waterborne paint shall conform to Section 980 of the Specifications except for the following:

980.1: Resin Binder shall be Fastrack™ XSR manufactured by Dow, or approved equal.

980.1 A. Quantitative Requirements:

Pigment, percent by weight: 60.0 – 63.0 for white and 58.5 – 61.5 for yellow.

Pigment, percent by weight; tested in accordance with ASTM D3723: 60.0 – 63.0 for white and 56.1 – 59.2 for yellow.

Non-volatile Vehicle, percent by weight; tested in accordance with NIST 141C (Method 4051.1): 41.5 minimum for white and 51.5 minimum for yellow.

RAILROAD CROSSING

The Contractor shall coordinate his work with the Railroad Company regarding any work to be done adjacent to the railroad tracks. See Special Provision for Working on Railroad Company Right of Way.

COLD MILLING ASPHALT CONCRETE

The cold milled material obtained from the project shall become the property of the Contractor. Gradation testing of cold milled material not utilized on the project shall not be required, unless deemed necessary by the Engineer.

The millings shall be place back on the road to carry traffic until the paving operation can take place.

The cold milled material may be placed on field approaches, as approved by the Engineer. Cold milled material which remains on the project shall be subjected to gradation testing.

The placement of asphalt concrete shall begin within 5 working days after completion of cold milling of mainline asphalt concrete. The Contractor shall be responsible maintaining the temporary ramps within the project limits.

In areas where guardrail is present the Contractor shall mill as close as possible to the guardrail without damaging the guard rail. Any damage to the guardrail shall be repaired by the Contractor at no additional cost to the department. Milling shall ensure that drainage is maintained.

PLOT SCALE - 1:62,841:3

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (C)
0 - 30	200	25
35 - 40	350	25
45 - 50	500	50
55	750	50
60 - 65	1000	50

Warning sign sequence in opposite direction same as below.

- Flagger
- Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

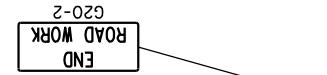
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices shall be drums or 42" cones.

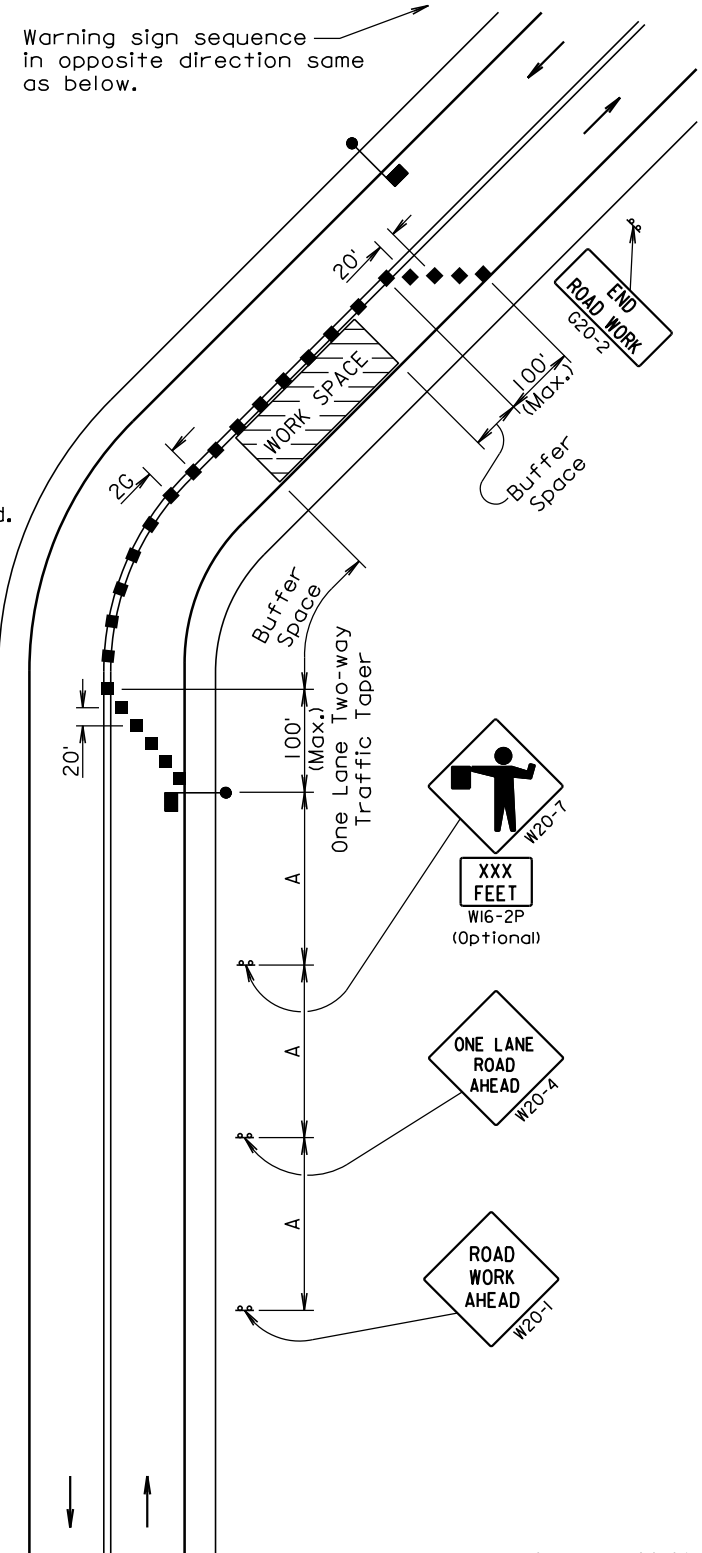
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

