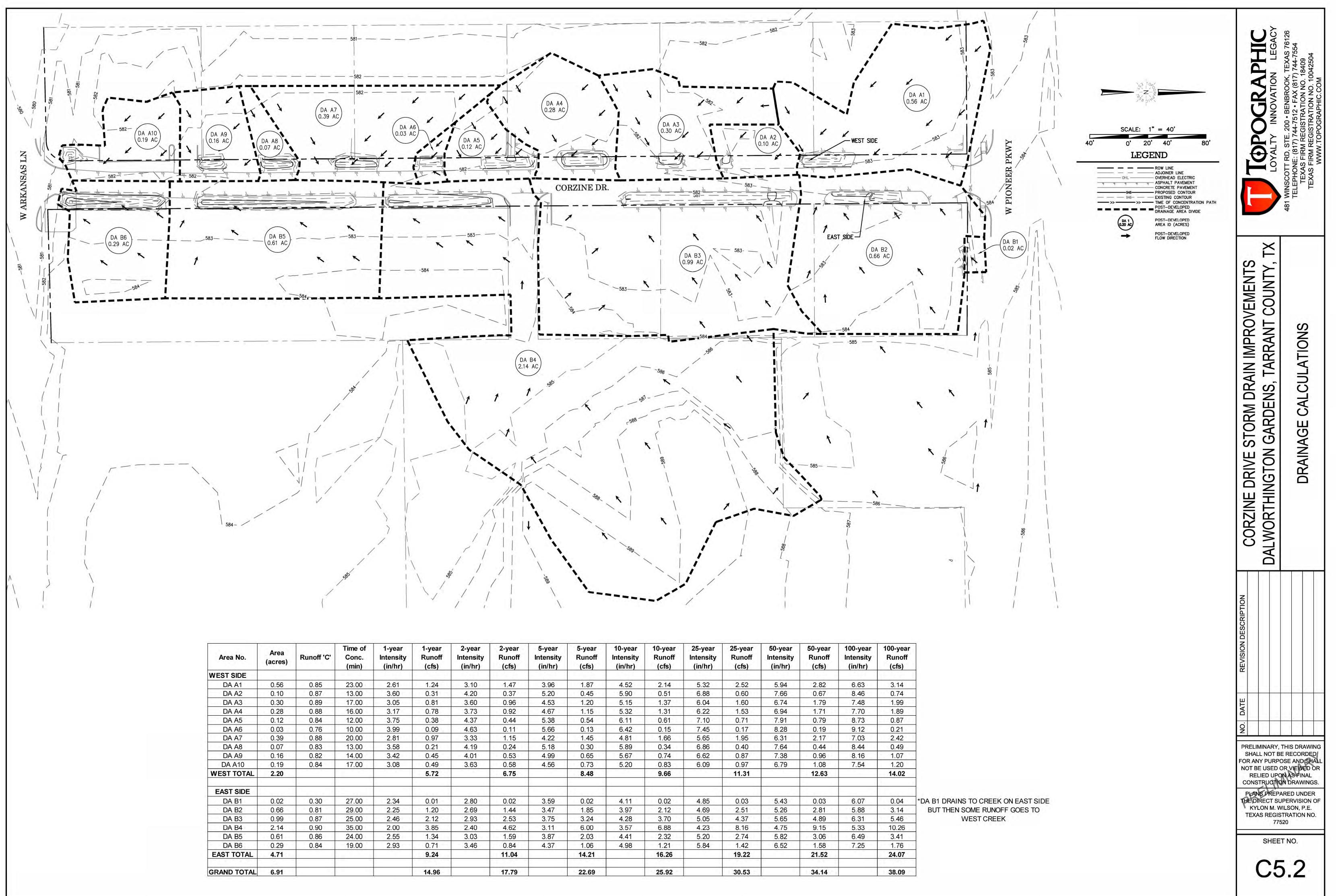


SCALE: 1" = 40' 0' 20' 40' 80' LECEND OHL OVERHEAD ELECTRIC OVERHEAD OVERHEAD OVERHEAD OVERHEAD OVERHE	AENTS UNTY, TX UNTY, TX UNTY, TX UNTY, TX 481 WINSCOTT RD, STEL 200 • BENBROOK, TEXAS 76126 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554 TEXAS FIRM REGISTRATION NO. 18409 TEXAS FIRM REGISTRATION NO. 18409 TEXAS FIRM REGISTRATION NO. 10042504 WWW.TOPOGRAPHIC.COM
	CORZINE DRIVE STORM DRAIN IMPROVEMENTS DALWORTHINGTON GARDENS, TARRANT COUNTY, TX DRAINAGE AREA MAP
	NOLINOSULA IN A A A A A A A A A A A A A A A A A A
	C5.1



year inoff cfs)	2-year Intensity (in/hr)	2-year Runoff (cfs)	5-year Intensity (in/hr)	5-year Runoff (cfs)	10-year Intensity (in/hr)	10-year Runoff (cfs)	25-year Intensity (in/hr)	25-year Runoff (cfs)	50-year Intensity (in/hr)	50-year Runoff (cfs)	100-year Intensity (in/hr)	100-year Runoff (cfs)
.24	3.10	1.47	3.96	1.87	4.52	2.14	5.32	2.52	5.94	2.82	6.63	3.14
.31	4.20	0.37	5.20	0.45	5.90	0.51	6.88	0.60	7.66	0.67	8.46	0.74
.81	3.60	0.96	4.53	1.20	5.15	1.37	6.04	1.60	6.74	1.79	7.48	1.99
.78	3.73	0.92	4.67	1.15	5.32	1.31	6.22	1.53	6.94	1.71	7.70	1.89
.38	4.37	0.44	5.38	0.54	6.11	0.61	7.10	0.71	7.91	0.79	8.73	0.87
.09	4.63	0.11	5.66	0.13	6.42	0.15	7.45	0.17	8.28	0.19	9.12	0.21
.97	3.33	1.15	4.22	1.45	4.81	1.66	5.65	1.95	6.31	2.17	7.03	2.42
.21	4.19	0.24	5.18	0.30	5.89	0.34	6.86	0.40	7.64	0.44	8.44	0.49
.45	4.01	0.53	4.99	0.65	5.67	0.74	6.62	0.87	7.38	0.96	8.16	1.07
.49	3.63	0.58	4.56	0.73	5.20	0.83	6.09	0.97	6.79	1.08	7.54	1.20
.72		6.75		8.48		9.66		11.31		12.63		14.02
