

# NOTIFICATION OF ADDENDUM

## ADDENDUM NO. 1

**DATED 7/06/2016**

<b>Control</b>	<b>2121-04-098</b>
<b>Project</b>	<b>C 2121-4-98</b>
<b>Highway</b>	<b>IH 10</b>
<b>County</b>	<b>EL PASO</b>

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: C 2121-4-98

CONTROL: 2121-04-098

COUNTY: EL PASO

LETTING: 07/07/2016

REFERENCE NO: 0701

**PROPOSAL ADDENDUMS**

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\_\_\_ PROPOSAL COVER

X BID INSERTS (SH. NO.: ALL )

X GENERAL NOTES (SH. NO.: ALL )

\_\_\_ SPEC LIST (SH. NO.: )

\_\_\_ SPECIAL PROVISIONS: )

ADDED:

DELETED:

\_\_\_ SPECIAL SPECIFICATIONS:

ADDED:

DELETED:

X OTHER: PLAN SHEET AND OTHER CHANGES

DESCRIPTION OF ABOVE CHANGES  
(INCLUDING PLANS SHEET CHANGES)

\*\*\*\*\* BID INSERTS\*\*\*\*\*

REVISED QUANTITY FOR THE FOLLOWING BID ITEMS: 402-6001, 420-6071, 450-6016  
,464-6005, 465-6005, 465-6149, 496-6002, 1002-6002

DELETED THE FOLLOWING ITEMS: 465-6187, 496-6099, 512-6005

ADDED THE FOLLOWING ITEMS: 465-6166, 512-6017, 479-6001

REVISED UNIT OF MEASUREMENT FOR THE FOLLOWING BID ITEMS: 2003-6001

\*\*\*\*\* GENERAL NOTES\*\*\*\*\*

SHEET D: REVISED MILESTONE WORKING DAYS FROM 60 TO 76

SHEET K: REVISED AESTHETIC REFERENCE AND REMOVED ANTI GRAFFITI COATING

SHEET Q: AS A RESULT OF BID ITEM 512 6017, LOCATION AND DETAILS OF PCTB  
IS SPECIFIED.

SHEET R THRU DD: NOTES SHIFTED FROM ABOVE CHANGES

\*\*\*\*\* PLAN SHEET REVISIONS \*\*\*\*\*

DESCRIPTION OF ABOVE CHANGES  
(INCLUDING PLANS SHEET CHANGES)

(CONTINUED)

SHEET 2 (INDEX): REVISED SHEET NO 250 TITLE TO INLETX TYPE AD & ADD SHEETS 21, 21A-21N (GENERAL NOTES): REVISED DUE TO ABOVE CHANGES.

SHEETS 22 THRU 22C (ESTIMATE & QUANTITY): CHANGED FROM BID INSERT REVISION

SHEET 23 (SUMMARY OF TRAFFIC CONTROL QUANTITIES): REMOVED ITEM 512-6005 REPLACED WITH ITEM 512-6017

SHEET 25 (SUMMARY OF ROADWAY QUANTITIES): REVISED QUANTITY FOR ITEM 450-6016

SHEET 26 (SUMMARY OF DRAINAGE QUANTITIES): ADDED SHEET 7 OF 7 THEN ADJUSTED QUANTITIES BASED ON SHIFT. ITEM QUANTITIES CHANGED ON 402-6001, 420-6071, 464-6005, 465-6005, 465-6149, 465-6166, 496-6002, REMOVED ITEMS 464-6026, 465-6005, 465-6045. ADDED ITEM 479-6001. ITEMS ARE NOW IN ASCENDING ORDER.

SHEET 27 (BRIDGE QUANTITIES): REMOVED ITEM 496-6099

SHEET 36 (SUMMARY OF LANDSCAPE QUANTITIES): REVISED QUANTITY FOR ITEM 1002-6002, REVISED KEY NOTES.

SHEET 158 & 160 (REMOVAL LAYOUTS): REVISED CALL OUT NOTES

SHEET 174 & 195 (PLAN & PROFILE): REVISED QUANTITY FOR ITEM 450-6016

SHEET 242 (DRAINAGE PLAN & PROFILE): DELETED ITEM 465-6187, ADDED 465-6166

SHEET 250: REPLACED DETAILS WITH INLETS TYPE AD & AAD

SHEET 421 (LANDSCAPE LAYOUTS): REVISED KEY NOTES, REVISED ITEM 1002-6002, ADJUSTED CALLOUT ABOVE STA. 465+00 FOR REVISED VEGETATION

SHEET 422 (LANDSCAPE LAYOUTS): REVISED KEY NOTES, REMOVED LANDSCAPE AMENITY REFERENCE

SHEET 423 (LANDSCAPE LAYOUTS): REVISED KEY NOTES

SHEET 424 (IRRIGATION MODIFICATIONS): REVISED WHAT IS TO BE RELOCATED TO EXISTING LINE

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	100	6002		PREPARING ROW  DOLLARS and CENTS	STA	179.000	1
	104	6001		REMOVING CONC (PAV)  DOLLARS and CENTS	SY	3,249.000	2
	104	6009		REMOVING CONC (RIPRAP)  DOLLARS and CENTS	SY	8,062.000	3
	104	6014		REMOVING CONC (FOUNDATIONS)  DOLLARS and CENTS	CY	23.000	4
	104	6021		REMOVING CONC (CURB)  DOLLARS and CENTS	LF	125.000	5
	104	6023		REMOVING CONC (CTB)  DOLLARS and CENTS	LF	202.000	6
	104	6037		REMOVE CONC (RAIL)  DOLLARS and CENTS	LF	1,138.000	7
	110	6001		EXCAVATION (ROADWAY)  DOLLARS and CENTS	CY	17,053.000	8
	132	6002		EMBANKMENT (FINAL)(DENS CONT)(TY A)  DOLLARS and CENTS	CY	20,439.000	9
	150	6002		BLADING  DOLLARS and CENTS	HR	120.000	10
	170	6001		IRRIGATION SYSTEM  DOLLARS and CENTS	LS	1.000	11
	192	6067		LANDSCAPE EDGE (TYPE I)  DOLLARS and CENTS	LF	653.000	12

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	193	6001		PLANT MAINTENANCE  DOLLARS and CENTS	MO	6.000	13
	193	6007		IRRIGATION SYSTEM OPER AND MAINT  DOLLARS and CENTS	MO	6.000	14
	305	6055		SALV, HAUL & STKPL RCL APH PAV (4"-14")  DOLLARS and CENTS	SY	12,124.000	15
	310	6006		PRIME COAT (CSS-1H)  DOLLARS and CENTS	GAL	9,194.000	16
	341	6022		D-GR HMA TY-C PG64-22  DOLLARS and CENTS	TON	13,413.000	17
	360	6007		CONC PVMT (CONT REINF - CRCP) (13")  DOLLARS and CENTS	SY	56,777.000	18
	402	6001		TRENCH EXCAVATION PROTECTION  DOLLARS and CENTS	LF	420.000	19
	409	6001		PRESTR CONC PIL (16 IN SQ)  DOLLARS and CENTS	LF	1,077.000	20
	416	6002		DRILL SHAFT (24 IN)  DOLLARS and CENTS	LF	2,200.000	21
	416	6006		DRILL SHAFT (48 IN)  DOLLARS and CENTS	LF	316.000	22
	416	6016		DRILL SHAFT (SIGN MTS) (12 IN)  DOLLARS and CENTS	LF	7.000	23
	416	6018		DRILL SHAFT (SIGN MTS) (24 IN)  DOLLARS and CENTS	LF	35.000	24

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	420	6010		CL A CONC (PLUG)  DOLLARS and CENTS	EA	2.000	25
	420	6014		CL C CONC (ABUT)(HPC)  DOLLARS and CENTS	CY	59.000	26
	420	6020		CL C CONC (ABUT)(HPC)(EXTEND)  DOLLARS and CENTS	CY	11.800	27
	420	6030		CL C CONC (CAP)(HPC)  DOLLARS and CENTS	CY	56.100	28
	420	6034		CL C CONC (CAP)(HPC)(EXTEND)  DOLLARS and CENTS	CY	49.300	29
	420	6038		CL C CONC (COLUMN)(HPC)  DOLLARS and CENTS	CY	30.900	30
	420	6044		CL C CONC (FOOTING)(HPC)  DOLLARS and CENTS	CY	7.000	31
	420	6071		CL C CONC (COLLAR)  DOLLARS and CENTS	EA	5.000	32
	422	6002		REINF CONC SLAB (HPC)  DOLLARS and CENTS	SF	12,740.010	33
	422	6015		APPROACH SLAB  DOLLARS and CENTS	CY	552.000	34
	422	6027		SLAB SPAN (EXTEND)(HPC)  DOLLARS and CENTS	CY	189.600	35
	425	6011		PRESTR CONC SLAB BEAM (4SB15)  DOLLARS and CENTS	LF	830.500	36

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	425	6012		PRESTR CONC SLAB BEAM (5SB15) DOLLARS and CENTS	LF	1,799.500	37
	432	6006		RIPRAP (CONC)(CL B) DOLLARS and CENTS	CY	9.000	38
	432	6007		RIPRAP (CONC)(CL C) DOLLARS and CENTS	CY	292.000	39
	432	6008		RIPRAP (CONC)(CL B)(RR8&RR9) DOLLARS and CENTS	CY	36.700	40
	432	6009		RIPRAP (CONC) (CL B) (4") DOLLARS and CENTS	CY	121.000	41
	432	6010		RIPRAP (CONC)(CL B)(5 IN) DOLLARS and CENTS	CY	25.000	42
	450	6016		RAIL (TY T552) DOLLARS and CENTS	LF	8,606.000	43
	450	6017		RAIL (TY T552)(HPC) DOLLARS and CENTS	LF	498.000	44
	454	6007		HEADER TYPE EXPANSION JOINT DOLLARS and CENTS	LF	72.000	45
	464	6005		RC PIPE (CL III)(24 IN) DOLLARS and CENTS	LF	443.000	46
	464	6026		RC PIPE (CL V)(24 IN) DOLLARS and CENTS	LF	115.000	47
	465	6005		JCTBOX(COMPL)(PJB)(3FTX3FT) DOLLARS and CENTS	EA	5.000	48

