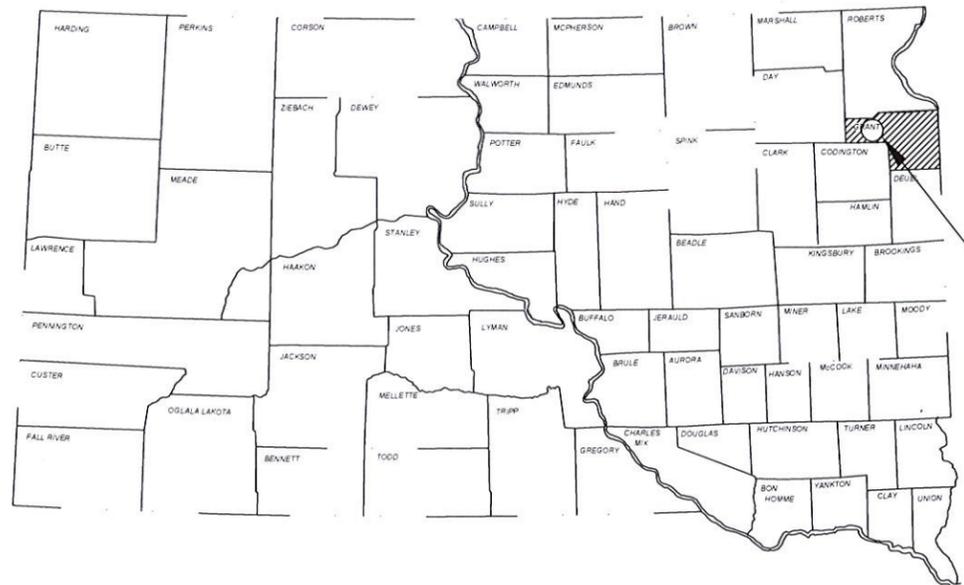


STATE OF SOUTH DAKOTA	Project	Sheet No.	Total Sheets
	P 6266(07)	1	13

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR
PROJECT P 6266(07)
149th Street (Co. Rd. #8)
GRANT COUNTY, SD
Asphalt Concrete Overlay
PCN 04VQ



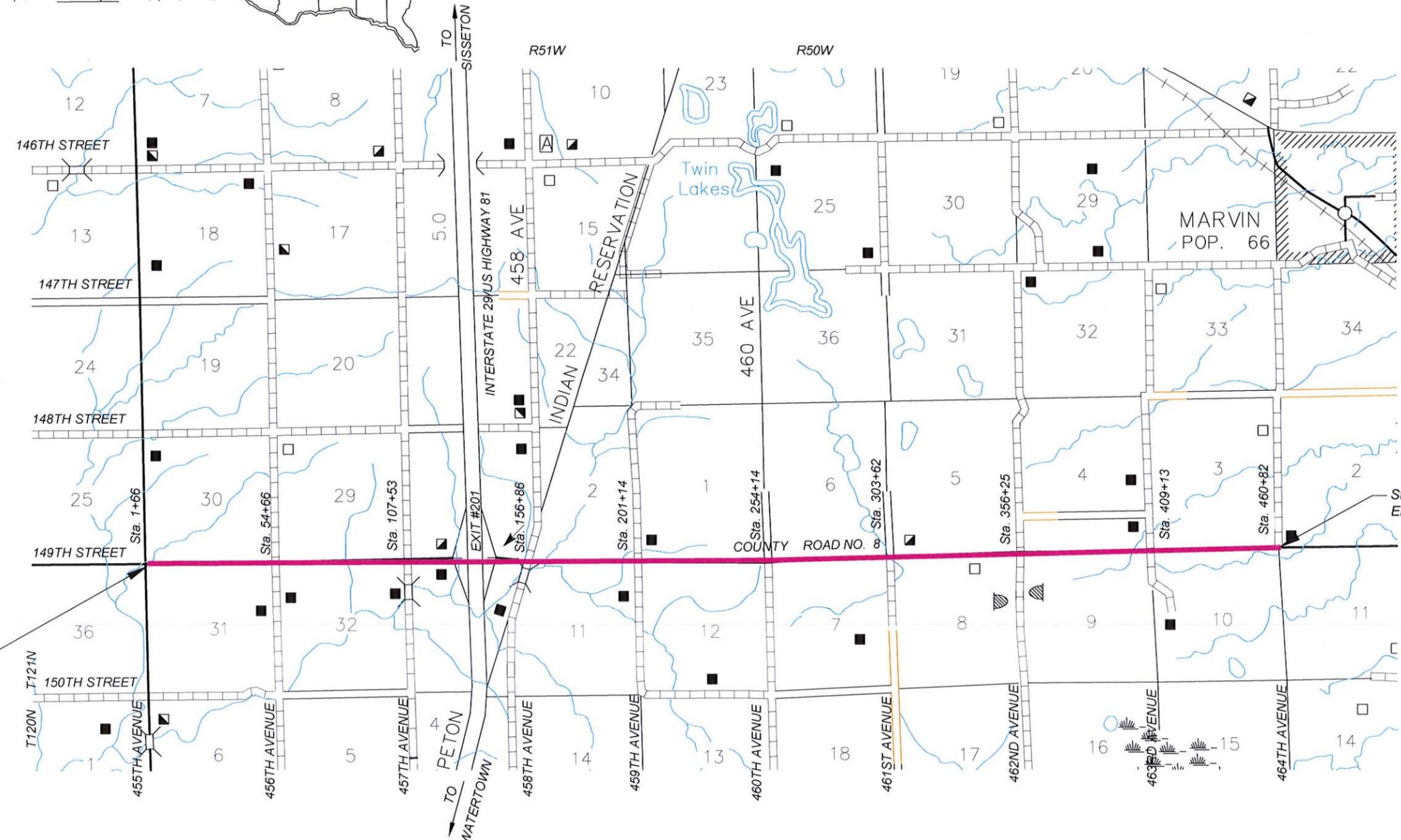
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	Title Sheet and Layout Map
2 to 3	Estimate of Quantities and Environmental Commitments
4 to 5	Rates of Materials & Table of Additional Quantities
6 to 7	Plan Notes
8	Typical Section
9	Traffic Control
10	Pavement Marking
11 to 13	Standard Plates

