

	STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH DAKOTA		NH 0012(221)278 P 0010(135)294	1	165
	Plotting Date:	03/11/2024 Revised 02/2	7/2024 DR	G

	Section A:	Estimate of Quantities and
		Environmental Commitments
	Section B:	Grading Plans
10	Section C:	Traffic Control Plans
IU	Section D:	Erosion and Sediment Control Plans
	Section E:	Structure Plans
	Section F:	Surfacing Plans
	Section X:	Cross Sections

### Section B - Grading

#### <u>PCN: 03AL</u>

BID ITEM NUMBER	ІТЕМ	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	0.297	Mile
009E3250	Miscellaneous Staking	0.297	Mile
009E3280	Slope Staking	0.297	Mile
009E3290	Structure Staking	1	Each
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
110E0700	Remove 3 Cable Guardrail	350	Ft
110E0730	Remove Beam Guardrail	805.6	Ft
110E0740	Remove 3 Cable Guardrail Anchor Assembly	4	Each
110E1010	Remove Asphalt Concrete Pavement	5,066.7	SqYd
120E0010	Unclassified Excavation	13,724	CuYd
120E2000	Undercutting	7,691	CuYd
250E0020	Incidental Work, Grading	Lump Sum	LS
450E0122	18" RCP Class 2, Furnish	168	Ft
450E0130	18" RCP, Install	168	Ft
450E2008	18" RCP Flared End, Furnish	2	Each
450E2009	18" RCP Flared End, Install	2	Each
462E0100	Class M6 Concrete	5.6	CuYd
480E0100	Reinforcing Steel	932	Lb
600E0200	Type II Field Laboratory	1	Each
630E0500	Type 1 MGS	100.0	Ft
630E1500	Type 1 Guardrail Transition	4	Each
630E2017	MGS MASH Flared End Terminal	4	Each
670E0200	Type A Frame and Grate	4	Each
670E5400	Precast Drop Inlet Collar	4	Each

