

January 16, 2025

ADDENDUM NO. 1

RE: Item #7, January 22, 2025 Letting - P 0047(122)58, 049-392, PCN 06Q8, I7AG, Lyman, Tripp County - Cold Milling, Asphalt Concrete Resurfacing, Pipe Work

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: NO CHANGE

SDEBS BID PROPOSAL: *The electronic bid proposal for this contract has been revised to include the changes associated with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes into their bid.*

Bid Items were added:

Bid Item 260E1010 "Base Course"

Bid Item 260E6010 "Granular Material"

Quantities for Bid Items were changed:

Bid Item 260E1030 "Base Course, Salvaged" Changed from 1,641.8 to 672.5 Ton

Bid Item 260E6000 "Granular Material, Furnish" changed from 2,452.9 to 4,761.2Ton

Bid Item 270E0200 "Blend, Haul, and Stockpile Granular Material" changed
from 3,283.6 to 8,849.8 Ton

Bid Item 270E0220 "Blend and Stockpile Granular Material" changed from 1,641.8 to 672.5 Ton

Bid Item 320E1800 "Asphalt Concrete Blade Laid" changed from 2,854.8 to 1,427.4 Ton

Bid Item 330E0100 "SS-1h or CSS-1h Asphalt for Tack" changed from 175.5 to 114.2 Ton

Alternate A for PCN 06Q8

Bid Item 320E0005 "PG 58-34 Asphalt binder" changed from 1,169.7 to 1,060.3 Ton

Bid Item 320E4000 "Hydrated Lime" changed from 234.6 to 220.3 Ton

Alternate B for PCN 06Q8

Bid Item 320E0005 "PG 58-34 Asphalt binder" changed from 1,012.3 to 902.9 Ton

Bid Item 320E4000 "Hydrated Lime" changed from 241.4 to 227.1 Ton

Bid Items were removed:

Bid Item 210E0100 "Shoulder Clearing"

PLANS: Please destroy sheets 2, 11, 12, 21, 22, 46, and 75 and replace with the enclosed sheets, dated 1/15/25.

Sheet 2: **Bid Items were added:**
Bid Item 260E1010 "Base Course"
Bid Item 260E6010 "Granular Material"

Quantities for Bid Items were changed:

Bid Item 260E1030 "Base Course, Salvaged" Changed from 1,641.8 to 672.5 Ton

Bid Item *260E6000 "Granular Material, Furnish" changed from 811.1 to
4,424.9 Ton

Bid Item 260E6000 "Granular Material, Furnish" changed from 1,641.8 to 336.3Ton

Bid Item *270E0200 "Blend, Haul, and Stockpile Granular Material" changed
from 3,283.6 to 8,849.8 Ton

Bid Item 270E0220 "Blend and Stockpile Granular Material" changed from 1,641.8
to 672.5 Ton

Bid Item 320E1800 "Asphalt Concrete Blade Laid" changed from 2,854.8 to
1,427.4 Ton

Bid Item 330E0100 "SS-1h or CSS-1h Asphalt for Tack" changed from 175.5 to 114.2 Ton
Alternate A for PCN 06Q8

Bid Item 320E0005 "PG 58-34 Asphalt Binder" changed from 1,169.7 to 1,060.3 Ton

Bid Item 320E4000 "Hydrated Lime" changed from 234.6 to 220.3 Ton
Alternate B for PCN 06Q8

Bid Item 320E0005 "PG 58-34 Asphalt Binder" changed from 1,012.3 to 902.9 Ton

Bid Item 320E4000 "Hydrated Lime" changed from 241.4 to 227.1 Ton

Bid Items were removed:

Bid Item 210E0100 "Shoulder Clearing"

Sheet 11: SHOULDER CLEARING note was removed. COLD MILLING ASPHALT CONCRETE, BLEND, HAUL AND STOCKPILE GRANULAR MATERIAL, and BLEND AND STOCKPILE GRANULAR MATERIAL notes were revised.

Sheet 12: UNCLASSIFIED EXCAVATION, DIGOUTS note was revised.

Sheet 21: TABLE OF MATERIAL QUANTITIES was revised.

Sheet 22: TABLE OF ADDITIONAL QUANTITIES was revised.

Sheet 46: Station A2+00 to Station F509+79 was revised.

