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WILLIAMSON COUNTY, TEXAS

CHANGE ORDER NUMBER: 1

SEP 27 2017
HINTB Corporation
Round Rock

SEP 22 2017

HINTB Corporation
Round Rock

- 1. CONTRACTOR: Cox Commercial Construction
- 2. Change Order Work Limits: Sta. 413+26 to Sta. 460+15
- 3. Type of Change (on federal-aid non-exempt projects): Minor (Major/Minor)
- 4. Reasons: 2E & 3H (3 Max. - In order of importance - Primary first)

Project: R1608-108
Roadway: RM 620 Ph2
CSJ Number: _____

5. Describe the work being revised:

2E: Differing Site Conditions (unforeseeable). Miscellaneous difference in site conditions (unforeseeable). This change order adds revisions to the drainage system along Oaklands Drive, and the west end connection to the existing box culvert. **3H: County Convenience. Cost savings opportunity discovered during construction.** This Change Order changed the full depth reconstruction on the east end of the project to level up with hot mix on the existing pavement which eliminated traffic control phases that results in a cost savings for the County.

- 6. Work to be performed in accordance with Items: See attached
- 7. New or revised plan sheet(s) are attached and numbered: RFI#2 sheets: 9, 159, 167, 168, 172
RFI#15 sheets: 22, 27, 28, 46, 50, 53, 59, 60, 66, 67
- 8. New Special Provisions/Specifications to the contract are attached: No
- 9. New Special Provisions to Item N/A No. N/A, Special Specification Item N/A are attached.

Each signatory hereby warrants that each has the authority to execute this Change Order (CO).

<p><i>The contractor must sign the Change Order and, by doing so, agrees to waive any and all claims for additional compensation due to any and all other expenses; additional changes for time, overhead and profit; or loss of compensation as a result of this change.</i></p> <p>THE CONTRACTOR _____ Date <u>9/21/17</u></p> <p>By <u>[Signature]</u></p> <p>Typed/Printed Name <u>DARREN OKRUTIK</u></p> <p>Typed/Printed Title <u>SR. VP</u></p>	<p>The following information must be provided</p> <p>Time Ext. #: <u>N/A</u> Days added on this CO: <u>0</u></p> <p>Amount added by this change order: <u>\$7,495.80</u></p>
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RECOMMENDED FOR EXECUTION:

[Signature] P.E. 9/22/17
Project Manager Date

N/A
Design Engineer Date

[Signature] 9/20/2017
Program Manager Date

Design Engineer's Seal:
See attached plan sheets

County Commissioner Precinct 1 Date
 APPROVED REQUEST APPROVAL

County Commissioner Precinct 2 Date
 APPROVED REQUEST APPROVAL

County Commissioner Precinct 3 Date
 APPROVED REQUEST APPROVAL

County Commissioner Precinct 4 Date
 APPROVED REQUEST APPROVAL

County Judge Date
 APPROVED

WILLIAMSON COUNTY, TEXAS

CHANGE ORDER NUMBER: 1

Project # 1608-108

TABLE A: Force Account Work and Materials Placed into Stock

	LABOR	HOURLY RATE		HOURLY RATE

TABLE B: Contract Items:

ITEM	DESCRIPTION	UNIT	UNIT PRICE	ORIGINAL + PREVIOUSLY REVISED		ADD or (DEDUCT)	NEW		OVERRUN/UNDERRUN
				QUANTITY	ITEM COST	QUANTITY	QUANTITY	ITEM COST	
105 6094	REMOV STAB BASE AND ASPH PAV (12"-27")	SY	\$10.00	15,727.00	\$157,270.00	(1,831.00)	13,896.00	\$138,960.00	(\$18,310.00)
247 6366	FL BS (CMP IN PLC)(TY A GR 5)(FNAL POS)	CY	\$38.00	8,969.00	\$340,822.00	(342.00)	8,627.00	\$327,826.00	(\$12,996.00)
310 6027	PRIME COAT(MC-30 OR AE-P)	GAL	\$3.00	4,856.00	\$14,568.00	(224.00)	4,632.00	\$13,896.00	(\$672.00)
341 6062	D-GR HMA TY-D PG64-22(LEVEL-UP)	TON	\$70.00	2,954.00	\$206,780.00	905.36	3,859.36	\$270,155.20	\$63,375.20
354 6069	PLANE ASPH CONC PAV (0 - 2-1/2")	SY	\$2.20	16,335.00	\$35,937.00	2,250.00	18,585.00	\$40,887.00	\$4,950.00
464 6003	RC PIPE (CL III)(18 IN)	LF	\$65.00	2,403.00	\$156,195.00	(32.00)	2,371.00	\$154,115.00	(\$2,080.00)
464 6005	RC PIPE (CL III)(24 IN)	LF	\$75.00	2,137.00	\$160,275.00	21.00	2,158.00	\$161,850.00	\$1,575.00
464 6017	RC PIPE (CL IV)(18 IN)	LF	\$68.00	0.00	\$0.00	32.00	32.00	\$2,176.00	\$2,176.00
465 6181	INLET (COMPL)(CURB)(TY 2)(15')	EA	\$6,000.00	5.00	\$30,000.00	1.00	6.00	\$36,000.00	\$6,000.00
496 6002	REMOV STR (INLET)	EA	\$1,200.00	1.00	\$1,200.00	1.00	2.00	\$2,400.00	\$1,200.00
496 6007	REMOV STR (PIPE)	LF	\$27.00	1,592.00	\$42,984.00	21.00	1,613.00	\$43,551.00	\$567.00
508 6001	CONSTRUCTING DETOURS	SY	\$55.00	867.00	\$47,685.00	(487.60)	379.40	\$20,867.00	(\$26,818.00)
662 6001	WK ZN PAV MRK NON-REMOV (W)4"(BRK)	LF	\$0.50	2,507.00	\$1,253.50	271.00	2,778.00	\$1,389.00	\$135.50
662 6004	WK ZN PAV MRK NON-REMOV (W)4"(SLD)	LF	\$0.50	5,339.00	\$2,669.50	(268.00)	5,071.00	\$2,535.50	(\$134.00)
662 6012	WK ZN PAV MRK NON-REMOV (W)8"(SLD)	LF	\$1.00	2,165.00	\$2,165.00	(95.00)	2,070.00	\$2,070.00	(\$95.00)
662 6016	WK ZN PAV MRK NON-REMOV (W)24"(SLD)	LF	\$6.00	298.00	\$1,788.00	14.00	312.00	\$1,872.00	\$84.00
662 6017	WK ZN PAV MRK NON-REMOV (W)(ARROW)	EA	\$100.00	19.00	\$1,900.00	1.00	20.00	\$2,000.00	\$100.00
662 6029	WK ZN PAV MRK NON-REMOV (W)(WORD)	EA	\$110.00	19.00	\$2,090.00	1.00	20.00	\$2,200.00	\$110.00
662 6034	WK ZN PAV MRK NON-REMOV (Y)4"(SLD)	LF	\$0.50	9,804.00	\$4,902.00	1,307.00	11,111.00	\$5,555.50	\$653.50
662 6060	WK ZN PAV MRK REMOV (W)4"(BRK)	LF	\$1.00	2,156.00	\$2,156.00	(1,139.00)	1,017.00	\$1,017.00	(\$1,139.00)
662 6061	WK ZN PAV MRK REMOV (W)4"(DOT)	LF	\$1.00	293.00	\$293.00	(153.00)	140.00	\$140.00	(\$153.00)
662 6063	WK ZN PAV MRK REMOV (W)4"(SLD)	LF	\$1.00	6912.00	\$6,912.00	(6,300.00)	612.00	\$612.00	(\$6,300.00)
662 6071	WK ZN PAV MRK REMOV (W)8"(SLD)	LF	\$1.10	640.00	\$704.00	(324.00)	316.00	\$347.60	(\$356.40)
662 6075	WK ZN PAV MRK REMOV (W)24"(SLD)	LF	\$8.00	225.00	\$1,800.00	(98.00)	127.00	\$1,016.00	(\$784.00)
662 6095	WZ ZN PAV MRK REMOV (Y)4"(SLD)	LF	\$1.00	7910.00	\$7,910.00	(4,979.00)	2,931.00	\$2,931.00	(\$4,979.00)
677 6001	ELIM EXT PAV MARK (4")	LF	\$1.00	13920.00	\$13,920.00	1,074.00	14,994.00	\$14,994.00	\$1,074.00
677 6003	ELIM EXT PAV MARK (8")	LF	\$1.00	70.00	\$70.00	312.00	382.00	\$382.00	\$312.00
		TOTALS			\$1,244,249.00			\$1,251,744.80	\$7,495.80

CHANGE ORDER REASON(S) CODE CHART

<p>1. Design Error or Omission</p>	<p>1A. Incorrect PS&E 1B. Other</p>
<p>2. Differing Site Conditions (unforeseeable)</p>	<p>2A. Dispute resolution (expense caused by conditions and/or resulting delay) 2B. Unavailable material 2C. New development (conditions changing after PS&E completed) 2D. Environmental remediation 2E. Miscellaneous difference in site conditions (unforeseeable)(Item 9) 2F. Site conditions altered by an act of nature 2G. Unadjusted utility (unforeseeable) 2H. Unacquired Right-of-Way (unforeseeable) 2I. Additional safety needs (unforeseeable) 2J. Other</p>
<p>3. County Convenience</p>	<p>3A. Dispute resolution (not resulting from error in plans or differing site conditions) 3B. Public relations improvement 3C. Implementation of a Value Engineering finding 3D. Achievement of an early project completion 3E. Reduction of future maintenance 3F. Additional work desired by the County 3G. Compliance requirements of new laws and/or policies 3H. Cost savings opportunity discovered during construction 3I. Implementation of improved technology or better process 3J. Price adjustment on finished work (price reduced in exchange for acceptance) 3K. Addition of stock account or material supplied by state provision 3L. Revising safety work/measures desired by the County 3M. Other</p>
<p>4. Third Party Accommodation</p>	<p>4A. Failure of a third party to meet commitment 4B. Third party requested work 4C. Compliance requirements of new laws and/or policies (impacting third party) 4D. Other</p>
<p>5. Contractor Convenience</p>	<p>5A. Contractor exercises option to change the traffic control plan 5B. Contractor requested change in the sequence and/or method of work 5C. Payment for Partnering workshop 5D. Additional safety work/measures desired by the contractor 5E. Other</p>
<p>6. Untimely ROW/Utilities</p>	<p>6A. Right-of-Way not clear (third party responsibility for ROW) 6B. Right-of-Way not clear (County responsibility for ROW) 6C. Utilities not clear 6D. Other</p>

Williamson County Road Bond Program

**RM 620 Phase 2
Williamson County Project No. 1608-108**

Change Order No. 1

Reason for Change

This Change Order revises the drainage system along Oaklands Drive and at the west end of the project. It also revises construction on the east end of the project from full depth reconstruction to level-up asphalt on the existing pavement, resulting in a cost savings for the County. These revisions are explained in the following RFI's.

RFI #2. Changed the 18" storm sewer pipe from a Class III concrete pipe to a Class IV concrete pipe, due to the minimal cover over the pipe crossing at Oaklands Drive.

RFI#4. Revised the storm sewer pipe connection to an existing box culvert on the west end of the project. The pipe stub out at the existing box culvert, constructed on the previous project, was installed at an incorrect elevation. The error was discovered after a portion of the new pipe was already installed. The solution was to remove and re-lay a portion of the new pipe and construct a deeper curb inlet to match the elevation of the existing pipe.

RFI#15. Changed the construction of pavement at the east end of the project from full depth reconstruction to hot mix level up of the existing pavement. The full depth reconstruction was to be accomplished in three (3) traffic control phases which were eliminated and replaced with the nightly placement of hot mix level up. This change added hot mix level up, eliminated the need for the removal of the existing pavement section, placement of new flex base and pavement markings, resulting in a cost savings for the County.

Following is a summary of the new item required for this Change Order.

ITEM	DESCRIPTION	QTY	UNIT
464 6017	RC PIPE (CL IV)(18IN)	32.00	LF

This Change Order results in an increase of \$7,495.80 to the Contract amount, for an adjusted Contract total of \$6,089,721.50. The original Contract amount was \$6,082,225.70. Because of this Change Order, \$7,495.80 has been added to the Contract, resulting in a 0.12% net increase in the Contract cost. No additional days will be added to or deducted from the Contract as a result of this Change Order.

HNTB Corporation
James Klotz, P.E.

464-6017

PROJECT: RM 620 PH. II
 ITEM NUMBER/DESC.: CL IV 18" RCP
 ESTIMATED QUANTITY: 28 LF
 Date Prepared: 1/30/2017

ITEM DESCRIPTION	QTY	UNIT COSTS				TOTAL COSTS			
		UNIT	LABOR	EQUIP	MATERIAL	LABOR	EQUIP	MATERIAL	MISC.
LABOR									
MATERIAL									
CL III 18" RCP	-32.00	LF			\$ 32.00			\$ (1,024.00)	
CL IV 18" RCP	32.00	LF			\$ 34.00			\$ 1,088.00	
EQUIPMENT									
SUBCONTRACT									
TOTALS								\$ 64.00	\$ -

TOTAL LABOR	\$ -		
TOTAL MATERIAL	\$ 64.00		
TOTAL SUBCONTRACT	\$ -		
TOTAL EQUIPMENT	\$ -		
MARKUPS			
LABOR BURDENS	\$ -	@	55%
LABOR MARK-UP	\$ -	@	25%
MATERIAL MARK-UP	\$ 64.00	@	25%
EQUIPMENT MARK-UP	\$ -	@	15%
SUBCONTRACT MARK-UP	\$ -	@	5%
PERFORMANCE BOND	\$ 80.00	@	1%
TOTAL QUANTITY	28	LF	
UNIT COST	\$ 80.80		
ADDITIONAL	\$ 3.00	LF	
CL III 18" RCP	\$ 65.00	/LF	
CL IV 18" RCP	\$ 68.00	/LF	

Jan 12, 2017

HNTB Corporation
Round Rock

REQUEST FOR INFORMATION FORM	
RFI NO.: <u>2</u>	DATE: <u>12/29/16</u>
PROJECT: <u>RM 620 PHASE 2</u>	RESPONSE REQUESTED BY DATE: <u>1/5/17</u>
TO: <u>CLAYTON WEBER, CONSTRUCTION MANAGER</u>	

REFERENCE: PRECAST STORM STRUCTURE QUESTIONS

PROBLEM:

The attached shop drawings show where the HOSP & OL2 precast storm structures appear to have conflicts in relation to the pipe & the throat and/or top. Can you please review these structures & advise on any revisions that might be required?

GEC Additional Comments:
Please contact Clayton with the Wilco GEC, before ordering any of the above drainage items. Also note that the "Revised Sheets" referred to in response for "OL2" are not approved yet by TxDOT and will be officially issued once concurrence is received.

DARREN OKRUHLIK
Originator

RESPONSE:

For HOSP:

See attached sketch "HOSP Inlet Sketch" and picture "HOSP Existing Conditions" of existing conditions. The goal is to replicate existing conditions. If precast does not work, may need to do cast-in-place inlet in order to tie existing pipes to gutter depression. See Curb Inlet Type II detail provided in the plans (and attached here).

For OL2:

See attached revised sheets "Revised Sheets - Oaklands Drainage 20170106" for reconfiguration of Lat OL-MED. OL2 will no longer have a pipe entering on the curb inlet opening side. As for the opening on the ends of the inlet, see attached sketch "OL2 Inlet Sketch". Using the Curb Inlet Type II provided in the plans (and attached here), there should be enough room to fit this pipe in. If precast does not work, may require cast-in-place inlet. *ALSO NOTE* The 18" RCP for lateral OL-MED has been changed from a Class III pipe to a Class IV.

Andy Dutton, P.E.
Responder

1/12/2017
Date

Sign, Date & Return to HNTB via e-mail or fax.