### PCN: 05V1

BID TIEM NUMBERITEMQUANTITYUNIT004E0030Maintenance of Traffic Diversion(s)Lump SumLS009E0010MobilizationLump SumLS009E0230Grade Staking0.369Mile009E3230Grade Staking0.369Mile009E3250Miscellaneous Staking0.369Mile009E3260Structure Staking0.369Mile009E3270Structure Staking0.369Mile009E3280Structure Staking0.061Hour110E0600Remove Fence1.263Ft110E0730Remove Ream Guardrail553.1Ft110E0701Remove Asphalt Concrete Pavement1.64.44SqYd110E1001Remove Concrete Pavement2.466.7SqYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E0000Muck Excavation2.700CuYd120E1000Muck Excavation2.61.4Mile120E1000Muck Excavation2.61.4Mile120E0000Indercutting4.52.6Mile120E1000Mater for Embankment54.26Mile120E1000Is* RCP Iared End, Install1Each450E012218* RCP Flared End, Install1Each450E200918* RCP Flared End, Install1Each450E2000Type I Field Laboratory1Each450E0100Type I Field Laboratory1Each450E0100Type I Temporary Fence641Ft<			1	
OddE0050Remove Traffic Diversion(s)Lump SumLS009E0010MobilizationLump SumLS009E3230Grade Staking0.369Mile009E3250Miscellaneous Staking0.369Mile009E3280Slope Staking0.369Mile009E3290Structure Staking1Each009E3291Engineer Directed Surveying/Staking40.0Hour110E0600Remove Fence1.263Ft110E0701Remove Beam Guardrail553.1Ft110E1010Remove Asphalt Concrete Pavement1.644.4SqYd110E1010Remove Asphalt Concrete Pavement2.466.7SqYd120E0010Unclassified Excavation2.700CuYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E1000Muck Excavation2.700CuYd120E0100Muck Excavation2.700CuYd120E0100Incidental Work, GradingLump SumLS450E1010Is" RCP Flared End, Furnish72Ft450E200918" RCP Flared End, Furnish1Each460E1000Reinforcing Steel477Lb600E0200Type 1 Field Laboratory1Each620E0020Type 1 Reproration3Each630E5001Type 1 MGS500.0Ft630E5001Type 1 Reproration4Each630E5001Type 1 Field Laboratory1Each630E5001Type 1 Fierd End Terminal4		ITEM	QUANTITY	UNIT
OD9E0010MobilizationLump SumLS009E0120Grade Staking0.369Mile009E3250Miscellaneous Staking0.369Mile009E3280Slope Staking0.369Mile009E3290Structure Staking1Each009E3301Engineer Directed Surveying/Staking40.0Hour110E0600Remove Fence1.263Ft110E0730Remove Beam Guardral553.1Ft110E0101Remove Asphalt Concrete Pavement1.644.4SqYd120E0010Unclassified Excavation2.7466.7SqYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E1000Muck Excavation2.700CuYd120E1000Muck Excavation2.700CuYd120E1000Muck Excavation542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E200318" RCP Flared End, Furnish1Each462E0100Class M6 Concrete2.77CuYd480E0100Reinforing Steel4477Lb600E020Type 1 Field Laboratory1Each620E0201Type 1 Reportary Fence6441Ft620E0201Type 1 Guardrail Transition4Each630E1500Type 1 Guardrail Transition4Each630E1500Type 1 Guardrail Transition<	004E0030	Maintenance of Traffic Diversion(s)	Lump Sum	LS
ConstantConstant009E3230Grade Staking0.369Mile009E3250Miscellaneous Staking0.369Mile009E3280Slope Staking0.369Mile009E3290Structure Staking1Each009E3301Engineer Directed Surveying/Staking40.0Hour110E0600Remove Fence1.263Ft110E0730Remove Beam Guardrail553.1Ft110E1010Remove Asphalt Concrete Pavement1.644.4SqYd110E1010Remove Concrete Pavement2.466.7SqYd120E0010Unclassified Excavation30.433CuYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E0000Muck Excavation2.700CuYd120E0000Muck Excavation2.700CuYd120E0000Indercutting4.592CuYd120E0100Muck Excavation542.6MGal250E0020Incidental Work, GradingLump SumLS450E010218" RCP Iased End, Furnish1Each450E200318" RCP Flared End, Furnish1Each450E200418" RCP Flared End, Furnish1Each450E200518" RCP Flared End, Furnish1Each450E200618" RCP Flared End, Furnish1Each450E2007Type 1 Field Laboratory1Each620E0050Type 1 Field Laboratory1Ea	004E0050	Remove Traffic Diversion(s)	Lump Sum	LS
009E3250Miscellaneous Staking0.369Mile009E3280Slope Staking0.369Mile009E3290Structure Staking1Each009E3301Engineer Directed Surveying/Staking40.0Hour110E0600Remove Fence1.263Ft110E0730Remove Beam Guardrail553.1Ft110E0101Remove Asphalt Concrete Pavement1.644.4SqYd110E1100Remove Concrete Pavement2.466.7SqYd120E0010Unclassified Excavation12.735CuYd120E0000contractor Furnished Borrow Excavation30.433CuYd120E0000Incleastified Excavation2.700CuYd120E0000Undercutting4.592CuYd120E0000Incidental Work, GradingLump SumLS450E012118" RCP Class 2, Furnish72Ft450E103018" RCP Flared End, Furnish1Each462E0100Class M6 Concrete2.7CuYd462E0100Class M6 Concrete2.7CuYd462E0100Reinforcing Steel477Lb600E0200Type I Temporary Fence6641Ft620E0020Type I Temporary Fence641Ft630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E0500Type I	009E0010	Mobilization	Lump Sum	LS
ODSE3280Slope Staking0.369Mile009E3290Structure Staking1Each009E3301Engineer Directed Surveying/Staking40.0Hour110E0600Remove Fence1.263Ft110E0730Remove Beam Guardrail553.1Ft110E0101Remove Asphalt Concrete Pavement1.844.4SqYd110E1100Remove Concrete Pavement2.466.7SqYd120E0010Unclassified Excavation12.735CuYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E0000Undercutting4.592CuYd120E0000Incidental Work, GradingLump SumLS450E012218'' RCP Class 2, Furnish72Ft450E2003Incidental Work, GradingLump SumLS450E200418'' RCP Flared End, Furnish1Each450E200518'' RCP Flared End, Furnish1Each462E0100Class MG Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type I Field Laboratory1Each630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E0500Type I MGS500.0Ft630E	009E3230	Grade Staking	0.369	Mile
OUDDECATEData009E3200Structure Staking1Each009E3301Engineer Directed Surveying/Staking40.0Hour110E0600Remove Fence1.263Ft110E0730Remove Beam Guardrail553.1Ft110E1010Remove Asphalt Concrete Pavement1.644.4SqYd10E0100Unclassified Excavation12.735CuYd120E0010Unclassified Excavation30.433CuYd120E0000Contractor Furnished Borrow Excavation30.433CuYd120E0000Undercutting4.592CuYd120E0000Indercutting4.592CuYd120E0100Muck Excavation2.700CuYd120E0100Muck Excavation2.700CuYd120E0100Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP Iared End, Furnish1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type 1 Field Laboratory1Each630E0500Type 1 Reporary Fence641Ft630E0500Type 1 MGS500.0Ft630E0500Type 1 MGS500.0Ft630E0500Type 1 Start End Terminal4Each630E0500Type 1 Start End Terminal4Each630E0500Type 1 Start End Terminal4Each630E0500Type 1 Start End Terminal<	009E3250	Miscellaneous Staking	0.369	Mile
D09E3301Engineer Directed Surveying/Staking40.0Hour110E0600Remove Fence1,263Ft110E0730Remove Beam Guardrail553.1Ft110E1010Remove Asphalt Concrete Pavement1,644.4SqYd110E1100Remove Concrete Pavement2,466.7SqYd120E0010Unclassified Excavation12,735CuYd120E0000Contractor Furnished Borrow Excavation30,433CuYd120E0000Muck Excavation2,700CuYd120E0000Undercutting4,592CuYd120E0000Undercutting4,592CuYd120E0100Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E013018" RCP Class 2, Furnish72Ft450E200918" RCP Flared End, Furnish1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type 1 Fleid Laboratory1Each630E0500Type 1 MGS500.0Ft630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each670E5400Precast Drop Inlet Collar2Each	009E3280	Slope Staking	0.369	Mile
110E0600Remove Fence1,263Ft110E0600Remove Beam Guardrail553.1Ft110E1010Remove Asphalt Concrete Pavement1,644.4SqYd110E1100Remove Concrete Pavement2,466.7SqYd120E0010Unclassified Excavation12,735CuYd120E0000Contractor Furnished Borrow Excavation30,433CuYd120E0000Contractor Furnished Borrow Excavation30,433CuYd120E0000Muck Excavation2,700CuYd120E0000Undercutting4,592CuYd120E0000Incidental Work, GradingLump SumLS120E0101Nater for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E200918" RCP Flared End, Furnish1Each462E0100Class M6 Concrete2.77CuYd480E0100Reindrichg Steel4777Lb600E0200Type 1 Right-of-Way Fence6622Ft620E0020Type 2 Right-of-Way Fence6641Ft630E0500Type 1 MGS500.0Ft630E0500Type 1 Guardrail Transition4Each630E0500Type 1 Guardrail Transition4Each630E0200Type 1 Guardrail Transition4Each630E0200Type 1 Arame and Grate2Each670E0200Type A Frame and Grate2Each670E0200Type A Fr	009E3290	Structure Staking	1	Each
