

PLOT SCALE - 200,000000:1,000000

PLOTTED FROM - ITRC11951

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090W-451 090W-452 etc.	01	5

Plotting Date: 13-MAY-2010

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

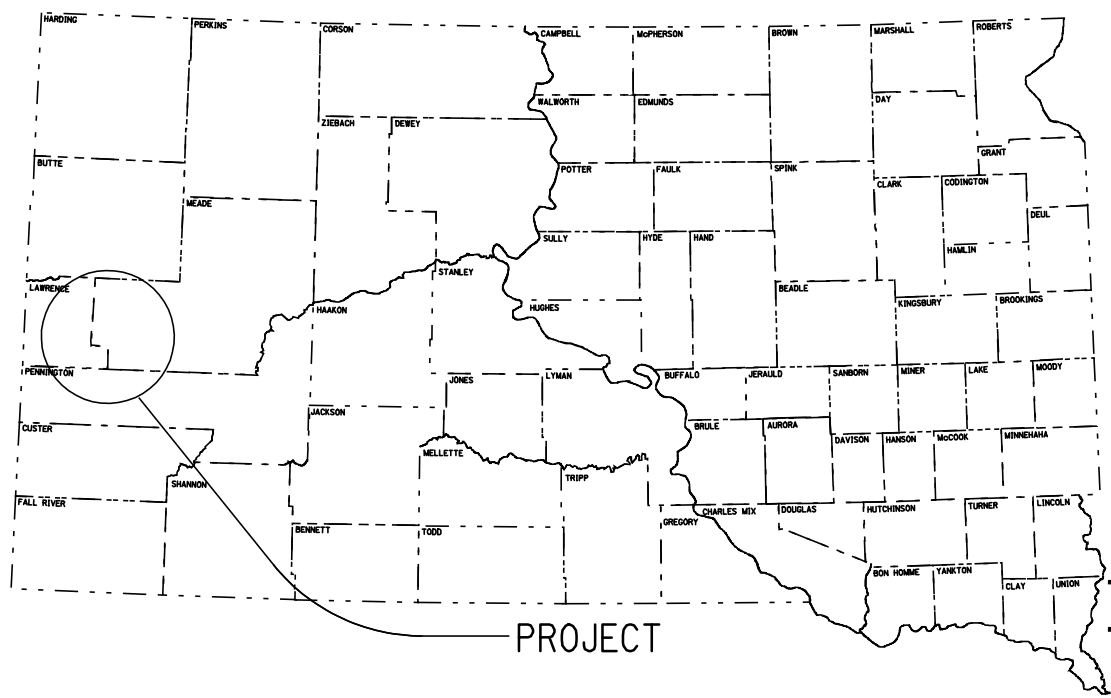
PLANS FOR PROPOSED

**PROJECTs 090W-451, 090W-452, 090E-452, 190N-452,
190S-452, 445-452, 016WB-452, 016EB-452, 079-452,
073-472, 018-492, 079S-492, & 385-491**

