REQUEST FOR PROPOSALS

FOR

Loop Road Repairs – Sweetwater Campus

RFP No.: RFP-18-ND-009

Submittal Deadline: Wednesday, September 5, 2018 at 2:00 p.m. CST

Issued: Friday, August 10, 2018

NIGP Code(s): 912-23, 913-27, 913-50

Prepared By:
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Buyer
Texas State Technical College
1902 N. Loop 499
Harlingen, Texas 78550
956-364-4429
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1.0 GENERAL INFORMATION

1.1 Description of TSTC

Texas State Technical College ("TSTC") a state-supported two-year technical college and is the state's largest provider of technical education. TSTC was originally established in 1965 as the James Connally Technical Institute (JCTI), a two year college in the Texas A&M University System designed to meet the state's evolving workforce needs. In 1969, the State of Texas gained ownership of James Connally Air Force Base and renamed the college Texas State Technical Institute (TSTI), which became a separate state agency with its own Board of Regents, appointed by the governor. TSTC been continuously accredited by equivalent enrollment of approximately 12,000. In contrast with Texas's regionally-focused community colleges, TSTC has a statewide role and mission with a legislative mandate to focus specifically on highly specialized, advanced, and emerging technical and vocational areas leading to certificates or associate degrees.

In 2015, the college was granted single-accreditation status from the Southern Association of Colleges and Schools Commission on Colleges**,** the regional body for the accreditation of degree-granting higher education institutions in the Southern states. The college central administration is located in Waco, Texas, the site of the flagship campus. The college has campuses in Abilene, Breckenridge, Brownwood, Fort Bend County, Harlingen, Marshall, North Texas (Red Oak), Sweetwater, Waco, and Williamson County.

1.2 Purpose of the Request for Proposals

Texas State Technical College (**TSTC or College**) is soliciting proposals for the repair of the Loop Road on the Sweetwater Campus located at 300 Homer K Taylor Drive, Sweetwater Texas 79556.

1.3 Authority

This solicitation is issued in accordance with the requirements for consulting services by an institution of higher education of the State of Texas as provided in Texas Government Code, Chapter 2254.028(c). Accordingly, the college's Chief Executive Officer has made a finding of fact that the services to be provided by the contractor selected under this RFP are necessary for the college.

1.4 Submission of Proposal

Pursuant to the provisions of Texas Government Code Title 10 Subtitle D Chapter 2156.121-2158.127, sealed proposals will be received until the date and time established for receipt. After, receipt, only the names of respondents will be made public. Prices and other proposal details will only be divulged after the contract award, if one is made.

TSTC will receive Proposals until Wednesday, September 5, 2018 at 2:00 p.m. CST. Proposal must be time-stamped by TSTC before the hour and date specified. Proposals that are received late will be returned to the respondent unopened.

Proposal will not be received by telephone, fax, or email. It is the responsibility of the proposer to assure all proposals are delivered on time. Proposal will only be received at the locations described below:

Nereida Dominguez, CTPM
Texas State Technical College
Service Support Center
Purchasing Department
1902 N. Loop 499
Harlingen, Texas 78550

Or

Jessica Chavirra
Texas State Technical College
300 Homer K Taylor Drive
Sweetwater, Texas 79556

Submit one (1) original proposal complete including the Bid Form and one (1) identical electronic copy of the Proposal and all of its contents. The original Proposal should contain the mark "original" on the Proposal Cover Page. The electronic copy shall be submitted in a USB/Flash Drive in the same envelope as the hard-copy original proposal. Proposer must include signatures on both hard copy and electronic copy.

Proposal must be enclosed in a sealed envelope (box or container) addressed as described above. **The envelope must clearly identify "The Proposal for the TSTC Loop Road Project RFP-18-ND-009, submittal due date, and the name and return address of the respondent.** Proposal and any other information submitted by respondents in response to this RFP shall become the property of the TSTC.

A bid bond in the amount of 5 percent of the bid issued by an acceptable surety shall be submitted with each bid. A certified check or bank draft payable to the Texas State Technical College or negotiable U.S. Government Bonds (as par value) may be submitted in lieu of the Bid Bond.

Failure to comply with all requirements contained in this RFP may result in the rejection of the Proposal. Proposals that are qualified with conditional clauses, alterations, items not called for in the RFP, or irregularities of any kind are subject to rejection.

Properly submitted Proposals will be opened publicly and the names of the respondents will be read aloud. Proposal cannot be altered or amended after opening time. Proposal cannot be withdrawn after opening time without written approval by TSTC based on a written request to withdraw. By submitting a Proposal in response to this RFP, Respondent acknowledges and accepts the evaluation process and that determination of the "best value" will require subjective judgments by TSTC.

1.5 Questions

All questions regarding this RFP must be submitted in writing to Nereida Dominguez, Buyer, nereida.dominguez@tstc.edu, no later than **Monday, August 20, 2018 at 11 a.m.** Any clarifications or interpretations of this RFP that materially affect or change its requirements will be issued by TSTC as an

addendum. All such addenda are issued by TSTC before the Proposal are due as part of the RFP and respondents shall acknowledge receipt of each addendum to the RFP in its Proposal.

1.6 Key Events Schedule

Issuance of RFP	Friday, August 10, 2018
Deadline for Submittal of Questions	Monday, August 20, 2018, 11:00 a.m.
Issuance of Addendum (if any)	Friday, August 24, 2018
Proposal Opening	Wednesday, September 5, 2018, 2:00 p.m.
Award (tentative)	September 14, 2018
Anticipated Date Service Will Begin	September 19, 2018
Anticipated Completion Date	December 18, 2018

PERFORMANCE MEASURES:

Texas State Technical College will at its discretion assess late penalty fees to untimely work performed.

If work is not completed within 90 days from the Notice to Proceed date, as stated on Attachment F, Article 6.01 of the Bid Form, contractor further agrees to pay liquidated damages in the sum of $100.00 dollars for each consecutive calendar day thereafter as provided in this proposal.

Delays beyond the control of the contractor shall include, but not be limited to, acts of neglect by owner, fires, floods, epidemics, abnormal weather conditions, or acts of God.

Delays attribute to and within the control of a subcontractor or supplier shall be deemed to be delays within the control of the contractor.

1.7 Proposal Evaluation Process

TSTC may select the Proposal that offers the “best value” for the institution based on the published selection criteria and on its ranking evaluation. The top ranked respondents may be selected by the Owner to participate in the interview process. The interviews may be conducted in person or through the use of technology.

TSTC may first attempt to negotiate a contract with the selected respondent. TSTC may discuss with the selected respondent options for a scope or time modification and any price change associated with the modification. If TSTC is unable to reach a contract with the selected respondent, TSTC may formally end negotiations with that respondent and proceed to the next “best value” respondent in the order of the selection ranking until a contract is reached or all Proposals are rejected. TSTC is not obligated to select the Respondent offering the most attractive economic terms if that Respondent is not the most advantageous to TSTC overall, as determined by TSTC.

1.8 Historically Underutilized Businesses Submittal Requirements

It is the policy of TSTC to promote full and equal opportunities for the contracting and subcontracting of Historically Underutilized Businesses (HUB) in accordance with Texas Government Code, Chapter 2161. This Chapter applies to all contracts for the purchase of goods and/or services with an expected value of $100,000 or more. A HUB Subcontracting Plan Form (Included as Separate Attachment) must be filled out and returned with the Proposal to be considered responsive. Proposer has within 24 hours of bid time to submit HUB Subcontracting Plan. **If the Proposal does not include a HUB Subcontracting Plan within the allowed time, it shall be rejected as a material failure to comply with advertised specifications**.

Search the State of Texas HUB Database for HUB vendors by the NIGP class and item at: https://mycpa.cpa.state.tx.us/tpasscmblsearch/index.jsp

Additional minority and women owned business association resources are available for subcontracting notices at: http://comptroller.texas.gov/procurement/prog/hub/mwb-links-1/

Additional information and training regarding how to complete a HUB Sub-Contracting Plan can be found on the CPA Website at the following link: http://comptroller.texas.gov/procurement/prog/hub/hub-subcontracting-plan/

1.9 Subcontracting Approval

The Respondent shall perform the Contract with its own resources and those subcontractors identified in the Respondent's HUB Subcontracting Plan. In the event that the Respondent should determine that it is necessary or expedient to execute additional or alternative subcontracts for any of the performances under the Contract, the Respondent shall submit a revised HUB Subcontracting Plan for prior approval before executing any subcontracts.

In any subcontracts entered into by Contractor for the performance of the work, Contractor shall require the Subcontractor, to the extent of the work to be performed by the Subcontractor, to be bound to Contractor by the terms of the contract between Contractor and TSTC and to assume toward Contractor all of the obligations and responsibilities that Contractor, by the contract between Contractor and TSTC, assumes toward TSTC.

The Respondent shall manage all quality and performance, project management, and schedules for subcontractors. The Respondent shall be held solely responsible and accountable for the completion of all work for which the Respondent has subcontracted.

1.10 Bidding Requirements

Proposal prices must be firm for TSTC acceptance for 60 days from the submittal due date and the RFP Document Submission shall be irrevocable from the close of the call until acceptance by TSTC or the passage of a period of 60 days, whichever shall occur first.

1.11 No Reimbursement for Costs

Respondent acknowledges and accepts that any costs incurred from Respondent's participation in this RFP process shall be at the sole risk and responsibility of the Respondent.

1.12 Taxes

TSTC is exempt from taxes pursuant to the provisions of the *Texas Tax Code,* Chapter 151. Do not include tax in the Proposal. Excise Tax Exemption Certificates are available upon request.

1.13 Reservation of Rights

TSTC may evaluate the Proposal based on the anticipated completion of all or any portion of the Project. TSTC reserves the right to divide the Project into multiple parts, to reject any and all Proposals and re-solicit for new Proposals, or to reject any and all Proposals and temporarily or permanently abandon the Project. TSTC makes no representations, written or oral, that it will enter into any form of agreement with any respondent to this RFP for any project and no such representation is intended or should be construed by the issuance of this RFP.

1.14 Texas Public Information Act

All information, documentation, and other materials submitted in response to this RFP are considered non-confidential and/or non-proprietary and are subject to public disclosure under the Texas Public Information Act (*Texas Government Code*, Chapter 552.001, *et seq.*) after the solicitation is completed. TSTC strictly complies with all statutes, court decisions, and opinions of the Texas Attorney General with respect to disclosure of public information.

1.15 Equal Opportunity

The Respondent must be an equal opportunity employer. No person shall be discriminated against in employment because of race, color, religion, gender, national origin, disability, or age.

1.16 Accuracy of Information

TSTC and its officers, directors, employees and agents assume no responsibility for the accuracy of the information in this document. Should dispute arise regarding the meaning or intent of the Contract Documents, the decision of the TSTC shall be final and binding upon the Contractor.

1.17 Award of Contract

A response to the solicitation is an offer to contract with Texas State Technical College based on the terms and conditions contained therein. RFP's do not become contracts and are not binding until a written contract, signed by authorized College administrator and authorized personnel of the awarded vendor pursuit to this agreement are formed.

TSTC shall reserve the right to award a contract for all or any of the requirements in this Request for Proposals, to award to or not award any contract, according to what is in the best interest of TSTC.

The General Terms and Conditions in this Request for Proposal shall become a part of and govern any contract and/or purchase order issued as a result of this RFP.

1.18 Compliance with Laws

The services provided and all representations in the RFP response must be such that they are or would be in conformity with all federal, state, county and local laws, regulations, rules, and orders. Upon request, the Proposer shall furnish to TSTC certificates of compliance with all such laws.

1.19 Termination for Convenience

TSTC, may, at its option and discretion, terminate the resulting contract for convenience and, at its option and discretion, may reduce the statement of work or other requirements of the contract at any time, without any default on the part of TSTC or the contractor, by giving thirty (30) calendar days' notice thereof to the selected contractor.

1.20 Termination for Default

In the event that the services to be performed under this contract must be completed by a certain date, the Proposer is required to provide immediate notice at such time it has knowledge that it will be unable to perform the services within the time required.

1.21 Assignment

The Proposer may not assign, transfer, convey, or subcontract this contract, any services to be performed as outlined in the RFP, or any of its obligations under this contract, in whole or in part, without the prior written approval from the College, which the College may withhold in its sole discretion.

1.22 Ethics Conduct

Any direct, or indirect, actions taken to unduly influence competitive purposes, to circumvent equal consideration for competitive bidders, or to disregard ethical and legal trade practices will disqualify vendors and contractors from current and future consideration for participation in TSTC orders and contracts.

1.23 Drug Policy

TSTC is a drug-free workforce and workplace. The manufacture, sale, distribution, dispensation, or use of illegal drugs or alcohol by vendors or contractors, while on TSTC premises, is strictly prohibited.

1.24 Invoices

Original invoices must be submitted monthly in connection with all payments. To be a proper invoice that may be accepted and paid, the invoice must include the following information and/or attachments; Name and address of the Respondent, Respondent's invoice remittance address, Purchase order number authorizing the services, detailed breakdown of monthly total price for services, and any other related documentation to show proof of services rendered.

Invoices should be received no later than the (15) fifteenth day of every month. Each invoice is subject to review and approval by TSTC before payment will be processed. Normal payment processing time for services which have been completed, delivered to, and approved by TSTC is thirty (30) calendar days after receipt of a valid, uncontested invoice. TSTC will incur no penalty for late payment if payment is made in thirty (30) or fewer days from receipt of goods or services and an uncontested invoice. Uncontested invoice will match exactly with the Purchase Order issued by Procurement. Any changes made to the order must be reflected in a revised Invoice and or credit from the vendor and must match the

Any invoice that does not comply with the minimum requirements stated above may not be considered valid and may be subject to rejection and/or return to the contractor.

Invoices shall be submitted by mail to:

Texas State Technical College
Accounts Payable
1902 N. Loop 499
Harlingen, Texas 78550

or email: HarlingenInvoice@tstc.edu

1.25 Confidential Information

All information owned, possessed or used by TSTC that is communicated to, learned, developed or otherwise acquired by contractor in the performance of services for TSTC, that is not generally known to the public, will be confidential and contractor will not, beginning on the date of first association or communication between TSTC and contractor and continuing throughout the term of the contract and any time thereafter, disclose, communicate or divulge, or permit disclosure, communication or divulgence, to another or use for contractor's own benefit or the benefit of another, any confidential information, unless required by law.

Except when defined as part of the Services, contractor will not make any press releases, public statements, or advertisement referring to the Services or the engagement of contractor as an independent contractor of TSTC in connection with the Services, or release any information relative to the Services for publication, advertisement or any other purpose without the prior written approval of TSTC. Contractor will obtain assurances similar to those contained in this Section from persons, contractors, and subcontractors retained by contractor.

1.26 Governing Law

The contract and all of the rights and obligations of the parties hereto and all of the terms and conditions hereof will be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas.

1.27 Group Purchasing Authority

Texas law authorizes institutions of higher education (defined by Section 61.003, Education Code) to use the group purchasing procurement method (Texas Education Code 51.9335). Additional Texas institutions of higher education may therefore elect to enter into a contract with the successful Proposer under this RFP. In particular, Proposer should note that Texas State Technical College is comprised of several campuses across the state of Texas described at http://www.tstc.edu/about/welcome. TSTC may routinely evaluate whether a contract resulting from a procurement conducted by one of the campuses might be suitable for use by another, and if so, this could give rise to additional purchase volumes. As a result, in submitting its proposal in response to this RFP, Proposer should consider proposing pricing and other commercial terms that take into account such higher volumes and other expanded opportunities that could result from the eventual inclusion of other institutions in the purchase contemplated by this RFP.

1.28 INSURANCE

Insurance Requirements

In any contract, which is awarded by Texas State Technical College at Sweetwater (The College), and in which exists the possibility for the risk of personal injury, the Vendor must agree to procure and keep in force insurance with companies acceptable to the College. Such insurance must conform to the following provisions and in amounts no less than those specified below:

A. The Vendor must show proof of such insurance on or before 10 days after an award has been made or before such services or work can begin. Approval of the insurance by The College shall not relieve or decrease the liability of the Vendor.

B. Unless otherwise provided for in the Supplementary Conditions, the Vendor shall provide and maintain, until the work covered in the Contract is completed and accepted by the college, the minimum insurance coverage in one of the following optional schedules. When the Vendor includes the excess liability coverage, the limits of other required coverage may be reduced to the amount shown within the parenthesis.

TYPE OF INSURANCE	**LIMITS OF LIABILITY**		
Workmen's Compensation		Statutory Limits	
Employer's Liability	100,000	300,000	(omit aggregate)
Comprehensive General Bodily Injury	(250,000) Ea. Occur.	500,000 Ea. Occur.	(250,000 aggregate)
Property Damage	100,000 Ea. Occur.	300,000 Ea. Occur.	(100,000 aggregate)
Comprehensive Auto			

Bodily Injury	300,000 (100,000) Ea. Person	500,000 (300,000 aggregate) Ea. Occur.
Property Damage	300,000 (100,000) Ea. Occur.	

2.0 SCOPE OF SERVICES

2.1 Overview

Texas State Technical College (TSTC) is soliciting proposals for the repair of the loop road on the TSTC Sweetwater Campus located at 300 Homer K Taylor Drive, Sweetwater TX. 79556.

2.2 Scope of Work

The project will be constructed per the drawings and specification prepared by Enprotec / Hibbs & Todd, Inc. (eHT). The Bidding Documents, including Drawings and Technical Specifications may be downloaded from Civcast at www.civcastusa.com. Prospective Bidders may examine the Bidding Documents, Drawings and Technical Specifications at the Engineer's Office on Mondays through Fridays between the hours of 8:00 a.m. and 5:00 p.m.

3.0 References

Respondents must provide references of similar scope of services currently or recently performed as in this Request for Proposal. References must include the name of the company/entity, length of service, contact person, and present address and phone number. References may be checked by TSTC prior to recommendation.

4.0 PROPOSAL FORMAT

The Proposal must be organized in sections in the following format and contain the following information. Respondents should note that elaborate or unnecessary voluminous proposals are not desired.

4.1 Proposal Cover Page

The Proposal Cover Page, Attachment A, should be the first page of your Proposal. The Proposal Cover Page must be signed by a person authorized to sign for Respondent.

4.2 Execution of Offer

The Execution of Offer Page, Attachment B, should be the third section of your Proposal. **The Execution of Offer must be signed by a person authorized to sign for Respondent**. **Failure to submit a signed Execution of Offer will result in automatic disqualification.**

4.3 Table of Contents

A Table of Contents should be the second section of your Proposal. The Table of Contents shall give page numbers for each section of the Proposal. Number all pages of the Proposal sequentially using Arabic numerals (1, 2, 3, etc.).

4.4 Proposal Contents

Proposer must submit the following information as part of Proposer's proposal:

1. Attachment A - Proposal Cover Page
2. Attachment B - Execution of Offer
3. Table of contents
4. Attachment C – Terms and Conditions
5. Attachment D – Conflict of Interest Questionnaire
6. Attachment E – HUB Subcontracting Plan (HSP)
7. Attachment F – Bid Form
8. Bid Bond
9. References
10. Qualification Statement showing that the contractors has performed and is capable of performing this project

5.0 PROPOSAL SELECTION CRITERIA

Respondent is encouraged to propose terms and conditions offering the maximum benefit to TSTC in terms of (1) services to TSTC and (2) total overall cost to TSTC. Respondents should describe all educational, state and local government discounts, as well as any other applicable discounts that may be available to TSTC.

An evaluation team from TSTC will evaluate the Proposal. The evaluation of Proposal and the selection of a respondent will be based on the information provided by Respondent in its Proposal. TSTC may give consideration to additional information if TSTC deems such information relevant.

The criteria to be considered by TSTC in evaluating Proposal and selecting a Contractor will be those factors listed below. The evaluation will be made per lot.

Threshold Criteria Not Scored:

- Ability of TSTC to comply with laws regarding Historically Underutilized Businesses; and
- Ability of TSTC to comply with laws regarding purchases from persons with disabilities.

Scored Criteria:	**Percent**
Price	50%
Schedule	15%
Qualifications – Experience on Similar projects	15%
References on similar projects	10%
Experience with or commitment from subs and suppliers in the area	10%
Total	**100%**

6.0 ATTACHMENTS

- Attachment A – Proposal Cover Page
- Attachment B – Execution of Offer
- Attachment C – Terms and Conditions (Respondent's Affirmation)
- Attachment D – Conflict of Interest Questionnaire
- Attachment E- HUB Subcontracting Plan
- Attachment F – Bid Form
- Exhibit A – Specifications
- Exhibit B – Drawings

Attachment A - Proposal Cover Page
TEXAS STATE TECHNICAL COLLEGE
Loop Road Repair – TSTC Sweetwater Campus
RFP No.: RFP-18-ND-009

FIRM NAME: _____

AUTHORIZED REPRESENTATIVE: _____

ADDRESS: _____

CITY, STATE, ZIP _____

TELEPHONE: _____ FAX: _____

E-MAIL: _____

FEDERAL EMPLOYER ID #:_____ or SS # (if sole owner): _____

IF A CORPORATION: State of Incorporation: _____Respondent's Charter No: _____

IS YOUR COMPANY A HUB VENDOR? _____ WHAT CATEGORY? _____

IDENTIFY EACH PERSON WHO OWNS AT LEAST 25% OF THE RESPONDENT'S BUSINESS ENTITY BY NAME:

_____ _____

_____ _____

Submitted and Certified by:

_____ _____
Name Title

_____ _____
Authorized Signature Date

Attachment B – Execution of Offer
TEXAS STATE TECHNICAL COLLEGE
Loop Road Repair – TSTC Sweetwater Campus
RFP No.: RFP-18-ND-009

NOTE TO RESPONDENTS: SUBMIT ENTIRE SECTION WITH RESPONSE.

THIS EXECUTION OF OFFER MUST BE COMPLETED, SIGNED, AND RETURNED WITH THE RESPONDENT'S PROPOSAL. FAILURE TO COMPLETE, SIGN AND RETURN THIS EXECUTION OF OFFER WITH THE PROPOSAL MAY RESULT IN REJECTION OF THE PROPOSAL.

SIGNING A FALSE STATEMENT MAY VOID THE SUBMITTED PROPOSAL OR ANY AGREEMENTS OR OTHER CONTRACTUAL ARRANGEMENTS, WHICH MAY RESULT FROM THE SUBMISSION OF RESPONDENT'S PROPOSAL, AND THE RESPONDENT MAY BE REMOVED FROM ALL PROPOSER LISTS. A FALSE CERTIFICATION SHALL BE DEEMED A MATERIAL BREACH OF CONTRACT AND, AT OWNER'S OPTION, MAY RESULT IN TERMINATION OF ANY RESULTING CONTRACT OR PURCHASE ORDER.

A. By signature hereon, Respondent acknowledges and agrees that (1) this RFP is a solicitation for Proposals and is not a contract or an offer to contract; (2) the submission of Proposals by Respondent in response to this RFP will not create a contract between the Owner and Respondent; (3) the Owner has made no representation or warranty, written or oral, that one or more contracts with the Owner will be awarded under this RFP; and (4) Respondent shall bear, as its sole risk and responsibility, any cost which arises from Respondent's preparation of a response to this RFP.

B. By signature hereon, Respondent offers and agrees to furnish to the Owner the products and/or services more particularly described in its Proposals, and to comply with all terms, conditions and requirements set forth in the RFP documents and contained herein.

C. By signature hereon, Respondent affirms that he has not given, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with the submitted Proposal.

D. By signature hereon, a corporate Respondent certifies that it is not currently delinquent in the payment of any Franchise Taxes due under Chapter 171, Texas Tax Code, or that the corporate Respondent is exempt from the payment of such taxes, or that the corporate Respondent is an out-of-state corporation that is not subject to the Texas Franchise Tax, whichever is applicable.

E. By signature hereon, the Respondent hereby certifies that neither the Respondent nor the firm, corporation, partnership or Owner represented by the Respondent, or anyone acting for such firm, corporation, or institution has violated the antitrust laws of this state, codified in Section 15.01, et. seq., Texas Business and Commerce Code, or the Federal antitrust laws, nor communicated directly or indirectly the Qualifications made to any competitor or any other person engaged in such line of business.