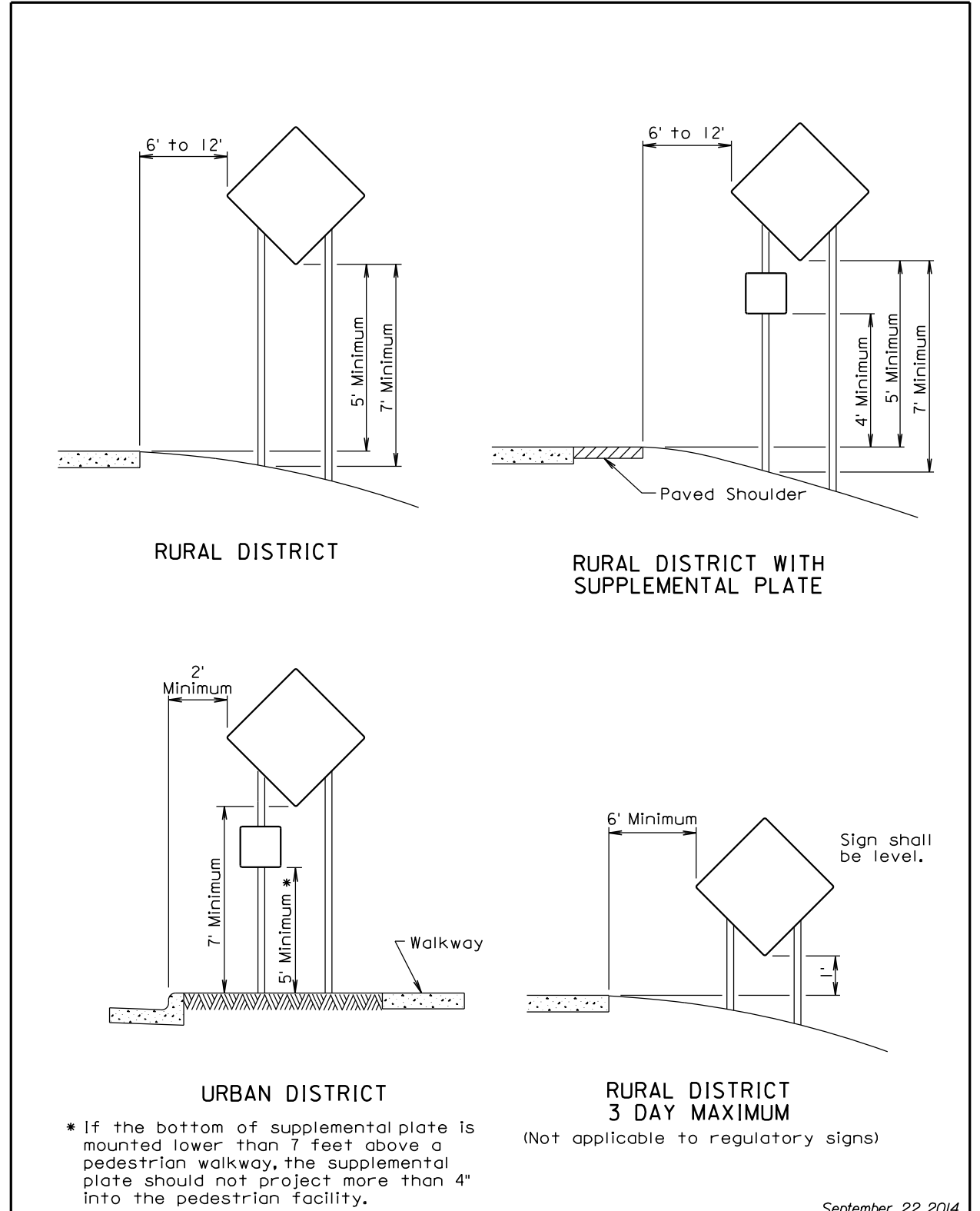
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.



