

CITY OF SEGUIN & GUADALUPE COUNTY

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			1
STATE	STATE DIST.	COUNTY	
TEXAS	SAT	GUADALUPE	
CONT.	SECT.	JOB	HIGHWAY NO.
0915	46	052	CORDOVA

INDEX OF SHEETS

SEE SHEET 2 FOR INDEX OF SHEETS

30% SUBMITTAL

CITY COUNCIL

DONNA DODGEN, MAYOR
JOE REA
SONIA MENDEZ
CHRIS AVILES
CHRIS RANGEL
JEREMY ROY
MONICA CARTER
PENNY WALLACE FOLLIS
MARK HERBOLD

CITY MANAGER

STEVE PARKER

CITY ASSISTANT MANAGER

RICK CORTES

FEDERAL AID PROJECT
PROJECT NO.
CSJ: 0915-46-052
LIMITS FROM: SH 46
TO: SH 123

NET LENGTH OF ROADWAY = 18216.00 FT = 3.45 MI
NET LENGTH OF BRIDGE = 144.82 FT = 0.03 MI
NET LENGTH OF PROJECT = 18360.82 FT = 3.48 MI

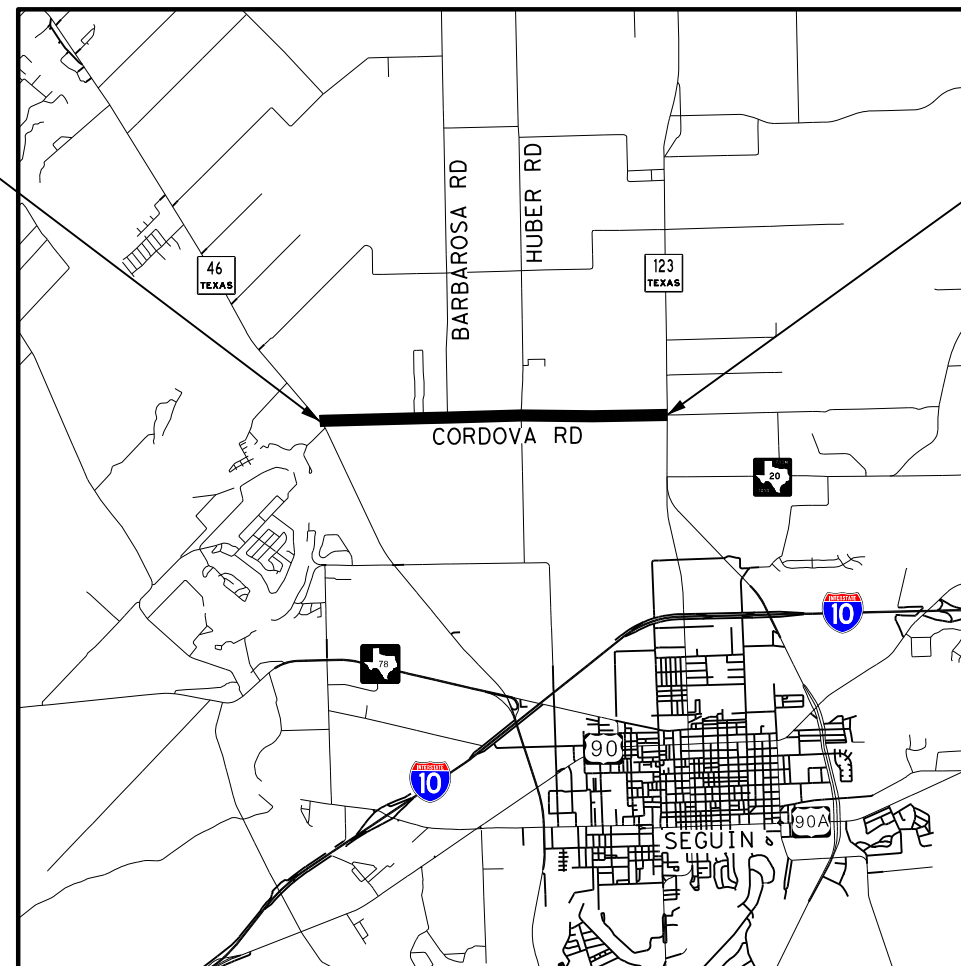
DESIGN SPEED = 40 MPH
AREA OF DISTURBED SOIL = 76.6 ACRES
ADT (2025) = 17,770
ADT (2045) = 22,700
DESIGN CRITERIA: CITY OF SEGUIN
ACCESSIBILITY STANDARDS = PROWAG

REGISTERED ACCESSIBILITY SPECIALIST INSPECTION REQUIRED
TDLR NO.

FOR WORK CONSISTING OF EXPANDING ROADWAY FROM 2 TO 4 LANES WITH RAISED MEDIAN OR CENTER TURN LANE. REALIGN CORDOVA ROAD AT SH 46. ADD SHARED USE PATHS.

BEGIN PROJECT
STA 110+75.84

END PROJECT
STA 294+60.18



It's real.



PLANS PREPARED BY:



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, NOVEMBER 1, 2014 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS FOR ALL FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, JULY 5, 2022)

EXCEPTIONS: NONE
EQUATIONS: NONE
RAILROAD CROSSING: NONE

Plotted on: 7/27/2023




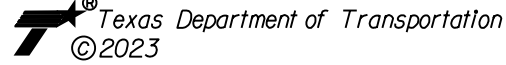
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193-200	CULVERT LAYOUT

THE STANDARD SHEETS SPECIFICALLY SHOWN WITH PRECEDING (*), HAVE BEEN SELECTED BY ME, OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

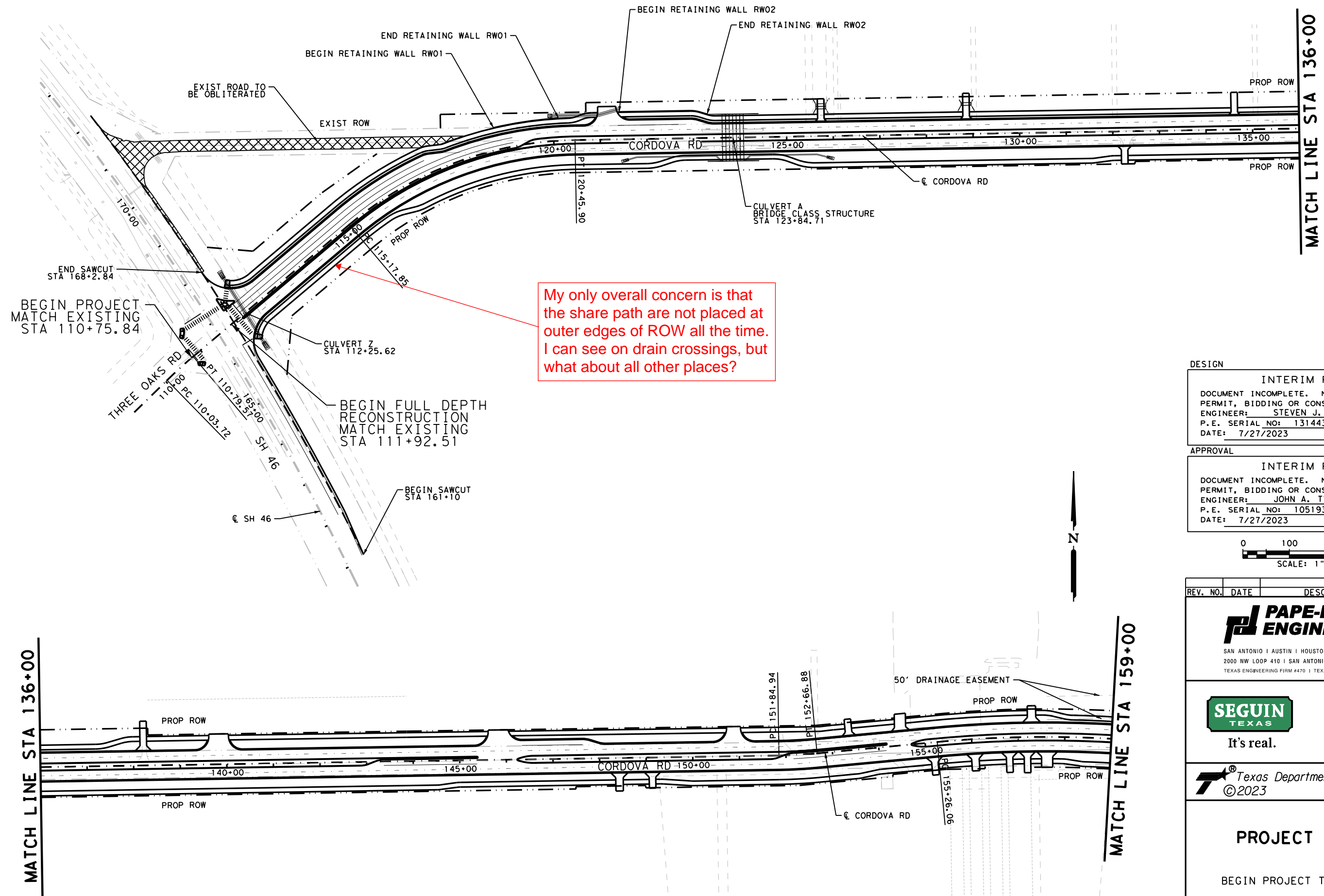
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 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 <small>TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</small>			
 It's real.			
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<h2 style="margin: 0;">INDEX OF SHEETS</h2>			
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK DGN:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915 45 052 2

Plotted on: 7/27/2023

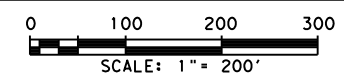
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My only overall concern is that the share path are not placed at outer edges of ROW all the time. I can see on drain crossings, but what about all other places?

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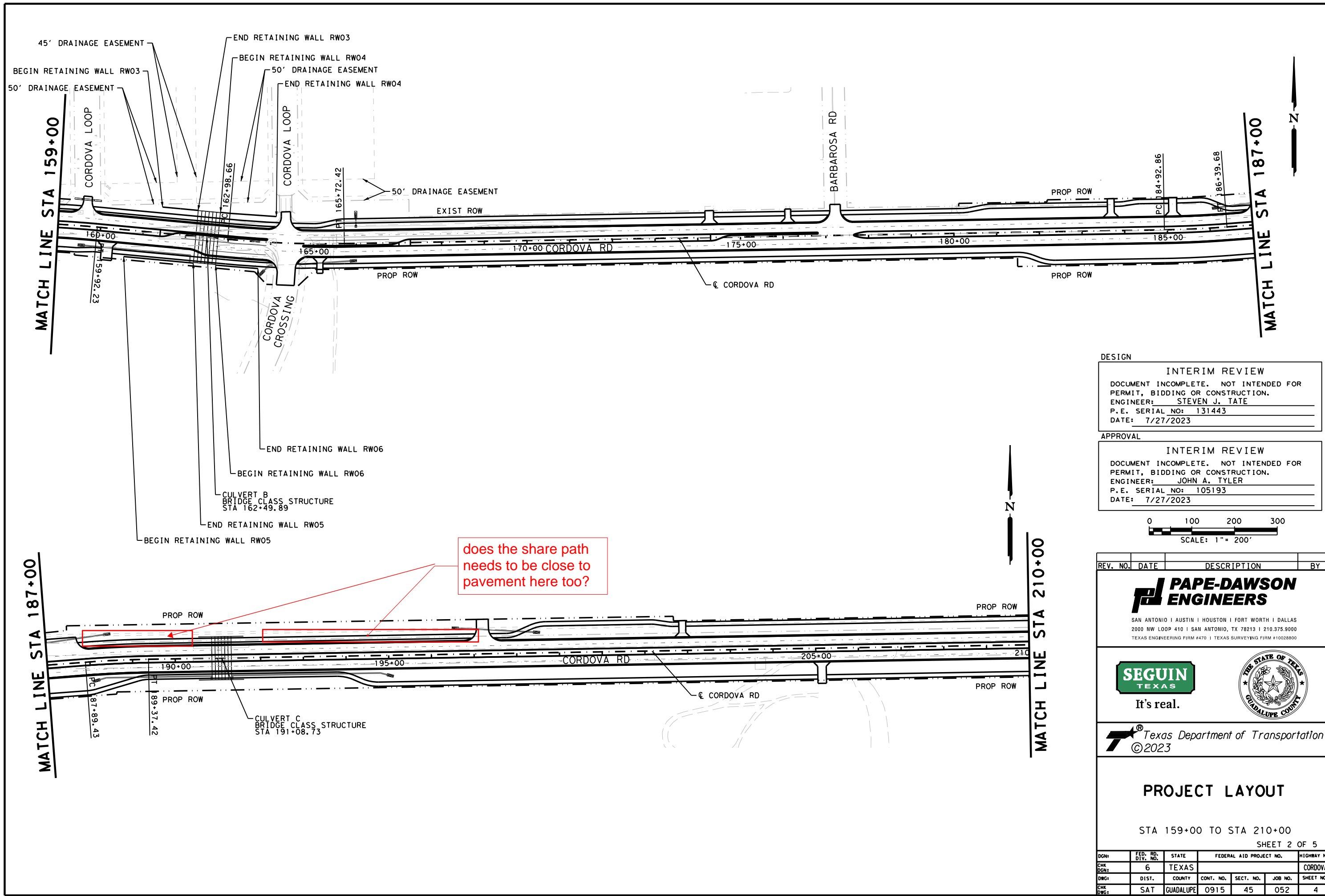
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 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

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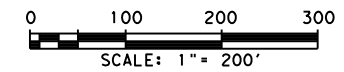
PROJECT LAYOUT
 BEGIN PROJECT TO STA 159+00
 SHEET 1 OF 5

CHK	DGN	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	DGN	6	TEXAS		CORDOVA		
CHK	DGN	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	DGN	SAT	GUADALUPE	0915	45	052	3



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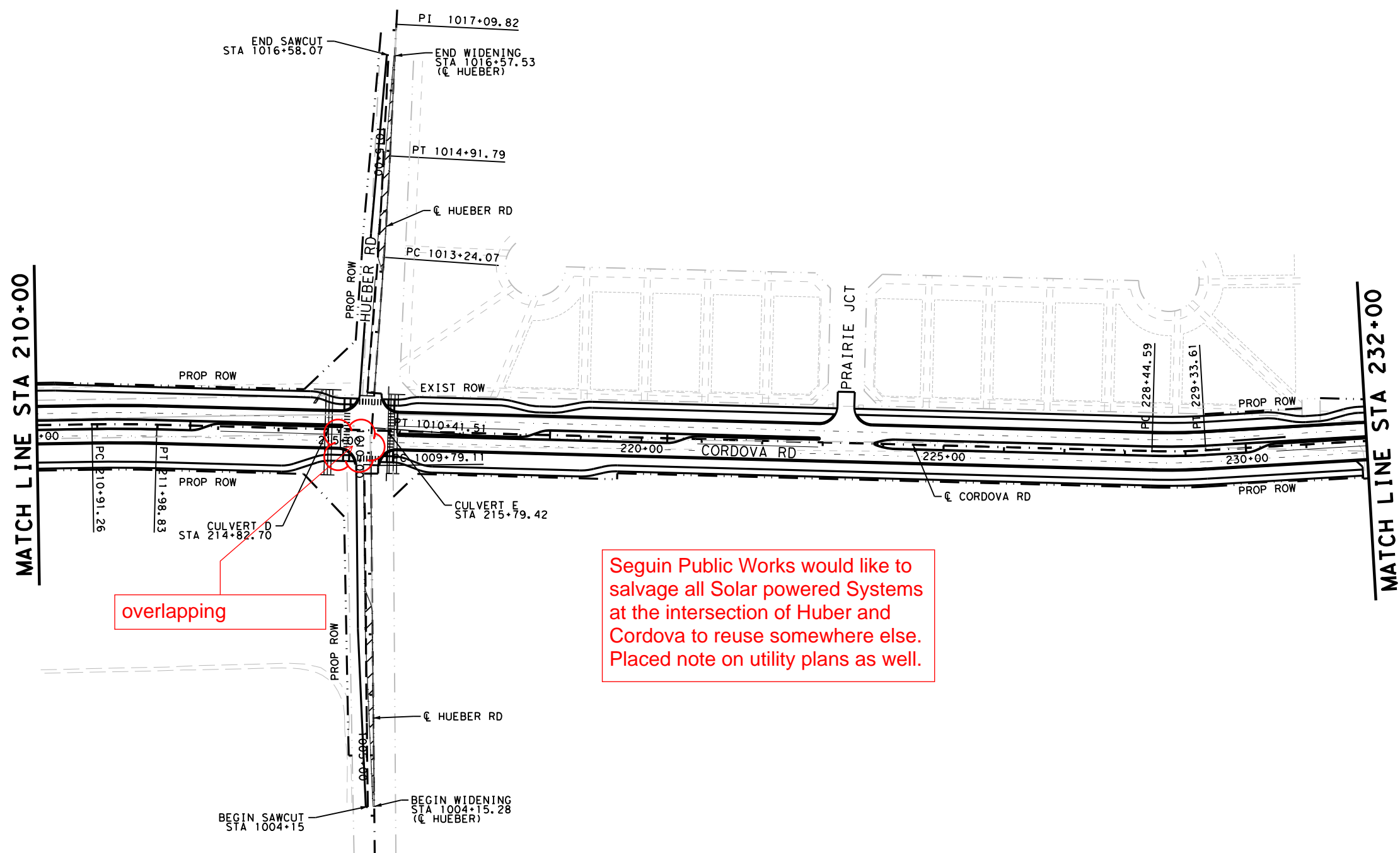
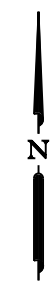


PROJECT LAYOUT

STA 159+00 TO STA 210+00

SHEET 2 OF 5

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK DWG:	SAT	GUADALUPE	0915	45	052	4

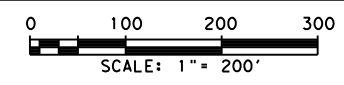


overlapping

Seguin Public Works would like to salvage all Solar powered Systems at the intersection of Huber and Cordova to reuse somewhere else. Placed note on utility plans as well.

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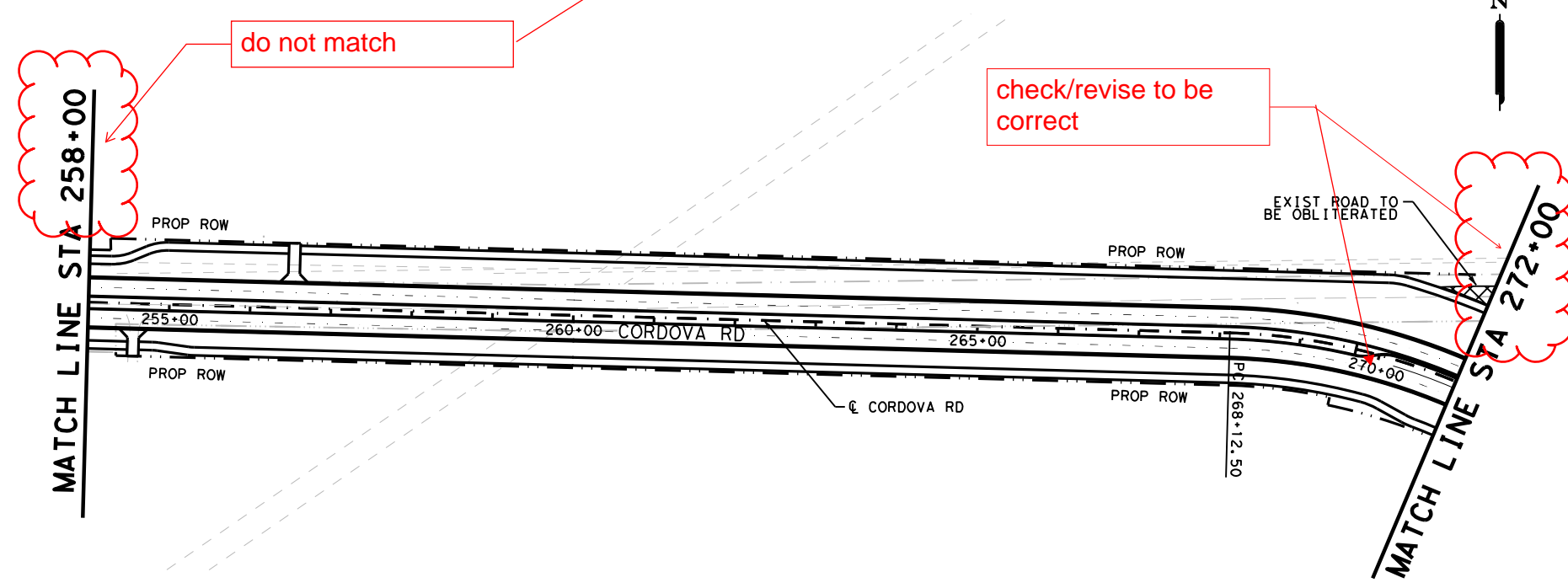
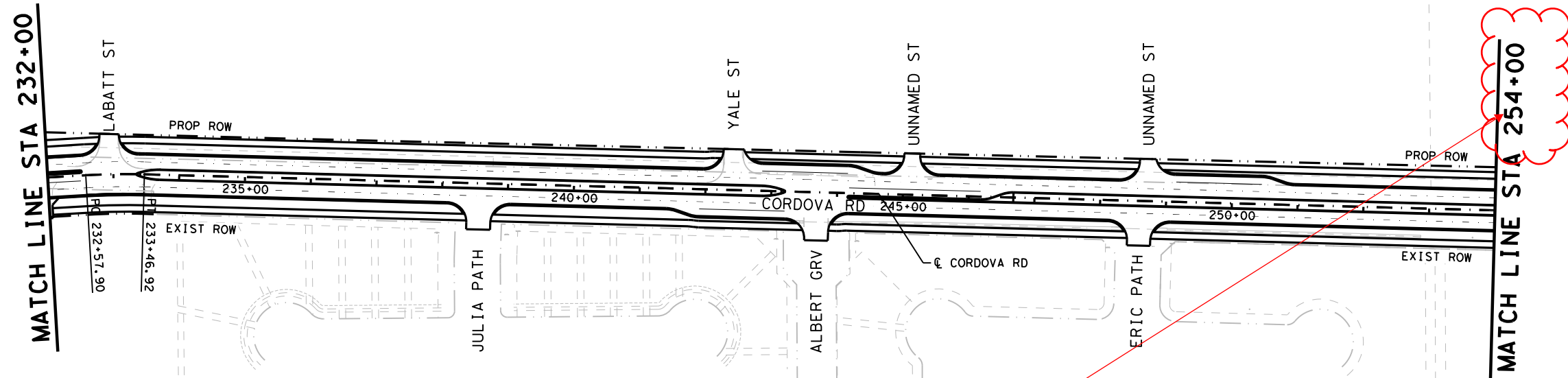
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PROJECT LAYOUT

STA 210+00 TO STA 232+00

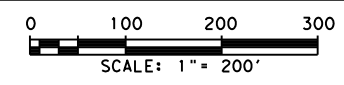
SHEET 3 OF 5

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CHK DGN:	6	TEXAS		CORDOVA		
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CHK DWG:	SAT	GUADALUPE	0915	45	052	5



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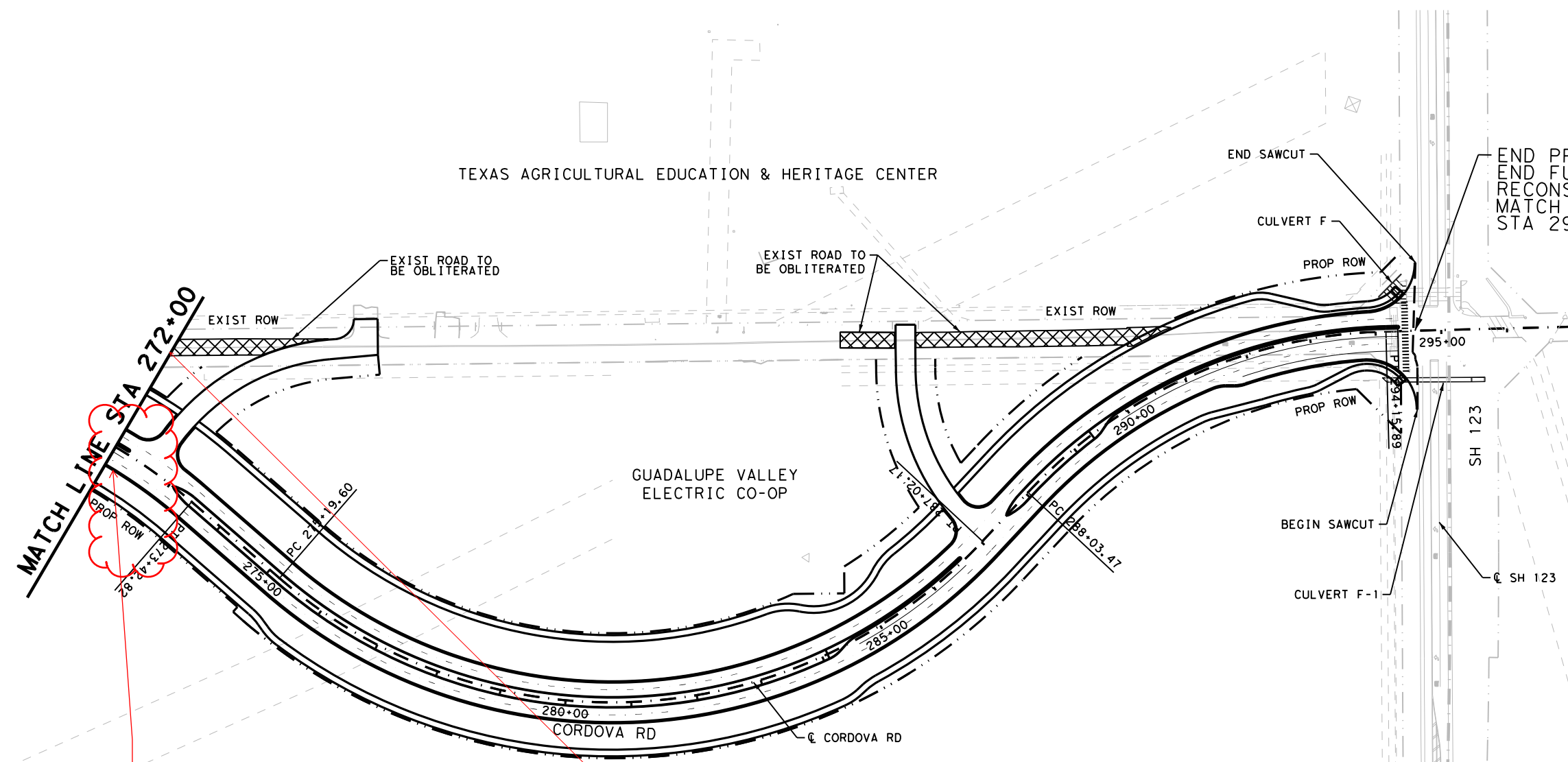
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PROJECT LAYOUT

STA 232+00 TO STA 272+00

SHEET 4 OF 5

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	6



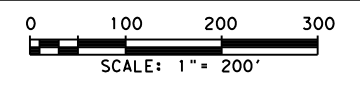
could be missing sections of road

do not match

END PROJECT
END FULL DEPTH
RECONSTRUCTION
MATCH EXISTING
STA 294+60.18

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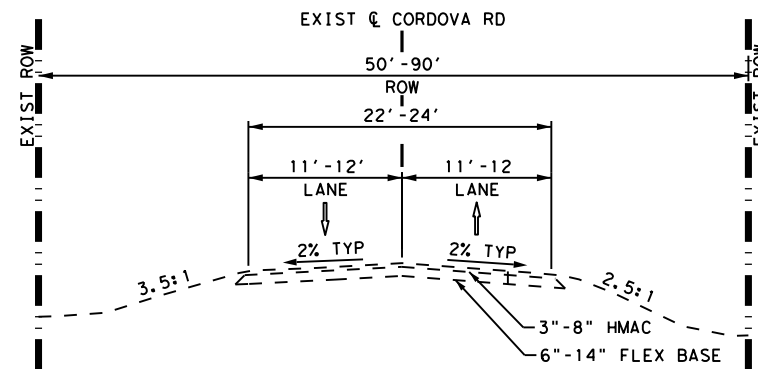
PROJECT LAYOUT

STA 271+00 TO END OF PROJECT
SHEET 5 OF 5

CHK	DGN	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
		6	TEXAS		CORDOVA		
CHK	DGN	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
		SAT	GUADALUPE	0915	45	052	7

Plotted on: 7/27/2023

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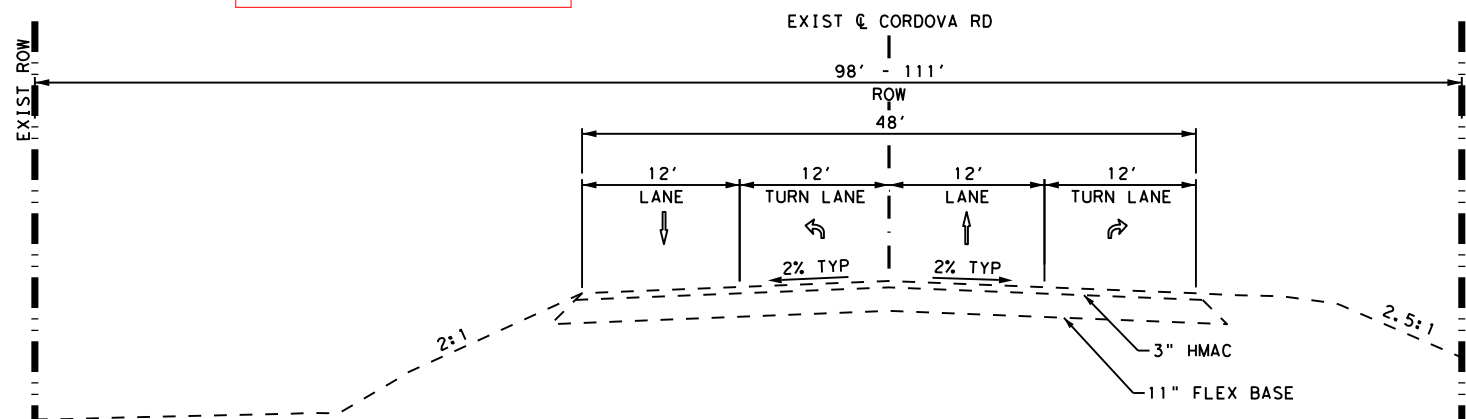


EXISTING TYPICAL SECTION

CORDOVA RD

NTS
 STA 112+00 TO STA 162+00
 STA 165+00 TO STA 242+00
 STA 244+70 TO STA 294+00

Are these stationings measured from proposed road or existing road?



EXISTING TYPICAL SECTION

CORDOVA RD

NTS
 STA 163+00 TO STA 164+00

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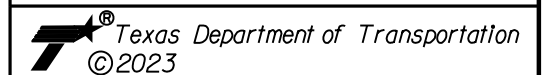
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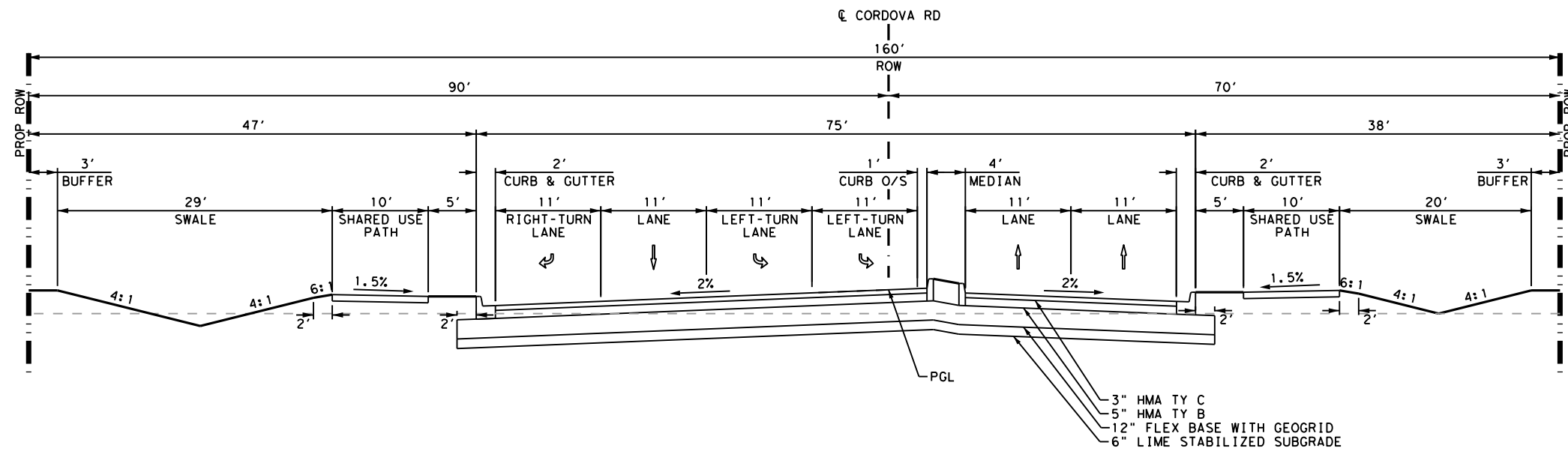


TYPICAL SECTIONS

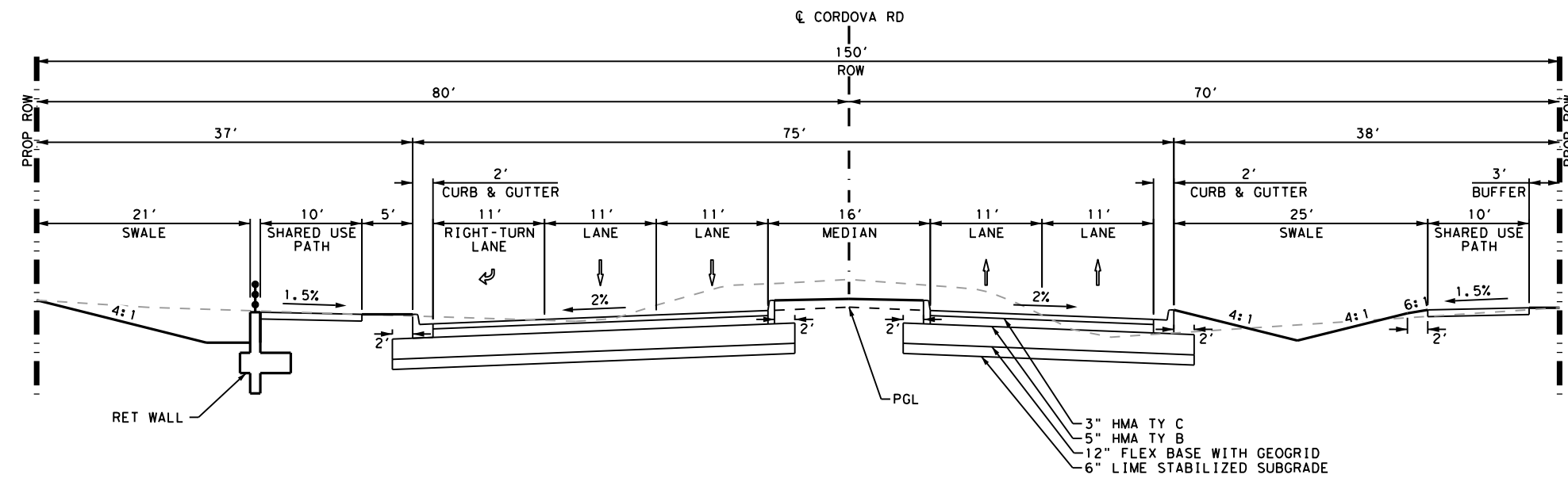
SHEET 1 OF 8

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CHK DGN:	6	TEXAS		CORDOVA		
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CHK DWG:	SAT	GUADALUPE	0915	45	052	8

Plotted on: 7/27/2023



PROPOSED TYPICAL SECTION
 CORDOVA RD
 NTS
 STA 112+18 TO STA 117+24



PROPOSED TYPICAL SECTION
 CORDOVA RD
 NTS
 STA 121+38 TO STA 122+68

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TYPICAL SECTION

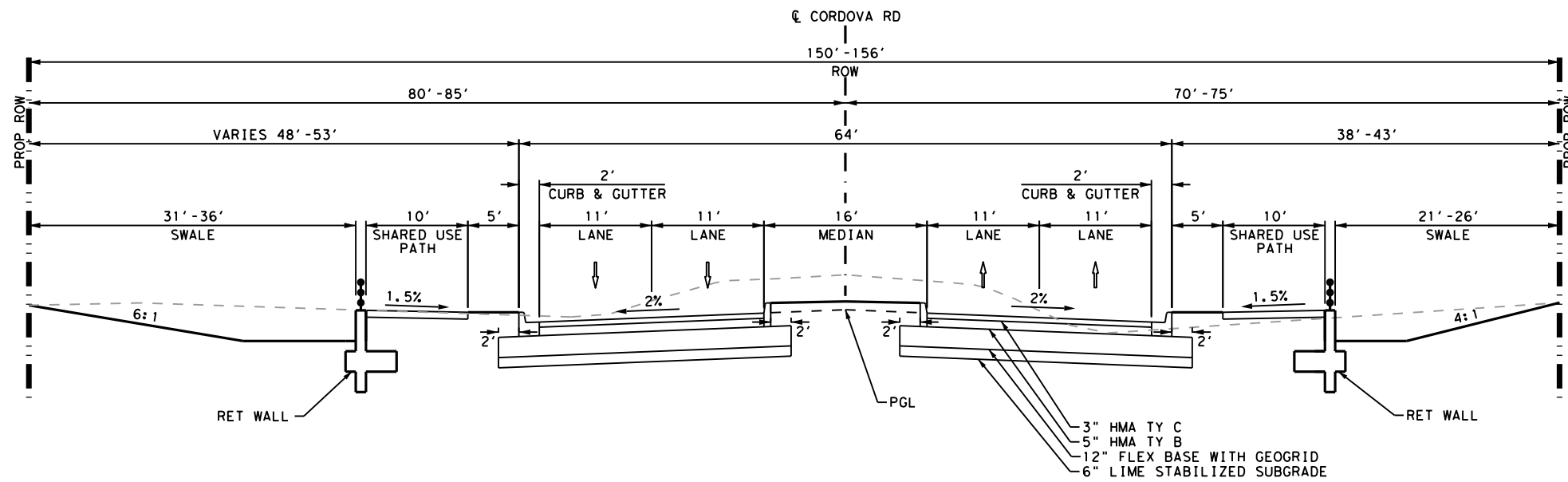
SHEET 2 OF 8

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CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				9

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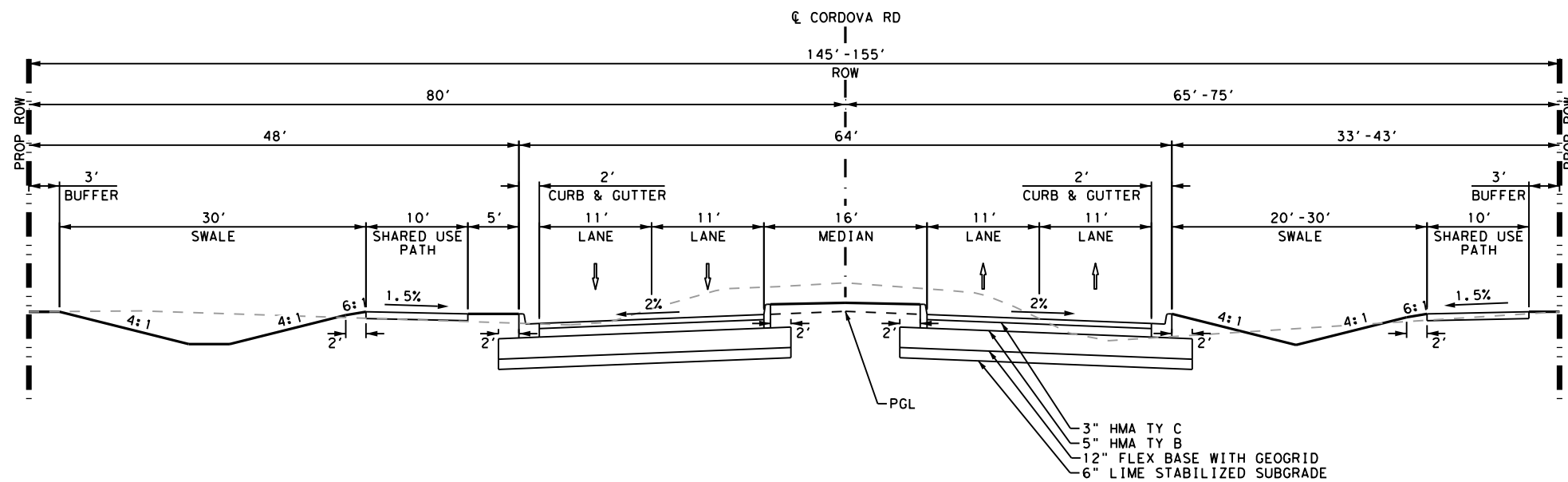
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PROPOSED TYPICAL SECTION

CORDOVA RD
NTS
STA 123+18 TO STA 124+69
STA 189+37 TO STA 193+78



PROPOSED TYPICAL SECTION

CORDOVA RD
NTS
STA 125+59 TO STA 137+18
STA 194+75 TO STA 197+76

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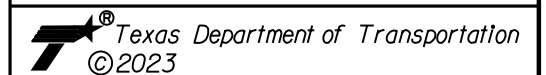
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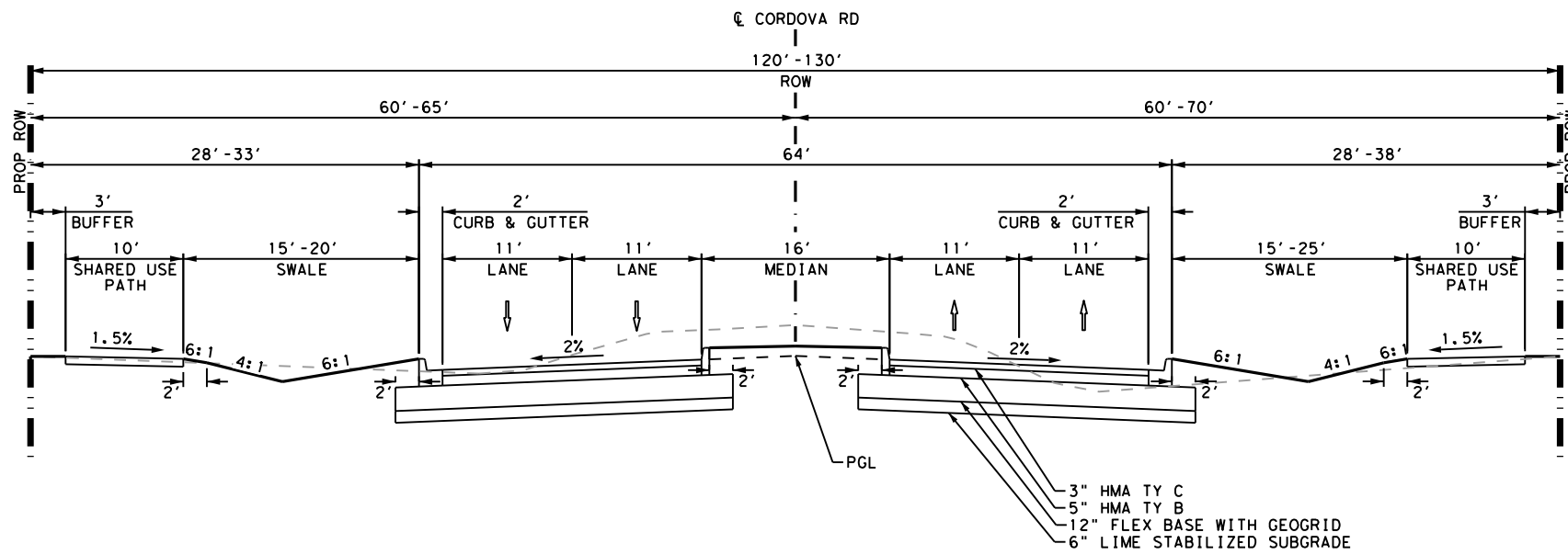
TYPICAL SECTION

SHEET 3 OF 8

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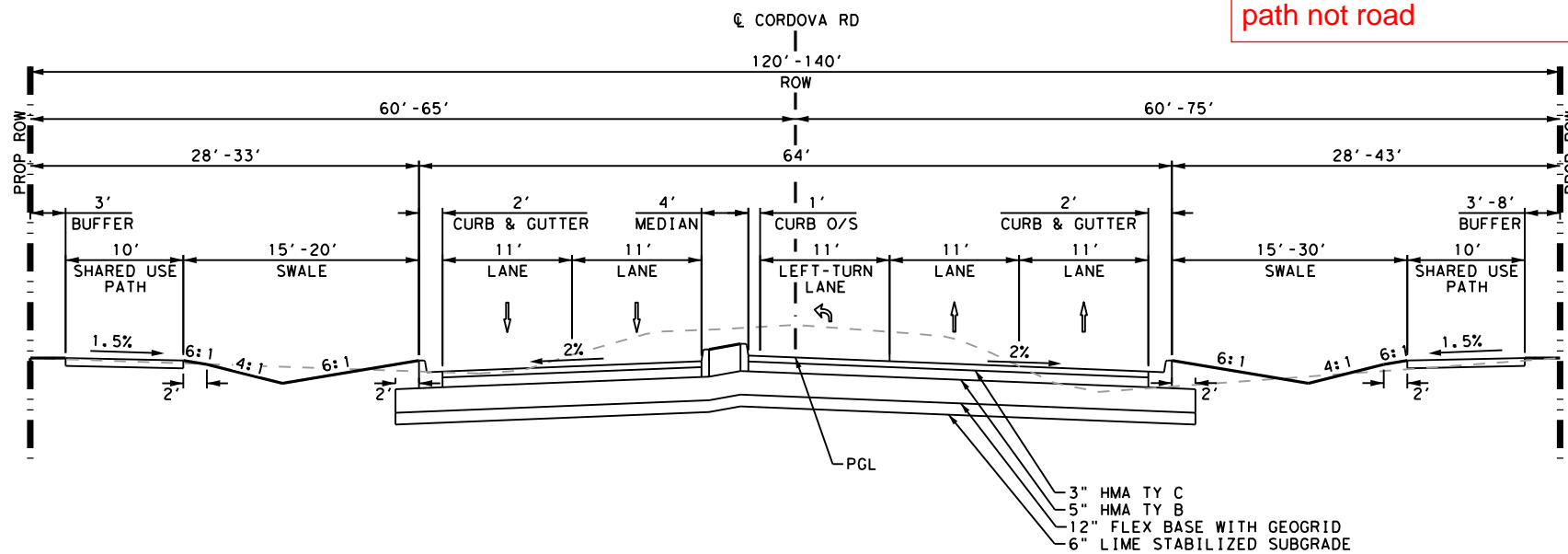
PROPOSED TYPICAL SECTION

CORDOVA RD

NTS

STA 138+00 TO STA 142+87
 STA 148+14 TO STA 151+66
 STA 155+05 TO STA 157+52
 STA 167+27 TO STA 174+30
 STA 218+49 TO STA 220+43
 STA 224+20 TO STA 230+00
 STA 233+70 TO STA 241+41

check these stations to be correct, I might have seen different cross section based on share path not road



PROPOSED TYPICAL SECTION

CORDOVA RD

NTS

STA 143+37 TO STA 145+37
 STA 152+16 TO STA 154+16
 STA 174+80 TO STA 176+80
 STA 213+04 TO STA 215+04
 STA 220+93 TO STA 222+93

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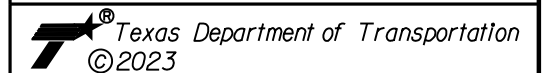
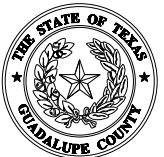
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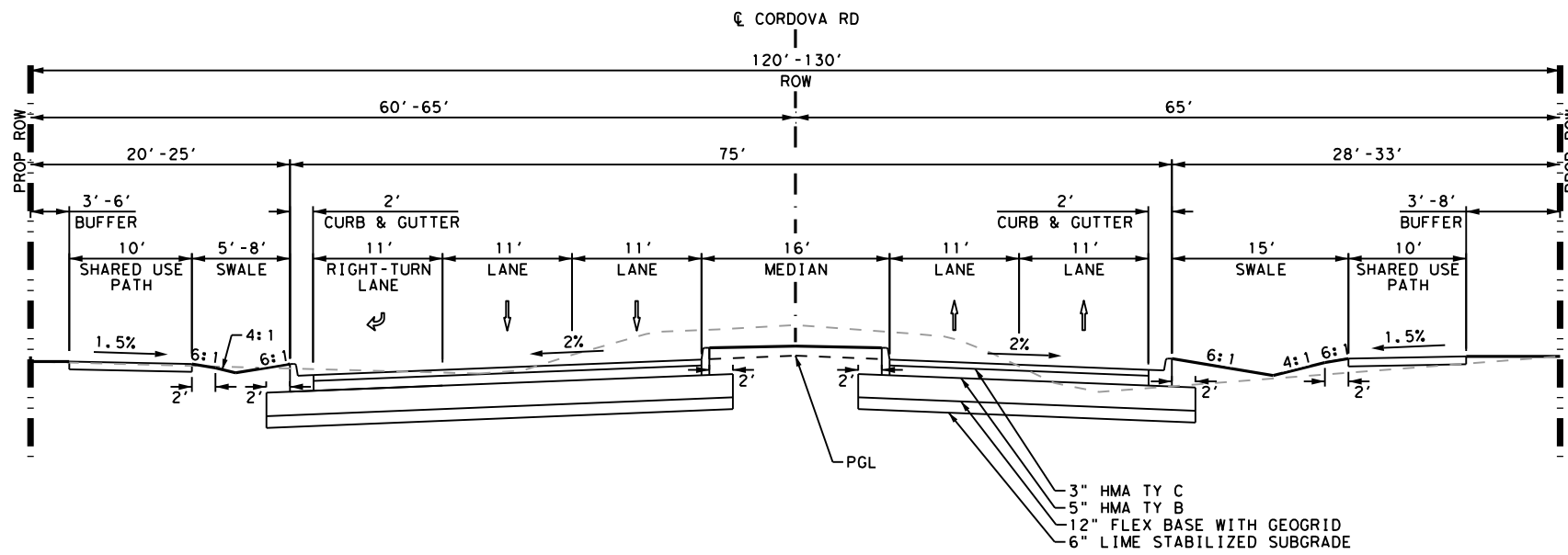
TYPICAL SECTION

SHEET 4 OF 8

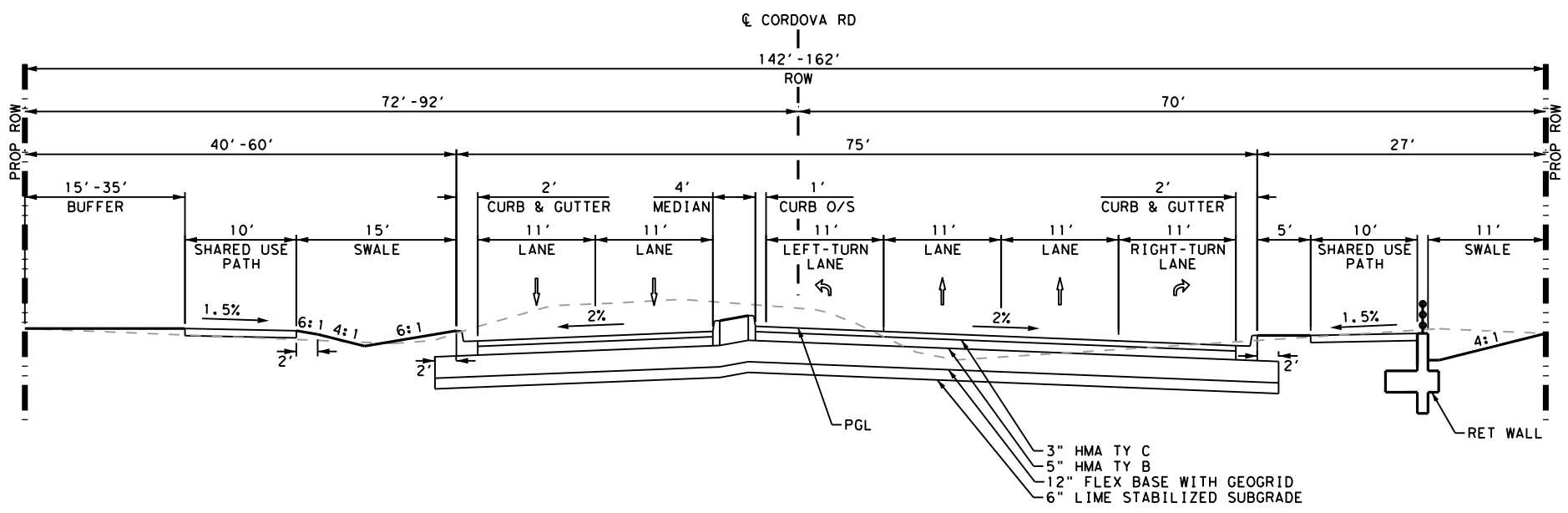
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CHK:	SAT	GUADALUPE	0915	45	052	11

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\General\1277500_typP04.dgn



PROPOSED TYPICAL SECTION
 CORDOVA RD
 NTS
 STA 146+34 TO STA 147+64
 STA 177+65 TO STA 178+95
 STA 249+15 TO STA 250+45



PROPOSED TYPICAL SECTION
 CORDOVA RD
 NTS
 STA 161+90 TO STA 163+90

DESIGN
 INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL
 INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			

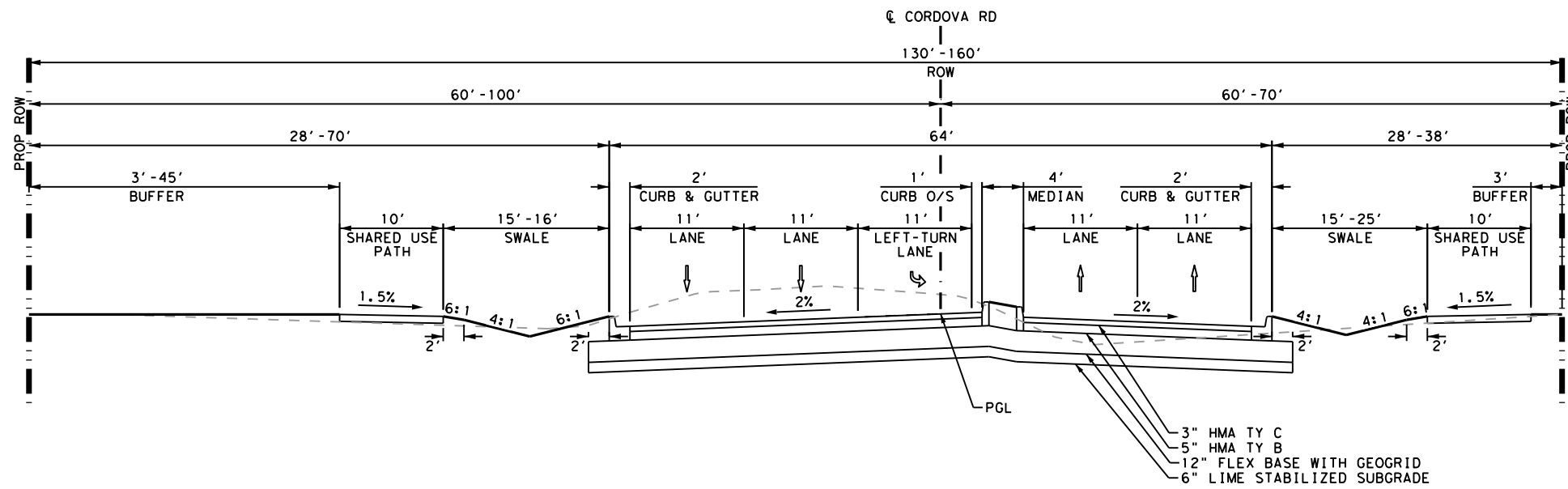
Texas Department of Transportation
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TYPICAL SECTION

SHEET 5 OF 8

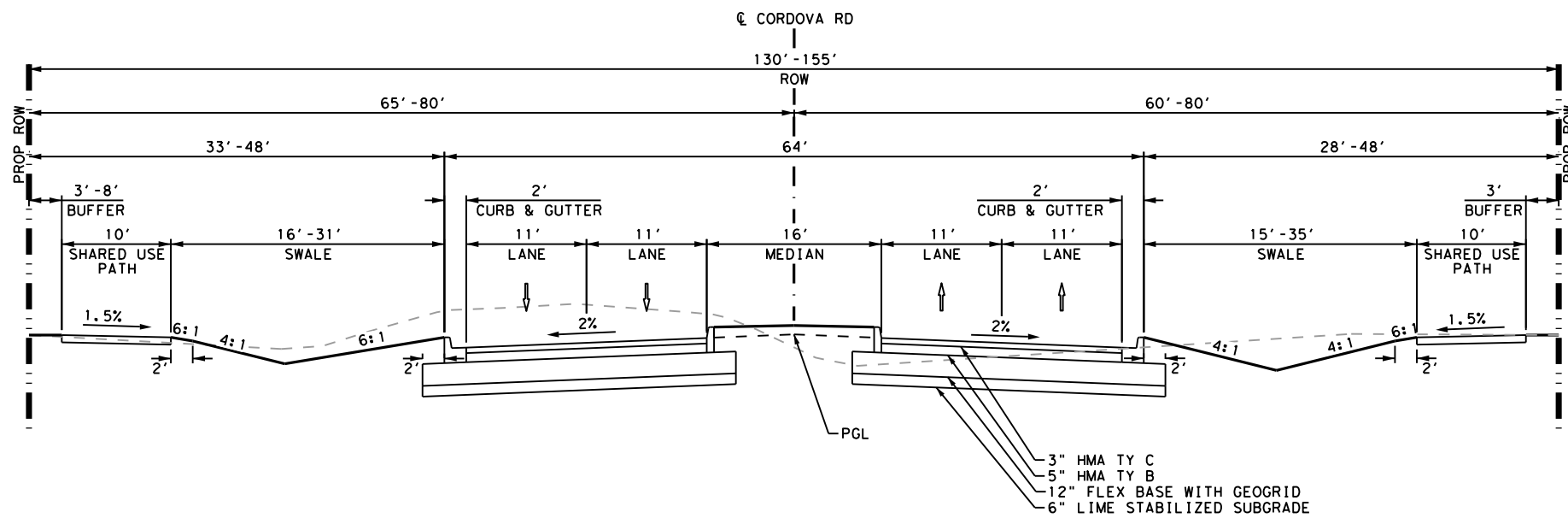
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CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	12

Plotted on: 7/27/2023



PROPOSED TYPICAL SECTION

CORDOVA RD
 NTS
 STA 164+77 TO STA 166+77
 STA 215+99 TO STA 217+99
 STA 244+18 TO STA 246+18



PROPOSED TYPICAL SECTION

CORDOVA RD
 NTS
 STA 180+87 TO STA 185+78
 STA 198+70 TO STA 212+54
 STA 250+95 TO STA 268+13

DESIGN
 INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL
 INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

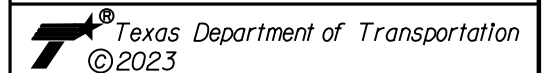
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



TYPICAL SECTION

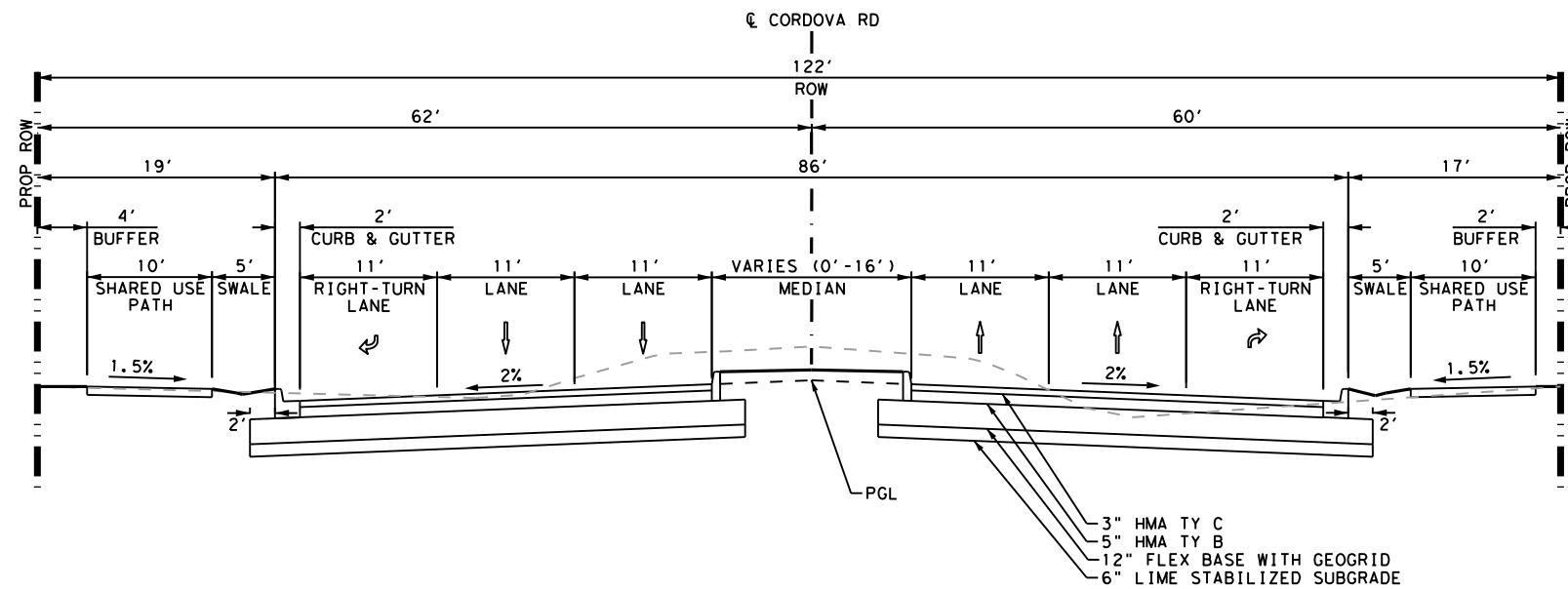
SHEET 6 OF 8

DGN:	FED. NO.:	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	13

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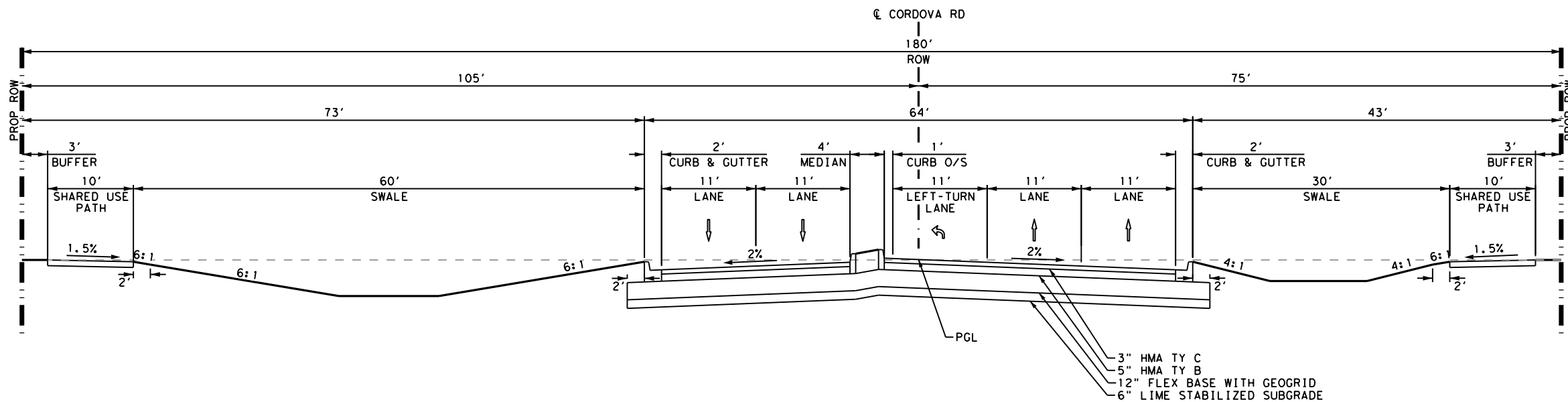
Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\General\1277500_typP06.dgn



PROPOSED TYPICAL SECTION

CORDOVA RD
NTS
STA 241+91 TO STA 244+16



PROPOSED TYPICAL SECTION

CORDOVA RD
NTS
STA 270+20 TO STA 272+20

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

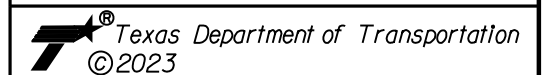
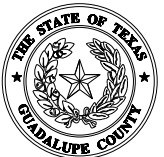
APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
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PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



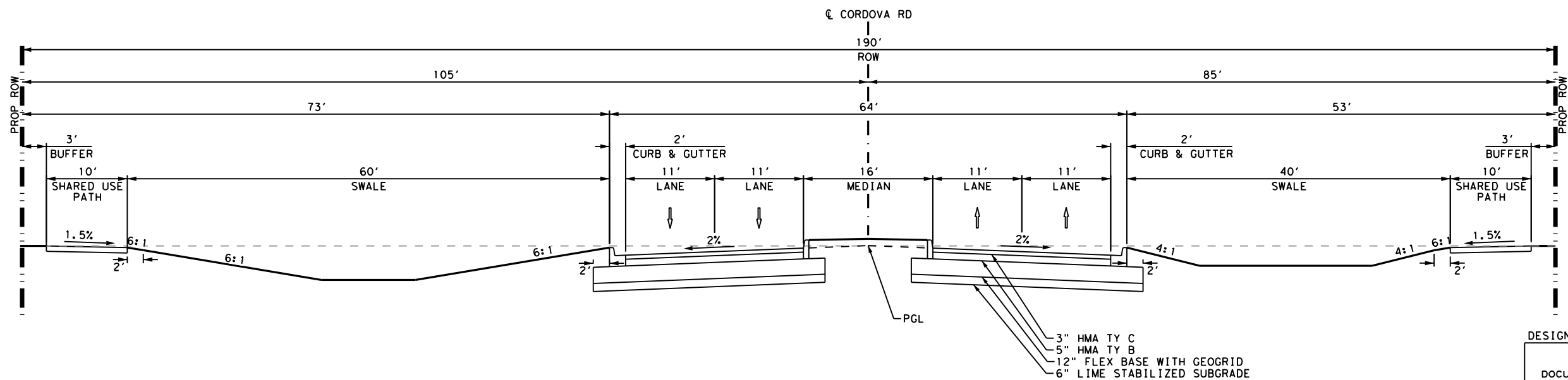
TYPICAL SECTION

SHEET 7 OF 8

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	14

Plotted on: 7/27/2023

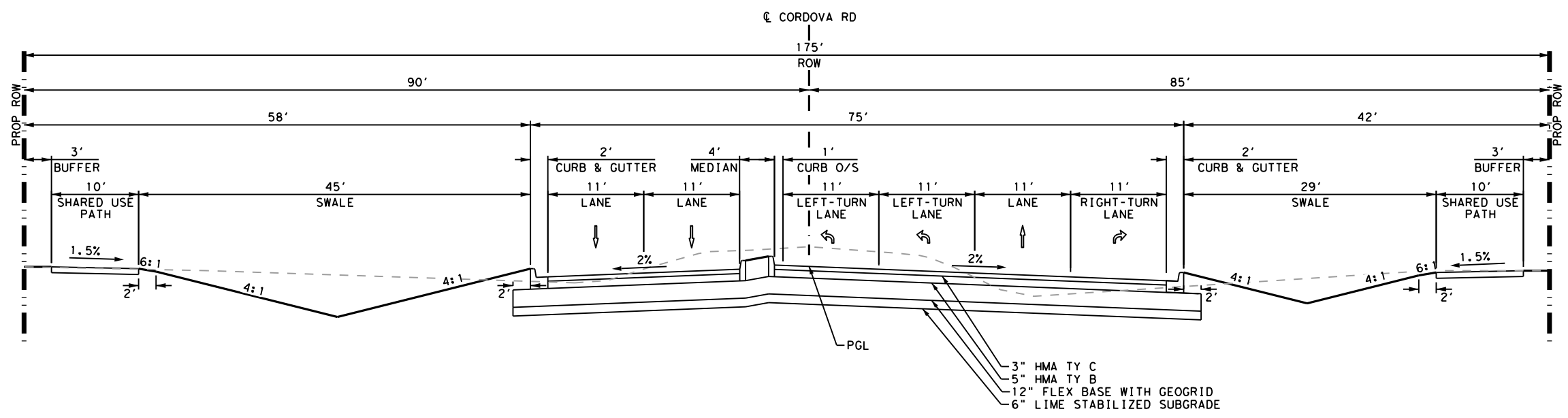
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PROPOSED TYPICAL SECTION
CORDOVA RD
NTS
STA 273+40 TO STA 284+09

DESIGN
INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



PROPOSED TYPICAL SECTION
CORDOVA RD
NTS
STA 291+85 TO STA 294+18

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



TYPICAL SECTION

SHEET 8 OF 8

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	15

TO BE PROVIDED AT
LATER SUBMITTAL

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P. E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

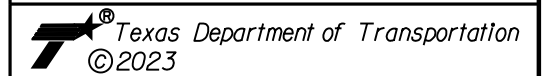
REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800






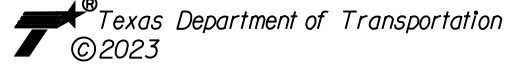
It's real.



GENERAL NOTES

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN:	6	TEXAS				CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	16

TO BE PROVIDED AT
LATER SUBMITTAL




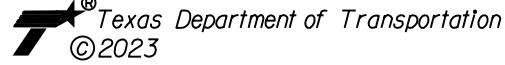
REV. NO.	DATE	DESCRIPTION	BY			
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>						
 <p>SEGUIN TEXAS</p> <p>It's real.</p>						
 <p>Texas Department of Transportation ©2023</p>						
<p>ESTIMATE & QUANTITY</p>						
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	17

TCP QUANTITY SUMMARY

SHT NO	ITEM TCP SHEETS	0460-6005	0508-6001	0512-6009	0512-6010	0512-6033	0512-6034	0512-6057
		CMP (GAL STL 36 IN) LF	CONSTRUCTING DETOURS SY	PORT CTB (FUR & INST) (LOW PROF) (TY 1) LF	PORT CTB (FUR & INST) (LOW PROF) (TY 2) LF	PORT CTB (MOVE) (LOW PROF) (TY 1) LF	PORT CTB (MOVE) (LOW PROF) (TY 2) LF	PORT CTB (REMOVE) (LOW PROF) (TY 1) LF
37	PHASE 1 - SHEET 2 OF 22		123	120	20			120
38	PHASE 1 - SHEET 3 OF 22	144	1434	1340				1160
39	PHASE 1 - SHEET 4 OF 22		1249	940	40			860
40	PHASE 1 - SHEET 5 OF 22		1362	860	40			680
41	PHASE 1 - SHEET 6 OF 22		448	180	20			180
42	PHASE 1 - SHEET 7 OF 22		132					
43	PHASE 1 - SHEET 8 OF 22		103					
44	PHASE 1 - SHEET 9 OF 22		152					
45	PHASE 1 - SHEET 10 OF 22		390					
46	PHASE 1 - SHEET 11 OF 22		518					
47	PHASE 1 - SHEET 12 OF 22		132					
49	PHASE 1 - SHEET 14 OF 22		625					
50	PHASE 1 - SHEET 15 OF 22		997					
51	PHASE 1 - SHEET 16 OF 22		1071					
52	PHASE 1 - SHEET 17 OF 22		3					
57	PHASE 1 - SHEET 22 OF 22			240	40			240
59	PHASE 2 - SHEET 1 OF 22							
60	PHASE 2 - SHEET 2 OF 22					180	40	180
61	PHASE 2 - SHEET 3 OF 22							
62	PHASE 2 - SHEET 4 OF 22							
63	PHASE 2 - SHEET 5 OF 22							
64	PHASE 2 - SHEET 6 OF 22							
65	PHASE 2 - SHEET 7 OF 22							
66	PHASE 2 - SHEET 8 OF 22							
67	PHASE 2 - SHEET 9 OF 22							
68	PHASE 2 - SHEET 10 OF 22							
69	PHASE 2 - SHEET 11 OF 22							
70	PHASE 2 - SHEET 12 OF 22							
71	PHASE 2 - SHEET 13 OF 22							
72	PHASE 2 - SHEET 14 OF 22							
73	PHASE 2 - SHEET 15 OF 22							
74	PHASE 2 - SHEET 16 OF 22							
75	PHASE 2 - SHEET 17 OF 22							
76	PHASE 2 - SHEET 18 OF 22							
77	PHASE 2 - SHEET 19 OF 22							
78	PHASE 2 - SHEET 20 OF 22							
79	PHASE 2 - SHEET 21 OF 22							
80	PHASE 2 - SHEET 22 OF 22					260	40	260
	TOTALS	144	8739	3680	160	440	80	3680

Plotted on: 7/27/2023




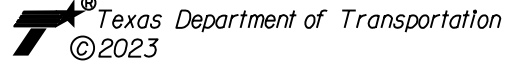
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REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
 <p>SEGWIN TEXAS</p> <p>It's real.</p>		 <p>THE STATE OF TEXAS GUADALUPE COUNTY</p>	
 <p>Texas Department of Transportation © 2023</p>			
<p>TCP QUANTITY SUMMARY</p>			
SHEET 1 OF 2			
DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK DGN:	6	TEXAS	
DWG:	DIST.	COUNTY	CONT. NO.
CHK DWG:	SAT	GUADALUPE	0915
			SECT. NO.
			45
			JOB NO.
			052
			SHEET NO.
			18

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Summaries\1277500_TCP_SUMM01.dgn

SHT NO	ITEM TCP SHEETS	0512-6058	0662-6008	0662-6037
		PORT CTB (REMOVE) (LOW PROF) (TY 2)	WK ZN PAV MRK NON-REMOV (W) 6" (SLD)	WK ZN PAV MRK NON-REMOV (Y) 6" (SLD)
		LF	LF	LF
37	PHASE 1 - SHEET 2 OF 22	20	403	404
38	PHASE 1 - SHEET 3 OF 22		2002	2002
39	PHASE 1 - SHEET 4 OF 22		2000	2000
40	PHASE 1 - SHEET 5 OF 22		2000	2000
41	PHASE 1 - SHEET 6 OF 22	20	1995	1996
42	PHASE 1 - SHEET 7 OF 22		2074	1900
43	PHASE 1 - SHEET 8 OF 22		2000	2000
44	PHASE 1 - SHEET 9 OF 22		2000	2000
45	PHASE 1 - SHEET 10 OF 22		2000	2000
46	PHASE 1 - SHEET 11 OF 22		2000	2000
47	PHASE 1 - SHEET 12 OF 22		531	522
49	PHASE 1 - SHEET 14 OF 22		1580	1630
50	PHASE 1 - SHEET 15 OF 22		2000	2000
51	PHASE 1 - SHEET 16 OF 22		2003	2002
52	PHASE 1 - SHEET 17 OF 22		97	144
57	PHASE 1 - SHEET 22 OF 22	40	950	840
59	PHASE 2 - SHEET 1 OF 22			482
60	PHASE 2 - SHEET 2 OF 22	40		976
61	PHASE 2 - SHEET 3 OF 22			1998
62	PHASE 2 - SHEET 4 OF 22			2000
63	PHASE 2 - SHEET 5 OF 22			2000
64	PHASE 2 - SHEET 6 OF 22		852	2012
65	PHASE 2 - SHEET 7 OF 22		482	1870
66	PHASE 2 - SHEET 8 OF 22			2000
67	PHASE 2 - SHEET 9 OF 22			2002
68	PHASE 2 - SHEET 10 OF 22			2000
69	PHASE 2 - SHEET 11 OF 22			2000
70	PHASE 2 - SHEET 12 OF 22		588	1872
71	PHASE 2 - SHEET 13 OF 22		692	2002
72	PHASE 2 - SHEET 14 OF 22		699	2006
73	PHASE 2 - SHEET 15 OF 22		911	2000
74	PHASE 2 - SHEET 16 OF 22		583	2006
75	PHASE 2 - SHEET 17 OF 22		175	1992
76	PHASE 2 - SHEET 18 OF 22		340	984
77	PHASE 2 - SHEET 19 OF 22			1024
78	PHASE 2 - SHEET 20 OF 22		92	1024
79	PHASE 2 - SHEET 21 OF 22		500	1000
80	PHASE 2 - SHEET 22 OF 22	40	887	844
	TOTALS	160	32436	61534




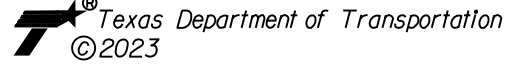
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 <p>SEGUIN TEXAS</p> <p>It's real.</p>						
 <p>Texas Department of Transportation © 2023</p>						
<p>TCP QUANTITY SUMMARY</p>						
SHEET 2 OF 2						
DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK:	SAT	QUADALUPE	0915	45	052	19

ROADWAY QUANTITY SUMMARY

SHT NO	ITEM	0100-6002	0106-6002	0110-6001	0132-6003	0247-6041	0260-6002	0260-6079
	ROADWAY PLAN & PROFILE	PREPARING ROW	OBLITERATING ABANDONED ROAD	EXCAVATION (ROADWAY)	EMBANKMENT (FINAL) (ORD COMP) (TY B)	FL BS (CMP IN PLC) (TYA GR1-2) (FNAL)	LIME (HYDRATED LIME (SLURRY))	LIME TRT (SUBGRADE) (6")
		STA	SY	CY	CY	CY	TON	SY
87	SHEET 1 OF 44	5.0		126.0	3817.0	1006.0	35.7	3018
88	SHEET 2 OF 44	5.0	456	989.0	1350.0	1351.7	47.9	4055
89	SHEET 3 OF 44	5.0		952.0	2239.0	1203.3	42.6	3610
90	SHEET 4 OF 44	5.0		1347.0	1487.0	1061.7	37.6	3185
91	SHEET 5 OF 44	5.0		2052.0	425.0	1061.7	37.6	3185
92	SHEET 6 OF 44	5.0		1525.0	446.0	1113.3	39.5	3340
93	SHEET 7 OF 44	5.0		1083.0	640.0	1159.0	41.1	3477
94	SHEET 8 OF 44	5.0		811.0	750.0	1252.7	44.4	3758
95	SHEET 9 OF 44	5.0		1883.0	236.0	1236.7	43.8	3710
96	SHEET 10 OF 44	5.0		2937.0	207.0	1098.0	38.9	3294
97	SHEET 11 OF 44	5.0		355.0	5044.0	1434.3	50.8	4303
98	SHEET 12 OF 44	5.0		2951.0	246.0	1151.3	40.8	3454
99	SHEET 13 OF 44	5.0		2546.0	339.0	1089.3	38.6	3268
100	SHEET 14 OF 44	5.0		2253.0	179.0	1309.0	46.4	3927
101	SHEET 15 OF 44	5.0		2001.0	970.0	1062.0	37.6	3186
102	SHEET 16 OF 44	5.0		683.0	2447.0	1139.7	40.4	3419
103	SHEET 17 OF 44	5.0		757.0	3607.0	1062.0	37.6	3186
104	SHEET 18 OF 44	5.0		2965.0	303.0	1121.0	39.7	3363
105	SHEET 19 OF 44	5.0		2675.0	290.0	1062.0	37.6	3186
106	SHEET 20 OF 44	5.0		1943.0	529.0	1062.0	37.6	3186
107	SHEET 21 OF 44	5.0		1960.0	388.0	1159.0	41.1	3477
108	SHEET 22 OF 44	5.0		2232.0	285.0	1388.7	49.2	4166
109	SHEET 23 OF 44	5.0		3034.0	156.0	1269.3	45.0	3808
110	SHEET 24 OF 44	5.0		2209.0	539.0	1062.0	37.6	3186
111	SHEET 25 OF 44	5.0		1323.0	569.0	1243.7	44.1	3731
112	SHEET 26 OF 44	5.0		1460.0	422.0	1125.0	39.9	3375
113	SHEET 27 OF 44	5.0		2681.0	264.0	1405.3	49.8	4216
114	SHEET 28 OF 44	5.0		2900.0	285.0	1307.3	46.3	3922
115	SHEET 29 OF 44	5.0		1805.0	422.0	1090.7	38.7	3272
116	SHEET 30 OF 44	5.0		4284.0	6.0	1062.0	37.6	3186
117	SHEET 31 OF 44	5.0		5043.0	12.0	1062.0	37.6	3186
118	SHEET 32 OF 44	5.0		5778.0	82.0	1073.7	38.0	3221
119	SHEET 33 OF 44	5.0	247	6115.0	43.0	1730.0	61.3	5190
120	SHEET 34 OF 44	5.0		7192.0	168.0	1062.0	37.6	3186
121	SHEET 35 OF 44	5.0		6528.0	152.0	1097.7	38.9	3293
122	SHEET 36 OF 44	5.0	60	4831.0	35.0	1622.7	57.5	4868
123	SHEET 37 OF 44	5.0	305	4685.0	40.0	1359.7	48.2	4079
124	SHEET 38 OF 44	2.0	672					
125	SHEET 39 OF 44	2.0	823					
126	SHEET 40 OF 44	5.0				202.3	7.2	607
127	SHEET 41 OF 44	5.0				210.0	7.4	630
128	SHEET 42 OF 44	4.0				102.0	3.6	306
129	SHEET 43 OF 44	4.0	841					
130	SHEET 44 OF 44		1082					
	TOTALS	207.0	4486	96894.0	29419.0	44671.7	1583.1	134015

Plotted on: 7/27/2023




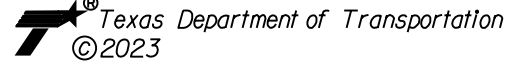
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REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
			
 <p>©2023</p>			
<p>ROADWAY QUANTITY SUMMARY</p>			
SHEET 1 OF 6			
DCN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	
DWG:	DIST.	COUNTY	CONT. NO.
CHK:	SAT	GUADALUPE	0915
			SECT. NO.
			45
			JOB NO.
			052
			SHEET NO.
			20

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\Summaries\1277500_Rdw_SUMM01.dgn




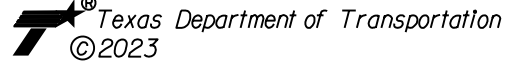
SHT NO	ITEM	0310-6027	0423-6005	0462-6001	0464-6003	0464-6005	0464-6007	0464-6030
	ROADWAY PLAN & PROFILE	PRIME COAT (MC-30 OR AE-P)	RETAINING WALL (SPREAD FOOTING)	CONC BOX CULV (3 FT X 2 FT)	RC PIPE (CL III) (18 IN)	RC PIPE (CL III) (24 IN)	RC PIPE (CL III) (30 IN)	RC PIPE (ARCH) (CL III) (DES 1)
		GAL	SF	LF	LF	LF	LF	LF
87	SHEET 1 OF 44	603.60						
88	SHEET 2 OF 44	811.00	895					
89	SHEET 3 OF 44	722.00	880					
90	SHEET 4 OF 44	637.00		60				
91	SHEET 5 OF 44	637.00			88	100		
92	SHEET 6 OF 44	668.00				210		
93	SHEET 7 OF 44	695.40						
94	SHEET 8 OF 44	751.60						
95	SHEET 9 OF 44	742.00						
96	SHEET 10 OF 44	658.80						231
97	SHEET 11 OF 44	860.60	2915					
98	SHEET 12 OF 44	690.80						
99	SHEET 13 OF 44	653.60						
100	SHEET 14 OF 44	785.40						
101	SHEET 15 OF 44	637.20			96			
102	SHEET 16 OF 44	683.80			96			
103	SHEET 17 OF 44	637.20						
104	SHEET 18 OF 44	672.60						
105	SHEET 19 OF 44	637.20				54		
106	SHEET 20 OF 44	637.20			110			
107	SHEET 21 OF 44	695.40						
108	SHEET 22 OF 44	833.20						
109	SHEET 23 OF 44	761.60						
110	SHEET 24 OF 44	637.20						
111	SHEET 25 OF 44	746.20						
112	SHEET 26 OF 44	675.00						
113	SHEET 27 OF 44	843.20						
114	SHEET 28 OF 44	784.40						
115	SHEET 29 OF 44	654.40						90
116	SHEET 30 OF 44	637.20				60		
117	SHEET 31 OF 44	637.20						
118	SHEET 32 OF 44	644.20						
119	SHEET 33 OF 44	1038.00						
120	SHEET 34 OF 44	637.20						
121	SHEET 35 OF 44	658.60						
122	SHEET 36 OF 44	973.60						
123	SHEET 37 OF 44	815.80						
124	SHEET 38 OF 44							
125	SHEET 39 OF 44							
126	SHEET 40 OF 44	121.40						
127	SHEET 41 OF 44	126.00						
128	SHEET 42 OF 44	61.20						
129	SHEET 43 OF 44							
130	SHEET 44 OF 44							
	TOTALS	26803.00	4690	60	390	364	60	321

REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
 <p>SEGUIN TEXAS</p> <p>It's real.</p>		 <p>THE STATE OF TEXAS GUADALUPE COUNTY</p>	
 <p>Texas Department of Transportation ©2023</p>			
<p>ROADWAY QUANTITY SUMMARY</p>			
SHEET 2 OF 6			
DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO.:
CHK:	SAT	GUADALUPE	0915
DWG:			SECT. NO.:
			45
			JOB NO.:
			052
			SHEET NO.:
			21

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\Summary\1277500_Rdw_SUMM01.dgn




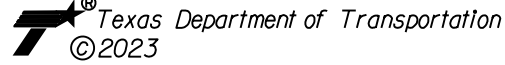
SHT NO	ITEM	0467-6363	0467-6395	0467-6423	0467-6519	0529-6002	0529-6008	0530-6004
	ROADWAY PLAN & PROFILE	SET (TY II) (18 IN) (RCP) (6: 1) (P)	SET (TY II) (24 IN) (RCP) (6: 1) (P)	SET (TY II) (30 IN) (RCP) (6: 1) (P)	SET (TY II) (DES 1) (RCP) (6: 1) (P)	CONC CURB (TY II)	CONC CURB & GUTTER (TY II)	DRIVEWAYS (CONC)
		EA	EA	EA	EA	LF	LF	SY
87	SHEET 1 OF 44					573	760	
88	SHEET 2 OF 44					995	1005	
89	SHEET 3 OF 44					1000	951	
90	SHEET 4 OF 44					1000	1000	166
91	SHEET 5 OF 44	4	4			1000	1000	143
92	SHEET 6 OF 44		4			1000	968	109
93	SHEET 7 OF 44					1002	1016	
94	SHEET 8 OF 44					834	962	144
95	SHEET 9 OF 44					899	984	162
96	SHEET 10 OF 44				6	980	973	483
97	SHEET 11 OF 44					836	901	135
98	SHEET 12 OF 44					1017	985	69
99	SHEET 13 OF 44					1002	1000	80
100	SHEET 14 OF 44					1002	1000	60
101	SHEET 15 OF 44	4				836	1164	79
102	SHEET 16 OF 44	4				1000	904	102
103	SHEET 17 OF 44					1000	1000	
104	SHEET 18 OF 44					1000	946	
105	SHEET 19 OF 44		2			1000	1000	80
106	SHEET 20 OF 44	4				1000	1000	122
107	SHEET 21 OF 44					1003	999	
108	SHEET 22 OF 44					820	951	
109	SHEET 23 OF 44					824	978	
110	SHEET 24 OF 44					1000	1000	
111	SHEET 25 OF 44					836	980	55
112	SHEET 26 OF 44					1000	965	
113	SHEET 27 OF 44					892	842	
114	SHEET 28 OF 44					1002	900	
115	SHEET 29 OF 44				4	1000	1002	63
116	SHEET 30 OF 44			2		1000	1000	87
117	SHEET 31 OF 44					1000	1000	
118	SHEET 32 OF 44					1002	1000	
119	SHEET 33 OF 44					836	1069	
120	SHEET 34 OF 44					994	1006	
121	SHEET 35 OF 44					1002	801	
122	SHEET 36 OF 44					812	1035	
123	SHEET 37 OF 44					879	1001	
124	SHEET 38 OF 44							
125	SHEET 39 OF 44							
126	SHEET 40 OF 44							
127	SHEET 41 OF 44							
128	SHEET 42 OF 44							
129	SHEET 43 OF 44							
130	SHEET 44 OF 44							
	TOTALS	16	10	2	10	34878	36048	2139

REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
 <p>SEGUIN TEXAS</p> <p>It's real.</p>		 <p>THE STATE OF TEXAS GUADALUPE COUNTY</p>	
 <p>Texas Department of Transportation ©2023</p>			
<p>ROADWAY QUANTITY SUMMARY</p>			
SHEET 3 OF 6			
DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	
DGN:	DIST.	COUNTY	CONT. NO.
CHK:	SAT	GUADALUPE	0915
DGN:	SECT. NO.	JOB NO.	SHEET NO.
CHK:	45	052	22

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\Summary\1277500_Rawy_SUMM01.dgn




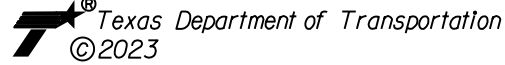
SHT NO	ITEM	0531-6001	0531-6004	0531-6005	0531-6010	0531-6016	0556-6008	0666-6036
	ROADWAY PLAN & PROFILE	CONC SIDEWALKS (4")	CURB RAMPS (TY 1)	CURB RAMPS (TY 2)	CURB RAMPS (TY 7)	CURB RAMPS (TY 21)	PIPE UNDERDRAINS (TY 8) (6")	REFL PAV MRK TY I (W) 8" (SLD) (10)
	SY	EA	EA	EA	EA	EA	LF	LF
87	SHEET 1 OF 44	724	2	2		1		912
88	SHEET 2 OF 44	1110					150	3700
89	SHEET 3 OF 44	1065					190	
90	SHEET 4 OF 44	1083						
91	SHEET 5 OF 44	1081						
92	SHEET 6 OF 44	1055						
93	SHEET 7 OF 44	1106						163
94	SHEET 8 OF 44	1026						137
95	SHEET 9 OF 44	1035						200
96	SHEET 10 OF 44	965						
97	SHEET 11 OF 44	987					220	322
98	SHEET 12 OF 44	1095						177
99	SHEET 13 OF 44	1089						20
100	SHEET 14 OF 44	1067						180
101	SHEET 15 OF 44	1102						
102	SHEET 16 OF 44	1007						
103	SHEET 17 OF 44	1116						
104	SHEET 18 OF 44	1071						
105	SHEET 19 OF 44	1094						
106	SHEET 20 OF 44	1088						
107	SHEET 21 OF 44	1118						197
108	SHEET 22 OF 44	934			4			296
109	SHEET 23 OF 44	1078						200
110	SHEET 24 OF 44	1111						
111	SHEET 25 OF 44	1062						200
112	SHEET 26 OF 44	1068						
113	SHEET 27 OF 44	1013						341
114	SHEET 28 OF 44	1006						20
115	SHEET 29 OF 44	1099						45
116	SHEET 30 OF 44	1096						
117	SHEET 31 OF 44	1112						
118	SHEET 32 OF 44	1119						
119	SHEET 33 OF 44	1094						198
120	SHEET 34 OF 44	1098						
121	SHEET 35 OF 44	1111						42
122	SHEET 36 OF 44	1082						1475
123	SHEET 37 OF 44	980			2			671
124	SHEET 38 OF 44							
125	SHEET 39 OF 44							
126	SHEET 40 OF 44							98
127	SHEET 41 OF 44							138
128	SHEET 42 OF 44							785
129	SHEET 43 OF 44							
130	SHEET 44 OF 44							
	TOTALS	39147	2	2	6	1	560	10517

REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
 <p>SEGUIN TEXAS</p> <p>It's real.</p>		 <p>THE STATE OF TEXAS</p>	
 <p>Texas Department of Transportation ©2023</p>			
<p>ROADWAY QUANTITY SUMMARY</p>			
SHEET 4 OF 6			
DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	
DGN:	DIST.	COUNTY	CONT. NO.
CHK:	SAT	GUADALUPE	0915
DGN:	SECT. NO.	JOB NO.	SHEET NO.
CHK:	45	052	23

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Summary\1277500_Rwy_SUMM01.dgn




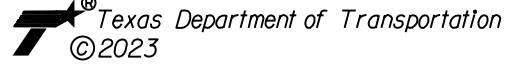
SHT NO	ITEM	0666-6048	0666-6178	0666-6182	0666-6184	0666-6192	0666-6309	0668-6077
	ROADWAY PLAN & PROFILE	REFL PAV MRK TY I (W) 24" (SLD) (1	REFL PAV MRK TY II (W) 8" (SLD)	REFL PAV MRK TY II (W) 24" (SLD)	REFL PAV MRK TY II (W) (ARROW)	REFL PAV MRK TY II (W) (WORD)	RE PM W/RET REQ TY I (W) 6" (SLD) (10	PREFAB PAV MRK TY C (W) (ARROW)
	LF	LF	LF	EA	EA	LF	EA	
87	SHEET 1 OF 44	623	912	623	3	3		3
88	SHEET 2 OF 44						250	3
89	SHEET 3 OF 44						250	
90	SHEET 4 OF 44						250	
91	SHEET 5 OF 44						250	
92	SHEET 6 OF 44						250	
93	SHEET 7 OF 44						250	
94	SHEET 8 OF 44						250	
95	SHEET 9 OF 44						251	
96	SHEET 10 OF 44						250	
97	SHEET 11 OF 44						251	
98	SHEET 12 OF 44						250	
99	SHEET 13 OF 44						250	
100	SHEET 14 OF 44						250	
101	SHEET 15 OF 44						250	
102	SHEET 16 OF 44						250	
103	SHEET 17 OF 44						250	
104	SHEET 18 OF 44						250	
105	SHEET 19 OF 44						250	
106	SHEET 20 OF 44						250	
107	SHEET 21 OF 44						250	
108	SHEET 22 OF 44	916	435	916	1	1	201	
109	SHEET 23 OF 44						250	
110	SHEET 24 OF 44						250	
111	SHEET 25 OF 44						250	
112	SHEET 26 OF 44						250	
113	SHEET 27 OF 44						250	
114	SHEET 28 OF 44						250	
115	SHEET 29 OF 44						250	
116	SHEET 30 OF 44						250	
117	SHEET 31 OF 44						250	
118	SHEET 32 OF 44						250	
119	SHEET 33 OF 44						250	
120	SHEET 34 OF 44						251	
121	SHEET 35 OF 44						251	
122	SHEET 36 OF 44						250	
123	SHEET 37 OF 44	280					215	3
124	SHEET 38 OF 44							
125	SHEET 39 OF 44							
126	SHEET 40 OF 44	115	396	115				
127	SHEET 41 OF 44	119	953	119				
128	SHEET 42 OF 44	1	785		1	1		
129	SHEET 43 OF 44							
130	SHEET 44 OF 44							
	TOTALS	2054	3481	1773	5	5	8920	9

REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
			
<p>It's real.</p>			
 <p>Texas Department of Transportation ©2023</p>			
<p>ROADWAY QUANTITY SUMMARY</p>			
SHEET 5 OF 6			
DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	
DGN:	DIST.	COUNTY	CONT. NO.
CHK:	SAT	GUADALUPE	0915
DGN:	SECT. NO.	JOB NO.	SHEET NO.
CHK:	45	052	24

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\Summary\SUMM01.dgn

SHT NO	ITEM	0668-6085	0740-6004	3075-6001	3076-6006	3076-6031	3076-6066
	ROADWAY PLAN & PROFILE	PREFAB PAV MRK TY C (W) (WORD)	ANTI - GRAFFITI COATING (PERMN)	GEOGRID BASE REINFORCEMENT	D-GR HMA TY-B PG70-22	D-GR HMA TY-C PG76-22	TACK COAT
		EA	SF	SY	TON	TON	GAL
87	SHEET 1 OF 44	3		3018	721.3	432.8	524.60
88	SHEET 2 OF 44	3		4055	920.7	552.4	669.60
89	SHEET 3 OF 44		716	3610	795.0	477.0	578.20
90	SHEET 4 OF 44		704	3185	672.4	403.4	489.00
91	SHEET 5 OF 44			3185	672.4	403.4	489.00
92	SHEET 6 OF 44			3340	718.6	431.1	522.60
93	SHEET 7 OF 44			3477	751.9	451.1	546.80
94	SHEET 8 OF 44			3758	850.3	510.2	618.40
95	SHEET 9 OF 44			3710	828.6	497.1	602.60
96	SHEET 10 OF 44			3294	707.9	424.7	514.80
97	SHEET 11 OF 44		2332	4303	1007.6	604.6	732.80
98	SHEET 12 OF 44			3454	746.1	447.6	542.60
99	SHEET 13 OF 44			3268	688.6	413.2	500.80
100	SHEET 14 OF 44			3927	828.0	496.8	602.20
101	SHEET 15 OF 44			3186	672.1	403.3	488.80
102	SHEET 16 OF 44			3419	748.0	448.8	544.00
103	SHEET 17 OF 44			3186	672.1	403.3	488.80
104	SHEET 18 OF 44			3363	727.4	436.4	529.00
105	SHEET 19 OF 44			3186	672.1	403.3	488.80
106	SHEET 20 OF 44			3186	672.1	403.3	488.80
107	SHEET 21 OF 44			3477	753.2	451.9	547.80
108	SHEET 22 OF 44			4166	952.9	571.7	693.00
109	SHEET 23 OF 44			3808	862.7	517.6	627.40
110	SHEET 24 OF 44			3186	672.1	403.3	488.80
111	SHEET 25 OF 44			3731	840.4	504.2	611.20
112	SHEET 26 OF 44			3375	728.5	437.1	529.80
113	SHEET 27 OF 44			4216	984.8	590.9	716.20
114	SHEET 28 OF 44			3922	883.9	530.3	642.80
115	SHEET 29 OF 44			3272	695.8	417.5	506.00
116	SHEET 30 OF 44			3186	672.1	403.3	488.80
117	SHEET 31 OF 44			3186	672.1	403.3	488.80
118	SHEET 32 OF 44			3221	675.1	405.1	491.00
119	SHEET 33 OF 44			5190	1196.0	717.6	869.80
120	SHEET 34 OF 44			3186	672.1	403.3	488.80
121	SHEET 35 OF 44			3293	696.3	417.8	506.40
122	SHEET 36 OF 44			4868	1113.5	668.1	809.80
123	SHEET 37 OF 44	3		4079	957.8	574.7	696.60
124	SHEET 38 OF 44						
125	SHEET 39 OF 44						
126	SHEET 40 OF 44			607	155.7	90.1	111.20
127	SHEET 41 OF 44			630	161.4	98.5	118.40
128	SHEET 42 OF 44			306	72.9	42.7	52.40
129	SHEET 43 OF 44						
130	SHEET 44 OF 44						
	TOTALS	9	3752	134015	29492.1	17692.6	21447.20

REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800</p>			
 <p>SEGUIN TEXAS</p> <p>It's real.</p>		 <p>THE STATE OF TEXAS GUADALUPE COUNTY</p>	
 <p>Texas Department of Transportation ©2023</p>			
<p>ROADWAY QUANTITY SUMMARY</p>			
SHEET 6 OF 6			
DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 25

DRAINAGE QUANTITY SUMMARY

Plotted on: 7/27/2023

ITEM		0402-6001	0432-6001	0450-6032	0450-6048	0462-6001	0462-6004	0462-6005	0462-6006
SHEET NAME		TRENCH EXCAVATION PROTECTION	RIPRAP (CONC) (4 IN)	RAIL (TY C223)	RAIL (HANDRAIL) (TY B)	CONC BOX CULV (3 FT X 2 FT)	CONC BOX CULV (4 FT X 3 FT)	CONC BOX CULV (4 FT X 4 FT)	CONC BOX CULV (5 FT X 2 FT)
SHT NO		LF	CY	LF	LF	LF	LF	LF	LF
171	DRAINAGE LAYOUT								
172	DRAINAGE LAYOUT		127.0		200				
173	DRAINAGE LAYOUT		292.0	120	387				
174	DRAINAGE LAYOUT		246.0						
175	DRAINAGE LAYOUT								
176	DRAINAGE LAYOUT	708							
177	DRAINAGE LAYOUT	99		150	485				
178	DRAINAGE LAYOUT								
179	DRAINAGE LAYOUT								
180	DRAINAGE LAYOUT		22.0	120	200				
181	DRAINAGE LAYOUT								
182	DRAINAGE LAYOUT	319	20.0			138			638
183	DRAINAGE LAYOUT	604							
184	DRAINAGE LAYOUT	2084	16.0		100				
185	DRAINAGE LAYOUT	2732			153		422	197	
186	DRAINAGE LAYOUT	2472	159.0			888		749	
187	DRAINAGE LAYOUT		103.0			23			
188	DRAINAGE LAYOUT								
190	DRAINAGE LAYOUT								
191	DRAINAGE LAYOUT								
192	DRAINAGE LAYOUT				115				
	TOTALS	9018	985.0	390	1640	1049	422	946	638


ITEM		0462-6010	0462-6011	0462-6014	0462-6020	0462-6054	0462-6099	0464-6007	0464-6019
SHEET NAME		CONC BOX CULV (6 FT X 3 FT)	CONC BOX CULV (6 FT X 4 FT)	CONC BOX CULV (7 FT X 3 FT)	CONC BOX CULV (8 FT X 5 FT)	CONC BOX CULV (6 FT X 3 FT) (EXTEND)	CONC BOX CULV (6 FT X 2 FT)	RC PIPE (CL III) (30 IN)	RC PIPE (CL IV) (30 IN)
SHT NO		LF	LF	LF	LF	LF	LF	LF	LF
171	DRAINAGE LAYOUT							324	
172	DRAINAGE LAYOUT								
173	DRAINAGE LAYOUT			612					
174	DRAINAGE LAYOUT								
175	DRAINAGE LAYOUT								
176	DRAINAGE LAYOUT								495
177	DRAINAGE LAYOUT				738				311
178	DRAINAGE LAYOUT								
179	DRAINAGE LAYOUT			612					
180	DRAINAGE LAYOUT								
181	DRAINAGE LAYOUT								
182	DRAINAGE LAYOUT								
183	DRAINAGE LAYOUT								
184	DRAINAGE LAYOUT	878					35		
185	DRAINAGE LAYOUT	96	896						
186	DRAINAGE LAYOUT		763						
187	DRAINAGE LAYOUT								
188	DRAINAGE LAYOUT								
190	DRAINAGE LAYOUT								
191	DRAINAGE LAYOUT								
192	DRAINAGE LAYOUT	137				125			
	TOTALS	1111	1659	1224	738	125	35	324	806

Design File name: P:\127\75\00\Design\Civil\Summary\1277500_Drainage_Summary.dgn

REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

SEGUIN TEXAS
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 TEXAS DEPARTMENT OF TRANSPORTATION
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DRAINAGE QUANTITY SUMMARY

SHEET 1 OF 3

DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:			052	26




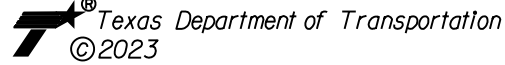
DRAINAGE QUANTITY SUMMARY CONT.

Plotted on: 7/27/2023

ITEM	0464-6025	0464-6026	0465-6014	0465-6015	0465-6016	0465-6018	0465-6020	0465-6070
SHEET NAME	RC PIPE (CL V) (18 IN)	RC PIPE (CL V) (24 IN)	INLET (COMPL) (PCO) (3FT) (LEFT)	INLET (COMPL) (PCO) (3FT) (RIGHT)	INLET (COMPL) (PCO) (3FT) (BOTH)	INLET (COMPL) (PCO) (4FT) (LEFT)	INLET (COMPL) (PCO) (4FT) (BOTH)	INLET (COMPL) (PSL) (RC) (3 FTX3FT)
SHT NO	LF	LF	EA	EA	EA	EA	EA	EA
171	DRAINAGE LAYOUT							
172	DRAINAGE LAYOUT							
173	DRAINAGE LAYOUT							
174	DRAINAGE LAYOUT							
175	DRAINAGE LAYOUT							
176	DRAINAGE LAYOUT		195			2	1	
177	DRAINAGE LAYOUT							
178	DRAINAGE LAYOUT							
179	DRAINAGE LAYOUT							
180	DRAINAGE LAYOUT							
181	DRAINAGE LAYOUT							
182	DRAINAGE LAYOUT	6	154		1	1		
183	DRAINAGE LAYOUT	396	198					1
184	DRAINAGE LAYOUT		1128		2	2		4
185	DRAINAGE LAYOUT		1098	1	3	3		1
186	DRAINAGE LAYOUT		181					
187	DRAINAGE LAYOUT							
188	DRAINAGE LAYOUT							
190	DRAINAGE LAYOUT							
191	DRAINAGE LAYOUT							
192	DRAINAGE LAYOUT							
TOTALS	402	2954	1	6	6	2	1	6

ITEM	0465-6071	0465-6076	0465-6077	0465-6126	0465-6127	0465-6128	0465-6338	0466-6179
SHEET NAME	INLET (COMPL) (PSL) (RC) (4 FTX4FT)	INLET (COMPL) (PSL) (RC) (6 FTX6FT)	INLET (COMPL) (PSL) (RC) (8 FTX8FT)	INLET (COMPL) (PSL) (FG) (3 FTX3FT-3FTX3FT)	INLET (COMPL) (PSL) (FG) (4 FTX4FT-3FTX3FT)	INLET (COMPL) (PSL) (FG) (4 FTX4FT-4FTX4FT)	INLET (COMPL) (ARMOR CURB SLOT)	WINGWALL (PW - 1) (HW=4 FT)
SHT NO	EA	EA	EA	EA	EA	EA	EA	EA
171	DRAINAGE LAYOUT							
172	DRAINAGE LAYOUT						2	
173	DRAINAGE LAYOUT						6	
174	DRAINAGE LAYOUT						4	
175	DRAINAGE LAYOUT						4	
176	DRAINAGE LAYOUT				1	1	5	
177	DRAINAGE LAYOUT	1					6	
178	DRAINAGE LAYOUT						3	
179	DRAINAGE LAYOUT						5	
180	DRAINAGE LAYOUT						6	
181	DRAINAGE LAYOUT						2	
182	DRAINAGE LAYOUT			3	1		6	2
183	DRAINAGE LAYOUT				3		5	
184	DRAINAGE LAYOUT			2			1	
185	DRAINAGE LAYOUT		1	2			2	
186	DRAINAGE LAYOUT	4					2	
187	DRAINAGE LAYOUT						4	
188	DRAINAGE LAYOUT						4	
190	DRAINAGE LAYOUT						2	
191	DRAINAGE LAYOUT						1	
192	DRAINAGE LAYOUT						4	3
TOTALS	5	1	7	4	1	1	74	5

Design File name: P:\127\75\00\Design\Civil\Summary\1277500_Drainage_Sum01.dgn

REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
			
 <p>Texas Department of Transportation ©2023</p>			
<p>DRAINAGE QUANTITY SUMMARY</p>			
SHEET 2 OF 3			
DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 27




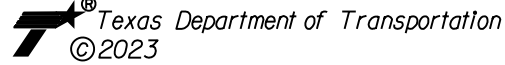
DRAINAGE QUANTITY SUMMARY CONT.

Plotted on: 7/27/2023

ITEM		0466-6180	0466-6181	0466-6183	0467-6391	0467-6423	0496-6001	0496-6004	0496-6005
SHEET NAME		WINGWALL (PW - 1) (HW=5 FT)	WINGWALL (PW - 1) (HW=6 FT)	WINGWALL (PW - 1) (HW=8 FT)	SET (TY II) (24 IN) (RCP) (4: 1) (P)	SET (TY II) (30 IN) (RCP) (6: 1) (P)	REMOV STR (BOX CULVERT)	REMOV STR (SET)	REMOV STR (WINGWALL)
SHT NO		EA	EA	EA	EA	EA	EA	EA	EA
171	DRAINAGE LAYOUT					4			
172	DRAINAGE LAYOUT								
173	DRAINAGE LAYOUT		2				1		2
174	DRAINAGE LAYOUT								
175	DRAINAGE LAYOUT								
176	DRAINAGE LAYOUT								
177	DRAINAGE LAYOUT			2					2
178	DRAINAGE LAYOUT								
179	DRAINAGE LAYOUT								
180	DRAINAGE LAYOUT		2				1		2
181	DRAINAGE LAYOUT								
182	DRAINAGE LAYOUT	2							
183	DRAINAGE LAYOUT								
184	DRAINAGE LAYOUT								
185	DRAINAGE LAYOUT								
186	DRAINAGE LAYOUT				1				
187	DRAINAGE LAYOUT								
188	DRAINAGE LAYOUT								
190	DRAINAGE LAYOUT								
191	DRAINAGE LAYOUT								
192	DRAINAGE LAYOUT							1	1
	TOTALS	2	4	2	1	4	2	1	7

ITEM		0496-6009	0496-6016
SHEET NAME		REMOV STR (BRIDGE 0 - 99 FT LENGTH)	REMOV STR (PIPE)
SHT NO		EA	EA
171	DRAINAGE LAYOUT		
172	DRAINAGE LAYOUT		
173	DRAINAGE LAYOUT		
174	DRAINAGE LAYOUT		
175	DRAINAGE LAYOUT		
176	DRAINAGE LAYOUT		
177	DRAINAGE LAYOUT	1	
178	DRAINAGE LAYOUT		
179	DRAINAGE LAYOUT		
180	DRAINAGE LAYOUT		
181	DRAINAGE LAYOUT		
182	DRAINAGE LAYOUT		2
183	DRAINAGE LAYOUT		
184	DRAINAGE LAYOUT		
185	DRAINAGE LAYOUT		
186	DRAINAGE LAYOUT		
187	DRAINAGE LAYOUT		
188	DRAINAGE LAYOUT		
190	DRAINAGE LAYOUT		
191	DRAINAGE LAYOUT		
192	DRAINAGE LAYOUT		
	TOTALS	1	2

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REV. NO.	DATE	DESCRIPTION	BY
 <p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
			
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<p>DRAINAGE QUANTITY SUMMARY</p>			
SHEET 3 OF 3			
DCN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	
DWG:	DIST.	COUNTY	CONT. NO.
CHK:	SAT	GUADALUPE	0915
			SECT. NO.
			45
			JOB NO.
			052
			SHEET NO.
			28

SIGNING & PAVEMENT MARKING QUANTITY SUMMARY

Plotted on: 7/27/2023

Design Filename: P:\127\75\00\Design\Civil\Summaries\1277500_S&PM_SUMM01.dgn

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<p>SIGNING & PAVEMENT MARKINGS QUANTITY SUMMARY</p>			
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO. HIGHWAY NO.
CHK DGN:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915 45 052 29

TO BE PROVIDED AT
LATER SUBMITTAL

REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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SW3P QUANTITY
SUMMARY

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN:	6	TEXAS				CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	30

DETOURS, BARRICADES, WARNING SIGNS, SEQUENCE OF WORK, ETC.

THE CONTRACTORS ATTENTION IS DIRECTED TO THE REQUIREMENTS OF ITEM 7, "LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC", OF THE STANDARD SPECIFICATIONS. IN ADDITION TO THESE REQUIREMENTS, THE FOLLOWING PROVISIONS SHALL ALSO GOVERN ON THIS CONTRACT:

1. GENERAL

1. TRAFFIC MUST BE HANDLED THROUGHOUT THE PROJECT DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SAFE AND COMFORTABLE PASSAGE FOR VEHICULAR AND PEDESTRIAN TRAFFIC WITH MINIMAL INCONVENIENCE TO THE PUBLIC, AS SHOWN IN THE PLANS OR AS DIRECTED.
2. THE CONTRACTOR MAY PROPOSE/RECOMMEND MODIFICATIONS TO THE SEQUENCE OF WORK FOR CONSIDERATION BY THE ENGINEER, ANY MAJOR RECOMMENDED MODIFICATION BY THE CONTRACTOR SHALL INCLUDE ANY CHANGES TO THE VARIOUS BID ITEMS, IMPACT TO TRAFFIC, EFFECT OF OVERALL PROJECT IN TIME AND COST, ETC. IF THIS PROPOSAL IS IMPLEMENTED, THE CONTRACTOR WILL BE RESPONSIBLE FOR DEVELOPING DETAILED PLAN SHEETS TO BE SEALED BY A LICENSED PROFESSIONAL ENGINEER FOR INCLUSION WITH THE CHANGE ORDER. THE CONTRACTOR CANNOT PROCEED WITH ANY CONSTRUCTION OPERATIONS BASED ON A REVISED PHASE/SEQUENCE UNTIL WRITTEN APPROVAL IS OBTAINED FROM BEXAR COUNTY. IF AT ANY TIME DURING CONSTRUCTION THE CONTRACTOR'S PROPOSED PLAN OF OPERATION FOR HANDLING TRAFFIC DOES NOT PROVIDE FOR SAFE AND COMFORTABLE MOVEMENT, THE CONTRACTOR WILL IMMEDIATELY CHANGE THEIR OPERATION TO CORRECT THE UNSATISFACTORY CONDITION.
3. DO NOT STORE ANY CONSTRUCTION MATERIAL OR EQUIPMENT AT ANY LOCATION THAT WILL CONSTITUTE A HAZARD AND WILL ENDANGER TRAFFIC.
4. THE CONTRACTOR WILL PROVIDE ADVANCE NOTIFICATION TO BEXAR COUNTY IMPENDING/UPCOMING LANE CLOSURES FOR ALL TEMPORARY AND/OR PERMANENT LANE, RAMP, CONNECTOR, FRONTAGE, SHOULDER, ETC. CLOSURES OR DETOURS.
5. ACCESS TO ADJOINING PROPERTY MUST BE MAINTAINED AT ALL TIMES.
6. TEMPORARY DRAINAGE IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. AT NO TIME SHALL TWO CONSECUTIVE INTERSECTING ROADWAYS BE CLOSED AT ONE TIME DURING CONSTRUCTION.
8. AT NO TIME SHALL TWO CONSECUTIVE RAMPS BE CLOSED AT ONE TIME DURING CONSTRUCTION OR OVERLAY OPERATIONS.
9. UNLESS OTHERWISE NOTED IN THE PLANS AND/OR AS DIRECTED BY BEXAR COUNTY, DAILY LANE CLOSURES SHALL BE LIMITED ACCORDING TO THE FOLLOWING RESTRICTIONS:
 - NIGHTTIME: ASK AREA ENGINEER AND CONSTRUCTION ENGINEER (WITH UNIFORMED OFF DUTY LAW ENFORCEMENT OFFICERS)
 - WEEKEND CLOSURES WHEN APPROVED BY THE ENGINEER: ASK AREA ENGINEER AND CONSTRUCTION ENGINEER.
 - NO LANE CLOSURES WILL BE PERMITTED FOR THE FOLLOWING DATES:
 - BETWEEN DECEMBER 15 AND JANUARY 1.
 - WEDNESDAY BEFORE THANKSGIVING THRU THE SUNDAY AFTER THANKSGIVING.
 - SATURDAY AND SUNDAY BEFORE MEMORIAL DAY AND LABOR DAY.
 - SATURDAY OR SUNDAY WHEN JULY 4 FALLS ON A FRIDAY OR MONDAY.
10. REMOVAL AND DISPOSAL OF EXISTING ABANDONDED UTILITIES (EITHER PERVIOUSLY ABANDONDED OR ABANDONDED DURING THIS PROJECT) REQUIRED TO SUPPORT THIS PROJECT SHALL BE PERFORMED AND PAID FOR AS INDICATED ON THE PLANS.
11. COORDINATE WITH ADJACENT PROJECTS.
12. COVER PERMANENT SIGNS IF NOT USED OR APPLICABLE TO CURRENT OR SUBSEQUENT PHASES. THIS IS SUBSIDIARY TO ITEM 502.
13. ADVANCE WARNING SIGNS AND LANE CLOSURES MUST BE MOVED UP PERIODICALLY IN ORDER TO KEEP UP WITH THE MOVING WORK ZONE. AS WORK PROGRESSES, THE LANE CLOSURE SIGNING AND APPROPRIATE BARRICADES MUST FOLLOW APPLICABLE STANDARDS.

2. SAFETY

1. THE CONTRACTOR WILL PROVIDE, CONSTRUCT AND MAINTAIN BARRICADES AND SIGNS IN ACCORDANCE WITH STATE STANDARDS BC (1-12)-21. ANY SIGNS REQUIRED THAT ARE NOT DETAILED IN THE STANDARD SHEETS SHALL BE IN CONFORMANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND THE "STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS."
2. BARRICADES AND WARNING SIGNS SHALL BE PLACED AS INDICATED ON THE PLANS. THIS SHALL BE CONSIDERED THE MINIMUM REQUIRED TO PROVIDE FOR THE SAFETY OF TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN OTHER SUCH BARRICADES AND SIGNS DEEMED NECESSARY BY THE ENGINEER OR AS DIRECTED BY FIELD CONDITIONS TO PROVIDE FOR THE PASSAGE OF TRAFFIC IN SAFETY AT ALL TIMES.
3. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN FLAGGERS AS DIRECTED/APPROVED BY BEXAR COUNTY, AT SUCH POINTS, AND FOR SUCH PERIODS OF TIME AS MAY BE REQUIRED, TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC AND THE CONTRACTORS PERSONNEL.
4. THE CONTRACTOR SHALL KEEP THE ROADWAY CLEAN AND FREE OF DIRT OR OTHER MATERIALS DURING HAULING OPERATIONS. IF THE CONTRACTOR DOES NOT MAINTAIN A CLEAN ROADWAY, THEY SHALL CEASE ALL CONSTRUCTION OPERATIONS, WHEN DIRECTED BY BEXAR COUNTY, TO CLEAN THE ROADWAY TO THE SATISFACTION OF THE COUNTY.

3. HAULING EQUIPMENT

1. THE USE OF RUBBER-TIRED EQUIPMENT WILL BE REQUIRED FOR MOVING DIRT OR OTHER MATERIALS ALONG OR ACROSS PAVEMENT SURFACES. WHERE THE CONTRACTOR DESIRES TO MOVE ANY EQUIPMENT NOT LICENSED FOR OPERATION ON PUBLIC HIGHWAYS, ON OR ACROSS PAVEMENT, THEY SHALL PROTECT THE PAVEMENT FROM DAMAGE AS DIRECTED/APPROVED BY THE COUNTY.
2. THROUGHOUT CONSTRUCTION OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO CONDUCT THEIR HAULING OPERATIONS IN A MANNER SUCH THAT VEHICLES WILL NOT HAUL OVER PREVIOUSLY RECOMPACTED SUBGRADE OR COMPACTED BASE MATERIAL, EXCEPT IN SHORT SECTIONS FOR DUMPING MANIPULATIONS.

4. FINAL CLEAN UP

UPON COMPLETION OF THE WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL CLEAR AND REMOVE FROM THE SITE ALL SURPLUS AND DISCARDED MATERIALS AND DEBRIS OF EVERY KIND AND LEAVE THE ENTIRE PROJECT IN A SMOOTH, NEAT AND SIGHTLY CONDITION.

5. PAYMENT




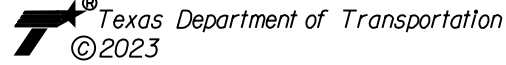
ALL BARRICADES, SIGNS, AND FLAGGERS SHALL BE SUBSIDIARY TO ITEM 502 BARRICADES, SIGNS AND TRAFFIC HANDLING. ALL EROSION AND SEDIMENT CONTROL DEVICES WILL BE PAID FOR UNDER ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS. ALL WORK ZONE PAVEMENT MARKINGS WILL BE PAID FOR UNDER ITEM 662 WORK ZONE PAVEMENT MARKINGS. ALL OTHER WORK AND MATERIALS SHALL BE SUBSIDIARY TO THE VARIOUS BID ITEMS UNLESS OTHERWISE INDICATED IN THE PLANS.

DESIGN

INTERIM REVIEW
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ENGINEER: <u>STEVEN J. TATE</u>
P. E. SERIAL NO: <u>131443</u>
DATE: <u>7/27/2023</u>

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: <u>JOHN A. TYLER</u>
P. E. SERIAL NO: <u>105193</u>
DATE: <u>7/27/2023</u>

REV. NO.	DATE	DESCRIPTION	BY
 <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800</p>			
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CORDOVA RD			
<p>TRAFFIC CONTROL PLAN GENERAL NOTES</p>			
DCN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK DCN:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.
CHK DWG:	SAT	GUADALUPE	0915
			SECT. NO.
			45
			JOB NO.
			052
			SHEET NO.
			31

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\1277500_TCP_GEN.dgn

TRAFFIC CONTROL PLAN SEQUENCE OF WORK

- (1) THIS PROJECT WILL BE CONSTRUCTED IN (3) PHASES. BEFORE THE COMMENCEMENT OF EACH PHASE, INSTALL ADVANCE WARNING SIGNS, TEMPORARY SIGNS AND BARRICADES AS SHOWN ON THE PLANS AND/OR AS DIRECTED/APPROVED BY THE ENGINEER. DAILY LANE CLOSURES WILL BE USED IN ACCORDANCE WITH STATE TCP STANDARDS. DROP OFF CONDITIONS OF GREATER THAN 2" MUST HAVE A 3:1 SLOPE AT THE END OF EACH DAY, AS WELL AS THROUGHOUT THE PROJECT WHERE ACCESS TO ADJACENT PROPERTIES IS ALLOWED TO DRIVEWAYS AND SIDE STREETS.
- (2) PREPARING ROW / REMOVAL OF EXISTING ITEMS TO BE DONE ONLY IN AREAS WHERE WORK IS OCCURRING, AS PER THE PHASES NOTED BELOW.
- (3) PLANING, SURFACE TREATMENTS AND OVERLAYS SHALL BE PERFORMED IN THE DIRECTION OF TRAFFIC. BEGIN SURFACE CONSTRUCTION ON HIGH SIDE OF ROAD TO AVOID WATER PONDING ISSUES.
- (4) THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF ITEM 7, "LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC" AND ITEM 502, "BARRICADES, SIGNS, AND TRAFFIC HANDLING", OF THE STANDARD SPECIFICATIONS, AND TO THE GENERAL NOTES.
- (5) A BRIEF DESCRIPTION OF THESE PHASES ARE AS FOLLOWS:

PHASE 1

- A) SET ADVANCED WARNING SIGNS IN ACCORDANCE WITH TXDOT BC STANDARDS
- B) SET EROSION CONTROL MEASURES AS SHOWN ON SW3P LAYOUTS AND AS DIRECTED BY THE ENGINEER

STEP 1- CONSTRUCT TEMP WIDENING

- A) USE TXDOT TCP STANDARD TCP(2-2)-18 FOR ONE-LANE TWO-WAY TRAFFIC CONTROL
- B) DURING OFF-PEAK HOURS, CONSTRUCT TEMPORARY DRAINAGE AND WIDENING TO THE LIMITS SHOWN ON THE PHASE ONE LAYOUTS

STEP 2- PROPOSED PAVEMENT, DRAINAGE, AND SUP

- A) INSTALL WORK ZONE PAVEMENT MARKINGS AS SHOWN AND SHIFT TRAFFIC INTO THE PHASE ONE CONFIGURATION
- B) SET BARRIER, CHANNELIZING DEVICES, AND BARRICADES AS SHOWN AND AS DIRECTED BY THE ENGINEER.
- C) CONSTRUCT PROPOSED DRAINAGE STRUCTURES, PAVEMENT, CURB/CURB & GUTTER, SUP, AND DITCHES TO THE LIMITS SHOWN IN THE PLANS. DO NOT CONSTRUCT THE FINAL LIFT OF HMAC UNTIL PHASE 3.

STEP 3- INTERSECTIONS AND TRANSITIONAL AREAS (NOT PROVIDED FOR 30%)

- A) REFERENCING THE INTERSECTION PHASING SHEETS CONSTRUCT INTERSECTIONS CONNECTIONS
- B) REFERNCING THE TRANSITIONAL DETAILS CONSTRUCT PHASE ONE TO PHASE TWO TRANSITIONS

PHASE 2

- A) ADJUST ADVANCED WARNING SIGNS IN ACCORDANCE WITH TXDOT BC STANDARDS
- B) SET EROSION CONTROL MEASURES AS SHOWN ON SW3P LAYOUTS AND AS DIRECTED BY THE ENGINEER

STEP 1- PROPOSED PAVEMENT, DRAINAGE, AND SUP

- A) INSTALL WORK ZONE PAVEMENT MARKINGS AS SHOWN AND SHIFT TRAFFIC INTO THE PHASE TWO CONFIGURATION
- B) SET BARRIER, CHANNELIZING DEVICES, AND BARRICADES AS SHOWN AND AS DIRECTED BY THE ENGINEER.
- C) CONSTRUCT PROPOSED DRAINAGE STRUCTURES, PAVEMENT, CURB/CURB & GUTTER, SUP, AND DITCHES TO THE LIMITS SHOWN IN THE PLANS. DO NOT CONSTRUCT THE FINAL LIFT OF HMAC UNTIL PHASE 3.

STEP 2- INTERSECTIONS (NOT PROVIDED FOR 30%)

- A) REFERENCING THE INTERSECTION PHASING SHEETS CONSTRUCT INTERSECTIONS CONNECTIONS

PHASE 3- (NOT PROVIDED FOR 30%)

- A) ADJUST ADVANCED WARNING SIGNS IN ACCORDANCE WITH TXDOT BC STANDARDS
- B) SET EROSION CONTROL MEASURES AS SHOWN ON SW3P LAYOUTS AND AS DIRECTED BY THE ENGINEER

STEP 1- MEDIAN AND CENTER LEFT-TURN LANES

- A) INSTALL WORK ZONE PAVEMENT MARKINGS AS SHOWN AND CLOSE INSIDE EASTBOUND AND WESTBOUND LANES
- B) SET CHANNELIZING DEVICES AND BARRICADES AS SHOWN AND AS DIRECTED BY THE ENGINEER.
- C) CONSTRUCT PROPOSED MEDIANS AND LEFT-TURN LANES TO THE LIMITS SHOWN IN THE PLANS.

STEP 2- FINAL OVERLAY AND PROJECT COMPLETION

- A) PLACE SHORT-TERM TABS IN THE FINAL PAVEMENT MARKING CONFIGURATION
- B) USING MOBILE OPERATION PLACE FINAL HMAC LIFT
- C) PLACE SHORT-TERM TABS IN THE FINAL PAVEMENT MARKING CONFIGURATION
- D) PLACE FINAL PAVEMENT MARKINGS AS SHOWN IN THE PLANS
- E) INSTALL PROPOSED SIGNS
- F) PERFORM FINAL CLEANUP

DESIGN

INTERIM REVIEW

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 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

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 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

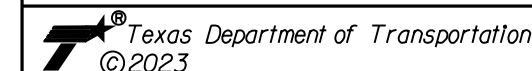
REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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CORDOVA RD
**TRAFFIC CONTROL PLAN
 SEQUENCE OF WORK**

SHEET 1 OF 1

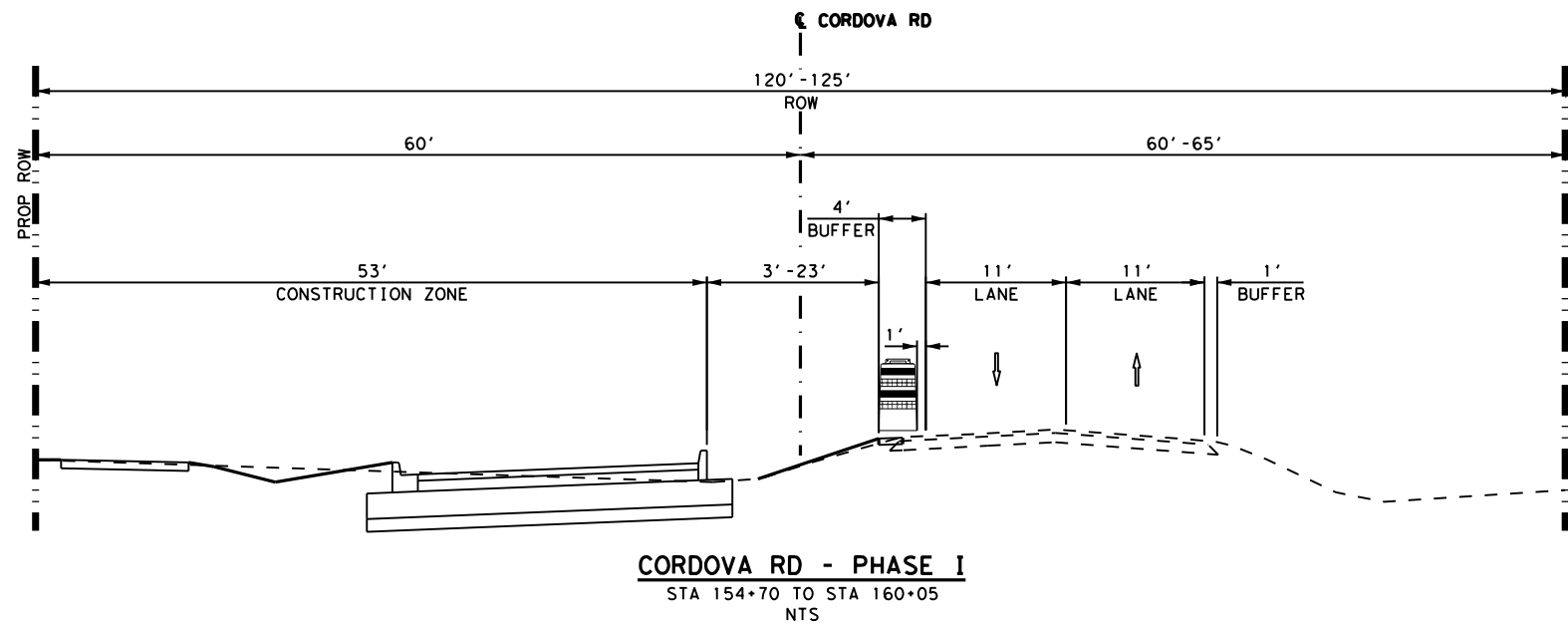
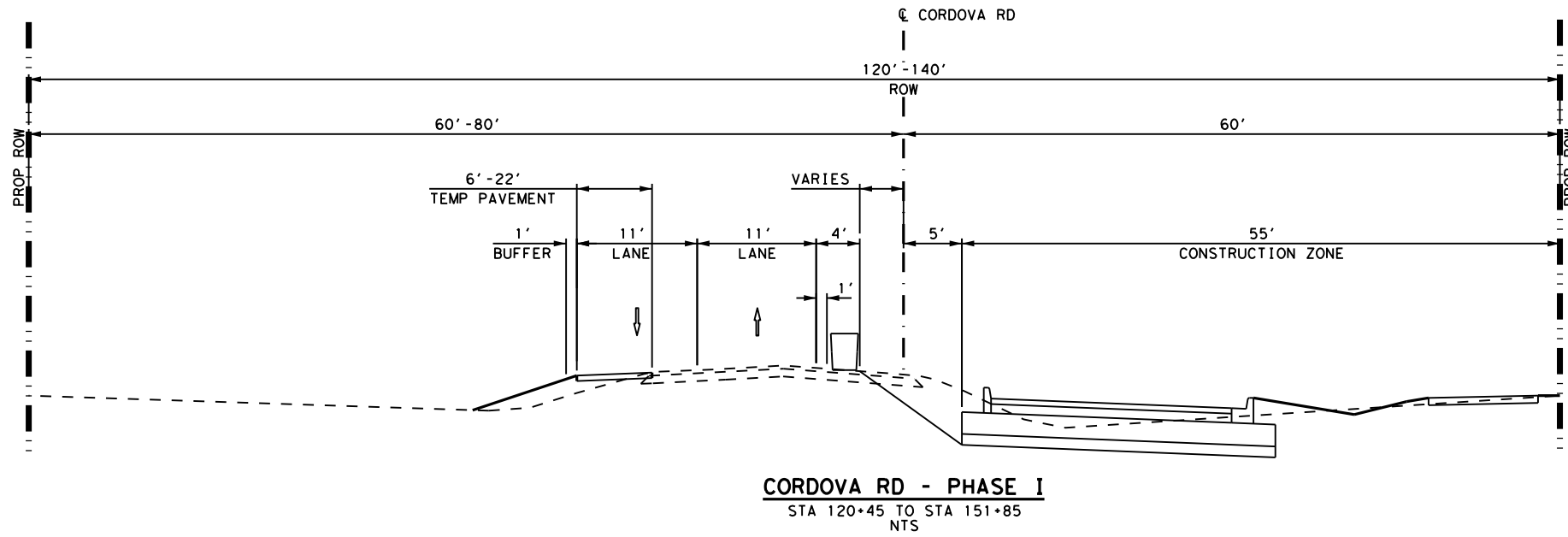
DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK DGN:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK DWG:	SAT	GUADALUPE	0915	45
			JOB NO.:	SHEET NO.:
			052	32

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\TCP\1277500_NARR.dgn

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_Typico101.dgn



DESIGN

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ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
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ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

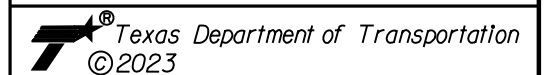
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.

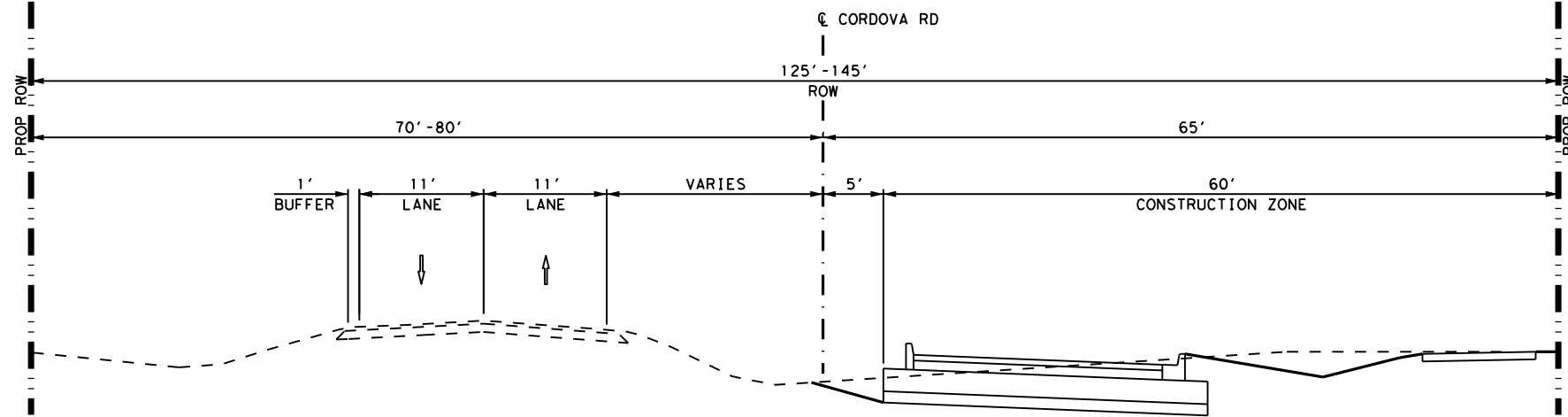


CORDOVA RD
TRAFFIC CONTROL PLAN
TYPICAL SECTIONS
PHASE I

SHEET 1 OF 3

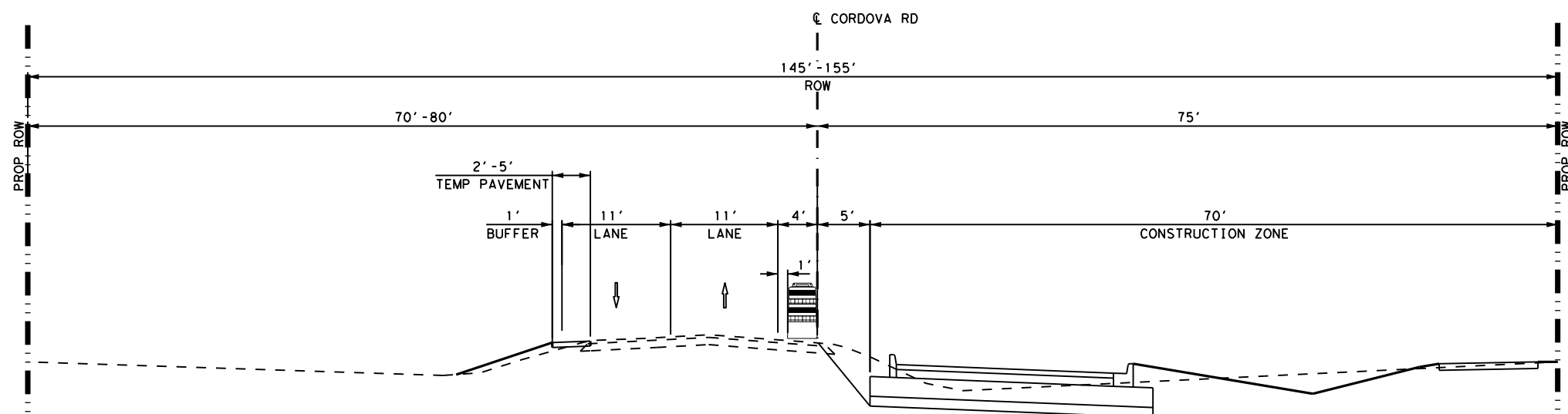
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	33

Plotted on: 7/27/2023



CORDOVA RD - PHASE I

STA 166+00 TO STA 185+00
 STA 216+00 TO STA 228+45
 STA 264+00 TO STA 270+00
 NTS



CORDOVA RD - PHASE I

STA 188+00 TO STA 212+50
 STA 260+50 TO STA 264+00
 NTS

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

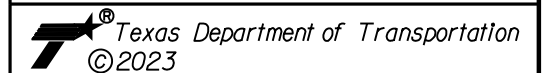
REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 TYPICAL SECTIONS
 PHASE I**

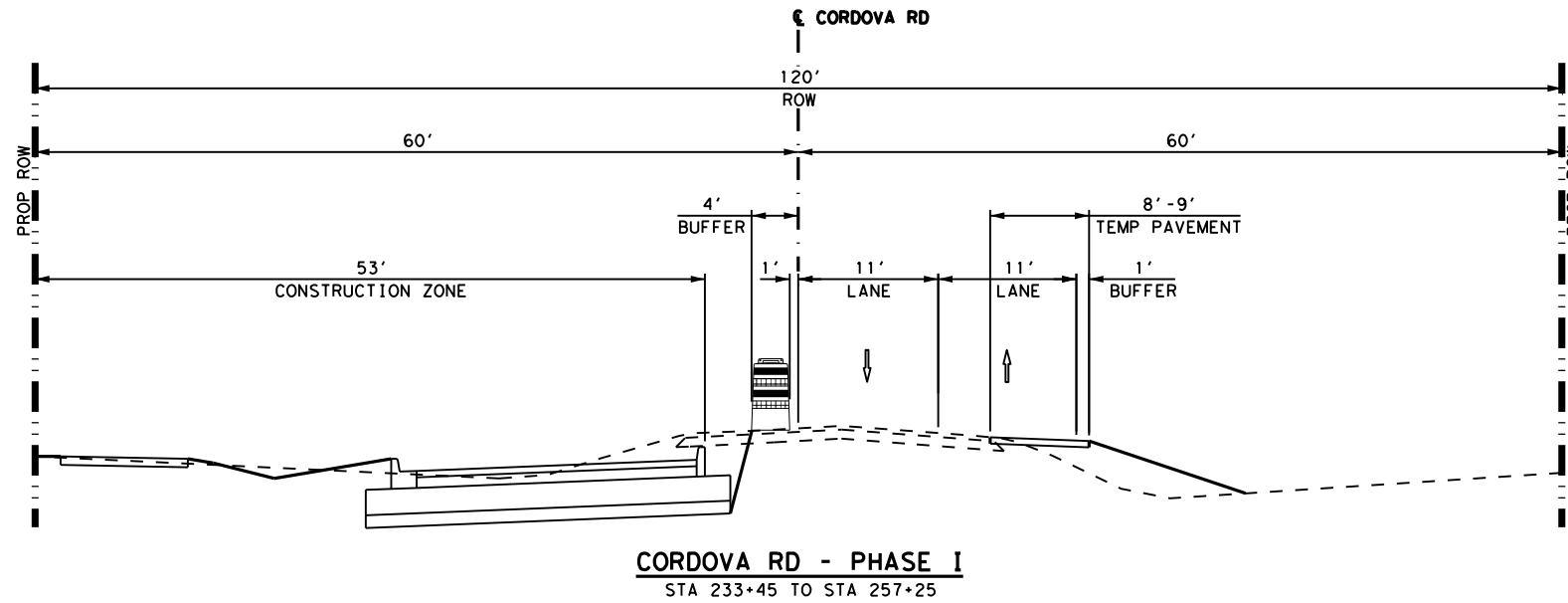
SHEET 2 OF 3

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK	SAT	GUADALUPE	0915	45	052	34

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_Typico102.dgn

Plotted on: 7/27/2023

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CORDOVA RD - PHASE I
STA 233+45 TO STA 257+25

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P. E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

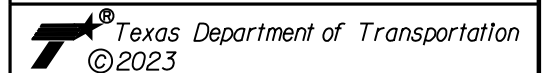
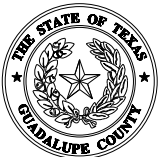
REV. NO.	DATE	DESCRIPTION	BY
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PAPE-DAWSON ENGINEERS
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2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



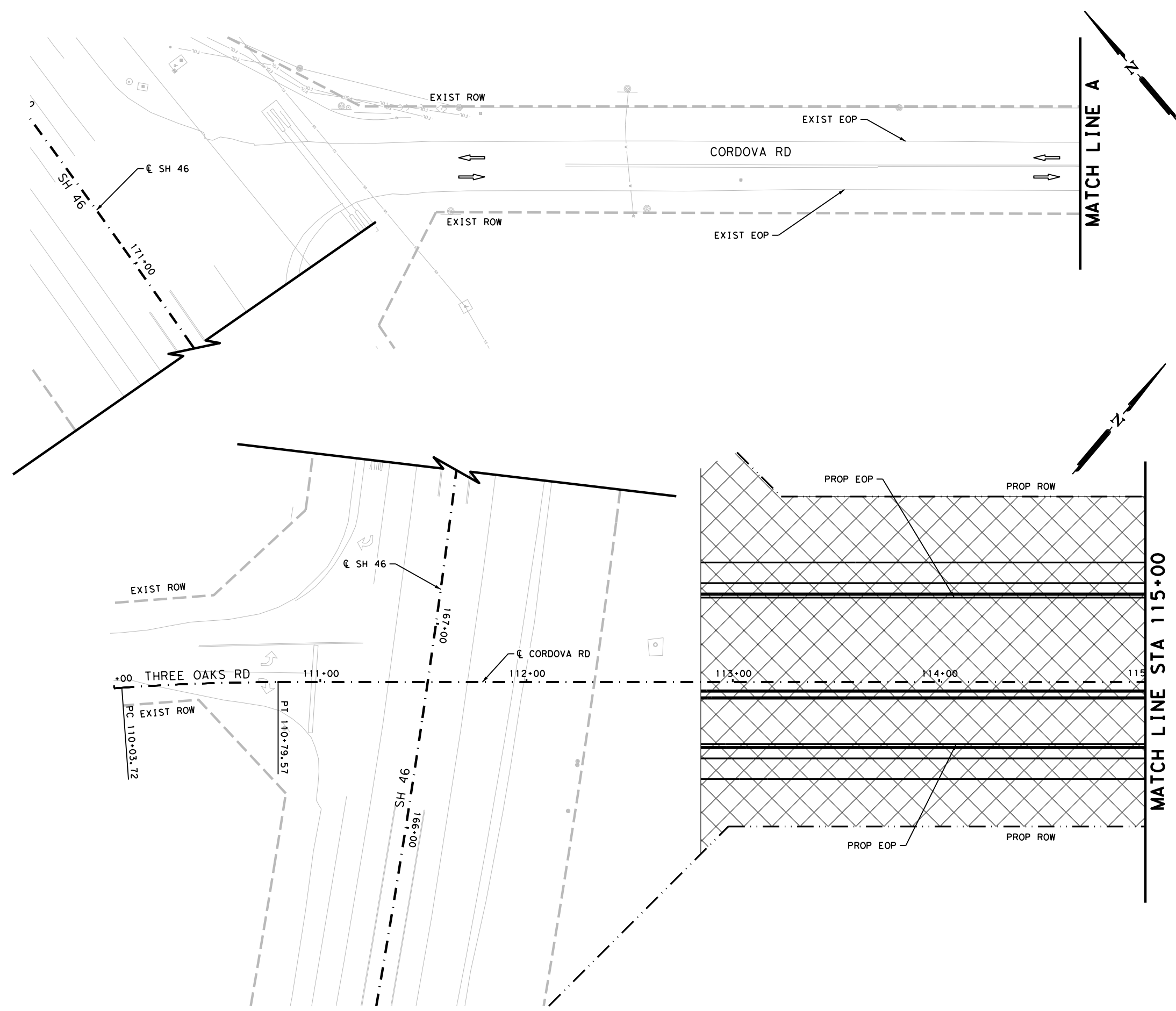
CORDOVA RD
**TRAFFIC CONTROL PLAN
TYPICAL SECTIONS
PHASE I**

SHEET 3 OF 3

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN:	6	TEXAS				CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	35

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_01.dgn



LEGEND

- CONSTRUCTION AREA PHASE I
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

- NOTES:**
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
 - EXISTING FEATURES ARE SHOWN SCREENED BACK.
 - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
 - ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
 - A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

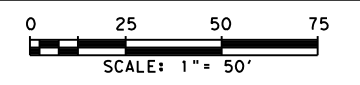
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY

Pape-Dawson Engineers

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

SEGUIN TEXAS

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Texas Department of Transportation
 ©2023

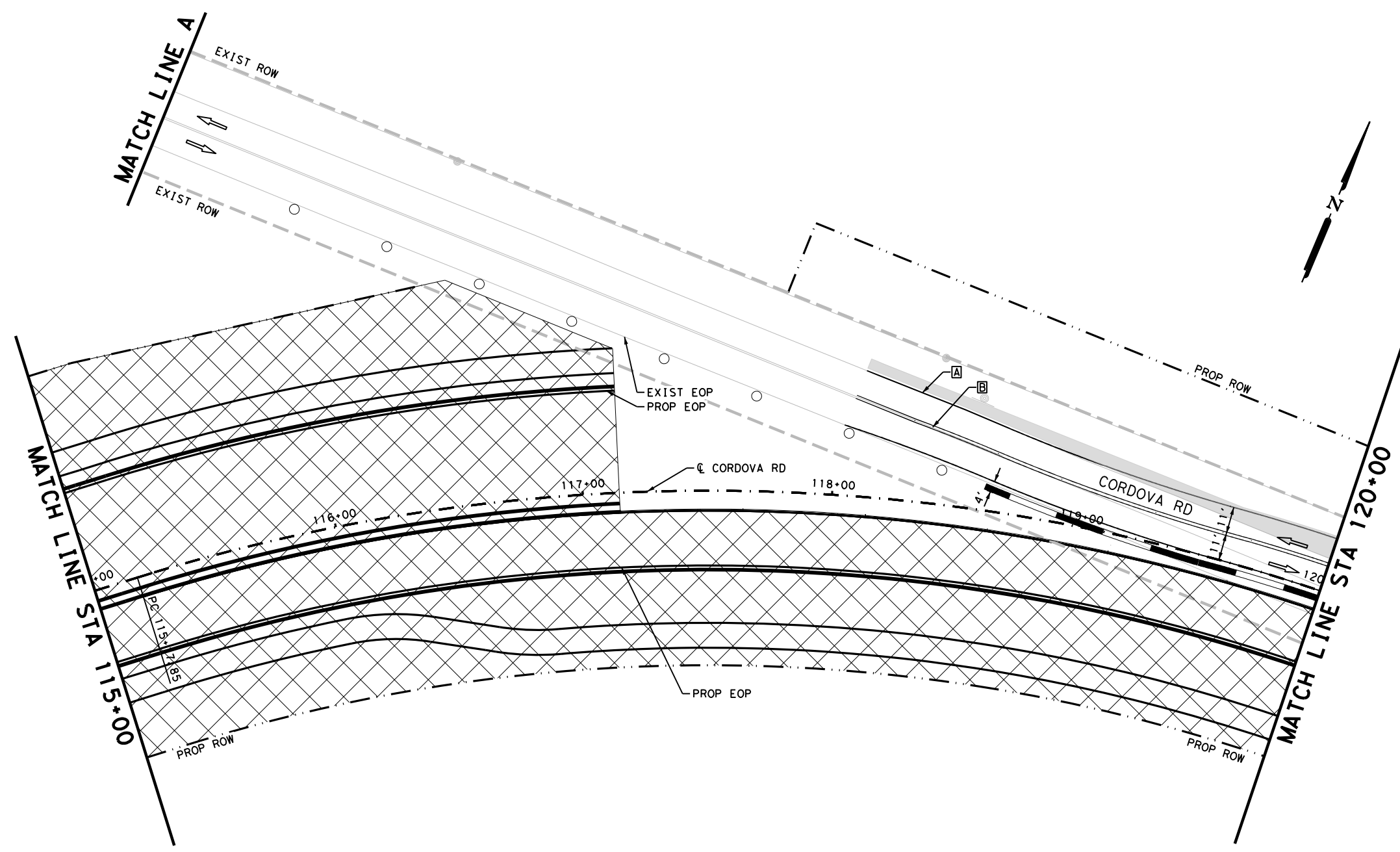
CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE I**

BEGIN PROJECT TO STA 115+00
 SHEET 1 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	36

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_02.dgn



LEGEND

CONSTRUCTION AREA PHASE 1
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

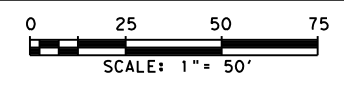
- NOTES:**
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
 - EXISTING FEATURES ARE SHOWN SCREENED BACK.
 - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
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 - A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 PAPE-DAWSON ENGINEERS SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			

SEGUIN TEXAS
 It's real.