F. By signature hereon, Respondent represents and warrants that:
   1. Respondent is a reputable company regularly engaged in providing products and/or services necessary to meet the terms, conditions and requirements of the RFP;

   2. Respondent has the necessary experience, knowledge, abilities, skills, and resources to satisfactorily perform the terms, conditions and requirements of the RFP;
   3. Respondent is aware of, is fully informed about, and is in full compliance with all applicable federal, state and local laws, rules, regulations and ordinances;

4. Respondent understands (i) the requirements and specifications set forth in this RFP and (ii) the terms and conditions set forth in the Contract under which Respondent will be required to operate;

5. Respondent, if selected by the Owner, will maintain insurance as required by the Contract;

6. All statements, information and representations prepared and submitted in response to this RFP are current, complete, true and accurate. Respondent acknowledges that the Owner will rely on such statements, information and representations in selecting the successful Respondent. If selected by the Owner as the successful Respondent, Respondent will notify the Owner immediately of any material change in any matters with regard to which Respondent has made a statement or representation or provided information.

G. By signature hereon, Respondent certifies that the individual signing this document and the documents made part of the RFP is authorized to sign such documents on behalf of the company and to bind the company under any agreements or other contractual arrangements, which may result from the submission of Respondent's Proposal.

H. By signature hereon, Respondent certifies that if a Texas address is shown as the address of the Respondent, Respondent qualifies as a Texas Resident Respondent as defined in Rule 1 TAC 111.2.

I. By signature hereon, Respondent certifies as follows:

1. "Under Section 231.006, Texas Family Code, the vendor or applicant certifies that the individual or business entity named in this contract, RFP, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate."

2. "Under Section 2155.004, *Texas Government Code*, the vendor or applicant certifies that the individual or business entity named in this RFP or contract is not ineligible to receive the specified contract and acknowledges that this contract may be terminated and payment withheld if this certification is inaccurate."

3. "Under Section 2254.004, *Texas Government Code*, the vendor or applicant certifies that each individual or business entity which is an engineer or architect proposed by Respondent as a member of its team was selected based on demonstrated competence and qualifications only."

J. By signature hereon, Respondent certifies that no relationship, whether by relative, business associate, capital funding agreement or by any other such kinship exist between Respondent and an employee of any Texas State Technical College component, or Respondent has not been an employee of any Texas State Technical College component within the immediate twelve (12) months

prior to your RFP response. All such disclosures will be subject to administrative review and approval prior to the Owner entering into any contract with Respondent.

K. By signature hereon, Respondent affirms that no compensation has been received for participation in the preparation of the specifications for this RFP. (ref. Section 2155.004 Texas Government Code).

L. Respondent represents and warrants that all articles and services quoted in response to this RFP meet or exceed the safety standards established and promulgated under the Federal Occupational Safety and Health Law (Public Law 91-596) and its regulations in effect or proposed as of the date of this solicitation.

M. By signature hereon, Respondent signifies his compliance with all federal laws and regulations pertaining to Equal Employment Opportunities and Affirmative Action.

N. By signature hereon, Respondent agrees to defend, indemnify, and hold harmless the State of Texas, all of its officers, agents and employees from and against all claims, actions, suits, demands, proceedings, costs, damages, and liabilities, arising out of, connected with, or resulting from any acts or omissions of Respondent or any agent, employee, subcontractor, or supplier of Respondent in the execution or performance of any agreements or other contractual arrangements which may result from the submission of Respondent's Proposal.

O. By signature hereon, Respondent agrees that any payments that may become due under any agreements or other contractual arrangements, which may result from the submission of Respondent's Proposal, will be applied towards any debt including, but not limited to, delinquent taxes and child support that is owed to the State of Texas.

P. By signature hereon, Respondent certifies that no member of the Board of Regents of Texas State Technical College, or the Executive Officers of Texas State Technical College or its component institutions, has a financial interest, directly or indirectly, in the transaction that is the subject of the contract.

Attachment B – Execution of Offer – Continued
TEXAS STATE TECHNICAL COLLEGE
Loop Road Repair – TSTC Sweetwater Campus
RFP No.: RFP-18-ND-009

The Respondent must complete, sign and return this Execution of Offer as part of their submittal response. The Respondent's company official(s) who are authorized to commit to such a submittal must sign submittals. Failure to sign and return this form will subject the submittal to disqualification. The undersigned, having carefully examined the scope of services and related documents entitled: **Loop Road Repair – TSTC Sweetwater Campus, *RFP No.: RFP-18-ND-009***, as prepared by Texas State Technical College as well as all other conditions affecting the cost and/or execution of the work, proposes to complete the work in accordance with said documents of which this proposal is a part, for the cost submitted on Attachment C – Bid Form, Article 5.01.

ACKNOWLEDGEMENT OF ADDENDA

Refer to Attachment C – Bid Form, Article 3.01

Failure to properly acknowledge addenda may result in disqualification.

Submitted and Certified By:

_____ _____
(Respondent's Name) *(Title)*

_____
(Street Address) *(City, State, Zip Code)* *(Telephone Number)*

_____ _____
(Authorized Signature) *(Date)*

Attachment C – Terms and Conditions
TEXAS STATE TECHNICAL COLLEGE
Loop Road Repair – TSTC Sweetwater Campus
RFP No.: RFP-18-ND-009

ITEMS BELOW APPLY TO AND BECOME A PART OF TERMS AND CONDITIONS OF RFP, ANY EXCEPTIONS THERE TO MUST BE IN WRITING.

A. BIDDING REQUIREMENTS

1. Proposers must comply with all rules, regulations and statutes relating to purchasing in the State of Texas in addition to the requirements of this form.

2. RFP should be submitted on this form. RFP must be time stamped at ordering agency on or before the hour and date specified for the RFP opening.

3. Late and/or unsigned RFP will not be considered under any circumstances. Person signing RFP must have the authority to bind the firm in a contract.

4. RFP should give Payee ID Number, full firm name and address of proposer on the face of this form. Enter in the space provided, if not shown. Additionally, firm name should appear on each continuation page of a RFP, in the block provided in the upper right hand corner. The Payee ID Number is the taxpayer number assigned and used by the Comptroller of Public Accounts of Texas. If this number is not known, complete the following:

   Enter Federal Employer's Identification Number _____

   Sole owner should also enter Social Security Number _____

5. RFP cannot be altered or amended after opening time. Alterations made before opening time should be initialed by proposer or his authorized agent. No RFP can be withdrawn after opening time without approval by TSTC based on an acceptable written reason.

6. TSTC reserves the right to accept or reject any or all proposals, or parts thereof, waive technicalities and negotiate and award the RFP to best serve the interests of the College.

7. Consistent and continued tie bidding could cause rejection of RFP by TSTC and/or investigation for antitrust violations.

8. TSTC shall not be responsible for failure of electronic equipment or operator error. Late illegible, incomplete, or otherwise non-responsive RFP'S will not be considered.

B. TIE BIDS

Awards will be made in accordance with Rule 1 TAC Section 113.6 (b) (3) and 113.8 (preferences).

C. AWARD OF CONTRACT

A response to this RFP is an offer to contract based upon the terms, conditions and specifications contained herein. RFP's do not become contracts until they are accepted through an open market purchase order. The contract shall be governed, construed and interpreted under the laws of the State of Texas. The factors listed in Texas Government Code, Title 10, Subtitle D, Section 2155.074, 2155.144, 2156.007, and 2157.003 shall also be considered in making an award. Any legal actions must be filed in Cameron County, Texas.

D. PAYMENT

Vendor shall submit an itemized invoice showing TSTC's purchase order number. TSTC will incur no penalty for late payment if payment is made in 30 or fewer days from receipt of goods or services and an uncontested invoice. For restrictions regarding prepayment, see section 11, below.

E. PATENTS OR COPYRIGHTS

The vendor agrees to protect TSTC from claims involving infringement of patents or copyrights.

F. VENDOR ASSIGNMENTS

Vendor hereby assigns to ordering agency any and all claims for overcharges associated with this contract arising under the antitrust laws of the United States 15 U.S.C.A. Section 1, et seq. (1973), and the antitrust laws of the State of Texas, TEX. Bus. & Comm. Code Ann. Sec. 15.01, et seq. (1967). Inquiries pertaining to IFBs must give the requisition number, codes, and opening date.

G. BIDDER AFFIRMATION

Signing this RFP with a false statement is a material breach of contract and shall void the submitted RFP or any resulting contracts, and the vendor shall be removed from all bid lists.

1. The proposer has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted RFP.

2. Neither the proposer nor the firm, corporation, partnership, or institution represented by the proposer, or anyone acting for such firm, corporation or institution has violated the antitrust laws of this State or the Federal Antitrust Laws (see section 9, above), nor communicated directly or indirectly the RFP made to any competitor or any other person engaged in such line of business.

3. By responding, the vendor shall be deemed to have represented and warranted that its proposal is not made in connection with any competing vendor submitting a separate response to this RFP, and is in all respects fair and without **collusion** or fraud; that the vendor did not participate in the RFP development process and had no knowledge of the specific contents of the RFP prior to its issuance; and that no employee or official of Texas State Technical College participated directly or indirectly in the vendor's proposal preparation.

   Advance knowledge of information which gives any particular vendor advantages over any other interested vendor(s), in advance of the opening of proposals, whether in response to advertising or an employee or representative thereof, will potentially void that particular proposal.

4. Pursuant to Section 2155.004 Government Code the proposer has not received compensation for participation in the preparation of the specifications for this RFP.

5. Pursuant to Section 231.006(d), Family Code (relating to child support), the proposer certifies that the individual or business entity named in this RFP is not in ineligible to receive this specified payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.

6. Under Section 2155.004 Government Code the proposer certifies that the individual or business entity named in this RFP is not ineligible to receive the specified contract and acknowledges that this contract may be terminated and/or payment withheld if this certification is inaccurate.

7. The Contractor shall defend, indemnify, and hold harmless TSTC, all of its officers, agents and employees from and against all claims, actions, suits, demands, proceedings, costs, damages, and liabilities, arising out of, connected with, or resulting from any acts or commissions of contractor or any agent, employee, subcontractor, or supplier of contractor in the execution or performance of this contract.

8. Proposer agrees that any payments due under this will be applied towards any debt, including but not limited to delinquent taxes and child support that is owed to the State of Texas.

9. Proposer certifies that they are in compliance with section 669.003 of the Government Code, relating to contracting with executive head of a State agency. If section 669.003 applies proposer will complete the following information in order for the RFP to be evaluated:

   Name of Former executive: _____

   Name of State agency: _____

   Date of separation from State agency: _____

   Date of Employment with proposer: _____

10. Proposer agrees to comply with government Code 2155.4441, pertaining to service contract use of products in the State of Texas.

11. Pursuant to Section 231.006©, Family Code, RFP must include names and Social Security Numbers of each person with at least 25% ownership of the business entity submitting the RFP. Attach name & social security numbers for each person. This information must be provided prior to contract award.

H. NOTE TO PROPOSER

Any terms and conditions attached to a RFP will not be considered unless specifically referred to on this RFP form and may result in disqualification of the RFP. The dispute resolution process provided for in chapter 2260 of the Texas Government Code must be used by the ordering agency and the contractor to attempt to resolve all disputes arising under this contract.

I. BEST VALUE CRITERIA

- The quality, availability, and adaptability of the supplies, materials, equipment, or contractual services to the particular use required;
- The number and scope of conditions attached to the RFP;
- The ability, capacity, and skill of the proposer to perform the contract or provide the service required;
- Whether the proposer can perform the contract or provide the service promptly, or within the time required, without delay or interference;
- The character, responsibility, integrity, reputation, and experience of the proposer;
- Proximity of the proposer's office to the site, and is there a firm principal at the local office, and how much of the design work will be done at the local office;
- Related to the above, how close are the proposer's sub-consultants to the site, and are there firm principals at the local sub-consultants' offices, and how much of the design work will be done at the local sub-consultants' offices;
- The quality of performance of previous contracts or services;
- Any previous or existing noncompliance by the proposer with specification requirements relating to time of submission of specified data such as samples, models, drawings, certificates, or other information; the sufficiency of the financial resources and ability of the proposer to perform the contract or provide the service;
- The ability of the proposer to provide future maintenance, repair parts, and service for the use of the contract;
- The purchase price;
- Any relevant criteria specifically listed in the RFP or request for proposals.

_____ _____

Signature Date

Attachment D - Conflict of Interest Questionnaire

If no conflicts, enter "None" on line 3 and sign.

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor or other person doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 1491, 80th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. *See* Section 176.006, Local Government Code.

A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of person who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)

3 **Name of local government officer with whom filer has employment or business relationship.**

_____

Name of Officer

This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?

☐ Yes ☐ No

B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

☐ Yes ☐ No

D. Describe each employment or business relationship with the local government officer named in this section.

4

_____ _____

Signature of person doing business with the governmental entity Date

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HUB Subcontracting Plan (HSP)
QUICK CHECKLIST

While this HSP Quick Checklist is being provided to merely assist you in readily identifying the sections of the HSP form that you will need to complete, it is very important that you adhere to the instructions in the HSP form and instructions provided by the contracting agency.

➤ **If you will be awarding <u>all</u> of the subcontracting work you have to offer under the contract to <u>only</u> Texas certified HUB vendors, complete:**

- ☐ Section 1 - Respondent and Requisition Information
- ☐ Section 2 a. - Yes, I will be subcontracting portions of the contract.
- ☐ Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors.
- ☐ Section 2 c. - Yes
- ☐ Section 4 - Affirmation
- ☐ GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.

➤ **If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you <u>do not</u> have a *<u>continuous contract</u>** in place for more than five (5) years *<u>meets or exceeds</u>* the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:**

- ☐ Section 1 - Respondent and Requisition Information
- ☐ Section 2 a. - Yes, I will be subcontracting portions of the contract.
- ☐ Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors.
- ☐ Section 2 c. - No
- ☐ Section 2 d. - Yes
- ☐ Section 4 - Affirmation
- ☐ GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.

➤ **If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors or only to Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you <u>do not</u> have a *<u>continuous contract</u>** in place for more than five (5) years *<u>does not meet or exceed</u>* the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:**

- ☐ Section 1 - Respondent and Requisition Information
- ☐ Section 2 a. - Yes, I will be subcontracting portions of the contract.
- ☐ Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors.
- ☐ Section 2 c. - No
- ☐ Section 2 d. - No
- ☐ Section 4 - Affirmation
- ☐ GFE Method B (Attachment B) - Complete an Attachment B for each of the subcontracting opportunities you listed in Section 2 b.

➤ **If you will not be subcontracting any portion of the contract and will be fulfilling the entire contract with your own resources (i.e., employees, supplies, materials and/or equipment), complete:**

- ☐ Section 1 - Respondent and Requisition Information
- ☐ Section 2 a. - No, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources.
- ☐ Section 3 - Self Performing Justification
- ☐ Section 4 - Affirmation

***<u>Continuous Contract</u>:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service, to include under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.*

HUB Subcontracting Plan (HSP)

In accordance with Texas Gov't Code §2161.252, the contracting agency has determined that subcontracting opportunities are probable under this contract. Therefore, all respondents, including State of Texas certified Historically Underutilized Businesses (HUBs) must complete and submit this State of Texas HUB Subcontracting Plan (HSP) with their response to the bid requisition (solicitation).

NOTE: Responses that do not include a completed HSP shall be rejected pursuant to Texas Gov't Code §2161.252(b).

The HUB Program promotes equal business opportunities for economically disadvantaged persons to contract with the State of Texas in accordance with the goals specified in the 2009 State of Texas Disparity Study. The statewide HUB goals defined in 34 Texas Administrative Code (TAC) §20.284 are:

- ***11.2 percent for heavy construction other than building contracts,***
- ***21.1 percent for all building construction, including general contractors and operative builders' contracts,***
- ***32.9 percent for all special trade construction contracts,***
- ***23.7 percent for professional services contracts,***
- ***26.0 percent for all other services contracts, and***
- ***21.1 percent for commodities contracts.***

- - Agency Special Instructions/Additional Requirements - -

*In accordance with 34 TAC §20.285(d)(1)(D)(iii), a respondent (prime contractor) may demonstrate good faith effort to utilize Texas certified HUBs for its subcontracting opportunities if the total value of the respondent's subcontracts with Texas certified HUBs meets or exceeds the statewide HUB goal or the agency specific HUB goal, whichever is higher. When a respondent uses this method to demonstrate good faith effort, the respondent must identify the HUBs with which it will subcontract. If using existing contracts with Texas certified HUBs to satisfy this requirement, only the aggregate percentage of the contracts expected to be subcontracted to HUBs with which the respondent **does not** have a **continuous contract*** in place for **more than five (5) years** shall qualify for meeting the HUB goal. This limitation is designed to encourage vendor rotation as recommended by the 2009 Texas Disparity Study.*

SECTION 1: RESPONDENT AND REQUISITION INFORMATION

a. Respondent (Company) Name: _____ State of Texas VID #: _____

Point of Contact: _____ Phone #: _____

E-mail Address: _____ Fax #: _____

b. Is your company a State of Texas certified HUB? ☐ **- Yes** ☐ **- No**

c. Requisition #: _____ Bid Open Date: _____ (mm/dd/yyyy)

Enter your company's name here: _____ Requisition #: _____

SECTION 2: RESPONDENT'S SUBCONTRACTING INTENTIONS

After dividing the contract work into reasonable lots or portions to the extent consistent with prudent industry practices, and taking into consideration the scope of work to be performed under the proposed contract, including all potential subcontracting opportunities, the respondent must determine what portions of work, **including contracted staffing, goods and services will be subcontracted**. Note: In accordance with 34 TAC §20.282, a "Subcontractor" means a person who contracts with a prime contractor to work, to supply commodities, or to contribute toward completing work for a governmental entity.

a. Check the appropriate box (Yes or No) that identifies your subcontracting intentions:

☐ - *Yes*, I will be subcontracting portions of the contract. (If *Yes*, complete Item b of this SECTION and continue to Item c of this SECTION.)

☐ - *No*, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources, including employees, goods and services. (If *No*, continue to SECTION 3 and SECTION 4.)

b. List all the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you do not have a continuous contract* in place for more than five (5) years.	**Percentage of the contract expected to be subcontracted to HUBs with which you have a continuous contract* in place for more than five (5) years.**	Percentage of the contract expected to be subcontracted to non-HUBs.
1		%	%	%
2		%	%	%
3		%	%	%
4		%	%	%
5		%	%	%
6		%	%	%
7		%	%	%
8		%	%	%
9		%	%	%
10		%	%	%
11		%	%	%
12		%	%	%
13		%	%	%
14		%	%	%
15		%	%	%
	Aggregate percentages of the contract expected to be subcontracted:	**%**	**%**	**%**

(Note: If you have more than fifteen subcontracting opportunities, a continuation sheet is available online at https://www.comptroller.texas.gov/purchasing/vendor/hub/forms.php).

c. Check the appropriate box (Yes or No) that indicates whether you will be using **only** Texas certified HUBs to perform **all** of the subcontracting opportunities you listed in SECTION 2, Item b.

☐ - *Yes* (If *Yes*, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for **each** of the subcontracting opportunities you listed.)

☐ - *No* (If *No*, continue to Item d, of this SECTION.)

d. Check the appropriate box (Yes or No) that indicates whether the aggregate expected percentage of the contract you will subcontract **with Texas certified HUBs** with which you **do not** have a **continuous contract*** in place with for **more than five (5) years**, **meets or exceeds** the HUB goal the contracting agency identified on page 1 in the "**Agency Special Instructions/Additional Requirements**."

☐ - *Yes* (If *Yes*, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for **each** of the subcontracting opportunities you listed.)

☐ - *No* (If *No*, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method B (Attachment B)" for **each** of the subcontracting opportunities you listed.)

***Continuous Contract**: Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.*

Enter your company's name here: _____ Requisition #: _____

SECTION 2: RESPONDENT's SUBCONTRACTING INTENTIONS (CONTINUATION SHEET)

This page can be used as a continuation sheet to the HSP Form's page 2, Section 2, Item b. Continue listing the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you do not have a continuous contract* in place for more than five (5) years.	**Percentage of the contract expected to be subcontracted to HUBs with which you have a continuous contract* in place for more than five (5) years.**	**Percentage of the contract expected to be subcontracted to non-HUBs.**
16		%	%	%
17		%	%	%
18		%	%	%
19		%	%	%
20		%	%	%
21		%	%	%
22		%	%	%
23		%	%	%
24		%	%	%
25		%	%	%
26		%	%	%
27		%	%	%
28		%	%	%
29		%	%	%
30		%	%	%
31		%	%	%
32		%	%	%
33		%	%	%
34		%	%	%
35		%	%	%
36		%	%	%
37		%	%	%
38		%	%	%
39		%	%	%
40		%	%	%
41		%	%	%
42		%	%	%
43		%	%	%
	Aggregate percentages of the contract expected to be subcontracted:	**%**	**%**	**%**

***Continuous Contract**: Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.*

Enter your company's name here: _____ Requisition #: _____

SECTION 3: SELF PERFORMING JUSTIFICATION (If you responded "No" to SECTION 2, Item a, you must complete this SECTION and continue to SECTION 4.) If you responded "No" to SECTION 2, Item a, in the space provided below **explain how** your company will perform the entire contract with its own employees, supplies, materials and/or equipment.

SECTION 4: AFFIRMATION

As evidenced by my signature below, I affirm that I am an authorized representative of the respondent listed in SECTION 1, and that the information and supporting documentation submitted with the HSP is true and correct. Respondent understands and agrees that, if awarded any portion of the requisition:

- The respondent will provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor for the awarded contract. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.
- The respondent must submit monthly compliance reports (Prime Contractor Progress Assessment Report – PAR) to the contracting agency, verifying its compliance with the HSP, including the use of and expenditures made to its subcontractors (HUBs and Non-HUBs). (The PAR is available at https://www.comptroller.texas.gov/purchasing/docs/hub-forms/ProgressAssessmentReportForm.xls).
- The respondent must seek approval from the contracting agency prior to making any modifications to its HSP, including the hiring of additional or different subcontractors and the termination of a subcontractor the respondent identified in its HSP. If the HSP is modified without the contracting agency's prior approval, respondent may be subject to any and all enforcement remedies available under the contract or otherwise available by law, up to and including debarment from all state contracting.
- The respondent must, upon request, allow the contracting agency to perform on-site reviews of the company's headquarters and/or work-site where services are being performed and must provide documentation regarding staffing and other resources.

Signature	Printed Name	Title	Date (mm/dd/yyyy)

Reminder:

- If you responded "Yes" to SECTION 2, Items c or d, you must complete an "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.
- If you responded "No" SECTION 2, Items c and d, you must complete an "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b.

HSP Good Faith Effort - Method A (Attachment A)

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Enter your company's name here: _____ Requisition #: _____

IMPORTANT: If you responded "*Yes*" to **SECTION 2, Items c** or **d** of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method A (Attachment A)" for each of the subcontracting opportunities you listed in **SECTION 2, Item b** of the completed HSP form. You may photo-copy this page or download the form at https://www.comptroller.texas.gov/purchasing/docs/hub-forms/hub-sbcont-plan-gfe-achm-a.pdf

SECTION A-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: _____ Description: _____

SECTION A-2: SUBCONTRACTOR SELECTION

List the subcontractor(s) you selected to perform the subcontracting opportunity you listed above in SECTION A-1. Also identify whether they are a Texas certified HUB and their Texas Vendor Identification (VID) Number or federal Employer Identification Number (EIN), the approximate dollar value of the work to be subcontracted, and the expected percentage of work to be subcontracted. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at http://mycpa.cpa.state.tx.us/tpasscmblsearch/index.jsp. HUB status code "**A**" signifies that the company is a Texas certified HUB.

