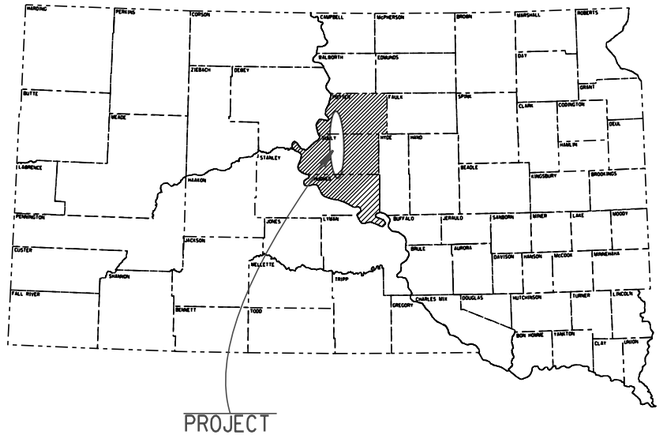


STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

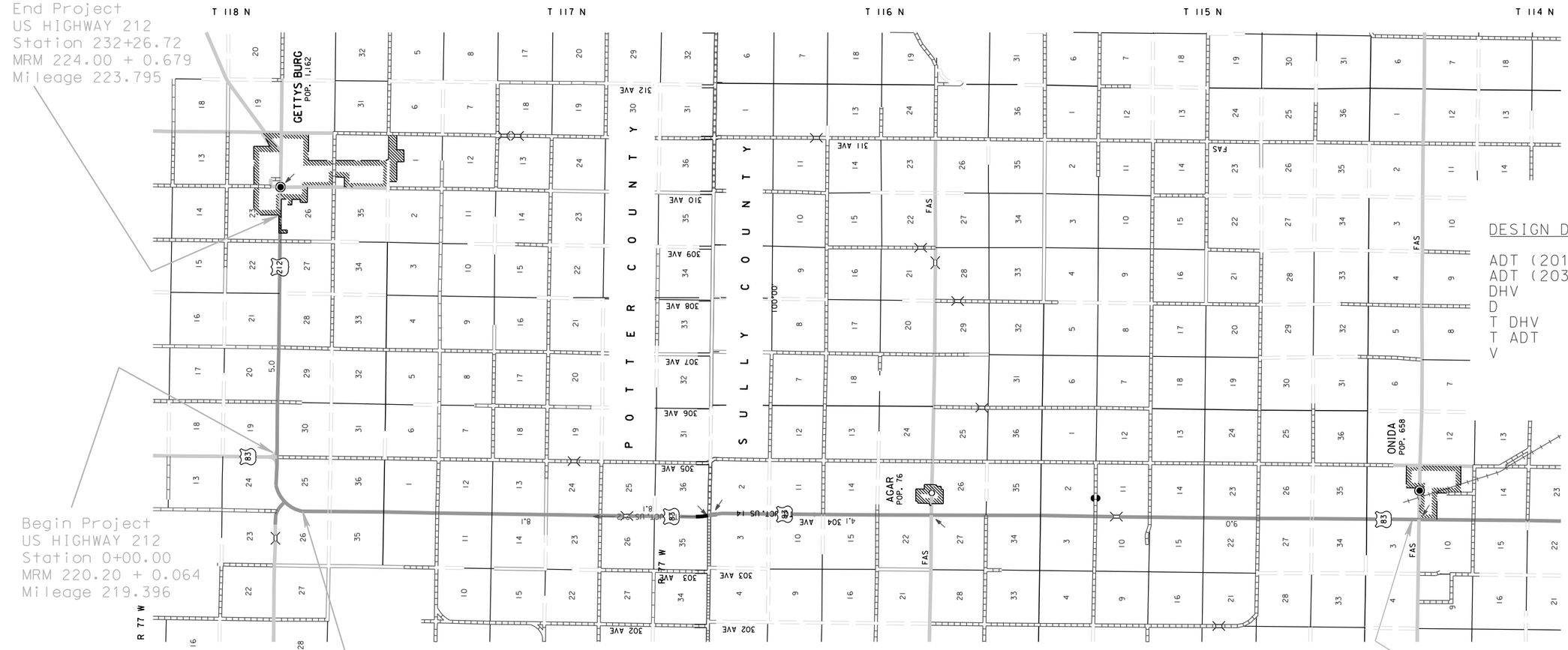
PROJECTS 083–351 & 212–351
US HIGHWAYS 83 & 212
SULLY & POTTER COUNTIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	083-351 & 212-351	1	13

INDEX OF SHEETS

SHOULDER REHABILITATION

PCNS I3NK & I3R7



End Project
US HIGHWAY 212
Station 232+26.72
MRM 224.00 + 0.679
Mileage 223.795

Begin Project
US HIGHWAY 212
Station 0+00.00
MRM 220.20 + 0.064
Mileage 219.396

STORM WATER PERMIT
None Required

DESIGN DESIGNATIONS (US 83)

ADT (2014)	1191
ADT (2034)	1363
DHV	160
D	51%
T DHV	13.1%
T ADT	28.8%
V	65 MPH

DESIGN DESIGNATIONS (US 212)

ADT (2014)	1375
ADT (2034)	1401
DHV	164
D	51%
T DHV	8.6%
T ADT	18.8%
V	65 MPH

End Project
US HIGHWAY 83
Station 1085+88.48
MRM 173.00 + 0.685
Mileage 104.295

US 212:	GROSS LENGTH	23226.72 FT	4.399 MILES
LENGTH OF	EXCEPTIONS	000.00 FT	0.000 MILES
	NET LENGTH	23226.72 FT	4.399 MILES
US 83:	GROSS LENGTH	108588.48 FT	20.566 MILES
LENGTH OF	EXCEPTIONS	528.00 FT	0.100 MILES
	NET LENGTH	108060.48 FT	20.466 MILES

Begin Project
US Highway 83
Station 0+00.00
MRM 153.10 + 0.117
Mileage 83.729

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	083-351 & 212-351	2	13

ESTIMATED QUANTITIES

The below quantities are based on the rates shown in the information only Tables. This is only an estimate. The actual application rates of materials will be determined by field conditions. These rates may vary from the estimated rates stated in the information only Tables. The application rates may be adjusted in the field. Pay quantities will be those actually used even though they may vary significantly from plans estimates.

