

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 2

DATED 5/05/2006

Control	0038-01-049, ETC.
Project	SFT 38-1-49, ETC.
Highway	US 83
County	WEBB

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum by entering the date, which appears at the top of this letter on the Addendum Acknowledgement Form, contained in your bid proposal.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: SFT 38-1-49

CONTROL: 0038-01-049

COUNTY: WEBB

LETTING: 05/09/2006

REFERENCE NO: 0505

PROPOSAL ADDENDUMS

- PROPOSAL COVER
- BID INSERTS (SH. NO.:)
- GENERAL NOTES (SH. NO.: K THRU S)
- SPEC LIST (SH. NO.:)
- SPECIAL PROVISIONS:)
- ADDED:

DELETED:

- SPECIAL SPECIFICATIONS:
- ADDED:

DELETED:

X OTHER: SEE CHANGES BELOW.

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

PROPOSAL:

GENERAL NOTES:

SPEC DATA SHEET K, FIRST PARAGRAPH UNDER ITEM 354 DELETED AND REPLACED WITH THREE NEW PARAGRAPHS UNDER ITEM 354.

SPEC DATA SHEETS L THRU S, TEXT SHIFTED FROM PAGE TO PAGE.

PLANS

PLAN SHEET 9E -

SPEC DATA SHEET K, FIRST PARAGRAPH UNDER ITEM 354 DELETED AND REPLACED WITH THREE NEW PARAGRAPHS UNDER ITEM 354.

PLAN SHEETS 9F, 9G, 9H, 9I -
TEXT SHIFTED FROM PAGE TO PAGE.

GENERAL NOTES:

Basis of Estimate

The Following Is For Contractor's Information Only - Non Pay:

Item	Description	Rate/Area
204	Sprink (Emb)	60 Gal/CY
216	Roll (ACP & Surface)	1 Hr/3000 SY/Crse

Asphaltic Concrete Pavement

Type	Location	Depth	Rate/Area	Area SY	Qty Ton
HMAC Ty C	Main Lane	2"	220 lbs/SY	75,307	8,284.00

Surface Treatment Data

Description	1st Course
Area	75,307 SY
Asph--Type	AC-5
Asph--Rate(Gal/SY)	0.35/1 = 26,358 Gal
Aggr--Type/GR	PE, GR 4
Aggr--Rate(CY/SY)	1/90 = 834 CY

General Requirements and Covenants:

Maintain an accurate vertical and horizontal control throughout the contract.

Apply all pavement markings in accordance with the Texas MUTCD, plans, and as directed/approved by the Engineer.

Conform sign types for which details are not shown in the plans to the Texas MUTCD and the Standard Highway Sign Designs for Texas manuals.

Possible presence of underground utilities on the right of way on this project requires attention. Call for location of utilities 48 hours in advance of excavation or drilling.

Most existing natural gas pipelines that will no longer be in service are usually abandoned-in-place. If a gas pipe has to be removed, wrapped steel gas pipelines shall be assumed to be asbestos containing, unless analytical testing of the wrap material determines that the wrap material contains less than 1% asbestos, as determined using the Polarized Light Microscopy (PLM) Method. Observe and comply with all federal, state and local laws, ordinances and regulations regarding the management of asbestos containing materials. At a minimum, the following procedure shall be used by the

Contractor whenever an existing wrapped steel gas pipe has to be removed (for whatever reason) during construction operations.

1. Notify the Engineer.
2. As soon as the pipe is removed, cover and secure the ends of the pipe with a double layer of 6 mil plastic, then move it to a secure temporary storage site (approved by the Engineer) within the project limits. Take care to avoid damage to the plastic and if damaged, replace before further handling of the pipe. If the wrapping of the pipe is damaged, cover the entire pipe shall be covered with plastic.
3. The Contractor and/or the Engineer will determine the owner (utility company) of the gas line to coordinate removal of the pipe from the project. If the owner of the gas pipe cannot be determined, the Engineer will make arrangements to transport the pipe off the project. The Contractor will not be responsible for removing the pipe from the project.
4. The removal of the steel gas pipe from the trench is subsidiary to the work that created the need to remove the pipe (structural excavation, roadway excavation, removal and replacement of the pipe, etc). The work performed in handling the pipe after it has been removed (covering with plastic, hauling to a secure storage within the project, and loading onto the transportation vehicle for removal from the project) will be paid for through the extra work order process.

Verify the approximate location of utilities, either underground or overhead, shown within the right-of-way before beginning construction operations.

Remove all existing raised pavement markings as the work progresses and dispose from the project site in a manner approved by the Engineer. Consider this work subsidiary to the various bid items and not paid for separately.

