

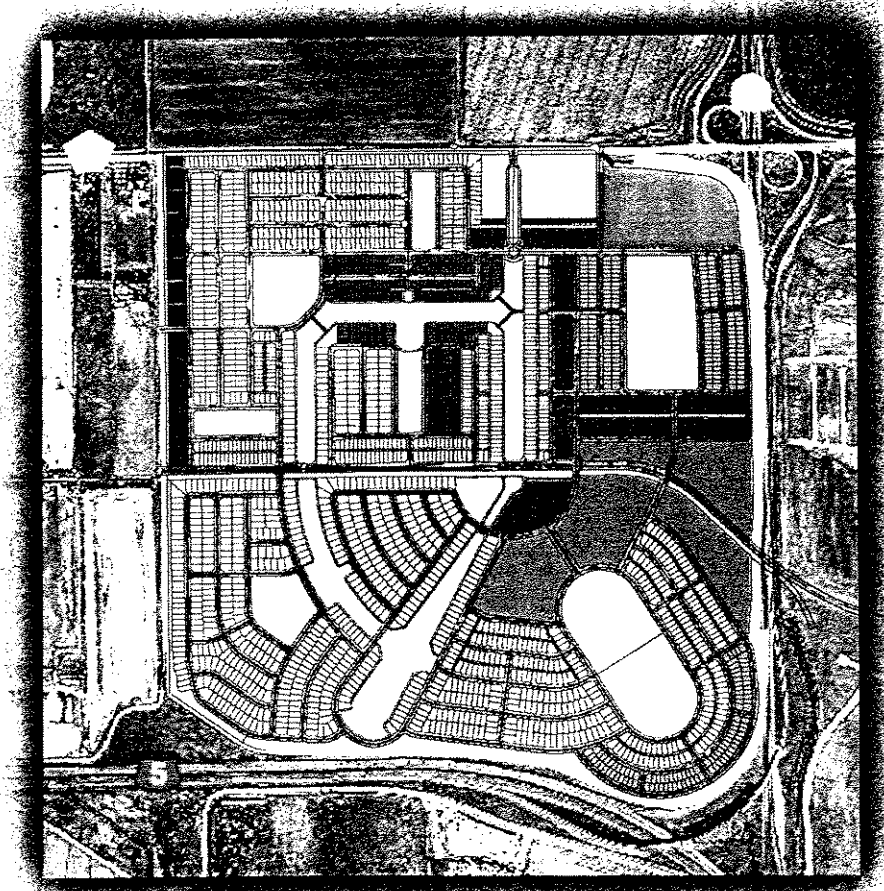
# **APPENDIX H**

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## **GREENBRIAR WATER STUDY**

# Greenbriar

## Water Study



July 2005

*Prepared by*

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# **Greenbriar**

## **Water Study**

**Sacramento, California**

**Prepared For:**

**City of Sacramento**

**July 2005**

**Prepared By:**



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## PURPOSE

This water analysis is intended to assist in properly sizing the domestic transmission and distribution system for the Greenbriar Property. This analysis will confirm that the proposed water lines will be sized appropriately to meet or exceed the City of Sacramento's Water Distribution System Design Criteria.

## STUDY AREA

Greenbriar is located within the North Natomas Vision Area and is currently outside the Sacramento City Limits. Request for annexation into the City is currently being processed. Greenbriar is located directly west of Highway 99 and north of Interstate 5. The development encompasses approximately 577 acres. The purpose of this study is to adequately size the transmission and distribution mains within the Greenbriar development. Land use for the Plan Area will consist of low, medium and high density residential, elementary school, parks, and commercially zoned properties. The existing land use consists of open agricultural fields with relatively gentle slopes.

Refer to **Figure 1** for the project location.

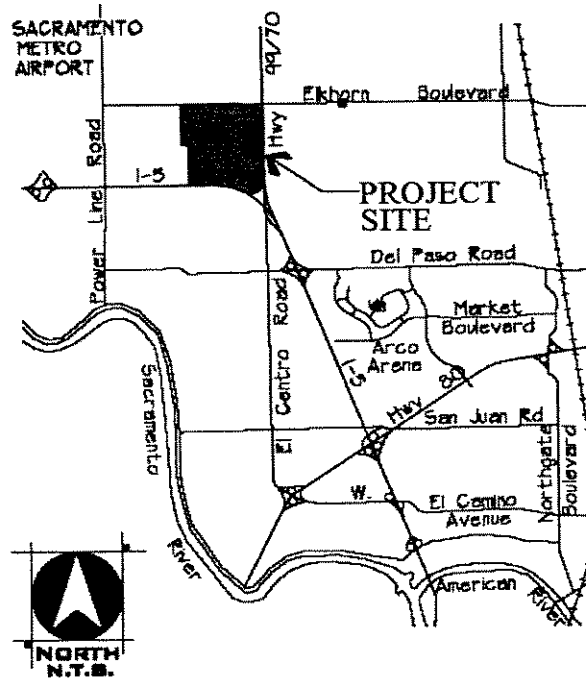


Figure 1 - Location Map.

## ASSUMPTIONS

Assumptions used for this analysis are based on the proposed land use plan dated April 4, 2005 by Wood Rodgers, Inc.; the City of Sacramento's Department of Utilities staff; and the City of Sacramento's Water Distribution System Design Criteria.

### Land Use

The Greenbriar development is proposed to consist of:

- 1,146 low density residential lots.
- 1,565 medium density residential lots.
- 1,012 high density residential lots.
- 26 acres of commercial.
- 49 acres of parks.

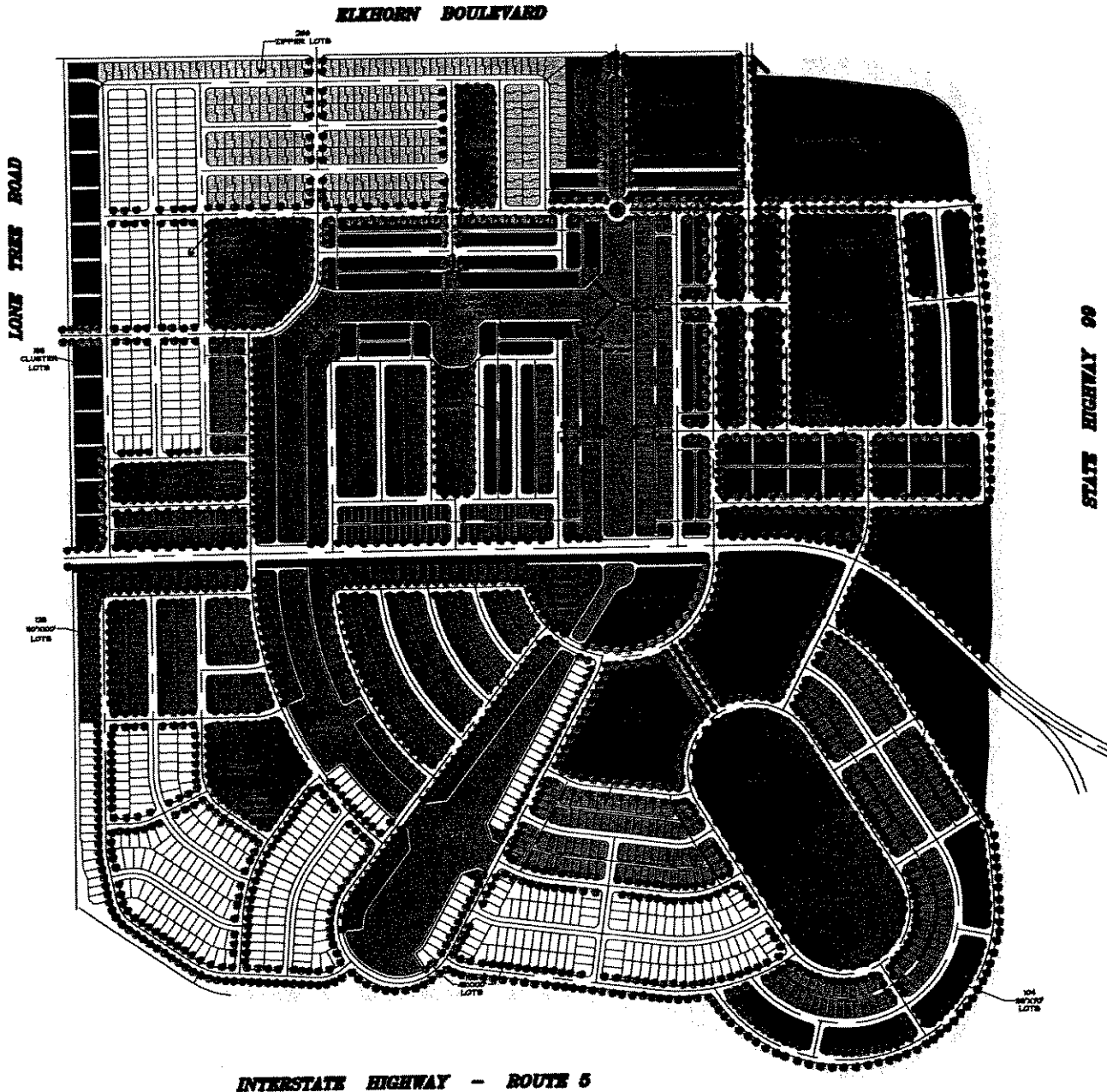
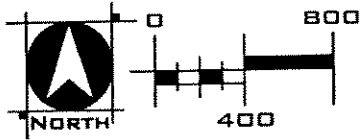
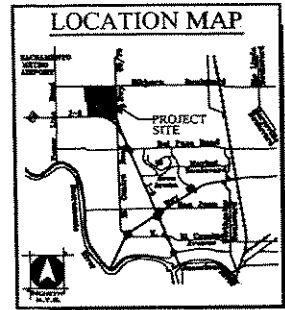
**Figure 2** shows the proposed land use plan for Greenbriar.

# FIGURE 2. LAND USE PLAN

# GREENBRIAR

CITY OF SACRAMENTO, CALIFORNIA

JULY 2005



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### Demand and Peaking Factors

The City's Water Distribution System Criteria were used to determine the proposed water use demands in the model. Peaking factors were used to simulate system-operating scenarios for the water distribution system analysis. Maximum Day Demands (MDD) were developed by applying a MDD factor of 1.8 to the Average Day Demand (ADD) estimates. The Peak Hour Demands (PHD) were developed by applying a PHD factor of 1.3 to the Maximum Day Demands (MDD). The demands were increased by 7.5% to account for system losses per City criteria. **Table 1** shows the ADD, MDD, and PHD used for the hydraulic modeling scenarios. Refer to **Appendix A** for complete demand projections.

**Table 1 - Potable Water Demand Projections for Greenbriar.**

Land Use Designation	Total		ADD Unit Water Demand		Demand (gpm)		
	Acres* (net)	Dwelling Units	gpm/ac	gpm/du	ADD	MDD	PHD
Low Density Residential	128	1,146	---	0.44	504	907	1179
Medium Density Residential	106	1,565	---	0.44	689	1240	1612
High Density Residential	45	1,012	2.48	---	112	202	262
Commercial	26	---	1.86	---	48	86	112
Parks/Landscape	84	---	2.60	---	217	391	508
Schools	10	---	1.55	---	16	29	37
Subtotal	399	3723			1586	2855	3711
7.5% System Losses					119	214	278
<b>Totals</b>					<b>1705</b>	<b>3069</b>	<b>3989</b>

\*Acreage does not include street right of way.

### Operational Requirements

The City of Sacramento has developed water distribution system design criteria to be used in the planning of new water distribution systems. These criteria apply to water studies that analyze subdivision level developments. The criteria help ensure adequate pressure and flow are available to serve customers on a daily basis and also during emergency fire situations. The criteria used in this study are listed in **Table 2**.

**FIGURE 3. EXISTING DISTRIBUTION FACILITIES**  
**GREENBRIAR**  
 CITY OF SACRAMENTO

JULY 2005

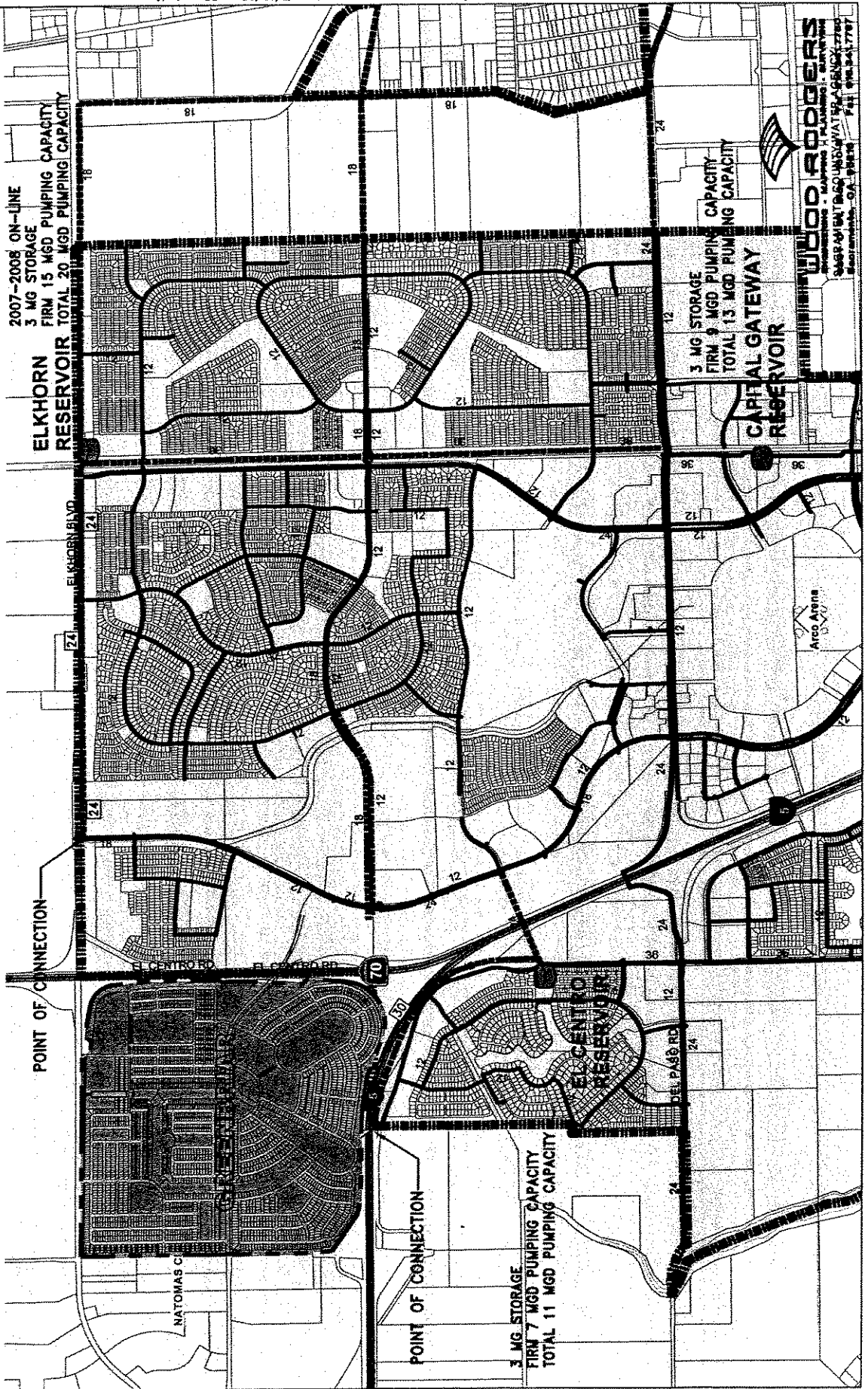
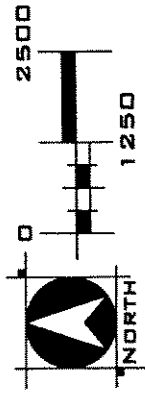




Table 3 - Boundary Conditions.

Point of Connection Location	Point of Connection ID	Hydraulic Grade Line (ft)		Pressure (psi)	
		MDD	PHD	MDD	PHD
Terminal End of Airport Connection	PUMP-105	91.4	91.2	30.1	30.0
Elkhorn Blvd and East Commerce Way	PUMP-107	96.7	95.9	30.6	30.2

### SUMMARY OF ANALYSIS

The water model was developed using MWH Soft, Inc. hydraulic modeling program, H<sub>2</sub>ONET version 6.0. An electronic copy of the water distribution model is available upon request.

The transmission and distribution system was laid out following the street centerline, creating a looped system. Pipe sizes range from 8-inch to 18-inch diameter with the larger diameter pipes looped around commercial and school sites to convey the higher fire flow requirements. Greenbriar was modeled independent of the surrounding developments. **Table 4** summarizes the model results for average day demands, maximum day demands, and peak hour demands.

Table 4 - System Hydraulic Modeling Scenario Results.

Demand Scenario	Greenbriar Demand (gpm)	Minimum System Pressure (psi)	Maximum System Velocity (fps)
Average Day	1,705	34	1.2
Maximum Day	3,069	31	2.2
Peak Hour	3,989	30	2.5

**Figure 4** shows the layout of the proposed water system. A full size exhibit is located in **Appendix C**. Hardcopy results for the demand scenarios are located in **Appendix D**.

### Fire Flow Results

Fire flow analyses were performed during maximum day demands. The fire flow demand requirements by land use are shown in **Table 2**. The fire flow analysis calculated the available fire flow at every required node in the system. **Table 5** lists the locations most sensitive to the fire flow demands.

**Table 5 - Fire Flow Results During Maximum Day Demands.**

Fire Flow Node	Required Fire Flow (gpm)	Total Plan Area Demand (gpm)	Minimum Pressure (psi)	Maximum Velocity (ft/sec)
GB-443	1,500	4,569	25	4.6
GB-313	2,000	5,069	23	5.8
GB-427	3,000	6,069	20	4.5

Hardcopy results for all scenarios are located in **Appendix D**.

### CONCLUSIONS

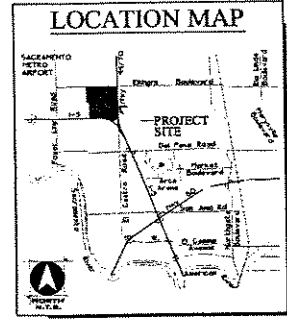
The City of Sacramento Water Distribution Design Criteria requirements were met for this water distribution system. There are several assumptions on which the hydraulic model is based. The model would require modification if any additional information becomes available that would affect the way water is delivered to the development.

FIGURE 4. DISTRIBUTION SYSTEM LAYOUT

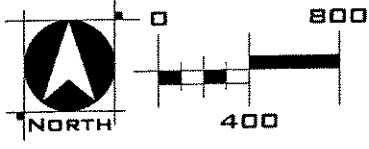
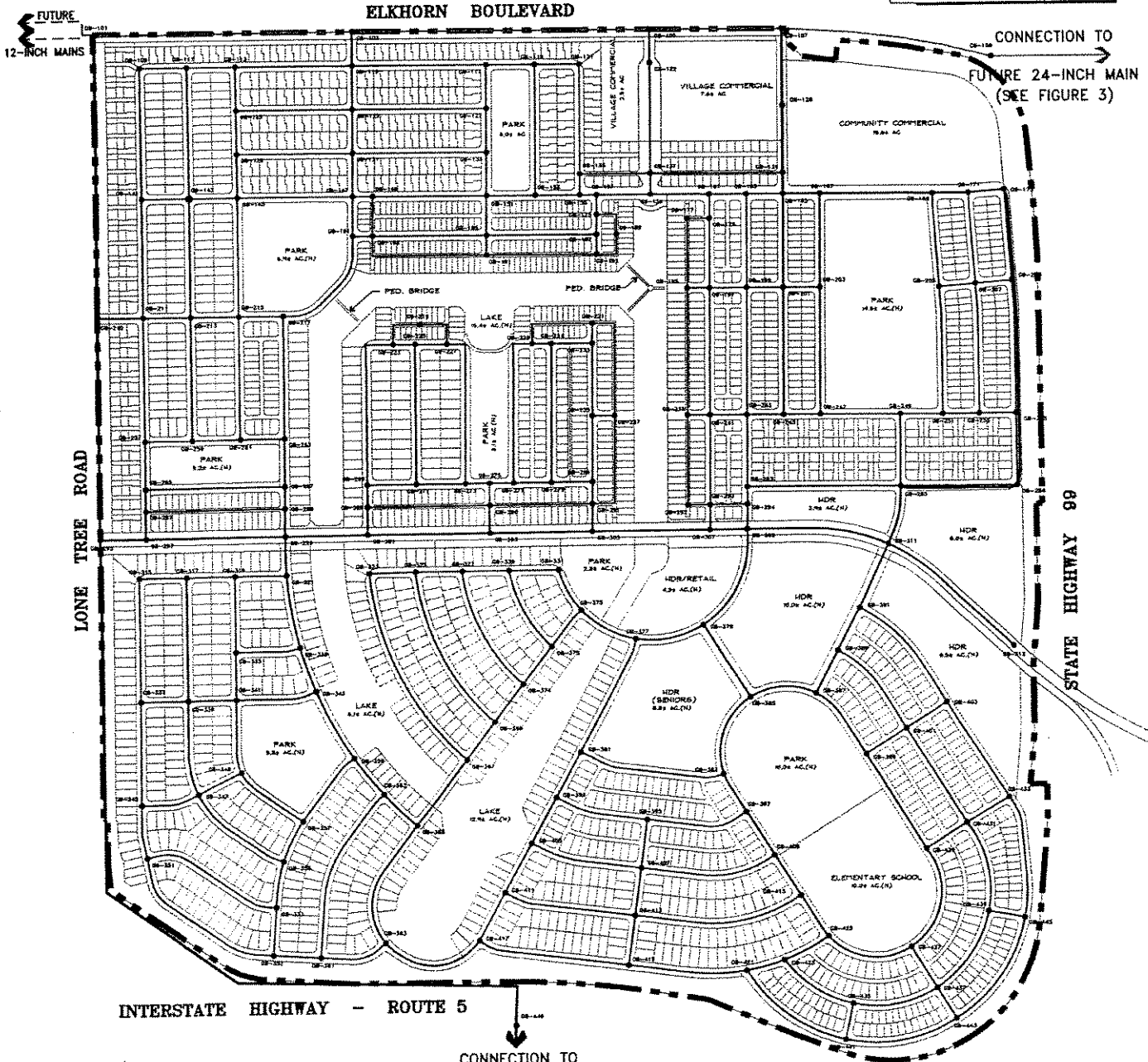
# GREENBRIAR

CITY OF SACRAMENTO, CALIFORNIA

JULY 2005



LEGEND	
	8-INCH DISTRIBUTION MAIN
	12-INCH DISTRIBUTION MAIN
	18-INCH TRANSMISSION MAIN
	24-INCH TRANSMISSION MAIN
	30-INCH TRANSMISSION MAIN
	DEMAND JUNCTION
	GREENBRIAR BOUNDARY



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J:\sbs\118-greembriar-farms\greembriar-ca\GIS\Studies\Water\WaterUse\greembriar\_H2ONET\_7-27-05-Anti.dwg 7/29/05 9:28am plot

**APPENDIX A**  
**GREENBRIAR DEMAND SPREADSHEET**

**Greenbriar - Water Demand Spreadsheet**

Model ID Label	Land Use Designation					Total Demand		
	Commercial	Parks/ Landscape	Schools	High Density Residential	Single Family Residential	ADD	MDD	PHD
	(acres)	(acres)	(acres)	(acres)	(units)	(gpm)	(gpm)	(gpm)
	1.86 gpm/acre	2.60 gpm/acre	1.55 gpm/acre	2.48 gpm/acre	0.44 gpm/unit			
	1.86	2.600	1.55	2.48	0.44			
GB-103		0.99				2.57	4.63	6.02
GB-105		0.99				2.57	4.63	6.02
GB-107						0.00	0.00	0.00
GB-108	7.81					14.53	26.15	33.99
GB-109					36	15.84	28.51	37.07
GB-111					20	8.80	15.84	20.59
GB-113					18	7.92	14.26	18.53
GB-115					30	13.20	23.76	30.89
GB-117					20	8.80	15.84	20.59
GB-119		1.48			14	10.01	18.01	23.42
GB-121					18	7.92	14.26	18.53
GB-122	6.32	1.15				14.75	26.54	34.50
GB-123					17	7.48	13.46	17.50
GB-125					29	12.76	22.97	29.86
GB-127					16	7.04	12.67	16.47
GB-128	11.60					21.58	38.84	50.49
GB-129					17	7.48	13.46	17.50
GB-131					28	12.32	22.18	28.83
GB-133					16	7.04	12.67	16.47
GB-135					14	6.16	11.09	14.41
GB-137					20	8.80	15.84	20.59
GB-139					20	8.80	15.84	20.59
GB-141					43	18.92	34.06	44.27
GB-143					26	11.44	20.59	26.77
GB-145					14	6.16	11.09	14.41
GB-147		3.42			6	11.53	20.76	26.98
GB-149					19	8.36	15.05	19.56
GB-151					22	9.68	17.42	22.65
GB-153		1.48			14	10.01	18.01	23.42
GB-155					8	3.52	6.34	8.24
GB-157					3	1.32	2.38	3.09
GB-159		0.13			6	2.96	5.36	6.97
GB-161					5	2.20	3.96	5.15
GB-163					11	4.84	8.71	11.33
GB-165					12	5.28	9.50	12.36
GB-167		3.70			6	12.26	22.07	28.69
GB-169					5	2.20	3.96	5.15
GB-171					10	4.40	7.92	10.30
GB-173		4.81			5	14.71	26.47	34.41
GB-175					2	0.88	1.58	2.06
GB-177					7	3.08	5.54	7.21
GB-179					12	5.28	9.50	12.36
GB-181					7	3.08	5.54	7.21
GB-183					24	10.56	19.01	24.71
GB-185					40	17.60	31.68	41.18
GB-187					22	9.68	17.42	22.65
GB-189					10	4.40	7.92	10.30
GB-191		0.13			21	9.58	17.24	22.41
GB-193		0.12			13	6.03	10.86	14.11
GB-195		0.12			13	6.03	10.86	14.11
GB-197					24	10.56	19.01	24.71
GB-199					24	10.56	19.01	24.71
GB-201					28	12.32	22.18	28.83
GB-203		3.70			14	15.78	28.40	36.93
GB-205		3.70			14	15.78	28.40	36.93
GB-207					28	12.32	22.18	28.83
GB-209					14	6.16	11.09	14.41
GB-210		3.70				9.62	17.32	22.51
GB-211					54	23.76	42.77	55.60
GB-213					26	11.44	20.59	26.77
GB-215		3.42			15	15.49	27.89	36.25
GB-217					14	6.16	11.09	14.41
GB-219					15	6.60	11.88	15.44
GB-221		0.23			19	8.96	16.12	20.96
GB-223		0.45			19	9.53	17.15	22.30
GB-225					12	5.28	9.50	12.36

**Greenbriar - Water Demand Spreadsheet**

Model ID Label	Land Use Designation					Total Demand		
	Commercial	Parks/ Landscape	Schools	High Density Residential	Single Family Residential	ADD	MDD	PHD
	(acres)	(acres)	(acres)	(acres)	(units)	(gpm)	(gpm)	(gpm)
	1.86 gpm/acre	2.60 gpm/acre	1.55 gpm/acre	2.48 gpm/acre	0.44 gpm/unit			
	1.86	2.600	1.55	2.48	0.44			
GB-227					13	5.72	10.30	13.38
GB-229		1.55			13	9.75	17.55	22.82
GB-231					22	9.68	17.42	22.65
GB-233					14	6.16	11.09	14.41
GB-235					22	9.68	17.42	22.65
GB-237		0.12			14	6.47	11.65	15.14
GB-239		0.12			14	6.47	11.65	15.14
GB-241					28	12.32	22.18	28.83
GB-243					30	13.20	23.76	30.89
GB-245					28	12.32	22.18	28.83
GB-247					19	8.36	15.05	19.56
GB-249		3.70			20	18.42	33.16	43.10
GB-251					19	8.36	15.05	19.56
GB-253					28	12.32	22.18	28.83
GB-255		4.81			9	16.47	29.64	38.53
GB-257					25	11.00	19.80	25.74
GB-259					12	5.28	9.50	12.36
GB-261					13	5.72	10.30	13.38
GB-263					15	6.60	11.88	15.44
GB-265		1.58			20	12.91	23.23	30.20
GB-267		1.58			14	10.27	18.48	24.03
GB-269					22	9.68	17.42	22.65
GB-271					21	9.24	16.63	21.62
GB-273					12	5.28	9.50	12.36
GB-275		1.55			2	4.91	8.84	11.49
GB-277					12	5.28	9.50	12.36
GB-279					22	9.68	17.42	22.65
GB-281					11	4.84	8.71	11.33
GB-283					25	11.00	19.80	25.74
GB-285					30	13.20	23.76	30.89
GB-286					20	8.80	15.84	20.59
GB-287					20	8.80	15.84	20.59
GB-288					11	4.84	8.71	11.33
GB-289					8	3.52	6.34	8.24
GB-290					13	5.72	10.30	13.38
GB-291					19	8.36	15.05	19.56
GB-292					9	3.96	7.13	9.27
GB-293					16	7.04	12.67	16.47
GB-294				2.2		5.46	9.82	12.77
GB-295						0.00	0.00	0.00
GB-297						0.00	0.00	0.00
GB-299						0.00	0.00	0.00
GB-301						0.00	0.00	0.00
GB-303						0.00	0.00	0.00
GB-305						0.00	0.00	0.00
GB-307						0.00	0.00	0.00
GB-309						0.00	0.00	0.00
GB-311				6.75		16.74	30.13	39.17
GB-313				8.78		21.77	39.19	50.95
GB-315					18	7.92	14.26	18.53
GB-317					17	7.48	13.46	17.50
GB-319					11	4.84	8.71	11.33
GB-321					11	4.84	8.71	11.33
GB-323					26	11.44	20.59	26.77
GB-325					21	9.24	16.63	21.62
GB-327					17	7.48	13.46	17.50
GB-329					12	5.28	9.50	12.36
GB-331					5	2.20	3.96	5.15
GB-333					14	6.16	11.09	14.41
GB-335					12	5.28	9.50	12.36
GB-337					22	9.68	17.42	22.65
GB-339					19	8.36	15.05	19.56
GB-341		1.32			8	6.95	12.51	16.27
GB-343		1.32			5	5.63	10.14	13.18
GB-345					17	7.48	13.46	17.50
GB-347					20	8.80	15.84	20.59

**Greenbriar - Water Demand Spreadsheet**

Model ID Label	Land Use Designation					Total Demand				
	Commercial	Parks/ Landscape	Schools	High Density Residential	Single Family Residential	ADD	MDD	PHD		
	(acres)	(acres)	(acres)	(acres)	(units)	(gpm)	(gpm)	(gpm)		
	1.86 gpm/acre	2.60 gpm/acre	1.55 gpm/acre	2.48 gpm/acre	0.44 gpm/unit					
GB-349					8	3.52	6.34	8.24		
GB-351					25	11.00	19.80	25.74		
GB-352		4.13			11	15.58	28.04	36.45		
GB-353					19	8.36	15.05	19.56		
GB-355					16	7.04	12.67	16.47		
GB-357		1.32			10	7.83	14.10	18.33		
GB-359		1.32			6	6.07	10.93	14.21		
GB-361					19	8.36	15.05	19.56		
GB-362					24	10.56	19.01	24.71		
GB-363					13	5.72	10.30	13.38		
GB-365		0.11			16	7.33	13.19	17.14		
GB-367		0.10			22	9.94	17.89	23.26		
GB-369					20	8.80	15.84	20.59		
GB-371					16	7.04	12.67	16.47		
GB-373					12	5.28	9.50	12.36		
GB-375		2.42			3	7.61	13.70	17.81		
GB-377				2.22	9	9.47	17.04	22.15		
GB-379				9.46		23.46	42.23	54.90		
GB-381				2.22	18	13.43	24.17	31.42		
GB-383				2.22	8	9.03	16.25	21.12		
GB-385				2.22		5.51	9.91	12.88		
GB-387				2.49	4	7.94	14.28	18.57		
GB-389					11	4.84	8.71	11.33		
GB-391				6.72	7	19.75	35.54	46.20		
GB-393		0.11			17	7.77	13.98	18.17		
GB-395					18	7.92	14.26	18.53		
GB-397		5.09			14	19.39	34.91	45.38		
GB-399		5.09			11	18.07	32.53	42.29		
GB-401					23	10.12	18.22	23.68		
GB-403					13	5.72	10.30	13.38		
GB-405		0.10			13	5.98	10.76	13.99		
GB-407					26	11.44	20.59	26.77		
GB-409					16	7.04	12.67	16.47		
GB-411					20	8.80	15.84	20.59		
GB-413					31	13.64	24.55	31.92		
GB-415					16	7.04	12.67	16.47		
GB-417		4.13			17	18.22	32.79	42.63		
GB-419					13	5.72	10.30	13.38		
GB-421		4.1			15	17.26	31.07	40.39		
GB-423					13	5.72	10.30	13.38		
GB-425			5.09		8	11.41	20.54	26.70		
GB-427					13	5.72	10.30	13.38		
GB-429			5.09		14	14.05	25.29	32.88		
GB-431					26	11.44	20.59	26.77		
GB-433		4.1			16	17.70	31.86	41.42		
GB-435					20	8.80	15.84	20.59		
GB-437					21	9.24	16.63	21.62		
GB-439					21	9.24	16.63	21.62		
GB-441					13	5.72	10.30	13.38		
GB-443					14	6.16	11.09	14.41		
GB-445					13	5.72	10.30	13.38		
<b>TOTAL</b>	<b>26</b>	<b>83</b>	<b>10</b>	<b>45</b>	<b>2,711</b>					
<b>DEMAND (gpm)</b>	<b>48</b>	<b>217</b>	<b>16</b>	<b>112</b>	<b>1,193</b>	<b>1586</b>	<b>2855</b>	<b>3711</b>		
					<b>7.5% Unaccounted For Losses</b>			<b>119</b>	<b>214</b>	<b>278</b>
					<b>Total Demand</b>			<b>1705</b>	<b>3069</b>	<b>3989</b>



