

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 2

DATED 2/04/2011

Control	0014-07-082, ETC.
Project	C 14-7-82, ETC.
Highway	IH 35
County	HILL, ETC.

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 14-7-82

CONTROL: 0014-07-082

COUNTY: HILL

LETTING: 02/08/2011

REFERENCE NO: 0204

PROPOSAL ADDENDUMS

_ PROPOSAL COVER

X BID INSERTS (SH. NO.: 9- 37))

X GENERAL NOTES (SH. NO.: XX to DDD))

X SPEC LIST (SH. NO.: 4))

X SPECIAL PROVISIONS:

ADDED: 000--2126

DELETED:

_ SPECIAL SPECIFICATIONS:

ADDED:

DELETED:

X OTHER: Plans 17X-AA,18A-E,20,22,24,26,28,30,32,34,36,37,52,54

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

NEW SBE GOAL Y

This addendum revises mainlane removable work zone pavement markings. The pavement markings for the mainlane work zone will use Prefabricated Pavement Markings. Other miscellaneous corrections made.

Bid Inserts

- Page 9 Delete Item 450-2135.
Quantity change Items 450-2191,450-2212.
- Page 14 Quantity change Item 467-2286.
- Page 18 Quantity change Item 530-2010.
- Page 23 Quantity change Item 662-2064.
- Page 24 Add Items 668-2046,668-2049,668-2079.
Quantity change Items 672-2010,672-2012.
- Page 25 Delete Items 672-2024,672-2025.
Quantity change Item 672-2015.
- Pages 26 to 37 Due to changes above the list has shifted.

General Notes

- Sheet XX Section Item 662 is revised.
Section Item 668 is added.

Sheets YY to DDD have text shift by revisions described above.

DESCRIPTION OF ABOVE CHANGES (CONTINUED)
(INCLUDING PLANS SHEET CHANGES)

Spec List

Page 4 Special Provision 000--2126 "Important Notice to Contractor" has been added. Any reference to DBE is applicable to SBE for this project.

***** SBE GOAL of 6% has been added to this project *****

Plans

Sheet 17X Revised Section Item 662.
Added Section Item 668.
Sheets 17Y-AA Text shift from changes.
Sheets 18A-E Revisions as detailed above under Bid Inserts.
Sheets 20,22,24,26,28,30,32,34,36,37
Delete Items 672-2024 and 672-2025
Add Items 668-2046, 668-2049, and 668-2015.
Sheet 24 Quantity change Items 672-2012 and 672-2015.
Sheets 30,32,34
Quantity change for Items 672-2010 and 672-2012.
Sheet 37 Quantity change Item 662-2064 and 672-2015.
Sheet 52 Quantity change for Items 450-2212,450-2191,514-2005,
514-2006.
Sheet 54 Added NBFR Sta 5582+40.10.
Quantity change Items 467-2286 and 530-2010.

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	388.000	1
	104	2001		REMOVING CONC (PAV) DOLLARS and CENTS	SY	275,318.000	2
	105	2020		REMOVING STAB BASE & ASPH PAV (12") DOLLARS and CENTS	SY	684.000	3
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	1,350,354.00	4
	110	2002		EXCAVATION (CHANNEL) DOLLARS and CENTS	CY	13,765.000	5
	132	2004		EMBANKMENT (FINAL)(DENS CONT)(TY B) DOLLARS and CENTS	CY	525.000	6
	132	2006		EMBANKMENT (FINAL)(DENS CONT)(TY C) DOLLARS and CENTS	CY	1,110,980.00	7
	160	2003		FURNISHING AND PLACING TOPSOIL (4") DOLLARS and CENTS	SY	1,218,473.00	8
	161	2006	006	COMPOST MANUF TOPSOIL (PB) DOLLARS and CENTS	CY	222.000	9
	161	2009	006	EROSION CONTROL COMPOST DOLLARS and CENTS	CY	215.000	10
	162	2002		BLOCK SODDING DOLLARS and CENTS	SY	9,268.000	11

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	164	2003	002	BROADCAST SEED (PERM) (RURAL) (CLAY) DOLLARS and CENTS	SY	902,305.000	12
	164	2007	002	BROADCAST SEED (PERM) (URBAN) (CLAY) DOLLARS and CENTS	SY	316,168.000	13
	164	2009	002	BROADCAST SEED (TEMP) (WARM) DOLLARS and CENTS	SY	608,584.000	14
	164	2011	002	BROADCAST SEED (TEMP) (COOL) DOLLARS and CENTS	SY	608,584.000	15
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	59,363.700	16
	169	2001	002	SOIL RETENTION BLANKETS (CL 1) (TY A) DOLLARS and CENTS	SY	11,472.000	17
	169	2003	002	SOIL RETENTION BLANKETS (CL 1) (TY C) DOLLARS and CENTS	SY	11,975.000	18
	169	2005	002	SOIL RETENTION BLANKETS (CL 2) (TY E) DOLLARS and CENTS	SY	370.000	19
	170	2001		IRRIGATION SYSTEM DOLLARS and CENTS	LS	1.000	20
	180	2001		WILDFLOWER SEEDING DOLLARS and CENTS	AC	125.000	21
	192	2004		PLANT MATERIAL (5-GAL) DOLLARS and CENTS	EA	66.000	22

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	ITEM NO	DESC CODE	S.P. NO.				
	192	2023		PLANT MATERIAL (15 GAL) (TREE) DOLLARS and CENTS	EA	36.000	23
	192	2024		PLANT MATERIAL (30 GAL) (TREE) DOLLARS and CENTS	EA	24.000	24
	193	2001		PLANT MAINTENANCE DOLLARS and CENTS	MO	9.000	25
	193	2006		VEGETATIVE WATERING DOLLARS and CENTS	MG	60.000	26
	193	2007		IRRIGATION SYSTEM OPER AND MAINT DOLLARS and CENTS	MO	9.000	27
	216	2001		PROOF ROLLING DOLLARS and CENTS	HR	50.000	28
	247	2056	033	FL BS (CMP IN PLC)(TY D GR 4)(FNAL POS) DOLLARS and CENTS	CY	34,650.000	29
	247	2060	033	FL BS (CMP IN PLC)(TY E GR 4)(FNAL POS) DOLLARS and CENTS	CY	30,240.000	30
	251	2030		REWORK BS MTL (TY C) (8") (ORD COMP) DOLLARS and CENTS	SY	76,480.000	31
	251	2080		REWORK BS MTL (TY C)(12")(ORD COMP) DOLLARS and CENTS	SY	115,778.000	32
	251	2119		REWORK BS MTL (TY C) (4") (ORD COMP) DOLLARS and CENTS	SY	117,340.000	33

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	260	2016	002	LIME (HYD, COM, OR QK(SLURRY)) DOLLARS and CENTS	TON	21,286.000	34
	260	2027	002	LIME TRT (EXST MATL)(8") DOLLARS and CENTS	SY	1,028,304.00	35
	276	2112		CM TRT(PT MX)(CL N)(TY E)(GR 4)(FN POS) DOLLARS and CENTS	CY	112,328.000	36
	305	2014		SALV,HAUL& STKPL RCL APH PV(VAR DEPTH) DOLLARS and CENTS	SY	593,280.000	37
	310	2005		PRIME COAT (MC-30 OR AE-P) DOLLARS and CENTS	GAL	45,212.000	38
	316	2378	016	AGGR (TY-D GR-4 OR TY-L GR-4)(SAC-B) DOLLARS and CENTS	CY	1,808.000	39
	316	2695	016	ASPH (CRS-2 OR HFRS-2) DOLLARS and CENTS	GAL	101,727.000	40
	341	2011	024	D-GR HMA(QCQA) TY-B PG64-22 DOLLARS and CENTS	TON	78,462.000	41
	341	2014	024	D-GR HMA(QCQA) TY-B PG70-22 DOLLARS and CENTS	TON	414.000	42
	341	2032	024	D-GR HMA(QCQA) TY-C SAC-B PG64-22 DOLLARS and CENTS	TON	2,176.000	43

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	ITEM NO	DESC CODE	S.P. NO.				
	341	2050	024	D-GR HMA(QCQA) TY-C PG70-22 DOLLARS and CENTS	TON	24,263.000	44
	341	2064	024	D-GR HMA(QCQA) TY-C SAC-B PG76-22 DOLLARS and CENTS	TON	75.000	45
	341	2104	024	D-GR HMA(QCQA) TY-D SAC-B PG64-22 DOLLARS and CENTS	TON	224.000	46
	341	2106	024	D-GR HMA(QCQA) TY-D PG64-22 DOLLARS and CENTS	TON	36,039.000	47
	354	2021		PLANE ASPH CONC PAV(0" TO 2") DOLLARS and CENTS	SY	1,835.000	48
	360	2006	003	CONC PVMT (CONT REINF-CRCP)(13") DOLLARS and CENTS	SY	569,645.000	49
	360	2072	003	CONC PVMT(CONT REINF-CRCP)(7.5") DOLLARS and CENTS	SY	140,730.000	50
	360	2076	003	CONC PVMT (CONT REINF-CRCP)(HES)(7.5") DOLLARS and CENTS	SY	21,696.000	51
	368	2006		TERMINAL ANCHOR JOINT (TY I) DOLLARS and CENTS	LF	839.000	52
	368	2007		TERMINAL ANCHOR JOINT (TY II) DOLLARS and CENTS	LF	1,279.000	53
	400	2005		CEM STABIL BKFL DOLLARS and CENTS	CY	2,003.000	54

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	ITEM NO	DESC CODE	S.P. NO.				
	400	2006		CUT & RESTORING PAV DOLLARS and CENTS	SY	287.000	55
	401	2001		FLOWABLE BACKFILL DOLLARS and CENTS	CY	170.000	56
	402	2001		TRENCH EXCAVATION PROTECTION DOLLARS and CENTS	LF	26,559.000	57
	403	2001		TEMPORARY SPL SHORING DOLLARS and CENTS	SF	48,233.000	58
	403	2002		TEMPORARY SPL SHORING (SOIL NAIL) DOLLARS and CENTS	SF	12,661.000	59
	416	2004	001	DRILL SHAFT (36 IN) DOLLARS and CENTS	LF	4,237.000	60
	416	2006	001	DRILL SHAFT (48 IN) DOLLARS and CENTS	LF	1,352.000	61
	416	2018	001	DRILL SHAFT (SIGN MTS)(24 IN) DOLLARS and CENTS	LF	20.000	62
	416	2021	001	DRILL SHAFT (SIGN MTS)(42 IN) DOLLARS and CENTS	LF	206.000	63
	416	2023	001	DRILL SHAFT (SIGN MTS)(54 IN) DOLLARS and CENTS	LF	598.000	64
	416	2029	001	DRILL SHAFT (RDWY ILL POLE) (30 IN) DOLLARS and CENTS	LF	824.000	65

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	ITEM NO	DESC CODE	S.P. NO.				
	416	2032	001	DRILL SHAFT (TRF SIG POLE) (36 IN) DOLLARS and CENTS	LF	78.000	66
	420	2003	002	CL C CONC (ABUT) DOLLARS and CENTS	CY	506.400	67
	420	2004	002	CL C CONC (BENT) DOLLARS and CENTS	CY	939.200	68
	420	2033	002	CL S CONC (APPR SLAB) DOLLARS and CENTS	CY	997.300	69
	420	2039	002	CL D CONC (MISC) DOLLARS and CENTS	CY	8.800	70
	420	2251	002	CL A CONC(COLLAR) DOLLARS and CENTS	CY	1.000	71
	422	2001		REINF CONC SLAB DOLLARS and CENTS	SF	129,660.000	72
	423	2001		RETAINING WALL (MSE) DOLLARS and CENTS	SF	134,047.000	73
	423	2005		RETAINING WALL (TEMP WALL) DOLLARS and CENTS	SF	119,271.000	74
	423	2008		RETAINING WALL (STONE) DOLLARS and CENTS	SF	4,800.000	75
	423	2009		RETAINING WALL (SOIL NAILED)(FACIA) DOLLARS and CENTS	SF	18,452.000	76

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	ITEM NO	DESC CODE	S.P. NO.				
	425	2019	001	PRESTR CONC U-BEAM (U54) and DOLLARS CENTS	LF	8,384.240	77
	425	2068	001	PRESTR CONC GIRDER (TX54) and DOLLARS CENTS	LF	6,455.660	78
	428	2002	001	CONC SURF TREAT (CLASS II) and DOLLARS CENTS	SY	13,801.000	79
	432	2001		RIPRAP (CONC)(4 IN) and DOLLARS CENTS	CY	2,488.000	80
	432	2002		RIPRAP (CONC)(5 IN) and DOLLARS CENTS	CY	406.000	81
	432	2006		RIPRAP (STONE TY R)(DRY)(8 IN) and DOLLARS CENTS	CY	289.000	82
	432	2011		RIPRAP (STONE TY F)(GROUT)(6 IN) and DOLLARS CENTS	CY	70.000	83
	432	2027		RIPRAP (SPECIAL) and DOLLARS CENTS	CY	632.000	84
	432	2030		RIPRAP (CONC)(CL C) and DOLLARS CENTS	CY	2.000	85
	432	2032		RIPRAP (CONC)(EXPOSED AGGREGATE) and DOLLARS CENTS	CY	92.000	86
	432	2038		RIPRAP (CONC) (CL A) and DOLLARS CENTS	CY	144.600	87

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	ITEM NO	DESC CODE	S.P. NO.				
	432	2039		RIPRAP (MOW STRIP)(4 IN) DOLLARS and CENTS	CY	68.000	88
	442	2048	016	STRUCTURAL STEEL(MISC NON-BRIDGE) DOLLARS and CENTS	LB	3,234.000	89
	450	2013	001	RAIL (TY SSTR) DOLLARS and CENTS	LF	780.000	90
	450	2191	001	RAIL (TY T1F)(MOD) DOLLARS and CENTS	LF	11,319.000	91
	450	2212	001	RAIL (TY T1F) (SPL) DOLLARS and CENTS	LF	496.000	92
	454	2001		SEALED EXPANSION JOINT (4 IN)(SEJ-A) DOLLARS and CENTS	LF	312.000	93
	454	2002		SEALED EXPANSION JOINT (4 IN)(SEJ-P) DOLLARS and CENTS	LF	522.000	94
	462	2002		CONC BOX CULV (3 FT X 3 FT) DOLLARS and CENTS	LF	60.000	95
	462	2003		CONC BOX CULV (4 FT X 2 FT) DOLLARS and CENTS	LF	706.000	96
	462	2004		CONC BOX CULV (4 FT X 3 FT) DOLLARS and CENTS	LF	239.000	97
	462	2007		CONC BOX CULV (5 FT X 3 FT) DOLLARS and CENTS	LF	1,573.000	98

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	ITEM NO	DESC CODE	S.P. NO.				
	462	2010		CONC BOX CULV (6 FT X 3 FT) and DOLLARS CENTS	LF	2,358.000	99
	462	2011		CONC BOX CULV (6 FT X 4 FT) and DOLLARS CENTS	LF	2,645.000	100
	462	2012		CONC BOX CULV (6 FT X 5 FT) and DOLLARS CENTS	LF	840.000	101
	462	2014		CONC BOX CULV (7 FT X 3 FT) and DOLLARS CENTS	LF	2,676.000	102
	462	2026		CONC BOX CULV (9 FT X 7 FT) and DOLLARS CENTS	LF	276.000	103
	462	2030		CONC BOX CULV (10 FT X 6 FT) and DOLLARS CENTS	LF	3,372.000	104
	462	2040		CONC BOX CULV (5 FT X 6.5 FT) and DOLLARS CENTS	LF	949.000	105
	464	2003	003	RC PIPE (CL III)(18 IN) and DOLLARS CENTS	LF	202.000	106
	464	2005	003	RC PIPE (CL III)(24 IN) and DOLLARS CENTS	LF	29,420.000	107
	464	2007	003	RC PIPE (CL III)(30 IN) and DOLLARS CENTS	LF	5,178.000	108
	464	2009	003	RC PIPE (CL III)(36 IN) and DOLLARS CENTS	LF	306.000	109

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	ITEM NO	DESC CODE	S.P. NO.				
	464	2022	003	RC PIPE (CL IV)(24 IN) and DOLLARS CENTS	LF	259.000	110
	465	2003	001	INLET (COMPL)(TY H) and DOLLARS CENTS	EA	65.000	111
	465	2005	001	MANH (COMPL)(TY M) and DOLLARS CENTS	EA	9.000	112
	465	2006	001	MANH (COMPL)(JUNCT BOX)(TY M) and DOLLARS CENTS	EA	12.000	113
	465	2027	001	INLET (COMPL)(CURB)(TY II)(10') and DOLLARS CENTS	EA	64.000	114
	465	2028	001	INLET (COMPL)(CURB)(TY II)(15') and DOLLARS CENTS	EA	26.000	115
	465	2105	001	MANH (COMPL)(TY M)(MOD) and DOLLARS CENTS	EA	105.000	116
	465	2122	001	INLET (COMPL)(SPL) and DOLLARS CENTS	EA	14.000	117
	465	2143	001	INLET (COMPL)(TRAFFIC)(TY X-1) and DOLLARS CENTS	EA	1.000	118
	465	2273	001	INLET (COMPL)(CURB)(TY II)(20') and DOLLARS CENTS	EA	2.000	119
	465	2295	001	INLET (COMPL)(3)(OB)-02 FW(10') and DOLLARS CENTS	EA	1.000	120

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	465	2490	001	INLET EXT (SPL) DOLLARS and CENTS	EA	467.000	121
	465	2591	001	INLET (COMPL)(RW(RI))(2 - GRATE) DOLLARS and CENTS	EA	47.000	122
	466	2006		WINGWALL (SW-0)(HW=4 FT) DOLLARS and CENTS	EA	1.000	123
	466	2007		WINGWALL (SW-0)(HW=5 FT) DOLLARS and CENTS	EA	1.000	124
	466	2022		WINGWALL (FW-0)(HW=6 FT) DOLLARS and CENTS	EA	2.000	125
	466	2034		WINGWALL (FW-S)(HW=4 FT) DOLLARS and CENTS	EA	2.000	126
	466	2035		WINGWALL (FW-S)(HW=5 FT) DOLLARS and CENTS	EA	1.000	127
	466	2049		WINGWALL (PW)(HW=5 FT) DOLLARS and CENTS	EA	8.000	128
	466	2050		WINGWALL (PW)(HW=6 FT) DOLLARS and CENTS	EA	2.000	129
	466	2051		WINGWALL (PW)(HW=7 FT) DOLLARS and CENTS	EA	2.000	130
	466	2052		WINGWALL (PW)(HW=8 FT) DOLLARS and CENTS	EA	6.000	131

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	ITEM NO	DESC CODE	S.P. NO.				
	466	2053		WINGWALL (PW)(HW=9 FT) and DOLLARS CENTS	EA	4.000	132
	466	2054		WINGWALL (PW)(HW=10 FT) and DOLLARS CENTS	EA	3.000	133
	466	2055		WINGWALL (PW)(HW=11 FT) and DOLLARS CENTS	EA	1.000	134
	466	2229		WINGWALL (FW-S)(H=8FT)(MOD) and DOLLARS CENTS	EA	1.000	135
	467	2142		SET (TY I)(S= 10 FT)(HW= 8 FT)(4:1)(C) and DOLLARS CENTS	EA	6.000	136
	467	2158		SET (TY I)(S= 5 FT)(HW= 4 FT)(6:1)(C) and DOLLARS CENTS	EA	1.000	137
	467	2164		SET (TY I)(S= 7 FT)(HW= 4 FT)(6:1)(C) and DOLLARS CENTS	EA	2.000	138
	467	2188		SET (TY I)(S= 6 FT)(HW= 4 FT)(6:1)(P) and DOLLARS CENTS	EA	2.000	139
	467	2211		SET (TY II)(24 IN)(RCP)(3:1)(C) and DOLLARS CENTS	EA	1.000	140
	467	2224		SET (TY II)(24 IN)(RCP)(4:1)(C) and DOLLARS CENTS	EA	6.000	141
	467	2236		SET (TY II)(24 IN)(RCP)(6:1)(C) and DOLLARS CENTS	EA	6.000	142

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	467	2286		SET (TY II)(18 IN)(RCP)(6:1)(P) and DOLLARS CENTS	EA	14.000	143
	467	2288		SET (TY II)(24 IN)(RCP)(6:1)(P) and DOLLARS CENTS	EA	39.000	144
	467	2290		SET (TY II)(30 IN)(RCP)(6:1)(P) and DOLLARS CENTS	EA	3.000	145
	476	2002		JACK BOR OR TUN PIPE(24 IN)(RC)(CL III) and DOLLARS CENTS	LF	396.000	146
	476	2003		JACK BOR OR TUN PIPE(30 IN)(RC)(CL III) and DOLLARS CENTS	LF	346.000	147
	476	2042		JACK OR TUN BOX CULV (3 FT X 3 FT) and DOLLARS CENTS	LF	86.000	148
	476	2049		JACK OR TUN BOX CULV (6 FT X 3 FT) and DOLLARS CENTS	LF	461.000	149
	496	2009		REMOV STR (BRIDGE 0-99 FT LENGTH) and DOLLARS CENTS	EA	4.000	150
	496	2010		REMOV STR (BRIDGE 100-499 FT LENGTH) and DOLLARS CENTS	EA	7.000	151
	496	2023		REMOVE STR (JUNCTION BOX) and DOLLARS CENTS	EA	3.000	152
	497	2001		SALV MATRL (CREDIT ITEM) and DOLLARS CENTS	LS	1.000	153

