

PLOT SCALE - 200,000,000:1,000,000

PLOTTED FROM - TRRC11951

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	079-452 079S-452 etc.		
		01	12

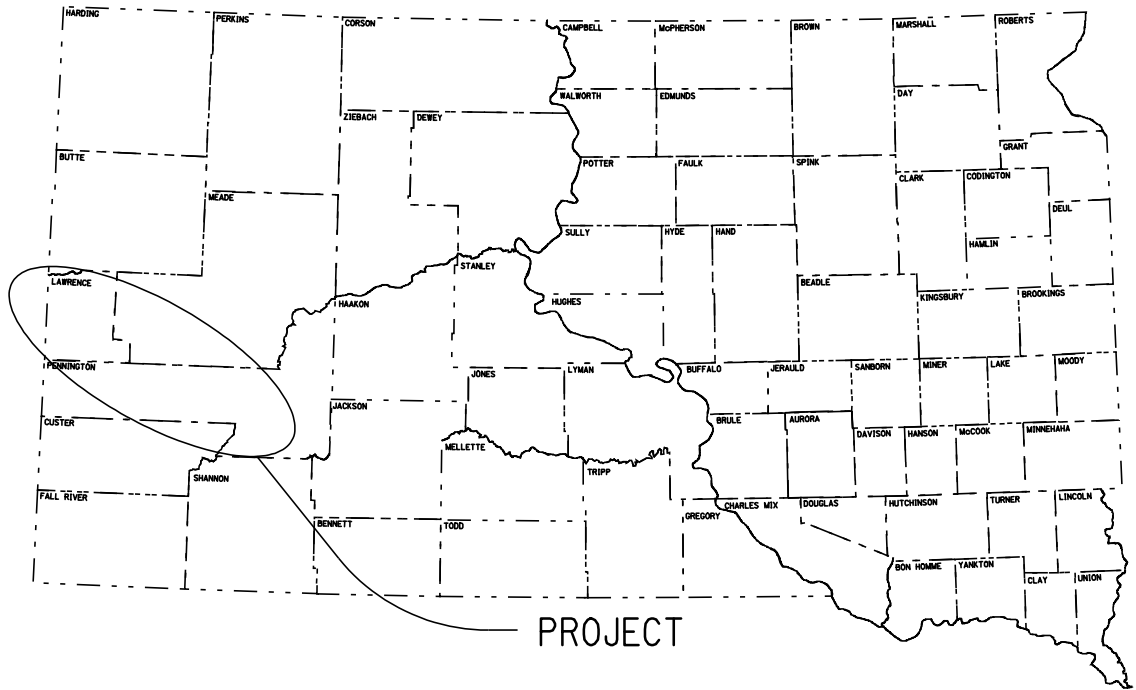
Plotting Date: 25-MAY-2010

PLANS FOR PROPOSED

PROJECTs 079-452, 079S-452, 079-452, 090E-452,
090W-452, 014A-451, 085-451, 085-451,
& 385-451

HIGHWAYs SD79, I-90, US14A, US85 & US385
LAWRENCE, MEADE
& PENNINGTON COUNTIES

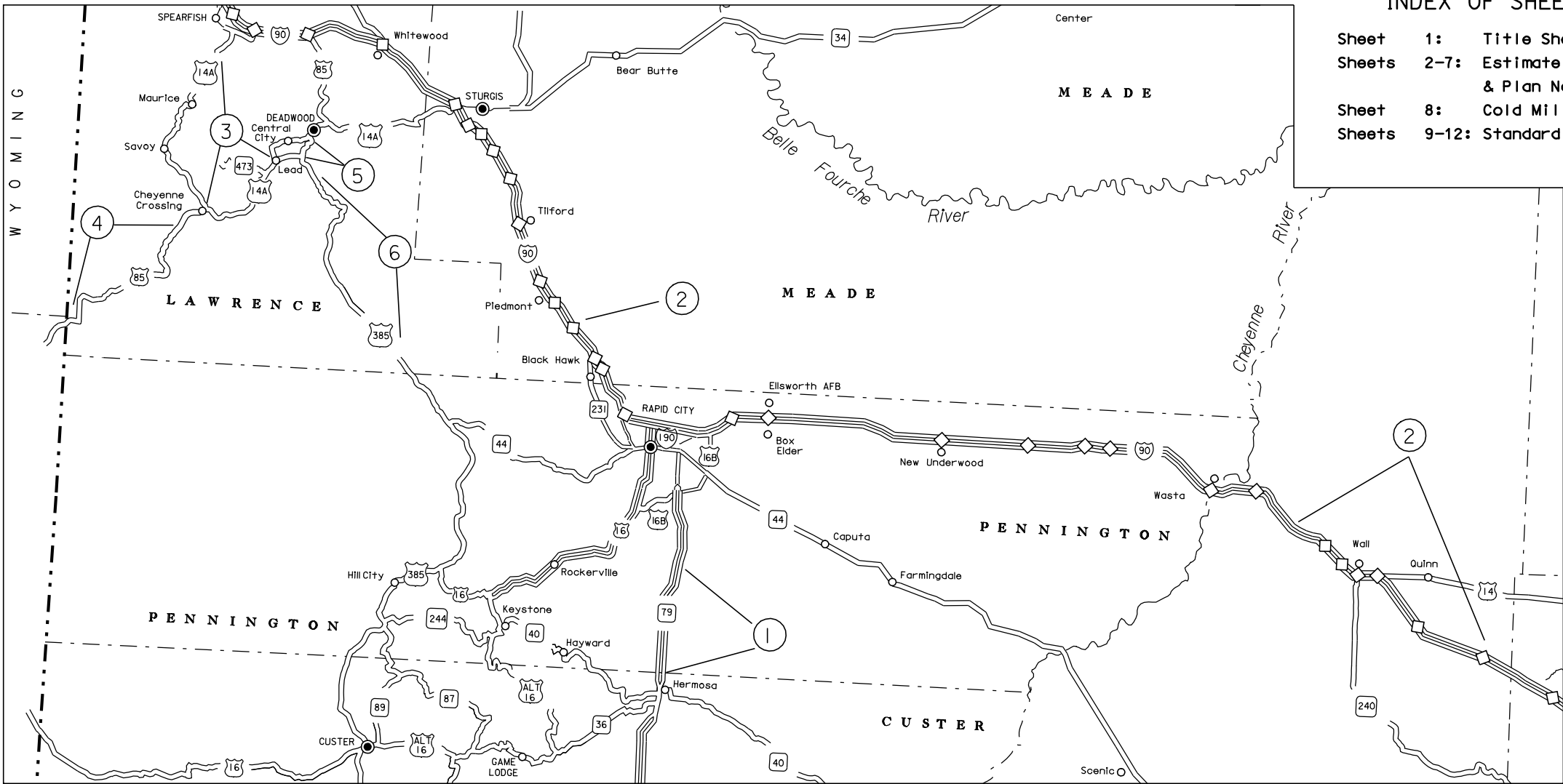
ASPHALT CONCRETE PAVEMENT REPAIR
PCNs ilva, ilvc, ilvd, ilve, ilvf, ilvg, ilvh, ilvj, & ilvk