**APPENDIX B**  
**EXHIBITS - DISTRIBUTION SYSTEM CONNECTIONS**

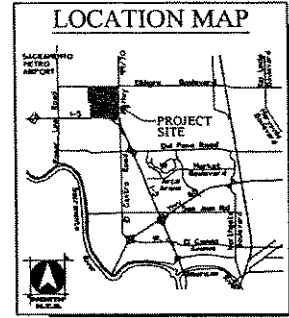


ALTERNATIVE 1 DISTRIBUTION SYSTEM CONNECTIONS

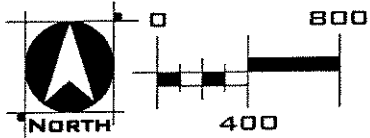
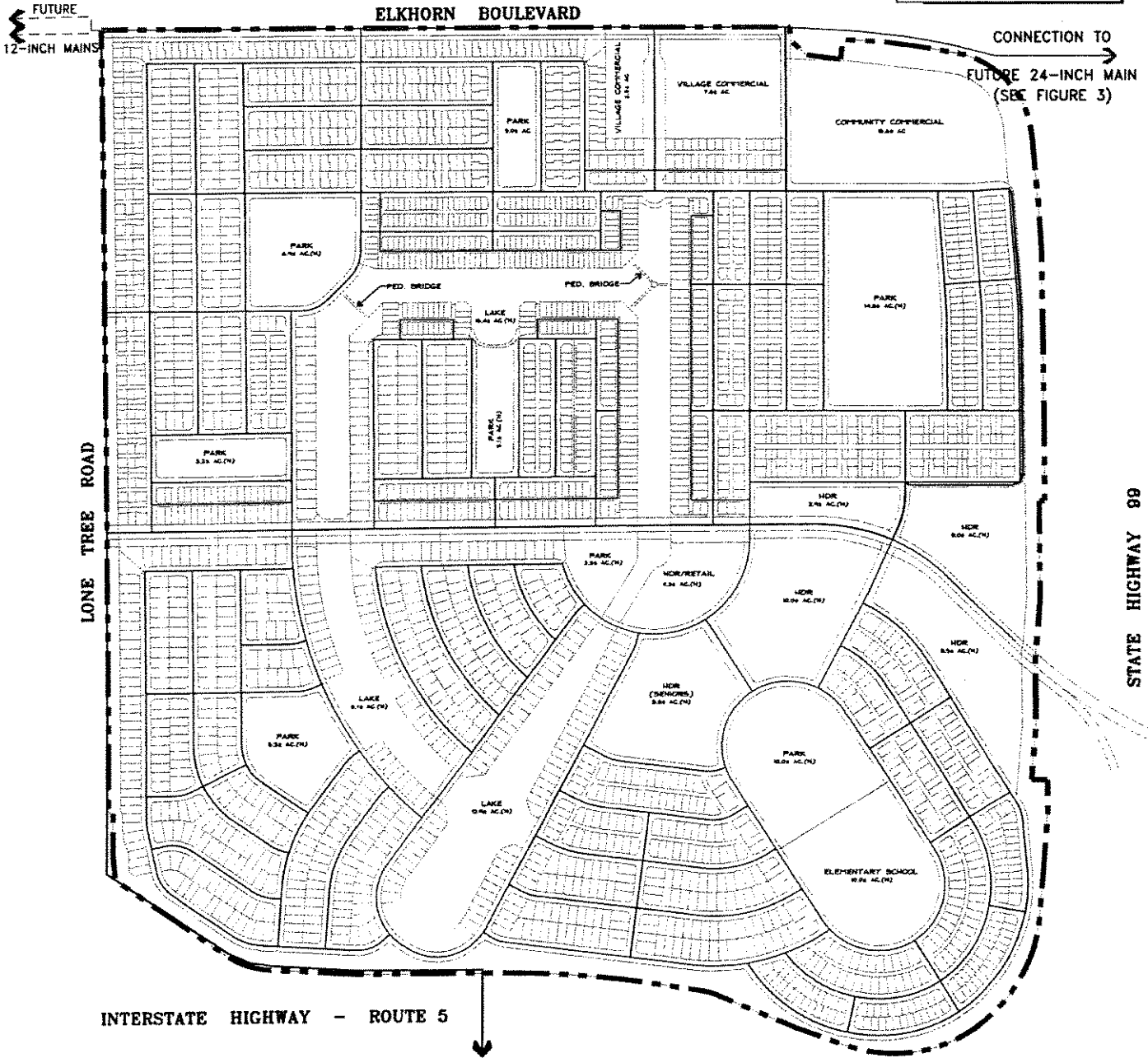
# GREENBRIAR

CITY OF SACRAMENTO, CALIFORNIA

JULY 2005



LEGEND	
	8-INCH DISTRIBUTION MAIN
	12-INCH DISTRIBUTION MAIN
	18-INCH TRANSMISSION MAIN
	24-INCH TRANSMISSION MAIN
	30-INCH TRANSMISSION MAIN
	GREENBRIAR BOUNDARY



CONNECTION TO EXISTING 30-INCH MAIN (SEE FIGURE 3)

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 Sacramento, CA 95816 Fax 916.341.7787

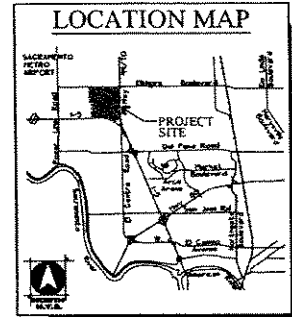


# ALTERNATIVE 3 DISTRIBUTION SYSTEM CONNECTIONS

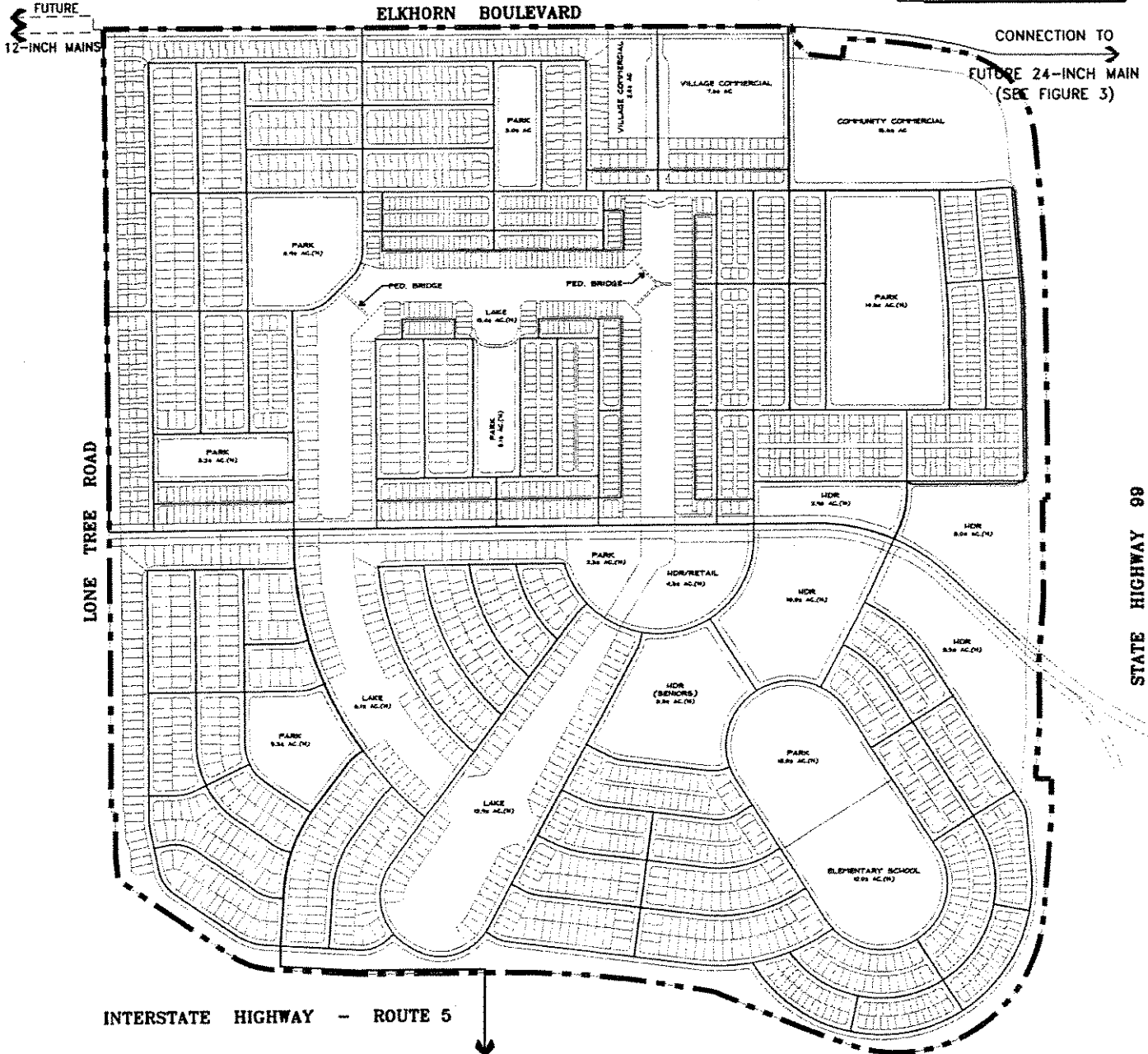
# GREENBRIAR

CITY OF SACRAMENTO, CALIFORNIA

JULY 2005



LEGEND	
	8-INCH DISTRIBUTION MAIN
	12-INCH DISTRIBUTION MAIN
	18-INCH TRANSMISSION MAIN
	24-INCH TRANSMISSION MAIN
	30-INCH TRANSMISSION MAIN
	GREENBRIAR BOUNDARY



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**APPENDIX C**  
**EXHIBIT - WATER DISTRIBUTION SYSTEM**

## **APPENDIX D**

### **H<sub>2</sub>ONET ANALYSIS RESULTS**

- **AVERAGE DAY DEMANDS**
- **MAXIMUM DAY DEMANDS**
- **PEAK HOUR DEMANDS**
- **FIRE FLOW SUMMARY**
- **MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443**
- **MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313**
- **MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427**

**AVERAGE DAY DEMANDS**

**AVERAGE DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-101	0.00	20.00	104.30	36.53
GB-103	2.76	15.00	104.35	38.71
GB-105	2.76	19.00	104.44	37.02
GB-107	0.00	20.00	104.50	36.61
GB-108	15.62	21.00	104.75	36.29
GB-109	17.03	20.00	104.25	36.51
GB-111	9.46	20.00	104.25	36.51
GB-113	8.51	19.59	104.26	36.69
GB-115	14.19	18.97	104.32	36.98
GB-117	9.46	18.87	104.27	37.00
GB-119	10.76	18.84	104.27	37.02
GB-121	8.51	18.80	104.27	37.03
GB-122	15.86	18.80	104.44	37.11
GB-123	8.04	19.02	104.26	36.94
GB-125	13.72	18.39	104.27	37.21
GB-127	7.57	18.28	104.26	37.26
GB-128	23.20	18.50	104.41	37.23
GB-129	8.04	18.53	104.26	37.15
GB-131	13.24	17.81	104.26	37.46
GB-133	7.57	17.67	104.26	37.52
GB-135	6.62	17.23	104.27	37.71
GB-137	9.46	17.16	104.30	37.76
GB-139	9.46	17.85	104.34	37.48
GB-141	20.34	18.91	104.25	36.98
GB-143	12.30	18.52	104.25	37.15
GB-145	6.62	18.08	104.25	37.34
GB-147	12.39	17.24	104.25	37.70
GB-149	8.99	17.21	104.25	37.72
GB-151	10.41	16.99	104.26	37.81
GB-153	10.76	16.99	104.26	37.81
GB-155	3.78	16.94	104.27	37.84
GB-157	1.42	16.96	104.27	37.83
GB-159	3.20	16.62	104.28	37.98
GB-161	2.37	17.14	104.27	37.75
GB-163	5.20	17.39	104.28	37.65
GB-165	5.68	17.79	104.33	37.50
GB-167	13.18	18.26	104.31	37.28
GB-169	2.37	19.75	104.27	36.62
GB-171	4.73	20.27	104.26	36.39

**AVERAGE DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-173	15.81	20.84	104.25	36.14
GB-175	0.95	16.69	104.26	37.94
GB-177	3.31	16.45	104.25	38.04
GB-179	5.68	16.82	104.25	37.88
GB-181	3.31	16.63	104.25	37.97
GB-183	11.35	16.54	104.25	38.01
GB-185	18.92	16.64	104.25	37.96
GB-187	10.41	16.47	104.26	38.04
GB-189	4.73	16.36	104.26	38.08
GB-191	10.30	16.28	104.25	38.12
GB-193	6.48	16.24	104.26	38.14
GB-195	6.48	16.38	104.24	38.07
GB-197	11.35	16.75	104.24	37.91
GB-199	11.35	17.29	104.24	37.68
GB-201	13.24	17.77	104.25	37.47
GB-203	16.96	18.25	104.25	37.26
GB-205	16.96	19.83	104.23	36.57
GB-207	13.24	20.34	104.23	36.35
GB-209	6.62	20.85	104.23	36.13
GB-210	10.34	15.00	104.28	38.69
GB-211	25.54	18.60	104.27	37.12
GB-213	12.30	17.80	104.25	37.46
GB-215	16.65	17.16	104.25	37.73
GB-217	6.62	16.45	104.25	38.04
GB-219	7.09	16.33	104.18	38.07
GB-221	9.63	16.30	104.18	38.08
GB-223	10.24	16.58	104.18	37.96
GB-225	5.68	16.63	104.18	37.93
GB-227	6.15	16.52	104.18	37.98
GB-229	10.48	16.65	104.18	37.92
GB-231	10.41	16.65	104.18	37.92
GB-233	6.62	16.59	104.18	37.95
GB-235	10.41	17.04	104.18	37.76
GB-237	6.96	16.54	104.18	37.98
GB-239	6.96	16.37	104.21	38.06
GB-241	13.24	16.74	104.21	37.90
GB-243	14.19	17.28	104.21	37.67
GB-245	13.24	17.76	104.21	37.46
GB-247	8.99	18.25	104.22	37.25



**AVERAGE DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-249	19.80	19.30	104.21	36.79
GB-251	8.99	19.87	104.21	36.55
GB-253	13.24	20.36	104.21	36.33
GB-255	17.71	20.86	104.21	36.12
GB-257	11.82	18.14	104.25	37.31
GB-259	5.68	17.78	104.24	37.46
GB-261	6.15	17.15	104.24	37.74
GB-263	7.09	16.46	104.24	38.03
GB-265	13.88	18.00	104.24	37.37
GB-267	11.04	16.46	104.22	38.03
GB-269	10.41	16.52	104.19	37.99
GB-271	9.93	17.44	104.18	37.58
GB-273	5.68	18.00	104.18	37.34
GB-275	5.28	18.00	104.18	37.34
GB-277	5.68	18.00	104.18	37.34
GB-279	10.41	17.76	104.18	37.45
GB-281	5.20	17.04	104.18	37.76
GB-283	11.82	17.28	104.19	37.66
GB-285	14.19	19.52	104.19	36.69
GB-286	9.46	20.86	104.21	36.11
GB-287	9.46	18.00	104.25	37.37
GB-288	5.20	16.45	104.21	38.03
GB-289	3.78	16.52	104.19	37.99
GB-290	6.15	18.00	104.19	37.35
GB-291	8.99	17.04	104.18	37.76
GB-292	4.26	16.37	104.19	38.05
GB-293	7.57	16.74	104.18	37.89
GB-294	5.87	17.28	104.18	37.66
GB-295	0.00	15.00	104.27	38.68
GB-297	0.00	18.00	104.25	37.37
GB-299	0.00	16.45	104.21	38.02
GB-301	0.00	16.53	104.20	37.99
GB-303	0.00	18.00	104.19	37.35
GB-305	0.00	17.05	104.18	37.76
GB-307	0.00	16.86	104.18	37.84
GB-309	0.00	17.28	104.18	37.65
GB-311	18.00	19.13	104.18	36.85
GB-313	23.40	20.80	104.18	36.13
GB-315	8.51	18.00	104.10	37.31

**AVERAGE DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-317	8.04	17.77	104.11	37.41
GB-319	5.20	17.24	104.12	37.65
GB-321	5.20	16.45	104.17	38.01
GB-323	12.30	16.54	104.08	37.93
GB-325	9.93	17.42	104.08	37.55
GB-327	8.04	18.00	104.08	37.30
GB-329	5.68	18.00	104.08	37.30
GB-331	2.37	17.39	104.09	37.56
GB-333	6.62	17.35	104.12	37.60
GB-335	5.68	16.42	104.13	38.00
GB-337	10.41	18.00	104.10	37.31
GB-339	8.99	18.00	104.10	37.31
GB-341	7.47	17.49	104.10	37.53
GB-343	6.05	16.16	104.11	38.11
GB-345	8.04	18.00	104.09	37.30
GB-347	9.46	18.00	104.09	37.30
GB-349	3.78	17.75	104.09	37.41
GB-351	11.82	18.00	104.08	37.30
GB-352	16.75	17.35	104.08	37.58
GB-353	8.99	17.91	104.08	37.34
GB-355	7.57	17.82	104.09	37.38
GB-357	8.42	17.40	104.09	37.56
GB-359	6.53	16.14	104.09	38.11
GB-361	8.99	17.26	104.08	37.62
GB-362	11.35	16.38	104.09	38.00
GB-363	6.15	16.29	104.08	38.04
GB-365	7.88	16.32	104.08	38.03
GB-367	10.69	16.59	104.08	37.91
GB-369	9.46	17.03	104.08	37.72
GB-371	7.57	16.87	104.08	37.79
GB-373	5.68	16.73	104.08	37.85
GB-375	8.18	16.59	104.09	37.92
GB-377	10.18	16.34	104.10	38.02
GB-379	25.22	17.08	104.11	37.71
GB-381	14.44	16.42	104.08	37.98
GB-383	9.71	18.29	104.08	37.17
GB-385	5.92	18.09	104.10	37.27
GB-387	8.54	18.82	104.10	36.95
GB-389	5.20	18.79	104.11	36.97

**AVERAGE DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-391	21.23	18.77	104.13	36.99
GB-393	8.35	16.43	104.07	37.98
GB-395	8.51	17.71	104.07	37.42
GB-397	20.84	18.80	104.08	36.95
GB-399	19.43	19.79	104.09	36.53
GB-401	10.88	20.09	104.09	36.40
GB-403	6.15	20.39	104.09	36.27
GB-405	6.43	16.13	104.07	38.11
GB-407	12.30	17.95	104.07	37.32
GB-409	7.57	19.40	104.08	36.69
GB-411	9.46	16.46	104.07	37.96
GB-413	14.66	18.20	104.07	37.21
GB-415	7.57	19.96	104.07	36.45
GB-417	19.59	16.45	104.07	37.97
GB-419	6.15	18.63	104.07	37.02
GB-421	18.55	19.83	104.07	36.50
GB-423	6.15	20.20	104.07	36.34
GB-425	12.27	20.56	104.07	36.19
GB-427	6.15	21.58	104.08	35.75
GB-429	15.10	21.13	104.08	35.94
GB-431	12.30	21.45	104.08	35.80
GB-433	19.03	22.00	104.08	35.56
GB-435	9.46	21.27	104.07	35.88
GB-437	9.93	22.00	104.07	35.56
GB-439	9.93	22.00	104.07	35.56
GB-441	6.15	21.27	104.07	35.88
GB-443	6.62	22.00	104.07	35.56
GB-445	6.15	21.00	104.07	36.00
GB-446	0.00	22.00	104.27	35.65
GB-447	0.00	26.00	105.48	34.44

**AVERAGE DAY DEMANDS - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P101	117.50	8.00	130.00	32.23	0.21	0.00
P102	117.50	8.00	130.00	-60.42	0.39	0.01
P103	739.21	8.00	130.00	40.96	0.26	0.04
P104	117.50	8.00	130.00	39.01	0.25	0.01
P105	117.50	8.00	130.00	47.12	0.30	0.01
P106	436.40	12.00	130.00	21.90	0.06	0.000
P107	650.57	8.00	130.00	17.22	0.11	0.01
P108	535.27	8.00	130.00	14.47	0.09	0.00
P109	357.35	18.00	130.00	-723.26	0.91	0.07
P110	243.09	12.00	130.00	-65.63	0.19	0.00
P111	253.19	8.00	130.00	-17.22	0.11	0.00
P112	380.98	8.00	130.00	35.81	0.23	0.01
P113	904.24	8.00	130.00	5.40	0.03	0.00
P114	693.26	8.00	130.00	-30.28	0.19	0.02
P115	105.50	8.00	130.00	-5.22	0.03	0.000
P116	147.51	12.00	130.00	44.63	0.13	0.00
P117	132.50	12.00	130.00	-49.10	0.14	0.00
P118	226.54	8.00	130.00	30.42	0.19	0.01
P119	193.01	8.00	130.00	8.31	0.05	0.000
P120	193.01	8.00	130.00	-8.73	0.06	0.000
P121	713.00	8.00	130.00	6.72	0.04	0.00
P122	615.89	8.00	130.00	-6.48	0.04	0.000
P123	713.00	8.00	130.00	-50.80	0.32	0.05
P124	677.66	8.00	130.00	-38.32	0.24	0.03
P125	476.65	8.00	130.00	-35.69	0.23	0.02
P126	117.50	8.00	130.00	-31.43	0.20	0.00
P127	677.66	8.00	130.00	40.74	0.26	0.03
P128	193.00	8.00	130.00	-8.76	0.06	0.000
P129	117.50	8.00	130.00	-33.43	0.21	0.00
P130	633.34	8.00	130.00	16.67	0.11	0.01
P131	232.72	8.00	130.00	24.89	0.16	0.00
P132	233.02	8.00	130.00	26.45	0.17	0.01
P133	618.66	8.00	130.00	20.17	0.13	0.01
P134	713.00	8.00	130.00	-14.89	0.10	0.01
P135	195.00	8.00	130.00	18.12	0.12	0.00
P136	193.00	8.00	130.00	33.89	0.22	0.01
P137	112.20	18.00	130.00	666.03	0.84	0.02
P138	701.50	8.00	130.00	-47.77	0.30	0.05
P139	378.03	8.00	130.00	-53.11	0.34	0.03

**AVERAGE DAY DEMANDS - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P140	586.50	8.00	130.00	-13.30	0.08	0.00
P141	253.00	8.00	130.00	18.97	0.12	0.00
P142	233.00	8.00	130.00	-22.37	0.14	0.00
P143	233.00	8.00	130.00	-29.69	0.19	0.01
P144	232.70	8.00	130.00	-17.56	0.11	0.00
P145	574.54	8.00	130.00	11.80	0.08	0.00
P146	105.50	8.00	130.00	46.31	0.30	0.01
P147	126.23	8.00	130.00	25.67	0.16	0.00
P148	126.78	8.00	130.00	-8.06	0.05	0.000
P149	388.16	8.00	130.00	8.80	0.06	0.00
P150	117.50	8.00	130.00	3.96	0.03	0.0000
P151	611.16	8.00	130.00	-7.22	0.05	0.00
P152	418.00	8.00	130.00	-0.05	0.000	0.0000
P153	97.50	8.00	130.00	-0.23	0.00	0.00
P154	261.76	8.00	130.00	-4.68	0.03	0.000
P155	839.51	8.00	130.00	-7.06	0.05	0.00
P156	170.40	8.00	130.00	2.31	0.01	0.0000
P157	116.20	8.00	130.00	0.00	0.000	0.00
P158	248.92	8.00	130.00	-5.49	0.04	0.000
P159	247.10	8.00	130.00	8.50	0.05	0.000
P160	247.67	8.00	130.00	18.41	0.12	0.00
P161	247.82	8.00	130.00	28.53	0.18	0.01
P162	247.00	8.00	130.00	-17.68	0.11	0.00
P163	249.87	8.00	130.00	-11.98	0.08	0.00
P164	1,149.31	8.00	130.00	5.72	0.04	0.00
P165	710.72	12.00	130.00	-35.85	0.10	0.00
P166	369.00	8.00	130.00	13.48	0.09	0.00
P167	253.00	8.00	130.00	9.69	0.06	0.000
P168	918.21	8.00	130.00	9.22	0.06	0.00
P169	282.81	8.00	130.00	24.29	0.16	0.01
P170	333.36	12.00	130.00	-57.99	0.16	0.00
P171	253.00	8.00	130.00	41.19	0.26	0.01
P172	234.54	8.00	130.00	27.59	0.18	0.01
P173	253.00	8.00	130.00	19.68	0.13	0.00
P174	657.99	8.00	130.00	16.52	0.11	0.01
P175	633.34	8.00	130.00	6.36	0.04	0.000
P176	253.02	8.00	130.00	5.50	0.04	0.000
P177	633.34	8.00	130.00	27.27	0.17	0.01
P178	242.02	12.00	130.00	132.25	0.38	0.01

**AVERAGE DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P179	253.00	8.00	130.00	49.48	0.32	0.02
P180	273.00	8.00	130.00	-23.28	0.15	0.00
P181	628.13	12.00	130.00	6.61	0.02	0.000
P182	797.55	12.00	130.00	14.96	0.04	0.000
P183	578.83	12.00	130.00	43.19	0.12	0.00
P184	193.00	8.00	130.00	-4.39	0.03	0.000
P185	653.19	8.00	130.00	6.10	0.04	0.000
P186	193.00	8.00	130.00	-0.65	0.00	0.00000
P187	193.00	8.00	130.00	0.16	0.000	0.00
P188	437.56	8.00	130.00	4.25	0.03	0.000
P189	203.57	12.00	130.00	-14.06	0.04	0.000
P190	596.95	8.00	130.00	24.63	0.16	0.01
P191	292.91	8.00	130.00	-3.17	0.02	0.000
P192	695.05	8.00	130.00	-2.35	0.01	0.000
P193	253.00	8.00	130.00	4.72	0.03	0.000
P194	656.00	8.00	130.00	-18.21	0.12	0.01
P195	504.88	8.00	130.00	-20.86	0.13	0.01
P196	313.32	8.00	130.00	-12.75	0.08	0.00
P197	549.00	8.00	130.00	19.58	0.13	0.01
P198	253.00	8.00	130.00	15.28	0.10	0.00
P199	253.00	8.00	130.00	26.91	0.17	0.01
P200	253.00	8.00	130.00	43.03	0.27	0.01
P201	403.00	8.00	130.00	20.51	0.13	0.01
P202	276.11	8.00	130.00	75.19	0.48	0.04
P203	253.02	8.00	130.00	-46.85	0.30	0.02
P204	253.02	8.00	130.00	-24.39	0.16	0.00
P205	236.90	8.00	130.00	-10.35	0.07	0.000
P206	636.18	8.00	130.00	16.97	0.11	0.01
P207	211.30	8.00	130.00	10.28	0.07	0.000
P208	232.70	8.00	130.00	27.39	0.17	0.01
P209	233.00	8.00	130.00	42.55	0.27	0.01
P210	233.00	8.00	130.00	91.33	0.58	0.05
P211	621.42	8.00	130.00	-57.44	0.37	0.06
P212	253.02	8.00	130.00	-34.60	0.22	0.01
P213	699.07	8.00	130.00	-9.54	0.06	0.00
P214	253.02	8.00	130.00	3.61	0.02	0.000
P215	613.13	8.00	130.00	2.01	0.01	0.000
P216	253.00	8.00	130.00	25.96	0.17	0.01
P217	233.00	8.00	130.00	23.72	0.15	0.00

**AVERAGE DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P218	289.50	8.00	130.00	42.05	0.27	0.01
P219	313.50	8.00	130.00	-34.56	0.22	0.01
P220	391.14	12.00	130.00	172.59	0.49	0.04
P221	590.71	8.00	130.00	12.57	0.08	0.00
P222	253.00	8.00	130.00	13.92	0.09	0.00
P223	390.32	8.00	130.00	30.54	0.19	0.01
P224	430.55	8.00	130.00	21.89	0.14	0.01
P225	248.33	12.00	130.00	137.77	0.39	0.02
P226	430.73	8.00	130.00	13.54	0.09	0.00
P227	412.22	12.00	130.00	109.83	0.31	0.02
P228	262.25	12.00	130.00	14.35	0.04	0.000
P229	253.00	12.00	130.00	27.32	0.08	0.000
P230	273.31	12.00	130.00	42.62	0.12	0.00
P231	234.73	12.00	130.00	75.93	0.22	0.01
P232	422.16	12.00	130.00	-76.56	0.22	0.01
P233	596.34	12.00	130.00	-66.14	0.19	0.01
P234	591.74	12.00	130.00	-41.77	0.12	0.00
P235	587.67	12.00	130.00	-197.91	0.56	0.07
P236	457.95	12.00	130.00	-76.88	0.22	0.01
P237	359.68	12.00	130.00	24.76	0.07	0.000
P238	193.00	8.00	130.00	-2.02	0.01	0.0000
P239	487.33	8.00	130.00	42.82	0.27	0.03
P240	486.84	8.00	130.00	-35.68	0.23	0.02
P241	708.39	8.00	130.00	-30.37	0.19	0.02
P242	617.10	8.00	130.00	-28.35	0.18	0.02
P243	319.69	18.00	130.00	-276.07	0.35	0.01
P244	861.88	12.00	130.00	-23.40	0.07	0.00
P245	534.05	18.00	130.00	-120.42	0.15	0.00
P246	627.02	18.00	130.00	-75.79	0.10	0.00
P247	195.01	18.00	130.00	-124.89	0.16	0.00
P248	751.91	18.00	130.00	21.66	0.03	0.000
P249	370.87	12.00	130.00	-213.01	0.60	0.05
P250	602.79	8.00	130.00	-26.06	0.17	0.01
P251	656.30	8.00	130.00	-12.90	0.08	0.00
P252	501.81	8.00	130.00	-50.07	0.32	0.04
P253	464.05	12.00	130.00	95.72	0.27	0.02
P254	250.56	12.00	130.00	89.76	0.25	0.01
P255	423.72	8.00	130.00	-12.84	0.08	0.00
P256	235.04	8.00	130.00	-17.96	0.11	0.00

**AVERAGE DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P257	344.48	8.00	130.00	29.15	0.19	0.01
P258	656.00	8.00	130.00	14.71	0.09	0.00
P259	497.14	8.00	130.00	15.72	0.10	0.00
P260	494.52	8.00	130.00	-6.44	0.04	0.000
P261	466.36	8.00	130.00	-5.37	0.03	0.000
P262	616.00	8.00	130.00	-3.87	0.02	0.000
P263	651.25	8.00	130.00	2.12	0.01	0.000
P264	246.49	8.00	130.00	22.96	0.15	0.00
P265	375.42	12.00	130.00	-95.80	0.27	0.01
P266	665.79	8.00	130.00	27.63	0.18	0.02
P267	285.98	8.00	130.00	-8.64	0.06	0.000
P268	272.69	8.00	130.00	10.48	0.07	0.00
P269	744.21	8.00	130.00	8.01	0.05	0.00
P270	105.50	8.00	130.00	2.37	0.02	0.0000
P271	892.22	8.00	130.00	14.09	0.09	0.01
P272	193.00	8.00	130.00	6.55	0.04	0.000
P273	105.50	8.00	130.00	10.00	0.06	0.000
P274	698.75	8.00	130.00	-1.43	0.01	0.0000
P275	181.50	12.00	130.00	-213.76	0.61	0.03
P276	112.20	8.00	130.00	-33.19	0.21	0.00
P277	698.70	8.00	130.00	-12.99	0.08	0.00
P278	713.00	8.00	130.00	-4.56	0.03	0.000
P279	422.00	8.00	130.00	-25.20	0.16	0.01
P280	117.50	8.00	130.00	4.32	0.03	0.0000
P281	589.97	8.00	130.00	-94.61	0.60	0.14
P282	130.50	8.00	130.00	-73.84	0.47	0.02
P283	410.65	18.00	130.00	-746.46	0.94	0.08
P284	500.49	8.00	130.00	-66.46	0.42	0.06
P285	807.99	8.00	130.00	12.16	0.08	0.00
P286	193.00	8.00	130.00	1.31	0.01	0.0000
P287	263.00	8.00	130.00	-2.19	0.01	0.0000
P288	738.30	8.00	130.00	10.37	0.07	0.00
P289	233.02	8.00	130.00	-14.32	0.09	0.00
P290	739.64	8.00	130.00	-30.27	0.19	0.02
P291	252.00	8.00	130.00	-8.84	0.06	0.000
P292	262.03	8.00	130.00	-22.63	0.14	0.00
P293	924.17	8.00	130.00	-4.53	0.03	0.000
P294	770.75	8.00	130.00	-3.25	0.02	0.000
P295	956.68	8.00	130.00	12.78	0.08	0.01