STORM WATER PERMIT
None Required

DESIGN DESIGNATION

ADT (2011)	340
ADT (2031)	430
DHV	66
d	50%
T DHV	3.9%
T ADT	8.6%



Prepared By
Aason Engineering Co., Inc.
1022 Sixth St. SE
Watertown, SD 57201

GROSS LENGTH	45,952 FEET	8.703 MILES
LENGTH OF EXCEPTIONS	0 FEET	0.0 MILES
NET LENGTH	45,952 FEET	8.703 MILES

10

FOR BIDDING PURPOSES ONLY

State of South Dakota	Project	Sheet No.	Total Sheets
	P 6266(07)	2	13

Revised 1-19-2016 by RSD

ESTIMATE OF QUANTITIES

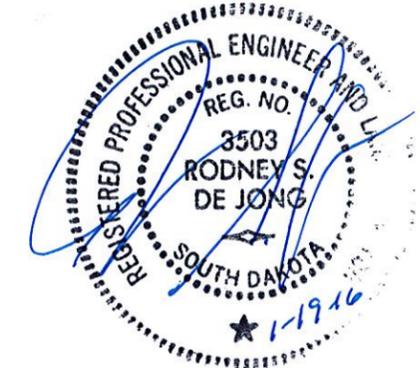
BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	218	CuYd
260E1010	Base Course	1530.0	Ton
320E3000	Compaction Sample	3	Each
330E0100	SS-1h or CSS-1h Asphalt for Tack	144.2	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	45.8	Ton
330E2000	Sand for Flush Seal	491.0	Ton
332E0010	Cold Milling Asphalt Concrete	495	Sq Yd
600E0200	Type II Field Laboratory	1	Each
633E1300	Pavement Marking Paint, White	296	Gal
633E1305	Pavement Marking Paint, Yellow	105	Gal
634E0010	Flagging	160	Hour
634E0020	Pilot Car	80	Hour
634E0110	Traffic Control Signs	446	Sq Ft
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0630	Temporary Pavement Marking	26.1	Mile

Alternate "A"

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0004	PG 58-28 Asphalt Binder	978.5	Ton
320E1050	Class E Asphalt Concrete	16308.5	Ton

Alternate "B"

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0004	PG 58-28 Asphalt Binder	792.6	Ton
320E1070	Class HR Asphalt Concrete	16308.5	Ton



SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 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 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.

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.

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 County ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for 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.

FOR BIDDING PURPOSES ONLY

State of South Dakota	Project	Sheet No.	Total Sheets
	P 6266(07)	3	13

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.

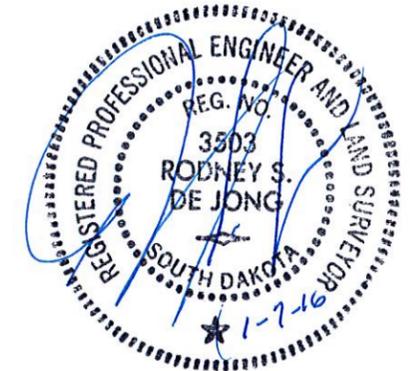
The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record 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.



RATES OF MATERIALS

The Estimate of Quantities is based on the following quantities of materials per mile.

CLASS E ASPHALT CONCRETE (Alternate "A")

**Sta. 1+78 to Sta. 120+25
Sta. 144+25 to Sta. 461+30**

Leveling Course - 1" Lift

Crushed Aggregate	785.4 Tons
PG 58-28 Asphalt Binder	50.1 Tons
Total	835.5 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 5.7 Tons applied 26 feet wide (Rate=0.09 Gallons per Square Yard).

Wearing Course - 1" Lift

Crushed Aggregate	754.6 Tons
PG 58-28 Asphalt Binder	48.1 Tons
Total	802.7 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 5.5 Tons applied 25 feet wide (Rate=0.09 Gallons per Square Yard).

Sta. 120+25 to Sta. 144+25

Leveling Course - 1" Lift

Crushed Aggregate	800.8 Tons
PG 58-28 Asphalt Binder	51.1 Tons
Total	851.9 Tons

The exact proportions of these materials will be determined on construction.

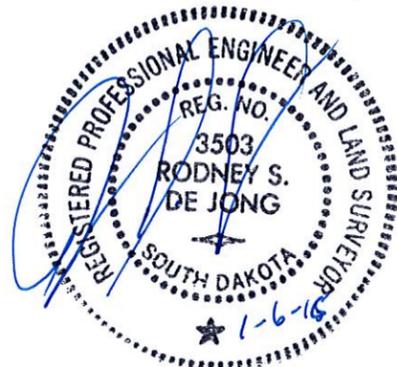
SS-1h or CSS-1h Asphalt for Tack at the rate of 5.9 Tons applied 27 feet wide (Rate=0.09 Gallons per Square Yard).

Wearing Course - 1" Lift

Crushed Aggregate	770.0 Tons
PG 58-28 Asphalt Binder	49.1 Tons
Total	819.1 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 5.7 Tons applied 26 feet wide (Rate=0.09 Gallons per Square Yard).



CLASS HR ASPHALT CONCRETE (Alternate "B")

FOR BIDDING PURPOSES ONLY

State of South Dakota	Project	Sheet No.	Total Sheets
	P 6266(07)	4	13

**Sta. 1+78 to Sta. 120+25
Sta. 144+25 to Sta. 461+30**

Leveling Course - 1" Lift

Crushed Aggregate	635.9 Tons
Salvaged Asphalt Concrete	159.0 Tons
PG 58-28 Asphalt Binder	40.6 Tons
Total	835.5 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 5.7 Tons applied 26 feet wide (Rate=0.09 Gallons per Square Yard).

Wearing Course - 1" Lift

Crushed Aggregate	611.0 Tons
Salvaged Asphalt Concrete	152.7 Tons
PG 58-28 Asphalt Binder	39.0 Tons
Total	802.7 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 5.5 Tons applied 25 feet wide (Rate=0.09 Gallons per Square Yard).

Sta. 120+25 to Sta. 144+25

Leveling Course - 1" Lift

Crushed Aggregate	648.4 Tons
Salvaged Asphalt Concrete	162.1 Tons
PG 58-28 Asphalt Binder	41.4 Tons
Total	851.9 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 5.9 Tons applied 27 feet wide (Rate=0.09 Gallons per Square Yard).

Wearing Course - 1" Lift

Crushed Aggregate	623.4 Tons
Salvaged Asphalt Concrete	155.9 Tons
PG 58-28 Asphalt Binder	39.8 Tons
Total	819.1 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 5.7 Tons applied 26 feet wide (Rate=0.09 Gallons per Square Yard).

FLUSH SEAL

SS-1h or CSS-1h Asphalt for Flush Seal at the rate of 2.9 Tons applied 24.0 feet wide. (Rate=0.05 Gallons per Square Yard).

Sand for Flush Seal at the rate of 56.3 Tons applied 24.0 feet wide (Rate=8 Pounds per Square Yard).

