Appendix : Report of the Fire Sprinkler Hydraulic Calculation Program

General Project Data Report (Inputs may have changed)

General Data

Project Title:	FSD	Project File Name:	ANWER PROJECT..fiw
Designed By:	Anwer Abdella Elhadi	Date:	10/13/2015
Code Reference:	NFPA 13	Approving Agency:	university
Client Name:	Anwer Abdella Elhadi	Phone:	0124517064
Address:	KOSTI	City, State Zip Code:	WNS
Company Name:	KTC	Representative:	ANWER
Company Address:	KOSTI	City And State:	WNS
Phone:	0122562531		
Building Name:	Prodection Workshop	Building Owner:	KTC
Contact at Building:	KTC	Phone at Building:	
Address Of Building:	KOSTI	City, State Zip Code:	WNS

Project Data

Description Of Hazard:	Ordinary 2	Sprinkler System Type:	Wet
Design Area Of Water Application:	102 ft²	Maximum Area Per Sprinkler:	130 ft²
Default Sprinkler K-Factor:	5.65 K	Default Pipe Material:	SCHED 40 WET STEEL
Inside Hose Stream Allowance:	250.00 gpm	Outside Hose Stream Allowance:	0.00 gpm
In Rack Sprinkler Allowance:	0.00 gpm		

Sprinkler Specifications

Make:		Model:	
Size:	0.5	Temperature Rating:	155 F

Water Supply Test Data

Source Of Information:
Test Hydrant ID:

		Date Of Test:	
Hydrant Elevation:	0 ft	Static Pressure:	0.00 psi
Test Flow Rate:	0.00 gpm	Test Residual Pressure:	0.00 psi
Calculated System Flow Rate:	368.40 gpm	Calculated Inflow Residual Pressure:	43.06 psi

Calculation Project Data

Calculation Mode:	Demand		
HMD Minimum Residual Pressure:	7.00 psi	Minimum Desired Flow Density:	0.20 gpm/ft²
Maximum Water Velocity:	23.00 ft/s	Maximum Frictional Loss / 100 feet:	20.00 psi
Number Of Active Nodes:	29		
Number Of Active Pipes:	28	Number Of Inactive Pipes:	0
Number Of Active Sprinklers:	16	Number Of Inactive Sprinklers:	0

Fire Sprinkler Input Data

Node Input Data (Inputs may have changed)

Node No.	Node Description Branch Description	Area Group Branch Dia. (in)	Sprinkler KFactor (K) Branch Len. (ft)	Pressure Estimate (psi) Branch Stnd Fittings	Node Elev (ft) Branch Non-Stnd Fittings (ft)	Non-Sprinkler Flow (gpm) Branch Sprk KFactor (K)
1	Sprinkler ----	---- 0.000	5.65 0.0	13.04 ----	10.50 0.0	0.00 0.00
2	Sprinkler ----	---- 0.000	5.65 0.0	14.49 ----	10.50 0.0	0.00 0.00
3	No Discharge ----	---- 0.000	N/A 0.0	17.18 ----	10.50 0.0	0.00 0.00
4	Sprinkler ----	---- 0.000	5.65 0.0	15.32 ----	10.50 0.0	0.00 0.00
5	Sprinkler ----	---- 0.000	5.65 0.0	17.00 ----	10.50 0.0	0.00 0.00
6	No Discharge ----	---- 0.000	N/A 0.0	18.94 ----	10.50 0.0	0.00 0.00
7	Sprinkler	----	5.65	16.91	10.50	0.00
8	Sprinkler ----	---- 0.000	5.65 0.0	18.75 ----	10.50 0.0	0.00 0.00
9	No Discharge ----	---- 0.000	N/A 0.0	22.17 ----	10.50 0.0	0.00 0.00
10	Sprinkler ----	---- 0.000	5.65 0.0	18.58 ----	10.50 0.0	0.00 0.00
11	Sprinkler ----	---- 0.000	5.65 0.0	20.59 ----	10.50 0.0	0.00 0.00
12	No Discharge ----	---- 0.000	N/A 0.0	24.31 ----	10.50 0.0	0.00 0.00
13	Sprinkler ----	---- 0.000	5.65 0.0	13.15 ----	10.50 0.0	0.00 0.00
14	Sprinkler ----	---- 0.000	5.65 0.0	14.62 ----	10.50 0.0	0.00 0.00
15	No Discharge ----	---- 0.000	N/A 0.0	17.33 ----	10.50 0.0	0.00 0.00
16	Sprinkler ----	---- 0.000	5.65 0.0	14.53 ----	10.50 0.0	0.00 0.00