110E0730Remove Beam Guardrail553.1Ft110E1010Remove Asphalt Concrete Pavement1,644.4SqYd110E1100Remove Concrete Pavement2,466.7SqYd120E0010Unclassified Excavation12,735CuYd120E0600Contractor Furnished Borrow Excavation30,433CuYd120E0000Muck Excavation2,700CuYd120E0000Muck Excavation2,700CuYd120E0000Undercutting4,592CuYd120E0100Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200918" RCP Flared End, Furnish1Each462E0100Class M6 Concrete2.77CuYd480E0100Reinforcing Steel4777Lb600E0200Type I Field Laboratory1Each620E0501Type 1 Temporary Fence6622Ft630E0500Type 1 MGS500.0Ft630E0500Type 1 MGS500.0Ft630E0500Type 1 Arame and Grate2Each670E0200Type A Frame and Grate2Each670E0200Precast Drop Inlet Collar2Each	009E3301	Engineer Directed Surveying/Staking	40.0	Hour
110E1010Remove Asphalt Concrete Pavement1,644.4SqYd110E1100Remove Concrete Pavement2,466.7SqYd120E0010Unclassified Excavation12,735CuYd120E0000Contractor Furnished Borrow Excavation30,433CuYd120E1000Muck Excavation2,700CuYd120E000Undercutting4,592CuYd120E000Undercutting4,592CuYd120E100Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200918" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type I Field Laboratory1Each620E0510Type 1 Temporary Fence641Ft630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	110E0600	Remove Fence	1,263	Ft
110E1100Remove Concrete Pavement2,466.7SqYd120E0010Unclassified Excavation12,735CuYd120E0000Contractor Furnished Borrow Excavation30,433CuYd120E1000Muck Excavation2,700CuYd120E1000Muck Excavation2,700CuYd120E1000Undercutting4,592CuYd120E1000Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200918" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type I Field Laboratory1Each620E0510Type 1 Temporary Fence641Ft630E1020Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	110E0730	Remove Beam Guardrail	553.1	Ft
120E0010Unclassified Excavation12,735CuYd120E0000Contractor Furnished Borrow Excavation30,433CuYd120E1000Muck Excavation2,700CuYd120E2000Undercutting4,592CuYd120E6100Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200818" RCP Flared End, Furnish1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel4777Lb600E0200Type 1 Field Laboratory1Each620E0020Type 1 Temporary Fence6641Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E5400Precast Drop Inlet Collar2Each	110E1010	Remove Asphalt Concrete Pavement	1,644.4	SqYd
120E0600Contractor Furnished Borrow Excavation30,433CuYd120E1000Muck Excavation2,700CuYd120E2000Undercutting4,592CuYd120E6100Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200818" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install2.77CuYd480E0100Class M6 Concrete2.77CuYd480E0100Reinforcing Steel4777Lb600E0200Type I Field Laboratory1Each620E0200Type 1 Temporary Fence6641Ft630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E5400Precast Drop Inlet Collar2Each	110E1100	Remove Concrete Pavement	2,466.7	SqYd
120E1000Muck Excavation2,700CuYd120E1000Undercutting4,592CuYd120E1000Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200818" RCP, Install1Each450E200918" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each450E2000Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type II Field Laboratory1Each620E0020Type 2 Right-of-Way Fence6622Ft620E0020Type 1 Temporary Fence641Ft630E1500Type 1 MGS500.0Ft630E2017MGS MASH Flared End Terminal4Each670E2000Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	120E0010	Unclassified Excavation	12,735	CuYd
120E2000Undercutting4,592CuYd120E6100Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200818" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type I Field Laboratory1Each620E0020Type 2 Right-of-Way Fence6622Ft620E0510Type 1 Temporary Fence641Ft630E1500Type 1 MGS500.0Ft630E2017MGS MASH Flared End Terminal4Each670E5400Precast Drop Inlet Collar2Each	120E0600	Contractor Furnished Borrow Excavation	30,433	CuYd
120E6100Water for Embankment542.6MGal250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200818" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each450E200918" RCP Flared End, Install1Each450E200918" RCP Flared End, Install1Each462E0100Class M6 Concrete2.7CuYdd480E0100Reinforcing Steel4777Lb600E0200Type II Field Laboratory1Each620E0020Type I Temporary Fence6622Ft620E10202 Post Panel3Each630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	120E1000	Muck Excavation	2,700	CuYd
250E0020Incidental Work, GradingLump SumLS450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200818" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type II Field Laboratory1Each620E0020Type 2 Right-of-Way Fence6622Ft620E0510Type 1 Temporary Fence6641Ft630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	120E2000	Undercutting	4,592	CuYd
450E012218" RCP Class 2, Furnish72Ft450E013018" RCP, Install72Ft450E200818" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type II Field Laboratory1Each620E0020Type 2 Right-of-Way Fence6622Ft620E0100Z Post Panel3Each630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	120E6100	Water for Embankment	542.6	MGal
450E013018" RCP, Install72Ft450E013018" RCP, Install1Each450E200818" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type II Field Laboratory1Each620E0020Type 2 Right-of-Way Fence6622Ft620E0510Type 1 Temporary Fence6441Ft620E10202 Post Panel3Each630E0500Type 1 MGS500.0Ft630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	250E0020	Incidental Work, Grading	Lump Sum	LS
450E200818" RCP Flared End, Furnish1Each450E200918" RCP Flared End, Install1Each462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type II Field Laboratory1Each620E0020Type 2 Right-of-Way Fence6622Ft620E0510Type 1 Temporary Fence6441Ft620E10202 Post Panel3Each630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	450E0122	18" RCP Class 2, Furnish	72	Ft
450E200918" RCP Flared End, Install1462E0100Class M6 Concrete2.7480E0100Reinforcing Steel477480E0100Reinforcing Steel477600E0200Type II Field Laboratory1620E0020Type 2 Right-of-Way Fence6622620E0101Type 1 Temporary Fence641620E10202 Post Panel3630E0500Type 1 MGS500.07 Type 1 MGS500.0630E1500Type 1 Guardrail Transition4630E2017MGS MASH Flared End Terminal4670E0200Type A Frame and Grate2670E5400Precast Drop Inlet Collar2	450E0130	18" RCP, Install	72	Ft
462E0100Class M6 Concrete2.7CuYd480E0100Reinforcing Steel477Lb600E0200Type II Field Laboratory1Each620E0020Type 2 Right-of-Way Fence6622Ft620E0510Type 1 Temporary Fence6641Ft620E10202 Post Panel3Each630E0500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	450E2008	18" RCP Flared End, Furnish	1	Each
480E0100Reinforcing Steel477Lb600E0200Type II Field Laboratory1Each620E0020Type 2 Right-of-Way Fence622Ft620E0510Type 1 Temporary Fence641Ft620E10202 Post Panel3Each630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	450E2009	18" RCP Flared End, Install	1	Each
600E0200Type II Field Laboratory1600E0200Type 2 Right-of-Way Fence622620E0020Type 2 Right-of-Way Fence622620E0510Type 1 Temporary Fence641620E10202 Post Panel3630E0500Type 1 MGS500.0630E1500Type 1 Guardrail Transition4630E2017MGS MASH Flared End Terminal4670E0200Type A Frame and Grate2670E5400Precast Drop Inlet Collar2	462E0100	Class M6 Concrete	2.7	CuYd
620E0020Type 2 Right-of-Way Fence622Ft620E0010Type 1 Temporary Fence641Ft620E01022 Post Panel3Each630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	480E0100	Reinforcing Steel	477	Lb
620E0510Type 1 Temporary Fence641Ft620E10202 Post Panel3Each630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	600E0200	Type II Field Laboratory	1	Each
620E10202 Post Panel3Each630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	620E0020	Type 2 Right-of-Way Fence	622	Ft
630E0500Type 1 MGS500.0Ft630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	620E0510	Type 1 Temporary Fence	641	Ft
630E1500Type 1 Guardrail Transition4Each630E2017MGS MASH Flared End Terminal4Each670E0200Type A Frame and Grate2Each670E5400Precast Drop Inlet Collar2Each	620E1020	2 Post Panel	3	Each
630E2017     MGS MASH Flared End Terminal     4     Each       670E0200     Type A Frame and Grate     2     Each       670E5400     Precast Drop Inlet Collar     2     Each	630E0500	Type 1 MGS	500.0	Ft
670E0200     Type A Frame and Grate     2     Each       670E5400     Precast Drop Inlet Collar     2     Each	630E1500	Type 1 Guardrail Transition	4	Each
670E5400     Precast Drop Inlet Collar     2     Each	630E2017	MGS MASH Flared End Terminal	4	Each
	670E0200	Type A Frame and Grate	2	Each
831E0110 Type B Drainage Fabric 1,284 SqYd	670E5400	Precast Drop Inlet Collar	2	Each
	831E0110	Type B Drainage Fabric	1,284	SqYd

