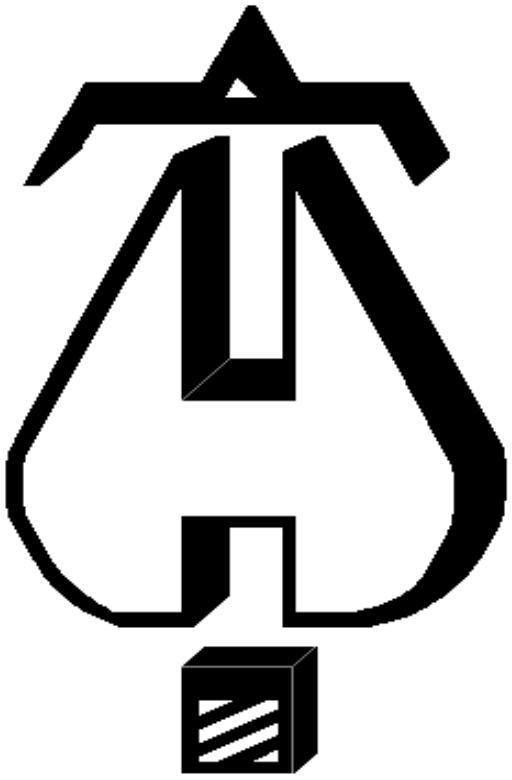


. . . Fire Protection by Computer Design

EASTERN FIRE PROTECTION
AUBURN, MAINE
207-784-1507

Job Name	:	AMERICAN TIRE DIST
Drawing	:	1 OF 2
Location	:	PORTLAND, ME
Remote Area	:	SYSTEM#4
Contract	:	AU-5258-15
Data File	:	5258 AMERICAN TIRE SYSTEM 4.WXF

HYDRAULIC CALCULATIONS
for

Project name: AMERICAN TIRE DIST
Location: PORTLAND, ME
Drawing no: 1 OF 2
Date: 1-19-15

Design

Remote area number: SYSTEM#4
Remote area location: SYSTEM#4 ROOF
Occupancy classification:
Density: 25 PSI - Gpm/SqFt
Area of application: 12 HEADS - SqFt
Coverage per sprinkler: N/A - SqFt
Type of sprinklers calculated: TYCO 25.2 ESFR PENDENT
No. of sprinklers calculated: 12
In-rack demand: - GPM
Hose streams: 250 - GPM
Total water required (including hose streams): 1922.37 - GPM @ 125.527 - Psi
Type of system: WET
Volume of dry or preaction system: N/A - Gal