Company Name	Texas certified HUB	Texas VID or federal EIN Do not enter Social Security Numbers. If you do not know their VID / EIN, leave their VID / EIN field blank.	Approximate Dollar Amount	Expected Percentage of Contract
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%

REMINDER: As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

HSP Good Faith Effort - Method B (Attachment B)

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Enter your company's name here: _____ Requisition #: _____

IMPORTANT*:** If you responded "No***" to **SECTION 2, Items c** and **d** of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method B (Attachment B)" for **each** of the subcontracting opportunities you listed in **SECTION 2, Item b** of the completed HSP form. You may photo-copy this page or download the form at https://www.comptroller.texas.gov/purchasing/docs/hub-forms/hub-sbcont-plan-gfe-achm-b.pdf..

SECTION B-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: _____ Description: _____

SECTION B-2: MENTOR PROTÉGÉ PROGRAM

If respondent is participating as a Mentor in a State of Texas Mentor Protégé Program, submitting its Protégé (Protégé must be a State of Texas certified HUB) as a subcontractor to perform the subcontracting opportunity listed in **SECTION B-1**, constitutes a good faith effort to subcontract with a Texas certified HUB towards that specific portion of work.

Check the appropriate box (Yes or No) that indicates whether you will be subcontracting the portion of work you listed in SECTION B-1 to your Protégé.

☐ - Yes (If *Yes*, continue to SECTION B-4.)

☐ - No / Not Applicable (If *No* or *Not Applicable*, continue to SECTION B-3 and SECTION B-4.)

SECTION B-3: NOTIFICATION OF SUBCONTRACTING OPPORTUNITY

When completing this section you MUST comply with items a, b, c and d, thereby demonstrating your Good Faith Effort of having notified Texas certified HUBs and trade organizations or development centers about the subcontracting opportunity you listed in SECTION B-1. Your notice should include the scope of work, information regarding the location to review plans and specifications, bonding and insurance requirements, required qualifications, and identify a contact person. When sending notice of your subcontracting opportunity, you are encouraged to use the attached HUB Subcontracting Opportunity Notice form, which is also available online at https://www.comptroller.texas.gov/purchasing/docs/hub-forms/HUBSubcontractingOpportunityNotificationForm.pdf.

Retain supporting documentation (i.e., certified letter, fax, e-mail) demonstrating evidence of your good faith effort to notify the Texas certified HUBs and trade organizations or development centers. Also, be mindful that a working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.

a. Provide written notification of the subcontracting opportunity you listed in SECTION B-1, to three (3) or more Texas certified HUBs. Unless the contracting agency specified a different time period, you must allow the HUBs at least seven (7) working days to respond to the notice prior to you submitting your bid response to the contracting agency. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at http://mycpa.cpa.state.tx.us/tpasscmblsearch/index.jsp. HUB status code "**A**" signifies that the company is a Texas certified HUB.

b. List the **three (3) Texas certified HUBs** you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the company's Texas Vendor Identification (VID) Number, the date you sent notice to that company, and indicate whether it was responsive or non-responsive to your subcontracting opportunity notice.

Company Name	Texas VID (Do not enter Social Security Numbers.)	Date Notice Sent (mm/dd/yyyy)	Did the HUB Respond?
			☐ - Yes ☐ - No
			☐ - Yes ☐ - No
			☐ - Yes ☐ - No

c. Provide written notification of the subcontracting opportunity you listed in SECTION B-1 to two (2) or more trade organizations or development centers in Texas to assist in identifying potential HUBs by disseminating the subcontracting opportunity to their members/participants. Unless the contracting agency specified a different time period, you must provide your subcontracting opportunity notice to trade organizations or development centers at least seven (7) working days prior to submitting your bid response to the contracting agency. A list of trade organizations and development centers that have expressed an interest in receiving notices of subcontracting opportunities is available on the Statewide HUB Program's webpage at https://www.comptroller.texas.gov/purchasing/vendor/hub/resources.php.

d. List **two (2) trade organizations or development centers** you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the date when you sent notice to it and indicate if it accepted or rejected your notice.

Trade Organizations or Development Centers	Date Notice Sent (mm/dd/yyyy)	Was the Notice Accepted?
		☐ - Yes ☐ - No
		☐ - Yes ☐ - No

HSP Good Faith Effort - Method B (Attachment B) Cont.

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Enter your company's name here: _____ Requisition #: _____

SECTION B-4: SUBCONTRACTOR SELECTION

Enter the item number and description of the subcontracting opportunity you listed in **SECTION 2, Item b,** of the completed HSP form for which you are completing the attachment.

a. Enter the item number and description of the subcontracting opportunity for which you are completing this Attachment B continuation page.

Item Number: _____ Description: _____

b. List the subcontractor(s) you selected to perform the subcontracting opportunity you listed in **SECTION B-1**. Also identify whether they are a Texas certified HUB and their Texas Vendor Identification (VID) Number or federal Emplioyer Identification Number (EIN), the approximate dollar value of the work to be subcontracted, and the expected percentage of work to be subcontracted. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at http://mycpa.cpa.state.tx.us/tpasscmblsearch/index.jsp. HUB status code "**A**" signifies that the company is a Texas certified HUB.

Company Name	Texas certified HUB	Texas VID or federal EIN Do not enter Social Security Numbers. If you do not know their VID / EIN, leave their VID / EIN field blank.	Approximate Dollar Amount	Expected Percentage of Contract
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%
	☐ - Yes ☐ - No		$	%

c. If any of the subcontractors you have selected to perform the subcontracting opportunity you listed in **SECTION B-1** is **not** a Texas certified HUB, provide written justification for your selection process (attach additional page if necessary):

REMINDER: As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to **all** the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity it (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

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HUB Subcontracting Opportunity Notification Form

In accordance with Texas Gov't Code, Chapter 2161, each state agency that considers entering into a contract with an expected value of $100,000 or more shall, before the agency solicits bids, proposals, offers, or other applicable expressions of interest, determine whether subcontracting opportunities are probable under the contract. The state agency I have identified below in Section B has determined that subcontracting opportunities are probable under the requisition to which my company will be responding.

34 Texas Administrative Code, §20.285 requires all respondents (prime contractors) bidding on the contract to provide notice of each of their subcontracting opportunities to at least three (3) Texas certified HUBs (who work within the respective industry applicable to the subcontracting opportunity), and allow the HUBs at least seven (7) working days to respond to the notice prior to the respondent submitting its bid response to the contracting agency. In addition, at least seven (7) working days prior to submitting its bid response to the contracting agency, the respondent must provide notice of each of its subcontracting opportunities to two (2) or more trade organizations or development centers (in Texas) that serves members of groups (i.e., Asian Pacific American, Black American, Hispanic American, Native American, Woman, Service Disabled Veteran) identified in Texas Administrative Code §20.282(19)(C).

We respectfully request that vendors interested in bidding on the subcontracting opportunity scope of work identified in Section C, Item 2, reply no later than the date and time identified in Section C, Item 1. Submit your response to the point-of-contact referenced in Section A.

SECTION A: PRIME CONTRACTOR'S INFORMATION

Company Name: _____ State of Texas VID #: _____

Point-of-Contact: _____ Phone #: _____

E-mail Address: _____ Fax #: _____

SECTION B: CONTRACTING STATE AGENCY AND REQUISITION INFORMATION

Agency Name: _____

Point-of-Contact: _____ Phone #: _____

Requisition #: _____ Bid Open Date: _____ (mm/dd/yyyy)

SECTION C: SUBCONTRACTING OPPORTUNITY RESPONSE DUE DATE, DESCRIPTION, REQUIREMENTS AND RELATED INFORMATION

1. Potential Subcontractor's Bid Response Due Date:

If you would like for our company to consider your company's bid for the subcontracting opportunity identified below in Item 2,

we must receive your bid response no later than _____ (Central Time) on _____ (Date (mm/dd/yyyy)).

In accordance with 34 TAC §20.285, each notice of subcontracting opportunity shall be provided to at least three (3) Texas certified HUBs, and allow the HUBs at least seven (7) working days to respond to the notice prior to submitting our bid response to the contracting agency. In addition, at least seven (7) working days prior to us submitting our bid response to the contracting agency, we must provide notice of each of our subcontracting opportunities to two (2) or more trade organizations or development centers (in Texas) that serves members of groups (i.e., Asian Pacific American, Black American, Hispanic American, Native American, Woman, Service Disabled Veteran) identified in Texas Administrative Code, §20.282(19)(C).

(A working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.)

2. Subcontracting Opportunity Scope of Work:

3. Required Qualifications: ☐ - Not Applicable

4. Bonding/Insurance Requirements: ☐ - Not Applicable

5. Location to review plans/specifications: ☐ - Not Applicable

Attachment F

BID FORM

PROJECT IDENTIFICATION: Texas State Technical College 2018 Paving Improvements

CONTRACT IDENTIFICATION AND NUMBER:

Texas State Technical College
2018 Paving Improvements
Project Number: 7026

1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.	Addendum, Date

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

BASE BID PROPOSAL
FOR LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS:

Item No.	Estimated Quantity	Description and Unit Price (Price to be written in words)	Unit Price	Total Amount
1	LS	**Mobilization, Insurance and Bonds** (not to exceed 5% of Bid) for _____ _____ _____ Dollars and _____ Cents per lump sum.		$_____
2	LS	Furnish and install a **Storm Water Pollution Prevention Plan and Erosion Control**, and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per lump sum.		$_____
3	LS	Furnish and Install a **Traffic Control Plan**, and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per lump sum.		$_____
4	13,445 SY	Removal of **Existing Pavement and Base Material**, and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per square yard.	$_____ /SY	$_____
5	9,645 SY	Recompact **Existing Flexible Base Material and Subgrade** (Add Base Material where required), and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per square yard.	$_____ /SY	$_____
6	3,800 SY	Furnish and compact **Subgrade and Flexible Base** (Add Base Material where required), and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per square yard.	$_____ /SY	$_____

Item No.	Estimated Quantity	Description and Unit Price (Price to be written in words)	Unit Price	Total Amount
7	1,445 TONS	Furnish and install **Hot Mix (Type D) (2")**, including Prime and Tack Coat, and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per ton.	$_____/TON	$_____
8	130 SY	Furnish and install **Concrete Valley Gutter**, and all related work as shown and as specified for _____ _____ Dollars and _____ Cents per square yard.	$_____/SY	$_____
9	10 CY	Furnish and install **Concrete (Class C)** for Drainage Structure, and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per cubic yard.	$_____/CY	$_____
10	3,800 GAL	Furnish and install **Sealcoat Paving Asphalt** of the Type and Grade Specified, complete and in place, for_____ _____ Dollars and _____ Cents per gallon.	$_____/GAL	$_____
11	85 CY	Furnish and install **Sealcoat Paving Aggregate** of the Type and Grade specified, complete and in place, for _____ _____ Dollars and _____ Cents per cubic yard.	$_____/CY	$_____
12	5,795 LF	Furnish and install **Striping**, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	$_____/LF	$_____
13	710 SY	Furnish and install **Concrete Paving / Driveway (6")**, and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per square yard.	$_____/SY	$_____
14	500 SY	Furnish and install **Miscellaneous Base / Hot Mix Repair**, and all related work as shown and as specified for _____ _____ Dollars and _____ Cents per square yard.	$_____/SY	$_____
TOTAL BASE BID (Items 1 thru 14)			$ _____	

ADDITIVE ALTERNATE A BID

Item No.	Estimated Quantity	Description and Unit Price (Price to be written in words)	Unit Price	Total Amount
1A	1,530 SY	Removal of **Existing Pavement and Base Material**, and all related work as shown and as specified for _____ _____ Dollars and _____ Cents per square yard.	$_____/SY	$_____
2A	1,530 SY	**Recompact Existing Flexible Base Materials and Subgrade**, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per square yard.	$_____/SY	$_____
3A	175 TONS	Furnish and install **Hot Mix (Type D) (2")**, as shown and as specified, complete and in place, for _____ _____ Dollars and _____ Cents per ton.	$_____/TON	$_____
4A	800 LF	Furnish and install **Striping**, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per linear foot.	$_____/LF	$_____
TOTAL ADDITIVE ALTERNATE A BID (Items 1A thru 4A)			$ _____	
TOTAL BASE BID WITH TOTAL ADDITIVE ALTERNATE A BID (BASE BID + ALT. A)			$ _____	

ADDITIVE ALTERNATE B BID

Item No.	Estimated Quantity	Description and Unit Price (Price to be written in words)	Unit Price	Total Amount
1B	3,110 SY	Removal of **Existing Pavement and Base Material**, and all related work as shown and as specified for _____ _____ Dollars and _____ Cents per square yard.	$_____ /SY	$_____
2B	3,110 SY	Recompact **Existing Flexible Base Material and Subgrade** (Add Base Material where required), and all related work as shown and as specified for ____ _____ _____ Dollars and _____ Cents per square yard.	$_____ /SY	$_____
3B	1,035 LF	Furnish and install **Striping**, as shown and specified, complete and in place, for_____ _____ Dollars and _____ Cents per linear foot.	$_____ /LF	$_____
4B	360 TONS	Furnish and install **Hot Mix (Type D) (2")**, including Prime and Tack Coat, and all related work as shown and as specified for _____ _____ _____ Dollars and _____ Cents per ton.	$_____ /TON	$_____
TOTAL ADDITIVE ALTERNATE B BID (Items 1B thru 4B)			$ _____	
TOTAL BASE BID WITH TOTAL ADDITIVE ALTERNATE A & B BID (BASE BID + ALT. A + ALT. B)			$ _____	

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete in seventy-five (75) days from the Notice to Proceed date and the Work will be completed and ready for final payment no more than ninety (90) days from the Notice to Proceed date.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

Exhibit A - Specifications

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Contract Description:

1. Project to include the roadway reconstruction consisting of roadway excavation, new base material, grading, compaction, prime, new hot mix, and striping. Roadway improvements will also consist of seal coating as shown on plans. Drainage structure improvements and valley gutter improvements will be implemented as shown on plans.

1.2 CONTRACTOR USE OF SITE:

A. Access to site: Unlimited. Coordinate construction, detours, and/or street closings with the Engineer and Owner.

B. Time restrictions for performing Work: Daylight hours, Monday through Saturday, except in emergency situations or with prior approval by the Engineer and Owner.

C. Existing utilities are to be protected and remain in service at all times. Any damage to existing utilities shall be repaired by the Contractor at no additional cost to the Owner.

D. Ensure all excavations are properly fenced or barricaded to prevent unauthorized entry into work areas.

E. Not more than two (2) consecutive cross-streets may be closed to traffic at any time, unless permission is given by the Owner.

END OF SECTION

SECTION 01019

CONTRACT CONSIDERATIONS

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Materials Testing.

B. Schedule of Values.

C. Application for Payment.

D. Change Procedures.

E. Measurement and Payment.

1.2 MATERIALS TESTING:

A. Engineer will engage a recognized construction materials testing firm.

B. Contractor shall be responsible for:

1. Costs of incidental labor and facilities required to assist testing firm.

2. Costs of testing laboratory services used by Contractor separate from Contract Document or Owner requirements.

3. Costs of retesting upon failure of previous tests as determined by Engineer.

1.3 SCHEDULE OF VALUES:

A. Submit a printed schedule on EJCDC 1910-8-E. Contractor's standard form or electronic media printout will be considered.

B. Submit Schedule of Values at the Preconstruction Conference. Provide four (4) reproducible copies.

C. Format: Provide itemized schedule breakdown of Lump Sum Bid. Coordinate schedule with Engineer for approval.

D. Revise schedule to list approved Change Orders, with each Application for Payment.

1.4 APPLICATIONS FOR PAYMENT:

A. Contractor's electronic media driven form or EJCDC 1910-8-E.

B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.

C. Payment Period: Submit by the 25th of each month.

D. Include executed Contractor Affidavit for Partial Payment with each Application for Payment.

E. Submit certification by Contractor of Labor Standards compliance with each Application for Payment.

1.5 CHANGE PROCEDURES:

A. The Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions in writing.

B. The Engineer may issue a Notice of Change which includes a detailed description of a proposed change with supplementary or revised Drawings and Specifications, a change in contract time for executing the change and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate within 10 days.

C. The Contractor may propose changes by submitting a request for change to the Engineer, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Sum/Price and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01600.

D. Stipulated Sum/Price Change Order: Based on Notice of Change and Contractor's fixed price quotation or Contractor's request for a Change Order as approved by Engineer.

E. Work Directive Change: Engineer may issue a directive, on EJCDC 1910-8-F Work Directive Change signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.

F. Change Order Forms: EJCDC 1910-8-B or Engineer’s standard electronic media driven form.

G. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract, including a funding agency representative.

1.6 MEASUREMENT AND PAYMENT:

A. Authority: Work under this Contractor shall be measured by the Item Lump Sum Price as indicated on the Bid Schedule. Where the Item Lump Sum Price applies, the work will be considered as a complete installation as shown and specified.

Unit Quantities: Quantities and measurements indicated in the Bid Form are for contract purposes only. Quantities and measurements supplied or placed in the Work shall determine payment. The bid price for any Unit Price method item shall be in effect for any actual quantity encountered within plus or minus 25 percent of the estimated quantity. Payment or adjustment for quantities greater than plus or minus 25 percent will be subject to negotiation.

B. Payment Includes: Full compensation for required labor, Products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

C. Defect Assessment: Replace the Work, or portions of the Work, not conforming to specified requirements. If, in the opinion of the Engineer, it is not practical to remove and replace the Work, the Engineer will direct an appropriate remedy or adjust payment.

END OF SECTION

SECTION 01039

COORDINATION AND MEETINGS

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Coordination.

B. Field Engineering.

C. Preconstruction Meeting.

1.2 COORDINATION:

A. Coordinate scheduling, submittal, and Work of the various sections of the Project Manual to assure efficient and orderly sequence of installation of interdependent construction elements.

B. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.

C. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD ENGINEERING:

A. Control datum for survey is that shown on Drawings.

B. Contractor to verify set-backs and easements, confirm drawing dimensions and elevations.

C. Contractor to provide field engineering services as required to support his work. Establish elevations, lines, and levels, utilizing recognized engineering survey practices.

1.4 PRECONSTRUCTION MEETING:

A. Engineer will schedule a meeting after Notice of Award.

B. Attendance Required: Owner, Engineer, Funding Agency Representative and Contractor.

C. Agenda:

1. Distribution of Owner-Contractor Agreement / Contract Document.

2. Submission of executed bonds and insurance certificates.

3. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.

4. Designation of personnel representing the parties in Contract, and the Engineer.

5. Procedures and processing of field decisions, submittal, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.

6. Scheduling.

7. Coordination with other agencies/organizations.

8. Scheduling activities of a Geotechnical Engineer.

D. Engineer to record minutes and distribute copies after meeting to participants.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01090

STANDARD REFERENCES

Whenever used in the Project Manual, the following abbreviations will have the meanings listed:

When documents are referenced, they are a part of the Specification as specified and modified. In case of conflict between the requirements of these Specifications and those on the referenced documents, these Specifications shall prevail.

AASHTO	American Association of State Highway and Transportation Officials 341 National Press Building Washington, DC 20004
ACI	American Concrete Institute Post Office Box 9094 Farmington Hills, MI 48333-9094
AISC	American Institute of Steel Construction 101 Park Avenue New York, NY 10017
AISI	American Iron and Steel Institute 150 East 42nd Street New York, NY 10017
AITC	American Institute of Timber Construction 333 West Hampden Avenue Englewood, CO 80110
ANSI	American National Standards Institute, Inc. 1430 Broadway New York, NY 10018
APA	American Plywood Association 1119 A Street Tacoma, WA 98401
API	American Petroleum Institute 1801 K Street N.W. Washington, DC 20006
ASCE	American Society of Civil Engineers 345 East 47th Street New York, NY 10017
ASCII	American Standard Code for Information Interchange United States of American Standards Institute 10 East 40th Street New York, NY 10016

ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers United Engineering Center 345 East 47th Street New York, NY 10017
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103
AWPA	American Wood Preservers Association 1625 Eye Street Washington, DC 20006
AWS	American Welding Society 2501 N.W. 7th Street Miami, FL 33125
AWWA	American Water Works Association 6666 N. Quincy Avenue Denver, CO 80235
CRSI	Concrete Reinforcing Steel Institute 180 North La Salle Street Chicago, IL 60601
EEI	Edison Electric Institute 90 Park Avenue New York, NY 10016
EIA	Electronic Industries Association 2001 Eye Street N.W. Washington, DC 20006
ENGINEER	Enprotec / Hibbs & Todd, Inc. 402 Cedar Abilene, TX 79601
FEDSPEC	Federal Specifications General Services Administration Specification and Consumer Information Distribution Branch Washington Navy Yard, Bldg. 197 Washington, DC 20407
FEDSTDS	Federal Standards (see FEDSPECS)

HI	Hydraulic Institute 1230 Keith Building Cleveland, OH 44115
ICEA	Insulated Cable Engineers Association P.O. Box P South Yarmouth, MA 02664
IEEE	Institute of Electrical and Electronic Engineers, Inc. 345 East 47th Street New York, NY 10017
IES	Illuminating Engineering Society c/o United Engineering Center 345 East 47th Street New York, NY 10017
ISA	Instrument Society of America 400 Stanwix Street Pittsburgh, PA 15222
MILSPEC	Military Specifications Navy Publications and Forms Center 5801 Tabor Avenue Philadelphia, PA 19120
NAAMM	National Association of Architectural Metal Manufacturers 100 South Marion Street Oak Park, IL 60302
NACE	National Association of Corrosion Engineers Post Office Box 986 Katy, TX 77450
NEC	National Electrical Code National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210
NEMA	National Electrical Manufacturer's Association 155 East 44th Street New York, NY 10017
NFPA	National Forest Products Association 1619 Massachusetts Avenue, N.W. Washington, DC 20036
NFPA	National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210

NSF	National Sanitation Foundation 3475 Plymouth Road Ann Arbor, MI 48106
OSHA	Occupational Safety and Health Act Occupational/Safety and Health Administration Lubbock Area Office 1205 Texas Avenue, Room 421 Lubbock, TX 79401
OWNER	Texas State Technical College 300 Homer K Taylor Dr. Sweetwater, Texas 79556
SBCC	Southern Building Code Congress 1116 Brown-Marx Building Birmingham, AL 35203
SSPC	Steel Structures Painting Council 4516 Henry Street, Suite 301 Pittsburgh, PA 15123-3728
SSPWC-NCT	Standard Specifications for Public Works Construction-- North Central Texas North Central Texas Council of Governments Post Office Drawer COG Arlington, Texas 76005-5888
TCEQ	Texas Commission on Environmental Quality 12100 Park 35 Circle Austin, TX 78753
TDRA	Texas Department of Rural Affairs PO Box 12877 Austin, TX 78711
TXDOT	Texas Department of Transportation 125 E. 11th Street Austin, TX 78701
UBC	Uniform Building Code Published by ICB
UL	Underwriters Laboratories, Inc. 207 East Ohio Street Chicago, IL 60611
UMC	Uniform Mechanical Code Published by ICBO
UPC	Uniform Plumbing Code Published by IAPMO

USBR	Bureau of Reclamation U.S. Department of Interior Engineering and Research Center Denver Federal Center, Building 67 Denver, CO 80225
WWPA	Western Wood Products Association Yeon Building Portland, OR 97204

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Submittal Procedures.

B. Construction Progress Schedules.

C. Shop Drawings.

D. Product Data.

E. Manufacturer's Installation Instructions.

F. Manufacturers' Certificates.

1.2 SUBMITTAL PROCEDURES:

A. Transmit each submittal with Engineer accepted form.

B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix. The first submittal will be labeled 001-A.

C. Each submittal shall be limited to a single specification section or material topic. Where equipment packages, assemblies, and the like are interrelated, the submittals should be provided together facilitating review of the Contractor’s purposed offering. When related portions of an equipment package or system are not provided, the submittals may be returned without review.

D. Identify Project, Contractor, Subcontractor or supplier; pertinent Drawing and detail number, and Specification section number, as appropriate.

E. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.

F. Schedule submittals to expedite the Project, and deliver to Engineer in PDF format via electronic mail. Coordinate submission of related items.

G. For each submittal for review, allow 20 days excluding delivery time to and from the Contractor.

H. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.

I. Provide space for Contractor and Engineer review stamps.

J. Revise and resubmit, identify all changes made since previous submission.

K. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with provisions.