**AVERAGE DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P296	693.81	8.00	130.00	-42.91	0.27	0.04
P297	678.13	8.00	130.00	31.09	0.20	0.02
P298	837.42	8.00	130.00	10.76	0.07	0.00
P299	557.94	8.00	130.00	-33.81	0.22	0.02
P300	696.14	8.00	130.00	-2.34	0.01	0.000
P301	468.04	8.00	130.00	-4.45	0.03	0.000
P302	255.36	8.00	130.00	-18.91	0.12	0.00
P303	247.32	8.00	130.00	21.27	0.14	0.00
P304	208.11	12.00	130.00	-252.98	0.72	0.04
P305	88.53	8.00	130.00	5.68	0.04	0.000
P306	193.00	8.00	130.00	-97.85	0.62	0.05
P307	582.27	8.00	130.00	18.13	0.12	0.01
P308	677.66	8.00	130.00	-41.12	0.26	0.03
P309	195.00	8.00	130.00	-41.64	0.27	0.01
P310	132.50	12.00	130.00	-51.36	0.15	0.00
P311	380.98	8.00	130.00	-42.70	0.27	0.02
P312	475.68	8.00	130.00	-39.42	0.25	0.02
P313	655.89	8.00	130.00	-14.06	0.09	0.00
P314	653.93	8.00	130.00	-20.70	0.13	0.01
P315	215.00	8.00	130.00	0.19	0.00	0.00000
P316	195.01	8.00	130.00	9.24	0.06	0.000
P317	214.88	8.00	130.00	-11.54	0.07	0.00
P318	252.22	8.00	130.00	3.23	0.02	0.000
P319	245.38	8.00	130.00	3.87	0.02	0.000
P320	607.50	8.00	130.00	-7.69	0.05	0.00
P321	574.53	8.00	130.00	-11.94	0.08	0.00
P322	105.50	8.00	130.00	-28.97	0.18	0.00
P323	212.18	8.00	130.00	11.66	0.07	0.00
P324	105.50	8.00	130.00	6.62	0.04	0.000
P325	211.00	8.00	130.00	-6.95	0.04	0.000
P326	211.30	8.00	130.00	-19.88	0.13	0.00
P327	209.82	8.00	130.00	-16.39	0.10	0.00
P328	728.60	8.00	130.00	-7.73	0.05	0.00
P329	594.64	8.00	130.00	0.89	0.01	0.00
P330	258.06	8.00	130.00	-8.40	0.05	0.000
P331	499.01	8.00	130.00	4.45	0.03	0.000
P332	545.88	8.00	130.00	-12.47	0.08	0.00
P333	783.02	8.00	130.00	-10.08	0.06	0.00
P334	260.55	12.00	130.00	-24.46	0.07	0.000

**AVERAGE DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P335	255.00	8.00	130.00	13.25	0.08	0.00
P336	255.00	8.00	130.00	9.26	0.06	0.000
P337	255.07	8.00	130.00	5.87	0.04	0.000
P338	255.00	12.00	130.00	148.88	0.42	0.02
P339	255.00	12.00	130.00	-109.86	0.31	0.01
P340	255.00	8.00	130.00	-9.00	0.06	0.000
P341	255.00	8.00	130.00	-10.70	0.07	0.00
P342	246.98	8.00	130.00	-6.58	0.04	0.000
P343	253.00	8.00	130.00	-23.23	0.15	0.00
P344	147.50	12.00	130.00	42.41	0.12	0.00
P345	147.37	12.00	130.00	68.13	0.19	0.00
P346	147.50	12.00	130.00	82.65	0.23	0.00
P347	147.59	12.00	130.00	-96.18	0.27	0.00
P348	381.04	8.00	130.00	-21.39	0.14	0.01
P349	190.72	18.00	130.00	-306.17	0.39	0.01
P350	253.02	8.00	130.00	15.60	0.10	0.00
P351	233.00	8.00	130.00	-4.78	0.03	0.000
P352	1,365.42	24.00	130.00	613.00	0.43	0.05
P353	1,505.76	30.00	130.00	-613.00	0.28	0.02
P354	369.99	8.00	130.00	-30.12	0.19	0.01
P355	369.99	8.00	130.00	-34.73	0.22	0.01
P356	117.50	8.00	130.00	-14.68	0.09	0.000
P357	195.00	8.00	130.00	-30.17	0.19	0.01
P358	193.00	8.00	130.00	-31.63	0.20	0.01
P359	500.49	8.00	130.00	-51.01	0.33	0.04
P360	500.78	8.00	130.00	-76.70	0.49	0.08
P361	677.66	8.00	130.00	-40.58	0.26	0.03
P362	482.45	12.00	130.00	-22.37	0.06	0.00
P363	677.66	8.00	130.00	-38.86	0.25	0.03
P364	1,180.18	30.00	130.00	-470.41	0.21	0.01
P365	1,577.01	24.00	130.00	-829.52	0.59	0.10
P366	701.50	24.00	130.00	-942.75	0.67	0.05
P367	242.00	18.00	130.00	470.41	0.59	0.02
P368	738.68	18.00	130.00	387.76	0.49	0.04
P369	253.00	8.00	130.00	-11.92	0.08	0.00
P370	660.09	8.00	130.00	-32.58	0.21	0.02
P371	193.00	18.00	130.00	485.80	0.61	0.02
P372	595.91	18.00	130.00	406.16	0.51	0.04
P373	191.34	18.00	130.00	353.72	0.45	0.01

**AVERAGE DAY DEMANDS - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P374	105.50	8.00	130.00	2.70	0.02	0.0000
P375	607.50	8.00	130.00	-13.23	0.08	0.00
P376	438.00	18.00	130.00	230.96	0.29	0.01
P377	650.57	18.00	130.00	162.83	0.21	0.01
P378	112.20	8.00	130.00	-79.81	0.51	0.02
P379	117.50	8.00	130.00	31.99	0.20	0.00
P380	348.36	8.00	130.00	15.25	0.10	0.00
P381	178.10	12.00	130.00	-110.47	0.31	0.01
P382	1,122.42	24.00	130.00	-1,689.21	1.20	0.26
P383	93.09	8.00	130.00	-43.04	0.27	0.01
P384	195.01	8.00	130.00	14.19	0.09	0.00
P385	4,416.05	30.00	130.00	0.00	0.00	0.00
P386	3,100.00	24.00	130.00	-1,704.83	1.21	0.72
P388	1,581.75	18.00	130.00	254.68	0.32	0.04
P389	621.96	18.00	130.00	238.26	0.30	0.02
P990	235.86	99.00	130.00	0.00	0.00	0.00
P991	377.34	99.00	130.00	0.00	0.00	0.00
P992	233.99	99.00	130.00	1,704.83	0.07	0.0000
P993	232.72	99.00	130.00	1,704.83	0.07	0.0000

**AVERAGE DAY DEMANDS - PUMP REPORT - GREENBRIAR**

<b>ID</b>	<b>Elevation (ft)</b>	<b>Downstream Pressure (psi)</b>	<b>Flow (gpm)</b>	<b>Head Gain (ft)</b>
<b>PUMP105</b>	<b>22.00</b>	<b>35.65</b>	<b>0.00</b>	<b>0.00</b>
<b>PUMP107</b>	<b>26.00</b>	<b>34.44</b>	<b>1,704.83</b>	<b>105.48</b>

**MAXIMUM DAY DEMANDS**

**MAXIMUM DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-101	0.00	20.00	93.16	31.70
GB-103	4.98	15.00	93.30	33.93
GB-105	4.98	19.00	93.59	32.32
GB-107	0.00	20.00	93.75	31.96
GB-108	28.11	21.00	94.51	31.85
GB-109	30.65	20.00	93.02	31.64
GB-111	17.03	20.00	93.03	31.64
GB-113	15.33	19.59	93.06	31.83
GB-115	25.54	18.97	93.23	32.17
GB-117	17.03	18.87	93.07	32.15
GB-119	19.36	18.84	93.06	32.16
GB-121	15.33	18.80	93.06	32.18
GB-122	28.53	18.80	93.57	32.40
GB-123	14.47	19.02	93.05	32.08
GB-125	24.69	18.39	93.08	32.36
GB-127	13.62	18.28	93.06	32.40
GB-128	41.75	18.50	93.50	32.50
GB-129	14.47	18.53	93.04	32.29
GB-131	23.84	17.81	93.04	32.60
GB-133	13.62	17.67	93.04	32.66
GB-135	11.92	17.23	93.07	32.86
GB-137	17.03	17.16	93.16	32.93
GB-139	17.03	17.85	93.30	32.69
GB-141	36.61	18.91	93.02	32.11
GB-143	22.13	18.52	93.02	32.28
GB-145	11.92	18.08	93.02	32.47
GB-147	22.32	17.24	93.02	32.84
GB-149	16.18	17.21	93.02	32.85
GB-151	18.73	16.99	93.03	32.95
GB-153	19.36	16.99	93.05	32.96
GB-155	6.82	16.94	93.06	32.98
GB-157	2.56	16.96	93.06	32.97
GB-159	5.76	16.62	93.11	33.14
GB-161	4.26	17.14	93.07	32.90
GB-163	9.36	17.39	93.10	32.81
GB-165	10.21	17.79	93.24	32.69
GB-167	23.73	18.26	93.19	32.47
GB-169	4.26	19.75	93.07	31.77
GB-171	8.51	20.27	93.04	31.53

**MAXIMUM DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-173	28.46	20.84	93.02	31.28
GB-175	1.70	16.69	93.04	33.08
GB-177	5.96	16.45	93.00	33.17
GB-179	10.21	16.82	93.02	33.02
GB-181	5.96	16.63	93.02	33.10
GB-183	20.44	16.54	93.02	33.14
GB-185	34.06	16.64	93.03	33.10
GB-187	18.73	16.47	93.03	33.17
GB-189	8.51	16.36	93.04	33.22
GB-191	18.53	16.28	93.02	33.26
GB-193	11.67	16.24	93.03	33.27
GB-195	11.67	16.38	92.97	33.19
GB-197	20.44	16.75	92.98	33.03
GB-199	20.44	17.29	92.99	32.80
GB-201	23.84	17.77	93.01	32.60
GB-203	30.53	18.25	93.01	32.39
GB-205	30.53	19.83	92.97	31.69
GB-207	23.84	20.34	92.97	31.47
GB-209	11.92	20.85	92.97	31.25
GB-210	18.62	15.00	93.11	33.84
GB-211	45.98	18.60	93.07	32.27
GB-213	22.13	17.80	93.02	32.59
GB-215	29.98	17.16	93.00	32.86
GB-217	11.92	16.45	93.00	33.17
GB-219	12.77	16.33	92.81	33.14
GB-221	17.33	16.30	92.80	33.15
GB-223	18.44	16.58	92.81	33.03
GB-225	10.21	16.63	92.81	33.01
GB-227	11.07	16.52	92.81	33.06
GB-229	18.87	16.65	92.80	32.99
GB-231	18.73	16.65	92.80	32.99
GB-233	11.92	16.59	92.80	33.02
GB-235	18.73	17.04	92.80	32.83
GB-237	12.52	16.54	92.80	33.05
GB-239	12.52	16.37	92.89	33.15
GB-241	23.84	16.74	92.89	32.99
GB-243	25.54	17.28	92.89	32.76
GB-245	23.84	17.76	92.91	32.56
GB-247	16.18	18.25	92.91	32.35

**MAXIMUM DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-249	35.65	19.30	92.89	31.89
GB-251	16.18	19.87	92.91	31.65
GB-253	23.84	20.36	92.91	31.44
GB-255	31.86	20.86	92.91	31.22
GB-257	21.28	18.14	93.00	32.44
GB-259	10.21	17.78	93.00	32.59
GB-261	11.07	17.15	92.99	32.86
GB-263	12.77	16.46	92.97	33.16
GB-265	24.97	18.00	93.00	32.50
GB-267	19.87	16.46	92.94	33.14
GB-269	18.73	16.52	92.83	33.06
GB-271	17.88	17.44	92.81	32.66
GB-273	10.21	18.00	92.81	32.42
GB-275	9.50	18.00	92.82	32.42
GB-277	10.21	18.00	92.81	32.41
GB-279	18.73	17.76	92.81	32.52
GB-281	9.36	17.04	92.81	32.83
GB-283	21.28	17.28	92.83	32.74
GB-285	25.54	19.52	92.84	31.77
GB-286	17.03	20.86	92.89	31.21
GB-287	17.03	18.00	93.01	32.50
GB-288	9.36	16.45	92.90	33.13
GB-289	6.82	16.52	92.85	33.07
GB-290	11.07	18.00	92.83	32.42
GB-291	16.18	17.04	92.82	32.84
GB-292	7.66	16.37	92.83	33.13
GB-293	13.62	16.74	92.82	32.97
GB-294	10.56	17.28	92.82	32.73
GB-295	0.00	15.00	93.08	33.83
GB-297	0.00	18.00	93.02	32.51
GB-299	0.00	16.45	92.89	33.12
GB-301	0.00	16.53	92.86	33.07
GB-303	0.00	18.00	92.83	32.43
GB-305	0.00	17.05	92.82	32.83
GB-307	0.00	16.86	92.82	32.91
GB-309	0.00	17.28	92.81	32.73
GB-311	32.39	19.13	92.81	31.93
GB-313	42.13	20.80	92.81	31.20
GB-315	15.33	18.00	92.58	32.31



**MAXIMUM DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-317	14.47	17.77	92.59	32.42
GB-319	9.36	17.24	92.64	32.67
GB-321	9.36	16.45	92.77	33.07
GB-323	22.13	16.54	92.51	32.92
GB-325	17.88	17.42	92.51	32.54
GB-327	14.47	18.00	92.52	32.29
GB-329	10.21	18.00	92.52	32.29
GB-331	4.26	17.39	92.53	32.56
GB-333	11.92	17.35	92.62	32.62
GB-335	10.21	16.42	92.65	33.03
GB-337	18.73	18.00	92.56	32.31
GB-339	16.18	18.00	92.57	32.31
GB-341	13.45	17.49	92.58	32.54
GB-343	10.90	16.16	92.60	33.12
GB-345	14.47	18.00	92.54	32.30
GB-347	17.03	18.00	92.55	32.30
GB-349	6.82	17.75	92.55	32.41
GB-351	21.28	18.00	92.52	32.29
GB-352	30.14	17.35	92.52	32.57
GB-353	16.18	17.91	92.52	32.33
GB-355	13.62	17.82	92.54	32.38
GB-357	15.16	17.40	92.54	32.56
GB-359	11.75	16.14	92.55	33.11
GB-361	16.18	17.26	92.51	32.61
GB-362	20.44	16.38	92.53	33.00
GB-363	11.07	16.29	92.51	33.03
GB-365	14.18	16.32	92.52	33.02
GB-367	19.23	16.59	92.52	32.90
GB-369	17.03	17.03	92.51	32.71
GB-371	13.62	16.87	92.52	32.78
GB-373	10.21	16.73	92.52	32.84
GB-375	14.73	16.59	92.54	32.91
GB-377	18.32	16.34	92.56	33.02
GB-379	45.40	17.08	92.59	32.72
GB-381	25.98	16.42	92.51	32.97
GB-383	17.47	18.29	92.52	32.16
GB-385	10.65	18.09	92.56	32.27
GB-387	15.35	18.82	92.57	31.95
GB-389	9.36	18.79	92.60	31.98

**MAXIMUM DAY DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-391	38.21	18.77	92.65	32.01
GB-393	15.03	16.43	92.50	32.96
GB-395	15.33	17.71	92.49	32.40
GB-397	37.53	18.80	92.50	31.94
GB-399	34.97	19.79	92.54	31.52
GB-401	19.59	20.09	92.54	31.39
GB-403	11.07	20.39	92.54	31.26
GB-405	11.57	16.13	92.49	33.09
GB-407	22.13	17.95	92.49	32.30
GB-409	13.62	19.40	92.50	31.67
GB-411	17.03	16.46	92.49	32.95
GB-413	26.39	18.20	92.49	32.19
GB-415	13.62	19.96	92.49	31.43
GB-417	35.25	16.45	92.49	32.95
GB-419	11.07	18.63	92.49	32.00
GB-421	33.40	19.83	92.49	31.48
GB-423	11.07	20.20	92.49	31.32
GB-425	22.08	20.56	92.49	31.17
GB-427	11.07	21.58	92.50	30.73
GB-429	27.19	21.13	92.51	30.93
GB-431	22.13	21.45	92.51	30.79
GB-433	34.25	22.00	92.51	30.55
GB-435	17.03	21.27	92.49	30.86
GB-437	17.88	22.00	92.49	30.54
GB-439	17.88	22.00	92.49	30.55
GB-441	11.07	21.27	92.49	30.86
GB-443	11.92	22.00	92.49	30.54
GB-445	11.07	21.00	92.49	30.98
GB-446	0.00	22.00	93.08	30.80
GB-447	0.00	26.00	96.66	30.62

**MAXIMUM DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P101	117.50	8.00	130.00	58.01	0.37	0.01
P102	117.50	8.00	130.00	-108.76	0.69	0.04
P103	739.21	8.00	130.00	73.73	0.47	0.11
P104	117.50	8.00	130.00	70.21	0.45	0.02
P105	117.50	8.00	130.00	84.81	0.54	0.02
P106	436.40	12.00	130.00	39.40	0.11	0.00
P107	650.57	8.00	130.00	31.00	0.20	0.02
P108	535.27	8.00	130.00	26.05	0.17	0.01
P109	357.35	18.00	130.00	-1,301.83	1.64	0.20
P110	243.09	12.00	130.00	-118.11	0.34	0.01
P111	253.19	8.00	130.00	-31.00	0.20	0.01
P112	380.98	8.00	130.00	64.45	0.41	0.04
P113	904.24	8.00	130.00	9.75	0.06	0.00
P114	693.26	8.00	130.00	-54.51	0.35	0.06
P115	105.50	8.00	130.00	-9.39	0.06	0.000
P116	147.51	12.00	130.00	80.32	0.23	0.00
P117	132.50	12.00	130.00	-88.37	0.25	0.00
P118	226.54	8.00	130.00	54.75	0.35	0.02
P119	193.01	8.00	130.00	14.96	0.10	0.00
P120	193.01	8.00	130.00	-15.70	0.10	0.00
P121	713.00	8.00	130.00	12.10	0.08	0.00
P122	615.89	8.00	130.00	-11.66	0.07	0.00
P123	713.00	8.00	130.00	-91.44	0.58	0.16
P124	677.66	8.00	130.00	-68.98	0.44	0.09
P125	476.65	8.00	130.00	-64.24	0.41	0.05
P126	117.50	8.00	130.00	-56.57	0.36	0.01
P127	677.66	8.00	130.00	73.32	0.47	0.10
P128	193.00	8.00	130.00	-15.78	0.10	0.00
P129	117.50	8.00	130.00	-60.18	0.38	0.01
P130	633.34	8.00	130.00	30.01	0.19	0.02
P131	232.72	8.00	130.00	44.80	0.29	0.01
P132	233.02	8.00	130.00	47.61	0.30	0.02
P133	618.66	8.00	130.00	36.31	0.23	0.02
P134	713.00	8.00	130.00	-26.80	0.17	0.02
P135	195.00	8.00	130.00	32.62	0.21	0.01
P136	193.00	8.00	130.00	61.01	0.39	0.02
P137	112.20	18.00	130.00	1,198.83	1.51	0.06
P138	701.50	8.00	130.00	-85.98	0.55	0.14
P139	378.03	8.00	130.00	-95.59	0.61	0.09

**MAXIMUM DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P140	586.50	8.00	130.00	-23.94	0.15	0.01
P141	253.00	8.00	130.00	34.14	0.22	0.01
P142	233.00	8.00	130.00	-40.26	0.26	0.01
P143	233.00	8.00	130.00	-53.44	0.34	0.02
P144	232.70	8.00	130.00	-31.60	0.20	0.01
P145	574.54	8.00	130.00	21.24	0.14	0.01
P146	105.50	8.00	130.00	83.35	0.53	0.02
P147	126.23	8.00	130.00	46.20	0.29	0.01
P148	126.78	8.00	130.00	-14.50	0.09	0.000
P149	388.16	8.00	130.00	15.87	0.10	0.00
P150	117.50	8.00	130.00	7.15	0.05	0.000
P151	611.16	8.00	130.00	-12.95	0.08	0.00
P152	418.00	8.00	130.00	-1.21	0.01	0.0000
P153	97.50	8.00	130.00	0.71	0.00	0.00000
P154	261.76	8.00	130.00	-8.43	0.05	0.000
P155	839.51	8.00	130.00	-12.71	0.08	0.00
P156	170.40	8.00	130.00	4.16	0.03	0.000
P157	116.20	8.00	130.00	-0.05	0.000	0.00
P158	248.92	8.00	130.00	-9.87	0.06	0.000
P159	247.10	8.00	130.00	15.31	0.10	0.00
P160	247.67	8.00	130.00	33.14	0.21	0.01
P161	247.82	8.00	130.00	51.35	0.33	0.02
P162	247.00	8.00	130.00	-31.82	0.20	0.01
P163	249.87	8.00	130.00	-21.56	0.14	0.00
P164	1,149.31	8.00	130.00	10.30	0.07	0.00
P165	710.72	12.00	130.00	-64.53	0.18	0.01
P166	369.00	8.00	130.00	24.27	0.15	0.01
P167	253.00	8.00	130.00	17.44	0.11	0.00
P168	918.21	8.00	130.00	16.59	0.11	0.01
P169	282.81	8.00	130.00	43.72	0.28	0.02
P170	333.36	12.00	130.00	-104.37	0.30	0.01
P171	253.00	8.00	130.00	74.14	0.47	0.04
P172	234.54	8.00	130.00	49.65	0.32	0.02
P173	253.00	8.00	130.00	35.42	0.23	0.01
P174	657.99	8.00	130.00	29.72	0.19	0.02
P175	633.34	8.00	130.00	11.45	0.07	0.00
P176	253.02	8.00	130.00	9.91	0.06	0.000
P177	633.34	8.00	130.00	49.09	0.31	0.04
P178	242.02	12.00	130.00	238.04	0.68	0.04

**MAXIMUM DAY DEMANDS - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P179	253.00	8.00	130.00	89.06	0.57	0.05
P180	273.00	8.00	130.00	-41.89	0.27	0.01
P181	628.13	12.00	130.00	11.89	0.03	0.000
P182	797.55	12.00	130.00	27.08	0.08	0.00
P183	578.83	12.00	130.00	77.73	0.22	0.01
P184	193.00	8.00	130.00	-7.89	0.05	0.000
P185	653.19	8.00	130.00	10.99	0.07	0.00
P186	193.00	8.00	130.00	-1.17	0.01	0.00000
P187	193.00	8.00	130.00	0.30	0.00	0.00000
P188	437.56	8.00	130.00	7.66	0.05	0.000
P189	203.57	12.00	130.00	-25.32	0.07	0.000
P190	596.95	8.00	130.00	44.33	0.28	0.03
P191	292.91	8.00	130.00	-5.55	0.04	0.000
P192	695.05	8.00	130.00	-3.92	0.03	0.000
P193	253.00	8.00	130.00	8.61	0.05	0.000
P194	656.00	8.00	130.00	-32.78	0.21	0.02
P195	504.88	8.00	130.00	-37.54	0.24	0.02
P196	313.32	8.00	130.00	-22.94	0.15	0.01
P197	549.00	8.00	130.00	35.25	0.22	0.02
P198	253.00	8.00	130.00	27.50	0.18	0.01
P199	253.00	8.00	130.00	48.43	0.31	0.02
P200	253.00	8.00	130.00	77.45	0.49	0.04
P201	403.00	8.00	130.00	36.91	0.24	0.02
P202	276.11	8.00	130.00	135.34	0.86	0.12
P203	253.02	8.00	130.00	-84.32	0.54	0.05
P204	253.02	8.00	130.00	-43.91	0.28	0.01
P205	236.90	8.00	130.00	-18.64	0.12	0.00
P206	636.18	8.00	130.00	30.54	0.19	0.02
P207	211.30	8.00	130.00	18.50	0.12	0.00
P208	232.70	8.00	130.00	49.30	0.31	0.02
P209	233.00	8.00	130.00	76.59	0.49	0.04
P210	233.00	8.00	130.00	164.40	1.05	0.15
P211	621.42	8.00	130.00	-103.38	0.66	0.17
P212	253.02	8.00	130.00	-62.29	0.40	0.03
P213	699.07	8.00	130.00	-17.18	0.11	0.01
P214	253.02	8.00	130.00	6.49	0.04	0.000
P215	613.13	8.00	130.00	3.62	0.02	0.000
P216	253.00	8.00	130.00	46.73	0.30	0.02
P217	233.00	8.00	130.00	42.70	0.27	0.01

**MAXIMUM DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P218	289.50	8.00	130.00	75.68	0.48	0.04
P219	313.50	8.00	130.00	-62.21	0.40	0.03
P220	391.14	12.00	130.00	310.66	0.88	0.11
P221	590.71	8.00	130.00	22.62	0.14	0.01
P222	253.00	8.00	130.00	25.05	0.16	0.01
P223	390.32	8.00	130.00	54.97	0.35	0.03
P224	430.55	8.00	130.00	39.39	0.25	0.02
P225	248.33	12.00	130.00	247.98	0.70	0.05
P226	430.73	8.00	130.00	24.38	0.16	0.01
P227	412.22	12.00	130.00	197.68	0.56	0.05
P228	262.25	12.00	130.00	25.85	0.07	0.000
P229	253.00	12.00	130.00	49.22	0.14	0.00
P230	273.31	12.00	130.00	76.75	0.22	0.01
P231	234.73	12.00	130.00	136.70	0.39	0.01
P232	422.16	12.00	130.00	-137.83	0.39	0.03
P233	596.34	12.00	130.00	-119.06	0.34	0.03
P234	591.74	12.00	130.00	-75.20	0.21	0.01
P235	587.67	12.00	130.00	-356.22	1.01	0.22
P236	457.95	12.00	130.00	-138.39	0.39	0.03
P237	359.68	12.00	130.00	44.56	0.13	0.00
P238	193.00	8.00	130.00	-3.63	0.02	0.000
P239	487.33	8.00	130.00	77.07	0.49	0.08
P240	486.84	8.00	130.00	-64.22	0.41	0.06
P241	708.39	8.00	130.00	-54.66	0.35	0.06
P242	617.10	8.00	130.00	-51.03	0.33	0.05
P243	319.69	18.00	130.00	-496.90	0.63	0.03
P244	861.88	12.00	130.00	-42.13	0.12	0.01
P245	534.05	18.00	130.00	-216.76	0.27	0.01
P246	627.02	18.00	130.00	-136.43	0.17	0.01
P247	195.01	18.00	130.00	-224.80	0.28	0.00
P248	751.91	18.00	130.00	38.97	0.05	0.000
P249	370.87	12.00	130.00	-383.41	1.09	0.16
P250	602.79	8.00	130.00	-46.91	0.30	0.04
P251	656.30	8.00	130.00	-23.23	0.15	0.01
P252	501.81	8.00	130.00	-90.13	0.58	0.11
P253	464.05	12.00	130.00	172.30	0.49	0.05
P254	250.56	12.00	130.00	161.55	0.46	0.02
P255	423.72	8.00	130.00	-23.11	0.15	0.01
P256	235.04	8.00	130.00	-32.33	0.21	0.01

**MAXIMUM DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P257	344.48	8.00	130.00	52.46	0.33	0.03
P258	656.00	8.00	130.00	26.48	0.17	0.01
P259	497.14	8.00	130.00	28.30	0.18	0.01
P260	494.52	8.00	130.00	-11.59	0.07	0.00
P261	466.36	8.00	130.00	-9.67	0.06	0.00
P262	616.00	8.00	130.00	-6.96	0.04	0.00
P263	651.25	8.00	130.00	3.81	0.02	0.000
P264	246.49	8.00	130.00	41.32	0.26	0.01
P265	375.42	12.00	130.00	-172.42	0.49	0.04
P266	665.79	8.00	130.00	49.74	0.32	0.05
P267	285.98	8.00	130.00	-15.40	0.10	0.00
P268	272.69	8.00	130.00	18.77	0.12	0.00
P269	744.21	8.00	130.00	14.42	0.09	0.01
P270	105.50	8.00	130.00	3.17	0.02	0.0000
P271	892.22	8.00	130.00	25.35	0.16	0.02
P272	193.00	8.00	130.00	11.80	0.08	0.000
P273	105.50	8.00	130.00	18.00	0.11	0.00
P274	698.75	8.00	130.00	-2.57	0.02	0.000
P275	181.50	12.00	130.00	-384.76	1.09	0.08
P276	112.20	8.00	130.00	-59.74	0.38	0.01
P277	698.70	8.00	130.00	-23.39	0.15	0.01
P278	713.00	8.00	130.00	-8.22	0.05	0.00
P279	422.00	8.00	130.00	-45.35	0.29	0.03
P280	117.50	8.00	130.00	7.78	0.05	0.000
P281	589.97	8.00	130.00	-170.30	1.09	0.41
P282	130.50	8.00	130.00	-132.90	0.85	0.06
P283	410.65	18.00	130.00	-1,343.58	1.69	0.25
P284	500.49	8.00	130.00	-119.63	0.76	0.18
P285	807.99	8.00	130.00	21.89	0.14	0.01
P286	193.00	8.00	130.00	2.35	0.02	0.0000
P287	263.00	8.00	130.00	-4.11	0.03	0.000
P288	738.30	8.00	130.00	18.66	0.12	0.01
P289	233.02	8.00	130.00	-25.77	0.16	0.00
P290	739.64	8.00	130.00	-54.49	0.35	0.06
P291	252.00	8.00	130.00	-15.91	0.10	0.00
P292	262.03	8.00	130.00	-40.73	0.26	0.01
P293	924.17	8.00	130.00	-8.15	0.05	0.00
P294	770.75	8.00	130.00	-5.85	0.04	0.00
P295	956.68	8.00	130.00	23.01	0.15	0.02

**MAXIMUM DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P296	693.81	8.00	130.00	-77.23	0.49	0.11
P297	678.13	8.00	130.00	55.97	0.36	0.06
P298	837.42	8.00	130.00	19.36	0.12	0.01
P299	557.94	8.00	130.00	-60.86	0.39	0.06
P300	696.14	8.00	130.00	-4.21	0.03	0.000
P301	468.04	8.00	130.00	-8.00	0.05	0.00
P302	255.36	8.00	130.00	-34.03	0.22	0.01
P303	247.32	8.00	130.00	38.29	0.24	0.01
P304	208.11	12.00	130.00	-455.36	1.29	0.12
P305	88.53	8.00	130.00	10.22	0.07	0.000
P306	193.00	8.00	130.00	-176.13	1.12	0.14
P307	582.27	8.00	130.00	32.62	0.21	0.02
P308	677.66	8.00	130.00	-74.01	0.47	0.10
P309	195.00	8.00	130.00	-74.95	0.48	0.03
P310	132.50	12.00	130.00	-92.44	0.26	0.00
P311	380.98	8.00	130.00	-76.86	0.49	0.06
P312	475.68	8.00	130.00	-70.95	0.45	0.06
P313	655.89	8.00	130.00	-25.30	0.16	0.01
P314	653.93	8.00	130.00	-37.26	0.24	0.03
P315	215.00	8.00	130.00	-0.78	0.00	0.0000
P316	195.01	8.00	130.00	16.63	0.11	0.00
P317	214.88	8.00	130.00	-20.76	0.13	0.00
P318	252.22	8.00	130.00	5.80	0.04	0.000
P319	245.38	8.00	130.00	6.97	0.04	0.000
P320	607.50	8.00	130.00	-13.84	0.09	0.00
P321	574.53	8.00	130.00	-21.50	0.14	0.01
P322	105.50	8.00	130.00	-52.15	0.33	0.01
P323	212.18	8.00	130.00	20.99	0.13	0.00
P324	105.50	8.00	130.00	11.93	0.08	0.000
P325	211.00	8.00	130.00	-12.50	0.08	0.00
P326	211.30	8.00	130.00	-35.79	0.23	0.01
P327	209.82	8.00	130.00	-29.50	0.19	0.01
P328	728.60	8.00	130.00	-13.91	0.09	0.00
P329	594.64	8.00	130.00	1.65	0.01	0.0000
P330	258.06	8.00	130.00	-15.18	0.10	0.00
P331	499.01	8.00	130.00	8.09	0.05	0.00
P332	545.88	8.00	130.00	-22.42	0.14	0.01
P333	783.02	8.00	130.00	-18.13	0.12	0.01
P334	260.55	12.00	130.00	-44.05	0.12	0.00



