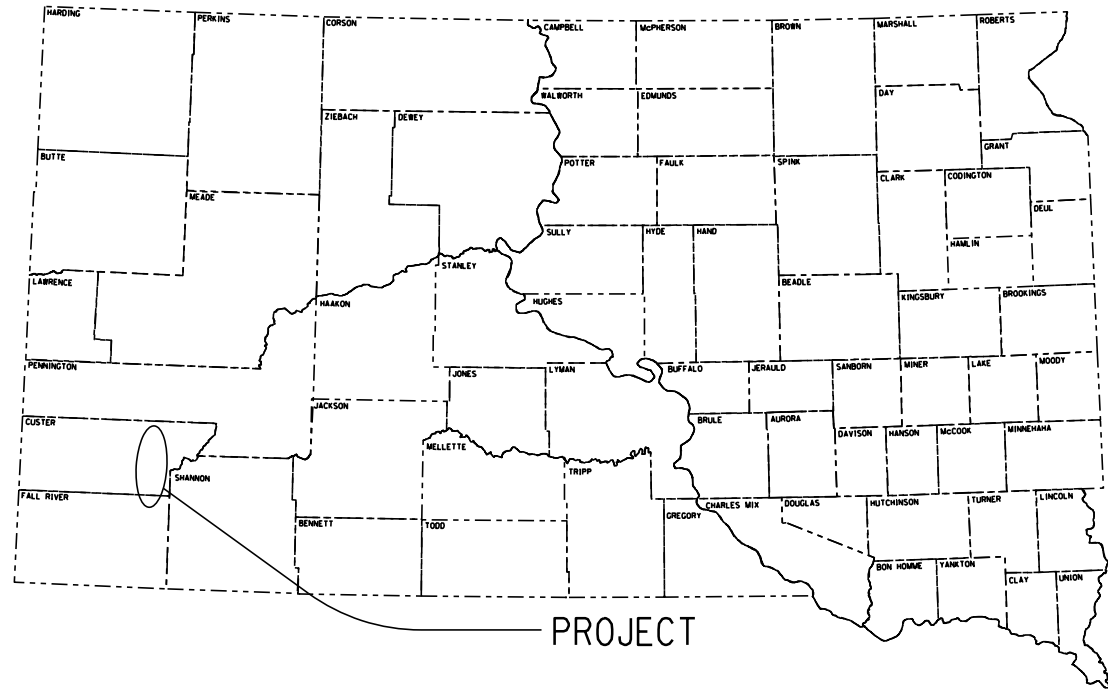


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	079N-492 & 079S-492	1	6

Plotting Date: 05/21/2012

PLOT SCALE - 1:200



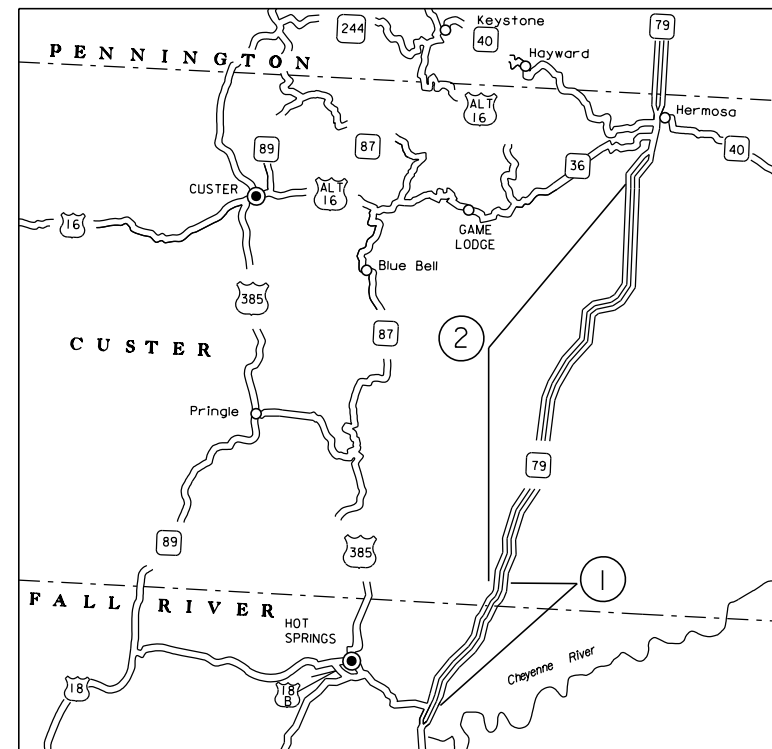
PROJECT

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
PROJECTs 079N-492 & 079S-492
SD HIGHWAY 79
CUSTER & FALL RIVER
MICROSURFACING (Shoulder Repair)
PCNs i2m0 & i2m1

- ① SD 79N, MRM 27.000 to MRM 33.848
079N-492, i2m0
- ② SD 79S, MRM 33.355 to MRM 55.500
079S-492, i2m1

INDEX OF SHEETS

- Sheets 1: Title Sheet
- Sheets 2-4: Estimate of Quantities & Plan Notes
- Sheet 5: Microsurfacing Shoulder Settlement Detail
- Sheet 6: Standard Plates



Storm Water Permit
No Permit Required

PLOTTED FROM - TRRC11951

PLOT NAME - 1

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ESTIMATE OF QUANTITIES (SD 79 N, i2M0)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
320E0300	Asphalt Emulsion for Microsurfacing	6,514	Gal
320E4510	Mineral Aggregate for Microsurfacing	214.3	Ton
634E0010	Flagging	100	Hour
634E0100	Traffic Control	856	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each

ESTIMATE OF QUANTITIES (SD 79 N, i2M1)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
320E0300	Asphalt Emulsion for Microsurfacing	21,064	Gal
320E4510	Mineral Aggregate for Microsurfacing	692.9	Ton
634E0010	Flagging	300	Hour
634E0100	Traffic Control	856	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in this Proposal.

HISTORICAL PRESERVATION OFFICE CLEARANCES

To obtain State Historical Preservation Office (SHPO) clearance, a cultural resources survey may need to be conducted by a qualified archaeologist. In lieu of a cultural resources survey, the Contractor could request a records search from Jim Donohue, State Archaeological Research Center (SARC). Provide SARC 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 no artifacts have been found on the site. The Contractor shall arrange and pay for the cultural resource survey and/or records search.

If any earth disturbing activities occur within the current geographical or historic boundaries of any South Dakota reservation, the Contractor shall obtain Tribal Historical Preservation Office (THPO) clearance. If no THPO exists, the required SHPO clearance shall suffice, with documentation of Tribal contact efforts provided to SHPO.