1.3 CONSTRUCTION PROGRESS SCHEDULES:

A. Submit initial schedule in duplicate within 20 days after date established in Notice to Proceed.

B. Revise and resubmit as required.

C. Submit revised schedules with each Application for Payment, identifying changes since previous version.

D. Submit a horizontal bar chart with separate line for each major section of Work or operation, identifying first work day of each week.

E. Indicate estimated percentage of completion for each item of Work on each Application for Payment submission.

1.4 SHOP DRAWINGS:

A. Submit the number of reproductions which Contractor requires, plus three copies which will be retained by Engineer. Electronic format is preferred when appropriate to reduce number of copies and transmittal time.

B. Shop Drawings: Submit for review. After review, produce copies and distribute in accordance with the SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700--CONTRACT CLOSEOUT.

1.5 PRODUCT DATA:

A. Submit the number of copies which the Contractor requires, plus three copies which will be retained by the Engineer. Electronic format is preferred when appropriate to reduce number of copies and transmittal time.

B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.

C. After review, distribute in accordance with the Submittal Procedures article above and provide copies for record documents described in Section 01700 - CONTRACT CLOSEOUT.

1.6 MANUFACTURER INSTALLATION INSTRUCTIONS:

A. When specified in individual Specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and operating, to Engineer in quantities specified for Product Data.

1.7 MANUFACTURER OPERATION AND MAINTENANCE INSTRUCTIONS:

A. When specified in individual specification sections, submit printed instructions for operations and maintenance (O&M), to Engineer, in quantities specified for Product Data.

B. O&M information shall include but not necessarily be limited to parts lists, disassembly drawings, electrical schematics, and other information required for proper operation and maintenance.

1.8 MANUFACTURER CERTIFICATES:

A. When specified in individual Specification sections, submit certification by manufacturer to Engineer, in quantities specified for Product Data.

B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Quality Assurance--Control of Installation.

B. Tolerances.

C. References.

D. Testing Laboratory Services.

E. Manufacturers' Field Services and Reports.

1.2 QUALITY ASSURANCE--CONTROL OF INSTALLATION:

A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Perform Work by persons qualified to produce workmanship of specified quality.

F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 TOLERANCES:

A. Monitor tolerance control of installed Products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.4 REFERENCES:

A. For Products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard by date of issue current on date of Contract Documents, except where a specific date is established by code.

C. Obtain copies of standards where required by product Specification sections.

D. The contractual relationship, duties, and responsibilities of the parties in Contract and of the Engineer, shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.5 TESTING LABORATORY SERVICES:

A. Owner will appoint and employ services of an independent firm to perform inspecting and testing.

B. The independent firm will perform inspections, tests, and other services specified in individual Specification sections and as required by the Engineer or the Owner.

C. Inspecting, testing, and source quality control may occur on or off the project site. Perform off-site inspecting or testing as required by the Engineer or the Owner.

D. Reports will be submitted by the independent firm to the Engineer and Contractor, in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.

E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.

1. Notify Engineer and independent firm 24 hours prior to expected time for operations requiring services.

2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.

F. Testing or inspecting does not relieve the Contractor of his responsibility to perform Work to contract requirements.

G. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the Engineer. Payment for retesting shall be the Contractor's responsibility.

1.6 MANUFACTURERS' FIELD SERVICES AND REPORTS:

A. When specified, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, as applicable, and to initiate instructions when necessary.

B. Report observations and site decisions or instructions that are supplemental or contrary to manufacturers' written instructions.

C. Submit report in duplicate within 30 days of observation to Engineer for information.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Construction Facilities: Temporary construction facilities will not be required for this project. A field office will be at the Contractor's option.

B. Temporary Signage: A temporary project sign will not be required other than those required by law.

1.2 ACCESS ROADS:

A. When necessary, construct and maintain roads accessing public thoroughfares to serve construction area.

B. Extend and relocate as work progress requires. Provide detours necessary for unimpeded traffic flow.

C. Provide and maintain access to fire hydrants, free of obstructions.

D. Provide means of removing mud from vehicle wheels before entering streets.

1.3 PARKING:

A. Arrange for temporary surface parking areas to accommodate construction personnel.

B. When site space is not adequate, provide additional off-site parking.

1.4 PROGRESS CLEANING AND WASTE REMOVAL:

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Collect and remove waste materials, debris, and rubbish from site periodically and dispose off-site.

1.5 PROJECT CLEANUP:

A. Clean the project site and adjacent areas at the completion of the project. Cleanup is to include sweeping (wet broom on pavement), grading of intersecting streets or right of way (if necessary), trash pickup, etc. The work must be to the satisfaction of the Owner.

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Closeout procedures.

B. Final Cleaning.

C. Adjusting.

D. Project record documents.

E. Warranty.

F. Spare parts and maintenance materials.

1.2 CLOSEOUT PROCEDURES:

A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's review.

B. Provide submittals to Engineer that are required by governing or other authorities.

C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

D. Submit executed Affidavit of Bills Paid with final Application for Payment. Affidavit shall state all bills for labor, materials, and incidentals incurred in the construction of the project have been paid in full, and that there are no claims pending of which the Contractor has been notified.

1.3 FINAL CLEANING:

A. Execute final cleaning prior to final project assessment.

B. Clean debris from drainage systems.

C. Clean site; sweep paved areas, rake clean landscaped surfaces.

D. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.4 ADJUSTING:

A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.5 PROJECT RECORD DOCUMENTS:

A. Maintain on site, one set of the following record documents; record actual revisions to the Work:

1. Drawings.

2. Specifications.

3. Addenda.

4. Change Orders and other modifications to the Contract.

5. Reviewed Shop Drawings, Product Data, and Samples.

6. Manufacturer's instruction for assembly, installation, and start-up of Products and equipment.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress.

E. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:

1. Manufacturer's name and product model and number.

2. Product Substitutions or alternates utilized.

3. Changes made by Addenda and modifications.

F. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:

1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.

2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.

3. Field changes of dimension and detail.

4. Details not on original Contract drawings.

G. Remove Engineer title block and seal from all documents.

H. Submit documents to Engineer with claim for final Application for Payment.

1.6 WARRANTY:

A. The Contractor shall guarantee the Work performed under this contract against defective materials and workmanship for a period of one year from the date of Substantial Completion or acceptance of individual Work elements. The contractor shall arrange to have his Performance Bond remain in effect for a period of one year after this date to cover his guarantee as stipulated under this item and in the General Conditions.

B. If defective materials and/or workmanship are discovered which require repairs made under this guarantee, all such repairs shall be done by the Contractor at his own expense within ten days after written notice of such defect. Should the Contractor fail to repair or correct such deficiency within ten days after notification, the Owner may make the necessary repairs and charge the Contractor with the applicable costs of all labor and materials required to correct the deficiency.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 02226

EXCAVATION, BACKFILLING and COMPACTING FOR PAVEMENT

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Excavating, Backfilling and Compacting flexible base for asphaltic concrete paving. Existing roadway base and pavement are to be excavated in accordance with the lines and grades indicated in the drawings. Reclaimed asphalt pavement shall become the property of the Contractor. New flexible base must meet the specification requirements.

1.2 REFERENCES:

A. ASTM D698 - Moisture - Density Relations of soils (standard).

B. ASTM D1557 - Moisture-Density Relations of soils (modified).

C. ASTM D4318 - Test for liquid limit, plastic limit and plasticity index of soils.

D. ASTM D3017 - Moisture content of Soil and Soil Aggregate In-Place by Nuclear Methods.

E. ASTM D2992 - Density of Soil and Soil Aggregate In-Place by Nuclear Methods.

F. TxDOT - Texas Department of Transportation Standard Specifications.

1.3 SUBMITTALS:

A. Procedures for submittals: Reference paragraph 1.3, Section 02210.

1.4 DEFINITION:

A. Classification: Earthwork materials are classified in accordance with definitions in this article.

B. Topsoil: Top 6 inches of natural surface soil possessing the characteristics of representative soils on the site that produce growths of grass or other vegetation. Topsoil includes roots and other vegetation.

C. Natural Subgrade: Consists of that portion of the surface on which a compacted embankment or pavement is constructed, after removal of 6-inch topsoil layer.

D. Compacted Fill: A subgrade under pavement consisting of fill placed and compacted between the top of the compacted natural subgrade and underside of pavement and including fill areas adjacent to paving within limits shown on typical cross sections.

E. Borrow: Material taken from approved areas to makeup any deficit of excavated material.

F. Finish grading: Operations required for smoothing disturbed areas that are not overlaid with pavement.

G. Excavation: Excavation of every description and of whatever substance encountered within the grading limits of the project to the lines and grades indicated in the drawings.

H. Compaction: Compaction of soil materials shall be measured as a percent of standard or modified proctor density at the specified moisture content as determined by ASTM D698 or ASTM D1557.

1.5 EXISTING UTILITIES:

A. Where pipes, ducts and structures are encountered in the excavation but are not shown on the drawings, immediately notify the Engineer and Owner.

B. Take extra precaution to avoid damage to existing manholes, lids, concrete collars, etc. Damages must be repaired at the Contractor's expense.

PART 2 PRODUCTS

2.1 MATERIALS:

A. Flexible Base: TxDOT Item 247, Type A – Crushed, Grade 2, or better.

PART 3 EXECUTION:

3.1 EXCAVATION:

A. Objective: Excavate to lines, grades and elevations required for subsequent construction of pavement fill, flexible base, or pavement.

B. Drainage: During excavation, maintain grades for complete drainage. When directed, install temporary drains or drainage ditches to intercept or divert water and prevent interference or delay or the work.

C. Stockpiling: If at time of excavation it is not possible to place material in the proper section of permanent construction, stockpile the material in Owner or Engineer approved areas for later use.

D. Excavation material to be disposed of offsite by contractor in an appropriate location and manner. Owner has decision to keep excavated material, in which case the owner and contractor will negotiate the disposal of excavated material.

E. Stone or Rock: Stones or rock fragments larger than 2 inches in their greatest dimension will not be permitted in top 6 inches backfill.

F. Dressing: Uniformly dress, cut and fill slope, cross section and alignment.

G. Grade as necessary to match existing driveways, right-of-way, etc., to the satisfaction of the Engineer and Owner. Add additional flexible base to level up when necessary or as directed by the Engineer and Owner.

3.2 PLACING PAVEMENT FILL FOR GRADE ADJUSTMENTS:

A. Attaining proper bond: If the compacted surface of a layer is too smooth to bond with succeeding layers, loosen the surface by harrowing or other approved method before continuing work.

B. Flexible Base Course: Place and compact flexible base course under pavement sections, or for roadways where indicated. Compact to a density between 95 and 100 percent of the maximum dry density at ±2 percent of optimum moisture content per ASTM D1557. The thickness of each layer before compaction shall not exceed 6 inches.

C. Provide and compact base material behind curb and gutter to match existing driveways. Grade as necessary to match existing driveways, right-of-way, etc., to the satisfaction of the Engineer and Owner.

3.3 MOISTURE CONTROL:

A. Intent: Developing the maximum density obtainable with the natural moisture of the material is preferred. However, the moisture content of the pavement fill and flexible base fill shall not vary from the optimum, as determined by ASTM D698 or ASTM 1557, by ranging between -2 and +4 percent of optimum. The moisture content of the natural subgrade under pavement sections, including grade adjustments with pavement fill, as determined by ASTM D698 shall range from optimum to +4 percent of optimum.

B. Adjustment: If the moisture content is too high, adjust to within the specified limits by spreading the material and permitting it to dry. Assist the drying process by dicing or harrowing if necessary. When the material is too dry, sprinkle each layer with water. Work the moisture into the soil by harrowing or other approved method.

3.4 COMPACTION:

A. Compact each layer of subgrade with suitable rollers as necessary to obtain a dry density of 95% to 98% maximum dry density within the specified range of the moisture content, according to ASTM D698.

B. Compact each layer of flex base as necessary to obtain a dry density of 95% to 100% maximum dry density within the specified range of the moisture content, according to ASTM D1557.

3.5 MATERIAL DISPOSAL:

A. Excess excavated material (soil material free of trees, stumps, logs, brush, roots, rubbish and other objectionable matter which has been accepted). Remove excess excavated material from the construction site before pre-final inspection. Legally dispose of material at a licensed site or with written and notarized permission from the property Owner for a private disposal site. All

costs associated with waste material removal and disposal shall be paid for by the Contractor.

B. Waste material (soil material including trees, stumps, logs, brush, roots, rubbish and other objectionable matter which has been accepted). Remove waste material from the project site before pre-final inspection.

3.6 TESTING:

A. Laboratory testing and inspection services: As specified in Section 01400 - Quality Control.

3.7 GRADE CONTROL:

A. All construction staking and grade control will be the responsibility of the Contractor. Work closely with the Engineer's Representative in the field.

END OF SECTION

SECTION 02231

AGGREGATE BASE COURSE

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Aggregate base material, conforming to the type and grade of material as specified within the plans and constructed to the lines, grades, and compacted thickness shown.

1.2 REFERENCES:

A. TxDOT Item 247 - Flexible Base.

B. ASTM D698 - Test Methods for Moisture-Density Relations of Soils (Standard).

C. ASTM D1557 - Test Methods for Moisture-Density Relations of Soils (Modified)

1.3 SUBMITTALS:

A. Refer to Section 01300 for submittal requirements.

B. Samples: Aggregate samples of material as required by the testing laboratory.

1.4 DELIVERY, STORAGE AND HANDLING:

A. Aggregate Base Course shall be hauled in tight trucks previously cleaned of all dirt and foreign material.

B. Place aggregate base course the same day as delivered to the jobsite unless otherwise approved by the Engineer.

PART 2 PRODUCTS

2.1 MATERIALS:

A. Aggregate Base Course shall meet the requirements TxDOT Item 247--Flexible Base, Type A – Crushed, Grade 2 or better, with material larger than 3 inches removed.

PART 3 EXECUTION

3.1 EXAMINATION:

A. Place material only after the subgrade has been properly constructed and inspected.

3.2 PREPARATION:

A. Do not place fill or base on soft, muddy, or frozen surfaces.

3.3 AGGREGATE PLACEMENT:

A. Place aggregate in maximum 6 inch layers and compact to 95% - 100% modified proctor density± 2% of optimum moisture. For thicknesses over 6 inches, construct in multiple courses of equal thickness.

B. Upon completion, the material shall be smooth and in conformity with the typical sections as shown.

C. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.4 TOLERANCES:

A. Correct any deviation in by loosening, adding or removing material, reshaping and recompacting at the Contractor's expense.

3.5 FIELD QUALITY CONTROL:

A. If the aggregate base material should lose the required density or finish before foundation is complete, it shall be reworked, recompacted, refinished and retested at the Contractor's expense.

END OF SECTION

SECTION 02280

TRAFFIC CONTROL

PART 1 GENERAL

1.1 SCOPE:

A. This section includes the development of a Traffic Control Plan (TCP) and the provision for proper traffic control within the public right-of-way.

B. Construction in areas outside of TxDOT right-of-way does not require a TCP; however, proper traffic control devices and procedures shall be used.

C. Proper traffic control shall consist of providing, installing, moving, replacing, maintaining, cleaning and removing upon completion of work, all barricades, signs, cones, lights and other such traffic control devices and handling of traffic during construction.

1.2 REGULATORY REQUIREMENTS:

A. All traffic control devices and procedures shall conform to those indicated in the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

1.3 SCHEDULING:

A. Coordinate implementation of TCP with Engineer and Owner Representative.

PART 2 PRODUCTS

2.1 DEVICES:

A. In accordance with TMUTCD.

PART 3 EXECUTION

3.1 IMPLEMENTATION:

A. Since utility construction in areas outside of TxDOT right-of-way does not require a TCP, Contractor may proceed with construction in these areas without TxDOT approval, however proper traffic control devices and procedures shall be used.

B. All reflective traffic control devices such as barricades, vertical panels, signs, etc., shall be maintained by cleaning, replacing or a combination thereof, such that during darkness and rain, the original reflective characteristics of the devices are maintained.

3.2 MEASUREMENT:

A. This item shall be measured as a lump sum as indicated in the Contract Documents.

3.3 PAYMENT:

A. The TCP, work performed, and materials furnished in accordance with this item will be paid for at the lump sum bid for "Traffic Control Plan". This price shall be full compensation for furnishing all labor, materials, supplies, equipment and incidentals necessary to complete the work as specified.

END OF SECTION

SECTION 02510

ASPHALTIC CONCRETE PAVING

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Surface course, consisting of compacted mixture of coarse and fine aggregates and asphaltic material, placed on stabilized base in conformity with lines, grades, compacted thickness and typical cross sections shown.

1.2 REFERENCES:

A. TxDOT Item 300 - Asphalts, Oils and Emulsions.

B. TxDOT Item 310 - Prime Coat (cutback asphaltic material only).

C. TxDOT Item 340 - Dense graded Hot Mix Asphalt (method).

D. TxDOT Item 666 – Reflectorized Pavement Markings

1.3 SUBMITTALS:

A. Procedures for Submittals: Section 01300.

B. Contractor shall certify the mixing plant will conform to the requirements of TxDOT.

C. Certified weight tickets shall be submitted with each delivery of asphaltic concrete to the work site.

D. Contractor shall submit design mixtures, including additive modifiers, for review and approval at least 30 days before any asphaltic pavement is placed. The design mixes shall be prepared by a certified independent testing laboratory employed and paid by the Contractor.

1.4 DELIVERY, STORAGE and HANDLING:

A. Asphaltic concrete material shall be hauled in tight trucks previously cleaned of all dirt and foreign material with the load completely covered by canvas.

B. All material shall be delivered so that material can be placed and rolled during daylight hours.

1.5 DELIVERY, STORAGE and HANDLING:

A. Asphaltic concrete shall not be placed when the ambient temperature is below 60 degrees F and is falling.

B. Asphaltic concrete may be mixed and placed when the ambient temperature is above 50 degrees F and rising.

PART 2 PRODUCTS

2.1 PRIME COAT:

A. Asphaltic Materials: TxDOT Item 300, "Asphalts, Oils and Emulsions".

B. Provide grade MC-30 or AE-P.

2.2 TACK COAT:

A. Asphaltic Materials: TxDOT Item 300, "Asphalts, Oils and Emulsions".

B. Provide grade RC-250, CSS-1H, or SS-1H. Do not dilute emulsions.

2.3 HOT MIX ASPHALTIC CONCRETE SURFACE COURSE:

A. The asphaltic concrete surface course shall be plant mixed, hot laid Type D (Fine Graded Surface Course) meeting requirements in TxDOT Item 340 and specific criteria for the job mix formula.

B. The mix shall be designed for stability of at least 35 as determined by test method Tex-227-F and shall be compacted to between 92 and 98 percent of the maximum theoretical density and determined under test method Tex-207-F.

C. The asphalt cement content by percent of total mixture weight shall fall within a tolerance of ± 0.3 percent asphalt cement from the specific mix. In addition, the mix shall be designed so that 75 to 85 percent of the voids in the mineral aggregate (VMA) are filled with asphalt cement.

2.4 STRIPING

A. Striping shall be in accordance with TxDOT Item 666 and all related manufacturers and application requirements.

B. Provide TxDOT Type II striping as designated on plans.

PART 3 EXECUTION

3.1 PRIME COAT:

A. Apply with an approved sprayer. Prime coat shall be applied at a rate of 0.20 to 0.30 gallons per square yard as shown on contract drawings over compacted flexible base and shall be cured for 24 hours minimum. The actual rate of application to be determined in the field based on actual conditions.

3.2 TACK COAT:

A. Apply with approved sprayer. Thoroughly clean pavement surface and apply tack coat at a rate of 0.05 to 0.15 gallons per square yard of pavement contact surface. The actual rate of application to be determined in the field based on actual conditions.

3.3 LAYING:

A. Placement: Haul the asphaltic concrete mixture, which has been heated and prepared as specified, to the project in tight vehicles previously cleaned of foreign material. The mixture shall be at a temperature between 200 degrees Fahrenheit and 350 degrees Fahrenheit when laid. The Engineer will determine the lowest acceptable temperature; a variance of 30 F upward will be allowed. Spread the material into place with approved mechanical finishing machine of screening or tamping type. **Use a tire or track-mounted finish machine capable of maintaining uniform grade WITHIN SPECIFIED TOLERANCES while placing directly on the flexible base subgrade.**

B. Surface Course Material: A surface course 2 inches or less in thickness may be spread in one lift. Spread all lifts in such a manner that when compacted, the finished course will be smooth, of uniform density and to section, line and grade shown.

3.4 LAYERING IN RESTRICTED AREAS:

A. If use of a paver is impractical, asphalt surface courses may be spread and finished by hand. Use wood or steel forms, rigidly supported to assure correct grade and cross section. Carefully place materials to avoid segregation of the mix. Broadcasting the material will not be permitted. Any lumps that do not break down readily shall be removed. Place asphalt courses in the same sequence as if placed by machine.

3.5 ROLLING:

A. Begin rolling while pavement is still hot and as soon as it will bear the roller without undue displacement or hair cracking. To prevent adhesion of surface mixture to the roller, keep wheels properly moistened with water. Excessive use of water will not be permitted.

B. Compress the surface thoroughly and uniformly, first with power-driven, 3-wheel, or tandem rollers weighing 10 tons. Obtain subsequent compression by starting at the side and rolling longitudinally toward the center of the pavement, overlapping on successive trips by at least one-half width of rear wheels. Make alternate trips slightly different in length. Continue rolling until further compression cannot be contained and all rolling marks are eliminated.

C. Use a tandem roller for the final rolling. Double coverage with an approved pneumatic roller on asphaltic concrete surface is acceptable after flat wheel and tandem rolling has been completed.

3.6 HAND TAMPING:

A. Along walls, curbs, headers and similar structures and in all locations not accessible to rollers, compact the mixture thoroughly with a vibrating plate compactor.

3.7 DENSITY:

A. Compact the base surface course to the density shown. If, during the construction, the results of density tests show that the surface has a density less than specified, an additional rolling with a 3-wheel or pneumatic roller will be required. Such a rolling shall be done before the mix cools if it is to be successful.

3.8 SURFACE TESTS:

A. The completed surface, when tested with a 16-foot straightedge laid parallel to the center line of the pavement, shall show no deviation in excess of 1/16 inch per foot from the nearest point of contact. The maximum ordinate measured from the face of the straightedge shall not exceed 1/4 inch at any point. Furnish approved templates for checking subgrade in finished sections. The strength and rigidity of templates shall be such that if a support is transferred to center, no deflection in excess of 1/8 inch will be observed.

3.9 CONSTRUCION JOINTS:

A. Place courses as nearly continuously as possible. Pass the roller over unprotected ends of the freshly laid mixture only when the mixture has become chilled. When work is resumed, cut back the laid material to produce a slightly beveled edge for the fill thickness of the course. Remove old material which has been cut away and lay the new mix against the fresh cut.

B. When new asphaltic is laid against existing or old asphalt, the existing or old asphalt shall be cut to provide a straight smooth joint. A tack coat is to be applied against this sawed joint face before applying new hot mix.

3.10 DEFFECTIVE PAVEMENT:

A. Recompact pavement sections not meeting specified densities or replace them with new asphaltic concrete material. Replace with new material section of surface course pavement not meeting surface test requirements or having an unacceptable surface texture. Patch asphaltic pavement sections in accordance with procedures established by the Asphalt Institute. Replace asphalt pavement sections which did not meet the specifications.

3.11 FIELD QUALITY CONTROL:

A. Laboratory Testing and Inspection Services: As specified in 01400.

3.12 DEFICIENT SURFACE THICKNESS:

A. Any area of asphalt surface found deficient in thickness by more than 0.25 inches shall be removed and replaced, at the Contractor's expense, with asphalt surface of the thickness shown. Care should be taken not to damage or remove the pavement below the asphalt surface. Should damage to the pavement below the asphalt surface occur, it shall be removed and replaced at the Contractor's expense.

B. No additional payment will be made for any asphalt surface of a thickness exceeding 0.25 inches greater than that required by the contract documents.

END OF SECTION

SECTION 02513

SURFACE TREATMENT

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Surface course, consisting of one and two course surface treatment and asphaltic material, placed on the streets shown on the plans to receive a sealcoat or on other streets as directed by the Engineer and in accordance with these specifications.