**MAXIMUM DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P335	255.00	8.00	130.00	23.85	0.15	0.00
P336	255.00	8.00	130.00	16.68	0.11	0.00
P337	255.07	8.00	130.00	10.57	0.07	0.00
P338	255.00	12.00	130.00	267.97	0.76	0.06
P339	255.00	12.00	130.00	-197.74	0.56	0.03
P340	255.00	8.00	130.00	-16.20	0.10	0.00
P341	255.00	8.00	130.00	-19.25	0.12	0.00
P342	246.98	8.00	130.00	-11.84	0.08	0.00
P343	253.00	8.00	130.00	-41.81	0.27	0.01
P344	147.50	12.00	130.00	76.33	0.22	0.00
P345	147.37	12.00	130.00	122.62	0.35	0.01
P346	147.50	12.00	130.00	148.76	0.42	0.01
P347	147.59	12.00	130.00	-173.12	0.49	0.01
P348	381.04	8.00	130.00	-38.50	0.25	0.02
P349	190.72	18.00	130.00	-551.09	0.69	0.02
P350	253.02	8.00	130.00	28.08	0.18	0.01
P351	233.00	8.00	130.00	-8.61	0.05	0.00
P352	1,365.42	24.00	130.00	1,103.36	0.78	0.14
P353	1,505.76	30.00	130.00	-1,103.36	0.50	0.05
P354	369.99	8.00	130.00	-54.22	0.35	0.03
P355	369.99	8.00	130.00	-62.51	0.40	0.04
P356	117.50	8.00	130.00	-26.43	0.17	0.00
P357	195.00	8.00	130.00	-54.31	0.35	0.02
P358	193.00	8.00	130.00	-56.94	0.36	0.02
P359	500.49	8.00	130.00	-91.82	0.59	0.11
P360	500.78	8.00	130.00	-138.05	0.88	0.23
P361	677.66	8.00	130.00	-73.05	0.47	0.10
P362	482.45	12.00	130.00	-40.28	0.11	0.00
P363	677.66	8.00	130.00	-69.95	0.45	0.09
P364	1,180.18	30.00	130.00	-846.70	0.38	0.03
P365	1,577.01	24.00	130.00	-1,493.09	1.06	0.29
P366	701.50	24.00	130.00	-1,696.90	1.20	0.16
P367	242.00	18.00	130.00	846.70	1.07	0.06
P368	738.68	18.00	130.00	697.94	0.88	0.13
P369	253.00	8.00	130.00	-21.45	0.14	0.00
P370	660.09	8.00	130.00	-58.65	0.37	0.06
P371	193.00	18.00	130.00	874.42	1.10	0.05
P372	595.91	18.00	130.00	731.07	0.92	0.12
P373	191.34	18.00	130.00	636.68	0.80	0.03

**MAXIMUM DAY DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P374	105.50	8.00	130.00	4.87	0.03	0.0000
P375	607.50	8.00	130.00	-23.81	0.15	0.01
P376	438.00	18.00	130.00	415.71	0.52	0.03
P377	650.57	18.00	130.00	293.09	0.37	0.02
P378	112.20	8.00	130.00	-143.66	0.92	0.06
P379	117.50	8.00	130.00	57.57	0.37	0.01
P380	348.36	8.00	130.00	27.44	0.18	0.01
P381	178.10	12.00	130.00	-198.83	0.56	0.02
P382	1,122.42	24.00	130.00	-3,040.48	2.16	0.76
P383	93.09	8.00	130.00	-77.47	0.49	0.01
P384	195.01	8.00	130.00	25.53	0.16	0.00
P385	4,416.05	30.00	130.00	0.00	0.00	0.00
P386	3,100.00	24.00	130.00	-3,068.59	2.18	2.14
P388	1,581.75	18.00	130.00	458.41	0.58	0.13
P389	621.96	18.00	130.00	428.85	0.54	0.05
P990	235.86	99.00	130.00	0.00	0.00	0.00
P991	377.34	99.00	130.00	0.00	0.00	0.00
P992	233.99	99.00	130.00	3,068.59	0.13	0.000
P993	232.72	99.00	130.00	3,068.59	0.13	0.000

**MAXIMUM DAY DEMANDS - PUMP REPORT - GREENBRIAR**

<b>ID</b>	<b>Elevation (ft)</b>	<b>Downstream Pressure (psi)</b>	<b>Flow (gpm)</b>	<b>Head Gain (ft)</b>
<b>PUMP105</b>	<b>22.00</b>	<b>30.80</b>	<b>0.00</b>	<b>0.00</b>
<b>PUMP107</b>	<b>26.00</b>	<b>30.62</b>	<b>3,068.59</b>	<b>96.66</b>

## **PEAK HOUR DEMANDS**

**PEAK HOUR DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-101	0.00	20.00	91.31	30.90
GB-103	6.47	15.00	91.47	33.13
GB-105	6.47	19.00	91.82	31.55
GB-107	0.00	20.00	92.02	31.21
GB-108	36.54	21.00	93.03	31.21
GB-109	39.85	20.00	91.06	30.79
GB-111	22.13	20.00	91.06	30.79
GB-113	19.92	19.59	91.10	30.98
GB-115	33.21	18.97	91.35	31.36
GB-117	22.13	18.87	91.11	31.30
GB-119	25.18	18.84	91.09	31.31
GB-121	19.92	18.80	91.09	31.32
GB-122	37.09	18.80	91.79	31.62
GB-123	18.81	19.02	91.09	31.23
GB-125	32.10	18.39	91.12	31.51
GB-127	17.71	18.28	91.09	31.55
GB-128	54.28	18.50	91.66	31.70
GB-129	18.81	18.53	91.07	31.43
GB-131	30.99	17.81	91.07	31.74
GB-133	17.71	17.67	91.07	31.80
GB-135	15.49	17.23	91.10	32.01
GB-137	22.13	17.16	91.21	32.08
GB-139	22.13	17.85	91.37	31.86
GB-141	47.59	18.91	91.06	31.26
GB-143	28.78	18.52	91.06	31.43
GB-145	15.49	18.08	91.05	31.62
GB-147	29.00	17.24	91.05	31.98
GB-149	21.03	17.21	91.04	31.99
GB-151	24.35	16.99	91.05	32.09
GB-153	25.18	16.99	91.07	32.10
GB-155	8.86	16.94	91.08	32.13
GB-157	3.32	16.96	91.08	32.12
GB-159	7.49	16.62	91.13	32.28
GB-161	5.54	17.14	91.06	32.03
GB-163	12.18	17.39	91.10	31.94
GB-165	13.29	17.79	91.29	31.85
GB-167	30.84	18.26	91.22	31.61
GB-169	5.54	19.75	91.05	30.89
GB-171	11.07	20.27	91.00	30.65

**PEAK HOUR DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-173	36.99	20.84	90.97	30.39
GB-175	2.21	16.69	91.06	32.22
GB-177	7.75	16.45	90.95	32.28
GB-179	13.29	16.82	90.97	32.13
GB-181	7.75	16.63	91.04	32.24
GB-183	26.56	16.54	91.04	32.28
GB-185	44.27	16.64	91.04	32.24
GB-187	24.35	16.47	91.05	32.31
GB-189	11.07	16.36	91.05	32.36
GB-191	24.09	16.28	91.04	32.40
GB-193	15.17	16.24	91.05	32.41
GB-195	15.17	16.38	90.91	32.29
GB-197	26.56	16.75	90.91	32.14
GB-199	26.56	17.29	90.93	31.91
GB-201	30.99	17.77	90.95	31.71
GB-203	39.70	18.25	90.96	31.50
GB-205	39.70	19.83	90.89	30.79
GB-207	30.99	20.34	90.89	30.57
GB-209	15.49	20.85	90.89	30.35
GB-210	24.20	15.00	91.25	33.04
GB-211	59.77	18.60	91.16	31.44
GB-213	28.78	17.80	91.06	31.74
GB-215	38.97	17.16	91.03	32.01
GB-217	15.49	16.45	91.03	32.31
GB-219	16.60	16.33	90.70	32.23
GB-221	22.53	16.30	90.67	32.22
GB-223	23.97	16.58	90.70	32.12
GB-225	13.29	16.63	90.70	32.09
GB-227	14.38	16.52	90.70	32.14
GB-229	24.53	16.65	90.67	32.07
GB-231	24.35	16.65	90.67	32.07
GB-233	15.49	16.59	90.67	32.10
GB-235	24.35	17.04	90.68	31.91
GB-237	16.28	16.54	90.68	32.13
GB-239	16.28	16.37	90.78	32.24
GB-241	30.99	16.74	90.78	32.08
GB-243	33.21	17.28	90.79	31.85
GB-245	30.99	17.76	90.82	31.65
GB-247	21.03	18.25	90.82	31.44

**PEAK HOUR DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-249	46.33	19.30	90.78	30.97
GB-251	21.03	19.87	90.81	30.74
GB-253	30.99	20.36	90.81	30.53
GB-255	41.42	20.86	90.81	30.31
GB-257	27.67	18.14	91.05	31.59
GB-259	13.29	17.78	91.04	31.74
GB-261	14.38	17.15	91.02	32.01
GB-263	16.60	16.46	90.99	32.30
GB-265	32.47	18.00	91.05	31.65
GB-267	25.83	16.46	90.94	32.27
GB-269	24.35	16.52	90.73	32.16
GB-271	23.24	17.44	90.71	31.74
GB-273	13.29	18.00	90.71	31.50
GB-275	12.35	18.00	90.71	31.50
GB-277	13.29	18.00	90.69	31.50
GB-279	24.35	17.76	90.69	31.60
GB-281	12.18	17.04	90.69	31.91
GB-283	27.67	17.28	90.71	31.82
GB-285	33.21	19.52	90.72	30.85
GB-286	22.13	20.86	90.79	30.30
GB-287	22.13	18.00	91.08	31.67
GB-288	12.18	16.45	90.88	32.25
GB-289	8.86	16.52	90.77	32.17
GB-290	14.38	18.00	90.73	31.51
GB-291	21.03	17.04	90.71	31.92
GB-292	9.97	16.37	90.71	32.21
GB-293	17.71	16.74	90.70	32.05
GB-294	13.73	17.28	90.69	31.81
GB-295	0.00	15.00	91.23	33.03
GB-297	0.00	18.00	91.10	31.68
GB-299	0.00	16.45	90.85	32.24
GB-301	0.00	16.53	90.79	32.18
GB-303	0.00	18.00	90.74	31.52
GB-305	0.00	17.05	90.71	31.92
GB-307	0.00	16.86	90.69	31.99
GB-309	0.00	17.28	90.68	31.81
GB-311	42.11	19.13	90.68	31.00
GB-313	54.77	20.80	90.67	30.28
GB-315	19.92	18.00	90.32	31.34

**PEAK HOUR DEMANDS - JUNCTION REPORT - GREENBRIAR**

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
GB-317	18.81	17.77	90.35	31.45
GB-319	12.18	17.24	90.43	31.71
GB-321	12.18	16.45	90.64	32.15
GB-323	28.78	16.54	90.21	31.92
GB-325	23.24	17.42	90.21	31.54
GB-327	18.81	18.00	90.22	31.29
GB-329	13.29	18.00	90.23	31.30
GB-331	5.54	17.39	90.24	31.56
GB-333	15.49	17.35	90.41	31.65
GB-335	13.29	16.42	90.45	32.08
GB-337	24.35	18.00	90.30	31.33
GB-339	21.03	18.00	90.31	31.33
GB-341	17.49	17.49	90.34	31.56
GB-343	14.17	16.16	90.37	32.15
GB-345	18.81	18.00	90.26	31.31
GB-347	22.13	18.00	90.27	31.32
GB-349	8.86	17.75	90.28	31.43
GB-351	27.67	18.00	90.24	31.30
GB-352	39.18	17.35	90.22	31.58
GB-353	21.03	17.91	90.23	31.34
GB-355	17.71	17.82	90.26	31.39
GB-357	19.70	17.40	90.27	31.57
GB-359	15.28	16.14	90.28	32.13
GB-361	21.03	17.26	90.22	31.61
GB-362	26.56	16.38	90.24	32.00
GB-363	14.38	16.29	90.20	32.03
GB-365	18.43	16.32	90.22	32.02
GB-367	25.00	16.59	90.22	31.90
GB-369	22.13	17.03	90.21	31.71
GB-371	17.71	16.87	90.22	31.78
GB-373	13.29	16.73	90.23	31.85
GB-375	19.15	16.59	90.26	31.92
GB-377	23.81	16.34	90.28	32.04
GB-379	59.02	17.08	90.33	31.74
GB-381	33.78	16.42	90.20	31.97
GB-383	22.70	18.29	90.21	31.16
GB-385	13.85	18.09	90.29	31.28
GB-387	19.96	18.82	90.29	30.97
GB-389	12.18	18.79	90.34	31.00



**PEAK HOUR DEMANDS - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-391	49.67	18.77	90.43	31.05
GB-393	19.53	16.43	90.18	31.95
GB-395	19.92	17.71	90.18	31.40
GB-397	48.78	18.80	90.19	30.93
GB-399	45.46	19.79	90.25	30.53
GB-401	25.46	20.09	90.25	30.40
GB-403	14.38	20.39	90.25	30.27
GB-405	15.04	16.13	90.17	32.08
GB-407	28.78	17.95	90.17	31.29
GB-409	17.71	19.40	90.18	30.67
GB-411	22.13	16.46	90.17	31.94
GB-413	34.31	18.20	90.17	31.19
GB-415	17.71	19.96	90.18	30.42
GB-417	45.83	16.45	90.18	31.95
GB-419	14.38	18.63	90.17	31.00
GB-421	43.42	19.83	90.17	30.48
GB-423	14.38	20.20	90.17	30.32
GB-425	28.70	20.56	90.18	30.16
GB-427	14.38	21.58	90.18	29.72
GB-429	35.35	21.13	90.20	29.93
GB-431	28.78	21.45	90.20	29.79
GB-433	44.53	22.00	90.19	29.55
GB-435	22.13	21.27	90.17	29.85
GB-437	23.24	22.00	90.17	29.54
GB-439	23.24	22.00	90.18	29.54
GB-441	14.38	21.27	90.17	29.85
GB-443	15.49	22.00	90.17	29.54
GB-445	14.38	21.00	90.18	29.97
GB-446	0.00	22.00	91.25	30.01
GB-447	0.00	26.00	95.89	30.28

**PEAK HOUR DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P101	117.50	8.00	130.00	97.95	0.63	0.03
P102	117.50	8.00	130.00	-143.32	0.91	0.06
P103	739.21	8.00	130.00	104.14	0.66	0.20
P104	117.50	8.00	130.00	90.76	0.58	0.03
P105	117.50	8.00	130.00	117.36	0.75	0.04
P106	436.40	12.00	130.00	55.91	0.16	0.01
P107	650.57	8.00	130.00	47.22	0.30	0.04
P108	535.27	8.00	130.00	40.47	0.26	0.03
P109	357.35	18.00	130.00	-1,577.09	1.99	0.29
P110	243.09	12.00	130.00	-161.72	0.46	0.02
P111	253.19	8.00	130.00	-42.63	0.27	0.01
P112	380.98	8.00	130.00	73.75	0.47	0.06
P113	904.24	8.00	130.00	11.72	0.07	0.00
P114	693.26	8.00	130.00	-65.85	0.42	0.08
P115	105.50	8.00	130.00	-10.86	0.07	0.000
P116	147.51	12.00	130.00	91.26	0.26	0.00
P117	132.50	12.00	130.00	-92.68	0.26	0.00
P118	226.54	8.00	130.00	64.64	0.41	0.03
P119	193.01	8.00	130.00	18.08	0.12	0.00
P120	193.01	8.00	130.00	-16.79	0.11	0.00
P121	713.00	8.00	130.00	5.43	0.03	0.000
P122	615.89	8.00	130.00	-5.34	0.03	0.000
P123	713.00	8.00	130.00	-116.56	0.74	0.24
P124	677.66	8.00	130.00	-83.78	0.53	0.13
P125	476.65	8.00	130.00	-74.93	0.48	0.07
P126	117.50	8.00	130.00	-64.97	0.41	0.01
P127	677.66	8.00	130.00	89.01	0.57	0.14
P128	193.00	8.00	130.00	-17.14	0.11	0.00
P129	117.50	8.00	130.00	-75.87	0.48	0.02
P130	633.34	8.00	130.00	32.71	0.21	0.02
P131	232.72	8.00	130.00	45.99	0.29	0.01
P132	233.02	8.00	130.00	59.47	0.38	0.02
P133	618.66	8.00	130.00	41.93	0.27	0.03
P134	713.00	8.00	130.00	-36.88	0.24	0.03
P135	195.00	8.00	130.00	36.01	0.23	0.01
P136	193.00	8.00	130.00	70.28	0.45	0.03
P137	112.20	18.00	130.00	1,459.29	1.84	0.08
P138	701.50	8.00	130.00	-95.67	0.61	0.17
P139	378.03	8.00	130.00	-106.66	0.68	0.11

**PEAK HOUR DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P140	586.50	8.00	130.00	-22.29	0.14	0.01
P141	253.00	8.00	130.00	51.12	0.33	0.02
P142	233.00	8.00	130.00	-43.31	0.28	0.01
P143	233.00	8.00	130.00	-62.49	0.40	0.03
P144	232.70	8.00	130.00	-44.86	0.29	0.01
P145	574.54	8.00	130.00	18.66	0.12	0.01
P146	105.50	8.00	130.00	90.33	0.58	0.02
P147	126.23	8.00	130.00	66.65	0.43	0.02
P148	126.78	8.00	130.00	-11.76	0.08	0.000
P149	388.16	8.00	130.00	19.46	0.12	0.00
P150	117.50	8.00	130.00	8.51	0.05	0.000
P151	611.16	8.00	130.00	-15.91	0.10	0.01
P152	418.00	8.00	130.00	-1.64	0.01	0.0000
P153	97.50	8.00	130.00	-0.56	0.00	0.0000
P154	261.76	8.00	130.00	-16.33	0.10	0.00
P155	839.51	8.00	130.00	-14.81	0.09	0.01
P156	170.40	8.00	130.00	6.72	0.04	0.000
P157	116.20	8.00	130.00	1.60	0.01	0.0000
P158	248.92	8.00	130.00	-16.52	0.11	0.00
P159	247.10	8.00	130.00	16.81	0.11	0.00
P160	247.67	8.00	130.00	40.55	0.26	0.01
P161	247.82	8.00	130.00	64.00	0.41	0.03
P162	247.00	8.00	130.00	-39.21	0.25	0.01
P163	249.87	8.00	130.00	-26.44	0.17	0.01
P164	1,149.31	8.00	130.00	14.39	0.09	0.01
P165	710.72	12.00	130.00	-87.39	0.25	0.02
P166	369.00	8.00	130.00	35.58	0.23	0.01
P167	253.00	8.00	130.00	26.35	0.17	0.01
P168	918.21	8.00	130.00	22.90	0.15	0.02
P169	282.81	8.00	130.00	58.88	0.38	0.03
P170	333.36	12.00	130.00	-131.02	0.37	0.02
P171	253.00	8.00	130.00	92.24	0.59	0.06
P172	234.54	8.00	130.00	66.34	0.42	0.03
P173	253.00	8.00	130.00	55.78	0.36	0.02
P174	657.99	8.00	130.00	29.09	0.19	0.02
P175	633.34	8.00	130.00	-9.93	0.06	0.00
P176	253.02	8.00	130.00	20.83	0.13	0.00
P177	633.34	8.00	130.00	78.20	0.50	0.10
P178	242.02	12.00	130.00	346.27	0.98	0.09

PEAK HOUR DEMANDS - PIPE REPORT - GREENBRIAR

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P179	253.00	8.00	130.00	117.92	0.75	0.09
P180	273.00	8.00	130.00	-53.51	0.34	0.02
P181	628.13	12.00	130.00	19.49	0.06	0.00
P182	797.55	12.00	130.00	40.00	0.11	0.01
P183	578.83	12.00	130.00	108.58	0.31	0.02
P184	193.00	8.00	130.00	-10.07	0.06	0.000
P185	653.19	8.00	130.00	13.61	0.09	0.00
P186	193.00	8.00	130.00	-1.49	0.01	0.0000
P187	193.00	8.00	130.00	0.05	0.000	0.00
P188	437.56	8.00	130.00	10.52	0.07	0.00
P189	203.57	12.00	130.00	-30.07	0.09	0.000
P190	596.95	8.00	130.00	56.81	0.36	0.05
P191	292.91	8.00	130.00	-5.39	0.03	0.000
P192	695.05	8.00	130.00	-6.01	0.04	0.000
P193	253.00	8.00	130.00	10.45	0.07	0.000
P194	656.00	8.00	130.00	-43.77	0.28	0.04
P195	504.88	8.00	130.00	-50.27	0.32	0.04
P196	313.32	8.00	130.00	-30.39	0.19	0.01
P197	549.00	8.00	130.00	47.30	0.30	0.04
P198	253.00	8.00	130.00	36.22	0.23	0.01
P199	253.00	8.00	130.00	63.75	0.41	0.03
P200	253.00	8.00	130.00	102.92	0.66	0.07
P201	403.00	8.00	130.00	49.26	0.31	0.03
P202	276.11	8.00	130.00	179.36	1.14	0.21
P203	253.02	8.00	130.00	-129.21	0.82	0.10
P204	253.02	8.00	130.00	-61.41	0.39	0.03
P205	236.90	8.00	130.00	-30.21	0.19	0.01
P206	636.18	8.00	130.00	27.77	0.18	0.02
P207	211.30	8.00	130.00	27.35	0.17	0.00
P208	232.70	8.00	130.00	58.14	0.37	0.02
P209	233.00	8.00	130.00	94.54	0.60	0.05
P210	233.00	8.00	130.00	205.45	1.31	0.23
P211	621.42	8.00	130.00	-127.32	0.81	0.25
P212	253.02	8.00	130.00	-71.05	0.45	0.03
P213	699.07	8.00	130.00	-18.85	0.12	0.01
P214	253.02	8.00	130.00	-20.83	0.13	0.00
P215	613.13	8.00	130.00	-18.63	0.12	0.01
P216	253.00	8.00	130.00	45.67	0.29	0.02
P217	233.00	8.00	130.00	42.54	0.27	0.01

PEAK HOUR DEMANDS - PIPE REPORT - GREENBRIAR

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P218	289.50	8.00	130.00	76.16	0.49	0.04
P219	313.50	8.00	130.00	-89.73	0.57	0.07
P220	391.14	12.00	130.00	412.63	1.17	0.19
P221	590.71	8.00	130.00	30.58	0.20	0.02
P222	253.00	8.00	130.00	32.84	0.21	0.01
P223	390.32	8.00	130.00	73.19	0.47	0.06
P224	430.55	8.00	130.00	51.51	0.33	0.03
P225	248.33	12.00	130.00	330.19	0.94	0.08
P226	430.73	8.00	130.00	30.69	0.20	0.01
P227	412.22	12.00	130.00	264.51	0.75	0.09
P228	262.25	12.00	130.00	33.51	0.10	0.00
P229	253.00	12.00	130.00	62.94	0.18	0.00
P230	273.31	12.00	130.00	97.91	0.28	0.01
P231	234.73	12.00	130.00	175.03	0.50	0.02
P232	422.16	12.00	130.00	-177.45	0.50	0.04
P233	596.34	12.00	130.00	-152.46	0.43	0.05
P234	591.74	12.00	130.00	-95.25	0.27	0.02
P235	587.67	12.00	130.00	-457.04	1.30	0.35
P236	457.95	12.00	130.00	-178.87	0.51	0.05
P237	359.68	12.00	130.00	55.68	0.16	0.00
P238	193.00	8.00	130.00	-3.47	0.02	0.0000
P239	487.33	8.00	130.00	95.04	0.61	0.11
P240	486.84	8.00	130.00	-79.68	0.51	0.08
P241	708.39	8.00	130.00	-65.86	0.42	0.08
P242	617.10	8.00	130.00	-60.72	0.39	0.06
P243	319.69	18.00	130.00	-585.83	0.74	0.04
P244	861.88	12.00	130.00	-54.77	0.16	0.01
P245	534.05	18.00	130.00	-346.68	0.44	0.03
P246	627.02	18.00	130.00	-255.42	0.32	0.02
P247	195.01	18.00	130.00	-348.10	0.44	0.01
P248	751.91	18.00	130.00	-3.24	0.00	0.00000
P249	370.87	12.00	130.00	-492.19	1.40	0.25
P250	602.79	8.00	130.00	-60.13	0.38	0.06
P251	656.30	8.00	130.00	-29.48	0.19	0.02
P252	501.81	8.00	130.00	-110.76	0.71	0.16
P253	464.05	12.00	130.00	220.70	0.63	0.07
P254	250.56	12.00	130.00	218.55	0.62	0.04
P255	423.72	8.00	130.00	-31.49	0.20	0.01
P256	235.04	8.00	130.00	-42.48	0.27	0.01

**PEAK HOUR DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P257	344.48	8.00	130.00	69.15	0.44	0.04
P258	656.00	8.00	130.00	35.42	0.23	0.02
P259	497.14	8.00	130.00	36.01	0.23	0.02
P260	494.52	8.00	130.00	-14.26	0.09	0.00
P261	466.36	8.00	130.00	-11.66	0.07	0.00
P262	616.00	8.00	130.00	-8.18	0.05	0.00
P263	651.25	8.00	130.00	6.14	0.04	0.000
P264	246.49	8.00	130.00	55.35	0.35	0.02
P265	375.42	12.00	130.00	-219.15	0.62	0.06
P266	665.79	8.00	130.00	64.32	0.41	0.08
P267	285.98	8.00	130.00	-22.76	0.15	0.00
P268	272.69	8.00	130.00	23.52	0.15	0.00
P269	744.21	8.00	130.00	18.41	0.12	0.01
P270	105.50	8.00	130.00	4.99	0.03	0.0000
P271	892.22	8.00	130.00	35.03	0.22	0.03
P272	193.00	8.00	130.00	12.55	0.08	0.00
P273	105.50	8.00	130.00	8.17	0.05	0.000
P274	698.75	8.00	130.00	-9.78	0.06	0.00
P275	181.50	12.00	130.00	-482.55	1.37	0.12
P276	112.20	8.00	130.00	-68.88	0.44	0.01
P277	698.70	8.00	130.00	-28.31	0.18	0.02
P278	713.00	8.00	130.00	0.08	0.000	0.00000
P279	422.00	8.00	130.00	-55.44	0.35	0.04
P280	117.50	8.00	130.00	7.43	0.05	0.000
P281	589.97	8.00	130.00	-206.51	1.32	0.58
P282	130.50	8.00	130.00	-168.13	1.07	0.09
P283	410.65	18.00	130.00	-1,631.37	2.06	0.36
P284	500.49	8.00	130.00	-145.85	0.93	0.26
P285	807.99	8.00	130.00	25.67	0.16	0.02
P286	193.00	8.00	130.00	1.66	0.01	0.0000
P287	263.00	8.00	130.00	-6.12	0.04	0.000
P288	738.30	8.00	130.00	24.81	0.16	0.01
P289	233.02	8.00	130.00	-36.35	0.23	0.01
P290	739.64	8.00	130.00	-76.92	0.49	0.12
P291	252.00	8.00	130.00	-39.98	0.26	0.01
P292	262.03	8.00	130.00	-57.99	0.37	0.02
P293	924.17	8.00	130.00	-11.20	0.07	0.00
P294	770.75	8.00	130.00	-8.31	0.05	0.00
P295	956.68	8.00	130.00	30.26	0.19	0.03

**PEAK HOUR DEMANDS - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P296	693.81	8.00	130.00	-99.09	0.63	0.18
P297	678.13	8.00	130.00	67.59	0.43	0.08
P298	837.42	8.00	130.00	26.73	0.17	0.02
P299	557.94	8.00	130.00	-78.16	0.50	0.09
P300	696.14	8.00	130.00	-6.04	0.04	0.000
P301	468.04	8.00	130.00	-10.16	0.06	0.00
P302	255.36	8.00	130.00	-42.34	0.27	0.01
P303	247.32	8.00	130.00	47.88	0.31	0.02
P304	208.11	12.00	130.00	-604.17	1.71	0.21
P305	88.53	8.00	130.00	17.49	0.11	0.000
P306	193.00	8.00	130.00	-210.11	1.34	0.20
P307	582.27	8.00	130.00	40.69	0.26	0.03
P308	677.66	8.00	130.00	-89.77	0.57	0.14
P309	195.00	8.00	130.00	-83.94	0.54	0.04
P310	132.50	12.00	130.00	-112.18	0.32	0.01
P311	380.98	8.00	130.00	-90.83	0.58	0.08
P312	475.68	8.00	130.00	-82.50	0.53	0.09
P313	655.89	8.00	130.00	-24.94	0.16	0.01
P314	653.93	8.00	130.00	-42.49	0.27	0.03
P315	215.00	8.00	130.00	1.02	0.01	0.0000
P316	195.01	8.00	130.00	26.63	0.17	0.00
P317	214.88	8.00	130.00	-22.53	0.14	0.00
P318	252.22	8.00	130.00	7.15	0.05	0.000
P319	245.38	8.00	130.00	9.45	0.06	0.000
P320	607.50	8.00	130.00	-7.51	0.05	0.00
P321	574.53	8.00	130.00	-18.87	0.12	0.01
P322	105.50	8.00	130.00	-55.77	0.36	0.01
P323	212.18	8.00	130.00	21.28	0.14	0.00
P324	105.50	8.00	130.00	12.55	0.08	0.000
P325	211.00	8.00	130.00	-21.80	0.14	0.00
P326	211.30	8.00	130.00	-43.77	0.28	0.01
P327	209.82	8.00	130.00	-32.35	0.21	0.01
P328	728.60	8.00	130.00	-17.26	0.11	0.01
P329	594.64	8.00	130.00	3.09	0.02	0.000
P330	258.06	8.00	130.00	-18.88	0.12	0.00
P331	499.01	8.00	130.00	10.46	0.07	0.00
P332	545.88	8.00	130.00	-28.34	0.18	0.01
P333	783.02	8.00	130.00	-22.96	0.15	0.01
P334	260.55	12.00	130.00	-54.97	0.16	0.00

PEAK HOUR DEMANDS - PIPE REPORT - GREENBRIAR

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P335	255.00	8.00	130.00	30.71	0.20	0.01
P336	255.00	8.00	130.00	21.86	0.14	0.00
P337	255.07	8.00	130.00	13.88	0.09	0.00
P338	255.00	12.00	130.00	343.43	0.97	0.09
P339	255.00	12.00	130.00	-253.09	0.72	0.05
P340	255.00	8.00	130.00	-20.47	0.13	0.00
P341	255.00	8.00	130.00	-24.58	0.16	0.00
P342	246.98	8.00	130.00	-14.39	0.09	0.00
P343	253.00	8.00	130.00	-55.34	0.35	0.02
P344	147.50	12.00	130.00	98.39	0.28	0.01
P345	147.37	12.00	130.00	173.44	0.49	0.01
P346	147.50	12.00	130.00	224.22	0.64	0.02
P347	147.59	12.00	130.00	-235.28	0.67	0.03
P348	381.04	8.00	130.00	-41.22	0.26	0.02
P349	190.72	18.00	130.00	-668.54	0.84	0.03
P350	253.02	8.00	130.00	30.07	0.19	0.01
P351	233.00	8.00	130.00	-2.37	0.02	0.0000
P352	1,365.42	24.00	130.00	1,175.44	0.83	0.16
P353	1,505.76	30.00	130.00	-1,175.44	0.53	0.06
P354	369.99	8.00	130.00	-68.12	0.43	0.05
P355	369.99	8.00	130.00	-78.97	0.50	0.06
P356	117.50	8.00	130.00	-30.82	0.20	0.00
P357	195.00	8.00	130.00	-63.33	0.40	0.02
P358	193.00	8.00	130.00	-65.67	0.42	0.02
P359	500.49	8.00	130.00	-113.99	0.73	0.16
P360	500.78	8.00	130.00	-168.25	1.07	0.34
P361	677.66	8.00	130.00	-88.73	0.57	0.14
P362	482.45	12.00	130.00	-50.16	0.14	0.00
P363	677.66	8.00	130.00	-84.91	0.54	0.13
P364	1,180.18	30.00	130.00	-804.97	0.37	0.02
P365	1,577.01	24.00	130.00	-1,664.46	1.18	0.35
P366	701.50	24.00	130.00	-1,914.52	1.36	0.20
P367	242.00	18.00	130.00	1,211.61	1.53	0.12
P368	738.68	18.00	130.00	987.40	1.24	0.25
P369	253.00	8.00	130.00	-11.44	0.07	0.00
P370	660.09	8.00	130.00	-79.09	0.50	0.11
P371	193.00	18.00	130.00	1,067.64	1.35	0.08
P372	595.91	18.00	130.00	890.95	1.12	0.17
P373	191.34	18.00	130.00	774.65	0.98	0.04



