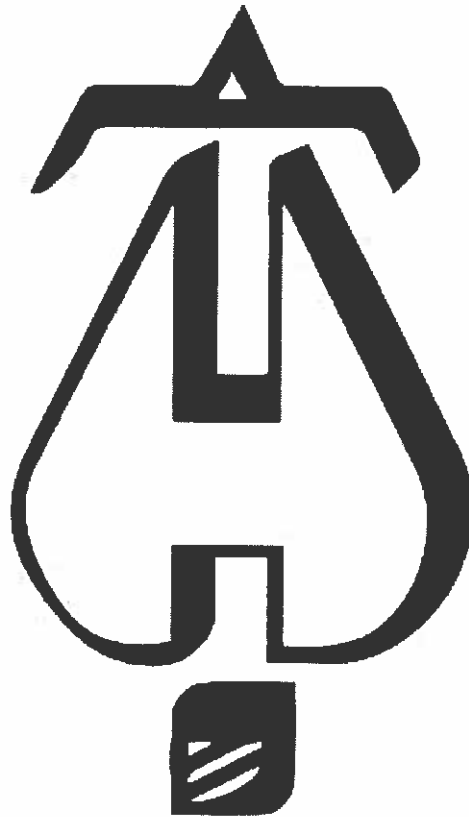




Hydraulic Calculations by HydraCALC

Hydratec Incorporated
64 Haverhill Road
Route 111
Windham, NH 03087
603-434-0502

Job Name : LINCOLN EQUITIES SOUTHEAST
Drawing : HIGH PILED STORAGE
Location : NY312 & PUGSLEY RD, BREWSTER, NY 10509
Remote Area : SYSTEM 8
Contract : 5031092
Data File : Lincoln Equities - BLDG A SYS 8 K25 6.15.22.WXF



Hydraulic Design Information Sheet

Name - LINCOLN EQUITIES SOUTHEAST Date - 6.15.22
Location - NY312 & PUGSLEY RD, BREWSTER, NY 10509
Building - HIGH PILED STORAGE System No. - SYSTEM 8
Contractor - SA COMUNALE Contract No. - 5031092
Calculated By - JUSTIN BEOUGHER Drawing No. - PG.9
Construction: () Combustible (X) Non-Combustible Ceiling Height - 44'-6
Occupancy - ESFR

S (X) NFPA 13 () Lt. Haz. Ord.Haz.Gp. () 1 () 2 () 3 () Ex.Haz.
Y () Figure Curve

S Other
T Specific Ruling

Made By

Date

M	Number of ESFR Sprinklers	- 12	System Type	Sprinkler/Nozzle
	End Head Pressure (PSI)	- 45	(X) Wet	Make TYCO
D	ESFR K-Factor	- 25.2	() Dry	Model ESFR-25
E	Elevation at Highest Outlet	- 45'-2	() Deluge	Size 1"
S	Hose Allowance - Inside	- 100	() Preaction	K-Factor 25.2
I	Rack Sprinkler Allowance	- NA	() Other	Temp.Rat.165
G	Hose Allowance - Outside	- 150		

N Note

Calculation Flow Required - 2287.97 Press Required - 132.629
Summary C-Factor Used: 120 Overhead 150 Underground

W	Water Flow Test:	Pump Data:	Tank or Reservoir:
A	Date of Test -		Cap. -
T	Time of Test -	Rated Cap.- 2000	Elev.-
E	Static Press -	@ Press - 149	
R	Residual Press -	Elev. - 2	Well
	Flow -		Proof Flow
S	Elevation -		

U Location - PUMP
P WATER STORAGE TANK
L Source of Information -
Y

C	Commodity GROUP A CARTONED UNEXP.	Class 1-4	Location
O	Storage Ht. 40 FT	Area	Aisle W.
M	Storage Method:	Solid Piled %	Palletized % Rack
	() Single Row	() Conven. Pallet	() Auto. Storage () Encap.
S	() Double Row	() Slave Pallet	() Solid Shelf () Non
T	() Mult. Row		() Open Shelf
O			
R	Flue Spacing	Clearance:Storage to Ceiling	
A	Longitudinal	Transverse	
G			
E	Horizontal Barriers Provided:		

Water Supply Curve C

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

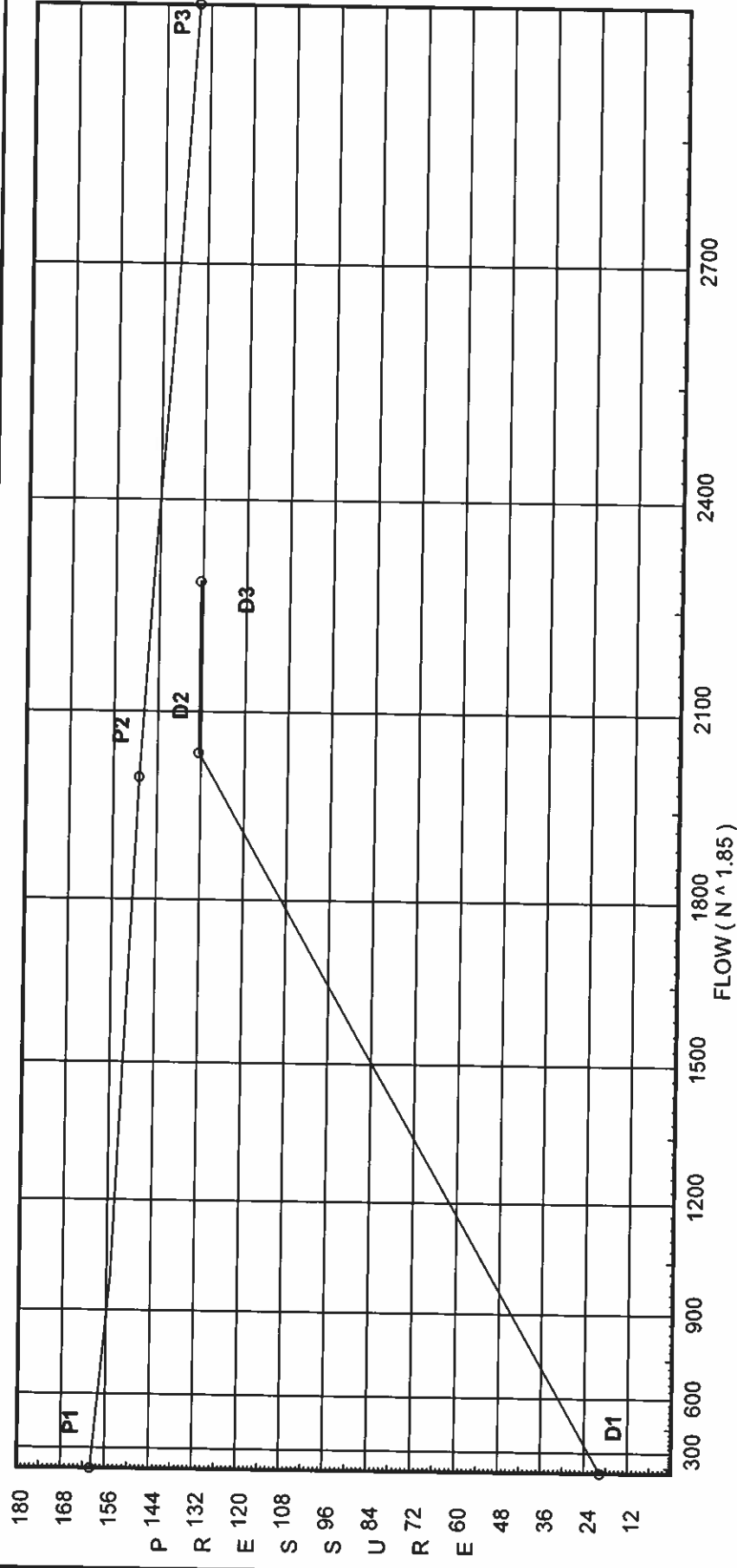
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Pump Data:

P1 - Pump Churn Pressure : 160
P2 - Pump Rated Pressure : 149
P2 - Pump Rated Flow : 2000
P3 - Pump Pressure @ Max Flow : 135
P3 - Pump Max Flow : 3000

Demand:

D1 - Elevation : 19.490
D2 - System Flow : 2037.98
D2 - System Pressure : 132.629
Hose (Demand) : 250
D3 - System Demand : 2287.98
Safety Margin : 12.942



Fittings Used Summary

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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Fitting Legend		1/8"	1/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Abbrev.	Name																				
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
F	NFPA 13 45° Elbow	1	1	1	1	2	2	3	3	3	4	5	7	9	11	13	17	19	21	24	28
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
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
V	90° Ell Firelock #001	0	0	0	0	0	3.5	4.3	5	0	6.8	8.5	10	13	4.5	5.1	0	0	0	0	0
X	90° Tee-Branch Firelock002	0	0	0	0	0	8.5	10.8	13	0	16	21	25	33	9.3	11	0	0	0	0	0

Units Summary

Diameter Units
Length Units
Flow Units
Pressure Units

Inches
Feet
US Gallons per Minute
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.

Flow Summary - NFPA

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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SUPPLY ANALYSIS

<i>Node at Source</i>	<i>Static Pressure</i>	<i>Residual Pressure</i>	<i>Flow</i>	<i>Available Pressure</i>	<i>Total Demand</i>	<i>Required Pressure</i>
PO	See Information on Pump Curve			145.571	2287.98	132.629

NODE ANALYSIS

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
R13	47.0		67.13		
1	47.0		67.28		
2	47.0		67.32		
3	47.0		67.37		
4	47.0		67.41		
R14	47.0		67.13		
5	47.0		67.28		
6	47.0		67.32		
7	47.0		67.36		
8	47.0		67.41		
R15	47.0		67.13		
9	47.0		67.28		
10	47.0		67.32		
11	47.0		67.36		
12	47.0		67.4		
R16	47.0		67.12		
R17	47.0		67.1		
R18	47.0		67.07		
R19	47.0		67.03		
R20	47.0		66.98		
R21	47.0		66.92		
R22	47.0		66.83		
R23	47.0		66.73		
R24	47.0		66.6		
R25	47.0		66.44		
R26	47.0		66.24		
R27	47.0		56.76		
H1	47.0	25.2	45.68	170.32	
H2	47.0	25.2	45.0	169.05	
H3	47.0	25.2	45.0	169.05	
H4	47.0	25.2	45.66	170.29	
R28	47.0		56.78		
H5	47.0	25.2	45.72	170.4	
H6	47.0	25.2	45.04	169.13	
H7	47.0	25.2	45.04	169.13	
H8	47.0	25.2	45.71	170.37	
R29	47.0		56.97		
H9	47.0	25.2	45.89	170.7	
H10	47.0	25.2	45.21	169.43	

Flow Summary - NFPA

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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NODE ANALYSIS (cont.)

Node Tag	Elevation	Node Type	Pressure at Node	Discharge at Node	Notes
H11	47.0	25.2	45.21	169.43	
H12	47.0	25.2	45.88	170.69	
R30	47.0		67.07		
R31	47.0		67.7		
R32	47.0		68.24		
R33	47.0		68.7		
R34	47.0		69.09		
R35	47.0		69.41		
R36	47.0		69.66		
R37	47.0		69.87		
R38	47.0		70.04		
R39	47.0		67.69		
R40	47.0		67.69		
R41	47.0		67.69		
R42	47.0		67.69		
R43	47.0		67.68		
R44	47.0		67.68		
R45	47.0		67.68		
R46	47.0		67.68		
R47	47.0		67.68		
R48	47.0		67.68		
R49	47.0		67.68		
R50	47.0		67.67		
R51	47.0		67.67		
R52	47.0		67.66		
R53	47.0		59.21		
R54	47.0		59.31		
R55	47.0		59.54		
R56	47.0		68.47		
R57	47.0		69.0		
R58	47.0		69.54		
R59	47.0		70.09		
R60	47.0		70.66		
R61	47.0		71.26		
R62	47.0		71.88		
R63	47.0		72.54		
R64	47.0		73.25		
13	47.0		67.02		
14	47.0		67.02		
15	47.0		67.02		
16	47.0		67.0		
17	47.0		66.98		
18	47.0		66.95		
19	47.0		66.9		
20	47.0		66.84		
21	47.0		66.76		
22	47.0		66.66		
23	47.0		66.54		
24	47.0		66.38		

Flow Summary - NFPA

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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NODE ANALYSIS (cont.)

