

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT IM 0901(175)62
INTERSTATE 90
PENNINGTON COUNTY

DIAPHRAGM, BENT CAP,
POLYMER CHIP SEALS AND JOINTS

PCN 035J

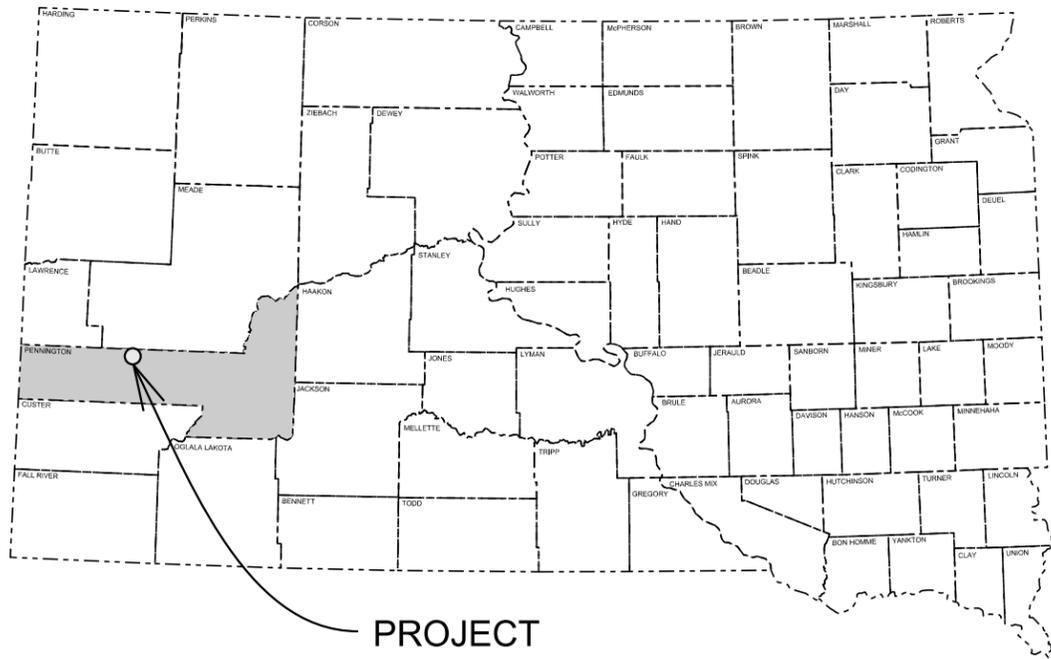
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(175)62	1	64

Plotting Date: 12/28/2015 Revised: 12-28-15 klh

INDEX OF SECTIONS

- Section A: Estimate of Quantities and Environmental Commitments
- Section C: Traffic Control Plans
- Section E: Structure Plans

