

RFB #23-0066

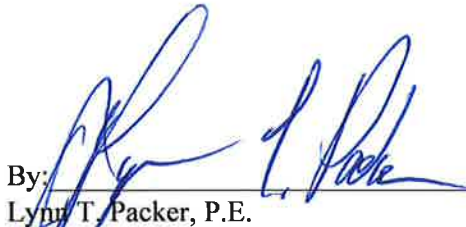
ADDENDUM NO. 2

**Sedgwick County Project: 61st Street North for One Half Mile West of 151st Street
West (R357)**

The items contained herein now become a part of the referenced plans and specifications. Please read the following items and acknowledge receipt of this addendum on the Proposal Page Number P-1. NOTE: THIS ADDENDUM MUST BE ACKNOWLEDGED TO CONSTITUTE A VALID BID.

SPECS:

- Add "Cement Treated Base (Dry)" Special Provision
- Remove and Replace GN-1 with GN-1R and 2R

By: 
Lynn T. Packer, P.E.
Director of Public Works/County Engineer

Date: November 9, 2023

SPECIAL PROVISION

NOTE: This special provision is generally written in the imperative mood. The subject, “the Contractor” is implied. Also implied in this language are “shall”, “shall be”, or similar words and phrases. The word “will” generally pertains to decisions or actions of Sedgwick County Public Works. The term “Standard Specifications” refers to the Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction (latest edition).

CEMENT TREATED BASE (DRY)

1. DESCRIPTION

Design a cement treated base (CTB) mixture using the dry form of cement. Homogeneously blend the mixture of cementitious materials and water for modification and stabilization of subgrade soils, sub-bases, and bases. Construct one or more courses of the CTB on a prepared roadway as shown in the Contract Documents.

BID ITEMS

Cement Treated Base (*)

*Thickness

UNITS

Square Yard

2. MATERIALS

Provide materials that comply with the applicable requirements.

Concrete Admixtures & Curing Material	DIVISION 1400
Portland Cement and Fly Ash	DIVISION 2000
Water for CTB	DIVISION 2400

3. Mix Design

- a. **General.** Design a mixture of subgrade material and portland cement and submit to the Engineer for review and approval. Do not place the cementitious materials on the project until the Engineer approves the mix design. Once the Engineer approves the mix design, do not make changes without the Engineer’s approval.
- b. **Compressive Strength.** The 7-day minimum and maximum required unconfined compressive strength for soil cement shall be as follows:
 - (1) 400 psi and 800 psi, respectively.

4. CONSTRUCTION REQUIREMENTS

- a. **Preparation and Maintenance of the Subgrade.** Use automatic grade control equipment to trim the surface of the subgrade to the line, grade and cross-section as shown in the Contract Documents. Maintain the subgrade surface to readily drain at all times. Protect the subgrade from damage when handling materials, tools and equipment. Do not store or stockpile materials on the subgrade.

Lightly spray the subgrade with water to obtain a thoroughly moistened condition before the CTB is constructed.

Prior to application of cement the substrate soil should be ripped, scarified or ground, to expose the maximum amount of surface area.

Do not puddle water on the grade.

Do not deposit any material until the subgrade or base has been checked and approved by the Engineer.

- b. **Application.** Apply cement using a controlled application system. This system may be pressurized or mechanical in nature, utilizing vane or augers feeding cement through a funnel or hood at a controlled rate. The cementitious material shall be applied uniformly in a manner that minimizes dust and is satisfactory to the Engineer. A dust curtain or similar device may be required.

In irregular areas, submit a plan to the Engineer for approval that includes equipment and procedures that address subgrade preparation and application process to spread the cementitious material at the specified rate.

The Contractor shall take precautions to ensure the cementitious material stays confined to the roadway area to be stabilized. The full width of the roadway shall be stabilized.

Do not apply the cementitious material when conditions are such that the material is lost due to the wind. Do not use cement that was not properly handled and not stored in weatherproof containers.

- c. **Mixing the Materials.** Do not place cementitious material on the project until the Engineer has reviewed and approved the submitted mix design.

Mix the scarified subgrade and cementitious material. Continue mixing and adding water until a homogeneous, friable mixture that complies with TABLE 1 is obtained. Use equipment with a recycling or mixing drum, and with an automatic water proportioning system to pulverize the subgrade to the specified depth.

Do not perform treated subgrade operations when the ambient air temperature is below 40°F, or the soil is frozen.