Node Tag	Elevation	Node Type	Pressure at Node	Discharge at Node	Notes
25	47.0		66.19		
26	47.0		65.96		
27	47.0		65.68		
28	47.0		65.68		
29	47.0		65.88		
30	47.0		66.68		
31	47.0		67.34		
32	47.0		67.89		
33	47.0		68.32		
34	47.0		68.65		
35	47.0		68.89		
36	47.0		69.05		
37	47.0		69.13		
39	47.0		67.8		
40	47.0		67.8		
41	47.0		67.8		
42	47.0		67.8		
43	47.0		67.8		
44	47.0		67.81		
45	47.0		67.81		
46	47.0		67.82		
47	47.0		67.83		
48	47.0		67.85		
49	47.0		67.86		
50	47.0		67.89		
51	47.0		67.91		
52	47.0		67.95		
53	47.0		67.99		
54	47.0		68.12		
55	47.0		68.39		
56	47.0		68.86		
57	47.0		69.36		
58	47.0		69.9		
59	47.0		70.48		
60	47.0		71.1		
61	47.0		71.77		
62	47.0		72.49		
63	47.0		73.28		
64	47.0		74.14		
FMJ	47.0		75.7		
TR3	47.0		81.63		
BR3	2.0		114.63	100.0	
FLG	2.0		115.17		
UG1	-5.0		124.35		
UG2	-5.0		121.34	150.0	
UG3	-5.0		129.76		
UG4	-5.0		129.05		
UG5	-5.0		129.03		
UG6	-5.0		133.9		

Flow Summary - NFPA

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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NODE ANALYSIS (cont.)

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
PUMP	2.0		131.28		
PO	2.0		132.63		

Final Calculations : Hazen-Williams

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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Date 6.15.22

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
R13 to 1	47 47		22.09 22.09	2 2.203		0.0 0.0	35.083 0.0	120 0.0042	67.133 0.0			
										Vel =	1.86	
1 to 2	47 47		0.0 22.09	2 2.203		0.0 0.0	10.000 0.0	120 0.0042	67.281 0.0			
										Vel =	1.86	
2 to 3	47 47		0.0 22.09	2 2.203		0.0 0.0	10.000 0.0	120 0.0043	67.323 0.0			
										Vel =	1.86	
3 to 4	47 47		0.0 22.09	2 2.203		0.0 0.0	10.000 0.0	120 0.0042	67.366 0.0			
										Vel =	1.86	
4 to R39	47 47		0.0 22.09	2 2.203		0.0 0.0	65.958 0.0	120 0.0042	67.408 0.0			
										Vel =	1.86	
R39			0.0 22.09						67.686		K Factor =	2.69
R14 to 5	47 47		22.12 22.12	2 2.203		0.0 0.0	35.083 0.0	120 0.0042	67.132 0.0			
										Vel =	1.86	
5 to 6	47 47		0.0 22.12	2 2.203		0.0 0.0	10.000 0.0	120 0.0042	67.280 0.0			
										Vel =	1.86	
6 to 7	47 47		0.0 22.12	2 2.203		0.0 0.0	10.000 0.0	120 0.0043	67.322 0.0			
										Vel =	1.86	
7 to 8	47 47		0.0 22.12	2 2.203		0.0 0.0	10.000 0.0	120 0.0042	67.365 0.0			
										Vel =	1.86	
8 to R40	47 47		0.0 22.12	2 2.203		0.0 0.0	65.958 0.0	120 0.0042	67.407 0.0			
										Vel =	1.86	
R40			0.0 22.12						67.686		K Factor =	2.69
R15 to 9	47 47		22.23 22.23	2 2.203		0.0 0.0	35.083 0.0	120 0.0042	67.127 0.0			
										Vel =	1.87	
9 to 10	47 47		0.0 22.23	2 2.203		0.0 0.0	10.000 0.0	120 0.0043	67.276 0.0			
										Vel =	1.87	
10 to 11	47 47		0.0 22.23	2 2.203		0.0 0.0	10.000 0.0	120 0.0043	67.319 0.0			
										Vel =	1.87	
11 to 12	47 47		0.0 22.23	2 2.203		0.0 0.0	10.000 0.0	120 0.0042	67.362 0.0			
										Vel =	1.87	
12 to R41	47 47		0.0 22.23	2 2.203		0.0 0.0	65.958 0.0	120 0.0043	67.404 0.0			
										Vel =	1.87	

Final Calculations : Hazen-Williams

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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Date 6.15.22

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
R41			0.0 22.23						67.686		K Factor = 2.70	
R16 to R42	47 47		22.46	2		0.0 0.0 0.0	131.041 0.0 131.041	120	67.116 0.0 0.570		Vel = 1.89	
R42			0.0 22.46						67.686		K Factor = 2.73	
R17 to R43	47 47		22.84	2		0.0 0.0 0.0	131.041 0.0 131.041	120	67.097 0.0 0.588		Vel = 1.92	
R43			0.0 22.84						67.685		K Factor = 2.78	
R18 to R44	47 47		23.42	2		0.0 0.0 0.0	131.041 0.0 131.041	120	67.069 0.0 0.615		Vel = 1.97	
R44			0.0 23.42						67.684		K Factor = 2.85	
R19 to R45	47 47		24.19	2		0.0 0.0 0.0	131.041 0.0 131.041	120	67.030 0.0 0.653		Vel = 2.04	
R45			0.0 24.19						67.683		K Factor = 2.94	
R20 to R46	47 47		25.14	2		0.0 0.0 0.0	131.041 0.0 131.041	120	66.980 0.0 0.702		Vel = 2.12	
R46			0.0 25.14						67.682		K Factor = 3.06	
R21 to R47	47 47		26.34	2		0.0 0.0 0.0	131.041 0.0 131.041	120	66.916 0.0 0.765		Vel = 2.22	
R47			0.0 26.34						67.681		K Factor = 3.20	
R22 to R48	47 47		27.82	2		0.0 0.0 0.0	131.041 0.0 131.041	120	66.832 0.0 0.847		Vel = 2.34	
R48			0.0 27.82						67.679		K Factor = 3.38	
R23 to R49	47 47		29.58	2		0.0 0.0 0.0	131.041 0.0 131.041	120	66.728 0.0 0.948		Vel = 2.49	
R49			0.0 29.58						67.676		K Factor = 3.60	
R24 to R50	47 47		31.66	2		0.0 0.0 0.0	131.041 0.0 131.041	120	66.598 0.0 1.075		Vel = 2.66	
			0.0									

Final Calculations : Hazen-Williams

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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Date 6.15.22