Place the existing topsoil and grass in windrows along the edge of the grading operations or as directed/approved by the Engineer. Spread the topsoil and grass uniformly on all slopes and ditches after grading operations are completed. This work will not be paid for directly, but will be subsidiary to the various bid items.

Remove materials larger than 4 inches in size within the construction limits and not incorporated into the roadway construction from the right of way and dispose of it in a proper manner acceptable to the Engineer. This work will not be paid for directly, but will be subsidiary to the various bid items.

In instances where fixed features require, the cross section slopes may be varied to the extent determined/approved by the Engineer.

Follow the requirements of the Texas Aggregate Quarry and Pit Safety Act if waste areas or material source areas result from this project.

Maintain the right of way free of trash, construction debris and surplus materials as shown in the plans and/or as determined/approved by the Engineer.

Retain, store or deliver any materials removed and not reused and determined to be salvageable by the Engineer within the project limits at an approved secure location. Deliver undamaged to the salvage/storage yard as directed by the Engineer. Dispose of materials that are not determined to be salvageable by the Engineer. Deface and dispose of signs in such a manner that they will not reappear in public as signs.

Take precaution in preparing holes for posts and/or foundations, so as not to rupture existing drainage structures, electrical conduits, public utilities, etc.

Upon completion of work on each roadway project, thoroughly clean all construction materials, sweep all excess rock, and restore all stockpile delivery sites to natural conditions or satisfactory to the Engineer prior to the final acceptance before removing barricades from the project.

Any work that is to be done on a signal that is functional shall be done under the direct knowledge and approval of the Engineer.

Two qualified uniformed police officers will be used for traffic handling, as necessary, when directed by the Engineer. This work shall be paid for under the provisions of Item 9, "Measurement and Payment".

The Contractor's attention is directed to the fact all existing roadway pavement abutting proposed reconstruction pavement shall be sawcut and the existing roadway pavement left in place cleaned to achieve a clean, smooth surface to which to bond the proposed to existing pavement. This work shall not be paid for directly but will be subsidiary to the various bid items.

This project will require partnering unless otherwise directed by the Engineer

ITEM 2 INSTRUCTIONS TO BIDDERS:

Direct attention to the first paragraph of Article 2.5 of the Standard Specifications. In view of the complex nature of the work, the need for close coordination with various utilities, traffic control considerations, and other factors influencing the prosecution of the work, it is strongly recommended that prospective bidders examine the site of the work in company with the Engineer.

ITEM 7 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC:

This project requires permit(s) with environmental resource agencies. There is a high probability that environmentally sensitive areas will be encountered on contractor designated project specific locations (PSLS) for the project (haul roads, equipment staging areas, parking areas, etc.).

The department has been authorized to perform work within designated areas of the project under U.S. Army Corps of Engineers (USACE) nationwide permit (NWP) #14.

Do not initiate activities in a project specific location (PSL) associated with a USACE permit area that has not been previously evaluated by the USACE as part of the permit review of this project. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow and disposal sites. Associated defined here means materials are delivered to or from the PSL. The permit area includes all waters of the U.S. or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. Provide any and all consultations with the USACE regarding activities, including project specific locations (PSLS) that have not been previously evaluated by the USACE. Provide the department with a copy of all consultation(s) or approval(s) from the USACE prior to initiating activities.

Proceed with activities in PSLS that do not affect a USACE permit area if a self determination has been made that the PSL is non-jurisdictional or proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. Document any determination(s) that their activities do not affect a USACE permit area. Maintain copies of their determination(s) for review by the department or any regulatory agency.

Document and coordinate with the USACE, if required, prior to any excavation hauled from or embankment hauled into a USACE permit area by either (1) or (2) below.

(1) Restricted use of materials for the previously evaluated permit areas.

Document both the PSL and their authorization. Maintain copies for review by the department or any regulatory agency. When an area within the project limits has been evaluated by the USACE as part of the permit process for this project, verify (provide) the following:

- a. suitable excavation of required material in the areas shown on the plans and cross sections as specified in Item 110 is used for permanent or temporary fill (Item 132, embankment) within a USACE permit area;
- b. suitable embankment (item 132) from within the USACE permit area is used as fill within a USACE evaluated area; and

- c. unsuitable excavation or excess excavation ["waste"] (Item 110) that is disposed of at a location approved by the engineer within a USACE evaluated area.
- (2) **Contractor materials from areas other than previously evaluated areas.** Provide the department with a copy of all USACE coordination or approval(s) prior to initiating any activities for an area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow and disposal sites:
- a. Item 132, embankment, used for temporary or permanent fill within a USACE permit area; and,
 - b. Unsuitable excavation or excess excavation ["waste"] (Item 110, excavation) that is disposed of outside a USACE evaluated area.