Plot Scale - 1:200



PROJECT

STR. NO. 52-463-280
MRM 63.42
DESIGN DESIGNATION

ADT (2014) 26530
ADT (2034) 34250
DHV 3596
D 50 %
T DHV 4.8 %
T ADT 10.6 %
V 65 MPH

STR. NO. 52-469-275
MRM 63.96 WB
DESIGN DESIGNATION

ADT (2014) 12800
ADT (2034) 16525
DHV 1735
D 50 %
T DHV 4.8 %
T ADT 10.5 %
V 65 MPH

STR. NO. 52-496-277
MRM 62.94 WB on ramp
over creek
DESIGN DESIGNATION

ADT (2014) 7170
ADT (2034) 9256
DHV 925
D 100 %
T DHV 4.6 %
T ADT 10.0 %
V 55 MPH

STR. NO. 52-510-274
MRM 68.15 WB
DESIGN DESIGNATION

ADT (2014) 5846
ADT (2034) 7972
DHV 1522
D 51 %
T DHV 8.1 %
T ADT 17.7 %
V 80 MPH

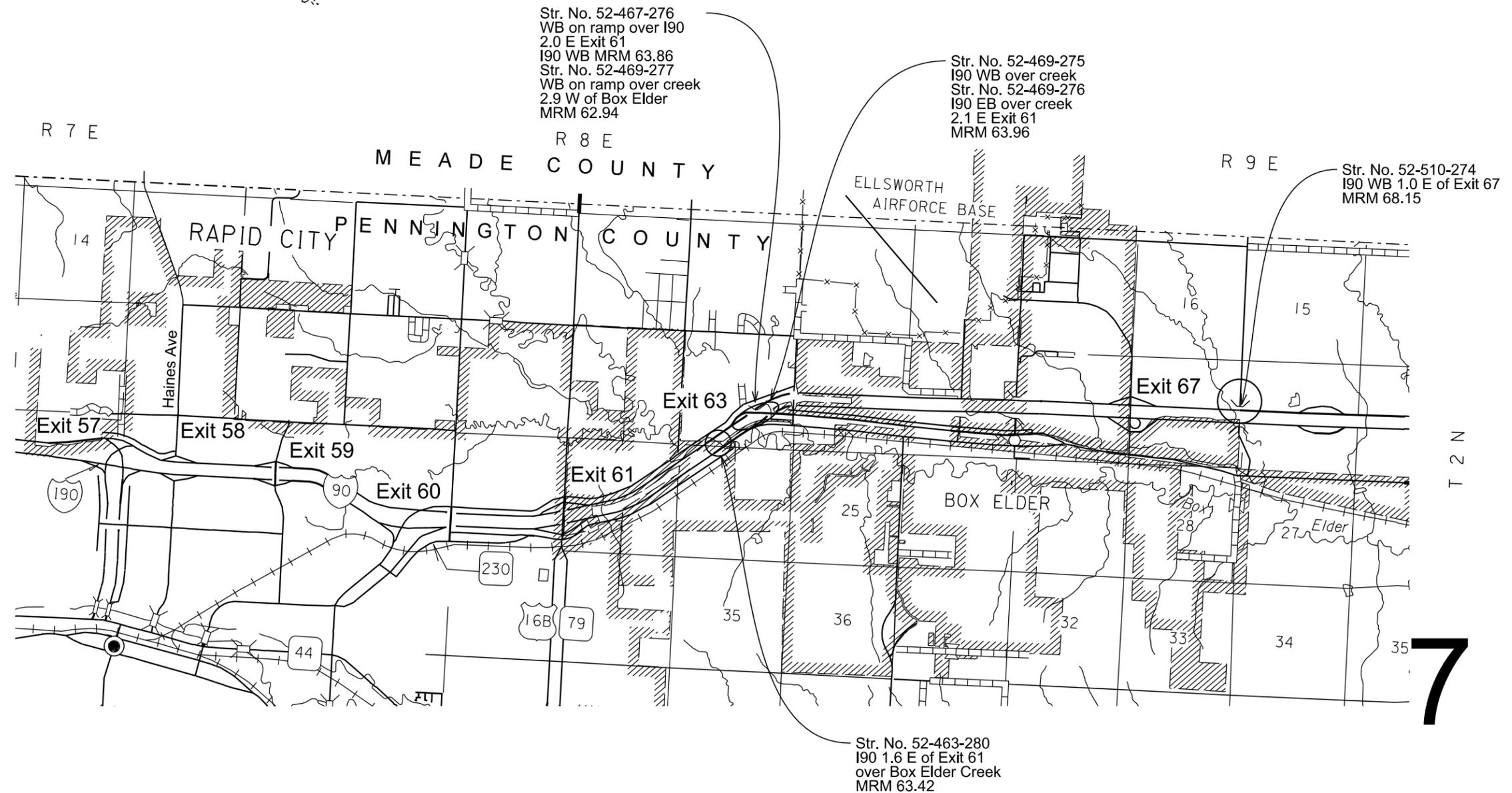
STR. NO. 52-469-276
MRM 63.96 EB
DESIGN DESIGNATION

ADT (2014) 12800
ADT (2034) 16525
DHV 1735
D 50 %
T DHV 4.8 %
T ADT 10.5 %
V 65 MPH

STR. NO. 52-467-276
MRM 63.86
WB on ramp over I90
DESIGN DESIGNATION

ADT (2014) 7170
ADT (2034) 9256
DHV 925
D 100 %
T DHV 4.6 %
T ADT 10.0 %
V 55 MPH

STORM WATER PERMIT
None Required



File - ...:\proj\Penn035J\035J_title.dgn

Plotted From - trc11610

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(175)58	A1	A3

Revised: 11-16-2015 klh

Section C - Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
634E0010	Flagging	1,200.0	Hour
634E0110	Traffic Control Signs	1,272	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	5	Each
634E0380	Tubular Marker	40	Each
634E0420	Type C Advance Warning Arrow Board	4	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	6,892	Ft
634E0640	Temporary Pavement Marking	7,992	Ft
634E1002	Detour Signing	469.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	4	Each

Section E – Structure

Section E - Structure 52-463-280

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
410E2600	Membrane Sealant Expansion Joint	65.2	Ft
460E0070	Class A45 Concrete, Bridge Repair	2.2	CuYd
460E0300	Breakout Structural Concrete	2.2	CuYd
480E0200	Epoxy Coated Reinforcing Steel	181	Lb
480E0504	No. 4 Rebar Splice	2	Each
480E0506	No. 6 Rebar Splice	1	Each
491E0025	Bridge Deck Polymer Chip Seal Placed on Existing Chip Seal	2,093.8	SqYd
491E0030	Spot Repair of Existing Bridge Deck Chip Seal	104.8	SqYd
491E0110	Abrasive Blasting of Bridge Deck	2,093.8	SqYd