#### PCN: 03AL

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	2	Each
110E7150	Remove Sign for Reset	2	Each
632E2220	Guardrail Delineator	16	Each
632E2510	Type 2 Object Marker Back to Back	2	Each
632E3500	Reset Sign	2	Each
633E1201	High Build Waterborne Pavement Marking Paint with Reflective Elements, White	19	Gal
633E1206	High Build Waterborne Pavement Marking Paint with Reflective Elements, Yellow	3	Gal
633E5100	Grooving for Durable Pavement Marking, 4"	3,548	Ft
634E0110	Traffic Control Signs	287.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	20	Each
634E1002	Detour and Restriction Signing	756.8	SqFt

#### PCN: 05V1

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E7150	Remove Sign for Reset	4	Each
632E2220	Guardrail Delineator	16	Each
632E2510	Type 2 Object Marker Back to Back	1	Each
632E3500	Reset Sign	4	Each
633E1201	High Build Waterborne Pavement Marking Paint with Reflective Elements, White	12	Gal
633E1206	High Build Waterborne Pavement Marking Paint with Reflective Elements, Yellow	2	Gal
633E5100	Grooving for Durable Pavement Marking, 4"	2,082	Ft
634E0010	Flagging	20.0	Hour
634E0110	Traffic Control Signs	287.2	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	6	Each
634E0330	Temporary Raised Pavement Markers	922	Ft

### INDEX OF SHEETS

A1 and A3	Estimate of Quantities for Sections B, C, D, E, and F
A4 to A9	Environmental Commitments

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### Section C - Traffic Control

### Section D - Erosion and Sediment Control

<u> PCN: 03AL</u>

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	1.2	CuYd
110E1693	Remove Erosion Control Wattle	25	Ft
110E1695	Remove Sediment Filter Bag	96	Ft
110E1700	Remove Silt Fence	81	Ft
230E0010	Placing Topsoil	1,357	CuYd
730E0100	Cover Crop Seeding	2.5	Bu
730E0208	Type E Permanent Seed Mixture	54	Lb
731E0200	Fertilizing	1.25	Ton
734E0044	Soil Stabilizer	2.3	Acre
734E0103	Type 3 Erosion Control Blanket	11,375	SqYd
734E0154	12" Diameter Erosion Control Wattle	100	Ft
734E0165	Remove and Reset Erosion Control Wattle	25	Ft
734E0170	Temporary Sediment Barrier	3,425	Ft
734E0180	Sediment Filter Bag	96	Ft
734E0185	Remove and Reset Sediment Filter Bag	18	Ft
734E0604	High Flow Silt Fence	325	Ft
734E0610	Mucking Silt Fence	23	CuYd
734E0620	Repair Silt Fence	81	Ft
734E0630	Floating Silt Curtain	900	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	4	Each
900E1320	Construction Entrance	1	Each