September 22, 2014

Published Date: 2nd Qtr. 2016	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1



* 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.

September 22, 2014

Published Date: 2nd Qtr. 2016	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1

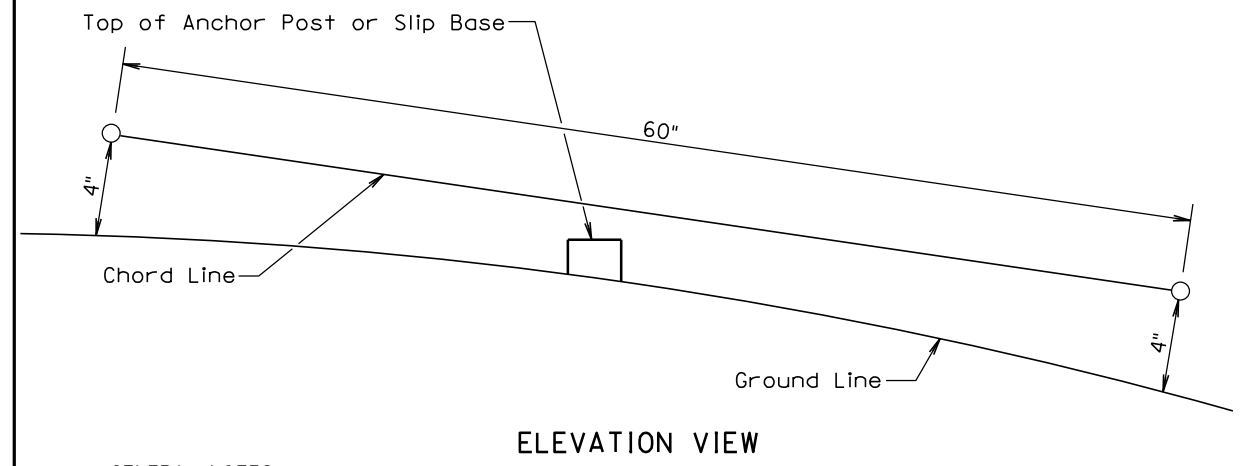
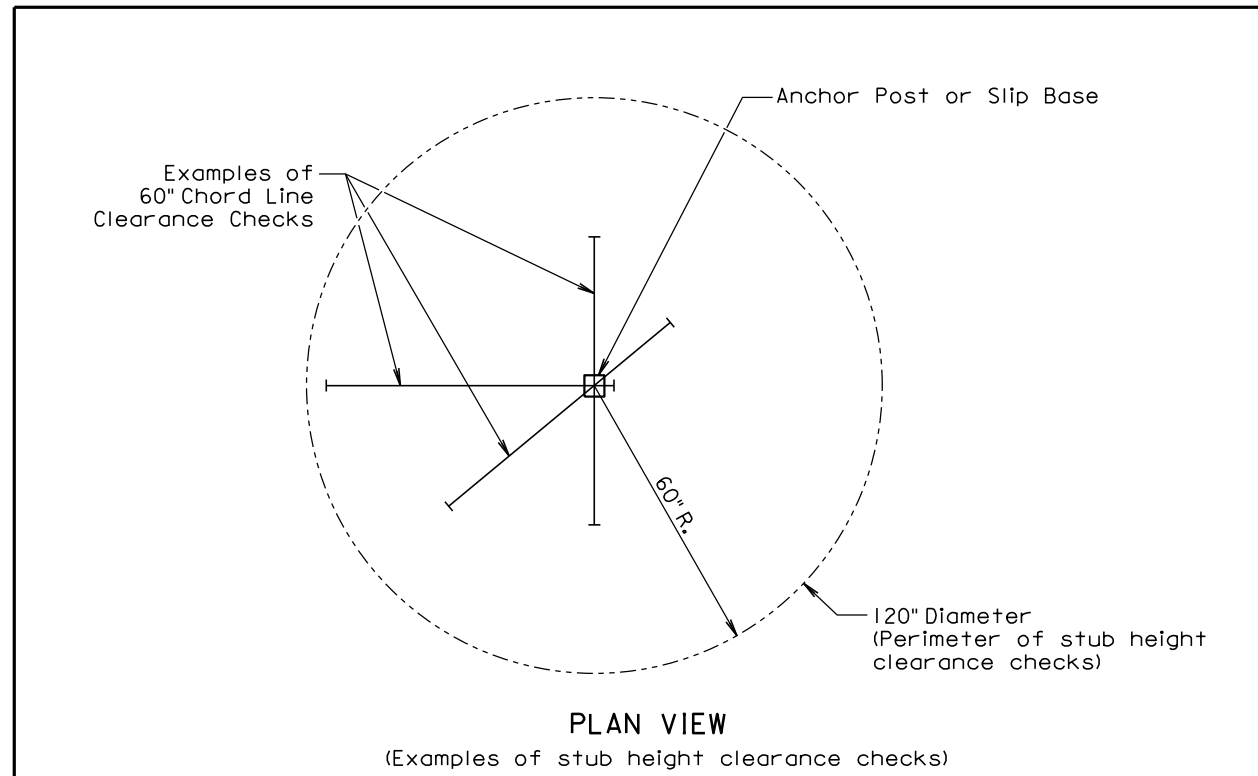
PLOT NAME - 3

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PLOTTED FROM - TRABINT01

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W8-1	BUMP	2	48" x 48"	16	32
W13-1P	ADVISORY SPEED (plaque)	2	30" x 30"	6	12
W20-1	ROAD WORK AHEAD	2	48" x 48"	16	32
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16	32
W20-7	FLAGGER (symbol)	2	48" x 48"	16	32
G20-2	END ROAD WORK	2	36" x 18"	5	10
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			150



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 at 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

Published Date: 2nd Qtr. 2016	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