083-351 SULLY & POTTER COUNTIES PCN I3NK

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	65.5	MGal
260E1080	Base Course, Salvaged, State Furnished	12,694.0	Ton
280E0020	Process In Place Surfacing, Shoulder	190,409	SqYd
634E0010	Flagging	200	Hour
634E0020	Pilot Car	100	Hour
634E0100	Traffic Control	867	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

212-351 POTTER COUNTY PCN I3R7

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	14.1	MGal
260E1080	Base Course, Salvaged, State Furnished	2,358.0	Ton
280E0020	Process In Place Surfacing, Shoulder	20,202	SqYd
634E0010	Flagging	100	Hour
634E0020	Pilot Car	50	Hour
634E0100	Traffic Control	697	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

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

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 B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

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 B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

COMMITMENT C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

The Contractor shall not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

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.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	083-351 & 212-351	3	13

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 designated option borrow 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: staging areas, borrow sites, waste disposal sites, and all material processing sites.

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 staging areas, borrow sites, waste disposal sites, or material processing sites 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.

PLAN NOTES & SIGN TABULATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	083-351 & 212-351	4	13

ENGINEER NOTIFICATION

The Contractor is required to notify the Area Engineer at least 10 days prior to beginning work.

PROCESS IN PLACE SURFACING, SHOULDERS

Prior to the “Process in Place Surfacing, Shoulders”, the Contractor shall place the granular material required to bring the shoulders to the correct typical section as shown in these plans. Once the required granular material is placed on the shoulders, the upper 4 inches of shoulder material shall be processed in place, shaped, and re-compacted to the typical section.

The shoulder material shall be processed to a size of 100% passing a 1-1/2” sieve opening.

Compaction and smoothness of the shoulder shall be to the satisfaction of the Engineer.

Included in the Estimate of Quantities are 1.6 MGAL of Water for Granular Material per shoulder per mile for compaction.

Process In Place Surfacing, Shoulder will be paid for at the contract unit price per Square Yard, inclusive of all costs for processing, reworking, shaping, compacting, equipment, labor, and incidentals necessary to satisfactorily complete the work.

Shoulder drop-offs will not be allowed to remain overnight. Any shoulder drop-off present during daylight hours must be contained within the active work zone(s).

The exceptions to this work are intersecting roads, mailbox turnouts, guardrail for structure #54-160-224 and any other areas as determined by the Engineer.

The Contractor shall not damage any existing concrete pavement or asphalt pavement for the guardrail at structure # 54-160-224 and intersecting roads. Any damage to the existing asphalt and concrete pavement mentioned above, or to any pavement markings, shall be repaired at no cost to the State.

The Contractor shall use a broom to clean the roadway of any loose material. All costs for “Brooming” shall be incidental to the various bid items for this project.

SHOULDER PREPARATION

The Contractor shall notify the Pierre Area (605) 773-5294 at least two weeks prior to beginning work on this project so SDDOT personnel can mow or spray along the shoulder inslopes. The Department will not be responsible for the effectiveness of the mowing or spraying.

MAINTENANCE OF TRAFFIC

Removing, relocating, covering, salvaging and resetting of existing 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.

All breakaway sign supports shall comply with NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide post installation details at the preconstruction meeting for all breakaway sign support assemblies.

TRAFFIC CONTROL

All traffic control sign locations shall be set in the field by the Contractor and verified by the Engineer prior to installation.

Fixed location signing placed more than two days prior to the start of construction shall be covered until the time of construction. The cost of materials, labor and equipment necessary to complete this work shall be incidental to the other contract items. No separate payment will be made.

The Contractor shall install Road Work Ahead signs at all intersecting roads within the work zone. These can be on temporary sign supports as long as they are not up in one location for more than 72 hours.

SIGN TABULATION HWY 83

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-1	36" x 18"	ROAD WORK NEXT ## MILES	2	17	34
G20-2	36" x 18"	END ROAD WORK	5	17	85
W8-6	48" x 48"	TRUCK CROSSING	2	34	68
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	10	34	340
W20-4	48" x 48"	ONE LANE ROAD #### FT. OR AHEAD	2	34	68
W20-7	48" x 48"	FLAGGER	2	34	68
W21-3	48" x 48"	ROAD MACHINERY AHEAD	2	34	68
W21-5	48" x 48"	SHOULDER WORK	4	34	136
				TOTAL UNITS	867

SIGN TABULATION HWY 212

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-1	36" x 18"	ROAD WORK NEXT ## MILES	2	17	34
G20-2	36" x 18"	END ROAD WORK	3	17	51
W8-6	48" x 48"	TRUCK CROSSING	2	34	68
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	6	34	204
W20-4	48" x 48"	ONE LANE ROAD #### FT. OR AHEAD	2	34	68
W20-7	48" x 48"	FLAGGER	2	34	68
W21-3	48" x 48"	ROAD MACHINERY AHEAD	2	34	68
W21-5	48" x 48"	SHOULDER WORK	4	34	136
				TOTAL UNITS	697

BASE COURSE SALVAGED, STATE FURNISHED

The Base Course Salvaged, State Furnished shall be obtained from the following two State Stockpile Sites. Stockpile 3543 is located in the SE1/4 Section 15 – T112N – R77W adjacent to US Hwy. 14 and stockpile 3562G is located in the NE1/4 Section 26 – T118N – R77W at the junction of US Hwy. 83 & US Hwy. 212. The approximate haul from the beginning of the project to stockpile 3543 is 12.5 miles on concrete surfaced US Hwy. 83. This material may be used without further quality and gradation testing.

All other requirements of the Specifications for Base Course Salvage shall apply.

This material is royalty free to the Contractor.

The Contractor shall utilize all the material at stockpile site 3562G.

There is approximately 4895 Tons of Base Course Salvage at stockpile site 3562G and 12234 Tons of Base Course Salvage at stockpile site 3543.

PLAN NOTES & SIGN TABULATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	083-351 & 212-351	5	13

CHECKING SPREAD RATES

The Contractor shall be responsible for checking the “Base Course Salvage, State Furnished” spread rates and taking the weigh delivery tickets as the surfacing material arrives on the project and is placed onto the roadway. The Contractor shall compute the required spread rates for each surfacing section and create a spread chart prior to the start of material delivery and placement. The Engineer will review and check the Contractor’s calculations and spread charts. The station to station spread shall be written on each ticket as the surfacing material is delivered to the roadway.

