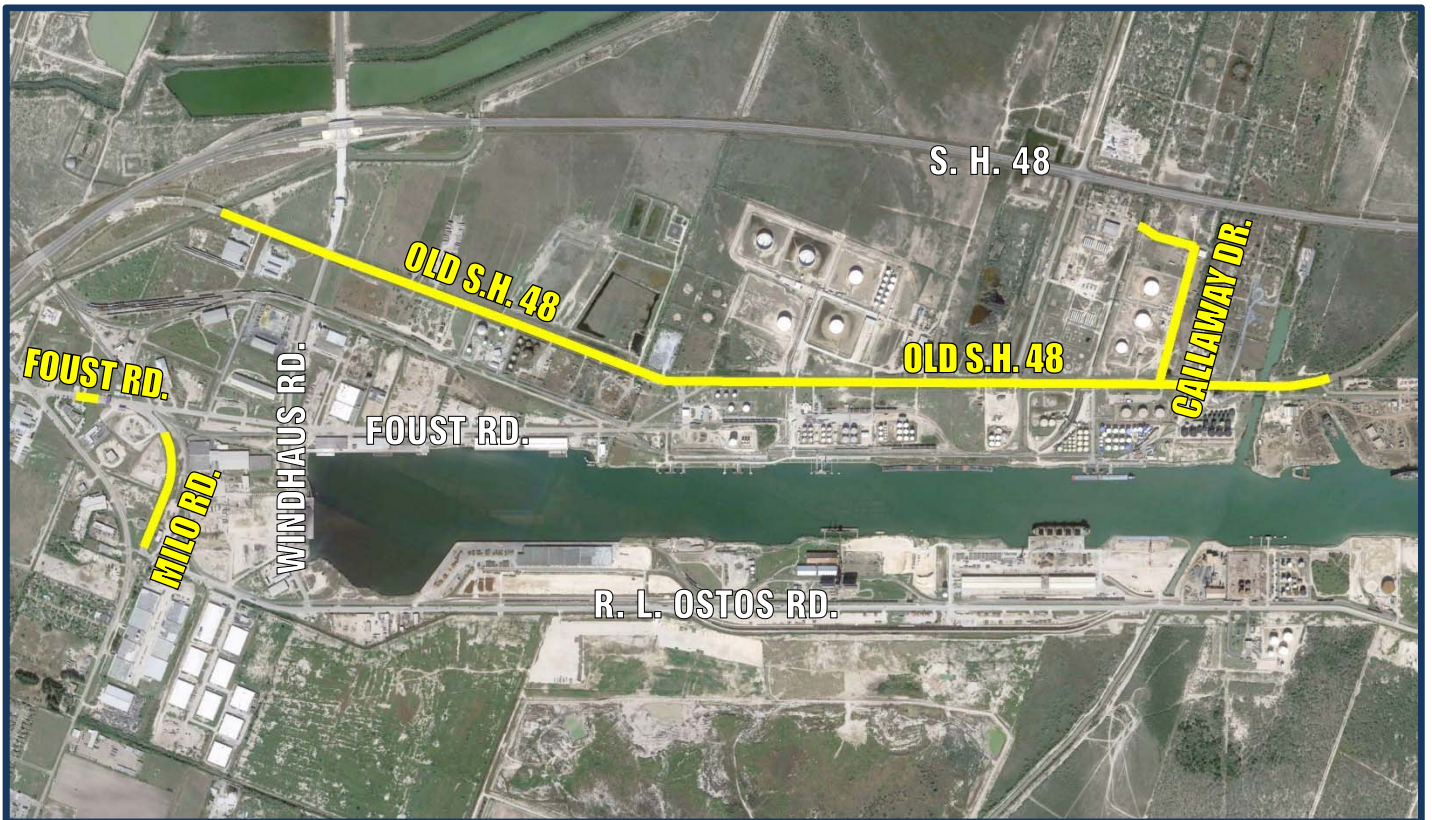


BROWNSVILLE NAVIGATION DISTRICT
CONTRACT DOCUMENTS
AND
SPECIFICATIONS FOR
**BND PORT ROAD
IMPROVEMENTS - PHASE II**



SEPTEMBER 2017

Table of Contents

BND PORT ROAD IMPROVEMENTS PHASE II

| SECTION | PAGE NO(S). |
|---|--------------------|
| ADVERTISEMENT FOR BIDS | AFB-1 |
| INSTRUCTIONS TO BIDDERS | ITB-1 – ITB-9 |
| BIDDING DOCUMENTS | |
| BID PROPOSAL | BP-1 - BP-5 |
| BID BOND | BB-1 – BB-2 |
| BIDDER CERTIFICATION | BC-1 |
| STATEMENT OF NON-COLLUSION | SNC-1 |
| DISCLOSURE OF INTERESTS | DI-1 – DI-2 |
| CERTIFICATE & DEFINITIONS | C&D-1 |
| CONTRACTOR'S PRE-BID DISCLOSURE STATEMENT | CPBD-1 – CPBD-3 |
| SUBCONTRACTOR'S PRE-BID DISCLOSURE STATEMENT | SPBD-1 – SPBD-3 |
| CHILD SUPPORT STATEMENT | CSS-1 – CSS-2 |
| CERTIFICATE REGARDING DEBARMENT, SUSPENSION INELIGIBILITY | CRDSI-1 |
| CERTIFICATE OF LOBBYING ACTIVITIES | CLA-1 |
| CONTRACT DOCUMENTS | |
| AGREEMENT | AG-1 – AG-5 |
| CONTRACTOR'S ASSURANCE | CA-1 |
| PERFORMANCE BOND | PEB-1 – PEB-3 |
| PAYMENT BOND | PYB-1 – PYB-3 |
| CERTIFICATES OF INSURANCE | CI-1 |
| GENERAL CONDITIONS | GC-1 – GC-44 |
| SUPPLEMENTARY GENERAL CONDITIONS | SGC-1 – SGC-14 |
| TECHNICAL SPECIFICATIONS | 14 PAGES |
| Earthwork & Site Preparation | EW-1 – EW-3 |
| Subgrade Preparation | SP-1 – SP-3 |
| Concrete Slab and Limestone Base | CSLB-1 – CSLB-2 |
| Asphalt Pavement & Base with GeoGrid | APB-1 – APB-6 |
| NOTICE OF AWARD & ACCEPTANCE OF NOTICE | NOA - 1 |

| | |
|--|-------------|
| NOTICE TO PROCEED & ACCEPTANCE OF NOTICE | NTP - 1 |
| GENERAL NOTES | GN-1 – GN-7 |

SPECIAL PROVISIONS

| | |
|---|--------------------|
| Engineering Certificate | EC-1 |
| Governing Specifications & Special Provisions | GSSP-1 – GSSP-2 |
| Local Government General Requirements and Covenants | 1L-1 – 9L-6 |
| Wage Rate | WG-1 – WR-3 |
| Notice to All Bidders | NAB-1 |
| Schedule of Liquidated Damages | SLD-1 |
| Nondiscrimination Provision | ND-1 – ND-2 |
| Certification of Nondiscrimination in Employment | CNE-1 |
| Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity | |
| Standard Federal Equal Employment Opportunity Construction Contract | NEEP-1 – NEEP-4 |
| Disadvantaged Business Enterprise in Federal Aid Contract | SFEEO-1 – SFEEO-4 |
| Certificate of Interested Parties (Form-1295) | DBE-1 – DBE-8 |
| Required Contract Provisions (FHWA-1273) | COIP-1 |
| Legal Relations and Responsibilities | RCP-1 – RCP-12 |
| Temporary Erosion, Sedimentation and Environmental Controls | LRR-1 – LRR-2 |
| Quality Assurance Program for Construction | TESEC-1 – TESEC-11 |
| | 1-22 |

Advertisement for Bids

BND PORT ROAD IMPROVEMENTS – PHASE II

Notice is hereby given that bids will be received by the Brownsville Navigation District (“District”) of Cameron County, Texas, on the “**BND PORT ROAD IMPROVEMENTS – PHASE II**” project at the Port of Brownsville, Cameron County, Texas.

All bids must be sealed and delivered to the District at 1000 Foust Road, Brownsville, Texas 78521, by **11:00 A.M. C.D.T. on Wednesday, September 26, 2018**. Bids will be calculated on a unit price basis. Bids must comply with the requirements set out in the “Bid Document” which may be obtained from the office of Mr. Ariel Chávez II, P.E./R.P.L.S., Director of Engineering Services, (956) 831-4592, achavez@portofbrownsville.com, or at www.portofbrownsville.com. Bid security in the amount of 5% of the base bid amount is required. A Pre-Bid Conference will be held at **2:00 P.M. C.D.T. on Wednesday, September 12, 2018** at the District’s address above.

The District will award, reject, or defer the Contract within 120 days after the opening of the bid. The Owner **RESERVES THE RIGHT** to reject any or all bids and to waive technicalities in the best interest of the Owner.

9/05/2018, 9/12/2018

Instructions to Bidders

BND PORT ROAD IMPROVEMENTS – PHASE II

1. RECEIPT AND OPENING OF BIDS:

The Brownsville Navigation District, Texas, (hereinafter called OWNER), invites bids on the form attached hereto, all blanks of which must be appropriately filled in, in ink.

The OWNER may consider informal and non-responsive, any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No BIDDER may withdraw a bid within at least ninety (90) days after the actual date of the opening thereof.

2. INSPECTION OF SITE:

Each BIDDER shall visit the site of the proposed work and fully acquaint himself with the existing conditions there relating to construction and labor, and shall fully inform himself as to the facilities involved, the difficulties and restrictions attending the performance of the Contract. The BIDDER should thoroughly examine and familiarize himself with the Drawings, Technical Specifications, and all other Contract Documents. The Contractor, by the execution of the Contract, shall in no way be relieved of any obligation under it due to his failure to receive or examine any form or legal instrument, or to visit the site and acquaint himself with the conditions there existing and the OWNER will be justified in rejecting any claim for extra time, or compensation, or both, based on facts regarding which Contractor should have been on notice as a result thereof.

3. PREPARATION OF BID AND USE BID FORMS:

These contract documents include a complete set of bidding documents. The BIDDER shall copy all documents listed in the table of contents under the heading BIDDING DOCUMENTS and shall submit his bid on these forms. A bid shall be comprised of the BIDDING DOCUMENTS completed by the BIDDER plus supplemental information required by the specifications and documents or deemed necessary by the BIDDER to fully describe his offering.

If any of the information submitted as part of the bid is considered to be proprietary by the BIDDER, he shall identify such in his bid.

- a) Preparation. Each bid shall be carefully prepared using the proposal and proposal data forms included as a part of the bidding documents. Entries on the proposal and proposal data forms shall be typed, using dark black ribbon, or legibly written in black ink. All prices shall be stated in words and figures except where the forms provide for figures only. In case of discrepancy, the amount shown in words will govern.

The BIDDER shall acknowledge, in the space provided in the proposal form, receipt of each addendum issued for the specifications and documents during the bidding period.

The BIDDER shall assemble all drawings, catalog data, and other supplementary information necessary to thoroughly describe materials and equipment covered by the proposal, and shall attach such supplemental information to the copies of the specifications and documents submitted.

- b) Signatures. Each BIDDER shall sign the proposal with his usual signature and shall give his full business address. The BIDDER's name stated on the proposal shall be the exact legal name of the firm. The names of all persons signing should also be typed or printed below the signature.

Proposals by partnerships shall be signed with the partnership name followed by the signature and designation of one of the partners or other authorized representative. A complete list of the partners shall be included with the proposal.

Proposals by a corporation shall be signed in the official corporate name of the corporation, followed by the signature and designation of the president, secretary, or other person authorized to bind the corporation.

A proposal by a person who affixes his signature the word "president," "secretary," "agent," or other designation, without disclosing his principal, will be rejected. Satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished. Bidding corporations shall designate the state in which they are incorporated and the address of their principal office.

- c) Submittal. The original proposal (and its accompanying copy) shall be transmitted to arrive at the designated address not later than the date and time stipulated in the Legal Notice and Invitation to Bid.

Submit the original proposal and one signed copy of the proposal to:

Chairman, Board of Commissioners
Brownsville Navigation District, Texas
c/o Ariel Chávez II, P.E./R.P.L.S.
1000 Foust Road
Brownsville, Texas 78521

Each bid must be submitted in a sealed envelope bearing on the outside the name of the BIDDER, his address, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form.

4. METHOD OF BIDDING: UNIT PRICE.

Prices shall be firm, not subject to qualification, condition or adjustment. Prices shall be in United States dollars. Prices shall be lump sum except where unit prices are requested by the bid forms. If unit price items are required by the proposal, the unit prices for each of the several items in the proposal of each BIDDER shall include its pro-rata share of overhead so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the total bid. Any bid not conforming to the requirement may be rejected as informal and

non-responsive. The special attention of all BIDDERS is called to this provision, for should conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities nor extra compensation allowed, provided the net monetary value of all such additive and subtractive changes in quantities of such items of work pursuant to public competitive bidding statutes (i.e., difference in cost) shall not increase or decrease the original contract price by more than twenty-five (25%) percent. A proposed decrease only that exceeds twenty-five (25%) percent of the original contract price must be agreed to in advance by the Contractor.

5. DISCLOSURE BY BIDDER:

Each BIDDER shall submit with the bid documents, on the form furnished for that purpose, his Pre-Bid Disclosure Statement showing his experience record in performing the type of work embraced in the contract, his organization and equipment available for the work contemplated, and, when specifically requested by the OWNER, a detailed financial statement. The OWNER shall have the right to take such steps as it deems necessary to determine the ability and responsibility of the BIDDER to perform his obligations under the Contract and the BIDDER shall be responsive in furnishing the OWNER all such information and data for this purpose as it may request. OWNER reserves the right to reject any bid where an investigation of the available evidence or information does not satisfy the OWNER that the BIDDER is responsible to carry out properly the terms of the Contract. This shall also apply to any proposed subcontractor(s).

6. SUBCONTRACTS:

The BIDDER is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the OWNER, and that a Pre-Bid Disclosure Statement for each proposed subcontractor must also be submitted with the bid documents.

7. BID SECURITY:

Each bid must be accompanied by cash, certified or cashier's check, or a bid bond prepared on the form of the bid bond attached hereto, duly executed by the BIDDER as principal and having as surety therein a surety company approved by the OWNER, authorized to do business in the State of Texas in the amount of not less than five (5%) percent of the bid. Such cash, checks, or bid bonds will be returned to all except the three lowest BIDDERS within fifteen (15) days after the opening of bids, and the remaining cash, checks, or bid bonds will be returned promptly after the OWNER and the accepted BIDDER have executed the contract or if no award has been made, within thirty (30) days after the date of the opening of bids. The bid security will be returned upon demand of the BIDDER at any time thereafter, so long as he has not been notified of the acceptance of his bid.

8. ADDENDA AND INTERPRETATIONS:

No oral interpretations by OWNER and its representatives shall be binding upon OWNER as to the meaning of the plans, specifications, contract documents, or other pre-bid documents.

Every request for such interpretation should be made in writing, addressed to the Engineering

Services Department of the Brownsville Navigation District, and must be received at least ten (10) days prior to the date fixed for the opening of bids in order to be considered. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be on file at the Department mentioned above no later than five (5) days prior to the date fixed for opening of bids, and will be mailed by certified mail with return receipt requested to all prospective BIDDERS (at the respective addresses furnished for such purposes), not later than three (3) days prior to said date. It will be the BIDDER's responsibility to inquire as to any addenda issued and failure of any BIDDER to receive any such addenda or interpretation shall not relieve such BIDDER from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

9. TELEGRAPHIC MODIFICATION:

Any BIDDER may modify his bid by telegraphic and/or telefax communication at any time prior to the scheduled closing time for receipt of bids, provided such telegraphic or telefax communication is received by the OWNER prior to the closing time, and provided further, the OWNER is satisfied that a written confirmation of the telegraphic or telefax modification over the signature of the BIDDER was also mailed prior to the closing time. The telegraphic or telefax communication should not reveal the total bid price, but should provide the addition or subtraction, or other modification, so that the final prices or terms will not be known by the OWNER until the original sealed bid is opened.

Revised bids submitted before the opening of bids, whether forwarded by mail, telegram, or telefax if representing an increase in excess of two percent (2%) of the original bid, must have the bid security adjusted accordingly; otherwise the bid will not be considered responsive.

If written confirmation is not received within two (2) days from the closing time, no consideration will be given to the telegraphic or telefax modification.

10. TIME FOR RECEIVING BIDS:

Bids received prior to the advertised hour of opening will be securely kept sealed. The officer whose duty it is to open them will decide when the specified time has arrived, and no bid received thereafter will be considered; except that when a bid arrives by mail after the time fixed for opening, but before the reading of all other bids is completed, and it is shown to the satisfaction of the OWNER that the non-arrival on time was due solely to delay in the mails for which the BIDDER was not responsible, such bid will be received and considered.

BIDDERS are cautioned that, while telegraphic or telefax modifications of bids may be received as provided above, such modifications, if not explicit and if in any sense subject to misinterpretation, shall make the bid so modified or amended, subject to rejection for non-responsiveness.

11. OPENING OF BIDS:

At the time and place fixed for the opening of bids, the OWNER will cause to be opened and publicly read aloud every bid received within the time set for receiving bids, irrespective of any irregularities therein. BIDDERS and other persons properly interested may be present, in person or by representative.

12. WITHDRAWAL OF BIDS:

Bids may be withdrawn on written, telegraphic, or telefax request dispatched by the BIDDER in time for delivery in the normal course of business to the time fixed for opening; provided, that written confirmation of any telegraphic withdrawal over the signature of the BIDDER is placed in the mail and postmarked prior to the time set for bid opening. The bid security of any BIDDER withdrawing his bid in accordance with the foregoing conditions will be returned promptly.

13. AWARD OF CONTRACT: REJECTION OF BIDS:

The contract will be awarded to the responsive and responsible BIDDER submitting the lowest bid complying with the conditions of the Legal Notice and Invitation for Bids. The BIDDER to whom the award is made will be notified at the earliest possible date. The OWNER, however, reserves the right to reject any and all bids and to waive any informality in bids received whenever such rejection or waiver is in its interest.

The OWNER reserves the right to consider as not responsible any BIDDER who does not habitually perform with his own forces the major portions of the work involved in construction of the improvements embraced in this contract.

14. EXECUTION OF AGREEMENT: PERFORMANCE AND PAYMENT BOND:

Subsequent to the award and within ten (10) days after the prescribed forms are presented for signature, the successful BIDDER shall execute and deliver to the OWNER an agreement in the form included in the contract documents in such number of copies as the OWNER may require.

Having satisfied all conditions of award as set forth elsewhere in these documents, the successful BIDDER shall, within the period specified in the preceding paragraph, furnish a Performance Bond and Payment Bond, each in a penal sum not less than the full amount of the contract as awarded, as security for the faithful performance of the contract, and for the payment of all persons, firms or corporations to whom the Contractor may become legally indebted for labor, materials, tools, equipment, or services of any nature including utility and transportation services, employed or used by him in performing the work. Such bonds shall be in the same form as that included in the contract documents and shall bear the same date as, or a date subsequent to that of the agreement. The current power of attorney for the person who signs for any surety company shall be attached to such bonds. These bonds shall be signed by a guaranty or surety company legally authorized to do business in the State of Texas.

The failure of the successful BIDDER to execute such agreement and to supply the required bonds and insurance certificates within ten (10) days after the prescribed forms are presented for signature, or within such extended period as the OWNER may grant in writing, based upon reasons determined sufficient by the OWNER, shall constitute a default, and the OWNER may either award the contract to the next lowest responsive and responsible BIDDER or readvertise for bids, and may charge against the defaulting BIDDER the difference between the amount of the defaulted bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by readvertising, the defaulting BIDDER shall have no claim against the

OWNER for a refund.

15. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT:

The successful BIDDER, upon his failure or refusal to execute and deliver the contract, bonds and insurance certificates required within ten (10) days after he has received notice of the acceptance of his bid, shall forfeit to the OWNER, as liquidated damages (and not as a penalty) for such failure or refusal, the security deposited with his bid.

16. TIME OF COMPLETION AND LIQUIDATED DAMAGES:

BIDDER must agree to commence work on or before a date to be specified in a written "Notice to Proceed" issued by the OWNER and to fully complete the project within the contract time, as provided in Article 3 of the Agreement.

BIDDER must agree also to pay as mutually agreed to liquidated damages, and not as a penalty, the sum of five hundred(\$500.00) per day for each consecutive calendar day thereafter, as provided in said Article 3.

17. NOTICE OF SPECIAL CONDITIONS:

Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

- A. Inspection and testing of materials.
- B. Insurance requirements.
- C. Wage and Hour Provisions.
- D. State Sales and Use Tax Exemption Provisions

18. LAWS AND REGULATIONS:

The BIDDER's attention is directed to the fact that all applicable federal, state and local laws, statutes, ordinances, codes and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

19. EQUAL EMPLOYMENT OPPORTUNITY:

Attention of BIDDERS is particularly called to the requirement for ensuring that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, handicap, or national origin.

20. PRE-BID CONFERENCE:

A **mandatory** pre-bid meeting between the OWNER, prospective bidders, suppliers, etc., will be held to answer any questions concerning the work. No addenda will be issued at this meeting. Subsequent thereto, if necessary to clear up any written questions, a written addendum will be

issued by the OWNER to all pre-bid conference attendees. The pre-bid meeting will be held at the place, time and date indicated in the Invitation to Bid, unless re-scheduled by Addendum. Interested parties are invited to attend.

21. SUBMITTAL OF TRENCH SAFETY DESIGN:

If project includes open trench excavation deeper than 5 feet, contractor shall submit a trench safety system to Engineer for review and approval prior to beginning of construction.

22. INFORMATION TO BE SUBMITTED WITH PROPOSAL:

Each BIDDER shall submit with his proposal pertinent information concerning proposed equipment and materials and proposed construction organization.

- a) Equipment and Materials. In addition to the information submitted on the proposal and proposal data forms, each BIDDER shall submit all specifications, preliminary drawings, and similar descriptive information necessary to describe completely the equipment and materials he proposes to furnish, if applicable.

The proposal shall be based on new equipment and materials which comply with specifications and documents in every respect, unless the BIDDER takes specific exception as provided herein before. If alternate or "equal" equipment and materials are indicated in the proposal, it shall be understood that the OWNER will have the option of selecting any one of the alternates so indicated and such selection shall not be a cause for extra compensation or extension of time.

- b) Contractor's Field Organization. Each BIDDER shall submit with his proposal an organization chart showing the names of field management, supervisory, and technical personnel, and the details of the management, supervisory, and technical organization which he proposes to use for this project. The successful BIDDER's organizational concept will be subject to the review and acceptance of the OWNER. The experience record of the Contractor's field superintendent shall be submitted with the proposal.

23. PREFERENCE LAW:

Proposal evaluation will take into consideration any Preference Laws of the Statutes of Texas.

24. SUBSURFACE CONDITIONS:

Each BIDDER shall be responsible for determining prior to bidding, the types of subsurface materials which will be found. If test borings have been made on the site, the locations and logs of the test borings are included in the plans.

It is to be expressly understood and acknowledged by the BIDDER, that any information on subsurface materials made available by OWNER for BIDDER'S convenience shall not be a part of the contract documents and there is no expressed or implied guarantee of the data given, nor of the interpretation thereof.

All excavation for this project will be unclassified and the BIDDER shall be responsible for investigating and satisfying himself of subsurface conditions (including the presence or likelihood of encountering rock or rock-like materials and debris) prior to submitting his bid, which shall include any and all costs BIDDER associates with avoiding, managing or removing said subsurface conditions without claim for extra compensation against OWNER.

25. DISPOSAL OF EXCESS MATERIALS:

After backfilling and compacting any temporary trenches backfill or removing temporary earthen material, there may be in some instances an excess of soil material over that required to bring the backfill up to the original grade. In such cases where there is an excess of material, BIDDER shall load and haul it away from the job site and dispose of it in a legal manner so as not to trespass, adversely impact any protected wetlands, adversely impact the 100 year flood plain, adversely impact any endangered species, or otherwise create drainage diversions or impoundments. No extra remuneration for this work will be allowed.

26. EROSION AND SEDIMENT CONTROL MEASURES:

The BIDDER is expected to conduct his work in such a manner as to minimize any soil erosion or sediment runoff from the construction site. Earth cuts and fills shall have smooth, flat side slopes, as generally indicated on the PLANS, to preclude erosion of the soil. Such operations should be timed consistent with the actual need for doing the work and only to leave raw, unprotected surfaces for a minimum of time.

Existing lawns are to remain intact as far as practical. Such areas as are disturbed shall be duly restored by the BIDDER to as good or better than original condition using the same type of grass, shrubs, or cover as the original. The BIDDER shall be responsible for correcting any erosion that occurs at his sole cost without claim for extra compensation.

As construction progresses, and in accordance with current federal legislation regulating storm water runoff and management from construction sites greater than five acres in size, if applicable, (See: Section 405 of the Water Quality Act of 1987, Section 402(P) as amended), and at locations where erosion with sediment runoff occurs or is likely to occur, the BIDDER shall construct temporary ditches, retainage levees, drains, inlets, or other works to correct the condition. Upon completion of the work, such facilities shall be removed.

During construction, the BIDDER shall take the necessary precautions to see that erosion is controlled and sediment runoff is prevented so as to protect the quality of any neighboring water bodies.

27. SAFETY PROVISIONS:

BIDDER shall provide barricades, flares, warning signs, and/or flagmen so as to eliminate danger and inconvenience to the public, railroad and job site personnel. In addition to any other requirements of the Contract Documents, the BIDDER shall be responsible for familiarity and compliance with all Federal (OSHA), State, Railroad and local safety rules, laws and requirements with particular attention to be given to excavation and trench safety requirements.

28. PROTECTION OF PROPERTY AND EXISTING UTILITIES:

Within developed areas, all public and private property along and adjacent to the BIDDER'S operations, including lawns, yards, shrubs, drainage gradients and trees, shall be adequately protected, and when damages occur, they shall be repaired, replaced, or renewed or otherwise put in a condition equal to or better than that which existed before the BIDDER caused the damage or removal.

An attempt has been made to show all known existing utilities on the PLANS, but the possibility remains strong that some underground utilities may exist that have not been shown. The BIDDER, through mandatory contact with local utility owners, shall keep himself informed and take such precautions as necessary to avoid damage.

29. WAGES AND HOURS:

The most recent wage rate determination from the U.S. Department of Labor for Cameron County as locally adopted by the BND is a part of these specifications and controls minimum wage, hour and any fringe benefits.

A copy of the wage rate schedule must be posted at the job site in both English and Spanish and kept posted in a conspicuous place on the site of the project at all times during construction. The BIDDER shall familiarize himself with the included General Conditions Section entitled "Wage and Labor Standard Provisions - 100% Locally Funded Construction." Copies of the wage rate schedule are included herein, but the responsibility for posting and keeping posted rests upon the BIDDER.

30. GUARANTEE:

The BIDDER shall guarantee the work for a period of one (1) year after date of acceptance in writing by the OWNER. During this period, the BIDDER shall make any repairs and/or replacements of defective materials and corrections due to poor workmanship, all as may be required for full compliance with the Specifications. This guarantee shall apply to all matters reported by the OWNER in writing within said one (1) year period and this guarantee shall be included in the coverage period set forth in the Performance Bond.

31. STATE AND FEDERAL REQUIREMENTS:

The successful BIDDER shall comply with any and all State and Federal requirements as included in the contract documents published for bidding.

Bid Proposal

BND PORT ROAD IMPROVEMENTS – PHASE II

Place: Board of Commissioners - Brownsville Navigation District
1000 Foust Road
Brownsville, Texas 78521

Due Date: Before **11:00 A.M. C.S.T.**; Date: **September 26, 2018.**

Proposal of _____ hereinafter called BIDDER, a corporation organized and existing under the laws of the State of _____, or a partnership or an individual doing business as _____.

To: The Brownsville Navigation District, Texas, hereinafter called OWNER.

Gentlemen:

The BIDDER, in compliance with your invitation for bids for the “**BND PORT ROAD IMPROVEMENTS – PHASE II**” project, having examined the drawings and specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of materials and labor, hereby proposes to furnish all labor, materials and supplies, and to construct the project in accordance with the contract documents, within the time set forth herein, and at the attached unit prices. These price(s) are to cover all expenses incurred in performing the work required under the contract documents, of which this proposal is a part. These price(s) are firm and shall not be subject to adjustment provided this Proposal is accepted within ninety (90) days after the time set for receipt of proposals.

BIDDER hereby agrees to commence work under this contract on or before a date to be specified in a written “Notice to Proceed” to be issued by the OWNER and to fully complete the project within 90 (ninety) calendar days, as defined in the specifications. BIDDER further agrees to pay as liquidated damages, the sum of five hundred (\$500.00) dollars for each consecutive calendar day thereafter as hereinafter provided in Article 3 of the Agreement.

BIDDER agrees to perform all work for which he contracts as described in the specifications and as shown on the plans, for the attached unit prices:

SUBCONTRACTORS. BIDDER proposes that he will perform the majority of the work at the project site with his own forces and that specific portions of the work not performed by the BIDDER will be subcontracted and performed by the following subcontractors.

| Subcontracted Work | Name of Subcontractor |
|--------------------|-----------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

BND PORT ROAD IMPROVEMENTS – PHASE II

BIDDER Agrees to perform all the work described in the Contract Documents
for the following Unit Prices (which include any and all applicable taxes and fees):

September 26, 2018

OVERLAY & RELATED IMPROVEMENTS, & SH 48/SH 550 TURNING MODIFICATIONS:

| # | ITEM | DESCRIPTION | EST. QTY. | UNIT COST | AMOUNT |
|----|----------|--|-----------|-----------|--------|
| 1 | 104-6021 | REMOVING CONC (CURB) | 167 LF | | |
| 2 | 104-6040 | REMOVING CONC (PAVERS) | 85 SY | | |
| 3 | 105-6026 | REMOVING STABILIZED BASE & ASP. PAV. (13"-18") | 7,815 SY | | |
| 4 | 110-6001 | EXCAVATION (ROADWAY) | 56 CY | | |
| 5 | 247-6061 | FL BS (CMP IN PLC)(TYA GR1-2) (6") | 6,377 SY | | |
| 6 | 247-6229 | FL BS (CMP IN PLACE)(TY A GR 1-2)(7") | 1,336 SY | | |
| 7 | 247-6230 | FL BS (CMP IN PLACE)(TY A GR 1-2)(8") | 1,436 SY | | |
| 8 | 247-6233 | FL BS (CMP IN PLACE)(TY A GR 1-2)(12") | 1,436 SY | | |
| 9 | 247-6233 | FL BS (CMP IN PLACE)(TY A GR 1-2)(12") | 140 SY | | |
| 10 | 260-6079 | LIME TREATMENT (2%) (SUBGRADE)(6") | 7,815 SY | | |
| 11 | 260-6001 | LIME (HYDRATED LIME (DRY)) | 33 TON | | |
| 12 | 310-6009 | PRIME COAT (MC-30) | 1,444 GAL | | |
| 13 | 341-6039 | 1.5" D-GR HMA TY-D SAC-B PG64-22 | 6,488 TON | | |
| 14 | 341-6039 | 3" D-GR HMA TY-D SAC-B PG64-22 | 204 TON | | |
| 15 | 341-6039 | 2" (SH48 / SH550) D-GR HMA TY-D SAC-B PG64-22 | 16 TON | | |
| 16 | 351-9001 | FLEX PAVEMT STRUCTURE REPAIR(15" MIN) | 530 SY | | |
| 17 | 360-6006 | CONC PVMT (CONT REINF - CRCP) (12") | 5,856 SY | | |
| 18 | 360-6006 | CONC PVMT (CONT REINF - CRCP) (12") | 146 SY | | |
| 19 | 416-6032 | DRILL SHAFT (TRF SIG POLE) (36 IN) | 16 LF | | |
| 20 | 500-6001 | MOBILIZATION | 1 LS | | |
| 21 | 502-6001 | BARRICADES, SIGNS AND TRAFFIC HANDLING | 4 MO | | |
| 22 | 506-6041 | BIODEG. EROSN. CONT. LOGS. (INSTL) (12") | 1,200 LF | | |
| 23 | 528-6006 | REMOVE AND RELAY PAVERS | 344 SY | | |
| 24 | 529-6005 | CONC CURB (MONO) (TY II) | 138 LF | | |
| 25 | 618-6033 | CONDT (PVC) (SCH 40) (4") | 25 LF | | |
| 26 | 621-6005 | TRAY CABLE (4 CONDR) (12 AWG) | 250 LF | | |
| 27 | 625-6003 | ZINC-COAT STL WIRE STRAND (3/8") | 250 LF | | |
| 28 | 662-6063 | WK ZN PAV MRK REMOV (W)4"(SLD) | 200 LF | | |
| 29 | 662-6095 | WK ZN PAV MRK REMOV (Y)4"(SLD) | 210 LF | | |
| 30 | 666-6036 | REFL PAV MRK TY I (W)8"(SLD)(100MIL) | 460 LF | | |
| 31 | 666-6300 | RE PM W/RET REQ TY I (W)4"(BRK)(100MIL) | 115 LF | | |
| 32 | 666-6303 | RE PM W/RET REQ TY I (W)4"(SLD)(100MIL) | 460 LF | | |
| 33 | 666-6315 | RE PM W/RET REQ TY I (Y)4"(SLD)(100MIL) | 460 LF | | |

| # | ITEM | D E S C R I P T I O N | EST. QTY. | UNIT COST | AMOUNT |
|-------------------------------------|-----------|--------------------------------------|-----------|-----------|--------|
| 34 | 668-6077 | PREFAB PAV MRK TY C (W) (ARROW) | 4 EA | | |
| 35 | 668-6085 | PREFAB PAV MRK TY C (W) (WORD) | 4 EA | | |
| 36 | 672-6007 | REFL PAV MRKR TY I-C | 12 EA | | |
| 37 | 672-6009 | REFL PAV MRKR TY II-A-A | 6 EA | | |
| 38 | 677-6001 | ELIM EXT PAV MRK & MRKS (4") | 200 LF | | |
| 39 | 680-6001 | INSTALL HWY TRF SIG (FLASH BEACON) | 1 EA | | |
| 40 | 684-6010 | TRF SIG CBL (TY A)(12 AWG)(5 CONDR) | 155 LF | | |
| 41 | 686-6283 | RELOC TRF SG PL AM (S) (STRAIN POLE) | 1 EA | | |
| 42 | 5001-6002 | GEOGRID BASE REINFORCEMENT (TY II) | 3,301 SY | | |
| TOTAL BID FOR ALL BID ITEMS: | | | | | |

TOTAL BASE BID:

BIDDER Acknowledges receipt of the following addenda:

In case of discrepancy, the unit price amount shall govern.

The above included prices shall include all labor, materials, excavation, bailing, shoring, removal, backfill, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

BIDDER understands that the OWNER reserves the right to reject any or all bids and to waive any informalities in the bidding.

BIDDER agrees that this Bid shall be good and may not be withdrawn for a period of ninety (90) days after the scheduled closing time for receiving bids.

The undersigned hereby declares that only the persons or firms interested in the proposal as principal or principals are named herein, and that no other persons or firms than are herein mentioned have any interest in this Proposal or in the contract to be entered into; that this Proposal is made without connection with any other person, company, or parties likewise submitting a Bid or proposal; and that it is in all respects for and in good faith, without collusion or fraud.

Upon receipt of written notice of the acceptance of this Bid, BIDDER will execute the formal contract attached within ten (10) days and deliver the Performance and Payment Bonds and Insurance Certificates as required under the GENERAL CONDITIONS. The Bid security attached in the sum of _____ (\$ _____) is to become the property of the OWNER in the event the contract, bonds, and insurance certificates are not executed or delivered within the time above set forth, as mutually agreed to liquidated damages and not as a penalty for the delay and additional administrative expense to the OWNER caused thereby; otherwise the Bid security will be returned upon the signing of the contract and delivering the approved bonds and insurance certificates.

Respectfully submitted,

By: _____

Seal affixed here
if BID is by a
Corporation

Title

Address

Attest: _____

BIDDER Acknowledges receipt of the following addenda:

In case of discrepancy, the unit price amount shall govern.

The above included prices shall include all labor, materials, excavation, bailing, shoring, removal, backfill, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

BIDDER understands that the OWNER reserves the right to reject any or all bids and to waive any informalities in the bidding.

BIDDER agrees that this Bid shall be good and may not be withdrawn for a period of ninety (90) days after the scheduled closing time for receiving bids.

The undersigned hereby declares that only the persons or firms interested in the proposal as principal or principals are named herein, and that no other persons or firms than are herein mentioned have any interest in this Proposal or in the contract to be entered into; that this Proposal is made without connection with any other person, company, or parties likewise submitting a Bid or proposal; and that it is in all respects for and in good faith, without collusion or fraud.

Upon receipt of written notice of the acceptance of this Bid, BIDDER will execute the formal contract attached within ten (10) days and deliver the Performance and Payment Bonds and Insurance Certificates as required under the GENERAL CONDITIONS. The Bid security attached in the sum of _____ (\$ _____) is to become the property of the OWNER in the event the contract, bonds, and insurance certificates are not executed or delivered within the time above set forth, as mutually agreed to liquidated damages and not as a penalty for the delay and additional administrative expense to the OWNER caused thereby; otherwise the Bid security will be returned upon the signing of the contract and delivering the approved bonds and insurance certificates.

Respectfully submitted,

By: _____

Seal affixed here
if BID is by a
Corporation

Title

Address

Attest: _____

Bid Bond

BND PORT ROAD IMPROVEMENTS – PHASE II

STATE OF TEXAS §
 § KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF CAMERON §

THAT WE, the undersigned, _____ as Principal, and _____ as Surety, are hereby held and firmly bound unto the BROWNSVILLE NAVIGATION DISTRICT, TEXAS, as OWNER in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed this _____ day of _____, 20_____.

The Condition of the above obligation is such that whereas the Principal has submitted to the OWNER a certain BID attached hereto and hereby made a part hereof to enter into a contract in writing, for construction of the “**BND PORT ROAD IMPROVEMENTS – PHASE II**” project.

NOW, THEREFORE,

(a) If said BID shall be rejected, or
(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the form of Agreement attached hereto (properly completed in accordance with said BID) and shall furnish payment and performance bonds for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall furnish insurance certificates, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void. Otherwise the same shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penalty amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bond shall be in no way impaired or affected by an extension of the time with which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be assigned by their proper officers, the day and year first set forth above.

Signed this _____ day of _____, 20_____.

Principal

Surety

By: _____

ATTACH
POWER OF ATTORNEY
TO BE FURNISHED BY CONTRACTOR

Bidder Certification

BND PORT ROAD IMPROVEMENTS – PHASE II

By signing the proposal, the bidder certifies:

1. The only persons or parties interested in this proposal are those named and the bidder has not directly or indirectly participated in collusion, entered into an agreement or otherwise taken any action in restraint of free competitive bidding in connection with the above captioned project.
2. In the event of the award of a contract, the organization represented will secure bonds for the full amount of the contract.
3. The signatory represents and warrants that they are an authorized signatory for the organization for which the bid is submitted and they have full and complete authority to submit this bid on behalf of their firm.
4. That the certifications and representations contained in the proposal are true and accurate and the bidder intends the proposal to be taken as a genuine government record.

Signature/Authorized Certifying Official

Typed Name and Title

Applicant/Organization

Date Signed

Statement of Non-Collusion

BND PORT ROAD IMPROVEMENTS – PHASE II

The undersigned hereby certifies that they are duly authorized to execute this contract, that this company, corporation, firm, partnership or individual has not prepared this BID in collusion with any other Bidder, and that the contents of this BID as to prices, terms or conditions of said BID have not been communicated by the undersigned nor by any employee or agent to any other person engaged in this type of business prior to the official opening of this BID.

Company: _____

Address: _____

Phone: _____

Fax: _____

Bidder: _____
(Signature)

Bidder: _____
(Print Name)

Title: _____
(Print Title)

Signature of Company
Officer Authorizing this
Bid: _____

Company
Officer: _____
(Print Name)

Officer's Title: _____
(Print Title)

Note: This form must be filled out and submitted with the sealed bid.

Disclosure of Interests

BND PORT ROAD IMPROVEMENTS – PHASE II

The Brownsville Navigation District requires all persons or firms seeking to do business with the District to provide the following information. Every question must be answered. If the question is not applicable, answer with "N/A". Corporations whose shares are publicly traded and listed on national or regional stock exchanges or over-the-counter markets may file a current Securities and Exchange Commission Form 10-K with the District in lieu of answering the questions below. See Definitions.

Firm Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Firm is: Corporation Partnership Sole Owner
 Association Other _____

DISCLOSURE QUESTIONS

If additional space is necessary, please use the reverse side or attach separate sheet (s).

1. State the name of each "employee" of the Brownsville Navigation District having any "ownership interests" constituting 10% or more of the voting stock or shares of the business entity or ownership of \$2,500 or more of the fair market value for the business entity or employed by the above "firm".

| Name | Title | Department |
|-------|-------|------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

2. State the name of each "official" of the Brownsville Navigation District having any "ownership interests" constituting 10% or more of the ownership in the above named "firm", or employed by the above named "firm".

| Name | Title | Department |
|-------|-------|------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

3. State the names of each “Board Member” of the Brownsville Navigation District having any “ownership interests” constituting 10% or more of the ownership in the above named “firm”, or employed by the above named “firm”.

| Name | Title | Department |
|------|-------|------------|
|------|-------|------------|

Note: This form must be filled out and submitted with the sealed bid.

Certificate and Definitions

BND PORT ROAD IMPROVEMENTS – PHASE II

CERTIFICATE

I certify that all information provided is true and correct as of the date of this statement, that I have not knowingly withheld disclosure of any information requested; and that supplemental statements will be promptly submitted to the Brownsville Navigation District as changes occur.

Bidder's Name: _____

Certifier's Name: _____

Certifier's Title: _____

Certifier's Signature: _____

Date: _____

DEFINITIONS

The following definitions of terms should be used in answering the questions set forth below:

- A. **"Board Member"** – An elected member of any board, commission, or committee appointed by the Brownsville Navigation District of Brownsville, Texas.
- B. **"Employee"** – Any person employed by the Brownsville Navigation District either on a full time or part-time basis, but not as an independent contractor.
- C. **"Firm"** – Any entity operated for economic gain, whether professional, industrial or commercial, and whether established to produce or deal with a product or service, including but not limited to, entities operated in the form of sole proprietorship, as self employed person, partnership, corporation, joint stock company, joint venture, receivership or trust, and entities which for purposes of taxation are treated as non-profit organizations.
- D. **"Official"** – The Chairman, members of the Brownsville Navigation District, General Manager, CEO, Deputy Port Director, Department and Division Heads.
- E. **"Ownership Interest"** – Legal or equitable interest, whether actually or constructive held, in a firm, including when such interest is held through the agent, trust, estate or holding entity. "Consecutively held" refers to holding or control established through voting trusts, proxies, or special terms of venture of partnership agreements.

Please Complete and Submit to:

Chairman of the Board
Brownsville Navigation District
c/o Ariel Chávez II, P.E./ R.P.L.S.
Director of Engineering Services
1000 Foust Road
Brownsville, Texas 78521

Contractor's Pre-Bid Disclosure Statement

BND PORT ROAD IMPROVEMENTS – PHASE II

1. This Pre-Bid Disclosure Statement is submitted to the Brownsville Navigation District by:

Subcontractor: _____

a Corporation, a Co-partnership, or an individual.

Address: _____ Contractor's #: _____

City: _____ State: _____ Zip: _____

2. Year's in business under present business name: _____.

3. Years of experience in construction work of the type called for in this contract as:

a General Contractor: _____; a Sub-Contractor: _____.

4. What projects has your organization completed? List most recent **FIRST**.

| Contract Amount | Type of Work | Date Completed | Owner's Name and Address |
|-----------------|--------------|----------------|--------------------------|
|-----------------|--------------|----------------|--------------------------|

| | | | |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

5. What projects does your organization have under way as often as this date?

| Contract Amount | Type of Work | Date Completed | Owner's Name and Address |
|-----------------|--------------|----------------|--------------------------|
|-----------------|--------------|----------------|--------------------------|

| | | | |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

6. Have you ever failed to complete any work awarded to you? No Yes (explain why):

7. Are you at present in any major litigation or lawsuits involving construction work of any type?

No Yes (explain): _____

8. Explain in detail the manner in which you have inspected the work proposed in this Contract:

9. Explain in detail your plan or layout for performing the work proposed in this contract:

10. If this contract is awarded to you, your company's administrative manager for the work will be Mr./Ms. _____, and your resident construction superintendent will be Mr./Ms. _____.

11. What experience in this type of work is enjoyed by the individual designated as superintendent above?

12. What portions of the work do you intent to sublet? _____

13. What equipment do you own that is available for the proposed work?

| Quantity | Description, Size, Capacity, etc. | Condition | Years in Service | Present Location |
|----------|-----------------------------------|-----------|------------------|------------------|
|----------|-----------------------------------|-----------|------------------|------------------|

| | | | | |
|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

14. Have you received firm offers for all major items of material and/or equipment within the prices used in preparing your proposal? Yes No

The signatory of this questionnaire guarantees the truth and accuracy of all statements herein made and all answers herein expressed.

Dated this _____ day of _____, 20____.

Signed: _____

By: _____

Title: _____

STATE OF _____

COUNTY OF _____

Subscribed and sworn to me this _____ day of _____, 20____.

Notary Public

My commission expires: _____

Subcontractor's Pre-Bid Disclosure Statement

BND PORT ROAD IMPROVEMENTS – PHASE II

1. This Pre-Bid Disclosure Statement is submitted to the Brownsville Navigation District by:

Subcontractor: _____

a Corporation, a Co- partnership, or an individual.

Address: _____ Contractor's #: _____

City: _____ State: _____ Zip: _____

2. Year's in business under present business name: _____.

3. Years of experience in construction work of the type called for in this contract as:

a General Contractor: _____; a Sub-Contractor: _____.

4. What projects has your organization completed? List most recent **FIRST**.

| Contract Amount | Type of Work | Date Completed | Owner's Name and Address |
|-----------------|--------------|----------------|--------------------------|
|-----------------|--------------|----------------|--------------------------|

| | | | |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

5. What projects does your organization have under way as often as this date?

| Contract Amount | Type of Work | Date Completed | Owner's Name and Address |
|-----------------|--------------|----------------|--------------------------|
|-----------------|--------------|----------------|--------------------------|

| | | | |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

6. Have you ever failed to complete any work awarded to you? No Yes (explain why):

7. Are you at present in any major litigation or lawsuits involving construction work of any type?

No Yes (explain): _____

8. Explain in detail the manner in which you have inspected the work proposed in this Contract:

9. Explain in detail your plan or layout for performing the work proposed in this contract:

10. If this contract is awarded to you, your company's administrative manager for the work will be Mr./Ms. _____, and your resident construction superintendent will be Mr./Ms. _____.

11. What experience in this type of work is enjoyed by the individual designated as superintendent above?

12. What portions of the work do you intent to sublet? _____

13. What equipment do you own that is available for the proposed work?

| Quantity | Description, Size, Capacity, etc. | Condition | Years in Service | Present Location |
|----------|-----------------------------------|-----------|------------------|------------------|
|----------|-----------------------------------|-----------|------------------|------------------|

| | | | | |
|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

14. Have you received firm offers for all major items of material and/or equipment within the prices used in preparing your proposal? Yes No

The signatory of this questionnaire guarantees the truth and accuracy of all statements herein made and all answers herein expressed.

Dated this _____ day of _____, 20____.

Signed: _____

By: _____

Title: _____

STATE OF _____

COUNTY OF _____

Subscribed and sworn to me this _____ day of _____, 20____.

Notary Public

My commission expires: _____

Child Support Statement

Under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this contract, bid 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.

State of Texas Child Support Business Ownership Form

County: _____

Project Name: _____

TxDOT CJS: _____

LG Project Number: _____

Business Entity Submitting Bid: _____

Section 231.006, Family Code, requires a bid for a contract paid from state funds to include the names and social security number of individuals owning 25% or more of the business entity submitting the bid.

1. In the spaces below please provide the names and social security number of individuals owning 25% or more of the business.

| Name | Social Security Number |
|-------|------------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

2. Please check the box below if no individual owns 25% or more of the business.

No individual owns 25% or more of the business.

Except as provided by the Section 131.302d, Family Code, a social security number is confidential and may be disclosed only for the purpose of responding to a request for information from an agency operating under the provisions of Part A and D to Title IV of the Federal Social Security Act (42 USC Section 601-617 and 651-699).

Under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this contract, bid 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.

The information collected on this form will be maintained by _____. With few exceptions, you are entitled on request to be informed about the information collected about you. Under Sections 552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under Section 559.004 of the Government Code, you are also entitled to have information about you corrected that you believe its incorrect.

Signature

Date

Printed Name

IF BIDDER IS A JOINT VENTURE, ALL PARTIES TO THE JOINT VENTURE MUST PROVIDE A COMPLETED FORM.

Certification Regarding Debarment, Suspension Ineligibility

BND PORT ROAD IMPROVEMENTS – PHASE II

Certification Regarding Debarment, Suspension Ineligibility

PROPOSER/BIDDER certifies that the responding entity and its principals are eligible to participate in the proposed contract and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state or local governmental entity and the PROPOSER/BIDDER is in compliance with the State of Texas statutes and rules relating to procurement and that PROPOSER/BIDDER is not listed on the federal government's terrorism watch list as described in Executive Order 13224.

Specifically, as is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 76, Government-wide Debarment and Suspension, in the applicant certifies, to the best of his or her knowledge and belief, that both it and its principals:

- a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency;
- b) Have not within a three-year period preceding this bid/proposal and/or application been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction, violation of federal or state antitrust statutes or commission of embezzlement, theft, theory, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity with commission of any of the offenses enumerated herein; and
- d) Have not within a three-year period preceding this bid/proposal and/or application had one or more public transactions terminated of cause or default.

Signature of person submitting this Bid

Date

Certification of Lobbying Activities

BND PORT ROAD IMPROVEMENTS – PHASE II

CERTIFICATION OF LOBBYING ACTIVITIES

49 CFR Part 20 – Appendix A

CERTIFICATION REGARDING LOBBYING: Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress in connection with this Federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form – LLL, "Disclosure Form to Report Lobbying", pursuant to 31 U.S.C. 1352 in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature/Authorized Certifying Official

Typed Name and Title

Applicant/Organization

Date Signed

Agreement

BND PORT ROAD IMPROVEMENTS – PHASE II

THIS AGREEMENT is dated as of the _____ day of _____ by and between the BROWNSVILLE NAVIGATION DISTRICT, Texas (hereinafter called OWNER), and _____ of _____ (hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK.

CONTRACTOR shall furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the work described herein and complete all the work as specified or indicated in the Contract Documents. The work is generally described as:

BND PORT ROAD IMPROVEMENTS – PHASE II

at the Brownsville Navigation District, Texas.
(hereinafter referred to as "Work").

Article 2. ENGINEER.

The project has been designed by the Engineering Department of the Brownsville Navigation District (hereinafter also called ENGINEER) in cooperation with the OWNER.

Article 3. CONTRACT TIME.

3.1. The Work shall be substantially completed within ninety (90) days from issuance of Notice to Proceed, and shall be completed within one hundred and five (105) days from issuance of Notice to Proceed.

3.2. Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring such proof, OWNER and CONTRACTOR agree that as liquidated damages for the delay (but not as a penalty) CONTRACTOR shall pay OWNER five hundred (\$500.00) dollars for each calendar day that expires after the time specified in paragraph 3.1 for substantial completion until the Work is substantially complete.

Article 4. CONTRACT PRICE.

4.1. CONTRACTOR shall perform the Work described in the Contract Documents for the amounts shown in the Bid Proposal, and OWNER shall pay CONTRACTOR in current funds based on the Bid Proposal.

Article 5. PAYMENT PROCEDURES.

Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by OWNER as provided for in the General Conditions.

5.1. Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment on or about the twentieth day after submittal of the Application for Payment each month as provided below. All progress payments shall be on the basis of the completed Work measured by the bid items in the Bid Proposal.

5.1.1. Prior to Substantial Completion progress payments shall be in an amount equal to 90% of the amount requested in the Application for Payment, with 10% remaining as retainage for the project, to be released in accordance paragraph 5.2.

5.1.2. Upon substantial completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 90% of the Contract Price, less such amounts OWNER shall determine in accordance with paragraph 14.7 of the General Conditions.

5.2. Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by OWNER as provided in said paragraph 14.13.

Article 6. CONTRACTOR'S REPRESENTATIONS.

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

6.1. CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

6.2. CONTRACTOR has made or caused to be made examinations and investigations of information as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations or similar data are or will be required by CONTRACTOR for such purposes.

6.3. CONTRACTOR has given OWNER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.

6.4. CONTRACTOR is skilled and experienced in the type of work described in the Contract Documents.

Article 7. CONTRACT DOCUMENTS.

The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consists of the following:

- 7.1. Invitation to Bid.
- 7.2. Instructions to Bidders (pages 1 to 9, inclusive).
- 7.3. Bid Proposal (pages 1 to 3, inclusive).
- 7.4. Bid Bond.
- 7.5. Statement of Non-collusion.
- 7.6. Disclosure of Interests.
- 7.7. Certificate and Definitions
- 7.8. Contractor's Pre-Bid Disclosure Statement (pages 1 to 3, inclusive).
- 7.9. Subcontractor's Pre-Bid Disclosure Statement (pages 1 to 3, inclusive).
- 7.10. Child Support Statement
- 7.11. Agreement.
- 7.12. Performance Bond.
- 7.13. Payment Bond.
- 7.14. Certificates of Insurance.
- 7.15. Standard General Conditions (pages 1 to 44, inclusive).
- 7.16. Supplemental General Conditions (pages 1 to 14, inclusive).
- 7.17. Technical Specifications (Sixteen [16] Pages, inclusive).
- 7.18. Construction Drawings – (One Hundred Thirty-Six [136] Sheets, inclusive).
- 7.19. Notice of Award & Acceptance of Notice.
- 7.20. Notice to Proceed & Acceptance of Notice.
- 7.21. Any Addenda issued and duly acknowledged.
- 7.22. Any modification, including Change Orders, duly delivered after execution of this Agreement.
- 7.23. Governing Specifications and Special Provisions

There are no Contract Documents other than those listed above in this Article 7. The Contract Documents may only be altered, amended or repealed by a Modification (as defined in Article 1 of the General Conditions).

