RICHARDSON & O'LEARY
ATTORNEYS AT LAW

Molly O'Leary

Tel: 208-938-7900 Fax: 208-938-7904
molly@richardsonandoleary.com
P.O. Box 7218 Boise, ID 83707 - 515 N. 27th St. Boise, ID 83702

19 January 2007

Ms. Jean Jewell
Commission Secretary
Idaho Public Utilities Commission
P O Box 83720
Boise ID 83720-0074

Hand Delivered

RE: Case No. EAG-W-05-02 / EAG-W-07-01

Dear Ms. Jewell:

Pursuant to Commission Order Nos. 29840 and 30213, Eagle Water Company, Inc. ("Eagle Water") herewith submits its Final Preliminary Engineering Report for the Commission's review.

Further pursuant to Commission Order No. 30213, Eagle Water intends to submit an application for a rate increase on or before March 1, 2007, following Commission review of the enclosed report and further discussions with Commission Staff.

Sincerely,

Molly O'Leary
Richardson & O'Leary, PLLC

Enclosure

MTC, INC.
CONSULTING ENGINEERS, SURVEYORS, AND PLANNERS
707 N. 27TH ST. BOISE, IDAHO 83702-3113 (208) 345-0780 FAX (208) 343-8967

EAG-W-05-02/EAG-W-07-01

Ms. Tiffany Floyd, Regional Drinking Water Manager
Department of Environmental Quality
Boise Regional Office
1445 N. Orchard St.
Boise, ID 83706

19 January 2007
Project 05-840

Dear Ms. Floyd,

Transmitted herewith are three copies of the final draft of the Preliminary Engineering Report on the Eagle Water Company, Inc. water system as required by 1076/16RO Consent Order.

We look forward to assisting you in any manner necessary during your review of this report. Please contact us directly if you have any questions.

Yours truly,

REGISTERED PROFESSIONAL ENGINEER 1840 JAMES M. REES

James M. Rees, P.E.
MTC, Inc.

RECEIVED
2007 JAN 19 PM 4:27
IDAHO PUBLIC UTILITIES COMMISSION

MTC, INC.
CONSULTING ENGINEERS, SURVEYORS, AND PLANNERS
707 N. 27TH ST. BOISE, IDAHO 83702-3113 (208) 345-0780 FAX (208) 343-8967

Mr. Robert V. DeShazio, Jr.
Eagle Water Company, Inc.
P.O. Box 455
Eagle, ID 83616

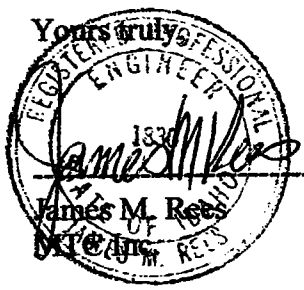
January 19, 2007
Project 05-840

Dear Mr. DeShazio,

Transmitted herewith is the final draft of the Preliminary Engineering Report performed on the Eagle Water Company, Inc. water System.

We sincerely appreciate the opportunity to be of service to you on this project and we look forward to continue to serve you..

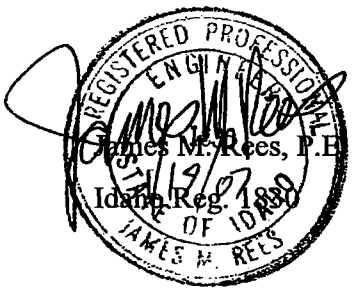
Yours truly,



James M. Rees
MTC, Inc.

ENGINEER'S CERTIFICATION AND DECLARATION

James M. Rees and Chet A. Hovey, hereby certify that they are Registered Professional Civil Engineer in the state of Idaho. They declare that this Preliminary Engineering Report was prepared under their direct supervision for Eagle Water Company, Inc., Ada County, Idaho.



James M. Rees, P.E.
Idaho Reg. 1880

Chet A. Hovey

Chet A. Hovey, P. E.
Idaho Reg. 11861
1-19-07

Acknowledgements

We wish to acknowledge the willing cooperation and assistance of the staff of Eagle Water Company and the City of Eagle. Particularly we acknowledge the efforts of Mrs. Betty Holt and Mrs. Toni Velie at Eagle Water Company in provide us with the meter records necessary to perform the consumption analysis. Your patience and forbearance were exemplary. We would also like to acknowledge the modeling efforts provided by Ward Engineering Group. Thank You.