Upon completion of all work provided for in the contract for any individual project, the Engineer will make an inspection. If it is found to be satisfactory, the Contractor will be released from further maintenance on that individual project. Such partial acceptance will be made in writing and will in no way void or alter any terms of the contract.

ITEM 8 PROSECUTION AND PROGRESS:

Working days will be computed and charged in accordance with Article 8.3.A.5 Calendar Day.

Primavera Project Planner computer software is required for the CPM as covered in the Special Provision to this Item.

Night and/or weekend work is required. See the Sequence of Work, Traffic Control Plan, time restrictions for lane closures, etc. shown in the plans and/or Special Provisions.

The number of calendar days allowed to complete this project and interim milestones, if any, was calculated using a conceptual time determination schedule that assumes generic resources, production rates and sequences of construction. The Engineer will supply bidders upon written request one electronic copy of the time determination schedule compatible with Primavera Project Planner software.

Every effort has been made to schedule the work in accordance with the traffic control plans, sequence of work, working time restrictions, constraints and limitations shown in the proposal.

The determination schedule is provided for informational use only and is not intended for bidding or construction purposes. If the bidder utilizes the schedule for bidding or

construction purposes, the bidder accepts the schedule as their own and assumes the responsibility for verifying all aspects of the schedule. The department will not adjust the number of working days for the project 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 time determination schedule.

The Contractor shall locate all manholes and valves within the construction area of the project. The Contractor is reminded that several utility stub outs, such as valves, manholes, telephone pedestals, etc., will be adjusted during construction. Each manhole and valve will be identified by it's owner (City of Laredo Utilities Dept., AEP, SBC, etc.). It will be the responsibility of the Contractor to locate (horizontally and vertically) these positions in the case that they are covered during construction operations. If these are covered, the Contractor will be responsible for recovering these so that they may be adjusted as needed by the utility company. No roadwork may begin until this list has been submitted to the Engineer.

ITEM 9 MEASUREMENT AND PAYMENT:

When directed/approved by the Engineer, the Contractor shall provide two uniformed, off-duty certified peace officers with two officially marked vehicles (if patrol cruisers are available from the enforcement agency involved) during any work that requires a lane to be closed. These officers in patrol cruisers (if provided) shall be located as directed/approved by the Engineer to monitor and/or direct traffic during the lane closure. The method used to direct traffic at signalized intersections shall be as directed/approved by the Engineer. Additional officers and cruisers may be required when directed/approved by the Engineer. The Department will pay only the actual invoice cost for peace officers, cruisers and 5% compensation as allowed under Item 9.5.F. The pay rate for this work shall be \$40.00/hr. The Department will not pay for scheduling fees, or any other itemized cost in addition to the actual invoice cost of the peace officers and the allowable 5%.

ITEM 100 PREPARING RIGHT OF WAY:

The Contractor shall not begin any clearing operations until the Engineer has established and defined the trees and areas of vegetation that should not be removed or disturbed by construction activities. To ensure that these areas are not disturbed, the Contractor shall place protection fencing as shown in the plans or as directed/approved by the Engineer.

All right of way clearing operations will be coordinated with the project's SW3P and as directed/approved by the Engineer.

The removal items to be removed and paid for under Item 100 "Prep Right-of-Way" shall include, but not be limited to: Existing sidewalk and curb and gutter and the removal of other items as covered in Specification Item 100. See "Prep ROW Existing

Items for Removal" table on Miscellaneous Summaries plan sheet for a partial listing of estimated removal items.

In view of the complex nature of the work, and other factors influencing the prosecution of the work, it is strongly recommended that prospective bidders examine the project site with the Engineer's staff.

ITEM 110 EXCAVATION

The earthwork information was not developed with the use of computers; therefore, a computer diskette with the earthwork information can not be provided.

Prior to contract letting, earthwork cross-sections will be available at the Engineer's office for review by the bidder or for borrowing by copying companies for the purpose of making copies for the prospective bidder at the bidder's expense.

Remove and replace the fence to a condition comparable to that at removal where excavation (channel) extends beyond the right of way fence.

ITEM 132 EMBANKMENT

Preliminary testing requires approximately 15 days. Advise the Engineer of the location of the source sufficiently in advance in order to avoid delays.

ITEM 164 SEEDING FOR EROSION CONTROL:

Place existing topsoil and grass in windrows along the edge of the grading operations or as directed/approved by the Engineer. After grading operations are completed, spread the existing topsoil and grass uniformly on all slopes and ditches as directed by the Engineer.

Apply cellular fiber mulch seeding in areas designated on the plans or as directed by the Engineer. Prior to seeding, finish the areas designated to a smooth surface for a uniform application of seed.