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	ITEM NO	DESC CODE	S.P. NO.				
	500	2001	005	MOBILIZATION DOLLARS and CENTS	LS	1.000	154
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	36.000	155
	506	2002	010	ROCK FILTER DAMS (INSTALL) (TY 2) DOLLARS and CENTS	LF	639.000	156
	506	2003	010	ROCK FILTER DAMS (INSTALL) (TY 3) DOLLARS and CENTS	LF	537.000	157
	506	2009	010	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	1,176.000	158
	506	2016	010	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	5,148.000	159
	506	2019	010	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	5,148.000	160
	506	2020	010	EXCAV (EROS & SEDM CONT, IN PLACE) DOLLARS and CENTS	CY	826.000	161
	506	2021	010	EMBANK (EROS & SEDM CONT, IN PLACE) DOLLARS and CENTS	CY	566.000	162
	506	2026	010	FRNT END LOADER WORK (ERSN & SEDM CONT) DOLLARS and CENTS	HR	130.000	163

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	506	2032	010	SANDBAGS FOR EROSION CONTROL (18") DOLLARS and CENTS	LF	240.000	164
	506	2034	010	TEMPORARY SEDIMENT CONTROL FENCE DOLLARS and CENTS	LF	16,714.000	165
	508	2002		CONSTRUCTING DETOURS DOLLARS and CENTS	SY	60,634.000	166
	512	2017	002	PORT CTB (DES SOURCE)(LOW PROF)(TY 1) DOLLARS and CENTS	LF	6,080.000	167
	512	2018	002	PORT CTB (DES SOURCE)(LOW PROF)(TY 2) DOLLARS and CENTS	LF	40.000	168
	512	2026	002	PORT CTB (MOVE)(LOW PROF)(TY 1) DOLLARS and CENTS	LF	4,480.000	169
	512	2027	002	PORT CTB (MOVE)(LOW PROF)(TY 2) DOLLARS and CENTS	LF	80.000	170
	512	2035	002	PORT CTB (STKPL)(LOW PROF)(TY 1) DOLLARS and CENTS	LF	6,420.000	171
	512	2036	002	PORT CTB (STKPL)(LOW PROF)(TY 2) DOLLARS and CENTS	LF	80.000	172
	512	2093	002	PORT CBR (DES SOURCE) DOLLARS and CENTS	LF	30,360.000	173
	512	2094	002	PORT CBR (MOVE) DOLLARS and CENTS	LF	120,710.000	174

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	512	2095	002	PORT CBR (STOCKPILE) DOLLARS and CENTS	LF	100,684.000	175
	514	2004	002	PERM CONC TRF BARR (SGL SLP)(TY 1)(42") DOLLARS and CENTS	LF	390.000	176
	514	2005	002	PERM CONC TRF BARR (SGL SLP)(TY 2)(42") DOLLARS and CENTS	LF	36,008.000	177
	514	2006	002	PERM CONC TRF BARR (SGL SLP)(TY 3)(42") DOLLARS and CENTS	LF	914.000	178
	528	2004		LANDSCAPE PAVERS DOLLARS and CENTS	SY	8,686.000	179
	529	2004		CONC CURB & GUTTER (TY II) DOLLARS and CENTS	LF	94.000	180
	529	2006		CONC CURB (MONO) (TY II) DOLLARS and CENTS	LF	43,555.000	181
	529	2029		CONC CURB & GUTTER (TY II A) DOLLARS and CENTS	LF	2,095.000	182
	529	2030		CONC CURB (MONO) (TY II A) DOLLARS and CENTS	LF	30,996.000	183
	530	2010		DRIVEWAYS (CONC) DOLLARS and CENTS	SY	4,765.000	184
	530	2011		DRIVEWAYS (ACP) DOLLARS and CENTS	SY	4,847.000	185

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	530	2031		DRIVEWAYS (ACP)(TYPE 2) and DOLLARS CENTS	SY	2,887.000	186
	530	2032		DRIVEWAYS (ACP)(TYPE 3) and DOLLARS CENTS	SY	4,071.000	187
	531	2005		CURB RAMPS (TY 1) and DOLLARS CENTS	EA	16.000	188
	531	2006		CURB RAMPS (TY 2) and DOLLARS CENTS	EA	4.000	189
	531	2031		CONC SIDEWALKS (4") and DOLLARS CENTS	SY	438.000	190
	540	2002	023	MTL W-BEAM GD FEN (STEEL POST) and DOLLARS CENTS	LF	225.000	191
	540	2019	023	MTL BEAM GD FEN TRANS (THRIE)(STL POST) and DOLLARS CENTS	EA	10.000	192
	544	2013	001	GDRAIL END TRT(INSTALL)(HBA POST) and DOLLARS CENTS	EA	10.000	193
	545	2001		CRASH CUSH ATTEN (INSTL) and DOLLARS CENTS	EA	10.000	194
	545	2002		CRASH CUSH ATTEN (MOVE & RESET) and DOLLARS CENTS	EA	62.000	195

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	545	2003		CRASH CUSH ATTEN (REMOVE) DOLLARS and CENTS	EA	49.000	196
	556	2008		PIPE UNDERDRAINS (TY 8) (6") DOLLARS and CENTS	LF	11,197.000	197
	556	2016		PIPE UNDERDRAINS (TYPE 8) (8") DOLLARS and CENTS	LF	6,194.000	198
	560	2006	001	MAILBOX INSTALL-S (RR-POST) TY 4 FND- TB DOLLARS and CENTS	EA	9.000	199
	560	2008	001	MAILBOX INSTALL-M (TWW-POST)TY 4 FND- TB DOLLARS and CENTS	EA	3.000	200
	610	2025	010	INS RD IL AM (TY SA) 40T-8 (.25 KW)S DOLLARS and CENTS	EA	103.000	201
	610	2060	010	INS RD IL AM (U/P) (TY 1) (.15KW)S DOLLARS and CENTS	EA	56.000	202
	618	2018		CONDT (PVC) (SCHD 40) (2") DOLLARS and CENTS	LF	43,936.000	203
	618	2022		CONDT (PVC) (SCHD 40) (3") DOLLARS and CENTS	LF	70.000	204
	618	2035		CONDT (PVC) (SCHD 80) (2") (BORE) DOLLARS and CENTS	LF	11,142.000	205

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	618	2039		CONDT (PVC) (SCHD 80) (3") (BORE) DOLLARS and CENTS	LF	645.000	206
	620	2009	001	ELEC CONDR (NO. 6) BARE DOLLARS and CENTS	LF	54,471.000	207
	620	2010	001	ELEC CONDR (NO. 6) INSULATED DOLLARS and CENTS	LF	122,800.000	208
	620	2011	001	ELEC CONDR (NO. 8) BARE DOLLARS and CENTS	LF	1,166.000	209
	620	2012	001	ELEC CONDR (NO. 8) INSULATED DOLLARS and CENTS	LF	2,356.000	210
	624	2008	014	GROUND BOX TY A (122311) W/APRON DOLLARS and CENTS	EA	145.000	211
	624	2014	014	GROUND BOX TY D (162922) W/APRON DOLLARS and CENTS	EA	10.000	212
	628	2017	001	ELC SRV TY A 240/480 060 (NS)SS(E)SP(O) DOLLARS and CENTS	EA	8.000	213
	628	2074	001	ELC SRV TY D 120/240 060 (NS)SS(E)PS(U) DOLLARS and CENTS	EA	1.000	214
	628	2205	001	ELC SRV TY D 120/240 100 (NS)SS(N)PS(U) DOLLARS and CENTS	EA	1.000	215
	636	2001	014	ALUMINUM SIGNS (TY A) DOLLARS and CENTS	SF	196.000	216

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	636	2002	014	ALUMINUM SIGNS (TY G) DOLLARS and CENTS	SF	174.000	217
	636	2003	014	ALUMINUM SIGNS (TY O) DOLLARS and CENTS	SF	3,525.000	218
	644	2001		INS SM RD SN SUP&AM TY 10BWG(1) SA(P) DOLLARS and CENTS	EA	39.000	219
	644	2004		INS SM RD SN SUP&AM TY 10BWG(1) SA(T) DOLLARS and CENTS	EA	114.000	220
	644	2006		INS SM RD SN SUP&AM TY 10BWG(1) SA(U) DOLLARS and CENTS	EA	10.000	221
	644	2022		INS SM RD SN SUP&AM TY S80(1) SA(P) DOLLARS and CENTS	EA	11.000	222
	644	2028		INS SM RD SN SUP&AM TY S80(1)SA(U-1EXT) DOLLARS and CENTS	EA	4.000	223
	644	2042		INS SM RD SN SUP&AM TY S80(2) SA(P) DOLLARS and CENTS	EA	15.000	224
	644	2053		INS SM RD SN SUP&AM TY TWT(1) WA(P) DOLLARS and CENTS	EA	140.000	225
	644	2054		INS SM RD SN SUP&AM TY TWT(1) WA(T) DOLLARS and CENTS	EA	8.000	226
	644	2063		INS SM RD SN SUP&AM (RAIL MOUNT) DOLLARS and CENTS	EA	19.000	227

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	644	2064		INS SM RD SN SUP&AM TY S80(1)SA(U-EXAL) DOLLARS CENTS and	EA	25.000	228
	644	2065		RELOCATE SM RD SN SUP & AM TY TEMP DOLLARS CENTS and	EA	50.000	229
	647	2001		INSTALL LRSS (STRUCT STEEL) DOLLARS CENTS and	LB	800.000	230
	647	2002		RELOCATE LRSA DOLLARS CENTS and	EA	15.000	231
	650	2013		INS OH SN SUP(20 FT BAL TEE) DOLLARS CENTS and	EA	1.000	232
	650	2040		INS OH SN SUP(40 FT CANT) DOLLARS CENTS and	EA	23.000	233
	650	2103		INS OH SN SUP(100 FT BRDG) DOLLARS CENTS and	EA	1.000	234
	650	2113		INS OH SN SUP(110 FT BRDG) DOLLARS CENTS and	EA	2.000	235
	658	2292		INSTL DEL ASSM (D-DW)SZ 1(FLX)GND DOLLARS CENTS and	EA	93.000	236
	658	2329		INSTL DEL ASSM (D-SW)SZ 1(FLX)GND DOLLARS CENTS and	EA	163.000	237

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	662	2001		WK ZN PAV MRK NON-REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	97,991.000	238
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	121,054.000	239
	662	2010		WK ZN PAV MRK NON-REMOV (W) 8" (DOT) DOLLARS and CENTS	LF	8,299.000	240
	662	2016		WK ZN PAV MRK NON-REMOV (W) 24" (SLD) DOLLARS and CENTS	LF	1,148.000	241
	662	2029		WK ZN PAV MRK NON-REMOV (W)36"(YLD TRI) DOLLARS and CENTS	EA	56.000	242
	662	2030		WK ZN PAV MRK NON-REMOV (Y) 4" (BRK) DOLLARS and CENTS	LF	775.000	243
	662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	105,849.000	244
	662	2064		WK ZN PAV MRK REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	780.000	245
	662	2067		WK ZN PAV MRK REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	16,157.000	246
	662	2099		WK ZN PAV MRK REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	11,273.000	247

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	662	2113		WK ZN PAV MRK SHT TERM (TAB) TY W DOLLARS and CENTS	EA	14,151.000	248
	662	2114		WK ZN PAV MRK SHT TERM (TAB) TY Y DOLLARS and CENTS	EA	5,512.000	249
	666	2047		REFL PAV MRK TY I (W) 24"(SLD)(090MIL) DOLLARS and CENTS	LF	482.000	250
	668	2046		PREFAB PAV MRK TY B (W) (4") (BRK) DOLLARS and CENTS	LF	5,500.000	251
	668	2049		PREFAB PAV MRK TY B (W) (4") (SLD) DOLLARS and CENTS	LF	30,300.000	252
	668	2079		PREFAB PAV MRK TY B (Y) (4") (SLD) DOLLARS and CENTS	LF	30,829.000	253
	668	2106		PREFAB PAV MRK TY C (W) (ARROW) DOLLARS and CENTS	EA	171.000	254
	668	2116		PREFAB PAV MRK TY C (W) (WORD) DOLLARS and CENTS	EA	39.000	255
	668	2118		PREFAB PAV MRK TY C (W) (36")(YLD TRI) DOLLARS and CENTS	EA	140.000	256
	672	2010	034	REFL PAV MRKR TY I-A DOLLARS and CENTS	EA	368.000	257
	672	2012	034	REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	829.000	258

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	672	2014	034	REFL PAV MRKR TY I-R DOLLARS and CENTS	EA	280.000	259
	672	2015	034	REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	171.000	260
	672	2017	034	REFL PAV MRKR TY II-C-R DOLLARS and CENTS	EA	5,469.000	261
	677	2001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	65,792.000	262
	677	2007		ELIM EXT PAV MRK & MRKS (24") DOLLARS and CENTS	LF	182.000	263
	678	2020		PAV SURF PREP FOR MRK (36") (YLD TRI) DOLLARS and CENTS	EA	140.000	264
	678	2021		PAV SURF PREP FOR MRK (BLAST CLN)(4") DOLLARS and CENTS	LF	152,907.000	265
	678	2022		PAV SURF PREP FOR MRK (BLAST CLN)(6") DOLLARS and CENTS	LF	213,747.000	266
	678	2023		PAV SURF PREP FOR MRK (BLAST CLN)(12") DOLLARS and CENTS	LF	6,385.000	267
	678	2027		PAV SURF PREP FOR MRK (BLAST CLN)(8") DOLLARS and CENTS	LF	42,499.000	268

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	678	2028		PAV SURF PREP FOR MRK (BLST CLN)(ARRWS) DOLLARS CENTS and	EA	171.000	269
	678	2029		PAV SURF PREP FOR MRK (BLST CLN)(WORDS) DOLLARS CENTS and	EA	39.000	270
	680	2002		INSTALL HWY TRF SIG (ISOLATED) DOLLARS CENTS and	EA	1.000	271
	682	2014	001	PED SIG SEC (12 IN) LED (2 INDICATIONS) DOLLARS CENTS and	EA	12.000	272
	682	2022	001	VEH SIG SEC (12 IN) LED (GRN ARW) DOLLARS CENTS and	EA	2.000	273
	682	2023	001	VEH SIG SEC (12 IN) LED (GRN) DOLLARS CENTS and	EA	14.000	274
	682	2024	001	VEH SIG SEC (12 IN) LED (YEL ARW) DOLLARS CENTS and	EA	2.000	275
	682	2025	001	VEH SIG SEC (12 IN) LED (YEL) DOLLARS CENTS and	EA	14.000	276
	682	2027	001	VEH SIG SEC (12 IN) LED (RED) DOLLARS CENTS and	EA	14.000	277
	682	2045	001	BACK PLATE (12 IN) (3 SEC) ALUM DOLLARS CENTS and	EA	12.000	278

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	682	2047	001	BACK PLATE (12 IN) (5 SEC) ALUM DOLLARS and CENTS	EA	2.000	279
	684	2010		TRF SIG CBL (TY A) (12 AWG) (5 CONDR) DOLLARS and CENTS	LF	614.000	280
	684	2011		TRF SIG CBL (TY A) (12 AWG) (6 CONDR) DOLLARS and CENTS	LF	1,616.000	281
	684	2012		TRF SIG CBL (TY A) (12 AWG) (7 CONDR) DOLLARS and CENTS	LF	134.000	282
	684	2021		TRF SIG CBL (TY A) (12 AWG) (16 CONDR) DOLLARS and CENTS	LF	1,507.000	283
	686	2037		INS TRF SIG PL AM(S) 1 ARM (36') LUM DOLLARS and CENTS	EA	2.000	284
	686	2045		INS TRF SIG PL AM(S) 1 ARM (44') LUM DOLLARS and CENTS	EA	2.000	285
	686	2049		INS TRF SIG PL AM(S) 1 ARM (48') LUM DOLLARS and CENTS	EA	2.000	286
	687	2001	004	PED POLE ASSEMBLY DOLLARS and CENTS	EA	7.000	287
	688	2001		PED DETECT (2 INCH PUSH BTN) DOLLARS and CENTS	EA	12.000	288
	730	2002	003	FULL-WIDTH MOWING DOLLARS and CENTS	AC	1,428.000	289

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	734	2002		LITTER REMOVAL DOLLARS and CENTS	CYC	12.000	290
	735	2001		DEBRIS REMOVAL (CNTR MEDIANS/MAIN- LANES) DOLLARS and CENTS	CYC	384.000	291
	735	2007		DEBRIS REMOVAL (SPOT DEBRIS) DOLLARS and CENTS	MI	108.000	292
	738	2001		CLEANING/SWEEPING (CENTER MEDIAN) DOLLARS and CENTS	CYC	36.000	293
	738	2003		CLEANING/SWEEPING (OUTSIDE MAIN LANE) DOLLARS and CENTS	CYC	36.000	294
	738	2005		CLEANING/SWEEPING (FRONTAGE ROAD) DOLLARS and CENTS	CYC	36.000	295
	740	2005	001	ANTI-GRAFFITI COATING (PERMANENT) DOLLARS and CENTS	SF	147,266.000	296
	1012	2003		TRANSPLANT PLANT MATERIAL DOLLARS and CENTS	EA	4.000	297
	4022	2001		INTRLOCK ARTICULATING CONC BLKS(4" MIN) DOLLARS and CENTS	SF	2,457.000	298
	4116	2001		SOIL NAIL ANCHORS DOLLARS and CENTS	LF	46,890.000	299

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	5718	2001		REMOV STORE & RELAY LANDSCAPE PAV- ERS DOLLARS CENTS and	SY	588.000	300
	5830	2001		VEHICLE REMOVAL (LARGE) DOLLARS CENTS and	EA	4.000	301
	5830	2002		VEHICLE REMOVAL (SMALL) DOLLARS CENTS and	EA	12.000	302
	5918	2001		8"PVC PIPE(C900,DR-18)TRACER WIRE DOLLARS CENTS and	LF	1,024.000	303
	5918	2002		6"PVC PIPE(C900,DR-18)TRACER WIRE DOLLARS CENTS and	LF	742.000	304
	5918	2003		2"PVC PIPE(ASTM 2241,SDR-21)TRACER WIRE DOLLARS CENTS and	LF	675.000	305
	5918	2004		6"DI PIPE(CLASS 350) DOLLARS CENTS and	LF	12.000	306
	5918	2005		PIPE(16 IN)(STEEL CASING)BORING DOLLARS CENTS and	LF	440.000	307
	5918	2006		PIPE(16 IN)(STEEL CASING)OPEN CUT DOLLARS CENTS and	LF	190.000	308
	5918	2007		4"PVC ENCASEMENT PIPE(ASTM3034,SDR- 35) DOLLARS CENTS and	LF	30.000	309

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	5918	2008		GATE VALVE & BOX(8 IN) and DOLLARS CENTS	EA	3.000	310
	5918	2009		GATE VALVE & BOX(6 IN) and DOLLARS CENTS	EA	2.000	311
	5918	2010		BALL VALVE & BOX(2 IN) and DOLLARS CENTS	EA	1.000	312
	5918	2011		INSTALL NEW FIRE HYDRANT ASSEMBLY and DOLLARS CENTS	EA	2.000	313
	5918	2012		RELOC EXST 3/4"WTR MTR,BOX,SERV&CON- NECT and DOLLARS CENTS	EA	3.000	314
	5918	2013		CONNECT NEW 8"PIPE TO EXISTING 8" PIPE and DOLLARS CENTS	EA	4.000	315
	5918	2014		CONNECT NEW 6"PIPE TO EXISTING 6" PIPE and DOLLARS CENTS	EA	1.000	316
	5918	2015		CUT&SLURRY ENDS EXIST(6-8 IN)WATER MAIN and DOLLARS CENTS	EA	6.000	317
	5919	2001		6"PVC PIPE FM(C-900,DR18)TRACER WIRE and DOLLARS CENTS	LF	913.000	318
	5919	2002		STEEL ENCASE PIPE CASING(16")BORING and DOLLARS CENTS	LF	320.000	319

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	5919	2004		STEEL ENCASEMT PIPE CASING(16")OPEN CUT DOLLARS CENTS and	LF	150.000	320
	5919	2005		2"SEWER AIR/VAC RELEASE VALV ASSM BX&CV DOLLARS CENTS and	EA	1.000	321
	5919	2006		6" FORCE MAIN CONNECT NEW TO EXIST DOLLARS CENTS and	EA	2.000	322
	5921	2001		2"C-200 PVC WATERLINE DOLLARS CENTS and	LF	965.000	323
	5921	2002		8"C-900 PVC WATERLINE DOLLARS CENTS and	LF	3,425.000	324
	5921	2003		2"WATERLINE/CARRIER PIPE(BORE/CASING) DOLLARS CENTS and	LF	50.000	325
	5921	2004		8"WATERLINE/CARRIER PIPE(BORE/CASING) DOLLARS CENTS and	LF	90.000	326
	5921	2005		8"WTRLNE/CARRIER PIPE(DRY BORE/CAS- ING) DOLLARS CENTS and	LF	460.000	327
	5921	2006		FIRE HYDRANT ASSEMBLY DOLLARS CENTS and	EA	5.000	328
	5921	2007		CUT & CAP EXIST 2"WATER LINE DOLLARS CENTS and	EA	4.000	329

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	5921	2008		TIE NEW 2"WTRLIN TO EXIST 2" WTRLIN DOLLARS and CENTS	EA	2.000	330
	5921	2009		TIE NEW 8"WTRLIN TO EXIST 2" WTRLIN DOLLARS and CENTS	EA	1.000	331
	5921	2010		TIE NEW 8"WTRLIN TO EXIST 8" WTRLIN DOLLARS and CENTS	EA	1.000	332
	5921	2011		WATER SERVICE CONNECTION DOLLARS and CENTS	EA	8.000	333
	5921	2012		REMOV EXIST WATER LINES DOLLARS and CENTS	LF	4,280.000	334
	5922	2001		2"DIA ASTM D-2241(SDR21)CL 200 PVC PIPE DOLLARS and CENTS	LF	5,229.000	335
	5922	2002		INSTALL NEW 2" GATE VALVE DOLLARS and CENTS	EA	4.000	336
	5922	2003		INSTALL NEW 2" FLUSH VALVE DOLLARS and CENTS	EA	2.000	337
	5922	2004		TYPE 1 MARKER DOLLARS and CENTS	EA	4.000	338
	5922	2005		RELOCATE WATER METERS DOLLARS and CENTS	EA	6.000	339
	5922	2006		4" STEEL ENC(OPEN CUT)CERTA-LOC RJ PIPE DOLLARS and CENTS	LF	105.000	340