Mail original to: HNTB Corporation
14 Galloping Road
Round Rock, Texas 78781

Attachments to RFI: HOSP Inlet Sketch.pdf, HOSP Existing Conditions.pdf, Curb Inlet Type II detail.pdf, Revised Sheets - Oaklands Drainage 20170112.pdf, OL2 inlet Sketch.pdf

Cc:

1/2/2017 9:05:21 AM an2378 TXDOT I:\900000\30302\CADD\Sheets\30302-SUM-02.dgn

SUMMARY OF PAVEMENT PLAN

PAVE SHEET NO.	STA TO STA	100 6002	110 6001	132 6003	247 6366	310 6027	316 6005	316 6193	340 6011	341 6008	341 6040	341 6062	347 6003	347 6006	351 6008	354 6069	432 6002	450 6048	529 6007	529 6008	530 6004	531 6004	531 6010	531 6002	WC-9010
		PREPARING ROW	EXCAVATION (RDWY)	EMBANKMENT (FINAL)(ORD COMP)(TY B)	FL BS (CMP IN PLC) (TYA GR5) (FINAL POS)	PRIME COAT (MC-30 OR AE-P)	ASPH (TIER II)	AGGR(TY-D GR-5 SAC-B)	D-GR HMA (SQ) TY-B PG64-22	D-GR HMA TY-B PG64-22	D-GR HMA TY-D PG64-22	D-GR HMA TY-D PG64-22(LEVE L-UP)	TOM (ASPHALT) PG 70-22	TOM - C (AGGREGATE) SAC - B	FLEXIBLE PAVEMENT STRUCTURE REPAIR(12'	PLANE ASPH CONC PAV (0'-2 1/2')	RIPRAP (CONC) (5 IN)	RAIL (HANDRAIL) (TY B)	CONC CURB & GUTTER (TY I)	CONC CURB & GUTTER (TY II)	DRIVEWAYS (CONC)	CURB RAMPS (TY 1)	CURB RAMPS (TY 7)	CONC SIDEWALKS (5')	NEIGHBORHOOD SIGN RELOCATION
		STA	CY	CY	CY	GAL	GAL	CY	TON	TON	TON	TON	TON	TON	SY	SY	CY	LF	LF	LF	SY	EA	EA	SY	LS
RM 620																									
1 OF 8	BEGIN - 420+00	7	501	111	208	91		3		125	38		2	23	23	0	10	86		459	151		2	400	
2 OF 8	420+00 - 426+00	6	907	1,105	1,299	722	476	34	22	993	421	245	20	260	255	1,487	38		134	1,747	124		2	25	
3 OF 8	426+00 - 432+00	6	537	2,289	1,355	633	992	42	81	871	517	511	25	320	313	3,099	80			2,419	324	1	1	129	
4 OF 8	432+00 - 438+00	6	1,746	576	1,280	689	951	43	59	948	530	491	25	328	321	2,973	28			2,192	307			4	
5 OF 8	438+00 - 444+00	6	756	1,641	1,204	661	1,287	49	105	909	604	663	29	374	366	4,021	21			2,428	86		2	110	1
6 OF 8	444+00 - 450+00	6	516	3,469	1,724	966	380	40	49	1,329	497	196	24	307	301	1,189	195			2,287	200			187	
7 OF 8	450+00 - 456+00	6	3,063	483	1,293	712	866	42	48	980	517	447	25	320	313	2,707	61			2,136	246				
8 OF 8	456+00 - END	4	971	217	607	381	275	18		524	228	142	11	141	138	859	23			433			2	27	
TOTALS		47	8,997	9,891	8,969	4,856	5,228	271	365	6,677	3,351	2,696	161	2,074	2,031	16,335	455	86	134	14,101	1,438	1	9	882	1

SUMMARY OF DRAINAGE PLAN

DRAINAGE SHEET NO.	STA TO STA	400 6005	401 6001	402 6001	432 6033	462 6001	462 6003	462 6004	462 6006	464 6003	464 6005	465 6003	465 6013	465 6014	465 6015	465 6016	465 6028	465 6070	465 6076	465 6077	465 6126	465 6180	465 6181	465 6181	466 6180	467 6105	467 6171	467 6356	467 6358
		CEM STABIL BKFL	FLOWABLE BACKFILL	TRENCH EXCAVATION PROTECTION	RIPRAP (STONE PROTECTION) (18 IN)	CONC BOX CULV (3 FT X 2 FT)	CONC BOX CULV (4 FT X 2 FT)	CONC BOX CULV (4 FT X 3 FT)	CONC BOX CULV (5 FT X 2 FT)	RC PIPE (CL III) (18 IN)	RC PIPE (CL III) (24 IN)	MANH (COMPL) (PRM) (60IN)	INLET (COMPL) (PCO) (3FT) (NONE)	INLET (COMPL) (PCO) (3FT) (LEFT)	INLET (COMPL) (PCO) (3FT) (RIGHT)	INLET (COMPL) (PCO) (3FT) (BOTH)	INLET (COMPL) (PCO) (6FT) (BOTH)	INLET (COMPL) (PSL) (RC) (3FTX3FT)	INLET (COMPL) (PSL) (RC) (6FTX6FT)	INLET (COMPL) (PSL) (RC) (8FTX8FT)	INLET (COMPL) (PSL) (FG) (3FTX3FT)	INLET (COMPL) (TYII) (10 FT)	INLET (COMPL) (TYII) (15 FT)	INLET (COMPL) (TYII-R) (15 FT)	WINGWALL (PW) (HW=5)	SET (TY II) (S=3 FT) (HW=3 FT) (3:1) (C)	SET (TY II) (S=5 FT) (HW=3 FT) (3:1) (C)	SET (TY II) (18 IN) (RCP) (3:1) (C)	SET (TY II) (18 IN) (RCP) (4:1) (C)
		CY	CY	LF	CY	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
RM 620																													
1 OF 5	BEGIN - 426+00	26								644	63				1								4	1					1
2 OF 5	426+00 - 438+00			578	23		32			873	721			1	7		1				2	1							1
3 OF 5	438+00 - 450+00	15	202	255		8	299	197	493	365	1078		1	1	3		1	1					1	2	1	1	1	1	1
4 OF 5	450+00 - END			42						155	97				1									1					
5 OF 5	OAKWOOD AND OAKLANDS	34		108						50	178	1		1								2	2						
TOTALS		75	202	983	23	8	331	197	493	2087	2137	1	1	2	3	11	1	2	1	1	2	7	5	2	1	1	1	2	2

SUMMARY OF DRAINAGE PLAN

DRAINAGE SHEET NO.	STA TO STA	467 6363	467 6395	WC-9009	464 6017
		SET (TY II) (18 IN) (RCP) (6:1) (P)	SET (TY II) (24 IN) (RCP) (6:1) (P)	STORMTROOPER SWAQ-70-BYPASS	RC PIPE (CL IV) (18 IN)
		EA	EA	EA	LF
RM 620					
1 OF 5	BEGIN - 426+00	2		1	
2 OF 5	426+00 - 438+00	2			
3 OF 5	438+00 - 450+00	1		2	
4 OF 5	450+00 - END		1		
5 OF 5	OAKWOOD AND OAKLANDS				32
TOTALS		5	1	3	32

SUMMARY OF RETAINING WALLS

RW NO.	423 6004	432 6045	450 6048	556 6006
	RETAINING WALL (CONC BLOCK)	RIPRAP (MOW STRIP) (4 IN)	RAIL (HANDRAIL) (TY B)	PIPE UNDERDRAINS (TY 6) (4")
	SF	CY	LF	LF
1	1028	8	305	317
2	1529	8		
TOTALS	2,557	16	305	317

SUMMARY OF REMOVAL PLAN

RMVL SHEET NO.	STA TO STA	104 6009	104 6015	104 6017	104 6022	105 6094	105 6021	401 6001	496 6002	496 6004	496 6007	677 6008	644 6076
		REMOVE CONC (RIPRAP)	REMOVING CONC (SIDEWALKS)	REMOVING CONC (DRIVEWAYS)	REMOVING CONC (CURB AND GUTTER)	REMOVING STAB BASE & ASPH PAV(12"-27")	REMOVING STAB BASE AND ASPH PAV (0-4")	FLOWABLE BACKFILL	REMOV STR (INLET)	REMOV STR (SET)	REMOV STR (PIPE)	ELIM EXT PAV MRK & MRKS (ARROW)	REMOVE SM RD SN SUP & AM
		SY	SY	SY	LF	SY	SY	CY	EA	EA	LF	EA	EA
RM 620													
1 OF 5	BEGIN - 426+00		82		703	2,905	1,638		1	3	133		2
2 OF 5	426+00 - 438+00	30	24	526	285	3,906	5,753			9	499		1
3 OF 5	438+00 - 450+00	49	58	252	54	5,288	4,257	51		4	960		5
4 OF 5	450+00 - END		42	268	17	3,628	3,707				1		3
5 OF 5	OAKLANDS DRIVE			490		825							
TOTALS		79	206	1,046	1,549	15,727	16,180	51	1	16	1,592	1	11

1	OAKLANDS LATERAL RECONFIGURATION	AD	1/12/17
NO.	REVISION	BY	DATE

HALFF
 4030 WEST BRAKER LANE, SUITE 450
 AUSTIN, TEXAS 78759-5356
 TEL (512) 252-8184
 FAX (512) 252-8141
 TBPE FIRM NO. F-312



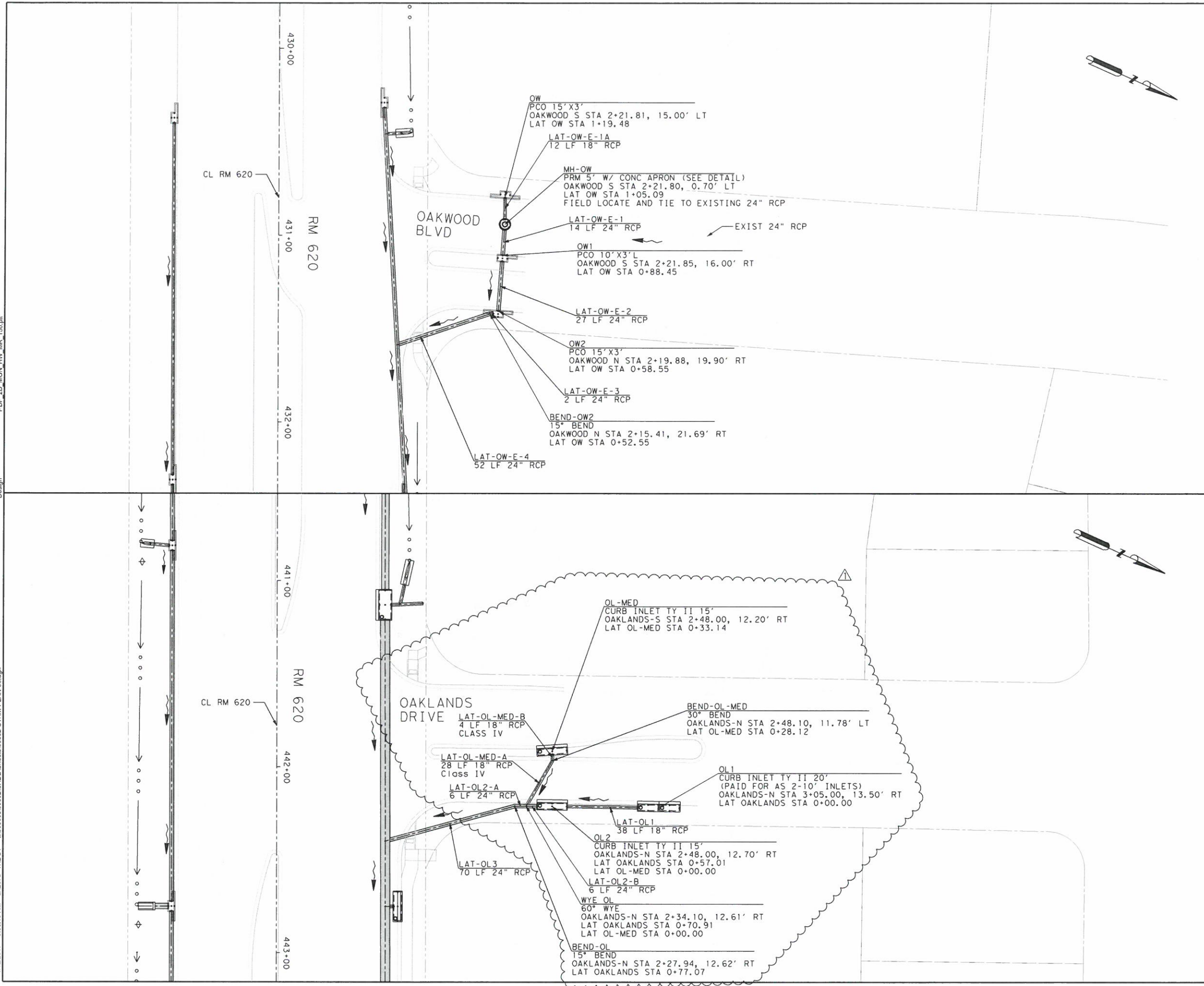
RM 620
 SUMMARY OF PAVEMENT, DRAINAGE, REMOVAL AND RETAINING WALL

SCALE: SHEET 3 OF 4

Designed: ER	STATE: TEXAS	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked: ER	COUNTY: WILLIAMSON	CONTROL NO. 0683	SECTION NO. 01
Drawn: ND	JOB NO. 090	SHEET NO. 9	

1-2-7-17 TXDOT CONSULTING

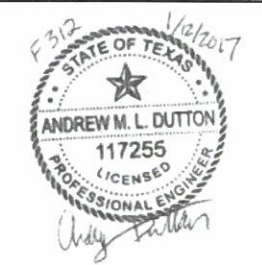
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LEGEND

- DRAINAGE AREA BOUNDARY
- DROP INLET
- CURB INLET
- FLOW DIRECTION
- DITCH FLOWLINE
- DITCH BLOCK
- EXISTING ROW
- PROPOSED ROW
- UTILITY EASEMENT
- DRAINAGE EASEMENT
- PROPOSED STORM SEWER
- PROPOSED RIPRAP

- NOTES:**
- SEE DRAINAGE PROFILES FOR STORM SEWER INFORMATION.
 - ALL PIPES ARE CLASS III UNLESS OTHERWISE NOTED.
 - SEE HYDRAULIC DATA SHEETS FOR ADDITIONAL INFORMATION.
 - REFER TO EXISTING UTILITY PLANS AND FIELD VERIFY LOCATION OF NEARBY UTILITIES BEFORE CONSTRUCTION. NOTIFY THE CONSTRUCTION OBSERVER IF CONFLICTS EXISTS.
 - PIPE LENGTHS ARE FOR THE PAY LIMITS OF THE ENTIRE SEGMENT.
 - SEE DRAINAGE DETAILS FOR STRUCTURE STATIONING AND OFFSET CALLOUT LOCATIONS.



1	OAKLANDS LATERAL RECONFIGURATION	AD	1/12/17
NO.	REVISION	BY	DATE

HALFF 4030 WEST BRAKER LANE, SUITE 450
 AUSTIN, TEXAS 78759-5356
 TEL (512) 252-8184
 FAX (512) 252-8141
 TBPE FIRM NO. F-312



RM 620
DRAINAGE PLAN
 OAKWOOD BLVD & OAKLANDS DR

SCALE: 1"=50' SHEET 5 OF 5

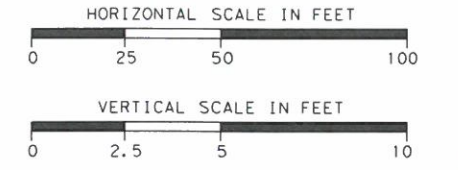
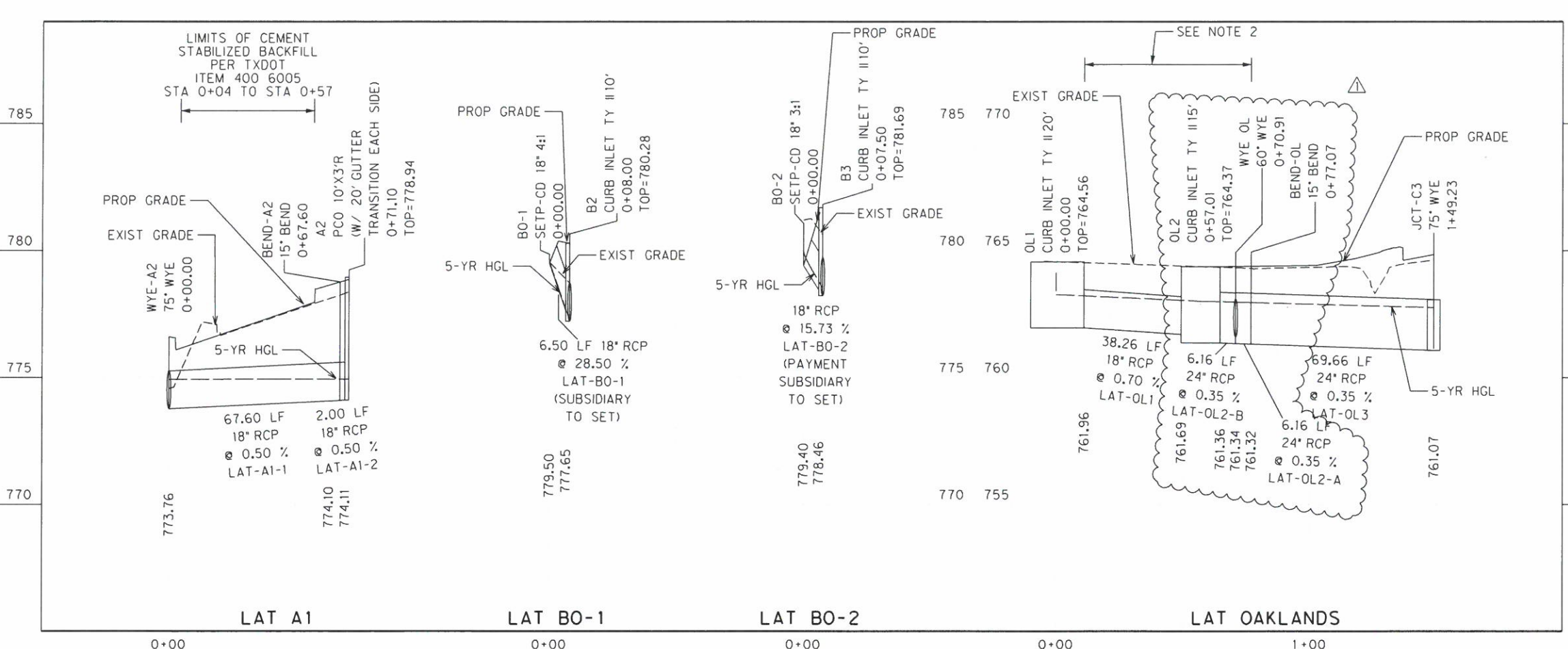
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Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.	COUNTY	CONTROL NO.	SECTION NO.
Checked: ER	AUS	WILLIAMSON	0683	01 090
				JOB NO.
				159

1-27-17 TXDOT CONFERENCE

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Design

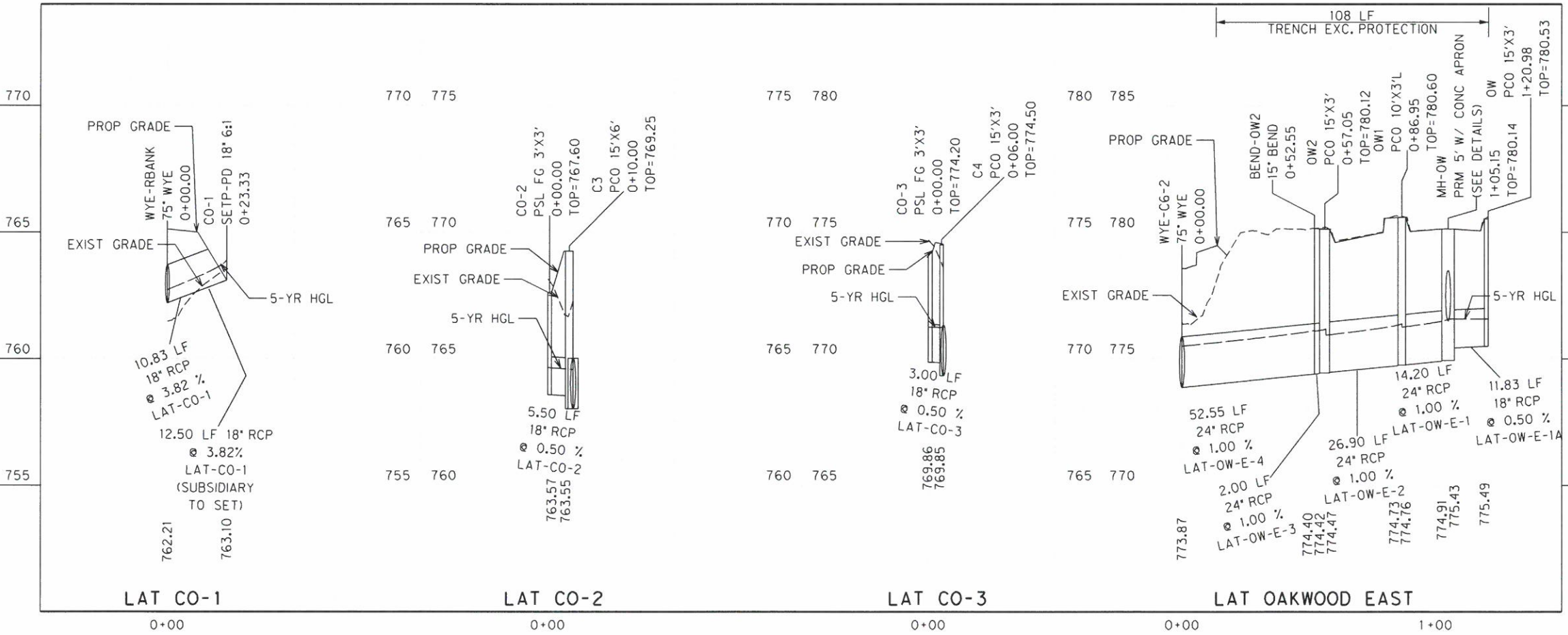
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LEGEND

— PROPOSED GRADE
 - - - EXISTING GROUND

- NOTES:**
- REFER TO EXISTING UTILITY PLANS AND FIELD VERIFY LOCATION OF NEARBY UTILITIES BEFORE CONSTRUCTION. NOTIFY THE CONSTRUCTION OBSERVER IF CONFLICTS EXISTS.
 - PLACE ROADWAY FLEX BASE WITH HAND COMPACTION IF REQUIRED TO PROTECT PIPE. TOP OF RCP MAY EXTEND INTO FLEX BASE.