To facilitate SHPO or THPO responses, the Contractor should submit a records search or cultural resources survey report to the DOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3268). Allow 30 days from the date this information is submitted to the Environmental Engineer for SHPO/THPO approval. The Contractor is responsible for obtaining all required permits and clearances for staging areas, borrow sites, waste disposal sites, and all material processing sites. The Contractor shall provide the required permits and clearances to the Engineer at the preconstruction meeting.

WASTE DISPOSAL SITE

The Contractor will be required to furnish a site(s) for the disposal of construction/demolition debris generated by this project.

Construction/demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway 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 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/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/demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State 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 State 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.

TABLE OF MATERIAL QUANTITIES (PCN i2m0)

Highway	Begin	End	Shoulder	Total Length	Width	Mineral Aggregate for Microsurfacing	Asphalt Emulsion for Microsurfacing
	MRM	MRM		(ft)	(ft)	(Ton)	(Gal)
SD 79 N	27.000	33.848	Outside	36157.4	2	214.3	6514

TABLE OF MATERIAL QUANTITIES (PCN i2m1)

Highway	Begin	End		Total Length	Width	Mineral Aggregate for Microsurfacing	Asphalt Emulsion for Microsurfacing
	MRM	MRM		(ft)	(ft)	(Ton)	(Gal)
SD 79 S	33.355	55.500	Outside	116925.6	2	692.9	21064

MICROSURFACING

The asphalt shoulder settlement along the project varies from ¼" to 1" along the longitudinal joint between the PCCP and asphalt pavement. The Contractor shall fill in this settlement along the project in accordance with the details found in these plans. Microsurfacing material shall be placed against the PCC Pavement to assure the longitudinal joint is filled and sealed.