PROJECT

- ① SD79
MRM 59.9, 079-452, ilva
MRM 61.6, 079S-452, ilvc
MRM 68.2 to MRM 68.5, 079-452, ilvd
- ② I-90
MRM 48.0 to 122.2, 090E-452, ilve
MRM 48.0 to 118.3, 090W-452, ilvf
- ③ US14A
MRM 15.9 to 37.3, 014A-451, ilvg
- ④ US85
MRM 1.0 to 12.2, 085-451, ilvh
- ⑤ US85
MRM 26.0 to 27.4, 085-451, ilvj
- ⑥ US385
MRM 103.5 to 120.0, 385-451, ilvk

Storm Water Permit
No Permit Required



INDEX OF SHEETS

Sheet	1:	Title Sheet
Sheets	2-7:	Estimate of Quantities & Plan Notes
Sheet	8:	Cold Milling Details
Sheets	9-12:	Standard Plates

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ESTIMATE OF QUANTITIES (i1va, SD79)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
320E1200	Asphalt Concrete Composite	40.8	Ton
332E0010	Cold Milling Asphalt Concrete	188	SqYd
633E1305	Pavement Marking Paint, Yellow	2.7	Gal
634E0010	Flagging	10	Hour
634E0100	Traffic Control	414	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	424	Ft

ESTIMATE OF QUANTITIES (i1vc, SD79)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	57	CuYd
260E1010	Base Course	56.7	Ton
320E2000	Maintenance Patching	56.7	Ton
634E0010	Flagging	10	Hour
634E0100	Traffic Control	414	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each

ESTIMATE OF QUANTITIES (i1vd, SD79)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
320E1200	Asphalt Concrete Composite	177.6	Ton
332E0010	Cold Milling Asphalt Concrete	410	SqYd
633E1305	Pavement Marking Paint, Yellow	11.8	Gal
634E0010	Flagging	10	Hour
634E0100	Traffic Control	414	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	1,844	Ft

ESTIMATE OF QUANTITIES (i1ve, I-90 E)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	8	CuYd
260E1010	Base Course	8.4	Ton
320E1200	Asphalt Concrete Composite	202.7	Ton
320E2000	Maintenance Patching	8.4	Ton
332E0010	Cold Milling Asphalt Concrete	1,859	SqYd
633E1300	Pavement Marking Paint, White	4.8	Gal
633E1305	Pavement Marking Paint, Yellow	1.3	Gal
634E0010	Flagging	10	Hour
634E0100	Traffic Control	414	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	1,212	Ft

ESTIMATE OF QUANTITIES (i1vf, I-90 W)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	17	CuYd
260E1010	Base Course	16.7	Ton
320E1200	Asphalt Concrete Composite	271.4	Ton
320E2000	Maintenance Patching	16.7	Ton
332E0010	Cold Milling Asphalt Concrete	2,918	SqYd
633E1300	Pavement Marking Paint, White	6.3	Gal
633E1305	Pavement Marking Paint, Yellow	1.1	Gal
634E0010	Flagging	10	Hour
634E0100	Traffic Control	414	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	1,790	Ft

ESTIMATE OF QUANTITIES (i1vg, US14A)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	2	CuYd
260E1010	Base Course	1.6	Ton
320E1200	Asphalt Concrete Composite	204.6	Ton
320E2000	Maintenance Patching	1.6	Ton
332E0010	Cold Milling Asphalt Concrete	1,272	SqYd
633E1300	Pavement Marking Paint, White	3.5	Gal
633E1305	Pavement Marking Paint, Yellow	0.9	Gal
634E0010	Flagging	10	Hour
634E0100	Traffic Control	992	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	1,084	Ft

ESTIMATE OF QUANTITIES (i1vh, US85)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
320E1200	Asphalt Concrete Composite	81.2	Ton
633E1300	Pavement Marking Paint, White	1.8	Gal
633E1305	Pavement Marking Paint, Yellow	0.4	Gal
634E0010	Flagging	10	Hour
634E0100	Traffic Control	992	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	547	Ft

ESTIMATE OF QUANTITIES (i1vj, US85)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	39	CuYd
260E1010	Base Course	38.9	Ton
320E1200	Asphalt Concrete Composite	17.3	Ton
320E2000	Maintenance Patching	38.9	Ton
332E0010	Cold Milling Asphalt Concrete	200	SqYd
633E1300	Pavement Marking Paint, White	0.2	Gal
634E0010	Flagging	10	Hour
634E0100	Traffic Control	992	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	118	Ft

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	079-452, 079S-452, etc.	2	12

ESTIMATE OF QUANTITIES (i1vk, US385)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
320E1200	Asphalt Concrete Composite	398.1	Ton
332E0010	Cold Milling Asphalt Concrete	4,594	SqYd
633E1300	Pavement Marking Paint, White	9.5	Gal
633E1305	Pavement Marking Paint, Yellow	4.7	Gal
634E0010	Flagging	10	Hour
634E0100	Traffic Control	992	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	2,960	Ft

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 Tom Lehmkuhl, DOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). 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.

UNCLASSIFIED EXCAVATION DIGOUTS

Provided in the Estimate of Quantities is Unclassified Excavation-Digouts at the Maintenance Patching locations for the necessary removal of existing asphalt concrete and base material. Unclassified Excavation Digouts depth shall be 1 foot or as directed by the Engineer. Backfill shall be 6” of Base Course and 6” of Maintenance Patching placed in 3” lifts.

The existing asphalt concrete shall be sawed full depth with a vertical face to the removal limits established by the Engineer. The dimensions provided in these plans are subject to change in the field, at the discretion of the Engineer. Payment will be based on the actual quantities installed at no additional cost to the state.

All costs associated with sawing, removal and disposal of existing asphalt and base material shall be incidental to the contract unit price per cubic yard “Unclassified Excavation Digouts”.

MAINTENANCE PATCHING

Maintenance Patching shall be in accordance with the requirements of Section 324 of the Standard Specifications, Asphalt Concrete Composite.

