



Department of Transportation

Aberdeen Region Office

West Highway 12

PO Box 1767

Aberdeen, South Dakota 57402-1767 605/626-2244

FAX: 605/626-7875

February 23, 2021

ADDENDUM NO. 1

Re: **029 S-171, PCN i5NL**
Brookings, Codington, Deuel & Hamlin Counties
Concrete Pavement Repair

TO WHOM IT MAY CONCERN:

PROPOSAL: Please destroy the DOT-123 form and replace with the enclosed DOT-123 form, dated 2/23/21. The quantity of Dowel Bars and Insert Steel Bar in PCC Pavement was revised.

PLANS: Please destroy sheets 3, 5 and 9 and replace with the enclosed sheets, dated 2/23/21.

Sheet 3: The quantity of Dowel Bars and Insert Steel Bar in PCC Pavement was revised.

Sheet 5: The quantity of #5, #6, #9, #11 and dowel bars was revised.

Sheet 9: The last paragraph of notes under the heading NONREINFORCED PCC PAVEMENT REPAIR was revised.

When sending in your sealed bid please state on the front of the envelope that Addendum No. 1 was received.

Sincerely,

DEPARTMENT OF TRANSPORTATION

Mark Peterson
Region Engineer

cc: M. Brey T. Ondricek J. Steen File

**SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
CONTRACT PROPOSAL**

Rev. 2-23-21 SLS DOT-123
July 2018
1 of 2

CODE	PROJECT			MAINT	CONTROL		FUNCTION	BEGIN		END	
	PRE	ROUTE	AGR	UNIT	REFERENCE	AFE		MRM		MRM	
M		S		17		15	212	40.6		92	

This document is for

CITY AND/OR COUNTY: Brookings, Codington, Deuel & Hamlin BUDGET SOURCE: FY21 Contract Maintenance

REGION MATERIALS CERTIFICATION REQUIRED: ☒ YES ☐ NO WIP #: _____
 CERTIFIED INSPECTORS/TESTERS REQUIRED: ☒ YES ☐ NO
 TO BE INSTALLED ON CM&P: ☒ YES ☐ NO

TYPE, PURPOSE AND LOCATION OF WORK: Repair PCCP at various locations on I-29.

information only.

BID ITEM NUMBER	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
009E0010	Mobilization	LUMP SUM	LS	Lump Sum	
110E1100	Remove Concrete Pavement	502.0	SqYd		
380E5030	Nonreinforced PCC Pavement Repair	88.9	SqYd		
380E5100	Continuously Reinforced PCC Pavement Repair	413.1	SqYd		
380E6000	Dowel Bar	77	Each		
380E6110	Insert Steel Bar in PCC Pavement	495	Each		
634E0010	Flagging	20	Hour	\$30.37	\$607.40
634E0110	Traffic Control Signs	754.0	SqFt		
634E0120	Traffic Control, Miscellaneous	LUMP SUM	LS	Lump Sum	
634E0420	Type C Advance Warning Arrow Board	3	Each		
634E0640	Temporary Pavement Marking	3840	SqYd		
634E0275	Type 3 Barricade	9	Each		
734E5010	Sweeping	20	Hour		
TOTAL					

Do not use for bidding

CONTRACTOR'S PROPOSAL STATEMENT

The undersigned agrees to offer the labor and materials in the quantities, at the unit price, for the purpose, in the place, and in accordance with attached provisions. The Contractor will provide services in compliance with the Americans with Disabilities Act of 1990 and any amendments.

purposes.

SUBSTANTIAL COMPLETION DATE N/A
 FIELD WORK COMPLETION DATE October 29, 2021
 SUBSCRIBED AND SWORN TO BEFORE ME THE

DAY OF _____, 20__

NOTARY _____

My Commission Expires:

DATE _____

PROPOSED START DATE _____

SIGNATURE _____

PRINTED NAME _____

COMPANY _____

STR. ADDRESS _____

CITY, STATE, ZIP _____

(SEAL) FEDERAL TAX ID NUMBER _____

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
CONTRACT PROPOSAL

Rev. 2-23-21 SLS DOT-123
July 2018
2 of 2

CODE	PROJECT			MAINT	CONTROL		FUNCTION	BEGIN	END
	PRE	ROUTE	AGR	UNIT	REFERENCE	AFE		MRM	MRM
M		S		17		15	212	40.6	92

This document is for

TO BE FILLED OUT BY STATE PERSONNEL:

RECOMMENDED FOR APPROVAL:

CONSTRUCTION & MAINTENANCE ENGINEER

DATE

AREA / REGION / OPS ENGINEER

DATE

DIRECTOR OF OPERATIONS

DATE

INTERNAL SERVICES / SUPPLIES

DATE

ACCEPTED BY SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

NAME

TITLE

DATE

IF FEDERAL FUNDS WILL BE EXPENDED UNDER THIS AGREEMENT, ACCEPTANCE BY PROJECT DEVELOPMENT IS REQUIRED

PROJECT DEVELOPMENT ENGINEER

DATE

information only.