At the end of each day’s shift, the Contractor shall verify the following:

- All tickets are present and accounted for,
- The quantity summary for each item is calculated,
- The amount of material wasted if any,
- Each day’s ticket summary is marked with the corresponding ‘computed by’,
- The ticket summary is initialed and certified that the delivered and placed quantity is correct.

All daily tickets and the summary by item shall be given to the Engineer no later than the following morning. If the checker is not properly and accurately performing the required duties, the Contractor shall correct the problem or replace the checker with an individual capable of performing the duties to the satisfaction of the Engineer. Failure to do so will result in suspension of the work. The Department will perform typical section checks. The Contractor shall be responsible for placement of material to the correct typical section unless otherwise directed by the Engineer. If the placed material is not within a tolerance of

- Flush to 1/4 inch below the top of concrete pavement, the Contractor shall correct the problem at no additional cost to the Department. Excess material above the tolerance will not be paid for. Achieving the correct depth may require picking up and moving material or other action as required by the Engineer. All costs for providing the Contractor furnished checker and performing all related duties shall be incidental to the contract lump sum price for the CHECKER. No allowances will be made to the contract lump sum price for CHECKER due to authorized quantity variations unless the quantities for the material being checked vary above or below the estimated quantities by more than 25 percent. Payment for the Checker shall then be increased or decreased by the same proportion as the placed material quantity bears to the estimated material quantity.

TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	083-351 & 212-351	6	13

TABLES OF BASE COURSE SALVAGED, State Furnished (For Information Only)

Hwy 83 West Shoulder			
MRM	to	MRM	Quantity (tons)
153.00 + 0.157	to	153.00 + 0.500	159
153.00 + 0.500	to	154.00 + 0.000	199
154.00 + 0.000	to	154.00 + 0.500	201
154.00 + 0.500	to	155.00 + 0.000	173
155.00 + 0.000	to	155.00 + 0.500	194
155.00 + 0.500	to	155.00 + 0.990	216
155.00 + 0.990	to	156.00 + 0.490	164
156.00 + 0.490	to	156.00 + 0.990	157
156.00 + 0.990	to	157.00 + 0.500	184
157.00 + 0.500	to	157.00 + 0.990	163
157.00 + 0.990	to	158.00 + 0.500	139
158.00 + 0.500	to	158.00 + 0.990	103
158.00 + 0.990	to	159.00 + 0.490	109
159.00 + 0.490	to	159.00 + 0.990	213
159.00 + 0.990	to	160.00 + 0.490	243
160.00 + 0.490	to	160.00 + 0.990	189
160.00 + 0.990	to	161.00 + 0.490	187
161.00 + 0.490	to	161.00 + 0.990	207
161.00 + 0.990	to	162.00 + 0.500	201
162.00 + 0.500	to	163.00 + 0.000	180
163.00 + 0.000	to	163.00 + 0.500	230
163.00 + 0.500	to	163.00 + 0.990	235
163.00 + 0.990	to	164.00 + 0.500	173
164.00 + 0.500	to	165.00 + 0.000	153
165.00 + 0.000	to	165.00 + 0.500	202
165.00 + 0.500	to	166.00 + 0.000	171
166.00 + 0.000	to	166.00 + 0.250	35
166.00 + 0.250	to	166.00 + 0.500	11
166.00 + 0.500	to	167.00 + 0.000	65
167.00 + 0.000	to	167.00 + 0.500	105
167.00 + 0.500	to	168.00 + 0.000	78
168.00 + 0.000	to	168.00 + 0.500	85
168.00 + 0.500	to	169.00 + 0.000	153
169.00 + 0.000	to	169.00 + 0.500	152
169.00 + 0.500	to	170.00 + 0.000	76
170.00 + 0.000	to	170.00 + 0.500	72
170.00 + 0.500	to	171.00 + 0.000	67
171.00 + 0.000	to	171.00 + 0.500	127
171.00 + 0.500	to	172.00 + 0.010	189
172.00 + 0.010	to	172.00 + 0.500	129
172.00 + 0.500	to	173.00 + 0.000	117
173.00 + 0.000	to	173.00 + 0.500	119

Hwy 83 East Shoulder			
MRM	to	MRM	Quantity (tons)
153.00 + 0.157	to	153.00 + 0.500	46
153.00 + 0.500	to	154.00 + 0.000	85
154.00 + 0.000	to	154.00 + 0.500	164
154.00 + 0.500	to	155.00 + 0.000	194
155.00 + 0.000	to	155.00 + 0.500	209
155.00 + 0.500	to	155.00 + 0.990	226
155.00 + 0.990	to	156.00 + 0.490	182
156.00 + 0.490	to	156.00 + 0.990	219
156.00 + 0.990	to	157.00 + 0.500	228
157.00 + 0.500	to	157.00 + 0.990	221
157.00 + 0.990	to	158.00 + 0.500	246
158.00 + 0.500	to	158.00 + 0.990	232
158.00 + 0.990	to	159.00 + 0.490	195
159.00 + 0.490	to	159.00 + 0.990	148
159.00 + 0.990	to	160.00 + 0.490	106
160.00 + 0.490	to	160.00 + 0.990	127
160.00 + 0.990	to	161.00 + 0.490	184
161.00 + 0.490	to	161.00 + 0.990	154
161.00 + 0.990	to	162.00 + 0.500	172
162.00 + 0.500	to	163.00 + 0.000	231
163.00 + 0.000	to	163.00 + 0.500	272
163.00 + 0.500	to	163.00 + 0.990	262
163.00 + 0.990	to	164.00 + 0.500	197
164.00 + 0.500	to	165.00 + 0.000	157
165.00 + 0.000	to	165.00 + 0.500	143
165.00 + 0.500	to	166.00 + 0.000	87
166.00 + 0.000	to	166.00 + 0.250	56
166.00 + 0.250	to	166.00 + 0.500	74
166.00 + 0.500	to	167.00 + 0.000	130
167.00 + 0.000	to	167.00 + 0.500	94
167.00 + 0.500	to	168.00 + 0.000	73
168.00 + 0.000	to	168.00 + 0.500	72
168.00 + 0.500	to	169.00 + 0.000	89
169.00 + 0.000	to	169.00 + 0.500	135
169.00 + 0.500	to	170.00 + 0.000	121
170.00 + 0.000	to	170.00 + 0.500	111
170.00 + 0.500	to	171.00 + 0.000	107
171.00 + 0.000	to	171.00 + 0.500	137
171.00 + 0.500	to	172.00 + 0.010	152
172.00 + 0.010	to	172.00 + 0.500	111
172.00 + 0.500	to	173.00 + 0.000	139
173.00 + 0.000	to	173.00 + 0.500	128

