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Southeast Technical Institute Tech Center – Parking Lot Improvements (Schedule A)

Career Technical Academy – Parking Lot Improvements (Schedule B)

PD #3266

CONTRACTOR'S BID DATE:

Friday, March 6, 2020, 11:00 AM

PLACE FOR CONTRACTOR'S TO SUBMIT BIDS:

Central Services Center Attn: Jeff Kreiter 1101 North Western Avenue Sioux Falls, SD 57104

ADDENDUM NO. 1

March 3, 2020

TO ALL PLANHOLDERS:

The following changes, additions, and/or deletions are hereby made a part of the contract documents for the above-referenced project, as fully and completely as if the same were fully set forth therein:

Sheet 2

Revised "Cement Stabilized Subgrade" Note:

Deleted sentence reading: "Payment will be based on per square yard of cement stabilized subgrade constructed."

Added two paragraphs, defining how "Cement for Stabilization" will be measured, paid for, and guidance for bidding cement quantity.

Revised "Asphalt Concrete Composite" Note:

Last paragraph of note read: "The bid item "Asphalt Pavement" shall include all labor, material, and equipment necessary to perform cement stabilization, grade subgrade, place aggregate base course, and place asphalt pavement."

Last paragraph of note now reads: "The bid item "Asphalt Pavement" shall include all labor, material (except cement), and equipment necessary to perform cement stabilization, grade subgrade, place aggregate base course, and place asphalt pavement."

Sheet 3				
Added Sched	ule A Bid Item	:		
Line Item	15	"Cement for Stabilization"	TON	287
Added Schedu	ule B Bid Item	:		
Line Item	15	"Cement for Stabilization"	TON	141

Sheet 6

Added Existing Asphalt Section.

Sheet 14 Added Existing Asphalt Section.

Project Specifications

Geotek Report #19-012 included with this addendum.

All bidders shall discard the original proposal form and use the revised proposal form included with this addendum.

All bidders shall acknowledge receipt and acceptance of ADDENDUM NO. 1 by signing the space provided on the Proposal Form.

END OF ADDENDUM NO. 1

Southeast Technical Institute Tech Center - Parking Lot Improvements (Schedule A)

Career Technical Academy Parking Lot Improvements (Schedule B)

PD #3266

Sioux Falls School District No. 49-5 Sioux Falls, South Dakota

Bid Form

Single Prime Contract Work

To:	School District of Sioux Falls School District No. 49-5 of Minnehaha County, South Dakota
Bids due:	11:00 AM, Friday, March 6, 2020 Central Services Center 1101 North Western Avenue Sioux Falls, SD 57104

The undersigned, having familiarized (himself)(herself) with the local conditions affecting the cost of the work at the place where work is to be done, and with Drawings, project Manual, Addenda, Instructions to Bidders, General Conditions for a Public Improvement Contract, and Special Conditions and other Contract Documents which govern the purchase of materials, labor, and awarding of contracts: hereby proposes and agrees to perform everything required to be performed, and to provide any and all labor, materials, equipment, tools and plants necessary to complete, all work required to complete the **Southeast Technical Institute – Tech Center Parking Lot Improvements (Schedule A) and the Career Technical Academy Parking Lot Improvements (Schedule B)** for the SIOUX FALLS SCHOOL DISTRICT 49-5 located in Sioux Falls, South Dakota; all in strict conformance with the Drawings and Project Manual dated February 14, 2020, for the following **SCHEDULE A AND SCHEUDLE B ITEMS**:

ltem No.	Item Description	Unit	Est. Quantity	Unit Cost	Total Cost
1	Mobilization	LS	1		
2	Erosion Control	LS	1		
3	Traffic Control	LS	1		
4	Remove Concrete Curb and Gutter	FT	50		
5	Remove Asphalt Pavement	SY	12,696		
6	Remove Concrete Pavement	SY	65		
7	Saw Existing Asphalt	FT	751		

ADDENDUM NO. 1

ltem No.	Item Description	Unit	Est. Quantity	Unit Cost	Total Cost									
8	Saw Existing PCC Pavement	FT	27											
9	Concrete Curb and Gutter	FT	50											
10	Concrete Sidewalk	SY	16											
11	Asphalt Pavement													
12	Asphalt for Patching	1,240												
13	Place Sod	LS	1											
14	Striping Parking Lot	LS	1											
15	Cement for Stabilization	TON	287											
	SCHEDULE A:													
ltem No.	Item Description	Unit	Est. Quantity	Unit Cost	Total Cost									
1	Mobilization	LS	1											
2	Erosion Control	LS	1											
3	Traffic Control	LS	1											
4	Remove Concrete Curb and Gutter	FT	50											
5	Remove Asphalt Pavement	SY	6,302											
6	Remove Concrete Pavement	SY	32											
7	Saw Existing Asphalt	FT	985											
8	Saw Existing PCC Pavement	FT	104											
9	Concrete Curb and Gutter	FT	50											
10	Concrete Sidewalk	SY	32											
11	Asphalt Pavement	SY	5,647											
12	Asphalt for Patching	SY	655											
13	Place Sod	LS	1											
14	Striping Parking Lot	LS	1											
15 Cement for Stabilization TON 141														
SCHEDULE B:														
GRAND TOTAL (SCHEDULE A + B):														

ADDENDUM NO. 1

The foregoing proposal includes all applicable state and municipal use taxes and all other State and Federal Taxes that would affect the amount of the proposal. Realty improvement Contractor's excise tax shall be included if applicable.

