

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 2

DATED 2/29/2008

Control	<u>0326-01-053, ETC.</u>
Project	<u>STP 2008(410), ETC.</u>
Highway	<u>SH 286, ETC.</u>
County	<u>NUECES</u>

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 on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

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: STP 2008(410)

CONTROL: 0326-01-053

COUNTY: NUECES

LETTING: 03/05/2008

REFERENCE NO: 0229

PROPOSAL ADDENDUMS

- X PROPOSAL COVER
- X BID INSERTS (SH. NO.: 3 & 4 OF 11.)
- X GENERAL NOTES (SH. NO.: "D" & "K".)

- _ 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:

PROPOSAL COVER - REVISED THE NUMBER OF WORKING DAYS.

BID INSERTS -

REVISED QUANTITIES FOR BID ITEMS 361-2017, 496-2004 & 502-2001.

GENERAL NOTES -

ON SPEC DATA SHEET "D", UNDER ITEM 8, REVISED FIRST PARAGRAPH.

ON SPEC DATA SHEET "K", UNDER ITEM 354, REVISED FIRST PARAGRAPH.

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

(CONTINUED)

PLANS :

PLAN SHEETS 11A & 11E (GENERAL NOTES) -
REVISED SHEETS AS DESCRIBED ABOVE IN THE GENERAL NOTES OF THE PROPOSAL.

PLAN SHEET 12 (E & Q SHEET) -
REVISED SHEET AS DESCRIBED ABOVE IN THE BID INSERTS OF THE PROPOSAL.

PLAN SHEET 18 (STRUCTURE SUMMARY) - REVISED QUANTITY FOR ITEM 496.

PLAN SHEET 30 (SEQUENCE OF CONSTRUCTION) -
REVISED SEQUENCE OF CONSTRUCTION NOTES.

PLAN SHEET 76 (CONCRETE JOINT REPIAR) -
REVISED CONCRETE JOINT REPIAR DETAIL. REVISED TABLE ON RIGHT-HAND SIDE
OF SHEET.

Control	0326-01-053, ETC.
Project	STP 2008(410), ETC.
Highway	SH 286, ETC.
County	NUECES

PROPOSAL TO THE TEXAS TRANSPORTATION COMMISSION

2004 SPECIFICATIONS WORK CONSISTING OF INTERSECTION IMPROVEMENTS NUECES COUNTY, TEXAS

The quantities in the proposal are approximate. The quantities of work and materials may be increased or decreased as considered necessary to complete the work as planned and contemplated.

This project is to be completed in 170 working days and will be accepted when fully completed and finished to the satisfaction of the Executive Director or designee.

Provide a proposal guaranty in the form of a Cashier's Check, Teller's Check (including an Official Check) or Bank Money Order on a State or National Bank or Savings and Loan Association, or State or Federally chartered Credit Union made payable to the Texas Transportation Commission in the following amount:

FIFTY-EIGHT THOUSAND (Dollars) (\$58,000)

A bid bond may be used as the required proposal guaranty. The bond form may be detached from the proposal for completion. The proposal may not be disassembled to remove the bond form. The bond must be in accordance with Item 2 of the specifications.

Any addenda issued amending this proposal and/or the plans that have been acknowledged by the bidder, become part of this proposal.

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.

• **Signed: ****

(1) _____ (2) _____ (3) _____

Print Name:

(1) _____ (2) _____ (3) _____

Title:

(1) _____ (2) _____ (3) _____

Company:

(1) _____ (2) _____ (3) _____

- Signatures to comply with Item 2 of the specifications.

**Note: Complete (1) for single venture, through (2) for joint venture and through (3) for triple venture.

*** When the working days field contains an asterisk (*) refer to the Special Provisions and General Notes.**

NOTICE TO CONTRACTORS

ANY CONTRACTORS INTENDING TO BID ON ANY WORK TO BE AWARDED BY THIS DEPARTMENT MUST SUBMIT A SATISFACTORY “AUDITED FINANCIAL STATEMENT” AND “EXPERIENCE QUESTIONNAIRE” AT LEAST TEN DAYS PRIOR TO THE LETTING DATE.

UNIT PRICES MUST BE SUBMITTED IN ACCORDANCE WITH ITEM 2 OF THE STANDARD SPECIFICATIONS OR SPECIAL PROVISION TO ITEM 2 FOR EACH ITEM LISTED IN THIS PROPOSAL.

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	100	2002	002	PREPARING ROW DOLLARS and CENTS	STA	210.400	1
	104	2017		REMOVING CONC (DRIVEWAYS) DOLLARS and CENTS	SY	161.000	2
	104	2022		REMOVING CONC (CURB AND GUTTER) DOLLARS and CENTS	LF	607.000	3
	105	2002		REMOVING STAB BASE AND ASPH PAV (2") DOLLARS and CENTS	SY	131.000	4
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	9,210.000	5
	132	2008		EMBANKMENT (FINAL)(DENS CONT)(TY D) DOLLARS and CENTS	CY	2,454.000	6
	134	2002		BACKFILL (TY B) DOLLARS and CENTS	STA	98.000	7
	162	2002		BLOCK SODDING DOLLARS and CENTS	SY	351.000	8
	164	2027	002	CELL FBR MLCH SEED(PERM)(URBAN)(CLAY) DOLLARS and CENTS	SY	49,940.000	9
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	836.300	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	247	2041	029	FL BS (CMP IN PLC)(TY A GR 1)(FNAL POS) DOLLARS and CENTS	CY	3,143.000	11
	314	2001		EMULS ASPH (BS OR SUBGR TRT)(SS-1) DOLLARS and CENTS	GAL	1,349.000	12
	318	2002		A-R BINDER (TYPE III) DOLLARS and CENTS	TON	259.000	13
	318	2302		AGGR (TY PB GR 4 OR TY PB GR 4S)SAC-B DOLLARS and CENTS	CY	1,005.000	14
	341	2064		D-GR HMA(QCQA) TY-C SAC-B PG76-22 DOLLARS and CENTS	TON	12,899.000	15
	341	2243		D-GR HMA(QCQA) TY-B SAC-B PG76-22 DOLLARS and CENTS	TON	1,877.000	16
	341	2251		D-GR HMA(QCQA) TY-C PG76-22 (LEVEL-UP) DOLLARS and CENTS	TON	37.000	17
	351	2008		FLEXIBLE PAVEMENT STRUCTURE REPAIR(12") DOLLARS and CENTS	SY	785.000	18
	351	2013		FLEXIBLE PAVEMENT STRUCTURE REPAIR(4") DOLLARS and CENTS	SY	2,071.000	19
	351	2020		FLEX PAVE STRUCTURE REPAIR (8.5 - 10") DOLLARS and CENTS	SY	732.000	20

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	354	2045		PLANE ASPH CONC PAV (2") and DOLLARS CENTS	SY	40,534.000	21
	361	2017	001	FULL-DEPTH REPAIR CPJR (6") and DOLLARS CENTS	SY	1,027.000	22
	400	2005		CEM STABIL BKFL and DOLLARS CENTS	CY	4.100	23
	416	2029	001	DRILL SHAFT (RDWY ILL POLE) (30 IN) and DOLLARS CENTS	LF	64.000	24
	432	2040		RIPRAP (MOW STRIP)(5 IN) and DOLLARS CENTS	CY	42.000	25
	432	2050		RIPRAP (CONC)(CL B)(5 IN) and DOLLARS CENTS	CY	219.000	26
	432	2066		RIPRAP (CONC)(CL B) and DOLLARS CENTS	CY	19.800	27
	438	2002		CLEAN AND SEAL EXIST JOINTS and DOLLARS CENTS	LF	360.000	28
	462	2003		CONC BOX CULV (4 FT X 2 FT) and DOLLARS CENTS	LF	23.000	29
	462	2006		CONC BOX CULV (5 FT X 2 FT) and DOLLARS CENTS	LF	16.000	30
	464	2005		RC PIPE (CL III)(24 IN) and DOLLARS CENTS	LF	206.000	31