TABLE OF ADDITIONAL QUANTITIES

FOR BIDDING PURPOSES ONLY

State of South Dakota	Project	Sheet No.	Total Sheets
	P 6266(07)	5	13

Location	*Water for Granular Material M. Gal.	Base Course ton	Alternate "A"		Alternate "B"			*Virgin Aggregate ton
			Asphalt Concrete Class E ton	PG 58-28 Asphalt Binder ton	Asphalt Conc. Class HR ton	PG 58-28 Asphalt Binder ton	Sal. Asph. Conc. RAP ton	
25 Entrances Radii @ 1+78 L & R Intersecting Roads	4.5	375.0	50.0	3.0	50.0	2.4	9.5	38.1
54+66 L & R	1.1	90.0	30.0	1.8	30.0	1.5	5.7	22.8
107+53 L & R	1.1	90.0	30.0	1.8	30.0	1.5	5.7	22.8
156+86 L & R	1.1	90.0	30.0	1.8	30.0	1.5	5.7	22.8
201+14 L & R	1.1	90.0	30.0	1.8	30.0	1.5	5.7	22.8
254+14 L & R	1.1	90.0	30.0	1.8	30.0	1.5	5.7	22.8
303+62 R	0.5	45.0	15.0	0.9	15.0	0.7	2.9	11.4
356+25 L & R	1.1	90.0	30.0	1.8	30.0	1.5	5.7	22.8
409+13 L & R	1.1	90.0	30.0	1.8	30.0	1.5	5.7	22.8
461+30 L	0.5	45.0	15.0	0.9	30.0	0.7	2.9	11.4
TOTALS	13.2	1095.0	293.8	17.6	293.8	14.5	55.9	223.4

*For informational purposes only (not a bid item)

The tonnage shown above for Class E or Class HR Asphalt Concrete is based on an average compacted depth of 2 inches and paving to the end of the radii on intersecting Roads.

1.0 Ton of SS-1h or CSS-1h Asphalt for Tack for the above surfaces is included in the Estimate of Quantities and shall be applied at the rate shown on the plans as directed by the Engineer.

The above quantities are included in the Estimate of Quantities.

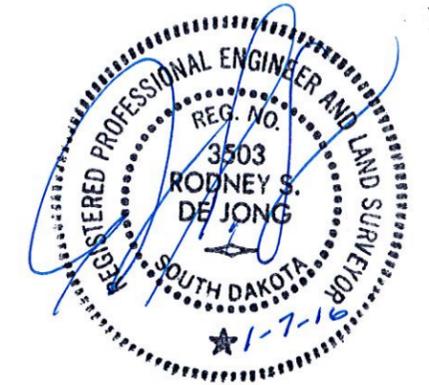


TABLE OF MATERIAL QUANTITIES

Location - Description	*Water for Granular Material M Gal	Base Course ton	Alternate "A"		Alternate "B"			*Virgin Aggregate ton	SS-1h or CSS-1h Asphalt For Tack ton	SS-1h or CSS-1h Asphalt For Fush Seal ton	Sand ton
			Asphalt Concrete Class E ton	PG 58-28 Asphalt Binder ton	Asphalt Concrete Class HR ton	PG 58-28 Asphalt Binder ton	Salvage Asphalt Concrete RAP ton				
Entrances & Intersecting Roads	13.2	1095.0	293.8	17.6	293.8	14.5	55.9	223.4	1.0		
Digouts - Backfill	5.2	435.0									
Spot Repair			1740.8	104.4	1740.8	84.6	331.2	1325.0	47.0		
Level Course - 1" Lift											
1+78 to 120+25			1874.9	112.5	1874.9	91.1	356.8	1427.0	12.8		
120+25 to 144+25			387.6	23.3	387.6	18.8	73.8	295.0	2.7		
144+25 to 461+30			5017.2	301.0	5017.2	243.8	954.8	3818.6	34.2		
Wearing Course - 1" Lift											
1+78 to 120+25			1801.3	108.1	1801.3	87.5	342.7	1371.1	12.3		
120+25 to 144+25			372.7	22.4	372.7	18.1	70.9	283.7	2.6		
144+25 to 461+30			4820.2	289.2	4820.2	234.2	917.0	3669.1	31.6		
1+78 to 461+30 - Flush Seal										45.8	491
TOTALS	18.4	1,530.0	16,308.5	978.5	16,308.5	792.6	3,103.1	12,412.9	144.2	45.8	491

* For information only

UTILITIES

The Contractor shall contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

Utilities are not planned to be affected on this project. If utilities are identified near the improvement area through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule 20:25, the Contractor shall contact the Engineer to determine modifications that will be necessary to avoid utility impacts.

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where materials must be placed to achieve the required elevations, plans tonnage may be varied to achieve the required elevation.

SUBSURFACE REPORT

A copy of the surfacing/subgrade investigation for this project is available from the Watertown Area office.

TRAFFIC CONTROL

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 County.

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 County, and to the satisfaction of the Engineer.

The bottom of signs on portable or temporary supports shall not be less than one foot above the pavement in rural areas. Portable signs supports may be used as long as the duration is less than 3 days. If duration is more than 3 days, the sign shall be on fixed supports, ground mounted, breakaway supports.

Traffic Control signs, as shown in the Estimate of Quantities, are estimates. Contractor's operation may require adjustments in quantities, either more or less. Payment will be for those signs actually ordered by the Engineer and used.

Reflectorized Sheeting Requirements for Temporary Traffic Control Devices

Delete the first paragraph of Section 984.1 and replace with the following:

Temporary traffic control devices, including signs, drums, cones, tubular markers, barricades, vertical panels, and direction indicator barricades shall be reflectorized with sheeting applied to a satisfactory backing. Flat surfaced temporary traffic control devices including, but not limited to; signs, barricades, vertical panels, and direction indicator barricades shall be reflectorized with super/very high intensity reflectorized sheeting meeting the standards of Type XI as defined by AASHTO M 268 (ASTM D4956). Round surfaced temporary traffic control devices including, but not limited to; drums, cones, and tubular markers shall be reflectorized with high intensity reflectorized sheeting meeting the standards of Type IV as defined by AASHTO M 268 (ASTM D4956). All orange colored material shall be fluorescent.

FRESH OIL SIGNS

"FRESH OIL SIGNS" shall be used at locations as directed by the Engineer.

BUMP SIGNS

An Advisory Speed plaque displaying 30 MPH shall be attached to all "BUMP" signs used on the project.

TYPE II FIELD LABORATORY

The lab shall be equipped with an internet connection such as DSL, cable modem, or other approved service. The internet connection shall be provided with a multi-port wireless router. The internet connection shall be a minimum speed of 512 Kb unless limited by job location and approved by the DOT. Prior to installing the wireless router the Contractor shall submit the wireless router's technical data to the Area Office to check for compatibility with the state's computer equipment. The internet connection is intended for state personnel usage only. The Contractor's personnel are prohibited from using the internet connection unless pre-approved by the Project Engineer.

INTERSECTING ROADS AND ENTRANCES

Intersecting roads and entrances shall be satisfactorily cleared of vegetation, shaped, and compacted prior to placement of mainline surfacing. This work will be considered incidental to other contract items. Separate measurement and payment will not be made.

EXCAVATION OF UNSTABLE MATERIAL

Included in the Estimate of Quantities is 25 cubic yards of Unclassified Excavation, Digsouts per mile for the necessary removal of unstable materials.

Backfill shall be Base Course, paid for at the contract unit price per ton.

FOR BIDDING PURPOSES ONLY

State of South Dakota	Project	Sheet No.	Total Sheets
	P 6266(07)	6	13

Revised 2-16-2016 by RSD

WATER FOR COMPACTION OF GRANULAR MATERIALS

Cost of water for compaction of the granular material shall be incidental to the contract unit price bid for the various contract items. Six percent, plus or minus, moisture will be required at the time of compaction unless otherwise directed by the Engineer and may be mixed with the base course at the central plant or applied at the time of placement of the base course material.