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
R50			31.66						67.673		K Factor = 3.85	
R25 to R51	47 47		34.06	2		0.0 0.0 0.0	131.041 0.0 131.041	120 0.0094	66.438 0.0 1.231			
			34.06	2.203		0.0	131.041	0.0094	1.231		Vel = 2.87	
R51			0.0 34.06						67.669		K Factor = 4.14	
R26 to R52	47 47		36.81	2		0.0 0.0 0.0	131.041 0.0 131.041	120 0.0108	66.244 0.0 1.420			
			36.81	2.203		0.0	131.041	0.0108	1.420		Vel = 3.10	
R52			0.0 36.81						67.664		K Factor = 4.47	
R27 to H1	47 47		-340.75	2.5		0.0 0.0 0.0	45.083 0.0 45.083	120	56.764 0.0 -11.082			
			-340.75	2.703		0.0	45.083	-0.2458	-11.082		Vel = 19.05	
H1 to H2	47 47	25.20	170.32	2.5		0.0 0.0 0.0	10.000 0.0 10.000	120	45.682 0.0 -0.682			
			-170.43	2.703		0.0	10.000	-0.0682	-0.682		Vel = 9.53	
H2 to H3	47 47	25.20	169.05	2.5		0.0 0.0 0.0	10.000 0.0 10.000	120	45.000 0.0 0.0			
			-1.38	2.703		0.0	10.000	0	0.0		Vel = 0.08	
H3 to H4	47 47	25.20	169.04	2.5		0.0 0.0 0.0	10.000 0.0 10.000	120	45.000 0.0 0.662			
			167.66	2.703		0.0	10.000	0.0662	0.662		Vel = 9.37	
H4 to R53	47 47	25.20	170.29	2.5		0.0 0.0 0.0	55.958 0.0 55.958	120	45.662 0.0 13.546			
			337.95	2.703		0.0	55.958	0.2421	13.546		Vel = 18.90	
R53			0.0 337.95						59.208		K Factor = 43.92	
R28 to H5	47 47		-340.37	2.5		0.0 0.0 0.0	45.083 0.0 45.083	120	56.780 0.0 -11.059			
			-340.37	2.703		0.0	45.083	-0.2453	-11.059		Vel = 19.03	
H5 to H6	47 47	25.20	170.40	2.5		0.0 0.0 0.0	10.000 0.0 10.000	120	45.721 0.0 -0.679			
			-169.97	2.703		0.0	10.000	-0.0679	-0.679		Vel = 9.50	
H6 to H7	47 47	25.20	169.12	2.5		0.0 0.0 0.0	10.000 0.0 10.000	120	45.042 0.0 0.0			
			-0.85	2.703		0.0	10.000	0	0.0		Vel = 0.05	
H7 to H8	47 47	25.20	169.13	2.5		0.0 0.0 0.0	10.000 0.0 10.000	120	45.042 0.0 0.667			
			168.28	2.703		0.0	10.000	0.0667	0.667		Vel = 9.41	
H8 to R54	47 47	25.20	170.37	2.5		0.0 0.0 0.0	55.958 0.0 55.958	120	45.709 0.0 13.598			
			338.65	2.703		0.0	55.958	0.2430	13.598		Vel = 18.93	
R54			0.0 338.65						59.307		K Factor = 43.97	
R29 to H9	47 47		-340.73	2.5		0.0 0.0 0.0	45.083 0.0 45.083	120	56.965 0.0 -11.080			
			-340.73	2.703		0.0	45.083	-0.2458	-11.080		Vel = 19.05	

Final Calculations : Hazen-Williams

Hydratec Incorporated
LINCOLN EQUITIES SOUTHEAST

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Date 6.15.22

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
H9 to H10	47 47	25.20	170.70 -170.03	2.5 2.703		0.0 0.0	10.000 0.0	120 -0.0679	45.885 0.0			
H10 to H11	47 47	25.20	169.43 -0.6	2.5 2.703		0.0 0.0	10.000 0.0	120 0	45.206 0.0	Vel = 9.51		
H11 to H12	47 47	25.20	169.44 168.84	2.5 2.703		0.0 0.0	10.000 0.0	120 0.0670	45.206 0.0	Vel = 0.03		
H12 to R55	47 47	25.20	170.68 339.52	2.5 2.703		0.0 0.0	55.958 0.0	120 0.2442	45.876 0.0	Vel = 9.44		
R55			0.0 339.52							Vel = 18.98		
R30 to R56	47 47		62.59 62.59	2.5 2.703		0.0 0.0	131.041 0.0	120 0.0107	67.067 0.0	K Factor = 44.00		
R56			0.0 62.59							Vel = 3.50		
R31 to R57	47 47		60.02 60.02	2.5 2.703		0.0 0.0	131.041 0.0	120 0.0099	67.701 0.0	K Factor = 7.56		
R57			0.0 60.02							Vel = 3.36		
R32 to R58	47 47		59.95 59.95	2.5 2.703		0.0 0.0	131.041 0.0	120 0.0099	68.244 0.0	K Factor = 7.23		
R58			0.0 59.95							Vel = 3.35		
R33 to R59	47 47		62.24 62.24	2.5 2.703		0.0 0.0	131.041 0.0	120 0.0106	68.705 0.0	K Factor = 7.19		
R59			0.0 62.24							Vel = 3.48		
R34 to R60	47 47		66.62 66.62	2.5 2.703		0.0 0.0	131.041 0.0	120 0.0120	69.090 0.0	K Factor = 7.43		
R60			0.0 66.62							Vel = 3.72		
R35 to R61	47 47		72.73 72.73	2.5 2.703		0.0 0.0	131.041 0.0	120 0.0141	69.407 0.0	K Factor = 7.93		
R61			0.0 72.73							Vel = 4.07		
R36 to R62	47 47		80.22 80.22	2.5 2.703		0.0 0.0	131.041 0.0	120 0.0169	69.662 0.0	K Factor = 8.62		
R62										Vel = 4.49		