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	465	2197	001	MANH (COMPL)(TY M)(SPL) DOLLARS and CENTS	EA	2.000	32
	467	2107		SET (TY I)(S= 4 FT)(HW= 3 FT)(4:1)(C) DOLLARS and CENTS	EA	3.000	33
	467	2157		SET (TY I)(S= 5 FT)(HW= 3 FT)(6:1)(C) DOLLARS and CENTS	EA	2.000	34
	467	2236		SET (TY II)(24 IN)(RCP)(6:1)(C) DOLLARS and CENTS	EA	1.000	35
	467	2288		SET (TY II)(24 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	10.000	36
	480	2001		CLEAN EXIST CULVS DOLLARS and CENTS	EA	2.000	37
	496	2004		REMOV STR (SET) DOLLARS and CENTS	EA	6.000	38
	500	2001	004	MOBILIZATION DOLLARS and CENTS	LS	1.000	39
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	8.000	40
	506	2005	010	ROCK FILTER DAMS (INSTALL) (TY 1) DOLLARS and CENTS	CY	40.000	41

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	506	2010	010	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	CY	40.000	42
	506	2016	010	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	78.000	43
	506	2019	010	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	78.000	44
	506	2024	010	BACKHOE WORK (EROSION & SEDM CONT) DOLLARS and CENTS	HR	40.000	45
	506	2031	010	SANDBAGS FOR EROSION CONTROL DOLLARS and CENTS	EA	112.000	46
	506	2045	010	BIODEGRADABLE EROSION CONTROL LOGS(12") DOLLARS and CENTS	LF	556.000	47
	529	2010		CONC CURB AND GUTTER (TY II)(REINF) DOLLARS and CENTS	LF	607.000	48
	530	2010		DRIVEWAYS (CONC) DOLLARS and CENTS	SY	161.000	49
	530	2011		DRIVEWAYS (ACP) DOLLARS and CENTS	SY	1,094.000	50
	531	2010		CURB RAMPS (TY 7) DOLLARS and CENTS	EA	18.000	51

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	ITEM NO	DESC CODE	S.P. NO.				
	531	2015		CONC SIDEWLKS (4") DOLLARS and CENTS	SY	74.000	52
	540	2001		MTL W-BEAM GD FEN (TIM POST) DOLLARS and CENTS	LF	300.000	53
	540	2011		MTL BEAM GD FEN TRANS (THRIE-BEAM) DOLLARS and CENTS	EA	6.000	54
	542	2001		REMOVING METAL BEAM GUARD FENCE DOLLARS and CENTS	LF	500.000	55
	542	2002		REMOVING TERMINAL ANCHOR SECTION DOLLARS and CENTS	EA	5.000	56
	544	2003	001	GUARDRAIL END TREATMENT (REMOVE) DOLLARS and CENTS	EA	1.000	57
	544	2005	001	GDRAIL END TRT(INST)(WOOD POST)(TY II) DOLLARS and CENTS	EA	6.000	58
	560	2006	001	MAILBOX INSTALL-S (RR-POST) TY 4 FND- TB DOLLARS and CENTS	EA	6.000	59
	560	2008	001	MAILBOX INSTALL-M (TWW-POST)TY 4 FND- TB DOLLARS and CENTS	EA	1.000	60
	610	2025	006	INS RD IL AM (TY SA) 40T-8 (.25 KW)S DOLLARS and CENTS	EA	8.000	61

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	610	2072	006	REMOVE RDWY ILL ASSEM DOLLARS and CENTS	EA	4.000	62
	618	2018		CONDT (PVC) (SCHD 40) (2") DOLLARS and CENTS	LF	990.000	63
	618	2019		CONDT (PVC) (SCHD 40) (2") (BORE) DOLLARS and CENTS	LF	215.000	64
	620	2009	001	ELEC CONDR (NO. 6) BARE DOLLARS and CENTS	LF	1,220.000	65
	620	2010	001	ELEC CONDR (NO. 6) INSULATED DOLLARS and CENTS	LF	2,470.000	66
	624	2008		GROUND BOX TY A (122311) W/APRON DOLLARS and CENTS	EA	2.000	67
	628	2158		REMOVE ELECTRICAL SERVICES DOLLARS and CENTS	EA	1.000	68
	628	2171		ELC SRV TY T 120/240 000 (NS)AL(E)GC(O) DOLLARS and CENTS	EA	1.000	69
	644	2022		INS SM RD SN SUP&AM TY S80(1) SA(P) DOLLARS and CENTS	EA	58.000	70
	644	2025		INS SM RD SN SUP&AM TY S80(1) SA(T) DOLLARS and CENTS	EA	20.000	71
	644	2026		INS SM RD SN SUP&AM TY S80(1)SA(T-2EXT) DOLLARS and CENTS	EA	4.000	72

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	644	2027		INS SM RD SN SUP&AM TY S80(1) SA(U) DOLLARS and CENTS	EA	15.000	73
	644	2028		INS SM RD SN SUP&AM TY S80(1)SA(U-1EXT) DOLLARS and CENTS	EA	2.000	74
	644	2058		RELOCATE SM RD SN SUP & AM TY S80 DOLLARS and CENTS	EA	19.000	75
	644	2060		REMOVE SM RD SN SUP & AM DOLLARS and CENTS	EA	101.000	76
	658	2250		INSTL DEL ASSM (D-SW)SZ 1(RCR)GF2(BI) DOLLARS and CENTS	EA	13.000	77
	658	2259		INSTL DEL ASSM (D-SW)SZ (TYC)CTB(BI) DOLLARS and CENTS	EA	10.000	78
	658	2317		INSTL OM ASSM (OM-2Z)(FLX)SLF DOLLARS and CENTS	EA	4.000	79
	658	2334		INSTL OM ASSM (OM-2Z)(RCR)GND DOLLARS and CENTS	EA	7.000	80
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	2,973.000	81
	662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	5,382.000	82
	662	2113		WK ZN PAV MRK SHT TERM (TAB) TY W DOLLARS and CENTS	EA	933.000	83

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	662	2115		WK ZN PAV MRK SHT TERM (TAB) TY Y-2 DOLLARS and CENTS	EA	2,452.000	84
	668	2091		PREFAB PAV MRK TY C (W) (4") (DOT) DOLLARS and CENTS	LF	262.000	85
	668	2103		PREFAB PAV MRK TY C (W) (12") (SLD) DOLLARS and CENTS	LF	256.000	86
	668	2105		PREFAB PAV MRK TY C (W) (24") (SLD) DOLLARS and CENTS	LF	860.000	87
	668	2106		PREFAB PAV MRK TY C (W) (ARROW) DOLLARS and CENTS	EA	50.000	88
	668	2116		PREFAB PAV MRK TY C (W) (WORD) DOLLARS and CENTS	EA	32.000	89
	668	2118		PREFAB PAV MRK TY C (W) (36")(YLD TRI) DOLLARS and CENTS	EA	20.000	90
	668	2128		PREFAB PAV MRK TY C (Y) (24") (SLD) DOLLARS and CENTS	LF	1,671.000	91
	672	2012		REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	492.000	92
	672	2015		REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	1,102.000	93
	677	2001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	8,091.000	94

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	677	2007		ELIM EXT PAV MRK & MRKS (24") DOLLARS and CENTS	LF	22.000	95
	677	2008		ELIM EXT PAV MRK & MRKS (ARROW) DOLLARS and CENTS	EA	2.000	96
	677	2009		ELIM EXT PAV MRK & MRKS (DBL ARROW) DOLLARS and CENTS	EA	2.000	97
	677	2018		ELIM EXT PAV MRK & MRKS (WORD) DOLLARS and CENTS	EA	4.000	98
	760	2001		DITCH CLEANING AND RESHAPING (FOOT) DOLLARS and CENTS	LF	1,836.000	99
	5261	2001		GEOGRID BASE REINFORCEMENT (TY I) DOLLARS and CENTS	SY	9,880.000	100
	6110	2002	015	REF PAV MRK TY I (W)(4")(SLD)(90 MIL) DOLLARS and CENTS	LF	30,629.000	101
	6110	2003	015	REF PAV MRK TY I (W)(8")(SLD)(90 MIL) DOLLARS and CENTS	LF	4,227.000	102
	6110	2007	015	REF PAV MRK TY I (Y)(4")(SLD)(90 MIL) DOLLARS and CENTS	LF	27,287.000	103
	6110	2014	015	REF PAV MRK TY I (W)(4")(BRK)(90 MIL) DOLLARS and CENTS	LF	2,480.000	104
	6110	2053	015	REF PAV MRK TY I (Y)(4")(BRK)(90 MIL) DOLLARS and CENTS	LF	4,268.000	105

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	6834	2001		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	DAY	80.000	106

Project Number:

Sheet:

County: NUECES

Control: 0326-01-053, ETC.