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	5922	2007		2" BORE (DRIVEWAY) and DOLLARS CENTS	LF	120.000	341
	5922	2008		CONNECT NEW 2"PVC PIPE TO EXIST 6" PIPE and DOLLARS CENTS	EA	1.000	342
	5922	2009		CONNECT NEW 2"PVC PIPE TO EXIST 2" PIPE and DOLLARS CENTS	EA	1.000	343
	5922	2010		CONN NEW 2"PVC PIPE TO EXIST 1 1/2"PIPE and DOLLARS CENTS	EA	2.000	344
	5922	2011		RELOCATE EXISTING PLANT NO 2 FENCE and DOLLARS CENTS	LF	150.000	345
	5922	2012		REMOVE ABANDONED PIPE and DOLLARS CENTS	LF	5,632.000	346
	5925	2001		CABLE BURIED(TELE) and DOLLARS CENTS	LF	40,261.000	347
	5925	2002		2-CABLE BURIED(TELE) and DOLLARS CENTS	LF	10,813.000	348
	5925	2003		FIBER UG(TELE) and DOLLARS CENTS	LF	8,802.000	349
	5925	2004		2-FIBER UG(TELE) and DOLLARS CENTS	LF	11.000	350
	5925	2005		CABLE UG(TELE) and DOLLARS CENTS	LF	1,309.000	351

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	5925	2006		2-CABLE UG(TELE) and DOLLARS CENTS	LF	1,139.000	352
	5925	2007		4-CABLE UG(TELE) and DOLLARS CENTS	LF	11.000	353
	5925	2008		CONDUIT 1-4"PVC-C DUCT-C(TELE) and DOLLARS CENTS	LF	24,986.000	354
	5925	2009		CONDUIT 4-4"PVC-C DUCT-C(TELE) and DOLLARS CENTS	LF	185.000	355
	5925	2010		CONDUIT 6-4"PVC-C DUCT-C(TELE) and DOLLARS CENTS	LF	39.000	356
	5925	2011		CONDUIT 2-4"HDPE(SDR 11)DUCT(TELE) and DOLLARS CENTS	LF	512.000	357
	5925	2012		CONDUIT 3-4"HDPE(SDR 11)DUCT(TELE) and DOLLARS CENTS	LF	901.000	358
	5925	2013		CONDUIT 4-4"HDPE(SDR 11)DUCT(TELE) and DOLLARS CENTS	LF	743.000	359
	5925	2014		CONDUIT 6-4"HDPE(SDR 11)DUCT(TELE) and DOLLARS CENTS	LF	280.000	360
	5925	2015		INNERDUCT 3-1.25"(SDR 11)DUCT(TELE) and DOLLARS CENTS	LF	8,824.000	361
	5925	2016		MANHOLE 4'X8'X6' and DOLLARS CENTS	EA	3.000	362

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	5925	2017		HANDHOLE FIBER(36IN DIA)(TELE) DOLLARS and CENTS	EA	9.000	363
	5925	2018		SAI(TELE) DOLLARS and CENTS	EA	3.000	364
	5925	2019		DIRECTIONAL BORE(TELE) DOLLARS and CENTS	LF	2,234.000	365
	5925	2020		REMOVE STRUCTURE(TELE) DOLLARS and CENTS	EA	6.000	366
	6006	2002		COAXIAL CABLE DOLLARS and CENTS	LF	105.000	367
	6006	2005		ANTENNA (UNI-DIRECTIONAL) DOLLARS and CENTS	EA	1.000	368
	6007	2001		REMOVING TRAFFIC SIGNALS DOLLARS and CENTS	EA	1.000	369
	6266	2001	017	VIVDS PROCESSOR SYSTEM DOLLARS and CENTS	EA	1.000	370
	6266	2002	017	VIVDS CAMERA ASSEMBLY DOLLARS and CENTS	EA	4.000	371
	6266	2003	017	VIVDS SET-UP SYSTEM DOLLARS and CENTS	EA	1.000	372
	6266	2005	017	VIVDS COMMUNICATION CABLE (COAXIAL) DOLLARS and CENTS	LF	1,239.000	373

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	6473	2001	001	MULTIPOLYMER PAV MRK (W)(4")(SLD) DOLLARS and CENTS	LF	90,765.000	374
	6473	2002	001	MULTIPOLYMER PAV MRK (W)(4")(BRK) DOLLARS and CENTS	LF	17,953.000	375
	6473	2005	001	MULTIPOLYMER PAV MRK (W)(6")(BRK) DOLLARS and CENTS	LF	36,709.000	376
	6473	2007	001	MULTIPOLYMER PAV MRK (W)(8")(SLD) DOLLARS and CENTS	LF	40,402.000	377
	6473	2009	001	MULTIPOLYMER PAV MRK (W)(12")(SLD) DOLLARS and CENTS	LF	3,654.000	378
	6473	2010	001	MULTIPOLYMER PAV MRK (W)(12")(LNDP) DOLLARS and CENTS	LF	2,834.000	379
	6473	2011	001	MULTIPOLYMER PAV MRK (Y)(4")(SLD) DOLLARS and CENTS	LF	88,445.000	380
	6473	2020	001	MULTIPOLYMER PAV MRK (BLK)(6")(BRK) DOLLARS and CENTS	LF	36,709.000	381
	6473	2023	001	MULTIPOLYMER PAV MRK (W)(8")(LNDP) DOLLARS and CENTS	LF	2,097.000	382
	6834	2001		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	DAY	3,000.000	383
	6834	2002		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	8.000	384

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	8020	2005		REF PROF PAV MRK TY I(W)6"(SLD)(100MIL) DOLLARS and CENTS	LF	65,661.000	385
	8020	2009		REF PROF PAV MRK TY I(Y)6"(SLD)(100MIL) DOLLARS and CENTS	LF	74,668.000	386
	8502	2001		INSTALLATION OF DMS SYSTEM DOLLARS and CENTS	EA	2.000	387
	8615	2001		RADAR ADVANCE DETECTION DEVICE DOLLARS and CENTS	EA	2.000	388

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GENERAL NOTES:

**SPECIFICATION DATA
(PERCENT RETAINED-SIEVE)**

DESCRIPTION	2½"	1¾"	#4	#40		PI MAX	PI MIN
FLEXIBLE BASE (TYPE D, GRADE 4)	0	0-5	45-75	70-85		12	4

1. This material shall be produced from a source, which when tested in accordance with Test Method Tex-117-E, Part 1, shall meet the requirements of Class 2.3 material under the *mainlanes* and Class 1.0 material under the *frontage roads*.
2. This material shall be produced from a source, which when tested in accordance with Test Method Tex-116-E, the maximum Wet Ball Mill value shall not exceed 45 and the maximum increase of material passing the No. 40 sieve shall not exceed 20 percent.
3. Job control samples for gradation and P.I. testing will be taken from the windrow after blade mixing.

(PERCENT RETAINED-SIEVE)

DESCRIPTION	2"	1¾"	#4	#40		PI MAX	PI MIN
FLEXIBLE BASE (ITEM 247 AND ITEM 276) (TYPE E, GRADE 4)	0	0-5	45-75	65-85		18	4

1. This material shall be produced from a source, which when tested in accordance with Test Method Tex-117-E, Part 1, shall meet the requirements of Class 3.0 material.
2. This material shall be produced from a source which when tested in accordance with Test Method Tex-116-E, the maximum Wet Ball Mill value shall not exceed 50 and the maximum increase of material passing the No. 40 sieve shall not exceed 20 percent.
3. Job control samples for gradation and P.I. testing will be taken from the windrow after blade mixing.

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BASIS OF ESTIMATE

ITEM	DESCRIPTION	RATE	BASIS	QUANTITIES
*166	FERTILIZER (20 10 10) (PERMANENT)	500 LBS/AC	238 AC	119,000 LBS
	FERTILIZER (20 10 10) (TEMPORARY)	500 LBS/AC	238 AC	119,000 LBS
168	VEGETATIVE WATERING			
	(12 APPLICATIONS)	13100 GAL/AC/APP	377.5 AC	59,342 MG
310	PRIME COAT			
	MC-30 OR AE-P	0.20 GAL/SY	226,060 SY	45,212 GAL
316	ASPHALT			
	(CRS-2 OR HFRS-2)	0.45 GAL/SY	226,060 SY	101,727 GAL
	AGGREGATE			
	(TY-D GR-4) OR (TY-L GR-4) (SAC-B)	1/125 CY/SY	226,060 SY	1,808 CY
341	DENSE-GRADED HOT MIX ASPHALT (QC/QA)			
	TY-B PG 64-22	440 LBS/SY	331,495 SY	72,929 TON
	TY-C PG 70-22	220 LBS/SY	220,573 SY	24,263 TON
	TY-D PG 64-22	110 LBS/SY	655,255 SY	36,039 TON
	TY-D PG 64-22 (LEVEL-UP)	110 LBS/SY	2,624 SY	144 TON
730	ROADSIDE MOWING	238 AC/CYCLE	2 CYC/YR	1428 AC
734	LITTER REMOVAL	1 CYC / 3 MONTH	36 MOS	12 CYC
735	DEBRIS REMOVAL			
	(CENTER MEDIANS / MAINLANES)			
	MAY THRU SEPTEMBER	20 CYC / MONTH	15 MOS	300 CYC
	OCTOBER THRU APRIL	4 CYC / MONTH	21 MOS	84 CYC
	(SPOT DEBRIS)	3 MI/ MONTH	36 MOS	108 MI
738	CLEANING AND SWEEPING			
	(CENTER MEDIAN)	1 CYC / 1 MONTH	36 MOS	36 CYC
	(OUTSIDE MAINLANE)	1 CYC / 1 MONTH	36 MOS	36 CYC
	(FRONTAGE ROAD)	1 CYC / 3 MONTH	36 MOS	36 CYC

* FOR CONTRACTOR'S INFORMATION, ONLY

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LIST OF MODIFIED STANDARDS

FW-S(MOD)	MH-M (MOD)	UBTS(MOD)	CCCG-WD (MOD)	T1F(MOD)
	BAS-C (MOD)	CSAB (MOD)	SCP-6(MOD)	

ITEM 4: SCOPE OF WORK

All concrete constructed adjacent to the roadway must be free of stains, dirt, tire marks, etc., at the time of final acceptance. These items include but are not limited to curb and gutter, wheelchair ramps, inlets, and riprap. Blast cleaning of these items will be required to achieve acceptance of the project and will be considered subsidiary to the applicable bid items.

Prior to final acceptance, all new structures and/or structures that have been extended shall be cleaned out by the Contractor. This work will not be paid directly, but will be considered subsidiary to the various bid items.

During final cleanup, the Contractor will be required to remove any foreign material that has accumulated at all bridge abutments and bent caps. The removal of foreign material shall be performed in a manner approved by the Engineer. All work and equipment involved in the removal of this material will be subsidiary to the various bid items of the Contract.

ITEM 5: CONTROL OF THE WORK

All elevations are based on USC & GS datum.

Prior to beginning work in the area of existing utilities, the Contractor shall consult with the utility companies for exact locations to prevent any damage or interference with present facilities. This action shall in no way be interpreted as relieving the Contractor of his responsibilities, under the terms of the Contract and as set out in the plans and specifications. The Contractor shall repair any damage caused by his operations, at his own expense and shall restore facilities to service in a timely manner.

Prior to any excavation, Contractor shall contact the IH 35 Total Maintenance Contractor and Waco District Signal Shop to locate any loop detectors, illumination cables, or other buried traffic facilities. The Contractor shall repair any damage caused by his operations, at his own expense and shall restore facilities to service in a timely manner. The Engineer will provide the contact information for the Maintenance Contractor. The Contractor shall coordinate with the Signal Shop any required relocations or adjustments.

Submit all fabrication and shop drawings to the Area Engineer for review and approval, unless otherwise directed.

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ITEM 6: CONTROL OF MATERIALS

Mixing of materials, storing of materials, storing of equipment, or repairing equipment on top of concrete pavement or bridge decks will not be permitted, unless specifically authorized by the Engineer. Permission will be granted to store materials on surfaces if, in the opinion of the Engineer, no damage or discoloration will result.

References to manufacturer's trade name or catalog numbers are for the purpose of identification only, and the Contractor will be permitted to furnish like materials of other manufacturers, provided they are of equal quality, comply with specifications for this project, and are approved by the Engineer.

ITEM 7: LEGAL RELATIONS AND RESPONSIBILITIES

The use of existing or new bridges for staging construction equipment or materials will not be permitted without written approval by the Engineer. To obtain this approval, submit a working plan to the Engineer including loading information, spacing, and dimensions. This working plan must be signed and sealed by a licensed or registered Professional Engineer.

If utilizing private property for borrow sites, disposal sites for excess material, field office sites, equipment storage sites, or for any other purpose involved with this project, provide to the Engineer written proof of the property owner's approval of the use of this property. This proof may be in the form of a letter or agreement signed by the property owner or other documents acceptable to the Engineer.

The Contractor is alerted to the presence of swallows under the existing bridge(s) and/or box culverts. Because the Migratory Bird Treaty Act prohibits harm to swallows, their eggs or their nestlings, the Contractor shall not begin potentially disturbing activities on or near the bridge(s) or culverts until the birds have abandoned any occupied nests (approximately September 1). The Contractor shall not harm any birds or active nests regardless of the date.

Prior to the swallows returning to the nests (approximately March 1), abandoned nests shall be removed from the bridge(s) and/or box culverts. The Contractor shall prevent the establishment of new nests on any portion of the structure, including under the bridge(s) and around bridge columns and caps. Methods for preventing the establishment of new nests must be approved by the Project Engineer. Examples of acceptable nest prevention methods are bird-deterrent netting and bird-repelling sprays and/or gels to be applied to the structure. This work will not be paid directly, but will be subsidiary to the various bid items.

Where existing pavement adjoins new pavement, saw the existing pavement to a neat transverse and/or longitudinal line to permit adequate joining. This will not be paid directly, but will be considered subsidiary to the various bid items.

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Protect all adjoining pavement sections during all phases of construction. Any damages incurred due to Contractors operation shall be repaired and/or replaced at the Contractor's expense.

The Contractor shall restrict movement of construction equipment and haul trucks to all paved surfaces and will be prohibited from crossing the median, unless specifically authorized by the Engineer. Ingress and egress to the freeway mainlanes shall be through the use of entrance and exit ramps.

All materials, labor, and incidentals required for the Contractor to provide for traffic across the highway and for all weather ingress and egress to public and private property in accordance with Item 7.7 of the Standard Specifications shall be considered as incidental to the various bid items. When construction is complete, the access roadways will be restored to their original condition, as approved by the Engineer.

Personal vehicles of the Contractor's employees shall not be parked within the right-of-way at any time including any section closed to public traffic, unless the vehicle is being utilized for construction procedures. However, the Contractor's employees may park on the right-of-way at the sites where the Contractor has his office, equipment, and materials storage yard.

Follow all local ordinances when burning cleared trees or brush.

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

The Contractor may proceed with activities in PSLs that do not affect a USACE permit area if a self-determination has been made that the PSL is non-jurisdictional or proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. The Contractor is solely responsible for documenting any determination(s) that their activities do not affect a USACE permit area. The Contractor shall maintain copies of their determination(s) for review by the Department or any regulatory agency.

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

(1.)Restricted Use of Materials for the Previously Evaluated Permit Areas. The Contractor will document both the project specific location (PSL) and their authorization. The Contractor will maintain copies for review by the Department or any regulatory agency. When an area within the project limits has been evaluated by the USACE as part of the permit process for this project:

- a. Suitable excavation of required material in the areas shown on the plans and cross sections as specified in Item 110 is used for permanent or temporary fill (Item 132, Embankment) within a USACE permit area;
- b. Suitable embankment (Item 132) from within the USACE permit area is used as fill within a USACE evaluated area; and,
- c. Unsuitable excavation or excess excavation “Waste” (Item 110) that is disposed at a location approved by the Engineer within a USACE evaluated area.

(2.)Contractor Materials from Areas Other than Previously Evaluated Areas. The Contractor will provide the Department with a copy of all USACE coordination or approval(s) prior to initiating any activities for an area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow, and disposal sites:

- a. Item 132, “Embankment,” used for temporary or permanent fill within a USACE permit area; and,
- b. Unsuitable excavation or excess excavation “Waste” (Item 110, Excavation) that is disposed outside a USACE evaluated area.

The total area disturbed for this project is **468** acres. The disturbed area in this project, all project locations in the Contract, and the Contractor project specific locations (PSLs), within 1 mile of the project limits for the Contract, will further establish the authorization requirements for stormwater discharges. The Department will obtain an authorization to discharge stormwater from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI to the Engineer and to the local government that operates a separate storm sewer system

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General Notes for Work in Waters of the US

1. TxDOT will establish “limits of Waters of the United States” to designate stream banks (Ordinary High Water Marks) and wetland boundaries for the project with wood lathing and flagging. These areas have specific Corps of Engineer 404 permit requirements as stated in the following notes.
2. For *bridges*, the Contractor shall provide and maintain orange plastic security fencing (called orange fencing) slightly above the Ordinary High Water Marks, on each side of the stream and from ROW line to ROW line. For *culverts*, the Contractor shall provide and maintain orange fencing slightly above the Ordinary High Water Marks, on each side of the stream on the upstream and downstream culvert ends outside the limits of permanent facilities to the ROW lines. No construction activities or access below the orange fencing shall be allowed, unless approved by TxDOT. The boundaries for wetland areas shall also be established with orange fencing and timber mats must be used to support heavy equipment.
3. The Contractor shall submit detailed site-specific plans for work in each “Water of the United States” designated on the EPIC sheet. These plans must be approved by the TxDOT Engineer prior to starting any work in these areas. The plans must also describe facilities and work activities adjacent the Ordinary High Water Marks. The plan must show actual dimensions and materials for:
 - Proposed construction roads and work areas leading to or in close proximity to the Ordinary High Water Marks;
 - Temporary material or equipment storage areas in close proximity to the Ordinary High Water Marks;
 - Locations of proposed sediment and erosion control devices;
 - Identification of construction equipment and construction techniques to accomplish the work.

Once this drawing and supporting information is reviewed and approved by TxDOT, all construction workers should be made aware of the limits designated on the drawings by the Contractor’s supervision. Work in all Waters of the US will be limited to the minimum necessary required to construct the bridge, culvert, or roadway fills. Work shall also include all activities needed for bridge and culvert demolitions. Working or disturbing soil in the stream channel outside the limits of the work plan will not be allowed. Orange fencing shall be provided and maintained to establish the TxDOT approved boundaries in which work may be conducted between the Ordinary High Water Marks.

4. Either stormwater from disturbed soil areas draining towards wetlands shall be re-routed or adequate sediment control devices installed to protect the wetland.
5. The Contractor shall select concrete bridge demolition methods that will meet all Section 404 requirements. Bridge demolition between Ordinary High Water Marks may typically include bridge slabs, girders, columns, and foundations. The use of jackhammers or crushing techniques shall be conducted over timber mats wide enough for the downed bridge and for access and use of construction equipment to remove fully the wrecked structure. Concrete structures requiring demolition shall not be fully processed into small pieces between the Ordinary High Water Marks. Large sections of the wrecked concrete structure shall be lifted or moved to an upland area for further processing with the processing area using appropriate sediment control devices. Demolitions should be avoided during high stream levels. Efforts shall be made to minimize bridge rubble, including fine concrete materials produced through the demolition process, water from saw cutting activities or soils moved during demolition activities from entering the stream.
6. The construction or demolition of culverts should take place in a manner that does not block the flow in a Section 404 stream. Removal or demolition of bridge class culverts should be accomplished similar to bridge demolitions, but timber mats are not required. Efforts shall be made to minimize culvert rubble, including fine concrete materials produced through the demolition process, concrete saw cutting water or soils moved during demolition activities from entering the stream. Minimal stream channel disturbance should occur both upstream and downstream of culverts between the Ordinary High Water Marks.
7. No excavated material, including spoils from drill shafts shall be deposited within the Ordinary High Water Marks at any time. Excavated material shall be immediately hauled to an approved temporary upland material storage area on TxDOT ROW. Excess material shall be hauled from the project site or spread above the stream bank limits as directed by the TxDOT Engineer. Adequate stabilization and sediment control devices shall be provided for soil materials spread and graded above the stream bank limits on TxDOT ROW.
8. No equipment or chemicals shall be stored overnight within Waters of the US (between the Ordinary High Water Marks). Special care shall be taken to contain all sanitary waste, petroleum products, or chemicals from leaking or entering the stream. The Contractor shall make provisions to collect all construction related trash and debris each workday and to provide adequate containers for storage and removal.