TABLES OF BASE COURSE SALVAGED, State Furnished (For Information Only) (Continued)

Hwy 212 West Shoulder			
MRM	to	MRM	Quantity (tons)
220.00 + 0.300	to	220.00 + 0.500	55
220.00 + 0.500	to	221.00 + 0.500	113
221.00 + 0.000	to	221.00 + 0.500	118
221.00 + 0.500	to	222.00 + 0.000	146
222.00 + 0.000	to	222.00 + 0.500	105
222.00 + 0.500	to	223.00 + 0.000	104
223.00 + 0.000	to	223.00 + 0.550	175
223.00 + 0.550	to	224.00 + 0.000	163
224.00 + 0.000	to	224.00 + 0.530	169

Hwy 212 East Shoulder			
MRM	to	MRM	Quantity (tons)
220.00 + 0.300	to	220.00 + 0.500	57
220.00 + 0.500	to	221.00 + 0.500	173
221.00 + 0.000	to	221.00 + 0.500	120
221.00 + 0.500	to	222.00 + 0.000	163
222.00 + 0.000	to	222.00 + 0.500	192
222.00 + 0.500	to	223.00 + 0.000	109
223.00 + 0.000	to	223.00 + 0.550	110
223.00 + 0.550	to	224.00 + 0.000	131
224.00 + 0.000	to	224.00 + 0.530	157

- For information only. Quantities for above tables were computed utilizing a rate of 1.89 TONS/CUYD.

TABLE OF INTERSECTING ROADS HWY 83 (FOR INFORMATION ONLY)
DO NOT DISTURB

MRM	Lt./Rt.
155.00 + 0.011	Lt. & Rt.
156.00 + 0.010	Lt. & Rt.
158.00 + 0.010	Lt. & Rt.
159.00 + 0.013	Lt. & Rt.
161.00 + 0.017	Lt.
162.00 + 0.020	Lt. & Rt.
163.00 + 0.021	Lt. & Rt.
164.00 + 0.022	Rt.
166.00 + 0.220	Lt. & Rt.
168.00+ 0.230	Lt. & Rt.
171.00 +0.240	Lt. & Rt.

TABLE OF INTERSECTING ROADS HWY 212 (FOR INFORMATION ONLY)
DO NOT DISTURB

MRM	Lt./Rt
221.00 + 0.207	Lt.
222.00 + 0.213	Rt.
223.00 + 0.373	Rt.
223.00 + 0.444	Rt.
224.00 + 0.216	Lt.
224.00 + 0.378	Rt.
224.00 + 0.406	Rt.
224.00 + 0.442	Rt.
224.00 + 0.558	Rt.

TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	083-351 & 212-351	7	13

TABLE OF ASPHALT CONCRETE APPROACHES (FOR INFORMATION ONLY)

- No separate payment will be made for processing the following asphalt concrete pads.

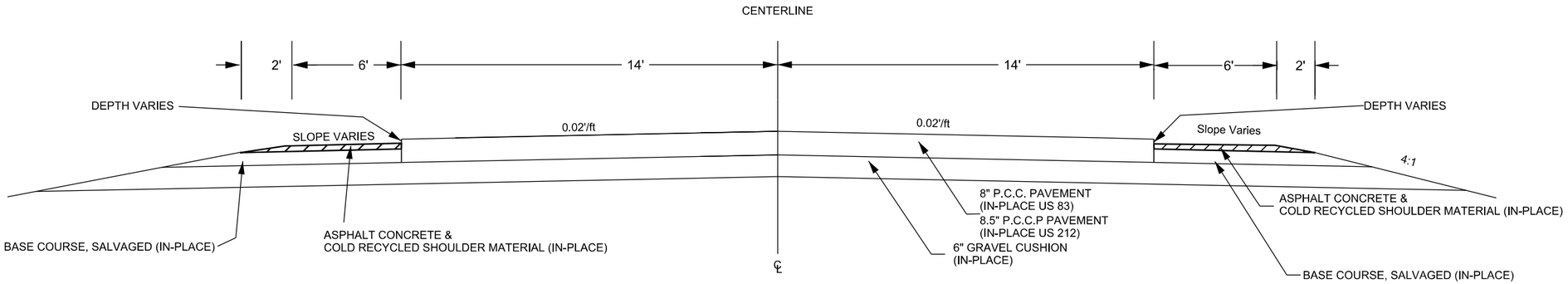
Hwy 83 Approaches to be Processed in Place				
Asphalt Pad (For Information Only)				
MRM	**Lt./Rt.**	**Length**	**Width**	**Area (SqYds)**
153.00 + 0.263	Lt.	60	6	40.0
153.00 + 0.424	Rt.	60	6	40.0
153.00 + 0.424	Lt.	61	6	40.7
153.00 + 0.688	Lt.	62	6	41.3
155.00 + 0.514	Rt.	60	6	40.0
155.00 + 0.514	Lt.	79	6	52.7
156.00 + 0.508	Rt.	79	6	52.7
156.00 + 0.532	Lt.	59	6	39.3
156.00 + 0.726	Rt.	59	6	39.3
157.00 + 0.012	Rt.	80	6	53.3
157.00 + 0.012	Lt.	80	6	53.3
157.00 + 0.239	Lt.	60	6	40.0
158.00 + 0.414	Lt.	60	6	40.0
159.00 + 0.414	Rt.	80	6	53.3
159.00 +0.414	Lt.	80	6	53.3
160.00 + 0.012	Lt.	63	6	42.0
160.00 +0.522	Rt.	80	6	53.3
160.00 +0.522	Lt.	80	6	53.3
160.00 + 0.751	Rt.	63	6	42.0
160.00 + 0.877	Rt.	60	6	40.0
161.00 + 0.017	Rt.	82	6	54.7
161.00 + 0.521	Lt.	60	6	40.0
161.00 + 0.770	Rt.	60	6	40.0
162.00 + 0.077	Lt.	80	6	53.3
162.00 + 0.525	Lt.	60	6	40.0
163.00 + 0.528	Lt.	60	6	40.0
164.00 + 0.022	Lt.	60	6	40.0
164.00 + 0.525	Lt.	80	6	53.3
165.00 + 0.024	Rt.	60	6	40.0
165.00 + 0.024	Lt.	60	6	40.0
165.00 + 0.369	Rt.	62	6	41.3
165.00 + 0.418	Rt.	60	6	40.0
165.00 + 0.470	Rt.	62	6	41.3
165.00 + 0.519	Lt.	63	6	42.0
		Total = 1516.0 SqYds		