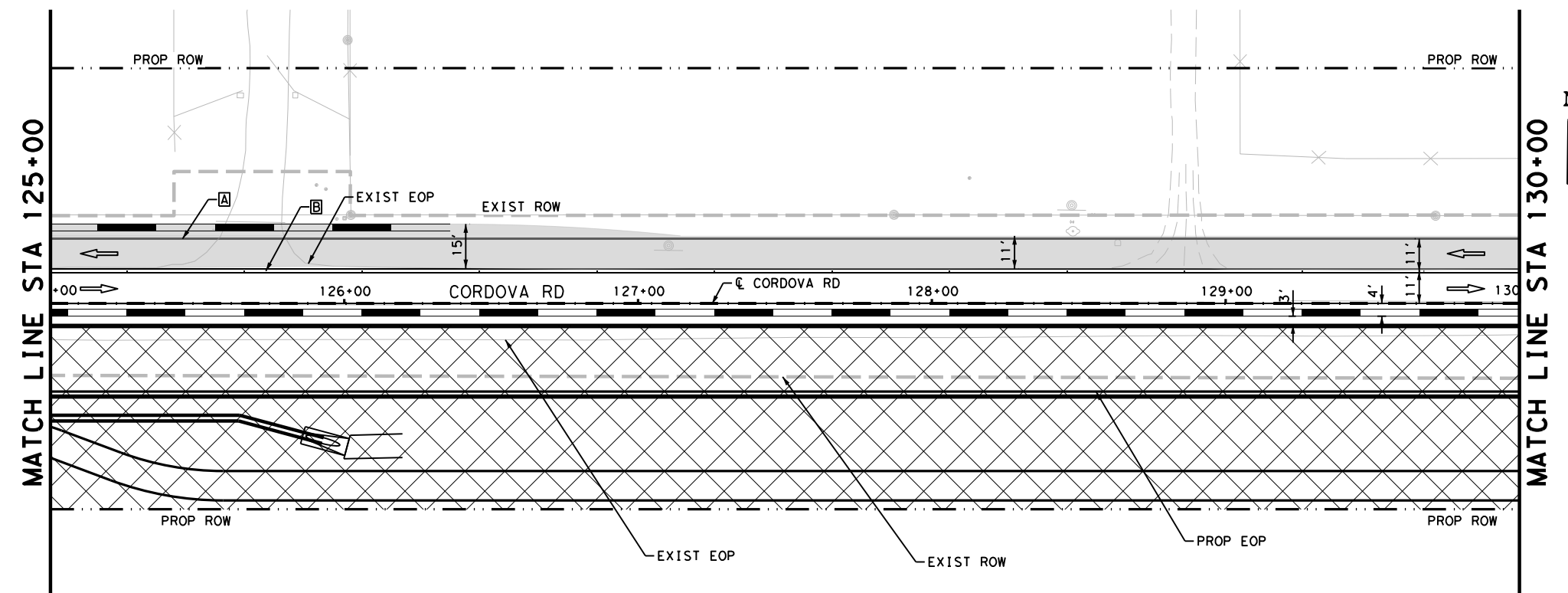
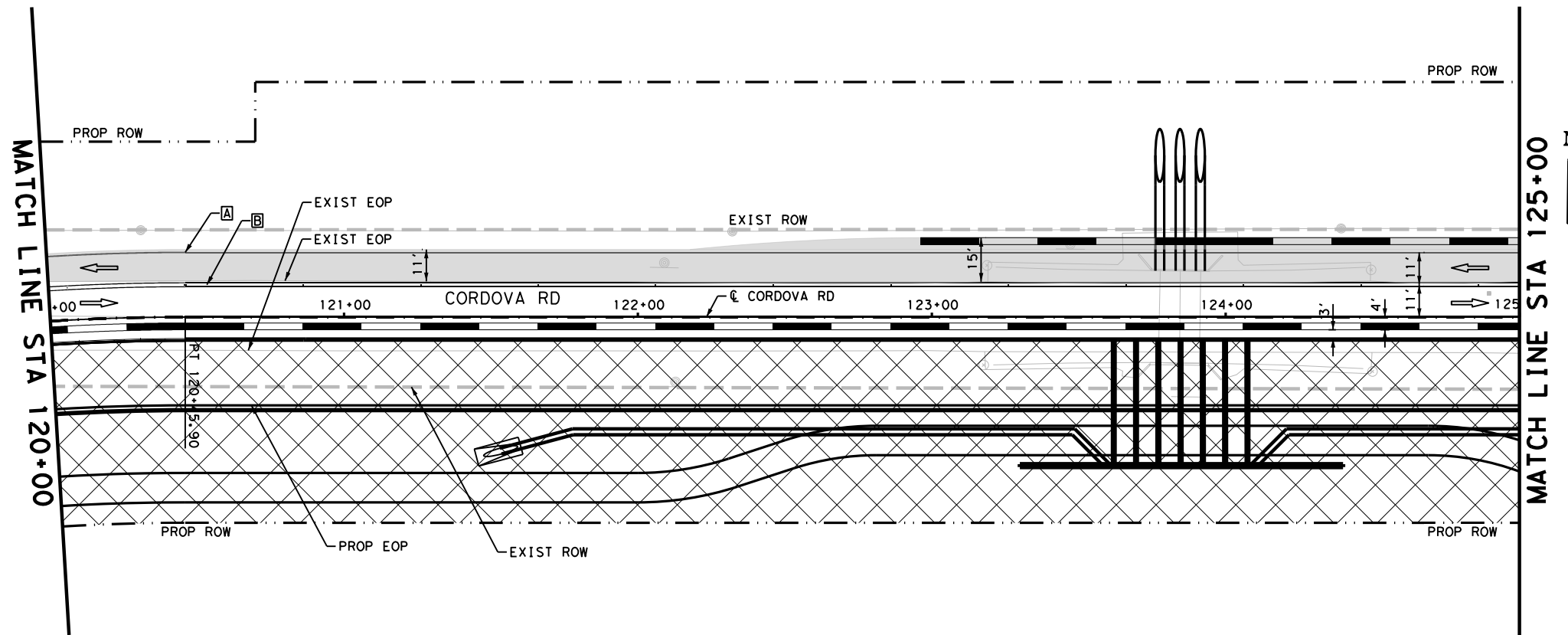
Texas Department of Transportation
 ©2023

CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE I**
 STA 115+00 TO STA 120+00
 SHEET 2 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	37

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_03.dgn



LEGEND

CONSTRUCTION AREA PHASE 1
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

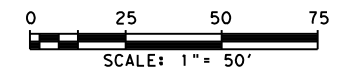
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
- EXISTING FEATURES ARE SHOWN SCREENED BACK.
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- A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



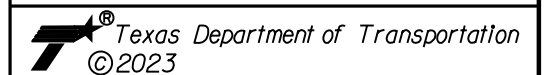
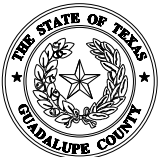
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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CORDOVA RD
TRAFFIC CONTROL PLAN
PHASE I

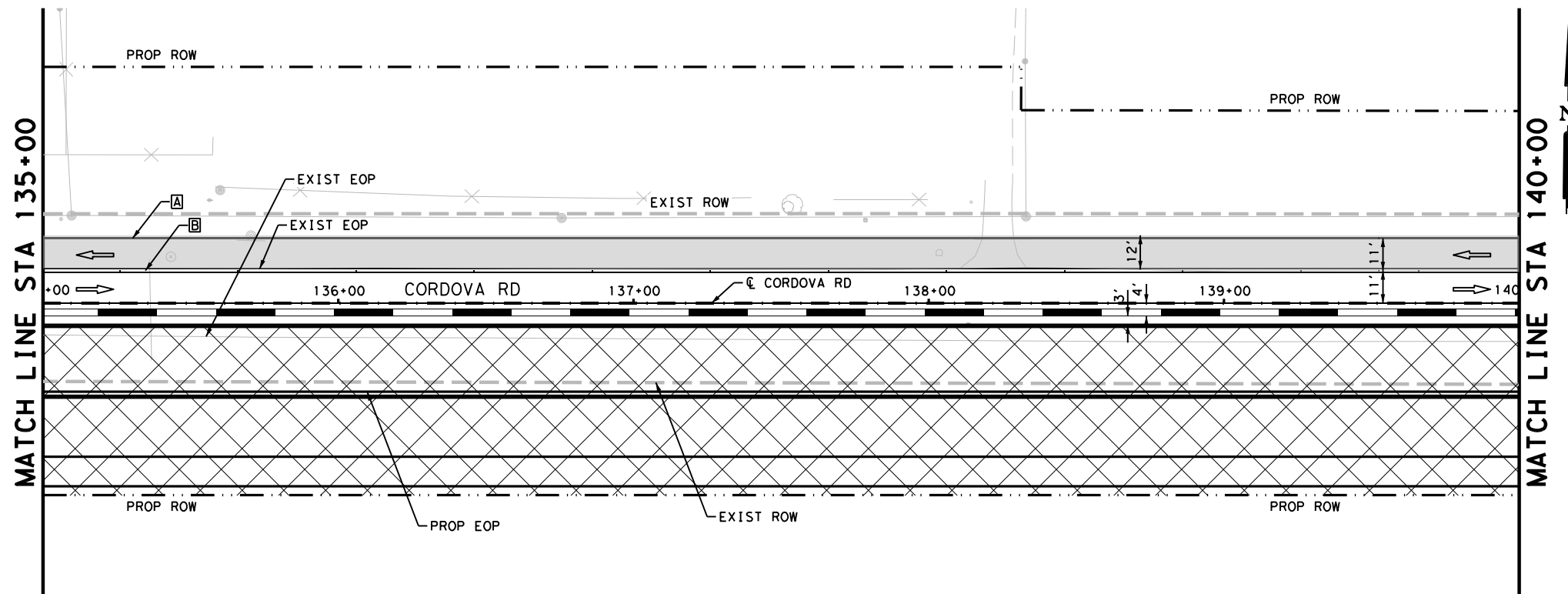
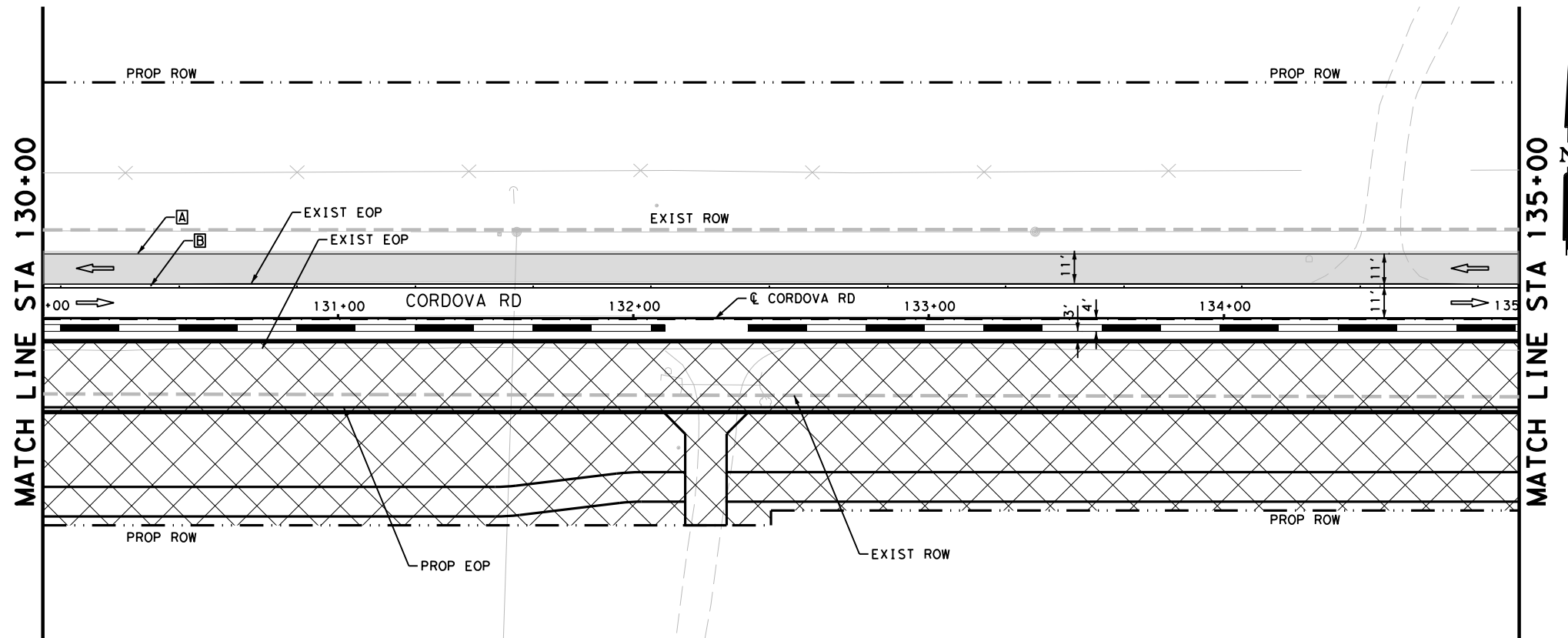
STA 120+00 TO STA 130+00

SHEET 3 OF 22

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	38

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PH1_04.dgn



LEGEND

CONSTRUCTION AREA PHASE I
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

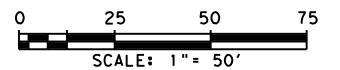
1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
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3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

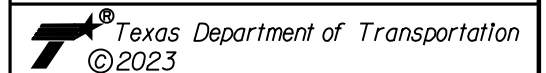
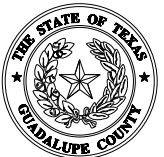
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY



PAPE-DAWSON ENGINEERS
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



CORDOVA RD
TRAFFIC CONTROL PLAN
PHASE I

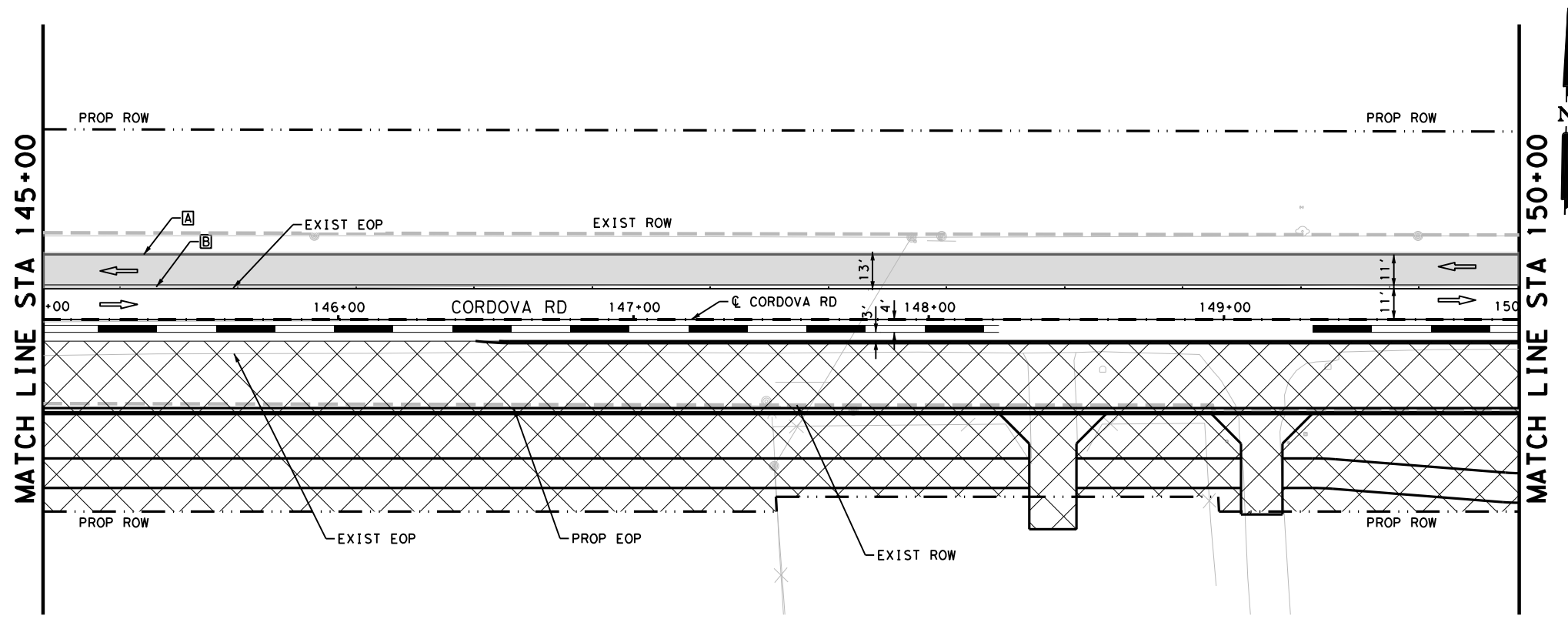
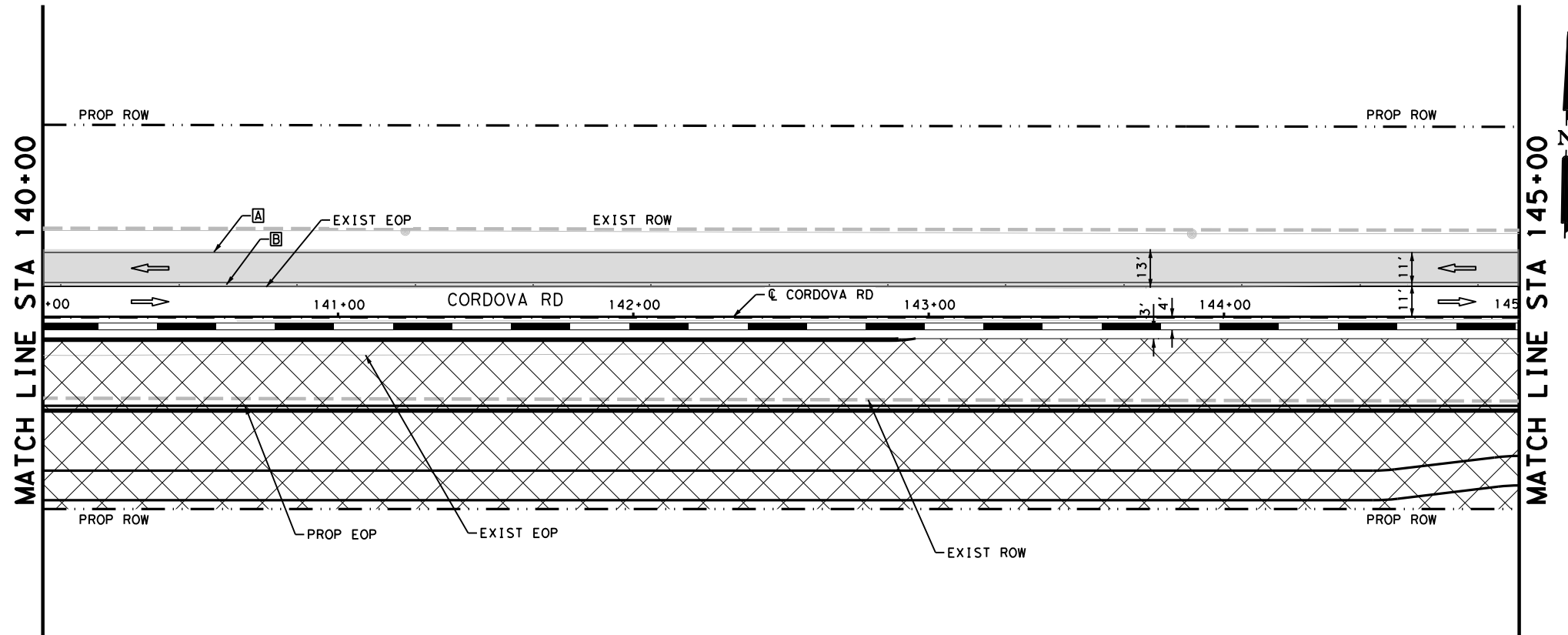
STA 130+00 TO STA 140+00

SHEET 4 OF 22

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	39

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PH1_05.dgn



LEGEND

CONSTRUCTION AREA PHASE 1
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

- NOTES:**
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
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DESIGN

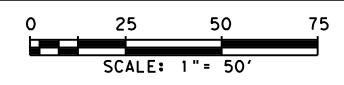
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

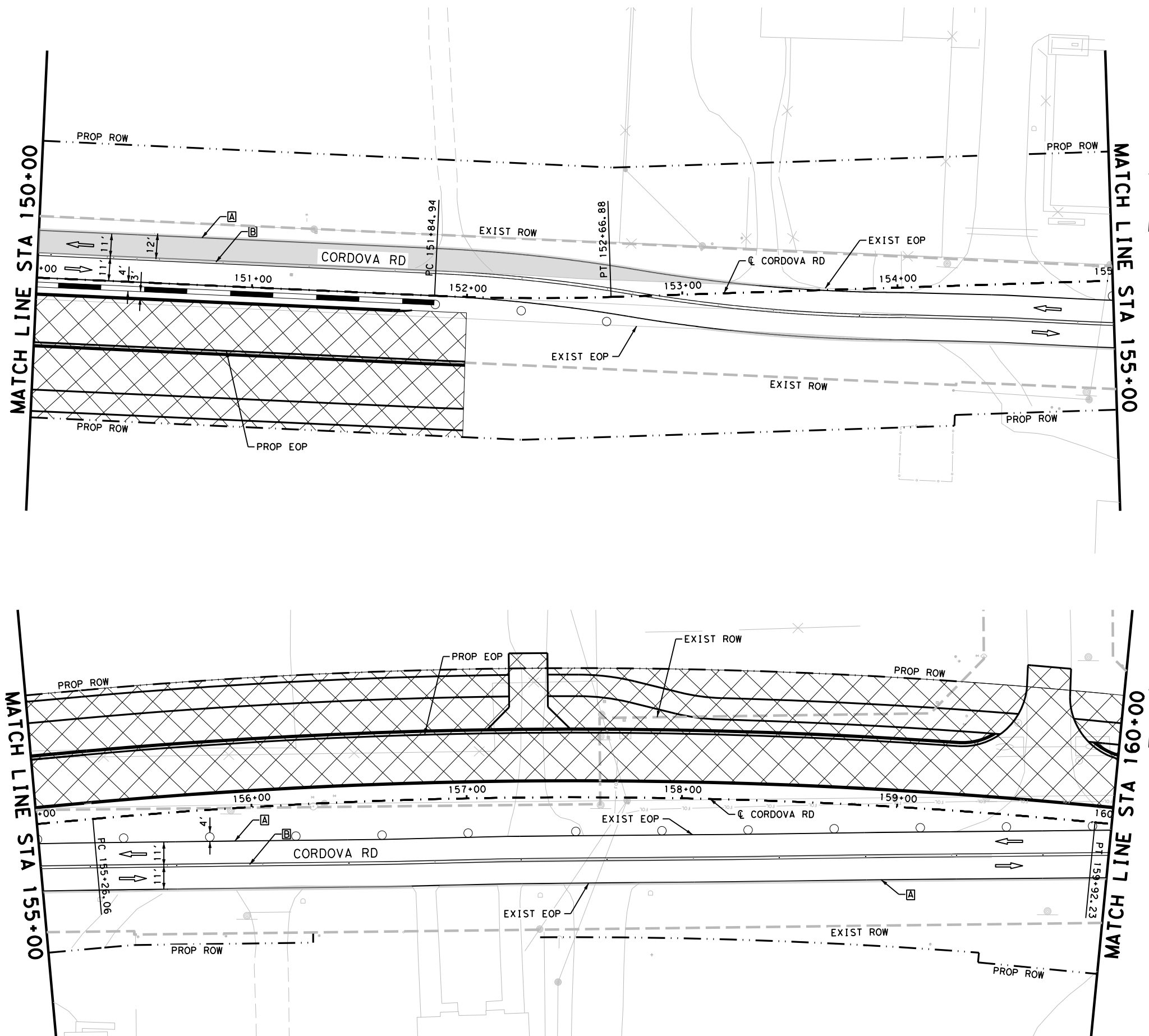
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE I			
STA 140+00 TO STA 150+00 SHEET 5 OF 22			
DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO.
CHK:	SAT	GUADALUPE	0915 45 052 40

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_06.dgn



LEGEND

- CONSTRUCTION AREA PHASE I
- TYPE III BARRICADE
- TRAFFIC FLOW ARROWS
- SIGN
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)
- TEMPORARY PAVEMENT

- NOTES:**
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DESIGN

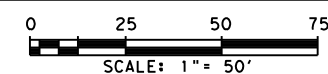
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

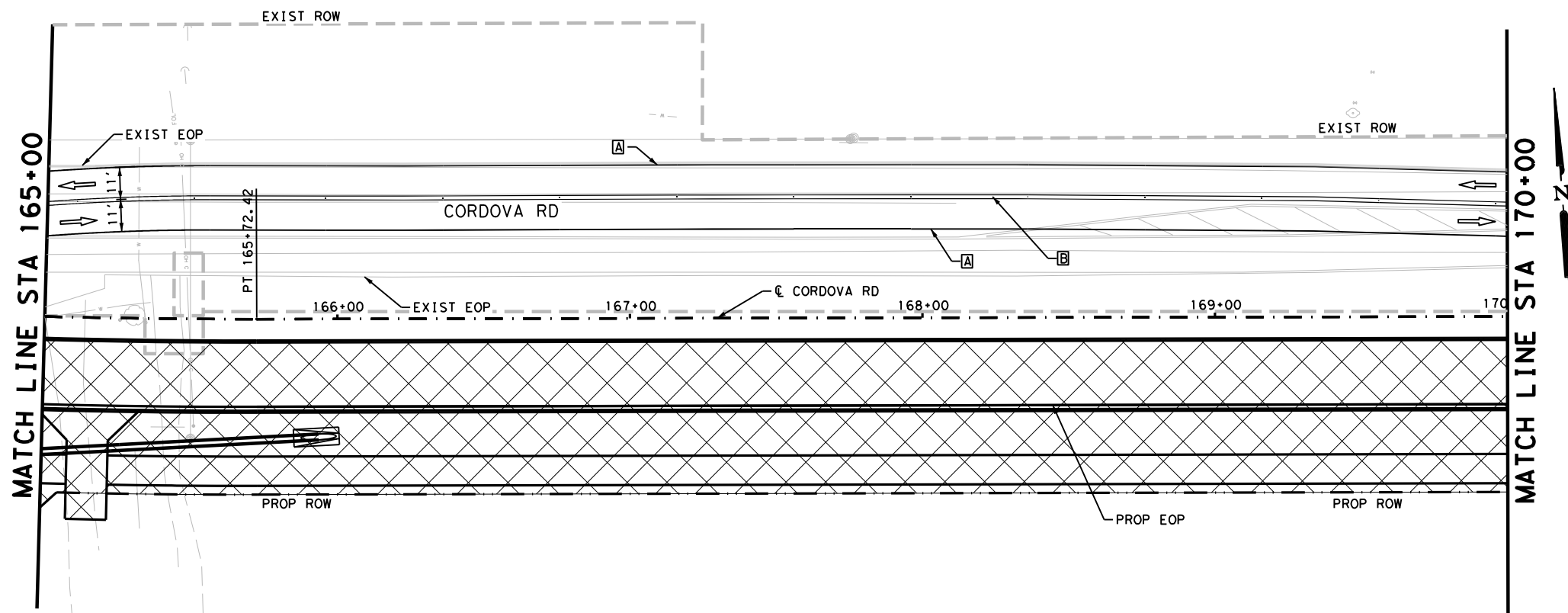
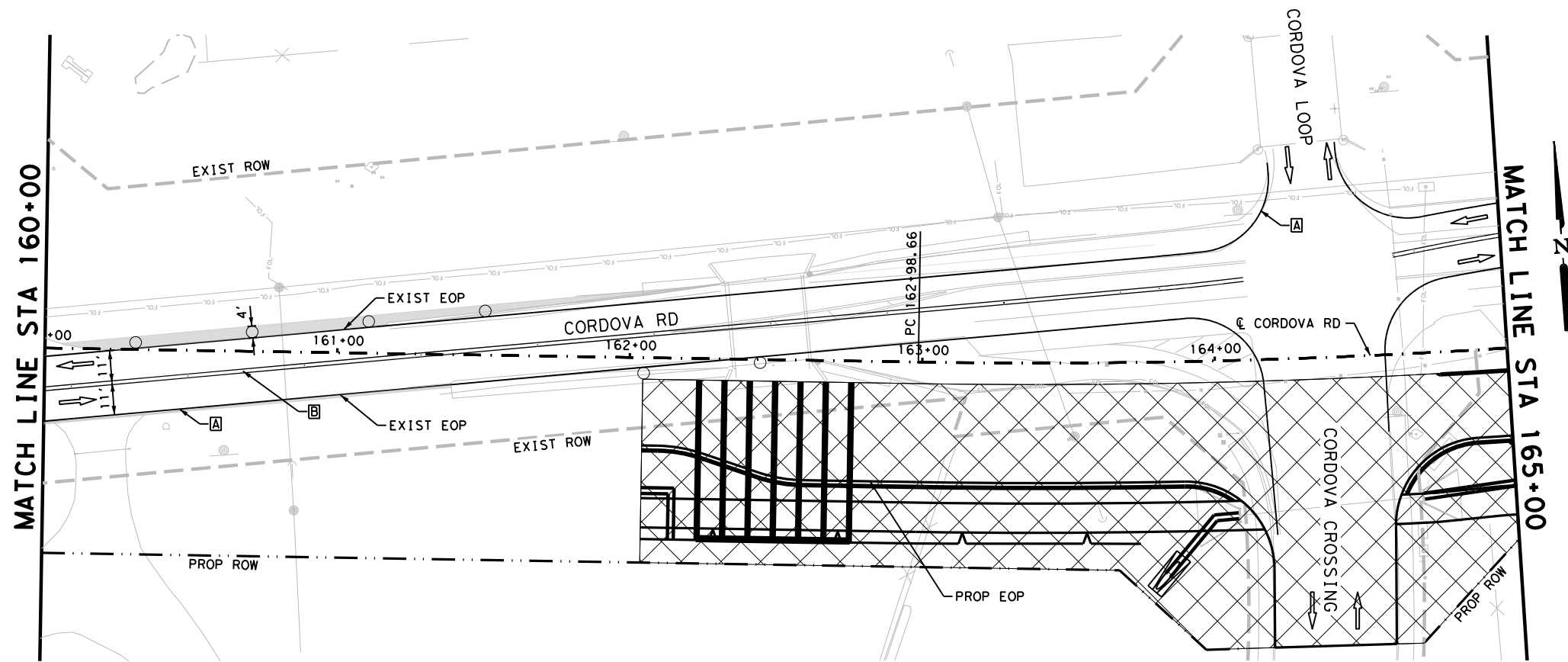
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
 It's real.			
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CORDOVA RD TRAFFIC CONTROL PLAN PHASE I STA 150+00 TO STA 160+00 SHEET 6 OF 22			
DCN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 41

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PHI_07.dgn



LEGEND

- CONSTRUCTION AREA PHASE 1
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P. E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

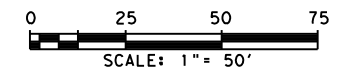
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P. E. SERIAL NO: 105193

DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE I**

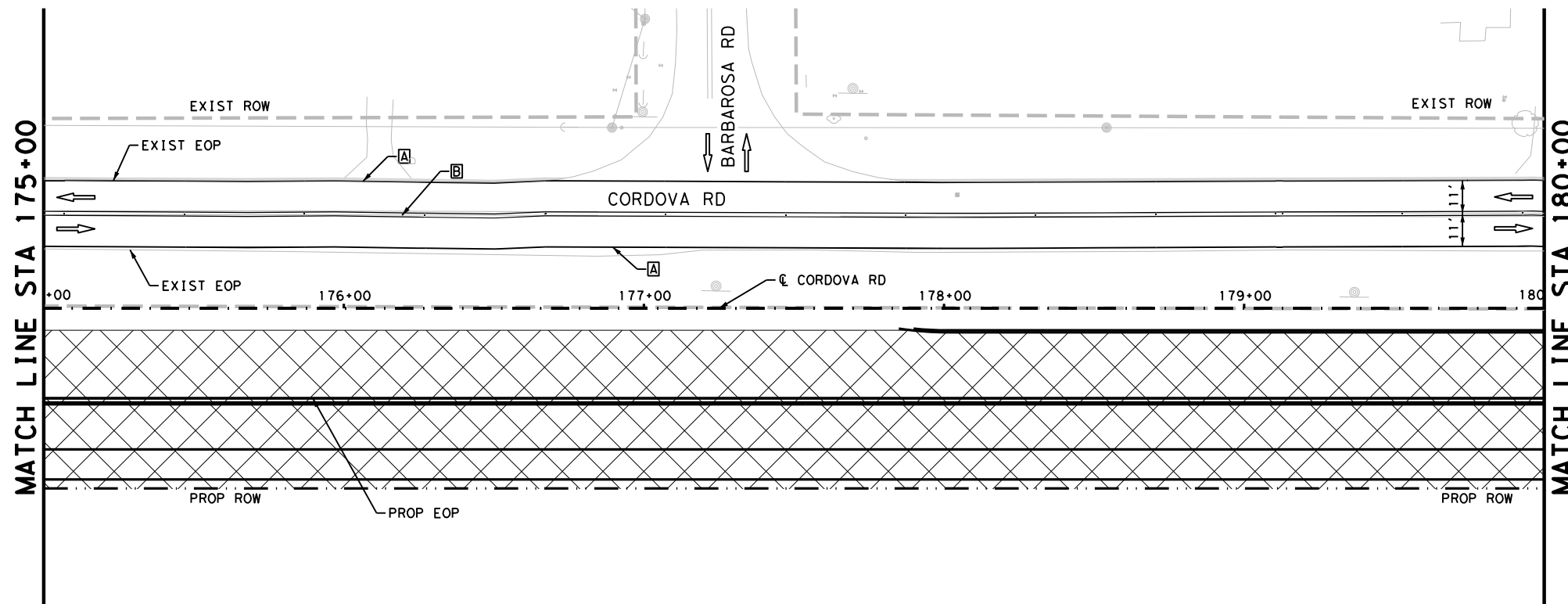
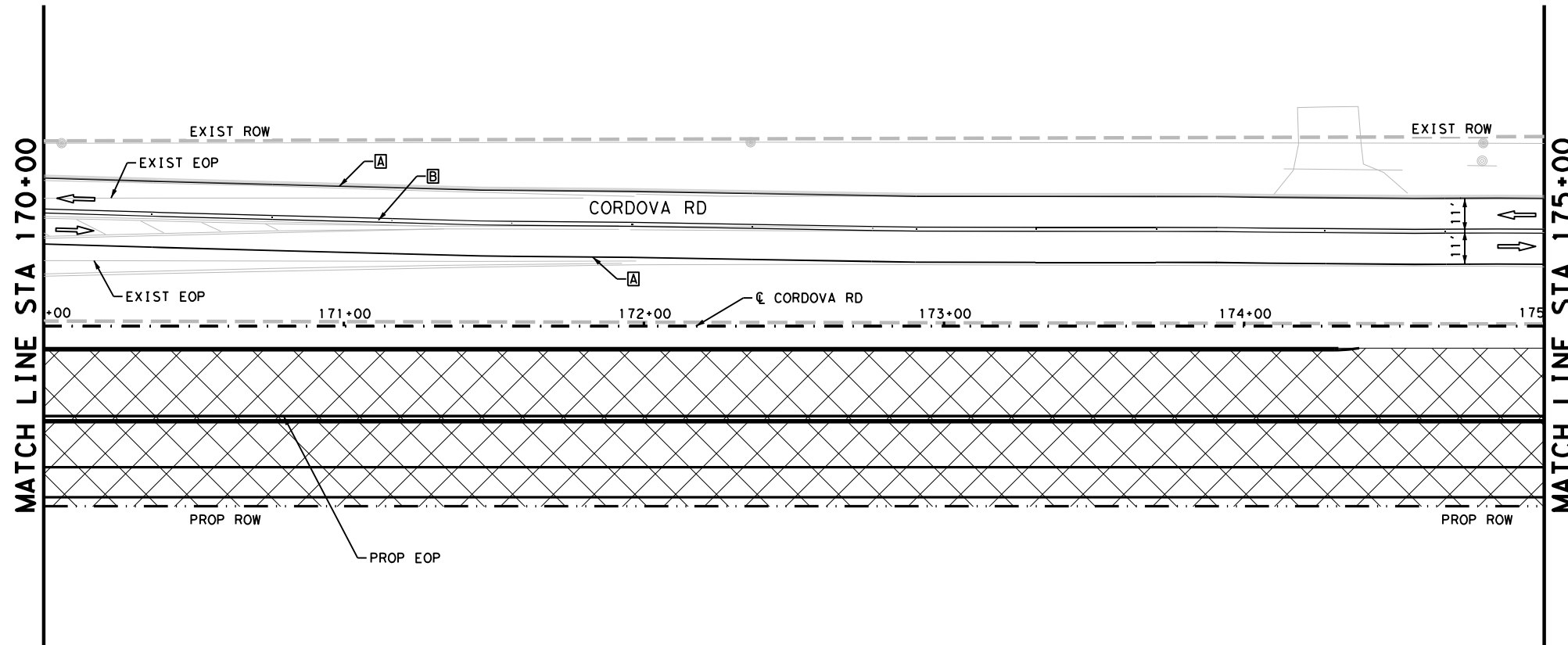
STA 160+00 TO STA 170+00

SHEET 7 OF 22

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	42

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PHI_08.dgn



LEGEND

CONSTRUCTION AREA PHASE I
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

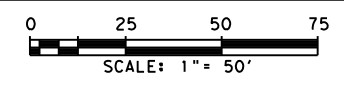
- NOTES:**
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
 - EXISTING FEATURES ARE SHOWN SCREENED BACK.
 - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
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 - A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

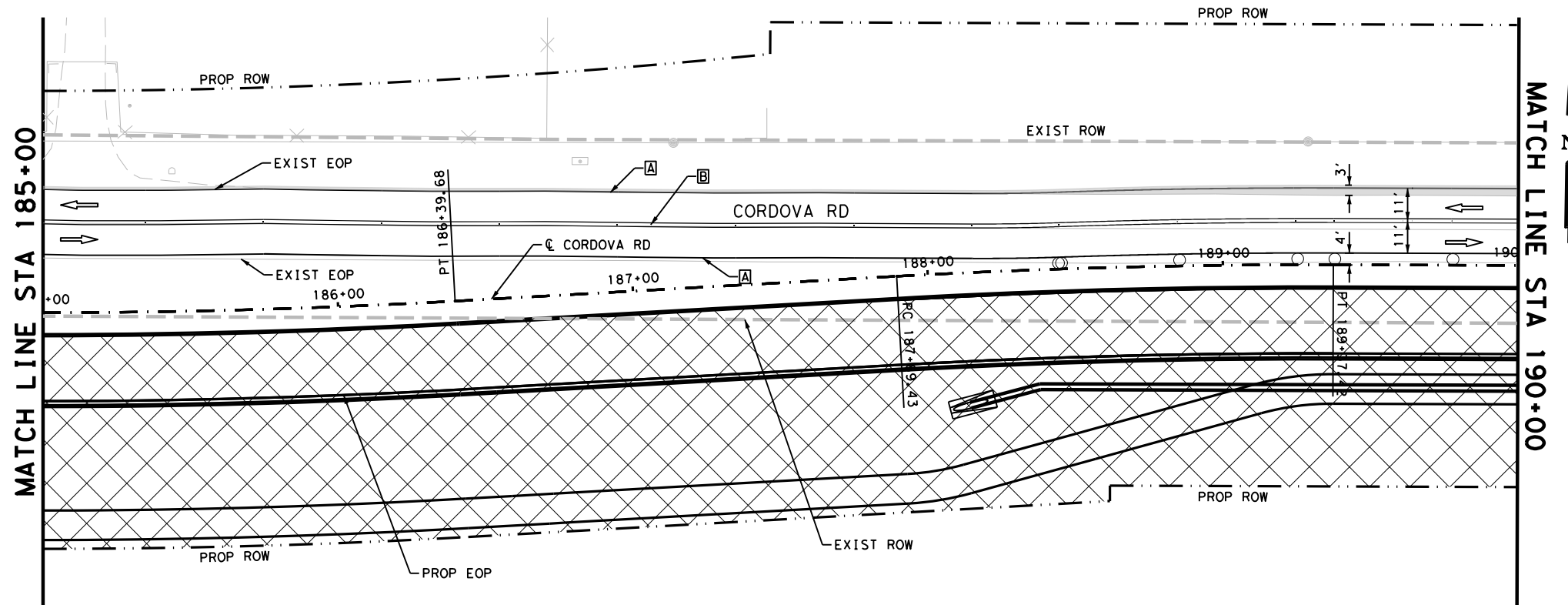
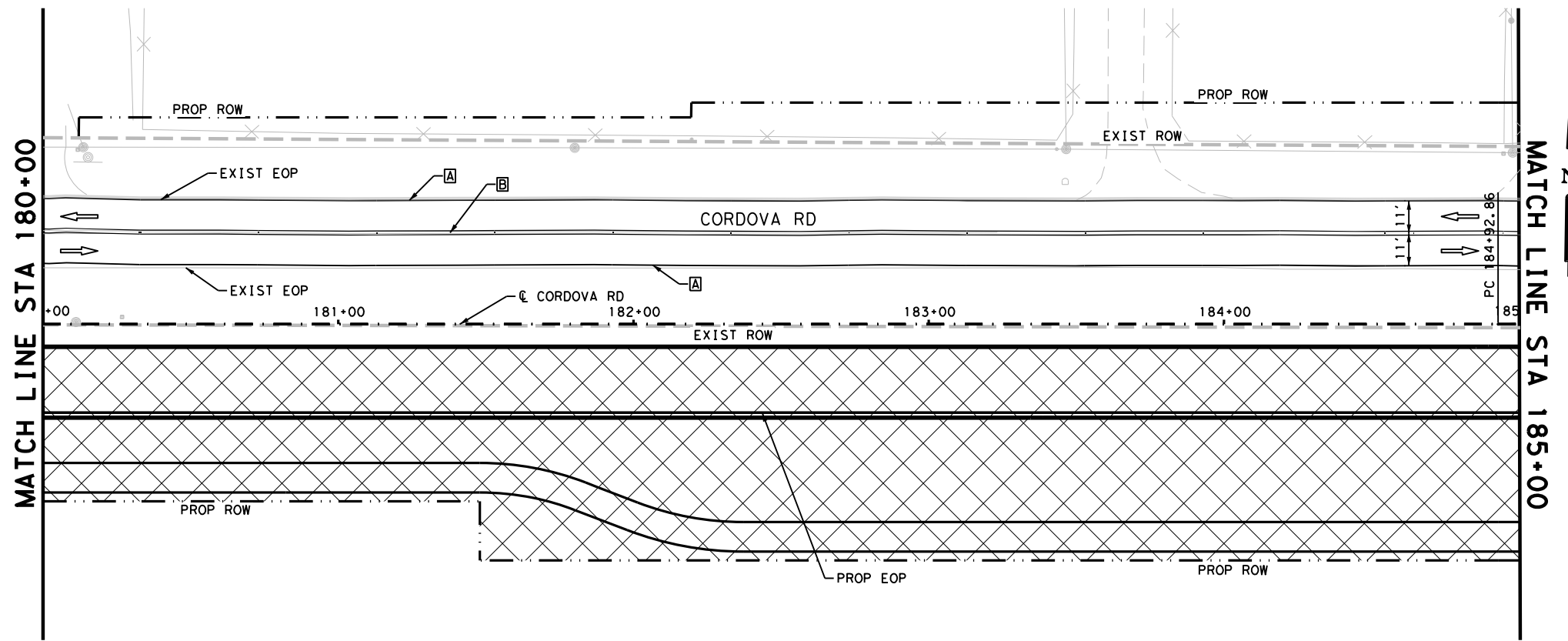
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
 It's real.			
 ©2023			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE I STA 170+00 TO STA 180+00 SHEET 8 OF 22			
DCN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.
CHK:	SAT	GUADALUPE	0915
			SECT. NO.
			45
			JOB NO.
			052
			SHEET NO.
			43

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_Phi_09.dgn



LEGEND

- CONSTRUCTION AREA PHASE 1
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
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5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

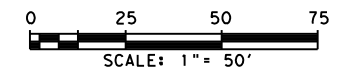
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

SEGUIN TEXAS

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THE STATE OF TEXAS
 GUADALUPE COUNTY

Texas Department of Transportation
 © 2023

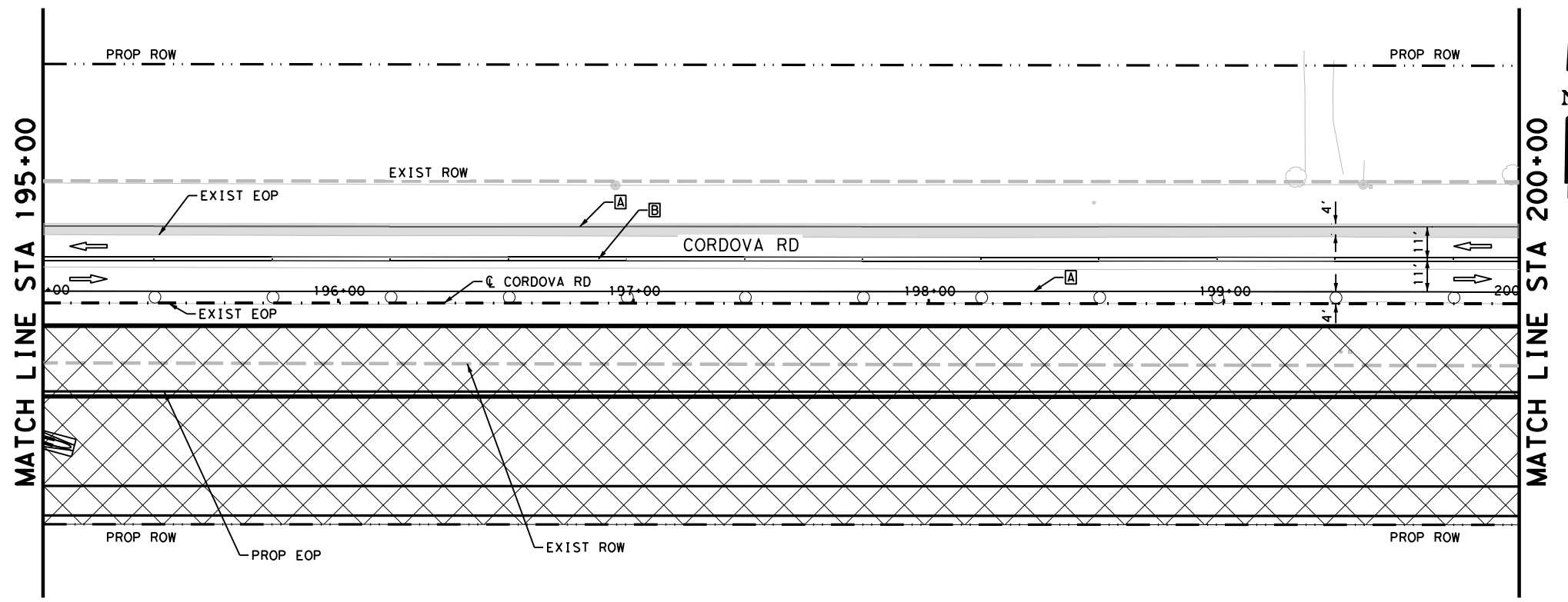
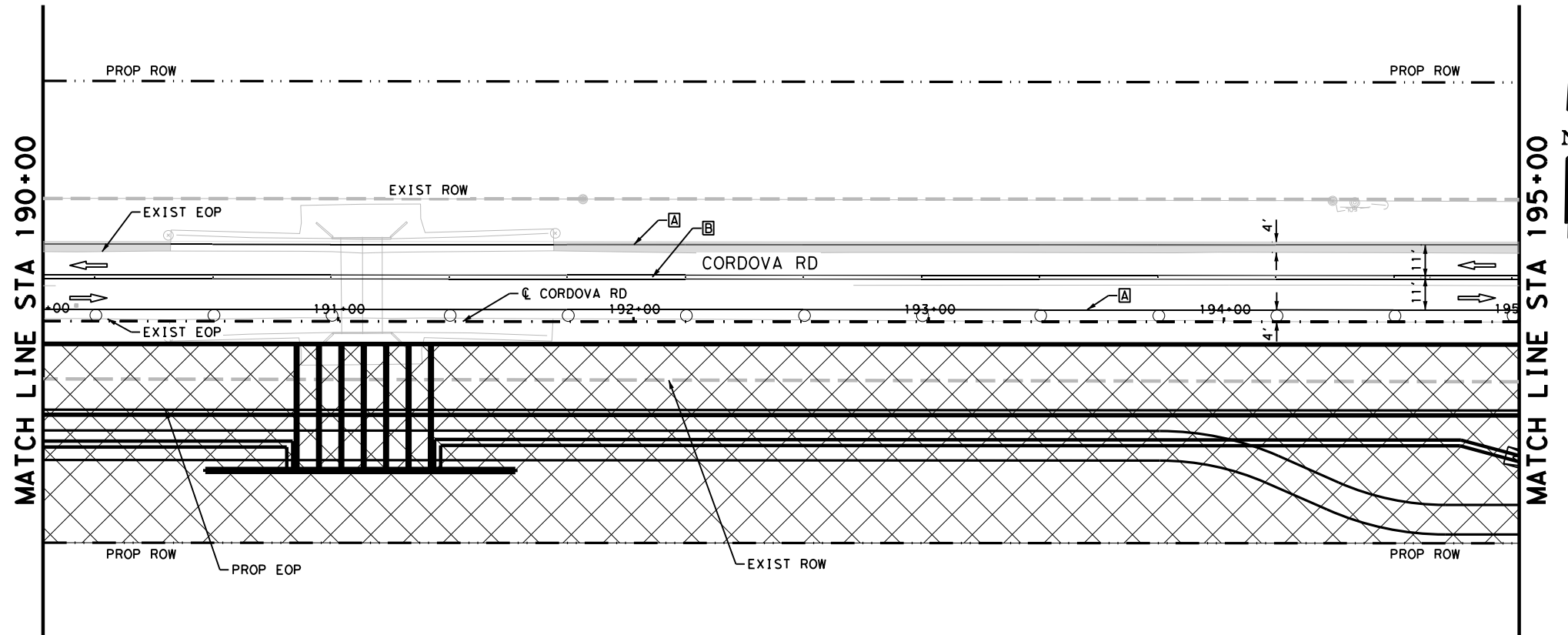
CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE I**

 STA 180+00 TO STA 190+00
 SHEET 9 OF 22

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	44

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_10.dgn



LEGEND

CONSTRUCTION AREA PHASE 1
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

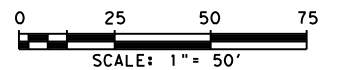
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



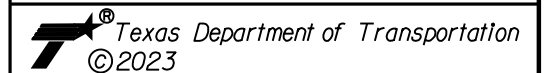
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



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CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE I**

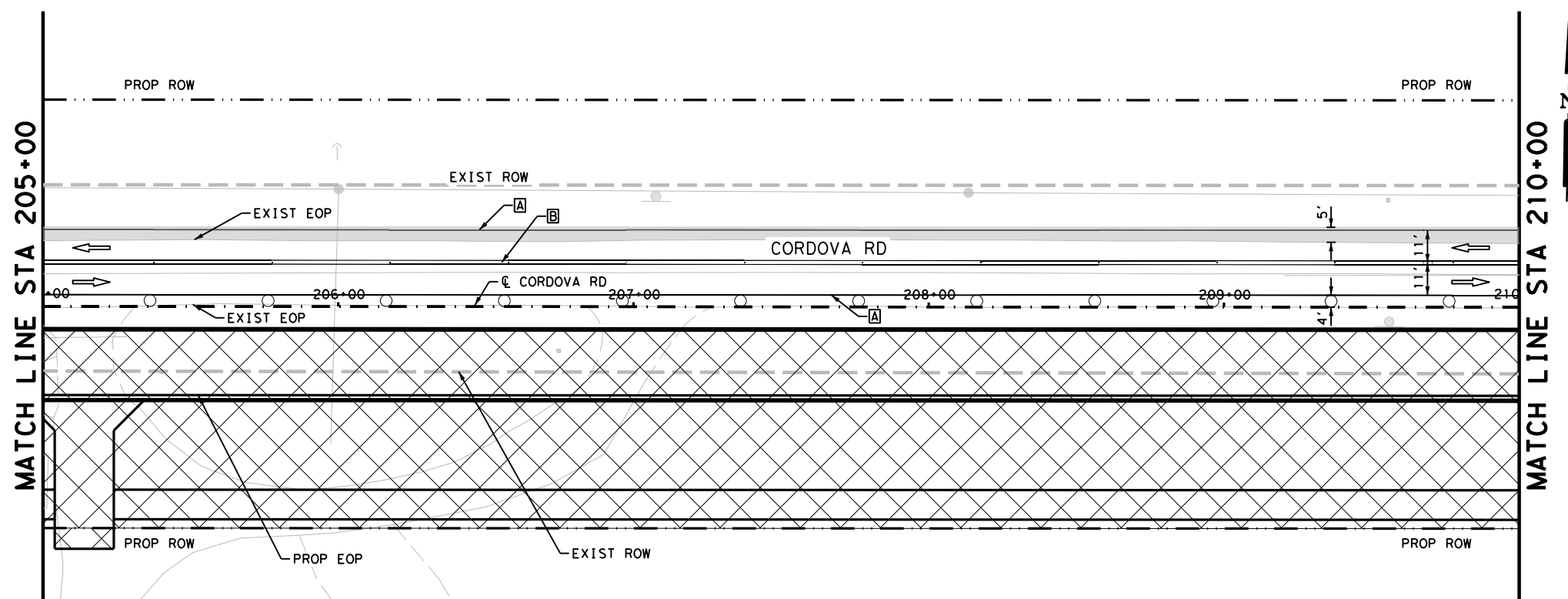
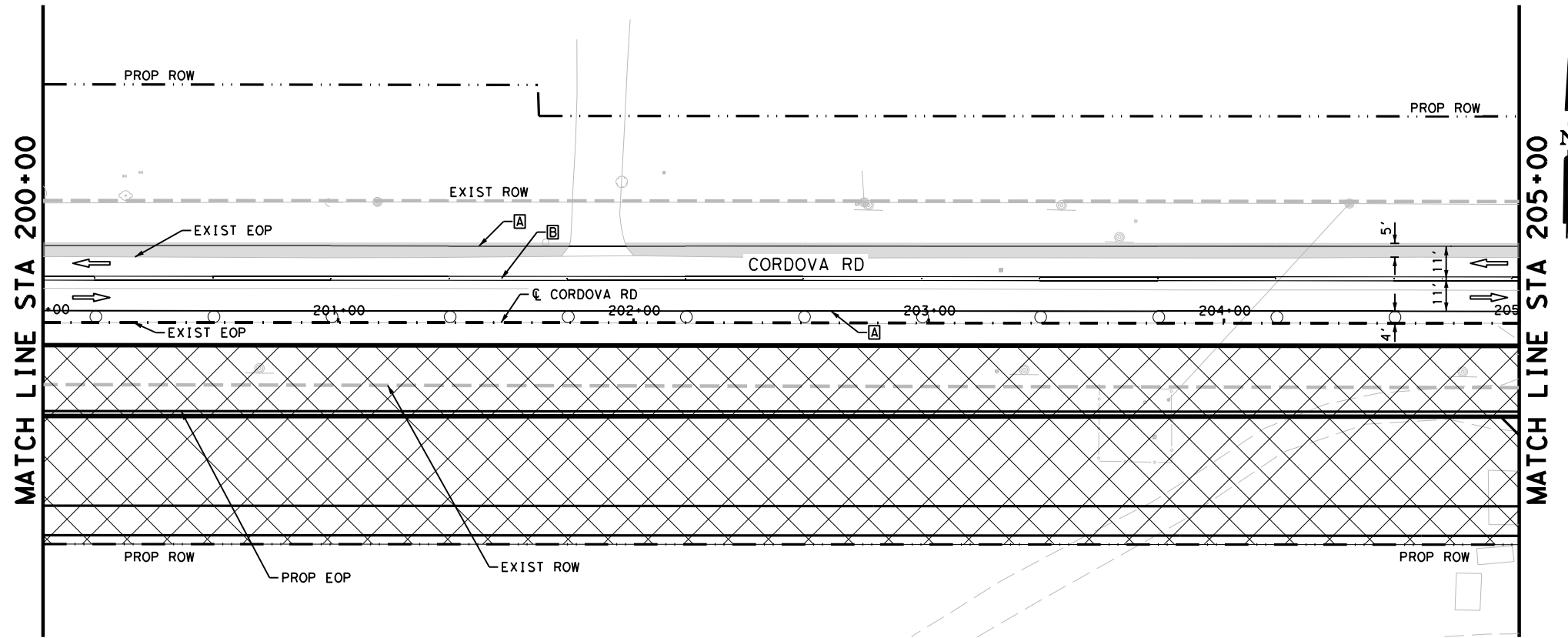
STA 190+00 TO STA 200+00

SHEET 10 OF 22

DGN:	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	45

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_11.dgn



LEGEND

CONSTRUCTION AREA PHASE 1
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

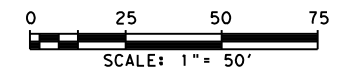
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
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- A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

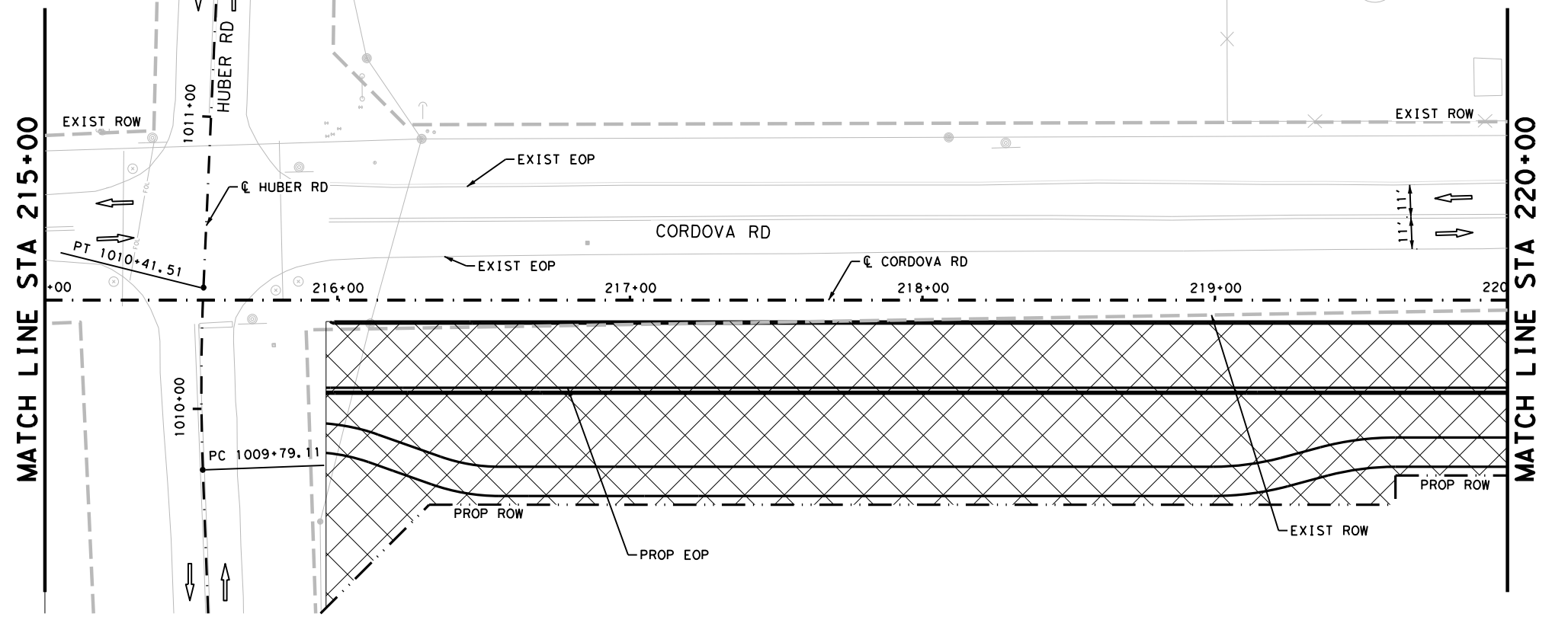
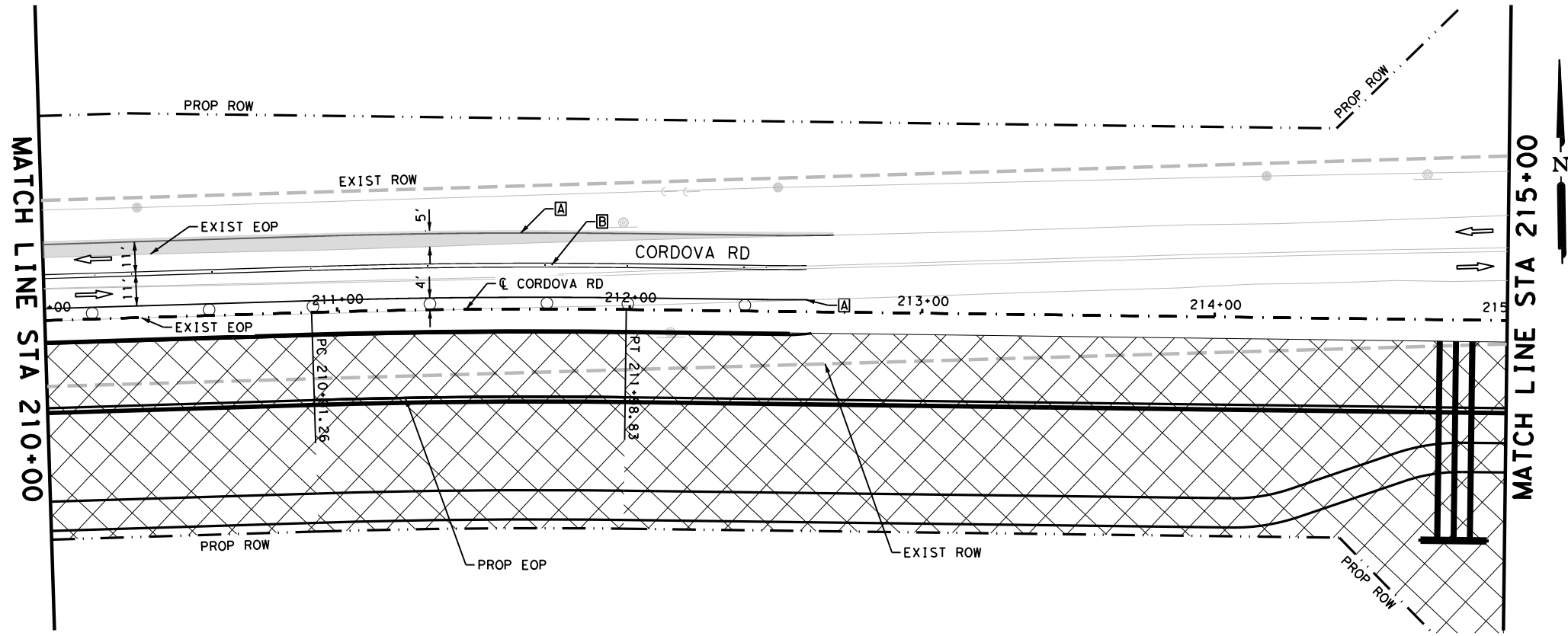
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
©2023			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE I STA 200+00 TO STA 210+00 SHEET 11 OF 22			
DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.
CHK:	SAT	GUADALUPE	0915
			SECT. NO.
			45
			JOB NO.
			052
			SHEET NO.
			46

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_12.dgn



LEGEND

- CONSTRUCTION AREA PHASE 1
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

- NOTES:**
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DESIGN

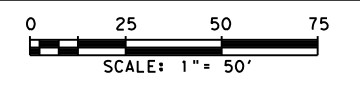
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY

Pape-Dawson Engineers

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

SEGUIN TEXAS

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Texas Department of Transportation
 ©2023

CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE I**

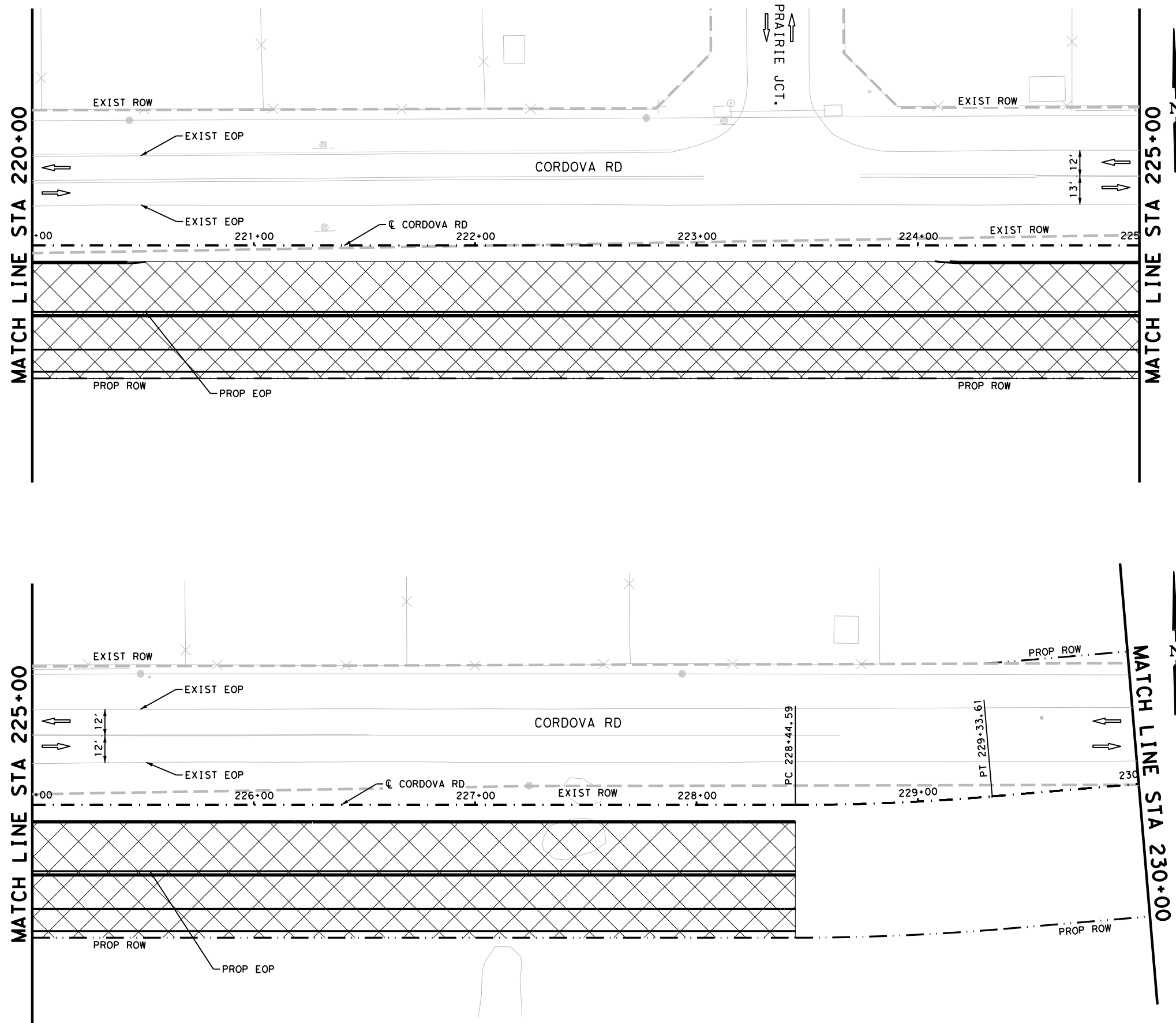
STA 210+00 TO STA 220+00

SHEET 12 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	47

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_13.dgn



LEGEND

- CONSTRUCTION AREA PHASE I
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

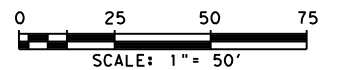
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



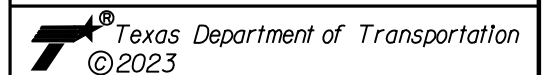
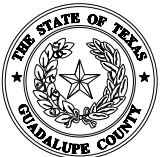
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD
TRAFFIC CONTROL PLAN
PHASE I

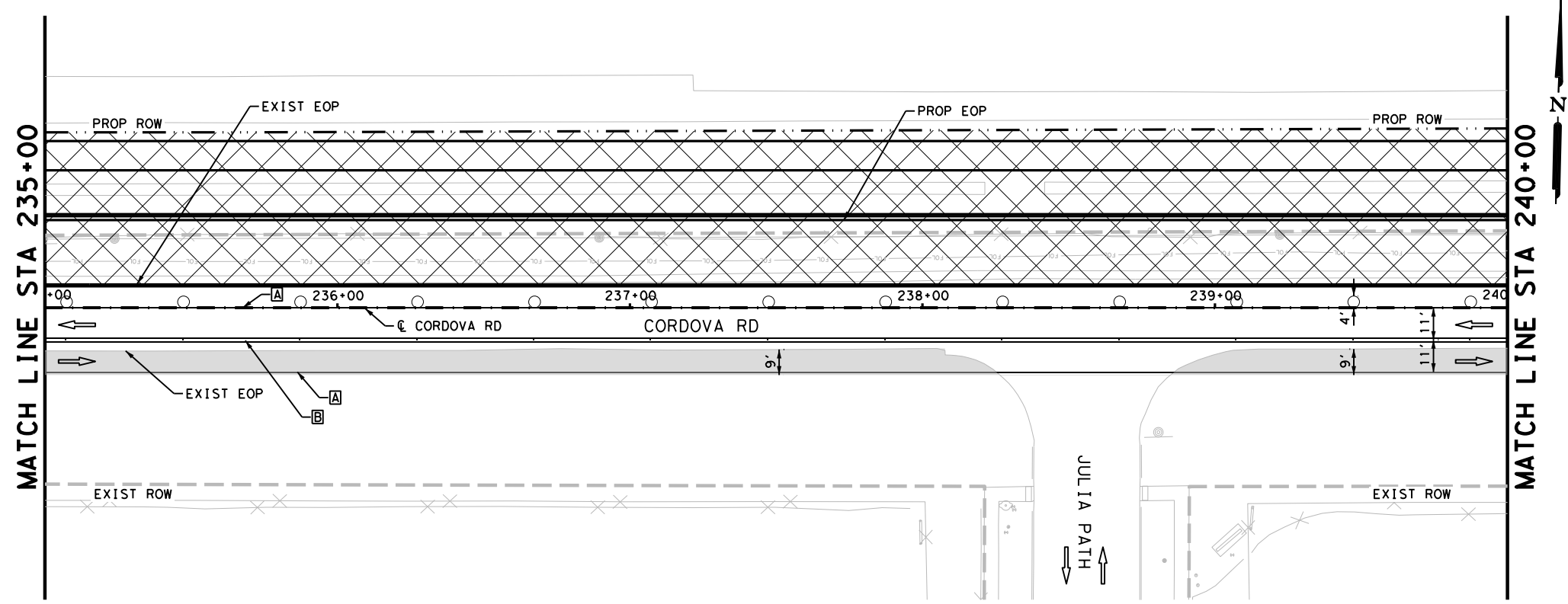
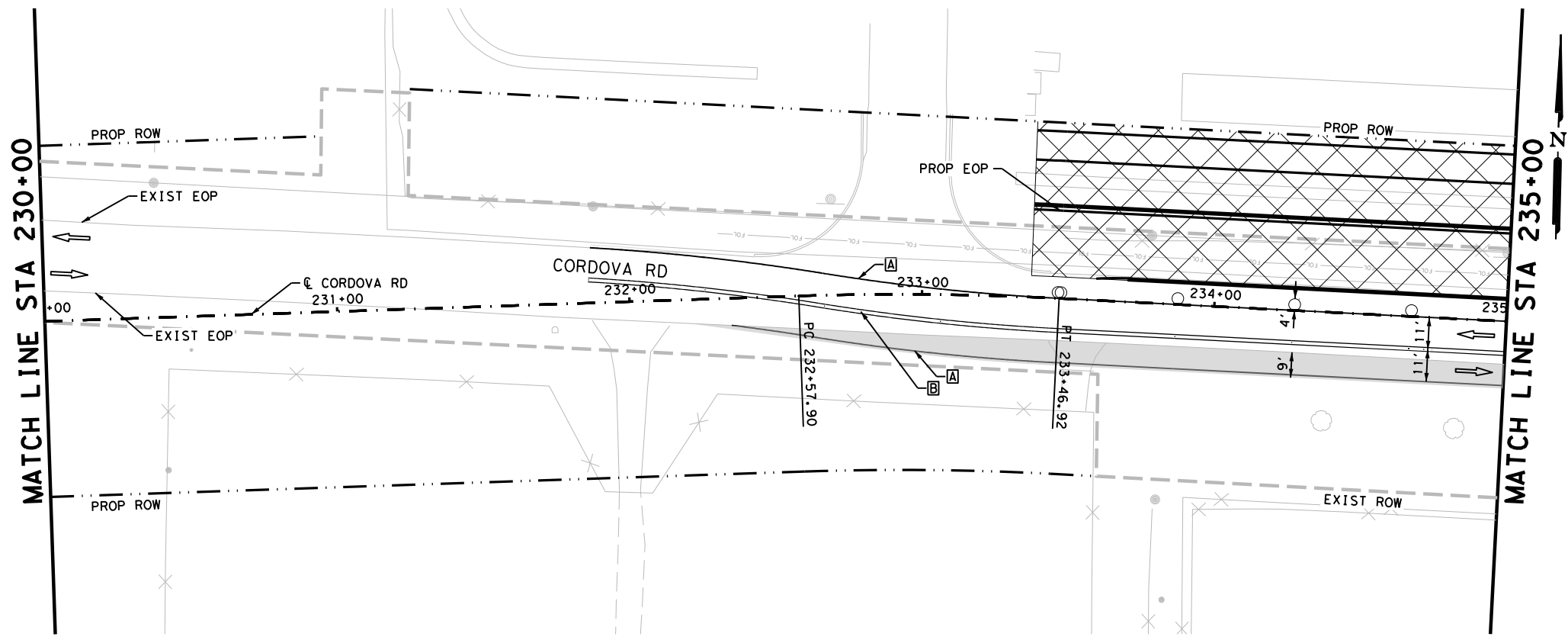
STA 220+00 TO STA 230+00

SHEET 13 OF 22

DWG:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DWG:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	48

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_14.dgn



LEGEND

- CONSTRUCTION AREA PHASE I
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

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DESIGN

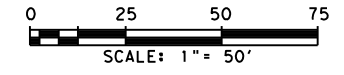
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

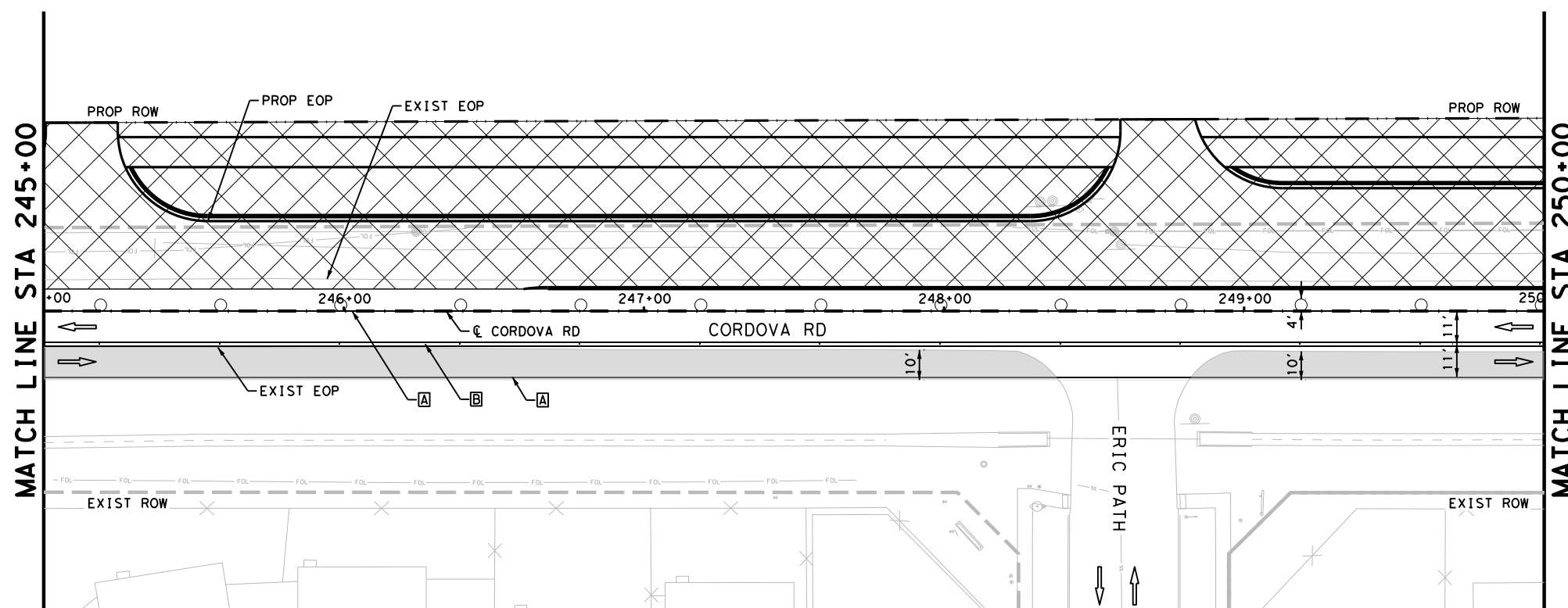
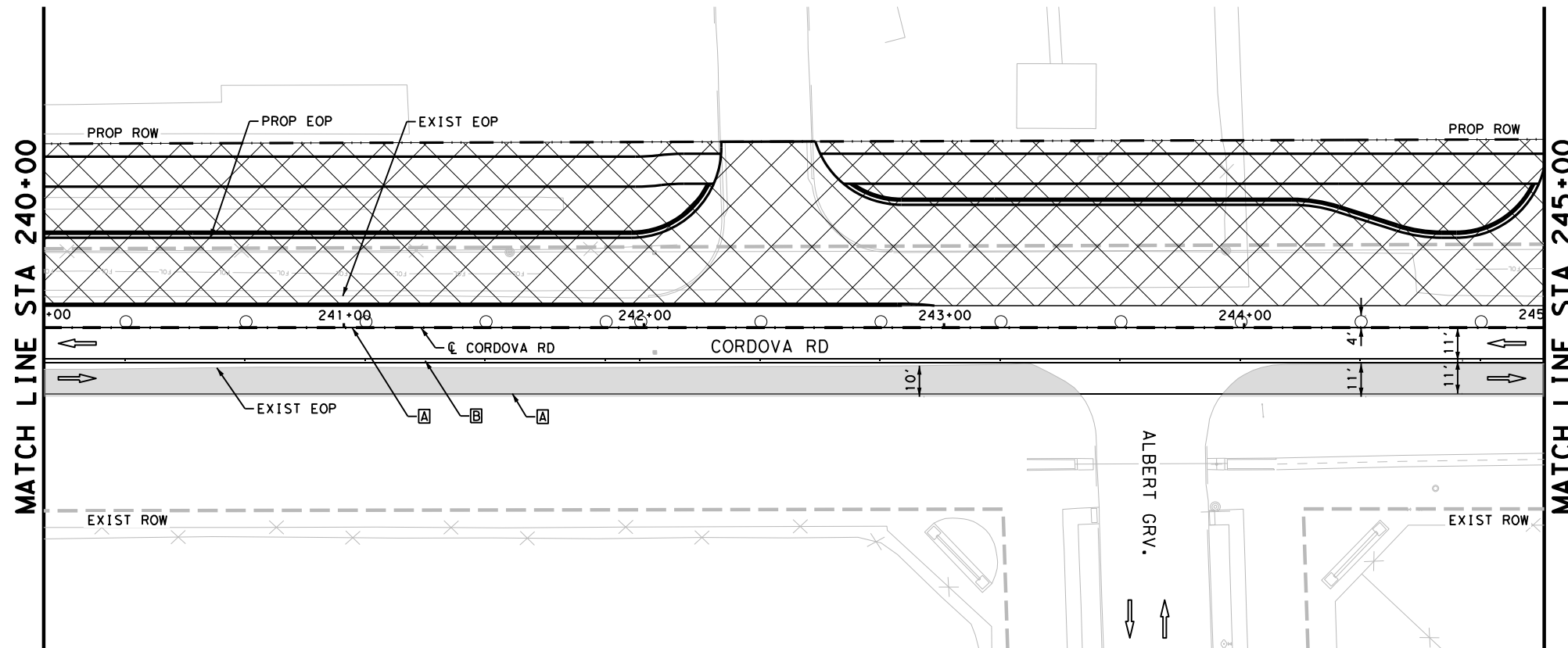
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
 It's real.			
 ©2023			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE I STA 230+00 TO STA 240+00 SHEET 14 OF 22			
DCN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	DIV. NO.:	TEXAS:	CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT:	GUADALUPE:	0915 45 052 49

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PH1_15.dgn



LEGEND

- CONSTRUCTION AREA PHASE I
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

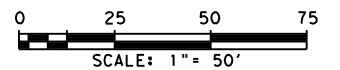
1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

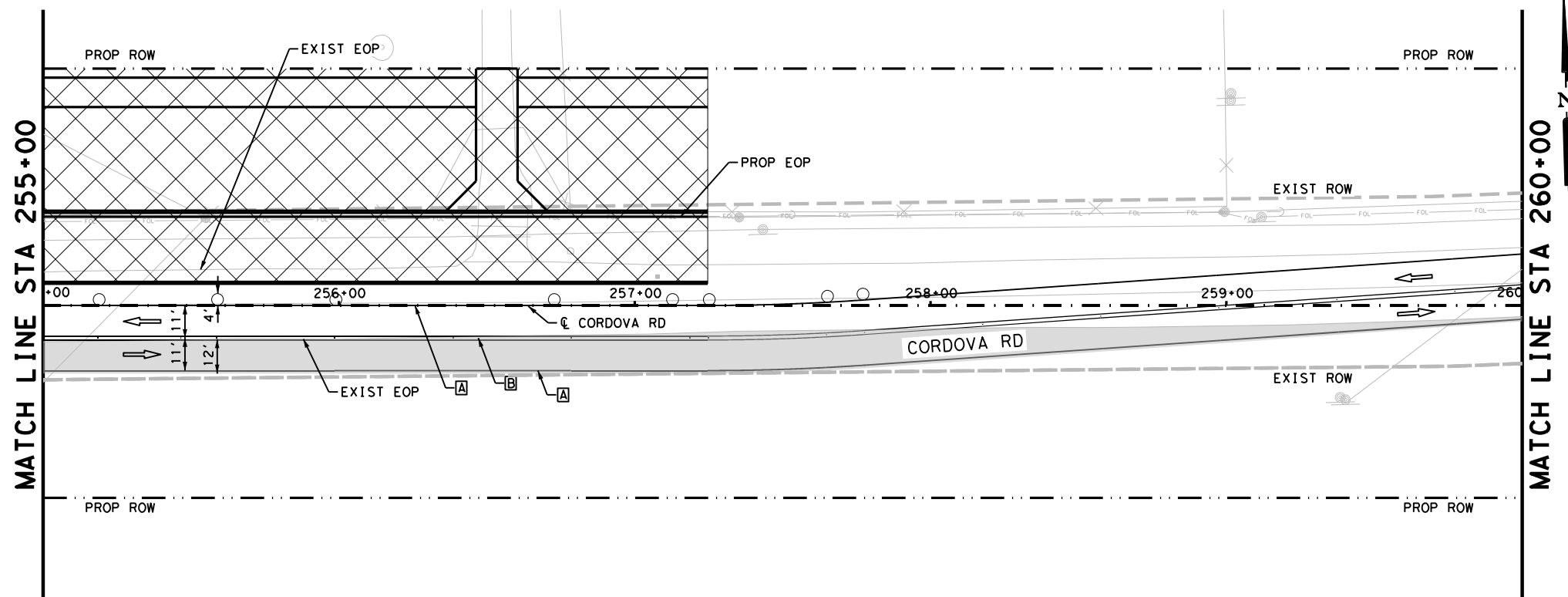
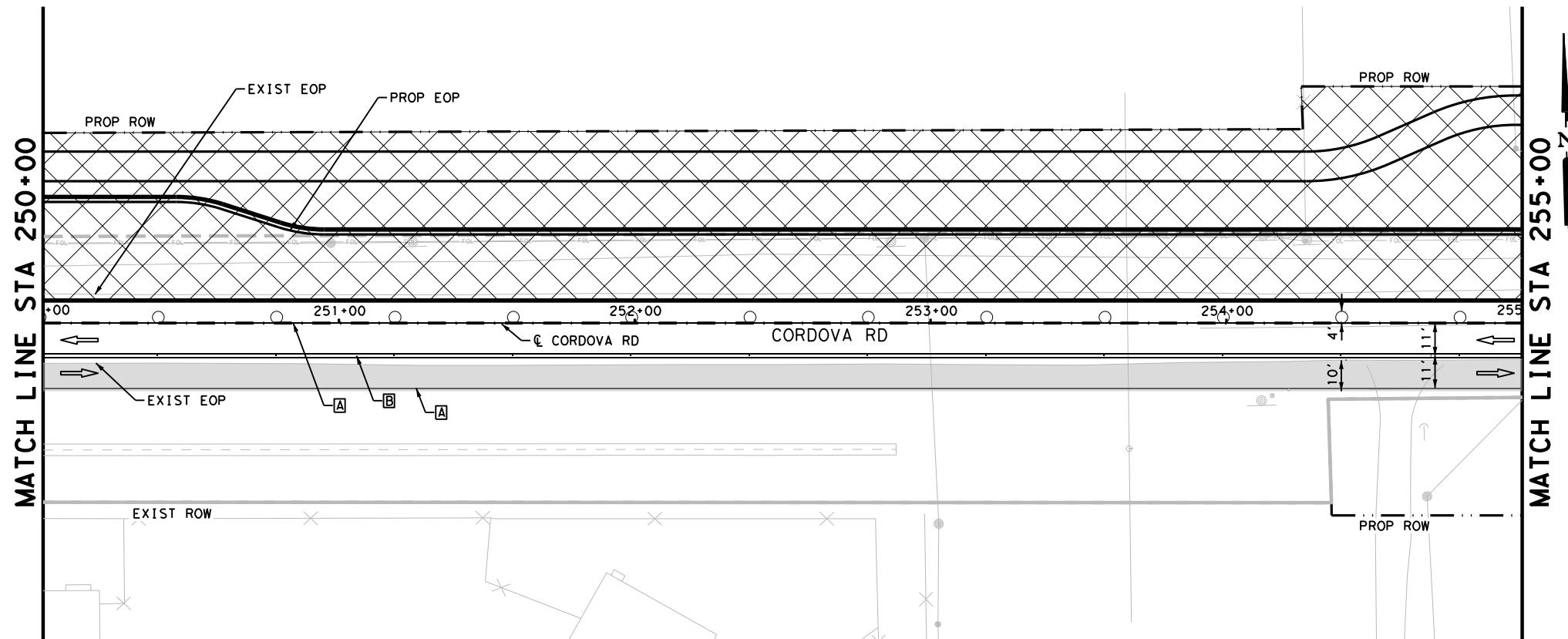
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
<p style="text-align: center; font-size: small;">SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
<p style="text-align: center;">It's real.</p>			
<p style="text-align: center;">©2023</p>			
<p style="margin: 0;">CORDOVA RD</p> <p style="margin: 0;">TRAFFIC CONTROL PLAN</p> <p style="margin: 0;">PHASE I</p> <p style="margin: 0;">STA 240+00 TO STA 250+00</p> <p style="text-align: right; font-size: small;">SHEET 15 OF 22</p>			
CHK	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
DGN:	6	TEXAS	CORDOVA
CHK	DIST.	COUNTY	CONT. NO.
DGN:	SAT	GUADALUPE	0915
CHK	SECT. NO.	JOB NO.	SHEET NO.
DGN:	45	052	50

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PH1_16.dgn



- LEGEND**
- CONSTRUCTION AREA PHASE 1
 - TEMPORARY PAVEMENT
 - TYPE III BARRICADE
 - SIGN
 - TRAFFIC FLOW ARROWS
 - PLASTIC DRUMS
 - LOW PROFILE CONCRETE BARRIER (LPCB)
 - WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 - WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

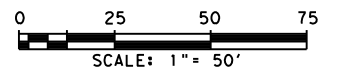
1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



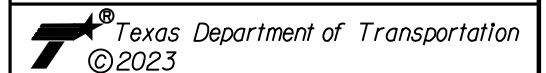
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE I**

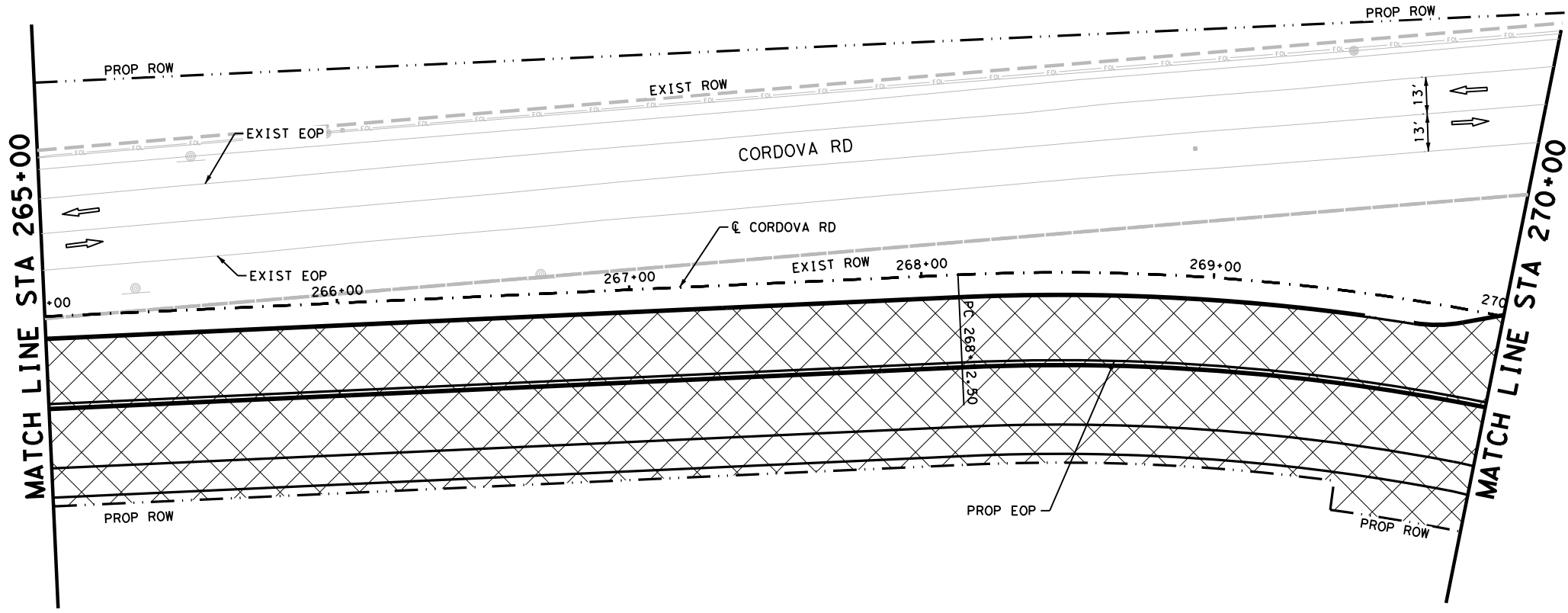
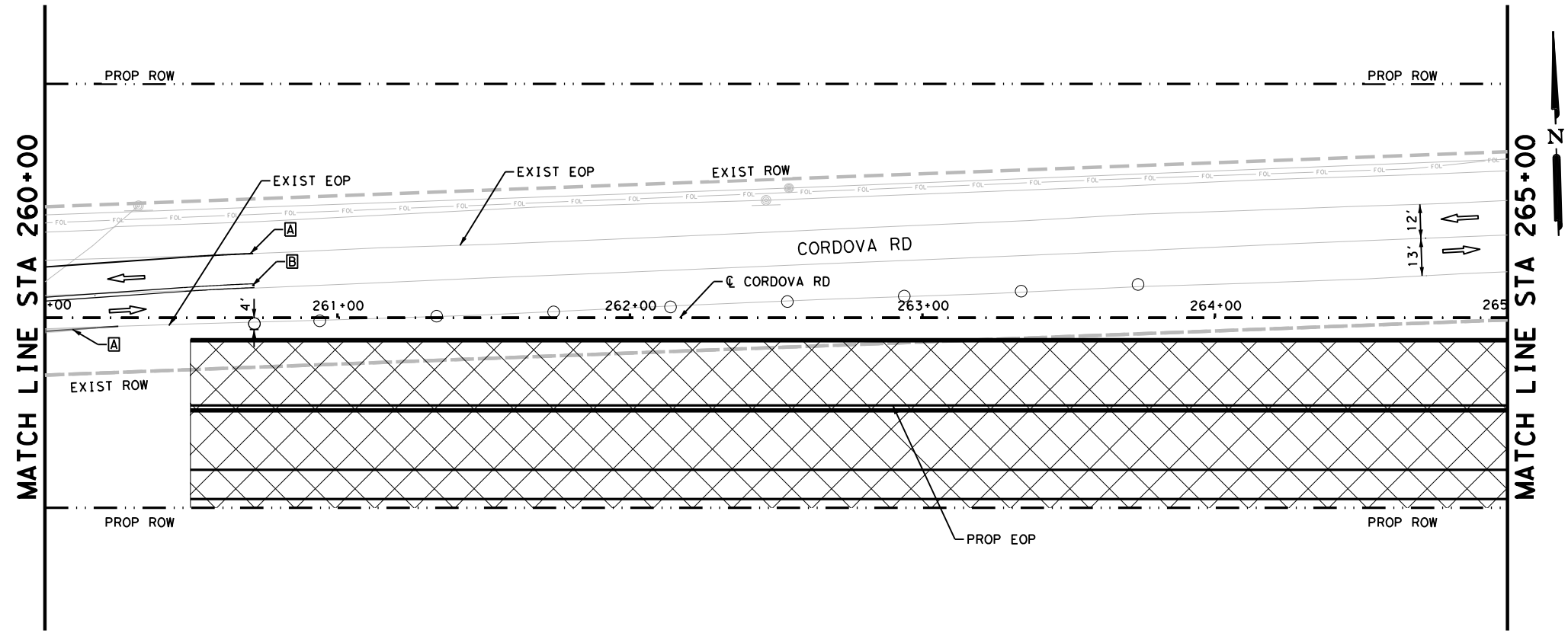
STA 250+00 TO STA 260+00

SHEET 16 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	51

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_17.dgn



LEGEND

- CONSTRUCTION AREA PHASE I
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

- NOTES:**
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
 - EXISTING FEATURES ARE SHOWN SCREENED BACK.
 - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
 - ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
 - A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

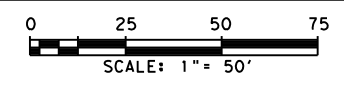
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

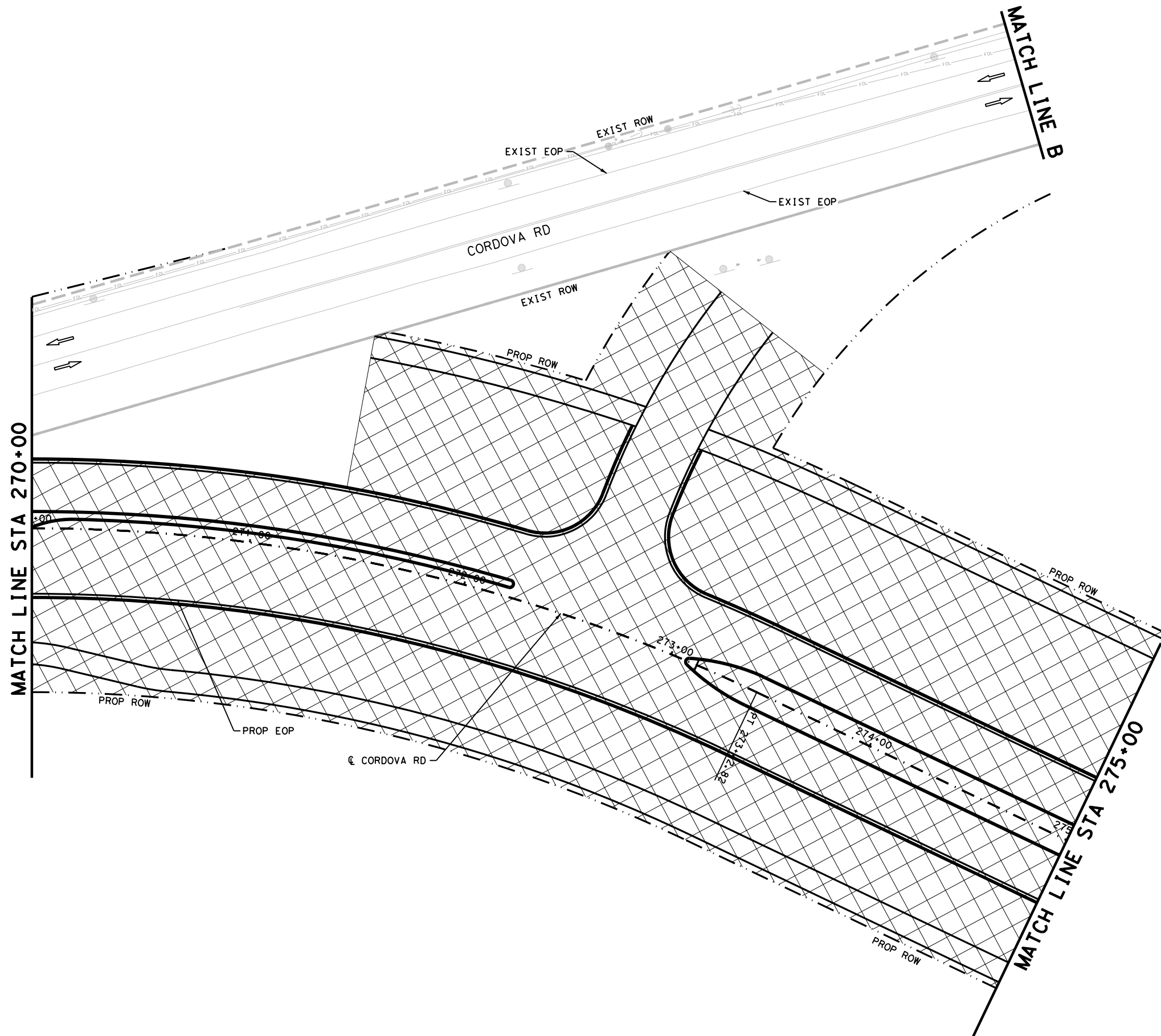
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			
 ©2023			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE I			
STA 260+00 TO STA 270+00 SHEET 17 OF 22			
DCN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	DIV. NO.:	TEXAS:	CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT:	GUADALUPE:	0915 45 052 52

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PH1_18.dgn



LEGEND

- CONSTRUCTION AREA PHASE I
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

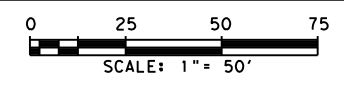
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY

Pape-Dawson ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

SEGUIN TEXAS
It's real.

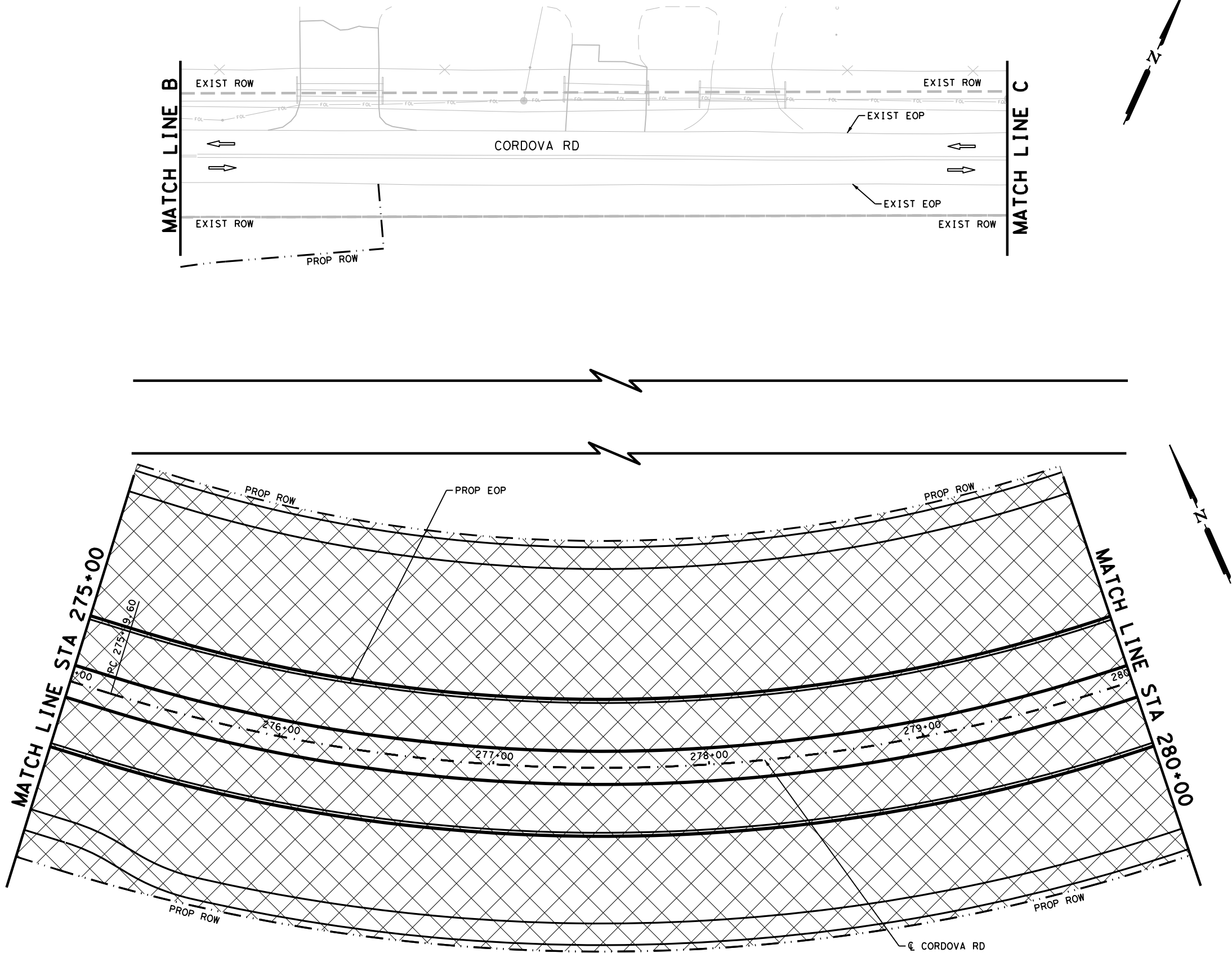
Texas Department of Transportation
©2023

CORDOVA RD
TRAFFIC CONTROL PLAN PHASE I
 STA 270+00 TO STA 275+00
 SHEET 18 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	53

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PH1_19.dgn



LEGEND

- CONSTRUCTION AREA PHASE 1
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

- NOTES:**
1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
 2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
 3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
 4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
 5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

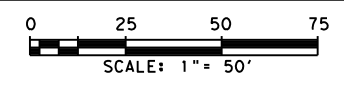
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

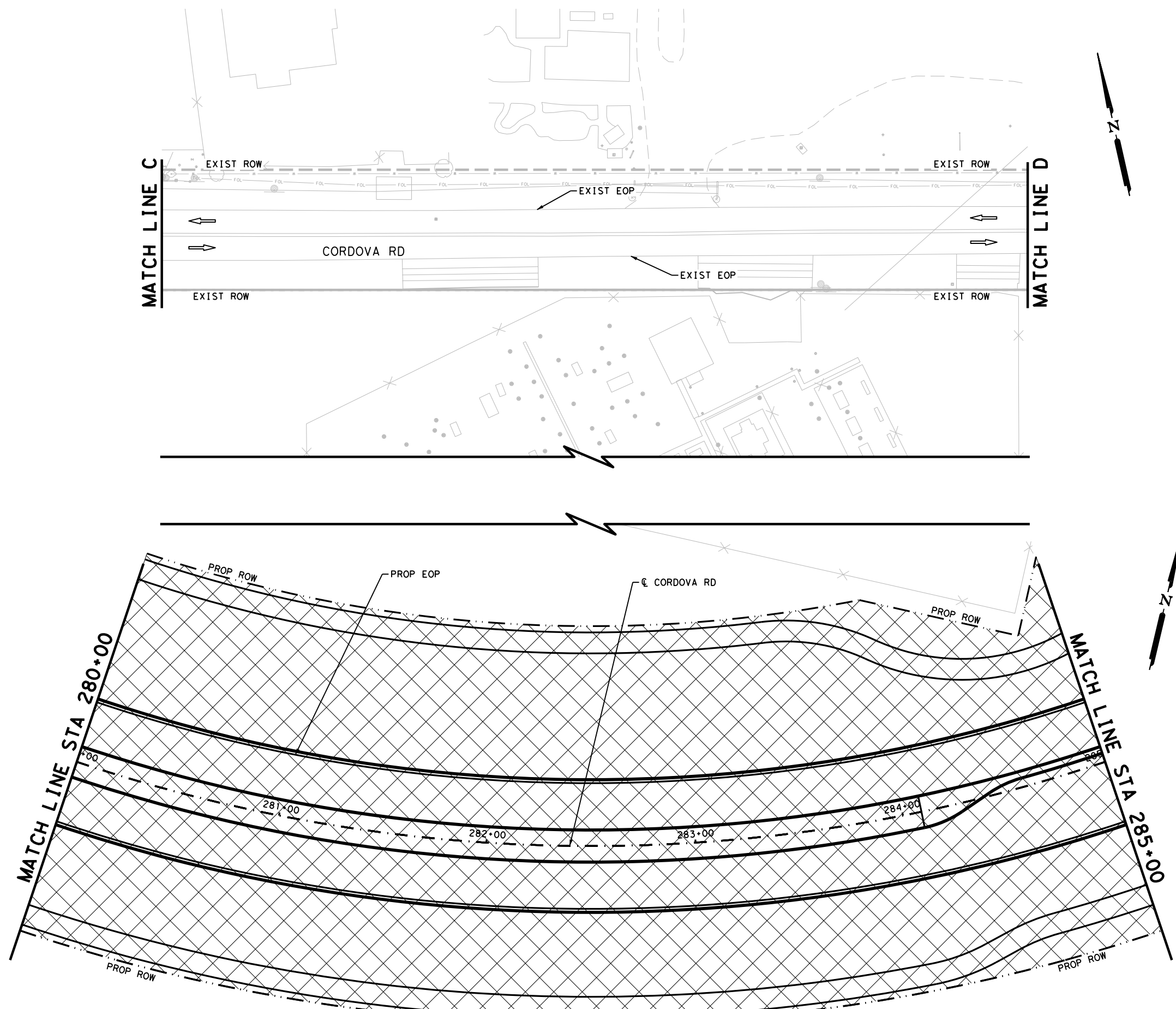
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
<p>PAPE-DAWSON ENGINEERS</p> <p style="font-size: small;">SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
<p>SEGUIN TEXAS</p> <p style="font-size: small;">It's real.</p>			
<p>Texas Department of Transportation ©2023</p>			
<p>CORDOVA RD</p> <p>TRAFFIC CONTROL PLAN PHASE I</p> <p>STA 275+00 TO STA 280+00</p> <p style="text-align: right;">SHEET 19 OF 22</p>			
CHK DGN:	FED. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO. / HIGHWAY NO.
	6	TEXAS	CORDOVA
CHK DWG:	DIST.:	COUNTY:	CONT. NO. / SECT. NO. / JOB NO. / SHEET NO.
	SAT	GUADALUPE	0915 / 45 / 052 / 54

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PH1_20.dgn



LEGEND

- CONSTRUCTION AREA PHASE 1
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

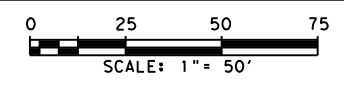
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

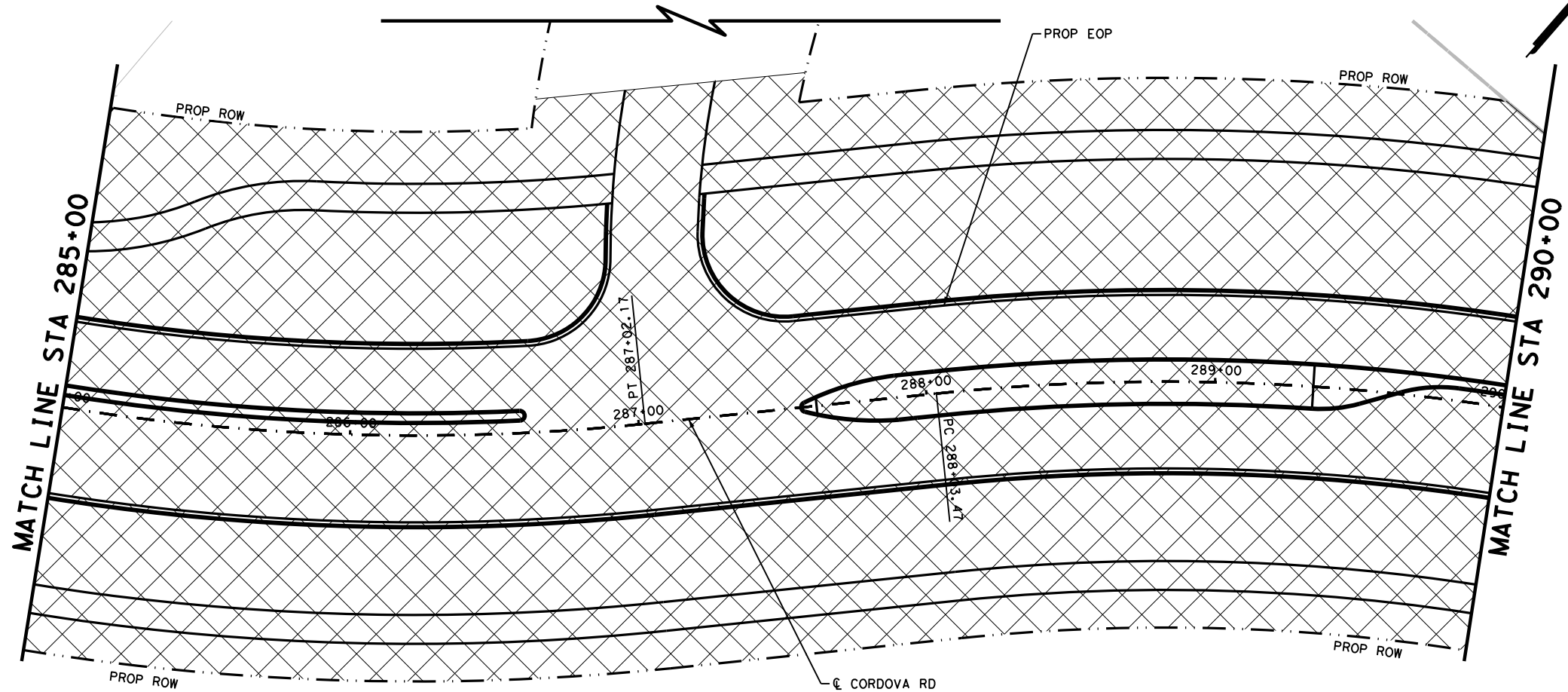
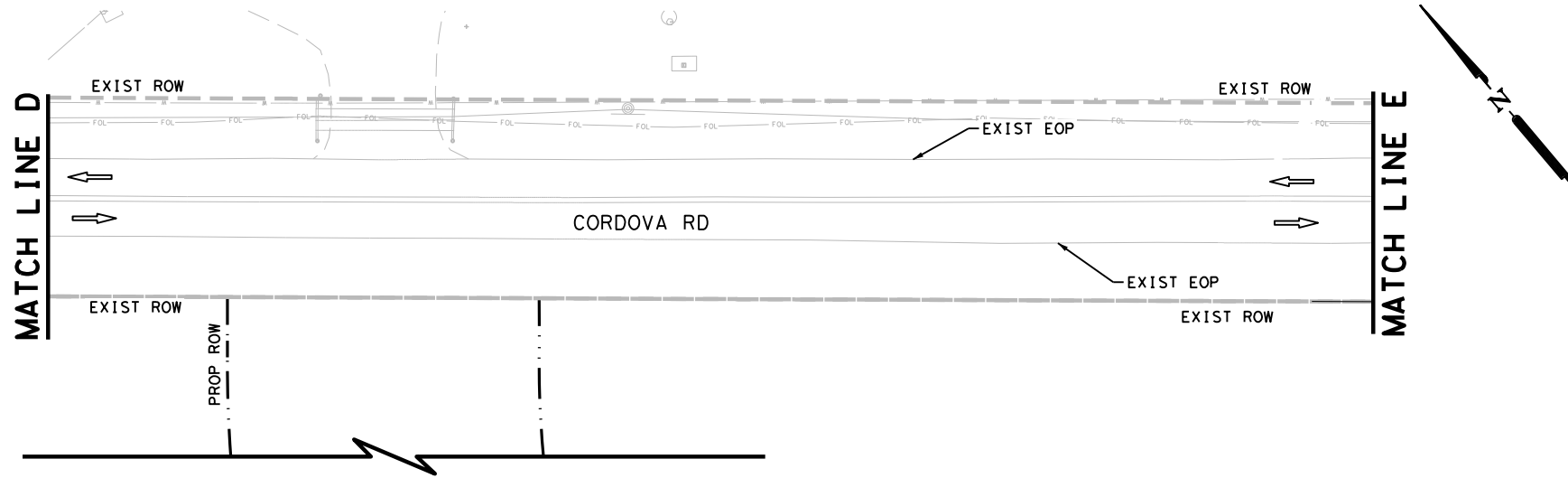
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
©2023 CORDOVA RD TRAFFIC CONTROL PLAN PHASE I STA 280+00 TO STA 285+00 SHEET 20 OF 22			
DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	DIV. NO.:	TEXAS:	CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 55

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_P1_21.dgn



LEGEND

- CONSTRUCTION AREA PHASE I
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P. E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

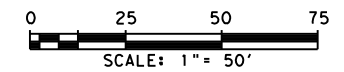
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P. E. SERIAL NO: 105193

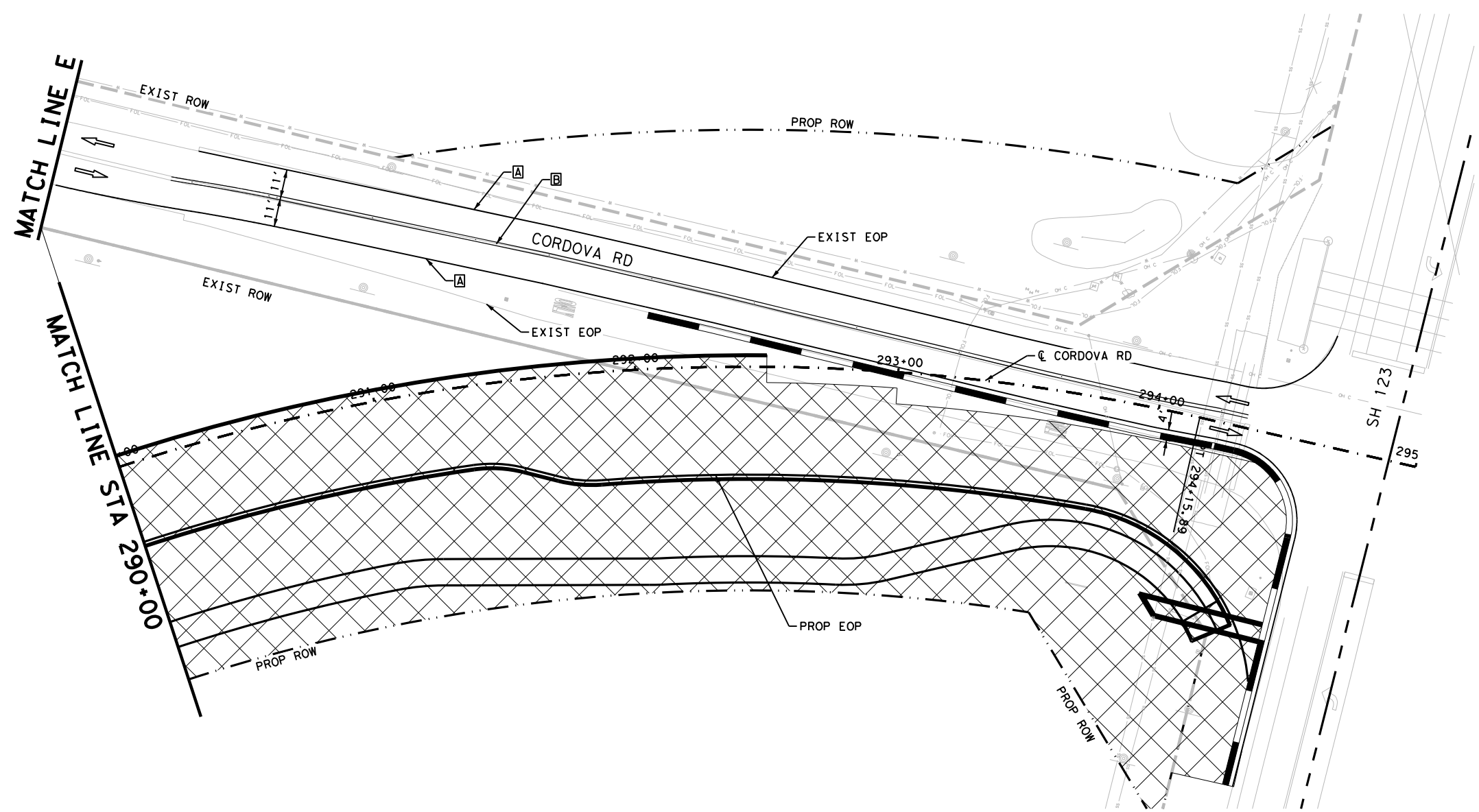
DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
<p>PAPE-DAWSON ENGINEERS</p> <p style="font-size: small;">SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
<p>SEGUIN TEXAS</p> <p style="font-size: small;">It's real.</p>			
<p>Texas Department of Transportation</p> <p>© 2023</p>			
<p>CORDOVA RD</p> <p>TRAFFIC CONTROL PLAN PHASE I</p> <p>STA 285+00 TO STA 290+00</p> <p style="text-align: right;">SHEET 21 OF 22</p>			
CHK DGN:	FED. NO. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO. HIGHWAY NO.:
	6	TEXAS	CORDOVA
CHK DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.:
	SAT	GUADALUPE	0915 45 052 56

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase1\1277500_TCP_PH1_22.dgn



LEGEND

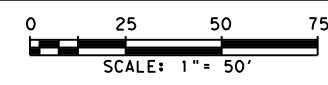
- CONSTRUCTION AREA PHASE 1
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			

It's real.