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- 9.** Upon completion of work, all excess construction materials, construction debris, timber mats, shall be carefully removed from between the Ordinary High Water Marks of the stream while minimizing additional earth disturbance, protecting existing aquatic vegetation and limiting stream turbidity. Timber mats, located below the Ordinary High Water Marks shall be carefully removed by construction equipment located above the Ordinary High Water Marks. Stream shaping below the Ordinary High Water Marks, after removal of timber mats or other construction activities shall only be conducted when directed by TxDOT.
- 10.** Adequate sediment and erosion control devices shall be installed to preclude sediment from entering the stream and to the requirements of the stormwater permit. Continuous silt fences with angled end sections and/or rock filter dams shall be installed along the entire length of disturbed soils, slightly above and parallel the High Water Marks of the stream and upslope of orange fencing specified in Item 2. No rock filter dams or other controls shall be installed across Section 404 streams below the Ordinary High Water Marks for either bridge or culvert installations. Large diameter compost logs shall typically be used on the boundaries of timber mats located between the Ordinary High Water Marks. Vegetation shall be established as soon as possible, beginning immediately when areas are brought to the proper lines and grades. Soil retention blankets and channel liners are encouraged to minimize erosion and promote vegetation development.
- 11.** During any construction or demolition operations, soil shall never be pushed from the high bank into the stream channel below the Ordinary High Water Marks. Soil may be removed and shaped as necessary along the stream bank slopes above the Ordinary High Water Marks to facilitate construction with excess material being moved to high ground.
- 12.** Trees removed between the Ordinary High Water Marks shall be saw cut. No mobile construction equipment shall be used to remove vegetation between the Ordinary High Water Marks. Trees will be cut flush with the ground level and pulled above the Ordinary High Water Marks for further processing. Only trees designated by the TxDOT Engineer shall be removed. No chemicals or stump grinding shall be used between the Ordinary High Water Marks. Follow all local ordinances when burning cleared trees or brush.
- 13.** No water shall be pumped from any Water of the US without a permit from the appropriate River Authority or the Texas Commission on Environmental Quality. Upland stock tanks are exempt from this requirement.
- 14.** Temporary construction roads or ramps, if approved by the Engineer, shall be constructed of material that will not erode and transport fine grain sediment downstream under high flows. Acceptable earthwork materials shall be rock material of 4-in. to 6-inch diameter. The use of rock and inert materials such as structural steel sections, wood mats, concrete

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mats, filter fabrics, and concrete barriers shall be acceptable to build roads and ramps. Fills consisting of clay, sands or other fine grain materials shall not be used between the Ordinary High Water Marks. Loose earth materials generated by excavation between the Ordinary High Water Marks shall be re-compacted or moved to a high bank area before the end of each day. Temporary construction roads and ramps shall be removed as soon as possible and the stream channel returned to a near original condition. Earth materials (clays and sand) that fall from construction equipment onto roads or ramps, between the Ordinary High Water Marks, shall be cleaned and removed daily.

15. To facilitate culvert or bridge construction work, low stream flows may be temporarily pumped or routed around construction activities. Stream flow should not be stopped. To facilitate pumping or routing of low flows, whatever sumps or obstructions used to control the stream flow shall not be constructed of fine-grained clays or sands.

The Contractor shall be familiar with the right-of-way map and the location of all the right-of-way monumentation.

Care shall be taken by the Contractor and Subcontractors to protect and avoid disturbance to the right-of-way monumentation.

If right-of-way monumentation is disturbed by the Contractor, or Subcontractor, the Contractor shall notify the Inspector. Monuments that are disturbed by the Contractor, or Subcontractor, shall be restored by a Registered Professional Land Surveyor designated by the Texas Department of Transportation District Surveyor at the expense of the Contractor.

The Contractor is expected to assist with incident management within the limits of the construction work zone. The Contractor may be required to set up/maintain/remove lane closures, flag traffic, and place message boards as necessary during incident management. The Contractor may also be required to utilize personnel and equipment to remove debris or vehicles to clear the roadway to expedite reopening to traffic. The Contractor may also be required to assist with grass fires within the project limits utilizing water trucks, graders, loaders, dozers, etc. Flagging traffic will be subsidiary to Item 7 as part of ensuring the safe and free movement of traffic. Lane closure work and cleanup will be handled by Force Account as part of a damage claim.

ITEM 8: PROSECUTION AND PROGRESS

For this project, Six-Day Workweek charges will be charged in accordance with Section 8.3.A.2, "Six-Day Workweek."

For this project, the Critical Path Method schedule shall be created and maintained using computer software fully compatible with Version 3.1 of PrimaveraTM (P3) Project Planner, or

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SureTrak™ Project Scheduler in accordance with Special Provision 008-086. If using SureTrak™ Project Scheduler, save the schedule in Primavera™ format.

Prior to Contract letting, the conceptual construction schedule as developed for the Contract Time Determination will be made available by the Department at the Area Engineer’s office for prospective bidder’s review. The Schedule will be in hard copy form and made available for copying by the Contractor. This supplied Schedule is for informational purposes, only. It is the responsibility of the prospective bidder to determine a construction schedule for the work in this Contract.

Class HES concrete will be used in the High Priority Areas as shown in the Phases of the FM 2114 and FM 1242 intersection construction for the purpose of expediting the construction in these high traffic areas.

Following is a list of milestones intended to expedite construction in the shown areas. The Contractor shall submit a detailed sequence of work for each milestone for the Engineer’s approval at least one week prior to beginning each milestone construction. Failure to substantially complete the milestones within the duration shown below, plus any additional working days granted, will result in the shown daily road-user cost (RUC) being assessed for every working day in excess of the shown duration. If requested, the Engineer may allow the use of full-depth hot-mix (in lieu of other base layers) in order to expedite the work in these milestones.

MILESTONE	ROAD USER COST	DURATION OF WORK IN HIGH PRIORITY AREAS	DISINCENTIVE APPLIED
COMPLETION OF HIGH PRIORITY WORK IN PHASE 3 OF THE FM 2114 INTERSECTION	\$1900/WORKING DAY	7 WORKING DAYS *	EACH WORKING DAY AFTER DAY 7 THAT THE AREA IS NOT COMPLETED
COMPLETION OF HIGH PRIORITY WORK IN PHASE 3A OF THE FM 2114 INTERSECTION	\$1900/WORKING DAY	7 WORKING DAYS *	EACH WORKING DAY AFTER DAY 7 THAT THE AREA IS NOT COMPLETED
COMPLETION OF HIGH PRIORITY WORK IN PHASE 3B OF THE FM 2114 INTERSECTION	\$1900/WORKING DAY	7 WORKING DAYS *	EACH WORKING DAY AFTER DAY 7 THAT THE AREA IS NOT COMPLETED

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MILESTONE	ROAD USER COST	DURATION OF WORK IN HIGH PRIORITY AREAS	DISINCENTIVE APPLIED
SUBSTANTIAL COMPLETION OF CONSTRUCTION OF CR 3102 UNDERPASS FROM THE TIME THAT CR 3102 IS CLOSED TO THE TIME CR 3102 IS RE-OPENED TO TRAFFIC	\$2000/DAY	236 WORKING DAYS *	EACH WORKING DAY AFTER DAY 236 THAT THE AREA IS NOT COMPLETED
COMPLETE CONSTRUCTION OF THE NORTHBOUND FRONTAGE ROAD OUTSIDE LANE FROM BEGINNING OF PROJECT TO FM 2114 IN PHASE 3	\$5000/DAY	38 WORKING DAYS	EACH WORKING DAY AFTER DAY 38 THAT THE AREA IS NOT COMPLETED

*The duration of 7 working days for High Priority Areas at intersections will apply to all areas in each Phase, concurrently. The Disincentive will begin on the eighth day after closing the area to traffic and will continue to be assessed each day until the areas for that Phase are complete.

MILESTONE	EARLY COMPLETION CREDIT	INCENTIVE DURATION
SUBSTANTIAL COMPLETION OF CR 3102 UNDERPASS	\$2000/WORKING DAY	212 WORKING DAYS - UP TO 60 DAYS MAXIMUM
COMPLETION OF HIGH PRIORITY AREA OF NORTHBOUND FRONTAGE ROAD OUTSIDE LANE FROM STA 5563+52 TO 5594+52.4 PHASE 3	\$5000/WORKING DAY	28 WORKING DAYS

The bridge demolitions for Marable Street, County Line Road, and County Road 3102 shall be done on Monday, Tuesday, or Wednesday night. The Contractor has up to 12 hours to complete the demolition. Open all roadways by 7:00 AM. Should the Contractor complete these bridge demolitions early, a credit for early completion will be paid. A credit equal to the hourly lane rental rate for low traffic hours of \$1,200/hour for each complete hour up to a maximum of 6 hours per demolition will be paid for early completion and opening the roadway(s) to traffic.

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The Contractor will be assessed a lane rental charge for each mainlane closed on IH 35 or for each mainlane obstructed on IH 35 from the time of notice to proceed until substantial completion of all project work. The rental charge will be assessed for each lane or lane closed or obstructed for each direction of traffic on IH 35 mainlanes as follows:

PEAK HOURS			LOW TRAFFIC HOURS	
NO. OF LANES	HOURLY RENTAL	CLOSURE HOURS CREDITED	HOURLY RENTAL	CLOSURE HOURS CREDITED
1	\$12,000 / HR	0	\$1,200 / HR	850

The hourly rental rate will be applied to the number of lanes closed for the time period. For example, if one lane is closed in the northbound mainlanes and one lane is closed in the southbound mainlanes, the hourly rental will apply to each lane closure for the length of time the lane is closed. The closing of one lane of traffic and then detouring that traffic to the frontage roads constitutes only one lane closure. Contractor will be charged for lane rental in excess of the maximum credited hours specified.

Low Traffic Hours are as follows:

Sunday	10 PM	–	Monday	7 AM
Monday	7 PM	–	Tuesday	7 AM
Tuesday	7 PM	–	Wednesday	7 AM
Wednesday	7 PM	–	Thursday	7 AM
Thursday	7 PM	–	Friday	7 AM

Peak Hours are any time other than low traffic hours. In addition, no IH-35 mainlane closures will be allowed during the peak hours. The purpose of the peak hour lane rental rate is to apply a disincentive when operations during low traffic hours are not completed promptly requiring extending lane closures into peak hour times. The Contractor’s attention is called to the fact that work requiring lane closures will be restricted to the nights indicated above.

Supplemental lighting in addition to lighting on equipment and work vehicles will be required to insure adequate lighting for workers’ safety and inspection. All operations including planing, underseal, and HMAC placement must be adequately lighted. All lighting, both supplemental and for equipment, shall be of the “balloon type” that minimizes glare to traffic, unless the lighting is well out of the way of traffic as approved by the Engineer. This is subject to the approval of the Engineer. This is considered subsidiary to the various bid Items of the Contract.

IH-35 mainlane closures must be coordinated with other projects on IH 35, including maintenance operations requiring mainlane closures, in the Waco District. Provide one-week notice to the Engineer of any planned lane closures to allow coordination.

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Placement of traffic control devices for night operations shall not commence until after the start time and all devices shall be removed from the roadway prior to the finish time. All other work not requiring lane closures can be done during daytime work hours.

Unless otherwise approved by the Engineer, no lane, ramp, or freeway closures will be allowed between 7 AM Friday and 10 PM Sunday. In addition, these closures will not be allowed:

- On Good Friday
- Until midnight Easter Sunday;
- Until midnight Sunday before and after Spring Break, which are typically the second, third, and fourth weeks of a March;
- Until midnight Sunday of Texas/Oklahoma football game weekend;
- After 7 AM Tuesday before Thanksgiving Day thru midnight Sunday after Thanksgiving;
- After 7 AM December 23 through 7 PM January 2;
- Or, on any other high traffic days or holidays as determined by the Engineer.

In the event utility lines needing unforeseen adjustments are encountered during construction operations, alter operations and continue to prosecute the Contract in such a manner that will allow utility adjustments to be made by others.

In addition, construction schedules provided by the Contractor shall include line items required to maintain compliance with the Stormwater Permit. Those line items shall include, but not be limited to installing/removing stormwater sediment controls, installing soil retention blankets/channel liners, top soil/compost placement, seeding (temporary and permanent), and placement of permanent erosion controls, earthwork, and grading.

A no excuse incentive for substantial completion of the project ahead of time shall be paid by the Department as follows:

- \$1,500,000, if substantially complete by 7 AM on Friday, August 23, 2013, or;
- \$1,000,000, if substantially complete by 7 AM on Friday, November 22, 2013, or;
- \$500,000, if substantially complete by 7 AM on Friday, March 7, 2014.

Substantial completion of the project is defined as the point that all proposed roadways are constructed and traffic is in its final position all roadways. All permanent signing and pavement marking must be in place. The road-user cost incentive shown above will not be added together if substantial completion is accomplished by August 23, 2013, or November 22, 2013.

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Failure to complete the project substantially within the established number of working days in accordance with Item 8 shall be assessed the road-user cost of \$16,000 per working day.

ITEM 100: PREPARING RIGHT OF WAY

Preserve trees within temporary construction easements in accordance with Item 100, Article 100.2., unless otherwise directed by the Engineer.

Prune trees designated for preservation as directed by the Engineer. All work required in preserving and pruning trees shall be included in the price bid for Item 100.

All trees and brush removed each day shall be disposed within the same day of removal, unless otherwise approved by the Engineer. If removed vegetation is burned, ashes from burned vegetation shall not be placed or allowed to be transported by stormwater into any stream. Burn locations, if approved, shall be no closer than 300 feet from a stream. Earth berms shall be used around burn areas to keep ash in place.

The Contractor is prohibited from removing grass vegetation throughout the entire project limits and then ceasing construction for long periods, typically over three weeks. The Contractor schedule shall be developed based on staged vegetation removal, limiting disturbed soil to no more than 25 percent at one time, unless otherwise approved by the Engineer. Should the Contractor not be able to control adequately the sediment and erosion for areas disturbed, TxDOT shall substantially reduce the size of areas that the Contractor may disturb soil. Should the project be evaluated to have sediment control problems as a result of the Contractor disturbing excessive amounts of soil, the Contractor shall be required to immediately re-vegetate (seed and water) those disturbed areas at no cost to TxDOT.

Item 100, "Preparing Right of Way" includes the removal of drill shaft foundations for existing concrete traffic barrier.

Item 100, "Preparing Right of Way" includes all areas on the ROW and easements, including those for utilities.

ITEMS 100, 104 AND 496: REMOVING CONCRETE

The existing concrete pavement on proposed roadway, riprap, curb and gutter, CTB, and bridges is to be removed in accordance with this Item and is to be stockpiled. The Contractor will be required to set up a portable crushing plant in the vicinity of the project. The Contractor will be required to submit, for the Engineer's approval, a written description of the methods and equipment to be used to process the existing concrete so that it meets the following gradation requirements:

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DESCRIPTION	2"	1 ³ / ₄ "	#4	#40
PERCENT RETAINED-SIEVE	0	0-5	45-75	65-85

The portion of the recycled concrete not re-used on this project will become the property of the Department and stockpiled at the intersection of SH 81 and LP 579 in Hillsboro or other locations within 20 miles of the project as directed by the Engineer. Stockpile concrete material using a front-end loader or other similar equipment at the stockpile site as directed and in a manner approved by the Engineer. Crushing, breaking to the specified size, removal of steel reinforcement and stockpiling will be subsidiary to Item 104.

ITEM 110: EXCAVATION

In a cut section, when soils to be lime treated are encountered at subgrade depths that have a soluble sulfate level greater than 3000 parts per million (ppm), as determined by Test Method TEX-145-E or unstable for reason other than excess moisture, undercut this material for a minimum depth of 1.0 foot below the lime treated layer and maximum depth as determined by the Engineer and replace with a material having a plasticity index less than 25, a liquid limit of less than 50 and a soluble sulfate content of less than 3000 ppm. This required undercutting will be paid at the price bid for ITEM 110, "EXCAVATION". Replacement of more suitable material will be paid at the price bid for ITEM 132, "EMBANKMENT."

ITEMS 110 & 132: EXCAVATION & EMBANKMENT

Earthwork was calculated from existing grade to finished grade and subgrade. Hot-mix and concrete pavement quantities removed by milling/planing or concrete pavement removal items are included in the excavation quantities.

In those cases where fixed features require, the governing slopes indicated on the cross-sections may be varied between the limits and to the extent determined by the Engineer.

Prior to Contract letting, one copy of the earthwork cross-sections will be made available by the Department at the Area Engineer's office for prospective bidder's review. Earthwork construction cross-section data is also available to the Contractor on a Department furnished compact disc at the Area Engineer's office. This supplied cross-section plot or computer data is for non-construction purposes. It is the responsibility of the prospective bidder to validate the supplied plot or data with the accompanying plans, specifications, and estimate for this Contract.

Design cross-sections and cross-section data will be provided to the Contractor by TxDOT post letting and shall be used to stake the lines and grades for the project, as directed by the Engineer.

In a cut section, where in the opinion of the Engineer the soil encountered in the subgrade is unstable for reason other than excess moisture, undercut this material for a minimum depth of 1-foot and maximum depth as determined by the Engineer and replace with a material having a

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PI of 5 to 25. This required undercutting will be paid for under Item 110, "Excavation." Replacement of more suitable material will be paid for under Item 132, "Embankment."

When excavation is required to adjust stream flowlines at culvert ends, flatten the side slopes of channels and the back slopes of parallel ditches to the maximum extent possible within the existing right of way and channel easements.

All pavement and base on existing driveways and intersecting roadways within the limits of the proposed subgrade shall be removed including when proposed subgrade elevations are above existing pavement. Existing subgrade in these areas shall be scarified and loosened to a depth of 12 inches before adding embankment or compacting excavation.

All embankment material will be checked for the presence of soluble sulfates. Type C embankment, outside the limits of the subgrade, shall consist of suitable earth material such as rock, loam, clay, or other materials as approved by the Engineer that will form a stable embankment. In addition to the below requirements, the top 2 feet of embankment, including material used to complete front slopes after final surfacing, shall have a plasticity index less than 25, a liquid limit less than 50 and a soluble sulfate content of 3000 parts per million or less, as determined by Test Method Tex-145-E. Test Method Tex-146-E may be used to check for soluble salts in these materials. If results of this testing indicate a salt level in excess of 200 microsiemens, Test Method Tex 145-E must be performed on the material to determine if the salt present are sulfates and the concentration. Under no circumstance, will materials possessing a soluble sulfate concentration greater than 7000 parts per million (ppm) be allowed in a layer within 1 foot of a lime-treated layer or material possessing a soluble sulfate concentration greater than 3000 ppm be allowed in a lime-treated layer.

Off-Site Borrow Sources:

Test off-site borrow sources for sulfate content, plasticity index, and liquid limit. Test soils for soluble sulfates in accordance with Test Method Tex-145-E and Tex-146-E. Provide test reports to the Engineer for the tests listed above for each borrow source. Tests should be performed on all types, colors, and/or textures of soil in the borrow source. The Engineer will perform additional testing for sulfates of this material upon delivery to the project.

Only material that is placed within one-foot vertically or laterally of treated subgrades will require testing for sulfates.

Proof roll the completed subgrade to locate unstable areas. Proof rolling shall be in accordance with Item 216 "Proof Rolling."

Stormwater containing suspended sediment and turbidity needing to be removed from excavations or low areas shall be pumped or gravity drained through vegetated buffer strips

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(50-foot, minimum) or placed in ditches with temporary sediment controls, prior to the water being discharged into a stream.

ITEM 160: TOPSOIL

The Contractor shall salvage the existing topsoil from the cut/fill areas. The top 12-in. of soil from former cropland in the newly acquired ROW is suitable for use under this Item. Stockpile the salvaged topsoil material at locations as approved by the Engineer. Topsoil shall not be used for general fill, unless there is an excess quantity of topsoil and use is approved by TxDOT. Topsoil stockpiles or topsoil placed along the ROW lines in windrows shall be temporarily seeded to meet stormwater permit requirements. Additional offsite topsoil may be required to complete work for this Item.

If additional topsoil is needed for this Item, it shall come from approved sources outside of the ROW. Topsoil must come from a location within 6 inches of the natural ground surface to ensure it contains nutrients and is not sterile soil. Off ROW topsoil shall contain a minimum organic content of 3.5% based on soil test results (testing to be conducted at the Contractor's expense).

ITEM 164: SEEDING FOR EROSION CONTROL

Final grading and stabilization (seeding) shall be achieved as soon as possible and not scheduled only for the end of the project. Final grading and stabilization should be initiated as the overall work progresses and should typically be scheduled in sequence with base course installation. Final grading and stabilization shall be included and updated as separate line items in the project schedule.

Install temporary seeding on topsoil stockpiles that are unused for more than 21 days.

Multiple mobilizations of the seeding crews will be expected to comply with the Construction General Permit of the Texas Pollution Elimination Discharge System requirements for re-vegetating disturbed soils.

Temporary seeding mixtures (cool and warm) shall also include 2.5 lbs of Bermuda grass seed per acre, with all seeds being planted concurrently.

Temporary cool seed mixtures shall be as stated in the specification or at the option of TxDOT a direct substitution of 30 lbs per acre of Dwarf Annual Ryegrass (Axcella 2 variety) including the 3 lbs of Bermuda grass seed shall be planted.

Drill seeding shall be used on temporary seeding at all times due to insects and birds, except in areas where use of a drill may not be possible.

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Vegetative watering shall not be used with temporary warm and cool seeding, unless authorized by the Engineer. Vegetative watering shall not begin on permanent seeding until at least a half-inch rainfall is received or as directed by the Engineer.

For drill seeding installations, the pasture or rangeland type drill shall have a minimum of three seeding compartments to separate the fine and fluffy seeds and must be capable of being calibrated so the seed mixtures will be planted uniformly.

ITEM 166: FERTILIZER

Fertilizer shall be used for permanent and temporary seeding.

ITEM 168: VEGETATIVE WATERING

Watering between December 1 and February 1 can begin on seeded areas upon planting and before a natural rainfall. During other planting periods, unless approved by TxDOT, vegetation watering by means of water trucks shall not be started on newly planted seeds until a natural rain of 1/2-inch has occurred after planting.

ITEM 180: WILDFLOWER SEEDING

Wildflower seeding operations shall be separate from the permanent grass seeding operations and shall be performed in the fall between the months of September and November. Locations for wildflower seeding shall be between the main lanes and frontage roads as directed by the Engineer. Wildflower seed shall be sown at the recommended depth using a no-till drill seeder.

The species shall be a Texas mix including but not limited to: Texas Bluebonnet (*Lupinus texensis*) minimum 16½ pounds PLS per acre; Pink Evening Primrose (*Oenothera speciosa*) minimum 1 pound PLS per acre; Indian Paintbrush (*Castilleja indivisa*) minimum 1/4 pound PLS per acre; and Indian Blanket (*Gaillardia pulchella*) minimum 10 pounds PLS per acre.