Highway: SH 286, ETC.

GENERAL NOTES:

No person or tool will be permitted within 8 feet of high voltage electrical lines (600 volts or greater) unless arrangements have been made with the power company. No equipment will be permitted within 10 feet of high voltage electrical lines unless there are warnings posted and an insulated guard is attached to the boom or bucket. The Contractor shall notify the Engineer if there are any conflicts with high voltage electrical lines.

The locations of utilities, either underground or overhead, shown within the limits of the Right-of-Way are approximate only and shall be verified by the Contractor before beginning construction. This work will not be paid for directly but shall be considered subsidiary to the various bid items. Prior to beginning any excavation work in the area of existing utilities, the Contractor shall contact the utility companies for exact locations to prevent any damage or interference with present facilities. The Texas One Call System shall be notified at the following toll free number: (1-800-245-4545). This action however, shall in no way be interpreted as relieving the Contractor of their responsibility under the terms of the contract as set out in the plans and specifications. The Contractor shall repair any damage caused by their operations, deemed the Contractor's liability by the Engineer, at their own expense and shall restore facilities to service in a timely manner. All information concerning utility verifications shall be provided to the Engineer.

In the event utility lines needing unforeseen adjustments are encountered, the Contractor shall prosecute the work in such a manner and sequence to allow adjustments to be done by others. An extension of work time may be granted, if necessary in the opinion of the Engineer, for this delay.

The Contractor will notify the power company if there are any conflicts with high voltage electrical lines.

All materials furnished shall be new, not depreciated stock. Electrical materials and fittings covered by the plans and specifications for this project shall be in accordance with National Electrical Manufacturers Association standards. The installation shall comply with the applicable provisions of the National Electrical Code (NEC) and NEMA specifications. The Contractor will not be required to comply with the provisions of the city electrical ordinance.

The Engineer shall verify the location of illumination poles and ground boxes in the field.

The Contractor will provide for safe and convenient ingress and egress to abutting property, highway, public road, and street crossings for all vehicles. The Contractor will advise the Engineer in advance as to his proposed methods for accommodating traffic during construction at all locations and these methods will be approved by the Engineer before any portion of an existing road or street is removed or disturbed.

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All materials, labor and incidentals required for the Contractor to provide for traffic across the highway and for ingress and egress to private property in accordance with Item 7.7 of the standard specifications shall be considered as incidental to the various bid items.

All dimensions will be field verified prior to the initiation of any work on the contract.

All broken concrete will become the property of the Contractor and will be disposed of in a manner approved by the Engineer.

All existing pavements which are cut or damaged by the Contractor in the process of his work will be replaced as quickly as possible and as directed by the Engineer.

At the end of each working day, the Contractor shall patch any existing open cuts in the roadway surface which will be open to traffic during non-working hours. This work will not be paid for directly but shall be considered subsidiary to the various bid Items.

The Contractor will take appropriate measures to protect all adjacent property from any damage. If any damage occurs, the Contractor will restore the damaged property to a condition equal to the existing before the damage was incurred. This will be done at the Contractor's own expense.

The Contractor's attention is directed to the fact that concurrent contracts may be ongoing within the project limits. The Contractor shall schedule his work accordingly. This includes utility work performed by the utility companies or their respective Contractors.

Water required for curing subgrade materials, base materials, maintenance of roadway, and dust control will not be paid for directly, but will be considered subsidiary to the various contract Items. Water will conform to Item 204 except for measurement and payment.

The Contractor shall not perform any work in the event of a mandatory evacuation is called for in the county in which the work is to be performed without the written authorization by the Engineer. If the Contractor performs work during a mandatory evacuation of the county, other than emergency work directed by TxDOT, this work will be considered unauthorized work, and shall be handled under Item 5 of the Texas Standard Specifications.

The following standard sheets have been modified:

MS-03(MOD)

ITEM 4 Scope of Work

The Contractor's attention is directed to Article 4.6 final cleanup of the project, which states "Clean structures to the flow line or the elevation of the outfall channel, whichever is higher." No direct compensation will be allowed for final cleanup; as such work is to be considered subsidiary to various bid Items of the contract.

Project Number:

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County: NUECES

Control: 0326-01-053, ETC.

Highway: SH 286, ETC.

ITEM 5 Control of the Work

To be eligible to use pre-approved standard shop drawings, the shop drawing must be submitted and approved by the Department prior to use on the project. Deviation from the pre-approved standard shop drawing will require resubmission of the shop drawings. The Engineer may approve, in writing, the use of updated standard drawings in cases where the standard drawings have been updated and the updated version has been approved by the Department.

The responsibility for the construction surveying on this contract will be in accordance with Article 5.6.A, "Method A" as well as offset the proposed centerline prior to starting any surfacing and/or grading operations. The offset line will be at a distance such that it is not affected by construction activities. It will consist of a positive system of stakes and hubs at 100-foot intervals, or an alternative system as directed and/or approved by the Engineer. This offset line will be maintained throughout the project duration.

The Contractor will establish the roadway centerline for surface treatment and striping operation. No direct compensation will be allowed for this work; as such work is to be considered subsidiary to the various bid Items of the contract.

The Contractor's attention is directed to the vertical and horizontal for this project, it is the Contractor's responsibility to verify both the Horizontal and Vertical Control for this project prior to beginning any construction operations on this project. The Contractor is to notify the Area Engineer in writing once this has been done. This work will not be paid for directly but shall be considered subsidiary to the various bid item in the contract.

It will be the Contractor's responsibility to mark the location of the standard pavement markings including edge lines, transitions, passing and no passing zones.

ITEM 6 Cost of Materials

Inspection of work accomplished in concrete product plants normally will be handled as follows: Any precast units, precast pipes, or precast culverts will be inspected by Materials and Test Division. Any precasting yards supplying precast units to projects within the Corpus Christi District will be inspected by Materials and Pavements Section. All other precast units will be inspected and approved by the Area Engineer prior to placement of such units.

ITEM 7 Legal Relations and Responsibilities

The Contractor will be required to furnish the Area Engineer the maximum gross weights, including loads, for all vehicles, including trucks, truck-tractors, trailers, semi-trailers, or any combination of such vehicles used to deliver materials to the project. Maximum gross weights are to be determined in accordance with Item 7 of the Texas Standard Specifications.

Project Number:

Sheet:

County: NUECES

Control: 0326-01-053, ETC.

Highway: SH 286, ETC.

ITEM 8 Prosecution and Progress

The Contractor must complete all the Concrete Joint repair on SH 286 prior to beginning any roadway widening on SH 286, unless otherwise authorized by the Engineer in writing.

Working days will be computed and charged in accordance with Article 8.3.A.1, "Five-Day Workweek".

Unless otherwise approved by the Engineer, the Contractor will not be permitted to commence work on the roadway before sunrise (7:00 A.M.) and shall so arrange his work so that no machinery, except on roadway closed to traffic, shall be on the roadway after sunset (6:00 P.M.). The Contractor will not be allowed to close a traffic lane before 8:30 a.m. and shall open all lanes to traffic before 4:30 p.m.. The Contractor may close one lane of traffic in each direction with the approval of the Area Engineer.

The Contractor will submit a proposed Critical Path Method schedule of work using SureTrak Project Manager or Primavera Project Scheduler Software (Precedence Diagram Method). The Contractor shall submit this schedule both hard copy and electronic copy, to the Engineer a minimum of seven (7) working days in advance of the preconstruction meeting. Monthly updates will be necessary and will be submitted within 3 working days at the beginning of every month. The updates must include the daily production rates of all work done for the time period.

The Contractor's attention is brought to the fact that other contracted projects may be under construction concurrently within the same limits of this project. This includes utility work performed by the utility companies or their respective Contractors.

ITEM 9 Measurement and Payment

The Contractor must submit material-on-hand payment requests at least three (3) working days prior to the end of the month for payment on that month's estimate. All requests shall be made through the prime Contractor.

ITEM 100 Preparing Right of Way

Removal of any obstructions within the right of way that are not shown on the plans will be included under Item 100. Removal of obstructions shall be as directed by the Engineer.

All right-of-way clearing operations will be coordinated with the project Engineer.