Water supply information

Date: 12-12-14
Location: FIRE PUMP TEST
Source: EASTERN FIRE PROTECTION

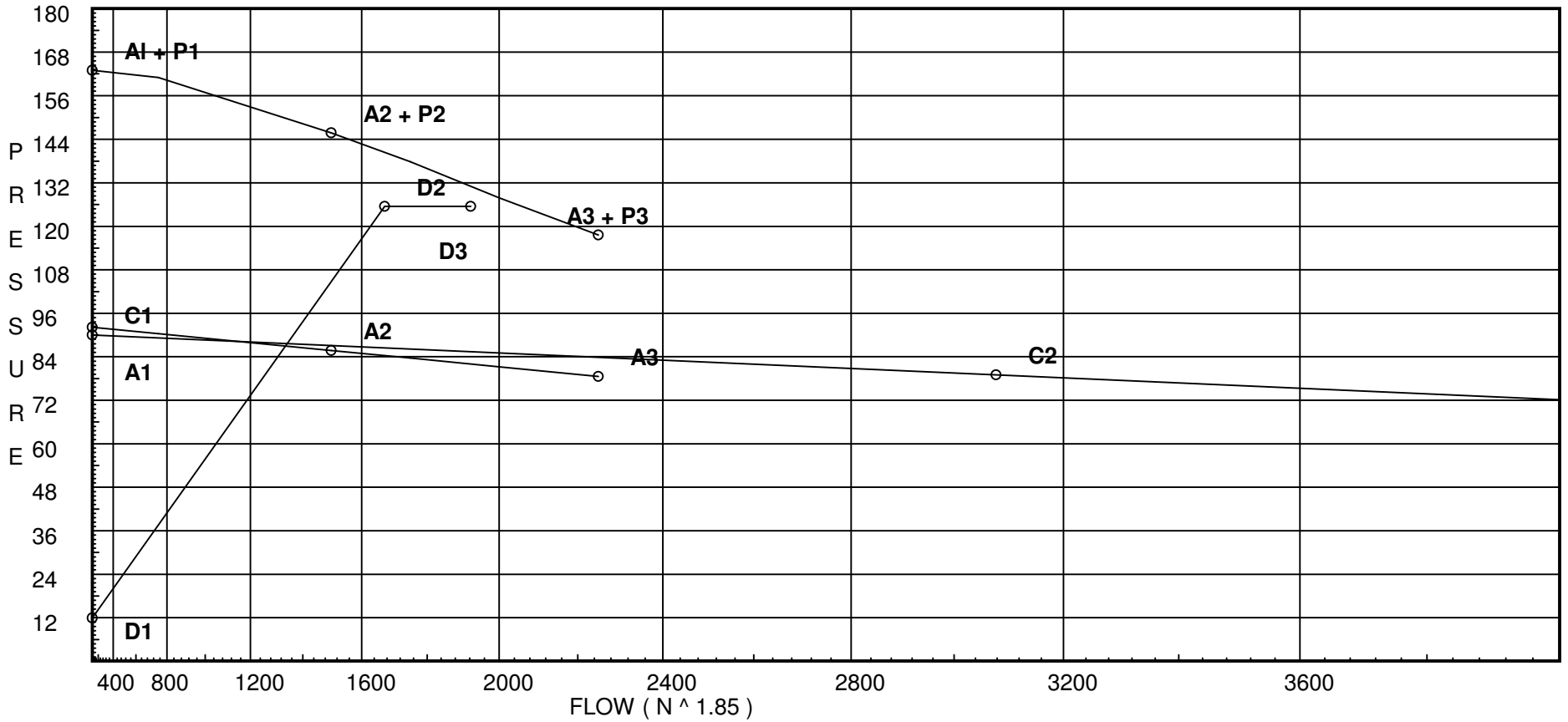
Name of contractor: EASTERN FIRE PROTECTION
Address: AUBURN, MAINE
Phone number: 207-784-1507
Name of designer: GRD
Authority having jurisdiction: MAINE STATE FIRE MARSHAL
Notes: (Include peaking information or gridded systems here.) TOTAL SYSTEM DEMAND AND PRESSURE INDICATED AT DISCHARGE FLANGE OF FIRE PUMP

City Water Supply:
- C1 - Static Pressure : 90
- C2 - Residual Pressure: 79
- C2 - Residual Flow : 3078

City Water Adjusted to Pump Inlet for Pf - Elev - Hose Flow
- A1 - Adjusted Static: 92.166
- A2 - Adj Resid : 85.759 @ 1500
- A3 - Adj Resid : 78.602 @ 2250

Pump Data:
- P1 - Pump Churn Pressure : 70.8
- P2 - Pump Rated Pressure : 60
- P2 - Pump Rated Flow : 1500
- P3 - Pump Pressure @ Max Flow : 39
- P3 - Pump Max Flow : 2250
- City Residual Flow @ 0 = 9587.40
- City Residual Flow @ 20 = 8369.59
- City Water @ 150% of Pump = 83.84

Demand:
- D1 - Elevation : 11.984
- D2 - System Flow : 1672.37
- D2 - System Pressure : 125.527
- Hose (Demand) : 250
- D3 - System Demand : 1922.37
- Safety Margin : 5.527