1.2 REFERENCES:

A. TxDOT Item 300 — Asphalts, Oils and Emulsions.

B. TxDOT Item 302 — Aggregates for Surface Treatment.

C. TxDOT Item 316 — Surface Treatment.

D. TxDOT Item 666 – Reflectorized Pavements Markings

1.3 SUBMITTALS:

A. Procedures for Submittals: Section 01300.

B. Contractor shall certify that aggregate and asphalt will conform to the requirements of TxDOT Standard Specifications.

C. Contractor shall certify that pre-coated aggregate is coated with like asphalt as is planned for the project to ensure compatibility.

D. Certified weight tickets shall be submitted with each delivery of aggregate to the work site.

E. All aggregate samples required for testing shall be furnished by the Contractor. All tests for initial aggregate submittals necessary to determine compliance with requirements specified herein will be made by the Contractor at his expense. Sampling and testing will be conducted by an approved independent testing laboratory.

1.4 DELIVERY, STORAGE and HANDLING:

A. All storage tanks, piping, booster tanks, and distributors used in storing or handling asphalt shall be kept clean and in good operating condition at all times, and they shall be operated in such a manner that there will be no contamination of the asphalt with foreign material. Asphalt shall not be heated above 350°F at any time, and when applied, it shall be at a temperature of not less than 275°F and not more than 350°F. All asphalt material heated above 350°F will be rejected. Asphalt storage and application temperatures were taken from TxDOT item 300, 2004

specification. Re-circulating heating equipment shall be equipped with recording temperature gauges.

B. Sealcoat shall not be applied when the air temperature is below 60°F, the air temperature being taken in the shade and away from artificial heat. Sealcoat shall not be applied when the temperature of the surface to be treated is below 70°F. Asphalt material shall not be placed when general weather conditions are not suitable.

C. Sealcoat shall not be applied during sand, dust or rain storms. When the aggregate is too dusty, so as to prevent adequate bonding to the asphalt, the contractor is to dampen the aggregate stockpiles. The pavement shall be free of surface moisture during periods of sealcoat construction.

D. No asphalt material shall be placed which will not allow completion of sealcoat construction.

E. The surface on which the sealcoat is to be applied shall be cleaned of all dirt, dust, or other deleterious materials by sweeping with rotary brooms or other approved methods immediately prior to application of asphalt. No asphalt shall be applied until the street surfaces are thoroughly cleaned.

PART 2 PRODUCTS

2.1 SEAL COAT ASPHALT:

A. Asphaltic materials: TxDOT Item 300, "Asphalts, Oils and Emulsions".

B. Provide grade AC-20-5TR, or approved equal.

2.2 SEAL COAT AGGREGATE:

A. Aggregate Materials: TxDOT Item 302, "Aggregate for Surface Treatment".

B. Provide Pre-coated Type B Grade 4 Aggregate (PB Grade 4).

C. Provide aggregate from a TXDOT approved source in accordance with the TXDOT Bituminous Rates Source Quality Catalog.

2.3 STRIPING

A. Striping shall be in accordance with TxDOT Item 666 and all related manufacturers and application requirements.

B. Provide TxDOT Type II striping as shown on plans.

PART 3 EXECUTION

3.1 SEAL COAT:

A. Approximate Rates for Single Applications:

1. Asphalt: 0.32 to 0.45 gallons per square yard (quantities established for bidding are based upon an average of 0.42 gal/SY).

2. Aggregate: 1 CY/105 SY to 1CY/120 SY (quantities established for bidding are based upon an average of 1CY/110SY).

3. Rates are to be adjusted in the field by the Contractor based upon field conditions and test strips.

B. Approximate Rates for Double Applications:

1. First coat
Asphalt: 0.28 to 0.35 gallons per square yard.
Aggregate: 1 CY/105 SY to 1CY/120 SY.

2. Second coat
Asphalt: 0.25 to 0.30 gallons per square yard.
Aggregate: 1 CY/115 SY to 1CY/120 SY.

3. Rates are to be adjusted in the field by the Contractor based upon field conditions and test strips.

C. Actual rates of application to be determined in the field by the Contractor based on actual conditions and test strips. Test strips are not paid for directly, but are considered subsidiary to various line items in the bid form. Adjustments in rates of application may be made if needed during the course of work.

3.2 LAYING:

A. Asphalt shall be applied on the clean surface by an approved type of self-propelled pressure distributor. Each distributor shall be equipped with an onboard computer system, which controls the rate of application, so as to distribute the material in the quantity specified, evenly and smoothly, under the pressure necessary for proper distribution. The asphalt distributor must have been calibrated within the last three (3) years. The Contractor shall provide all necessary facilities for determining the temperature of the asphalt in all of the heating equipment and in the distributor, for determining the rate and pressure at which the asphalt is applied, and for securing uniformity at the junction of two distributor loads. **The beginning and ending of each shot of asphalt shall start and stop on a strip of heavy paper of not less than thirty (30) inches in width.** All manholes and valve boxes shall be accurately located and covered with paper before the asphalt is applied. On successive passes by the distributor, the asphalt shall be overlapped by no more than four inches in order to get uniform distribution.

In areas inaccessible to the distributor, asphalt shall be applied by means of a hand-held hose attached with spray nozzles to the distributor. Care shall be taken during application of any asphalt to shield the curb and gutter from the asphalt spray; satisfactory means of compliance with this requirement will be insisted upon.

Asphalt material shall not be applied until immediate coverage with aggregate is assured. Asphalt and aggregate shall not be spread over a greater yardage than can be rolled and finished in one day's operation during daylight hours.

B. Immediately after the application of the asphalt, the surface shall be covered with aggregate. The aggregate shall be spread with an approved, self-propelled, continuous feed aggregate spreader box which controls the rate of application so as to apply the rates specified above. Immediately after the aggregate has been spread, it shall be thoroughly rolled with approved 12-ton minimum rubber-tired Pneumatic Rollers. The Contractor will, as a minimum, maintain and operate a minimum of two pneumatic rollers rated at 12-tons each, during all sealcoat operations. All areas covered by hand held hose requires rolling with only one pneumatic roller. The first rolling of the aggregate shall be completed within 15 minutes after it has been spread. Each pneumatic roller shall have a total compacting width of not less than 60 inches and shall have a minimum contact pressure of 45 pounds per square inch. Each trip shall overlap the previous trip by approximately one-half the width of the front wheels. The aggregate shall not be applied in such thickness as to cause "blanketing". Back-spotting or sprinkling of additional aggregate material, and application of additional asphalt material over areas that have insufficient aggregate cover or asphalt shall be done by hand whenever necessary.

When the sealcoat is applied in more than one strip, from 4 to 6 inches of the inside or adjoining edge shall be left uncovered with aggregate to allow for an overlap of asphalt when the adjacent strip is applied.

The aggregate course shall be rolled with pneumatic rollers to insure proper embedment of aggregate into the asphalt. The rolling shall be continued until no more aggregate material can be worked into the surface. Further rolling on the strip being placed and on adjacent strips previously placed, shall be done as often as necessary to keep the aggregate material uniformly distributed. These operations shall continue until the surface is evenly covered and cured.

When additional rolling is required the Contractor, shall provide a pneumatic roller as specified above to complete the rolling process.

Contractor shall be responsible for maintenance of the surface and the distribution of the excess aggregate until the work is accepted. Any additional aggregate required to cover bleeding or "fat" spots shall be furnished and applied by the Contractor.

After final rolling, surplus aggregate shall be swept off the surface and removed prior to final acceptance of the work. Excess aggregate shall be delivered to the Owner at a designated site.

3.3 CORRECTION OF DEFECTS:

Any defects, such as raveling, low centers, lack of uniformity, or other imperfections caused by faulty workmanship, shall be corrected to the satisfaction of the Engineer on-site prior to moving to the next location.

All defective materials resulting from over-heating, improper handling, or application shall be removed by the Contractor and replaced with approved materials as provided for in these specifications.

All repairs will be full width regardless of the area of failure. No spot patching will be allowed. Areas of lost aggregate or asphalt must be repaired by the contractor within ten (10) days of notification. If weather conditions are not favorable, the repair work will be postponed until the first available opportunity and a 10% retainage will be withheld from payment until the repair work is accepted by the Owner/Engineer.

3.4 FIELD QUALITY CONTROL:

A. Laboratory Testing and Inspection Services: As specified in 01400.

3.5 CLEANUP:

After completion of the sealcoat, all debris resulting from the construction shall be cleaned up and removed from the site of the work to an approved place of disposal. Gutters shall be cleaned of dirt, aggregate, or other materials which clog the gutter. All manholes and valves shall be exposes and any excess asphalt or aggregate cleaned and removed. The entire premise of the work shall be left in a clean condition satisfactory to the Engineer, and all costs of cleanup shall be included in the contract unit price for the time of work involved.

3.6 FINAL INSPECTION:

Upon completion of all work and cleanup, and prior to the Contractor removing any equipment from the project site a final inspection will be conducted. The Resident Project Representative (RPR) will conduct the inspection with representative from the Contractor and Owner. Any deficiencies discovered during the final inspection shall be corrected by the Contractor prior to leaving the project site. This shall not relieve the Contractor of the Contractor's responsibility for faulty materials or workmanship. The Contractor shall promptly replace any such defects discovered within one year of written acceptance of the work.

PART 4 METHOD OF MEASUREMENT

The seal coat to be paid for shall be the number of asphalt gallons and cubic yards of aggregate placed as measured in the field during construction. Final quantities shall be determined by the Engineer in conjunction with the Contractor of actual seal coat placed. A "Pay Estimate" for the work placed shall be submitted to the Engineer from the Contractor and then the Engineer shall submit a "Pay Request" to the Owner for payment as calculated from the unit bid items quoted in the proposal.

PART 5 BASIS OF PAYMENT

Payment shall be made at the contract unit prices established in the bid. This price shall be full compensation for cleaning, furnishing all materials and for all preparation, delivering, and application of these materials and for all labor, equipment, tools, and incidentals necessary to complete the item including rolling, finishing, and final cleanup.

END OF SECTION

SECTION 03100

CONCRETE FORMWORK

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Design, construction, erection and removal of concrete formwork.

B. Openings in formwork for other affected work.

C. Form accessories.

D. Installation of embedded items.

1.2 REFERENCES:

A. ACI 301-89--Specifications for Structural Concrete for Buildings.

B. ACI 347R-88--Recommended Practice for Concrete Formwork.

C. ASTM A120-84--Pipe, Steel, Black and Hot-Dipped Zinc - Coated (Galvanized) Welded and Seamless.

D. ASTM D226--Asphalt-Saturated Roofing Felt.

E. ASTM D1751--Preformed Expansion Joint Fillers (Bituminous Types).

F. PS 1-74--Construction and Industrial Plywood.

G. PS 20-70--American Softwood Lumber Standard.

1.3 SYSTEM DESCRIPTION:

A. Conventional Concrete Formwork:

1. Conventional formwork as specified in this Section for surfaces of cast-in-place concrete.

2. Extent of formwork is indicated by cast-in-place concrete elements shown on Drawings.

1.4 SUBMITTALS:

A. Procedures for Submittals: Section 01300.

B. Product Data: Manufacturer's product data sheets for accessories and waterstops.

1.5 QUALITY ASSURANCE:

A. Design Criteria: Conform to ACI 347, Chapter 1, and ACI 301.

B. Design Responsibility: Contractor is responsible for design, engineering and construction of formwork, including shoring and bracing.

1. Design formwork for loads, lateral pressures and allowable stresses in accordance with ACI 347.

2. Allow for other applicable requirements of authorities having jurisdiction.

3. Design camber into formwork to compensate for anticipated deflection during concrete placement where necessary to maintain specified tolerances.

4. Design formwork to allow removal without damage to concrete surfaces.

5. Contractor is responsible for determining when temporary supports, shores, backshores and other bracing may be safely removed.

C. Forming Methods:

1. Unless otherwise scheduled or specified, formwork as specified in this Section shall be used or form cast-in-place concrete elements.

2. Where soil is in stable enough condition that it can be shaped to a true and straight surface without caving or sloughing, the following members may be cast against neat cut excavations:

a. Unexposed sides of grade beams cast monolithically with slabs.
b. Sides of footings.
c. Pier caps.

1.6 DELIVERY, STORAGE, AND HANDLING:

A. Deliver, store, and handle materials to avoid damage. Store materials in accordance with manufacture's instructions with seals and labels intact and legible.

B. Deliver form materials in manufacture's packaging with installation instructions.

C. Store off ground in ventilated and protected area to prevent deterioration from moisture or damage.

1.7 COORDINATION:

A. Notify Engineer at least 48 hours prior to completion of formwork so that the formwork may be observed. Do not place reinforcing steel or concrete until the forms have been observed.

B. Coordinate block-out sizes for rough openings for other work. Coordinate location and extent of items built-in to concrete formwork.

PART 2 PRODUCTS

2.1 FORM MATERIAL:

A. Framing: Kiln dried softwood lumber, PS20.

B. Smooth Forms:

1. Construct formwork with plywood; tempered, concrete-form hard board; dressed lumber with plywood or fiberboard lining; metal; plastic; or metal-framed plywood-faced panel material to provide continuous, straight smooth surfaces. Form material shall be free of raised grain, torn surfaces, worn edges, patches, dents or other defect. Furnish material in largest practical sizes to minimize the number of joints. Form material shall have sufficient strength and thickness to withstand the pressure of newly place concrete without bow or deflection.

2. Use smooth forms on interior and exterior concrete surfaces exposed to view in the completed structure, including exterior face of grade beams.

3. Unless otherwise shown or specified, as a minimum use plywood complying with U.S Product Standards PS-1, "B-B (Concrete Form) Plywood" Class 1, Exterior Grade or better, mill-oiled and edge-sealed, with each piece bearing legible trademark of an approved inspection agency.

C. Rough Forms:

1. Construct forms of dressed or undressed lumber free of knots, splits or other defects; plywood; metal; or other acceptable material. Material shall have sufficient strength and thickness to withstand pressure of newly placed concrete without bow or deflection.

2. Rough forms may be used on concrete surfaces that will not be exposed to view in complete structures unless noted otherwise.

D. Shores: Wood or adjustable metal type with bearing plates and with double wedges at bottom.

E. Carton Forms:

1. Corrugated fiberboard box forms fabricated of natural Kraft with liners, completely impregnated with a polyethylene wax blend, and laminated with a waterproof adhesive. Boxes assembled with steel strappings.

2. Forms shaped to design and dimensions as indicated for formed voids.

3. Forms capable of supporting weight of concrete plus a live load of 20 psf on area supported by void form.

2.2 FORM ACCESSORIES:

A. Form Ties: Factory fabricated, adjustable length, removable or snap-off metal ties, designed to prevent form deflection and to prevent spalling concrete surfaces upon removal. Provide ties so that portion remaining within concrete is at least 1-1/2 inch from outer surfaces. Provide water seal feature on ties used to form water bearing structures.

B. Form Coating: Commercial formulation of form oil or form-release agent having proven satisfactory performance. Coating shall not bond with, stain or adversely affect concrete surfaces nor impair subsequent treatment of concrete surfaces, including bonding agents, curing compounds and waterproofing.

C. Rustications, Bevels, Chamfers: Mill from Northern White Pine, smooth and free of irregularities. Preformed PVC strips may be used for corner chamfers.

D. Sleeves: Standard weight galvanized pipe, ASTM A120.

2.3 JOINTING ACCESSORIES:

A. Joint Fillers: Premolded mastic strips, asphaltic impregnated, ASTM D1751.

B. Bond Breaker: No. 30 asphalt saturated felt, ASTM D226.

C. Mastic Waterstop: Synko-Flex Preformed Plastic Waterstop by Synko-Flex Products Co. or Butyl Resin ConSeal CS-102 by Concrete Sealants, Inc.

PART 3 EXECUTION

3.1 FORMWORK CONSTRUCTION:

A. General:

1. Construct and maintain formwork, in accordance with ACI 347 and these Specifications, to maintain correct sizes of members, shape, alignment, elevation and position during concrete placement and until concrete has gained sufficient strength.

2. Provide for openings, offsets, keyways, recesses, moldings, anchorages and inserts, as required to accommodate other work including mechanical and electrical. Seal such openings to prevent leakage and loss of concrete matrix.

3. Construct forms for easy removal without damage to concrete surfaces.

4. Construct formwork sufficiently tight to prevent leakage of cement paste during concrete placement. Solidly butt joints and provide backup material at joints to prevent leakage and fins.

5. Place chamfer strips in forms to bevel exposed edges and corners of members. Edges of formed joints and interior corners shall not be

beveled unless shown or specified otherwise. Provide equipment bases with formed beveled edges on vertical and horizontal corners.

6. Provide temporary openings where areas of formwork are inaccessible for cleanout, inspection or concrete placement. Brace openings and set tightly to forms. Locate in as inconspicuous locations as possible.

7. If runways are required for moving equipment, provide for support of runways with struts or legs resting directly on formwork or structural member. Do not allow runways or supports to rest on reinforcing steel.

B. Forms for Surfaces Exposed to View:

1. Drill forms to suit ties used and to prevent leakage of concrete mortar around tie holes. Uniformly space form ties and align in horizontal and vertical rows.

2. Provide sharp, clean corners at intersecting planes, without visible edges or offsets. Back joints with extra studs or girts to maintain true, square intersections.

3. Form molding shapes, recesses and projections with smooth-finish materials and install in forms with sealed joints to prevent displacement.

4. Form exposed corners to produce square, smooth, solid, unbroken lines. Provide exterior exposed corners with 3/4 inch chamfer.

5. Arrange facing material in an orderly and symmetrical fashion. Keep number of form joints to a practical minimum. Support facing material adequately to prevent deflection in excess of allowable tolerances.

6. For flush surfaces exposed to view in the completed structure, overlap previously placed, hardened concrete with form sheathing by approximately one inch. Hold forms against hardened concrete to maintain true surfaces, preventing offsets or loss of mortar.

C. Edge Forms and Screed Strips (Rails) for Slabs: Set edge forms or bulkheads and intermediate screed strips for slabs to obtain required elevations and contours in finish slab surfaces. Provide and secure units to support types of screeds required.

D. Formed Voids:

1. Level subgrade material to minimize protrusions on surface and set void boxes in accord with manufacturer's recommendations for purpose intended.

2. Where multiple units are required to cover an area, cover void boxes with cover sheets of material similar to material boxes are made of and staple down to boxes.

3. Top surface shall be plane and at design concrete soffit elevation.

4. Protect carton forms from moisture before concrete placing and form crushing during concrete placing. Remove and replace damaged carton forms prior to placing concrete.

3.2 TOLERANCES:

A. Construct formwork to maintain concrete surface tolerances in accordance with ACI 347, 3.3.1.

B. Establish sufficient control points and bench marks as references for tolerance checks. Maintain these references in undisturbed conditions until final completion and acceptance of project.

3.3 ADJUSTMENTS OF FORMWORK:

A. Use wedges or jacks to provide positive adjustment of shores and struts. Fasten wedges used for final adjustment of forms in position after final inspection and before concrete placement.

B. Securely brace forms against lateral deflections. Prepare to compensate for settling during concrete placement.

C. For openings, construct wood forms that facilitate any necessary loosening to counteract swelling of forms.

3.4 PREPARATION OF FORM SURFACES:

A. Before placing concrete, clean surfaces of forms and embedded materials. Remove accumulated mortar, grout, rust and other foreign matter.

B. Coat forms with form oil or form-release agent before placing reinforcement. Cover form surfaces with coating material used in strict accordance with the manufacturer's instructions. Do not allow excess coating material to accumulate in forms or to contact hardened concrete against which fresh concrete will be placed. Remove coating material from reinforcement before placing concrete.

3.5 INSERTS, EMBEDDED ITEMS, OPENINGS AND ACCESSORIES:

A. Make provisions for required installation of accessories, bolts, hangers, sleeves, anchor slots and inserts cast in concrete.

B. Obtain templates or instructions for installation of embedded items and anchor bolts.

C. Locate and set in place items which will be cast directly into concrete.

D. Install sleeves or formed openings for pipes, and other work passing through concrete members. Temporarily fill voids to prevent concrete intrusion.

E. Coat aluminum conduits, pipes and inserts embedded in structural concrete with heavy bituminous coating to prevent material-concrete reaction or electrolytic action between material and steel.

F. Coordinate work of other sections involved in forming and setting openings, slots, recesses, chases, sleeves, bolts, anchors, and other inserts.

G. Install concrete accessories in accordance with manufacturer's recommendations; straight, level, and plumb. Ensure items are not disturbed during concrete placement.

H. Place joint filler in expansion joints. Place building felt bond breaker in control joints where scheduled.

3.6 REMOVAL OF FORMS:

A. Forms on vertical surfaces, when repair of surface defects or finishing is required before concrete is aged, may be removed in 24 hours provided concrete has hardened sufficiently to resist damage form removal operations.

B. Remove top forms on sloping surfaces of concrete as soon as concrete has attained sufficient stiffness to prevent sagging.

C. Loosen wood forms for openings as soon as this can be accomplished without damage to concrete.

D. Formwork for walls, sides of beams, and other parts not supporting weight of concrete may be removed after 24 hours provided that concrete has hardened sufficiently to resist damage from removal operations and provided the removal of these forms will not disturb members supporting weight of concrete.

E. Forms and shoring used to support weight of concrete or construction loads shall remain in place until concrete has reached the minimum design strength specified for removal of forms and shoring. In no case shall forms be removed in less than 7 days.

F. Contractor, at his option and risk, may remove formwork after 7 full days have elapsed after completion of concrete placement, provided that in-place concrete has attained 75 percent of its specified 28 days ultimate compressive strength. At Contractor's expense, provide testing and verification of required specified concrete compressive strengths. In addition, when forms are removed there shall not be excessive deflection or distortion and no evidence of damage to concrete either due to removal of supports or to stripping operations. If such deficiencies are observed, the forms and supports shall remain in-place as specified above.

3.7 REMOVAL STRENGTH:

A. Control Tests: Suitable strength control tests shall be used as evidence that concrete has attained specified strength for removal of formwork or shoring supporting weight of concrete in beams, slabs and other structural members.

1. Field-Cured Test Cylinders. When field-cured test cylinders reach specified removal strength, formwork or shoring may be removed from respective concrete placements. Strength data from field-cured test cylinders shall be furnished by the Contractor.

2. Laboratory-Cured Test Cylinders: When concrete has been cured as specified for cast-in-place concrete for same time period required by laboratory-cured cylinders to reach specified strength, formwork or shoring may be removed from respective concrete placements. Determine length of time that the concrete placement has been cured by totaling number of days or fraction of days, not necessarily consecutive, during which air temperature surrounding concrete is above 50 degrees F and the concrete has been damp or thoroughly sealed against evaporation and loss of moisture.

B. Compressive Strengths: Minimum concrete compressive strengths for removal of formwork supporting weight of concrete shall be 100 percent of specified minimum 28-day strength of class of concrete involved.

3.8 RESHORING:

A. Reshoring is not permitted.

3.9 FORM REUSE:

A. Do not reuse forms that are worn or damaged beyond repair.

B. Thoroughly clean and recoat forms before reuse.

C. For wood and plywood forms to be used for exposed smooth finish, sand or otherwise dress concrete contact surface to original condition or provide form liner facing material. For metal forms, straighten, remove dents and clean to return to original condition.

3.10 WATERSTOP INSTALLATION:

A. Install waterstops continuous to form an impenetrable water barrier.

B. Install mastic waterstops in horizontal and vertical construction joints of:

1. Below grade walls up to 12 inch above finish grade.
2. Joints between below grade walls and slabs.
3. Walls and slabs of liquid-containing structures.
4. As indicated on Drawings.

C. Install mastic waterstops continuously in accordance with manufacturer's directions.

END OF SECTION

SECTION 03200

CONCRETE REINFORCEMENT

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Reinforcing steel for concrete reinforcement except pre-stressing tendons.