ITEM 110 Excavation

Prior to contract letting, prospective bidders may request to view the earthwork design cross sections at the Corpus Christi Area Office. Request for viewing should be made 24 hours in advance to the Corpus Christi Area Engineer. Reproducible earthwork cross sections will be

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available for borrowing by the copying-service companies for the purpose of making copies for the prospective bidders, at the prospective bidder's expense, (24 hour advanced not The Contactor is to review and verify the earthwork crosssections prior to beginning any earthwork operations on this project.

In earth cut sections, where base or pavement structure will be placed on subgrade, the Contractor shall scarify subgrade to a uniform depth at least six(6) inches below finish subgrade elevation for the workable roadbed width. The material shall be mixed and reshaped by blading and then sprinkled and rolled in accordance with Article 132.3.D.2.

ITEM 132 Embankment

The Contractor's attention is directed to the fact that if blending/treatment of embankment is necessary to achieve the desired PI, the material will be pulverized so that 100% passes the 3 in. sieve. This work will not be paid for directly but will be considered subsidiary to Item 132. As borrow sources change or the material changes significantly, it must be re-tested to ensure it meets the PI requirements.

The Contractor will remove all excess embankment material at the project's completion. Removal of embankment material will not be paid for directly, but will be considered subsidiary to Item 132. All embankment material removed will become the property of the Contractor and will be disposed of in a manner approved by the Engineer.

ITEM 134 Backfilling Pavement Edges

The Contractor will be allowed to backfill pavement edges with milled asphalt recovered from planing operations. The planed material must be approved by the Area Engineer prior to placement.

The use of a road widener or other equipment that will place the backfill material in accordance with the proposed typical sections will be required.

The pavement edges shall be backfilled, processed, graded and compacted on the same day that the ACP is placed. If the backfill material is not in place by the end of the day, channelizing devices shall be placed in accordance with the Barricade and Construction standards. In addition, Pavement Drop Off signs shall be placed at intervals not to exceed one mile.

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The Contractor may be directed by the Engineer to spread this material at varying depths along the project in order to meet field conditions. This work will not be paid for directly but shall be considered subsidiary to Item 134.

If Contractor furnishes any material other than planing material for this Item of work, the material shall have a plasticity index ranging from 15 to 35 and shall be capable of sustaining vegetative growth.

ITEM 164 Seeding for Erosion Control

Any deviation on the planting dates and methods will not be permitted unless approved by the Engineer.

Cell fiber-mulch limits shall conform to the details as shown in the plans and any other areas which are disturbed by the Contractor's operation shall be cell fiber-mulched as deemed necessary by the Engineer, at the Contractor's expense.

ITEM 166 Fertilizer

Fertilize all areas of project to be mulched and sodded.

Fertilizer will have an NPK ratio of (16-8-8) and will be applied at a rate of 60 lb. of nitrogen per acre.

ITEM 168 Vegetative Watering

Water all areas of project to be mulched and/or sodded.

The Contractor will water at a rate of ¼ inch of water every week for 3 months unless otherwise directed by the Engineer.

ITEM 247 Flexible Base

Flexible base material will come from a source approved by the Engineer. If the flexible base comes from a stockpile, the stockpile will be tested before delivery on the road. Final acceptance of flexible base material will be from tests made from windrow samples and the stockpile.

Testing of the liquid limit shall be in accordance with Test Method TEX-104-E (Machine Method).

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ITEM 300 Asphalts, Oils, and Emulsions & Item 302 Aggregates for Surface Treatments

Asphaltic material shall not be placed when general weather conditions, in the opinion of the Engineer, are not suitable.

Paper and other materials used for joints shall be picked up immediately and disposed of properly.

When emulsions are used to precoat material, the precoated aggregate will be adequately dried to the satisfaction of the Engineer. It will be the responsibility of the Contractor/Producer to provide adequate drying and curing periods before delivery of the aggregates.

If emulsion asphalt is used, the precoat material for the aggregate will be approved by the Engineer.

The Engineer reserves the right to reject any precoated aggregates which is improperly coated or otherwise unsatisfactory for use.

The Contractor will be required to sweep and pick up excess aggregate from the roadway daily as directed by the Engineer.

The location of aggregate stockpiles shall be approved by the Engineer. The aggregate shall be free of excess surface moisture, as determined by the Engineer, before application.

The rates of application and the estimated quantities of aggregate are based on the usual or average gradation of known materials. Prior to shipping aggregates to the project, the Contractor shall furnish the Engineer with samples of aggregates he proposes to use so that the gradation may be determined and rate of application changed if necessary.

All aggregate shall be a minimum class of SAC B as published in the Department's *Bituminous Rated Source Quality Catalog* (BRSQC).

ITEM 314 Emulsified Asphalt Treatment

Contractor will work the SS-1 asphalt material into the top 2" flex base surface during finishing operations. The amount used will be within the percentile limits determined/approved by the Engineer and will not be less than 2 percent of the total mixture. This process shall be considered subsidiary to Item 314.

Emulsified asphalt material will be a mixture of approximately 5% (SS-1) and 95% water. Water for the emulsified asphalt will not be paid for directly, but will be considered subsidiary to Item 314. An application rate of 0.15 gal/sy/in will be used unless otherwise specified by the Engineer in writing.

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Water for the emulsified asphalt will not be paid for directly, but will be considered subsidiary to Item 314.

ITEM 318 Hot Asphalt-Rubber Surface Treatment

The underseal consisting of A-R Binder (Type III) will be measured by the ton before placement. The aggregate (PB GR 4 or 4S SAC B) will be measured by the cubic yard in the truck as applied to the road.

For this project the asphalt season for placement of asphalt surface courses shall be from March 15 through November 15, unless otherwise approved by the Engineer in writing.

Aggregate type PB and grade 4 or 4S SAC B will be used for all surface treatments/underseals.

Material rates shown are based on binder and may be adjusted by the Engineer depending on the material used, and the existing condition/type of the roadway surface. In the event emulsions are used, (if allowed) a minimum 24 hour curing period shall elapse before placing any subsequent asphalt courses. The Contractor shall obtain approval from the Area Engineer to waive the minimum curing time prior to commencing sealing operations.

Contractor will remove raised pavement markers; this work shall be considered subsidiary to this Item.

Prior to any surface treatment, Contractor will remove vegetation and blade pavement edges. This will be considered subsidiary to Item 100.

A test section(s) of not more than 500 LF each may be required by the Engineer to assist in the determination of the required rates of application. If so desired by the Engineer, the test section(s) may be traffic tested over night, prior to a full day's production.

Any visible sign of excessive dust from the aggregate stockpile or while handling the material during construction of this Item will be a sign of unclean material and if so directed by the Engineer, the Contractor will be required to clean the rock to minimize non-adherence of aggregate to the asphalt. The cleaning method will be approved by the Engineer.

To prevent windshield damage, any sealed sections of roadway and all paved surfaces adjacent to travel lanes will be broomed and cleaned of surplus aggregate before opening to traffic as directed by the Engineer.

The Contractor will be required to set a string line for all surface treatment operations unless otherwise directed by the Engineer.

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The asphalt distributor will be equipped with a hand hose in working condition for use as directed by the Engineer.

Mixes that do not maintain flow qualities where the precoated aggregate can not be satisfactorily spread by approved mechanical spreading devices will not be acceptable.

The rates of application and the estimated quantities of aggregate are based on the usual or average gradation of known materials. Prior to shipping aggregates to the project, the Contractor will furnish the Engineer with samples of aggregates proposed for use so that gradation may be determined and rate of application changed if necessary.

Traffic will not be permitted on the surface treatment until authorized by the Engineer.

ITEM 320 Equipment for Asphalt Concrete Pavement

A low-lift loader will be required for this project to be used as a material transfer equipment as approved by the Engineer. The equipment will be subsidiary to Item 341.

The use of a motor grader will not be allowed for the spreading of any HMACP.

ITEM 341 Dense-Graded Hot-Mix Asphalt (QC/QA)

For this project, PG binder 76-22 will be used in Ty B and Ty C hot mixed asphaltic concrete pavements.

For this project, the lab molded density will be 97% in accordance with TEX-207-F.

Aggregates used on shoulders are required to meet SAC requirements.

All aggregates (for Ty B and Ty C) shall be a minimum class of SAC B as published in the Department's *Bituminous Rated Source Quality Catalog* (BRSQC).