Table 1: Percent Retained – Square Mesh Sieves	
1½ inch	½ inch
0	50 maximum

Complete the mixing within 30 minutes of adding the cement to the pulverized subgrade.

The uniform moisture content of the mixture immediately before being compacted shall be ±2 percentage points of the optimum moisture content. Spray the mixture with water, as necessary, to maintain the specified moisture content during the compaction operations.

- d. **Compaction.** For the initial compaction of the mixture, use a vibratory roller having a minimum operating weight of 12 tons, with a minimum centrifugal force of 24 tons. Use a rubber-tired or smooth-wheeled roller to complete the compaction of the surface. Compact the base course in one

lift using density control unless otherwise shown in the Contract Documents. Compact the treated subgrade to a minimum of 95% of the combined materials dry density. Complete the compaction operations within 2 hours of incorporating the cement into the subgrade. If any of these requirements are not satisfied, reprocess, recompact and refinish the deficient areas.

Begin rolling longitudinally at the sides and proceed towards the center, overlapping on successive trips by at least one-half the width of the roller unit. Offset alternate trips of the roller. Operate rollers at a speed between 2 and 6 MPH, as directed. Remove areas that lose required stability, compaction, or finish. Replace with cementitious mixture at the Contractor's expense.

Roll with approved compaction equipment, as directed. Correct irregularities, depressions, and weak spots immediately by scarifying the areas affected, adding or removing treated material as required, reshaping, and re-compacting.

- e. **Trimming.** After compaction of the treated subgrade, trim and recompact the treated subgrade to the specified lines and grades. Use automatic grade controlled equipment to trim the subgrade. In irregular areas, trim the subgrade by wetting, blading and rolling.

Trim and recompact the subgrade within 2½ hours of the time the water and cementing agent is added to the subgrade. Recompact the trimmed surface of the treated subgrade with a smooth-wheel or a pneumatic-tire roller. Lightly scarify and blade the surface to eliminate equipment imprints while performing final rolling.

Keep the surface moist during all finishing operations.

Perform the trimming and compacting operations to produce a dense surface, free of surface compaction planes, cracks, ridges or loose material that meets the specified lines and grades.

- f. **Protection and Curing.** Protect the CTB against the loss of moisture for a curing period of 7 days (unless the Contractor's mix design test results justify a different curing period). Protect the CTB against freezing during the curing period. Do not allow equipment on the finished course during curing except as required for sprinkling, unless otherwise approved.

Local traffic may require access during the curing period. The Contractor shall maintain traffic control measures during this period, and shall take reasonable precautions to ensure traffic does not damage the CTB. Reasonable precautions include, but are not limited to, advanced communications with local residents and businesses, scheduling modifications to meet local needs, utilizing flagmen to monitor traffic, and limited emergency access only periods to select portions of the work area.

- f. **Weather Limitations.** Do not place material if the cementitious material will be exposed to ambient air temperatures below 32°F during the first 7 days of cure. (See subsections 3.b. and e.). Remove and replace all CTB that is permitted to freeze within the first 24 hours, whether frozen on the surface or full depth. When materials are exposed to freezing ambient air temperatures after the first 24 hours but before the 7 day cure period is complete, demonstrate that the 7 day design strength has been achieved. Failure to demonstrate the 7 day design strength has been achieved shall require removal and replacement at Contractor's expense.

As directed by the Engineer and at the Contractor's expense, repair or replace cured materials

exposed to ambient air temperatures below freezing or repeated freeze/thaw cycles that result in loosening or fluffing of the surface.

A lift of pavement placed prior to exposure to freezing ambient air temperatures constitutes curing of the CTB.

Do not place material on frozen subgrade. Mixing and placing may proceed when the ambient air temperature is 40°F and rising, and discontinue when the ambient air temperatures reaches 45°F and falling.

5. MEASUREMENT AND PAYMENT

The Engineer will measure the CTB by the square yard. Material placed beyond the neat lines indicated in the Contract Documents is not measured for payment unless authorized by the Engineer.

Payment for "Cement Treated Base" at the contract unit price is full compensation for the specified work.

GENERAL NOTES

Winter Wheat Harvest

Working days may be suspended to accommodate the Winter Wheat Harvest Period on this project as provided in subsection 108.5d.(7) of Sedgwick County Division 100. This typically occurs in June.

Project Phasing

The project shall be phased so that access is always maintained to the Oneok Partners Facility. Per Sedgwick County Division 100, section 105.11, the Contractor is responsible for coordination and minimizing interference with utility companies.