The cost of Performance Bond and Labor/Material Payment Bond, each in the amount equal to 100% of the total contract amount is included in this proposal.

Within ten (10) days after Contractor's receipt of the Construction Contract Document, the Contractor shall submit to the School District, the Performance Bond, Labor and Material Payment Bond and Certificates of Insurance as required.

The bidder hereby agrees to commence work under this contract on or after **May 26, 2020** and fully complete all work in accordance with the Project Schedule described in the Special Conditions. The overall completion date for this project is **August 14, 2020**.

Accompanying this proposal is a Certified check, or Cashier's Check for five (5%) of the amount of the bid, (including add alternates), such Check to be certified or issued by either a State or National Bank, and payable to the Sioux Falls School District, or in lieu thereof, a Bid Bond for ten percent (10%) of the amount bid, such Bond is to be issued by a surety authorized to do business in the State of South Dakota and payable to the School District. The Check or Bond guarantees the execution of a contract and shall be held by the School District until said contract is executed. (SDCL 5-18-6 and 13-20-7).

In submitting this proposal, it is understood that the right is reserved by the School District to reject any and all bid or parts thereof, and to waive any irregularities.

If there is a discrepancy between unit bid prices and extensions, the unit bid price shall govern. This request will be evaluated and a contract award made to the lowest bid, inclusive of selected alternates if applicable, from a responsive and responsible bidder deemed to be in the best interest of the Owner and as allowed by project budget.

It is understood and agreed that the quantities of material to be furnished and work to be done may be varied on construction as may be deemed advisable by the Owner. It is further understood and agreed that the Owner may, at its option, delete items from the contract.

The bid includes all local, state, and federal taxes that would affect the amount of the bid.

The bidder will commence work and shall complete all work in accordance with the project schedule on Sheet SC-1 of the Special Conditions included in the bid documents. Liquidated damages in the amount of \$500 per working day may be assessed until substantial completion is achieved.

The undersigned acknowledges receipt of the following addenda to the plans and/or specifications (give number and date of each):

ADDENDUM NO. ______ _____

DATED: ______ ______ _____

The undersigned submits herewith the bid security required by the Contract Documents.

It is understood that the right is reserved by the Owner to reject any or all bids, and it is agreed that this bid may not be withdrawn during the period of days provided in the Contract Documents.

A computer prepared and printed proposal form is attached to this proposal form. Yes 🗌 No 🗌

Respectfully submitted,

Ву		
Federal Tax I.D. No		
	(DO NOT OMIT)	
Excise Tax No.		

Sales Tax No. _____

OFFICIAL ADDRESS AND PHONE NUMBER:

Address

City, State, Zip

Phone Number

Fax

Email Contact

ADDENDUM NO. 1



GEOTEK ENGINEERING & TESTING SERVICES, INC. 909 East 50th Street North Sioux Falls, South Dakota 57104 Phone 605-335-5512 Fax 605-335-0773 www.geotekeng.com

January 17, 2019

Sioux Falls School District 49-5 Central Services Center 1101 N. Western Avenue Sioux Falls, SD 57104

Attn: Mr. Jeff Kreiter

- Subj: Proposed Parking Lot Improvements Southeast Technical Institute 2205 N Career Avenue GeoTek #19-012
- Cc: Sayre Associates, Monty Miller, P.E.

Introduction

We are submitting this correspondence to present our pavement section recommendations for the referenced project. Our work was performed in accordance your verbal authorization.

Project Information

We understand the project will consist of reconstructing the pavement areas on the north and west side (north half) of the Southeast Technology Center building.

Subsurface Conditions

In general, the subsurface profile consisted of the following layers: pavement section and loess soils. The pavement section consisted of 3 to 5 inches of asphalt surfacing over 4 to 10 inches of aggregate base course. The loess soils were encountered below the aggregate base course. Loess soils are composed of primarily silt and clay soils (80% to 100%) and have been wind deposited. Also, the upper 3 to 6 inches of the loess soils were frozen.

Groundwater did not enter the test borings. However, a long period of time is generally required for groundwater to stabilize in the clay soils encountered at the test boring locations. Long term water level monitoring was not included in our scope of work.

We would like to point out that the subsurface conditions at other locations at the site may differ from those found at our test boring locations. If different conditions are encountered during construction, it is important that you contact us so that our recommendations can be reviewed.

Discussion

The loess soils encountered at the test boring location are considered low strength soils. They are prone to instability under traffic load when they become saturated. Soil saturation typically occurs in the spring and fall. Also, if these soils freeze when they are saturated, then they typically heave and cause differential surface movement.

