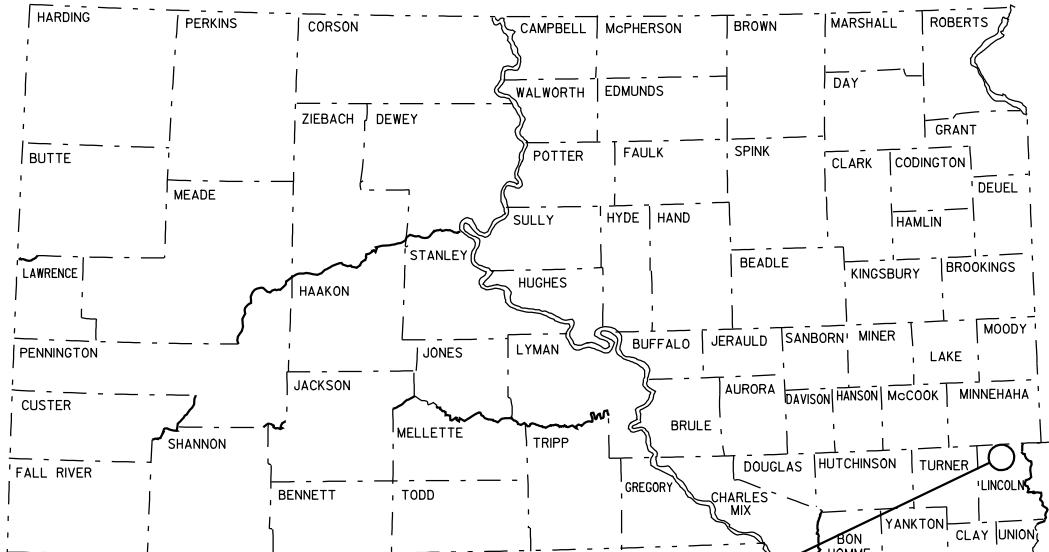


PLOT SCALE - 8700.00000011.000000

PLOTTED FROM - TRSF12113



PROJECT



DESIGN DESIGNATION 229 S-271

ADT(2009)	12,475
ADT(2029)	24,194
DHV	2613
D	50%
T DHV	5.5%
T ADT	12.1%
V	65 MPH

DESIGN DESIGNATION 029 S-271

ADT(2009)	16,842
ADT(2029)	29,939
DHV	3233
D	50%
T DHV	5.6%
T ADT	12.4%
V	75MPH

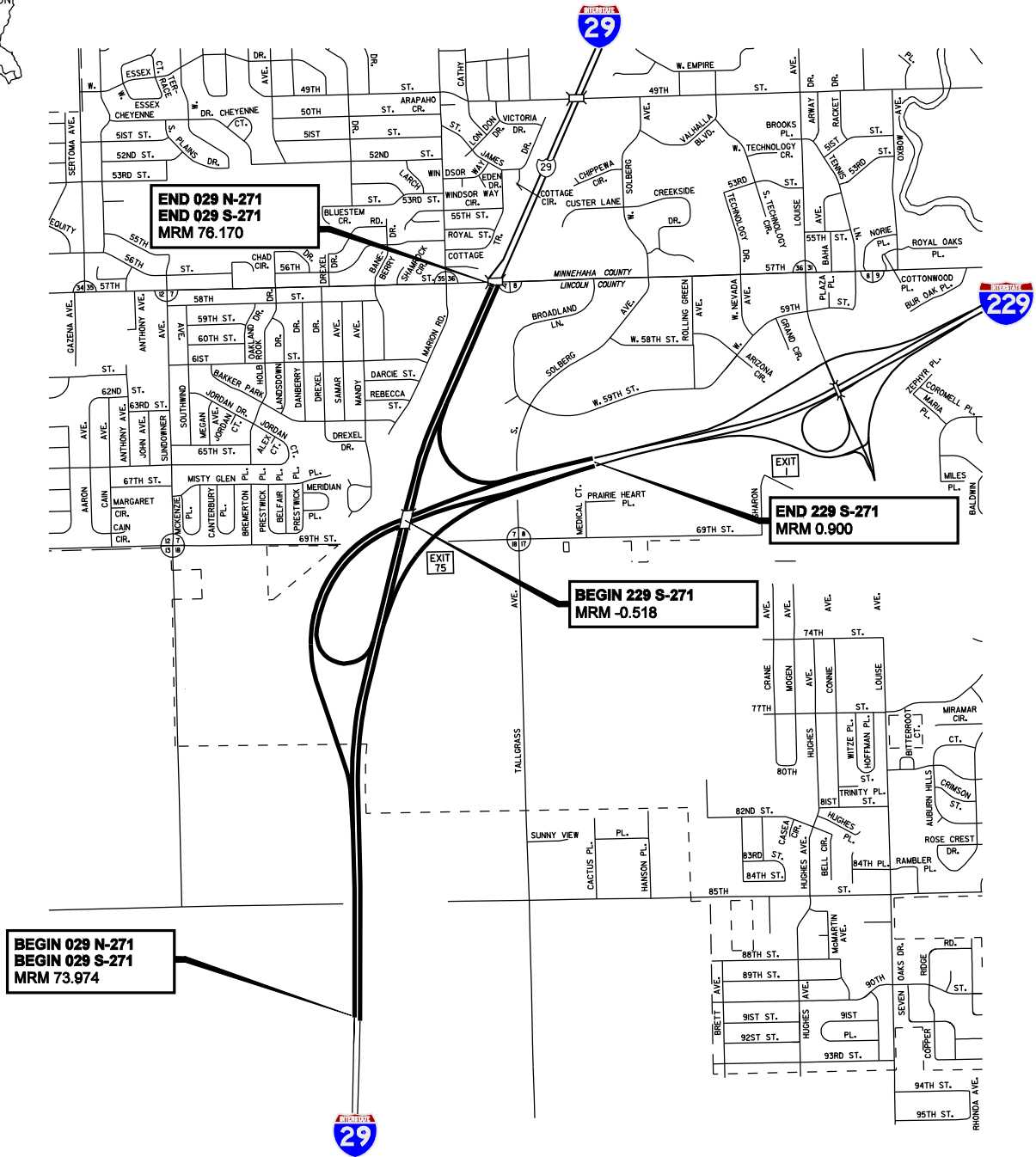
DESIGN DESIGNATION 029 N-271

ADT(2009)	16,842
ADT(2029)	29,939
DHV	3233
D	50%
T DHV	5.6%
T ADT	12.4%
V	75 MPH

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

**PROJECT 029 NS-271 & 229 S-271
I 29 & I 229
LINCOLN COUNTY**

**PCC PAVEMENT REPAIR WITH ASPHALT CONCRETE
PCN I1TW, I1TX & I1TY**



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	029 N-271, 029 S-271 & 229 S-271	01	09

Plotting Date: 30-APR-2010

INDEX OF SHEETS

Sheet 1	Layout Map & Index of Sheets
Sheet 2	Estimate of Quantities
Sheets 3 & 4	Plan Notes
Sheet 5	Table of Locations and Materials
Sheet 6	Itemized List for Traffic Control
Sheet 7 - 9	Standard Plates

**STORM WATER PERMIT
NONE REQUIRED**

ESTIMATE OF QUANTITIES

029 N-271 PCN I1TW

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1100	Remove Concrete Pavement	372.5	SqYd
320E1200	Asphalt Concrete Composite	186.2	Ton
634E0100	Traffic Control	366	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each

029 S-271 PCN I1TX