PLOTTED FROM - 1462.8413

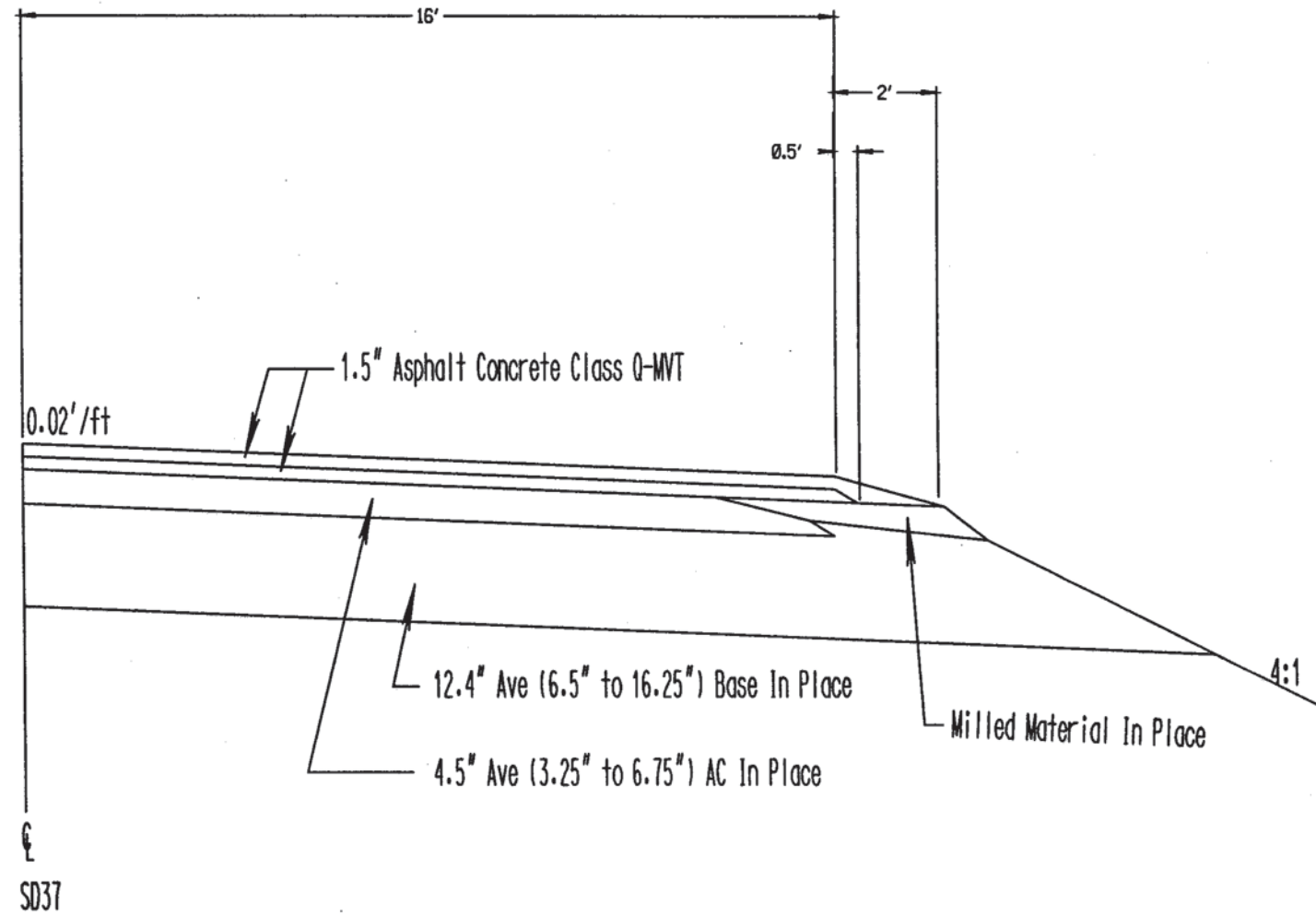
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PLOT NAME - 3