Approved sources are:

Wildseed Farms
425 Wildflower Hills
Fredericksburg, TX 78624
800-848-0078

Native American Seed
127 N. 16th St.
Junction, TX 76849
800-728-4043

CONTROL: 0014-07-082, ETC.

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Applewood Seed Co.
5380 Vivian Street
Arvada, CO 80002
303-431-7333

ITEM 192: LANDSCAPE PLANTING AND

ITEM 193: LANDSCAPE ESTABLISHMENT

Landscape planting shall take place between October 15 and March 15. Planting shall take place in stages following the dates above and soon after grading of the planting area is complete as directed by the Engineer. Multiple mobilizations will be required for this Item. The Contractor's work schedule shall indicate when this work and multiple planting stages will be achieved.

Provide 48 hours notification to the Engineer of the time that plant maintenance will be conducted so that an inspector may be present during these activities. The Engineer may withhold monthly payment for landscape establishment, if the Engineer is not adequately notified of the Contractor's maintenance activities.

ITEM 247: FLEXIBLE BASE

Paragraph deleted.

Type E Base may consist of crushed stone, material salvaged from this project, or from a Department-owned stockpile. Salvage material shall consist of crushed concrete, salvaged base and RAP. If RAP is used, it shall be blended with other salvaged material at a rate not to exceed 20%. Any combination of salvage material shall meet the requirements of the specification data. Locations of Department-owned stockpiles are available from the Engineer at time of letting.

Place the material in approximately equal courses not to exceed 6 inches in depth per course. During mixing and laying operations, sufficient water shall be added to the material to insure that the moisture content is not less than optimum moisture as determined by Test Method Tex-113-E.

ITEM 251: REWORKING BASE COURSES

Salvaged material not reused in this project shall remain the property of the Department and shall be stockpiled the intersection of SH 81 and LP 579 in Hillsboro or other locations within 20 miles of the project as directed by the Engineer. Stockpile the salvaged material using a front-end loader or other similar equipment at the stockpile site as directed by the Engineer.

Every month, provide the Engineer a spreadsheet showing the total weight and/or volume of material stockpiled to date. Include available supporting documentation such as weight tickets, truck measurements, etc.

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Indicated quantities of flexible base to be salvaged are for estimating purposes, only. Salvage all acceptable base material encountered in the existing base, including intersection areas, as directed by the Engineer, regardless of quantities involved. This work shall be paid as specified in Item 251.

Some patches of cement or stabilized base may be encountered while salvaging the existing base. If such material is encountered, it will be removed and disposed as directed by the Engineer. This work will not be paid directly, but will be subsidiary to Item 251.

ITEM 260: LIME TREATMENT (ROAD-MIXED)

Apply lime by the slurry placement method. Dry placement will not be allowed.

Ensure that all subgrade material to be treated with lime does not have a soluble sulfate content greater than 3000 parts per million, as determined by Test Method Tex-145-E. Mix the soil-lime mixture at a moisture content of at least 3% above the optimum moisture content as determined by Test Method Tex-121-E, Part II. Mellow the lime treated material a minimum of four (4) days for all applications. Sprinkle lime treated material during the mellowing to maintain the moisture content of at least 3% above the optimum moisture content. Cure lime treated material at or above optimum moisture content for a minimum of five (5) days.

In soils with Plasticity Indexes greater than 50 and stabilization depths greater than 8 inches, the Contractor must satisfactorily demonstrate the ability to mix the materials adequately to obtain a homogeneous, friable mixture. If a mixture of this quality cannot be obtained, the Contractor will place this material utilizing a double application of lime. The double application will be applied at a rate of one-half ($\frac{1}{2}$) the rate specified on the plans or as determined by Test Method Tex-121-E, Part III on the first application. This material will be allowed to mellow at a moisture content of 3% above optimum moisture as established by Test Method Tex-121-E, Part II for a period of not less than 48 hours. The second application, consisting of the remaining lime specified on the plans shall be added after the initial 48-hour mellowing period. The second application will be applied and be allowed to mellow for a period of 48 hours under the same moisture considerations as the first application. The complete lime treated subgrade (both lime applications with mellowing completed) will be allowed to cure at or above optimum moisture content for a period of no less than 5 days.

Cure the lime treated material with an application of MS-2 or an emulsion approved by the Engineer at a rate of 0.2 GAL/SY. The application of this material will not be paid directly, but will be considered subsidiary to Item 260.

Proof roll lime treated subgrade in accordance with Item 216 "Proof Rolling." Soft spots detected should be reworked as outlined in Item 260.4(F).

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Lime spilled in ditches or outside the defined limits of application shall be excavated and removed the same day, to avoid contaminating streams.

ITEM 276: CEMENT TREATMENT (PLANT-MIXED)

Flex base shall consist of Type D or Type E base as specified under Item 247.

Treat base material with 4.5 percent hydraulic cement to meet strength requirement. Cure using PCE, AE-P, SS-1, CSS-2 or other asphaltic material approved by the Engineer at a rate of 0.10 gal/sy. Do not exceed 6-inch lifts.

Wet construction joints between new base and base previously placed; coat with dry cement prior to the addition of new base.

ITEM 305: SALVAGING, HAULING AND STOCKPILING RECLAIMABLE ASPHALTIC PAVEMENT

RAP not incorporated into project work items shall be stockpiled at the TxDOT stockpile yard located near the LP 340/SH 6 junction east of Waco or other locations within 25 miles of the project in a manner acceptable to the Engineer.

Neatly shape stockpiles using a front-end loader or other similar equipment as directed by the Engineer. Stockpile material with crushed aggregate separately from material with siliceous aggregate.

Every month, provide to the Engineer a spreadsheet showing the total weight and/or volume of material stockpiled or reincorporated into new hot-mix to date. Include available supporting documentation such as weight tickets, truck measurements, etc. For RAP reincorporated into new hot-mix, weight tickets will be required (to ensure that the total amount of allowable RAP used in hot-mix is not exceeded).

ITEM 310: PRIME COAT

A minimum curing time of 7 days shall be required before application of Item 316, unless otherwise authorized or directed by the Engineer in writing.

ITEMS 310 & 316: PRIME COAT & SURFACE TREATMENTS

The Engineer will select the asphalt for surface treatments from the Types and Grades shown on the plans.

No asphalt for surface treatment items will be placed between October 1 and April 1 for emulsions, unless approved by the Engineer in writing.

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All trucks hauling materials to be paid by truck measurement shall be “struck off” prior to delivery to the project.

Protect all existing bridges, curbs, and other exposed concrete surfaces within the limits of the project as much as practicable from asphalt materials by any method that is acceptable by the Engineer. Remove any excessive asphalt materials deposited on these surfaces in a manner approved by the Engineer at the Contractor’s expense.

During application of the surface treatment, if existing conditions warrant, the lane widths, transitions, and intersection areas may be varied as directed by the Engineer.

Use a medium pneumatic roller meeting the requirements of Item 210 as directed by the Engineer. This work will be subsidiary to the various bid items.

Remove dirt and debris that has accumulated in the curb and gutter sections prior to beginning paving. Likewise, remove all vegetation from pavement edges prior to seal coat operations. This work will be subsidiary to other items.

No asphalt treatments shall be applied just prior to a rain event that could result in chemical asphalt or any asphalt by-product pollutant being washed into a stream.

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

RAP will be allowed in TY B, TY C, or TY D hot-mix under this Item. The locations and availability of the RAP at various Department-owned stockpiles can be obtained from the Engineer at the time of letting.

RAP from Contractor-owned sources may be used if the RAP is fractionated. The coarse fraction of Contractor-owned RAP will not be allowed if it consists primarily of siliceous aggregates.

Hydrated lime shall be added to the hot-mix asphalt as an additive to improve quality of the mixture. The lime shall be added at a rate of 1.0% by weight of the total aggregate. The lime shall meet the requirements of TYPE A, hydrated lime, or TYPE B, commercial lime slurry, that meets the requirements of DMS-6350, “Lime and Lime Slurry.” The lime shall be added to the fine aggregate, pugmill mixed, and stockpiled a minimum of 24 hours prior to introduction to mixing plant. Other methods of adding lime that produce comparable results and are acceptable to the Engineer may be considered. Lime shall not be paid directly, but will be considered as subsidiary to various bid items.

Evaluate the mixture proposed for use for moisture susceptibility in the mixture design and production stages by Test Method Tex-530-C, unless otherwise directed by the Engineer. Maximum stripping of 0% is required. If more than 0% stripping occurs, additional anti-stripping agent may be required.

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The placement pay factors for shoulders placed separately from the travel lanes shall be based on in-place air void determinations.

For this Contract, provide a continuous flow of material to the paver by means of a self-propelled, material transfer vehicle (MTV). The MTV shall consist of a mobile hopper with a sufficient storage capacity and conveyor that will provide a non-stop placement of the hot-mix asphalt pavement for all courses on the traffic lanes and shoulders including frontage roads. The MTV shall have a system of augers or other approved systems to remix the mixture during the transfer process. The Engineer shall approve the MTV before use. This is required to minimize segregation and improve the ride quality.

Utilize a paver ski or mobile stringline at least 40 ft. long during placement of all hot-mix placed with an asphalt paver, unless otherwise approved by the Engineer.

Truck bed releasing agent shall be approved by the Engineer.

The target laboratory-molded density for dense-graded mixes will have a target laboratory-molded density of 97.0%.

For tests specified by the Engineer, enter testing data in Department-provided electronic-testing template spreadsheets; submit electronically to the Engineer at the interval directed by the Engineer.

ITEM 360: CONCRETE PAVEMENT

Contractor personnel performing job-control testing on concrete must be ACI-Certified. Provide a copy of the certification paper to the Engineer upon arrival and before testing at jobsite. Furnish hard copies of calibration reports for testing equipment when non-TxDOT approved equipment is used to test concrete.

Maintain on the jobsite sufficient polyethylene fabric, as directed by the Engineer, to cover a minimum area of concrete pavement 600 feet long and 25 feet wide.

The coarse aggregates used in the concrete paving mixture shall produce concrete with a coefficient of thermal expansion (CoTE) not greater than 6.0×10^{-6} inch/inch when tested in accordance with Test Method Tex-428-A. Specimens shall be made and cured in accordance with Test Method-Tex-447-A and be at least 7 days old before testing. The Construction Division will perform all testing for CoTE for aggregate acceptance and test results shall be final.

When conventional paving methods (forms) are approved by the Engineer, a longitudinal finishing machine will be required. The longitudinal finishing machine shall be provided with a longitudinal float not less than 10 feet in length, adjusted to a true plane. It shall be power-driven, mounted in a substantial frame equipped to ride on forms, and shall be so designed and

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operated as to finish the required grade. In lieu of the longitudinal finishing machine, the Contractor may use a longitudinal trans-angular float, which is adjustable to crown and grade. This type of float is also known by various trade names such as V Finisher, Lewis Trans-angular Finisher, C.M.I. Tube float, etc. The operation of the longitudinal trans-angular float shall be as approved by the Engineer.

Place sawed joints and construction joints in accordance with the Pavement Detail sheet(s) and as directed. Joint locations, other than as shown on the plans, are subject to approval. Pavement leaveouts are required on this project as necessary to provide for traffic at driveways and side streets as shown in the plans or as directed. The cost of providing these leaveouts, including the construction of a suitable crossover connection at each site, is not paid directly, but is considered subsidiary to this Item. All joint locations and leaveouts shall be shown on the submitted paving plan required by this Item. The requirements of Item 585, Ride Quality for Pavement Surfaces, will be enforced, regardless of the presence of construction joints.

Class HES concrete will be used in the High Priority areas as shown in the traffic control and sequencing for the FM 2114 and FM 1242 intersections and other areas as directed by the Engineer for the purpose of expediting construction. See General Notes to Item 8 for more information. The Contractor may use Class HES concrete in other locations, but only those shown in the plans or directed by the Engineer will be paid using the Class HES Concrete bid item.

Provide aggregate meeting Grade 2 in accordance with Item 421 for Class HES concrete.

The maturity method may be used to estimate concrete strength for early opening of pavement to traffic.

Concrete curing compounds shall not be applied in a manner that the chemical will be spilled, dripped, or be discharged into streams. Containers and rags used during application of curing compound shall be properly disposed off the project. Do not store curing compound containers and drums on TxDOT ROW.

Enter job-control testing data in Department-provided electronic testing template spreadsheets and submit electronically to the Engineer at the interval directed by the Engineer.

Prior to concrete paving, attend a Pre-Concrete Paving Conference at the jobsite. All project supervisory personnel involved in the concrete paving are required to attend this conference. TxDOT personnel will include representatives of the Cement Council of Texas.

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ITEM 400: EXCAVATION AND BACKFILL FOR STRUCTURES

Aggregate for cement-stabilized backfill shall be Grade 3, 4, or 5 coarse aggregate shown in Item 421, "Hydraulic Cement Concrete."

Class B bedding is required, if rock is encountered. This work shall be subsidiary to the various bid items.

For all RCP, use Class B bedding with compacted granular material below the pipe and up to half the depth of the pipe. See Item 400.3.B, Figure 1, Class B, compacted granular material (left-hand side) diagram for more details. This work shall be subsidiary to the various bid items.

Structural excavation is not paid directly, but is considered subsidiary to pertinent items.

ITEM 416: DRILLED SHAFT FOUNDATIONS

Column lengths shown on the plans shall be used to calculate the top of drilled shaft elevations for the determination of pay quantities. Pay quantity for bent concrete shall be plan quantity.

Soil from foundation drilling shall be removed immediately from the stream channel area to higher ground above the Ordinary High Water Marks. No earth drill spoil material shall be deposited into water of a stream. If used, drilling mud will not be allowed to enter into any stream.

ITEM 420: CONCRETE STRUCTURES

The Contractor's attention is called to the fact that conduit for illumination or other purposes may be required in the construction of the concrete barrier, bridge slabs, columns, caps, or other parts of the bridge structure(s). Verify if embedment is required in these structures prior to concrete placement. Refer to the Bridge and Illumination layouts for details.

Reduce headwall heights, if necessary, to provide a maximum of 3 inches projection above the roadway slope. No increase or decrease will be made in plan quantities of concrete or reinforcing steel for this work.

Paint the Control-Section-Structure (CSS) number on the right side of each approach end of finished bridges or culverts, using black exterior paint and stencils that result in two-inch high numbers. All numbers should be legible and free of smears or drips. Unless otherwise directed by the Engineer, the nine-digit CSS number shall be placed within two feet of the end of each bridge type as follows: concrete or steel girder bridge on outside of girder; slab-type bridge on outside of slab; bridge class culverts on outside of headwall. The painting of these numbers will not be paid directly, but will be considered subsidiary to the various bid items.

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All construction products used to construct concrete structures and bridges including, but not limited to plastics, Styrofoam, grease, glues, caulking, adhesives, solvents, paints, cleaning agents, and rubber shall be handled in a manner that the construction products or empty containers/tubes shall not be allowed into any stream. Construction debris developed from the cutting, grinding, or sizing of solid construction products including plastics and Styrofoam shall not be allowed on the ground or to blow into a stream.

Concrete curing compounds shall not be applied in a manner that the chemical will be spilled, dripped, or be discharged into streams. Containers and rags used during application of curing compound shall be properly disposed off the project. Do not store curing compound containers and drums on TxDOT ROW.

Ensure steel forms are free of rust immediately prior to placing concrete.

Refer to Item 427, "Surface Finishes for Concrete" for additional requirements for formwork, concrete curing, and form removal for off-the-form finishes.

Submit a written work plan to the Engineer including materials and construction methods that affect the quality of the concrete finish. Prior to construction of any cast-in-place concrete, construct mock-up elements as indicated to simulate the materials and methods intended for use and demonstrate the adequacy of the concrete surface.

Mock-up construction is subsidiary to Item 420 and will not be paid directly. The mock-up shall include, at a minimum, at least 6-ft of column height. Construct the mock-ups using the proposed concrete mix, forming material, joint sealer (if used), form release agent, and all other construction procedures (including curing) listed in the work plan. Use the same surface finishes outlined in Item 427. Submit a written repair procedure with materials and methods used that is in accordance with these General Notes and Specification and Standard Specification Item 427. Apply this repair procedure to each mock-up for concurrence by the Engineer. Use this repair procedure for all "Surface Area I" concrete on the project, unless amended by the Engineer.

The finish quality of the mock-up concrete (including repairs) shall have a pleasing and uniform appearance as described above prior to construction of any columns or caps. A new mock-up may be necessary if the finish, as determined by the Engineer, is not adequate or if other materials and procedures are intended for use or are changed during the course of construction. The mock-up shall remain on the job and serve as a benchmark for satisfactory appearance.

Prior to mock-up construction, attend a pre-concrete forming and finishing conference at the jobsite. All project supervisory personnel involved in the construction of cast-in-place concrete are required to attend this conference. This conference shall include discussion on the Contractor's plan for insuring that single concrete bridge structure elements placed in multiple placements are produced with identical concrete materials, without variations or changes in

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material amounts, and placed in a manner to provide a uniform color surface finish without variations between placements.

ITEM 420, 423, 450 & 514: RAILING AND PERMANENT CONCRETE TRAFFIC BARRIERS

White hydraulic cement will be required for all traffic rails, bridge rails, retaining wall copings, retaining wall pilasters, and permanent traffic barriers, unless the optional finish specified under Item 427 is used.

Blast clean all railing, pilasters, barrier wall, and retaining wall coping in accordance with Item 427 prior to final acceptance of the project when white cement is used. This work will be considered subsidiary to Items 420, 423, 450, and Item 514.

Insure slip formed barrier and cast-in-place barrier will be uniform in color and texture.

When supplying aggregates from a source that is excluded from using Option 7 for ASR mitigation, substitute fly ash for the Portland cement at a rate of 20 percent of the cement. No changes to the aggregate sources or fly ash source will be allowed, unless approved by the Engineer in writing.

Use an approved UV disappearing curing compound rather than the standard approved curing compounds for structures receiving opaque sealer coating/finish.

ITEM 421: HYDRAULIC CEMENT CONCRETE

Entrained air is required in all slipformed concrete (bridge rail, concrete traffic barrier, pavement, etc.) but is not required for other concrete. The entrained air is required for workability purposes. Provide coarse aggregate with a 5-cycle Magnesium Sulfate Soundness of not more than 25%, when tested in accordance with Tex-411-A. Adjust the dosage of air entraining agent for low air content as directed or allowed by the Engineer. If entrained air is provided where not required, only the upper limits of the Special Provision will be enforced.

The Contractor will provide compressive strength testing equipment with a laser printer including all interface software and accessories.

ITEM 423: RETAINING WALLS

Use Type D backfill when constructing MSE retaining walls.

See MSE Retaining Wall Aesthetics sheets for textures of panels. See Item 427 General Notes below for surface finishes and coatings related to retaining walls.

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Six-inch(6") perforated pipe underdrain, as per MSE Wall Standard sheet, will be required. Pipe outfall should be terminated into wall of drainage structures, as approved by the Engineer. Pipe underdrain for retaining walls shall be subsidiary to Item 423.

Obtain Approved MSE Panel Systems from the suppliers list located at:

<ftp://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/bus/bridge/msewalls.pdf>

The Texas Emblem inset shown on the Standard sheets for inclusion on retaining walls shall be placed at locations approved by the District Landscape Architect and shall be verified at the time of shop drawing review and approval. In addition, the inset area shall receive a concrete paint finish in accordance with Item 427. The Contractor shall provide color samples to the District Landscape Architect for approval. The painted finish of the Texas Emblem shall then receive a Type III Anti-Graffiti Coating similar to the retaining wall formliner area. Painting of the inset area will not be paid directly, but shall be subsidiary to Item 423.

ITEM 427: SURFACE FINISHES FOR CONCRETE

TABLE OF SPECIAL SURFACE FINISHES AND COATINGS

ITEM	SPECIAL SURFACE FINISH	COATING	REMARKS
CULVERTS	SURFACE AREA I RUB FINISH	NONE	N/A
RETAINING WALL PANELS	FORMLINER FINISH	SEE "TABLE OF PAINTED ELEMENTS" BELOW	N/A
RETAINING WALL COPING	OFF-THE-FORM FINISH	SEE "TABLE OF PAINTED ELEMENTS" BELOW	NON-PAINTED COPING SHALL USE WHITE CEMENT.*
RETAINING WALL PILASTERS	FORMLINER FINISH	SEE "TABLE OF PAINTED ELEMENTS" BELOW	NON-PAINTED COPING SHALL USE WHITE CEMENT.*
BRIDGES	SURFACE AREA I OFF-THE-FORM FINISH OR FORMLINER FINISH	SEE "TABLE OF PAINTED ELEMENTS" BELOW	SEE BRIDGE PLANS FOR ELEMENTS WITH FORMLINER FINISHES
BRIDGE OR ROADWAY RAIL AND PERMANENT CTBS	OFF-THE-FORM FINISH	NONE	USE WHITE CEMENT.*

* Opaque sealer coating with anti-graffiti coating is allowed in lieu of white cement, as long as it is placed in accordance with the "Special Application Requirements" listed below.

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Apply an Ordinary Surface Finish to elements not listed in “Surface Area I.”

Special Surface Finishes listed above will not be paid directly and are considered subsidiary to the various items.

Off-the-Form Surface Finish is supplemented by the following and shall apply to Readily-Visible Concrete Surfaces, only:

Off-the-Form Finish shall have a pleasing appearance with minimal color and texture variations and minimal surface defects when observed at a distance of approximately 20 feet. Provide this finish by using non-staining, non-porous, high-quality forming materials as specified under Item 427.3.E. Use the same type of forming materials for like elements for the entire structure.

Engineer shall determine acceptability of finished surfaces.

Refurbish or replace forms if they discolor or cause a variation from the finish established in the mock-up as determined by the Engineer.