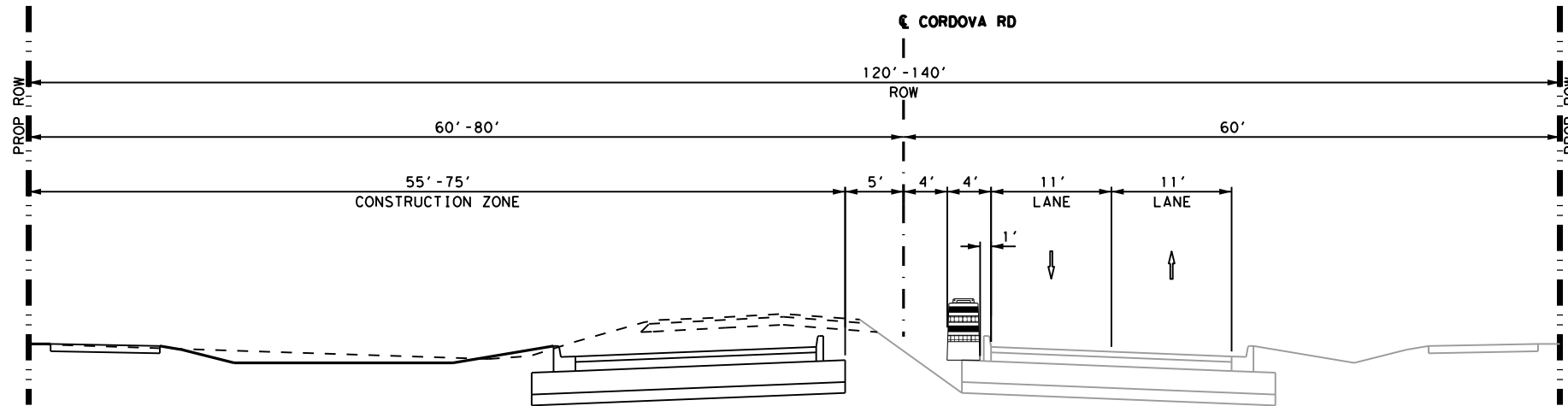
Texas Department of Transportation
 ©2023

CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE I**
 STA 290+00 TO END OF PROJECT
 SHEET 22 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	57

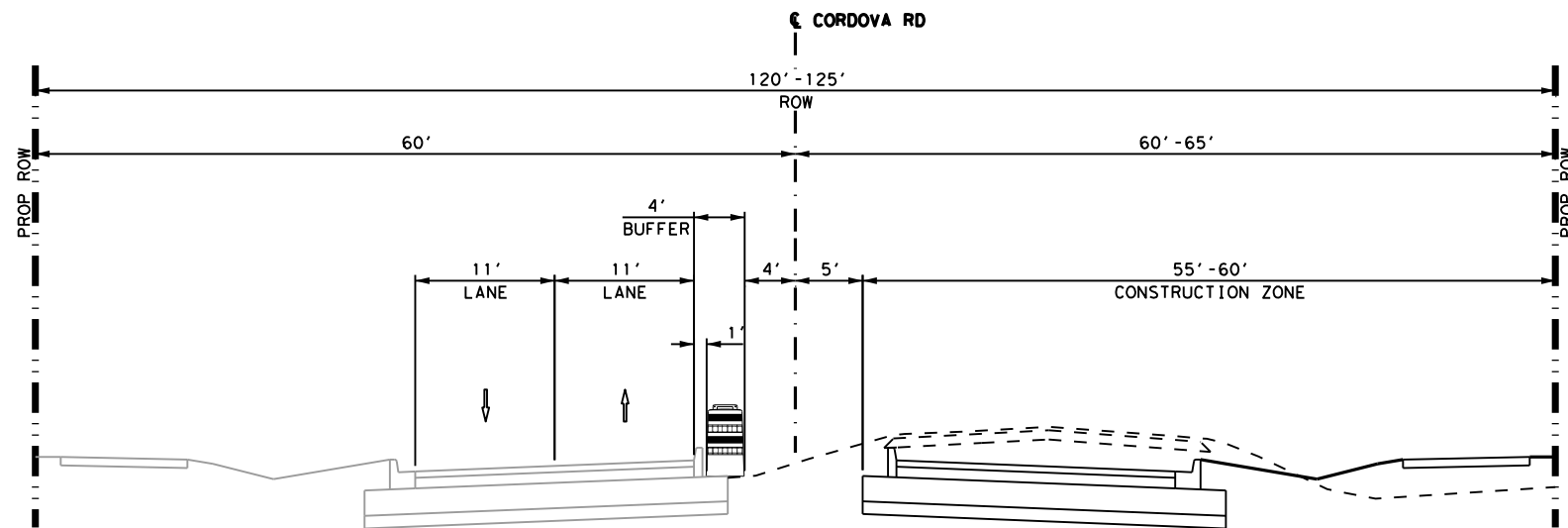
Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_Typical 01.dgn



CORDOVA RD - PHASE II

STA 120+45 TO STA 153+00
 STA 166+00 TO STA 215+00
 STA 216+00 TO STA 230+00
 STA 260+00 TO STA 270+00
 NTS



CORDOVA RD - PHASE II

STA 154+70 TO STA 160+05
 STA 233+00 TO STA 258+00
 NTS

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

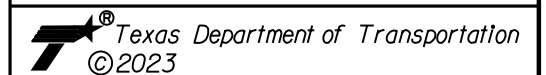
REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



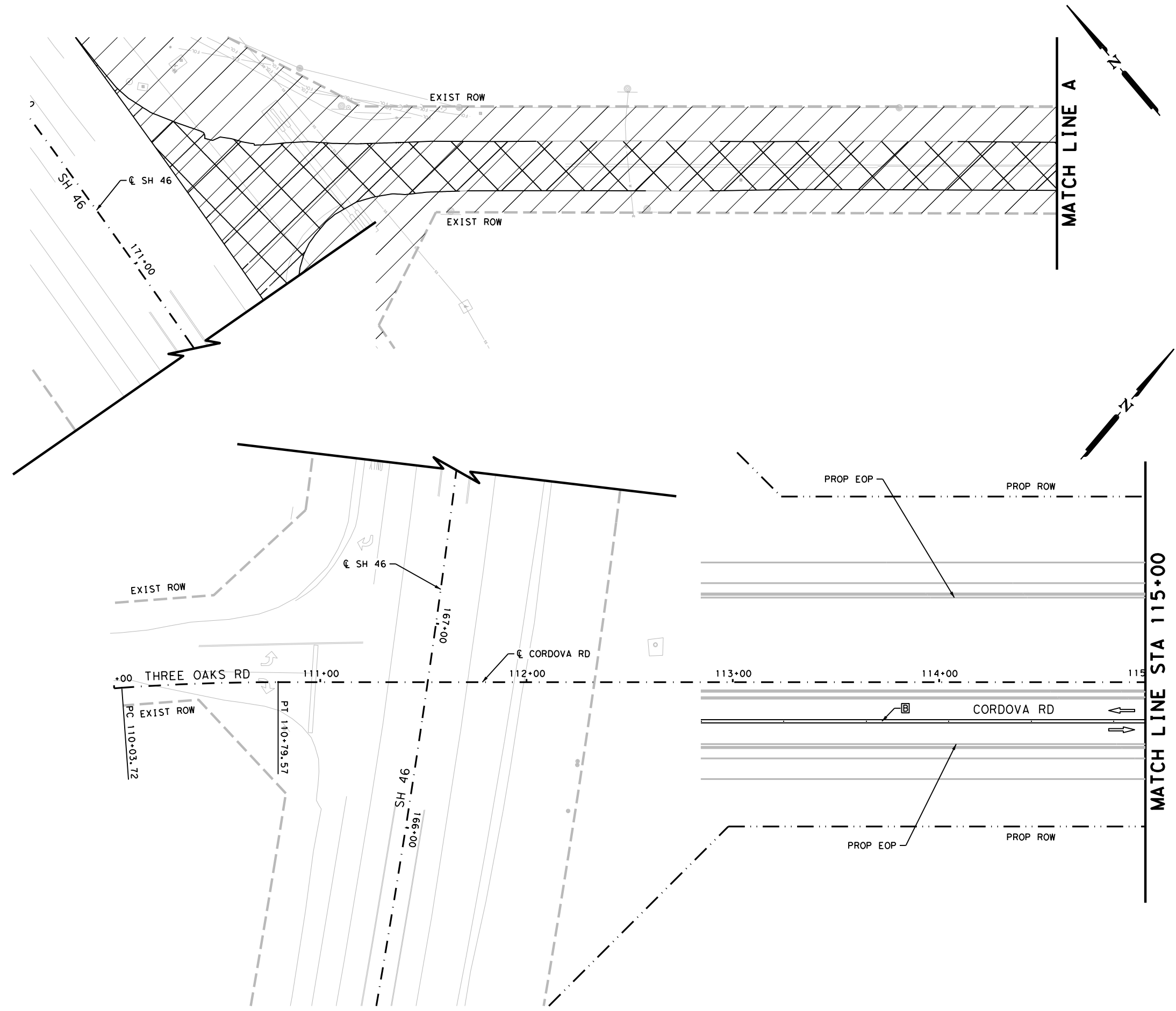
CORDOVA RD
**TRAFFIC CONTROL PLAN
 TYPICAL SECTIONS
 PHASE II**

SHEET 1 OF 1

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	58

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_01.dgn



LEGEND

- CONSTRUCTION AREA PHASE II
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

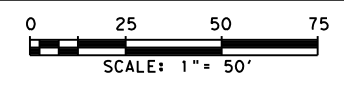
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY

Pape-Dawson ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

SEGUIN TEXAS

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CORDOVA RD
TRAFFIC CONTROL PLAN
PHASE II

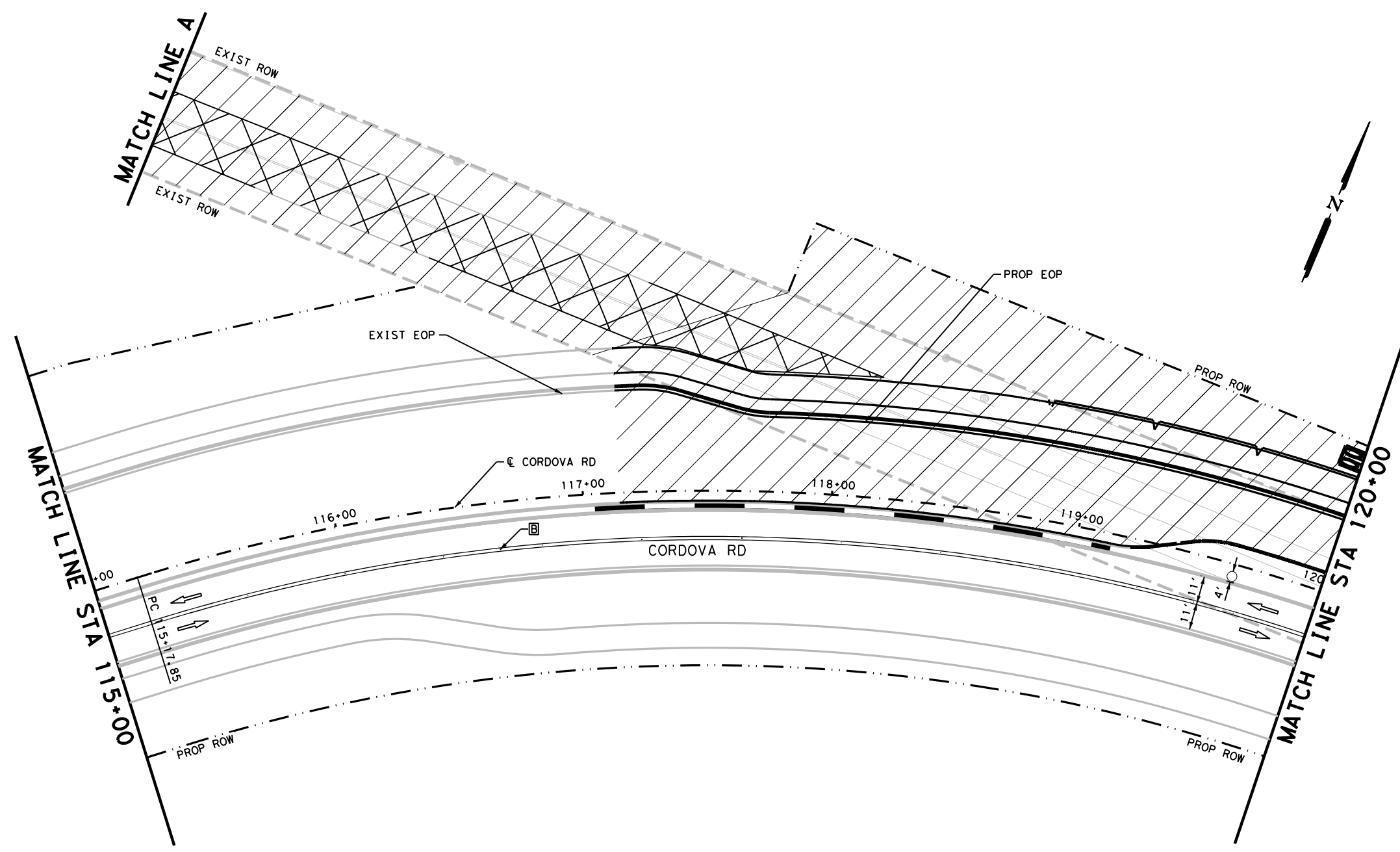
BEGIN PROJECT TO STA 115+00

SHEET 1 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	59

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_02.dgn



LEGEND

CONSTRUCTION AREA PHASE II

TEMPORARY PAVEMENT

TYPE III BARRICADE

SIGN

TRAFFIC FLOW ARROWS

PLASTIC DRUMS

LOW PROFILE CONCRETE BARRIER (LPCB)

WK ZN PAV MRK NON-REMOV (W) 6" (SLD)

WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

- NOTES:**
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
 - EXISTING FEATURES ARE SHOWN SCREENED BACK.
 - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
 - ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
 - A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P.E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

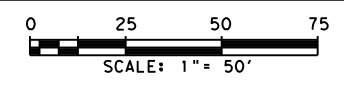
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P.E. SERIAL NO: 105193

DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
<p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			

SEGUIN TEXAS

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CORDOVA RD

TRAFFIC CONTROL PLAN PHASE II

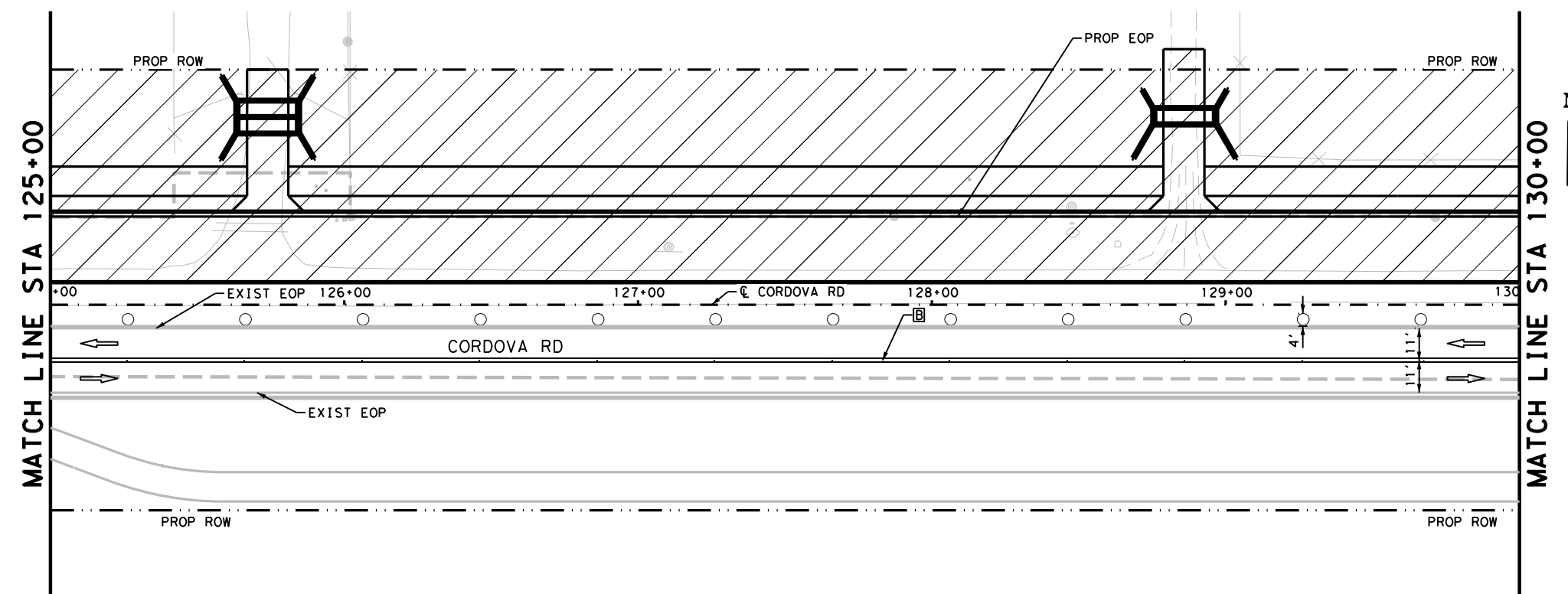
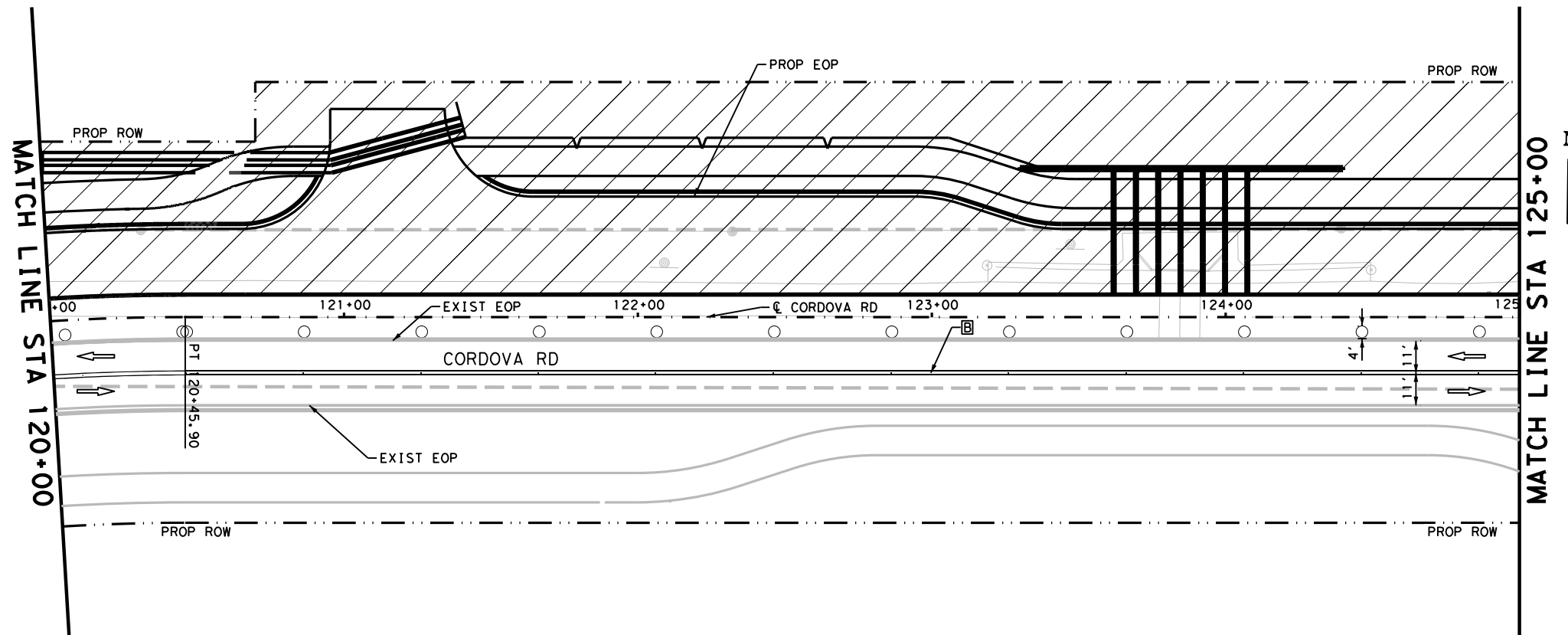
STA 115+00 TO STA 120+00

SHEET 2 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	60

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_03.dgn



LEGEND

- CONSTRUCTION AREA PHASE II
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

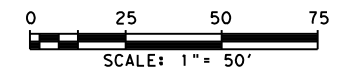
1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

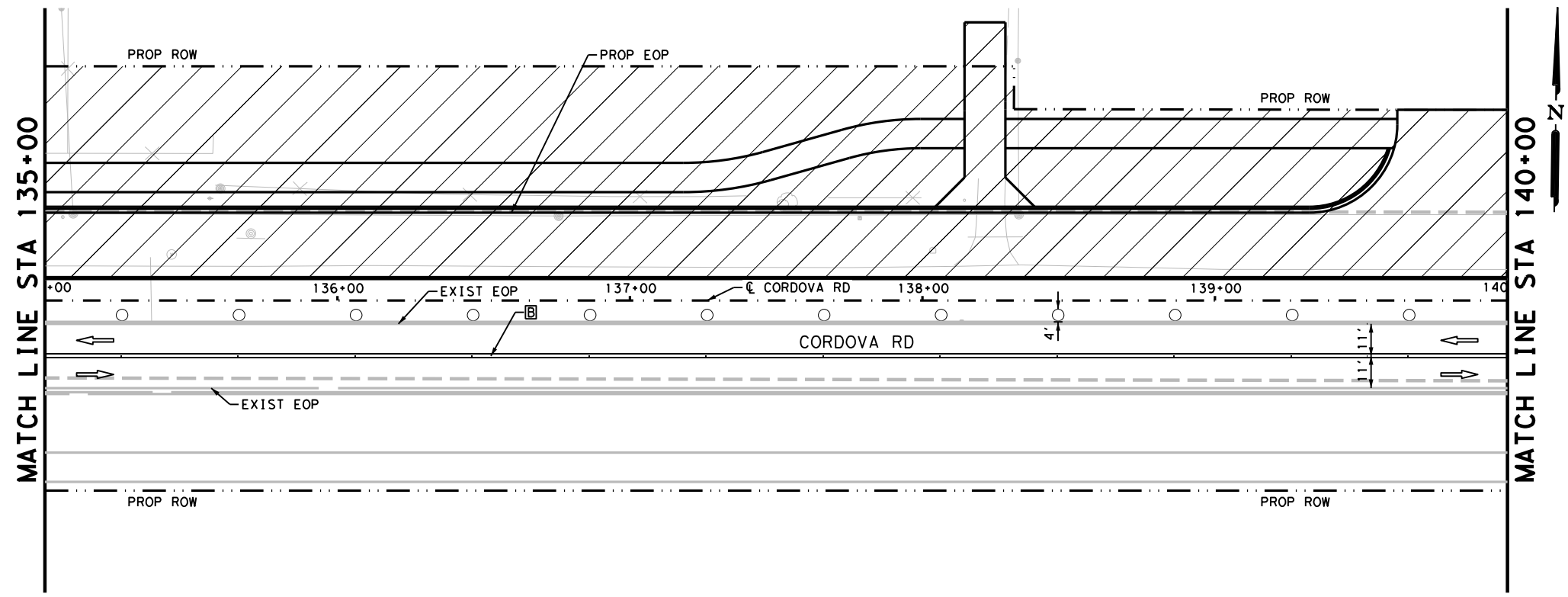
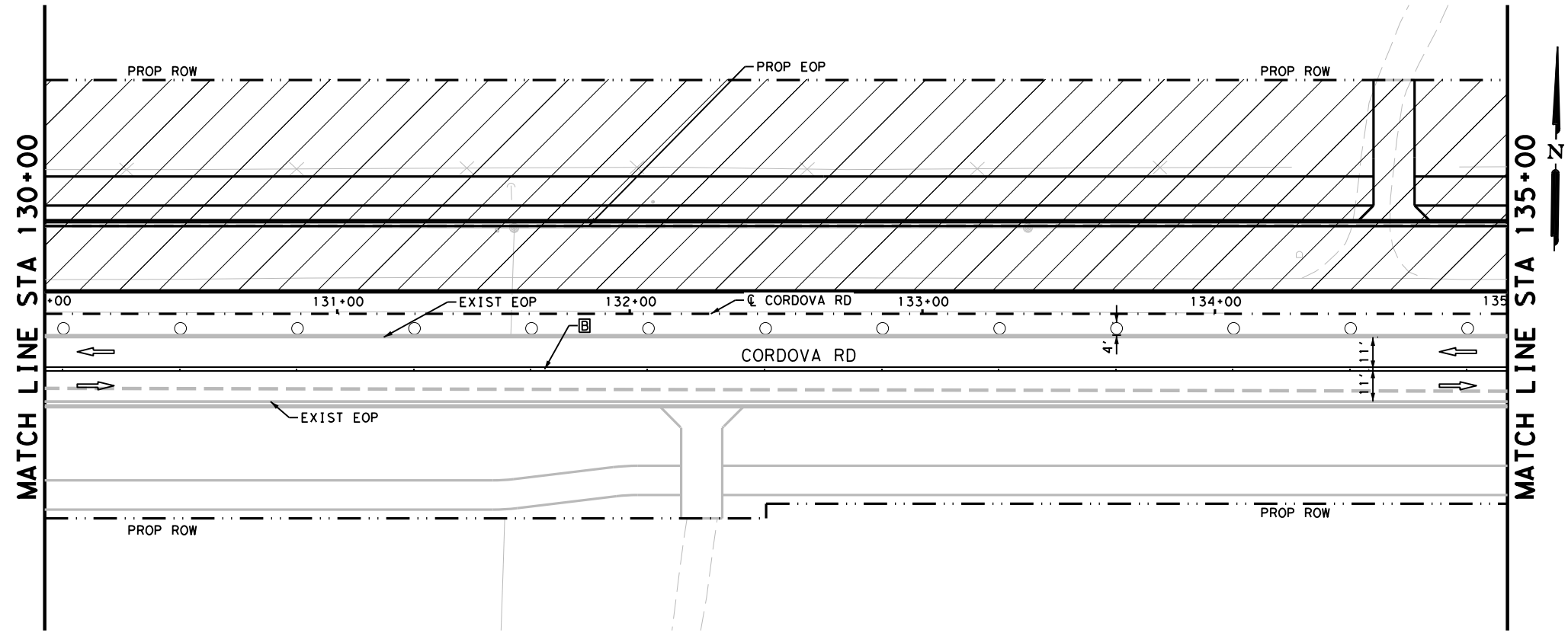
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
 It's real.			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE II STA 120+00 TO STA 130+00 SHEET 3 OF 22			
DCN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	DIV. NO.:	TEXAS:	CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT:	GUADALUPE:	0915 45 052 61

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_04.dgn



LEGEND

CONSTRUCTION AREA PHASE II
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
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DESIGN

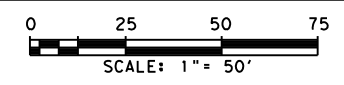
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			

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CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

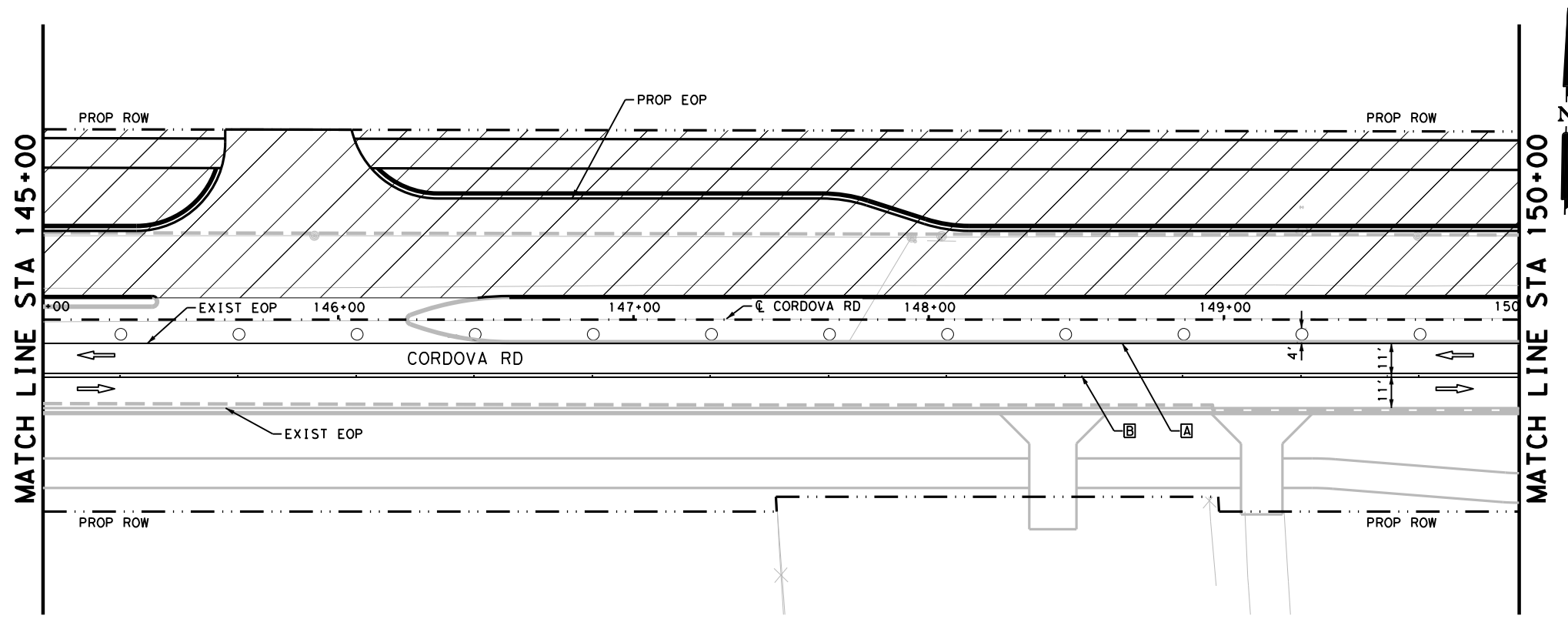
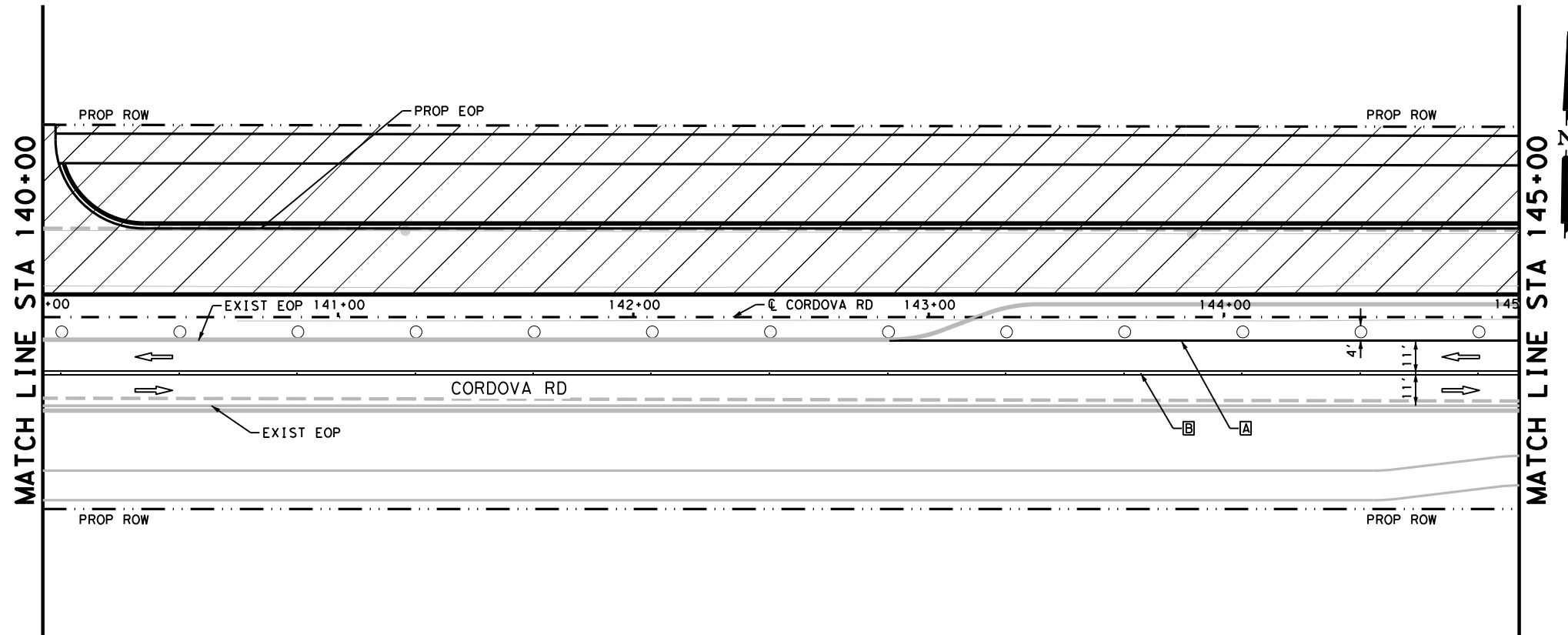
STA 130+00 TO STA 140+00

SHEET 4 OF 22

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	62

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_05.dgn



LEGEND

CONSTRUCTION AREA PHASE II
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

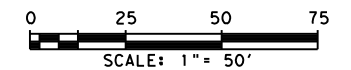
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
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- A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



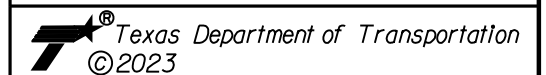
REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

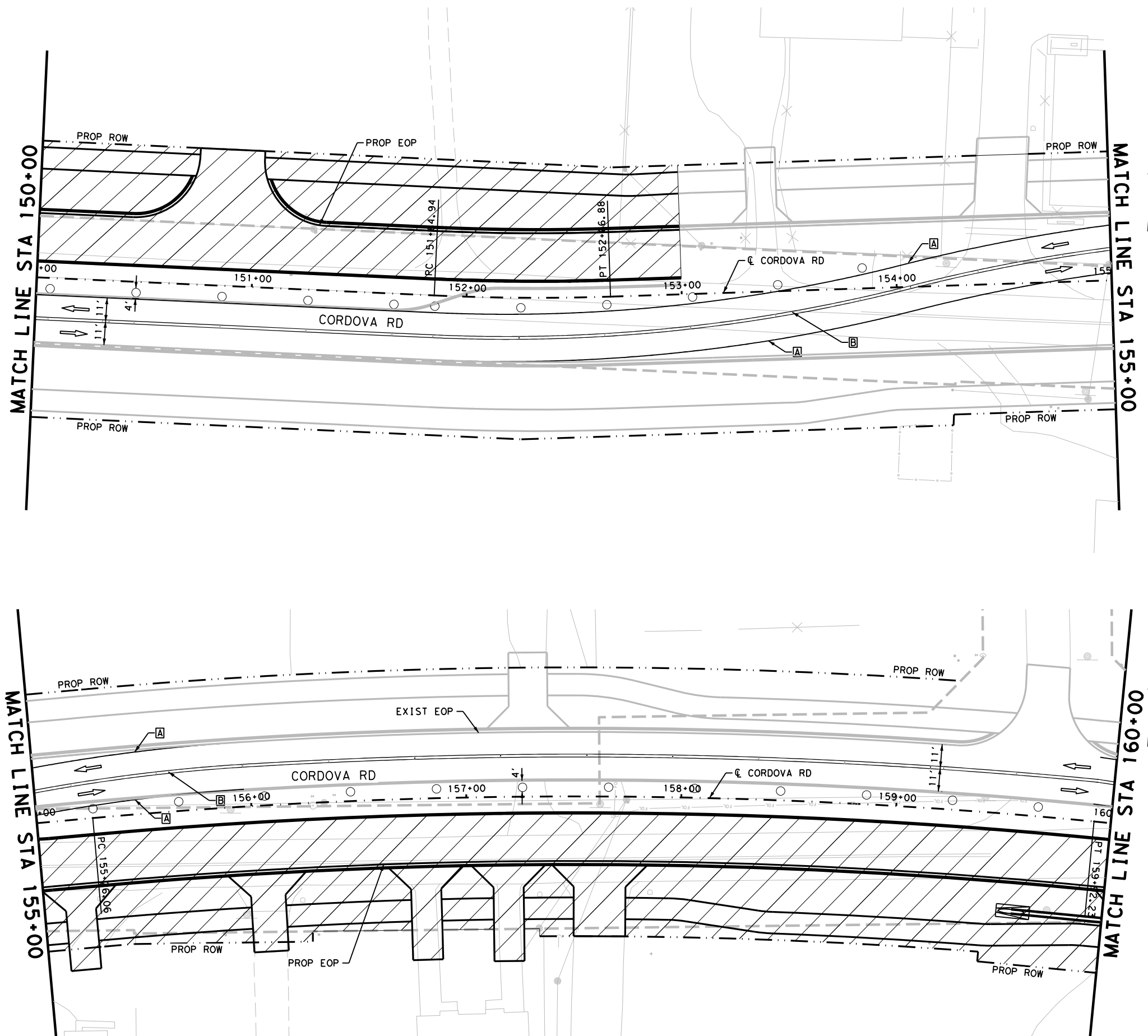
STA 140+00 TO STA 150+00

SHEET 5 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	63

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_06.dgn



LEGEND

- CONSTRUCTION AREA PHASE II
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)
- PLASTIC DRUMS

NOTES:

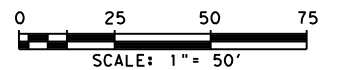
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



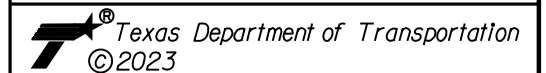
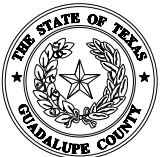
REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
TRAFFIC CONTROL PLAN
PHASE II

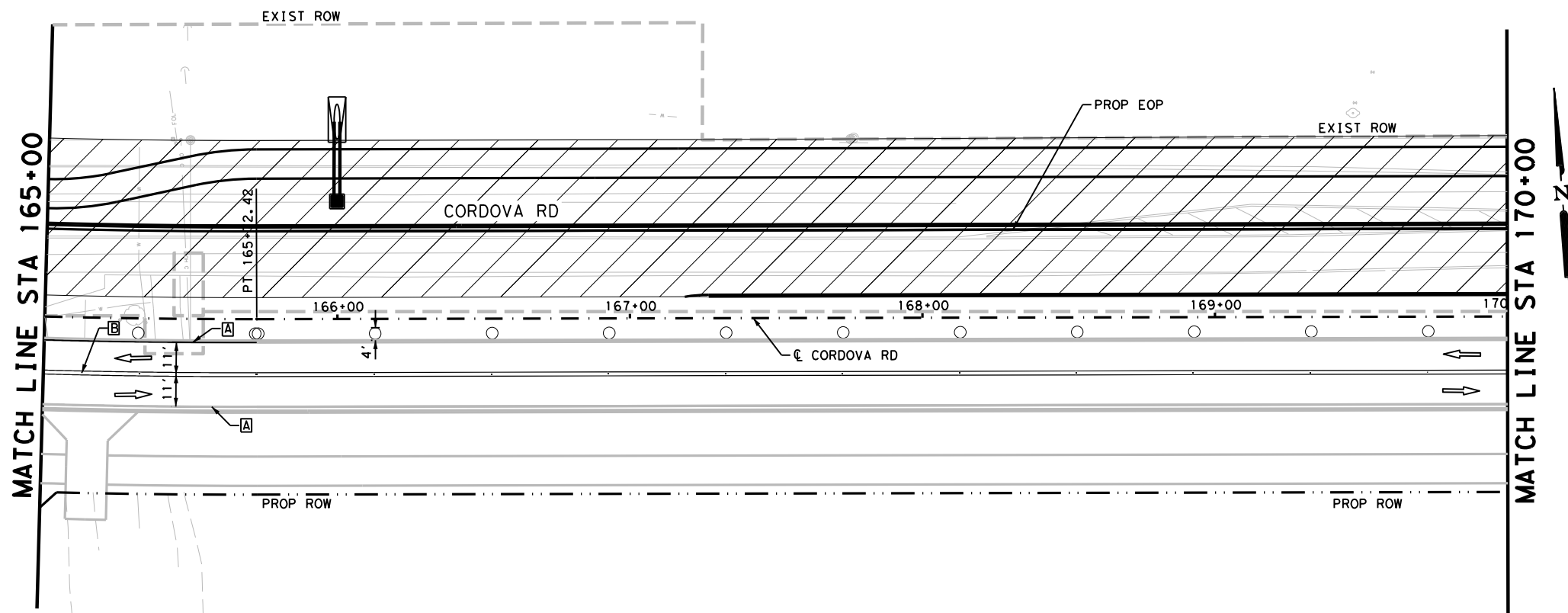
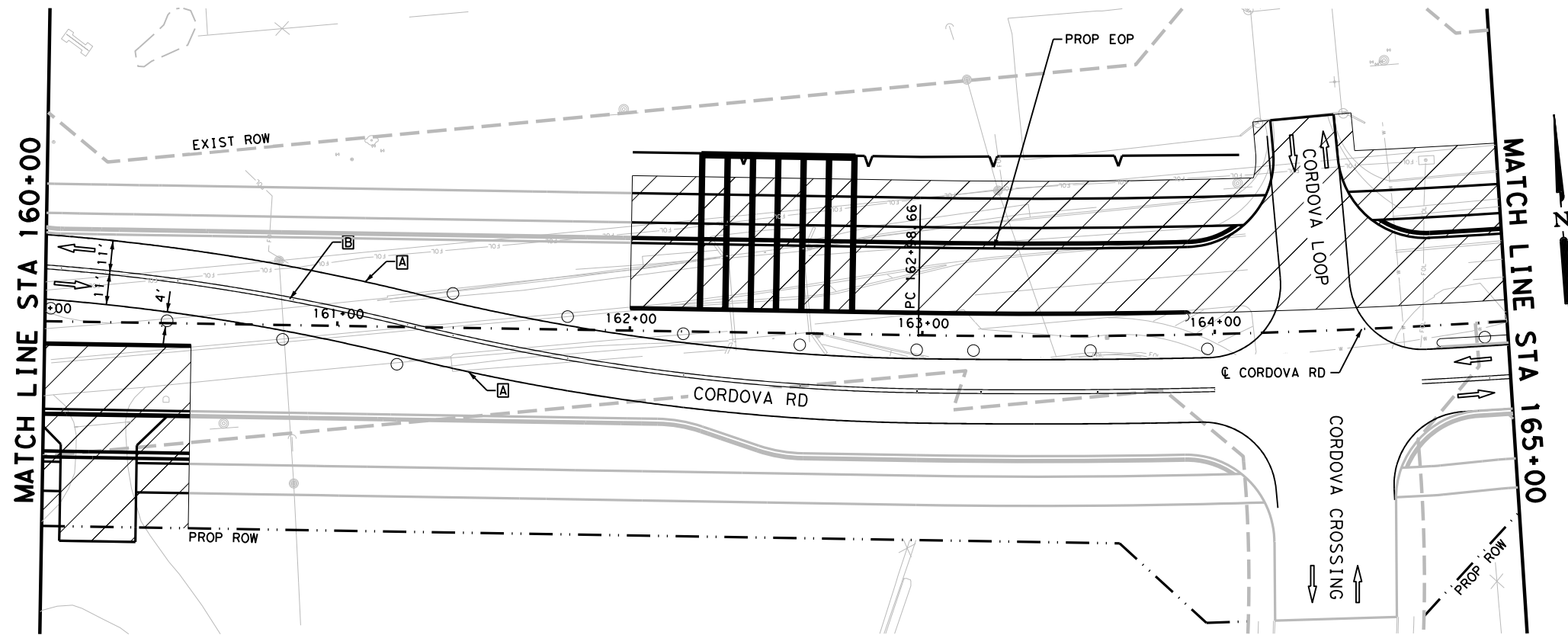
STA 150+00 TO STA 160+00

SHEET 6 OF 22

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	64

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_07.dgn



LEGEND

CONSTRUCTION AREA PHASE II
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

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DESIGN

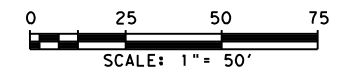
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

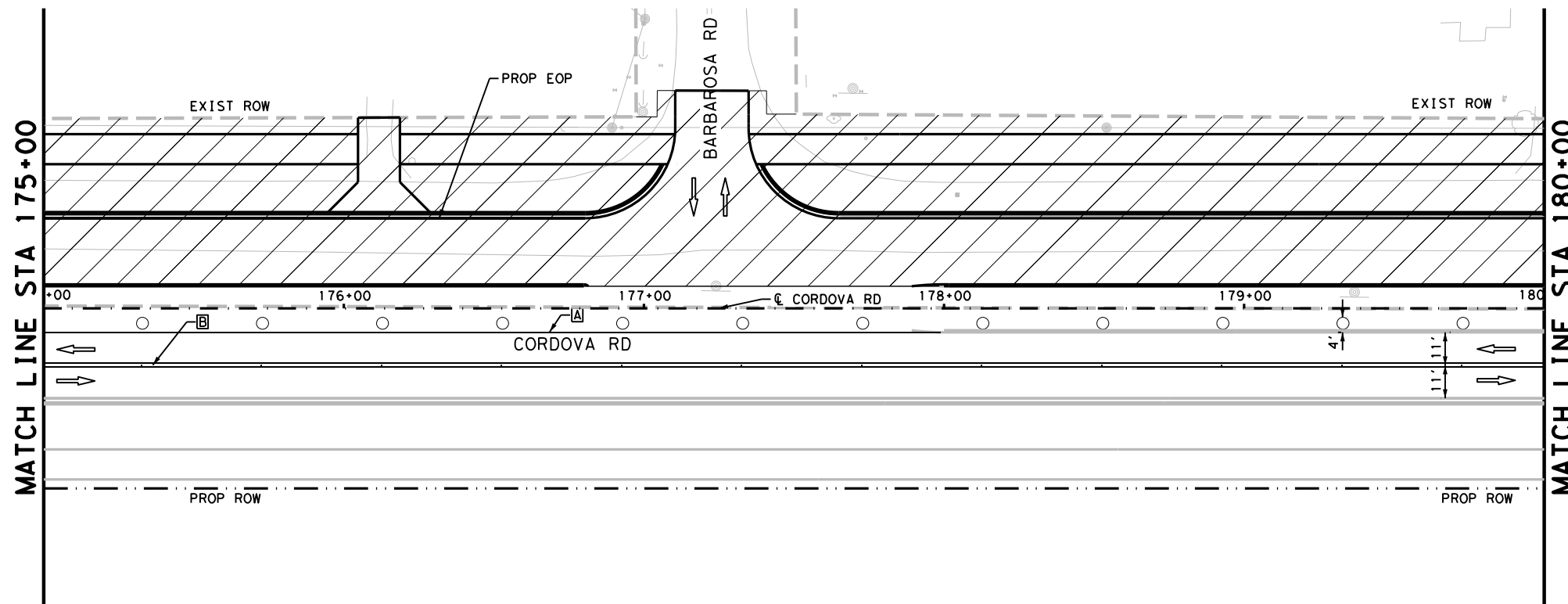
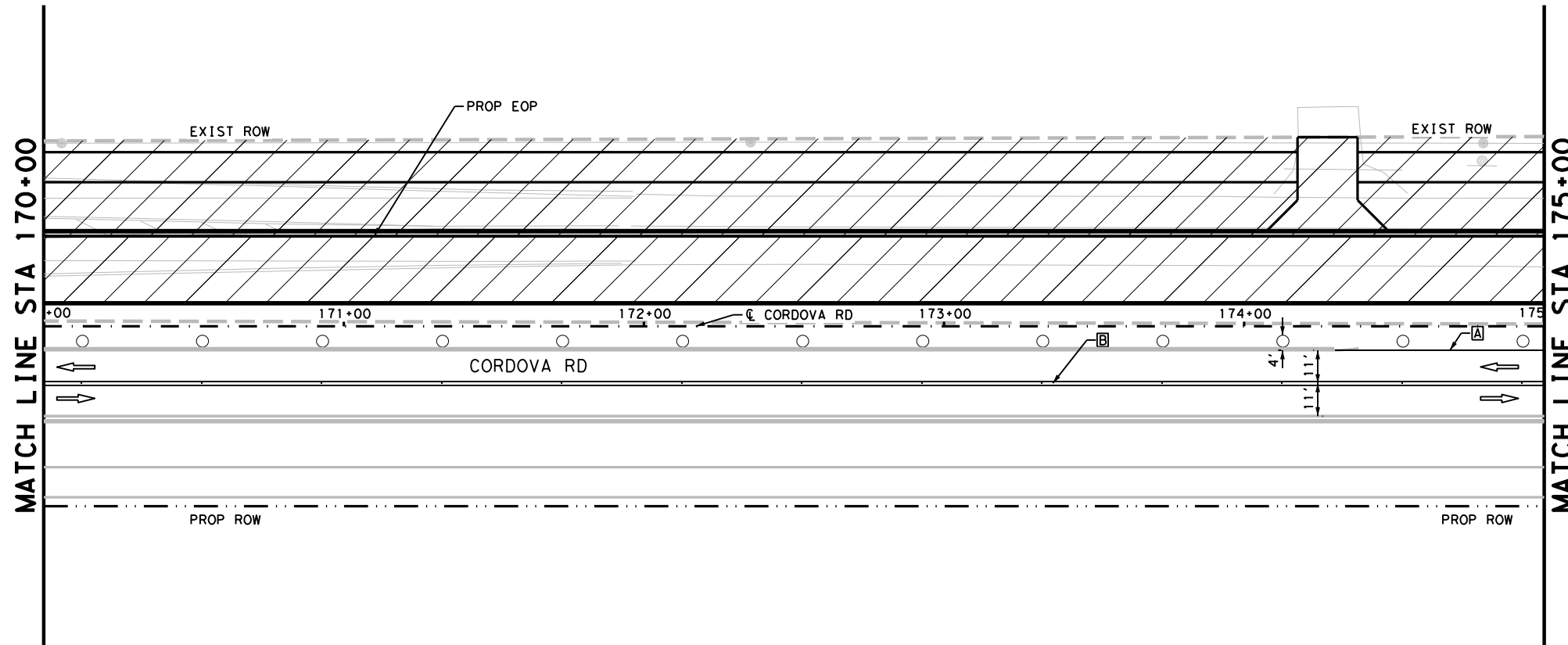
STA 160+00 TO STA 170+00

SHEET 7 OF 22

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	65

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_08.dgn



- LEGEND**
- CONSTRUCTION AREA PHASE II
 - TEMPORARY PAVEMENT
 - TYPE III BARRICADE
 - SIGN
 - TRAFFIC FLOW ARROWS
 - PLASTIC DRUMS
 - LOW PROFILE CONCRETE BARRIER (LPCB)
 - WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 - WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

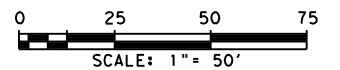
1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
2. EXISTING FEATURES ARE SHOWN SCREENED BACK.
3. EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
4. ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
5. A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P. E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023



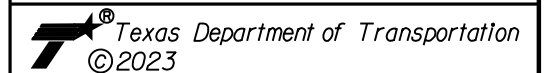
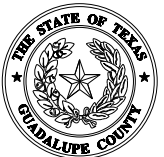
REV. NO.	DATE	DESCRIPTION	BY



PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
PHASE II**

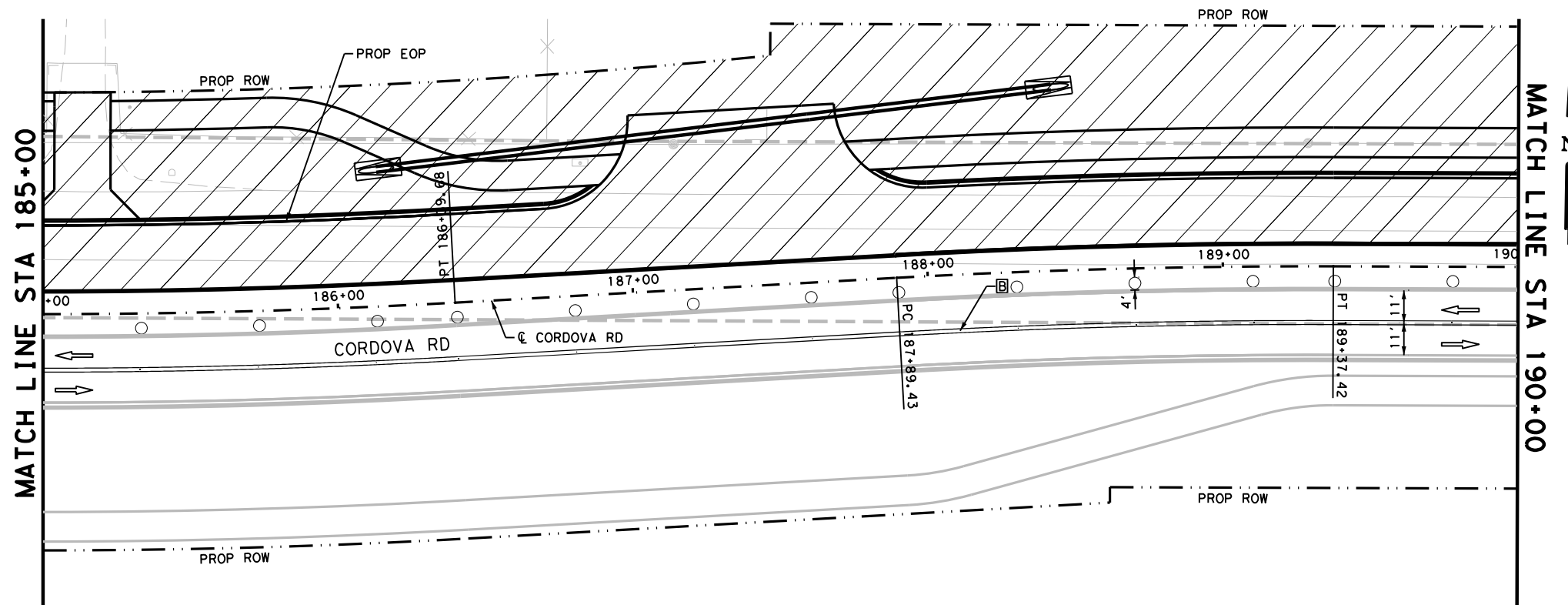
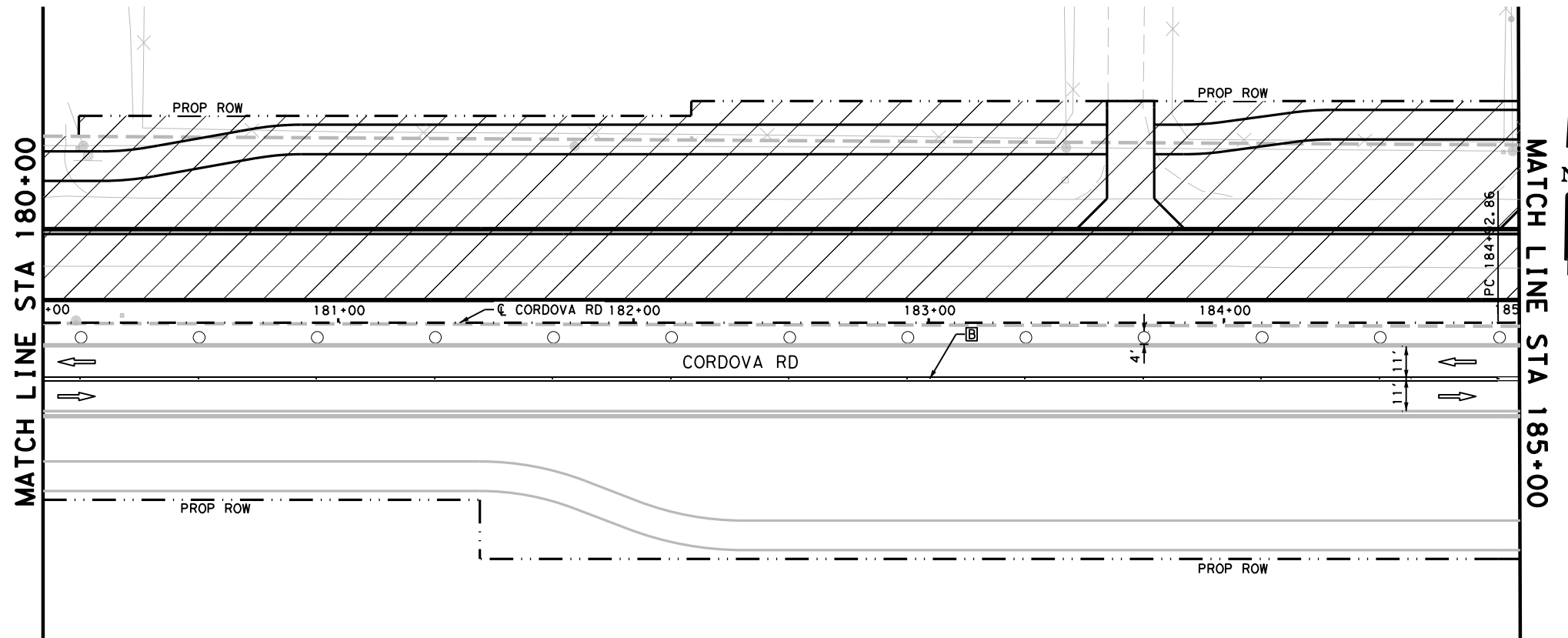
STA 170+00 TO STA 180+00

SHEET 8 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	66

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_09.dgn



- LEGEND**
- CONSTRUCTION AREA PHASE II
 - TEMPORARY PAVEMENT
 - TYPE III BARRICADE
 - SIGN
 - TRAFFIC FLOW ARROWS
 - PLASTIC DRUMS
 - LOW PROFILE CONCRETE BARRIER (LPCB)
 - WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 - WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

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DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P. E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

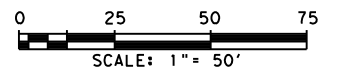
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P. E. SERIAL NO: 105193

DATE: 7/27/2023



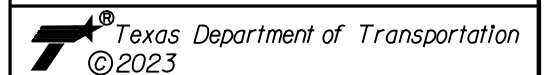
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

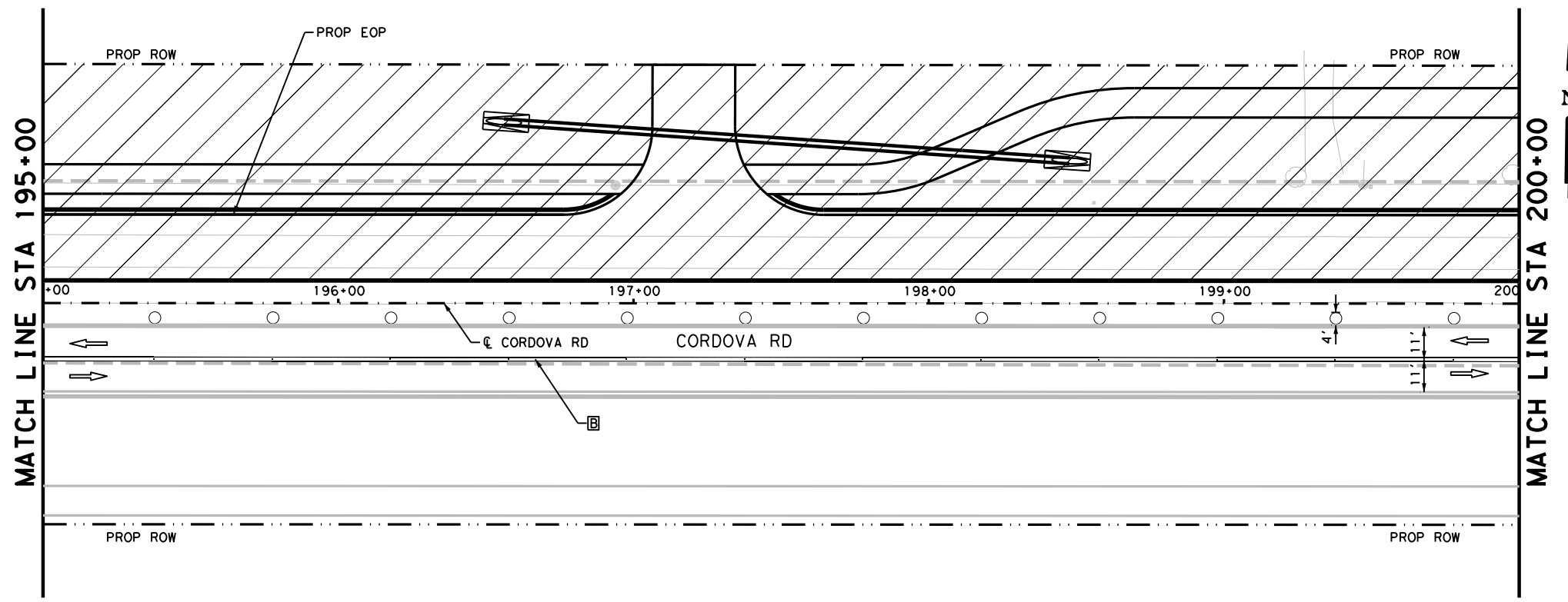
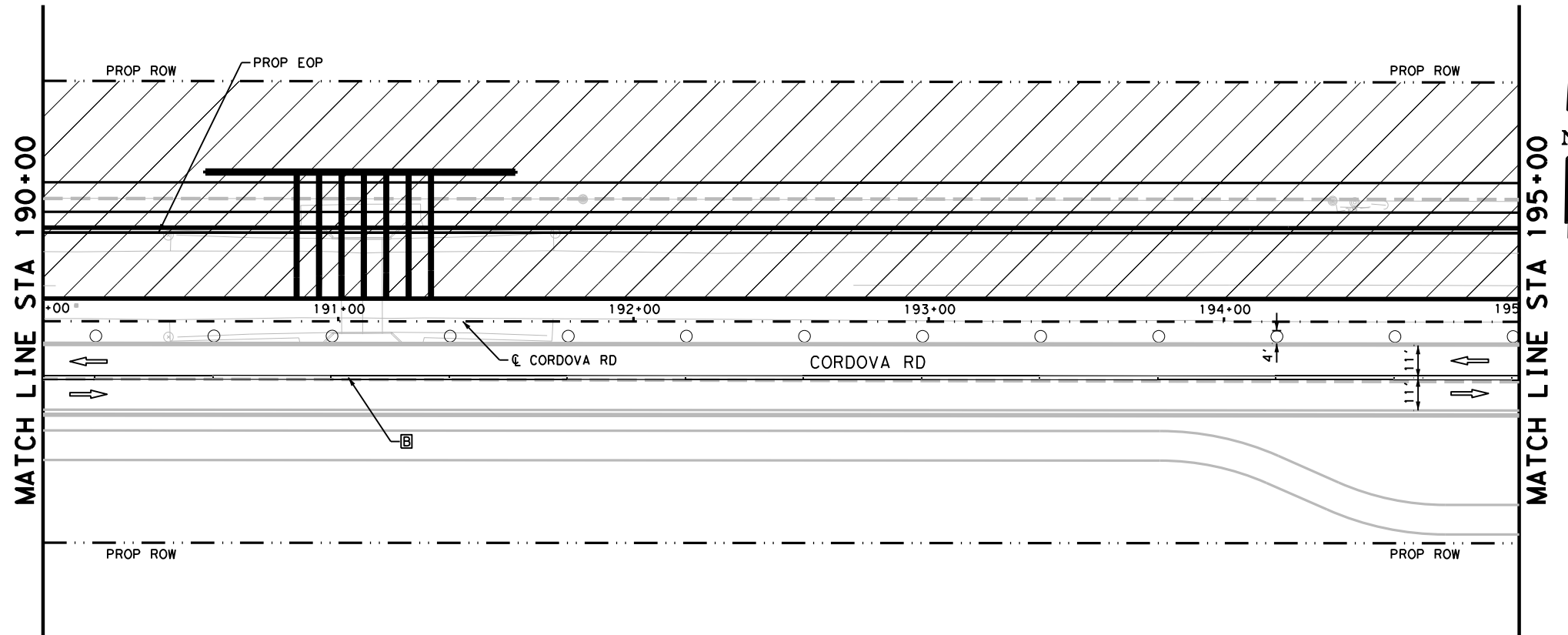
STA 180+00 TO STA 190+00

SHEET 9 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	67

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_10.dgn



LEGEND

CONSTRUCTION AREA PHASE II
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

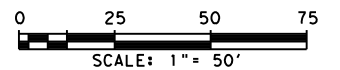
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DESIGN

INTERIM REVIEW
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 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



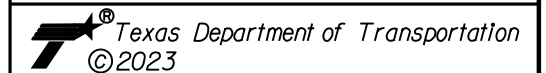
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

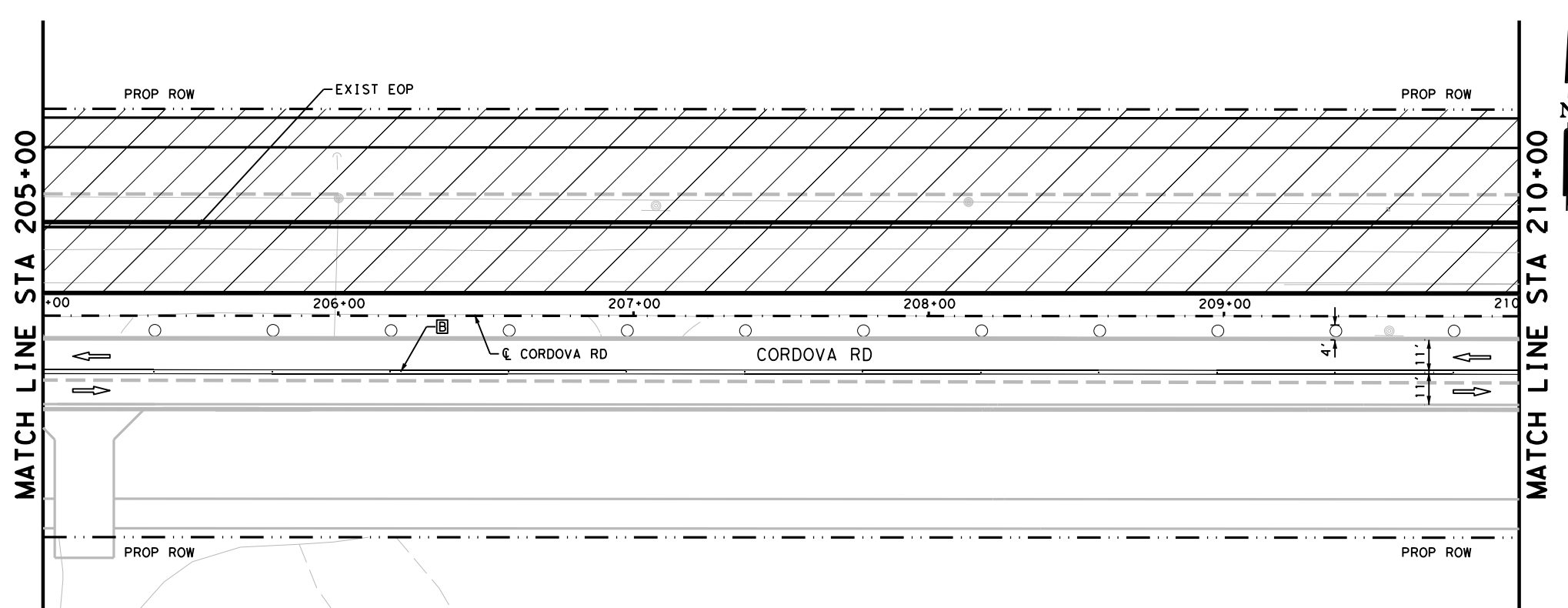
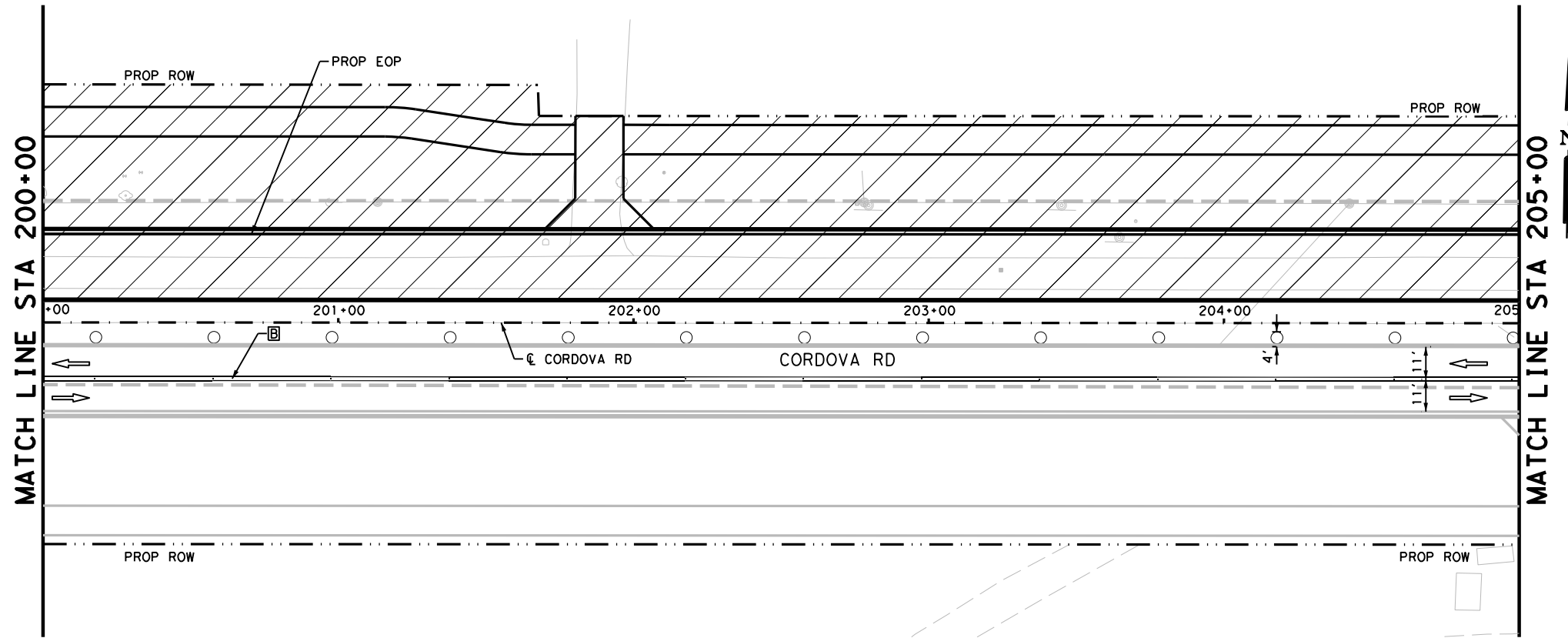
STA 190+00 TO STA 200+00

SHEET 10 OF 22

DWG:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DWG:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	68

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_11.dgn



- LEGEND**
- CONSTRUCTION AREA PHASE II
 - TEMPORARY PAVEMENT
 - TYPE III BARRICADE
 - SIGN
 - TRAFFIC FLOW ARROWS
 - PLASTIC DRUMS
 - LOW PROFILE CONCRETE BARRIER (LPCB)
 - WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 - WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

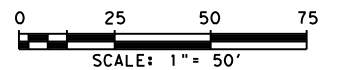
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



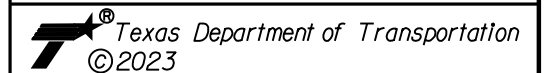
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

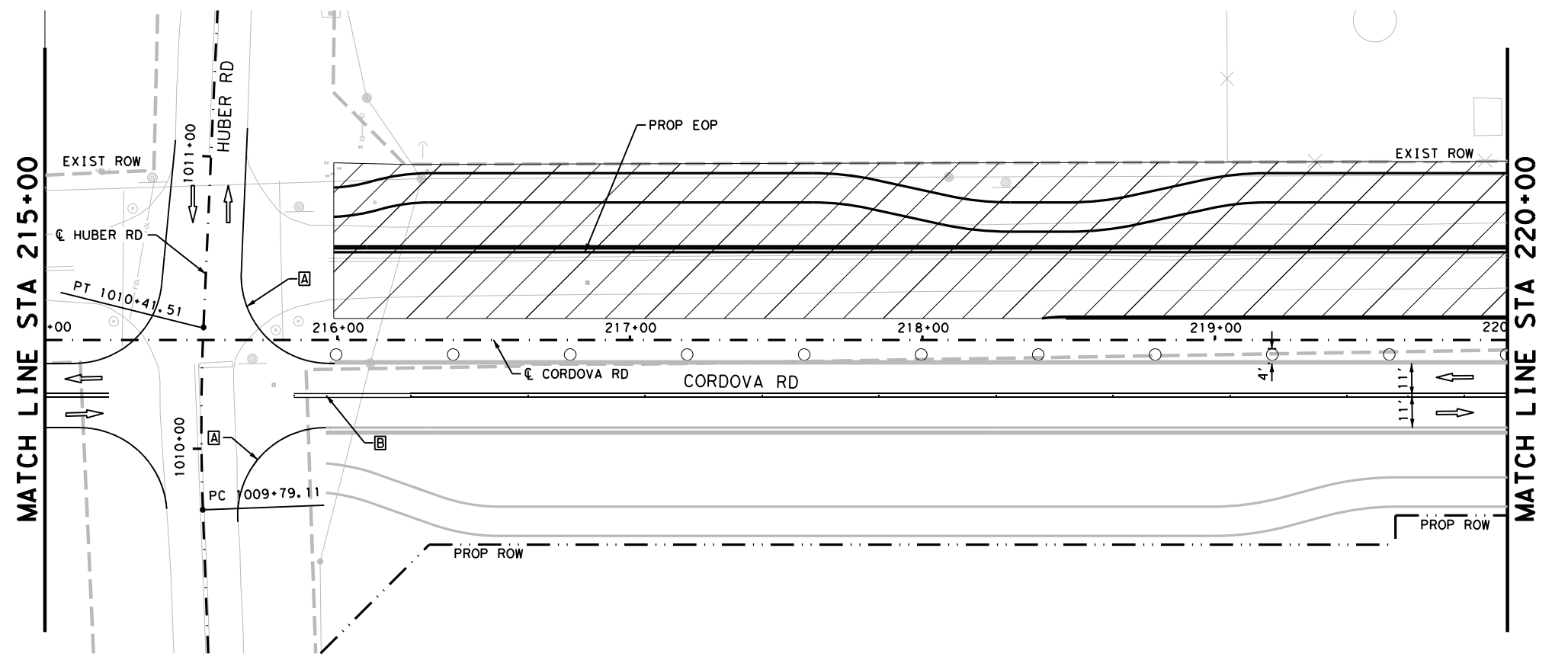
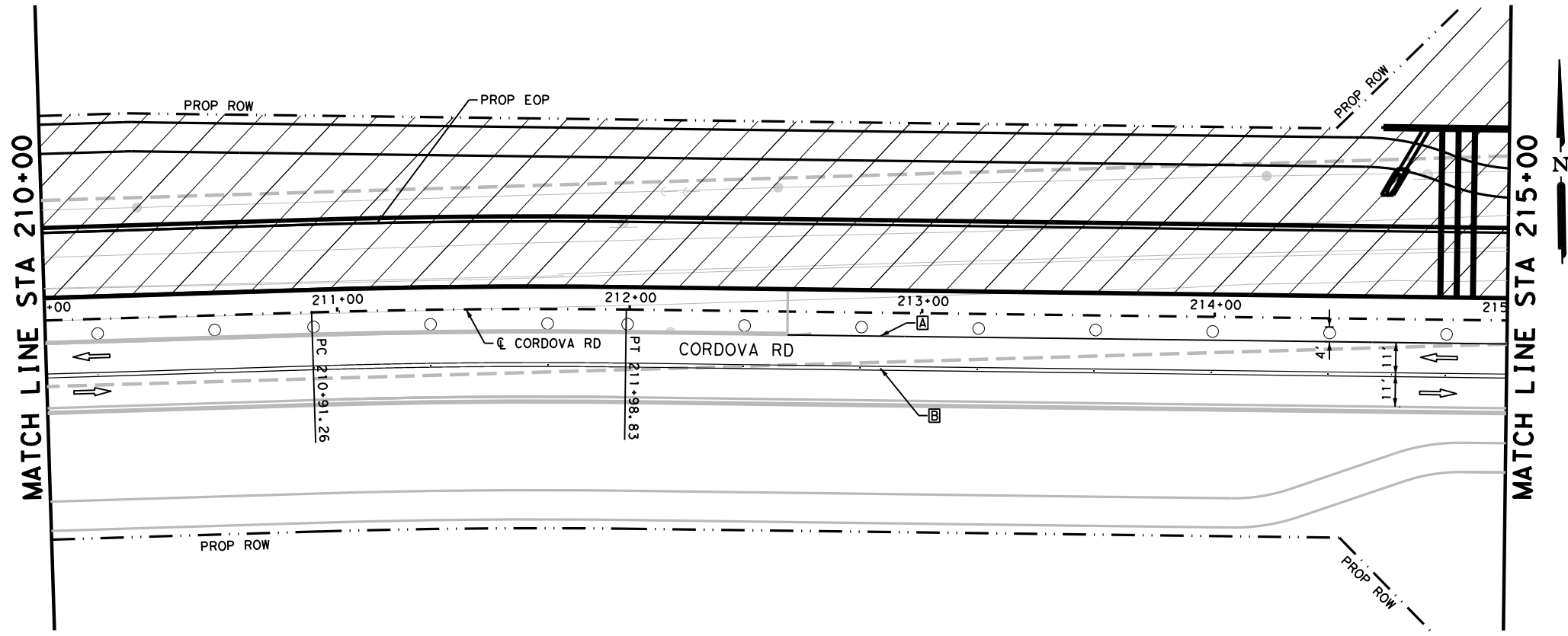
STA 200+00 TO STA 210+00

SHEET 11 OF 22

DWG:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DWG:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	69

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_12.dgn



LEGEND

- CONSTRUCTION AREA PHASE II
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

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DESIGN

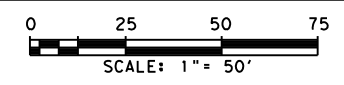
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

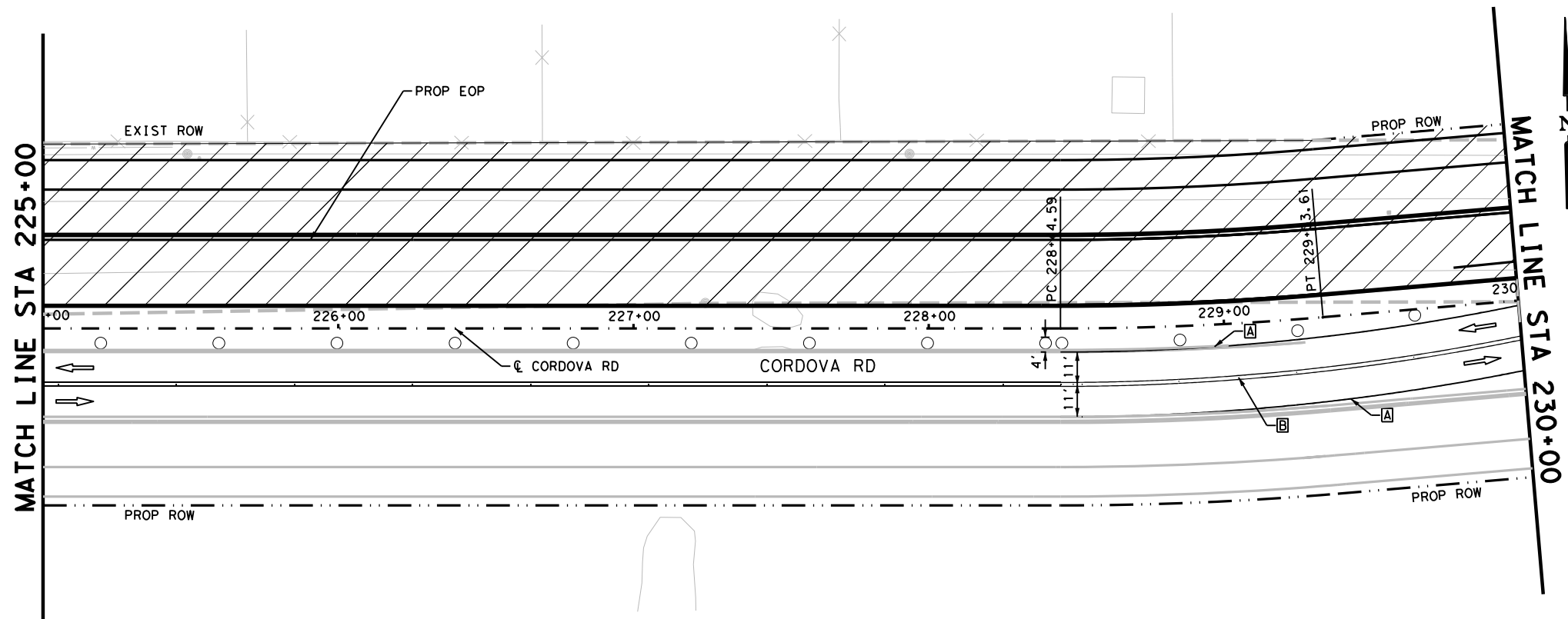
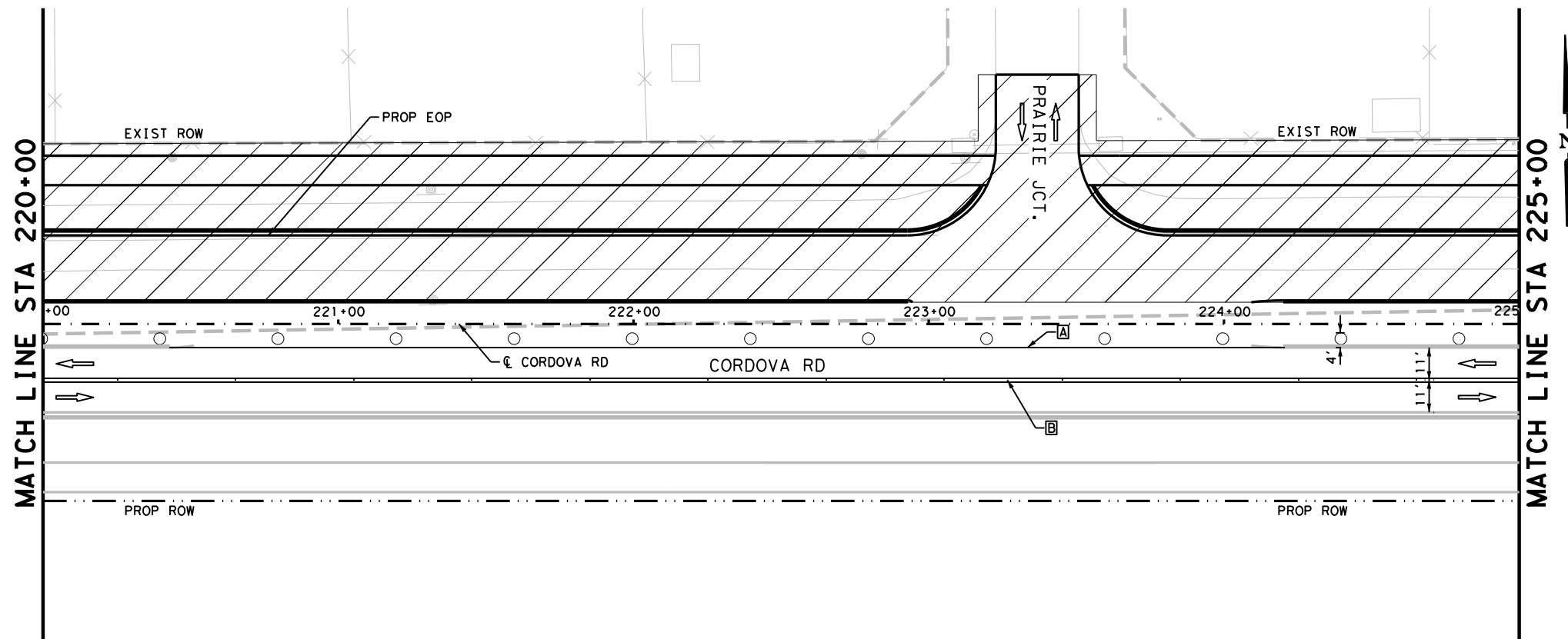
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
<p>PAPE-DAWSON ENGINEERS</p> <p style="font-size: small;">SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800</p>			
<p>SEGUIN TEXAS</p> <p style="font-size: small;">It's real.</p>			
<p>Texas Department of Transportation ©2023</p>			
<p>CORDOVA RD</p> <p>TRAFFIC CONTROL PLAN</p> <p>PHASE II</p> <p>STA 210+00 TO STA 220+00</p> <p style="text-align: right;">SHEET 12 OF 22</p>			
DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.
CHK:	DIV. NO.:	TEXAS:	CORDOVA
DNG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT:	GUADALUPE:	0915 45 052 70

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_13.dgn



LEGEND

CONSTRUCTION AREA PHASE II
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

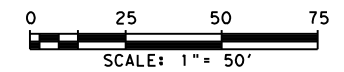
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DESIGN

INTERIM REVIEW
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 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

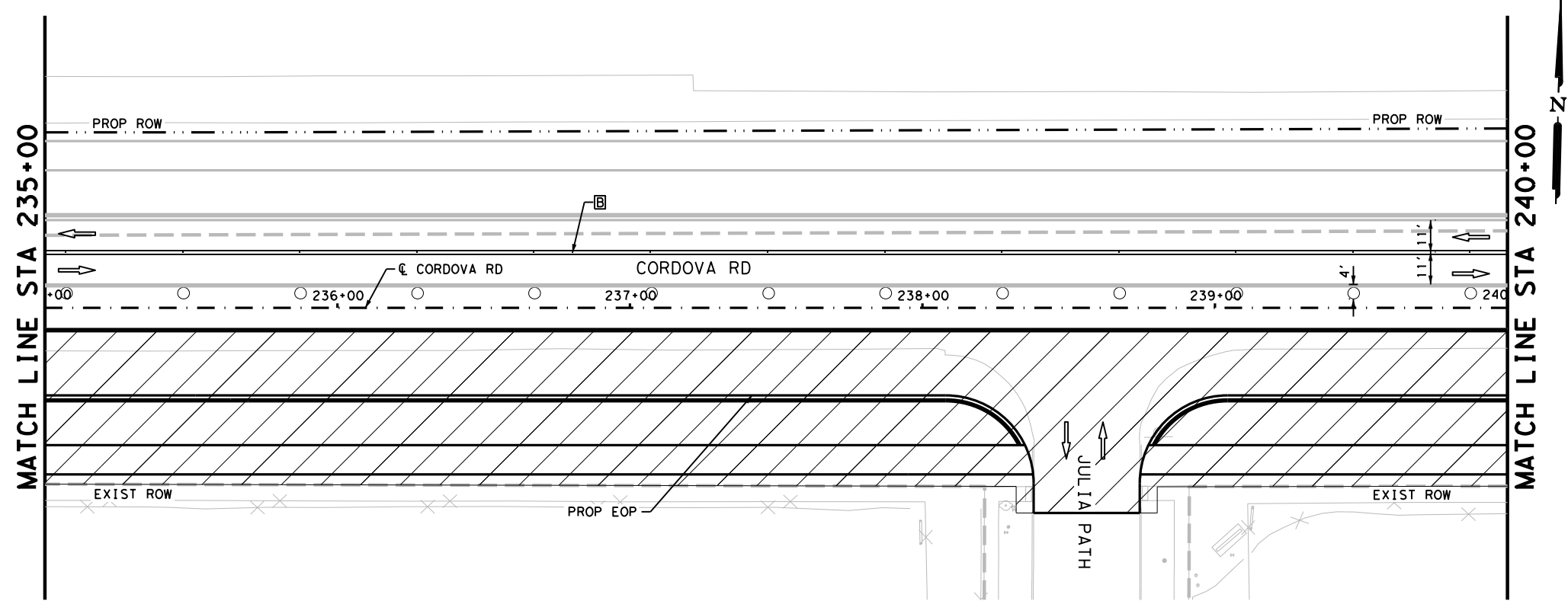
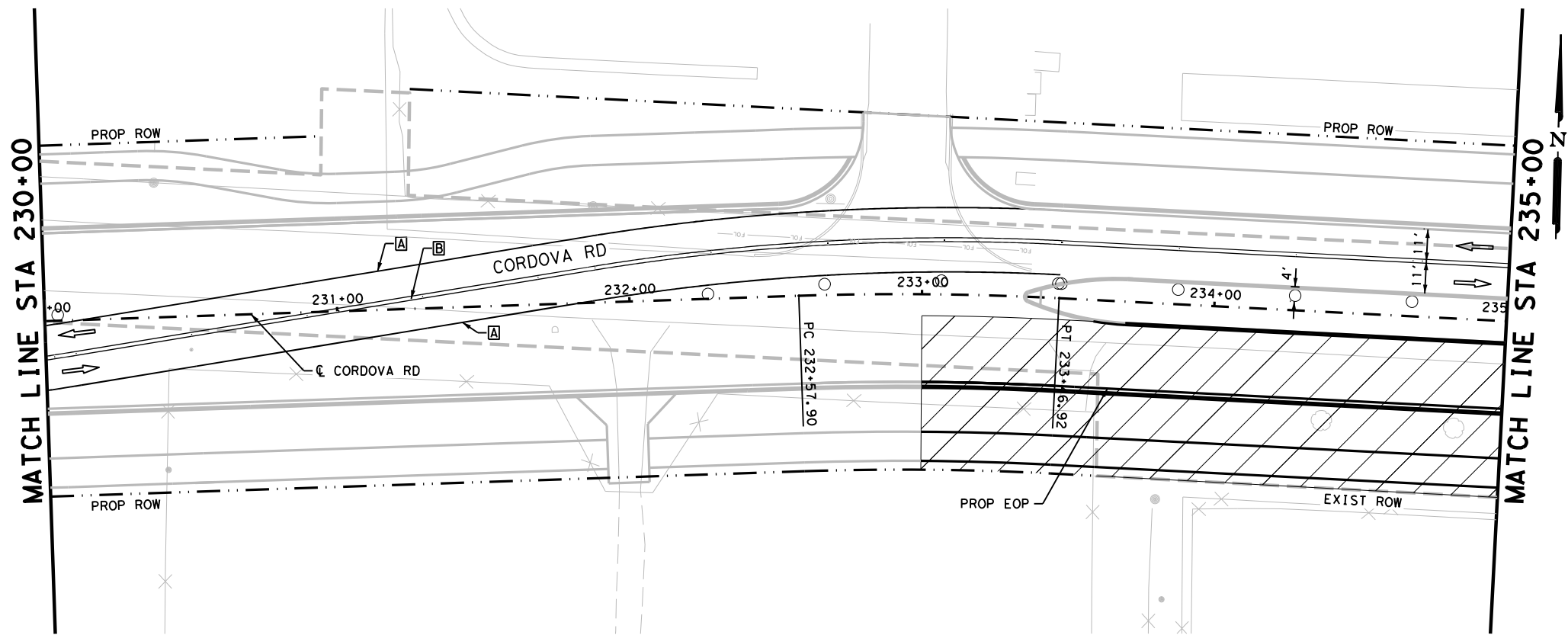
STA 220+00 TO STA 230+00

SHEET 13 OF 22

DGN:	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	71

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_14.dgn



- LEGEND**
- CONSTRUCTION AREA PHASE II
 - TEMPORARY PAVEMENT
 - TYPE III BARRICADE
 - SIGN
 - TRAFFIC FLOW ARROWS
 - PLASTIC DRUMS
 - LOW PROFILE CONCRETE BARRIER (LPCB)
 - WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 - WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

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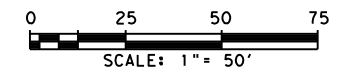
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

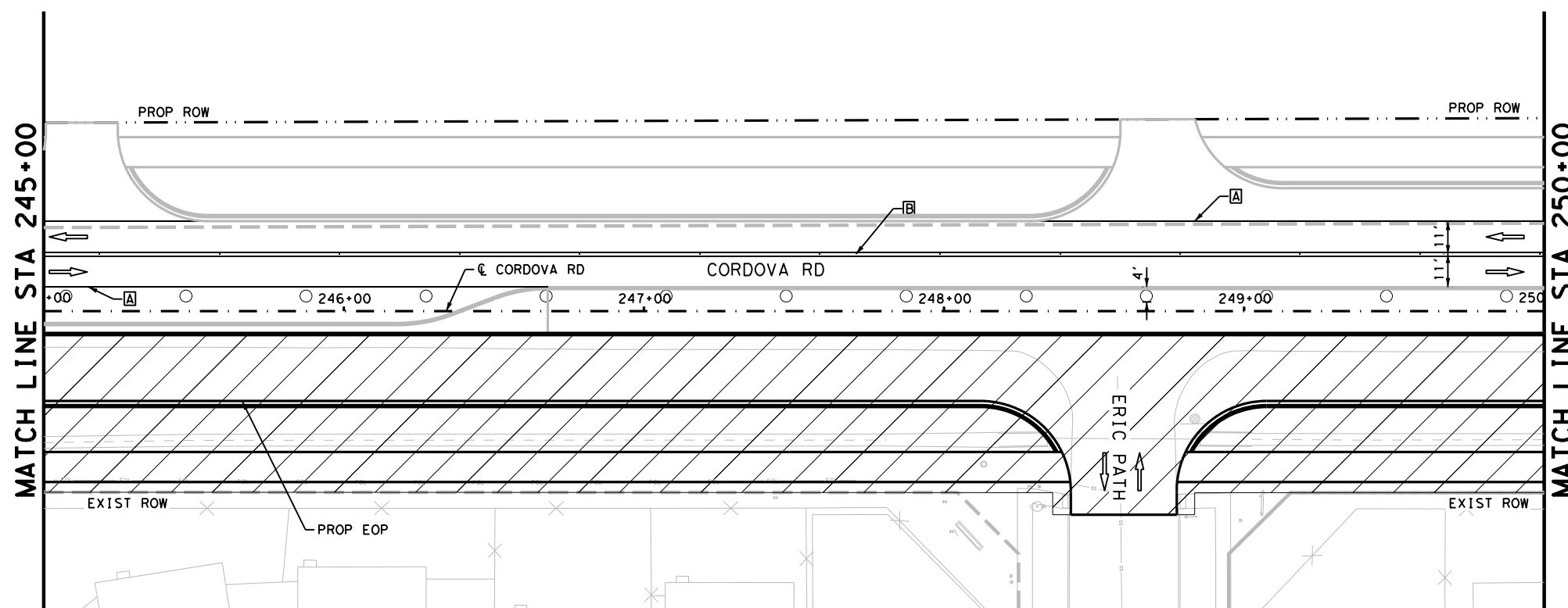
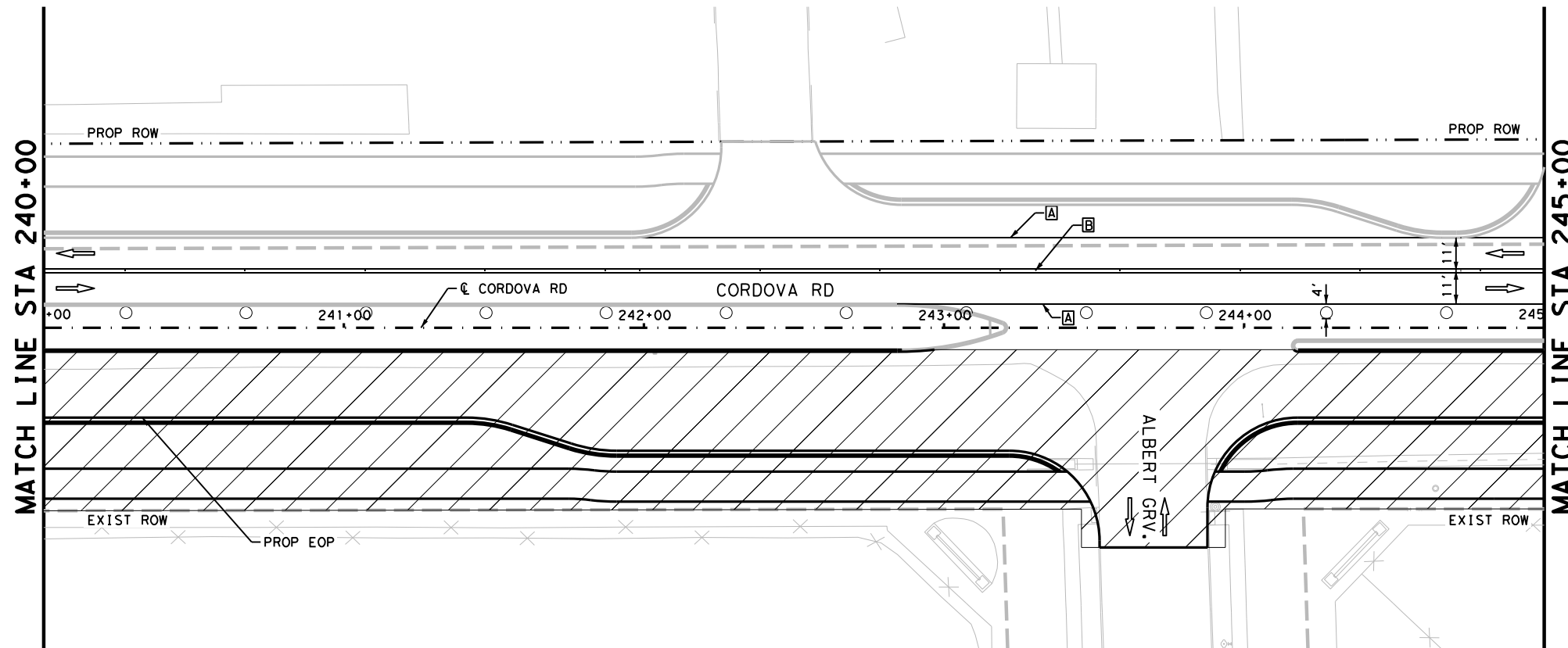
STA 230+00 TO STA 240+00

SHEET 14 OF 22

DGN:	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	72

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_15.dgn



- LEGEND**
- CONSTRUCTION AREA PHASE II
 - TEMPORARY PAVEMENT
 - TYPE III BARRICADE
 - SIGN
 - TRAFFIC FLOW ARROWS
 - PLASTIC DRUMS
 - LOW PROFILE CONCRETE BARRIER (LPCB)
 - WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
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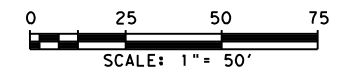
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

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 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



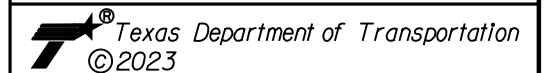
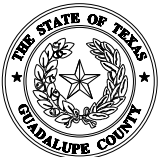
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

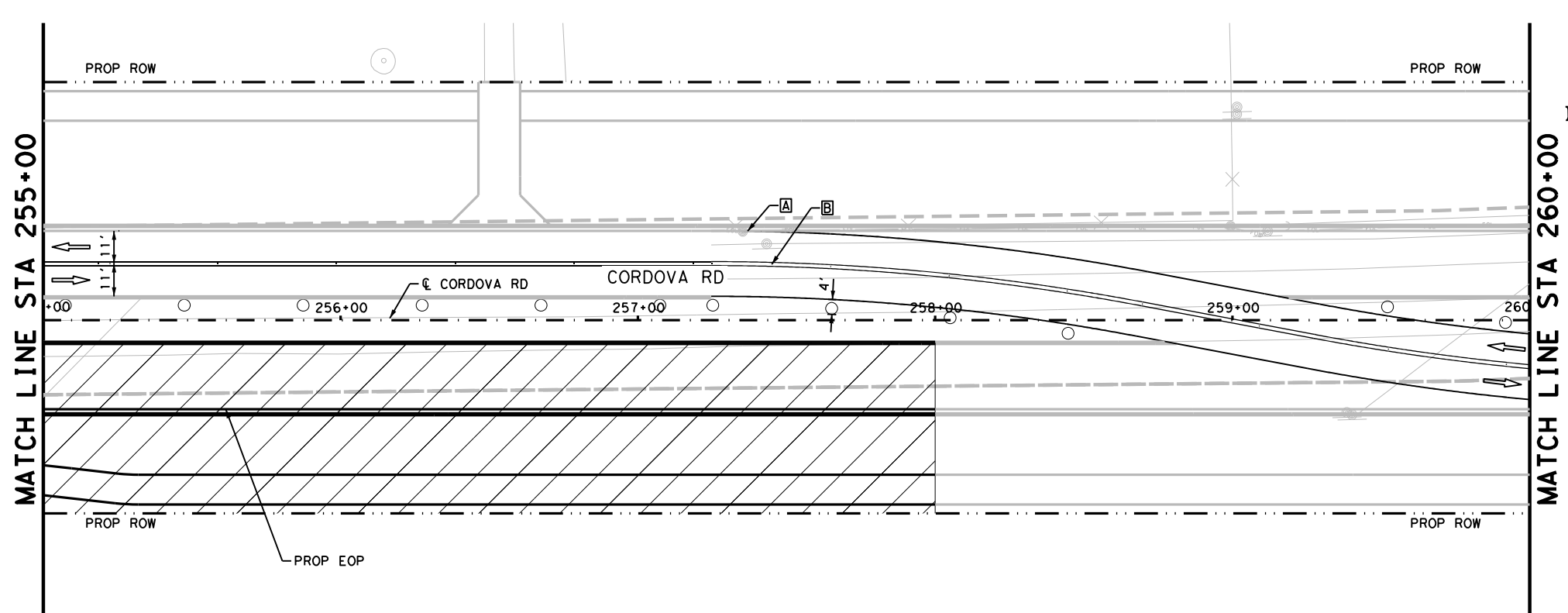
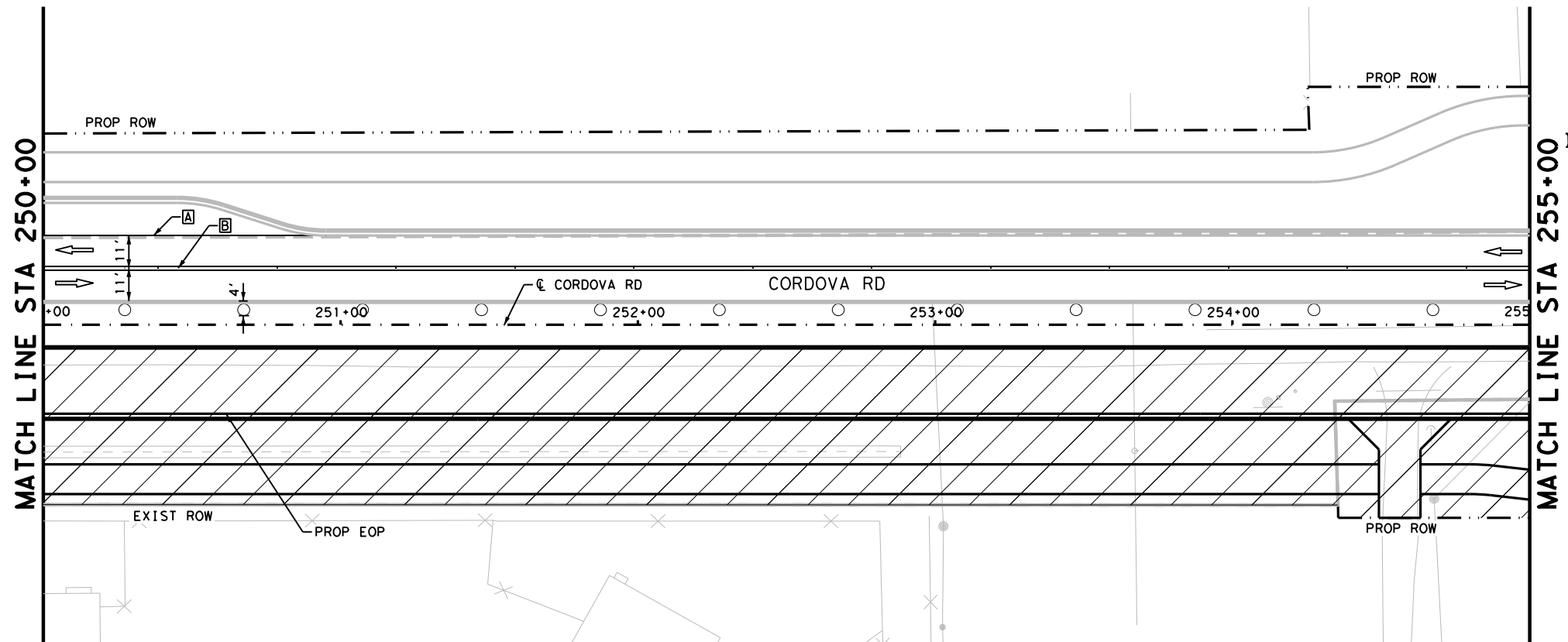
STA 240+00 TO STA 250+00

SHEET 15 OF 22

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	73

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_16.dgn



LEGEND

CONSTRUCTION AREA PHASE II
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

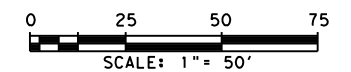
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
- EXISTING FEATURES ARE SHOWN SCREENED BACK.
- EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
- ONE SECTION OF LPCB TY 2 MUST BE PLACED AT EACH UPSTREAM AND DOWNSTREAM END. THE TY 2 IS INCLUDED IN THE LPCB CALLOUTS.
- A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

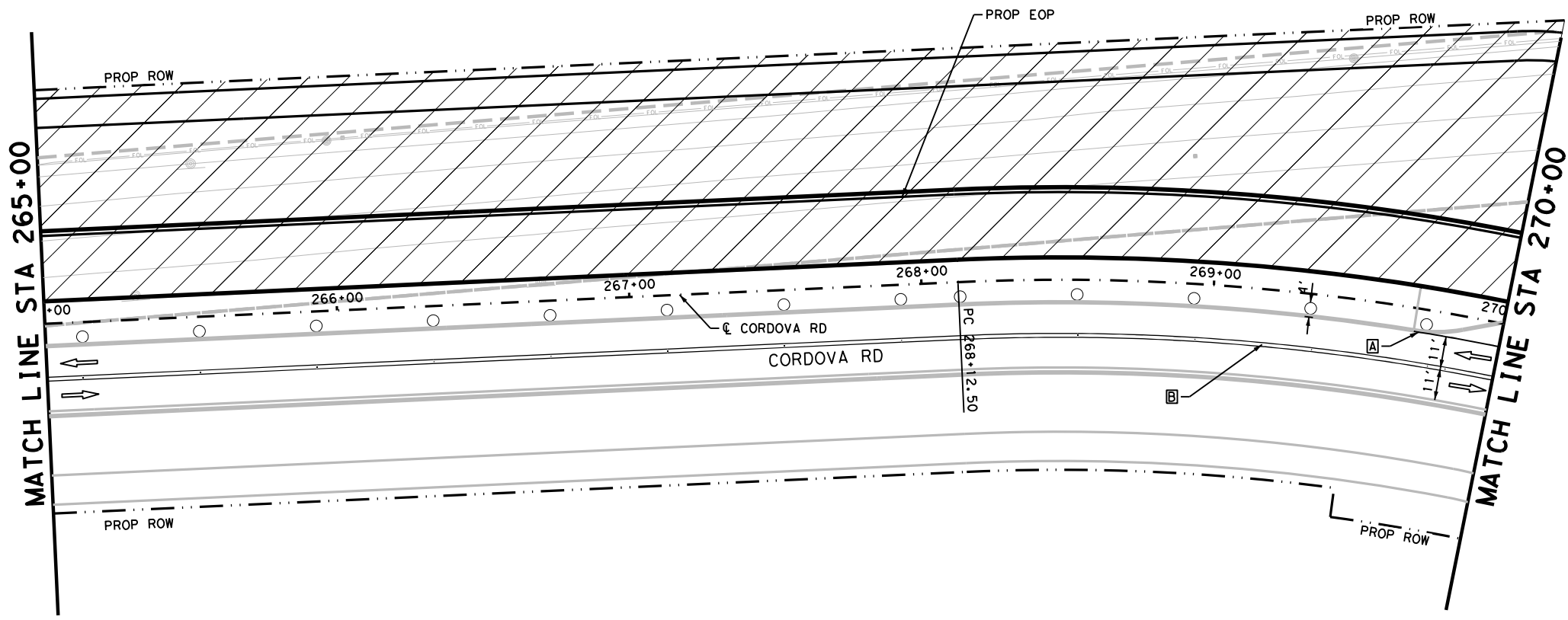
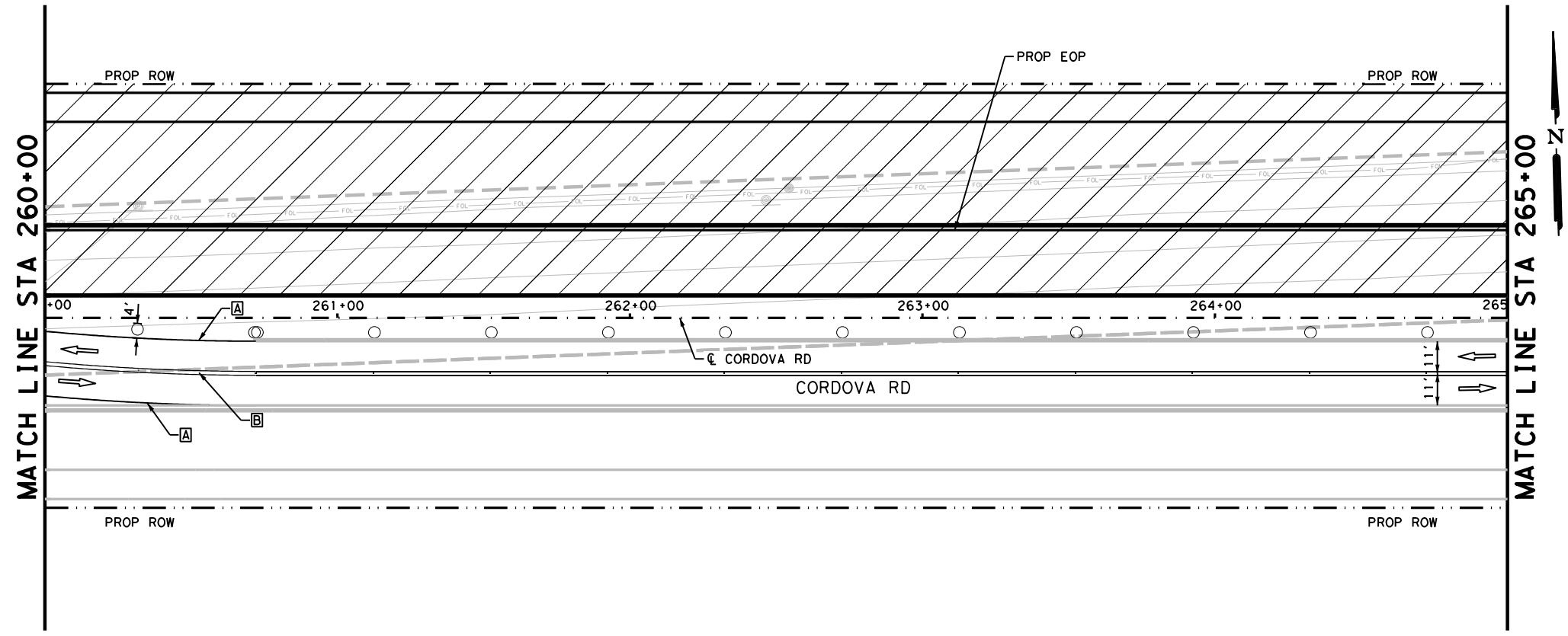
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
 It's real.			
 © 2023			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE II STA 250+00 TO STA 260+00 SHEET 16 OF 22			
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO.
CHK:	SAT	GUADALUPE	0915 45 052 74

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_17.dgn



LEGEND

CONSTRUCTION AREA PHASE II
 TEMPORARY PAVEMENT
 TYPE III BARRIADA
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
- EXISTING FEATURES ARE SHOWN SCREENED BACK.
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- A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

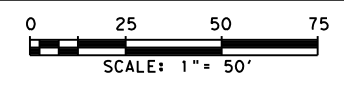
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

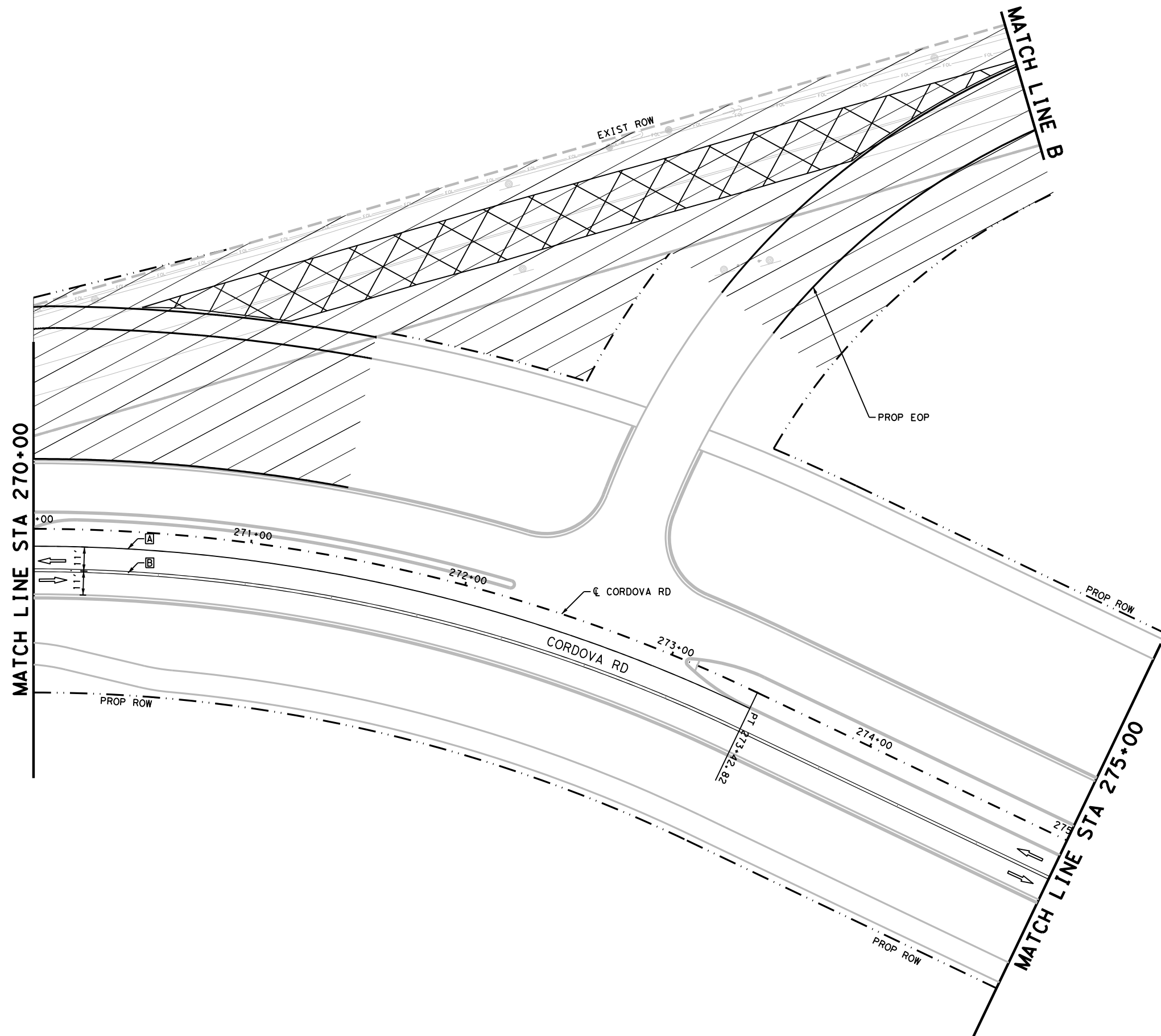
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
 It's real.			
 ©2023			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE II STA 260+00 TO STA 270+00 SHEET 17 OF 22			
CHK	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
DGN:	6	TEXAS	CORDOVA
CHK	DIST.	COUNTY	CONT. NO.
DWG:	SAT	GUADALUPE	0915
CHK			SECT. NO.
DWG:			45
CHK			JOB NO.
DWG:			052
CHK			SHEET NO.
DWG:			75

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_18.dgn



LEGEND

CONSTRUCTION AREA PHASE II
 TEMPORARY PAVEMENT
 TYPE III BARRICADE
 SIGN
 TRAFFIC FLOW ARROWS
 PLASTIC DRUMS
 LOW PROFILE CONCRETE BARRIER (LPCB)
 WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
 WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

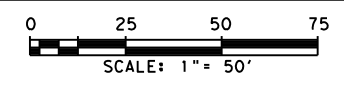
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
- EXISTING FEATURES ARE SHOWN SCREENED BACK.
- EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
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- A 3:1 TRAVERSABLE SAFETY SLOPE MUST BE ADDED TO ALL DROPOFFS GREATER THAN 24" IN AREAS NOT PROTECTED BY BARRIER AT THE END OF THE WORK DAY.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

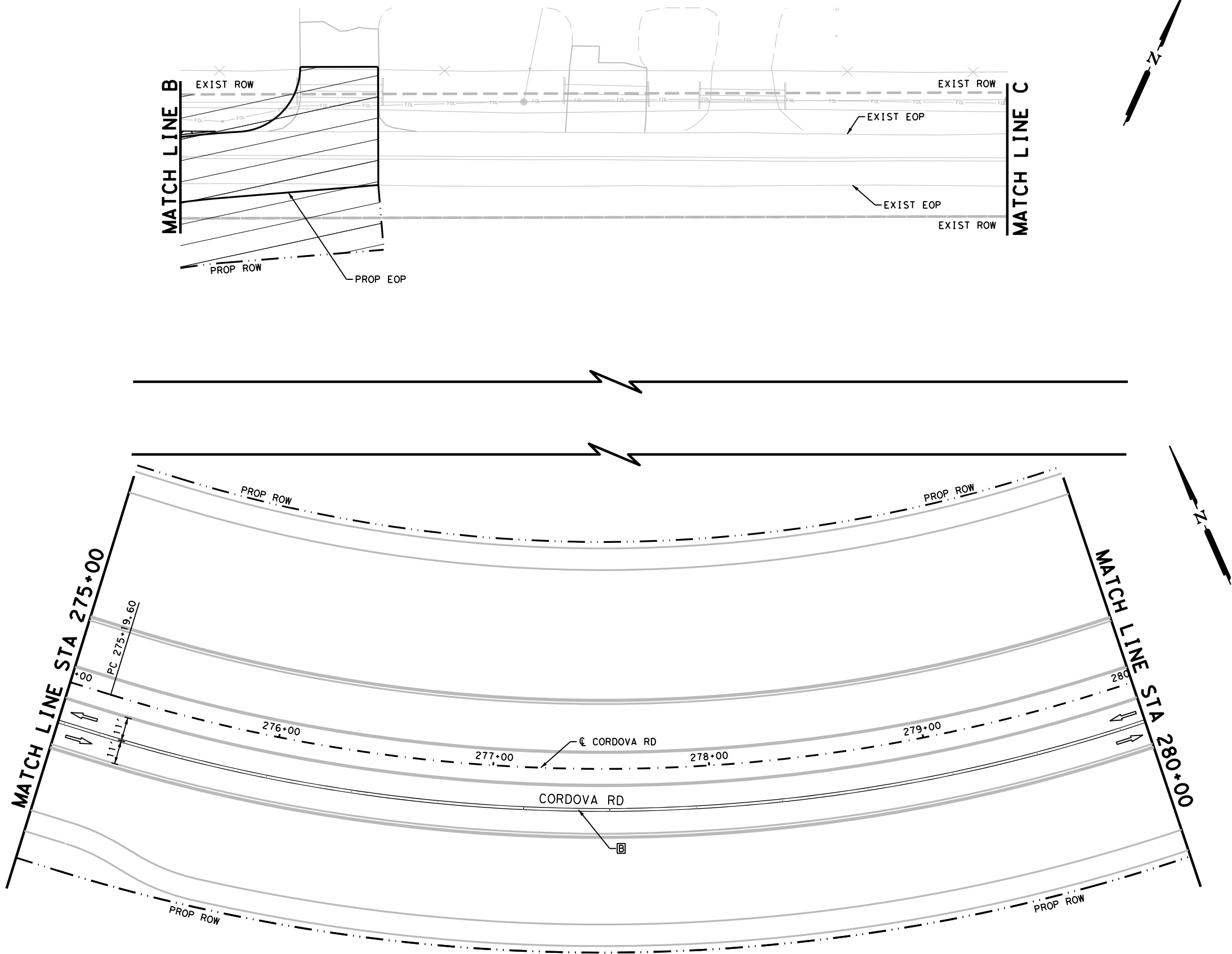
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 PAPE-DAWSON ENGINEERS SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			
 SEGUIN TEXAS It's real.			
 Texas Department of Transportation ©2023			
CORDOVA RD TRAFFIC CONTROL PLAN PHASE II STA 270+00 TO STA 275+00 SHEET 18 OF 22			
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO.
CHK:	SAT	GUADALUPE	0915 45 052 76

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_19.dgn



LEGEND

- CONSTRUCTION AREA PHASE II
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

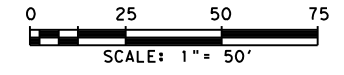
- NOTES:**
- FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
 - EXISTING FEATURES ARE SHOWN SCREENED BACK.
 - EXISTING PAVEMENT MARKINGS CONFLICTING WITH WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK IS CONSIDERED SUBSIDIARY TO THE WORK ZONE PAVEMENT MARKING ITEMS.
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

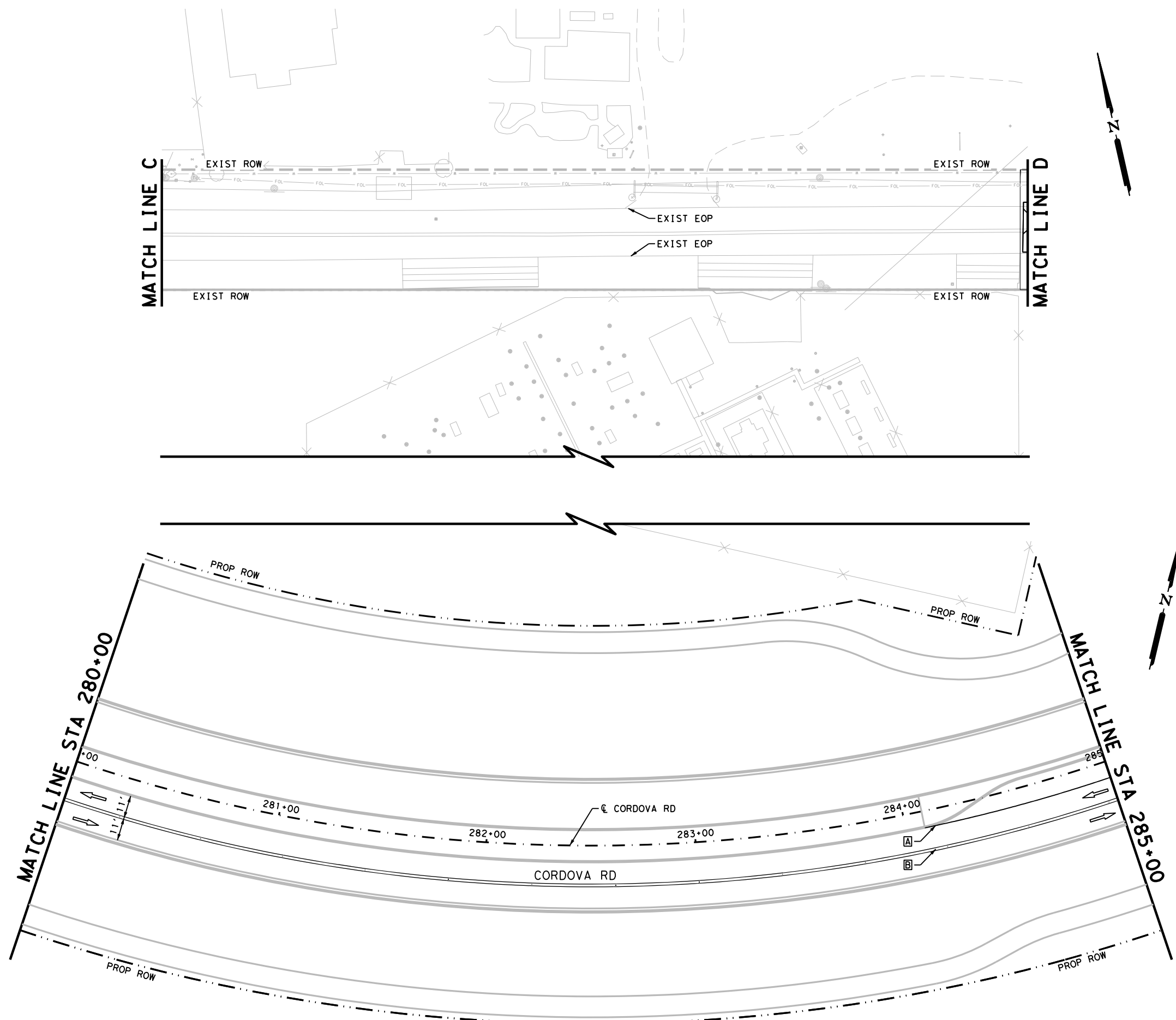
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
©2023 CORDOVA RD TRAFFIC CONTROL PLAN PHASE II STA 275+00 TO STA 280+00 SHEET 19 OF 22			
DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	DIV. NO.:	TEXAS:	CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT:	GUADALUPE:	0915 45 052 77

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_20.dgn



LEGEND

- CONSTRUCTION AREA PHASE II
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

- NOTES:**
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DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P. E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

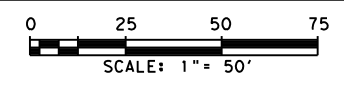
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P. E. SERIAL NO: 105193

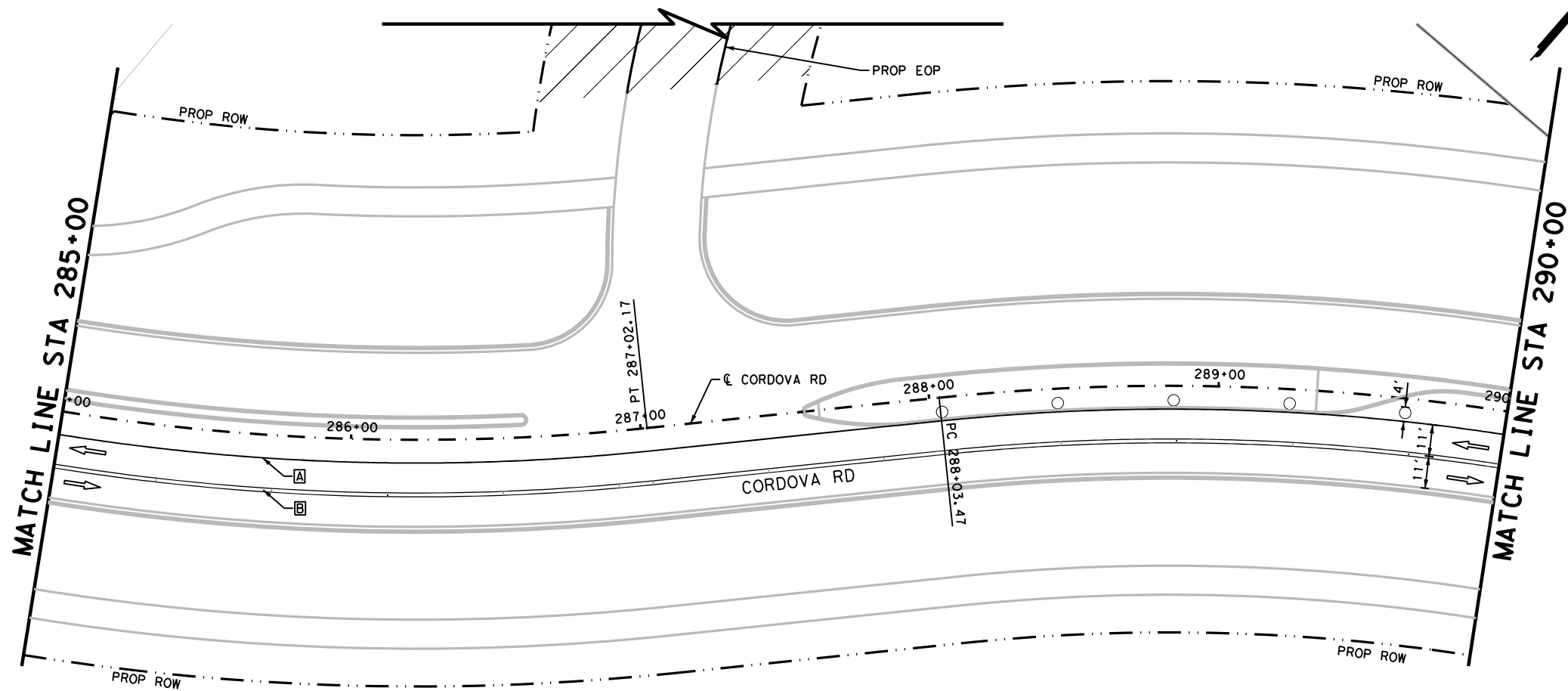
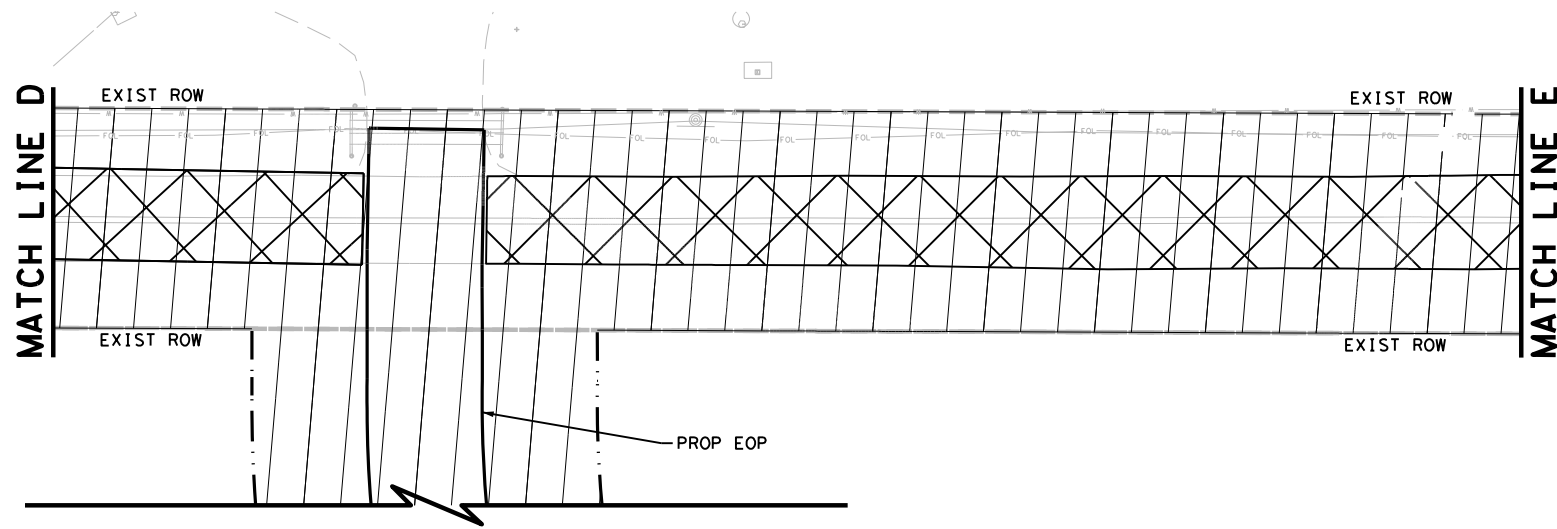
DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
<p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
<p>SEGUIN TEXAS</p> <p>It's real.</p>			
<p>Texas Department of Transportation ©2023</p>			
<p>CORDOVA RD</p> <p>TRAFFIC CONTROL PLAN PHASE II</p> <p>STA 280+00 TO STA 285+00</p> <p style="text-align: right;">SHEET 20 OF 22</p>			
DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO.:
CHK:	SAT	GUADALUPE	0915
			SECT. NO.:
			45
			JOB NO.:
			052
			SHEET NO.:
			78

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_21.dgn



LEGEND

- CONSTRUCTION AREA PHASE II
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

NOTES:

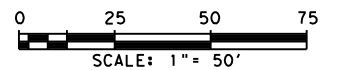
1. FOR ADDITIONAL DETAILS SEE TxDOT TCP STANDARD SHEETS.
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



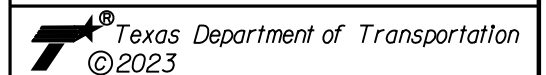
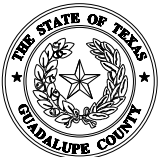
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**

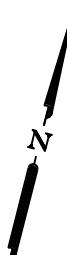
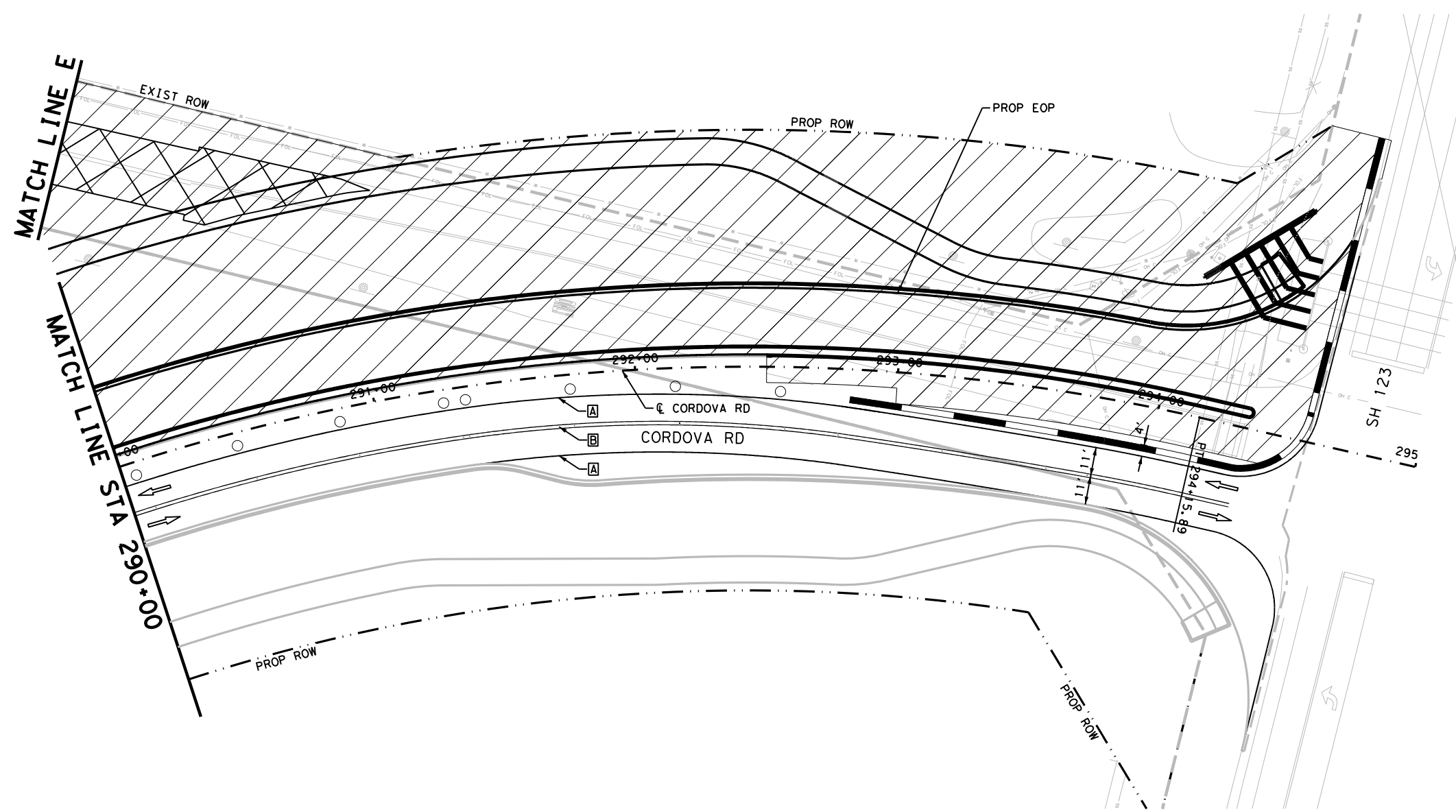
STA 285+00 TO STA 290+00

SHEET 21 OF 22

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	79

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\TCP\Phase I\1277500_TCP_Ph2_22.dgn



LEGEND

- CONSTRUCTION AREA PHASE II
- TEMPORARY PAVEMENT
- TYPE III BARRICADE
- SIGN
- TRAFFIC FLOW ARROWS
- PLASTIC DRUMS
- LOW PROFILE CONCRETE BARRIER (LPCB)
- WK ZN PAV MRK NON-REMOV (W) 6" (SLD)
- WK ZN PAV MRK NON-REMOV (Y) 6" (DBL) (SLD)

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DESIGN

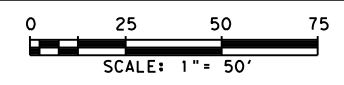
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
<p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			

SEGUIN TEXAS

It's real.

THE STATE OF TEXAS
GUADALUPE COUNTY

Texas Department of Transportation
 © 2023

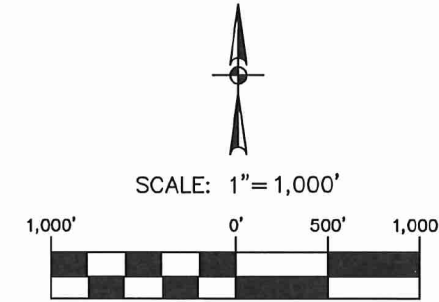
CORDOVA RD
**TRAFFIC CONTROL PLAN
 PHASE II**
 STA 290+00 TO END OF PROJECT
 SHEET 22 OF 22

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	80

Plotted on: July 20, 2023

Design Filename: N:\TRANSP\CIVIL\12775-00\CONTROL SHEETS\CT 12775-00 SEGUIN-MLH.DWG

HORIZONTAL AND VERTICAL CONTROL POINTS				
Point #	Northing	Easting	Elevation	Full Description
50	13,780,269.16	2,277,895.93	589.96	MAG NAIL & WASHER
51	13,779,469.20	2,278,587.47	587.58	MAG NAIL & WASHER
52	13,779,443.43	2,284,204.79	580.19	MAG NAIL & WASHER
53	13,778,683.52	2,284,079.80	580.46	MAG NAIL & WASHER
54	13,779,354.28	2,292,144.04	594.36	MAG NAIL & WASHER
55	13,777,847.98	2,292,104.52	593.85	MAG NAIL & WASHER
56	13,780,032.11	2,296,957.28	576.81	MAG NAIL & WASHER
57	13,778,614.39	2,296,968.07	577.06	MAG NAIL & WASHER
89	13,779,353.71	2,296,983.86	575.22	BM-CW123 CHISELLED SQUARE ON CONCRETE
90	13,779,348.54	2,278,820.42	588.69	BM-CW125 CHISELLED SQUARE ON CONCRETE
91	13,779,499.02	2,289,276.70	590.81	BM-CW124 CHISELLED "X" ON FIRE HYDRANT BOLT



NOTES:
 1. COORDINATES SHOWN ARE DISPLAYED AS SURFACE VALUES IN US SURVEY FEET, BASED ON THE NORTH AMERICAN DATUM OF 1983 (2011) EPOCH 2010.00 FROM THE TEXAS COORDINATE SYSTEM ESTABLISHED FOR THE SOUTH CENTRAL ZONE, WITH A SURFACE ADJUSTMENT FACTOR OF 1.00015 APPLIED.
 2. ELEVATIONS SHOWN ARE BASED ON NAVD88 (GEOID 18), OBTAINED BY RTK METHODS AND BALANCING A CLOSED, DOUBLE RUN DIGITAL LEVEL LOOP.
 3. FIELD WORK FOR THIS SURVEY WAS COMPLETED IN JANUARY, 2023.
 4. CONTRACTOR MUST VERIFY CONTROL POINT PRIOR TO BEGINNING CONSTRUCTION.

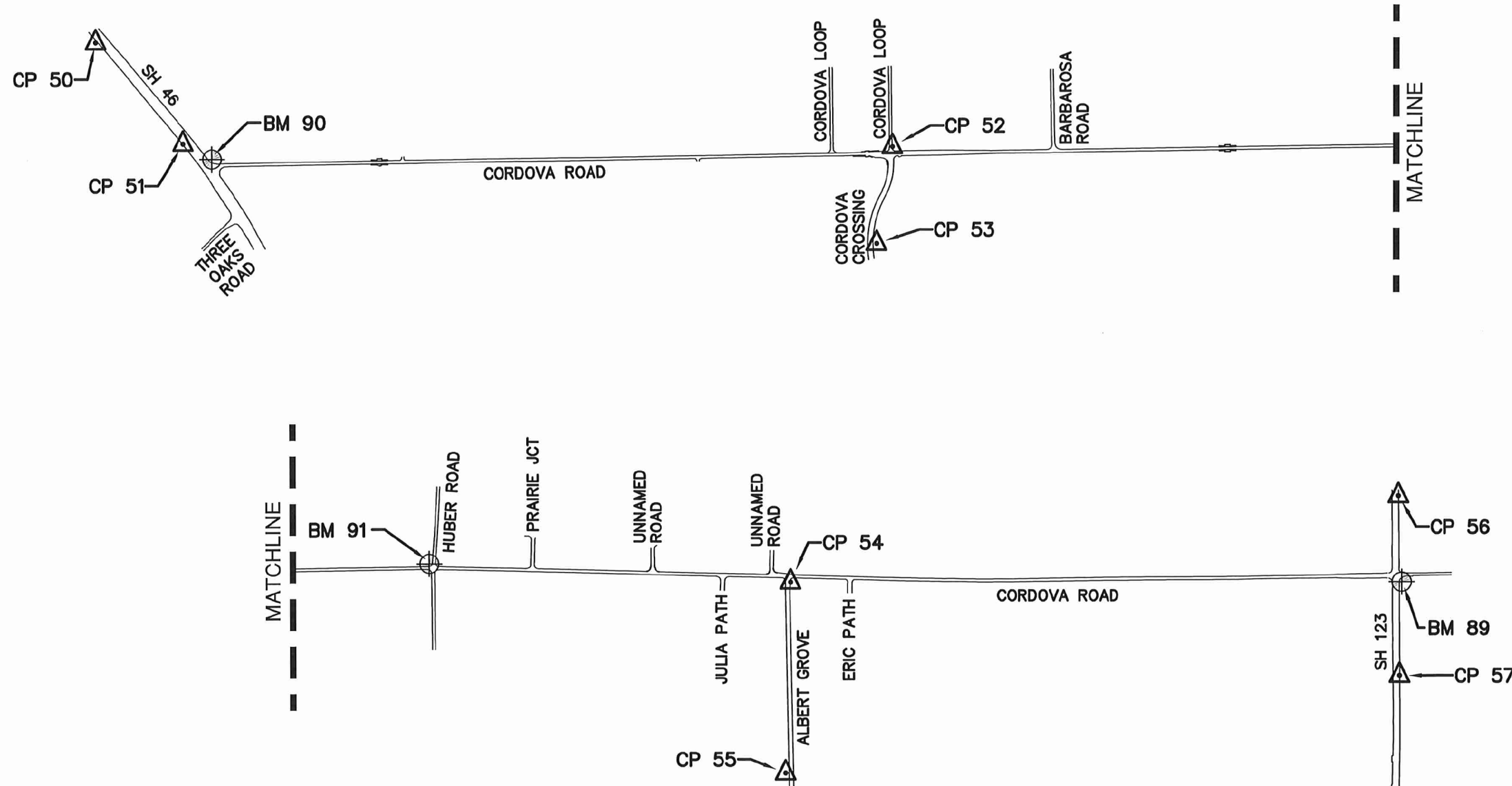
LEGEND

- CP CONTROL POINT
- BM BENCHMARK
- N.T.S. NOT TO SCALE

SURVEYOR'S CERTIFICATION:

THE CONTROL POINTS SHOWN HEREIN WERE DETERMINED BY A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION.

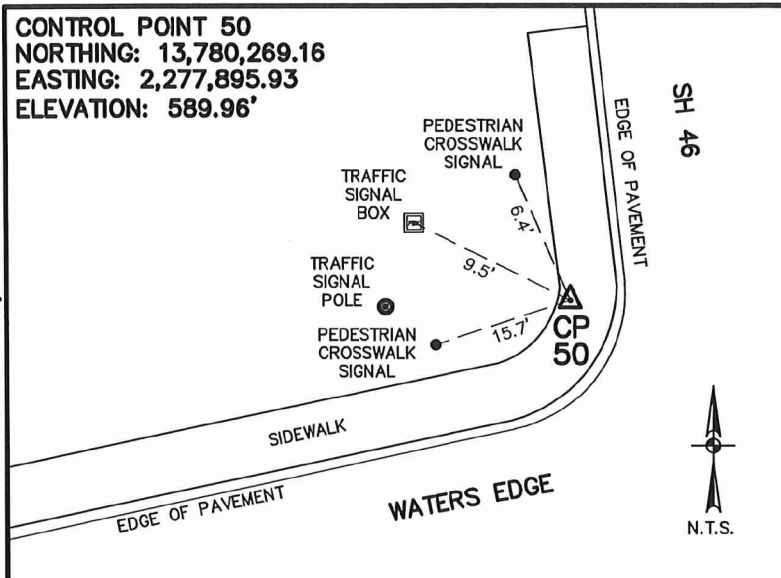
Sharon L. Sabin 1/6/2023
 SHARON L. SABIN
 RPLS 6950



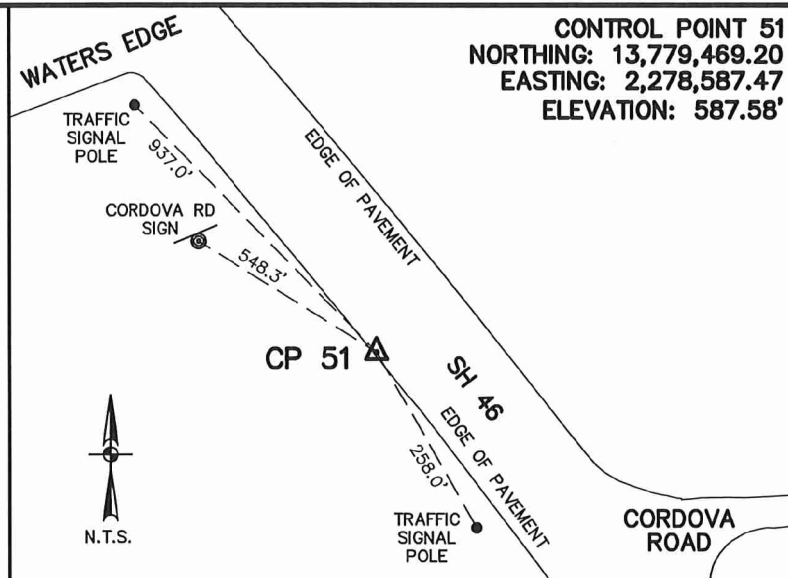
REV. NO.	DATE	DESCRIPTION	BY	
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TPPE FIRM REGISTRATION #470 TPLS FIRM REGISTRATION #10028800				
 It's real.				
 © 2023				
CORDOVA RD HORIZONTAL AND VERTICAL CONTROL SHEETS				
SHEET 1 OF 3				
CHK:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
OWG:	6	TEXAS		CORDOVA
CHK:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
OWG:	SAT	GUADALUPE	0915	45
				JOB NO.:
				052
				SHEET NO.:
				81

Plotted on: July 20, 2023

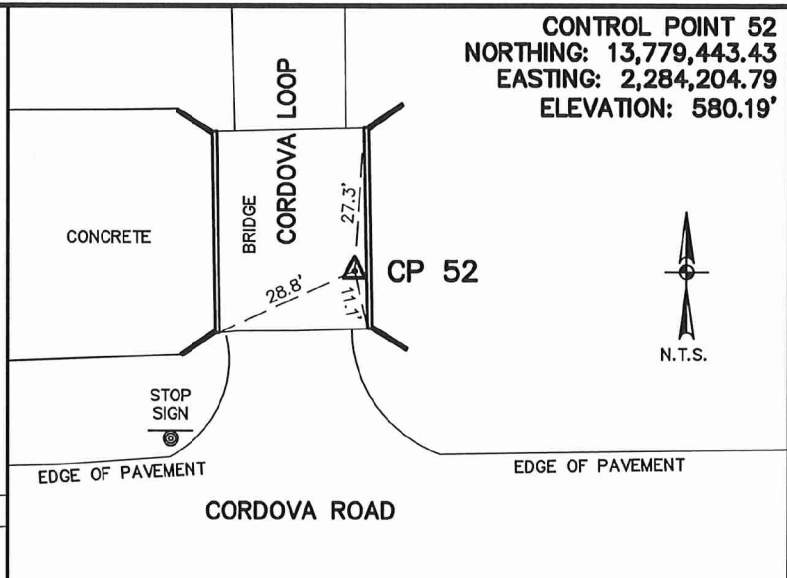
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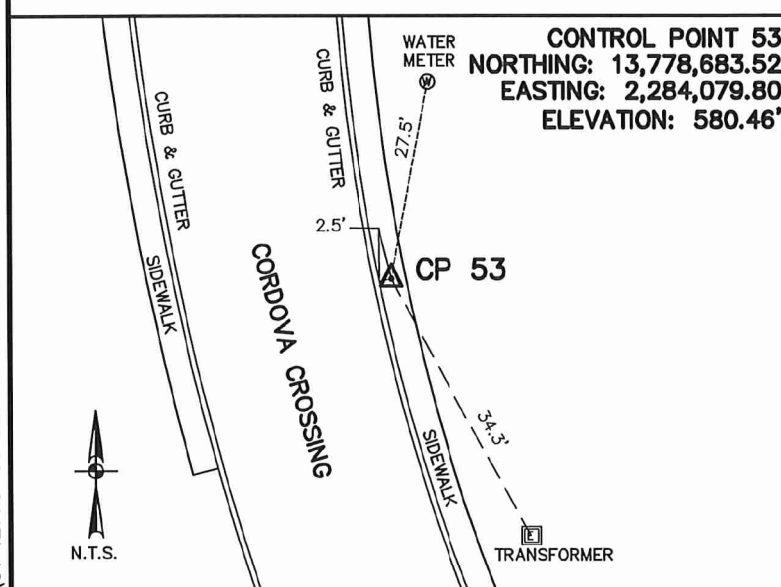
MAG NAIL WITH WASHER ON THE WEST SIDE OF SH 46 APPROXIMATELY 1,350 FEET NORTH OF THE INTERSECTION OF SH 46 AND CORDOVA ROAD.



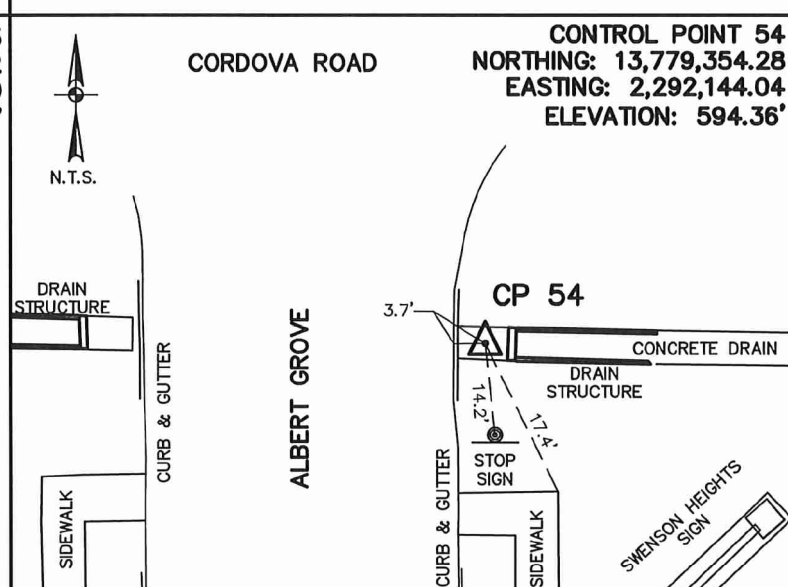
MAG NAIL WITH WASHER ON THE WEST SIDE OF SH 46 APPROXIMATELY 280 FEET NORTH OF THE INTERSECTION OF SH 46 AND CORDOVA ROAD.



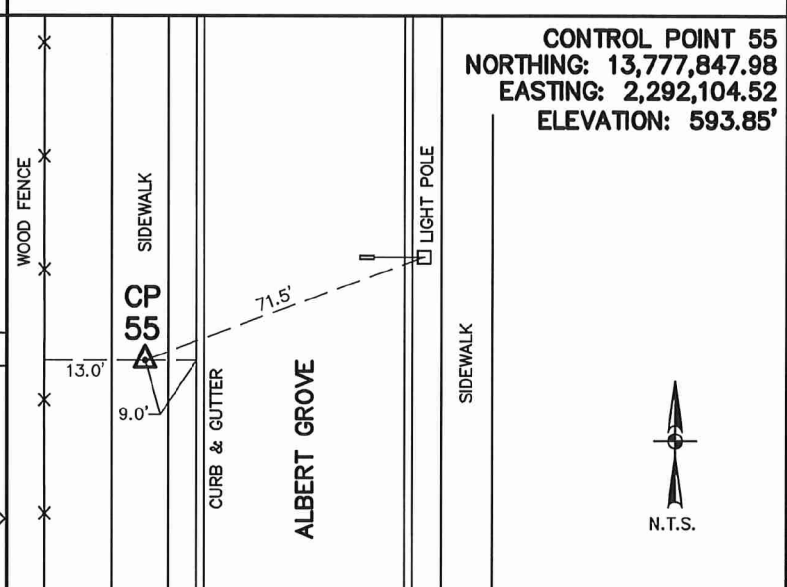
MAG NAIL WITH WASHER ON THE EAST SIDE OF CORDOVA LOOP APPROXIMATELY 50 FEET NORTH OF THE INTERSECTION OF CORDOVA LOOP AND CORDOVA ROAD.



MAG NAIL WITH WASHER ON THE EAST SIDE OF CORDOVA CROSSING APPROXIMATELY 720 FEET SOUTH OF THE INTERSECTION OF CORDOVA CROSSING AND CORDOVA ROAD.



MAG NAIL WITH WASHER ON THE EAST SIDE OF ALBERT GROVE APPROXIMATELY 50 FEET SOUTH OF THE INTERSECTION OF ALBERT GROVE AND CORDOVA ROAD.



MAG NAIL WITH WASHER ON THE WEST SIDE OF ALBERT GROVE APPROXIMATELY 1,550 FEET SOUTH OF THE INTERSECTION OF ALBERT GROVE AND CORDOVA ROAD.

- NOTES:
- COORDINATES SHOWN ARE DISPLAYED AS SURFACE VALUES IN US SURVEY FEET, BASED ON THE NORTH AMERICAN DATUM OF 1983 (2011) EPOCH 2010.00 FROM THE TEXAS COORDINATE SYSTEM ESTABLISHED FOR THE SOUTH CENTRAL ZONE, WITH A SURFACE ADJUSTMENT FACTOR OF 1.00015 APPLIED.
 - ELEVATIONS SHOWN ARE BASED ON NAVD88 (GEOID 18), OBTAINED BY RTK METHODS AND BALANCING A CLOSED, DOUBLE RUN DIGITAL LEVEL LOOP.
 - FIELD WORK FOR THIS SURVEY WAS COMPLETED IN JANUARY, 2023.
 - CONTRACTOR MUST VERIFY CONTROL POINT PRIOR TO BEGINNING CONSTRUCTION.

LEGEND

- CP CONTROL POINT
- BM BENCHMARK
- N.T.S. NOT TO SCALE

SURVEYOR'S CERTIFICATION:

THE CONTROL POINTS SHOWN HEREIN WERE DETERMINED BY A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION.

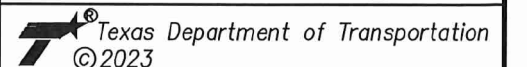
Sharon L. Sabin 1/6/2023
 SHARON L. SABIN
 RPLS 6950



REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TPPE FIRM REGISTRATION #470 | TPPLS FIRM REGISTRATION #10028800



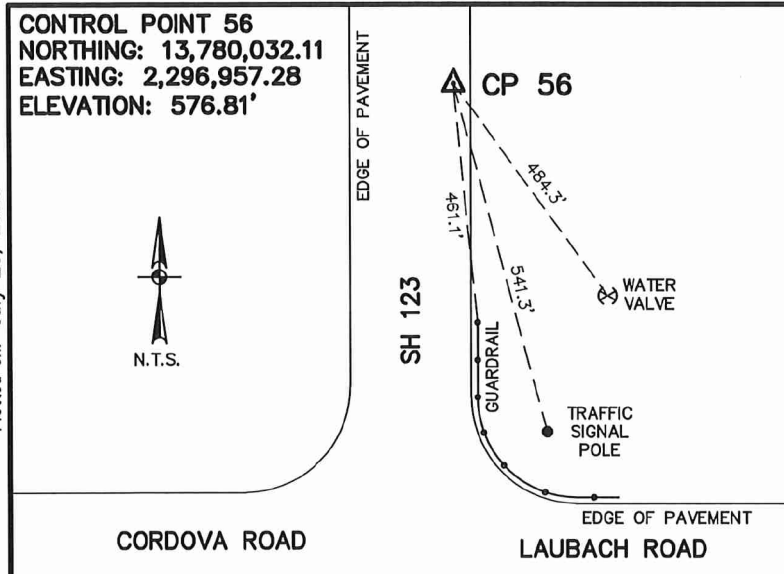
CORDOVA RD
HORIZONTAL AND VERTICAL CONTROL SHEETS

SHEET 2 OF 3

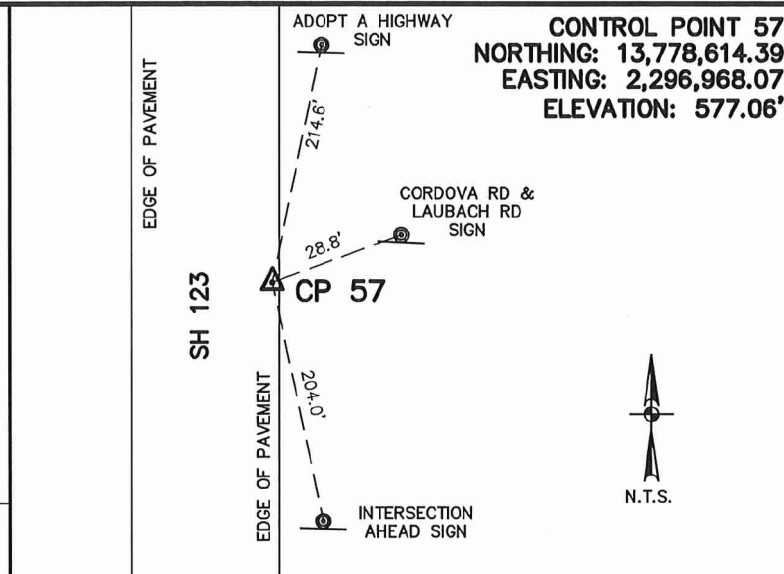
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CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	82

Plotted on: July 20, 2023

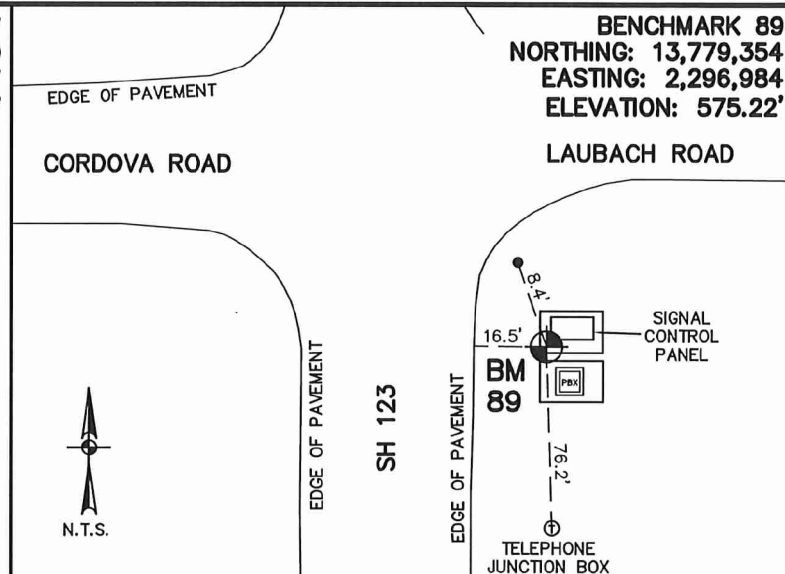
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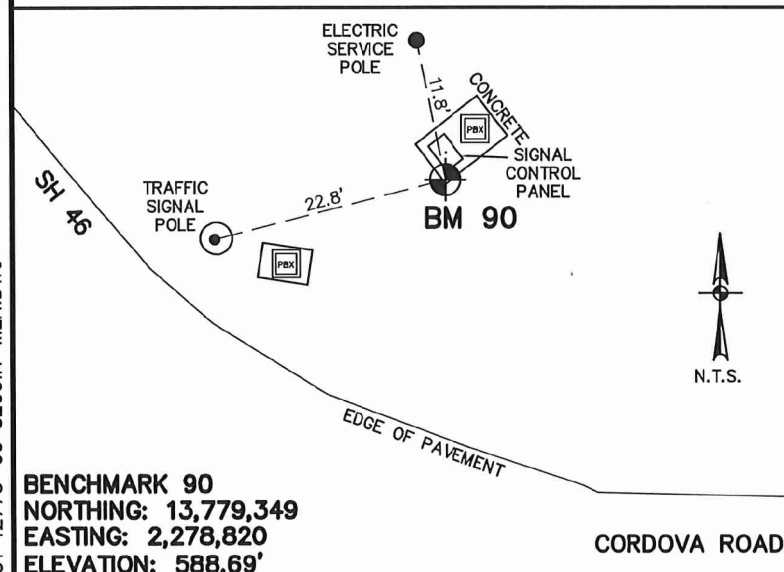
MAG NAIL WITH WASHER ON THE EAST SIDE OF SH 123 APPROXIMATELY 640 FEET NORTH OF THE INTERSECTION OF SH 123 AND CORDOVA ROAD.



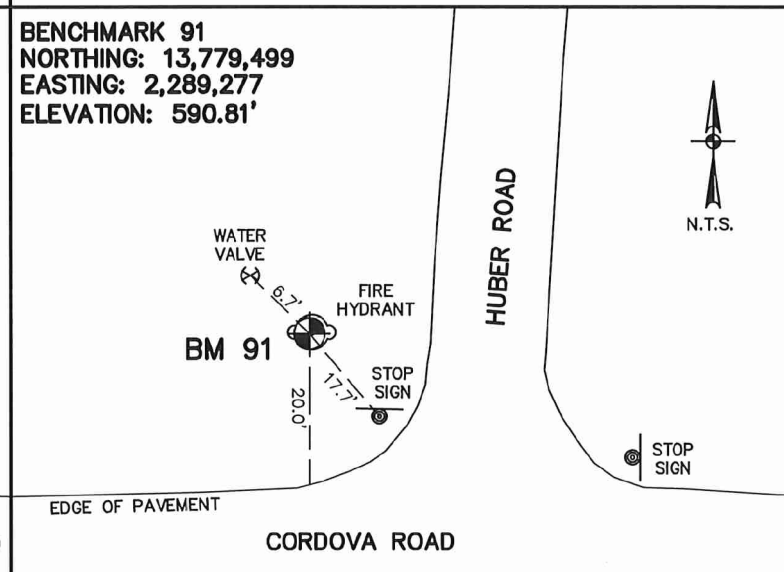
MAG NAIL WITH WASHER ON THE EAST SIDE OF SH 123 APPROXIMATELY 790 FEET SOUTH OF THE INTERSECTION OF SH 123 AND CORDOVA ROAD.



CHISELLED SQUARE IN CONCRETE ON THE SOUTHWEST CORNER OF A CONCRETE PAD WITH A SIGNAL CONTROL PANEL ON THE SOUTHEAST CORNER OF THE INTERSECTION OF SH 123 AND LAUBACH ROAD.



CHISELLED SQUARE IN CONCRETE AT THE SOUTH CORNER OF A CONCRETE PAD WITH A SIGNAL CONTROL PANEL ON THE NORTHEAST CORNER OF THE INTERSECTION OF CORDOVA ROAD AND SH 46.



CHISELLED 'X' ON FIRE HYDRANT BOLT ON THE NORTHWEST CORNER OF THE INTERSECTION OF HUBER ROAD AND CORDOVA ROAD.

- NOTES:
- COORDINATES SHOWN ARE DISPLAYED AS SURFACE VALUES IN US SURVEY FEET, BASED ON THE NORTH AMERICAN DATUM OF 1983 (2011) EPOCH 2010.00 FROM THE TEXAS COORDINATE SYSTEM ESTABLISHED FOR THE SOUTH CENTRAL ZONE, WITH A SURFACE ADJUSTMENT FACTOR OF 1.00015 APPLIED.
 - ELEVATIONS SHOWN ARE BASED ON NAVD88 (GEOID 18), OBTAINED BY RTK METHODS AND BALANCING A CLOSED, DOUBLE RUN DIGITAL LEVEL LOOP.
 - FIELD WORK FOR THIS SURVEY WAS COMPLETED IN JANUARY, 2023.
 - CONTRACTOR MUST VERIFY CONTROL POINT PRIOR TO BEGINNING CONSTRUCTION.