Reseeding:

Reseed areas requiring seeds due to the non-establishment of sufficient vegetative cover in accordance with Items 164 and 168. Upon following the seeding and watering requirements as specified in Items 164 and 168, the state covers the cost for reseeding.

Seed mixture:

Refer to type of seed mixture as specified under Item 164, District 22. Apply seeding at the rates stated on the appropriate table(s) of article 164.2 as follows:

Type of seed mix and season	Table
Temporary warm season	4
Temporary cool season	3
Permanent seed mix	1 (Rural) or 2 (Urban)

ITEM 166 FERTILIZER:

Areas to receive fertilizer are the same as shown for Item 164.

ITEM 168 VEGETATIVE WATERING:

Apply water uniformly over areas after seeding as directed by the Engineer in accordance with applicable provisions of Item 168 "Vegetative Watering". Acquire 70% grass coverage with uniform vegetative coverage during this period in order to comply with stabilization requirements. Operate and meter water equipment under pumping pressure in order to deliver the required quantities of water necessary.

Execute each cycle every two (2) days, or as directed by the Engineer. During periods of adequate moisture, as determined by the Engineer, mechanical watering may not be required. In addition to metering the water equipment, provide a log book showing daily water usage and receipts of water applied upon request of the Engineer.

Upon establishment of 70% vegetative coverage as determined by the Engineer, the Engineer has the option to require the Contractor to continue watering as specified for a period not to exceed 30 days.

The basis of the estimate below establishes the approximate quantity of water required to complete one (1) full watering cycle:

*Grass Areas	Gallons/Acre	Acre	Total Gallons (Minimum)
	2100	0.1215	255

ITEM 300 ASPHALTS, OILS AND EMULSIONS:

Use asphalt binder in the manufacturing of hot mix asphaltic concrete for this project as follows:

Hot Mix (TY C)(SURF) (2") : PG 76-22

Hot Mix (TY B)(BASE) (5") : PG 70-22

ITEM 316 SURFACE TREATMENTS:

Asphalt and aggregate rates are for estimation purposes only and may be adjusted by the Engineer depending on the material used. Keep aggregate rate to a minimum as directed by the Engineer. Allow a minimum 24 hour curing period in the event emulsions are used before placing any subsequent asphalt courses.

Asphalt application season will be from April 15th through August 31st.

Take precautionary measures to avoid drifting of asphalt on to traffic and adjacent properties when using latex asphalt.

Set a string line for all surface treatment operations unless otherwise approved by the Engineer.

The Engineer will approve the location of aggregate stockpiles. Place the aggregate at a location where it will be free of excess surface moisture, as determined by the Engineer, before application.

Aggregate Type PE shall be precoated aggregate consisting of crushed slag, crushed stone or natural limestone rock asphalt.

Flux oil or emulsions may be used for precoating LRA and LRA-trap rock blends. Dry the precoated aggregate to the satisfaction of the Engineer when emulsions are used as the precoat material. It will be the responsibility of the Contractor/Producer to provide adequate drying and a minimum 30 day curing period before delivery of the aggregates. The Engineer reserves the right to reject any precoated aggregate which is improperly coated or otherwise unsatisfactory for use.

If the aggregates to be precoated are found to have stripping characteristics, the Engineer may require the addition of an anti-stripping agent. Add 1% hydrated lime by weight to aggregate when choosing lime as an anti-stripping agent. Lime needs to meet DMS-6350 requirements and is to be considered subsidiary to this item.

Ensure that the asphalt used for precoating the aggregate at the plant and the asphalt used for the surface treatment at the project site will not result in a reaction that may adversely affect the bonding of the aggregate and asphalt during the surface treatment operation.

Addition of baghouse fines will not be permitted in the production of precoated material.

Precoated aggregate that do not maintain flow qualities and can not be satisfactorily spread by approved mechanical spreading devices are not acceptable.

Stockpiles of aggregate precoated with AC may generate excessive heat build-up resulting in damage to the asphalt and/or aggregates if adequate cooling has not been initially provided. Stockpiles showing evidence of excessive heat build-up can be rejected by the Engineer.

Execute all rolling in accordance with Item 210 (medium, Pneumatic tire) at the approximate rate of 1 hr/3000 SY or as directed by the Engineer. The light pneumatic roller will be acceptable at the approximate rate of 1 hr/2000 SY. Tire pressure and

ballast of all pneumatic rollers will be of continuing interest by the Engineer, and will be in accordance with Item 210.