Do not use for bidding
purposes.

PLOT SCALE - 1:20000

PLOTTED FROM - TRWAINT22

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	029 S - 171	3	27
Plotting Date: 06/25/2019			

ESTIMATE OF QUANTITIES

PCN I5NL			
BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E1100	Remove Concrete Pavement	502.0	SqYd
380E5030	Nonreinforced PCC Pavement Repair	88.9	SqYd
380E5100	Continuously Reinforced PCC Pavement Repair	413.1	SqYd
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634E0110	Traffic Control Signs	754.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Board	3	Each
634E0640	Temporary Pavement Marking	3840	Ft
634E0275	Type 3 Barricade	9	Each
734E5010	Sweeping	20	Hour

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 B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

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

COMMITMENT C: WATER SOURCE

The Contractor 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 shall 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 Environment and Natural Resources (DENR) 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:
< <http://sdleastwanted.com/maps/default.aspx> >

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

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

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 Environment 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:

- 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".
- 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 shall be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

PLOT NAME - 1

FILE - ... \I5NL-TITLE.DGN

PLOT SCALE - 1:20000

PLOTTED FROM - TRWAINT22

Rev. 2-23-21 JB

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	029 S - 171	5	27
Plotting Date: 06/25/2019			

PCCP Repair Areas
INTERSTATE 29

MRM	Dimensions		PCCP Repair (sqyd) Continuously Reinforced	PCCP Repair (sqyd) Nonreinforced	Description	Bars				Dowel Bar (EACH)	Depth of Concrete	
	L (ft)	W (ft)				#5	*#6	#9	#11		10"	10.5"
139.92	6	14		9.3	SBAC	6			10	13		10.5
139.95	4	6	2.7		SBDL	4	10					10.5
139.96	6	14		9.3	SBAC	6			10	13		10.5
140.35	4	6	2.7		SBDL	4	10					10.5
140.40	6	14		9.3	SBAC	6			10	13		10.5
140.48	6	14		9.3	SBAC	6			10	13		10.5
140.60	6	8	5.3		SBDL	6	14					10.5
140.65	6	8	5.3		SBDL	6	14					10.5
140.67	4	6	2.7		SBDL	4	10					10.5
140.89	6	14	9.3		SBDL	6	26					10.5
141.28	6	14		9.3	SBAC	6			10	13		10.5
141.34	6	14		9.3	SBAC	6			10	13		10.5
142.62	6	8	5.3		SBDL	6	14					10.5
142.89	4	14	6.2		SBDL	4	26					10.5
142.92	6	14	9.3		SBDL	6	26					10.5
143.61	4	14	6.2		SBDL	4	26					10.5
143.62	8	14	12.4		SBDL	8	26					10.5
143.64	4	26	11.6		SBDL	4	50					10.5
143.68	6	14	9.3		SBDL	6	26					10.5
143.69	4	26	11.6		SBDL	4	50					10.5
144.26	8	14	12.4		SBPL	8	26					10.5
144.90	4	14	6.2		SBDL	4	26					10.5
145.12	4	14	6.2		SBDL	4	26					10.5
145.20	8	14	12.4		SBPL	8	26					10.5
145.54	4	14	6.2		SBDL	4	26					10.5
145.58	4	14	6.2		SBDL	4	26					10.5
145.59	4	14	6.2		SBDL	4	26					10.5
145.61	4	14	6.2		SBDL	4	26					10.5
145.65	4	14	6.2		SBDL	4	26					10.5
146.03	4	4		1.8	SBAC	4			8			10.5
146.25	8	14	12.4		SBDL	8	26					10.5
147.87	4	14	6.2		SBDL	4	26					10.5
147.10	4	14	6.2		SBDL	4	26					10.5
147.21	5	8	4.4		SBDL	5	14					10.5
147.24	5	8	4.4		SBDL	5	14					10.5
147.25	5	8	4.4		SBDL	5	14					10.5
148.22	8	14	12.4		SBDL	8	26					10.5
148.29	8	14	12.4		SBDL	8	26					10.5
148.42	8	14	12.4		SBDL	8	26					10.5
148.93	6	8	5.3		SBDL	6	14					10.5
149.02	6	8	5.3		SBDL	6	14					10.5
153.35	4	4		1.8	SBAC	4		8			10	
156.84	4	14	6.2		SBDL	4	26				10	
157.08	8	14	12.4		SBDL	8	26				10	
157.10	8	14	12.4		SBDL	8	26				10	
157.76	8	14	12.4		SBDL	8	26				10	
161.30	21	14	32.7		SBDL	21	26				10	
164.28	4	4		1.8	SBAC	4		2		4	10	
164.30	4	4		1.8	SBAC	4		2		4	10	
164.31	4	4		1.8	SBAC	4		2		4	10	
164.336	4	13		5.8	SBAC	4		14			10	
164.344	4	4		1.8	SBAC	4		4			10	
164.347	4	4		1.8	SBAC	4		4			10	
164.351	4	4		1.8	SBAC	4		4			10	
164.42	4	4		1.8	SBPL	4		4			10	
164.70	4	4		1.8	SBAC	4		4			10	
164.80	10	14	15.6		SBDL	10	26				10	
164.90	6	8	5.3		SBDL	6	14				10	
165.21	8	14	12.4		SBDL	8	26				10	
165.40	10	14	15.6		SBDL	10	26				10	
171.27	8	14	12.4		SBDL	8	26				10	
171.90	14	14	21.8		SBDL	14	26				10	
192.40	21	4		9.3	SBDL	21			10	13		10.5
Total			413.1	88.9		389	1062	48	58	77		