MTC, INC.
CONSULTING ENGINEERS, SURVEYORS, AND PLANNERS
707 N. 27TH ST. BOISE, IDAHO 83702-3113 (208) 345-0780 FAX (208) 343-8967

Mr. Robert V. DeShazo, Jr.
Eagle Water Company, Inc.
P.O. Box 455
Eagle, ID 83616

19 January 2007
Project 05-840

Dear Mr. Deshazio,

In the following Executive Summary are the main findings and recommendations of this study:

1. Eagle Water Company serves 2924 residential accounts, 358 commercial accounts, and 112 landscape irrigation accounts.

2. Eagle Water Company's records for 2006 show an annual production of 815 mg/yr resulting in the following rates:
   - D.U. Max Day Demand 1.12 gpm/D.U.
   - System Max Day Demand 5.26 mg/d
   - Average Day System Demand 2.23 mg/d

3. The breakdown by use is approximately as follows: Residential 75%, Commercial 11%, and Landscape Irrigation 14%. These figures are based on annual averages and will vary by season.

4. Population growth shows few signs of slowing down. Growth in the Eagle Water Company's service area will be primarily by infill, densification, and/or service area expansion.

5. Water supply source is pumped groundwater from six wells (#1, #2, #3, #4, #6, and #7).

6. Recommended system improvement are:

Description	Cost Estimate
New Water Source – Well #7 (Constructed and Online)	$620,000
Well #7 Interconnect (Constructed and Online)	$146,000
Upgrade Pump in the Main Booster Pump Station	$29,360
Install PRSV on Floating Feather Road	$25,000
Upgrade Pump in Booster Pump Station #2	$30,500
New Water Source	$785,000
Emergency Backup Power	$160,000/site

Install SCADA/Telemetry System.....$23,000/site plus $25,000/master site

7. Recommended future system study elements are:
   - Provide ongoing system model maintenance

The recommended current system improvements based on 2006 price estimates is $2,142,000.

We sincerely appreciate the opportunity to be of service to you on this project and we look forward to continuing to serve you.

Yours truly,

James M. Rees, P.E.
MTC, Inc.

EAG-W-05-02/
EAG-W-07-01

REPORT SUMMARY

Authorization

Pursuant to the contract agreement between the Engineers, MTC, Inc. (MTC) and Eagle Water Company, Inc. (EWC or "the Company"), MTC, Inc. has performed this water distribution system study on the Company's system.

Purpose, Need, and Plan of Study

The purpose of the investigation was 1) to identify current system pressure and supply deficiencies, if any 2) to identify and analyze potential remedial actions, and 3) to generate a model for the Company to use as a tool in current and future planning, monitoring, and management. The scope of the investigation was system-wide. At the current time, the Idaho Department of Environmental Quality (IDEQ) has placed a development moratorium on the Company's certified service area until potential remedial actions are identified.

The principle need for the study was to identify facility improvements, if any, needed to eliminate low pressures.

The need for additional supply has long been recognized. In the early 1990's, a well was proposed near State Highway 55 (SH-55) and Hill Road, however, access was a major obstacle and the well was never drilled. Well #4 was completed in 1992 near the South-central area of the service area. Well #6[1] was completed in 1996 near the West end of the service area. A connection was begun from Well #6 thence West on State Street and North on Ballantyne Road to Country Side Subdivision. The plan was to continue North on Ballantine Road then East to the existing Floating Feather mainline. The request for this as service area was denied by the IPUC so the connection was never made. Another possible routing through the proposed Covenant Hill Subdivision was also thwarted when the subdivision area was removed from the Company's service area by the IPUC and included in the service area of United Water-Idaho.

In the meantime, the City of Eagle has been in a significant growth pattern. Census and population estimates, as obtained from the Idaho State Department of Commerce and Labor and other sources, are shown below:

Historical Population Data

1990	4,577
1995	6,777
2000	11,085
2004	16,176

The 2006 population estimate by the City of Eagle is 20,130.