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	ITEM NO	DESC CODE	S.P. NO.				
	465	6006		JCTBOX(COMPL)(PJB)(4FTX4FT) DOLLARS and CENTS	EA	4.000	49
	465	6008		JCTBOX(COMPL)(PJB)(4FTX5FT) DOLLARS and CENTS	EA	1.000	50
	465	6045		INLET (COMPL)(PMBD)(4FT) DOLLARS and CENTS	EA	4.000	51
	465	6149		INLET (COMPL)(PAZD)(SL)(3FTX3FT) DOLLARS and CENTS	EA	5.000	52
	465	6166		INLET (COMPL)(TY AAD) DOLLARS and CENTS	EA	1.000	53
	479	6001		ADJUSTING MANHOLES DOLLARS and CENTS	EA	2.000	54
	479	6006		ADJUSTING INLET (CAP) DOLLARS and CENTS	EA	8.000	55
	496	6002		REMOV STR (INLET) DOLLARS and CENTS	EA	2.000	56
	496	6010		REMOV STR (BRIDGE 100 - 499 FT LENGTH) DOLLARS and CENTS	EA	1.000	57
	496	6032		REMOV STR (ROCKWALL) DOLLARS and CENTS	EA	2.000	58
	500	6001		MOBILIZATION DOLLARS and CENTS	LS	1.000	59
	502	6001		BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	14.000	60

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	506	6001	003	ROCK FILTER DAMS (INSTALL) (TY 1) DOLLARS and CENTS	LF	80.000	61
	506	6003	003	ROCK FILTER DAMS (INSTALL) (TY 3) DOLLARS and CENTS	LF	335.000	62
	506	6011	003	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	415.000	63
	506	6020	003	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	640.000	64
	506	6024	003	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	640.000	65
	506	6036	003	SANDBAGS FOR EROSION CONTROL (6") DOLLARS and CENTS	LF	1,195.000	66
	506	6038	003	TEMP SEDMT CONT FENCE (INSTALL) DOLLARS and CENTS	LF	16,110.000	67
	506	6039	003	TEMP SEDMT CONT FENCE (REMOVE) DOLLARS and CENTS	LF	16,110.000	68
	506	6040	003	BIODEG EROSN CONT LOGS (INSTL) (8") DOLLARS and CENTS	LF	2,305.000	69
	506	6043	003	BIODEG EROSN CONT LOGS (REMOVE) DOLLARS and CENTS	LF	2,305.000	70
	508	6001		CONSTRUCTING DETOURS DOLLARS and CENTS	SY	7,236.000	71
	512	6017		PORT CTB (DES SOURCE)(F-SHAPE)(TY 1) DOLLARS and CENTS	LF	13,629.000	72

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	512	6029		PORT CTB (MOVE)(F-SHAPE)(TY 1) DOLLARS and CENTS	LF	31,564.000	73
	512	6041		PORT CTB (STKPL)(F-SHAPE)(TY 1) DOLLARS and CENTS	LF	13,629.000	74
	514	6013		PERM CTB (F-SHAPE) (TY 1) DOLLARS and CENTS	LF	121.000	75
	514	6015		PERM CTB (F-SHAPE) (TY 3) DOLLARS and CENTS	LF	1,081.000	76
	514	6028		PERM CTB(F-SHAPE)(TY 1)(HPC) DOLLARS and CENTS	LF	140.000	77
	514	6041		PERM CTB (F-SHAPE)(SPL) DOLLARS and CENTS	LF	5,384.000	78
	540	6002		MTL W-BEAM GD FEN (STEEL POST) DOLLARS and CENTS	LF	3,156.000	79
	540	6006		MTL BEAM GD FEN TRANS (THRIE-BEAM) DOLLARS and CENTS	EA	5.000	80
	540	6016		DOWNSTREAM ANCHOR TERMINAL SEC- TION DOLLARS and CENTS	EA	6.000	81
	542	6001		REMOVE METAL BEAM GUARD FENCE DOLLARS and CENTS	LF	6,540.000	82
	542	6002		REMOVE TERMINAL ANCHOR SECTION DOLLARS and CENTS	EA	18.000	83
	544	6001		GUARDRAIL END TREATMENT (INSTALL) DOLLARS and CENTS	EA	3.000	84

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	ITEM NO	DESC CODE	S.P. NO.				
	544	6003		GUARDRAIL END TREATMENT (REMOVE) DOLLARS and CENTS	EA	18.000	85
	545	6001		CRASH CUSH ATTEN (INSTL) DOLLARS and CENTS	EA	10.000	86
	545	6003		CRASH CUSH ATTEN (MOVE & RESET) DOLLARS and CENTS	EA	15.000	87
	545	6005		CRASH CUSH ATTEN (REMOVE) DOLLARS and CENTS	EA	10.000	88
	610	6009		REMOVE RD IL ASM (TRANS-BASE) DOLLARS and CENTS	EA	19.000	89
	618	6023		CONDT (PVC) (SCH 40) (2") DOLLARS and CENTS	LF	229.000	90
	618	6024		CONDT (PVC) (SCH 40) (2") (BORE) DOLLARS and CENTS	LF	300.000	91
	618	6029		CONDT (PVC) (SCH 40) (3") DOLLARS and CENTS	LF	174.000	92
	620	6002		ELEC CONDR (NO.14) INSULATED DOLLARS and CENTS	LF	174.000	93
	620	6010		ELEC CONDR (NO.6) INSULATED DOLLARS and CENTS	LF	2,116.000	94
	624	6002		GROUND BOX TY A (122311)W/APRON DOLLARS and CENTS	EA	3.000	95
	624	6014		GROUND BOX TY 1 (122422)W/APRON DOLLARS and CENTS	EA	1.000	96

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	624	6028		REMOVE GROUND BOX  DOLLARS and CENTS	EA	21.000	97
	636	6001		ALUMINUM SIGNS (TY A)  DOLLARS and CENTS	SF	234.000	98
	636	6002		ALUMINUM SIGNS (TY G)  DOLLARS and CENTS	SF	193.000	99
	636	6003		ALUMINUM SIGNS (TY O)  DOLLARS and CENTS	SF	240.000	100
	644	6001		IN SM RD SN SUP&AM TY10BWG(1)SA(P)  DOLLARS and CENTS	EA	5.000	101
	644	6004		IN SM RD SN SUP&AM TY10BWG(1)SA(T)  DOLLARS and CENTS	EA	10.000	102
	644	6051		IN SM RD SN SUP&AM TYS80(2)SA(P-EXAL)  DOLLARS and CENTS	EA	5.000	103
	644	6066		IN SM RD SN SUP&AM (RAIL MOUNT)  DOLLARS and CENTS	EA	1.000	104
	644	6068		RELOCATE SM RD SN SUP&AM TY 10BWG  DOLLARS and CENTS	EA	2.000	105
	644	6076		REMOVE SM RD SN SUP&AM  DOLLARS and CENTS	EA	4.000	106
	647	6001		INSTALL LRSS (STRUCT STEEL)  DOLLARS and CENTS	LB	194.000	107
	650	6028		INS OH SN SUP(30 FT BAL TEE)  DOLLARS and CENTS	EA	1.000	108

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	650	6103		INS OH SN SUP(90 FT COMB)(CIRC TUBE) DOLLARS and CENTS	EA	1.000	109
	650	6130		INS OH SN SUP(120 FT BRDG)(CIRC TUBE) DOLLARS and CENTS	EA	1.000	110
	650	6203		RELOCATE EXISTING OVERHD SIGN SUP DOLLARS and CENTS	EA	3.000	111
	650	6204		REMOVE OVERHD SIGN SUP DOLLARS and CENTS	EA	2.000	112
	658	6004		INSTL DEL ASSM (D-SW)SZ 1(FLX)SRF DOLLARS and CENTS	EA	253.000	113
	658	6013		INSTL DEL ASSM (D-SW)SZ (BRF)CTB DOLLARS and CENTS	EA	22.000	114
	658	6020		INSTL DEL ASSM (D-SY)SZ 1(FLX)SRF DOLLARS and CENTS	EA	45.000	115
	658	6026		INSTL DEL ASSM (D-SY)SZ (BRF)CTB DOLLARS and CENTS	EA	22.000	116
	658	6027		INSTL DEL ASSM (D-SY)SZ (BRF)CTB (BI) DOLLARS and CENTS	EA	76.000	117
	658	6047		INSTL OM ASSM (OM-2Y)(WC)GND DOLLARS and CENTS	EA	3.000	118
	662	6052		WK ZN PAV MRK REMOV (REFL) TY II-C-R DOLLARS and CENTS	EA	46.000	119
	662	6060		WK ZN PAV MRK REMOV (W)4"(BRK) DOLLARS and CENTS	LF	228.000	120