**PEAK HOUR DEMANDS - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P374	105.50	8.00	130.00	20.41	0.13	0.00
P375	607.50	8.00	130.00	-22.41	0.14	0.01
P376	438.00	18.00	130.00	618.51	0.78	0.06
P377	650.57	18.00	130.00	445.07	0.56	0.05
P378	112.20	8.00	130.00	-173.38	1.11	0.08
P379	117.50	8.00	130.00	70.01	0.45	0.02
P380	348.36	8.00	130.00	35.30	0.23	0.01
P381	178.10	12.00	130.00	-243.60	0.69	0.03
P382	1,122.42	24.00	130.00	-3,545.90	2.51	1.01
P383	93.09	8.00	130.00	-88.83	0.57	0.02
P384	195.01	8.00	130.00	37.08	0.24	0.01
P385	4,416.05	30.00	130.00	406.65	0.18	0.02
P386	3,100.00	24.00	130.00	-3,582.44	2.54	2.85
P388	1,581.75	18.00	130.00	551.87	0.70	0.19
P389	621.96	18.00	130.00	510.24	0.64	0.06
P990	235.86	99.00	130.00	406.65	0.02	0.00000
P991	377.34	99.00	130.00	406.65	0.02	0.00000
P992	233.99	99.00	130.00	3,582.44	0.15	0.000
P993	232.72	99.00	130.00	3,582.44	0.15	0.000

**PEAK HOUR DEMANDS - PUMP REPORT - GREENBRIAR**

<b>ID</b>	<b>Elevation (ft)</b>	<b>Downstream Pressure (psi)</b>	<b>Flow (gpm)</b>	<b>Head Gain (ft)</b>
<b>PUMP105</b>	<b>22.00</b>	<b>30.01</b>	<b>406.65</b>	<b>91.25</b>
<b>PUMP107</b>	<b>26.00</b>	<b>30.28</b>	<b>3,582.44</b>	<b>95.89</b>



## **FIRE FLOW SUMMARY**

**FIRE FLOW SUMMARY - GREENBRIAR**

ID	Static Demand (gpm)	Static Pressure (psi)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow @Hydrant (gpm)	Available Flow Pressure (psi)	Available Flow Head (ft)
GB-103	4.98	33.93	1,500.00	30.83	6,159.42	20.38	62.03
GB-105	4.98	32.32	3,000.00	26.14	5,607.58	20.31	65.88
GB-107	0.00	31.96	3,000.00	25.81	5,517.28	20.30	66.86
GB-108	28.11	31.85	3,000.00	25.73	5,561.93	20.31	67.86
GB-109	30.65	31.64	1,500.00	25.47	2,345.20	20.05	66.28
GB-111	17.03	31.64	1,500.00	26.71	2,841.32	20.08	66.34
GB-113	15.33	31.83	1,500.00	27.42	3,191.37	20.10	65.98
GB-115	25.54	32.17	1,500.00	28.83	4,775.91	20.23	65.65
GB-117	17.03	32.15	1,500.00	27.66	3,203.48	20.10	65.26
GB-119	19.36	32.16	1,500.00	27.27	2,953.26	20.09	65.19
GB-121	15.33	32.18	1,500.00	26.33	2,511.07	20.06	65.10
GB-122	28.53	32.40	3,000.00	25.08	4,639.70	20.21	65.45
GB-123	14.47	32.08	1,500.00	27.73	3,288.68	20.11	65.42
GB-125	24.69	32.36	1,500.00	28.48	3,862.46	20.15	64.89
GB-127	13.62	32.40	1,500.00	27.96	3,282.36	20.11	64.68
GB-128	41.75	32.50	3,000.00	25.95	5,416.21	20.29	65.32
GB-129	14.47	32.29	1,500.00	27.98	3,379.10	20.11	64.94
GB-131	23.84	32.60	1,500.00	28.59	3,780.26	20.14	64.29
GB-133	13.62	32.66	1,500.00	28.25	3,371.23	20.11	64.09
GB-135	11.92	32.86	1,500.00	28.55	3,493.10	20.12	63.67
GB-137	17.03	32.93	3,000.00	24.20	4,056.59	20.16	63.69
GB-139	17.03	32.69	3,000.00	26.00	5,318.00	20.28	64.66
GB-141	36.61	32.11	1,500.00	27.36	3,047.64	20.09	65.28
GB-143	22.13	32.28	1,500.00	28.13	3,544.15	20.12	64.96
GB-145	11.92	32.47	1,500.00	28.48	3,746.30	20.14	64.56
GB-147	22.32	32.84	1,500.00	28.84	3,857.34	20.15	63.73
GB-149	16.18	32.85	1,500.00	28.59	3,567.37	20.13	63.66
GB-151	18.73	32.95	1,500.00	28.87	3,787.15	20.14	63.47
GB-153	19.36	32.96	1,500.00	28.49	3,393.38	20.11	63.41
GB-155	6.82	32.98	1,500.00	28.89	3,751.25	20.14	63.42
GB-157	2.56	32.97	1,500.00	28.89	3,751.56	20.14	63.44
GB-159	5.76	33.14	1,500.00	29.22	3,946.16	20.16	63.14
GB-161	4.26	32.90	1,500.00	28.91	3,832.71	20.15	63.64
GB-163	9.36	32.81	1,500.00	28.86	3,874.29	20.15	63.89
GB-165	10.21	32.69	3,000.00	25.96	5,267.08	20.28	64.59
GB-167	23.73	32.47	3,000.00	25.62	5,107.67	20.26	65.01
GB-169	4.26	31.77	3,000.00	24.67	4,622.24	20.21	66.40
GB-171	8.51	31.53	3,000.00	24.37	4,498.42	20.20	66.89

**FIRE FLOW SUMMARY - GREENBRIAR**

ID	Static Demand (gpm)	Static Pressure (psi)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow @Hydrant (gpm)	Available Flow Pressure (psi)	Available Flow Head (ft)
GB-173	28.46	31.28	3,000.00	24.06	4,403.34	20.19	67.44
GB-175	1.70	33.08	1,500.00	28.54	3,338.28	20.11	63.10
GB-177	5.96	33.17	1,500.00	28.27	3,095.23	20.10	62.83
GB-179	10.21	33.02	1,500.00	28.73	3,562.26	20.13	63.27
GB-181	5.96	33.10	1,500.00	28.86	3,622.67	20.13	63.09
GB-183	20.44	33.14	1,500.00	28.96	3,718.53	20.14	63.01
GB-185	34.06	33.10	1,500.00	28.80	3,619.14	20.13	63.10
GB-187	18.73	33.17	1,500.00	28.46	3,241.56	20.10	62.87
GB-189	8.51	33.22	1,500.00	27.73	2,805.68	20.08	62.70
GB-191	18.53	33.26	1,500.00	28.61	3,307.49	20.11	62.68
GB-193	11.67	33.27	1,500.00	28.38	3,133.40	20.10	62.62
GB-195	11.67	33.19	1,500.00	28.79	3,497.85	20.12	62.82
GB-197	20.44	33.03	1,500.00	29.00	3,862.83	20.15	63.24
GB-199	20.44	32.80	1,500.00	28.91	3,985.22	20.16	63.81
GB-201	23.84	32.60	1,500.00	28.71	3,935.49	20.15	64.28
GB-203	30.53	32.39	1,500.00	28.07	3,420.76	20.11	64.67
GB-205	30.53	31.69	1,500.00	27.19	3,164.05	20.10	66.21
GB-207	23.84	31.47	1,500.00	27.33	3,442.70	20.12	66.77
GB-209	11.92	31.25	1,500.00	26.75	3,060.29	20.09	67.22
GB-210	18.62	33.84	1,500.00	30.77	6,181.89	20.38	62.03
GB-211	45.98	32.27	1,500.00	28.92	4,738.69	20.22	65.27
GB-213	22.13	32.59	1,500.00	28.75	3,945.91	20.15	64.31
GB-215	29.98	32.86	1,500.00	28.87	3,836.14	20.14	63.65
GB-217	11.92	33.17	1,500.00	28.67	3,369.67	20.11	62.87
GB-219	12.77	33.14	1,500.00	25.76	2,214.02	20.05	62.60
GB-221	17.33	33.15	1,500.00	27.63	2,828.01	20.08	62.64
GB-223	18.44	33.03	1,500.00	26.56	2,440.04	20.06	62.87
GB-225	10.21	33.01	1,500.00	26.65	2,465.51	20.06	62.93
GB-227	11.07	33.06	1,500.00	26.51	2,413.77	20.06	62.81
GB-229	18.87	32.99	1,500.00	27.51	2,822.52	20.08	62.99
GB-231	18.73	32.99	1,500.00	27.60	2,864.81	20.08	63.00
GB-233	11.92	33.02	1,500.00	27.65	2,872.07	20.08	62.94
GB-235	18.73	32.83	1,500.00	27.81	3,033.46	20.09	63.41
GB-237	12.52	33.05	1,500.00	27.95	3,014.38	20.09	62.90
GB-239	12.52	33.15	1,500.00	28.89	3,637.50	20.13	62.84
GB-241	23.84	32.99	1,500.00	29.08	4,021.44	20.16	63.27
GB-243	25.54	32.76	1,500.00	28.87	4,000.00	20.16	63.80
GB-245	23.84	32.56	1,500.00	28.31	3,533.45	20.12	64.21

**FIRE FLOW SUMMARY - GREENBRIAR**

ID	Static Demand (gpm)	Static Pressure (psi)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow @Hydrant (gpm)	Available Flow Pressure (psi)	Available Flow Head (ft)
GB-247	16.18	32.35	1,500.00	27.92	3,301.79	20.11	64.65
GB-249	35.65	31.89	1,500.00	27.55	3,335.70	20.11	65.71
GB-251	16.18	31.65	1,500.00	27.20	3,173.60	20.10	66.26
GB-253	23.84	31.44	1,500.00	26.94	3,108.70	20.10	66.74
GB-255	31.86	31.22	1,500.00	26.71	3,065.55	20.09	67.23
GB-257	21.28	32.44	1,500.00	28.30	3,549.74	20.12	64.59
GB-259	10.21	32.59	1,500.00	28.32	3,438.90	20.12	64.21
GB-261	11.07	32.86	1,500.00	28.54	3,459.40	20.12	63.58
GB-263	12.77	33.16	1,500.00	28.92	3,605.26	20.13	62.91
GB-265	24.97	32.50	1,500.00	28.68	3,945.26	20.15	64.51
GB-267	19.87	33.14	1,500.00	29.29	4,054.85	20.16	62.99
GB-269	18.73	33.06	1,500.00	28.60	3,453.27	20.12	62.95
GB-271	17.88	32.66	1,500.00	27.62	2,983.15	20.09	63.81
GB-273	10.21	32.42	1,500.00	27.75	3,168.16	20.10	64.39
GB-275	9.50	32.42	1,500.00	28.39	3,777.39	20.14	64.49
GB-277	10.21	32.41	1,500.00	27.94	3,315.85	20.11	64.41
GB-279	18.73	32.52	1,500.00	27.81	3,171.40	20.10	64.15
GB-281	9.36	32.83	1,500.00	28.56	3,604.35	20.13	63.50
GB-283	21.28	32.74	2,000.00	27.11	3,883.79	20.15	63.78
GB-285	25.54	31.77	2,000.00	27.04	4,555.76	20.21	66.15
GB-286	17.03	31.21	2,000.00	26.46	4,328.61	20.19	67.45
GB-287	17.03	32.50	1,500.00	29.17	4,874.71	20.24	64.70
GB-288	9.36	33.13	1,500.00	29.73	4,955.80	20.24	63.17
GB-289	6.82	33.07	1,500.00	29.50	4,597.56	20.21	63.16
GB-290	11.07	32.42	1,500.00	28.88	4,508.35	20.20	64.62
GB-291	16.18	32.84	1,500.00	29.21	4,493.08	20.20	63.66
GB-292	7.66	33.13	1,500.00	28.65	3,412.75	20.12	62.79
GB-293	13.62	32.97	1,500.00	29.43	4,719.17	20.22	63.41
GB-294	10.56	32.73	1,500.00	29.17	4,603.72	20.21	63.92
GB-295	0.00	33.83	1,500.00	30.77	6,188.37	20.38	62.04
GB-297	0.00	32.51	1,500.00	29.36	5,481.34	20.30	64.85
GB-299	0.00	33.12	1,500.00	29.84	5,391.14	20.29	63.28
GB-301	0.00	33.07	1,500.00	29.72	5,177.82	20.27	63.31
GB-303	0.00	32.43	1,500.00	29.02	4,848.96	20.24	64.70
GB-305	0.00	32.83	1,500.00	29.41	4,974.29	20.25	63.78
GB-307	0.00	32.91	3,000.00	25.77	5,019.08	20.25	63.60
GB-309	0.00	32.73	3,000.00	25.57	4,952.25	20.25	64.00
GB-311	32.39	31.93	2,000.00	27.19	4,616.43	20.21	65.77

**FIRE FLOW SUMMARY - GREENBRIAR**

ID	Static Demand (gpm)	Static Pressure (psi)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Available Flow @Hydrant (gpm)	Available Flow Pressure (psi)	Available Flow Head (ft)
GB-313	42.13	31.20	2,000.00	22.91	2,513.26	20.06	67.10
GB-315	15.33	32.31	1,500.00	25.48	2,258.49	20.05	64.27
GB-317	14.47	32.42	1,500.00	26.87	2,720.56	20.07	64.10
GB-319	9.36	32.67	1,500.00	27.90	3,172.76	20.10	63.63
GB-321	9.36	33.07	1,500.00	29.36	4,483.37	20.20	63.07
GB-323	22.13	32.92	1,500.00	25.35	2,172.41	20.05	62.80
GB-325	17.88	32.54	1,500.00	26.26	2,467.43	20.06	63.72
GB-327	14.47	32.29	1,500.00	26.48	2,603.25	20.07	64.31
GB-329	10.21	32.29	1,500.00	26.67	2,676.70	20.07	64.32
GB-331	4.26	32.56	1,500.00	26.63	2,573.60	20.07	63.70
GB-333	11.92	32.62	1,500.00	27.82	3,158.86	20.10	63.74
GB-335	10.21	33.03	1,500.00	29.03	4,037.36	20.16	62.95
GB-337	18.73	32.31	1,500.00	26.60	2,639.88	20.07	64.32
GB-339	16.18	32.31	1,500.00	27.29	2,987.14	20.09	64.36
GB-341	13.45	32.54	1,500.00	27.91	3,281.56	20.11	63.89
GB-343	10.90	33.12	1,500.00	29.01	3,933.79	20.15	62.67
GB-345	14.47	32.30	1,500.00	26.69	2,685.95	20.07	64.32
GB-347	17.03	32.30	1,500.00	27.21	2,951.87	20.09	64.36
GB-349	6.82	32.41	1,500.00	27.16	2,861.15	20.08	64.10
GB-351	21.28	32.29	1,500.00	26.16	2,478.62	20.06	64.30
GB-352	30.14	32.57	1,500.00	26.95	2,741.14	20.07	63.68
GB-353	16.18	32.33	1,500.00	26.67	2,667.15	20.07	64.23
GB-355	13.62	32.38	1,500.00	26.96	2,788.57	20.08	64.15
GB-357	15.16	32.56	1,500.00	27.34	2,912.95	20.08	63.76
GB-359	11.75	33.11	1,500.00	28.90	3,841.42	20.15	62.64
GB-361	16.18	32.61	1,500.00	27.34	2,899.48	20.08	63.61
GB-362	20.44	33.00	1,500.00	28.75	3,791.25	20.14	62.87
GB-363	11.07	33.03	1,500.00	28.65	3,667.14	20.13	62.75
GB-365	14.18	33.02	1,500.00	28.74	3,769.26	20.14	62.80
GB-367	19.23	32.90	1,500.00	28.19	3,323.12	20.11	63.00
GB-369	17.03	32.71	1,500.00	27.24	2,825.30	20.08	63.37
GB-371	13.62	32.78	1,500.00	27.18	2,773.44	20.08	63.20
GB-373	10.21	32.84	1,500.00	27.49	2,894.56	20.08	63.08
GB-375	14.73	32.91	1,500.00	28.28	3,388.22	20.11	63.01
GB-377	18.32	33.02	3,000.00	23.28	3,770.82	20.14	62.82
GB-379	45.40	32.72	3,000.00	24.15	4,164.60	20.17	63.63
GB-381	25.98	32.97	2,000.00	25.20	2,943.97	20.09	62.77
GB-383	17.47	32.16	2,000.00	26.18	3,611.27	20.13	64.75

**FIRE FLOW SUMMARY - GREENBRIAR**

<b>ID</b>	<b>Static Demand (gpm)</b>	<b>Static Pressure (psi)</b>	<b>Fire-Flow Demand (gpm)</b>	<b>Residual Pressure (psi)</b>	<b>Available Flow @Hydrant (gpm)</b>	<b>Available Flow Pressure (psi)</b>	<b>Available Flow Head (ft)</b>
GB-385	10.65	32.27	2,000.00	26.68	3,905.49	20.15	64.60
GB-387	15.35	31.95	2,000.00	26.35	3,817.00	20.14	65.31
GB-389	9.36	31.98	2,000.00	26.40	3,822.78	20.15	65.28
GB-391	38.21	32.01	2,000.00	26.62	3,996.05	20.16	65.29
GB-393	15.03	32.96	1,500.00	27.73	2,991.29	20.09	62.79
GB-395	15.33	32.40	1,500.00	27.14	2,883.41	20.08	64.05
GB-397	37.53	31.94	1,500.00	27.61	3,517.00	20.12	65.24
GB-399	34.97	31.52	1,500.00	27.26	3,461.10	20.12	66.22
GB-401	19.59	31.39	1,500.00	26.79	3,102.97	20.10	66.47
GB-403	11.07	31.26	2,000.00	23.78	2,726.93	20.07	66.72
GB-405	11.57	33.09	1,500.00	27.82	2,984.60	20.09	62.49
GB-407	22.13	32.30	1,500.00	27.43	3,110.22	20.10	64.33
GB-409	13.62	31.67	3,000.00	21.70	3,387.61	20.11	65.82
GB-411	17.03	32.95	1,500.00	27.78	3,024.39	20.09	62.82
GB-413	26.39	32.19	1,500.00	27.39	3,140.88	20.10	64.58
GB-415	13.62	31.43	3,000.00	21.44	3,323.05	20.11	66.37
GB-417	35.25	32.95	1,500.00	28.50	3,616.19	20.13	62.90
GB-419	11.07	32.00	1,500.00	27.50	3,324.01	20.11	65.04
GB-421	33.40	31.48	1,500.00	26.97	3,238.24	20.10	66.23
GB-423	11.07	31.32	1,500.00	26.87	3,228.65	20.10	66.60
GB-425	22.08	31.17	3,000.00	21.29	3,300.42	20.11	66.97
GB-427	11.07	30.73	3,000.00	20.49	3,099.96	20.10	67.96
GB-429	27.19	30.93	3,000.00	20.75	3,173.73	20.10	67.52
GB-431	22.13	30.79	1,500.00	25.95	2,846.20	20.08	67.79
GB-433	34.25	30.55	1,500.00	25.09	2,479.40	20.06	68.30
GB-435	17.03	30.86	1,500.00	25.50	2,570.60	20.07	67.58
GB-437	17.88	30.54	1,500.00	25.58	2,726.65	20.07	68.33
GB-439	17.88	30.55	1,500.00	25.05	2,449.12	20.06	68.29
GB-441	11.07	30.86	1,500.00	25.33	2,487.09	20.06	67.57
GB-443	11.92	30.54	1,500.00	25.00	2,423.28	20.06	68.29
GB-445	11.07	30.98	1,500.00	25.33	2,452.15	20.06	67.29





**MAXIMUM DAY DEMANDS  
WITH FIRE FLOW AT GB-443**

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-101	0.00	20.00	86.23	28.70
GB-103	4.98	15.00	86.41	30.94
GB-105	4.98	19.00	86.78	29.37
GB-107	0.00	20.00	87.00	29.03
GB-108	28.11	21.00	88.16	29.10
GB-109	30.65	20.00	86.00	28.60
GB-111	17.03	20.00	86.00	28.60
GB-113	15.33	19.59	86.04	28.79
GB-115	25.54	18.97	86.29	29.17
GB-117	17.03	18.87	86.04	29.11
GB-119	19.36	18.84	86.02	29.11
GB-121	15.33	18.80	86.02	29.12
GB-122	28.53	18.80	86.75	29.44
GB-123	14.47	19.02	86.03	29.04
GB-125	24.69	18.39	86.07	29.32
GB-127	13.62	18.28	86.03	29.36
GB-128	41.75	18.50	86.55	29.48
GB-129	14.47	18.53	86.01	29.24
GB-131	23.84	17.81	86.01	29.55
GB-133	13.62	17.67	86.01	29.61
GB-135	11.92	17.23	86.02	29.80
GB-137	17.03	17.16	86.09	29.87
GB-139	17.03	17.85	86.17	29.60
GB-141	36.61	18.91	86.00	29.07
GB-143	22.13	18.52	85.99	29.23
GB-145	11.92	18.08	85.99	29.42
GB-147	22.32	17.24	85.98	29.79
GB-149	16.18	17.21	85.98	29.80
GB-151	18.73	16.99	85.99	29.90
GB-153	19.36	16.99	86.00	29.90
GB-155	6.82	16.94	86.00	29.92
GB-157	2.56	16.96	86.00	29.91
GB-159	5.76	16.62	86.00	30.06
GB-161	4.26	17.14	85.82	29.76
GB-163	9.36	17.39	85.85	29.66
GB-165	10.21	17.79	86.06	29.58
GB-167	23.73	18.26	85.95	29.33
GB-169	4.26	19.75	85.70	28.58
GB-171	8.51	20.27	85.64	28.32

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-173	28.46	20.84	85.58	28.05
GB-175	1.70	16.69	85.98	30.03
GB-177	5.96	16.45	85.65	29.98
GB-179	10.21	16.82	85.68	29.84
GB-181	5.96	16.63	85.97	30.05
GB-183	20.44	16.54	85.98	30.09
GB-185	34.06	16.64	85.98	30.04
GB-187	18.73	16.47	85.98	30.12
GB-189	8.51	16.36	85.98	30.17
GB-191	18.53	16.28	85.98	30.20
GB-193	11.67	16.24	85.98	30.22
GB-195	11.67	16.38	85.56	29.98
GB-197	20.44	16.75	85.57	29.82
GB-199	20.44	17.29	85.60	29.60
GB-201	23.84	17.77	85.62	29.40
GB-203	30.53	18.25	85.63	29.19
GB-205	30.53	19.83	85.49	28.45
GB-207	23.84	20.34	85.49	28.23
GB-209	11.92	20.85	85.49	28.01
GB-210	18.62	15.00	86.16	30.83
GB-211	45.98	18.60	86.08	29.24
GB-213	22.13	17.80	85.98	29.54
GB-215	29.98	17.16	85.94	29.80
GB-217	11.92	16.45	85.93	30.11
GB-219	12.77	16.33	85.23	29.85
GB-221	17.33	16.30	85.16	29.84
GB-223	18.44	16.58	85.23	29.74
GB-225	10.21	16.63	85.23	29.72
GB-227	11.07	16.52	85.23	29.77
GB-229	18.87	16.65	85.16	29.69
GB-231	18.73	16.65	85.16	29.69
GB-233	11.92	16.59	85.16	29.71
GB-235	18.73	17.04	85.16	29.52
GB-237	12.52	16.54	85.16	29.74
GB-239	12.52	16.37	85.32	29.87
GB-241	23.84	16.74	85.32	29.72
GB-243	25.54	17.28	85.34	29.49
GB-245	23.84	17.76	85.39	29.30
GB-247	16.18	18.25	85.39	29.10

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-249	35.65	19.30	85.31	28.60
GB-251	16.18	19.87	85.36	28.38
GB-253	23.84	20.36	85.36	28.17
GB-255	31.86	20.86	85.35	27.94
GB-257	21.28	18.14	85.92	29.37
GB-259	10.21	17.78	85.92	29.52
GB-261	11.07	17.15	85.89	29.79
GB-263	12.77	16.46	85.84	30.06
GB-265	24.97	18.00	85.89	29.42
GB-267	19.87	16.46	85.68	29.99
GB-269	18.73	16.52	85.27	29.79
GB-271	17.88	17.44	85.23	29.37
GB-273	10.21	18.00	85.22	29.13
GB-275	9.50	18.00	85.22	29.13
GB-277	10.21	18.00	85.19	29.11
GB-279	18.73	17.76	85.17	29.21
GB-281	9.36	17.04	85.17	29.52
GB-283	21.28	17.28	85.12	29.40
GB-285	25.54	19.52	85.14	28.43
GB-286	17.03	20.86	85.26	27.91
GB-287	17.03	18.00	85.91	29.42
GB-288	9.36	16.45	85.52	29.93
GB-289	6.82	16.52	85.32	29.81
GB-290	11.07	18.00	85.24	29.13
GB-291	16.18	17.04	85.17	29.52
GB-292	7.66	16.37	85.14	29.80
GB-293	13.62	16.74	85.10	29.62
GB-294	10.56	17.28	85.07	29.37
GB-295	0.00	15.00	86.13	30.82
GB-297	0.00	18.00	85.93	29.43
GB-299	0.00	16.45	85.46	29.90
GB-301	0.00	16.53	85.34	29.82
GB-303	0.00	18.00	85.24	29.13
GB-305	0.00	17.05	85.17	29.52
GB-307	0.00	16.86	85.09	29.56
GB-309	0.00	17.28	85.05	29.36
GB-311	32.39	19.13	85.04	28.56
GB-313	42.13	20.80	85.04	27.83
GB-315	15.33	18.00	84.42	28.78

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-317	14.47	17.77	84.46	28.90
GB-319	9.36	17.24	84.63	29.20
GB-321	9.36	16.45	85.04	29.72
GB-323	22.13	16.54	83.89	29.18
GB-325	17.88	17.42	83.89	28.80
GB-327	14.47	18.00	83.89	28.55
GB-329	10.21	18.00	83.89	28.55
GB-331	4.26	17.39	83.89	28.81
GB-333	11.92	17.35	84.56	29.12
GB-335	10.21	16.42	84.63	29.55
GB-337	18.73	18.00	84.35	28.75
GB-339	16.18	18.00	84.37	28.76
GB-341	13.45	17.49	84.41	28.99
GB-343	10.90	16.16	84.44	29.58
GB-345	14.47	18.00	84.24	28.70
GB-347	17.03	18.00	84.26	28.71
GB-349	6.82	17.75	84.27	28.82
GB-351	21.28	18.00	84.16	28.67
GB-352	30.14	17.35	84.06	28.91
GB-353	16.18	17.91	84.13	28.70
GB-355	13.62	17.82	84.19	28.76
GB-357	15.16	17.40	84.20	28.94
GB-359	11.75	16.14	84.19	29.48
GB-361	16.18	17.26	83.95	28.90
GB-362	20.44	16.38	84.02	29.31
GB-363	11.07	16.29	83.70	29.21
GB-365	14.18	16.32	83.91	29.29
GB-367	19.23	16.59	83.90	29.16
GB-369	17.03	17.03	83.89	28.97
GB-371	13.62	16.87	83.89	29.04
GB-373	10.21	16.73	83.89	29.10
GB-375	14.73	16.59	83.90	29.17
GB-377	18.32	16.34	83.90	29.28
GB-379	45.40	17.08	83.99	28.99
GB-381	25.98	16.42	83.38	29.01
GB-383	17.47	18.29	83.37	28.20
GB-385	10.65	18.09	83.64	28.40
GB-387	15.35	18.82	83.64	28.09
GB-389	9.36	18.79	83.81	28.17

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-391	38.21	18.77	84.15	28.33
GB-393	15.03	16.43	83.26	28.96
GB-395	15.33	17.71	83.21	28.38
GB-397	37.53	18.80	83.23	27.92
GB-399	34.97	19.79	83.30	27.52
GB-401	19.59	20.09	83.30	27.39
GB-403	11.07	20.39	83.30	27.26
GB-405	11.57	16.13	83.23	29.08
GB-407	22.13	17.95	83.16	28.25
GB-409	13.62	19.40	83.12	27.61
GB-411	17.03	16.46	83.23	28.93
GB-413	26.39	18.20	83.11	28.13
GB-415	13.62	19.96	83.00	27.31
GB-417	35.25	16.45	83.33	28.98
GB-419	11.07	18.63	83.07	27.92
GB-421	33.40	19.83	82.80	27.28
GB-423	11.07	20.20	82.79	27.12
GB-425	22.08	20.56	82.84	26.99
GB-427	11.07	21.58	82.77	26.52
GB-429	27.19	21.13	82.91	26.77
GB-431	22.13	21.45	82.72	26.55
GB-433	34.25	22.00	82.68	26.29
GB-435	17.03	21.27	81.87	26.26
GB-437	17.88	22.00	81.63	25.84
GB-439	17.88	22.00	81.82	25.92
GB-441	11.07	21.27	81.77	26.22
GB-443	1,511.92	22.00	79.69	25.00
GB-445	11.07	21.00	81.73	26.31
GB-446	0.00	22.00	86.20	27.82
GB-447	0.00	26.00	91.43	28.35

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P101	117.50	8.00	130.00	66.26	0.42	0.01
P102	117.50	8.00	130.00	-244.58	1.56	0.16
P103	739.21	8.00	130.00	145.59	0.93	0.38
P104	117.50	8.00	130.00	72.47	0.46	0.02
P105	117.50	8.00	130.00	133.10	0.85	0.05
P106	436.40	12.00	130.00	75.22	0.21	0.01
P107	650.57	8.00	130.00	70.40	0.45	0.09
P108	535.27	8.00	130.00	66.24	0.42	0.06
P109	357.35	18.00	130.00	-1,805.71	2.28	0.38
P110	243.09	12.00	130.00	-405.12	1.15	0.12
P111	253.19	8.00	130.00	-104.49	0.67	0.07
P112	380.98	8.00	130.00	137.52	0.88	0.18
P113	904.24	8.00	130.00	-67.73	0.43	0.11
P114	693.26	8.00	130.00	-83.97	0.54	0.13
P115	105.50	8.00	130.00	-12.86	0.08	0.000
P116	147.51	12.00	130.00	-10.42	0.03	0.0000
P117	132.50	12.00	130.00	-161.29	0.46	0.01
P118	226.54	8.00	130.00	88.18	0.56	0.05
P119	193.01	8.00	130.00	18.26	0.12	0.00
P120	193.01	8.00	130.00	-41.87	0.27	0.01
P121	713.00	8.00	130.00	5.99	0.04	0.000
P122	615.89	8.00	130.00	-7.63	0.05	0.00
P123	713.00	8.00	130.00	-117.30	0.75	0.25
P124	677.66	8.00	130.00	-120.30	0.77	0.25
P125	476.65	8.00	130.00	-122.71	0.78	0.18
P126	117.50	8.00	130.00	-115.05	0.73	0.04
P127	677.66	8.00	130.00	116.50	0.74	0.23
P128	193.00	8.00	130.00	-18.60	0.12	0.00
P129	117.50	8.00	130.00	-100.05	0.64	0.03
P130	633.34	8.00	130.00	48.41	0.31	0.04
P131	232.72	8.00	130.00	57.33	0.37	0.02
P132	233.02	8.00	130.00	64.17	0.41	0.03
P133	618.66	8.00	130.00	42.56	0.27	0.03
P134	713.00	8.00	130.00	-38.91	0.25	0.03
P135	195.00	8.00	130.00	54.38	0.35	0.02
P136	193.00	8.00	130.00	107.80	0.69	0.06
P137	112.20	18.00	130.00	1,723.58	2.17	0.11
P138	701.50	8.00	130.00	-65.10	0.42	0.08
P139	378.03	8.00	130.00	-85.87	0.55	0.07