Article 8. MISCELLANEOUS.

8.1. Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.

8.2. No assignment by a party hereto of any rights under or interest in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

8.3. OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

8.4. The invalidity or unenforceability of any provision of the Contract Documents shall not affect the validity or enforceability of any other provision of the Contract Documents.

8.5. This Agreement and the Contract Documents are subject to all applicable laws, statutes, codes, ordinances, rules and regulations.

8.6. In the event of default by CONTRACTOR under the Contract Documents, OWNER shall have all rights and remedies afforded to it at law or in equity to enforce the terms of the Contract Documents. The exercise of any one right or remedy shall be without prejudice to the enforcement of any other right or remedy allowed at law or in equity.

8.7. If any action at law or in equity is necessary by OWNER to enforce or interpret the terms of the Contract Documents, OWNER shall be entitled to reasonable attorneys' fees and costs and any necessary disbursements in addition to any other relief to which the OWNER is entitled.

8.8. The Contract Documents constitute the entire agreement between the parties hereto and supersede all prior agreements and understandings between the parties. The Contract can be modified or amended by written agreement of the parties.

8.9. These Contract Documents are governed by the laws of the State of Texas and the parties agree that venue for all lawsuits arising from these Contract Documents shall lie in Cameron County, Texas.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR, or by ENGINEER on their behalf.

This Agreement will be effective on _____.

BROWNSVILLE NAVIGATION DISTRICT

By: _____
John Wood, Chairman

By: _____

Attest: _____
Sergio Tito López, Secretary

Attest: _____

Address for giving notices:
Attn: Mr. Ariel Chávez II, P.E./R.P.L.S.,
Director of Engineering Services
1000 Foust Road
Brownsville, TX 78521

Address for giving notices:
Attn:

The Brownsville Navigation District is a governmental entity as defined by Texas Tax Code Section 151.309. District takes the position that this contract is exempt from taxation under Section 151.311 of the Texas Tax Code. The District will provide Contractor with evidence of District's status as a governmental entity, so that Contractor may claim exemption from sales tax for all purchases of tangible personal property used in the performance of this contract. **The parties agree that for purposes of claiming the exemption Contractor is the agent of District within the meaning of 34 Texas Administrative Code Rule 3.322.** However, District and Contractor further agree that (1) to the extent this contract or purchases made to fulfill this contract are taxable, that this is a "separated contract", and that the following amount of money represents that part of the total contract price representative of the value of tangible personal property to be physically incorporated into the project realty: \$ _____, and (2) in no event shall District be liable to Contractor for an increase in the Contract Price because of sales taxes.

Contractor's Assurance

[Subcontracts – Federal Aid Projects]

BND PORT ROAD IMPROVEMENTS – PHASE II

By signing this Contract, the Contractor is giving assurance that all subcontract agreements of \$10,000 or more on this project will incorporate the following provisions:

- ✓ Special Provision "Certification of Nondiscrimination in Employment"
- ✓ Special Provision "Disadvantaged Business Enterprise in Federal-Aid Construction"
- ✓ Special Provision "Measurement and Payment" (Article 9.2)
- ✓ Special Provision "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity" (Executive Order 11246)
- ✓ Special Provision "Standard Federal Equal Employment Opportunity Construction Contract Specifications" (Executive Order 11246)
- ✓ Form FHWA 1273 "Required Contract Provisions Federal-aid Construction Contracts" (Form FHWA 1273 must also be physically attached to subcontracts and purchase orders of \$10,000 or more)
- ✓ Applicable "Wage Determination Decision"

Performance Bond

BND PORT ROAD IMPROVEMENTS – PHASE II

KNOW ALL MEN BY THESE PRESENTS:

THAT _____
(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership, or Individual)

and _____
(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto the BROWNSVILLE NAVIGATION DISTRICT, Texas, hereinafter called OWNER, in the penal sum of _____ Dollars (\$_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the ____ day of _____, 2017, a copy of which is hereto attached and made a part hereof, for the construction of the:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year post-construction guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

This bond is subject to and governed by Article 5160 of the Texas Revised Civil Statues and all amendments thereto.

IN WITNESS WHEREOF, this instrument is executed in triplicate, each counterpart of which shall be deemed an original, this the ____ day of _____, 2017.

ATTEST: _____
(Principal)

(Principal) Secretary By: _____(s)
(Signature)

(SEAL)

(Witness as to Principal) (Address)

(Address)

ATTEST: _____
(Surety)

(Surety) Secretary By: _____
(Attorney-in-Fact)

(SEAL)

(Witness as to Surety) (Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute BOND.

ATTACH
POWER OF ATTORNEY
TO BE FURNISHED BY CONTRACTOR

Payment Bond

BND PORT ROAD IMPROVEMENTS – PHASE II

KNOW ALL MEN BY THESE PRESENTS:

THAT _____
(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership, or Individual)

and _____
(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto the BROWNSVILLE NAVIGATION DISTRICT, Texas, hereinafter called OWNER, in the penal sum of _____ Dollars (\$_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the ____ day of _____, 2017, a copy of which is hereto attached and made a part hereof, for the construction of the:

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose legally perfected claim may be unsatisfied.

This bond is subject to and governed by Article 5160 of the Texas Revised Civil Statues and all amendments thereto.

IN WITNESS WHEREOF, this instrument is executed in triplicate, each counterpart of which shall be deemed an original, this the ____ day of _____, 2017.

ATTEST: _____
(Principal)

(Principal) Secretary By: _____
(Signature)

(SEAL)

(Witness as to Principal) (Address)

(Address)

ATTEST: _____
(Surety)

(Surety) Secretary By: _____
(Attorney-in-Fact)

(SEAL)

(Witness as to Surety) (Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract. If Contractor Partnership, all partners should execute BOND.

ATTACH
POWER OF ATTORNEY
TO BE FURNISHED BY CONTRACTOR

Certificates of Insurance

BND PORT ROAD IMPROVEMENTS – PHASE II

ATTACH

CERTIFICATES OF INSURANCE

TO BE FURNISHED BY CONTRACTOR

General Conditions

BND PORT ROAD IMPROVEMENTS PHASE II

STANDARD
GENERAL CONDITIONS
OF THE
CONSTRUCTION CONTRACT

Prepared by

Engineers' Joint Contract Documents Committee

and

Issued and Published Jointly By

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

CONSTRUCTION SPECIFICATION INSTITUTE

The document has been approved and endorsed by:

The Associated General Contractors of America

TABLE OF CONTENTS OF GENERAL CONDITIONS

| Article Number | Title |
|----------------|--|
| 1 | DEFINITIONS |
| 2 | PRELIMINARY MATTERS |
| 3 | CONTRACT DOCUMENTS: INTENT, AMENDING AND REUSE |
| 4 | AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS |
| 5 | BONDS AND INSURANCE |
| 6 | CONTRACTOR'S RESPONSIBILITIES |
| 7 | OTHER WORK |
| 8 | OWNER'S RESPONSIBILITIES |
| 9 | ENGINEER'S STATUS DURING CONSTRUCTION |
| 10 | CHANGES IN THE WORK |
| 11 | CHANGE OF CONTRACT PRICE |
| 12 | CHANGE OF CONTRACT TIME |
| 13 | WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK |
| 14 | PAYMENTS TO CONTRACTOR AND COMPLETION |
| 15 | SUSPENSION OF WORK AND TERMINATION |
| 16 | (RESERVED) |
| 17 | MISCELLANEOUS |

Index to General Conditions

GENERAL CONDITIONS

ARTICLE 1. DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Addenda - Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the bidding documents or the Contract Documents. These Addenda shall become a part of the Contract Documents and modify the drawings, specifications or other bid documents as indicated. No verbal changes in the Work as shown or described shall become binding.

Agreement - The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment - The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

Bid - The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

Bonds - Bid, performance and payment bonds and other instruments of security.

Change Order - A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

Contract Documents - The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all amendments, modifications and supplements issued pursuant to paragraphs 3.4 and 3.5 on or after the Effective Date of the Agreement.

Contract Price - The moneys payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work).

Contract Time - The number of days (computed as provided in paragraph 17.2) or the date stated in the Agreement for the completion of the Work.

CONTRACTOR - The person, firm or corporation with whom OWNER has entered into

the Agreement.

Defective - An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof), has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10).

Drawings - The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by OWNER.

ENGINEER - The person, firm or corporation named as such in the Agreement.

Field Order - A written order issued by ENGINEER which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Time.

General Requirements - Sections of Division 1 of the Specifications.

Laws and Regulations; Laws or Regulations - Laws, rules, regulations, ordinances, codes and/or orders.

Notice of Award - The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

Notice to Proceed - A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

OWNER - The public body or authority, corporation, association, firm or person with whom Contractor has entered into the Agreement and for whom the Work is to be provided.

Partial Utilization - Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.

Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

Resident Project Representative - The authorized representative of ENGINEER who is assigned to the site or any part thereof.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are

specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

Specifications - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor - An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

Substantial Completion - The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.

Supplementary Conditions - The part of the Contract Documents which amends or supplements these General Conditions.

Supplier - A manufacturer, fabricator, supplier, distributor, materialman or vendor.

Underground Facilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unit Price Work - Work to be paid for on the basis of unit prices.

Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

Work Directive Change - A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.2 or 4.3 or to emergencies under paragraph 6.22. A Work Directive Change may not change the Contract Price or the Contract Time, but is evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Time as provided in paragraph 10.2.

Written Amendment - A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly Work-related aspects of the Contract Documents.

ARTICLE 2. PRELIMINARY MATTERS

Delivery of Bonds:

2.1 When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

Copies of Documents:

2.2 OWNER shall furnish to CONTRACTOR up to ten copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

Commencement of Contract Time; Notice to Proceed:

2.3 The Contract Time will commence to run on the thirtieth day after the after the effective Date of the Agreement, or if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the Effective Date of the Agreement. In no event will the Contract Time commence to run later than the seventy fifth day after the day the of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

Starting the Project:

2.4 CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

Before Starting Construction:

2.5 Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby. CONTRACTOR shall be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents, if CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

2.6 Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review:

2.6.1 an estimated progress schedule indicating the starting and

completion dates of the various stages of the Work;

2.6.2 a preliminary schedule of Shop Drawings submissions; and

2.6.3 a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission.

2.7 Before any Work at the site is started, Contractor shall deliver to Owner, with a copy to Engineer, certificates (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with paragraphs 5.3, 5.4, and Owner shall deliver to CONTRACTOR certificates (and other evidence of insurance requested by CONTRACTOR) which OWNER is required to purchase and maintain in accordance with paragraphs 5.6 and 5.7.

Preconstruction Conference:

2.8 Within twenty days after the Effective Date of the Agreement, but before CONTRACTOR starts the Work at the site, a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to discuss the schedules referred to in paragraph 2.6, to discuss procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work.

Finalizing Schedules:

2.9 At least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to finalize the schedules submitted in accordance with paragraph 2.6. The finalized progress schedule will be acceptable to ENGINEER as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on ENGINEER responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility therefor. The finalized schedule of Shop Drawing submissions will be acceptable to ENGINEER as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to ENGINEER as to form and substance.

ARTICLE 3. CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

Intent:

3.1 The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2 It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work,

materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to ENGINEER, or any of ENGINEER's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.15 or 9.16. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in paragraph 9.4.

3.3 If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to ENGINEER in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from ENGINEER. However, CONTRACTOR shall be not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents if CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

Amending and Supplementing Contract Documents:

3.4 The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

- 3.4.1 a Formal Written Amendment,
- 3.4.2 a Change Order (pursuant to paragraph 10.4), or
- 3.4.3 a Work Directive Change (pursuant to paragraph 10.1).

As indicated in paragraphs 11.2 and 12.1, Contract Price and Contract Time may only be changed by a Change Order or a Written Amendment.

3.5 In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

- 3.5.1 a Field Order (pursuant to paragraph 9.5),
- 3.5.2 ENGINEER's approval of a Shop Drawing or sample (pursuant to paragraphs 6.26 and 6.27), or

3.5.3 ENGINEER's written interpretation or clarification (pursuant to paragraph 9.4).

Reuse of Documents:

3.6 Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER. All drawings, specifications or other documents (or copies of any thereof) are upon completion of the project to become the property of OWNER. Further use thereof without written consent of OWNER is prohibited.

ARTICLE 4. AVAILABILITY OF LANDS: PHYSICAL CONDITIONS: REFERENCE POINTS

Availability of Lands:

4.1 OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER's furnishing these lands, rights-of-way or easements entitles CONTRACTOR to an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Article 12. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

Physical Condition:

4.2.1 Explorations and Reports: Reference is made to the Supplementary Conditions for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by ENGINEER in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, but not upon nontechnical data, interpretations or opinions contained therein or for the completeness thereof for CONTRACTOR's purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to subsurface conditions at the site.

4.2.2 Existing Structures: Reference is made to the Supplementary Conditions for identification of those drawings of physical conditions in or relating to existing surface or subsurface structures (except Underground Facilities referred to in paragraph 4.3) which are at or contiguous to the site that have been utilized by ENGINEER in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, but not for the completeness thereof for CONTRACTOR's purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to physical conditions in or relating to such structures.

4.2.3 Report of Differing Conditions: If CONTRACTOR believes that:

4.2.3.1 any technical data on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is inaccurate, or

4.2.3.2 any physical condition uncovered or revealed at the site differs materially from that indicated, reflected or referred to in the Contract Documents,

CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work in connection therewith (except in an emergency as permitted by paragraph 6.22), notify OWNER and ENGINEER in writing about the inaccuracy or difference.

4.2.4 ENGINEER's Review: ENGINEER will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

4.2.5 Possible Document Change: If ENGINEER concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change in the Contract Documents is required, a Work Directive Change or a Change Order will be issued as provided in Article 10 to reflect and document the consequences of the inaccuracy or difference.

4.2.6 Possible Price and Time Adjustments: In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, may be allowable to the extent that they are attributable to any such inaccuracy or difference. If OWNER and CONTRACTOR are unable to agree as to the amount or length thereof, a claim may be made therefor as provided in Articles 11 and 12.

Physical Conditions - Underground Facilities:

4.3.1 Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

4.3.1.1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and,

4.3.1.2 CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all Underground Facilities shown or indicated in the Contract Documents, for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

4.3.2 Not Shown or Indicated. If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency as permitted by paragraph 6.22), identify the owner of such Underground Facility and give written notice thereof to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Contract Documents will be amended or supplemented to the extent necessary. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.20. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of. If the parties are unable to agree as to the amount or length thereof, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

Reference Points:

4.4 OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

ARTICLE 5. BONDS AND INSURANCE

Performance and Other Bonds:

5.1 CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These bonds shall remain in effect at least until one year after the date when final payment becomes due, except as otherwise provided by Law or Regulation or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the forms prescribed by Law or Regulation or by the Contract Documents and be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

5.2 If the surety on any Bond furnished by CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the

project is located or it ceases to meet the requirements of paragraph 5.1, CONTRACTOR shall within five days thereafter substitute another Bond or Surety, both of which must be acceptable to OWNER.

Contractor's Liability Insurance:

5.3 CONTRACTOR shall purchase and maintain such comprehensive general liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance and furnishing of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed or furnished by CONTRACTOR, by any Subcontractor, by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts and/or omissions any of them may be liable:

5.3.1 Claims under workers' or workmen's compensation, disability benefits and other similar employee benefit acts;

5.3.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.3.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

5.3.4 Claims for damages insured by personal injury liability coverage which are sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (b) by any other person for any other reason;

5.3.5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom;

5.3.6 Claims arising out of operation of Laws or Regulations for damages because of bodily injury or death of any person or for damage to property; and

5.3.7 Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The insurance required by these paragraphs 5.3 and 5.6 shall include the specific coverages and be written for not less than the limits of liability and coverages provided in the Supplementary Conditions, or required by law, whichever is greater. The comprehensive general liability insurance shall include completed operations insurance. All of the policies of insurance so required to be purchased and maintained (or the certificates or other evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days' prior written notice has been given to OWNER and ENGINEER by certified mail. All such insurance shall remain in effect until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing defective Work in accordance with paragraph 13.12. In addition, CONTRACTOR shall maintain such completed operations insurance for at least two years after final payment and

furnish OWNER with evidence of continuation of such insurance at final payment and one year thereafter.

Contractual Liability Insurance:

5.4 The comprehensive general liability insurance required by paragraph 5.3 will include contractual liability insurance applicable to CONTRACTOR's obligations under paragraphs 6.30 and 6.31.

Owner's Liability Insurance:

5.5 Owner shall be responsible for purchasing and maintaining OWNER'S own liability insurance and, at OWNER's option, may purchase and maintain such insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

Property Insurance:

5.6 Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER and ENGINEER's consultants in the Work, all of whom shall be listed as insureds or additional insured parties, shall insure against the perils of fire and extended coverage and shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in the Supplementary Conditions, and shall include damages, losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers, architects, attorneys and other professionals). If not covered under the "all risk" insurance or otherwise provided in the Supplementary Conditions, CONTRACTOR shall purchase and maintain similar property insurance on portions of the Work stored on and off the site or in transit when such portions of the Work are to be included in an Application for Payment.

5.7 OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEERS and ENGINEER's consultants in the Work, all of whom shall be listed as insured or additional insured parties.

5.8 All the policies of insurance (or the certificates or other evidence thereof) required to be purchased and maintained by OWNER in accordance with paragraphs 5.6 and 5.7 will contain a provision or endorsement that the coverage afforded will not be cancelled or materially changed or renewal refused until at least thirty days prior written notice has been given to CONTRACTOR by certified mail and will contain waiver provisions in accordance with paragraph 5.11.2.

5.9 OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTORS, Subcontractors or others in the Work to the extent of any deductible amounts that are provided in the Supplementary Conditions. The risk of loss within the deductible amount will be borne by CONTRACTOR. Subcontractor, or others suffering any such loss and if any of them wishes property insurance coverage within the

limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.10 If CONTRACTOR requests in writing that other special insurance be included in the property insurance policy, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of Work at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

Waiver of Rights:

5.11.1 OWNER and CONTRACTOR waive all rights against each other for all losses and damages caused by any of the perils covered by the policies of insurance provided in response to paragraph 5.6 and 5.7 and any other property insurance applicable to the Work, and also waives all such rights against the Subcontractors. ENGINEER, ENGINEER's consultants and all other parties named as insureds in such policies for losses and damages so caused. As required by paragraph 6.11, each subcontract between CONTRACTOR and a Subcontractor will contain similar waiver provisions by the Subcontractor in favor of OWNER, CONTRACTOR, ENGINEER, ENGINEER's consultants and all other parties named as insureds. None of the above waivers shall extend to the rights that any of the insured parties may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy is issued.

5.11.2 OWNER and CONTRACTOR intend that any policies provided in response to paragraph 5.6 and 5.7 shall protect all of the parties insured and provide primary coverage for all losses and damages caused by the perils covered thereby. Accordingly, all such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any of the parties named as insureds or additional insureds, and if the insurers require separate waiver forms to be signed by ENGINEER or ENGINEER's consultant or any Subcontractor, CONTRACTOR will obtain the same, and if such waiver forms are required of any Subcontractor, CONTRACTOR will obtain the same.

Receipt and Application of Proceeds:

5.12. Any insured loss under the policies of insurance required by paragraphs 5.6 and 5.7 will be adjusted with OWNER and made payable to OWNER as trustee for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.13. OWNER shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreements is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

5.13. OWNER as trustee shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as trustee shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If required in writing by any party in interest, OWNER as trustee shall, upon the occurrence of any insured loss, give bond for the proper performance of such duties.

Acceptance of Insurance:

5.14. If OWNER has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by CONTRACTOR in accordance with paragraphs 5.3 and 5.4 on the basis of its not complying with the Contract Documents, OWNER shall notify CONTRACTOR in writing thereof within ten days of the date of delivery of such certificates to OWNER in accordance with paragraph 2.7. If CONTRACTOR has any objection to the coverage afforded by or other provisions of the policies of insurance required to be purchased and maintained by OWNER, in accordance with paragraphs 5.6 and 5.7 on the basis of their not complying CONTRACTOR shall notify OWNER in writing thereof within ten days of the date of delivery of such certificates to CONTRACTOR in accordance with paragraph 2.7. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided by each as the other may reasonably request. Failure by OWNER or CONTRACTOR to give any such notice of objection within the time provided shall constitute acceptance of such insurance purchased by the other as complying with the Contract Documents.

Partial Utilization - Property Insurance:

5.15. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10 provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent to such use or occupancy by endorsement on the policy or policies, but the property insurance shall not be cancelled or lapse on account of any such partial use or occupancy.

ARTICLE 6. CONTRACTOR'S RESPONSIBILITIES**Supervision and Superintendence:**

6.1. CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.2. CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

Labor, Materials and Equipment:

6.3. CONTRACTOR shall provide competent, suitably qualified personnel to survey

and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent given after prior written notice to ENGINEER.

6.4. Unless otherwise specified in the General Requirements, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

6.5. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to ENGINEER, or any of ENGINEER's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.15 or 9.16.

Adjusting Progress Schedule:

6.6. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.9) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

Substitutes or "Or-Equal" Items:

6.7.1. Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by ENGINEER if sufficient information is submitted by CONTRACTOR to allow ENGINEER to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by ENGINEER will include the following as supplemented in the General Requirements. Requests for review of substitute items of material and equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR's achievement of

Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by ENGINEER in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish at CONTRACTOR's expense additional data about the proposed substitute.

6.7.2. If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to ENGINEER, if CONTRACTOR submits sufficient information to allow ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in paragraph 6.7.1 as applied by ENGINEER and as may be supplemented in the General Requirements.

6.7.3. ENGINEER will be allowed a reasonable time within which to evaluate each proposed substitute. ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guaranty or other surety with respect to any substitute. ENGINEER will record time required by ENGINEER and ENGINEER's consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not ENGINEER accepts a proposed substitute. CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's consultants for evaluating each proposed substitute.

Concerning Subcontractors, Suppliers and Others:

6.8.1. CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in paragraph 6.8.2), whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

6.8.2. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and ENGINEER and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's or ENGINEER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for

acceptance or objection in the bidding documents or the Contractor Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute, the Contract Price may be increased by the difference in the cost occasioned by such substitution and an appropriate Change Order will be issued or Written Amendment signed. All increases or decreases in the Contract Price shall be governed by all state and local statutes, codes, laws, ordinances, rules and regulations governing competitive bidding and Change Orders. No acceptance by OWNER or ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

6.9. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and/or omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and/or omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.10. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.11. All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER and contains waiver provisions as required by paragraph 5.11. CONTRACTOR shall pay each Subcontractor a just share of any insurance moneys received by CONTRACTOR on account of losses under policies issued pursuant to paragraphs 5.6 and 5.7.

Patent Fees and Royalties:

6.12. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and anyone directly or indirectly employed by either of them from and against claims, damages, losses and expenses (including attorneys' fees and court costs) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

Permits:

6.13. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or if there are no Bids on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

Laws and Regulations:

6.14.1. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

6.14.2. If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations. CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 3.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws or Regulations, and without such notice to ENGINEER, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws and Regulations.

Taxes:

6.15. CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the Place of the Project which are applicable during the performance of the Work.

Use of Premises:

6.16. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or any of the land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against OWNER or ENGINEER by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify, hold OWNER and ENGINEER harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or

equitable, brought by any such other party against OWNER or ENGINEER to the extent based on a claim arising out of CONTRACTOR's performance of the Work.

6.17. During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.18. CONTRACTOR shall not load or permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Record Documents:

6.19. CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Directive Changes, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents, together with all approved samples and a counterpart of all approved Shop Drawings, will be available to ENGINEER for reference. Upon completion of the Work, these record documents, samples and Shop Drawings will be delivered to ENGINEER for OWNER.

Safety and Protection:

6.20. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.20.1. all employees on the Work and other persons and organizations who may be affected thereby;

6.20.2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

6.20.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in

part, by OWNER and ENGINEER, and by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR. CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.21. CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to OWNER.

Emergencies:

6.22. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER or OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change order will be issued to document the consequences of the changes or variations.

Shop Drawings and Samples:

6.23. Not Used

6.24. Not Used

6.25. Not Used

6.26. ENGINEER will review and approve with reasonable promptness Shop Drawings and samples, but ENGINEER's review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incidents thereto. The review and approval of a separate item as such will not indicate approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit as required new samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.27. ENGINEER's review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission as required by paragraph 6.25.2 and ENGINEER has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawings or sample approval; nor will any approval by ENGINEER

relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 6.25.1

6.28. Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to ENGINEER's review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

Continuing the Work:

6.29. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as CONTRACTOR and OWNER may otherwise agree in writing.

Indemnification:

6.30. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and their consultants, agents and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, or regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.

6.31. In any and all claims against OWNER or ENGINEER or any of their consultants, agents or employees by any employee of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.30 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

6.32. The obligations of CONTRACTOR under paragraph 6.30 shall not extend to the liability of ENGINEER, ENGINEER's consultants, agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications.

ARTICLE 7 - OTHER WORK

Related Work at Site:

7.1. OWNER may perform other work related to the Project at the site by OWNER's own forces, have other work performed by utility owners or let other direct contracts therefor which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to CONTRACTOR prior to starting any such other work; and, if CONTRACTOR believes that such performance will involve additional expense to CONTRACTOR or requires additional time and the parties are unable to agree as to the extent thereof, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

7.2. CONTRACTOR shall afford each utility owner and other contractor who is a party to such a direct contract (or OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

7.3. If any part of CONTRACTOR's Work depends for proper execution or results upon the work of any such other contractor or utility owner (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER in writing any delays, defects or deficiencies in such work that renders it unavailable or unsuitable for such proper execution and results. CONTRACTOR's failure so to report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR's Work except for latent or nonapparent defects and deficiencies in the other work.

Coordination:

7.4. If OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Supplementary Conditions, and the specific matters to be covered by such authority and responsibility will be itemized, and the extent of such authority and responsibilities will be provided, in the Supplementary Conditions. Unless otherwise provided in the Supplementary Conditions, neither OWNER nor ENGINEER shall not have any authority or responsibility in respect of such coordination.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.1. OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.2. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer against whom CONTRACTOR makes no reasonable objection, whose status under

the Contract Documents shall be that of the former ENGINEER. Any dispute in connection with such appointment shall be subject to arbitration.

8.3. OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly after they are due as provided in paragraphs 14.4 and 14.13.

8.4. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by ENGINEER in preparing the Drawings and Specifications.

8.5. OWNER's responsibility in respect of purchasing and maintaining liability and property insurance are set forth in paragraphs 5.5 through 5.6.

8.6. OWNER is obligated to execute Change Orders as indicated in paragraph 10.4.

8.7. OWNER's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.

8.8. In connection with OWNER's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER's right to terminate services of CONTRACTOR under certain circumstances.

ARTICLE 9 -ENGINEERS STATUS DURING CONSTRUCTION

Owner's Representative:

9.1. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

Visits to Site:

9.2. ENGINEER will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations as an experienced and qualified design professional, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defects and deficiencies in the Work.

Project Representation:

9.3. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project

Representative to assist ENGINEER in observing the performance of the Work. The duties, responsibilities and limitations of authority of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions. If OWNER designates another agent to represent OWNER at the site who is not ENGINEER's agent or employee, the duties, responsibilities and limitations of authority of such other person will be as provided in the Supplementary Conditions.

Clarifications and Interpretations:

9.4. ENGINEER, after consultation with OWNER, will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or an extension of the Contract Time and the parties are unable to agree to the amount or extent thereof, CONTRACTOR may make a claim therefor as provided in Article 11 or Article 12.

Authorized Variations in Work:

9.5. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER, and also on CONTRACTOR who shall perform the Work involved promptly. If CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11 or 12.

Rejecting Defective Work:

9.6. ENGINEER will have the authority to disapprove or reject Work which ENGINEER believes to be defective, and will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

Shop Drawings, Change Orders and Payments:

9.7. In connection with ENGINEER's responsibility for Shop Drawings and samples, see paragraphs 6.23 through 6.28 inclusive.

9.8. In connection with ENGINEER's responsibilities as to Change Orders, see Articles 10, 11 and 12.

9.9. In connection with ENGINEER's responsibilities in respect of Applications for Payment, etc., see Article 14.

Determinations for Unit Prices:

9.10. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR ENGINEER's

preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decisions thereon will be final and binding upon OWNER and CONTRACTOR, unless, within ten days after the date of any such decision, either OWNER or CONTRACTOR delivers to the other party to the Agreement and to ENGINEER written notice of intention to appeal from such a decision.

Decisions on Disputes:

9.11. ENGINEER will be the interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims under Articles 11 and 12 in respect of changes in the Contract Price or Contract Time will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter will be delivered by the claimant to ENGINEER and the other party to the Agreement promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within sixty days after such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim.

9.12. When functioning as interpreter and judge under paragraphs 9.10 and 9.11, ENGINEER will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to paragraphs 9.10 and 9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.16) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter.

Limitations on ENGINEER's Responsibilities:

9.13. Neither ENGINEER's authority to act under this Article 9 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, and Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

9.14. Whenever in the Contract Documents the term "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.15 or 9.16.

9.15. ENGINEER will not be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs

incident thereto and ENGINEER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

9.16. ENGINEER will not be responsible for the acts and/or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 10 - CHANGES IN THE WORK

10.1. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Written Amendment, a Change Order, or a Work Directive Change. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

10.2. If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Work Directive Change, a claim may be made therefor as provided in Article 11 or Article 12.

10.3. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.4 and 3.5, except in the case of an emergency as provided in paragraph 6.22 and except in the case of uncovering Work as provided in paragraph 13.9.

10.4. OWNER and CONTRACTOR shall execute appropriate Change Orders (or Written Amendments) covering:

10.4.1. changes in the Work which are ordered by OWNER pursuant to paragraph 10.1, are required because of acceptance of defective Work under paragraph 13.13 or correcting defective Work under paragraph 13.14, or are agreed to by the parties;

10.4.2. changes in the Contract Price or Contract Time which are agreed to by the parties; and

10.4.3. changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 9.11;

provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.29.

10.5. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR'S responsibility, and the amount of each applicable Bond will be

adjusted accordingly.

ARTICLE 11 - CHANGE OF CONTRACT PRICE

11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

11.2. The Contract price may only be changed by a Change Order or by a Written Amendment. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the claim to the other party promptly and to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Price shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph 11.2.

11.3. The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

11.3.1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraphs 11.9.1. through 11.9.3. inclusive).

11.3.2. By mutual acceptance of a lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 11.6.2.1).

11.3.3. On the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a CONTRACTOR's Fee for overhead and profit (determined as provided in paragraphs 11.6 and 11.7).

Cost of the Work:

11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:

11.4.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe

benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

11.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

11.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine which bid will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as CONTRACTOR's Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

11.4.5. Supplemental costs including the following:

11.4.5.1. The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

11.4.5.2. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.4.5.3. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof--all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.4.5.4. Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

11.4.5.5. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

11.4.5.6. Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER in accordance with paragraph 5.9), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's Fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

11.4.5.7. The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work and premiums for property insurance coverage within the limits of the deductible amounts established by OWNER in accordance with paragraph 5.9.

11.5. The term Cost of the Work shall not include any of the following:

11.5.1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.4.1 or specifically covered by paragraph 11.4.4--all of which are to be considered administrative costs covered by the CONTRACTOR's Fee.

11.5.2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

11.5.3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 11.4.5.9 above).

11.5.5. Costs due to the intentional and/or negligent acts and/or omissions of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts and/or omissions any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

11.5.6. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

CONTRACTOR's Fee:

11.6. The CONTRACTOR's Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1 a mutually acceptable fixed fee; or if none can be agreed upon.

11.6.2 a fee based on the following percentages of the various portions of the Cost of the Work:

11.6.2.1. for costs incurred under paragraphs 11.4.1 and 11.4.2, the CONTRACTOR's Fee shall be fifteen percent;

11.6.2.2. for costs incurred under paragraph 11.4.3, the CONTRACTOR's Fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a Fee, the maximum allowable to CONTRACTOR on account of overhead and profit of all Subcontractors shall be fifteen percent;

11.6.2.3. no fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5;

11.6.2.4. the amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR's Fee by an amount equal to ten percent of the net decrease; and

11.6.2.5. when both additions and credits are involved in any one change, the adjustment in CONTRACTOR'S Fee shall be computed on the basis of the net change in accordance with paragraphs 11.6.2.1 through 11.6.2.4, inclusive.

11.7. Whenever the cost of any Work is to be determined pursuant to paragraph 11.4 or 11.5, CONTRACTOR will submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

Cash Allowances:

11.8. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors or Suppliers and for such sums within the limit of the allowances as may be acceptable to ENGINEER. CONTRACTOR agrees that:

11.8.1. The allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

11.8.2. CONTRACTOR's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any thereof will be valid.

Prior to final payment an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

Unit Price Work:

11.9.1. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER in accordance with Paragraph 9.10.

11.9.2. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

11.9.3. Where the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement and there is no corresponding adjustment with respect to any other item of Work and if CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof. CONTRACTOR may make a claim for an increase in the Contract Price in accordance with Article 11 if the parties are unable to agree as to the amount of any such increase.

ARTICLE 12 - CHANGE OF CONTRACT TIME

12.1. The Contract Time may only be changed by a Change Order or a Written Amendment. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph 12.1.

12.2. The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefor as provided in paragraph 12.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional work as contemplated by Article 7, or to fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

12.3. All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 12 shall not exclude recovery for damages (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs) for delay by either party.

ARTICLE 13 - WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

Warranty and Guarantee:

13.1. CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

13.2. ENGINEER and ENGINEER's representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

Tests and Inspections:

13.3. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals.

13.4. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefor, pay all costs in connection therewith and furnish ENGINEER the

required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER's or ENGINEER's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or if materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. The cost of all inspections, tests and approvals other than those which are required by the Contract Documents shall be paid by OWNER (unless otherwise specified).

13.5. All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR (or by ENGINEER if so specified).

13.6. If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.7. Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR's obligations to perform the Work in accordance with the Contract Documents.

Uncovering Work:

13.8. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

13.9. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges or engineers, architects, attorneys and other professionals), and OWNER shall be entitled to an appropriate decrease in the Contract Price, and if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in Article 11. If, however, such Work is not found to be defective, CONTRACTOR may be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

Owner May Stop the Work:

13.10. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been

eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

Correction or Removal of Defective Work:

13.11. If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with nondefective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

One Year Correction Period:

13.12. If within one year after the date of issue of the Certificate of Acceptance or such longer period of time as may be prescribed by Laws or Regulations, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instruction, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with nondefective Work. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service before acceptance of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

Acceptance of Defective Work:

13.13. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment), prefers to accept it, OWNER may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. If the acceptance occurs after such final payment, an appropriate amount as determined by OWNER will be paid by CONTRACTOR to OWNER.

OWNER May Correct Defective Work:

13.14. If CONTRACTOR fails within a reasonable time after written notice of ENGINEER to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days'

written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by ENGINEER, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

Schedule of Values:

14.1. The schedule of values established as provided in paragraph 2.9 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

Application for Progress Payment:

14.2. At least twenty days before each progress payment is scheduled (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, all of which will be satisfactory to OWNER. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

CONTRACTOR's Warranty of Title:

14.3. CONTRACTOR warrants and guarantees that title to all Work, materials and

equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

Review of Applications for Progress Payment:

14.4. OWNER will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to make payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten days after presentation of the Application for Payment with ENGINEER's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR.

14.5. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based upon ENGINEER's on-site observations of the Work in progress as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules that the Work has progressed to the point indicated, that, to the best of ENGINEER's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.10 and to any other qualifications stated in the recommendation); and that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or OWNER to withhold payment to CONTRACTOR.

14.6. ENGINEER's recommendation of final payment will constitute an additional representation by ENGINEER to OWNER that the conditions precedent to CONTRACTOR's being entitled to final payment as set forth in paragraph 14.13 have been fulfilled.

14.7. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

14.7.1. the Work is defective, or completed Work has been damaged requiring correction or replacement.

14.7.2. the Contract Price has been reduced by Written Amendment or Change Order.

14.7.3. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.14, or

14.7.4. of ENGINEER's actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.9 inclusive.

OWNER may refuse to make payment in whole or in part of the amount recommended by ENGINEER because claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work or Liens have been filed in connection with the Work or there are other items entitling OWNER to a set-off against the amount recommended, but OWNER must give CONTRACTOR written notice (with a copy to ENGINEER) stating the reasons for such action.

Substantial Completion:

14.8. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have ten days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within twenty days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said twenty days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion, ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

14.9. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

Partial Utilization:

14.10. Use by OWNER of any finished part of the Work, which has specifically been identified in the Contract Documents or which OWNER, ENGINEER and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER without significant interference with CONTRACTOR's performance of the remainder of the Work,

may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER and ENGINEER that said part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.10.2. OWNER may at any time request CONTRACTOR in writing to permit OWNER to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to ENGINEER and within a reasonable time thereafter OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to OWNER and ENGINEER that such part of the Work is not ready for separate operation by OWNER, ENGINEER will finalize the list of items to be completed or corrected and will deliver such list to OWNER and CONTRACTOR together with a written statement as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon OWNER and CONTRACTOR at the time when OWNER takes over such operation (unless they shall have otherwise agreed in writing and so informed ENGINEER). During such operation and prior to Substantial Completion of such part of the Work, OWNER shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.

14.10.3. No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of paragraph 5.15 in respect of property insurance.

Final Inspection:

14.11. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

Final Application for Payment:

14.12. After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 6.19) and other documents--all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of paragraph 14.16), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

Final Payment and Acceptance:

14.13. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation--all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.16. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty days after presentation to OWNER of the Application and accompanying documentation, in appropriate form and substance, and with ENGINEER's recommendation and notice of acceptability, the amount recommended by ENGINEER will become due and will be paid by OWNER to CONTRACTOR.

14.14. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

Contractor's Continuing Obligation:

14.15. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor the issuance of a certificate of Substantial Completion or Acceptance, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.13, nor any correction of defective Work by OWNER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents (except as provided in paragraph 14.16).

Waiver of Claims:

14.16. The making and acceptance of final payment will constitute:

14.16.1. a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.11 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by OWNER of any rights in respect of CONTRACTOR's continuing obligations under the Contract Documents; and

14.16.2. a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

Owner May Suspend Work:

15.1. OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR may be allowed an increase in the Contract Price or an extension of the Contract Time, or both; directly attributable to any suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

Owner May Terminate:

15.2. Upon the occurrence of any one or more of the following events:

15.2.1. if CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;

15.2.2. if a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

15.2.3. if CONTRACTOR makes a general assignment for the benefit of creditors;

15.2.4. if a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR's creditors;

15.2.5. if CONTRACTOR admits in writing an inability to pay its debts generally as they become due;

15.2.6. if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 29. as revised from time to time);

15.2.7. if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

15.2.8. if CONTRACTOR disregards the authority of ENGINEER; or

15.2.9. if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety, if there be one) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) such excess will be kept by OWNER. If such costs exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER will be approved as to reasonableness by ENGINEER and incorporated in a Change Order, but when exercising any rights or remedies under this paragraph OWNER shall now be required to obtain the lowest price for the Work performed.

15.3. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4. Upon seven days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work

and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed and any expense sustained plus reasonable termination expenses, which will include, but not be limited to, direct, indirect and consequential costs (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs).

15.5. If through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within thirty days after it is submitted, or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR, may upon seven days written notice to OWNER and ENGINEER terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if ENGINEER has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven day's written notice to OWNER and ENGINEER stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of the obligations under paragraph 6.29 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

ARTICLE 16 (Reserved)

ARTICLE 17 - MISCELLANEOUS

Giving Notice:

17.1. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation in the case of the CONTRACTOR or the General Manager in the case of the OWNER for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

Computation of Time:

17.2.1. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.2.2. A calendar day of twenty-four hours measured from midnight to the next midnight shall constitute a day.

General:

17.3. Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 17.3 shall not be construed as a substitute for or a

waiver of the provisions of any applicable statute of limitations or repose.

17.4. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the conditions, warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.30, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to OWNER and ENGINEER which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, conditions, warranties and guarantees made in the Contract Documents will survive the execution, final payment and termination or completion of the Agreement. All statements contained in any document required by OWNER, whether delivered at the time of the execution of the Contract Documents or at a later date, shall constitute representations, warranties and guarantees herein.

In case of conflict:

17.5. In the event of conflict between any provisions in these General Conditions, Supplementary General Conditions and Technical Specifications with TxDOT provisions, TxDOT provisions shall govern.

Supplementary General Conditions

BND PORT ROAD IMPROVEMENTS – PHASE II

1. GENERAL

The Standard General Conditions of the construction Contract prepared by the ENGINEER's Joint Contract documents Committee (No. 1910-8 1990 Edition) shall form a part of this contract, together with the following Supplementary General Conditions. A copy of the Standard General Conditions (No. 1910-8) is bound herewith.

The following supplements modify, change, delete, or add to the General Conditions, where any part of the General Conditions is modified or voided by these articles, the unaltered provisions of that part shall remain in effect.

2. DETAILED AMENDMENTS TO THE GENERAL CONDITIONS

The following Articles of the Standard General Conditions are hereby amended as follows:

ARTICLE 1: The definition for Contract Documents is hereby amended to insert the word "General and Supplementary General Conditions", after the word "Agreement"

ARTICLE 2: Add the following definitions:

- a. Standard abbreviations: Wherever reference is made to standard specifications, standard of quality or performance, as established by a recognized national authority, the reference may be by initials as generally recognized throughout the authority.
- b. Addenda: Supplements to, change in or corrections to the Drawings and/or Specifications issued in writing by the Engineer during the period of bidding. These addenda shall become a part of the contract and modify the Drawings and/or Specifications as indicated. No verbal changes in the work as shown or described shall become binding.
- c. Alternates: Additions, omissions from, or changes to requirements for the project, each of which shall be bid separately and shall be included in or omitted from the contract at the discretion of the owner.
- d. Furnish: To supply at the job site the material, equipment, etc., referred to. Installation is not required of the supplier by the Specifications, but shall be arranged for by the General CONTRACTOR.
- e. Provide: To furnish and install in the location shown or approved at the job site, the material, equipment, etc., referred to.

ARTICLE 5: BONDS AND INSURANCE

Delete the last sentence of Article 5.1 delaying with U.S. Treasury Department Listing and substitute the following:

All the surety companies providing bonds for this project must be registered with the Secretary of State of the State of Texas.

Add to Article 5.3 the following subparagraphs:

- 5.3.1. **COMPENSATION INSURANCE.** The Contractor shall procure and shall maintain during the life of this Contract, Workmen's Compensation Insurance for all of his employees to be engaged in work on this project under this Contract, and in case of any such work sublet, the CONTRACTOR shall require the subcontractor similarly to provide Workmen' Compensation Insurance for all the latter's employees to be engaged in such work unless employees are covered by the protection afforded by the CONTRACTOR's Compensation Insurance. In case of any class of employees engaged in hazardous work on the project, under this Contract and is not protected under the Workmen's Compensation Statute, the CONTRACTOR shall provide and shall cause each subcontractor to provide adequate insurance for employees not otherwise protected.

Worker's Compensation

Which Complies with the Texas Workers Compensation Act as well as all Federal acts applicable to the Contractor's operation at the site.

Employer's Liability

\$1,000,000.00 for each occurrence.

- 5.3.2. **CONTRACTOR'S PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE.** The Contractor shall procure and shall maintain during the life of this contract CONTRACTOR's Public Liability Insurance for injuries, including accidental death, to any one person, and subject to the same limit for each person, on account of one accident, and CONTRACTOR's Property Damage Insurance in amount as follows:

Comprehensive General Liability

\$1,000,000.00 Combined Single Limit
(\$ 4,000,000.00 if explosives are involved in the performance of the contract)

Including: Bodily Injury Liability, Personal Injury Liability, Property Damage Liability, Broad Form Property Damage Liability, Contractual Liability, Products/Completed Operations Liability, Liability for Property of Others in the Care, Custody and Control of the Contractor.

Comprehensive Automobile Liability

\$1,000,000.00 Combined Single Limit

- 5.3.3. **SUBCONTRACTOR'S PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE.** The CONTRACTOR shall require each of his subcontractors to procure and to maintain, during the life of this subcontract, Subcontractor's Public Liability and Property Damage Insurance of the type in subparagraph.

- 5.3.4. Hereof, in amounts approved by the OWNER.

- 5.3.5. **SCOPE OF INSURANCE AND SPECIAL HAZARDS.** The insurance required under subparagraph 5.3.2. and 5.3.3. hereof shall provide adequate protection for the Contractor

and his subcontractors respectively against damage claims which may arise from operations under this Contract, whether such operations be by the insured or by anyone against any special hazards which may be encountered in the performance of this contract.

ARTICLE 6. CONTRACTOR'S RESPONSIBILITIES

Add to subparagraph 6.5:

The CONTRACTOR shall notify the OWNER in writing of any conflict between the Manufacturer's directors and the Contract Documents and shall not perform any work on any item until such conflict has been resolved.

Upon award of the Contract, the OWNER will, on written request of the CONTRACTOR, furnish the CONTRACTOR with a certificate of exemption from the Limited Sales, Excise and Use Tax in an amount not exceeding the above mentioned bid price for materials or property have been or will be utilized in the performance of the Contract to the full extent of the amount for which a certificate of exemption is requested.

Add the following Subparagraph:

- 6.3.3. The CONTRACTOR shall acquaint himself with all matters and conditions concerning site and existing construction. Any practical criticism or exception regarding feature of the work presented in writing with the Proposal will be considered at that time. If no criticism or exception is given with the Proposal, it shall be assumed that the Contractor agrees that the project, as outlined in the Drawings and Specifications, can be completed satisfactorily. After a Contract Agreement to perform the work has been signed by the CONTRACTOR, it shall then be his responsibility to provide satisfactory work that will meet the full intent of the Contract Documents. The CONTRACTOR shall then pursue this work with the other trades so that all phases of the work may be properly coordinated without delays or damage to any parts of the work.

ARTICLE 13. WARRANTY AND GUARANTEE: TESTS AND INSPECTIONS: CORRECTIONS, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK.

Add the following Subparagraph:

- 13.1 Disputes over Improper Functioning. In case of dispute as to the cause of improper functioning of all or any part of the work, the burden of proof that he has complied with the Contract Documents rests with the CONTRACTOR for this work. He shall submit in writing his opinion of the cause of his recommendation for proving the adequacy of his work. The OWNER shall have those tests made, which he deems advisable, by an independent testing laboratory of this choice. If any tests so made indicate a defect in material or workmanship, or that one or more manufactured components of the work are performing below the standard set by the manufacturer's published data and specifications, the entire cost of all such tests shall be paid for the by the CONTRACTOR, and he shall also pay for retesting of the corrected work until it functions satisfactorily.

ARTICLE 14. PAYMENTS AND COMPLETION.

Add the following to Paragraph 14.1 1:

A qualified person representing the CONTRACTOR shall be present at this final inspection to demonstrate the systems and prove the performance of the equipment. Prior to this inspection, all work shall have been completed, tested, balanced and adjusted and in final operating condition.

Make the following change to Paragraph 14.4 "Approval of Payments"

OWNER shall, within twenty (20) days of presentation to him of an approved application for Payment, pay Contractor the amount approved by Engineer.

ARTICLE 16. ARBITRATION. Delete this entire Article.

Add the following Article.

ARTICLE 18. THE CONTRACTOR SHALL COMPLY WITH THE COMPELAND ACT 48, STATUTE 948 AND ALL AMENDMENTS OR MODIFICATIONS OF THE ORIGINAL ACT OF JUNE 13,1934.

3. TEMPORARY FACILITIES**(a) Sanitary Facilities for Workmen**

- (1) CONTRACTOR, shall provide and maintain suitable weathertight, painted sanitary toilet facilities for all workmen for the entire construction period. Comply with all requirements of applicable health authorities. When toilet facilities are no longer required, promptly remove from the site, disinfect and clean the area as required.
- (2) CONTRACTOR shall keep toilet facility swept and supplied with toilet tissue at all times.

(b) Weather Protection

- (1) Except where otherwise, specified, CONTRACTOR shall, at all times, provide protection against weather, so as to maintain all work, materials, and fixtures free from injury or damages. All new work likely to be damaged shall be covered or otherwise protected as required.

(c) Work Areas

- (1) The CONTRACTOR shall be confined to all working easements provided.

Storage of excavation material and all contractor equipment and material shall remain within the limits of working easements.

4. TEMPORARY UTILITIES

The CONTRACTOR shall furnish all temporary utilities as required, for the completion of the work.

5. CONSTRUCTION SEQUENCE

- (1) That the following sequence of work be used as a basis for preparation to the Construction Schedule.
- (2) To cooperate with and facilitate the Contractor in the whole of the work to be carried out subject to the following being observed:
 - (a) The CONTRACTOR shall, within five (5) calendar days after the date of the Award of Contract, submit a Construction Schedule for the approval of the Owner and Engineer. This Schedule shall outline an orderly sequence of construction as required to meet the completion time stipulated in the contract.
 - (b) The CONTRACTOR shall coordinate his work with that of other contractors whose work may occur at a conflicting time and location. The coordination shall be such that work will be maintained at a normal rate.
 - (c) Satisfactory access or detour roads shall be provided where necessary due to construction.

6. MEASUREMENT

Before ordering any material or doing any work, the CONTRACTOR will verify all measurements of any existing and new work and shall be responsible for their correctness. Any differences which may be found shall be submitted to the Engineer for consideration before proceeding with the work. No extra compensation will be allowed because of differences between actual dimensions and measurements indicated on the working drawings.

7. PROTECTION

- a. The CONTRACTOR shall send proper notices, make all necessary arrangements and perform all other services required for the care, protection and maintenance of all public utilities, including fire plugs, telephone and telegraph poles and wires, and all other items of this character on or about the site, assuming all responsibility and paying all costs for which the OWNER may be liable.
- b. Temporary Drainage. The CONTRACTOR shall construct and maintain all necessary temporary drainage and do all pumping necessary to keep the excavation free of water.
- c. Bracing, Shoring and Sheeting. The CONTRACTOR shall provide all shoring,

bracing, and sheeting as required for safety and for the proper execution of the work; and have same removed when the work is completed.

- d. Fires shall not be built on the premises except by the express consent of the OWNER and City Fire Marshall.

8. CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

- a. The CONTRACTOR shall not commence work under this Contract until he has obtained all the insurance required under this paragraph and such insurance has been approved by the OWNER, nor shall the CONTRACTOR allow any subcontractor to commence work on this Contract until the insurance required of the subcontractor has been so obtained and approved.

- b. Compensation Insurance. The CONTRACTOR shall procure and shall maintain, during the life of his Contract, Workmen's Compensation Insurance for all of his employees to be engaged in work on this project under this Contract and, in case of any such work sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all the latter's employees to be engaged in such work unless employees are covered by the protection afforded by the CONTRACTOR's Compensation.

Insurance. In case of any class of employees engaged in hazardous work on the project under this Contract is not protected under the Workmen's Compensation Statute, the CONTRACTOR shall provide and shall cause each subcontractor to provide adequate insurance for employees not otherwise protected.

- c. CONTRACTOR's Public Liability and Property Damage Insurance. The CONTRACTOR shall procure and shall maintain during the life of this contract, Contractor's Public Liability Insurance for injuries, including accidental death, to any one person, and subject to the same limit for each person, on account of one accident, and CONTRACTOR's Property Damage Insurance in amounts as follows:

| | |
|---------------------------------|--|
| Comprehensive General Liability | \$1,000,000.00 Combined Single Limit (\$ 4,000,000.00 if explosives are involved in the performance of the contract) |
|---------------------------------|--|

Including: Bodily Injury Liability, Personal Injury Liability, Property Damage Liability, Broad Form Property Damage Liability, Contractual Liability, Products/Completed Operations Liability, Liability for Property of Others in the Care, Custody and Control of the Contractor.

Comprehensive Automobile Liability \$1,000,000.00 Combined Single Limit

NOTE: Automobile insurance shall cover all automobiles and trucks owned by the CONTRACTOR.

- d. Subcontractor's Public Liability and Property Damage Insurance. The

CONTRACTOR shall require each of his subcontractors to procure and maintain during the life of his subcontract, Subcontractor's Public Liability and Property Damage Insurance of the type specified in subparagraph C hereof, in amounts approved by the OWNER.

- e. Proof of Carriage of Insurance. The CONTRACTOR shall furnish the OWNER with certificates showing the type, amount class of operations covered, effective dates and dates of expiration of policies. Such certificates shall also contain substantially the following statements. "The insurance covered by this certificate will not be concealed or materially altered except after ten days written notice has been received by the OWNER.

9. ACCIDENT PREVENTION

Precaution shall be exercised at all times for the protection of persons (including employees) and property, and hazardous conditions shall be guarded against or eliminated.

10. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

- a. It is hereby understood and mutually agreed, by and between the parties hereto, that the date of beginning, rate of progress and the time for completion of the work to be done thereunder are ESSENTIAL CONDITIONS of this Contract; and it is further mutually understood and agreed, by and between the parties hereto, that the work embraced in this Contract shall be commenced on a date to be specified in the work order.
- b. The CONTRACTOR agrees that said work shall be prosecuted regularly, diligently, and uninterrupted at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the parties hereto, that the time for the completion of the work described herein is a reasonable time for completion of same, taking into consideration the average climatic range and usual industrial conditions prevailing in the locality.
- c. If the said CONTRACTOR shall neglect, fail or refuse to complete the work within the time herein specified, then the said Contractor does hereby agree, as a part consideration for awarding of this Contract, not as a penalty but as liquidated damages for such breach of calendar day that the CONTRACTOR shall be in default after the time stipulated in the Contract for completing the work.
- d. The Damage to OWNER by reason of this contract not being completed as of that date are parties hereto have therefore fixed and limited such damages to the amount stated in the agreement per day for each day the job runs beyond such date and the fixing of such damages constitutes a part of the consideration for the Contract.
- e. It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where, under the Contract,

additional time is allowed for the completion of any work, the new time fixed by such extension shall not be charged with liquidated damages or any excess cost when the delay in the completion of work is due:

- (1) To any preference, priority or allocation order duly issued by the Government.
- (2) To enforceable cause, beyond the control and without the fault or negligence of the CONTRACTOR, including, but not restricted to, acts of God, or the public enemy, acts of the OWNER, acts of another Contractor in the performance of the Contract with OWNER, fires, floods, epidemics, Quarantine restriction, strikes, freights embargoes, and unusually severe weather.
- (3) To any delays of subcontractors and/or material suppliers occasioned by any of the causes specified in (1) and (2).
- (4) Provided, further, that the Contractor shall, within seven (7) days from the beginning of such delay, notify the OWNER, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the CONTRACTOR within a reasonable time of its decision in the matter.

11. INSPECTION AND TESTING OF MATERIALS

- a. All materials and equipment/furnished by manufacturers shall be tested, inspected, and certified in accordance with the Contract Documents, laws, ordinances, or any public authority requiring any work to be specifically tested. The cost of such tests, inspections and certifications shall be borne by the CONTRACTOR.
- b. The CONTRACTOR shall cooperate with the testing laboratory to the end that the function and services of the laboratory may be properly performed. The Contractor shall give the OWNER's representative and testing laboratory a minimum of twenty-four (24) hour notice of readiness for all testing as required. Costs of all field tests by such a laboratory shall be borne by the OWNER, unless otherwise stipulated in the Supplementary General Conditions, Article 13.

12. REFERENCE POINTS

The ENGINEER will establish horizontal and vertical controls only (reference points and benchmarks) as shown on the construction plans.

The CONTRACTOR must notify the ENGINEER at least 48 hours prior to starting work on any section or part of the work where controls have not been established or are not identifiable or visible to the CONTRACTOR.

The ENGINEER will upon such advance notice assist the CONTRACTOR in locating and identifying the various CONTRACTOR in location and identifying the various control points and will replace any control points that have been destroyed by others prior to beginning of CONTRACTOR's operations.

After the control points are established and/or identified as outlined above, maintenance

of such control points will be the responsibility of the CONTRACTOR. Any re-staking required for any reason thereafter shall be the final responsibility of the CONTRACTOR.

The CONTRACTOR will provide all other construction staking (cut stakes, blue topping, intermediate string line control, etc.) required to verify grades, depths, thickness and alignment of the various items of construction.

13. SERVICES AT START UP

The CONTRACTOR shall provide the services of technical representative, for the CONTRACTOR furnished equipment, for a sufficient period to assist in start up and initial adjustment of all equipment and to train, advise and consult with the OWNER's operating personnel.

14. PERMITS

Permits, fees and licenses necessary for the pursuit of the work shall be obtained and paid for by the CONTRACTOR.

15. MAINTENANCE OF SITE AND CLEANUP

The work site shall be kept reasonably clean at all times. Surplus materials shall be disposed of by the CONTRACTOR except for the designated to be salvaged. In final cleanup operations, all equipment, scrap materials and temporary structures shall be removed and the site left clean.

16. PROTECTION AND REPLACEMENT OF PROPERTY

Driveways, culverts, storm sewer inlets and laterals, and other public or private property that is destroyed or removed during the construction shall be replaced to its original condition by the CONTRACTOR. Temporary drainage is to be provided as necessary.

17. CONSTRUCTION AREA

CONTRACTOR shall be responsible to maintain and protect in good condition while under construction and exposed areas that become damage shall be CONTRACTOR's responsibility to repair at no cost to owner. This includes construction area being exposed to rainfall, vehicular traffic, etc.

CONTRACTOR shall be responsible for providing temporary access in a safe and approved manner at all times to private properties being affected by this work. After work is complete, any damages, alterations or modifications to existing structures as part of the temporary access construction activities shall be restored to original conditions or repaired as necessary at the sole expense of the CONTRACTOR.

18. PROTECTION OF TREES, AND SHRUBS

Care shall be exercised to prevent damage to trees, plants and shrubs along the work site. No tree, plant or shrub shall be removed unless it interferes unduly with the

construction work. Permission for such removal must first be obtained from the ENGINEER. Provisions of the Technical Specifications shall govern in matters of this nature.

19. BARRICADES AND WARNINGS

Adequate barricades and warning devices shall be provided at the work site. Lights shall be provided between sunset and sunrise when necessary in the opinion of the ENGINEER in accordance with the Traffic Controllers Manual.

20. LOCATION OF & DAMAGE TO EXISTING UTILITIES AND STRUCTURES

The CONTRACTOR is Responsible for locating underground obstacles. It is not represented that the Plans show all sewers, water lines, gas lines, telephone lines, and other underground obstacles. The CONTRACTOR shall exercise caution to prevent damage to existing facilities during the progress of the construction work, taking care to locate same, where possible, in advance of the actual work. The ENGINEER will render all assistance possible to the CONTRACTOR in the matter of determining the location of existing utilities by making available such maps, records and other information as may be accessible to him, when requested to do so, but the accuracy of such information will not be guaranteed. The CONTRACTOR shall make good on all damage to existing utilities resulting from his operations. Where a pipe, duct or other structure of a utility is exposed, which, in the opinion of the ENGINEER requires strengthening, altering or moving, the CONTRACTOR shall perform such work on same, as the ENGINEER may order, which work will be paid for as extra work in accordance with the terms of the Contract relating to extra work. Should the CONTRACTOR, in the layout of his work, encounter any pipe, underground utility, or structure, the location of which has not been furnished to him by the ENGINEER, he shall bring such conditions to the attention of the ENGINEER for his determination of the method to be used to remove or bypass such obstructions.

It is essential that in the event of any damage being caused to existing units then immediate attention be given to their repair, if necessary at the expense of labor and material scheduled to be employed at the new work. Any repair work carried out shall be at the cost of the CONTRACTOR and shall be to the complete satisfaction of the OWNER, who will acknowledge the same in writing.

It is therefore the duty of the CONTRACTOR prior to the commencement of construction to inspect and accurately record in writing to the OWNER and ENGINEER, the conditions of any unit which he reasonably suspect or knows to be damaged, faulty, or defective.

In addition, any such unit(s) so recorded, which in the opinion of the Contractor may deteriorate further as a result of the proposed mode of operations should be protected and/or remedial measures employed as agreed to, and at the cost of the Owner.

21. MATERIALS AND WORKMANSHIP

No material which has been used by the CONTRACTOR for any temporary purpose whatsoever is to be incorporated in the permanent structure without written consent of the ENGINEER. Where materials or equipment are specified by a trade for brand name, it is

not the intention of the Owner to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality or performance and to establish an equal basis for the evaluation of bids. Where the words "equivalent", "proper" or "equal to" are used, they shall be understood to mean that the thing referred to shall be properly the equivalent of or equal to some other thing, in the opinion of judgment of the ENGINEER. Unless otherwise specified, all materials shall be of the best of their respective kinds and shall be in all cases fully equal to the approved samples.

Notwithstanding that the words "or equal to" or other such expressions may be used in the Specifications in connection with a material, manufactured article or process, the material, article or process specifically designated shall be used, unless a substitute shall be approved in writing by the ENGINEER, and the ENGINEER shall have the right to require the use of such specifically designated material, article or process.

22. CUTTING, PATCHING AND FITTING

The CONTRACTOR shall perform all cutting, patching, or fitting of this work that met be required to make its several parts come together properly and fit it to receive or be received by work or others shown on, or reasonably implied to the drawings and Specifications for the completed structure or facility. The CONTRACTOR shall not endanger any work by cutting, digging or otherwise, and shall not cut or alter the work of others unless specifically noted on the drawings and specifications or authorized in writing by the ENGINEER and the OWNERS of such other work.

23. RIGHT OF ENTRY

The OWNER reserves the right to enter the property or location on which the work herein contracted for is to be constructed or installed, by such agents as it may elect, for the purpose of supervising and inspecting the work, or for the purpose of constructing or installing collateral work as said OWNER may desire.

24. SUPERINTENDENT AND INSPECTION BY OWNER

It is agreed by the CONTRACTOR that the OWNER shall be and is hereby authorized to appoint from time to time subordinate engineers, supervisors, or inspectors, as the said OWNER may deem proper, to inspect the material furnished and work done under this agreement, and to see that the said material is furnished and said work is done in accordance with the Specifications. The CONTRACTOR shall regard and obey the directions and instructions of any sub-coordinate engineers, supervisors, or inspectors as appointed, when such directions are consistent with the obligations of this agreement and these accompanying Specifications, provided, however, that should the CONTRACTOR object to any order by any subordinate engineer, supervisor, or inspector, the CONTRACTOR may, within six (6) days, make written notice to the ENGINEER for his decision. Except, as herein before provided, the authority of subordinate engineers, supervisors, or inspectors shall be limited to the rejection of unsatisfactory work and materials and to the suspension of the work, until the question of acceptability can be referred to the ENGINEER.

25. SUPERINTEDENT BY CONTRACTOR

Except where the CONTRACTOR is an individual and gives his personal superintendent to the work, the CONTRACTOR shall provide a competent superintendent, satisfactory to the OWNER and the ENGINEER, on the work at all times during working hours with full authority to act from him. The CONTRACTOR shall provide an adequate staff for the proper coordination and expediting of his work.

The CONTRACTOR shall provide an on-site representative, satisfactory to the OWNER and the ENGINEER, available at all times (i.e., twenty-four (24) hours per day, seven (7) days per week). The on-site representative shall be stationed close enough to be on the site within 30 minutes of notification. The on-site representative shall have full access to all equipment and material and have full authority necessary to correct any problems, deficiencies, or emergencies which may arise during non-working hours and during the absence of the superintendent.

The name, address, and phone number of both the superintendent and the on-site representative shall be given in writing to the ENGINEER and the Local Public Agency prior to the beginning of construction.

Additional provisions concerning superintendent by the CONTRACTOR are given in General Condition 102 of these Contract Documents.

26. "AS BUILT" DRAWINGS – Not Required

A complete set of contract drawings shall be stapled together and the official "As Built" set on which the CONTRACTOR shall record currently the work carried out through all phases of construction.

The set shall be kept in the office in a neat and clean condition and be available for inspection by the OWNER or ENGINEER at any time during the Contract period. At the completion of the Contract it shall be handed to the ENGINEER accompanied by a letter stating that each drawing has been signed by the CONTRACTOR to the effect that the drawings are a true and accurate record of the work carried out.

27. ACCEPTANCE AND FINAL PAYMENT

Upon written notice that the work is ready for inspections and acceptance, the OWNER shall promptly make such inspection, and when he finds the work acceptable under the Contract fully performed, he shall promptly issue a final certificate over his own signature, stating that the work provided for in this Contract has been completed and is accepted by him under the terms and conditions thereof, and the entire balance found to be due the CONTRACTOR, including the retained percentages, shall be paid to the CONTRACTOR at the office of the OWNER within fifteen (15) days after the date of said final certificate. The CONTRACTOR shall submit satisfactory evidence to the OWNER that all payrolls, material bills, and other indebtedness connected with the work have been paid before the final certificate is issued.

The making and acceptance of the final payment shall constitute a waiver of all claims by the OWNER, other than those arising from unsettled liens, from faulty work appearing

after final payment or from requirements of the Specifications, and of all claims by the CONTRACTOR, except those previously made and still unsettled.

28. GUARANTEE

The work shall be guaranteed to be free from defects due to faulty workmanship or materials for a period of one year from the date of issue of the Certificate of Acceptance. Work found to be improper or imperfect shall be replaced or done without cost to the OWNER within the year guarantee period. Neither the Certificate nor Acceptance, final payment, or any provision of the Contract Documents shall free the CONTRACTOR from his guarantee. Failure to repair or replace faulty work entitles the OWNER to repair or replace the same and recover the costs from the CONTRACTOR and/or his Surety. The CONTRACTOR shall be the sole guarantor of the work installed under this contract and no third party guarantees by subcontractors or suppliers of various components or materials will be acceptable, nor shall agreements with subcontractors or material or component suppliers by the CONTRACTOR reduce the CONTRACTOR's responsibility under this agreement. The Performance Bond shall remain in full force and effect through the guarantee period.

29. PREFERENCE IN EMPLOYMENT

Preference employment shall be given to resident citizens of the area where such persons are available and fully qualified to perform the work to which the employment relates.

30. ANTI-KICKBACK REGULATIONS

The CONTRACTOR shall comply with the Copeland Act 48, Statute 948 and all amendments or modifications of the original act of June 13, 1934.

31. CONTRACTOR'S RESPONSIBILITY

Nothing in these documents shall be constructed as relieving the CONTRACTOR of sole responsibility for coordinating all work, work schedules, and securing proper interface between the various trades, and Subcontractors.

32. BRAND NAMES

The items listed by brand name are to indicate level of quality only and are not a propriety name. They should have added to the listing of a brand name the phrase- "Or Equal".

33. OPERATIONS & MAINTENANCE LITERATURE

All items of equipment required for this contract shall be bid to provide and include as part of the price, literature explaining "Operation & Maintenance" of that item of equipment. If a manufacturer does not print such a standard O & M Manual approved, in writing, by the Manufacturer.

34. MODIFICATIONS OR BID OR WITHDRAWAL PRIOR TO OPENING

At any time prior to bid opening, the CONTRACTOR may, after handing in or submitting his bid, obtain his bid for purposes of modification or withdrawal. Bid opening is defined at the time and date at which bids are received and publicly opened. No bid will be received after that time and date.

35. RETAINAGE AND PROGRESS PAYMENTS

OWNER will make monthly progress payments to CONTRACTOR in response to properly submitted and approved pay requests utilizing the format included in this project manual. Amount due each pay request shall be equal to the Gross amount of work completed to date, less five percent (5%) retainage, less previous payments made on the project.

Earthwork and Site Preparation

BND PORT ROAD IMPROVEMENTS – PHASE II

1. **SCOPE.** This section shall cover the removal and disposal of all materials, in open cut and tunnel excavations, and in paving operations, necessary for performing the work as shown on the drawings or called for in the proposal or special provisions, including sheeting and bracing, drainage, and other work incidental to the preparation of the site for subsequent construction work.

2. **PREPARATION OF THE SITE.** Prior to commencing constructions operations, the contractor shall make all the provisions necessary to assure the protection shrubs, planting and grass areas and shall make provisions for maintaining public travel in an acceptable manner.

3. **PROTECTION OF EXISTING IMPROVEMENTS.** Before any excavation is started, adequate protection shall be provided for all lawns, trees, shrubs, landscape work, fences, sidewalks, hydrants, utility poles, street, alley and driveway paving, curbs, storm sewers, ditches, headwalls, catch basins, surface inlets and all other improvements that are to remain in place. Such protection shall be provided as long as necessary to prevent damage from the contractor's operations. Shrubs, bushes, small trees and flowers, which have to be removed to permit excavation for the waterline, shall be protected and replanted or replaced when the backfill is completed. The contractor shall be protected and replanted or replaced when the backfill is completed. The contractor shall exercise every precaution to prevent damage to property within and outside easements. He shall remove all debris and rock from the site and restore the ground surfaces to the original grade after proper compaction, replace or repair all driveways, buildings, fences, retaining walls, culverts, drains, paving, sidewalks, etc. which are removed or damaged during construction. Repair, restoration or replacements of any improvements damaged or removed shall be the obligation of the contractor at no additional cost to Owner.

4. **PERMITS.** The Contractor, or where and when required, the Owner, will obtain any necessary permits for water or wastewater improvements in public and private rights-of-way from pertinent jurisdictional authorities, as required.

5. **DRAINAGE.** The contractor shall make provisions for handling all flows in existing creeks, ditches, sewers, and trenches by pipes, flumes or other approved methods at all times when his operations would, in anyway, interfere with the natural functioning of said creeks, ditches, sewers and drains. The contractor shall at all times during construction provide and maintain sufficient equipment for the disposal of all water which enters the excavation, both in open cut trenches and in tunnels, to render such excavations firm and dry, until structures to be built thereon are completed.

5.1. **Methods.** Methods. Pipe under-drains, well point systems, deep well pumps or other suitable equipment and methods shall be used to keep all excavations firm and dry, at no additional cost to Owner unless otherwise provided in the proposal.

6. EXCAVATED MATERIALS. Materials of excavation shall be classified as earth excavation or as rock excavation and shall include whatever materials are encountered to the depth shown on the drawings, or as directed by the engineer.

6.1. Disposal of Unsuitable Materials. Excavated materials which are either surplus and not required or are unsuitable for backfilling shall be removed from the site of operations as soon as excavated. All excavated materials so removed shall be disposed of, at no additional cost to Owner at a location to be jointly determined by the Contractor and the Engineer.

6.2. Storage of Suitable Materials. Excavated materials suitable and required for backfill shall be stored in neat piles adjacent to the excavation in a manner so as to minimize interference with traffic, but shall not be placed at such heights above, or closeness to, the sidewalls of the excavations to endanger such operations due to slides or cave-ins.

7. OPEN CUT EXCAVATION. Open Cut excavation, in earth or other material, shall be safely supported and of sufficient width and depth to provide adequate room for the construction or installation of the work to the lines, grades and dimensions called for on the construction drawings.

7.1. Trench Preparation. The trench shall be dug so that the pipe can be laid to the alignment and depth required. It shall be excavated only so far in advance of pipe laying as authorized by the engineer. Unless otherwise ordered by the Owner, all trenches shall be excavated to a width not less than the external diameter of the pipe plus twelve inches (12"). The Contractor shall do all excavation of whatever substances encounter to depths specified. The trench shall be excavated to the depth requires so as to provide for the installation of the pipe bedding material to the depth specified on the drawings and elsewhere in these specifications. Bell holes shall be provided at each joint to permit jointing to be properly made and inspected.

7.2. Unauthorized Excavation. Excavation shall not be carried below the required level. Excess excavation below the required level shall be backfill at Contractor's expense with earth, sand or gravel as directed by Owner and shall be compacted to a minimum 95% Standard Proctor density.

7.3. Earth Excavation. Earth materials shall be excavated so that the open cut trenches conform with the lines, grades and dimensions shown and/or specified on the drawings.

7.3.1. When the bottom of the excavation is unsuitable as a foundation, it shall be excavated below subgrade and then filled with gravel which shall be mechanically compacted in 6" (six inch) layers to a minimum density of 95% Standard Proctor. Owner or Engineer will determine depth of removal and replacement of unstable soil. Contractor shall furnish pumps or well points to keep excavation free of water and also any necessary sheeting, shoring or bracing in conformance with Section 11 of these Standard Specifications to prevent cave-ins. Basis of payment shall be as indicated in the above mentioned specification.

7.3.2. Excavated earth materials may be used for backfill in conformance with the provisions of Section 6 of these Standard Specifications, subject to the approval of the Engineer.

8. **BORING AND JACKING.** Construction of water or sewer lines by boring and jacking methods will be required as specified in the plans and specifications. In the event line and grade cannot be obtained by boring and jacking, the Contractor will be required, at his expense, to construct a lined mined tunnel in lieu of a tunnel by boring and jacking.

8.1. **Backstop.** The backstop shall be of sufficient strength and shall be positioned to support the thrust of the boring equipment without incurring any vertical or horizontal displacement during the boring operations.

8.2. **Guide Rails.** The guide rails for the boring equipment may be of either timber or steel. They shall be laid accurately to line and grade and maintained in this position until completion of the boring operations.

Subgrade Preparation

BND PORT ROAD IMPROVEMENTS – PHASE II

1. **SCOPE.** This item shall consist of preparing the sub-grade, existing sub-base or existing base by pulverizing and compacting the existing material to the required density. This item applies to natural ground, embankment, or existing pavement structures, and shall be constructed as specified herein and in conformance with the typical sections, lines and grades as shown on the drawings, or as established by the Engineer.

2. MATERIALS.

2.1. The Contractor shall prepare the subgrade and, where appropriate, the base to receive the next layer in the pavement section, as shown in the construction drawings.

3. EQUIPMENT.

3.1. The machinery, tools and equipment necessary for proper prosecution of the work shall be on the project and approved by the Engineer prior to the beginning of construction operations. All machinery, tools and equipment used shall be maintained in a satisfactory and workmanlike manner.

4. CONSTRUCTION METHODS.

4.1. **General.** It is the primary objective of this specification to secure a completed course of prepared subgrade or base material containing a homogeneous mix, free from loose or segregated areas, of uniform density and moisture content, well bound for its full specified depth and with a smooth surface suitable for placing subsequent courses. It shall be the responsibility of the Contractor to regulate the sequence of his work, to use the proper amount of moisture, maintain the work and rework the courses as necessary to meet the above requirements.

4.1.1. The roadbeds shall be constructed and shaped to conform to the typical sections, lines and grades as shown on the plans or as established by the Engineer. The material shall be excavated to the secondary grade (proposed bottom of Subgrade Preparation) and removed or windrowed to expose the secondary grade. Any wet or unstable materials below the secondary grade shall be corrected, as directed by the Engineer, by scarifying and compacting, or other methods until satisfactory stability is obtained.

4.1.2. If the Contractor elects to use a cutting and pulverizing machine that will remove the sub-grade material accurately to the secondary grade and pulverize the material at the same time, he will not be required to expose the secondary grade nor windrow the material. However, the Contractor shall be required to roll the sub-grade with a loaded water truck, or as directed by the Engineer, before using the pulverizing machine, and shall correct any soft areas that this rolling may reveal. This method will be permitted only where a machine is provided which will insure that the material is cut uniformly to the proper depth and which has cutters that will plane the secondary grade to a smooth

surface over the entire width of the cut. The machine shall be of such design that a visible indication is given at all times that the machine is cutting to the proper depth.

4.1.3. The material and lime shall be thoroughly mixed by approved road mixers or other approved equipment, and the mixing continued until, in the opinion of the Engineer, a homogeneous friable mixture of material and lime is obtained, such that when all non-slaking aggregates retained on the 3/4" sieve are removed, the remainder of the material shall meet the following requirements when tested from the roadway in the roadway condition by laboratory sieves:

| | |
|------------------------------|------|
| Minimum passing 1-3/4" sieve | 100% |
| Minimum passing 3/4" sieve | 85% |

The subgrade material layer shall be sprinkled during the spreading operation as directed by the Engineer to provide optimum moisture in the mixing.

4.1.4. Compaction. Compaction of the subgrade layer shall begin immediately after final milling unless approval is obtained from the Engineer. The material shall be aerated or sprinkled as necessary to provide the optimum moisture. Compaction shall begin at the bottom and shall continue until the entire depth of subgrade material is uniformly compacted by the method of compaction hereinafter specified as the "Density Control" method as indicated on the plans.

If the total thickness of the subgrade material cannot be mixed in one operation, the previously mixed material shall be bladed to a windrow just beyond the area to be treated and the next layer prepared as specified above. The first layer of the subgrade material shall be compacted in such a manner that the subgrade material will not be mixed with the underlying material.

When the "Density Control" method of compaction is indicated on the plans the following provisions shall apply:

The course shall be sprinkled as required and compacted to the extent necessary to provide the density specified below as determined by the use of the compaction ratio method:

| Description | Density (Standard Proctor) |
|--|---|
| For prepared sub-grade or existing sub-base that will receive subsequent sub-base or base courses. | Not less than 95% except when otherwise shown on the plans. Optimum moisture tolerance: -1 (dry) to +3 (wet). |
| For Limestone Base material and Limestone Base that will receive surface courses. | Not less than 98% except when otherwise shown on the plans. Optimum moisture tolerance: -3 (dry) to +3 (wet). |

In addition to the requirements specified for density, the full depth of the material shown on the plans shall be compacted to the extent necessary to remain firm and stable under construction equipment. After each section is completed, tests as necessary will be made by the Engineer. If the material fails to meet the density requirements, it shall be

reworked as necessary to meet these requirements. Throughout this entire operation the shape of the course shall be maintained by blading, and the surface upon completion shall be smooth and in conformity with the typical section shown on the plans and to the established lines and grades. Should the material, due to any reason or cause, lose the required stability, density and finish before the next course is placed or the work is accepted, it shall be reprocessed and refinished at the expense of the Contractor.

4.2. Finishing and Preparation for Surfacing. After the final layer or course of the Prepared Subgrade has been compacted, it shall be brought to the required lines and grades in accordance with the typical sections. The completed section shall then be finished by rolling as directed with a pneumatic tire or other suitable roller sufficiently light to prevent hair-line cracking. In case where prepared subgrade or sub-base set up sufficiently to prevent objectionable damage from traffic, such layers may be opened to construction and/or access traffic, and covered by other courses, the day following compaction, unless otherwise directed by the Engineer. If the plans provide for the prepared subgrade material to be sealed or covered by other courses of material, such seal or course shall be applied within 14 days after final compaction is completed, unless otherwise directed by the Engineer.

5. MEASUREMENT.

5.1. Preparation of Subgrade, existing sub-base, and existing base shall be measured by the square yard of "Prepared Subgrade", from the limits of treatment as specified on the drawings, and as shown on the typical sections.

6. PAYMENT.

6.1. The work performed as prescribed by this item and measured as provided under "Measurement" will be paid for as part of the Lump Sum Base Bid amount, as indicated in the Bid Proposal, and shall not be paid for separately.

6.2. Subgrade Preparation of the depths specified in the drawings will be paid for as part of the Lump Sum Base Bid price, as indicated on the Bid Proposal. The Lump Sum Base Bid price shall include compensation for all correction of secondary sub-grade, for loosening, mixing, pulverizing, spreading, drying, water content of the subgrade material, shaping and maintaining, compacting to specified densities, for all tools, equipment, labor, and for all incidentals necessary to successfully and adequately complete the work.

Concrete Slab and Limestone Base

BND PORT ROAD IMPROVEMENTS PHASE II

1. **SEQUENCE OF WORK:** The Contractor shall plan the work to expeditiously accomplish the improvements of this contract. It is not the intent of the Owner to destroy or in any way invade the locations of utilities in place. If any difficulties are encountered, the Contractor shall be responsible to bring it to the attention of the Engineer immediately. Surplus dirt removed from excavation necessary to the construction shall be disposed of by the Contractor. However, where instructed by the Engineer or the Owner, the Contractor shall dispose of surplus dirt as desired by the landowner.

2. **DESCRIPTION.** This item shall consist of the placing, treatment and compacting of the Limestone flexible base, and placing of reinforced concrete slab as herein specified and in conformance with typical sections, lines and grades shown on the plans and defined by the ENGINEER.

3. MATERIALS.

3.1. **Limestone Base.** The material for the Base Course shall be Crushed Limestone, crushed as needed to meet the requirements hereinafter specified, and shall consist of durable coarse aggregate mixed with an approved proportion of Binder Material.

3.2. **Concrete.** Concrete characteristics shall conform to the indicated specification, except for the following:

3.2.1. **Compressive Strength:** Concrete shall meet a minimum compressive strength of 3,000 psi in 28 days.

3.2.2. **Slump.** Concrete shall slump no less than 3" and no more than 5". The Slump test shall be performed on concrete immediately prior to placing.

4. CONSTRUCTION METHODS:

4.1. **Limestone Base.** The Contractor shall not place Limestone on any surface until the Engineer has accepted the shaped and compacted surface that will receive the new Limestone material.

The Contractor shall maintain the Limestone-receiving surface area free of holes, ruts and depressions and in conditions to receive the Limestone. The Limestone base shall be compacted to at least 98% of Standard Proctor density to the full required thickness.

The first density and depth test at a specific location shall be made by a commercial testing laboratory designated by the OWNER and said tests shall be paid by the OWNER. If the test fails, all additional tests at that location shall be paid for by the Contractor.

4.2. **Reinforced Concrete Slab.** Construction methods for Reinforced Concrete Slab shall conform as indicated in the construction drawings and details. All transverse contraction (dummy) joints in the pavement shall be as shown in the construction drawings, and with a formed groove at least two inches deep in the Concrete Slab.

4.2.1. Testing. Acceptance, Sampling and the following tests shall be performed by the OWNER-designated Testing Laboratory:

4.2.1.1. Concrete cylinders. 3 cylinders (1 set) per 20 cubic yards of concrete, or at the discretion of the OWNER.

4.2.1.2. Slump. Concrete shall slump no less than 3" and no more than 5". The Slump test shall be performed on concrete immediately prior to placing.

A Port Inspector shall be present when all tests are made and when all samples are taken. Contractor shall be responsible to provide timely and proper notice to the Port Department of Engineering Services as to the time the laboratory technician(s) will perform the tests.

The finished surfaces reinforced Portland cement concrete shall not vary from the grade line, elevations and cross sections shown on the plans by more than 1/2 inch (12.7 mm). The Contractor shall correct concrete slab areas varying in excess of this amount by removing and replacing the defective work.

All tests necessary to determine conformance with the specified requirements will be performed without cost to the Contractor. However, any required retests due to failed tests shall be paid for by the Contractor.

5. MEASUREMENT:

5.1. Measurement of "Limestone Base" shall be by the surface area actually completed, of the thickness required to bring the area below the concrete pads to the required grade for the concrete slab, as specified on the construction drawings and in the Bid Proposal. Unit shall be in square feet.

5.2. Measurement of "Steel-Reinforced Concrete Slab" (Portland Cement Concrete Slab) on "Steel-Reinforced Concrete Slab" shall be by the surface area actually completed, of the thicknesses specified on the construction drawings and in the Bid Proposal. Unit shall be in square feet.

6. PAYMENT:

6.1. The work performed and materials furnished as prescribed by this item and measured as provided under "Measurement" will be paid for at the unit price bid per square yard of Limestone Base, Concrete Slab and Concrete Driveway, of the thicknesses specified in the Construction Drawings and in the Bid Proposal.

6.2. The unit bid price shall be full compensation for furnishing all material, subgrade lime treatment, Limestone lime treatment, Limestone, lime, freight, heating, mixing, hauling, cleansing of the existing base course or pavement, Portland cement concrete, reinforcing steel, vibrating and finishing, and for all manipulation, labor, tools, equipment, and incidentals necessary to complete the work to the thicknesses and compaction levels indicated in the drawings, and in conformance with all the provisions of these specifications.

Asphaltic Pavement & Base w/GeoGrid

BND PORT ROAD IMPROVEMENTS – PHASE II

1. **SEQUENCE OF WORK.** The contractor shall plan the work to expeditiously accomplish the pavement improvements and the other appurtenant work. It is not the intent of the Owner to destroy or in any way invade the locations of utilities in place. If any difficulties are encountered, the Contractor shall be responsible to bring it to the attention of the Engineer immediately. Surplus dirt removed from excavation necessary to the construction shall be disposed of by the Contractor. However, where instructed by the Engineer or the Owner, the Contractor shall dispose of the surplus dirt as desired by the landowner.

2. **DESCRIPTION.** This item shall consist of the placing, treatment and compacting of the Limestone flexible base, and placing of a surface course of hot mix asphaltic concrete as herein specified and in conformance with typical sections, lines and grades shown on the plans and defined by the Engineer.

Subgrade Preparation is described in the specification for the “Subgrade Preparation”, pages SP-1 through SP-3.

3. MATERIALS.

3.1 **Limestone Base.** The material for the Base Course shall be Crushed Limestone, crushed as needed to meet the requirements hereinafter specified, and shall consist of durable coarse aggregate mixed with an approved proportion of Binder Material. The limestone shall conform to the requirements of Type “A” State Grade Crushed Limestone, as specified by “Item 247 – Flexible Base”, of the Texas State Department of Highways and Public Transportation, 1982 Standard Specification for Construction of Streets and Bridges, and shall meet the physical requirements as follows:

3.1.1. Strength: A minimum strength of 50 CBR shall be achieved on the Crushed Limestone Base.

3.1.2. Gradation:

| | |
|---------------------------------|------------|
| Retained on 1-3/4” square sieve | 0% |
| Retained on 7/8” square sieve | 10% to 35% |
| Retained on 3/8” square sieve | 30% to 50% |
| Retained on #4 sieve | 45% to 65% |
| Retained on #40 sieve | 70% to 85% |

3.1.3. Material passing the #40 sieve shall be known as “Binder Material”, and shall meet the following requirements:

| | |
|---------------------------------|-----|
| Maximum Liquid Limit (L.L.) | 35% |
| Maximum Plasticity Index (P.I.) | 10% |

3.2 **TX5 Triaxial GeoGrid Mechanical Stabilization.** Each Limestone material layer shall be combined with one layer of polymeric TX5 Triaxial GeoGrid grid structure comprised of a regular network of integrally connected, multidirectional tensile elements of appropriate orientation, size and shape with triangular apertures of the size specified to allow interlocking

with the unbound Limestone Base materials. The combination of the two materials shall create an improved or modified composite layer with significantly improved properties and performance capabilities.

3.2.1. Limestone Base Mechanical Stabilizer: GeoGrid. The Limestone Base Mechanical Stabilizer, or Structural Base Material Reinforcement, shall be TriAxial TX5 GeoGrid. The grid shall be integrally formed and produced from a punched sheet of polypropylene which is oriented in three substantially equilateral directions so that the resulting ribs have a high degree of molecular orientation, which continues at least in part through the mass of integral node.

3.2.2. The GeoGrid structure shall have apertures that are triangular in shape, and shall have ribs with depth-to-width ratios greater than 1.0.

3.2.3. The GeoGrid shall have the typical characteristics shown in the table below, and shall be certified in writing by the manufacturer to be TX5:

| Properties | <u>TX5 GeoGrid Characteristics</u> | | | General |
|------------------------|------------------------------------|------------|------------|-------------|
| | Longitudinal | Diagonal | Transverse | |
| Rib pitch, mm (in) | 40 (1.60) | 40 (1.60) | - | |
| Mid-rib depth, mm (in) | - | 1.4 (0.06) | 1.2 (0.05) | |
| Mid-rib width, mm (in) | - | 1.0 (0.04) | 1.1 (0.04) | |
| Rib shape | | | | rectangular |
| Aperture shape | | | | triangular |

3.3 **Hot Mix Asphaltic Concrete.** The hot mix asphaltic concrete shall conform to the requirements of the Texas State Department of Highways and Public Transportation 1982 Specifications, Item 340. The paving mixture to be used shall be the type designated on the plans. The Contractor shall provide appropriate documentation from the producer and a commercial laboratory that the hot mix asphaltic concrete used meets these requirements. The asphalt to be used shall be Type B, AC-20, 5% to 8% by weight, with a minimum Hveem Stability of 30. Aggregate retained on No. 4 sieve shall be 100% crushed limestone.

4. CONSTRUCTION METHODS:

4.1. **Limestone Base.** Construction methods for the Limestone base shall conform to T.H.D. Spec. #249 "Flexible Base (Delivered)". The Contractor shall not place Limestone on the roadbed until the Engineer has accepted the shaped and compacted subgrade.

The contractor shall maintain the roadbed free of holes, ruts and depressions and in conditions to receive the Limestone. The Limestone base shall be compacted to at least 98% of Standard Proctor density to the full required thickness.

The first density and depth test at a specific location shall be made by a commercial testing laboratory designated by the Owner and said tests shall be paid for by the Owner. If the test fails, all other tests at that location shall be paid for by the Contractor.

4.2. TX5 Triaxial GeoGrid

4.2.1. The Contractor shall inspect the GeoGrid upon delivery to confirm that the proper material has been received. The Contractor shall make sure that the GeoGrid is

free of flaws or damage that may have occurred during manufacture, shipping, or handling. Any flawed or damaged GeoGrid material shall be rejected and shall not be used in this project.

4.2.2. The subgrade Soil or previous Limestone Base layer shall be prepared as indicated on the construction drawing or as directed by the Engineer. The GeoGrid shall be placed after the previous soil of base layer has been shaped to grade as required in the construction documents, and density and surface texture has been approved by the Engineer or the Inspector. The GeoGrid shall be placed longitudinally on the roadway subgrade or base. Each GeoGrid strip shall overlap no less than 6" with the adjacent GeoGrid strip. No material shall be placed on top of a GeoGrid layer until approved by the Engineer or the Inspector.

4.2.3. The GeoGrid shall be installed in accordance with the plans and specifications and any installation guidelines provided by the manufacturer or as directed by the Engineer.

4.2.4. The GeoGrid may be temporarily secured in place with ties, staples, pins, sand bags or backfill as required by fill properties, fill placement procedures or weather conditions or as directed by the Engineer.

4.2.5. A minimum loose fill thickness of 6 inches is required prior to operation of tracked vehicles over the GeoGrid. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the GeoGrid. When underlying substrata is trafficable with minimal rutting, rubber-tired equipment may pass over the GeoGrid reinforcement at slow speeds (less than 5 mph). Sudden braking and sharp turning movements shall be avoided.

4.3. **Hot Mix Asphaltic Concrete.** The prime coat, tack coat or the asphaltic mixture when placed with a spreading and finishing machine, shall not be placed when the air temperature is below 50 deg F and is falling, but it may be placed when air temperature is above 50 deg F and is rising. The air temperature shall be taken in the shade away from artificial heat. It is further provided that the prime coat, tack coat, or asphaltic mixture shall be placed only when the humidity, general weather conditions, and temperature and moisture condition of the base, in the opinion of the Engineer, are suitable. If the temperature of the asphaltic mixture of a load or any part of a load becomes less than 225 deg F or more than 350 deg F after being dumped from the mixer and prior to passing through the lay-down machine, all or any part of the load may be rejected.

4.3.1. Prime coat. After the Limestone base has been laid to grade, and is approved by the Engineer or the Inspector, a prime coat shall be applied at the rate shown on the plans. The asphaltic material shall be as specified in the plans. The application temperature shall be as provided above. The tack coat for asphaltic concrete specified below shall not be applied on a previously primed flexible base until the primed base has completely cured to the satisfaction of the Engineer.

4.3.2. Tack Coat. Before the asphaltic mixture is laid, the surface upon which the tack coat is to be placed shall be cleaned thoroughly to the satisfaction of the Engineer. The surface shall be given a uniform application of tack coat using asphaltic materials specified in the plans. This tack coat shall be applied, as directed by the Engineer, with an approved sprayer at a rate not less than 0.05 (not to exceed 0.15) gallons per square yard of surface.

All contact surfaces of inlet structures and all joint shall be painted with a thin uniform coat of the asphaltic material meeting the requirements for the tack coat. The tack coat shall be rolled with a pneumatic tire roller when directed by the Engineer.

4.3.3. Transporting Asphaltic Concrete. The asphaltic mixture, prepared as specified above, shall be hauled to the work in tight vehicles previously cleaned of all foreign material. The dispatching of the vehicles shall be arranged so that all material delivered may be placed, and all rolling shall be completed during daylight hours. In cool weather or for long hauls, canvas covers and insulating of the truck bodies may be required. The inside of the truck body may be given a light coat of oil, lime slurry or another material satisfactory to the Engineer, if necessary, to prevent mixture from adhering to the body.

4.3.4. Placing

4.3.4.1. Generally, the asphaltic mixture shall be dumped and spread on the approved prepared surface with specified spreading and finishing machine, in such manner that when properly compacted the finished pavement shall be smooth, of uniform density and shall meet the requirements of the typical cross sections and the surface test. During the application of asphaltic material, care shall be taken to prevent splattering of adjacent pavement, and structures.

4.3.4.2. When the asphaltic mixture is placed in a narrow strip along the edge of an existing pavement, or used to level up small areas of an existing pavement or placed in small irregular areas where the use of a finishing machine is not practical, the finishing machine may be eliminated when authorized by the Engineer, provided a satisfactory surface can be obtained by other approved methods.

4.3.4.3. Flush structures. Adjacent to flush structures, the surface shall be finished uniformly high so that when compacted it shall be slightly above the edge of the flush structure.

4.3.5. Compacting

4.3.5.1. Rolling with the three wheel and tandem rollers shall start longitudinally at the sides and proceed toward the center of the pavement, overlapping on successive trips by at least half the width of the rear wheel unless otherwise directed by the Engineer. Rolling with pneumatic-tire roller shall be done as needed. Rolling shall be continued until no further compression can be obtained and all roller marks are eliminated. One tandem roller, one pneumatic-tire roller, and at least one three-wheel roller, as specified above shall be provided for each job. If the Contractor elects, he may substitute the three axle tandem roller and/or the three-wheel roller; but in no case shall less than three rollers be in use on each job. Additional rollers shall be provided if needed. The motion of the roller shall be slow enough at all times to avoid displacement of the mixture. If any displacement occurs, it shall be corrected at once by the use of rakes and of fresh mixtures where required. The roller shall not be allowed to stand on pavement which has not been fully compacted. To prevent adhesion of the surface mixture to the roller, the wheels shall be kept thoroughly moistened with water, but an excess of water will not be permitted. All rollers must be in good mechanical condition. Necessary precautions shall be taken to prevent the dropping of gasoline, oil, grease or other foreign matter on the pavement, either when the rollers are in operation or when standing.

In lieu of the rolling equipment specified, the Contractor may, upon written permission from the Engineer, operate other compacting equipment that will produce equivalent relative compaction as the specified equipment. If the substituted compaction equipment fails to produce the desired compaction as would be expected of the specified equipment, as determined by the Engineer, its use shall be discontinued.

4.3.6. Opening Traffic. The pavement shall be opened to traffic when directed by the Engineer. If the surface ravel, it shall be the Contractor's responsibility to correct this condition at his expense.

4.3.7. Density Testing - Acceptance, Sampling and Testing of Hot Mix Asphaltic Concrete (Compaction). Hot Mix Asphaltic Concrete will be accepted for density on a lot basis. A lot shall consist of one day's production or 1,200 tons, whichever is less and shall be divided into four equal sublots. One test shall be made for each subplot.

Each lot of pavement will be accepted, with respect to density, when the average field density is equal to or greater than 92% of the average maximum theoretical density as determined in accordance with ASTM D2041, and when no individual determination is less than 91.0% of the average maximum theoretical density. Four field density determinations shall be made for each lot. Cores or sawed samples taken from the pavement shall be used to determine the field density. The density of the cored or sawed samples shall be determined in accordance with ASTM D2726.

The same specimen shall be used for determining both the maximum theoretical density and field density. Specimens used for field density determination shall be carefully crumbled, using heat if necessary, and maximum theoretical density determined in accordance with ASTM D2041. If heating is necessary, the specimen shall be heated to the lowest temperatures required for proper preparation of the sample.

The use of nuclear field density determination shall not be used as the basis for acceptance with respect to density.

4.3.8. Surface Test. Tests for conformity with the specified crown and grade shall be made by the Contractor immediately after final rolling. Any variation exceeding the specified tolerances shall immediately be corrected by removing the defective work and replacing with new material, as directed by the Engineer. Any correction required shall be at sole expense of the Contractor.

For surface course, the finished surface shall not vary more than ¼ inch (6.35mm) when tested with a 16 ft. straightedge applied parallel with, or at right angles to, the centerline.

The finished surfaces of hot mix asphaltic concrete shall not vary from the grade line, elevations and cross sections shown on the plans by more than ½ inch (12.7mm). The Contractor shall correct pavement areas varying in excess of this amount by removing and replacing the defective work. Skin patching shall not be permitted for correction of low areas nor shall planning be permitted for correction of high areas.

4.3.9. Sampling Pavement. Samples for determination of thickness and density of completed asphaltic pavement surface shall be obtained by the testing laboratory. The

size, number and locations of the samples will be as directed by the Engineer. Samples shall be neatly cut with a saw, core drill or other approved equipment. The Contractor shall, after coring the pavement, provide all labor and materials for patching the core holes as soon as practicable. The Owner will cover the costs of initial testing. However, the costs for any retesting due to failed tests shall be borne by the Contractor.

All tests necessary to determine conformance with the specified requirements will be performed without cost to the Contractor. However, any required retests due to failed tests shall be paid for by the Contractor.

5. MEASUREMENT:

5.1. Measurement of the “Subgrade Preparation” shall be by the subgrade area actually completed, of each thickness as specified on the construction drawings and in the Bid Proposal. Unit shall be in square yards.

5.2. Measurements of “Limestone Base w/TX5 GeoGrid” shall be by the base area actually completed, of each thickness as specified on the construction drawings and in the Bid Proposal. Unit shall be in square yards.

5.3. Measurements of “Limestone Base” shall be by the base area actually completed, of each thickness as specified on the construction drawings and in the Bid Proposal. Unit shall be in square yards.

5.4. Measurements of “H.M.A.C. Pavement” (Hot Mix Asphaltic Concrete Pavement) shall be by the paved area actually completed, of the thickness specified on the construction drawings and in the Bid Proposal. Unit shall be in square yards.

6. PAYMENT:

6.1 The work performed and materials furnished as prescribed by this item and measured as provided under “Measurements” will be paid for at the unit price bid per square yard of “Subgrade Preparation”, of “Limestone Base w/TX5 GeoGrid”, of “Limestone Base” and of “Hot Mix Asphaltic Pavement”, of each of the thicknesses specified in the Construction Drawings and in the Bid Proposal.

6.2 The unit bid price shall be full compensation for furnishing all material, subgrade preparation, Limestone, Tri-Axial TX5 GeoGrid fabric, freight, heating, mixing, hauling, cleansing of the existing subgrade course, base course or pavement, tack coat, placing asphaltic concrete mixture, rolling and finishing, and for all manipulation, labor, tools, equipment, and incidentals necessary to complete the work to the thicknesses and compaction levels indicated in the drawings, and in conformance with all provisions of these specifications.

Notice of Award

BND PORT ROAD IMPROVEMENTS – PHASE II

TO:

PROJECT DESCRIPTION:

**BND PORT ROAD
IMPROVEMENTS – PHASE II**

Dear Sir:

The Brownsville Navigation District (“Owner”) has considered the bid submitted by your company for the above referenced project in response to its Invitation for Bids dated 11/09/2017 and 11/16/2017, and the Instructions to Bidders.

You are hereby notified that your bid has been accepted by the Brownsville Navigation District in the amount of _____.

You are required by the Instructions to Bidders to execute the Agreement and furnish the required Contractor’s Performance Bond, Payment Bond and Certificates of Insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute this Agreement and furnish the bonds and insurance certificates within ten (10) days from the date of this Notice, Owner will be entitled to consider all your rights arising out of the Owner’s acceptance of your bid as abandoned and as a forfeiture of your BID BOND.

The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the Owner.

Dated this _____ day of _____, 20 ____.

OWNER: BROWNSVILLE NAVIGATION DISTRICT, TEXAS.

By: _____

ARIEL CHAVEZ II, P.E./R.P.L.S.
Director of Engineering Services

Acceptance of Notice

Receipt of the above NOTICE OF AWARD is hereby acknowledged by _____
on this this the _____ day of _____, 20 ____.

By: _____

OFFICER’S NAME
Officer’s Title

Notice to Proceed

BND PORT ROAD IMPROVEMENTS – PHASE II

Dated: _____

TO:

PROJECT DESCRIPTION:

**BND PORT ROAD
IMPROVEMENTS – PHASE II**

OWNER's Contract No.: _____ - _____

CONTRACT FOR: [Description of Work]

Dear Sir:

You are hereby notified that the Contract Time under the above contract will commence to run on _____ - _____. By that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 3 of the Agreement the dates of Substantial Completion and completion and readiness for final payment are _____ - _____ and _____ - _____.

Before you may start any Work at the site, paragraph 2.7 of the Standard General Conditions provides that you and Owner must each deliver to the other (with copies to ENGINEER and other identified additional insureds) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also before you may start any Work at the site, you must coordinate the BND Engineering Department for any possible modifications to the contract documents.

OWNER: BROWNSVILLE NAVIGATION DISTRICT, TEXAS.

By: _____

ARIEL CHAVEZ II, P.E./R.P.L.S.
Director of Engineering Services

Acceptance of Notice

Receipt of the above NOTICE OF AWARD is hereby acknowledged by _____
on this the _____ day of _____, 20 _____.

By: _____

OFFICER'S NAME
Officer's Title

General Notes

BND PORT ROAD IMPROVEMENTS – PHASE II

GENERAL REQUIREMENTS AND COVENANTS TO ITEMS 1 THRU 9

For all pits or quarries, comply with the “Texas Aggregate Quarry and Pit Safety Act.”

Provide on a weekly basis a list of equipment, including idle equipment, utilized on the project that week.

The 1-800 call services for utility locations do not include TxDOT facilities. Contact the Pharr District Signal Section (956-702-6225) for coordination regarding TxDOT underground lines.

ITEM 4: Scope of Work

Work in this contract is required to be done on railroad property. Cooperate with the railroad companies and comply with all of their requirements including obtaining any training they require before performing work on railroad property.

ITEM 7: Legal Relations and Responsibilities

The disturbed area for all project locations in the Contract, and the Contractor project specific locations (PSLs) within 1 mile of the project limits for the Contract, will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI for PSLs on the ROW to the Engineer and to the local government that operates a separate storm sewer system.

Requests submitted to the area engineer will be evaluated on this basis, and will require documentation showing substantial early coordination efforts to expedite the approval process as herein stated. The request shall include a detailed chronological summary status with dates of coordination activities with the resource agencies, including those occurring after the initial coordination, to be reviewed and confirmed by the district’s environmental section.

ITEM 8: Prosecution and Progress

Working days will be computed and charged in accordance with Article 8.3.1.1. Five-Day Workweek.

The latest roadway-start-work date and beginning of time charges is _____. These days may be extended as directed by the Engineer.

Where road closures or detours around structures are necessary to accomplish proposed work, the removal of existing structures and/or cutting of existing pavement will not be permitted until all pre-cast members for the proposed structure have been cast, tested and approved for use.

TxDOT is required to provide 10 working days advanced written notice of all proposed bridge widening, rehabilitation or demolition work to the Texas Department of State Health Services

(TDSHS) to allow them the opportunity to both verify information provided regarding asbestos containing materials and abatement, and observe the demolition/renovation work. Considering that this notice will be provided to TDSHS at the beginning of the project for all affected bridge work based on start and finish dates included in the Contractor's original submitted work schedule, any schedule changes proposed by the Contractor shall be submitted to TxDOT at least 15 days prior to the revised or original start date to accommodate the required coordination with TDSHS.

Prepare progress schedules as a Bar Chart.

ITEM 247: Flexible Base

Flexible Base Type E will be composed of caliche (argillaceous Limestone, calcareous or calcareous clay particles) and may contain stone, conglomerate, gravel, sand or granular materials when these materials are in situ with the caliche.

The percent of density as determined by Compaction Ratio (Tex-113-E) for the new Flexible Base shall be a minimum of 98%.

The Contractor's attention is called to the fact that certain existing and/or proposed structures may be within the limits of the Flexible Base. It shall be the Contractor's responsibility to perform construction operations without damage to these structures.

For water added under Item 247, the sulfate content will not exceed 3000-ppm and the chloride content will not exceed 3000-ppm.

Proof roll constructed flexible base in accordance with Item 216, "Proof Rolling." Correct soft spots as directed.

ITEM 260: Lime Treatment (Road Mixed)

The percent of density as determined by Tex-121-E for the new and salvage Flexible Base shall be a minimum of 98% for all courses.

In order to avoid damaging the Geogrid, add lime to the first lift of new base and/or salvage base at a central mixing site or mixing plant away from the construction area. The Engineer shall approve the site or plant location and method of mixing.

Proof roll all constructed subgrade and bases courses in accordance with Item 216, "Proof Rolling." Correct soft spots as directed. Correction of soft spots in the subgrade or base courses will be at the Contractor's expense.

ITEM 300: Asphalts, Oils, and Emulsions

Temporary ramps/detours and driveways may use performance grade binder 64-22.

ITEM 301: Asphalt Antistripping Agents

Hydrated Lime shall be added as an Antistripping additive between the rates of 1 % minimum and 2.0% maximum by weight for item 341. If the Hamburg wheel test cannot be met within these

limits, Liquid Antistripping agents as approved by the Engineer may be used in conjunction with lime for item 341.

ITEM 310: Prime Coat

The Contractor shall exercise diligence in the application of asphalt by the use of flagging and rolling procedures to keep from spraying or splattering the traveling public with asphaltic material.

All existing Flexible Base, which may become exposed by the milling operation, if any, shall be primed at the rate of 0.2 Gal/SY.

Do not apply subsequent courses over the initial prime coat any earlier than the day after the prime coat was applied, unless otherwise authorized or directed by the Engineer.

ITEM 341: Dense-Graded Hot-Mix Asphalt

The contractor shall exercise diligence in the application of "Tack Coat" by the use of flagging and rolling procedures to keep from spraying or splattering the traveling public with asphaltic material.

Blading (not to exceed more than 3-ft from the pavement edge) may also be necessary to clean dirt and grass from pavement edges and turnout areas as work under this bid Item. The cost of this blading will not be paid for directly, but shall be considered subsidiary to this bid Item.

This project will require the following minimum surface aggregate Classifications:

| <i>County</i> | <i>CSJ</i> | <i>Highway</i> | <i>Classification</i> |
|----------------------|-------------------|-----------------------|------------------------------|
| Cameron | 0921-06-275 | Old SH 48 (et al) | A |

Level-up will be placed before the surface course. An asphaltic concrete spreading and finishing machine and/or motor graders; when approved by the Engineer may be used to place the ACP level-up.

All unconfined longitudinal joints shall be constructed with a joint maker providing a maximum ½-inch vertical edge and a minimum 6:1 edge taper or as approved by the Engineer.

The Hamburg wheel Test requirement for PG 64 binder will be 5,000 passes @ 0.5 inch rut depth.

Target Lab Molded Density for this project shall be 97%.

Public and private driveways need to have a smooth vertical transition between the edge of pavement and the existing driveways. The contractor is to add a vertical taper if needed which will be subsidiary to Item 341.

The use of RAP and RAS will not be allowed as part of the mix design for the final riding surface.