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	662	6063		WK ZN PAV MRK REMOV (W)4"(SLD) DOLLARS and CENTS	LF	3,642.000	121
	662	6095		WK ZN PAV MRK REMOV (Y)4"(SLD) DOLLARS and CENTS	LF	3,642.000	122
	666	6018		REFL PAV MRK TY I (W)6"(DOT)(100MIL) DOLLARS and CENTS	LF	1,135.000	123
	666	6036		REFL PAV MRK TY I (W)8"(SLD)(100MIL) DOLLARS and CENTS	LF	12,750.000	124
	666	6039		REFL PAV MRK TY I (W)12"(LNDP)(100MIL) DOLLARS and CENTS	LF	6,700.000	125
	666	6048		REFL PAV MRK TY I (W)24"(SLD)(100MIL) DOLLARS and CENTS	LF	2,175.000	126
	666	6054		REFL PAV MRK TY I (W)(ARROW)(100MIL) DOLLARS and CENTS	EA	5.000	127
	666	6096		REFL PAV MRK TY I (W)(SYMBOL)(100MIL) DOLLARS and CENTS	EA	4.000	128
	666	6171		REFL PAV MRK TY II (W) 6" (BRK) DOLLARS and CENTS	LF	104,540.000	129
	666	6174		REFL PAV MRK TY II (W) 6" (SLD) DOLLARS and CENTS	LF	42,670.000	130
	666	6178		REFL PAV MRK TY II (W) 8" (SLD) DOLLARS and CENTS	LF	12,750.000	131
	666	6179		REFL PAV MRK TY II (W) 12" (LNDP) DOLLARS and CENTS	LF	6,700.000	132

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	6182		REFL PAV MRK TY II (W) 24" (SLD) DOLLARS and CENTS	LF	2,175.000	133
	666	6184		REFL PAV MRK TY II (W) (ARROW) DOLLARS and CENTS	EA	5.000	134
	666	6192		REFL PAV MRK TY II (W) (WORD) DOLLARS and CENTS	EA	4.000	135
	666	6210		REFL PAV MRK TY II (Y) 6" (SLD) DOLLARS and CENTS	LF	41,743.000	136
	666	6306		RE PM W/RET REQ TY I (W)6"(BRK)(100MIL) DOLLARS and CENTS	LF	104,540.000	137
	666	6309		RE PM W/RET REQ TY I (W)6"(SLD)(100MIL) DOLLARS and CENTS	LF	42,670.000	138
	666	6321		RE PM W/RET REQ TY I (Y)6"(SLD)(100MIL) DOLLARS and CENTS	LF	41,743.000	139
	672	6007		REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	1,390.000	140
	672	6010		REFL PAV MRKR TY II-C-R DOLLARS and CENTS	EA	2,620.000	141
	677	6001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	96,040.000	142
	677	6002		ELIM EXT PAV MRK & MRKS (6") DOLLARS and CENTS	LF	49,155.000	143
	677	6003		ELIM EXT PAV MRK & MRKS (8") DOLLARS and CENTS	LF	13,740.000	144

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	677	6005		ELIM EXT PAV MRK & MRKS (12") DOLLARS and CENTS	LF	7,030.000	145
	677	6007		ELIM EXT PAV MRK & MRKS (24") DOLLARS and CENTS	LF	3,420.000	146
	677	6008		ELIM EXT PAV MRK & MRKS (ARROW) DOLLARS and CENTS	EA	5.000	147
	677	6011		ELIM EXT PAV MRK & MRKS (NUMBER) DOLLARS and CENTS	EA	2.000	148
	677	6012		ELIM EXT PAV MRK & MRKS (WORD) DOLLARS and CENTS	EA	5.000	149
	678	6002		PAV SURF PREP FOR MRK (6") DOLLARS and CENTS	LF	148,345.000	150
	678	6004		PAV SURF PREP FOR MRK (8") DOLLARS and CENTS	LF	12,750.000	151
	678	6006		PAV SURF PREP FOR MRK (12") DOLLARS and CENTS	LF	6,700.000	152
	678	6008		PAV SURF PREP FOR MRK (24") DOLLARS and CENTS	LF	2,175.000	153
	678	6009		PAV SURF PREP FOR MRK (ARROW) DOLLARS and CENTS	EA	5.000	154
	678	6016		PAV SURF PREP FOR MRK (WORD) DOLLARS and CENTS	EA	4.000	155
	690	6038		REMOVAL OF CONTROL CABINET(GRND MNT) DOLLARS and CENTS	EA	1.000	156

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	772	6001		POST AND CABLE FENCE (REMOVAL) DOLLARS and CENTS	LF	5,282.000	157
	772	6002		POST AND CABLE FENCE (REMOV CONC ANCHOR) DOLLARS and CENTS	EA	3.000	158
	1002	6002		LANDSCAPE AMENITY (TY 1) DOLLARS and CENTS	EA	180.000	159
	1002	6003		LANDSCAPE AMENITY (TY 2) DOLLARS and CENTS	EA	1.000	160
	2003	6001		RMV, STCKPL, CLEAN, RELAY LOOSE AGGRGT DOLLARS and CENTS	STA	64.000	161
	6001	6002		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	6.000	162
	6003	6001		ITS SYSTEM SUPPORT EQUIPMENT DOLLARS and CENTS	LS	1.000	163
	6007	6020		FIBER OPTIC PIGTAIL (12 FIBER) DOLLARS and CENTS	LF	174.000	164
	6007	6021		FIBER OPTIC SPLICE ENCLOSURE DOLLARS and CENTS	EA	1.000	165
	6007	6023		FIBER OPTIC PATCH PANEL (12 POSITION) DOLLARS and CENTS	EA	2.000	166
	6007	6026		FIBER OPTIC CABLE ROAD MARKER DOLLARS and CENTS	EA	6.000	167
	6008	6004		EQUIPMENT CABINET (DMS)(POLE) DOLLARS and CENTS	EA	1.000	168

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	6027	6003		CONDUIT (PREPARE)  DOLLARS and CENTS	LF	703.000	169
	6027	6008		GROUND BOX (PREPARE)  DOLLARS and CENTS	EA	3.000	170
	6028	6001		INSTALL DMS (POLE MTD CABINET)  DOLLARS and CENTS	EA	1.000	171
	6029	6001		RADAR VEHICLE SENSING DEVICE  DOLLARS and CENTS	EA	2.000	172
	6053	6001		SHIFT OVERHEAD SIGN PANELS  DOLLARS and CENTS	EA	21.000	173
	6053	6002		REMOVE OVERHEAD SIGN PANELS  DOLLARS and CENTS	EA	25.000	174
	6134	6001		REMOVE DYNAMIC MESSAGE SIGN SYS- TEM  DOLLARS and CENTS	EA	1.000	175
	6137	6003		INSTALLATION OF TS  DOLLARS and CENTS	EA	1.000	176
	6137	6004		INSTALLATION OF FES  DOLLARS and CENTS	EA	2.000	177
	6142	6001		BLUETOOTH DETECTION SYSTEM  DOLLARS and CENTS	EA	2.000	178

**General Requirements**

**Table 1  
Compaction Requirements for Base Courses  
Percent of Density as Determined by Compaction Ratio (Tex-114-E)**

ITEM	DESCRIPTION	OUTSIDE ROADWAY COURSE * DENSITY
132-6002	EMBANKMENT(FINAL)(DENS CONT)(TY A)	See Item 132

**Table 2  
Basis of Estimate**

ITEM	DESCRIPTION	RATE
310-6006	PRIME COAT (CSS-1H)	0.15 gal/sq.yd.
341-6022	D-GR HMA (QC/QA) TY-C PG64-22	440 lb./sq.yd./in.

**Scope of Contract and Sequence of Work**

This Contract is for the widening of IH-10 consisting of excavation, embankment, grading, concrete pavement, bridge structures, cross drainage structure extension, overhead sign bridges, traffic management system, illumination, signing, striping, and delineation.

Vertical datum is based on NGVD 88.

Do not leave vehicles, equipment, or material within 30 ft. of any main lane nor within 9 ft. of any service roads when not in use.

Do not discharge any liquid pollutants onto the project area.

Maintain traveled surfaces used in hauling operations clear and free of dirt or other material.

When moving or crossing equipment on public highways, protect pavement from damage, as directed.

Maintain the entire project area in a neat, orderly manner throughout duration of the project.

Prevent damage to areas of right of way which are not included in the actual limits of construction. Restore any area disturbed or damaged as a result of construction operations, to a condition as good as or better than that prior to start of construction operation. This work will be at the Contractor's expense.

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All roadway excavation sections and embankment sections (at grade changes) must have less than 2 in. vertical difference in lane elevations. There must be less than 24 in. drop off at the edge of lanes in these sections.

Provide vehicular and pedestrian access at all times. Access includes driveways, streets, parking areas, and walkways. This shall be considered subsidiary to the various bid items.

Perform all work to ensure proper drainage during the course of construction operations. All labor, tools, equipment, and supervision required ensuring proper drainage, removal, and handling of water shall be considered incidental work and subsidiary to the various bid items.

Earthwork cross sections are not included in the plans, but will be available in electronic format at the Area Engineer's office for viewing or copying, at the prospective bidder's expense, by the prospective bidders upon request. The earthwork cross-section data provided above is for information purposes, only, and it is the responsibility of the prospective bidder to validate the enclosed data with the appropriate plans, specifications, and estimates for the projects.

Submit shop drawings electronically for the fabrication of items in accordance with special provision. Information and requirements for electronic submittals can be viewed in the "Guide to Electronic Shop Drawing Submittal," which can be accessed through the following web link, [ftp://ftp.dot.state.tx.us/pub/txdotinfo/library/pubs/bus/bridge/e\\_submit\\_guide.pdf](ftp://ftp.dot.state.tx.us/pub/txdotinfo/library/pubs/bus/bridge/e_submit_guide.pdf). References to 11 in. x 17 in. sheets in individual specifications for structural items imply electronic CAD sheets.

The following Standard has been modified:

CD-MD(MOD)

### **Item 7 – Legal Relations and Responsibilities**

OSHA regulations prohibit operations that will bring personnel or equipment within 10 ft. of any energized electrical line. Where workers and equipment may be in close proximity to an energized electrical line, notify El Paso Electric Company and make all necessary adjustments to ensure the safety of workers near the energized line.

Comply with all requirements of the Environmental Permits, Issues, and Commitments (EPIC) sheets.

Dispose all waste materials in compliance with Local, State, and Federal regulations. Submit list of all approved waste sites to the Engineer for approval.

The nesting/breeding season for migratory birds is February 1 through August 31.