							1					i Para d
.01	2.80	0.02	3.59	0.02	4.11	0.02	4.85	0.03	5.43	0.03	6.07	0.04
.20	2.69	1.44	3.47	1.85	3.97	2.12	4.69	2.51	5.26	2.81	5.88	3.14
.12	2.93	2.53	3.75	3.24	4.28	3.70	5.05	4.37	5.65	4.89	6.31	5.46
.85	2.40	4.62	3.11	6.00	3.57	6.88	4.23	8.16	4.75	9.15	5.33	10.26
.34	3.03	1.59	3.87	2.03	4.41	2.32	5.20	2.74	5.82	3.06	6.49	3.41
.71	3.46	0.84	4.37	1.06	4.98	1.21	5.84	1.42	6.52	1.58	7.25	1.76
.24		11.04		14.21		16.26		19.22		21.52		24.07
.96		17.79		22.69		25.92		30.53		34.14		38.09

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							· · · · ·					100-Y	EAR ST	ORM [	DRAIN H	YDRAU	JLIC CA	LCULA	TIONS	TABLE				8.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1			0				2		
FROM	то	Pipe	D	rainage Ar	ea	Runoff	Incr.	Total	Time	of Concen	tration	5-yr	100-yr	Q5	Q100	Inlet	Q	Pipe		135.51	Н	GL	Н	EAD LOSS CA	LCULATION	IS				Design	Inver	rt Elev.	т/с
(DS)	DESIGN	Length	Incremental		Total	'C'	cA	cA	Inlet	Travel	Total	Intensity	Intensity	Runoff	Runoff	Bypass	Pipe	Size	n	Sf	D/S	U/S	V1 (in)	V2 (out)	V1 <sup>2</sup> /2g	V2 <sup>2</sup> /2g	Kj	KjV1 <sup>2</sup> /2g	Hk	HGL	FROM	то	ELE\
(03)	(US)	feet	No.	Area	Area			- Ch	min.	min.	min.	in/hr	in/hr	cfs	cfs	cfs	cfs	in.		ft/ft	Elev.	Elev.	ft/sec	ft/sec	ft.	ft.	ft.	ft.	ft.	Elev.	ft.	ft.	ft.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Α	WEST	SIDE							1																								
8+34.86	8+67.25	32.39	DA B1, DA B2	0.68	0.68	0.55	0.37	0.37	28.00	0.77	28.77	3.48	5.89	1.30	2.20	0.00	2.20	24"	0.022	0.0003	579.44	579.45	0.00	0.70	0.00	0.01	0.50	0.00	0.10	579.55	579.86	579.98	582.