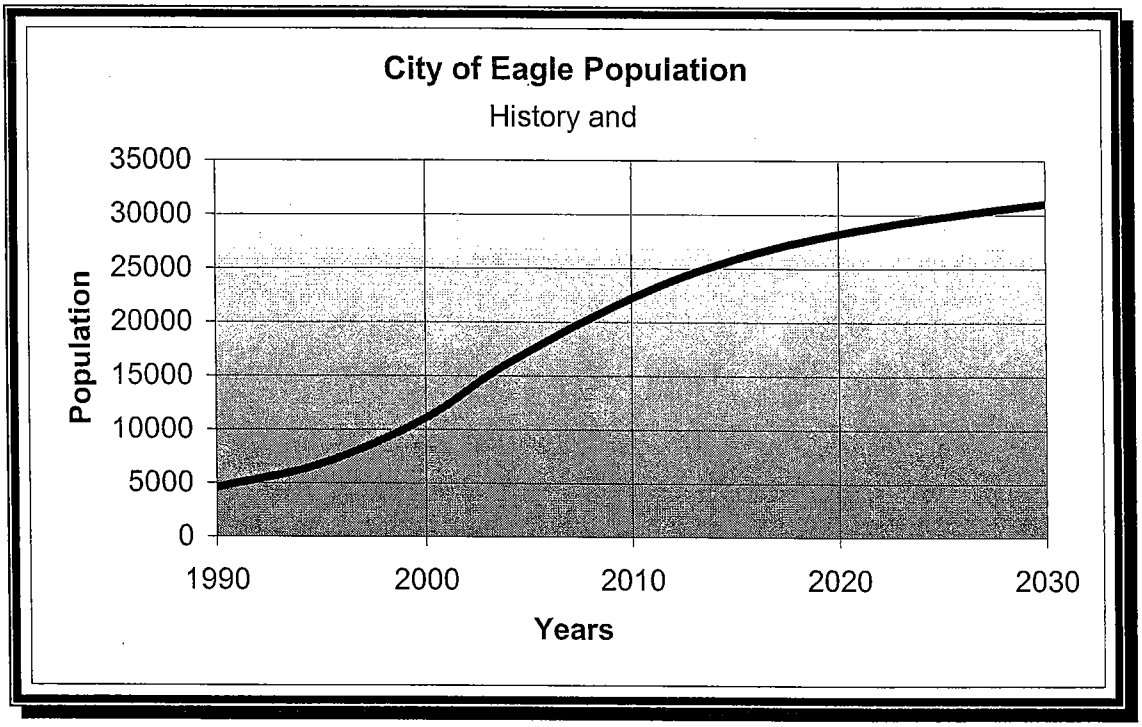
[1] There is no Well #5.

The demographics group of COMPASS of IDAHO, a regional planning agency, provided the following population figures:

Population Projects

2005	19,124
2010	22,227
2015	25,854
2020	28,216
2025	29,785
2030	31,043

The chart below shows historical data in conjunction with growth projections for the City of Eagle.



Portions of this growth were by annexation and were outside the Company's service area. However, growth has occurred within the EWC service area as well through population growth, residential infilling, and an expanding commercial base as shown by the increase in the number of residential and commercial accounts serviced. Further information about water accounts will be provide later within this summary. The need for additional supply remains to this day.

EWC needs an updated master plan to keep pace with the growth in its service area and to continue to provide cost effective, quality service to its customers. To that end, EWC is working to stay ahead of the curve and anticipate domestic water supply needs and fire flow requirements.

The plan of study was to utilize computer based modeling software, calibrate the model to available existing system data, and then test various scenarios in the model to see their impact on the overall system's modeled operation. Based on system evaluations, system improvements will be identified with a prioritization and cost estimate.

Generalized Description of the Existing Conditions and Water System

The certified service area of EWC, Inc. lies in portions of Sections 2, 3, 4, 8, 9, 10, 11, 14, 15, and 16, in T. 4N., R. 1E., B.M., City of Eagle, Ada County, Idaho. Physiographically it is on the alluvial fan of Dry Creek together with portions of the adjacent Boise Front foothills and the Boise River floodplain, all North of the North Channel of the Boise River between River Miles ~42 and ~46. Portions in the North and East lie on terraced alluvium left by the down cutting of the Boise River. Topographically the majority of the service area lies West of the Boise Front foothills between elevations 2650' and 2500 feet; the balance rises to the East to an elevation of 2800± feet. The geology, as read in the well logs, is generally coarse sand to silts and clays, with minor horizontal lenses of coarser grained materials from major storm events, as would be expected at the mouth of a major drainage. The soils in the alluvial fan areas are in the Notus-Moulton-Falk series while those on the foothills are in the Quincy-Lankbush-Brent series.[2] With the exception of Dry Creek, the surface hydrology has been significantly modified by over a century of agricultural activity and by urban/suburban development. Groundwater is encountered between -2' and –40' depending on proximity to the river; well depths vary from 230' to 466 feet; and drawdown varies from 60' to 160 feet.