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Take measures to prevent the building of nests on any structures or trees within the project limits throughout the duration of the construction, if work/removal will be performed during the nesting/breeding season. This can be accomplished by application of bird repellent gel, netting by hand every 3 to 4 days, or any other non-threatening method approved by the District Environmental Section. Obtain this approval well in advance of the planned use. The cost of this work is subsidiary to the various bid items.

### **Item 8 – Prosecution and Progress**

Create, maintain, and submit for approval, a Critical Path Method (CPM) project schedule. Changes to this schedule will not be permitted, unless approved in writing. Submit four 11-in. x 17-in. hard copies and an electronic file of the original or updated progress schedule.

A construction project is currently in process for the construction of the SB-EB and NB-EB direct connector ramps and WB and EB frontage roads of IH10 east of SL 375. This project is estimated to be complete by October of 2016. Coordinate with the ongoing project contractor. No additional compensation will be provided for delays should the contractor mobilize to the project work area prior to completion of the ongoing project.

### **Project Contract Time for Completion**

The Department will not adjust the number of 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 Time Determination Schedule is for informational use only and is not intended for bidding or construction purposes.

This project is to be completed in 271 working days and will be accepted when fully completed and finished to the satisfaction of the Executive Director or designee. Working days will be computed and charged in accordance with **Section 8.3.1.1, “Five-Day Workweek.”**

A Milestone of 2 months has been set for the completion of the WB IH10 Bluff Channel bridge widening and a Milestone of 2 months has been set for the completion of the EB IH10 Bluff Channel bridge widening. A Milestone of 4 months has been set for the completion of the IH10 West bound mainlane (WBML) RV Channel bridge replacement.

All work associated with the replacement of the IH10 WBML bridge, including the main lane concrete pavement replacement on both sides of the bridge, shall be completed and bridge open to traffic within 76 working days from start of the bridge removal operation. For the duration of the WBML bridge replacement operation working days will be computed and charged in accordance with **Section 8.3.1.2., “Six-Day Workweek.”** Start of bridge removal operation is defined as the time when traffic is first diverted on the main lane road detour and will end when all lanes of the WB main lane and WB main lane bridge are re-opened to traffic.

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The liquidated damages for this Milestone will be \$2,590 per day and will begin if the bridge replacement operation is not completed and open to traffic within 76 working days from start of replacement operations.

Night work will be allowed with advanced approval.

All structure work over operational roadways (i.e. formwork for caps, decks, hanging beams, concrete pours for caps/decks, overhead sign bridge demolition, overhead sign bridge installation, etc.) will be done at night (8 P.M. – 5 A.M.) or on the weekends.

IH10 total closures shall be limited to off-peak hours and weekends. Weekend total lane closures will be restricted to night time hours (8 P.M. – 5 A.M.) only.

**Item 9 – Measurement and Payment**

Submit material-on-hand payment requests at least three working days before the end of the month for payment consideration on that month's estimate

**Item 100 – Preparing Right of Way**

This Item shall govern over all other appurtenances required to be removed.

This Item will be paid by the station and covers the entire project area from IH10 right of way on the north side to IH10 right of way on the south side.

Aggregate to be removed will be stockpiled at the El Paso District East Area Office or as directed by the Engineer and will be subsidiary to "Preparing Right of Way".

Remove existing metal beam guard fence (MBGF), terminal anchor sections and thrie-beams in accordance with Item 542, "Removing Metal Beam Guard Fence" as shown in the plans. Thrie-beams will remain the property of the Department and will be delivered to the El Paso District East Area Office at 1430 Joe Battle Blvd. All other MBGF material and items will become the property of the Contractor for proper disposal.

Remove existing guardrail end treatments in accordance with Item 544, "Guardrail End Treatments" as shown in the plans. Guardrail end treatments will remain the property of the Department and will be delivered to the El Paso District East Area Office at 1430 Joe Battle Blvd.

Remove abandoned utilities that are in conflict with the proposed construction at no expense to the Department.

Re-establish and maintain right of way monuments, if disturbed during course of construction.

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Remove and assume ownership of the existing ground-mounted signs within the limits of roadway construction, unless otherwise noted or directed. This work is subsidiary to this Item.

Existing concrete curb, riprap, and other miscellaneous items shall be removed under Item 104, "Removing Concrete" as shown in the plans.

Removal of asphalt base will be incidental or remain subsidiary to subsequent Items.

Remove existing illumination assemblies in accordance with Item 610, "Roadway Illumination Assemblies" as shown in the plans. Illumination assemblies will remain the property of the State and will be delivered to the El Paso District East Area Office.

Removal of drill shafts/foundations (illumination, overhead sign structure, large signs, etc.) to 3 ft. below finished grade will not be paid separately, but will be subsidiary to various Items.

#### **Item 104 – Removing Concrete**

All concrete barrier and other materials removed under this Item shall become the property of the Contractor. All other undesirable items remaining within the right of way shall be removed under Item 100, "Preparing Right of Way" as directed by the Engineer.

All work required to sawcut the existing concrete items as shown on the plans, or as directed by the Engineer, will not be paid directly, but shall be considered subsidiary to this Item.

Removal of any items attached to the barrier and the barrier foundation will not be paid separately, but will be subsidiary to this Item.

Removal of existing concrete pavement will be paid under this Item.

#### **Item 110 – Excavation**

Construct tapers to eliminate drop-off conditions as directed by the Engineer. This work will be considered subsidiary to the pertinent bid items.

In areas where landscape aggregate is located, blade back landscape aggregate while working in the immediate area and replace landscape aggregate when work is complete. This work shall be paid under Item 2003, "Remove, Stock, Clean, and Relay Loose Aggregate."

#### **Item 132 – Embankment**

All material used for this Item must meet or exceed Triaxial Class 4 when tested in accordance with Texas Test Method Tex 117-E, "Triaxial Compression Tests for Disturbed Soils and Base Material, Part I prior to delivery to the roadway."

The maximum allowable Plasticity Index (PI) for material shall be 15.

Locate all material sources out of sight from the highway at an approved location.

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Scarify and compact top 6 in. of existing roadway as directed before additional embankment or base course is placed. This work will be subsidiary to various bid items.

Fill and grade to drain low areas outside the embankment when directed. This work will be subsidiary to various bid items.

Track the side slopes of the embankment using a tracked vehicle to control erosion. This work will be subsidiary to various bid items.

Embankment (FINAL)(DENS CONT)(TY A) material shall be used in all embankment locations and meet the following material properties:

- Liquid limit = 45
- Maximum plasticity index = 15
- Triaxial class = meet or exceed 4

Subgrade compaction will be density controlled and subsidiary to this Item.

**Item 150 – Blading**

Perform blading work as specifically directed.

Perform blading for ditch grading to ensure proper drainage between the existing and proposed ditches.

**Item 192 – Landscape Planting**

This Item will be used for the removal and reinstallation of existing steel landscape edging as shown on the plans.

The work performed and materials furnished in accordance with this Item will not be paid directly, but will be subsidiary to pertinent Items.

**Item 204 – Sprinkling**

This Item will be used to prevent wind erosion of exposed soil as required, or as directed.

Provide a flow meter of an approved type for the measurement of the water.

The work performed and materials furnished in accordance with this Item will not be paid directly, but will be subsidiary to pertinent items.

This Item shall only be used for situations not covered under earthwork items as directed by the Engineer for dust control.

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**Item 216 – Proof Rolling**

Use proof rolling only as specifically directed.

**Item 310 – Prime Coat**

CSS-1H will be used.

Apply prime coat to the top six inches of subgrade in multiple applications as indicated under Section 310.4.3, "Application" at locations shown in the plans or as directed. Use self-propelled pressure distributor to apply prime coat at the approved rates.

**Item 341 – Dense-Graded Hot-Mix Asphalt**

This Item shall govern all hot-mix asphalt operations.

Verification tests will be performed by the Engineer using Texas Test Method Tex-530-C, "Effect of Water on Bituminous Paving Mixtures."

Do not cover any existing survey monuments, manholes or valve covers, etc. with asphaltic material. Adjustments will be done in coordination with the respective utility owners.

Provide Engineer opportunity to witness all mixture design tests. Engineer may require retest, if not provided opportunity to witness test.

Use Surface Aggregate Classification "A" material in all riding surface mixes.

Target laboratory molded density is 97%.

Construct laydown operations in a sequence that vehicles transporting asphaltic concrete material will not travel over the completed pavement until pavement has been in place for a minimum of 24 hours, unless otherwise approved.

Place a stringline or other suitable marking where needed to assure smooth, neat lines, or as directed.

Place longitudinal joints approximately 6 in. from the skip striping, or as directed to avoid placing them under the wheelpath.

The stripping characteristic of the hot-mix asphalt will be tested according to Test Method Tex-530-C (Boil Test). The maximum percent stripping agent in the produce mixture will be within the range of 7% to 12%, unless otherwise approved.

The respective application rates will be specified or revised by the Engineer prior to application.

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Warm-mix shall be supplied under this Item. When reclaimed asphalt pavement (RAP) is included in the mixture, the Contractor shall use Department-owned RAP from the following stockpile location:

1430 Joe Battle Blvd. El Paso TX, 79936.

**Item 360 – Concrete Pavement**

Use Type II cement.

Longitudinal joints shall be placed at a minimum distance of 6 in. from the lane lines to minimize any conflicts with the pavement markings, as directed. Ensure that these joints do not fall within the anticipated wheelpath.

Where proposed concrete pavement meets the existing columns at SL 375, a minimum gap of 1 in. shall be maintained between the pavement and the drilled shaft.

Where proposed concrete pavement abuts existing concrete pavement, 1/2 in. deformed tie-bars of uniform length (22 in. minimum) spaced on 24 in. centers shall be placed into the existing pavement by drilling 1/2 in. diameter holes, 12 in. deep and secured by means of an approved epoxy grout. The work necessary and the materials involved in placing these tie bars shall be as approved and shall be considered subsidiary work to this Item.