Use a release agent from the Department's MPL to clean and to coat the inside of truck beds for hauling equipment. Hauling equipment shall be cleaned prior to hauling material to job site. Submit a copy of the bill of lading to the Engineer as part of the QCP. Ensure the pavement is free from any spillage of hydraulic oil or diesel from construction equipment. The Department

may reject trucks that contain any foreign material and suspend production if the pavement is contaminated by any pollutants mentioned above.

SAC B aggregate must have material properties that require 5 or less on the magnesium sulfate soundness test and 15 or less on the Micro-Deval test.

ITEM 416: Drilled Shaft Foundations

Payment for furnishing and installing anchor bolts mounted in drill shafts will be included in the unit price bid for the various diameter drill shafts.

The Contractor shall coordinate with the utility companies to verify utility locations before drilling foundations.

The Contractor shall form, or provide a smooth finish, the portions of drilled shaft that project above the ground line. Place a ¾ inch chamfer on the top edge of each pole foundation. This work will not be paid for directly, but will be considered subsidiary to this bid item.

All drilled shaft foundations will be based on the lengths shown on the plans or those established in writing. Adequate calculations for measurements of foundations have been made in accordance with Article 9.1. of the Standard Specifications. Increases or decreases in the quantities required by change in design will be measured as specified and the revised quantities will be the basis for payment.

In the presence of excess ground water and/or unstable conditions in sub-grade soils prevents excavation to the line and depths indicated on the plans for “Drilled Shaft Foundation”, other proposed methods of foundation installation such as casing, etc. shall be submitted for review and approved by the Engineer.

ITEM 421: Hydraulic Cement Concrete

Provide equipment at the batch plant for determining the free moisture and/or absorption of aggregates in accordance with applicable TXDOT Test.

Provide the following items for concrete batch inspection in accordance with specifications outlined in DMS-10101, “Computer Equipment”:

- (1) One Desktop Microcomputer or One Laptop Microcomputer
- (2) One Integrated Printer/Scanner/Copier/Fax Unit
- (3) Contractor-Furnished Software
- (4) Hardware

Submit to the Engineer for approval the project locations for all Portland Cement concrete washout areas prior to starting any concrete work.

Use membrane curing, Type 2, for concrete curb, gutter and combined curb and gutter, concrete medians, directional islands and sidewalks.

ITEM 504: Field Office and Laboratory

For this project a field office will not be required at the project site.

ITEM 506: Temporary Erosion, Sedimentation, and Environmental Controls

Due to the nature of this project, it is unlikely a significant amount of soil will be disturbed. However, if erosion control logs are needed; it shall be placed as directed by the Engineer.

The Contractor Force Account “Erosion Control Maintenance” that has been established for this project is intended to be utilized for work zone Best Management Practice (BMP) maintenance, to improve the effectiveness of the Environmental Controls that may need maintenance attention and/or require replacement while the project is still under the construction stage. These procedures will be mutually agreed upon by the Engineer and the Contractor’s Responsible Person based on weekly or more frequent BMP management reviews on the project. The “Erosion Control Maintenance” is not intended to be used in lieu of bid items established by the contract.

ITEM 5001: Geogrid Base Reinforcement

Provide a construction plan to the engineer detailing how the base will be lime treated without damaging the Geogrid Base Reinforcement placed on top of the subgrade.

ITEM 618: Conduit

All conduit ends in pole bases, controllers and ground boxes shall be plugged with 4 to 6 inches of polyurethane sealant or its equivalent after cables are in place.

Conduit shall be placed in a straight line not to exceed 2.0 feet in any direction. The depth of the conduit shall be 2.0 feet except when crossing a roadway where the depth shall not be more than 3.0 feet nor less than 1.0 foot below the bottom of the base material in the roadway when placed by the jacking or boring method. Any evidence of damage to the roadway during the jacking or boring operation shall be sufficient grounds to stop the method being used.

Conduit runs under paved roadways or driveways shall be jacked or bored and then pushed across.

At these locations, galvanized rigid metal may be used. All other runs shall be made by trenching. Existing pavement which will be removed, reconstructed or overlaid with new pavement may be trenched across.

Trenches for conduit runs shall be a minimum 2 feet deep and 4 inches wide. The conduit shall be placed on a 2-inch sand cushion and then backfilled with a minimum of 6 inches sand fill. The remainder of the trench shall be backfilled with flexible base, soil or two-sack concrete as required by location of conduit on the project or as directed. The top 3 inches shall match the existing surface material.

All conduit elbows and rigid extensions required to be installed on PVC conduit systems will not be paid for separately, but will be considered subsidiary to the various bid items.

Use materials from prequalified material producers list as shown on the Texas Department of Transportation (TxDOT) - Construction Division's (CST) materials producers list. Category is “Roadway Illumination and Electrical Supplies.”

ITEM 621: Tray Cable

Connect luminaires on traffic signal poles using a 4 conductor tray cable with conductor colors of red, black and green #12 AWG (XHHW). The white (neutral) conductor will not be needed and will be capped.

ITEM 680: Highway Traffic Signals

The installation of highway traffic signals shall consist of the following principal Items:

1. Furnishing and installing post mounted flashing beacon controller(s) and cabinet(s).
2. Furnishing and installing steel strain poles, electrical service, luminaries, signal heads and cables, galvanized steel span wire and conduit runs.
3. Removal and disposal of existing flashing beacon material specified in the plans.
4. All other Items not listed above which are needed to provide for complete flashing beacon installations and for proper operation as called for in the plans and specifications shall be furnished and installed.

Any deviation of location for proposed signal work shall be as approved.

All wiring not covered by the plans and specifications shall be in accordance with the latest edition of the National Electrical Code,

Existing Utilities

The exact location of existing underground utilities shall be verified with the utility companies prior to construction to avoid conflict with or damage to these utilities.

Coordination with the utility companies will be required to make any adjustments, due to utility conflicts, as defined in the specifications or deemed necessary.

Uniformity in Equipment

1. All flashing beacon controllers furnished shall be by the same manufacturer.
2. All flashing beacon heads furnished shall be by the same manufacturer.
3. All signal fittings and pipe brackets shall be of an approved metallic material and of the same design and manufacturer.
4. All traffic signal poles furnished shall be by the same manufacturer.

Handling of Traffic

Roads and streets shall be kept open to traffic at all times. The installation of flashing beacon heads, steel strain poles and conduit runs shall be arranged so as to permit the continuous movement of traffic in both directions at all times.

All construction operations shall be conducted to provide the least possible interference to traffic as shown on the plans, as provided for in the specifications and/or as directed. All signing, barricading and handling of traffic shall conform to the current edition of the "Texas Manual on Uniform Traffic Control Devices".

Sequence of work

1. The existing flashing beacon installation(s) shall remain in operation at all times during construction of the proposed flashing beacon installation(s) or modification(s).
2. The complete removal of the specified existing flashing beacon installation or specified items will be required when the proposed flashing beacon installation(s) are in place and operational.
3. All labor, tools, and materials used to remove the specified existing flashing beacon material shall not be paid for directly, but be considered subsidiary to the various items of work.
4. Final inspection shall be performed in conjunction with the district signal shop.

ITEM 684: Traffic Signal Cables

All signal cable shall be #12 AWG; 2/c loop. Lead-In shall be #14 AWG shielded and loop wires in pavement.

ITEM 686: Traffic Signal Pole Assemblies (Steel)

The locations for the proposed traffic signal poles are approximate. The exact locations will be determined in the field in coordination with the District Signal Shop.

Erection and/or removal of poles and luminaries located near any overhead electrical power lines shall be accomplished using established industry and utility safety practices. The appropriate utility company shall be consulted with prior to beginning such work.

Engineering Certificate

BND PORT ROAD IMPROVEMENTS – PHASE II

PROJECT: BND Port Road Improvements – Phase II
CSJ: 0921-06-275
HIGHWAY: Internal Port Roads
COUNTY: Cameron

"The Enclosed Texas Department of Transportation Specifications, Special Provisions, General Notes and Specification Data in this document have been issued by me, or under my responsible supervision, as being applicable to this project."



Mr. Ariel Chávez II, P.E./R.P.L.S.

September 4, 2018
DATE

Governing Specifications & Special Provisions

BND PORT ROAD IMPROVEMENTS – PHASE II

All specifications and special provisions applicable to this project are identified as follows:

STANDARD SPECIFICATIONS:

ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION NOVEMBER 1, 2014.

STANDARD SPECIFICATIONS

ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

ITEMS 1L to 9L Incl. General Requirements and Covenants
ITEM 104 Removing Concrete
ITEM 105 Removing Treated and Untreated Base and Asphalt Pavement
ITEM 110 Excavation (132)
ITEM 112 Subgrade Widening (110)(132)(204)
ITEM 150 Blading
ITEM 152 Road Grader Work (110)(132)(150)(154)(156)
ITEM 204 Sprinkling
ITEM 210 Rolling
ITEM 216 Proof Rolling (210)
ITEM 247 Flexible Base (105)(204)(210)(216)(520)
ITEM 251 Reworking Base Courses (204)(210)(216)(247)(520)
ITEM 292 Asphalt Treatment (Plant Mixed) (300)(301)(320)(520)(585)
ITEM 300 Asphalts, Oils And Emulsions
ITEM 305 Salvaging, Hauling, And Stockpiling Reclaimable Asphalt Pavement
ITEM 310 Prime Coat (300)(316)
ITEM 341 Dense-Graded Hot-Mix Asphalt (300)(301)(320)(520)(585)
ITEM 351 Flexible Pavement Structure Repair (132)(204)(247)(260)(263)(275)(276)(292)(310)(316)(330)(334)(340)
ITEM 354 Planing and Texturing Pavement
ITEM 368 Asphalt Concrete Surface Rehabilitation (210)(300)(340)(585)
ITEM 360 Concrete Pavement (421)(422)(438)(440)(529)(585)
ITEM 361 Repair of Concrete Pavement (360)(421)(440)
ITEM 500 Mobilization
ITEM 502 Barricades, Signs and Traffic Handling

SPECIAL PROVISIONS:

Special provisions will govern and take precedence over the Specifications enumerated hereon whenever in conflict therewith.

Wage Rates

Special Provision "Notice to all Bidders" (000-001)
Special Provision "Schedule of Liquidated Damages" (000-001L)
Special Provision "Nondiscrimination" (000-002L)
Special Provision "Certification of Nondiscrimination in Employment" (000-003L)
Special Provision "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)" (000-004L)
Special Provision "Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) (000-005L)
Special Provision "Disadvantaged Business Enterprise in Federal Aid Contracts" (000-007L)
Special Provision "Certificate of Interested Parties (Form 1295) (000-249)
Special Provision "Important Notice to Contractors" (FHWA 1273)

Special Provision to Item 7 “Legal Relationship and Responsibilities” (007-001L)

Special Provision to Item 506 “Temporary Erosion, Sedimentation and Environmental Controls” (506-001L)

Items 1L-9L

Local Government General Requirements and
Covenants

Item 1L

Abbreviations and Definitions

1. APPLICABILITY

Wherever the following terms are used in these specifications or other Contract documents, the intent and meaning will be interpreted as shown below.

2. ABBREVIATIONS

| | |
|--------|--|
| AAR | Association of American Railroads |
| AASHTO | American Association of State Highway and Transportation Officials |
| ACI | American Concrete Institute |
| ACPA | American Concrete Pipe Association |
| AI | Asphalt Institute |
| AIA | American Institute of Architects |
| AISC | American Institute of Steel Construction |
| AISI | American Iron and Steel Institute |
| AITC | American Institute of Timber Construction |
| ALSC | American Lumber Standard Committee, Inc. |
| AMRL | AASHTO Materials Reference Laboratory |
| ANLA | American Nursery and Landscape Association |
| ANSI | American National Standards Institute |
| APA | The Engineered Wood Association |
| API | American Petroleum Institute |
| APWA | American Public Works Association |
| AREMA | American Railway Engineering and Maintenance-of-Way Association |
| ASBI | American Segmental Bridge Institute |
| ASCE | American Society of Civil Engineers |
| ASLA | American Society of Landscape Architects |
| ASME | American Society of Mechanical Engineers |
| ASNT | American Society for Nondestructive Testing |
| ASTM | American Society for Testing and Materials |
| AWC | American Wood Council |
| AWG | American Wire Gage |
| AWPA | American Wood Protection Association |
| AWPI | American Wood Preservers Institute |
| AWS | American Welding Society |
| AWWA | American Water Works Association |
| BMP | Best Management Practices |
| BND | Brownsville Navigation District |
| CFR | Code of Federal Regulations |
| CMP | Corrugated Metal Pipe |
| COE | U.S. Army Corps of Engineers |
| CRSI | Concrete Reinforcing Steel Institute |
| DBE | Disadvantaged Business Enterprise |
| DMS | Departmental Material Specification |
| EIA | Electronic Industries Alliance |
| EPA | United States Environmental Protection Agency |
| FHWA | Federal Highway Administration, U.S. Department of Transportation |
| FSS | Federal Specifications and Standards (General Services Administration) |
| GSA | United States General Services Administration |
| HUB | Historically Underutilized Business |
| ICEA | Insulated Cable Engineers Association |

| | |
|--------|---|
| IEEE | Institute of Electrical and Electronics Engineers |
| IESNA | Illuminating Engineering Society of North America |
| IMSA | International Municipal Signal Association |
| ISO | International Organization for Standardization |
| ITS | Intelligent Transportation System |
| ITE | Institute of Transportation Engineers |
| LG | Local Government |
| LRFD | Load and Resistance Factor Design |
| MASH | Manual for Assessing Safety Hardware |
| MPL | Material Producer List (TxDOT document) |
| NCHRP | National Cooperative Highway Research Program |
| NCR | Nonconformance Report (TxDOT form) |
| NEC | National Electrical Code (Published by NFPA) |
| NEMA | National Electrical Manufacturers Association |
| NEPA | National Environmental Policy Act |
| NESC | National Electrical Safety Code |
| NFPA | National Fire Protection Association |
| NIST | National Institute of Standards and Technology |
| NRM | Nonhazardous Recyclable Material |
| NRMCA | National Ready Mixed Concrete Association |
| NSBA | National Steel Bridge Alliance |
| NTPEP | National Transportation Product Evaluation Program |
| OSHA | Occupational Safety & Health Administration, U.S. Department of Labor |
| PCA | Portland Cement Association |
| PCI | Precast/Prestressed Concrete Institute |
| PE | Professional Engineer |
| PPI | Plastics Pipe Institute |
| PS&E | Plans, Specifications, and Estimates |
| PSL | Project-Specific Location |
| PTI | Post-Tension Institute |
| QA | Quality Assurance |
| QC | Quality Control |
| RCP | Reinforced Concrete Pipe |
| RPLS | Registered Public Land Surveyor |
| RRC | Railroad Commission of Texas |
| SBE | Small Business Enterprise |
| SFPA | Southern Forest Products Association |
| SI | International System of Units |
| SPIB | Southern Pine Inspection Bureau |
| SSPC | The Society for Protective Coatings |
| TAC | Texas Administrative Code |
| TCEQ | Texas Commission on Environmental Quality |
| TDLR | Texas Department of Licensing and Regulation |
| TGC | Texas Government Code |
| TMUTCD | Texas Manual on Uniform Traffic Control Devices |
| TxDOT | Texas Department of Transportation |
| UL | Underwriters Laboratory, Inc. |
| USC | United States Code |
| WRI | Wire Reinforcement Institute |
| WWPA | Western Wood Products Association |

3. DEFINITIONS

- 3.1. **Abrasive Blasting.** Spraying blasts of pressurized air combined with abrasive media.

- 3.2. **Actual Cost.** Contractor's actual cost to provide labor, material, equipment, and project overhead necessary for the work.
- 3.3. **Addendum.** Change in bid documents developed between advertising and bid submittal deadline.
- 3.4. **Additive Alternate.** A bid item contained in the bid documents that is not a regular item or a replacement alternate bid item. The additive alternate items include work that may be added to the base bid work.
- 3.5. **Deductive Alternate.** A bid item contained in the bid documents that is not a regular item or a replacement alternate bid item. The deductive alternate items include work that may be deducted from the base bid work.
- 3.6. **Advertisement.** The public announcement required by law inviting bids for work to be performed or materials to be furnished.
- 3.7. **Affiliates.** Two or more firms are affiliated if they share common officers, directors, or stockholders; a family member of an officer, director, or stockholder of one firm serves in a similar capacity in another of the firms; an individual who has an interest in, or controls a part of, one firm either directly or indirectly also has an interest in, or controls a part of, another of the firms; the firms are so closely connected or associated that one of the firms, either directly or indirectly, controls or has the power to control another firm; one firm controls or has the power to control another of the firms; or the firms are closely allied through an established course of dealings, including, but not limited to, the lending of financial assistance.
- 3.8. **Air Blasting.** Spraying blasts of pressurized air free of oil and moisture.
- 3.9. **Air Temperature.** The temperature measured in degrees Fahrenheit (°F) in the shade, not in the direct rays of the sun, and away from artificial heat.
- 3.10. **Anticipated Profit.** Profit for work not performed.
- 3.11. **Apparent Low Bidder.** The Bidder determined to have the numerically lowest total bid as a result of the tabulation of bids by the Owner.
- 3.12. **Architect of Record.** A person registered as an architect or licensed as a landscape architect, in accordance with State law, exercising overall responsibility for the design or a significant portion of the design and performs certain Contract administration responsibilities as described in the Contract; or a firm employed by the Owner to provide professional architectural services.
- 3.13. **Arterial Highway.** A highway used primarily for through traffic and usually on a continuous route.
- 3.14. **Notice of Award.** The Owner's acceptance of a Contractor's bid for a proposed Contract that authorizes the Owner to enter into a Contract.
- 3.15. **Base Bid.** The total bid amount without additive alternates.
- 3.16. **Bid.** The offer from the Bidder for performing the work described in the bid documents, submitted on the prescribed bid form, considering addenda issued and giving unit bid prices for performing the work described in the bid documents.
- 3.17. **Bid Bond.** The security executed by the Contractor and the Surety furnished to the Owner to guarantee payment of liquidated damages if the Contractor fails to enter into an awarded Contract.
- 3.18. **Bid Documents.** The complete set of documents necessary for a Bidder to submit a bid. The documents may include plans, specifications, special specifications, special provisions, addenda, and the prescribed form a Bidder is to submit as the Bid. Other terms used may include bid proposal, bid bond, statement of non-collusion, disclosure of interest, certificate and definitions, contractor's pre-bid disclosure statement,

- subcontractor's pre-bid disclosure statement, and temporary erosion, sedimentation and environmental controls.
- 3.19. **Bid Error.** A mathematical mistake made by a Bidder in the unit price entered into the bid documents.
- 3.20. **Bid Form.** The portion of the bid documents that a prospective Bidder must submit to the Owner for their bid to be considered.
- 3.21. **Bidder.** An individual, partnership, limited liability company, corporation, or joint venture submitting a bid for a proposed Contract.
- 3.22. **Blast Cleaning.** Using one of the blasting methods, including, but not limited to, water blasting, low-pressure water blasting, high-pressure water blasting, abrasive blasting, water-abrasive blasting, shot blasting, slurry blasting, water injected abrasive blasting, and brush blasting.
- 3.23. **Bridge.** A structure, including supports, erected over a depression or an obstruction (e.g., water, a highway, or a railway) having a roadway or track for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 ft. between faces of abutments, spring lines of arches, or extreme ends of the openings for multiple box culverts.
- 3.24. **Brush Blasting.** Sweeping lightly with an abrasive blast to remove loose material.
- 3.25. **Building Contract.** A Contract entered under State law for the construction or maintenance of an Owner building or appurtenance facilities. Building Contracts are considered to be construction Contracts.
- 3.26. **Certificate of Insurance.** A form approved by the Owner covering insurance requirements stated in the Contract.
- 3.27. **Change Order.** Written order to the Contractor detailing changes to the specified work, item quantities or any other modification to the Contract.
- 3.28. **Concrete Construction Joint.** A joint formed by placing plastic concrete in direct contact with concrete that has attained its initial set.
- 3.29. **Concrete Repair Manual.** TxDOT manual specifying methods and procedures for concrete repair as an extension of the standard specifications.
- 3.30. **ConcreteWorks®.** TxDOT-owned software for concrete heat analysis. Software is available on the TxDOT's website.
- 3.31. **Construction Contract.** A Contract entered under State law for the construction, reconstruction, or maintenance of a segment of the Owner's transportation system.
- 3.32. **Consultant.** The licensed professional engineer or engineering firm, or the architect or architectural firm, registered in the State of Texas and under Contract to the Owner to perform professional services. The consultant may be the Engineer or architect of record or may provide services through and be subcontracted to the Engineer or architect of record.
- 3.33. **Contract.** The agreement between the Owner and the Contractor establishing the obligations of the parties for furnishing of materials and performance of the work prescribed in the Contract documents.
- 3.34. **Contract Documents.** Elements of the Contract, including, but not limited to, agreement, required contract provisions, wage rate, schedule of liquidated damages, non discrimination, certification of non discrimination in employment, notice of requirement for affirmative action to ensure equal employment opportunity, standard federal equal employment opportunity construction contract, disadvantaged business enterprise in federal aid contract, legal relations and responsibilities, performance bond, payment bond, certificates of

- insurance, general conditions, supplementary general conditions, technical specifications (earthwork and site preparation, concrete slab and limestone base and subgrade preparation), construction drawings, notice of award and acceptance of notice, and notice to proceed and acceptance of notice.
- 3.35. **Contract Time.** The number of days specified for completion of the work, including authorized additional working days.
- 3.36. **Contractor.** The individual, partnership, limited liability company, corporation, or joint venture and all principals and representatives with which the Contract is made by the Owner.
- 3.37. **Controlled Access Highway.** Any highway to or from which access is denied or controlled, in whole or in part, from or to abutting land or intersecting streets, roads, highways, alleys, or other public or private ways.
- 3.38. **Control of Access.** The condition in which the right to access of owners or occupants of abutting land or other persons in connection with a highway is fully or partially controlled by public authority.
- 3.39. **Control Point.** An established point shown on the plans to provide vertical and horizontal references for geometric control for construction.
- 3.40. **Cross-Sections.** Graphic representations of the original ground and the proposed facility, at right angles to the centerline or base line.
- 3.41. **Culvert.** Any buried structure providing an opening under a roadway for drainage or other purposes. Culverts may also be classified as bridges. (See Section 1.3.23., "Bridge.")
- 3.42. **Cycle.** The activity necessary for performing the specified work within the right of way project limits once.
- 3.43. **Daily Road-User Cost.** Damages based on the estimated daily cost of inconvenience to the traveling public resulting from the work.
- 3.44. **Date of Written Authorization.** Date of the written Notice to Proceed authorizing the Contractor to begin work.
- 3.45. **Debar (Debarment).** Action taken by the Owner, State, or federal government pursuant to regulation that prohibits a person or company from entering into a Contract, or from participating as a subcontractor, or supplier of materials or equipment used in a highway improvement Contract as defined in local, state, or federal law.
- 3.46. **Detour.** A temporary traffic route around a closed portion of a road.
- 3.47. **Department.** When used in the context of the party with whom the Contractor has a Construction Contract, Department refers to Owner. When used in other contexts such as technical specifications, refers to the Texas Department of Transportation.
- 3.48. **Departmental Material Specifications.** Reference specifications for various materials published by TxDOT's Construction Division with a DMS-XXXXX numbering system.
- 3.49. **Direct Traffic Culvert.** Concrete box culvert whose top slab is used as the final riding surface or is to have an overlay or other riding surface treatment.
- 3.50. **Disadvantaged Business Enterprise.** A small business certified through the Texas Unified Certification Program in accordance with 49 CFR Part 26, that is at least 51% owned by one or more socially and economically disadvantaged individuals, or in the case of a publicly owned business, in which is at least 51% of the stock is owned by one or more socially and economically disadvantaged individuals, and whose management and daily business operations are controlled by one or more of the individuals who own it.

- 3.51. **Divided Highway.** A highway with separate roadways intended to move traffic in opposite directions.
- 3.52. **Easement.** A real property right acquired by one party to use land belonging to another party for a specified purpose.
- 3.53. **Engineer.** The Professional Engineer licensed in Texas who represents the interests of the Owner.
- 3.54. **Entity.** Political subdivision for which the project is designed and constructed. Either a Municipality (City) or a County or other entity organized under the authority of State of Texas statutes. May also be referred to as an **Owner**.
- 3.55. **Expressway.** A divided arterial highway for through traffic with full or partial control of access and generally with grade separations at intersections.
- 3.56. **Family Member.** A family member of an individual is the individual's parent, parent's spouse, step-parent, step-parent's spouse, sibling, sibling's spouse, spouse, child, child's spouse, spouse's child, spouse's child's spouse, grandchild, grandparent, uncle, uncle's spouse, aunt, aunt's spouse, first cousin, or first cousin's spouse.
- 3.57. **Force Account.** Payment for directed work based on the actual cost of labor, equipment, and materials furnished with markups for project overhead and profit.
- 3.58. **Freeway.** An expressway with full control of access.
- 3.59. **Frontage Road.** A local street or road auxiliary to and located along an arterial highway for service to abutting property and adjacent areas and for control of access (sometimes known as a service road, access road, or insulator road).
- 3.60. **Hazardous Materials or Waste.** Hazardous materials or waste include, but are not limited to, explosives, compressed gas, flammable liquids, flammable solids, combustible liquids, oxidizers, poisons, radioactive materials, corrosives, etiologic agents, and other material classified as hazardous by 40 CFR 261, or applicable state and federal regulations.
- 3.61. **High-Pressure Water Blasting.** Water blasting with pressures between 5,000 and 10,000 psi.
- 3.62. **Highway, Street, or Road.** General terms denoting a public way for purposes of vehicular travel, including the entire area within the right of way. Recommended usage in urban areas is highway or street; in rural areas, highway or road.
- 3.63. **Historically Underutilized Business.** A corporation, sole proprietorship, partnership, or joint venture formed for the purpose of making a profit certified by the Texas Comptroller of Public Accounts, and 51% owned by one or more persons who are economically disadvantaged because of their identification as members of certain groups, including African Americans, Hispanic Americans, Asian-Pacific Americans, Native Americans, or women, and have a proportionate interest and demonstrate active participation in the control, operation, and management of the business' affairs. Individuals meeting the HUB definition are required to be residents of the State of Texas. Businesses that do not have their primary headquarters in the State of Texas are not eligible for HUB certification.
- 3.64. **Incentive/Disincentive Provisions.** An adjustment to the Contract price of a predetermined amount for each day the work is completed ahead of or behind the specified milestone, phase, or Contract completion dates. The amount of the incentive/disincentive is determined based on estimated costs for engineering, traffic control, delays to the motorists, and other items involved in the Contract.
- 3.65. **Independent Assurance Tests.** Tests used to evaluate the sampling and testing techniques and equipment used in the acceptance program. The tests are performed by the Owner or the Owner's representative and are not used for acceptance purposes.

- 3.66. **Inspector.** The person assigned by the Owner to inspect any or all parts of the work and the materials used for compliance with the Contract.
- 3.67. **Intelligent Transportation System.** An integrated system that uses video and other electronic detection devices to monitor traffic flows.
- 3.68. **Intersection.** The general area where 2 or more highways, streets, or roads join or cross, including the roadway and roadside facilities for traffic movements within it.
- 3.69. **Island.** An area within a roadway from which vehicular traffic is intended to be excluded, together with any area at the approach occupied by protective deflecting or warning devices.
- 3.70. **Joint Venture.** Any combination of individuals, partnerships, limited liability companies, or corporations submitting a single bid form.
- 3.71. **Lane Rental.** A method to assess the Contractor daily or hourly rental fees for each lane, shoulder, or combination of lanes and shoulders taken out of service.
- 3.72. **Letting.** The receipt, opening, tabulation, and determination of the apparent low Bidder.
- 3.73. **Letting Official.** The Owner representative empowered by the Owner to officially receive bids and close the receipt of bids at a letting.
- 3.74. **Licensed Professional Engineer.** A person who has been duly licensed by the Texas Board of Professional Engineers to engage in the practice of engineering in the State of Texas; also referred to as a Professional Engineer.
- 3.75. **Limits of Construction.** An area with established boundaries, identified within the highway right of way and easements, where the Contractor is permitted to perform the work.
- 3.76. **Local Street or Road.** A street or road primarily for access to residence, business, or other abutting property.
- 3.77. **Low-Pressure Water Blasting.** Water blasting with pressures between 3,000 and 5,000 psi.
- 3.78. **Major Item.** An item of work included in the Contract that has a total cost equal to or greater than 5% of the original Contract or \$100,000 whichever is less. A major item at the time of bid will remain a major item. An item not originally a major item does not become one through the course of the Contract.
- 3.79. **Material Producer List.** TxDOT-maintained list of approved products. Referenced as "Department's MPL".
- 3.80. **Materially Unbalanced Bid.** A bid that generates a reasonable doubt that award to the Bidder submitting a mathematically unbalanced bid will result in the lowest ultimate cost to the Owner.
- 3.81. **Mathematically Unbalanced Bid.** A bid containing bid prices that do not reflect reasonable actual costs plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs.
- 3.82. **Median.** The portion of a divided highway separating the traffic lanes in opposite directions.
- 3.83. **Milestone Date.** The date that a specific portion of the work is to be completed, before the completion date for all work under the Contract.
- 3.84. **Monolithic Concrete Placement.** The placement of plastic concrete in such manner and sequence to prevent a construction joint.

- 3.85. **National Holidays.** January 1, the last Monday in May, July 4, the first Monday in September, the fourth Thursday in November, and December 24 or December 25.
- 3.86. **Nonhazardous Recyclable Material.** A material recovered or diverted from the nonhazardous waste stream for the purposes of reuse or recycling in the manufacture of products that may otherwise be produced using raw or virgin materials.
- 3.87. **Nonresident Bidder.** A Bidder whose principal place of business is not in Texas. This includes a Bidder whose ultimate parent company or majority owner does not have its principal place of business in Texas.
- 3.88. **Nonresponsive Bid.** A bid that does not meet the criteria for acceptance contained in the bid documents.
- 3.89. **Non-Site-Specific Contracts.** Contracts in which a geographic region is specified for the work and for which work orders, with or without plans, further detail the limits and work to be performed.
- 3.90. **Notice to Proceed,** Written notification to the Contractor authorizing work to begin.
- 3.91. **Notification.** Either written or oral instruction to the Contractor concerning the work. Voice mail is oral notification.
- 3.92. **Owner,** Political subdivision for whom the project is designed and constructed. Either a Municipality (City), a County or other entity organized under the authority of State of Texas statutes. May also be referred to as an **Entity.**
- 3.93. **Pavement.** That part of the roadway having a constructed surface for the use of vehicular traffic.
- 3.94. **Pavement Structure.** Combination of surface course and base course placed on a subgrade to support the traffic load and distribute it to the roadbed.
- 3.94.1. **Surface Course.** Pavement structure layers designed to accommodate the traffic load. The top layer resists skidding, traffic abrasion, and the disintegrating effects of climate and is sometimes called the wearing course.
- 3.94.2. **Base Course.** One or more layers of specified material thickness placed on a subgrade to support a surface course.
- 3.94.3. **Subgrade.** The top surface of a roadbed upon which the pavement structure, shoulders, and curbs are constructed.
- 3.94.4. **Subgrade Treatment.** Modifying or stabilizing material in the subgrade.
- 3.95. **Payment Bond.** The security executed by the Contractor and the Surety, furnished to the Owner to guarantee payment of all legal debts of the Contractor pertaining to the Contract.
- 3.96. **Performance Bond.** The security executed by the Contractor and the Surety, furnished to the Owner to guarantee the completion of the work in accordance with the terms of the Contract.
- 3.97. **Plans.** The approved drawings, including true reproductions of the drawings that show the location, character, dimensions, and details of the work and are a part of the Contract.
- 3.98. **Power of Attorney for Surety Bonds.** An instrument under corporate seal appointing an attorney-in-fact to act on behalf of a Surety in signing bonds.
- 3.99. **Qualification.** The process for determining a Contractor's eligibility to be awarded a construction contract

- 3.100. **Qualification.** The process for determining a Contractor's eligibility after he has bid on the work.
- 3.101. **Qualification Statement.** The forms on which required information is furnished concerning the Contractor's ability to perform and finance the work.
- 3.102. **Prequalified Contractor.** A contractor that is approved to bid on TxDOT contracts by satisfying their Prequalification Process.
- 3.103. **Post Qualification.** The owner will determine if contractors are qualified to bid on the project after bids are open. The bid documents will identify the minimum requirements that contractor must meet to be qualified for the project. Unqualified contractors' bids will be considered non-responsive and not accepted.
- 3.104. **Project-Specific Location.** A material source, plant, waste site, parking area, storage area, field office, staging area, haul road, or other similar location either outside the project limits or within the project limits but not specifically addressed in the Contract.
- 3.105. **Proposal Guaranty.** The security furnished by the Bidder as a guarantee that the Bidder will enter into a Contract if awarded the work.
- 3.106. **Quality Assurance.** Sampling, testing, inspection, and other activities conducted by the Engineer to determine payment and make acceptance decisions.
- 3.107. **Quality Control.** Sampling, testing, and other process control activities conducted by the Contractor to monitor production and placement operations.
- 3.108. **Ramp.** A section of highway for the primary purpose of making connections with other highways.
- 3.109. **Referee Tests.** Tests requested to resolve differences between Contractor and Owner test results. The referee laboratory is the Owners .
- 3.110. **Regular Item.** A bid item contained in the bid documents and not designated as an additive alternate or replacement alternate bid item.
- 3.111. **Rental Rate Blue Book for Construction Equipment.** Publication containing equipment rental rates.
- 3.112. **Replacement Alternate.** A bid item identified on the bid documents that a Bidder may substitute for a specific regular item of work.
- 3.113. **Responsive Bid.** A bid that meets all requirements of the advertisement and the bid documents for acceptance.
- 3.114. **Right of Way.** A general term denoting land or property devoted to transportation purposes.
- 3.115. **Roadbed.** The graded portion of a highway prepared as foundation for the pavement structure and shoulders. On divided highways, the depressed median type and the raised median type highways are considered to have 2 roadbeds. Highways with a flush median are considered to have 1 roadbed. Frontage roads are considered separate roadbeds.
- 3.116. **Road Master.** A railroad maintenance official in charge of a division of railway.
- 3.117. **Roadside.** The areas between the outside edges of the shoulders and the right of way boundaries. Unpaved median areas between inside shoulders of divided highways and areas within interchanges are included.
- 3.118. **Roadway.** The portion of the highway (including shoulders) used by the traveling public.

- 3.119. **Sandblasting, Dry.** Spraying blasts of pressurized air combined with sand.
- 3.120. **Sandblasting, Wet.** Spraying blasts of pressurized water combined with sand.
- 3.121. **Shoulder.** That portion of the roadway contiguous with the traffic lanes for accommodation of stopped vehicles for emergency use or for lateral support of base and surface courses.
- 3.122. **Shot Blasting.** Spraying blasts of pressurized air combined with metal shot.
- 3.123. **Sidewalk.** Portion of the right of way constructed exclusively for pedestrian use.
- 3.124. **Slurry Blasting.** Spraying blasts of pressurized air combined with a mixture of water and abrasive media.
- 3.125. **Special Provisions.** Additions or revisions to these standard specifications or special specifications.
- 3.126. **Special Specifications.** Supplemental specifications applicable to the Contract not covered by these standard specifications.
- 3.127. **Specifications.** Directives or requirements issued or made pertaining to the method and manner of performing the work or to quantities and qualities of materials to be furnished under the Contract. References to DMSs, ASTM or AASHTO specifications, or TxDOT bulletins and manuals, imply the latest standard or tentative standard in effect on the date of the bid. The Owner will consider incorporation of subsequent changes to these documents in accordance with Item 4L, "Scope of Work."
- 3.128. **Small Business Enterprise.** A firm (including affiliates) whose annual gross receipts do not exceed the U.S. Small Business Administration's size standards for 4 consecutive years.
- 3.129. **State.** The State of Texas.
- 3.130. **State Holiday.** A holiday authorized by the State Legislature excluding optional state holidays and not listed in Section 1.3.85., "National Holidays." A list of state holidays can be found on the TxDOT's website.
- 3.131. **Station.** A unit of measurement consisting of 100 horizontal feet.
- 3.132. **Subcontract.** The agreement between the Contractor and subcontractor establishing the obligations of the parties for furnishing of materials and performance of the work prescribed in the Contract documents.
- 3.133. **Subcontractor.** An individual, partnership, limited liability company, corporation, or any combination thereof that the Contractor sublets, or proposes to sublet, any portion of a Contract, excluding a material supplier, a hauling firm hauling only from a commercial source to the project, truck owner-operator, wholly-owned subsidiary, or specialty-type businesses such as security companies and rental companies.
- 3.134. **Subsidiary.** Materials, labor, or other elements that because of their nature or quantity have not been identified as a separate item and are included within the items on which they necessarily depend.
- 3.135. **Substructure.** The part of the structure below the bridge seats, but not including bearings, drilled shafts, or piling. Parapets, back walls, wing walls of the abutments, and drainage structures are considered parts of the substructure.
- 3.136. **Superintendent.** The representative of the Contractor who is available at all times and able to receive instructions from the Owner or authorized Owner representatives and to act for the Contractor.
- 3.137. **Superstructure.** The part of the structure above the bridge seats or above the springing lines of arches and including the bearings. Flatwork construction may be considered superstructure.

- 3.138. **Supplemental Agreement.** Written agreement entered into between the Contractor and the Owner and approved by the Surety, covering alterations and changes in the Contract. A supplemental agreement is used by the Owner whenever the modifications include assignment of the Contract from one party to another or other cases as desired by the Owner.
- 3.139. **Surety.** The corporate body or bodies authorized to do business in Texas bound with and for the Contractor for the faithful performance of the work covered by the Contract and for the payment for all labor and material supplied in the prosecution of the work.
- 3.140. **Surplus Materials.** Any debris or material related to the Contract but not incorporated into the work.
- 3.141. **Suspension.** Action taken by the Owner, State, or federal government pursuant to regulation that prohibits a person or company from entering into a Contract, or from participating as a subcontractor, or supplier of materials or equipment used in a contract
- 3.142. **Tex –XXX-X.** TxDOT material test methods found on TxDOT's Construction Division Web Site.
- 3.143. **Traffic Lane.** The strip of roadway intended to accommodate the forward movement of a single line of vehicles.
- 3.144. **Traveled Way.** The portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.
- 3.145. **Truck Owner-Operator.** An individual who owns and operates 1 truck for hire.
- 3.146. **UT-Bridge.** TxDOT-owned software for steel girder erection. Software is available on TxDOT's website.
- 3.147. **UT-Lift.** TxDOT-owned software for steel girder erection. Software is available on TxDOT's website.
- 3.148. **Utility.** Privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, power, heat, gas, oil, water, waste, or storm water that are not connected with the highway drainage, signal systems, or other products that directly or indirectly serve the public; the utility company.
- 3.149. **Verification Tests.** Tests used to verify accuracy of QC and QA and mixture design testing.
- 3.150. **Water-Abrasive Blasting.** Spraying blasts of pressurized water combined with abrasive media.
- 3.151. **Water Blasting.** Spraying blasts of pressurized water of at least 3,000 psi.
- 3.152. **Water-Injected Abrasive Blasting.** Abrasive blasting with water injected into the abrasive/air stream at the nozzle.
- 3.153. **Wholly-Owned Subsidiary.** A legal entity owned entirely by the Contractor or subcontractor.
- 3.154. **Work.** The furnishing of all labor, materials, equipment, and other incidentals necessary for the successful completion of the Contract.
- 3.155. **Written Notice.** Written notice is considered to have been duly given if delivered in person to the individual or member to whom it is intended or if sent by regular, registered, or certified mail and delivered to the last known business address; sent by facsimile to the last known phone number; or sent by e-mail to the last known address. The date of the letter will serve as the beginning day of notice. Unclaimed mail or failure to provide current mailing address will not be considered a failure to provide written notice.

Item 2L

Instructions to Bidders

1. INTRODUCTION

Instructions to the Contractor in these specifications are generally written in active voice, imperative mood. The subject of imperative sentences is understood to be "the Contractor." The Owner's responsibilities are generally written in passive voice, indicative mood. Phrases such as "as approved," "unless otherwise approved," "upon approval," "as directed," "as verified," "as ordered," and "as determined" refer to actions of the Engineer unless otherwise stated, and it is understood that the directions, orders, or instructions to which they relate are within the limitations of and authorized by the Contract.

2. ELIGIBILITY OF BIDDERS

Bidders on this project must comply with all technical qualification requirements in the bid documents and must be deemed to be a qualified, responsive bidder to be considered for award of the project.

3. ISSUING BID DOCUMENTS

Bid Documents may be obtained at the Brownsville Navigation District website, www.portofbrownsville.com, or requested by email at achavez@portofbrownsville.com.

Copies will be available in electronic format and for download on the Port of Brownsville website at no cost.

At the time Bid Documents are obtained, Bidder must provide a working e-mail address, so as to receive any addenda or clarification issued by the Owner.

A bidder shall not be deemed qualified for award if one or more of the following apply:

- the Bidder is prohibited from rebidding a specific project due to a bid error on the original bid documents,
 - the Bidder failed to enter into a Contract on the original award,
 - the Bidder was defaulted or terminated on the original Contract, unless the Owner terminated for convenience, or
 - the Bidder or a subsidiary or affiliate of the Bidder has received compensation from the Owner to participate in the preparation of the plans or specifications on which the bid or Contract is based.
-

4. INTERPRETING ESTIMATED QUANTITIES

The quantities listed in the bid documents are approximate and will be used for the comparison of bids. Payments will be made for actual quantities of work performed in accordance with the Contract.

5. EXAMINING DOCUMENTS AND WORK LOCATIONS

Examine the bid documents and specified work locations before submitting a bid for the work. Submitting a bid will be considered evidence that the Bidder has performed this examination. Borings, soil profiles, water elevations, and underground utilities shown on the plans were obtained for the use of the Owner in the preparation of plans. This information is provided for the Bidder's information only and the Owner makes no representation as to the accuracy of the data. Be aware of the difficulty of accurately classifying all material encountered in making foundation investigations, the possible erosion of stream channels and banks after survey data have been obtained, and the unreliability of water elevations other than for the date recorded.

Oral explanations, instructions, or consideration for Contractor-proposed changes in the bid documents given during the bidding process are not binding. Only requirements included in the bid documents and Owner-issued addenda are binding. Request explanations of documents at least five(5) days prior to the bid opening.

Immediately notify the Owner of any error, omission, or ambiguity discovered in any part of the bid documents. The Owner will issue addenda when appropriate.

6. PREPARING THE BID

Prepare the bid form furnished by the Owner. Informational bid forms printed from the Owner's website will not be accepted.

Specify a unit price in dollars and cents for each regular item, additive alternate item, deductive alternate item or replacement alternate item for which an estimated quantity is given.

When "Working Days" is an item, submit the number of working days to be used to complete the Contract or phases of the Contract.

The Owner will not accept an incomplete bid. A bid that has one or more of the deficiencies listed below is considered incomplete:

- the bid form was not signed,
- all certifications were not acknowledged,
- a regular item, additive alternate item or deductive alternate item is left blank,
- a regular item and the corresponding replacement alternate item are left blank,
- the bid form submitted had the incorrect number of items, or
- all addenda were not acknowledged.

7. NONRESPONSIVE BID

The Owner will not accept a nonresponsive bid. A bid that has one or more of the deficiencies listed below is considered nonresponsive:

- The bid was not in the hands of the Owner's Purchasing Officer at the time and location specified in the advertisement.
- A bid was submitted for the same project by a Bidder or Bidders and one or more of its partners or affiliates.
- The Bidder failed to acknowledge receipt of all addenda issued.
- The bid form was signed by a person who was not authorized to bind the Bidder or Bidders.
- The bid guaranty did not comply with the requirements contained in this Item.
- The bid was in a form other than the official bid form issued by the Owner.
- The Bidder modified the bid in a manner that altered the conditions or requirements for work as stated in the bid documents.
- The Bidder bid more than the maximum or less than the minimum number of allowable working days when working days was an item.
- The Bidder did not attend a specified mandatory pre-bid conference.
- The Bidder did not meet the requirements of the technical qualification.
- The Bidder did not include a signed State of Texas Child Support Business Ownership Form.
- The bidder does not meet the Owner's qualification requirements.

8. SUBMITTAL OF BIDS

8.1. **Electronic Bids.** No electronic bids will be accepted. No telephone, fax or e-mail bids will be accepted.

8.1.1. **Submittal of Bid.** Submit the bid using the Owner's bidding system.

8.1.2. **Revising the Bid Form.** Make desired changes as allowed by the Owner's bidding system up until the time and date set for the opening of bids. The last bid submitted will be used for tabulation purposes.

8.1.3. **Withdrawing a Bid.** Submit a written request to withdraw a bid before the time and date set for the opening. The Owner will not accept oral requests.

A written request must be signed and submitted to the Owner's Purchasing Officer with proof of identification. The request must be made by a person authorized to bind the Bidder or Bidders. In the case of joint venture, the Owner will accept a request from any person authorized to bind a party to the joint venture. The Owner may require written delegation of authority to withdraw a bid when the individual sent to withdraw the bid is not authorized to bind the Bidder or Bidders.

8.2. **Printed Bid.**

8.2.1. **Bid Form.** Mark all entries in ink. As an alternative to hand writing the unit prices in the bid form, submit a typed bid form. A typed bid form must contain the information in the format shown on the "Example of Bid Prices Submitted by Computer Printout" in the bid form.

When regular bid items have corresponding replacement alternate items, select the bid item or group of items to be used for the bid tabulation. Acknowledge all addenda by checking the appropriate box on the addendum acknowledgement page. Provide the complete and correct name of the Bidder submitting the bid. A person authorized to bind the Bidder must sign the bid form. In the case of a joint venture, provide the complete and correct name of all Bidders submitting the bid. In the case of a joint venture, the person signing the bid form must be authorized to bind all joint venture participants.

If a bid form contains both regular items for domestic steel or iron materials and replacement alternate items for foreign steel or iron materials, the Bidder must either:

- submit unit bid prices for domestic items only, or
- submit unit bid prices for both the domestic and foreign items.

8.2.2. **Bid Guaranty.** Provide a bid guaranty in the amount indicated on the bid documents. Use either a guaranty check or a printed bid bond.

8.2.3. **Guaranty Check.** Make the check payable to the Owner. The check must be a cashier's check, money order, or teller's check drawn by or on a state or national bank, or a state or federally chartered credit union (collectively referred to as "bank"). The check must be dated on or before the date of the bid opening. Postdated checks will not be accepted. The type of check or money order must be indicated on the face of the instrument, except in the case of a teller's check, and the instrument must be no more than 90 days old. A check must be made payable at or through the institution issuing the instrument; be drawn by a bank and on a bank; or be payable at or through a bank. The Owner will not accept personal checks, certified checks, or other types of money orders.

8.2.4. **Bid Bond.** Use the bid bond form provided by the Owner. Submit the bid bond with the powers of attorney attached and in the amount specified. The bond must be dated on or before the date of the bid opening, bear the impressed seal of the Surety, and be signed by the Bidder or Bidders and an authorized individual of the Surety. As an alternative for joint venture Bidders, each of the Bidders may submit a separate bid bond

completed as outlined in this section. Bid bonds will only be accepted from Sureties authorized to execute a bond under and in accordance with State law.

- 8.2.5. **Submittal of Bid.** Place the completed bid form and the bid guaranty in a sealed envelope marked to indicate the contents.

When submitting by mail or delivery service, place the envelope in another sealed envelope and address as indicated in the official advertisement or in the bid documents. It is the Bidder's responsibility to ensure that the sealed bid arrives at the location described on or before the time and date set for the bid opening. To be accepted, the bid must be in the hands of the Owner's Purchasing Officer by that time of opening regardless of the method chosen for delivery.

- 8.2.6. **Revising the Bid Form.** Make desired changes to the bid form in ink and submit the bid to the Owner's Purchasing Officer. The Owner will not make revisions to a bid on behalf of a Bidder.

- 8.2.7. **Withdrawing a Bid.** Submit a written request to withdraw a bid before the time and date set for the opening. The Owner will not accept oral requests. A written request must be signed and submitted to the Owner's Purchasing Officer with proof of identification. The request must be made by a person authorized to bind the Bidder or Bidders. In the case of joint venture, the Owner will accept a request from any person authorized to bind a party to the joint venture. The Owner may require written delegation of authority to withdraw a bid when the individual sent to withdraw the bid is not authorized to bind the Bidder or Bidders.

9. OPENING AND READING OF BIDS

At the time, date, and location specified in the official advertisement, the Owner will publicly open and read bids.

10. TABULATING BIDS

- 10.1. **Official Total Bid Amount.** The Owner will sum the products of the quantities and the unit prices bid in the bid form to determine the official total bid amount, except as provided in Section 2.11., "Consideration of Unit Prices." The official total bid amount is the basis for determining the apparent low Bidder. The total bid amounts will be compared and the results made public.

- 10.2. **Rounding of Unit Prices.** The Owner will round off all unit bids involving fractional parts of a cent to the nearest one-tenth cent (\$0.001) in determining the amount of the bid as well as computing the amount due for payment of each item under the Contract. For rounding purposes, entries of five-hundredths of a cent (\$0.0005) or more will be rounded up to the next highest tenth of a cent, while entries less than five-hundredths of a cent will be rounded down to the next lowest tenth of a cent.

- 10.3. **Interpretation of Unit Prices.** The Owner will make a documented determination of the unit bid price if a unit bid price is illegible or conflicting in the case of replacement alternate items. The Owner's determination will be final.

- 10.4. **Consideration of Unit Prices.**

- 10.4.1. **A + B Bidding.** The official total bid amount will be determined by the summation of the Contract amount and the time element. The Owner will use the following formula to make the calculation:

$$A + B1 + B2 + BX + \dots + BT$$

The Contract amount, equal to A in the formula, is determined by the summation of the products of the approximate quantities shown in the bid and the unit bid prices bid. The time element, equal to B1, B2, BX (when phases are included as bid components), and BT (substantial completion of the project when included as a bid component), of the bid is determined by multiplying the number of working days bid to substantially

complete the project, or phases, by the daily road-user cost (RUC) provided on the bid documents. When partial days are bid they will be rounded up to the nearest whole day.

The formula above determines the low Bidder and establishes the Contract time.

- 10.4.2. **“Buy America.”** Comply with Buy America in accordance with Section 6.1.1.. For a Bidder who proposes to use foreign steel or iron materials to be considered the apparent low Bidder, their total bid must be at least 25% lower than the next lowest bid if that bid proposes to use domestic steel or iron materials.

This requirement does not apply to minimal use of steel or iron materials provided that the total cost of all foreign source items used in the project, as delivered to the project site, is less than \$2,500 or one-tenth-of-one-percent (1/10 of 1%) of the Contract amount, whichever is greater

11. CONSIDERATION OF BID ERRORS.

The Owner will consider a claim of a bid error by the apparent low Bidder if the following requirements have been met:

- Submit written notification to the Owner within 5 business days after the date the bid is opened.
- Identify the items of work involved and include bidding documentation. The Owner may request clarification of submitted documentation.

The Owner will evaluate the claim of an error by the apparent low Bidder by considering the following:

- The bid error relates to a material item of work.
- The bid error amount is a significant portion of the total bid.
- The bid error occurred despite the exercise of ordinary care.
- The delay of the proposed work will not impact cost and safety to the public.

Acceptance of the bid error claim by the Owner will result in the rejection of the bid of the apparent low bidder and the Owner may consider the second responsive bid. The erring Contractor will not be allowed to bid the project if it is relet. Rejection of bids due to the Contractor's bid error may result in the application of sanctions by the Owner.

12. TIE BIDS

If the official total bid amount for 2 or more Bidders is equal and those bids are the lowest submitted, each tie Bidder will be given an opportunity to withdraw their bid. If 2 or more tie Bidders do not withdraw their bids, the low Bidder will be determined by a coin toss. If all tie Bidders request to withdraw their bids, no withdrawals will be allowed and the low Bidder will be determined by a coin toss. The Owner's Purchasing Officer will preside over the proceedings for the coin toss.

Item 3L

Award and Execution of Contract

1. AWARD OF CONTRACT

The Owner will award, reject, or defer the Contract within 120 days after the opening of the bid. The Owner reserves the right to reject any or all bids and to waive technicalities in the best interest of the Owner.

1.1. **Award.** The Owner will award the Contract to the low Bidder as determined by Article 2.11., "Tabulating Bids." The Owner may award a Contract to the second lowest Bidder when the following requirements have been met:

- The low Bidder withdraws its bid.
- The low Bidder fails to enter into a contract with the Owner after Award
- The second low Bidder's unit bid prices are reasonable.

1.2. **Rejection.** The Owner will reject the Contract if:

- Collusion may have existed among the Bidders. Collusion participants will not be allowed to bid future bids for the same Contract.
- The low bid is mathematically and materially unbalanced. The Bidder will not be allowed to bid future bids for the same Contract.
- The lowest bid is higher than the Owner's estimate and re-advertising for bids may result in a lower bid.
- Rejection of the Contract is in the best interest of the Owner.

1.3. **Deferral.** The Owner may defer the award or rejection of the Contract when deferral is in the best interest of the Owner.

2. RESCINDING OF AWARD

The Owner reserves the right to cancel the award of any Contract before Contract execution with no compensation due when the cancellation is in the best interest of the Owner. The Owner will return the bid guaranty to the Contractor.

3. DISADVANTAGED BUSINESS ENTERPRISE (DBE)/HISTORICALLY UNDERUTILIZED BUSINESS/SMALL BUSINESS ENTERPRISE (SBE)

Submit all DBE/HUB/SBE information in the time frame specified when required by the bid documents.

4. EXECUTION OF CONTRACT

Provide the following within 15 days after written notification of award of the Contract:

4.1. **Contract.** Executed by Contractor and Surety.

4.2. **Bonds.** Executed performance bond and payment bond in the full amount of the Contract price with powers of attorney. Provide bonds in accordance with Table 1. Furnish the payment and performance bonds as a guaranty for the protection of the claimants and the Owner for labor and materials and the faithful performance of the work.