Microsurfacing shall be performed in accordance with the Special Provision For Polymer-Modified Microsurfacing with the following modifications:

The Surface Course and Rut Filling shall be applied 2' wide. This work may be done with one pass provided the asphalt shoulder settlement filling does not recess below the top of PCCP more than ¼". The 300' test strip shall select a location with 1" or greater settlement to determine if one pass will provide acceptable results. If unacceptable results occur the Contractor shall perform Rut Filling of shoulder settlement greater than ½" prior to the final Surface Course as directed by the Engineer.

Microsurfacing shall not be placed on any bridge or bridge approach slabs.

RATES OF MATERIALS

The Estimate of Quantities is based on the following quantities of material per mile. This rate is for estimating purposes only and will vary based on asphalt shoulder settlement conditions found in the field.

Asphalt Shoulder Settlement Filling Course

Microsurfacing – SDDOT Type II or III Mineral Aggregate

Aggregate For Microsurfacing applied 2' wide 31.3 Tons/mile

Asphalt For Microsurfacing applied 2' wide 951 Gal/mile

MICROSURFACING QUANTITIES

Due to the dollar amount budgeted for this work, the locations of microsurfacing are for estimating purposes only. The Engineer reserves the right to add or eliminate locations once the budgeted dollar amount for the project is met.

MAINTENANCE OF TRAFFIC

Traffic control shall be in accordance with MUTCD Standards, Standard Specifications and these plans.

Traffic shall be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor's equipment shall be repaired at no expense to the State.

Work activities shall only be during daylight hours. Daylight hours are considered to be ½ hour before sunrise until ½ hour after sunset.

Indiscriminate driving 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.

The quantity of traffic control units paid shall be for the greatest number of signs in place at any one time per project (PCN), regardless of the number of set-ups on the project.

A maximum of 1 work zone in each direction shall be allowed. The 3 mile max. lane closure length as per standard plate 634.63 will not be required on this project. The length of the lane closure may equal 1 day's placement of microsurfacing.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crash worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

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, breakaway supports.

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

MAINTENANCE OF TRAFFIC (CONTINUED)

Storage of materials, vehicles and equipment shall be stored a minimum distance of 30' from the traveled way and preferable along the right of way line during nonworking hours. Contractor's employees should mobilize to the work site in a minimized number of vehicles. Parking for employees should be located outside the right-of-way.

Vehicles working in traffic or alongside traffic shall be equipped with a flashing amber light visible from all directions. The amber light shall be mounted on the uppermost part of the contractor's vehicle. Lights must have peak intensity within the range of 40 to 400 candelas and must flash at 75 ± 15 flashes per minute. Vehicle flasher/hazard lights are not acceptable.

A Type III Barricade shall be installed as per the details in these plans and at a minimum spacing of 2000' within the lane closure

When Standard Plate 634.63 is used Speed Limit 65 signs shall be installed after the ROAD WORK AHEAD signs at a distance of B/2, immediately after the manned work space. The FINES DOUBLED, SPEED ZONE AHEAD, and the SPEED LIMIT 45 signs shall be posted only during the hours when the associated work is actually being performed. The removal or covering of the signs is required when related work activity is curtailed for whatever reason. If the work activity is periodically moved or relocated within the project, the speed zone shall be moved with the related activity.

Temporary Pavement Marking shown in the standard plates, and removal of the temporary pavement marking, shall be incidental to the contract unit price per lump sum for "Traffic Control Miscellaneous". Paint will not be allowed for Temporary Pavement Marking, and removal of the materials used for Temporary Pavement Marking shall be done in such a way as to not damage the surface of the concrete.