Therefore, we recommend considering 3 options for subgrade preparation: 1.) soil cement stabilization, 2.) geotextile and additional base course, and 3.) moisture conditioning and recompacting the subgrade. It should be noted that we do not consider these 3 options equivalents. Also, with all of the recommendations effective surface drainage is important to pavement life.

For options 2 and 3, after the subgrade soils have been scarified to the recommended moisture content and recompacted to the specified compaction level, we recommend performing a proof roll with a loaded truck weighing between 15 and 25 tons. During the proof roll, unstable areas in the subgrade should be delineated from the stable areas. Unstable areas will need additional corrections to provide a uniform and stable subgrade condition. Additional corrections may include the following: moisture conditioning the soils to a level of -1% to -4% below optimum moisture, performing an overexcavation to remove and replace the unstable subgrade soils, increasing the thickness of the aggregate base layer, or including a geotextile or geogrid into the design of the pavement section. The type of correction performed should be determined based on the season and after observing the performance of the subgrade during the proof roll test.

Site Preparation Recommendations

Option 1: Soil Cement Stabilization

For the soil-cement stabilization option, the existing pavement section should be removed and the subgrade should be graded to top of subgrade elevation.

The City of Sioux Falls standard specification for cement stabilized subgrades should be followed for the project. A cement application rate of 5% (approximately 50 pounds per square yard) for a depth of 12 inches should be used as bid quantity estimate.

This option requires less earthwork to complete and the surface is typically not affected by rain after it has been compacted and properly cured; the final product remains hard, durable, and suitable for construction traffic.

Option 2: Geotextile Fabric and Additional Base Course

For this option, we recommend removing the existing asphalt and base course and grading the subgrade soils to top of subgrade elevation. Prior to placing the geotextile fabric, we recommend scarifying the upper 12 inches of the subgrade. The scarification process should result in a uniform and stable subgrade condition with in-place moisture contents of - 1% to - 4% of the soil's optimum moisture content and compaction levels of at least 98% (ASTM D698). Uniformity and stability should be observed by performing a proof roll. The subgrade should be considered unstable if deflection greater than 2 inches is observed.

After the subgrade is prepared and is suitable for traffic support, we recommend placing and compacting 12 inches of aggregate base course over a layer of geotextile fabric.

Option 3: Moisture Conditioning and Compaction

This option involves the most earthwork and risk. We recommend reworking the soils in the upper 2 feet of the subgrade. The subgrade soils should be moisture conditioned within a range of - 1% to - 4% of the soil's optimum moisture content and compacted to 98% of the maximum dry density value (ASTM D698). If necessary, suitable clay fill soils should be used to achieve top of subgrade elevations. Uniformity and stability should be observed by performing a proof roll. The subgrade should be considered unstable if deflection greater than 1 inch is observed.

Pavement Sections

Our recommended pavement sections assume the subgrade soils are in a stable condition following the site preparation for 1 of the 3 recommended options. These pavement sections are not based on

project specific traffic loads (no traffic loads were provided). Our recommendations are based on primarily passenger vehicles with infrequent delivery trucks/garbage trucks.

Subgrade Preparation Option	Aggregate Base Course, in.	Asphalt Surfacing, in.
Option 1	4	4
Option 2	12 with geotextile	4
Option 3	12	4

Table 1: Recommended Pavement Sections

Material Types and Compaction Level

Aggregate Base Course Material – We recommend that the aggregate base course materials meet the South Dakota Department of the Transportation specifications as found in the Standard Specifications for Roads and Bridge Manual, 2015 (Section 882).

Clay Backfill – A clay backfill material should consist of non-organic clay soils, having a liquid limit less than 45 and a plastic limit between 15 and 35. On-site soils may be considered for reuse as clay backfill.

Recommended Compaction Levels – The recommended compaction levels listed in Table 2, on the following page, are based on a material's maximum dry density value, as determined by a standard Proctor (ASTM: D698) test for the gravel materials and Moisture-Density Relations of Soil-Cement Mixtures (ASTM: D558).

Table 2: Recommended Compaction Levels

Placement Location	Compaction Specifications, %
Soil-Cement	95
Subgrade Below Pavement Areas	98*
Base Course Below Pavement Areas	97

*Not applicable for Option 1

Recommended Moistures Levels – We recommend that the aggregate base course materials be maintained at a moisture content that is conducive to compaction. The moisture content of clay subgrade soils should be maintained within a range -1% to -4% of the soil's optimum moisture content.

Hot Mix Asphalt Surfacing – We recommend that a material with an E or G gradation (Section 880 South Dakota Department of Transportation (SDDOT) Standard Specifications for Roads and Bridges, 2015) be used, and that the binder oil have a grading of PG 58-34. The hot mix asphalt should be compacted to a minimum of 92% of the material's theoretical maximum specific gravity as determined by test method SD312.

Geotextile Fabric – The geotextile fabric should consist of Mirafi HP 370, Propex Geotex 3x3 HF, Huesker Comtrac P 45/45 or an approved alternative. The geotextile fabric should be installed according to the manufacturer's recommendations beneath the aggregate base course on the prepared subgrade.