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	083-351 & 212-351	8	13

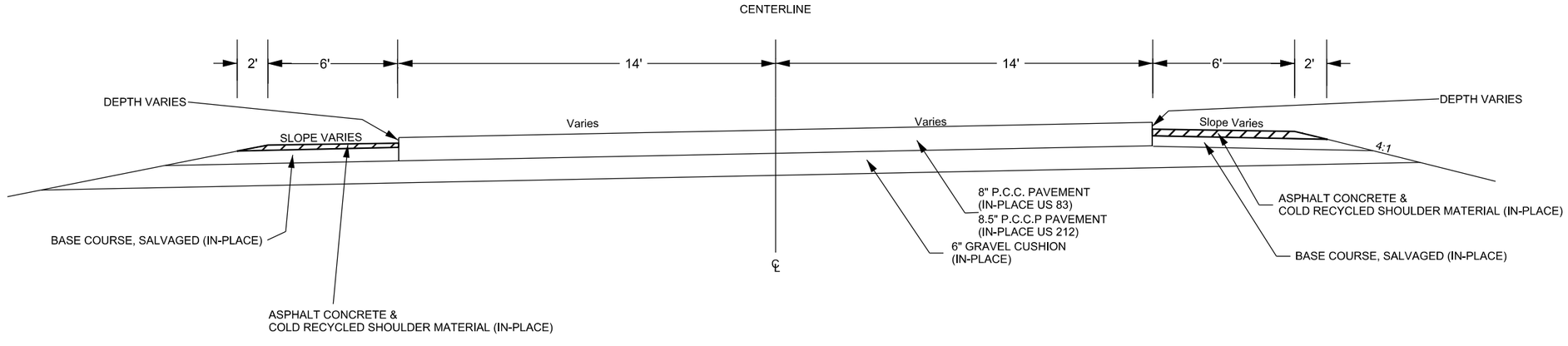
EXISTING TYPICAL SECTION

US 83 & US212 SHOULDERS

NORMAL CROWN



SUPERELEVATED CURVES



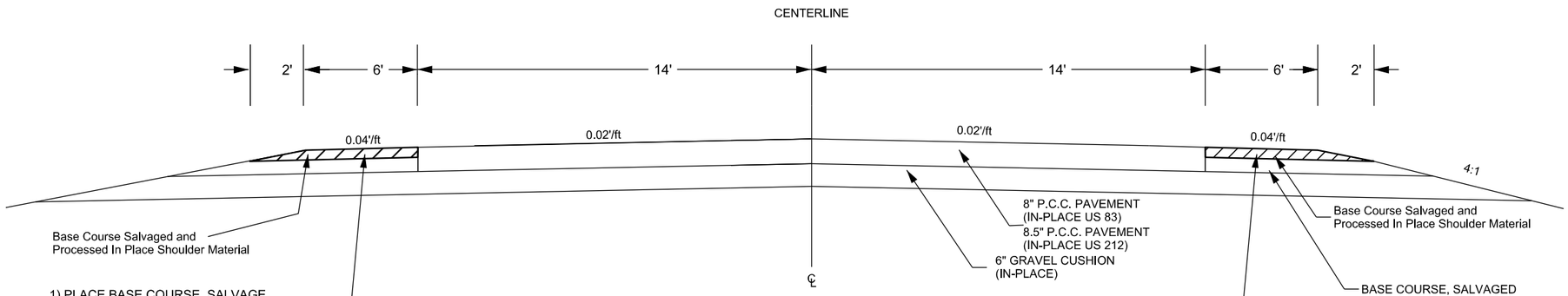
PLOT SCALE - 1:3.98238

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	083-351 & 212-351	9	13

TYPICAL SECTION

US 83 & US212 SHOULDERS

NORMAL CROWN



1) PLACE BASE COURSE, SALVAGE

2) PROCESS IN PLACE BASE COURSE, SALVAGE AND EXISTING SHOULDER MATERIALS TO A DEPTH OF 4" FROM THE TOP OF CONCRETE

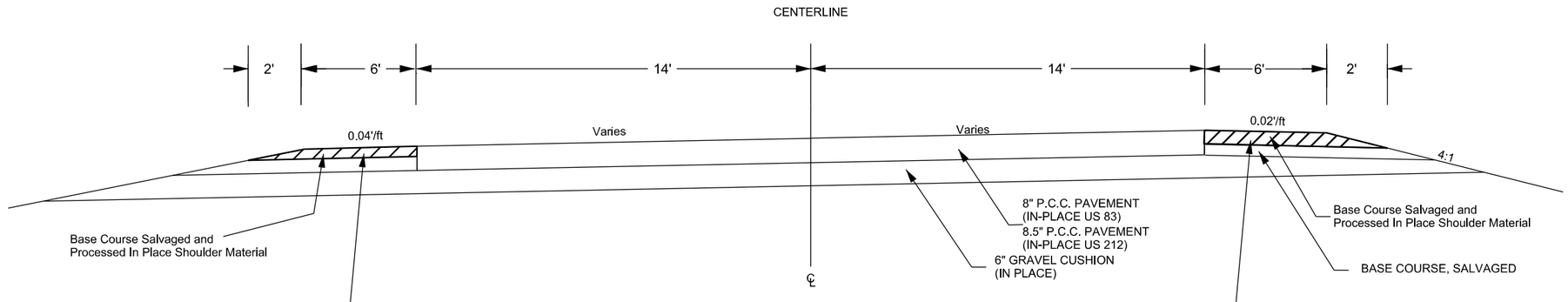
3) SHAPE AND COMPACT SHOULDERS TO TYPICAL SECTION

1) PLACE BASE COURSE, SALVAGE

2) PROCESS IN PLACE BASE COURSE, SALVAGE AND EXISTING SHOULDER MATERIALS TO A DEPTH OF 4" FROM THE TOP OF CONCRETE

