

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: F 2B24(096)

CONTROL: 2121-01-104

COUNTY: EL PASO

LETTING: 05/03/2024

REFERENCE NO: 0426

PROPOSAL ADDENDUMS

- PROPOSAL COVER
- BID INSERTS (SH. NO.: ALL)
- GENERAL NOTES (SH. NO.: SHEETS B, F, I THRU K, N, V AND EE. ADDED)
SHEET LL. SHEETS I THRU KK: PARAGRAPH SHIFTED FROM PAGE TO PAGE)
- SPEC LIST (SH. NO.:)
- SPECIAL PROVISIONS:
- ADDED:

DELETED:

- SPECIAL SPECIFICATIONS:
- ADDED:

DELETED:

OTHER: PLAN SHEETS AND OTHER CHANGES

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

***** PROPOSAL *****

***** BID INSERTS *****

REVISED QUANTITIES FOR THE FOLLOWING BID ITEMS: 192-6017, 192-6024,
192-6030, 192-6032, 192-6033, 192-6063, 416-6018, 416-6022, 425-6020
425-6026, 636-6002, 636-6003, 647-6001, 1002-6002, 1002-6004, 1002-6005
1002-6006, 1005-6001 AND 2017-6001

DELETED THE FOLLOWING BID ITEMS: 650-6047

***** GENERAL NOTES *****

SHEETS B: REVISED TO OMIT PMBD (MOD). IT IS NOT A MODIFIED STANDARD.

SHEET F: REVISED ITEM 8: THE MAXIMUM DAYS FOR SUBSTANTIAL COMPLETION
REVISED TO 1120.

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

(CONTINUED)

SHEET I: ADDED TABLE 2 TO SHOW TESTING REQUIREMENTS. REVISED ITEM 134
TABLE 3 FOR SEED AND MIX RATE.

SHEET J: ADDED ITEM 192 LANDSCAPE PLANTING GENERAL NOTE.

SHEET K: CONTINUED WITH ADDED PARAGRAPH FROM GENERAL NOTE 192.

SHEET N: REVISED TITLE FOR ITEM 423.

SHEET V: REVISED THE LAST PARAGRAPH OF GENERAL NOTE 512 TO CLARIFY
TREATMENT PAYMENT METHOD.

SHEET EE: REVISED PARAGRAPH FOR AGGREGATE TY I COLOR AND SIZE. ITEM 2017
ADDED PARAGRAPH FOR LOOP 375 FOR LOOSE AGGREGATE STOCKPILE.

SHEETS I TO KK: NOTES SHIFTED FROM PAGE TO PAGE DUE TO REVISIONS AND
ADDING NEW NOTES. SHEET LL CREATED DUE TO THE SHIFTING OF NOTES.

***** SPECIFICATIONS LIST *****

***** PLAN SHEETS VOLUME 1*****

PLAN SHEETS 2 AND 5 (INDEX OF SHEETS): SHEET 8R REVISED TO ADD SHEET LL.
SHEETS 45 AND 53 WERE LEFT OUT FROM PLANS INAVERTEDLY. SHEETS ADDED.
SHEET 907 IS OMITTED FROM PLANS.

PLAN SHEETS 8, 8B, 8D-8R (GENERAL NOTES): REVISED AS SHOWN IN THE GENERAL
NOTES OF THE PROPOSAL

PLAN SHEETS 18, 18A, TO 18G (ESTIMATE AND QUATITY SHEET): REVISED ITEMS
AND QUANTITIES AS SHOWN IN THE BID INSERS OF THE PROPOSAL.

PLAN SHEET 25 (SUMMARY OF ROADWAY QUANTITIES): REVISED QUNATITITES FOR
ITEMS 0134-6002.

PLAN SHEETS 32, 36 THRU 38 (SUMMARY OF BRIDGE QUANTITIES): REVISED
QUANTITY FOR ITEMS 425-6020 AND 425-6026.

PLAN SHEET 43 (SUMMARY OF SIGNS QUANTITIES): REVISED AND ADDED QUANTITIES
FOR ITEMS 416, 636 ,647 AND 650.

PLAN SHEETS 45 AND 53: SHEETS WERE INAVERTEDLY LEFT OUT OF THE PLANS.
SHEETS ADDED.

PLAN SHEET 46A (SUMMARY OF LANDSCAPE QUANTITIES): REVISED QUANTITIES FOR
ITEMS 192, 1002, 1005 AND ADDED ITEM 2017.

***** PLAN SHEETS VOLUME 2*****

PLAN SHEET 236: REVISED QUANTITY FOR ITEM 134.
DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

(CONTINUED)

PLAN SHEET 320: ADDED CUT AND RESTORE DETAIL.

PLAN SHEETS 314, 362 AND 366: SHEETS WERE INAVERTEDLY LEFT OUT OF THE PLAN SHEETS ADDED.

***** PLAN SHEETS VOLUME 3*****

PLAN SHEETS 528, 529, 531, 532, 546, 547, 549, 550, 564, 565, 579, 580, 594, 595, 597, 598, 612, 613, 615, 616, 630, 631, 633, 634, 648, 649, 651 AND 652: REVISED SHEET GENERAL NOTES.

PLAN SHEET 536: REVISED DETAIL TO REFLECT BEAM TYPE AND REVISED LF QUANTITY OF THE X- BEAMS.

PLAN SHEETS 675, 677, 694, 696, 713, 715, 732, 734, 747, 749, 762, AND 764 REVISED TABLE OF ESTIMATE QUANTITIES FOR X-BEAMS.

***** PLAN SHEETS VOLUME 4*****

PLAN SHEETS 882 AND 883: REVISED AND ADDED QUANTITIES TO SUMMARY TABL.

PLAN SHEETS 900, 901 AND 903: REVISED SIGN DETAILS.

PLAN SHEETS 915, AND 915A: REVISED STRCUTURE DATA.

PLAN SHEET 907: SHEET OMITTED FROM PLANS.

PLAN SHEET 921: ADD SIGNS AND REVISED PAGE TOTAL.

PLAN SHEET 1068: SHEET ADDED TO PLANS.