**HIGHWAYs I-90, I-190, SD445, US16B,
SD79, SD73, US18, & US385**

**LAWRENCE, MEADE, PENNINGTON,
FALL RIVER, CUSTER & PERKINS COUNTIES**

**PAVEMENT FOAM JACKING
PCNs ilu7, ilu8, ilu9, ilua, ilub, iluc, ilud, ilue, iluf,
ilug, iluh, iluj & iluk**



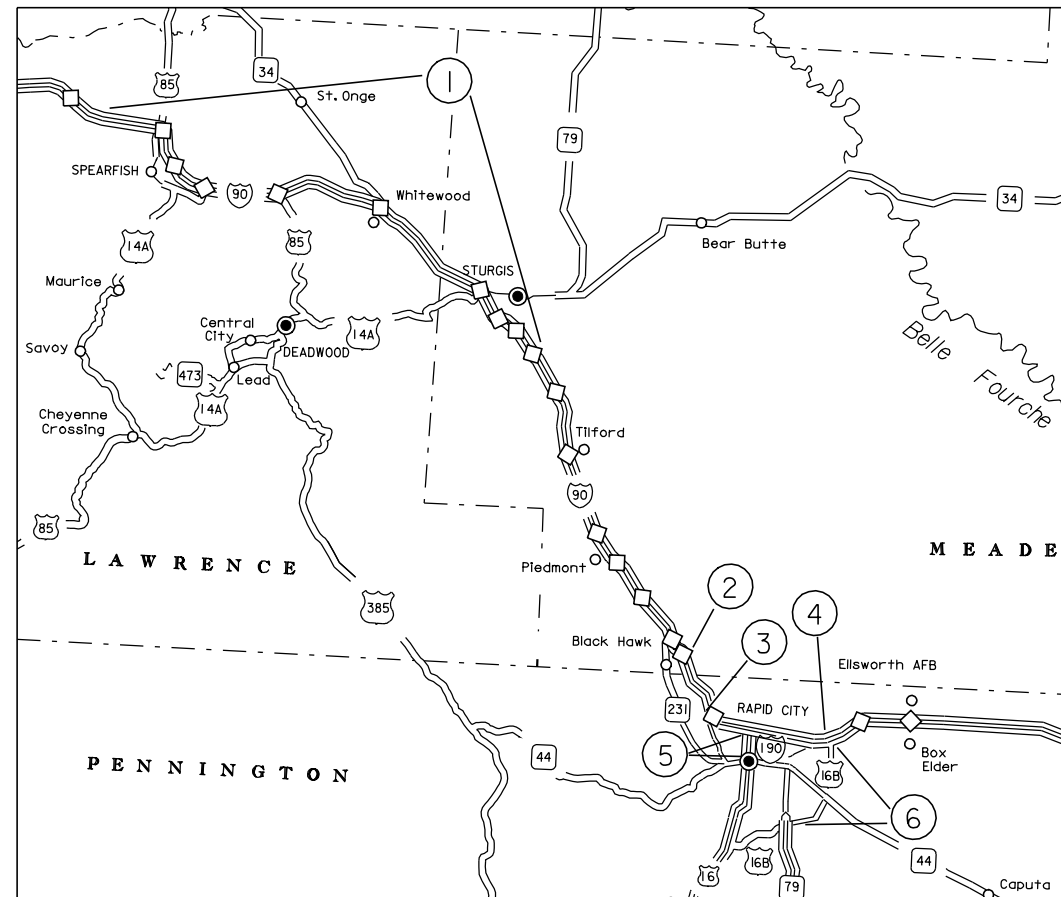
PROJECT

INDEX OF SHEETS

Sheets 1-2: Title Sheets
Sheets 3-5: Estimate of Quantities & Plan Notes

- ① I-90, MRM 6.3 to MRM 34.8, 090W-451, ilu7
- ② I-90, MRM 52.5 090W-452, ilu8
- ③ SD445, MRM 76.6, 445-452, iluc
- ④ I-90, MRM 60.2, 090E-452, ilu9
- ⑤ I-190, MRM 0.5 to MRM 1.8, 190N-452, ilua & 190S-452, ilub
- ⑥ US16B, MRM 68.2 to MRM 72.0, 016WB-452, ilud & 016EB-452, ilue