COLD MILLING

The removed material from the Cold Milling operation shall be properly disposed of by the Contractor.

ASPHALT CONCRETE COMPOSITE

Asphalt Concrete Composite shall be furnished by the Contractor.

Mineral Aggregate for Asphalt Concrete Composite shall conform to the requirements of the Standard Specifications for Class E, Type 1 Asphalt Concrete Specifications.

The asphalt binder used in the mixture shall be PG 58-28, PG 64-22 or PG 64-28 Asphalt Binder.

A Flush Seal will not be required on this project.

Locations and quantities of asphalt repair are subject to change. The exact locations will be determined in the field by the Engineer. The Engineer reserves the right to adjust quantities and/or add locations at no additional cost to the state.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	079-452, 079S-452, etc.	3	12

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1va)

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Asphalt Concrete Composite (Tons)	Cold Milling Asphalt Concrete (SqYd)	Tempoary Pavement Marking (Ft)	Pavement Marking Paint, Yellow (Gal)
SD79	59.9	Median, Mill 4' width along edges	20	212	0.13	40.8	188	424	2.7

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1vc)

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Maintenance Patching (Tons)	Unclassified Excavation Digouts (Cuyds)	Base Course (Tons)
SD79 S	61.6	Median Crossover Gumbo Lilly	45	34	0.5	56.7	57	56.7

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1vd)

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Asphalt Concrete Composite (Tons)	Cold Milling (Sqyd)	Tempoary Pavement Marking (Ft)	Pavement Marking Paint, Yellow (Gal)
SD79	68.2	Median, Mill 4' width along edges	20	387	0.13	74.5	172	774	5.0
SD79	68.2	Median, Mill 4' width along edges	20	175	0.13	33.7	78	350	2.2
SD79	68.2	Median, Mill 4' width along edges	20	223	0.13	42.9	99	446	2.9
SD79	68.5	Median, Mill 4' width along edges	20	137	0.13	26.4	61	274	1.8
					Totals	177.6	410	1,844	11.8

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1ve)

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Asphalt Concrete Composite (Tons)	Maintenance Patching (Tons)	Cold Milling (Sqyd)	Unclassified Excavation Digouts (Cuyds)	Base Course (Tons)	Tempoary Pavement Marking (Ft)	Pavement Marking Paint, White (Gal)	Pavement Marking Paint, Yellow (Gal)
I-90 E	122.200	Mill at Begin and End	24	300	0.13	69.3		320			300	1.2	1.0
I-90 E	122.200	On Ramp	12	100	0.13	11.6		133			100	0.4	0.3
I-90 E	48.0	Off Ramp	3	10	0.500		1.1		1	1.1			
I-90 E	48.0	Off Ramp	3	20	0.500		2.2		2	2.2			
I-90 E	48.0	Off Ramp	3	12	0.500		1.3		1	1.3			
I-90 E	48.0	Off Ramp	3	10	0.500		1.1		1	1.1			
I-90 E	48.0	Off Ramp	3	24	0.500		2.7		3	2.7			
I-90 E	48.0	On Ramp	19	520	0.13	95.1		1,098			520	2.1	
I-90 E	48.0	On Ramp	13	146	0.13	18.3		211			146	0.6	
I-90 E	48.0	On Ramp	6	146	0.13	8.4		97			146	0.6	
					Totals	202.7	8.4	1,859	8	8.4	1,212	4.8	1.3

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1vf)

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	079-452, 079S-452, etc.	5	12

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Asphalt Concrete Composite (Tons)	Maintenance Patching (Tons)	Cold Milling (Sqyd)	Unclassified Excavation Digouts (Cuyds)	Base Course (Tons)	Tempoary Pavement Marking (Ft)	Pavement Marking Paint, White (Gal)	Pavement Marking Paint, Yellow (Gal)
I-90 W	118.30	Mill at Begin and End	24	200	0.13	46.2		320			200	0.8	0.6
I-90 W	109.76		24	30	0.13	6.9		80			30	0.1	0.1
I-90 W	109.76		12	28	0.13	3.2		37			28	0.1	0.1
I-90 W	109.87		5	15	0.500		2.8		3	2.8		0.1	0.0
I-90 W	108.87		5	75	0.500		13.9		14	13.9		0.3	0.2
I-90 W	48.00	Off Ramp	20	365	0.13	70.3		811			365	1.2	
I-90 W	48.00	Off Ramp	11	140	0.13	14.8		171			140	0.4	
I-90 W	48.00	Off Ramp	9	140	0.13	12.1		140			140	0.4	
I-90 W	48.00	Off Ramp	11	317	0.13	33.6		387			317	1.0	
I-90 W	48.00	On Ramp	19	350	0.13	64.0		739			350	1.1	
I-90 W	48.00	On Ramp	14	110	0.13	14.8		171			110	0.4	
I-90 W	48.00	On Ramp	5	110	0.13	5.3		61			110	0.4	
					Totals	271.4	16.7	2,918	17	16.7	1,790	6.3	1.1

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1vg)

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Asphalt Concrete Composite (Tons)	Maintenance Patching (Tons)	Cold Milling (Sqyd)	Unclassified Excavation Digouts (Cuyds)	Base Course (Tons)	Tempoary Pavement Marking (Ft)	Pavement Marking Paint, White (Gal)	Pavement Marking Paint, Yellow (Gal)
US14A	15.90		5	6	0.50		1.1		1	1.1		0.0	0.0
US14A	16.30		14	273	0.13	36.8		425			273	0.9	0.2
US14A	20.30		12	86	0.13	9.9		115			86	0.3	0.1
US14A	24.50		12	30	0.13	3.5		40			30	0.1	0.0
US14A	24.20		3	4	0.50		0.4		0	0.4		0.0	0.0
US14A	24.60	Mill at Begin and End	24	528	0.13	122.0		320			528	1.7	0.4
US14A	27.10		12	21	0.13	2.4		28			21	0.1	0.0
US14A	27.15		24	106	0.13	24.5		283			106	0.3	0.1
US14A	37.30		14	40	0.13	5.4		62			40	0.1	0.0
					Totals	204.6	1.6	1,272	2	1.6	1,084	3.5	0.9

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1vh)