Section E - Structure 52-467-276

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
410E0103	Fatigue Retrofit Steel Girder, Type C	114	Each
410E3010	Magnetic Particle Weld Inspection	438	In
412E0100	Bridge Repainting, Class I	Lump Sum	LS
412E0500	Paint Residue Containment	Lump Sum	LS
460E0172	Concrete Patching Material, Bridge Deck	99.0	CuFt
491E0005	Two Coat Bridge Deck Polymer Chip Seal	1,160.4	SqYd
491E0110	Abrasive Blasting of Bridge Deck	1,160.4	SqYd
491E0120	Bridge Deck Grinding	1,160.4	SqYd
491E0130	Concrete Removal, Class A	16.0	SqYd
491E0140	Concrete Removal, Class B	16.0	SqYd

Section E - Structure 52-469-275

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
460E0172	Concrete Patching Material, Bridge Deck	39.0	CuFt
491E0005	Two Coat Bridge Deck Polymer Chip Seal	346.2	SqYd
491E0110	Abrasive Blasting of Bridge Deck	346.2	SqYd
491E0120	Bridge Deck Grinding	346.2	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

Section E - Structure 52-469-276

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
460E0172	Concrete Patching Material, Bridge Deck	39.0	CuFt
491E0005	Two Coat Bridge Deck Polymer Chip Seal	346.2	SqYd
491E0110	Abrasive Blasting of Bridge Deck	346.2	SqYd
491E0120	Bridge Deck Grinding	346.2	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

INDEX OF SHEETS

A1 Estimate of Quantities for Sections C and E
A2 and A3 Environmental Commitments

Section E - Structure 52-469-277

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
410E0103	Fatigue Retrofit Steel Girder, Type C	66	Each
410E3010	Magnetic Particle Weld Inspection	246	In
412E0100	Bridge Repainting, Class I	Lump Sum	LS
412E0500	Paint Residue Containment	Lump Sum	LS
460E0172	Concrete Patching Material, Bridge Deck	24.8	CuFt
460E0174	Concrete Patching Material, Miscellaneous	0.4	CuFt
460E0190	Concrete Crack Injection/Sealing	48	In
460E0300	Breakout Structural Concrete	0.4	CuYd
480E5000	Galvanic Anode	10	Each
491E0005	Two Coat Bridge Deck Polymer Chip Seal	490.6	SqYd
491E0110	Abrasive Blasting of Bridge Deck	490.6	SqYd
491E0120	Bridge Deck Grinding	490.6	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

Section E - Structure 52-510-274

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
410E2600	Membrane Sealant Expansion Joint	31.8	Ft
460E0070	Class A45 Concrete, Bridge Repair	0.6	CuYd
460E0300	Breakout Structural Concrete	0.6	CuYd
480E0200	Epoxy Coated Reinforcing Steel	90	Lb
480E0504	No. 4 Rebar Splice	2	Each
480E0506	No. 6 Rebar Splice	1	Each
491E0025	Bridge Deck Polymer Chip Seal Placed on Existing Chip Seal	543.4	SqYd
491E0030	Spot Repair of Existing Bridge Deck Chip Seal	27.2	SqYd
491E0110	Abrasive Blasting of Bridge Deck	543.4	SqYd

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(175)58	A2	A3

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 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.

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 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 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 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.

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.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(175)58	A3	A3

COMMITMENT K: RAPID CITY AREA AIR QUALITY CONTROL ZONE

Administrative Rule of South Dakota (ARSD) 74:36:18:03 states that "no state facility or state contractor may engage in any construction activity or continuous operation activity within the Rapid City air quality control zone which may cause fugitive emissions of particulate to be released into the ambient air without first obtaining a permit issued by the board or the secretary."

Construction activity is defined as any temporary activity at a state facility, which involves the removal or alteration of the natural or pre-existing cover of one acre or more of land. One acre of surface area is based on a cumulative area of disturbance to be completed for the entire project. Construction activity shall include, but not be limited to, stripping of topsoil, drilling, blasting, excavation, dredging, ditching, grading, street maintenance and repair, or earth moving. Construction activity is generally completed within one year. It also includes stockpiles, access roads, and disposal areas. An off-site disposal area of excess material will require an additional permit.

Action Taken/Required:

In order to be considered eligible for authorization to conduct a construction activity under the terms and conditions of this permit, the owner operator must submit a Notice of Intent (NOI) form. The form must be submitted to the address below at least seven business days prior to the anticipated date of beginning the construction activity.

South Dakota Department of Environment and Natural Resources Air Quality Program
523 East Capitol, Joe Foss Building
Pierre, SD 57501-3181
Phone: 605-773-3151

The permit requires the Contractor to use reasonably available technology to control fugitive dust emissions. The Contractor is required to use control measures for track out, paved areas, unpaved roads, unpaved parking lots, disturbed areas, and for material handling and storage. The control measures that the Contractor is required to use are listed in the permit.