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
R62			0.0 80.22						71.880		K Factor = 9.46	
R37 to R63	47 47		88.74	2.5		0.0	131.041	120	69.868 0.0			
			88.74	2.703		0.0	131.041	0.0204	2.673		Vel = 4.96	
R63			0.0 88.74						72.541		K Factor = 10.42	
R38 to R64	47 47		97.97	2.5		0.0	131.041	120	70.040 0.0			
			97.97	2.703		0.0	131.041	0.0245	3.210		Vel = 5.48	
R64			0.0 97.97						73.250		K Factor = 11.45	
R13 to 13	47 47		-22.09	2	X T	11.593 13.639	0.833 25.232	120	67.133 0.0			
			-22.09	2.203		0.0	26.065	-0.0042	-0.110		Vel = 1.86	
13			0.0 -22.09						67.023		K Factor = -2.70	
R14 to 14	47 47		-22.12	2	X T	11.593 13.639	0.833 25.232	120	67.132 0.0			
			-22.12	2.203		0.0	26.065	-0.0042	-0.110		Vel = 1.86	
14			0.0 -22.12						67.022		K Factor = -2.70	
R15 to 15	47 47		-22.23	2	X T	11.593 13.639	0.833 25.232	120	67.127 0.0			
			-22.23	2.203		0.0	26.065	-0.0043	-0.111		Vel = 1.87	
15			0.0 -22.23						67.016		K Factor = -2.72	
R16 to 16	47 47		-22.46	2	X T	11.593 13.639	0.833 25.232	120	67.116 0.0			
			-22.46	2.203		0.0	26.065	-0.0044	-0.114		Vel = 1.89	
16			0.0 -22.46						67.002		K Factor = -2.74	
R17 to 17	47 47		-22.84	2	X T	11.593 13.639	0.833 25.232	120	67.097 0.0			
			-22.84	2.203		0.0	26.065	-0.0045	-0.117		Vel = 1.92	
17			0.0 -22.84						66.980		K Factor = -2.79	
R18 to 18	47 47		-23.42	2	X T	11.593 13.639	0.833 25.232	120	67.069 0.0			
			-23.42	2.203		0.0	26.065	-0.0047	-0.123		Vel = 1.97	
18			0.0 -23.42						66.946		K Factor = -2.86	
R19 to 19	47 47		-24.19	2	X T	11.593 13.639	0.833 25.232	120	67.030 0.0			
			-24.19	2.203		0.0	26.065	-0.0050	-0.130		Vel = 2.04	
			0.0									

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
19			-24.19						66.900		K Factor = -2.96	
R20 to 20	47 47		-25.14 -25.14	2 2.203	X T	11.593 13.639 0.0	0.833 25.232 26.065	120 -0.0053	66.980 0.0 -0.139		Vel = 2.12	
20			0.0 -25.14						66.841		K Factor = -3.07	
R21 to 21	47 47		-26.34 -26.34	2 2.203	X T	11.593 13.639 0.0	0.833 25.232 26.065	120 -0.0059	66.916 0.0 -0.153		Vel = 2.22	
21			0.0 -26.34						66.763		K Factor = -3.22	
R22 to 22	47 47		-27.82 -27.82	2 2.203	X T	11.593 13.639 0.0	0.833 25.232 26.065	120 -0.0064	66.832 0.0 -0.168		Vel = 2.34	
22			0.0 -27.82						66.664		K Factor = -3.41	
R23 to 23	47 47		-29.58 -29.58	2 2.203	X T	11.593 13.639 0.0	0.833 25.232 26.065	120 -0.0073	66.728 0.0 -0.189		Vel = 2.49	
23			0.0 -29.58						66.539		K Factor = -3.63	
R24 to 24	47 47		-31.66 -31.66	2 2.203	X T	11.593 13.639 0.0	0.833 25.232 26.065	120 -0.0082	66.598 0.0 -0.214		Vel = 2.66	
24			0.0 -31.66						66.384		K Factor = -3.89	
R25 to 25	47 47		-34.06 -34.06	2 2.203	X T	11.593 13.639 0.0	0.833 25.232 26.065	120 -0.0094	66.438 0.0 -0.244		Vel = 2.87	
25			0.0 -34.06						66.194		K Factor = -4.19	
R26 to 26	47 47		-36.81 -36.81	2 2.203	X T	11.593 13.639 0.0	0.833 25.232 26.065	120 -0.0109	66.244 0.0 -0.283		Vel = 3.10	
26			0.0 -36.81						65.961		K Factor = -4.53	
R27 to 27	47 47		340.75 340.75	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.2458	56.764 0.0 8.915		Vel = 19.05	
27			0.0 340.75						65.679		K Factor = 42.05	
R28 to 28	47 47		340.37 340.37	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.2453	56.780 0.0 8.896		Vel = 19.03	
28			0.0 340.37						65.676		K Factor = 42.00	

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
R29 to 29	47 47		340.73 340.73	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.2458	56.965 0.0 8.914		Vel = 19.05	
29			0.0 340.73						65.879		K Factor = 41.98	
R30 to 30	47 47		-62.59 -62.59	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0107	67.067 0.0 -0.388		Vel = 3.50	
30			0.0 -62.59						66.679		K Factor = -7.66	
R31 to 31	47 47		-60.02 -60.02	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0099	67.701 0.0 -0.359		Vel = 3.36	
31			0.0 -60.02						67.342		K Factor = -7.31	
R32 to 32	47 47		-59.95 -59.95	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0099	68.244 0.0 -0.358		Vel = 3.35	
32			0.0 -59.95						67.886		K Factor = -7.28	
R33 to 33	47 47		-62.24 -62.24	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0106	68.705 0.0 -0.384		Vel = 3.48	
33			0.0 -62.24						68.321		K Factor = -7.53	
R34 to 34	47 47		-66.62 -66.62	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0120	69.090 0.0 -0.435		Vel = 3.72	
34			0.0 -66.62						68.655		K Factor = -8.04	
R35 to 35	47 47		-72.73 -72.73	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0141	69.407 0.0 -0.512		Vel = 4.07	
35			0.0 -72.73						68.895		K Factor = -8.76	
R36 to 36	47 47		-80.22 -80.22	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0169	69.662 0.0 -0.614		Vel = 4.49	
36			0.0 -80.22						69.048		K Factor = -9.65	
R37 to 37	47 47		-88.74 -88.74	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0204	69.868 0.0 -0.740		Vel = 4.96	
37			0.0 -88.74						69.128		K Factor = -10.67	
R38 to 38	47 47		-97.97 -97.97	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 -0.0245	70.040 0.0 -0.888		Vel = 5.48	