LEGEND

- CP CONTROL POINT
- BM BENCHMARK
- N.T.S. NOT TO SCALE
- SH STATE HIGHWAY
- PBX PULL BOX

SURVEYOR'S CERTIFICATION:
 THE CONTROL POINTS SHOWN HEREIN WERE DETERMINED BY A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION.

Sharon L. Sabin 1/6/2023
 SHARON L. SABIN
 RPLS 6950



REV. NO.	DATE	DESCRIPTION	BY

Pape-Dawson Engineers
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TPPE FIRM REGISTRATION #470 | TPELS FIRM REGISTRATION #10028800

SEGUIN TEXAS
 It's real.

Texas Department of Transportation
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CORDOVA RD
HORIZONTAL AND VERTICAL CONTROL SHEETS

SHEET 3 OF 3

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONF. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	83

CORDOVA

Plotted on: 7/27/2023

Beginning chain CORDOVA description

Point CORDOVA1 N 13,778,111.77 E 2,278,203.43 Sta 100+00.00

Course from CORDOVA1 to PC CORDOVA 3 N 45° 39' 47.18" E Dist 515.36

Curve Data

Curve CORDOVA 3
 P.I. Station 105+67.01 N 13,778,508.54 E 2,278,608.49
 Delta = 7° 23' 16.10" (RT)
 Degree = 7° 09' 43.36"
 Tangent = 51.65
 Length = 103.15
 Radius = 799.99
 External = 1.67
 Long Chord = 103.08
 Mid. Ord. = 1.66
 P.C. Station 105+15.36 N 13,778,471.95 E 2,278,572.04
 P.T. Station 106+18.51 N 13,778,540.15 E 2,278,649.34
 C.C. N 13,777,907.43 E 2,279,138.88
 Back = N 44° 52' 56.31" E
 Ahead = N 52° 16' 12.40" E
 Chord Bear = N 48° 34' 34.36" E

Curve Data

Curve CORDOVA 4
 P.I. Station 107+05.09 N 13,778,593.13 E 2,278,717.81
 Delta = 6° 36' 25.22" (LT)
 Degree = 3° 49' 11.12"
 Tangent = 86.58
 Length = 172.97
 Radius = 1,499.99
 External = 2.50
 Long Chord = 172.87
 Mid. Ord. = 2.49
 P.C. Station 106+18.51 N 13,778,540.15 E 2,278,649.34
 P.T. Station 107+91.48 N 13,778,653.64 E 2,278,779.74
 C.C. N 13,779,726.49 E 2,277,731.44
 Back = N 52° 16' 12.40" E
 Ahead = N 45° 39' 47.18" E
 Chord Bear = N 48° 57' 59.79" E

Course from PT CORDOVA 4 to PC CORDOVA 7 N 45° 39' 47.18" E Dist 212.23

Curve Data

Curve CORDOVA 7
 P.I. Station 110+41.66 N 13,778,828.48 E 2,278,958.68
 Delta = 4° 08' 21.01" (RT)
 Degree = 5° 27' 24.27"
 Tangent = 37.94
 Length = 75.85
 Radius = 1,050.00
 External = 0.69
 Long Chord = 75.84
 Mid. Ord. = 0.68
 P.C. Station 110+03.72 N 13,778,801.96 E 2,278,931.54
 P.T. Station 110+79.57 N 13,778,852.97 E 2,278,987.66
 C.C. N 13,778,050.96 E 2,279,665.36
 Back = N 45° 39' 47.18" E
 Ahead = N 49° 48' 08.19" E
 Chord Bear = N 47° 43' 57.69" E

Course from PT CORDOVA 7 to PC CORDOVA 10 N 49° 48' 08.19" E Dist 438.28

Curve Data

Curve CORDOVA 10
 P.I. Station 117+92.74 N 13,779,313.27 E 2,279,532.39
 Delta = 39° 17' 32.56" (RT)
 Degree = 7° 26' 27.64"
 Tangent = 274.88
 Length = 528.05
 Radius = 770.00
 External = 47.59
 Long Chord = 517.76
 Mid. Ord. = 44.82
 P.C. Station 115+17.85 N 13,779,135.85 E 2,279,322.43
 P.T. Station 120+45.90 N 13,779,317.61 E 2,279,807.24
 C.C. N 13,778,547.71 E 2,279,819.41
 Back = N 49° 48' 08.19" E
 Ahead = N 89° 05' 40.75" E
 Chord Bear = N 69° 26' 54.47" E

Course from PT CORDOVA 10 to PC CORDOVA 13 N 89° 05' 40.75" E Dist 3,139.04

Curve Data

Curve CORDOVA 13
 P.I. Station 152+25.93 N 13,779,367.86 E 2,282,986.87
 Delta = 4° 28' 16.36" (LT)
 Degree = 5° 27' 24.27"
 Tangent = 40.99
 Length = 81.94
 Radius = 1,050.00
 External = 0.80
 Long Chord = 81.92
 Mid. Ord. = 0.80
 P.C. Station 151+84.94 N 13,779,367.21 E 2,282,945.89
 P.T. Station 152+66.88 N 13,779,371.70 E 2,283,027.68
 C.C. N 13,780,417.08 E 2,282,929.30
 Back = N 89° 05' 40.75" E
 Ahead = N 84° 37' 24.39" E
 Chord Bear = N 86° 51' 32.57" E

Course from PT CORDOVA 13 to PC CORDOVA 16 N 84° 37' 24.39" E Dist 259.18

Curve Data

Curve CORDOVA 16
 P.I. Station 157+59.82 N 13,779,417.89 E 2,283,518.45
 Delta = 10° 41' 01.38" (RT)
 Degree = 2° 17' 30.59"
 Tangent = 233.76
 Length = 466.17
 Radius = 2,500.00
 External = 10.90
 Long Chord = 465.49
 Mid. Ord. = 10.86
 P.C. Station 155+26.06 N 13,779,395.99 E 2,283,285.72
 P.T. Station 159+92.23 N 13,779,396.27 E 2,283,751.21
 C.C. N 13,776,906.98 E 2,283,519.97
 Back = N 84° 37' 24.39" E
 Ahead = S 84° 41' 34.23" E
 Chord Bear = N 89° 57' 55.08" E

Course from PT CORDOVA 16 to PC CORDOVA 19 S 84° 41' 34.23" E Dist 306.43

Curve Data

Curve CORDOVA 19
 P.I. Station 164+35.68 N 13,779,355.25 E 2,284,192.76
 Delta = 6° 16' 27.13" (LT)
 Degree = 2° 17' 30.59"
 Tangent = 137.02
 Length = 273.76
 Radius = 2,500.00
 External = 3.75
 Long Chord = 273.63
 Mid. Ord. = 3.75
 P.C. Station 162+98.66 N 13,779,367.92 E 2,284,056.33
 P.T. Station 165+72.42 N 13,779,357.56 E 2,284,329.76
 C.C. N 13,781,857.21 E 2,284,287.57
 Back = S 84° 41' 34.23" E
 Ahead = N 89° 01' 58.64" E
 Chord Bear = S 87° 49' 47.79" E

Course from PT CORDOVA 19 to PC CORDOVA 22 N 89° 01' 58.64" E Dist 1,920.44

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

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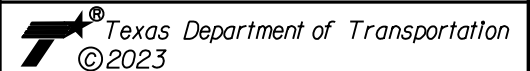
REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



HORIZONTAL ALIGNMENT DATA

SHEET 1 OF 3

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	84

CORDOVA

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\General\1277500_HairData02.dgn

Curve Data

Curve CORDOVA 22
P.I. Station 185+66.29 N 13,779,391.21 E 2,286,323.34
Delta = 3° 21' 53.57" (LT)
Degree = 2° 17' 30.59"
Tangent = 73.43
Length = 146.82
Radius = 2,500.00
External = 1.08
Long Chord = 146.80
Mid. Ord. = 1.08
P.C. Station 184+92.86 N 13,779,389.98 E 2,286,249.92
P.T. Station 186+39.68 N 13,779,396.76 E 2,286,396.57
C.C. N 13,781,889.62 E 2,286,207.73
Back = N 89° 01' 58.64" E
Ahead = N 85° 40' 05.07" E
Chord Bear = N 87° 21' 01.86" E

Course from PT CORDOVA 22 to PC CORDOVA 25 N 85° 40' 05.07" E Dist 149.75

Curve Data

Curve CORDOVA 25
P.I. Station 188+63.45 N 13,779,413.66 E 2,286,619.69
Delta = 3° 23' 30.07" (RT)
Degree = 2° 17' 30.59"
Tangent = 74.02
Length = 147.99
Radius = 2,500.00
External = 1.10
Long Chord = 147.97
Mid. Ord. = 1.09
P.C. Station 187+89.43 N 13,779,408.07 E 2,286,545.89
P.T. Station 189+37.42 N 13,779,414.88 E 2,286,693.70
C.C. N 13,776,915.21 E 2,286,734.72
Back = N 85° 40' 05.07" E
Ahead = N 89° 03' 35.14" E
Chord Bear = N 87° 21' 50.10" E

Course from PT CORDOVA 25 to PC CORDOVA 28 N 89° 03' 35.14" E Dist 2,153.84

Curve Data

Curve CORDOVA 28
P.I. Station 211+45.05 N 13,779,451.10 E 2,288,901.04
Delta = 2° 27' 55.03" (RT)
Degree = 2° 17' 30.59"
Tangent = 53.79
Length = 107.57
Radius = 2,500.00
External = 0.58
Long Chord = 107.56
Mid. Ord. = 0.58
P.C. Station 210+91.26 N 13,779,450.22 E 2,288,847.25
P.T. Station 211+98.83 N 13,779,449.67 E 2,288,954.81
C.C. N 13,776,950.56 E 2,288,888.27
Back = N 89° 03' 35.14" E
Ahead = S 88° 28' 29.83" E
Chord Bear = S 89° 42' 27.35" E

Course from PT CORDOVA 28 to PC CORDOVA 31 S 88° 28' 29.83" E Dist 1,645.76

Curve Data

Curve CORDOVA 31
P.I. Station 228+89.13 N 13,779,404.69 E 2,290,644.51
Delta = 4° 51' 27.88" (LT)
Degree = 5° 27' 24.27"
Tangent = 44.54
Length = 89.02
Radius = 1,050.00
External = 0.94
Long Chord = 89.00
Mid. Ord. = 0.94
P.C. Station 228+44.59 N 13,779,405.87 E 2,290,599.99
P.T. Station 229+33.61 N 13,779,407.28 E 2,290,688.97
C.C. N 13,780,455.50 E 2,290,627.93
Back = S 88° 28' 29.83" E
Ahead = N 86° 40' 02.28" E
Chord Bear = N 89° 05' 46.22" E

Course from PT CORDOVA 31 to PC CORDOVA 34 N 86° 40' 02.28" E Dist 324.29

Curve Data

Curve CORDOVA 34
P.I. Station 233+02.44 N 13,779,428.72 E 2,291,057.18
Delta = 4° 51' 27.88" (RT)
Degree = 5° 27' 24.27"
Tangent = 44.54
Length = 89.02
Radius = 1,050.00
External = 0.94
Long Chord = 89.00
Mid. Ord. = 0.94
P.C. Station 232+57.90 N 13,779,426.13 E 2,291,012.71
P.T. Station 233+46.92 N 13,779,427.53 E 2,291,101.70
C.C. N 13,778,377.90 E 2,291,073.75
Back = N 86° 40' 02.28" E
Ahead = S 88° 28' 29.83" E
Chord Bear = N 89° 05' 46.22" E

Course from PT CORDOVA 34 to PC CORDOVA 37 S 88° 28' 29.83" E Dist 3,465.57

Curve Data

Curve CORDOVA 37
P.I. Station 270+88.66 N 13,779,327.95 E 2,294,842.11
Delta = 39° 27' 40.51" (RT)
Degree = 7° 26' 27.64"
Tangent = 276.16
Length = 530.32
Radius = 770.00
External = 48.03
Long Chord = 519.90
Mid. Ord. = 45.21
P.C. Station 268+12.50 N 13,779,335.30 E 2,294,566.04
P.T. Station 273+42.82 N 13,779,146.82 E 2,295,050.58
C.C. N 13,778,565.57 E 2,294,545.55
Back = S 88° 28' 29.83" E
Ahead = S 49° 00' 49.32" E
Chord Bear = S 68° 44' 39.58" E

Course from PT CORDOVA 37 to PC CORDOVA 40 S 49° 00' 49.32" E Dist 176.78

Curve Data

Curve CORDOVA 40
P.I. Station 282+63.12 N 13,778,543.22 E 2,295,745.28
Delta = 87° 59' 43.14" (LT)
Degree = 7° 26' 27.64"
Tangent = 743.52
Length = 1,182.57
Radius = 770.00
External = 300.38
Long Chord = 1,069.73
Mid. Ord. = 216.09
P.C. Station 275+19.60 N 13,779,030.87 E 2,295,184.02
P.T. Station 287+02.17 N 13,779,087.07 E 2,296,252.27
C.C. N 13,779,612.12 E 2,295,689.05
Back = S 49° 00' 49.32" E
Ahead = N 42° 59' 27.54" E
Chord Bear = N 86° 59' 19.11" E

Course from PT CORDOVA 40 to PC CORDOVA 43 N 42° 59' 27.54" E Dist 101.30

Curve Data

Curve CORDOVA 43
P.I. Station 291+26.91 N 13,779,397.75 E 2,296,541.90
Delta = 45° 34' 13.50" (RT)
Degree = 7° 26' 27.64"
Tangent = 323.44
Length = 612.42
Radius = 770.00
External = 65.17
Long Chord = 596.41
Mid. Ord. = 60.09
P.C. Station 288+03.47 N 13,779,161.17 E 2,296,321.35
P.T. Station 294+15.89 N 13,779,405.87 E 2,296,865.24
C.C. N 13,778,636.12 E 2,296,884.57
Back = N 42° 59' 27.54" E
Ahead = N 88° 33' 41.04" E
Chord Bear = N 65° 46' 34.29" E

Course from PT CORDOVA 43 to CORDOVA45 N 88° 33' 41.04" E Dist 627.83

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

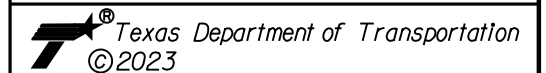
REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



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HORIZONTAL ALIGNMENT DATA

SHEET 2 OF 3

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	85

SH 46

Beginning chain SH46 description

Point SH461 N 13,777,353.16 E 2,279,802.31 Sta 149+46.95

Course from SH461 to PC SH46 3 N 24° 33' 01.65" W Dist 982.05

Curve Data

Curve SH46 3
 P.I. Station = 167+07.91 N 13,778,954.92 E 2,279,070.64
 Delta = 15° 29' 00.00" (LT)
 Degree = 1° 00' 00.00"
 Tangent = 778.91
 Length = 1,548.33
 Radius = 5,729.58
 External = 52.70
 Long Chord = 1,543.63
 Mid. Ord. = 52.22
 P.C. Station = 159+29.00 N 13,778,246.43 E 2,279,394.27
 P.T. Station = 174+77.33 N 13,779,551.31 E 2,278,569.61
 C.C. = N 13,775,865.82 E 2,274,182.67
 Back = N 24° 33' 01.65" W
 Ahead = N 40° 02' 01.65" W
 Chord Bear = N 32° 17' 31.65" W

Course from PT SH46 3 to SH465 N 40° 02' 01.65" W Dist 397.18

Point SH465 N 13,779,855.42 E 2,278,314.13 Sta 178+74.52

Ending chain SH46 description

HUBER RD

Beginning chain HUBERRD description

Point HUBERBL71 N 13,778,403.12 E 2,289,318.23 Sta 1000+00.00

Course from HUBERBL71 to PC HUBERBL7 3 N 0° 34' 49.04" W Dist 979.11

Curve Data

Curve HUBERBL7 3
 P.I. Station = 1010+10.32 N 13,779,413.39 E 2,289,308.00
 Delta = 4° 38' 36.16" (RT)
 Degree = 7° 26' 27.64"
 Tangent = 31.22
 Length = 62.40
 Radius = 770.00
 External = 0.63
 Long Chord = 62.39
 Mid. Ord. = 0.63
 P.C. Station = 1009+79.11 N 13,779,382.18 E 2,289,308.32
 P.T. Station = 1010+41.51 N 13,779,444.53 E 2,289,310.21
 C.C. = N 13,779,389.97 E 2,290,078.28
 Back = N 0° 34' 49.04" W
 Ahead = N 4° 03' 47.12" E
 Chord Bear = N 1° 44' 29.04" E

Course from PT HUBERBL7 3 to PC HUBERBL7 6 N 4° 03' 47.12" E Dist 282.57

Curve Data

Curve HUBERBL7 6
 P.I. Station = 1014+07.93 N 13,779,810.06 E 2,289,335.85
 Delta = 0° 51' 04.34" (LT)
 Degree = 0° 30' 27.14"
 Tangent = 83.86
 Length = 167.71
 Radius = 11,288.92
 External = 0.31
 Long Chord = 167.71
 Mid. Ord. = 0.31
 P.C. Station = 1013+24.07 N 13,779,726.39 E 2,289,330.24
 P.T. Station = 1014+91.79 N 13,779,893.80 E 2,289,340.23
 C.C. = N 13,780,482.71 E 2,278,066.68
 Back = N 3° 50' 29.42" E
 Ahead = N 2° 59' 25.08" E
 Chord Bear = N 3° 24' 57.25" E

Course from PT HUBERBL7 6 to HUBERBL79 N 2° 46' 49.78" E Dist 218.04

Point HUBERBL79 N 13,780,111.58 E 2,289,350.81 Sta 1017+09.82

Course from HUBERBL79 to HUBERBL710 N 2° 57' 26.27" E Dist 417.77

Point HUBERBL710 N 13,780,528.80 E 2,289,372.36 Sta 1021+27.59

Ending chain HUBERRD description

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

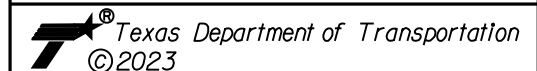
REV. NO.	DATE	DESCRIPTION	BY
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HORIZONTAL ALIGNMENT DATA

SHEET 3 OF 3

DGN:	FED. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:			HIGHWAY NO.:
CHK:	6	TEXAS				CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK:	SAT	GUADALUPE	0915	45	052	86

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\General\1277500-HoInData03.dgn

Plotted on: 7/27/2023

Design Filename: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_01.dgn

MATCH LINE STA 168+10
SEE SHEET 43 OF 44

BEGIN PROJECT
MATCH EXISTING
STA 110+75.84

BEGIN FULL DEPTH
RECONSTRUCTION
MATCH EXISTING
STA 111+93.51

MATCH LINE STA 165+60
SEE SHEET 42 OF 44

LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- (#-#) DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

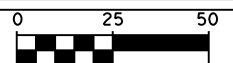
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



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2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



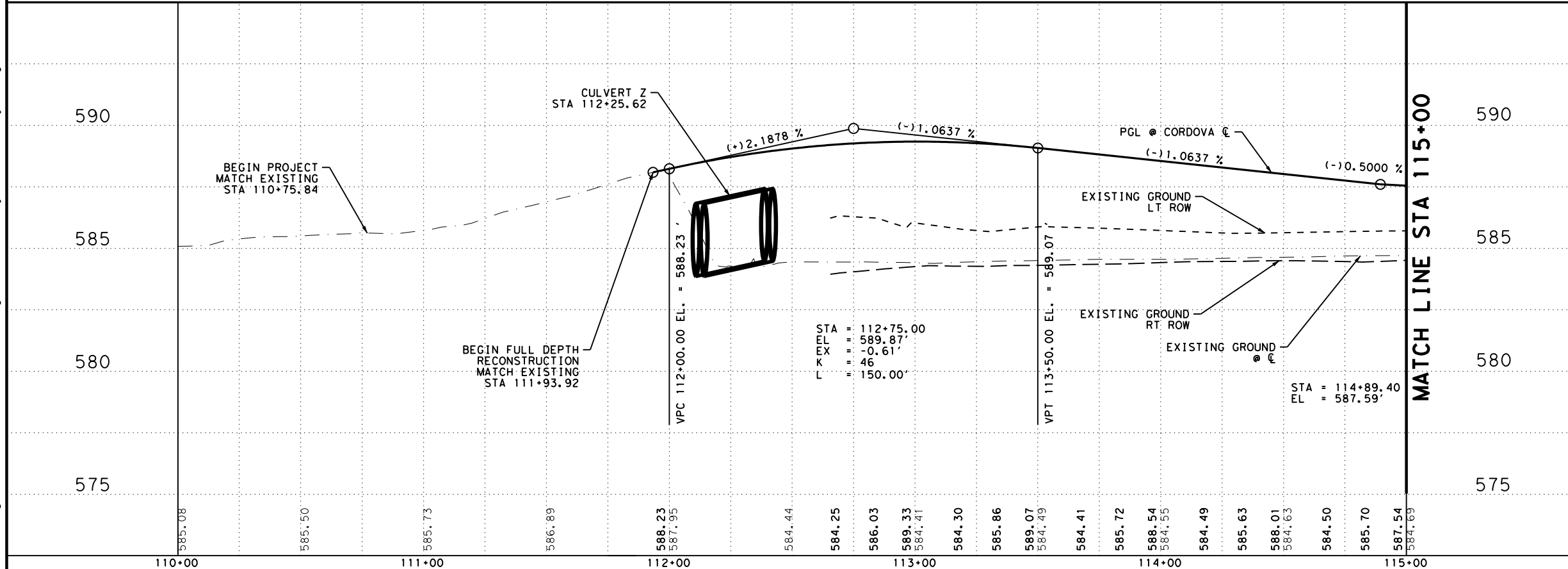
Texas Department of Transportation
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ROADWAY
PLAN AND PROFILE

STA 110+00 TO STA 115+00

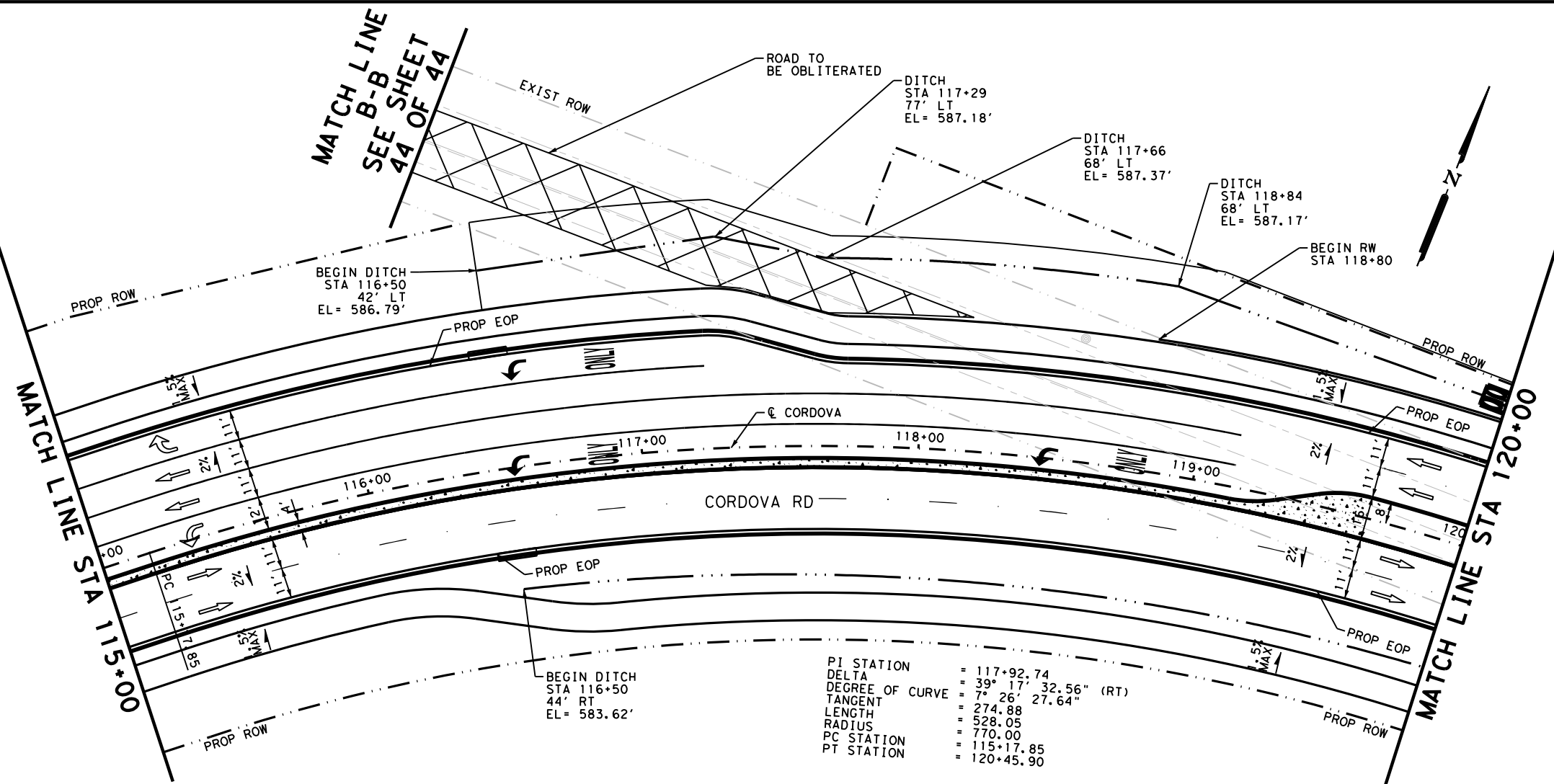
SHEET 1 OF 44

DWG:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK	SAT	GUADALUPE	0915	45	052	87



Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_02.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

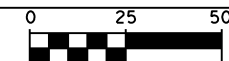
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
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DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

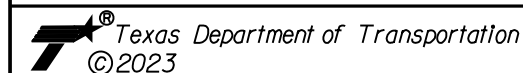
REV. NO.	DATE	DESCRIPTION	BY



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2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.

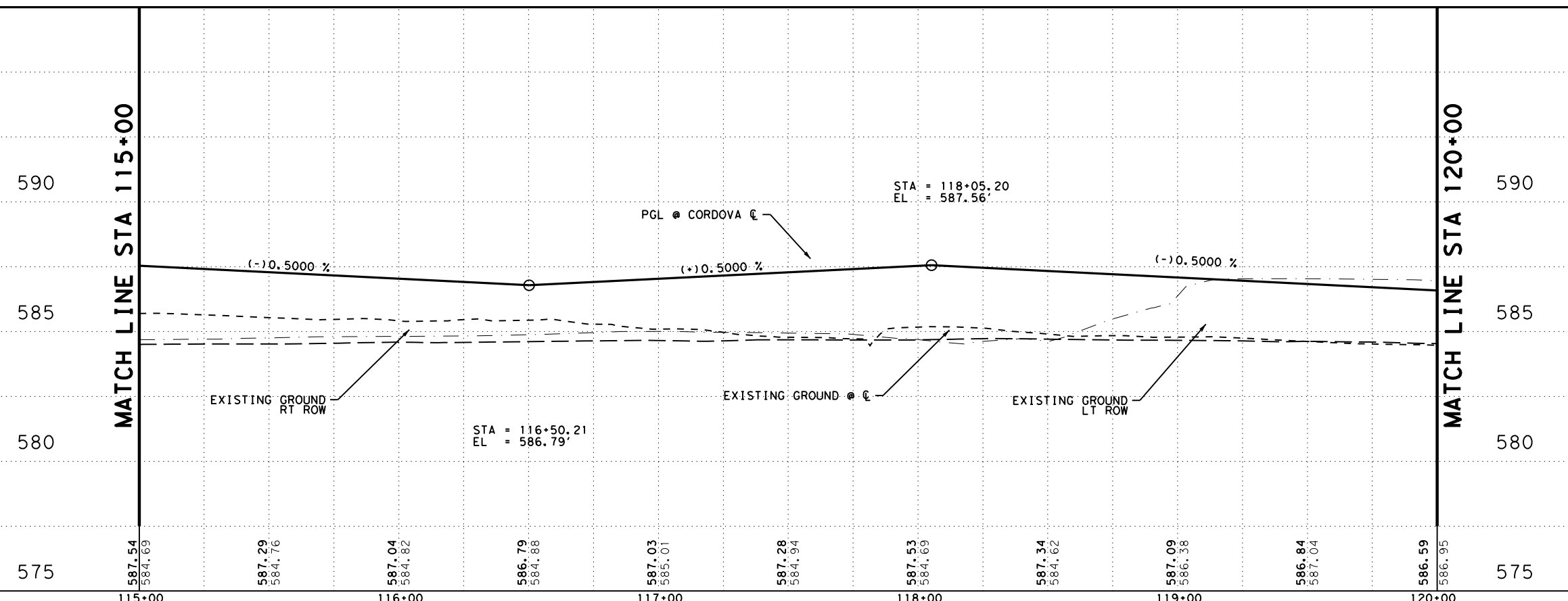


ROADWAY PLAN AND PROFILE

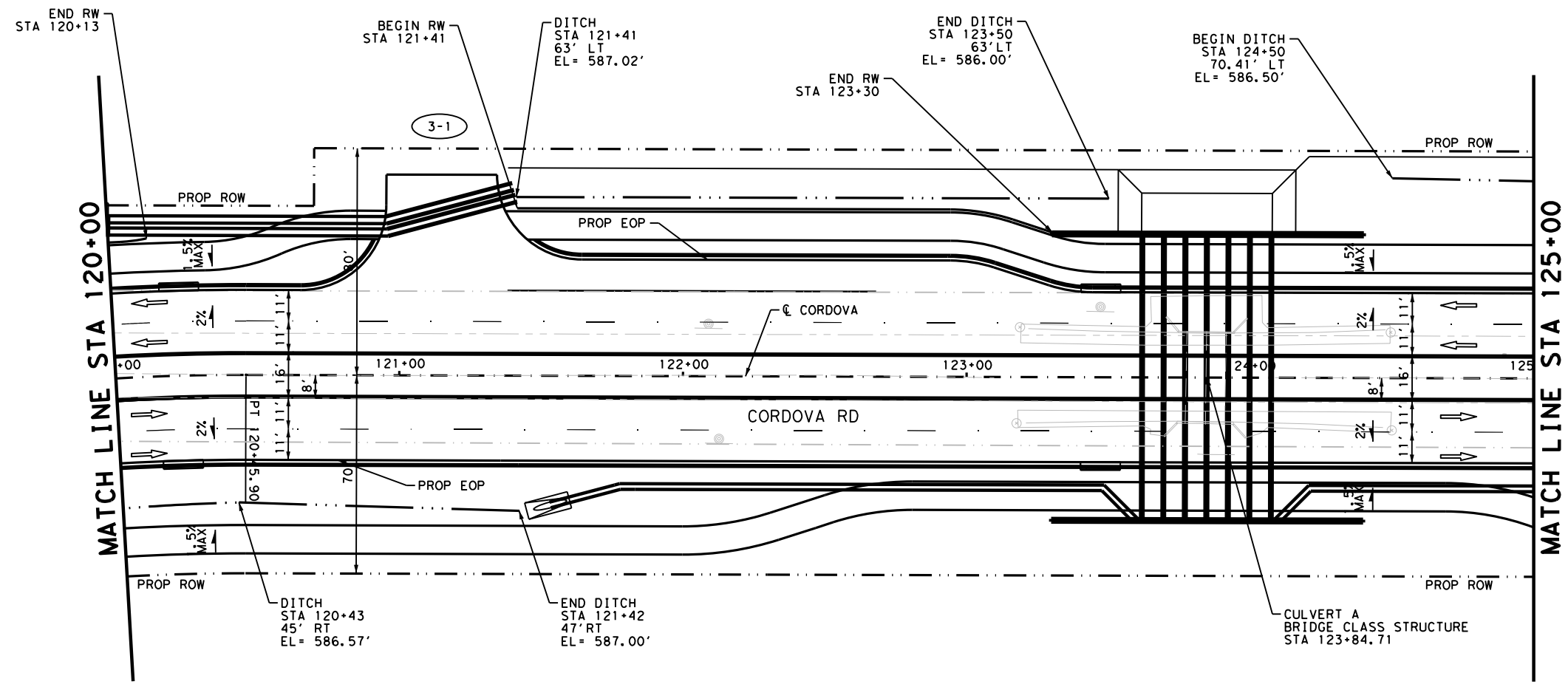
STA 115+00 TO STA 120+00

SHEET 2 OF 44

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	88



Plotted on: 7/27/2023



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

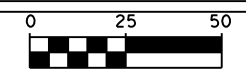
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



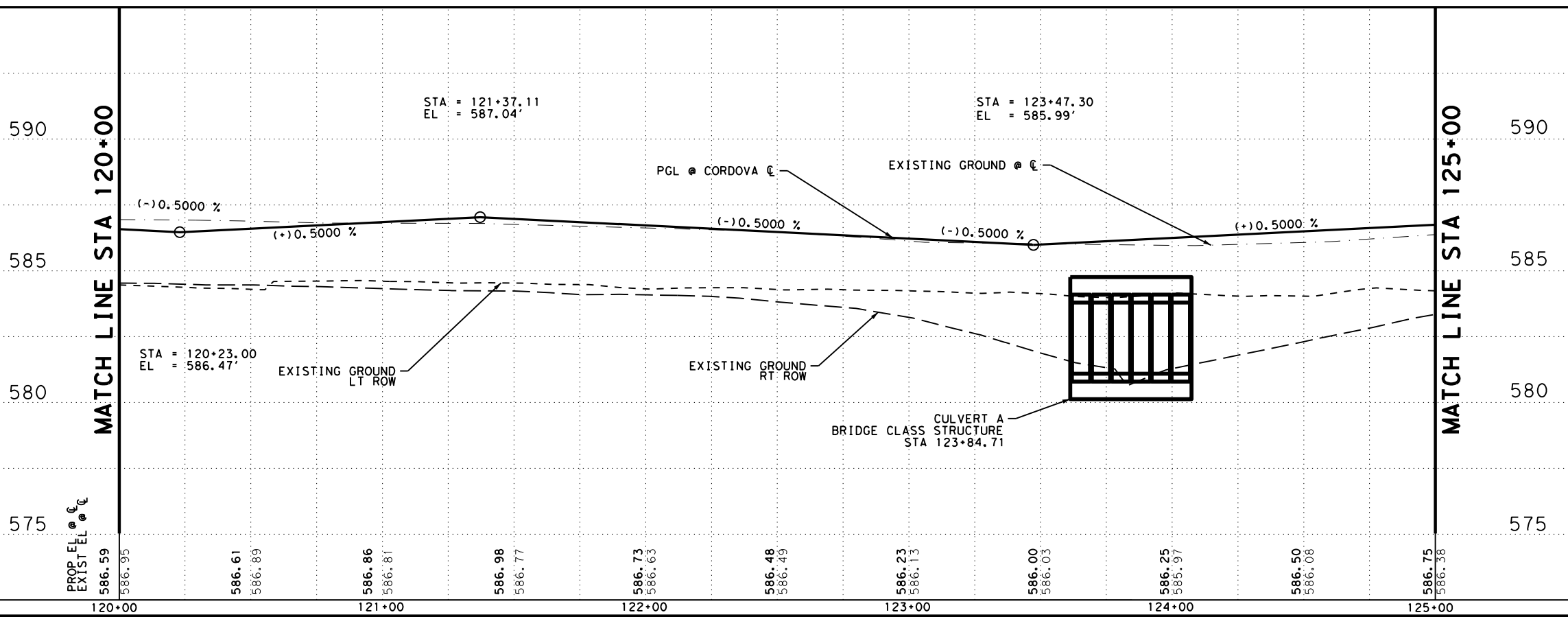
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 120+00 TO STA 125+00

SHEET 3 OF 44

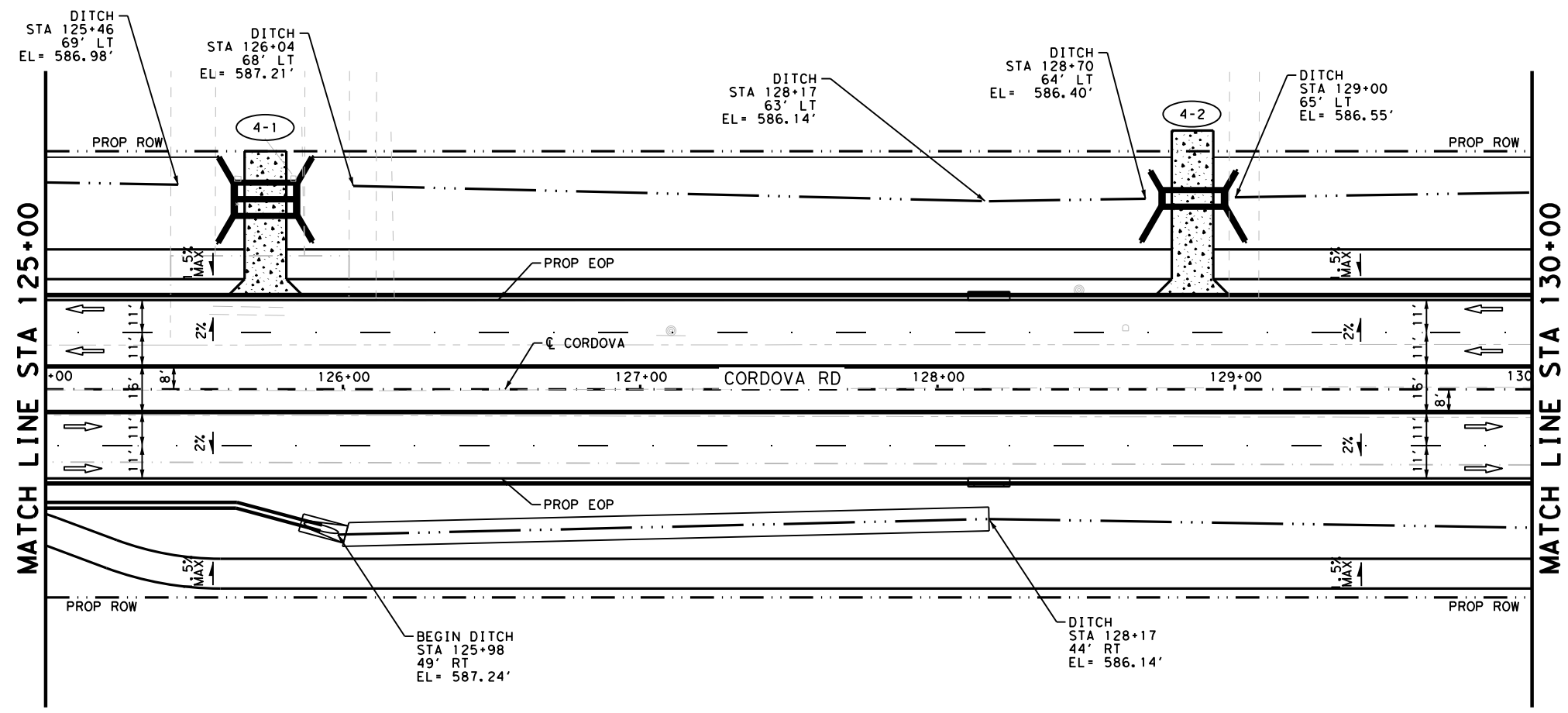


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CHK	DGN	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
		6	TEXAS		CORDOVA		
CHK	DGN	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
		SAT	GUADALUPE	0915	45	052	89

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_04.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

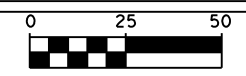
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



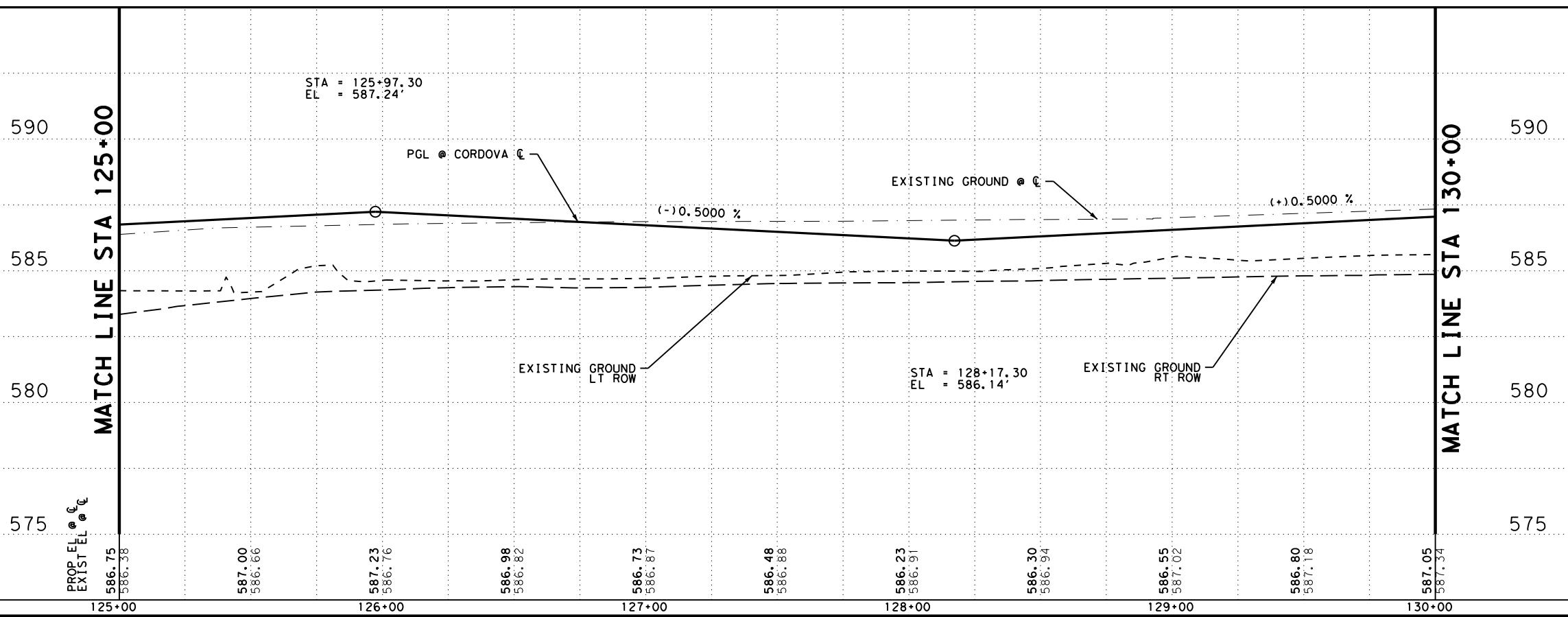
It's real.



**ROADWAY
 PLAN AND PROFILE**

STA 125+00 TO STA 130+00

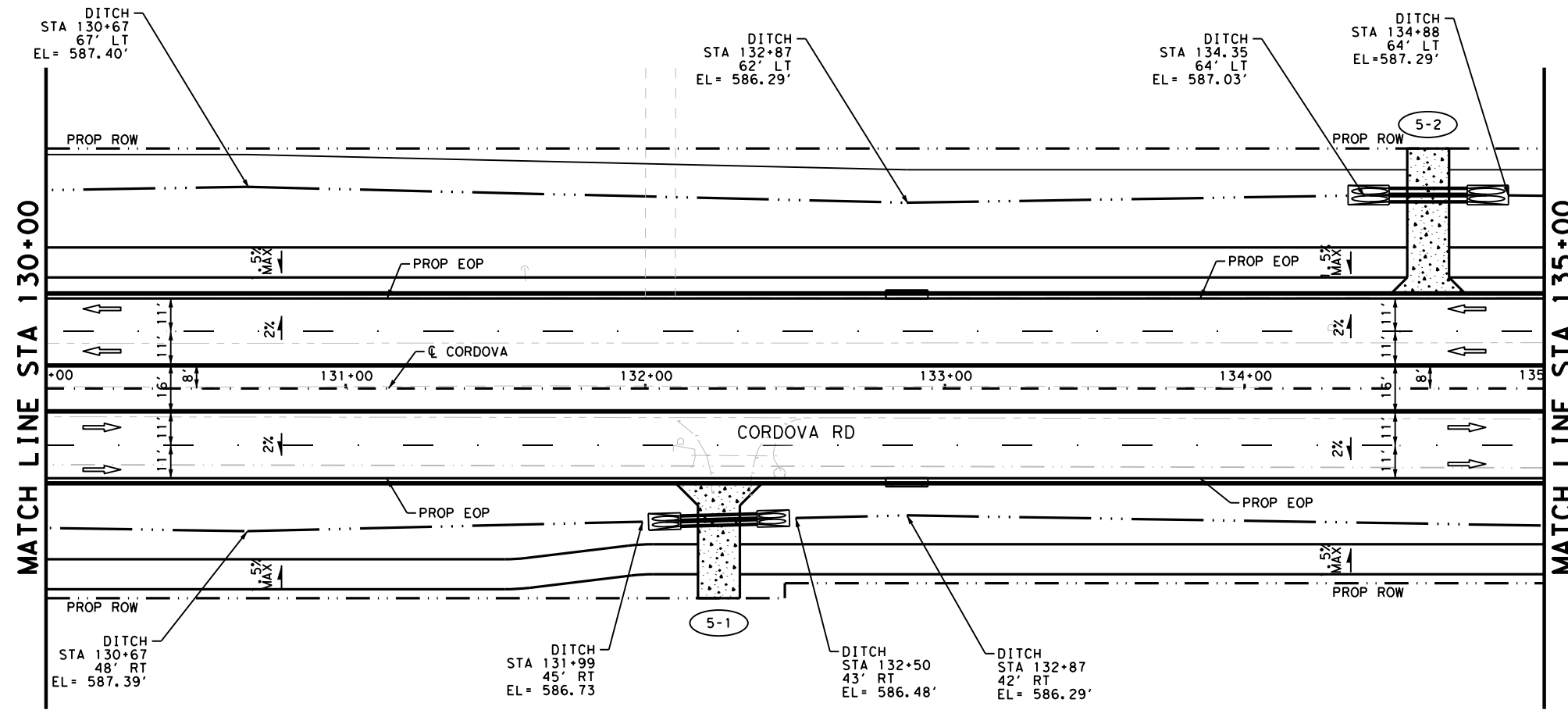
SHEET 4 OF 44



DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
	6	TEXAS		CORDOVA		
CHK DGN#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
	SAT	GUADALUPE	0915	45	052	90

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_05.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

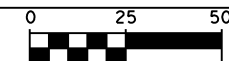
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

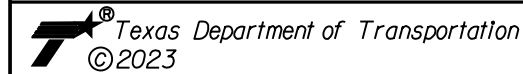
REV. NO.	DATE	DESCRIPTION	BY



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 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



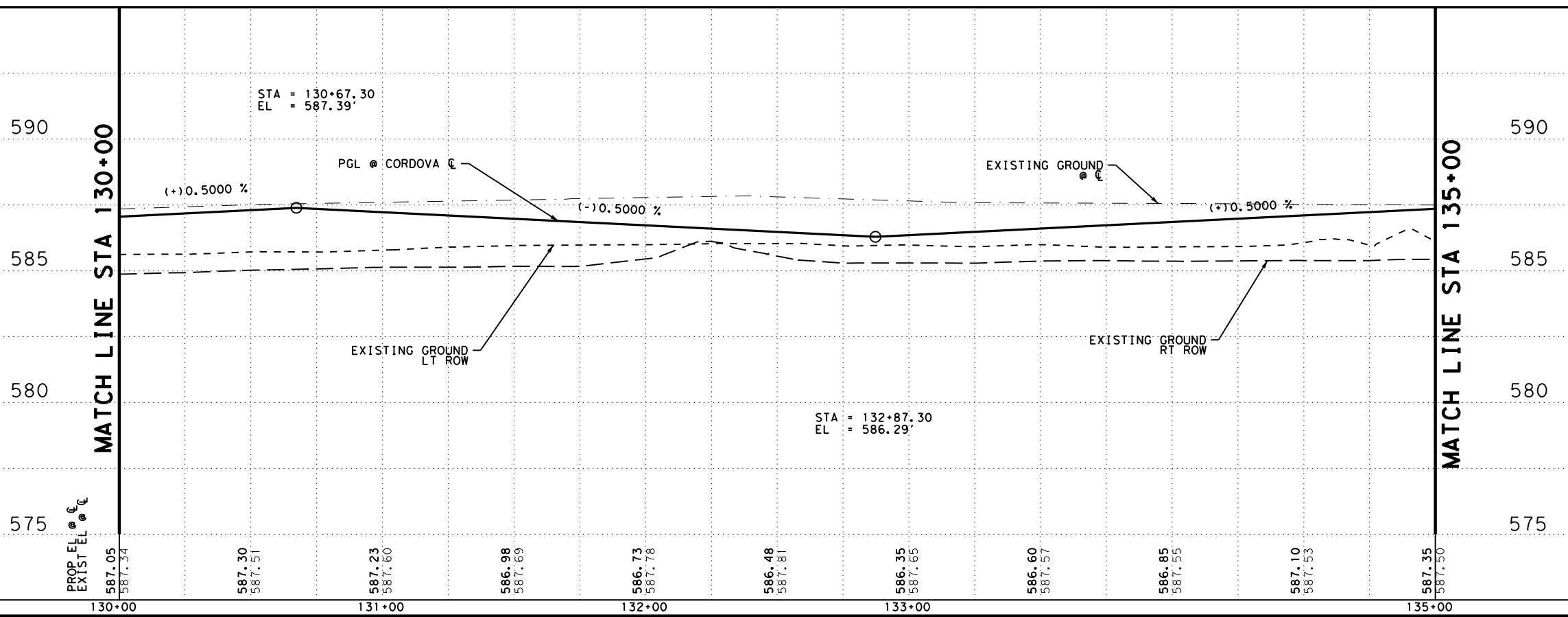
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 130+00 TO STA 135+00

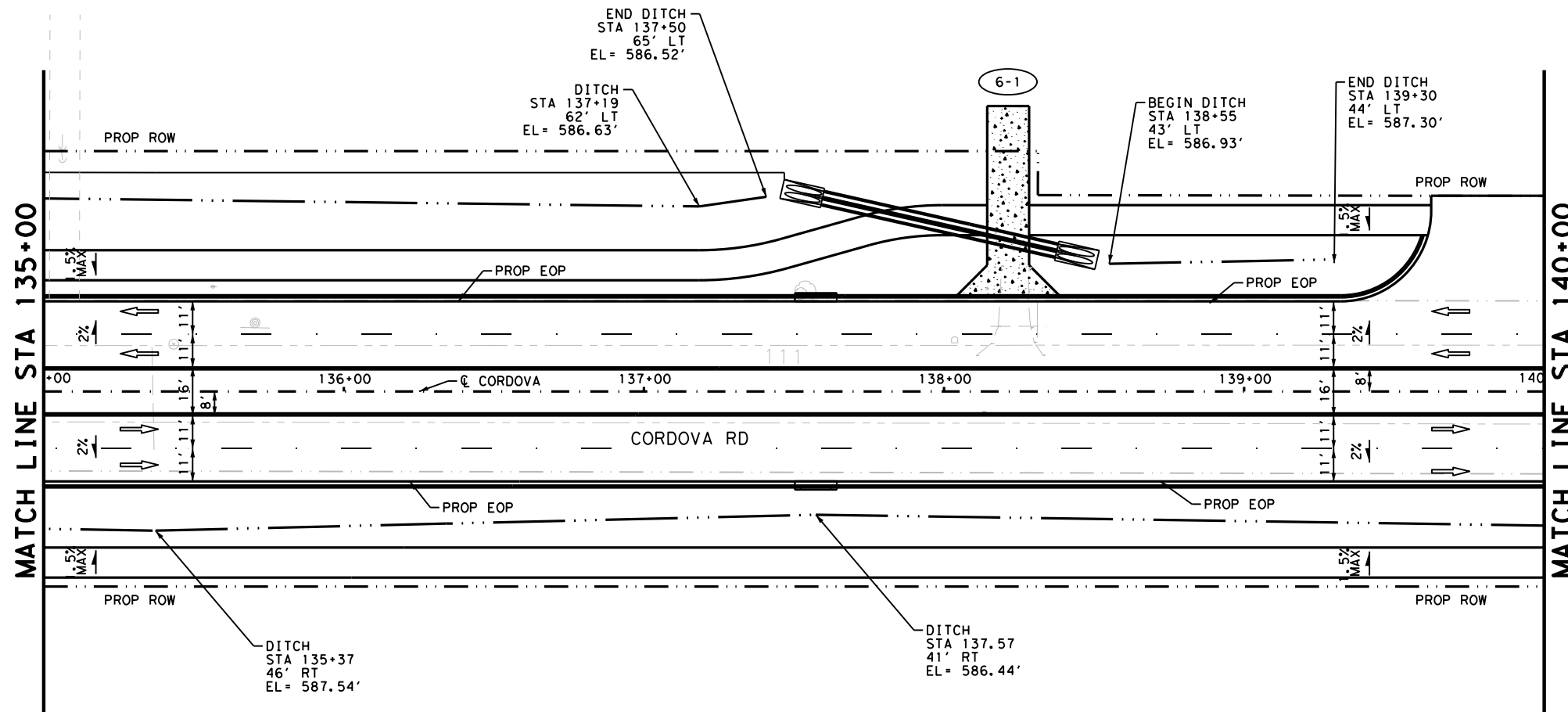
SHEET 5 OF 44



DGN#	FED. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	91

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_06.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

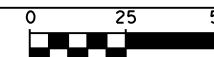
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2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
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DESIGN

INTERIM REVIEW
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 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

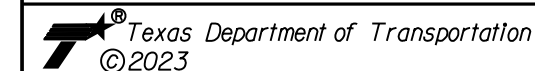
REV. NO.	DATE	DESCRIPTION	BY



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 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



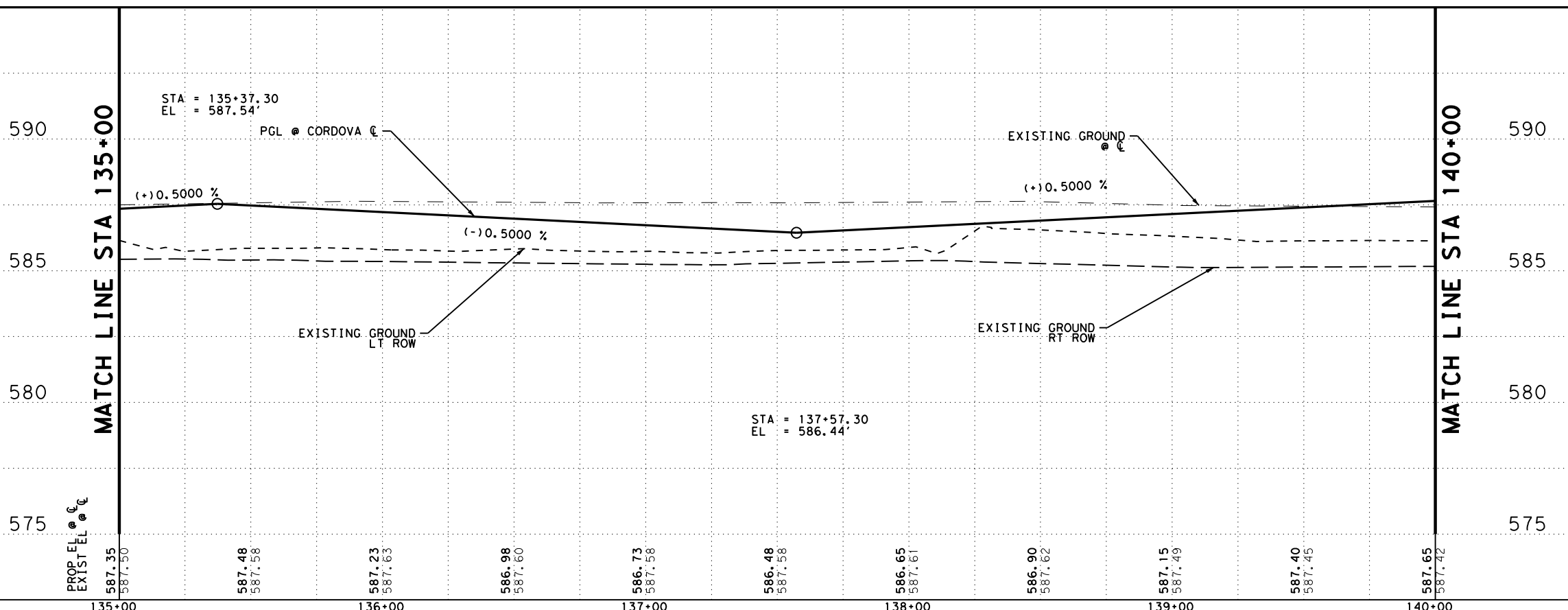
It's real.



ROADWAY PLAN AND PROFILE

STA 135+00 TO STA 140+00

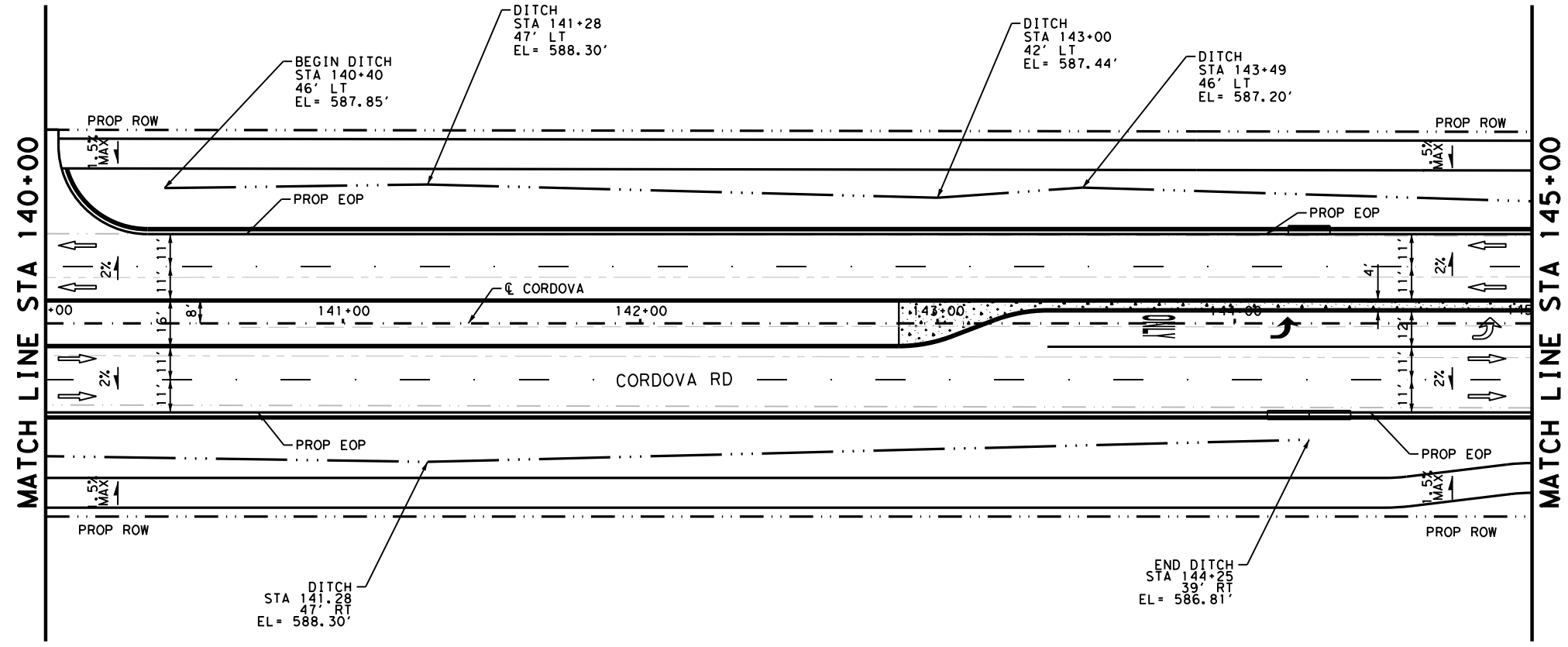
SHEET 6 OF 44



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	92

Plotted on: 7/27/2023

Design Filename: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_07.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

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2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

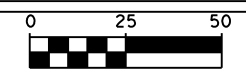
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



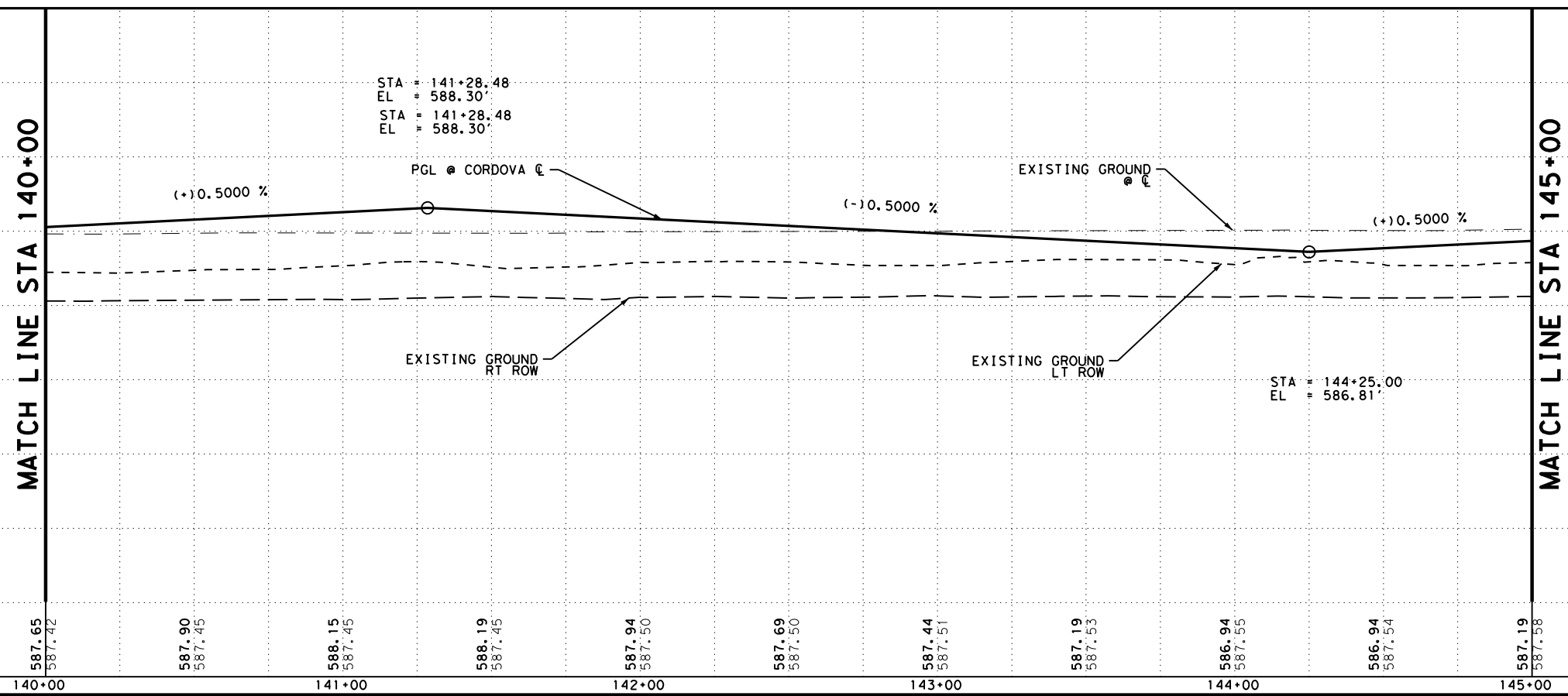
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 140+00 TO STA 145+00

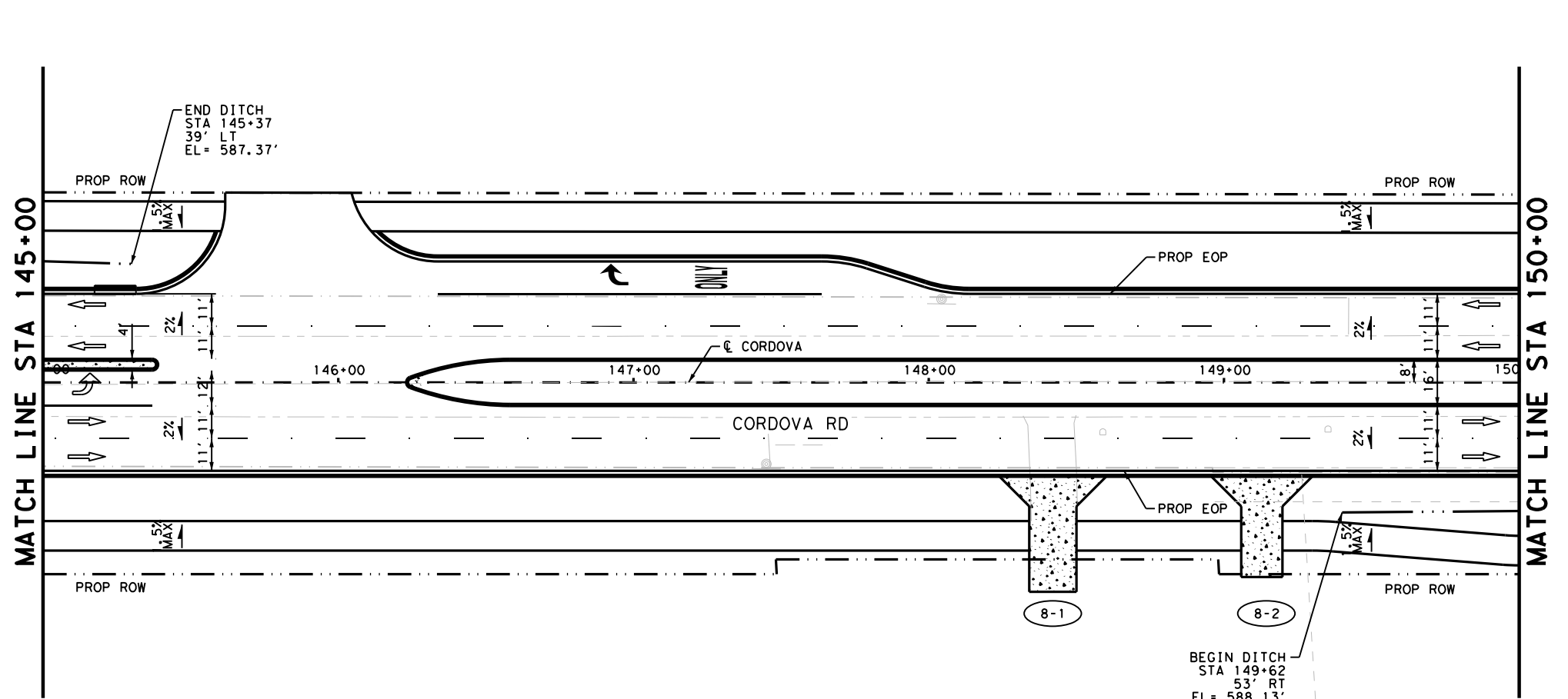
SHEET 7 OF 44



DWG:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK	SAT	GUADALUPE	0915	45	052	93

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_08.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P.E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P.E. SERIAL NO: 105193

DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

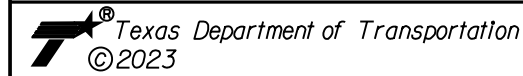
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



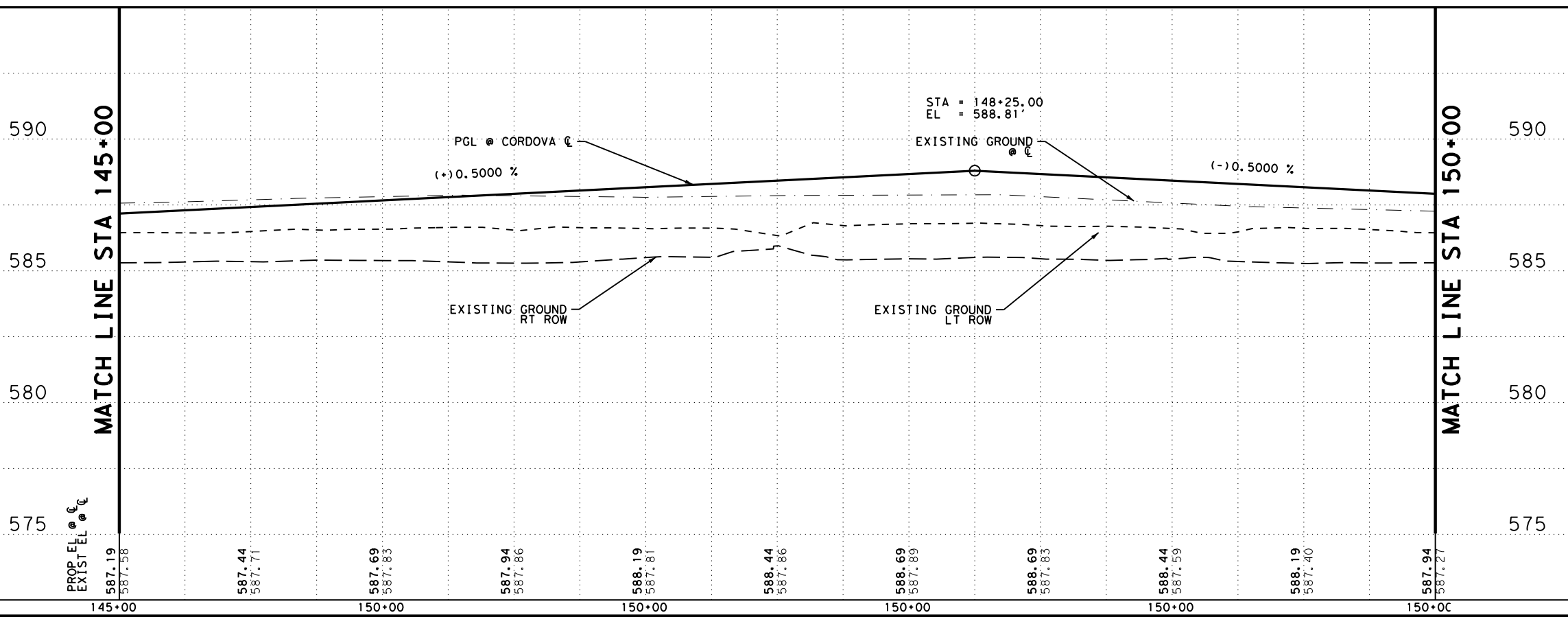
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 145+00 TO STA 150+00

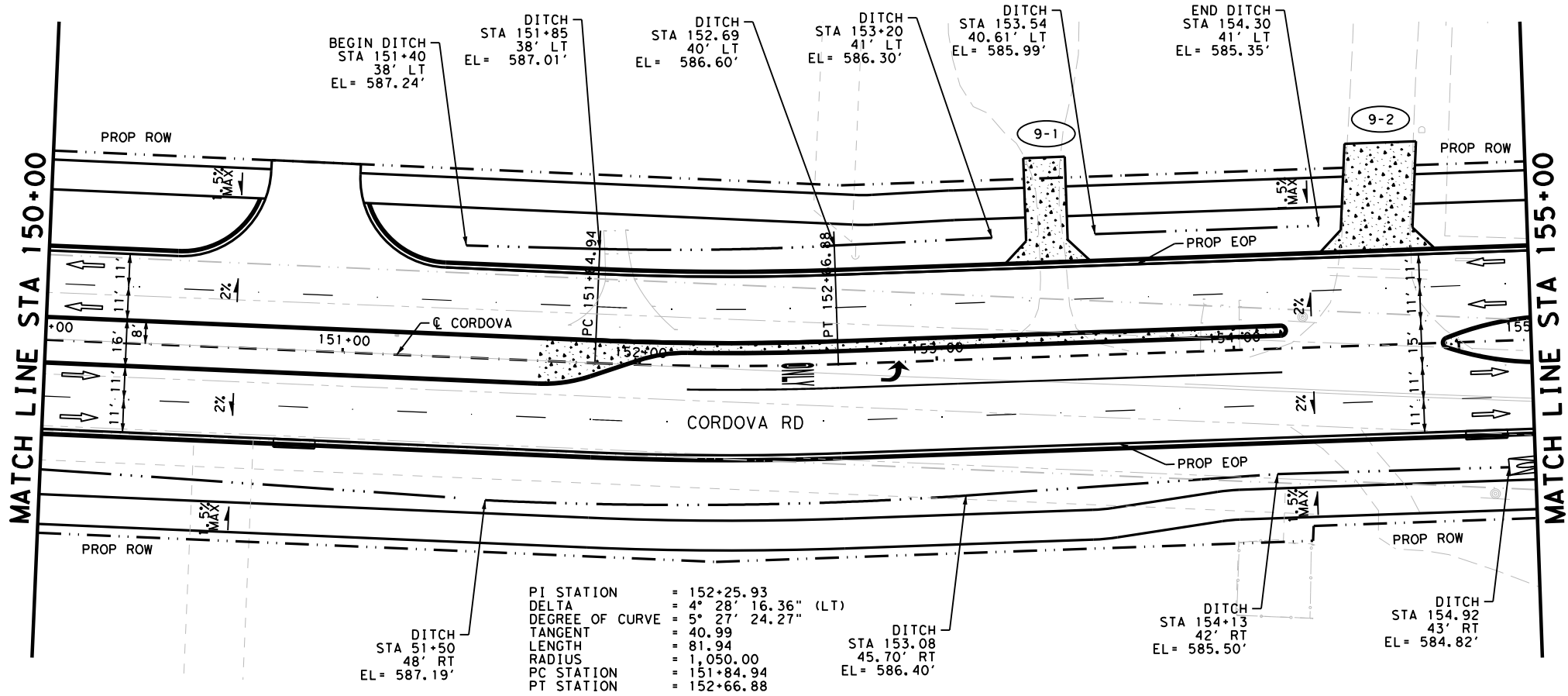
SHEET 8 OF 44



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	94

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_09.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊖ DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

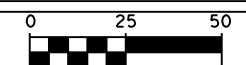
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
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3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.

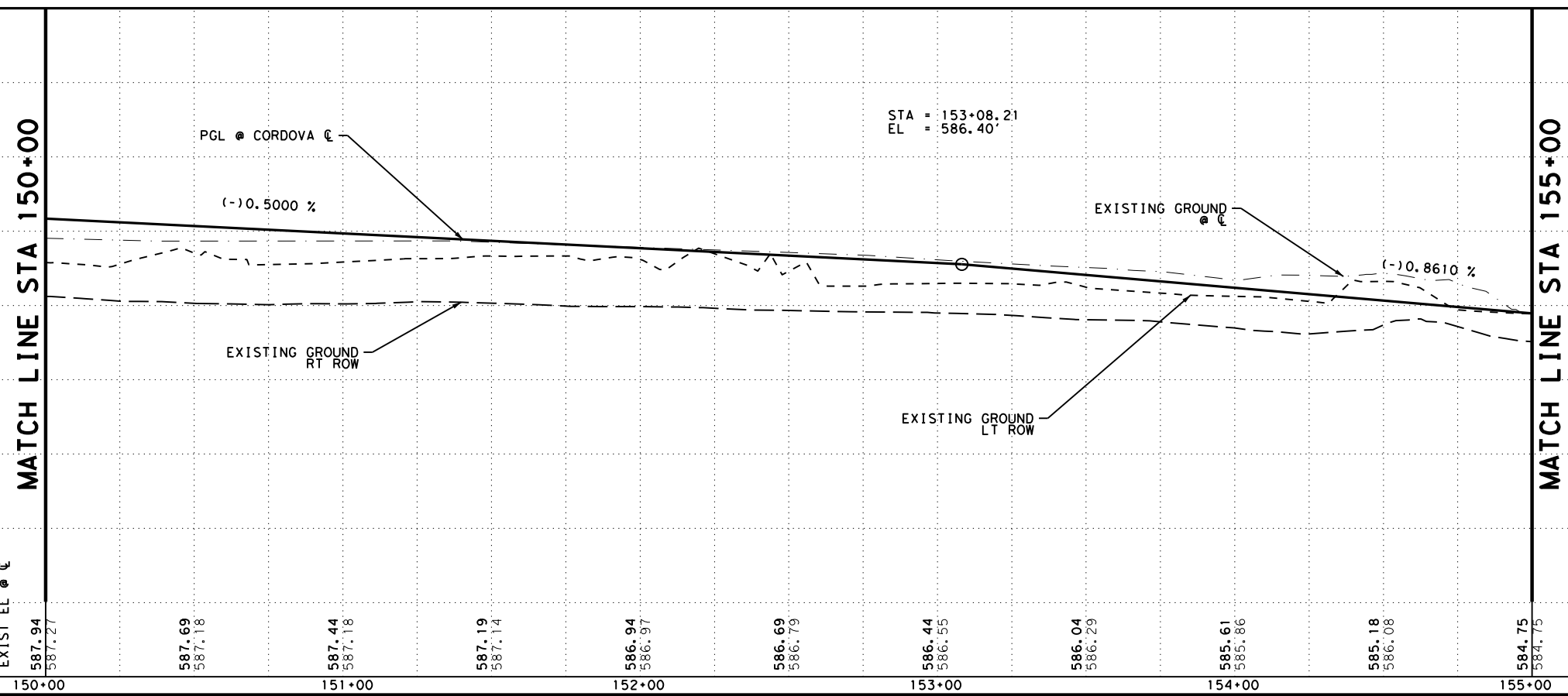


ROADWAY PLAN AND PROFILE

STA 150+00 TO STA 155+00

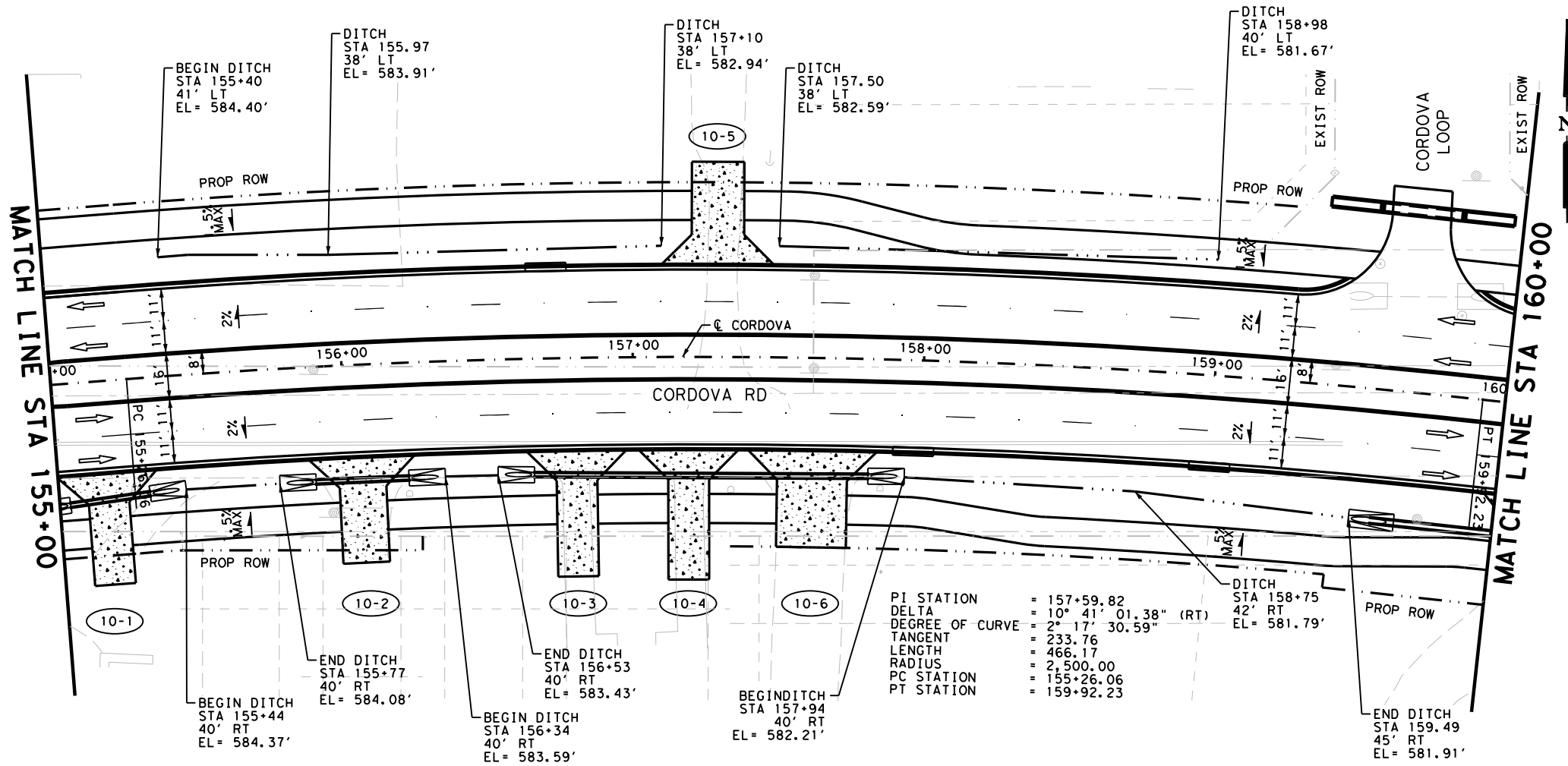
SHEET 9 OF 44

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK	SAT	GUADALUPE	0915	45
DWG:				052
				95



Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_10.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

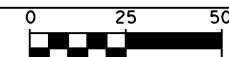
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

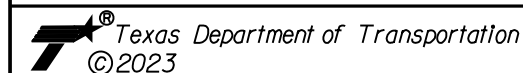
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.

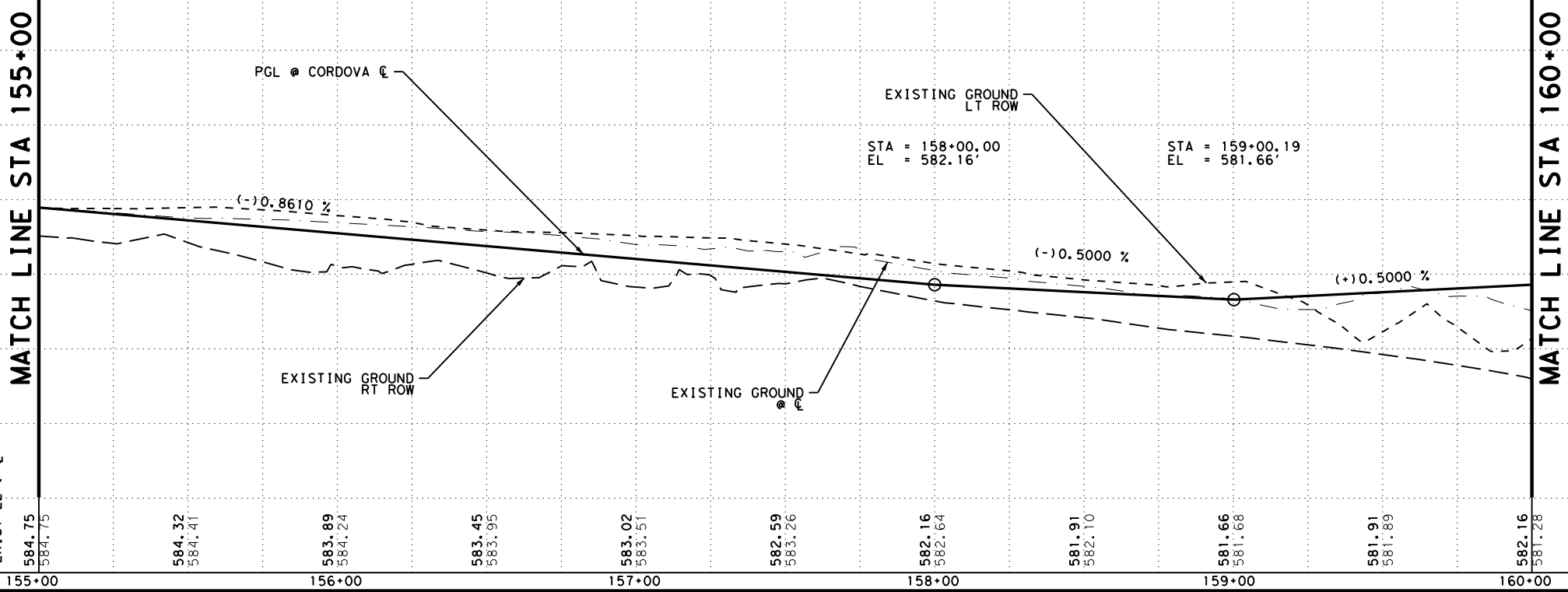


ROADWAY PLAN AND PROFILE

STA 155+00 TO STA 160+00

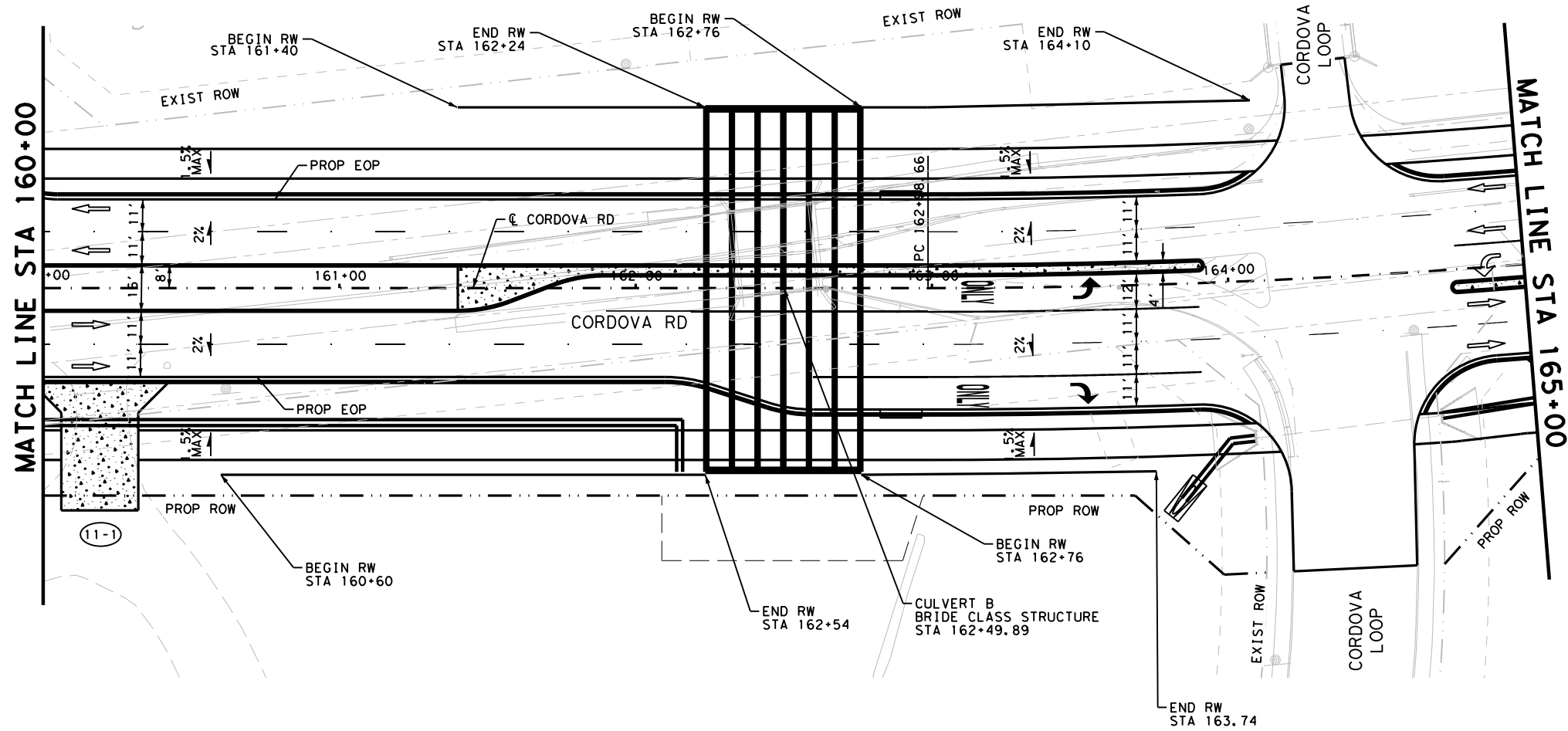
SHEET 10 OF 44

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
	SAT	GUADALUPE	0915	45	052	96



Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_11.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- DRIVEWAY NUMBER
- TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
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3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

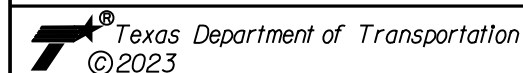
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



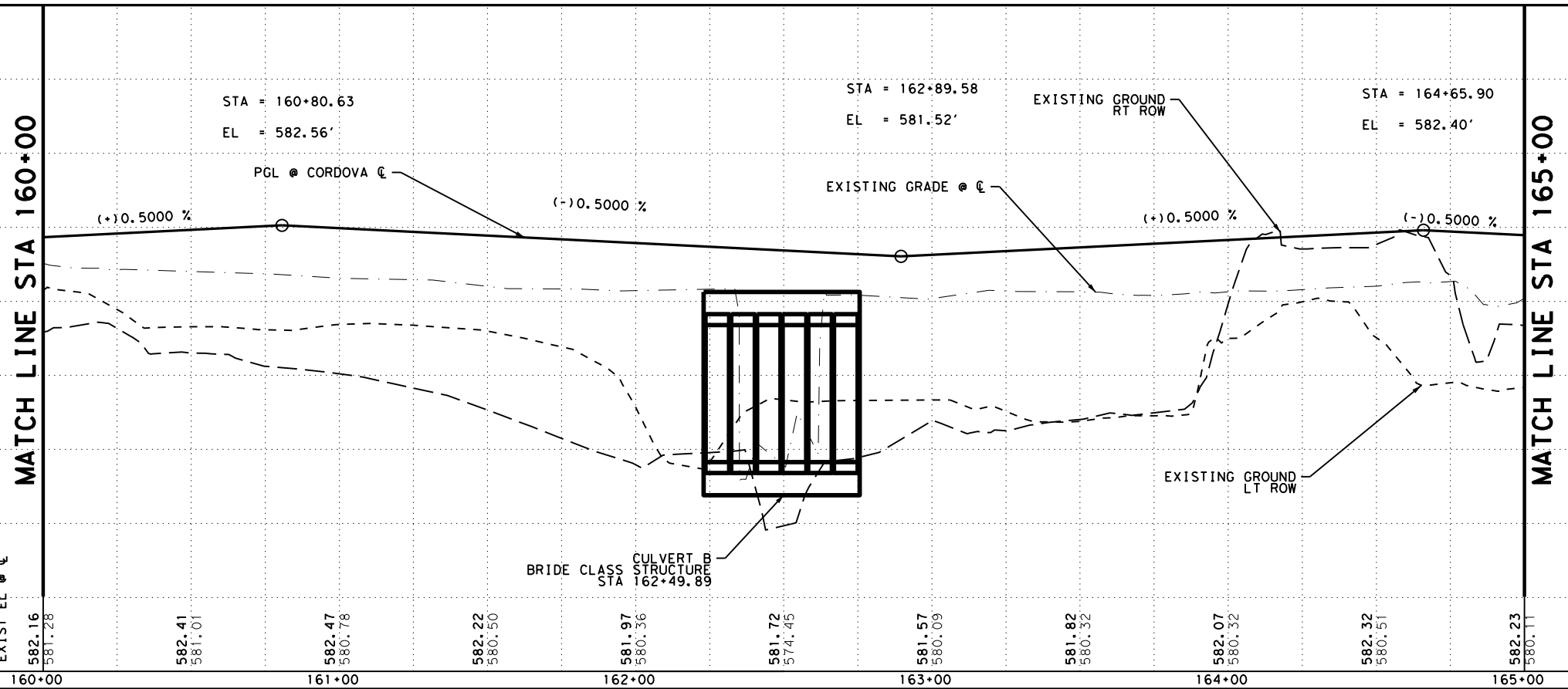
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 160+00 TO STA 165+00

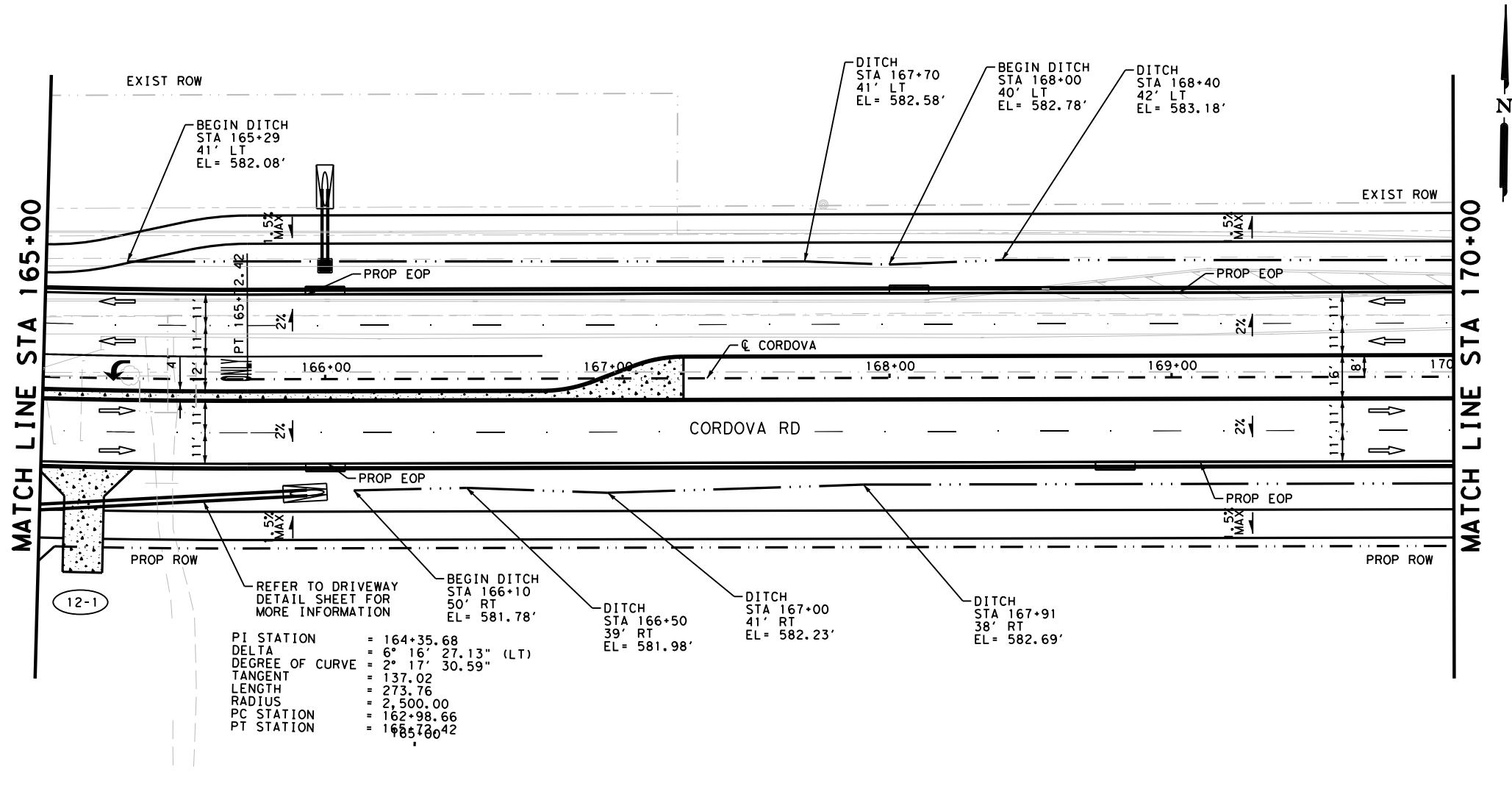
SHEET 11 OF 44



DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
	6	TEXAS		CORDOVA		
CHK DGN#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
	SAT	GUADALUPE	0915	45	052	97

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_12.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

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3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

REFER TO DRIVEWAY
DETAIL SHEET FOR
MORE INFORMATION

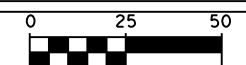
PI STATION = 164+35.68
 DELTA = 6° 16' 27.13" (LT)
 DEGREE OF CURVE = 2° 17' 30.59"
 TANGENT = 137.02
 LENGTH = 273.76
 RADIUS = 2,500.00
 PC STATION = 162+98.66
 PT STATION = 165+70.42

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.

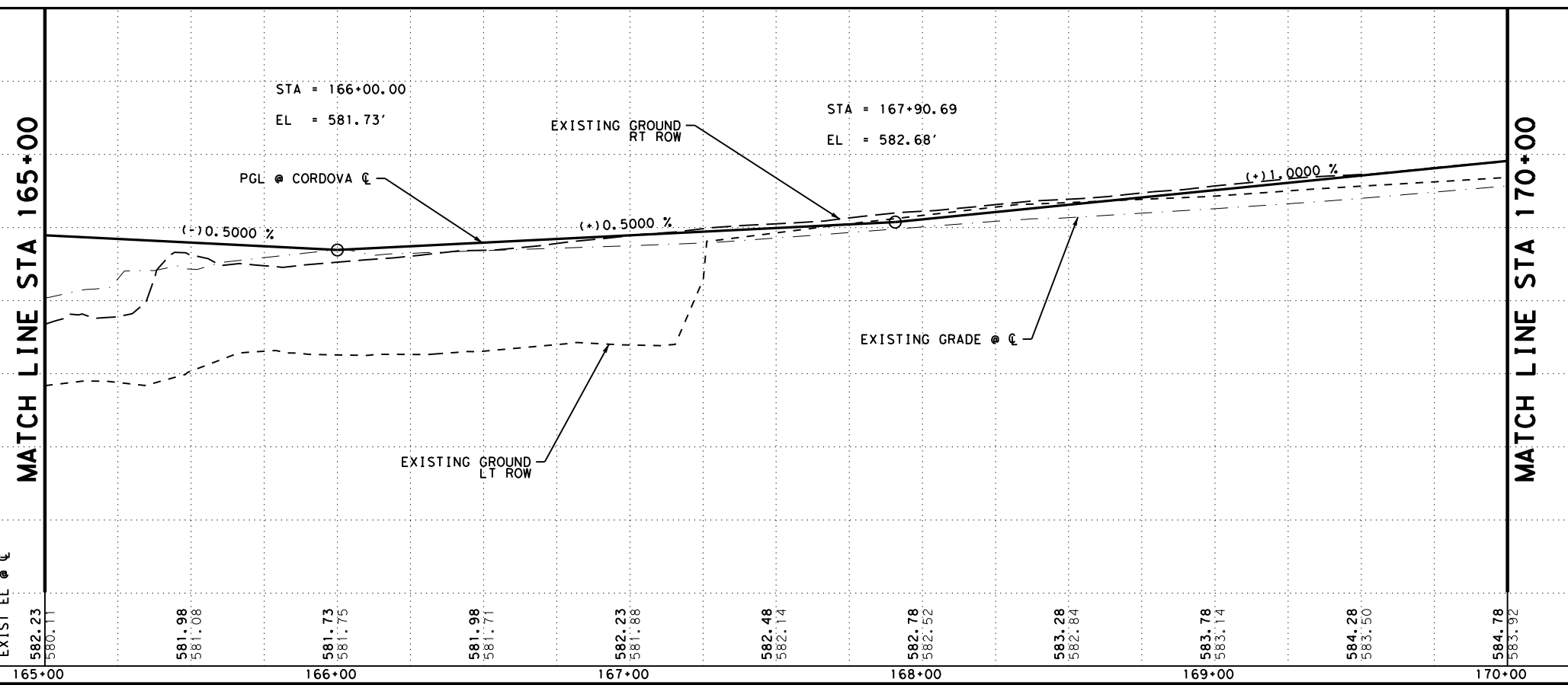


**ROADWAY
PLAN AND PROFILE**

STA 165+00 TO STA 170+00

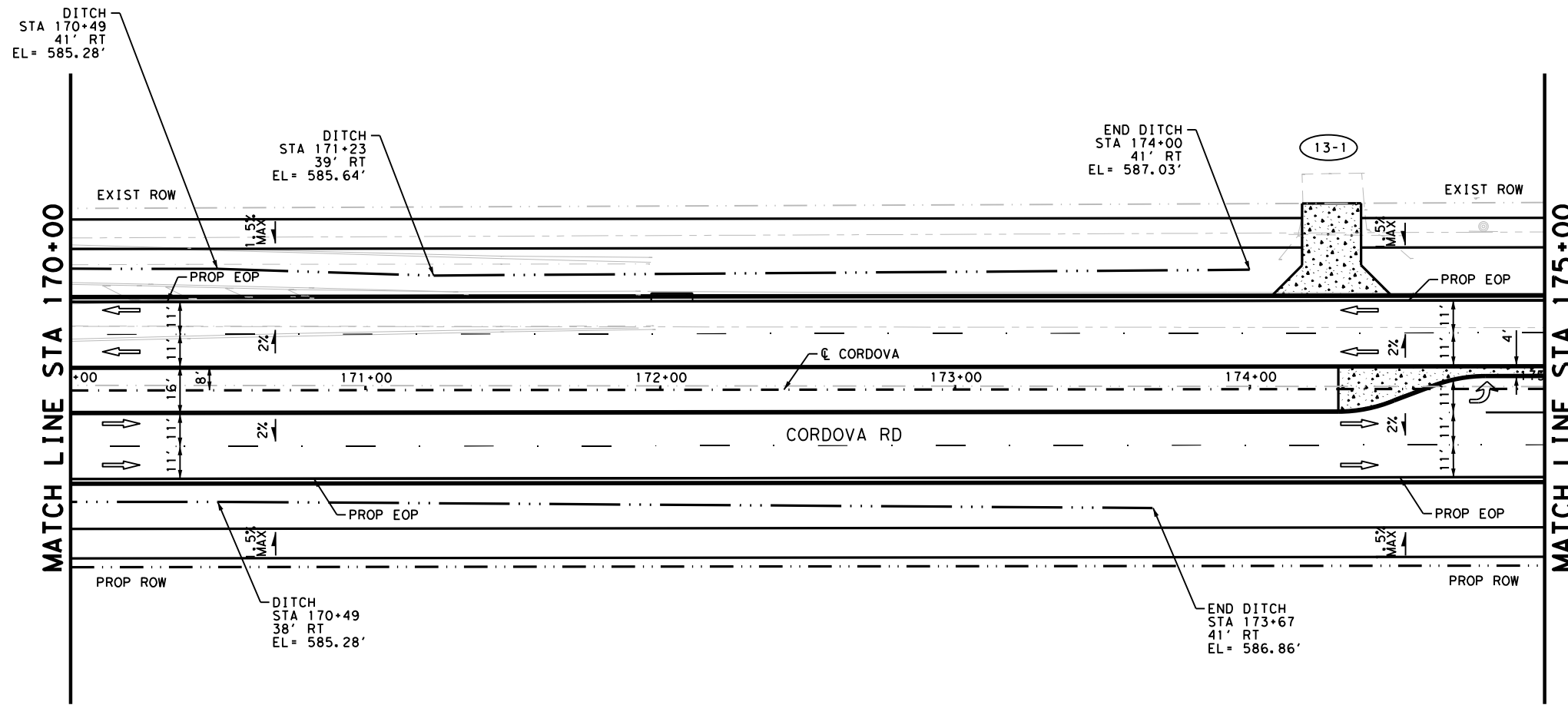
SHEET 12 OF 44

DWG:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK	SAT	GUADALUPE	0915	45	052	98



Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_13.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

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3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

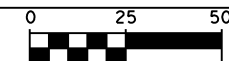
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

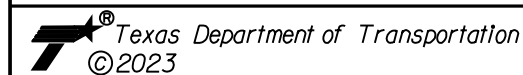
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



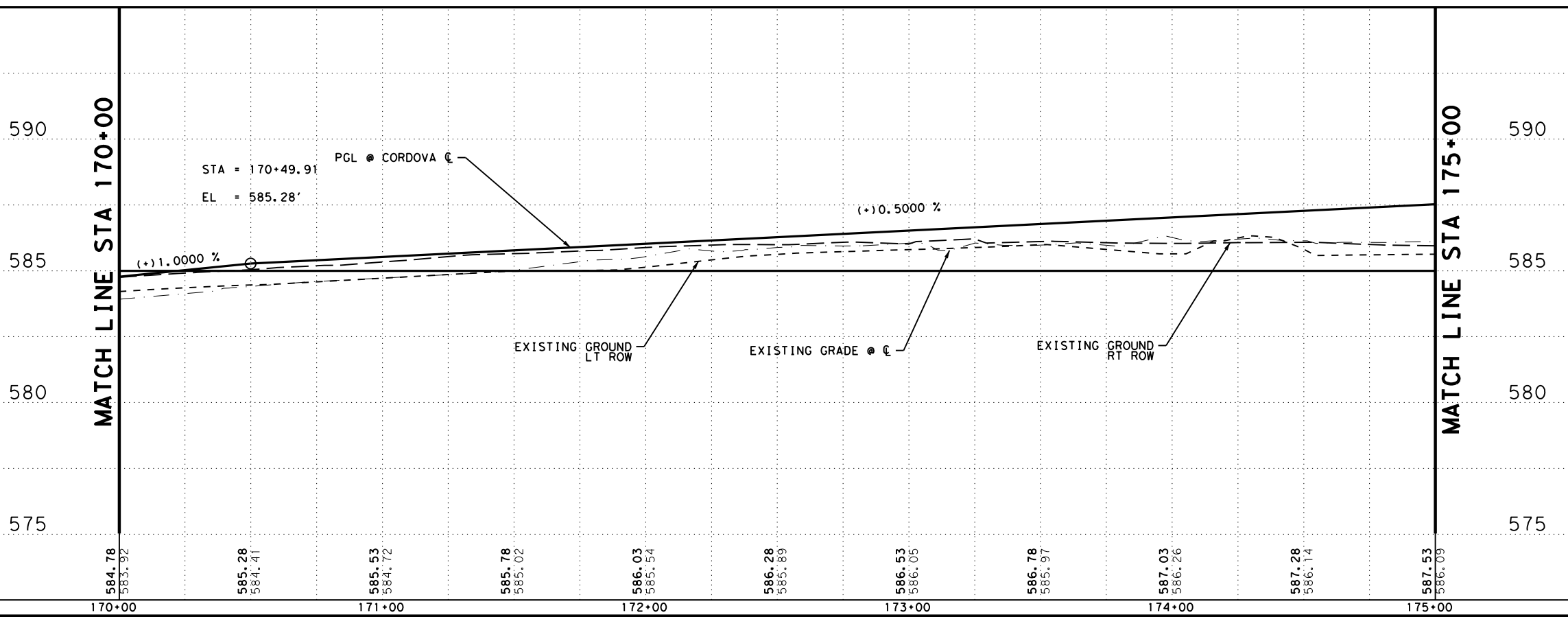
It's real.



ROADWAY PLAN AND PROFILE

STA 170+00 TO STA 175+00

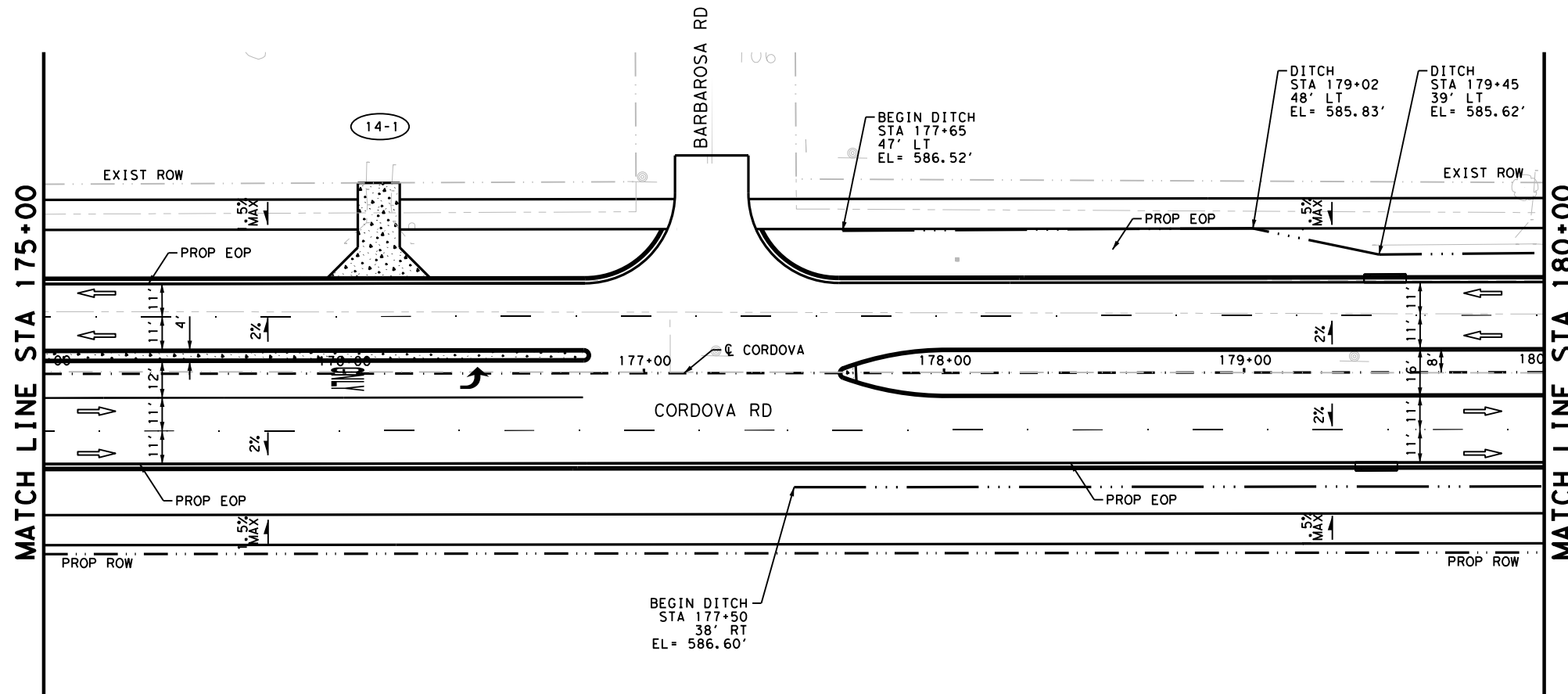
SHEET 13 OF 44



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	99

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_14.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

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DESIGN

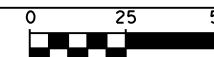
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

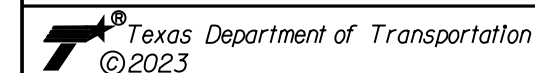
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



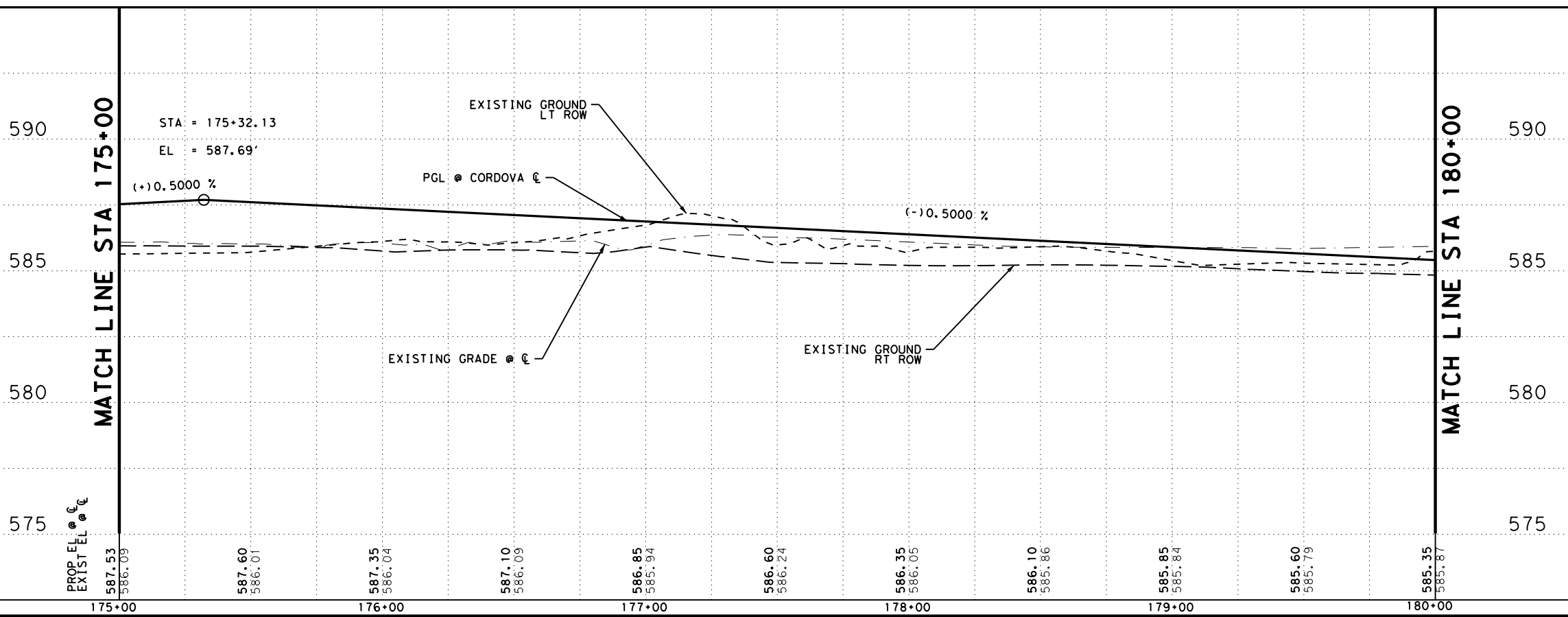
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 175+00 TO STA 180+00

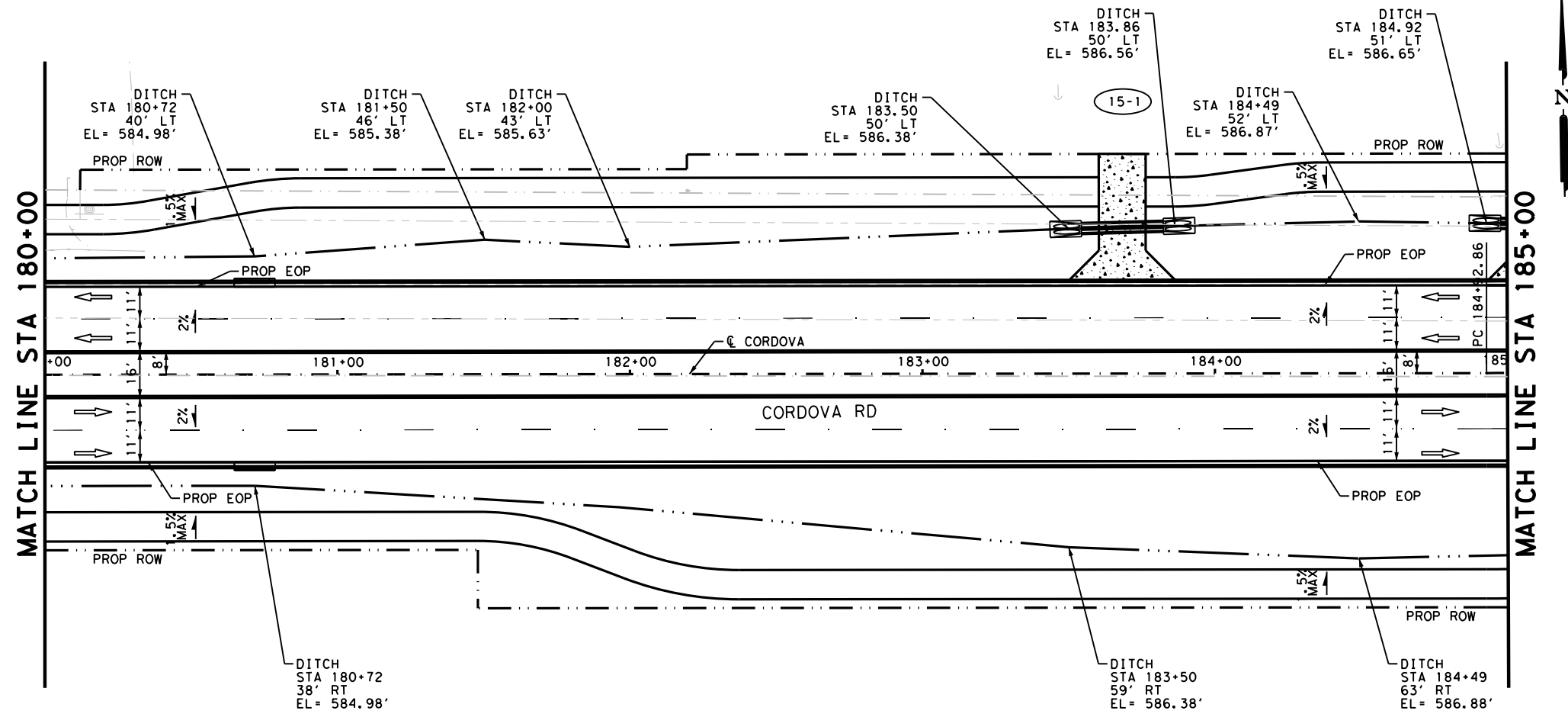
SHEET 14 OF 44



CHK	DGN	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
		6	TEXAS		CORDOVA		
CHK	DGN	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
		SAT	GUADALUPE	0915	45	052	100

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_15.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

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3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

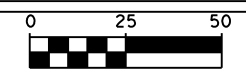
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



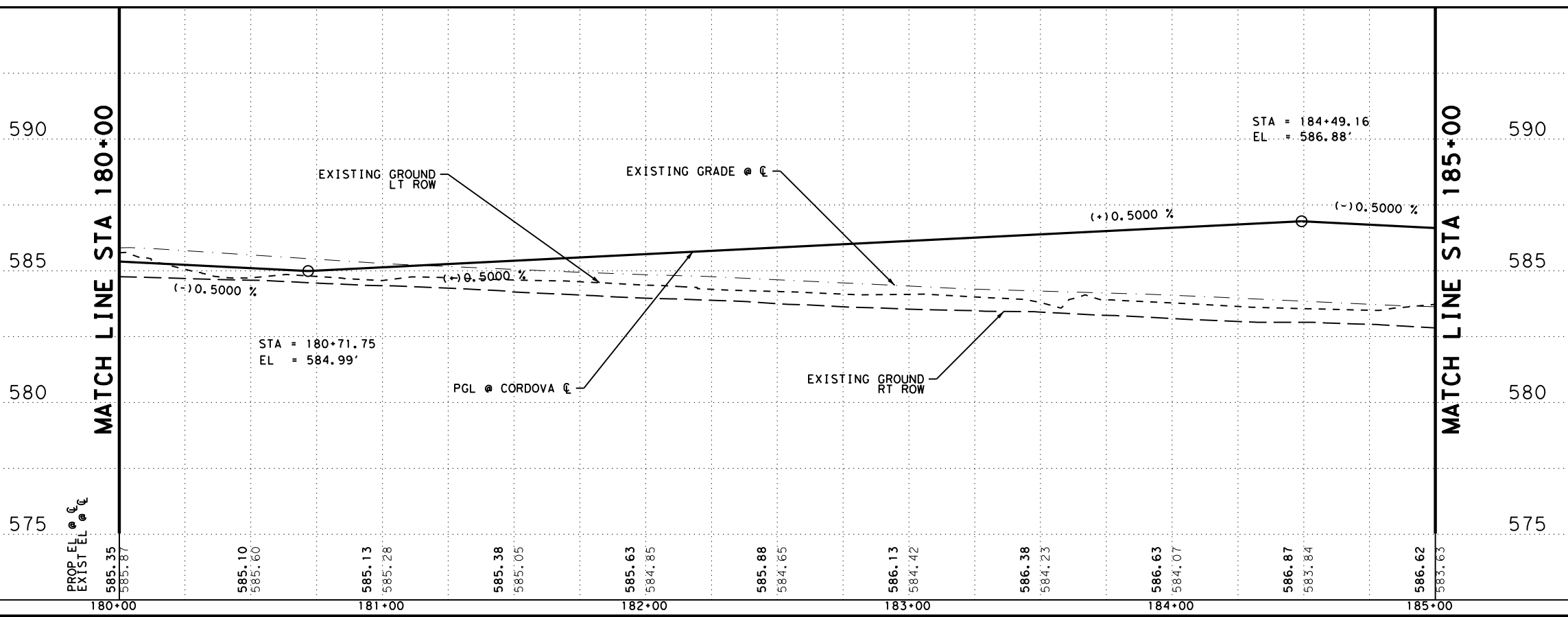
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 180+00 TO STA 185+00

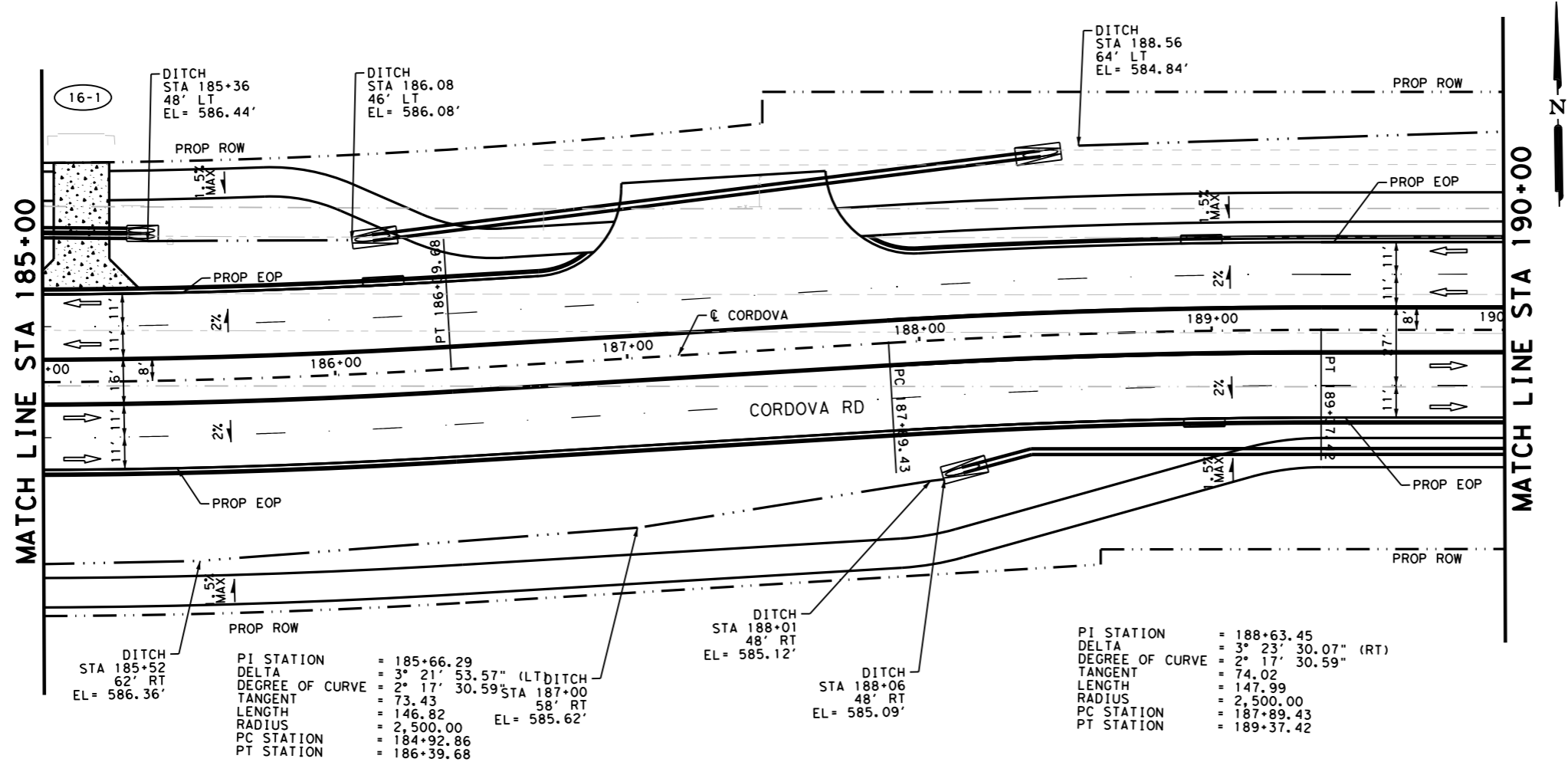
SHEET 15 OF 44



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	101

Plotted on: 7/27/2023

Design Filename: P:\127175\00\Design\Civil\Roadway\1277500_rdw_16.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- (#-#) DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

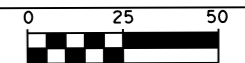
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

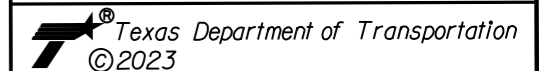


SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028900

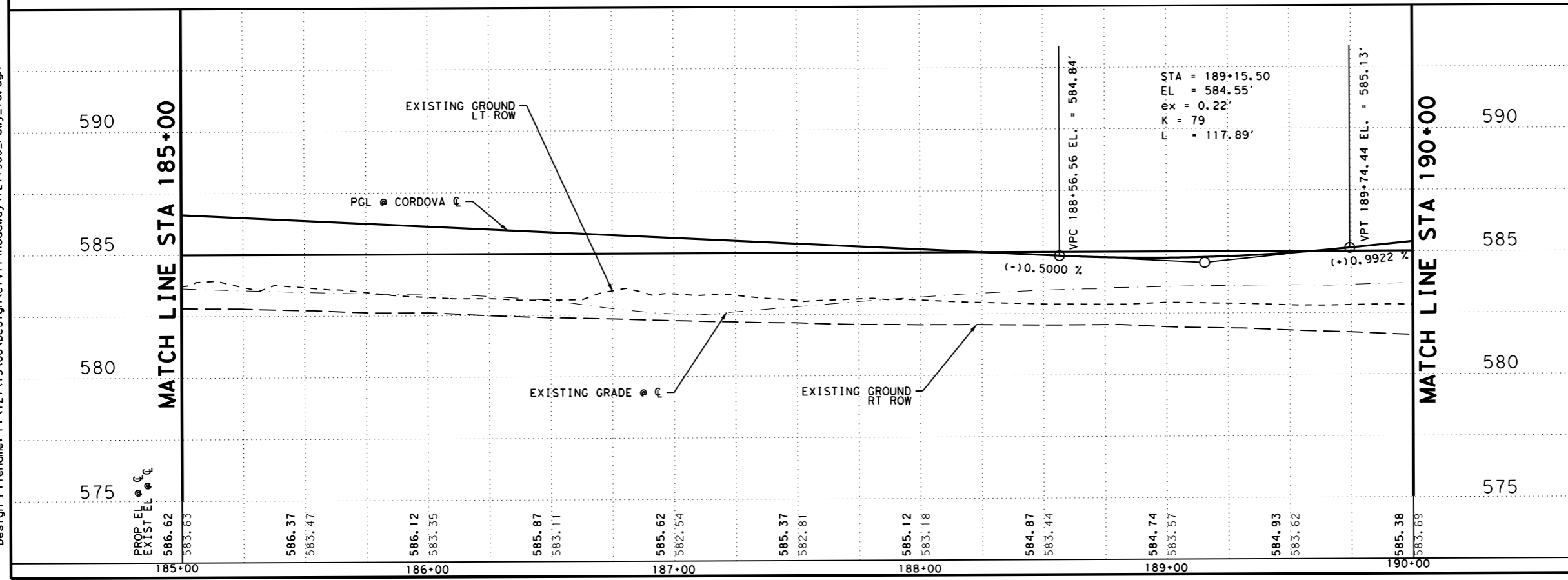


ROADWAY PLAN AND PROFILE

STA 185+00 TO STA 190+00

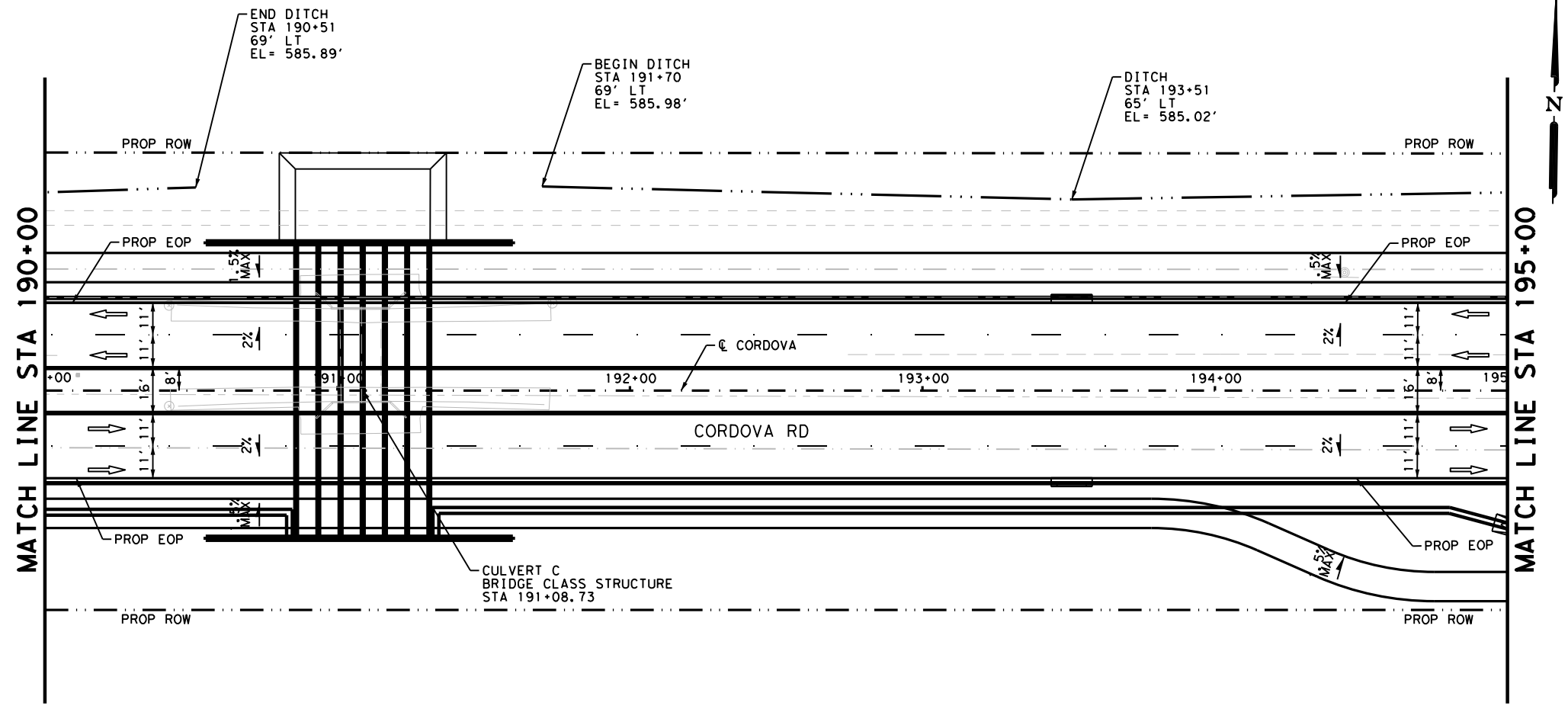
SHEET 16 OF 44

DCM#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
	6	TEXAS		CORDOVA		
DCM#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
	SAT	GUADALUPE	0915	45	052	102



Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_17.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P.E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

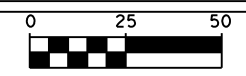
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P.E. SERIAL NO: 105193

DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



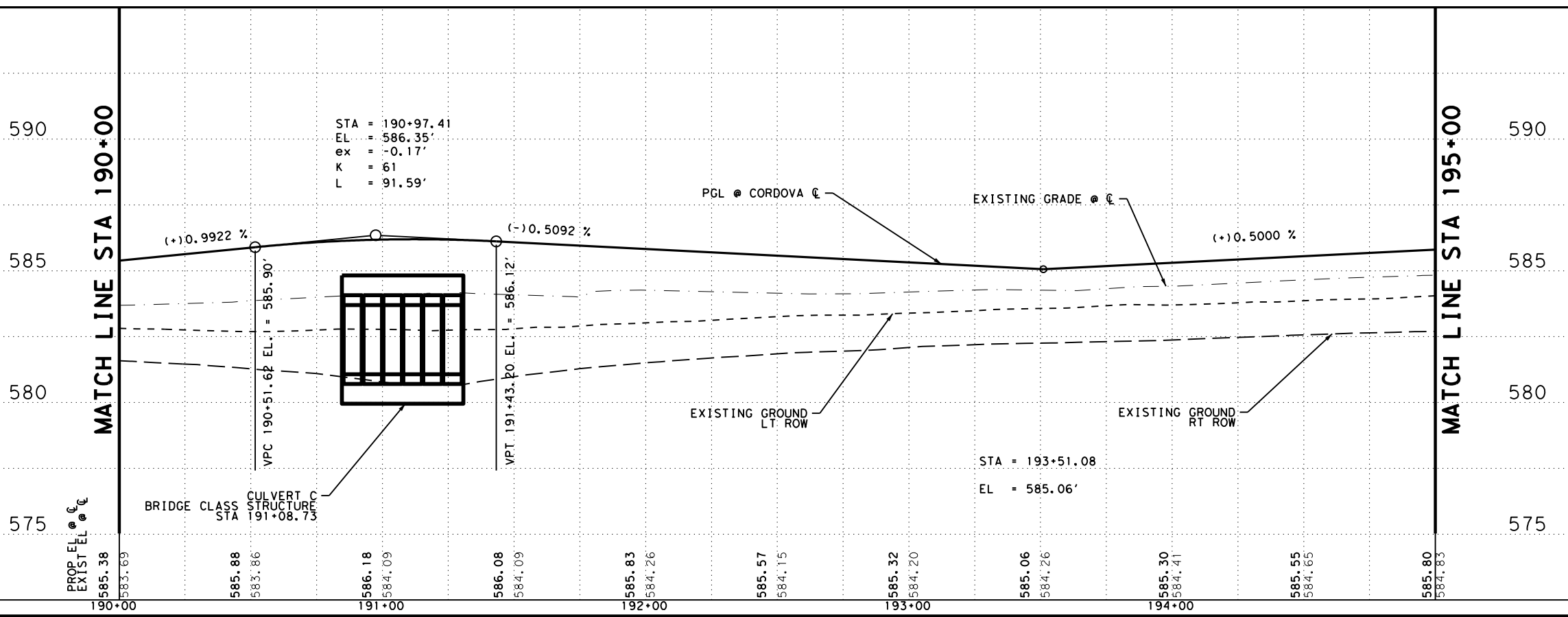
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 190+00 TO STA 195+00

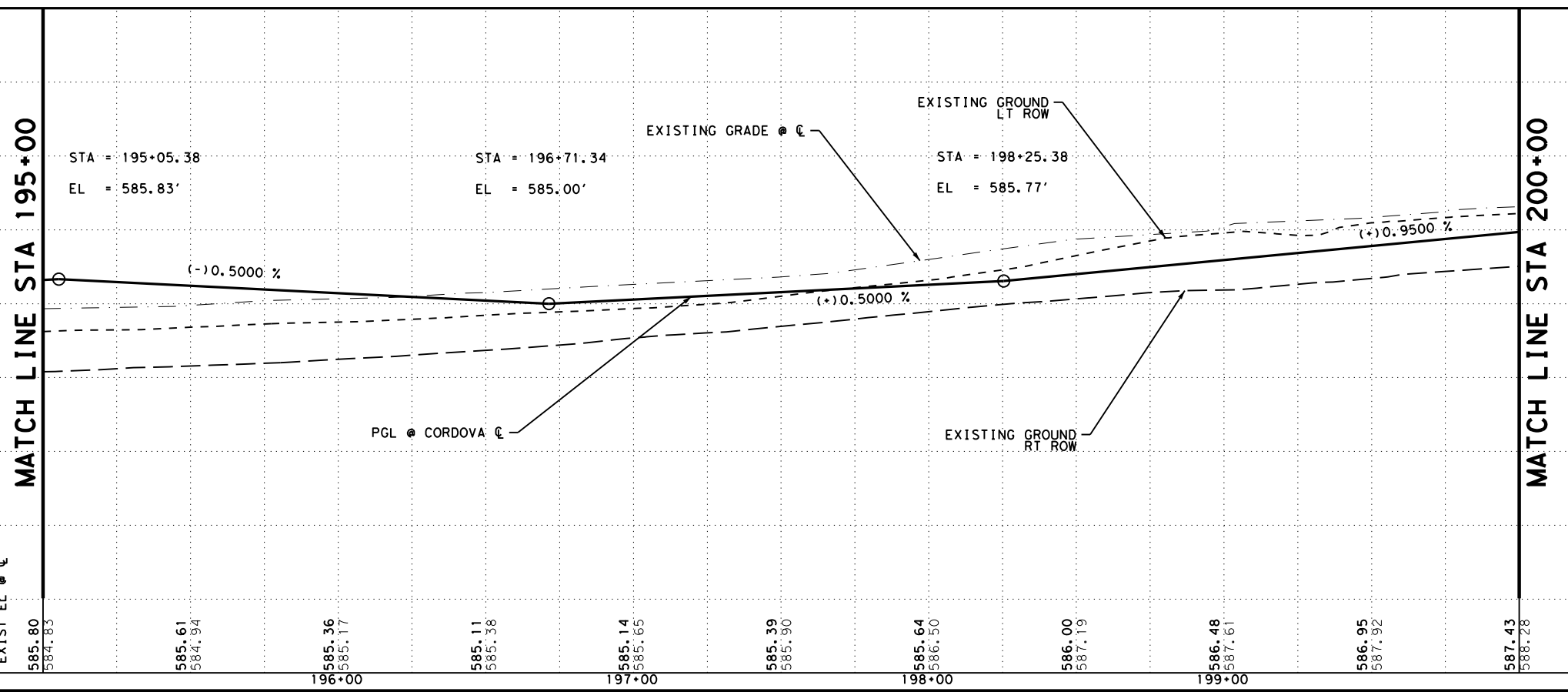
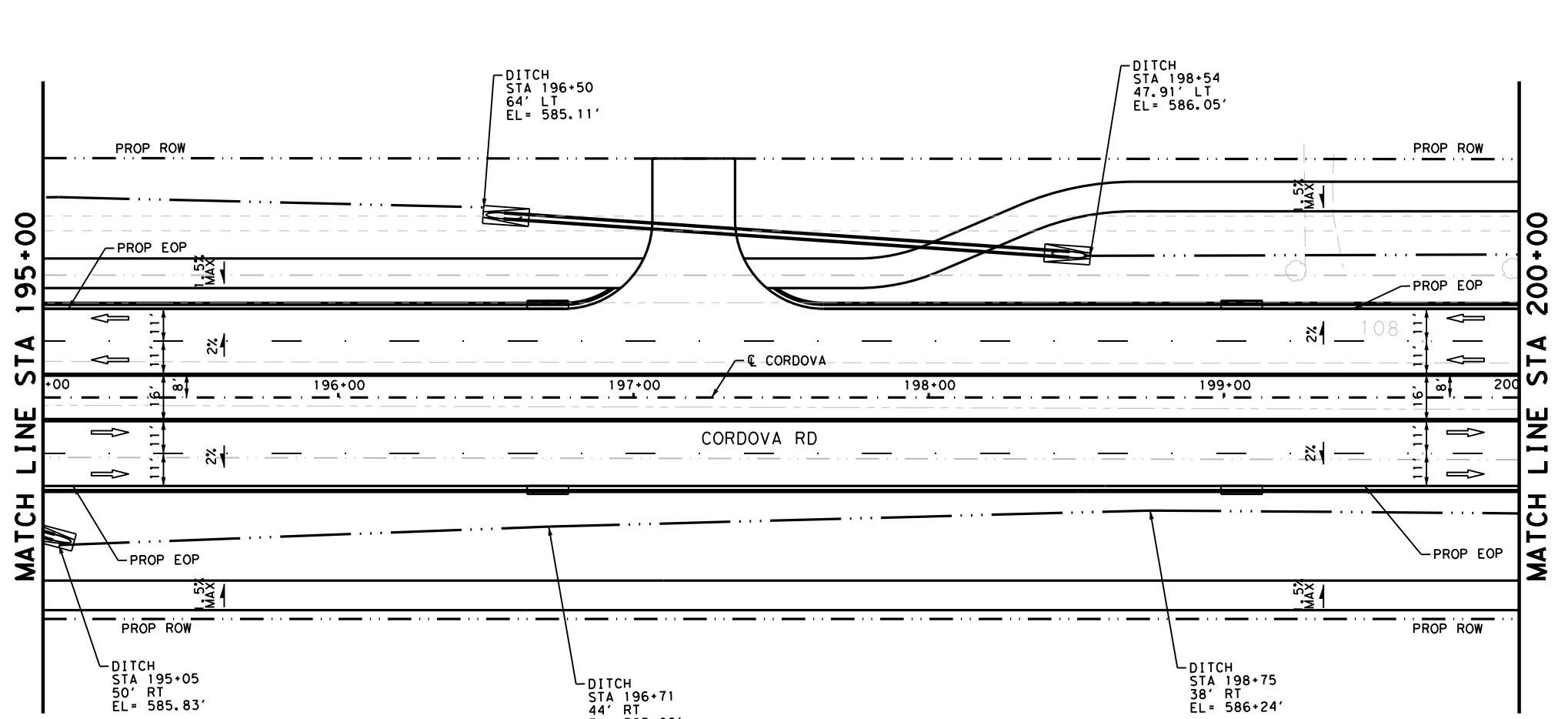
SHEET 17 OF 44



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	103

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_18.dgn

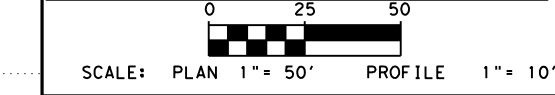


DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY

Pape-Dawson Engineers
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

SEGUIN TEXAS
 It's real.