<u>Remarks</u>

The recommendations submitted in this report represent our professional opinions. Our services for this project were performed in a manner consistent with that level of care and skill ordinarily exercised by members of the engineering profession currently practicing at this time and area.

This report was prepared by: GeoTek Engineering & Testing Services, Inc.







Denotes the approximate location of the test borings

Test Boring Location Image Proposed Parking Lot Improvements Southeast Technical Institute 2205 N. Career Avenue Sioux Falls, South Dakota
 Project #:
 19-012

 Date:
 1/15/2019

 Prepared By:
 MJT





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GEOTEK ENGINEERING & TESTING SERVICES, INC. 909 E 50th Street N Sioux Falls, SD 57104 605-335-5512 Fax 605-335-0773 www.geotekeng.com

GEOTE	EK# 19-012		BORING NO 5 (1 of 1)													
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GEOTECHNICAL TEST BORING 19-012.GPJ GEOTEKENG.GDT 1/16/19

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL	
			GRAPH	LETTER	DESCRIPTIONS	
	GRAVEL AND	CLEAN GRAVELS		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
	GRAVELLY SOILS	(LITTLE OR NO FINES)		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
COARSE GRAINED SOILS	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
		(APPRECIABLE AMOUNT OF FINES)		GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
MORE THAN 50%	SAND AND	CLEAN SANDS		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
LARGER THAN NO. 200 SIEVE SIZE	SANDY SOILS	(LITTLE OR NO FINES)		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES		SM	SILTY SANDS, SAND - SILT MIXTURES	
		(APPRECIABLE AMOUNT OF FINES)		SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
FINE GRAINED SOILS				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE	SILTS AND CLAYS			MH INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS		
SIZE		LIQUID LIMIT GREATER THAN 50		СН	INORGANIC CLAYS OF HIGH PLASTICITY	
				ОН	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS		

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SYMBOLS FOR DRILLING AND SAMPLING

<u>Symbol</u>	Definition
Bag	Bag sample
CS	Continuous split-spoon sampling
DM	Drilling mud
FA	Flight auger; number indicates outside diameter in inches
HA	Hand auger; number indicates outside diameter in inches
HSA	Hollow stem auger; number indicates inside diameter in inches
LS	Liner sample; number indicates outside diameter of liner sample
Ν	Standard penetration resistance (N-value) in blows per foot
NMR	No water level measurement recorded, primarily due to presence of drilling fluid
NSR	No sample retrieved; classification is based on action of drilling equipment and/or material noted in drilling fluid or on sampling bit
SH	Shelby tube sample: 3-inch outside diameter
SPT	Standard penetration test (N-value) using standard split-spoon sampler
SS	Split-spoon sample: 2-inch outside diameter unless otherwise noted
WI	Water level directly measured in boring
V	Water level symbol

SYMBOLS FOR LABORATORY TESTS

Symbol	Definition
WC	Water content, percent of dry weight; ASTM:D2216
D	Dry density, pounds per cubic foot
LL	Liquid limit; ASTM:D4318
PL	Plastic limit; ASTM:D4318
QU	Unconfined compressive strength, pounds per square foot; ASTM:D2166

DENSITY/CONSISTENCY TERMINOLOGY

Density		Consistency
Term	<u>N-Value</u>	Term
Very Loose	0-4	Soft
Loose	5-8	Firm
Medium Dense	9-15	Stiff
Dense	16-30	Very Stiff
Very Dense	Over 30	Hard

PARTICLE SIZES

Term	Particle Size
Boulder	Over 12"
Cobble	3" – 12"
Gravel	#4 – 3"
Coarse Sand	#10 – #4
Medium Sand	#40 – #10
Fine Sand	#200 – #40
Silt and Clay	passes #200 sieve

DESCRIPTIVE TERMINOLOGY

<u>Term</u>	Definition
Dry	Absence of moisture, powdery
Frozen	Frozen soil
Moist	Damp, below saturation
Waterbearing	Pervious soil below water
Wet	Saturated, above liquid limit
Lamination	Up to 1/2" thick stratum
Layer	¹ / ₂ " to 6" thick stratum
Lens	$^{1\!\!/_2\!\!\!2}$ to 6" discontinuous stratum

GRAVEL PERCENTAGES

<u>Term</u>	<u>Range</u>
A trace of gravel	2-4%
A little gravel	5-15%
With gravel	16-50%

SCOPE OF PROJECT:

THIS PROJECT PROVIDES FOR THE FOLLOWING IMPROVEMENTS:

- PAVEMENT & GRAVEL REMOVAL
- CEMENT TREATED SUBGRADE
- CURB & GUTTER AND SIDEWALK REPLACEMENT
- AGGREGATE BASE COURSE ASPHALT AND CONCRETE SURFACING -
- STRIPING

SPECIFICATIONS TO BE USED:

THE CITY OF SIOUX FALLS CURRENT ADDITION OF GENERAL CONDITIONS FOR PUBLIC IMPROVEMENTS AND ALL APPLICABLE SUPPLEMENTAL STANDARD SPECIFICATIONS ARE HEREBY MADE A PART OF THESE SPECIFICATIONS IN THEIR ENTIRETY UNLESS OTHERWISE REVISED DELETED OR SUPPLEMENTED HEREIN

THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES CURRENT EDITION IS HEREBY MADE A PART OF THESE SPECIFICATIONS IN THEIR ENTIRETY UNLESS OTHERWISE REVISED DELETED OR SUPPLEMENTED HEREIN

THE CONTRACTOR CAN ACCESS THE CITY OF SIOUX FALLS SUPPLEMENTAL SPECIFICATIONS ON THE CITY WEB SITE (WWW.SIOUXFALLS.ORG)

SEQUENCE OF OPERATIONS:

ALL WORK ON THIS PROJECT MAY BEGIN ON OR AFTER MAY 26, 2020 AND ALL WORK ON PROJECT SHALL BE COMPLETED ON OR BEFORE AUGUST 14, 2020.

PROTECTION OF WORK & EXISTING FACILITIES:

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES, WARNING SIGNS, TRAFFIC CONTROL DEVICES, AND SAFETY FENCE AS NECESSARY TO PROVIDE FOR THE SAFETY OF THE PUBLIC.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES, PAVEMENT, STRUCTURES, FOUNDATIONS, RETAINING WALL, FENCES, POLES, SIGNS, TREES, AND OTHER IMPROVEMENTS NOT DESIGNATED FOR REMOVAL. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

THE PRIMARY CONSTRUCTION ACCESS FOR EQUIPMENT AND LOADED TRUCKS SHALL BE OFF CAREER AVENUE. THE SOUTH PORTION OF THE PARKING LOT SHALL BE PROTECTED FROM LOADED TRUCKS / EQUIPMENT AS MUCH AS POSSIBLE.

UTILITIES:

THE PLAN'S SHOWN LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO STARTING WORK. ANY TIME EXISTING UTILITIES IMPEDE THE PROGRESS OF WORK THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

ALL UTILITIES, WHETHER PRIVATELY OR PUBLICLY OWNED, SHALL BE MOVED, AS NECESSARY, BY THE UTILITY COMPANY OR COMPANIES, AS THE CASE MAY BE, WHEN ADVISED BY THE ENGINEER IN ADVANCE OF CONSTRUCTION AND NO PAYMENT SHALL BE MADE TO THE CONTRACTOR UNLESS SPECIFIED IN THE CONTRACT DOCUMENTS.

ANY DAMAGE DONE TO THE UTILITIES BECAUSE OF THE CONTRACTOR'S CARELESSNESS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

ABANDONED UTILITIES (GAS, TELEPHONE LINES, ETC.) ENCOUNTERED DURING CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

DRAWINGS ARE APPROXIMATE. THERE IS NO GUARANTEE THAT THE UTILITIES SHOWN INCLUDE ALL SUCH UTILITIES OR THAT THE LOCATIONS INDICATED ARE EXACT. THE CONTRACTOR SHALL CONTACT SOUTH DAKOTA ONE CALL SYSTEM AND UTILITY COMPANIES TO VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION

THE CONTRACTOR SHALL NOTIFY SOUTH DAKOTA ONE CALL AT 1-800-781-7474 TO HAVE UTILITIES FIELD LOCATED. THE SIOUX FALLS SCHOOL DISTRICT SHALL LOCATE EXISTING LIGHTING CONDUIT.

SAW EXISTING PAVEMENT:

WHERE NEW ASPHALT CONCRETE OR PCC PAVEMENT IS PLACED ADJACENT TO EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE SAWED FULL DEPTH TO A VERTICAL TRUE LINE. THE CONTRACTOR SHALL EXERCISE CARE TO ENSURE THAT THE ADJACENT SURFACE IS LEFT INTACT AND UNDAMAGED WHEN REMOVING THE SAWED OUT PORTION. ADDITIONAL SAWING REQUIRED TO FORM NEAT EDGES PRIOR TO PAVING WILL BE CONSIDERED INCIDENTAL.

WASTE DISPOSAL SITE:

ALL MATERIAL GENERATED FROM THIS PROJECT FOR DISPOSAL MUST BE DISPOSED OF AT A STATE-PERMITTED SOLID WASTE DISPOSAL SITE. DEPENDING ON WHAT MATERIAL IS GENERATED AND WHETHER IT IS CONTAMINATED OR UNCONTAMINATED WILL DETERMINE WHICH PERMITTED FACILITY CAN ACCEPT IT. PERMITTED FACILITIES INCLUDE CONSTRUCTION AND DEMOLITION DEBRIS SITES, RESTRICTED USE SITES, AND REGIONAL LANDFILLS. THE CONTRACTOR CAN CONTACT THE SIOUX FALLS REGIONAL SANITARY LANDFILL AT (605) 367- 8162 TO IDENTIFY LOCALLY PERMITTED DISPOSAL SITES FOR VARIOUS CATEGORIES OF CONTAMINATED AND UNCONTAMINATED MATERIALS.

ALL COSTS ASSOCIATED WITH DISPOSING OF WASTE SHALL BE CONSIDERED INCIDENTAL TO VARIOUS BID ITEMS.