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1100	Remove Concrete Pavement	226.7	SqYd
320E1200	Asphalt Concrete Composite	113.3	Ton
634E0100	Traffic Control	366	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each

229 S-271 PCN I1TY

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1100	Remove Concrete Pavement	92.4	SqYd
320E1200	Asphalt Concrete Composite	46.2	Ton
634E0100	Traffic Control	365	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

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

SCOPE OF WORK

This project consists of full depth PCCP removal and replacement with Asphalt Concrete Composite.

SEQUENCE OF OPERATIONS

Lane closures and/or narrowing of lanes will **NOT** be allowed as follows:

I29 Northbound, south of 41st St.

- 6:30 a.m. to 8:30 a.m.
- 4:00 p.m. to 7:00 p.m.

I29 Southbound

- 4:00 p.m. to 7:00 p.m.

I229 (including the ramps to and from I29)

- 6:30 a.m. to 8:30 a.m.
- 4:00 p.m. to 7:00 p.m.

Traffic shall be returned to the normal driving lanes during nonworking hours. Approval from the Engineer will be required to complete work at night.

COORDINATION BETWEEN CONTRACTORS

A separate SDDOT project, IM 0293(97)76 PCN 02K9, is anticipated to begin September 1, 2010 on I29 Northbound and Southbound in the vicinity of this project. The Contractor shall schedule his/her work so as not to interfere with or hinder the progress of the work performed by other Contractors.