Sheet 75: Pipe Cross Section for Sta 17+01 was removed.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/cj

CC: Jason Humphrey, Pierre Region Engineer
Doug Sherman, Winner Area Engineer

Estimate of Quantities P 0047(122)58 PCN 06Q8

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3200	Construction Staking	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
009E4100	Construction Schedule, Category I	Lump Sum	LS
110E0500	Remove Pipe Culvert	182	Ft
110E0510	Remove Pipe End Section	10	Each
110E0595	Remove Cattle Pass End Section	1	Each
110E0600	Remove Fence	986	Ft
110E1010	Remove Asphalt Concrete Pavement	75.0	SqYd
110E5010	Salvage Delineator	127	Each
110E6200	Remove Double Thrie Beam Guardrail for Reset	50.0	Ft
110E6230	Remove W Beam Guardrail for Reset	100.0	Ft
110E6240	Remove W Beam to Thrie Beam Guardrail Transition for Reset	4	Each
110E6270	Remove W Beam Guardrail Flared End Terminal for Reset	4	Each
110E7500	Remove Pipe for Reset	34	Ft
110E7510	Remove Pipe End Section for Reset	4	Each
110E7540	Remove Cattle Pass End Section for Reset	1	Each
120E0100	Unclassified Excavation, Digouts	476	CuYd
120E0600	Contractor Furnished Borrow Excavation	693	CuYd
120E4100	Reprofiling Ditch	2.0	Sta
120E6200	Water for Granular Material	30.5	MGal
230E0100	Remove and Replace Topsoil	Lump Sum	LS
250E0010	Incidental Work	Lump Sum	LS
260E1010	Base Course	1,171.3	Ton
260E1030	Base Course, Salvaged	672.5	Ton
* 260E6000	Granular Material, Furnish	4,424.9	Ton
260E6000	Granular Material, Furnish	336.3	Ton
260E6010	Granular Material	121.8	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	8,849.8	Ton
270E0220	Blend and Stockpile Granular Material	672.5	Ton
320E1200	Asphalt Concrete Composite	240.4	Ton
320E1800	Asphalt Concrete Blade Laid	1,427.4	Ton
320E7008	Grind 8" Rumble Strip or Stripe in Asphalt Concrete	19.8	Mile
320E7028	Grind Centerline Rumble Stripe in Asphalt Concrete	9.9	Mile
330E0100	SS-1h or CSS-1h Asphalt for Tack	114.2	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	33.9	Ton
330E2000	Sand for Flush Seal	504.6	Ton
332E0010	Cold Milling Asphalt Concrete	179,933	SqYd
421E0100	Pipe Culvert Undercut	37	CuYd
450E0142	24" RCP Class 2, Furnish	154	Ft
450E0150	24" RCP, Install	154	Ft
450E2008	18" RCP Flared End, Furnish	4	Each

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E2009	18" RCP Flared End, Install	4	Each
450E2016	24" RCP Flared End, Furnish	4	Each
450E2017	24" RCP Flared End, Install	4	Each
450E2028	36" RCP Flared End, Furnish	1	Each
450E2029	36" RCP Flared End, Install	1	Each
450E4758	18" CMP 14 Gauge, Furnish	132	Ft
450E4760	18" CMP, Install	132	Ft
450E5010	18" CMP Elbow, Furnish	2	Each
450E5011	18" CMP Elbow, Install	2	Each
450E5211	18" CMP Flared End, Furnish	1	Each
450E5212	18" CMP Flared End, Install	1	Each
450E8305	Repair Culvert Joint	200.0	Ft
* 450E8900	Cleanout Pipe Culvert	3	Each
450E9000	Reset Pipe	34	Ft
450E9001	Reset Pipe End Section	4	Each
560E5051	4'x6' Reinforced Concrete Cattle Pass End Section, Furnish	1	Each
560E5052	4'x6' Reinforced Concrete Cattle Pass End Section, Install	1	Each
560E5101	Reset Reinforced Concrete Cattle Pass End Section	1	Each
600E0300	Type III Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	986	Ft
620E0520	Type 2 Temporary Fence	1,577	Ft
620E1020	2 Post Panel	20	Each
620E1030	3 Post Panel	1	Each
630E2110	Beam Guardrail Post and Block	80	Each
630E5110	Reset Double Thrie Beam Guardrail with Wood Posts	50.0	Ft
630E5140	Reset W Beam Guardrail with Wood Posts	100.0	Ft
630E5190	Reset W Beam to Thrie Beam Guardrail Transition	4	Each
630E5207	Reset W Beam Guardrail Flared End Terminal	4	Each
632E2022	4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post	127	Each
632E2220	Guardrail Delineator	16	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	446	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	383	Gal
634E0010	Flagging	480.0	Hour
634E0020	Pilot Car	200.0	Hour
634E0110	Traffic Control Signs	462.6	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0560	Remove Pavement Marking, 4" or Equivalent	100	Ft
634E0630	Temporary Pavement Marking	39.5	Mile
720E1010	PVC Coated Bank and Channel Protection Gabion	4.5	CuYd
730E0210	Type F Permanent Seed Mixture	988	Lb
731E0200	Fertilizing	28.50	Ton
732E0100	Mulching	86.0	Ton
734E0154	12" Diameter Erosion Control Wattle	400	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
831E0110	Type B Drainage Fabric	15	SqYd
900E0010	Refurbish Single Mailbox	3	Each
900E1980	Storage Unit	1	Each