REMOVE OR SALVAGE ASPHALT SURFACING

THE CONTRACTOR SHALL REMOVE OR SALVAGE, AT THEIR OPTION, THE ASPHALT SURFACING FOR REUSE ON THE PROJECT

THE BID ITEM "REMOVE ASPHALT PAVEMENT" SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO REMOVE THE EXISTING ASPHALT AND REMOVE/SALVAGE THE EXISTING AGGREGATE BASE COURSE

REMOVING, SALVAGING AND REPLACING GRAVEL SURFACING:

THE CONTRACTOR SHALL REMOVE AND MAY SALVAGE THE EXISTING GRAVEL BASE COURSE DOWN TO THE DESIGN SUBGRADE DEPTH (8" BELOW FINISH GRADE). THIS MATERIAL MAY BE STOCKPILED ON SITE FOR LATER USE.

IF THE BASE COURSE IS DETERMINED TO BE TOO CONTAMINATED WITH FINE MATERIAL AS DETERMINED BY THE ENGINEER, OR IF CLAY MATERIALS ARE ENCOUNTERED IN SOME AREAS BEFORE REACHING THE DESIGN SUBGRADE DEPTH, ADDITIONAL BASE COURSE MAY BE SALVAGED FROM OTHER AREAS.

AFTER COMPLETING THE CEMENT-TREATED SUBGRADE WORK, THE CONTRACTOR SHALL PLACE THE SALVAGED GRAVEL BASE COURSE OVER THE STABILIZED SUBGRADE.

GRADING OPERATIONS

CEMENT STABILIZED SUBGRADE:

CEMENT STABILIZED SUBGRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH GEOTEK'S #19-012 REPORT UNDER THE HEADING "SOIL CEMENT STABILIZATION". EXCEPT FOR PATCHING AREAS, ALL SUBGRADE AREAS WILL REQUIRE CEMENT STABILIZATION TO A MINIMUM DEPTH OF 12".

THE CEMENT WILL BE MEASURED TO THE NEAREST 0.01 TON BASED ON WEIGHT TICKETS OF THE CEMENT INCORPORATED INTO THE SUBGRADE. THE CEMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON, UNDER THE BID ITEM "CEMENT FOR STABILIZATION".

FOR BIDDING PURPOSES, THE PERCENTAGE OF CEMENT USED WILL BE 5 PERCENT (APPROXIMATELY 50 LBS CEMENT PER SQUARE YARD). THE ACTUAL PERCENTAGE USED SHALL BE DETERMINED WITH A MIX DESIGN PROVIDED BY A GEOTECHNICAL ENGINEER, ONCE THE SUBGRADE SOILS ARE EXPOSED. ALLOW APPROXIMATELY TWO WEEKS FOR THE DESIGN RESULTS.

AGGREGATE BASE COURSE:

AGGREGATE BASE COURSE SHALL BE IN ACCORDANCE WITH SDDOT STANDARD SPECIFICATIONS SECTION 260. MATERIAL FOR BASE COURSE SHALL MEET REQUIREMENTS SET FORTH IN SDDOT STANDARD SPECIFICATIONS SECTION 882

AGGREGATE BASE COURSE SHALL BE COMPACTED WITH PNEUMATIC ROLLERS, TO A DENSITY OF 97% OF THE MAXIMUM DRY DENSITY, AS DETERMINED BY SD 104, METHOD 4 AND SD 105 OR SD 114.

WATER FOR COMPACTION OF THE AGGREGATE BASE COURSE SHALL BE APPLIED AS NECESSARY TO OBTAIN THE REQUIRED DENSITY.

THE CONTRACTOR MAY, AT HIS OPTION, SALVAGE THE EXISTING ASPHALT CONCRETE AND GRANULAR BASE MATERIAL FOR USE AS AGGREGATE BASE COURSE ON THE PROJECT, SUBJECT TO THE FOLLOWING CONDITIONS

- 1) SALVAGED ASPHALT MIX AND GRANULAR BASE MATERIAL SHALL BE PROCESSED TO PROVIDE A Nominal 1 $\frac{1}{2}$ inch maximum size. A tolerance of 5 % in material retained on the 1 $\frac{1}{2}$ inch SIEVE WILL BE PERMITTED, PROVIDED THAT 100 % OF THE MATERIAL PASSES THE 2 INCH SIEVE. THE FINAL PROCESSED MATERIAL SHALL BE ACCEPTABLE TO THE ENGINEER.
- 2) THE CONTRACTOR SHALL AVOID CONTAMINATION OF THE ASPHALT MIX AND GRANULAR BASE MATERIAL WITH SUBGRADE MATERIAL DURING THE SALVAGING PROCESS. CONTAMINATED SLAVAGED MATERIAL WILL NOT BE ALLOWED FOR USE.
- COMPACTION OF THE MATERIAL SHALL BE ACCORDING TO SECTION 260.3 D OF THE SOUTH DAKOTA 3) DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2004 **FDITION**
- 4) THE CONTRACTOR IS ENCOURAGED TO VIST THE SITE AND REVIEW THE GEOTECHNICAL REPORT TO DETERMINE THE CHARACTER OF THE IN-PLACE MATERIAL AND THE QUANTITY OF MATERIAL THAT MAY **BE SALVAGED**
- 5) IN THE CASE THAT IN-PLACE MATERIAL IS NOT SUFFICIENT OUANTITY: THE CONTRACTOR SHALL SUPPLEMENT THE RECLAIMED ASPHALT/GRAVEL BASE MIX WITH AGGREGATE BASE COURSE. THE AGGREGATE BASE COURSE MATERIAL SHALL BE BLENDED WITH THE RECLAIMED ASPHALT/GRAVEL BASE MIX TO THE SATISFACTION OF THE ENGINEER. NO ADJUSTMENT WILL BE MADE TO THE CONTRACT PRICE FOR ADDITIONAL AGGREGATE BASE COURSE MATERIAL FOR THE RECLAIMED ASPHALT/GRAVEL BASE MIX