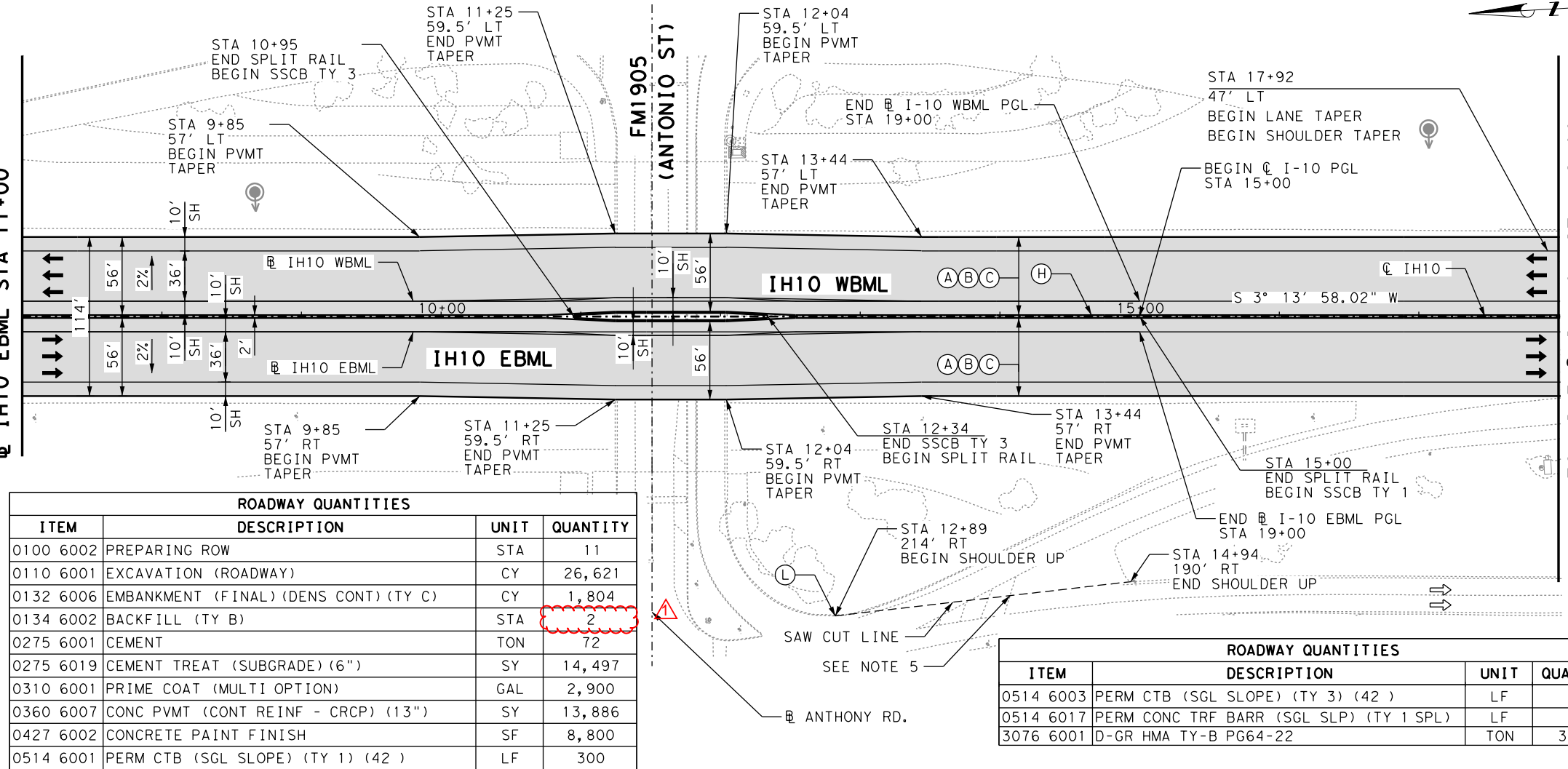
PLAN SHEETS 1178, 1179, 1180, 1198, 1202 AND 1203: REVISE LANDSCAPING QUANTITIES AND ADDED ITEM 2017 AND QUANTITY.

PLAN SHEETS 1204 THRU 1208: ADDED PLANT BED PREPARATION NOTES.

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 @ IH10 WBML STA 11+00
 @ IH10 EBML STA 11+00

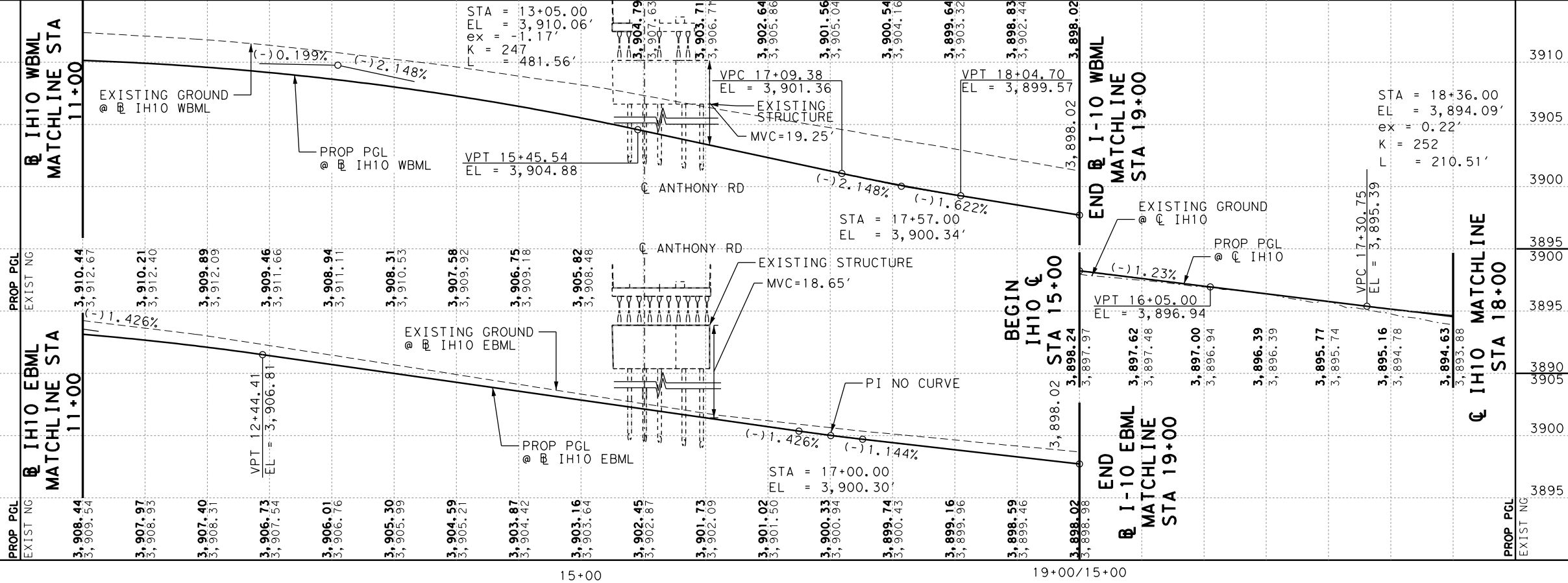
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 @ IH10 WBML STA 22+00
 @ IH10 EBML STA 22+00



ROADWAY QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
0100 6002	PREPARING ROW	STA	11
0110 6001	EXCAVATION (ROADWAY)	CY	26,621
0132 6006	EMBANKMENT (FINAL) (DENS CONT) (TY C)	CY	1,804
0134 6002	BACKFILL (TY B)	STA	2
0275 6001	CEMENT	TON	72
0275 6019	CEMENT TREAT (SUBGRADE) (6")	SY	14,497
0310 6001	PRIME COAT (MULTI OPTION)	GAL	2,900
0360 6007	CONC PVMT (CONT REINF - CRCP) (13")	SY	13,886
0427 6002	CONCRETE PAINT FINISH	SF	8,800
0514 6001	PERM CTB (SGL SLOPE) (TY 1) (42)	LF	300