ITEM 341 DENSE-GRADED HOT-MIX ASPHALT (QC/QA):

Equip the asphalt plant with truck scales as defined in Item 520.3(1) of the standard specifications. Give three mass tickets bearing the date, truck number and gross, net and tare mass to the truck driver by the Contractor's or asphalt plant personnel, and then to the state inspector at the spreading and finishing machine during hot mix operations. Weigh loads of asphaltic concrete on public scales or portable platform scales to ensure the proper mass of the material may be required by the Engineer. Shoulder and/or ramps eligible for in-place air void testing and pay adjustments.

Use limestone screenings.

Prior to shipping asphalt to the project, furnish the Engineer with the name of the supplier as well as samples of the asphalt the Contractor proposes to use so that the type, grade and rate of application of asphalt may be determined.

In addition to the tack coat materials specified in these standard specifications, MS-2 or MS-1 may be used. 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.

Apply a minimum Class "A" for the coarse aggregates for the surfaces of the travel lanes as published in the Aggregate Quality-Monitoring Program Rated Source Quality Catalogue.

Determine density requirements for the mainlanes for the shoulders, unless otherwise directed by the Engineer.

Use the point of sampling for tests, test method TEX-217-F (part I and part II), for the coarse aggregate stockpile when the dryer-drum mixing plant is used. The point of sampling when the batch plant is used will be at the hot bins.

Blading may also be necessary to clean dirt and grass from pavement edges and turnout areas as work under this Bid Item.

The longitudinal joints in the top lift (surface course) shall be at the lane lines or as directed/approved by the Engineer.

ITEM 351 REPAIRING EXISTING FLEXIBLE PAVEMENT STRUCTURE:

Furnish TY B HMAC with PG 70-22 asphalt binder in accordance with Item 340, Dense Graded Hot Mix Asphalt (Method).

The excavation of existing material and placing Hot Mix TY B will be considered subsidiary to this item and not paid for directly.

This is an estimated quantity; actual quantities will be designated by the Engineer.

Use of a motor grader will not be permitted for asphalt concrete Pavement.

The section of roadway where the repair is to be made shall be the entire width of the lane and a minimum of 20 feet in length, unless otherwise directed by the Engineer. In sections less than 200 feet in length, the Hot Mix to be replaced shall be to top of existing pavement.

ITEM 354 PLANING AND TEXTURING PAVEMENT:

Stockpile 100% of the salvageable rap material at the following locations:

1806 Margarita Lane (50%)
Rio Bravo, Texas
(approx one way haul distance = 11.5 miles)

West End of Centeno St. (50%)
El Cenizo, Texas
(approx one way haul distance = 12.0 miles)

ITEM 416 DRILLED SHAFT FOUNDATIONS:

The Contractor shall probe before drilling foundations to determine the locations of all underground utilities.

The Contractor shall notify the Engineer and/or traffic section with 24 hours of anticipation for the staking of the CCTV camera foundation locations, after all utilities have been located. When the Contractor drills the CCTV assembly foundations, the foundations shall be covered with plywood and delineated with traffic cones, or protected as directed by the Engineer.

Sulfate resistant concrete is required for structural concrete in contact with the natural ground.

ITEM 502 BARRICADES, SIGNS AND TRAFFIC HANDLING:

Use opposing lane dividers and vertical panels to channelize traffic when existing pavement marking have been obliterated.

State Standard Sheet(s) "Traffic Control Plan (TCP)" requires that certain signs are to remain in place until the standard pavement markings are placed. Place the standard markings no later than 14 days after surface treatment operations are completed.

Refer to the traffic control plan for this project as shown in the plans, as detailed on the "Barricade and Construction Standard" sheets and as provided for in the current "Texas MUTCD".

Shadow vehicles with Truck Mounted Attenuators will be required on moving operations only.

Provide truck-mounted attenuators (TMA) in accordance with the State Standard Sheet(s) for "Traffic Control Plan", "Barricades and Construction", and "Texas MUTCD" when a shadow vehicle is used.

Place eight inches of both red and white stripes in an inverted "V" design on the back of all TMA's. Conform all sheeting to Departmental Material Specification DMS 8300, Type C.

Assure that previously used TMA's meet the NCHRP 230 requirements and all new Truck Mounted Attenuators meet NCHRP 350 requirements.

The Contractor shall treat pavement drop-offs as shown in the TCP section of the plans and/or in Appendix B, "Treatment of Pavement Drop-off in Work Zones" of the TxDOT Roadway Design Manual or as approved/directed by the Engineer. The treatment information can be obtained on-line at the following internet web site: <http://manuals.dot.state.tx.us/dynaweb/coldesig/rdw/> or a hard copy can be obtained from the Engineer.