NIGHTTIME WORK REQUIREMENTS

Work spaces shall be lighted in accordance with NCHRP 476, Level II. Cost for this work shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

SPECIAL CONDITIONS

The Contractor shall acquire the necessary noise permits from the City of Sioux Falls Health Department.

EXISTING PCC PAVEMENT

The existing 9” Plain Jointed PCCP is reinforced with wire mesh and the transverse joints will have standard Dowel Bar Assemblies. The course aggregate in the existing PCCP consists of crushed ledge rock.

SAWING IN EXISTING SURFACING

Where new asphalt concrete is placed adjacent to existing asphalt concrete or existing PCCP, the existing pavement shall be sawed full depth to a true, straight vertical face. No separate payment shall be made for sawing.

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. 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.

Cost for 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 contract unit prices for the various items.

RESTORATION OF GRAVEL CUSHION

An inspection of the gravel cushion sub grade shall be made after removing concrete from each pavement replacement area. Areas of excess moisture shall be dried to the satisfaction of the Engineer. Loose material shall be removed. Each replacement area shall be leveled and compacted to the satisfaction of the Engineer.

If additional gravel cushion material is required, the Contractor shall furnish, place and compact gravel cushion to the satisfaction of the Engineer at no additional cost to the State.

Cost for this work shall be incidental to the contract unit prices per ton for Asphalt Concrete Composite.

ASPHALT CONCRETE COMPOSITE

Mineral aggregate for the Asphalt Concrete Composite shall conform to the requirements for Class G, Type 1. All other requirements in the Standard Specifications for Asphalt Concrete Composite shall apply.

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

The estimated quantities are approximate and there will be no increase in the contract unit price per ton for Asphalt Concrete Composite for any increases or decreases in either the haul or quantity

PCC PAVEMENT REPAIR WITH ASPHALT CONCRETE

New pavement thickness shall be that of the adjacent pavement. A minimum thickness of 8 inches shall be maintained where the existing pavement thickness is less than 9 inches. The new Asphalt Concrete Composite shall be placed in equal lifts not to exceed 3 inches.

Locations and size (length or width) of concrete repair areas are subject to change in the field, at the discretion of the Engineer, at no additional cost to the state. Payment will be based on actual area replaced.

Existing concrete pavement shall be sawed full depth at the beginning and end of the PCCP repair areas. When either the beginning or end of a PCCP repair area falls close to an existing joint or crack, the PCCP repair area shall be extended to eliminate the existing joint or crack.

Saw cuts that extend beyond the repair area shall be filled with a non-shrinkage mortar mix at the Contractor’s expense.

Existing concrete pavement in the replacement areas shall be removed by the lift out method or by means that minimize damage to the base and sides of remaining in place concrete. All removed material shall be removed from within the right-of-way by the end of the workday. Damage to adjacent concrete caused by the Contractor’s operations shall be removed and replaced at the Contractor’s expense.

GENERAL MAINTENANCE OF TRAFFIC

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.

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor’s employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

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.

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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	029 N-271, 029 S-271 & 229 S-271	04	09

MAINTENANCE OF TRAFFIC – PAVEMENT REPAIR

Sufficient traffic control devices have been included in these plans to sign two separate work areas. If the Contractor elects to work on additional sites simultaneously, the cost for additional traffic control devices shall be incidental to the contract unit price per unit for Traffic Control.

A Type III Barricade shall be installed at the end of a lane closure taper as detailed in these plans. Additional Type III Barricades shall be installed facing traffic within the closed lane at a spacing of 1/4 mile, if applicable.

Each mainline repair location from which the in place concrete has been removed shall be marked with a minimum of two reflectorized drums. In areas containing numerous concrete repair locations, two reflectorized drums should be installed at a spacing of 660’ alternating with the Type III Barricades.

Signs may be mounted on portable supports.

Holes in the shoulder pavement created during removal operations shall be filled with Asphalt Concrete Composite prior to opening the lane to traffic. This material shall be supplied by the Contractor at no additional cost to the State.

Routing traffic onto the shoulders during any phase of the construction will not be allowed. Damage to the shoulders or ditch due to the Contractor's operations shall be repaired by the Contractor, to the satisfaction of the Engineer, at no expense to the State. This includes the routing of traffic onto these shoulders around the work zones.