B. Grouting of reinforcement dowel bars.

1.2 REFERENCES:

A. American Society for Testing and Materials (ASTM):

1. ASTM A82—Steel Wire, Plain, for Concrete Reinforcement.

2. ASTM A185—Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement.

3. ASTM A615—Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.

B. American Concrete Institute (ACI):

1. ACI 315-80—Detailing Reinforced Concrete Structures.

2. ACI 318-89—Building Code Requirements for Reinforced Concrete.

C. Concrete Reinforcing Steel Institute (CRSI): CRSI Manual of Standard Practice.

1.3 SUBMITTALS:

A. Procedures for Submittals: Section 01300.

B. Shop Drawings:

1. Indicate reinforcement fabrication, bar placement location, splices, spacing and bar designation, bar type, length, size, bending, number of bars, bar support type and other pertinent information, including dimensions. Information shall correspond directly to data listed on bill of materials.

2. Provide sufficient detail to permit placement of reinforcement without use of design drawings.

3. Detail shop drawings in accordance with ACI 315.

4. Include bill of materials to be reviewed with shop drawings.

1.4 DELIVERY, STORAGE AND HANDLING:

A. Store steel reinforcement above ground on platforms, skids, or other supports.

B. Protect reinforcing, as far as practicable, from mechanical injury, surface deterioration and rusting caused by exposure to weather.

1.5 COORDINATION:

A. Notify Engineer at least 48 hours prior to completion of reinforcement installation to allow for inspection of reinforcement placement.

PART 2 PRODUCTS

2.1 MATERIALS:

A. Deformed Steel Bars: ASTM A615, grade 60 including Supplementary Requirements (SI), for bars except those shown on drawings as smooth bars.

B. Smooth Steel Bars: ASTM A615, grade 60, for bars shown on the drawings as smooth bars.

C. Welded Wire Fabric: ASTM A185, furnished in flat sheets only.

D. Tie Wire: 18-gauge annealed steel.

E. Bar Supports: Provide sufficient numbers of supports of strength required to carry reinforcement. Bar supports and accessories shall be of size required to provide specified concrete cover. Bar supports and other metal accessories shall meet requirements of CRSI Manual of Standard Practice. Use the following type legs for surfaces listed:

1. Slabs, Walls and Beams: Solid Plastic.

2. Slabs on grade: Precast concrete bar supports (as an alternate for solid plastic) 3-inch wide, 6-inch long and thick enough to allow required cover. Embed tie wires in 3-inch sides.

F. Epoxy Grout: High-strength rigid epoxy adhesive manufactured for purpose of anchoring dowels into hardened concrete.

2.2 FABRICATION:

A. Marking: Clearly mark bars with waterproof tags showing number of bars, size, mark, length and yield strength. Mark steel with same designation as member in which it occurs. Key marks to concrete placement number as designated on concrete placement sequence shop drawings.

B. Bending: Fabricate bars to the spaces shown on drawings by cold bending. Bends shall conform to minimum bend diameters specified in ACI 318. Do not straighten or re-bend bars without specific approval.

C. Splices: Locate splices as shown. Where it is necessary to splice reinforcement at locations other than shown, splices shall be approved by Engineer. Use a minimum number of splices and locate them at points of minimum stress. Stagger splices in adjacent bars. Length of lap splices shall be in accordance with ACI 318 unless shown otherwise.

D. Construction Joints: Reinforcing shall be continuous through construction joints unless detailed otherwise.

E. Fabrication Tolerances: In accordance with fabrication tolerances of CRSI Standard.

PART 3 EXECUTION

3.1 PREPARATION:

A. Clean reinforcement free of scale, loose, or flaky rust, or other foreign material, including oil, mud, or coating that will reduce bond to concrete.

3.2 INSTALLTION:

A. Install reinforcing steel in accordance with applicable codes, reviewed shop drawings and CRSI Standard for details and methods of reinforcement placement and supports.

B. Installation Tolerances: Maintain tolerances in accordance with CRSI Standard.

C. Interferences: If reinforcing interferes with location of other reinforcing steel, conduits, or embedded items, bars may be moved within specified tolerances or one-bar diameter, whichever is greater. If greater movement of bars is required to avoid interferences, notify Engineer. Do not cut reinforcement to install inserts, conduits, mechanical openings, or other items without approval of Engineer.

D. Concrete Cover: Except as otherwise shown, provide a clear cover measured from reinforcement to face of concrete as follows:

Surfaces	Minimum Cover in Inches
Interior not exposed to weather:	
Slabs and walls	3/4
Beams and girders	1-1/2
Exterior formed surfaces not in contact with earth or fresh water:	
Slabs and walls, #5 and smaller bars	1
Slabs and walls, #6 thru #11 bars	
Formed surfaces	1-1/2
Beams and girders	2
Exterior formed surfaces in contact with earth or water:	

Slabs and walls, #5 and smaller bars	1-1/2
Slabs and walls, #6 thru #11 bars	2
Beams and girders	2-1/2
Footings:	
Top	2
Bottom and sides	3
Surfaces cast against and permanently exposed to earth	3

E. Placement in Forms:

1. Use spacers, chairs, wire ties and other accessory items necessary to properly assemble space and support reinforcing.

2. Provide accessories of sufficient number, size and strength to adequately prevent deflection, or displacement, of reinforcing due to construction loads or concrete placement.

3. Use appropriate accessories to position and support bolts, anchors and other embedded items.

4. Tie reinforcing bars at intersections and to accessories. Tie alternate intersections when spacing is less than 12 inches each way. When spacing is 12 inches each way or greater, tie at each intersection. Blocking reinforcement with concrete or masonry is prohibited.

F. Placement for Concrete on Ground:

1. Support reinforcement on chairs with sheet metal bases spaced at approximately 3 feet o.c. each way. Use a minimum of one support for each 9 sq. ft. Tie supports to reinforcing bars.

2. As an alternate, reinforcement may be supported on precast concrete blocks spaced at approximately 3 feet o.c. each way. Use a minimum of one block for each 9 sq. ft. Tie blocks to at least one reinforcing bar using tie wires embedded in block.

G. Splices:

1. Do not splice bars, except at location shown on drawings or reviewed shop drawings, without approval of Engineer.

2. Lap Splices: Tie securely with wire to prevent displacement of splices during placement of concrete.

H. Construction Joints: Place reinforcing continuous through construction joints unless detailed otherwise.

I. Expansion Joints:

1. Do not extend reinforcement through expansion joint.

2. Where shown or scheduled, install smooth steel bar dowels in expansion joints. Apply oil or grease to one end of dowels.

J. Welded Wire Fabric:

1. Install wire fabric in as long lengths as practicable. Lap adjoining pieces at least one full mesh plus 2-inch or 6-inch, whichever is larger, and lace splices with wire.

2. Do not make end laps midway between supporting beams, or directly over beams, or continuous structures.

3. Offset end laps in adjacent widths to prevent continuous laps.

K. Field Bending:

1. Shape reinforcing bent during construction operations to meet requirements of the drawings. Bars shall be cold-bent; do not heat bars.

2. Closely examine reinforcing for breaks. If reinforcing is damaged, replace, Cadweld or otherwise repair as directed by Engineer.

3. Do not bend reinforcement after it is embedded in concrete.

L. Welding: Welding of reinforcing bars is prohibited.

3.3 GROUTING OR REINFORCING BARS:

A. When required and approved by the Engineer, use approved epoxy grout for anchoring reinforcing steel to hardened concrete in accordance with grout manufacturer's instructions.

B. Drill hole in existing concrete that is ¼-inch larger than diameter of reinforcing bar. Immediately, prior to installation of the reinforcing bar, clean hole free of debris using compressed air.

C. Partially fill hole with epoxy. Use enough so that when bar is inserted, epoxy grout will completely fill hole around dowel.

D. Dip end of reinforcing bar in epoxy and install into partially filled hole.

3.4 FIELD QUALITY CONTROL:

A. Inspection of reinforcing steel installation as specified in Section 01400.

END OF SECTION

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Cast-in-place concrete consisting of Portland cement, aggregate, water and admixtures.

B. Mix design requirements.

C. Formwork, reinforcement, joints and placing requirements.

1.2 REFERENCES:

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

A. ASTM A615 - Deformed and Plain Billet Steel Bars for Concrete Reinforcement.

B. ASTM C31 - Making and Curing Concrete Test Specimens in the Field.

C. ASTM C33 - Concrete Aggregates.

D. ASTM C39 - Compressive Strength of Cylindrical Concrete Specimens.

E. ASTM C94 - (1986; Rev. b) Ready-Mixed Concrete.

F. ASTM C143 - Slump of Portland Cement Concrete.

G. ASTM C172 - Sampling Freshly Mixed Concrete.

H. ASTM C173 - Air Content of Freshly Mixed Concrete by the Volumetric Method.

1.3 SUBMITTALS:

A. Section 01300 - Submittals: Procedures for submittals.

B. Certificates: Mill certificates for bulk cement.

C. Product Data: Manufacturer's data sheets for Engineer approved additives and bonding agents.

D. Submit test data on proposed design mixes for each type of concrete to be used in the project to verify that the Specification requirements are met or exceeded.

1.4 QUALITY ASSURANCE:

A. Project Controls: Provide necessary controls during evaluation of material, mix designs, production and delivery of concrete, placement, compaction, finishing and curing necessary to assure that work will be accomplished in such a manner to produce the work in accordance with contract documents.

1.5 DELIVERY, STORAGE AND HANDLING:

A. Materials shall be delivered, stored and handled in a manner to prevent deterioration, contamination, or any other circumstances that would be harmful to cast-in-place concrete.

1.6 PROJECT CONDITIONS:

A. Do not place concrete during rain, sleet, or snow unless protection is provided and approved by the Engineer.

B. Coordinate concrete placement schedule with other related work.

C. Notify Engineer at least 24 hours before placement.

PART 2 PRODUCTS

2.1 MATERIALS:

A. Cement: ASTM C94, Type 1 Cement, unless approved by the Engineer. Only one brand of any one type of cement shall be used for exposed concrete surfaces of any individual structure.

B. Fine Aggregate: Aggregate meeting the requirements of ASTM C33.

C. Coarse Aggregate: Aggregate sizes No. 467 or No. 57 according to ASTM C33, or as approved by the Engineer.

D. Water: Potable water free from detrimental chemicals and solids that will decrease the strength of the concrete.

E. Embedded Items: Embedded items shall be of the size and type shown, or as needed for the application.

F. Curing Materials: Curing materials shall be burlap, impervious sheets, or membrane-forming compounds.

G. Dowels: Plain carbon steel bars, minimum yield point of 40,000 psi for use in slabs on grade.

H. Expansion Joint Filler Strips: Pre-molded, non-extruding, resilient, bituminous or non bituminous type for use in concrete paving or construction, thickness as shown.

I. Form materials: Wood, metal, or other Engineer approved materials that will produce the specified finishes without adversely affecting the concrete surfaces.

J. Form Coating: Non-staining form oil or form-release agent that will not deleteriously affect concrete surfaces nor impair subsequent applications.

K. Form Ties: Metal, factory-fabricated, removable snap-off type, that will not have holes less than ¼-inch nor more than 1-inch deep and not more than 1 inch in diameter.

L. Joint Sealant: As shown or approved by Engineer for sealing joints in concrete against moisture infiltration.

M. Bonding Agent: As approved by Engineer.

N. Admixtures: Air-entraining, retarders and other admixtures as approved by Engineer.

2.2 MIX DESIGN:

A. Concrete Class: Concrete mixes shall be proportioned to obtain the following characteristics:

1. Class "A": Minimum compressive strength of 3000 psi in 28 days with a minimum of 5 bags of cement per cubic yard.

2. Class "B": Minimum compressive strength of 2500 psi in 28 days with a minimum of 4 bags of cement per cubic yard.

B. All concrete shall be Class "A", unless specified otherwise.

C. Air Content: Total air content of exterior concrete shall be maintained at 5%, plus or minus 1%.

D. Slump: Slump shall be 3 to 5 inches. If admixtures are used, slump shall be as approved by Engineer.

2.3 STORAGE:

A. Materials shall be stored so as not to deteriorate or become contaminated.

PART 3 EXECUTION

3.1 FORMWORK:

A. Formwork shall be made mortar tight, properly aligned and adequately supported to produce concrete conforming accurately to the indicated shapes, lines, dimensions and to surfaces free of offsets, waviness, or bulges.

B. Unless otherwise shown, exposed external corners shall be chamfered, beveled, or rounded by moldings placed in the forms. Chamfer shall be 1-inch nominal.

C. Surfaces shall be thoroughly cleaned and coated before each use.

D. Forms shall be removed at a time and in a manner that will not damage the concrete.

3.2 INSTALLATION OF ANCHORAGE ITEMS:

A. Installation of anchorage items shall be as shown or required to ensure sufficient anchorage for purpose intended.

3.3 JOINTS:

A. Contraction Joints: Joints shall be installed as specified or shown.

B. Expansion Joints: Joints shall be installed as specified or shown.

C. Construction Joints: Construction joints shall be located as shown or approved by the Engineer.

3.4 PLACING:

A. Surfaces to receive concrete shall be clean and free from frost, ice, mud and water.

B. Concrete may be placed directly on impervious surfaces that are thoroughly moistened but not muddy.

C. During cold weather, in-place concrete shall be protected from freezing weather, throughout the curing period.

D. During hot weather, a retarder may be used if approved by the Engineer.

E. Concrete to receive other construction shall be struck to the proper level leaving a textured surface to receive the additional construction.

3.5 CONSOLIDATION OF CONCRETE:

A. Except for slabs 4 inches or less, each layer of concrete shall be consolidated with internal concrete vibrators supplemented by hand spading, rodding and tamping.

B. Vibrating equipment shall be adequate to thoroughly consolidate the concrete.

C. Concrete in slabs 4 inches and less shall be consolidated by compacting and screening.

3.6 FINISHING CONCRETE:

A. Formed Surfaces:

1. Fins and loose material shall be removed.

2. Unsound concrete, voids over ½-inch in diameter, and tie-rod and bolt holes shall be cut back to solid concrete, reamed, brush-coated with cement grout and filled solid with a stiff Portland-cement-sand mortar mix.

3. Patchwork shall be finished with adjoining concrete surfaces and, where exposed, shall match adjoining surfaces in texture and color.

B. Unformed Surfaces:

1. Surfaces shall be finished to a true place with no deviation exceeding 5/16 inch when tested with a 10-foot straightedge.

2. Surfaces shall be screened and floated to the required finish level with no coarse aggregate visible before finishing as specified below.

C. Monolithic Finish:

1. Monolithic finish shall be given to flatwork unless otherwise specified.

2. After the surface moisture has disappeared, floated surfaces shall be steel-toweled to a smooth, even, dense finish, free from blemish, including trowel marks.

3.7 CURING:

A. Curing shall start as soon as free water has disappeared from concrete surfaces after placing and finishing.

B. Curing materials shall be applied and maintained so as to protect the concrete from moisture loss for 7 days.

C. Curing shall be accomplished by impervious sheet or membrane-forming curing compound.

D. Concrete surfaces shall be thoroughly wetted before covering with impervious sheet materials.

E. Membrane-forming curing compound shall be applied with mechanical spraying equipment at a coverage rate as recommended by manufacturer.

F. Curing compound shall not be used on surfaces receiving applications depending on adhesion or bonding.

3.8 TESTING:

A. The frequency and type of tests shall be determined by the Engineer.

B. Aggregates: Aggregates shall be sampled and tested in accordance with ASTM C33.

C. Sampling of concrete: Samples of concrete for air, slump, unit weight and strength tests shall be taken in accordance with ASTM C172.

D. Air Content: Tests for air content shall be performed in accordance with ASTM C173.

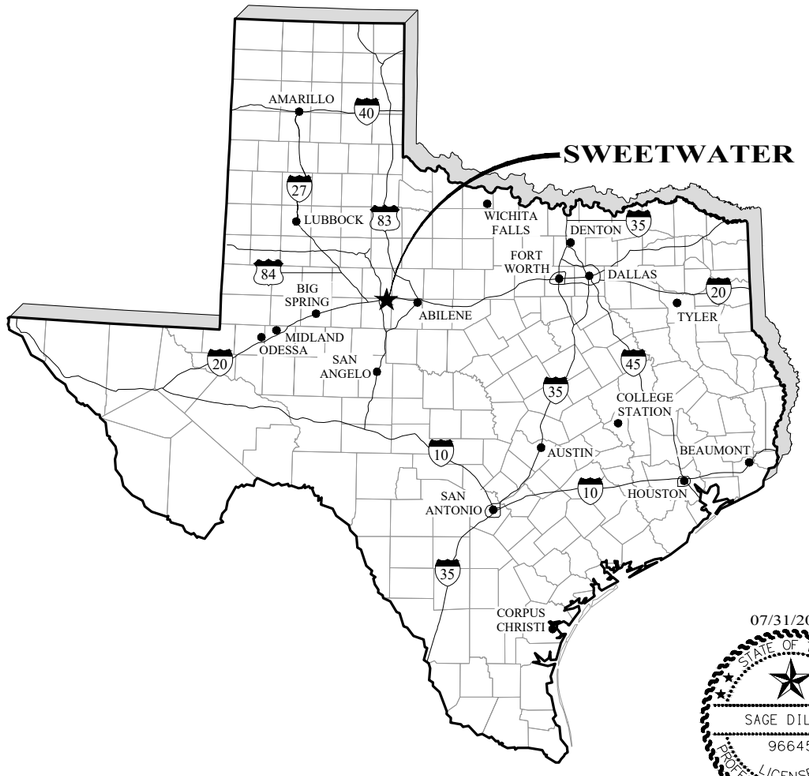
E. Slump: Slump tests shall be performed in accordance with ASTM C143.

F. Cylinders: Cylinders shall be molded and cured according to ASTM C31 and tested in accordance with ASTM C39.

END OF SECTION

Exhibit B - Drawings

TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS



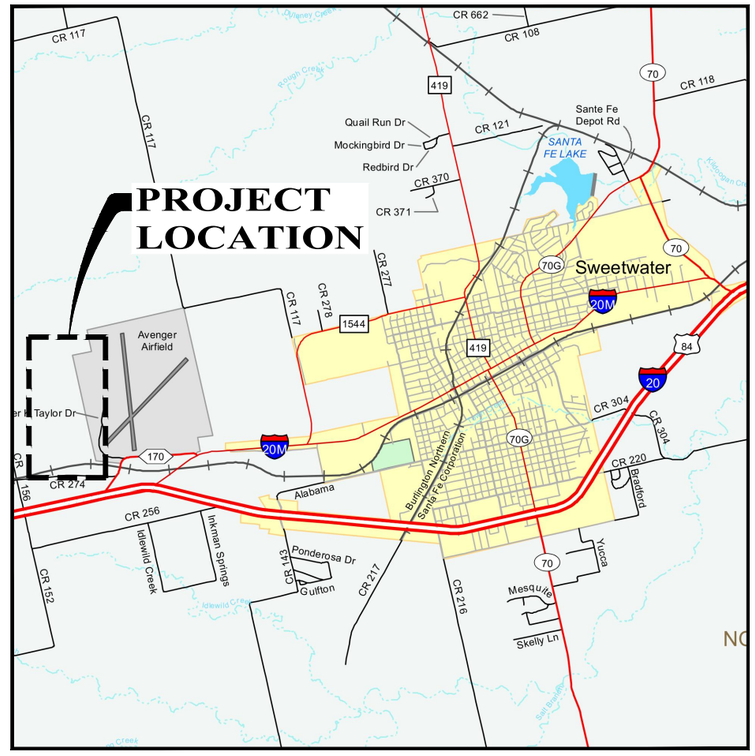
VICINITY MAP
NO SCALE

FACILITIES PLANNING
RAYMOND D. FRIED

07/31/2018

STATE OF TEXAS
SAGE DILLER
96645
LICENSED PROFESSIONAL ENGINEER

SAGE DILLER, P.E.



LOCATION MAP
NO SCALE

SHEET INDEX

ENPROTEC/HIBBS & TODD, INC.
ENVIRONMENTAL AND CIVIL ENGINEERING
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Abilene, Texas 79601
PE Firm Registration No. 1151
PG Firm Registration No. 50103
RPLS Firm Registration Nos. 10011900 & 10007300

CONTRACT NO.
18-7026

GENERAL CONSTRUCTION NOTES

1. LENGTH AND WIDTHS SHOWN ARE FOR ESTIMATING PURPOSES ONLY. QUANTITIES FOR PAYMENT SHALL BE FIELD MEASURED AND APPROVED BY THE ENGINEER.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ADJACENT PROJECT/CONTRACTOR(S) PRIOR TO AND DURING CONSTRUCTION.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR AND ADEQUATELY PROTECT ALL CURBS, GUTTERS, MANHOLES, VALVE BOXES, ETC. AND REPAIR OR REPLACE DAMAGE CAUSED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR AND ADEQUATELY PROTECT PRIVATE PROPERTY, EXISTING STRUCTURES, UTILITIES, TREES, SHRUBS, AND OTHER ADJOINING FACILITIES, AND REPAIR OR REPLACE DAMAGE CAUSED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER.

TRAFFIC NOTES

1. CONTRACTOR MUST NOTIFY RESIDENTS OF CONSTRUCTION ONE WEEK PRIOR TO CONSTRUCTION START. COORDINATE CLOSURE OF BUSINESS AND DRIVEWAYS ALONG THE ALIGNMENT TWO WEEKS IN ADVANCE. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS.

2. A NOTICE PREPARED BY THE CONTRACTOR AND APPROVED BY THE OWNER SHALL BE HAND DELIVERED BY THE CONTRACTOR TO ALL RESIDENTS WITHIN THE VICINITY OF CONSTRUCTION NOTIFYING THEM OF THE PROPOSED CONSTRUCTION AND POSSIBLE DISRUPTIONS IN SERVICE TO WATER, SEWER, ROADS, ACCESS, ETC. NOTICE SHALL INCLUDE NAMES AND NUMBERS TO CONTACT IN CASE OF ANY QUESTIONS.

3. MAINTAIN ACCESS TO ALL PROPERTIES AFFECTED BY CONSTRUCTION IN ONE OR MORE OF THE FOLLOWING METHODS: (1) ANCHORED ½" STEEL PLATES (2) BACK FILLING IMMEDIATELY AFTER CONSTRUCTION (3) PLACING CALICHE SURFACE FOR TEMPORARY DRIVEWAY PURPOSES. COST FOR MAINTAINING ACCESS SHALL BE CONSIDERED INCIDENTAL TO THE PRICE BID PER LINEAR FOOT OF UTILITY LINE CONSTRUCTION.

4. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, LATEST EDITION) DURING CONSTRUCTION.

5. WHEN APPLICABLE, CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SIGNAL OPERATION AT SIGNALIZED INTERSECTIONS, FOR ADJUSTING AND/OR RELOCATING EXISTING TRAFFIC SIGNAL EQUIPMENT OR PROVIDING, INSTALLING, AND MAINTAINING TEMPORARY SIGNAL EQUIPMENT AS NEEDED FOR CONSTRUCTION AND TO PROVIDE LINE-OF-SIGHT SIGNAL INDICATIONS, AND FOR IMMEDIATELY REPLACING AND/OR REPAIRING ANY TRAFFIC SIGNAL EQUIPMENT, CABLES, OR CONDUIT THAT IS CUT OR DAMAGED.

6. WHEN APPLICABLE, THE CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS WHICH COULD CAUSE DRIVERS CONFUSION IN DIVERSION AND MERGING ZONES BY GRINDING, BLAST CLEANING, OR OTHER METHOD APPROVED BY THE OWNER. THE CONTRACTOR SHALL RESTORE THESE MARKINGS WHEN TEMPORARY DIVERSIONS ARE NO LONGER NEEDED. THE NEW PAVEMENT MARKINGS SHALL BE DURABLE AND REFLECTIVE, AND SHALL MATCH THE LOCATION OF THE MARKINGS REMOVED.

7. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN SAFETY FENCES AND BARRICADES AT ALL TIMES AT EACH SITE WHERE PEDESTRIAN TRAFFIC IS EVIDENT.

8. CONSTRUCTION WARNING SIGNS AND END OF CONSTRUCTION SIGNS SHALL BE PLACED AT PROJECT LIMITS AND SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE CONSTRUCTION.