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	037-151	9	11

Inplace Typical Section 037-151 PCN I48L



PLOT SCALE - 1:8000

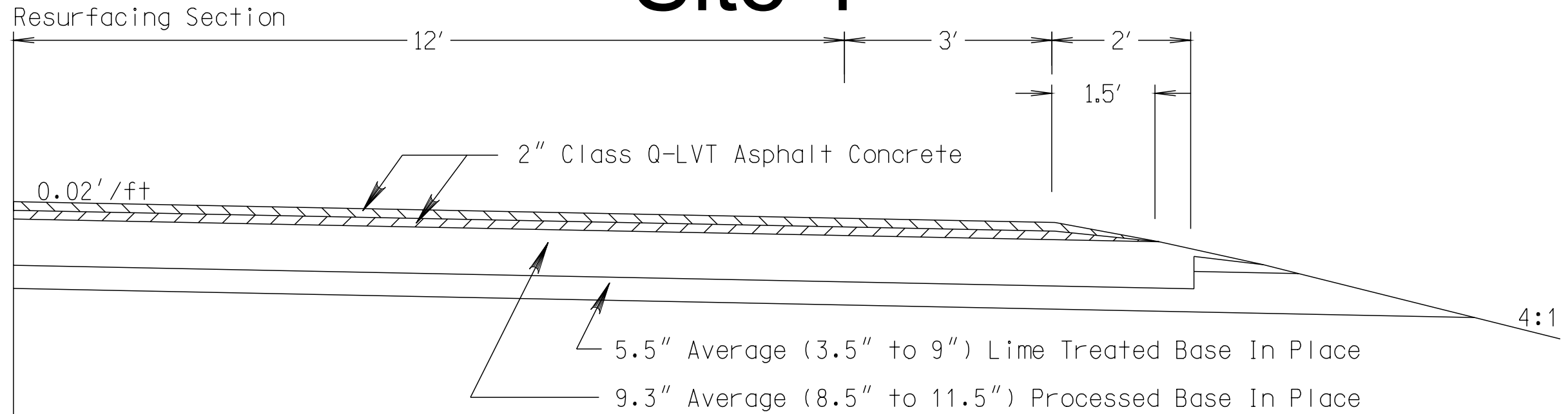
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PLOT NAME - 2

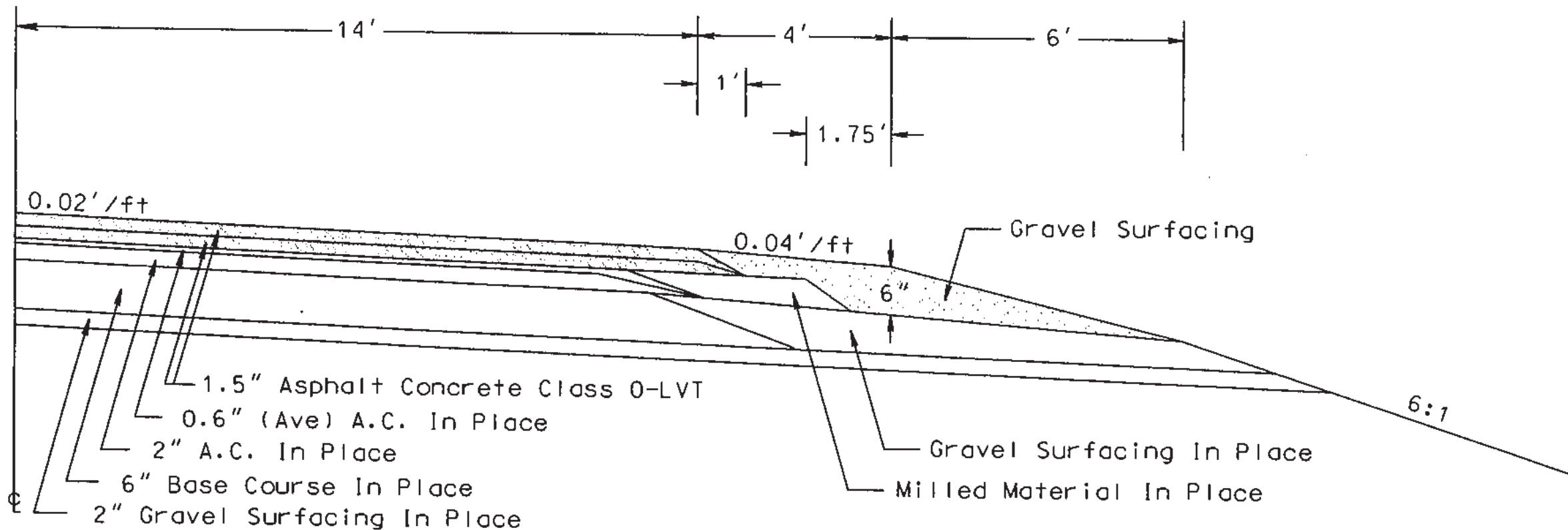
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Widths Will Vary In Guardrail Sections Inplace Typical Section 027-151 PCN I4CQ Site 1