Crushed gravel screenings may be used with or in lieu of stone screenings.

For all courses, the spreading and finishing machine will be equipped with an approved automatic dual longitudinal screed control system and automatic transverse screed control system. The longitudinal controls will have a minimum 40 feet grade reference length and be capable of operating from any longitudinal grade reference including stringline, ski, mobile stringline, or matching shoe.

HMACP areas having surface irregularities or segregation that are deemed unacceptable by the Engineer shall be removed and replaced by the Contractor in a manner approved by the Engineer. The work and materials involved will not be paid for directly but shall be considered subsidiary to Item 341.

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HMACP placed on the shoulders separately will require in-place air void testing. Unless otherwise directed by the Engineer in writing.

At the beginning and end of project, and at all exceptions, the asphaltic concrete pavement will be transitioned from the depth shown on the typical sections to the existing grade to provide a smooth riding surface, unless otherwise directed by the Engineer. The length of the transition will be designated by the Engineer.

All existing pavements, which are damaged by the Contractor in the progress of his work, will be replaced as quickly as possible and as directed by the Engineer. Where existing pavement adjoins new pavement, the existing pavement will be saw cut to ensure a neat transverse and/or longitudinal line to assure a smooth tie-in. This will be subsidiary to Item 341.

Locations of the asphaltic concrete pavement longitudinal construction joints will coincide with edgeline and/or lane striping, unless otherwise directed by the Engineer.

All longitudinal joints adjacent to the travel way shall be constructed with a joint maker providing a maximum one inch vertical edge (1/2 inch desirable) with an adjacent 6:1 taper. Outside edge joints and pavement edges shall have a 6:1 taper or backfilled the same day.

Place mixture when the roadway surface temperature is equal to or higher than the temperatures listed in Chart 1 unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. The Engineer may allow mixture placement to begin prior to the roadway surface reaching the required temperature requirements if conditions are such that the roadway surface will reach the required temperature within 2 hrs. of beginning placement operations. Unless otherwise shown on the plans, place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Chart 1
Minimum Pavement Surface Temperatures

		<i>Minimum Pavement Surface Temperatures in Degrees Fahrenheit</i>	
<i>Specification Item Number</i>	<i>High Temperature Binder Grade</i>	<i>Subsurface Layers or Night Paving Operations</i>	<i>Surface Layers Placed in Daylight Operations</i>
<i>Item 341</i>	<i>PG 76</i>	<i>60^l</i>	<i>60^l</i>

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Note 1: Contractors may pave at temperatures 10° F lower than the values shown in Chart 1 when utilizing a paving process or equipment that eliminates thermal segregation. In which cases, the Contractor must use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Test Method 244-F to demonstrate to the satisfaction of the Engineer that the uncompacted mat has no more than 10° F of thermal segregation.

ITEM 351 Flexible Pavement Structure Repair & 354 Planing and Texturing Pavement

The use of reclaimed asphalt pavement(R.A.P.) will be allowed to be used in the Ty B Hot Mix.

ITEM 354 Planing and Texturing Pavement

The State will retain ownership of all planed materials not recycled into the hot mix. Any material not used for shoulder-up under Item 134 is to be salvaged and hauled to the intersection of SH 286 and FM 43. Hauling of this material will not be paid for directly but shall be subsidiary to Item 354.

Any vertical or near vertical longitudinal face exceeding 1 inch in height in the pavement surface open to traffic at the end of a work period shall be sloped a minimum of 3:1. Transverse faces that are present at the end of a work period shall be tapered in a manner acceptable to the Engineer.

Pavement that is not removed by the planing machine shall be removed by other methods acceptable to the Engineer. The pavement shall be swept with a sweeper to remove all debris at the end of each working day or when directed by the Engineer leaving a clean and presentable condition.

In areas where traffic will be permitted, the texture produced shall be a grid pattern or any other pattern with discontinuous longitudinal striations that will provide, in the opinion of the Engineer, a satisfactory riding surface.

ITEM 361 Full-Depth Repair of Concrete Pavement

Steel bar size and spacing will as shown in Standard FDRCP-05 Table No.1 for the 8 inch pavement thickness, and the dowel bars size and length will be as shown in Table No. 2 for the 8 inch pavement thickness.

ITEM 400 Excavation and Backfill for Structures

Backfill on the top portions of pipe culverts and box culverts shall be compacted to a final condition comparable in density and consolidation to the adjacent undisturbed material by any method satisfactory to the Engineer.

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When cohesionless material is used for backfill of culverts or concrete box culverts, the joints will be wrapped with sand proof tape following the manufacturer's recommendations or an equivalent method for joint sealing. All joints of pipe placed in cement stabilized backfill will be wrapped in sandproof tape. Alternatively, joints conforming to ASTM C443 may be sealed with rubber gaskets, which meet ASTM C361.

Where the soil in which the pipes are placed is other than a cohesionless type material, then the cohesionless material if used for backfill will be no higher than the top of the pipe without the approval of the Engineer.

For this project, cement stabilized backfill will be used on the extension of drainage structures as shown on the backfill details found on the Bedding Detail sheet.

Aggregate used for cement stabilized backfill shall be concrete sand or similar material, with or without coarse aggregate, all as approved by the Engineer.

Cement stabilized backfill shall consist of two sacks (94 lbs. each) of cement to each cubic yard of sandy material.

Water ponding of cohesionless materials will not be allowed unless approved by the Engineer.

ITEM 416 Drilled Shaft Foundations

If the presence of excess ground water and/or unstable conditions in subgrade soils prevents excavation to the lines 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 approval.

ITEM 420 Concrete Structures

The Contractor will provide for the Department's use one (1) laptop computer system for concrete batch plant inspection and this will be subsidiary to the various bid Items.

The following software and hardware listed below or approved equal or better shall be provided:

Software:

Microsoft Windows XP Professional, Microsoft Office XP Professional or greater, Winfax Pro version 10.0 or greater, Winzip 9.0 or greater, Adobe Acrobat Reader 6.0 or greater, and McAfee Virus Scan 7.0 or greater to include updates for duration of project.

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Hardware:

Laptop:

Intel Pentium 4 processor or better (3.0 GHz minimum) with 533 MHz or 800 MHz front-side bus, one GB minimum of DDR RAM, 40 GB hard drive or greater with rpm speed of 5400 or greater, display of 15 inches or greater with maximum resolution of 1024 x 768 or greater, 64 MB or greater video/graphics card (can be shared RAM), touch pad mouse, built-in high-speed V.90/V.92 56 KB data/fax modem, built-in 10/100 base-t fast Ethernet interface, 1 USB 2.0 port, 1 external video port, 1 parallel port, 1 serial port, 1 external keyboard/mouse port, 1 PCI I/II/III PCMCIA slot, 1 DVD/CDRW combo drive.

Printer:

Portable/Mobile color – minimum 9 ppm black, minimum 8 ppm color, black resolution 1200 X 1200, color resolution 4800 X 1200 optimized color dpi, low ink indicator, print cancel button, print connectivity via parallel, USB, or infrared, print media capable of letter, printer must be able to run on lithium-ion battery or AC power supply, and 1 USB 2.0 rated 6 ft. cable.

The Contractor will deliver the specified software and hardware to be used by the Department prior to the commencement of any work on the project. The Contractor will provide carrying cases for both the laptop computer and printer. The Contractor will purchase and provide to the Department updates to the software as required to remain compatible with TxDOT's currently used software. In the case of needed repairs for the software or hardware, the Contractor will provide a backup computer system meeting the same Specifications within twenty-four (24) hours. At the completion of the project, the Contractor shall retain all hardware and software.

If membrane curing is used for curing concrete structures, only Type I-D/2 curing compound conforming to the requirements of Item 420 will be permitted.

Cast in place all dowels when possible. When not possible, Contractor will use an approved epoxy for placement of dowels. Placement of reinforcement dowels for riprap shall conform to Item 420.

The Contractor will furnish a cylinder-curing tank including a tank heater. The tank size will be as approved by the Area Engineer.

For this project, the concrete strength will be determined by 28-day compression testing by use of test method TEX-418-A, "Compressive Strength of Cylindrical Concrete Specimens". The 7-day job control strength will be determined in accordance with test method TEX-427-A, part III, cylindrical concrete specimens will be 4" diameter by 8" length.