There are no known cultural resources, prime agricultural lands, or wetlands in the service area. The Southern boundary of the service area is the North Channel of the Boise River that is in the City of Eagle's designated Scenic Corridor. Most of the area is developed and in general, the native fauna and flora have been supplanted by domestic pets, decorative plantings and grasses.

One well is located planimetrically in the mapped fringe area of the Boise River floodplain; however, it is elevated above the 100-year base flood elevation as required by the City ordinance.

With an estimated 2006 population of 20,130, the City of Eagle covers about 17 square miles. The Company's water distribution system lies generally within the City of Eagle and it's area of impact. In 2006, service was provided to 2924 residential accounts, 358 commercial accounts, and 112 landscaping accounts.

The supply and distribution systems, owned and operated by the Company are the subject of this study. Included are five wells (#1, #2, #3, #4, #6, and #7) and associated pumping stations, one water storage facility for well #2 booster pump station, two booster pump stations

[2] Soil Survey of Ada County, Idaho; USDA Soil Conservation Service, 1977.

(main and well #2), and approximately 54 miles of waterline, with appurtenances, of which about one mile (less than 2% of the overall system) is smaller than 6-inch. All these smaller lines serve five or fewer customers and/or short cul-de-sacs, and all are without fire hydrants and flows are acceptable. See Appendix A for system inventory.

The existing water supply is pumped groundwater from the deep aquifers under the Boise River floodplain. All wells have been permitted by the Idaho Department of Water Resources and logs are on file in their offices. See Appendix B for well logs.

Water Quality/Security

The water quality is good and meets the public drinking water standards. In addition to specific testing required by the IDEQ, EWC personnel perform wellhead tests monthly. There have been no known problems with water quality.

All well/pump house facilities are securely locked. Each facility is inspected daily and the pumping quantities and pressures are recorded.

Source Protection Plan

A Source Protection Plan is on file in the EWC office. Currently the system operator monitors the provisions of the Source Protection Plan in operation of EWC's system. General source protection practices include but are not limited to the following:

1. Well houses shall not be used for storage of any chemicals.
2. Well house access is limited to operating staff and persons they admit. No person shall be admitted into a well house unless a member of the operating staff is present.
3. Well sites are visited daily by maintenance personnel in the course of operation and any potential source of contamination is immediately noted and removed.

According to the EWC personnel (Tom Gilbert), A Source Water Assessment Final Report was prepared by DEQ that defined the potential for water contaminates.

A Brief System History

Eagle Ranch Water Company was formed in 1972 to serve Eagle Ranch Subdivision. In 1974, the Company applied to the Idaho Public Utilities Commission for a ruling to establish the Eagle Ranch Water Company. In 1976, the Public Utilities Commission ruled on case No. U-1116-1 Order No. 12621 to establish Eagle Ranch Water Company. At that time, there were 150 customers and Well No. 1 was the only well in the system. As the customer base grew, Well No. 2 was drilled and integrated into the system. Eagle Hills subdivision water system was acquired and it's well designated as Well #3. Due to problems of sand production, however, Well No. 3 is generally used for backup.

In the 1980's, the company name was changed to Eagle Water Company, Inc (EWC). Water meters were added in 1986 and the billing rate was changed from a flat rate basis to a meter rate basis. Well No. 4 was drilled and added to the system in 1992. With the expansion of the City of Eagle, Well No. 6 was drilled in 1996 in order to:

1.) Serve the West side of the service area, and

2.) Provide additional supply for the system once this well was looped to the North and connected to the existing EWC 12" mainline on Floating Feather Road. (This connection has yet to be made.)

The Floating Feather 12" mainline is a major line to the higher East end of the service area.[3]

WaterCAD® Modeling

As with any computer modeling, there are often differences between data from a model and the actual workings of the system. We have compared the actual water system performance against the model results and are satisfied with the correlation.

Current Modeling Project

This modeling effort was begun in the Fall of 2005 utilizing Haestad Methods' WaterCAD® v7.0 software. The model required the following input for analysis:

i. Horizontal and vertical geometry
ii. Water source information
iii. Pumping information
iv. Consumption data
v. Performance criteria

i.) Horizontal and vertical geometry was obtained from EWC and MTC Engineers. Pipe number and junction node numbers were then assigned to an AutoCAD® model. The model was then imported as the background layer of the WaterCAD® model and used as the guide for constructing the WaterCAD® model. Node elevations were obtained from existing record drawings and topographical mapping. System demands, water sources, and other controlling hydraulic features were incorporated within the model. This established the base model.

ii.) Water source for the EWC system is groundwater pumped from six wells. Information regarding the wells was obtained from the IDWR well logs, test pump records, EWC records, and MTC Engineers' records. This information includes well stratigraphy, depth, diameter, casing, screen placement, and pumping/drawdown data.