**Table 1
Bonding Requirements**

| Contract Amount | Required Bonds |
|------------------------|-------------------------|
| Less than \$25,000 | None |
| \$25,000 to \$100,000 | Payment |
| More than \$100,000 | Performance and Payment |

4.3. **Insurance.** Submit a Certificate of Insurance showing coverages in accordance with Contract requirements.

Insurances must cover the contracted work for the duration of the Contract and must remain in effect until final acceptance. Failure to obtain and maintain insurance for the contracted work may result in suspension of work or default of the Contract. If the insurance expires and coverage lapses for any reason, stop all work until the Owner receives an acceptable Certificate of Insurance.

Provide the Owner with a Certificate of Insurance verifying the types and amounts of coverage shown in Table 2. The Certificate of Insurance must be in a form approved by the Owner. Any Certificate of Insurance provided must be available for public inspection.

**Table 2
Insurance Requirements**

| Type of Insurance | Amount of Coverage |
|---|---|
| Commercial General Liability Insurance | Not Less Than: \$1,000,000 each occurrence |
| Business Automobile Policy | Not Less Than: \$1,000,000 combined single limit |
| Workers' Compensation | Not Less Than: Statutory |
| All Risk Builder's Risk Insurance (For building-facilities Contracts only) | 100% of Contract Price |

By signing the Contract, the Contractor certifies compliance with all applicable laws, rules, and regulations pertaining to workers' compensation insurance. This certification includes all subcontractors. Pay all deductibles stated in the policy. Subcontractors must meet the requirements of Table 2 either through their own coverage or through the Contractor's coverage.

The Workers' Compensation policy must include a waiver of subrogation endorsement in favor of the Owner.

For building-facilities Contracts, provide All Risk Builder's Risk Insurance to protect the Owner against loss by storm, fire or extended coverage perils on work and materials intended for use on the project including the adjacent structure. Name the Owner under the Lost Payable Clause.

For Contracts with railroad requirements, see project-specific details for additional insurance requirements.

Provide a substitute Surety on the Contract bonds in the original full Contract amount within 15 days of notification if the Surety is declared bankrupt or insolvent, the Surety's underwriting limitation drops below the Contract amount or the Surety's right to do business is terminated by the Owner. The substitute Surety must be authorized by the laws of the State and acceptable to the Owner. Work will be suspended until a substitute Surety is provided. Working day charges will be suspended for 15 days or until an acceptable Surety is provided, whichever is sooner.

The work performed under this section will not be measured or paid for directly but will be subsidiary to pertinent items.

4.4. **Railroad Documents.** Provide all required documents for satisfaction of railroad requirements for projects that have work which involves railroad right of way.

5. FAILURE TO ENTER CONTRACT

If the Contractor fails to comply with all of the requirements in Article 3.4., "Execution of Contract," the bid guaranty will become the property of the Owner, not as a penalty, but as liquidated damages. The Contractor forfeiting the bid guaranty will not be considered in future bids for the same work unless there has been a substantial change in design of the work.

6. APPROVAL AND EXECUTION OF CONTRACT

The Contract will be approved and signed under authority of the Owner.

7. RETURN OF BID GUARANTY

The bid guaranty check of the low Bidder will be retained until after the Contract has been rejected or awarded and executed. Bid bonds will not be returned.

8. BEGINNING OF WORK

Do not begin work until authorized in writing by the Owner, and until a Pre-Construction Conference has been held.

When callout work is required, provide a method of contact available from 8 A.M. until 5 P.M. every work day and 24 hr. a day, 7 days a week for projects with emergency mobilization, unless otherwise shown on the plans. The time of notice will be the transmission time of the notice sent, provided orally, or provided in person by the Owner's representative.

Verify all quantities of materials shown on the plans before ordering.

For projects with alternate bid items, the work order will identify the base bid work and additive or deductive alternate work to be performed. The Owner makes no guarantee that the additive or deductive alternate work will be required.

9. ASSIGNMENT OF CONTRACT

Do not assign, sell, transfer, or otherwise dispose of the Contract or any portion rights, title, or interest (including claims) without the approval of the Owner or designated representative. The Owner must deem any proposed assignment justified and legally acceptable before the assignment can take place.

10. EXCLUDED PARTIES

The Contractor certifies by signing the Contract that the Contractor will not enter into any subcontract with a subcontractor that is debarred or suspended by the Owner or by any state or federal agency.

Item 4L

Scope of Work

1. CONTRACT INTENT

The intent of the Contract is to describe the completed work to be performed. Furnish materials, supplies, tools, equipment, labor, and other incidentals necessary for the proper prosecution and completion of the work in accordance with Contract documents.

2. PRECONSTRUCTION CONFERENCE

Before starting work, schedule and attend a preconstruction conference with the Owner. Failure to schedule and attend a preconstruction conference is not grounds for delaying the beginning of working day charges.

Work with the Owner to resolve all issues during the course of the Contract. Refer to Article 4.7., "Dispute or Claims Procedure," for all unresolved issues.

3. PARTNERING

The intent of this Article is to promote an environment of trust, mutual respect, integrity, and fair-dealing between the Owner and the Contractor.

Informal partnering does not make use of a facilitator, while formal partnering uses the services of a facilitator (internal or external). This contract will make use of Informal Partnering.

3.1. **Procedures for Partnering Meetings and Format.** Informal partnering is required, unless formal partnering is mutually agreed to instead of the informal partnering.

3.2. **Facilitators.** The facilitator is to act as a neutral party seeking to initiate cooperative working relationships. This individual must have the technical knowledge and ability to lead and guide discussions. Choose either an internal or external facilitator. The facilitator must be acceptable to the Engineer.

3.2.1. **Internal Facilitators.** An Owner or Contractor internal (staff) facilitator may be selected as the facilitator at no additional cost to either party.

3.2.2. **External Facilitators.** A private firm or individual that is independent of the Contractor and the Owner may be selected as the facilitator. Submit the facilitator's name and estimated fees for approval before contracting with the facilitator.

3.3. **Meetings and Arrangements.** Coordinate with the Engineer for meeting dates and times, locations including third party facilities, and other needs and appurtenances, including, but not limited to, audio or visual equipment. Make all meeting arrangements for formal partnering. Use Owner facilities or facilities in the vicinity of the project if available. Submit the estimated meeting costs for approval before finalizing arrangements.

Coordinate facilitator discussions before the partnering meeting to allow the facilitator time to prepare an appropriate agenda. Prepare a list of attendees with job titles and include critical Contractor, subcontractor, and supplier staff in the list. Provide the facilitator the list of attendees and invite the attendees listed.

The Owner will invite and provide a list of attendees that includes, but is not limited to, Owner, TxDOT, other local governments, law enforcement, railroad, and utility representatives.

Participate in additional partnering meetings as mutually agreed.

- 3.4. **Payment.** Expenses for labor, Contractor equipment, or overhead will not be allowed. Markups as prescribed in Article 9.7., “Payment for Extra Work and Force Account Method,” will not be allowed.

Informal partnering will be conducted with each party responsible for their own costs.

For formal partnering using internal facilitators, the Contractor will be responsible for arrangements and for expenses incurred by its internal facilitator, including, but not limited to, meals, travel, and lodging. Owner facilitators, if available, may be used at no additional cost.

For formal partnering using external facilitators, submit an invoice to the Engineer for reimbursement. The Owner will reimburse the Contractor for half of the eligible expenses as approved. For external facilitators not approved by the Owner but used at the Contractor’s option, the Contractor will be responsible for all costs of the external facilitator.

For meeting facilities and appurtenances, submit an invoice to the Engineer for reimbursement. The Owner will reimburse the Contractor for half of the eligible expenses as approved.

4. CHANGES IN THE WORK

The Engineer reserves the right to make changes in the work including addition, reduction, or elimination of quantities and alterations needed to complete the Contract. Perform the work as altered. These changes will not invalidate the Contract nor release the Surety. The Contractor is responsible for notifying the sureties of any changes to the Contract.

If the changes in quantities or the alterations do not significantly change the character of the work under the Contract, the altered work will be paid for at the Contract unit price. If the changes in quantities or the alterations significantly change the character of the work, the Contract will be amended by a change order. If no unit prices exist, this will be considered extra work and the Contract will be amended by a change order. Provide cost justification as requested, in an acceptable format. Payment will not be made for anticipated profits on work that is eliminated.

Agree on the scope of work and the basis of payment for the change order before beginning the work. If there is no agreement, the Engineer may order the work to proceed under Article 9.7., “Payment for Extra Work and Force Account Method,” or by making an interim adjustment to the Contract. In the case of an adjustment, the Engineer will consider modifying the compensation after the work is performed.

A significant change in the character of the work occurs when:

- the character of the work for any item as altered differs materially in kind or nature from that in the Contract or
- a major item of work varies by more or less than 25% from the original Contract quantity.

When the quantity of work to be done under any major item of the Contract is more than 125% of the original quantity stated in the Contract, then either party to the Contract may request an adjustment to the unit price on the portion of the work that is above 125%.

When the quantity of work to be done under any major item of the Contract is less than 75% of the original quantity stated in the Contract, then either party to the Contract may request an adjustment to the unit price. When mutually agreed, the unit price may be adjusted by multiplying the Contract unit price by the factor in Table 1. If an adjusted unit price cannot be agreed upon, the Engineer may determine the unit price by multiplying the Contract unit price by the factor in Table 1.

Table 1
Quantity-Based Price Adjustment Factors

| % of Original Quantity | Factor |
|------------------------|--------|
| ≥ 50 and < 75 | 1.05 |
| ≥ 25 and < 50 | 1.15 |
| < 25 | 1.25 |

If the changes require additional working days to complete the Contract, Contract working days will be adjusted in accordance with Item 8, "Prosecution and Progress."

5. DIFFERING SITE CONDITIONS

During the progress of the work, differing subsurface or latent physical conditions may be encountered at the site. The 2 types of differing site conditions are defined as:

- those that differ materially from those indicated in the Contract and
- unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract.

Notify the Engineer in writing when differing site conditions are encountered. The Engineer will notify the Contractor when the Owner discovers differing site conditions. Unless directed otherwise, do not work on the affected items and leave the site undisturbed. The Engineer will investigate the conditions and determine whether differing site conditions exist. If the differing site conditions cause an increase or decrease in the cost or number of working days specified for the performance of the Contract, the Engineer will make adjustments, excluding the loss of anticipated profits, in accordance with the Contract. Additional compensation will be made only if the required written notice has been provided.

6. REQUESTS FOR ADDITIONAL COMPENSATION

Notify the Engineer in writing of any intent to request additional compensation once there is knowledge of the basis for the request. An assessment of damages is not required to be part of this notice but is desirable. The intent of the written notice requirement is to provide the Owner an opportunity to evaluate the request and to keep an accurate account of the actual costs that may arise. Minimize impacts and costs.

If written notice is not given, the Contractor waives the right to additional compensation unless the circumstances could have reasonably prevented the Contractor from knowing the cost impact before performing the work. Notice of the request and the documentation of the costs will not be construed as proof or substantiation of the validity of the request. Submit the request in enough detail to enable the Owner to determine the basis for entitlement, adjustment in the number of working days specified in the Contract, and compensation.

The Owner will not consider fees and interest on requests for additional compensation. Fees include, but are not limited to: preparation, attorney, printing, shipping, and various other fees.

Damages occur when impacts that are the responsibility of the Owner result in additional costs to the Contractor that could not have been reasonably anticipated at the time of letting. Costs of performing additional work are not considered damages. For Contractor damages, the intent is to reimburse the Contractor for actual expenses arising out of a compensable impact. No profit or markups, other than labor burden, will be allowed. For damages, labor burden will be reimbursed at 35% unless the Contractor can justify higher actual cost. Justification for a higher percentage must be in accordance with the methodology provided by the Owner, submitted separately for project overhead labor and direct labor, and determined and submitted by a Certified Public Accountant (CPA). Submit CPA-prepared labor burden rates directly to the Owner.

If the Contractor requests compensation for delay damages and the delay is determined to be compensable, then standby equipment costs and project overhead compensation will be based on the duration of the compensable delay and will be limited as follows:

- 6.1. Standby Equipment Costs. Payment will be made in accordance with Section 9.7.1.4.3., “Standby Equipment Costs.”
- 6.2. Project Overhead. Project overhead is defined as the administrative and supervisory expenses incurred at the work locations. When delay to project completion occurs, reimbursement for project overhead for the Contractor will be made using the following options:
- reimbursed at 6% (computed as daily cost by dividing 6% of the original Contract amount by the number of original Contract work days), or
 - actual documented costs for the impacted period.

Project overhead for delays impacting subcontractors will be determined from actual documented costs submitted by the Contractor.

Time extensions and suspensions alone will not be justification for reimbursement for project overhead.

- 6.3. Home Office Overhead. The Owner will not compensate the Contractor for home office overhead.

7. DISPUTE OR CLAIMS PROCEDURE

The dispute resolution policy promotes a cooperative attitude between the Engineer and Contractor. Emphasis is placed on resolving issues while they are still current, at the project office, and in an informal manner. Open sharing of information is encouraged by all parties involved so the information provided completely and accurately reflects the issues and facts. If information is not shared, decisions may be limited to relying on the documentation that is available for review.

The Owners’s goal is to have a dispute settled by the Engineer before elevating it as a claim.

If a dispute cannot be resolved, initiate the Contract claim procedure by filing a Contract claim after the completion of the Contract or when required for orderly performance of the Contract. Submit the claim to the Owner in accordance with state law.

For a claim resulting from enforcement of a warranty period, file the claim no later than one year after expiration of the warranty period. For all other claims, file the claim no later than the date the Owner issues notice to the Contractor that they are in default, the date the Owner terminates the Contract, or one year after the date of final acceptance of the Contract. It is the Contractor’s responsibility to submit requests in a timely manner.

Item 5L

Control of the Work

1. AUTHORITY OF ENGINEER

The Engineer has the authority to observe, test, inspect, approve, and accept the work on behalf of the Owner. The Engineer decides all questions about the quality and acceptability of materials, work performed, work progress, Contract interpretations, and acceptable Contract fulfillment. The Engineer has the authority to enforce and make effective these decisions.

The Engineer acts as a referee in all questions arising under the terms of the Contract. The Engineer's decisions will be final and binding.

2. PLANS AND WORKING DRAWINGS

When required, provide working drawings to supplement the plans with all necessary details not included on the Contract plans. Prepare and furnish working drawings in a timely manner and obtain approval, if required, before the beginning of the associated work. For all working drawing submittal requirements, the Engineer may allow electronic and other alternative submission procedures. Have a licensed professional engineer sign, seal, and date the working drawings as indicated in Table 1.

Prepare working drawings using United States standard measures in the English language. The routing of submittals for review and approval will be established at the preconstruction conference. The Contractor is responsible for the accuracy, coordination, and conformity of the various components and details of the working drawings. Owner approval of the Contractor's working drawings will not relieve the Contractor of any responsibility under the Contract. The work performed under this article will not be measured or paid for directly but will be subsidiary to pertinent items.

Table 1
Signature and Approval Requirements for Working Drawings

| Working Drawings For | | Requires Licensed Professional Engineer's Signature, Seal, and Date | Requires Owner Approval |
|--|--|---|-------------------------|
| 1. Alternate or optional designs submitted by Contractor | | Yes | Yes |
| 2. Supplementary shop and fabrication drawings for structural Items | | No unless required on the plans | See applicable Item |
| 3. Contractor-proposed temporary facilities that affect the public safety, not included on the plans | | Yes | Yes |
| 4. Form and falsework details | Bridges, retaining walls, and other major structures | Yes unless otherwise shown on the plans | No ¹ |
| | Minor structures | No unless otherwise shown on the plans | No |
| 5. Erection drawings | | Yes | No ^{1,2} |
| 6. Contractor-proposed major modifications to traffic control plan | | Yes | Yes |

1. The Engineer may require that the Contractor have a licensed professional engineer certify that the temporary works are constructed according to the sealed drawings.
2. Approval is required for items spanning over live traffic or where safety of the traveling public is affected, in the opinion of the Engineer.

3. CONFORMITY WITH PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS

Furnish materials and perform work in reasonably close conformity with the lines, grades, cross-sections, dimensions, details, gradations, physical and chemical characteristics of materials, and other requirements shown in the Contract (including additional plans for non-site-specific work). Reasonably close conformity limits will be as defined in the respective items of the Contract or, if not defined, as determined by the Engineer. Obtain approval before deviating from the plans and approved working drawings. Do not perform work beyond the lines and grades shown on the plans or any extra work without the Engineer's approval. Work performed beyond the lines and grades shown on the plans or any extra work performed without approval is considered unauthorized and excluded from pay consideration. The Owner will not pay for material rejected due to improper fabrication, excess quantity, or any other reasons within the Contractor's control.

3.1. **Acceptance of Defective or Unauthorized Work.** When work fails to meet Contract requirements, but is adequate to serve the design purpose, the Engineer will decide the extent to which the work will be accepted and remain in place. The Engineer will document the basis of acceptance by a letter and may adjust the Contract price.

3.2. **Correction of Defective or Unauthorized Work.** When work fails to meet Contract requirements and is inadequate to serve the design purpose it will be considered defective. Correct, or remove and replace, the work at the Contractor's expense, as directed.

The Engineer has the authority to correct or to remove and replace defective or unauthorized work. The cost may be deducted from any money due or to become due to the Contractor.

4. COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS

The specifications, accompanying plans (including additional plans for non-site-specific work), special provisions, change orders, and supplemental agreements are intended to work together and be interpreted as a whole.

Numerical dimensions govern over scaled dimensions. Special provisions govern over plans (including general notes), which govern over standard specifications and special specifications. Job-specific plan sheets govern over standard plan sheets.

However, in the case of conflict between plans (including general notes) and specifications regarding responsibilities for hazardous materials and traffic control in Items 1L through 9L and Item 502, "Barricades, Signs, and Traffic Handling," special provisions govern over standard specifications and special specifications, which govern over the plans.

Notify the Engineer promptly of any omissions, errors, or discrepancies discovered so that necessary corrections and interpretations can be made. Failure to promptly notify the Engineer will constitute a waiver of all claims for misunderstandings or ambiguities that result from the errors, omissions, or discrepancies discovered.

5. COOPERATION OF CONTRACTOR

Cooperate with the Engineer. Respond promptly to instructions from the Engineer. Provide all information necessary to administer the Contract.

Designate in writing a competent, English-speaking Superintendent employed by the Contractor. The Superintendent must be experienced with the work being performed and capable of reading and understanding the Contract. Ensure the Superintendent is available at all times and able to receive instructions from the Engineer or authorized Owner representatives and to act for the Contractor. The

Engineer may suspend work without suspending working day charges if a Superintendent is not available or does not meet the above criteria.

At the written request of the Engineer, immediately remove from the project any employee or representative of the Contractor or a subcontractor who, in the opinion of the Engineer, does not perform work in a proper and skillful manner or who is disrespectful, intemperate, disorderly, uncooperative, or otherwise objectionable. Do not reinstate these individuals without the written consent of the Engineer.

Furnish suitable machinery, equipment, and construction forces for the proper prosecution of the work. Provide adequate lighting to address quality requirements and inspection of nighttime work.

The Engineer may suspend the work without suspending working day charges until the Contractor complies with this requirement. All work associated with fulfilling this requirement is subsidiary to the various items of the Contract and no direct compensation will be made.

6. COOPERATING WITH UTILITIES

Use established safety practices when working near utilities. Consult with the appropriate utilities before beginning work. Notify the Engineer immediately of utility conflicts. The Engineer will decide whether to adjust utilities or adjust the work to eliminate or lessen the conflict. Unless otherwise shown on the plans, the Engineer will make necessary arrangements with the utility owner when utility adjustments are required.

Use work procedures that protect utilities or appurtenances that remain in place during construction. Cooperate with utilities to remove and rearrange utilities to avoid service interruption or duplicate work by the utilities. Allow utilities access to the right of way.

Immediately notify the appropriate utility of service interruptions resulting from damage due to construction activities. Cooperate with utilities until service is restored. Maintain access to active fire hydrants at all times unless approved by the Engineer.

7. COOPERATION BETWEEN CONTRACTORS

Cooperate and coordinate with other Contractors working within the limits or adjacent to the limits.

8. COOPERATION WITH RAILROADS

Plan and prosecute portions of the work involving a railway to avoid interference with or hindrance to the railroad company.

If the work is on railroad right of way, do not interfere with the operation of the railroad company's trains or other property. Contact Brownsville-Rio Grande Railway in advance of any work in the proximity of rail.

8.1. **Project-Specific Information.** Refer to project-specific plan sheets in the Contract for specific information concerning the work to be completed by both the Contractor and the railroad within railroad right of way; railroad right of way locations impacted by construction; percentage of Contract work at each location; train movements at each location; and requirements for railroad insurance, flagging, and Right of Entry (ROE) Agreements.

8.2. **Right of Entry Agreement (if required).** The process for obtaining a fully executed ROE Agreement will be as follows:

- The Owner will send the unexecuted ROE Agreement to the Contractor with the unexecuted construction Contract.
- Partially execute the ROE Agreement and return it to the Department with the required insurance attached.

- The Owner will coordinate with the railroad company regarding the further execution of the ROE Agreement and associated fees. The Owner will pay any ROE Agreement fees directly to the railroad company, or will make any necessary arrangements with the railroad company.
- Once the Owner has received the fully-executed ROE Agreement from the railroad company, the Owner will forward the fully-executed ROE Agreement to the Contractor.

9. CONSTRUCTION SURVEYING

Use Method C unless otherwise specified in the Contract. Upon request, the Engineer will allow the Contractor to copy available earthwork cross-sections, computer printouts or data files, and other information necessary to establish and control work. Maintain the integrity of control points. Preserve all control points, stakes, marks, and right of way markers. Assume cost and responsibility of replacing disturbed control points, stakes, marks, and right of way markers damaged by the Contractor's or its subcontractor operations. If the Owner repairs disturbed control points, stakes, marks, or right of way markers, the cost of repair may be deducted from money due or to become due to the Contractor. Replace right of way markers under the direction of a RPLS. This work will be subsidiary to pertinent items.

The Engineer reserves the right to make measurements and surveys to determine the accuracy of the work and determine pay quantities. The Engineer's measurements and surveys do not relieve the Contractor's responsibility for accuracy of work. Allow the Engineer adequate time to verify the surveying.

- 9.1. **Method A.** The Engineer will set control points for establishing lines, slopes, grades, and centerlines and for providing both vertical and horizontal control. At a minimum, provide a controlling pair of monument points at both the beginning and end of construction project for projects less than 2 miles in length. For projects greater than 2 miles in length, monuments will be set in pairs of 2 at a minimum of 2 miles based on the overall length of the project. Use these control points as reference to perform the work.

Furnish materials, equipment, and qualified workforce necessary for the construction survey work. Place construction points, stakes, and marks at intervals sufficient to control work to established tolerances. Place construction stakes at intervals of no more than 100 ft., or as directed. Place stakes and marks so as not to interfere with normal maintenance operations.

- 9.2. **Method B.** The Engineer will set adequate control points, stakes, and marks to establish lines, slopes, grades, and centerlines. Furnish additional work, stakes, materials, and templates necessary for marking and maintaining points and lines.
- 9.3. **Method C.** Set adequate control points, stakes, and marks to establish lines, slopes, grades, and centerlines.

10. INSPECTION

Inspectors are authorized representatives of the Engineer. Inspectors are authorized to examine all work performed and materials furnished, including preparation, fabrication, and material manufacture. Inspectors shall inform the Contractor of perceived failures to meet Contract requirements. Inspectors may reject work or materials and may suspend work until any issues can be referred to and decided by the Engineer. Inspectors cannot alter, add, or waive Contract provisions, issue instructions contrary to the Contract, act as foremen for the Contractor, or interfere with the management of the work. Inspection, or lack of inspection, will not relieve the Contractor from obligation to provide materials or perform the work in accordance with the Contract.

Provide safe access to all parts of the work and provide information and assistance to the Engineer to allow a complete and detailed inspection. Give the Engineer sufficient notice to inspect the work. Work performed without suitable inspection, as determined by the Engineer, may be ordered removed and replaced at Contractor's expense. Remove or uncover portions of finished work as directed. Once inspected, restore

work to Contract requirements. If the uncovered work is acceptable, the costs to uncover, remove, and replace or make good the parts removed will be paid for in accordance with Article 4.4., "Changes in the Work." If the work is unacceptable, assume all costs associated with repair or replacement, including the costs to uncover, remove, and replace or make good the parts removed.

When a government entity, utility, railroad company, or other entity accepts or pays a portion of the Contract, that organization's representatives may inspect the work but cannot direct the Contractor. The right of inspection does not make that entity a party to the Contract and does not interfere with the rights of the parties to the Contract.

11. FINAL CLEANUP

Upon completion of the work, remove litter, debris, objectionable material, temporary structures, excess materials, and equipment from the work locations. Clean and restore property damaged by the Contractor's operations during the prosecution of the work. Leave the work locations in a neat and presentable condition. This work will not be paid for directly but will be considered subsidiary to items of the Contract.

Remove from the right of way cofferdams, construction buildings, material and fabrication plants, temporary structures, excess materials, and debris resulting from construction. Where work is in a stream, remove debris to the ground line of the bed of the stream. Leave stream channels and rights of way in a neat and presentable condition. Clean structures to the flow line or the elevation of the outfall channel, whichever is higher. Dispose of all excess material in accordance with federal, state, and local regulations.

12. FINAL ACCEPTANCE

12.1. Final acceptance is made when all work is complete and the Engineer, in writing, accepts all work for the work locations in the Contract. Final acceptance relieves the Contractor from further Contract responsibilities.

12.1.1. **Work Completed.** Work completed must include work for vegetative establishment and maintenance, test, and performance periods and work to meet the requirements of Article 5.11., "Final Cleanup."

12.1.2. **Final Inspection.** After all work is complete, the Contractor will request a final inspection by the Engineer authorized to accept the work.

The final inspection will be made as soon as possible, and not later than 10 calendar days after the request. No working day charges will be made between the date of request and final inspection.

After the final inspection, if the work is satisfactory, the Engineer will notify the Contractor in writing of the final acceptance of the work. If the final inspection finds any work to be unsatisfactory, the Engineer will identify in writing all deficiencies in the work requiring correction. Correct the deficiencies identified. Working day charges will resume if these deficiencies are not corrected within 7 calendar days, unless otherwise approved. Upon correction, the Engineer will make an inspection to verify that all deficiencies were corrected satisfactorily. The Engineer will provide written notice of the final acceptance.

12.1.3. **Final Measurement.** Final measurements and pay quantity adjustments may be made after final acceptance.

12.1.4. **Removal of Traffic Control Devices.** Remove construction traffic control devices and advance warning signs upon final acceptance or as directed.

Item 6L

Control of Materials

1. SOURCE CONTROL

Use only materials that meet Contract requirements. Unless otherwise specified or approved, use new materials for the work. Secure the Engineer's approval of the proposed source of materials to be used before their delivery. Materials can be approved at a supply source or staging area but may be reinspected in accordance with Article 6.4., "Sampling, Testing, and Inspection."

1.1. **Buy America.** Comply with the latest provisions of Buy America as listed at 23 CFR 635.410. Use steel or iron materials manufactured in the United States except when:

- the cost of materials, including delivery, does not exceed 0.1% of the total Contract cost or \$2,500, whichever is greater;
- the Contract contains a replacement alternate item for a foreign source steel or iron product and the Contract is awarded based on the replacement alternate item; or
- the materials are temporarily installed.

Provide a notarized original of the TxDOT FORM D-9-USA-1 (or equivalent) with the proper attachments for verification of compliance.

Manufacturing is any process that modifies the chemical content, physical shape or size, or final finish of a product. Manufacturing begins with initial melting and mixing and continues through fabrication (cutting, drilling, welding, bending, etc.) and coating (paint, galvanizing, epoxy, etc.).

1.2. **Convict Produced Materials.** Materials produced by convict labor may only be incorporated in the work if such materials have been:

- produced by convicts who are on parole, supervised release, or probation from prison; or
- produced in a qualified prison facility.

A "qualified prison facility" means any prison facility in which convicts, during the 12-month period ending July 1, 1987, produced materials for use in federal-aid highway construction projects.

2. MATERIAL QUALITY

Correct or remove materials that fail to meet Contract requirements or that do not produce satisfactory results. Reimburse the Owner for cost incurred if additional sampling and testing is required by a change of source.

Materials not meeting Contract requirements will be rejected, unless the Engineer approves corrective actions. Upon rejection, immediately remove and replace rejected materials.

If the Contractor does not comply with this article, the Owner may have defective material removed and replaced. The cost of testing, removal, and replacement will be deducted from the estimate.

3. MANUFACTURER WARRANTIES

Transfer to the Owner warranties and guarantees required by the Contract or received as part of normal trade practice.

4. SAMPLING, TESTING, AND INSPECTION

Incorporate into the work only material that has been inspected, tested, and accepted by the Engineer. Remove, at the Contractor's expense, materials from the work locations that are used without prior testing and approval or written permission.

Unless otherwise mutually agreed, the material requirements and standard test methods in effect at the time the proposed Contract is advertised govern. Unless otherwise noted, the Engineer will perform testing at Owner's expense. In addition to facilities and equipment required by the Contract, furnish facilities and calibrated equipment required for tests to control the manufacture of construction items. If requested, provide a complete written statement of the origin, composition, and manufacture of materials.

All materials used are subject to inspection or testing at any time during preparation or use. Material which has been tested and approved at a supply source or staging area may be reinspected or tested before or during incorporation into the work, and rejected if it does not meet Contract requirements. Copies of test results are to be made available upon request. Do not use material that, after approval, becomes unfit for use.

Unless otherwise noted in the Contract, all testing must be performed within the United States and witnessed by the Engineer. If materials or processes require testing outside the contiguous 48 United States, reimburse the Owner for inspection expenses.

5. PLANT INSPECTION AND TESTING

The Engineer may, but is not obligated to, inspect materials at the acquisition or manufacturing source. Material samples will be obtained and tested for compliance with quality requirements.

If inspection is at the plant, meet the following conditions unless otherwise specified:

- Cooperate fully and assist the Engineer during the inspection.
- Ensure the Engineer has full access to all parts of the plant used to manufacture or produce materials.
- In accordance with pertinent items and the Contract, provide a facility at the plant for use by the Engineer as an office or laboratory.
- Provide and maintain adequate safety measures and restroom facilities.
- Furnish and calibrate scales, measuring devices, and other necessary equipment.

The Engineer may provide inspection for periods other than daylight hours if:

- continuous production of materials for Owner use is necessary due to the production volume being handled at the plant, and
- the lighting is adequate to allow satisfactory inspection.

6. STORAGE OF MATERIALS

Store and handle materials to preserve their quality and fitness for the work. Store materials so that they can be easily inspected and retested. Place materials under cover, on wooden platforms, or on other hard, clean surfaces as necessary or when directed.

No materials or equipment shall be stored or staged on the right of way. Contractor shall make arrangements with Owner and/or Engineer for storage and staging space off the right of way.

7. OWNER-FURNISHED MATERIAL

The Owner will supply materials as shown in the Contract documents. The cost of handling and placing materials supplied by the Owner will not be paid for directly but is subsidiary to the item in which they are used. Assume responsibility for materials upon receipt.

8. USE OF MATERIALS FOUND ON THE RIGHT OF WAY

Material found in the excavation areas and meeting the Owner's specifications may be used in the work. This material will be paid for at the Contract bid price for excavation and under the item for which the material is used. Contractor must obtain written permission from Owner or Engineer to make use of any such material.

Do not excavate or remove any material from within the right of way that is not within the limits of the excavation without written permission. If excavation is allowed within a right of way project-specific location (PSL), replace the removed material with suitable material at no cost to the Owner as directed.

9. RECYCLED MATERIALS

The Owner will not allow hazardous wastes, as defined in 30 TAC 335, proposed for recycling to be used on the project. Use nonhazardous recyclable materials (NRMs) only if the specification for the item does not disallow or restrict use. Determine if NRMs are regulated under 30 TAC 312, 330, 332, 334, or 335, and comply with all general prohibitions and requirements. Use NRMs in accordance with DMS-11000, "Evaluating and Using Nonhazardous Recyclable Materials Guidelines," and furnish all documentation required by that specification.

10. HAZARDOUS MATERIALS

Use materials that are free of hazardous materials as defined in Item 1L, "Abbreviations and Definitions."

Notify the Engineer immediately when a visual observation or odor indicates that materials in required material sources or on sites owned or controlled by the owner may contain hazardous materials. Except when the contract includes bid items for the contractor to remove hazardous materials, the Engineer is responsible for testing and removing or disposing of hazardous materials not introduced by the Contractor on sites owned or controlled by the Owner as indicated below.

The plans will indicate locations where paint on steel is suspected to contain hazardous materials and where regulated asbestos containing materials have been found. The Engineer may suspend work wholly or in part during the testing, removal, or disposition of hazardous materials on sites owned or controlled by the Owner, except in the case of when the contract includes removing and disposing of hazardous materials.

When a visual observation or odor indicates that materials delivered to the work locations by the Contractor may contain hazardous materials, have an approved commercial laboratory test the materials for contamination. Remove, remediate, and dispose of any of these materials found to be contaminated. Testing, removal, and disposition of hazardous materials introduced onto the work locations by the Contractor will be at the Contractor's expense. Working day charges will not be suspended and extensions of working days will not be granted for activities related to handling hazardous material delivered by the Contractor.

10.1. **Painted Steel Requirements.** Paint containing hazardous materials will be removed as shown on the plans.

10.1.1. **Paint Removed by Third Party.** The Owner may provide a third party to remove paint containing hazardous materials where paint must be removed to perform work or to allow dismantling of the steel.

- 10.1.2. **Paint Removed by the Contractor.** This work may only be performed by a firm or company with one of the following certifications:
- SSPC-QP2 certification for lead painting operations, or
 - Certified Lead Firm by the Texas Department of State Health Services.
- Maintain certification for the duration of the work. Provide copies of audits or certification if requested.
- Comply with worker and public safety regulations, including, but not limited to, OSHA 29 CFR Parts 1910.1025, 1926.62, and 1926.63. Monitor permissible exposure limits in accordance with OSHA requirements.
- Remove paint containing hazardous materials from designated areas shown on the plans or as directed. Comply with access limitations shown on the plans.
- Provide power hand tools, equipped with high-efficiency particulate air filter vacuums to mechanically remove paint.
- Contain, collect, store, transport, and dispose of all waste generated by cleaning operation in accordance with local, state, and federal requirements including 40 CFR 302. Properly characterize and dispose of all wastes. Manage any hazardous wastes in accordance with regulatory requirements and dispose in a facility authorized to accept such wastes. Provide copies of disposal manifests.
- The work performed, materials furnished, equipment, labor, tools, and incidentals will be paid for in accordance with Item 446, "Field Cleaning and Painting Steel."
- 10.2. **Removal and Disposal of Painted Steel.** Painted steel will be disposed of at a steel recycling or smelting facility unless otherwise shown on the plans. If the paint contains hazardous materials, maintain and make available to the Engineer invoices and other records obtained from the facility showing the received weight of the steel and the facility name.
- For steel that is dismantled by unbolting, no paint stripping will be required. Use care to not damage existing paint. When dismantling is performed using flame or saw-cutting methods to remove steel elements coated with paint containing hazardous materials, the plans will show stripping locations.
- The work provided, materials furnished, equipment, labor, tools, and incidentals will be paid for in accordance with Item 496, "Removing Structures," and Item 497, "Sale of Salvagable Material."
- 10.3. **Work Performed by a Third Party.** When the work for removal of paint or asbestos abatement is to be provided by a third party, coordinate and cooperate with the third party and the Owner. Continue other work detailed on the plans not directly involved in the paint removal or asbestos abatement work. Provide notice to the Owner regarding the progress of the work to allow the Owner enough time to schedule the third party work.

11. SURPLUS MATERIALS

Take ownership of surplus materials unless otherwise shown on the plans or as directed by the Engineer. Remove and dispose of materials in accordance with federal, state, and local regulations. If requested, provide an appropriate level of documentation to verify proper disposal. When materials are disposed of on private property, provide written authorization from the property owner for the use of the property for this purpose upon request.

Item 7L

Legal Relations and Responsibilities

1. SAFETY

- 1.1. **Point of Contact.** Designate a Contractor Safety Point of Contact (CSPOC). The Owner will assign an Owner employee for their point of contact designated as Owner's Safety Point of Contact OSPOC. The CSPOC will ensure that the Contractor's and Subcontractor's employees' use the appropriate personal protection equipment (hard hats, safety vests, protective toe footwear, etc.).

The CSPOC will ensure that crew leaders and foremen (including subcontractors) have attended the required training.

- 1.2. **Safety Preconstruction Meeting.** In cooperation with the Engineer, schedule and attend a safety preconstruction meeting (may be a part of the preconstruction conference in Article 4.2., "Preconstruction Conference.") Attendees for this safety preconstruction meeting will be:

- the Contractor,
- subcontractors,
- Owner,
- Engineer,
- local law enforcement, and
- other personnel that play an active role on the project.

- 1.3. **Public Safety and Convenience.** Ensure the safety and convenience of the public and property as provided in the Contract and as directed by the Engineer. Keep existing roadways open to traffic or construct and maintain detours and temporary structures for safe public travel. Manage construction to minimize disruption to traffic. Maintain the roadway in a good and passable condition, including proper drainage and provide for ingress and egress to adjacent property.

Store all equipment not in use in a manner and at locations that will not interfere with the safe passage of traffic.

Provide qualified flaggers in accordance with Item 502.2.2., "Flaggers," for the safety and convenience of the traveling public and workers, as directed.

If the Engineer determines that any of the requirements of this article have not been met, the Engineer may take any necessary corrective action. This will not change the legal responsibilities set forth in the Contract. The cost to the Owner for this work will be deducted from any money due or to become due to the Contractor.

- 1.4. **Use of Blue Warning Lights.** Texas Transportation Code 547.105 authorizes the use of warning lights to promote safety and provides an effective means of gaining the travelling public's attention as they drive in areas where construction crews are present. In order to influence the public to move over when high risk construction activities are taking place, minimize the utilization of blue warning lights. These lights must be used only while performing work on or near the travel lanes or shoulder where the travelling public encounters construction crews that are not protected by a standard work zone set up such as a lane closure, shoulder closure, or one-way traffic control. Refrain from leaving the warning lights engaged while travelling from one work location to another or while parked on the right of way away from the pavement or a work zone.

- 1.5. **Barricades, Warning and Detour Signs, and Traffic Handling.** Provide, install, move, replace, maintain, clean, and remove all traffic control devices in accordance with the traffic control devices specifications and as shown on the plans and as directed. If details are not shown on the plans, provide devices and work in

accordance with the TMUTCD and as directed by the Engineer. When authorized or directed by the Engineer, provide additional signs or traffic control devices not required by the plans.

If an unexpected situation arises that causes the Contractor to believe that the traffic control should be changed, make all reasonable efforts to promptly contact the Engineer. Take prudent actions until the Engineer can be contacted.

The Engineer may authorize or direct in writing the removal or relocation of project limit advance warning signs. When project limit advance warning signs are removed before final acceptance, traffic control in accordance with the TMUTCD may be used for minor operations as approved. Removal or relocation of project limit advance warning signs does not imply final acceptance.

2. LAWS TO BE OBSERVED

Comply with all federal, state, and local laws, ordinances, and regulations that affect the performance of the work. Indemnify and save harmless the Owner and its representatives against any claim arising from violation by the Contractor of any law, ordinance, or regulation.

This Contract is between the Owner and the Contractor only. No person or entity may claim third-party beneficiary status under this Contract or any of its provisions, nor may any non-party sue for personal injuries or property damage under this Contract.

3. PERMITS, LICENSES, AND TAXES

Procure all permits and licenses; pay all charges, fees, and taxes; and give all notices necessary and incidental to the due and lawful prosecution of work, except for permits provided by the Owner and as specified in Article 7.6., "Preservation of Cultural and Natural Resources and the Environment."

4. PATENTED DEVICES, MATERIAL, AND PROCESSES

Indemnify and save harmless the Owner from any claims for infringement from the Contractor's use of any patented design, device, material, process, trademark, or copyright selected by the Contractor and used in connection with the work. Indemnify and save harmless the Owner against any costs, expenses, or damages that it may be obliged to pay, by reason of this infringement, at any time during the prosecution or after the completion of the work.

5. PERSONAL LIABILITY OF PUBLIC OFFICIALS

Owner employees are agents and representatives of the Owner and will incur no liability, personal or otherwise, in carrying out the provisions of the Contract or in exercising any power or authority granted under the Contract.

6. PRESERVATION OF CULTURAL AND NATURAL RESOURCES AND THE ENVIRONMENT

If the Contractor initiates changes to the Contract and the Owner approves the changes, the Contractor is responsible for obtaining clearances and coordinating with the appropriate regulatory agencies.

- 6.1. **Cultural Resources.** Cease all work immediately if a site, building, or location of historical, archeological, educational, or scientific interest is discovered within the right of way. The site, building, or location will be investigated and evaluated by the Owner.

- 6.2. **Texas Pollutant Discharge Elimination System (TPDES) Permits and Storm Water Pollution Prevention Plans (SWP3).** The Owner will file the Notice of Intent (NOI) and the Notice of Termination (NOT) for work shown on the plans in the right of way. Adhere to all requirements of the SWP3.
- 6.3. **Work in Waters of the United States.** For work in the right of way, the Owner will obtain any required Section 404 permits from the U.S. Army Corps of Engineers before work begins. Adhere to all agreements, mitigation plans, and standard best management practices required by the permit. When Contractor-initiated changes in the construction method changes the impacts to waters of the U.S., obtain new or revised Section 404 permits.
- 6.4. **Work in Navigable Waters of the United States.** For work in the right of way, the Owner will obtain any required Section 9 permits from the U.S. Coast Guard before work begins. Adhere to the stipulations of the permits and associated best management practices. When Contractor-initiated changes in the construction method changes the impacts to navigable waters of the U.S., obtain new or revised Section 9 permits.
- 6.5. **Work Over the Recharge or Contributing Zone of Protected Aquifers.** Make every reasonable effort to minimize the degradation of water quality resulting from impacts relating to work over the recharge or contributing zones of protected aquifers, as defined and delineated by the TCEQ. Use best management practices and perform work in accordance with Contract requirements.
- 6.6. **Project-Specific Locations.** For all project-specific locations (PSLs) on or off the right of way (material sources, waste sites, parking areas, storage areas, field offices, staging areas, haul roads, etc.), signing the Contract certifies compliance with all applicable laws, rules, and regulations pertaining to the preservation of cultural resources, natural resources, and the environment as issued by the following or other agencies:
- Occupational Safety and Health Administration,
 - Texas Commission on Environmental Quality,
 - Texas Department of Transportation,
 - Texas Historical Commission,
 - Texas Parks and Wildlife Department,
 - Texas Railroad Commission,
 - U.S. Army Corps of Engineers,
 - U.S. Department of Energy,
 - U.S. Department of Transportation,
 - U.S. Environmental Protection Agency,
 - U.S. Federal Emergency Management Agency, and
 - U.S. Fish and Wildlife Service.

All subcontractors must also comply with applicable environmental laws, rules, regulations, and requirements in the Contract. Maintain documentation of certification activities including environmental consultant reports, Contractor documentation on certification decisions and contacts, and correspondence with the resource agencies. Provide documentation upon request.

Obtain written approval from the Engineer for all PSLs in the right of way not specifically addressed on the plans. Prepare an SWP3 for all Contractor facilities, such as asphalt or concrete plants located within public right of way. Comply with all TCEQ permit requirements for portable facilities, such as concrete batch plants, rock crushers, asphalt plants, etc. Address all environmental issues, such as Section 404 permits, wetland delineation, endangered species consultation requirements, or archeological and historic site impacts. Obtain all permits and clearances in advance.

7. SANITARY PROVISIONS

Provide and maintain adequate, neat, and sanitary toilet accommodations for employees, including Owner employees, in compliance with the requirements and regulations of the Texas Department of Health or other authorities with jurisdiction.

8. ABATEMENT AND MITIGATION OF EXCESSIVE OR UNNECESSARY NOISE

Minimize noise throughout all phases of the Contract. Exercise particular and special efforts to avoid the creation of unnecessary noise impact on adjacent noise sensitive receptors in the placement of non-mobile equipment such as air compressors, generators, pumps, etc. Place mobile and stationary equipment to cause the least disruption of normal adjacent activities.

All equipment associated with the work must be equipped with components to suppress excessive noise and these components must be maintained in their original operating condition considering normal depreciation. Noise-attenuation devices installed by the manufacturer such as mufflers, engine covers, insulation, etc. must not be removed nor rendered ineffectual nor be permitted to remain off the equipment while the equipment is in use.

9. USING EXPLOSIVES

Do not endanger life or property. The contractor is required to submit a written Blasting Plan if required by the plans or requested by the Engineer. The Owner retains the right to reject the blasting plan. Store all explosives securely and clearly mark all storage places with "DANGER – EXPLOSIVES." Store, handle, and use explosives and highly flammable material in compliance with federal, state, and local laws, ordinances, and regulations. Assume liability for property damage, injury, or death resulting from the use of explosives.

Give at least a 48-hr. advance notice to the appropriate Road Master before doing any blasting work involving the use of electric blasting caps within 200 ft. of any railroad track.

10. RESPONSIBILITY FOR HAZARDOUS MATERIALS

Indemnify and save harmless the Owner and its agents and employees from all suits, actions, or claims and from all liability and damages for any injury or damage to any person or property arising from the generation or disposition of hazardous materials introduced by the Contractor on any work done by the Contractor on Owner-owned or controlled sites. Indemnify and save harmless the Owner and its representatives from any liability or responsibility arising out of the Contractor's generation or disposition of any hazardous materials obtained, processed, stored, shipped, etc., on sites not owned or controlled by the Owner. Reimburse the Owner for all payments, fees, or restitution the Owner is required to make as a result of the Contractor's actions.

11. ASBESTOS CONTAINING MATERIAL

In Texas, the Department of State Health Services (DSHS), Asbestos Programs Branch, is responsible for administering the requirements of the National Emissions Standards for Hazardous Air Pollutants, 40 CFR, Subpart M (NESHAP) and the Texas Asbestos Health Protection Rules (TAHPR). Based on EPA guidance and regulatory background information, bridges are considered to be a regulated "facility" under NESHAP. Therefore, federal standards for demolition and renovation apply.

Provide notice to the Owner of demolition or renovation to the structures listed on the plans at least 30 calendar days before initiating demolition or renovation of each structure or load bearing member. Provide the scheduled start and completion date of structure demolition, renovation, or removal.

When demolition, renovation, or removal of load-bearing members is planned for several phases, provide the start and completion dates identified by separate phases.

DSHS requires that notifications be postmarked at least 10 working days before initiating demolition or renovation. If the date of actual demolition, renovation, or removal is changed, the Owner will be required to notify DSHS at least 10 days in advance of the work. This notification is also required when a previously scheduled (notification sent to DSHS) demolition, renovation, or removal is delayed. Therefore, if the date of actual demolition, renovation, or removal is changed, provide the Engineer, in writing, the revised dates in enough time to allow for the Owner's notification to DSHS to be postmarked at least 10 days in advance of the actual work.

Failure to provide the above information may require the temporary suspension of work under Article 8.4., "Temporary Suspension of Work or Working Day Charges," due to reasons under the control of the Contractor. The Owner retains the right to determine the actual advance notice needed for the change in date to address post office business days and staff availability.

12. RESTORING SURFACES OPENED BY PERMISSION

Do not authorize anyone to make an opening in the highway for utilities, drainage, or any other reason without written permission by the Engineer. Repair all openings as directed by the Engineer. Payment for repair of surfaces opened by permission will be made in accordance with pertinent items or Article 4.4., "Changes in the Work." Costs associated with openings made with Contractor authorization but without Owner approval will not be paid.

13. PROTECTING ADJACENT PROPERTY

Protect adjacent property from damage. If any damage results from an act or omission on the part of or on behalf of the Contractor, take corrective action to restore the damaged property to a condition similar or equal to that existing before the damage was done.

14. RESPONSIBILITY FOR DAMAGE CLAIMS

Indemnify and save harmless the Owner and its agents and employees from all suits, actions, or claims and from all liability and damages for any injury or damage to any person or property due to the Contractor's negligence in the performance of the work and from any claims arising or amounts recovered under any laws, including workers' compensation and the Texas Tort Claims Act. Indemnify and save harmless the Owner and assume responsibility for all damages and injury to property of any character occurring during the prosecution of the work resulting from any act, omission, neglect, or misconduct on the Contractor's part in the manner or method of executing the work; from failure to properly execute the work; or from defective work or material.

Pipelines and other underground installations that may or may not be shown on the plans may be located within the right of way. Indemnify and save harmless the Owner from any suits or claims resulting from damage by the Contractor's operations to any pipeline or underground installation. Make available the scheduled sequence of work to the respective utility owners so that they may coordinate and schedule adjustments of their utilities that conflict with the proposed work.

15. HAULING AND LOADS ON ROADWAYS AND STRUCTURES

Comply with federal and state laws concerning legal gross and axle weights. Except for the designated Interstate system, vehicles with a valid yearly overweight tolerance permit may haul materials to the work locations at the permitted load. Provide copies of the yearly overweight tolerance permits to the Engineer upon request. Construction equipment is not exempt from oversize or overweight permitting requirements on roadways open to the traveling public.

Protect existing bridges and other structures that will remain in use by the traveling public during and after the completion of the Contract. Construction traffic on roadways, bridges, and culverts within the limits of the work, including any structures under construction that will remain in service during and after completion of the Contract is subject to legal size and weight limitations.

Additional temporary fill may be required by the Engineer for hauling purposes for the protection of certain structures. This additional fill will not be paid directly but will be subsidiary.

Replace or restore to original condition any structure damaged by the Contractor's operations.

The Engineer may allow equipment with oversize or non-divisible overweight loads to operate without a permit within the work locations on pavement structures not open to the traveling public. Submit Contractor-proposed changes to traffic control plans for approval, in accordance with Item 502, "Barricades, Signs, and Traffic Handling." The following sections further address overweight allowances. The Owner will make available to the Contractor any available plans and material reports for existing structures.

- 15.1. **Overweight Construction Traffic Crossing Structures.** The Engineer may allow crossing of a structure not open to the public within the work locations, when divisible or non-divisible loads exceed legal weight limitations, including limits for load-posted bridges. Obtain written permission to make these crossings. Submit for approval a structural analysis by a licensed professional engineer indicating that the excessive loads should be allowed. Provide a manufacturer's certificate of equipment weight that includes the weight distribution on the various axles and any additional parts such as counterweights, the configuration of the axles, or other information necessary for the analysis. Submit the structural analysis and supporting documentation sufficiently in advance of the move to allow for review. Permission may be granted if the Engineer finds that no damage or overstresses in excess of those normally allowed for occasional overweight loads will result to structures that will remain in use after Contract completion. Provide temporary matting or other protective measures as directed.

Schedule loads so that only one vehicle is on any span or continuous unit at any time. Use barricades, fences, or other positive methods to prevent other vehicular access to structures at any time the overweight load is on any span or continuous unit.

- 15.2. **Construction Equipment Operating on Structures.** Cranes and other construction equipment used to perform construction operations that exceed legal weight limits may be allowed on structures. Before any operation that may require placement of equipment on a structure, submit for approval a detailed structural analysis prepared by a licensed professional engineer.

Submit the structural analysis and supporting documentation sufficiently in advance of the use to allow for review and approval. Include all axle loads and configurations, spacing of tracks or wheels, tire loads, outrigger placements, center of gravity, equipment weight, and predicted loads on tires and outriggers for all planned movements, swings, or boom reaches. The analysis must demonstrate that no overstresses will occur in excess of those normally allowed for occasional overweight loads.

- 15.3. **Loads on Structures.** Do not store or stockpile material on bridge structures without written permission. If required, submit a structural analysis and supporting documentation by a licensed professional engineer for review. Permission may be granted if the Engineer finds that no damage or overstresses in excess of those normally allowed for occasional overweight loads will result to structures that will remain in use after Contract completion. Provide temporary matting or other protective measures as directed.

- 15.4. **Hauling Divisible Overweight Loads on Pavement Within the Work Locations.** The Engineer may allow divisible overweight loads on pavement structures within the work locations not open to the traveling public. Obtain written approval before hauling the overweight loads. Include calculations to demonstrate that there will be no damage or overstress to the pavement structure.

16. CONTRACTOR'S RESPONSIBILITY FOR WORK

Until final acceptance of the Contract, take every precaution against injury or damage to any part of the work by the action of the elements or by any other cause, whether arising from the execution or from the nonexecution of the work. Protect all materials to be used in the work at all times, including periods of suspension.

When any roadway or portion of the roadway is in suitable condition for travel, it may be opened to traffic as directed. Opening of the roadway to traffic does not constitute final acceptance.

Repair damage to all work until final acceptance. Repair damage to existing facilities in accordance with the Contract or as directed. Repair damage to existing facilities or work caused by Contractor operations at the Contractor's expense. Repair work for damage that was not due to the Contractor's operations will not be paid for except as provided below.

16.1. **Reimbursable Repair.** Except for damage to appurtenances listed in Section 7.16.2.1., "Unreimbursed Repair," the Contractor will be reimbursed for repair of damage caused by:

- motor vehicle, watercraft, aircraft, or railroad-train incident;
- vandalism; or
- Acts of God, such as earthquake, tidal wave, tornado, hurricane, or other cataclysmic phenomena of nature.

16.2. **Appurtenances.**

16.2.1. **Unreimbursed Repair.** Except for destruction (not reusable) due to hurricanes, reimbursement will not be made for repair of damage to the following temporary appurtenances, regardless of cause:

- signs,
- barricades,
- changeable message signs, and
- other work zone traffic control devices.

Crash cushion attenuators and guardrail end treatments are the exception to the above listing and are to be reimbursed in accordance with Section 7.17.2.2., "Reimbursed Repair."

For the devices listed in this section, reimbursement may be made for damage due to hurricanes. Where the Contractor retains replaced appurtenances after completion of the project, the Owner will limit the reimbursement to the cost that is above the salvage value at the end of the project.