Poured joint sealer (Class 4) shall be used on all sawed joints on concrete pavement.

Use only multiple piece tie-bars with threaded couplings in accordance with Section 360.2.2.2, "Tie Bars" and applicable standards at longitudinal construction joints.

When freezing weather or windy conditions in excess of 25 mph are forecast to occur within 12 hr. from the last continuously reinforced concrete pavement (CRCP) placement of the day, cover and protect the entire CRCP with cotton blankets and polyethylene film immediately after the membrane curing has been applied. Place and weigh the film so it will remain in direct contact with the surface for a period of 48 hr. and to the satisfaction of the Engineer.

Provide pavement expansion joints, as detailed in the plans, at all locations where concrete pavement is placed adjacent to existing concrete pavement. Installation of these joints is not paid directly, but is considered subsidiary to this item.

Payment for furnishing and installing the pre-molded expansion joint material between the retaining walls and concrete pavement is not paid directly, but is considered subsidiary to this Item.

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**Item 416 – Drilled Shaft Foundations**

Stake all foundations and locations prior to commencement of drilling operations in order to ensure that there are no conflicts with utility lines or other items. Coordinate with the utility companies for utility location within the project limits. Damage to existing utilities and repair of any damages to the satisfaction of the Engineer and utility owner shall be at no additional cost to the Department.

Cover drilled shaft holes with plywood and delineate them with cones, to the satisfaction of the Engineer, when not working on them and after work hours.

Include the cost of furnishing and installing anchor bolts mounted in the drilled shaft in the unit bid price for the various diameter drilled shafts.

The Engineer may use ultrasonic methods to test the anchor bolts for overhead sign supports, and lights after they are installed. Replace faulty anchor bolts as directed. Do not weld anchor bolts.

**Item 420 – Concrete Substructures**

When the header or rail system for a self-propelled transverse finishing machine is located other than directly over a beam or girder, it shall be designed to provide maximum longitudinal load distribution so that deflection of the header or rail system can be minimized during placement of the concrete slab. The header or rail system shall be approved, before construction of the system.

Review the plans for location of clearance signs, brackets, or other items on structures, which will require inserts in the prestressed beams. Forward such locations to the beam fabricator. The "H" values shown on Bridge Layouts are estimated column heights. Calculate the actual column heights based on field conditions.

Prior to completion of work, stencil the National Bridge Inventory (NBI) number (structure number) on each structure built/shown on this project as directed. Verify with the Engineer that the NBI number, which is shown on each Bridge Layout, is the number to use. Stencil the NBI number in an approved location on each bridge. Consider subsidiary to the pertinent Items.

**Item 421 – Hydraulic Cement Concrete**

Concrete trucks will not be allowed to washout or discharge surplus concrete or drum washwater on the project site.

Provide sulfate-resistant concrete for the following classes of concrete: A, B, C, and SS (if SS is used).

Furnish and properly maintain all test molds. The test molds shall meet the requirements of Tex-447-A and Tex-448-A. The test molds must be ready for use when needed. The

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Contractor shall be responsible for curing and transporting cylinder specimens as directed. Furnish proper equipment to remove concrete cylinder specimens from the molds. Provide testing equipment in accordance with Section 421.3.3, "Testing Equipment", for all concrete items; provide wheelbarrow or other acceptable container to the Engineer. This will not be paid directly, but will be subsidiary to the various bid items.

**Item 422 – Concrete Superstructures**

For construction of approach slabs, longitudinal joints shall be placed on lane lines. Joints may be either a saw-cut crack control joint or a construction joint. Saw cut joints shall terminate 1' 0" before reaching the edge of the slab, must be saw cut as soon as possible after placement of concrete, and will be cut within 12 hr. of concrete placement. Once sawing begins, it should be a continuous operation and should only be stopped if raveling occurs. Saw cut will be to a depth of 1-1/2 in. and filled with approved joint sealant.

**Item 427 – Surface Finishes for Concrete**

Provide a test area of 9 sq. ft. for each color, prior to application on concrete.

All concrete structures shall receive a Surface Area II, Class B, Type II finish in accordance with Item 427, "Surface Finishes for Concrete". A "Class C" (one rub finish) shall be provided for all other concrete structures, unless otherwise indicated on the plans or as directed.

Provide test panels representative of the custom surface treatment a minimum of 10 days prior to beginning precast operations. The surface texture will be subject to approval. If directed, additional test panels shall be constructed until a satisfactory surface treatment is obtained. The approved test panel shall be retained for use as a standard of comparison. The method used to prepare the accepted panel shall be used for the production of the retaining wall panels.

**Item 432 – Riprap**

Provide Type II cement and "Class B" concrete.

Only bar reinforcement conforming to Item 440 "Reinforcing Steel" shall be used.

Concrete riprap shall have a smooth (wood float) finish, unless otherwise directed.

Stone riprap shall be placed in a 3 in. layer on side slopes as shown in the plans. Stone riprap will consist of Butterfield Grey Class 2118 rock (lighter color) ranging in size from 3/4 in. to 1-1/2 in. Stone riprap will be placed over filter fabric. Filter fabric will be subsidiary to the Item.

During periods of inclement weather, the contractor shall place rock riprap as directed by the Engineer, to protect slopes under the RV Channel bridge.

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Where an existing pull box is located in area of concrete riprap, the removal and replacing of concrete riprap will be subsidiary to the relocation of the pull box.

All stone riprap material sources shall be approved.

**Item 450 – Railing**

For Type T552 rail anchorage/foundation detail refers to “Traffic Rail Foundation and Miscellaneous Detail” “TRF” and Traffic Rail “Type T552” standards.

Apply color scheme as used on 2121-04-088 conforming to Federal Standard 595b colors fan deck 7690-01-162-2210 (July 1994). All concrete rail will be painted on all exposed surfaces. Materials and labor to paint rail is subsidiary to this Item.

Place delineators in accordance with Item 658 “Delineators and Object Marker Assemblies” and Standards D&OM(1) thru D&OM(5). Traffic C reflectors shall be spaced at 25 ft. intervals and shall be subsidiary to this Item.

**Item 454 – Bridge Expansion Joints**

The list of approved Header Type Expansion Joints can be found at:

<http://www.txdot.gov/inside-txdot/division/bridge/approved-systems/expansion-joints.html>

**Item 464 – Reinforced Concrete Pipe**

Jointing materials for reinforced concrete pipe shall be rubber gaskets conforming to ASTM C361 or C443.

Coordinate field locations of utilities with the respective utility companies. Damage to any utility, will be repaired or replaced by the Contractor at his expense as directed.

Use a 3/4 in. plywood board to plug the reinforced concrete pipe where required, as directed. All labor, materials, and incidentals required will be considered subsidiary to this Item.

Proposed reinforced concrete pipe will be Class III circular pipe, unless otherwise shown in the plans.

Concrete collars shall be paid under Item 420, “Concrete Substructures.”

**Item 465 – Junction Boxes, Manholes and Inlets**

Verify low-point locations prior to construction. Any necessary adjustment will be as approved.

Coordinate storm sewer construction with the Traffic Control Plan (TCP). Stage I inlet/manhole construction may be modified when approved.

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All structural excavation, frames, grates for inlets, rings, covers, and other incidentals shall not be paid directly, but shall be subsidiary to this Item.

Verify all inlet locations and elevations prior to inlet construction.

Place pedestrian fence around all inlets and manholes not completed; fence will be subsidiary to this Item.

**Item 471 – Frames, Grates, Rings and Covers**

Tack-weld, bolt, or by other means secure inlet grates and manhole covers to their frames as approved. All work shall be considered subsidiary to the various bid items.

All grate frame elevations shall be field-verified.

**Item 496 – Removing Structures**

This Item will provide for the removal of existing inlets, headwalls, and pipe and all concrete appurtenances including grates.

All materials removed under this Item will become property of the Contractor.

**Item 502 – Barricades, Signs and Traffic Handling**

Once a month, designated responsible person for traffic control plan (TCP) compliance must accompany Department personnel on at least one daytime inspection and one nighttime inspection of the traffic control devices used on the project.

Provisions will be made for the safe crossing of the general public through the work area. Use the current *Texas Manual on Uniform Traffic Control Devices (MUTCD)* (Part VI, Section 6B.01), and to the TCP sheets for guidance in pedestrian control.

Construction shall be phased so that traffic will have access to intersecting side roads and driveways at all times, unless otherwise directed.

The Contractor assumes the responsibility for any additional barricade signs and devices if Contractor makes any change to the sequence of work or TCP. All changes are subject to written approval.

Furnishing, placement, relocation, and removal of plastic-mesh pedestrian fencing required in the TCP, or as directed, will be subsidiary to this Item. All such fencing will be orange in color and 4 ft. high with 4 ft. metal T-posts placed at approximately 10 ft. spacing, as approved.

All special signs including M4-12T signs and all detour signing on the TCP, will be subsidiary to this Item.

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Sheeting used for all signs, barricades, channelizing devices and construction warning signs must conform to Departmental Material Specification 8300.

The Contractor shall perform striping operations to channelize traffic into the newly completed roadway by the use of TCP and BC sheets as directed. The placing, maintaining, and removing of short-term tabs and for materials, equipment, labor, tools, and incidentals will be subsidiary to this Item.

The G20-1T w/plaque or G20-5T along with the G20-6T Contractor's name sign shall be located at or near the project limits and will remain in place for the duration of the project, even though certain other advance warning signs, etc., will be repositioned, removed, or covered within the project limits as construction necessitates or as directed.

Maintain shoulders and median areas in a condition capable of serving as emergency paths as approved. This work will be subsidiary to this Item.

Use flaggers when directed. Provide intercommunication between flaggers.