ROADWAY QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
0514 6003	PERM CTB (SGL SLOPE) (TY 3) (42)	LF	139
0514 6017	PERM CONC TRF BARR (SGL SLP) (TY 1 SPL)	LF	661
3076 6001	D-GR HMA TY-B PG64-22	TON	3,181

- LEGEND**
- (A) 13" CONC PVMT (CONT REINF-CRCP)
 - (B) 4" D-GR HMA TY-B SAC-B PG64-22
 - (C) 6" CEMENT TREAT (SUBGRADE)
 - (G) TY II CURB & GUTTER
 - (H) SSCB
 - (J) MGBF
 - (K) GUARDRAIL END TREATMENT
 - (L) DAT
 - (M) THRIE-BEAM
 - (O) SSTR
 - (P) PROP. 4" CONC. RIPRAP
 - (Q) CABLE BARRIER/MOW STRIP
 - (R) TL-4 TERMINAL
 - (S) TY II CURB
- ← EXIST TRAVEL LANE
 ↑ PROP TRAVEL LANE
 █ PROP MAIN LANES CONC PVMT
 - - - SAWCUT LINE
 ······ EXIST ROW
- NOTES**
- FOR ALIGNMENT DETAILS SEE "HORIZONTAL ALIGNMENT DATA AND PLAN" SHEETS.
 - ALL DIMENSIONS ARE TO THE FACE OF CURB OR NOMINAL FACE OF RAIL UNLESS OTHERWISE NOTED.
 - REFER TO "BYPASS, RAMP, RAMP TERMINAL, FRG AND INTERSECTION PLAN & PROFILE" SHEETS FOR ROAD CONFIGURATION, QUANTITIES AND VERTICAL INFO.
 - STATIONS AND OFFSET DISTANCES ARE BASED OF IH10 @ UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO REFER TO MISC. ROADWAY DETAILS FOR FURTHER INFORMATION.



0 50' 100'

SCALE: 1" = 100' HORZ
 1" = 10' VERT

Isaiiah S. Mora
 4/24/2024

NO.	DATE	REVISION	APPROV.
		REVISED 04/24/24	J.R.

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Texas Department of Transportation

IH 10 WIDENING
 (NM/SPUR 37)

PLAN & PROFILE
 STA 7+00 TO STA 18+00

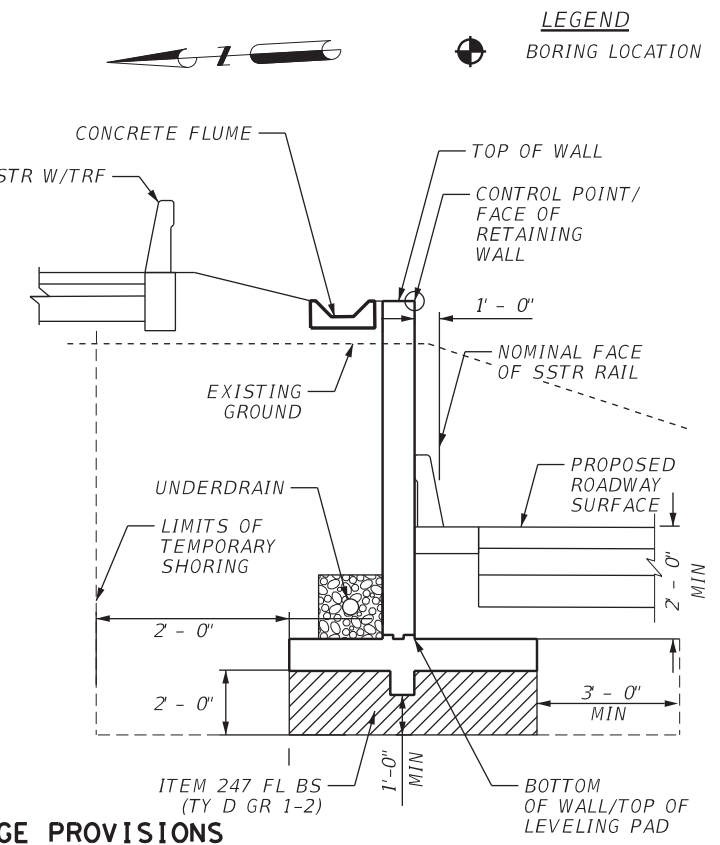
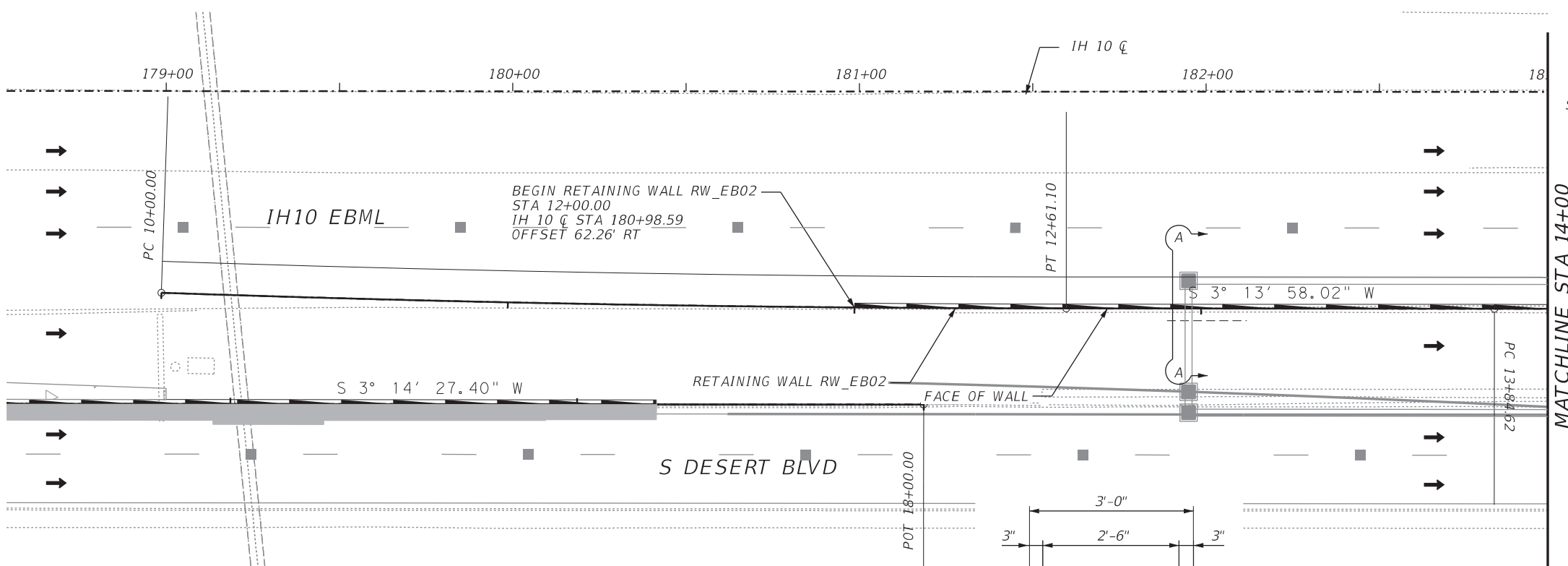
SHEET 2 OF 19