16.2.2. **Reimbursed Repair.** Reimbursement will be made for repair of damage due to the causes listed in Section 7.16.1., "Reimbursable Repair," to appurtenances (including temporary and permanent crash cushion attenuators and guardrail end treatments).

16.3. **Roadways and Structures.** Until final acceptance, the Contractor is responsible for all work constructed under the Contract. The Owner will not reimburse the Contractor for repair work to new construction, unless the failure or damage is due to one of the causes listed in Section 7.16.1., "Reimbursable Repair."

The Owner will be responsible for the cost for repair of damage to existing roadways and structures not caused by the Contractor's operations.

16.4. **Detours.** The Contractor will be responsible for the cost of maintenance of detours constructed under the Contract, unless the failure or damage is due to one of the causes listed in Section 7.16.1., "Reimbursable Repair." The Engineer may consider failures beyond the Contractor's control when determining reimbursement for repairs to detours constructed. The Owner will be responsible for the cost of maintenance of existing streets and roadways used for detours or handling traffic.

- 16.5. **Relief from Maintenance.** The Engineer may relieve the Contractor from responsibility of maintenance as outlined in this section. This relief does not release the Contractor from responsibility for defective materials or work or constitute final acceptance.
- 16.5.1. **Isolated Work Locations.** For isolated work locations, when all work is completed, including work for Article 5.11., "Final Cleanup," the Engineer may relieve the Contractor from responsibility for maintenance.
- 16.5.2. **Work Except for Vegetative Establishment and Test Periods.** When all work for all or isolated work locations has been completed, including work for Article 5.11., "Final Cleanup," with the exception of vegetative establishment and maintenance periods and test and performance periods, the Engineer may relieve the Contractor from responsibility for maintenance of completed portions of work.
- 16.5.3. **Work Suspension.** When all work is suspended for an extended period of time, the Engineer may relieve the Contractor from responsibility for maintenance of completed portions of work during the period of suspension.
- 16.5.4. **When Directed by the Engineer.** The Engineer may relieve the Contractor from the responsibility for maintenance when directed.
- 16.6. **Basis of Payment.** When reimbursement for repair work is allowed and performed, payment will be made in accordance with pertinent items or Article 4.4., "Changes in the Work."

Item 8L

Prosecution and Progress

1. PROSECUTION OF WORK

Unless otherwise shown in the Contract, begin work within 30 calendar days after the authorization date to begin work as shown on the Notice to Proceed. Prosecute the work continuously to completion within the working days specified. Unless otherwise shown in the Contract documents, work may be prosecuted in concurrent phases if no changes are required in the traffic control plan or if a revised traffic control plan is approved. Notify the Engineer at least 24 hr. before beginning work or before beginning any new operation. Do not start new operations to the detriment of work already begun. Minimize interference to traffic.

2. SUBCONTRACTING

Do not sublet any portion of a construction Contract without the Engineer's written approval. A subcontract does not relieve any responsibility under the Contract and bonds. Ensure that all subcontracted work complies with all governing labor provisions.

The Contractor certifies by signing the Contract that the Contractor will not enter into any subcontract with a subcontractor that is debarred or suspended by the Owner, or any state or federal agency.

For federally funded Contracts, ensure the required federal documents are physically attached to each subcontract agreement including all tiered subcontract agreements.

For all DBE/HUB/SBE subcontracts including all tiered DBE/HUB/SBE subcontracts, submit a copy of the executed subcontract agreement.

Submit a copy of the executed non-DBE subcontracts including all tiered non-DBE subcontracts when requested.

- 2.1. **Construction Contracts.** Perform work with own organization on at least 30% of the total original Contract cost (25% if the Contractor is an SBE on a wholly State or local funded Contract) excluding any items determined to be specialty items. Specialty items are those that require highly specialized knowledge, abilities, or equipment not usually available in the contracting firm expected to bid on the proposed Contract as a whole.

Specialty items will be shown on the plans or as directed by the Engineer. Bid cost of specialty items performed by subcontractors will be deducted from the total original Contract cost before computing the required amount of work to be performed by the Contractor's own organization.

The term "perform work with own organization" includes only:

- workers employed and paid directly by the Contractor or wholly owned subsidiary;
- equipment owned by the Contractor or wholly owned subsidiary;
- rented or leased equipment operated by the Contractor's employees or wholly owned subsidiary's employees;
- materials incorporated into the work if the majority of the value of the work involved in incorporating the material is performed by the Contractor's own organization, including a wholly owned subsidiary's organization; and
- labor provided by staff leasing firms licensed under Chapter 91 of the Texas Labor Code for nonsupervisory personnel if the Contractor or wholly owned subsidiary maintains direct control over the activities of the leased employees and includes them in the weekly payrolls.

When staff leasing firms provide materials or equipment, they are considered subcontractors. In these instances, submit staff leasing firms for approval as a subcontractor.

Copies of cancelled checks and certified statements may be required to verify compliance with the requirements of this section.

- 2.2. **Payments to Subcontractors.** Report payments for DBE/HUB/SBE subcontracts including tiered DBE/HUB/SBE subcontracts in the manner as prescribed by the Owner.
- 2.3. **Payment Records.** Make payment records, including copies of cancelled checks, available for inspection by the Owner. Submit payment records upon request. Retain payment records for a period of 3 yr. following completion of the Contract work or as specified by the Owner.

Failure to submit this information to the Engineer by the 20th day of each month will result in the Owner taking actions, including, but not limited to, withholding estimates and suspending the work. This work will not be measured or paid for directly but will be subsidiary to pertinent items.

3. COMPUTATION OF CONTRACT TIME FOR COMPLETION

Upon request, the Engineer will provide the conceptual time determination schedule to the Contractor for informational purposes only. The schedules assume generic resources, production rates, sequences of construction and average weather conditions based on historic data. The Owner will not adjust the number of working days and milestones, if any, due to differences in opinion regarding any assumptions made in the preparation of the schedule or for errors, omissions, or discrepancies found in the Owner's conceptual time schedule.

The number of working days is established by the Contract. Working day charges will begin 30 calendar days after the date of the written authorization to begin work. Working day charges will continue in accordance with the Contract. The Engineer may consider increasing the number of working days under extraordinary circumstances.

- 3.1. **Working Day Charges.** Working days will be charged in accordance with Section 8.3.1.4., "Standard Workweek," unless otherwise shown in the Contract documents. Working days will be computed and charged in accordance with one of the following:
- 3.1.1. **Five-Day Workweek.** Working days will be charged Monday through Friday, excluding national holidays, regardless of weather conditions or material availability. The Contractor has the option of working on Saturdays. Provide sufficient advance notice when scheduling work on Saturdays. Work on Sundays and national holidays will not be permitted without written permission. If work requiring an Inspector to be present is performed on a Saturday, Sunday, or national holiday, and weather and other conditions permit the performance of work for 7 hr. between 7 A.M. and 6 P.M., a working day will be charged.
- 3.1.2. **Six-Day Workweek.** Working days will be charged Monday through Saturday, excluding national holidays, regardless of weather conditions or material availability. Work on Sundays and national holidays will not be permitted without written permission. If work requiring an Inspector to be present is performed on a Sunday or a national holiday, and weather or other conditions permit the performance of work for 7 hr. between 7 A.M. and 6 P.M., a working day will be charged.
- 3.1.3. **Seven-Day Workweek.** Working days will be charged Monday through Sunday, excluding national holidays, regardless of weather conditions or material availability. Work on national holidays will not be permitted without written permission. If work is performed on any of these holidays requiring an Inspector to be present, and weather or other conditions permit the performance of work for 7 hr. between 7 A.M. and 6 P.M., a working day will be charged.

- 3.1.4. **Standard Workweek.** Working days will be charged Monday through Friday, excluding national or state holidays, if weather or other conditions permit the performance of the principal unit of work underway, as determined by the Engineer, for a continuous period of at least 7 hr. between 7 A.M. and 6 P.M., unless otherwise shown in the Contract. The Contractor has the option of working on Saturdays or state holidays. Provide sufficient advance notice to the Engineer when scheduling work on Saturdays. Work on Sundays and national holidays will not be permitted without written permission. If work requiring an Inspector to be present is performed on a Saturday, Sunday, or holiday, and weather or other conditions permit the performance of work for 7 hr. between 7 A.M. and 6 P.M., a working day will be charged.
- 3.1.5. **Calendar Day.** Working days will be charged Sunday through Saturday, including all holidays, regardless of weather conditions, material availability, or other conditions not under the control of the Contractor.
- 3.1.6. **Other.** Working days will be charged as shown in the Contract documents.
- 3.2. **Restricted Work Hours.** Restrictions on Contractor work hours and the related definition for working day charges are as prescribed in this article unless otherwise shown in the Contract documents.
- 3.3. **Nighttime Work.** Nighttime work is allowed only when shown in the Contract documents or as directed. Nighttime work is defined as work performed from 30 min. after sunset to 30 min. before sunrise.
- 3.3.1. **Five-, Six-, and Seven-Day Workweeks.** Nighttime work that extends past midnight will be assigned to the following day for the purposes of approval for allowing work on Sundays or national holidays.
- 3.3.2. **Standard Workweek.**
- 3.3.2.1. **Nighttime Work Only.** When nighttime work is allowed or required and daytime work is not allowed, working day charges will be made when weather and other conditions permit the performance of the principal unit of work underway, as determined by the Engineer, for a continuous period of at least 7 hr. for the nighttime period, as defined in Section 8.3.3., "Nighttime Work," unless otherwise shown in the Contract documents.
- 3.3.2.2. **Nighttime Work and Daytime Work Requiring Inspector.** When nighttime work is performed or required and daytime work is allowed, working day charges will be made when weather and other conditions permit the performance of the principal unit of work underway, as determined by the Engineer, for a continuous period of at least 7 hr. for the nighttime period, as defined in Section 8.3.3., "Nighttime Work," or for a continuous period of at least 7 hr. for the alternative daytime period unless otherwise shown in the Contract documents. Only one day will be charged for each 24-hr. time period. When the Engineer agrees to restrict work hours to the nighttime period only, working day charges will be in accordance with Section 8.3.3.2.1., "Nighttime Work Only."
- 3.4. **Time Statements.** The Engineer will furnish the Contractor a monthly time statement. Review the monthly time statement for correctness. Report protests in writing, no later than 30 calendar days after receipt of the time statement, providing a detailed explanation for each day protested. Not filing a protest within 30 calendar days will indicate acceptance of the working day charges and future consideration of that statement will not be permitted.

4. TEMPORARY SUSPENSION OF WORK OR WORKING DAY CHARGES

The Engineer may suspend the work, wholly or in part, and will provide notice and reasons for the suspension in writing. Suspend and resume work only as directed in writing.

When part of the work is suspended, the Engineer may suspend working day charges only when conditions not under the control of the Contractor prohibit the performance of critical activities. When all of the work is suspended for reasons not under the control of the Contractor, the Engineer will suspend working day charges.

5. PROJECT SCHEDULES

Prepare, maintain, and submit project schedules. Project schedules are used to convey the Contractor's intended work plan to the Owner. Prepare project schedules with a level of effort sufficient for the work being performed. Project schedules will not be used as a basis to establish the amount of work performed or for the preparation of the progress payments.

5.1. **Project Scheduler.** Designate an individual who will develop and maintain the progress schedule. The Project Scheduler will be prepared to discuss, in detail, the proposed sequence of work and methods of operation, and how that information will be communicated through the Progress Schedule at the Preconstruction Meeting. This individual will also attend the project meetings and make site visits to prepare, develop, and maintain the progress schedules.

5.2. **Construction Details.** Before starting work, prepare and submit a progress schedule based on the sequence of work and traffic control plan shown in the Contract documents. At a minimum, prepare the progress schedule as a Bar Chart or Critical Path Method (CPM), as shown on the plans. Include all planned work activities and sequences and show Contract completion within the number of working days specified. Incorporate major material procurements, known utility relocations, and other activities that may affect the completion of the Contract in the progress schedule. Show a beginning date, ending date, and duration in whole working days for each activity. Do not use activities exceeding 20 working days, except for agreed upon activities. Show an estimated production rate per working day for each work activity.

5.3. **Schedule Format.** Format all project schedules according to the following:

- Begin the project schedule on the date of the start of Contract time or start of activities affecting work on the project;
- Show the sequence and interdependence of activities required for complete performance of the work. If using a CPM schedule, show a predecessor and a successor for each activity; and
- Ensure all work sequences are logical and show a coordinated plan of the work.

CPM schedules must also include:

- Clearly and accurately identify the critical path as the longest continuous path;
- Provide a legend for all abbreviations, run date, data date, project start date, and project completion date in the title block of each schedule submittal; and
- Through the use of calendars, incorporate seasonal weather conditions into the schedule for work (e.g., earthwork, concrete paving, structures, asphalt, drainage, etc.) that may be influenced by temperature or precipitation. Also, incorporate non-work periods such as holidays, weekends, or other non-work days as identified in the Contract.

5.4. **Activity Format.** For each activity on the project schedule provide:

- A concise description of the work represented by the activity;
- An activity duration in whole working days;
- Code activities so that organized plots of the schedule may be produced.

CPM schedules must also include the quantity of work and estimated production rate for major items of work. Provide enough information for review of the work being performed.

5.5. **Schedule Types.**

5.5.1. **Bar Chart.** Seven calendar days before the preconstruction meeting, prepare and submit a hard copy of the schedule using the bar chart method.

- 5.5.1.1. **Progress Schedule Reviews.** Update the project schedule and submit a hard copy when changes to the schedule occur or when requested.
- 5.5.2. **Critical Path Method.** Prepare and submit the schedule using the CPM.
- 5.5.2.1. **Preliminary Schedule.** Seven calendar days before the preconstruction meeting, submit both the plotted and electronic copies of the project schedule showing work to be performed within the first 90 calendar days of the project.
- 5.5.2.2. **Baseline Schedule.** The baseline schedule will be considered the Contractor's plan to successfully construct the project within the time frame and construction sequencing indicated in the Contract. Submit both plotted and electronic copies of the baseline schedule. Submit 2 plots of the schedule: one organized with the activities logically grouped using the activity coding; and the other plot showing only the critical path determined by the longest path, not based on critical float.
- Develop and submit the baseline schedule for review within the first 45 calendar days of the project unless the time for submission is extended.
- 5.5.2.2.1. **Review.** Within 15 calendar days of receipt of the schedule, the Engineer will evaluate, and inform the Contractor if the schedule has been accepted. If the schedule is not accepted, the Engineer will provide comments to the Contractor for incorporation. Provide a revised schedule based on the Engineer's comments, or reasons for not doing so within 10 calendar days. The Engineer's review and acceptance of the project schedule is for conformance to the requirements of the Contract documents only and does not relieve the Contractor of any responsibility for meeting the interim milestone dates (if specified) or the Contract completion date. Review and acceptance does not expressly or by implication warrant, acknowledge, or admit the reasonableness of the logic or durations of the project schedule. If the Contractor fails to define any element of work, activity, or logic and the Engineer's review does not detect this omission or error, the Contractor is responsible for correcting the error or omission.
- Submit an acceptable baseline schedule before the 90th calendar day of the project unless the time for submission is extended.
- 5.5.2.3. **Progress Schedule.** Maintain the project schedule for use by both the Contractor and the Engineer. Submit both the plotted and electronic copy as it will become an as-built record of the daily progress achieved on the project. If continuous progress of an activity is interrupted for any reason except non-work periods (such as holidays, weekend, or interference from temperature or precipitation), then the activity will show the actual finish date as that date of the start of the interruption and the activity will be broken into a subsequent activity (or activities, based on the number of interruptions) similarly numbered with successive alpha character as necessary. The original duration of the subsequent activity will be that of the remaining duration of the original activity. Relationships of the subsequent activity will match those of the original activity so that the integrity of the project schedule logic is maintained. Once established, the original durations and actual dates of all activities must remain unchanged. Revisions to the schedule may be made as necessary.
- The project schedule must be revised when changes in construction phasing and sequencing occur or other changes that cause deviation from the original project schedule occur. Any revisions to the schedule must be listed in the monthly update narrative with the purpose of the revision and description of the impact on the project schedule's critical path and project completion date. Create the schedule revision using the latest update before the start of the revision.
- Monthly updating of the project schedule will include updating of:
- The actual start dates for activities started;
 - The actual finish dates for activities completed;
 - The percentage of work completed and remaining duration for each activity started but not yet completed; and
 - The calendars to show days actual work was performed on the various work activities.

The cut-off day for recording monthly progress will be the last day of each month. Submit the updated project schedule no later than the 20th calendar day of the following month. The Engineer will evaluate the updated schedule within 5 calendar days of receipt and inform the Contractor if it has or has not been accepted. If the schedule is not accepted, the Engineer will provide comments to the Contractor for incorporation. Provide a revised schedule based on the Engineer's comments, or reasons for not doing so within 5 calendar days.

Provide a brief narrative in a bulleted statement format for major items that have impacted the schedule. Notify the Engineer if resource-leveling is being used.

5.5.2.3.1. **Project Schedule Summary Report (PSSR).** When shown on the plans, provide the PSSR instead of the narrative required in Section 8.5.5.2.3., "Progress Schedule." The PSSR includes a listing of major items that have impacted the schedule as well as a summary of progress in days ahead or behind schedule. Include an explanation of the project progress for the period represented on the form provided by the Owner.

5.5.3. **Notice of Potential Time Impact.** Submit a "Notice of Potential Time Impact" when a Contract time extension or adjustment of milestone dates may be justified or when directed.

Failure to provide this notice in the time frames outlined above will compromise the Owner's ability to mitigate the impacts and the Contractor forfeits the right to request a time extension or adjustment of milestone dates unless the circumstances are such that the Contractor could not reasonably have had knowledge of the impact at the time.

5.5.4. **Time Impact Analysis.** When directed, provide a time impact analysis. A time impact analysis is an evaluation of the effects of impacts on the project. A time impact analysis consists of the following steps:

- **Step 1.** Establish the status of the project immediately before the impact.
- **Step 2.** Predict the effect of the impact on the schedule update used in Step 1.
- **Step 3.** Track the effects of the impact on the schedule during its occurrence.
- **Step 4.** Establish the status of the project after the impact's effect has ended and provide details identifying any mitigating actions or circumstances used to keep the project ongoing during the impact period.

Determine the time impact by comparing the status of the work before the impact (Step 1) to the prediction of the effect of the impact (Step 2), if requested, and to actual effects of the impact once it is complete (Step 4). Unless otherwise approved, Steps 1, 3, and 4, must be completed before consideration of a Contract time extension or adjustment of a milestone date will be provided. Time extensions will only be considered when delays that affect milestone dates or the Contract completion date are beyond the Contractor's control. Submit Step 4 no later than 15 calendar days after the impact's effects have ended or when all the information on the effect has been realized.

Submit one electronic backup copy of the complete time impact analysis and a copy of the full project schedule incorporating the time impact analysis. If the project schedule is revised after the submittal of a time impact analysis, but before its approval, indicate in writing the need for any modification to the time impact analysis.

The Engineer will review the time impact analysis upon completion of step 4. If this review detects revisions or changes to the schedule that had not been performed and identified in a narrative, the Engineer may reject the time impact analysis. If the Engineer is in agreement with the time impact analysis, a change order may be issued to grant additional working days, or to adjust interim milestones. Once a change order has been executed, incorporate the time impact analysis into the project schedule. The time impact analysis may also be used to support the settlement of disputes and claims. Compensation related to the time impact analysis may be provided at the completion of the analysis or the completion of the project to determine the true role the impact played on the final completion.

The work performed under this article will not be measured or paid for directly but will be subsidiary to pertinent items.

6. FAILURE TO COMPLETE WORK ON TIME

The time established for the completion of the work is an essential element of the Contract. If the Contractor fails to complete the work within the number of working days specified, working days will continue to be charged. Failure to complete the Contract, a separate work order, or callout work within the number of working days specified, including any approved additional working days, will result in liquidated damages for each working day charged over the number of working days specified in the Contract. The dollar amount specified in the Contract will be deducted from any money due or to become due the Contractor for each working day the Contract remains incomplete. This amount will be assessed not as a penalty but as liquidated damages.

7. DEFAULT OF THE CONTRACT

7.1. **Declaration of Default.** The Engineer may declare the Contractor to be in default of the Contract if the Contractor:

- fails to begin the work within the number of days specified,
- fails to prosecute the work to assure completion within the number of days specified,
- is uncooperative, disruptive or threatening,
- fails to perform the work in accordance with the Contract requirements,
- neglects or refuses to remove and replace rejected materials or unacceptable work,
- discontinues the prosecution of the work without the Engineer's approval,
- makes an unauthorized assignment,
- fails to resume work that has been discontinued within a reasonable number of days after notice to do so,
- fails to conduct the work in an acceptable manner, or
- commits fraud or other unfixable conduct as determined by the Owner.

If any of these conditions occur, the Engineer will give notice in writing to the Contractor and the Surety of the intent to declare the Contractor in default. If the Contractor does not proceed as directed within 10 days after the notice, the Owner will provide written notice to the Contractor and the Surety to declare the Contractor to be in default of the Contract. The Owner will also provide written notice of default to the Surety. If the Contractor provides the Owner written notice of voluntary default of the Contract, the Owner may waive the 10 day notice of intent to declare the Contractor in default and immediately provide written notice of default to the Contractor and the Surety. Working day charges will continue until completion of the Contract. The Owner may suspend work in accordance with Section 8.4., "Temporary Suspension of Work or Working Day Charges," to investigate apparent fraud or other unfixable conduct before defaulting the Contractor. The Contractor may be subject to sanctions under the state and/or federal laws and regulations.

The Owner will determine the method used for the completion of the remaining work as follows:

- **Contracts without Performance Bonds.** The Owner will determine the most expeditious and efficient way to complete the work, and recover damages from the Contractor.
- **Contracts with Performance Bonds.** The Owner will, without violating the Contract, demand that the Contractor's Surety complete the remaining work in accordance with the terms of the original Contract. A completing Contractor will be considered a subcontractor of the Surety. The Owner reserves the right to approve or reject proposed subcontractors. Work may resume after the Owner receives and approves Certificates of Insurance as required in Section 3.4.3., "Insurance." Certificates of Insurance may be issued in the name of the completing Contractor. The Surety is responsible for making every effort to expedite the resumption of work and completion of the Contract. The Owner may complete the work using any or all materials at the work locations that it deems suitable and acceptable. Any costs incurred by the Owner for the completion of the work under the Contract will be the responsibility of the Surety.

From the time of notification of the default until work resumes (either by the Surety or the Owner), the Owner will maintain traffic control devices and will do any other work it deems necessary, unless otherwise agreed upon by the Owner and the Surety. All costs associated with this work will be deducted from money due to the Surety.

The Owner will hold all money earned but not disbursed by the date of default. Upon resumption of the work after the default, all payments will be made to the Surety. All costs and charges incurred by the Owner as a result of the default, including the cost of completing the work under the Contract, costs of maintaining traffic control devices, costs for other work deemed necessary, and any applicable liquidated damages or disincentives will be deducted from money due the Contractor for completed work. If these costs exceed the sum that would have been payable under the Contract, the Surety will be liable and pay the Owner the balance of these costs in excess of the Contract price. In case the costs incurred by the Owner are less than the amount that would have been payable under the Contract if the work had been completed by the Contractor, the Owner will be entitled to retain the difference.

Comply with Article 8.2., "Subcontracting," and abide by the DBE/HUB/SBE commitments previously approved by the Owner .

No markups as defined in Article 9.7., "Payment for Extra Work and Force Account Method," will be allowed for the Surety.

- 7.2. **Wrongful Default.** Submit a written request to the Owner within 14 calendar days of receipt of the notice of default for consideration of wrongful default.

The Owner will determine if the Contractor has been wrongfully defaulted, and will proceed with the following:

- If the Owner determines the default is proper, the default will remain. If the Contractor is in disagreement, the Contractor may file a claim in accordance with Article 4.7., "Dispute or Claims Procedure."
- If the Owner determines it was a wrongful default, the Owner will terminate the Contract for convenience, in accordance with Article 8.8., "Termination of the Contract."

8. TERMINATION OF THE CONTRACT

The Owner may terminate the Contract in whole or in part whenever:

- the Contractor is prevented from proceeding with the work as a direct result of an executive order of the President of the United States or the Governor of the State;
- the Contractor is prevented from proceeding with the work due to a national emergency, or when the work to be performed under the Contract is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor as the result of an order or a proclamation of the President of the United States;
- the Contractor is prevented from proceeding with the work due to an order of any federal authority;
- the Contractor is prevented from proceeding with the work by reason of a preliminary, special, or permanent restraining court order where the issuance of the restraining order is primarily caused by acts or omissions of persons or agencies other than the Contractor; or
- the Owner determines that termination of the Contract is in the best interest of the Owner or the public. This includes, but is not limited to, the discovery of significant hazardous material problems, right of way acquisition problems, or utility conflicts that would cause substantial delays or expense to the Contract.

- 8.1. **Procedures and Submittals.** The Engineer will provide written notice to the Contractor of termination specifying the extent of the termination and the effective date. Upon notice, immediately proceed in accordance with the following:

- stop work as specified in the notice;

- place no further subcontracts or orders for materials, services, or facilities, except as necessary to complete a critical portion of the Contract, as approved;
- terminate all subcontracts to the extent they relate to the work terminated;
- complete performance of the work not terminated;
- settle all outstanding liabilities and termination settlement proposals resulting from the termination for public convenience of the Contract;
- create an inventory report, including all acceptable materials and products obtained for the Contract that have not been incorporated in the work that was terminated (include in the inventory report a description, quantity, location, source, cost, and payment status for each of the acceptable materials and products); and
- take any action necessary, or that the Engineer may direct, for the protection and preservation of the materials and products related to the Contract that are in the possession of the Contractor and in which the Owner has or may acquire an interest.

8.2.

Settlement Provisions. Within 60 calendar days of the date of the notice of termination, submit a final termination settlement proposal, unless otherwise approved. The Engineer will prepare a change order that reduces the affected quantities of work and adds acceptable costs for termination. No claim for loss of anticipated profits will be considered. The Owner will pay reasonable and verifiable termination costs including:

- all work completed at the unit bid price and partial payment for incomplete work;
- the percentage of Item 500, "Mobilization," equivalent to the percentage of work complete or actual cost that can be supported by cost records, whichever is greater;
- expenses necessary for the preparation of termination settlement proposals and support data;
- the termination and settlement of subcontracts;
- storage, transportation, restocking, and other costs incurred necessary for the preservation, protection, or disposition of the termination inventory; and
- other expenses acceptable to the Owner.

Item 9L

Measurement and Payment

1. MEASUREMENT OF QUANTITIES

The Engineer will measure all completed work using United States standard measures, unless otherwise specified.

1.1. **Linear Measurement.** Unless otherwise specified, all longitudinal measurements for surface areas will be made along the actual surface of the roadway and not horizontally. No deduction will be made for structures in the roadway with an area of 9 sq. ft. or less. For all transverse measurements for areas of base courses, surface courses, and pavements, the dimensions to be used in calculating the pay areas will be the neat dimensions and will not exceed those shown on the plans, unless otherwise directed.

1.2. **Volume Measurement.** Transport materials measured for payment by volume in approved hauling vehicles. Display a unique identification mark on each vehicle. Furnish information necessary to calculate the volume capacity of each vehicle. The Engineer may require verification of volume through weight measurement. Use body shapes that allow the capacity to be verified. Load and level the load to the equipment's approved capacity. Loads not hauled in approved vehicles may be rejected.

1.3. **Weight Measurement.** Transport materials measured for payment by weight or truck measure in approved hauling vehicles. Furnish certified measurements, tare weights, and legal gross weight calculations for all haul units. Affix a permanent, legible number on the truck and on the trailer to correspond with the certified information. Furnish certified weights of loaded haul units transporting material if requested.

The material will be measured at the point of delivery. The cost of supplying these volume and weight capacities is subsidiary to the pertinent item. For measurement by the ton, in the field, provide measurements in accordance with Item 520, "Weighing and Measuring Equipment," except for items where ton measurements are measured by standard tables.

The Engineer may reject loads and suspend hauling operations for overloading.

1.3.1. **Hauling on Routes Accessible to the Traveling Public.** For payment purposes on haul routes accessible to the traveling public, the net weight of the load will be calculated as follows:

- If the gross vehicle weight is less than the maximum allowed by state law, including applicable yearly weight tolerance permit, the net weight of the load will be determined by deducting the tare weight of the vehicle from the gross weight.
- If the gross vehicle weight is more than the maximum allowed by state law, including applicable yearly weight tolerance permit, the net weight of the load will be determined by deducting the tare weight of the vehicle from the maximum gross weight allowed.

1.3.2. **Hauling on Routes Not Accessible to the Traveling Public.** For payment purposes on haul routes that are not accessible to the traveling public where advance permission is obtained in writing from the Engineer:

- If the gross vehicle weight is less than the maximum allowed, including applicable yearly weight tolerance permit, the net weight of the load will be determined by deducting the tare weight of the vehicle from the gross weight.
- If the gross vehicle weight is more than the maximum allowed, the net weight of the load will be determined by deducting the tare weight of the vehicle from the maximum gross weight allowed.

2. PLANS QUANTITY MEASUREMENT

Plans quantities may or may not represent the exact quantity of work performed or material moved, handled, or placed during the execution of the Contract. The estimated bid quantities are designated as final payment quantities, unless revised by the governing specifications or this article.

If the quantity measured as outlined under "Measurement" varies by more than 5% (or as stipulated under "Measurement" for specific Items) from the total estimated quantity for an individual item originally shown in the Contract, an adjustment may be made to the quantity of authorized work done for payment purposes.

When quantities are revised by a change in design approved by the Owner, by change order, or to correct an error on the plans, the plans quantity will be increased or decreased by the amount involved in the change, and the 5% variance will apply to the new plans quantity.

If the total Contract quantity multiplied by the unit bid price for an individual item is less than \$250 and the item is not originally a plans quantity item, then the item may be paid as a plans quantity item if the Engineer and Contractor agree in writing to fix the final quantity as a plans quantity.

For Contracts with callout work and work orders, plans quantity measurement requirements are not applicable.

3. ADJUSTMENT OF QUANTITIES

The party to the Contract requesting the adjustment will provide field measurements and calculations showing the revised quantity. When approved, this revised quantity will constitute the final quantity for which payment will be made. Payment for revised quantity will be made at the unit price bid for that item, except as provided for in Article 4.4., "Changes in the Work."

4. SCOPE OF PAYMENT

Payment of the Contract unit price is full compensation for all materials, equipment, labor, tools, and supplies necessary to complete the item of work under the Contract. Until final acceptance in accordance with Article 5.12., "Final Acceptance," assume liability for completing the work according to the Contract documents and any loss or damage arising from the performance of the work or from the action of the elements, infringement of patent, trademark, or copyright, except as provided elsewhere in the Contract.

The Owner will only pay for material incorporated into the work in accordance with the Contract. Payment of progress estimates will in no way affect the Contractor's obligation under the Contract to repair or replace any defective parts in the construction or to replace any defective materials used in the construction and to be responsible for all damages due to defects if the defects and damages are discovered on or before final inspection and acceptance of the work.

5. PROGRESS PAYMENTS

The Engineer will prepare a monthly estimate of the amount of work performed, including materials in place. Incomplete items of work may be paid at an agreed upon percentage as approved. Payment of the monthly estimate is determined at the Contract item prices less any withholdings or deductions in accordance with the Contract. Progress payments may be withheld for failure to comply with the Contract.

6. PAYMENT FOR MATERIAL ON HAND (MOH)

If payment for MOH is desired, request compensation for the invoice cost of acceptable nonperishable materials that have not been used in the work before the request, and that have been delivered to the work location or are in acceptable storage places. Nonperishable materials are those that do not have a shelf life

or whose characteristics do not materially change when exposed to the elements. Include only materials that have been sampled, tested, approved, or certified, and are ready for incorporation into the work. Only materials which are completely constructed or fabricated on the Contractor's order for a specific Contract and are so marked and on which an approved test report has been issued are eligible. Payment for MOH may include the following types of items: concrete traffic barrier, precast concrete box culverts, concrete piling, reinforced concrete pipe, and illumination poles. Any repairs required after fabricated materials have been approved for storage will require approval of the Engineer before being made and will be made at the Contractor's expense. Include only those materials that have an invoice cost of at least \$1,000 in the request for MOH payment.

If the request is acceptable, the Engineer will include payment for MOH in a progress payment. Payment for MOH does not constitute acceptance of the materials. Payment will not exceed the actual cost of the material as established by invoice, or the total cost for the associated item less reasonable placement costs, whichever is less. Materials for which the Contractor does not have a paid invoice within 60 days will not be eligible for payment and will be removed from the estimate. Payment may be limited to a portion of the invoice cost or unit price if shown elsewhere in the Contract. Payment for precast products fabricated or constructed by the Contractor for which invoices or freight bills are not available may be made based on statements of actual cost.

Submit the request on forms provided by the Owner. These forms may be electronically reproduced, provided they are in the same format and contain all the required information and certifications. Continue to submit monthly MOH forms until the total value of MOH is \$0.

By submitting a request for MOH payment, the Contractor expressly authorizes the Owner to audit MOH records, and to perform process reviews of the record-keeping system. If the Owner determines noncompliance with any of the requirements of this provision, the Owner may exclude payment for any or all MOH for the duration of the Contract.

Maintain all records relating to MOH payment until final acceptance. Provide these records to the Engineer upon request.

7. PAYMENT FOR EXTRA WORK AND FORCE ACCOUNT METHOD

Payment for extra work directed, performed, and accepted will be made in accordance with Article 4.4., "Changes in the Work." Payment for extra work may be established by agreed unit prices or by Force Account Method.

Agreed unit prices are unit prices that include markups and are comparable to recent bid prices for the same character of work. These unit prices may be established without additional breakdown justification.

When using Force Account Method, determine an estimated cost for the proposed work and establish labor and equipment rates and material costs. Maintain daily records of extra work and provide copies of these records daily, signed by the Contractor's representative, for verification by the Engineer. Request payment for the extra work no later than the 10th day of the month following the month in which the work was performed. Include copies of all applicable invoices. If the extra work to be performed has an estimated cost of less than \$10,000, submit for approval and payment an invoice of actual cost for materials, equipment, labor, tools, and incidentals necessary to complete the extra work.

7.1. **Markups.** Payment for extra work may include markups as compensation for the use of small tools, overhead expense, and profit.

7.1.1. **Labor.** Compensation will be made for payroll rates for each hour that the labor, foremen, or other approved workers are actually engaged in the work. In no case will the rate of wages be less than the minimum shown in the Contract for a particular category. An additional 25% of this sum will be paid as compensation for overhead, superintendence, profit, and small tools.

- 7.1.2. **Insurance and Taxes.** An additional 55% of the labor cost, excluding the 25% compensation provided in Section 9.7.1.1., "Labor," will be paid as compensation for labor insurance and labor taxes including the cost of premiums on non-project-specific liability (excluding vehicular) insurance, workers compensation insurance, Social Security, unemployment insurance taxes, and fringe benefits.
- 7.1.3. **Materials.** Compensation will be made for materials associated with the work based on actual delivered invoice costs, less any discount. An additional 25% of this sum will be paid as compensation for overhead and profit.
- 7.1.4. **Equipment.** Payment will be made for the established equipment hourly rates for each hour that the equipment is involved in the work. An additional 15% of this sum will be paid as compensation for overhead and profit not included in the rates.
- Transportation cost for mobilizing equipment will be included if the equipment is mobilized from an off-site location.
- 7.1.4.1. **Contractor-Owned Equipment.** For Contractor-owned machinery, trucks, power tools, or other equipment, use the FHWA rental rates found in the *Rental Rate Blue Book* multiplied by the regional adjustment factor and the rate adjustment factor to establish hourly rates. Use the rates in effect for each section of the *Rental Rate Blue Book* at the time of use.
- If a rate has not been established for a particular piece of equipment in the *Rental Rate Blue Book*, the Engineer will allow a reasonable hourly rate. This price will include operating costs.
- Payment for equipment will be made for the actual hours used in the work. The Owner reserves the right to withhold payment for low production or lack of progress. Payment will not be made for time lost for equipment breakdowns, time spent to repair equipment, or time after equipment is no longer needed.
- If equipment is used intermittently while dedicated solely to the work, payment will be made for the duration the equipment is assigned to the work but no more than 8 hours will be paid during a 24-hour day, nor more than 40 hours per week, nor more than 176 hours per month, except when time is computed using a six-day or seven-day workweek. When using a six-day workweek, no more than 8 hours will be paid during a 24-hour day, nor more than 48 hours per week, nor more than 211 hours per month. When using a seven-day workweek, no more than 8 hours will be paid during a 24-hour day, nor more than 56 hours per week, nor more than 246 hours per month.
- 7.1.4.2. **Equipment Not Owned by the Contractor.** For equipment rented from a third party not owned by the Contractor, payment will be made at the invoice daily rental rate for each day the equipment is needed for the work. The Owner reserves the right to limit the daily rate to comparable *Rental Rate Blue Book* rates. When the invoice specifies that the rental rate does not include fuel, lubricants, repairs, and servicing, the *Rental Rate Blue Book* hourly operating cost for each hour the equipment is operated will be added.
- When the invoice specifies equipment operators as a component of the equipment rental, payment will be made at the invoice rate for each operator for each day the equipment is needed for the work.
- 7.1.4.3. **Standby Equipment Costs.** Payment for standby equipment will be made in accordance with Section 9.7.1.4., "Equipment," except that:
- 7.1.4.3.1. **Contractor-Owned Equipment.** For Contractor-owned machinery, trucks, power tools, or other equipment:
- Standby will be paid at 50% (to remove operating cost) of the FHWA rental rates found in the *Rental Rate Blue Book* multiplied by the regional adjustment factor and the rate adjustment factor.
 - Standby costs will not be allowed during periods when the equipment would have otherwise been idle.
- 7.1.4.3.2. **Equipment Not Owned by the Contractor.** For equipment rented from a third party not owned by the Contractor:

- Standby will be paid at the invoice daily rental rate, excluding operating cost, which includes fuel, lubricants, repairs, and servicing. The Owner reserves the right to limit the daily standby rate to comparable FHWA rental rates found in the *Rental Rate Blue Book* multiplied by the regional adjustment factor and the rate adjustment factor.
 - Standby will be paid for equipment operators when included on the invoice and equipment operators are actually on standby.
 - Standby costs will not be allowed during periods when the equipment would have otherwise been idle.
- 7.1.5. **Subcontracting.** An additional 5% of the actual invoice cost will be paid to the Contractor as compensation for administrative cost, superintendence, and profit.
- 7.1.6. **Law Enforcement.** An additional 5% of the actual invoice cost will be paid as compensation for administrative costs, superintendence, and profit.
- 7.1.7. **Railroad Flaggers.** An additional 5% of the actual invoice cost will be paid as compensation for administrative cost, superintendence, and profit.
- 7.1.8. **Bond Cost.** An additional 1% of the total compensation provided in Article 9.7., "Payment for Extra Work and Force Account Method," will be paid for the increase in bond.

8. RETAINAGE

The Owner will withhold 5% retainage on progress payments to the Contractor. The Contractor may withhold retainage on subcontractors in accordance with state and federal regulations.

9. PAYMENT PROVISIONS FOR SUBCONTRACTORS

For the purposes of this article only, the term subcontractor includes suppliers and the term work includes materials provided by suppliers at a location approved by the Engineer.

These requirements apply to all tiers of subcontractors. Incorporate the provisions of this article into all subcontract or material purchase agreements.

Pay subcontractors for work performed within 10 days after receiving payment for the work performed by the subcontractor. Also, pay any retainage on a subcontractor's work within 10 days after satisfactory completion of all of the subcontractor's work. Completed subcontractor work includes vegetative establishment, test, maintenance, performance, and other similar periods that are the responsibility of the subcontractor.

For the purpose of this section, satisfactory completion is accomplished when:

- the subcontractor has fulfilled the Contract requirements of both the Owner and the subcontract for the subcontracted work, including the submittal of all information required by the specifications and the Owner; and
- the work done by the subcontractor has been inspected, approved, and paid by the Owner.

Provide a certification of prompt payment in accordance with the Owner's prompt payment procedure to certify that all subcontractors and suppliers were paid from the previous months payments and retainage was released for those whose work is complete. Submit the completed form each month and the month following the month when final acceptance occurred at the end of the project.

The inspection and approval of a subcontractor's work does not eliminate the Contractor's responsibilities for all the work as defined in Article 7.17., "Contractor's Responsibility for Work."

The Owner may pursue actions against the Contractor, including withholding of estimates and suspending the work, for noncompliance with the subcontract requirements of this section upon receipt of written notice with sufficient details showing the subcontractor has complied with contractual obligations.

10. FINAL PAYMENT

When the Contract has been completed, all work has been approved, final acceptance has been made in accordance with Article 5.12., "Final Acceptance," and Contractor submittals have been received, the Engineer will prepare a final estimate for payment showing the total quantity of work completed and the money owed the Contractor, including retainage. The final payment will reflect the entire sum due, less any sums previously paid.



The wage rates listed are those predetermined by the Secretary of Labor and State Statute to be the minimum wages paid. To determine the applicable wage rate zone, a list entitled "TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES" is provided in the contract. Any wage rate that is not listed must be submitted to the Engineer for approval. IMPORTANT NOTICE FOR STATE PROJECTS; only the controlling wage rate zone applies to the contract. Effective 4-6-2016.

| CLASS. # | CLASSIFICATION DESCRIPTION | ZONE TX07 1/8/16 | ZONE TX08 1/8/16 | ZONE TX11 1/8/16 | ZONE TX12 1/8/16 | ZONE TX14 1/8/16 | ZONE TX16 1/8/16 | ZONE TX18 1/8/16 | ZONE TX34 1/8/16 | ZONE TX35 1/8/16 | ZONE TX37 1/8/16 | ZONE TX38 1/8/16 | ZONE TX40 1/8/16 | ZONE TX41 1/8/16 | ZONE TX54 1/8/16 | ZONE TX56 1/8/16 | ZONE TX63 1/8/16 |
|----------|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1428 | Agricultural Tractor Operator | | | | | | \$12.69 | | | | | \$12.35 | | | \$11.75 | | |
| 1300 | Asphalt Distributor Operator | \$14.87 | \$13.48 | \$13.88 | \$15.72 | \$15.58 | \$15.55 | \$15.72 | \$13.28 | \$15.32 | \$15.62 | \$14.36 | \$14.25 | \$14.03 | \$13.75 | \$14.06 | \$14.40 |
| 1303 | Asphalt Paving Machine Operator | \$13.40 | \$12.25 | \$12.35 | \$13.87 | \$14.05 | \$14.36 | \$14.20 | \$13.26 | \$13.99 | \$14.68 | \$12.92 | \$13.44 | \$12.53 | \$14.00 | \$14.32 | \$12.99 |
| 1106 | Asphalt Raker | \$12.28 | \$10.61 | \$12.02 | \$14.21 | \$11.65 | \$12.12 | \$11.64 | \$11.44 | \$12.69 | \$12.05 | \$11.34 | \$11.67 | \$11.40 | \$12.59 | \$12.36 | \$11.78 |
| 1112 | Batching Plant Operator, Asphalt | | | | | | | | | | | | | | | | |
| 1115 | Batching Plant Operator, Concrete | | | | | | | | | | | | | | | | |
| 1214 | Blaster | | | | | | | | | | | | | | | | |
| 1615 | Boom Truck Operator | | | | | | \$18.36 | | | | | | | | | | |
| 1444 | Boring Machine Operator | | | | | | | | | | | | | | | | |
| 1305 | Broom or Sweeper Operator | \$11.21 | \$10.33 | \$10.08 | \$11.99 | | \$11.04 | \$11.62 | | \$11.74 | \$11.41 | \$10.30 | | \$10.23 | \$10.60 | \$12.68 | \$11.05 |
| 1144 | Communications Cable Installer | | | | | | | | | | | | | | | | |
| 1124 | Concrete Finisher, Paving and Structures | \$13.55 | \$12.46 | \$13.16 | \$12.85 | \$12.64 | \$12.56 | \$12.77 | \$12.44 | \$14.12 | \$13.04 | \$13.38 | \$12.64 | \$12.80 | \$12.79 | \$12.98 | \$13.32 |
| 1318 | Concrete Pavement Finishing Machine Operator | | | | \$16.05 | | \$15.48 | | | \$16.05 | | \$19.31 | | | | \$13.07 | |
| 1315 | Concrete Paving, Curing, Float, Texturing Machine Operator | | | | | | | | | | | \$16.34 | | | | \$11.71 | |
| 1333 | Concrete Saw Operator | | | | \$14.67 | | | | | \$14.48 | \$17.33 | | | | | \$13.99 | |
| 1399 | Concrete/Gunite Pump Operator | | | | | | | | | | | | | | | | |
| 1344 | Crane Operator, Hydraulic 80 tons or less | | | | \$18.22 | | \$18.36 | | | \$18.12 | \$18.04 | \$20.21 | | | \$18.63 | \$13.86 | |
| 1345 | Crane Operator, Hydraulic Over 80 Tons | | | | | | | | | | | | | | | | |
| 1342 | Crane Operator, Lattice Boom 80 Tons or Less | \$16.82 | \$14.39 | \$13.85 | \$17.27 | | \$15.87 | | | \$17.27 | | \$14.67 | | | \$16.42 | \$14.97 | \$13.87 |
| 1343 | Crane Operator, Lattice Boom Over 80 Tons | | | | \$20.52 | | \$19.38 | | | \$20.52 | | \$17.49 | | | \$25.13 | \$15.80 | |
| 1306 | Crawler Tractor Operator | \$13.96 | \$16.63 | \$13.62 | \$14.26 | | \$15.67 | | | \$14.07 | \$13.15 | \$13.38 | | | \$14.60 | \$13.68 | \$13.50 |
| 1351 | Crusher or Screen Plant Operator | | | | | | | | | | | | | | | | |
| 1446 | Directional Drilling Locator | | | | | | \$11.67 | | | | | | | | | | |
| 1445 | Directional Drilling Operator | | | | \$20.32 | | \$17.24 | | | | | | | | | | |
| 1139 | Electrician | \$20.96 | | \$19.87 | \$19.80 | | \$26.35 | | \$20.27 | \$19.80 | | \$20.92 | | | | \$27.11 | \$19.87 |
| 1347 | Excavator Operator, 50,000 pounds or less | \$13.46 | \$12.56 | \$13.67 | \$17.19 | | \$12.88 | \$14.38 | \$13.49 | \$17.19 | | \$13.88 | | | \$14.09 | \$12.71 | \$14.42 |
| 1348 | Excavator Operator, Over 50,000 pounds | | \$15.23 | \$13.52 | \$17.04 | | \$17.71 | | | \$16.99 | \$18.80 | \$16.22 | | | | \$14.53 | \$13.52 |
| 1150 | Flagger | \$9.30 | \$9.10 | \$8.50 | \$10.28 | \$8.81 | \$9.45 | \$8.70 | | \$10.06 | \$9.71 | \$9.03 | \$8.81 | \$9.08 | \$9.90 | \$10.33 | \$8.10 |
| 1151 | Form Builder/Setter, Structures | \$13.52 | \$12.30 | \$13.38 | \$12.91 | \$12.71 | \$12.87 | \$12.38 | \$12.26 | \$13.84 | \$12.98 | \$13.07 | \$13.61 | \$12.82 | \$14.73 | \$12.23 | \$12.25 |
| 1160 | Form Setter, Paving & Curb | \$12.36 | \$12.16 | \$13.93 | \$11.83 | \$10.71 | \$12.94 | | | \$13.16 | \$12.54 | \$11.33 | \$10.69 | | \$13.33 | \$12.34 | \$13.93 |
| 1360 | Foundation Drill Operator, Crawler Mounted | | | | \$17.99 | | | | | \$17.99 | | | | | | \$17.43 | |
| 1363 | Foundation Drill Operator, Truck Mounted | | \$16.86 | \$22.05 | \$21.51 | | \$16.93 | | | \$21.07 | \$20.20 | \$20.76 | | \$17.54 | \$21.39 | \$15.89 | \$22.05 |
| 1369 | Front End Loader Operator, 3 CY or Less | \$12.28 | \$13.49 | \$13.40 | \$13.85 | | \$13.04 | \$13.15 | \$13.29 | \$13.69 | \$12.64 | \$12.89 | | | \$13.51 | \$13.32 | \$12.17 |
| 1372 | Front End Loader Operator, Over 3 CY | \$12.77 | \$13.69 | \$12.33 | \$14.96 | | \$13.21 | \$12.86 | \$13.57 | \$14.72 | \$13.75 | \$12.32 | | | \$13.19 | \$13.17 | \$13.02 |
| 1329 | Joint Sealer | | | | | | | | | | | | | | | | |
| 1172 | Laborer, Common | \$10.30 | \$9.86 | \$10.08 | \$10.51 | \$10.71 | \$10.50 | \$10.24 | \$10.58 | \$10.72 | \$10.45 | \$10.30 | \$10.25 | \$10.03 | \$10.54 | \$11.02 | \$10.15 |
| 1175 | Laborer, Utility | \$11.80 | \$11.53 | \$12.70 | \$12.17 | \$11.81 | \$12.27 | \$12.11 | \$11.33 | \$12.32 | \$11.80 | \$11.53 | \$11.23 | \$11.50 | \$11.95 | \$11.73 | \$12.37 |
| 1346 | Loader/Backhoe Operator | \$14.18 | \$12.77 | \$12.97 | \$15.68 | | \$14.12 | | | \$15.18 | \$13.58 | \$12.87 | | \$13.21 | \$14.13 | \$14.29 | \$12.90 |

| CLASS. # | CLASSIFICATION DESCRIPTION | ZONE TX07 1/8/16 | ZONE TX08 1/8/16 | ZONE TX11 1/8/16 | ZONE TX12 1/8/16 | ZONE TX14 1/8/16 | ZONE TX16 1/8/16 | ZONE TX18 1/8/16 | ZONE TX34 1/8/16 | ZONE TX35 1/8/16 | ZONE TX37 1/8/16 | ZONE TX38 1/8/16 | ZONE TX40 1/8/16 | ZONE TX41 1/8/16 | ZONE TX54 1/8/16 | ZONE TX56 1/8/16 | ZONE TX63 1/8/16 |
|----------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1187 | Mechanic | \$20.14 | \$15.47 | \$17.47 | \$17.74 | \$17.00 | \$17.10 | | | \$17.68 | \$18.94 | \$18.58 | \$17.00 | \$16.61 | \$18.46 | \$16.96 | \$17.47 |
| 1380 | Milling Machine Operator | \$15.54 | \$14.64 | \$12.22 | \$14.29 | | \$14.18 | | | \$14.32 | \$14.35 | \$12.86 | | | \$14.75 | \$13.53 | \$12.80 |
| 1390 | Motor Grader Operator, Fine Grade | \$17.49 | \$16.52 | \$16.88 | \$17.12 | \$18.37 | \$18.51 | \$16.69 | \$16.13 | \$17.19 | \$18.35 | \$17.07 | \$17.74 | \$17.47 | \$17.08 | \$15.69 | \$20.01 |
| 1393 | Motor Grader Operator, Rough | \$16.15 | \$14.62 | \$15.83 | \$16.20 | \$17.07 | \$14.63 | \$18.50 | | \$16.02 | \$16.44 | \$15.12 | \$16.85 | \$14.47 | \$17.39 | \$14.23 | \$15.53 |
| 1413 | Off Road Hauler | | | \$10.08 | \$12.26 | | \$11.88 | | | \$12.25 | | \$12.23 | | | \$13.00 | \$14.60 | |
| 1196 | Painter, Structures | | | | | \$21.29 | \$18.34 | | | | | | \$21.29 | | | \$18.62 | |
| 1396 | Pavement Marking Machine Operator | \$16.42 | | \$13.10 | \$13.55 | | \$19.17 | \$12.01 | | \$13.63 | \$14.60 | \$13.17 | | \$16.65 | \$10.54 | \$11.18 | \$13.10 |
| 1443 | Percussion or Rotary Drill Operator | | | | | | | | | | | | | | | | |
| 1202 | Piledriver | | | | | | | | | | | | | | | \$14.95 | |
| 1205 | Pipelayer | | \$11.87 | \$14.64 | \$13.17 | \$11.17 | \$12.79 | | \$11.37 | \$13.24 | \$12.66 | \$13.24 | \$11.17 | \$11.67 | | \$12.12 | \$14.64 |
| 1384 | Reclaimer/Pulverizer Operator | \$12.85 | | | \$11.90 | | \$12.88 | | | \$11.01 | | \$10.46 | | | | | |
| 1500 | Reinforcing Steel Worker | \$13.50 | \$14.07 | \$17.53 | \$16.17 | | \$14.00 | | | \$16.18 | \$12.74 | \$15.83 | | \$17.10 | | \$15.15 | \$17.72 |
| 1402 | Roller Operator, Asphalt | \$10.95 | | \$11.96 | \$13.29 | | \$12.78 | \$11.61 | | \$13.08 | \$12.36 | \$11.68 | | | \$11.71 | \$11.95 | \$11.50 |
| 1405 | Roller Operator, Other | \$10.36 | | \$10.44 | \$11.82 | | \$10.50 | \$11.64 | | \$11.51 | \$10.59 | \$10.30 | | \$12.04 | \$12.85 | \$11.57 | \$10.66 |
| 1411 | Scraper Operator | \$10.61 | \$11.07 | \$10.85 | \$12.88 | | \$12.27 | | \$11.12 | \$12.96 | \$11.88 | \$12.43 | | \$11.22 | \$13.95 | \$13.47 | \$10.89 |
| 1417 | Self-Propelled Hammer Operator | | | | | | | | | | | | | | | | |
| 1194 | Servicer | \$13.98 | \$12.34 | \$14.11 | \$14.74 | | \$14.51 | \$15.56 | \$13.44 | \$14.58 | \$14.31 | \$13.83 | | \$12.43 | \$13.72 | \$13.97 | \$14.11 |
| 1513 | Sign Erector | | | | | | | | | | | | | | | | |
| 1708 | Slurry Seal or Micro-Surfacing Machine Operator | | | | | | | | | | | | | | | | |
| 1341 | Small Slipform Machine Operator | | | | | | | | | \$15.96 | | | | | | | |
| 1515 | Spreader Box Operator | \$12.60 | | \$13.12 | \$14.71 | | \$14.04 | | | \$14.73 | \$13.84 | \$13.68 | | \$13.45 | \$11.83 | \$13.58 | \$14.05 |
| 1705 | Structural Steel Welder | | | | | | | | | | | | | | | \$12.85 | |
| 1509 | Structural Steel Worker | | | | | | \$19.29 | | | | | | | | | \$14.39 | |
| 1339 | Subgrade Trimmer | | | | | | | | | | | | | | | | |
| 1143 | Telecommunication Technician | | | | | | | | | | | | | | | | |
| 1145 | Traffic Signal/Light Pole Worker | | | | | | \$16.00 | | | | | | | | | | |
| 1440 | Trenching Machine Operator, Heavy | | | | | | \$18.48 | | | | | | | | | | |
| 1437 | Trenching Machine Operator, Light | | | | | | | | | | | | | | | | |
| 1609 | Truck Driver Lowboy-Float | \$14.46 | \$13.63 | \$13.41 | \$15.00 | \$15.93 | \$15.66 | | | \$16.24 | \$16.39 | \$14.30 | \$16.62 | \$15.63 | \$14.28 | \$16.03 | \$13.41 |
| 1612 | Truck Driver Transit-Mix | | | | \$14.14 | | | | | \$14.14 | | | | | | | |
| 1600 | Truck Driver, Single Axle | \$12.74 | \$10.82 | \$10.75 | \$13.04 | \$11.61 | \$11.79 | \$13.53 | \$13.16 | \$12.31 | \$13.40 | \$10.30 | \$11.61 | | \$11.97 | \$11.46 | \$10.75 |
| 1606 | Truck Driver, Single or Tandem Axle Dump Truck | \$11.33 | \$14.53 | \$11.95 | \$12.95 | | \$11.68 | | \$14.06 | \$12.62 | \$11.45 | \$12.28 | | \$13.08 | \$11.68 | \$11.48 | \$11.10 |
| 1607 | Truck Driver, Tandem Axle Tractor with Semi Trailer | \$12.49 | \$12.12 | \$12.50 | \$13.42 | | \$12.81 | \$13.16 | | \$12.86 | \$16.22 | \$12.50 | | | \$13.80 | \$12.27 | \$12.50 |
| 1441 | Tunneling Machine Operator, Heavy | | | | | | | | | | | | | | | | |
| 1442 | Tunneling Machine Operator, Light | | | | | | | | | | | | | | | | |
| 1706 | Welder | | \$14.02 | | \$14.86 | | \$15.97 | | \$13.74 | \$14.84 | | | | | \$13.78 | | |
| 1520 | Work Zone Barricade Servicer | \$10.30 | \$12.88 | \$11.46 | \$11.70 | \$11.57 | \$11.85 | \$10.77 | | \$11.68 | \$12.20 | \$11.22 | \$11.51 | \$12.96 | \$10.54 | \$11.67 | \$11.76 |

Notes:

Any worker employed on this project shall be paid at the rate of one and one half (1-1/2) times the regular rate for every hour worked in excess of forty (40) hours per week.