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Asphalt Concrete Composite (Tons)	Tempoary Pavement Marking (Ft)	Pavement Marking Paint, White (Gal)	Pavement Marking Paint, Yellow (Gal)
US85	12.20	Milling not required	13	47	0.13	5.9	47	0.2	0.0
US85	11.20	Milling not required	45	50	0.13	21.7	50	0.2	0.0
US85	8.70	Milling not required	13	200	0.13	25.0	200	0.6	0.2
US85	9.10	Milling not required	13	150	0.13	18.8	150	0.5	0.1
US85	1.00	Milling not required	6	40	0.13	2.3	40	0.1	0.0
US85	2.00	Milling not required	13	60	0.13	7.5	60	0.2	0.0
					Totals	81.2	547	1.8	0.4

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1vj)

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Asphalt Concrete Composite (Tons)	Maintenance Patching (Tons)	Cold Milling (Sqyd)	Unclassified Excavation Digouts (Cuyds)	Base Course (Tons)	Tempoary Pavement Marking (Ft)	Pavement Marking Paint, White (Gal)
US85	27.400	Sherman & Charles St.	9	54	0.500		18.0		18	18.0		
US85	27.400	Sherman & Charles St.	8	17	0.500		5.0		5	5.0		
US85	27.400	Sherman & Charles St.	6	30	0.500		6.7		7	6.7		
US85	27.400	Sherman & Charles St.	13	19	0.500		9.1		9	9.1	19	
US85	25.950		30	40	0.13	11.6		133			40	0.1
US85	26.000		12	50	0.13	5.8		67			50	0.1
					Totals	17.3	38.9	200	39	38.9	109	0.2

TABLE OF ASPHALT CONCRETE PAVEMENT REPAIR (i1vk)

Highway	MRM	Description	Width (Ft)	Length (Ft)	Depth (Ft)	Asphalt Concrete Composite (Tons)	Cold Milling (Sqyd)	Tempoary Pavement Marking (Ft)	Pavement Marking Paint, White (Gal)	Pavement Marking Paint, Yellow (Gal)
US385	119.200		12	80	0.13	9.2	107	80	0.3	0.1
US385	120.000		12	120	0.13	13.9	160	120	0.4	0.2
US385	116.300		24	115	0.13	26.6	307	115	0.4	0.2
US385	113.900		12	200	0.13	23.1	267	200	0.6	0.3
US385	110.800		12	528	0.13	61.0	704	528	1.7	0.8
US385	110.500		24	36	0.13	8.3	96	36	0.1	0.1
US385	108.700		24	61	0.13	14.1	163	61	0.2	0.1
US385	108.000		32	80	0.13	24.7	284	80	0.3	0.1
US385	106.200		12	200	0.13	23.1	267	200	0.6	0.3
US385	103.800		24	140	0.13	32.4	373	140	0.4	0.2
US385	103.500		12	400	0.13	46.2	533	400	1.3	0.6
US385	111.300	Between Holso & Paha Sapa Rd.	12	1,000	0.13	115.6	1,333	1,000	3.2	1.6
					Totals	398.1	4,594	2,960	9.5	4.7

TRAFFIC CONTROL

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.

All traffic control, materials and equipment shall be moved to a minimum distance of 30 feet from the edge of the traveled lanes during nights, weekends, and other non-working hours.

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 Contractor shall place Grooved Pavement with 35 MPH speed advisory signs in advance of the milling locations. A Bump sign shall be placed at the beginning and the end of the milled locations. The Contractor will be allowed to mill 3 locations ahead of the asphalt paving operations, with the exception of I-90. The asphalt paving operations shall be completed within 7 days upon completion of the milling operations, with the exception of I-90. The milling and asphalt paving for the locations on I-90 shall be completed in the same day.

All Contractor's vehicles or equipment entering or leaving a closed work area shall display a flashing amber light.

During construction, all vehicles, equipment and materials shall be located in the half of the roadway which is closed to traffic.

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.

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

TEMPORARY PAVEMENT MARKING

Temporary pavement markings for the centerline of the roadway shall be Temporary Road Markers as per the Standard Specifications. Covers on tabs shall be removed prior to opening the roadway to traffic.

The contractor shall be responsible for maintaining a visible and reflective centerline throughout the project. Any marking covered or damaged shall be replaced prior to the end of the day.

All costs for temporary pavement marking including furnishing, applying, uncovering and maintenance of tabs shall be incidental to the contract unit price per foot for Temporary Pavement Marking.

PERMANENT PAVEMENT MARKING

The Contractor shall advise the Engineer a minimum of 2 weeks prior to the application of the permanent pavement marking to allow the State to check and mark the location of no passing zones. All materials shall be applied as per manufacturer's recommendations.

Application of permanent pavement marking paint shall be completed within 7 days following completion of the asphalt paving.

The rate of application for a solid 4" line shall be 16.9 gallons per mile.

INVENTORY OF TRAFFIC CONTROL DEVICES (i1va, i1vc, i1vd, i1ve & i1vf)

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	2	34	68
W5-1	48" x 48"	RAMP NARROWS	1	34	34
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
SPECIAL	18" x 72"	EXIT ###	2	26	52
*****	*****	TYPE III BARRICADE - 8 FT. DOUBLE SIDED	1	56	56
TOTAL UNITS					414

INVENTORY OF TRAFFIC CONTROL DEVICES (i1vg, i1vh, i1vj, & i1vk)

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRE D	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	4	17	68
W8-1	36" x 36"	BUMP	6	27	162
W8-15	48" x 48"	GROOVED PAVEMENT	3	34	102
W8-11	48" x 48"	UNEVEN LANES	6	34	204
W13-1	24" x 24"	ADVISORY SPEED PLATE	3	16	48
W20-1	48" x 48"	ROAD WORK AHEAD	4	34	136
W20-4	48" x 48"	SINGLE LANE ROAD AHEAD	4	34	136
W20-7a	48" x 48"	FLAGGER	4	34	136
TOTAL UNITS					992

PLOT SCALE - 200,000,000:1,000,000

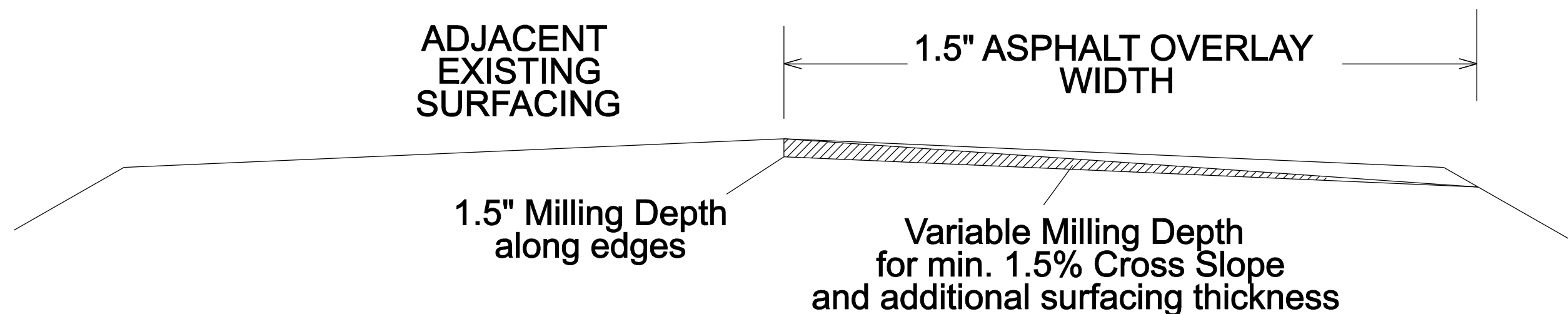
PLOTTED FROM - TRRC11951

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	079-452 079S-452 etc.		
		08	12