F312 Victor

STATE OF TEXAS
 ANDREW M. L. DUTTON
 117255
 LICENSED PROFESSIONAL ENGINEER
 Andy Dutton

1	OAKLANDS LATERAL RECONFIGURATION	AD	1/12/17
NO.	REVISION	BY	DATE

HALFF 4030 WEST BRAKER LANE, SUITE 450
 AUSTIN, TEXAS 78759-5356
 TEL (512) 252-8184
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 TBPE FIRM NO. F-312

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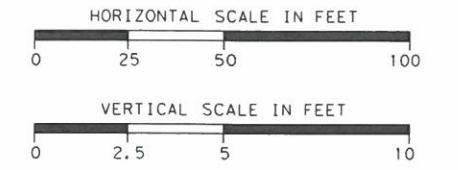
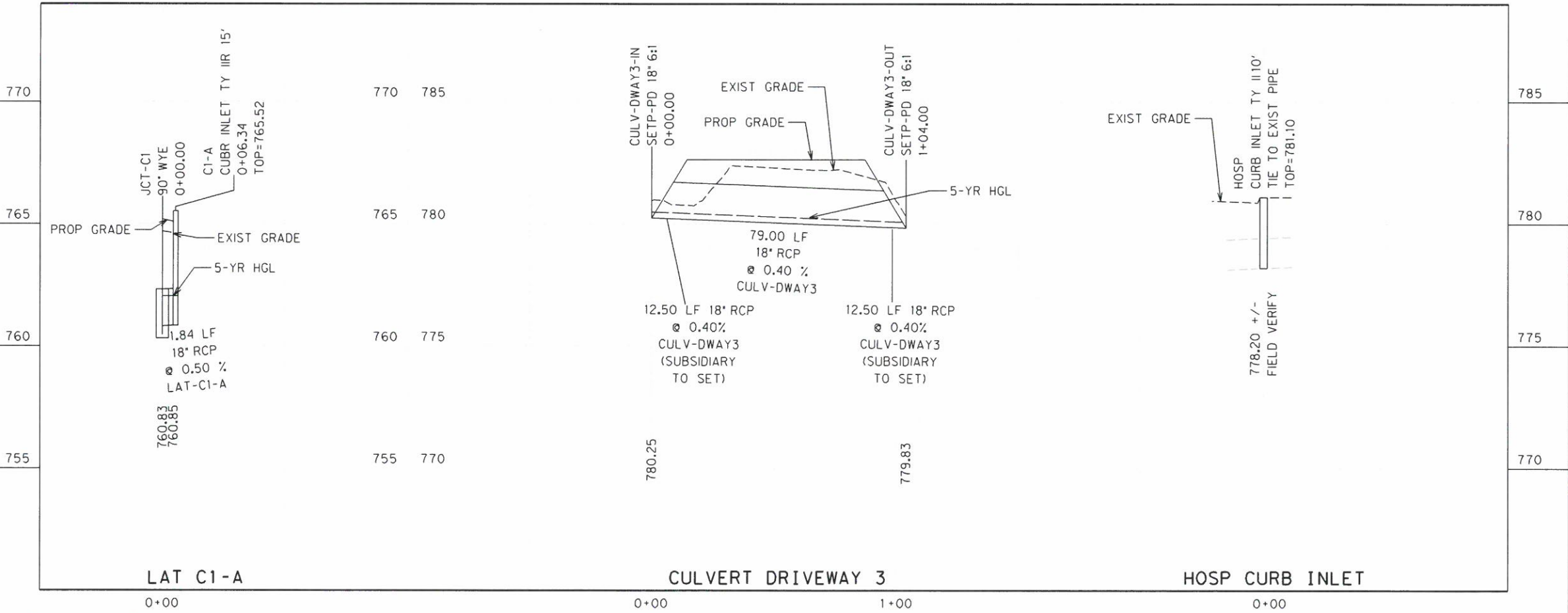
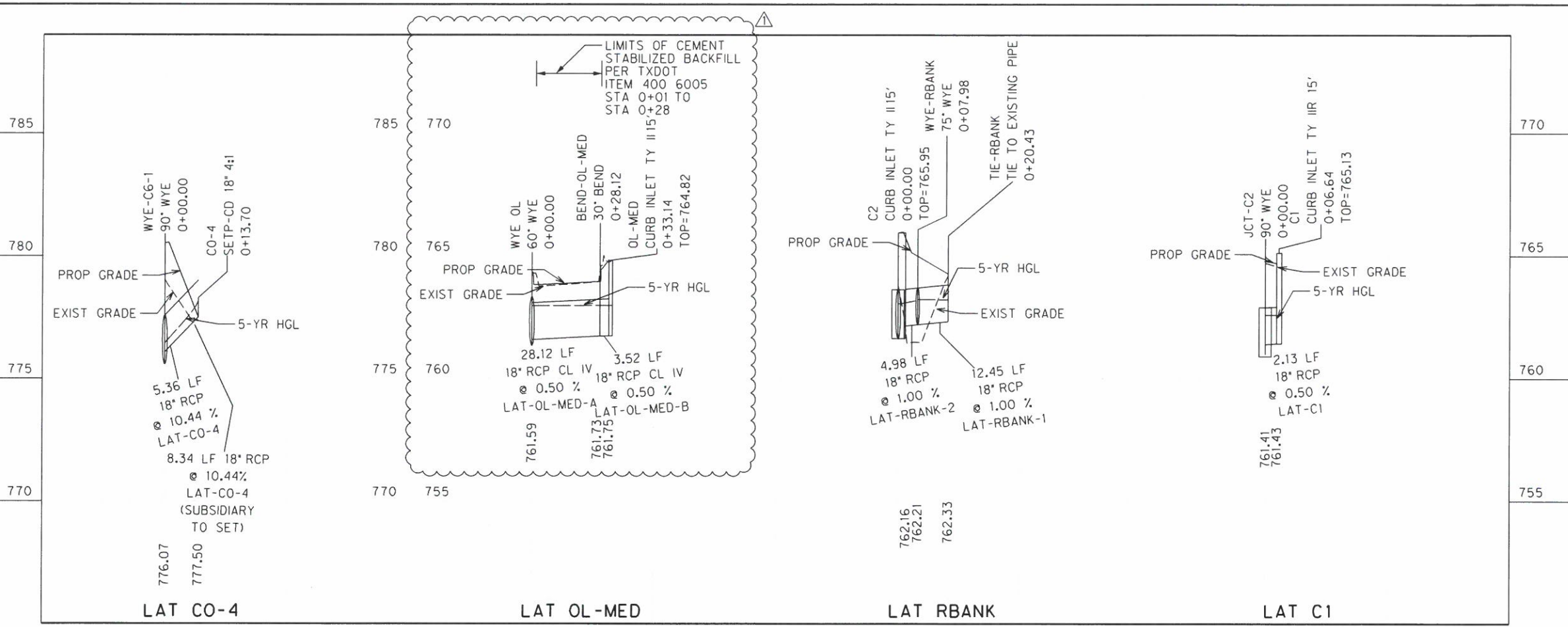
WILLIAMSON COUNTY
 RM 620
 DRAINAGE PROFILES

SCALE: H: 1"=50' V: 1"=5' SHEET 1 OF 3

Designed: ER	DATE: 01/12/17	STATE: TEXAS	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.:	COUNTY: WILLIAMSON	CONTROL NO.:	SECTION NO.:
Checked: ER	AUS		0683	01 090

SHEET NO. 167

1-27-17 TXDOT concurrence



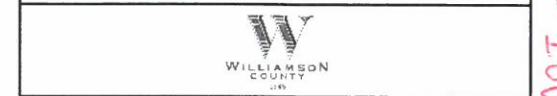
LEGEND	
—	PROPOSED GRADE
- - -	EXISTING GROUND

NOTES:
 1. REFER TO EXISTING UTILITY PLANS AND FIELD VERIFY LOCATION OF NEARBY UTILITIES BEFORE CONSTRUCTION. NOTIFY THE CONSTRUCTION OBSERVER IF CONFLICTS EXISTS.



NO.	REVISION	BY	DATE
1	OAKLANDS LATERAL RECONFIGURATION	AD	1/12/17

HALFF 4030 WEST BRAKER LANE, SUITE 450
 AUSTIN, TEXAS 78759-5356
 TEL (512) 252-8184
 FAX (512) 252-8141
 TBPE FIRM NO. F-312



**RM 620
 DRAINAGE PROFILES**

SCALE: H: 1" = 50' V: 1" = 5' SHEET 2 OF 3

Designed: ER	FD: X	STATE: TEXAS	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
Checked: ER	ND	DIST.:	COUNTY: WILLIAMSON	RM 620
Drawn: ND	DIST.:	COUNTY:	CONTROL NO.:	SECTION NO.:
Checked: ER	AUS	WILLIAMSON	0683	01 090