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P140	586.50	8.00	130.00	-3.09	0.02	0.000
P141	253.00	8.00	130.00	61.87	0.39	0.03
P142	233.00	8.00	130.00	-38.40	0.25	0.01
P143	233.00	8.00	130.00	-63.69	0.41	0.03
P144	232.70	8.00	130.00	-52.60	0.34	0.02
P145	574.54	8.00	130.00	11.66	0.07	0.00
P146	105.50	8.00	130.00	63.25	0.40	0.01
P147	126.23	8.00	130.00	96.76	0.62	0.03
P148	126.78	8.00	130.00	33.79	0.22	0.00
P149	388.16	8.00	130.00	8.35	0.05	0.000
P150	117.50	8.00	130.00	1.71	0.01	0.0000
P151	611.16	8.00	130.00	-6.85	0.04	0.00
P152	418.00	8.00	130.00	-6.53	0.04	0.000
P153	97.50	8.00	130.00	-6.40	0.04	0.000
P154	261.76	8.00	130.00	-37.21	0.24	0.01
P155	839.51	8.00	130.00	6.79	0.04	0.00
P156	170.40	8.00	130.00	16.12	0.10	0.00
P157	116.20	8.00	130.00	8.55	0.05	0.000
P158	248.92	8.00	130.00	-36.88	0.24	0.01
P159	247.10	8.00	130.00	-9.44	0.06	0.000
P160	247.67	8.00	130.00	12.57	0.08	0.00
P161	247.82	8.00	130.00	29.91	0.19	0.01
P162	247.00	8.00	130.00	-16.57	0.11	0.00
P163	249.87	8.00	130.00	-10.49	0.07	0.000
P164	1,149.31	8.00	130.00	19.11	0.12	0.01
P165	710.72	12.00	130.00	-315.72	0.90	0.21
P166	369.00	8.00	130.00	170.57	1.09	0.25
P167	253.00	8.00	130.00	134.53	0.86	0.11
P168	918.21	8.00	130.00	60.18	0.38	0.09
P169	282.81	8.00	130.00	111.63	0.71	0.09
P170	333.36	12.00	130.00	-68.55	0.19	0.01
P171	253.00	8.00	130.00	159.30	1.02	0.15
P172	234.54	8.00	130.00	97.98	0.63	0.06
P173	253.00	8.00	130.00	57.97	0.37	0.02
P174	657.99	8.00	130.00	56.70	0.36	0.06
P175	633.34	8.00	130.00	22.57	0.14	0.01
P176	253.02	8.00	130.00	33.27	0.21	0.01
P177	633.34	8.00	130.00	69.25	0.44	0.08
P178	242.02	12.00	130.00	338.84	0.96	0.08



**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P179	253.00	8.00	130.00	165.98	1.06	0.17
P180	273.00	8.00	130.00	-136.40	0.87	0.12
P181	628.13	12.00	130.00	386.81	1.10	0.27
P182	797.55	12.00	130.00	325.51	0.92	0.25
P183	578.83	12.00	130.00	475.22	1.35	0.37
P184	193.00	8.00	130.00	-724.30	4.62	1.94
P185	653.19	8.00	130.00	385.35	2.46	2.04
P186	193.00	8.00	130.00	142.07	0.91	0.09
P187	193.00	8.00	130.00	146.99	0.94	0.10
P188	437.56	8.00	130.00	311.15	1.99	0.92
P189	203.57	12.00	130.00	87.05	0.25	0.01
P190	596.95	8.00	130.00	205.52	1.31	0.58
P191	292.91	8.00	130.00	16.20	0.10	0.00
P192	695.05	8.00	130.00	-81.23	0.52	0.12
P193	253.00	8.00	130.00	85.26	0.54	0.05
P194	656.00	8.00	130.00	-74.03	0.47	0.10
P195	504.88	8.00	130.00	-90.50	0.58	0.11
P196	313.32	8.00	130.00	-39.37	0.25	0.01
P197	549.00	8.00	130.00	86.73	0.55	0.11
P198	253.00	8.00	130.00	43.30	0.28	0.01
P199	253.00	8.00	130.00	75.95	0.48	0.04
P200	253.00	8.00	130.00	158.03	1.01	0.15
P201	403.00	8.00	130.00	82.16	0.52	0.07
P202	276.11	8.00	130.00	257.51	1.64	0.41
P203	253.02	8.00	130.00	-126.99	0.81	0.10
P204	253.02	8.00	130.00	-70.73	0.45	0.03
P205	236.90	8.00	130.00	-38.07	0.24	0.01
P206	636.18	8.00	130.00	47.94	0.31	0.04
P207	211.30	8.00	130.00	33.85	0.22	0.01
P208	232.70	8.00	130.00	63.98	0.41	0.03
P209	233.00	8.00	130.00	97.98	0.63	0.06
P210	233.00	8.00	130.00	204.14	1.30	0.22
P211	621.42	8.00	130.00	-126.86	0.81	0.25
P212	253.02	8.00	130.00	-75.45	0.48	0.04
P213	699.07	8.00	130.00	-27.14	0.17	0.02
P214	253.02	8.00	130.00	-15.71	0.10	0.00
P215	613.13	8.00	130.00	-12.71	0.08	0.00
P216	253.00	8.00	130.00	32.21	0.21	0.01
P217	233.00	8.00	130.00	21.30	0.14	0.00

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P218	289.50	8.00	130.00	23.06	0.15	0.00
P219	313.50	8.00	130.00	-154.18	0.98	0.18
P220	391.14	12.00	130.00	621.80	1.76	0.41
P221	590.71	8.00	130.00	67.00	0.43	0.07
P222	253.00	8.00	130.00	32.90	0.21	0.01
P223	390.32	8.00	130.00	119.08	0.76	0.14
P224	430.55	8.00	130.00	50.45	0.32	0.03
P225	248.33	12.00	130.00	523.79	1.49	0.19
P226	430.73	8.00	130.00	-27.09	0.17	0.01
P227	412.22	12.00	130.00	462.44	1.31	0.25
P228	262.25	12.00	130.00	461.53	1.31	0.16
P229	253.00	12.00	130.00	407.42	1.16	0.12
P230	273.31	12.00	130.00	377.76	1.07	0.11
P231	234.73	12.00	130.00	455.29	1.29	0.14
P232	422.16	12.00	130.00	-534.14	1.52	0.33
P233	596.34	12.00	130.00	-482.14	1.37	0.39
P234	591.74	12.00	130.00	-275.65	0.78	0.14
P235	587.67	12.00	130.00	-833.40	2.36	1.06
P236	457.95	12.00	130.00	-518.64	1.47	0.34
P237	359.68	12.00	130.00	-55.34	0.16	0.00
P238	193.00	8.00	130.00	-12.43	0.08	0.00
P239	487.33	8.00	130.00	107.66	0.69	0.14
P240	486.84	8.00	130.00	-85.67	0.55	0.09
P241	708.39	8.00	130.00	-86.03	0.55	0.14
P242	617.10	8.00	130.00	-87.61	0.56	0.12
P243	319.69	18.00	130.00	-912.17	1.15	0.09
P244	861.88	12.00	130.00	-42.13	0.12	0.01
P245	534.05	18.00	130.00	-575.97	0.73	0.07
P246	627.02	18.00	130.00	-586.39	0.74	0.08
P247	195.01	18.00	130.00	-747.68	0.94	0.04
P248	751.91	18.00	130.00	-135.27	0.17	0.01
P249	370.87	12.00	130.00	-972.92	2.76	0.89
P250	602.79	8.00	130.00	-212.04	1.35	0.62
P251	656.30	8.00	130.00	-254.35	1.62	0.95
P252	501.81	8.00	130.00	-129.05	0.82	0.21
P253	464.05	12.00	130.00	452.65	1.28	0.27
P254	250.56	12.00	130.00	477.78	1.36	0.16
P255	423.72	8.00	130.00	-79.36	0.51	0.07
P256	235.04	8.00	130.00	-37.12	0.24	0.01

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P257	344.48	8.00	130.00	87.79	0.56	0.07
P258	656.00	8.00	130.00	62.15	0.40	0.07
P259	497.14	8.00	130.00	286.13	1.83	0.89
P260	494.52	8.00	130.00	-126.19	0.81	0.20
P261	466.36	8.00	130.00	147.14	0.94	0.24
P262	616.00	8.00	130.00	402.28	2.57	2.08
P263	651.25	8.00	130.00	266.36	1.70	1.03
P264	246.49	8.00	130.00	90.50	0.58	0.05
P265	375.42	12.00	130.00	-269.36	0.76	0.08
P266	665.79	8.00	130.00	182.49	1.16	0.52
P267	285.98	8.00	130.00	-114.46	0.73	0.09
P268	272.69	8.00	130.00	61.25	0.39	0.03
P269	744.21	8.00	130.00	17.79	0.11	0.01
P270	105.50	8.00	130.00	3.95	0.03	0.0000
P271	892.22	8.00	130.00	41.50	0.26	0.04
P272	193.00	8.00	130.00	15.33	0.10	0.00
P273	105.50	8.00	130.00	20.04	0.13	0.00
P274	698.75	8.00	130.00	0.64	0.00	0.0000
P275	181.50	12.00	130.00	-473.85	1.34	0.12
P276	112.20	8.00	130.00	-70.86	0.45	0.02
P277	698.70	8.00	130.00	-30.27	0.19	0.02
P278	713.00	8.00	130.00	2.53	0.02	0.000
P279	422.00	8.00	130.00	-84.99	0.54	0.08
P280	117.50	8.00	130.00	14.93	0.10	0.000
P281	589.97	8.00	130.00	-220.81	1.41	0.66
P282	130.50	8.00	130.00	-218.54	1.39	0.14
P283	410.65	18.00	130.00	-1,847.47	2.33	0.45
P284	500.49	8.00	130.00	-165.63	1.06	0.33
P285	807.99	8.00	130.00	23.65	0.15	0.01
P286	193.00	8.00	130.00	12.28	0.08	0.00
P287	263.00	8.00	130.00	72.37	0.46	0.04
P288	738.30	8.00	130.00	19.85	0.13	0.01
P289	233.02	8.00	130.00	-36.08	0.23	0.01
P290	739.64	8.00	130.00	-105.14	0.67	0.21
P291	252.00	8.00	130.00	-11.48	0.07	0.00
P292	262.03	8.00	130.00	-72.88	0.47	0.04
P293	924.17	8.00	130.00	-10.41	0.07	0.00
P294	770.75	8.00	130.00	-30.17	0.19	0.02
P295	956.68	8.00	130.00	52.22	0.33	0.07

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P296	693.81	8.00	130.00	-232.17	1.48	0.85
P297	678.13	8.00	130.00	86.09	0.55	0.13
P298	837.42	8.00	130.00	31.79	0.20	0.03
P299	557.94	8.00	130.00	-199.02	1.27	0.51
P300	696.14	8.00	130.00	-8.39	0.05	0.00
P301	468.04	8.00	130.00	-7.13	0.05	0.00
P302	255.36	8.00	130.00	-19.65	0.13	0.00
P303	247.32	8.00	130.00	23.91	0.15	0.00
P304	208.11	12.00	130.00	-888.67	2.52	0.42
P305	88.53	8.00	130.00	42.75	0.27	0.00
P306	193.00	8.00	130.00	-221.43	1.41	0.22
P307	582.27	8.00	130.00	21.09	0.13	0.01
P308	677.66	8.00	130.00	-124.16	0.79	0.26
P309	195.00	8.00	130.00	-68.62	0.44	0.02
P310	132.50	12.00	130.00	-220.98	0.63	0.02
P311	380.98	8.00	130.00	-152.04	0.97	0.21
P312	475.68	8.00	130.00	-137.00	0.87	0.22
P313	655.89	8.00	130.00	-51.08	0.33	0.05
P314	653.93	8.00	130.00	-74.09	0.47	0.10
P315	215.00	8.00	130.00	7.52	0.05	0.00
P316	195.01	8.00	130.00	54.76	0.35	0.02
P317	214.88	8.00	130.00	16.18	0.10	0.00
P318	252.22	8.00	130.00	-1.75	0.01	0.00
P319	245.38	8.00	130.00	14.52	0.09	0.00
P320	607.50	8.00	130.00	-8.48	0.05	0.00
P321	574.53	8.00	130.00	-10.98	0.07	0.00
P322	105.50	8.00	130.00	-38.72	0.25	0.00
P323	212.18	8.00	130.00	14.32	0.09	0.00
P324	105.50	8.00	130.00	9.01	0.06	0.00
P325	211.00	8.00	130.00	-26.02	0.17	0.00
P326	211.30	8.00	130.00	-44.41	0.28	0.01
P327	209.82	8.00	130.00	-22.84	0.15	0.00
P328	728.60	8.00	130.00	43.27	0.28	0.04
P329	594.64	8.00	130.00	65.89	0.42	0.07
P330	258.06	8.00	130.00	-84.79	0.54	0.05
P331	499.01	8.00	130.00	60.12	0.38	0.05
P332	545.88	8.00	130.00	-39.99	0.26	0.03
P333	783.02	8.00	130.00	20.10	0.13	0.01
P334	260.55	12.00	130.00	-235.18	0.67	0.05

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P335	255.00	8.00	130.00	468.85	2.99	1.15
P336	255.00	8.00	130.00	179.31	1.14	0.19
P337	255.07	8.00	130.00	76.56	0.49	0.04
P338	255.00	12.00	130.00	702.54	1.99	0.34
P339	255.00	12.00	130.00	-494.15	1.40	0.18
P340	255.00	8.00	130.00	17.03	0.11	0.00
P341	255.00	8.00	130.00	-9.06	0.06	0.000
P342	246.98	8.00	130.00	-3.02	0.02	0.0000
P343	253.00	8.00	130.00	-77.48	0.49	0.04
P344	147.50	12.00	130.00	79.38	0.23	0.00
P345	147.37	12.00	130.00	210.32	0.60	0.02
P346	147.50	12.00	130.00	228.89	0.65	0.02
P347	147.59	12.00	130.00	-380.81	1.08	0.06
P348	381.04	8.00	130.00	-96.03	0.61	0.09
P349	190.72	18.00	130.00	-858.97	1.08	0.05
P350	253.02	8.00	130.00	31.29	0.20	0.01
P351	233.00	8.00	130.00	12.24	0.08	0.00
P352	1,365.42	24.00	130.00	1,247.74	0.88	0.18
P353	1,505.76	30.00	130.00	-1,247.74	0.57	0.07
P354	369.99	8.00	130.00	-94.10	0.60	0.08
P355	369.99	8.00	130.00	-108.28	0.69	0.11
P356	117.50	8.00	130.00	-37.88	0.24	0.01
P357	195.00	8.00	130.00	-71.43	0.46	0.03
P358	193.00	8.00	130.00	-72.58	0.46	0.03
P359	500.49	8.00	130.00	-143.45	0.92	0.25
P360	500.78	8.00	130.00	-194.14	1.24	0.44
P361	677.66	8.00	130.00	-116.32	0.74	0.23
P362	482.45	12.00	130.00	204.27	0.58	0.06
P363	677.66	8.00	130.00	-121.39	0.77	0.25
P364	1,180.18	30.00	130.00	-890.27	0.40	0.03
P365	1,577.01	24.00	130.00	-1,726.57	1.22	0.38
P366	701.50	24.00	130.00	-1,980.88	1.40	0.22
P367	242.00	18.00	130.00	1,602.41	2.02	0.20
P368	738.68	18.00	130.00	1,373.52	1.73	0.47
P369	253.00	8.00	130.00	-63.85	0.41	0.03
P370	660.09	8.00	130.00	-96.62	0.62	0.16
P371	193.00	18.00	130.00	1,297.80	1.64	0.11
P372	595.91	18.00	130.00	1,108.45	1.40	0.25
P373	191.34	18.00	130.00	975.14	1.23	0.06

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P374	105.50	8.00	130.00	20.52	0.13	0.00
P375	607.50	8.00	130.00	-21.67	0.14	0.01
P376	438.00	18.00	130.00	865.67	1.09	0.12
P377	650.57	18.00	130.00	655.35	0.83	0.10
P378	112.20	8.00	130.00	-183.01	1.17	0.09
P379	117.50	8.00	130.00	18.55	0.12	0.00
P380	348.36	8.00	130.00	25.37	0.16	0.01
P381	178.10	12.00	130.00	-249.34	0.71	0.03
P382	1,122.42	24.00	130.00	-3,828.35	2.72	1.17
P383	93.09	8.00	130.00	-154.40	0.99	0.05
P384	195.01	8.00	130.00	77.13	0.49	0.03
P385	4,416.05	30.00	130.00	712.14	0.32	0.07
P386	3,100.00	24.00	130.00	-3,856.46	2.73	3.27
P388	1,581.75	18.00	130.00	744.84	0.94	0.32
P389	621.96	18.00	130.00	736.23	0.93	0.12
P990	235.86	99.00	130.00	712.14	0.03	0.0000
P991	377.34	99.00	130.00	712.14	0.03	0.0000
P992	233.99	99.00	130.00	3,856.46	0.16	0.000
P993	232.72	99.00	130.00	3,856.46	0.16	0.000

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-443 - PUMP REPORT - GREENBRIAR**

<b>ID</b>	<b>Elevation (ft)</b>	<b>Downstream Pressure (psi)</b>	<b>Flow (gpm)</b>	<b>Head Gain (ft)</b>
<b>PUMP105</b>	<b>22.00</b>	<b>27.82</b>	<b>712.14</b>	<b>86.20</b>
<b>PUMP107</b>	<b>26.00</b>	<b>28.35</b>	<b>3,856.46</b>	<b>91.44</b>

**MAXIMUM DAY DEMANDS  
WITH FIRE FLOW AT GB-313**



**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-101	0.00	20.00	83.84	27.66
GB-103	4.98	15.00	84.00	29.90
GB-105	4.98	19.00	84.35	28.32
GB-107	0.00	20.00	84.56	27.98
GB-108	28.11	21.00	85.85	28.10
GB-109	30.65	20.00	83.55	27.53
GB-111	17.03	20.00	83.55	27.54
GB-113	15.33	19.59	83.59	27.73
GB-115	25.54	18.97	83.86	28.12
GB-117	17.03	18.87	83.56	28.03
GB-119	19.36	18.84	83.51	28.03
GB-121	15.33	18.80	83.51	28.04
GB-122	28.53	18.80	84.31	28.39
GB-123	14.47	19.02	83.57	27.97
GB-125	24.69	18.39	83.60	28.26
GB-127	13.62	18.28	83.55	28.28
GB-128	41.75	18.50	84.01	28.39
GB-129	14.47	18.53	83.54	28.17
GB-131	23.84	17.81	83.53	28.48
GB-133	13.62	17.67	83.52	28.53
GB-135	11.92	17.23	83.50	28.72
GB-137	17.03	17.16	83.54	28.76
GB-139	17.03	17.85	83.54	28.47
GB-141	36.61	18.91	83.55	28.01
GB-143	22.13	18.52	83.53	28.17
GB-145	11.92	18.08	83.52	28.35
GB-147	22.32	17.24	83.50	28.71
GB-149	16.18	17.21	83.49	28.72
GB-151	18.73	16.99	83.49	28.82
GB-153	19.36	16.99	83.49	28.82
GB-155	6.82	16.94	83.49	28.84
GB-157	2.56	16.96	83.48	28.82
GB-159	5.76	16.62	83.46	28.96
GB-161	4.26	17.14	83.15	28.60
GB-163	9.36	17.39	83.17	28.50
GB-165	10.21	17.79	83.40	28.43
GB-167	23.73	18.26	83.25	28.16
GB-169	4.26	19.75	82.89	27.36
GB-171	8.51	20.27	82.80	27.09

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-173	28.46	20.84	82.72	26.81
GB-175	1.70	16.69	83.48	28.94
GB-177	5.96	16.45	82.91	28.80
GB-179	10.21	16.82	82.96	28.66
GB-181	5.96	16.63	83.48	28.97
GB-183	20.44	16.54	83.48	29.01
GB-185	34.06	16.64	83.48	28.96
GB-187	18.73	16.47	83.48	29.03
GB-189	8.51	16.36	83.48	29.08
GB-191	18.53	16.28	83.48	29.12
GB-193	11.67	16.24	83.48	29.13
GB-195	11.67	16.38	82.80	28.78
GB-197	20.44	16.75	82.80	28.62
GB-199	20.44	17.29	82.83	28.40
GB-201	23.84	17.77	82.86	28.20
GB-203	30.53	18.25	82.86	27.99
GB-205	30.53	19.83	82.61	27.20
GB-207	23.84	20.34	82.61	26.98
GB-209	11.92	20.85	82.61	26.76
GB-210	18.62	15.00	83.78	29.80
GB-211	45.98	18.60	83.67	28.20
GB-213	22.13	17.80	83.53	28.48
GB-215	29.98	17.16	83.48	28.74
GB-217	11.92	16.45	83.47	29.04
GB-219	12.77	16.33	82.54	28.69
GB-221	17.33	16.30	82.40	28.64
GB-223	18.44	16.58	82.55	28.58
GB-225	10.21	16.63	82.54	28.56
GB-227	11.07	16.52	82.54	28.61
GB-229	18.87	16.65	82.40	28.49
GB-231	18.73	16.65	82.40	28.49
GB-233	11.92	16.59	82.40	28.51
GB-235	18.73	17.04	82.40	28.32
GB-237	12.52	16.54	82.40	28.54
GB-239	12.52	16.37	82.47	28.64
GB-241	23.84	16.74	82.47	28.48
GB-243	25.54	17.28	82.48	28.25
GB-245	23.84	17.76	82.54	28.07
GB-247	16.18	18.25	82.54	27.86

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - JUNCTION REPORT - GREENBRIAR**

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
GB-249	35.65	19.30	82.37	27.33
GB-251	16.18	19.87	82.43	27.11
GB-253	23.84	20.36	82.43	26.90
GB-255	31.86	20.86	82.41	26.67
GB-257	21.28	18.14	83.48	28.31
GB-259	10.21	17.78	83.48	28.47
GB-261	11.07	17.15	83.44	28.72
GB-263	12.77	16.46	83.38	29.00
GB-265	24.97	18.00	83.46	28.36
GB-267	19.87	16.46	83.21	28.92
GB-269	18.73	16.52	82.62	28.64
GB-271	17.88	17.44	82.55	28.21
GB-273	10.21	18.00	82.53	27.96
GB-275	9.50	18.00	82.51	27.95
GB-277	10.21	18.00	82.45	27.93
GB-279	18.73	17.76	82.41	28.01
GB-281	9.36	17.04	82.40	28.32
GB-283	21.28	17.28	82.16	28.11
GB-285	25.54	19.52	82.05	27.10
GB-286	17.03	20.86	82.24	26.60
GB-287	17.03	18.00	83.48	28.37
GB-288	9.36	16.45	83.03	28.85
GB-289	6.82	16.52	82.70	28.68
GB-290	11.07	18.00	82.53	27.96
GB-291	16.18	17.04	82.40	28.32
GB-292	7.66	16.37	82.25	28.55
GB-293	13.62	16.74	82.21	28.37
GB-294	10.56	17.28	82.14	28.10
GB-295	0.00	15.00	83.76	29.79
GB-297	0.00	18.00	83.51	28.39
GB-299	0.00	16.45	82.96	28.82
GB-301	0.00	16.53	82.74	28.69
GB-303	0.00	18.00	82.53	27.96
GB-305	0.00	17.05	82.39	28.31
GB-307	0.00	16.86	82.20	28.31
GB-309	0.00	17.28	82.12	28.09
GB-311	32.39	19.13	81.88	27.19
GB-313	2,042.13	20.80	73.68	22.91
GB-315	15.33	18.00	82.28	27.85

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - JUNCTION REPORT - GREENBRIAR**

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
GB-317	14.47	17.77	82.31	27.96
GB-319	9.36	17.24	82.42	28.24
GB-321	9.36	16.45	82.68	28.70
GB-323	22.13	16.54	81.92	28.33
GB-325	17.88	17.42	81.91	27.94
GB-327	14.47	18.00	81.91	27.69
GB-329	10.21	18.00	81.91	27.69
GB-331	4.26	17.39	81.91	27.95
GB-333	11.92	17.35	82.37	28.17
GB-335	10.21	16.42	82.42	28.60
GB-337	18.73	18.00	82.24	27.84
GB-339	16.18	18.00	82.25	27.84
GB-341	13.45	17.49	82.28	28.07
GB-343	10.90	16.16	82.30	28.66
GB-345	14.47	18.00	82.18	27.81
GB-347	17.03	18.00	82.19	27.81
GB-349	6.82	17.75	82.19	27.92
GB-351	21.28	18.00	82.13	27.79
GB-352	30.14	17.35	82.08	28.05
GB-353	16.18	17.91	82.12	27.82
GB-355	13.62	17.82	82.15	27.87
GB-357	15.16	17.40	82.16	28.06
GB-359	11.75	16.14	82.16	28.60
GB-361	16.18	17.26	82.04	28.07
GB-362	20.44	16.38	82.07	28.46
GB-363	11.07	16.29	81.96	28.45
GB-365	14.18	16.32	82.00	28.46
GB-367	19.23	16.59	81.97	28.33
GB-369	17.03	17.03	81.93	28.12
GB-371	13.62	16.87	81.91	28.18
GB-373	10.21	16.73	81.91	28.24
GB-375	14.73	16.59	81.91	28.30
GB-377	18.32	16.34	81.91	28.41
GB-379	45.40	17.08	81.92	28.09
GB-381	25.98	16.42	81.83	28.34
GB-383	17.47	18.29	81.83	27.53
GB-385	10.65	18.09	81.85	27.63
GB-387	15.35	18.82	81.84	27.31
GB-389	9.36	18.79	81.84	27.32

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-391	38.21	18.77	81.85	27.33
GB-393	15.03	16.43	81.83	28.33
GB-395	15.33	17.71	81.82	27.78
GB-397	37.53	18.80	81.82	27.31
GB-399	34.97	19.79	81.82	26.88
GB-401	19.59	20.09	81.82	26.75
GB-403	11.07	20.39	81.82	26.62
GB-405	11.57	16.13	81.83	28.47
GB-407	22.13	17.95	81.82	27.67
GB-409	13.62	19.40	81.82	27.05
GB-411	17.03	16.46	81.83	28.33
GB-413	26.39	18.20	81.82	27.57
GB-415	13.62	19.96	81.82	26.80
GB-417	35.25	16.45	81.87	28.35
GB-419	11.07	18.63	81.83	27.38
GB-421	33.40	19.83	81.81	26.86
GB-423	11.07	20.20	81.81	26.70
GB-425	22.08	20.56	81.81	26.54
GB-427	11.07	21.58	81.81	26.10
GB-429	27.19	21.13	81.81	26.29
GB-431	22.13	21.45	81.81	26.15
GB-433	34.25	22.00	81.81	25.91
GB-435	17.03	21.27	81.81	26.23
GB-437	17.88	22.00	81.81	25.91
GB-439	17.88	22.00	81.81	25.91
GB-441	11.07	21.27	81.81	26.23
GB-443	11.92	22.00	81.81	25.91
GB-445	11.07	21.00	81.81	26.35
GB-446	0.00	22.00	83.89	26.82
GB-447	0.00	26.00	89.44	27.49

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P101	117.50	8.00	130.00	84.55	0.54	0.02
P102	117.50	8.00	130.00	-261.64	1.67	0.18
P103	739.21	8.00	130.00	159.79	1.02	0.45
P104	117.50	8.00	130.00	78.86	0.50	0.02
P105	117.50	8.00	130.00	171.50	1.09	0.08
P106	436.40	12.00	130.00	143.26	0.41	0.03
P107	650.57	8.00	130.00	101.55	0.65	0.17
P108	535.27	8.00	130.00	97.68	0.62	0.13
P109	357.35	18.00	130.00	-2,028.25	2.56	0.47
P110	243.09	12.00	130.00	-295.09	0.84	0.06
P111	253.19	8.00	130.00	-70.41	0.45	0.03
P112	380.98	8.00	130.00	189.90	1.21	0.32
P113	904.24	8.00	130.00	-13.92	0.09	0.01
P114	693.26	8.00	130.00	-99.79	0.64	0.18
P115	105.50	8.00	130.00	-13.97	0.09	0.000
P116	147.51	12.00	130.00	-86.65	0.25	0.00
P117	132.50	12.00	130.00	-145.18	0.41	0.01
P118	226.54	8.00	130.00	99.84	0.64	0.06
P119	193.01	8.00	130.00	13.96	0.09	0.00
P120	193.01	8.00	130.00	-61.98	0.40	0.02
P121	713.00	8.00	130.00	-12.62	0.08	0.00
P122	615.89	8.00	130.00	11.33	0.07	0.00
P123	713.00	8.00	130.00	-131.03	0.84	0.30
P124	677.66	8.00	130.00	-140.49	0.90	0.33
P125	476.65	8.00	130.00	-135.59	0.87	0.22
P126	117.50	8.00	130.00	-127.93	0.82	0.05
P127	677.66	8.00	130.00	138.27	0.88	0.32
P128	193.00	8.00	130.00	-13.88	0.09	0.00
P129	117.50	8.00	130.00	-118.36	0.76	0.04
P130	633.34	8.00	130.00	44.29	0.28	0.04
P131	232.72	8.00	130.00	48.93	0.31	0.02
P132	233.02	8.00	130.00	74.73	0.48	0.03
P133	618.66	8.00	130.00	41.03	0.26	0.03
P134	713.00	8.00	130.00	-48.54	0.31	0.05
P135	195.00	8.00	130.00	41.06	0.26	0.01
P136	193.00	8.00	130.00	110.49	0.71	0.06
P137	112.20	18.00	130.00	2,003.62	2.53	0.14
P138	701.50	8.00	130.00	-7.60	0.05	0.00
P139	378.03	8.00	130.00	-60.49	0.39	0.04

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P140	586.50	8.00	130.00	15.02	0.10	0.00
P141	253.00	8.00	130.00	82.22	0.52	0.05
P142	233.00	8.00	130.00	-31.78	0.20	0.01
P143	233.00	8.00	130.00	-66.70	0.43	0.03
P144	232.70	8.00	130.00	-71.60	0.46	0.03
P145	574.54	8.00	130.00	-8.06	0.05	0.00
P146	105.50	8.00	130.00	22.70	0.14	0.00
P147	126.23	8.00	130.00	141.55	0.90	0.06
P148	126.78	8.00	130.00	72.19	0.46	0.02
P149	388.16	8.00	130.00	-0.74	0.00	0.0000
P150	117.50	8.00	130.00	0.30	0.00	0.0000
P151	611.16	8.00	130.00	1.64	0.01	0.00000
P152	418.00	8.00	130.00	-14.06	0.09	0.00
P153	97.50	8.00	130.00	-12.67	0.08	0.000
P154	261.76	8.00	130.00	-60.30	0.38	0.03
P155	839.51	8.00	130.00	22.10	0.14	0.01
P156	170.40	8.00	130.00	24.83	0.16	0.00
P157	116.20	8.00	130.00	14.86	0.09	0.000
P158	248.92	8.00	130.00	-83.33	0.53	0.05
P159	247.10	8.00	130.00	-45.42	0.29	0.01
P160	247.67	8.00	130.00	-22.79	0.15	0.00
P161	247.82	8.00	130.00	-10.21	0.07	0.000
P162	247.00	8.00	130.00	16.11	0.10	0.00
P163	249.87	8.00	130.00	21.56	0.14	0.00
P164	1,149.31	8.00	130.00	40.70	0.26	0.06
P165	710.72	12.00	130.00	-137.65	0.39	0.05
P166	369.00	8.00	130.00	93.90	0.60	0.08
P167	253.00	8.00	130.00	80.52	0.51	0.04
P168	918.21	8.00	130.00	40.24	0.26	0.04
P169	282.81	8.00	130.00	81.20	0.52	0.05
P170	333.36	12.00	130.00	-0.51	0.00	0.00
P171	253.00	8.00	130.00	165.28	1.05	0.16
P172	234.54	8.00	130.00	106.70	0.68	0.07
P173	253.00	8.00	130.00	71.43	0.46	0.03
P174	657.99	8.00	130.00	53.71	0.34	0.05
P175	633.34	8.00	130.00	8.54	0.05	0.00
P176	253.02	8.00	130.00	44.27	0.28	0.01
P177	633.34	8.00	130.00	86.75	0.55	0.13
P178	242.02	12.00	130.00	390.59	1.11	0.11

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P179	253.00	8.00	130.00	132.62	0.85	0.11
P180	273.00	8.00	130.00	-29.25	0.19	0.01
P181	628.13	12.00	130.00	79.27	0.22	0.01
P182	797.55	12.00	130.00	118.51	0.34	0.04
P183	578.83	12.00	130.00	220.47	0.63	0.09
P184	193.00	8.00	130.00	-8.54	0.05	0.000
P185	653.19	8.00	130.00	-3.34	0.02	0.000
P186	193.00	8.00	130.00	1.12	0.01	0.0000
P187	193.00	8.00	130.00	-0.69	0.00	0.00
P188	437.56	8.00	130.00	21.78	0.14	0.01
P189	203.57	12.00	130.00	27.39	0.08	0.000
P190	596.95	8.00	130.00	25.47	0.16	0.01
P191	292.91	8.00	130.00	27.82	0.18	0.01
P192	695.05	8.00	130.00	-21.86	0.14	0.01
P193	253.00	8.00	130.00	-9.72	0.06	0.000
P194	656.00	8.00	130.00	-56.17	0.36	0.06
P195	504.88	8.00	130.00	-67.56	0.43	0.06
P196	313.32	8.00	130.00	-31.40	0.20	0.01
P197	549.00	8.00	130.00	64.27	0.41	0.06
P198	253.00	8.00	130.00	36.34	0.23	0.01
P199	253.00	8.00	130.00	63.91	0.41	0.03
P200	253.00	8.00	130.00	123.11	0.79	0.10
P201	403.00	8.00	130.00	62.73	0.40	0.04
P202	276.11	8.00	130.00	204.72	1.31	0.27
P203	253.02	8.00	130.00	-151.99	0.97	0.14
P204	253.02	8.00	130.00	-84.69	0.54	0.05
P205	236.90	8.00	130.00	-52.66	0.34	0.02
P206	636.18	8.00	130.00	30.62	0.20	0.02
P207	211.30	8.00	130.00	46.55	0.30	0.01
P208	232.70	8.00	130.00	76.31	0.49	0.04
P209	233.00	8.00	130.00	107.33	0.69	0.07
P210	233.00	8.00	130.00	221.60	1.41	0.26
P211	621.42	8.00	130.00	-134.48	0.86	0.28
P212	253.02	8.00	130.00	-70.99	0.45	0.03
P213	699.07	8.00	130.00	-29.17	0.19	0.02
P214	253.02	8.00	130.00	-42.77	0.27	0.01
P215	613.13	8.00	130.00	-35.49	0.23	0.02
P216	253.00	8.00	130.00	1.34	0.01	0.0000
P217	233.00	8.00	130.00	-11.80	0.08	0.00