* - Denotes Non-Participating

Non-Section Method - Asphalt Concrete Surfacing 06Q8 - Alternate A - Class Q2R Hot Mixed Asphalt

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	1,060.3	Ton
320E1202	Class Q2R Hot Mixed Asphalt Concrete	19,874.5	Ton
320E4000	Hydrated Lime	220.3	Ton

Non-Section Method - Asphalt Concrete Surfacing 06Q8 - Alternate B - Class Q2R Hot Mixed Asphalt Concrete

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	902.9	Ton
320E1202	Class Q2R Hot Mixed Asphalt Concrete	20,389.1	Ton
320E4000	Hydrated Lime	227.1	Ton

Estimate of Quantities 049-392 PCN I7AG

Non-Section Method - Asphalt Concrete Surfacing - Alternate A - Class Q2R Hot Mixed Asphalt Concrete

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 320E0005	PG 58-34 Asphalt Binder	46.0	Ton
* 320E1400	Contractor Furnished Asphalt Concrete	1,000.0	Ton
* 320E4000	Hydrated Lime	10.0	Ton

* - Denotes Non-Participating

Non-Section Method - Asphalt Concrete Surfacing - Alternate B - Class Q2R Hot Mixed Asphalt Concrete

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 320E0005	PG 58-34 Asphalt Binder	37.0	Ton
* 320E1400	Contractor Furnished Asphalt Concrete	1,000.0	Ton
* 320E4000	Hydrated Lime	10.0	Ton

* - Denotes Non-Participating



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0047(122)58 049-392	11	82

REV. 1-15-25 JT

STORAGE UNIT, continued

The storage unit will be on site and operational prior to asphalt concrete production. Upon completion of asphalt concrete production, the Engineer will notify the Contractor when the storage unit can be removed from the project. The storage unit use will not exceed 30 calendar days from the completion of asphalt concrete production. The storage unit will remain the property of the Contractor.

The storage unit will be weather proof and will be set in a level position. The storage unit will be able to be locked with a padlock.

The storage unit will be placed adjacent to the QA lab, as approved by the Engineer.

The following will apply when the storage unit provided on the project is a portable storage container:

1. The portable storage container will be constructed of steel.
2. The portable storage container will be set such that it is raised above the surrounding ground level to keep water from ponding under or around the storage container.

The following will apply when the storage unit provided on the project is a semi-trailer:

1. A set of steps and hand railings will be provided at the exterior door.
2. If the floor of the semi-trailer is 18 inches or more above the ground, a landing will be constructed at the exterior door. The minimum dimensions for the landing will be 4 feet by 5 feet. The top of the landing will be level with the threshold or opening of the doorway.
3. The semi-trailer may be connected to the QA lab by a stable elevated walkway. The walkway will be a minimum of 48 inches wide and contain handrails installed at 32 inches above the deck of the walkway. The walkway will be constructed such that it is stable and the deck does not deform during use and allows for proper door operation. Walkway construction will be approved by the Engineer.

All cost for furnishing, maintaining, and removing the storage unit including labor, equipment, and materials including any necessary walkways, landings, stairways, and handrails will be included in the contract unit price per each for "Storage Unit".

REMOVE AND REPLACE TOPSOIL

Prior to beginning resurfacing operations, a 4" depth of topsoil will be bladed down the respective inslope and left in a windrow 16'+/- from the subgrade shoulder. Following completion of resurfacing operations, topsoil will be bladed back up the inslope to the point indicated on the typical section.

The estimated amount of topsoil to be removed and replaced is 19,851 CuYd.