The titles and descriptions for the classifications listed here are further detailed in the AGC of Texas' *Standard Job Classifications and Descriptions for Highway, Heavy, Utilities, and Industrial Construction in Texas*. AGC will make it available on its Web site for any contractor.

**TEXAS COUNTIES IDENTIFIED BY
WAGE RATE ZONES: 7, 8, 11, 12, 14, 16, 18, 34, 35, 37, 38, 40, 41, 54, 56, 63**

| County Name | Zone | County Name | Zone | County Name | Zone | County Name | Zone |
|---------------|------|-------------|------|-------------|------|---------------|------|
| Anderson | 38 | Donley | 54 | Karnes | 37 | Reagan | 54 |
| Andrews | 54 | Duval | 41 | Kaufman | 35 | Real | 54 |
| Angelina | 38 | Eastland | 54 | Kendall | 16 | Red River | 38 |
| Aransas | 40 | Ector | 7 | Kenedy | 41 | Reeves | 18 |
| Archer | 35 | Edwards | 18 | Kent | 54 | Refugio | 37 |
| Armstrong | 7 | El Paso | 34 | Kerr | 37 | Roberts | 54 |
| Atascosa | 16 | Ellis | 35 | Kimble | 54 | Robertson | 16 |
| Austin | 56 | Erath | 38 | King | 54 | Rockwall | 35 |
| Bailey | 54 | Falls | 38 | Kinney | 18 | Runnels | 54 |
| Bandera | 16 | Fannin | 38 | Kleberg | 37 | Rusk | 11 |
| Bastrop | 16 | Fayette | 37 | Knox | 54 | Sabine | 38 |
| Baylor | 54 | Fisher | 54 | Lamar | 38 | San Augustine | 38 |
| Bee | 37 | Floyd | 54 | Lamb | 54 | San Jacinto | 56 |
| Bell | 16 | Foard | 54 | Lampasas | 16 | San Patricio | 40 |
| Bexar | 16 | Fort Bend | 56 | LaSalle | 41 | San Saba | 54 |
| Blanco | 37 | Franklin | 38 | Lavaca | 37 | Schleicher | 54 |
| Borden | 54 | Freestone | 38 | Lee | 37 | Scurry | 54 |
| Bosque | 38 | Frio | 37 | Leon | 38 | Shackelford | 54 |
| Bowie | 11 | Gaines | 54 | Liberty | 56 | Shelby | 38 |
| Brazoria | 56 | Galveston | 56 | Limestone | 38 | Sherman | 54 |
| Brazos | 16 | Garza | 54 | Lipscomb | 54 | Smith | 11 |
| Brewster | 18 | Gillespie | 37 | Live Oak | 37 | Somervell | 38 |
| Briscoe | 54 | Glasscock | 54 | Llano | 37 | Starr | 41 |
| Brooks | 41 | Goliad | 40 | Loving | 54 | Stephens | 54 |
| Brown | 54 | Gonzales | 37 | Lubbock | 7 | Sterling | 54 |
| Burleson | 16 | Gray | 54 | Lynn | 54 | Stonewall | 54 |
| Burnet | 37 | Grayson | 35 | Madison | 38 | Sutton | 18 |
| Caldwell | 16 | Gregg | 11 | Marion | 38 | Swisher | 54 |
| Calhoun | 40 | Grimes | 38 | Martin | 54 | Tarrant | 35 |
| Callahan | 35 | Guadalupe | 16 | Mason | 37 | Taylor | 7 |
| Cameron | 8 | Hale | 54 | Matagorda | 37 | Terrell | 18 |
| Camp | 38 | Hall | 54 | Maverick | 41 | Terry | 54 |
| Carson | 7 | Hamilton | 38 | McCulloch | 54 | Throckmorton | 54 |
| Cass | 38 | Hansford | 54 | McLennan | 16 | Titus | 38 |
| Castro | 54 | Hardeman | 54 | McMullen | 41 | Tom Green | 7 |
| Chambers | 56 | Hardin | 56 | Medina | 16 | Travis | 16 |
| Cherokee | 38 | Harris | 56 | Menard | 54 | Trinity | 38 |
| Childress | 54 | Harrison | 63 | Midland | 7 | Tyler | 38 |
| Clay | 35 | Hartley | 54 | Milam | 38 | Upshur | 11 |
| Cochran | 54 | Haskell | 54 | Mills | 54 | Upton | 54 |
| Coke | 54 | Hays | 16 | Mitchell | 54 | Uvalde | 41 |
| Coleman | 54 | Hemphill | 54 | Montague | 54 | Val Verde | 18 |
| Collin | 35 | Henderson | 38 | Montgomery | 56 | Van Zandt | 38 |
| Collingsworth | 54 | Hidalgo | 8 | Moore | 54 | Victoria | 14 |
| Colorado | 37 | Hill | 38 | Morris | 38 | Walker | 38 |
| Comal | 16 | Hockley | 54 | Motley | 54 | Waller | 56 |
| Comanche | 54 | Hood | 38 | Nacogdoches | 38 | Ward | 54 |
| Concho | 54 | Hopkins | 38 | Navarro | 38 | Washington | 38 |
| Cooke | 54 | Houston | 38 | Newton | 38 | Webb | 8 |
| Coryell | 16 | Howard | 54 | Nolan | 54 | Wharton | 37 |
| Cottle | 54 | Hudspeth | 18 | Nueces | 40 | Wheeler | 54 |
| Crane | 54 | Hunt | 35 | Ochiltree | 54 | Wichita | 12 |
| Crockett | 18 | Hutchinson | 54 | Oldham | 54 | Wilbarger | 54 |
| Crosby | 7 | Irion | 7 | Orange | 56 | Willacy | 41 |
| Culberson | 18 | Jack | 38 | Palo Pinto | 38 | Williamson | 16 |
| Dallam | 54 | Jackson | 37 | Panola | 38 | Wilson | 16 |
| Dallas | 35 | Jasper | 38 | Parker | 35 | Winkler | 54 |
| Dawson | 54 | Jeff Davis | 18 | Parmer | 54 | Wise | 35 |
| Deaf Smith | 54 | Jefferson | 56 | Pecos | 18 | Wood | 38 |
| Delta | 35 | Jim Hogg | 41 | Polk | 38 | Yoakum | 54 |
| Denton | 35 | Jim Wells | 37 | Potter | 7 | Young | 54 |
| DeWitt | 37 | Johnson | 35 | Presidio | 18 | Zapata | 41 |
| Dickens | 54 | Jones | 35 | Rains | 38 | Zavala | 41 |
| Dimmit | 41 | | | Randall | 7 | | |

Special Provision to Item 000

Notice to All Bidders

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline".

Anyone with knowledge of possible bid rigging, collusion, or fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

You may also Contact the Office of Inspector General (OIG) using any of the following methods:

Online complaint form: www.oig.dot.gov/dot-oig-hotline-complaint-form
Telephone: (800) 424-9071
Fax: (704) 566-0732
E-mail: hotline@oig.dot.gov
Mail: USDOT Inspector General
1200 New Jersey Ave. S.E., Room W73-104A
Washington, D.C. 20590

Special Provision to Item 000

Schedule of Liquidated Damages

The dollar amount of daily contract administration Liquidated Damages per Working Day is \$ 500.00

Special Provision to Item 000

Nondiscrimination

1. DESCRIPTION

All recipients of federal financial assistance are required to comply with various nondiscrimination laws including Title VI of the Civil Rights Act of 1964, as amended, (Title VI). Title VI forbids discrimination against anyone in the United States on the grounds of race, color, or national origin by any agency receiving federal funds.

Owner, as a recipient of Federal financial assistance, and under Title VI and related statutes, ensures that no person shall on the grounds of race, religion (where the primary objective of the financial assistance is to provide employment per 42 U.S.C. § 2000d-3), color, national origin, sex, age or disability be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any of Owner's programs or activities.

2. DEFINITION OF TERMS

Where the term "contractor" appears in the following six nondiscrimination clauses, the term "contractor" is understood to include all parties to contracts or agreements with the Owner.

3. NONDISCRIMINATION PROVISIONS

During the performance of this contract, the contractor agrees as follows:

- 3.1. **Compliance with Regulations.** The Contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- 3.2. **Nondiscrimination.** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- 3.3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- 3.4. **Information and Reports:** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Owner or the Texas Department of Transportation to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the Owner or the Texas Department of Transportation as appropriate, and shall set forth what efforts it has made to obtain the information.

- 3.5. **Sanctions for Noncompliance.** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Owner shall impose such contract sanctions as it, the Owner may determine to be appropriate, including, but not limited to:
- withholding of payments to the contractor under the contract until the contractor complies, and/or
 - cancellation, termination or suspension of the contract, in whole or in part.
- 3.6. **Incorporation of Provisions.** The contractor shall include the provisions of paragraphs (3.1) through (3.6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Owner may direct as a means of enforcing such provisions including sanctions for non-compliance: provided, however that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Owner to enter into such litigation to protect the interests of the Owner, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Special Provision to Item 000

Certification of Nondiscrimination in Employment

1. GENERAL

By signing this proposal, the Bidder certifies that Bidder has participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, or if Bidder has not participated in a previous contract of this type, or if Bidder has had previous contract or subcontracts and has not filed, Bidder will file with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note—The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by Bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

Special Provision to Item 000

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. GENERAL

In addition to the affirmative action requirements of the Special Provision titled "Standard Federal Equal Employment Opportunity Construction Contract Specifications" as set forth elsewhere in this proposal, the Bidder's attention is directed to the specific requirements for utilization of minorities and females as set forth below.

2. GOALS

2.1. Goals for minority and female participation are hereby established in accordance with 41 CFR 60-4.

2.2. The goals for minority and female participation expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area are as follows:

| Goals for minority participation in each trade, % | Goals for female participation in each trade, % |
|---|---|
| See Table 1 | 6.9 |

2.3. These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it will apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction. The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 will be based on its implementation of the Standard Federal Equal Employment Opportunity Construction Contract Specifications Special Provision and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor must make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority and female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals will be a violation of the Contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

2.4. A Contractor or subcontractor will be considered in compliance with these provisions by participation in the Texas Highway-Heavy Branch, AGC, Statewide Training and Affirmative Action Plan. Provided that each Contractor or subcontractor participating in this plan must individually comply with the equal opportunity clause set forth in 41 CFR 60-1.4 and must make a good faith effort to achieve the goals set forth for each participating trade in the plan in which it has employees. The overall good performance of other Contractors and subcontractors toward a goal in an approved plan does not excuse any covered Contractor's or subcontractor's failure to make good faith efforts to achieve the goals contained in these provisions. Contractors or subcontractors participating in the plan must be able to demonstrate their participation and document their compliance with the provisions of this Plan.

3. SUBCONTRACTING

The Contractor must provide written notification to the Owner within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the Contract resulting from this solicitation pending concurrence of the Owner in the award. The notification will list the names,

address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the Contract is to be performed.

4. COVERED AREA

As used in this special provision, and in the Contract resulting from this solicitation, the geographical area covered by these goals for female participation is the State of Texas. The geographical area covered by these goals for other minorities are the counties in the State of Texas as indicated in Table 1.

5. REPORTS

The Contractor is hereby notified that he may be subject to the Office of Federal Contract Compliance Programs (OFCCP) reporting and record keeping requirements as provided for under Executive Order 11246 as amended. OFCCP will provide direct notice to the Contractor as to the specific reporting requirements that he will be expected to fulfill.

**Table 1
Goals for Minority Participation**

| County | Participation, % | County | Participation, % |
|---------------|-------------------------|---------------|-------------------------|
| Anderson | 22.5 | Chambers | 27.4 |
| Andrews | 18.9 | Cherokee | 22.5 |
| Angelina | 22.5 | Childress | 11.0 |
| Aransas | 44.2 | Clay | 12.4 |
| Archer | 11.0 | Cochran | 19.5 |
| Armstrong | 11.0 | Coke | 20.0 |
| Atascosa | 49.4 | Coleman | 10.9 |
| Austin | 27.4 | Collin | 18.2 |
| Bailey | 19.5 | Collingsworth | 11.0 |
| Bandera | 49.4 | Colorado | 27.4 |
| Bastrop | 24.2 | Comal | 47.8 |
| Baylor | 11.0 | Comanche | 10.9 |
| Bee | 44.2 | Concho | 20.0 |
| Bell | 16.4 | Cooke | 17.2 |
| Bexar | 47.8 | Coryell | 16.4 |
| Blanco | 24.2 | Cottle | 11.0 |
| Borden | 19.5 | Crane | 18.9 |
| Bosque | 18.6 | Crockett | 20.0 |
| Bowie | 19.7 | Crosby | 19.5 |
| Brazoria | 27.3 | Culberson | 49.0 |
| Brazos | 23.7 | Dallam | 11.0 |
| Brewster | 49.0 | Dallas | 18.2 |
| Briscoe | 11.0 | Dawson | 19.5 |
| Brooks | 44.2 | Deaf Smith | 11.0 |
| Brown | 10.9 | Delta | 17.2 |
| Burleson | 27.4 | Denton | 18.2 |
| Burnet | 24.2 | DeWitt | 27.4 |
| Caldwell | 24.2 | Dickens | 19.5 |
| Calhoun | 27.4 | Dimmit | 49.4 |
| Callahan | 11.6 | Donley | 11.0 |
| Cameron | 71.0 | Duval | 44.2 |
| Camp | 20.2 | Eastland | 10.9 |
| Carson | 11.0 | Ector | 15.1 |
| Cass | 20.2 | Edwards | 49.4 |
| Castro | 11.0 | Ellis | 18.2 |

| County | Participation, % | County | Participation, % |
|------------|------------------|-------------|------------------|
| El Paso | 57.8 | Kaufman | 18.2 |
| Erath | 17.2 | Kendall | 49.4 |
| Falls | 18.6 | Kenedy | 44.2 |
| Fannin | 17.2 | Kent | 10.9 |
| Fayette | 27.4 | Kerr | 49.4 |
| Fisher | 10.9 | Kimble | 20.0 |
| Floyd | 19.5 | King | 19.5 |
| Foard | 11.0 | Kinney | 49.4 |
| Fort Bend | 27.3 | Kleberg | 44.2 |
| Franklin | 17.2 | Knox | 10.9 |
| Freestone | 18.6 | Lamar | 20.2 |
| Frio | 49.4 | Lamb | 19.5 |
| Gaines | 19.5 | Lampasas | 18.6 |
| Galveston | 28.9 | LaSalle | 49.4 |
| Garza | 19.5 | Lavaca | 27.4 |
| Gillespie | 49.4 | Lee | 24.2 |
| Glasscock | 18.9 | Leon | 27.4 |
| Goliad | 27.4 | Liberty | 27.3 |
| Gonzales | 49.4 | Limestone | 18.6 |
| Gray | 11.0 | Lipscomb | 11.0 |
| Grayson | 9.4 | Live Oak | 44.2 |
| Gregg | 22.8 | Llano | 24.2 |
| Grimes | 27.4 | Loving | 18.9 |
| Guadalupe | 47.8 | Lubbock | 19.6 |
| Hale | 19.5 | Lynn | 19.5 |
| Hall | 11.0 | Madison | 27.4 |
| Hamilton | 18.6 | Marion | 22.5 |
| Hansford | 11.0 | Martin | 18.9 |
| Hardeman | 11.0 | Mason | 20.0 |
| Hardin | 22.6 | Matagorda | 27.4 |
| Harris | 27.3 | Maverick | 49.4 |
| Harrison | 22.8 | McCulloch | 20.0 |
| Hartley | 11.0 | McLennan | 20.7 |
| Haskell | 10.9 | McMullen | 49.4 |
| Hays | 24.1 | Medina | 49.4 |
| Hemphill | 11.0 | Menard | 20.0 |
| Henderson | 22.5 | Midland | 19.1 |
| Hidalgo | 72.8 | Milam | 18.6 |
| Hill | 18.6 | Mills | 18.6 |
| Hockley | 19.5 | Mitchell | 10.9 |
| Hood | 18.2 | Montague | 17.2 |
| Hopkins | 17.2 | Montgomery | 27.3 |
| Houston | 22.5 | Moore | 11.0 |
| Howard | 18.9 | Morris | 20.2 |
| Hudspeth | 49.0 | Motley | 19.5 |
| Hunt | 17.2 | Nacogdoches | 22.5 |
| Hutchinson | 11.0 | Navarro | 17.2 |
| Irion | 20.0 | Newton | 22.6 |
| Jack | 17.2 | Nolan | 10.9 |
| Jackson | 27.4 | Nueces | 41.7 |
| Jasper | 22.6 | Ochiltree | 11.0 |
| Jeff Davis | 49.0 | Oldham | 11.0 |
| Jefferson | 22.6 | Orange | 22.6 |
| Jim Hogg | 49.4 | Palo Pinto | 17.2 |
| Jim Wells | 44.2 | Panola | 22.5 |
| Johnson | 18.2 | Parker | 18.2 |
| Jones | 11.6 | Parmer | 11.0 |
| Karnes | 49.4 | Pecos | 18.9 |

| County | Participation, % | County | Participation, % |
|---------------|-------------------------|---------------|-------------------------|
| Polk | 27.4 | Terrell | 20.0 |
| Potter | 9.3 | Terry | 19.5 |
| Presidio | 49.0 | Reagan | 20.0 |
| Randall | 9.3 | Throckmorton | 10.9 |
| Rains | 17.2 | Titus | 20.2 |
| Real | 49.4 | Tom Green | 19.2 |
| Red River | 20.2 | Travis | 24.1 |
| Reeves | 18.9 | Trinity | 27.4 |
| Refugio | 44.2 | Tyler | 22.6 |
| Roberts | 11.0 | Upshur | 22.5 |
| Robertson | 27.4 | Upton | 18.9 |
| Rockwall | 18.2 | Uvalde | 49.4 |
| Runnels | 20.0 | Val Verde | 49.4 |
| Rusk | 22.5 | Van Zandt | 17.2 |
| Sabine | 22.6 | Victoria | 27.4 |
| San Augustine | 22.5 | Walker | 27.4 |
| San Jacinto | 27.4 | Waller | 27.3 |
| San Patricio | 41.7 | Ward | 18.9 |
| San Saba | 20.0 | Washington | 27.4 |
| Schleicher | 20.0 | Webb | 87.3 |
| Scurry | 10.9 | Wharton | 27.4 |
| Shackelford | 10.9 | Wheeler | 11.0 |
| Shelby | 22.5 | Wichita | 12.4 |
| Sherman | 11.0 | Wilbarger | 11.0 |
| Smith | 23.5 | Willacy | 72.9 |
| Somervell | 17.2 | Williamson | 24.1 |
| Starr | 72.9 | Wilson | 49.4 |
| Stephens | 10.9 | Winkler | 18.9 |
| Sterling | 20.0 | Wise | 18.2 |
| Stonewall | 10.9 | Wood | 22.5 |
| Sutton | 20.0 | Yoakum | 19.5 |
| Swisher | 11.0 | Young | 11.0 |
| Tarrant | 18.2 | Zapata | 49.4 |
| Taylor | 11.6 | Zavala | 49.4 |

Special Provision to Item 000

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. GENERAL

1.1. As used in these specifications:

- "Covered area" means the geographical area described in the solicitation from which this Contract resulted;
- "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
- "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- "Minority" includes:
 - Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - American Indian or Alaskan Native (all persons having origins in any of the original peoples of North American and maintaining identifiable tribal affiliations through membership and participation or community identification).

1.2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it will physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Contract resulted.

1.3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) will be in accordance with that plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the equal employment opportunity (EEO) clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

1.4. The Contractor will implement the specific affirmative action standards provided in Section 1.7.1. through Section 1.7.16. of these specifications. The goals set forth in the solicitation from which this Contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing Contracts in geographical areas where they do not have a Federal or federally assisted construction Contract will apply the minority and female goals established for the geographical area where the Contract is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or any Federal procurement contracting officer. The

Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

- 1.5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women will excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 1.6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.
- 1.7. The Contractor will take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications will be based upon its effort to achieve maximum results from its actions. The Contractor will document these efforts fully, and will implement affirmative action steps at least as extensive as the following:
 - 1.7.1. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor will specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - 1.7.2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - 1.7.3. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this will be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - 1.7.4. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral Process has impeded the Contractor's efforts to meet its obligations.
 - 1.7.5. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the U.S. Department of Labor. The Contractor will provide notice of these programs to the sources compiled under 7b above.
 - 1.7.6. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and Collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- 1.7.7. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., before the initiation of construction work at any job site. A written record must be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- 1.7.8. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- 1.7.9. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month before the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor will send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- 1.7.10. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- 1.7.11. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- 1.7.12. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- 1.7.13. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- 1.7.14. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities will be provided to assure privacy between the sexes.
- 1.7.15. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- 1.7.16. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 1.8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (Section 7.1. through Section 7.16.). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under Section 7.1. through Section 7.16. of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation will not be a defense for the Contractor's noncompliance.

- 1.9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- 1.10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 1.11. The Contractor will not enter into any Subcontract with any person or firm debarred from Government Contracts pursuant to Executive Order 11246.
- 1.12. The Contractor will carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties will be in violation of these specifications and Executive Order 11246, as amended.
- 1.13. The Contractor, in fulfilling its obligations under these specifications, will implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director will proceed in accordance with 41 CFR 60-4.8.
- 1.14. The Contractor will designate a responsible official to monitor all employment-related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records must at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records must be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.
- 1.15. Nothing herein provided will be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
- 1.16. In addition to the reporting requirements set forth elsewhere in this Contract, the Contractor and the subcontractors holding subcontracts, not including material suppliers, of \$10,000 or more, will submit for every month of July during which work is performed, employment data as contained under Form PR 1391 (Appendix C to 23 CFR, Part 230), and in accordance with the included instructions.

Special Provision to Item 000

Disadvantaged Business Enterprise in Federal Aid Contracts

1. DESCRIPTION

The purpose of this Special Provision is to carry out the U.S. Department of Transportation's (DOT) policy of ensuring nondiscrimination in the award and administration of DOT assisted Contracts and creating a level playing field on which firms owned and controlled by individuals who are determined to be socially and economically disadvantaged can compete fairly for DOT assisted Contracts. If the Disadvantaged Business Enterprise (DBE) goal is greater than zero, Article A, "Disadvantaged Business Enterprise in Federal Aid Contracts", of this Special Provision shall apply to this Contract. If there is no DBE goal, Article B, "Race-Neutral DBE Participation," of this Special Provision will apply to this Contract. The percentage goal for DBE participation in the work to be performed under this Contract will be shown on the proposal.

1.1. Article A. Disadvantaged Business Enterprise in Federal Aid Contracts.

1.1.1. **Policy.** It is the policy of the DOT and the Texas Department of Transportation (Department) that DBEs, as defined in 49 CFR Part 26, Subpart A and the Department's DBE Program, shall have the opportunity to participate in the performance of Contracts financed in whole or in part with Federal funds. The DBE requirements of 49 CFR Part 26, and the Department's DBE Program, apply to this Contract as follows:

1.1.1.1. The Contractor will solicit DBEs through reasonable and available means, as defined in 49 CFR Part 26, Appendix A and the Department's DBE Program, or show a good faith effort to meet the DBE goal for this Contract.

1.1.1.2. The Contractor, sub-recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted Contracts. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate.

1.1.1.3. The requirements of this Special Provision shall be physically included in any subcontract.

1.1.1.4. By signing the Contract proposal, the Bidder is certifying that the DBE goal as stated in the proposal will be met by obtaining commitments from eligible DBEs or that the Bidder will provide acceptable evidence of good faith effort to meet the commitment. The Owner will determine the adequacy of a Contractor's efforts to meet the Contract goal, within 10 business days, excluding national holidays, from receipt of the information outlined in this Special Provision under Section 1.1.3., "Contractor's Responsibilities." If the requirements of Section 1.A.3 are met, the conditional situation will be removed and the Contract will be forwarded to the Contractor for execution.

1.1.2. Definitions.

1.1.2.1. "Broker" is an intermediary or middleman that does not take possession of a commodity or act as a regular dealer selling to the public.

1.1.2.2. "Disadvantaged Business Enterprise" or "DBE" is defined in the standard specifications, Article 1, Definition of Terms.

1.1.2.3. "DBE Joint Venture" means an association of a DBE firm and 1 or more other firm(s) to carry out a single business enterprise for profit for which purpose they combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the

Contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

- 1.1.2.4. "DOT" means the U.S. Department of Transportation, including the Office of the Secretary, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Federal Aviation Administration (FAA).
- 1.1.2.5. "Federal Aid Contract" is any Contract between the Owner and a Contractor which is paid for in whole or in part with DOT financial assistance.
- 1.1.2.6. "Good Faith Effort" means efforts to achieve a DBE goal or other requirement of this Special Provision which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.
- 1.1.2.7. "Manufacturer" is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the Contract and of the general character described by the specifications."
- 1.1.2.8. "Race-conscious" means a measure or program that is focused specifically on assisting only DBEs, including women-owned businesses.
- 1.1.2.9. "Race-neutral DBE Participation" means any participation by a DBE through customary competitive procurement procedures.
- 1.1.2.10. "Regular Dealer" is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established, regular business that engages in, as its principal business and under its own name, the purchase and sale or lease of the products in question.
- A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock if it owns and operates distribution equipment for the products. Any supplementing of regular dealers own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis. Brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions shall not be regarded as a regular dealer.
- 1.1.2.11. "Texas Unified Certification Program" or "TUCP" provides one-stop shopping to applicants for certification, such that applicants are required to apply only once for a DBE certification that will be honored by all recipients of federal funds in the state. The TUCP by Memorandum of Agreement established six member entities to serve as certifying agents for Texas in specified regions.
- 1.1.3. **Contractor's Responsibilities.** These requirements must be satisfied by the Contractor.
- 1.1.3.1. After conditional award of the Contract, the Contractor shall submit a completed Form SMS.4901 "DBE Commitment Agreement", Form SMS 4901-T "DBE Trucking Commitment Agreement", or Form SMS.4901-MS "DBE Material & Supplier Commitment Agreement" for each DBE he/she intends to use to satisfy the DBE goal or a good faith effort to explain why the goal could not be reached. Provide these forms to the Owner so as to arrive not later than 5:00 p.m. on the 10th business day, excluding national holidays, after the conditional award of the Contract. When requested, additional time, not to exceed 7 business days, excluding national holidays, may be granted based on documentation submitted by the Contractor.
- 1.1.3.2. DBE prime Contractors may receive credit toward the DBE goal for work performed by his/her own forces and work subcontracted to DBEs. A DBE prime must make a good faith effort to meet the goals. In the event a DBE prime subcontracts to a non-DBE, that information must be reported on Form SMS.4902.

1.1.3.3.

A Contractor who cannot meet the Contract goal, in whole or in part, shall make adequate good faith efforts to obtain DBE participation as so stated and defined in 49 CFR Part 26, Appendix A. The following is a list of the types of action that may be considered as good faith efforts. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

- Soliciting through all reasonable and available means (e.g. attendance at prebid meetings, advertising, and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the Contract. The solicitation must be done within sufficient time to allow the DBEs to respond to it. Appropriate steps must be taken to follow up initial solicitations to determine, with certainty, if the DBEs are interested.
- Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out Contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform the work items with its own forces.
- Providing interested DBEs with adequate information about the plans, specifications, and requirements of the Contract in a timely manner to assist them in responding to a solicitation.
- Negotiating in good faith with interested DBEs to make a portion of the work available to DBE subcontractors and suppliers and select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiations includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
- A Bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm price and capabilities as well as Contract goals into consideration. However, the fact that there may be some additional cost involved in finding and using DBEs is not in itself sufficient reason for a bidders failure to meet the Contract DBE goal as long as such cost are reasonable. Also, the ability or desire of the Contractor to perform the work of the Contract with its own organization does not relieve the Bidder of the responsibility to make good faith effort. Contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The Contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate cause for the rejection or non-solicitation of bids and the Contractors efforts to meet the project goal.
- Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- Effectively using the services of available minority/women community organizations; minority/women Contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- If the Owner determines that the Contractor has failed to meet the good faith effort requirements, the Contractor will be given an opportunity for reconsideration by the Owner.

- 1.1.3.4. Should the bidder to whom the Contract is conditionally awarded refuse, neglect or fail to meet the DBE goal or comply with good faith effort requirements, the proposal guaranty filed with the bid shall become the property of the Owner, not as a penalty, but as liquidated damages to the Owner.
- 1.1.3.5. The preceding information shall be submitted directly to the Owner.
- 1.1.3.6. The Contractor shall not terminate for convenience a DBE subcontractor named in the commitment submitted under Section 1.A.3.a, of this Special Provision. Before terminating or removing a DBE subcontractor named in the commitment, the Contractor must have a written consent of the Owner.
- 1.1.3.7. The Contractor shall also make a good faith effort to replace a DBE subcontractor that is unable to perform successfully with another DBE, to the extent needed to meet the Contract goal. The Contractor shall submit a completed Form 4901 "DBE Commitment Agreement", Form SMS 4901-T "DBE Trucking Commitment Agreement", or Form SMS.4901-MS "DBE Material & Supplier Commitment Agreement" for the substitute DBE firm(s). Any substitution of DBEs shall be subject to approval by the Owner. Before approving the substitution, the Owner will request a statement from the DBE concerning it being replaced.
- 1.1.3.8. The Contractor shall designate a DBE liaison officer who will administer the Contractor's DBE program and who will be responsible for maintenance of records of efforts and contacts made to subcontract with DBEs.
- 1.1.3.9. Contractors are encouraged to investigate the services offered by banks owned and controlled by disadvantaged individuals and to make use of these banks where feasible.
- 1.1.4. **Eligibility of DBEs.**
- 1.1.4.1. The member entities of the TUCP certify the eligibility of DBEs and DBE joint ventures to perform DBE subcontract work on DOT financially assisted Contracts.
- 1.1.4.2. The Department maintains the Texas Unified Certification Program DBE Directory containing the names of firms that have been certified to be eligible to participate as DBE's on DOT financially assisted Contracts. An update of the Directory can be found on the Internet at <http://www.txdot.gov/apps-cg/tucp/default.htm>.
- 1.1.4.3. Only DBE firms certified at the time commitments are submitted are eligible to be used in the information furnished by the Contractor as required under Section 1.A.3.a. and 3.g. above. For purposes of the DBE goal on this project, DBEs will only be allowed to perform work in the categories of work for which they are certified.
- 1.1.4.4. Only DBE firms certified at the time of execution of a Contract/subcontract/purchase order, are eligible for DBE goal participation.
- 1.1.5. **Determination of DBE Participation.** When a DBE participates in a Contract, only the values of the work actually performed by the DBE, as referenced below, shall be counted by the prime Contractor toward DBE goals:
- 1.1.5.1. The total amount paid to the DBE for work performed with his/her own forces is counted toward the DBE goal. When a DBE subcontracts part of the work of its Contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.
- 1.1.5.2. A Contractor may count toward its DBE goal a portion of the total value of the Contract amount paid to a DBE joint venture equal to the distinct, clearly defined portion of the work of the Contract performed by the DBE.
- 1.1.5.2.1. A Contractor may count toward its DBE goal only expenditures to DBEs that perform a commercially useful function (CUF) in the work of a Contract or purchase order. A DBE is considered to perform a CUF when it is responsible for execution of the work of the Contract and is carrying out its responsibilities by actually

performing, managing, and supervising the work involved. To perform a CUF, the DBE must also be responsible, with respect to materials and supplies used on the Contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

In accordance with 49 CFR Part 26, Appendix A, guidance concerning Good Faith Efforts, Contractors may make efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services. Contractors may not however, negotiate the price of materials or supplies used on the Contract by the DBE, nor may they determine quality and quantity, order the materials themselves, nor install the materials (where applicable), or pay for the material themselves. Contractors however, may share the quotations they receive from the material supplier with the DBE firm, so that the DBE firm may negotiate a reasonable price with the material supplier.

In all cases, prime or other non-DBE subcontractor assistance will not be credited toward the DBE goal.

1.1.5.2.2. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, Contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

Consistent with industry practices and the DOT/Department's DBE program, a DBE subcontractor may enter into second-tier subcontracts, amounting up to 70% of their Contract. Work subcontracted to a non-DBE does not count towards DBE goals. If a DBE does not perform or exercise responsibility for at least 30% of the total cost of its Contract with its own work force, or the DBE subcontracts a greater portion of the work of a Contract than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that the DBE is not performing a CUF

1.1.5.2.3. A DBE trucking firm (including an owner operator who is certified as a DBE is considered to be performing a CUF when the DBE is responsible for the management and supervision of the entire trucking operation on a particular Contract and the DBE itself owns and operates at least 1 fully licensed, insured, and operational truck used on the Contract.

1.1.5.2.3.1. The Contractor receives credit for the total value of the transportation services the DBE provides on a Contract using trucks it owns, insures, and operates using drivers it employs.

1.1.5.2.3.2. The DBE may lease trucks from another DBE firm, including an owner operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Contract.

1.1.5.2.3.3. The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE lessees not to exceed the value of transportation services provided by the DBE-owned trucks on the Contract. Additional participation by non-DBE lessees receive credit only for the fee or commission it receives as result of the lease arrangement

1.1.5.2.3.4. A lease must indicate that the DBE has exclusive use of and control over the trucks giving the DBE absolute priority for use of the leased trucks. Leased trucks must display the name and identification number of the DBE.

1.1.5.2.4. When a DBE is presumed not to be performing a CUF the DBE may present evidence to rebut this presumption.

1.1.5.2.5. Project materials or supplies acquired from an affiliate of the prime Contractor can not directly or indirectly (2nd or lower tier subcontractor) be used for DBE goal credit.

1.1.5.3. A Contractor may count toward its DBE goals expenditures for materials and supplies obtained from a DBE manufacturer, provided that the DBE assumes the actual and contractual responsibility for the materials and

supplies. Count expenditures with DBEs for materials or supplies toward DBE goals as provided in the following:

- 1.1.5.3.1. If the materials or supplies are obtained from a DBE manufacturer, count 100% of the cost of the materials or supplies toward DBE goals. (Definition of a DBE manufacturer found at 1A.c.(1) of this provision.)

For purposes of this Section (1.A.c.(1)), a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the Contract and of the general character described by the specifications.

- 1.1.5.3.2. If the materials or supplies are purchased from a DBE regular dealer, count 60% of the cost of the materials or supplies toward DBE goals.

For purposes of this Section (1.A.5.c.(2)), a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business:

- 1.1.5.3.2.1. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
- 1.1.5.3.2.2. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating, or maintaining a place of business as provided in the first paragraph under Section 1.A.5.c.(2), if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.
- 1.1.5.3.2.3. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of Section 1.A.5.c.(2).
- 1.1.5.3.3. With respect to materials or supplies purchased from DBE which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE goals, provided you determine the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services.

Do not count any portion of the cost of the materials and supplies themselves toward DBE goals.

- 1.1.5.3.4. Count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted Contract, toward DBE goals, provided you determine the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.

- 1.1.5.4. If the Contractor chooses to assist a DBE firm, other than a manufacturing material supplier or regular dealer, and the DBE firm accepts the assistance, the Contractor may act solely as a guarantor by use of a two-party check for payment of materials to be used on the project by the DBE. The material supplier must invoice the DBE who will present the invoice to the Contractor. The Contractor may issue a joint check to the DBE and the material supplier and the DBE firm must issue the remittance to the material supplier. No funds shall go directly from the Contractor to the material supplier. The DBE firm may accept or reject this joint checking arrangement.

The Contractor must obtain approval from the Owner before implementing the use of joint check arrangements with the DBE. Submit to the Owner, Joint Check Approval Form 2178 for requesting approval.

Provide copies of cancelled joint checks upon request. No DBE goal credit will be allowed for the cost of DBE materials that are paid by the Contractor directly to the material supplier.

- 1.1.5.5. No DBE goal credit will be allowed for supplies and equipment the DBE subcontractor leases from the Contractor or its affiliates.
- 1.1.5.6. No DBE goal credit will be allowed for the period of time determined by the Owner that the DBE was not performing a CUF. The denial period of time may occur before or after a determination has been made by the Owner. In case of the denial of credit for non-performance of a CUF of a DBE, the Contractor will be required to provide a substitute DBE to meet the Contract goal or provide an adequate good faith effort when applicable.
- 1.1.6. **Records and Reports.**
- 1.1.6.1. The Contractor shall submit monthly reports, after work begins, on DBE payments to meet the DBE goal and for DBE or HUB race-neutral participation. Report payments made to non-DBE HUBs. The monthly report is to be sent to the Owner. These reports will be due within 15 days after the end of a calendar month. These reports will be required until all DBE subcontracting or material supply activity is completed. Form SMS.4903, "DBE Progress Report," is to be used for monthly reporting. Form SMS.4904, "DBE Final Report," is to be used as a final summary of DBE payments submitted upon completion of the project.
- The original final report must be submitted to the Owner. These forms may be obtained from the Owner or may be reproduced by the Contractor. The Owner may verify the amounts being reported as paid to DBEs by requesting copies of cancelled checks paid to DBEs on a random basis. Cancelled checks and invoices should reference the Owner's project number.
- 1.1.6.2. DBE subcontractors and/or material suppliers should be identified on the monthly report by Vendor Number, name, and the amount of actual payment made to each during the monthly period. Negative reports are required when no activity has occurred in a monthly period.
- 1.1.6.3. All such records must be retained for a period of 3 years following completion of the Contract work, and shall be available at reasonable times and places for inspection by authorized representatives of the Owner, the Department or the DOT. Provide copies of subcontracts or agreements and other documentation upon request.
- 1.1.6.4. Before receiving final payment, the Contractor shall submit Form SMS.4904, "DBE Final Report". If the DBE goal requirement is not met, documentation supporting Good Faith Efforts, as outlined in Section 1.A.3.c of this Special Provision, must be submitted with the "DBE Final Report."
- 1.1.6.5. Provide a certification of prompt payment in accordance with the Owner's prompt payment procedure to certify that all subcontractors and suppliers were paid from the previous months payments and retainage was released for those whose work is complete. Submit the completed form each month and the month following the month when final acceptance occurred at the end of the project.
- 1.1.7. **Compliance of Contractor.** To ensure that DBE requirements of this DOT assisted Contract are complied with, the Owner will monitor the Contractor's efforts to involve DBEs during the performance of this Contract. This will be accomplished by a review of monthly reports submitted to the Owner by the Contractor indicating his progress in achieving the DBE Contract goal, and by compliance reviews conducted on the project site by the Owner.
- The Contractor shall receive credit toward the DBE goal based on actual payments to the DBE subcontractor. The Contractor shall notify the Owner if he/she withholds or reduces payment to any DBE subcontractor. The Contractor shall submit an affidavit detailing the DBE subcontract payments before receiving final payment for the Contract.

Contractors' requests for substitutions of DBE subcontractors shall be accompanied by a detailed explanation which should substantiate the need for a substitution. The Contractor may not be allowed to count work on those items being substituted toward the DBE goal before approval of the substitution from the Owner.

The prime Contractor is prohibited from providing work crews and equipment to DBEs. DBE Goal credit for the DBE subcontractors leasing of equipment or purchasing of supplies from the prime Contractor or its affiliates is not allowed.

When a DBE subcontractor named in the commitment under Section 1.A.3.a. of this Special Provision, is terminated or fails to complete its work on the Contract for any reason, the prime Contractor is required to make good faith efforts to find another DBE subcontractor to substitute for the original DBE. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the Contract as the DBE that was terminated, to the extent needed to meet the Contract goal.

A Contractor's failure to comply with the requirements of this Special Provision shall constitute a material breach of this Contract. In such a case, the Owner reserves the right to terminate the Contract; to deduct the amount of DBE goal not accomplished by DBEs from the money due or to become due the Contractor, or to secure a refund, not as a penalty but as liquidated damages to the Owner or such other remedy or remedies as the Owner deems appropriate.

Forward Form 2371, "DBE Trucking Credit Worksheet," completed by the DBE trucker every month DBE credit is used.

- 1.2. **Article B. Race-Neutral Disadvantaged Business Enterprise Participation.** It is the policy of the DOT that Disadvantaged Business Enterprises (DBE) as defined in 49 CFR Part 26 Subpart A, be given the opportunity to compete fairly for Contracts and subcontracts financed in whole or in part with Federal funds and that a maximum feasible portion of the Department's overall DBE goal be met using race-neutral means. Consequently, if there is no DBE goal, the DBE requirements of 49 CFR Part 26, apply to this Contract as follows:

The Contractor will offer DBEs as defined in 49 CFR Part 26, Subpart A, the opportunity to compete fairly for Contracts and subcontractors financed in whole or in part with Federal funds. Race-Neutral DBE and non-DBE HUB participation on projects with no DBE goal shall be reported on Form SMS.4903, "DBE or HUB Progress Report" and submitted to the Owner each month and at project completion. Payments to DBEs reported on Form SMS.4903 are subject to the requirements of Section 1.1.5., "Determination of DBE Participation."

The Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted Contracts. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate.

Special Provision to Item 000

Certificate of Interested Parties (Form 1295)

Submit a signed notarized Form 1295, Certificate of Interested Parties at contract and with all contracts amendments (including change orders), extensions, and renewals. The form and information and instructions on completing and filing the form are available on the Texas Ethics Commission website.

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Special Provision to Item 7

Legal Relations and Responsibilities

Item 7, "Legal Relations and Responsibilities," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 2.6.5., "Training", is supplemented by the following:

Coordinate enrollment, pay associated fees, and successfully complete approved Training or Contractor Delivered Training. Training is valid for the period prescribed by the provider but no less than 3 yrs. from the date of completion. The Owner may require training at a frequency less than the period prescribed or 3 yrs. based on Owner's needs. Training and associated fees will not be measured or paid for directly but are considered subsidiary to pertinent Items.

2.6.5.1. **Approved Training.** Approved training is listed below:

2.6.5.1.1 **Contractor Responsible Person and Alternate.**

| Provider | Course Title |
|--|--|
| American Traffic Safety Services Association | Traffic Control Supervisor |
| National Highway Institute | Maintenance of Traffic Control for Supervisors |

2.6.5.1.2. **Flagger Instructor Training.**

| Provider | Course Title |
|--|-------------------------------------|
| American Traffic Safety Services Association | Flagging Instructor Training Course |
| Texas Engineering Extension Services | Train-the-Trainer Flaggers |
| National Safety Council | Flagger (Instructor) |
| University of Texas at Arlington, Division for Enterprise Development | Certified Flagger Instructor |

Flagger Training.

| Provider | Course Title |
|--|---|
| Texas Engineering Extension Services | Flaggers in Work Zones |
| National Safety Council | Flagger (Novice) |
| University of Texas at Arlington, Continuing Education Department | Flaggers in Work Zones (TxDOT Training) |
| University of Texas at Arlington, Continuing Education Department | WZ Traffic Control/Qualified Flagger |
| Associated Builders and Contractors, Austin Chapter | Flagger Training |
| LDI Safety Training | Flagger Training |
| Tipton Compliance and Safety | Flagger Training |

2.6.5.1.3. Law Enforcement Personnel.

| Provider | Course Title |
|----------------------------|---|
| National Highway Institute | Safe and Effective Use of Law Enforcement Personnel in Work Zones |

2.6.5.1.4. Other Work Zone Personnel.

| Provider | Course Title |
|--|--|
| American Traffic Safety Services Association | Traffic Control Technician Training |
| Texas Engineering Extension Services | Work Zone Traffic Control |
| National Highway Institute | Maintenance of Traffic Control for Technicians |
| National Highway Institute | Maintenance Training Series: Basics of Work Zone Traffic Control |

2.6.5.2. Contractor Delivered Training. Develop Contractor Delivered Training curriculum and submit the curriculum to the Owner for approval. Do not implement the training curriculum before receiving written approval from the Owner. The work performed and materials furnished to develop the curriculum and provide training will not be measured or paid for directly but will be considered subsidiary to pertinent Items.

A contractor's certified flagging instructor is permitted to train other flaggers.

Special Provision to Item 506

Temporary Erosion, Sedimentation, and Environmental Controls

For this project, item 506, "Temporary Erosion, Sedimentation, and Environmental Controls," of the standard specifications, is hereby voided and replaced with the following.

1. DESCRIPTION

Install, maintain, and remove erosion, sedimentation, and environmental control measures to prevent or reduce the discharge of pollutants in accordance with the Storm Water Pollution Prevention Plan (SWP3) in the plans and the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR150000.

2. MATERIALS

Furnish materials in accordance with the following:

- Item 161, "Compost"
- Item 432, "Riprap"
- Item 556, "Pipe Underdrains"

2.1. Rock Filter Dams.

2.1.1. **Aggregate.** Furnish aggregate with hardness, durability, cleanliness, and resistance to crumbling, flaking, and eroding acceptable to the Owner. Provide the following:

- Types 1, 2, and 4 Rock Filter Dams. Use 3 to 6 in. aggregate.
- Type 3 Rock Filter Dams. Use 4 to 8 in. aggregate.

2.1.2. **Wire.** Provide minimum 20 gauge galvanized wire for the steel wire mesh and tie wires for Types 2 and 3 rock filter dams. Type 4 dams require:

- a double-twisted, hexagonal weave with a nominal mesh opening of 2-1/2 in. x 3-1/4 in.;
- minimum 0.0866 in. steel wire for netting;
- minimum 0.1063 in. steel wire for selvages and corners; and
- minimum 0.0866 in. for binding or tie wire.

2.1.3. **Sandbag Material.** Furnish sandbags meeting Section 506.2.8., "Sandbags," except that any gradation of aggregate may be used to fill the sandbags.

2.2. **Temporary Pipe Slope Drains.** Provide corrugated metal pipe, polyvinyl chloride (PVC) pipe, flexible tubing, watertight connection bands, grommet materials, prefabricated fittings, and flared entrance sections that conform to the plans. Recycled and other materials meeting these requirements are allowed if approved.

Furnish concrete in accordance with Item 432, "Riprap."

2.3. **Temporary Paved Flumes.** Furnish asphalt concrete, hydraulic cement concrete, or other comparable non-erodible material that conforms to the plans. Provide rock or rubble with a minimum diameter of 6 in. and a maximum volume of 1/2 cu. ft. for the construction of energy dissipaters.

2.4. **Construction Exits.** Provide materials that meet the details shown on the plans and this Section.

- 2.4.1. **Rock Construction Exit.** Provide crushed aggregate for long- and short-term construction exits. Furnish aggregates that are clean, hard, durable, and free from adherent coatings such as salt, alkali, dirt, clay, loam, shale, soft or flaky materials, and organic and injurious matter. Use 4- to 8-in. aggregate for Type 1. Use 2- to 4-in. aggregate for Type 3.
- 2.4.2. **Timber Construction Exit.** Furnish No. 2 quality or better railroad ties and timbers for long-term construction exits, free of large and loose knots and treated to control rot. Fasten timbers with nuts and bolts or lag bolts, of at least 1/2 in. diameter, unless otherwise shown on the plans or allowed. Provide plywood or pressed wafer board at least 1/2 in. thick for short-term exits.
- 2.4.3. **Foundation Course.** Provide a foundation course consisting of flexible base, bituminous concrete, hydraulic cement concrete, or other materials as shown on the plans or directed.
- 2.5. **Embankment for Erosion Control.** Provide rock, loam, clay, topsoil, or other earth materials that will form a stable embankment to meet the intended use.
- 2.6. **Pipe.** Provide pipe outlet material in accordance with Item 556, "Pipe Underdrains," and details shown on the plans.
- 2.7. **Construction Perimeter Fence.**
- 2.7.1. **Posts.** Provide essentially straight wood or steel posts that are at least 60 in. long. Furnish soft wood posts with a minimum diameter of 3 in., or use nominal 2 × 4 in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/5 in. Furnish T- or L-shaped steel posts with a minimum weight of 0.5 lb. per foot.
- 2.7.2. **Fence.** Provide orange construction fencing as approved.
- 2.7.3. **Fence Wire.** Provide 11 gauge or larger galvanized smooth or twisted wire. Provide 16 gauge or larger tie wire.
- 2.7.4. **Flagging.** Provide brightly-colored flagging that is fade-resistant and at least 3/4 in. wide to provide maximum visibility both day and night.
- 2.7.5. **Staples.** Provide staples with a crown at least 1/2 in. wide and legs at least 1/2 in. long.
- 2.7.6. **Used Materials.** Previously used materials meeting the applicable requirements may be used if approved.
- 2.8. **Sandbags.** Provide sandbag material of polypropylene, polyethylene, or polyamide woven fabric with a minimum unit weight of 4 oz. per square yard, a Mullen burst-strength exceeding 300 psi, and an ultraviolet stability exceeding 70%.

Use natural coarse sand or manufactured sand meeting the gradation given in Table 1 to fill sandbags. Filled sandbags must be 24 to 30 in. long, 16 to 18 in. wide, and 6 to 8 in. thick.

**Table 1
Sand Gradation**

| Sieve # | Retained (% by Weight) |
|---------|------------------------|
| 4 | Maximum 3% |
| 100 | Minimum 80% |
| 200 | Minimum 95% |

Aggregate may be used instead of sand for situations where sandbags are not adjacent to traffic. The aggregate size shall not exceed 3/8 in.

- 2.9. **Temporary Sediment Control Fence.** Provide a net-reinforced fence using woven geo-textile fabric. Logos visible to the traveling public will not be allowed.

- 2.9.1. **Fabric.** Provide fabric materials in accordance with DMS-6230, "Temporary Sediment Control Fence Fabric."
- 2.9.2. **Posts.** Provide essentially straight wood or steel posts with a minimum length of 48 in., unless otherwise shown on the plans. Furnish soft wood posts at least 3 in. in diameter, or use nominal 2 × 4 in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/2 in. Furnish T- or L-shaped steel posts with a minimum weight of 1.3 lb. per foot.
- 2.9.3. **Net Reinforcement.** Provide net reinforcement of at least 12-1/2 gauge galvanized welded wire mesh, with a maximum opening size of 2 × 4 in., at least 24 in. wide, unless otherwise shown on the plans.
- 2.9.4. **Staples.** Provide staples with a crown at least 3/4 in. wide and legs 1/2 in. long.
- 2.9.5. **Used Materials.** Use recycled material meeting the applicable requirements if approved.
- 2.10. **Biodegradable Erosion Control Logs.**
- 2.10.1. **Core Material.** Furnish core material that is biodegradable or recyclable. Use compost, mulch, aspen excelsior wood fibers, chipped site vegetation, agricultural rice or wheat straw, coconut fiber, 100% recyclable fibers, or any other acceptable material unless specifically called out on the plans. Permit no more than 5% of the material to escape from the containment mesh. Furnish compost meeting the requirements of Item 161, "Compost."
- 2.10.2. **Containment Mesh.** Furnish containment mesh that is 100% biodegradable, photodegradable, or recyclable such as burlap, twine, UV photodegradable plastic, polyester, or any other acceptable material.
- Furnish biodegradable or photodegradable containment mesh when log will remain in place as part of a vegetative system.
- Furnish recyclable containment mesh for temporary installations.
- 2.10.3. **Size.** Furnish biodegradable erosion control logs with diameters shown on the plans or as directed. Stuff containment mesh densely so logs do not deform.