Avoid “pinking” of concrete due to reddening of young overlaid plywood. Treat plywood or use a release agent that prevents pinking. If pinking occurs, clean the green concrete surface as soon as the forms are removed. If pinking is still not removed by washing or does not disappear with time, clean the plywood after submitting a written cleaning procedure approved by the Engineer.

Use similar curing times for a particular type of element (e.g. bent, rail), if possible. Do not allow more than 3 days difference in curing duration for form curing, wet mat curing, or a combination of the two.

Once form removal commences on a particular continuous surface, continue work uninterrupted until all forms are removed to prevent discoloration due to differing form-curing times.

Contractor shall provide a system such as Visqueen™ plastic sheeting for covering and/or protecting bent and abutment concrete and colored textured concrete from staining until the slab is placed. Sufficient protection should remain after slab placement at the base of bent columns until vegetation is sufficiently established to prevent staining. This system shall be reviewed and approved by the Engineer prior to bridge construction. If for any reason the approved system fails to perform properly, the system will be rejected and a new system must be approved by the Engineer. Work and materials necessary for protecting concrete shall be considered subsidiary to Items 420 and 427.

Paragraph deleted.

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When anti-graffiti coating is applied after another coating (paint, opaque sealer, etc), it will be considered subsidiary. When anti-graffiti coating is placed on uncoated surfaces, it will be paid directly. See Item 740 General Notes for more details.

Painting Notes (for Elements listed in “Table of Painted Elements” below)

All concrete surfaces to receive a painting system shall be water blasted prior to application of the paint/sealer. Water blasting equipment used shall be capable of supplying a minimum pressure at the nozzle end of 3000 psi. Use a zero-degree rotary, vibratory, or wobble-type nozzle. The nozzle end shall be held 4 to 8 inches away from the surface. The surface shall be allowed to dry a minimum of 24 hours of continuous dry weather after water blasting or concrete wetting before applying paint system.

Painting systems for the elements listed below shall be a concrete paint comprised of water-based, latex paint meeting TxDOT A-100 specifications. Opaque sealer will be allowed on the multi-colored rock retaining wall surfaces, only.

No painting of structures shall be performed between November 1 and April 1, unless otherwise authorized by the Engineer. In addition, apply paint when air temperature is 50 degrees and rising and is no greater than 95 degrees. Wait a minimum of 24 hours after surface has been wetted from cleaning or rain to allow sufficient drying of surface.

The Contractor shall provide color test sections for the District Landscape Architect’s approval prior to painting the actual structures. One test section shall be provided for each unique color to be used on the project. In addition, a full-size retaining wall panel test section shall be provided for walls, which specify multiple colors per panel. These test sections will not be paid directly and shall be considered subsidiary to Item 427.

All painted surfaces shall receive an Anti-Graffiti Type III – Permanent coating. See Item 740 General Notes.

Tables of Painted Elements (to be painted in accordance with the above “Painting Notes”)

The tables below list elements that are to be painted in accordance with the above-mentioned “Painting Notes. Also included are specified colors for each elements.

FM 2114

ELEMENT	COLOR
Shape of Texas on Retaining Wall	TBD by Landscape Architect
Copings	In lieu of white cement, SW “Waco White”
Smooth Portions of Pilasters	In lieu of white cement, SW “Waco White”

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MARABLE ROAD

ELEMENT	COLOR
Recessed area behind stars on end caps	TBD by Landscape Architect
Stars on Caps	Simulated metallic finish – Colors TBD by Landscape Architect

COUNTY LINE ROAD

ELEMENT	COLOR
Recessed area behind stars on end caps	TBD by Landscape Architect
Stars on Caps	Simulated metallic finish – Colors TBD by Landscape Architect

COUNTY ROAD 3102

ELEMENT	COLOR
Recessed area behind stars on end caps	TBD by Landscape Architect
Stars on Caps	Simulated metallic finish – Colors TBD by Landscape Architect

FM 1242

ELEMENT	COLOR
Coping	In lieu of white cement, SW “Waco White”
Pilasters	In lieu of white cement, SW “Waco White”

Special Application Requirements (for Opaque Sealer used in lieu of white cement)

The below requirements are supplemental to Item 427. All requirements specified and under Item 427 to achieve the required finish are not paid directly, but are subsidiary to the pertinent concrete structure items. These requirements apply only to opaque sealer used in lieu of white cement.

- Do not apply any coatings until 60 days after completion of the required curing period.
- Use an approved UV disappearing curing compound rather than the standard approved curing compounds.
- Perform PH tests as directed by the Engineer and in accordance with standards from the Society of Protective Coatings until a PH of 9 or lower is achieved to insure the concrete is sufficiently cured so as to not reject the coating materials.
- Sandblast concrete surfaces to produce a Level 3 surface texture measured by using the International Concrete Restoration Institute (ICRI) standard gauge CSP-3 rubber chart that depicts the level of sandblasting achieved.

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- Water blast concrete surfaces at 3000 psi to remove all dust and debris.
- Wait a minimum of 24 hours after sand and water blast cleaning to allow thorough drying of prepared concrete surface.
- Apply a water repellent concrete sealer containing 40% silane at 100 sq. ft. per gallon when air temperature is 40 degrees and rising and is no greater than 95 degrees.
- Wait a minimum of 12 hours to start opaque sealer application after concrete sealer application.
- Color shall be Sherwin Williams “Waco White.”
- Apply two coats of opaque sealer for a total maximum application rate of 200 sq. ft. per gallon when air temperature is 50 degrees and rising and is no greater than 95 degrees.
- Apply Anti - Graffiti Coating Type II (Permanent) after opaque sealer coating has thoroughly dried. Follow requirements specified by Item 740 as well as manufacturer’s recommendations for additional application requirements.

ITEM 432: RIPRAP

Locations and quantities may be varied as directed by the Engineer to accommodate field conditions.

Weep holes and granular material, are required and locations shall be determined prior to placement of concrete riprap at bridge abutments.

The sodium sulfate soundness requirement for material used in rock riprap is waived for this project.

ITEMS 452, 496 AND 497: REMOVING RAILING, REMOVING STRUCTURES, AND SALE OF SALVAGEABLE MATERIAL

For this Contract, structural steel railing and posts are to be removed and become the property of the Contractor in accordance with Items 452, 496, and 497.

ITEM 462: CONCRETE BOX CULVERTS AND STORM DRAINS

Joints between precast concrete box culverts shall be preformed flexible joint sealants as described in Item 464.3C, “Jointing.”

Any sediment controls removed by the Contractor at culverts or adjoining channels must be re-installed before the next rainfall event or by the end of day, as approved in advance by the Engineer.

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ITEM 464: REINFORCED CONCRETE PIPE

Install all reinforced concrete pipe on this project using preformed flexible joint sealant. See Item 400 for RCP bedding requirements.

ITEM 467: SAFETY END TREATMENT

Welds are not allowed to splice safety pipe runners. A safety pipe runner shall be one continuous pipe.

ITEM 496: REMOVING STRUCTURES

Submit to the Engineer, for approval, a detailed plan for bridge removal including methods, equipment, and sequencing.

Plans of the existing bridges are available at the office of the Area Engineer for the purpose of making copies for the prospective bidders.

All pipe culverts removed under this Contract shall become the property of the Contractor to be disposed off the right of way, unless otherwise directed by Engineer.

Remove and salvage all dedication medallions and/or plaques found attached to any existing bridge structure being replaced. Each medallion and plaque shall be cleaned free of all concrete and foreign matter, and shall be turned over to the Engineer in a timely manner. All work performed in the removal, salvaging and cleaning of the medallions and plaques will not be paid directly, but shall be subsidiary to the various bid items.

The Engineer shall collect the medallions and plaques, tagging each of them with its respective highway number, name of creek or stream crossing, date of removal, and send them to the Waco District Environmental Coordinator for further handling.

The Contractor shall comply with any notification(s) dates made by TxDOT to the Texas Department of Health, for asbestos abatement and bridge demolitions.

ITEM 497: SALE OF SALVAGEABLE MATERIAL

Structural steel railing and beams are to be removed and are to become the property of the Contractor. Payment for the salvaged material will be deducted from the Contractor's monthly estimate in accordance with this Item.

ITEM 502: BARRICADES, SIGNS AND TRAFFIC HANDLING

A meeting between the Contractor and Engineer to discuss upcoming changes in construction phasing and traffic switches is required at least 14 days prior to the phase change. Items to be discussed at this meeting include temporary signing, traffic control, pavement markings, the processes necessary for the Phase change and subcontractor scheduling.

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Coordinate, at least 5 working days in advance, all lane closures with both the Engineer and the IH-35 Corridor Mobility Coordinator. In addition, the Contractor, in coordination with the Engineer and the IH-35 Mobility Coordinator, will work cooperatively with Contractors on adjoining IH-35 construction segments to insure construction activities effecting traffic flow are scheduled in a manner that only one two-mile lane closure is occurring every 10 miles, unless otherwise authorized by the Engineer. No additional compensation will be considered to achieve this requirement throughout the duration of the project.

Adjust the location of the construction speed zone throughout the duration of the project as necessary and as approved by the Engineer. The speed zone will only be applicable for the length of roadway section physically being constructed.

All signs, delineators, object markers, and route markers shall be in place prior to opening each Phase of construction to traffic. Existing signs may be used and relocated to temporary mounts in this situation when permanent signs cannot be placed and prior approval of the Engineer is given.

When a culvert extension, inlet construction, and/or safety end treatment, and open excavation, etc. is within 30 feet of a travel lane, delineate these areas as shown on the BC Standard sheets. In addition, a 4-foot high plastic construction fence shall be required at or around any structure or obstruction that would be a hazard to pedestrians, unless otherwise approved by the Engineer. This fence shall be erected in a manner acceptable to the Engineer. Construction fencing will not be paid separately, but will be considered subsidiary to Item 502.

During construction, erect and maintain accurate clearance signs (W12-2 or W12-3), in accordance with the *Texas Manual on Uniform Traffic Control Devices (TMUTCD)*, on all underpass structures. The mounting method for the temporary clearance signs is subject to approval of the Engineer. Temporary clearance signs will not be paid directly, but will be considered subsidiary to the various bid items.

Law enforcement assistance will be required for this project and is expected to be required for major traffic control changes and lane closures. Coordinate with local law enforcement and arrange for law enforcement as directed or agreed by the Engineer, unless other agreements are put in place during the progress of the project that address this requirement. These peace officers and vehicles will be paid by Force Account. Complete the weekly tracking form provided by the Department and submit invoices that agree with the tracking form for payment at the end of each month approved services were provided.

Provide full-time off-duty, uniformed, certified peace officers in officially marked vehicles with highly visible light bars and or strobe lights, as part of traffic control operations, unless other agreements are put in place during the progress of the project that address this requirement. The

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peace officers shall be able to show proof of certification by the Texas Commission on Law Enforcement Officer Standards. It is intended that two marked vehicles be utilized for each lane closure, with one vehicle positioned near the beginning of the lane taper and the other vehicle proceed moving to position itself to be in advance of the traffic queue to sufficiently warn approach vehicles of slowed or stopped traffic.

The Contractor Responsible Person (CRP) shall be certified by TEEX, ATSSA, the National Safety Council, or other approved organization. Certifications shall be submitted to the Engineer at the pre-construction meeting.

The Contractor Responsible Person (CRP) for work zone traffic controls shall inspect and insure any deficiencies are corrected each and every day throughout the duration of this Contract. Any misaligned or damaged traffic control devices shall be repaired as soon as practical after deficiency is discovered.

In addition to providing a Contractor's Responsible Person and a phone number for emergency contact, have an employee(s) available to respond on the project for emergencies and for taking corrective measures within 30 minutes.

Place advisory speed plates (CW13-1) in accordance with the TMUTCD and as directed by the Engineer. Signs (CW13-1) shall not be used with any signs other than a warning sign, nor shall it be used alone. Sign mounting height shall be seven (7) feet minimum to the bottom of the speed plate.

At locations where new traffic signals are being installed and no existing traffic signals are in place, install temporary "SIGNAL AHEAD" signs (W3-3, 36X36). Place the signs when the new signal is turned on flash mode and remain until the barricades are removed or as approved. Payment for the supply and installation of the temporary signs will be subsidiary to Item 502, "Barricades, Signs, and Traffic Handling."

Any work being done above travel lanes on the overhead sign bridge will require the lanes to be closed for traffic safety.

The shadow vehicle with truck-mounted attenuator (TMA) will not be optional, but will be required as shown on the appropriate Traffic Control Plan sheets. Truck-mounted attenuators shall meet the requirements of the Compliant Work Zone Traffic Control Device List. The use of truck-mounted attenuators shall not be paid directly, but shall be considered subsidiary to Item 502.

Unless otherwise shown on plans, where there is excavation adjacent to the pavement edge, provide adequate warning signs, vertical panels, drums, and reflectors at the pavement edge, as

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directed by the Engineer. Treat pavement drop-offs created by ACP operations in a similar manner and in accordance with the details shown in the plans.

When excavation is required next to a travel lane carrying traffic and widening is not completed by the end of the day's operation, and unless otherwise permitted in the plans, place sufficient backfill against the edge of the travel lane in order to provide a 3:1 slope. The backfill used shall be durable crushed stone type of flexible base or other materials approved by the Engineer. When work is resumed on this excavated area this backfill material shall be incorporated into the road work or disposed as approved by the Engineer. Materials and labor for this work will not be paid directly, but will be subsidiary to the various bid items.

Equip all construction equipment involved in roadway work with a permanently-mounted warning light with amber lens as approved by the Engineer.

When operations require a sidewalk closure, use traffic control devices controlling pedestrian flows as necessary to route pedestrians around the closed sidewalk.

All nighttime operation including planing, underseal, HMAC placement, concrete paving, etc. must be adequately lighted using balloon-type lights (GloBug by Multiquip or equivalent).

For nighttime flagging operations, each flagger station shall be lighted with portable light plants using balloon-type fixtures approved by the Engineer. The flagger shall wear Class 3 reflective garments. Lights shall be positioned as to not blind motorists.

Large signs knocked down shall be removed to the ROW line or off the ROW, upon discovery, and shall be repaired or replaced within 14 days.

ITEM 504: FACILITIES FOR FIELD OFFICE AND LABORATORY

For this project, furnish field office Type E Structure with at least 1200 sq ft of gross floor area in rooms 8-ft high. Partition the floor area into at least 4 interconnected rooms with doors, 2 exterior doors, and at least 2 windows in each room.

The Field Office Structure(s) shall be for the sole use of TxDOT employees, unless otherwise directed by the Engineer. Any hazardous materials stored or utilized in the structures shall be with the approval of the Engineer; any unauthorized hazardous materials in the structure when it arrives at the site shall be removed by the Contractor or his agents before work begins and TxDOT employees utilize the facility.

A telephone shall be installed in the field office at the Contractor's expense. One phone line and one data line shall be provided for the telephone. The monthly charges shall be the responsibility of the Contractor. This will not be paid directly, but will be considered subsidiary to various bid items.

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Provide a broadband Internet connection with a minimum speed of 5 Mbps download and 768 Kbps upload, unless otherwise approved. Provide equipment for WiFi connections to the Internet for multiple connections. This will not be paid directly, but will be considered subsidiary to various bid items.

Clean the field office once a week and stock with toilet paper, paper towels, and hand soap throughout the duration of the project.

The parking lot shall be 3000 square feet and be for the exclusive use of TxDOT with an all-weather surface and enclosed by a chain link fence with at least one vehicle gate.

Furnish water fountain or bottled water fountain able to supply cold water. Bottled water shall be provided by the Contractor.

Provide a structure (beam house) for use as a curing location, tank room and test area for concrete beams and cylinders made for this project. The Contractor must supply all of the curing tanks and adequate space for storage. The structure shall include a water faucet.

Furnish for the Engineer's exclusive use a laboratory meeting the specified Type D Structure. The building shall be located at the Contractor's hot-mix plant site and be separate from the Contractor's laboratory.

A telephone shall be installed in the laboratory structure at the Contractor's expense. The monthly charges shall be the responsibility of the Contractor. This will not be paid directly, but will be considered subsidiary to various bid items.

The use of space heaters for the purpose of heating any field offices or plant labs is unacceptable. The buildings must be structurally sound and pose no safety hazards. The laboratory must meet all the above requirements within two (2) weeks prior to beginning of work.

ITEM 506: TEMPORARY EROSION, SEDIMENTATION AND ENVIRONMENTAL CONTROLS

No soil disturbing activities shall begin on any section of TxDOT ROW without adequate sedimentation controls first being installed and functioning at adjacent drainage outfalls. Repairs, additions, and maintenance of erosion and sedimentation control devices shall be completed within seven calendar days after the Contractor receives each Form 2118, "Field Inspection and Maintenance Report," from the Engineer. Failure of the Contractor to fulfill either of the above requirements places TxDOT in potential non-compliance with permit requirements and may result in holding estimates, stop work or both until all environmental permit requirements are fulfilled.

Furnish one SW3P permit posting sign and sign support as detailed in the plans. Install this sign in a location selected by the Engineer. The sign and support should be removed upon completion

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of the project and is the property of the Contractor. The purchase of the sign and support, installation, relocation(s), if determined necessary by the Engineer and removal at project end shall be subsidiary to Item 506.

Prior to TxDOT allowing the Contractor to start construction, the Contractor shall provide the required stormwater and Section 404 permit documentation and support activities, including but not limited to the following:

Provide a list of all chemicals, construction, and waste products that will be generated, stored, or brought upon TxDOT ROW. The list includes expected construction debris, sanitary wastes, construction chemicals, and petroleum products used or generated by the Contractor and subcontractors. Along with the list, the Contractor shall supply a Spill Prevention Plan and clean up procedures that will include each of these chemical products or generated waste.

Provide in the construction schedule any necessary line items that will comply with the schedule and planning requirements of the stormwater permit.

Post the TxDOT stormwater permit and any Contractor permits, per permit requirements.

Provide copies of stormwater permits for Contractor PSLs. As new PSLs may be obtained for the project, provide copies of the new or amended permits to TxDOT. The Contractor shall not disturb soil without the proper permits.

Provide scale drawings of off-ROW PSLs within one mile of the project, for field offices, borrow sources, plant sites, or other uses.

Provide permit information on any Contractor batch plants or concrete crushing plants to be located at Contractor PSLs within one mile of the project limits or boundaries. Copies of the air and water permits are to be provided to TxDOT before materials shall be used on the project. No asphalt or concrete batch plants or concrete crushing plants shall be located on TxDOT ROW.

Provide a letter indicating a Contractor Responsible Person for the environmental compliance (CRPE) for the project, and maintain a CRPE throughout the project duration.

Place and maintain trashcans and portable sanitary facilities at locations where there is active construction. Worker-generated trash and construction debris shall be kept from being transported by stormwater and shall be collected daily from the ground and routinely hauled from the work area.

Contractor shall provide TxDOT copies of all correspondence with MS4s, TCEQ, EPA, DSHS, and Corps of Engineers regarding activities on this project.

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Contractor to conduct stormwater inspections and develop SWPPP documents to support Contractor permits obtained for the project including PSLs.

Contractor shall maintain written documentation of locations of all portable sanitary facilities. The Contractor is required to document the location and disposition of all spill and cleanups from portable sanitary facilities.

Contractor shall not store chemicals on TxDOT ROW, unless chemicals are stored following all environmental and safety regulations. Fuels for construction equipment shall not be stored on TxDOT ROW.

The Contractor shall store fuels and bulk chemical on Contractor PSLs using a secondary containment method, such as double lined tanks and/or free-standing containment reservoirs made of plastic or steel designed to hold bulk chemicals or drums.

The Contractor shall not remove sediment controls without the prior approval of TxDOT, except for a sediment control that may back up water and cause safety or traffic problems.

Vegetative buffer strips may be used in place of temporary sediment controls such as silt fences and rock filter dams. The amount of disturbed soil area shall be limited to 1/3 of an acre or less for a minimum of 50 feet of grassed ditch and 2/3 of an acre of disturbed soil for a minimum of 100 feet of grassed ditch.

Construction equipment found to be leaking oil, fuel or coolant shall be immediately stopped, the leaking fluid collected and the equipment fixed. Equipment continuing to leak shall be removed from the project at no cost to TxDOT. Leaking fluids from equipment shall be collected and removed from the project or PSL.

Earth berms or mounds shall be seeded immediately upon being constructed. Long-term use of earth berms or mounds shall not be continued without establishing grass on the control.

The Contractor shall inform TxDOT of new areas where soil will be disturbed to facilitate planning for new sediment controls. Areas of vegetated soil shall not be disturbed by the Contractor, unless adequate sediment controls can be installed before the next rainfall event. The Contractor shall assist TxDOT in keeping an accurate set of working SWPPP drawings that show the locations of all temporary sediment and erosion controls.

The Contractor shall maintain an adequate amount of temporary sediment controls on hand at the field office or project staging area for critical SWPPP maintenance, including silt fence and rock/fabric for rock filter dams.

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Failure of a subcontractor to complete stormwater work on time shall require the Contractor to start stormwater sediment control work, immediately, and complete the work with high priority or be subject to stop work on the entire project.

Earth materials on roads as a result of soil-tracking shall not be allowed to be transported off ROW in stormwater. Soil or rock material found on roadways, deposited from Contractor equipment, shall be removed daily.

Unless approved by the Engineer, completed concrete curb inlets shall not be blocked by sediments controls. The Contractor shall frequently sweep the completed or partially completed roadway to keep sediment out of drainage pipes.

The Contractor shall be responsible for proper dust control and shall route construction traffic in a manner that minimizes dust generation.

Water for dust control shall contain no pollutants, but may be non-potable from upland stock ponds. No quantity of water to be used for construction purposes may be taken from a Section 404 stream, prior to the proper authorizations or permits being obtained by the Contractor.

ITEM 508: CONSTRUCTING DETOURS

Any widening that is not protected by a positive barrier and any drop-offs greater than 2 inches, must be sloped at no steeper than a 3:1 slope at the end of each work day.