7+93.04	8+34.86	41.82	DA A1	0.56	1.24	0.85	0.47	0.85	22.78	0.44	29.21	3.45	5.84	2.92	4.96	0.00	4.96	24"	0.022	0.0014	579.28	579.34	0.70	1.58	0.01	0.04	0.35	0.00	0.10	579.44	579.71	579.86	582.
7+19.73	7+93.04	73.31	N/A	0.00	1.24	0.00	0.00	0.85	0.00	0.77	29.21	3.45	5.84	2.92	4.96	0.00	4.96	24"	0.022	0.0014	579.08	579.18	1.58	1.58	0.04	0.04	0.10	0.00	0.10	579.28	579.44	579.71	581.
7+09.43	7+19.73	10.30	DA A2	0.10	1.34	0.87	0.09	0.94	12.87	0.10	29.31	3.44	5.83	3.21	5.45	0.00	5.45	24"	0.022	0.0017	578.96	578.98	1.58	1.74	0.04	0.05	0.00	0.00	0.10	579.08	579.41	579.44	581.
6+68.97	7+09.43	40.46	N/A	0.00	1.34	0.00	0.00	0.94	0.00	0.39	29.31	3.44	5.83	3.21	5.45	0.00	5.45	24"	0.022	0.0017	578.79	578.86	1.74	1.74	0.05	0.05	0.00	0.00	0.10	578.96	579.26	579.41	581.
6+45.89	6+68.97	23.08	N/A	0.00	1.34	0.00	0.00	0.94	0.00	0.22	29.31	3.44	5.83	3.21	5.45	0.00	5.45	24"	0.022	0.0017	578.66	578.69	1.74	1.74	0.05	0.05	0.10	0.00	0.10	578.79	579.18	579.26	582
5+88.24	6+45.89	57.65	DA A3	0.30	1.64	0.89	0.27	1.20	17.48	0.43	29.74	3.41	5.79	4.09	6.95	0.00	6.95	24"	0.022	0.0027	578.40	578.56	1.74	2.21	0.05	0.08	0.00	0.00	0.10	578.66	578.97	579.18	582.
5+47.89	5+88.24	40.35	N/A	0.00	1.64	0.00	0.00	1.20	0.00	0.30	29.74	3.41	5.79	4.09	6.95	0.00	6.95	24"	0.022	0.0027	578.19	578.30	2.21	2.21	0.08	0.08	0.00	0.00	0.10	578.40	578.83	578.97	582.
5+13.83	5+47.89	34.06	DA A4	0.28	1.92	0.88	0.25	1.45	16.35	0.21	29.96	3.40	5.77	4.91	8.34	0.00	8.34	24"	0.022	0.0039	577.96	578.09	2.21	2.66	0.08	0.11	0.00	0.00	0.10	578.19	578.70	578.83	581.
4+64.46	5+13.83	49.37	N/A	0.00	1.92	0.00	0.00	1.45	0.00	0.48	29.96	3.40	5.77	4.91	8.34	0.00	8.34	30"	0.022	0.0012	577.80	577.86	2.66	1.70	0.11	0.04	0.00	0.00	0.10	577.96	578.03	578.70	581
4+23.33	4+64.46	41.13	DA A5	0.12	2.04	0.84	0.10	1.55	11.84	0.38	30.00	3.39	5.76	5.25	8.91	0.00	8.91	30"	0.022	0.0014	577.64	577.70	1.70	1.82	0.04	0.05	0.00	0.00	0.10	577.80	578.37	578.03	581
3+96.51	4+23.33	26.82	DA A6	0.03	2.07	0.76	0.02	1.57	10.41	0.24	30.00	3.39	5.76	5.33	9.05	0.00	9.05	30"	0.022	0.0014	577.51	577.54	1.82	1.84	0.05	0.05	0.00	0.00	0.10	577.64	577.84	578.37	581
3+55.53	3+96.51	40.98	N/A	0.00	2.07	0.00	0.00	1.57	0.00	0.37	30.00	3.39	5.76	5.33	9.05	0.00	9.05	30"	0.022	0.0014	577.35	577.41	1.84	1.84	0.05	0.05	0.00	0.00	0.10	577.51	577.44	577.84	581.