Cement Treated Base

Either “Cement Treated Base (Slurry)” or “Cement Treated Base (Dry)” may be used for the bid item “Cement Treated Base (10)”.

Stormwater Pollution Prevention Plan

Sedgwick County will file a Notice of Intent with the Kansas Department of Health and Environment (KDHE) for authorization to discharge stormwater runoff from construction activities in accordance with the Kansas Water Pollution Control General Permit under the National Pollutant Discharge Elimination System (NPDES). A copy of the permit application and an erosion control layout will be provided to the Contractor.

The Contractor must develop and submit a project Stormwater Pollution Prevention Plan (SWPPP) as specified in Section 901 of the Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction (Edition 2015).

Include in the project SWPPP:

- the SWPPP Inspection and Maintenance Report Forms;
- the Contractor’s Erosion Control Site Plan;
- a copy of the Project Notice of Intent Form (NOI) for Stormwater Runoff from Construction Activities (included on the following pages).
- references to Contract Documents pertaining to temporary erosion and water pollution control. KDOT standard specifications, contractual special provisions and the policy on Storm Water Discharges can be found on the internet at www.ksdot.org.

As a minimum, include the following information in the Contractor’s Erosion Control Site Plan:

1. The planned sequence of major construction activities.
2. Site maps showing the locations and devices to be used for the initial perimeter controls and for every phase of the project.
3. A detailed description of controls to be used including:
 - Stabilization practices for all areas disturbed by construction, including borrow locations;
 - Structural practices for all drainage/discharge locations; and
 - Other controls, including:
 - Waste disposal practices which prevent discharge of solid materials into water in the U.S. Also, see subsection 107.9d. of Sedgwick County Division 100;

- Methods of preventing contamination in areas designated for fuel and lubrication storage;
 - Actions to minimize offsite tracking of sediment by construction vehicles;
 - Actions to obtain compliance with state or local waste disposal, sanitary sewer or septic system regulations; and
 - When actions will be implemented, including permanent erosion control items when required in the Contract Documents.
4. Acknowledgment that State and Local requirements have been included in the SWPPP.
 5. Provide a Maintenance and Inspection Report.

Before the preconstruction conference, submit to the Engineer a minimum of 3 original copies of the SWPPP. No contract work may begin until the Engineer has approved the SWPPP.

NPDES Permitting

Transfer of Stormwater Discharge and Control Responsibility

Sedgwick County has submitted a Notice of Intent (NOI) to obtain a National Pollutant Discharge and Elimination System (NPDES) permit through KDHE for the Project. A Notice of Transfer of Owner/Operator (NOTO) will be provided by Sedgwick County and must be completed by the Contractor prior to the preconstruction meeting.

The original permit obtained by Sedgwick County will be for approximately 1 year. Per the NOTO form, “to continue coverage, the new permittee must assume the responsibility to pay the annual permit fee and continue to implement the Stormwater Pollution Prevention Plan (SWPPP) developed for the permitted area.” This will require the Contractor to pay the annual permit fee of \$60 with each permit renewal prior to its expiration. The permit does not cover Contractor borrow or waste sites adjacent to or in the vicinity of the Project.

Per KDHE’s NPDES General Permit, the permittee “shall ensure the entire construction site...is inspected on a regular schedule and within 24 hours of the end of a precipitation event which results in precipitation of 0.5 inches or greater. Regularly scheduled inspections shall at a minimum be once every 14 days.” Upon completion of the NOTO, the Contractor becomes the permittee and thus required to meet the requirements of the General Permit including performing the required inspections. Sedgwick County will be inspecting the site’s BMPs every 14 days and following rain events; the Contractor may incorporate these inspections into the SWPPP at his option.

Any costs associated with permit fees, contractor site inspections and updates/revisions to SWPPP documentation shall be SUBSIDIARY to erosion control bid items.

The Contractor shall submit a Notice of Termination (NOT) to KDHE to terminate permit coverage when soil disturbing activities are complete and final stabilization in all disturbed areas has been achieved. The project is considered to be stabilized when perennial vegetation, pavement and structures cover all areas which have been disturbed. Vegetation must have a density of at least 70 percent of the density of undisturbed areas at or near the site. If Final Acceptance is issued prior to final stabilization of all disturbed areas, the Contractor shall complete a NOTO to transfer the permit to Sedgwick County.