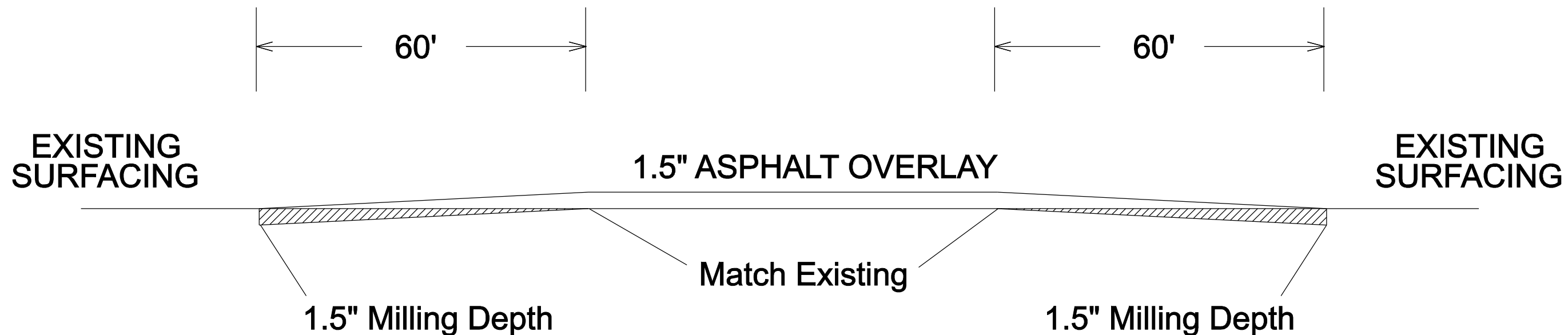
Plotting Date: 25-MAY-2010

COLD MILLING ASPHALT

TYPICAL SECTION OF MILLING ALONG EDGES

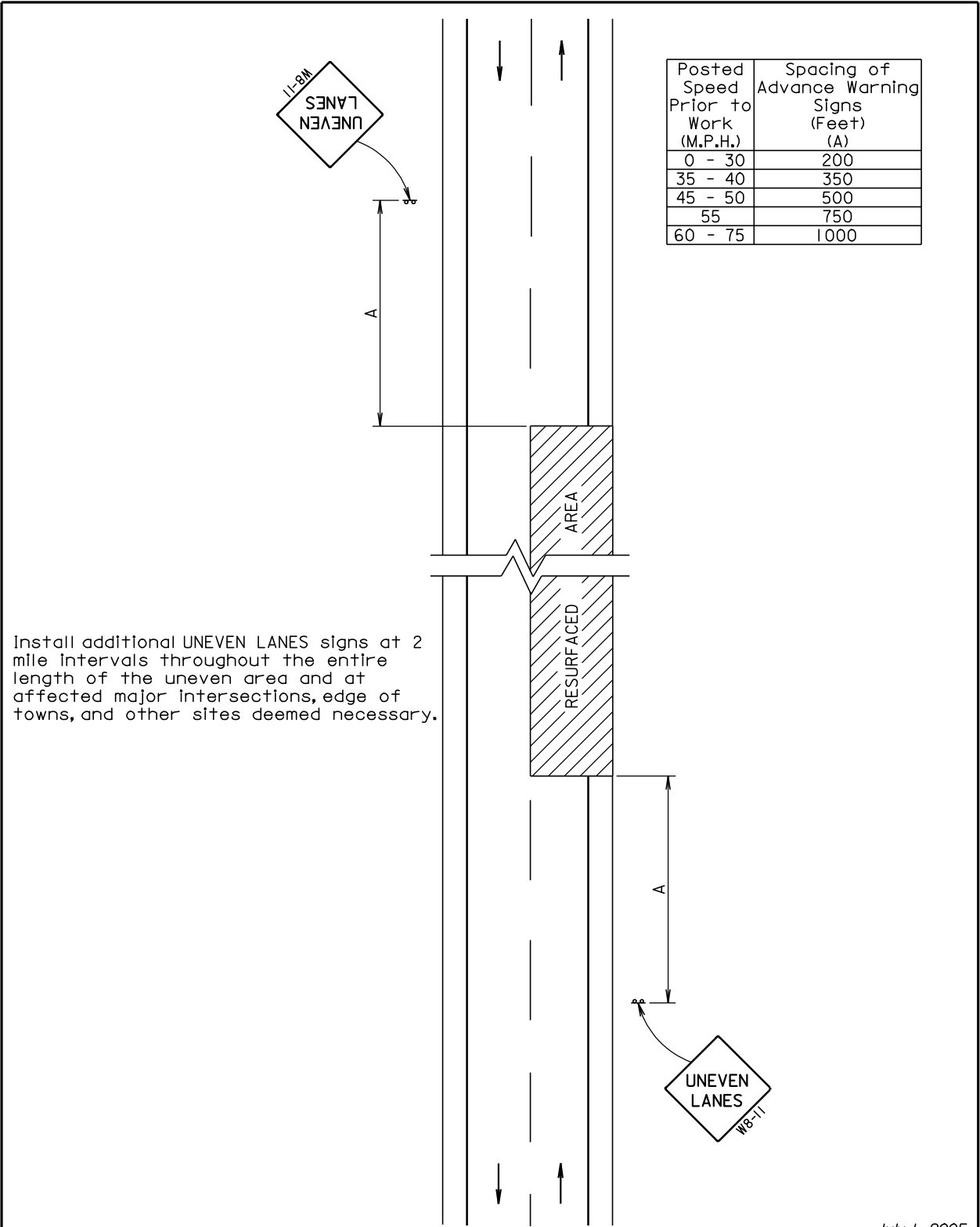


MILLING AT BEGIN AND END OF ASPHALT OVERLAYS (Full Roadway Width)