Fitting Legend

Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
Aty	Alarm Tyco AV-1							14			23		24	23							
B	NFPA 13 Butterfly Valve	0	0	0	0	0	6	7	10	0	12	9	10	12	19	21	0	0	0	0	0
E	NFPA 13 90' Standard Elbow	1	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
G	NFPA 13 Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
I	90' Grvd-Vic Elbow #10	0	0	2	3	4	3.5	6	5	8	7	8.5	10	13	17	20	23	25	33	36	40
L	NFPA 13 Long Turn Elbow	0.5	1	2	2	2	3	4	5	5	6	8	9	13	16	18	24	27	30	34	40
S	NFPA 13 Swing Check	0	0	5	7	9	11	14	16	19	22	27	32	45	55	65					
T	NFPA 13 90' Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121
Zca	Colt C200 Horz Butt	Fitting generates a Fixed Loss Based on Flow																			

Units Summary

Diameter Units	Inches
Length Units	Feet
Flow Units	US Gallons per Minute
Pressure Units	Pounds per Square Inch

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

SUPPLY ANALYSIS

Node at Source	Static Pressure	Residual Pressure	Flow	Available Pressure	Total Demand	Required Pressure
PO	See Information on Pump Curve			131.054	1922.37	125.527
TEST	90.0	79	3078.0	85.395	1922.37	85.395

NODE ANALYSIS

Node Tag	Elevation	Node Type	Pressure at Node	Discharge at Node	Notes
701	127.83		78.54		
702	127.83		78.55		
703	127.83		78.56		
704	127.83		78.57		
705	127.83		78.6		
706	127.83		78.62		
707	127.83		78.63		
600	132.67	25.2	25.0	126.0	
601	132.67	25.2	25.98	128.43	
602	132.67	25.2	29.55	137.0	
604	132.67	25.2	43.03	165.3	
603	132.67		46.05		
605	132.67	25.2	25.17	126.42	
606	132.67	25.2	26.15	128.86	
607	132.67	25.2	29.75	137.45	
609	132.67	25.2	43.31	165.83	
608	132.67		46.35		
610	132.67	25.2	25.03	126.08	
611	132.67	25.2	26.01	128.51	
612	132.67	25.2	29.59	137.08	
614	132.67	25.2	43.08	165.4	
613	132.67		46.11		
691A	132.67		75.4		
950	132.67		75.64		
692A	132.67		75.64		
951	132.67		75.69		
952	132.67		75.71		
953	132.67		75.73		
954	132.67		75.74		
693A	132.67		75.74		
955	132.67		75.76		
956	132.67		75.77		
957	132.67		75.78		
702A	132.67		75.81		
958	132.67		75.97		
694A	132.67		75.97		
959	132.67		76.02		
960	132.67		76.05		

NODE ANALYSIS (cont.)

Node Tag	*Elevation*	*Node Type*	*Pressure at Node*	*Discharge at Node*	*Notes*
961	132.67		76.08		
695A	132.67		76.29		
696A	132.67		76.58		
697A	132.67		76.79		
698A	132.67		76.89		
706A	132.67		76.79		
699	130.67		78.6		
699A	132.67		77.52		
700	130.67		78.84		
700A	132.67		77.71		
680	130.67		73.55		
681	130.67		73.55		
682	130.67		73.63		
691	130.67		76.09		
692	130.67		76.46		
693	130.67		76.58		
694	130.67		76.78		
695	130.67		77.13		
696	130.67		77.46		
697	130.67		77.66		
698	130.67		77.81		
684	130.67		73.82		
685	130.67		77.76		
A	130.67		78.88		
TR4	130.67		82.58		
BR4	101.0		99.99		
UG3	100.0		106.82		
UG4	100.0		102.26	250.0	
50	100.0		107.3		
FLG	100.0		110.24		
PO	100.0		125.53		
PI	100.0		82.03		
BASE	100.0		83.5		
TEST	105.0		85.4		