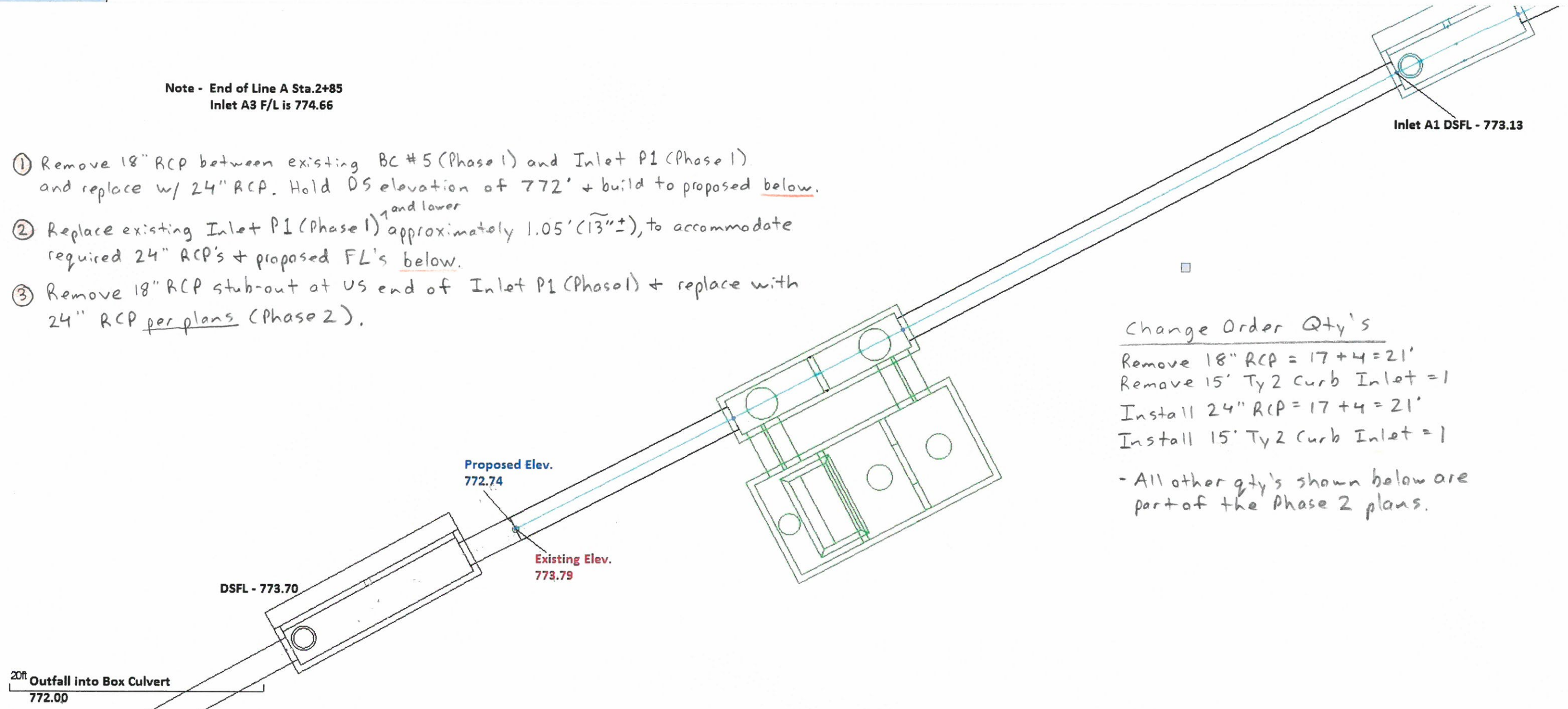
1-27-17 TXDOT concurrence

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PIPE ID	U/S NODE	D/S NODE	U/S HGL	D/S HGL	U/S FL	D/S FL	ACCUM. COMBINED C	FREQ. (YR)	ACCUM. TC (MIN)	I (IN/HR)	ACCUM. AREA (AC)	ACCUM. DISCHARGE (CFS)	SHAPE	RISE/DIA. (FT)	SPAN (FT)	N	LENGTH (FT)	SLOPE (%)	ACTUAL DEPTH (FT)	ACTUAL VEL. (FT/S)	PIPE CAP. (CFS)
LINE-A-1	ST-A	STUB-EX-P1	774.70	774.67	772.87	772.74	0.82	5	10.00	7.01	1.84	10.63	Circular	2.0	n/a	0.012	19.26	0.50%	1.93	3.42	17.33
LINE-A-2	A1	ST-A	774.76	774.70	773.15	772.87	0.82	5	10.00	7.01	1.84	10.63	Circular	2.0	n/a	0.012	43.82	0.50%	1.83	3.52	17.33
LINE-A-3	WYE-A2	A1	774.93	774.76	773.76	773.65	0.85	5	10.00	7.01	1.32	7.85	Circular	1.5	n/a	0.012	17.23	0.50%	1.11	5.62	8.05
LINE-A-4	A3	WYE-A2	776.02	774.63	774.70	773.76	0.84	5	10.00	7.01	0.88	5.17	Circular	1.5	n/a	0.012	179.39	0.50%	0.87	4.87	8.05
LAT-A1-1	BEND-A2	WYE-A2	774.94	774.93	774.10	773.76	0.88	5	10.00	7.01	0.44	2.68	Circular	1.5	n/a	0.012	67.60	0.50%	1.17	1.81	8.05
LAT-A1-2	A2	BEND-A2	775.00	774.94	774.12	774.10	0.88	5	10.00	7.01	0.44	2.68	Circular	1.5	n/a	0.012	2.00	0.50%	0.84	2.65	8.05
CULV-A	CULV-A-IN	CULV-A-OUT	777.82	777.82	776.53	776.32	0.40	5	10.00	7.01	0.27	0.75	Circular	1.5	n/a	0.012	41.34	0.51%	1.50	0.42	8.11
LINE-B-01*02	B1	EX-P2	777.89	777.63	776.47	776.11	0.83	5	11.45	6.60	0.90	7.28	Circular	1.5	n/a	0.012	61.00	0.50%	1.50	4.12	8.05
LINE-B-3	B2	B1	778.15	777.89	777.22	776.47	0.80	5	10.80	6.78	0.61	5.67	Circular	1.5	n/a	0.012	140.51	0.50%	1.42	3.27	8.05
LINE-B-4	B3	B2	778.94	777.92	778.22	777.22	0.79	5	10.02	7.00	0.22	3.58	Circular	1.5	n/a	0.012	189.50	0.50%	0.70	4.40	8.05
LAT-BO-1	BO-1	B2	779.67	777.27	779.50	777.22	0.35	5	10.00	7.01	0.04	0.10	Circular	1.5	n/a	0.012	6.50	28.50%	0.05	6.37	60.75
LAT-BO-2	BO-2	B3	780.00	778.53	779.40	778.22	0.43	5	10.00	7.01	0.03	2.50+	Circular	1.5	n/a	0.012	6.00	15.73%	0.31	9.64	45.14
LINE-C-01	BEND-C1	OUT-C	761.25	761.35	759.48	759.35	0.65	5	19.04	5.14	14.94	65.14	Box	2.0	5.0	0.012	27.61	0.45%	2.00	6.51	66.32
LINE-C-02*05	JCT-C1	BEND-C1	762.07	761.08	760.33	759.48	0.65	5	19.04	5.14	14.94	65.14	Box	2.0	5.0	0.012	188.15	0.45%	1.60	8.16	66.39
LINE-C-06	JCT-C2	JCT-C1	762.62	761.90	760.91	760.33	0.64	5	18.76	5.18	14.54	63.66	Box	2.0	5.0	0.012	130.00	0.45%	1.58	8.07	66.38
LINE-C-07	JCT-C3	JCT-C2	762.76	762.48	761.07	760.91	0.63	5	18.69	5.19	14.23	62.33	Box	2.0	5.0	0.012	35.11	0.45%	1.57	7.93	66.38
LINE-C-08	C2	JCT-C3	763.12	762.42	761.64	761.07	0.68	5	16.37	5.56	9.38	51.13	Box	2.0	5.0	0.012	119.14	0.45%	1.35	7.59	66.38
LINE-C-09	MH-C3	C2	763.84	763.16	762.32	761.64	0.69	5	15.56	5.71	8.51	42.75	Box	2.0	4.0	0.012	159.00	0.40%	1.52	7.05	47.82
LINE-C-10	C3	MH-C3	764.55	763.84	763.03	762.32	0.69	5	15.56	5.71	8.51	42.75	Box	2.0	4.0	0.012	170.75	0.40%	1.52	7.05	47.82
LINE-C-11	MH-C4	C3	768.20	764.66	766.30	763.02	0.68	5	15.09	5.80	7.80	33.52	Circular	2.0	n/a	0.012	168.30	1.90%	1.64	12.16	33.78
LINE-C-12	C4	MH-C4	771.24	767.94	769.34	766.30	0.68	5	15.09	5.80	7.80	33.52	Circular	2.0	n/a	0.012	156.00	1.90%	1.64	12.14	33.78
LINE-C-13	C5	C4	774.52	770.97	772.64	769.34	0.69	5	14.80	5.85	7.23	31.77	Circular	2.0	n/a	0.012	189.00	1.70%	1.64	11.54	31.95
LINE-C-14	WYE-C6-2	C5	775.73	774.28	773.87	772.64	0.68	5	14.66	5.88	6.86	29.55	Circular	2.0	n/a	0.012	80.06	1.50%	1.65	10.69	30.01
LINE-C-15	WYE-C6-1	WYE-C6-2	776.41	774.47	775.57	773.87	0.63	5	12.06	6.45	0.75	5.70	Circular	2.0	n/a	0.012	113.06	1.50%	0.59	7.30	30.02
LINE-C-16	C6	WYE-C6-1	776.52	775.98	775.82	775.57	0.86	5	10.00	7.01	0.40	2.41	Circular	2.0	n/a	0.012	14.23	1.50%	0.41	5.21	30.02
LAT-C1	C1	JCT-C2	762.63	762.62	761.44	761.41	0.90	5	10.00	7.01	0.31	1.93	Circular	1.5	n/a	0.012	4.64	0.50%	1.21	1.26	8.05
LAT-C1-A	C1-A	JCT-C1	762.07	762.07	760.86	760.83	0.90	5	10.00	7.01	0.40	2.52	Circular	1.5	n/a	0.012	4.34	0.50%	1.24	1.61	8.05
LAT-CO-1	CO-1	WYE-RBANK	763.92	762.73	763.10	762.21	0.35	5	10.00	7.01	0.36	4.58****	Circular	1.5	n/a	0.012	23.33	3.82%	0.52	8.49	22.23
LAT-CO-2	CO-2	C3	764.65	764.56	763.58	763.53	0.35	5	10.00	7.01	0.12	7.01***	Circular	1.5	n/a	0.012	5.50	0.50%	1.03	5.45	8.05
LAT-CO-3	CO-3	C4	771.25	771.24	769.87	769.84	0.35	5	10.00	7.01	0.28	0.68	Circular	1.5	n/a	0.012	3.00	0.50%	1.40	0.40	8.05
LAT-CO-4	CO-4	WYE-C6-1	778.21	776.44	777.50	776.07	0.38	5	12.04	6.46	0.35	3.48**	Circular	1.5	n/a	0.012	13.70	10.44%	0.37	10.21	36.77
LAT-OW-E-1A	OW	MH-OW	776.58	776.58	775.50	775.42	0.82	5	10.00	7.01	0.58	2.86	Circular	1.5	n/a	0.012	11.83	0.50%	1.16	1.96	8.05
LAT-OW-E-1	MH-OW	OW1	776.58	776.25	774.93	774.75	0.67	5	14.45	5.92	5.38	21.02	Circular	2.0	n/a	0.012	14.20	1.00%	1.50	8.30	24.51
LAT-OW-E-2	OW1	OW2	776.40	775.94	774.75	774.45	0.68	5	14.49	5.92	5.43	21.22	Circular	2.0	n/a	0.012	26.90	1.00%	1.49	8.46	24.51
LAT-OW-E-3	OW2	BEND-OW2	776.19	776.09	774.45	774.40	0.69	5	14.55	5.90	6.10	24.22	Circular	2.0	n/a	0.012	2.00	1.00%	1.69	8.54	24.51
LAT-OW-E-4	BEND-OW2	WYE-C6-2	776.14	775.50	774.40	773.87	0.69	5	14.55	5.90	6.10	24.22	Circular	2.0	n/a	0.012	52.55	1.00%	1.63	8.83	24.51
LAT-RBANK-1	TIE-RBANK	WYE-RBANK	763.23	763.24	762.33	762.21	*****	5	*****	*****	*****	2.50*****	Circular	1.5	n/a	0.012	12.45	1.00%	1.03	1.93	11.38
LAT-RBANK-2	WYE-RBANK	C2	763.24	763.06	762.21	762.13	0.35	5	10.06	6.99	0.36	7.08	Circular	1.5	n/a	0.012	4.98	1.00%	0.93	6.15	11.38
LAT-OL1	OL1	OL2	764.14	763.02	762.04	761.64	0.51	5	18.20	5.26	4.33	9.29	Circular	1.5	n/a	0.012	38.26	0.70%	1.38	5.47	9.52
LAT-OL2-A	WYE OL	BEND-OL	762.98	762.96	761.34	761.32	0.54	5	18.42	5.23	4.85	13.69	Circular	2.0	n/a	0.012	6.16	35.00%	1.64	4.97	14.50
LAT-OL2-B	OL2	WYE OL	763.01	762.98	761.39	761.34	0.53	5	18.37	5.24	4.50	12.44	Circular	2.0	n/a	0.012	6.16	35.00%	1.64	4.52	14.50
LAT-OL3	BEND-OL	JCT-C3	762.96	762.76	761.32	761.07	0.54	5	18.37	5.24	4.85	13.71	Circular	2.0	n/a	0.012	72.16	0.35%	1.69	4.85	14.50
LAT-OL-MED-A	BEND-OL-MED	WYE OL	762.98	762.98	761.73	761.59	0.70	5	10.00	7.01	0.35	1.71	Circular	1.5	n/a	0.012	28.12	50.00%	1.39	1.00	8.05
LAT-OL-MED-B	OL-MED	BEND-OL-MED	762.98	762.98	761.76	761.73	0.70	5	10.00	7.01	0.35	1.71	Circular	1.5	n/a	0.012	3.52	50.00%	1.25	1.09	8.05
LINE-D-1	JCT-D3	MH-D-OUT	759.80	759.49	758.36	758.16	0.44	5	37.57	3.44	25.95	39.36	Box	3.0	4.0	0.012	36.03	0.50%	1.33	7.41	94.81
LINE-D-2	BEND-D	JCT-D3	759.85	759.69	758.43	758.38	0.44	5	37.32	3.46	25.55	38.38	Box	3.0	4.0	0.012	14.35	0.50%	1.33	7.21	94.81
LINE-D-3	JCT-D2	BEND-D	760.35	759.72	758.93	758.43	0.44	5	37.32	3.46	25.55	38.38	Box	3.0	4.0	0.012	98.81	0.50%	1.29	7.43	94.81
LINE-D-4	JCT-D1	JCT-D2	760.35	760.06	759.11	758.93	0.39	5	37.22	3.46	23.20	31.51	Box	3.0	4.0	0.012	36.28	0.50%	1.14	6.93	94.81
LINE-D-5	LINE-D-IN	JCT-D1	760.27	760.35	759.21	759.11	0.35	5	24.50	4.46	13.44	21.17	Box	3.0	4.0	0.012	11.58	0.90%	1.25	4.25	127.05
LINE-DW-1	DW-1	JCT-D1	761.92	760.52	760.30	759.11	0.45	5	36.35	3.51	9.76	15.32	Circular	2.0	n/a	0.012	296.94	0.40%	1.41	6.47	15.50
LINE-DW-2	DW-2	DW-1	762.11	761.92	761.08	760.30	0.70	5	21.60	4.79	2.42	8.10	Circular	2.0	n/a	0.012	188.75	0.40%	1.61	2.98	15.50
LINE-DW-3	ST-DW	DW-2	762.91	762.13	761.84	761.08	0.79	5	10.00	7.01	1.57	8.65	Circular	2.0	n/a	0.012	180.25	0.40%	1.05	5.18	15.50
LINE-DW-4	DW-2A	ST-DW	763.08	762.91	762.00	761.84	0.79	5	10.00	7.01	1.57	8.65	Circular	2.0	n/a	0.012	31.00	0.40%	1.07	5.05	15.50
LINE-DW-5	DW-3	DW-2A	768.43	763.19	767.46	762.50	0.81	5	10.00	7.01	1.11	6.28	Circular	1.5	n/a	0.012	305.00	1.60%	0.69	7.87	14.39
LINE-DW-6	DW-4	DW-3	773.13	767.98	772.40	767.46	0.82	5	10.00	7.01	0.64	3.66	Circular	1.5	n/a	0.012	304.00	1.60%	0.52	6.81	14.39
LINE-DW-7	DW-5	DW-4	776.21	772.77	775.50	772.40	0.85	5	10.00	7.01	0.34	1.89	Circular	1.5	n/a	0.012	188.75	1.60%	0.37	5.62	14.39
LAT-DWO-2	DWO-2	DW-2	762.68	761.79	762.25	761.58	0.33	5	21.60	4.79	0.53	0.85	Circular	1.5	n/a	0.012	14.55	4.17%	0.21	5.85	23.25
LAT-DW-1	DWO-1	DW-1	761.97	761.92	761.00	760.30	0.31	5	36.20	3.52	6.56	7.22	Box	2.0	3.0	0.012	16.40	3.91%	1.62	1.49	104.52
LINE-DE-1-1	DE-4	BEND-DE-1	761.34	760.56	759.77	759.05	0.85	5	10.00	7.01	2.35	14.02</									

Note - End of Line A Sta. 2+85
Inlet A3 F/L is 774.66

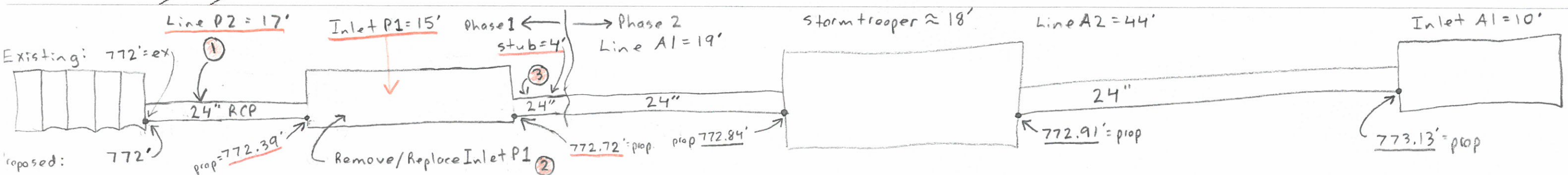
- ① Remove 18" RCP between existing BC #5 (Phase 1) and Inlet P1 (Phase 1) and replace w/ 24" RCP. Hold DS elevation of 772' + build to proposed below.
- ② Replace existing Inlet P1 (Phase 1) ^{and lower} approximately 1.05' (13"±), to accommodate required 24" RCP's + proposed FL's below.
- ③ Remove 18" RCP stub-out at US end of Inlet P1 (Phase 1) + replace with 24" RCP per plans (Phase 2).



Change Order Qty's

Remove 18" RCP = 17 + 4 = 21'
 Remove 15' Ty 2 Curb Inlet = 1
 Install 24" RCP = 17 + 4 = 21'
 Install 15' Ty 2 Curb Inlet = 1

- All other qty's shown below are part of the Phase 2 plans.



TCP PHASE 2 EAST BOUND CENTERLINE (CL-TCP-PH2-EB)

Chain CL-TCP-PH2-EB contains:
 CUR CL-TCP-PH2-1 CUR CL-TCP-PH2-2 PH2002 PH2003 CUR CL-TCP-PH2-3 CUR CL-TCP-PH2-4 CUR CL-TCP-PH2-5 CUR CL-TCP-PH2-6 PH2004

Beginning chain CL-TCP-PH2-EB description

Curve Data		*-----*	
Curve CL-TCP-PH2-1			
P.I. Station	11° 2' 31.73" N (RT)	10,159,511.9460	E 3,121,666.7025
Delta	= 4° 55' 41"		
Degree	= 1° 32' 37"		
Tangent	= 132.7350		
Length	= 261.5177		
Radius	= 1,261.0000		
External	= 6.8624		
Long Chord	= 262.0439		
Mid. Ord.	= 6.8253		
P.C. Station	= 1+00.00	N	10,159,436.1595 E 3,121,558.9504
P.T. Station	= 3+62.52	N	10,159,563.8258 E 3,121,787.7917
C.C. Station		N	10,158,404.7299 E 3,122,284.3978
Back	= N 54° 52' 47" E		
Ahead	= N 66° 48' 28" E		
Chord Bear	= N 60° 50' 37" E		

Curve Data		*-----*	
Curve CL-TCP-PH2-2			
P.I. Station	2° 4' 98.48" N (RT)	10,159,624.6859	E 3,121,909.3671
Delta	= 0° 57' 05"		
Degree	= 135.9578		
Tangent	= 271.8695		
Length	= 6,021.6598		
Radius	= 1.5346		
External	= 271.8464		
Long Chord	= 3.5343		
Mid. Ord.	= 6.34.39		
P.C. Station	= 10,159,563.8258	N	10,159,563.8258 E 3,121,787.7917
P.T. Station	= 10,159,679.9688	N	10,159,679.9688 E 3,122,033.5654
C.C. Station	= 10,154,179.1718	N	10,154,179.1718 E 3,124,483.3226
Back	= N 63° 24' 28" E		
Ahead	= N 65° 59' 40" E		
Chord Bear	= N 64° 42' 04" E		

Course from PT CL-TCP-PH2-2 to PH2002 N 66° 25' 30" E Dist 290.2652
 Point PH2002 N 10,159,796.0888 E 3,122,299.6040 Sta 9+24.65
 Course from PH2002 to PH2003 N 65° 59' 40" E Dist 1,830.0611
 Point PH2003 N 10,160,540.6020 E 3,123,971.3766 Sta 27+54.71
 Course from PH2003 to PC CL-TCP-PH2-3 N 65° 59' 40" E Dist 828.9228

Curve Data		*-----*	
Curve CL-TCP-PH2-EB-6			
P.I. Station	4° 26' 36.67.38" N (RT)	10,160,911.9156	E 3,124,805.1455
Delta	= 2° 39' 18.1467"		
Degree	= 83.7898		
Tangent	= 167.4954		
Length	= 2,158.0000		
Radius	= 167.4534		
External	= 1.6248		
Long Chord	= 35+83.59	N	10,160,877.8279 E 3,124,728.6030
Mid. Ord.	= 37+51.09	N	10,160,939.9657 E 3,124,884.1006
P.C. Station		N	10,158,906.4809 E 3,125,606.5297
P.T. Station		N	
C.C. Station		N	
Back	= N 65° 59' 40.2205" E		
Ahead	= N 70° 32' 24.6903" E		
Chord Bear	= N 68° 13' 04.9503" E		

Course from PT CL-TCP-PH2-EB-6 to PC CL-TCP-PH2-EB-7 N 70° 05' 00.3012" E Dist 149.8049

Curve Data		*-----*	
Curve CL-TCP-PH2-EB-7			
P.I. Station	9° 37' 26.3941" N (RT)	10,161,032.6962	E 3,125,144.4935
Delta	= 3° 48' 34.4153"		
Degree	= 126.6116		
Tangent	= 252.6276		
Length	= 1,504.0000		
Radius	= 5.3199		
External	= 252.3307		
Long Chord	= 5.3011		
Mid. Ord.	= 39+00.89	N	10,160,990.9970 E 3,125,024.9456
P.C. Station	= 41+53.52	N	10,161,053.8222 E 3,125,269.3301
P.T. Station		N	10,159,570.9067 E 3,125,520.2835
C.C. Station		N	
Back	= N 70° 46' 15.0856" E		
Ahead	= N 80° 23' 41.4797" E		
Chord Bear	= N 75° 34' 58.2827" E		

Curve Data		*-----*	
Curve CL-TCP-PH2-EB-8			
P.I. Station	11° 41' 44.06.30" N (RT)	10,161,096.0012	E 3,125,518.5711
Delta	= 2° 19' 29.5540"		
Degree	= 14.1832"		
Tangent	= 252.7848		
Length	= 503.8141		
Radius	= 2,469.0003		
External	= 12.9068		
Long Chord	= 502.8405		
Mid. Ord.	= 12.8496		
P.C. Station	= 41+53.52	N	10,161,053.8222 E 3,125,269.3301
P.T. Station	= 46+57.33	N	10,161,086.7982 E 3,125,771.1884
C.C. Station		N	10,158,619.4347 E 3,125,681.3008
Back	= N 80° 23' 41.4797" E		
Ahead	= S 87° 54' 48.9663" E		
Chord Bear	= N 86° 14' 26.2567" E		

Curve Data		*-----*	
Curve CL-TCP-PH2-9			
P.I. Station	8° 30' 48+11.51" N (RT)	10,161,074.6440	E 3,125,924.8829
Delta	= 2° 45' 47.6603"		
Degree	= 154.1744		
Tangent	= 307.7812		
Length	= 2,071.4283		
Radius	= 5.7296		
External	= 307.4982		
Long Chord	= 5.7138		
Mid. Ord.	= 46+57.33	N	10,161,086.7982 E 3,125,771.1884
P.C. Station	= 49+65.11	N	10,161,039.8710 E 3,126,075.0847
P.T. Station		N	10,159,021.8168 E 3,125,607.8885
C.C. Station		N	
Back	= S 85° 28' 42.3366" E		
Ahead	= S 76° 57' 54.6763" E		
Chord Bear	= S 81° 13' 18.5064" E		