**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P218	289.50	8.00	130.00	-43.32	0.28	0.02
P219	313.50	8.00	130.00	-208.55	1.33	0.31
P220	391.14	12.00	130.00	487.88	1.38	0.26
P221	590.71	8.00	130.00	47.66	0.30	0.04
P222	253.00	8.00	130.00	28.53	0.18	0.01
P223	390.32	8.00	130.00	91.31	0.58	0.08
P224	430.55	8.00	130.00	45.56	0.29	0.03
P225	248.33	12.00	130.00	405.37	1.15	0.12
P226	430.73	8.00	130.00	-7.92	0.05	0.00
P227	412.22	12.00	130.00	348.91	0.99	0.15
P228	262.25	12.00	130.00	52.76	0.15	0.00
P229	253.00	12.00	130.00	52.47	0.15	0.00
P230	273.31	12.00	130.00	56.81	0.16	0.00
P231	234.73	12.00	130.00	100.89	0.29	0.01
P232	422.16	12.00	130.00	-110.56	0.31	0.02
P233	596.34	12.00	130.00	-63.45	0.18	0.01
P234	591.74	12.00	130.00	-13.16	0.04	0.000
P235	587.67	12.00	130.00	-339.68	0.96	0.20
P236	457.95	12.00	130.00	-211.88	0.60	0.07
P237	359.68	12.00	130.00	-91.22	0.26	0.01
P238	193.00	8.00	130.00	-18.63	0.12	0.00
P239	487.33	8.00	130.00	124.46	0.79	0.19
P240	486.84	8.00	130.00	-96.39	0.62	0.12
P241	708.39	8.00	130.00	-103.93	0.66	0.20
P242	617.10	8.00	130.00	-110.72	0.71	0.19
P243	319.69	18.00	130.00	-1,275.34	1.61	0.18
P244	861.88	12.00	130.00	-2,042.13	5.79	8.20
P245	534.05	18.00	130.00	-852.04	1.07	0.14
P246	627.02	18.00	130.00	-938.69	1.18	0.20
P247	195.01	18.00	130.00	-1,083.88	1.37	0.08
P248	751.91	18.00	130.00	-952.52	1.20	0.24
P249	370.87	12.00	130.00	-153.34	0.43	0.03
P250	602.79	8.00	130.00	-27.09	0.17	0.01
P251	656.30	8.00	130.00	-6.61	0.04	0.00
P252	501.81	8.00	130.00	-151.22	0.97	0.28
P253	464.05	12.00	130.00	110.00	0.31	0.02
P254	250.56	12.00	130.00	345.08	0.98	0.09
P255	423.72	8.00	130.00	-55.96	0.36	0.04
P256	235.04	8.00	130.00	-32.88	0.21	0.01

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P257	344.48	8.00	130.00	72.29	0.46	0.05
P258	656.00	8.00	130.00	46.66	0.30	0.04
P259	497.14	8.00	130.00	12.67	0.08	0.00
P260	494.52	8.00	130.00	6.33	0.04	0.000
P261	466.36	8.00	130.00	5.44	0.03	0.000
P262	616.00	8.00	130.00	6.72	0.04	0.00
P263	651.25	8.00	130.00	18.49	0.12	0.01
P264	246.49	8.00	130.00	66.92	0.43	0.03
P265	375.42	12.00	130.00	-82.41	0.23	0.01
P266	665.79	8.00	130.00	63.58	0.41	0.07
P267	285.98	8.00	130.00	-66.71	0.43	0.03
P268	272.69	8.00	130.00	-1.34	0.01	0.0000
P269	744.21	8.00	130.00	20.18	0.13	0.01
P270	105.50	8.00	130.00	4.91	0.03	0.0000
P271	892.22	8.00	130.00	54.42	0.35	0.07
P272	193.00	8.00	130.00	-3.61	0.02	0.0000
P273	105.50	8.00	130.00	-9.97	0.06	0.000
P274	698.75	8.00	130.00	-5.86	0.04	0.000
P275	181.50	12.00	130.00	-512.65	1.45	0.13
P276	112.20	8.00	130.00	-63.59	0.41	0.01
P277	698.70	8.00	130.00	-32.51	0.21	0.02
P278	713.00	8.00	130.00	18.52	0.12	0.01
P279	422.00	8.00	130.00	-125.71	0.80	0.17
P280	117.50	8.00	130.00	7.62	0.05	0.000
P281	589.97	8.00	130.00	-240.92	1.54	0.77
P282	130.50	8.00	130.00	-258.25	1.65	0.19
P283	410.65	18.00	130.00	-2,070.00	2.61	0.56
P284	500.49	8.00	130.00	-182.68	1.17	0.39
P285	807.99	8.00	130.00	-69.89	0.45	0.11
P286	193.00	8.00	130.00	19.46	0.12	0.00
P287	263.00	8.00	130.00	-28.16	0.18	0.01
P288	738.30	8.00	130.00	23.63	0.15	0.01
P289	233.02	8.00	130.00	-48.17	0.31	0.02
P290	739.64	8.00	130.00	-116.23	0.74	0.25
P291	252.00	8.00	130.00	-27.94	0.18	0.01
P292	262.03	8.00	130.00	-98.36	0.63	0.07
P293	924.17	8.00	130.00	-20.88	0.13	0.01
P294	770.75	8.00	130.00	-19.67	0.13	0.01
P295	956.68	8.00	130.00	29.56	0.19	0.03

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P296	693.81	8.00	130.00	-35.87	0.23	0.03
P297	678.13	8.00	130.00	102.06	0.65	0.18
P298	837.42	8.00	130.00	45.60	0.29	0.05
P299	557.94	8.00	130.00	-35.20	0.22	0.02
P300	696.14	8.00	130.00	-9.01	0.06	0.00
P301	468.04	8.00	130.00	-2.37	0.02	0.000
P302	255.36	8.00	130.00	8.26	0.05	0.000
P303	247.32	8.00	130.00	-4.01	0.03	0.000
P304	208.11	12.00	130.00	-701.96	1.99	0.27
P305	88.53	8.00	130.00	68.58	0.44	0.01
P306	193.00	8.00	130.00	-231.47	1.48	0.23
P307	582.27	8.00	130.00	11.18	0.07	0.00
P308	677.66	8.00	130.00	-145.75	0.93	0.35
P309	195.00	8.00	130.00	-53.95	0.34	0.02
P310	132.50	12.00	130.00	-208.32	0.59	0.02
P311	380.98	8.00	130.00	-189.63	1.21	0.32
P312	475.68	8.00	130.00	-151.29	0.97	0.26
P313	655.89	8.00	130.00	-46.34	0.30	0.04
P314	653.93	8.00	130.00	-71.36	0.46	0.09
P315	215.00	8.00	130.00	17.57	0.11	0.00
P316	195.01	8.00	130.00	85.74	0.55	0.04
P317	214.88	8.00	130.00	43.39	0.28	0.01
P318	252.22	8.00	130.00	-8.35	0.05	0.000
P319	245.38	8.00	130.00	21.12	0.13	0.00
P320	607.50	8.00	130.00	12.24	0.08	0.00
P321	574.53	8.00	130.00	9.86	0.06	0.00
P322	105.50	8.00	130.00	-12.21	0.08	0.000
P323	212.18	8.00	130.00	0.28	0.00	0.00000
P324	105.50	8.00	130.00	3.33	0.02	0.0000
P325	211.00	8.00	130.00	-35.32	0.23	0.01
P326	211.30	8.00	130.00	-45.64	0.29	0.01
P327	209.82	8.00	130.00	-8.80	0.06	0.000
P328	728.60	8.00	130.00	9.28	0.06	0.00
P329	594.64	8.00	130.00	14.92	0.10	0.00
P330	258.06	8.00	130.00	-6.77	0.04	0.000
P331	499.01	8.00	130.00	15.55	0.10	0.00
P332	545.88	8.00	130.00	-6.55	0.04	0.000
P333	783.02	8.00	130.00	8.35	0.05	0.00
P334	260.55	12.00	130.00	-5.47	0.02	0.0000

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P335	255.00	8.00	130.00	27.31	0.17	0.01
P336	255.00	8.00	130.00	23.11	0.15	0.00
P337	255.07	8.00	130.00	13.77	0.09	0.00
P338	255.00	12.00	130.00	79.26	0.22	0.01
P339	255.00	12.00	130.00	-34.70	0.10	0.00
P340	255.00	8.00	130.00	12.14	0.08	0.00
P341	255.00	8.00	130.00	2.29	0.01	0.0000
P342	246.98	8.00	130.00	18.56	0.12	0.00
P343	253.00	8.00	130.00	-61.99	0.40	0.03
P344	147.50	12.00	130.00	86.06	0.24	0.00
P345	147.37	12.00	130.00	279.87	0.79	0.04
P346	147.50	12.00	130.00	261.37	0.74	0.03
P347	147.59	12.00	130.00	-412.07	1.17	0.07
P348	381.04	8.00	130.00	-134.05	0.86	0.17
P349	190.72	18.00	130.00	-1,048.92	1.32	0.07
P350	253.02	8.00	130.00	24.79	0.16	0.00
P351	233.00	8.00	130.00	30.35	0.19	0.01
P352	1,365.42	24.00	130.00	1,165.89	0.83	0.16
P353	1,505.76	30.00	130.00	-1,165.89	0.53	0.06
P354	369.99	8.00	130.00	-112.40	0.72	0.12
P355	369.99	8.00	130.00	-129.68	0.83	0.15
P356	117.50	8.00	130.00	-39.76	0.25	0.01
P357	195.00	8.00	130.00	-72.22	0.46	0.03
P358	193.00	8.00	130.00	-70.24	0.45	0.03
P359	500.49	8.00	130.00	-168.16	1.07	0.34
P360	500.78	8.00	130.00	-218.15	1.39	0.55
P361	677.66	8.00	130.00	-137.95	0.88	0.32
P362	482.45	12.00	130.00	25.22	0.07	0.00
P363	677.66	8.00	130.00	-141.70	0.90	0.33
P364	1,180.18	30.00	130.00	-756.68	0.34	0.02
P365	1,577.01	24.00	130.00	-1,683.52	1.19	0.36
P366	701.50	24.00	130.00	-1,957.95	1.39	0.21
P367	242.00	18.00	130.00	1,769.22	2.23	0.24
P368	738.68	18.00	130.00	1,507.86	1.90	0.56
P369	253.00	8.00	130.00	-56.65	0.36	0.02
P370	660.09	8.00	130.00	-105.87	0.68	0.19
P371	193.00	18.00	130.00	1,543.78	1.95	0.15
P372	595.91	18.00	130.00	1,337.37	1.69	0.36
P373	191.34	18.00	130.00	1,181.90	1.49	0.09

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P374	105.50	8.00	130.00	42.93	0.27	0.01
P375	607.50	8.00	130.00	-8.57	0.05	0.00
P376	438.00	18.00	130.00	1,217.97	1.54	0.22
P377	650.57	18.00	130.00	938.10	1.18	0.20
P378	112.20	8.00	130.00	-171.00	1.09	0.08
P379	117.50	8.00	130.00	-16.33	0.10	0.00
P380	348.36	8.00	130.00	17.69	0.11	0.00
P381	178.10	12.00	130.00	-269.45	0.76	0.04
P382	1,122.42	24.00	130.00	-4,027.95	2.86	1.28
P383	93.09	8.00	130.00	-98.46	0.63	0.02
P384	195.01	8.00	130.00	120.42	0.77	0.07
P385	4,416.05	30.00	130.00	1,012.54	0.46	0.13
P386	3,100.00	24.00	130.00	-4,056.06	2.88	3.59
P388	1,581.75	18.00	130.00	924.07	1.17	0.48
P389	621.96	18.00	130.00	930.38	1.17	0.19
P990	235.86	99.00	130.00	1,012.54	0.04	0.0000
P991	377.34	99.00	130.00	1,012.54	0.04	0.0000
P992	233.99	99.00	130.00	4,056.06	0.17	0.000
P993	232.72	99.00	130.00	4,056.06	0.17	0.000

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-313 - PUMP REPORT - GREENBRIAR**

<b>ID</b>	<b>Elevation (ft)</b>	<b>Downstream Pressure (psi)</b>	<b>Flow (gpm)</b>	<b>Head Gain (ft)</b>
<b>PUMP105</b>	<b>22.00</b>	<b>26.82</b>	<b>1,012.54</b>	<b>83.89</b>
<b>PUMP107</b>	<b>26.00</b>	<b>27.49</b>	<b>4,056.06</b>	<b>89.44</b>

**MAXIMUM DAY DEMANDS  
WITH FIRE FLOW AT GB-427**

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-101	0.00	20.00	79.25	25.67
GB-103	4.98	15.00	79.43	27.92
GB-105	4.98	19.00	79.85	26.37
GB-107	0.00	20.00	80.10	26.04
GB-108	28.11	21.00	81.66	26.28
GB-109	30.65	20.00	78.87	25.51
GB-111	17.03	20.00	78.88	25.51
GB-113	15.33	19.59	78.92	25.71
GB-115	25.54	18.97	79.27	26.13
GB-117	17.03	18.87	78.89	26.01
GB-119	19.36	18.84	78.83	26.00
GB-121	15.33	18.80	78.82	26.01
GB-122	28.53	18.80	79.81	26.43
GB-123	14.47	19.02	78.90	25.95
GB-125	24.69	18.39	78.94	26.24
GB-127	13.62	18.28	78.88	26.26
GB-128	41.75	18.50	79.42	26.40
GB-129	14.47	18.53	78.86	26.14
GB-131	23.84	17.81	78.85	26.45
GB-133	13.62	17.67	78.84	26.51
GB-135	11.92	17.23	78.81	26.68
GB-137	17.03	17.16	78.84	26.73
GB-139	17.03	17.85	78.84	26.43
GB-141	36.61	18.91	78.87	25.98
GB-143	22.13	18.52	78.85	26.14
GB-145	11.92	18.08	78.83	26.32
GB-147	22.32	17.24	78.80	26.68
GB-149	16.18	17.21	78.80	26.69
GB-151	18.73	16.99	78.80	26.78
GB-153	19.36	16.99	78.80	26.78
GB-155	6.82	16.94	78.80	26.80
GB-157	2.56	16.96	78.78	26.79
GB-159	5.76	16.62	78.75	26.92
GB-161	4.26	17.14	78.33	26.51
GB-163	9.36	17.39	78.35	26.41
GB-165	10.21	17.79	78.66	26.37
GB-167	23.73	18.26	78.47	26.09
GB-169	4.26	19.75	78.02	25.25
GB-171	8.51	20.27	77.91	24.97



**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-173	28.46	20.84	77.82	24.69
GB-175	1.70	16.69	78.78	26.90
GB-177	5.96	16.45	78.01	26.68
GB-179	10.21	16.82	78.07	26.54
GB-181	5.96	16.63	78.79	26.93
GB-183	20.44	16.54	78.79	26.97
GB-185	34.06	16.64	78.78	26.92
GB-187	18.73	16.47	78.78	27.00
GB-189	8.51	16.36	78.78	27.05
GB-191	18.53	16.28	78.78	27.08
GB-193	11.67	16.24	78.78	27.10
GB-195	11.67	16.38	77.85	26.64
GB-197	20.44	16.75	77.86	26.48
GB-199	20.44	17.29	77.90	26.26
GB-201	23.84	17.77	77.94	26.07
GB-203	30.53	18.25	77.95	25.87
GB-205	30.53	19.83	77.68	25.07
GB-207	23.84	20.34	77.68	24.84
GB-209	11.92	20.85	77.67	24.62
GB-210	18.62	15.00	79.18	27.81
GB-211	45.98	18.60	79.03	26.19
GB-213	22.13	17.80	78.84	26.45
GB-215	29.98	17.16	78.77	26.69
GB-217	11.92	16.45	78.74	26.99
GB-219	12.77	16.33	77.31	26.42
GB-221	17.33	16.30	77.13	26.36
GB-223	18.44	16.58	77.31	26.31
GB-225	10.21	16.63	77.31	26.29
GB-227	11.07	16.52	77.30	26.34
GB-229	18.87	16.65	77.14	26.21
GB-231	18.73	16.65	77.14	26.21
GB-233	11.92	16.59	77.13	26.23
GB-235	18.73	17.04	77.13	26.04
GB-237	12.52	16.54	77.13	26.26
GB-239	12.52	16.37	77.38	26.43
GB-241	23.84	16.74	77.38	26.27
GB-243	25.54	17.28	77.41	26.05
GB-245	23.84	17.76	77.52	25.89
GB-247	16.18	18.25	77.53	25.69

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - JUNCTION REPORT - GREENBRIAR**

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
GB-249	35.65	19.30	77.36	25.16
GB-251	16.18	19.87	77.45	24.95
GB-253	23.84	20.36	77.45	24.74
GB-255	31.86	20.86	77.43	24.51
GB-257	21.28	18.14	78.73	26.25
GB-259	10.21	17.78	78.73	26.41
GB-261	11.07	17.15	78.68	26.66
GB-263	12.77	16.46	78.56	26.91
GB-265	24.97	18.00	78.67	26.29
GB-267	19.87	16.46	78.25	26.77
GB-269	18.73	16.52	77.39	26.38
GB-271	17.88	17.44	77.32	25.94
GB-273	10.21	18.00	77.29	25.69
GB-275	9.50	18.00	77.27	25.68
GB-277	10.21	18.00	77.20	25.65
GB-279	18.73	17.76	77.15	25.73
GB-281	9.36	17.04	77.14	26.04
GB-283	21.28	17.28	76.95	25.86
GB-285	25.54	19.52	76.97	24.89
GB-286	17.03	20.86	77.21	24.42
GB-287	17.03	18.00	78.70	26.30
GB-288	9.36	16.45	77.91	26.63
GB-289	6.82	16.52	77.48	26.41
GB-290	11.07	18.00	77.29	25.69
GB-291	16.18	17.04	77.14	26.04
GB-292	7.66	16.37	77.01	26.27
GB-293	13.62	16.74	76.92	26.08
GB-294	10.56	17.28	76.84	25.81
GB-295	0.00	15.00	79.16	27.80
GB-297	0.00	18.00	78.74	26.32
GB-299	0.00	16.45	77.77	26.57
GB-301	0.00	16.53	77.52	26.43
GB-303	0.00	18.00	77.29	25.69
GB-305	0.00	17.05	77.13	26.03
GB-307	0.00	16.86	76.90	26.02
GB-309	0.00	17.28	76.80	25.79
GB-311	32.39	19.13	76.77	24.98
GB-313	42.13	20.80	76.76	24.25
GB-315	15.33	18.00	75.65	24.98

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - JUNCTION REPORT - GREENBRIAR**

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
GB-317	14.47	17.77	75.73	25.11
GB-319	9.36	17.24	76.06	25.49
GB-321	9.36	16.45	76.89	26.19
GB-323	22.13	16.54	74.22	24.99
GB-325	17.88	17.42	74.22	24.61
GB-327	14.47	18.00	74.22	24.36
GB-329	10.21	18.00	74.22	24.36
GB-331	4.26	17.39	74.22	24.62
GB-333	11.92	17.35	75.90	25.37
GB-335	10.21	16.42	76.03	25.83
GB-337	18.73	18.00	75.49	24.91
GB-339	16.18	18.00	75.52	24.92
GB-341	13.45	17.49	75.58	25.17
GB-343	10.90	16.16	75.62	25.76
GB-345	14.47	18.00	75.25	24.81
GB-347	17.03	18.00	75.27	24.82
GB-349	6.82	17.75	75.29	24.93
GB-351	21.28	18.00	75.04	24.72
GB-352	30.14	17.35	74.80	24.89
GB-353	16.18	17.91	74.98	24.73
GB-355	13.62	17.82	75.09	24.82
GB-357	15.16	17.40	75.10	25.00
GB-359	11.75	16.14	75.03	25.52
GB-361	16.18	17.26	74.46	24.79
GB-362	20.44	16.38	74.62	25.23
GB-363	11.07	16.29	73.72	24.88
GB-365	14.18	16.32	74.30	25.13
GB-367	19.23	16.59	74.27	24.99
GB-369	17.03	17.03	74.23	24.79
GB-371	13.62	16.87	74.22	24.85
GB-373	10.21	16.73	74.22	24.91
GB-375	14.73	16.59	74.22	24.97
GB-377	18.32	16.34	74.22	25.08
GB-379	45.40	17.08	74.35	24.81
GB-381	25.98	16.42	72.74	24.41
GB-383	17.47	18.29	72.66	23.56
GB-385	10.65	18.09	73.36	23.95
GB-387	15.35	18.82	73.33	23.62
GB-389	9.36	18.79	73.76	23.82

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - JUNCTION REPORT - GREENBRIAR**

<b>ID</b>	<b>Demand (gpm)</b>	<b>Elevation (ft)</b>	<b>Head (ft)</b>	<b>Pressure (psi)</b>
GB-391	38.21	18.77	74.60	24.19
GB-393	15.03	16.43	72.41	24.26
GB-395	15.33	17.71	72.24	23.63
GB-397	37.53	18.80	72.27	23.17
GB-399	34.97	19.79	72.37	22.78
GB-401	19.59	20.09	72.41	22.67
GB-403	11.07	20.39	72.44	22.55
GB-405	11.57	16.13	72.35	24.36
GB-407	22.13	17.95	72.10	23.46
GB-409	13.62	19.40	71.89	22.74
GB-411	17.03	16.46	72.36	24.22
GB-413	26.39	18.20	71.98	23.30
GB-415	13.62	19.96	71.45	22.31
GB-417	35.25	16.45	72.66	24.35
GB-419	11.07	18.63	71.89	23.08
GB-421	33.40	19.83	71.08	22.21
GB-423	11.07	20.20	70.93	21.98
GB-425	22.08	20.56	70.84	21.79
GB-427	3,011.07	21.58	68.88	20.49
GB-429	27.19	21.13	70.90	21.56
GB-431	22.13	21.45	71.17	21.54
GB-433	34.25	22.00	71.24	21.34
GB-435	17.03	21.27	70.72	21.42
GB-437	17.88	22.00	70.40	20.97
GB-439	17.88	22.00	70.81	21.15
GB-441	11.07	21.27	70.73	21.43
GB-443	11.92	22.00	70.58	21.05
GB-445	11.07	21.00	70.82	21.59
GB-446	0.00	22.00	79.45	24.89
GB-447	0.00	26.00	86.01	26.00

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P101	117.50	8.00	130.00	84.33	0.54	0.02
P102	117.50	8.00	130.00	-370.26	2.36	0.34
P103	739.21	8.00	130.00	216.10	1.38	0.79
P104	117.50	8.00	130.00	80.24	0.51	0.02
P105	117.50	8.00	130.00	180.23	1.15	0.09
P106	436.40	12.00	130.00	137.96	0.39	0.03
P107	650.57	8.00	130.00	108.80	0.69	0.20
P108	535.27	8.00	130.00	104.83	0.67	0.15
P109	357.35	18.00	130.00	-2,279.77	2.87	0.58
P110	243.09	12.00	130.00	-697.21	1.98	0.32
P111	253.19	8.00	130.00	-172.60	1.10	0.18
P112	380.98	8.00	130.00	212.79	1.36	0.40
P113	904.24	8.00	130.00	-155.78	0.99	0.53
P114	693.26	8.00	130.00	-113.98	0.73	0.23
P115	105.50	8.00	130.00	-17.06	0.11	0.00
P116	147.51	12.00	130.00	-103.92	0.29	0.01
P117	132.50	12.00	130.00	-234.96	0.67	0.02
P118	226.54	8.00	130.00	123.26	0.79	0.09
P119	193.01	8.00	130.00	22.44	0.14	0.00
P120	193.01	8.00	130.00	-67.69	0.43	0.02
P121	713.00	8.00	130.00	-12.47	0.08	0.00
P122	615.89	8.00	130.00	11.38	0.07	0.00
P123	713.00	8.00	130.00	-147.72	0.94	0.38
P124	677.66	8.00	130.00	-171.79	1.10	0.47
P125	476.65	8.00	130.00	-181.60	1.16	0.37
P126	117.50	8.00	130.00	-173.94	1.11	0.08
P127	677.66	8.00	130.00	160.87	1.03	0.42
P128	193.00	8.00	130.00	-21.98	0.14	0.00
P129	117.50	8.00	130.00	-139.19	0.89	0.06
P130	633.34	8.00	130.00	60.27	0.38	0.06
P131	232.72	8.00	130.00	61.32	0.39	0.02
P132	233.02	8.00	130.00	87.18	0.56	0.05
P133	618.66	8.00	130.00	46.49	0.30	0.04
P134	713.00	8.00	130.00	-55.22	0.35	0.06
P135	195.00	8.00	130.00	76.64	0.49	0.03
P136	193.00	8.00	130.00	156.42	1.00	0.11
P137	112.20	18.00	130.00	2,273.38	2.87	0.18
P138	701.50	8.00	130.00	10.64	0.07	0.00
P139	378.03	8.00	130.00	-55.92	0.36	0.03

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P140	586.50	8.00	130.00	22.66	0.14	0.01
P141	253.00	8.00	130.00	95.30	0.61	0.06
P142	233.00	8.00	130.00	-35.39	0.23	0.01
P143	233.00	8.00	130.00	-76.99	0.49	0.04
P144	232.70	8.00	130.00	-84.33	0.54	0.04
P145	574.54	8.00	130.00	-10.99	0.07	0.00
P146	105.50	8.00	130.00	16.52	0.11	0.000
P147	126.23	8.00	130.00	151.66	0.97	0.07
P148	126.78	8.00	130.00	80.92	0.52	0.02
P149	388.16	8.00	130.00	-4.19	0.03	0.000
P150	117.50	8.00	130.00	-2.01	0.01	0.00
P151	611.16	8.00	130.00	2.99	0.02	0.000
P152	418.00	8.00	130.00	-16.06	0.10	0.00
P153	97.50	8.00	130.00	-14.04	0.09	0.000
P154	261.76	8.00	130.00	-65.78	0.42	0.03
P155	839.51	8.00	130.00	25.35	0.16	0.02
P156	170.40	8.00	130.00	26.70	0.17	0.00
P157	116.20	8.00	130.00	16.39	0.10	0.00
P158	248.92	8.00	130.00	-79.69	0.51	0.04
P159	247.10	8.00	130.00	-42.64	0.27	0.01
P160	247.67	8.00	130.00	-20.30	0.13	0.00
P161	247.82	8.00	130.00	-7.39	0.05	0.000
P162	247.00	8.00	130.00	13.30	0.08	0.00
P163	249.87	8.00	130.00	19.05	0.12	0.00
P164	1,149.31	8.00	130.00	39.04	0.25	0.05
P165	710.72	12.00	130.00	-545.07	1.55	0.59
P166	369.00	8.00	130.00	304.93	1.95	0.75
P167	253.00	8.00	130.00	243.34	1.55	0.34
P168	918.21	8.00	130.00	100.89	0.64	0.24
P169	282.81	8.00	130.00	175.14	1.12	0.21
P170	333.36	12.00	130.00	-5.81	0.02	0.0000
P171	253.00	8.00	130.00	235.03	1.50	0.32
P172	234.54	8.00	130.00	144.72	0.92	0.12
P173	253.00	8.00	130.00	86.35	0.55	0.05
P174	657.99	8.00	130.00	77.94	0.50	0.11
P175	633.34	8.00	130.00	23.60	0.15	0.01
P176	253.02	8.00	130.00	58.17	0.37	0.02
P177	633.34	8.00	130.00	98.96	0.63	0.16
P178	242.02	12.00	130.00	461.38	1.31	0.15

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P179	253.00	8.00	130.00	241.02	1.54	0.33
P180	273.00	8.00	130.00	-230.87	1.47	0.33
P181	628.13	12.00	130.00	694.07	1.97	0.81
P182	797.55	12.00	130.00	591.97	1.68	0.77
P183	578.83	12.00	130.00	838.93	2.38	1.06
P184	193.00	8.00	130.00	204.04	1.30	0.19
P185	653.19	8.00	130.00	120.36	0.77	0.24
P186	193.00	8.00	130.00	-32.89	0.21	0.01
P187	193.00	8.00	130.00	-43.82	0.28	0.01
P188	437.56	8.00	130.00	143.35	0.91	0.22
P189	203.57	12.00	130.00	510.18	1.45	0.15
P190	596.95	8.00	130.00	309.06	1.97	1.24
P191	292.91	8.00	130.00	43.05	0.27	0.02
P192	695.05	8.00	130.00	-151.64	0.97	0.39
P193	253.00	8.00	130.00	143.71	0.92	0.13
P194	656.00	8.00	130.00	-114.38	0.73	0.22
P195	504.88	8.00	130.00	-140.60	0.90	0.24
P196	313.32	8.00	130.00	-54.35	0.35	0.03
P197	549.00	8.00	130.00	135.26	0.86	0.25
P198	253.00	8.00	130.00	57.15	0.36	0.02
P199	253.00	8.00	130.00	99.55	0.64	0.06
P200	253.00	8.00	130.00	237.16	1.51	0.32
P201	403.00	8.00	130.00	127.11	0.81	0.16
P202	276.11	8.00	130.00	377.49	2.41	0.83
P203	253.02	8.00	130.00	-180.79	1.15	0.19
P204	253.02	8.00	130.00	-104.32	0.67	0.07
P205	236.90	8.00	130.00	-65.17	0.42	0.03
P206	636.18	8.00	130.00	49.83	0.32	0.04
P207	211.30	8.00	130.00	56.61	0.36	0.02
P208	232.70	8.00	130.00	89.50	0.57	0.05
P209	233.00	8.00	130.00	122.92	0.78	0.09
P210	233.00	8.00	130.00	249.32	1.59	0.32
P211	621.42	8.00	130.00	-151.27	0.97	0.34
P212	253.02	8.00	130.00	-80.79	0.52	0.04
P213	699.07	8.00	130.00	-37.28	0.24	0.03
P214	253.02	8.00	130.00	-49.72	0.32	0.02
P215	613.13	8.00	130.00	-38.84	0.25	0.03
P216	253.00	8.00	130.00	-2.55	0.02	0.0000
P217	233.00	8.00	130.00	-21.15	0.13	0.00

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P218	289.50	8.00	130.00	-61.91	0.40	0.03
P219	313.50	8.00	130.00	-244.04	1.56	0.42
P220	391.14	12.00	130.00	928.27	2.63	0.86
P221	590.71	8.00	130.00	109.84	0.70	0.18
P222	253.00	8.00	130.00	40.62	0.26	0.01
P223	390.32	8.00	130.00	179.41	1.15	0.30
P224	430.55	8.00	130.00	55.25	0.35	0.04
P225	248.33	12.00	130.00	796.08	2.26	0.41
P226	430.73	8.00	130.00	-77.23	0.49	0.07
P227	412.22	12.00	130.00	729.94	2.07	0.58
P228	262.25	12.00	130.00	956.79	2.71	0.61
P229	253.00	12.00	130.00	814.64	2.31	0.44
P230	273.31	12.00	130.00	720.12	2.04	0.38
P231	234.73	12.00	130.00	799.64	2.27	0.39
P232	422.16	12.00	130.00	-942.95	2.67	0.96
P233	596.34	12.00	130.00	-985.57	2.80	1.47
P234	591.74	12.00	130.00	-1,174.57	3.33	2.02
P235	587.67	12.00	130.00	-1,307.88	3.71	2.45
P236	457.95	12.00	130.00	-918.58	2.61	0.99
P237	359.68	12.00	130.00	-153.75	0.44	0.03
P238	193.00	8.00	130.00	-21.78	0.14	0.00
P239	487.33	8.00	130.00	139.01	0.89	0.23
P240	486.84	8.00	130.00	-107.07	0.68	0.14
P241	708.39	8.00	130.00	-118.13	0.75	0.25
P242	617.10	8.00	130.00	-126.06	0.80	0.24
P243	319.69	18.00	130.00	-1,352.05	1.70	0.20
P244	861.88	12.00	130.00	-42.13	0.12	0.01
P245	534.05	18.00	130.00	-916.36	1.16	0.16
P246	627.02	18.00	130.00	-1,020.28	1.29	0.23
P247	195.01	18.00	130.00	-1,255.24	1.58	0.10
P248	751.91	18.00	130.00	-294.45	0.37	0.03
P249	370.87	12.00	130.00	-1,571.98	4.46	2.17
P250	602.79	8.00	130.00	-302.55	1.93	1.20
P251	656.30	8.00	130.00	-164.33	1.05	0.42
P252	501.81	8.00	130.00	-169.31	1.08	0.34
P253	464.05	12.00	130.00	754.17	2.14	0.70
P254	250.56	12.00	130.00	795.42	2.26	0.42
P255	423.72	8.00	130.00	-131.97	0.84	0.18
P256	235.04	8.00	130.00	-39.59	0.25	0.01