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	******* Notes ******
701	127.830		29.38	4		0.0	11.250	120	78.543	
to						0.0	0.0		0.0	
702	127.830		29.38	4.26		0.0	11.250	0.0003	0.003	Vel = 0.66
702	127.830		27.71	4		0.0	10.000	120	78.546	
to						0.0	0.0		0.0	
703	127.830		57.09	4.26		0.0	10.000	0.0010	0.010	Vel = 1.29
703	127.830		18.53	4		0.0	11.250	120	78.556	
to						0.0	0.0		0.0	
704	127.830		75.62	4.26		0.0	11.250	0.0016	0.018	Vel = 1.70
704	127.830		11.52	4		0.0	11.330	120	78.574	
to						0.0	0.0		0.0	
705	127.830		87.14	4.26		0.0	11.330	0.0022	0.025	Vel = 1.96
705	127.830		-7.41	4		0.0	11.250	120	78.599	
to						0.0	0.0		0.0	
706	127.830		79.73	4.26		0.0	11.250	0.0018	0.020	Vel = 1.79
706	127.830		-17.16	4		0.0	10.000	120	78.619	
to						0.0	0.0		0.0	
707	127.830		62.57	4.26		0.0	10.000	0.0012	0.012	Vel = 1.41
707	127.830		-29.76	4		0.0	11.250	120	78.631	
to						0.0	0.0		55.363	
708	0		32.81	4.26		0.0	11.250	0.0004	0.004	Vel = 0.74
			0.0							
708			32.81						133.998	K Factor = 2.83
600	132.67	25.20	126.00	2		0.0	8.330	120	25.000	
to						0.0	0.0		0.0	
601	132.67		126.0	2.157		0.0	8.330	0.1170	0.975	Vel = 11.06
601	132.67	25.20	128.43	2		0.0	8.330	120	25.975	
to						0.0	0.0		0.0	
602	132.67		254.43	2.157		0.0	8.330	0.4297	3.579	Vel = 22.34
602	132.67	25.20	137.00	2	T	12.307	5.000	120	29.554	
to						0.0	12.307		0.0	
603	132.670		391.43	2.157		0.0	17.307	0.9533	16.498	Vel = 34.37
			0.0							
603			391.43						46.052	K Factor = 57.68
604	132.670	25.20	165.30	2	T	12.307	3.330	120	43.027	
to						0.0	12.307		0.0	
603	132.670		165.3	2.157		0.0	15.637	0.1935	3.025	Vel = 14.51
603	132.670		391.43	2	T	12.307	2.250	120	46.052	
to						0.0	12.307		0.866	
680	130.670		556.73	2.157		0.0	14.557	1.8292	26.628	Vel = 48.88
			0.0							
680			556.73						73.546	K Factor = 64.92
605	132.67	25.20	126.42	2		0.0	8.330	120	25.168	
to						0.0	0.0		0.0	
606	132.670		126.42	2.157		0.0	8.330	0.1178	0.981	Vel = 11.10