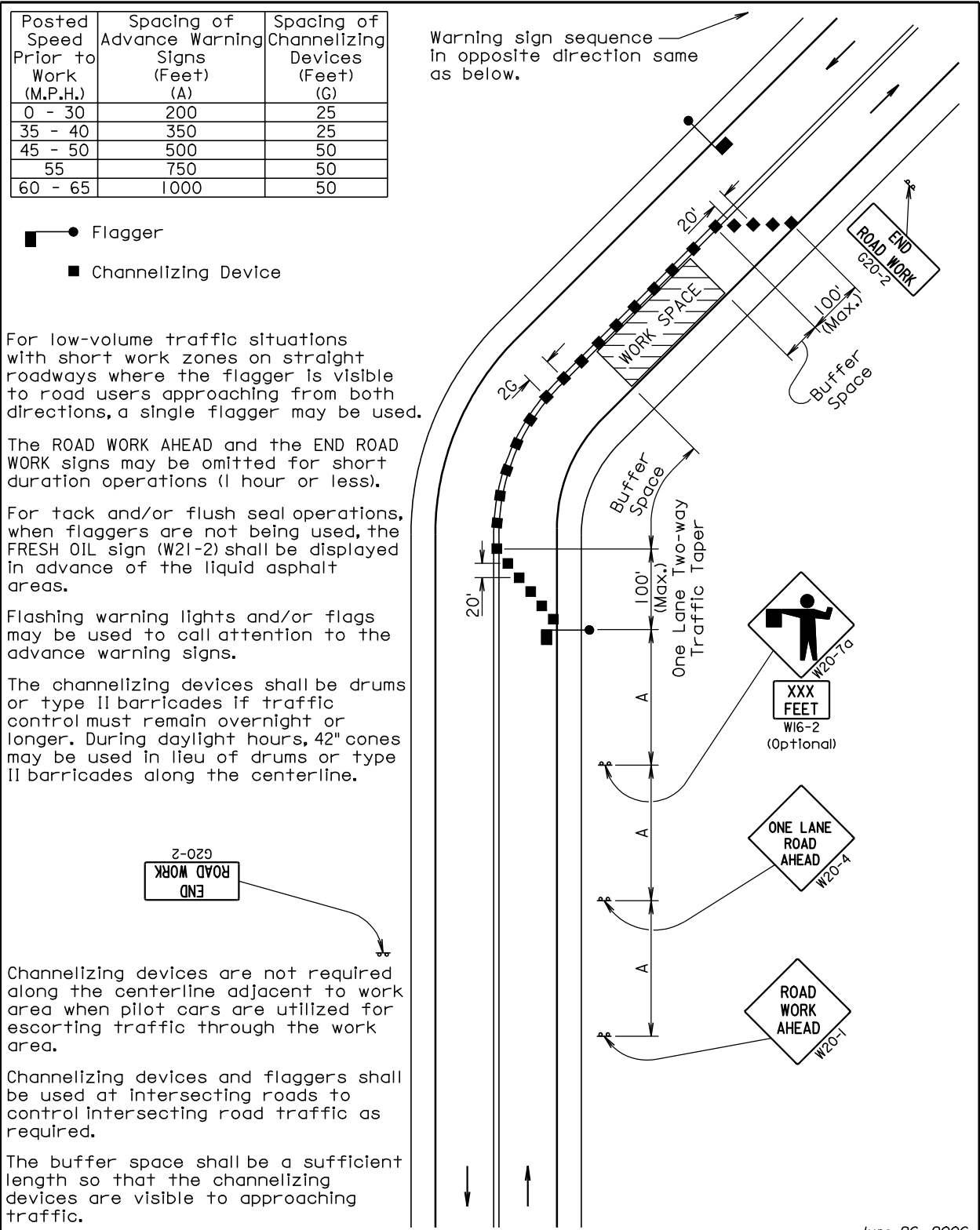


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Plotting Date: 25-MAY-2010