In all work zones, the same channelizing devices and spacing used on centerline will also be required on the shoulders. These channelizing devices shall be placed in locations to adequately keep traffic completely off these shoulders. Continuous maintenance of the shoulder devices will be required to keep them in place. Cost for these extra channelizing devices shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

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.

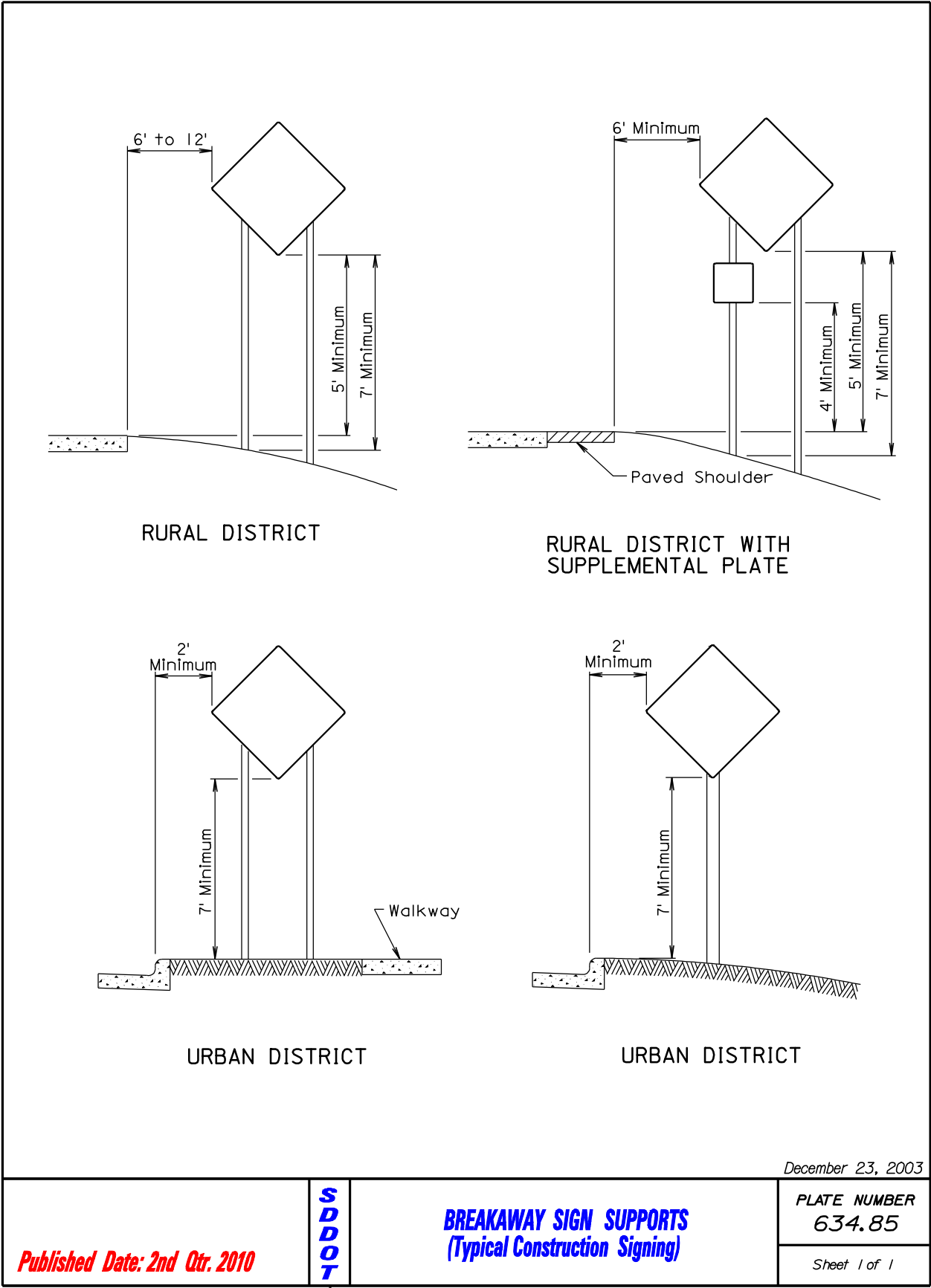
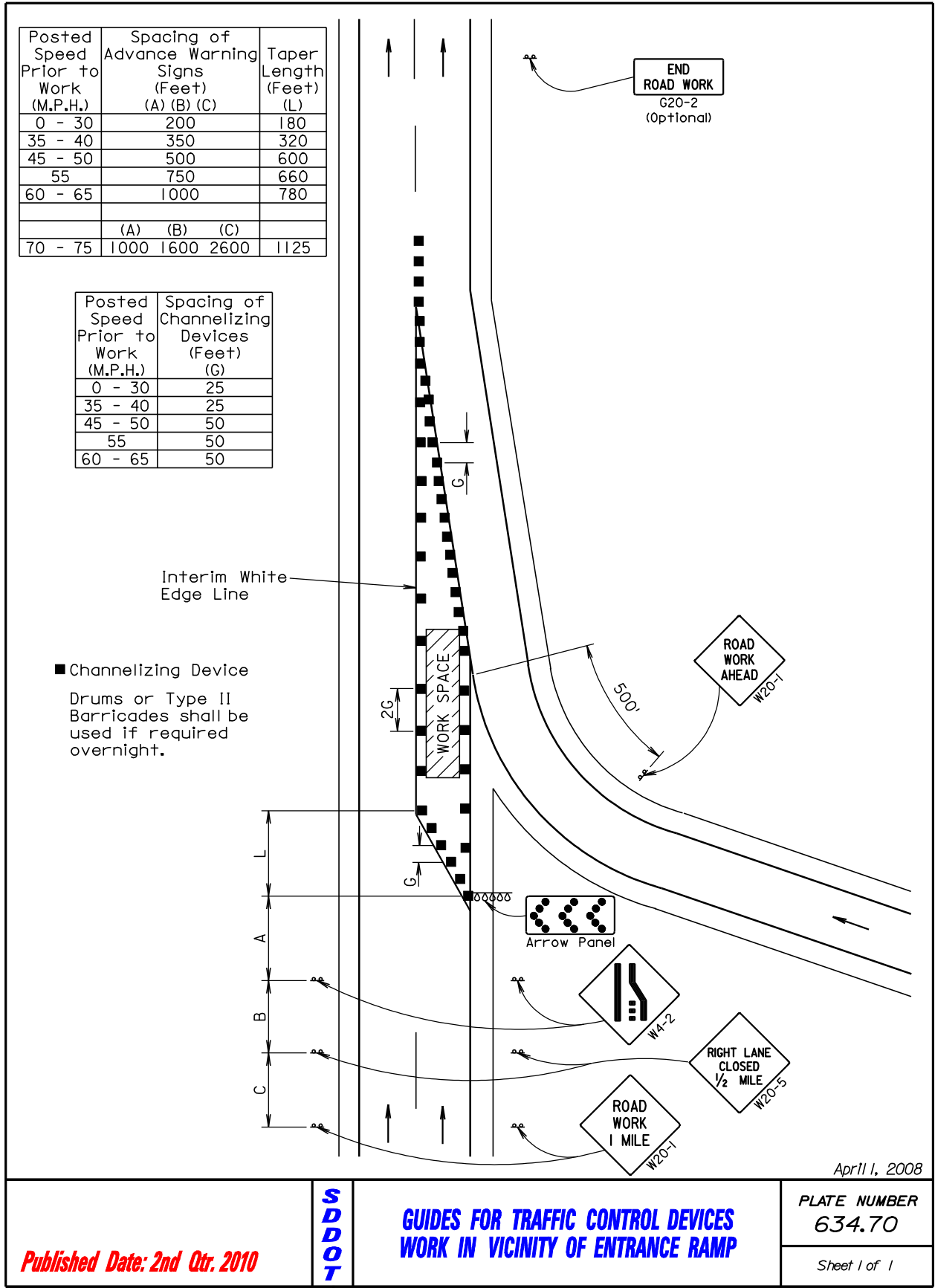
If any earth disturbing activities occur within the current geographical or historic boundaries of any South Dakota reservation, the Contractor shall obtain Tribal Historical Preservation Office (THPO) clearance. If no THPO exists, the required SHPO clearance shall suffice, with documentation of Tribal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