For informational purposes only, the water needed is estimated to be 18.4 MGal.

SPOT LEVELING

Included in Alternate "A" of the Estimate of Quantities is 200 tons of Class E Asphalt Concrete, and 12 tons of PG 58-28 Asphalt Binder per mile for spot leveling throughout the project.

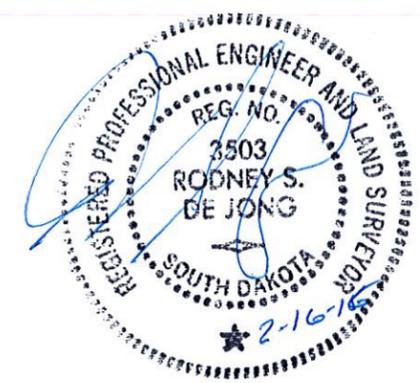
Included in Alternate "B" of the Estimate of Quantities is 200 tons of Class HR Asphalt Concrete (38.1 tons of Salvage Material and 152.2 tons of Virgin Material), and 9.7 tons of PG 58-28 Asphalt Binder per mile for spot leveling throughout the project.

Included in the Estimate of Quantities is 5.4 tons of SS-1h or CSS-1h Asphalt for Tack per mile for spot leveling throughout the project.

CLASS E ASPHALT CONCRETE

Mineral Aggregate for the Class E shall conform to the requirements for Class E, Type 2.

The Class E Asphalt Concrete Leveling Course shall be compacted by the Specified Roller Coverage Method.



CLASS HR ASPHALT CONCRETE

RAP for the Class HR Asphalt Concrete shall be furnished by the Contractor.

An estimated 3,103.1 tons of RAP is needed for the Class HR mixture.

The Class HR Asphalt Concrete shall include 20% percent RAP in the mixture.

The RAP shall be crushed so the maximum particle size in the cold feed will meet the requirements specified in Section 884.2.C.1. The extracted aggregate gradation shall not exceed the maximum size of the Class E Type 2 gradation specification or the RAP material must be crushed to meet the Class E Virgin Type 2 top size requirement

Screening or scalping of the RAP stockpile(s) will not be allowed.

The Class HR Asphalt Concrete Leveling Course shall be compacted by the Specified Roller Coverage Method.

All other requirements for Class HR shall apply.

BEGIN AND END PROJECT

At the beginning and end of the project, the Contractor shall saw the existing mat and match the new surfacing to the existing surfacing for a smooth taper. The depth of the cut edge shall not be less than 2". The existing asphalt surface shall be removed to provide a full 2" of new asphalt in the taper area. The taper into the cut edge shall be at a rate of not less than 2" in 80'. The taper shall be accomplished by milling.

All costs for equipment, labor and material required to cut the edge and milling the tapers will be paid at the contract price for Cold Milling Asphalt Concrete.

FLUSH SEAL

Application of Flush Seal shall be completed within 10 working days following completion of the asphalt concrete surfacing. For each working day that the Flush Seal remains uncompleted after the 10 working day limitation, the Contractor will be assessed liquidated damages at the rate of \$250 per day. This liquidation damage provision will apply only up to the Substantial Completion Date, as extended. After the Contract Completion Date, liquidated damages will be assessed in accordance with the schedule set forth in Section 8.8 of the Specifications.

Application of the Flush Seal may be eliminated by the Engineer. If the paved surface remains tight, the Engineer shall notify the Contractor as soon as possible that the flush seal is unnecessary.

PERMANENT PAVEMENT MARKING

Traffic Control shall be incidental to the cost of application. The striping and advance or trailing warning vehicle shall be equipped with flashing amber lights or advance warning arrow panel.

All materials shall be applied as per manufacturer's recommendations.

The Contractor shall advise the County a minimum of 2 weeks prior to the application of pavement marking to allow the County to check and mark the location of no passing zones.

The application of the pavement marking paint shall not begin until 2 calendar days following the completion of the flush seal and shall be completed within 12 calendar days following the completion of the flush seal. If the flush seal is eliminated, the Contractor shall complete the application of pavement marking paint within 10 calendar days following completion of final surfacing.

For each working day the application of pavement marking paint remains uncompleted after the time requirements listed previously, the Contractor will be assessed liquidated damages, at the rate of \$250.00 per day. The liquidated damages shall apply up to the Substantial Completion Date, as extended. After the completion date, liquidated damages will be assessed in accordance with Section 8.8 of the Specifications, until the pavement marking is completed, even though the project may be open to traffic.

TEMPORARY PAVEMENT MARKING

It is estimated that twenty (20) DO NOT PASS and twenty (20) PASS WITH CARE signs will be required to mark the no passing zones. These signs shall be incidental to the contract unit price per mile for Temporary Pavement Marking.

Three passes of temporary pavement markings are required: 1 on leveling course, 1 on wear course, and 1 on flush seal course.

Temporary flexible vertical markers (tabs) will be required on the top lift of asphalt.

WORK BY COUNTY

The County shall mark the no passing zones prior to striping. The Contractor shall advise the County a minimum of 2 weeks prior to the application of pavement marking to allow the County to check and mark the location of no passing zones.

Prior to construction, County Maintenance Forces will spray the shoulder to kill existing vegetation. It will be the Contractor's responsibility to notify the County at least 30 days in advance of when he plans to begin work on the surface of the highway. The County assumes no responsibility for the effectiveness of the herbicide applied.