All costs associated with removing and replacing the topsoil along areas to be resurfaced will be incidental to the contract lump sum price for "Remove and Replace Topsoil".

WATER FOR COMPACTION

The cost of water for compaction of the granular material will be incidental to the various other contract items. Six percent plus or minus moisture will be required at the time of compaction unless otherwise directed by the Engineer.

INTERSECTING ROADS AND ENTRANCES

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

COLD MILLING ASPHALT CONCRETE

The Los Angeles Abrasion Loss value on the aggregate used for the in-place asphalt concrete was 22. This value was obtained from testing during construction of the in-place asphalt concrete.

Cold milling asphalt will be done according to the typical section. In areas where maintenance patches have raised and/or widened the road, additional asphalt concrete will be milled to provide a uniform typical section from centerline to the edge of the finished shoulder. These areas also include farm, residential, field entrances and intersecting roads. Milling will be daylighted to the outside edge of the roadway. Any additional costs associated with this additional cold milling will be incidental to the contract unit price per square yard for Cold Milling Asphalt Concrete.

Cold milling asphalt is estimated to produce **8838.7** tons of cold milled asphalt concrete material. An estimated **336.3** tons of cold milled asphalt concrete material will be blended with Granular Material, Furnish and will be used on this project as Base Course, Salvaged at the locations identified in the plans. An estimated **3976.6** tons ALT A & **4077.5** tons ALT B of cold milled asphalt concrete material will be used on this project as RAP in the Class Q2R Hot Mixed Asphalt Concrete mixture. The Contractor is responsible to assure enough asphalt concrete salvage is available for the Class Q2R Hot Mixed Asphalt Concrete.

The remainder of the salvaged asphalt concrete material will be blended and stockpiled at the Reliance SDDOT Maintenance Shop.

GRANULAR MATERIAL, FURNISH

Granular material will be furnished by the Contractor for use in blending with the salvaged asphalt mix material from this project.

The granular material will be Base Course meeting the requirements of Section 882.

BASE COURSE, SALVAGED

Base Course, Salvaged will be obtained from the stockpile site(s) and may be used without further gradation testing.

The Contractor will ensure the Base Course, Salvaged material contains no more than 50% salvaged asphalt mix material and at least 50% granular material (salvaged or virgin). Blended material will be to the satisfaction of the Engineer.

All other requirements for Base Course, Salvaged will apply.

BLEND, HAUL, AND STOCKPILE GRANULAR MATERIAL

Excess salvaged asphalt concrete material estimated at 4424.9 tons (for informational purposes only) will be blended with 4424.9 tons of Granular Material, Furnish and will be hauled, blended and stockpiled in the south west quarter of Section 35, Township 105 North, Range 73 West of the 5th P.M, Lyman County, South Dakota at the Reliance SDDOT Maintenance Shop. The Contractor will have approval from the Engineer of the stockpile location prior to stockpiling the material within the aforementioned site.

A computerized scale, portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale along with a scale operator will be provided by the Contractor at the stockpile site to weigh the salvaged material prior to blending.

The salvaged asphalt concrete material will be crushed to meet the requirements of Section 884.2 D.2 prior to blending into the stockpile.

Salvaged asphalt concrete material will be blended with Granular Material, Furnish at a rate of 50% salvaged asphalt mix material and 50% Granular Material, Furnish to obtain stockpile material.

No further gradation testing of the blended material will be required.

All other costs for crushing, hauling, stockpiling, and blending salvaged asphalt concrete material and Granular Material, Furnish will be incidental to the contract unit price per ton for "Blend, Haul & Stockpile Granular Material".

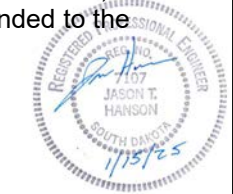
BLEND AND STOCKPILE GRANULAR MATERIAL

An Estimated 336.3 tons (for informational purposes only) of Salvaged Asphalt Mix Material will be blended with 336.3 tons of Granular Material, Furnish and stockpiled at the Contractor's furnished stockpile site.

The Contractor will use a portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale to control the blending and weighing of the salvage material with Contractor furnished granular material.

The salvaged asphalt mix material will be crushed to meet the requirements of Section 884.2 D.2 prior to blending into the stockpile.

Salvaged asphalt mix material will be blended with Granular Material, Furnish at a rate of 50% salvaged asphalt mix material and 50% Granular Material, Furnish to obtain stockpile material. Material will be uniformly blended to the satisfaction of the Engineer.