3+10.88	3+55.53	44.65	N/A	0.00	2.07	0.00	0.00	1.57	0.00	0.40	30.00	3.39	5.76	5.33	9.05	0.00	9.05	30"	0.022	0.0014	577.19	577.25	1.84	1.84	0.05	0.05	0.00	0.00	0.10	577.35	577.12	577.44	581.
2+69.76	3+10.88	41.12	DA A7	0.39	2.46	0.88	0.34	1.91	20.13	0.30	30.00	3.39	5.76	6.49	11.03	0.00	11.03	30"	0.022	0.0021	577.00	577.09	1.84	2.25	0.05	0.08	0.00	0.00	0.10	577.19	577.30	577.12	581.
2+36.83	2+69.76	32.93	DA A8	0.07	2.53	0.83	0.06	1.97	12.97	0.24	30.00	3.39	5.76	6.69	11.37	0.00	11.37	30"	0.022	0.0022	576.83	576.90	2.25	2.32	0.08	0.08	0.00	0.00	0.10	577.00	576.66	577.30	581.
1+96.52	2+36.83	40.31	N/A	0.00	2.53	0.00	0.00	1.97	0.00	0.29	30.00	3.39	5.76	6.69	11.37	0.00	11.37	30"	0.022	0.0022	576.64	576.73	2.32	2.32	0.08	0.08	0.00	0.00	0.10	576.83	576.75	576.66	581.
1+71.33	1+96.52	25.19	DA A9	0.16	2.69	0.82	0.13	2.10	14.15	0.17	30.00	3.39	5.76	7.13	12.12	0.00	12.12	30"	0.022	0.0025	576.48	576.54	2.32	2.47	0.08	0.09	0.00	0.00	0.10	576.64	576.64	576.75	581.
0+34.35	1+71.33	136.98	N/A	0.00	2.69	0.00	0.00	2.10	0.00	0.92	30.00	3.39	5.76	7.13	12.12	0.00	12.12	30"	0.022	0.0025	576.04	576.38	2.47	2.47	0.09	0.09	0.00	0.00	0.10	576.48	572.53	576.64	582
0+21.35	0+34.35	13.00	DA A10	0.19	2.88	0.84	0.16	2.26	17.19	0.16	30.00	3.39	5.76	7.67	13.04	0.00	13.04	42"	0.022	0.0005	575.93	575.94	2.47	1.35	0.09	0.03	0.23	0.02	0.10	576.04	572.43	572.53	580.
в	ESAT	SIDE						1														11	11			2	-					<u> </u>	-
	8+21.45		DA B1	0.02	0.02	0.30	0.01	0.01	27.14	64.40	30.00	3.39	5.07	0.02	0.03	0.00	0.03	24"	0.022	0.0000	578.18	578.18	0.00	0.01	0.00	0.00	0.50	0.00	0.10	578.28	579.91	580.30	583.
