

ENGINEER _____

JOB No. 95-482DATE Sept 26, 1995 PROJECT FAWN MEADOWS

HYDRAULIC COMPUTATIONS

LINE		PIPE CHARACTERISTICS					STRUCT. TOPS		DEPTH	ELEV. HYD. GRD.		HYD.	FRICT.	VEL.	$\frac{V^2}{2g}$	VHL	TURN	INLETS		FLOW REQUIREMENTS			PIPE	
UPPER	LOWER	LENGTH	SIZE	F.L. GRADE	F.L. UPPER	F.L. LOWER	UPPER	LOWER	HYD. GRADE	UPPER	LOWER	GRADE	HEAD LOSS			LOSS	STREET GRADE	CAPACITY	DRNG. AREA	P.I.	Q	TOTAL Q	CAP.	
CI	MH	69.82'	12" ADS	1.0%	532.50	531.80	536.50	538.0	3.00	532.92	532.80	.0017	0.12	2.1	.07	.07	$\frac{04}{50^\circ}$	LOW	4.0	0.73 AC	2.2	1.61	1.61	3.86
MH	RI	97.70'	12" ADS	8.0%	531.60	523.78	538.0	530.5	5.30	524.95	524.78	.0017	0.17	2.1	.07	-	-	-	-	-	-	1.61	10.93	
RI	FE	58.12'	12" ADS	8.0%	520.65	516.00	530.5	-	5.72	519.68	519.46	.0037	0.22	3.0	.14	.12	-	3 SIDES OPEN	8.25	0.34 AC	2.2	0.75	2.36	10.93
RI	DCI	20.13'	12" ADS	2.0%	550.95	550.55	555.0	556.87	3.05	551.63	551.55	.0039	0.08	3.1	.15	.15	-	3 SIDES OPEN	8.25	1.10 AC	2.2	2.42	2.42	5.46
DCI	FE	67.45'	15" RCP	2.0%	550.35	549.00	556.87	-	5.32	550.63	550.25	.0056	0.38	3.9	.24	.22	-	2.3%	6.14	1.10 AC	2.2	2.42	4.84	9.15
RI	RI	131.58	12" ADS	4.7%	548.00	541.82	554.7	547.5	5.70	544.51	543.26	.0095	1.25	4.8	.36	.36	-	2 SIDES OPEN	5.50	1.01 AC	On-site 2.2	2.22	3.76	8.38
RI	DCI	88.77	15" ADS	1.5%	541.62	540.29	547.5	547.42	4.24	542.66	541.76	.0101	0.90	5.8	.52	.44	$\frac{16}{25^\circ}$	3 SIDES OPEN	8.25	1.02 AC	On-site 2.2	2.24	7.06	8.58
DCI	RI	123.07	18" ADS	1.0%	540.09	538.86	547.42	548.0	5.66	541.45	540.49	.0078	0.96	5.7	.51	.19	$\frac{12}{20^\circ}$	1.6%	7.20	1.35 AC	2.2	2.97	10.03	11.38
RI	CI	158.60	18" ADS	1.5%	538.66	536.28	548.0	542.40	7.51	539.69	538.02	.0105	1.67	6.6	.68	.32	$\frac{48}{30^\circ}$	3 SIDES OPEN	8.25	0.61 AC	On-site 2.2	1.34	11.68	13.94
CI	CI	34.00	18" RCP	2.0%	536.08	535.40	542.40	542.40	4.98	537.39	536.90	.0143	0.49	7.1	.78	.20	$\frac{43}{60^\circ}$	4.0%	1.21	0.40 AC	2.2	0.88	12.56	14.86
CI	CI	168.60	18" ADS	3.68%	535.20	529.00	542.40	534.90	5.50	532.97	530.50	.0146	2.47	7.8	.95	.32	$\frac{60}{75^\circ}$	4.0%	1.21	0.92 AC	2.2	2.02	13.77	21.83
CI	CI	34.00	15" RCP	1.0%	555.00	554.66	559.25	559.25	3.00	555.95	555.91	.0013	0.04	1.9	.06	.06	-	1.0%	2.29	1.11 AC	2.2	2.44	2.29	6.47
CI	RI	218.46	15" ADS	9.8%	554.46	533.05	559.25	533.30	3.34	534.62	534.30	.0015	0.32	2.2	.08	.04	$\frac{05}{20^\circ}$	1.0%	2.29	0.18 AC	2.2	0.40	2.69	21.94
RI	DAE	237.99'	15" ADS	3.72%	532.85	524.00	538.30	530.00	4.00	529.50	527.86	.0069	1.64	4.8	.36	.43	$\frac{04}{10^\circ}$	3 SIDES OPEN	8.25	1.43 AC	2.2	3.15	5.84	13.52
DAE	CI	33.05'	8" ADS	3.15%	523.80	522.76	530.00	534.90	2.14	525.86	525.03	.0252	0.83	10.2	1.62	2.00	-	6 SIDES OPEN	16.50	4.84 c.f.s.	From FE 17	7.37	18.05	20.20
CI	CI	34.00	27" RCP	3.15%	522.56	521.49	534.90	534.90	9.87	524.14	523.74	.0118	0.40	8.4	1.10	.12	$\frac{77}{90^\circ}$	LOW	4.0	13.77 c.f.s.	From CI 11	0.95	33.58	54.95
CI	CI	89.23	27" RCP	3.15%	521.29	518.48	534.90	536.78	11.16	521.95	520.73	.0137	1.22	9.1	1.29	.36	$\frac{77}{90^\circ}$	LOW	4.0	1.21 c.f.s.	By-pass From CI 4	1.41	36.20	54.95
CI	FE	72.75	27" RCP	3.15%	518.28	515.99	536.78	-	16.05	520.52	519.46	.0145	1.06	9.4	1.37	.16	-	4.2%	1.14	0.15 c.f.s.	By-pass From CI 10	2.20	37.34	54.95
OS	FE	55'	30" RCP	2.0%	512.00	510.90	519.46	-	4.16	514.04	513.40	.0117	0.64	9.0	1.26	1.26	-	-	-	2.12 AC	2.2	4.66	44.36	58.00

By-pass to CI 1

By-pass to CI 4

By-pass to CI 1