ASPHALT CONCRETE COMPOSITE:

ASPHALT CONCRETE COMPOSITE SHALL CONFORM TO THE SDDOT SPECIFICATIONS FOR CLASS G, TYPE 1 OR 2.

THE ASPHALT BINDER USED IN THE MIXTURE SHALL BE PERFORMANCE GRADED AASHTO DESIGNATION: PG 58-28 AND SHALL CONFORM TO THE CURRENT SDDOT SPECIFICATIONS. CERTIFICATES OF COMPLIANCE WILL BE REQUIRED ON THE ASPHALT CONCRETE COMPOSITE MIX AND THE PERFORMANCE GRADED ASPHALT BINDER

PLACEMENT OF ASPHALT CONCRETE SHALL BE BY SELF-PROPELLED PAVERS. COMPACTION OF THE ASPHALT CONCRETE SHALL BE BY METHODS AND EQUIPMENT SATISFACTORY TO THE ENGINEER. COMPACTION OF THE ASPHALT CONCRETE SHALL BE BY THE SPECIFIED DENSITY METHOD. THE MINIMUM DENSITY REQUIREMENT SHALL BE 92% OF SD 312 (RICE METHOD).

A TACK COAT (SS-1H OR CSS-1H) SHALL BE APPLIED BETWEEN EACH LIFT OF ASPHALT, ALONG EXISTING CONCRETE, ASPHALT FACES, AND ANY OTHER AREAS DETERMINED BY THE ENGINEER. THE APPLICATION RATE SHALL BE 0.05 GAL./SO.YD.

A MAXIMUM OF 20% (BY WEIGHT) OF RECYCLED ASPHALT PAVEMENT (RAP) WILL BE ALLOWED IN THE ASPHALT CONCRETE COMPOSITE MIX. RAP STOCKPILES CONTAINING CONCRETE CHUNKS, GRASS, DIRT, WOOD, METAL COAL TAR, OR OTHER FOREIGN OR ENVIRONMENTALLY RESTRICTED MATERIALS SHALL NOT BE USED. NO OTHER RECYCLED MATERIAL WILL BE ALLOWED. REPRESENTATIVE RAP SAMPLES SHALL BE SENT INTO THE LABORATORY DESIGNATED BY THE ENGINEER FOR MATERIAL CLASSIFICATION. THE LABORATORY SHALL PROVIDE THE FOLLOWING INFORMATION FOR RAP: ASPHALT BINDER CONTENT, GRADATION AND G (MAXIMUM SPECIFIC GRAVITY).

THE BID ITEM "ASPHALT PAVEMENT" SHALL INCLUDE ALL LABOR MATERIAL (EXCEPT CEMENT) AND EQUIPMENT NECESSARY TO PERFORM CEMENT STABILIZATION, GRADE SUBGRADE, PLACE AGGREGATE BASE CÕURSE, AND PLACE ASPHALT PAVEMENT.

ASPHALT FOR PATCHING

MINIMUM DEPTH OF 12"

THE BID ITEM "ASPHALT FOR PATCHING" SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM SCARIFICATION AND RECOMPACTION OF SUBGRADE, GRADE SUBGRADE, PLACE AGGREGATE BASE COURSE, AND PLACE ASPHALT PAVEMENT.

CONCRETE CURB AND GUTTER:

CONCRETE CURB AND GUTTER SHALL BE REMOVED AND REPLACED AT LOCATIONS SHOWN ON PLAN SHEETS ADDITIONAL LOCATIONS MAY BE IDENTIFIED DURING CONSTRUCTION. BID ITEM "CONCRETE CURB AND GUTTER" SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO INSTALL NEW CURB AND GUTTER, INCLUDING NECESSARY SUBGRADE PREPARATION AND PLACEMENT OF AGGREGATE BASE COURSE.

THE BASIS OF PAYMENT SHALL BE THE ACTUAL AMOUNT OF CURB AND GUTTER INSTALLED ON THE PROJECT. A NOMINAL AMOUNT OF 50 FT OF CURB AND GUTTER HAS BEEN INCLUDED IN EACH BID SCHEDULE.