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The Engineer will cast and test all concrete cylinders. The Contractor will furnish all test molds and wheelbarrow. The test molds will be of disposable plastic type as approved by the Engineer. The Contractor will remove the test specimens from the molds and transport them to the proper curing location at the schedule designated by the Engineer.

When a 7-day job control test value is more than 10 percent below the required job control strength or when three (3) consecutive strength values fall below the required job control strength, an investigation of the test procedure, the quality of the materials, and batching operations will be performed by the Contractor and Engineer to determine the likely cause or causes of the problem. Immediate remedial action will be taken to correct the problem including redesign of the concrete mix when warranted.

ITEM 421, 465 & 467 Hydraulic Cement Concrete, Manhole and Inlets & Safety End Treatment

As soon as the forms are removed from all concrete, an ordinary surface finish shall be applied to the exposed concrete surfaces.

Air Entrainment will not be required in all concrete for this project

For this project all Class "B" concrete shall be considered miscellaneous concrete as defined in the guide schedule of sampling and testing. In the event test specimens fail strength requirements, the Contractor, with prior approval of the Engineer, shall take test cores at the Contractor's expense.

ITEM 432 Riprap

Where existing riprap adjoins new riprap, the existing riprap will be saw cut to ensure a neat transverse and/or longitudinal line to assure a smooth tie-in. This work will be subsidiary to Item 432.

ITEM 438 Cleaning and Sealing Joints and Cracks

Contractor shall provide a method of cleaning and sealing joints so as not to allow any material to fall through the joint when over water. The method of cleaning shall be to the satisfaction of the Area Engineer. The materials and labor used to collect debris shall be subsidiary to Item 438.

ITEM 440 Reinforcing Steel

Unless dowels are placed monolithically with the concrete structure, all dowels will be placed with Type III epoxy in accordance with DMS-6100 and as approved by the Engineer. The materials, labor, tools, and other incidentals shall be subsidiary to the pertinent bid Items.

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ITEM 462 Concrete Box Culverts and Storm Drains

Precast box lifting holes will be patched with a quick setting, high strength concrete pipe patch. Concrete plugs with Ramneck will not be permitted.

The Contractor has the option to either use cast-in-place or precast box culverts.

ITEM 462 & 464 Concrete Box Culverts and Storm Drains and Reinforced Concrete Pipe

Either cold applied plastic asphalt sewer joint compound or cold applied plastic gaskets shall be used for all joints.

ITEM 465 Manholes and Inlets

In order to facilitate drainage, all inlets shall have inverts made of grout or Class "B" concrete and will be considered subsidiary to Item 465.

ITEM 467 Safety End Treatment

The Contractor will be given the choice of cast-in-place or precast safety end treatments.

All safety end treatments will be reinforced as directed by the Engineer.

All Type II safety end treatments (cast-in-place or precast) will have riprap aprons. Payment for riprap will not be made directly but will be considered subsidiary to the safety end treatment.

The inside surfaces of the pipe in the sloped end sections will be formed to the satisfaction of the Engineer. The ends will have a uniform slope.

ITEM 464, 465, & 467 Reinforced Concrete Pipe, Manholes and Inlets and Safety End Treatment

In the event a concrete pipe collar is required as determined by the Engineer, the concrete shall meet the requirements of Class "B" concrete. The concrete pipe collar shall be a minimum of 12 inches wide (6" +/- either side of the joint) and have a minimum thickness of 6 inches measured from the outside of the pipe and be completely around the pipe. Reinforcement for concrete will be 2-#3 rebars. All labor, materials and incidentals necessary to complete the work required will not be paid for directly, but shall be considered subsidiary to the various bid items.

Any concrete collars needed due to the use of precast inlets/manholes will be considered subsidiary to Item 465.

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Any damages to existing or proposed culverts or safety end treatments due to cleaning, excavating, backfilling, earthwork, or any type of work will be repaired by the Contractor at his/her expense. The Contractor will replace any culvert or safety end treatment damaged beyond repair as deemed by the Engineer at the Contractor's expense.

ITEM 500 Mobilization

"Materials on Hand" payments will not be considered in determining percentages used to compute payment for the Item "Mobilization".

ITEM 502 Barricades, Signs and Traffic Handling

The Contractor is responsible for implementing and maintaining the traffic control plan and will be responsible for furnishing all traffic control devices and flaggers.

All signs, barricades, and pavement markings will conform to the BC standard sheets, TCP sheets and the latest version of the "Texas Manual on Uniform Traffic Control Devices".

The Contractor may be required to furnish additional barricades, signs, and warning lights to maintain traffic and promote motorist's safety. Any such additional signs and barricades will be considered subsidiary to Item 502. All signs, barricades, and posts will be either new or freshly painted.

Traffic control for daytime lane closures will be in accordance with the appropriate standard sheets.

Before any obstruction is placed on the roadway, warning devices must be positioned as indicated on the traffic control plan, BC sheets, TCP sheets and the latest version of the Tx MUTCD.

Traffic control devices as shown in the plans may be adjusted to fit field conditions as directed by the Engineer.

When advanced warning flashing arrow panel(s) is specified for the closing of traffic lanes, the Contractor shall be required to furnish two standby units in good condition at the job site for immediate use.

Barricades and warning signs for intersecting city streets, highways and county roads shall be in accordance with BC (2)-07 unless otherwise approved by the Engineer.

Barrels will also be used in accordance with the plans and manufacturer's recommendations and will have a 7" prismatic reflective unit on all barrels, as approved by the Engineer. The prismatic reflective unit will be subsidiary to Item 502.

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After completion of the project, when removing the barricades and signs, the Contractor will fill and compact any holes left by the barricades or sign supports and restore the area in which the signs were removed to its original condition.

Any other area or surface disturbed during the placing or removal of barricades and signs or for any other reason will be restored to its original condition.

The Contractor will be required to furnish one Trailer Mounted Speed Control Monitor for the duration of this project as directed by the Engineer. Location for placement of the Trailer Mounted Speed Control Monitor will be determined by the Engineer. Furnishing the monitor will not be paid for directly, but will be considered subsidiary to bid Item 502. The monitor unit used for this project will meet or exceed the examples listed below:

Precision Solar Controls Solar Mobile Traffic Monitor SMTM-2012
PSE Amber Smart Speed Monitoring Awareness Radar Trailer
MPH Traffic Monitor Trailer Model 3
Stalker Speed Guard or TxDOT approved equal.

The Contractor shall have an employee on call nights and weekends with a local address (or any other time that work is not in progress) for maintenance of signs and barricades. This employee shall be located within one hour of traveling time to the project site. The Contractor shall notify the Engineer in writing of the name, address and telephone number of this employee or these employees. The Engineer will furnish this information to local law enforcement officials.

ITEM 504 Field Office and Laboratory

In lieu of a field office, the Contractor shall provide a wireless broadband internet service, including all hardware necessary to make the connection, for two (2) TxDOT-owned laptop/tablet computers. The Contractor will need to coordinate with the Engineer prior to purchasing any of the hardware or service.

The following building will be required for the Engineer's use:

The Type (D) structures shall be equipped with the following in addition to requirements specified under Item 504:

- A. Safety equipment
 - (1) One eye wash station
 - (2) One fire extinguisher
 - (3) One first aid kit

In addition to requirements of Item 504, this structure will be not less than 12 feet by 32 feet and 8 feet high. The floor area will be partitioned into a minimum of two interconnected rooms, each room furnished with an exterior door and a door between rooms. All doors will have a minimum

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width of 36 inches and 80 inches in height. All exterior openings will be secured with burglar bars. The floor shall have sufficient strength to support the testing equipment and have an impervious covering.

The laboratory 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. The Contractor is responsible for maintaining all mechanical, electrical and plumbing facilities at all times. An air exhaust shall be located so solvent vapors are drawn away from the workers. The ovens used to dry aggregate, cure, and ignite asphalt mixes will be vented upward to the outside. The Contractor will connect the vent ducts to the ovens. The laboratory will be furnished with work counters measuring 36 inches in width and 36 inches in height along the walls. The laboratory will have a minimum total work counter length of 20 feet. A laboratory sink measuring 24 inches by 30 inches and 12 inches deep will be provided with adequate, clean, potable water supply for testing.