Furnish and install portable changeable message signs (PCMS) to be placed at each end of the project limits for two weeks advance notice. PCMS are the Contractor's property. All related costs for setup, relocation, maintenance, removal, and incidentals are subsidiary to this item. PCMS will be re-used as directed during the duration of the project as required. Messages will be as directed by the Engineer.

When advanced warning flashing arrow panels and/or changeable message signs are specified, have one standby unit in good condition at the jobsite.

Shadow vehicles equipped with truck-mounted attenuators are required as shown on TCP Standards.

Place and maintain sufficient additional warning signs, beacons, delineators, and barricades to warn the public of all hazards and guide them through the construction zone at all times, and as directed.

Flashing arrow boards will be used on all tapers for each lane closure.

Some signs, barricades, and channelization devices may not be shown at the precise or measured position. Place the barricades, devices, and/or signs, with approval, in positions to meet field conditions.

Provide one high-intensity, yellow, rotating dome light on equipment such as distributors, spreader boxes, laydown machines, rollers backhoes, road graders, loaders, etc. Mount lights high enough to be visible from all directions and in use when the equipment is within 30 ft. of

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the travel way provide emergency flashers on all other equipment such as trucks, trailers, autos, etc., and use in the work site.

Any existing regulatory signs, route marker auxiliaries, guide signs, and warning signs that must be removed due to widening shall be relocated temporarily and erected on approved supports at locations shown in the plans or as directed. This work will not be paid directly, but will be considered subsidiary to this Item.

The Contractor shall replace all existing speed limit signs with the required construction speed limit signs, as described in the commission minutes/city ordinance for the temporary speed reduction.

Use "Type A" flashing warning lights and/or delineators to mark open excavation, footings, foundations, or other obstructions near lanes that may be open to traffic, as directed.

For additional information pertaining to channelization, signing, spacing details, and flagging procedures required to regulate, warn and guide traffic through project, refer to the "Barricade and Construction" Standards and to the current *TMUTCD*.

Remove or cover signs that do not apply at the end of each day's work.

Uniformed off-duty law enforcement officers with marked law enforcement vehicles will be required, when directed, and is expected for major traffic control changes and lane closures. The officers in marked vehicles will be located as approved to monitor or direct traffic during the closure. The method used to direct traffic at signalized intersections will be as approved. Additional officer and vehicles may be provided when directed. Coordinate with local law enforcement agency.

Law enforcement officers must show proof of certification by the Texas Commission on Law Enforcement Officers Standards.

These officers will be required when all lanes of any of the frontage roads are shut down for more than 15 min. and when the IH10 mainlanes are shut down. A 48 hr. notice will be required to have the uniformed law enforcement officers on the project site.

Complete the daily tracking form provided by the Department and submit invoices that agree with the tracking form for payment at the end of each month that approved services were provided. Rates for law enforcement officers and marked law enforcement vehicle will be invoiced plus 5% for administrative costs.

The Contractor Force Account "Off-Duty Police Officer and Safety Contingency" that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the TCP, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the

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Contractor's Responsible Person based on weekly or more frequent traffic management reviews on the project. The "Off-Duty Police Officer and Safety Contingency" is not intended to be used in lieu of bid items established by the contract.

**Item 504 – Field Office and Laboratory**

Provide a "Type C" Structure, Field Office, for use by State personnel. Locate site as approved.

Provide Three (3) Tablets and one wireless printer with internet service, in compliance with DMS-10101. "Computer Equipment" for use by Department Personnel and for the duration of the Contract. Include all accessories, hardware, software, documentation and other materials necessary to utilize components fully, even if not specifically noted in this Specification. Provide at a minimum 64G tablets or as requested by the Engineer. This requirement is subsidiary to the project various bid items.

Provide a telephone with local telephone service in the field office, regardless of Internet service method used. This phone will be used by the Department personnel and payment will be subsidiary to this Item.

Provide a laboratory sink, as directed. This will be subsidiary to this Item.

Furnish with a minimum of 2 desks, 4 chairs, five drawer file cabinet, two 6 ft. long folding tables and one 60 in. round table with chairs.

**Item 506 – Temporary Erosion, Sedimentation, and Environmental Controls**

Place Best Method Practices (BMP's) in locations as designated in the plans or as directed to meet field conditions.

Place a weatherproof bulletin board containing the Texas Commission on Environmental Quality (TCEQ) required information on the project at a site as directed. Post the following documents:

- (1) TCEQ "TPDES Storm Water Program" Primary & Secondary Construction Site Notice (Both must be filled out and signed)
- (2) TCEQ "Notice of Intent"; and
- (3) TCEQ "TPDES Permit."

Place rain gauge(s) at locations as designated.

The total disturbed area for this project is **9.1** acres. The soil disturbed area in this project, all project locations in the Contract, and Contractor Project Specific Locations (PSLs), within one

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mile of the project limits, for the Contract will further establish the authorization requirements for Storm Water Discharges. The Department will obtain an authorization to discharge storm water from TCEQ for the construction activities shown on the plans. The Contractor is to obtain any required authorization from the TCEQ for any Contractor PSLs for construction support activities on or off right of way. When the total area disturbed for all projects in the Contract and PSLs within one mile of the project limits exceeds five acres, provide a copy of the Contractor Notice of Intent (NOI) PSLs on the right of way to the Engineer (to the appropriate Municipal Separate Storm Sewer System (MS4) Operator when on an Off-system State route).

Place BMP's as shown on the plans, or as directed. Maintain and properly place the erosion control measures to prevent storm water pollution to the Waters of the United States, as directed. Within the project limits, keep all inlets functional as long as possible to accept storm water as part of the Storm Water Pollution Prevention Plan (SWP3), as directed.

The sedimentation fences will be paid at the time of their initial placement. Any required replacement will not be a substitute for proper maintenance and be allowed as directed.

This work is subsidiary to this Item.

Grading operations will be limited to the catch point of the proposed cross-section.

Preserve any vegetation outside these limits.

**Item 508 – Constructing Detours**

Detour roads and temporary roadways may be widened or modified from the details shown in the plans, as directed.

All work required to sawcut the existing pavement for detour construction, as shown in the plans, or as directed, will not be paid directly, but shall be considered subsidiary to this Item.

**Item 512 – Portable Traffic Barrier**

Portable concrete traffic barriers (PCTB) to be used on this project shall be provided by the Department and are located at the Clint Interchange.

Once the PCTB is no longer needed, all PCTB and connection hardware shall remain the property of the Department and will be delivered to McCombs St. approximately 1.8 miles north of the US 54/McCombs intersection, or as directed.. Coordinate PCTB delivery at least 48-hours in advance with Mr. Joe Lindsey, El Paso East Area Maintenance Supervisor at (915) 849-5555 office, or at (915) 373-0652 mobile.

Any PCTB furnished by the Department damaged in the process of transporting, handling or placing, shall be repaired, or replaced, as directed, at no additional cost to the Department.

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Clean, paint, or surface treat any sections of the PCTB furnished by the Department before usage, as directed.

**Item 514 – Permanent Concrete Traffic Barrier**

Use this item to pay for CTB Type-1, CTB Type-3 and CTB (SPL) as shown on plans.

Use color scheme indicated on the Aesthetics Section of the plans conforming to Federal Standard 595b colors fan deck 7690-01-162-2210 (July 1994). All Concrete Traffic Barrier (CTB) will be painted on all exposed surfaces. Materials and labor to paint CTB is subsidiary to this Item.

Coat all concrete barrier (CTB) with Anti-Graffiti Coating Type III (Water-Cleanable) in accordance with Item 740. Anti-graffiti coating is subsidiary to this Item and is full compensation for application of the coating.

Place delineators in accordance with Item 658 “Delineators and Object Marker Assemblies” and Standards D&OM(1) thru D&OM(5). Traffic C reflectors shall be spaced at 25 ft. intervals and shall be subsidiary to this Item.

Fill CTB Type 3 with cleaned coarse aggregate backfill as shown on CSB (6) Standard or as directed subsidiary to Item 514. Use Item-432 Riprap (Conc)(CL B)(4”) to pay for the top 4 inches between back face of CTB Type 3 as shown on typical sections.

**Item 540 – Metal Beam Guard Fence**

At the end of the workday, the Contractor shall protect all untreated, incomplete, blunt ends of metal beam guard fence (MBGF) exposed to traffic flow during construction until the permanent end-treatment is in place as, or as directed. This work will be subsidiary to this Item.

Construction of all guardrail shall proceed in the direction of traffic flow.

All concrete for this Item shall be “Class A.”

All proposed MBGF and required rail elements will be new materials. All existing MBGF to be removed will become the property of the Contractor.

All required attachments or splices will be subsidiary to this Item.

Prior to installation of MBGF, stake the proposed location for approval.

Saw cutting of pavement at MBGF locations to accept the posts will be subsidiary to Item 104, “Removing Concrete.”

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**Item 544 – Guardrail End Treatments**

Removed guardrail end treatments shall become the property of the Department.

**Item 545 – Crash Cushion Attenuators**

Furnish one of the following, or equivalent, crash cushion attenuators at the locations shown in the plans for work zone (temporary) application:

ABSORB 350  
ACZ 350

Furnish one of the following, or equivalent, crash cushion attenuators at the locations shown in the plans for permanent application:

REACT (W)-13  
SMTTC (W)-13

Equivalent attenuators shall be as approved.

**Item 618 – Conduit**

For conduit placement in pavement, an earthsaw may be used provided the cut does not exceed 6 in.

The location of conduits and ground boxes are diagrammatic, only, and may be shifted as directed to accommodate field conditions.

Backfill roadway and driveway trench with cement-stabilized backfill or flowable backfill at the end of each working day. Provide ingress and egress for driveways at the end of each day. Place asphaltic concrete pavement (ACP) overlay at the end of the week or as directed by the Engineer.

Bore quantity as shown in the plans includes the distance beneath the roadway plus an additional 2 ft. on either side of the curb, sidewalk, or edge of pavement. Bore shall be directional.