3. CONSTRUCTION

- 3.1. **Contractor Responsibilities.** Implement the Owner's Storm Water Pollution Prevention Plan (SWP3) for the project in accordance with the plans and specifications, TPDES General Permit TXR150000, and as directed by the Owner. Develop and implement an SWP3 for project-specific material supply plants within and outside of the Owner's right of way in accordance with the specific or general storm water permit requirements. Prevent water pollution from storm water associated with construction activity from entering any surface water or private property on or adjacent to the project site.
- 3.2. **General.**
- 3.2.1. **Phasing.** Implement control measures in the area to be disturbed before beginning construction, or as directed. Limit the disturbance to the area shown on the plans or as directed. If, in the opinion of the Owner, the Contractor cannot control soil erosion and sedimentation resulting from construction operations, the Owner will limit the disturbed area to that which the Contractor is able to control. Minimize disturbance to vegetation.
- 3.2.2. **Maintenance.** Immediately correct ineffective control measures. Implement additional controls as directed. Remove excavated material within the time requirements specified in the applicable storm water permit.
- 3.2.3. **Stabilization.** Stabilize disturbed areas where construction activities will be temporarily stopped in accordance with the applicable storm water permit. Establish a uniform vegetative cover. The project will not

be accepted until a 70% density of existing adjacent undisturbed areas is obtained, unless otherwise shown on the plans. When shown on the plans, the Owner may accept the project when adequate controls are in place that will control erosion, sedimentation, and water pollution until sufficient vegetative cover can be established.

- 3.2.4. **Finished Work.** Upon acceptance of vegetative cover, remove and dispose of all temporary control measures, temporary embankments, bridges, matting, falsework, piling, debris, or other obstructions placed during construction that are not a part of the finished work, or as directed.
- 3.2.5. **Restricted Activities and Required Precautions.** Do not discharge onto the ground or surface waters any pollutants such as chemicals, raw sewage, fuels, lubricants, coolants, hydraulic fluids, bitumens, or any other petroleum product. Operate and maintain equipment on-site to prevent actual or potential water pollution. Manage, control, and dispose of litter on-site such that no adverse impacts to water quality occur. Prevent dust from creating a potential or actual unsafe condition, public nuisance, or condition endangering the value, utility, or appearance of any property. Wash out concrete trucks only as described in the TPDES General Permit TXR150000. Utilize appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water (i.e. dewatering). Prevent discharges that would contribute to a violation of Edwards Aquifer Rules, water quality standards, the impairment of a listed water body, or other state or federal law.
- 3.3. **Installation, Maintenance, and Removal Work.** Perform work in accordance with the SWP3, according to manufacturers' guidelines, and in accordance with the TPDES General Permit TXR150000. Install and maintain the integrity of temporary erosion and sedimentation control devices to accumulate silt and debris until soil disturbing activities are completed and permanent erosion control features are in place or the disturbed area has been adequately stabilized as determined by the Owner. . If a device ceases to function as intended, repair or replace the device or portions thereof as necessary. Remove sediment, debris, and litter. When approved, sediments may be disposed of within embankments, or in the right of way in areas where the material will not contribute to further siltation. Dispose of removed material in accordance with federal, state, and local regulations.

Remove devices upon approval or as directed. Finish-grade and dress the area upon removal. Stabilize disturbed areas in accordance with the permit, and as shown on the plans or directed. Materials removed are considered consumed by the project. Retain ownership of stockpiled material and remove it from the project when new installations or replacements are no longer required.

- 3.3.1. **Rock Filter Dams for Erosion Control.** Remove trees, brush, stumps, and other objectionable material that may interfere with the construction of rock filter dams. Place sandbags as a foundation when required or at the Contractor's option.

Place the aggregate to the lines, height, and slopes specified, without undue voids for Types 1, 2, 3, and 5. Place the aggregate on the mesh and then fold the mesh at the upstream side over the aggregate and secure it to itself on the downstream side with wire ties, or hog rings for Types 2 and 3, or as directed. Place rock filter dams perpendicular to the flow of the stream or channel unless otherwise directed. Construct filter dams according to the following criteria unless otherwise shown on the plans:

- 3.3.1.1. **Type 1 (Non-reinforced).**
- 3.3.1.1.1. **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
- 3.3.1.1.2. **Top Width.** At least 2 ft.
- 3.3.1.1.3. **Slopes.** No steeper than 2:1.
- 3.3.1.2. **Type 2 (Reinforced).**

- 3.3.1.2.1. **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
- 3.3.1.2.2. **Top Width.** At least 2 ft.
- 3.3.1.2.3. **Slopes.** No steeper than 2:1.
- 3.3.1.3. **Type 3 (Reinforced).**
- 3.3.1.3.1. **Height.** At least 36 in. measured vertically from existing ground to top of filter dam.
- 3.3.1.3.2. **Top Width.** At least 2 ft.
- 3.3.1.3.3. **Slopes.** No steeper than 2:1.
- 3.3.1.4. **Type 4 (Sack Gabions).** Unfold sack gabions and smooth out kinks and bends. Connect the sides by lacing in a single loop–double loop pattern on 4- to 5-in. spacing for vertical filling. Pull the end lacing rod at one end until tight, wrap around the end, and twist 4 times. Fill with stone at the filling end, pull the rod tight, cut the wire with approximately 6 in. remaining, and twist wires 4 times.
- Place the sack flat in a filling trough, fill with stone, connect sides, and secure ends as described above for horizontal filling.
- Lift and place without damaging the gabion. Shape sack gabions to existing contours.
- 3.3.1.5. **Type 5.** Provide rock filter dams as shown on the plans.
- 3.3.2. **Temporary Pipe Slope Drains.** Install pipe with a slope as shown on the plans or as directed. Construct embankment for the drainage system in 8-in. lifts to the required elevations. Hand-tamp the soil around and under the entrance section to the top of the embankment as shown on the plans or as directed. Form the top of the embankment or earth dike over the pipe slope drain at least 1 ft. higher than the top of the inlet pipe at all points. Secure the pipe with hold-downs or hold-down grommets spaced a maximum of 10 ft. on center. Construct the energy dissipaters or sediment traps as shown on the plans or as directed. Construct the sediment trap using concrete or rubble riprap in accordance with Item 432, "Riprap," when designated on the plans.
- 3.3.3. **Temporary Paved Flumes.** Construct paved flumes as shown on the plans or as directed. Provide excavation and embankment (including compaction of the subgrade) of material to the dimensions shown on the plans unless otherwise indicated. Install a rock or rubble riprap energy dissipater, constructed from the materials specified above, to a minimum depth of 9 in. at the flume outlet to the limits shown on the plans or as directed.
- 3.3.4. **Construction Exits.** Prevent traffic from crossing or exiting the construction site or moving directly onto a public roadway, alley, sidewalk, parking area, or other right of way areas other than at the location of construction exits when tracking conditions exist. Construct exits for either long- or short-term use.
- 3.3.4.1. **Long-Term.** Place the exit over a foundation course as required. Grade the foundation course or compacted subgrade to direct runoff from the construction exits to a sediment trap as shown on the plans or as directed. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed.
- 3.3.4.1.1. **Type 1.** Construct to a depth of at least 8 in. using crushed aggregate as shown on the plans or as directed.
- 3.3.4.1.2. **Type 2.** Construct using railroad ties and timbers as shown on the plans or as directed.
- 3.3.4.2. **Short-Term.**

- 3.3.4.2.1. **Type 3.** Construct using crushed aggregate, plywood, or wafer board. This type of exit may be used for daily operations where long-term exits are not practical.
- 3.3.4.2.2. **Type 4.** Construct as shown on the plans or as directed.
- 3.3.5. **Earthwork for Erosion Control.** Perform excavation and embankment operations to minimize erosion and to remove collected sediments from other erosion control devices.
- 3.3.5.1. **Excavation and Embankment for Erosion Control Features.** Place earth dikes, swales, or combinations of both along the low crown of daily lift placement, or as directed, to prevent runoff spillover. Place swales and dikes at other locations as shown on the plans or as directed to prevent runoff spillover or to divert runoff. Construct cuts with the low end blocked with undisturbed earth to prevent erosion of hillsides. Construct sediment traps at drainage structures in conjunction with other erosion control measures as shown on the plans or as directed.
- Create a sediment basin, where required, providing 3,600 cu. ft. of storage per acre drained, or equivalent control measures for drainage locations that serve an area with 10 or more disturbed acres at one time, not including offsite areas.
- 3.3.5.2. **Excavation of Sediment and Debris.** Remove sediment and debris when accumulation affects the performance of the devices, after a rain, and when directed.
- 3.3.6. **Construction Perimeter Fence.** Construct, align, and locate fencing as shown on the plans or as directed.
- 3.3.6.1. **Installation of Posts.** Embed posts 18 in. deep or adequately anchor in rock, with a spacing of 8 to 10 ft.
- 3.3.6.2. **Wire Attachment.** Attach the top wire to the posts at least 3 ft. from the ground. Attach the lower wire midway between the ground and the top wire.
- 3.3.6.3. **Flag Attachment.** Attach flagging to both wire strands midway between each post. Use flagging at least 18 in. long. Tie flagging to the wire using a square knot.
- 3.3.7. **Sandbags for Erosion Control.** Construct a berm or dam of sandbags that will intercept sediment-laden storm water runoff from disturbed areas, create a retention pond, detain sediment, and release water in sheet flow. Fill each bag with sand so that at least the top 6 in. of the bag is unfilled to allow for proper tying of the open end. Place the sandbags with their tied ends in the same direction. Offset subsequent rows of sandbags 1/2 the length of the preceding row. Place a single layer of sandbags downstream as a secondary debris trap. Place additional sandbags as necessary or as directed for supplementary support to berms or dams of sandbags or earth.
- 3.3.8. **Temporary Sediment-Control Fence.** Provide temporary sediment-control fence near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the fence into erosion-control measures used to control sediment in areas of higher flow. Install the fence as shown on the plans, as specified in this Section, or as directed.
- 3.3.8.1. **Installation of Posts.** Embed posts at least 18 in. deep, or adequately anchor, if in rock, with a spacing of 6 to 8 ft. and install on a slight angle toward the runoff source.
- 3.3.8.2. **Fabric Anchoring.** Dig trenches along the uphill side of the fence to anchor 6 to 8 in. of fabric. Provide a minimum trench cross-section of 6 × 6 in. Place the fabric against the side of the trench and align approximately 2 in. of fabric along the bottom in the upstream direction. Backfill the trench, then hand-tamp.
- 3.3.8.3. **Fabric and Net Reinforcement Attachment.** Attach the reinforcement to wooden posts with staples, or to steel posts with T-clips, in at least 4 places equally spaced unless otherwise shown on the plans. Sewn

vertical pockets may be used to attach reinforcement to end posts. Fasten the fabric to the top strand of reinforcement by hog rings or cord every 15 in. or less.

- 3.3.8.4. **Fabric and Net Splices.** Locate splices at a fence post with a minimum lap of 6 in. attached in at least 6 places equally spaced unless otherwise shown on the plans. Do not locate splices in concentrated flow areas.

Requirements for installation of used temporary sediment-control fence include the following:

- fabric with minimal or no visible signs of biodegradation (weak fibers),
- fabric without excessive patching (more than 1 patch every 15 to 20 ft.),
- posts without bends, and
- backing without holes.

- 3.3.9. **Biodegradable Erosion Control Logs.** Install biodegradable erosion control logs near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the biodegradable erosion control logs into the erosion measures used to control sediment in areas of higher flow. Install, align, and locate the biodegradable erosion control logs as specified below, as shown in plans or as directed.

Secure biodegradable erosion control logs in a method adequate to prevent displacement as a result of normal rain events, prevent damage to the logs, and to the satisfaction of the Owner such that flow is not allowed under the logs. Temporarily removing and replacing biodegradable erosion logs as to facilitate daily work is allowed at the Contractor's expense.

- 3.3.10. **Vertical Tracking.** Perform vertical tracking on slopes to temporarily stabilize soil. Provide equipment with a track undercarriage capable of producing a linear soil impression measuring a minimum of 12 in. long × 2 to 4 in. wide × 1/2 to 2 in. deep. Do not exceed 12 in. between track impressions. Install continuous linear track impressions where the 12 in. length impressions are perpendicular to the slope. Vertical tracking is required on projects where soil disturbing activities have occurred unless otherwise approved.

4. MEASUREMENT

- 4.1. **Rock Filter Dams.** Installation or removal of rock filter dams will be measured by the foot or by the cubic yard. The measured volume will include sandbags, when used.
- 4.1.1. **Linear Measurement.** When rock filter dams are measured by the foot, measurement will be along the centerline of the top of the dam.
- 4.1.2. **Volume Measurement.** When rock filter dams are measured by the cubic yard, measurement will be based on the volume of rock computed by the method of average end areas.
- 4.1.2.1. **Installation.** Measurement will be made in final position.
- 4.1.2.2. **Removal.** Measurement will be made at the point of removal.
- 4.2. **Temporary Pipe Slope Drains.** Temporary pipe slope drains will be measured by the foot.
- 4.3. **Temporary Paved Flumes.** Temporary paved flumes will be measured by the square yard of surface area. The measured area will include the energy dissipater at the flume outlet.
- 4.4. **Construction Exits.** Construction exits will be measured by the square yard of surface area.
- 4.5. **Earthwork for Erosion and Sediment Control.**

- 4.5.1. **Equipment and Labor Measurement.** Equipment and labor used will be measured by the actual number of hours the equipment is operated and the labor is engaged in the work.
- 4.5.2. **Volume Measurement.**
- 4.5.2.1. **In Place.**
- 4.5.2.1.1. **Excavation.** Excavation will be measured by the cubic yard in its original position and the volume computed by the method of average end areas.
- 4.5.2.1.2. **Embankment.** Embankment will be measured by the cubic yard in its final position by the method of average end areas. The volume of embankment will be determined between:
- the original ground surfaces or the surface upon that the embankment is to be constructed for the feature and
 - the lines, grades and slopes of the accepted embankment for the feature.
- 4.5.2.2. **In Vehicles.** Excavation and embankment quantities will be combined and paid for under “Earthwork (Erosion and Sediment Control, In Vehicle).” Excavation will be measured by the cubic yard in vehicles at the point of removal. Embankment will be measured by the cubic yard in vehicles measured at the point of delivery. Shrinkage or swelling factors will not be considered in determining the calculated quantities.
- 4.6. **Construction Perimeter Fence.** Construction perimeter fence will be measured by the foot.
- 4.7. **Sandbags for Erosion Control.** Sandbags will be measured as each sandbag or by the foot along the top of sandbag berms or dams.
- 4.8. **Temporary Sediment-Control Fence.** Installation or removal of temporary sediment-control fence will be measured by the foot.
- 4.9. **Biodegradable Erosion Control Logs.** Installation or removal of biodegradable erosion control logs will be measured by the foot along the centerline of the top of the control logs.
- 4.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly but is considered subsidiary to this Item.

5. PAYMENT

The following will not be paid for directly but are subsidiary to pertinent Items:

- erosion-control measures for Contractor project-specific locations (PSLs) inside and outside the right of way (such as construction and haul roads, field offices, equipment and supply areas, plants, and material sources);
- removal of litter, unless a separate pay item is shown on the plans;
- repair to devices and features damaged by Contractor operations;
- added measures and maintenance needed due to negligence, carelessness, lack of maintenance, and failure to install permanent controls;
- removal and reinstallation of devices and features needed for the convenience of the Contractor;
- finish grading and dressing upon removal of the device; and
- minor adjustments including but not limited to plumbing posts, reattaching fabric, minor grading to maintain slopes on an erosion embankment feature, or moving small numbers of sandbags.

Stabilization of disturbed areas will be paid for under pertinent Items.

Furnishing and installing pipe for outfalls associated with sediment traps and ponds will not be paid for directly but is subsidiary to the excavation and embankment under this Item.

- 5.1. **Rock Filter Dams.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid as follows:

5.1.1. **Installation.** Installation will be paid for as "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

5.1.2. **Removal.** Removal will be paid for as "Rock Filter Dams (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

When the Owner directs that the rock filter dam installation or portions thereof be replaced, payment will be made at the unit price bid for "Rock Filter Dams (Remove)" and for "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

- 5.2. **Temporary Pipe Slope Drains.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Temporary Pipe Slope Drains" of the size specified. This price is full compensation for furnishing materials, removal and disposal, furnishing and operating equipment, labor, tools, and incidentals.

Removal of temporary pipe slope drains will not be paid for directly but is subsidiary to the installation Item. When the Owner directs that the pipe slope drain installation or portions thereof be replaced, payment will be made at the unit price bid for "Temporary Pipe Slope Drains" of the size specified, which is full compensation for the removal and reinstallation of the pipe drain.

Earthwork required for the pipe slope drain installation, including construction of the sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

Riprap concrete or stone, when used as an energy dissipater or as a stabilized sediment trap, will be measured and paid for in accordance with Item 432, "Riprap."

- 5.3. **Temporary Paved Flumes.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Temporary Paved Flume (Install)" or "Temporary Paved Flume (Remove)." This price is full compensation for furnishing and placing materials, removal and disposal, equipment, labor, tools, and incidentals.

When the Owner directs that the paved flume installation or portions thereof be replaced, payment will be made at the unit prices bid for "Temporary Paved Flume (Remove)" and "Temporary Paved Flume (Install)." These prices are full compensation for the removal and replacement of the paved flume and for equipment, labor, tools, and incidentals.

Earthwork required for the paved flume installation, including construction of a sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 5.4. **Construction Exits.** Contractor-required construction exits from off right of way locations or on-right of way PSLs will not be paid for directly but are subsidiary to pertinent Items.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" for construction exits needed on right of way access to work areas required by the Owner will be paid for at the unit price bid for "Construction Exits (Install)" of the type specified or "Construction Exits (Remove)." This price is full compensation for furnishing and placing materials, excavating, removal and disposal, cleaning vehicles, labor, tools, and incidentals.

When the Owner directs that a construction exit or portion thereof be removed and replaced, payment will be made at the unit prices bid for "Construction Exit (Remove)" and "Construction Exit (Install)" of the type specified. These prices are full compensation for the removal and replacement of the construction exit and for equipment, labor, tools, and incidentals.

Construction of sediment traps used in conjunction with the construction exit will be measured and paid for under "Earthwork for Erosion and Sediment Control."

5.5. **Earthwork for Erosion and Sediment Control.**

5.5.1. **Initial Earthwork for Erosion and Sediment Control.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Excavation (Erosion and Sediment Control, In Place)," "Embankment (Erosion and Sediment Control, In Place)," "Excavation (Erosion and Sediment Control, In Vehicle)," "Embankment (Erosion and Sediment Control, (In Vehicle)," or "Earthwork (Erosion and Sediment Control, In Vehicle)."

This price is full compensation for excavation and embankment including hauling, disposal of material not used elsewhere on the project; embankments including furnishing material from approved sources and construction of erosion-control features; and equipment, labor, tools, and incidentals.

Sprinkling and rolling required by this Item will not be paid for directly, but will be subsidiary to this Item.

5.5.2. **Maintenance Earthwork for Erosion and Sediment Control for Cleaning and Restoring Control Measures.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid under a Contractor Force Account Item from invoice provided to the Owner.

This price is full compensation for excavation, embankment, and re-grading including removal of accumulated sediment in various erosion control installations as directed, hauling, and disposal of material not used elsewhere on the project; excavation for construction of erosion-control features; embankments including furnishing material from approved sources and construction of erosion-control features; and equipment, labor, tools, and incidentals.

Earthwork needed to remove and obliterate erosion-control features will not be paid for directly but is subsidiary to pertinent Items unless otherwise shown on the plans.

Sprinkling and rolling required by this Item will not be paid for directly, but will be subsidiary to this Item.

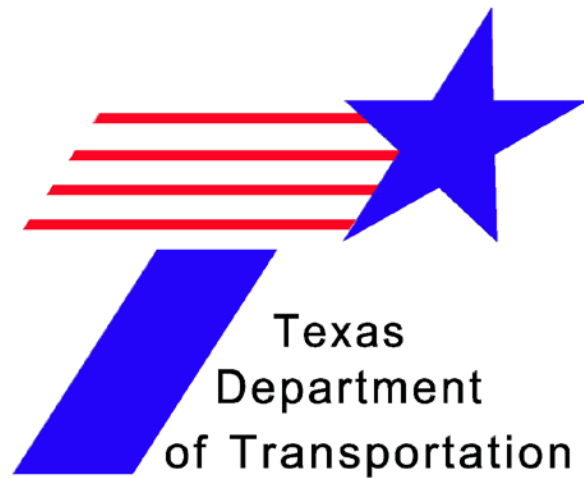
5.6. **Construction Perimeter Fence.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Construction Perimeter Fence." This price is full compensation for furnishing and placing the fence; digging, fence posts, wire, and flagging; removal and disposal; and materials, equipment, labor, tools, and incidentals.

Removal of construction perimeter fence will be not be paid for directly but is subsidiary to the installation Item. When the Owner directs that the perimeter fence installation or portions thereof be removed and replaced, payment will be made at the unit price bid for "Construction Perimeter Fence," which is full compensation for the removal and reinstallation of the construction perimeter fence.

5.7. **Sandbags for Erosion Control.** Sandbags will be paid for at the unit price bid for "Sandbags for Erosion Control" (of the height specified when measurement is by the foot). This price is full compensation for materials, placing sandbags, removal and disposal, equipment, labor, tools, and incidentals.

Removal of sandbags will not be paid for directly but is subsidiary to the installation Item. When the Owner directs that the sandbag installation or portions thereof be replaced, payment will be made at the unit price bid for "Sandbags for Erosion Control," which is full compensation for the reinstallation of the sandbags.

QUALITY ASSURANCE PROGRAM FOR CONSTRUCTION



and the

BROWNSVILLE NAVIGATION DISTRICT

NOVEMBER 2017

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TABLE OF CONTENTS

| | |
|---|-----------|
| SECTION 1 - INTRODUCTION | 3 |
| 1.1 Overview | 3 |
| 1.2 Definitions | 3 |
| 1.3 Remarks..... | 4 |
| SECTION 2 - ACCEPTANCE PROGRAM | 5 |
| 2.1 Overview | 5 |
| 2.2 Sampling and Testing Frequency and Location..... | 5 |
| 2.3 Quality Control Sampling and Testing..... | 5 |
| 2.4 Dispute Resolution System | 5 |
| SECTION 3 - INDEPENDENT ASSURANCE PROGRAM | 6 |
| 3.1 Overview | 6 |
| 3.2 Sampling and Testing Frequency..... | 6 |
| 3.3 Testing Equipment | 6 |
| 3.4 Testing Personnel | 6 |
| 3.5 Comparing Test Results | 7 |
| 3.6 Annual Report of IA Program Results | 7 |
| SECTION 4 - MATERIALS CERTIFICATION | 8 |
| 4.1 Overview | 8 |
| SECTION 5 - CONFLICT OF INTEREST | 9 |
| 5.1 Overview | 9 |
| SECTION 6 - SAMPLING AND TESTING PERSONNEL QUALIFICATION PROGRAM | 10 |
| 6.1 Purpose..... | 10 |
| 6.2 Personnel Qualification | 10 |
| 6.3 Who Must Be Qualified?..... | 14 |
| 6.4 Who Can Qualify Sampling and Testing Personnel?..... | 14 |
| 6.5 Qualification Procedure..... | 14 |
| 6.6 Documentation | 15 |
| 6.7 Disqualification | 15 |
| SECTION 7 - LABORATORY QUALIFICATION PROGRAM..... | 17 |
| 7.1 Purpose..... | 17 |
| 7.2 Laboratories to be Qualified..... | 17 |
| 7.3 Laboratory Qualification Responsibility..... | 17 |
| 7.4 Calibration Standards and Frequencies for Laboratory Equipment..... | 18 |
| 7.5 Frequency for Laboratory Qualification | 18 |
| 7.6 Non-Compliance | 18 |
| 7.7 Documentation | 18 |

7.8 Dispute Resolution 18

SECTION 8 - ACCEPTABLE TOLERANCE LIMITS FOR INDEPENDENT ASSURANCE19

8.1 Acceptable Tolerance Limits 19

SECTION 9 - FREQUENCY FOR SYSTEM APPROACH INDEPENDENT ASSURANCE TESTING22

9.1 Overview 22

9.2 Required Frequencies and Activities..... 22

SECTION 1 - INTRODUCTION

1.1 Overview

The Insert LG Entity Name established the Quality Assurance Program (QAP) to ensure that materials and workmanship incorporated into any construction project are in reasonable conformity with the requirements of the approved plans and specifications, including any approved changes. This program conforms to TxDOT's QAP for construction and to the criteria in 23 CFR 637(b). It consists of an "Acceptance Program" and "Independent Assurance (IA) Program" based on test results obtained by qualified persons and equipment.

The QAP allows for the use of validated contractor-performed quality control (QC) test results as part of an acceptance decision. It also allows for the use of test results obtained by commercial laboratories in the IA program, as well as in acceptance decisions. The acceptance of all materials and workmanship shall be the responsibility of the engineer.

1.2 Definitions

The following terms and definitions are referenced in this document and have the meanings set forth below:

Abuse shall mean intentional deviations from the approved procedures.

Acceptance Program shall mean as all factors that comprise the State highway agency's (SHA) determination of the quality of the product as specified in the contract requirements. These factors include verification sampling, testing, and inspection and may include results of quality control sampling and testing.

Independent Assurance Program shall mean activities that are an unbiased and independent evaluation of all the sampling and testing procedures used in the acceptance program. Test procedures used in the acceptance program, which are performed in the SHA's central laboratory, would not be covered by an Independent Assurance Program.

Neglect shall mean unintentional deviations from approved procedures that may or may not cause erroneous results.

Proficiency samples shall mean homogenous samples that are distributed and tested by two or more laboratories and/or personnel. The test results are compared to assure that the laboratories and/or personnel are obtaining the same results.

Qualified laboratories shall mean laboratories capable as defined by appropriate programs established by the SHA. As a minimum, the qualification program shall include provisions for checking testing equipment, and the laboratory shall keep records of calibration checks.

Qualified sampling and testing personnel shall mean personnel who are capable as defined by appropriate programs established by the SHA.

Quality assurance shall mean all those planned and systematic actions necessary to provide confidence that a product or service will satisfy given requirements for quality.

Quality control shall mean all contractor/vendor operational techniques and activities that are performed or conducted to fulfill the contract requirements.

Vendor shall mean a supplier of project-produced material that is not the contractor.

Verification sampling and testing shall mean sampling and testing performed to validate the quality of the product.

1.3 Remarks

For more information regarding the information and procedures in the manual, contact the Materials & Pavements Section of the Construction Division (512-506-5803).

SECTION 2 - ACCEPTANCE PROGRAM

2.1 Overview

Materials incorporated into any highway construction project shall be subject to verification sampling and testing, as well as quality control (QC) sampling and testing when required by the specifications.

2.2 Sampling and Testing Frequency and Location

Verification sampling and testing shall be performed at the location and frequency established in the [Guide Schedule of Sampling and Testing](#) or in the specifications specific to each project.

2.3 Quality Control Sampling and Testing

Contractor-performed QC sampling and testing may be used as part of an acceptance decision when required or allowed by specification.

These QC sampling and testing personnel, laboratories, and equipment shall be qualified according to the "Sampling and Testing Personnel Qualification Program" and the "Laboratory Qualification Program" and shall be evaluated under the "Independent Assurance Program" in this document.

These QC test results shall be validated by verification test results obtained from independently taken samples. Qualified TxDOT personnel or their designated agents shall perform verification sampling and testing.

2.4 Dispute Resolution System

When QC test results are used in the acceptance decision, testing disputes arising between TxDOT, or its designated agents, and the contractor shall be resolved in a reliable, unbiased manner by referee testing or evaluation performed by the Construction Division, Materials & Pavements Section (CST/M&P) central laboratory. The decision by the CST/M&P central laboratory will be final.

SECTION 3 - INDEPENDENT ASSURANCE PROGRAM

3.1 Overview

The Independent Assurance (IA) program evaluates all sampling and testing procedures, personnel, and equipment used as part of an acceptance decision.

The IA program evaluates the qualified sampling and testing personnel and testing equipment and is established using the system approach. The system approach bases frequency of IA activities on time, regardless of the number of tests, quantities of materials, or numbers of projects tested by the individual being evaluated.

3.2 Sampling and Testing Frequency

Perform IA sampling and testing at the frequency established in 'Required Frequencies and Activities.'

NOTE: Testing procedures performed at the Construction Division, Materials & Pavements Section (CST/M&P) central laboratory are not subject to the IA program.

3.3 Testing Equipment

CST/M&P will qualify district laboratory testing equipment used for IA sampling and testing, according to the "Laboratory Qualification Program."

The district laboratory will qualify all other department testing equipment and AASHTO accredited commercial laboratory equipment used for IA sampling and testing. (*Note: Any commercial laboratory used for IA sampling and testing must be AASHTO accredited.*)

Qualify testing equipment according to these guidelines:

- A. Frequency for qualifying IA sampling and testing equipment will not exceed one year.
- B. Calibration/verification is required whenever the laboratory or equipment is moved.
- C. IA equipment shall be other than that used for performing verification or quality control (QC) testing.

Any equipment used to perform verification and/or QC sampling and testing in making an acceptance decision will be evaluated by IA sampling and testing personnel. This evaluation includes calibration checks and split or proficiency sample tests. The requirements for, and frequency of, equipment calibrations are shown in TxDOT's test procedures, as referenced in 'Calibration Standards and Frequencies for Laboratory Equipment.' Acceptable tolerance limits for the comparison of test results from split or proficiency samples are shown in "Acceptable Tolerance Limits for Independent Assurance."

3.4 Testing Personnel

CST/M&P qualifies district laboratory personnel performing IA sampling and testing, according to the "Sampling and Testing Personnel Qualification Program."

The district laboratory qualifies all other department personnel and AASHTO accredited commercial laboratory personnel performing IA sampling and testing.

Individuals performing IA sampling and testing will be other than those performing verification or QC testing.

IA sampling and testing personnel will evaluate any individual performing verification or QC sampling and testing. This evaluation includes observations and split or proficiency sample testing. Acceptable tolerance limits for the comparison of test results for split or proficiency samples are shown in "Acceptable Tolerance Limits for Independence Assurance."

3.5 Comparing Test Results

The engineer performs a prompt comparison of the test results obtained by the individual being evaluated and the IA tester. Acceptable tolerance limits for comparing test results from split and proficiency samples are shown in "Acceptable Tolerance Limits for Independence Assurance."

If the comparisons of the test results do not comply with the tolerances, an engineering review of the test procedures and equipment will be performed immediately to determine the source of the discrepancy.

Identify and incorporate corrective actions as appropriate.

Document and report test results from all samples involved in the IA Program in the appropriate district or project files.

3.6 Annual Report of IA Program Results

CST/M&P will compose and submit an annual report to the Federal Highway Administration (FHWA) Division Administrator summarizing the results of TxDOT's systems approach IA program. At the end of each calendar year, the LG shall compose and submit the report to TxDOT PM/PRIC. The LG data will be included in TxDOT's statewide report to FHWA. This report identifies:

- A. Number of sampling and testing personnel evaluated by the systems approach IA testing;
- B. Number of IA evaluations found to be acceptable;
- C. Number of IA evaluations found to be unacceptable; and
- D. Summary of any significant system-wide corrective actions taken.

SECTION 4 - MATERIALS CERTIFICATION

4.1 Overview

A materials certification, conforming in substance to the example, ['Letter of Certification of Materials Used,'](#) shall be submitted to the Federal Highway Administration (FHWA) Division Administrator for each construction project that is subject to FHWA construction oversight activities.

SECTION 5 - CONFLICT OF INTEREST

5.1 Overview

To avoid an appearance of a conflict of interest, any qualified non-TxDOT laboratory shall perform only one of the following types of testing on the same project:

- A. Verification testing;
- B. Quality control testing; or
- C. Independent Assurance (IA) testing.

SECTION 6 - SAMPLING AND TESTING PERSONNEL QUALIFICATION PROGRAM

6.1 Purpose

This program provides uniform statewide procedures for sampling and testing personnel qualification to ensure that tests required by the specifications are performed according to the prescribed sampling and testing methods.

6.2 Personnel Qualification

Sampling and testing personnel will be qualified to perform tests for the acceptance of materials in the areas of Portland cement concrete, soils and aggregates, and bituminous materials.

The test methods for which individuals can be qualified include, but are not limited to, the following. (* Denotes tests on which annual split or proficiency sample evaluations are required.)

6.2.1 Soils (100-E Series)

- A. Tex-100-E, "Surveying and Sampling Soils for Highways"
- B. Tex-101-E, "Preparing Soil and Flexible Base Materials for Testing"
- C. Tex-102-E, "Determining Slaking Time"
- D. Tex-103-E, "Determining Moisture Content in Soil Materials"
- E. Tex-104-E, "Determining Liquid Limit of Soils" *
- F. Tex-105-E, "Determining Plastic Limit of Soils" *
- G. Tex-106-E, "Calculating the Plasticity Index of Soils" *
- H. Tex-107-E, "Determining the Bar Linear Shrinkage of Soils" *
- I. Tex-108-E, "Determining the Specific Gravity of Soils"
- J. Tex-110-E, "Particle Size Analysis of Soils" *
- K. Tex-111-E, "Determining the Amount of Material in Soils Finer than 75 μm (No. 200) Sieve"
- L. Tex-113-E, "Laboratory Compaction Characteristics and Moisture-Density Relationship of Base Materials"
- M. Tex-114-E, "Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade and Embankment Soils"
- N. Tex-115-E, "Field Method for Determining In-Place Density of Soils and Base Materials"
- O. Tex-116-E, "Ball Mill Method for Determining the Disintegration of Flexible Base Material"
- P. Tex-117-E, "Triaxial Compression Tests for Disturbed Soils and Base Materials"
- Q. Tex-120-E, "Soil-Cement Testing"

- R. Tex-121-E, "Soil-Lime Testing"
- S. Tex-126-E, "Molding, Testing, and Evaluating Bituminous Black Base Materials"
- T. Tex-127-E, "Lime Fly-Ash Compressive Strength Test Methods"
- U. Tex-128-E, "Determining Soil pH"
- V. Tex-129-E, "Measuring the Resistivity of Soil Materials"
- W. Tex-140-E, "Measuring the Thickness of Pavement Layer"
- X. Tex-142-E, "Laboratory Classification of Soils for Engineering Purposes"
- Y. Tex-145-E, "Determining Sulfate Content in Soils – Colorimetric Method"
- Z. Tex-146-E, "Conductivity Test for Field Detection of Sulfates in Soil"

6.2.2 Bituminous (200-F Series)

- A. Tex-200-F, "Sieve Analysis of Fine and Coarse Aggregate" *
- B. Tex-201-F, "Bulk Specific Gravity and Water Absorption of Aggregate"
- C. Tex-202-F, "Apparent Specific Gravity of Material Finer than 180 μm (No. 80) Sieve"
- D. Tex-203-F, "Sand Equivalent Test" *
- E. Tex-204-F, "Design of Bituminous Mixtures"
- F. Tex-205-F, "Laboratory Method of Mixing Bituminous Mixtures"
- G. Tex-206-F, "Compacting Test Specimens of Bituminous Mixtures" *
- H. Tex-207-F, "Determining Density of Compacted Bituminous Mixtures" *
- I. Tex-208-F, "Test for Stabilometer Value of Bituminous Mixtures"
- J. Tex-210-F, "Determining Asphalt Content of Bituminous Mixtures by Extraction"
- K. Tex-211-F, "Recovery of Asphalt from Bituminous Mixtures by the Abson Process"
- L. Tex-212-F, "Determining Moisture Content of Bituminous Mixtures"
- M. Tex-213-F, "Determining Hydrocarbon-Volatile Content of Bituminous Mixtures"
- N. Tex-217-F, "Determining Deleterious Material and Decantation Test for Coarse Aggregates"
- O. Tex-221-F, "Sampling Aggregate for Bituminous Mixtures, Surface Treatments, and Limestone Rock Asphalt"
- P. Tex-222-F, "Sampling Bituminous Mixtures"
- Q. Tex-224-F, "Determining Flakiness Index"
- R. Tex-225-F, "Random Selection of Bituminous Mixture Samples"
- S. Tex-226-F, "Indirect Tensile Strength Test"
- T. Tex-227-F, "Theoretical Maximum Specific Gravity of Bituminous Mixtures" *
- U. Tex-228-F, "Determining Asphalt Content of Bituminous Mixtures by the Nuclear Method"

- V. Tex-229-F, "Combined HMAC Cold-Belt Sampling and Testing Procedure"
- W. Tex-233-F, "Preparing Control Charts for Asphaltic Concrete Paving Projects"
- X. Tex-235-F, "Determining Draindown Characteristics in Bituminous Materials"
- Y. Tex-236-F, "Determining Asphalt Content from Asphalt Paving Mixtures by the Ignition Method" *
- Z. Tex-239-F, "Asphalt Release Agent"
- AA. Tex-241-F, "Superpave Gyrotory Compacting of Test Specimens of Bituminous Mixtures"
- BB. Tex-242-F, "Hamburg Wheel-Tracking Test"
- CC. Tex-243-F, "Tack Coat Adhesion"
- DD. Tex-244-F, "Thermal Profile of Hot Mix Asphalt"
- EE. Tex-245-F, "Cantabro Loss"
- FF. Tex-246-F, "Permeability or Water Flow of Hot Mix Asphalt"
- GG. Tex-280-F, "Determining Flat and Elongated Particles"

6.2.3 Aggregates (400-A Series)

- A. Tex-400-E, "Sampling Stone, Gravel, Sand, and Mineral Aggregates"
- B. Tex-401-A, "Sieve Analysis of Fine and Coarse Aggregate" *
- C. Tex-402-A, "Fineness Modulus of Fine Aggregate"
- D. Tex-403-A, "Saturated Surface Dry Specific Gravity and Absorption of Aggregates"
- E. Tex-404-A, "Determining Unit Mass (Weight) of Aggregates"
- F. Tex-405-A, "Determining Percent Solids and Voids in Concrete Aggregates"
- G. Tex-406-A, "Material Finer than 75 μm (No. 200) Sieve in Mineral Aggregates (Decantation Test for Concrete Aggregates)"
- H. Tex-408-A, "Organic Impurities in Fine Aggregate for Concrete"
- I. Tex-409-A, "Free Moisture and Water Absorption in Aggregate for Concrete"
- J. Tex-410-A, "Abrasion of Coarse Aggregate Using the Los Angeles Machine"
- K. Tex-411-A, "Soundness of Aggregate by Using Sodium Sulfate or Magnesium Sulfate"
- L. Tex-413-A, "Determining Deleterious Materials in Mineral Aggregates"
- M. Tex-425-A, "Determining Moisture Content in Fine Aggregate by the 'Speedy' Moisture Method"
- N. Tex-460-A, "Determining Crushed Face Particle Count"
- O. Tex-461-A, "Degradation of Coarse Aggregates by Micro-Deval Abrasion"

6.2.4 Concrete (400-A Series)

- A. Tex-407-A, "Sampling Freshly Mixed Concrete"
- B. Tex-414-A, "Air Content of Freshly Mixed Concrete by the Volumetric Method" *
- C. Tex-415-A, "Slump of Portland Cement Concrete" *
- D. Tex-416-A, "Air Content of Freshly Mixed Concrete by the Pressure Method" *
- E. Tex-417-A, "Unit Weight, Yield, and Air Content (Gravimetric) of Concrete"
- F. Tex-418-A, "Compressive Strength of Cylindrical Concrete Specimens" *
- G. Tex-422-A, "Measuring Temperature of Freshly Mixed Portland Cement Concrete"
- H. Tex-423-A, "Determining Pavement Thickness by Direct Measurement"
- I. Tex-424-A, "Obtaining and Testing Drilled Cores of Concrete"
- J. Tex-426-A, "Estimating Concrete Strength by the Maturity Method"
- K. Tex-427-A, "Correlating Concrete Strength Tests"
- L. Tex-430-A, "Slump Loss of Hydraulic Cement Concrete"
- M. Tex-436-A, "Measuring Texture Depth by the Sand Patch Method"
- N. Tex-437-A, "Test for Flow of Grout Mixtures (Flow Cone Method)"
- O. Tex-440-A, "Initial Time of Set of Fresh Concrete"
- P. Tex-447-A, "Making and Curing Concrete Test Specimens"
- Q. Tex-448-A, "Flexural Strength of Concrete Using Simple Beam Third-Point Loading" *
- R. Tex-450-A, "Capping Cylindrical Concrete Specimens"
- S. Tex-472-A, "Uniformity of Concrete"

6.2.5 Asphalt (500-C Series)

- A. Tex-502-C, "Penetration of Bituminous Materials" (refer to AASHTO T 49)
- B. Tex-530-C, "Effect of Water on Bituminous Paving Mixtures"
- C. Tex-531-C, "Prediction of Moisture-Induced Damage to Bituminous Paving Materials Using Molded Specimens"

6.2.6 Special Procedures (100-S Series)

- A. Tex-1000-S, "Operating Pavement Profilograph and Evaluating Profiles"
- B. Tex-1001-S, "Operating Inertial Profilers and Evaluating Pavement Profiles"

There may be other tests, not listed above, that are routinely performed in specific geographical locations of the state for which applicable TxDOT districts may require qualification.

6.3 Who Must Be Qualified?

Any individual who performs tests on materials for acceptance must be qualified.

NOTE: Reciprocity may be granted to individuals who have been successfully qualified under another state's program. These situations will be considered on a case-by-case basis and must meet the approval of the Construction Division director.

6.4 Who Can Qualify Sampling and Testing Personnel?

The following personnel may qualify an individual to perform the required sampling and testing of materials:

- A. Construction Division, Materials & Pavements Section (CST/M&P) personnel;
- B. Qualified district materials engineer/laboratory supervisor;
- C. Qualified district laboratory personnel who have been authorized by the district material engineer/laboratory supervisor to qualify others; and
- D. Other independent sources, such as the Texas Asphalt Pavement Association (TxAPA) or the American Concrete Institute (ACI). Certifications received from these institutions may be used to satisfy the written exam and observation part of the "Sampling and Testing Personnel Qualification Program."
- E. Any TxDOT approved IA personnel.

6.5 Qualification Procedure

To qualify, an individual must successfully perform the specific test and the necessary calculations required to determine specification compliance in the presence of an authorized evaluator. Successful performance is defined as demonstrating the ability to properly perform the key elements for each test method. If the individual fails to demonstrate the ability to perform a test, the individual will be allowed one retest per test method at the evaluator's convenience.

After successful performance of a test method, the individual must also pass a written examination (minimum score of 80%) administered by an authorized evaluator. An individual failing the written examination may request a retest. The retest must be scheduled and administered within thirty days of notification of failure. Failure to pass the second written examination shall be considered as failing the entire qualification.

If an individual fails to qualify on a specific test method or the qualification is revoked, the individual must obtain additional training before the individual can retest on that specific test.

In addition, for tests requiring a split/proficiency sample evaluation, the individual must participate in split/proficiency samples given by the qualification authority to validate the qualification. The results of the samples will be evaluated with acceptable tolerance limits. If the comparisons of the test results do not comply with the tolerances, an engineering review of the test procedures and equipment will be performed immediately to determine the source of the discrepancy. Corrective actions must be identified and incorporated as appropriate, prior to the individual performing additional testing on that test method.

Under unique circumstances, the qualification authority may grant a verbal examination upon request. The reason(s) for requesting a verbal examination must be presented and documented prior to the individual being allowed to take the examination.

Unless otherwise stated, qualification of an individual is valid for not more than three years, after which the individual must be re-qualified. Under the Independent Assurance (IA) system approach, interim evaluations will be required as specified in "Frequency of System Approach Independent Assurance Testing."

6.6 Documentation

The LG and IA are responsible for maintaining documentation of all individuals qualified under their authority who perform required tests for acceptance of materials. Area offices must also maintain copies of the certificates for individuals performing testing on projects under their supervision.

Documentation to be maintained by the LG and IA laboratory includes:

- A. Sampling and testing personnel qualification form—a form for each individual listing all the tests the individual has been qualified to perform;
- B. Qualification worksheet—a form listing the key elements of the test method (The evaluator conducting the observation uses the form to record the results.);
- C. Copy of qualification certificates issued; and
- D. Copies of written examinations.

Documentation retention will be for the life of the qualification. Qualification authority must be shown on the certificate given to each individual.

6.7 Disqualification

Accusations of neglect or abuse of the rights and responsibilities are made to the LG/RPIC. The difference between neglect and abuse is intent and shall be determined by the LG/RPIC.

Penalties are implemented upon recommendation by the district engineer, and the penalties range from a minimum of ninety days suspension to a maximum of permanent revocation of the certification.

- A. The first instance of neglect results in a ninety-day suspension; any subsequent instance shall be considered and treated the same as abuse.
- B. The first instance of abuse results in a six-month suspension.

- C. The second instance of abuse results in permanent revocation of the certification.
- D. Permanent revocation of a certification results in that individual being ineligible for certification at any level.

Certifications are considered as statewide; therefore, any suspensions and/or revocations will apply statewide.

SECTION 7 - LABORATORY QUALIFICATION PROGRAM

7.1 Purpose

This program provides uniform statewide procedures to ensure that laboratory facilities and equipment are adequate for the performance of required sampling and testing methods.

7.2 Laboratories to be Qualified

All laboratories performing testing for the LG require qualification. These include, but are not limited to the following:

- A. LG QA laboratory; and
- B. LG IA laboratory.

7.3 Laboratory Qualification Responsibility

CST/M&P central laboratory will be accredited under the AASHTO Laboratory Accreditation Program.

LG and IA are responsible for overseeing the project technician and laboratory qualification program. The designated IA is responsible for qualifying all project laboratory qualification process. The laboratory qualifying authority will:

- A. Identify the scope of testing to be performed;
- B. Verify that manuals and/or test methods used to perform tests are available and up-to-date;
- C. Document that the laboratory has the required equipment to perform the tests; and
- D. Check the calibration/verification records for each piece of equipment, to include:
 - a. Description of equipment;
 - b. Identification of any traceable standard used;
 - c. Frequency of calibration;
 - d. Date of calibration;
 - e. Date of last calibration;
 - f. Date of next calibration;
 - g. Calibrating technician;
 - h. Procedure used to calibrate/verify equipment; and
 - i. Detailed results of calibration.

In addition, all equipment may be subjected to calibration verification or other inspection by the qualifying authority.

7.4 Calibration Standards and Frequencies for Laboratory Equipment

The standards for calibration and the frequencies for laboratory equipment calibrations are shown in Tex-198-E, "Minimum Standards for Acceptance of a Laboratory for Soils and Flexible Base Testing;" Tex-237-F, "Minimum Standards for Acceptance of a Laboratory for Hot Mix Testing;" and Tex-498-A, "Minimum Standards for Acceptance of a Laboratory for Concrete and Aggregate Testing."

7.5 Frequency for Laboratory Qualification

Laboratories are qualified at an interval not to exceed three years. Calibration/verification is required whenever the laboratory or equipment is moved. Equipment used in IA sampling and testing will be verified at intervals not to exceed one year.

7.6 Non-Compliance

A laboratory that does not meet the above requirements is subject to disqualification. Any equipment in a qualified laboratory failing to meet specified equipment requirements for a specific test method will not be used for that test method.

7.7 Documentation

The LG and IA laboratory are responsible for verifying that laboratories are qualified to perform TxDOT testing. Documentation will be required to be kept by the qualified laboratory and LG/IA laboratory. Calibration records will be maintained for three years, unless another agency requires a longer period.

7.8 Dispute Resolution

The next higher qualification authority will resolve disputes concerning calibration and verification of equipment. For disputes that cannot be resolved at the district level, CST/M&P will be the final authority.

SECTION 8 - ACCEPTABLE TOLERANCE LIMITS FOR INDEPENDENT ASSURANCE

8.1 Acceptable Tolerance Limits

The following table indicates the acceptable tolerance limits for the specified material.

| PROCEDURE | TEST METHOD | TOLERANCE |
|--|-------------|----------------------|
| Embankment | | |
| In-Place Density | Tex-115-E | ± 2.5% Field Density |
| Untreated & Treated Sub-Base and Base Courses | | |
| In-Place Density | Tex-115-E | ± 2.5% Field Density |
| Gradation: | Tex-110-E | |
| > No. 4 sieve | | ± 5% |
| ≤ No. 4 sieve | | ± 3% |
| Liquid Limit | Tex-104-E | 15% of the mean * |
| Plasticity Index | Tex-106-E | 20% of the mean * |
| * The difference between compared test results shall not exceed the indicated percentage of the mean of the compared test results where the mean is the average of the two test results. | | |
| Asphalt Stabilized Base | | |
| Gradation: | Tex-200-F | |
| > No. 4 sieve | | ± 5% |
| ≤ No. 4 sieve | | ± 3% |
| Liquid Limit | Tex-104-E | 15% of the mean * |
| Plasticity Index | Tex-106-E | 20% of the mean * |
| Percent Asphalt | Tex-210-F | ± 0.3% |
| | Tex-228-F | ± 0.3% |
| | Tex-126-E | ± 0.3% |
| | Tex-229-F | ± 0.3% |
| | Tex-236-F | ± 0.3% |
| In-Place Density (Cores) | Tex-207-F | ± 1% Field Density |
| * The difference between compared test results shall not exceed the indicated percentage of the mean of the compared test results where the mean is the average of the two test results. | | |
| Surface Treatment Aggregates | | |
| Gradation: | Tex-200-F | |
| > No. 4 sieve | | ± 5% |
| ≤ No. 4 sieve | | ± 3% |
| Portland Cement Concrete Coarse Aggregate | | |
| Gradation: | Tex-401-A | |
| > No. 4 sieve | | ± 5% |
| ≤ No. 4 sieve | | ± 3% |
| Portland Cement Concrete Fine Aggregate | | |

| PROCEDURE | TEST METHOD | TOLERANCE |
|--|-------------|-------------------|
| Gradation (3/8"–No. 200) | Tex-401-A | ± 3% |
| Sand Equivalent | Tex-203-F | ± 10 |
| Portland Cement Concrete Complete Mixture | | |
| Flexural Strength | Tex-448-A | 20% of the mean * |
| Compressive | Tex-418-A | 20% of the mean * |
| Slump | Tex-415-A | ± 1" |
| Entrained Air | Tex-414-A | ± 1% |
| | Tex-416-A | ± 1% |
| * The difference between compared test results shall not exceed the indicated percentage of the mean of the compared test results where the mean is the average of the two test results. | | |
| Asphaltic Concrete Coarse Aggregate | | |
| Gradation: | Tex-200-F | |
| > No. 10 sieve | | ± 5% |
| ≤ No. 10 sieve | | ± 3% |
| Deleterious Material | Tex-217-F | ± 0.3% |
| Decantation | Tex-217-F | 20% of the mean * |
| * The difference between compared test results shall not exceed the indicated percentage of the mean of the compared test results where the mean is the average of the two test results. | | |
| Asphaltic Concrete Fine Aggregate | | |
| Gradation (No. 1--No. 200) | Tex-200-F | ± 3% |
| Bar Linear Shrinkage | Tex-107-E | ± 2 |
| Asphaltic Concrete Combined Aggregate | | |
| Gradation: | Tex-200-F | |
| > 5/8" | | ± 5% |
| 5/8"–No. 200 | | ± 3% |
| Passing No. 200 | | ± 1.5% |
| Sand Equivalent | Tex-203-F | ± 10 |
| Asphaltic Concrete Complete Mixture | | |
| Asphalt Content | Tex-210-F | ± 0.3% |
| | Tex-228-F | ± 0.3% |
| | Tex-229-F | ± 0.3% |
| | Tex-236-F | ± 0.3% |
| Maximum Theoretical Specific Gravity | Tex-227-F | ± 0.020 |
| Laboratory Molded Density | Tex-207-F | ± 1.0% |
| Laboratory Molded Bulk Specific Gravity | Tex-207-F | ± 0.020 |
| Stability | Tex-208-F | 5 points |
| Moisture | Tex-212-F | ± 0.0 ml |
| In-Place Air Voids (Core) | Tex-207-F | ± 1.0% |

NOTE: The above tolerances are to be used when comparison of test results is by split samples. A tolerance of plus or minus two standard deviations shall be used when comparison of test results is by proficiency samples.

| EXAMPLE: Plasticity Index | |
|---------------------------|----|
| Job Control test value | 18 |
| IA Test value | 22 |
| Mean | 20 |
| 20% difference | 4 |

Both values are within 20% of the mean.

SECTION 9 - FREQUENCY FOR SYSTEM APPROACH INDEPENDENT ASSURANCE TESTING

9.1 Overview

The system approach for Independent Assurance (IA) requires IA activities to occur on a time basis, as opposed to occurring on a quantity of material or project basis.

9.2 Required Frequencies and Activities

The following frequencies and activities are required for evaluating sampling and testing personnel and equipment under the system approach to IA.

| TIME | ACTIVITY |
|--|--|
| Prior to performing acceptance sampling and testing | Qualification is required under the "Sampling and Testing Personnel Qualification Program" and the "Laboratory Qualification Program" |
| Within 12 months after Observation and Qualification | Each qualified technician is required to participate in one proficiency or split sample test for each test method requiring IA. Results must compare to the IA test results to within the established tolerance. |
| Within 24 months after Observation and Qualification | Each qualified technician is required to participate in one proficiency or split sample test for each test method requiring IA. Results must compare to the IA test results to within the established tolerance. |
| Within 36 months of qualification | Qualification is again required under the "Sampling and Testing Personnel Qualification Program and the "Laboratory Qualification Program" |

NOTE: For American Concrete Institute (ACI) certification, Field Technician Grade I, the above frequency is extended to five years.

Maintaining technician qualification under the IA systems approach requires continuation of the above cycle of qualification and successful split or proficiency sample testing.