

# I-470 LOT 13A

## LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

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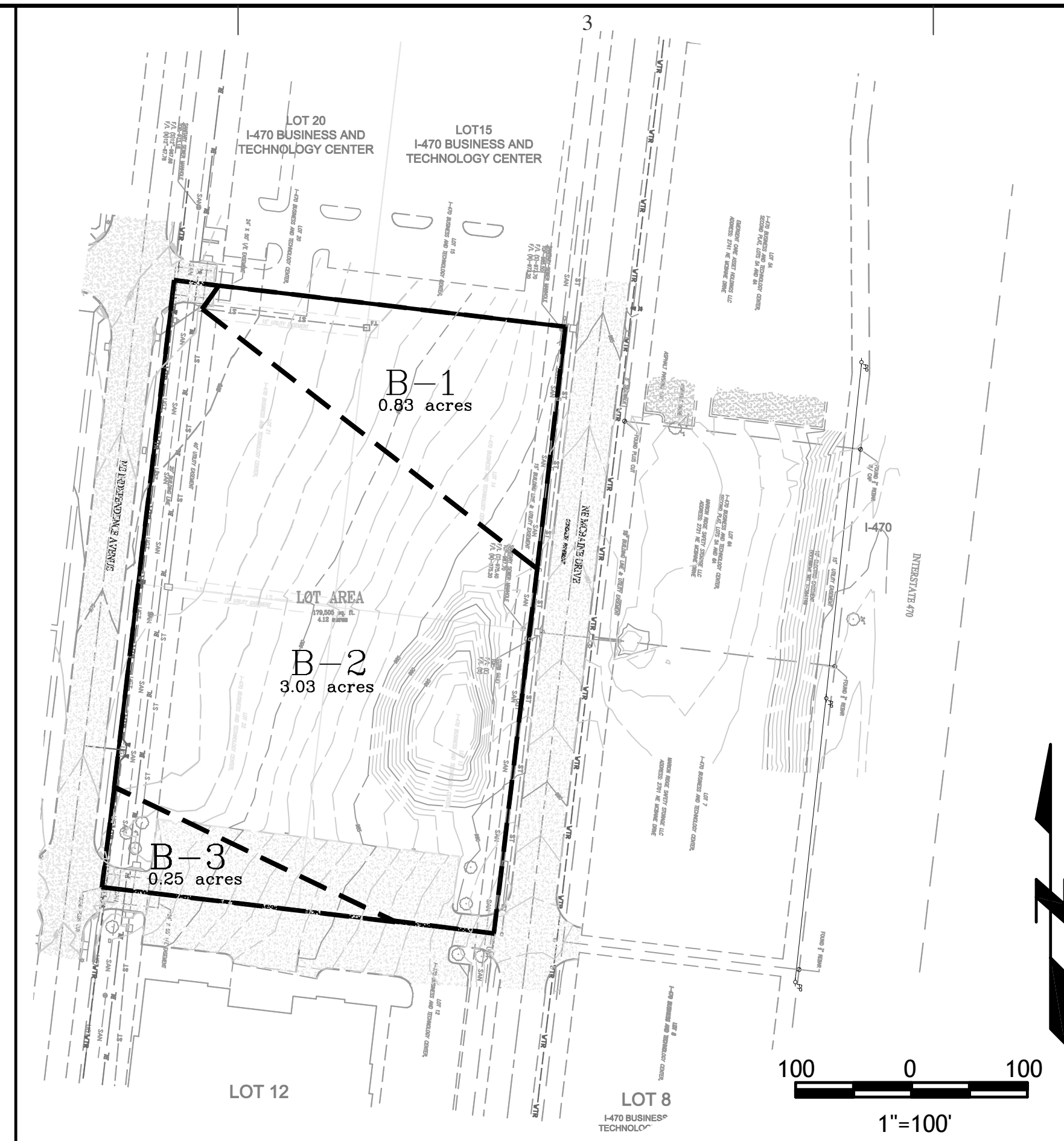
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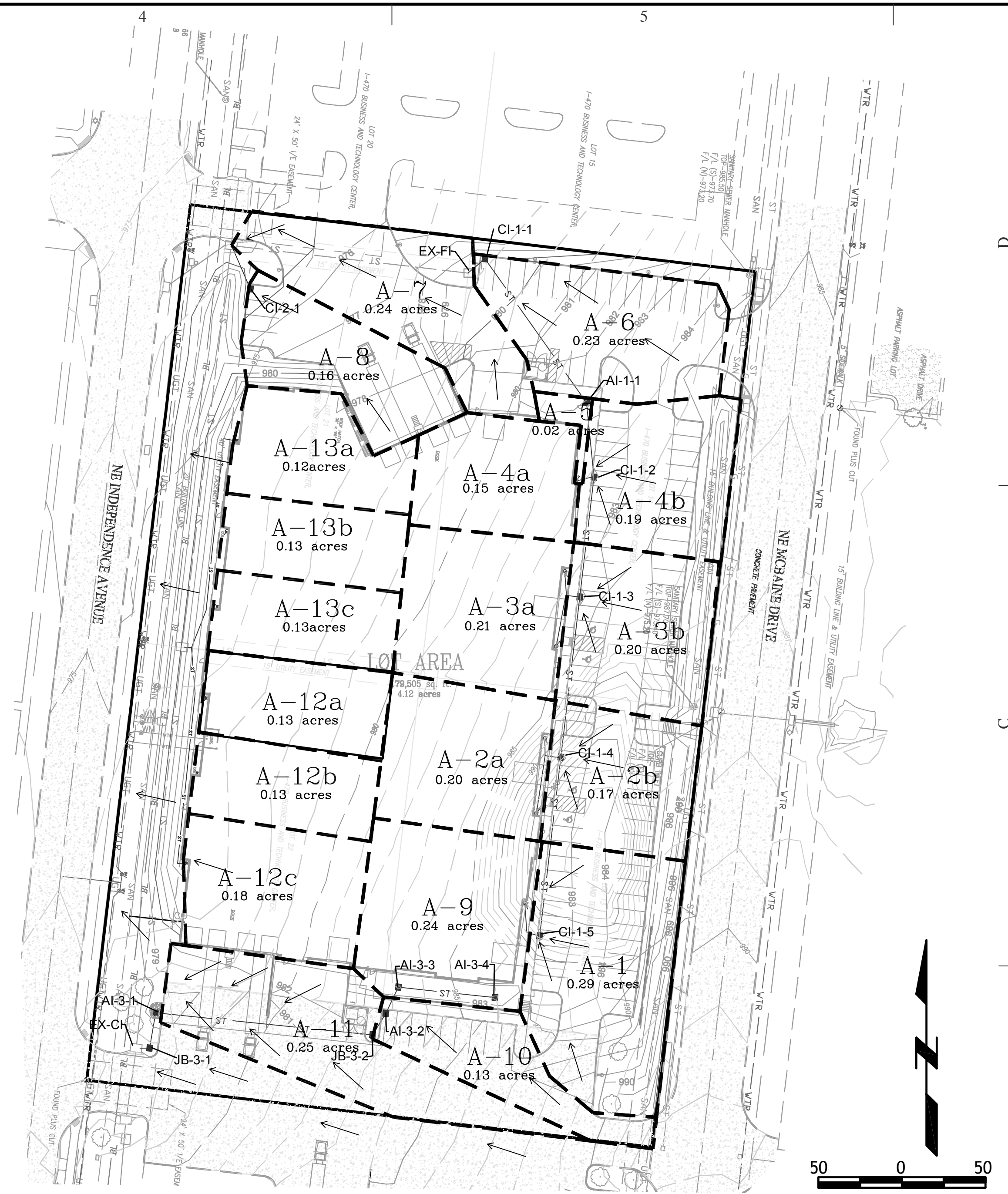
REVISIONS  
 7-24-19