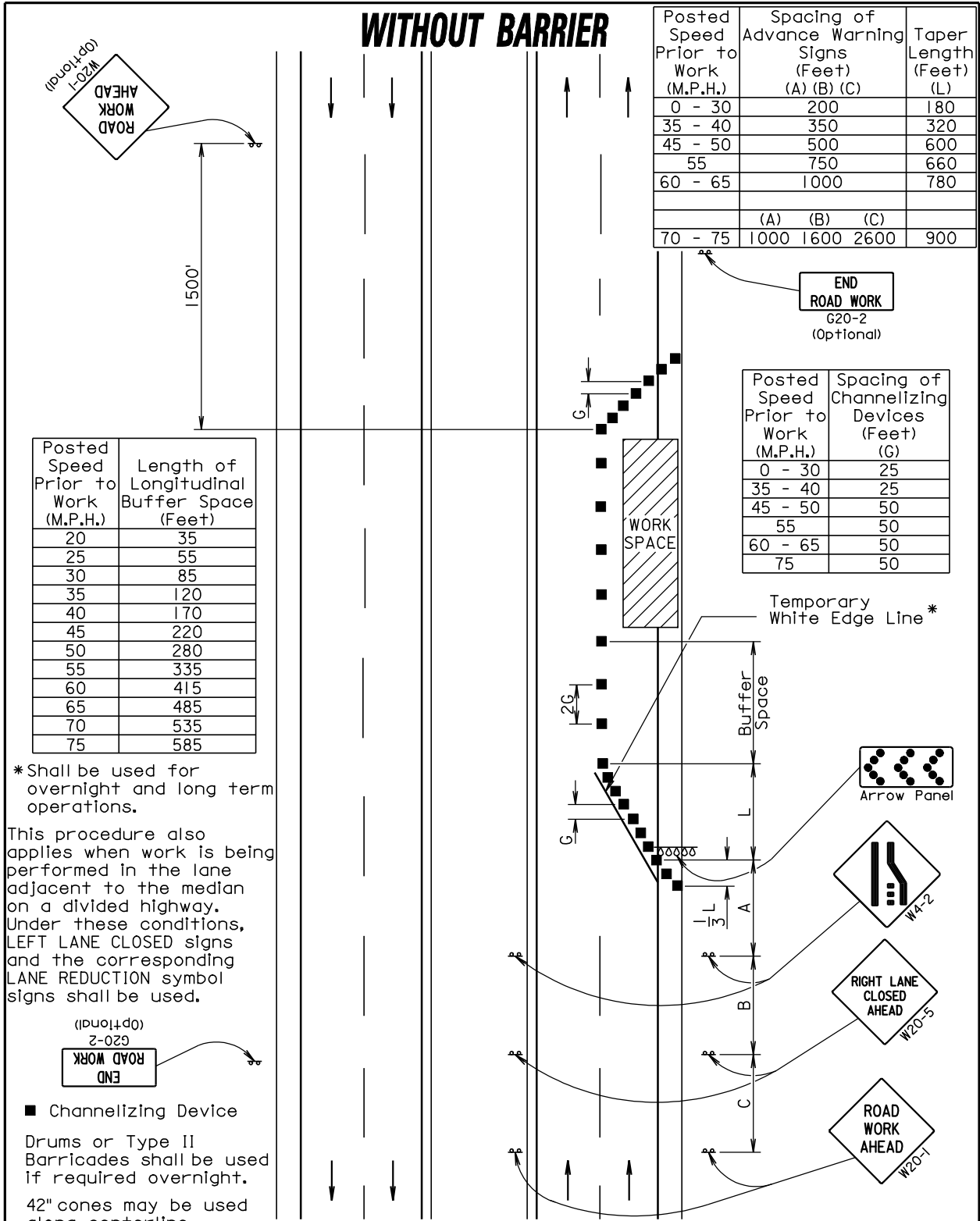


July 1, 2005

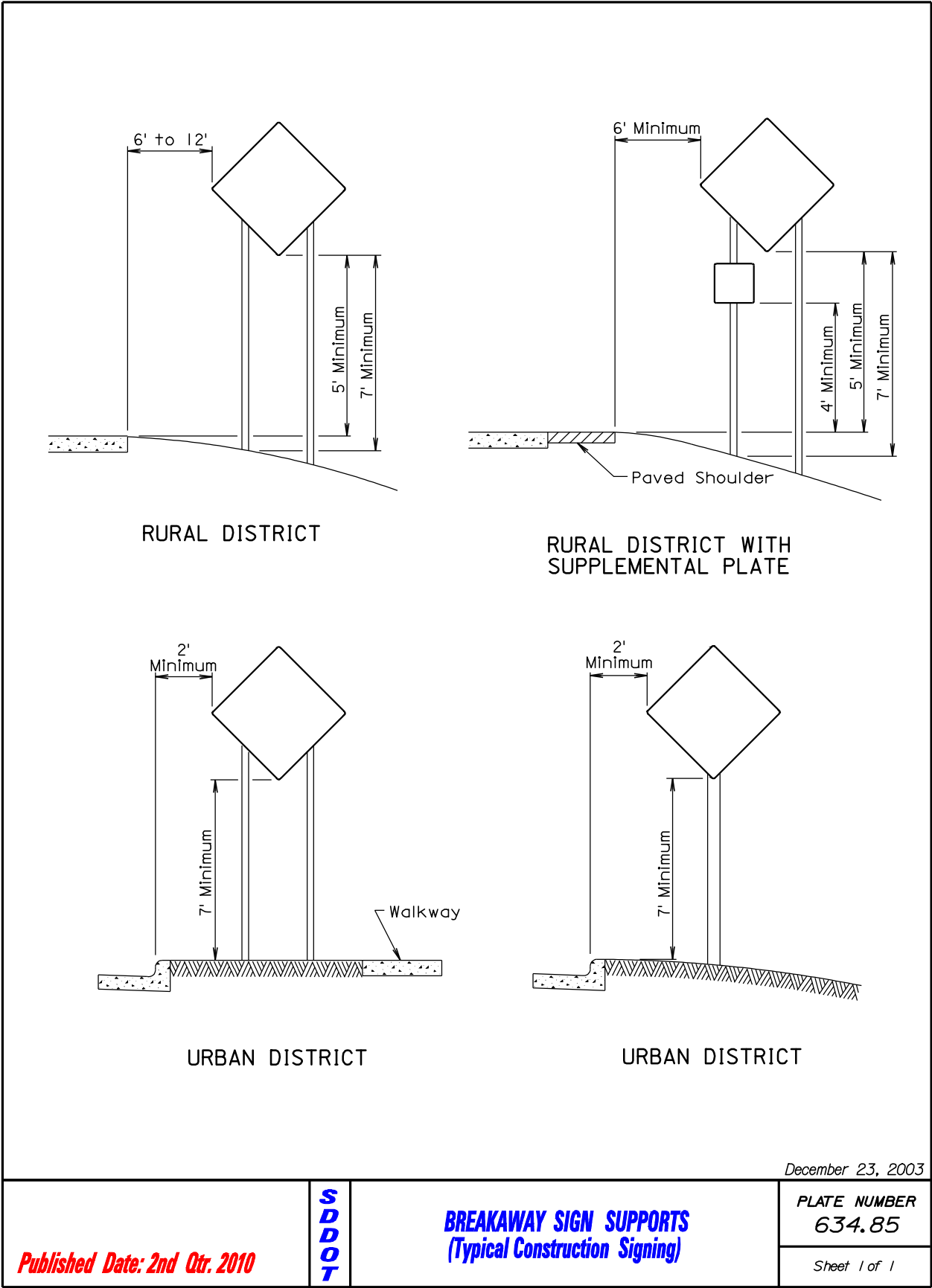
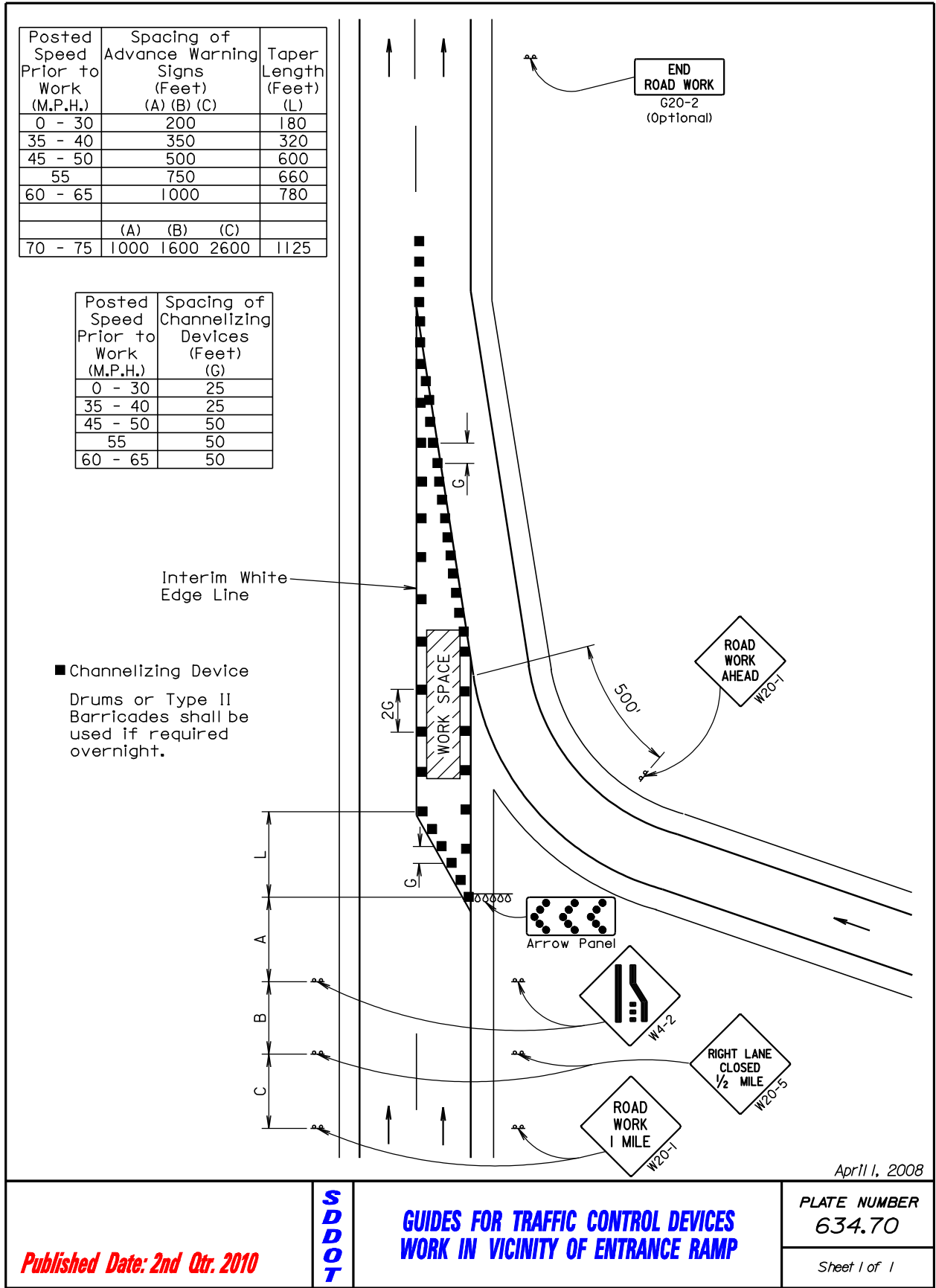


