

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P-PH 0079(87)129 NH 0212(193)28	A1	A4

Revised 7/9/2024 NJF

Section B - Grading SD79 PCN 04L0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	0.831	Mile
009E3240	Graded Centerline Staking	0.600	Mile
009E3250	Miscellaneous Staking	0.600	Mile
009E3280	Slope Staking	0.600	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
110E0600	Remove Fence	1,666	Ft
120E0010	Unclassified Excavation	34,819	CuYd
120E0600	Contractor Furnished Borrow Excavation	12,013	CuYd
120E2000	Undercutting	14,211	CuYd
240E0010	Obliterate Old Road	30	Sta
250E0020	Incidental Work, Grading	Lump Sum	LS
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	18,614.6	Ton
450E0142	24" RCP Class 2, Furnish	226	Ft
450E0150	24" RCP, Install	226	Ft
450E2016	24" RCP Flared End, Furnish	4	Each
450E2017	24" RCP Flared End, Install	4	Each
450E5215	24" CMP Flared End, Furnish	2	Each
450E5216	24" CMP Flared End, Install	2	Each
450E5227	42" CMP Flared End, Furnish	1	Each
450E5228	42" CMP Flared End, Install	1	Each
450E8910	Cleanout for Culvert Treatment	1	Each
450E9524	24" Cured in Place Pipe	164	Ft
600E0300	Type III Field Laboratory	1	Each
620E0040	Type 4 Right-of-Way Fence	1,666	Ft
620E0530	Type 3 Temporary Fence	948	Ft
620E1020	2 Post Panel	8	Each
670E4200	Type M Median Drain	1	Each
670E4205	Type M Frame and Grate Assembly	1	Each
720E1010	PVC Coated Bank and Channel Protection Gabion	4.5	CuYd
831E0110	Type B Drainage Fabric	15	SqYd

US 212 PCN 06CP

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	0.166	Mile
009E3240	Graded Centerline Staking	0.166	Mile
009E3250	Miscellaneous Staking	0.166	Mile
009E3280	Slope Staking	0.166	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
110E0510	Remove Pipe End Section	13	Each
110E0600	Remove Fence	150	Ft
110E0700	Remove 3 Cable Guardrail	270	Ft
110E0730	Remove Beam Guardrail	587.5	Ft
110E7500	Remove Pipe for Reset	4	Ft
110E7510	Remove Pipe End Section for Reset	1	Each
120E0010	Unclassified Excavation	11,731	CuYd
120E2000	Undercutting	4,133	CuYd
250E0020	Incidental Work, Grading	Lump Sum	LS
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	5,770.2	Ton
421E0100	Pipe Culvert Undercut	18	CuYd
450E0122	18" RCP Class 2, Furnish	36	Ft
450E0130	18" RCP, Install	36	Ft
450E0142	24" RCP Class 2, Furnish	280	Ft
450E0150	24" RCP, Install	280	Ft
450E2008	18" RCP Flared End, Furnish	11	Each
450E2009	18" RCP Flared End, Install	11	Each
450E2016	24" RCP Flared End, Furnish	5	Each
450E2017	24" RCP Flared End, Install	5	Each
450E4759	18" CMP 16 Gauge, Furnish	100	Ft
450E4760	18" CMP, Install	100	Ft
450E5211	18" CMP Flared End, Furnish	3	Each
450E5212	18" CMP Flared End, Install	3	Each
* 450E8900	Cleanout Pipe Culvert	9	Each
450E9000	Reset Pipe	4	Ft
450E9001	Reset Pipe End Section	1	Each
620E0020	Type 2 Right-of-Way Fence	150	Ft
620E0520	Type 2 Temporary Fence	150	Ft
620E1020	2 Post Panel	2	Each
630E0110	Straight Double Class A Thrie Beam Guardrail with Wood Posts	12.5	Ft
630E0500	Type 1 MGS	150.0	Ft
630E1010	Straight Class A W Beam Guardrail with Wood Posts	137.5	Ft
630E1025	Curved Class A W Beam Guardrail with CRT Posts	25.0	Ft
630E1501	Type 1 Retrofit Guardrail Transition	3	Each
630E2000	W Beam to Thrie Beam Guardrail Transition	1	Each
630E2018	MGS MASH Tangent End Terminal	3	Each

Section B - Grading US 212 PCN 06CP (Continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
630E2035	W Beam Guardrail Special Anchor Assembly	1	Each
632E2220	Guardrail Delineator	20	Each
720E1010	PVC Coated Bank and Channel Protection Gabion	4.5	CuYd
831E0110	Type B Drainage Fabric	15	SqYd