LEGEND: NB (North Bound), SB (South Bound)
DL (Driving Lane), PL (Passing Lane)
AC (Acceleration Lane), DC (Deceleration Lane)
*#6 bars are included for informational purposes only. #6 bars are not included in the bid item "Insert Steel Bar in PCC Pavement"
Note: Number of steel bars is for information only. Actual quantity to be determined on construction.
Quantity of steel bars shall be paid for at the contract unit price per each for
INSERT STEEL BAR IN PCC PAVEMENT.

PLOT NAME - 1

FILE - ... \15NL-TITLE.DGN

PLOT SCALE - 1:20000

PLOTTED FROM - TRWAINT22

PLOT NAME - 1

FILE - ... \15NL_TITLE.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	029 S - 171	9	27
Plotting Date: 06/25/2019			

REMOVE CONCRETE PAVEMENT CONTINUED

Care shall be exercised in the removal of concrete slab panels to avoid damage to adjacent pavement, manholes and growth joints. Damage to adjacent pavement, manholes and/or growth joints shall be repaired to the satisfaction of the Engineer at the Contractor's expense.

After concrete removal has been accomplished, the Contractor shall shape, water and recompact the remaining granular material prior to placement of concrete. Payment for this work shall be incidental to the contract unit price per square yard for REMOVE CONCRETE PAVEMENT. Any additional gravel cushion required to prepare the area shall be furnished and placed by the Contractor and shall be incidental to the contract unit price per square yard for REMOVE CONCRETE PAVEMENT.

Gravel cushion material shall be from a Contractor furnished source. Water content and compaction shall be to the satisfaction of the Engineer.

Removal of Concrete Pavement will be incidental to the contract unit bid price per square yard for REMOVE CONCRETE PAVEMENT. This payment will be full compensation for full depth sawing, concrete breakout and removal of all PCC Pavement, disposal of all removed material, restoration of gravel cushion, and all equipment, labor, and incidentals necessary to satisfactorily complete work.

All removed concrete shall be removed from the right of way by the end of the workday and disposed of at the Contractor's waste disposal site.

RESTORATION OF GRAVEL CUSHION

An inspection of the gravel cushion shall be made after removing concrete from each pavement replacement area. Areas of excess moisture shall be dried to the satisfaction of the Engineer. Loose material shall be removed. Each replacement area shall be leveled and compacted to the satisfaction of the Engineer.

PCC PAVEMENT REPAIR - GENERAL

New pavement thickness shall equal existing pavement thickness.

Locations and size (length and width) of concrete repair areas are subject to change in the field, at the discretion of the Engineer, at no additional cost to the state. Payment will be based on the actual area replaced.

Existing concrete pavement shall be sawed full depth at the beginning and end of the NRCP repair areas. When either the beginning or end of a NRCP repair area falls close to an existing joint or crack, the NRCP repair shall be extended to eliminate the existing joint or crack. Where possible, new working joints shall be adjacent to existing working joints.

Saw cuts that extend beyond the repair area shall be minimized and filled with a non-shrinkage mortar mix at the Contractor's expense.

Existing concrete pavement in the replacement areas shall be removed by the lift out method or by means that minimize damage to the base and sides of

remaining in place concrete. All removed material shall be removed from within the right-of-way by the end of the workday. Damage to adjacent concrete caused by the Contractor's operations shall be removed and replaced at the Contractor's expense.