FOR BIDDING PURPOSES ONLY

State of South Dakota	Project	Sheet No.	Total Sheets
	P 6266(07)	7	13

Revised 2-16-2016 by RSD

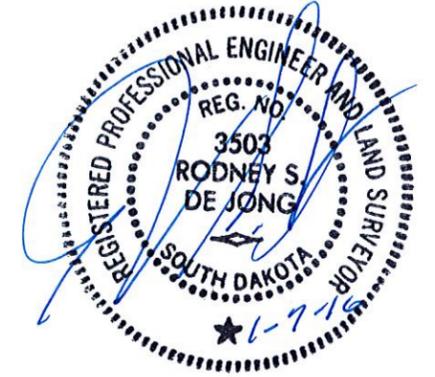
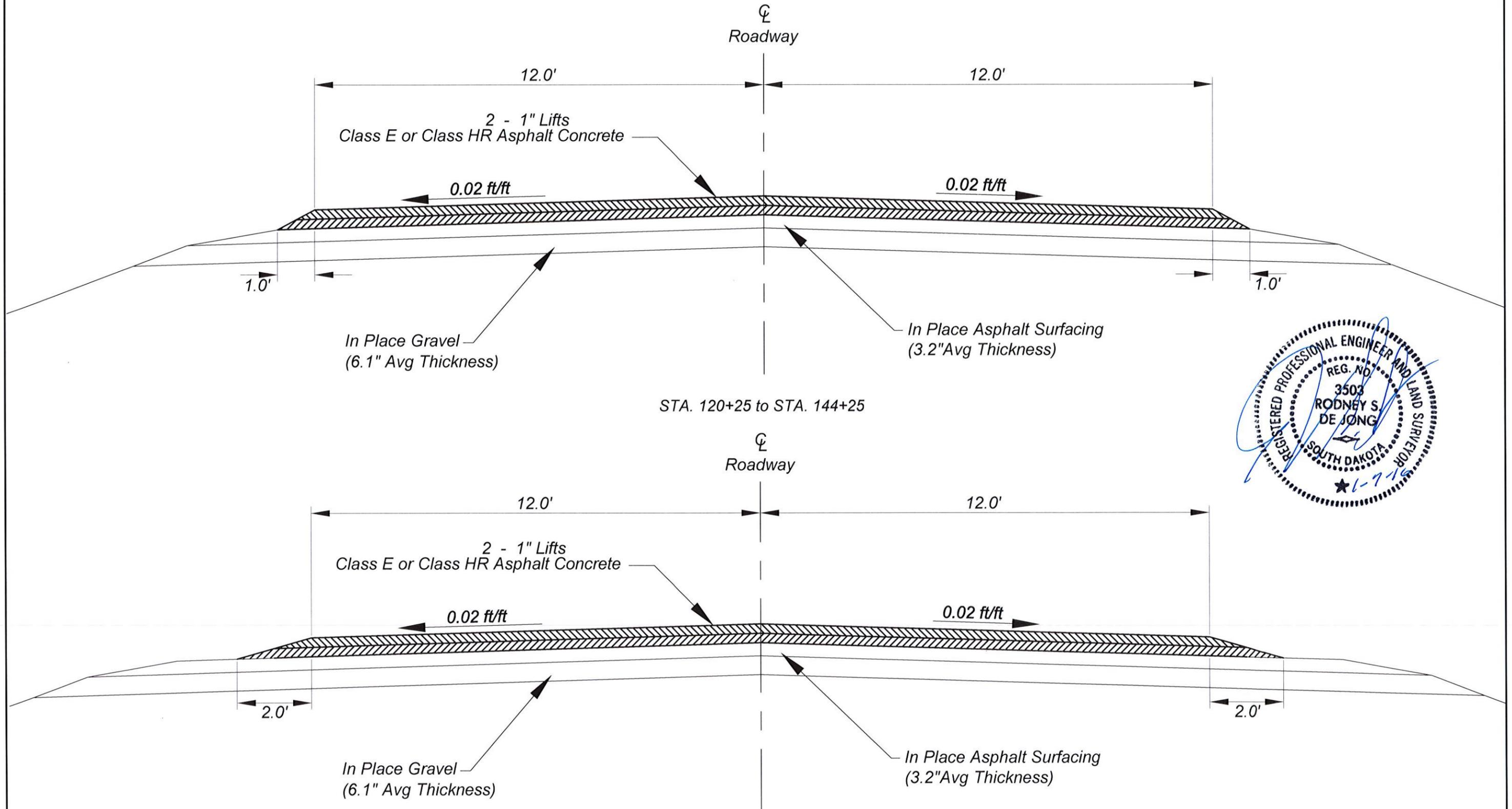


FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 6266(07)	8	13

TYPICAL SURFACING SECTION

STA. 1+00 to STA. 120+25
STA. 144+25 to STA. 461+30

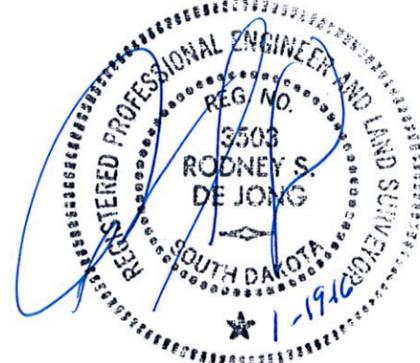


TRAFFIC CONTROL

FOR BIDDING PURPOSES ONLY

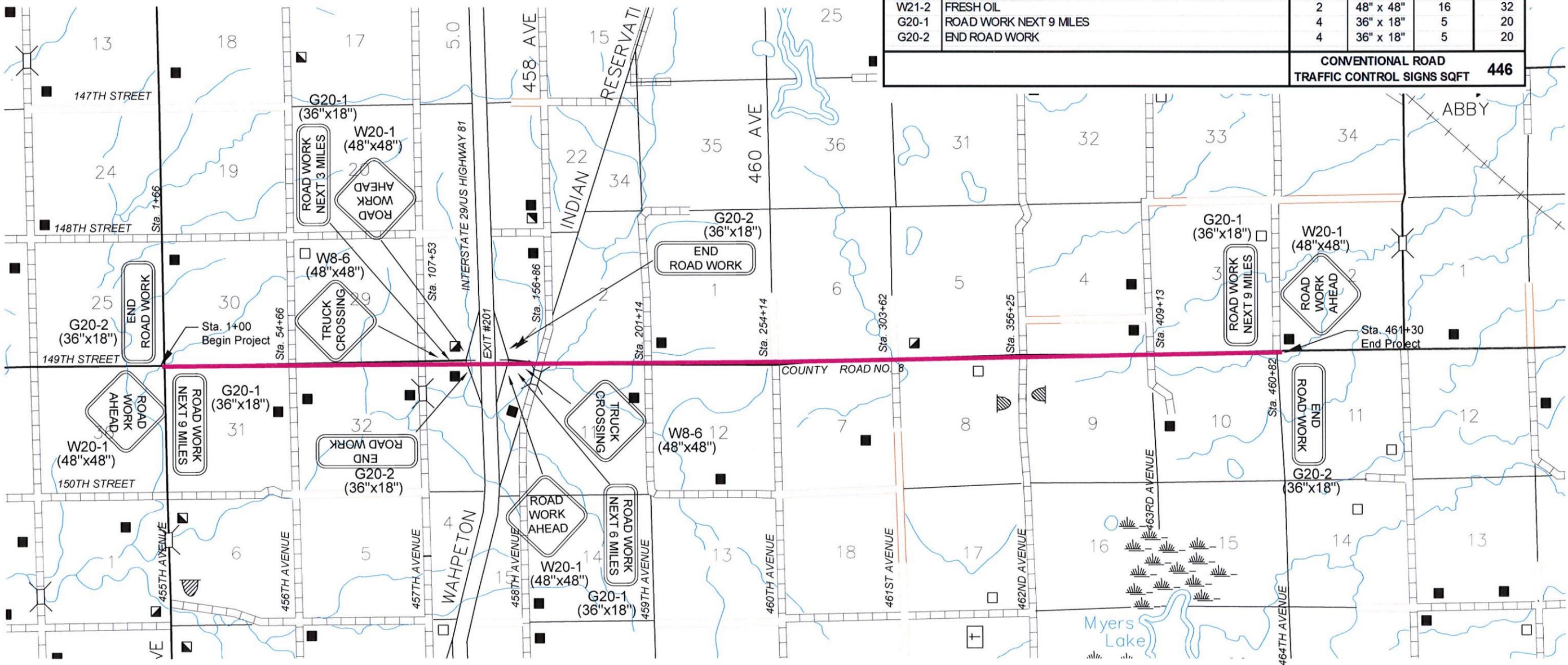
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 6266(07)	9	13