FED RD DIV NO.	FEDERAL AID PROJECT	SHEET NO.
6	SEE TITLE SHEET	236

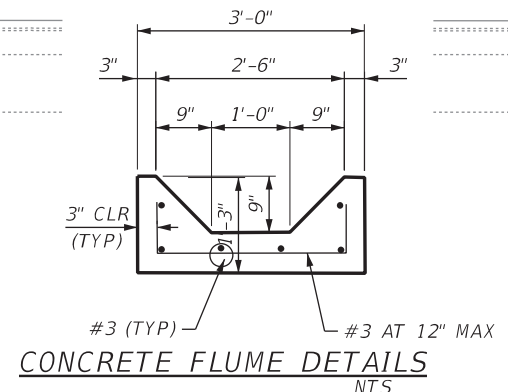
STATE	DISTRICT	COUNTY
TEXAS	ELP	EL PASO

CONTROL	SECTION	JOB	HIGHWAY
2121	01	104	IH 10

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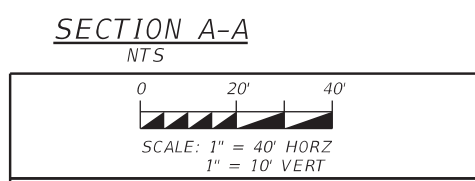
ROADWAY QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
0110 6001	EXCAVATION (ROADWAY)	CY	278
0247 6053	FL BS (CMP IN PLC)(TYD GR1-2)(FNAL POS)	CY	278
0403 6001	TEMPORARY SPL SHORING	SF	5,309
0420 6007	CL A CONC (FLUME)	CY	34
0423 6005	RETAINING WALL (SPREAD FOOTING)	SF	4,876
0427 6002	CONCRETE PAINT FINISH	SF	3,316



SPECIAL DRAINAGE PROVISIONS
 (When cement stabilized backfill is used)
 (All exposed surfaces of retaining walls to be painted color: "Sand Color")

THE SAND COLOR SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 13578

USE COLOR SCHEME CONFORMING TO FEDERAL STANDARD 5958 COLORS FAN DECK 7690-01-162-2210 (JULY 1994). MATERIALS AND LABOR FOR PAINTING/STAINING IS SUBSIDIARY TO ITEM 427



STATE OF TEXAS
 JESUS S. HEREDIA
 95705
 LICENSED PROFESSIONAL ENGINEER

Jesus S. Heredia

2/28/2024

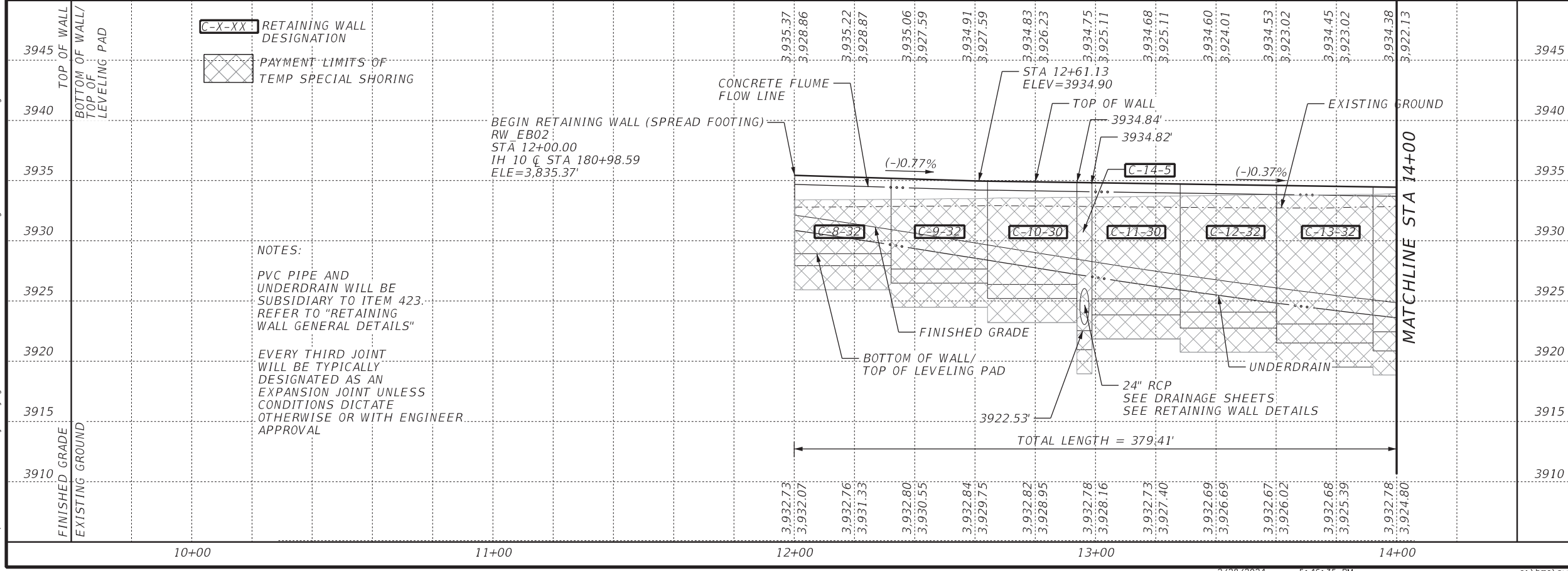
NO.	DATE	REVISION	APPROV.
1	04-23-2024	ADDED	

consor
 F-12040
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 Texas Department of Transportation

IH 10 WIDENING (NM/SPUR 37)
 RETAINING WALL PLAN & PROFILE (RW_EB02)