Storm Water Permit
No Permit Required

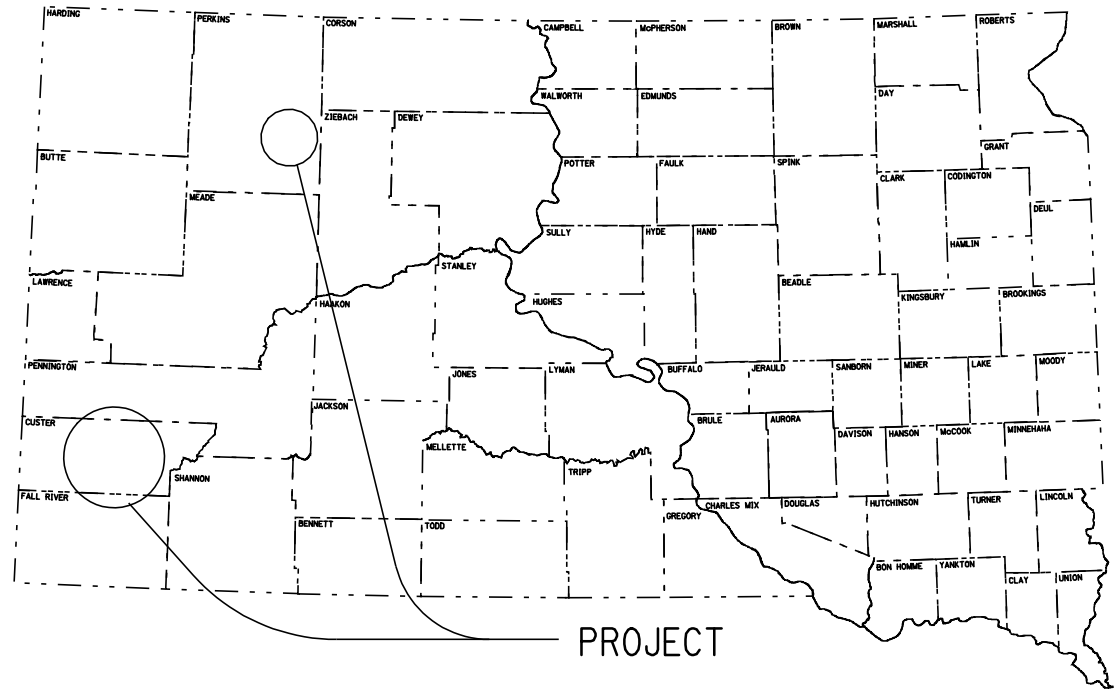


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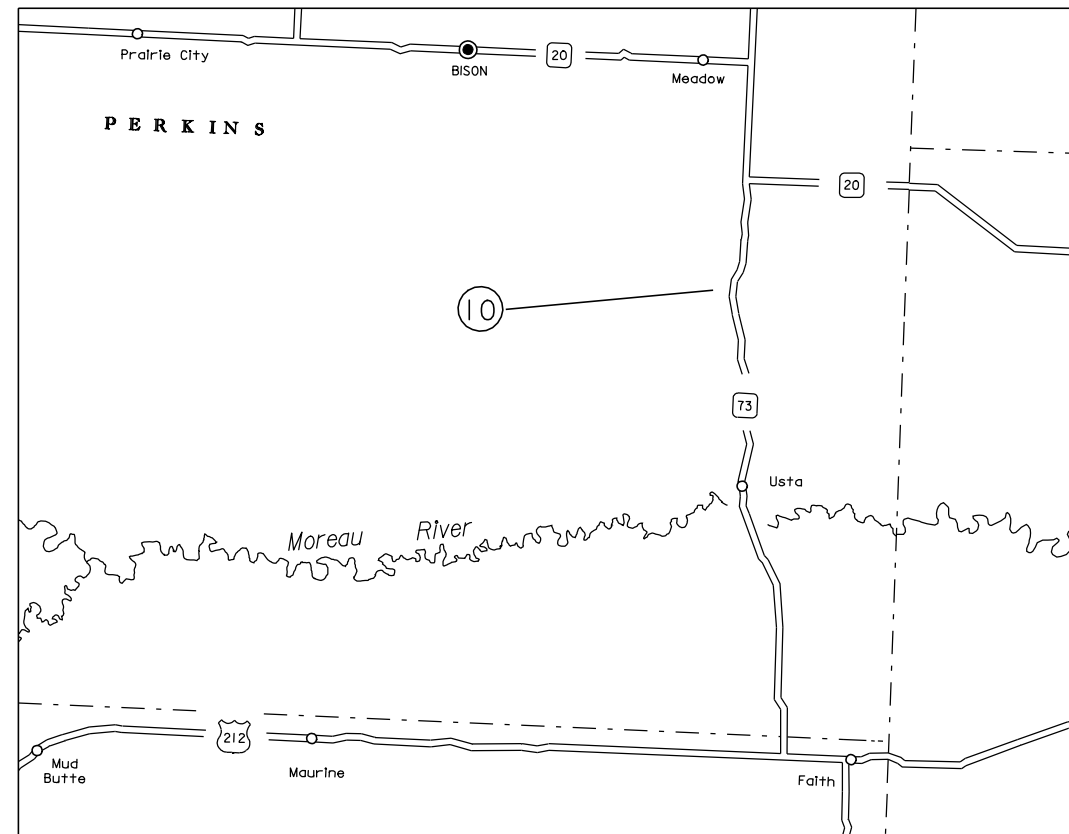
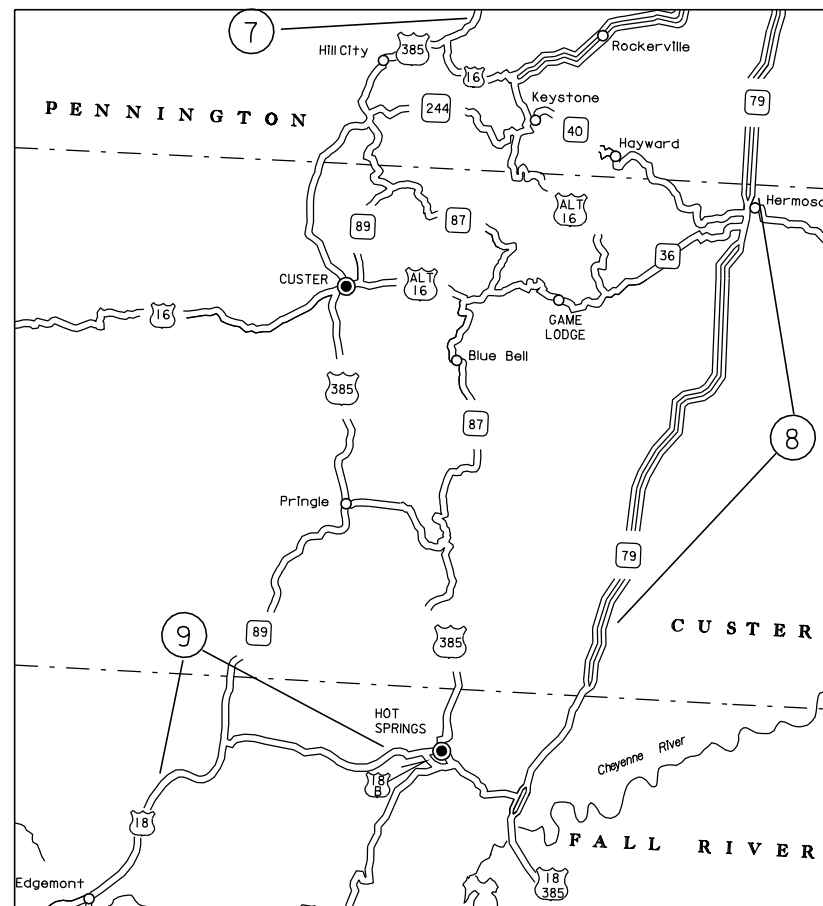
PLOT SCALE - 200,000000:1,000000