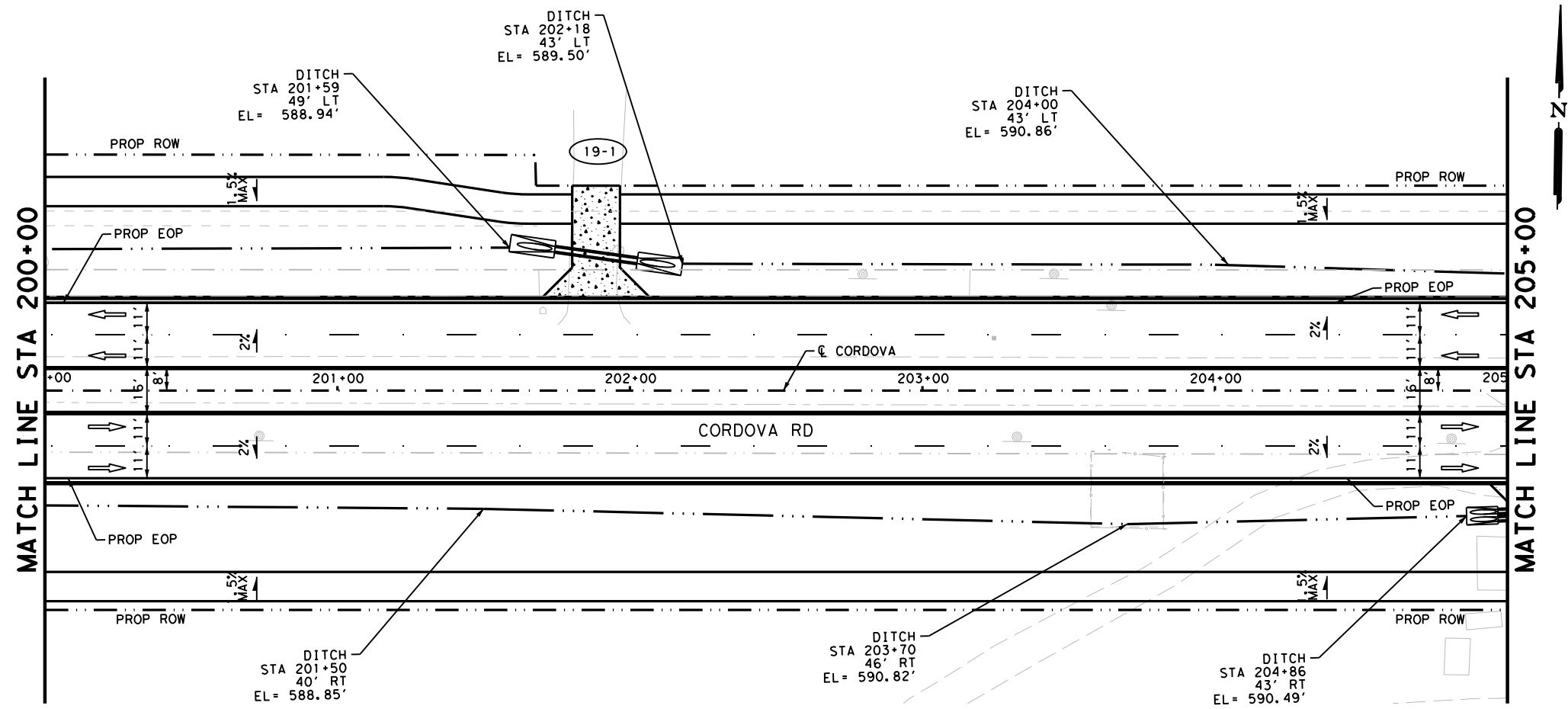
Texas Department of Transportation
 ©2023

ROADWAY PLAN AND PROFILE
 STA 195+00 TO STA 200+00
 SHEET 18 OF 44

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DGN#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	104

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_19.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

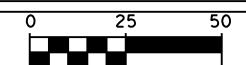
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



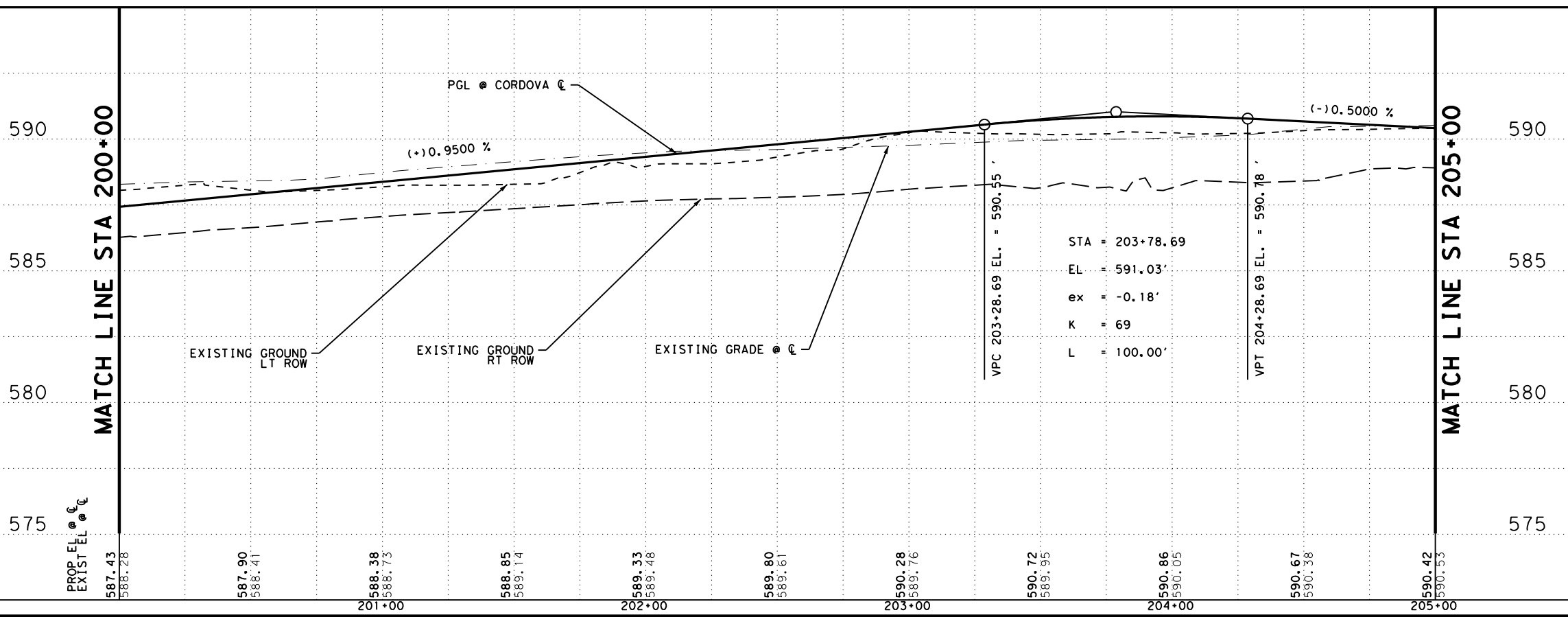
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 200+00 TO STA 205+00

SHEET 19 OF 44

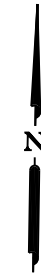
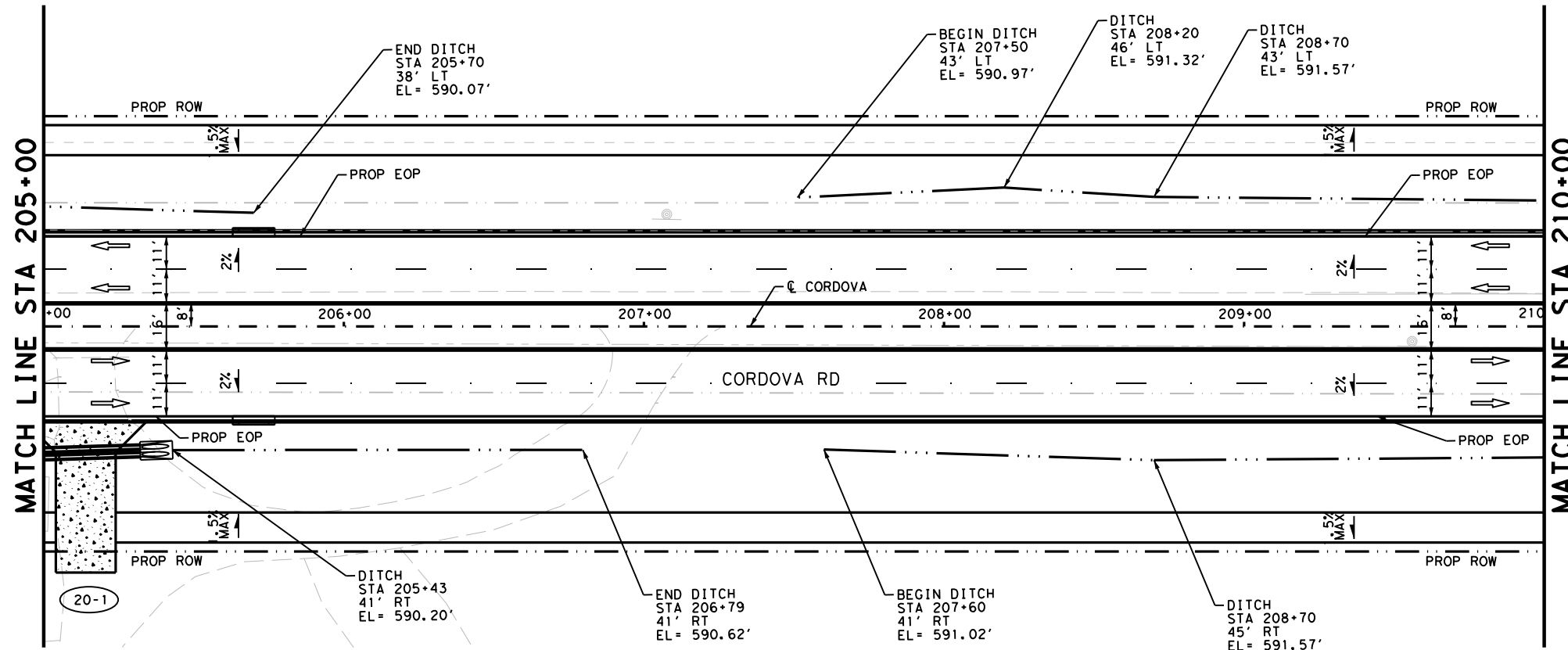


PROP. EL. @ CL	EXIST. EL. @ CL	STATION
587.43	588.28	201+00
587.90	588.41	201+00
588.38	588.73	201+00
588.85	589.14	201+00
589.33	589.48	202+00
589.80	589.61	202+00
590.28	589.76	203+00
590.72	589.95	203+00
590.86	590.05	204+00
590.67	590.38	204+00
590.42	590.53	205+00

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	105

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_20.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

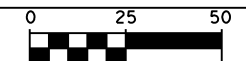
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

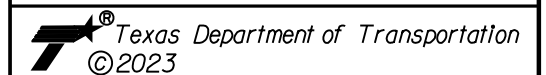
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



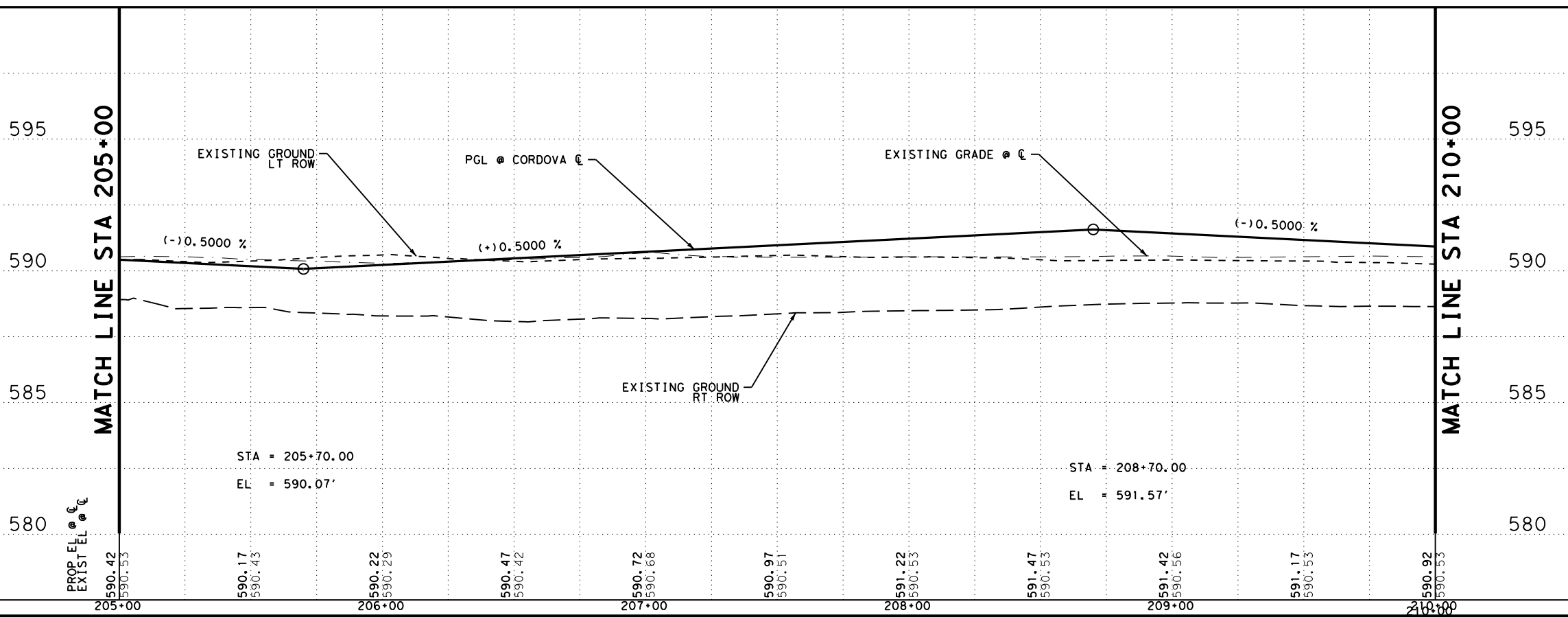
It's real.



ROADWAY
 PLAN AND PROFILE

STA 205+00 TO STA 210+00

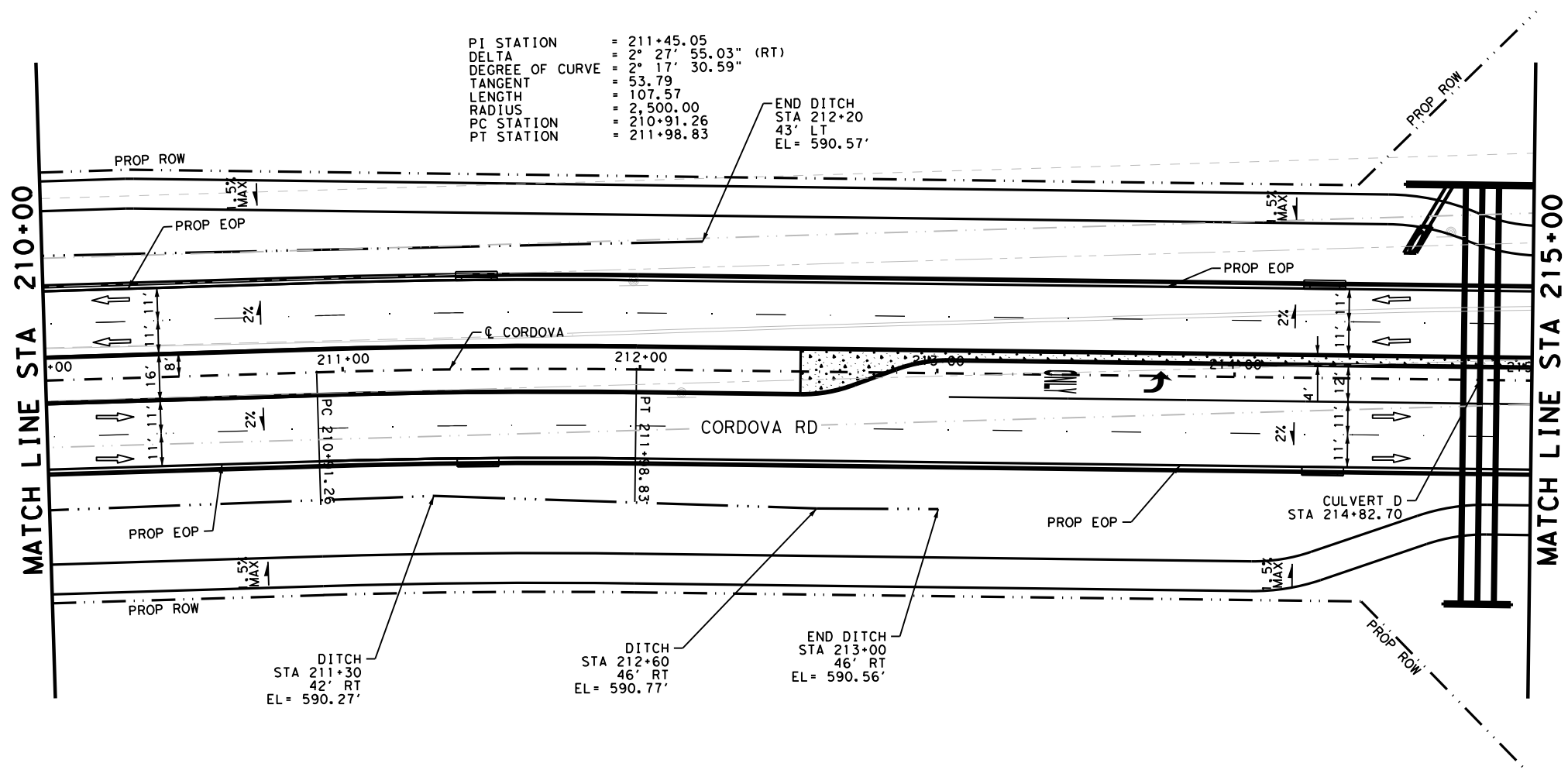
SHEET 20 OF 44



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DGN#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	106

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_21.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

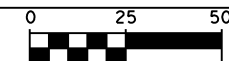
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

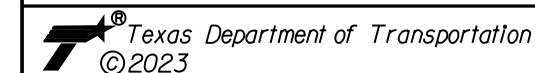
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



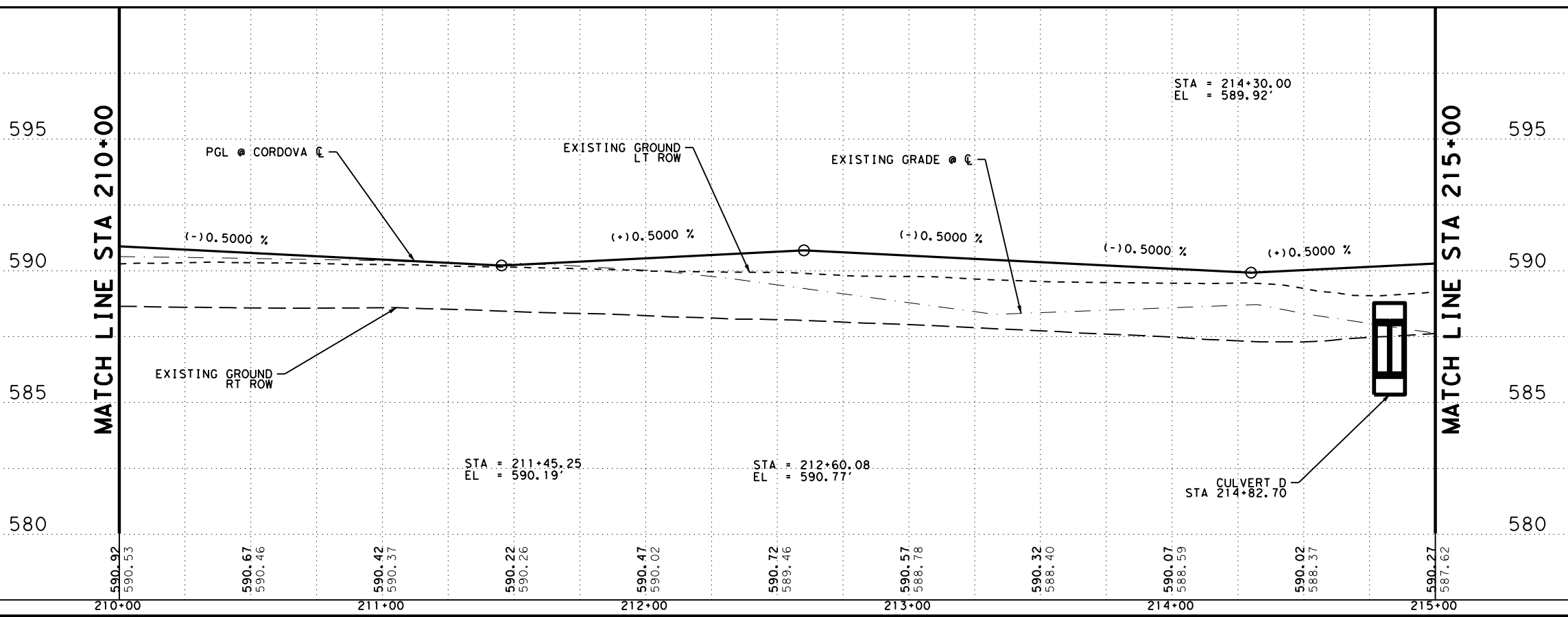
It's real.



ROADWAY PLAN AND PROFILE

STA 210+00 TO STA 215+00

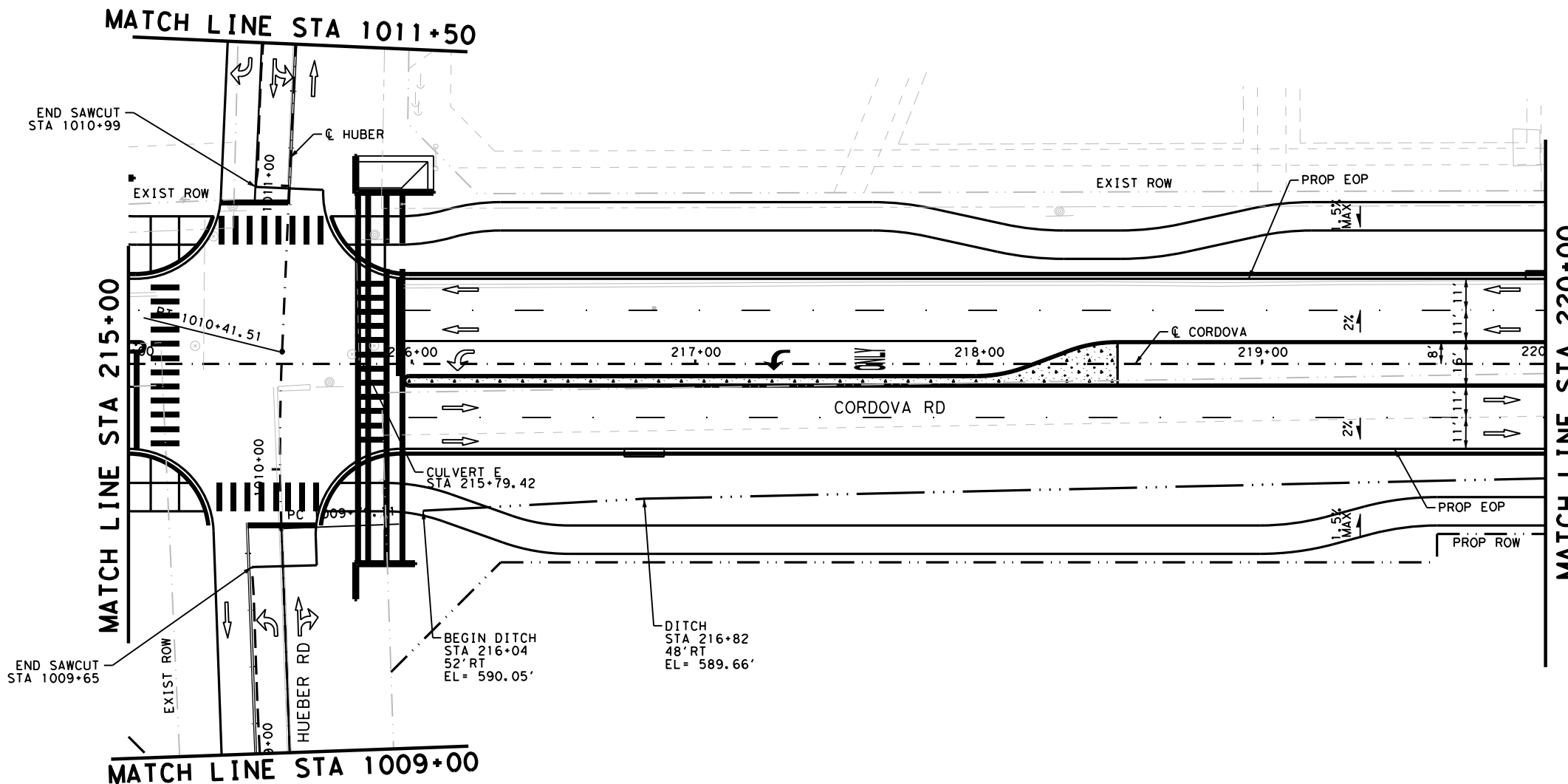
SHEET 21 OF 4



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	107

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_22.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

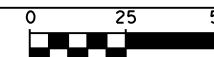
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

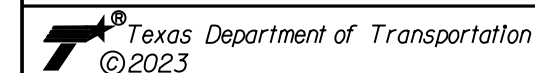
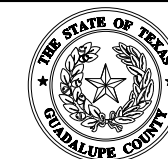
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



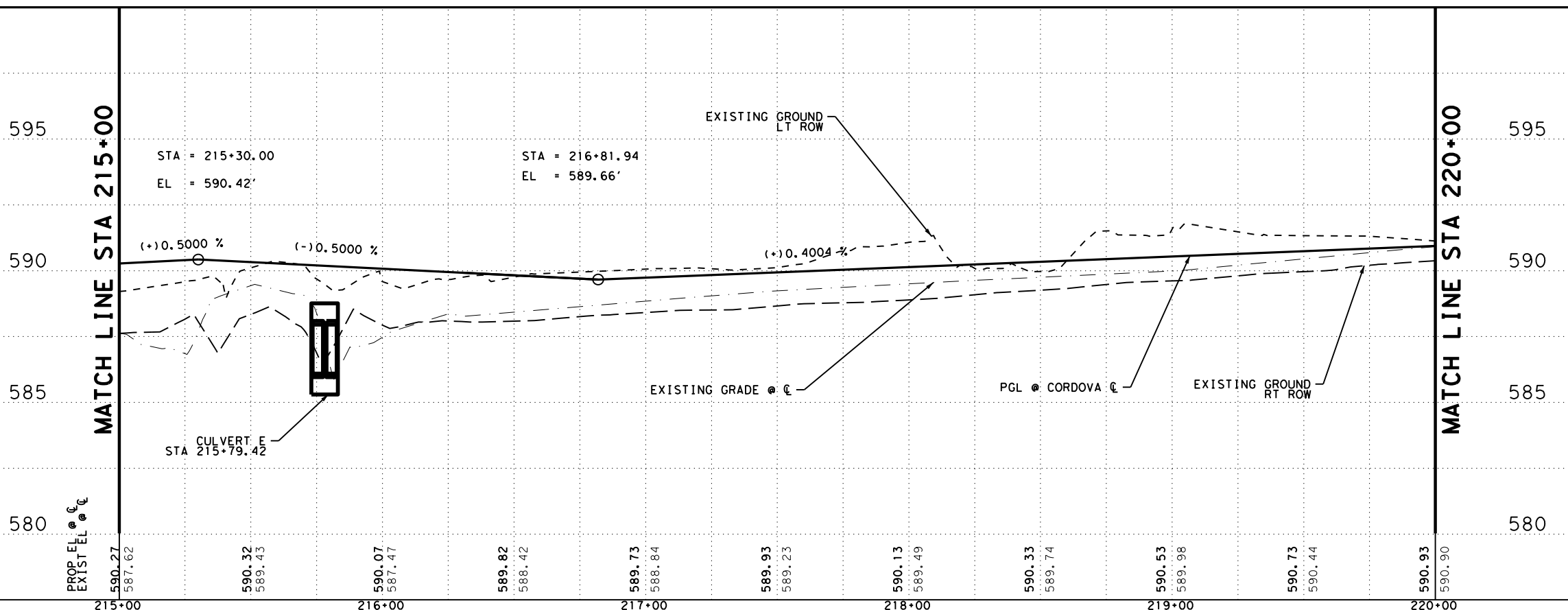
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 215+00 TO STA 220+00

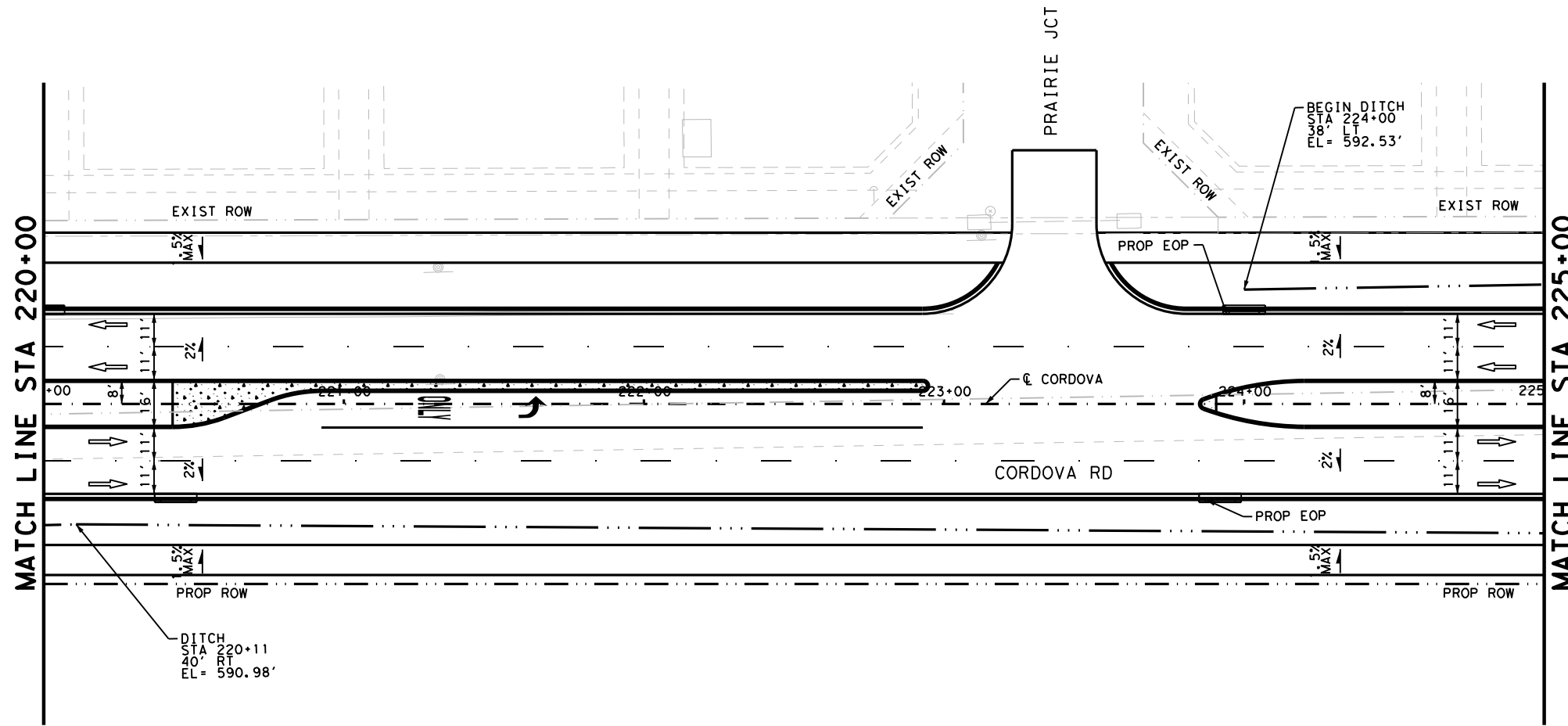
SHEET 22 OF 44



DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK:	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK:	SAT	GUADALUPE	0915	45	052	108

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_23.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

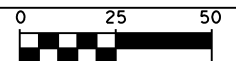
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

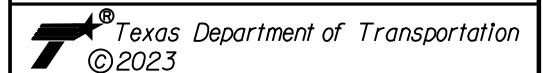
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



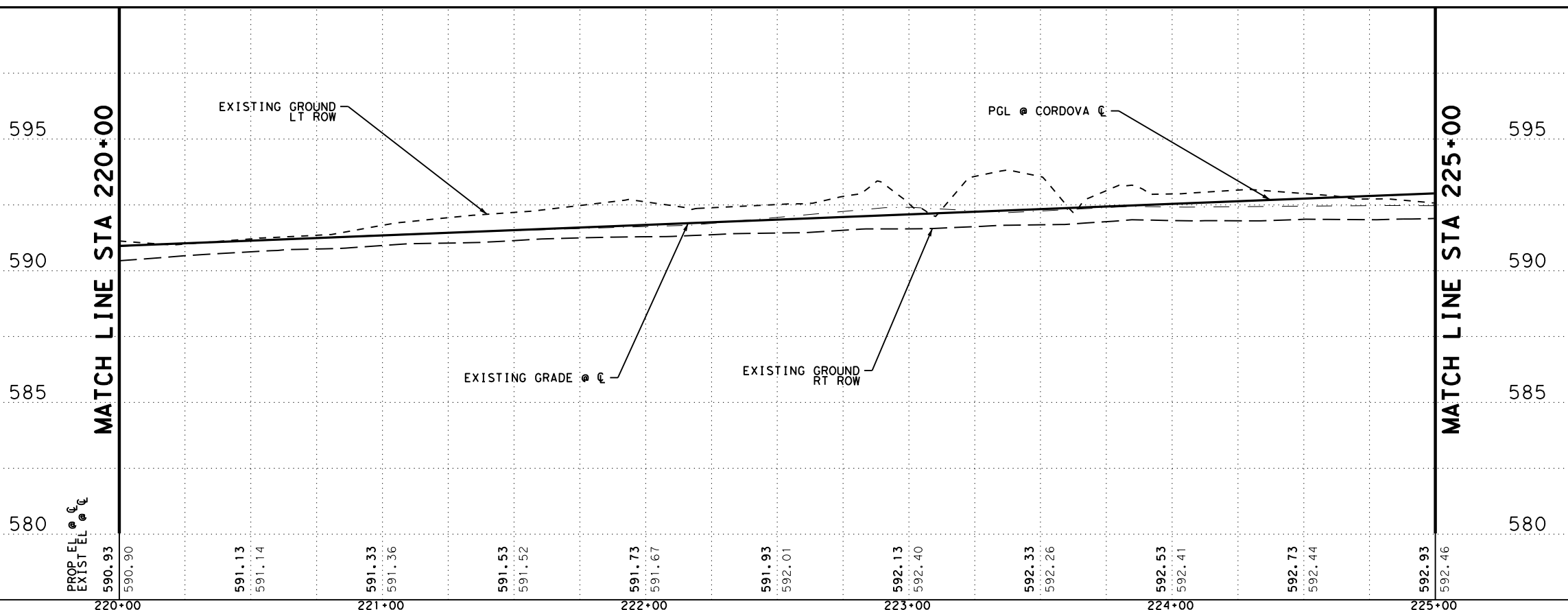
It's real.



ROADWAY PLAN AND PROFILE

STA 220+00 TO STA 225+00

SHEET 23 OF 44

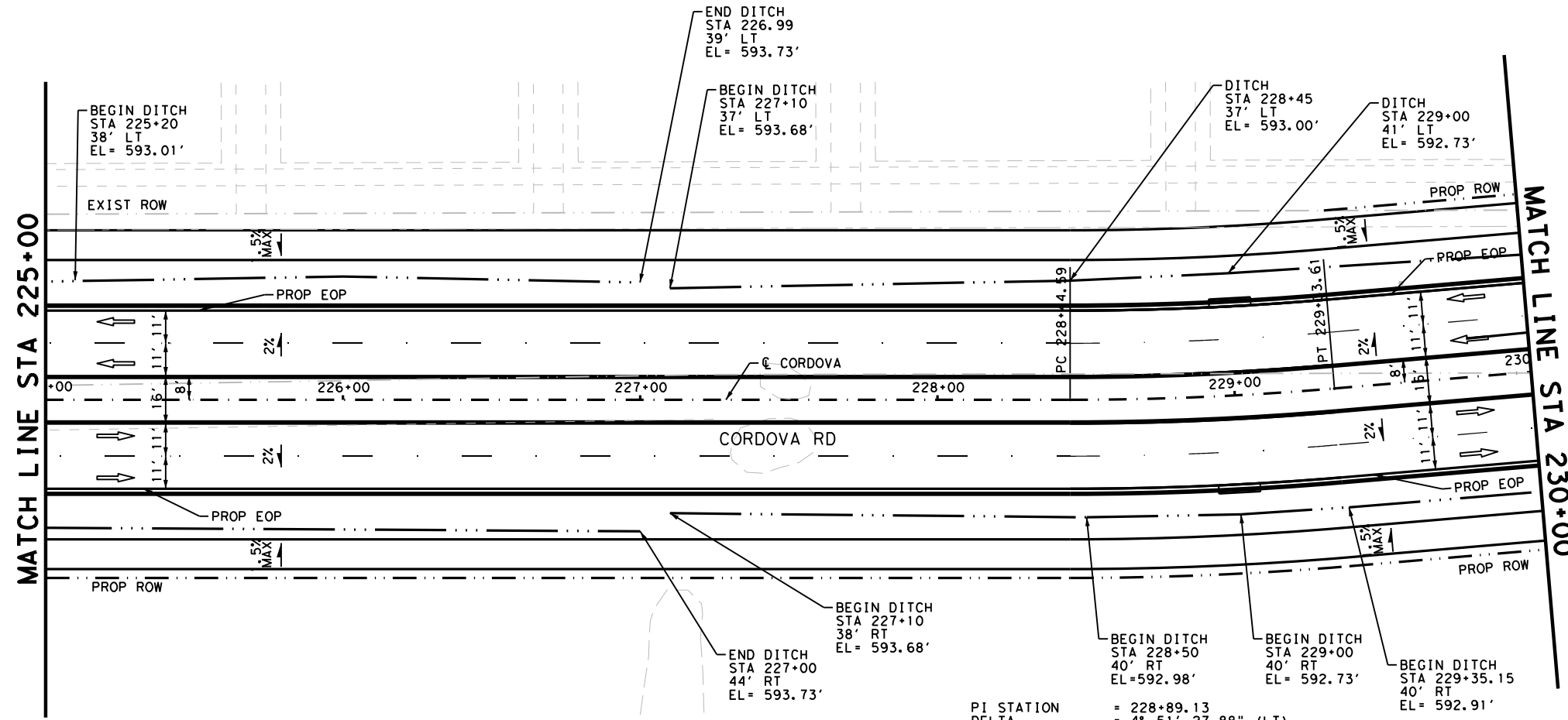


PROP EOP @ C	590.93	591.13	591.33	591.53	591.73	591.93	592.13	592.33	592.53	592.73	592.93
EXIST EL @ C	590.90	591.14	591.36	591.52	591.67	592.01	592.40	592.26	592.41	592.44	592.46
STATION	220+00	221+00	222+00	223+00	224+00	225+00					

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				109

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_24.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

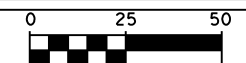
PI STATION = 228+89.13
 DELTA = 4° 51' 27.88" (LT)
 DEGREE OF CURVE = 5° 27' 24.27"
 TANGENT = 44.54
 LENGTH = 89.02
 RADIUS = 1,050.00
 PC STATION = 228+44.59
 PT STATION = 229+33.61

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

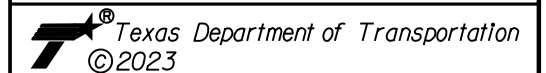
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.

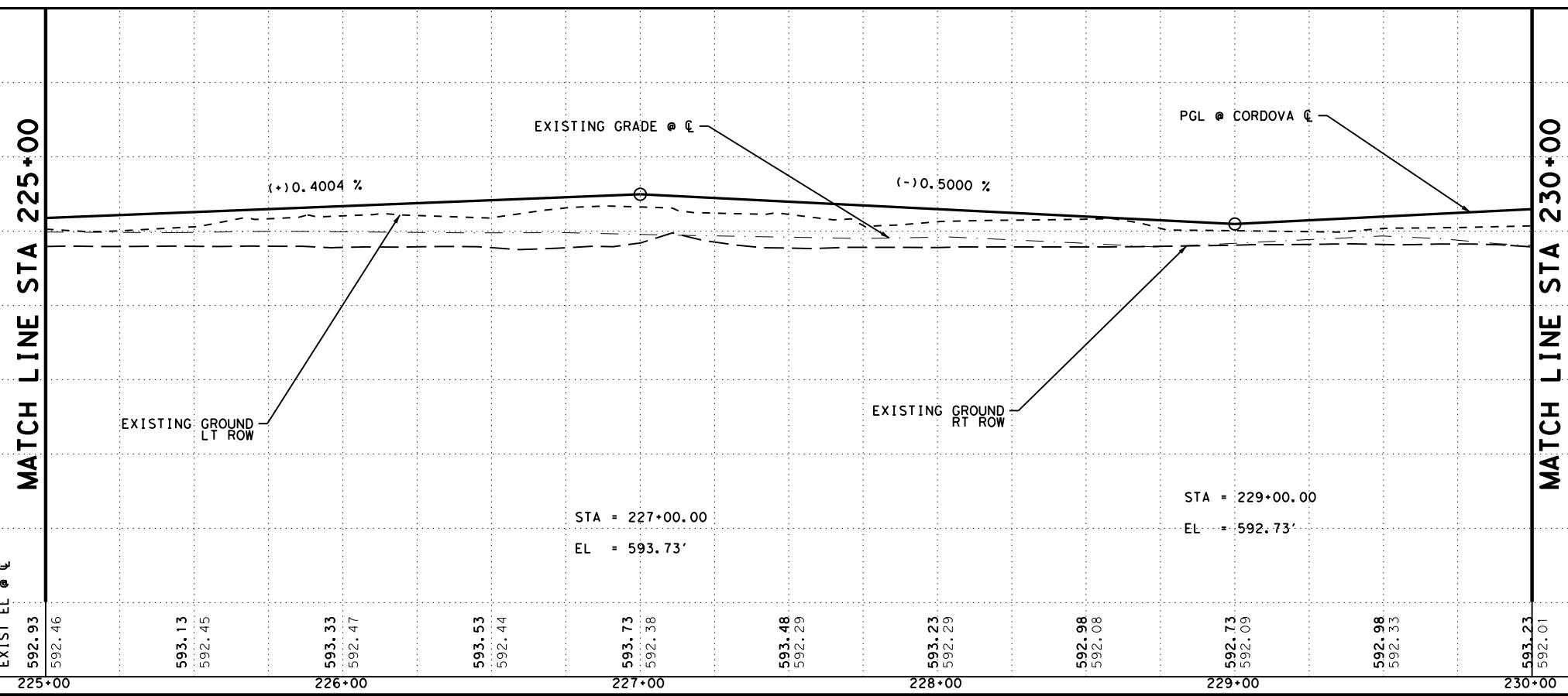


ROADWAY PLAN AND PROFILE

STA 225+00 TO STA 230+00

SHEET 24 OF 44

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	110



EXISTING GRADE @ C C
 PGL @ CORDOVA C

(+)0.4004 %
 (-)0.5000 %

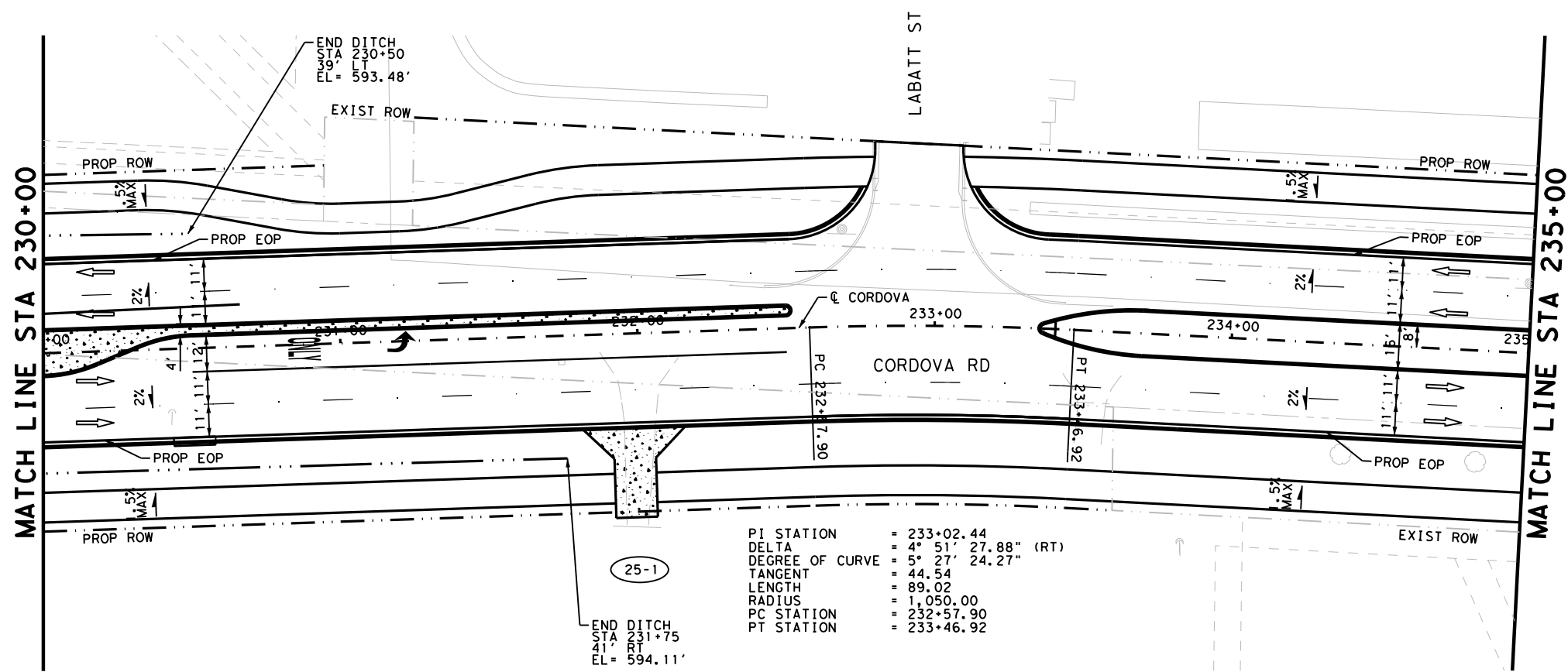
EXISTING GROUND LT ROW
 EXISTING GROUND RT ROW

STA = 227+00.00
 EL = 593.73'
 STA = 229+00.00
 EL = 592.73'

PROP. EL @ C	EXIST. EL @ C	STA	PROP. EL @ C	EXIST. EL @ C	STA	PROP. EL @ C	EXIST. EL @ C	STA	PROP. EL @ C	EXIST. EL @ C	STA						
592.93	592.46	225+00	593.13	592.45	226+00	593.33	592.47	227+00	593.48	592.29	228+00	592.98	592.08	229+00	593.23	592.01	230+00

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_25.dgn



PI STATION = 233+02.44
 DELTA = 4° 51' 27.88" (RT)
 DEGREE OF CURVE = 5° 27' 24.27"
 TANGENT = 44.54
 LENGTH = 89.02
 RADIUS = 1,050.00
 PC STATION = 232+57.90
 PT STATION = 233+46.92

END DITCH
 STA 231+75
 RT
 EL = 594.11'

LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

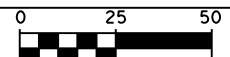
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

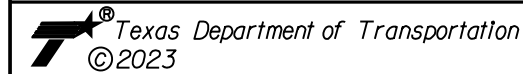
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.

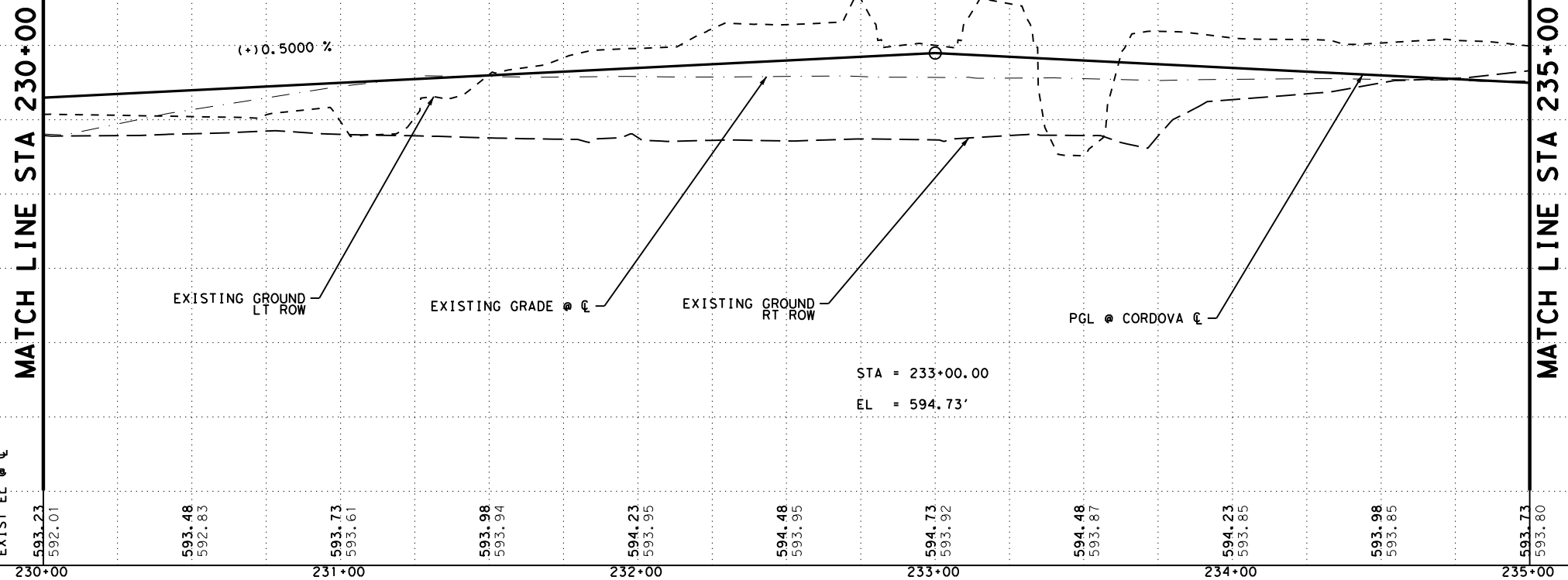


ROADWAY PLAN AND PROFILE

STA 230+00 TO STA 235+00

SHEET 25 OF 44

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	111

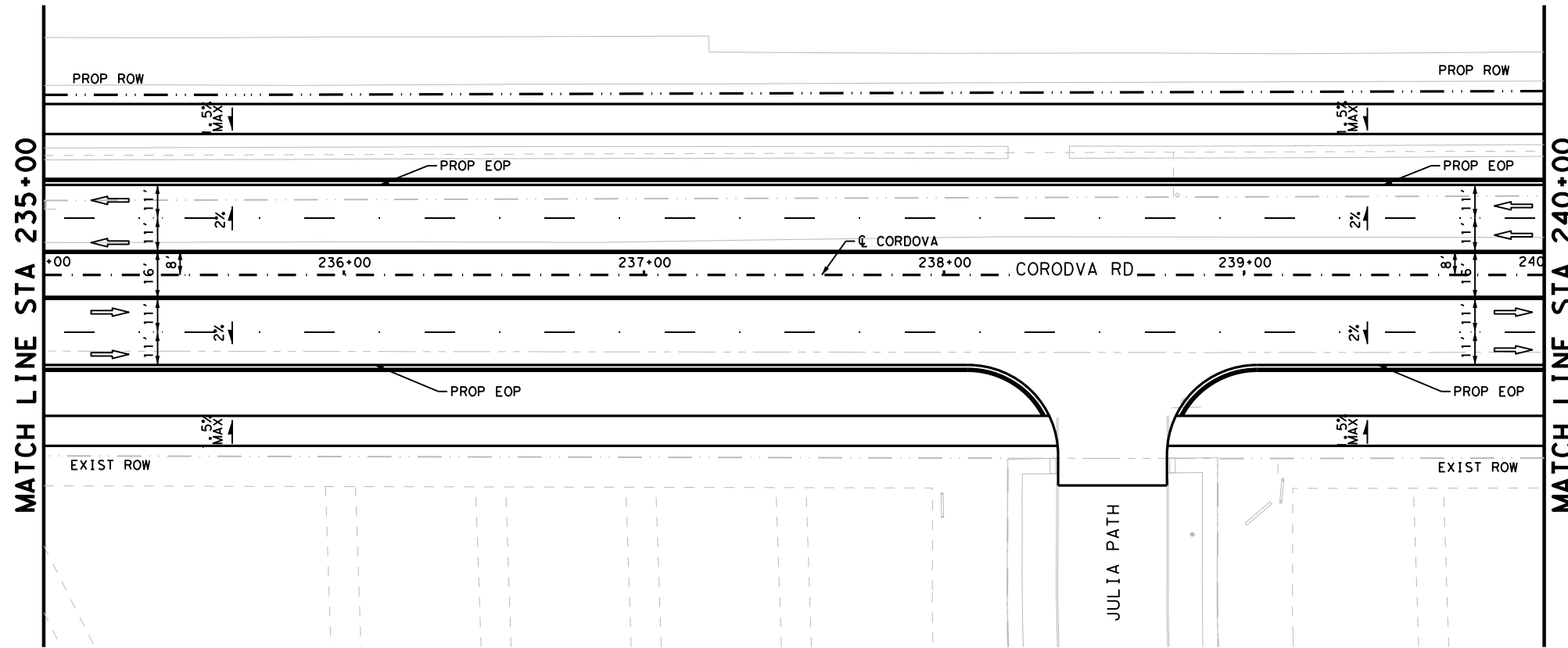


PROP. EL @ C
 EXIST. EL @ C

230+00 231+00 232+00 233+00 234+00 235+00

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_26.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

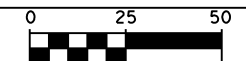
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

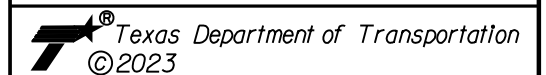
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



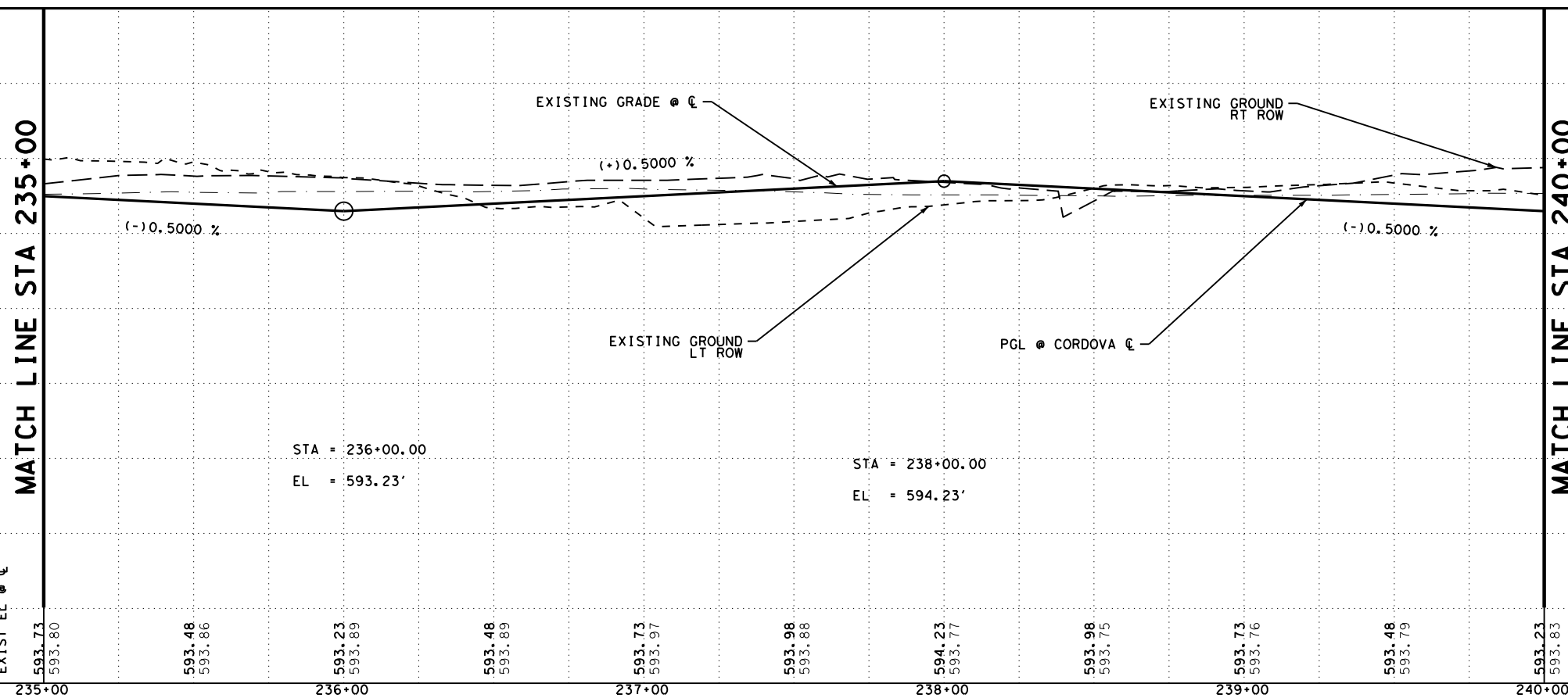
It's real.



ROADWAY
 PLAN AND PROFILE

STA 235+00 TO STA 240+00

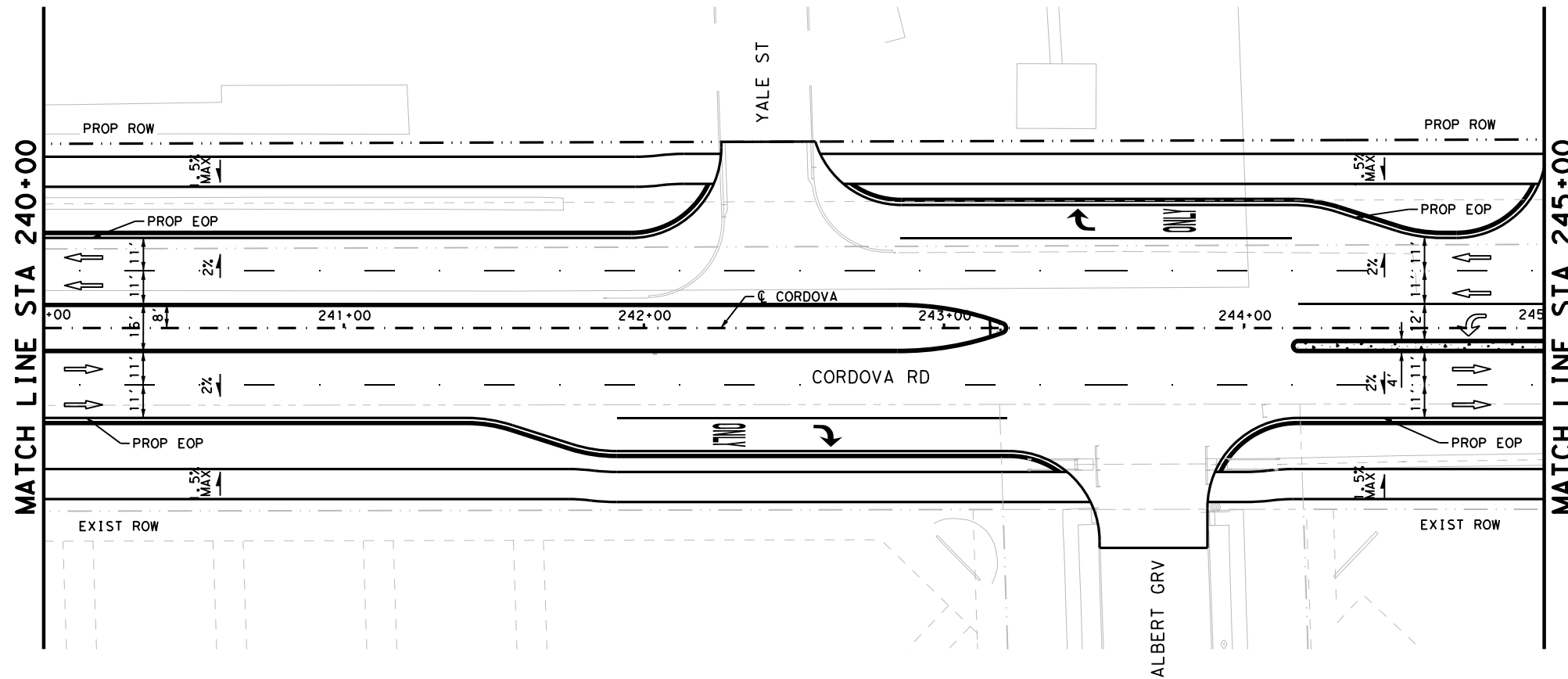
SHEET 26 OF 44



DGN#	FED. NO. / DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	112

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_27.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

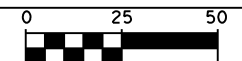
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

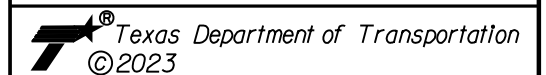
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.

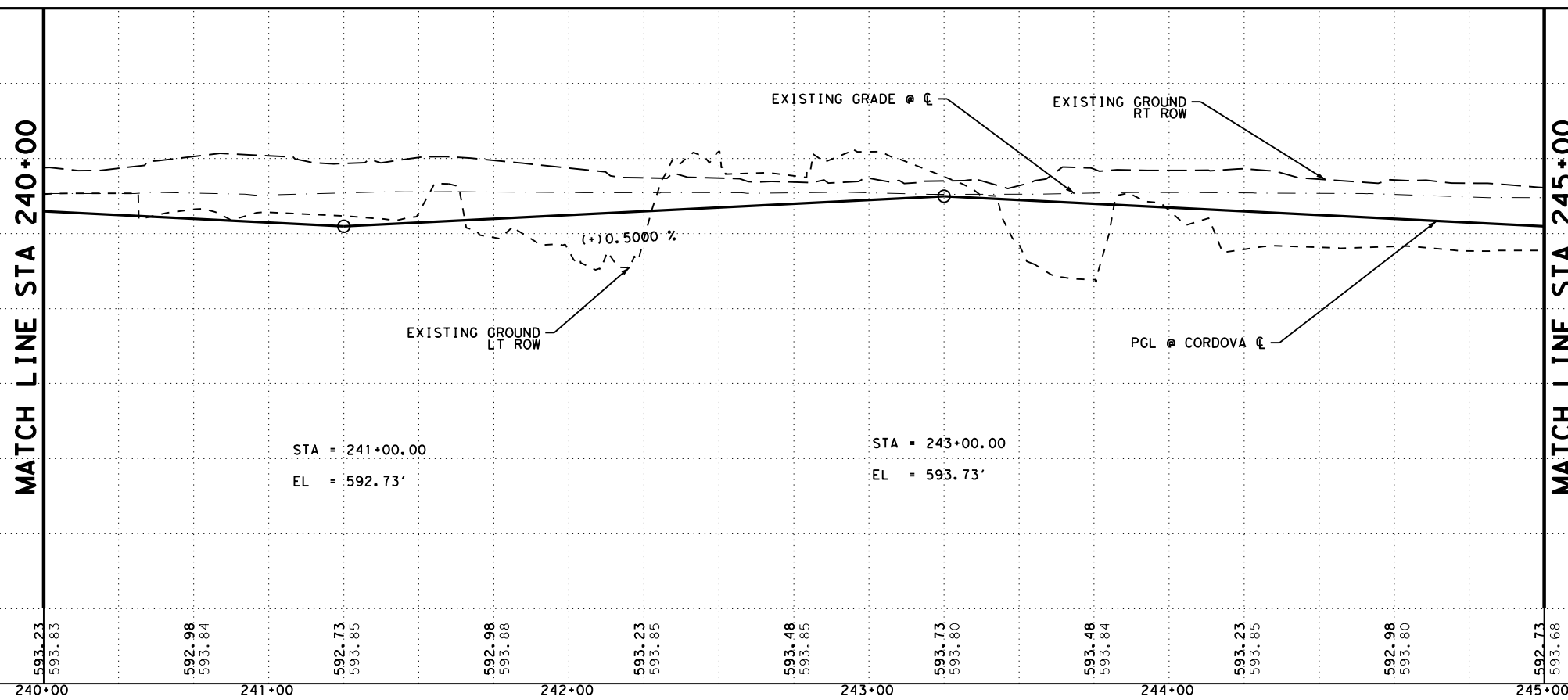


ROADWAY PLAN AND PROFILE

STA 240+00 TO STA 245+00

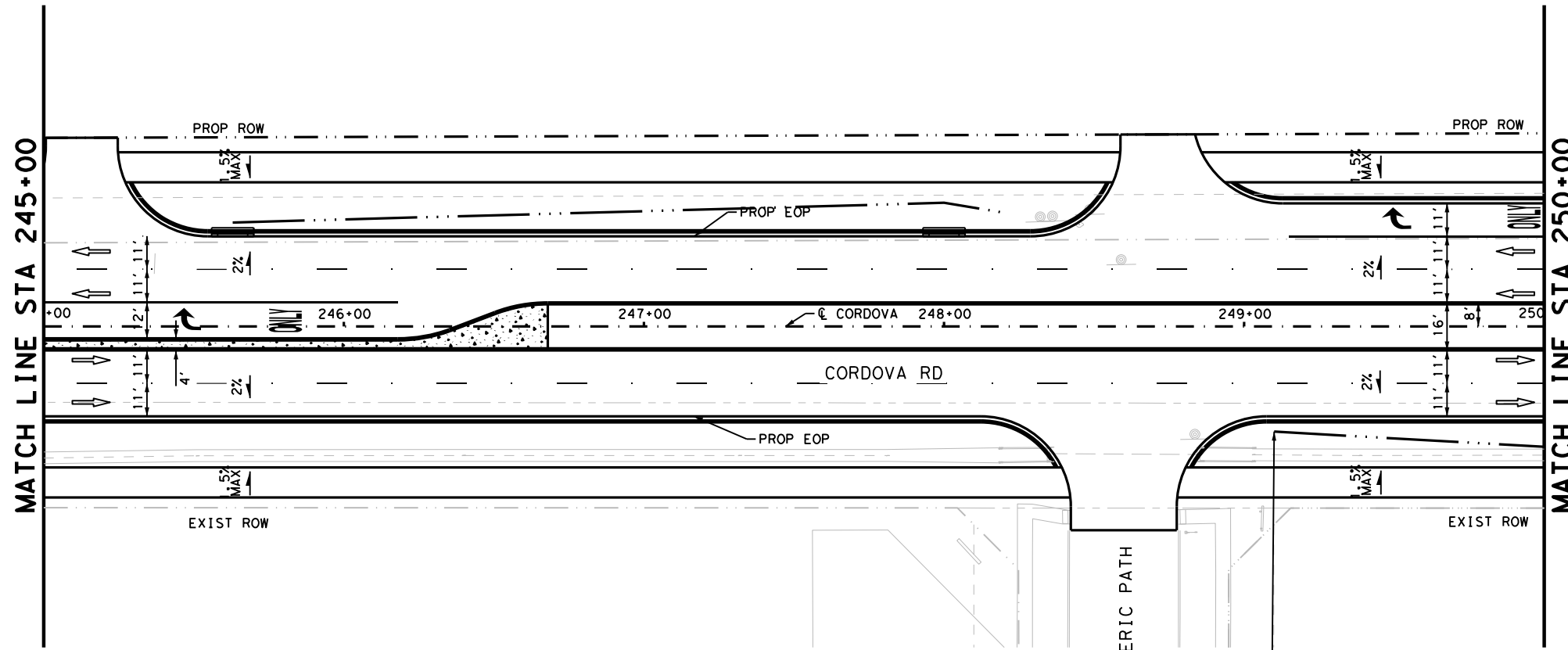
SHEET 27 OF 44

CHK DGN:	FED. NO. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
	6	TEXAS		CORDOVA		
CHK DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
	SAT	GUADALUPE	0915	45	052	113



Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_28.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

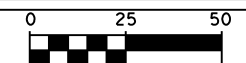
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

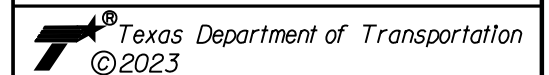
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



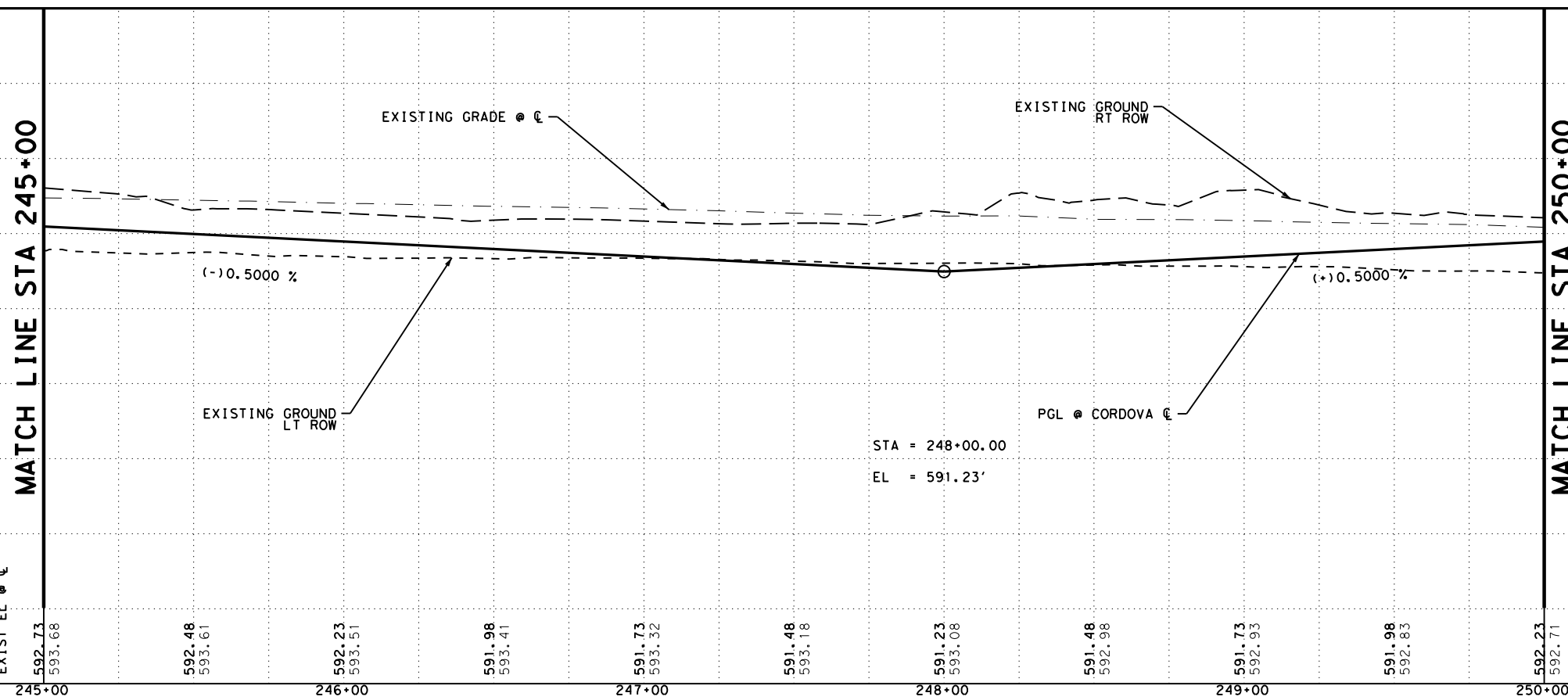
It's real.



**ROADWAY
 PLAN AND PROFILE**

STA 245+00 TO STA 250+00

SHEET 28 OF 44

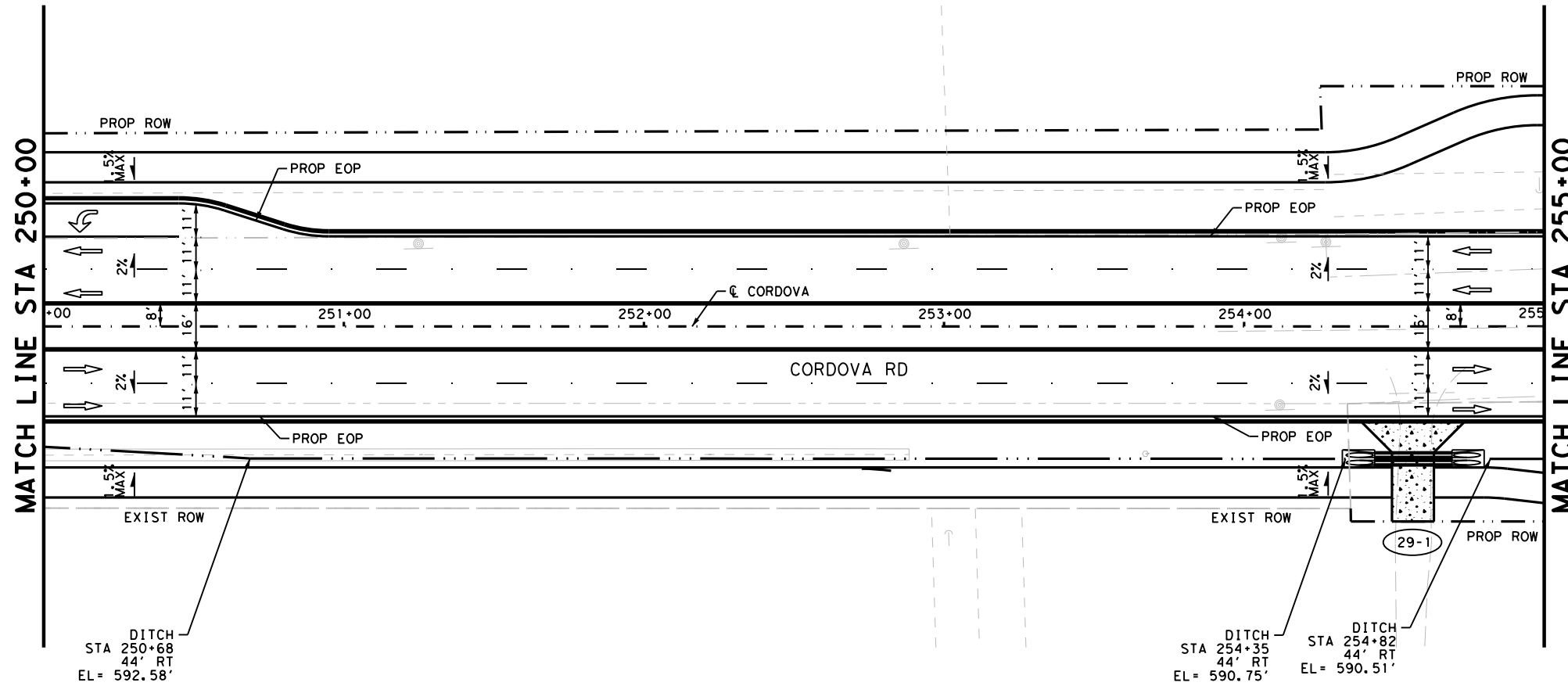


PROP. EL @ C	EXIST. EL @ C	STA	PROP. EL @ C	EXIST. EL @ C	STA	PROP. EL @ C	EXIST. EL @ C	STA	PROP. EL @ C	EXIST. EL @ C	STA						
592.73	593.68	245+00	592.48	593.61	246+00	592.23	593.51	247+00	591.73	593.32	248+00	591.48	592.98	249+00	591.98	592.83	250+00

CHK DGN:	FED. NO. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
	6	TEXAS		CORDOVA		
CHK DGN:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
	SAT	GUADALUPE	0915	45	052	114

Plotted on: 7/27/2023

Design Filename: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_29.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

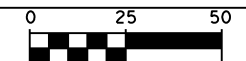
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

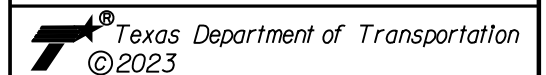
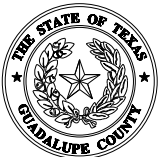
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.

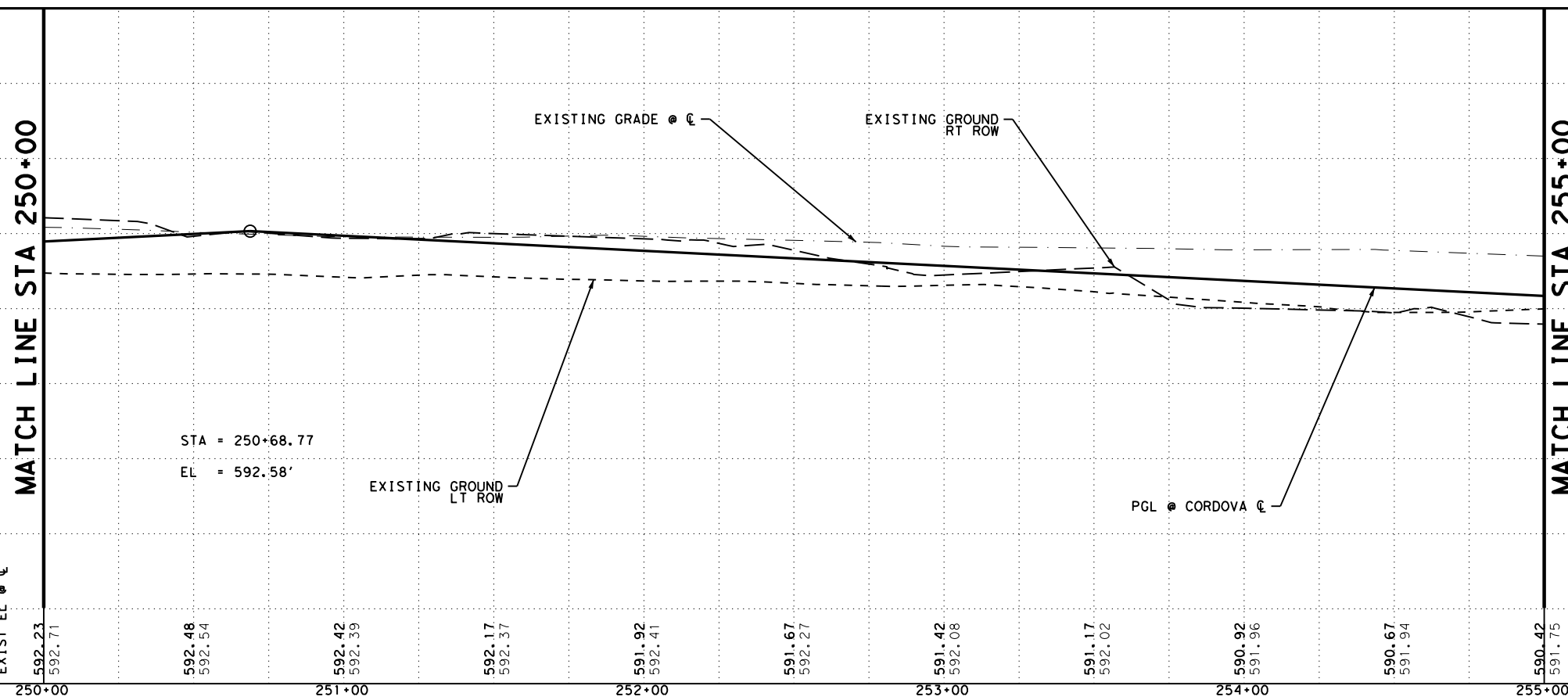


ROADWAY
 PLAN AND PROFILE

STA 250+00 TO STA 255+00

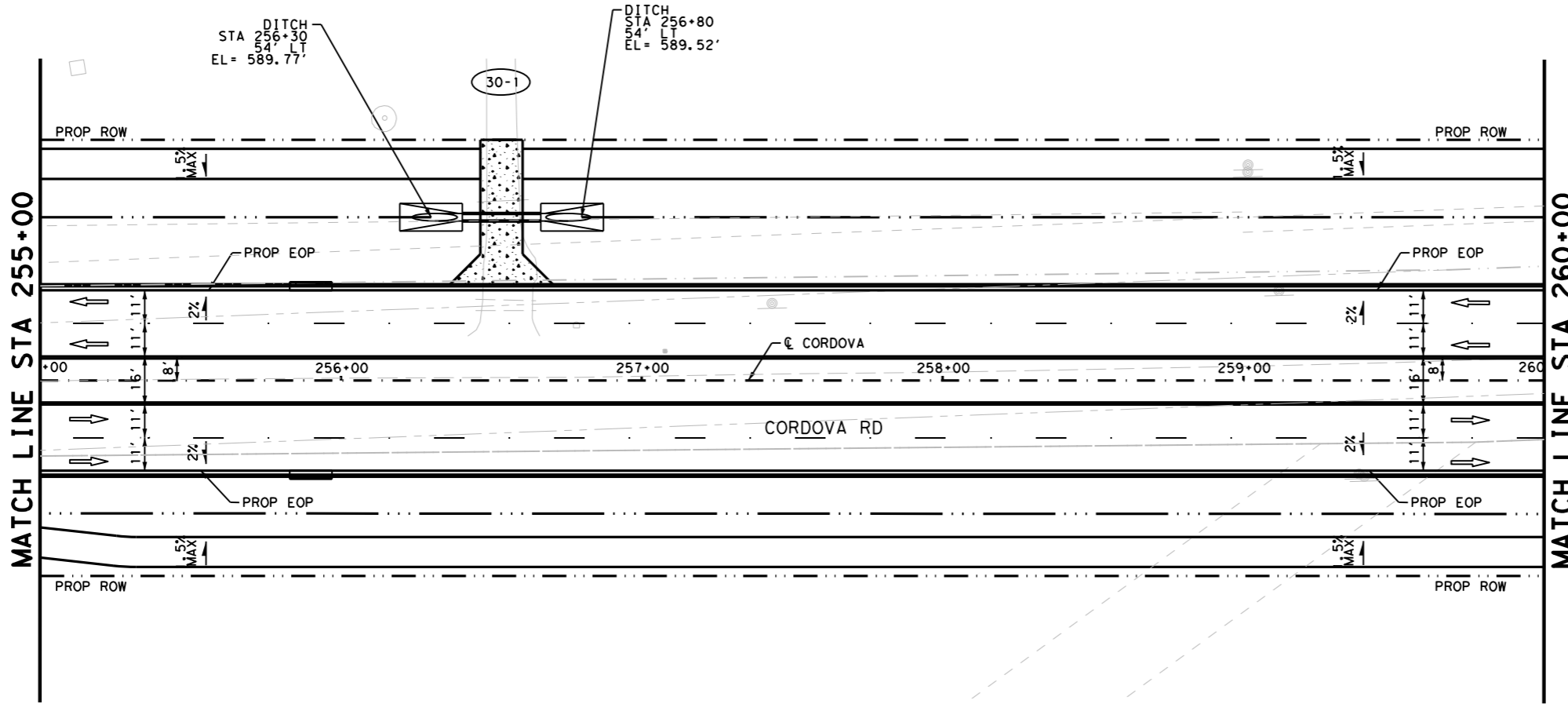
SHEET 29 OF 44

CHK DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
	6	TEXAS		CORDOVA		
CHK DGN:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
	SAT	GUADALUPE	0915	45	052	115



Plotted on: 7/27/2023

Design Filename: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_30.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊖-⊖ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ▭ MAILBOX

NOTES

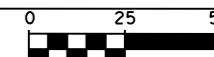
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

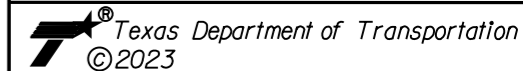
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



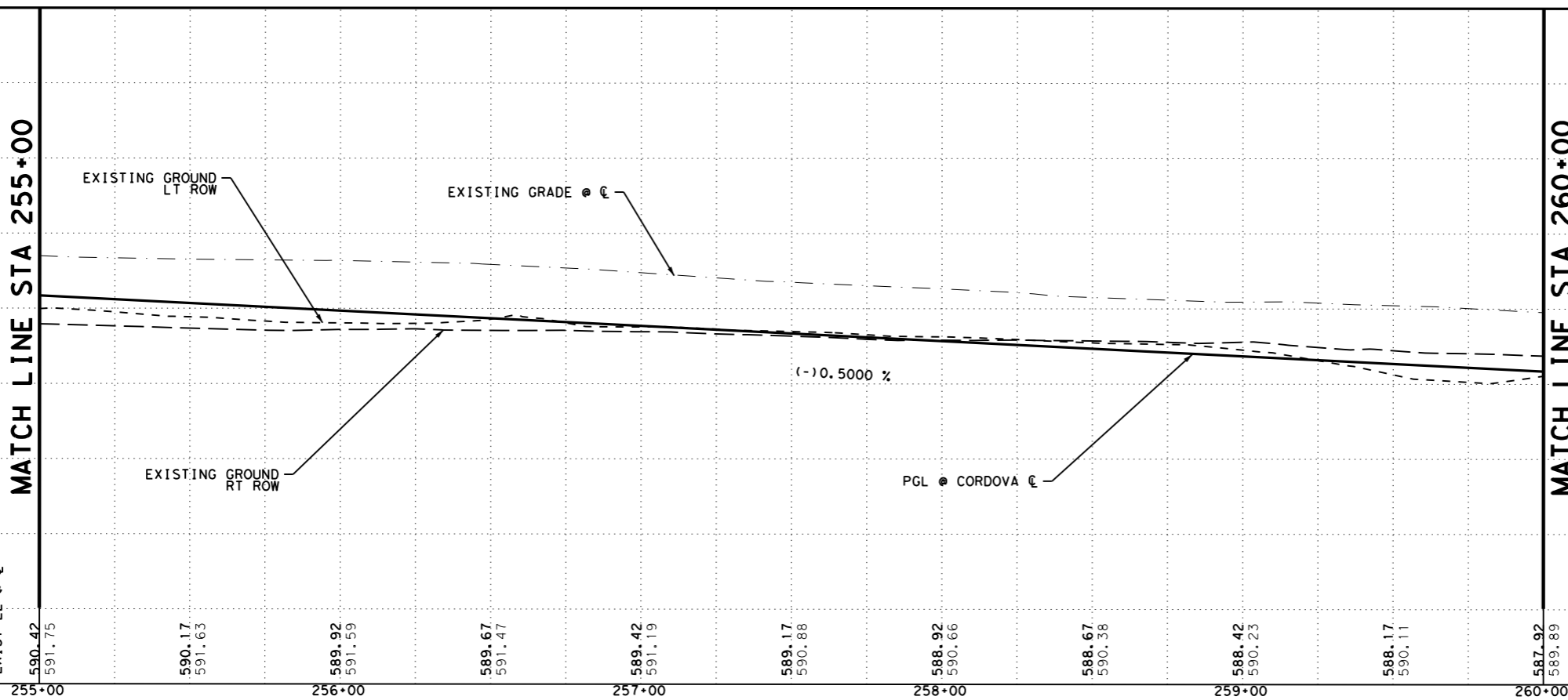
It's real.



**ROADWAY
 PLAN AND PROFILE**

STA 255+00 TO STA 260+00

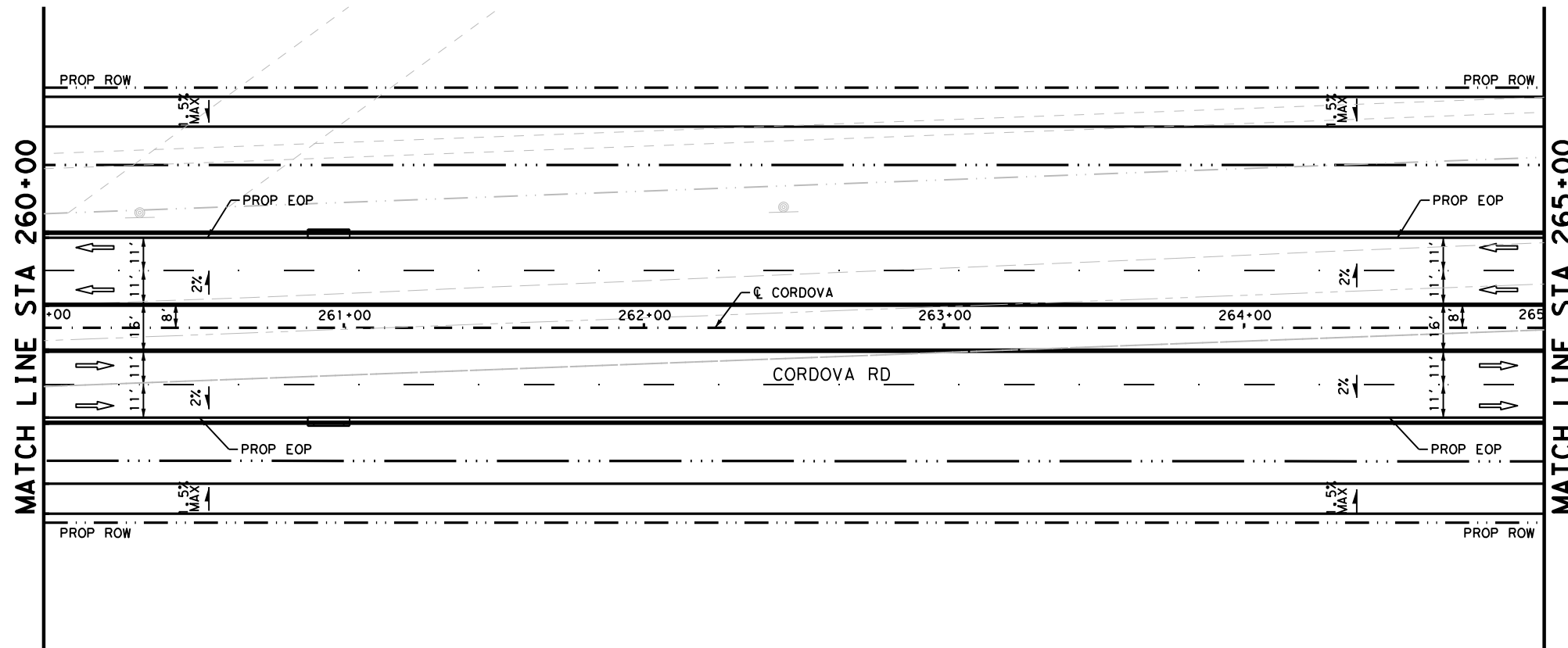
SHEET 30 OF 44



DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				116

Plotted on: 7/27/2023

Design Filename: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_31.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

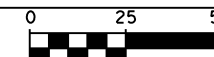
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

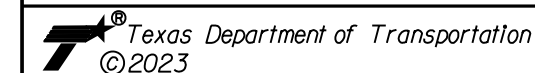
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



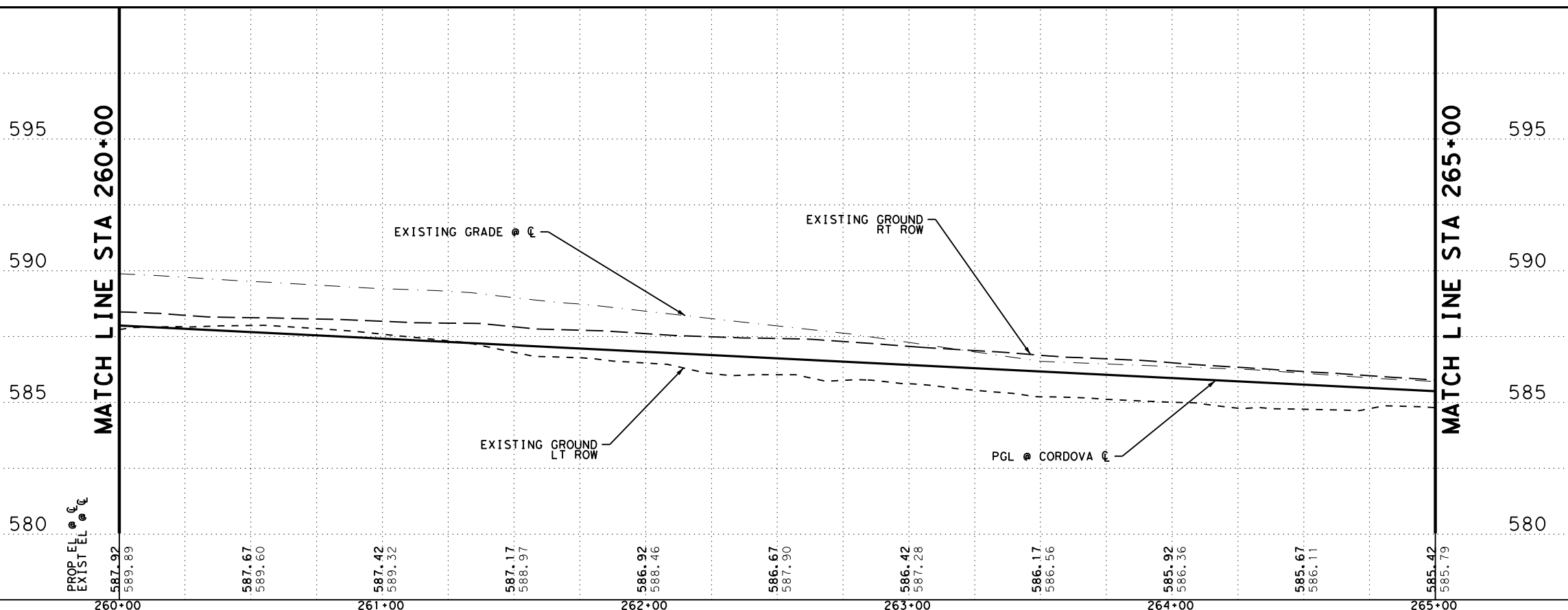
It's real.



**ROADWAY
 PLAN AND PROFILE**

STA 260+00 TO STA 265+00

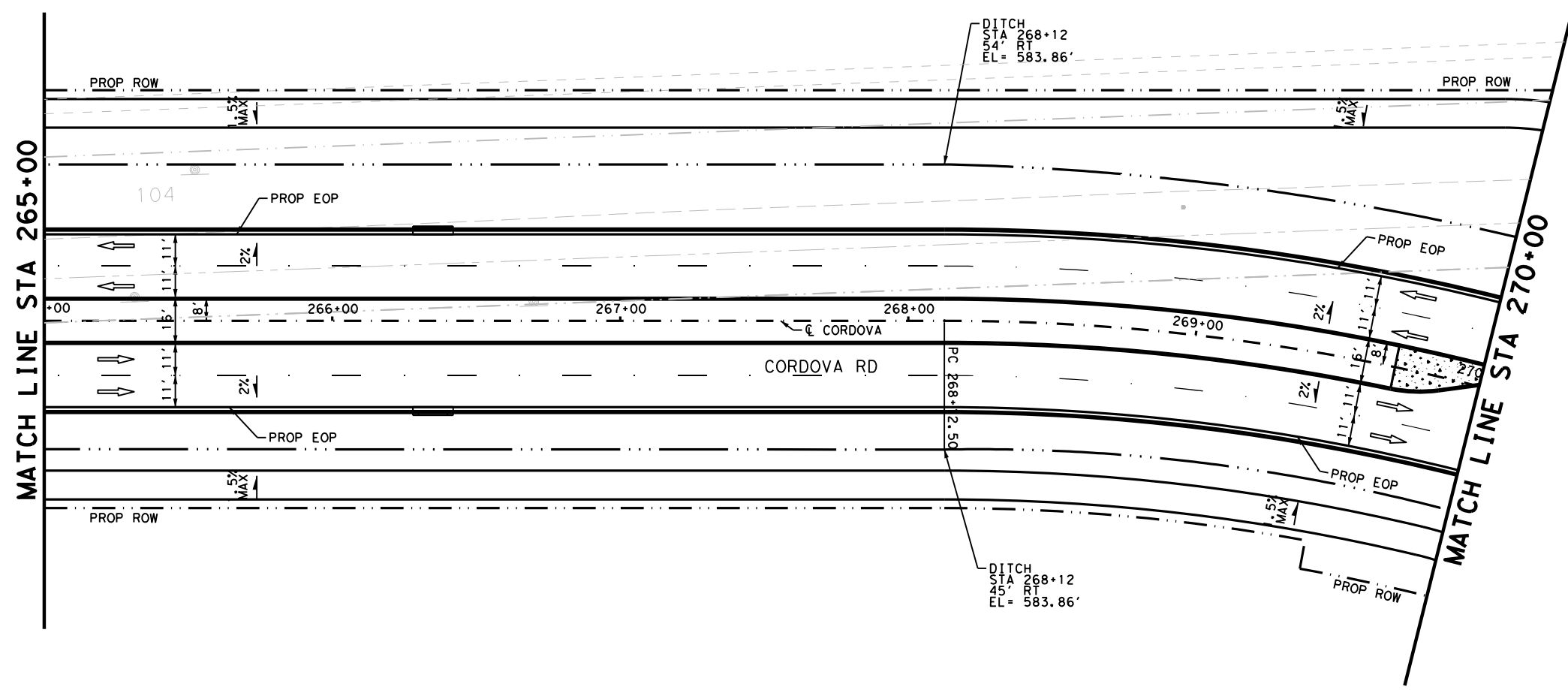
SHEET 31 OF 44



DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				117

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_32.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

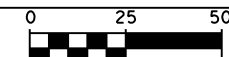
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

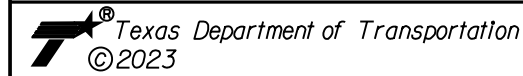
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



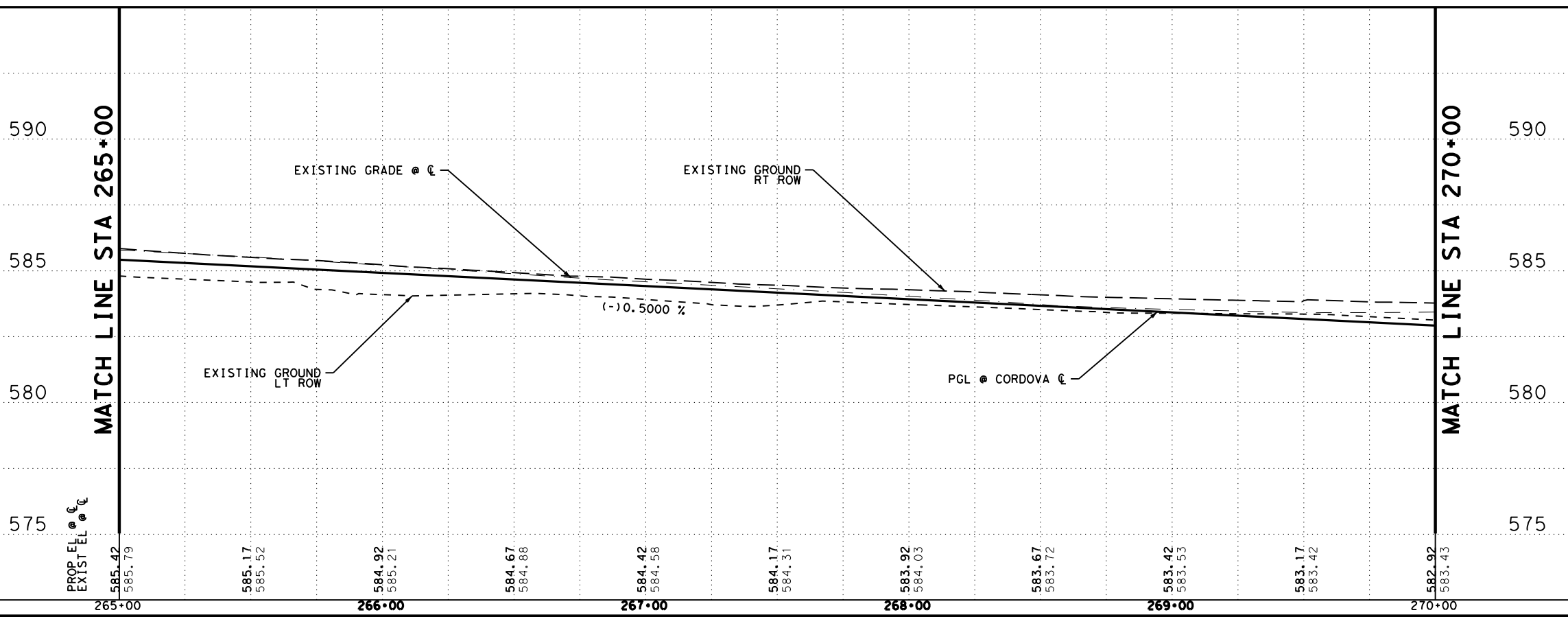
It's real.



**ROADWAY
PLAN AND PROFILE**

STA 265+00 TO STA 270+00

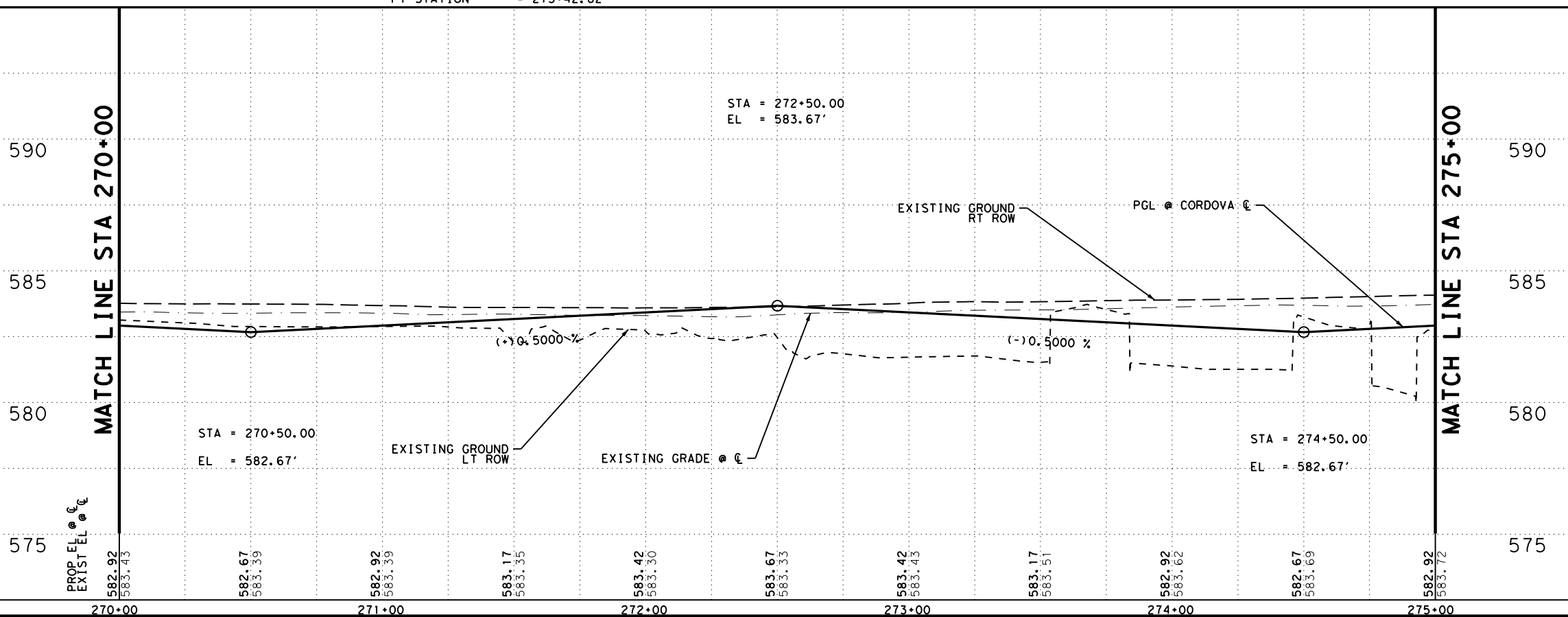
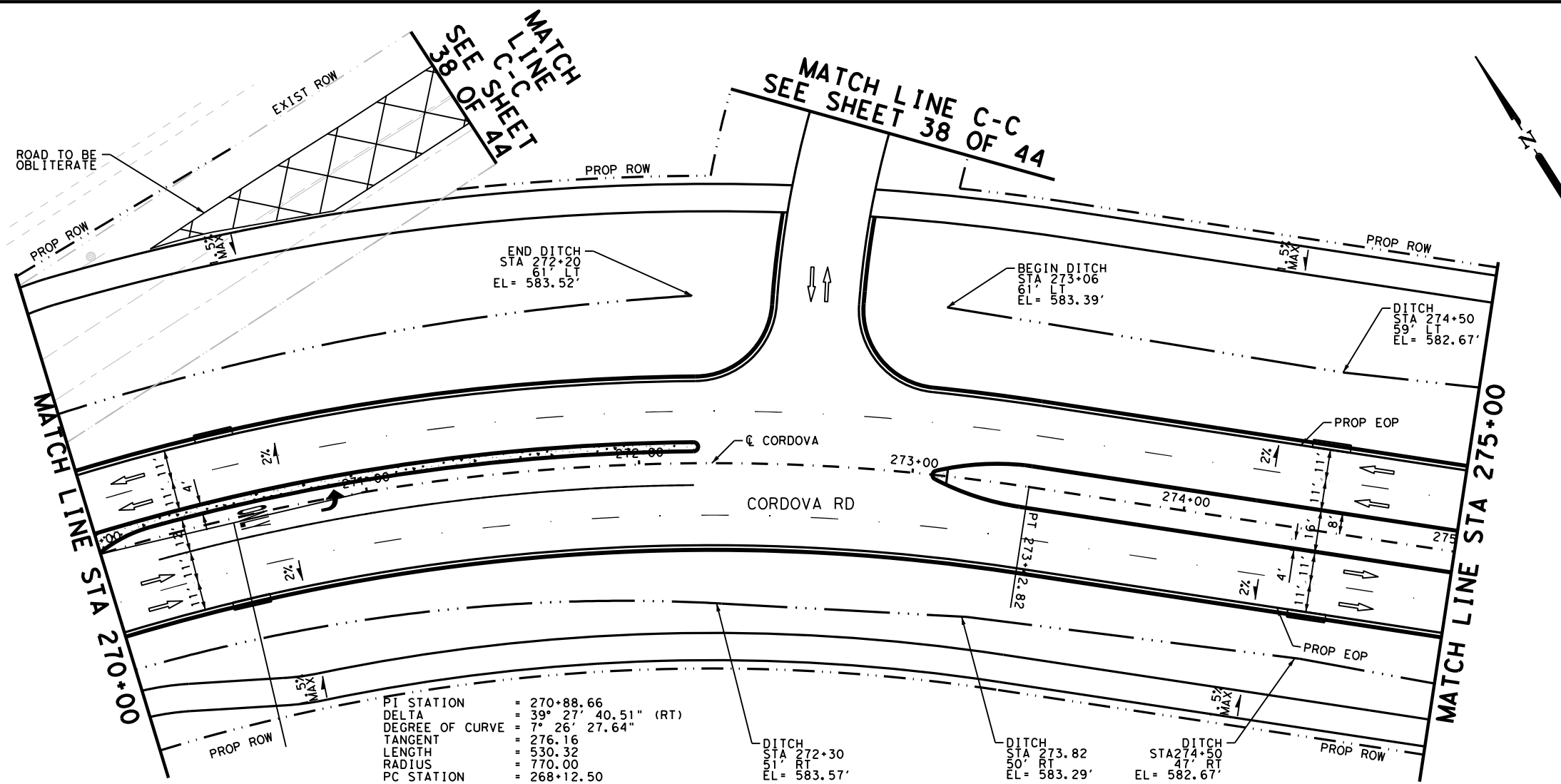
SHEET 32 OF 44



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	118

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_33.dgn



REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

SEGUIN TEXAS
 It's real.

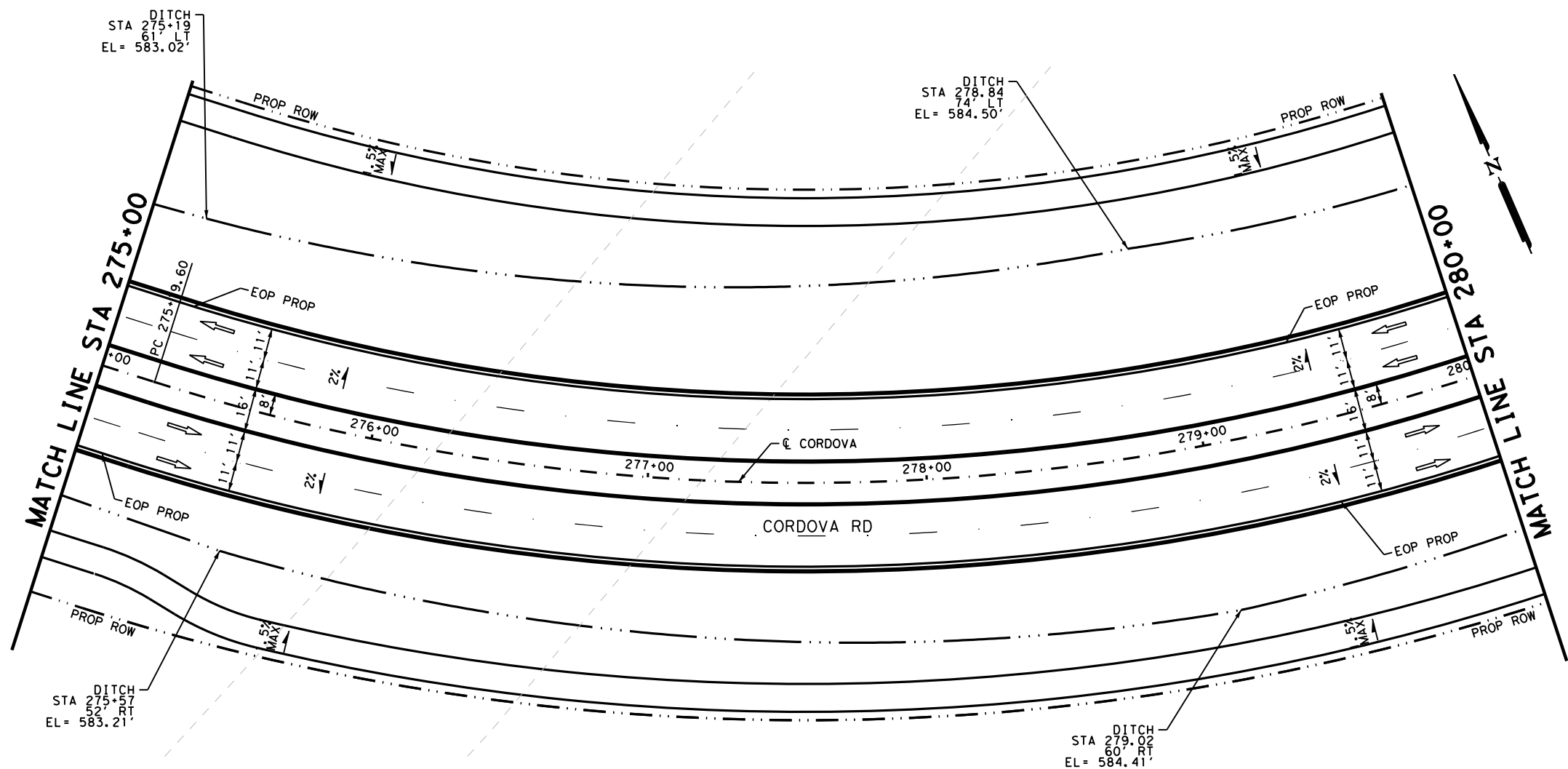
TEXAS DEPARTMENT OF TRANSPORTATION
 ©2023

ROADWAY PLAN AND PROFILE
 STA 270+00 TO STA 275+00
 SHEET 33 OF 44

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				119

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_34.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

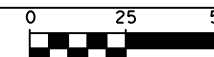
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

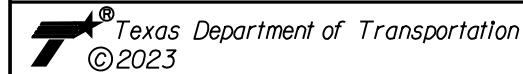
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.

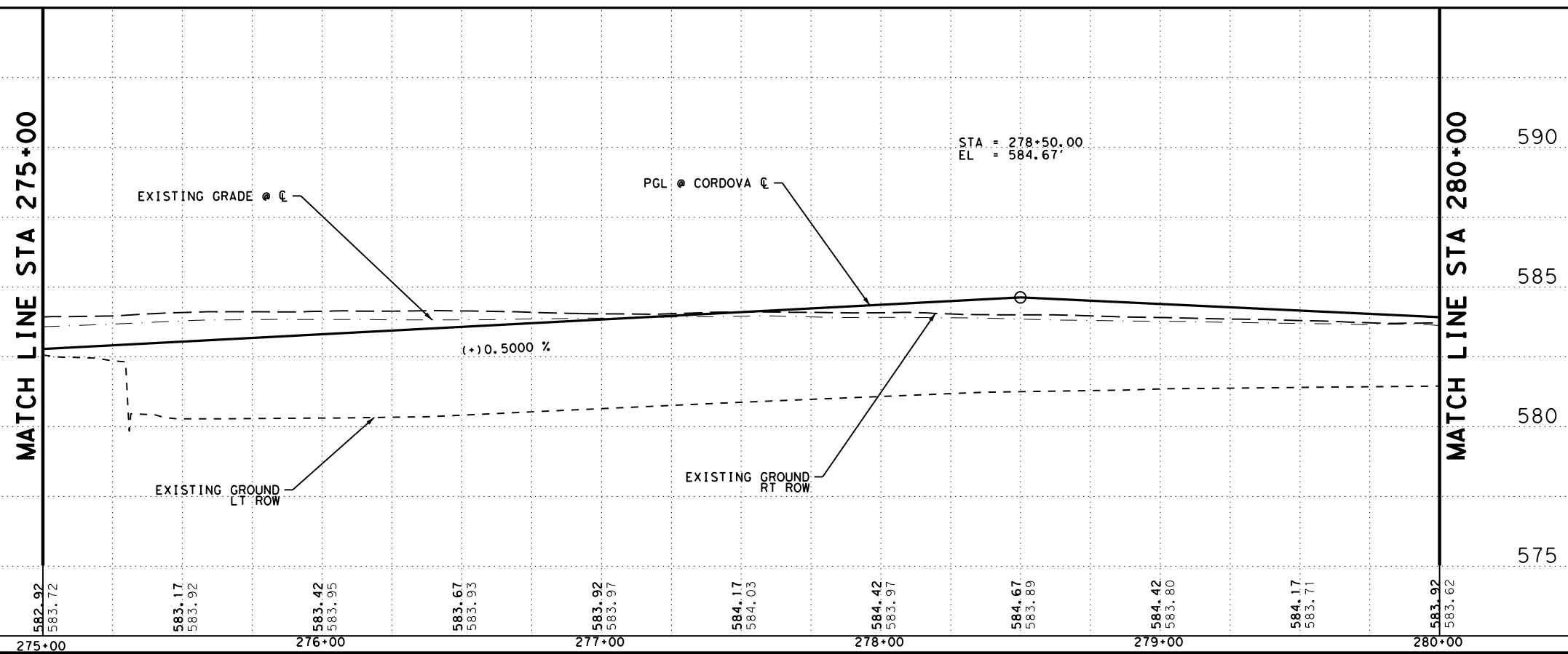


ROADWAY
 PLAN AND PROFILE

STA 275+00 TO STA 280+00

SHEET 34 OF 44

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	120



Plotted on: 7/27/2023

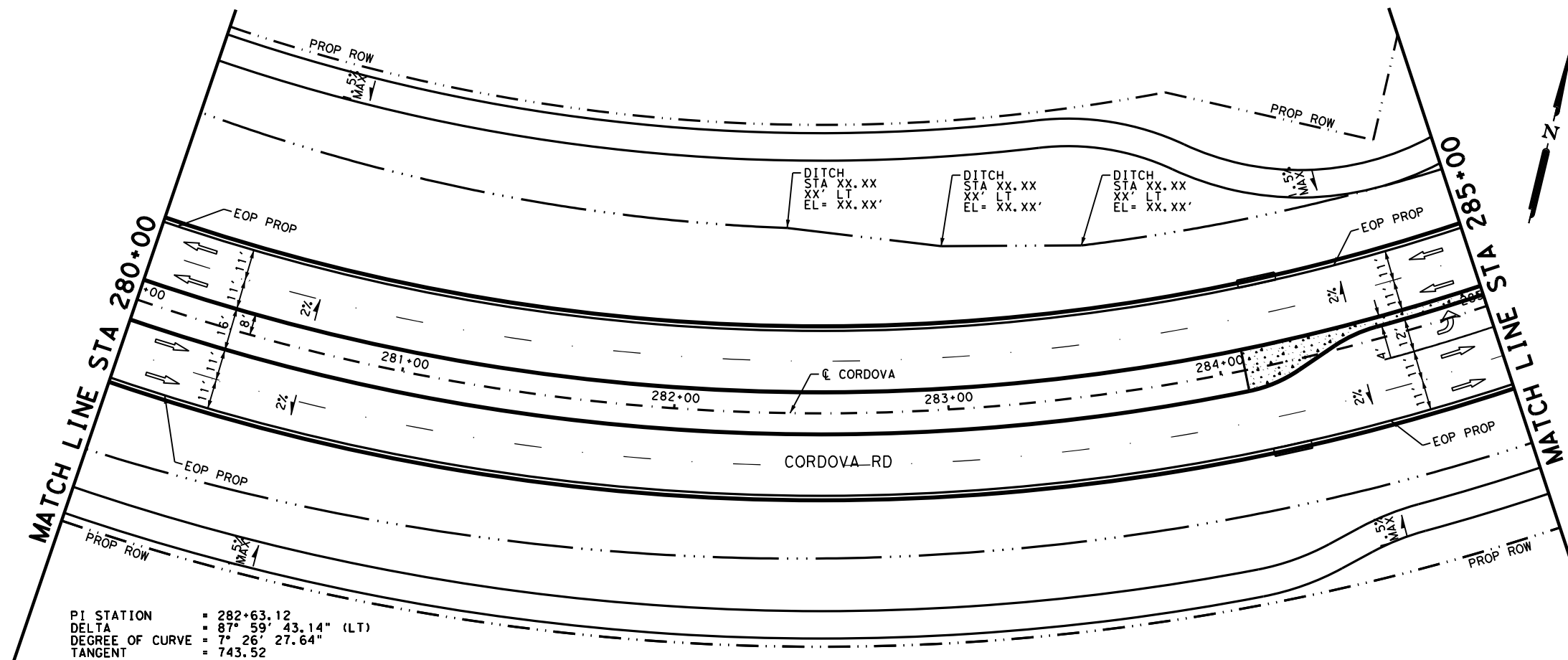
Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_35.dgn

LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊖-⊖ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▭ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ⊔ MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.



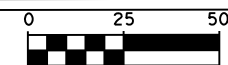
PI STATION = 282+63.12
 DELTA = 87° 59' 43.14" (LT)
 DEGREE OF CURVE = 7° 26' 27.64"
 TANGENT = 743.52
 LENGTH = 1,182.57
 RADIUS = 770.00
 PC STATION = 275+19.60
 PT STATION = 287+02.17

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

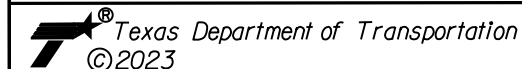
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.

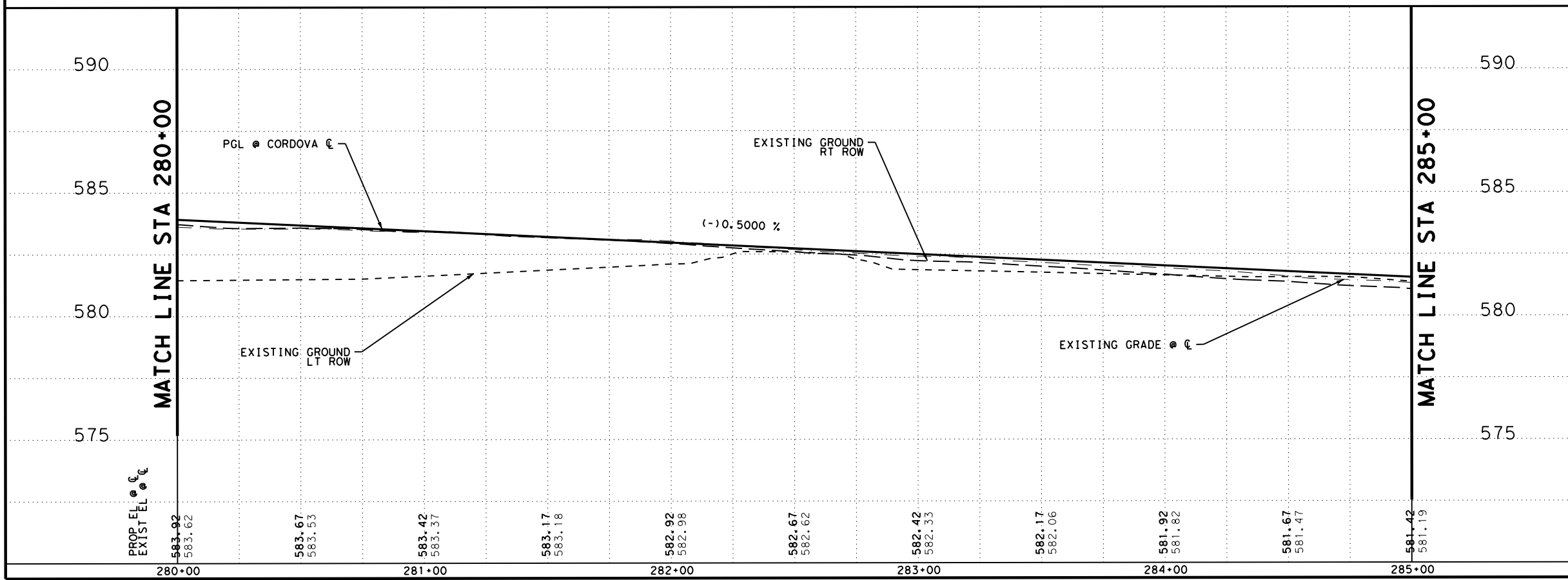


ROADWAY PLAN AND PROFILE

STA 280+00 TO STA 285+00

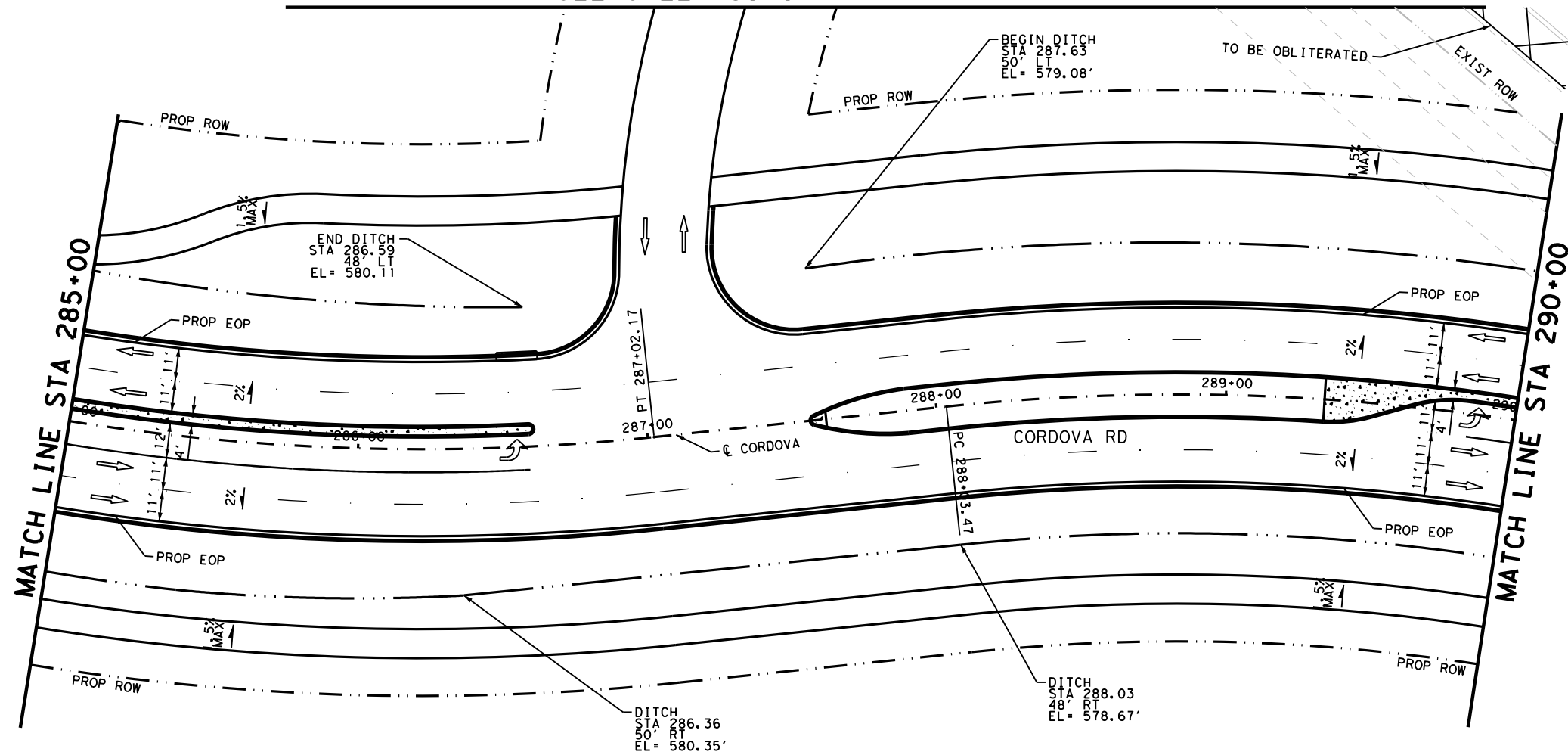
SHEET 35 OF 44

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
	SAT	GUADALUPE	0915	45	052	121



Plotted on: 7/27/2023

MATCH LINE D-D
SEE SHEET 39 OF 44



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

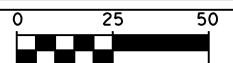
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

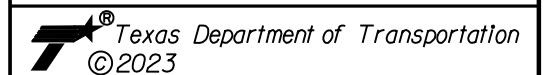
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



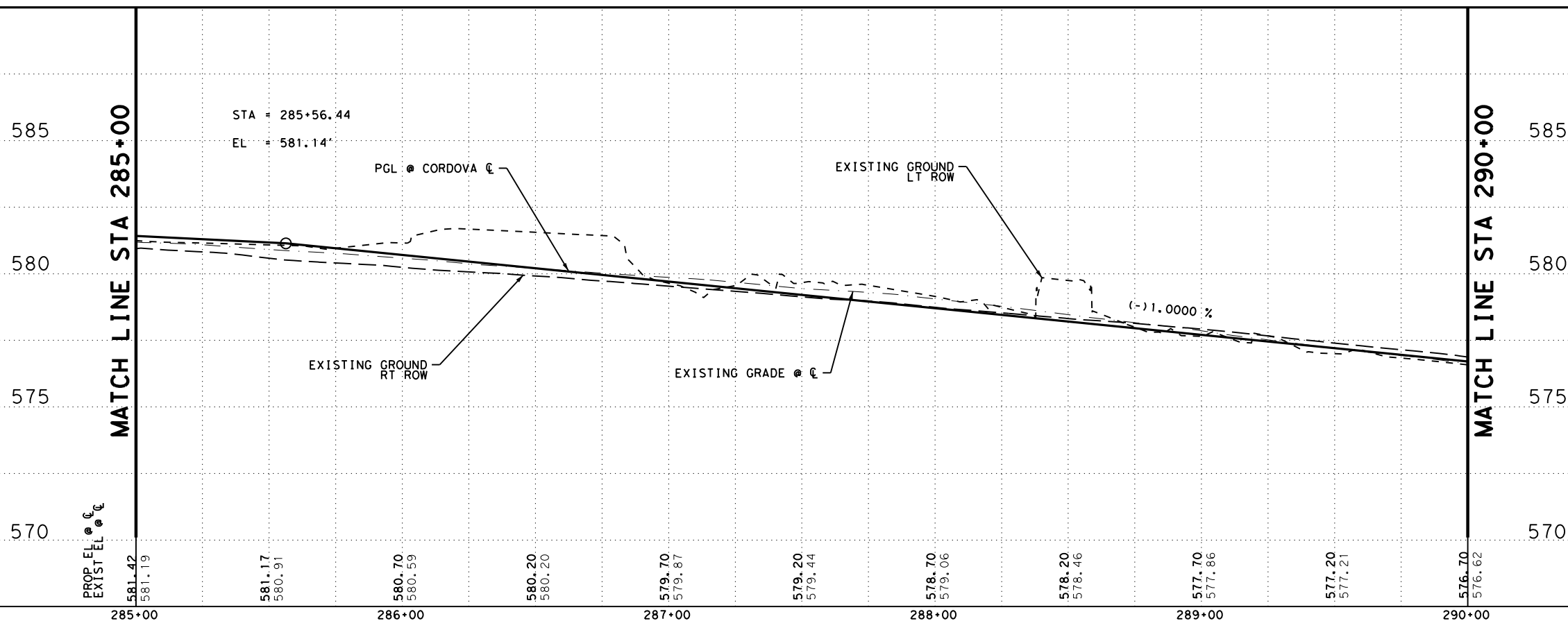
ROADWAY
PLAN AND PROFILE

STA 285+00 TO STA 290+00

SHEET 36 OF 44

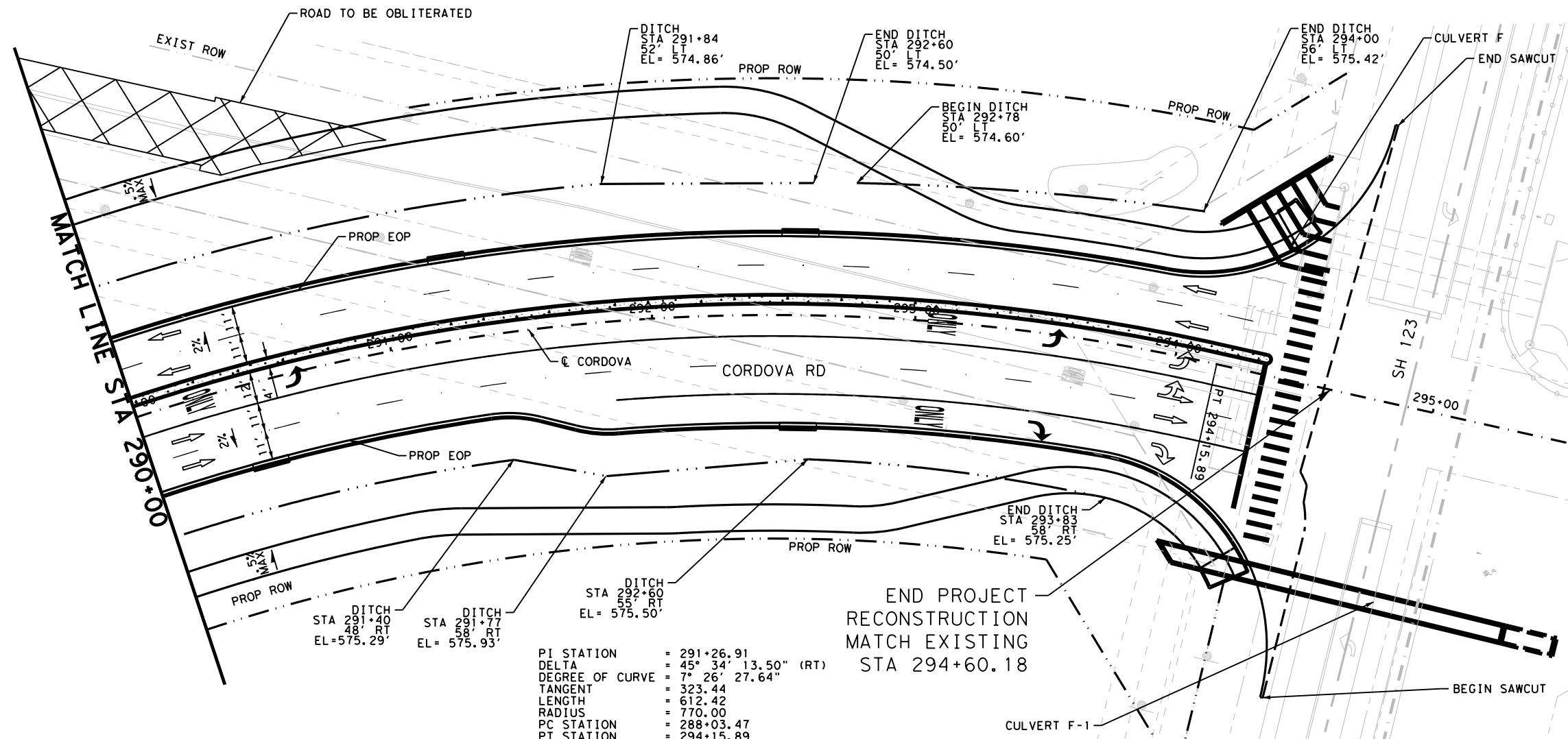
CHK	DGN	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
		6	TEXAS		CORDOVA		
CHK	DGN	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
		SAT	GUADALUPE	0915	45	052	122

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_36.dgn



Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_37.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- DRIVEWAY NUMBER
- TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- INLET
- MAILBOX

NOTES

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2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

PI STATION = 291+26.91
 DELTA = 45° 34' 13.50" (RT)
 DEGREE OF CURVE = 7° 26' 27.64"
 TANGENT = 323.44
 LENGTH = 612.42
 RADIUS = 770.00
 PC STATION = 288+03.47
 PT STATION = 294+15.89

END PROJECT RECONSTRUCTION MATCH EXISTING STA 294+60.18

DESIGN

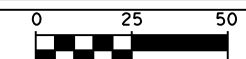
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

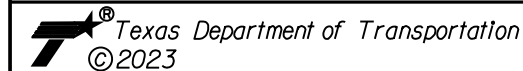
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



ROADWAY PLAN AND PROFILE

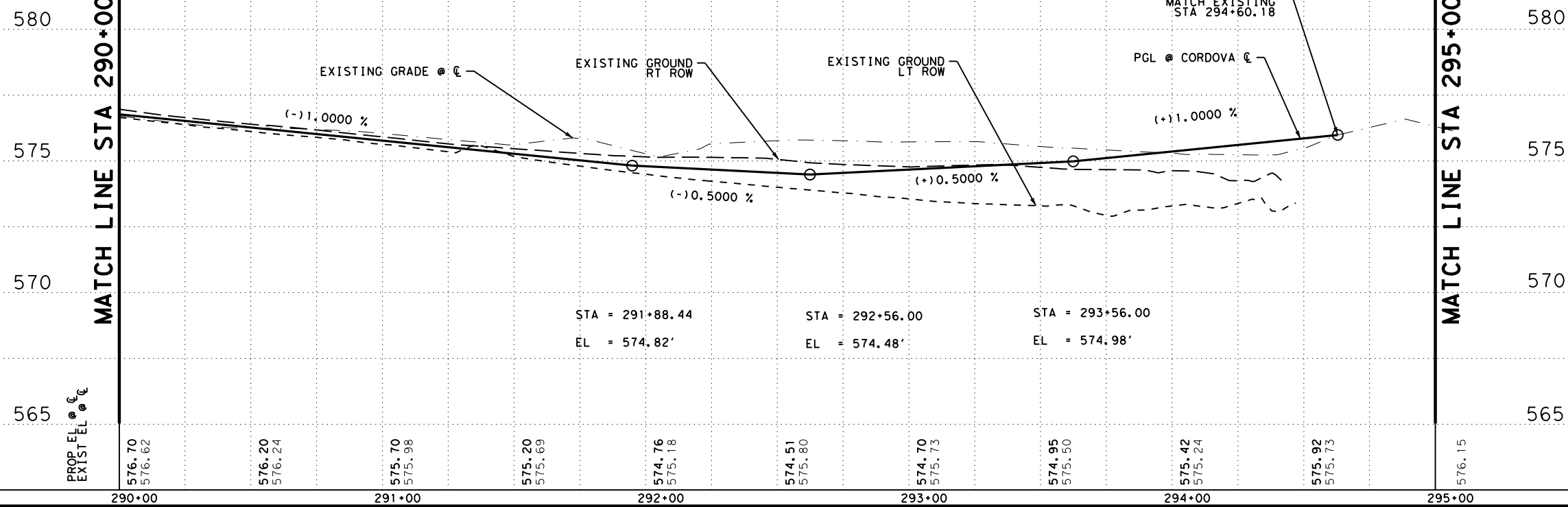
STA 290+00 TO STA 295+00

SHEET 37 OF 44

CHK	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
DGN:	6	TEXAS		CORDOVA		
CHK	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
DWG:	SAT	GUADALUPE	0915	45	052	123

MATCH LINE STA 290+00

MATCH LINE STA 295+00



Plotted on: 7/27/2023

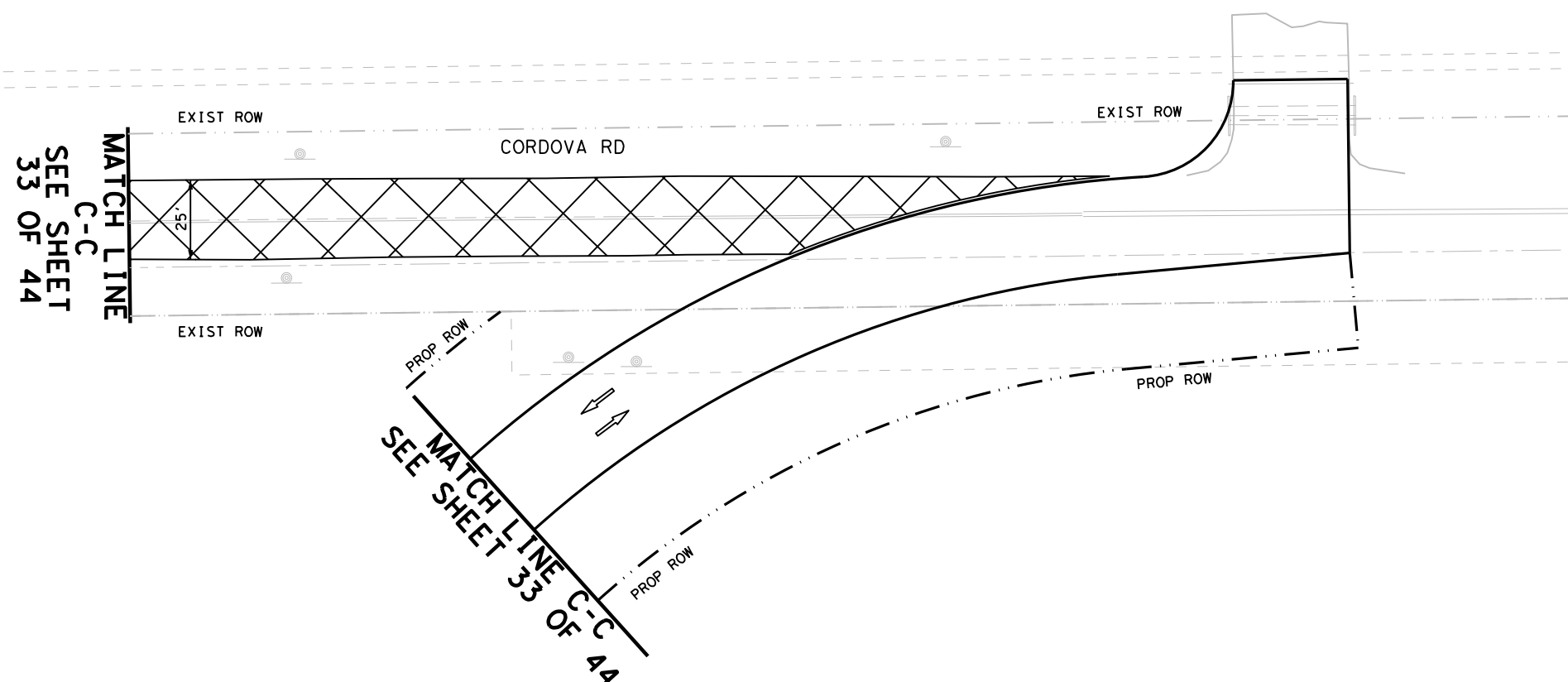
Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_38.dgn

LEGEND

- PROP ROW
- - - - - EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ← TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- MAILBOX

NOTES

1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

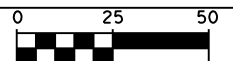


DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

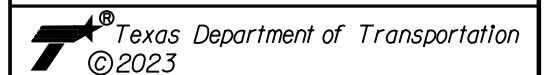
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



**ROADWAY
 PLAN AND PROFILE**

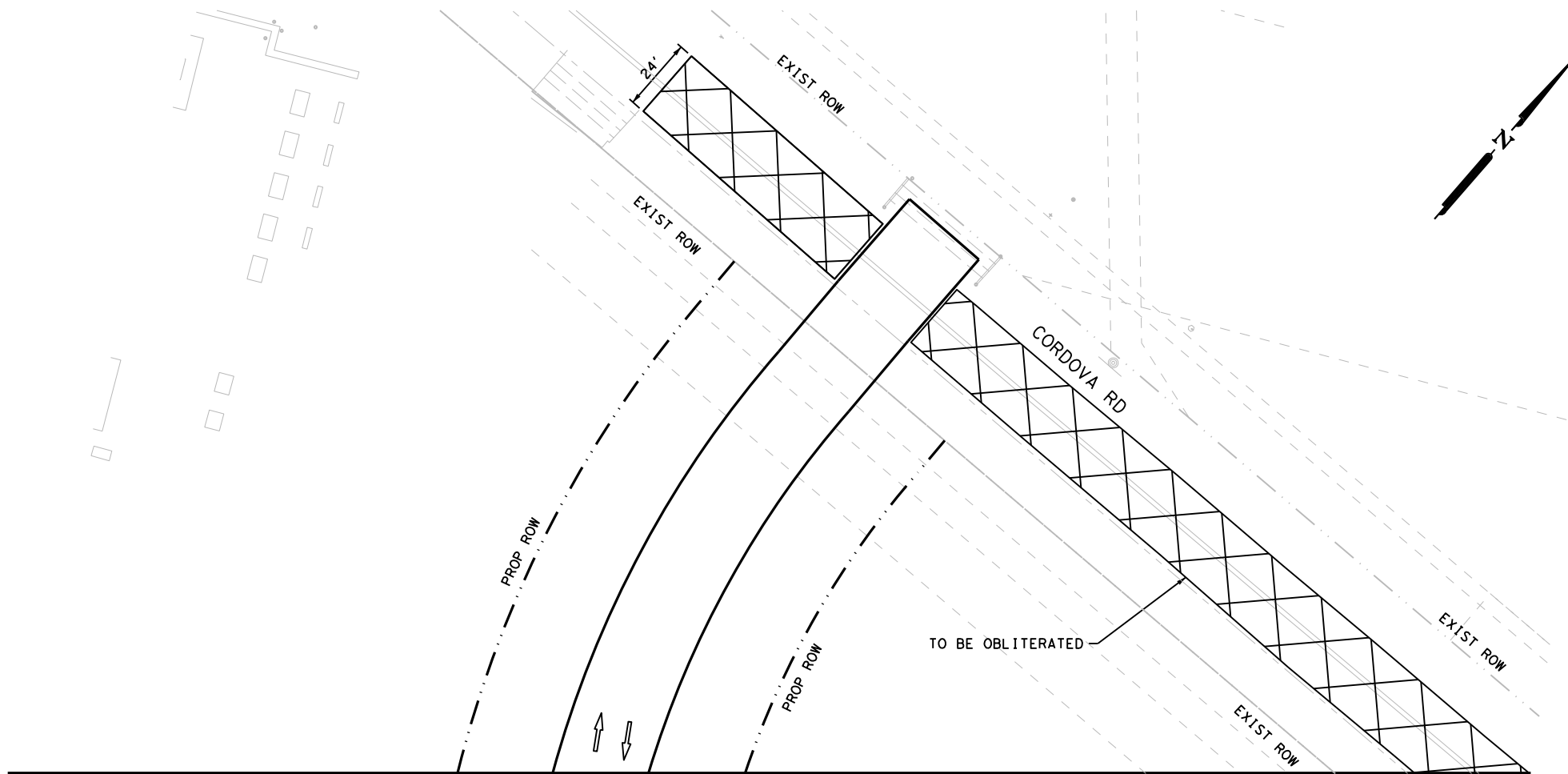
SHEET 38 OF 44

DCN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				124

NO PROPOSED PROFILE THIS SHEET

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_39.dgn



MATCH LINE D-D
SEE SHEET 36 OF 44

LEGEND

- PROP ROW
- - - EXIST ROW
- DITCH FLOW LINE
- ##-# DRIVEWAY NUMBER
- ← TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ⊔ MAILBOX

NOTES

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2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

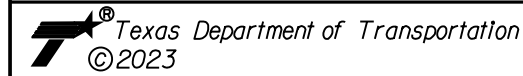
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



ROADWAY
PLAN AND PROFILE

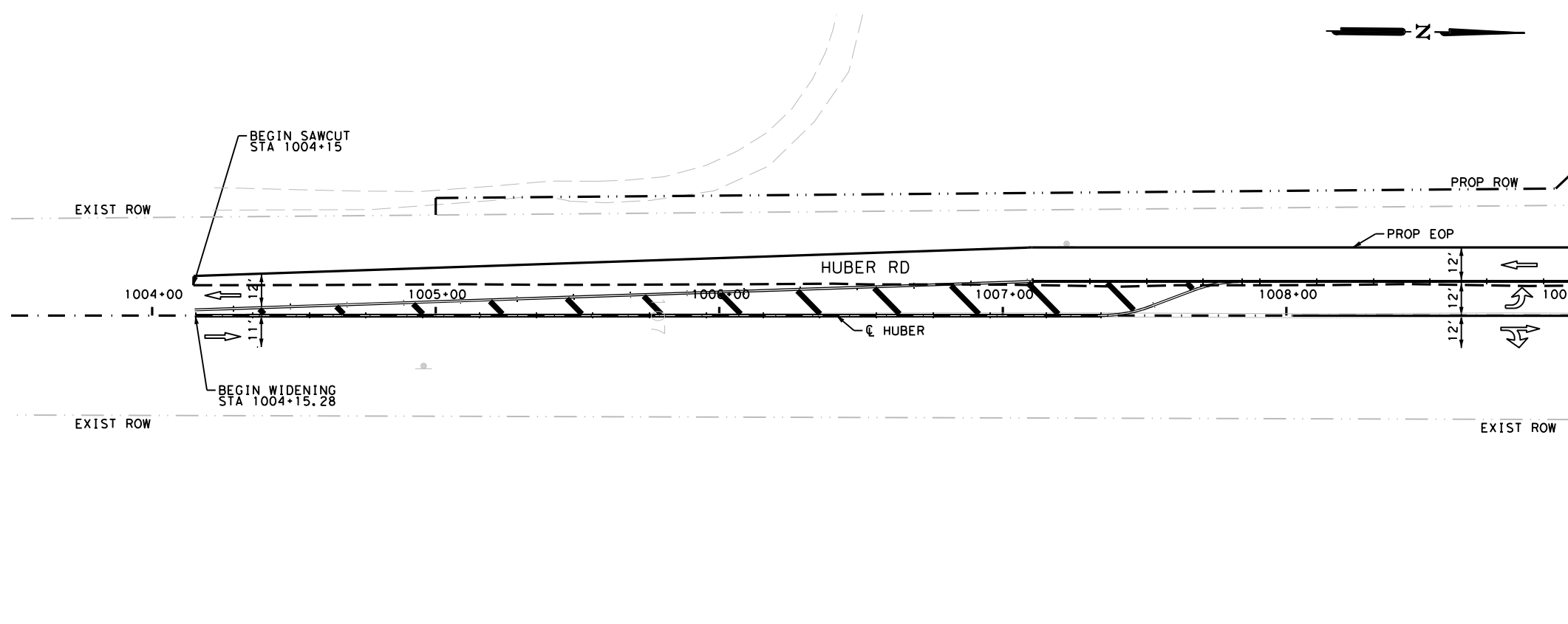
SHEET 39 OF 44

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	DIV. NO.:	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				125

NO PROPOSED PROFILE THIS SHEET

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_40.dgn



MATCH LINE STA 1009+00
SEE SHEET 22 OF 44

LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- ← TRAFFIC FLOW
- ▣ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- MAILBOX

NOTES

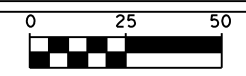
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



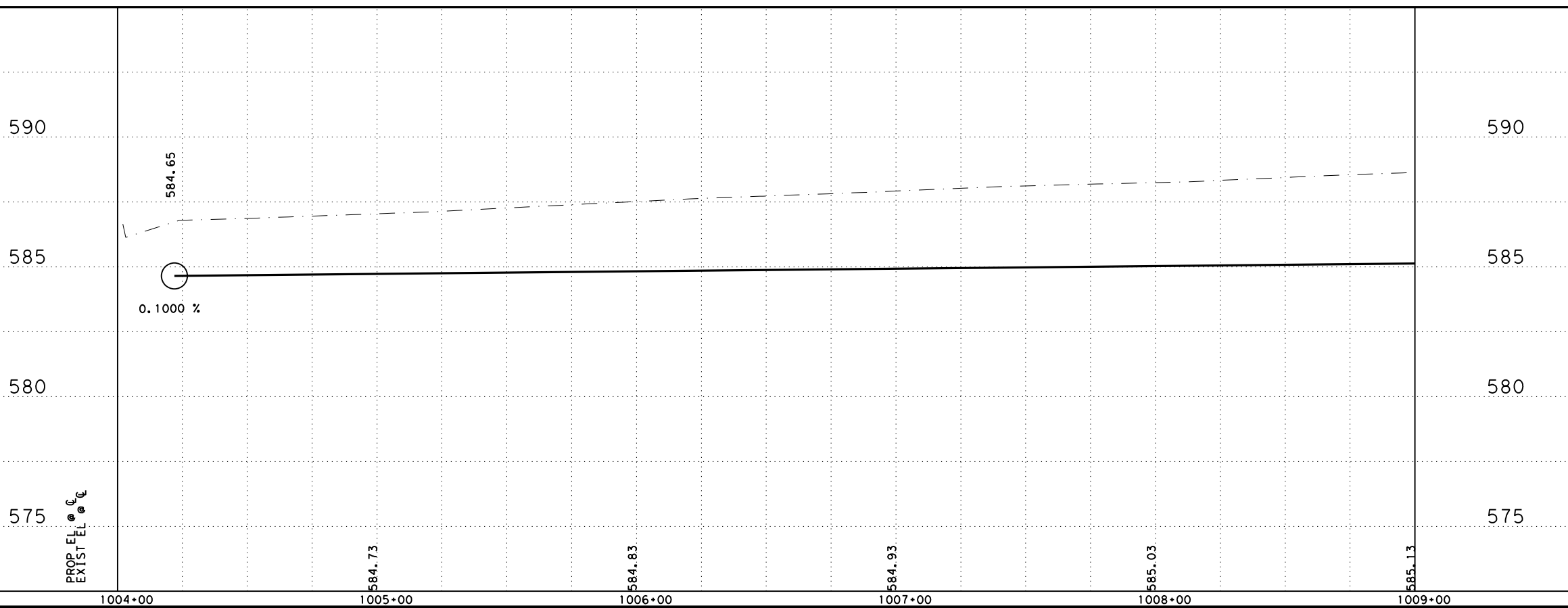
It's real.