Fire Sprinkler Input Data

Node Input Data (cont'd)

Node No.	Node Description Branch Description	Area Group Branch Dia. (in)	Sprinkler KFactor (K) Branch Len. (ft)	Pressure Estimate (psi) Branch Stnd Fittings	Node Elev (ft) Branch Non-Stnd Fittings (ft)	Non-Sprinkler Flow (gpm) Branch Sprk KFactor (K)
17	Sprinkler ---	---- 0.000	5.65 0.0	16.13 ---	10.50 0.0	0.00 0.00
18	No Discharge ---	---- 0.000	N/A 0.0	19.11 ---	10.50 0.0	0.00 0.00
19	Sprinkler ---	---- 0.000	5.65 0.0	16.99 ---	10.50 0.0	0.00 0.00
20	Sprinkler ---	---- 0.000	5.65 0.0	18.84 ---	10.50 0.0	0.00 0.00
21	No Discharge ---	---- 0.000	N/A 0.0	22.27 ---	10.50 0.0	0.00 0.00
22	Sprinkler ---	---- 0.000	5.65 0.0	18.64 ---	10.50 0.0	0.00 0.00
23	Sprinkler ---	---- 0.000	5.65 0.0	20.65 ---	10.50 0.0	0.00 0.00
24	No Discharge ---	---- 0.000	N/A 0.0	24.39 ---	10.50 0.0	0.00 0.00
25	No Discharge ---	---- 0.000	N/A 0.0	29.98 ---	10.50 0.0	0.00 0.00
26	No Discharge ---	---- 0.000	N/A 0.0	30.01 ---	10.50 0.0	0.00 0.00
27	No Discharge ---	---- 0.000	N/A 0.0	33.29 ---	10.50 0.0	0.00 0.00
28	No Discharge ---	---- 0.000	N/A 0.0	40.52 ---	0.00 0.0	0.00 0.00
29	No Discharge ---	---- 0.000	N/A 0.0	43.06 ---	0.00 0.0	0.00 0.00

Fire Sprinkler Input Data

Pipe Input Data (Inputs may have changed)

Beg. Node	End. Node	Pipe Description	Nominal Diameter (inch)	Type Group	Fitting Data	Nominal Length (feet)	Fitting Length (feet)	Total Length (feet)	CFactor (gpm/inch-psi)
1	2	SCHED 40 WET STEEL	1.000	0	E	8.77	2.00	10.77	120
2	3	SCHED 40 WET STEEL	1.000	0	L	3.28	2.00	5.28	120
4	5	SCHED 40 WET STEEL	1.000	0	E	8.77	2.00	10.77	120
5	6	SCHED 40 WET STEEL	1.000	0		3.28	0.00	3.28	120
3	6	SCHED 40 WET STEEL	1.250	0		13.12	0.00	13.12	120
7	8	SCHED 40 WET STEEL	1.000	0	E	8.77	2.00	10.77	120
8	9	SCHED 40 WET STEEL	1.000	0	L	3.28	2.00	5.28	120
6	9	SCHED 40 WET STEEL	1.500	0		13.12	0.00	13.12	120
10	11	SCHED 40 WET STEEL	1.000	0	E	8.77	2.00	10.77	120
11	12	SCHED 40 WET STEEL	1.000	0	L	3.28	2.00	5.28	120
9	12	SCHED 40 WET STEEL	2.000	0		13.12	0.00	13.12	120
13	14	SCHED 40 WET STEEL	1.000	0	E	8.77	2.00	10.77	120
14	15	SCHED 40 WET STEEL	1.000	0	L	3.28	2.00	5.28	120
16	17	SCHED 40 WET STEEL	1.000	0	E	8.77	2.00	10.77	120
17	18	SCHED 40 WET STEEL	1.000	0	L	3.28	2.00	5.28	120
15	18	SCHED 40 WET STEEL	1.250	0		13.12	0.00	13.12	120
19	20	SCHED 40 WET STEEL	1.000	0	E	8.77	2.00	10.77	120
20	21	SCHED 40 WET STEEL	1.000	0	L	3.28	2.00	5.28	120
18	21	SCHED 40 WET STEEL	1.500	0		13.12	0.00	13.12	120
22	23	SCHED 40 WET STEEL	1.000	0	E	8.77	2.00	10.77	120
23	24	SCHED 40 WET STEEL	1.000	0	L	3.28	2.00	5.28	120
21	24	SCHED 40 WET STEEL	2.000	0		13.12	0.00	13.12	120
24	26	SCHED 40 WET STEEL	2.000	0	L	16.40	3.00	19.40	120
26	27	SCHED 40 WET STEEL	2.500	0	T	14.90	12.00	26.90	120
12	25	SCHED 40 WET STEEL	2.000	0	L	16.40	3.00	19.40	120