The time frame for the Contractor to provide properly maintained traffic control devices before they are considered to be in non-compliance with this Item, is 48 hours regardless of the days of the week involved after notification is done in writing by the Engineer. If the Contractor doesn't take the necessary steps approved by the Engineer to eliminate the non-compliance conditions within the 48 hours established above, payment for this Item for the month(s) in non-compliance can be withheld as covered in Section 502.4(B).

Furnish all traffic control and comply with the current Texas MUTCD, Traffic Control Plan (TCP) and Barricades and Construction Standards (BC), Pavement Marker Standards (PM), and Work Zone Standard (WZ). Conduct construction methods so as to provide the least possible interference to traffic and to permit the continuous movement of traffic in all allowable directions at all times. Clean up and remove from

the work area all loose material resulting from contract operations at the end of each work day.

The Contractor is fully responsible for the traffic control and will be responsible for furnishing all traffic control devices, and flaggers. Conduct construction methods in order to provide the least possible interference to traffic so as to permit the continuous movement of traffic in all allowable directions at all times. Clean up and remove from the work area all loose material resulting from construction operations at the end of each work day. Keep at least one lane open when placing loop detectors across the roadway.

Replace/relocate all regulatory signs removed due to construction operations with a same sign on fixed or temporary support(s) immediately upon its removal. Obtain a project Engineer approval before removing any regulatory roadway sign. Relocate a sign, if required by construction, to a location in compliance with the "Texas Manual on Uniform Traffic Control Devices". In no case will a sign be removed without a replaceable sign and support being readily available and a location established. Required flaggers are to be available to direct traffic during sign intermediate down time.

Pay attention to the "No Center Stripe" sign and other signs in the "Traffic Control Details for Seal Coat Operations" which are included in the plans. Furnish and install these signs and keep in place after completion of the surface treatment operation until standard pavement markings are placed but no longer than 3 days. These signs are in addition to the signs and barricades that may be required on the "BC" standard sheets.

Use plastic drums in accordance with the plans and manufacturer's recommendations as approved by the Engineer.

Provide number of full time off duty uniformed certified peace officers in officially marked vehicles, as part of the traffic control operations.

Require proof of certification for the peace officer in order to meet the Texas Commission on Law Enforcement Officers Standards.

The Contractor is responsible for implementing and maintaining the traffic control and for furnishing all traffic control devices, and flaggers. The construction methods shall be conducted to provide the least possible interference to traffic so as to permit the continuous movement of traffic in all allowable directions at all times. The Contractor shall clean and remove from the work area all loose material resulting from contract operations in a timely manner.

There are existing traffic signals presently in operation at the intersection of US 83 and Loop 20, Napoleon, Chestnut, Zacatecas and Palo Blanco. The existing traffic signals

shall remain in operation at all times except when necessary for specific installation operations and/or as shown on the plans or directed by the Engineer.

Whenever it is necessary for the signals to be turned off, the Contractor may be required to hire off-duty police officers, as covered by Item 9, to control the traffic until the signals are back in satisfactory condition. These circumstances will be discussed with the Engineer and approved prior to implementing.

Moving an existing sign to a temporary location and placing it on temporary or permanent supports will be subsidiary to this Item. Installations with permanent supports at permanent locations will be paid for under the applicable bid item (s).

The Contractor's attention is called for the use of the Driveway Signs (D-70a), as per the Standard Highway Sign Designs for Texas Manual, during the duration of construction. This sign is to be used as per plans and/or as directed by the Engineer. These signs will not be paid for separately, but will be considered subsidiary to Item 502.

The Traffic Control Plan/Sequence of Work requires traffic to be moved to a new pavement section prior to the placement of the final mat of ACP. For these sections, the Contractor will be required to adjust all State owned manholes and/or valves included in the contract to the elevation of the pavement being used by traffic.

The Contractor is also reminded that utility manhole covers, valves, pedestals, etc. are located within the limits of the project and will require adjustments during construction. The Contractor will advise the utility company of these adjustments at least one week in advance.

All manholes and/or valves shall be brought to final pavement elevations just prior to the final mat of ACP. If, between the final elevation adjustment and the final mat of ACP, any of the manholes and/or valves are going to be exposed to traffic, the Contractor will be required to place temporary asphalt around the manhole and/or valve to provide a minimum 50:1 taper. The cost of elevation adjustments and asphalt tapers will not be paid for directly, but will be part of the price bid for other manhole and/or valve work.

ITEM 504 FIELD OFFICE AND LABORATORY:

Furnish (1) Field Office (Type A), with telephone and telephone service.

Furnish (1) cellular phone & service.

Furnish (1) laptop computer, (1) integrated printer/fax/copier and internet service.

Conform computer equipment to Departmental Material Specification D-10101 for the Type A structure.