	7+84.02		DA B2	0.66	0.66	0.81	0.53	0.53	and the second second	2.80	30.00	3.39	6.07	1.81	3.24	0.00	3.24	24"	0.022		577.98	578.08	0.00	1.03	0.00	0.02	0.50		0.10	the second second	579.52		
	6+10.88		DA B3	0.99	1.65	1	0.87	1.40		1.38	-	1		4.75	8.23	0.00	8.23	30"	0.022		577.72	577.88	1.03	1.68	0.02	0.04	0.10		0.10		578.56		-
	4+72.43		N/A	0.00	1.65	0.00	0.00	1.40	0.00	1.31	30.00	3.39	6.31	4.75	8.82	0.00	8.82	30"	0.022			577.62	1.68	1.80	0.02	0.05	0.00		0.10		575.74		
And a subscription of the	3+31.29	I and an internal is and a second	DA B4	2.14	3.79	0.90	1.93	3.33	34.67	0.72	30.00	3.39	5.33	11.28	17.71	0.00	17.71	30"	0.022		576.41	577.25	1.80	3.61	0.05	0.20	0.23		0.19		574.05		-
	1+75.00		DA B5	0.61	4.40	0.86	0.53	3.85		0.90	30.00	3.39	6.49	13.07	24.99	0.00	24.99	42"	0.022		576.06		3.61	2.60	0.20	0.10	0.00	111 12 12 28 28	0.10		572.53		
APA, ICAA A. B.	0+34.35		DA B6	0.29				and the second second second	the second second		the second set to set a		7.25	13.89	29.67	0.00	29.67	42"	0.022		575.93	a second s	2.60	3.08	0.10	0.15	0.00					572.53	

## West Side

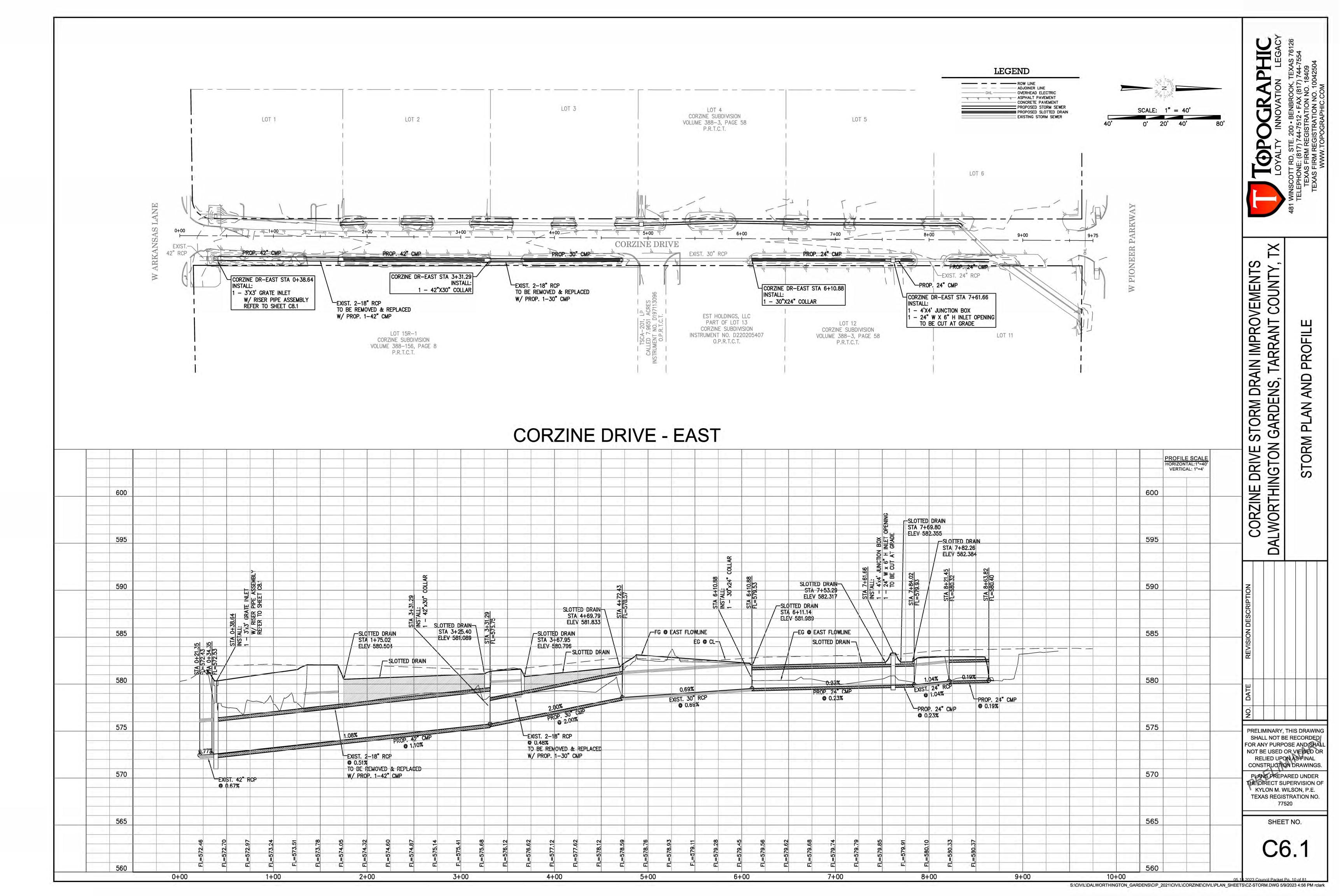