#### PCN: 05V1

BID ITEM	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	1.7	CuYd
110E1693	Remove Erosion Control Wattle	135	Ft
110E1695	Remove Sediment Filter Bag	48	Ft
110E1700	Remove Silt Fence	134	Ft
230E0010	Placing Topsoil	1,552	CuYd
730E0100	Cover Crop Seeding	2.5	Bu
730E0212	Type G Permanent Seed Mixture	73	Lb
731E0200	Fertilizing	1.40	Ton
732E0100	Mulching	4.3	Ton
734E0044	Soil Stabilizer	2.3	Acre
734E0103	Type 3 Erosion Control Blanket	3,365	SqYd
734E0154	12" Diameter Erosion Control Wattle	500	Ft
734E0165	Remove and Reset Erosion Control Wattle	125	Ft
734E0170	Temporary Sediment Barrier	1,775	Ft
734E0180	Sediment Filter Bag	48	Ft
734E0185	Remove and Reset Sediment Filter Bag	48	Ft
734E0325	Surface Roughening	2.3	Acre
734E0604	High Flow Silt Fence	536	Ft
734E0610	Mucking Silt Fence	37	CuYd
734E0620	Repair Silt Fence	134	Ft
734E0630	Floating Silt Curtain	450	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	2	Each
900E1320	Construction Entrance	1	Each

#### <u> PCN: 03AL</u>

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	1,044.0	SqYd
120E7000	Select Granular Backfill	16.8	Ton
250E0030	Incidental Work, Structure	Lump Sum	LS
410E0020	Structural Steel	Lump Sum	LS
420E0100	Structure Excavation, Bridge	19	CuYd
430E0200	Bridge End Embankment	160	CuYd
430E0300	Granular Bridge End Backfill	34.7	CuYd
460E0030	Class A45 Concrete, Bridge Deck	326.0	CuYd
460E0050	Class A45 Concrete, Bridge	208.4	CuYd
460E0150	Concrete Approach Slab for Bridge	160.0	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	18.0	SqYd
480E0100	Reinforcing Steel	10,815	Lb
480E0200	Epoxy Coated Reinforcing Steel	2,724	Lb
480E0300	Stainless Reinforcing Steel	68,799	Lb
510E0300	Preboring Pile	100	Ft
510E3401	HP 12x53 Steel Test Pile, Furnish and Drive	200	Ft
510E3405	HP 12x53 Steel Bearing Pile, Furnish and Drive	760	Ft
510E3851	16"x0.25" Steel Pipe Test Pile, Furnish and Drive	255	Ft
510E3855	16"x0.25" Steel Pipe Bearing Pile, Furnish and Drive	2,400	Ft
700E0210	Class B Riprap	2,005.9	Ton
700E1100	Overburden Excavation for Riprap	876	CuYd
831E0110	Type B Drainage Fabric	1,984	SqYd
831E1030	Perforated Geocell	649	SqFt

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### Section E – Structure Structure No. 07-223-120

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### Section E – Structure Continued

Structure No. 07-001-346

#### <u>PCN: 05V1</u>

BID ITEM	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	840.0	SqYd
120E7000	Select Granular Backfill	26.4	Ton
250E0030	Incidental Work, Structure	Lump Sum	LS
410E0030	Structural Steel, Miscellaneous	Lump Sum	LS
410E2600	Membrane Sealant Expansion Joint	83.8	Ft
420E0100	Structure Excavation, Bridge	25	CuYd
430E0200	Bridge End Embankment	479	CuYd
430E0300	Granular Bridge End Backfill	102.1	CuYd
430E0510	Approach Slab Underdrain Excavation	7.9	CuYd
430E0700	Precast Concrete Headwall for Drain	4	Each
460E0030	Class A45 Concrete, Bridge Deck	290.1	CuYd
460E0050	Class A45 Concrete, Bridge	160.7	CuYd
460E0150	Concrete Approach Slab for Bridge	190.6	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	41.9	SqYd
465E0100	Class A45 Concrete, Drilled Shaft	44.9	CuYd
465E0200	Drilled Shaft Excavation	45.8	CuYd
465E1044	44" Permanent Casing	33.0	Ft
480E0100	Reinforcing Steel	27,634	Lb
480E0200	Epoxy Coated Reinforcing Steel	2,127	Lb
480E0300	Stainless Reinforcing Steel	60,492	Lb
510E0100	Extract Pile	10	Each
510E0300	Preboring Pile	200	Ft
510E3401	HP 12x53 Steel Test Pile, Furnish and Drive	90	Ft
510E3405	HP 12x53 Steel Bearing Pile, Furnish and Drive	720	Ft
560E8054	54" Minnesota Shape Prestressed Concrete Beam	933	Ft
680E0040	4" Underdrain Pipe	164	Ft
680E2500	Porous Backfill	14.9	Ton
700E0310	Class C Riprap	3,849.6	Ton
700E1100	Overburden Excavation for Riprap	2,249	CuYd
831E0110	Type B Drainage Fabric	3,446	SqYd
831E1030	Perforated Geocell	754	SqFt