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	******* Notes ******
606	132.670	25.20	128.86	2		0.0	8.330	120	26.149	
to						0.0	0.0		0.0	
607	132.67		255.28	2.157		0.0	8.330	0.4323	3.601	Vel = 22.41
607	132.67	25.20	137.45	2	T	12.307	5.000	120	29.750	
to						0.0	12.307		0.0	
608	132.670		392.73	2.157		0.0	17.307	0.9591	16.600	Vel = 34.48
			0.0							
608			392.73						46.350	K Factor = 57.69
609	132.670	25.20	165.84	2	T	12.307	3.330	120	43.306	
to						0.0	12.307		0.0	
608	132.670		165.84	2.157		0.0	15.637	0.1947	3.044	Vel = 14.56
608	132.670		392.73	2	T	12.307	2.000	120	46.350	
to						0.0	12.307		0.866	
681	130.670		558.57	2.157		0.0	14.307	1.8404	26.330	Vel = 49.04
			0.0							
681			558.57						73.546	K Factor = 65.13
610	132.67	25.20	126.08	2		0.0	8.330	120	25.031	
to						0.0	0.0		0.0	
611	132.670		126.08	2.157		0.0	8.330	0.1172	0.976	Vel = 11.07
611	132.670	25.20	128.51	2		0.0	8.330	120	26.007	
to						0.0	0.0		0.0	
612	132.67		254.59	2.157		0.0	8.330	0.4301	3.583	Vel = 22.35
612	132.67	25.20	137.08	2	T	12.307	5.000	120	29.590	
to						0.0	12.307		0.0	
613	132.670		391.67	2.157		0.0	17.307	0.9544	16.518	Vel = 34.39
			0.0							
613			391.67						46.108	K Factor = 57.68
614	132.670	25.20	165.40	2	T	12.307	3.330	120	43.079	
to						0.0	12.307		0.0	
613	132.670		165.4	2.157		0.0	15.637	0.1937	3.029	Vel = 14.52
613	132.670		391.67	2	T	12.307	2.250	120	46.108	
to						0.0	12.307		0.866	
682	130.670		557.07	2.157		0.0	14.557	1.8312	26.657	Vel = 48.91
			0.0							
682			557.07						73.631	K Factor = 64.92
691A	132.670		-29.38	2	E	6.153	4.000	120	75.403	
to					T	12.307	18.460		0.866	
691	130.670		-29.38	2.157		0.0	22.460	-0.0079	-0.178	Vel = 2.58
			0.0							
691			-29.38						76.091	K Factor = -3.37
691A	132.670		29.38	2	2l	8.615	98.500	120	75.403	
to					2T	24.613	33.228		2.096	
701	127.830		29.38	2.157		0.0	131.728	0.0079	1.044	Vel = 2.58
			0.0							
701			29.38						78.543	K Factor = 3.32

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	******* Notes ******
950	132.670	.0	0.0	2	T	12.307	3.500	120	75.640	
to						0.0	12.307		0.0	
692A	132.670		0.0	2.157		0.0	15.807	0	0.0	Vel = 0
692A	132.670		-16.83	2	T	12.307	2.500	120	75.640	
to						0.0	12.307		0.866	
692	130.670		-16.83	2.157		0.0	14.807	-0.0028	-0.042	Vel = 1.48
			0.0							
692			-16.83						76.464	K Factor = -1.92
692A	132.670		16.83	2	T	12.307	4.830	120	75.640	
to						0.0	12.307		0.0	
951	132.670		16.83	2.157		0.0	17.137	0.0028	0.048	Vel = 1.48
951	132.670		0.0	2		0.0	8.000	120	75.688	
to						0.0	0.0		0.0	
952	132.670		16.83	2.157		0.0	8.000	0.0028	0.022	Vel = 1.48
952	132.670		0.0	2		0.0	8.000	120	75.710	
to						0.0	0.0		0.0	
953	132.670		16.83	2.157		0.0	8.000	0.0029	0.023	Vel = 1.48
953	132.670		0.0	2	I	4.307	11.670	120	75.733	
to					T	12.307	16.614		0.0	
702A	132.670		16.83	2.157		0.0	28.284	0.0028	0.080	Vel = 1.48
			0.0							
702A			16.83						75.813	K Factor = 1.93
954	132.670	.0	0.0	2	T	12.307	3.500	120	75.737	
to						0.0	12.307		0.0	
693A	132.670		0.0	2.157		0.0	15.807	0	0.0	Vel = 0
693A	132.670		-10.88	2	T	12.307	2.500	120	75.737	
to						0.0	12.307		0.866	
693	130.670		-10.88	2.157		0.0	14.807	-0.0013	-0.019	Vel = 0.96
			0.0							
693			-10.88						76.584	K Factor = -1.24
693A	132.670		10.88	2	T	12.307	4.830	120	75.737	
to						0.0	12.307		0.0	
955	132.670		10.88	2.157		0.0	17.137	0.0013	0.022	Vel = 0.96
955	132.670		0.0	2		0.0	8.000	120	75.759	
to						0.0	0.0		0.0	
956	132.670		10.88	2.157		0.0	8.000	0.0012	0.010	Vel = 0.96
956	132.670		0.0	2		0.0	8.000	120	75.769	
to						0.0	0.0		0.0	
957	132.670		10.88	2.157		0.0	8.000	0.0012	0.010	Vel = 0.96
957	132.670		0.0	2	I	4.307	10.500	120	75.779	
to					T	12.307	16.614		0.0	
702A	132.670		10.88	2.157		0.0	27.114	0.0013	0.034	Vel = 0.96
702A	132.670		16.83	2	2T	24.613	65.000	120	75.813	
to						0.0	24.613		2.096	
702	127.830		27.71	2.157		0.0	89.613	0.0071	0.637	Vel = 2.43