The Contractor will furnish a Type D Structure (Asphalt Mix Laboratory) modified by the following.

Laboratory room:

The other room of this building will be used as a laboratory and will include access to a bathroom facility from the interior. The laboratory and bathroom facility will have the walls, ceiling and floor insulated such that the air temperature can be maintained at 76 degrees Fahrenheit at all times.

Furnish for the Department's use in the asphalt laboratory one (1) desktop computer.

ITEM 529 CONCRETE CURB, GUTTER AND COMBINED CURB AND GUTTER:

Before final acceptance of the project, remove discoloration caused by tire marks, mud, asphalt, paint or other similar material by any method satisfactory to the Engineer to achieve a uniform color and texture of the finished surface exposed to view.

ITEM 531 SIDEWALKS:

For this project, the thickness of the pre-molded or board joint separating each sidewalk section will be 1/2" and be at a depth equal to the depth of the sidewalk.

When sidewalks are constructed next to curb or curb and gutter, place sidewalk expansion joints at the same location as the curb and gutter expansion joints.

Proof rolling of subgrade will be required at all sidewalk and texturized concrete locations. This will not be paid for directly but shall be subsidiary to this bid item.

ITEM 585 RIDE QUALITY FOR PAVEMENT SURFACES:

Use Surface Test Type "B" for roads.

Quality control results shall be submitted to TxDOT the next working day after each day's paving.

Pavement areas with public turnout intersections that carry major traffic volumes will not be subjected to inertial profiler testing. These areas shall be evaluated using the 10-ft. Straightedge.

Diamond grinding shall be used to remove localized roughness.

Use Surface Test Type B pay adjustment schedule 3 to evaluate ride quality of the travel lanes in accordance with Item 585, "Ride Quality for Pavement Surfaces."

ITEM 618 CONDUIT:

It might be necessary to saw cut existing concrete at some locations for placement of conduit. The existing concrete shall be saw cut, removed from the steel reinforcement (bars or fabric) and the steel bent to accommodate the conduit. After the conduit has been placed in its final position, the steel shall be bent back to its original position and the trench shall be back-filled with CL "A" concrete. This work is considered subsidiary to this Item.

All conduit elbows and rigid metal extensions required to be installed on PVC conduit systems will not be paid for separately, but will be considered subsidiary work.

Do not use non-certified persons to perform electrical work. See Item 7.15 "Electrical Requirements" for additional details.

Electrical certification may be obtained by contacting the Texas Engineering Extension Service (TEEX) at (979) 845-6563 and asking for information on the TxDOT Electrical System Course.

ITEM 624 GROUND BOXES:

Concrete aprons shall be placed around all ground boxes installed in sodded areas or as directed/approved by the Engineer.

The cover shall be legibly imprinted with the words "Danger High Voltage" as required by the State Standard Sheet(s) "Electrical Details", in 1 inch letters. In addition, the cover shall also include the words "Traffic Signal", "TMS", "Illumination", or whatever other system is being housed by the ground box. The ground box locations shown on the plans are approximate so they can be moved to better fit field conditions when directed/approved by the Engineer. If possible, the ground boxes should not be placed in sidewalks or driveways.

Ground Boxes shall not be placed in driveways or wheelchair ramps. Ground boxes placed on sidewalks shall be at grade with the sidewalk.

The Contractor shall provide all personnel and equipment necessary to remove ground box lids for inspection by the Engineer. The Contractor shall provide this assistance within 24 hours after notification from the Engineer.

ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES:

A traffic sign inventory by the Contractor will be required prior to the commencement of any work. The inventory shall show the sign type, size, condition, and location. The inventory shall be conducted by the Contractor with the Engineer present and jointly agreed upon.

The "Roll Pin" shown on SMD (SLIP-1)-02 is required.

ITEM 656 FOUNDATIONS FOR TRAFFIC CONTROL DEVICES:

The Contractor shall probe before drilling foundations to determine the locations of all underground utilities and structures.

For this project, in order to mitigate for sulfates in the soil, only TY I-II OR TY II cement will be allowed for the concrete in drilled shaft foundations. The Contractor shall get approval from the Engineer prior to ordering concrete.

ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES:

Existing delineator assemblies on the US 83 southbound lanes between Meadow Street and Zacatecas Street used as a "Safe Lane" shall be removed and stored at the Laredo Maintenance Yard located at 1817 Bob Bullock LP, or as directed by the Engineer. This work will not be paid for separately, but will be considered subsidiary to Item 100 "Preparing Right of Way".