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	037-151	027-151	NO.	SHEETS
			10	11



Site 2 & 3



PLOT SCALE - 1:62.8413

PLOTTED FROM - TRABINT01

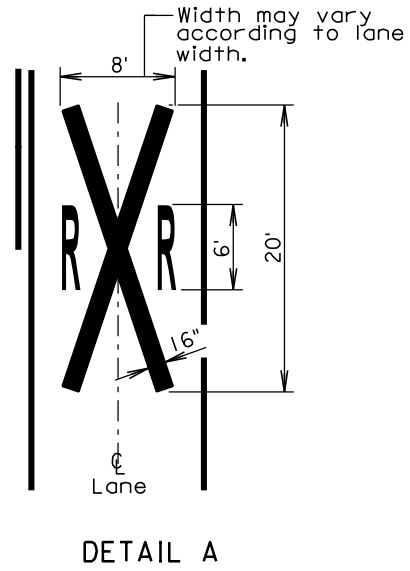
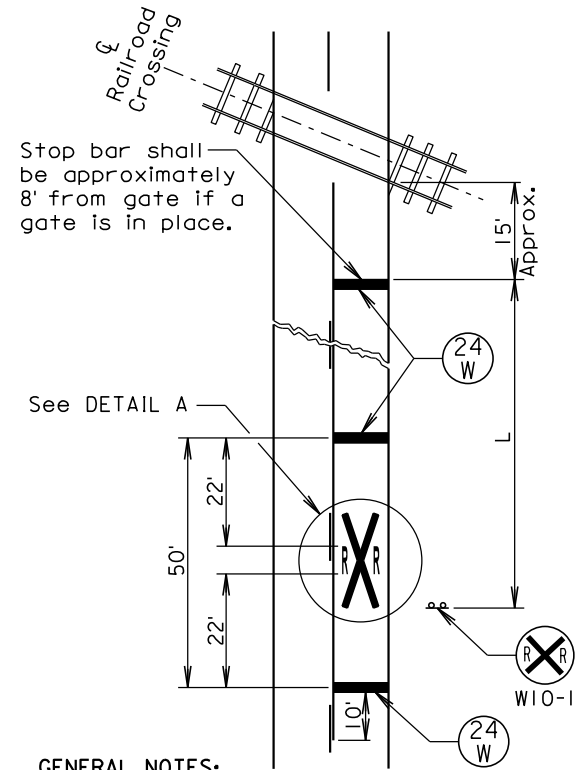
PLOT NAME - 3