Node1 / to / Node2	Elev1 / Elev2	K Fact	Qa / Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt / Pe / Pf	******* Notes ******
			0.0							
702			27.71						78.546	K Factor = 3.13
958	132.670	.0	0.0	2	T	12.307	3.500	120	75.966	
to						0.0	12.307		0.0	
694A	132.670		0.0	2.157		0.0	15.807	0	0.0	Vel = 0
694A	132.670		-18.52	2	T	12.307	2.500	120	75.966	
to						0.0	12.307		0.866	
694	130.670		-18.52	2.157		0.0	14.807	-0.0034	-0.050	Vel = 1.63
			0.0							
694			-18.52						76.782	K Factor = -2.11
694A	132.670		18.52	2	T	12.307	4.830	120	75.966	
to						0.0	12.307		0.0	
959	132.670		18.52	2.157		0.0	17.137	0.0034	0.058	Vel = 1.63
959	132.670		0.0	2		0.0	8.000	120	76.024	
to						0.0	0.0		0.0	
960	132.670		18.52	2.157		0.0	8.000	0.0032	0.026	Vel = 1.63
960	132.670		0.0	2		0.0	8.000	120	76.050	
to						0.0	0.0		0.0	
961	132.670		18.52	2.157		0.0	8.000	0.0035	0.028	Vel = 1.63
961	132.670		0.0	2	2I	8.615	80.000	120	76.078	
to					2T	24.613	33.228		2.096	
703	127.830		18.52	2.157		0.0	113.228	0.0034	0.382	Vel = 1.63
			0.0							
703			18.52						78.556	K Factor = 2.09
695A	132.670		-11.52	2	E	6.153	6.000	120	76.294	
to					T	12.307	18.460		0.866	
695	130.670		-11.52	2.157		0.0	24.460	-0.0014	-0.034	Vel = 1.01
			0.0							
695			-11.52						77.126	K Factor = -1.31
695A	132.670		11.52	2	2I	8.615	98.250	120	76.294	
to					2T	24.613	33.228		2.096	
704	127.830		11.52	2.157		0.0	131.478	0.0014	0.184	Vel = 1.01
			0.0							
704			11.52						78.574	K Factor = 1.30
696A	132.670		7.40	2	E	6.153	6.000	120	76.584	
to					T	12.307	18.460		0.866	
696	130.670		7.4	2.157		0.0	24.460	0.0006	0.015	Vel = 0.65
			0.0							
696			7.40						77.465	K Factor = 0.84
696A	132.670		-7.40	2	2I	8.615	98.500	120	76.584	
to					2T	24.613	33.228		2.096	
705	127.830		-7.4	2.157		0.0	131.728	-0.0006	-0.081	Vel = 0.65
			0.0							
705			-7.40						78.599	K Factor = -0.83
697A	132.670		2.58	2	T	12.307	2.250	120	76.790	
to						0.0	12.307		0.866	
697	130.670		2.58	2.157		0.0	14.557	0.0001	0.002	Vel = 0.23