BLEND AND STOCKPILE GRANULAR MATERIAL, continued

No further gradation testing of the blended material will be required.

All costs for crushing the salvaged asphalt mix material, stockpiling, and blending the materials will be incidental to the contract unit price per ton for Blend and Stockpile Granular Material.

CONTRACTOR FURNISHED BORROW EXCAVATION

The Contractor will provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material will be approved by the Engineer. The plans quantity for "Contractor Furnished Borrow Excavation" as shown in the Estimate of Quantities will be the basis of payment for this item.

Restoration of the Contractor furnished borrow excavation site will be the responsibility of the Contractor.

UNCLASSIFIED EXCAVATION, DIGOUTS

The locations and extent of digout areas will be determined in the field by the Engineer. The backfilling material for the digouts will be Asphalt Concrete Composite and Base Course. The depth of asphalt will match the in-place thickness.

Included in the Estimate of Quantities are 50 cubic yards of Unclassified Excavation, Digouts and 75 square yards of Remove Asphalt Concrete Pavement per mile for the removal of asphalt and unstable material throughout the project.

Included in the Estimate of Quantities are 100 tons of Base Course and 25 tons of Asphalt Concrete Composite per mile for backfill of Unclassified Excavation, Digouts.

The digouts will be extended through the shoulder and backfilled with granular material that will daylight to the inslope to allow water to escape the subsurface.

ASPHALT CONCRETE BLADE LAID

Included in the Estimate of Surfacing Quantities are 150 tons of Asphalt Concrete Blade Laid, 1.5 tons of Hydrated Lime, and 11.1 tons of PG 58-34 Asphalt Binder per mile and will be tight bladed on the existing surface 24 feet wide prior to the overlay.

Mineral Aggregate for tight bladed material will use only the fine aggregate components combined in the same proportions as the Class Q2R Hot Mixed Asphalt Concrete mix. Quality testing is not required on the coarse aggregate (+No. 4 sieve) in this mixture.

The Asphalt Concrete Blade Laid Lift will be designed using an N_{design} Gyratory Compactive Effort of 65. The asphalt binder content will be determined so that the air voids of Asphalt Concrete Blade Laid Lift are between 3.0% and 5.0%.

Included in the Estimate of Surfacing Quantities are 62.5 tons of SS-1h or CSS-1h Asphalt for Tack for use prior to the application of the Blade Laid lift. (Rate = 0.09 Gal./Sq.Yd.)

CONTRACTOR FURNISHED ASPHALT CONCRETE**Projects:**

049-392 PCN I7AG – 1,000 tons ~ SD 49 from US18 to SD44

An estimated 1,000 tons of Asphalt Concrete will be produced by the Contractor for use by Department of Transportation Maintenance forces at locations other than on this project.

The Contractor Furnished Asphalt Concrete will be produced in accordance with the same specifications and job mix requirements as the Class Q2R Hot Mixed Asphalt Concrete used on the project.

The material will be loaded, directly from the plant, into Department of Transportation trucks. The Contractor will not be expected to disrupt the paving operations in order to produce this material, but it is the intent that it be produced intermittently during the course of this project and only during the normal hours of plant operation.

All costs involved in producing the Contractor Furnished Asphalt Concrete and loading into Department of Transportation trucks will be measured and paid for at the contract unit price per ton for "Contractor Furnished Asphalt Concrete", Alternate A or Alternate B.

An estimated 10.0 tons of "Hydrated Lime" to be used in the production of Contractor Furnished Asphalt Concrete will be measured and paid for at the contract unit price per ton for "Hydrated Lime".

Alternate A:

An estimated 46.0 tons of PG 58-34 Asphalt Binder to be used in the production of Contractor Furnished Asphalt Concrete will be measured and paid for at the contract unit price per ton for "PG 58-34 Asphalt Binder".

Alternate B:

An estimated 37.0 tons of PG 58-34 Asphalt Binder to be used in the production of Contractor Furnished Asphalt Concrete will be measured and paid for at the contract unit price per ton for "PG 58-34 Asphalt Binder."

ASPHALT CONCRETE COMPOSITE

Section 324 will apply except that Class Q2R Hot Mixed Asphalt Concrete as specified elsewhere in the plans may be used as Asphalt Concrete Composite.