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
38			0.0 -97.97						69.152		K Factor = -11.78	
R39 to 39	47 47		22.09	2	X T	11.593 13.639	0.833 25.232	120	67.686 0.0			
			22.09	2.203		0.0	26.065	0.0042	0.110		Vel = 1.86	
39			0.0 22.09						67.796		K Factor = 2.68	
R40 to 40	47 47		22.12	2	X T	11.593 13.639	0.833 25.232	120	67.686 0.0			
			22.12	2.203		0.0	26.065	0.0042	0.110		Vel = 1.86	
40			0.0 22.12						67.796		K Factor = 2.69	
R41 to 41	47 47		22.23	2	X T	11.593 13.639	0.833 25.232	120	67.686 0.0			
			22.23	2.203		0.0	26.065	0.0043	0.111		Vel = 1.87	
41			0.0 22.23						67.797		K Factor = 2.70	
R42 to 42	47 47		22.46	2	X T	11.593 13.639	0.833 25.232	120	67.686 0.0			
			22.46	2.203		0.0	26.065	0.0043	0.113		Vel = 1.89	
42			0.0 22.46						67.799		K Factor = 2.73	
R43 to 43	47 47		22.84	2	X T	11.593 13.639	0.833 25.232	120	67.685 0.0			
			22.84	2.203		0.0	26.065	0.0045	0.117		Vel = 1.92	
43			0.0 22.84						67.802		K Factor = 2.77	
R44 to 44	47 47		23.42	2	X T	11.593 13.639	0.833 25.232	120	67.684 0.0			
			23.42	2.203		0.0	26.065	0.0047	0.123		Vel = 1.97	
44			0.0 23.42						67.807		K Factor = 2.84	
R45 to 45	47 47		24.19	2	X T	11.593 13.639	0.833 25.232	120	67.683 0.0			
			24.19	2.203		0.0	26.065	0.0050	0.130		Vel = 2.04	
45			0.0 24.19						67.813		K Factor = 2.94	
R46 to 46	47 47		25.14	2	X T	11.593 13.639	0.833 25.232	120	67.682 0.0			
			25.14	2.203		0.0	26.065	0.0054	0.140		Vel = 2.12	
46			0.0 25.14						67.822		K Factor = 3.05	
R47 to 47	47 47		26.34	2	X T	11.593 13.639	0.833 25.232	120	67.681 0.0			
			26.34	2.203		0.0	26.065	0.0058	0.152		Vel = 2.22	
			0.0									

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
47			26.34					67.833		K Factor = 3.20	
R48 to 48	47 47		27.82	2	X T	11.593 13.639	0.833 25.232	120	67.679 0.0		
			27.82	2.203		0.0	26.065	0.0064	0.168	Vel = 2.34	
48			0.0								
			27.82					67.847		K Factor = 3.38	
R49 to 49	47 47		29.58	2	X T	11.593 13.639	0.833 25.232	120	67.676 0.0		
			29.58	2.203		0.0	26.065	0.0073	0.189	Vel = 2.49	
49			0.0								
			29.58					67.865		K Factor = 3.59	
R50 to 50	47 47		31.66	2	X T	11.593 13.639	0.833 25.232	120	67.673 0.0		
			31.66	2.203		0.0	26.065	0.0082	0.214	Vel = 2.66	
50			0.0								
			31.66					67.887		K Factor = 3.84	
R51 to 51	47 47		34.06	2	X T	11.593 13.639	0.833 25.232	120	67.669 0.0		
			34.06	2.203		0.0	26.065	0.0094	0.245	Vel = 2.87	
51			0.0								
			34.06					67.914		K Factor = 4.13	
R52 to 52	47 47		36.81	2	X T	11.593 13.639	0.833 25.232	120	67.664 0.0		
			36.81	2.203		0.0	26.065	0.0109	0.283	Vel = 3.10	
52			0.0								
			36.81					67.947		K Factor = 4.47	
R53 to 53	47 47		337.95	2.5	X T	16.786 18.651	0.833 35.437	120	59.208 0.0		
			337.95	2.703		0.0	36.270	0.2420	8.779	Vel = 18.90	
53			0.0								
			337.95					67.987		K Factor = 40.99	
R54 to 54	47 47		338.65	2.5	X T	16.786 18.651	0.833 35.437	120	59.307 0.0		
			338.65	2.703		0.0	36.270	0.2430	8.813	Vel = 18.93	
54			0.0								
			338.65					68.120		K Factor = 41.03	
R55 to 55	47 47		339.52	2.5	X T	16.786 18.651	0.833 35.437	120	59.539 0.0		
			339.52	2.703		0.0	36.270	0.2442	8.856	Vel = 18.98	
55			0.0								
			339.52					68.395		K Factor = 41.05	
R56 to 56	47 47		62.59	2.5	X T	16.786 18.651	0.833 35.437	120	68.468 0.0		
			62.59	2.703		0.0	36.270	0.0107	0.388	Vel = 3.50	
56			0.0								
			62.59					68.856		K Factor = 7.54	

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
R57 to 57	47 47		60.02 60.02 0.0	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.0099	68.997 0.0 0.359		Vel = 3.36	
57			60.02						69.356		K Factor = 7.21	
R58 to 58	47 47		59.95 59.95 0.0	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.0099	69.538 0.0 0.358		Vel = 3.35	
58			59.95						69.896		K Factor = 7.17	
R59 to 59	47 47		62.24 62.24 0.0	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.0106	70.092 0.0 0.383		Vel = 3.48	
59			62.24						70.475		K Factor = 7.41	
R60 to 60	47 47		66.62 66.62 0.0	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.0120	70.663 0.0 0.435		Vel = 3.72	
60			66.62						71.098		K Factor = 7.90	
R61 to 61	47 47		72.73 72.73 0.0	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.0141	71.257 0.0 0.512		Vel = 4.07	
61			72.73						71.769		K Factor = 8.59	
R62 to 62	47 47		80.22 80.22 0.0	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.0169	71.880 0.0 0.614		Vel = 4.49	
62			80.22						72.494		K Factor = 9.42	
R63 to 63	47 47		88.74 88.74 0.0	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.0204	72.541 0.0 0.740		Vel = 4.96	
63			88.74						73.281		K Factor = 10.37	
R64 to 64	47 47		97.97 97.97 0.0	2.5 2.703	X T	16.786 18.651 0.0	0.833 35.437 36.270	120 0.0245	73.250 0.0 0.889		Vel = 5.48	
64			97.97						74.139		K Factor = 11.38	
13 to 14	47 47		-22.09 -22.09 0.0	4 4.26		0.0 0.0 0.0	10.000 0.0 10.000	120 -0.0001	67.023 0.0 -0.001		Vel = 0.50	
14 to 15	47 47		-22.13 -44.22 0.0	4 4.26		0.0 0.0 0.0	10.000 0.0 10.000	120 -0.0006	67.022 0.0 -0.006		Vel = 1.00	