SHEET NO.  
**C400**

JOB NO.  
 E18-337



PRE-DEVELOPMENT



POST-DEVELOPMENT

STORM SEWER CALCULATIONS TABLE

Line	Sewer Location		Drainage Area to Inlet			Time of Flow TC	Rainfall Runoff Flow										Elevation			Sewer Characteristics							Velocity stats			
	From	To	Designation	Area	Coef		1100 Intensity	125 Intensity	110 Intensity	Inlet 100yr K*I <sup>2</sup> *C*A	Inlet 25yr K*I <sup>2</sup> *C*A	Inlet 10yr K*I <sup>2</sup> *C*A	Additional Flow Lines	Additional cfs	In-pipe 100yr K*I <sup>2</sup> *ΣC*A	In-pipe 25yr K*I <sup>2</sup> *ΣC*A	In-pipe 10yr K*I <sup>2</sup> *ΣC*A	Inlet	Top elevation	Coverage	Pipe Size (in)	FLin	Flout	segment length	slope	pipe area	Pipe Capacity (cfs)	100yr overflow	V 10ys	V 100 yr
LINE 1	CI-1-5	CI-1-4	A-1, A-9	0.49	0.60	5.00	10.32	8.53	7.35	3.79	2.76	2.16			3.79	2.76	2.16	CI-1-5	982.00	1.00	12.00	980.00	979.00	107.54	0.93	0.79	3.43	YES	2.75	4.83
	CI-1-4	CI-1-3	A-2b, A-2a	0.37	0.60	5.00	10.32	8.53	7.35	2.86	2.08	1.63			6.66	4.84	3.79	CI-1-4	982.70	2.45	15.00	979.00	978.00	96.62	1.03	1.23	6.57	YES	3.09	5.43
	CI-1-3	CI-1-2	A-3b, A-3a	0.41	0.60	5.00	10.32	8.53	7.35	3.17	2.31	1.81			9.83	7.15	5.60	CI-1-3	982.60	3.10	18.00	978.00	976.50	72.09	2.08	1.77	15.14	NO	3.17	5.57
	CI-1-2	AI-1-1	A-4b, A-4a	0.34	0.60	5.00	10.32	8.53	7.35	2.63	1.91	1.50			12.46	9.06	7.10	CI-1-2	982.70	4.70	18.00	976.50	976.00	44.85	1.11	1.77	11.09	YES	4.02	7.06
	AI-1-1	CI-1-1	A-5	0.02	0.60	5.00	10.32	8.53	7.35	0.15	0.11	0.09			12.62	9.18	7.19	AI-1-1	982.40	4.90	18.00	976.00	975.00	105.32	0.95	1.77	10.23	YES	4.07	7.14
CI-1-1	EX-FI	A-6	0.23	0.60	5.00	10.32	8.53	7.35	1.78	1.29	1.01			14.40	10.47	8.21	CI-1-1	979.40	2.90	18.00	975.00	974.00	13.32	7.51	1.77	28.77	NO	4.65	8.15	
LINE 2	AI-2-4	AI-2-3	A-9b	0.04	0.60	10.00	8.59	7.05	6.08	0.26	0.19	0.15			0.26	0.19	0.15	AI-2-4	982.00	2.00	12.00	979.00	978.00	58.14	1.72	0.79	4.67	NO	0.19	0.33
	AI-2-3	AI-2-2	N/A	0.00	0.60	5.00	10.32	8.53	7.35	0.00	0.00	0.00			0.26	0.19	0.15	AI-2-3	982.33	3.33	12.00	978.00	977.50	17.45	2.87	0.79	6.03	NO	0.19	0.33
	AI-2-2	JB-2-2	A-10	0.13	0.60	5.00	10.32	8.53	7.35	1.01	0.73	0.57			1.26	0.92	0.72	AI-2-2	982.29	3.79	12.00	977.50	977.00	15.09	3.31	0.79	6.48	NO	0.92	1.61
	JB-2-2	AI-2-1	N/A	0.00	0.60	5.00	10.32	8.53	7.35	0.00	0.00	0.00			1.26	0.92	0.72	JB-2-2	983.20	5.20	12.00	977.00	973.00	130.39	3.07	0.79	6.24	NO	0.92	1.61
	AI-2-1	JB-2-1	A-11	0.25	0.60	5.00	10.32	8.53	7.35	1.94	1.41	1.10			3.20	2.33	1.82	AI-2-1	977.40	3.40	12.00	973.00	972.50	21.42	2.33	0.79	5.44	NO	2.32	4.08
JB-2-1	EX-CI	N/A	0.00	0.60	5.00	10.32	8.53	7.35	0.00	0.00	0.00			3.20	2.33	1.82	JB-2-1	978.00	4.50	12.00	972.50	972.00	5.72	8.74	0.79	10.53	NO	2.32	4.08	
LINE 3	CI-3-1	EX-CI	A-8	0.16	0.85	7.00	9.55	7.87	6.78	1.62	1.18	0.92			1.62	1.18	0.92	CI-3-1	974.50	2.50	12.00	971.00	967.00	111.94	3.57	0.79	6.73	NO	1.18	2.07
LINE 4	END	J-4-2	A-13a,	0.12	0.60	5.00	10.32	8.53	7.35	0.93	0.68	0.53			0.93	0.68	0.53	END	982.00	3.33	8.00	978.00	977.20	61.89	1.29	0.35	1.37	NO	1.52	2.66
	J-4-2	J-4-1	A-13b, A-13c	0.26	0.60	5.00	10.32	8.53	7.35	2.01	1.46	1.15			2.94	2.14	1.68	J-4-2	982.00	3.80	12.00	977.20	976.55	78.45	0.83	0.79	3.24	NO	2.14	3.75
	J-4-1	EX-FI	N/A		0.60	5.00	10.32	8.53	7.35	0.00	0.00	0.00	LINE 5 25yr	1.46	4.40	3.60	3.14	J-4-1	982.00	4.45	12.00	976.55	976.50	4.63	1.08	0.79	3.70	YES	4.00	5.61
LINE 5	END	J-5-1	A-12c	0.18	0.60	5.00	10.32	8.53	7.35	1.39	1.01	0.79			1.39	1.01	0.79	END	982.00	3.33	8.00	978.00	977.30	59.23	1.18	0.35	1.31	YES	2.28	3.99
	J-5-1	J-4-1	A-12a, A-12b	0.26	0.60	5.00	10.32	8.53	7.35	2.01	1.46	1.15			3.41	2.48	1.94	J-5-1	982.00	3.70	12.00	977.30	976.55	76.04	0.99	0.79	3.54	NO	2.47	4.34

## SITE STORM DRAINAGE PLAN AND CALCULATIONS