Fire Sprinkler Input Data

Pipe Input Data (cont'd)

Beg. Node	End. Node	Pipe Description	Nominal Diameter (inch)	Type Group	Fitting Data	Nominal Length (feet)	Fitting Length (feet)	Total Length (feet)	CFactor (gpm/inch-psi)
25	27	SCHED 40 WET STEEL	2.500	0	T	14.90	12.00	26.90	120
27	28	SCHED 40 WET STEEL	3.000	0	E	10.50	7.00	17.50	120
28	29	SCHED 40 WET STEEL	3.000	0	B	6.56	10.00	16.56	120

Fire Sprinkler Output Data

Overall Node Groupings Output Data (Inputs may have changed)

Pipe Segment Beg. Node	Pipe Segment End. Node	Pipe Type Group	Pipe Flow Rate (gpm)	Sprinkler Flow At Beg. Node (gpm)	Non-Sprinkler Flow Out (+) (gpm)	Non-Sprinkler Flow In (-) (gpm)	Beg. Node Residual Pressure (psi)	Imbalance Flow At Beg. Node (gpm)
1	2	0	0.00	20.40	0.00	0.00	13.04	
2	1	0	0.00	21.51	0.00	0.00	14.49	0.02852
2	3	0	0.00					
3	2	0	0.00	0.00	0.00	0.00	17.18	
3	6	0	0.00					
4	5	0	0.00	22.11	0.00	0.00	15.32	0.03778
5	4	0	0.00	23.30	0.00	0.00	17.00	0.05669
5	6	0	0.00					
6	3	0	0.00	0.00	0.00	0.00	18.94	
6	5	0	0.00					
6	9	0	0.00					
7	8	0	0.00	23.23	0.00	0.00	16.91	0.04646

8	7	0	0.00	24.47	0.00	0.00	18.75	0.06856
8	9	0	0.00					
9	6	0	0.00	0.00	0.00	0.00	22.17	
9	8	0	0.00					
9	12	0	0.00					
10	11	0	0.00	24.35	0.00	0.00	18.58	0.05715
11	10	0	0.00	25.64	0.00	0.00	20.59	0.08234
11	12	0	0.00					
12	9	0	0.00	0.00	0.00	0.00	24.31	
12	11	0	0.00					
12	25	0	0.00					
13	14	0	0.00	20.49	0.00	0.00	13.15	0.02437
14	13	0	0.00	21.60	0.00	0.00	14.62	0.03876
14	15	0	0.00					
15	14	0	0.00	0.00	0.00	0.00	17.33	
15	18	0	0.00					
16	17	0	0.00	21.54	0.00	0.00	14.53	0.03241
17	16	0	0.00	22.69	0.00	0.00	16.13	0.05003
17	18	0	0.00					
18	15	0	0.00	0.00	0.00	0.00	19.11	

Fire Sprinkler Output Data

Overall Node Groupings Output Data (cont'd)

Pipe Segment Beg. Node	End. Node	Pipe Type Group	Pipe Flow Rate (gpm)	Sprinkler Flow At Beg. Node (gpm)	Non-Sprinkler Flow Out (+) (gpm)	In (-) (gpm)	Beg. Node Residual Pressure (psi)	Imbalance Flow At Beg. Node (gpm)
18	17	0	0.00					
18	21	0	0.00					
19	20	0	0.00	23.29	0.00	0.00	16.99	0.04733
20	19	0	0.00	24.52	0.00	0.00	18.84	0.06962
20	21	0	0.00					
21	18	0	0.00	0.00	0.00	0.00	22.27	
21	20	0	0.00					
21	24	0	0.00					
22	23	0	0.00	24.39	0.00	0.00	18.64	0.05774
23	22	0	0.00	25.68	0.00	0.00	20.65	0.08306
23	24	0	0.00					
24	21	0	0.00	0.00	0.00	0.00	24.39	
24	23	0	0.00					
24	26	0	0.00					

