BAX ENGINEERING CO., INC.

COMPUTATIONS — HYDRAULIC

ENGINEER Bernard Bax JOB No. 92-3623 DATE Aug. 16, 1993 PROJECT CIVIC PARK ESTATES

LINE		PIPE CHARACTERISTICS					STRUCT. TOPS		DEPTH HYD. GRADE	ELEV. HYD. GR'D.		HYD. GRADE	FRICT. HEAD LOSS	VEL.	$\frac{V^2}{2g}$	VHL.	TURN LOSS	INLETS		FLOW REQUIREMENTS				PIPE CAP.
UPPER	LOWER	LENGTH	SIZE	F.L. GRADE	F.L. UPPER	F.L. LOWER	UPPER	LOWER		UPPER	LOWER							STREET GRADE	CAPACITY	DRNG. AREA	P.I.	Q	TOTAL Q	
											541.55													
EP 12	MH 11	EXIST 30'	15" CP	0.01	538.5	538.2	Top Road 541.8	541.0	0.25	540.17	℄ FULL 539.45	0.024	0.72	8.17	1.04	1.38	0	—	—	3.8	2.64	10.03	10.03	6.47
MH 11	AI 10	37.91'	15" RCP	0.08	534.83	531.8	541.0	538.5	1.55	533.96	℄ FULL 533.05	0.024	0.91	8.17	1.04	0	0.55	—	—	—	—	—	10.03	18.30
AI 10	FE 9	120'	15" RCP	0.08	531.6	522.0	538.5	—	5.45	526.61	℄ FULL 523.25	0.028	3.36	8.78	1.20	0.31	0.55	open 4 sides	11.00	0.28	2.64	0.74	10.77	18.30
											535.85													
EP 8	MH 7	EXIST 30'	15" CP	0.01	534.0	533.7	Top Road 537.0	537.0	1.15	535.25	℄ FULL 534.95	0.010	0.30	5.38	0.45	0.60	0	—	—	2.5	2.64	6.60	6.60	6.47
MH 7	AI 6	47.13'	15" RCP	0.08	529.57	525.8	537.0	533.5	2.05	527.52	℄ FULL 527.05	0.010	0.47	5.38	0.45	0	0.24	—	—	—	—	—	6.60	18.30
AI 6	FE 5	120'	15" RCP	0.08	525.6	516.0	533.5	—	6.45	518.81	℄ FULL 517.25	0.013	1.56	5.98	0.56	0.21	0.24	open 4 sides	11.00	0.28	2.64	0.74	7.34	18.30
											523.04													
EP 2	EP 1	15'	15" RCP	.02	521.8	521.5	Top Walk 523.8	—	0.76	522.81	℄ FULL 522.75	0.004	0.06	3.29	0.17	0.23	0	—	—	1.53	2.64	4.04	4.04	9.15

STATE OF MISSOURI
HAROLD J. BAX
NUMBER E-17644
REGISTERED PROFESSIONAL ENGINEER