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	******* Notes ******
			0.0							
697			2.58						77.658	K Factor = 0.29
697A	132.670		-2.58	2	I	4.307	34.250	120	76.790	
to					T	12.307	16.614		0.0	
706A	132.670		-2.58	2.157		0.0	50.864	-0.0001	-0.004	Vel = 0.23
			0.0							
706A			-2.58						76.786	K Factor = -0.29
698A	132.670		14.58	2	E	6.153	5.500	120	76.892	
to					T	12.307	18.460		0.866	
698	130.670		14.58	2.157		0.0	23.960	0.0022	0.052	Vel = 1.28
			0.0							
698			14.58						77.810	K Factor = 1.65
698A	132.670		-14.58	2	I	4.307	32.500	120	76.892	
to					T	12.307	16.614		0.0	
706A	132.670		-14.58	2.157		0.0	49.114	-0.0022	-0.106	Vel = 1.28
706A	132.670		-2.58	2	2T	24.613	65.000	120	76.786	
to						0.0	24.613		2.096	
706	127.830		-17.16	2.157		0.0	89.613	-0.0029	-0.263	Vel = 1.51
			0.0							
706			-17.16						78.619	K Factor = -1.94
699	130.670		-29.76	2	2T	24.613	2.500	120	78.601	
to						0.0	24.613		-0.866	
699A	132.670		-29.76	2.157		0.0	27.113	-0.0081	-0.220	Vel = 2.61
699A	132.670		0.0	2	2T	24.613	96.250	120	77.515	
to						0.0	24.613		2.096	
707	127.830		-29.76	2.157		0.0	120.863	-0.0081	-0.980	Vel = 2.61
			0.0							
707			-29.76						78.631	K Factor = -3.36
700	130.670		-32.81	2	2T	24.613	2.500	120	78.842	
to						0.0	24.613		-0.866	
700A	132.670		-32.81	2.157		0.0	27.113	-0.0097	-0.263	Vel = 2.88
700A	132.670		0.0	2	2T	24.613	96.250	120	77.713	
to						0.0	24.613		57.459	
708	0		-32.81	2.157		0.0	120.863	-0.0097	-1.174	Vel = 2.88
			0.0							
708			-32.81						133.998	K Factor = -2.83
680	130.670		9.18	6		0.0	8.000	120	73.546	
to						0.0	0.0		0.0	
681	130.670		9.18	6.357		0.0	8.000	0	0.0	Vel = 0.09
681	130.670		558.57	6		0.0	8.670	120	73.546	
to						0.0	0.0		0.0	
682	130.670		567.75	6.357		0.0	8.670	0.0098	0.085	Vel = 5.74
682	130.670		557.07	6		0.0	70.750	120	73.631	
to						0.0	0.0		0.0	
691	130.670		1124.82	6.357		0.0	70.750	0.0348	2.460	Vel = 11.37

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	******* Notes ******
691	130.670		-29.39	6		0.0	11.250	120	76.091	
to						0.0	0.0		0.0	
692	130.670		1095.43	6.357		0.0	11.250	0.0332	0.373	Vel = 11.07
692	130.670		-16.82	6		0.0	3.750	120	76.464	
to						0.0	0.0		0.0	
693	130.670		1078.61	6.357		0.0	3.750	0.0320	0.120	Vel = 10.90
693	130.670		-10.88	6		0.0	6.250	120	76.584	
to						0.0	0.0		0.0	
694	130.670		1067.73	6.357		0.0	6.250	0.0317	0.198	Vel = 10.79
694	130.670		-18.53	6		0.0	11.250	120	76.782	
to						0.0	0.0		0.0	
695	130.670		1049.2	6.357		0.0	11.250	0.0306	0.344	Vel = 10.61
695	130.670		-11.52	6		0.0	11.330	120	77.126	
to						0.0	0.0		0.0	
696	130.670		1037.68	6.357		0.0	11.330	0.0299	0.339	Vel = 10.49
696	130.670		7.41	6		0.0	6.330	120	77.465	
to						0.0	0.0		0.0	
697	130.670		1045.09	6.357		0.0	6.330	0.0305	0.193	Vel = 10.56
697	130.670		2.58	6		0.0	5.000	120	77.658	
to						0.0	0.0		0.0	
698	130.670		1047.67	6.357		0.0	5.000	0.0304	0.152	Vel = 10.59
698	130.670		14.58	6	I	12.573	21.500	120	77.810	
to						0.0	12.573		0.0	
A	130.670		1062.25	6.357		0.0	34.073	0.0313	1.066	Vel = 10.74
			0.0							
A			1062.25						78.876	K Factor = 119.61
680	130.670		547.55	6	2I	25.147	5.000	120	73.546	
to						0.0	25.147		0.0	
684	130.670		547.55	6.357		0.0	30.147	0.0092	0.276	Vel = 5.53
684	130.670		0.0	4		0.0	61.000	120	73.822	
to						0.0	0.0		0.0	
685	130.670		547.55	4.26		0.0	61.000	0.0645	3.934	Vel = 12.33
685	130.670		0.0	6		0.0	92.000	120	77.756	
to						0.0	0.0		0.0	
699	130.670		547.55	6.357		0.0	92.000	0.0092	0.845	Vel = 5.53
699	130.670		29.76	6	I	12.573	11.250	120	78.601	
to						0.0	12.573		0.0	
700	130.670		577.31	6.357		0.0	23.823	0.0101	0.241	Vel = 5.84
700	130.670		32.81	6		0.0	3.000	120	78.842	
to						0.0	0.0		0.0	
A	130.670		610.12	6.357		0.0	3.000	0.0113	0.034	Vel = 6.17
A	130.670		1062.25	6	2I	25.147	26.000	120	78.876	
to						0.0	25.147		0.0	
TR4	130.670		1672.37	6.357		0.0	51.147	0.0724	3.705	Vel = 16.91
TR4	130.670		0.0	6	Aty	30.176	29.000	120	82.581	
to					G	3.772	33.948		12.850	
BR4	101		1672.37	6.357		0.0	62.948	0.0724	4.560	Vel = 16.91