Course from PT CL-TCP-PH2-EB-9 to EB939 S 76° 57' 54.6757" E Dist 119.1131
 Point EB939 N 10,161,013.0059 E 3,126,191.1286 Sta 50+84.23

Ending chain CL-TCP-PH2-EB description



TCP PHASE 2 WEST BOUND CENTERLINE (CL-TCP-PH2-WB)

Chain CL-TCP-PH2-WB contains:
 CUR CL-TCP-PH2-WB-1 CUR CL-TCP-PH2-WB-2 PH2053

Beginning chain CL-TCP-PH2-WB description

Curve Data		*-----*	
Curve CL-TCP-PH2-WB-1			
P.I. Station	11° 34' 25.53.34" N (RT)	10,159,685.4152	E 3,121,869.2383
Delta	= 3° 47' 22"		
Degree	= 153.3448		
Tangent	= 305.6446		
Length	= 1,512.0000		
Radius	= 7.7561		
External	= 305.1245		
Long Chord	= 7.7155		
Mid. Ord.	= 1+00.00	N	10,159,610.4688 E 3,121,735.4561
P.C. Station	= 4+05.64	N	10,159,731.9758 E 3,122,015.3435
P.T. Station		N	10,158,291.3591 E 3,122,474.4374
C.C. Station		N	
Back	= N 60° 44' 31" E		
Ahead	= N 72° 19' 26" E		
Chord Bear	= N 66° 31' 59" E		

Curve Data		*-----*	
Curve CL-TCP-PH2-WB-2			
P.I. Station	6° 19' 46.97" N (LT)	10,159,756.9738	E 3,122,093.7860
Delta	= 3° 50' 53"		
Degree	= 82.3294		
Tangent	= 164.4913		
Length	= 1,489.0000		
Radius	= 2.2743		
External	= 164.4076		
Long Chord	= 2.2709		
Mid. Ord.	= 4+05.64	N	10,159,731.9758 E 3,122,015.3435
P.C. Station	= 5+70.14	N	10,159,790.4674 E 3,122,168.9944
P.T. Station		N	10,161,150.6785 E 3,121,563.2331
C.C. Station		N	
Back	= N 72° 19' 26" E		
Ahead	= N 65° 59' 40" E		
Chord Bear	= N 69° 09' 33" E		

Course from PT CL-TCP-PH2-WB-2 to PH2053 N 65° 59' 40" E Dist 125.8868
 Point PH2053 N 10,159,841.6812 E 3,122,283.9928 Sta 6+96.02

Ending chain CL-TCP-PH2-WB description

TCP PHASE 3 CENTERLINE (CL-TCP-PH3)

Chain CL-TCP-PH3 contains:
 TCP302 TCP303 CUR CL-TCP-PH3-1 CUR CL-TCP-PH3-2 CUR CL-TCP-PH3-3

Beginning chain CL-TCP-PH3 description

Point TCP302 N 10,160,617.3365 E 3,123,937.2034 Sta 1+00.00
 Course from TCP302 to TCP303 N 65° 59' 40" E Dist 314.9683
 Point TCP303 N 10,160,745.4733 E 3,124,224.9289 Sta 4+14.97
 Course from TCP303 to PC CL-TCP-PH3-1 N 65° 59' 40" E Dist 142.4296

Curve Data		*-----*	
Curve CL-TCP-PH3-1			
P.I. Station	1° 54' 36" (RT)	10,160,834.1162	E 3,124,423.9730
Delta	= 1° 15' 56"		
Degree	= 75.4605		
Tangent	= 150.9070		
Length	= 4,527.0000		
Radius	= 0.6288		
External	= 150.9009		
Long Chord	= 0.6288		
Mid. Ord.	= 5+57.40	N	10,160,803.4171 E 3,124,355.0393
P.C. Station	= 7+08.30	N	10,160,862.5009 E 3,124,493.8915
P.T. Station		N	10,156,667.9734 E 3,126,196.7327
C.C. Station		N	
Back	= N 65° 59' 40" E		
Ahead	= N 67° 54' 16" E		
Chord Bear	= N 66° 56' 58" E		

Curve Data		*-----*	
Curve CL-TCP-PH3-2			
P.I. Station	7° 82' 87" N (LT)	10,160,890.5469	E 3,124,562.9760
Delta	= 1° 54' 36"		
Degree	= 1° 16' 51"		
Tangent	= 74.5604		
Length	= 149.1069		
Radius	= 4,473.0000		
External	= 0.6214		
Long Chord	= 149.1000		
Mid. Ord.	= 0.6213		
P.C. Station	= 7+08.30	N	10,160,862.5009 E 3,124,493.8915
P.T. Station	= 8+57.41	N	10,160,920.8799 E 3,124,631.0873
C.C. Station		N	10,165,006.9942 E 3,122,811.3625
Back	= N 67° 54' 16" E		
Ahead	= N 65° 59' 40" E		
Chord Bear	= N 66° 56' 58" E		

Curve Data		*-----*	
Curve CL-TCP-PH3-3			
P.I. Station	26° 27' 04" (RT)	10,161,149.5034	E 3,125,136.1854
Delta	= 2° 25' 43"		
Degree	= 554.4302		
Tangent	= 1,089.0960		
Length	= 2,359.1002		
Radius	= 64.2748		
External	= 1,079.4502		
Long Chord	= 62.5701		
Mid. Ord.	= 19+46.51	N	10,160,920.8799 E 3,124,631.0873
P.C. Station		N	10,161,129.2065 E 3,125,690.2440
P.T. Station		N	10,158,771.6876 E 3,125,603.8805
C.C. Station		N	
Back	= N 65° 38' 49" E		
Ahead	= S 87° 54' 07" E		
Chord Bear	= N 78° 52' 21" E		

Ending chain CL-TCP-PH3 description



1	RF1 15	ND	7/10/17
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 AUSTIN, TEXAS 78758-5356
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 FAX (512) 252-8141
 TBPE FIRM NO. F-312

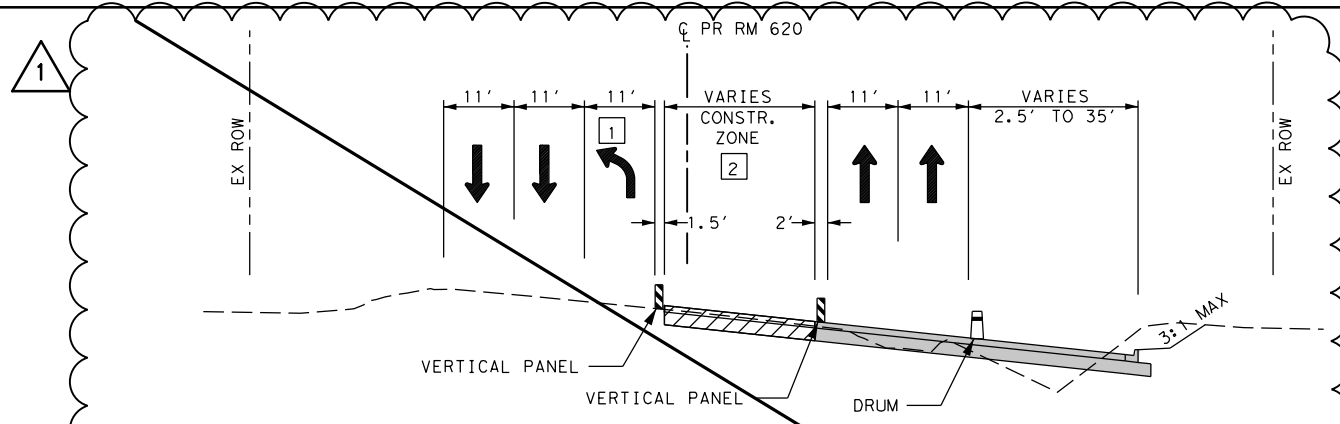


RM 620
TRAFFIC CONTROL PLAN
HORIZONTAL ALIGNMENT DATA

SCALE: SHEET 2 OF 2

Designated	ER	FED. RD. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked:	ER	X	TEXAS		RM 620
Drawn:	ND	DIST.	COUNTY	CONTROL NO.	SECTION NO.
Checked:	ER	AUS	WILLIAMSON	0683	01 090
					JOB NO.
					22

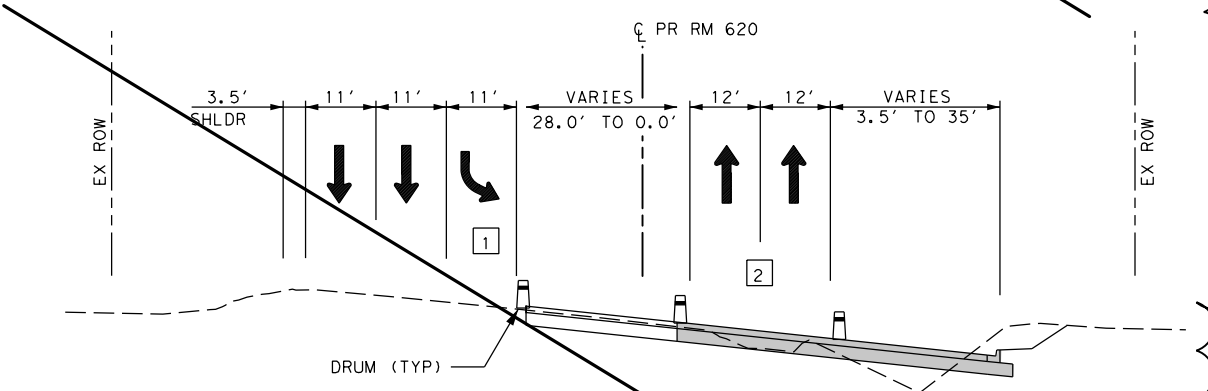
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PROPOSED TCP PHASE 1 STEP 4B TYPICAL SECTION

STA 450+49.36 (CL) = STA 1+49.18 (CL TCP PH1S4) TO STA 459+95.08 (CL) = STA 10+89.03 (CL TCP PH1S4)

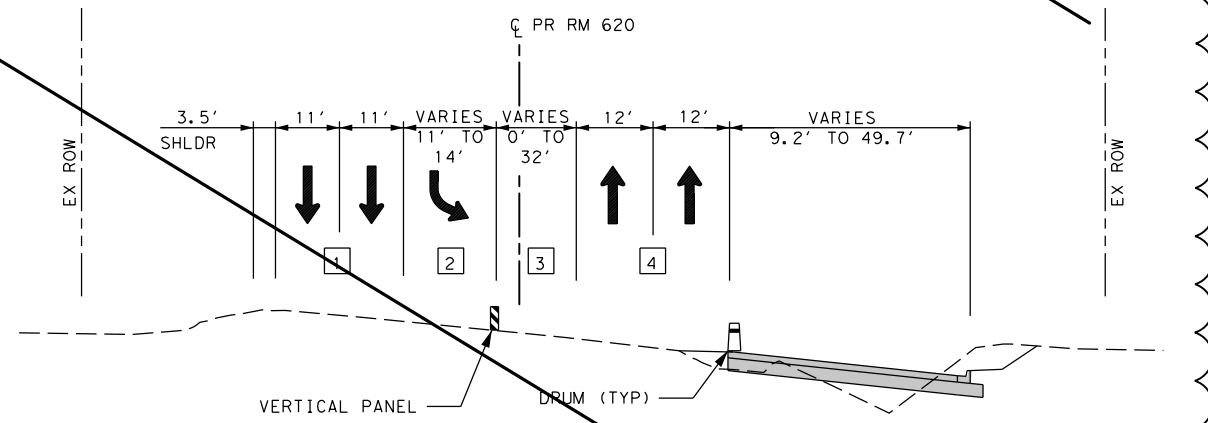
- 1 BEGIN LANE AT STA 452+05.84
VARIES FROM 15.00' AT STA 453+00.53 (CL) = 4+00.37 (CL TCP PH1S4)
TO 11.00' AT STA 456+00.10 (CL) = STA 6+97.85 (CL TCP PH1S4)
- 2 VARIES FROM 16.00' AT STA 456+00.10 (CL) = 6+97.85 (CL TCP PH1S4) TO
24.00' AT STA 457+79.84 (CL) = STA 8+76.65 (CL TCP PH1S4)
END CONSTRUCTION ZONE AT STA 459+13.36 = STA 10+08.46 (CL TCP PH1S4)



PROPOSED TCP PHASE 1 STEP 4B TYPICAL SECTION

TO STA 459+95.08 (CL) = STA 10+89.03 (CL TCP PH1S4) TO STA 465.00.00 (CL) = STA 12+93.65 (CL TCP PH1S4)

- 1 VARIES FROM 11.00' STA 460.00.01 (CL) = STA 10+93.96 (CL TCP PH1S4)
TO 14.0' AT STA 462+00.00 (CL) = STA 12+93.39 (CL TCP PH1S4)
- 2 VARIES FROM 11.00' STA 460.00.01 (CL) = STA 10+93.96 (CL TCP PH1S4)
TO 12.00' STA 465.00.00 (CL) = STA 12+93.65 (CL TCP PH1S4)

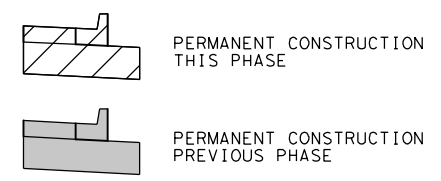


PROPOSED TCP PHASE 1 STEP 5 TYPICAL SECTION

STA 448+00.00 (CL) = STA 1+00.00 (CL TCP PH1S5) TO STA 455+17.83 = STA 8+15.61 (CL TCP PH1S5)

- 1 LANES VARY FROM 12.00' AT STA 448+00.00 (CL) = STA 1+00.00 (CL TCP PH1S5)
TO 11.00' AT STA 450+00.00 (CL) = 3+00.69 (CL TCP PH1S5)
- 2 BEGIN LANE OPENING AT STA 4+48.25 (CL TCP PH1S5) = STA 451+48.76 (CL)
- 3 BEGIN EB/ WB SEPARATION AT STA 450+49.36 (CL) = STA 3+49.44 (CL TCP PH1S5)
- 4 LANES VARY 12.00' AT STA 448+00.00 (CL) = STA 1+00.00 (CL TCP PH1S5)
TO 10.00' AT STA 450+49.36 (CL) = STA 3+49.19 (CL TCP PH1S5)

LEGEND



STEPS OMITTED BY USING
HMAC OVERLAYS INSTEAD
OF FULL DEPTH RECONSTRUCTION



1	RFI 15	ND	7/10/17
NO.	REVISION	BY	DATE

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TBPE FIRM NO. F-312



**RM 620
TRAFFIC CONTROL PLAN
TYPICAL SECTIONS**

SCALE: N.T.S. SHEET 5 OF 8

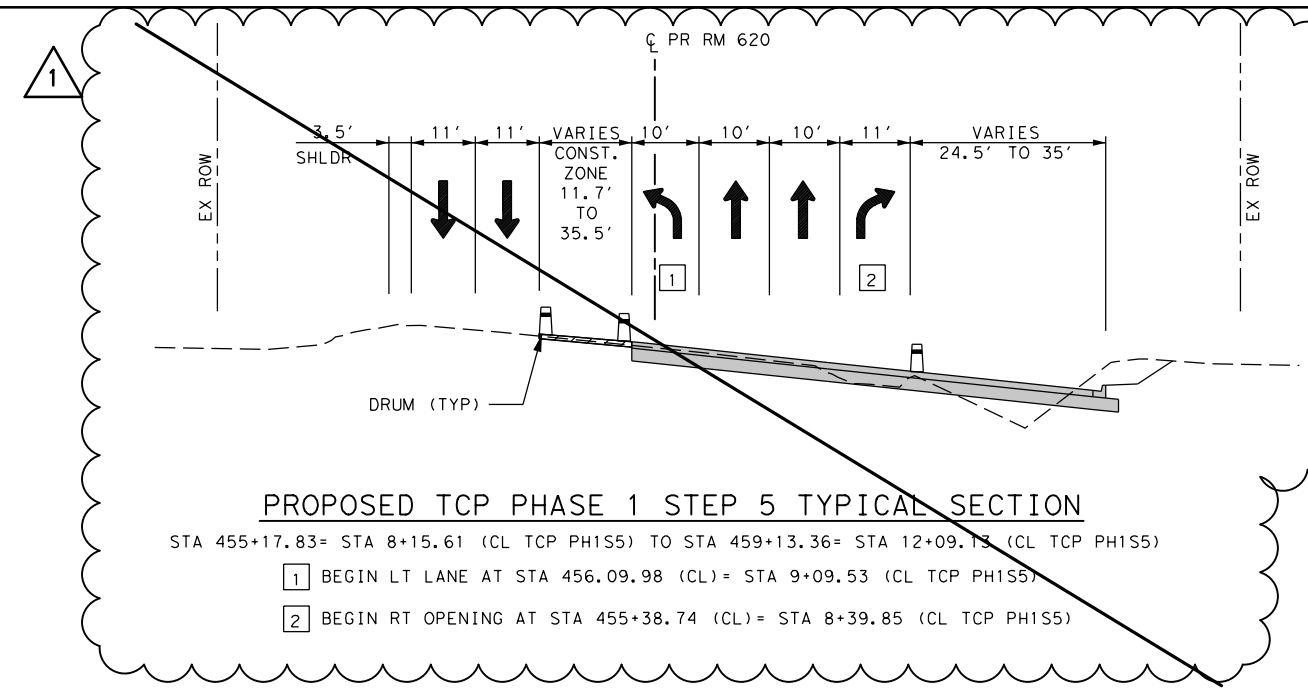
Designed: ER	Div. NO. X	STATE TEXAS	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked: ER				RM 620
Drawn: ND	DIST. AUS	COUNTY WILLIAMSON	CONTROL NO. 0683	SECTION NO. 01
Checked: ER				JOB NO. 090
				SHEET NO. 27