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090W-451 090W-452 etc.	02	5

Plotting Date: 13-MAY-2010



- ⑦ US385, MRM 87.0, 385-491, iluk
- ⑧ SD79, MRM 39.5 to MRM 60.1, 079S-492, iluj & 079-452 iluf
- ⑨ US18, MRM 18.8 to MRM 31.2, 018-492, iluh
- ⑩ SD73, MRM 202.8, 073-472, ilug



PLOTTED FROM - ITRC11951

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ESTIMATE OF QUANTITIES (i1u7, I-90 E)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	10,549	Lb

ESTIMATE OF QUANTITIES (i1u8, I-90 W)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	582	Lb

ESTIMATE OF QUANTITIES (i1u9, I-90, E)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	655	Lb

ESTIMATE OF QUANTITIES (i1ua, I-190 N)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	3,041	Lb

ESTIMATE OF QUANTITIES (i1ub, I-190 S)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	582	Lb

ESTIMATE OF QUANTITIES (i1uc, SD445)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	6,955	Lb

ESTIMATE OF QUANTITIES (i1ud, US16B W)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	6,067	Lb

ESTIMATE OF QUANTITIES (i1ue, US16B E)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	5,863	Lb

ESTIMATE OF QUANTITIES (i1uf, SD79)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	1,747	Lb

ESTIMATE OF QUANTITIES (i1ug, SD73)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	2,240	Lb

ESTIMATE OF QUANTITIES (i1uh, US18)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	1,117	Lb

ESTIMATE OF QUANTITIES (i1uj, SD79 S)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	1,607	Lb

ESTIMATE OF QUANTITIES (i1uk, US385)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	470	Lb

SPECIFICATIONS

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

SCOPE OF WORK

Work on this project involves correcting the pavement profile with Foam Pavement Jacking.