SHEET 1 OF 2

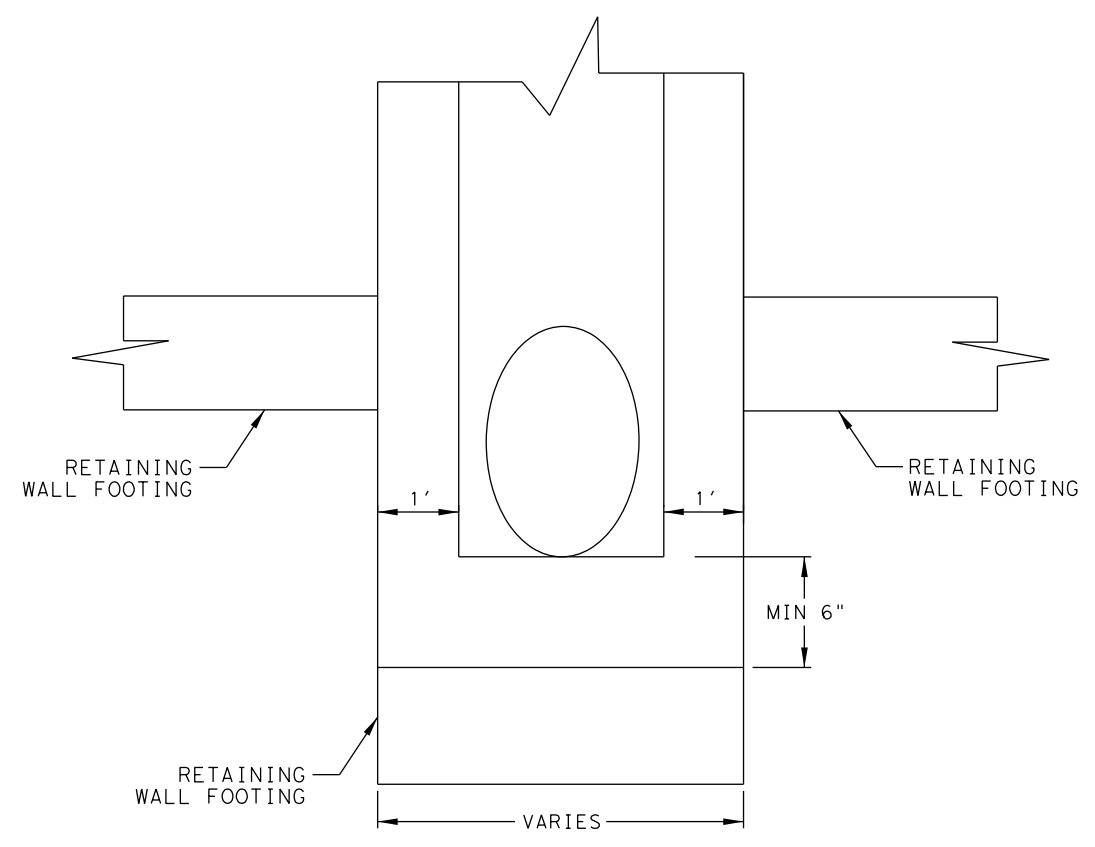
FED RD DIV NO.	FEDERAL AID PROJECT	SHEET NO.	
6	SEE TITLE SHEET	314	
STATE	DISTRICT	COUNTY	
TEXAS	ELP	EL PASO	
CONTROL	SECTION	JOB	HIGHWAY
2121	01	104	IH 10



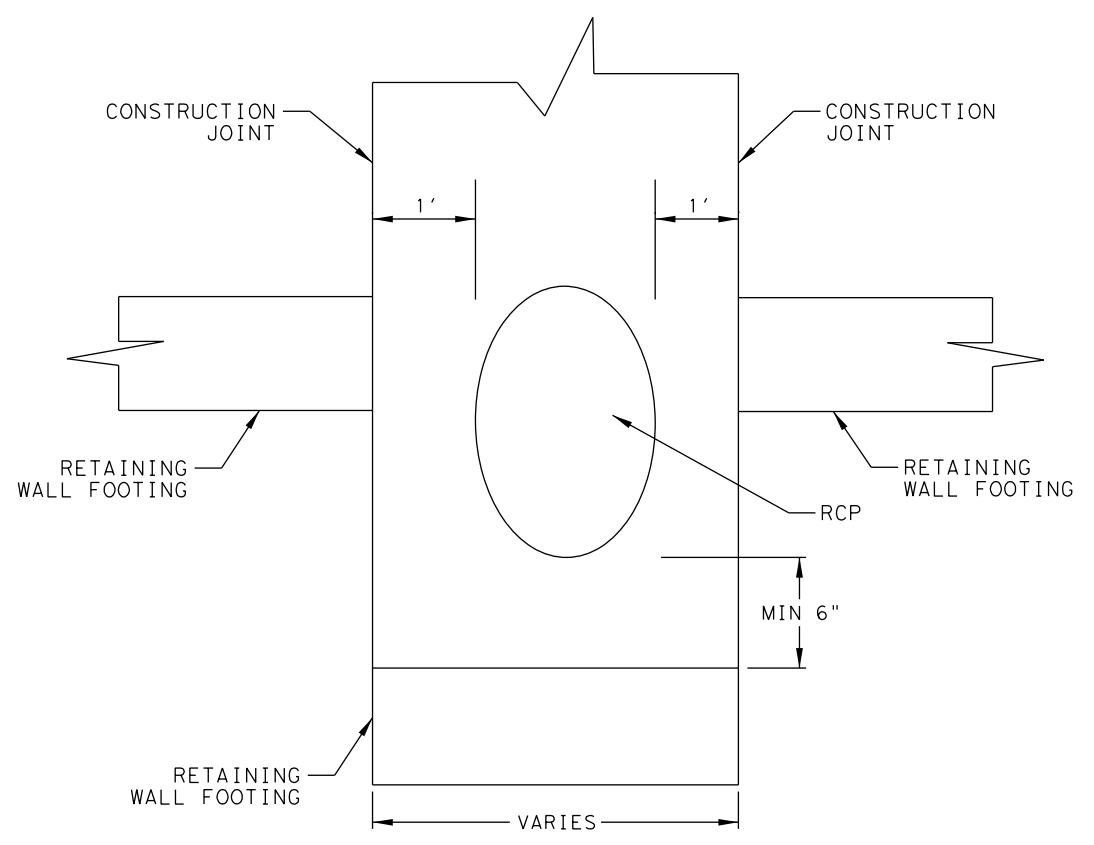
NOTES:
 PVC PIPE AND UNDERDRAIN WILL BE SUBSIDIARY TO ITEM 423. REFER TO "RETAINING WALL GENERAL DETAILS"
 EVERY THIRD JOINT WILL BE TYPICALLY DESIGNATED AS AN EXPANSION JOINT UNLESS CONDITIONS DICTATE OTHERWISE OR WITH ENGINEER APPROVAL

BEGIN RETAINING WALL (SPREAD FOOTING) RW_EB02:
 STA 12+00.00
 IH 10 C STA 180+98.59
 ELE=3,835.37'