The Contractor shall have a traffic control person available 24 hours/day, 7 days/week to maintain traffic control devices. The name and cellular telephone number of this individual shall be given to the Engineer at the preconstruction meeting. All costs associated with this work shall be incidental to the contract unit price per lump sum for "Traffic Control, Miscellaneous".

TABLE OF TRAFFIC CONTROL (SD 79 N, PCN i2m0)

SIGN CODE	SIGN SIZE	DESCRIPTION	#	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
R2-1	24" x 30"	SPEED LIMIT ##	3	18	54
R2-6aP	24" x 18"	FINES DOUBLE	2	7	14
W3-5	48" x 48"	REDUCED SPEED LIMIT AHEAD	2	34	68
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	2	34	68
W20-1	48" x 48"	ROAD WORK AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED AHEAD	2	34	68
W20-7a	48" x 48"	FLAGGER	1	34	34
*****		TYPE III BARRICADE - 8 FT. DOUBLE SIDED	8	56	448
TOTAL UNITS				856	

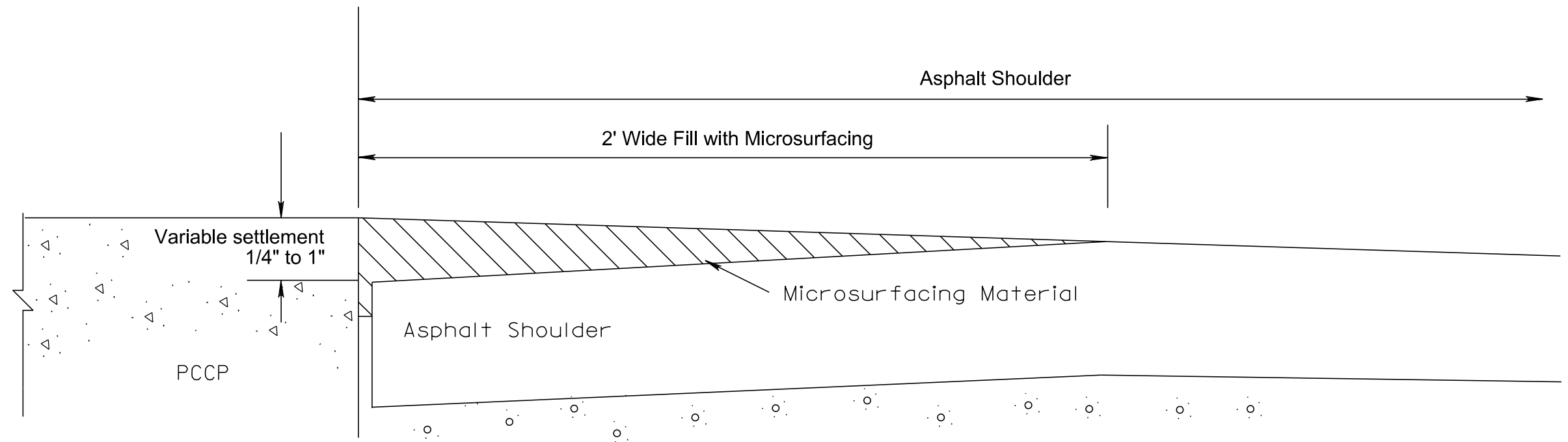
TABLE OF TRAFFIC CONTROL (SD 79S, PCN i2m1)

SIGN CODE	SIGN SIZE	DESCRIPTION	#	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
R2-1	24" x 30"	SPEED LIMIT ##	3	18	54
R2-6aP	24" x 18"	FINES DOUBLE	2	7	14
W3-5	48" x 48"	REDUCED SPEED LIMIT AHEAD	2	34	68
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	2	34	68
W20-1	48" x 48"	ROAD WORK AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED AHEAD	2	34	68
W20-7a	48" x 48"	FLAGGER	1	34	34
*****		TYPE III BARRICADE - 8 FT. DOUBLE SIDED	8	56	448
TOTAL UNITS				856	

