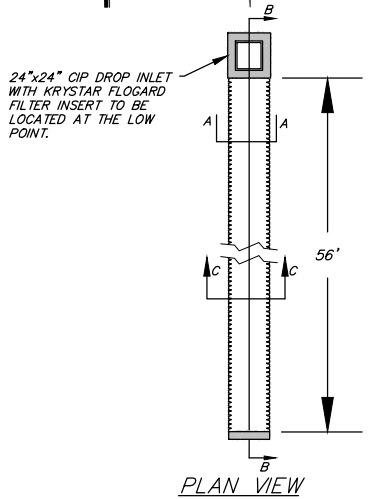
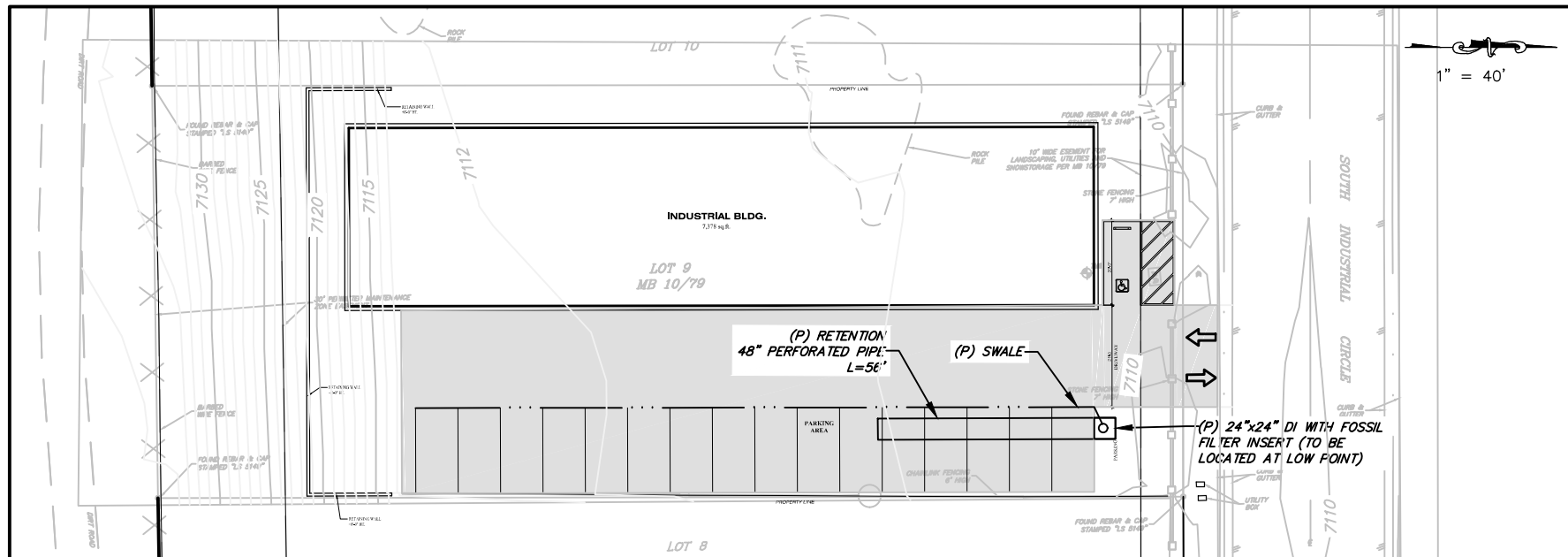


CONVICT INDUSTRIAL BUILDING
RETENTION REQUIREMENTS
EXHIBIT A



Retention Volume Calculations

Rainfall Quantity	1 in = 0.083 ft		
	Area	C	
Roof/Conc	7,378 sf	31%	0.95
AC	8,149 sf	35%	0.90
Natural	8,013 sf	34%	
Total Area	23,540 sf		0.61
Volume Required = Tributary Area * Runoff Coefficient * Rainfall			
	Volume Required		
Site	1195 cf		

Retention Sizing

PIPE DIAMETER	PIPE VOLUME	STONE VOID VOLUME	TOTAL RETENTION STORAGE VOLUME	PERC VOLUME	RETENTION STORAGE W/ PERC	LENGTH OF TYPICAL CROSS SECTION	
in	ft	R ³ /cs-ft	R ³ /cs-ft	R ³ /cs-ft	R ³ /cs-ft	ft	
12	1.00	0.79	1.24	2.02	1.00	3.02	394
15	1.25	1.23	1.49	2.71	1.10	3.82	312
18	1.50	1.77	1.74	3.51	1.21	4.72	253
24	2.00	3.14	2.29	5.43	1.42	6.84	174
30	2.50	4.91	3.86	8.77	1.88	10.65	112
36	3.00	7.07	4.64	11.71	2.08	13.80	86
42	3.50	9.62	5.46	15.08	2.29	17.37	69
48	4.00	12.57	6.31	18.88	2.50	21.38	56
54	4.50	15.90	7.20	23.10	2.71	25.81	46
60	5.00	19.63	8.12	27.75	2.92	30.67	39

INPUT SIZE OF PIPES (ft):	3.00
INPUT NUMBER OF ROWS OF PIPES:	1
INPUT PERCOLATION RATE (ft/hr):	0.25
INPUT REQ'D. STORAGE VOLUME (cf):	1195