When no longer in service, remove all detours by milling. The resulting RAP shall be incorporated into the project as allowed elsewhere in these Notes or stockpiled as described in the Item 305 notes. This work shall be subsidiary to Item 508.

ITEM 512: PORTABLE CONCRETE TRAFFIC BARRIER

Paragraph deleted.

Department-furnished concrete traffic barrier units are at the TxDOT yard in Bellmead or other locations within 20 miles of the project as directed by the Engineer. Barrier provided by TxDOT may be single slope or F-shape barrier. Single slope and F-shape barrier will be paid by the single slope barrier item. The Contractor will furnish equipment necessary to load the units at the stockpile locations.

Provide necessary hardware for connecting the portable concrete traffic barrier.

Upon completion of the project, all barrier will become/remain property of the Department and stockpiled at the above named locations or other locations within 25 miles of the project as directed by the Engineer. The Contractor will furnish equipment necessary to load and unload

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the units at the stockpile locations. When stockpiling, separate damaged barriers from salvaged barriers as directed by the Engineer.

Portable concrete traffic barrier that is determined unusable by the Engineer shall become property of the Contractor and not returned to the TxDOT stockpile location.

All hardware shall become the property of the Department and shall be returned to the TxDOT Maintenance yard in Bellmead or other locations within 20 miles of the project as directed by the Engineer. Place hardware in 55-gallon barrels with holes in bottom to allow drainage.

ITEM 512: PORTABLE CONCRETE TRAFFIC BARRIER

ITEM 514: PERMANENT CONCRETE TRAFFIC BARRIER

White hydraulic cement will be required for permanent single slope barrier, if opaque sealer finish is not selected as the final appearance finish option as per Item 427.

Delineate barriers by a minimum of 2 Class A reflectors per section. Reflectors mounted on the top and the traffic side of the barrier shall match the color of the nearest edgeline. These reflectors will not be paid directly, but will be considered subsidiary to the various bid items.

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

Attach machine laid curb to pavement with a two compound epoxy adhesive. Epoxy shall be applied to that area of pavement under the machine laid curb and must be a minimum of 6 inches in width and 0.2 inches (20 mils) thick. The epoxy shall be applied uniformly by a method approved by the Engineer.

ITEM 540: METAL BEAM GUARD FENCE

In the event a guard post falls on top of an inlet, cut the post to the proper length and bolt it to the inlet top as shown on the plans.

Steel posts may be driven with approval from the Engineer.

The blockouts used on the metal beam guard fence will be made of a composite material from a source on the Department approved list of suppliers. The use of wooden blockouts will not be allowed.

ITEM 542: REMOVING METAL BEAM GUARD FENCE

ITEM 544: GUARDRAIL END TREATMENTS

W-beam, steel posts, and composite material blockouts elements deemed salvageable by the Engineer will remain the property of the Department and shall be dismantled and returned to the

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TxDOT Hill County Maintenance Office at 1400 S Abbot Ave., Hillsboro, TX. All other guard fence, and SGTs deemed non-salvageable will become the property of the Contractor.

ITEM 544: GUARDRAIL END TREATMENTS

The blockouts used on the single guardrail terminals will be made of a composite material from a source on the Department approved list of suppliers. The use of wooden block-outs will not be allowed.

ITEM 545: CRASH CUSHION ATTENUATORS

Department-furnished crash cushion attenuators are at the TxDOT yard in Bellmead or other locations within 20 miles of the project as directed by the Engineer. These units may be REACT or TRACC systems. Provide all necessary hardware for proper installation of these units. Additional hardware, if needed, shall be furnished and will be subsidiary to Item 545.

Do not purchase new crash cushion attenuators until directed by the Engineer in writing.

Supply and construct new crash cushion attenuators for a design speed of 70 mph. Contractor-furnished units shall become property of the Department and returned to the same locations as TxDOT-furnished units (see below).

Object markers (OM-3L and OM-3R) as shown on the Standards “BC(7)-07” and “D&OM(VIA)-04” shall be furnished by the Contractor for all crash cushion attenuators and shall be subsidiary to this Item.

Upon completion of the project, all crash cushion attenuators shall be returned to the TxDOT yard in Bellmead or other locations within 25 miles of the project as directed by the Engineer. The Contractor will furnish equipment necessary to load and unload the units at the stockpile locations. Stockpile the units as directed by the Engineer.

All hardware shall become the property of the Department and shall be returned to the TxDOT Maintenance yard in Bellmead or other locations within 20 miles of the project as directed by the Engineer. Place hardware in a separate crate for each crash cushion attenuator, as directed by the Engineer.

Crash cushion attenuators that are not re-usable shall become property of Contractor for disposal. The Engineer will make the determination of what is re-usable or not re-usable.

Replace, at the Contractor’s own expense, units or hardware that are damaged by the Contractor’s own operations.

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ITEM 556: PIPE UNDERDRAINS

Final location of underdrains to be determined by the Engineer.

ITEM 560: MAILBOX ASSEMBLIES

Mailboxes will be kept in a position accessible to the carrier's vehicle along the travelway, except when performance of grading operations necessitates the moving of mailboxes. When grading operations necessitate the moving of mailboxes, the Contractor shall place them at a nearby location, which will be accessible to the carrier's vehicle. Mailboxes will be returned to a position accessible to the carrier's vehicle along the travelway when grading operations are not in progress. This work will not be paid directly, but will be subsidiary to Item 560.

ITEM 585: RIDE QUALITY FOR PAVEMENT SURFACES

The ride quality for the pavement surface (flexible or rigid) shall be Surface Test Type B along the finished riding surface of all travel lanes (mainlanes and frontage roads) with Pay Schedule as defined below:

- Frontage Road Flexible pavement surfaces - Schedule 1
- Frontage Road Concrete pavement surfaces - Schedule 2
- Mainlane pavement surfaces including Ramps - Schedule 2
- All other roads (cross streets) shall be Surface Test Type A

The Contractor shall take care to ensure satisfactory profile results in the intermediate paving layers (mixture) to eliminate corrective action for excessive deviations in the final surface layers.

Milling will not be allowed as a corrective action for excessive deviations in the surface layer of hot-mix.

ITEM 610: ROADWAY ILLUMINATION ASSEMBLIES

The Contractor's attention is called to the fact that conduit for illumination or other purposes may be required in the construction of the bridge slabs, columns, caps or other parts of the bridge structure(s), and concrete rail. Refer to the Bridge and Illumination Layouts for details.

Fabricate steel roadway illumination poles in accordance with TxDOT Standards RIP-07 (Roadway Illumination Poles - 2007). Poles fabricated according to RIP-07 require no shop drawings.

Alternate design to RIP-07 or the use of aluminum to fabricate poles will require the submission of shop drawings, electronically.

For instructions on submitting shop drawings electronically, go to TxDOT home page/Business with TxDOT/Contractors and Consultants/Bridge Information/Shop Drawings:

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ftp://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/bus/bridge/e_submit_guide.pdf

File is titled: "Guide to Electronic Shop Drawing Submittal."

ITEM 618: CONDUIT

The locations of conduit as shown are for diagrammatic purposes, only, and may be varied to meet local conditions, subject to approval.

When backfilling bore pits, ensure that the conduit does not become damaged during installation or due to any settling of the backfill material. Compact select backfill in three equal lifts to the bottom of the conduit or if sand is used, place to a point 2 inches above the conduit. Backfill density shall be equal to the existing soil. Be careful to prevent any material from entering the conduit.

Backfill all open trenches before the end of the workday and do not leave any trench open overnight. Temporarily cap all exposed conduit ends each day.

Place red caution tape 12-in. above conduit in all trenches.

Casing will be incidental to the conduit, if it is required for placing a bored conduit.

Remove all abandoned conductor and conduit to 1 foot below ground level. This work will not be paid directly, but will be subsidiary to the pertinent Items.

Conduit construction underneath freeway on-ramps and exit ramps is to coincide with ramp construction. Refer to TCP phasing for appropriate time to install conduit underneath ramps. Conduit to be trenched prior to ramp construction and be placed a minimum 36-in. below grade.

Do not use cast iron junction boxes in concrete traffic barriers and single slope traffic barriers. Use polymer concrete junction boxes instead of the cast iron junction boxes shown on standard sheets CTBI(3), CTBI(4) and SSCB(4). Mount the junction boxes flush (+0", -1/2") with concrete surface of concrete barrier.

Use materials from prequalified *Material Producer List* as shown on the Texas Department of Transportation (TxDOT) *Materials Producer List*. Category is "Roadway Illumination and Electrical Supplies."

The polymer concrete barrier box will not be paid separately, but will be considered subsidiary to Item 618, "Conduit."

This note applies to traffic signal conduit only: Where PVC, duct cable, and HDPE conduit 1-inch and larger is allowed and installed as per TxDOT Standards, provide a PVC elbow in

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place of the galvanized rigid metal elbow required by the Electrical Detail Standards. Ensure the PVC elbow is of the same Schedule rating as the conduit to which it is connected. Ensure only a flat, high tensile strength polyester fiber pull tape is used for pulling conductors through the PVC conduit system.

For illumination conduit, used galvanized rigid metal elbows as required by the Electrical Detail Standards.

ITEM 620: ELECTRICAL CONDUCTORS

Place the loop detector, communications, and/or coaxial cables in a separate conduit from the electrical conductors with 120 or 240 volts.

Any damage to any wire or any cable is cause for immediate rejection of the entire cable being tested. Remove and replace the entire cable at the Contractor's expense.

Electrical certification for this project will be as per Item 7 of the current Texas Standard Specifications and any Special Provisions to Item 7.

For both transformer and shoe-base type illumination poles, provide double-pole breakaway fuse holder as shown on the Texas Department of Transportation (TxDOT) *Material Producer List*. Category is "Roadway Illumination and Electrical Supplies." Fuse holder is shown on list under Items 610 & 620. Provide 10-amp time delay fuses.

ITEM 624: GROUND BOXES

Ground box locations shown on the plans are approximate locations. Actual locations are as directed.

Complete construction of ground boxes within 48 hours after beginning construction for that ground box.

ITEM 628: ELECTRICAL SERVICES

Before the UL 508-A shop begins to fabricate, contact the electric utility company to determine their requirements and make all necessary arrangements to provide electrical service shown on the plans in accordance with Article 628.5 and the Electrical Details, except that TxDOT will make application to the electric utility company for service.

Before installing electrical service, contact the Waco District Traffic Signal Service Supervisor (Phone (254) 867-2808), to make application (billing arrangements) for service with the electric utility company.

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Furnish and install a lock on all electrical services. The lock is to be a MasterLock[®] number 175LH (four-digit combination).

Pedestal foundation will be modified from ED 8-(03) to extend 2 feet above and 2 feet below the ground.

ITEM 636: ALUMINUM SIGNS

Verify all dimensions at the actual proposed sign location in order to maintain dimensions as shown on the Sign Mounting Details.

The sign locations as shown on the plans are for diagrammatic purposes and show the approximate location of the signs. Stake the location of the new signs to be approved.

For freeway sections, keep the advance guide sign or the exit direction sign for an exit in place at all times, unless written approval is given. Replace any signs that have been removed before the end of the workday, unless written approval is given.

ITEM 644: SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES

Measure all dimensions in the field at the actual locations.

Place signs in accordance with lateral and vertical clearances as shown in Sign Mounting Details for Small Roadside Signs and in the *Sign Crew Field Book*.

Sign placement heights are a minimum of seven (7) feet and a maximum of seven feet six inches (7ft.-6in.) to the bottom of the sign or plaque. Mounting heights are measured as follows:

When the base of the sign is below the edge of the travel lane, the sign height is measured from the edge of the travel lane to the bottom of the sign.

When the base of the sign is above the edge of the travel lane, the sign height is measured from natural ground to the bottom of the sign.

When a supplemental plaque or secondary sign is used, the sign height is measured to the bottom of the supplemental plaque or secondary sign.

When a sign has two or more posts, all posts must be a minimum height above natural ground to the bottom of the sign. The sign also must be a minimum height above the edge of the travel lane.

Do not leave any sign foundation holes open overnight. Ensure all holes drilled are at least the minimum required depth with no loose material remaining in the hole.

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Stake proposed sign locations and receive approval before installation of sign foundations. Determine each post length after the stub has been placed.

Furnish and install a 5/16-inch x 1½-inch double roll pin between the slip base casting and the sign support post to prevent the sign assembly from rotating on the stub as detailed on the Sign Mounting Details for Small Roadside Signs.

Concrete for sign foundations is designated as “Miscellaneous Concrete.” It will be accepted based on a minimum 7-day flexural strength of 280 PSI. The slump is to be no greater than 4 inches.

Use trowel to finish all foundations for a neat appearance. Remove all excess material.

Expanded foam foundations are not permitted.

Tighten the slip base and the locking collar as shown on Sign Mounting Details for Small Signs Standard. Do not tighten bolts greater than 80 foot-pounds, except to clean threads. Over-torque bolts to clean the threads of any galvanization that might cause an incorrect torque reading. Then loosen the nuts and tighten to the required torque of 80 foot-pounds. Tighten bolts incrementally in a sequential manner such that the load is applied uniformly to the locking collar.

For splices in small signs, use bolts as shown on the Sign Mounting Details for Small Roadside Signs.

Cut the bottom of all posts level.

For sign types which design details are not shown on these plans, fabricate according to the *Standard Highway Sign Designs for Texas*.

Removed material that is deemed salvageable (signs and posts) will be the property of TxDOT. Deliver salvageable material to the TxDOT Hill County Maintenance Office, 1400 S Abbot Ave., Hillsboro, TX. Remove unsalvageable material from project.

Maintain existing roadside signs within this project’s limits during this Contract. In order to accommodate the grading or other operations, relocate these signs and assemblies onto temporary supports adjacent to the ROW line in accordance with the TMUTCD and as directed by the Engineer. This work will be paid as “Relocate Small Roadside Sign Supports and Assemblies.” Moving the temporary supports for accommodating work and relocating for subsequent phases will not be paid directly. The existing sign assemblies requiring relocation to a temporary support must be approved by the Engineer.

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ITEM 647: LARGE ROADSIDE SIGN ASSEMBLIES

Stake proposed sign locations and receive approval before installation of sign foundations. Determine each post length after the stub has been placed.

Concrete for sign foundations is designated as “Miscellaneous Concrete.” It will be accepted based on a minimum 7-day flexural strength of 280 PSI. The slump is to be no greater than 4 inches.

ITEM 650: OVERHEAD SIGN SUPPORTS

Lengths of trusses, tower heights, and posts shown in the summaries are for bidding purposes, only. Verify these dimensions upon substantial completion of the subgrade section at the location shown on the plans or as relocated by the Engineer. Notify the Engineer, prior to shop drawing production, concerning any discrepancies found, which may reduce established ground clearance requirements.

Provide information for alternate designs conforming to the requirements of Item 5, “Control of the Work.” Furnish shop drawings for this Item indicating the weight of structure and all equipment supported by the structure to verify the design of the structure.

ITEM 656: FOUNDATIONS FOR TRAFFIC CONTROL DEVICES

Locations shown on the plans are for diagrammatic purposes, only, and may be varied to meet local conditions, subject to approval. Stake these locations and have them approved before installation of foundations.

For the signal controllers furnished by TxDOT, anchor bolts and bolt patterns for the controller foundations will be supplied.

Consult with the Engineer to ensure proper the location and orientation of the signal controller before construction.

Backfill all open foundation holes before the end of the workday and do not leave any holes open overnight.

Clean up and remove from all work areas all loose material resulting from Contract operations each day before suspending work for the day.

ITEM 658: DELINEATOR AND OBJECT MARKER ASSEMBLIES

Paragraph deleted.

For all delineators and object markers, furnish a tubular post minimum of 2 inches diameter with a flat surface at least 3 inches wide and 15 inches long for delineator mounting meeting the

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requirements of DMS-4400. Use the Embedded System for ground-mounted delineators set in concrete as shown on the D&OM (1)-10 Standard. Submit one assembly or a material cut sheet to the Engineer for approval prior to installation.

ITEM 662: WORK ZONE PAVEMENT MARKINGS

All non-removable markings as shown on the Traffic Control Plans will be paid under this Item.

Paint and beads may be used of non-removable pavement markings.

ITEM 666: REFLECTORIZED PAVEMENT MARKINGS

Remove markings at own expense that are not in alignment or sequence, as shown on the Standard sheets or as stated in the specifications, or do not meet the specification and/or approval of the Project Manager. Removal shall be in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment.

ITEM 668: PREFABRICATED PAVEMENT MARKINGS

All removable broken and solid lines to be placed on the final mainlane pavement as shown on the Traffic Control Plans will comply to and be paid under this Item. Removal of these markings will be considered subsidiary to this Item. Lane lines for transitions and detours will be supplemented with raised pavement markers as shown for white broken lines on the Barricade and Construction Standards Work Zone Pavement Marking Details.

ITEM 672: RAISED PAVEMENT MARKINGS

Before the application of pavement markers, sufficiently clean pavement surfaces to remove all forms of contamination and loose materials, in accordance with Item 678, "Pavement Surface Preparation for Markings." This work will not be paid directly, but will be subsidiary to Item 672, "Raised Pavement Markers."

Remove at own expense markings placed that are not in alignment or sequence, as shown on the Standard sheets, as stated in the specifications, or do not meet the specification and/or approval of the Project Manager. Removal shall be in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment.

ITEM 680: INSTALLATION OF HIGHWAY TRAFFIC SIGNALS

References to manufacturer's trade name or catalog numbers are for the purpose of identification, only, and like materials of other manufacturers can be furnished provided they are of equal quality, comply with specifications for this project, and approved.

Accomplish the erection of poles and luminaires located near any overhead electrical lines using established industry and utility safety practices. Consult with the appropriate utility company before beginning such work.

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There are existing traffic signals presently in operation within the project limits. Keep the existing signals in operation until the proposed signals are in operation, or as directed. Remove the old signals and equipment.

Maintain the integrity and function of each existing signalized intersection. Once the integrity or function of the signal is altered, continue work at that location without delay or interruption until restoring to the original or final operational design.

Furnish overhead extruded aluminum (Type O), with the background and copy fabricated with Prismatic Reflective Sheeting for the street name signs mounted on traffic signal poles.

Furnish and install aluminum signs and brackets to be mounted on traffic signal pole mast arm assemblies with "Option C" bracket assemblies for signs as described on the Traffic Signal Support Structures Details. Mount signs horizontal as shown on the plans. This work will not be paid directly, but will be subsidiary to Item 680, "Installation of Highway Traffic Signals."

TxDOT will furnish traffic signal controller assemblies with loop detector amplifiers, flashers, and cabinets. Pick up these units at the District Traffic Shop located at 100 South Loop Drive in Waco. Notify the District Traffic Signal Shop seven (7) days prior to picking up the units.

All signal control equipment furnished will be shop tested. Certify in writing that the equipment is working properly in all modes before removing the equipment from the shop. Investigate all reported malfunctions in the traffic signal system before final acceptance. If the malfunction is due to Department-furnished equipment, return this equipment to the TxDOT Traffic Signal Shop for repair or replacement. If the repair requires that the signal flash for more than six (6) hours, install an emergency replacement controller furnished by the Department. Install this repaired or replaced equipment and place the traffic signal system back into normal operation. No extra compensation will be allowed for this work.

ITEM 682: VEHICLE AND PEDESTRIAN SIGNAL HEADS

Provide new signal head housings with black aluminum housings and back plates.

Cover all signal heads installed, but not in operation, in an approved manner from the time of installation until the signal is placed in operation. This will not be paid directly, but will be subsidiary to Item 682, "Vehicle and Pedestrian Signal Heads."

Provide and install standard detachable tunnel visors on all signal heads. Provide and install all necessary mounting hardware to insure proper mounting of all signal heads. The mounting hardware and attachments will be new (no reuse of old existing attachment hardware) and the same color as the signal head housings.

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Install signal heads mounted on mast arms, using “Option C” Astro-Brac[®] cable-type clamp, as described on the Traffic Signal Support Structures Details. For heads mounted on end of mast arm, use the “Option A” bracket assembly.

Use clamshell mount for pedestrian signal heads.

Ensure that each signal head has a minimum vertical clearance of 18.5 feet and a maximum vertical clearance of 19 feet between the bottom edge of the signal head and the surface of the roadway.

Provide aluminum pedestrian signal heads. Pedestrian indications will be LED signal sections with symbolized messages as shown on the plans and in accordance with the *Texas Manual on Uniform Traffic Control Devices*. Symbols will be a minimum of 9 inches in height.

Mount pedestrian signals with all wiring enclosed within the signal pole arm mounting hardware, in accordance with Articles 688.3 and 688.4.

Ensure pedestrian signal heads are mounted with the bottom of the housing not less than 7 feet or more than 9 feet above the sidewalk.

ITEM 686: TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)

Payment for traffic signal pole foundations is per Item 416, “Drill Shaft Foundations.” Furnish and use a circular steel anchor bolt templates as shown on the Traffic Signal Pole Foundation Details for all signal pole foundations on this project.

Attach dampening devices as shown on the plans to mast arms 28 feet in length and longer. Make attachment using Astro Sign-Brac[®] type mounts “Option C” on the Traffic Signal Support Structures Details. Dampening will not be paid directly, but will be considered subsidiary to Item 686, “Traffic Signal Pole Assemblies (Steel).”

Illumination conductors in mast arm poles and inside strain poles will not be paid directly, but will be subsidiary to Item 686, “Traffic Signal Pole Assemblies (Steel).”

No exposed signal cable on the mast arm assemblies will be allowed. Install the signal cable so it will exit the mast arm directly behind each signal head as directed. This will require drilling holes in the mast at the exact location for each signal head. Drip loops are not allowed. Provide either “Option A” or “Option C” signal head bracket assemblies as described on the Traffic Signal Support Structures Details.