### Section F – Surfacing

#### <u>PCN: 03AL</u>

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	65.6	MGal
260E1010	Base Course	5,460.4	Ton
320E0008	PG 64-34 Asphalt Binder	132.4	Ton
320E1060	Class G Asphalt Concrete	2,308.3	Ton
320E3000	Compaction Sample	6	Each
320E4000	Hydrated Lime	22.5	Ton
330E0010	MC-70 Asphalt for Prime	9.5	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	6.0	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	1.6	Ton
330E1000	Blotting Sand for Prime	20.9	Ton
330E2000	Sand for Flush Seal	15.4	Ton

#### <u>PCN: 05V1</u>

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	55.2	MGal
260E1010	Base Course	4,613.6	Ton
320E0008	PG 64-34 Asphalt Binder	104.4	Ton
320E1060	Class G Asphalt Concrete	1,813.3	Ton
320E1200	Asphalt Concrete Composite	485.5	Ton
320E3000	Compaction Sample	6	Each
320E4000	Hydrated Lime	18.0	Ton
330E0010	MC-70 Asphalt for Prime	6.8	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	3.6	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	1.1	Ton
330E1000	Blotting Sand for Prime	12.8	Ton
330E2000	Sand for Flush Seal	9.4	Ton

#### **SPECIFICATIONS**

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

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#### **ENVIRONMENTAL COMMITMENTS – 03AL**

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 A: AQUATIC RESOURCES**

#### **COMMITMENT A2: STREAMS**

All efforts to avoid and minimize stream impacts from the project have resulted in approximately 0.28 acre(s) of stream (includes temporary and permanent) becoming impacted. Refer to Section B - Grading Plans/plans for location and boundaries of the impacted streams.

#### Table of Impacted Streams

Stream Name	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
James River / Sand Lake	12+26 – 30+56	0.012	0.015	0.171	0.075	0.273

#### Action Taken/Required:

It has been determined that project impacts do not require mitigation. Temporary impacts identified in the Table of Impacted Streams will not be mitigated as the finished ground under the bridge will be shaped to match the upstream channel and flood plain and the existing low water channel will be maintained as near as practical to the existing location as designated in Section B – Grading Plans.

#### 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 pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

#### 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.

The Contractor will 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 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 >

#### COMMITMENT D: WATER QUALITY STANDARDS

#### COMMITMENT D1: SURFACE WATER QUALITY

The James River is classified as a warm water semi-permanent fishery with a total suspended solids standard of less than 90 mg/L 30-day average, less than 158 mg/L daily maximum.

This project may be in the vicinity of multiple streams and wetlands. These waters are considered waters of the state and are protected under Administrative Rules of South Dakota (ARSD) Chapter 74:51. Special construction measures may have to be taken to ensure that this water body is not impacted.

#### Action Taken/Required:

The Contractor is advised that the South Dakota Surface Water Quality Standards, administered by the South Dakota Department of Agriculture and Natural Resources (DANR), apply to this project. Special construction measures will be taken to ensure the above standard(s) of the surface waters are maintained and protected.

#### COMMITMENT D2: SURFACE WATER DISCHARGE

The DANR General Permit for Temporary Discharge is required for temporary dewatering and discharges to waters of the state. The effluent limit for total suspended solids will be 90 mg/L 30-day average. The effluent limit applies to discharges to all waters of the state except discharges to waters classified as cold water permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters of the state classified as cold water permanent fish life propagation waters, the effluent limit for total suspended solids will be 53 mg/L daily maximum.

The permittee has the option of completing effluent testing or implementing a pollution prevention plan for compliance with this permit. If the permittee develops a pollution prevention plan instead of total suspended solids sampling, the plan must be developed and implemented prior to discontinuing total suspended solids sampling. Refer to Section 4.0 of the permit. If any pollutants are suspected of being discharged, a sample must be taken for those parameters listed in Section 3.4 of the permit.

Refer to Commitment D1: Surface Water Quality for stream classification.

#### Action Taken/Required:

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If construction dewatering is required and this project is not required to be covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the Contractor will obtain the General Permit for Temporary Discharge Activities from the DANR Surface Water Program. 605-773-3351.

https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR Tempor arvDischargeNOI2018Fillable.pdf >

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#### COMMITMENT D2: SURFACE WATER DISCHARGE (CONTINUED)

If construction dewatering is required and this project is currently covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the contractor will need to submit the dewatering information to the SDDANR using the following form:

#### https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR\_AddTe mpInfoFillable.pdf >

The Contractor will provide a copy of the approved permit or the submitted dewatering information to the Project Engineer prior to proceeding with any dewatering activities. The approved permit or submitted dewatering information must be kept on-site and as part of the project records.

Effluent monitoring, as a result of dewatering activities, will be summarized for each month and recorded on a separate Discharge Monitoring Report (DMR) and submitted to DANR monthly. Additional information can be found at:

https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/swdpermitting/Erepo
rting.aspx >

#### 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:

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#### https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR\_CGPAp pendixCCA2018Fillable.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.

#### 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.a
spx >

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

#### COMMITMENT F: SEASONAL WORK RESTRICTION

The State of South Dakota Game, Fish, and Parks has designated a warm water fishery associated with this project.

#### Action Taken/Required:

Construction or demolition activities should not take place during the Seasonal Work Restriction listed in the below table to avoid conflicts with spawning fish. If flows during this time are nonexistent or extremely low, the seasonal use restriction may not be applicable. The Contractor will not conduct in-stream work during the Seasonal Work Restriction without prior approval from the SDDOT Environmental Office.

Stream Name	Stream Classification	Seasonal Work Restriction
James River	Warm Water	April 1 to June 30

#### 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 by an individual solid waste perm 6-1.13, and ARSD 74:27:10:06. Failure to comply with the rec penalties in accordance with So 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.

#### COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic 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 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.