25	12	0	0.00	0.00	0.00	0.00	29.98
25	27	0	0.00				
26	24	0	0.00	0.00	0.00	0.00	30.01
26	27	0	0.00				
27	25	0	0.00	0.00	0.00	0.00	33.29
27	26	0	0.00				
27	28	0	0.00				
28	27	0	0.00	0.00	0.00	0.00	40.52
28	29	0	0.00				
29	28	0	0.00	0.00	0.00	0.00	43.06

Fire Sprinkler Output Data

Overall Pipe Output Data (Inputs may have changed)

Beg. End. Node	Nodal KFactor (K)	Elevation (feet)	Spk/Hose Discharge (gpm)	Residual Pressure (psi)	Nom. Dia. Inside Dia. C-Value	q (gpm) Q (gpm) Velocity (fps)	F. L./ft (psi/ft) Fittings Type-Grp	Pipe-Len. Fit-Len. Tot-Len. (ft)	PF-(psi) PE-(psi) PT-(psi)
1	5.65	10.50	20.40	13.04	1.00	0.00	0.13469	8.77	1.451
2	5.65	10.50	21.51	14.49	1.049	20.37	E	2.00	0.000
	SCHED 40 WET STEEL				120	7.56	0	10.77	1.451
2	5.65	10.50	21.51	14.49	1.00	0.00	0.51026	3.28	2.694
3	0.00	10.50	0.00	17.18	1.049	41.85	L	2.00	0.000
	SCHED 40 WET STEEL				120	15.53	0	5.28	2.694
4	5.65	10.50	22.11	15.32	1.00	0.00	0.15629	8.77	1.683
5	5.65	10.50	23.30	17.00	1.049	22.08	E	2.00	0.000
	SCHED 40 WET STEEL				120	8.20	0	10.77	1.683
3	0.00	10.50	0.00	17.18	1.25	0.00	0.13420	13.12	1.761
6	0.00	10.50	0.00	18.94	1.380	41.85	-----	0.00	0.000
	SCHED 40 WET STEEL				120	8.98	0	13.12	1.761
5	5.65	10.50	23.30	17.00	1.00	0.00	0.59128	3.28	1.939
6	0.00	10.50	0.00	18.94	1.049	45.32	-----	0.00	0.000
	SCHED 40 WET STEEL				120	16.82	0	3.28	1.939

7	5.65	10.50	23.23	16.91	1.00	0.00	0.17116	8.77	1.843
8	5.65	10.50	24.47	18.75	1.049	23.19	E	2.00	0.000
	SCHED 40 WET STEEL				120	8.61	0	10.77	1.843
6	0.00	10.50	0.00	18.94	1.50	0.00	0.24621	13.12	3.230
9	0.00	10.50	0.00	22.17	1.610	87.16	-----	0.00	0.000
	SCHED 40 WET STEEL				120	13.74	0	13.12	3.230
8	5.65	10.50	24.47	18.75	1.00	0.00	0.64726	3.28	3.418
9	0.00	10.50	0.00	22.17	1.049	47.59	L	2.00	0.000
	SCHED 40 WET STEEL				120	17.67	0	5.28	3.418
10	5.65	10.50	24.35	18.58	1.00	0.00	0.18661	8.77	2.010
11	5.65	10.50	25.64	20.59	1.049	24.30	E	2.00	0.000
	SCHED 40 WET STEEL				120	9.02	0	10.77	2.010
9	0.00	10.50	0.00	22.17	2.00	0.00	0.16326	13.12	2.142
12	0.00	10.50	0.00	24.31	2.067	134.75	-----	0.00	0.000
	SCHED 40 WET STEEL				120	12.88	0	13.12	2.142
11	5.65	10.50	25.64	20.59	1.00	0.00	0.70539	3.28	3.724
12	0.00	10.50	0.00	24.31	1.049	49.85	L	2.00	0.000
	SCHED 40 WET STEEL				120	18.51	0	5.28	3.724
13	5.65	10.50	20.49	13.15	1.00	0.00	0.13587	8.77	1.463
14	5.65	10.50	21.60	14.62	1.049	20.47	E	2.00	0.000
	SCHED 40 WET STEEL				120	7.60	0	10.77	1.463

Fire Sprinkler Output Data

Overall Pipe Output Data (cont'd)