Revised 1-19-2016 by RSD



ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W3-4	BE PREPARED TO STOP	2	48" x 48"	16	32
W8-1	BUMP	4	48" x 48"	16	64
W8-6	TRUCK CROSSING	2	48" x 48"	16	32
W8-11	UNEVEN LANES	2	48" x 48"	16	32
W13-1P	ADVISORY SPEED (plaque)	2	30" x 30"	6	12
W20-1	ROAD WORK AHEAD	6	48" x 48"	16	96
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16	32
W20-7	FLAGGER (symbol)	4	48" x 48"	16	64
W21-2	FRESH OIL	2	48" x 48"	16	32
G20-1	ROAD WORK NEXT 9 MILES	4	36" x 18"	5	20
G20-2	END ROAD WORK	4	36" x 18"	5	20
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			446



STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 6266(07)	10	13

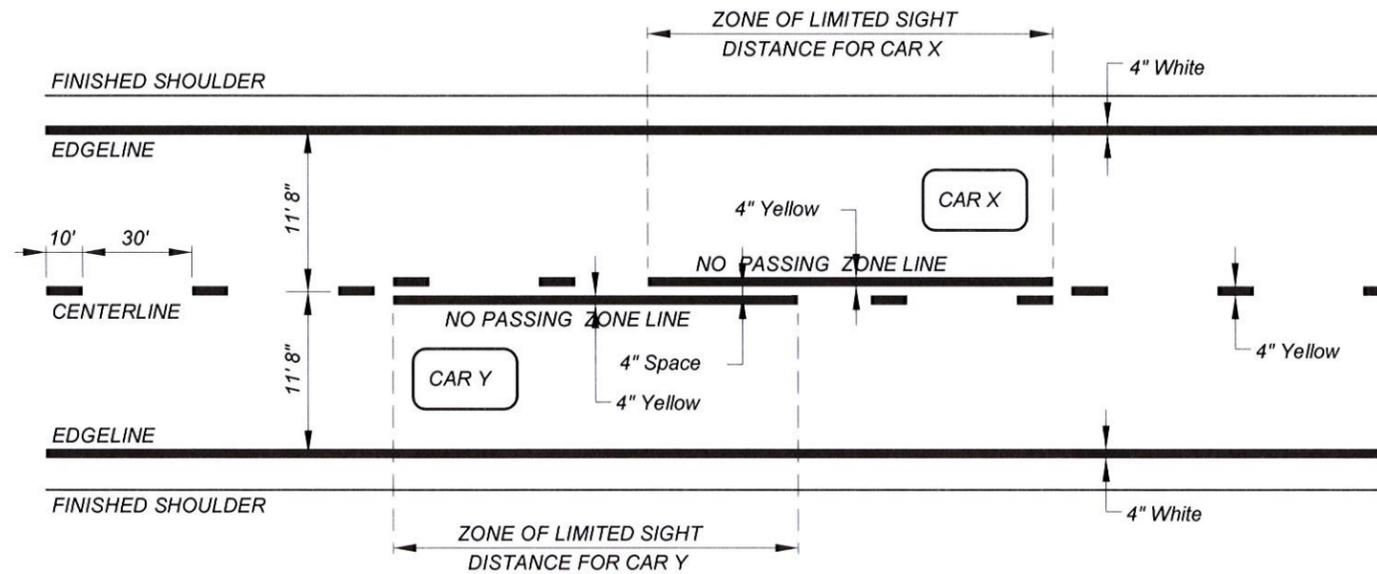
PERMANENT PAVEMENT MARKING

The Estimate of Quantities is based on the following application rates, all of which materials are to be furnished in place by the Contractor:

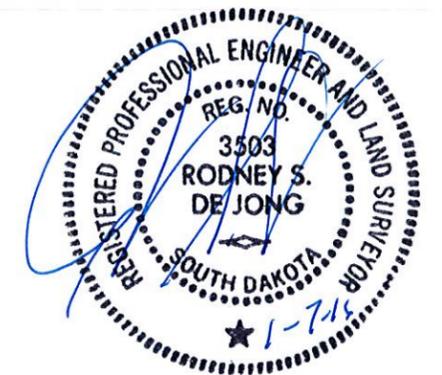
Yellow Centerline (includes no passing lines) = 12± Gal./Mile
 One White Edgeline = 17± Gal./Mile

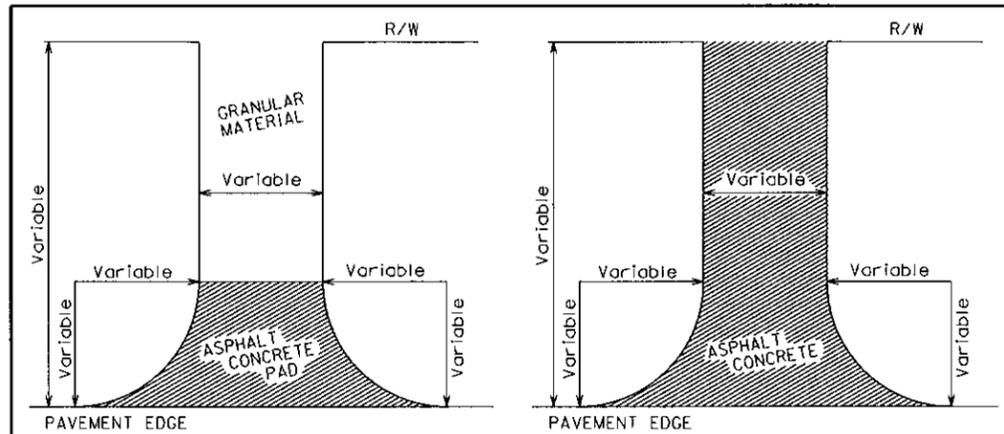
Exact location of the NO PASSING ZONE lines will be determined in the field by the County.

Project centerline markings shall be applied using a three gun system.



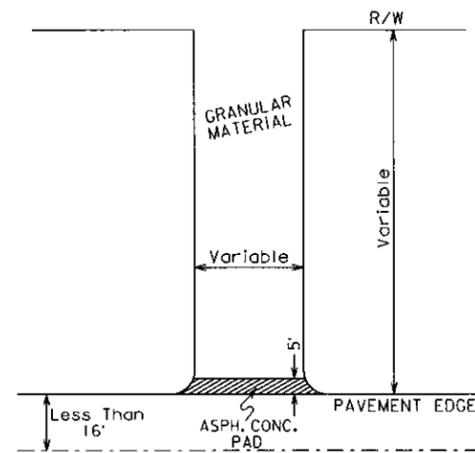
The Typical Pavement Markings as shown on this sheet are to be applied throughout the entire length of the Project.