INLET ID.	TOTAL FLOW INTO INLET Q (cfs)	LONGITUDINAL GUTTER SLOPE S (ft/ft)	TRANSVERSE SLOPE Sx (ft/ft)	MANNING'S ROUGHNESS COEFFICIENT n	TRANSVERSE SLOPE RECIPROCAL Z (ft/ft)	SLOT LENGTH REQUIRED FOR TOTAL INTERCEPTION Lr (ft)	SELECTED LENGTH OF SLOT Ls (ft)	Ls/Lr	TOTAL GUTTER FLOW AT INLET Q (cfs)	INTERCEPTED FLOW AT INLET Qi (cfs)	BYPASS FLOW Qb (cfs)	EFFICIENCY Qi/Q
DA A1	3.14	0.00	0.00	0.01	208.33	56.39	34.71	0.62	3.14	2.58	0.56	0.82
DA A2	0.74	0.00	0.04	0.01	26.60	9.25	10.00	1.08	0.74	0.74	0.00	1.00
DA A3	1.99	0.00	0.01	0.01	140.85	17.03	14.81	0.87	1.99	1.94	0.05	0.97
DA A4	1.89	0.00	0.07	0.01	14.29	8.64	34.43	3.98	1.89	1.89	0.00	1.00
DA A5	0.87	0.00	0.07	0.01	14.29	6.19	27.59	4.46	0.87	0.87	0.00	1.00
DA A6	0.21	0.02	0.06	0.01	16.67	6.34	22.28	3.51	0.21	0.21	0.00	1.00
DA A7	2.42	0.01	0.11	0.01	9.09	8.29	32.89	3.97	2.42	2.42	0.00	1.00
DA A8	0.49	0.02	0.12	0.01	8.33	5.33	23.32	4.38	0.49	0.49	0.00	1.00
DA A9	1.07	0.00	0.16	0.01	6.25	3.80	17.22	4.53	1.07	1.07	0.00	1.00

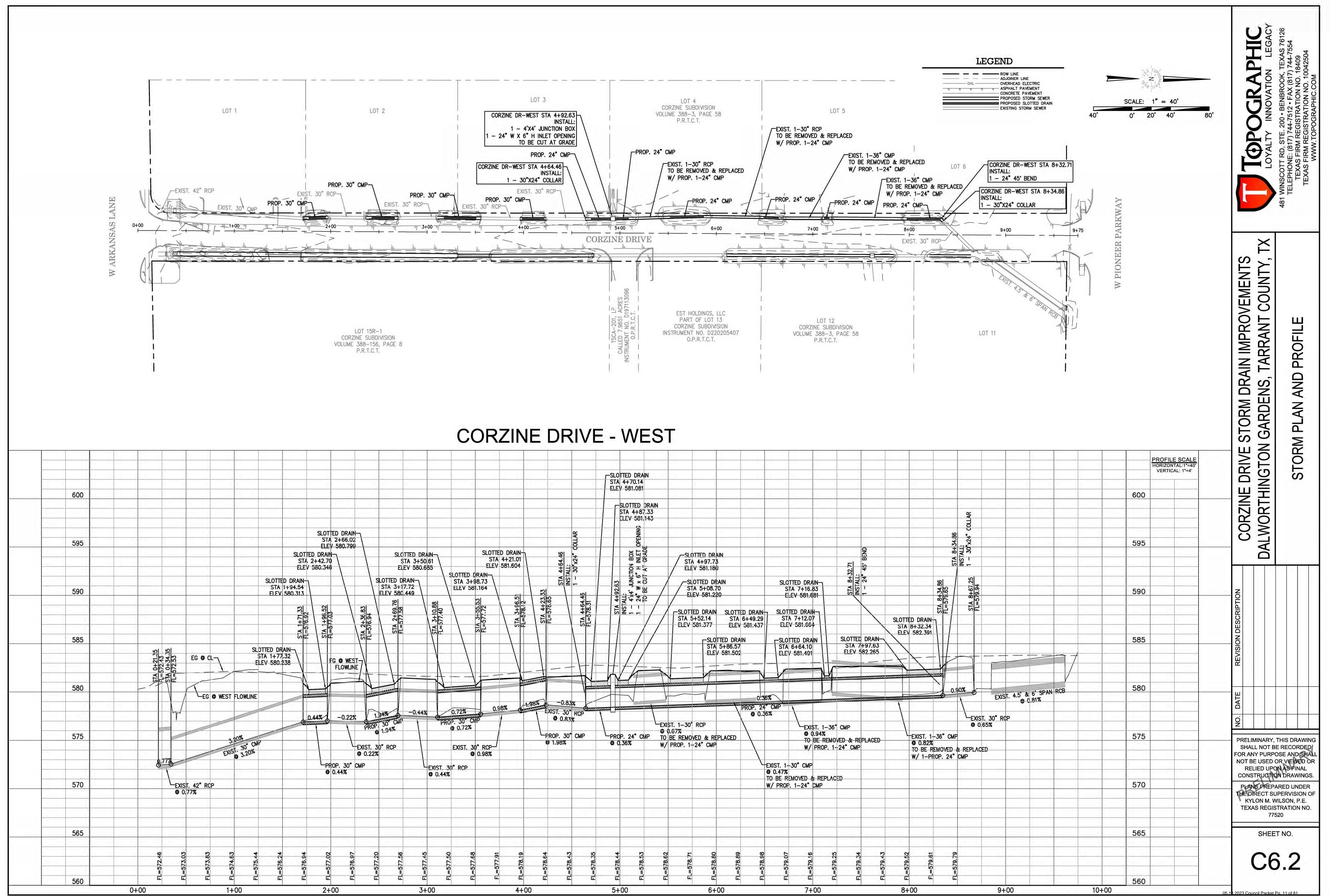