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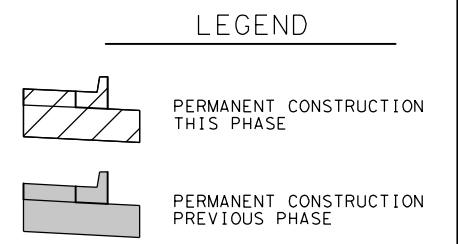
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7/10/2017 5:06:19 PM ah2904.TXDOT



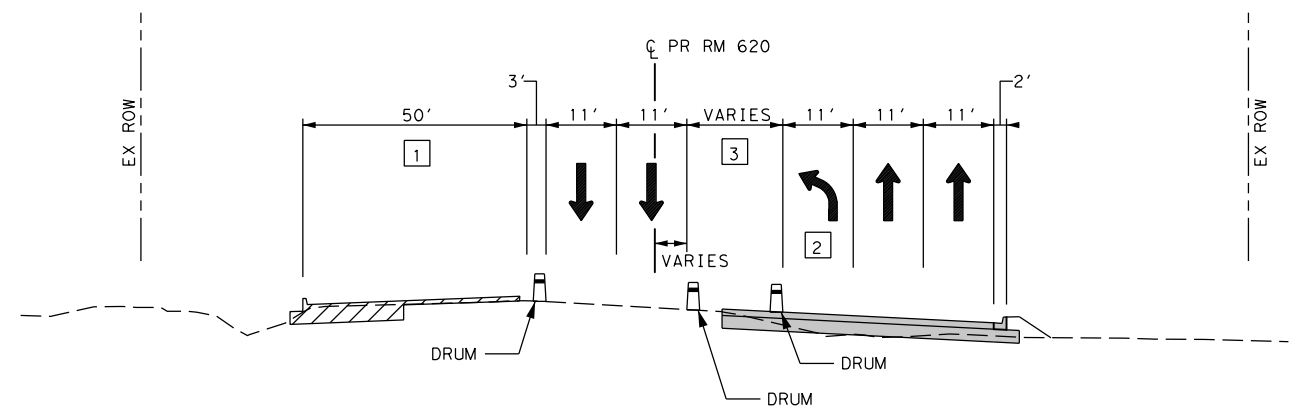
STEP OMITTED BY USING
HMAC OVERLAYS INSTEAD
OF FULL DEPTH RECONSTRUCTION



PROPOSED TCP PHASE 1 STEP 5 TYPICAL SECTION

STA 455+17.83= STA 8+15.61 (CL TCP PH1S5) TO STA 459+13.36= STA 12+09.13 (CL TCP PH1S5)

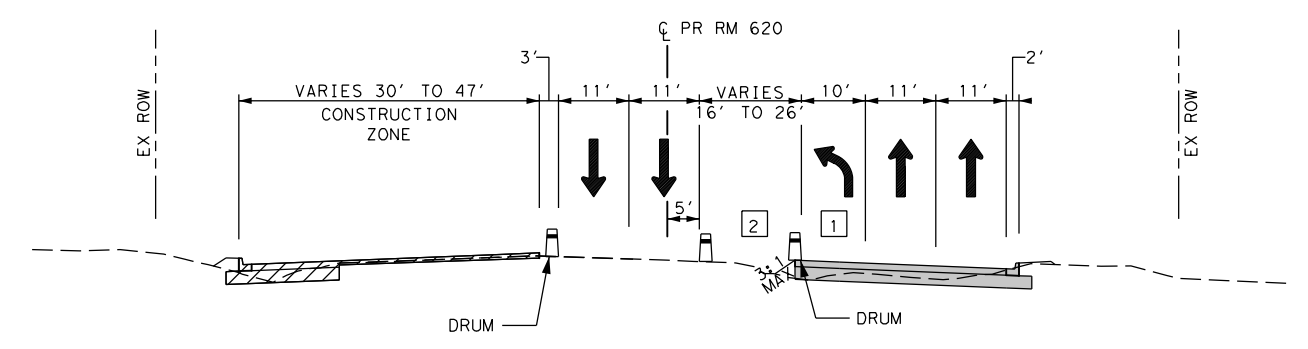
- 1 BEGIN LT LANE AT STA 456.09.98 (CL)= STA 9+09.53 (CL TCP PH1S5)
- 2 BEGIN RT OPENING AT STA 455+38.74 (CL)= STA 8+39.85 (CL TCP PH1S5)



PROPOSED TCP PHASE 2 TYPICAL SECTION

STA 1+00.00 (CL TCP PH2 WB)= STA 418+31.51 (CL) TO STA 424+25.22 (CL)= 9+29.61 (CL TCP PH2 EB)

- 1 BEGIN CONSTRUCTION ZONE STA 422+01.72 (CL)
- 2 BEGIN LT LANE AT STA 420+35.72 (CL)= 5+40.24 (CL TCP PH2 EB)
- 3 VARIES FROM 29.00' AT STA 418+83.75 (CL) TO 15.00' AT STA 423+00.00 (CL)



PROPOSED TCP PHASE 2 TYPICAL SECTION

STA 424+25.22 (CL)= 9+29.61 (CL TCP PH2 EB) TO STA 454+27.50 (CL)= STA 39+25.20 (CL TCP PH2 EB)

- 1 SEE PLANS FOR LIMITS OF LEFT TURN LANES
- 2 INSTALL TEMPORARY PAVEMENT AT INTERSECTIONS



1	RFI 15	ND	7/10/17
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TBPE FIRM NO. F-312

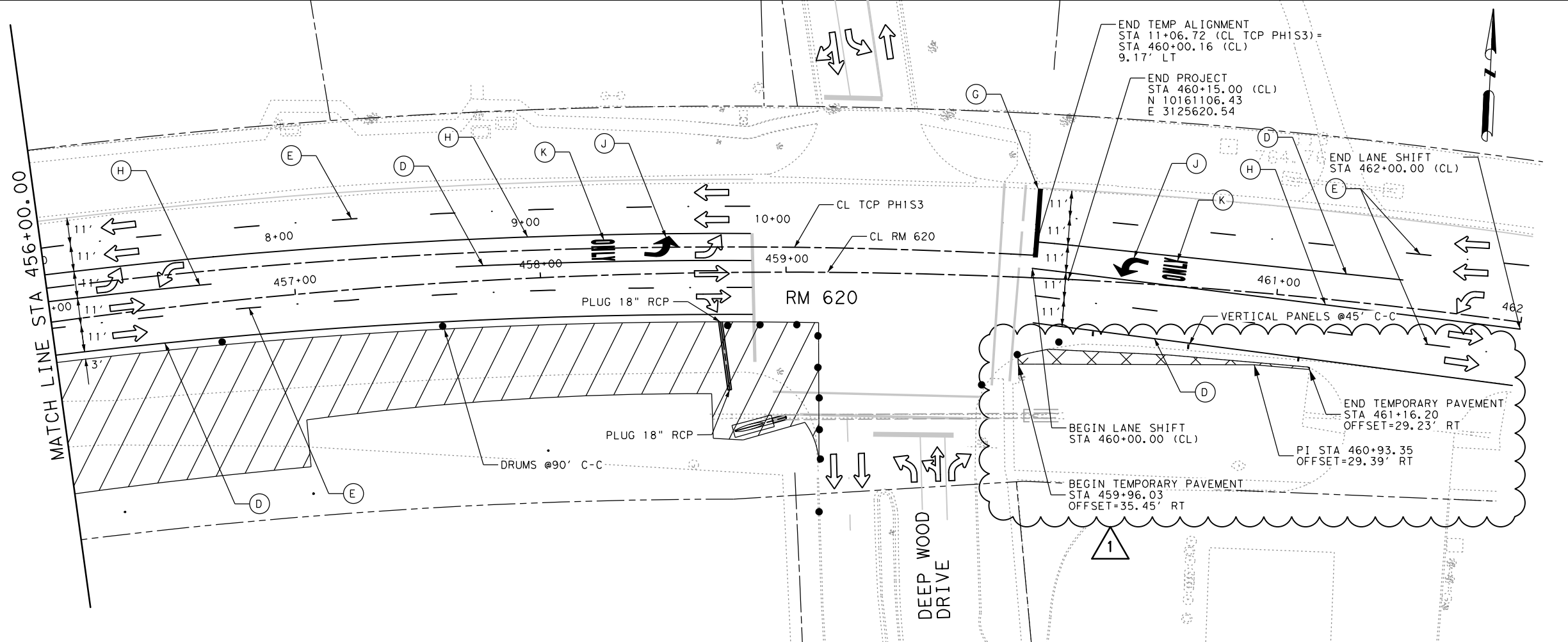
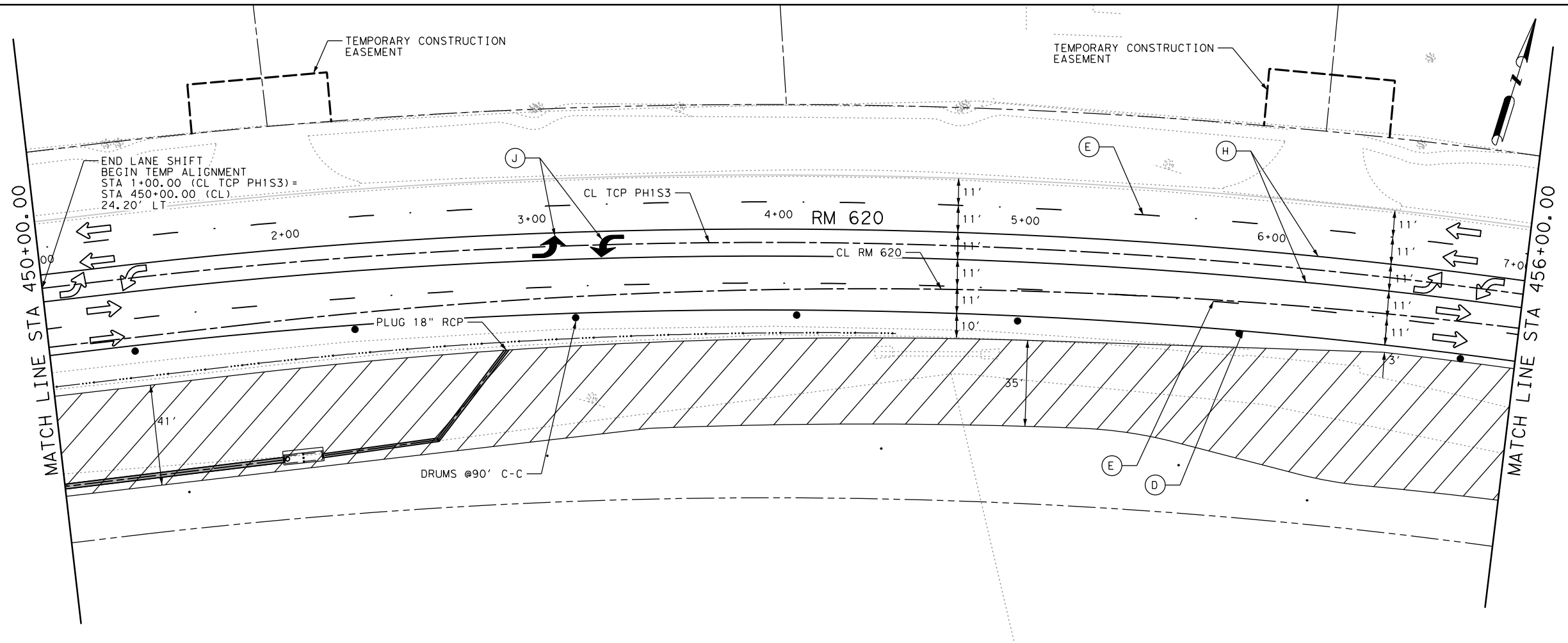


**RM 620
TRAFFIC CONTROL PLAN
TYPICAL SECTIONS**

SCALE: N.T.S. SHEET 6 OF 8

Designed: ER	DIV. NO. X	STATE TEXAS	FEDERAL AID PROJECT NO.	HIGHWAY NO. RM 620
Checked: ER	DIST. ND	COUNTY AUS	CONTROL NO. 0683	SECTION NO. 01
Drawn: ND	JOB NO. 090	SHEET NO. 28		

7/10/2017 5:06:22 PM ah22904 TXDOT I:\30000s\30302\CADD\Sheets\30302-TCP-PH1S3-04.dgn



SCALE IN FEET
0 25 50 100

LEGEND

- - - EXISTING PAVEMENT MARKINGS
- - - PROPOSED PAVEMENT MARKINGS
- [Hatched Box] CONSTRUCTION ZONE THIS PHASE
- [Diagonal Lines Box] PREVIOUS CONSTRUCTION
- [Cross-hatched Box] TEMPORARY PAVEMENT
- [Circle with Arrow] PROPOSED SIGN
- [Circle with Dot] REFLECTIVE DRUM
- [Barriers] TY III BARRICADE
- [Trailer] TRAILER MOUNTED FLASHING ARROW BOARD
- [Truck] SHADOW VEHICLE WITH TMA AND HIGH INTENSITY ROTATING FLASHING, OSCILLATING OR STROBE LIGHTS
- [Arrow] TRAFFIC DIRECTION

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (C) WK ZN PAV MRK REMOV (W) 4" (DOT)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 4" (BRK)
- (F) WK ZN PAV MRK REMOV (W) 8" (SLD)
- (G) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (H) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (I) WK ZN PAV MRK REMOV (REFL) TY I-C
- (J) WK ZN PAV MRK REMOV (W) (ARROW)
- (K) WK ZN PAV MRK REMOV (W) (WORD)
- (L) WK ZN PAV MRK NON-REMOV (W) 4" (BRK)
- (M) WK ZN PAV MRK NON-REMOV (W) (WORD)
- (N) WK ZN PAV MRK NON-REMOV (W) (ARROW)
- (O) WK ZN PAV MRK NON-REMOV (W) 8" (SLD)
- (P) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (Q) WK ZN PAV MRK NON-REMOV (W) 12" (SLD)
- (R) WK ZN PAV MRK NON-REMOV (Y) 8" (SLD)



1	RF1 15	ND	7/10/17
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FAX (512) 252-8141
TBPE FIRM NO. F-312

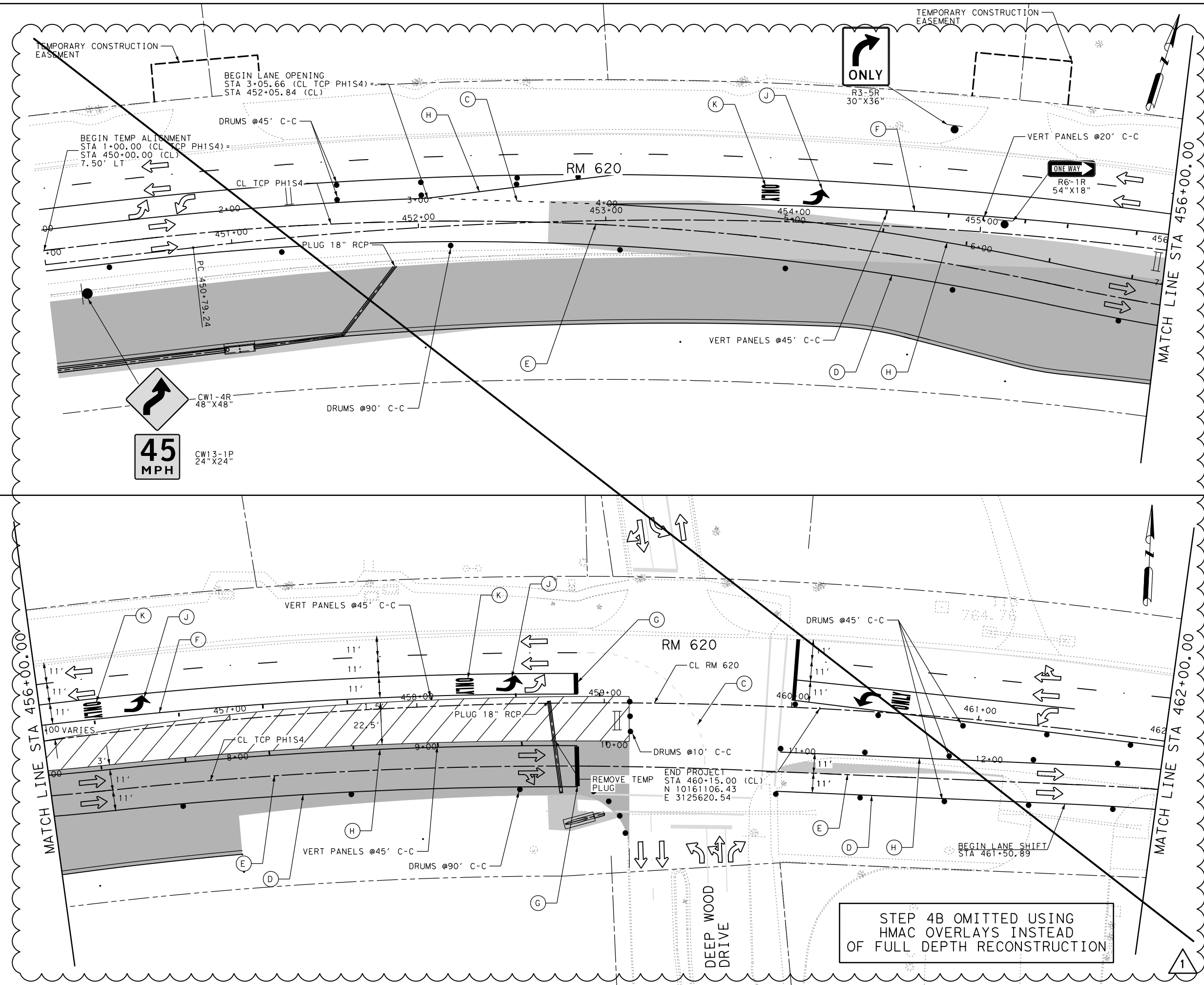


**RM 620
TRAFFIC CONTROL PLAN
PHASE 1 STEP 3
STA 450+00 TO END**

SCALE: 1"=50' SHEET 4 OF 4

Designed: ER	DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.	COUNTY	CONTROL NO.	SECTION NO.
Checked: ER	AUS	WILLIAMSON	0683	01 090
				SHEET NO. 46

7/10/2017 5:06:23 PM ah2904 TXDOT I:\30000s\30302\CADD\Sheets\30302-TCP-PH1S4.dgn
 Design
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SCALE IN FEET
0 25 50 100