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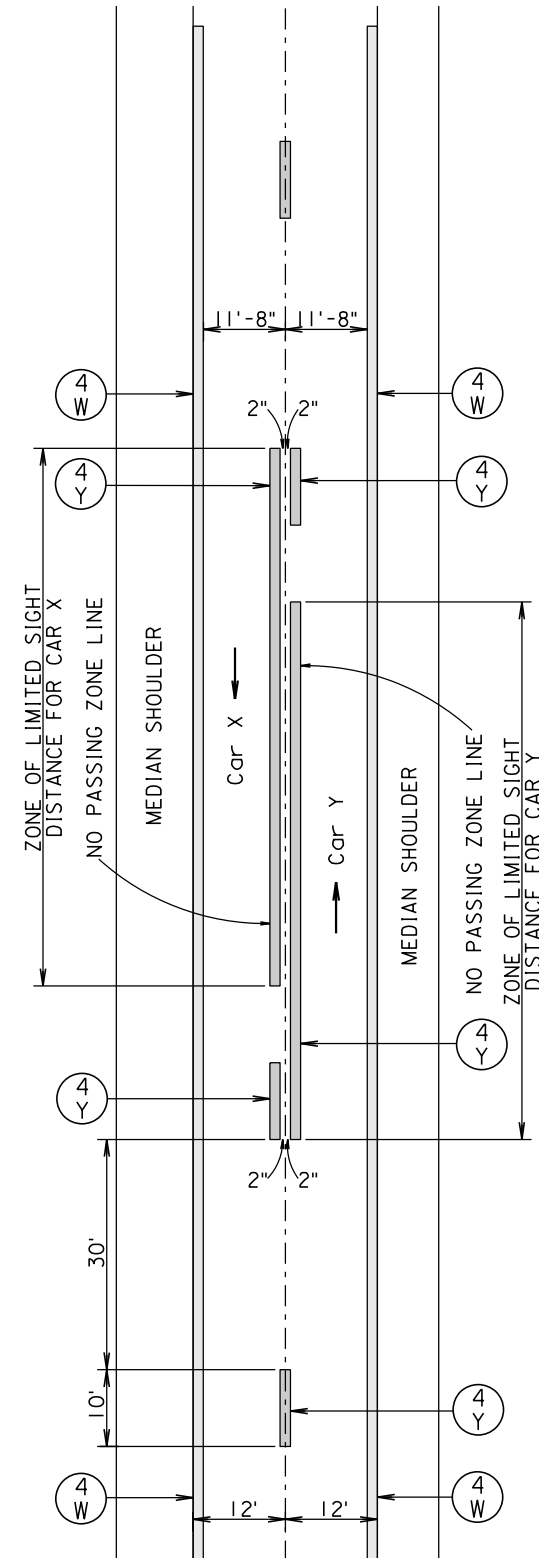
PLOT SCALE - 1:8000

KEY	ITEM
(24 W)	24" White
X	White

Posted Speed Limit (M.P.H.)	L (Ft.)
≤ 30	100
35	100
40	125
45	175
50	250
55	325
60	400
65	475
70	550



**TWO LANE
UNDIVIDED ROADWAY**



KEY	ITEM
(4 W)	4" White
(4 Y)	4" Yellow

GENERAL NOTES:

- The railroad crossing pavement markings shall be placed symmetrically about the centerline of the railroad crossing.
- When pavement markings are used, a portion of the RXR symbol shall be placed directly opposite of the advance warning sign W10-1.
- On multi-lane roads the transverse bands shall extend across all approach lanes and individual RXR symbols shall be placed in each approach lane.
- The railroad crossing pavement markings shall consist of all the transverse bands, stop bars, and RXR symbols.
- When pavement marking paint is used for marking the railroad crossing, all costs for furnishing and painting the markings, materials, labor, and necessary equipment shall be incidental to the contract unit price per gallon for "Pavement Marking Paint, White".
- When pavement marking tape is used for marking the railroad crossing, all costs for furnishing and placing the markings, materials, labor, and necessary equipment shall be incidental to the contract unit price per each for "Cold Applied Plastic Pavement Marking, Railroad Crossing".

June 26, 2013

Published Date: 1st Qtr. 2016

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PAVEMENT MARKINGS AT RAILROAD CROSSING

PLATE NUMBER
633.10

Sheet 1 of 1

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PLOT NAME - 2

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