## East Side

INLET ID.	TOTAL FLOW INTO INLET Q (cfs)	LONGITUDINAL GUTTER SLOPE S (ft/ft)	TRANSVERSE SLOPE Sx (ft/ft)	MANNING'S ROUGHNESS COEFFICIENT n	TRANSVERSE SLOPE RECIPROCAL Z (ft/ft)	SLOT LENGTH REQUIRED FOR TOTAL INTERCEPTION Lr (ft)	SELECTED LENGTH OF SLOT Ls (ft)	Ls/Lr	TOTAL GUTTER FLOW AT INLET Q (cfs)	INTERCEPTED FLOW AT INLET Qi (cfs)	BYPASS FLOW Qb (cfs)	EFFICIENCY Qi/Q
DA B3	8.64	0.00	0.08	0.01	12.50	12.98	102.46	7.89	8.64	8.64	0.00	1.00
DA B4	10.26	0.01	0.08	0.01	12.50	21.87	101.84	4.66	10.26	10.26	0.00	1.00
DA B5	3.41	0.00	0.12	0.01	8.33	7.57	153.30	20.24	3.41	3.41	0.00	1.00

## SLOTTED DRAIN CALCULATIONS

TOPOGRAPHIC	LOYALTY INNOVATION LEGACY	481 WINSCOTT RD, STE. 200 • BENBROOK, TEXAS 76126 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554 TEXAS FIRM REGISTRATION NO. 18409 TEXAS FIRM REGISTRATION NO. 10042504 WWW.TOPOGRAPHIC.COM
CORZINE DRIVE STORM DRAIN IMPROVEMENTS	DALWORTHINGTON GARDENS, TARKANT COUNTY, TX	HYDRAULIC CALCULATIONS
REVISION DESCRIPTION		
NO. DATE		
SHALL N FOR ANY I NOT BE L RELIE CONSTR PLANS THE DIRE KYLOI	NOT BE PURPO JSED C D UPO UOTIO PREPA	THIS DRAWING E RECORDED DSE AND SHALL DR VIEWED OR IN AS FINAL IN DRAWINGS. ARED UNDER IPERVISION OF VILSON, P.E. TRATION NO. 520
	25	т NO. 5.3





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