^{* -} Denotes Non-Participating

Section C - Traffic Control SD79 PCN 04L0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	1,000.0	Hour
634E0020	Pilot Car	500.0	Hour
634E0110	Traffic Control Signs	622.8	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
634E0630	Temporary Pavement Marking	3.5	Mile
634E1002	Detour and Restriction Signing	165.5	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	1	Each

US 212 PCN 06CP

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	3,250.0	Hour
634E0020	Pilot Car	1,500.0	Hour
634E0110	Traffic Control Signs	757.7	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
634E0630	Temporary Pavement Marking	38.2	Mile
634E1002	Detour and Restriction Signing	149.3	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	1	Each

INDEX OF SHEETS

A1 and A3 Estimate of Quantities for Sections B, C, D, F, M, and S

A3 to A4 Environmental Commitments

Section D - Erosion and Sediment Control

SD79 PCN 04L0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1700	Remove Silt Fence	842	Ft
230E0010	Placing Topsoil	3,200	CuYd
230E0020	Contractor Furnished Topsoil	1,450	CuYd
730E0210	Type F Permanent Seed Mixture	313	Lb
731E0200	Fertilizing	9.00	Ton
732E0200	Fiber Mulching	12.0	Ton
734E0154	12" Diameter Erosion Control Wattle	640	Ft
734E0604	High Flow Silt Fence	3,476	Ft
734E0610	Mucking Silt Fence	234	CuYd
734E0620	Repair Silt Fence	842	Ft
900E5147	Articulated Concrete Mattress	121.0	SqYd

US 212 PCN 06CP

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1700	Remove Silt Fence	50	Ft
230E0100	Remove and Replace Topsoil	Lump Sum	LS
730E0210	Type F Permanent Seed Mixture	42	Lb
731E0200	Fertilizing	1.20	Ton
732E0200	Fiber Mulching	1.6	Ton
734E0132	Type 2 Turf Reinforcement Mat	112.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	220	Ft
734E0604	High Flow Silt Fence	200	Ft
734E0610	Mucking Silt Fence	14	CuYd
734E0620	Repair Silt Fence	50	Ft

Section F - Surfacing SD79 PCN 04L0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement	18.7	SqYd
120E0100	Unclassified Excavation, Digouts	13	CuYd
120E6200	Water for Granular Material	154.7	MGal
260E1010	Base Course	25.0	Ton
260E1030	Base Course, Salvaged	12,912.0	Ton
320E1200	Asphalt Concrete Composite	6.2	Ton
320E1800	Asphalt Concrete Blade Laid	37.4	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	1.2	Mile
330E0010	MC-70 Asphalt for Prime	23.6	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	20.8	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	5.4	Ton
330E1000	Blotting Sand for Prime	10.0	Ton
330E2000	Sand for Flush Seal	65.2	Ton
332E0010	Cold Milling Asphalt Concrete	5,853	SqYd

Alternate A - PCN04L0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	323.6	Ton
320E1203	Class Q3R Hot Mixed Asphalt Concrete	7,041.0	Ton
320E4000	Hydrated Lime	70.0	Ton

Alternate B - PCN04L0

BID ITEM	I II-M	QUANTITY	UNIT
320E000	PG 58-34 Asphalt Binder	267.7	Ton
320E120	Class Q3R Hot Mixed Asphalt Concrete	7,230.3	Ton
320E400	Hydrated Lime	71.7	Ton

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BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement	726.9	SqYd
110E1100	Remove Concrete Pavement	602.7	SqYd
120E0100	Unclassified Excavation, Digouts	403	CuYd
120E6200	Water for Granular Material	180.2	MGal
210E0100	Shoulder Clearing	15.2	Mile
260E1010	Base Course	1,180.0	Ton
260E1030	Base Course, Salvaged	3,400.0	Ton
280E0020	Full Depth Reclamation, Shoulder	62,425	SqYd
320E1200	Asphalt Concrete Composite	234.5	Ton
320E1800	Asphalt Concrete Blade Laid	1,209.6	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	17.2	Mile
320E7035	Grind Sinusoidal Transverse Rumble Strip in Asphalt Concrete	392.0	SqFt
330E0010	MC-70 Asphalt for Prime	46.8	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	129.7	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	47.3	Ton
330E1000	Blotting Sand for Prime	10.0	Ton
330E2000	Sand for Flush Seal	485.4	Ton
332E0010	Cold Milling Asphalt Concrete	140,305	SqYd
900E0010	Refurbish Single Mailbox	31	Each
900E0012	Refurbish Double Mailbox	5	Each
900E1980	Storage Unit	1	Each