3) SHAPE AND COMPACT SHOULDERS TO TYPICAL SECTION

SUPERELEVATED CURVES



1) PLACE BASE COURSE, SALVAGE

2) PROCESS IN PLACE BASE COURSE, SALVAGE AND EXISTING SHOULDER MATERIALS TO A DEPTH OF 4" FROM THE TOP OF CONCRETE

3) SHAPE AND COMPACT SHOULDERS TO TYPICAL SECTION

1) PLACE BASE COURSE, SALVAGE

2) PROCESS IN PLACE BASE COURSE, SALVAGE AND EXISTING SHOULDER MATERIALS TO A DEPTH OF 4" FROM THE TOP OF CONCRETE

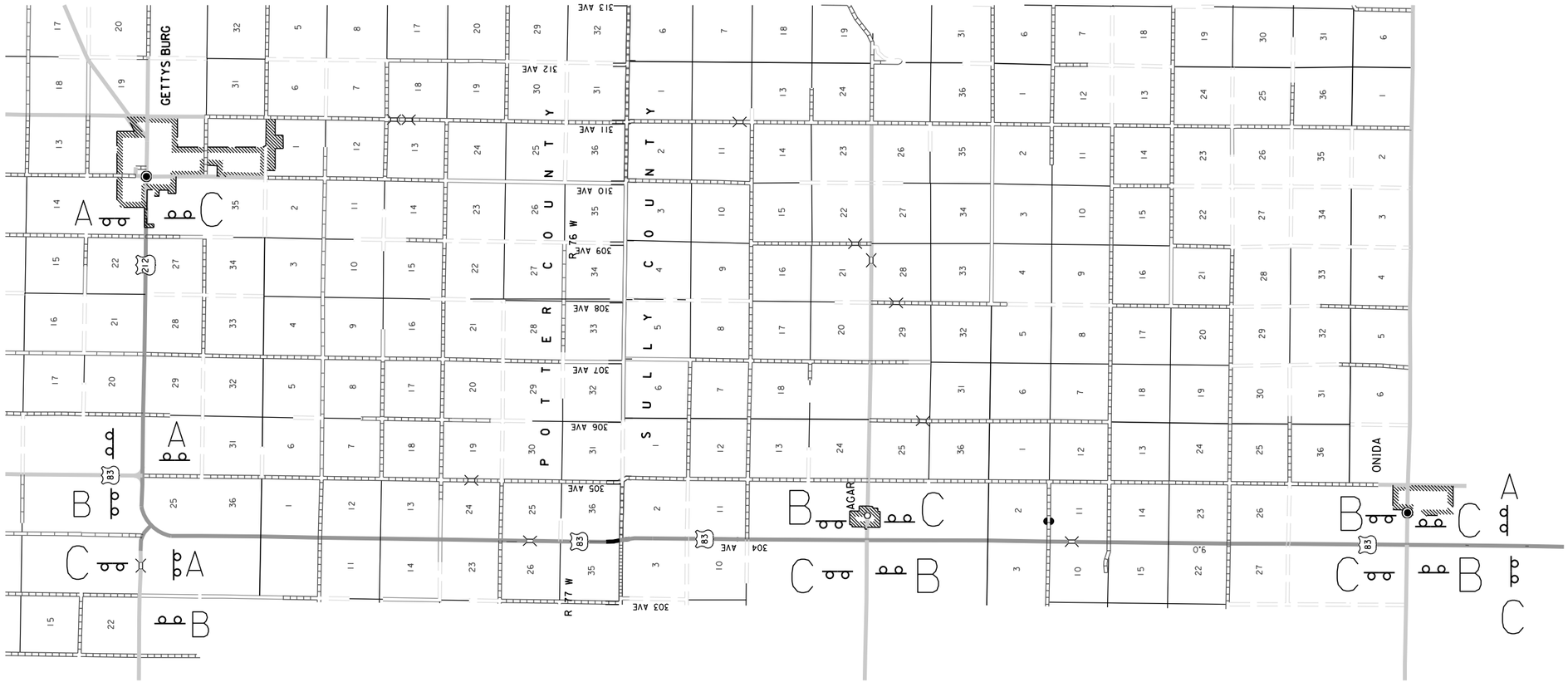
3) SHAPE AND COMPACT SHOULDERS TO TYPICAL SECTION

PLOTTED FROM - TRPR22412
PLOT NAME - 1
FILE - ...\83&212 SHOULDERS\TYPICAL.DGN
SHEET — OF — SHEETS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	083-351 & 212-351	10	13

FIXED LOCATION SIGNS

PCN I3NK & I3R7



A

ROAD WORK NEXT MILES

G20-1 (48"X24")

B

ROAD WORK AHEAD

W20-1 (48"X48")