[3] The service area has an elevation difference of ~160 feet from its Western edge, West of Well No. 6 (elevation 2560 feet), to the East end of Big Springs Boulevard (elevation 2720 feet). This equates to a pressure difference of 70± psi.

From water consumption and production data, it was obvious that an additional water source was required and new Well #7 was drilled and constructed. The new Well #7 is located in the NE^4 of the SW^4 of Section 15, T.4N., R.1E., B.M., Ada County, Idaho. Well #7 has just recently been completed and put online during the course of completing this report. Well #7 was originally tested at 1350 gpm with 130 feet of drawdown. This was because the driller and test pumping company set the test pump at 160 feet. The production pump was installed at 200 feet. The well was later test pumped with the production pump at 1800 gpm with a total drawdown of 190 feet. For modeling purposes, the maximum pumping rate was conservatively limited to 1600 gpm with a drawdown of 160 feet. It is anticipated that with additional testing and further development of the well, the capacity of the well could be increased.

iii.) Pump information was obtained from the pump identification plates, manufacture's catalogues, well logs, test pump records, and EWC records. Pumping curves were either obtained from the manufacture's pump performance curves or hand generated. Also provided by EWC was information on the pump controller settings for the variable speed pumps (VSP) and the fixed speed pumps with on/off pressure settings.

iv.) Consumption data for commercial and residential customers were provide by EWC. This data was used to assign proportional flows to each node within the model. A copy of this data is included in Appendix C. In addition to this information, EWC provided the total annual demand and the maximum day demand for the years 2003 through 2006.

System Demand

Year	Annual Demand (gallons)	Maximum Day	Maximum Day Demand (gpd)
2003	675,334,680	7/13/03	4,647,000
2004	689,607,640	8/16/04	4,763,000
2005	624,127,005	7/17/05	5,180,000
2006	815,222,000	8/27/06	5,261,000

Annual demand data can fluctuate from one year to the other due to weather variations, system improvements, and such things as a water service rate designed to encourage water conservation in high demand seasons. Typical variations can happen as can be seen by the 2005 data.

The peak day demand is steadily increasing due the increase in water accounts served. To determine the maximum day demand per account and determine if it is changing with time, the maximum day demand was divided by the number accounts for the years 2003 through 2006. The results are listed in the table below.

System Demand

Year	Maximum Day Demand (gpd)	Account Total	Maximum Day Demand per Account (gpm)
2003	4,647,000	2,745	1.18

2004	4,763,000	2,888	1.15
2005	5,180,000	3,196	1.13
2006	5,261,000	3,261	1.12

The table shows a continual decrease with time for maximum day demand per account. In projecting future demands on the water system, it was conservatively assumed that each water account would have a maximum day demand of 1.12 gpm instead of following the downward trend.

Each water account was considered a dwelling unit (D.U.). Using the AutoCAD®/WaterCAD® model, each D.U. was assigned to a specific node and the maximum day demand was applied.

v.) Calibration of the model was verified comparing modeling results with actual fire hydrant flow test data. Fire hydrant flow testing was performed in August of 2006 at three strategic locations within the system. The following table shows the results and indicates the result from the 2006 Scenario, which does not include any of the approved developments.

Hydrant Flow Summary

Location	Corresponding Junction	Field Pressure at 1500 gpm (psi)	Model Pressure at 1500 gpm (psi)
HomeDepot	J-960	84	68
Lakeland – Whitby	J-437	81	43
Edgewood & Clubhouse	J-116	53	45

A copy of the fire hydrant testing is located in Appendix D and modeling results for the 2006 Scenario is included in Appendix E. As can be seen in the Hydrant Flow Summary table above, the results from the field hydrant testing indicate the fire flow availability in the model is less than what was available in the field. This is expected because the model is using the maximum day demand, which is likely higher than the actual demand on the system when the hydrant testing was conducted. It is also evident in the results that the difference in pressure from the model and actual field tests are not consistent. This can be explained due to the current demand on the system and how it affects the production rates due to different pressures within the system.

vi.) Performance criteria are listed in the general requirements for all public water systems found in the *Idaho Rules for Public Drinking Water Systems* (IRPDWS) and the *Recommended Standards for Water Works* (RSWW). Additional information supplementing the IRPDWS and RSWW were provided by Mr. Monty Marchus, P.E., IDEQ-Boise Office, in his Design File Notes (DFN) titled *Pressure Requirements-Public Water Systems* and *Design Flows-Public Water Systems*. Additional correspondence with IDEQ and an interpretation of rules is included in Appendix F. Specific standards utilized in this modeling were pressure related rather

than demand related. For example, fire flow during the maximum day demand requires satisfying the pressure standards of 20 psi residual and a system wide minimum of 20 psi. The system also needs to meet the system wide operational pressure standards of 100 psi maximum and an optimal minimum of 40 psi during normal operations.