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:

- 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".
- 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.

FOAM PAVEMENT JACKING QUANTITIES

Due to the dollar amount budgeted for this work, the locations of pavement jacking shall be done in the order of the priority number provided in the tables, starting with #1. The Engineer reserves the right to eliminate locations once the budgeted dollar amount is exceeded.

SOIL & PAVEMENT STRUCTURE STABILIZATION AND LIFTING WITH DEEP INJECTION OF HDP MATERIAL

This work shall be performed at MRM 70.2 on US16B westbound and eastbound lanes. The work shall be performed in accordance with the specifications provided in the proposal. The Contractor shall use a portable dynamic cone penetrometer to assist in locating weak soils. All costs associated with this work shall be incidental to the contract unit price per pound "PCC Pavement Jacking Foam".

TABLE OF PCC PAVEMENT JACKING FOAM (i1u7)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Priority #
I-90 W	34.80	510	6
I-90 W	6.30	2,184	5
I-90 W	10.60	1,725	5
I-90 W	11.60	1,725	5
I-90 W	13.20	1,420	6
I-90 W	13.40	2,330	6
I-90 W	27.00	655	6
		10,549	

TABLE OF PCC PAVEMENT JACKING FOAM (i1u8)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Priority #
I-90 W	52.50	582	3

TABLE OF PCC PAVEMENT JACKING FOAM (i1u9)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Priority #
I-90 E	60.20	655	7

TABLE OF PCC PAVEMENT JACKING FOAM (i1ua)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Notes	Priority #
I-190 N	0.50	983		7
I-190 N	0.55	983		7
I-190 N	1.60	1,075	Westbound On Ramp	7
	Total	3,041		

TABLE OF PCC PAVEMENT JACKING FOAM (i1ub)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Priority #
I-190 S	0.80	582	7

TABLE OF PCC PAVEMENT JACKING FOAM (i1uc)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Priority #
SD 445	76.60	6,955	3

TABLE OF PCC PAVEMENT JACKING FOAM (i1ud)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Comments	Priority #
US16B W	70.20	2,114	Deep Soil Injection	2
US16B W	69.20	582		2
US16B W	68.90	1,064		2
US16B W	68.30	851		2
US16B W	72.00	874		2
US16B W	71.80	582		2
	Total	6,067		

TABLE OF PCC PAVEMENT JACKING FOAM (i1ue)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Comments	Priority #
US16B E	68.20	655		2
US16B E	69.20	1,092		2
US16B E	70.20	2,100	Deep Soil Injection	2
US16B E	71.40	1,165		2
US16B E	71.60	851		2
	Total	5,863		

TABLE OF PCC PAVEMENT JACKING FOAM (i1uf)

Highway	MRM	Location	PCC Pavement Jacking Foam (Lb)	Priority #
SD 79	60.10	South Approach Slab over Battle Creek	1,747	1

TABLE OF PCC PAVEMENT JACKING FOAM (i1ug)

Highway	MRM	Location	PCC Pavement Jacking Foam (Lb)	Priority #
SD73	202.80	Approach slabs for the structure over Thunder Butte	2,240	4

TABLE OF PCC PAVEMENT JACKING FOAM (i1uh)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Priority #
US18	18.75	353	1
US18	25.57	235	1
US18	28.87	470	1
US18	31.16	59	1
	Total	1,117	

TABLE OF PCC PAVEMENT JACKING FOAM (i1uj)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Priority #
SD79 S	39.51	470	1
SD79 S	42.47	314	1
SD79 S	44.48	314	1
SD79 S	47.90	39	1
SD79 S	55.00	470	1
	Total	1,607	

TABLE OF PCC PAVEMENT JACKING FOAM (i1uk)

Highway	MRM	PCC Pavement Jacking Foam (Lb)	Priority #
US385	87.02	470	1

TRAFFIC CONTROL

Traffic control will be accomplished by DOT personnel. The Contractor shall coordinate with DOT personnel at least one week prior to the start of construction.

One lane of traffic shall be maintained in each direction at all times. 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.

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