MISCELLANEOUS CONCRETE:

ALL CONCRETE TO BE USED SHALL BE CLASS M-6 AS DETAILED IN THE SDDOT STANDARD SPECIFICATIONS SECTION 462. EXPANSION MATERIAL SHALL BE INSTALLED WHERE REQUIRED BY THE ENGINEER (BACK OF CURB, DRIVEWAYS, EXISTING SIDEWALKS, ETC.). CONCRETE SHALL BE CURED USING A LINSEED OIL BASED EMULSION CURING COMPOUND.

PAVEMENT MARKINGS:

SHALL BE 4" WIDE AND YELLOW.

SIDEWALK:

ANY PEDESTRIAN PATHWAYS OR SIDEWALKS INSTALLED ON OR ADJACENT TO THIS SITE DEVELOPMENT SHALL BE FULLY ADA COMPLIANT. THE CITY WILL BE INSPECTING NEW SIDEWALK INSTALLATIONS FOR COMPLIANCE AFTER SIDEWALK INSTALLATIONS IS COMPLETE. CONTRACTOR SHOULD CONTACT THE CITY ENGINEER'S OFFICE AT 367-8601 TO SCHEDULE AN INSPECTION. ANY SECTIONS OF SIDEWALK FOUND TO BE OUT OF COMPLIANCE WILL BE REMOVED AND REPLACED BY THE PERMIT HOLDER. THERE ARE NO CONSTRUCTION TOLERANCES ON MAXIMUM OR MINIMUM GRADED. FOR EXAMPLE, THE CONTRACTOR MAY WANT TO SET SIDEWALK FORMS AT 1.5% CROSS SLOPE TO FALL UNDER THE 2% MAXIMUM SIDEWALK CROSS SLOPE.

TRAFFIC CONTROL:

THE CONTRACTOR SHALL FURNISH AND MAINTAIN BARRICADES, WARNING SIGNS, TRAFFIC CONTROL DEVICES, AND SAFETY FENCE NECESSARY TO PROVIDE FOR THE SAFETY OF THE PUBLIC.



ASPHALT PATCHING SHALL BE PERFORMED ON THE AREAS SHOWN IN THE SURFACING PLANS. IN LIEU OF CEMENT STABILIZATION, THE SUBGRADE IN PATCHING AREAS SHALL BE SCARIFIED AND RECOMPACTED TO A

DURING CONSTRUCTION, ADDITIONAL PATCHING AREAS MAY BE IDENTIFIED.

NEW PAVEMENT MARKINGS SHALL BE PROVIDED AND APPLIED BY THE CONTRACTOR. THE MARKING AREA SHALL BE DRY AND FREE OF DUST, DIRT AND OILY SUBSTANCE DURING THE APPLICATION OF THE PAVEMENT MARKING PAINT. THE PAVEMENT MARKING PAINT SHALL BE APPLIED WITH A PRESSURIZED MACHINE TO PRODUCE PAVEMENT MARKINGS OF UNIFORM WIDTH AND STRAIGHT EDGES. ALL PAVEMENT MARKINGS





Schedule A			
	Item	Unit	Quantity
1	Mobilization	LS	1
2	Erosion Control	LS	1
3	Traffic Control	LS	1
4	Remove Concrete Curb and Gutter	FT	50
5	Remove Asphalt Pavement	SY	12,696
6	Remove Concrete Pavement	SY	65
7	Saw Existing Asphalt	FT	751
8	Saw Existing PCC Pavement	FT	27
9	Concrete Curb and Gutter	FT	50
10	Concrete Sidewalk	SY	16
11	Asphalt Pavement	SY	11,498
12	Asphalt for Patching	SY	1,240
13	Place Sod	LS	1
14	Striping Parking Lot	LS	1
15	Cement for Stabilization	TON	287

Schedule B			
	Item	Unit	Quantity
1	Mobilization	LS	1
2	Erosion Control	LS	1
3	Traffic Control	LS	1
4	Remove Concrete Curb and Gutter	FT	50
5	Remove Asphalt Pavement	SY	6,302
6	Remove Concrete Pavement	SY	32
7	Saw Existing Asphalt	FT	985
8	Saw Existing PCC Pavement	FT	104
9	Concrete Curb and Gutter	FT	50
10	Concrete Sidewalk	SY	32
11	Asphalt Pavement	SY	5,647
12	Asphalt for Patching	SY	655
13	Place Sod	LS	1
14	Striping Parking Lot	LS	1
15	Cement for Stabilization	TON	141









BY: TLH, 22165-P.dwg, DEMO - CTE, REV DATE: Mon DD, YYYY, PRINT DATE: Mar 02, 2020

FOR BIDDING PURPOSES ONLY





REMOVAL NOTES:

- (1) REMOVE ASPHALT PAVEMENT/GRAVEL BASE
- 2 REMOVE CONCRETE PAVEMENT/GRAVEL BASE
- 3 REMOVE CURB & GUTTER
- (4) EXISTING LIGHT POLE (DO NOT DISTURB)



PROJECT NO.:	22165
SURVEYED BY:	EFM
CREATED BY:	TLH
APPROVED BY:	MLM
REVISION DATE:	
DEMOLITION PLAN - SCHEDULE B	
14	

2101 SIOUX I