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
15 to 16	47 47		-22.23 -66.45	4 4.26		0.0 0.0	10.000 0.0	120 -0.0014	67.016 0.0			
										Vel =	1.50	
16 to 17	47 47		-22.45 -88.9	4 4.26		0.0 0.0	10.000 0.0	120 -0.0022	67.002 0.0			
										Vel =	2.00	
17 to 18	47 47		-22.85 -111.75	4 4.26		0.0 0.0	10.000 0.0	120 -0.0034	66.980 0.0			
										Vel =	2.52	
18 to 19	47 47		-23.42 -135.17	4 4.26		0.0 0.0	9.500 0.0	120 -0.0048	66.946 0.0			
										Vel =	3.04	
19 to 20	47 47		-24.19 -159.36	4 4.26		0.0 0.0	9.000 0.0	120 -0.0066	66.900 0.0			
										Vel =	3.59	
20 to 21	47 47		-25.14 -184.5	4 4.26		0.0 0.0	9.000 0.0	120 -0.0087	66.841 0.0			
										Vel =	4.15	
21 to 22	47 47		-26.34 -210.84	4 4.26		0.0 0.0	9.000 0.0	120 -0.0110	66.763 0.0			
										Vel =	4.75	
22 to 23	47 47		-27.82 -238.66	4 4.26		0.0 0.0	9.000 0.0	120 -0.0139	66.664 0.0			
										Vel =	5.37	
23 to 24	47 47		-29.58 -268.24	4 4.26		0.0 0.0	9.000 0.0	120 -0.0172	66.539 0.0			
										Vel =	6.04	
24 to 25	47 47		-31.66 -299.9	4 4.26		0.0 0.0	9.000 0.0	120 -0.0211	66.384 0.0			
										Vel =	6.75	
25 to 26	47 47		-34.06 -333.96	4 4.26		0.0 0.0	9.000 0.0	120 -0.0259	66.194 0.0			
										Vel =	7.52	
26 to 27	47 47		-36.80 -370.76	4 4.26		0.0 0.0	9.000 0.0	120 -0.0313	65.961 0.0			
										Vel =	8.35	
27 to 28	47 47		340.75 -30.01	4 4.26		0.0 0.0	9.000 0.0	120 -0.0003	65.679 0.0			
										Vel =	0.68	
28 to 29	47 47		340.37 310.36	4 4.26		0.0 0.0	9.000 0.0	120 0.0226	65.676 0.203			
										Vel =	6.99	
29 to 30	47 47		340.73 651.09	4 4.26		0.0 0.0	9.000 0.0	120 0.0889	65.879 0.800			
										Vel =	14.66	
30 to 31	47 47		-62.59 588.5	4 4.26		0.0 0.0	9.000 0.0	120 0.0737	66.679 0.663			
										Vel =	13.25	

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
31 to 32	47 47		-60.02 528.48	4 4.26	0.0 0.0	9.000 9.000	120 0.0604	67.342 0.0 0.544		Vel = 11.90	
32 to 33	47 47		-59.95 468.53	4 4.26	0.0 0.0	9.000 9.000	120 0.0483	67.886 0.0 0.435		Vel = 10.55	
33 to 34	47 47		-62.24 406.29	4 4.26	0.0 0.0	9.000 9.000	120 0.0371	68.321 0.0 0.334		Vel = 9.15	
34 to 35	47 47		-66.62 339.67	4 4.26	0.0 0.0	9.000 9.000	120 0.0267	68.655 0.0 0.240		Vel = 7.65	
35 to 36	47 47		-72.73 266.94	4 4.26	0.0 0.0	9.000 9.000	120 0.0170	68.895 0.0 0.153		Vel = 6.01	
36 to 37	47 47		-80.23 186.71	4 4.26	0.0 0.0	9.000 9.000	120 0.0089	69.048 0.0 0.080		Vel = 4.20	
37 to 38	47 47		-88.74 97.97	4 4.26	0.0 0.0	9.000 9.000	120 0.0027	69.128 0.0 0.024		Vel = 2.21	
38 to 39			0.0 97.97					69.152		K Factor = 11.78	
39 to 40	47 47		22.09 22.09	6 6.357	0.0 0.0	10.000 10.000	120 0	67.796 0.0 0.0		Vel = 0.22	
40 to 41	47 47		22.13 44.22	6 6.357	0.0 0.0	10.000 10.000	120 0.0001	67.796 0.0 0.001		Vel = 0.45	
41 to 42	47 47		22.23 66.45	6 6.357	0.0 0.0	10.000 10.000	120 0.0002	67.797 0.0 0.002		Vel = 0.67	
42 to 43	47 47		22.45 88.9	6 6.357	0.0 0.0	10.000 10.000	120 0.0003	67.799 0.0 0.003		Vel = 0.90	
43 to 44	47 47		22.85 111.75	6 6.357	0.0 0.0	10.000 10.000	120 0.0005	67.802 0.0 0.005		Vel = 1.13	
44 to 45	47 47		23.42 135.17	6 6.357	0.0 0.0	9.500 9.500	120 0.0006	67.807 0.0 0.006		Vel = 1.37	
45 to 46	47 47		24.19 159.36	6 6.357	0.0 0.0	9.000 9.000	120 0.0010	67.813 0.0 0.009		Vel = 1.61	
46 to 47	47 47		25.14 184.5	6 6.357	0.0 0.0	9.000 9.000	120 0.0012	67.822 0.0 0.011		Vel = 1.87	