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ITEM 688: PEDESTRIAN DETECTORS AND VEHICLE LOOP DETECTORS

Pedestrian push buttons are required to be a minimum of 2 inches in the smallest dimension and be mounted a minimum height of 38 to a maximum of 42 inches above the sidewalk or landing. The Engineer will approve the location of each pedestrian push button.

Install pedestrian push button signs (R10-4B) directly above the push buttons.

Installation of pedestrian push buttons signs, electrical connections, and all mounting hardware shall not be paid directly, but considered subsidiary to Item 688, "Traffic Signal Detectors."

ITEM 730: ROADSIDE MOWING

Throughout the course of the project, when in the opinion of the Engineer, tall grass and weeds affect the safety of the public by restricting visibility, interfere with normal traffic flow or appear unsightly, the Contractor shall be required to mow same. Final cleanup will include mowing of grass and weeds. This work will be paid by the acre.

Mowing cycles shall coincide with adjoining construction projects and adjoining segments maintained by contracted maintenance. The Contractor shall plan and schedule to perform the full width mowing cycle work under this Item as follows:

Rural Areas

- 2 times per year (Mid June and late November).

Urban Areas

- 3 times per year (Mid June, late August and late November).

The Engineer shall approve the actual beginning time of work for each cycle of work performed. The Contractor shall provide the Engineer two weeks advance notice before beginning actual work for each cycle.

ITEM 738: CLEANING AND SWEEPING HIGHWAYS

For sweeping operations, a vacuum pickup type broom shall be utilized.

Regular sweeping of dirt or mud due to construction operations from the travelways will not be paid directly, but will be subsidiary to the various bid items.

ITEM 740: GRAFFITI REMOVAL AND ANTI-GRAFFITI COATING

Anti-graffiti coating shall be applied to all proposed Surface Area I surfaces, painted or unpainted, except railing, culvert headwalls, and wingwalls. Additionally, anti-graffiti coating shall be applied to riprap at bridges and other concrete surfaces exposed to the view of roadway traffic as directed by the Engineer.

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When anti-graffiti coating is applied after another coating (paint, opaque sealer, etc), it will be considered subsidiary. When anti-graffiti coating is placed on uncoated surfaces it will be paid directly.

Anti-graffiti coating shall be Type III Permanent, Water Cleanable (except when applied to white cement surfaces as outlined in "Special Application Requirements" under Item 427 General Notes). The color of coating shall be clear or translucent as approved by the District Landscape Architect.

Anti-Graffiti Coating Type III-Permanent, Water Cleanable:

- (a) Type III Coatings allow removal of the graffiti with low-pressure water wash.
- (b) The color must match Federal Standard 595B; color number 35630, unless otherwise shown in the plans. When the plans show another color, the color must match the color standard supplied by the Engineer. The plans may specify clear or translucent coating as a color.
- (c) Pressure wash requirements must not exceed 500 psi.
- (d) Coating must be washable with water at an ambient temperature of 50° F or higher.
- (e) Coating must allow for a minimum of ten cycles of graffiti removal.
- (f) Coating must be self-recoatable for the life of the coating.
- (g) The dry times of a 3-mil wet film of the coating must meet set-to-touch, 4hr. maximum and dry through, 24 hr. maximum when tested at 77° F in accordance with ASTM D-1640.

ITEM 5830: VEHICLE REMOVAL

Disabled vehicles interfering with traffic flow shall be removed in accordance with this Item. Direct instruction from law enforcement personnel for vehicle removal shall take precedence over this Specification.

ITEM 6473: MULTIPOLYMER PAVEMENT MARKINGS

Before the application of pavement markings, sufficiently clean pavement surfaces to remove all forms of contamination and loose materials, in accordance with Item 678, "Pavement Surface Preparation for Markings." This work will not be paid directly, but will be subsidiary to Item 6473 "Multipolymer Pavement Markings."

Remove markings at own expense that are not in alignment or sequence, as shown on the Standard sheets, as stated in the Specifications, or do not meet the Specification and/or approval of the Project Manager. Removal shall be in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment.

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ITEM 6834: PORTABLE CHANGEABLE MESSAGE SIGN

This project shall require “full matrix” type portable changeable message signs.

Provide cellular telephone connections to communicate with PCMS units remotely or ensure that the Contractor’s Responsible Person for traffic control can revise messages within 30 minutes of notification.

Furnish 8 portable changeable message signs for the duration of the project. The portable changeable message sign(s) shall be used for all lane closures and freeway closures as shown on the Traffic Control Plan Standard sheets and as directed by the Engineer. These 8 message boards will be paid by the Each. If more than 8 message boards are needed at one time, payment for additional message boards will be paid by the day.

Supply portable changeable message sign(s) in accordance with the Traffic Control Plan Standard sheets and Article 6f.55 of the *Texas Manual on Uniform Traffic Control Devices*, Part VI.

ITEM 8502: INSTALLATION OF DYNAMIC MESSAGE SIGN SYSTEM

Department-furnished Dynamic Message Signs (DMS) will be provided to the Contractor on this project. Coordinate with the TxDOT District Office as to the delivery location for the signs. Transport each sign from the designated facility to the project for installation.

Configure the dynamic message signs (DMS) installed on this project to operate using existing control software currently in use at TxDOT Waco’s Traffic Management Center.

Ensure the dynamic message signs (DMS) installed on this project are fully compatible with the existing DMS control system at TxDOT Waco’s Traffic Management Center. The existing DMS system utilizes the National Transportation Communications for its Protocol (NTCIP).

Upon completion of DMS installation, test the communications link installed between the TMC and DMS field cabinet. Perform the test at all DMS locations on the project.

Supply all test equipment, cabling, and connectors necessary for performing the tests.

All lines of text must energize and de-energize simultaneously.

Install and make fully operational, DMS ground-mounted controller cabinets. Controller and cabinet to be furnished by TxDOT and will be delivered with the DMS sign.

Provide necessary cables from all dynamic message signs (DMS) to DMS controller; these items shall be considered subsidiary to the Item and no direct payment will be made.

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Location of sign panels on the overhead structure is approximate.

Verify the sign location in the field prior to erection of the dynamic message signs.

The Contractor is responsible for ensuring the structural design and mounting details for the sign match the specifications of the DMS, and no structural members prohibit or impede access to the sign. The Contractor will submit the structural design and mounting details for the sign to the truss to the Engineer for approval prior to fabrication. The design of the connections will be signed and sealed by a Texas Registered Professional Engineer.

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TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF
----- TRANSPORTATION JUNE 1, 2004.
STANDARD SPECIFICATIONS ARE INCORPORATED
INTO THE CONTRACT BY REFERENCE.

- ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
- ITEM 100 PREPARING RIGHT OF WAY (103)
- ITEM 104 REMOVING CONCRETE
- ITEM 105 REMOVING STABILIZED BASE AND ASPHALT PAVEMENT
- ITEM 110 EXCAVATION (132)
- ITEM 132 EMBANKMENT (100)(204)(210)(216)(400)
- ITEM 160 TOPSOIL
- ITEM 161 COMPOST (160)
- ITEM 162 SODDING FOR EROSION CONTROL (166)(168)
- ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
- ITEM 168 VEGETATIVE WATERING
- ITEM 169 SOIL RETENTION BLANKETS
- ITEM 170 IRRIGATION SYSTEM (402)(403)
- ITEM 180 WILDFLOWER SEEDING
- ITEM 192 LANDSCAPE PLANTING (161)(166)
- ITEM 193 LANDSCAPE ESTABLISHMENT (166)(192)
- ITEM 216 PROOF ROLLING (210)
- ITEM 247 FLEXIBLE BASE (105)(204)(210)(216)(520)
- ITEM 251 REWORKING BASE COURSES (210)(216)(247)(520)
- ITEM 260 LIME TREATMENT (ROAD-MIXED) (105)(132)(204)(210)(300)
(310)(520)
- ITEM 276 CEMENT TREATMENT (PLANT-MIXED) (204)(210)(216)(247)(300)
(310)(520)
- ITEM 305 SALVAGING, HAULING, AND STOCKPILING RECLAIMABLE ASPHALT
PAVEMENT
- ITEM 310 PRIME COAT (300)(316)
- ITEM 316 SURFACE TREATMENTS (210)(300)(302)
- ITEM 341 DENSE-GRADED HOT-MIX ASPHALT (QC/QA) (210)(300)(301)(320)
(520)(585)
- ITEM 354 PLANING AND TEXTURING PAVEMENT

ITEM 360 CONCRETE PAVEMENT (300)(420)(421)(438)(440)(529)(585)
 ITEM 368 CONCRETE PAVEMENT TERMINALS (247)(260)(276)(292)(300)
 (360)(400)(420)(421)(438)(440)
 ITEM 400 EXCAVATION AND BACKFILL FOR STRUCTURES (132)(401)(420)
 (421)
 ITEM 401 FLOWABLE BACKFILL (421)
 ITEM 402 TRENCH EXCAVATION PROTECTION
 ITEM 403 TEMPORARY SPECIAL SHORING (423)
 ITEM 416 DRILLED SHAFT FOUNDATIONS (420)(421)(440)(448)
 ITEM 420 CONCRETE STRUCTURES (400)(404)(421)(426)(427)(438)(440)
 (441)(448)
 ITEM 422 REINFORCED CONCRETE SLAB (420)(421)(424)(426)(430)(440)
 ITEM 423 RETAINING WALLS (110)(132)(400)(420)(421)(424)(440)(445)
 (458)(556)
 ITEM 425 PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS (420)
 (421)(424)(426)(427)(434)(440)(442)
 ITEM 428 CONCRETE SURFACE TREATMENT (427)
 ITEM 432 RIPRAP (247)(420)(421)(427)(431)(440)
 ITEM 442 METAL FOR STRUCTURES (441)(445)(446)(447)(448)(449)
 ITEM 450 RAILING (420)(421)(424)(440)(441)(442)(445)(446)(448)
 (540)
 ITEM 454 BRIDGE EXPANSION JOINTS (429)(442)
 ITEM 462 CONCRETE BOX CULVERTS AND STORM DRAINS (400)(420)(421)
 (424)(440)(464)(476)
 ITEM 464 REINFORCED CONCRETE PIPE (400)(476)
 ITEM 465 MANHOLES AND INLETS (400)(420)(421)(440)(471)
 ITEM 466 HEADWALLS AND WINGWALLS (400)(420)(421)(430)(440)(464)
 ITEM 467 SAFETY END TREATMENT (400)(420)(421)(430)(432)(440)(445)
 (460)(464)
 ITEM 476 JACKING, BORING, OR TUNNELING PIPE OR BOX (460)(462)(464)
 ITEM 496 REMOVING STRUCTURES (430)
 ITEM 497 SALE OF SALVAGEABLE MATERIAL
 ITEM 500 MOBILIZATION
 ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING
 ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL
 CONTROLS (432)(556)
 ITEM 508 CONSTRUCTING DETOURS
 ITEM 512 PORTABLE CONCRETE TRAFFIC BARRIER (420)(421)(424)(440)
 (442)
 ITEM 514 PERMANENT CONCRETE TRAFFIC BARRIER (400)(416)(420)(421)
 (424)(440)(442)(448)
 ITEM 528 COLOR TEXTURED CONCRETE AND LANDSCAPE PAVERS (132)(247)
 (420)(421)(440)
 ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER (360)
 (420)(421)(440)
 ITEM 530 INTERSECTIONS, DRIVEWAYS, AND TURNOUTS (247)(260)(263)
 (275)(276)(292)(316)(330)(334)(340)(360)(421)(440)
 ITEM 531 SIDEWALKS (104)(360)(420)(421)(440)(530)
 ITEM 540 METAL BEAM GUARD FENCE (421)(441)(445)(529)(542)(544)
 ITEM 544 GUARDRAIL END TREATMENTS
 ITEM 545 CRASH CUSHION ATTENUATORS (421)
 ITEM 556 PIPE UNDERDRAINS (402)(432)
 ITEM 560 MAILBOX ASSEMBLIES
 ITEM 610 ROADWAY ILLUMINATION ASSEMBLIES (421)(441)(442)(445)(446)

- (449)(616)(620)
- ITEM 618 CONDUIT (400)(445)(476)(622)
- ITEM 620 ELECTRICAL CONDUCTORS
- ITEM 624 GROUND BOXES (421)(440)
- ITEM 628 ELECTRICAL SERVICES (441)(445)(449)(618)(620)(627)(656)
- ITEM 636 ALUMINUM SIGNS (643)
- ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)
(441)(442)(445)(634)(636)(643)(656)
- ITEM 647 LARGE ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)
(441)(442)(445)(643)
- ITEM 650 OVERHEAD SIGN SUPPORTS (416)(420)(421)(441)(442)(445)
(449)(618)
- ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)
- ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)
- ITEM 666 REFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)
- ITEM 668 PREFABRICATED PAVEMENT MARKINGS
- ITEM 672 RAISED PAVEMENT MARKERS (677)(678)
- ITEM 677 ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS (300)
(302)(316)
- ITEM 678 PAVEMENT SURFACE PREPARATION FOR MARKINGS (677)
- ITEM 680 INSTALLATION OF HIGHWAY TRAFFIC SIGNALS (610)(625)(627)
(634)(636)(656)
- ITEM 682 VEHICLE AND PEDESTRIAN SIGNAL HEADS
- ITEM 684 TRAFFIC SIGNAL CABLES
- ITEM 686 TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL) (416)(421)(441)
(442)(445)(449)
- ITEM 687 PEDESTAL POLE ASSEMBLIES (445)(449)(656)(4003)
- ITEM 688 PEDESTRIAN DETECTORS AND VEHICLE LOOP DETECTORS (618)
(624)(682)(684)
- ITEM 730 ROADSIDE MOWING
- ITEM 734 LITTER REMOVAL
- ITEM 735 DEBRIS REMOVAL
- ITEM 738 CLEANING AND SWEEPING HIGHWAYS
- ITEM 740 GRAFFITI REMOVAL AND ANTI-GRAFFITI COATING (427)(446)

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE
 ----- PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED
 HEREON WHEREVER IN CONFLICT THEREWITH.

REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS
 (FORM FHWA 1273, MARCH 1994)

WAGE RATES

- SPECIAL PROVISION "PARTNERING" (000---002)
- SPECIAL PROVISION "NOTICE TO ALL BIDDERS" (000---003)
- SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000---004)
- SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS" (000---006)
- SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT"
(000---009)
- SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS"
(000---011)

SPECIAL PROVISION "NOTICE OF CHANGES TO U.S. DEPARTMENT OF LABOR
 REQUIRED PAYROLL INFORMATION" (000--1483)
 SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--1493)
 SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000--2096)
 (000--2097)(000--2098)(000--2126)
 SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000--1676)
 SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL AID
 CONTRACTS" (000--1966)
 SPECIAL PROVISION TO ITEM 1 (001---015)
 SPECIAL PROVISION TO ITEM 2 (002---017)
 SPECIAL PROVISION TO ITEM 3 (003---033)
 SPECIAL PROVISION TO ITEM 4 (004---017)
 SPECIAL PROVISION TO ITEM 5 (005---004)
 SPECIAL PROVISION TO ITEM 6 (006---030)
 SPECIAL PROVISION TO ITEM 7 (007---740)
 SPECIAL PROVISIONS TO ITEM 8 (008---009)(008---017)(008---069)
 (008---086)(008---119)
 SPECIAL PROVISIONS TO ITEM 9 (009---009)(009---015)
 SPECIAL PROVISION TO ITEM 100 (100---002)
 SPECIAL PROVISION TO ITEM 161 (161---006)
 SPECIAL PROVISION TO ITEM 164 (164---002)
 SPECIAL PROVISION TO ITEM 166 (166---001)
 SPECIAL PROVISION TO ITEM 169 (169---002)
 SPECIAL PROVISION TO ITEM 247 (247---033)
 SPECIAL PROVISION TO ITEM 260 (260---002)
 SPECIAL PROVISION TO ITEM 275 (275---002)
 SPECIAL PROVISION TO ITEM 300 (300---032)
 SPECIAL PROVISION TO ITEM 302 (302---010)
 SPECIAL PROVISION TO ITEM 316 (316---016)
 SPECIAL PROVISION TO ITEM 318 (318---010)
 SPECIAL PROVISION TO ITEM 330 (330---001)
 SPECIAL PROVISION TO ITEM 340 (340---003)
 SPECIAL PROVISION TO ITEM 341 (341---024)
 SPECIAL PROVISION TO ITEM 360 (360---003)
 SPECIAL PROVISION TO ITEM 416 (416---001)
 SPECIAL PROVISION TO ITEM 420 (420---002)
 SPECIAL PROVISION TO ITEM 421 (421---035)
 SPECIAL PROVISION TO ITEM 424 (424---002)
 SPECIAL PROVISION TO ITEM 425 (425---001)
 SPECIAL PROVISION TO ITEM 428 (428---001)
 SPECIAL PROVISION TO ITEM 431 (431---001)
 SPECIAL PROVISION TO ITEM 434 (434---003)
 SPECIAL PROVISION TO ITEM 440 (440---003)
 SPECIAL PROVISION TO ITEM 441 (441---006)
 SPECIAL PROVISION TO ITEM 442 (442---016)
 SPECIAL PROVISION TO ITEM 447 (447---002)
 SPECIAL PROVISION TO ITEM 448 (448---002)
 SPECIAL PROVISION TO ITEM 450 (450---001)
 SPECIAL PROVISION TO ITEM 464 (464---003)
 SPECIAL PROVISION TO ITEM 465 (465---001)
 SPECIAL PROVISION TO ITEM 500 (500---005)
 SPECIAL PROVISION TO ITEM 502 (502---033)
 SPECIAL PROVISION TO ITEM 506 (506---010)
 SPECIAL PROVISION TO ITEM 512 (512---002)

SPECIAL PROVISION TO ITEM 514 (514---002)
 SPECIAL PROVISION TO ITEM 540 (540---023)
 SPECIAL PROVISION TO ITEM 544 (544---001)
 SPECIAL PROVISION TO ITEM 560 (560---001)
 SPECIAL PROVISION TO ITEM 610 (610---010)
 SPECIAL PROVISION TO ITEM 620 (620---001)
 SPECIAL PROVISION TO ITEM 624 (624---014)
 SPECIAL PROVISION TO ITEM 628 (628---001)
 SPECIAL PROVISION TO ITEM 636 (636---014)
 SPECIAL PROVISION TO ITEM 643 (643---001)
 SPECIAL PROVISION TO ITEM 672 (672---034)
 SPECIAL PROVISION TO ITEM 682 (682---001)
 SPECIAL PROVISION TO ITEM 685 (685---014)
 SPECIAL PROVISION TO ITEM 687 (687---004)
 SPECIAL PROVISION TO ITEM 730 (730---003)
 SPECIAL PROVISION TO ITEM 740 (740---001)
 SPECIAL PROVISION TO SPECIAL SPECIFICATION ITEM 6266 (6266--017)
 SPECIAL PROVISION TO SPECIAL SPECIFICATION ITEM 6473 (6473--001)

SPECIAL SPECIFICATIONS:

 ITEM 1012 TRANSPLANT PLANT MATERIAL
 ITEM 4003 SCREW-IN TYPE ANCHOR FOUNDATIONS (441)(442)(445)(685)
 (687)
 ITEM 4022 INTERLOCKING ARTICULATING CONCRETE BLOCKS
 ITEM 4116 SOIL NAIL ANCHORS (421)(440)
 ITEM 5718 REMOVE, STORE, AND RELAY LANDSCAPE PAVERS (401)(528)
 ITEM 5830 VEHICLE REMOVAL
 ITEM 5918 WATER LINE (CITY OF WEST) (100)(400)(401)(402)(421)(440)
 (441)(471)(476)
 ITEM 5919 WASTEWATER LINE (CITY OF WEST) (100)(400)(401)(402)(403)
 (420)(421)(440)(465)(471)(476)
 ITEM 5921 WATER UTILITIES (CITY OF ABBOTT)
 ITEM 5922 MENLOW WATER SUPPLY CORPORATION
 ITEM 5925 AT&T TELECOMMUNICATION SYSTEM (100)(104)(193)(400)(402)
 (420)(421)(422)(440)(476)(479)(496)
 ITEM 6006 SPREAD SPECTRUM RADIOS FOR TRAFFIC SIGNALS
 ITEM 6007 REMOVING TRAFFIC SIGNALS
 ITEM 6266 VIDEO IMAGING VEHICLE DETECTION SYSTEM
 ITEM 6473 MULTIPOLYMER PAVEMENT MARKING S (MPM) (677)(678)(8094)
 ITEM 6834 PORTABLE CHANGEABLE MESSAGE SIGN (677)(678)
 ITEM 8020 REFLECTORIZED PROFILE PAVEMENTMARKINGS (662)(666)(677)
 (678)
 ITEM 8094 MOBILE RETROREFLECTIVITY DATA COLLECTION FOR PAVEMENT
 MARKINGS
 ITEM 8502 INSTALLATION OF DYNAMIC MESSAGE SIGN SYSTEM (416)(618)
 (620)(650)(654)(656)
 ITEM 8615 RADAR ADVANCE DETECTION DEVICES

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH
 ----- PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER

PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-
LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL
PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFI-
CATIONS FOR THIS PROJECT.

Control 0014-07-082, ETC.

Project C 14-7-82, ETC.

Highway IH 35

County HILL, ETC.

SMALL BUSINESS ENTERPRISES REQUIREMENTS

The following goal for small business enterprises is established:

SBE
6.0%

SPECIAL PROVISION

000--2126

Important Notice to Contractor

For this project, the Small Business Enterprise (SBE) program will be administered in accordance with Special Provision 000--1966. An SBE is as defined elsewhere in the Contract and includes the following:

“Small Business Enterprise” or “SBE” is a firm certified as such by the Department. Firms certified as Historically Underutilized Businesses by the Texas Comptroller of Public Accounts and as Disadvantaged Business Enterprises by the Texas Uniform Certification Program also qualify as SBEs.

Any reference to DBE in this Special Provision is also applicable to SBEs. Any form referenced may be this form or equivalent as provided by the Department.