When backfilling bore pits, ensure that the conduit is not damaged during installation or due to settling backfill material.

Fit both ends of each raceway with a temporary cap to prevent dirt and debris from entering during construction.

Only materials, with approved product codes or designations, from prequalified producers are accepted on bids. The Texas Department of Transportation (TxDOT) maintains a *Material Producer List* of approved producer product codes or designations.

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For traffic barrier installation, provide polymer concrete junction boxes. Mount the junction boxes flush (+0", -1/2") with concrete surface of concrete barrier. The polymer concrete barrier box will not be paid separately, but shall be considered subsidiary to this Item.

Install a continuous bare or green insulated copper wire No.8 American wire gauge (AWG) or larger in every conduit throughout the electrical system in accordance with the Electrical Detail Standard sheets, and the latest edition of the *National Electrical Code (NEC)*.

All exposed conduit must be rigid metal conduit (RMC).

Use RMC when crossing bridges or culverts. All clamps, expansion joints, bolts, and accessories necessary to install the RMC are subsidiary to this Item. Placement is to be approved prior to mounting.

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

Use "Underground Electrical Marking Tape" in the trench installation of conduit (PVC). Conduits used for electrical purposes shall have marking tape that shall be a minimum of 3-in. wide and 4-mil thick, made of inert polyethylene plastic that is impervious to all known alkalis, acids, chemical reagents, etc., that may be encountered in the soil. The marking tape shall be red in color and have the words, "CAUTION, ELECTRICAL LINE BURIED BELOW" continuously printed on the tape for all electrical lines. Conduits used for communication purposes shall have marking tape that shall be a minimum of 3-in. wide and 4-mil thick, made of inert polyethylene plastic that is impervious to all known alkalis, acids, chemical reagents, etc. that may be encountered in the soil. The marking tape shall be yellow in color and have the words, "CAUTION, COMMUNICATION LINE BURIED BELOW" continuously printed on the tape for all communication lines. The marking tape is subsidiary to this Item.

Make all underground conduit bends of 45° or more with rigid metal conduit. Where the rigid metal conduit is exposed at any point and where rigid metal conduit extends into ground boxes, bond the metal conduit to the grounding conductor with grounding-type bushings or by other UL-listed grounding connectors approved by the Engineer. Rigid metal bends will not be paid separately, but will be considered incidental to the PVC conduit system. The exact location of the conduit will be as directed by the Engineer.

Unless shown on the plans, install underground conduit a minimum of 24-in. deep. Install the conduit in accordance with the latest *NEC* and applicable Department Standard sheets. Place conduit under driveways or roadways a minimum of 24 in. below the pavement surface.

When conduit is to be installed where riprap presently exists, install the conduit by means of a boring operation. Bore with extreme care in order to minimize the amount of breakout riprap from the area where the conduit will be installed. No greater area than is required for

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placement of the conduit will be broken out. Replace broken out riprap to the exact slope, pattern, and the thickness of the existing riprap. Replacement of the riprap will be considered subsidiary to this Item.

Overhead tubular sign supports must consist of 2-in. PVC installed within each drill shaft foundation located between mainlanes and the frontage roads for future its installation.

The Contractor will be responsible for repairs for any optic or communication cable damaged during installation of conduit or during any construction operation.

**Item 620 – Electrical Conductors**

Bond together grounding conductors that share the same conduit, junction box, ground box, or structure at every accessible point, in accordance with the Electrical Detail sheets and the latest edition of the *NEC*.

Bond metal junction boxes and metal conduit to the circuit grounding conductor in accordance to the *NEC*.

Use *NEC* Type XHHW for all conductors.

Include extra cable length in each ground box or foundation for each run, to provide adequate slack, as provided in the plans or as directed.

Electrical certification for this project will be as per Item 7, “Legal Relations and Responsibilities” of the current Texas Standard Specifications and any Special Provisions to Item 7, “Legal Relations and Responsibilities.”

Test each wire of each cable or conductor after installation. Incomplete circuits or damage to the wire or the cable are cause for immediate rejection of the entire cable being tested. Remove and replace the entire cable at no expense to the Department. Test the replacement cable after installation.

When pulling cables or conductors through the conduit, do not exceed the manufacturer’s recommended pulling tensions. Lubricate the cables or conductors with a lubricant recommended by the cable manufacturer.

Slack length is included in the plans and shall be paid under this Item as directed.

Ensure that circuits test clear of faults, grounds, and open circuits.

Split bolt connectors are allowed only for splices on the grounding conductors.

Color code all insulated power conductors in accordance with the *NEC*. Use white insulated wire for the neutral conductor. Do not use white insulated wire for any other conductor. Use

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bare or green insulated wire for grounding conductor. Do not use bare or green insulated wire for any other conductor.

Do not use colored tape marking on conductors Size 6 AWG or smaller.

**Item 624 – Ground Boxes**

Remove all conductors in ground boxes shown on the plans to be abandoned. Removal of conductors is subsidiary to this item.

The ground box locations are approximate. Alternate ground box locations may be used as directed to fit field conditions better.

Bond the ground box cover and ground conductors to a ground rod located in the ground box and to the system ground.

Ground the existing metal ground box covers as shown on the latest Standard sheet ED(3).

During construction and until project completion, provide personnel and equipment necessary to remove ground box lids for inspection. Provide this assistance within 24 Hr. of notification.

Construct concrete aprons in accordance with the latest standard sheet ED(3). Make the depth of the concrete apron the same as the depth of the ground box, except for Type 1 and Type 2 ground boxes. For Type 1 or Type 2 ground boxes, construct the concrete apron in accordance with details shown on the "Ground Box Details Installations" Standard.

Install replacement ground boxes w/splice enclosures at existing pigtail/splice enclosure locations where the pigtails will be un-spliced from the 96 or 48 strand fiber optic cable (FOC) being removed. These replacement ground boxes w/splice enclosures will be paid for under this Item.

**Item 628 – Electrical Services**

Make all arrangements for electrical service, and for compliance with local standards and practices, for proper installations.

All electrical service poles must be granite concrete (GC).

Meet at the service locations with the State, electrical utility company, and the City of El Paso

Engineering Section (Traffic Section) two weeks prior to the time electrical power is required. This meeting will finalize exact service pole placement and resolve any issues.

Any electrical costs for connection, test, and operation will be the responsibility of the government agency that will have the final operational control of the items built.

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Arrange and coordinate with the El Paso Electric Company to provide electric power service to the installation. All necessary expenses for the power service connection will be borne by the Contractor and included in the bid price for the installation.

The Contractor is responsible for any cost incurred due to damages to the utility.

Remove the existing service enclosure and conduit on service poles that are to be reused or abandoned. Payment for removal will be considered subsidiary to this Item.

Be aware that there is existing illumination conduit and conductor within the construction limits that is to remain operational at all times. Install and make operational new illumination prior to disconnecting/removing existing illumination.

It will be the responsibility of the contractor to repair or replace any damage to the existing electrical system that will remain in place or is required to maintain the system operational during construction at no additional expense to the Department.

Locate existing electrical service(s) and conductor runs servicing all existing lighting fixtures, including underpass lighting. This work will be subsidiary to electrical bid items.

Existing electrical services will remain to provide power to existing lighting fixtures and underpass lighting to remain. Where circuits entail segments with fixtures to be removed, install ground boxes and extend circuits past fixtures shown to be removed. Work and materials required to extend circuits will be paid for by force account.

When all circuits at an electrical service are to be removed, remove the electrical service and utilize the existing pole for the proposed electrical service. When circuits will remain on the existing electrical service, install a new pole for proposed electrical services. Work and materials will be paid for under the corresponding Bid Item.

Prior to commencing work on existing systems, provide the Engineer with detailed sketches of the existing circuits to remain for documentation of existing lighting systems and analysis.

Furnish a UL-Listed meter can for electrical service poles. Furnish a size and style of meter can in accordance with the requirements of the local electrical service provider. This work is subsidiary to the Item 628, "Electrical Services." Ground service poles in accordance with the *NEC*.

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**Item 636 – Signs**

For new back-to-back signs shown in the plans, the sign that is mounted on the backside of the mount will be paid directly under this Item. The front facing sign and sign mounts will be paid in accordance with Item 644, “Small Roadside Sign Assemblies”.

Large ground-mount signs shall be TY C high intensity background with Type D super high specific intensity (non-fluorescent prismatic) lettering.

Use Type D super-high specific intensity (non-fluorescent prismatic) sheeting for all overhead guide signs (both background and legend), conforming to DMS-8300, “Sign Face Materials”.

Expressway Clearview font shall be used for large ground-mount signs including exit gore (E5-1a) signs. The spacing between the letters shall be in accordance to Typical Sign Requirement (TSR) Standards.

Include aluminum route markers, exit only panels, routing signs, and other special panels attached to guide signs in the unit bid price for the parent guide sign material.

The locations of sign panels on overhead structures are approximate. Verify in the field before installing.

When design details are not shown on the plans, provide signs and arrows conforming to the latest *Standard Highway Sign Designs for Texas* manual.

**Item 644 – Small Roadside Sign Assemblies**

New and relocated sign locations shown on the plans are approximate. Before placing them, obtain approval and stake the exact location for the signs.

Use the Texas universal triangular slip base with the concrete foundation for small ground-mounted signs, unless otherwise shown in the plans.

Remove existing street signs from existing stop signs and re-install them above the new stop signs. Removing and re-installing existing street name signs is subsidiary to this Item.

Replace existing signs that become damaged during relocations at no expense to the Department.

Assume ownership of the damaged existing signs removed.

**Item 647 – Large Roadside Sign Supports and Assemblies**

Locations of the signs are approximate. Before placement, obtain approval and stake the exact location for the signs.

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The lengths of the posts for the ground-mounted signs are approximate. Verify lengths before ordering material to meet existing field conditions and conform to the sign minimum mounting heights.