Beg. End. Node	Nodal KFactor (K)	Elevation (feet)	Spk/Hose Discharge (gpm)	Residual Pressure (psi)	Nom. Dia. Inside Dia. C-Value	q (gpm) Q (gpm) Velocity (fps)	F. L./ft (psi/ft) Fittings Type-Grp	Pipe-Len. Fit-Len. Tot-Len. (ft)	PF-(psi) PE-(psi) PT-(psi)
14	5.65	10.50	21.60	14.62	1.00	0.00	0.51437	3.28	2.716
15	0.00	10.50	0.00	17.33	1.049	42.03	L	2.00	0.000
	SCHED 40 WET STEEL				120	15.60	0	5.28	2.716
16	5.65	10.50	21.54	14.53	1.00	0.00	0.14888	8.77	1.603
17	5.65	10.50	22.69	16.13	1.049	21.50	E	2.00	0.000
	SCHED 40 WET STEEL				120	7.98	0	10.77	1.603
15	0.00	10.50	0.00	17.33	1.25	0.00	0.13528	13.12	1.775
18	0.00	10.50	0.00	19.11	1.380	42.03	-----	0.00	0.000
	SCHED 40 WET STEEL				120	9.02	0	13.12	1.775
17	5.65	10.50	22.69	16.13	1.00	0.00	0.56337	3.28	2.975
18	0.00	10.50	0.00	19.11	1.049	44.15	L	2.00	0.000
	SCHED 40 WET STEEL				120	16.39	0	5.28	2.975
19	5.65	10.50	23.29	16.99	1.00	0.00	0.17187	8.77	1.851
20	5.65	10.50	24.52	18.84	1.049	23.24	E	2.00	0.000
	SCHED 40 WET STEEL				120	8.63	0	10.77	1.851

18	0.00	10.50	0.00	19.11	1.50	0.00	0.24108	13.12	3.163
21	0.00	10.50	0.00	22.27	1.610	86.18	-----	0.00	0.000
	SCHED 40 WET STEEL				120	13.58	0	13.12	3.163
20	5.65	10.50	24.52	18.84	1.00	0.00	0.64992	3.28	3.432
21	0.00	10.50	0.00	22.27	1.049	47.69	L	2.00	0.000
	SCHED 40 WET STEEL				120	17.71	0	5.28	3.432
22	5.65	10.50	24.39	18.64	1.00	0.00	0.18713	8.77	2.015
23	5.65	10.50	25.68	20.65	1.049	24.33	E	2.00	0.000
	SCHED 40 WET STEEL				120	9.03	0	10.77	2.015
21	0.00	10.50	0.00	22.27	2.00	0.00	0.16129	13.12	2.116
24	0.00	10.50	0.00	24.39	2.067	133.87	-----	0.00	0.000
	SCHED 40 WET STEEL				120	12.80	0	13.12	2.116
23	5.65	10.50	25.68	20.65	1.00	0.00	0.70734	3.28	3.735
24	0.00	10.50	0.00	24.39	1.049	49.93	L	2.00	0.000
	SCHED 40 WET STEEL				120	18.53	0	5.28	3.735
12	0.00	10.50	0.00	24.31	2.00	0.00	0.29228	16.40	5.670
25	0.00	10.50	0.00	29.98	2.067	184.60	L	3.00	0.000
	SCHED 40 WET STEEL				120	17.65	0	19.40	5.670
24	0.00	10.50	0.00	24.39	2.00	0.00	0.28992	16.40	5.624
26	0.00	10.50	0.00	30.01	2.067	183.80	L	3.00	0.000
	SCHED 40 WET STEEL				120	17.57	0	19.40	5.624

Fire Sprinkler Output Data

Overall Pipe Output Data (cont'd)

Beg. End. Node	Nodal KFactor (K)	Elevation (feet)	Spk/Hose Discharge (gpm)	Residual Pressure (psi)	Nom. Dia. Inside Dia. C-Value	q (gpm) Q (gpm) Velocity (fps)	F. L./ft (psi/ft) Fittings Type-Grp	Pipe-Len. Fit-Len. Tot-Len. (ft)	PF-(psi) PE-(psi) PT-(psi)
25	0.00	10.50	0.00	29.98	2.50	0.00	0.12301	14.90	3.309
27	0.00	10.50	0.00	33.29	2.469	184.60	T	12.00	0.000
	SCHED 40 WET STEEL				120	12.37	0	26.90	3.309
26	0.00	10.50	0.00	30.01	2.50	0.00	0.12202	14.90	3.282
27	0.00	10.50	0.00	33.29	2.469	183.80	T	12.00	0.000
	SCHED 40 WET STEEL				120	12.32	0	26.90	3.282
27	0.00	10.50	0.00	33.29	3.00	0.00	0.15336	10.50	2.684
28	0.00	0.00	0.00	40.52	3.068	368.40	E	7.00	4.547
	SCHED 40 WET STEEL				120	15.99	0	17.50	7.230
28	0.00	0.00	0.00	40.52	3.00	0.00	0.15336	6.56	2.540
29	0.00	0.00	0.00	43.06	3.068	368.40	B	10.00	0.000
	SCHED 40 WET STEEL				120	15.99	0	16.56	2.540