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqv.	Ln.	Pipe Ftng's Total	CFact Pf/Ft	Pt Pe Pf	******* Notes ******
BR4	101		0.0	8	E	27.183	30.000	150	99.991	
to					T	52.855	86.077		0.433	
UG4	100		1672.37	7.98	G	6.041	116.077	0.0158	1.839	Vel = 10.73
			0.0							
UG4			1672.37						102.263	K Factor = 165.38
UG3	100		614.24	8	T	52.855	140.000	150	106.822	
to						0.0	52.855		0.0	
50	100		614.24	7.98		0.0	192.855	0.0025	0.479	Vel = 3.94
			0.0							
50			614.24						107.301	K Factor = 59.30
UG3	100		-614.24	8	6L	117.791	1700.000	150	106.822	
to					3G	18.122	135.913		0.0	
UG4	100		-614.24	7.98		0.0	1835.913	-0.0025	-4.559	Vel = 3.94
UG4	100	H250	1922.37	8	2T	105.71	350.000	150	102.263	
to					2L	39.264	151.014		0.0	
50	100		1308.13	7.98	G	6.041	501.014	0.0101	5.038	Vel = 8.39
50	100		614.24	8	2E	54.365	30.000	150	107.301	
to					T	52.855	113.260		0.0	
FLG	100		1922.37	7.98	G	6.041	143.260	0.0205	2.937	Vel = 12.33
FLG	100		0.0	8	S	52.853	149.000	120	110.238	
to					B	14.094	158.558		7.183	* * Fixed Loss = 7.183
PO	100		1922.37	8.249	6I	91.611	307.558	0.0264	8.106	Vel = 11.54
					Zca	0.0				
			0.0							
PO			1922.37						125.527	K Factor = 171.58
System Demand Pressure									125.527	
Safety Margin									5.527	
Continuation Pressure									131.054	
Pressure @ Pump Outlet									131.054	
Pressure From Pump Curve									-49.026	
Pressure @ Pump Inlet									82.028	
PI	100		0.0	8	G	4.698	10.000	120	82.028	
to					T	41.108	45.806		0.0	
BASE	100		1922.37	8.249		0.0	55.806	0.0264	1.471	Vel = 11.54
BASE	100		0.0	8	2L	39.264	100.000	150	83.499	
to					T	52.855	98.159		-2.166	
TEST	105		1922.37	7.98	G	6.041	198.159	0.0205	4.062	Vel = 12.33
			0.0							
TEST			1922.37						85.395	K Factor = 208.03