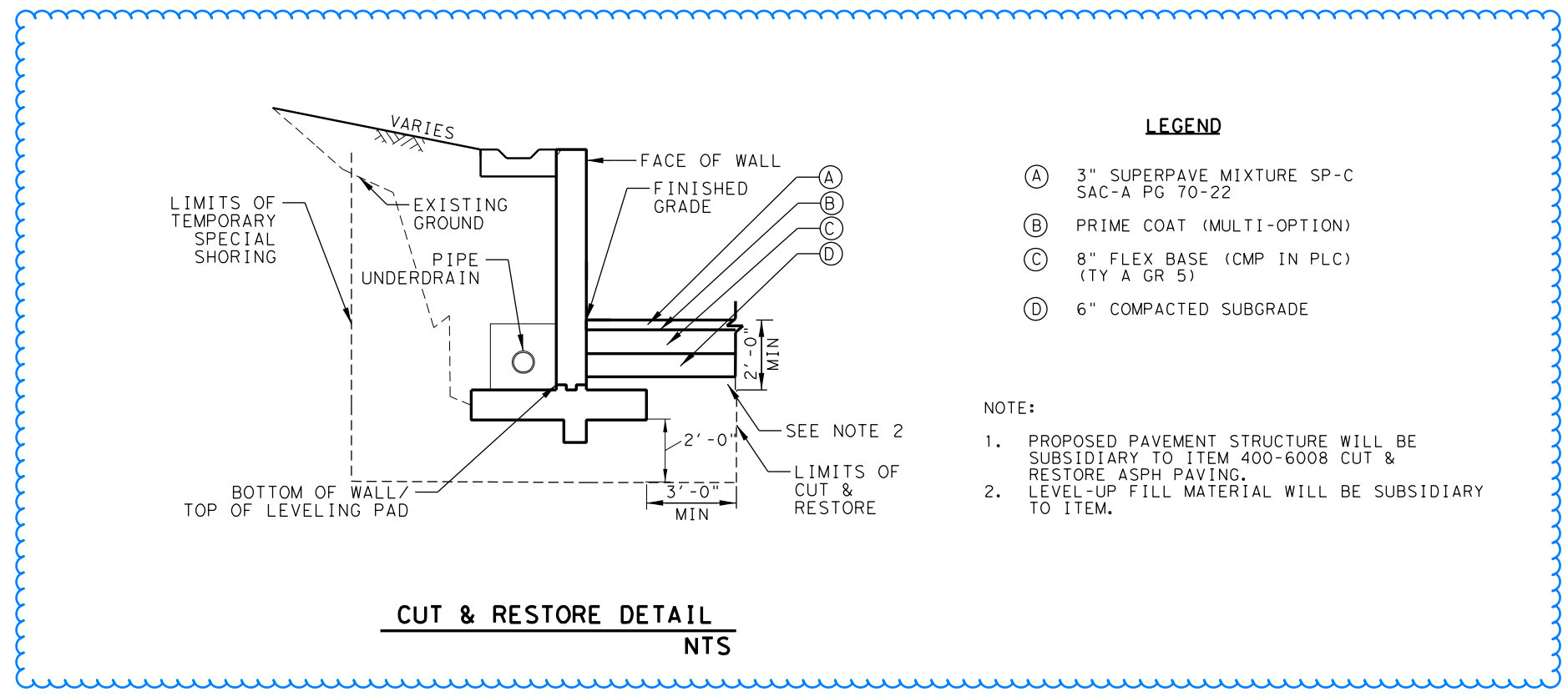
TOTAL LENGTH = 379.41'



PMDB & PIPE CROSSING DETAIL
NTS



PIPE CROSSING DETAIL
NTS



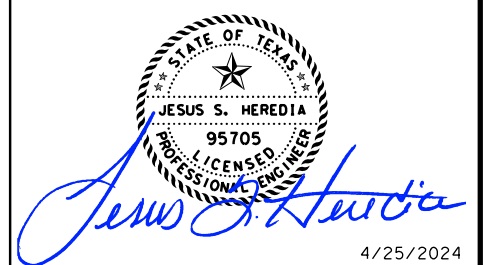
CUT & RESTORE DETAIL
NTS

LEGEND

- (A) 3" SUPERPAVE MIXTURE SP-C SAC-A PG 70-22
- (B) PRIME COAT (MULTI-OPTION)
- (C) 8" FLEX BASE (CMP IN PLC) (TY A GR 5)
- (D) 6" COMPACTED SUBGRADE

NOTE:

1. PROPOSED PAVEMENT STRUCTURE WILL BE SUBSIDIARY TO ITEM 400-6008 CUT & RESTORE ASPH PAVING.
2. LEVEL-UP FILL MATERIAL WILL BE SUBSIDIARY TO ITEM.



4/25/24	ADDED DETAIL	J.S.H.
NO.	DATE	REVISION
		APPROV.



IH 10 WIDENING (NM/SPUR 37)
RETAINING WALL DETAILS

SHEET 1 OF 2

FED RD DIV NO.	FEDERAL AID PROJECT	SHEET NO.	
6	SEE TITLE SHEET	320	
STATE	DISTRICT	COUNTY	
TEXAS	ELP	EL PASO	
CONTROL	SECTION	JOB	HIGHWAY
2121	01	104	IH 10

SYSTEM 24
10-YEAR CONVEYANCE CONFIGURATION DATA

BASIN 24 STORM SEWER

LINK ID	US NODE ID	DS NODE ID	US FL ELEV (FT)	US HGL (FT)	DS FL ELEV (FT)	DS HGL (FT)	ACTUAL DS VELOCITY (FPS)	UNIFORM VELOCITY (FPS)	SIZE	NUMBER OF BARRELS	ACTUAL LENGTH (FT)	HYDRAULIC LENGTH (FT)	LINK SLOPE (%)	MANNING'S N	CUMULATIVE TC (MIN)	TC USED (MIN)	CUMULATIVE C VALUE	CUMULATIVE I (IN/HR)	CUMULATIVE A (AC)	DISCHARGE (CFS)	CAPACITY (CFS)
LAT 24A-01	24A-02	24A-02 EXIST	3932.88	3933.82	3932.85	3933.71	2.33	3.42	24" RCP	1.00	8.75	12.75	0.30	0.012	11.26	11.26	0.95	4.50	0.70	3.00	14.44
LAT 24A-01 EXIST	24A-02 EXIST	24A-03 EXIST	3932.85	3933.71	3932.80	3933.61	3.04	4.03	24" RCP	1.00	13.76	18.26	0.39	0.012	11.32	11.32	0.94	4.49	0.86	3.65	16.52
LAT 24B-01 EXIST	24B PT	24B-01 JT EXIST	3927.99	3928.48	3927.81	3928.18	4.39	4.54	24" RCP	1.00	18.36	20.86	1.01	0.012	10.02	10.00	0.95	4.79	0.39	1.77	26.46
LAT 24B-02	24B-01	24B PT	3928.03	3928.66	3927.99	3928.37	4.21	5.15	24" RCP	1.00	3.06	4.56	1.44	0.012	10.00	10.00	0.95	4.79	0.39	1.77	31.61
LAT 24B-03 EXIST	24B-03 EXIST	24B-02 JT EXIST	3924.80	3925.69	3924.63	3925.07	5.65	6.65	24" RCP	1.00	8.52	12.53	1.96	0.012	10.48	10.48	0.95	4.68	0.65	2.89	36.90
LINK 24A-01	24A-01	24A-02	3933.30	3934.01	3932.88	3933.82	1.73	3.25	24" RCP	1.00	138.00	142.50	0.30	0.012	10.53	10.53	0.95	4.67	0.56	2.50	14.44
LINK 24A-02	24A-07	24A-01	3933.53	3934.12	3933.30	3934.01	1.12	2.60	24" RCP	1.00	78.00	82.50	0.30	0.012	10.00	10.00	0.95	4.79	0.25	1.12	14.44
LINK 24A-02 EXIST	24A-03 EXIST	24A-04 EXIST	3932.80	3933.61	3930.85	3931.39	5.37	5.37	24" RCP	1.00	219.95	224.95	0.89	0.012	11.40	11.32	0.94	4.49	0.86	3.65	24.82
LINK 24A-03 EXIST	24A-04 EXIST	24A-OUT	3930.85	3931.85	3930.70	3931.39	4.04	2.68	24" RCP	1.00	123.03	125.53	0.12	0.012	12.10	12.10	0.94	4.33	0.95	3.88	9.21
LINK 24B-01 EXIST	24B-01 JT EXIST	24B-03 EXIST	3927.69	3928.36	3927.27	3927.70	3.62	3.62	24" RCP	1.00	78.75	83.75	0.53	0.012	10.09	10.00	0.95	4.79	0.39	1.77	19.23
LINK 24B-02 EXIST	24B-02 JT EXIST	24B-OUT	3924.63	3925.49	3924.16	3924.65	4.86	4.88	24" RCP	1.00	56.16	58.17	0.83	0.012	10.51	10.48	0.95	4.68	0.65	2.89	23.96