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	079N-492 & 079S-492	5	6

Plotting Date: 05/10/2012

Microsurfacing Asphalt Shoulder Settlement along PCCP

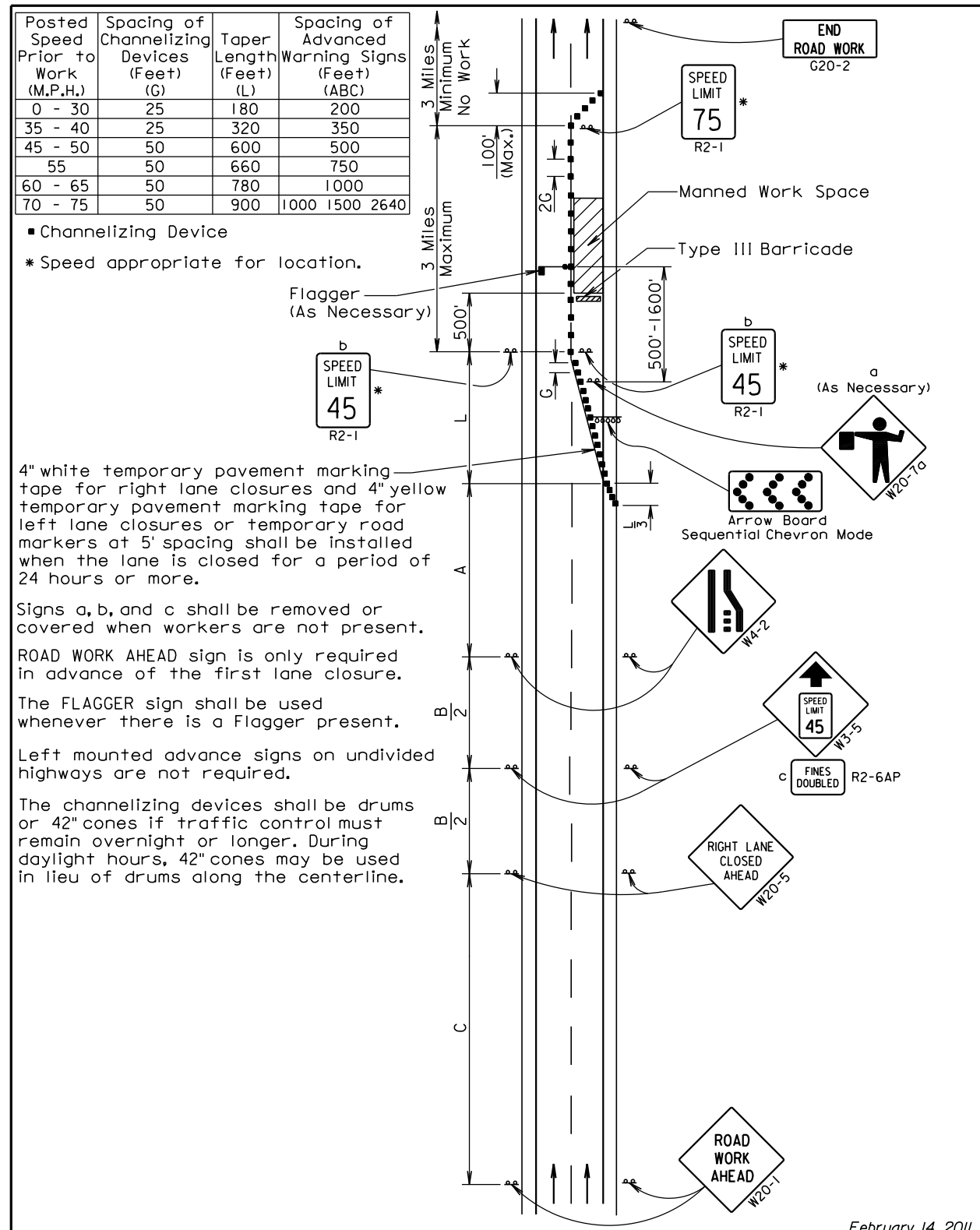