**HUBER RD
ROADWAY
PLAN AND PROFILE**

STA 1004+00 TO STA 1009+00

SHEET 40 OF 44

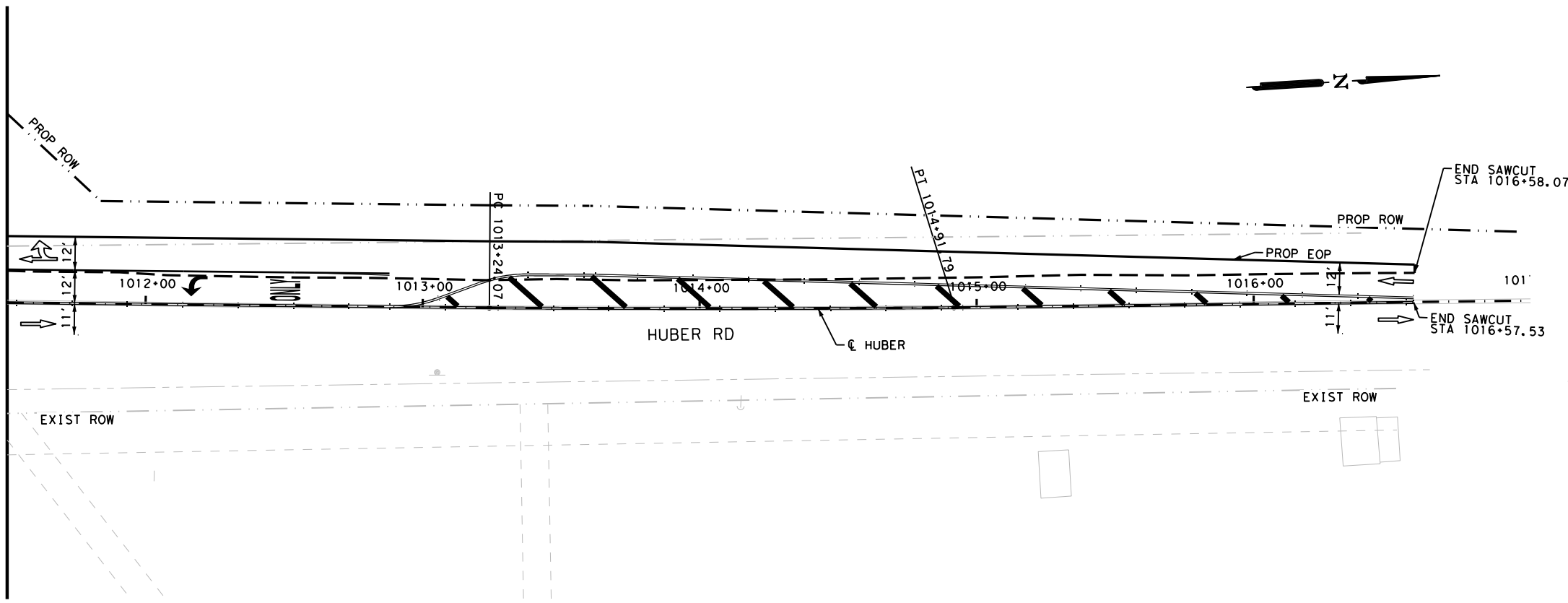


DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:			052	126

Plotted on: 7/27/2023

Design Filename: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_41.dgn

MATCH LINE STA 1011+50
SEE SHEET 22 OF 44



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ← TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- MAILBOX

NOTES

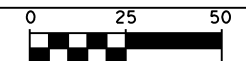
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

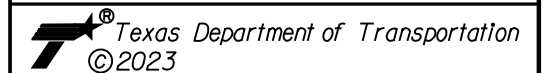
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



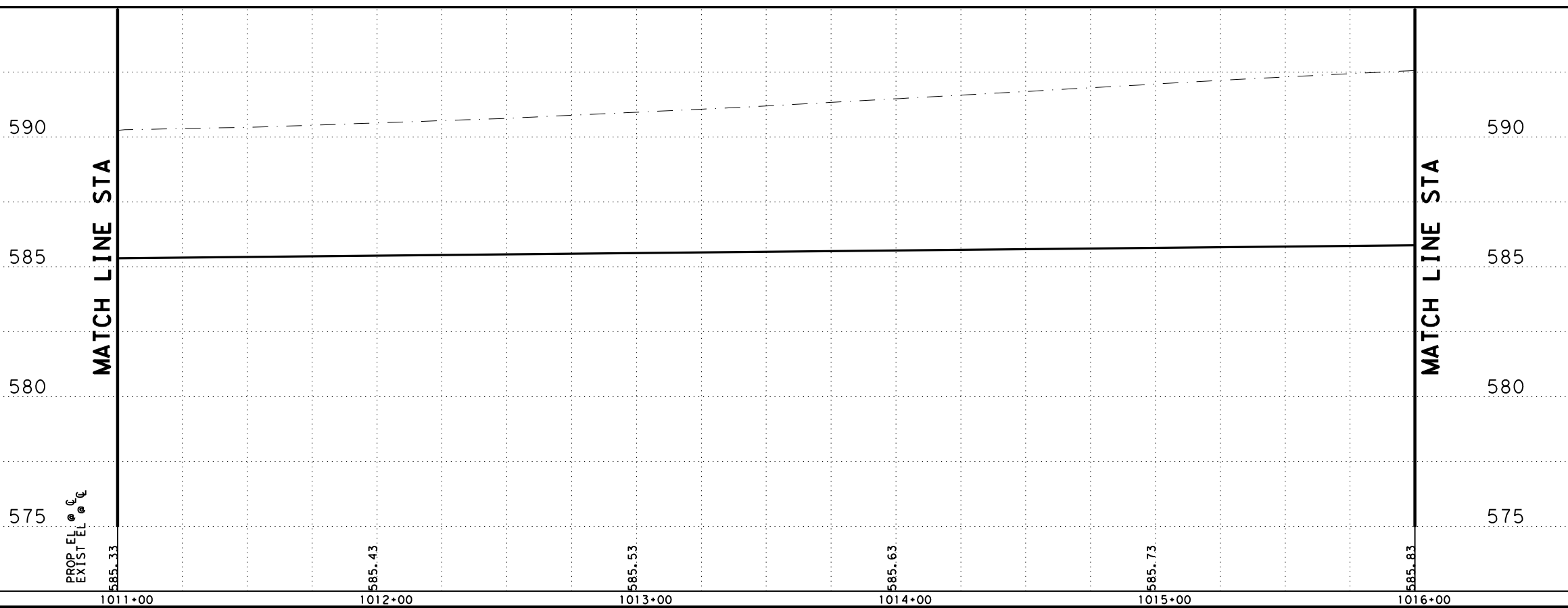
It's real.



HUBER RD
ROADWAY
PLAN AND PROFILE

STA 1011+50 TO STA 1016+60

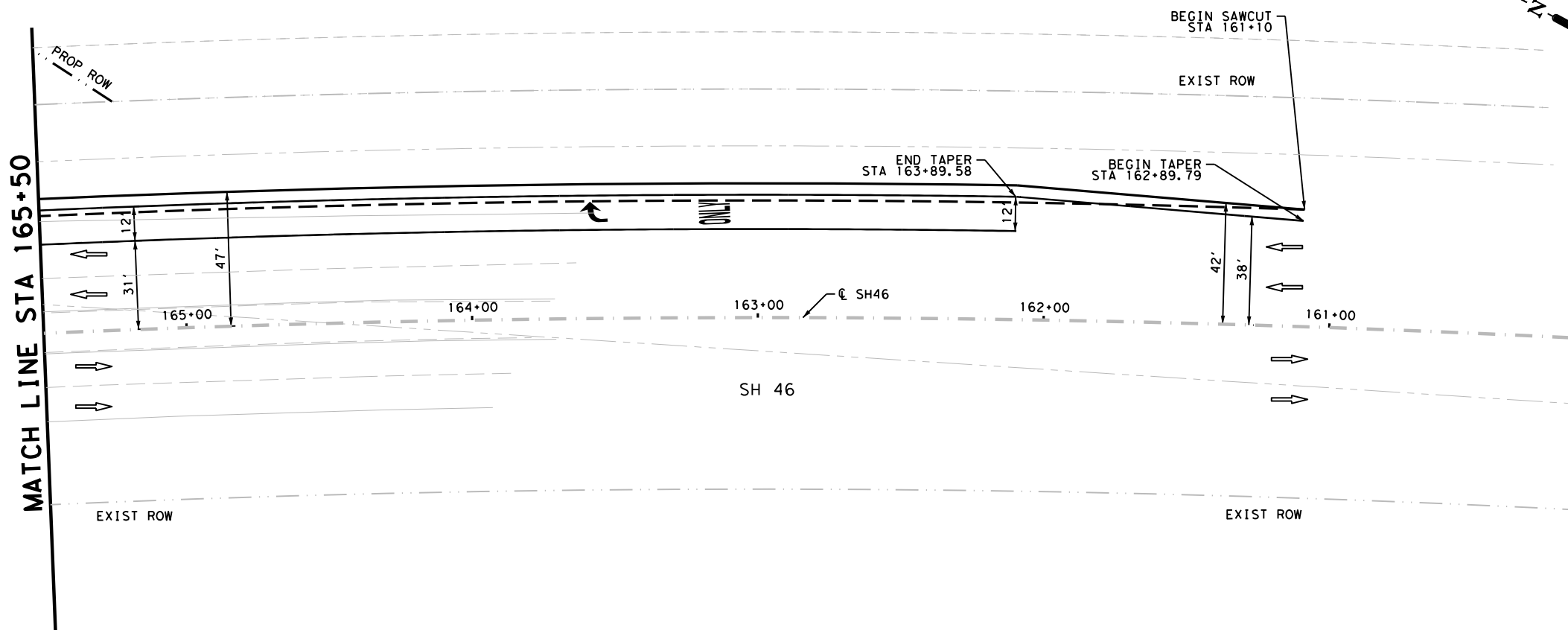
SHEET 41 OF 44



DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DGN#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	127

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_42.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVEWAY NUMBER
- ← TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- MAILBOX

NOTES

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2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P. E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

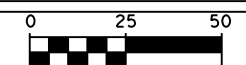
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P. E. SERIAL NO: 105193

DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



**SH46
ROADWAY
PLAN AND PROFILE**

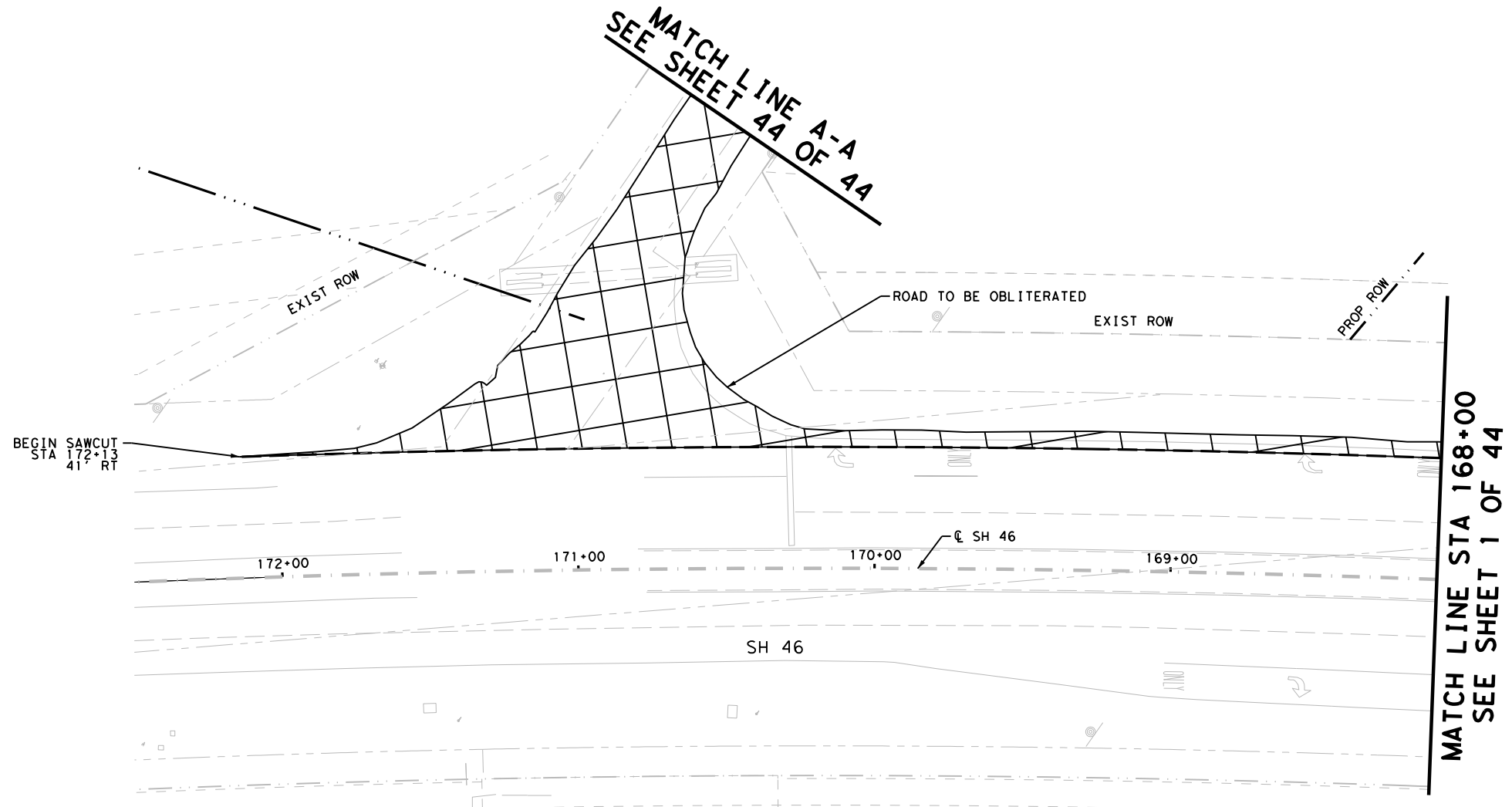
STA 161+00 TO STA 165+50

SHEET 42 OF 44

DCN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				128

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_43.dgn



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ## DRIVWAY NUMBER
- ↑ TRAFFIC FLOW
- CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- MAILBOX

NOTES

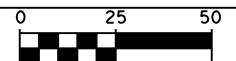
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

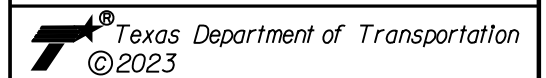
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



SH46
ROADWAY
PLAN AND PROFILE

STA 168+00 TO STA 172+50

SHEET 43 OF 44

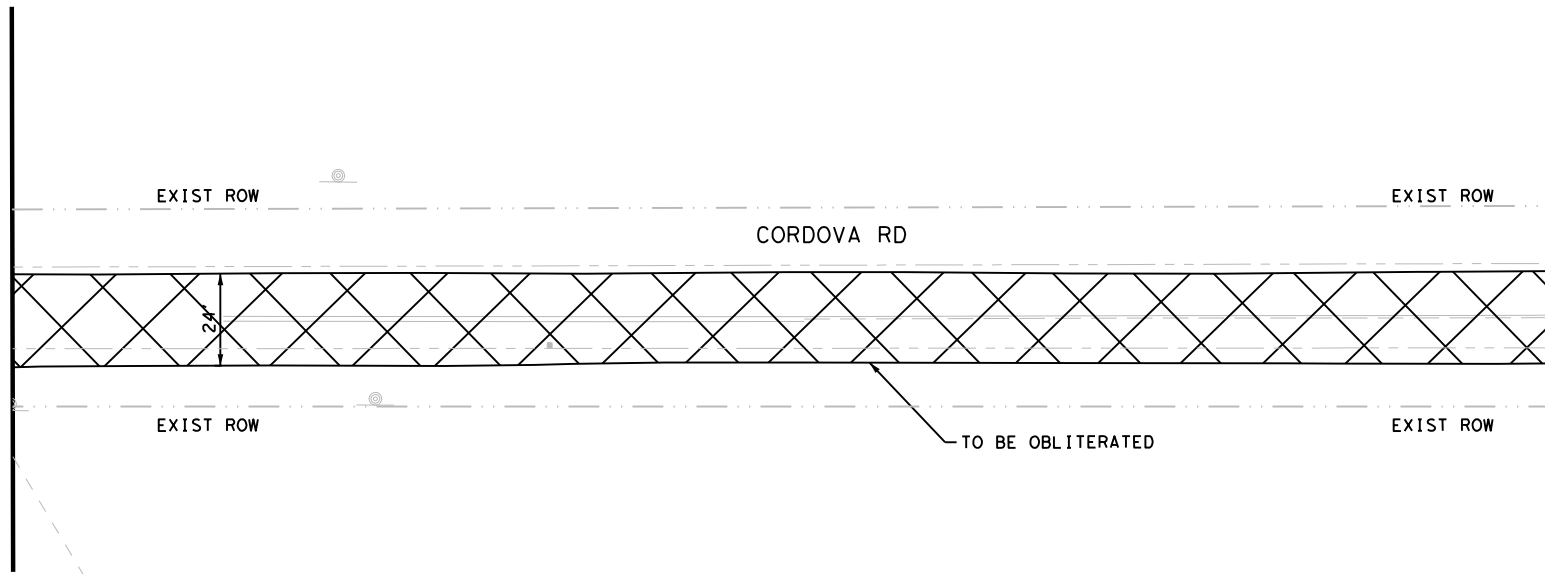
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CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				129

NO PROPOSED PROFILE THIS SHEET

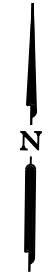
Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\1277500_rdw_44.dgn

MATCH LINE C-C
SEE SHEET 43 OF 44



MATCH LINE B-B
SEE SHEET 2 OF 44



LEGEND

- PROP ROW
- EXIST ROW
- DITCH FLOW LINE
- ⊕-⊕ DRIVEWAY NUMBER
- ↑ TRAFFIC FLOW
- ▣ CONC RIPRAP / DRIVEWAYS
- ▭ INLET
- ⊔ MAILBOX

NOTES

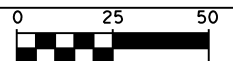
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT. CENTER OF MARKING OR FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
3. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

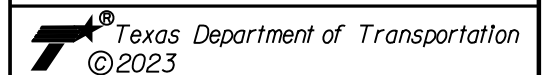
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



ROADWAY
PLAN AND PROFILE

SHEET 44 OF 44

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CHK:	6	TEXAS			CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915	45	052 130

NO PROPOSED PROFILE THIS SHEET

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Roadway\Driveways\1277500_Driveway_details.dgn

DRIVEWAY NO.	REFERENCE POINT			ITEM CONC DRIVEWAY	SKEW	PROP WIDTH	L1	S1	L2	S2	L3	S3	L4	S4	Flowline Elevation	ITEM				
	STA	OFFSET (FT)	SIDE													RC PIPE	RC PIPE	RC PIPE	RC PIPE	CONC BOX CULV
	SY	DEGREE	FT	FT	%	FT	%	FT	%	FT	%	(CL III) (18 IN)	(CL III) (24 IN)	(CL III) (30 IN)	(ARCH) (CL III) (DES 1)	(5 FT X 2 FT)				
4-1	125+74	32	LT	78	90	14	15	-1.50	21.86	-2.90	11.14	-4.00	0	0	582.35	0	0	0	0	40
4-2	128+86	32	LT	88	90	14	15	1.50	18	1.00	22.7	-4.09	0	0	582.95	0	0	0	0	20
5-1	132+25	32	RT	65	90	14	20	2.00	10	1.50	8	1.16	0	0	583.41	88	0	0	0	0
5-2	134+61	32	LT	78	90	14	15	1.50	17	0.68	15.8	-4.11	0	0	583.61	0	100	0	0	0
6-1	138+21	32	LT	109	90	14	18	6.00	12	1.50	18	-4.22	0	0	0	0	210	0	0	0
8-1	148+42	32	RT	80	90	16	15	-8.00	10	-1.50	14	-9.50	0	0	588+25	0	0	0	0	0
8-2	149+13	32	RT	64	90	14	15	-8.00	10	-1.50	9	-9.50	0	0	587+95	0	0	0	0	0
9-1	153+39	32	LT	60	90	14	11	6.00	14	-1.50	10	-2.00	0	0	584	SEE DRN SHEET	0	0	0	0
9-2	154+46	32	LT	102	90	24	15	6.00	6.18	1.50	21	0.00	0	0	583.12	SEE DRN SHEET	0	0	0	0
10-1	155+17	32	RT	70	90	14	11	6.00	14	-1.50	13	-5.60	0	0	582.86	0	0	0	46	0
10-2	156+06	32	RT	75	90	16	11	6.00	14	-1.50	11	-9.68	0	0	582	0	0	0	50	0
10-3	156+45	32	RT	78	90	14	11	6.00	14	1.50	18	-4.00	0	0	581.04	0	0	0	135	0
10-4	157+19	32	RT	79	90	14	11	6.00	14	1.50	19.5	-3.22	0	0	580.66	0	0	0	0	0
10-5	157+29	32	LT	82	90	6.18	15	8.00	10	1.50	9.8	3.00	0	0	581.01	0	0	0	2	0
10-6	157+62	32	RT	99	90	24	11	6.00	14	1.50	8	-4.22	0	0	580.25	0	0	0	0	0
11-1	160+19	32	RT	135	90	26	18	-8.00	10	-1.50	14	-6.00	0	0	577	SEE DRN SHEET	0	0	0	0
12-1	165+15	32	RT	69	90	14	15	-8.00	10	-1.50	12	-5.00	0	0	577.55	0	0	0	0	135
13-1	174+28	32	LT	80	90	20	11	3.00	14	-1.50	6	-6.50	0	0	585.4	0	0	0	0	0
14-1	176+12	32	LT	60	90	14	11	-1.00	16	-1.50	5.51	-3.00	0	0	586.86	0	0	0	0	0
15-1	183+68	32	LT	79	90	16	25	-6.00	10	-1.50	8	-1.80	0	0	581.81	96	0	0	0	0
16-1	185+13	32	LT	102	90	19	30	-4.25	10	-1.50	3	-2.80	0	0	581.64	96	0	0	0	0
19-1	201+88	32	LT	80	90	16.31	14	4.80	11	-3.14	13	1.50	0	0	586.02	0	54	0	0	0
20-1	205+14	32	RT	122	90	20	11	4.00	19	-4.00	10	-1.50	10	-5	587.55	110	0	0	0	0
25-1	231+98	32	RT	55	90	14	15	-8.00	10	-1.50	5	-4.46	0	0	593.6	0	0	0	0	0
29-1	254+56	32	RT	63	90	14	10	5.00	10	-3.00	10	-1.50	3	-1.8	0	0	0	0	90	0
30-1	256+53	75	LT	87	90	14	22	3.00	13	-1.26	13	1.50	0	0	585.9	0	0	60	0	0

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

NOT TO SCALE

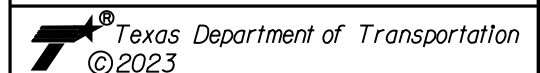
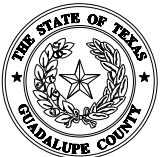
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD

DRIVEWAY DETAILS

SHEET 1 OF 2

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	131

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\Roadway\Driveways\1277500_Dr Driveway_detail.is02.dgn

CONCRETE DRIVEWAY NOTES




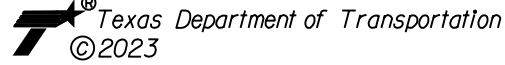
1. ROW PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE CONCRETE DRIVEWAY SHALL BE PAID FOR UNDER ITEM NO. 503.1 OR 503.2.
2. 7" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE. IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.
3. THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL - ONE WAY	12'	20'
COMMERCIAL - TWO WAY	24'	30'

4. FOR LOCAL TYPE "A" STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
5. FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR, AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
6. DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY. DUMMY JOINTS PERPENDICULAR TO THE CURB, AND WITHIN THE BOUNDARIES OF THE DUMMY JOINTS, SHALL BE PLACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
7. A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3/8" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.
8. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 5.0% (1:20) MAXIMUM SLOPE. WHERE SIDEWALKS CROSS DRIVEWAYS, SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
9. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.

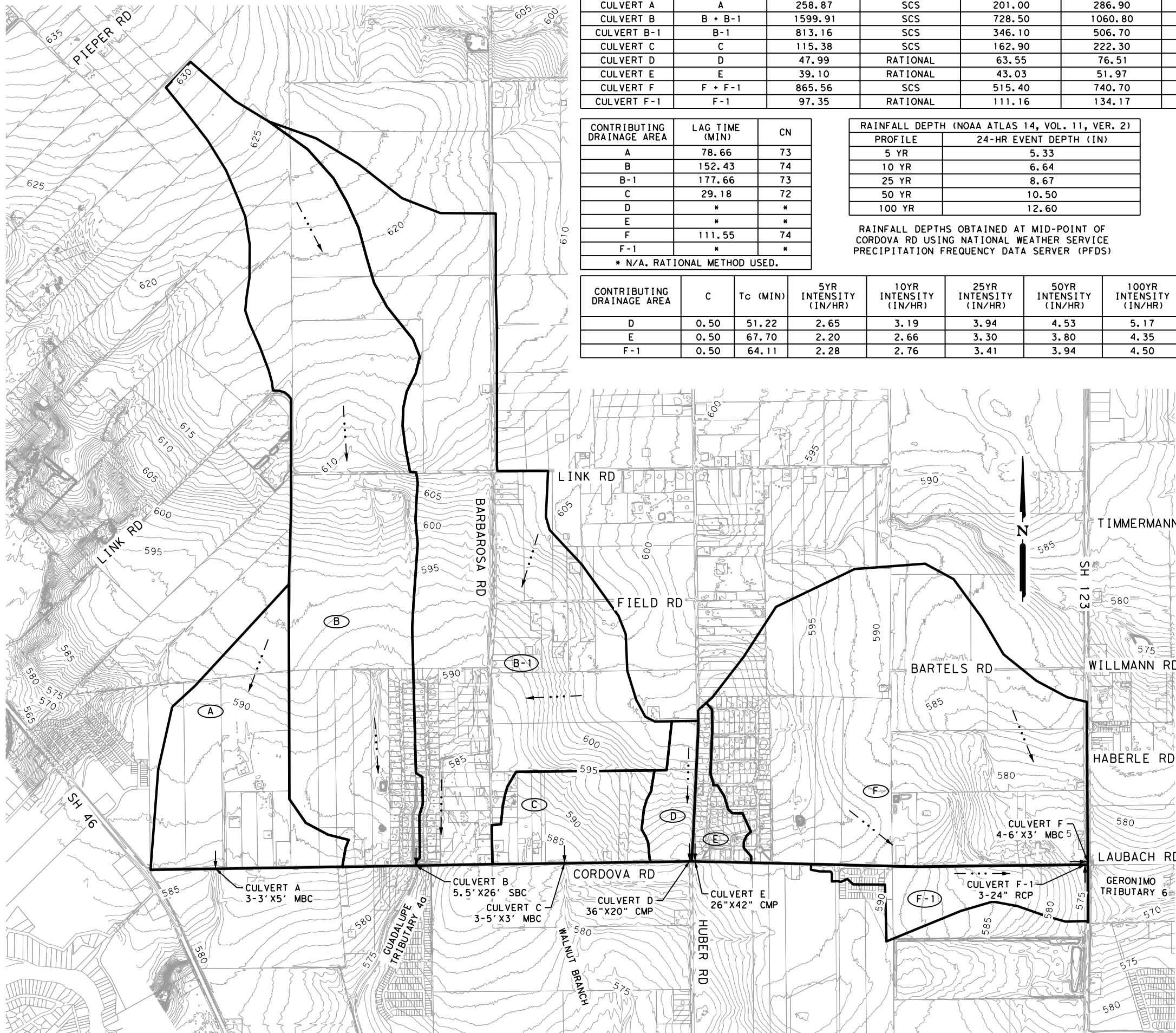
INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P. E. SERIAL NO: 131443
DATE: 7/27/2023

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 <small>TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800</small>			
 It's real.			
 ©2023			
CORDOVA RD			
DRIVEWAY DETAILS			
SHEET 2 OF 2			
DCN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO. HIGHWAY NO.
CHK DCN:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915 45 052 132

Plotted on: 7/27/2023

Design File name: P:\1275\00\Design\Civil\Drainage\127500_da01.dgn



COMPUTATION POINT	CONTRIBUTING DRAINAGE AREAS	DRAINAGE AREA (ACRES)	CONTRIBUTING METHOD	5-YEAR DISCHARGE (CFS)	10-YEAR DISCHARGE (CFS)	25-YEAR DISCHARGE (CFS)	50-YEAR DISCHARGE (CFS)	100-YEAR DISCHARGE (CFS)
CULVERT A	A	258.87	SCS	201.00	286.90	416.00	519.00	636.60
CULVERT B	B + B-1	1599.91	SCS	728.50	1060.80	1569.40	1996.70	2501.90
CULVERT B-1	B-1	813.16	SCS	346.10	506.70	754.20	963.00	1211.10
CULVERT C	C	115.38	SCS	162.90	222.30	326.10	400.60	481.50
CULVERT D	D	47.99	RATIONAL	63.55	76.51	94.46	108.63	123.95
CULVERT E	E	39.10	RATIONAL	43.03	51.97	64.43	74.32	85.11
CULVERT F	F + F-1	865.56	SCS	515.40	740.70	1080.80	1360.40	1685.20
CULVERT F-1	F-1	97.35	RATIONAL	111.16	134.17	166.20	191.60	219.25

CONTRIBUTING DRAINAGE AREA	LAG TIME (MIN)	CN
A	78.66	73
B	152.43	74
B-1	177.66	73
C	29.18	72
D	*	*
E	*	*
F	111.55	74
F-1	*	*

* N/A. RATIONAL METHOD USED.

RAINFALL DEPTH (NOAA ATLAS 14, VOL. 11, VER. 2)	
PROFILE	24-HR EVENT DEPTH (IN)
5 YR	5.33
10 YR	6.64
25 YR	8.67
50 YR	10.50
100 YR	12.60

RAINFALL DEPTHS OBTAINED AT MID-POINT OF CORDOVA RD USING NATIONAL WEATHER SERVICE PRECIPITATION FREQUENCY DATA SERVER (PFDS)

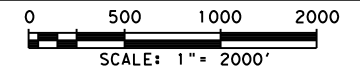
CONTRIBUTING DRAINAGE AREA	C	Tc (MIN)	5YR INTENSITY (IN/HR)	10YR INTENSITY (IN/HR)	25YR INTENSITY (IN/HR)	50YR INTENSITY (IN/HR)	100YR INTENSITY (IN/HR)
D	0.50	51.22	2.65	3.19	3.94	4.53	5.17
E	0.50	67.70	2.20	2.66	3.30	3.80	4.35
F-1	0.50	64.11	2.28	2.76	3.41	3.94	4.50

- - - - - R.O.W.
- DRAINAGE AREA BOUNDARY
- 850— EXISTING CONTOUR
- - - - - FLOW ARROW
- (X-X) DRAINAGE AREA

- NOTES:
1. DRAINAGE AREAS OFF ROW DELINEATED USING EXISTING 1-FT CONTOURS FROM 2017 GIS DATA AND FIELD VERIFIED SITE IMPROVEMENTS.
 2. ALL UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
 3. ALL PIPES ARE NORMAL TO AND STRAIGHT FROM STRUCTURE UNLESS OTHERWISE SHOWN.
 4. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, I.E. FADED

DESIGN
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

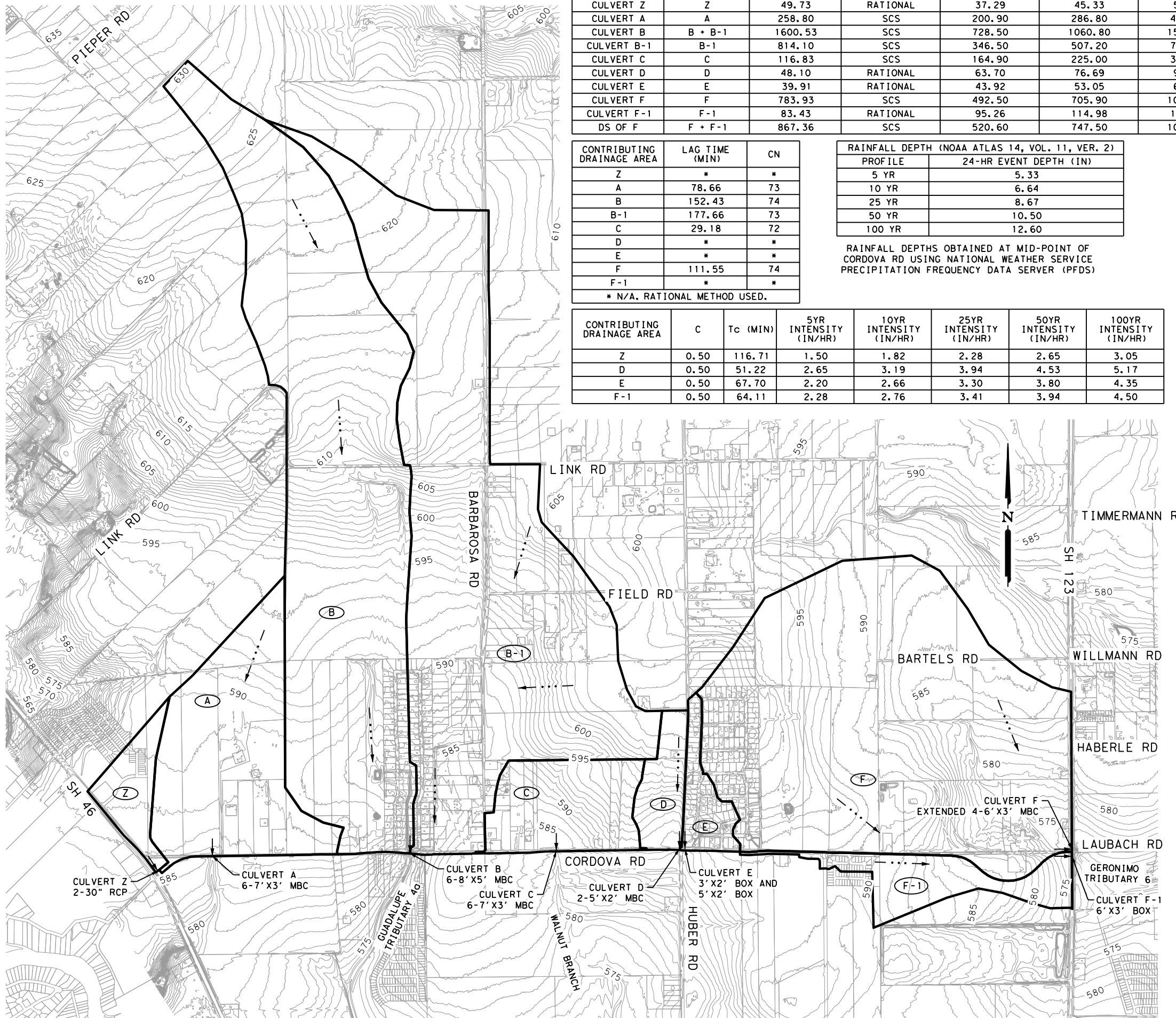
APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
EXISTING DRAINAGE AREA MAP			
SHEET 1 OF 3			
CHK:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:
DGN:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO.:
	SAT	GUADALUPE	0915
			SECT. NO.:
			45
			JOB NO.:
			052
			SHEET NO.:
			133

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_da02.dgn



COMPUTATION POINT	CONTRIBUTING DRAINAGE AREAS	DRAINAGE AREA (ACRES)	CONTRIBUTING METHOD	5-YEAR DISCHARGE (CFS)	10-YEAR DISCHARGE (CFS)	25-YEAR DISCHARGE (CFS)	50-YEAR DISCHARGE (CFS)	100-YEAR DISCHARGE (CFS)
CULVERT Z	Z	49.73	RATIONAL	37.29	45.33	56.67	65.77	75.83
CULVERT A	A	258.80	SCS	200.90	286.80	415.90	518.80	636.50
CULVERT B	B + B-1	1600.53	SCS	728.50	1060.80	1569.40	1996.70	2502.00
CULVERT B-1	B-1	814.10	SCS	346.50	507.20	755.00	964.00	1212.40
CULVERT C	C	116.83	SCS	164.90	225.00	330.10	405.50	487.30
CULVERT D	D	48.10	RATIONAL	63.70	76.69	94.68	108.87	124.23
CULVERT E	E	39.91	RATIONAL	43.92	53.05	65.77	75.86	86.87
CULVERT F	F	783.93	SCS	492.50	705.90	1027.50	1290.00	1593.90
CULVERT F-1	F-1	83.43	RATIONAL	95.26	114.98	142.44	164.20	187.90
DS OF F	F + F-1	867.36	SCS	520.60	747.50	1090.60	1372.30	1699.50

CONTRIBUTING DRAINAGE AREA	LAG TIME (MIN)	CN
Z	*	*
A	78.66	73
B	152.43	74
B-1	177.66	73
C	29.18	72
D	*	*
E	*	*
F	111.55	74
F-1	*	*

* N/A. RATIONAL METHOD USED.

RAINFALL DEPTH (NOAA ATLAS 14, VOL. 11, VER. 2)	
PROFILE	24-HR EVENT DEPTH (IN)
5 YR	5.33
10 YR	6.64
25 YR	8.67
50 YR	10.50
100 YR	12.60

RAINFALL DEPTHS OBTAINED AT MID-POINT OF CORDOVA RD USING NATIONAL WEATHER SERVICE PRECIPITATION FREQUENCY DATA SERVER (PFDS)

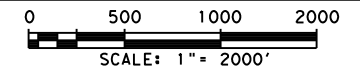
CONTRIBUTING DRAINAGE AREA	C	Tc (MIN)	5YR INTENSITY (IN/HR)	10YR INTENSITY (IN/HR)	25YR INTENSITY (IN/HR)	50YR INTENSITY (IN/HR)	100YR INTENSITY (IN/HR)
Z	0.50	116.71	1.50	1.82	2.28	2.65	3.05
D	0.50	51.22	2.65	3.19	3.94	4.53	5.17
E	0.50	67.70	2.20	2.66	3.30	3.80	4.35
F-1	0.50	64.11	2.28	2.76	3.41	3.94	4.50

- - - R.O.W.
- DRAINAGE AREA BOUNDARY
- 850— EXISTING CONTOUR
- - -> FLOW ARROW
- (X-X) DRAINAGE AREA

- NOTES:
1. DRAINAGE AREAS OFF ROW DELINEATED USING EXISTING 1-FT CONTOURS FROM 2017 GIS DATA AND FIELD VERIFIED SITE IMPROVEMENTS.
 2. ALL UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
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 4. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, I.E. FADED

DESIGN
INTERIM REVIEW
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 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

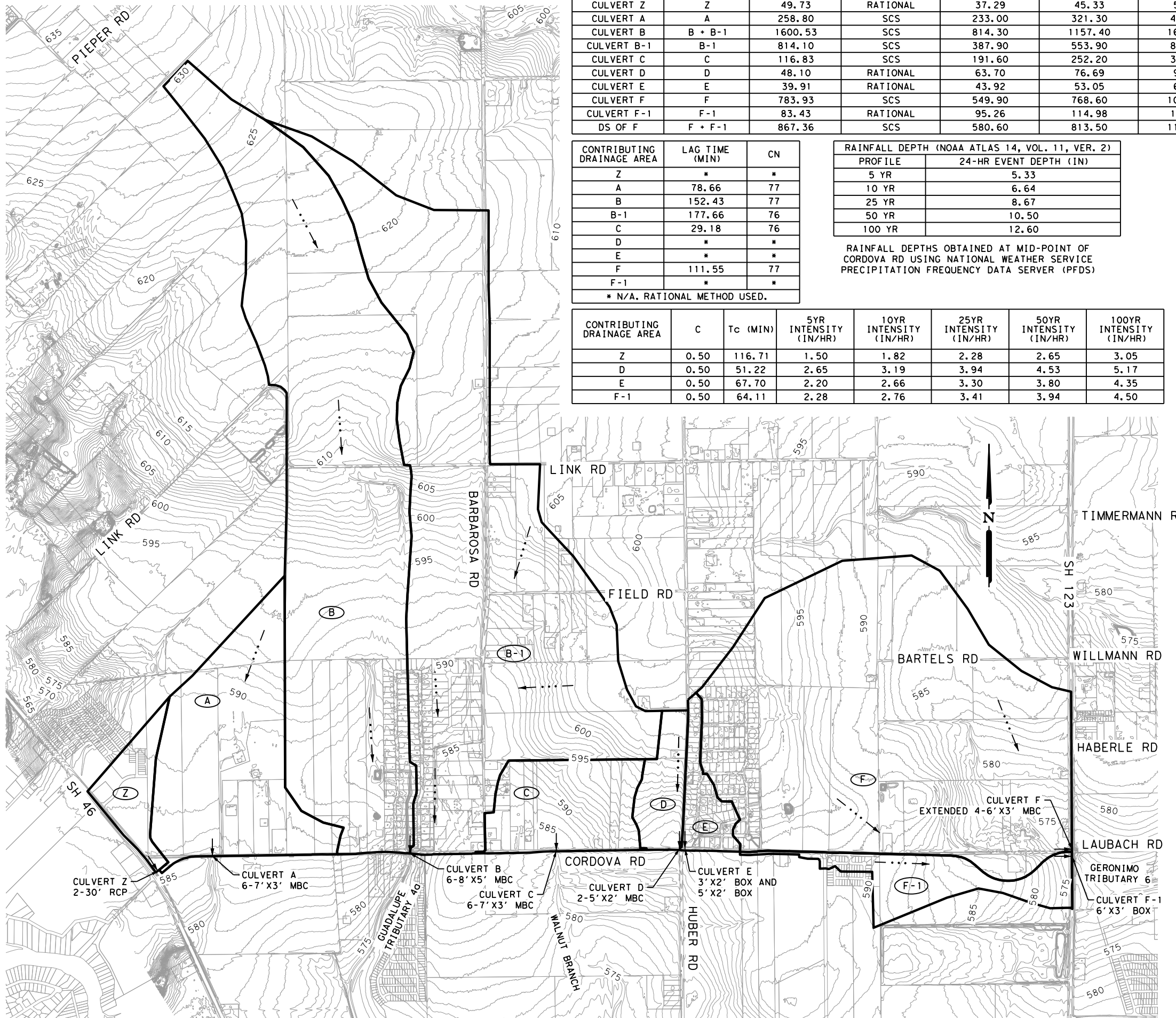
APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
PROPOSED DRAINAGE AREA MAP			
SHEET 2 OF 3			
CHK:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
DGN:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO.:
	SAT	GUADALUPE	0915
			SECT. NO.:
			45
			JOB NO.:
			052
			SHEET NO.:
			134

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_da03.dgn



COMPUTATION POINT	CONTRIBUTING DRAINAGE AREAS	DRAINAGE AREA (ACRES)	CONTRIBUTING METHOD	5-YEAR DISCHARGE (CFS)	10-YEAR DISCHARGE (CFS)	25-YEAR DISCHARGE (CFS)	50-YEAR DISCHARGE (CFS)	100-YEAR DISCHARGE (CFS)
CULVERT Z	Z	49.73	RATIONAL	37.29	45.33	56.67	65.77	75.83
CULVERT A	A	258.80	SCS	233.00	321.30	452.20	555.50	672.00
CULVERT B	B + B-1	1600.53	SCS	814.30	1157.40	1675.10	2105.50	2610.40
CULVERT B-1	B-1	814.10	SCS	387.90	553.90	806.60	1017.60	1266.10
CULVERT C	C	116.83	SCS	191.60	252.20	358.70	433.40	514.50
CULVERT D	D	48.10	RATIONAL	63.70	76.69	94.68	108.87	124.23
CULVERT E	E	39.91	RATIONAL	43.92	53.05	65.77	75.86	86.87
CULVERT F	F	783.93	SCS	549.90	768.60	1093.90	1356.90	1659.10
CULVERT F-1	F-1	83.43	RATIONAL	95.26	114.98	142.44	164.20	187.90
DS OF F	F + F-1	867.36	SCS	580.60	813.50	1160.70	1443.10	1768.50

CONTRIBUTING DRAINAGE AREA	LAG TIME (MIN)	CN
Z	*	*
A	78.66	77
B	152.43	77
B-1	177.66	76
C	29.18	76
D	*	*
E	*	*
F	111.55	77
F-1	*	*

* N/A. RATIONAL METHOD USED.

RAINFALL DEPTH (NOAA ATLAS 14, VOL. 11, VER. 2)	
PROFILE	24-HR EVENT DEPTH (IN)
5 YR	5.33
10 YR	6.64
25 YR	8.67
50 YR	10.50
100 YR	12.60

RAINFALL DEPTHS OBTAINED AT MID-POINT OF CORDOVA RD USING NATIONAL WEATHER SERVICE PRECIPITATION FREQUENCY DATA SERVER (PFDS)

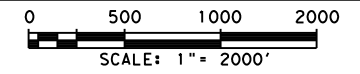
CONTRIBUTING DRAINAGE AREA	C	Tc (MIN)	5YR INTENSITY (IN/HR)	10YR INTENSITY (IN/HR)	25YR INTENSITY (IN/HR)	50YR INTENSITY (IN/HR)	100YR INTENSITY (IN/HR)
Z	0.50	116.71	1.50	1.82	2.28	2.65	3.05
D	0.50	51.22	2.65	3.19	3.94	4.53	5.17
E	0.50	67.70	2.20	2.66	3.30	3.80	4.35
F-1	0.50	64.11	2.28	2.76	3.41	3.94	4.50

- R.O.W.
- DRAINAGE AREA BOUNDARY
- 850- EXISTING CONTOUR
- ...-> FLOW ARROW
- (X-X) DRAINAGE AREA

- NOTES:
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 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
ULTIMATE DRAINAGE AREA MAP			
SHEET 3 OF 3			
DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 135

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd...Z1.dgn

Crossing Discharge Data

Discharge Selection Method: Recurrence

Rating Curve Plot for Crossing: Culvert_Z_Prop

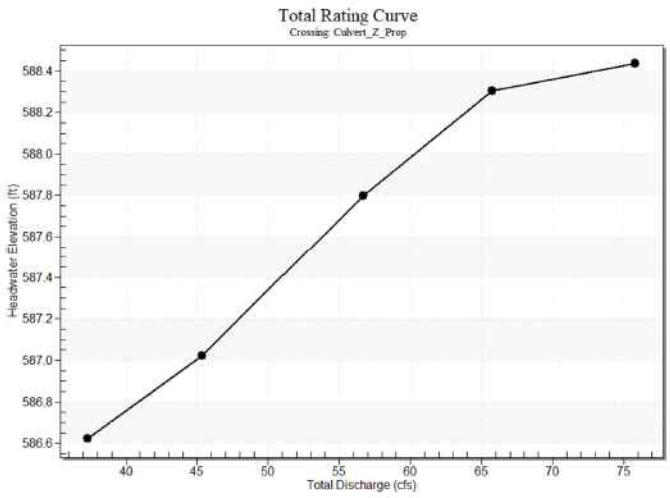


Table 1 - Summary of Culvert Flows at Crossing: Culvert_Z_Prop

Headwater Elevation (ft)	Discharge Names	Total Discharge (cfs)	Culvert_Z_Prop Discharge (cfs)	Roadway Discharge (cfs)	Iterations
586.62	5 year	37.29	37.29	0.00	1
587.02	10 year*	45.33	45.33	0.00	1
587.80	25 year	56.67	56.67	0.00	1
588.30	50 year	65.77	63.10	2.60	15
588.43	100 year†	75.83	64.49	11.29	7
588.20	Overtopping	61.74	61.74	0.00	Overtopping

*Design Storm
†Check Storm

Culvert Data: Culvert_Z_Prop

Table 2 - Culvert Summary Table: Culvert_Z_Prop

Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
5 year	37.29 cfs	37.29 cfs	586.62	2.24	2.573	7-M2c	2.50	1.46	1.46	0.48	6.25	0.90
10 year*	45.33 cfs	45.33 cfs	587.02	2.59	2.971	7-M2c	2.50	1.62	1.62	0.51	6.74	0.91
25 year	56.67 cfs	56.67 cfs	587.80	3.20	3.749	7-M2c	2.50	1.81	1.81	0.54	7.42	0.92
50 year	65.77 cfs	63.10 cfs	588.30	3.61	4.255	7-M2c	2.50	1.91	1.91	0.56	7.83	0.94
100 year†	75.83 cfs	64.49 cfs	588.43	3.70	4.385	7-M2c	2.50	1.93	1.93	0.59	7.92	0.92

*Design Storm
†Check Storm

Culvert Barrel Data

Culvert Barrel Type: Straight Culvert
Inlet Elevation (invert): 584.05 ft,
Outlet Elevation (invert): 583.87 ft
Culvert Length: 196.00 ft,
Culvert Slope: 0.0009

Roadway Data for Crossing: Culvert_Z_Prop

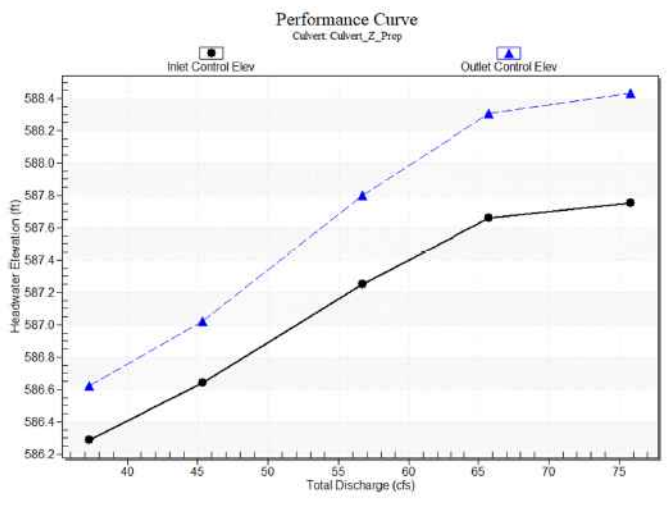
Roadway Profile Shape: Irregular
Roadway Shape (coordinates)

Irregular Roadway Cross-Section

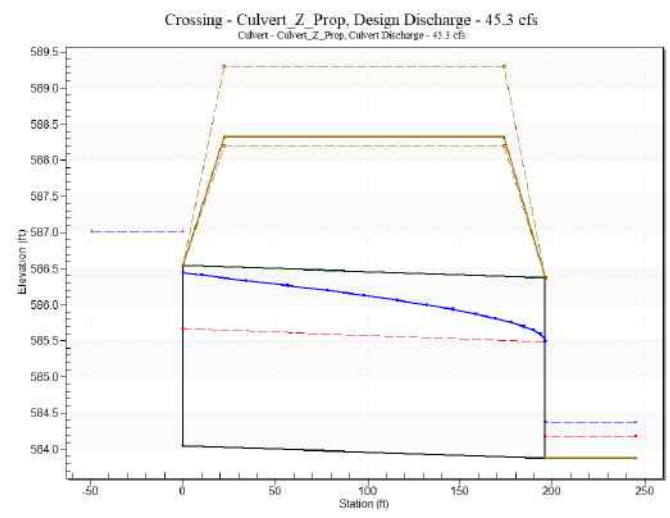
Coord No.	Station (ft)	Elevation (ft)
0	0.00	588.20
1	20.00	588.20
2	40.00	588.32
3	60.00	588.69
4	80.00	588.98
5	100.00	589.19
6	120.00	589.30

Roadway Surface: Paved
Roadway Top Width: 151.33 ft

Culvert Performance Curve Plot: Culvert_Z_Prop



Water Surface Profile Plot for Culvert: Culvert_Z_Prop



Site Data - Culvert_Z_Prop

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 584.05 ft
Outlet Station: 196.00 ft
Outlet Elevation: 583.87 ft
Number of Barrels: 2

Culvert Data Summary - Culvert_Z_Prop

Barrel Shape: Circular
Barrel Diameter: 2.50 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Mitered to Conform to Slope (Ke=0.7)
Inlet Depression: None

Tailwater Data for Crossing: Culvert_Z_Prop

Table 2 - Downstream Channel Rating Curve (Crossing: Culvert_Z_Prop)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
37.29	584.35	0.48	0.90	0.09	0.43
45.33*	584.38	0.51	0.91	0.09	0.41
56.67	584.41	0.54	0.92	0.10	0.40
65.77	584.43	0.56	0.94	0.11	0.39
75.83†	584.46	0.59	0.92	0.11	0.39

*Design Storm
†Check Storm

Tailwater Channel Data - Culvert_Z_Prop

Tailwater Channel Option: Irregular Channel
Channel Slope: Irregular Channel

User Defined Channel Cross-Section

Coord No.	Station (ft)	Elevation (ft)	Manning's n
1	0.00	584.51	0.0350
2	60.00	584.50	0.0350
3	120.00	584.44	0.0350
4	180.00	584.44	0.0350
5	240.00	584.39	0.0350
6	300.00	584.33	0.0350
7	360.00	584.34	0.0350
8	420.00	584.30	0.0350
9	480.00	584.28	0.0350
10	540.00	583.87	0.0320
11	555.00	583.87	0.0320
12	570.00	583.96	0.0300
13	585.00	584.08	0.0300
14	600.00	586.46	0.0160
15	615.00	587.94	0.0000

DESIGN

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PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

SEGUIN TEXAS
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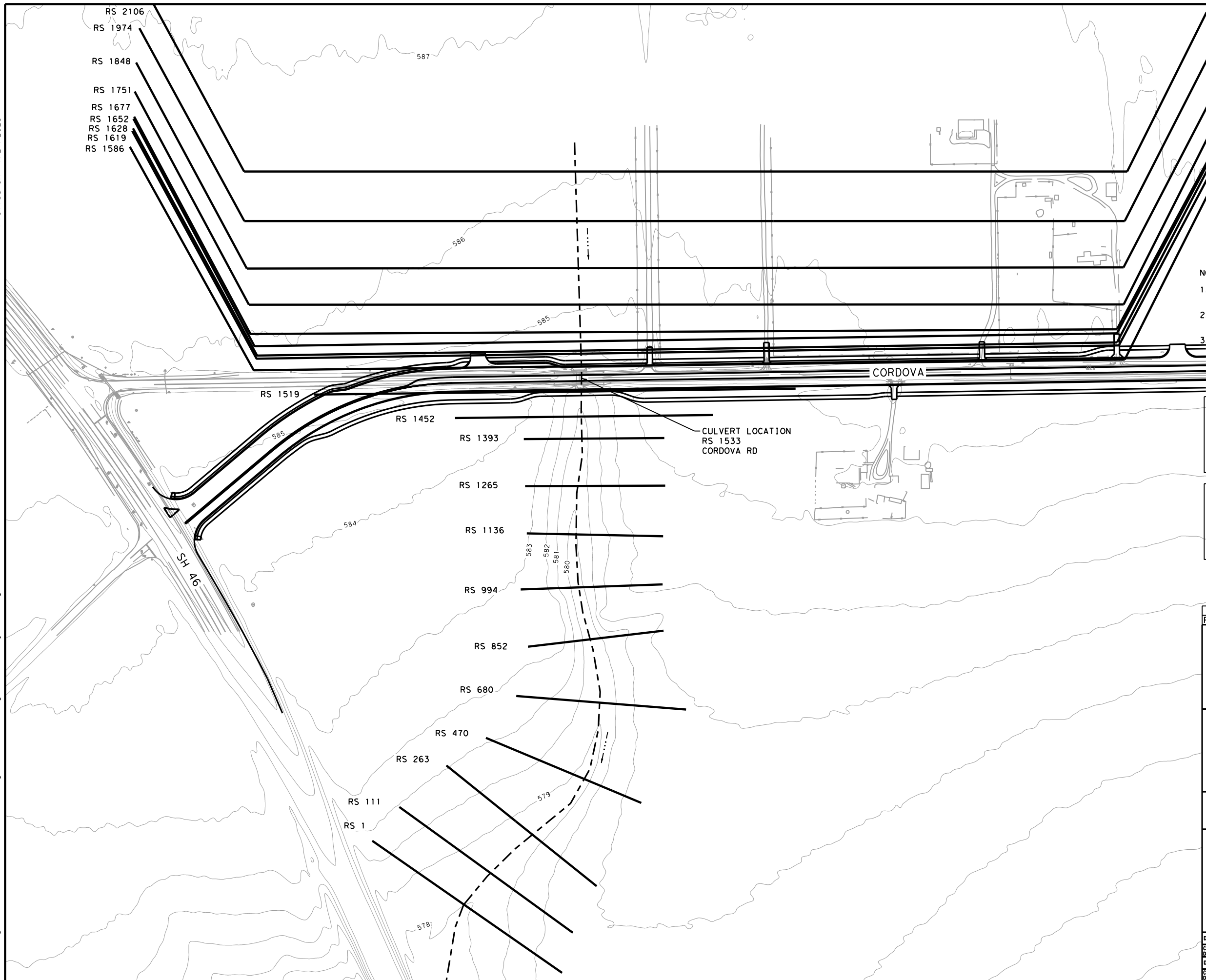
Texas Department of Transportation
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HYDRAULIC DATA SHEET CULVERT Z

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	136

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_A01.dgn



- NOTES:
1. HEC-RAS VERSION 6.3.1 USED FOR HYDRAULIC CALCULATIONS.
 2. 1-FT CONTOURS FROM 2017 STRATMAP CENTRAL TEXAS LIDAR DATASET.
 3. FOR CULVERTS CROSSING CORDOVA RD, 25YR AEP STORM USED FOR DESIGN, PER CITY OF SEGUIN CRITERIA.

DESIGN

INTERIM REVIEW




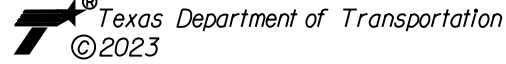
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CULVERT LOCATION
 RS 1533
 CORDOVA RD

REV. NO.	DATE	DESCRIPTION	BY
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HYDRAULIC DATA SHEET CULVERT A			
SHEET 1 OF 5			
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO. HIGHWAY NO.
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 137

HEC-RAS CULVERT OUTPUT DATA - EXISTING

Plan PRE	River 1	Reach 1	RS# 1533	Culv Group	Culvert #1	Profile: 25yr (Design)
Q Culv Group (cfs)				371.65		Culv Full Len (ft)
# Barrels				3		Culv Vel US (ft/s)
Q Barrel (cfs)				123.88		Culv Vel DS (ft/s)
E.G. US. (ft)				586.18		Culv Inv El Up (ft)
W.S. US. (ft)				586.14		Culv Inv El Dn (ft)
E.G. DS (ft)				583.89		Culv Frctn Ls (ft)
W.S. DS (ft)				583.02		Culv Exit Loss (ft)
Delta EG (ft)				2.29		Culv Entr Loss (ft)
Delta WS (ft)				3.12		Q Weir (cfs)
E.G. IC (ft)				586.18		Weir Sta Lft (ft)
E.G. OC (ft)				585.46		Weir Sta Rgt (ft)
Culvert Control				Inlet		Weir Submerg
Culv WS Inlet (ft)				584.4		Weir Max Depth (ft)
Culv WS Outlet (ft)				582.76		Weir Avg Depth (ft)
Culv Nml Depth (ft)				1.81		Weir Flow Area (sq ft)
Culv Crt Depth (ft)				2.67		Min El Weir Flow (ft)

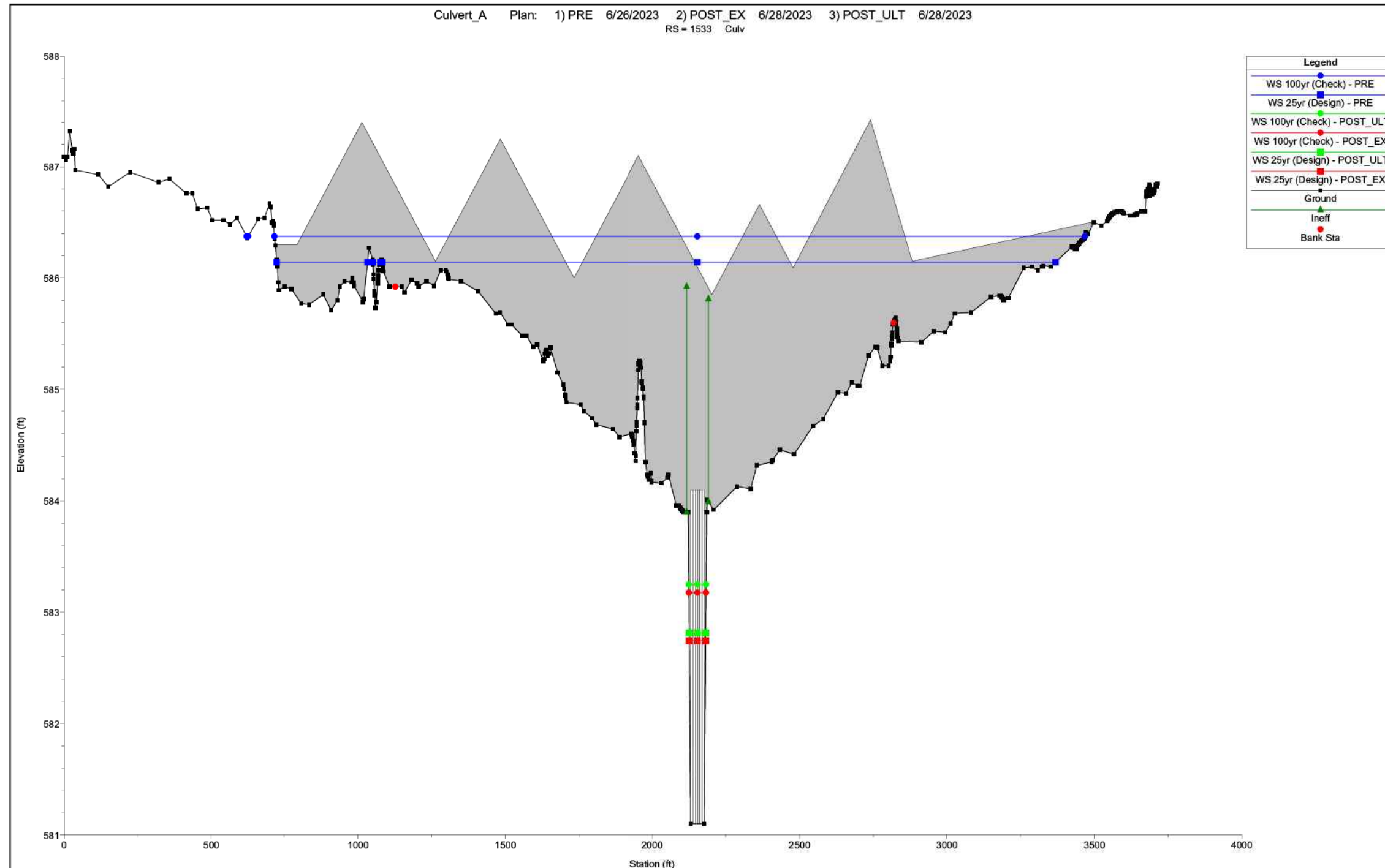
Plan PRE	River 1	Reach 1	RS# 1533	Culv Group	Culvert #1	Profile: 100yr (Check)
Q Culv Group (cfs)				503.6		Culv Full Len (ft)
# Barrels				3		Culv Vel US (ft/s)
Q Barrel (cfs)				167.87		Culv Vel DS (ft/s)
E.G. US. (ft)				586.42		Culv Inv El Up (ft)
W.S. US. (ft)				586.37		Culv Inv El Dn (ft)
E.G. DS (ft)				584.73		Culv Frctn Ls (ft)
W.S. DS (ft)				583.58		Culv Exit Loss (ft)
Delta EG (ft)				1.69		Culv Entr Loss (ft)
Delta WS (ft)				2.79		Q Weir (cfs)
E.G. IC (ft)				586.54		Weir Sta Lft (ft)
E.G. OC (ft)				586.42		Weir Sta Rgt (ft)
Culvert Control				Outlet		Weir Submerg
Culv WS Inlet (ft)				584.4		Weir Max Depth (ft)
Culv WS Outlet (ft)				583.96		Weir Avg Depth (ft)
Culv Nml Depth (ft)				2.27		Weir Flow Area (sq ft)
Culv Crt Depth (ft)				3		Min El Weir Flow (ft)

HEC-RAS CULVERT OUTPUT DATA - ULTIMATE PROPOSED

Plan POST_ULT	River 1	Reach 1	RS# 1533	Culv Group	Culvert #1	Profile: 25yr (Design)
Q Culv Group (cfs)				452.2		Culv Full Len (ft)
# Barrels				6		Culv Vel US (ft/s)
Q Barrel (cfs)				75.37		Culv Vel DS (ft/s)
E.G. US. (ft)				583.55		Culv Inv El Up (ft)
W.S. US. (ft)				583.31		Culv Inv El Dn (ft)
E.G. DS (ft)				582.93		Culv Frctn Ls (ft)
W.S. DS (ft)				582.71		Culv Exit Loss (ft)
Delta EG (ft)				0.62		Culv Entr Loss (ft)
Delta WS (ft)				0.6		Q Weir (cfs)
E.G. IC (ft)				583.51		Weir Sta Lft (ft)
E.G. OC (ft)				583.55		Weir Sta Rgt (ft)
Culvert Control				Outlet		Weir Submerg
Culv WS Inlet (ft)				582.81		Weir Max Depth (ft)
Culv WS Outlet (ft)				582.71		Weir Avg Depth (ft)
Culv Nml Depth (ft)				1.62		Weir Flow Area (sq ft)
Culv Crt Depth (ft)				1.53		Min El Weir Flow (ft)

Plan POST_ULT	River 1	Reach 1	RS# 1533	Culv Group	Culvert #1	Profile: 100yr (Check)
Q Culv Group (cfs)				672		Culv Full Len (ft)
# Barrels				6		Culv Vel US (ft/s)
Q Barrel (cfs)				112		Culv Vel DS (ft/s)
E.G. US. (ft)				584.28		Culv Inv El Up (ft)
W.S. US. (ft)				584		Culv Inv El Dn (ft)
E.G. DS (ft)				583.33		Culv Frctn Ls (ft)
W.S. DS (ft)				583		Culv Exit Loss (ft)
Delta EG (ft)				0.95		Culv Entr Loss (ft)
Delta WS (ft)				1		Q Weir (cfs)
E.G. IC (ft)				584.24		Weir Sta Lft (ft)
E.G. OC (ft)				584.28		Weir Sta Rgt (ft)
Culvert Control				Outlet		Weir Submerg
Culv WS Inlet (ft)				583.25		Weir Max Depth (ft)
Culv WS Outlet (ft)				583		Weir Avg Depth (ft)
Culv Nml Depth (ft)				2.14		Weir Flow Area (sq ft)
Culv Crt Depth (ft)				2		Min El Weir Flow (ft)

PROPOSED CULVERT UPSTREAM HEC-RAS CROSS SECTION OUTPUT



EXPLANATION OF PLANS:

1. PRE: PRE-PROJECT (EXISTING) GEOMETRY WITH EXISTING FLOWS.
2. POST_EX: POST-PROJECT (PROPOSED) GEOMETRY WITH EXISTING FLOWS.
3. POST_ULT: POST-PROJECT (PROPOSED) GEOMETRY WITH ULTIMATE DEVELOPMENT CONDITION FLOWS. SEE ULTIMATE DRAINAGE AREA SHEET FOR COMPUTATION DETAILS.

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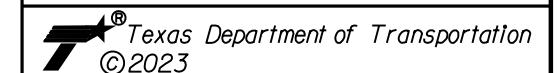
REV. NO.	DATE	DESCRIPTION	BY



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 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
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HYDRAULIC DATA SHEET
 CULVERT A

SHEET 4 OF 5

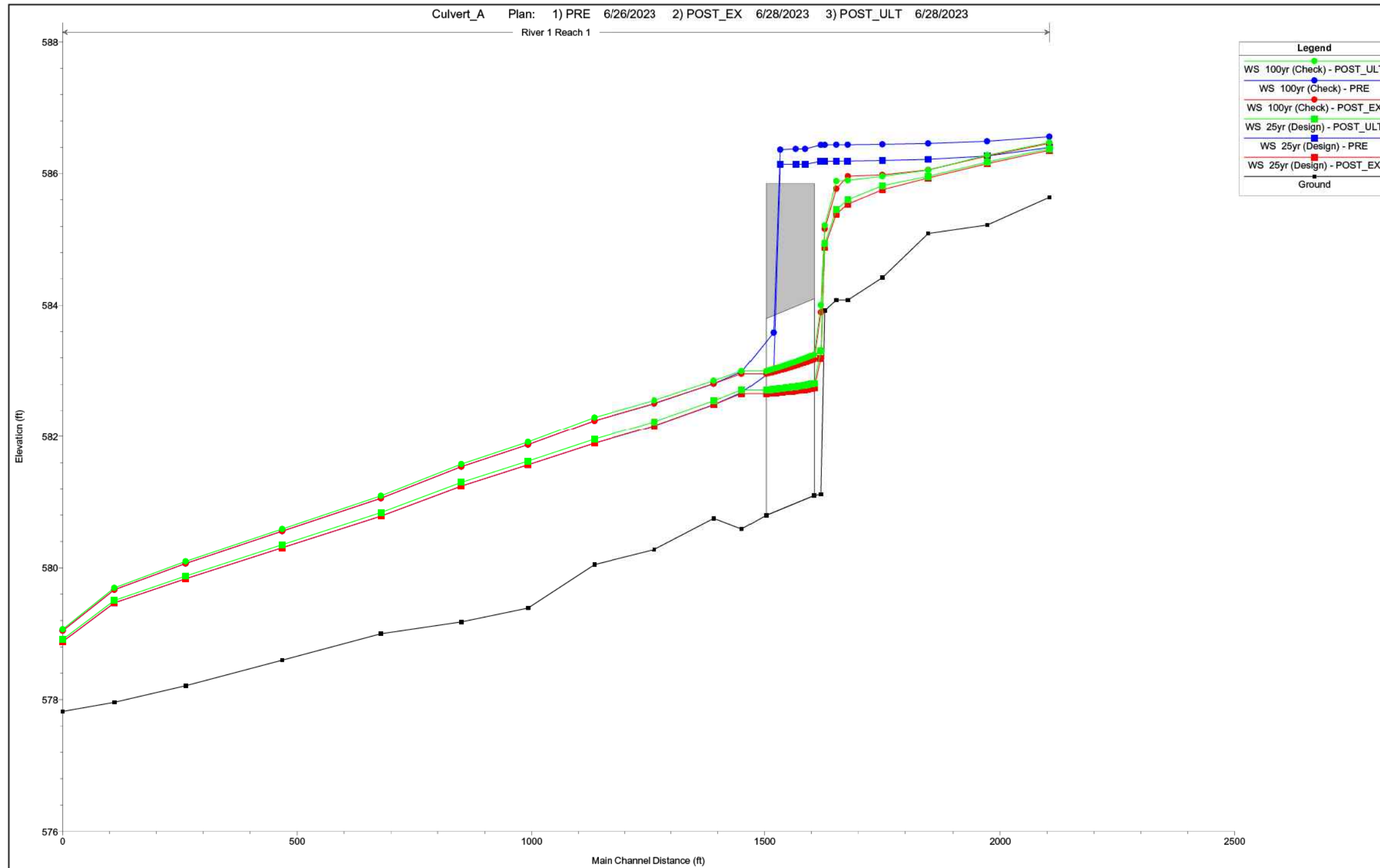
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CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK DWG:	SAT	GUADALUPE	0915	45	052	140

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civi\Drainage\1277500_hyd_A03.dgn

Plotted on: 7/27/2023

HEC-RAS PROFILE PLOT OUTPUT



DESIGN

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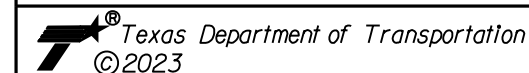
REV. NO.	DATE	DESCRIPTION	BY
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HYDRAULIC DATA SHEET
 CULVERT A

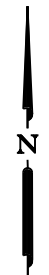
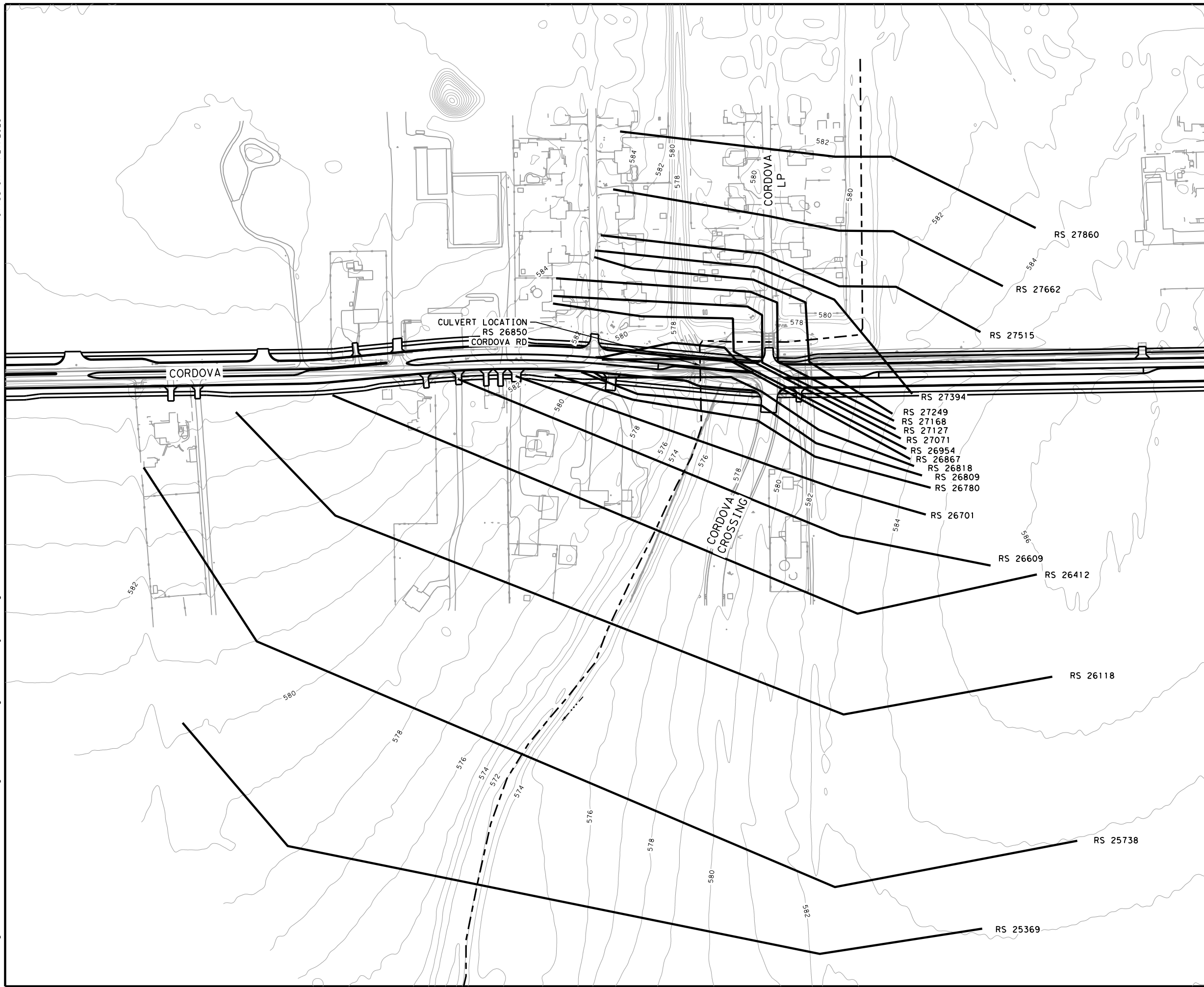
SHEET 5 OF 5

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK	6	TEXAS				CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	141

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Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_B01.dgn



- NOTES:
1. HEC-RAS VERSION 6.3.1 USED FOR HYDRAULIC CALCULATIONS.
 2. 1-FT CONTOURS FROM 2017 STRATMAP CENTRAL TEXAS LIDAR DATASET.
 3. FOR CULVERTS CROSSING CORDOVA RD, 25YR AEP STORM USED FOR DESIGN, PER CITY OF SEGUIN CRITERIA.

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



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**HYDRAULIC DATA SHEET
 CULVERT B**

SHEET 1 OF 5

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	142

HEC-RAS OUTPUT

Plotted on: 7/27/2023

Design Filename: P:\1275\00\Design\Civil\Drainage\127500_hyd_B02.dgn

River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
27860	5yr	CEM	347.8	579.24	581	581.07	581.07	0.002198	2.33	179.94	341.56	0.39
27860	5yr	POST_EX	347.8	579.24	581	581.07	581.07	0.002199	2.33	179.92	341.53	0.39
27860	5yr	POST_UL1	387.9	579.24	581.08	581.15	581.15	0.002054	2.33	208.01	395.6	0.38
27860	10yr	CEM	509	579.24	581.31	581.37	581.37	0.001675	2.29	304.27	503.55	0.35
27860	10yr	POST_EX	509	579.24	581.27	581.34	581.34	0.001924	2.43	282.1	471.18	0.38
27860	10yr	POST_UL1	553.9	579.24	581.36	581.42	581.42	0.001693	2.35	329.27	529.47	0.35
27860	25yr (Design)	CEM	757.7	579.24	581.75	581.79	581.79	0.00098	2	569.79	710.47	0.28
27860	25yr (Design)	POST_EX	757.7	579.24	581.58	581.64	581.64	0.00176	2.48	456.15	628.12	0.36
27860	25yr (Design)	POST_UL1	806.6	579.24	581.62	581.69	581.69	0.001704	2.49	484.58	640.93	0.36
27860	50yr	CEM	967.5	579.24	582.15	582.17	582.17	0.000552	1.74	874.06	856.54	0.22
27860	50yr	POST_EX	967.5	579.24	581.79	581.85	581.85	0.001403	2.43	599.31	718.22	0.33
27860	50yr	POST_UL1	1017.6	579.24	581.88	581.93	581.93	0.001185	2.32	664.45	738.52	0.31
27860	100yr (Check)	CEM	1216.4	579.24	582.54	582.56	582.56	0.000355	1.57	1227.14	940.85	0.18
27860	100yr (Check)	POST_EX	1216.4	579.24	582.17	582.21	582.21	0.000853	2.17	892.92	863.74	0.27
27860	100yr (Check)	POST_UL1	1266.1	579.24	582.24	582.28	582.28	0.000778	2.12	952.2	883.31	0.26

River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
27127	5yr	CEM	347.8	576.24	578.84	577.78	579.05	0.001841	3.73	93.24	131.44	0.43
27127	5yr	POST_EX	347.8	576.24	578.62	577.78	578.88	0.002531	4.11	84.67	120.94	0.49
27127	5yr	POST_UL1	387.9	576.24	578.78	577.88	579.06	0.002493	4.27	90.9	128.86	0.5
27127	10yr	CEM	509	576.24	580.22	578.18	580.29	0.000519	2.12	259.23	220.47	0.23
27127	10yr	POST_EX	509	576.24	579.31	578.18	579.48	0.002354	3.36	157.09	160.59	0.46
27127	10yr	POST_UL1	553.9	576.24	579.48	578.29	579.64	0.001997	3.3	174.7	167.91	0.43
27127	25yr (Design)	CEM	757.7	576.24	581.42	578.73	581.44	0.000176	1.51	781.35	670.86	0.14
27127	25yr (Design)	POST_EX	757.7	576.24	580.16	578.73	580.31	0.001266	3.25	250.93	214.82	0.36
27127	25yr (Design)	POST_UL1	806.6	576.24	580.33	578.84	580.48	0.001125	3.2	272.47	233.02	0.34
27127	50yr	CEM	967.5	576.24	581.95	579.13	581.97	0.000126	1.4	1175.5	834.34	0.12
27127	50yr	POST_EX	967.5	576.24	581.01	579.13	581.1	0.000558	2.48	528.44	430.2	0.25
27127	50yr	POST_UL1	1017.6	576.24	581.32	579.22	581.38	0.000368	2.14	721.42	636.22	0.2
27127	100yr (Check)	CEM	1216.4	576.24	582.38	579.44	582.4	0.000108	1.39	1567.27	928.24	0.12
27127	100yr (Check)	POST_EX	1216.4	576.24	581.81	579.43	581.85	0.000244	1.91	1067.67	780.57	0.17
27127	100yr (Check)	POST_UL1	1266.1	576.24	581.91	579.48	581.95	0.000227	1.87	1148.32	820.65	0.16

DESIGN
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

SEGUIN TEXAS
 It's real.

Texas Department of Transportation
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HYDRAULIC DATA SHEET CULVERT B

SHEET 2 OF 5

DN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CH1:	6	TEXAS		CORDOVA
DN:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CH1:	SAT	GUADALUPE	0915	45
DN:	JOB NO.:	SHEET NO.:		
CH1:	052	143		

HEC-RAS CULVERT OUTPUT DATA - EXISTING

Plan	CEM	Guadalupe River	Tributary 4a	RS: 26850	Culv Group	Culvert #1	Profile: 25yr (Design)
Q	Culv Group	(cfs)	1310.42	Culv Full Len (ft)			11.75
#	Barrels		1	Culv Vel US (ft/s)			14.66
Q	Barrel (cfs)	1310.42	Culv Vel DS (ft/s)				573.95
E.G.	US (ft)	581.21	Culv Inv El Up (ft)				573.5
W.S.	US (ft)	580.55	Culv Inv El Dn (ft)				0.11
E.G.	DS (ft)	578.64	Culv Frctn Ls (ft)				1.64
W.S.	DS (ft)	576.93	Culv Exit Loss (ft)				0.82
Delta	EG (ft)	2.57	Culv Entr Loss (ft)				263.78
Delta	WS (ft)	3.63	Q Weir (cfs)				399.24
E.G.	IC (ft)	581.21	Weir Sta Lft (ft)				816.58
E.G.	OC (ft)	580.81	Weir Sta Rgt (ft)				0
Culvert	Control	Inlet	Weir Submerg				0.89
Culv	WS Inlet (ft)	578.24	Weir Max Depth (ft)				0.53
Culv	WS Outlet (ft)	576.94	Weir Avg Depth (ft)				129.75
Culv	Nml Depth (ft)	2.3	Weir Flow Area (sq ft)				580.52
Culv	Cr1 Depth (ft)	4.29	Min El Weir Flow (ft)				

Plan	CEM	Guadalupe River	Tributary 4a	RS: 26850	Culv Group	Culvert #1	Profile: 100yr (Check)
Q	Culv Group	(cfs)	1447.7	Culv Full Len (ft)			12.15
#	Barrels		1	Culv Vel US (ft/s)			15.06
Q	Barrel (cfs)	1447.7	Culv Vel DS (ft/s)				573.95
E.G.	US (ft)	581.92	Culv Inv El Up (ft)				573.5
W.S.	US (ft)	581.12	Culv Inv El Dn (ft)				0.1
E.G.	DS (ft)	580.52	Culv Frctn Ls (ft)				0.21
W.S.	DS (ft)	578.18	Culv Exit Loss (ft)				1.09
Delta	EG (ft)	1.4	Culv Entr Loss (ft)				1079.84
Delta	WS (ft)	2.94	Q Weir (cfs)				174.47
E.G.	IC (ft)	581.92	Weir Sta Lft (ft)				887.4
E.G.	OC (ft)	581.29	Weir Sta Rgt (ft)				0
Culvert	Control	Inlet	Weir Submerg				1.6
Culv	WS Inlet (ft)	578.53	Weir Max Depth (ft)				0.78
Culv	WS Outlet (ft)	577.2	Weir Avg Depth (ft)				419.3
Culv	Nml Depth (ft)	2.45	Weir Flow Area (sq ft)				580.52
Culv	Cr1 Depth (ft)	4.58	Min El Weir Flow (ft)				

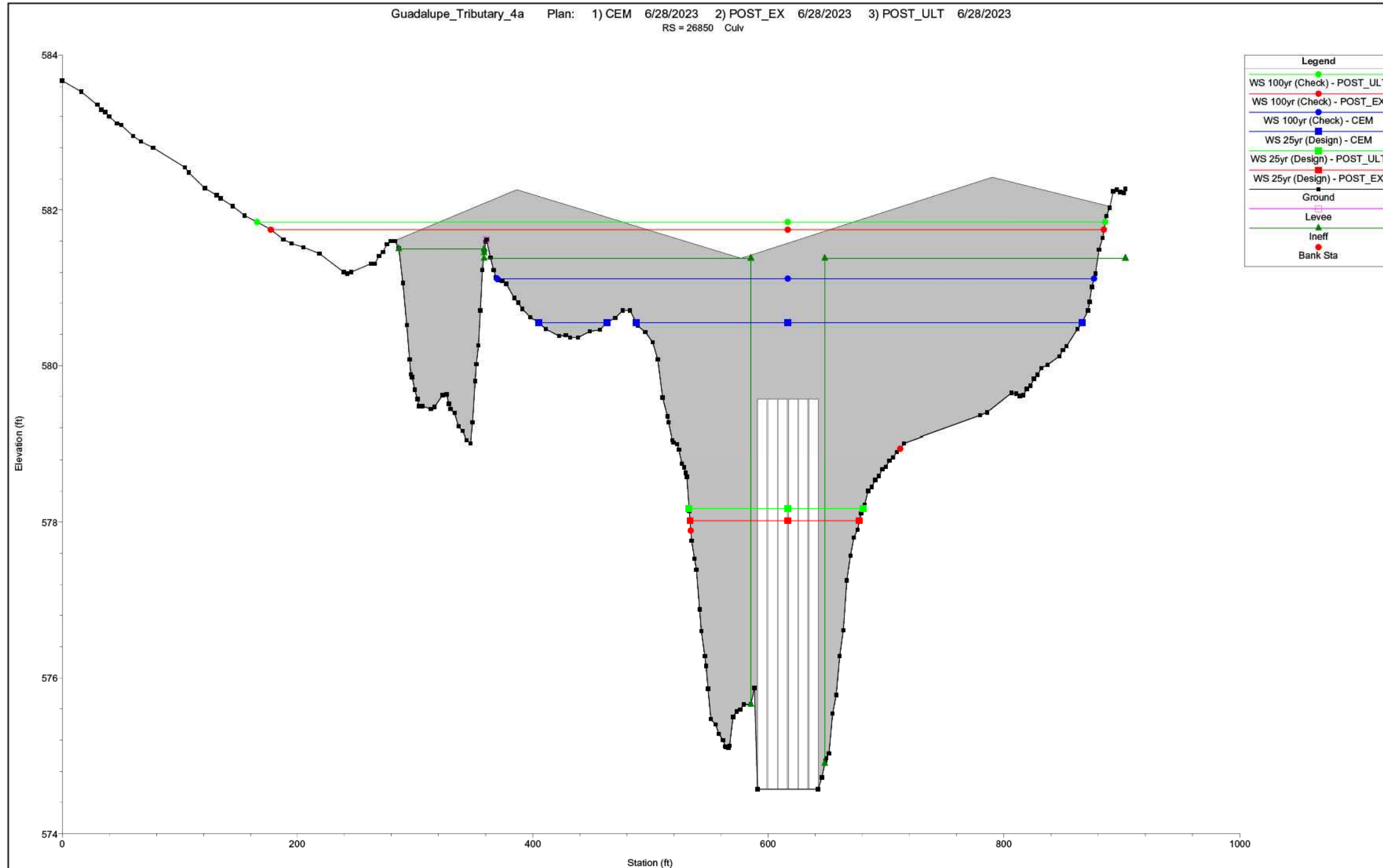
HEC-RAS CULVERT OUTPUT DATA - ULTIMATE PROPOSED

Plan	POST_ULT	Guadalupe River	Tributary 4a	RS: 26901	Culv Group	Culvert #1	Profile: 25yr (Design)
Q	Culv Group	(cfs)	1675.1	Culv Full Len (ft)			9.68
#	Barrels		6	Culv Vel US (ft/s)			10.39
Q	Barrel (cfs)	279.18	Culv Vel DS (ft/s)				574.57
E.G.	US (ft)	579.92	Culv Inv El Up (ft)				574.2
W.S.	US (ft)	578.88	Culv Inv El Dn (ft)				0.39
E.G.	DS (ft)	578.72	Culv Frctn Ls (ft)				0.51
W.S.	DS (ft)	577.39	Culv Exit Loss (ft)				0.29
Delta	EG (ft)	1.2	Culv Entr Loss (ft)				177.55
Delta	WS (ft)	1.49	Q Weir (cfs)				158.51
E.G.	IC (ft)	579.86	Weir Sta Lft (ft)				683.35
E.G.	OC (ft)	579.92	Weir Sta Rgt (ft)				0
Culvert	Control	Outlet	Weir Submerg				0.72
Culv	WS Inlet (ft)	578.17	Weir Max Depth (ft)				0.29
Culv	WS Outlet (ft)	577.56	Weir Avg Depth (ft)				114.68
Culv	Nml Depth (ft)	3.64	Weir Flow Area (sq ft)				581.39
Culv	Cr1 Depth (ft)	3.36	Min El Weir Flow (ft)				

Plan	POST_ULT	Guadalupe River	Tributary 4a	RS: 26901	Culv Group	Culvert #1	Profile: 100yr (Check)
Q	Culv Group	(cfs)	2432.85	Culv Full Len (ft)			10.78
#	Barrels		6	Culv Vel US (ft/s)			11.77
Q	Barrel (cfs)	405.48	Culv Vel DS (ft/s)				574.57
E.G.	US (ft)	581.9	Culv Inv El Up (ft)				574.2
W.S.	US (ft)	581.84	Culv Inv El Dn (ft)				0.42
E.G.	DS (ft)	580.1	Culv Frctn Ls (ft)				0.56
W.S.	DS (ft)	578.31	Culv Exit Loss (ft)				0.82
Delta	EG (ft)	1.79	Culv Entr Loss (ft)				177.55
Delta	WS (ft)	3.53	Q Weir (cfs)				158.51
E.G.	IC (ft)	581.9	Weir Sta Lft (ft)				683.35
E.G.	OC (ft)	581.67	Weir Sta Rgt (ft)				0
Culvert	Control	Inlet	Weir Submerg				0.72
Culv	WS Inlet (ft)	579.27	Weir Max Depth (ft)				0.29
Culv	WS Outlet (ft)	578.51	Weir Avg Depth (ft)				114.68
Culv	Nml Depth (ft)	4.82	Weir Flow Area (sq ft)				581.39
Culv	Cr1 Depth (ft)	4.31	Min El Weir Flow (ft)				

Plotted on: 7/27/2023

PROPOSED CULVERT HEC-RAS CROSS SECTION OUTPUT



EXPLANATION OF PLANS:

1. PRE: PRE-PROJECT (EXISTING) GEOMETRY WITH EXISTING FLOWS.
2. POST_EX: POST-PROJECT (PROPOSED) GEOMETRY WITH EXISTING FLOWS.
3. POST_ULT: POST-PROJECT (PROPOSED) GEOMETRY WITH ULTIMATE DEVELOPMENT CONDITION FLOWS. SEE ULTIMATE DRAINAGE AREA SHEET FOR COMPUTATION DETAILS.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JACOB J. POWELL
P. E. SERIAL NO: 108825
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

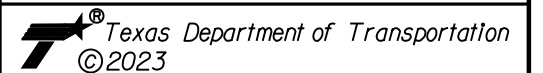
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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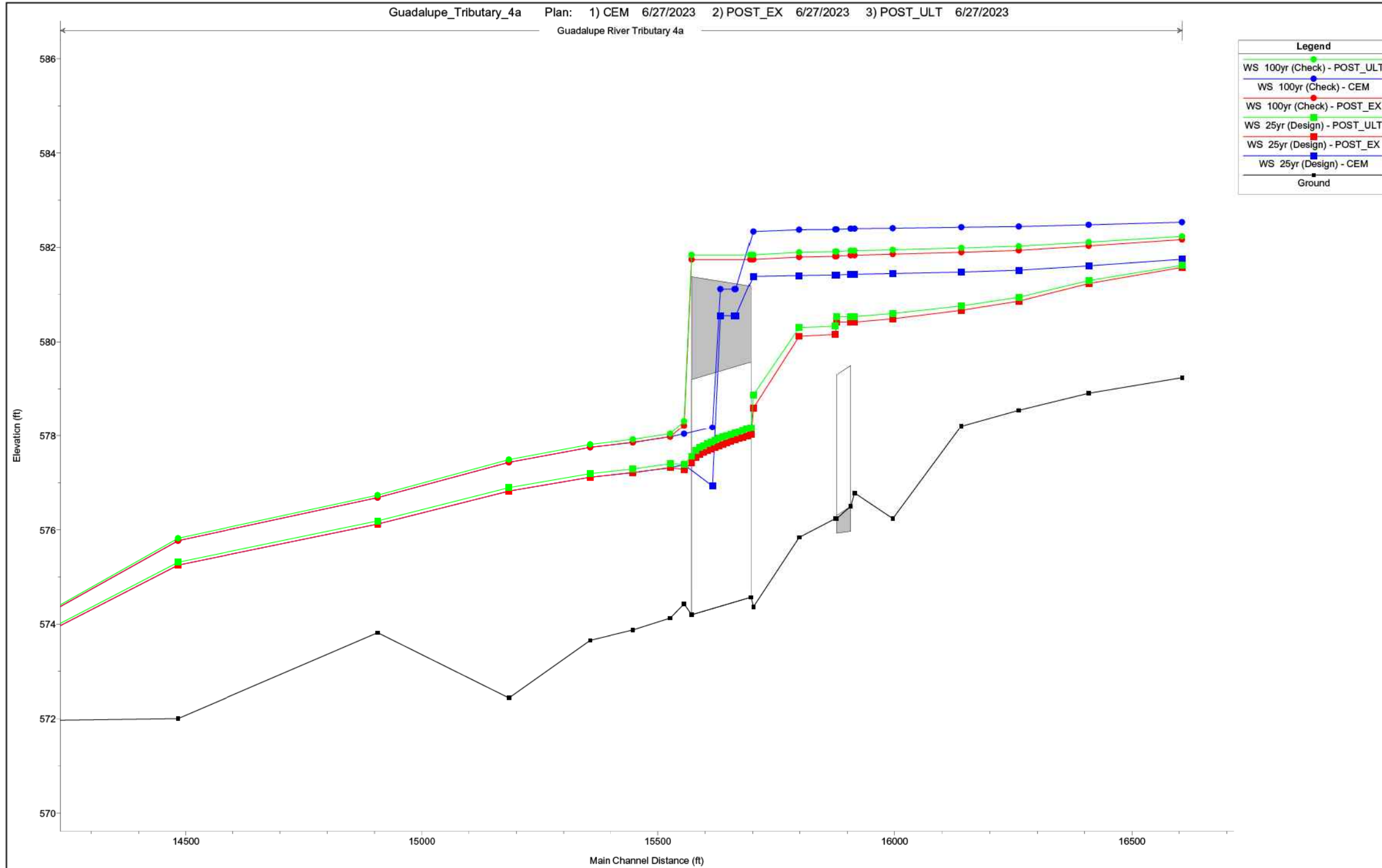
**HYDRAULIC DATA SHEET
CULVERT B**

DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK DGN:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK DWG:	SAT	GUADALUPE	0915	45
				JOB NO.:
				052
				SHEET NO.:
				145

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_B03.dgn

Plotted on: 7/27/2023

HEC-RAS PROFILE PLOT OUTPUT



Design File name: P:\127\75\00\Design\Civi\Drainage\1277500_hyd_B04.dgn

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JACOB J. POWELL
P. E. SERIAL NO: 108825
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
<p style="font-size: small; margin: 0;">SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800</p>			
<p style="margin: 0;">It's real.</p>			
<p style="margin: 0;">©2023</p>			
HYDRAULIC DATA SHEET CULVERT B			
SHEET 5 OF 5			
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO. HIGHWAY NO.
CHK:	6	TEXAS	CORDOVA
DNG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 146

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_B05.dgn



NOTES:

1. HEC-RAS VERSION 6.3.1 USED FOR HYDRAULIC CALCULATIONS.
2. 1-FT CONTOURS FROM 2017 STRATMAP CENTRAL TEXAS LIDAR DATASET.
3. FOR CULVERTS CROSSING CORDOVA RD, 25YR AEP STORM USED FOR DESIGN, PER CITY OF SEGUIN CRITERIA.

DESIGN

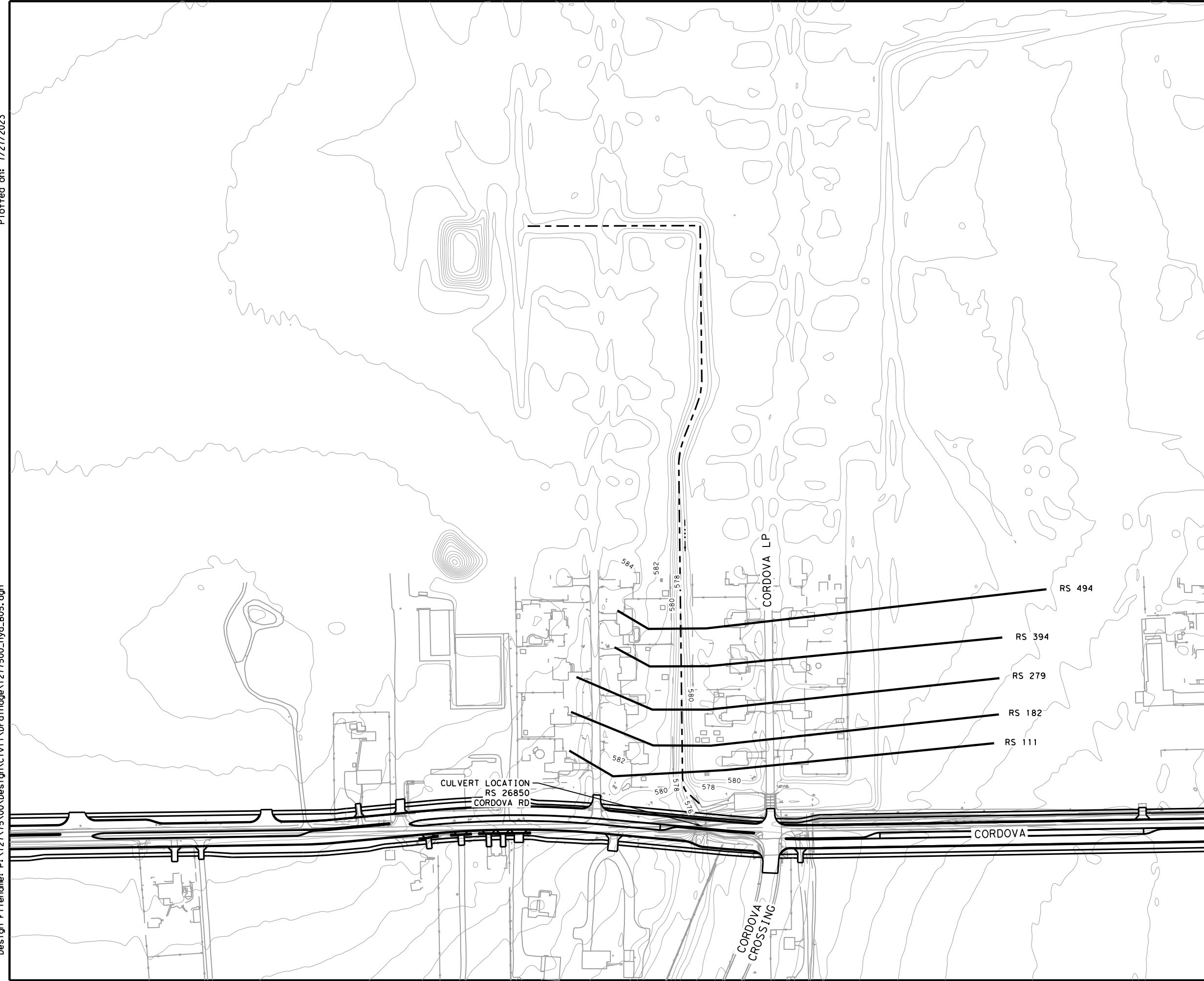
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P. E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

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 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
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PAPE-DAWSON ENGINEERS
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



**HYDRAULIC DATA SHEET
 CULVERT B - WEST DRAIN**

SHEET 1 OF 3

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	147

HEC-RAS OUTPUT

Plotted on: 7/27/2023

Design Filename: P:\127\75\00\Design\Civi\Drainage\1277500_hyd_B06.dgn

River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W. S. Elev (ft)	Crit W. S. (ft)	E. G. Elev (ft)	E. G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
494	5yr	PRE	391.5	577.33	580.64		580.9	0.003505	4.2	105.44	197.82	0.5
494	5yr	POST_EX	391.5	577.33	580.64		580.9	0.003511	4.2	105.35	197.55	0.5
494	5yr	POST_UL	436.7	577.33	580.78	579.94	581.04	0.003334	4.27	122.33	241.6	0.49
494	10yr	PRE	566.3	577.33	581.17		581.33	0.002112	3.76	251.13	429.06	0.4
494	10yr	POST_EX	566.3	577.33	581.15		581.32	0.002251	3.86	241.36	415.2	0.41
494	10yr	POST_UL	616.3	577.33	581.26		581.41	0.001953	3.7	290.76	466.53	0.39
494	25yr (Design)	PRE	832.9	577.33	581.73		581.8	0.000979	2.9	552.42	637.75	0.28
494	25yr (Design)	POST_EX	832.9	577.33	581.62		581.71	0.00134	3.32	480.87	600.27	0.33
494	25yr (Design)	POST_UL	886.5	577.33	581.69		581.78	0.001249	3.25	524.7	620.69	0.32
494	50yr	PRE	1055	577.33	582.11		582.16	0.000672	2.59	849.04	922.28	0.24
494	50yr	POST_EX	1055	577.33	581.85		581.93	0.001215	3.31	630.58	743.54	0.32
494	50yr	POST_UL	1109.5	577.33	581.89		581.98	0.001184	3.3	666.39	784.04	0.31
494	100yr (Check)	PRE	1316	577.33	582.49		582.52	0.000412	2.16	1217.19	1011.68	0.19
494	100yr (Check)	POST_EX	1316	577.33	582.12		582.19	0.001034	3.21	857.22	924.31	0.3
494	100yr (Check)	POST_UL	1369.7	577.33	582.19		582.25	0.00093	3.08	920.4	935.47	0.28

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JACOB J. POWELL
P. E. SERIAL NO: 108825
DATE: 7/27/2023

APPROVAL

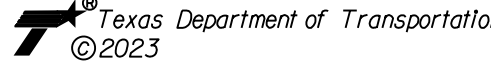
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

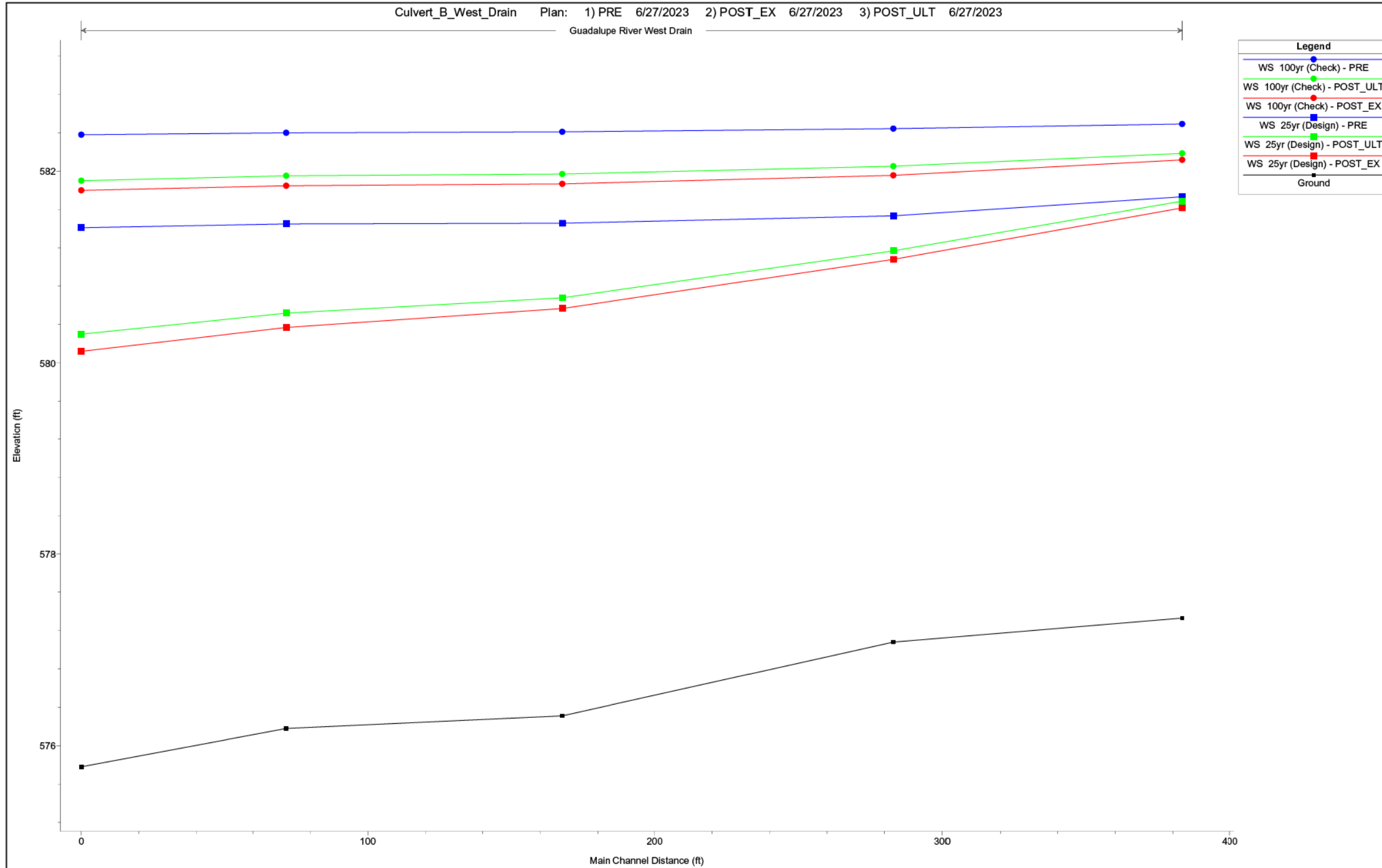


HYDRAULIC DATA SHEET
CULVERT B - WEST DRAIN

CHK	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN	6	TEXAS		CORDOVA		
CHK	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG	SAT	GUADALUPE	0915	45	052	148

Plotted on: 7/27/2023

HEC-RAS PROFILE PLOT OUTPUT



Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_B07.dgn

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JACOB J. POWELL

P. E. SERIAL NO: 108825

DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P. E. SERIAL NO: 105193

DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
<p>PAPE-DAWSON ENGINEERS</p> <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
<p>It's real.</p>			
<p>Texas Department of Transportation ©2023</p>			

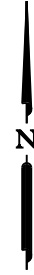
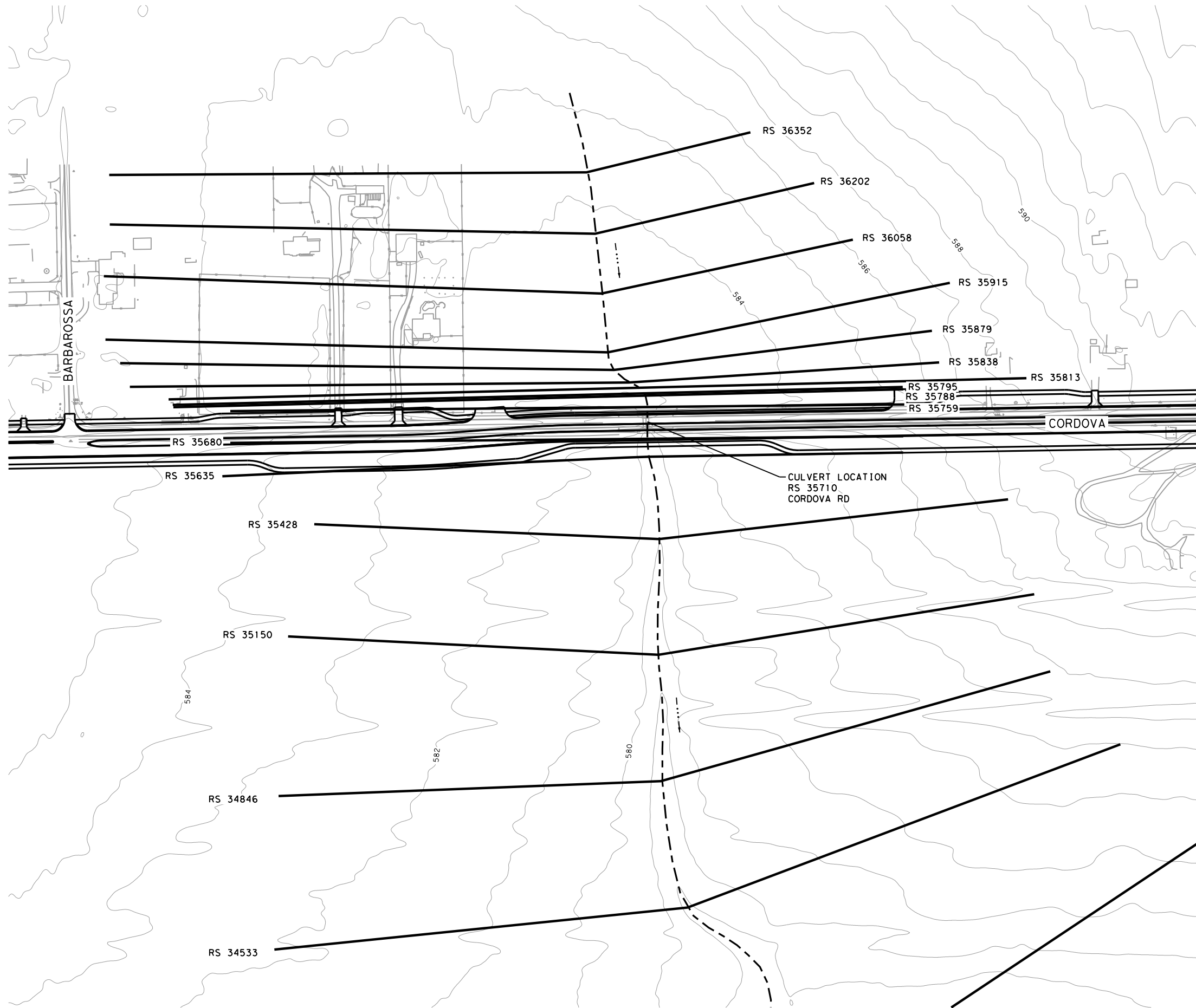
**HYDRAULIC DATA SHEET
CULVERT B - WEST DRAIN**

SHEET 3 OF 3

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:		HIGHWAY NO.:
DGN:	6	TEXAS			CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:
DWG:	SAT	GUADALUPE	0915	45	052
					SHEET NO.:
					149

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civi\Drainage\1277500_hyd_C01.dgn



- NOTES:
1. HEC-RAS VERSION 6.3.1 USED FOR HYDRAULIC CALCULATIONS.
 2. 1-FT CONTOURS FROM 2017 STRATMAP CENTRAL TEXAS LIDAR DATASET.
 3. FOR CULVERTS CROSSING CORDOVA RD, 25YR AEP STORM USED FOR DESIGN, PER CITY OF SEGUIN CRITERIA.

DESIGN




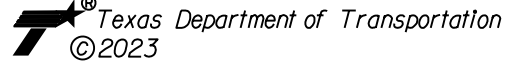
INTERIM REVIEW

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 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

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 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
 It's real.		 TEXAS GUADALUPE COUNTY	
 ©2023			
HYDRAULIC DATA SHEET CULVERT C			
SHEET 1 OF 5			
DCN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO.
CHK:	SAT	GUADALUPE	0915 45 052 150

HEC-RAS OUTPUT

Plotted on: 7/27/2023

Design File Name: P:\127.75\00\Design\Civil\Drainage\1277500_hyd_C02.dgn

River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
36352	5yr	CEM	162.9	584.14	584.46	584.48	0.002925	0.75	186.18	782.25	0.31	
36352	5yr	POST_EX	162.9	584.14	584.54	584.32	0.002174	0.75	179.45	923.85	0.27	
36352	5yr	POST_UL_T	191.6	584.14	584.57	584.34	0.002275	0.84	199.77	945.2	0.29	
36352	10yr	CEM	222.3	584.14	584.54	584.55	0.002797	0.85	252.05	922.31	0.31	
36352	10yr	POST_EX	222.3	584.14	584.35	584.35	0.027246	1.83	84.81	588.68	0.88	
36352	10yr	POST_UL_T	252.2	584.14	584.6	584.4	0.001831	0.81	313.51	964	0.26	
36352	25yr (Design)	CEM	326.1	584.14	584.6	584.61	0.003321	1.07	305.42	958.09	0.35	
36352	25yr (Design)	POST_EX	326.1	584.14	584.67	584.44	0.001758	0.9	375.56	1001.52	0.26	
36352	25yr (Design)	POST_UL_T	358.7	584.14	584.69	584.46	0.001727	0.94	401.71	1015.26	0.27	
36352	50yr	CEM	400.6	584.14	584.65	584.67	0.003172	1.16	354.51	990.47	0.35	
36352	50yr	POST_EX	400.6	584.14	584.73	584.49	0.001688	0.98	434.99	1034.74	0.27	
36352	50yr	POST_UL_T	433.4	584.14	584.75	584.5	0.0017	1.02	459.12	1059.8	0.27	
36352	100yr (Check)	CEM	481.5	584.14	584.71	584.73	0.002725	1.21	419.64	1026.56	0.34	
36352	100yr (Check)	POST_EX	481.5	584.14	584.79	584.53	0.001626	1.05	498.98	1081.07	0.27	
36352	100yr (Check)	POST_UL_T	514.5	584.14	584.81	584.55	0.001576	1.07	529.87	1112.19	0.27	

River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
35813	5yr	CEM	162.9	582.84	583.58	583.24	0.002464	1.6	101.51	915.59	0.35	
35813	5yr	POST_EX	162.9	582.14	582.76	582.76	0.021341	4.33	37.6	64.32	1	
35813	5yr	POST_UL_T	191.6	582.14	582.92	582.92	0.022253	3.84	49.85	246.74	0.98	
35813	10yr	CEM	222.3	582.84	583.82	583.32	0.001666	1.62	137.59	1035.32	0.3	
35813	10yr	POST_EX	222.3	582.14	582.97	582.97	0.023042	4.02	55.29	321.99	1.01	
35813	10yr	POST_UL_T	252.2	582.14	583.05	583.05	0.022697	3.9	64.72	386.17	1	
35813	25yr (Design)	CEM	326.1	582.84	584.21	583.44	0.000075	0.44	893.22	1335.71	0.07	
35813	25yr (Design)	POST_EX	326.1	582.14	583.13	583.41	0.021493	4.25	76.76	487.66	1	
35813	25yr (Design)	POST_UL_T	358.7	582.14	583.17	583.47	0.018814	4.24	84.59	572.27	0.95	
35813	50yr	CEM	400.6	582.84	584.31	583.51	0.000082	0.48	996.81	1382.02	0.07	
35813	50yr	POST_EX	400.6	582.14	583.28	583.55	0.015014	4.14	96.71	628.5	0.87	
35813	50yr	POST_UL_T	433.4	582.14	583.36	583.25	0.012289	4.03	107.67	658.99	0.8	
35813	100yr (Check)	CEM	481.5	582.84	584.42	583.59	0.000062	0.43	1380.39	1426.91	0.06	
35813	100yr (Check)	POST_EX	481.5	582.14	583.5	583.3	0.009009	3.83	125.88	841.54	0.7	
35813	100yr (Check)	POST_UL_T	514.5	582.14	583.59	583.34	0.007374	3.7	139.1	923.01	0.64	

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P. E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

SEGUIN TEXAS

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Texas Department of Transportation
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HYDRAULIC DATA SHEET
CULVERT C

DGN#	FED. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
	SAT	GUADALUPE	0915	45	052	151

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_CO2.dgn

River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W. S. Elev (ft)	Crit W. S. (ft)	E. G. Elev (ft)	E. G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
35150	5yr	CEM	162.9	579.27	580.48		580.52	0.002325	1.63	99.79	176.54	0.38
35150	5yr	POST_EX	162.9	579.27	580.48		580.52	0.002325	1.63	99.78	176.52	0.38
35150	5yr	POST_ULT	191.6	579.27	580.57		580.61	0.002198	1.63	117.88	201.27	0.37
35150	10yr	CEM	222.3	579.27	580.65		580.69	0.002156	1.65	134.78	221.9	0.37
35150	10yr	POST_EX	222.3	579.27	580.65		580.69	0.00216	1.65	134.68	221.77	0.37
35150	10yr	POST_ULT	252.2	579.27	580.71		580.75	0.002134	1.71	147.39	244.91	0.38
35150	25yr (Design)	CEM	326.1	579.27	580.83		580.88	0.001958	1.85	182.33	320.12	0.37
35150	25yr (Design)	POST_EX	326.1	579.27	580.83		580.88	0.001957	1.85	182.37	320.2	0.37
35150	25yr (Design)	POST_ULT	358.7	579.27	580.88		580.93	0.001939	1.91	197.4	348.04	0.37
35150	50yr	CEM	400.6	579.27	580.93		580.99	0.001909	1.98	217.56	384.33	0.37
35150	50yr	POST_EX	400.6	579.27	580.93		580.99	0.001909	1.98	217.58	384.37	0.37
35150	50yr	POST_ULT	433.4	579.27	580.97		581.04	0.001866	2.02	234.95	416.39	0.37
35150	100yr (Check)	CEM	481.5	579.27	581.03		581.09	0.001859	2.09	258.85	474.86	0.37
35150	100yr (Check)	POST_EX	481.5	579.27	581.03		581.09	0.001859	2.09	258.88	474.94	0.37
35150	100yr (Check)	POST_ULT	514.5	579.27	581.07		581.13	0.001836	2.13	276.73	503.75	0.37
34846	5yr	CEM	162.9	578.42	579.81		579.86	0.002057	1.71	95.46	144.14	0.37
34846	5yr	POST_EX	162.9	578.42	579.81		579.86	0.002058	1.71	95.43	144.09	0.37
34846	5yr	POST_ULT	191.6	578.42	579.9		579.95	0.002178	1.75	109.6	166.61	0.38
34846	10yr	CEM	222.3	578.42	579.97		580.02	0.002249	1.82	121.88	178.07	0.39
34846	10yr	POST_EX	222.3	578.42	579.97		580.02	0.002247	1.82	121.91	178.09	0.39
34846	10yr	POST_ULT	252.2	578.42	580.03		580.09	0.002292	1.9	132.46	184.08	0.4
34846	25yr (Design)	CEM	326.1	578.42	580.17		580.24	0.002343	2.03	160.54	221.3	0.41
34846	25yr (Design)	POST_EX	326.1	578.42	580.17		580.24	0.002343	2.03	160.54	221.3	0.41
34846	25yr (Design)	POST_ULT	358.7	578.42	580.22		580.29	0.00235	2.11	170.87	238.9	0.41
34846	50yr	CEM	400.6	578.42	580.27		580.34	0.002388	2.22	183.6	254.34	0.42
34846	50yr	POST_EX	400.6	578.42	580.27		580.34	0.002391	2.22	183.52	254.3	0.42
34846	50yr	POST_ULT	433.4	578.42	580.31		580.39	0.00236	2.28	194.92	261.16	0.42
34846	100yr (Check)	CEM	481.5	578.42	580.37		580.45	0.002392	2.38	209.66	288.93	0.43
34846	100yr (Check)	POST_EX	481.5	578.42	580.37		580.45	0.002391	2.38	209.71	289.02	0.43
34846	100yr (Check)	POST_ULT	514.5	578.42	580.4		580.49	0.002396	2.44	220.93	315.27	0.43
34533	5yr	CEM	162.9	577.7	578.92		578.98	0.004006	1.95	83.43	169.68	0.49
34533	5yr	POST_EX	162.9	577.7	578.92		578.98	0.004001	1.95	83.46	169.7	0.49
34533	5yr	POST_ULT	191.6	577.7	578.98	578.68	579.04	0.003984	2.05	93.29	177.37	0.5
34533	10yr	CEM	222.3	577.7	579.03	578.73	579.1	0.004049	2.18	102.33	191.79	0.51
34533	10yr	POST_EX	222.3	577.7	579.03	578.73	579.1	0.004054	2.18	102.29	191.73	0.51
34533	10yr	POST_ULT	252.2	577.7	579.08	578.8	579.16	0.003937	2.27	112.26	206.32	0.51
34533	25yr (Design)	CEM	326.1	577.7	579.17	578.91	579.27	0.004183	2.56	130.98	220.85	0.53
34533	25yr (Design)	POST_EX	326.1	577.7	579.17	578.91	579.27	0.004171	2.56	131.11	221.08	0.53
34533	25yr (Design)	POST_ULT	358.7	577.7	579.2	578.94	579.31	0.004266	2.67	139.15	229.7	0.54
34533	50yr	CEM	400.6	577.7	579.25	578.98	579.37	0.004295	2.79	150.18	241.57	0.55
34533	50yr	POST_EX	400.6	577.7	579.25	578.98	579.37	0.00429	2.79	150.24	241.64	0.55
34533	50yr	POST_ULT	433.4	577.7	579.28	579.02	579.41	0.004322	2.88	158.8	254.04	0.56
34533	100yr (Check)	CEM	481.5	577.7	579.34	579.07	579.48	0.004179	2.97	174.28	275.31	0.55
34533	100yr (Check)	POST_EX	481.5	577.7	579.34	579.07	579.48	0.004182	2.97	174.23	275.27	0.55
34533	100yr (Check)	POST_ULT	514.5	577.7	579.37	579.1	579.51	0.004215	3.05	182.71	282.41	0.56

DESIGN

INTERIM REVIEW

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ENGINEER: JACOB J. POWELL
P. E. SERIAL NO: 108825
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

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ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

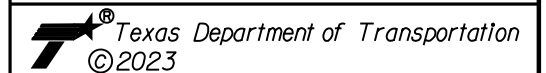
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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**HYDRAULIC DATA SHEET
CULVERT C**

SHEET 3 OF 5

DGN:	FED. RD. DIV. NO.:	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
CHK DGN:	6	TEXAS					CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.	
CHK DWG:	SAT	GUADALUPE	0915	45	052	152	

HEC-RAS CULVERT OUTPUT DATA - EXISTING

Plan: CEM	WALNUT BRANCH	Reach-1	RS: 35710	Culv Group	Culvert #1	Profile: 25yr (Design)
Q Culv Group (cfs)		273.18		Culv Full Len (ft)		
# Barrels		3		Culv Vel US (ft/s)		8.37
Q Barrel (cfs)		91.06		Culv Vel DS (ft/s)		11.12
E.G. US. (ft)		584.2		Culv Inv El Up (ft)		580.5
W.S. US. (ft)		584.17		Culv Inv El Dn (ft)		579.95
E.G. DS (ft)		582.72		Culv Frctn Ls (ft)		0.26
W.S. DS (ft)		582.06		Culv Exit Loss (ft)		0.79
Delta EG (ft)		1.48		Culv Entr Loss (ft)		0.44
Delta WS (ft)		2.11		Q Weir (cfs)		52.92
E.G. IC (ft)		584.01		Weir Sta Lft (ft)		707.08
E.G. OC (ft)		584.2		Weir Sta Rgt (ft)		975.44
Culvert Control		Outlet		Weir Submerg		0
Culv WS Inlet (ft)		582.68		Weir Max Depth (ft)		0.3
Culv WS Outlet (ft)		581.59		Weir Avg Depth (ft)		0.17
Culv Nml Depth (ft)		1.35		Weir Flow Area (sq ft)		46.67
Culv Crt Depth (ft)		2.18		Min El Weir Flow (ft)		583.91

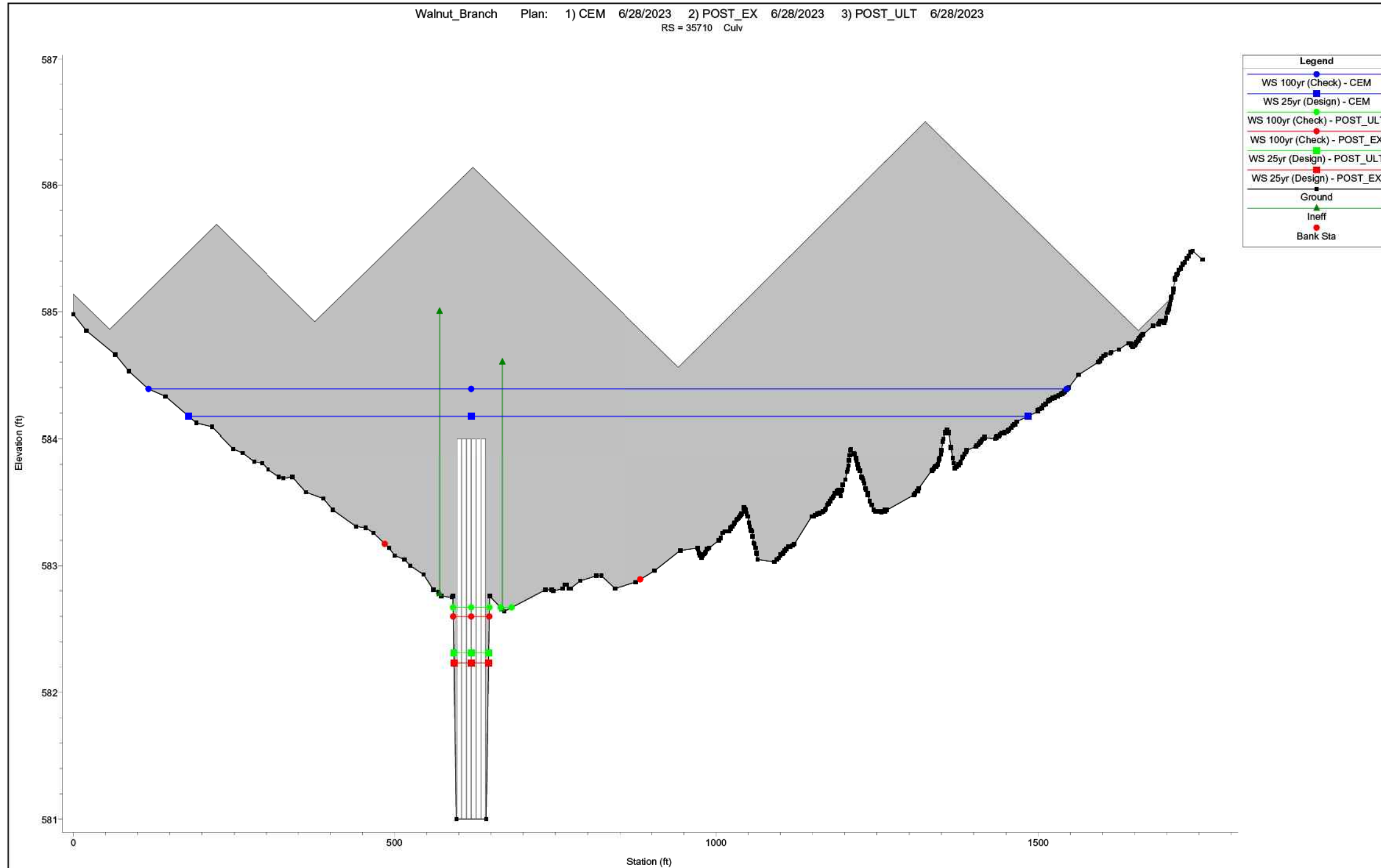
Plan: CEM	WALNUT BRANCH	Reach-1	RS: 35710	Culv Group	Culvert #1	Profile: 100yr (Check)
Q Culv Group (cfs)		297.6		Culv Full Len (ft)		
# Barrels		3		Culv Vel US (ft/s)		8.61
Q Barrel (cfs)		99.2		Culv Vel DS (ft/s)		11.36
E.G. US. (ft)		584.42		Culv Inv El Up (ft)		580.5
W.S. US. (ft)		584.39		Culv Inv El Dn (ft)		579.95
E.G. DS (ft)		583.3		Culv Frctn Ls (ft)		0.25
W.S. DS (ft)		582.44		Culv Exit Loss (ft)		0.41
Delta EG (ft)		1.12		Culv Entr Loss (ft)		0.46
Delta WS (ft)		1.94		Q Weir (cfs)		183.9
E.G. IC (ft)		584.35		Weir Sta Lft (ft)		549.03
E.G. OC (ft)		584.42		Weir Sta Rgt (ft)		1056.23
Culvert Control		Outlet		Weir Submerg		0
Culv WS Inlet (ft)		582.8		Weir Max Depth (ft)		0.52
Culv WS Outlet (ft)		581.7		Weir Avg Depth (ft)		0.32
Culv Nml Depth (ft)		1.43		Weir Flow Area (sq ft)		120.76
Culv Crt Depth (ft)		2.3		Min El Weir Flow (ft)		583.91

HEC-RAS CULVERT OUTPUT DATA - ULTIMATE PROPOSED

Plan: POST_ULT	WALNUT BRANCH	Reach-1	RS: 35710	Culv Group	Culvert #1	Profile: 25yr (Design)
Q Culv Group (cfs)		358.7		Culv Full Len (ft)		
# Barrels		6		Culv Vel US (ft/s)		6.5
Q Barrel (cfs)		59.78		Culv Vel DS (ft/s)		5.36
E.G. US. (ft)		583.07		Culv Inv El Up (ft)		581
W.S. US. (ft)		582.86		Culv Inv El Dn (ft)		580.6
E.G. DS (ft)		582.42		Culv Frctn Ls (ft)		0.33
W.S. DS (ft)		582.19		Culv Exit Loss (ft)		0.21
Delta EG (ft)		0.64		Culv Entr Loss (ft)		0.1
Delta WS (ft)		0.67		Q Weir (cfs)		
E.G. IC (ft)		583.07		Weir Sta Lft (ft)		
E.G. OC (ft)		583.1		Weir Sta Rgt (ft)		
Culvert Control		Inlet		Weir Submerg		
Culv WS Inlet (ft)		582.31		Weir Max Depth (ft)		
Culv WS Outlet (ft)		582.19		Weir Avg Depth (ft)		
Culv Nml Depth (ft)		1.26		Weir Flow Area (sq ft)		
Culv Crt Depth (ft)		1.31		Min El Weir Flow (ft)		584.61

Plan: POST_ULT	WALNUT BRANCH	Reach-1	RS: 35710	Culv Group	Culvert #1	Profile: 100yr (Check)
Q Culv Group (cfs)		514.5		Culv Full Len (ft)		
# Barrels		6		Culv Vel US (ft/s)		7.33
Q Barrel (cfs)		85.75		Culv Vel DS (ft/s)		6.85
E.G. US. (ft)		583.63		Culv Inv El Up (ft)		581
W.S. US. (ft)		583.46		Culv Inv El Dn (ft)		580.6
E.G. DS (ft)		582.76		Culv Frctn Ls (ft)		0.39
W.S. DS (ft)		582.39		Culv Exit Loss (ft)		0.36
Delta EG (ft)		0.88		Culv Entr Loss (ft)		0.13
Delta WS (ft)		1.08		Q Weir (cfs)		
E.G. IC (ft)		583.63		Weir Sta Lft (ft)		
E.G. OC (ft)		583.67		Weir Sta Rgt (ft)		
Culvert Control		Inlet		Weir Submerg		
Culv WS Inlet (ft)		582.67		Weir Max Depth (ft)		
Culv WS Outlet (ft)		582.39		Weir Avg Depth (ft)		
Culv Nml Depth (ft)		1.6		Weir Flow Area (sq ft)		
Culv Crt Depth (ft)		1.67		Min El Weir Flow (ft)		584.61

PROPOSED CULVERT UPSTREAM HEC-RAS CROSS SECTION OUTPUT



EXPLANATION OF PLANS:

1. PRE: PRE-PROJECT (EXISTING) GEOMETRY WITH EXISTING FLOWS.
2. POST_EX: POST-PROJECT (PROPOSED) GEOMETRY WITH EXISTING FLOWS.
3. POST_ULT: POST-PROJECT (PROPOSED) GEOMETRY WITH ULTIMATE DEVELOPMENT CONDITION FLOWS. SEE ULTIMATE DRAINAGE AREA SHEET FOR COMPUTATION DETAILS.