**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PIPE REPORT - GREENBRIAR**

ID	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)
P257	344.48	8.00	130.00	121.97	0.78	0.13
P258	656.00	8.00	130.00	96.84	0.62	0.16
P259	497.14	8.00	130.00	174.71	1.12	0.36
P260	494.52	8.00	130.00	-189.73	1.21	0.42
P261	466.36	8.00	130.00	170.14	1.09	0.32
P262	616.00	8.00	130.00	95.60	0.61	0.15
P263	651.25	8.00	130.00	150.49	0.96	0.36
P264	246.49	8.00	130.00	135.81	0.87	0.11
P265	375.42	12.00	130.00	-343.91	0.98	0.13
P266	665.79	8.00	130.00	319.78	2.04	1.47
P267	285.98	8.00	130.00	-211.72	1.35	0.29
P268	272.69	8.00	130.00	97.00	0.62	0.07
P269	744.21	8.00	130.00	20.53	0.13	0.01
P270	105.50	8.00	130.00	4.26	0.03	0.0000
P271	892.22	8.00	130.00	57.32	0.37	0.08
P272	193.00	8.00	130.00	19.52	0.12	0.00
P273	105.50	8.00	130.00	-0.83	0.01	0.00
P274	698.75	8.00	130.00	-4.17	0.03	0.000
P275	181.50	12.00	130.00	-573.86	1.63	0.16
P276	112.20	8.00	130.00	-66.66	0.43	0.01
P277	698.70	8.00	130.00	-37.95	0.24	0.03
P278	713.00	8.00	130.00	20.96	0.13	0.01
P279	422.00	8.00	130.00	-125.18	0.80	0.16
P280	117.50	8.00	130.00	22.33	0.14	0.00
P281	589.97	8.00	130.00	-271.49	1.73	0.96
P282	130.50	8.00	130.00	-302.42	1.93	0.26
P283	410.65	18.00	130.00	-2,321.52	2.93	0.69
P284	500.49	8.00	130.00	-213.38	1.36	0.52
P285	807.99	8.00	130.00	20.56	0.13	0.01
P286	193.00	8.00	130.00	22.97	0.15	0.00
P287	263.00	8.00	130.00	113.18	0.72	0.08
P288	738.30	8.00	130.00	25.06	0.16	0.01
P289	233.02	8.00	130.00	-55.16	0.35	0.02
P290	739.64	8.00	130.00	-155.10	0.99	0.43
P291	252.00	8.00	130.00	-18.63	0.12	0.00
P292	262.03	8.00	130.00	-104.19	0.66	0.07
P293	924.17	8.00	130.00	-20.02	0.13	0.01
P294	770.75	8.00	130.00	-52.97	0.34	0.06
P295	956.68	8.00	130.00	77.77	0.50	0.15

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P296	693.81	8.00	130.00	-384.04	2.45	2.15
P297	678.13	8.00	130.00	117.00	0.75	0.23
P298	837.42	8.00	130.00	48.96	0.31	0.06
P299	557.94	8.00	130.00	-335.82	2.14	1.35
P300	696.14	8.00	130.00	-8.73	0.06	0.00
P301	468.04	8.00	130.00	-2.70	0.02	0.000
P302	255.36	8.00	130.00	5.79	0.04	0.000
P303	247.32	8.00	130.00	-1.53	0.01	0.0000
P304	208.11	12.00	130.00	-1,315.12	3.73	0.88
P305	88.53	8.00	130.00	80.99	0.52	0.02
P306	193.00	8.00	130.00	-268.33	1.71	0.31
P307	582.27	8.00	130.00	7.53	0.05	0.00
P308	677.66	8.00	130.00	-175.24	1.12	0.49
P309	195.00	8.00	130.00	-62.64	0.40	0.02
P310	132.50	12.00	130.00	-347.09	0.98	0.05
P311	380.98	8.00	130.00	-229.48	1.46	0.46
P312	475.68	8.00	130.00	-203.54	1.30	0.46
P313	655.89	8.00	130.00	-69.44	0.44	0.09
P314	653.93	8.00	130.00	-103.08	0.66	0.18
P315	215.00	8.00	130.00	20.38	0.13	0.00
P316	195.01	8.00	130.00	92.49	0.59	0.04
P317	214.88	8.00	130.00	48.70	0.31	0.01
P318	252.22	8.00	130.00	-9.72	0.06	0.000
P319	245.38	8.00	130.00	22.49	0.14	0.00
P320	607.50	8.00	130.00	11.39	0.07	0.00
P321	574.53	8.00	130.00	13.10	0.08	0.00
P322	105.50	8.00	130.00	-8.32	0.05	0.000
P323	212.18	8.00	130.00	-2.01	0.01	0.0000
P324	105.50	8.00	130.00	2.69	0.02	0.0000
P325	211.00	8.00	130.00	-43.47	0.28	0.01
P326	211.30	8.00	130.00	-52.82	0.34	0.02
P327	209.82	8.00	130.00	-6.50	0.04	0.000
P328	728.60	8.00	130.00	108.13	0.69	0.22
P329	594.64	8.00	130.00	128.49	0.82	0.24
P330	258.06	8.00	130.00	-145.49	0.93	0.13
P331	499.01	8.00	130.00	118.84	0.76	0.18
P332	545.88	8.00	130.00	-41.99	0.27	0.03
P333	783.02	8.00	130.00	62.93	0.40	0.09
P334	260.55	12.00	130.00	355.76	1.01	0.10

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P335	255.00	8.00	130.00	-546.04	3.49	1.52
P336	255.00	8.00	130.00	-216.19	1.38	0.27
P337	255.07	8.00	130.00	-103.97	0.66	0.07
P338	255.00	12.00	130.00	1,149.74	3.26	0.84
P339	255.00	12.00	130.00	-804.55	2.28	0.43
P340	255.00	8.00	130.00	-77.59	0.50	0.04
P341	255.00	8.00	130.00	-70.41	0.45	0.03
P342	246.98	8.00	130.00	16.90	0.11	0.00
P343	253.00	8.00	130.00	-112.17	0.72	0.08
P344	147.50	12.00	130.00	87.35	0.25	0.00
P345	147.37	12.00	130.00	295.84	0.84	0.04
P346	147.50	12.00	130.00	317.46	0.90	0.04
P347	147.59	12.00	130.00	-577.00	1.64	0.14
P348	381.04	8.00	130.00	-153.96	0.98	0.22
P349	190.72	18.00	130.00	-1,183.95	1.49	0.09
P350	253.02	8.00	130.00	26.48	0.17	0.01
P351	233.00	8.00	130.00	37.99	0.24	0.01
P352	1,365.42	24.00	130.00	1,265.31	0.90	0.18
P353	1,505.76	30.00	130.00	-1,265.31	0.57	0.07
P354	369.99	8.00	130.00	-133.24	0.85	0.16
P355	369.99	8.00	130.00	-153.02	0.98	0.21
P356	117.50	8.00	130.00	-50.23	0.32	0.01
P357	195.00	8.00	130.00	-90.72	0.58	0.04
P358	193.00	8.00	130.00	-90.07	0.57	0.04
P359	500.49	8.00	130.00	-196.33	1.25	0.45
P360	500.78	8.00	130.00	-252.68	1.61	0.72
P361	677.66	8.00	130.00	-160.75	1.03	0.42
P362	482.45	12.00	130.00	1,290.47	3.66	1.96
P363	677.66	8.00	130.00	-173.07	1.10	0.48
P364	1,180.18	30.00	130.00	-785.32	0.36	0.02
P365	1,577.01	24.00	130.00	-1,844.15	1.31	0.42
P366	701.50	24.00	130.00	-2,149.15	1.52	0.25
P367	242.00	18.00	130.00	2,355.13	2.97	0.42
P368	738.68	18.00	130.00	2,037.67	2.57	0.97
P369	253.00	8.00	130.00	-95.74	0.61	0.06
P370	660.09	8.00	130.00	-135.65	0.87	0.30
P371	193.00	18.00	130.00	1,742.16	2.20	0.19
P372	595.91	18.00	130.00	1,505.05	1.90	0.45
P373	191.34	18.00	130.00	1,331.48	1.68	0.11

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PIPE REPORT - GREENBRIAR**

<b>ID</b>	<b>Length (ft)</b>	<b>Diameter (in)</b>	<b>Roughness</b>	<b>Flow (gpm)</b>	<b>Velocity (ft/s)</b>	<b>Headloss (ft)</b>
P374	105.50	8.00	130.00	49.41	0.32	0.01
P375	607.50	8.00	130.00	-10.23	0.07	0.00
P376	438.00	18.00	130.00	1,299.56	1.64	0.25
P377	650.57	18.00	130.00	1,003.72	1.27	0.23
P378	112.20	8.00	130.00	-187.90	1.20	0.09
P379	117.50	8.00	130.00	-22.79	0.15	0.00
P380	348.36	8.00	130.00	16.54	0.11	0.00
P381	178.10	12.00	130.00	-300.02	0.85	0.05
P382	1,122.42	24.00	130.00	-4,470.67	3.17	1.56
P383	93.09	8.00	130.00	-228.75	1.46	0.11
P384	195.01	8.00	130.00	128.90	0.82	0.08
P385	4,416.05	30.00	130.00	1,569.82	0.71	0.30
P386	3,100.00	24.00	130.00	-4,498.78	3.19	4.35
P388	1,581.75	18.00	130.00	1,048.42	1.32	0.61
P389	621.96	18.00	130.00	1,059.29	1.34	0.24
P990	235.86	99.00	130.00	1,569.82	0.07	0.0000
P991	377.34	99.00	130.00	1,569.82	0.07	0.0000
P992	233.99	99.00	130.00	4,498.78	0.19	0.000
P993	232.72	99.00	130.00	4,498.78	0.19	0.000

**MAXIMUM DAY DEMANDS WITH FIRE FLOW AT GB-427 - PUMP REPORT - GREENBRIAR**

<b>ID</b>	<b>Elevation (ft)</b>	<b>Downstream Pressure (psi)</b>	<b>Flow (gpm)</b>	<b>Head Gain (ft)</b>
<b>PUMP105</b>	<b>22.00</b>	<b>24.89</b>	<b>1,569.82</b>	<b>79.45</b>
<b>PUMP107</b>	<b>26.00</b>	<b>26.00</b>	<b>4,498.78</b>	<b>86.01</b>

**APPENDIX E**  
**BOUNDARY CONDITIONS**



DEPARTMENT  
OF UTILITIES  
  
ENGINEERING  
SERVICES DIVISION

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July 14, 2005  
BE:be

**MEMORANDUM**

TO: Joshua Wolf, Project Engineer  
FROM: Brett Ewart, Assistant Engineer  
SUBJECT: **DISTRIBUTION SYSTEM BOUNDARY CONDITIONS FOR GREENBRIAR**

The GREENBRIAR project has been incorporated into the City's regional model to verify boundary conditions and fireflow capacity at three proposed connections to the existing distribution system. Please refer to the attached map and graphs for location of analysis points and associated results.

The following assumptions were incorporated into this review:

1. The developer appropriately allocated demands and required fireflow.
2. Max Day conditions were prevalent.
3. The conditioned T-main alignment of 24 & 30-inch main was added to the proposed project.

Based on these criteria, a Maximum Day Demand condition, steady state modeling analysis was performed. Three (3) hydraulic capacity curves were prepared for the proposed development to represent the general capacity of the existing system at the three connections. This assumes that the proposed development has been constructed with Max Day demands allocated by Wood Rodgers.

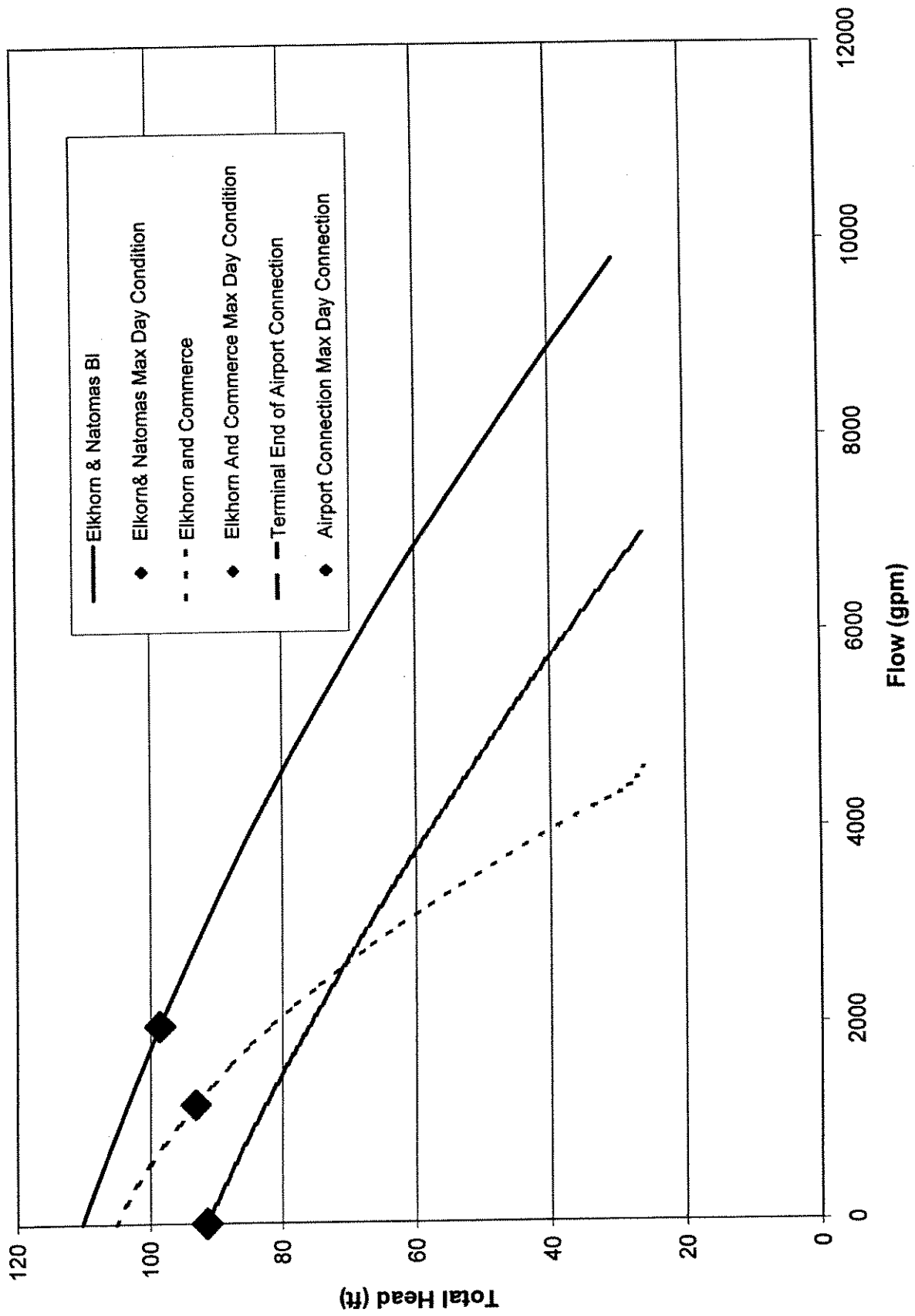
Wood Rogers is encouraged to review the conditions placed upon the proposed project. A new 24/30-inch transmission main traveling west from the existing 24-inch main at the corner of Natomas Bl and Elkhorn Bl will need to terminate at the 30-inch T-main currently being constructed to serve the Airport and Metro Air Park.

This analysis does not represent a verification of the proposed hydraulic model, rather it is the existing boundary conditions should such demands be placed upon the distribution system at proposed location.

Should you have any further questions please do not hesitate to contact me at 808-1725.

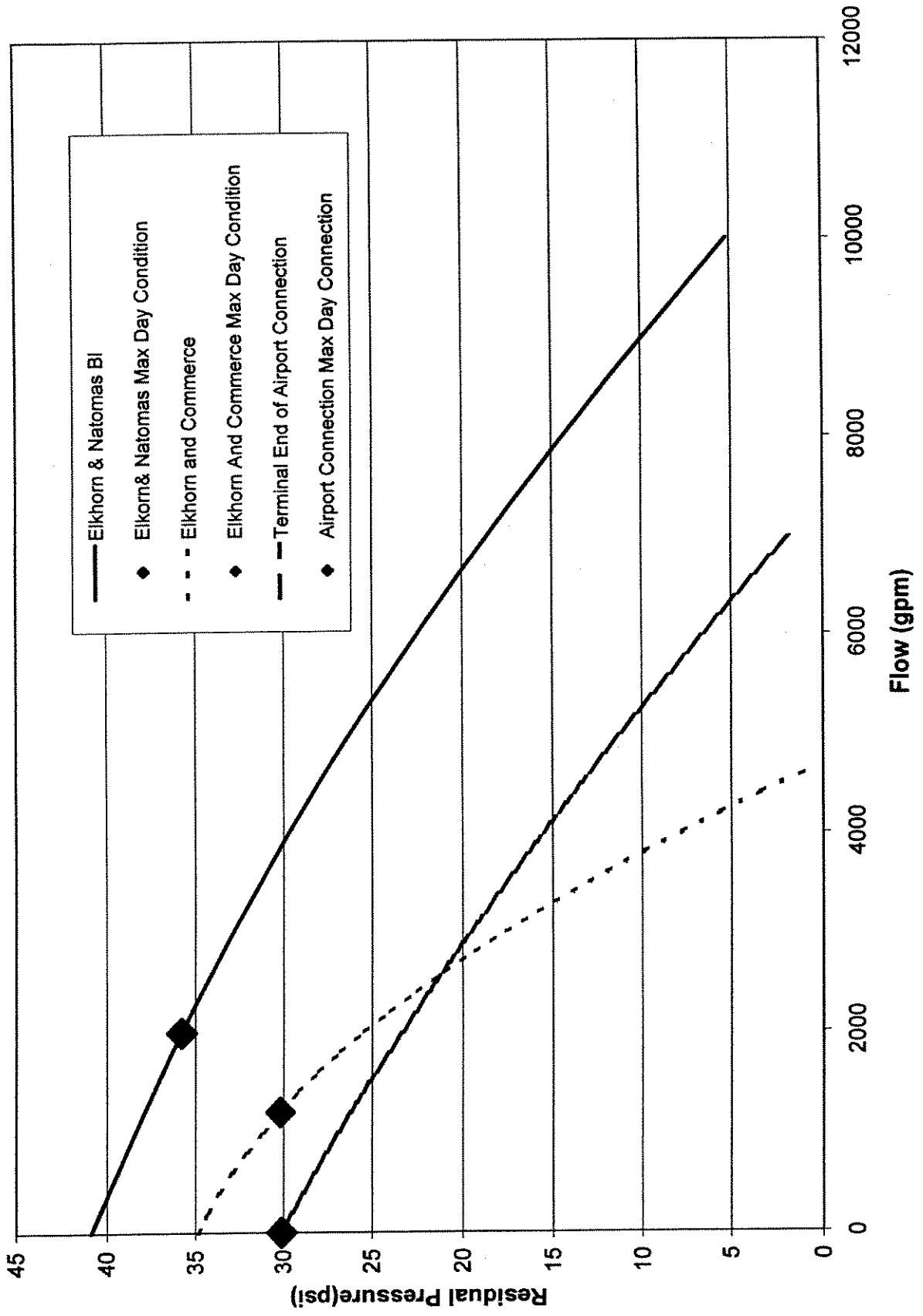
The City does not certify or guarantee the accuracy or reliability of any information, data or modeling results set forth in this memorandum. Numerous factors, including unforeseen conditions and maintenance operations, may affect pressure conditions, and modeling results always should be verified by flow testing. By accepting a copy of this memorandum, any non-City user of this memorandum agrees to these conditions, and further agrees that the City of Sacramento will not be liable for any damages, costs, claims or other liability arising from any actions taken or omissions made in reliance on any information, data or results presented herein, nor will the City be liable for any other consequence arising from any such reliance.

# Greenbriar: Max Day Boundary Conditions Total Head vs. Flow





# Greenbriar: Max Day Boundary Conditions Residual Pressure vs. Flow



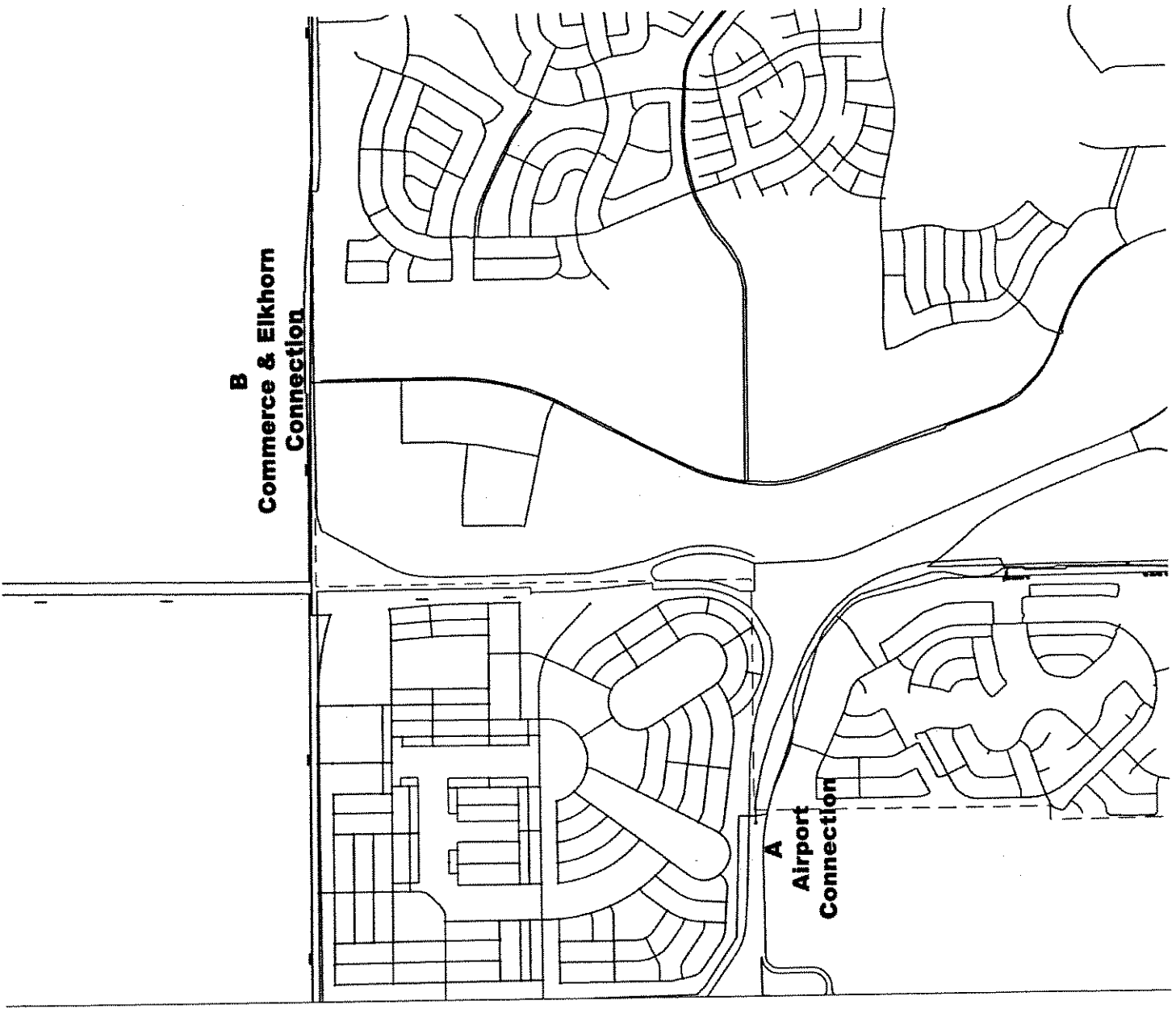
Terminal End of Airport Connection			Elkhorn and Commerce			Elkhorn & Natomas Bl			Elkhorn and Commerce (with future 24" to Natomas Bl)		
Node Elevation			Node Elevation (ft)			Node Elevation (ft)			Node Elevation		
Max Day Boundary Condition											
Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)
0	30	91	1200	30	93	2000	36	99	3200	30	96
0	30	91	0	35	105	0	41	110	0	38	115
200	29	90	200	34	104	200	40	109	200	38	114
400	29	89	400	34	102	400	40	108	400	38	113
600	28	87	600	33	100	600	39	107	600	37	112
800	28	86	800	32	98	800	39	106	800	37	111
1000	27	84	1000	31	96	1000	38	105	1000	36	110
1200	26	82	1200	30	93	1200	38	103	1200	36	109
1400	26	81	1400	29	91	1400	37	102	1400	35	107
1600	25	79	1600	28	88	1600	37	101	1600	35	106
1800	24	78	1800	27	85	1800	36	100	1800	34	105
2000	23	76	2000	25	81	2000	36	99	2000	34	104
2200	23	74	2200	24	78	2200	35	97	2200	33	103
2400	22	72	2400	23	74	2400	35	96	2400	33	101
2600	21	71	2600	21	71	2600	34	95	2600	32	100
2800	20	69	2800	19	67	2800	33	93	2800	32	99
3000	20	67	3000	18	62	3000	33	92	3000	31	97
3200	19	65	3200	16	58	3200	32	90	3200	30	96
3400	18	63	3400	14	54	3400	32	89	3400	30	94
3600	17	62	3600	12	49	3600	31	88	3600	29	93
3800	16	60	3800	10	44	3800	30	86	3800	28	92
4000	16	58	4000	8	39	4000	30	85	4000	28	90
4200	15	56	4200	6	34	4200	29	83	4200	27	88
4400	14	54	4400	3	28	4400	28	81	4400	26	87
4600	13	52	4600	1	26	4600	28	80	4600	26	85
4800	12	50				4800	27	78	4800	25	84
5000	11	48				5000	26	77	5000	24	82
5200	10	46				5200	26	75	5200	24	80
5400	9	44				5400	25	73	5400	23	79
5600	8	41				5600	24	72	5600	22	77
5800	8	39				5800	23	70	5800	21	75
6000	7	37				6000	23	68	6000	20	73
6200	6	35				6200	22	66	6200	20	71
6400	5	33				6400	21	64	6400	19	69
6600	4	30				6600	20	63	6600	18	68
6800	3	28				6800	19	61	6800	17	66
7000	2	26				7000	19	59	7000	16	64
						7200	18	57	7200	15	62
						7400	17	55	7400	15	60
						7600	16	53	7600	14	58
						7800	15	51	7800	13	56
						8000	14	49	8000	12	53
						8200	13	47	8200	11	51
						8400	13	45	8400	10	49
						8600	12	43	8600	9	47
						8800	11	41	8800	8	45
						9000	10	39	9000	7	43
						9200	9	37	9200	6	40
						9400	8	35	9400	5	38
						9600	7	32	9600	4	36
						9800	6	30	9800	3	33
						10000	5	28	10000	2	31
						10200	4	26	10200	1	29
						10400	3	23			
						10600	2	21			
						10800	1	19			

SEE ATTACHED HYDRANT CURVE

HGL (FT)	FIRE FLOW @ 20 PSI	FLOW (GPM)
	N-A	2800
	N-B	2700
	N-C	6600

MAX DAY DEMANDS

NODE	FLOW (GPM)
N-A	(35)
N-A	1200
N-A	2000



Terminal End of Airport Connection - PUMP-105 (XNG5)			Elkhorn and Commerce (with future 24" to Natomas Blvd - PUMP-107 (XNG7))		
Node Elevation (ft)			Node Elevation (ft)		
Max Day Boundary Conditions					
Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)
0	30.1	91.4	3069	30.6	96.7
Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)
0	30.1	91.42	0	38.5	115
200	29.4	89.99	200	38.1	114
400	28.8	88.53	400	37.7	113
600	28.2	87.06	600	37.2	112
800	27.5	85.53	800	36.8	111
1000	26.8	83.99	1000	36.4	110
1200	26.2	82.42	1200	35.9	109
1400	25.5	80.83	1400	35.1	107
1600	24.8	79.21	1600	34.6	106
1800	24.0	77.55	1800	34.2	105
2000	23.3	75.89	2000	33.8	104
2200	22.6	74.18	2200	33.3	103
2400	21.8	72.45	2400	32.5	101
2600	21.1	70.72	2600	32.0	100
2800	20.3	68.95	2800	31.6	99
3000	19.5	67.15	3000	30.7	97
3200	18.7	65.3	3200	30.3	96
3400	17.9	63.46	3400	29.4	94
3600	17.1	61.59	3600	29.0	93
3800	16.3	59.67	3800	28.6	92
4000	15.5	57.76	4000	27.7	90
4200	14.6	55.8	4200	26.8	88
4400	13.8	53.84	4400	26.4	87
4600	12.9	51.83	4600	25.5	85
4800	12.0	49.8	4800	25.1	84
5000	11.1	47.75	5000	24.2	82
5200	10.3	45.69	5200	23.4	80
5400	9.3	43.59	5400	22.9	79
5600	8.4	41.47	5600	22.1	77
5800	7.5	39.33	5800	21.2	75
6000	6.5	37.13	6000	20.3	73
6200	5.6	34.94	6200	19.5	71
6400	4.6	32.73	6400	18.6	69
6600	3.7	30.49	6600	18.2	68
6800	2.7	28.23	6800	17.3	66
7000	1.7	25.92	7000	16.5	64
			7200	15.6	62
			7400	14.7	60
			7600	13.9	58
			7800	13.0	56
			8000	11.7	53
			8200	10.8	51
			8400	10.0	49
			8600	9.1	47
			8800	8.2	45
			9000	7.4	43
			9200	6.1	40
			9400	5.2	38
			9600	4.3	36
			9800	3.0	33
			10000	2.2	31
			10200	1.3	29

Terminal End of Airport Connection - PUMP-105 (XNG5B)			Elkhorn and Commerce (with future 24" to Natomas Blvd - PUMP-107 (XNG7B)		
Node Elevation (ft)			Node Elevation (ft)		
Peak Hour Boundary Conditions					
Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)
407	30.0	91.2	3582	30.2	95.9
Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow (gpm)	Residual Pressure (psi)	Residual Head (ft)
0	31.2	94.18	0	39.7	117.8
200	30.6	92.8	200	39.3	116.8
400	30.0	91.3	400	38.9	115.8
600	29.4	89.8	600	38.4	114.8
800	28.7	88.3	800	38.0	113.8
1000	28.0	86.8	1000	37.6	112.8
1200	27.4	85.2	1200	37.1	111.8
1400	26.7	83.6	1400	36.3	109.8
1600	26.0	82.0	1600	35.8	108.8
1800	25.2	80.3	1800	35.4	107.8
2000	24.5	78.7	2000	35.0	106.8
2200	23.8	76.9	2200	34.5	105.8
2400	23.0	75.2	2400	33.7	103.8
2600	22.3	73.5	2600	33.2	102.8
2800	21.5	71.7	2800	32.8	101.8
3000	20.7	69.9	3000	31.9	99.8
3200	19.9	68.1	3200	31.5	98.8
3400	19.1	66.2	3400	30.6	96.8
3600	18.3	64.4	3600	30.2	95.8
3800	17.5	62.4	3800	29.8	94.8
4000	16.7	60.5	4000	28.9	92.8
4200	15.8	58.6	4200	28.0	90.8
4400	15.0	56.6	4400	27.6	89.8
4600	14.1	54.6	4600	26.7	87.8
4800	13.2	52.6	4800	26.3	86.8
5000	12.3	50.5	5000	25.4	84.8
5200	11.5	48.5	5200	24.6	82.8
5400	10.5	46.4	5400	24.1	81.8
5600	9.6	44.2	5600	23.3	79.8
5800	8.7	42.1	5800	22.4	77.8
6000	7.7	39.9	6000	21.5	75.8
6200	6.8	37.7	6200	20.7	73.8
6400	5.8	35.5	6400	19.8	71.8
6600	4.9	33.3	6600	19.4	70.8
6800	3.9	31.0	6800	18.5	68.8
7000	2.9	28.7	7000	17.6	66.8
			7200	16.8	64.8
			7400	15.9	62.8
			7600	15.0	60.8
			7800	14.2	58.8
			8000	12.9	55.8
			8200	12.0	53.8
			8400	11.2	51.8
			8600	10.3	49.8
			8800	9.4	47.8
			9000	8.6	45.8
			9200	7.3	42.8
			9400	6.4	40.8
			9600	5.5	38.8
			9800	4.2	35.8
			10000	3.4	33.8
			10200	2.5	31.8

Note: Boundary conditions for peak hour demands were derived from the maximum day demand boundary conditions at the recommendation of the City of Sacramento's Department of Utilities staff. Rating curves were increased by a constant head of 2.8 ft to account for booster pumps and to give a minimum residual pressure of 30 psi at the boundary points during peak hour demands.