INTERSECTING ROAD
NO ASPHALT CONCRETE SURFACING
BEYOND R/W

INTERSECTING ROAD
ASPHALT CONCRETE SURFACING
BEYOND R/W



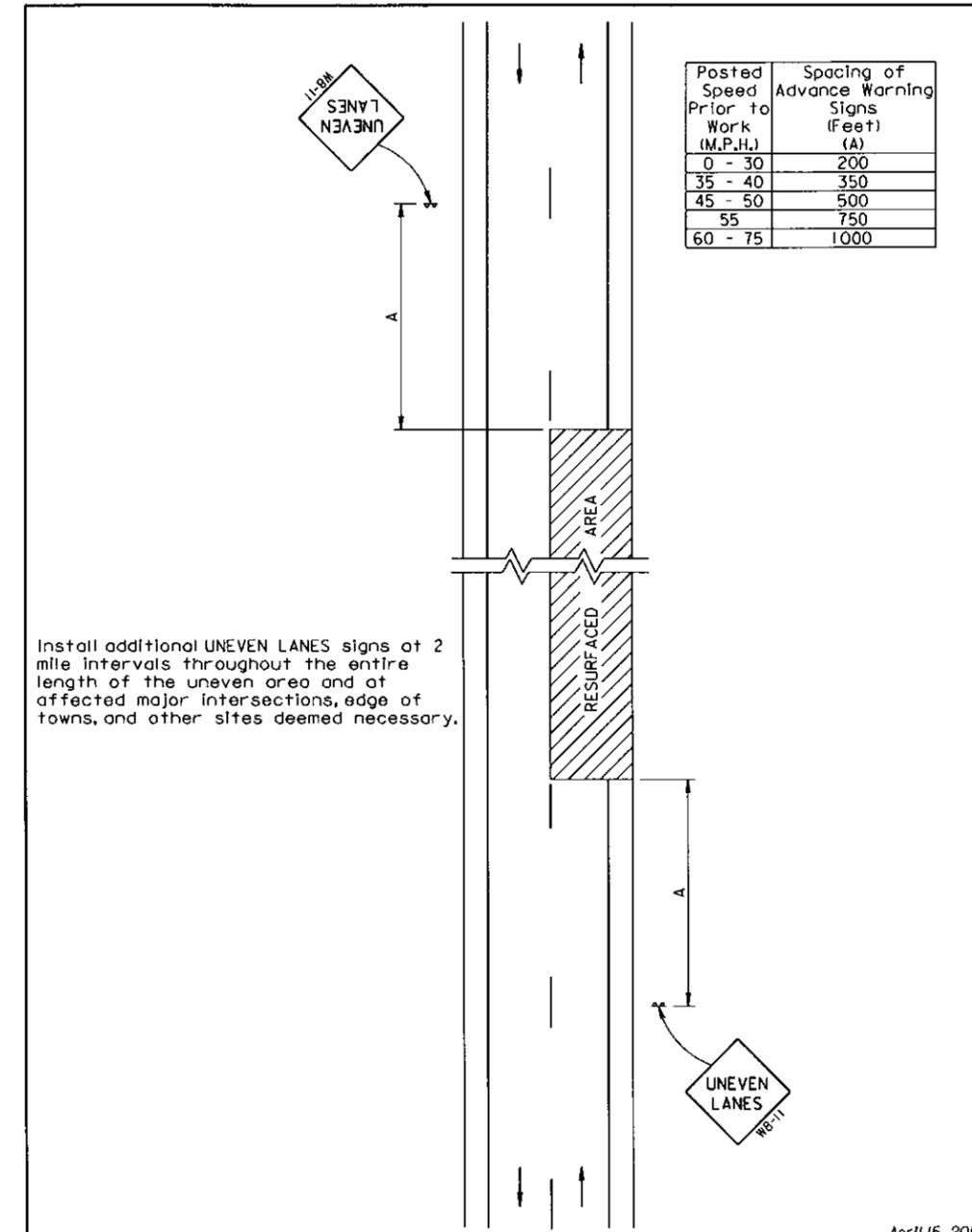
ENTRANCE

The surfacing details shown on this sheet are provided as a guide for surfacing these facilities. The precise construction limits for situations other than the standards shown will be determined by the Engineer, at the time of construction.

ROADWAY WITH OR WITHOUT SHOULDER

March 31, 2000

Published Date: 4th Qtr. 2015	S D D O T	RESURFACING OF INTERSECTING ROADS AND ENTRANCES	PLATE NUMBER 320JO
			Sheet 1 of 1



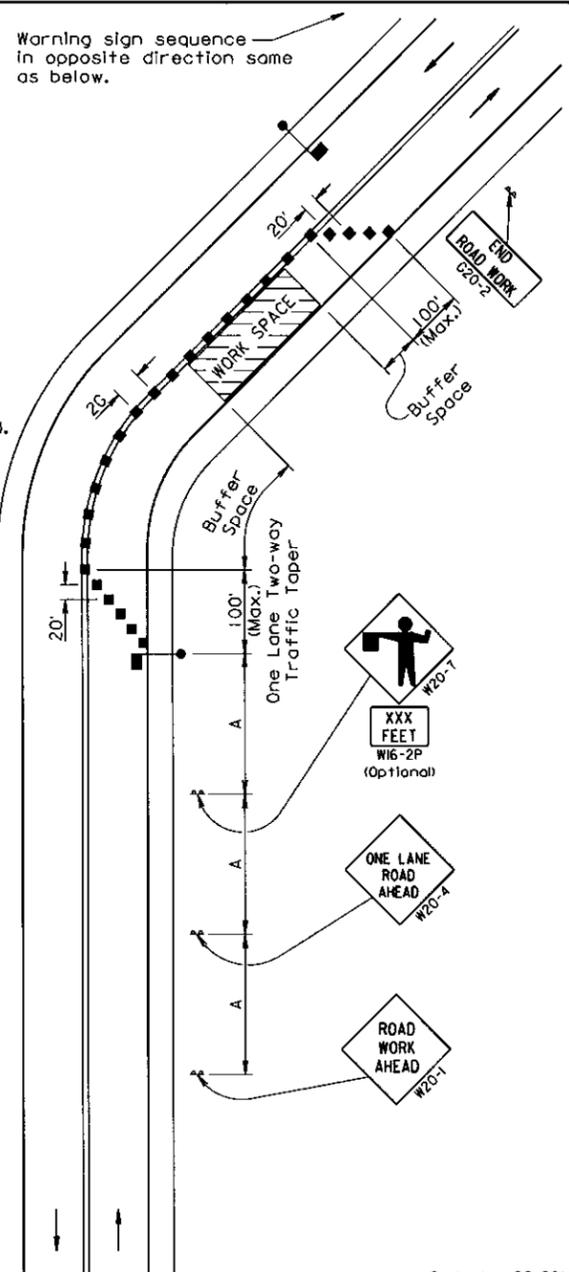
Install additional UNEVEN LANES signs at 2 mile intervals throughout the entire length of the uneven area and at affected major intersections, edge of towns, and other sites deemed necessary.

April 15, 2015

Published Date: 4th Qtr. 2015	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES UNEVEN ROAD SURFACE	PLATE NUMBER 634.22
			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

Warning sign sequence in opposite direction same as below.