NOTES:

1. STORM SEWER ANALYSIS PERFORMED USING POWER GEOPAK DRAINAGE V8i (SELECT SERIES 10) WHICH PERFORMS HYDRAULIC COMPUTATIONS IN ACCORDANCE WITH FHWA (HEC-22 GUIDELINES).



Ad Sustaita
2/28/2024

NO.	DATE	REVISION	APPROV.



IH 10 WIDENING
(NM/SPUR 37)
**HYDRAULIC DATA
LINKS
10-YEAR**

SHEET 3 OF 3

FED RD DIV NO.	FEDERAL AID PROJECT		SHEET NO.
6	SEE TITLE SHEET		362
STATE	DISTRICT	COUNTY	
TEXAS	ELP	EL PASO	
CONTROL	SECTION	JOB	HIGHWAY
2121	01	104	IH 10

ADDED 04-23-2024

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EBML DITCH 0B-01 CALCULATION - 10 YEAR																			
UPSTREAM				DOWNSTREAM				BOTTOM WIDTH	LEFT SIDE SLOPE	RIGHT SIDE SLOPE	CHANNEL DEPTH	MANNING'S "n"	DESIGN FLOW	SLOPE	NORMAL DEPTH	VELOCITY	SHEAR STRESS	FREE BOARD	COMMENTS
STATION	FL OFFSET	LT/RT	FLOWLINE ELEVATION	STATION	FL OFFSET	LT/RT	FLOWLINE ELEVATION												
7+18.95	192.88	RT	3908.10	7+00.00	196.73	RT	3907.79	3.0	4	4	0.46	0.033	0.06	0.0164	0.03	0.57	0.33	0.43	
7+00.00	196.73	RT	3907.79	6+00.00	170.43	RT	3906.47	18.0	4	4	0.64	0.033	0.35	0.0132	0.04	0.55	0.47	0.60	
6+00.00	170.43	RT	3906.47	5+00.00	157.00	RT	3904.31	0.9	6	4	1.24	0.033	0.65	0.0216	0.20	1.70	0.88	1.04	
5+00.00	157.00	RT	3904.31	4+00.00	156.29	RT	3902.33	2.5	6	4	2.92	0.033	0.95	0.0198	0.17	1.66	1.91	2.75	
4+00.00	156.29	RT	3902.33	3+00.00	162.25	RT	3898.60	7.7	5	4	5.07	0.033	1.25	0.0373	0.09	1.70	6.61	4.98	
3+00.00	162.25	RT	3898.60	2+00.00	169.64	RT	3894.99	0.7	5	4	5.66	0.033	1.55	0.0361	0.29	2.65	6.31	5.37	
2+00.00	169.64	RT	3894.99	1+00.00	177.38	RT	3891.47	3.4	5	4	3.15	0.033	1.85	0.0352	0.18	2.40	3.75	2.97	
1+00.00	177.38	RT	3891.47	0+48.03	176.18	RT	3889.76	16.3	5	6	0.67	0.033	2.00	0.0329	0.08	1.49	1.16	0.59	

EBML DITCH 1B-01 CALCULATION - 10 YEAR																			
UPSTREAM				DOWNSTREAM				BOTTOM WIDTH	LEFT SIDE SLOPE	RIGHT SIDE SLOPE	CHANNEL DEPTH	MANNING'S "n"	DESIGN FLOW	SLOPE	NORMAL DEPTH	VELOCITY	SHEAR STRESS	FREE BOARD	COMMENTS
STATION	FL OFFSET	LT/RT	FLOWLINE ELEVATION	STATION	FL OFFSET	LT/RT	FLOWLINE ELEVATION												
2+47.35	61.47	RT	3908.05	3+00.00	65.24	RT	3907.62	0.2	8	8	0.40	0.033	0.27	0.0082	0.19	0.86	0.10	0.21	
3+00.00	65.24	RT	3907.62	4+00.00	75.19	RT	3906.81	2.3	8	8	0.64	0.033	0.78	0.0081	0.19	1.07	0.19	0.45	
4+00.00	75.19	RT	3906.81	5+00.00	86.77	RT	3906.00	9.4	8	8	1.25	0.033	1.29	0.0081	0.13	0.97	0.41	1.12	
5+00.00	86.77	RT	3906.00	6+00.00	92.25	RT	3904.92	19.0	8	8	1.71	0.033	1.81	0.0108	0.10	0.96	0.81	1.61	
6+00.00	92.25	RT	3904.92	7+00.00	97.35	RT	3903.83	17.4	4	4	2.92	0.033	2.32	0.0109	0.12	1.11	1.39	2.80	
7+00.00	97.35	RT	3903.83	8+00.00	94.14	RT	3902.75	1.8	4	4	3.16	0.033	2.83	0.0108	0.41	1.98	1.10	2.75	
8+00.00	94.14	RT	3902.75	9+00.00	85.50	RT	3901.67	8.2	4	4	3.33	0.033	3.34	0.0108	0.23	1.63	1.35	3.10	
9+00.00	85.50	RT	3901.67	10+00.00	80.53	RT	3900.57	6.5	4	4	3.17	0.033	3.86	0.0110	0.28	1.83	1.28	2.89	
10+00.00	80.53	RT	3900.57	11+00.00	76.22	RT	3899.48	11.9	4	4	2.98	0.033	4.37	0.0109	0.21	1.61	1.32	2.77	
11+00.00	76.22	RT	3899.48	12+00.00	76.76	RT	3898.10	10.4	4	3	2.50	0.033	4.88	0.0138	0.23	1.89	1.44	2.27	
12+00.00	76.76	RT	3898.10	13+00.00	72.99	RT	3896.72	11.5	4	3	2.38	0.033	5.39	0.0138	0.23	1.90	1.41	2.15	
13+00.00	72.99	RT	3896.72	14+00.00	74.39	RT	3895.07	5.4	4	4	2.62	0.033	5.90	0.0165	0.35	2.50	1.59	2.27	
14+00.00	74.39	RT	3895.07	15+00.00	123.01	RT	3893.05	5.7	4	4	3.13	0.033	6.42	0.0202	0.33	2.73	2.28	2.80	
15+00.00	123.01	RT	3893.05	16+00.00	136.69	RT	3890.35	45.6	6	8	5.23	0.033	6.93	0.0270	0.10	1.55	6.06	5.13	
16+00.00	136.69	RT	3890.35	17+00.00	153.98	RT	3887.64	38.9	8	8	3.49	0.033	7.44	0.0271	0.11	1.69	4.14	3.38	
17+00.00	153.98	RT	3887.64	18+00.00	153.92	RT	3884.94	31.8	8	8	1.77	0.033	7.95	0.0270	0.13	1.86	2.27	1.64	
18+00.00	153.92	RT	3884.94	19+00.00	150.81	RT	3882.24	26.3	7	8	2.17	0.033	8.47	0.0270	0.15	2.04	2.63	2.02	
19+00.00	150.81	RT	3882.24	20+00.00	148.60	RT	3881.47	8.9	6	8	3.69	0.033	8.98	0.0077	0.41	1.87	1.01	3.28	
20+00.00	148.60	RT	3881.47	21+00.00	145.05	RT	3880.70	11.4	6	8	3.83	0.033	9.49	0.0077	0.37	1.82	1.07	3.46	
21+00.00	145.05	RT	3880.70	22+00.00	145.81	RT	3879.93	15.3	6	8	4.00	0.033	10.00	0.0077	0.33	1.73	1.16	3.67	
22+00.00	145.81	RT	3879.93	23+00.00	148.87	RT	3879.16	12.4	6	8	4.08	0.033	10.52	0.0077	0.38	1.85	1.15	3.70	
23+00.00	148.87	RT	3879.16	23+39.98	152.88	RT	3882.50	14.0	6	8	3.39	0.033	-90.69	-0.0835	0.00	0.00	-10.77	3.39	