Replace existing signs that become damaged during relocations at no expense to the Department.

Assume ownership of the removed existing signs.

**Item 650 – Overhead Sign Supports**

Provide a minimum clearance of 19 ft. from the elevation of high point of roadway to bottom of the future lane control signals as shown on the plans, or directed.

Base column lengths on base plate elevations provided on plans. Field-verify all base plate elevations prior to column fabrication. Furnish corrected column lengths to the Engineer for approval after placement of the drill shafts.

Temporary signs are to be placed during overhead sign bridge replacement.

Construction of new overhead sign bridges over traffic shall be completed at night as directed by the Engineer. The existing roadway shall be closed to through traffic and traffic re-routed.

**For use with tubular overhead sign bridges**

Provide anti-graffiti coating on all faces of column and color per aesthetics section in the plans - Type II paint. Paint and anti-graffiti coating is subsidiary to this Item.

Provide smooth, round, hot-dipped galvanized (inside and outside) overhead sign supports. Submit shop drawings to the Engineer for approval.

Weld all tubular structural frame pipe or seamless steel pipe. Conform to the following:

- ASTM A-53 GRADE B TYPE E or S
- ASTM A252 GRADE 2 TYPE E or S
- ASTM A106 GRADE B TYPE S
- API 5L GRADE B TYPE E or S
- API 5LX GRADE X42 TYPE E or S

All other structural steel shall conform to American Society for Testing and Materials (ASTM) Specification A36, unless noted otherwise. All steel greater than ½ in. thickness will conform to the longitudinal Charpy V-Notch requirements of ASTM A36, Group I, in accordance with Article 442.3, "Construction."

**Coating system**

Provide a coating system of a polyamide-cured epoxy prime coat, a polyamide-cured epoxy intermediate coat materials used will be as listed from one of the following manufactures or an approved equal.

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1. Ameron  
210 North Bearry St.  
Brea, California 92622  
Local telephone contact: (419)885-5336  
Prime coat: Amerlock® 400  
Top coat: Amercoat® 450 HS
2. ICI/DEVOE Coatings  
5480 Clover Leaf Pkwy  
Valley View, Ohio 44125  
Local telephone contact: (216)328-1581  
Prime coat: Devran 4170 Corrosion Resistant Epoxy  
Intermediate coat: Devran 4170 Corrosion Resistant Epoxy  
Top coat: Devthane 4708 Aliphatic Urethane Enamel
3. Porter Paint Co.  
400 South 13<sup>th</sup> Street  
Louisville, KY 40201  
Local telephone contact: (419)666-0026  
Prime coat: Porter Paints MCR 4300  
Intermediate coat: Porter Paints MCR 4300  
Top coat: Porter Paints Hythane
4. Poly-Carb, Inc.  
33095 Bainbridge Road  
P.O. Box 39278  
Solon, Ohio 44139  
Local telephone contact: (419)248-1223  
Prime coat: Mark-60 (ULTRA POX)  
Intermediate coat: Mark-60 (ULTRA POX)  
Top coat: Mark-73 (ULTRAKOTE)
5. Sherwin-Williams Company  
671 Beta Drive  
Mayfield Village, Ohio 44143  
Local telephone contact: (440)461-3310  
Prime coat: Tile-Clad II Hi-Build Primer  
Intermediate coat: Hi-Build Aliphatic Polyurethane Enamel

Provide all three system coats manufactured from the same company to insure compatibility among coats.

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**Surface preparations, new support sections**

New, unweathered, galvanized support sections will have their surface preparation as well as their protective coating done at the manufacturer of the support sections.

The support sections will be prepared for coating by SSPC SPI followed by SSPC-SP7 (solvent cleaning) followed by a brush-off blast. Blasting abrasives containing more than 1% free silica shall not be allowed. Before the prepared surface degrades from the prescribed standards, the prime coat will be applied. In every case, the surfaces will be coated with the epoxy prime coat on the same day of surface preparation careful handling and storage will be required to prevent scarping, marring, or other surface damage to the prepared surface.

**Coating, epoxy prime coat, support sections**

This coat will consist of one coat of an epoxy primer to support sections. The total dry film thickness of this coat will be between 1.5 and 2.0 mils. If more than one coat is needed, expense will be borne by the Contractor.

This coat will, in all cases, be applied by brush over surfaces that were prepared earlier that same day. The thinning of the epoxy material is strictly prohibited. Do not use material that is not capable of being applied as specified.

When the average dry film thickness of this coat over the entire support section is less than the specified 1.5, item will be reduced in direct proportion to the deficiency of coating if more than 16-2/3%. If the deficiency of coating is more than 16-2/3% (i.e. the average dry film thickness is less than 1.25 mils) the work for this Item shall be considered unsatisfactory and will be relocated at the full expense of the Contractor including, all labor.

**Coating, urethane top coat, support sections**

This Item shall consist of the application of one coat of urethane to support sections. The total dry film thickness of this coat will not be less than 1.5 mils. If more than one pass is necessary to obtain the required thickness, that coat shall be borne by the Contractor.

All coatings are subsidiary to this Item final color: Arcadian Green, Fed #24300.

**Item 658 – Delineator and Object Marker Assemblies**

Place "Type C" reflectors along the MBGF at 25 ft. intervals as shown on Delineators & Object Markers (D&OM) Standards, or as directed.

Removal and proper disposal of all existing delineators, object markers and any non-standard hardware assemblies are not paid directly, but will be considered subsidiary to pertinent items.

**Item 662 – Work Zone Pavement Markings**

In those areas where existing pavement markings necessitate removal to accommodate the traffic handling as described in the TCP, the Contractor will be responsible for field locating and

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recording by survey the existing pavement markings as directed by the Engineer and the final striping will then be placed in these locations.

All roadways to be opened to traffic will be marked with short-term pavement markings (tabs) by the end of each day's operation.

**Item 666 – Retroreflectorized Pavement Markings**

Place permanent pavement markings two weeks after final surfacing in accordance with Item 662, "Workzone Pavement Markings."

Field-locate and record by survey the existing stripe alignment. Place final pavement markings in the original location, or as directed.

Use a pilot line for final striping and remove pilot line after all striping is complete. Removal will be in accordance with the methods specified in Item 677, "Eliminated Existing Pavement Markings and Markers", and will be subsidiary to this Item.

After placement of the surface course as shown in the plans or as directed, apply Type II marking materials, in accordance with DMS-8200, "Traffic Paint", after 3 days and no later than 14 days.

Air-blasting is required as pavement surface preparation.

TY III drop-on glass beads shall be used on all striping.

Entrance, exit gores, and cross hatching on gores will be 12 in. solid white instead of the 8 in. solid noted on Standard FPM(1)-12.

In those areas where existing pavement markings necessitate removal to accommodate the traffic handling as described in the TCP, the Contractor will be responsible for field locating and recording by survey the existing pavement markings as directed by the Engineer and the final striping will then be placed in these locations.

Establish the alignment and layout for work zone striping and permanent striping.

If the Type II markings become dirty and require cleaning by washing, brushing, compressed air, or other approved methods, this additional cleaning is subsidiary to this Item.

Stripe roadways before opening them to traffic.

Place pavement markings under these items in accordance with details shown on the plans, the latest *TMUTCD* or as directed.

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**Item 672 – Raised Pavement Markers**

Before placing the raised pavement markers on concrete pavement, blast clean the surface using an abrasive-blasting medium. This work is subsidiary to this Item.

Provide epoxy adhesive that is machine mixed or nozzle mixed and dispensed. Equip the machine or nozzle with a mechanism to ensure positive mix measurement control.

**Item 677 – Eliminating Existing Pavement Markings and Markers**

Remove existing pavement markings that conflict with any subsequent construction segment, as directed, to provide smooth continuous markings between the existing and proposed.

Remove conflicting striping as shown on the TCP. Document the conflicting striping before final striping, as directed.

On new concrete pavement or on existing concrete pavement when placing a new stripe on a new location, remove the curing compounds and contamination from the pavement surface by flail milling or as directed.

**Intelligent Transportation System (ITS) – General**

This Contract shall consist of removing, furnishing, installing, re-installing, testing, and/or integrating traffic management hardware into the existing TxDOT TransVista operations traffic management center (TMC) and area offices, as shown in the plans. Select and install equipment as required to achieve a complete and fully operational Traffic Management System (TMS).

Furnish and install incidentals shall be subsidiary to the various bid items.

At Eastbound IH-10 near RV Channel the existing dynamic message sign and related items are in conflict with the proposed pavement. A proposed 48 FOC will be run from the dynamic message sign (DMS) to the existing FOC run.

Power drop location is approximate and should be verified in the field prior to installation of conduit.

The backbone FOCs shall be first connected at the hubs before splicing the pigtail to any ITS equipment to them.

Cleanout the existing conduit prior to installing new FOC. This will be paid for under Item 6027, "Preparation of Existing Conduits, Ground Boxes or Manholes."

The removed FOC will remain the property of the Department.

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Coordinate with the Engineer before assigning matching fiber numbers to proposed and existing equipment.

All circuits shall test clear of faults, grounds, and open circuits.

Locations for ITS electrical services, all ground boxes and ITS equipment are diagrammatic and may be relocated to accommodate field conditions and primary distribution points. Station and offset information for these devices have been represented for Contractor information. The Contractor is to coordinate all electric service locations and installation with the appropriate electric service provider. Any relocation of electrical services and/or transformers will be communicated to the Engineer for approval prior to construction.

All removed and salvaged equipment is the property of the Department. Verify with the Engineer before delivering removed and salvaged equipment to the following location:

TxDOT Signal Shop  
13301 Gateway West Blvd  
El Paso, TX 79928

**Item 2003 - Remove, Stock, Clean, and Relay Loose Aggregate**

Removal or installation of steel pilings in landscape areas shall be subsidiary to this Item.

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