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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-

#### <u>COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES</u> (CONTINUED)

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 150 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 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 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.

#### COMMITMENT J: CONSTRUCTION PRACTICES FOR TEMPORARY WORKS IN WATERWAYS OF THE U.S.

The Contractor is advised that special construction measures must be taken to ensure that the waterways of the U.S. are not impacted.

#### Action Taken/Required:

Excavation will not occur below the ordinary high-water elevation in waterways outside of caissons, cribs, cofferdams, steel piling, or sheeting. The natural streambed will not be disturbed unless specified by the plans and under the observation of the Project Engineer. Refer to the Table of U.S. Waterways to Protect for ordinary high-water elevations. Any structure work over or within the waterway will be constructed according to Section 7.21 C of the Specifications.

All dredged or excavated materials will be placed at a site above the ordinary high-water elevation in a confined area (not classified as a wetland) that is a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and inlets to prevent return of such material to the waterway.

The construction of temporary work platforms, crossings, or berms below the ordinary high-water elevation will be allowed if all material placed below the ordinary high-water elevation consists of Class B or larger riprap.

All temporary caissons, cribs, cofferdams, steel piling, sheeting, work platforms, crossings, and berms will be removed with minimal disturbance to the streambed. Proper construction practices will be used to minimize increases in suspended solids and turbidity in the waterway.

Bridge berms, wing dams, traffic diversions, channel reconstruction, stream diversions, grading, etc. will be constructed in close conformity with the plans to ensure that the hydraulic capacity of the waterway is not changed.

Temporary waterway crossings required for the Contractor's construction operations will be constructed with an adequate drainage structure size and minimum fill height to reduce the potential for upstream flooding. The Contractor will be responsible for sizing the temporary drainage structure for these crossings.

All temporary works in waterways of the US are required to be covered in the Corp of Engineers 404 Permit. At the time of the preconstruction meeting, the Contractor will submit documentation for all temporary works for the purpose of complying with the 404 Permit requirements in accordance with Section 423.3 A of the Specifications.

#### Table of U.S. Waterways to Protect

Station	Waterway	Ordinary High-Water Elevation
20+00 – 23+00	James River/Sand Lake	1287.4'

Stream channel excavation within "Waters of the US" is subject to USACE regulatory jurisdiction. Stream channel excavation cannot exceed the permitted quantities and/or surface area. The 404 Permit is included in the Special Provisions.

The Contractor will take all precautions necessary to prevent any incidental discharges associated with the excavation and hauling of material from the stream channel. This pertains to any excavation operations such as, foundation, pier, or abutment excavation, channel cleanout, excavation for riprap protection, and removal of any temporary fill associated with construction activities.

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#### **ENVIRONMENTAL COMMITMENTS - 05V1**

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: <a href="https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf">https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf</a> >

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 A: AQUATIC RESOURCES

#### **COMMITMENT A1: WETLANDS**

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 0.16 acre(s) of wetlands (includes temporary and permanent) becoming impacted. Refer to Section B – Grading Plans/plans for location and boundaries of the impacted wetlands.

#### **Table of Impacted Wetlands**

Wetland No.	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
1	756+50 - 757+50	0.00	0.00	0.00	0.07	0.07
2	757+50 - 758+25	0.01	0.00	0.02	0.08	0.11

#### Action Taken/Required:

Temporary impacts identified in the Table of Impacted Wetlands will not be mitigated as original contours and elevations will be re-established as designated in Section B – Grading Plans. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.21 D of the Specifications.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any wetland. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any wetlands beyond the work limits and easements shown in the plans.

Temporary impacts identified in the Table of Impacted Wetlands will not be mitigated as original contours and elevations will be re-established as designated in Section B – Grading Plans. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.21 D of the Specifications.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any wetland. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any wetlands beyond the work limits and easements shown in the plans.

#### COMMITMENT A2: STREAMS

All efforts to avoid and minimize stream impacts from the project have resulted in approximately 0.11 acres of stream (includes temporary and permanent) becoming impacted. Refer to Section B – Grading Plans/plans for location and boundaries of the impacted streams.

#### **Table of Impacted Streams**

Stream Name	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
Snake Creek	756+00 to 758+00	0.036	0.036	0.00	0.102	0.174

#### Action Taken/Required:

It has been determined that project impacts do not require mitigation. Temporary impacts identified in the Table of Impacted Streams will not be mitigated as the finished ground under the bridge will be shaped to match the upstream channel and flood plain and the existing low water channel will be maintained as near as practical to the existing location as designated in Section B – Grading Plans.

The contractor will complete excavation after temporary diversion is in place, if required, with minimal standing water to create the profile of slope protection specified in plans. Once the instream work is completed, the removed material will be placed on top of the riprap to match the natural ground, proposed groundline, or specified shape and elevations shown in plans. When overburden extends into the streambed it will form the channel bottom and profile as specified in plans. The finished ground under the bridge will be shaped to match the upstream and downstream channel and flood plain. See Overburden Excavation for Riprap note within structure sheets.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any stream. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any streams beyond the work limits and easements shown in the plans. The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any stream. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any streams beyond the work limits and easements shown in the plans.

### 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 pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

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

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

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#### COMMITMENT D: WATER QUALITY STANDARDS

#### COMMITMENT D1: SURFACE WATER QUALITY

Snake Creek is classified as warm water, marginal fishery with a total suspended solids standard of less than 150 mg/L 30-day average, less than 263 mg/L daily maximum.

This project may be in the vicinity of multiple streams and wetlands. These waters are considered waters of the state and are protected under Administrative Rules of South Dakota (ARSD) Chapter 74:51. Special construction measures may have to be taken to ensure that this water body is not impacted.