The building shall be equipped with a hot water dispenser or hot water capable of generating one gallon of water at 140 degrees Fahrenheit with adequate water pressure. Collection and disposal of trash and janitorial services that are acceptable to the Engineer will be provided. Space heaters for heating the structure are unacceptable.

The Type (D) structure shall be furnished with a minimum of one desk, three chairs, one file cabinet, and one built-in equipment storage cabinet for the storage of nuclear equipment. Telephone service will be provided as shown on the plans or as directed by the Engineer.

The Contractor shall provide for the Department's use one (1) desktop computer system in accordance to DMS – 10101, "Computer Equipment" to be placed in the Engineer's laboratory for asphalt mix testing.

The Contractor shall provide internet service provider for the Department's use in accordance to DMS – 10101, "Internet Service Provider (ISP).

The Type (D) structure shall be provided with a 240 volt electrical entrance service. The service shall consist of a minimum of 4 – 120 volt circuits with 20 amp breakers and no more than two grounded convenience outlets per circuit and provisions for a minimum of two 220 volt outlets for ovens with vents to the outside. The laboratory portion will be equipped with at least seven 20 amp-110 volt outlets, four (4) 30 amp-220 volt outlets, two light switches on the wall and fluorescent ceiling lights capable of providing lighting meeting ANSI standards for industrial lighting. All outlets will be compatible with the electrical requirements of the equipment to be used for testing. Portable structures shall be support blocked for stability and shall be tied down.

For this project, asphalt content will be determined utilizing the ignition method. The room to contain the ignition oven shall be adequately power ventilated and contain a NEMA 6-50r (208/240 v, 50 a) outlet within 2.5 feet of the ignition oven location and an independent exhaust outlet to the outside no further than 8 feet from the oven. The surface for the ignition oven

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location shall be level, sturdy, and fire-proof with at least 6 inch clearance between the furnace and other vertical surfaces.

The Contractor will furnish TxDOT with the local workstation administration password in order for TxDOT to perform any related support or maintenance on the workstation.

The Contractor shall deliver the specified software and hardware to be used by the Department prior to the commencement of any work on the project. The Contractor shall purchase and provide to the Department updates to the software as required to remain compatible with TxDOT's currently used software. In the case of needed repairs for the software or hardware, the Contractor shall provide a backup computer system meeting the same specifications within twenty-four (24) hours. At the completion of the project, all hardware and software shall be returned to the Contractor.

The Contractor will designate an Information Technology (IT) technician as a contact person for any questions TxDOT may have dealing with the computer, software, and any peripherals provided during the Contract. This information will be provided to the Information Systems Department - Corpus Christi District.

The Contractor will provide and pay for the electrical, other utilities, telephone installations and the monthly service charges, and the e-mail monthly access charges. The telephone line provided will be separate from other lines.

The Contractor will apply for and secure permits necessary for the building. All utility meter deposits and service bills will be paid by the Contractor. This will be approved by the Engineer or their representatives.

A chain link security fence will be required to be placed around the perimeter of the type D structure and parking areas. The dimensions of the fence will be as directed by the Engineer.

The Contractor will provide security for the laboratory as directed by the Engineer.

For electrical work on Type D asphalt mix laboratory which will also include electrical service to said buildings, electrical license requirements will be as outlined in Item 7.

ITEM 506 Temporary Erosion, Sedimentation, and Environmental Controls

Sandbags will be used to hold the temporary sediment control logs in place at curb inlets as directed by the Engineer.

Temporary sediment control fences, temporary sediment control logs, and rock filter dams will be checked and cleared of debris or sediment (as well as maintenance) by the Contractor at least once a week. Sediment control fences will also be checked and cleared of any debris or sediment

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after a ½” rain event or more. These tasks will be considered subsidiary to Item 506 “Temporary Sediment Control Fence”.

The cleaning of asphaltic pavement equipment will be done in such a manner that will not leave any petroleum contaminants in the R.O.W. Any petroleum products spilled within the R.O.W. will be cleaned up and disposed of properly. No construction waste materials will be buried within the R.O.W.

The Contractor will designate a Contractor Responsible Person (CRP) for implementing, maintaining, and reviewing environmental requirements before and during the project. The CRP will be the contact person for the Contractor on these issues.

The Contractor will construct a Type I construction exit, one at the field office, or at any location as directed by the Engineer. Gravel will not be permitted as a substitute. The Engineer may direct the Contractor to furnish additional construction exits as deemed necessary.

The Contractor will be responsible for maintaining, cleaning, and making sure the construction exit is in working condition through the entire term of Contract. Any construction waste material left on existing roadways or adjacent roadways will be immediately picked up and will be disposed of in a manner approved by the Engineer. This work will not be paid for directly but will be considered subsidiary to Item 506.

ITEM 530 Intersections, Driveways and Turnouts

Driveway, intersection, and turnout work conducted within the project limits will conform to details shown on the Driveway and Turnout Detail sheet.

All existing driveways not shown on the plans will be replaced by the Contractor, as directed by the Engineer. These driveways will be paid for at the unit price bid for driveways.

During construction, if conditions warrant, driveway locations, widths, or lengths may be varied as directed by the Engineer.

ITEM 531 Sidewalks

All curb ramps & landings shall conform to State standards and regulations. Each ramp or landing shall be approved by the Engineer individually. Any areas having surface irregularities or slopes deemed unacceptable by the Engineer shall be removed and replaced by the Contractor at their expense.

ITEM 540 Metal Beam Guard Fence

Timber posts shall not be painted.

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The Contractor shall have the option of furnishing either domed or beveled end timber posts. Mixing of these posts shall not be permitted within a continuous length of rail on either side of the roadway centerline.

The Contractor shall place the new metal beam guard fence as shown on the plans or as directed by the Engineer. Any damage to the pavement surface during the placement and/or removal of the timber post shall be repaired by the Contractor at their expense.

ITEM 542 Removing Metal Beam Guard Fence

The material that is removed under this Item of work shall be delivered and stockpiled at the East Nueces Maintenance Yard if deemed salvageable by the Engineer. The yard is located at 844 S.P.I.D., Corpus Christi, Texas 78406.

ITEM 560 Mailbox Assemblies

It is the responsibility of the Contractor to mark the location of the existing mailboxes and placement of the new mailboxes. If conditions warrant, mailbox locations may be varied as directed by the Engineer.

Temporary and permanent mailbox locations shall be accessible to the United States Postal Service.

ITEM 585 Ride Quality for Pavement Surfaces

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

The inertial profiler results shall be submitted to the Engineer the same day after each day's paving operations are complete, unless otherwise directed by the Engineer.

Tests will be performed before backfilling pavement edges.

Areas not to be tested will be determined by the Engineer.

The Engineer must be present for any test-vehicle should have a seat for the Engineer or Engineer will follow the testing vehicle.

ITEM 610 Roadway Illumination Assemblies

Fabricate roadway illumination assemblies in accordance with TxDOT standards RIP-07 (Roadway Illumination Poles-2007). Poles fabricated according to the RIP-07 require no shop drawings. Alternate designs to RIP-07 or the use of aluminum to fabricate poles will require the submission of shop drawings electronically.

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For instructions on submitting shop drawings electronically go to:

<http://www.dot.state.tx.us/publications/bridge.htm>

File is titled: Guide to Electronic Shop Drawing Submittal.

Any wire used in pole foundation or pole base to make connections shall be considered incidental to roadway illumination assembly. Measurement for payment shall be surface distance between locations.

The Contractor may be responsible for fixture testing costs. See Materials and Tests Division test method Tex-1110-T.

After satisfactory completion of all tests, all new lighting fixtures shall be placed in operation. Final acceptance will not be made until the fixtures have operated satisfactorily for a period of not less than 14 days. The 14 day test period will be included in the working days allowed for the project. After successful completion of the testing period, the Contractor shall thereafter be relieved of the maintenance of the lighting fixtures.

The Contractor shall be fully responsible for the lighting fixtures during the test period, shall make any adjustments or repair which may be required, and shall remedy any defects or damages which may occur at the Contractor's expense.

ITEM 618 Conduit

Conduit in non-traffic areas shall be placed by the open trench method at a minimum depth of 2 feet, unless otherwise specified in the plans. Jacking of conduit will not be permitted. All conduit runs under pavement or driveways shall be bored unless otherwise noted on the layouts or as approved by the Engineer. Where boring is required, it shall be placed at a minimum depth of 2 feet.