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JACOB J. POWELL
P. E. SERIAL NO: 108825
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

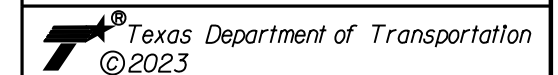
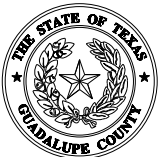
REV. NO.	DATE	DESCRIPTION	BY



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HYDRAULIC DATA SHEET
CULVERT C

SHEET 4 OF 5

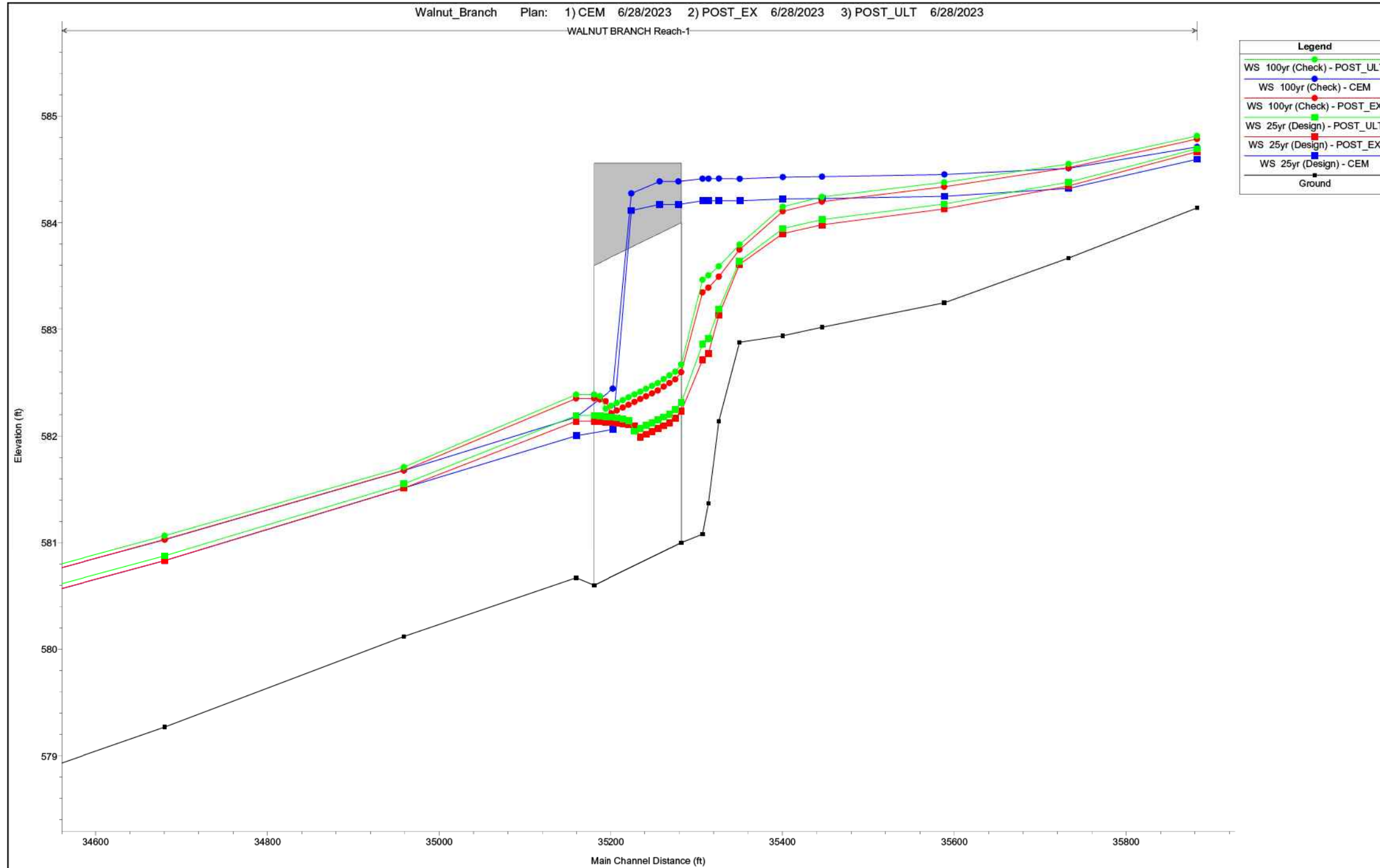
DGN:	FED. NO. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK:	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK:	SAT	GUADALUPE	0915	45	052	153

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civi\Drainage\1277500_hyd_C03.dgn

Plotted on: 7/27/2023

HEC-RAS PROFILE PLOT OUTPUT



DESIGN

INTERIM REVIEW

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ENGINEER: JACOB J. POWELL

P. E. SERIAL NO: 108825

DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

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ENGINEER: JOHN A. TYLER

P. E. SERIAL NO: 105193

DATE: 7/27/2023

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HYDRAULIC DATA SHEET
CULVERT C

SHEET 5 OF 5

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				154

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_C04.dgn

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civi\Drainage\1277500_hyd_D01.dgn

Crossing Discharge Data

Discharge Selection Method: Recurrence

Rating Curve Plot for Crossing: Culvert_D_Exist

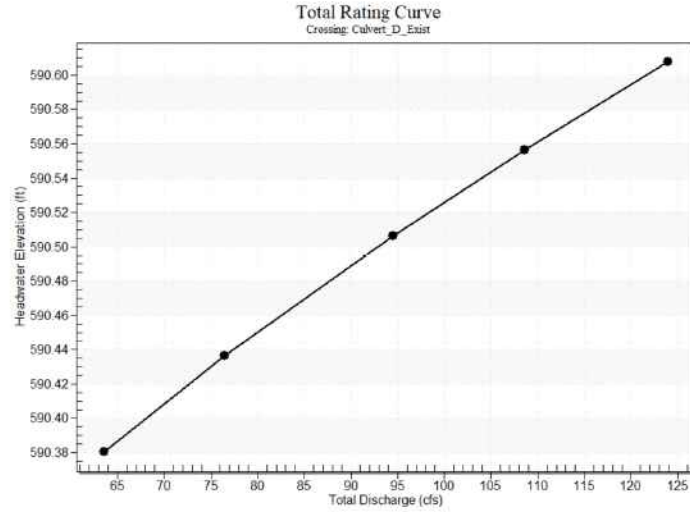


Table 1 - Summary of Culvert Flows at Crossing: Culvert_D_Exist

Headwater Elevation (ft)	Discharge Names	Total Discharge (cfs)	Culvert_D_Exist Discharge (cfs)	Roadway Discharge (cfs)	Iterations
590.38	5 year	63.60	26.12	37.45	8
590.44	10 year	76.50	25.60	50.89	5
590.51	25 year	94.50	24.94	69.53	4
590.56	50 year	108.60	24.47	84.12	4
590.61	100 year	123.90	24.01	99.89	4
590.13	Overtopping	32.58	32.58	0.00	Overtopping

Culvert Data: Culvert_D_Exist

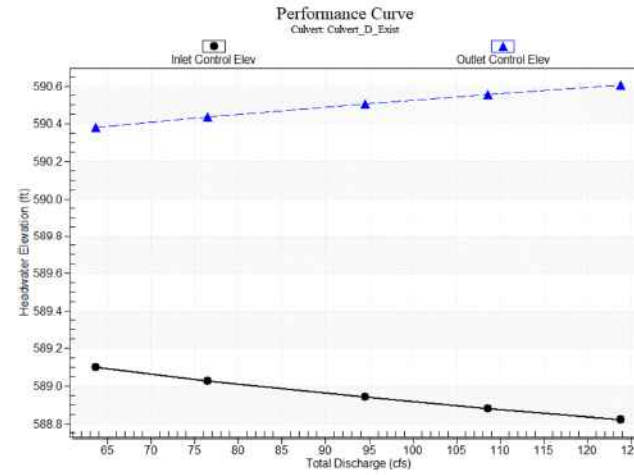
Table 2 - Culvert Summary Table: Culvert_D_Exist

Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
5 year	63.60 cfs	26.12 cfs	590.38	2.94	4.221	4-FFF	-1.00	1.36	1.85	2.01	5.95	2.31
10 year	76.50 cfs	25.60 cfs	590.44	2.87	4.277	4-FFF	-1.00	1.34	1.85	2.15	5.83	2.42
25 year	94.50 cfs	24.94 cfs	590.51	2.78	4.346	4-FFF	-1.00	1.32	1.85	2.33	5.68	2.55
50 year	108.60 cfs	24.47 cfs	590.56	2.72	4.396	4-FFF	-1.00	1.31	1.85	2.45	5.58	2.64
100 year	123.90 cfs	24.01 cfs	590.61	2.66	4.448	4-FFF	-1.00	1.29	1.85	2.58	5.47	2.73

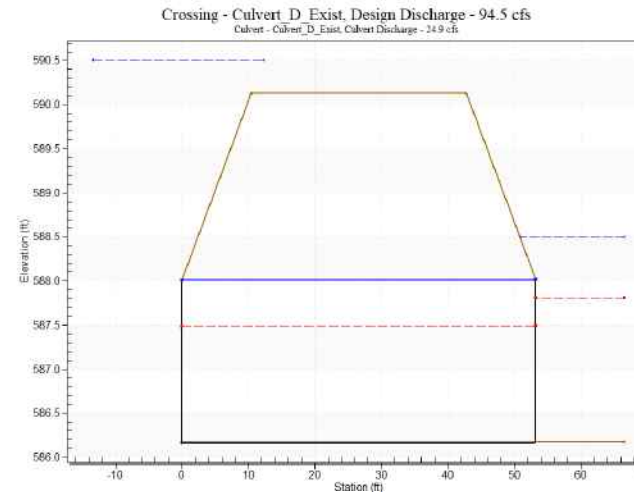
Culvert Barrel Data

Culvert Barrel Type: Straight Culvert
 Inlet Elevation (invert): 586.16 ft,
 Outlet Elevation (invert): 586.17 ft
 Culvert Length: 53.20 ft,
 Culvert Slope: -0.0002

Culvert Performance Curve Plot: Culvert_D_Exist



Water Surface Profile Plot for Culvert: Culvert_D_Exist



Site Data - Culvert_D_Exist

Site Data Option: Culvert Invert Data
 Inlet Station: 0.00 ft
 Inlet Elevation: 586.16 ft
 Outlet Station: 53.20 ft
 Outlet Elevation: 586.17 ft
 Number of Barrels: 1

Culvert Data Summary - Culvert_D_Exist

Barrel Shape: Pipe Arch
 Barrel Span: 36.10 in
 Barrel Rise: 22.20 in
 Barrel Material: Steel or Aluminum
 Embedment: 0.00 in
 Barrel Manning's n: 0.0250
 Culvert Type: Straight
 Inlet Configuration: Projecting (Ke=0.9)
 Inlet Depression: None

Tailwater Data for Crossing: Culvert_D_Exist

Table 3 - Downstream Channel Rating Curve (Crossing: Culvert_D_Exist)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
63.60	588.18	2.01	2.31	0.38	0.41
76.50	588.32	2.15	2.42	0.40	0.41
94.50	588.50	2.33	2.55	0.44	0.42
108.60	588.62	2.45	2.64	0.46	0.42
123.90	588.75	2.58	2.73	0.48	0.42

Tailwater Channel Data - Culvert_D_Exist

Tailwater Channel Option: Triangular Channel
 Side Slope (H:V): 6.83 (:1)
 Channel Slope: 0.0030
 Channel Manning's n: 0.0350
 Channel Invert Elevation: 586.17 ft

Roadway Data for Crossing: Culvert_D_Exist

Roadway Profile Shape: Constant Roadway Elevation
 Crest Length: 100.00 ft
 Crest Elevation: 590.13 ft
 Roadway Surface: Paved
 Roadway Top Width: 32.30 ft

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P. E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
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 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

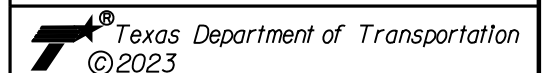
REV. NO.	DATE	DESCRIPTION	BY



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 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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**HYDRAULIC DATA SHEET
 CULVERT D EXIST**

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN:	6	TEXAS				CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	155

Plotted on: 7/27/2023

Design File Name: P:\1275\00\Design\Civi\Drainage\127500_hyd_D02.dgn

Crossing Discharge Data

Discharge Selection Method: Recurrence

Rating Curve Plot for Crossing: Culvert_D_Prop

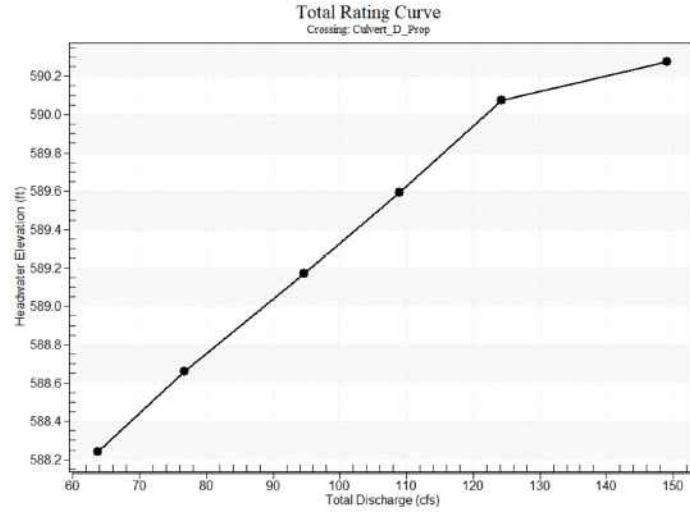


Table 1 - Summary of Culvert Flows at Crossing: Culvert_D_Prop

Headwater Elevation (ft)	Discharge Names	Total Discharge (cfs)	Culvert_D_Prop Discharge (cfs)	Roadway Discharge (cfs)	Iterations
588.24	5 year	63.70	63.70	0.00	1
588.66	10 year	76.69	76.69	0.00	1
589.17	25 year*	94.68	94.68	0.00	1
589.59	50 year	108.87	108.87	0.00	1
590.07	100 year†	124.23	124.00	0.07	21
590.07	Overtopping	123.92	123.92	0.00	Overtopping

*Design Storm
†Check Storm

Culvert Data: Culvert_D_Prop

Table 2 - Culvert Summary Table: Culvert_D_Prop

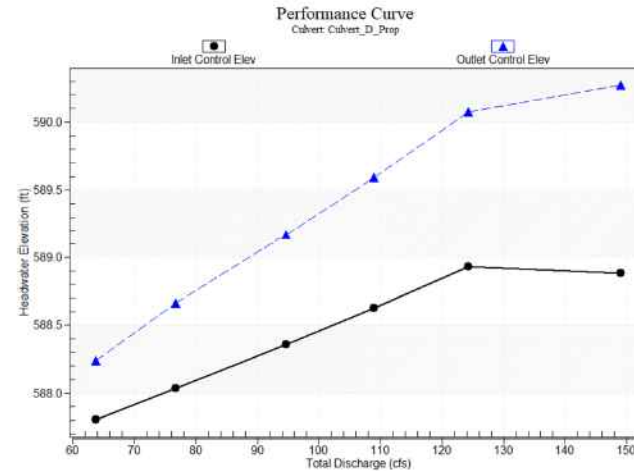
Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
5 year	63.70 cfs	63.70 cfs	588.24	1.70	2.141	7-M1t	1.74	1.08	1.99	1.99	3.21	1.89
10 year	76.69 cfs	76.69 cfs	588.66	1.84	2.560	4-FFt	2.00	1.22	2.00	2.18	3.83	1.99
25 year*	94.68 cfs	94.68 cfs	589.17	2.26	3.069	4-FFt	2.00	1.41	2.00	2.41	4.73	2.10
50 year	108.87 cfs	108.87 cfs	589.59	2.52	3.494	4-FFt	2.00	1.54	2.00	2.58	5.44	2.18
100 year*	124.23 cfs	124.00 cfs	590.07	2.83	3.974	4-FFt	2.00	1.68	2.00	2.75	6.20	2.26

*Design Storm
†Check Storm

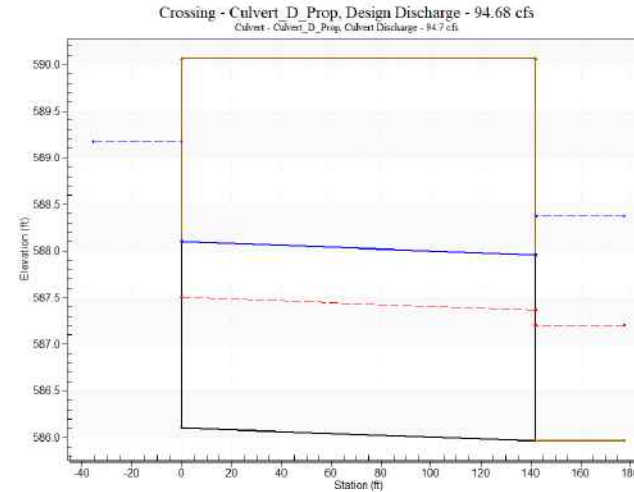
Culvert Barrel Data

Culvert Barrel Type: Straight Culvert
 Inlet Elevation (invert): 586.10 ft,
 Outlet Elevation (invert): 585.96 ft
 Culvert Length: 142.00 ft,
 Culvert Slope: 0.0010

Culvert Performance Curve Plot: Culvert_D_Prop



Water Surface Profile Plot for Culvert: Culvert_D_Prop



Site Data - Culvert_D_Prop

Site Data Option: Culvert Invert Data
 Inlet Station: 0.00 ft
 Inlet Elevation: 586.10 ft
 Outlet Station: 142.00 ft
 Outlet Elevation: 585.96 ft
 Number of Barrels: 2

Culvert Data Summary - Culvert_D_Prop

Barrel Shape: Concrete Box
 Barrel Span: 5.00 ft
 Barrel Rise: 2.00 ft
 Barrel Material: Concrete
 Embedment: 0.00 in
 Barrel Manning's n: 0.0130
 Culvert Type: Straight
 Inlet Configuration: 1:1 Bevel Headwall (Ke=0.2)
 Inlet Depression: None

Tailwater Data for Crossing: Culvert_D_Prop

Table 3 - Downstream Channel Rating Curve (Crossing: Culvert_D_Prop)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
63.70	587.95	1.99	1.89	0.12	0.29
76.69	588.14	2.18	1.99	0.14	0.29
94.68*	588.37	2.41	2.10	0.15	0.29
108.87	588.54	2.58	2.18	0.16	0.30
124.23†	588.71	2.75	2.26	0.17	0.30

*Design Storm
†Check Storm

Tailwater Channel Data - Culvert_D_Prop

Tailwater Channel Option: Trapezoidal Channel
 Bottom Width: 9.00 ft
 Side Slope (H:V): 4.00 (:1)
 Channel Slope: 0.0010
 Channel Manning's n: 0.0300
 Channel Invert Elevation: 585.96 ft

Roadway Data for Crossing: Culvert_D_Prop

Roadway Profile Shape: Constant Roadway Elevation
 Crest Length: 100.00 ft
 Crest Elevation: 590.07 ft
 Roadway Surface: Paved
 Roadway Top Width: 142.00 ft

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P. E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
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 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

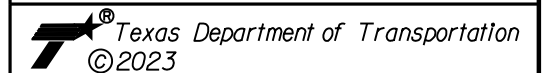
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**HYDRAULIC DATA SHEET
 CULVERT D PROP**

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	156

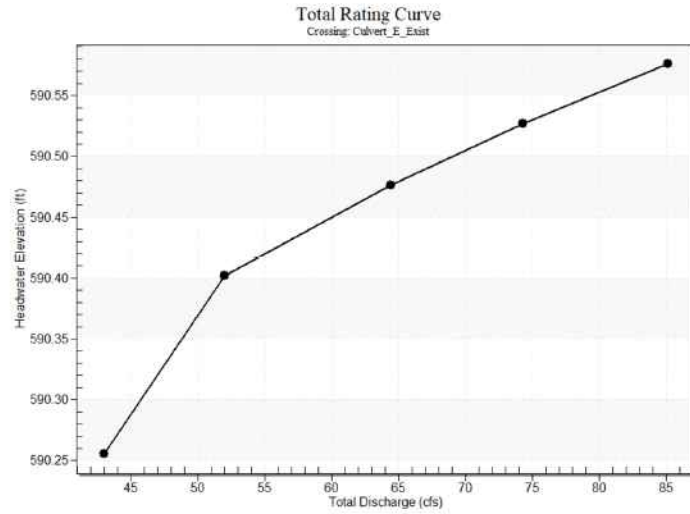
Plotted on: 7/27/2023

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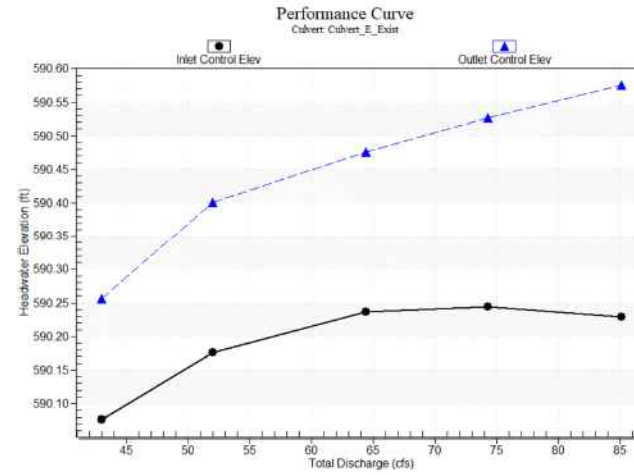
Crossing Discharge Data

Discharge Selection Method: Recurrence

Rating Curve Plot for Crossing: Culvert_E_Exist



Culvert Performance Curve Plot: Culvert_E_Exist



Tailwater Data for Crossing: Culvert_E_Exist

Table 3 - Downstream Channel Rating Curve (Crossing: Culvert_E_Exist)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
43.00	587.31	1.58	2.59	0.51	0.51
52.00	587.42	1.69	2.72	0.55	0.52
64.40	587.57	1.84	2.87	0.60	0.53
74.30	587.67	1.94	2.98	0.63	0.53
85.10	587.77	2.04	3.08	0.66	0.54

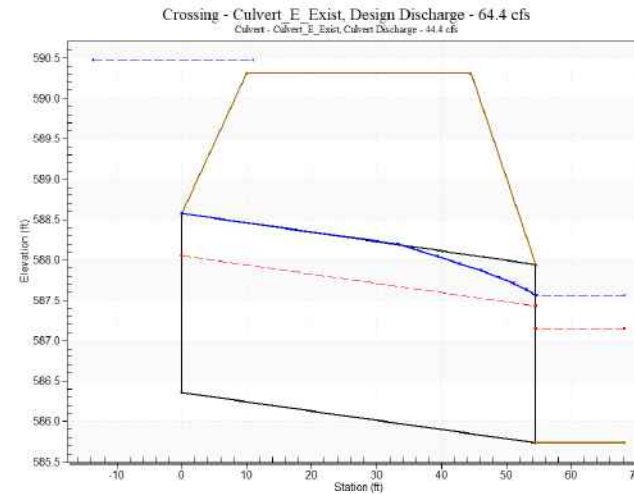
Tailwater Channel Data - Culvert_E_Exist

Tailwater Channel Option: Triangular Channel
 Side Slope (H:V): 6.65 (:1)
 Channel Slope: 0.0052
 Channel Manning's n: 0.0350
 Channel Invert Elevation: 585.73 ft

Roadway Data for Crossing: Culvert_E_Exist

Roadway Profile Shape: Constant Roadway Elevation
 Crest Length: 100.00 ft
 Crest Elevation: 590.31 ft
 Roadway Surface: Paved
 Roadway Top Width: 34.50 ft

Water Surface Profile Plot for Culvert: Culvert_E_Exist



DESIGN

INTERIM REVIEW
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 ENGINEER: JACOB J. POWELL
 P. E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

Table 1 - Summary of Culvert Flows at Crossing: Culvert_E_Exist

Headwater Elevation (ft)	Discharge Names	Total Discharge (cfs)	Culvert_E_Exist Discharge (cfs)	Roadway Discharge (cfs)	Iterations
590.26	5 year	43.00	43.00	0.00	1
590.40	10 year	52.00	43.89	8.07	9
590.48	25 year	64.40	44.41	19.97	6
590.53	50 year	74.30	44.48	29.81	5
590.58	100 year	85.10	44.35	40.72	4
590.31	Overtopping	43.39	43.39	0.00	Overtopping

Culvert Data: Culvert_E_Exist

Table 2 - Culvert Summary Table: Culvert_E_Exist

Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
5 year	43.00 cfs	43.00 cfs	590.26	3.72	3.896	7-M2c	2.22	1.67	1.67	1.58	8.12	2.59
10 year	52.00 cfs	43.89 cfs	590.40	3.82	4.042	7-M2t	2.22	1.68	1.69	1.69	8.17	2.72
25 year	64.40 cfs	44.41 cfs	590.48	3.88	4.116	7-M2t	2.22	1.70	1.84	1.84	7.76	2.87
50 year	74.30 cfs	44.48 cfs	590.53	3.88	4.167	7-M2t	2.22	1.70	1.94	1.94	7.52	2.98
100 year	85.10 cfs	44.35 cfs	590.58	3.87	4.216	7-M2t	2.22	1.69	2.04	2.04	7.28	3.08

Culvert Barrel Data

Culvert Barrel Type Straight Culvert
 Inlet Elevation (invert): 586.36 ft,
 Outlet Elevation (invert): 585.73 ft
 Culvert Length: 54.51 ft,
 Culvert Slope: 0.0116

Site Data - Culvert_E_Exist

Site Data Option: Culvert Invert Data
 Inlet Station: 0.00 ft
 Inlet Elevation: 586.36 ft
 Outlet Station: 54.51 ft
 Outlet Elevation: 585.73 ft
 Number of Barrels: 1

Culvert Data Summary - Culvert_E_Exist

Barrel Shape: Pipe Arch
 Barrel Span: 43.30 in
 Barrel Rise: 26.60 in
 Barrel Material: Steel or Aluminum
 Embedment: 0.00 in
 Barrel Manning's n: 0.0250
 Culvert Type: Straight
 Inlet Configuration: Projecting (Ke=0.9)
 Inlet Depression: None

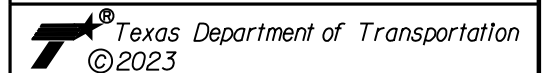
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



**HYDRAULIC DATA SHEET
 CULVERT E EXIST**

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	157

Plotted on: 7/27/2023

Crossing Discharge Data

Discharge Selection Method: Recurrence

Rating Curve Plot for Crossing: Culvert_E_Prop

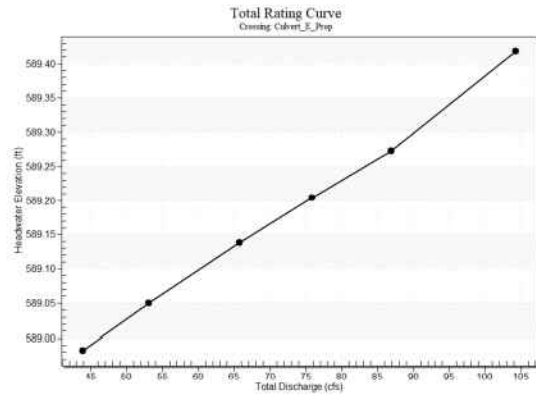


Table 1 - Summary of Culvert Flows at Crossing: Culvert_E_Prop

Headwater Elevation (ft)	Discharge Names	Total Discharge (cfs)	Culvert_E_Prop_West Discharge (cfs)	Culvert_E_Prop_East Discharge (cfs)	Roadway Discharge (cfs)	Iterations
589.98	5 year	43.92	21.96	21.96	0.00	7
589.05	10 year	53.05	26.52	26.52	0.00	4
589.14	25 year*	65.77	32.88	32.88	0.00	4
589.20	50 year	75.86	37.93	37.93	0.00	4
589.27	100 year†	86.87	43.43	43.43	0.00	4
590.14	Overtopping	138.14	50.13	88.01	0.00	Overtopping

*Design Storm
†Check Storm

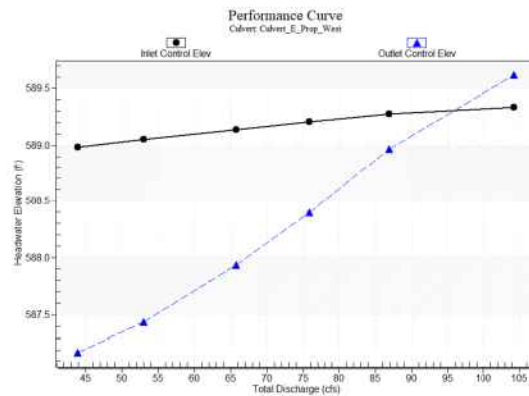
Culvert Data: Culvert_E_Prop_West

Table 2 - Culvert Summary Table: Culvert_E_Prop_West

Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
5 year	43.92 cfs	21.96 cfs	589.98	3.84	2.034	3-M2t	2.00	1.18	1.48	1.48	4.96	1.66
10 year	53.05 cfs	26.52 cfs	589.05	3.91	2.297	3-M2t	2.00	1.34	1.63	1.63	5.42	1.76
25 year*	65.77 cfs	32.88 cfs	589.14	4.00	2.792	7-M2t	2.00	1.55	1.82	1.82	6.01	1.87
50 year	75.86 cfs	37.93 cfs	589.20	4.06	3.257	7-M2t	2.00	1.71	1.96	1.96	6.44	1.94
100 year†	86.87 cfs	43.43 cfs	589.27	4.13	3.828	4-FFt	2.00	1.87	2.00	2.11	7.24	2.02

*Design Storm
†Check Storm

Culvert Performance Curve Plot: Culvert_E_Prop_West



Culvert Barrel Data

Culvert Barrel Type Straight Culvert
Inlet Elevation (invert): 585.14 ft,
Outlet Elevation (invert): 585.00 ft
Culvert Length: 132.04 ft,
Culvert Slope: 0.0011
Inlet Throat Elevation: 585.14 ft,
Inlet Crest Elevation: 588.48 ft

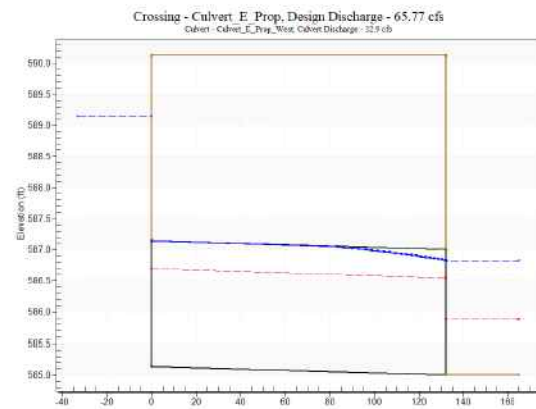
Site Data - Culvert_E_Prop_West

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 588.21 ft
Outlet Station: 132.00 ft
Outlet Elevation: 585.00 ft
Number of Barrels: 1

Culvert Data Summary - Culvert_E_Prop_West

Barrel Shape: Concrete Box
Barrel Span: 3.00 ft
Barrel Rise: 2.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0120
Culvert Type: Straight
Inlet Configuration: 1:1 Bevel Headwall
Inlet Depression: Yes

Water Surface Profile Plot for Culvert: Culvert_E_Prop_West



Tailwater Data for Crossing: Culvert_E_Prop

Table 4 - Downstream Channel Rating Curve (Crossing: Culvert_E_Prop)

Flow (cfs)	Water Surface Elev. (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
43.92	586.48	1.48	1.66	0.09	0.28
53.05	586.63	1.63	1.76	0.10	0.28
65.77*	586.82	1.82	1.87	0.11	0.29
75.86	586.96	1.96	1.94	0.12	0.29
86.87†	587.11	2.11	2.02	0.13	0.29

*Design Storm
†Check Storm

Tailwater Channel Data - Culvert_E_Prop

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 12.00 ft
Side Slope (H:V): 4.00 (_:1)
Channel Slope: 0.0010
Channel Manning's n: 0.0300
Channel Invert Elevation: 585.00 ft

Roadway Data for Crossing: Culvert_E_Prop

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 100.00 ft
Crest Elevation: 590.14 ft
Roadway Surface: Paved
Roadway Top Width: 132.00 ft

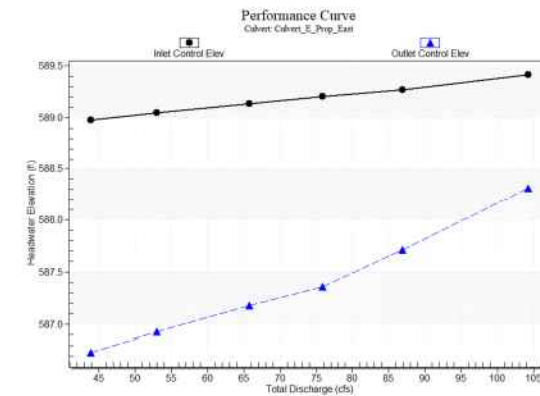
Culvert Data: Culvert_E_Prop_East

Table 3 - Culvert Summary Table: Culvert_E_Prop_East

Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
5 year	43.92 cfs	21.96 cfs	589.98	3.84	1.593	7-M1t	1.23	0.84	1.48	1.48	2.98	1.66
10 year	53.05 cfs	26.52 cfs	589.05	3.91	1.788	7-M1t	1.41	0.96	1.63	1.63	3.25	1.76
25 year*	65.77 cfs	32.88 cfs	589.14	4.00	2.037	7-M1t	1.64	1.10	1.82	1.82	3.60	1.87
50 year	75.86 cfs	37.93 cfs	589.20	4.06	2.220	7-M1t	1.82	1.21	1.96	1.96	3.86	1.94
100 year†	86.87 cfs	43.43 cfs	589.27	4.13	2.570	4-FFt	2.00	1.33	2.00	2.11	4.34	2.02

*Design Storm
†Check Storm

Culvert Performance Curve Plot: Culvert_E_Prop_East



Culvert Barrel Data

Culvert Barrel Type Straight Culvert
Inlet Elevation (invert): 585.14 ft,
Outlet Elevation (invert): 585.00 ft
Culvert Length: 132.04 ft,
Culvert Slope: 0.0011
Inlet Throat Elevation: 585.14 ft,
Inlet Crest Elevation: 588.48 ft

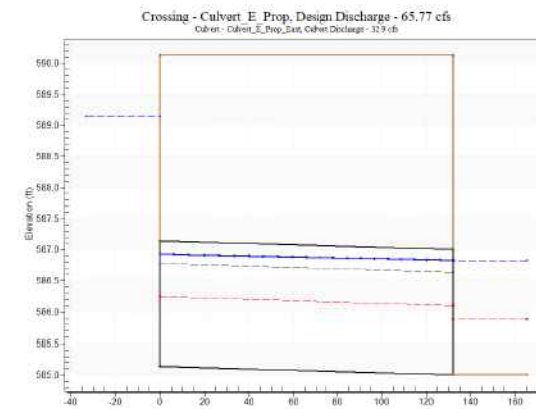
Site Data - Culvert_E_Prop_East

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 588.21 ft
Outlet Station: 132.00 ft
Outlet Elevation: 585.00 ft
Number of Barrels: 1

Culvert Data Summary - Culvert_E_Prop_East

Barrel Shape: Concrete Box
Barrel Span: 5.00 ft
Barrel Rise: 2.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0120
Culvert Type: Straight
Inlet Configuration: 1:1 Bevel Headwall
Inlet Depression: Yes

Water Surface Profile Plot for Culvert: Culvert_E_Prop_East



DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JACOB J. POWELL
P.E. SERIAL NO: 108825
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

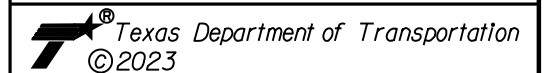
REV. NO.	DATE	DESCRIPTION	BY
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2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1022800



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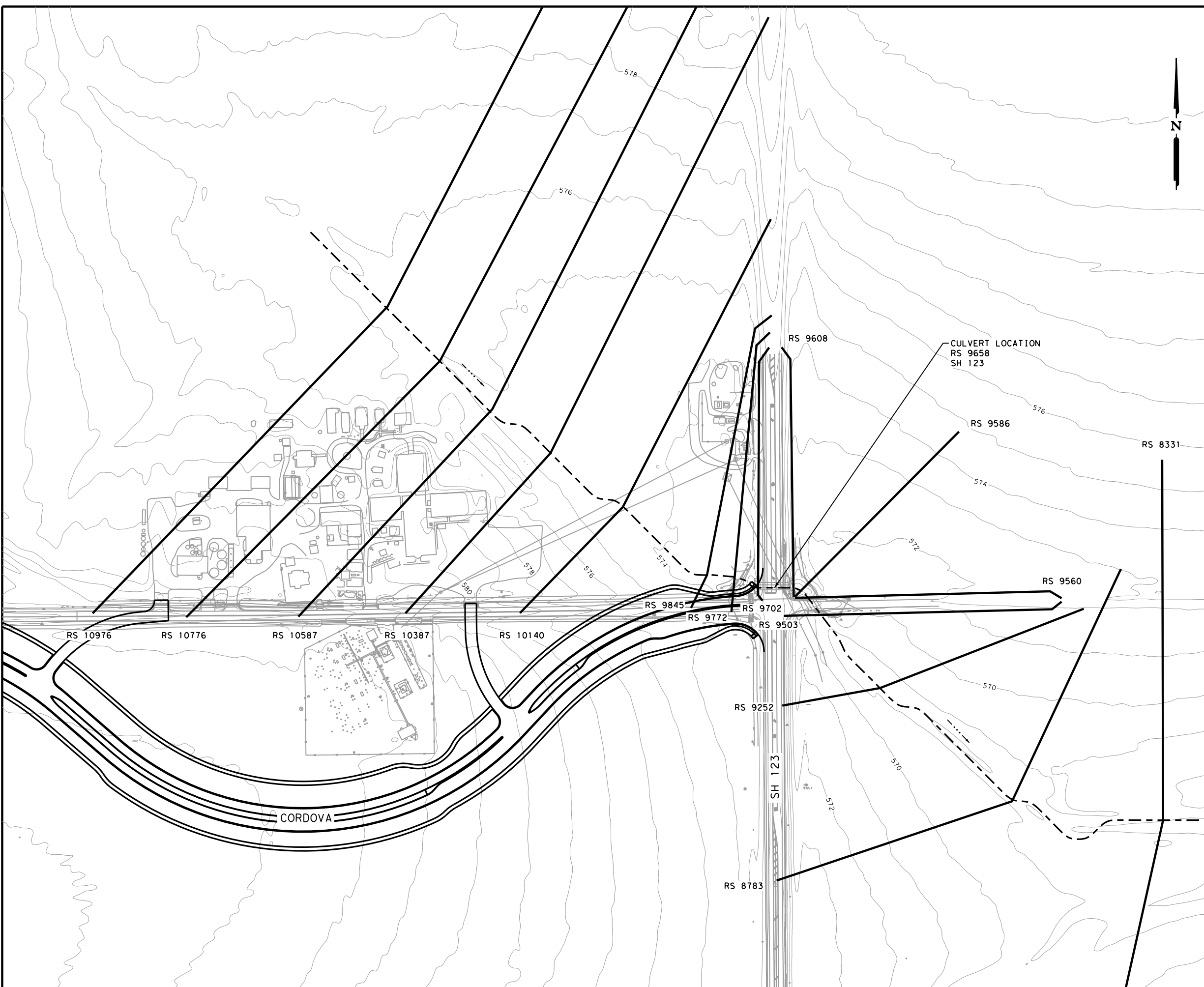
HYDRAULIC DATA SHEET CULVERT E PROP

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	158

Design File name: P:\127\75\00\Des\ign\Civi\1\Drainage\1277500_hyd_E02.dgn

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_F01.dgn



- NOTES:
1. HEC-RAS VERSION 6.3.1 USED FOR HYDRAULIC CALCULATIONS.
 2. 1-FT CONTOURS FROM 2017 STRATMAP CENTRAL TEXAS LIDAR DATASET.
 3. FOR CULVERTS CROSSING CORDOVA RD, 25YR AEP STORM USED FOR DESIGN, PER CITY OF SEGUIN CRITERIA.

DESIGN
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
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Pape-Dawson Engineers
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

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**HYDRAULIC DATA SHEET
 CULVERT F**

SHEET 1 OF 4

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	159

HEC-RAS OUTPUT

Plotted on: 7/27/2023
Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_F02.dgn

River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
10976	5yr	PRE	515.4	575.33	576.54		576.58	0.002829	1.51	342.09	647.06	0.36
10976	5yr	POST	492.5	575.33	576.55		576.58	0.002454	1.42	348.27	651.67	0.34
10976	10yr	PRE	740.7	575.33	576.72		576.76	0.002607	1.61	466.91	773.12	0.35
10976	10yr	POST	705.9	575.33	576.69		576.73	0.002625	1.59	448.98	757.04	0.35
10976	25yr (Design)	PRE	1080.8	575.33	577.14		577.17	0.001052	1.31	844.49	976.92	0.24
10976	25yr (Design)	POST	1027.5	575.33	577.06		577.09	0.001281	1.38	764.53	957.35	0.26
10976	50yr	PRE	1360.4	575.33	577.78		577.79	0.000295	0.93	1509.52	1124.82	0.14
10976	50yr	POST	1290	575.33	577.26		577.29	0.001011	1.38	957.95	993.06	0.24
10976	100yr (Check)	PRE	1685.2	575.33	578.65		578.65	0.000097	0.67	2552.25	1329.08	0.08
10976	100yr (Check)	POST	1593.9	575.33	577.49		577.52	0.000807	1.38	1195.53	1066.84	0.22

River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
9586	5yr	PRE	515.4	568.81	571.86		572.07	0.002255	4.4	175.15	244.02	0.45
9586	5yr	POST	492.5	568.81	571.81		572.02	0.002228	4.33	164.26	209.28	0.45
9586	10yr	PRE	740.7	568.81	571.91		571.67	0.004214	6.09	188.14	261.65	0.62
9586	10yr	POST	705.9	568.81	571.88		571.6	0.004082	5.95	179.77	250.95	0.61
9586	25yr (Design)	PRE	1080.8	568.81	572.13		572.13	0.005827	7.51	253.82	349.76	0.74
9586	25yr (Design)	POST	1027.5	568.81	572.1		572.04	0.00562	7.32	241.83	338.72	0.72
9586	50yr	PRE	1360.4	568.81	572.48		572.9	0.004395	6.98	387.31	400.6	0.65
9586	50yr	POST	1290	568.81	572.45		572.85	0.004288	6.86	374.09	397.22	0.64
9586	100yr (Check)	PRE	1685.2	568.81	574.69		572.63	0.000192	2.01	1500.06	612.63	0.15
9586	100yr (Check)	POST	1593.9	568.81	574.47		572.58	0.000215	2.07	1371.07	580.77	0.15

DESIGN
INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JACOB J. POWELL
P.E. SERIAL NO: 108825
DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

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HYDRAULIC DATA SHEET
CULVERT F

SHEET 2 OF 4

DCN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK DWG:	SAT	GUADALUPE	0915	45	052	160

HEC-RAS CULVERT OUTPUT DATA - EXISTING

Plan: PRE	GERONIMO TRIBUTA	Reach 1	RS: 9658	Culv Group	Culvert #1	Profile: 25yr (Design)
Q Culv Group (cfs)		827.37		Culv Full Len (ft)	84	
# Barrels		4		Culv Vel US (ft/s)	11.49	
Q Barrel (cfs)		206.84		Culv Vel DS (ft/s)	11.49	
E.G. US. (ft)		576.74		Culv Inv El Up (ft)	571.37	
W.S. US. (ft)		575.48		Culv Inv El Dn (ft)	569.57	
E.G. DS (ft)		575.04		Culv Frctn Ls (ft)	0.94	
W.S. DS (ft)		573.43		Culv Exit Loss (ft)	0.44	
Delta EG (ft)		1.7		Culv Entr Loss (ft)	0.41	
Delta WS (ft)		2.05		Q Weir (cfs)	253.43	
E.G. IC (ft)		579.47		Weir Sta Lft (ft)	24.47	
E.G. OC (ft)		576.74		Weir Sta Rgt (ft)	683.4	
Culvert Control		Outlet		Weir Submerg	0	
Culv WS Inlet (ft)		574.37		Weir Max Depth (ft)	0.4	
Culv WS Outlet (ft)		572.57		Weir Avg Depth (ft)	0.26	
Culv Nml Depth (ft)		1.87		Weir Flow Area (sq ft)	173.17	
Culv Crt Depth (ft)		3		Min El Weir Flow (ft)	576.38	

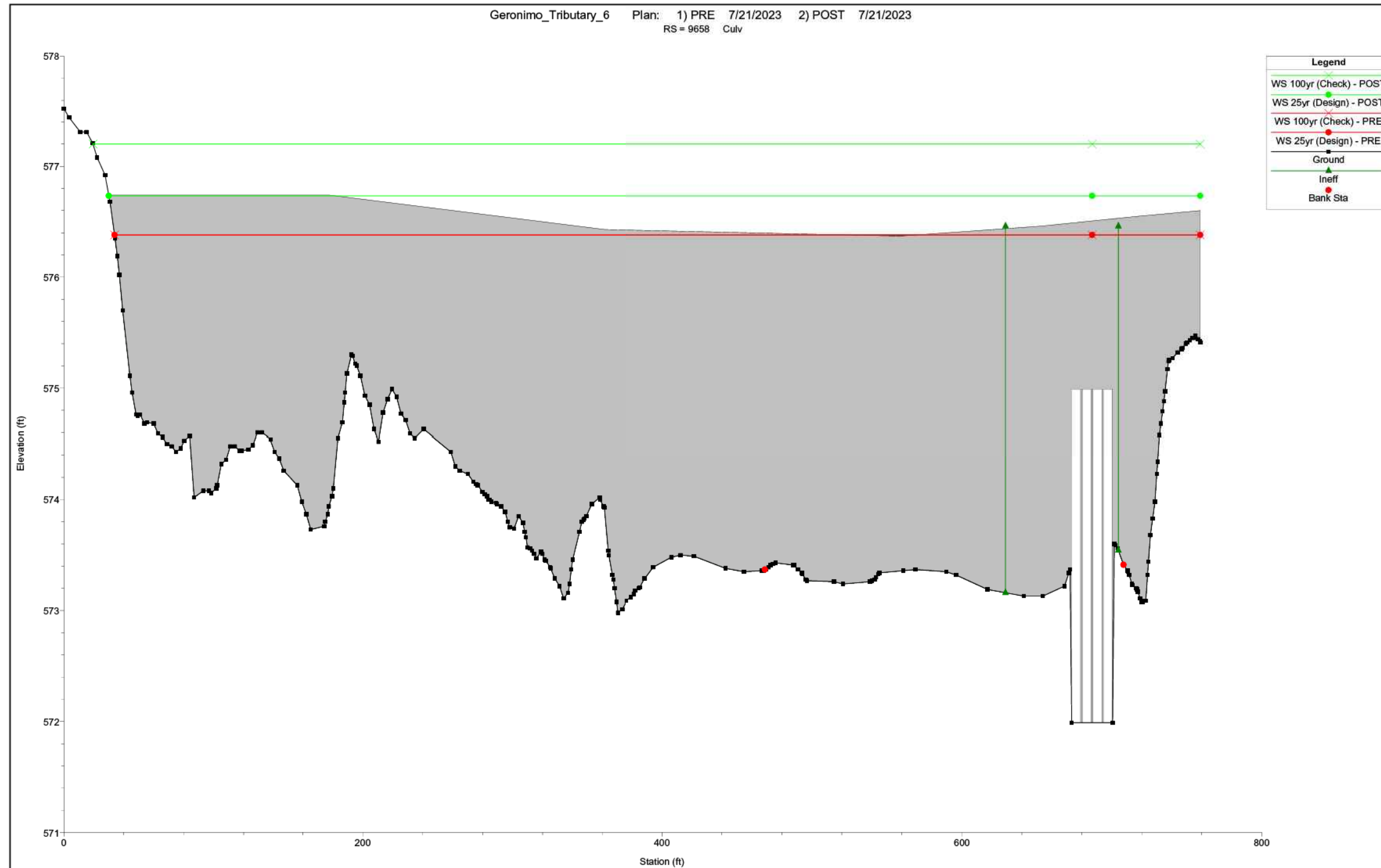
Plan: PRE	GERONIMO TRIBUTA	Reach 1	RS: 9658	Culv Group	Culvert #1	Profile: 100yr (Check)
Q Culv Group (cfs)		549.74		Culv Full Len (ft)	84	
# Barrels		4		Culv Vel US (ft/s)	7.64	
Q Barrel (cfs)		137.43		Culv Vel DS (ft/s)	7.64	
E.G. US. (ft)		577.27		Culv Inv El Up (ft)	571.37	
W.S. US. (ft)		576.13		Culv Inv El Dn (ft)	569.57	
E.G. DS (ft)		576.72		Culv Frctn Ls (ft)	0.38	
W.S. DS (ft)		574.54		Culv Exit Loss (ft)	0	
Delta EG (ft)		0.56		Culv Entr Loss (ft)	0.18	
Delta WS (ft)		1.59		Q Weir (cfs)	1135.46	
E.G. IC (ft)		577.24		Weir Sta Lft (ft)	0	
E.G. OC (ft)		577.27		Weir Sta Rgt (ft)	683.4	
Culvert Control		Outlet		Weir Submerg	0	
Culv WS Inlet (ft)		574.37		Weir Max Depth (ft)	0.89	
Culv WS Outlet (ft)		572.57		Weir Avg Depth (ft)	0.73	
Culv Nml Depth (ft)				Weir Flow Area (sq ft)	500.57	
Culv Crt Depth (ft)		2.54		Min El Weir Flow (ft)	576.38	

HEC-RAS CULVERT OUTPUT DATA - PROPOSED

Plan: POST	GERONIMO TRIBUTA	Reach 1	RS: 9658	Culv Group	Culvert #1	Profile: 25yr (Design)
Q Culv Group (cfs)		782.39		Culv Full Len (ft)	114	
# Barrels		4		Culv Vel US (ft/s)	10.87	
Q Barrel (cfs)		195.6		Culv Vel DS (ft/s)	10.87	
E.G. US. (ft)		576.74		Culv Inv El Up (ft)	571.99	
W.S. US. (ft)		576.73		Culv Inv El Dn (ft)	569.57	
E.G. DS (ft)		574.88		Culv Frctn Ls (ft)	1.67	
W.S. DS (ft)		573.32		Culv Exit Loss (ft)	0.27	
Delta EG (ft)		1.85		Culv Entr Loss (ft)	0.55	
Delta WS (ft)		3.41		Q Weir (cfs)	245.11	
E.G. IC (ft)		579.44		Weir Sta Lft (ft)	29.44	
E.G. OC (ft)		576.74		Weir Sta Rgt (ft)	759	
Culvert Control		Outlet		Weir Submerg	0	
Culv WS Inlet (ft)		574.99		Weir Max Depth (ft)	0.4	
Culv WS Outlet (ft)		572.57		Weir Avg Depth (ft)	0.24	
Culv Nml Depth (ft)		1.81		Weir Flow Area (sq ft)	173.23	
Culv Crt Depth (ft)		3		Min El Weir Flow (ft)	576.45	

Plan: POST	GERONIMO TRIBUTA	Reach 1	RS: 9658	Culv Group	Culvert #1	Profile: 100yr (Check)
Q Culv Group (cfs)		531.3		Culv Full Len (ft)	114	
# Barrels		4		Culv Vel US (ft/s)	7.38	
Q Barrel (cfs)		132.82		Culv Vel DS (ft/s)	7.38	
E.G. US. (ft)		577.21		Culv Inv El Up (ft)	571.99	
W.S. US. (ft)		577.2		Culv Inv El Dn (ft)	569.57	
E.G. DS (ft)		576.48		Culv Frctn Ls (ft)	0.48	
W.S. DS (ft)		574.38		Culv Exit Loss (ft)	0	
Delta EG (ft)		0.73		Culv Entr Loss (ft)	0.25	
Delta WS (ft)		2.82		Q Weir (cfs)	1062.6	
E.G. IC (ft)		577.18		Weir Sta Lft (ft)	19.22	
E.G. OC (ft)		577.21		Weir Sta Rgt (ft)	759	
Culvert Control		Outlet		Weir Submerg	0	
Culv WS Inlet (ft)		574.99		Weir Max Depth (ft)	0.84	
Culv WS Outlet (ft)		572.57		Weir Avg Depth (ft)	0.67	
Culv Nml Depth (ft)				Weir Flow Area (sq ft)	492.55	
Culv Crt Depth (ft)		2.48		Min El Weir Flow (ft)	576.45	

PROPOSED CULVERT UPSTREAM HEC-RAS CROSS SECTION OUTPUT



EXPLANATION OF PLANS:

1. PRE: PRE-PROJECT (EXISTING) GEOMETRY WITH EXISTING FLOWS.
2. POST_EX: POST-PROJECT (PROPOSED) GEOMETRY WITH EXISTING FLOWS.
3. POST_ULT: POST-PROJECT (PROPOSED) GEOMETRY WITH ULTIMATE DEVELOPMENT CONDITION FLOWS. SEE ULTIMATE DRAINAGE AREA SHEET FOR COMPUTATION DETAILS.

DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P. E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

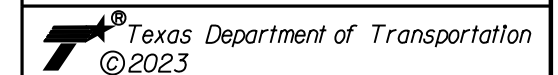
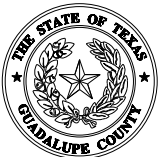
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



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HYDRAULIC DATA SHEET
 CULVERT F

SHEET 3 OF 4

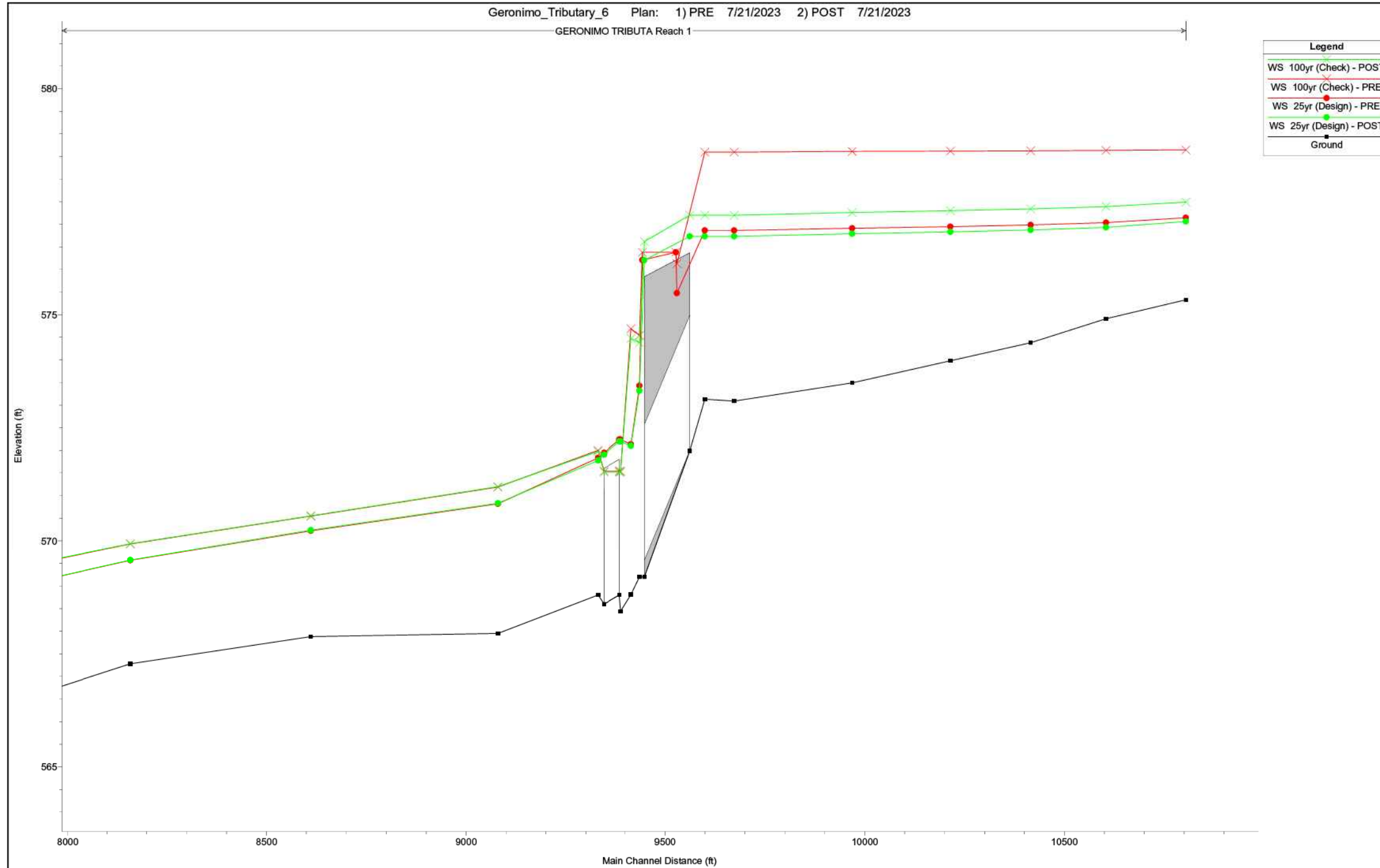
DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:	JOB NO.:	SHEET NO.:
CHK DWG:	SAT	GUADALUPE	0915	45	052	161

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Design\Civi\Drainage\1277500_hyd_F03.dgn

Plotted on: 7/27/2023

HEC-RAS PROFILE PLOT OUTPUT



Design File name: P:\127\75\00\Design\Civi\Drainage\1277500_hyd_F04.dgn

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P. E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			

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**HYDRAULIC DATA SHEET
CULVERT F**

SHEET 4 OF 4

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	GUADALUPE	0915	45
DWG:			052	162

Plotted on: 7/27/2023

Design File Name: P:\127\75\00\Des\ign\Civi\Drainage\1277500_hyd_F101.dgn

Crossing Discharge Data
Discharge Selection Method: Recurrence

Rating Curve Plot for Crossing: Culvert_F-1_Prop

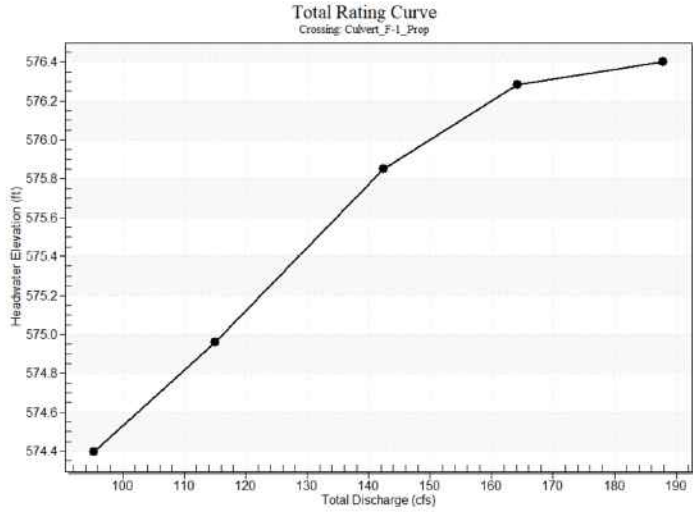


Table 1 - Summary of Culvert Flows at Crossing: Culvert_F-1_Prop

Headwater Elevation (ft)	Discharge Names	Total Discharge (cfs)	Culvert_F-1_Prop Discharge (cfs)	Roadway Discharge (cfs)	Iterations
574.40	5 year	95.26	95.26	0.00	1
574.96	10 year*	114.98	114.98	0.00	1
575.85	25 year	142.44	142.44	0.00	1
576.28	50 year	164.20	154.22	9.90	12
576.40	100 year†	187.90	157.21	30.62	6
576.18	Overtopping	151.48	151.48	0.00	Overtopping

*Design Storm
†Check Storm

Culvert Data: Culvert_F-1_Prop

Table 2 - Culvert Summary Table: Culvert_F-1_Prop

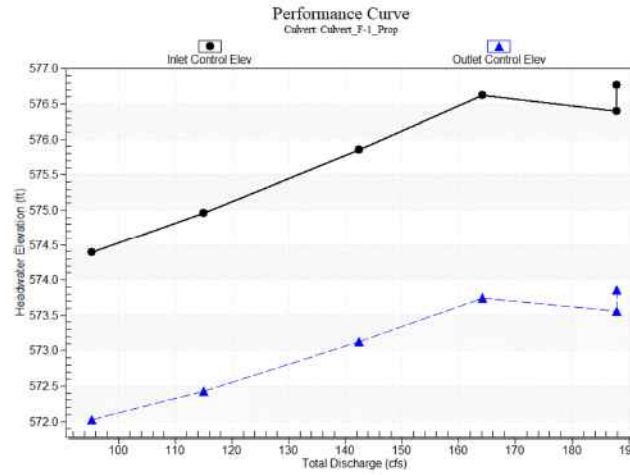
Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
5 year	95.26 cfs	95.26 cfs	574.40	3.40	1.022	S-S2n	0.00	0.00	1.50	0.51	10.57	2.56
10 year*	114.98 cfs	114.98 cfs	574.96	3.96	1.431	S-S2n	0.00	0.00	1.73	0.56	11.10	2.68
25 year	142.44 cfs	142.44 cfs	575.85	4.85	2.127	S-S2n	0.00	0.00	2.03	0.61	11.72	2.83
50 year	164.20 cfs	154.22 cfs	576.28	5.63	2.742	S-S2n	0.00	0.00	2.24	0.64	12.12	2.93
100 year†	187.90 cfs	157.21 cfs	576.40	5.40	2.563	S-S2n	0.00	0.88	2.18	0.68	12.01	3.03

*Design Storm
†Check Storm

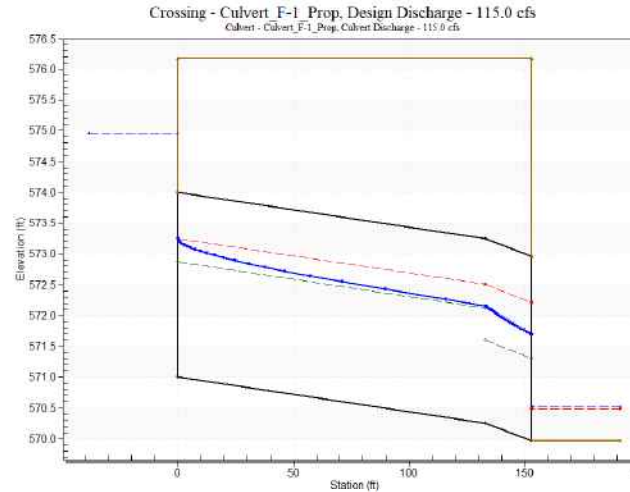
Culvert Barrel Data

Culvert Barrel Type Single Broken-back Culvert
Inlet Elevation (invert): 571.00 ft,
Break Elevation (invert): 570.25 ft,
Outlet Elevation (invert): 569.96 ft
Culvert Length: 153.00 ft,
Upper Culvert Section Slope: 0.0056
Steep Culvert Section Slope: 0.0145

Culvert Performance Curve Plot: Culvert_F-1_Prop



Water Surface Profile Plot for Culvert: Culvert_F-1_Prop



Site Data - Culvert_F-1_Prop

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 571.00 ft
Break Station: 133.00 ft
Break Elevation: 570.25 ft
Outlet Station: 153.00 ft
Outlet Elevation: 569.96 ft
Number of Barrels: 1

Culvert Data Summary - Culvert_F-1_Prop

Barrel Shape: Concrete Box
Barrel Span: 6.00 ft
Barrel Rise: 3.00 ft
Upper Section Material: Concrete
Lower Section Material:
Embedment: 0.00 in
Upper Section Manning's n: 0.0120
Lower Section Manning's n: 0.0120
Culvert Type: Single Broken-back
Inlet Configuration: Square Edge (90°) Headwall (Ke=0.5)
Inlet Depression: None

Tailwater Data for Crossing: Culvert_F-1_Prop

Table 3 - Downstream Channel Rating Curve (Crossing: Culvert_F-1_Prop)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
95.26	570.47	0.51	2.56	0.64	0.85
114.98*	570.52	0.56	2.68	0.69	0.86
142.44	570.57	0.61	2.83	0.76	0.88
164.20	570.60	0.64	2.93	0.80	0.88
187.90†	570.64	0.68	3.03	0.84	0.89

*Design Storm
†Check Storm

Tailwater Channel Data - Culvert_F-1_Prop

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 10.58 ft
Side Slope (H:V): 120.00 (.:1)
Channel Slope: 0.0200
Channel Manning's n: 0.0350
Channel Invert Elevation: 569.96 ft

Roadway Data for Crossing: Culvert_F-1_Prop

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 100.00 ft
Crest Elevation: 576.18 ft
Roadway Surface: Paved
Roadway Top Width: 153.00 ft

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JACOB J. POWELL
P. E. SERIAL NO: 108825
DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P. E. SERIAL NO: 105193
DATE: 7/27/2023

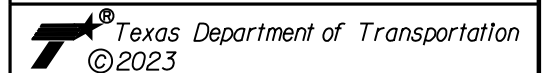
REV. NO.	DATE	DESCRIPTION	BY



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2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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**HYDRAULIC DATA SHEET
CULVERT F-1 PROP**

DGN#	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	163

SYSTEM A CALCULATIONS

RUNOFF COMPUTATIONS - RATIONAL METHOD							
AREA - ID	AREA (ac)	C	CA	Tc (MIN)	I10 (IN/HR)	Q10 (CFS)	TO INLET/JUNCTION
AD1-ARMOR01	0.69	0.88	0.61	10	7.26	4.4	AD1-ARMOR01
AD1-ARMOR02	0.43	0.85	0.37	10	7.26	2.7	AD1-ARMOR02
AD1-ARMOR03	0.58	0.82	0.47	10	7.26	3.4	AD1-ARMOR03
AD2-ARMOR01	0.54	0.77	0.41	10	7.26	3.0	AD1-ARMOR04
AD2-ARMOR02	0.54	0.77	0.41	10	7.26	3.0	AD1-ARMOR05
AD2-ARMOR03	0.55	0.80	0.44	10	7.26	3.2	AD1-ARMOR06
AD2-ARMOR04	0.27	0.89	0.24	10	7.26	1.8	AD1-ARMOR07
AD2-ARMOR05	0.30	0.89	0.27	10	7.26	1.9	AD1-ARMOR08
AD3-ARMOR01	0.45	0.95	0.42	10	7.26	3.1	AD3-ARMOR01
AD3-ARMOR02	0.23	0.74	0.17	10	7.26	1.2	AD3-ARMOR02
AD3-ARMOR03	0.43	0.78	0.33	10	7.26	2.4	AD3-ARMOR03
AD4-ARMOR01	0.35	0.81	0.28	10	7.26	2.0	AD3-ARMOR04
AD4-ARMOR02	0.35	0.81	0.28	10	7.26	2.0	AD4-ARMOR02
AD4-ARMOR03	0.43	0.81	0.35	10	7.26	2.6	AD4-ARMOR03
AD4-ARMOR04	0.54	0.88	0.47	10	7.26	3.4	AD4-ARMOR04

CURB INLET COMPUTATIONS															
INLET				DRAINAGE AREA NO	Q FROM AREA CFS	CARRY OVER FLOW CFS	TOTAL Q10 CFS	LONGITUDINAL ROAD SLOPE FT/FT	DEPTH OF FLOW FT	ALLOWABLE PONDED WIDTH FT	PONDED WIDTH FT	LENGTH INLET REQ'D FT	LENGTH INLET ACTUAL FT	BY PASS FLOW CFS	REMARKS
NO	TYPE	CONTROL	STATION												
AD1-ARMOR01	(1-ARM CURB)	42.26'L CORDOVA	116+50.00	AD1-ARMOR01	4.4		4.2	---	0.26	34.33	13.05	0.0	10.0		*SUMP
AD1-ARMOR02	(1-ARM CURB)	31.33'L CORDOVA	120+23.00	AD1-ARMOR02	2.7		2.7	---	0.20	11.33	9.73	0.0	10.0		*SUMP
AD1-ARMOR03	(1-ARM CURB)	31.33'L CORDOVA	123+47.30	AD1-ARMOR03	3.4		3.4	---	0.23	11.33	11.39	0.0	10.0		*SUMP
AD1-ARMOR04	(1-ARM CURB)	31.33'L CORDOVA	128+17.30	AD2-ARMOR01	3.0		3.0	---	0.21	11.33	10.50	0.0	10.0		*SUMP
AD1-ARMOR05	(1-ARM CURB)	31.33'L CORDOVA	132+87.30	AD2-ARMOR02	3.0		3.0	---	0.21	11.33	10.50	0.0	10.0		*SUMP
AD1-ARMOR06	(1-ARM CURB)	31.33'L CORDOVA	137+57.30	AD2-ARMOR03	3.2		3.2	---	0.22	11.33	10.94	0.0	10.0		*SUMP
AD1-ARMOR07	(1-ARM CURB)	31.33'L CORDOVA	144+25.00	AD2-ARMOR04	1.8	0.00	1.8	---	0.15	11.33	7.96	0.0	10.0		*SUMP
AD1-ARMOR08	(1-ARM CURB)	31.33'L CORDOVA	145+24.50	AD2-ARMOR05	1.9		1.9	0.0050	0.21	11.33	10.29	10.3	10.0		
AD3-ARMOR01	(1-ARM CURB)	31.33'R CORDOVA	116+50.00	AD3-ARMOR01	3.1		3.1	---	0.21	11.33	10.64	0.0	10.0		*SUMP
AD3-ARMOR02	(1-ARM CURB)	31.33'R CORDOVA	120+23.00	AD3-ARMOR02	1.2		1.4	---	0.13	11.33	8.07	0.0	10.0		*SUMP
AD3-ARMOR03	(1-ARM CURB)	31.33'R CORDOVA	123+47.30	AD3-ARMOR03	2.4		2.4	---	0.18	11.33	9.10	0.0	10.0		*SUMP
AD3-ARMOR04	(1-ARM CURB)	31.33'R CORDOVA	128+17.30	AD4-ARMOR01	2.0		2.4	---	0.18	11.33	9.10	0.0	10.0		*SUMP
AD4-ARMOR02	(1-ARM CURB)	31.33'R CORDOVA	132+87.30	AD4-ARMOR02	2.0		2.0	---	0.16	11.33	8.38	0.0	10.0		*SUMP
AD4-ARMOR03	(1-ARM CURB)	31.33'R CORDOVA	137+57.30	AD4-ARMOR03	2.6		2.6	---	0.19	11.33	9.43	0.0	10.0		*SUMP
AD4-ARMOR04	(2-ARM CURB)	31.33'R CORDOVA	144+25.00	AD4-ARMOR04	3.4		3.4	---	0.16	11.33	10.19	0.0	20.0		*SUMP

NOTE:

10 YR DESIGN STORM WAS ANALYZED USING GEOPAK DRAINAGE FOR STORM DRAIN CALCULATIONS

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

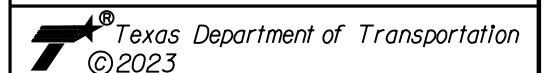
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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STORM DRAIN COMPUTATIONS

SHEET 1 OF 6

DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	164

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_storm_01.dgn

SYSTEM B CALCULATIONS

Plotted on: 7/27/2023

RUNOFF COMPUTATIONS - RATIONAL METHOD							
AREA - ID	AREA (ac)	C	CA	Tc (MIN)	I. (IN/HR)	Q. (CFS)	TO INLET/JUNCTION
BD1-1	0.38	0.53	0.20	10	7.26	17.8	DI-BD1-1
BD1-2	2.66	0.60	1.59	10	7.26	11.6	DI-BD1-2
BD1-3	5.74	0.62	3.57	10	7.26	25.9	
BD1-4	0.62	0.65	0.41	10	7.26	3.0	BD1-4
BD1-5	0.41	0.78	0.32	10	7.26	2.3	BD1-5
BD1-6	0.39	0.71	0.28	10	7.26	2.0	BD1-6
BD1-ARMOR01	0.13	0.81	0.11	10	7.26	0.8	BD1-ARMOR01
BD2-ARMOR01	0.41	0.77	0.32	10	7.26	2.3	BD2-ARMOR01
BD2-ARMOR02	0.29	0.95	0.27	10	7.26	2.0	BD2-ARMOR02
BD2-ARMOR03	0.29	0.95	0.28	10	7.26	2.0	BD2-ARMOR03
BD2-ARMOR04	0.22	0.95	0.21	10	7.26	1.5	BD2-ARMOR04
BD3-ARMOR01	0.42	0.73	0.31	10	7.26	2.2	BD3-ARMOR01
BD3-ARMOR02	0.43	0.77	0.33	10	7.26	2.4	BD3-ARMOR02
BD3-ARMOR03	0.61	0.74	0.45	10	7.26	3.3	BD3-ARMOR03
BD3-ARMOR04	0.36	0.71	0.26	10	7.26	1.9	BD3-ARMOR04
BD4-ARMOR01	0.56	0.94	0.52	10	7.26	3.8	BD4-ARMOR01
BD4-ARMOR02	0.37	0.95	0.35	10	7.26	2.6	BD4-ARMOR02
BD4-ARMOR03	0.48	0.84	0.40	10	7.26	2.9	BD4-ARMOR03

CURB INLET COMPUTATIONS																	
INLET				DRAINAGE AREA	Q. FROM AREA	CARRY OVER FLOW	TOTAL Q.	LONGITUDIN ROAD SLOPE	DEPT OF FLOW	ALLOWABLE PONDED WIDTH	PONDE WIDTH	LENGTH INLET REQ'D	LENGTH INLET ACTUAL	BY FLOW	REMARKS		
NO	TYPE	CONTROL	STATION	NO	CFS	CFS	CFS	FT/FT	FT	FT	FT	FT	FT	CFS			
BD1-4	Type PCO Curb Inlet w/ 1 Ext (Left) (4* x5*)	31.33' LT CORDOVA	154+97.00	BD1-4	3.0		3.0	0.0086	0.22	11.33	10.88	13.4	9.5	0.32	C.O. TO	BD1-ARMOR01	
BD1-5	Type PCO Curb Inlet w/ 1 Ext (Left) (4* x5*)	31.33' LT CORDOVA	157+69.00	BD1-5	2.3		2.3	0.0086	0.20	11.33	9.94	11.7	9.5	0.11	C.O. TO	BD1-6	
BD1-6	Type PCO Curb Inlet w/ 2 Ext (4* x5*)	31.33' LT CORDOVA	159+00.00	BD1-6	2.0	0.11	2.1	---	0.15	11.33	8.79	0.0	14.0			*SUMP	
BD1-ARMOR01	(1-ARM CURB)	31.33' LT CORDOVA	156+70.71	BD1-ARMOR01	0.8	0.32	1.1	0.0086	0.15	11.33	7.49	8.5	10.0				
BD2-ARMOR01	(1-ARM CURB)	31.33' LT CORDOVA	162+89.58	BD2-ARMOR01	2.3		2.3	---	0.18	11.33	8.82	8.5	10.0			*SUMP	
BD2-ARMOR02	(1-ARM CURB)	31.33' LT CORDOVA	166+00.00	BD2-ARMOR02	2.0	0.11	2.1	---	0.16	11.33	8.22	8.5	10.0			*SUMP	
BD2-ARMOR03	(1-ARM CURB)	31.33' LT CORDOVA	168+07.00	BD2-ARMOR03	2.0		2.0	0.0100	0.18	11.33	9.18	12.4	10.0				
BD2-ARMOR04	(1-ARM CURB)	31.33' LT CORDOVA	172+04.00	BD2-ARMOR04	1.5		1.5	0.0050	0.19	11.33	9.45	9.1	10.0				
BD3-ARMOR01	(1-ARM CURB)	31.33' RT CORDOVA	159+00.19	BD3-ARMOR01	2.2	0.36	2.6	---	0.19	11.33	9.46	9.1	10.0			*SUMP	
BD3-ARMOR02	(1-ARM CURB)	31.33' RT CORDOVA	157+97.18	BD3-ARMOR02	2.4	0.51	2.9	0.0086	0.22	11.33	10.80	14.6	10.0				
BD3-ARMOR03	(1-ARM CURB)	31.33' RT CORDOVA	154+84.00	BD3-ARMOR03	3.3	0.00	3.3	0.0086	0.23	11.33	11.28	15.5	10.0				
BD3-ARMOR04	(1-ARM CURB)	31.33' RT CORDOVA	150+85.00	BD3-ARMOR04	1.9		1.9	0.0050	0.20	11.33	10.16	10.1	10.0				
BD4-ARMOR01	(1-ARM CURB)	42.33' RT CORDOVA	162+89.58	BD4-ARMOR01	3.8		3.8	---	0.25	22.33	12.29	14.6	10.0			*SUMP	
BD4-ARMOR02	(1-ARM CURB)	31.33' RT CORDOVA	166+00.00	BD4-ARMOR02	2.6	0.43	3.0	---	0.21	11.33	10.46	14.6	10.0			*SUMP	
BD4-ARMOR03	(1-ARM CURB)	31.33' RT CORDOVA	168+80.00	BD4-ARMOR03	2.9		2.9	0.0100	0.21	11.33	10.55	15.2	10.0				

NOTE:

10 YR DESIGN STORM WAS ANALYZED USING GEOPAK DRAINAGE FOR STORM DRAIN CALCULATIONS




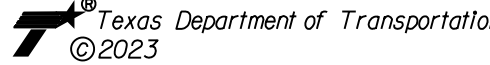
INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

INTERIM REVIEW
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ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

TRAFFIC INLET COMPUTATIONS										
INLET			DRAINAGE AREA	Q.	INLET HEAD	REQ'D AREA	INLET AREA	INLET TYPE	CARRY OVER	BY PASS FLOW
NO	CONTROL	STATION	NO	CFS	FT	FT²	FT²			
DI-BD1-1	40.00' RT CORDOVA	153+00.00	BD1-1	1.5	0.15	1.36	8.19	PSL FG-SFG 4x4		
DI-BD1-2	40.00' RT CORDOVA	156+70.00	BD1-2	11.6	0.90	4.34	4.54	PSL FG-SFG 4x4 w 3x3 gr		

STORM DRAIN COMPUTATIONS											
LINE NO	FROM	TO	LENGTH (FT)	TC (MIN)	I. (in/hr)	Q. (CFS)	DESIGN				
							STR SIZE	SLOPE %	CAP (CFS)	VEL (FT/SEC)	FREQ (YR)
LINE-B1	BD1-1	BD1-4	194.61	10.58	7.11	17.8	24" RCP	0.50	18.6	5.7	5
LINE-B1	BD1-4	BD1-2	170.74	11.30	6.94	20.0	30" RCP	0.50	33.8	4.1	5
LINE-B1	BD1-2	BD1-5	96.18	11.57	6.88	30.5	30" RCP	1.00	47.8	6.2	5
LINE-B1	BD1-5	BD1-6	127.73	11.91	6.80	32.4	30" RCP	1.00	47.8	6.6	5
LINE-B1	BD1-6	BD1-8	314.72	12.67	6.80	34.0	30" RCP	0.10	15.1	6.9	5
LINE-B1	BD1-8	OF-BD1	95.00	12.91	---	34.0	30" RCP	0.10	15.1	8.1	5

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_storm_02.dgn

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			
			
It's real.			
			
STORM DRAIN COMPUTATIONS			
SHEET 2 OF 6			
DCN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 165

SYSTEM C CALCULATIONS

RUNOFF COMPUTATIONS - RATIONAL METHOD							
AREA - ID	AREA (ac)	C	CA	Tc (MIN)	I. (IN/HR)	Q. (CFS)	TO INLET/JUNCTION
CD1-ARMOR01	0.31	0.90	0.28	10	7.26	2.0	CD1-ARMOR01
CD1-ARMOR02	0.37	0.81	0.30	10	7.26	2.2	CD1-ARMOR02
CD1-ARMOR03	0.12	0.82	0.10	10	7.26	0.7	CD1-ARMOR03
CD1-ARMOR04	0.59	0.79	0.46	10	7.26	3.3	CD1-ARMOR04
CD2-ARMOR01	0.45	0.77	0.35	10	7.26	2.5	CD2-ARMOR01
CD2-ARMOR02	0.46	0.77	0.35	10	7.26	2.5	CD2-ARMOR02
CD2-ARMOR03	0.35	0.82	0.28	10	7.26	2.1	CD2-ARMOR03
CD2-ARMOR04	0.35	0.81	0.28	10	7.26	2.1	CD2-ARMOR04
CD3-ARMOR01	0.32	0.90	0.29	10	7.26	2.1	CD3-ARMOR01
CD3-ARMOR02	0.37	0.81	0.30	10	7.26	2.2	CD3-ARMOR02
CD3-ARMOR03	0.56	0.79	0.45	10	7.26	3.2	CD3-ARMOR03
CD4-ARMOR01	0.41	0.77	0.32	10	7.26	2.3	CD4-ARMOR01
CD4-ARMOR02	0.30	0.81	0.25	10	7.26	1.8	CD4-ARMOR02
CD4-ARMOR03	0.35	0.80	0.28	10	7.26	2.0	CD4-ARMOR03
CD4-ARMOR04	0.35	0.78	0.27	10	7.26	2.0	CD4-ARMOR04

CURB INLET COMPUTATIONS															
INLET				DRAINAGE AREA NO	Q FROM AREA CFS	CARRY OVER FLOW CFS	TOTAL Qc CFS	LONGITUDIN ROAD SLOPE FT/FT	DEPT OF FLOW FT	ALLOWABLE PONDED WIDTH FT	PONDE WIDTH FT	LENGTH INLET REQ'D FT	LENGTH INLET ACTUAL FT	BY FLOW CFS	REMARKS
NO	TYPE	CONTROL	STATION												
CD1-ARMOR01	(1-ARM CURB)	31.33'LT CORDOVA	179+47.00	CD1-ARMOR01	2.0		2.0	0.0050	0.21	11.33	10.45	10.5	10.0		
CD1-ARMOR02	(1-ARM CURB)	31.33'LT CORDOVA	180+71.75	CD1-ARMOR02	2.2	0.01	2.2	---	0.17	11.33	8.90	8.5	10.0		*SUMP
CD1-ARMOR03	(1-ARM CURB)	31.33'LT CORDOVA	186+18.00	CD1-ARMOR03	0.7		0.7	0.0050	0.14	11.33	7.06	5.9	10.0		
CD1-ARMOR04	(1-ARM CURB)	31.33'LT CORDOVA	188+97.00	CD1-ARMOR04	3.3		3.3	---	0.23	11.33	11.25	13.9	10.0		*SUMP
CD2-ARMOR01	(1-ARM CURB)	31.33'LT CORDOVA	193+51.01	CD2-ARMOR01	2.5		2.5	---	0.19	11.33	9.93	8.5	10.0		*SUMP
CD2-ARMOR02	(1-ARM CURB)	31.33'LT CORDOVA	196+71.00	CD2-ARMOR02	2.5	0.11	2.6	---	0.19	11.33	10.12	8.5	10.0		*SUMP
CD2-ARMOR03	(1-ARM CURB)	31.33'LT CORDOVA	199+06.00	CD2-ARMOR03	2.1		2.1	0.0095	0.19	11.33	9.34	12.4	10.0		
CD2-ARMOR04	(1-ARM CURB)	31.33'LT CORDOVA	205+70.00	CD2-ARMOR04	2.1		2.1	---	0.16	11.33	8.69	12.4	10.0		*SUMP
CD3-ARMOR01	(1-ARM CURB)	31.33'RT CORDOVA	179+44.00	CD3-ARMOR01	2.1		2.1	0.0050	0.21	11.33	10.59	10.7	10.0		
CD3-ARMOR02	(1-ARM CURB)	31.33'RT CORDOVA	180+71.75	CD3-ARMOR02	2.2	0.02	2.2	---	0.17	11.33	9.47	10.7	10.0		*SUMP
CD3-ARMOR03	(1-ARM CURB)	31.33'RT CORDOVA	188+97.00	CD3-ARMOR03	3.2		3.2	---	0.22	11.33	11.02	10.7	10.0		*SUMP
CD4-ARMOR01	(1-ARM CURB)	31.33'RT CORDOVA	193+51.01	CD4-ARMOR01	2.3		2.3	---	0.18	11.33	9.05	10.7	10.0		*SUMP
CD4-ARMOR02	(1-ARM CURB)	31.33'RT CORDOVA	196+71.00	CD4-ARMOR02	1.8	0.10	1.9	---	0.15	11.33	9.35	10.7	10.0		*SUMP
CD4-ARMOR03	(1-ARM CURB)	31.33'RT CORDOVA	199+06.00	CD4-ARMOR03	2.0		2.0	0.0095	0.19	11.33	9.27	12.3	10.0		
CD4-ARMOR04	(1-ARM CURB)	31.33'RT CORDOVA	205+70.00	CD4-ARMOR04	2.0		2.0	---	0.16	11.33	7.98	12.3	10.0		*SUMP

NOTE:
10 YR DESIGN STORM WAS ANALYZED USING GEOPAK DRAINAGE FOR STORM DRAIN CALCULATIONS

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

SYSTEM D CALCULATIONS

RUNOFF COMPUTATIONS - RATIONAL METHOD							
AREA - ID	AREA (ac)	C	CA	Tc (MIN)	I. (IN/HR)	Q. (CFS)	TO INLET/JUNCTION
DD1-ARMOR01	0.29	0.81	0.23	10	7.26	1.7	DD1-ARMOR01
DD1-ARMOR02	0.18	0.91	0.16	10	7.26	1.2	DD1-ARMOR02
DD2-ARMOR01	0.29	0.78	0.22	10	7.26	1.6	DD2-ARMOR01
DD2-ARMOR02	0.23	0.95	0.22	10	7.26	1.6	DD2-ARMOR02

CURB INLET COMPUTATIONS															
INLET				DRAINAGE AREA NO	Q FROM AREA CFS	CARRY OVER FLOW CFS	TOTAL Qc CFS	LONGITUDIN ROAD SLOPE FT/FT	DEPT OF FLOW FT	ALLOWABLE PONDED WIDTH FT	PONDE WIDTH FT	LENGTH INLET REQ'D FT	LENGTH INLET ACTUAL FT	BY FLOW CFS	REMARKS
NO	TYPE	CONTROL	STATION												
DD1-ARMOR01	(1-ARM CURB)	31.33'LT CORDOVA	211+45.25	DD1-ARMOR01	1.7		1.7	---	0.14	11.33	8.56	0.0	10.0		*SUMP
DD1-ARMOR02	(1-ARM CURB)	31.33'LT CORDOVA	214+30.00	DD1-ARMOR02	1.2		1.2	---	0.11	11.33	7.01	0.0	10.0		*SUMP
DD2-ARMOR01	(1-ARM CURB)	31.33'RT CORDOVA	211+45.25	DD2-ARMOR01	1.6		1.6	---	0.15	11.33	8.41	0.0	10.0		*SUMP
DD2-ARMOR02	(1-ARM CURB)	31.33'RT CORDOVA	214+30.00	DD2-ARMOR02	1.6		1.6	---	0.14	11.33	7.85	0.0	10.0		*SUMP

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			

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Texas Department of Transportation
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STORM DRAIN COMPUTATIONS

DGN:	FED. NO. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK:	SAT	QUADALUPE	0915	45
DWG:			052	166

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_storm_03.dgn

SYSTEM E CALCULATIONS

Plotted on: 7/27/2023

RUNOFF COMPUTATIONS - RATIONAL METHOD							
AREA - ID	AREA (ac)	C	CA	Tc (MIN)	I. (IN/HR)	Q. (CFS)	TO INLET/JUNCTION
ED1-2	1.69	0.56	0.94	10	7.26	6.8	DI-ED1-2
ED1-3	0.39	0.78	0.31	10	7.26	2.2	ED1-3
ED1-5	0.33	0.63	0.21	10	7.26	1.5	ED1-5
ED1-6	1.48	0.60	0.89	10	7.26	6.5	DI-ED1-6
ED1-ARMOR01	0.30	0.94	0.28	10	7.26	2.0	ED1-ARMOR01
ED1-ARMOR02	0.22	0.82	0.18	10	7.26	1.3	ED1-ARMOR02
ED2-ARMOR01	0.32	0.89	0.29	10	7.26	2.1	ED2-ARMOR01
ED2-ARMOR02	0.28	0.95	0.27	10	7.26	1.9	ED2-ARMOR02
ED2-ARMOR03	0.22	0.82	0.18	10	7.26	1.3	ED2-ARMOR03

CURB INLET COMPUTATIONS															
INLET				DRAINAGE AREA NO	Q. FROM AREA CFS	CARRY OVER FLOW CFS	TOTAL Q _s CFS	LONGITUDIN ROAD SLOPE FT/FT	DEPT OF FLOW FT	ALLOWABLE PONDED WIDTH FT	PONDE WIDTH FT	LENGTH INLET REQ'D FT	LENGTH INLET ACTUAL FT	BY FLOW CFS	REMARKS
NO	TYPE	CONTROL	STATION												
ED1-3	Type PCO Curb Inlet w/ 2 Ext (3* x5*)	31.33 'LT CORDOVA	216+82.00	ED1-3	2.2		2.2	---	0.15	11.33	8.71	0.0	14.0		*SUMP
ED1-5	Type PCO Curb Inlet w/ 1 Ext (Right) (3* x5*)	31.33 'LT CORDOVA	218+40.00	ED1-5	1.5		1.5	0.0040	0.20	11.33	9.81	7.8	9.5		
ED1-ARMOR01	(1-ARM CURB)	31.33 'LT CORDOVA	220+00.00	ED1-ARMOR01	2.0		2.0	0.0040	0.22	11.33	10.87	10.0	10.0		
ED1-ARMOR02	(1-ARM CURB)	31.33 'LT CORDOVA	224+00.00	ED1-ARMOR02	1.3		1.3	0.0040	0.19	11.33	9.25	7.9	10.0		
ED2-ARMOR01	(1-ARM CURB)	31.33 'RT CORDOVA	216+82.00	ED2-ARMOR01	2.1		2.1	---	0.16	11.33	9.63	0.0	10.0		*SUMP
ED2-ARMOR02	(1-ARM CURB)	31.33 'RT CORDOVA	220+44.00	ED2-ARMOR02	1.9		1.9	0.0040	0.22	11.33	10.74	9.8	10.0		
ED2-ARMOR03	(1-ARM CURB)	31.33 'RT CORDOVA	223+92.00	ED2-ARMOR03	1.3		1.3	0.0040	0.19	11.33	9.29	7.9	10.0		

NOTE:

10 YR DESIGN STORM WAS ANALYZED USING GEOPAK DRAINAGE FOR STORM DRAIN CALCULATIONS




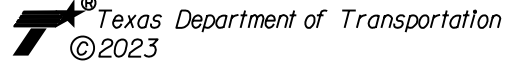
INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

TRAFFIC INLET COMPUTATIONS												
INLET			DRAINAGE AREA NO	Q. CFS	INLET HEAD FT	REQ'D AREA FT ²	INLET AREA FT ²	INLET TYPE	CARRY OVER		BY PASS FLOW	
NO	CONTROL	STATION										
DI-ED1-2	39.50 'RT CORDOVA	224+00.00	ED1-2	6.8	0.50	3.45	5.50	PSL FG-SFG 3x3 w 3x3EO gr				
DI-ED1-4	54.00 'RT CORDOVA	218+40.00	n/a	46.6	0.75	19.13	n/a	PAZD FG 5x5-3				
DI-ED1-6	39.50 'RT CORDOVA	219+95.00	ED1-6	6.5	0.48	3.34	5.50	PSL FG-SFG 3x3 w 3x3EO gr				

STORM DRAIN COMPUTATIONS											
LINE NO	FROM	TO	LENGTH (FT)	TC (MIN)	I. (in/hr)	Q. (CFS)	DESIGN				
							STR SIZE	SLOPE %	CAP (CFS)	VEL (FT/SEC)	FREQ (YR)
LINE-E1	DI-ED1-2	ED1-7	122.00	10.54	7.26	6.8	18" RCP	0.30	6.7	3.9	5
LINE-E1	ED1-7	DI-ED1-6	277.00	11.75	6.84	6.8	18" RCP	0.30	6.7	3.9	5
LINE-E1	DI-ED1-6	ED1-9	149.52	12.40	6.70	12.5	24" RCP	0.50	18.6	4.0	5
LINE-E1-LAT02	DI-ED1-4	ED1-9	5.50	12.40	6.70	46.6	3'S x 2'H Box Culv	0.50	46.8	7.8	5
LINE-E1-LAT02	ED1-5	ED1-9	3.67	12.40	6.70	1.5	24" RCP	0.50	18.6	0.5	5
LINE-E1	ED1-9	ED1-8	150.01	12.84	6.61	60.3	5'S x 2'H Box Culv	0.10	41.4	6.0	5
LINE-E1-LAT01	ED1-3	ED1-8	1.67	12.84	6.61	2.5	18" RCP	0.50	8.7	1.4	5
LINE-E1	ED1-8	OF-ED1	80.13	13.06	---	62.4	5'S x 2'H Box Culv	0.10	41.4	7.4	5

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_storm_04.dgn

REV. NO.	DATE	DESCRIPTION	BY
 <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800</p>			
  <p>It's real.</p>			
 <p>©2023</p>			
<p>STORM DRAIN COMPUTATIONS</p>			
SHEET 4 OF 6			
DCN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO.:
CHK:	SAT	GUADALUPE	0915
DWG:	SECT. NO.:	JOB NO.:	SHEET NO.:
	45	052	167

SYSTEM F CALCULATIONS

RUNOFF COMPUTATIONS - RATIONAL METHOD

AREA - ID	AREA (ac)	C	CA	Tc (MIN)	L (IN/HR)	Q (CFS)	TO INLET/JUNCTION
FD1-1	0.80	0.63	0.50	10	7.26	3.6	D1-FD1-1
FD1-3	0.32	0.76	0.25	10	7.26	1.8	FD1-3
FD1-4	0.69	0.71	0.49	10	7.26	3.6	FD1-4
FD1-5	0.71	0.72	0.50	10	7.26	3.7	FD1-5
FD1-6	1.15	0.78	0.89	10	7.26	6.5	D1-FD1-6
FD2-1	0.79	0.76	0.60	10	7.26	4.3	D1-FD2-1
FD2-2	0.63	0.71	0.45	10	7.26	3.3	FD2-2
FD2-3	0.91	0.62	0.56	10	7.26	4.1	FD2-3
FD2-4	0.45	0.65	0.29	10	7.26	2.1	FD2-4
FD2-5	0.58	0.56	0.32	10	7.26	2.3	FD2-5
FD2-6	0.40	0.66	0.27	10	7.26	1.9	FD2-6
FD2-7	0.40	0.66	0.26	10	7.26	1.9	FD2-7
FD2-8	0.46	0.61	0.28	10	7.26	2.0	FD2-8
FD2-9	0.83	0.66	0.55	10	7.26	4.0	FD2-9
FD1-ARMOR01	0.26	0.83	0.22	10	7.26	1.6	FD1-ARMOR01
FD1-ARMOR02	0.27	0.95	0.26	10	7.26	1.9	FD1-ARMOR02
FD1-ARMOR03	0.46	0.86	0.39	10	7.26	2.9	FD1-ARMOR03
FD1-ARMOR04	0.38	0.82	0.31	10	7.26	2.2	FD1-ARMOR04
FD1-ARMOR05	0.37	0.81	0.30	10	7.26	2.2	FD1-ARMOR05
FD1-ARMOR06	0.39	0.81	0.32	10	7.26	2.3	FD1-ARMOR06
FD1-ARMOR07	0.44	0.87	0.38	10	7.26	2.8	FD1-ARMOR07
FD1-ARMOR08	0.40	0.82	0.33	10	7.26	2.4	FD1-ARMOR08
FD1-ARMOR09	0.41	0.81	0.33	10	7.26	2.4	FD1-ARMOR09
FD1-ARMOR10	0.15	0.94	0.14	10	7.26	1.0	FD1-ARMOR10
FD1-ARMOR11	0.26	0.88	0.23	10	7.26	1.7	FD1-ARMOR11
FD1-ARMOR12	0.36	0.92	0.33	10	7.26	2.4	FD1-ARMOR12
FD2-ARMOR01	0.26	0.83	0.22	10	7.26	1.6	FD2-ARMOR01
FD2-ARMOR02	0.21	0.95	0.20	10	7.26	1.4	FD2-ARMOR02
FD2-ARMOR03	0.38	0.82	0.31	10	7.26	2.2	FD2-ARMOR03
FD2-ARMOR04	0.37	0.81	0.30	10	7.26	2.2	FD2-ARMOR04
FD2-ARMOR05	0.39	0.81	0.32	10	7.26	2.3	FD2-ARMOR05
FD2-ARMOR06	0.48	0.87	0.42	10	7.26	3.0	FD2-ARMOR06
FD2-ARMOR07	0.45	0.83	0.37	10	7.26	2.7	FD2-ARMOR07
FD2-ARMOR08	0.42	0.81	0.34	10	7.26	2.5	FD2-ARMOR08
FD2-ARMOR09	0.49	0.91	0.45	10	7.26	3.2	FD2-ARMOR09
FD2-ARMOR10	0.57	0.93	0.53	10	7.26	3.9	FD2-ARMOR10

NOTE:

10 YR DESIGN STORM WAS ANALYZED USING GEOPAK DRAINAGE FOR STORM DRAIN CALCULATIONS

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

CURB INLET COMPUTATIONS

INLET				DRAINAGE AREA NO	Q FROM AREA CFS	CARRY OVER FLOW CFS	TOTAL Qc CFS	LONGITUDIN ROAD SLOPE FT/FT	DEPT OF FLOW FT	ALLOWABLE PONDED WIDTH FT	PONDE WIDTH FT	LENGTH INLET REQ'D FT	LENGTH INLET ACTUAL FT	BY FLOW CFS	REMARKS	
NO	TYPE	CONTROL	STATION													
FD1-3	Type PCO Curb Inlet w/ 1 Ext (Right) (3* x5*)	31.33'LT	CORDOVA	230+56.00	FD1-3	1.8	1.8	0.0050	0.20	11.33	9.99	8.9	9.5			
FD1-4	Type PCO Curb Inlet w/ 2 Ext (3* x5*)	31.33'LT	CORDOVA	236+00.00	FD1-4	3.6	3.6	---	0.21	11.33	10.33	0.0	14.0		*SUMP	
FD1-5	Type PCO Curb Inlet w/ 2 Ext (3* x5*)	31.33'LT	CORDOVA	241+00.00	FD1-5	3.7	3.7	---	0.21	11.33	10.44	0.0	14.0		*SUMP	
FD2-2	Type PCO Curb Inlet w/ 2 Ext (3* x5*)	31.33'RT	CORDOVA	236+00.00	FD2-2	3.3	3.3	---	0.19	11.33	10.36	8.7	14.0		*SUMP	
FD2-3	Type PCO Curb Inlet w/ 2 Ext (3* x5*)	31.33'RT	CORDOVA	241+00.00	FD2-3	4.1	0.00	4.1	---	0.23	11.33	11.25	8.7	14.0		*SUMP
FD2-4	Type PCO Curb Inlet w/ 1 Ext (Right) (3* x5*)	31.33'RT	CORDOVA	239+80.00	FD2-4	2.1	2.1	0.0050	0.21	11.33	10.64	9.8	9.5			
FD2-5	Type PCO Curb Inlet w/ 1 Ext (Left) (3* x5*)	71.45'RT	CORDOVA	243+52.37	FD2-5	2.3	2.3	0.0056	0.17	18.00	16.68	14.1	9.5	0.31	C.O. TO FD2-7	
FD2-6	Type PCO Curb Inlet w/ 1 Ext (Right) (3* x5*)	69.97'RT	CORDOVA	243+88.23	FD2-6	1.9	1.9	0.0056	0.16	18.00	15.52	12.6	9.5	0.15	C.O. TO FD2-7	
FD2-7	Type PCO Curb Inlet w/ 1 Ext (Right) (3* x5*)	31.33'RT	CORDOVA	244+60.00	FD2-7	1.9	0.46	2.4	0.0050	0.22	11.33	11.10	10.5	9.5	0.03	C.O. TO FD2-8
FD2-8	Type PCO Curb Inlet w/ 1 Ext (Right) (3* x5*)	31.33'RT	CORDOVA	246+25.00	FD2-8	2.0	0.03	2.0	0.0050	0.21	11.33	10.51	9.6	9.5		
FD2-9	Type PCO Curb Inlet w/ 2 Ext (3* x5*)	31.33'RT	CORDOVA	248+00.00	FD2-9	4.0	0.00	4.0	---	0.22	11.33	11.47	9.6	14.0		*SUMP
FD1-ARMOR01	(1-ARM CURB)	31.33'LT	CORDOVA	229+00.00	FD1-ARMOR01	1.6	1.6	---	0.14	11.33	7.35	0.0	10.0		*SUMP	
FD1-ARMOR02	(1-ARM CURB)	31.33'LT	CORDOVA	245+63.00	FD1-ARMOR02	1.9	1.9	0.0050	0.20	11.33	10.14	10.1	10.0			
FD1-ARMOR03	(1-ARM CURB)	31.33'LT	CORDOVA	248+00.00	FD1-ARMOR03	2.9	2.9	---	0.20	11.33	10.14	0.0	10.0		*SUMP	
FD1-ARMOR04	(1-ARM CURB)	31.33'LT	CORDOVA	255+90.00	FD1-ARMOR04	2.2	2.2	0.0050	0.22	11.33	10.88	11.2	10.0			
FD1-ARMOR05	(1-ARM CURB)	31.33'LT	CORDOVA	260+95.00	FD1-ARMOR05	2.2	0.04	2.2	0.0050	0.22	11.33	10.85	11.1	10.0		
FD1-ARMOR06	(1-ARM CURB)	31.33'LT	CORDOVA	266+35.00	FD1-ARMOR06	2.3	0.04	2.4	0.0050	0.22	11.33	11.07	11.5	10.0		
FD1-ARMOR07	(1-ARM CURB)	31.33'LT	CORDOVA	270+50.00	FD1-ARMOR07	2.8	0.06	2.8	---	0.20	11.33	10.92	11.5	10.0		*SUMP
FD1-ARMOR08	(1-ARM CURB)	31.33'LT	CORDOVA	274+50.00	FD1-ARMOR08	2.4	2.4	---	0.18	11.33	9.74	11.5	10.0		*SUMP	
FD1-ARMOR09	(1-ARM CURB)	31.33'LT	CORDOVA	284+20.00	FD1-ARMOR09	2.4	2.4	0.0050	0.22	11.33	11.13	11.6	10.0			
FD1-ARMOR10	(1-ARM CURB)	31.33'LT	CORDOVA	286+56.00	FD1-ARMOR10	1.0	0.06	1.1	0.0100	0.15	11.33	7.30	8.9	10.0		
FD1-ARMOR11	(1-ARM CURB)	31.33'LT	CORDOVA	291+26.00	FD1-ARMOR11	1.7	1.7	0.0100	0.17	11.33	8.56	11.2	10.0			
FD1-ARMOR12	(1-ARM CURB)	31.33'LT	CORDOVA	292+56.00	FD1-ARMOR12	2.4	0.03	2.4	---	0.18	11.33	9.07	11.2	10.0		*SUMP
FD2-ARMOR01	(1-ARM CURB)	31.33'RT	CORDOVA	229+00.00	FD2-ARMOR01	1.6	1.6	0.0050	0.19	11.33	9.52	9.2	10.0			
FD2-ARMOR02	(1-ARM CURB)	31.33'RT	CORDOVA	230+50.00	FD2-ARMOR02	1.4	1.4	0.0050	0.18	11.33	9.18	8.7	10.0			
FD2-ARMOR03	(1-ARM CURB)	31.33'RT	CORDOVA	255+90.00	FD2-ARMOR03	2.2	2.2	0.0050	0.22	11.33	10.86	11.1	10.0			
FD2-ARMOR04	(1-ARM CURB)	31.33'RT	CORDOVA	260+95.00	FD2-ARMOR04	2.2	0.04	2.2	0.0050	0.22	11.33	10.85	11.1	10.0		
FD2-ARMOR05	(1-ARM CURB)	31.33'RT	CORDOVA	266+35.00	FD2-ARMOR05	2.3	0.04	2.4	0.0050	0.22	11.33	11.07	11.5	10.0		
FD2-ARMOR06	(1-ARM CURB)	31.33'RT	CORDOVA	270+50.00	FD2-ARMOR06	3.0	0.06	3.1	---	0.21	11.33	11.27	11.1	10.0		*SUMP
FD2-ARMOR07	(1-ARM CURB)	31.33'RT	CORDOVA	274+50.00	FD2-ARMOR07	2.7	2.7	---	0.19	11.33	9.70	11.1	10.0		*SUMP	
FD2-ARMOR08	(1-ARM CURB)	31.33'RT	CORDOVA	284+20.00	FD2-ARMOR08	2.5	2.5	0.0050	0.23	11.33	11.29	11.8	10.0			
FD2-ARMOR09	(1-ARM CURB)	31.33'RT	CORDOVA	290+45.00	FD2-ARMOR09	3.2	0.08	3.3	0.0100	0.22	11.33	11.06	16.3	10.0		
FD2-ARMOR10	(1-ARM CURB)	42.33'RT	CORDOVA	292+56.00	FD2-ARMOR10	3.9	0.60	4.5	---	0.27	22.33	13.65	16.1	10.0		*SUMP

REV. NO.	DATE	DESCRIPTION	BY
----------	------	-------------	----



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028000



It's real.



STORM DRAIN COMPUTATIONS

CHK DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHK DGN:	6	TEXAS		CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.
CHK DWG:	SAT	GUADALUPE	0915	45
				JOB NO.
				052
				SHEET NO.
				168

Plotted on: 7/27/2023

Design File name: P:\1275\00\Design\Civi\Drainage\1277500_hyd_storm_05.dgn

SYSTEM F CALCULATIONS CONT.

Plotted on: 7/27/2023

TRAFFIC INLET COMPUTATIONS													
INLET			DRAINAGE AREA	Q.	INLET HEAD	REQ'D AREA	INLET AREA	INLET TYPE	CARRY OVER			BY PASS FLOW	
NO	CONTROL		NO	CFS	FT	FT²	FT²						
DI-FD1-1	38.50	'RT CORDOVA	229+00.00	FD1-1	3.6	0.33	2.26	5.50	PSL FG-SFG 3x3 w 3x3EO gr				
DI-FD1-6	41.00	'RT CORDOVA	248+00.00	FD1-6	6.5	0.48	3.34	5.50	PSL FG-SFG 3x3 w 3x3EO gr				
DI-FD2-1	38.50	'RT CORDOVA	229+00.00	FD2-1	4.3	0.37	2.54	5.50	PSL FG-SFG 3x3 w 3x3EO gr				

NOTE:




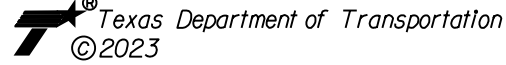
10 YR DESIGN STORM WAS ANALYZED USING GEOPAK DRAINAGE FOR STORM DRAIN CALCULATIONS

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: STEVEN J. TATE
P.E. SERIAL NO: 131443
DATE: 7/27/2023

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JOHN A. TYLER
P.E. SERIAL NO: 105193
DATE: 7/27/2023

STORM DRAIN COMPUTATIONS											
LINE NO	FROM	TO	LENGTH (FT)	TC (MIN)	L (in/hr)	Q. (CFS)	DESIGN				
							STR SIZE	SLOPE %	CAP (CFS)	VEL (FT/SEC)	FREQ (YR)
LINE-F1-1	DI-FD1-1	FD1-3	150.89	12.24	6.73	3.6	24" RCP	0.35	15.6	1.2	5
LINE-F1-1	FD1-3	FD1-MH01	13.83	12.42	6.73	5.0	24" RCP	0.50	18.6	1.6	5
LINE-F1-1	FD1-MH01	FD1-MH02	50.10	13.00	6.57	5.0	24" RCP	0.50	18.6	1.6	5
LINE-F1-1-LAT01	HW-1	FD1-MH02	34.97	13.00	6.57	99.2	6'S x 2'H Box Culv	2.00	234.0	8.3	5
LINE-F1-1	FD1-MH02	FD1-MH03	481.13	14.41	6.30	104.1	6'S x 3'H Box Culv	0.10	91.1	5.8	5
LINE-F1-1-LAT02	FD1-4	FD1-MH03	27.33	14.41	6.30	3.6	24" RCP	2.00	37.3	1.1	5
LINE-F1-1	FD1-MH03	FD1-MH04	492.00	15.81	6.05	107.0	6'S x 3'H Box Culv	0.10	91.1	5.9	5
LINE-F1-1-LAT03	FD1-5	FD1-MH04	27.33	15.81	6.05	3.7	24" RCP	2.00	37.3	1.2	5
LINE-F1-1	FD1-MH04	OF-LINE-F1-1	1668.37	20.11	---	109.7	6'S x 4'H Box Culv	0.10	132.9	8.4	5
LINE-F1-2	0	FD1-MH05	44.00	0.12	---	81.7	4'S x 3'H Box Culv	5.00	370.5	6.8	5
LINE-F1-2	FD1-MH05	FD1-MH06	378.00	10.23	7.20	81.7	4'S x 3'H Box Culv	0.10	52.4	6.8	5
LINE-F1-2-LAT01	DI-FD1-6	FD1-MH06	24.50	10.23	7.20	6.5	24" RCP	2.00	37.3	2.1	5
LINE-F1-2	FD1-MH06	OF-LINE-F1-2	955.20	12.64	---	88.1	4'S x 4'H Box Culv	0.10	75.0	8.9	5
LINE-F1-3	HW-3	OF-LINE-F1-3	82.23	0.13	---	32.1	24" RCP	0.50	18.6	10.4	5
LINE-F2	DI-FD2-1	FD2-MH01	268.61	13.29	7.26	4.3	24" RCP	0.10	8.3	1.4	5
LINE-F2	FD2-MH01	FD2-MH02	279.10	16.71	7.26	4.3	24" RCP	0.10	8.3	1.4	5
LINE-F2	FD2-MH02	FD2-2	140.17	18.46	5.64	4.3	24" RCP	0.10	8.3	1.4	5
LINE-F2	FD2-2	FD2-MH03	188.61	20.17	5.64	5.9	24" RCP	0.10	8.3	1.9	5
LINE-F2	FD2-MH03	FD2-4	183.39	21.84	5.20	5.9	24" RCP	0.10	8.3	1.9	5
LINE-F2	FD2-4	FD2-3	115.00	22.75	5.09	7.0	24" RCP	0.10	8.3	2.2	5
LINE-F2	FD2-3	FD2-MH04	286.45	24.31	4.92	9.7	24" RCP	0.10	8.3	3.1	5
LINE-F2-LAT01	FD2-5	FD2-6	35.90	10.18	7.21	2.0	24" RCP	0.50	18.6	3.7	5
LINE-F2-LAT1	FD2-6	FD2-MH04	31.98	24.31	4.92	3.8	24" RCP	0.50	18.6	4.4	5
LINE-F2	FD2-MH04	FD2-7	65.57	24.62	4.89	11.8	24" RCP	0.10	8.3	3.8	5
LINE-F2	FD2-7	FD2-8	160.00	25.27	4.82	13.4	24" RCP	0.10	8.3	4.3	5
LINE-F2	FD2-8	FD2-9	170.00	25.89	4.76	14.6	24" RCP	0.10	8.3	4.7	5
LINE-F2	FD2-9	FD2-MH05	295.50	26.81	4.76	17.1	24" RCP	0.10	8.3	6.2	5
LINE-F2	FD2-MH05	FD2-MH06	296.00	28.27	4.76	17.1	3'S x 2'H Box Culv	0.10	20.9	3.5	5
LINE-F2	FD2-MH06	FD2-MH07	296.00	29.69	4.76	17.1	3'S x 2'H Box Culv	0.10	20.9	3.7	5
LINE-F2	FD2-MH07	FD2-MH08	296.00	30.98	4.76	17.1	3'S x 2'H Box Culv	0.10	20.9	4.2	5
LINE-F2	FD2-MH08	OF-LINE-F2	22.14	31.07	---	17.1	3'S x 2'H Box Culv	0.10	20.9	5.7	5

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_hyd_storm_06.dgn

REV. NO.	DATE	DESCRIPTION	BY
 <p>SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800</p>			
  <p>It's real.</p>			
 <p>©2023</p>			
<p>STORM DRAIN COMPUTATIONS</p>			
SHEET 6 OF 6			
DCN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:
CHK:	6	TEXAS	
DWG:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK:	SAT	GUADALUPE	0915 45 052 169

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_ditch_comps_01.dgn

COMPUTATION POINT	LT/RT	DITCH PROPERTIES					COMPUTATION POINT HYDROLOGY		DITCH HYDRAULIC OUTPUT		
		FORESLOPE H:V	BACKSLOPE H:V	LONG. SLOPE ft/ft	MANNINGS COEFF.	BOT. WIDTH (ft)	DITCH DEPTH (ft)	DRAINAGE AREA	Q(10YR) (cfs)	FLOW DEPTH (ft)	VELOCITY (fps)
116+50.21	LT	4	4	0.0045	0.012	0	1.44	AD1-N4	21	1.01	5.16
118+05.20	LT	4	4	0.0045	0.012	0	1.53	AD1-N3	29	1.14	5.59
120+23.00	LT	0.00001	4	0.0017	0.012	4	2.00	AD1-N2	37.2	1.29	4.40
123+47.30	LT	0.00001	4	0.005	0.012	11	2.56	AD1	45.4	0.63	5.84
144+25.00	LT	6	7.12	0.001	0.03	0	1.36	AD2-N4	10.7	1.21	1.11
137+57.30	LT	4	4	0.001	0.012	0	1.80	AD2-N3	35.2	1.62	3.34
132+87.30	LT	4	4	0.001	0.012	0	2.48	AD2-N2	44.8	1.78	3.55
128+17.30	LT	4	4	0.001	0.012	0	2.01	AD2-N1	59.8	1.98	3.81
CULVERT A	LT	4	4	0.008	0.012	0	2.55	AD2	111.3	1.69	9.71
116+50.21	RT	4	4	0.0016	0.03	0	0.84	AD3-N3	2.6	0.79	1.04
118+05.20	RT	4	4	0.0016	0.03	0	1.13	AD3-N2	3	0.83	1.08
120+23.00	RT	4	6	0.0015	0.03	0	1.25	AD3-N1	5.3	0.96	1.16
121+37.11	RT	4	4	0.0015	0.03	0	1.17	AD3	5.8	1.08	1.25
144+25.00	RT	4	6	0.00128	0.03	10.8	0.48	AD4-N4	4.9	0.42	0.90
137+57.30	RT	4	11	0.001	0.03	0	1.14	AD4-N3	9.8	1.11	1.05
132+87.30	RT	4	6	0.001	0.03	0	1.60	AD4-N2	13.1	1.45	1.25
128+17.30	RT	4	11	0.001	0.03	0	1.35	AD4-N1	16.2	1.35	1.19
125+97.30	RT	4	6.5	0.001	0.012	0	1.27	AD4	16.4	1.10	2.59
159+00.19	LT	4	4.25	0.009	0.012	0	1.28	BD1-N1	28	0.98	7.14
CULVERT B DRAIN	LT	4	4.25	0.009	0.012	0	1.28	BD1	28.4	0.98	7.17
166+00.00	LT	6	7.24	0.0051	0.03	0	0.86	BD2-N1	8.7	0.82	1.94
CULVERT B DRAIN	LT	4.1	7.4	0.0051	0.03	0	0.87	BD2	8.5	0.86	1.99
159+00.19	RT	4	7.8	0.01	0.03	0	1.28	BD3-N1	9.6	0.79	2.63
CULVERT B DRAIN	RT	4	7.8	0.01	0.03	0	1.28	BD3	9.9	0.80	2.65
166+00.00	RT	4	5	0.001	0.03	0	1.50	BD4-N2	10.6	1.39	1.21
166+00.00	RT	4	5	0.001	0.012	0	1.50	BD4-N1	25	1.36	2.99
166+00.00	RT	4	5	0.001	0.012	0	1.50	BD4	26.5	1.39	3.03
180+71.75	LT	6	12.78	0.0064	0.03	0	1.20	CD1-N3	6.5	0.62	1.81
184+02.56	LT	4	4.2	0.0064	0.03	0	2.06	CD1-N2	16.4	1.20	2.77
191+06.12	LT	4	4	0.001	0.012	0	1.55	CD1	23.3	1.39	3.01
205+70.00	LT	4	10.27	0.003	0.03	0	1.45	CD2-N3	6.9	0.81	1.47
196+71.34	LT	4	3	0.001	0.03	5	2.95	CD2-N2	40.5	1.94	1.77
193+51.08	LT	4	3	0.001	0.03	5	2.26	CD2-N1	45.9	2.06	1.82
191+08.83	LT	4	3	0.001	0.012	5	1.85	CD2	52.3	1.42	3.71
180+71.75	RT	6	15.63	0.005	0.03	0	0.60	CD3-N2	5.7	0.59	1.54
187+90.40	RT	4.2	22.75	0.001	0.012	0	0.89	CD3-N1	11.6	0.67	1.89
CULVERT C DRAIN	RT	4.2	22.75	0.001	0.012	0	0.89	CD3	12	0.68	1.91
205+70.00	RT	4	51.76	0.003	0.03	0	0.42	CD4-N3	3	0.35	0.86
196+71.34	RT	4	11.97	0.0128	0.03	0	1.52	CD4-N2	10.6	0.69	2.75
195+05.38	RT	4	8.63	0.0065	0.03	0	1.39	CD4-N1	10.9	0.87	2.27
211+45.25	LT	4	14	0.003	0.03	0	0.91	DD1-N2	3.2	0.56	1.15
211+45.25	RT	6	30	0.005	0.03	0	0.76	DD2-N2	2.7	0.37	1.13
214+30.00	RT	6	8.75	0.005	0.03	0	1.04	DD2-N1	4.8	0.63	1.62
220+13.19	LT	6	4	0.01	0.03	0	1.07	ED1-N2	10.5	0.87	2.80
220+13.19	RT	6	15.33	0.003	0.03	0	0.67	ED2-N2	5.9	0.66	1.29
216+30.00	RT	6	4.12	0.0064	0.03	0	1.36	ED2-N1	9.1	0.89	2.28
CULVERT E	RT	6	4	0.0064	0.03	0	1.36	ED2	9.1	0.89	2.28
270+50.00	LT	6	5.93	0.00167	0.03	0	3.99	FD1-N4	270	3.83	3.09
274+50.00	LT	6	6.58	0.00179	0.03	0	4.43	FD1-N3	266.8	3.69	3.12
284+37.75	LT	4	1.37	0.001925	0.03	0	5.26	FD1-N2	260.3	5.04	3.82
270+50.00	RT	6	4.71	0.001	0.012	0	2.13	FD2-N3	40.9	1.53	3.24
274+50.00	RT	6	3.66	0.001	0.012	0	2.53	FD2-N2	92.4	2.17	4.07
292+56.00	RT	4	5.1	0.001	0.012	0	2.66	FD2-N1	91.2	2.21	4.12
EAST END	RT	4	5.1	0.001	0.012	0	2.66	FD2	90.9	2.20	4.11

- NOTES:
 1. 10-YR DESIGN STORM WAS ANALYZED USING MANNINGS EQUATION FOR DITCH CALCULATIONS
 2. SLOPES OF 0.0001 REPRESENT A VERTICAL SLOPE (i.e. RETAINING WALL)

DESIGN

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

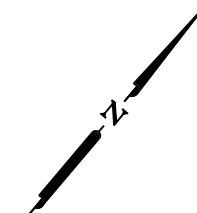
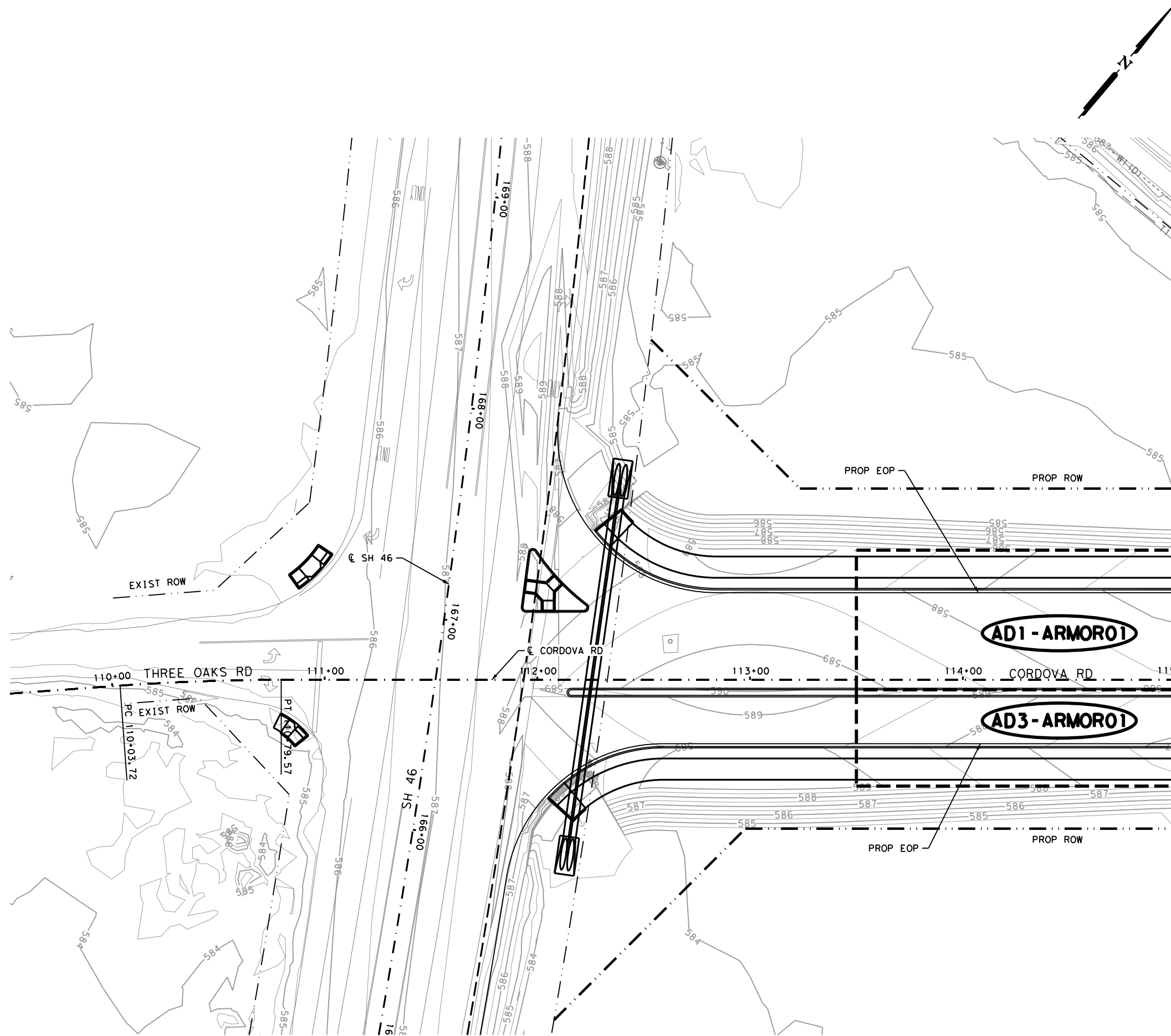
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #10028800			
 It's real.			
 ©2023			
DITCH HYDRAULIC DATA SHEET			
DCN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK DCN:	6	TEXAS	
DWG:	DIST.	COUNTY	CONT. NO. SECT. NO. JOB NO.
CHK DWG:	SAT	GUADALUPE	0915 45 052 170

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_01.dgn



LEGEND

- X-X DRAINAGE AREA
- LINE-E1 STORM DRAIN DESIGNATION
- ED1-1 STRUCTURE DESIGNATION

NOTES

1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
2. SEE PERTINENT STRUCTURE LAYOUT OR PROFILE FOR ADDITIONAL DETAILS OF EACH STRUCTURE.
3. ALL PIPES ARE NORMAL TO AND STRAIGHT FROM STRUCTURE TO STRUCTURE UNLESS OTHERWISE SHOWN.
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5. MANHOLE & GRATE INLET STATION, OFFSET, AND ELEVATIONS REFERENCES ARE TO THE CENTER AND TOP OF STRUCTURE.
6. CURB INLET STATION, OFFSET, AND ELEVATION REFERENCES ARE TO THE TOP FACE OF CURB OF INLET STRUCTURE.

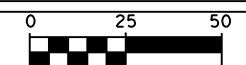
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

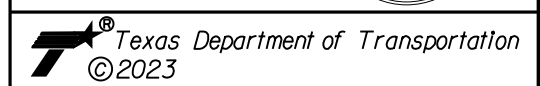
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD

DRAINAGE LAYOUT

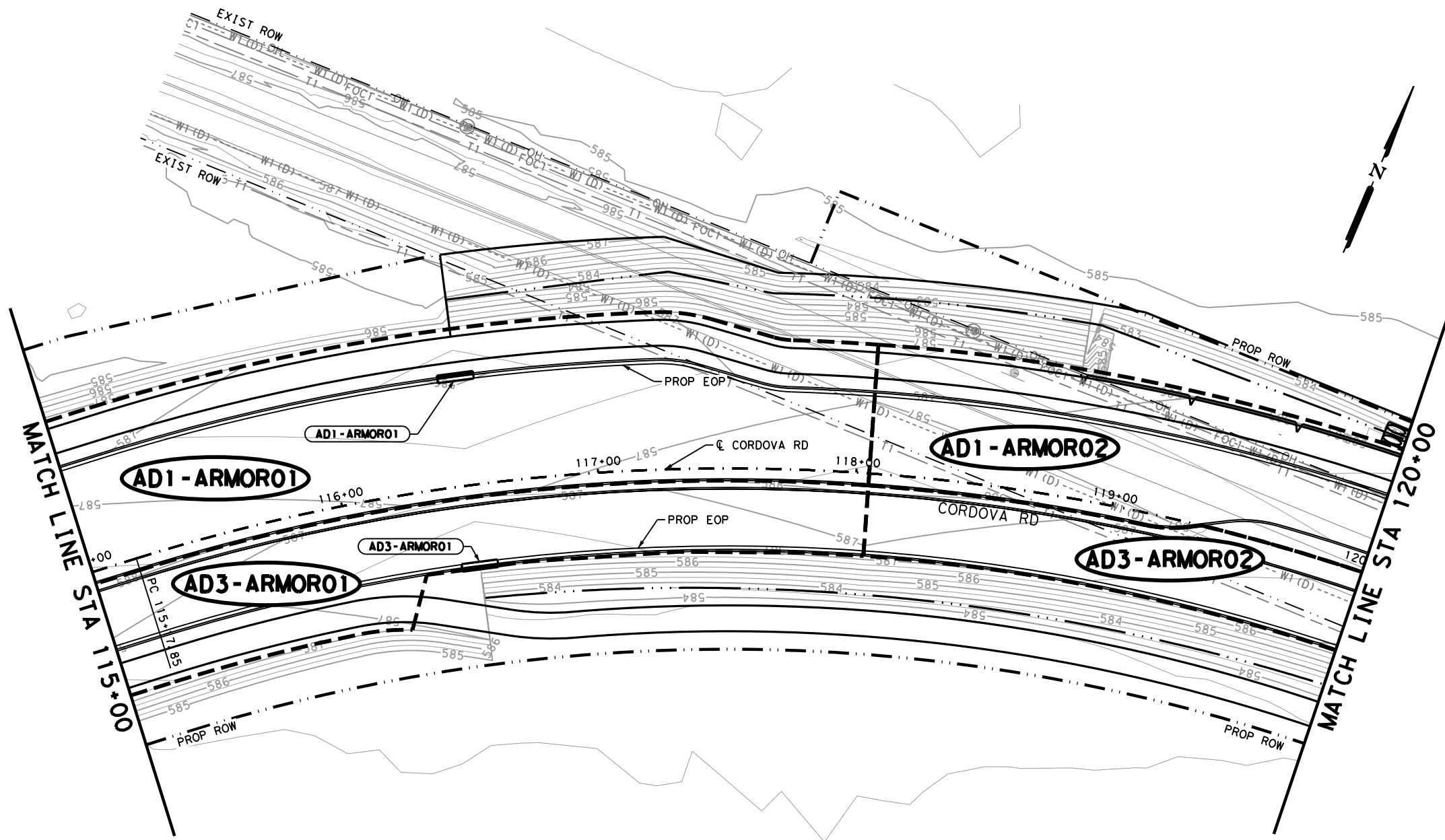
BEGIN PROJECT TO STA 115+00

SHEET 1 OF 22

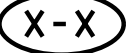
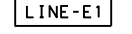

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHK DGN:	6	TEXAS		CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.
CHK DWG:	SAT	GUADALUPE	0915	45
			052	171

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_02.dgn



LEGEND

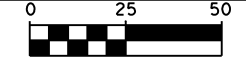
-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

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DESIGN
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD

DRAINAGE LAYOUT

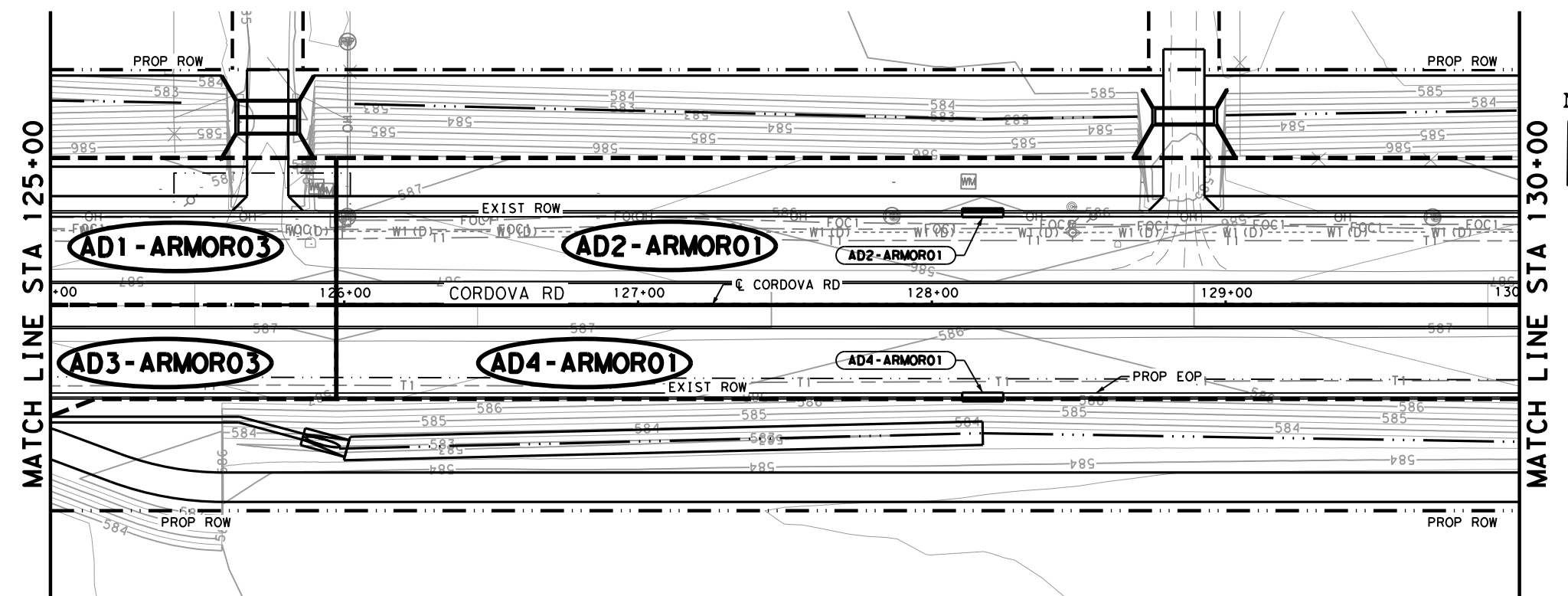
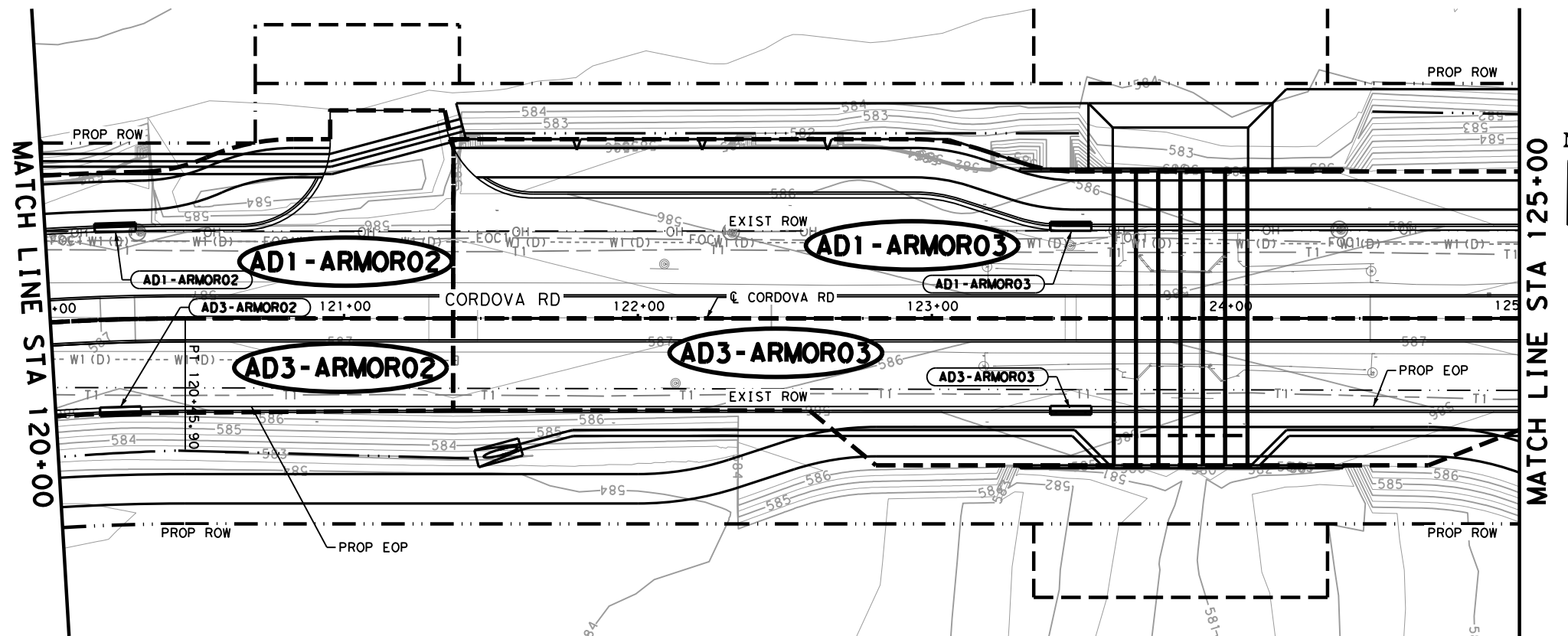
STA 115+00 TO STA 120+00

SHEET 2 OF 22

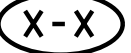
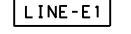
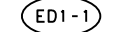
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	172

Plotted on: 7/27/2023

Design File Name: P:\1275\00\Design\Civi\Drainage\1277500_sd_03.dgn



LEGEND

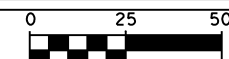
-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

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DESIGN
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

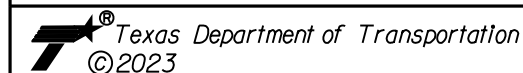


SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



CORDOVA RD

DRAINAGE LAYOUT

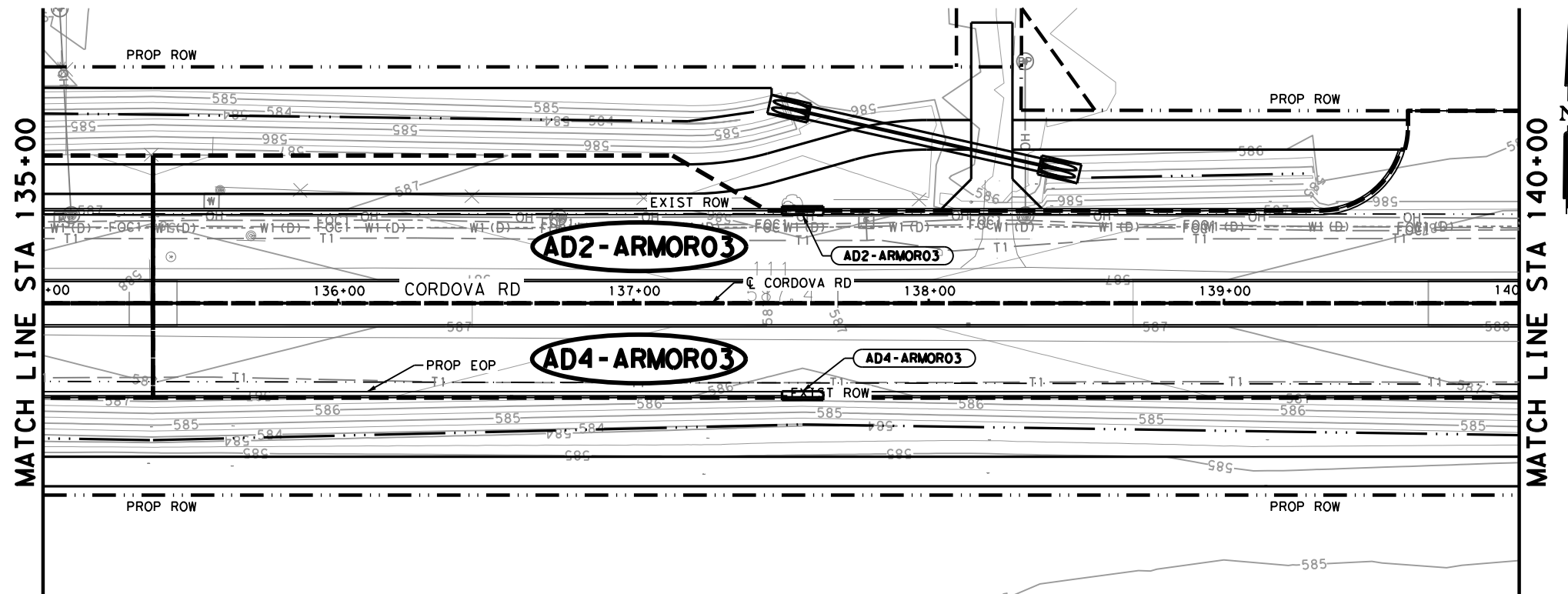
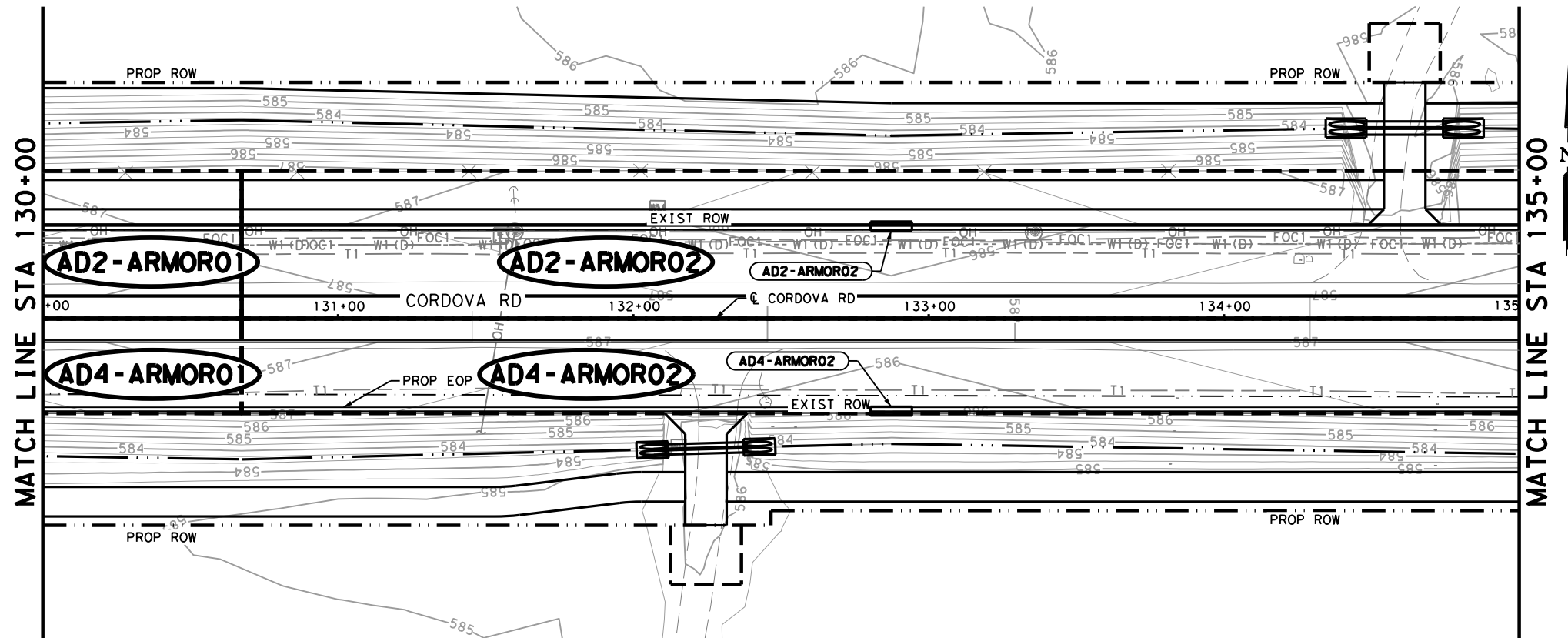
STA 120+00 TO STA 130+00

SHEET 3 OF 22

CHK	DGN	FED. NO.	DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.	
		6		TEXAS		CORDOVA	
CHK	DGN	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
		SAT	GUADALUPE	0915	45	052	173

Plotted on: 7/27/2023

Design File name: P:\1275\00\Design\Civil\Drainage\1277500_sd_04.dgn



- LEGEND**
- DRAINAGE AREA
 - STORM DRAIN DESIGNATION
 - STRUCTURE DESIGNATION

- NOTES**
1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
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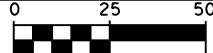
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

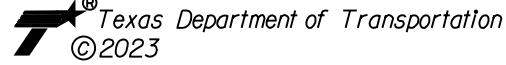
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD

DRAINAGE LAYOUT

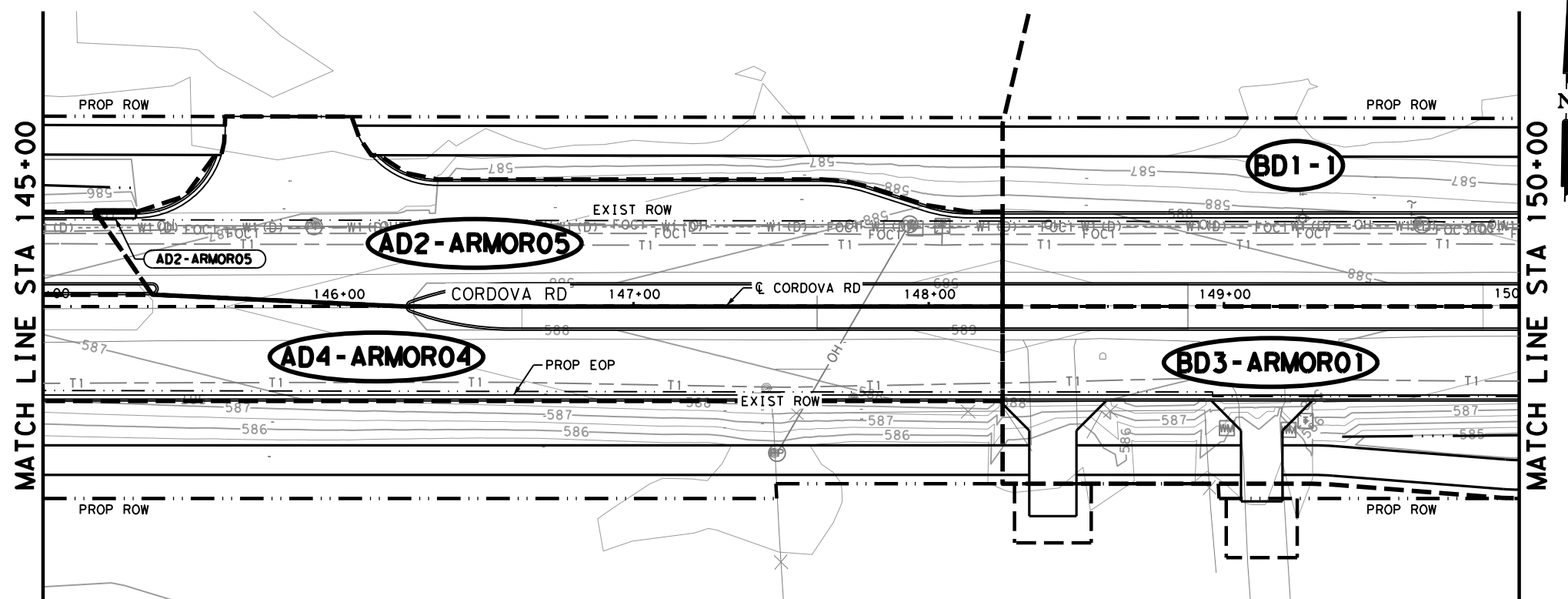
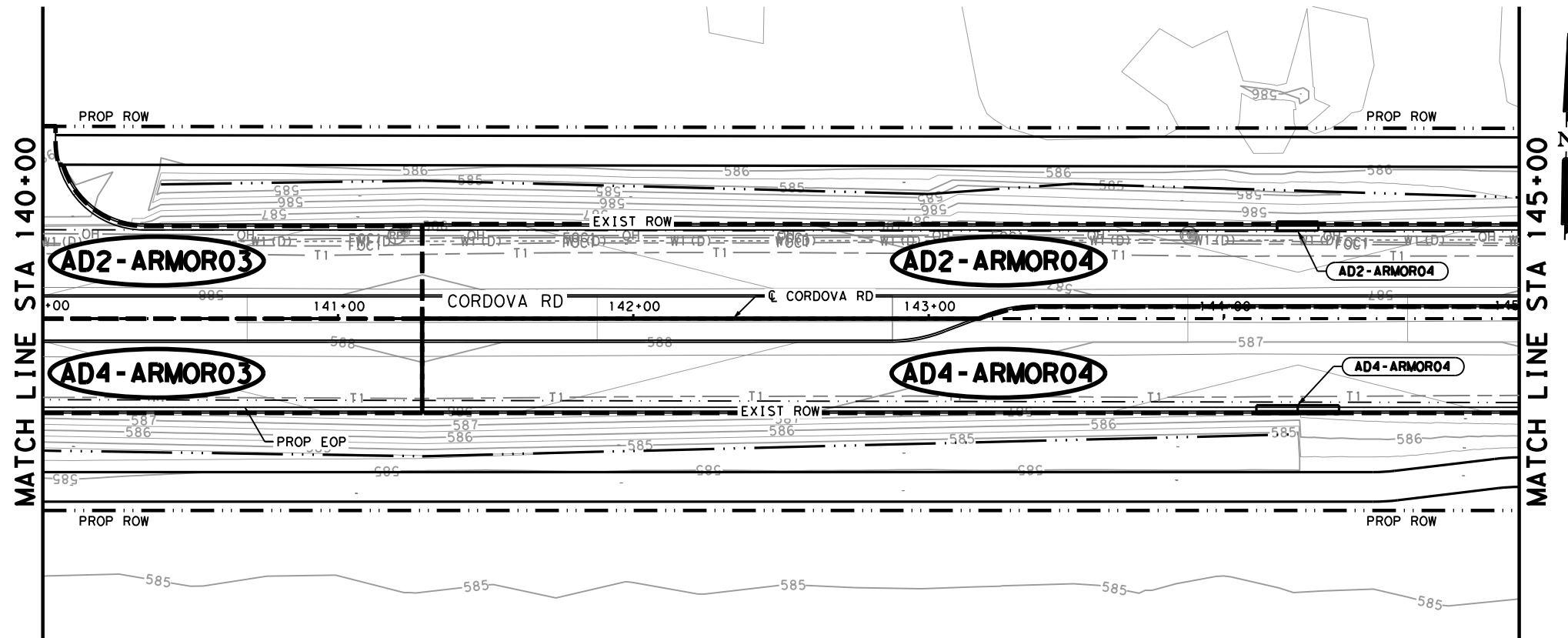
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SHEET 4 OF 22

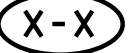
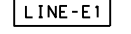

CHK	DGN	FED. NO.	DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.	
		6		TEXAS		CORDOVA	
CHK	DGN	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
		SAT	GUADALUPE	0915	45	052	174

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civi\Drainage\1277500_sd_05.dgn



LEGEND

-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

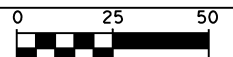
1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
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DESIGN




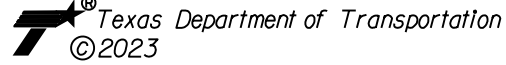
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

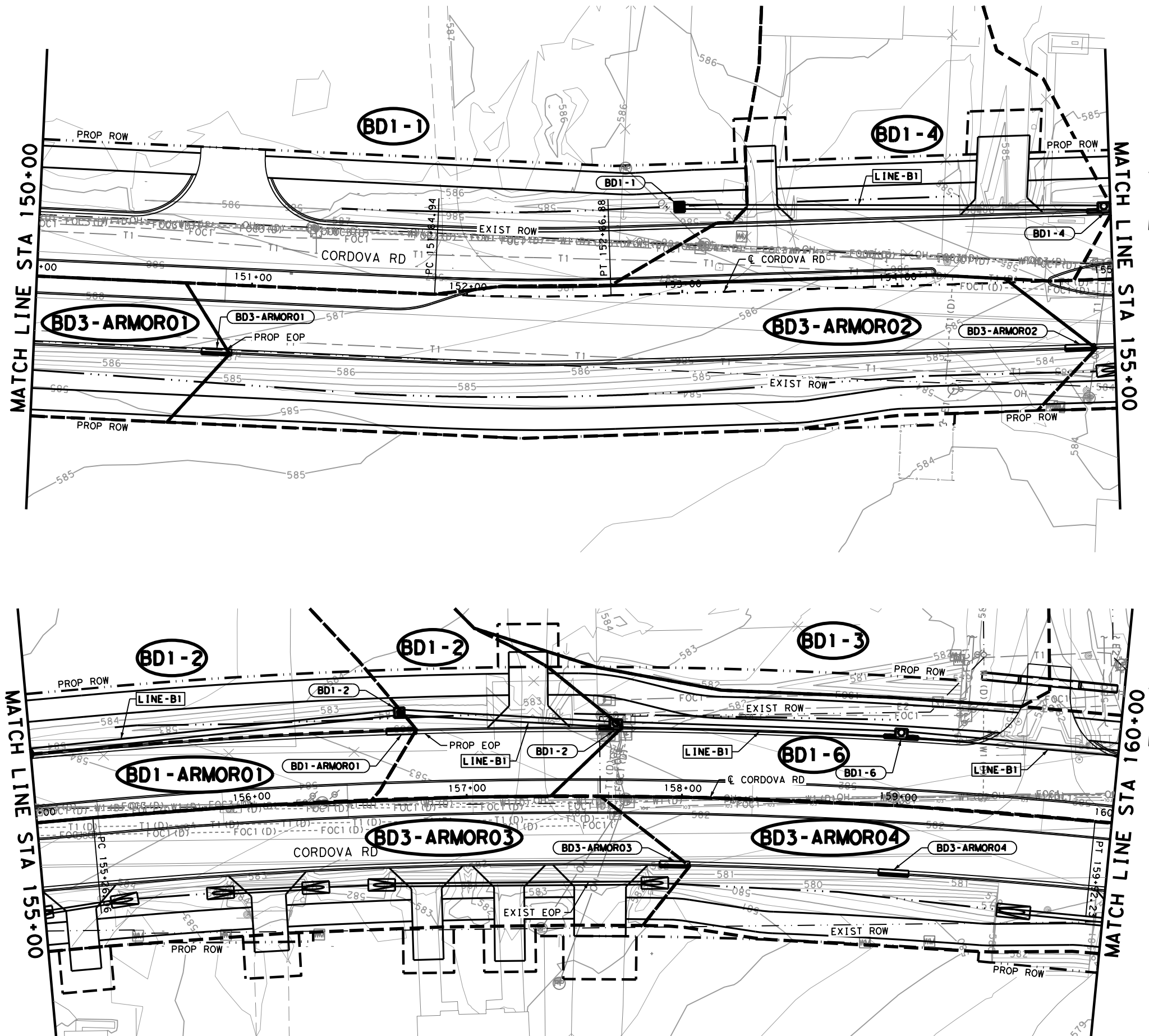


SCALE: PLAN 1" = 50' PROFILE 1" = 10'

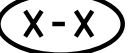
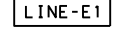
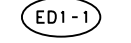
REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			
 			
 © 2023			
CORDOVA RD DRAINAGE LAYOUT STA 140+00 TO STA 150+00 SHEET 5 OF 22			
CHK DGN:	FED. NO. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO. HIGHWAY NO.
CHK DWG:	6	TEXAS	CORDOVA
CHK DGN:	DIST.:	COUNTY:	CONT. NO. SECT. NO. JOB NO. SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915 45 052 175

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_06.dgn



LEGEND

-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

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INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: STEVEN J. TATE

P.E. SERIAL NO: 131443

DATE: 7/27/2023

APPROVAL

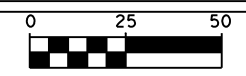
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.