#### Action Taken/Required:

The Contractor is advised that the South Dakota Surface Water Quality Standards, administered by the South Dakota Department of Agriculture and Natural Resources (DANR), apply to this project. Special construction measures will be taken to ensure the above standard(s) of the surface waters are maintained and protected.

#### COMMITMENT D2: SURFACE WATER DISCHARGE

The DANR General Permit for Temporary Discharge is required for temporary dewatering and discharges to waters of the state. The effluent limit for total suspended solids will be 90 mg/L 30-day average. The effluent limit applies to discharges to all waters of the state except discharges to waters classified as cold water permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters, the effluent limit for total suspended solids will be 53 mg/L daily maximum.

The permittee has the option of completing effluent testing or implementing a pollution prevention plan for compliance with this permit. If the permittee develops a pollution prevention plan instead of total suspended solids sampling, the plan must be developed and implemented prior to discontinuing total suspended solids sampling. Refer to Section 4.0 of the permit. If any pollutants are suspected of being discharged, a sample must be taken for those parameters listed in Section 3.4 of the permit.

Refer to Commitment D1: Surface Water Quality for stream classification.

#### Action Taken/Required:

If construction dewatering is required and this project is not required to be covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the Contractor will obtain the General Permit for Temporary Discharge Activities from the DANR Surface Water Program, 605-773-3351.

<<u>https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR\_Temp</u> oraryDischargeNOI2018Fillable.pdf\_>

If construction dewatering is required and this project is currently covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the contractor will need to submit the dewatering information to the SDDANR using the following form:

#### <https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR\_AddTe mpInfoFillable.pdf >

The Contractor will provide a copy of the approved permit or the submitted dewatering information to the Project Engineer prior to proceeding with any dewatering activities. The approved permit or submitted dewatering information must be kept on-site and as part of the project records.

Effluent monitoring, as a result of dewatering activities, will be summarized for each month and recorded on a separate Discharge Monitoring Report (DMR) and submitted to DANR monthly. Additional information can be found at: <<u>https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/swdpermitting/Erep</u>orting.aspx >

#### 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:

<<u>https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR\_CGPA</u> 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.

#### **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: < <u>https://dot.sd.gov/doing-bu</u> DANR:<<u>https://danr.sd.gov/OfficeOfM</u> <u>default.aspx</u> > EPA: < <u>https://www.epa.gov/npdes</u> >

#### 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/ 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.

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SDDOT: < <u>https://dot.sd.gov/doing-business/environmental/stormwater</u> > DANR:<<u>https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/</u>

Construction and/or demolition debris may not be disposed of within the Public

#### COMMITMENT H: WASTE DISPOSAL SITE (CONTINUED)

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.

#### COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic 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 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 150 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 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 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.

#### COMMITMENT J: CONSTRUCTION PRACTICES FOR TEMPORARY WORKS IN WATERWAYS OF THE U.S.

The Contractor is advised that special construction measures must be taken to ensure that the waterways of the U.S. are not impacted.

#### **Action Taken/Required:**

Excavation will not occur below the ordinary high-water elevation in waterways outside of caissons, cribs, cofferdams, steel piling, or sheeting, The natural streambed will not be disturbed unless specified by the plans and under the observation of the Project Engineer. Refer to the Table of U.S. Waterways to Protect for ordinary high-water elevations. Any structure work over or within the waterway will be constructed according to Section 7.21 C of the Specifications.

All dredged or excavated materials will be placed at a site above the ordinary high-water elevation in a confined area (not classified as a wetland) that is a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and inlets to prevent return of such material to the waterway.

The construction of temporary work platforms, crossings, or berms below the ordinary high-water elevation will be allowed if all material placed below the ordinary high-water elevation consists of Class B or larger riprap.

All temporary caissons, cribs, cofferdams, steel piling, sheeting, work platforms, crossings, and berms will be removed with minimal disturbance to the streambed. Proper construction practices will be used to minimize increases in suspended solids and turbidity in the waterway.

Bridge berms, wing dams, traffic diversions, channel reconstruction, stream diversions, grading, etc. will be constructed in close conformity with the plans to ensure that the hydraulic capacity of the waterway is not changed.

Temporary waterway crossings required for the Contractor's construction operations will be constructed with an adequate drainage structure size and minimum fill height to reduce the potential for upstream flooding. The Contractor will be responsible for sizing the temporary drainage structure for these crossings.

All temporary works in waterways of the US are required to be covered in the Corp of Engineers 404 Permit. At the time of the preconstruction meeting, the Contractor will submit documentation for all temporary works for the purpose of complying with the 404 Permit requirements in accordance with Section 423.3 A of the Specifications.

#### Table of U.S. Waterways to Protect

Station	Waterway	Ordinary High-Water Elevation
756+00 to 758+00	Snake Creek	1381.3

Stream channel excavation within "Waters of the US" is subject to USACE regulatory jurisdiction. Stream channel excavation cannot exceed the permitted quantities and/or surface area. The 404 Permit is included in the Special Provisions.

The Contractor will take all precautions necessary to prevent any incidental discharges associated with the excavation and hauling of material from the stream channel. This pertains to any excavation operations such as. foundation, pier, or abutment excavation, channel cleanout, excavation for riprap protection, and removal of any temporary fill associated with construction activities.

### **COMMITMENT N: SECTION 404 PERMIT**

#### Action Taken/Required:

Permit.

The Contractor will also be responsible for obtaining a Section 404 Permit for any dredge, excavation, or fill activities associated with material sources, storage areas, waste sites, and Contractor work sites outside the plan work limits that affect wetlands, floodplains, or waters of the United States.

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The SDDOT has obtained a Section 404 Permit from the USACE for the permanent actions associated with this project.

The Contractor will comply with all requirements contained in the Section 404