Alternate A - PCN06CP

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	1,395.2	Ton
320E1203	Class Q3R Hot Mixed Asphalt Concrete	28,651.3	Ton
320E4000	Hydrated Lime	295.9	Ton

Alternate B - PCN06CP

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	1,159.1	Ton
320E1203	Class Q3R Hot Mixed Asphalt Concrete	29,382.7	Ton
320E4000	Hydrated Lime	293.1	Ton

Section M - Pavement Marking SD79 PCN 04L0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	High Build Waterborne Pavement Marking Paint, White	42	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	58	Gal
633E1272	High Build Waterborne Pavement Marking Paint, Arrow	3	Each

US 212 PCN 06CP

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0210	Preformed Thermoplastic Pavement Marking, 4"	7,934	Ft
633E0225	Preformed Thermoplastic Pavement Marking, 24"	1,675	Ft
633E1200	High Build Waterborne Pavement Marking Paint, White	387	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	175	Gal
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	7,934	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	1,675	Ft
633E8000	Curb Painting	1,682	Ft

Section S - Permanent Signing

US 212 PCN 06CP

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
632E2510	Type 2 Object Marker Back to Back	15	Each

SD79 PCN 04L0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	32	Each
110E0135	Remove Delineator	70	Each
110E7150	Remove Sign for Reset	2	Each
632E1320	2.0"x2.0" Perforated Tube Post	22.5	Ft
632E1340	2.5"x2.5" Perforated Tube Post	160.5	Ft
632E2022	4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post	27	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	121.0	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	52.3	SqFt
632E3500	Reset Sign	2	Each

SPECIFICATIONS

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

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified 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. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf>

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

COMMITMENT C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the SDDOT Environmental Office. To prevent and control the introduction and spread of invasive species into the project vicinity, all equipment will be power washed with hot water (≥140 °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Agriculture and Natural Resources (DANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at:

< https://sdleastwanted.sd.gov/maps/default.aspx>

South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species: https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04 >

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COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance and/or work in a waterway.

Action Taken/Required:

The DANR General Permit for Stormwater Discharges Associated with Construction Activities is required for construction activity disturbing one or more acres of earth and work in a waterway. The SDDOT is the owner of this permit and will submit the NOI to DANR 15 days prior to project start in order to obtain coverage under the General Permit. Work can begin once the DANR letter of approval is received.

The Contractor must adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State."

The Contractor will complete the DANR Contractor Certification Form prior to the pre-construction meeting. The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the permit for this project. Work may not begin on this project until this form is signed and submitted to DANR.

The form can be found at:

https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPA ppendixCCA2018Fillable.pdf >

The Contractor is advised that permit coverage may also be required for offsite activities, such as borrow and staging areas, which are the responsibility of the Contractor.

The Contractor is advised that permit coverage may also be required for offsite activities, such as borrow and staging areas, which are the responsibility of the Contractor.

Storm Water Pollution Prevention Plan

The Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to the submittal of the NOI and will be implemented for all construction activities for compliance with the permit. The SWPPP must be kept on-site and updated as site conditions change. Erosion control measures and best management practices will be implemented in accordance with the SWPPP.

The DOT 298 Form will be used for site inspections and to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents and retained for a minimum of three years.

The inspection will include disturbed areas of the construction site that have not been finally stabilized, areas used for storage materials, structural control measures, and locations where vehicles enter or exit the site. These areas will be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWPPP will be observed to ensure that they are operating correctly, and sediment is not tracked off the site.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT: < https://dot.sd.gov/doing-business/environmental/stormwater >

DANR:https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/default.aspx

EPA: < https://www.epa.gov/npdes >

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will 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 Public ROW.

The waste disposal site(s) will 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 Agriculture and Natural Resources.

The waste disposal site(s) will 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 Environmental Office and the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements will apply:

- 1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with 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 not to exceed the duration of the project. Prior to project completion, the waste will 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) will be incidental to the various contract items.

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-	SOUTH	NH-P-PH 0079(87)129		
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COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

State Historic Preservation Office (SHPO or THPO) concurrence has not been obtained for this project.

Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. 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 will arrange and pay for a record search and when necessary, a cultural resource survey. 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 if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view in 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 will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. 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.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 100 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility/The

Contractor is responsible 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 will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.