- 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.

2-029
END ROAD WORK

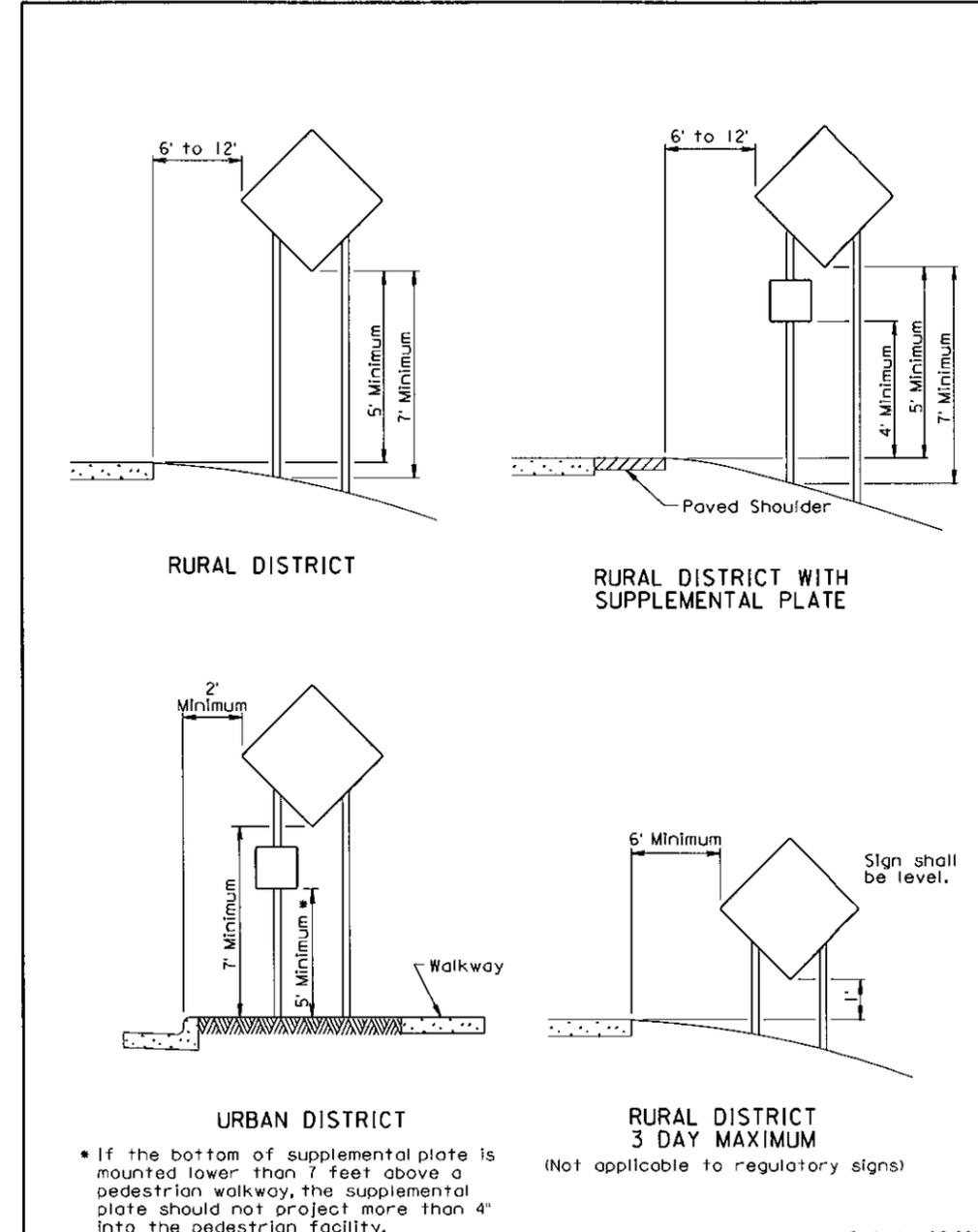
Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

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: 4th Qtr. 2015	SD DOT	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1

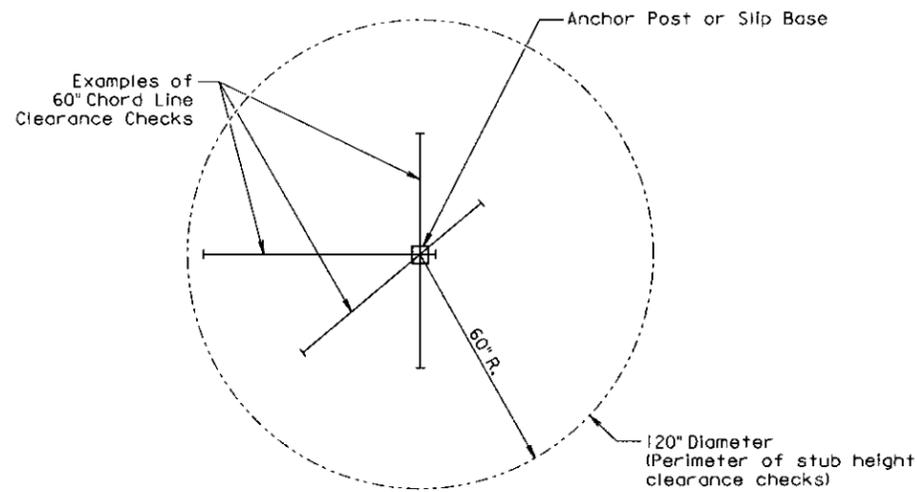


September 22, 2014

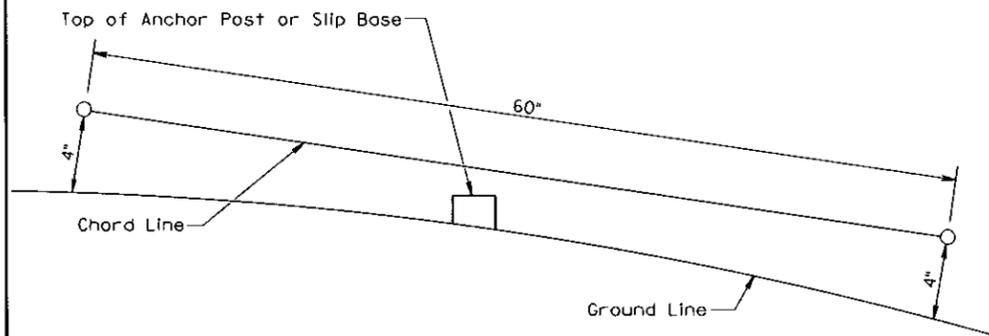
Published Date: 4th Qtr. 2015	SD DOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1

FOR BIDDING PURPOSES ONLY

State of SD	PROJECT	Sheet No.	Total Sheets
	P 6266(07)	13	13



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 top splices where the support is designed to yield (bend) at the base.

July 1, 2005

Published Date: 4th Qtr. 2015

SD
DOT

BREAKAWAY SUPPORT STUB CLEARANCE

PLATE NUMBER
634.99

Sheet 1 of 1