EBML DITCH 1B-02 CALCULATION - 10 YEAR																			
UPSTREAM				DOWNSTREAM				BOTTOM WIDTH	LEFT SIDE SLOPE	RIGHT SIDE SLOPE	CHANNEL DEPTH	MANNING'S "n"	DESIGN FLOW	SLOPE	NORMAL DEPTH	VELOCITY	SHEAR STRESS	FREE BOARD	COMMENTS
STATION	FL OFFSET	LT/RT	FLOWLINE ELEVATION	STATION	FL OFFSET	LT/RT	FLOWLINE ELEVATION												
47+09.42	210.11	RT	3915.38	47+00.00	210.26	RT	3915.20	9.0	6	8	0.04	0.033	0.04	0.0191	0.01	0.36	0.05	0.03	
47+00.00	210.26	RT	3915.20	46+00.00	211.87	RT	3913.36	7.9	6	8	0.17	0.033	0.51	0.0184	0.06	0.95	0.17	0.11	
46+00.00	211.87	RT	3913.36	45+00.00	216.86	RT	3911.69	1.2	6	8	1.15	0.033	0.98	0.0167	0.22	1.58	0.63	0.93	
45+00.00	216.86	RT	3911.69	44+00.00	217.47	RT	3909.85	2.8	8	8	1.30	0.033	1.45	0.0184	0.20	1.68	0.83	1.10	
44+00.00	217.47	RT	3909.85	43+00.00	214.12	RT	3907.94	6.5	8	8	1.55	0.033	1.91	0.0191	0.15	1.61	1.11	1.40	
43+00.00	214.12	RT	3907.94	42+00.00	213.65	RT	3906.04	7.7	8	8	2.35	0.033	2.38	0.0190	0.16	1.67	1.62	2.19	
42+00.00	213.65	RT	3906.04	41+00.00	206.37	RT	3904.00	6.3	8	8	2.68	0.033	2.85	0.0204	0.19	1.90	1.91	2.49	
41+00.00	206.37	RT	3904.00	40+00.00	198.88	RT	3902.01	15.7	6	6	2.41	0.033	3.32	0.0199	0.13	1.57	2.01	2.28	
40+00.00	198.88	RT	3902.01	39+00.00	186.45	RT	3900.03	14.9	6	6	3.09	0.033	3.78	0.0198	0.14	1.68	2.43	2.95	
39+00.00	186.45	RT	3900.03	38+00.00	171.46	RT	3898.39	6.1	6	6	4.24	0.033	4.25	0.0164	0.26	2.09	2.37	3.98	
38+00.00	171.46	RT	3898.39	37+00.00	153.01	RT	3896.77	6.6	4	5	4.94	0.033	4.72	0.0162	0.28	2.19	2.76	4.66	
37+00.00	153.01	RT	3896.77	36+00.00	143.90	RT	3895.16	9.5	4	5	6.83	0.033	5.19	0.0161	0.24	2.05	3.81	6.59	
36+00.00	143.90	RT	3895.16	35+00.00	143.89	RT	3893.56	12.6	4	4	7.77	0.033	5.65	0.0160	0.21	1.96	4.42	7.56	
35+00.00	143.89	RT	3893.56	34+00.00	146.62	RT	3891.95	16.6	4	4	7.27	0.033	6.12	0.0161	0.19	1.84	4.36	7.08	
34+00.00	146.62	RT	3891.95	33+00.00	161.58	RT	3889.69	22.8	4	4	5.79	0.033	6.59	0.0226	0.15	1.88	5.32	5.64	
33+00.00	161.58	RT	3889.69	32+00.00	180.16	RT	3887.64	38.3	6	6	3.94	0.033	7.05	0.0205	0.12	1.53	3.62	3.82	
32+00.00	180.16	RT	3887.64	31+00.00	183.72	RT	3885.41	25.2	8	6	2.00	0.033	7.52	0.0223	0.15	1.87	2.04	1.85	
31+00.00	183.72	RT	3885.41	30+00.00	182.34	RT	3883.00	25.7	8	6	1.32	0.033	7.99	0.0241	0.15	1.95	1.56	1.17	
30+00.00	182.34	RT	3883.00	29+00.00	170.87	RT	3882.01	12.3	8	6	2.32	0.033	8.46	0.0099	0.31	1.87	0.91	2.01	

ADDED 04-23-2024

- NOTES:
1. STORM SEWER ANALYSIS PERFORMED USING POWER GEOPAK DRAINAGE V8i (SELECT SERIES 10) WHICH PERFORMS HYDRAULIC COMPUTATIONS IN ACCORDANCE WITH FHWA (HEC-22 GUIDELINES).



2/28/2024



IH 10 WIDENING (NM/SPUR 37)

DITCH DATA SHEET

SHEET 1 OF 15

FED RD DIV NO.	FEDERAL AID PROJECT	SHEET NO.	
6	SEE TITLE SHEET	366	
STATE	DISTRICT	COUNTY	
TEXAS	ELP	EL PASO	
CONTROL	SECTION	JOB	HIGHWAY
2121	01	104	IH 10

2:09:25 PM
 2/28/2024
 c:\bms\pwe-useast-006\w\111\om_1\mos\dms48983\C_104_S_DDIT1H01A.dgn
 USER: w\111\om_1\mos
 PLOT FILE: pgm8.dft
 SHEET TABLE: \$BEN\$TABLE.FIL\$