LEGEND

- - - EXISTING PAVEMENT MARKINGS
- - - PROPOSED PAVEMENT MARKINGS
- [Hatched Box] CONSTRUCTION ZONE THIS PHASE
- [Solid Grey Box] PREVIOUS CONSTRUCTION
- [Cross-hatched Box] TEMPORARY PAVEMENT
- [Circle with Dot] PROPOSED SIGN
- [Circle with Black Dot] REFLECTIVE DRUM
- [Vertical Bars] TY III BARRICADE
- [House Icon] TRAILER MOUNTED FLASHING ARROW BOARD
- [Truck Icon] SHADOW VEHICLE WITH TMA AND HIGH INTENSITY ROTATING FLASHING, OSCILLATING OR STROBE LIGHTS
- [Arrow] TRAFFIC DIRECTION

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (C) WK ZN PAV MRK REMOV (W) 4" (DOT)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 4" (BRK)
- (F) WK ZN PAV MRK REMOV (W) 8" (SLD)
- (G) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (H) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (I) WK ZN PAV MRK REMOV (REFL) TY I-C
- (J) WK ZN PAV MRK REMOV (W) (ARROW)
- (K) WK ZN PAV MRK REMOV (W) (WORD)
- (L) WK ZN PAV MRK NON-REMOV (W) 4" (BRK)
- (M) WK ZN PAV MRK NON-REMOV (W) (WORD)
- (N) WK ZN PAV MRK NON-REMOV (W) (ARROW)
- (O) WK ZN PAV MRK NON-REMOV (W) 8" (SLD)
- (P) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (Q) WK ZN PAV MRK NON-REMOV (W) 12" (SLD)
- (R) WK ZN PAV MRK NON-REMOV (Y) 8" (SLD)



1	RF1 15	ND	7/10/17
NO.	REVISION	BY	DATE

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 FAX (512) 252-8141
 TBPE FIRM NO. F-312

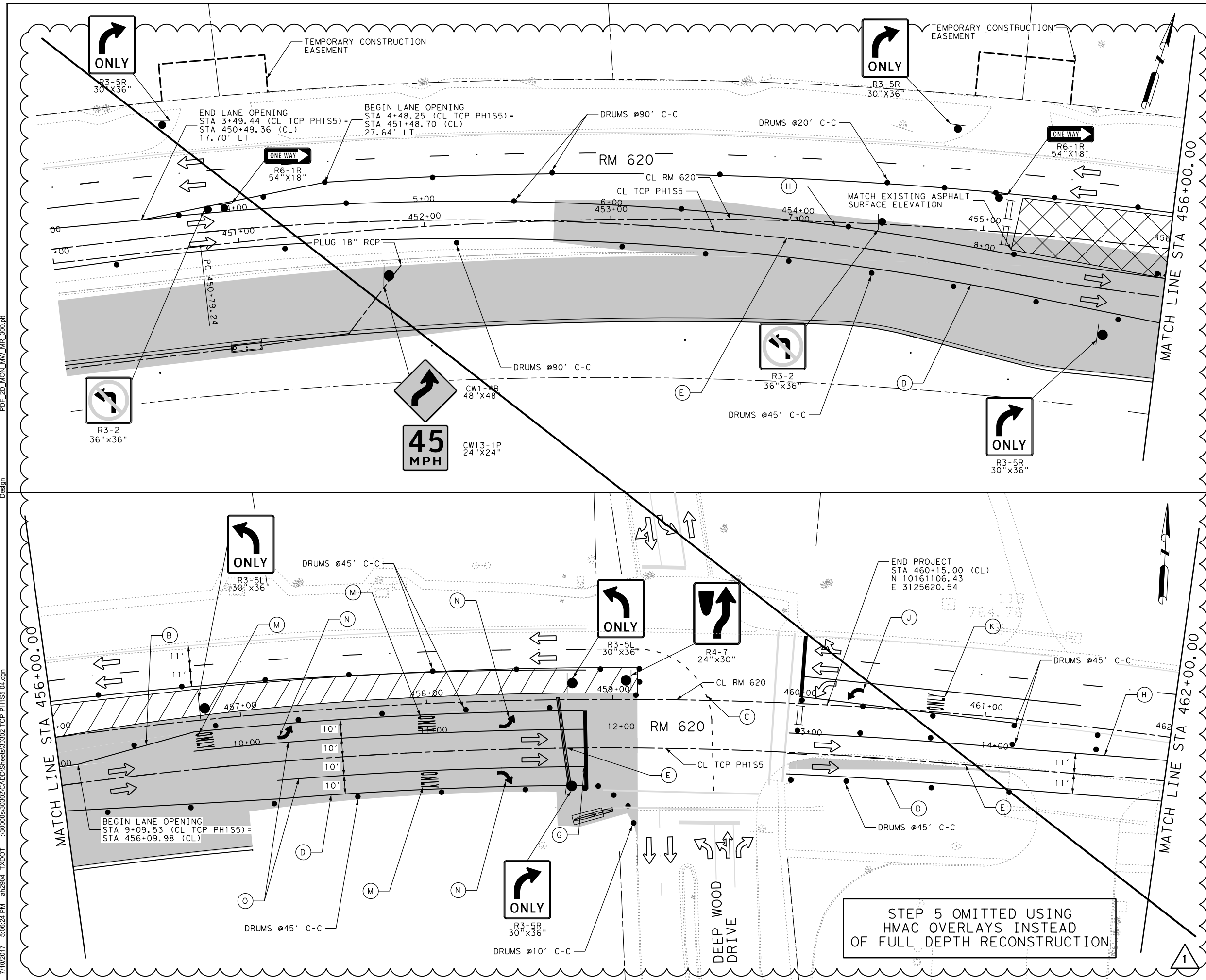


RM 620
 TRAFFIC CONTROL PLAN
 PHASE 1 STEP 4B
 STA 450+00 TO STA 462+00

SCALE: 1"=50' SHEET 1 OF 2

Designed: ER	DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.	COUNTY	CONTROL NO.	SECTION NO.
Checked: ER	AUS	WILLIAMSON	0683	01 090
				SHEET NO. 50

7/10/2017 5:06:24 PM ah2904.TXDOT I:\30000s\30302\CADD\Sheets\30302-TCP-PH1S5-04.dgn



SCALE IN FEET
0 25 50 100

LEGEND

- - - EXISTING PAVEMENT MARKINGS
- - - PROPOSED PAVEMENT MARKINGS
- [Hatched Box] CONSTRUCTION ZONE THIS PHASE
- [Grey Box] PREVIOUS CONSTRUCTION
- [Cross-hatched Box] TEMPORARY PAVEMENT
- [Circle with Sign] PROPOSED SIGN
- [Circle with Drum] REFLECTIVE DRUM
- [Barrier Symbol] TY III BARRICADE
- [Trailer Symbol] TRAILER MOUNTED FLASHING ARROW BOARD
- [Vehicle Symbol] SHADOW VEHICLE WITH TMA AND HIGH INTENSITY ROTATING FLASHING, OSCILLATING OR STROBE LIGHTS
- [Arrow] TRAFFIC DIRECTION

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (C) WK ZN PAV MRK REMOV (W) 4" (DOT)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 4" (BRK)
- (F) WK ZN PAV MRK REMOV (W) 8" (SLD)
- (G) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (H) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (I) WK ZN PAV MRK REMOV (REFL) TY I-C
- (J) WK ZN PAV MRK REMOV (W) (ARROW)
- (K) WK ZN PAV MRK REMOV (W) (WORD)
- (L) WK ZN PAV MRK NON-REMOV (W) 4" (BRK)
- (M) WK ZN PAV MRK NON-REMOV (W) (WORD)
- (N) WK ZN PAV MRK NON-REMOV (W) (ARROW)
- (O) WK ZN PAV MRK NON-REMOV (W) 8" (SLD)
- (P) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (Q) WK ZN PAV MRK NON-REMOV (W) 12" (SLD)
- (R) WK ZN PAV MRK NON-REMOV (Y) 8" (SLD)

STATE OF TEXAS
2017-07-10
MATTHEW BUSHAK
91480
LICENSED PROFESSIONAL ENGINEER

1	RF1 15	ND	7/10/17
NO.	REVISION	BY	DATE

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4030 WEST BRAKER LANE, SUITE 450
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WILLIAMSON COUNTY

RM 620
TRAFFIC CONTROL PLAN
PHASE 1 STEP 5
STA 450+00 TO STA 462+00

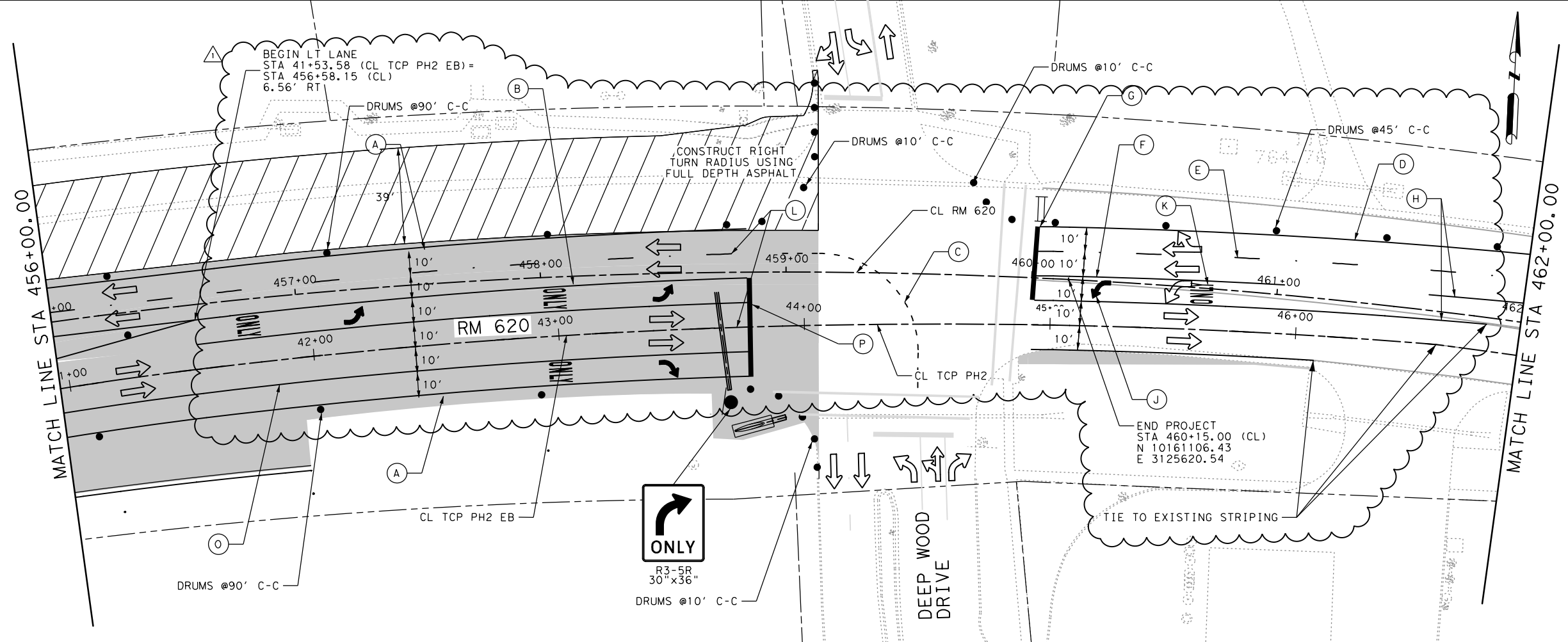
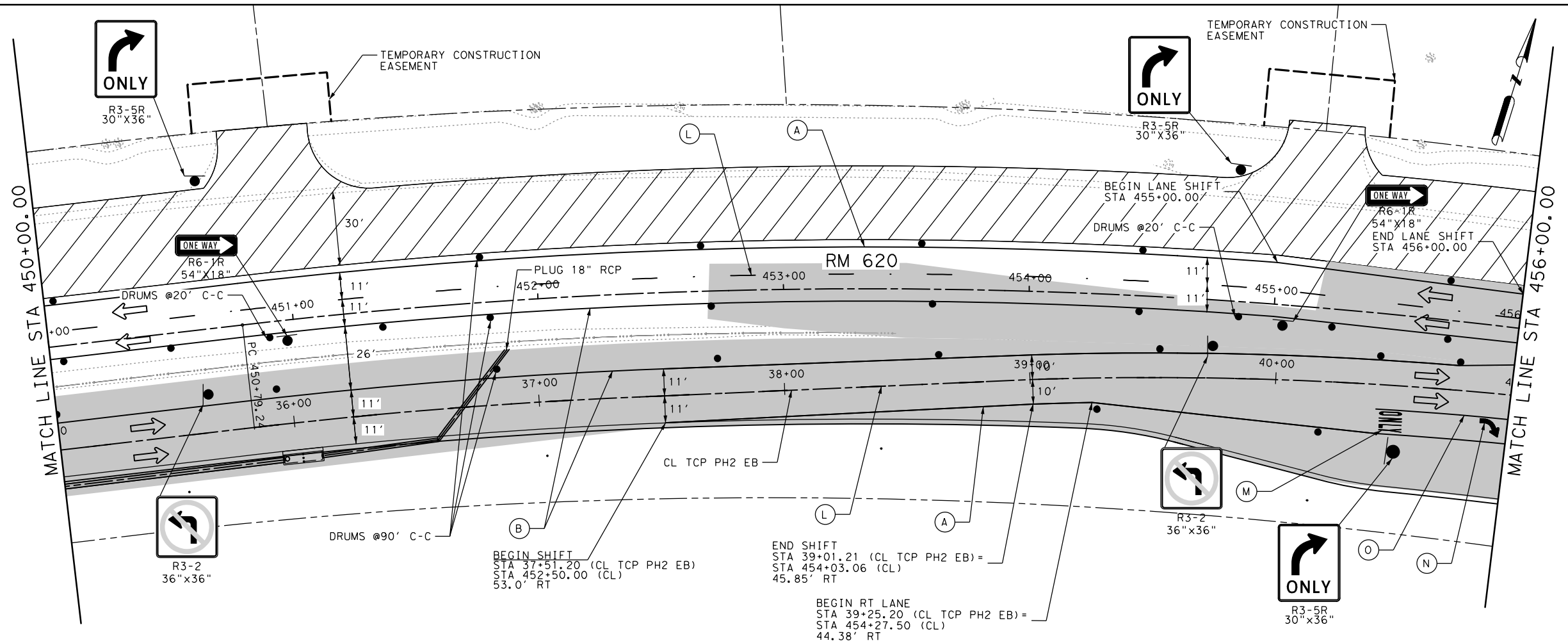
SCALE: 1"=50' SHEET 1 OF 2

Designed: ER	DIV: ND	STATE: TEXAS	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.	COUNTY: WILLIAMSON	CONTROL NO.: 0683	SECTION NO.: 01
Checked: ER	AUS			JOB NO.: 090
				SHEET NO.: 53

PDF 2D_MON_WW_MR_300.plt

Design

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SCALE IN FEET
0 25 50 100

LEGEND

- - - EXISTING PAVEMENT MARKINGS
- - - PROPOSED PAVEMENT MARKINGS
- ▨ CONSTRUCTION ZONE THIS PHASE
- ▩ PREVIOUS CONSTRUCTION
- ▧ TEMPORARY PAVEMENT
- PROPOSED SIGN
- REFLECTIVE DRUM
- ▬ TY III BARRICADE
- ▩ TRAILER MOUNTED FLASHING ARROW BOARD
- ▩ SHADOW VEHICLE WITH TMA AND HIGH INTENSITY ROTATING FLASHING, OSCILLATING OR STROBE LIGHTS
- ← TRAFFIC DIRECTION

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (C) WK ZN PAV MRK REMOV (W) 4" (DOT)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 4" (BRK)
- (F) WK ZN PAV MRK REMOV (W) 8" (SLD)
- (G) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (H) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (I) WK ZN PAV MRK REMOV (REFL) TY I-C
- (J) WK ZN PAV MRK REMOV (W) (ARROW)
- (K) WK ZN PAV MRK REMOV (W) (WORD)
- (L) WK ZN PAV MRK NON-REMOV (W) 4" (BRK)
- (M) WK ZN PAV MRK NON-REMOV (W) (WORD)
- (N) WK ZN PAV MRK NON-REMOV (W) (ARROW)
- (O) WK ZN PAV MRK NON-REMOV (W) 8" (SLD)
- (P) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (Q) WK ZN PAV MRK NON-REMOV (W) 12" (SLD)
- (R) WK ZN PAV MRK NON-REMOV (Y) 8" (SLD)



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**RM 620
TRAFFIC CONTROL PLAN
PHASE 2**
STA 450+00 TO STA 462+00