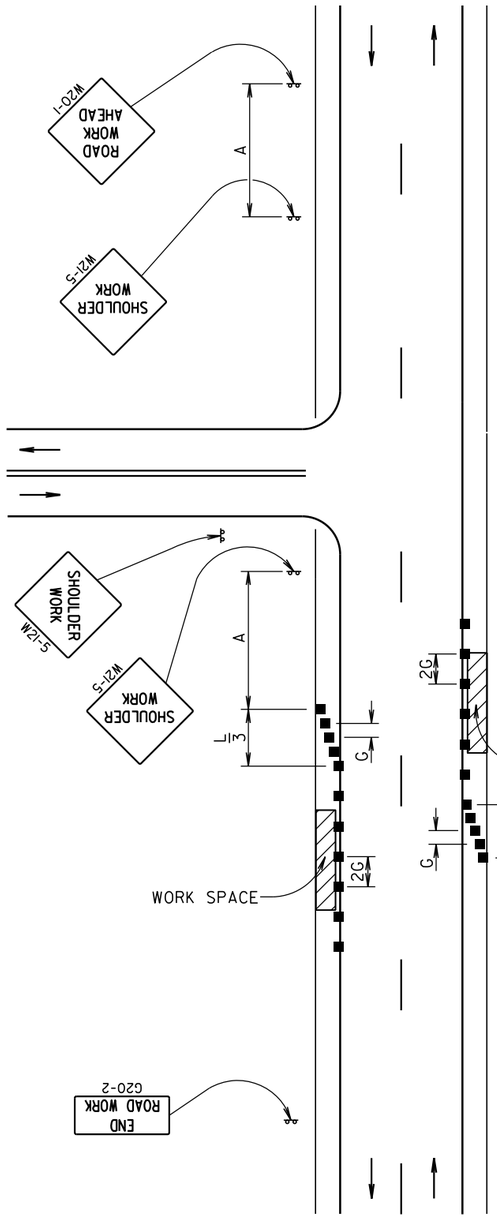
C

END ROAD WORK

G20-2 (36"X18")

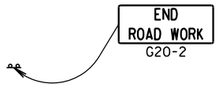
NOTES:

SIGN LOCATIONS WILL BE SET BY THE CONTRACTOR AND VERIFIED IN THE FIELD BY THE ENGINEER PRIOR TO INSTALLATION



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45 - 50	500	600	50
55	750	660	50
60 - 65	1000	780	50

■ Channelizing Device



The channelizing devices shall be drums or 42" cones if traffic control must remain overnight.

For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

September 22,2014

Published Date: 2nd Qtr. 2015	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES WORK ON SHOULDERS	PLATE NUMBER 634.03
			Sheet 1 of 1

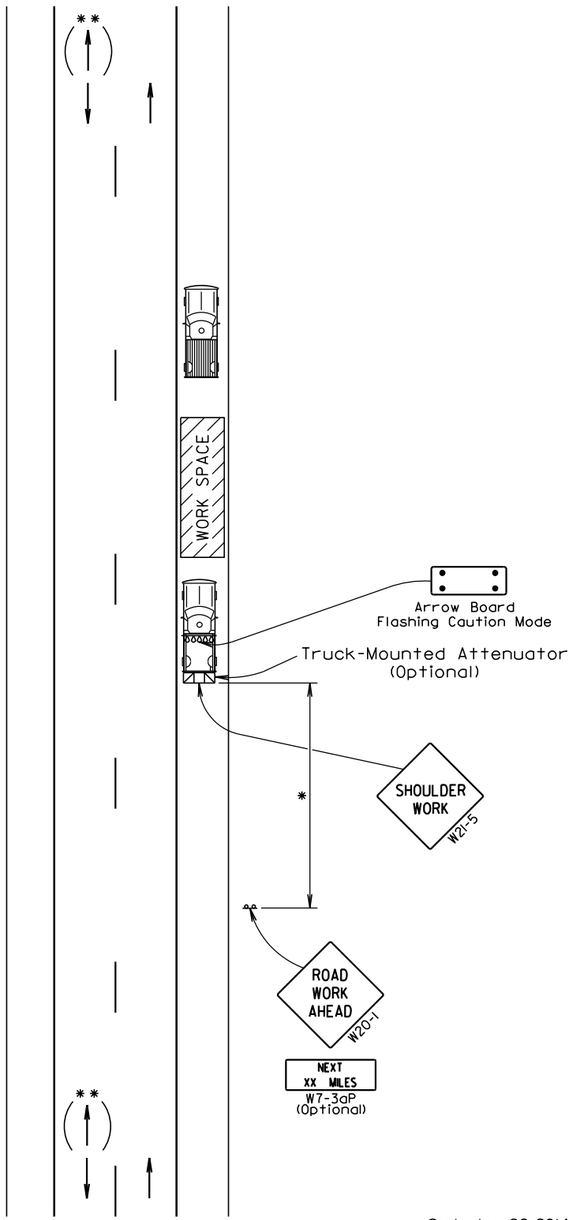
* In situations where multiple work locations in a limited distance make it practical to place stationary signs, the distance between the advance warning sign and the work should not exceed 5 miles.

The ROAD WORK NEXT xx MILES sign may be used instead of the ROAD WORK AHEAD sign if the work locations occur over a distance of more than 2 miles.

Arrow board is required for intermittently and continuously moving mobile operations when work exceeds 1 hour.

** If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

In situations where the distance between the advance warning signs and the work is 2 miles to 5 miles, a Supplemental Distance plaque should be used with the ROAD WORK AHEAD sign.



September 22,2014

Published Date: 2nd Qtr. 2015	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES MOBILE OPERATIONS ON SHOULDER	PLATE NUMBER 634.04
			Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	25
35 - 40	350	25
45 - 50	500	50
55	750	50
60 - 65	1000	50

Flagger

Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

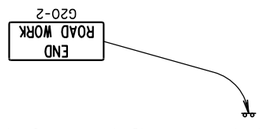
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices shall be drums or 42" cones.