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
47 to 48	47 47		26.34	6		0.0	9.000	120	67.833			
						0.0	0.0		0.0			
48 to 49	47 47		210.84	6.357		0.0	9.000	0.0016	0.014	Vel =	2.13	
						0.0	0.0		0.0			
49 to 50	47 47		27.82	6		0.0	9.000	120	67.847			
						0.0	0.0		0.0			
49 to 51	47 47		238.66	6.357		0.0	9.000	0.0020	0.018	Vel =	2.41	
						0.0	0.0		0.0			
50 to 51	47 47		29.58	6		0.0	9.000	120	67.865			
						0.0	0.0		0.0			
50 to 52	47 47		268.24	6.357		0.0	9.000	0.0024	0.022	Vel =	2.71	
						0.0	0.0		0.0			
51 to 52	47 47		31.66	6		0.0	9.000	120	67.887			
						0.0	0.0		0.0			
51 to 53	47 47		299.9	6.357		0.0	9.000	0.0030	0.027	Vel =	3.03	
						0.0	0.0		0.0			
52 to 54	47 47		34.06	6		0.0	9.000	120	67.914			
						0.0	0.0		0.0			
52 to 55	47 47		333.96	6.357		0.0	9.000	0.0037	0.033	Vel =	3.38	
						0.0	0.0		0.0			
53 to 56	47 47		36.80	6		0.0	9.000	120	67.947			
						0.0	0.0		0.0			
53 to 57	47 47		370.76	6.357		0.0	9.000	0.0044	0.040	Vel =	3.75	
						0.0	0.0		0.0			
54 to 58	47 47		337.95	6		0.0	9.000	120	67.987			
						0.0	0.0		0.0			
54 to 59	47 47		708.71	6.357		0.0	9.000	0.0148	0.133	Vel =	7.16	
						0.0	0.0		0.0			
55 to 60	47 47		338.65	6		0.0	9.000	120	68.120			
						0.0	0.0		0.0			
55 to 61	47 47		1047.36	6.357		0.0	9.000	0.0306	0.275	Vel =	10.59	
						0.0	0.0		0.0			
56 to 62	47 47		339.53	6		0.0	9.000	120	68.395			
						0.0	0.0		0.0			
56 to 63	47 47		1386.89	6.357		0.0	9.000	0.0512	0.461	Vel =	14.02	
						0.0	0.0		0.0			
57 to 64	47 47		62.59	6		0.0	9.000	120	68.856			
						0.0	0.0		0.0			
57 to 65	47 47		1449.48	6.357		0.0	9.000	0.0556	0.500	Vel =	14.65	
						0.0	0.0		0.0			
58 to 66	47 47		60.02	6		0.0	9.000	120	69.356			
						0.0	0.0		0.0			
58 to 67	47 47		1509.5	6.357		0.0	9.000	0.0600	0.540	Vel =	15.26	
						0.0	0.0		0.0			
59 to 68	47 47		59.94	6		0.0	9.000	120	69.896			
						0.0	0.0		0.0			
59 to 69	47 47		1569.44	6.357		0.0	9.000	0.0643	0.579	Vel =	15.86	
						0.0	0.0		0.0			
60 to 70	47 47		62.25	6		0.0	9.000	120	70.475			
						0.0	0.0		0.0			
60 to 71	47 47		1631.69	6.357		0.0	9.000	0.0692	0.623	Vel =	16.49	
						0.0	0.0		0.0			
61 to 72	47 47		66.62	6		0.0	9.000	120	71.098			
						0.0	0.0		0.0			
61 to 73	47 47		1698.31	6.357		0.0	9.000	0.0746	0.671	Vel =	17.17	
						0.0	0.0		0.0			
62 to 74	47 47		72.73	6		0.0	9.000	120	71.769			
						0.0	0.0		0.0			
62 to 75	47 47		1771.04	6.357		0.0	9.000	0.0806	0.725	Vel =	17.90	
						0.0	0.0		0.0			
63 to 76	47 47		80.22	6		0.0	9.000	120	72.494			
						0.0	0.0		0.0			
63 to 77	47 47		1851.26	6.357		0.0	9.000	0.0874	0.787	Vel =	18.71	

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
63 to 64	47 47		88.75 1940.01	6 6.357		0.0 0.0	9.000 0.0	120 0.0953	73.281 0.0			
64 to FMJ	47 47		97.97 2037.98	6 6.357	V	12.573 0.0	2.333 12.573	120 0.1044	74.139 0.0	Vel = 19.61		
FMJ			0.0 2037.98						1.556	Vel = 20.60		
FMJ									75.695	K Factor = 234.24		
FMJ to TR3	47 47		2037.98 2037.98	6 6.357	V	12.573 0.0	44.208 12.573	120 0.1044	75.695 0.0			
TR3 to BR3	47 2		2037.98 2037.98	6 6.357	S B T	40.235 12.573 37.72	38.875 90.528 129.403	120 0.1044	81.625 19.490 13.514	Vel = 20.60		
BR3 to FLG	2 2	H100	100.00 2137.98	8 7.98	L	19.632 0.0	2.000 19.632	150 0.0249	114.629 0.0			
FLG to UG2	2 -5		0.0 2137.98	8 7.98	L T	19.632 52.855	53.167 72.487	150 0.0249	115.168 3.032	Vel = 13.71		
UG2			0.0 2137.98			0.0	125.654		3.135	Vel = 13.71		
UG2									121.335	K Factor = 194.09		
UG1 to UG2	-5 -5		-853.28 -853.28	8 7.98	3F G	40.774 6.041	614.875 46.814	150 -0.0046	124.354 0.0			
UG2 to UG3	-5 -5	H150	2287.98 1434.7	8 7.98	3F L T 2G	40.774 19.632 52.855 12.081	580.958 125.343 706.301	150 0.0119	121.335 0.0 8.426	Vel = 5.47		
UG3 to UG4	-5 -5		-2287.98 -853.28	12 11.65	F G	17.441 8.05	958.917 25.490	150 -0.0007	129.761 0.0			
UG4 to UG5	-5 -5		0.0 -853.28	12 11.65	G	8.05 0.0	16.167 8.049	150 -0.0007	129.050 0.0	Vel = 2.57		
UG5 to UG1	-5 -5		0.0 -853.28	8 7.98	5F 2G	67.957 12.081	945.542 80.039	150 -0.0046	129.032 0.0	Vel = 2.57		
UG1			0.0 -853.28			0.0	1025.581		-4.678	Vel = 5.47		
UG1									124.354	K Factor = -76.52		
UG3 to UG6	-5 -5		2287.98 2287.98	12 11.65	6F 2G	104.647 16.1	801.750 120.747	150 0.0045	129.761 0.0			
UG6 to PUMP	-5 2		0.0 2287.98	12 11.65	2L	48.299 0.0	45.500 48.298	150 0.0045	133.895 -3.032	Vel = 6.89		
PUMP						0.0	93.798		0.420	Vel = 6.89		

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Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
PUMP to PO	2 2		0.0 2287.98	10 10.42	2V S B	10.89 66.551 22.99	15.000 100.431 115.431	120 0.0117	131.283 0.0 1.346		Vel = 8.61	
PO			0.0 2287.98						132.629		K Factor = 198.67	