9. CONTRACTOR SHALL MAINTAIN TRAFFIC IN EACH DIRECTION BY MEANS OF FLAGMEN OR DETOUR DURING WORKING HOURS.

10. FLAGMEN ARE REQUIRED TO DIRECT TRAFFIC WHERE TRAFFIC LANES ARE BLOCKED. THE OWNER MAY REQUIRE TRAINED AND CERTIFIED FLAGMAN SHOULD THE WORK NOT BE PERFORMED IN A MANNER CONSISTENT WITH THE REQUIREMENTS OF THE TRAFFIC SAFETY DEPARTMENT.

11. CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER SUCH THAT TRUCKS AND OTHER VEHICLES DO NOT CREATE A DIRT/DUST NUISANCE OR SAFETY HAZARD IN ANY STREETS, PUBLIC OR PRIVATE.

12. CONTRACTOR SHALL NOTIFY TXDOT PRIOR TO BEGINNING WORK ALONG ALL TXDOT RIGHT-OF-WAYS.

07/31/2018

STATE OF TEXAS
SAGE DILLER
96645
LICENSED PROFESSIONAL ENGINEER

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325-698-5560
PE Firm Registration No. 1151
PG Firm Registration No. 50103
RPLS Firm Registration Nos. 10011900 & 10007300

TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

GENERAL NOTES

18-7026	PROJECT NO.
07/31/2018	DATE
C.T.	DESIGNED BY:
EHT	DRAWN BY:
S.D.	CHECKED BY:

ESTIMATED QUANTITIES

BASE BID

AREA	QUANTITY	UNIT	DESCRIPTION
Area A	6,810	SY	Removal of Existing Pavement & Base Material
	6,810	SY	Recompact Subgrade & Base (Add Base Material Where Required)
	775	Tons	2" Hot Mix (Including Prime & Tack Coat) (Type D)
	130	SY	Concrete Valley Gutter
	10	CY	Concrete (For Drainage Structure) (Class C)
	1,820	LF	Striping
Area B	5,770	SY	Sealcoat
	1,850	LF	Striping
Area C	6,635	SY	Removal of Existing Pavement & Base Material
	2,835	SY	Recompact Subgrade & Base (Add Base Material Where Required)
	3,800	SY	Flexible Base Material
	670	Tons	2" Hot Mix (Including Prime & Tack Coat) (Type D)
	710	SY	6" Concrete Paving and Driveways
	1,220	LF	Striping
Area D	3,270	SY	Sealcoat
	500	SY	Misc. Base / Hot Mix Repair
	905	LF	Striping

ALTERNATES

AREA	QUANTITY	UNIT	DESCRIPTION
Alternate A	1,530	SY	Removal of Existing Pavement & Base Material
	1,530	SY	Recompact Subgrade & Base (Add Base Material Where Required)
	175	Tons	2" Hot Mix (Including Prime & Tack Coat) (Type D)
	800	LF	Striping
Alternate B	3,110	SY	Removal of Existing Pavement & Base Material
	3,110	SY	Recompact Subgrade & Base (Add Base Material Where Required)
	360	Tons	2" Hot Mix (Including Prime & Tack Coat) (Type D)
	1,035	LF	Striping

07/31/2018

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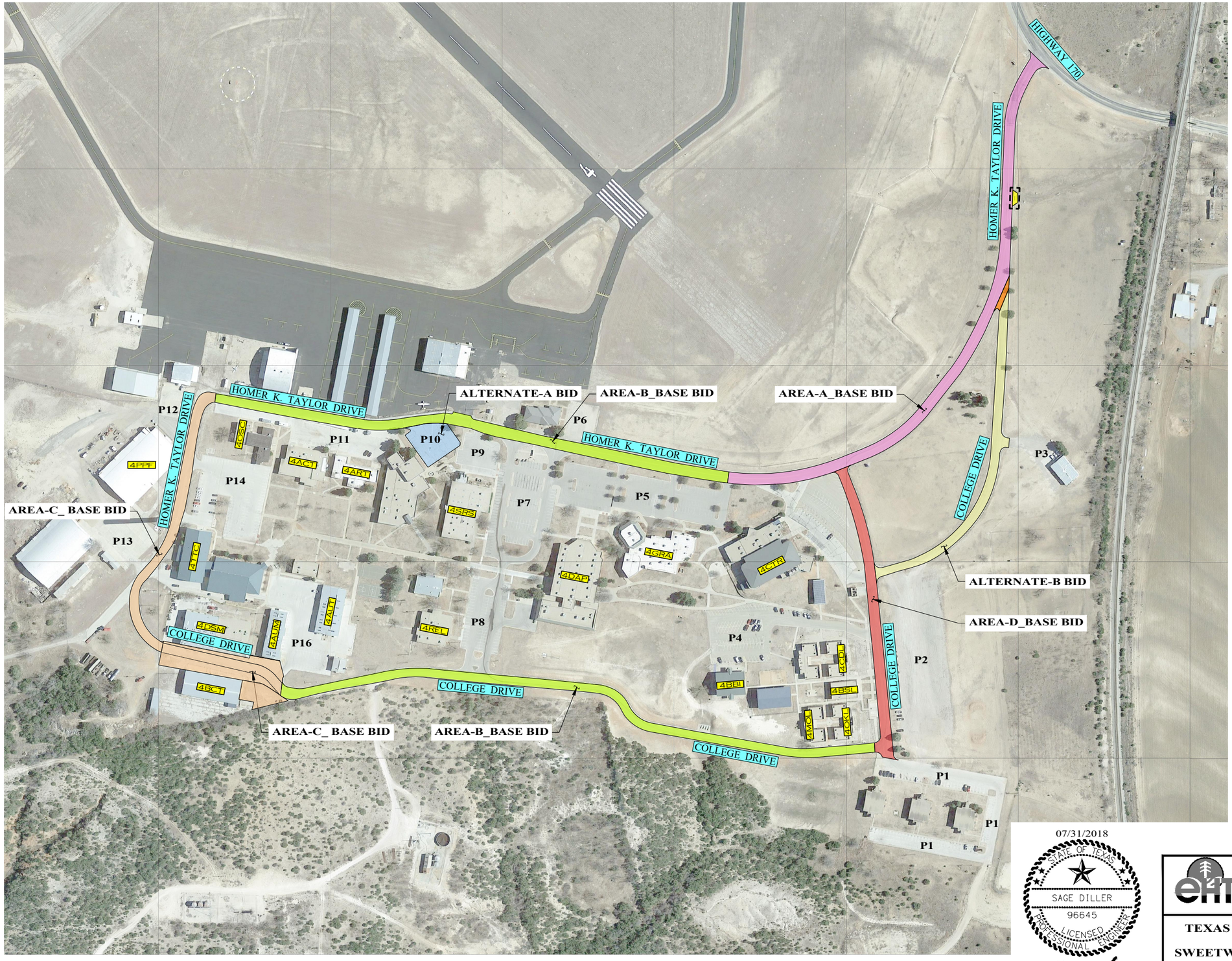
TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

QUANTITIES

18-7026 PROJECT NO.
07/31/2018 DATE
C.T. DESIGNED BY:
EHT DRAWN BY:
S.D. CHECKED BY:



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SCALE IN FEET

LEGEND

P#	PARKING AREA
	AREA - A BASE BID
	CONCRETE VALLEY GUTTER
	FLOWABLE CONCRETE BACKFILL FOR DRAINAGE STRUCTURE
	AREA - B BASE BID
	AREA - C BASE BID
	AREA - D BASE BID
	ALTERNATE A BID
	ALTERNATE B BID

07/31/2018

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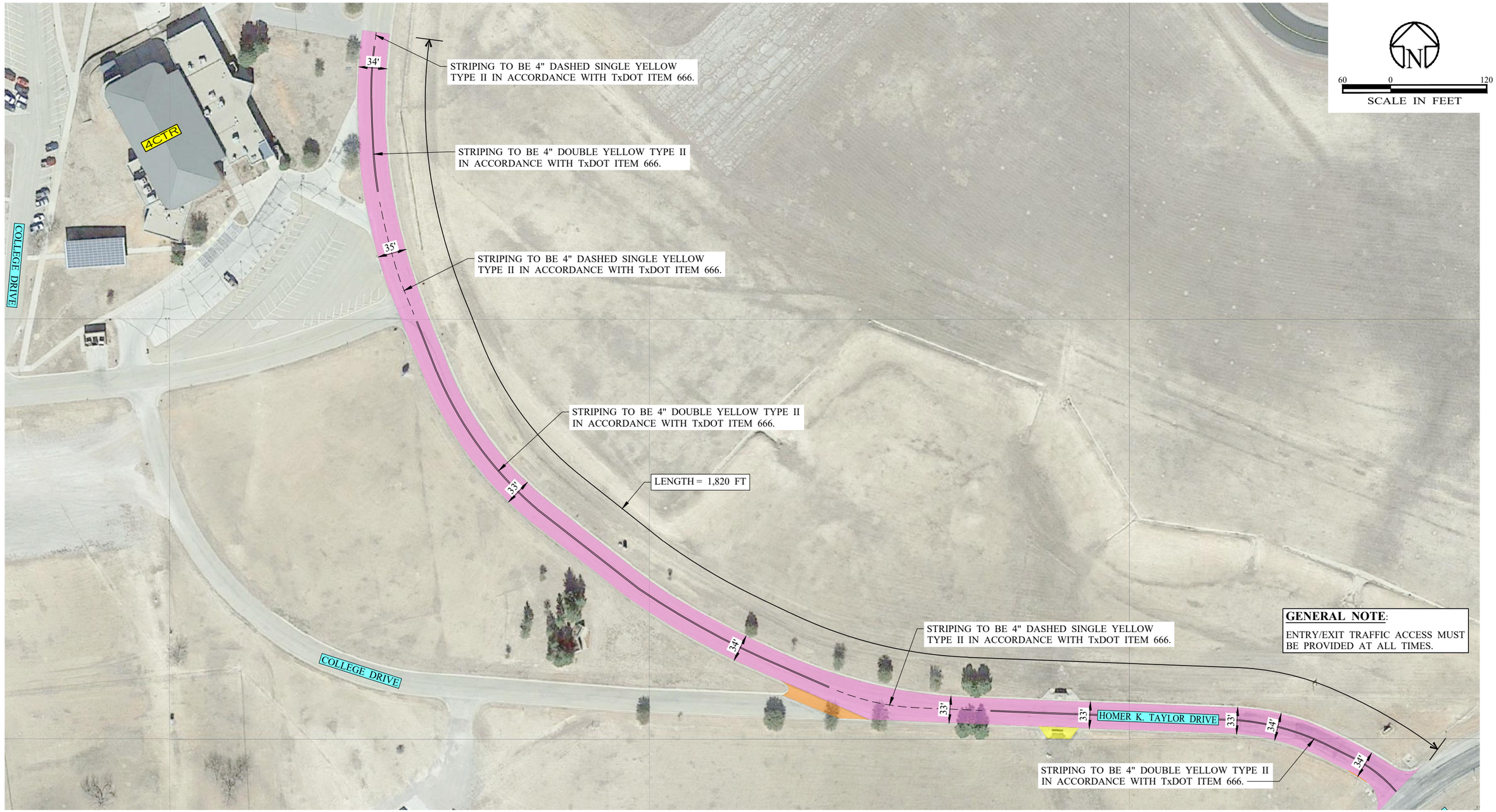
TEXAS STATE TECHNICAL COLLEGE 2018 PAVING REPAIRS SWEETWATER, NOLAN COUNTY, TEXAS

OVERALL SITE PLAN

18-7026	PROJECT NO.
07/31/2018	DATE
C.T.	DESIGNED BY:
EHT	DRAWN BY:
S.D.	CHECKED BY:



NOTES:

1. DIMENSIONS SHOWN ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS SHOWN ON PLANS.
2. STRIPING TO BE IN ACCORDANCE WITH TxDOT ITEM 666 REFLECTORIZED PAVEMENT MARKINGS AND ALL RECOMMENDED MANUFACTURERS AND APPLICATION REQUIREMENTS.

LEGEND

P#	
	PARKING AREA
	AREA - A BASE BID
	REMOVE EXISTING PAVEMENT AND BASE MATERIAL. RECOMPACT SUBGRADE AND BASE (ADD BASE MATERIAL WHERE REQUIRED). INSTALL 2" HOT MIX (INCLUDING PRIME AND TACK COAT). INSTALL TYPE II STRIPING.
	INSTALL FLOWABLE CONCRETE BACKFILL FOR DRAINAGE STRUCTURE (SEE SHEET 6 FOR DETAIL).
	INSTALL CONCRETE VALLEY GUTTER (SEE SHEET 7 FOR DETAIL).

07/31/2018

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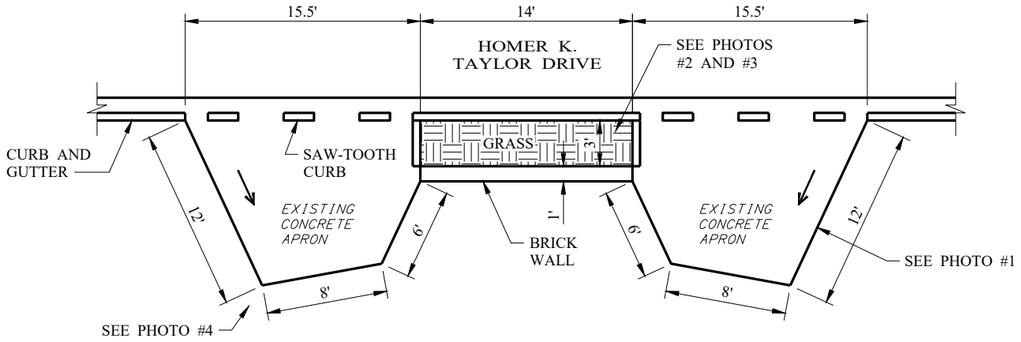
TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

AREA A BASE BID

18-7026	PROJECT NO.
07/31/2018	DATE
C.T.	DESIGNED BY:
EHT	DRAWN BY:
S.D.	CHECKED BY:
5 OF 14	



DRAINAGE DETAIL

NO SCALE

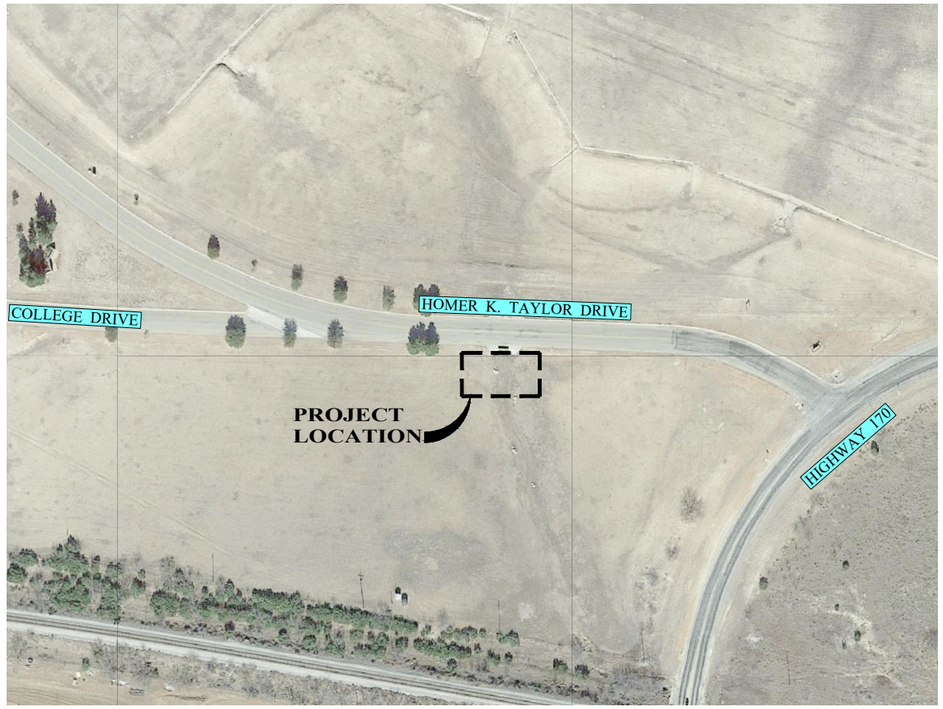


PHOTO #1
(SEE NOTE #1)

PHOTO #2
(SEE NOTE #2)

PHOTO #3
(SEE NOTE #2)

PHOTO #4
(SEE NOTE #3)

NOTE:

1. APPROXIMATELY TWO (2) CUBIC YARDS OF CLASS C CONCRETE TO BE INSTALLED IN CAVITY. SLOPE CONCRETE AT APPROXIMATELY A 3:1 SLOPE FROM EXISTING EDGE OF DRAINAGE STRUCTURE TO GRADE. MATCH GRADE OF CONCRETE WITH MATERIAL AS NEEDED.
2. CAVITY TO BE FILLED WITH APPROXIMATELY ONE (1) CUBIC YARD OF CLASS C CONCRETE. FILL TO 6" BELOW TOP OF CURB, FILL REMAINING 6" WITH MATERIAL TO TOP OF CURB.
3. EXTEND EXISTING DRAINAGE STRUCTURE 1'-6" FROM EDGE OF STRUCTURE WITH APPROXIMATELY TWO (2) CUBIC YARDS OF CLASS C CONCRETE. MATCH GRADE OF CONCRETE WITH MATERIAL AS NEEDED.
4. ALL QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY WITH ENGINEER ON MEASURED QUANTITIES.
5. DIMENSIONS SHOWN ON PLANS ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS SHOWN ON PLANS.

07/31/2018

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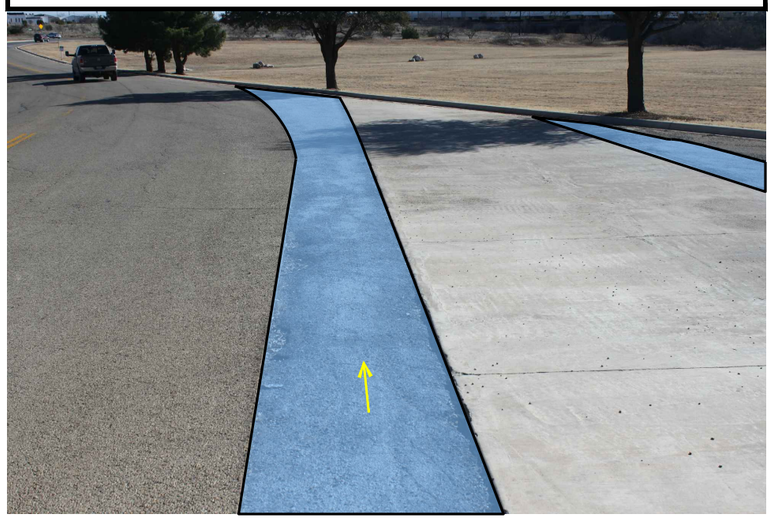
TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

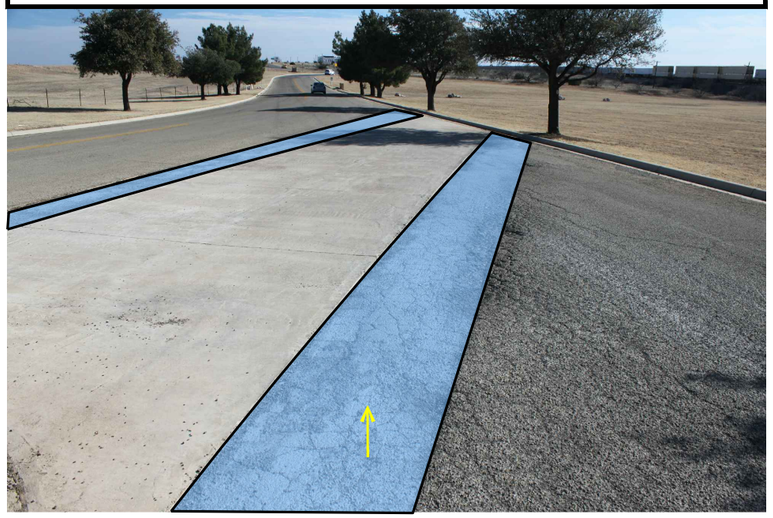
DRAINAGE STRUCTURE DETAIL

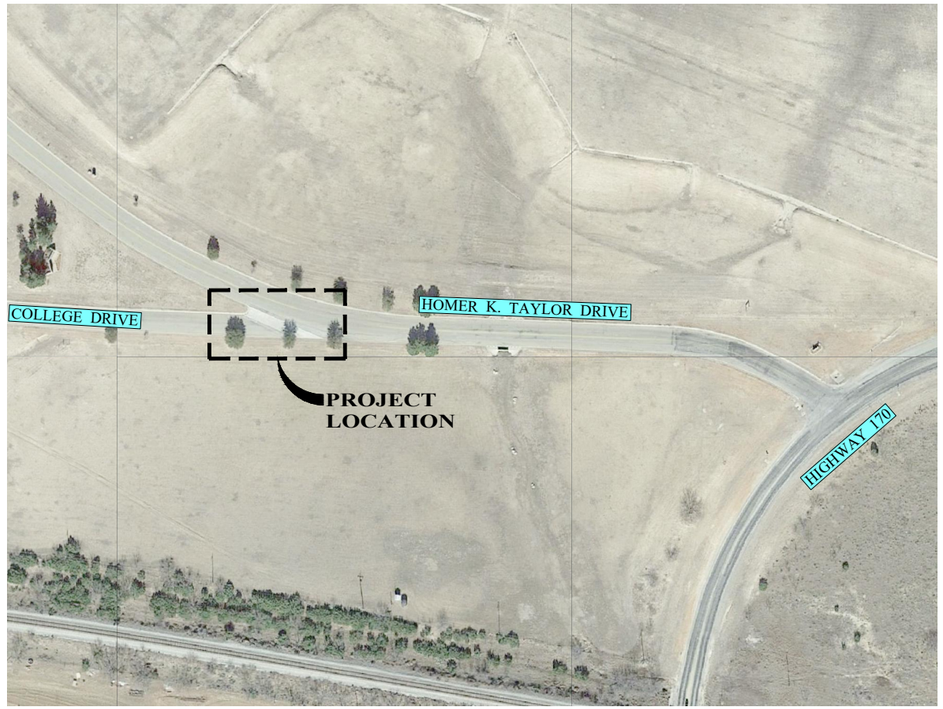
18-7026 PROJECT NO.
07/31/2018 DATE
C.T. DESIGNED BY:
EHT DRAWN BY:
S.D. CHECKED BY:

SEE NOTE #1



SEE NOTE #2





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SCALE IN FEET

LEGEND

REMOVE EXISTING PAVEMENT AND BASE MATERIAL. RECOMPACT SUBGRADE AND BASE (ADD BASE MATERIAL WHERE REQUIRED). INSTALL CONCRETE VALLEY GUTTER (MIN THICKNESS 6"). SEAL JOINT OF CONCRETE PAVEMENT AND EXISTING ASPHALT PAVEMENT.

NOTE:

1. INSTALL APPROXIMATELY 100 SQUARE YARDS OF CONCRETE VALLEY GUTTER.
2. INSTALL APPROXIMATELY 30 SQUARE YARDS OF CONCRETE VALLEY GUTTER.