Plans specified locations for Asphalt Concrete Composite will be paid for at the contract unit price per ton for Asphalt Concrete Composite regardless of the class of asphalt concrete used at such locations.

CLASS Q2R HOT MIXED ASPHALT CONCRETE**Mineral Aggregate:**

Asphalt concrete aggregates will consist of reclaimed asphalt pavement (RAP) and virgin aggregate.

Virgin mineral aggregate for Class Q2R Hot Mixed Asphalt Concrete-Alternate A will conform to the requirements of Class Q2.

Virgin mineral aggregate for Class Q2R Hot Mixed Asphalt Concrete-Alternate B will consist of a minimum of 80 percent crushed limestone ledge rock and will conform to the requirements of Class Q2.

The Class Q2R Hot Mixed Asphalt Concrete will include 20 percent RAP in the mixture. RAP will be obtained from the material produced by cold milling on this project.

Mix Design Criteria – Alternate B:

Gyratory Controlled QC/QA Mix Design requirements for the Class Q2R Hot Mixed Asphalt Concrete will conform to the requirements of Class Q2 except as modified by the following:

Voids in Mineral Aggregate (VMA):

	Minimum VMA (%):
Class Q2R	13.0

Pay Factor Attributes – Alternate B:**Air Voids:**

	Air Voids (%):
Class Q2R	3.5 ± 1.0

All remaining requirements for Class Q2 will apply.

ADDITIONAL QUANTITIES

Provide 100 tons of Class Q2R Hot Mixed Asphalt Concrete, 1.0 tons of Hydrated Lime, and 4.6 tons of PG 58-34 Asphalt Binder per mile for Alt A, and 100 tons of Class Q2R Hot Mixed Asphalt Concrete, 1.0 tons of Hydrated Lime, and 3.7 tons of PG 58-34 Asphalt Binder per mile for Alt. B for spot leveling, strengthening, and repair of the existing surface for the entire project.

Provide 2.4 tons of SS-1h or CSS-1h Emulsified Asphalt for Tack for repair and leveling areas throughout the project.

FLUSH SEAL

Application of flush seal will be completed within 10 working days following completion of the asphalt concrete surfacing.

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



TABLE OF MATERIAL QUANTITIES

Description	Water for Granular Material **(MGal)	Cold Milling Asphalt Concrete		Remove Asphalt Concrete Pavement (SqYd)	Contractor Furnished Borrow Excavation (CuYd)	Granular Material (Ton)	Base Course (Ton)	Base Course, Salvaged (Ton)	Granular Material, Furnish (Ton)	*Granular Material, Furnish (Ton)	Blend & Stockpile Granular Material (Ton)	*Blend, Haul & Stockpile Granular Material (Ton)	Asphalt Concrete Blaid Laid (Ton)	Asphalt Concrete Composite (Ton)	ALTERNATE A			ALTERNATE B			SS-1h or CSS-1h Asphalt For Tack (Ton)	SS-1h or CSS-1h Asphalt For Flush Seal (Ton)	Sand For Flush Seal (Ton)
		(SqYd)	** (Ton)												Class Q2R Hot Mixed Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Hydrated Lime (Ton)	Class Q2R Hot Mixed Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Hydrated Lime (Ton)			
Section 1	-	174,498	8,499.8		-	-	-	-	-	-	-	-	-	-	18,337.3	837.4	180.8	18,841.7	694.7	190.3	42.8	33.3	494.8
Table of Additional Quantities Totals	30.5	5,435	338.9	75.0	693	121.8	1,171.3	672.5	336.3	4,424.9	672.5	8,849.8	1,427.4	240.4	1,537.2	222.9	39.5	1,547.4	208.2	36.8	71.4	0.6	9.8
TOTAL	30.5	179,933	8,838.7	75.0	693	121.8	1,171.3	672.5	336.3	4,424.9	672.5	8,849.8	1,427.4	240.4	19,874.5	1,060.3	220.3	20,389.1	902.9	227.1	114.2	33.9	504.6