All conduit installed above ground shall be RM conduit. All conduit installed below ground shall be PVC electrical conduit. All conduit elbows shall be wide sweep elbows.

All new conduit terminating in ground boxes and pole foundations shall be sealed with a sealant to be made of a polyurethane or equivalent material of a composition that will cure in the presence of moisture. Sealant shall be suitable for use in sealing ends of PVC pipe with electrical conductor running through the pipe. The sealant shall encapsulate and protect electrical conductors and seal ends of PVC pipe from moisture and dirt. The conduit shall be sealed a minimum of 3 inches and a maximum of 4 inches.

ITEM 620 Electric Conductors

For both transformer and shoe-base type illumination poles, provide double-pole breakaway fuse holder from manufacturers pre-qualified by the Traffic Operations Division. See

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http://www.dot.state.tx.us/business/producer_list.htm for a list of pre-qualified manufacturers. Category is "Roadway Illumination and Electrical Supplies." Fuse holder is shown on list under Items 610 & 620. Provide 10 amp time delay fuses.

Grounding conductors that share the same conduit, junction box, ground box or structure shall be bonded together at every accessible point in accordance with the current National Electrical Code.

ITEM 644 Small Roadside Sign Supports and Assemblies

All green city street signs will be removed, stored, and replaced on its new sign assembly by the Contractor. Any damaged sign, as determined by the Engineer, will be replaced by the Contractor at their expense. All materials, tools, labor, and incidentals will be subsidiary to Item 644.

The Contractor will not begin the breakaway signposts until they have the signs and crew available to immediately follow up with the erection of signs.

Prior to the placement of any reference markers, the Contractor shall contact Daniel Gonzalez @ (361)808-2348.

Drivable supports are not permitted for final placement of signs.

Any signs damaged due to Contractor's neglect or mishandling will be replaced by the Contractor at their own expense.

The Contractor will provide and install a roll pin (as per SMD (SLIP-1)-02) to reduce possible sign rotation as determined by the Engineer. The roll pin and any other incidentals will be subsidiary to Item 644.

ITEM 662 Work Zone Pavement Markers

The Contractor will install short-term pavement markings on the permanent roadway prior to opening to traffic. Pattern and spacing of short-term pavement markings will be as shown on WZ (STPM)-03. Non-typical short-term pavement marking patterns will be placed as approved by the Engineer. Removal of short-term pavement markings will be required immediately prior to placement of permanent markings.

Staples or nails will not be used to secure markings.

For this project, standard pavement markings will be installed by Contractor forces. It will be the Contractor's responsibility to mark the location of the standard pavement markings including edge lines and transitions.

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The Contractor may need to apply an asphalt adhesive to short term pavement markers to ensure they adhere to the roadway surface. This work will not be paid for directly but will be considered subsidiary to the various bid Items.

ITEM 672 Raised Pavement Markers

All raised pavement markers are required to meet Department Materials Specification DMS-4200, pavement markers (reflectorized). The Department's General Services Division maintains a list of pre-qualified suppliers.

Bituminous adhesive will be used to bond to all pavement markers. The bituminous adhesive will be placed at a temperature range of 380 to 390 degrees Fahrenheit. The pavement markers will be placed on the bituminous adhesive approximately twenty (20) seconds after the adhesive is placed on the pavement. The pavement marker will rest solely on the adhesive and not the pavement surface. There will be a layer of bituminous adhesive at least 1/8 inches thick between the pavement marker and the pavement surface.

Spacing for pavement markers will be in accordance with PM (1)-03, PM (2)-00A, and PM (4)-03.

ITEM 677 Eliminating Existing Pavement Markings and Markers

All raised pavement markers in conflict will be removed before any surface treatment or HMA CP operation and will be considered subsidiary to that Item.

Grinding or planing is not an acceptable method of marker removal.

ITEM 5010 Transportable Cellular Telephones

The Contractor will provide for the Department's use two (2) Transportable Cellular Telephones. The Contractor will pay for all cellular phone deposits and cellular phone service bills. A detail monthly usage summary will be submitted by the Contractor to the Area Office on a monthly basis.

ITEM 5261 Geogrid Reinforcement

During installation of the geogrid mats, the Contractor will not allow the traveling public to travel directly over the geogrid. A minimum flexible base thickness of 6 inches will be placed over geogrid prior to opening the mat to construction traffic.

The Contractor will provide adequate storage for the geogrid and will plan the installation of the geogrid so as to limit exposure to ultraviolet degradation. The manufacturer's recommendations will control, unless otherwise directed by the Engineer.

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Type I geogrid will be used.

When using a multi-layer type of geogrid, longitudinally cut portions of a roll must be held together by at least two rows of longitudinal stitching to insure proper layer alignment during installation and maintain integrity of the cut portion.

ITEM 6110 ReflectORIZED Pavement Markings

Pavement surface preparation for markings and markers will conform to the requirements of Item 678, except for measurement and payment.

ITEM 6834 Portable Changeable Message Signs

The Contractor will be required to supply Portable Changeable Message Signs (Full Matrix) on this project as directed by the Engineer. A minimum of two PCMS will be required. These units will remain the property of the Contractor upon completion of the contract. This work will be paid for at the unit price bid per calendar day as approved by the Engineer for each PCMS required for traffic control in accordance with this Item.

The Contractor will set up the portable changeable message signs displaying the correct message seven (7) days in advance of any work done.

PCMS will only be paid for when required or as directed by the Engineer.

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SPECIFICATION DATA

UNIT WEIGHT ESTIMATES

ITEM 247 - FL BS (CMP IN PLC) (TY A GR 1)(FNAL POS)-----	136 LBS/CF
ITEM 341 - (2")D-GR HMA (QCQA) TY C SAC-B PG 76-22-----	220 LBS/SY
ITEM 341 - (4")D-GR HMA (QCQA) TY B SAC-B PG 76-22-----	440 LBS/SY
ITEM 314 - EMULSIFIED ASPHALT TREATMENT	
ASPHALT TYPE -----	PRIME SS-1
ASPHALT RATE(GAL/SY/IN)-----	0.15

COMPACTION REQUIREMENT FOR BASE COURSE

ITEM 132 - EMBANKMENT (FINAL)(DENS CONT) (TY C)	
PLASTICITY INDEX -----	40 MAX
PLASTICITY INDEX-----	10 MIN
DENSITY -----	AS SHOWN ON
	TABLE 2 OF ITEM 132
LIFTS-----	ALL

ITEM 134 - BACKFILLING PAVEMENT EDGES	
PLASTICITY INDEX -----	35 MAX
PLASTICITY INDEX-----	15 MIN

ITEM 247- FL BS (CMP IN PLC) (TY A GR 1)(FNAL POS)	
DENSITY -----	100% MIN
LIFTS-----	ALL

SURFACE TREATMENT DATA

ONE COURSE SURFACE TREATMENT (HOT RUBBER SEAL)	
ASPHALT, TYPE -----	A-R BINDER (TYPE III)
ASPHALT RATE (GAL/SY)-----	0.6
(GAL/TON)-----	265
AGGREGATE RATE (CY/SY)-----	1/115
AGGREGATE TYPE -----	PB
AGGREGATE GRADE-----	4 or 4S SAC B
ROLLING (FLAT WHL) (HR/SY)-----	1:100
ROLLING (LT PNEU) (HR/SY)-----	1:2500

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BASIS OF ESTIMATE

ITEM	DESCRIPTION	QUANTITY	UNIT
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ITEM 164	CELL FBR MLCH SEED (TEMP)(WARM)	49,940	SY
ITEM 168	VEGETATIVE WATERING @ 26 MG/ACRE/MO	836.3	MG
ITEM 247	FLEX BASE(DENS CONT)(TY A GR1)	3143	CY
ITEM 314	EMUL. ASPH. (PRIME)(SS-1)	1349	GAL
ITEM 318	A-R BINDER (TYPE III)	259.0	TONS
ITEM 318	AGGR (TY-PB GR-4 OR 4S SAC-B)	1005	CY
ITEM 341	ASPH CONC PAV TY C (2 IN)	12,899	TONS
ITEM 341	ASPH CONC PAV TY B (4 IN)	1877	TONS
ITEM 6834	PORTABLE CHANGEABLE MESSAGE SIGNS	80	DAYS