ENGINEER: JOHN A. TYLER

P.E. SERIAL NO: 105193

DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY
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SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD

DRAINAGE LAYOUT

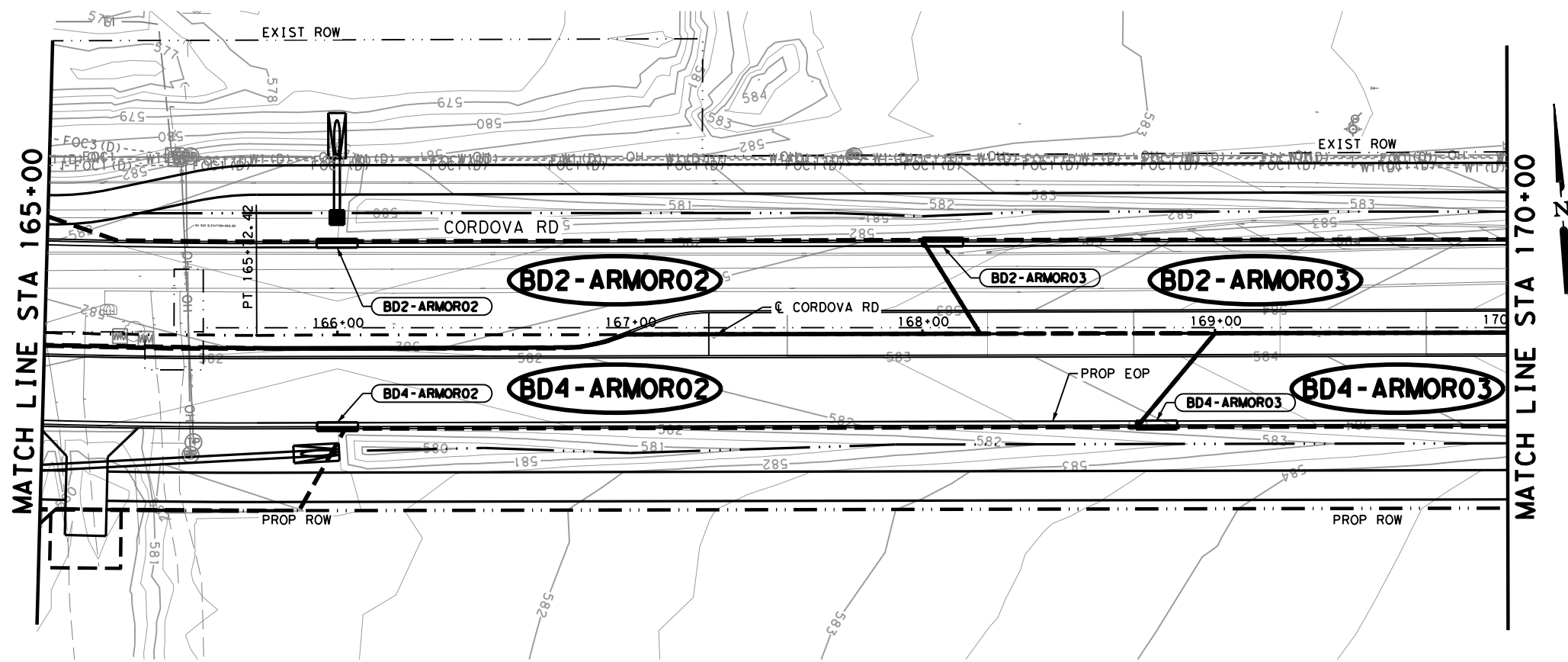
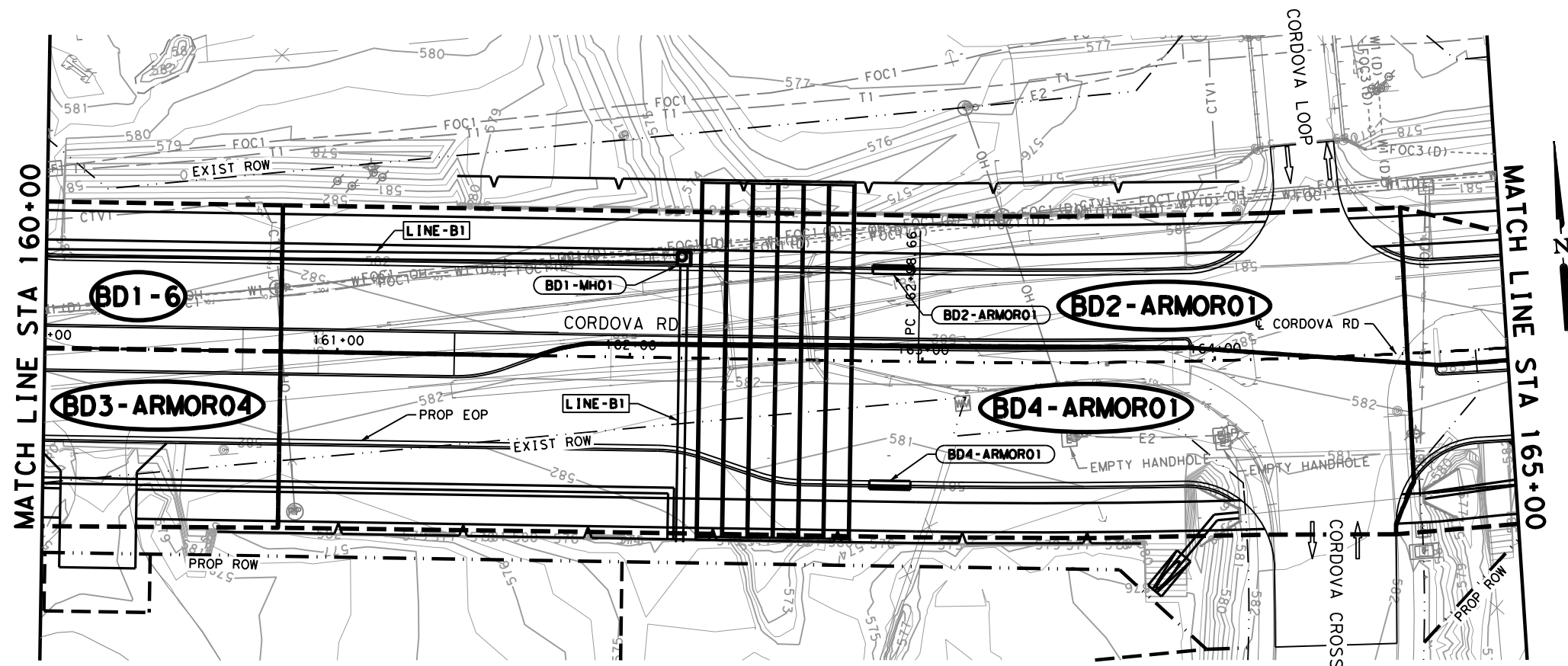
STA 150+00 TO STA 160+00

SHEET 6 OF 22

CHK	DGN	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
		6	TEXAS		CORDOVA		
CHK	DGN	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
		SAT	GUADALUPE	0915	45	052	176

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_07.dgn



- LEGEND**
- DRAINAGE AREA
 - STORM DRAIN DESIGNATION
 - STRUCTURE DESIGNATION

- NOTES**
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DESIGN

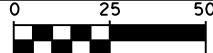
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD

DRAINAGE LAYOUT

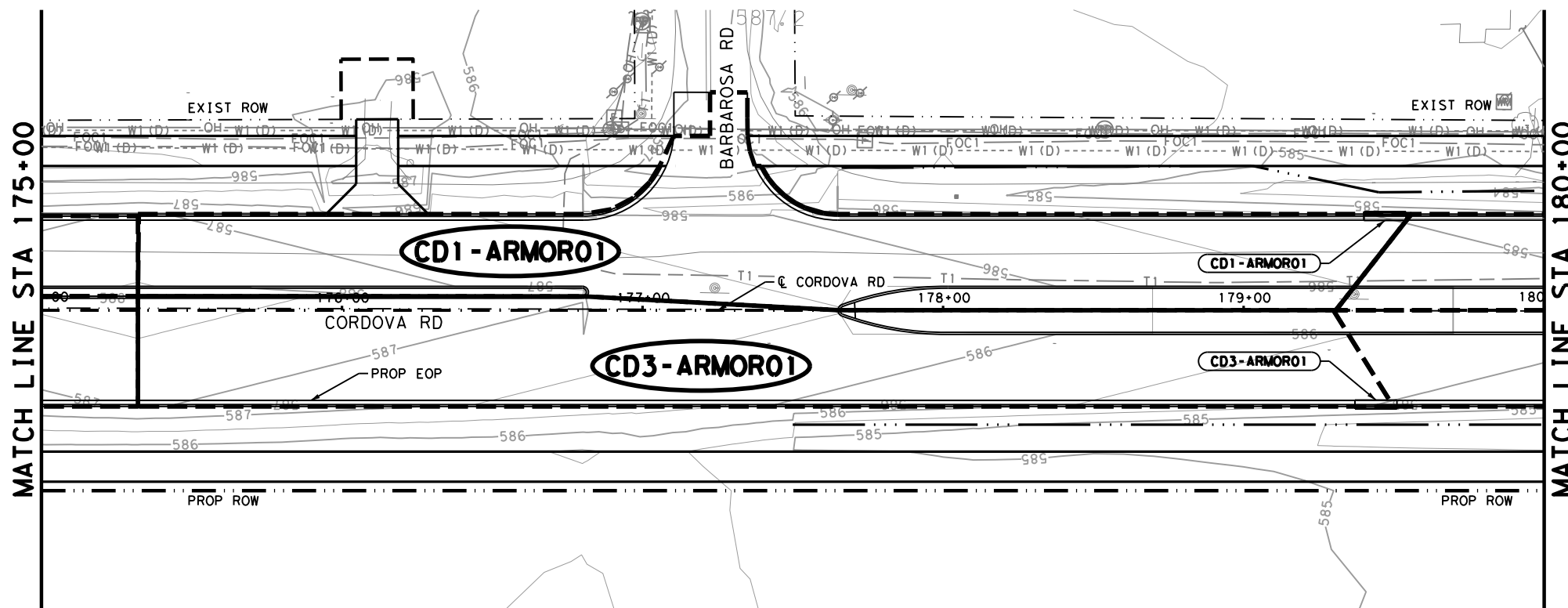
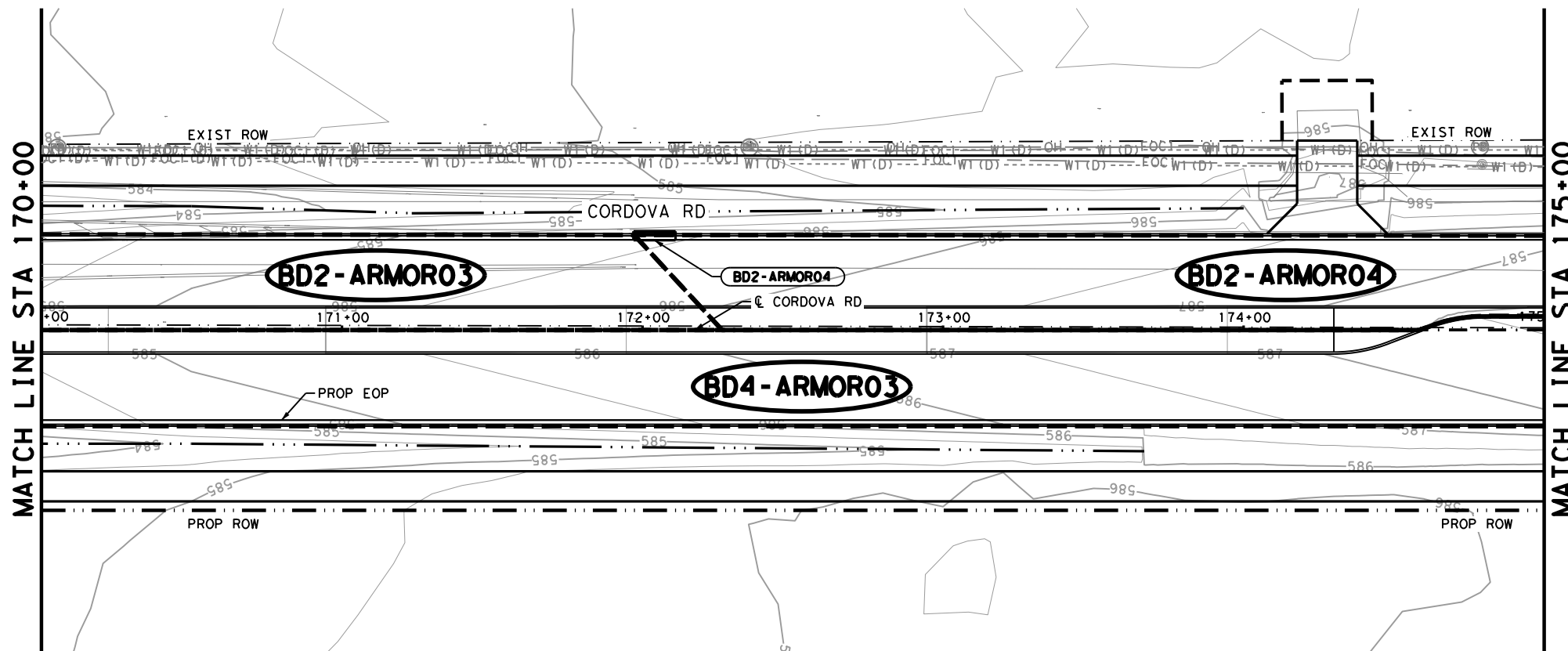
STA 160+00 TO STA 170+00

SHEET 7 OF 22

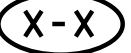
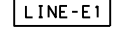
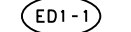
DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	177

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_08.dgn



LEGEND

-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
2. SEE PERTINENT STRUCTURE LAYOUT OR PROFILE FOR ADDITIONAL DETAILS OF EACH STRUCTURE.
3. ALL PIPES ARE NORMAL TO AND STRAIGHT FROM STRUCTURE TO STRUCTURE UNLESS OTHERWISE SHOWN.
4. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.
5. MANHOLE & GRATE INLET STATION, OFFSET, AND ELEVATIONS REFERENCES ARE TO THE CENTER AND TOP OF STRUCTURE.
6. CURB INLET STATION, OFFSET, AND ELEVATION REFERENCES ARE TO THE TOP FACE OF CURB OF INLET STRUCTURE.

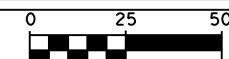
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

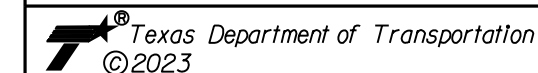
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD
DRAINAGE LAYOUT

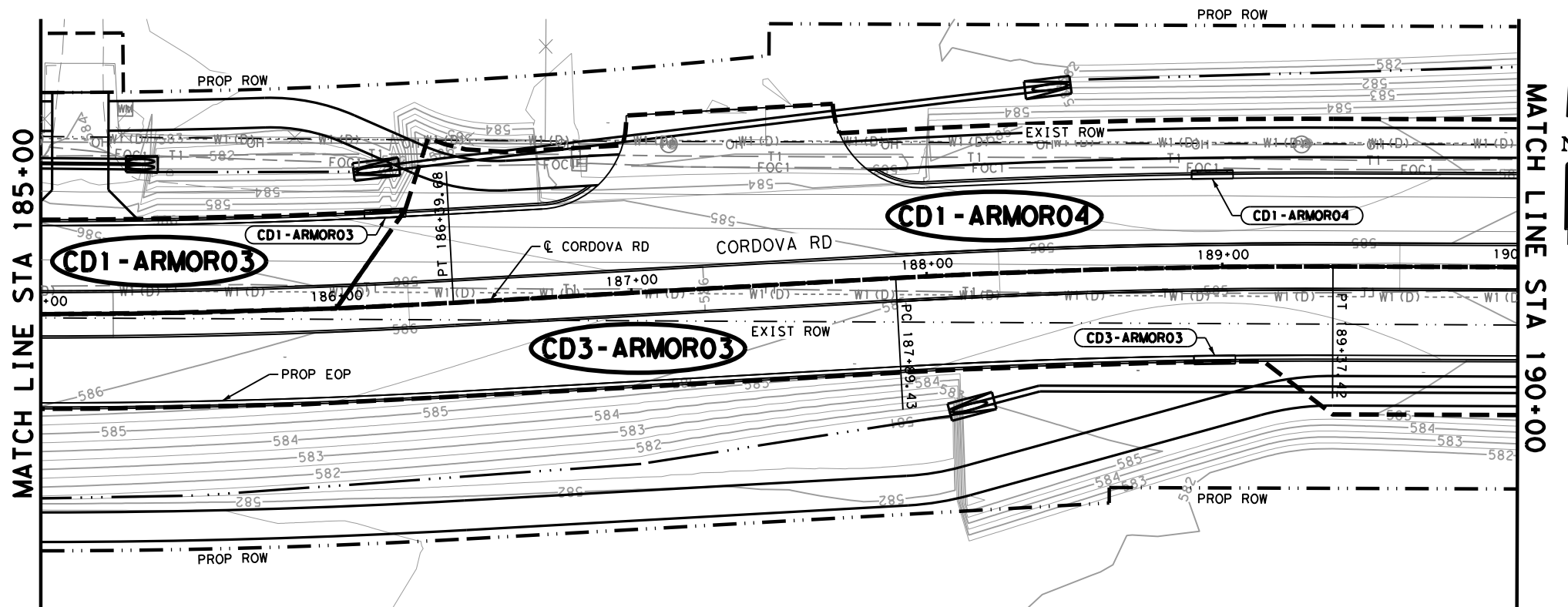
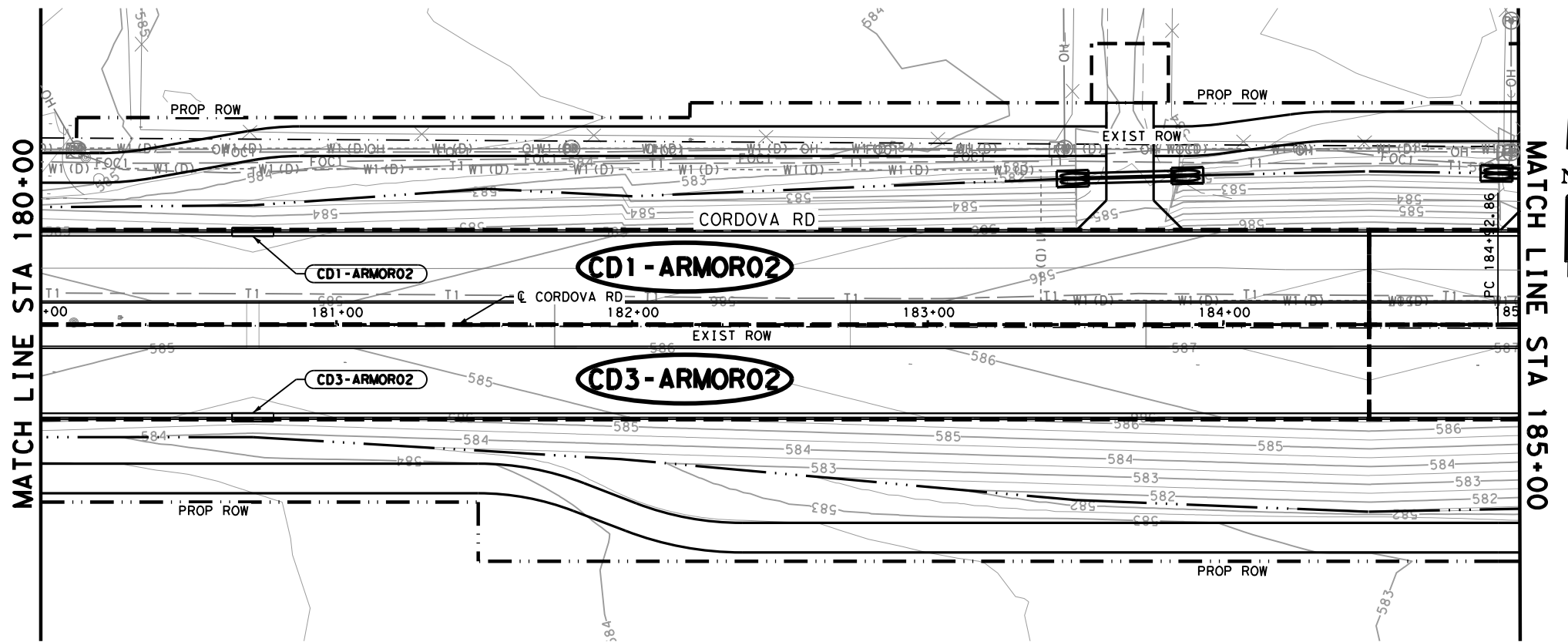
STA 170+00 TO STA 180+00

SHEET 8 OF 22

DGN:	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	178

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_09.dgn



- LEGEND**
- DRAINAGE AREA
 - STORM DRAIN DESIGNATION
 - STRUCTURE DESIGNATION

- NOTES**
1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
 2. SEE PERTINENT STRUCTURE LAYOUT OR PROFILE FOR ADDITIONAL DETAILS OF EACH STRUCTURE.
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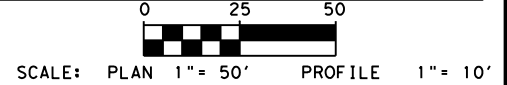
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

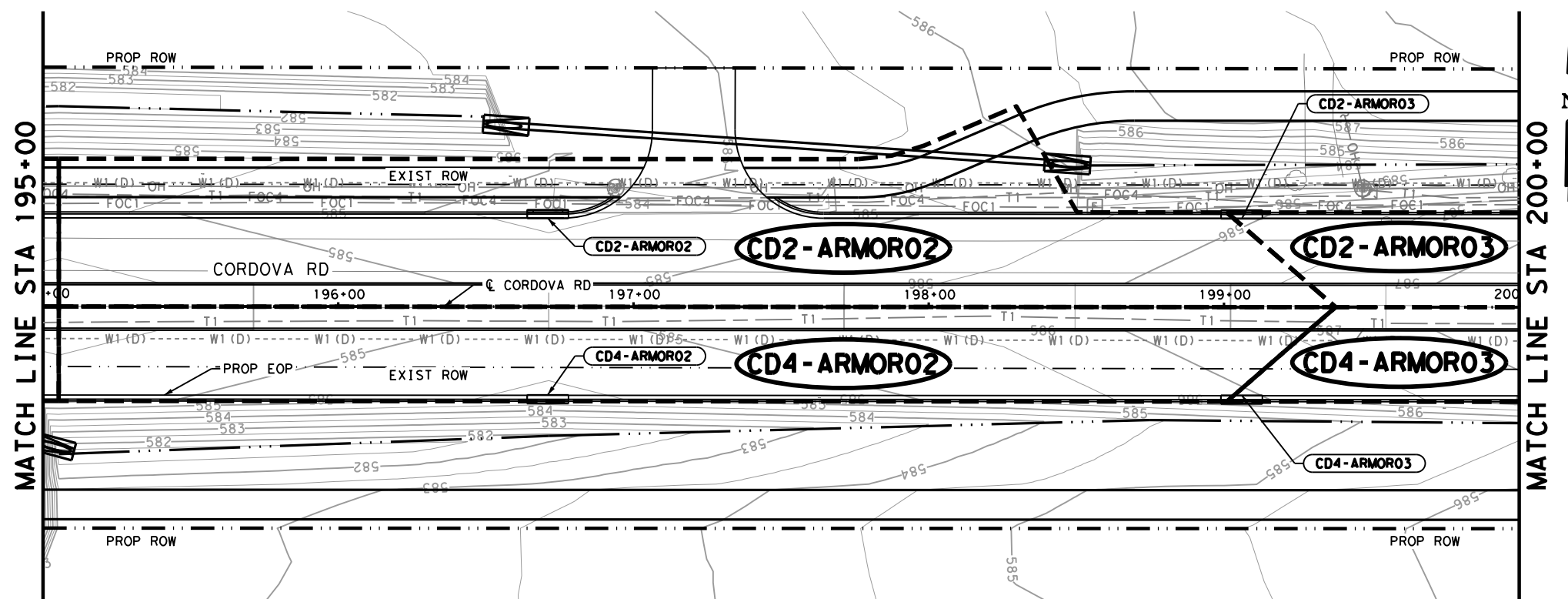
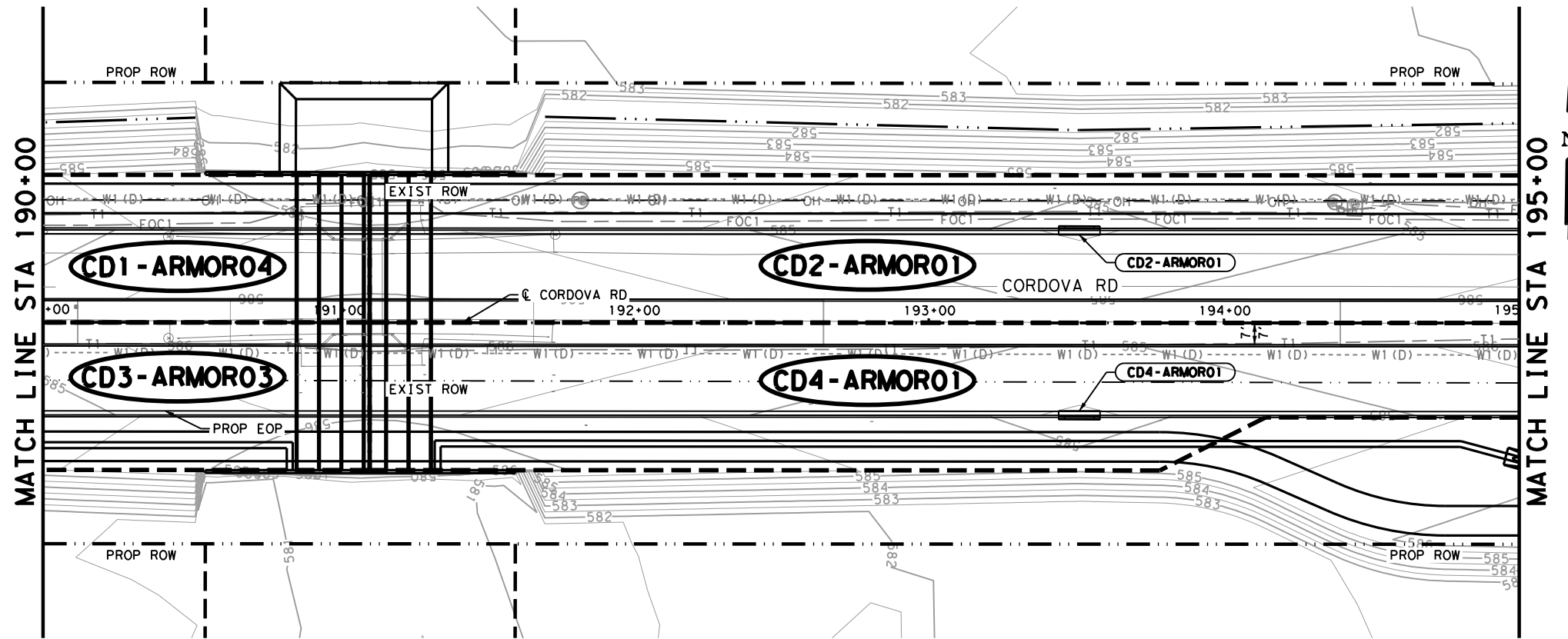
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			
©2023 CORDOVA RD			
DRAINAGE LAYOUT STA 180+00 TO STA 190+00 SHEET 9 OF 22			
CHK	DGN:	FED. NO. 6	STATE TEXAS
CHK	DGN:	DIST. SAT	COUNTY GUADALUPE
CHK	DGN:	CONT. NO. 0915	SECT. NO. 45
CHK	DGN:	JOB NO. 052	SHEET NO. 179

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_10.dgn



- LEGEND**
- X-X DRAINAGE AREA
 - LINE-E1 STORM DRAIN DESIGNATION
 - ED1-1 STRUCTURE DESIGNATION

- NOTES**
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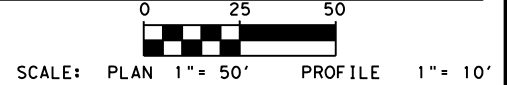
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023


APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY



PAPE-DAWSON ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



SEGUIN TEXAS

It's real.



Texas Department of Transportation
© 2023

CORDOVA RD

DRAINAGE LAYOUT

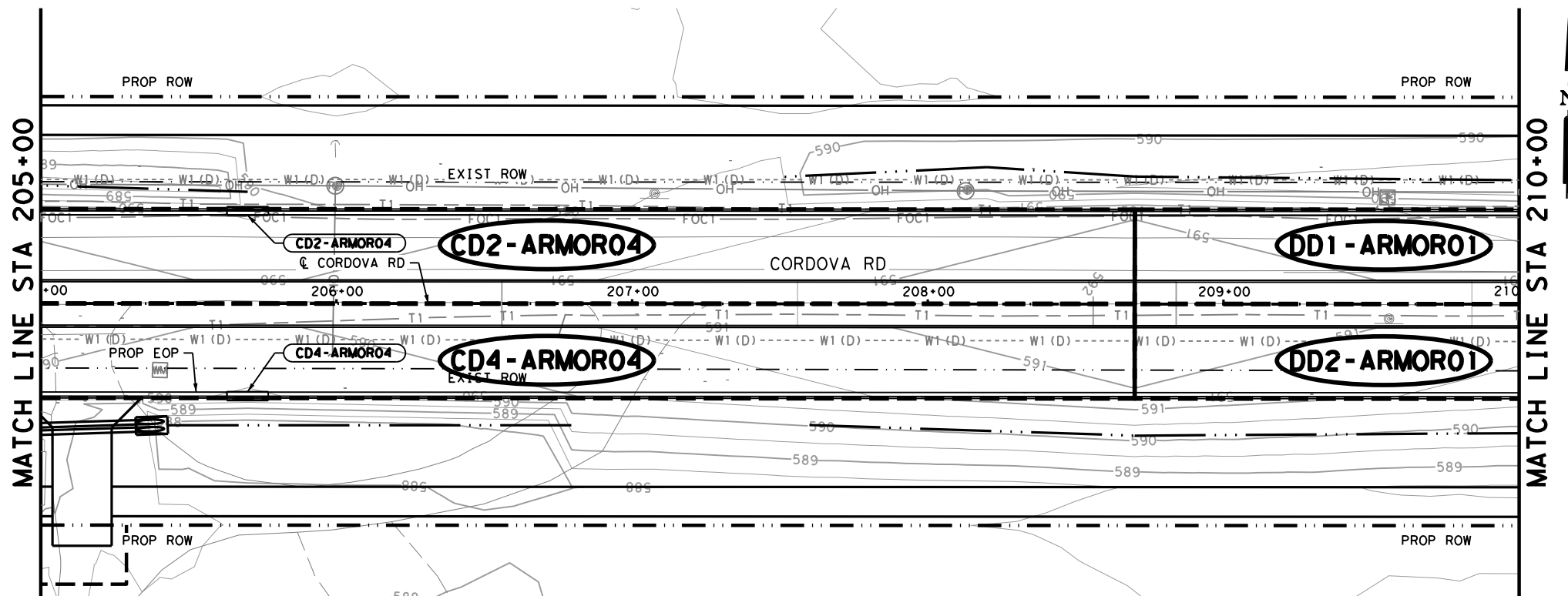
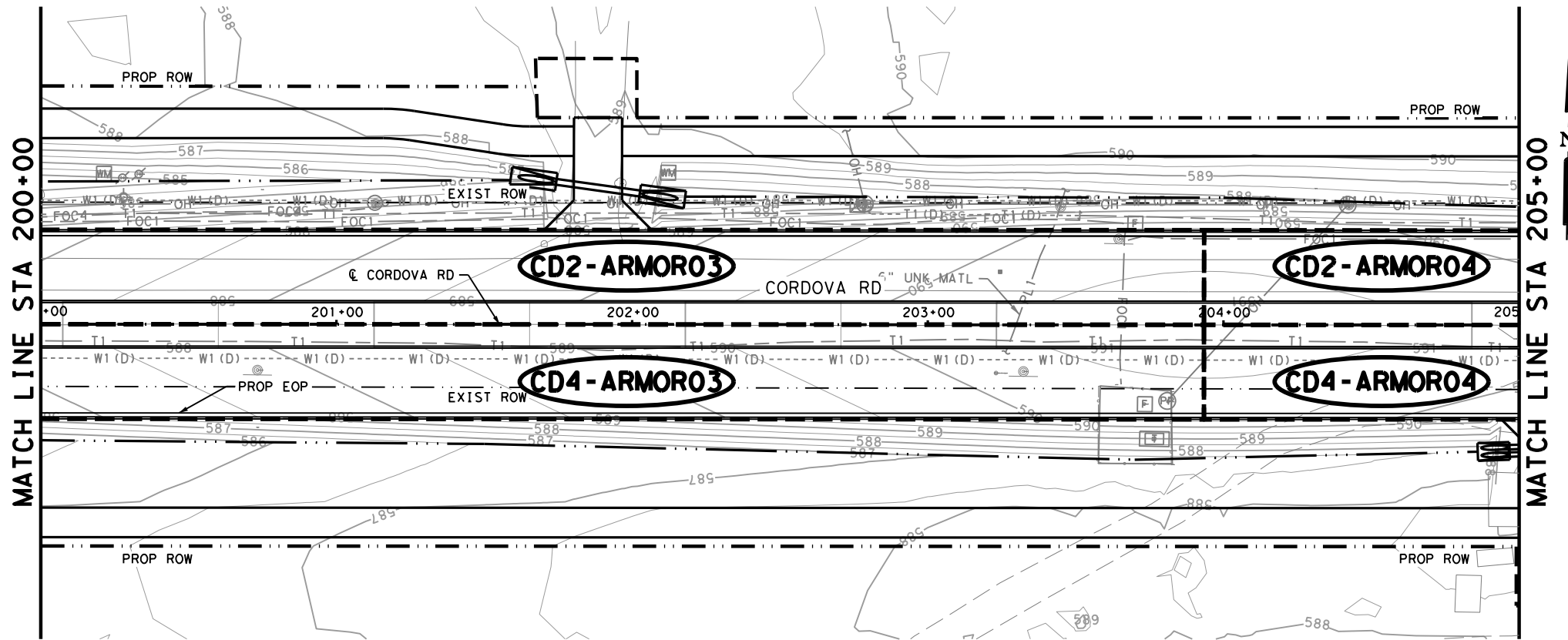
STA 190+00 TO STA 200+00

SHEET 10 OF 22

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHK:	6	TEXAS		CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.
CHK:	SAT	GUADALUPE	0915	45
DWG:				052
				180

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civi\Drainage\1277500_sd_11.dgn



- LEGEND**
- DRAINAGE AREA
 - STORM DRAIN DESIGNATION
 - STRUCTURE DESIGNATION

- NOTES**
1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
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DESIGN

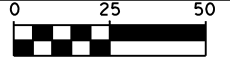
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P. E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P. E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



PAPE-DAWSON ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



CORDOVA RD

DRAINAGE LAYOUT

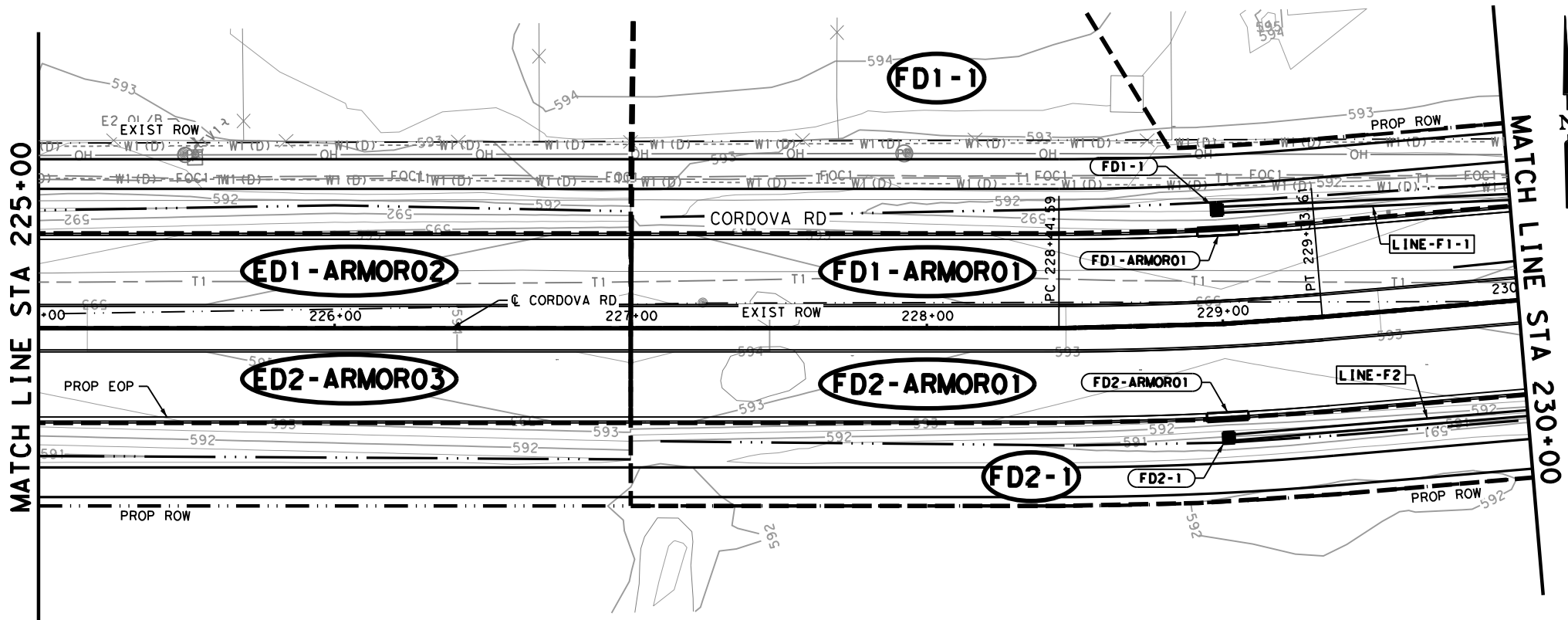
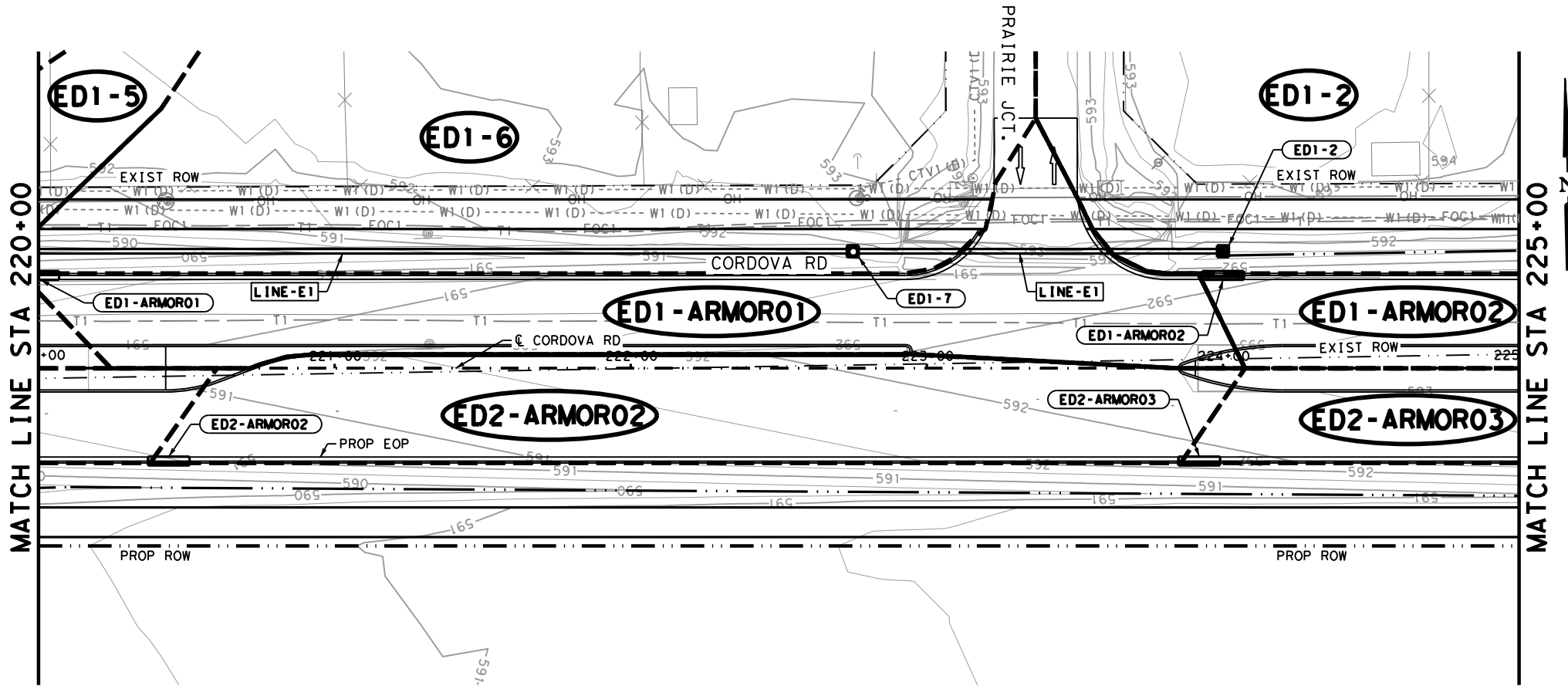
STA 200+00 TO STA 210+00

SHEET 11 OF 22

DGN:	FED. RD. DIV. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK DGN:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK DWG:	SAT	GUADALUPE	0915	45
			052	181

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civi\Drainage\1277500_sd_13.dgn



- LEGEND**
- X-X DRAINAGE AREA
 - LINE-E1 STORM DRAIN DESIGNATION
 - ED1-1 STRUCTURE DESIGNATION

- NOTES**
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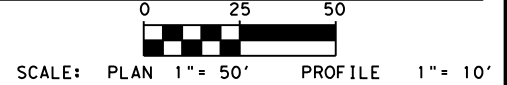
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

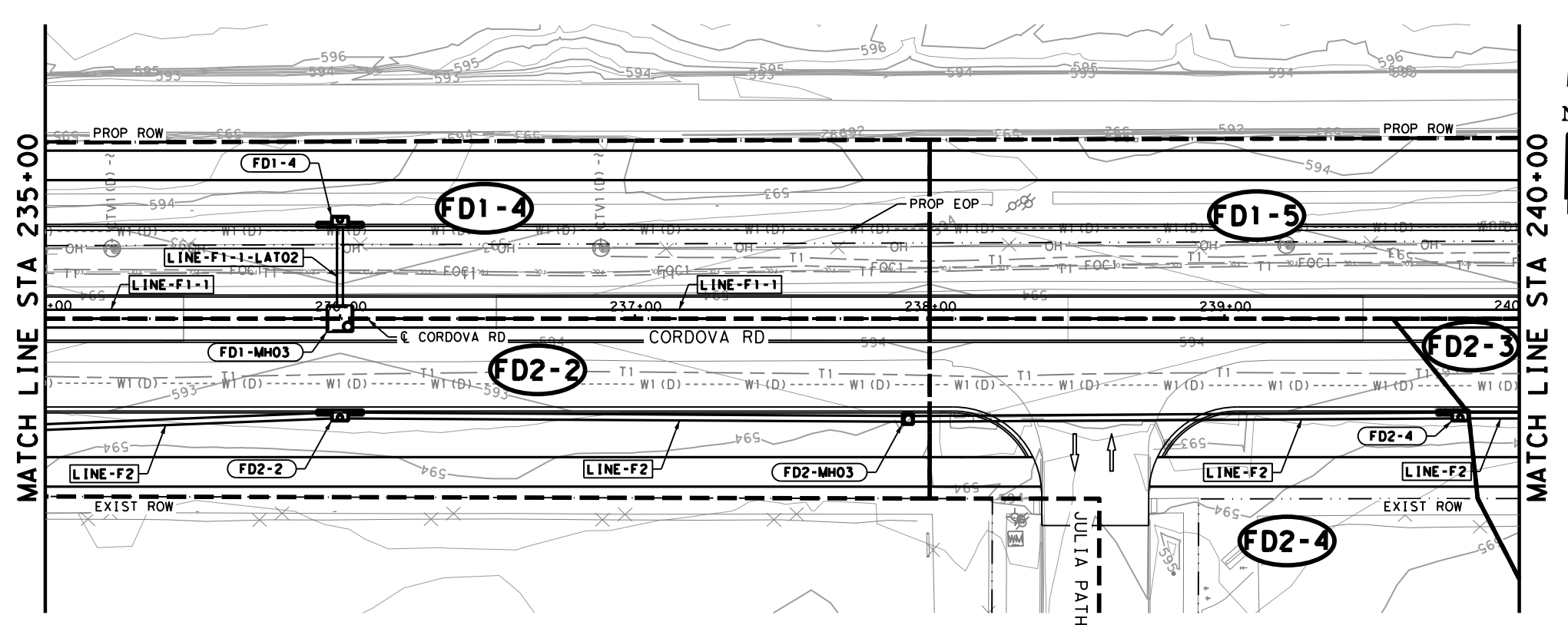
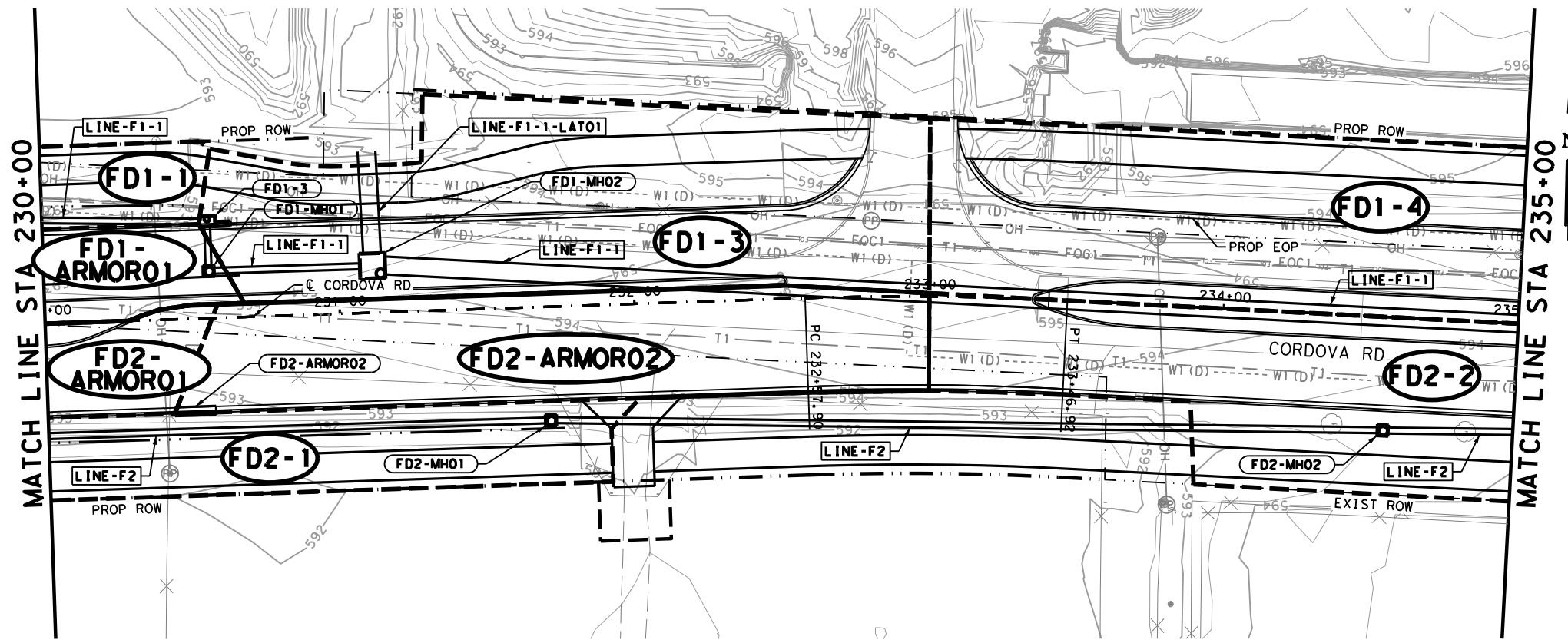
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



REV. NO.	DATE	DESCRIPTION	BY
<p style="font-size: small; margin: 0;">SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800</p>			
<p style="font-size: small; margin: 0;">It's real.</p>			
<p style="font-size: small; margin: 0;">Texas Department of Transportation © 2023</p>			
<p style="margin: 0;">CORDOVA RD</p> <p style="margin: 0;">DRAINAGE LAYOUT</p> <p style="margin: 0;">STA 220+00 TO STA 230+00</p> <p style="margin: 0; font-size: x-small;">SHEET 13 OF 22</p>			
CHK DGN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
	6	TEXAS	
CHK DGN:	DIST.	COUNTY	CONT. NO.
	SAT	GUADALUPE	0915
CHK DGN:	HIGHWAY NO.	JOB NO.	SHEET NO.
	CORDOVA	052	183

Plotted on: 7/27/2023

Design File Name: P:\1275\00\Design\Civil\Drainage\1277500_sd_14.dgn



LEGEND

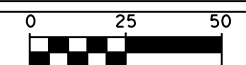
- (X-X) DRAINAGE AREA
- LINE-E1 STORM DRAIN DESIGNATION
- ED1-1 STRUCTURE DESIGNATION

NOTES

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DESIGN
INTERIM REVIEW
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 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

SEGUIN TEXAS
 It's real.

Texas Department of Transportation
 © 2023

**CORDOVA RD
 DRAINAGE LAYOUT**

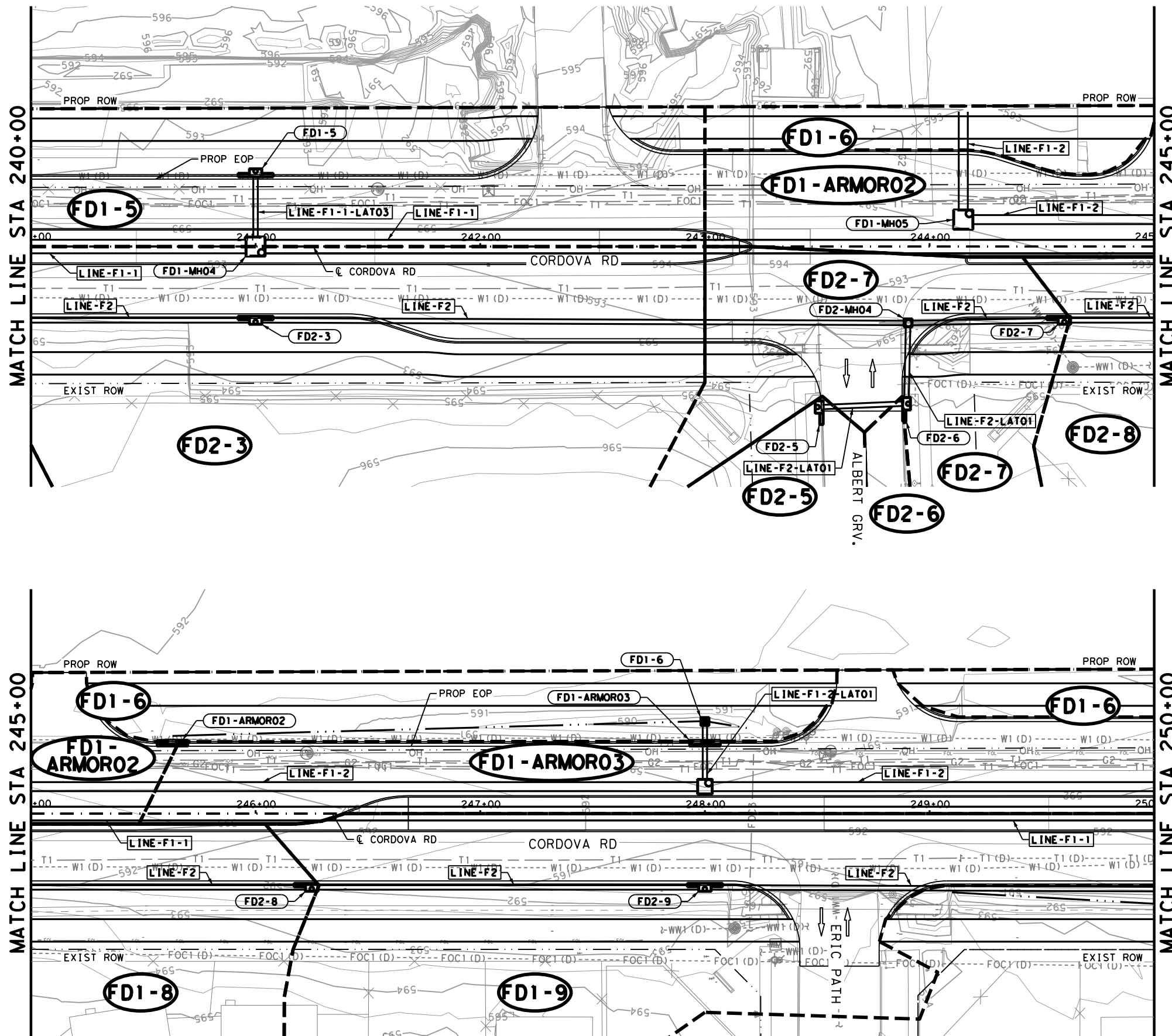
STA 230+00 TO STA 240+00

SHEET 14 OF 22

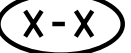
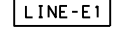
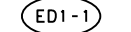
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		6	TEXAS		CORDOVA		
CHK	DWG	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
		SAT	GUADALUPE	0915	45	052	184

Plotted on: 7/27/2023

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LEGEND

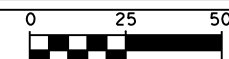
-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES




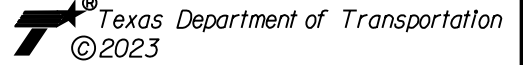
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DESIGN
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

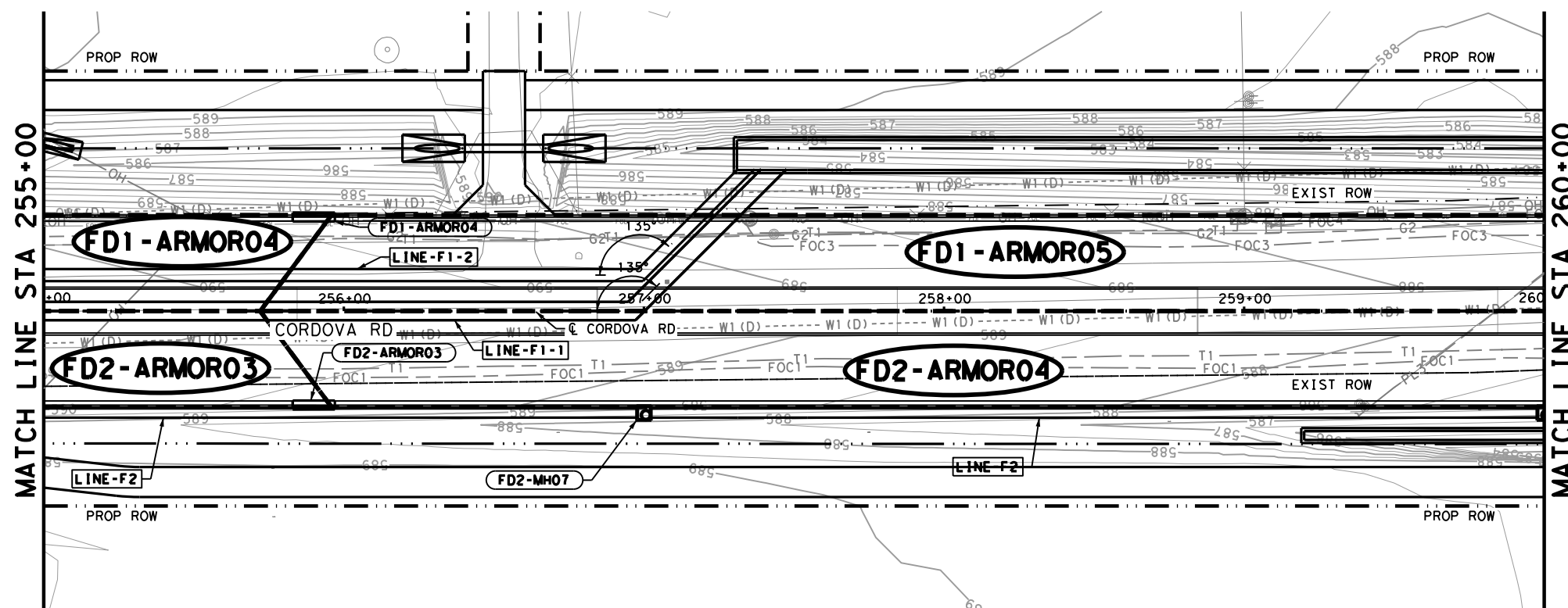
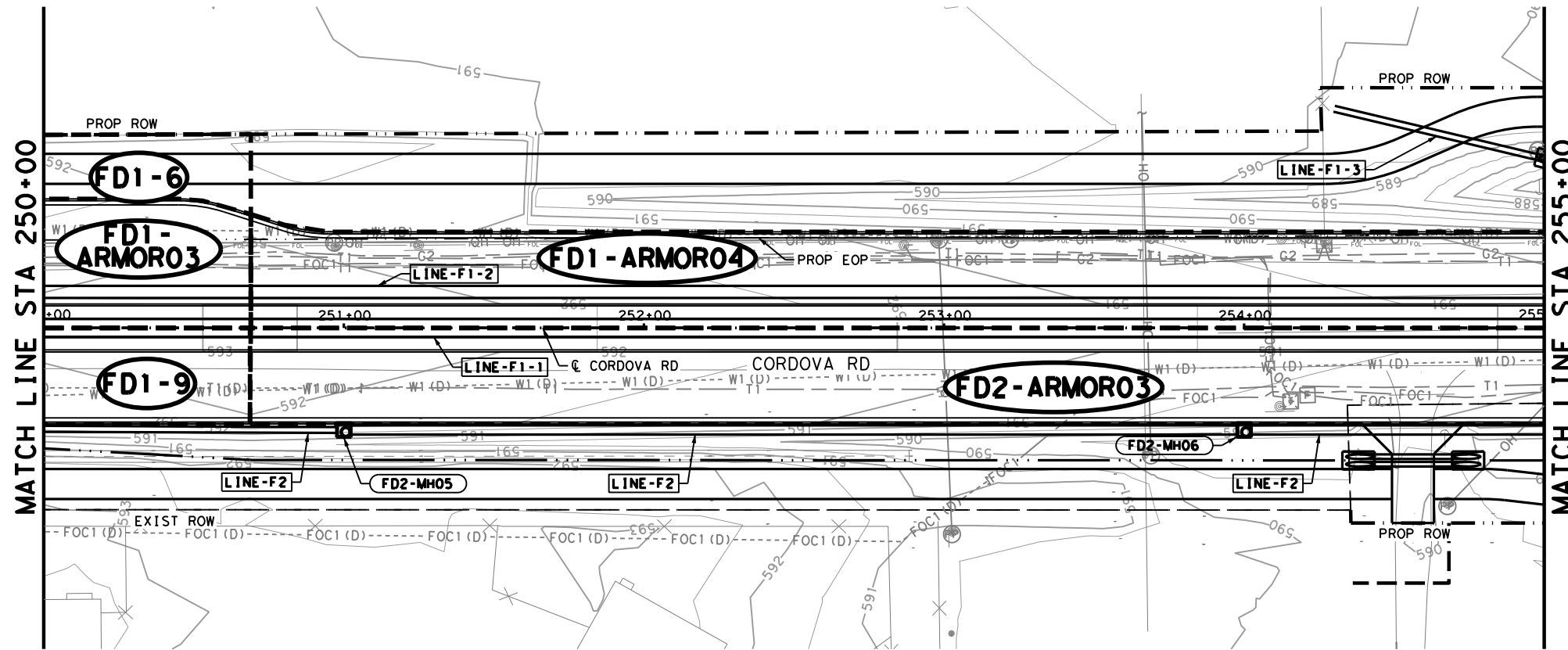


SCALE: PLAN 1" = 50' PROFILE 1" = 10'

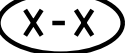
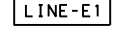
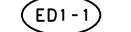
REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			
 			
 © 2023			
CORDOVA RD DRAINAGE LAYOUT STA 240+00 TO STA 250+00 SHEET 15 OF 22			
CHK	DIV. NO.	STATE	FEDERAL AID PROJECT NO.
CHK	6	TEXAS	CORDOVA
CHK	DIST.	COUNTY	CONT. NO.
CHK	SAT	GUADALUPE	0915
CHK			SECT. NO.
CHK			45
CHK			JOB NO.
CHK			052
CHK			SHEET NO.
CHK			185

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_16.dgn



LEGEND

-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

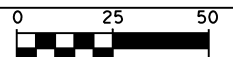
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

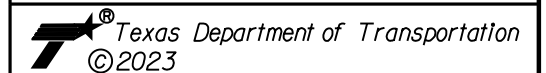
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



It's real.



CORDOVA RD

DRAINAGE LAYOUT

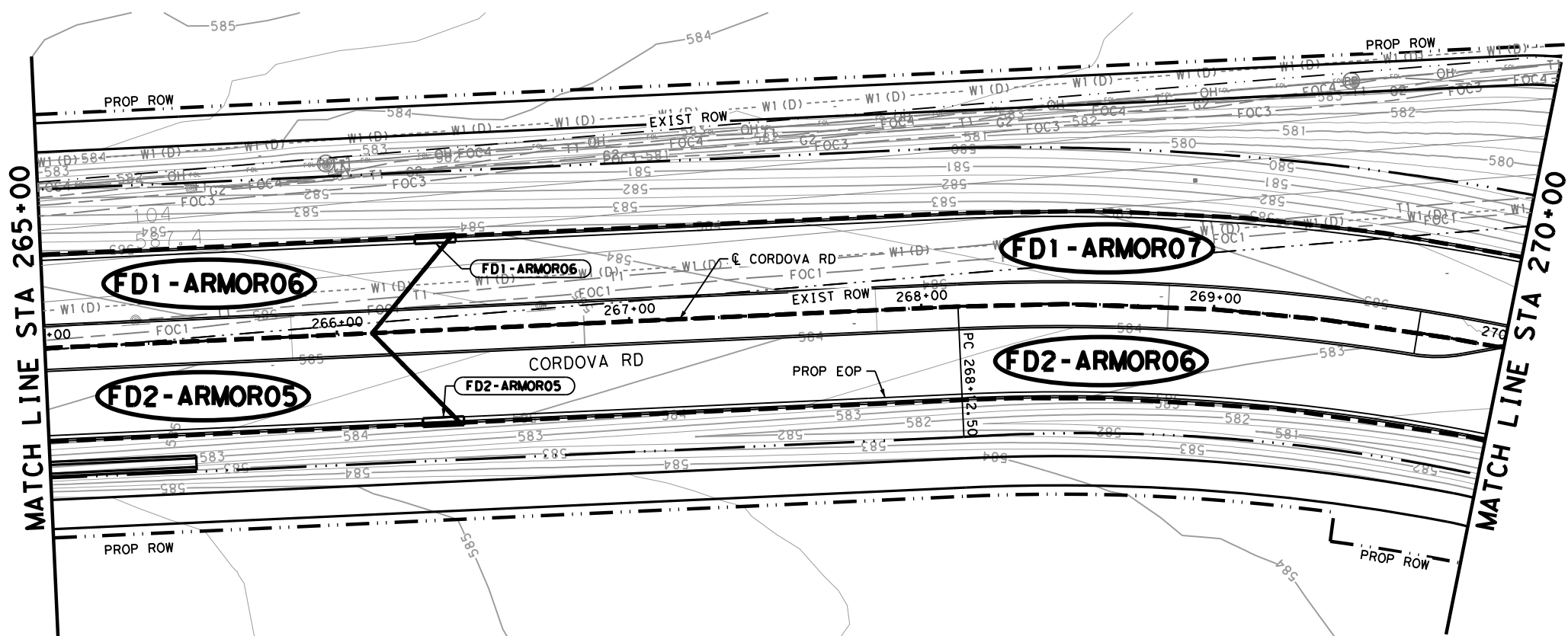
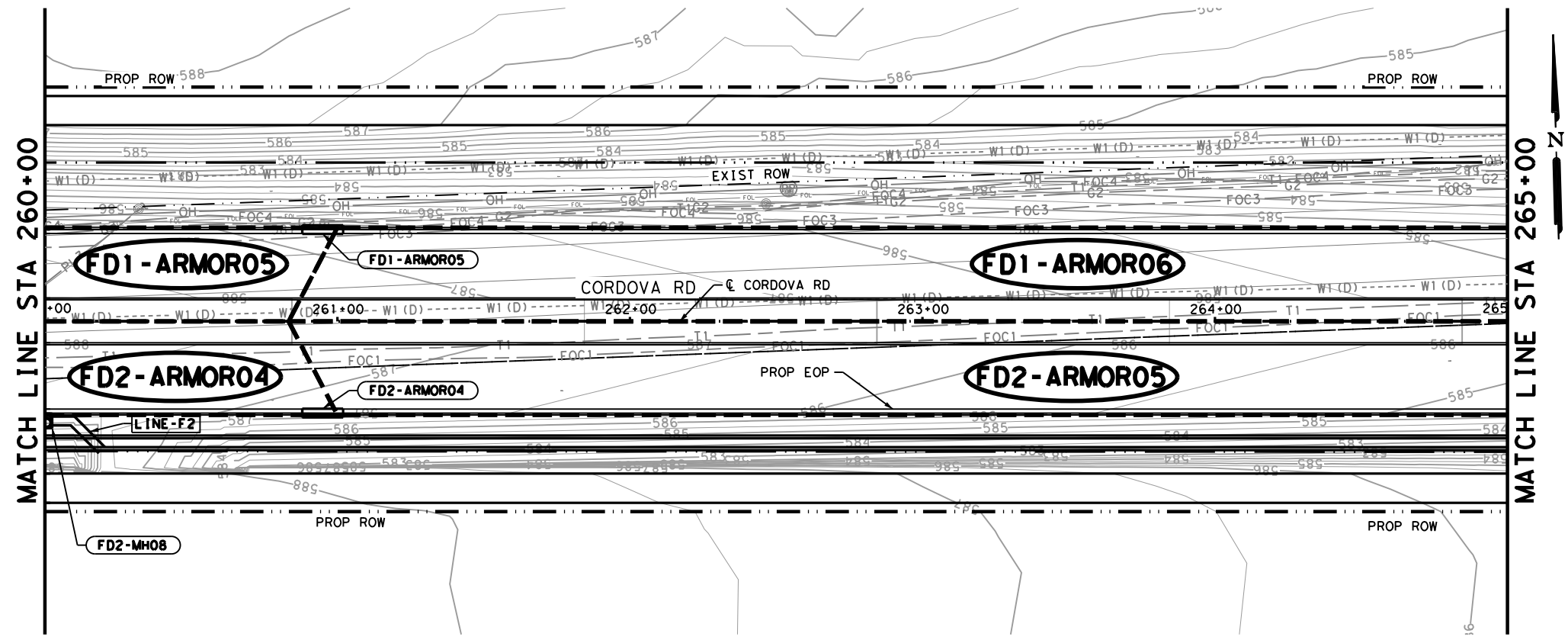
STA 250+00 TO STA 260+00

SHEET 16 OF 22

DCN:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DCN:	6	TEXAS		CORDOVA		
DCN:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DCN:	SAT	GUADALUPE	0915	45	052	186

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_17.dgn



- LEGEND**
- DRAINAGE AREA
 - STORM DRAIN DESIGNATION
 - STRUCTURE DESIGNATION

- NOTES**
1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
 2. SEE PERTINENT STRUCTURE LAYOUT OR PROFILE FOR ADDITIONAL DETAILS OF EACH STRUCTURE.
 3. ALL PIPES ARE NORMAL TO AND STRAIGHT FROM STRUCTURE TO STRUCTURE UNLESS OTHERWISE SHOWN.
 4. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, I.E. FADED.
 5. MANHOLE & GRATE INLET STATION, OFFSET, AND ELEVATIONS REFERENCES ARE TO THE CENTER AND TOP OF STRUCTURE.
 6. CURB INLET STATION, OFFSET, AND ELEVATION REFERENCES ARE TO THE TOP FACE OF CURB OF INLET STRUCTURE.

DESIGN

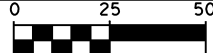
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023

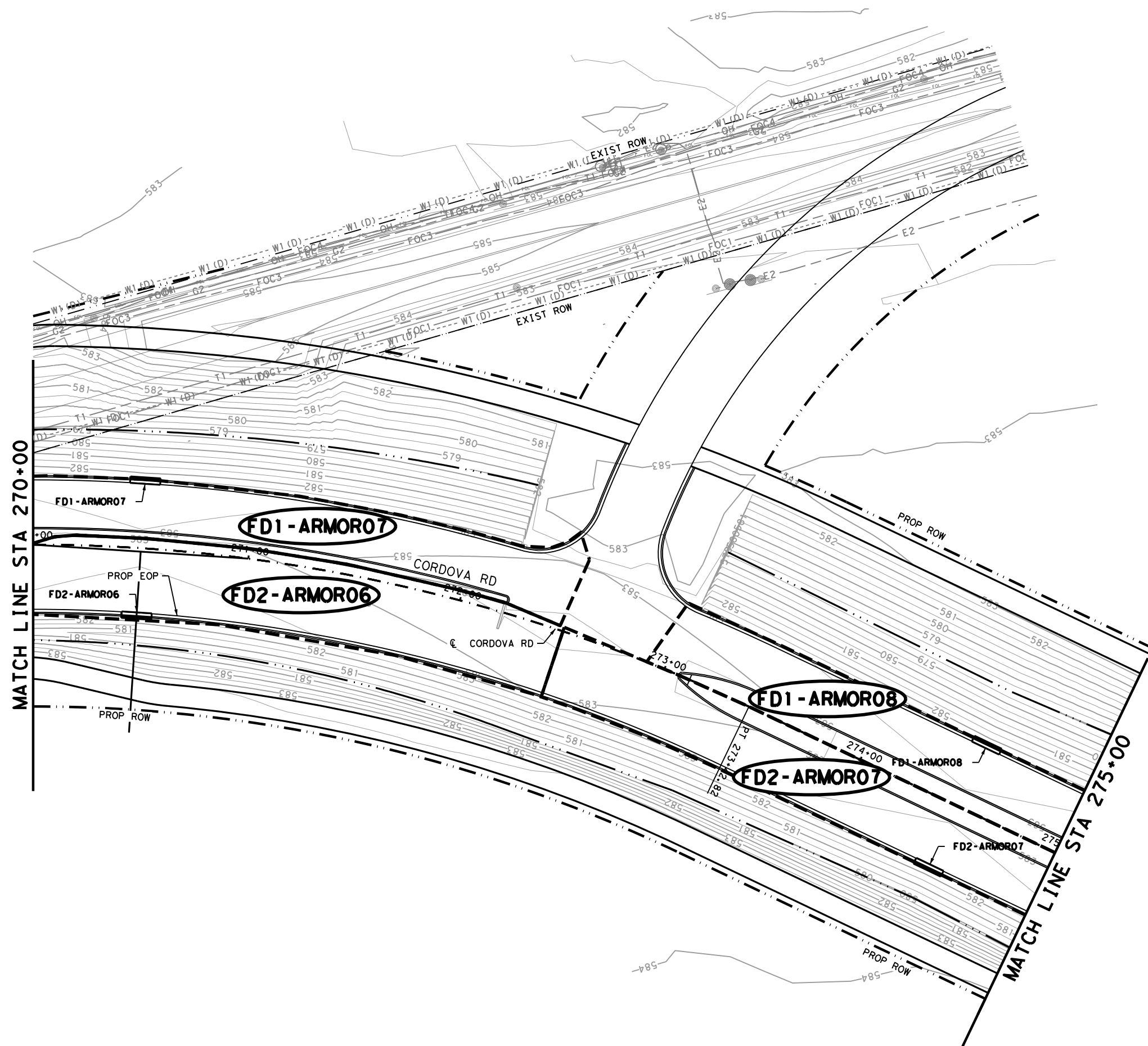


SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH DALLAS 2000 NW LOOP 410 SAN ANTONIO, TX 78213 210.375.9000 TEXAS ENGINEERING FIRM #470 TEXAS SURVEYING FIRM #1002800			
 It's real.			
 © 2023			
CORDOVA RD DRAINAGE LAYOUT STA 260+00 TO STA 270+00 SHEET 17 OF 22			
CHK DGN:	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO. CORDOVA
DWG:	DIST. SAT	COUNTY GUADALUPE	CONT. NO. 0915 SECT. NO. 45 JOB NO. 052 SHEET NO. 187

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_18.dgn



LEGEND

- X-X DRAINAGE AREA
- LINE-E1 STORM DRAIN DESIGNATION
- ED1-1 STRUCTURE DESIGNATION

NOTES

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6. CURB INLET STATION, OFFSET, AND ELEVATION REFERENCES ARE TO THE TOP FACE OF CURB OF INLET STRUCTURE.

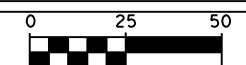
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

SEGUIN TEXAS

It's real.

THE STATE OF TEXAS
 GUADALUPE COUNTY

Texas Department of Transportation
© 2023

CORDOVA RD

DRAINAGE LAYOUT

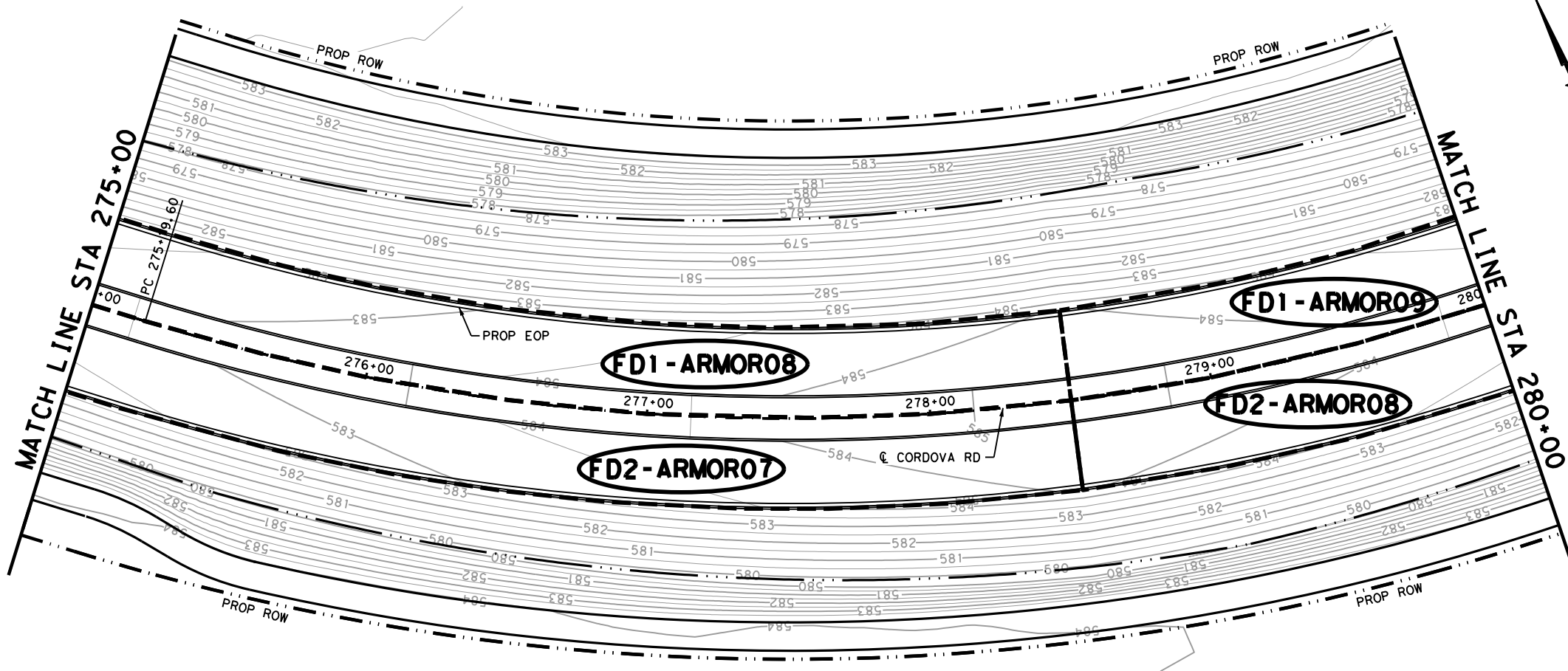
STA 270+00 TO STA 275+00

SHEET 18 OF 22

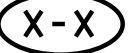
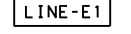

DGN:	FED. NO.:	STATE:	FEDERAL AID PROJECT NO.:	HIGHWAY NO.:
CHK DGN:	6	TEXAS		CORDOVA
DWG:	DIST.:	COUNTY:	CONT. NO.:	SECT. NO.:
CHK DWG:	SAT	GUADALUPE	0915	45
			052	188

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_19.dgn



LEGEND

-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

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6. CURB INLET STATION, OFFSET, AND ELEVATION REFERENCES ARE TO THE TOP FACE OF CURB OF INLET STRUCTURE.

DESIGN

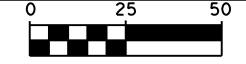
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD

DRAINAGE LAYOUT

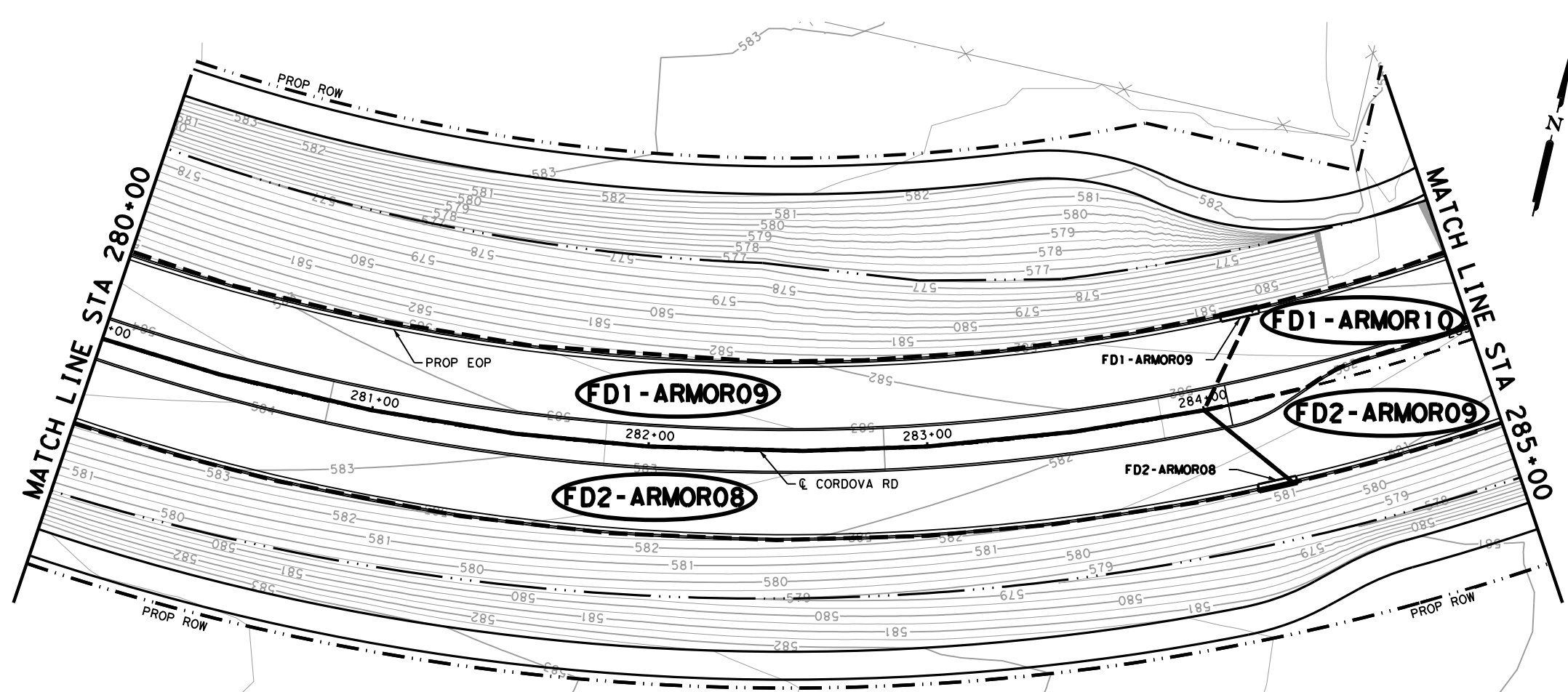
STA 275+00 TO STA 280+00

SHEET 19 OF 22


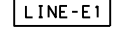

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	189

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_20.dgn



LEGEND

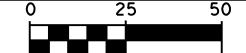
-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

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DESIGN
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL
INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY



PAPE-DAWSON ENGINEERS
 SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



CORDOVA RD

DRAINAGE LAYOUT

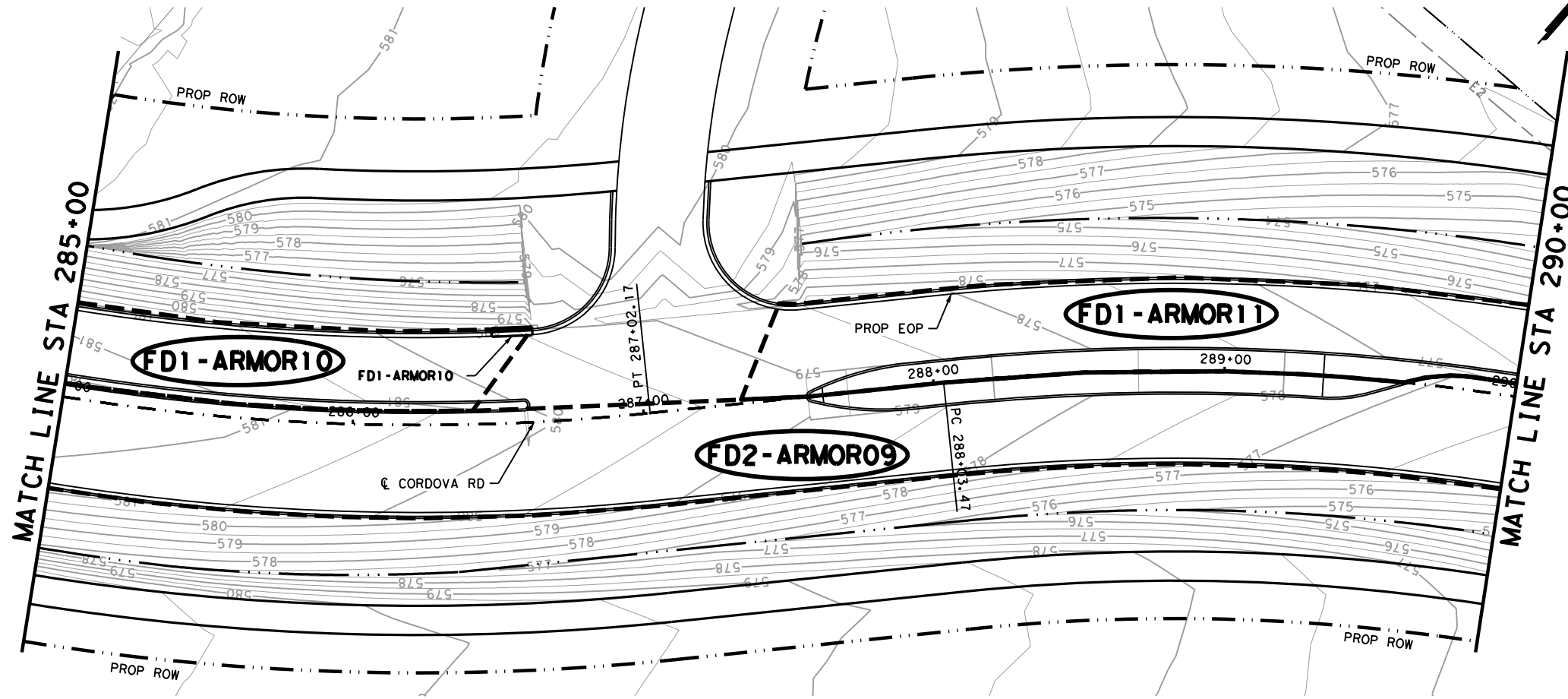
STA 280+00 TO STA 285+00

SHEET 20 OF 22

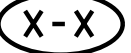
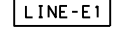

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	190

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_21.dgn



LEGEND

-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

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DESIGN

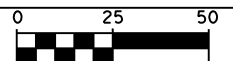
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

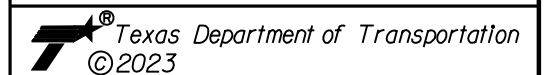
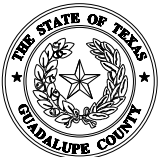
REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



CORDOVA RD

DRAINAGE LAYOUT

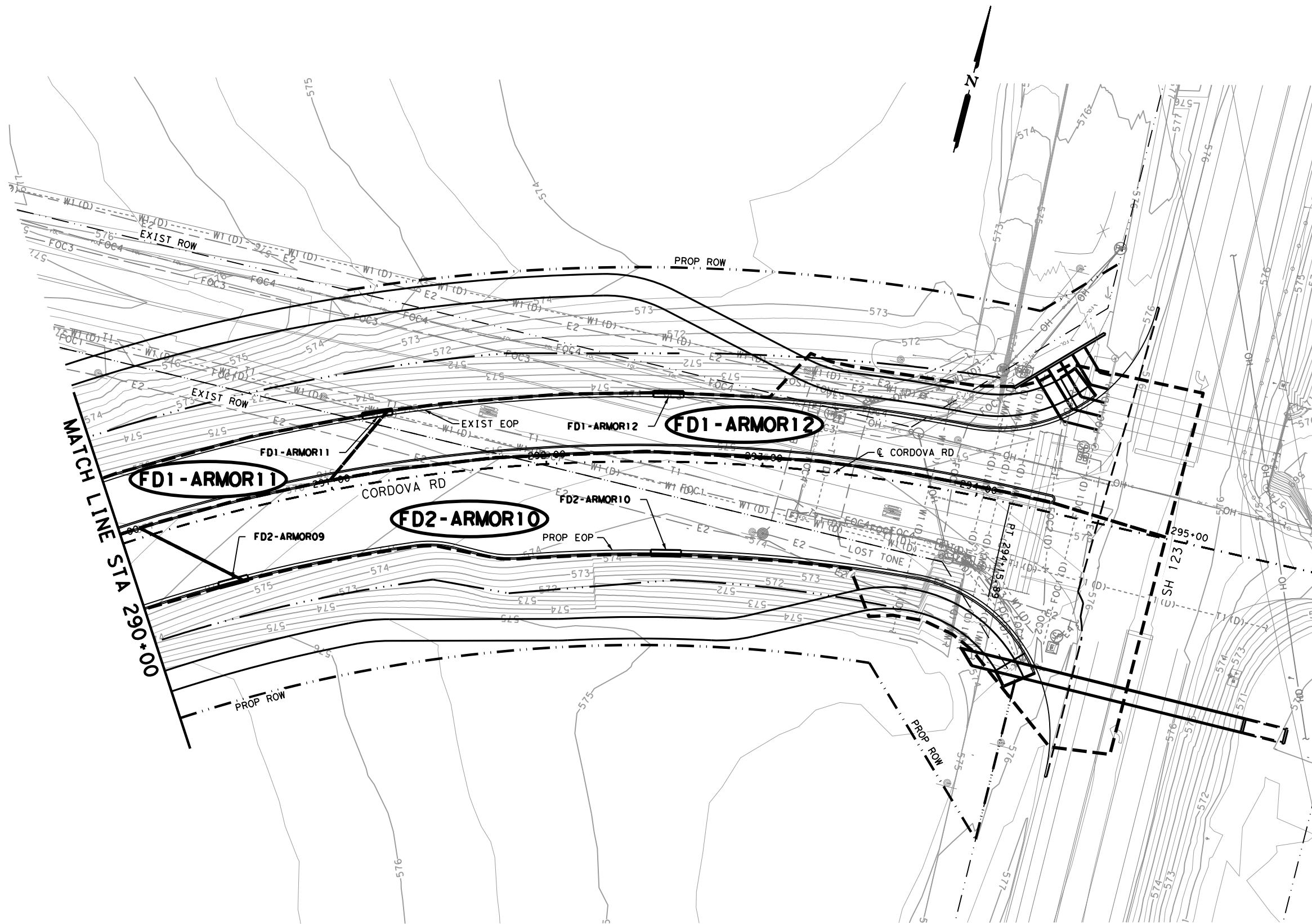
STA 285+00 TO STA 290+00

SHEET 21 OF 22




DGN:	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN:	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	191

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_sd_22.dgn



LEGEND

-  DRAINAGE AREA
-  STORM DRAIN DESIGNATION
-  STRUCTURE DESIGNATION

NOTES

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DESIGN

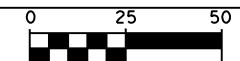
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: STEVEN J. TATE
 P.E. SERIAL NO: 131443
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 50' PROFILE 1" = 10'

REV. NO.	DATE	DESCRIPTION	BY


PAPE-DAWSON ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800



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CORDOVA RD

DRAINAGE LAYOUT

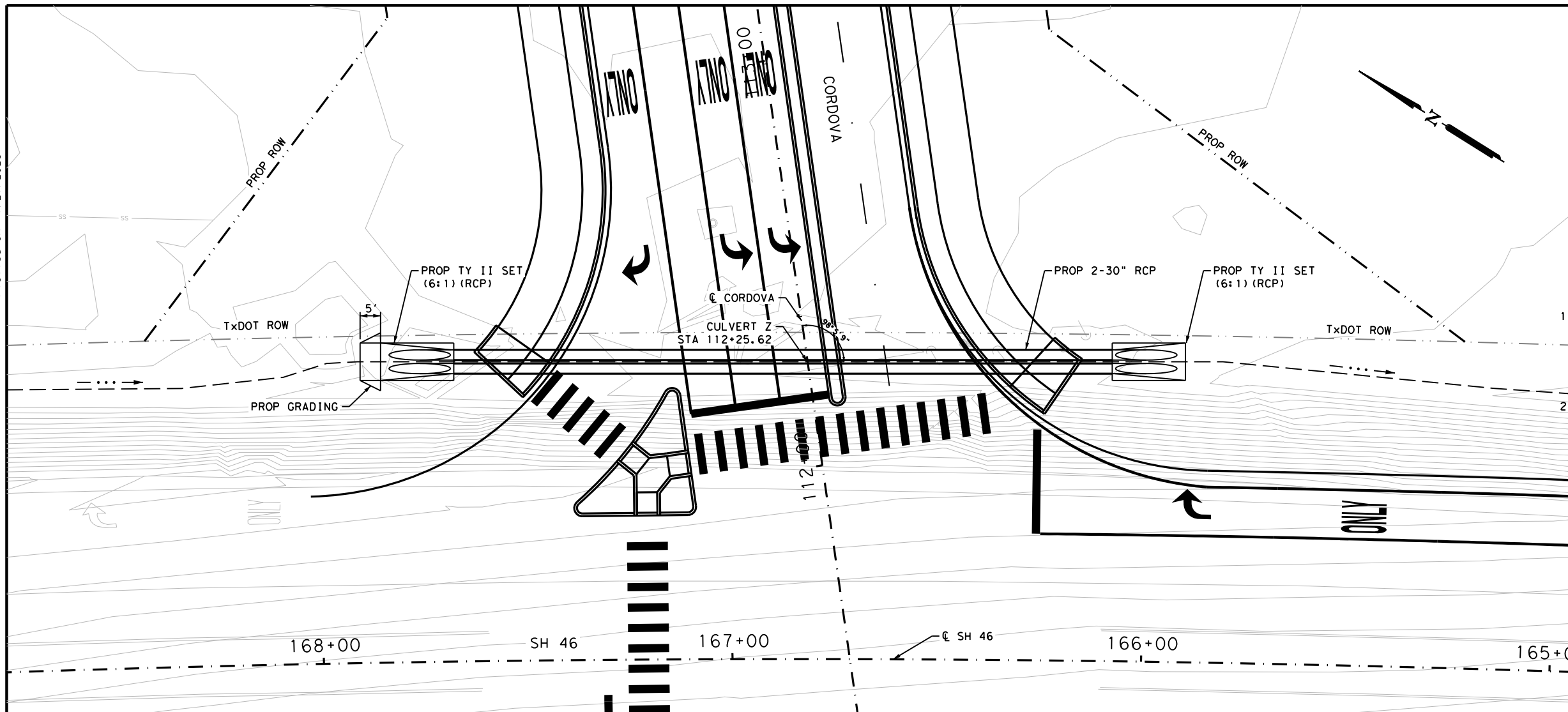
STA 290+00 TO END OF PROJECT

SHEET 22 OF 22

DGN:	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK	6	TEXAS		CORDOVA		
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK	SAT	GUADALUPE	0915	45	052	192

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_str_01.dgn



LEGEND

- > FLOW ARROW
- FLOW LINE

NOTES

1. THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES INDICATED IN THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL VERIFY ACTUAL LOCATION PRIOR TO CONSTRUCTION.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.

DESIGN

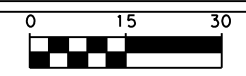
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 30' PROFILE 1" = 5'

REV. NO.	DATE	DESCRIPTION	BY

PAPE-DAWSON ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

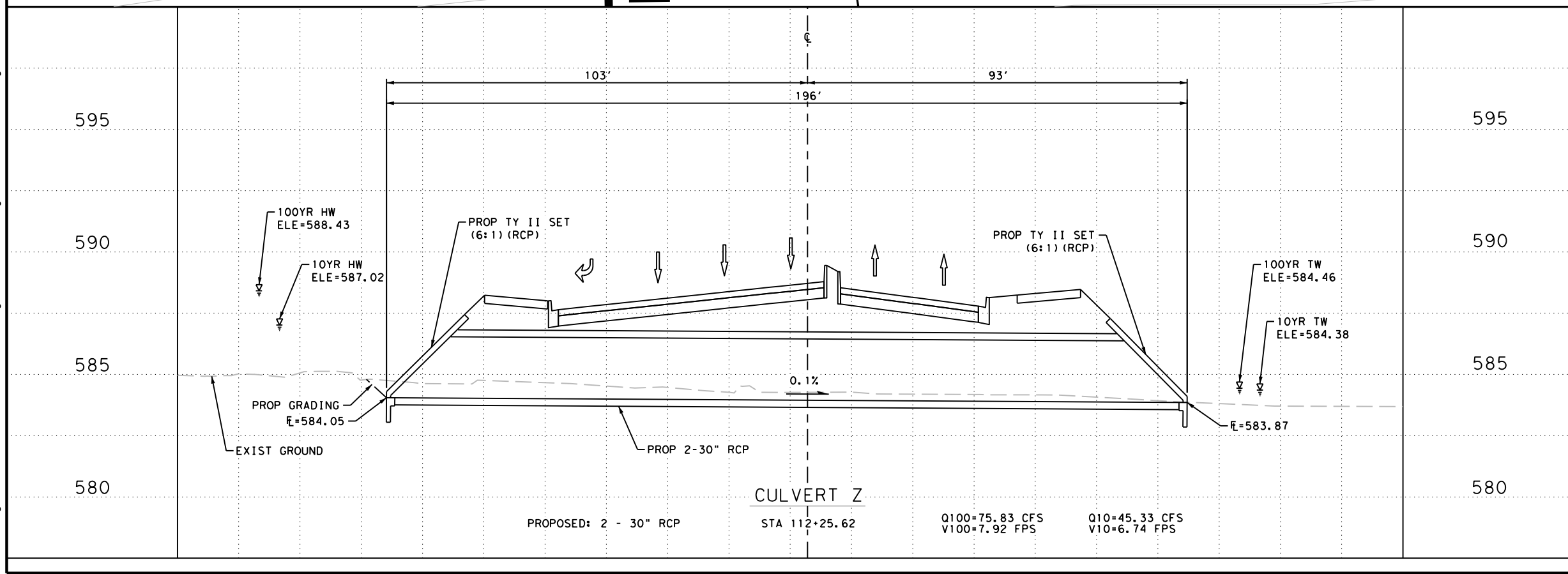
SEGUIN TEXAS

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**CULVERT Z
 PLAN AND PROFILE**

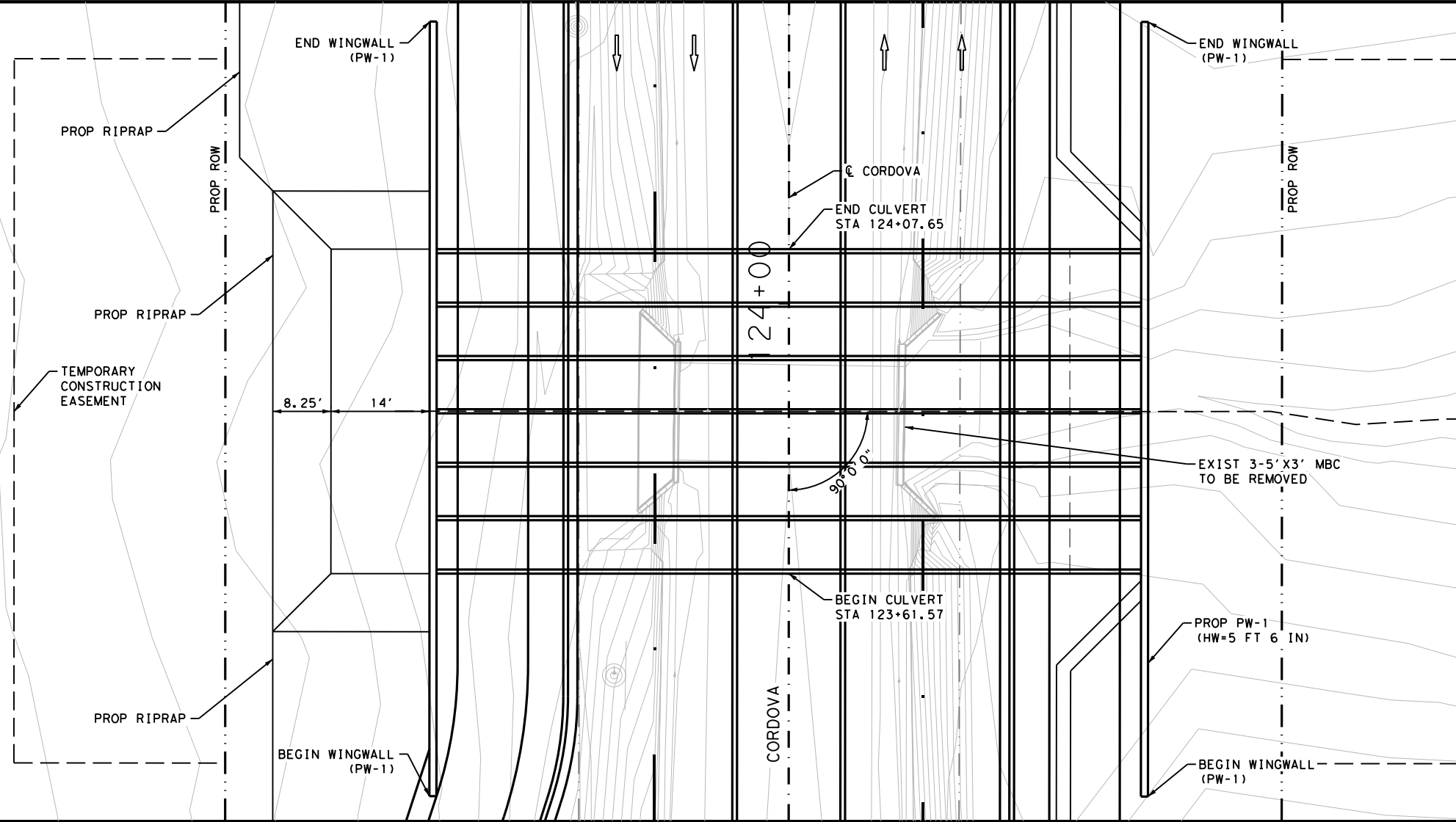


PROPOSED: 2 - 30" RCP STA 112+25.62 Q100=75.83 CFS Q10=45.33 CFS
 V100=7.92 FPS V10=6.74 FPS

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	193

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_str_02.dgn



LEGEND

- > FLOW ARROW
- FLOW LINE

NOTES

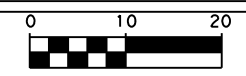
- THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES INDICATED IN THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL VERIFY ACTUAL LOCATION PRIOR TO CONSTRUCTION.
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DESIGN

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW
 DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 20' PROFILE 1" = 5'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

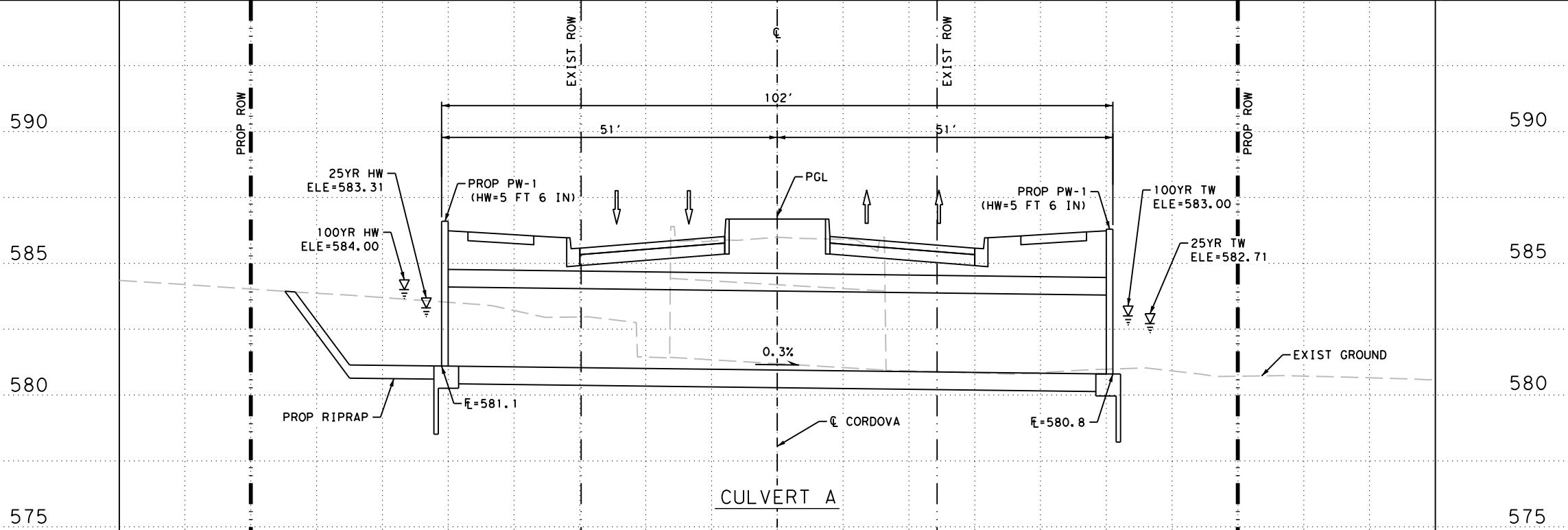


It's real.



Texas Department of Transportation
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**CULVERT A
 BRIDGE CLASS STRUCTURE
 PLAN AND PROFILE**

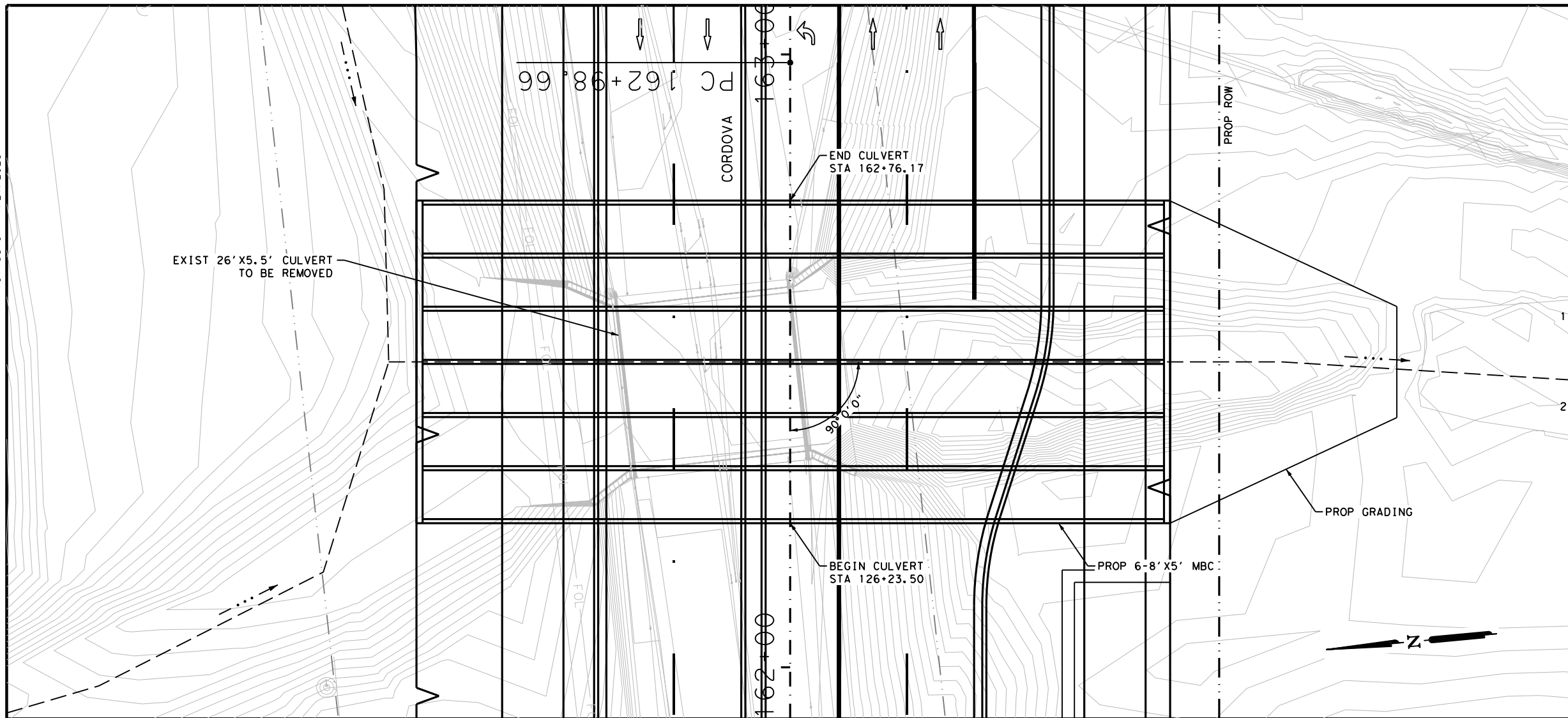


EXISTING: 3-5' X 3' MBC
 PROPOSED: 6-7' X 3' MBC
 STA 123+84.61
 Q100=672.00 CFS
 V100=7.27 FPS
 Q25=452.20 CFS
 V25=5.62 FPS

DGN#	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
CHK DGN#	6	TEXAS		CORDOVA		
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	194

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_str_03.dgn



LEGEND

- > FLOW ARROW
- FLOW LINE

NOTES

1. THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES INDICATED IN THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL VERIFY ACTUAL LOCATION PRIOR TO CONSTRUCTION.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.

DESIGN

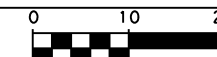
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 20' PROFILE 1" = 5'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

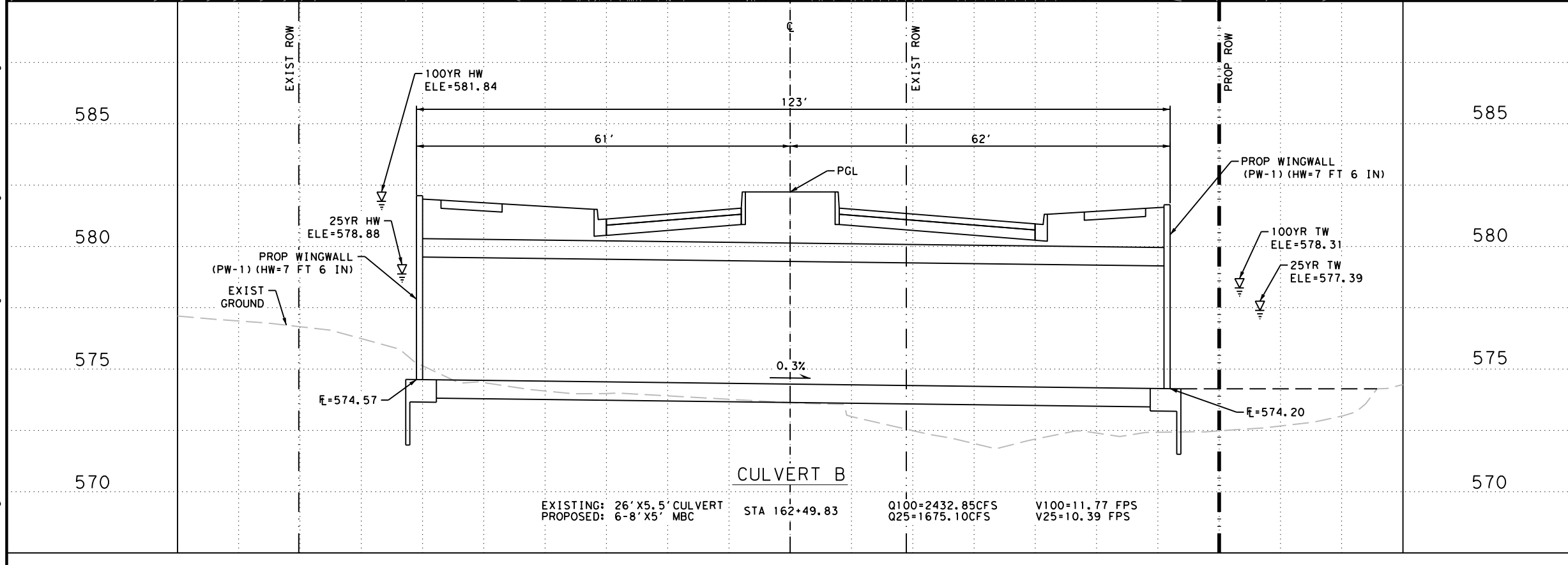


It's real.



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**CULVERT B
 BRIDGE CLASS STRUCTURE
 PLAN AND PROFILE**

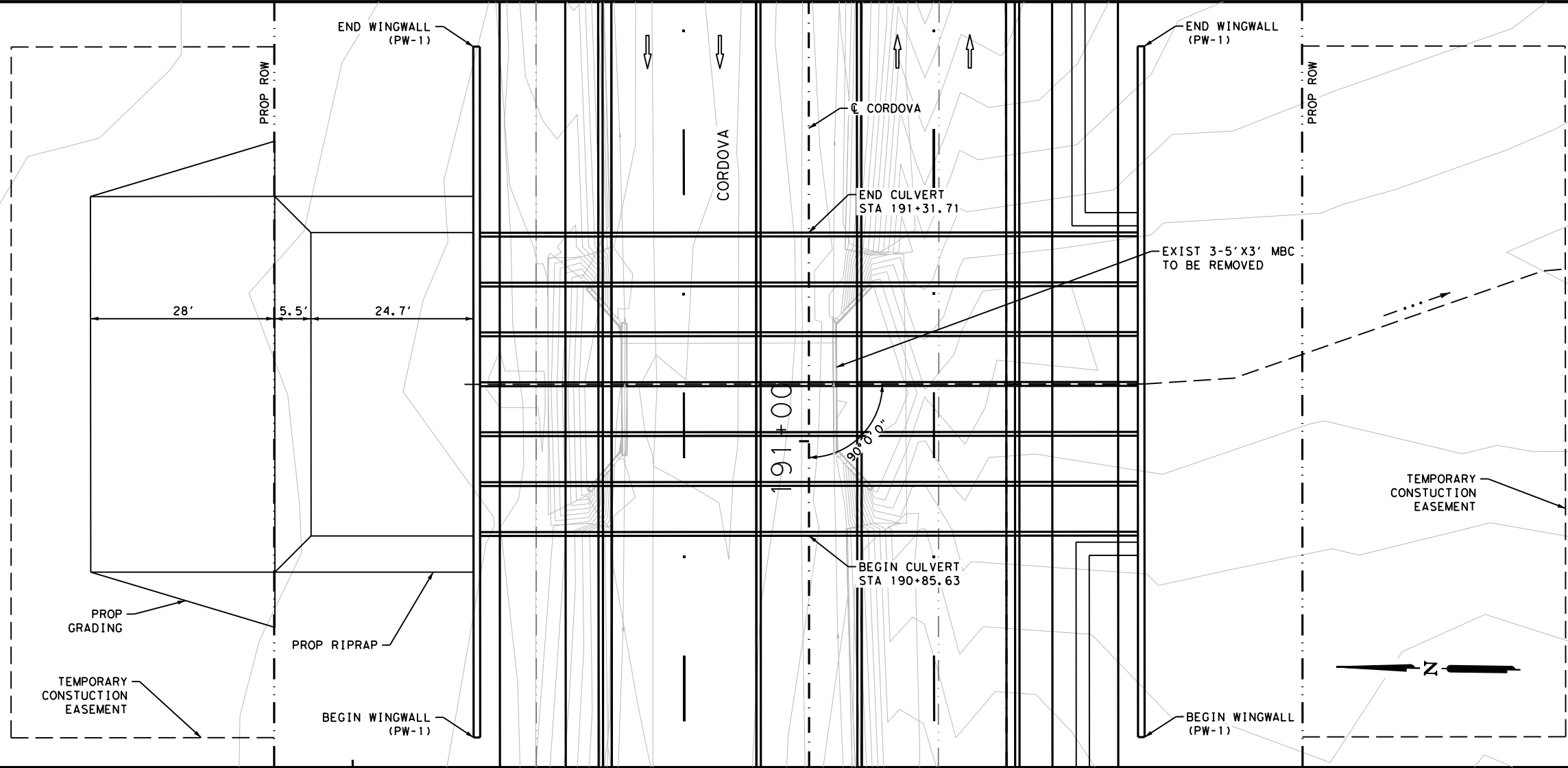


EXISTING: 26' X 5.5' CULVERT STA 162+49.83 Q100=2432.85CFS V100=11.77 FPS
 PROPOSED: 6-8' X 5' MBC Q25=1675.10CFS V25=10.39 FPS

DGN:	FED. NO. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN:	6	TEXAS				CORDOVA
DWG:	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG:	SAT	GUADALUPE	0915	45	052	195

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_str_04.dgn



LEGEND

- > FLOW ARROW
- FLOW LINE

NOTES

1. THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES INDICATED IN THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL VERIFY ACTUAL LOCATION PRIOR TO CONSTRUCTION.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.

DESIGN

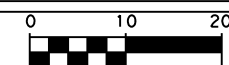
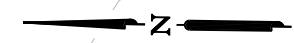
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 20' PROFILE 1" = 5'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

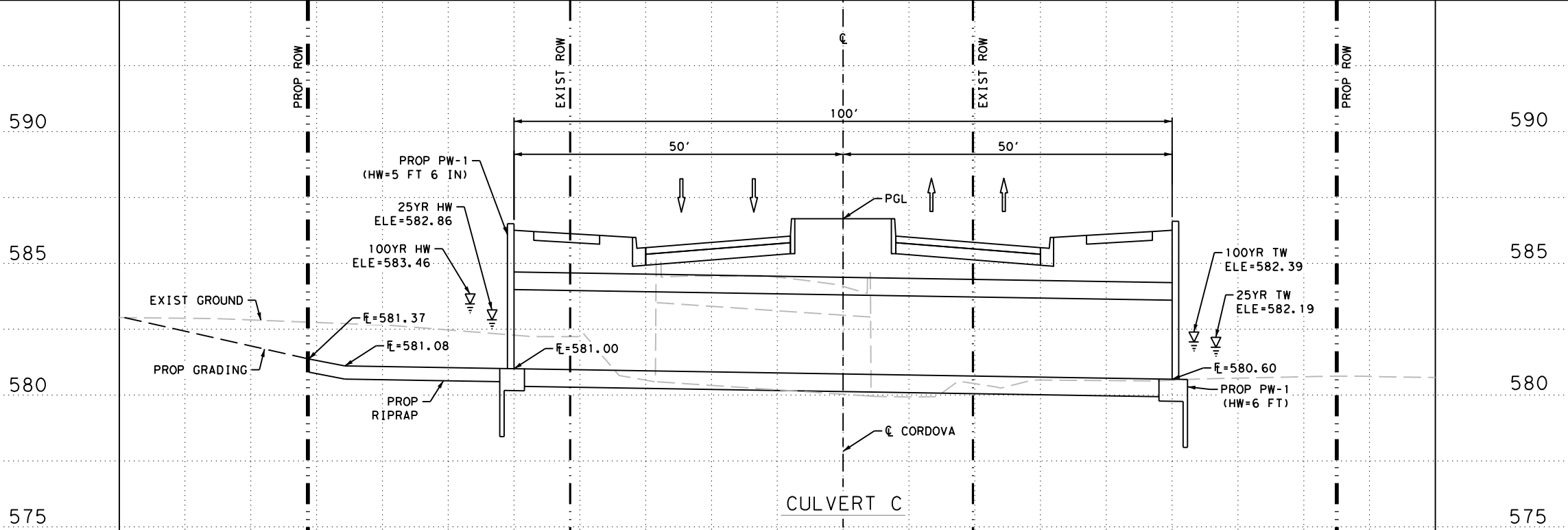


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**CULVERT C
 BRIDGE CLASS STRUCTURE
 PLAN AND PROFILE**

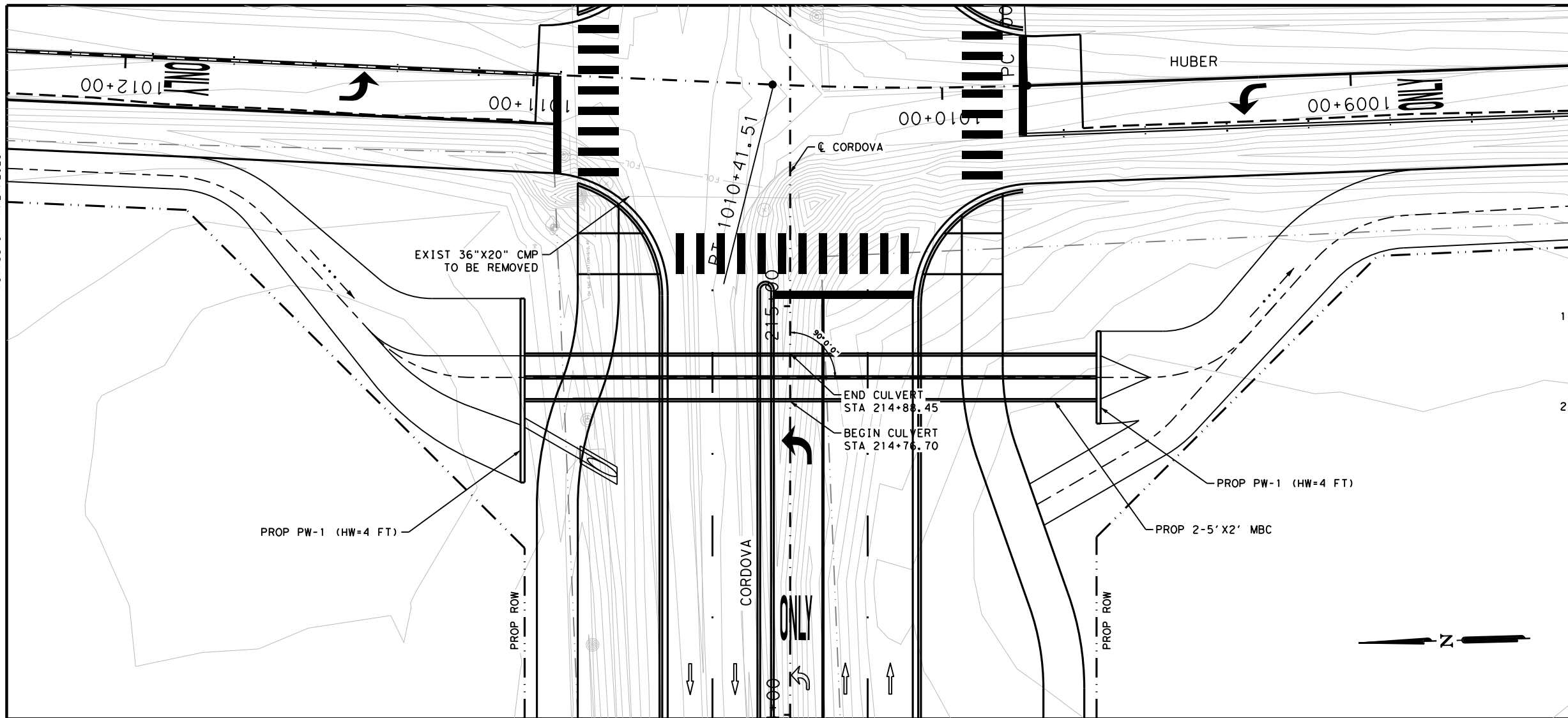


EXISTING: 3-5' X 3' MBC STA 191+08.67 100Q=514.50 CFS 25Q=358.70 CFS
 PROPOSED: 6-7' X 3' MBC 100V=6.85 FPS 25V=5.36 FPS

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	196

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_str_05.dgn



LEGEND

- > FLOW ARROW
- FLOW LINE

NOTES

1. THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES INDICATED IN THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL VERIFY ACTUAL LOCATION PRIOR TO CONSTRUCTION.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.

DESIGN

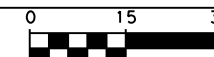
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 30' PROFILE 1" = 5'

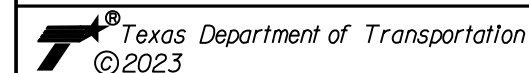
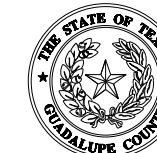
REV. NO.	DATE	DESCRIPTION	BY



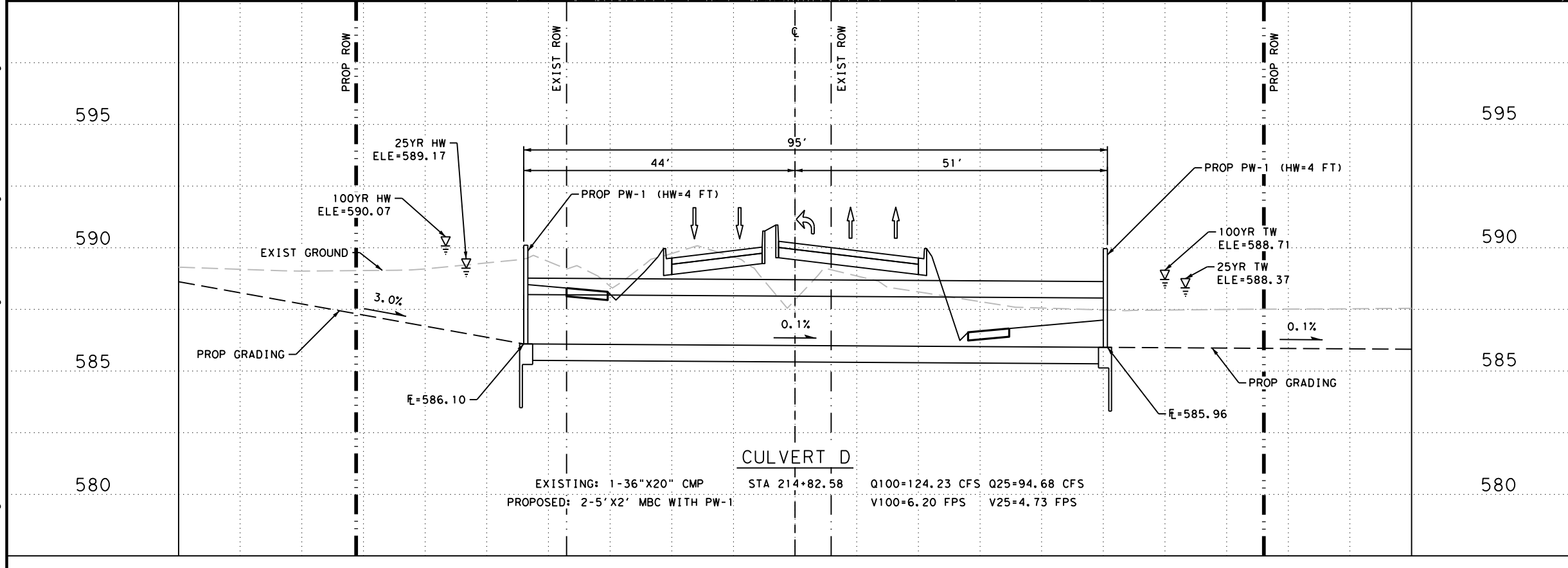
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



**CULVERT D
PLAN AND PROFILE**



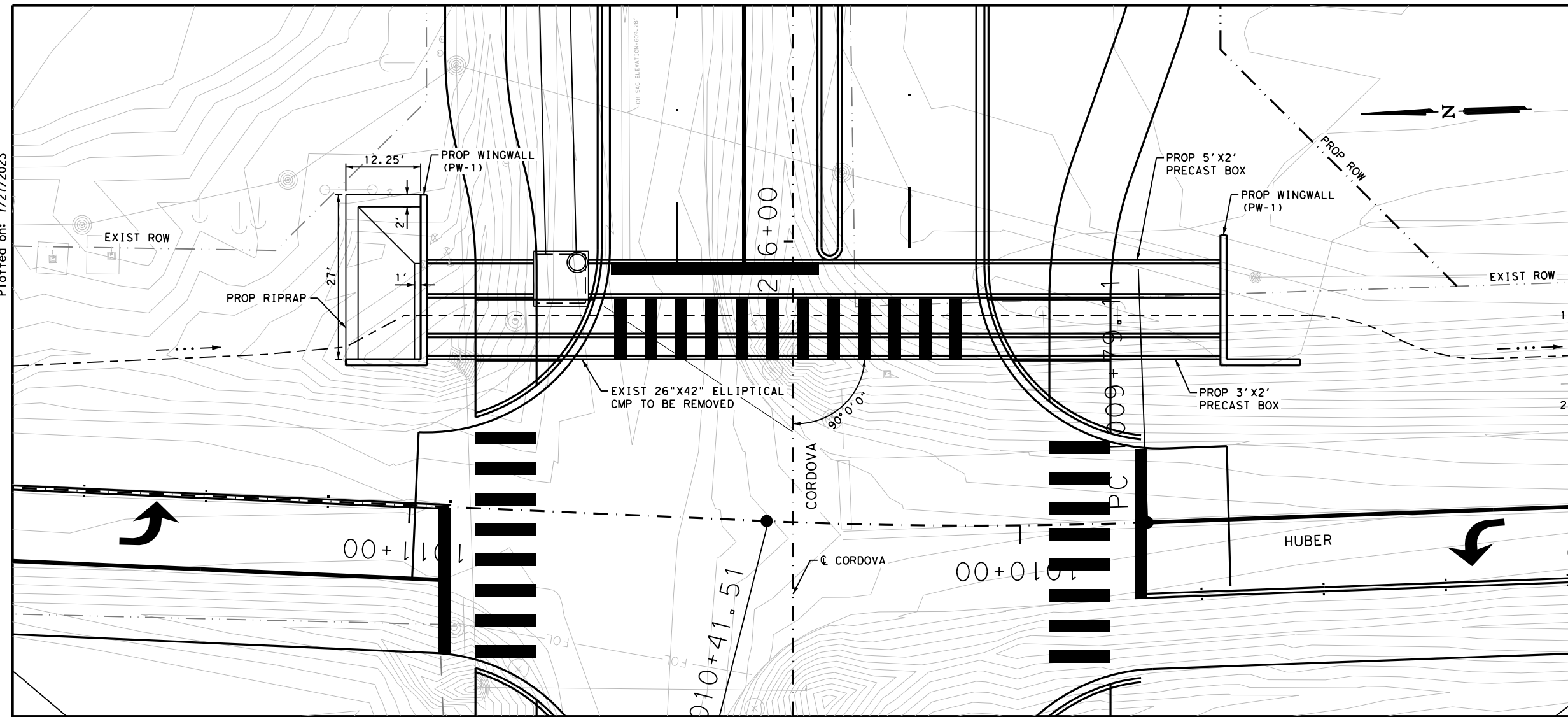
CULVERT D

EXISTING: 1-36"X20" CMP STA 214+82.58 Q100=124.23 CFS Q25=94.68 CFS
 PROPOSED: 2-5' X2' MBC WITH PW-1 V100=6.20 FPS V25=4.73 FPS

DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	197

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_str_06.dgn



LEGEND

- > FLOW ARROW
- FLOW LINE

NOTES

1. THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES INDICATED IN THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL VERIFY ACTUAL LOCATION PRIOR TO CONSTRUCTION.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.

DESIGN

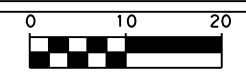
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 20' PROFILE 1" = 5'

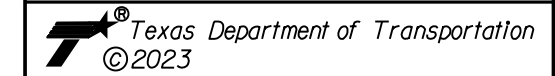
REV. NO.	DATE	DESCRIPTION	BY



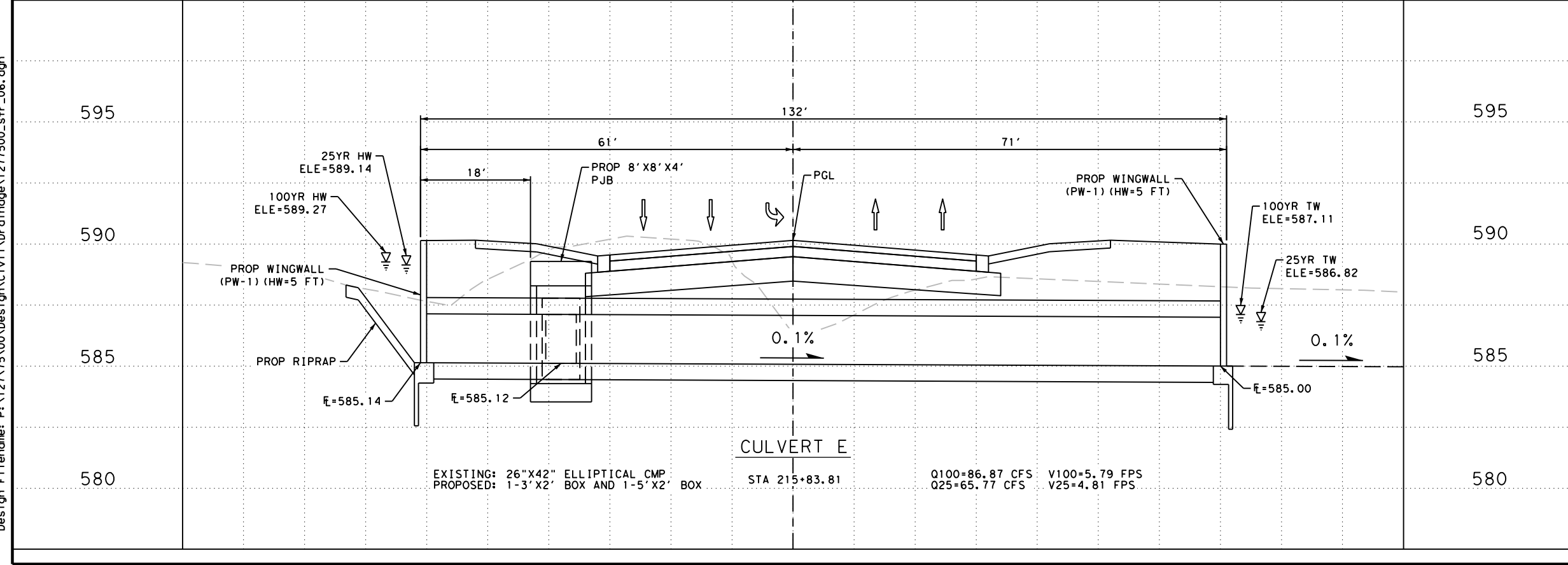
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



It's real.



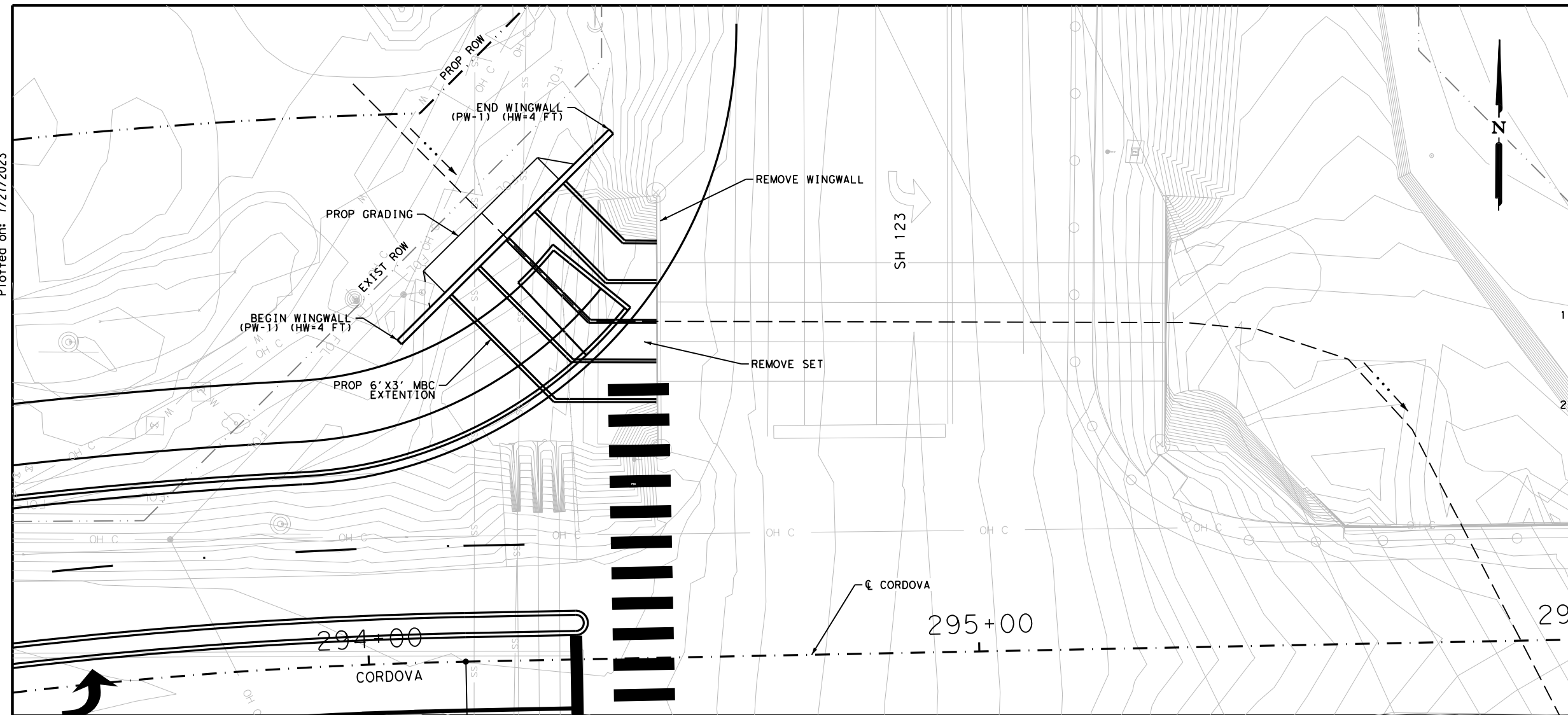
**CULVERT E
 PLAN AND PROFILE**



DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	198

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_str_07.dgn



LEGEND

- > FLOW ARROW
- FLOW LINE

NOTES

1. THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES INDICATED IN THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL VERIFY ACTUAL LOCATION PRIOR TO CONSTRUCTION.
2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.

DESIGN

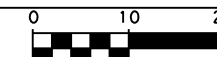
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 20' PROFILE 1" = 5'

REV. NO.	DATE	DESCRIPTION	BY



SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
 2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1002800

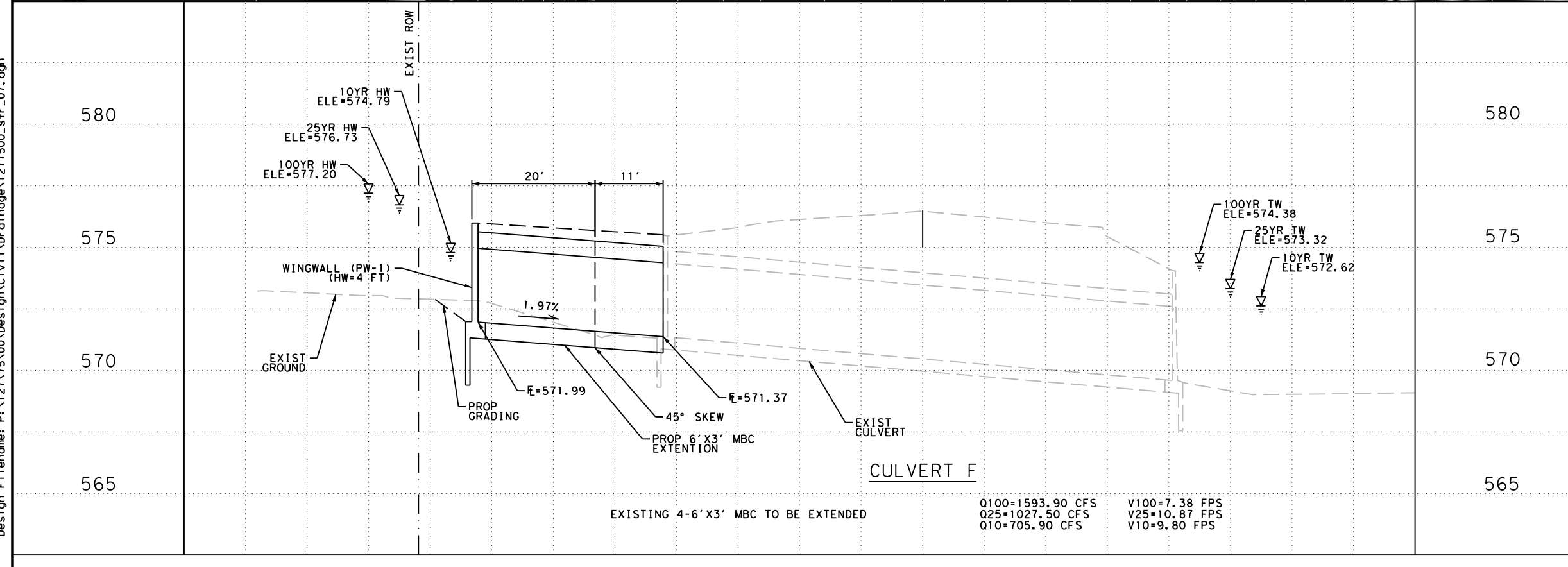


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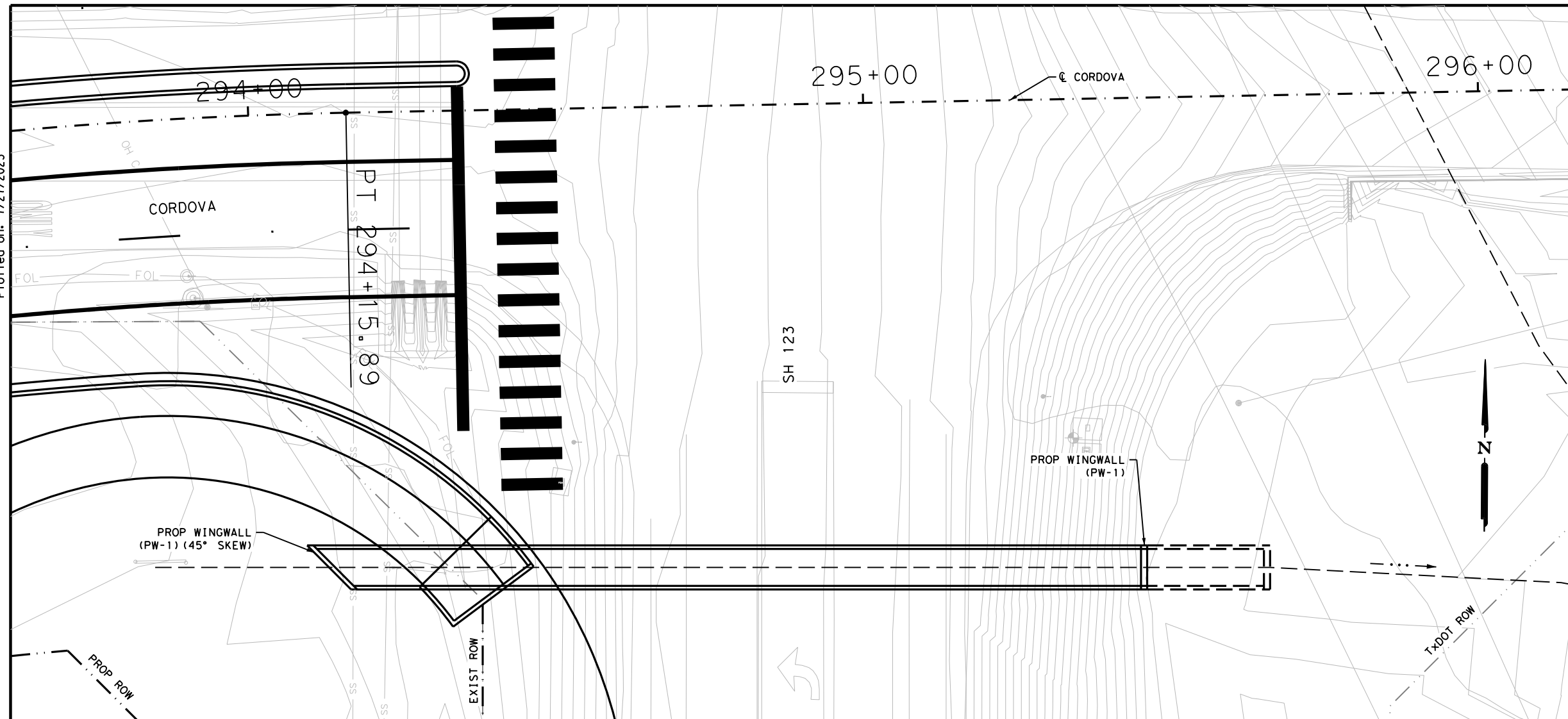
**CULVERT F
 BRIDGE CLASS STRUCTURE
 PLAN AND PROFILE**



DGN#	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	199

Plotted on: 7/27/2023

Design File name: P:\127\75\00\Design\Civil\Drainage\1277500_str_08.dgn



LEGEND

- > FLOW ARROW
- FLOW LINE

NOTES

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2. ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, i.e. FADED.

DESIGN

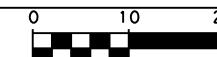
INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JACOB J. POWELL
 P.E. SERIAL NO: 108825
 DATE: 7/27/2023

APPROVAL

INTERIM REVIEW

DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
 ENGINEER: JOHN A. TYLER
 P.E. SERIAL NO: 105193
 DATE: 7/27/2023



SCALE: PLAN 1" = 20' PROFILE 1" = 5'

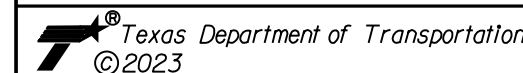
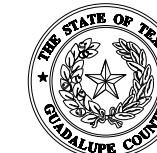
REV. NO.	DATE	DESCRIPTION	BY



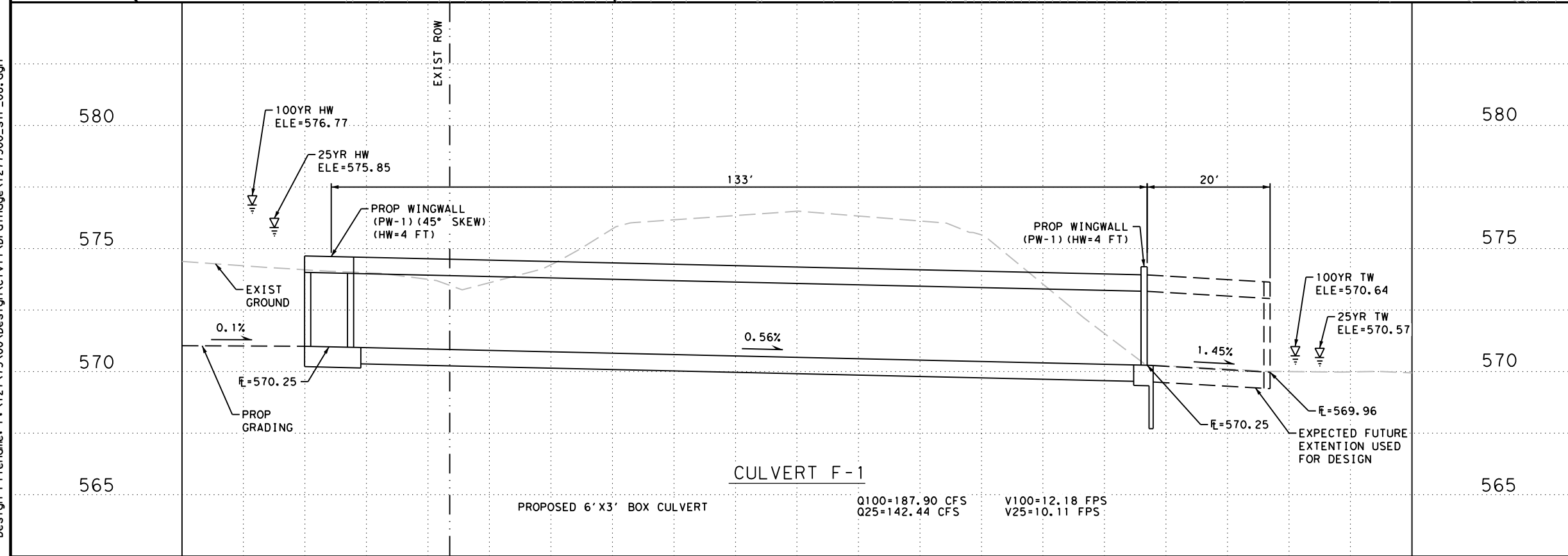
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
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 TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800



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**CULVERT F-1
PLAN AND PROFILE**



PROPOSED 6' X 3' BOX CULVERT

CULVERT F-1

Q100=187.90 CFS V100=12.18 FPS
 Q25=142.44 CFS V25=10.11 FPS

DGN#	FED. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CHK DGN#	6	TEXAS				CORDOVA
DWG#	DIST.	COUNTY	CONT. NO.	SECT. NO.	JOB NO.	SHEET NO.
CHK DWG#	SAT	GUADALUPE	0915	45	052	200