* Denotes Non-Participating
 ** Provided for informational purpose only



TABLE OF ADDITIONAL QUANTITIES

Description	Water for Granular Material **(MGal)	Cold Milling Asphalt Concrete		Unclassified Excavation, Digouts (CuYd)	Remove Asphalt Concrete Pavement (SqYd)	Contractor Furnished Borrow Excavation (CuYd)	Granular Material (Ton)	Base Course (Ton)	Base Course, Salvaged (Ton)	Granular Material, Furnish (Ton)	*Granular Material, Furnish (Ton)	Blend & Stockpile Granular Material (Ton)	Asphalt Concrete Composite (Ton)	*Blend, Haul & Stockpile Granular Material (Ton)	Asphalt Concrete Blade Laid (Ton)	Alternate A			Alternate B			SS-1h or CSS-1h Asphalt For Tack (Ton)	SS-1h or CSS-1h Asphalt For Flush Seal (Ton)	Sand For Flush Seal (Ton)		
		(SqYd)	** (Ton)													Class Q2R Hot Mixed Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Hydrated Lime (Ton)	Class Q2R Hot Mixed Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Hydrated Lime (Ton)					
Asphalt to End of ROW																										
9 Intersecting Road, Private, and Residential Entrances (Refer to "Table of Approaches" sheet for locations)	-	2,290	120.2	-	-	-	-	-	-	-	-	-	-	-	-	145.7	6.7	1.5	151.5	5.6	1.5	0.6	-	-	-	
Farm & Field Entrances																										
37 Intersecting Road, Private, Farm, and Field Entrances (Refer to "Table of Approaches" sheet for locations)	6.3	-	-	-	-	-	-	-	652.9	326.5	-	652.9	-	-	-	111.0	5.1	1.1	115.4	4.3	1.2	-	-	-	-	
Structure Approach Pavement Reconstruction																										
Begin Bridge Approach Limits	-	1,252	92.7	-	-	30	-	-	11.1	5.6	-	11.1	-	-	-	137.4	6.4	1.4	137.4	-	-	0.3	0.3	4.9	-	
End Bridge Approach Limits	-	1,249	92.2	-	-	23	-	-	8.5	4.2	-	8.5	-	-	-	137.4	6.4	1.4	137.4	-	-	0.3	0.3	4.9	-	
Blend, Haul & Stockpile Cold Milled Material																										
Blend, Haul & Stockpile Cold Milled Material	-	-	-	-	-	-	-	-	-	-	4,424.9	-	-	8,849.8	-	-	-	-	-	-	-	-	-	-	-	-
Cold Milling Transitions:																										
Begin Project	-	322	16.9	-	-	-	-	-	-	-	-	-	-	-	-	18.2	0.8	0.2	18.2	0.8	0.2	-	-	-	-	
End Project	-	322	16.9	-	-	-	-	-	-	-	-	-	-	-	-	18.2	0.8	0.2	18.2	0.8	0.2	-	-	-	-	
Asphalt Concrete Blaid Laid																										
Asphalt Concrete Blaid Laid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,427.4	-	105.6	14.3	-	105.6	14.3	62.5	-	-	-	
Spot Leveling, Strengthening, & Repair																										
Spot Leveling, Strengthening, & Repair	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	969.3	91.1	19.4	969.3	91.1	19.4	7.7	-	-	-	
Backfill for Digouts																										
Backfill for Digouts	9.3	-	-	476	-	-	-	969.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pipe Repair																										
Pipe Repair	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A134+99	7.5	-	-	-	37.5	-	68.0	101.0	-	-	-	-	120.2	-	-	-	-	-	-	-	-	-	-	-	-	-
A167+97	7.5	-	-	-	37.5	-	53.8	101.0	-	-	-	-	120.2	-	-	-	-	-	-	-	-	-	-	-	-	-
E469+27	-	-	-	-	-	640.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	30.5	5,435	338.9	476	75	693	121.8	1,171.3	672.5	336.3	4,424.9	672.5	240.4	8,849.8	1,427.4	1,537.2	222.9	39.5	1,547.4	208.2	36.8	71.4	0.6	9.8		

* Denotes Non-Participating

** Provided for informational purpose only

*** Note ~ A portion of Class Q2R Hot Mixed Asphalt Concrete shall be to "Specified Density Compaction".

Tonnage shown in the tables above for Class Q2R Hot Mixed Asphalt Concrete is based on a compacted depth as detailed in the plans.


The quantities above are included in the Material Quantities table in the "Table of Material Quantities" sheet.