ITEM 662 WORK ZONE PAVEMENT MARKINGS:

For this project, all work zone pavement markings, removable and non-removable, shall be thermoplastic and include appropriate raised pavement markings as per the standard WZ (STPM)-03 sheets, except for those to be used after the final overlay. The thermoplastic and raised pavement markings shall be paid for using Item 662 Work Zone Pavement Markings (Removable) and Item 662 Work Zone Pavement Markings (Non-Removable). The removal shall be in accordance to specification of Item 677.

ITEM 666 REFLECTORIZED PAVEMENT MARKINGS:

Apply all markings in accordance with the plans, Texas MUTCD and as directed/approved by the Engineer after the surface has cured for two (2) days, been cleaned and prepared according to the specifications and as directed/approved by the Engineer. Apply thermoplastic markings directly over existing painted pavement markings only where applicable.

For TY I markings, the minimum thickness of spray-applied markings, as measured on a flat plate by micrometer or similar device will be 0.100 inches (100 mil) for all stop bars, crosswalks, legends, and symbols. These thicknesses are required for the full width of the line being placed.

Apply 0.09 inches (90 mils) of thickness for all other lines (lane, edge, no passing, etc.). These thicknesses are required for the full width and length of the line being placed.

After the surface has cured for two (2) days, been cleaned and prepared according to the specifications and as directed/approved by the Engineer, all markings shall be

applied in accordance with this item, the plans, Texas MUTCD and/or as directed/approved by the Engineer.

The thermoplastic markings may be applied directly over existing painted pavement markings where applicable. If TY II marking material is used as the sealer for the TY I markings, they shall be placed a minimum of 14 calendar days in advance of the TY I markings. The Contractor has the option of using the acrylic sealer instead of the Type II marking material as a sealer for TY I markings.

It will be the responsibility of the Contractor to mark the locations of the standard pavement markings, including barrier lines, no passing zones, gores, and transitions as shown on the plans or directed by the Engineer.

ITEM 672 RAISED PAVEMENT MARKERS:

Raised pavement markers shall not be placed until the asphaltic concrete pavement or surface treatment has cured one week and shall be placed no later than two weeks after the ACP or surface treatment placement.

The bituminous adhesive shall be heated with equipment approved by the Engineer. The equipment shall be capable of heating and maintaining the adhesive at a temperature in accordance with the manufacture's recommended temperature range. If any adhesive is burned due to overheating, it shall be replaced. The adhesive will be packaged in cardboard containers weighing less than 100 pounds. Adhesive dispensing equipment shall be truck or trailer mounted. All adhesive material shall be placed directly from the heated dispenser to the pavement. Portable or non-heated containers will not be allowed for the placement of the adhesive material.

The adhesive application shall be of sufficient thickness so that when the markers are pressed into the adhesive, 1/8" or more adhesive will remain under 100% of the marker. The adhesive should extend not less than 1/2" but not more than 1 1/2" beyond the perimeter of the marker.

ITEM 680 INSTALLATION OF HIGHWAY TRAFFIC SIGNALS:

Work shall consist of furnishing and installing all required materials and equipment necessary for the complete and operating traffic signal installation at the following intersections:

- US 83 & Pine Street
- US 83 & San Luis/Meadow Streets
- US 83 & Santa Barbara Street

The locations shown on the plans for signal pole foundations, controller foundations, conduit and other items may be adjusted to better fit field conditions as approved/directed by the Engineer. The Contractor shall be responsible for

adjustments in project construction which may be necessary to meet the field conditions.

In addition to the requirements for lamps shown on RID (3), high pressure sodium lamps shall Meet ANSI C78 requirements and shall be the type that extinguishes at the end of usable lamp Life and remains extinguished without cycling. 400 watt lamps shall contain less than 4.0 MG of mercury. 250 watt lamps shall contain less than 3.0 MG of mercury. Lamps shall be lead free. Lamps shall pass the Federal Toxic Characteristic Leachate Producure (TCLP). Lamp examples: OSRAM-Sylvania LU400/ECO Plus.

Provide any adjustments, modifications or changes to the traffic signal heads, ground boxes, cable and other appurtenances associated with all existing traffic signal installations, as approved by the Engineer that may be necessary for the safe handling of traffic in the work zone during construction and for the construction of all permanent signalized locations.

Conduct any work that is to be done on a signal that is functional under the direct knowledge and approval of the Engineer.

Use a qualified uniformed police officer for traffic handling, as necessary, when directed by the Engineer. This work will be paid for under the provisions of Item 9.

ITEM 686 & 687 TRAFFIC SIGNAL POLE AND PEDESTAL POLE ASSEMBLIES:

All signal poles shall be from the same manufacturer.

ITEM 5010 TRANSPORTABLE CELLULAR TELEPHONES:

Provide two (2) transportable cellular telephones for use by state inspection personnel.