Fire Sprinkler Output Data

Overall Sprinkler Output Data (Inputs may have changed)

Flowing Sprinkler Node No.	Area Group Code	Sprinkler KFactor (K)	Sprinkler Elevation (feet)	Residual Pressure (psi)	Flowing Area (ft²)	Flowing Density (gpm/ft²)	Sprinkler Discharge (gpm)
1		5.65	10.50	13.04	102.00	0.200	20.40
Sub Totals For Non-Group					102.00	0.200	20.40
2		5.65	10.50	14.49	102.00	0.211	21.51
Sub Totals For Non-Group					102.00	0.211	21.51
4		5.65	10.50	15.32	102.00	0.217	22.11
Sub Totals For Non-Group					102.00	0.217	22.11
5		5.65	10.50	17.00	102.00	0.228	23.30
Sub Totals For Non-Group					102.00	0.228	23.30
7		5.65	10.50	16.91	102.00	0.228	23.23
Sub Totals For Non-Group					102.00	0.228	23.23
8		5.65	10.50	18.75	102.00	0.240	24.47
Sub Totals For Non-Group					102.00	0.240	24.47
10		5.65	10.50	18.58	102.00	0.239	24.35
Sub Totals For Non-Group					102.00	0.239	24.35
11		5.65	10.50	20.59	102.00	0.251	25.64
Sub Totals For Non-Group					102.00	0.251	25.64
13		5.65	10.50	13.15	102.00	0.201	20.49
Sub Totals For Non-Group					102.00	0.201	20.49
14		5.65	10.50	14.62	102.00	0.212	21.60
Sub Totals For Non-Group					102.00	0.212	21.60
16		5.65	10.50	14.53	102.00	0.211	21.54
Sub Totals For Non-Group					102.00	0.211	21.54
17		5.65	10.50	16.13	102.00	0.222	22.69
Sub Totals For Non-Group					102.00	0.222	22.69
19		5.65	10.50	16.99	102.00	0.228	23.29
Sub Totals For Non-Group					102.00	0.228	23.29
20		5.65	10.50	18.84	102.00	0.240	24.52
Sub Totals For Non-Group					102.00	0.240	24.52
22		5.65	10.50	18.64	102.00	0.239	24.39
Sub Totals For Non-Group					102.00	0.239	24.39
23		5.65	10.50	20.65	102.00	0.252	25.68
Sub Totals For Non-Group					102.00	0.252	25.68
Totals For All Groups					1632.00	0.226	369.21

Fire Sprinkler Output Summary (Inputs may have changed)

Hydraulically Most Demanding Sprinkler Node

HMD Sprinkler Node Number:	1	
HMD Actual Residual Pressure:	13.04	psi
HMD Actual GPM:	20.40	gpm

Sprinkler Summary

Sprinkler System Type:	Wet	
Specified Area Of Application:	102.00	ft²
Minimum Desired Density:	0.200	gpm/ft²
Application Average Density:	3.620	gpm/ft²
Application Average Area Per Sprinkler:	6.38	ft²
Sprinkler Flow:	369.21	gpm
Average Sprinkler Flow:	23.08	gpm

Flow Velocity And Imbalance Summary

Maximum Flow Velocity (In Pipe 0 - 0)	0.00	ft/sec
Maximum Velocity Pressure (In Pipe 0 - 0)	0.00	psi
Allowable Maximum Nodal Pressure Imbalance:	0.1000	psi
Actual Maximum Nodal Pressure Imbalance:	0.0913	psi
Actual Average Nodal Pressure Imbalance:	0.0215	psi
Actual Maximum Nodal Flow Imbalance:	0.0831	gpm
Actual Average Nodal Flow Imbalance:	0.0269	gpm

Overall Network Summary

Number Of Unique Pipe Sections:	28	
Number Of Flowing Sprinklers:	16	
Pipe System Water Volume:	33.40	gal
Sprinkler Flow:	369.21	gpm
Non-Sprinkler Flow:	0.00	gpm
Minimum Required Residual Pressure At System Inflow Node:	43.06	psi
Demand Flow At System Inflow Node:	368.40	gpm