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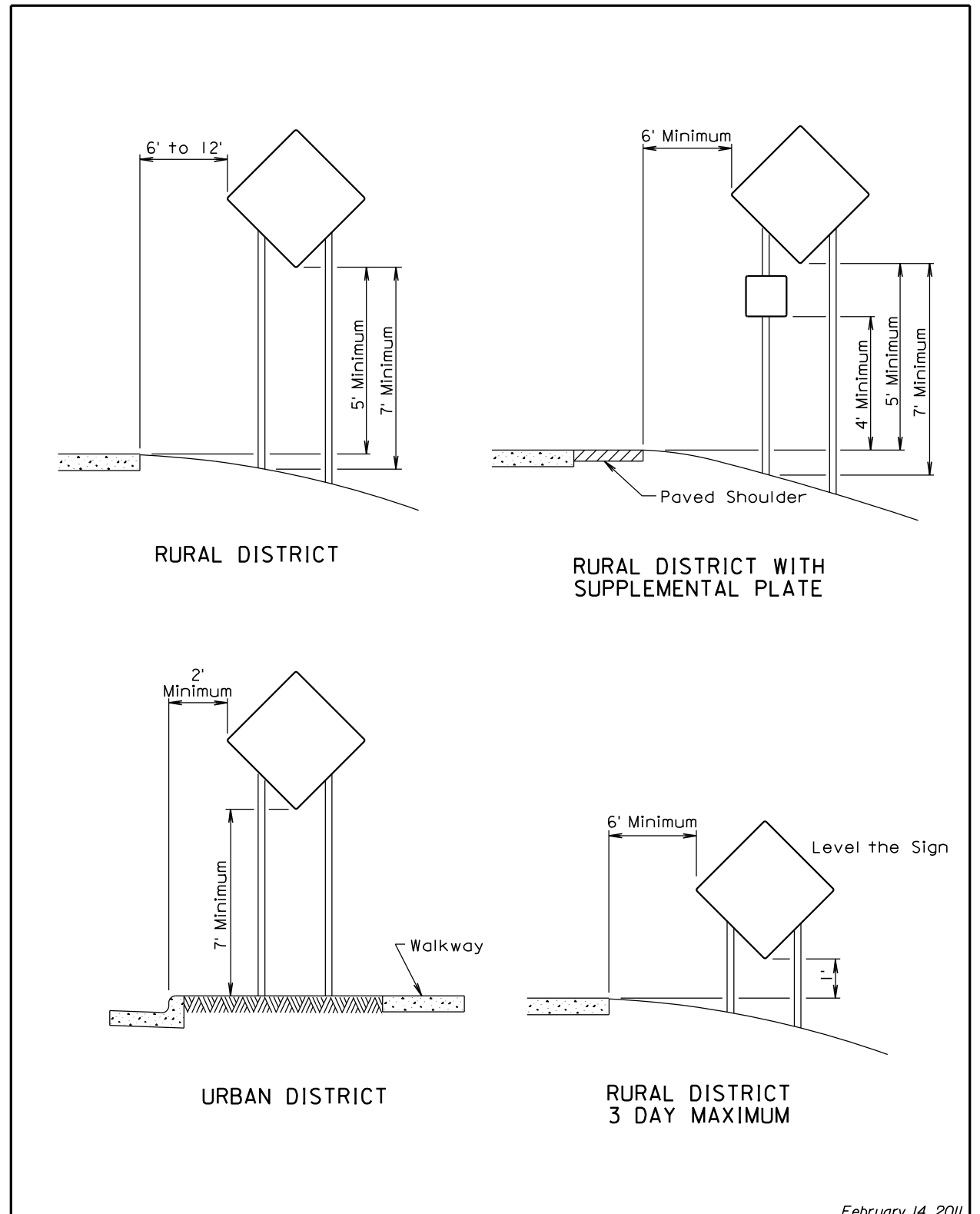
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February 14, 2011



February 14, 2011