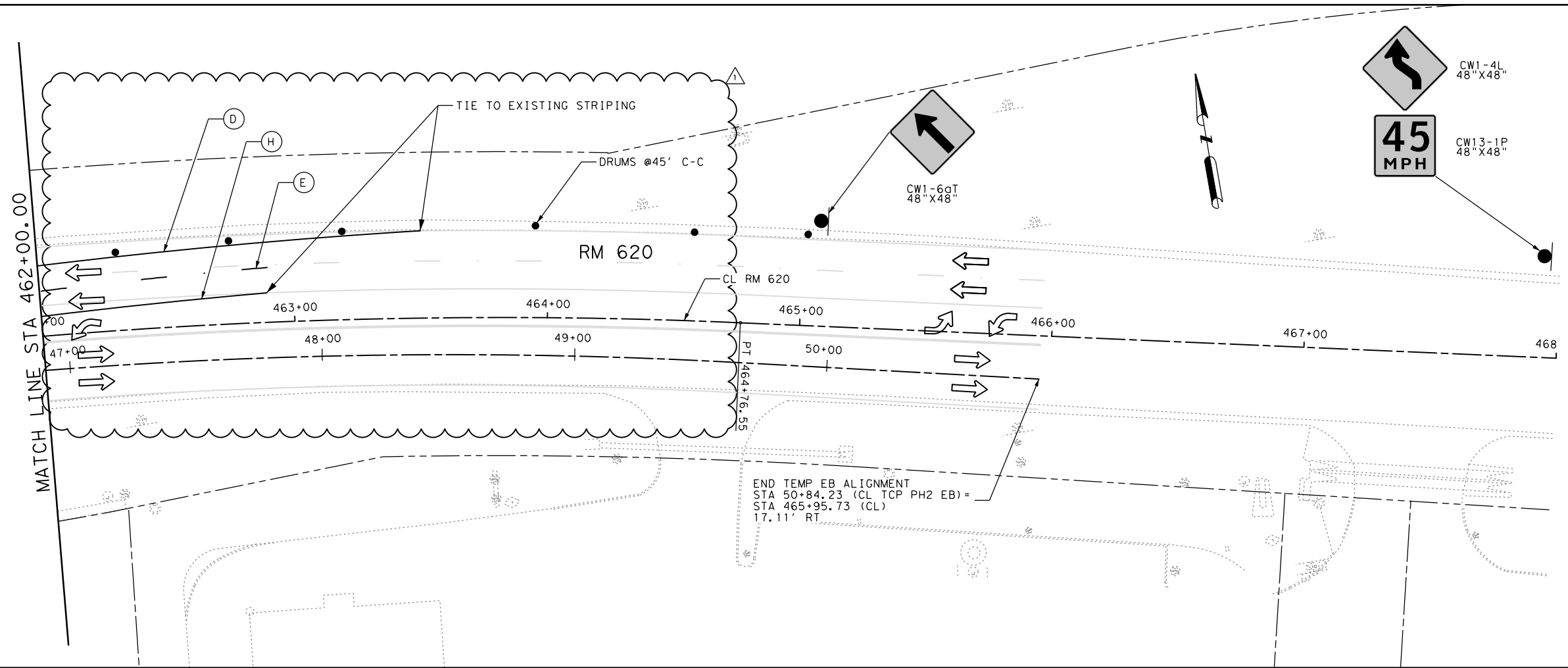
SCALE: 1"=50' SHEET 4 OF 5

Designed: ER	DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.	COUNTY	CONTROL NO.	SECTION NO.
Checked: ER	AUS	WILLIAMSON	0683	01 090
				SHEET NO. 59

PDF_2D_MON_MW_MR_300.plt

Design

7/10/2017 5:06:25 PM ah2904.TXDOT I:\30000s\30302\CADD\Sheets\30302-TCP-PH2-05.dgn



SCALE IN FEET
0 25 50 100

LEGEND

- - - EXISTING PAVEMENT MARKINGS
- - - PROPOSED PAVEMENT MARKINGS
- [Hatched Box] CONSTRUCTION ZONE THIS PHASE
- [Solid Grey Box] PREVIOUS CONSTRUCTION
- [Cross-hatched Box] TEMPORARY PAVEMENT
- [Circle with Arrow] PROPOSED SIGN
- [Circle with Dot] REFLECTIVE DRUM
- [Bar with Arrow] TY III BARRICADE
- [Trailer] TRAILER MOUNTED FLASHING ARROW BOARD
- [Trailer with Lights] SHADOW VEHICLE WITH TMA AND HIGH INTENSITY ROTATING FLASHING, OSCILLATING OR STROBE LIGHTS
- [Arrow] TRAFFIC DIRECTION

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (C) WK ZN PAV MRK REMOV (W) 4" (DOT)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 4" (BRK)
- (F) WK ZN PAV MRK REMOV (W) 8" (SLD)
- (G) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (H) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (I) WK ZN PAV MRK REMOV (REFL) TY I-C
- (J) WK ZN PAV MRK REMOV (W) (ARROW)
- (K) WK ZN PAV MRK REMOV (W) (WORD)
- (L) WK ZN PAV MRK NON-REMOV (W) 4" (BRK)
- (M) WK ZN PAV MRK NON-REMOV (W) (WORD)
- (N) WK ZN PAV MRK NON-REMOV (W) (ARROW)
- (O) WK ZN PAV MRK NON-REMOV (W) 8" (SLD)
- (P) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (Q) WK ZN PAV MRK NON-REMOV (W) 12" (SLD)
- (R) WK ZN PAV MRK NON-REMOV (Y) 8" (SLD)

END TEMP EB ALIGNMENT
STA 50+84.23 (CL TCP PH2 EB) =
STA 465+95.73 (CL)
17.11' RT



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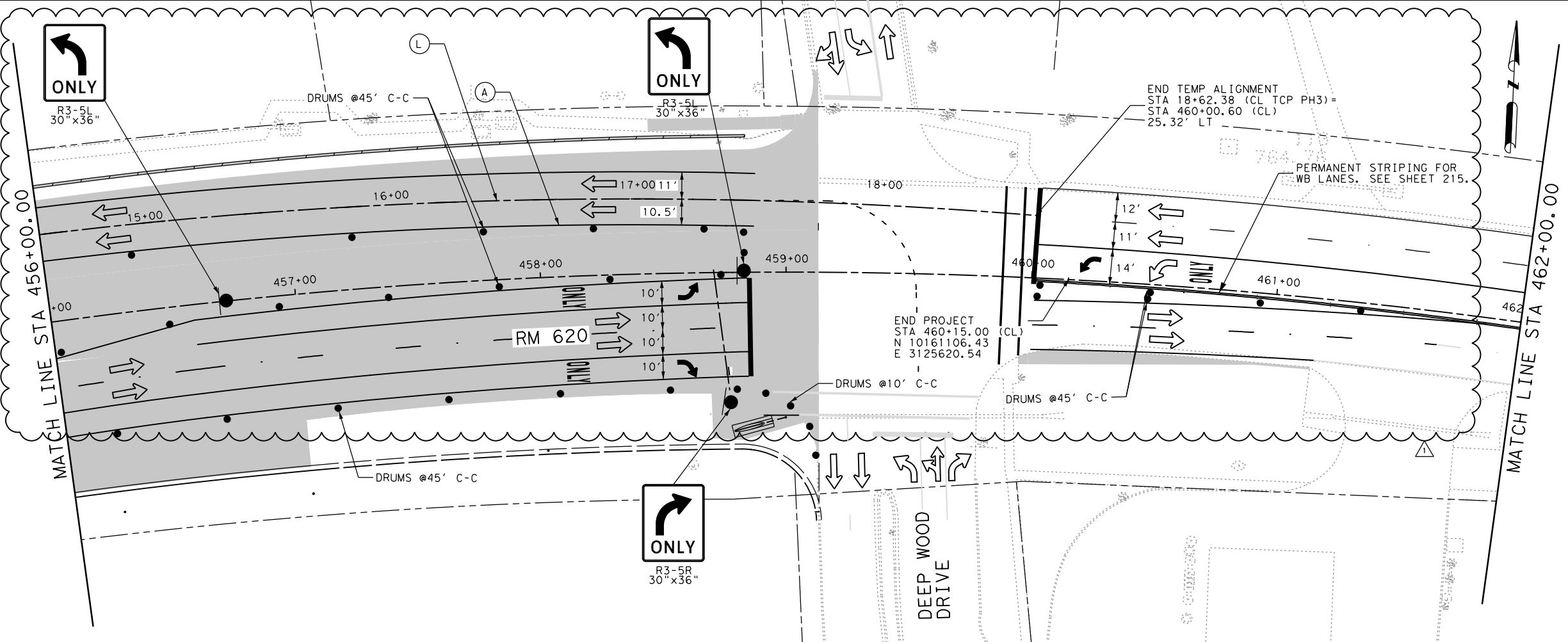
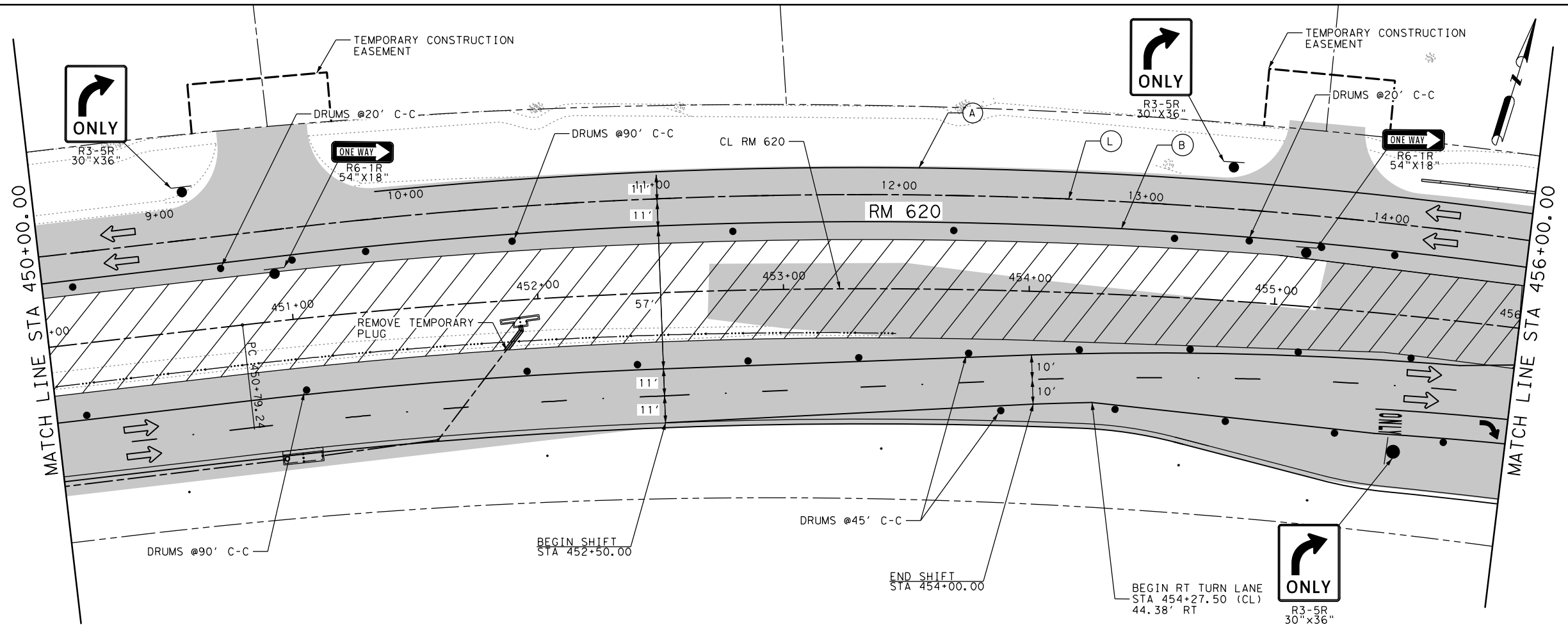


RM 620
TRAFFIC CONTROL PLAN
PHASE 2
STA 462+00 TO END

SCALE: 1"=50' SHEET 5 OF 5

Designed: ER	Div. No.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.:	COUNTY:	CONTROL NO.:	SECTION NO.:
Checked: ER	AUS	WILLIAMSON	0683	01 090
				JOB NO.:
				60

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SCALE IN FEET
0 25 50 100

LEGEND

- - - EXISTING PAVEMENT MARKINGS
- - - PROPOSED PAVEMENT MARKINGS
- [Hatched Box] CONSTRUCTION ZONE THIS PHASE
- [Solid Grey Box] PREVIOUS CONSTRUCTION
- [Cross-hatched Box] TEMPORARY PAVEMENT
- [Circle with Dot] PROPOSED SIGN
- [Circle with Black Dot] REFLECTIVE DRUM
- [Vertical Bars] TY III BARRICADE
- [House Icon] TRAILER MOUNTED FLASHING ARROW BOARD
- [Tractor Icon] SHADOW VEHICLE WITH TMA AND HIGH INTENSITY ROTATING FLASHING, OSCILLATING OR STROBE LIGHTS
- [Arrow] TRAFFIC DIRECTION

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (C) WK ZN PAV MRK REMOV (W) 4" (DOT)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 4" (BRK)
- (F) WK ZN PAV MRK REMOV (W) 8" (SLD)
- (G) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (H) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (I) WK ZN PAV MRK REMOV (REFL) TY I-C
- (L) WK ZN PAV MRK REMOV (W) (ARROW)
- (K) WK ZN PAV MRK REMOV (W) (WORD)
- (M) WK ZN PAV MRK NON-REMOV (W) (WORD)
- (N) WK ZN PAV MRK NON-REMOV (W) (ARROW)
- (O) WK ZN PAV MRK NON-REMOV (W) 8" (SLD)
- (P) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (Q) WK ZN PAV MRK NON-REMOV (W) 12" (SLD)
- (R) WK ZN PAV MRK NON-REMOV (Y) 8" (SLD)



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**RM 620
TRAFFIC CONTROL PLAN
PHASE 3**

STA 450+00 TO STA 462+00

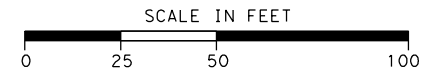
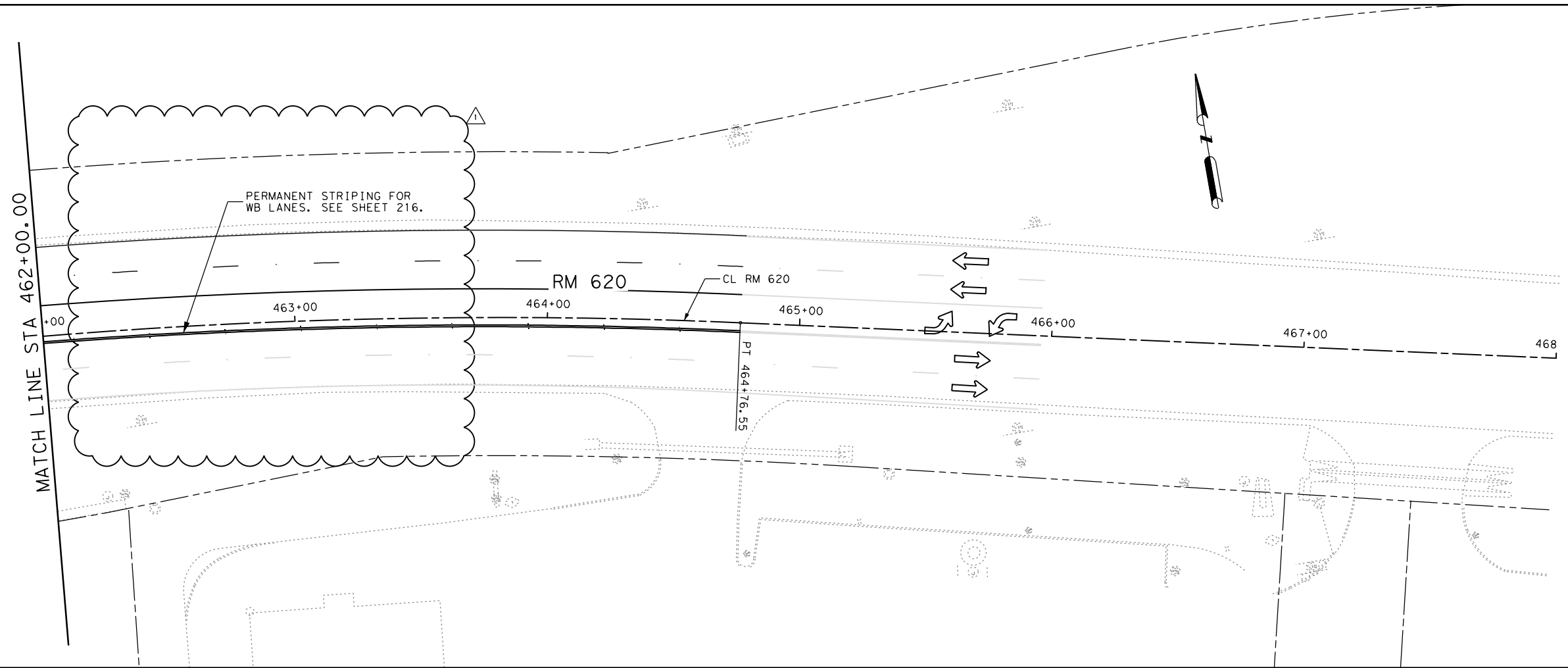
SCALE: 1"=50' SHEET 4 OF 5

Designed: ER	DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.	COUNTY	CONTROL NO.	SECTION NO.
Checked: ER	AUS	WILLIAMSON	0683	01 090

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Design

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LEGEND

- - - EXISTING PAVEMENT MARKINGS
- - - PROPOSED PAVEMENT MARKINGS
- [Hatched Box] CONSTRUCTION ZONE THIS PHASE
- [Solid Grey Box] PREVIOUS CONSTRUCTION
- [Cross-hatched Box] TEMPORARY PAVEMENT
- [Circle with Arrow] PROPOSED SIGN
- [Circle with Dot] REFLECTIVE DRUM
- [T-bar] TY III BARRICADE
- [House with Arrow] TRAILER MOUNTED FLASHING ARROW BOARD
- [Truck with Lights] SHADOW VEHICLE WITH TMA AND HIGH INTENSITY ROTATING FLASHING, OSCILLATING OR STROBE LIGHTS
- [Arrow] TRAFFIC DIRECTION

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (C) WK ZN PAV MRK REMOV (W) 4" (DOT)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 4" (BRK)
- (F) WK ZN PAV MRK REMOV (W) 8" (SLD)
- (G) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (H) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (I) WK ZN PAV MRK REMOV (REFL) TY I-C
- (J) WK ZN PAV MRK REMOV (W) (ARROW)
- (K) WK ZN PAV MRK REMOV (W) (WORD)
- (L) WK ZN PAV MRK NON-REMOV (W) 4" (BRK)
- (M) WK ZN PAV MRK NON-REMOV (W) (WORD)
- (N) WK ZN PAV MRK NON-REMOV (W) (ARROW)
- (O) WK ZN PAV MRK NON-REMOV (W) 8" (SLD)
- (P) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (Q) WK ZN PAV MRK NON-REMOV (W) 12" (SLD)
- (R) WK ZN PAV MRK NON-REMOV (Y) 8" (SLD)



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TBPE FIRM NO. F-312



RM 620
TRAFFIC CONTROL PLAN
PHASE 3
STA 462+00 TO END

SCALE: 1"=50' SHEET 5 OF 5

Designed: ER	FED. PROJ. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked: ER	X	TEXAS		RM 620
Drawn: ND	DIST.	COUNTY	CONTROL NO.	SECTION NO.
Checked: ER	AUS	WILLIAMSON	0683	01 090
				SHEET NO. 67