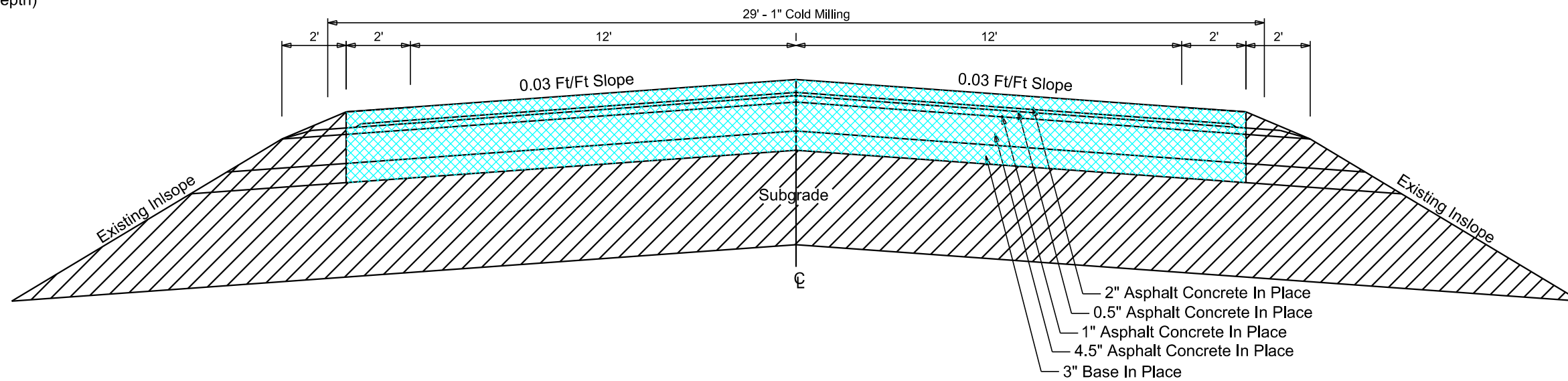


MAINLINE PIPE CULVERT REPLACEMENT DETAIL

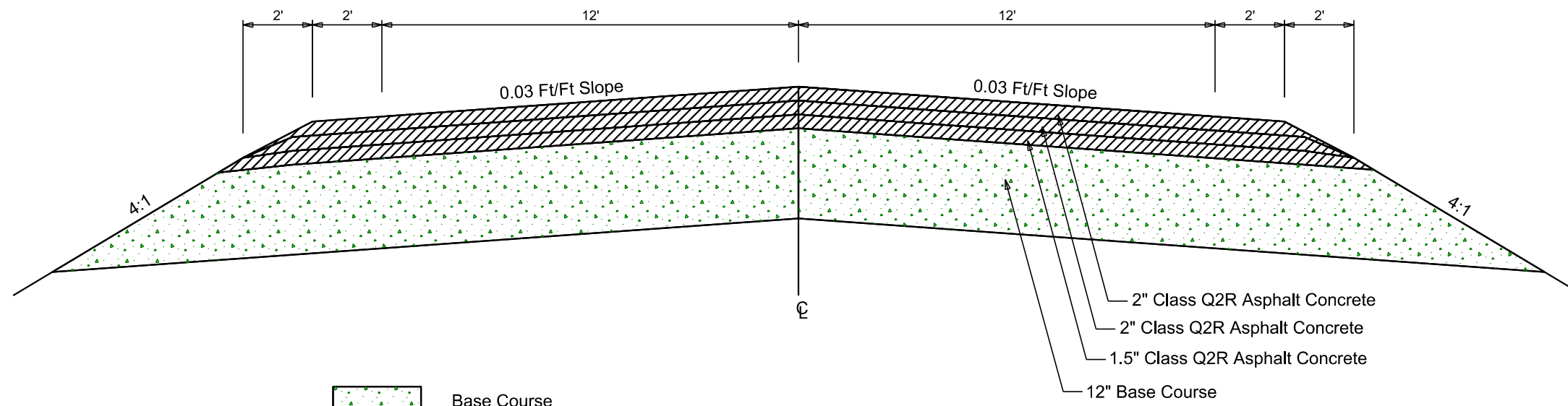
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0047(122)58 049-392	46	82
Plotting Date: 1/15/2025		REV. 1-15-25 JT	


SECTION 1 (Pipe Culvert Replacement Sites) SD 47 PCN 06Q8 135+00 168+00

 Unclassified Excavation
(Salvage and Stockpile Asphalt Mix
and Granular Base Material)
(10.5" depth)



Station A2+00 to Station F509+79 (Thru Equations) RESURFACING TYPICAL SECTION 1



 Base Course



Plot Scale - 1:200

Plotted From - Justin

File - ...Mainline Pipe Replacement.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0047(122)58 049-392	75	82

REV. 1-15-25 JT