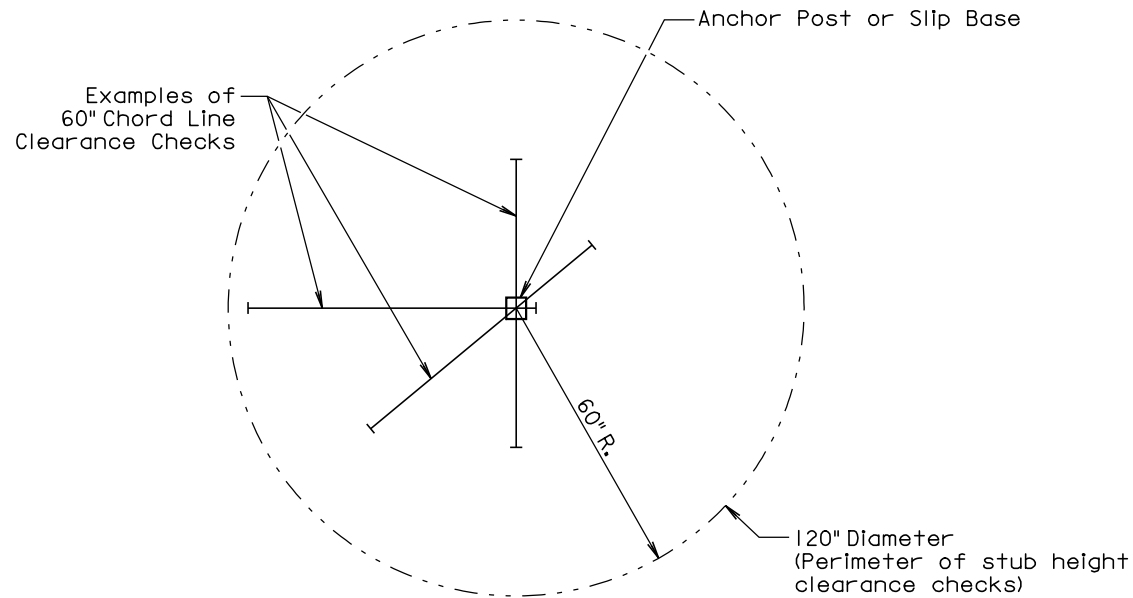
June 26, 2006

Plotting Date: 25-MAY-2010

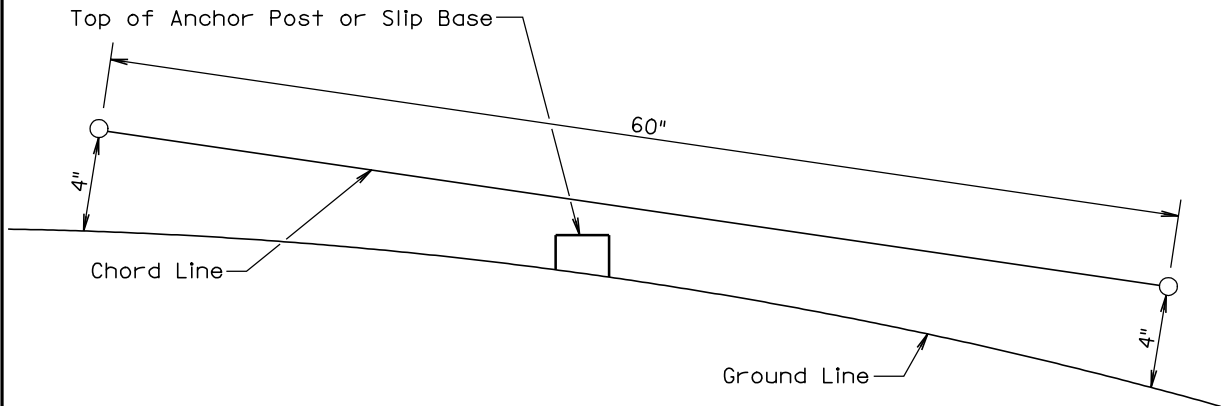


Plotting Date: 25-MAY-2010





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 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. 2010	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1