07/31/2018

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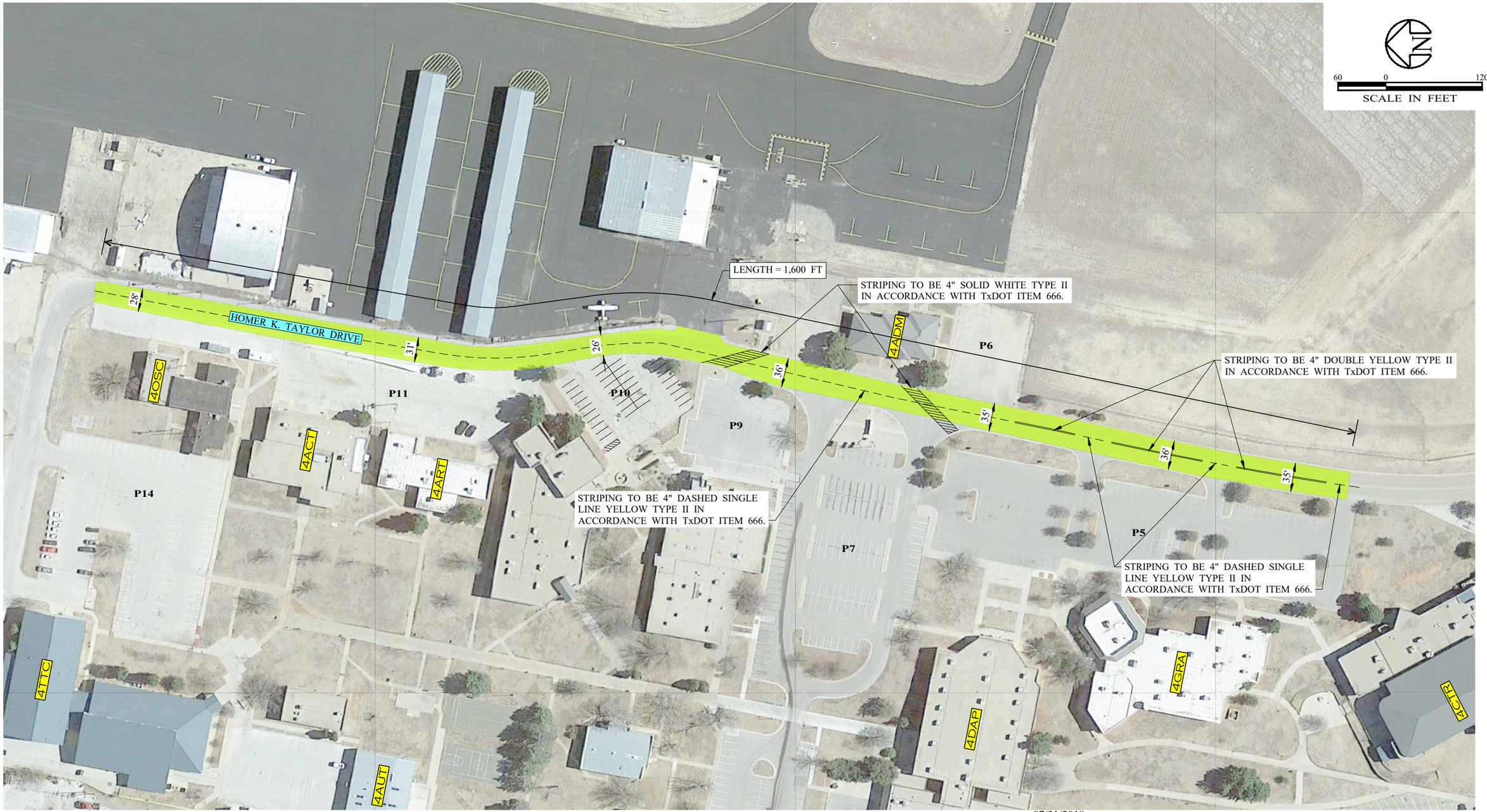
PG Firm Registration No. 50103
RPLS Firm Registration Nos. 10011900 & 10007300

TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

CONCRETE VALLEY GUTTER DETAIL

18-7026
PROJECT NO.
07/31/2018
DATE
C.T.
DESIGNED BY:
EHT
DRAWN BY:
S.D.
CHECKED BY:



NOTES:

1. DIMENSIONS SHOWN ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS SHOWN ON PLANS.
2. STRIPING TO BE IN ACCORDANCE WITH TxDOT ITEM 666 REFLECTORIZED PAVEMENT MARKINGS AND ALL RECOMMENDED MANUFACTURERS AND APPLICATION REQUIREMENTS.

LEGEND

P#	PARKING AREA
	AREA - B BASE BID
	INSTALL ONE COURSE SEALCOAT AND 4" TYPE II STRIPING.

07/31/2018

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TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

AREA B BASE BID

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S.D.	CHECKED BY:
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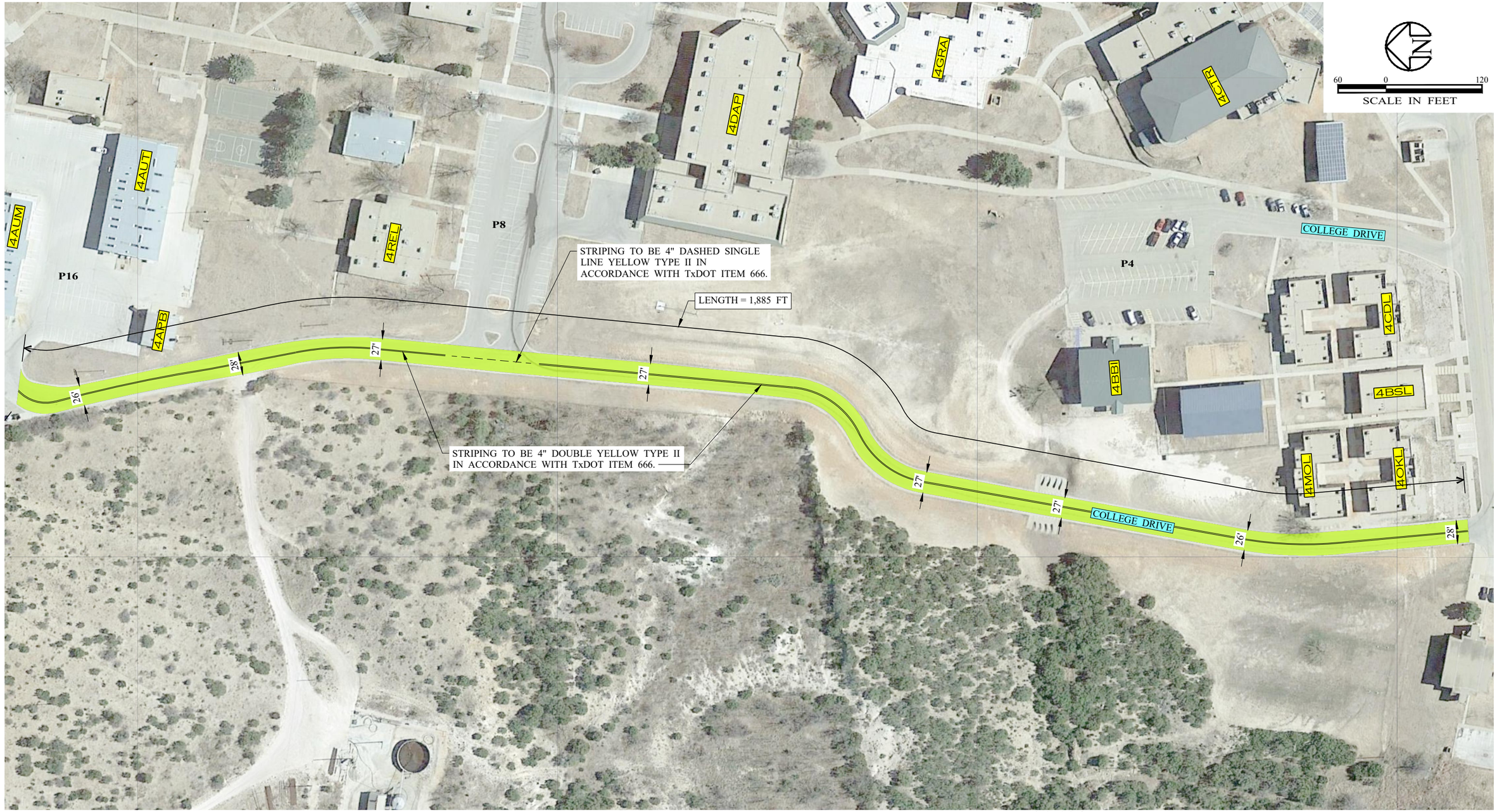

NOTES:

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2. STRIPING TO BE IN ACCORDANCE WITH TxDOT ITEM 666 REFLECTORIZED PAVEMENT MARKINGS AND ALL RECOMMENDED MANUFACTURERS AND APPLICATION REQUIREMENTS.

LEGEND

P# — PARKING AREA

AREA - B BASE BID

INSTALL ONE COURSE SEALCOAT AND 4" TYPE II STRIPING.

07/31/2018

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TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

AREA B BASE BID

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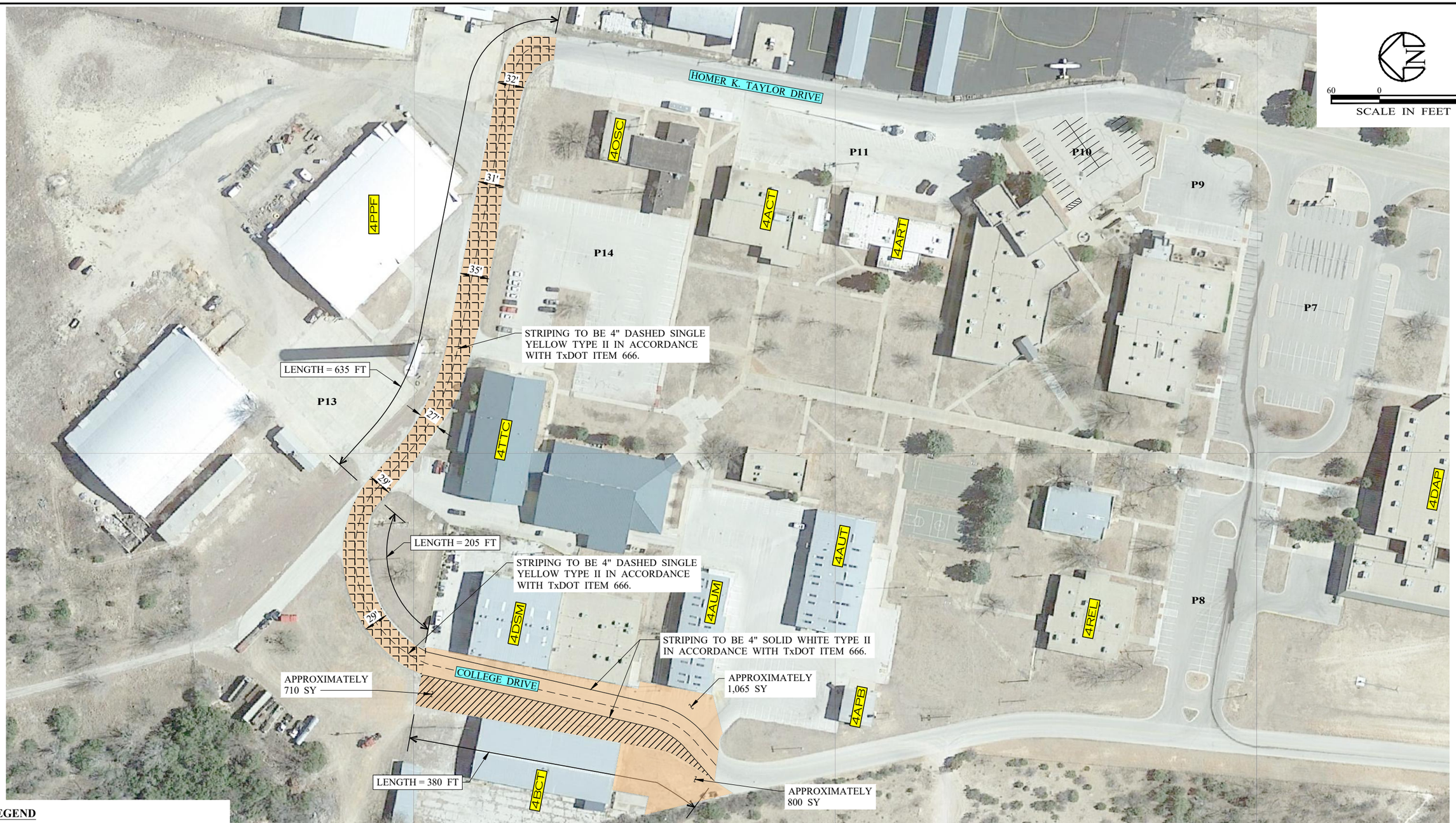

LEGEND

P# PARKING AREA

AREA - C BASE BID (HOT MIX WITH NEW BASE)

REMOVE EXISTING PAVEMENT AND BASE MATERIAL. INSTALL 6" FLEXIBLE BASE MATERIAL, TYPE A, GRADE 2 OR BETTER. INSTALL 2" HOT MIX (INCLUDING PRIME AND TACK COAT). INSTALL 4" TYPE II STRIPING. (IF APPLICABLE)

AREA - C BASE BID (CONCRETE):

REMOVE EXISTING PAVEMENT AND BASE MATERIAL. INSTALL 6" FLEXIBLE BASE MATERIAL, TYPE A, GRADE 2 OR BETTER. INSTALL 6" CONCRETE PAVING AND 6" CONCRETE DRIVEWAY. INSTALL 4" TYPE II STRIPING.

AREA - C BASE BID (HOT MIX WITH RECOMPACTED BASE):

REMOVE EXISTING PAVEMENT AND BASE MATERIAL. RECOMPACT SUBGRADE AND BASE (ADD BASE MATERIAL WHERE REQUIRED) INSTALL 2" HOT MIX (INCLUDE PRIME AND TACK COAT). INSTALL 4" TYPE II STRIPING.

NOTES:

1. DIMENSIONS SHOWN ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS SHOWN ON PLANS.
2. STRIPING TO BE IN ACCORDANCE WITH TxDOT ITEM 666 REFLESTORIZED PAVEMENT MARKINGS AND ALL RECOMMENDED MANUFACTURERS AND APPLICATION REQUIREMENTS.

07/31/2018

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TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

AREA C BASE BID

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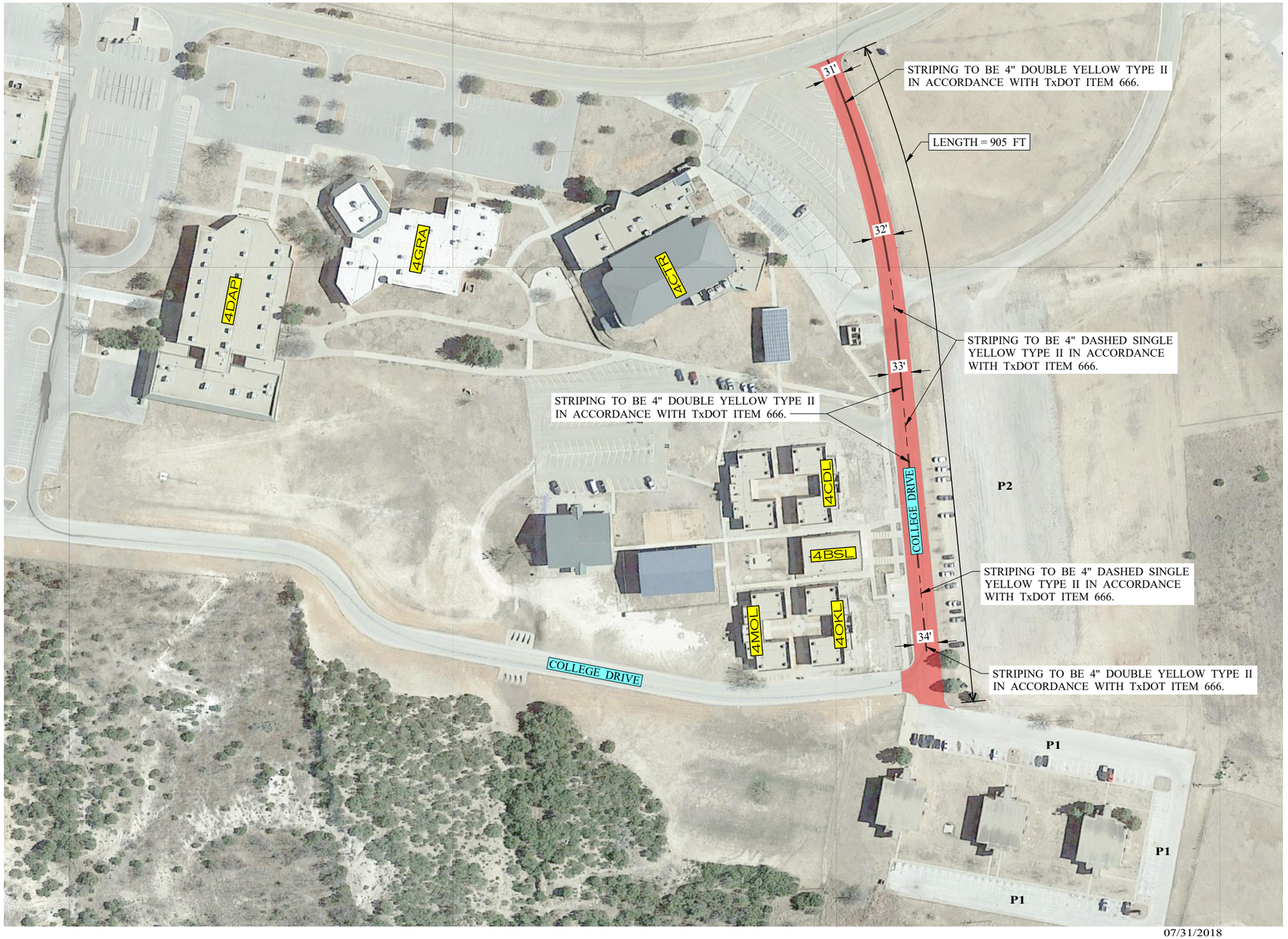

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SCALE IN FEET

NOTES:

1. DIMENSIONS SHOWN ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS SHOWN ON PLANS.
2. STRIPING TO BE IN ACCORDANCE WITH TxDOT ITEM 666 REFLESTORIZED PAVEMENT MARKINGS AND ALL RECOMMENDED MANUFACTURERS AND APPLICATION REQUIREMENTS.

LEGEND

P# PARKING AREA

AREA - D BASE BID

INSTALL ONE COURSE SEALCOAT.
MISCELLANEOUS BASE/HOT MIX REPAIR.
INSTALL 4" TYPE II STRIPING.

07/31/2018

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TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

AREA D BASE BID

C.T.	DESIGNED BY:
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S.D.	CHECKED BY:

NOTES:

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2. STRIPING TO BE IN ACCORDANCE WITH TxDOT ITEM 666 REFLESTORIZED PAVEMENT MARKINGS AND ALL RECOMMENDED MANUFACTURERS AND APPLICATION REQUIREMENTS.

LEGEND

ALTERNATE A BID

REMOVE EXISTING PAVEMENT AND BASE MATERIAL. RECOMPACT SUBGRADE AND BASE (ADD BASE MATERIAL WHERE REQUIRED). SLOPE BASE AND PAVEMENT TO DRAINAGE LOCATION AS SHOWN. INSTALL 2" HOT MIX (INCLUDING PRIME AND TACK COAT). INSTALL TYPE II STRIPING.

07/31/2018

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TEXAS STATE TECHNICAL COLLEGE
2018 PAVING REPAIRS
SWEETWATER, NOLAN COUNTY, TEXAS

ALTERNATE A BID

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NOTES:

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2. STRIPING TO BE IN ACCORDANCE WITH TxDOT ITEM 666 REFLESTORIZED PAVEMENT MARKINGS AND ALL RECOMMENDED MANUFACTURERS AND APPLICATION REQUIREMENTS.

LEGEND

P#	PARKING AREA
	ALTERNATE B BID

REMOVE EXISTING PAVEMENT AND BASE MATERIAL. RECOMPACT SUBGRADE AND BASE (ADD BASE MATERIAL WHERE REQUIRED). INSTALL 2" HOT MIX (INCLUDING PRIME AND TACK COAT). INSTALL 4" DOUBLE YELLOW TYPE II STRIPING.

07/31/2018

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ALTERNATE B BID

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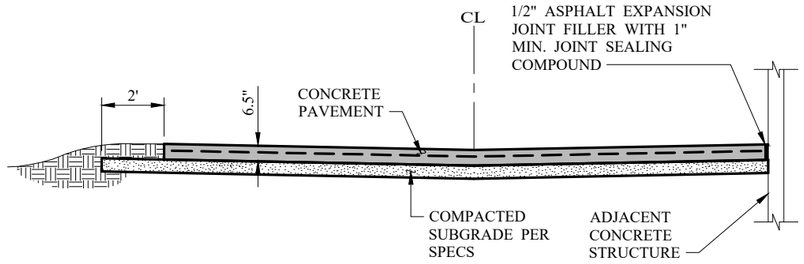
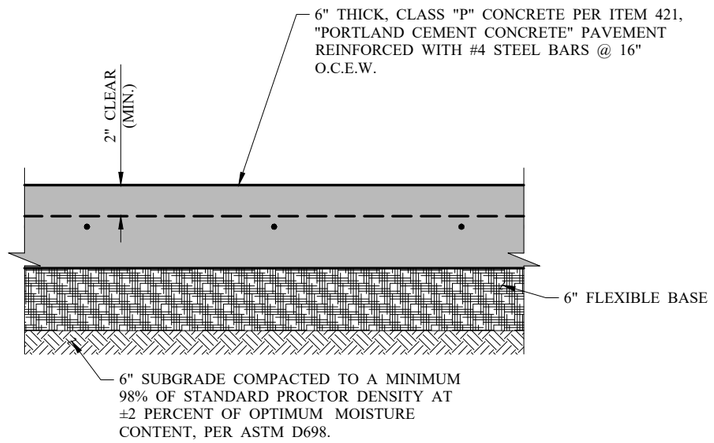


NOTES

1. ALL REINFORCED SHALL #4 BARS ON 18" CENTERS BOTH WAY, EXCEPT WHERE NOTED.
2. PAVEMENT STRENGTH SHALL BE 4,000 PSI AT 28 DAYS.
3. SUPPORT REINFORCEMENT USING CHAIRS.
4. REFER TO INDIVIDUAL DETAILS FOR EXPANSION CONTRACTION AND CONSTRUCTION JOINTS.

TYPICAL CONCRETE PAVEMENT SECTION

NO SCALE

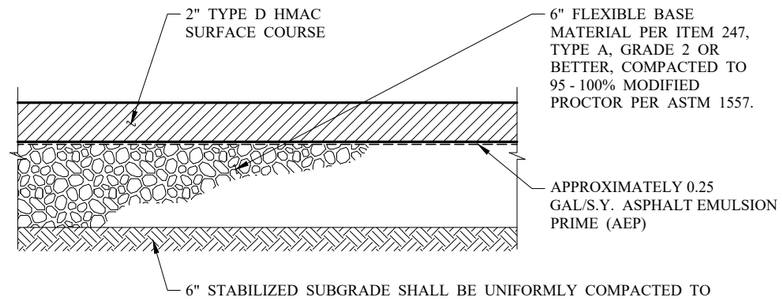


CONCRETE PAVEMENT NOTES:

1. CONSTRUCT CONCRETE PAVEMENT IN ACCORDANCE WITH ITEM 360, "CONCRETE PAVEMENT".
2. INSTALL SAWED CONTRACTION JOINTS AT 10' INTERVALS IN EACH DIRECTION.
3. PLACE TYPICAL CONSTRUCTION JOINTS AS NECESSARY TO FACILITATE CONCRETE PLACEMENT.
4. INSTALL TYPICAL EXPANSION JOINT AT 50' INTERVALS IN EACH DIRECTION.
5. ALL JOINTS SHALL BE FILLED AND SEALED IN ACCORDANCE WITH ITEM 433, JOINT FILLERS AND SEALANTS. ALL JOINT FILLERS AND SEALANTS ARE TO BE INSTALLED WITHIN 24 HOURS OF SAW CUTTING OPERATIONS. REFER TO TYPICAL DETAIL THIS SHEET.
6. PAVEMENT SHALL BE CURED IN ACCORDANCE WITH TXDOT ITEM 360.

TYPICAL CONCRETE PAVEMENT DETAIL

NO SCALE



ASPHALT PAVEMENT SECTION DETAIL

NO SCALE

EXPANSION JOINT NOTES:

1. INSTALL TYPICAL EXPANSION JOINT EVERY 100' ON CENTERS.
2. INSTALL SAWED CONTRACTION JOINT EVERY 10' ON CENTERS.

TYPICAL VALLEY GUTTER DETAIL

NO SCALE

07/31/2018

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TEXAS STATE TECHNICAL COLLEGE
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GENERAL DETAILS

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