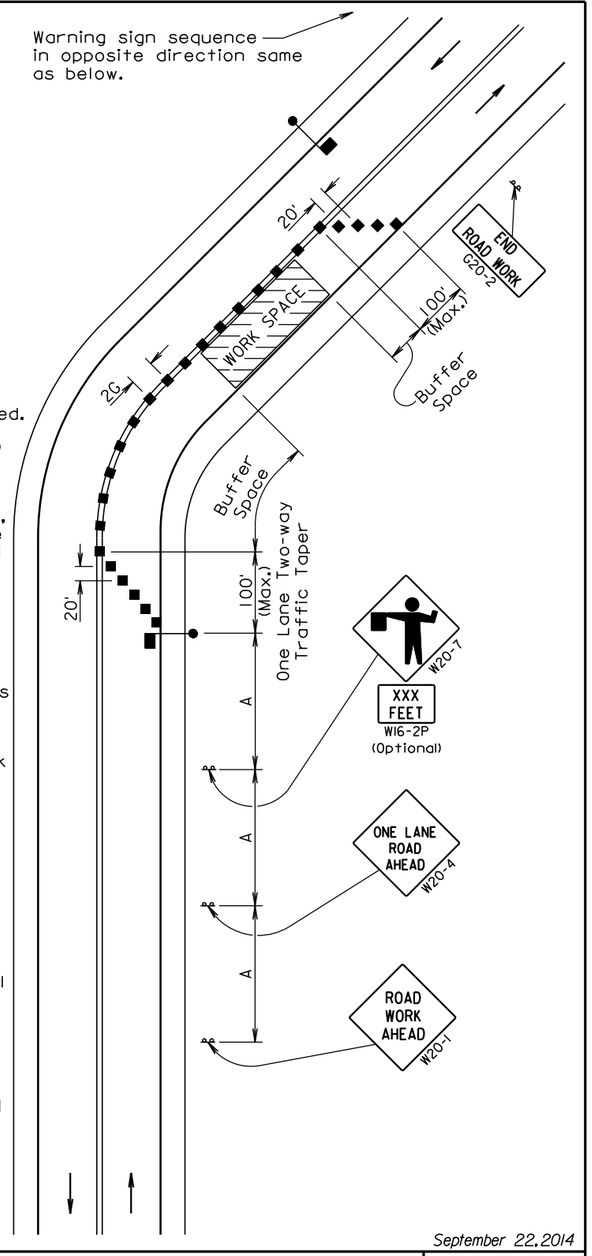
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

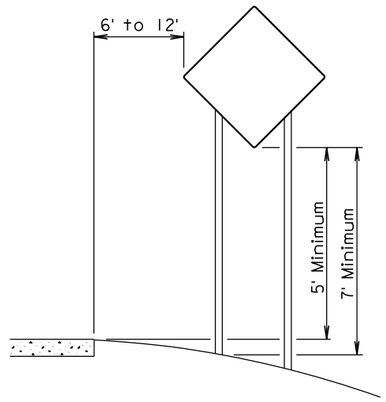
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.

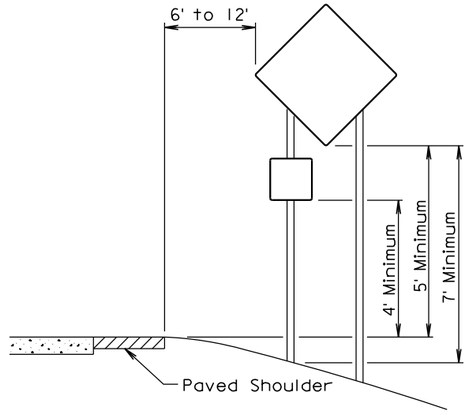


September 22.2014

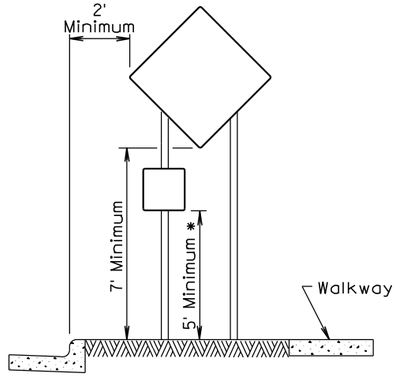
Published Date: 2nd Qtr. 2015	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1



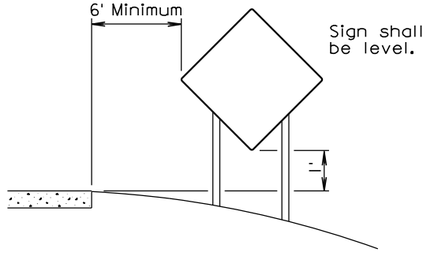
RURAL DISTRICT



RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

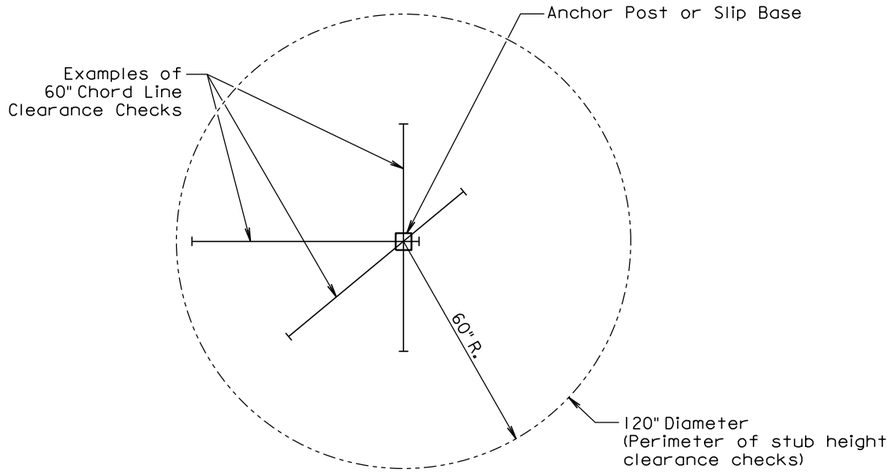


RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

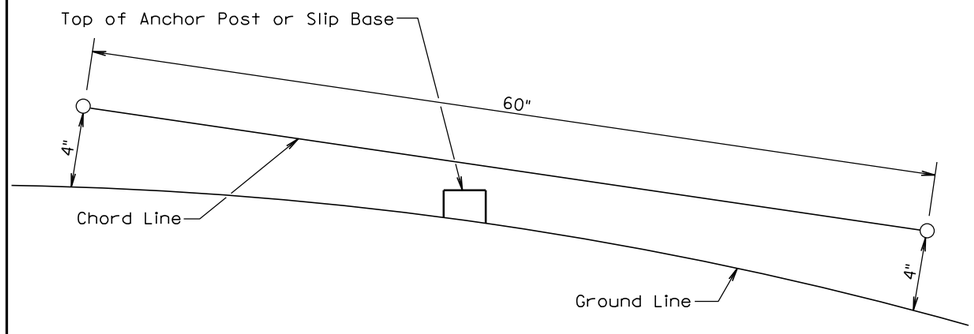
September 22.2014

Published Date: 2nd Qtr. 2015	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



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. 2015	**SDDOT**	***BREAKAWAY SUPPORT STUB CLEARANCE***	***PLATE NUMBER*** *634.99*
			Sheet 1 of 1