If the pavement replacement area is entirely on either side of the existing contraction joint, the location of one of the working joints will be at the original location. Any existing dowel bar assemblies/steel bars shall be sawed off and removed.

At full roadway width repair and when specified, a working joint will be reconstructed at both ends of each pavement replacement area as shown in these plans.

Concrete placed adjacent to gravel and asphalt concrete shoulders shall be formed full depth to match the width of existing concrete pavement. Asphalt concrete shoulders adjacent to concrete pavement replacements shall be repaired with new hot-mix asphalt concrete.

At repair locations where the new working joint is not opposite the existing working joint, the Contractor shall place ¼" preformed asphalt expansion joint material along the longitudinal joint from the existing working joint to the new working joint. The expansion material shall meet the requirements of AASHTO M33. Cost for this material shall be incidental to the contract unit price per square yard for NONREINFORCED PCC PAVEMENT REPAIR.

The initial contraction joint sawing shall be performed as soon as practical after placement to avoid random cracking.

All joints (longitudinal and transverse) through and around the repair areas will be sawed and sealed in accordance with the details shown in these plans. Refer to Saw and Seal Joints Notes.

NONREINFORCED PCC PAVEMENT REPAIR

Concrete shall meet the requirements stated in Section 380 of the specifications.

The fine aggregate will be screened over a one-inch square-opening screen just prior to introduction into the concrete paving mix if required by the Engineer.

The slump requirement will be limited to 3" maximum after water reducer is added and the concrete will contain 4.5% to 7.0% entrained air. The concrete will contain a minimum of 50% coarse aggregate by weight. Coarse aggregate will be crushed ledge rock, Size No. 1 unless an alternative gradation is approved by the Concrete Engineer as part of the mix design submittal. The mix design will contain at least 650 lbs of Type I or II cement or 600 lbs of Type III cement per cubic yard. The minimum 28 day compressive strength will be 4,000 psi. The Contractor is responsible for the mix design used. The Contractor will submit a mix design and supporting documentation for approval at least 2 weeks prior to use.

The use of a water reducer at manufacturer's recommended dosage will be required.

Concrete shall be cured with white pigment curing compound (AASHTO M148, Type 2) applied as soon as practical at a rate of 125 square feet per gallon. Concrete shall be cured for a minimum of 48 hours before opening to traffic. The 48 hours is based upon a concrete surface temperature of 60 degrees F or higher throughout the cure period. If the concrete temperature falls below 60 degrees F, the cure time shall be extended, or other measures taken, at no additional cost to the State. A strength of 3,500 psi must be attained prior to opening to traffic.

Upon placement of the concrete repair areas shall be straight edged to ensure a smooth riding surface and shall be textured longitudinally with the pavement by finishing with a stiff broom. Repair areas shall then be checked with a 10' straight edge. The permissible longitudinal and transverse surface deviation shall be 1/8" in 10'.

Concrete shall be covered with suitable insulation blanket consisting of a layer of closed cell polystyrene foam protected by at least one layer of plastic.

Insulation blanket shall have an R-value of at least 0.5, as rated by the manufacture. Insulation blanket shall be left in place, except for joint sawing operations, until the 3,500 psi is attained. Insulation blanket shall be overlapped onto the existing concrete by 4'. This requirement for covering repair areas with insulation blankets may be waived during periods of hot weather upon approval of the Engineer.

Cost for performing the aforementioned work including, furnishing and placing concrete, sawing and sealing joints, repairing gravel and asphalt concrete shoulders, labor, tools and equipment shall be included in the contract unit price per square yard for NONREINFORCED PCC PAVEMENT REPAIR.

CONTINUOUSLY REINFORCED PCC PAVEMENT REPAIR

New pavement thickness shall equal existing pavement thickness.

Locations and size (length and width) of concrete repair areas are subject to change in the field, at the discretion of the Engineer, at no additional cost to the state. Payment will be based on the actual area replaced.

The Engineer will mark the location of the areas to be repaired on construction. Where repair crosses both lanes, the passing lane should be repaired first.

Full Lane Width Repair and Partial Lane Width Repair

The Contractor shall saw the in place concrete transversely at four locations for each repair area. Two saw cuts shall be full depth. The other two saw cuts shall be partial depth saw cuts and shall be made to a depth just above the in place reinforcing steel and placed outside of the previous full depth saw cuts. The outside cuts shall be a minimum of 6" from the nearest tight crack outside of the patch.

The Contractor shall lift out or break out the center section (including reinforcing steel). Light chipping hammers (not exceeding 15 pounds) shall be used to remove remaining concrete at each end of the repair area, leaving the reinforcing steel in place.

Saw cuts that extend beyond the repair area shall be minimized and filled with a non-shrinkage mortar mix at the Contractor's expense.