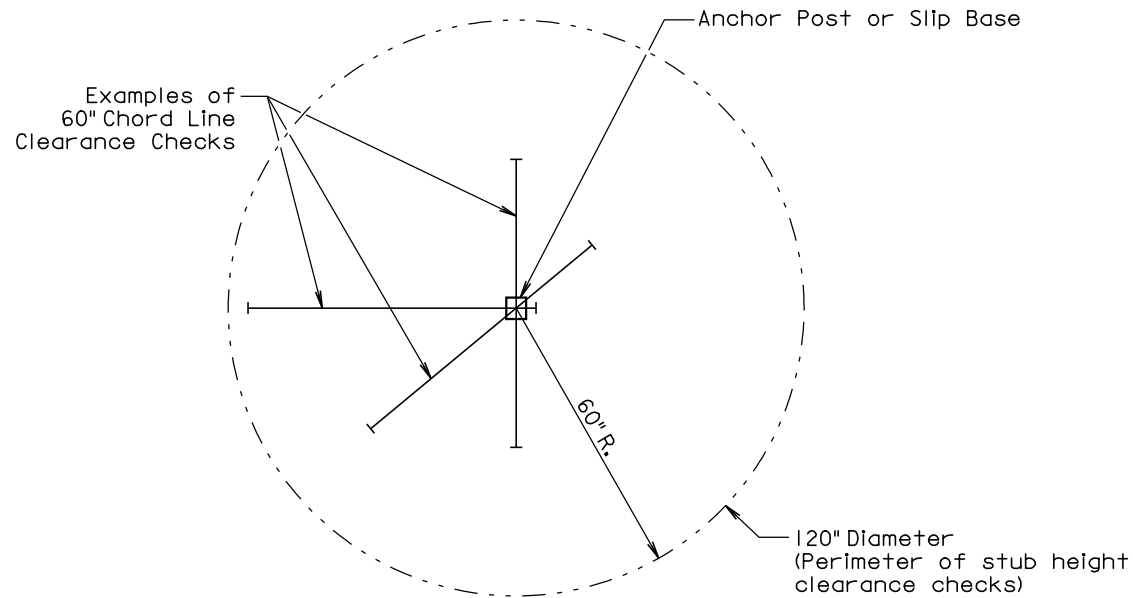
ITEMIZED LIST FOR TRAFFIC CONTROL

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	3	17	51
R2-1	30" x 36"	SPEED LIMIT 45	2	23	46
R2-1	30" x 36"	SPEED LIMIT 55	4	23	92
R2-1	30" x 36"	SPEED LIMIT 65	2	23	46
W3-5	48" x 48"	SPEED REDUCTION (___ MPH)	4	34	136
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	4	34	136
W5-4	48" x 48"	RAMP NARROWS	1	34	34
W13-1	24" x 24"	ADVISORY SPEED PLATE	1	16	16
W13-4	24" x 24"	ON RAMP	1	16	16
W20-1	48" x 48"	ROAD WORK AHEAD	4	34	136
W20-5	48" x 48"	LT. OR RT. LANE CLOSED AHEAD	4	34	136
W20-7a	48" x 48"	FLAGGER	2	34	68
SPECIAL	30" x 24"	FINES DOUBLED	4	18	72
*****	*****	TYPE III BARRICADE - 8 FT. DOUBLE SIDED	2	56	112
TOTAL UNITS					1097

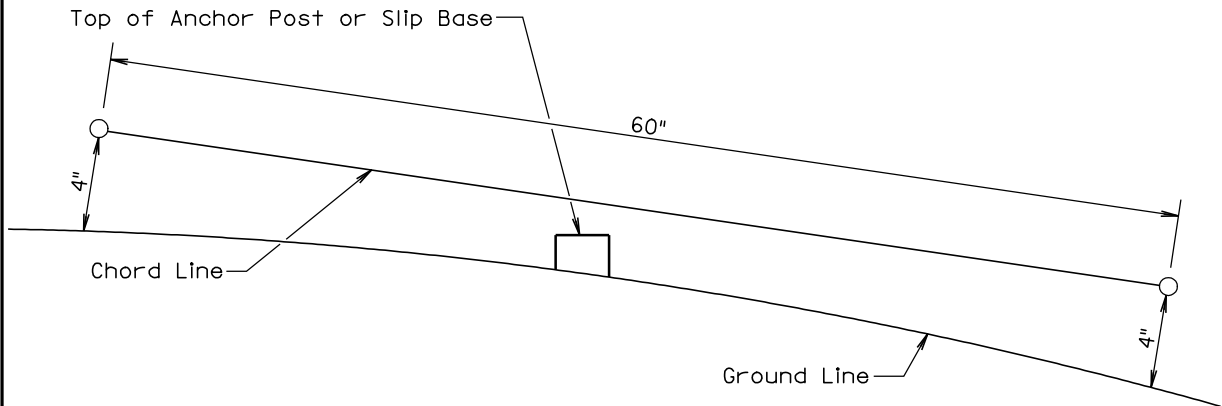
Plotting Date: 30-APR-2010



Plotting Date: 30-APR-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