WaterCAD® Modeling Results

A computer model was setup to simulate the existing 2006 water system w/ approved developments, the 2010 water system, and the 2026 water system. Each of these scenarios was run with well # 4 off and then well #6 off per the General Design Conditions (Section 501.17.a). Because the water system is considered a pumping system and is not equipped with storage, the system is required to meet fire flow conditions with the largest well out of service. Due to the nature of the water system with multiple pressure zones, the system was modeled with the largest well turned off in each pressure zone. Because Well #7 is a new well with new equipment and soon with emergency backup power, Well #4 was selected to be turned off in the lowest pressure zone. The modeling output for all scenarios is included in Appendix G. Figures of the water system are shown in Appendix H. The Fire Marshal of Eagle Fire Department has informed MTC that the minimum fire flow requirements for one and two family dwellings having area less than 3,600 square feet shall be 1,000 gpm. Correspondence with the Fire Marshall is included Appendix I. However, for insurance rate purposes only, the model was setup to determine which fire hydrants do not have a 1,500 gpm fire flow while maintaining a minimum system pressure of 20 psi.

2006 Scenario w/ Approved Developments

The 2006 Scenario w/ Approved Developments includes the existing water system, Well #7 and related infrastructure along with the IDEQ approved developments the new St. Lukes Medical Center and Gladstone Subdivision.

The maximum day demand for 2006 without these approved developments is 3,653.5 gpm. The maximum day demand flow was determined using actual 2006 data as discussed and reviewed by IDEQ. The peak day demand was increase to 3801.28 gpm to account for the additional consumptive use by the approved additions.

Two improvements were made over the existing water system condition for modeling purposes. These improvements included replacement of a butterfly valve in Floating Feather Road with a pressure reducing/sustaining valve and adding a pressure reducing/sustaining valve to the Gladstone Subdivision. The addition of the pressure reducing/sustaining valve at Gladstone Subdivision is a recommendation only. Under normal operation, the valve will be completely open and would only be used to maintain the pressure in the middle pressure zone under a major line break in the lower pressure zone.

A summary of the modeling result is shown in the table below with all the wells in operation, then with Well #4 off, and then with Well #6 off.

2006 w/ Approved Developments Modeling Results

Scenario	Minimum System Working Pressure (psi)	Minimum Fire Flow Within the Water System for Residential Junctions (gpm)	# of Residential Junctions Below Fire Flow Requirement (1,000 gpm)	# of Residential Junctions Below Suggested Insurance Minimum (1,500 gpm)	Minimum Fire Flow Within the Water System for Commercial Junctions (gpm)	# of Commercial Junctions Below Fire Flow Requirement (2,500 gpm)
All Improvements On	45	1501	0	0	2702	0
Well 4 Off	40	806	37	101	1160	11
Well 6 Off	42	907	1, J-186	52	1571	4

The results indicate the need for an additional water source or the increase in capacity within the system. The main booster pump station is not equipped with enough capacity to utilize the combined flow from Well #4 and Well #7.

2010 Scenario

Growth rates were estimated using the City of Eagle's population predictions and applied to the EWC's water accounts. Currently, EWC has three types of water accounts; Residential, Commercial, and Agricultural. The following table lists the current water accounts and the anticipated water accounts for 2010 and 2026.

Water Accounts Summary

Year	Residential Accounts	Commercial Accounts	Agricultural Accounts	Total Water System Accounts
2006 w/ Approved Developments	2,924	358	112	3,394
2010	3,333	408	112	3,853
2026	3,603	530	112	4,245

As the table above indicates, it was assumed that growth will occur in Residential and Commercial accounts only and Agricultural accounts would remain constant. This is because of the policy of the City of Eagle that all new development must be equipped with a pressurized secondary irrigation system from existing irrigation water rights.

A planning unit was assigned for both residential and commercial growth. The residential planning unit for ultimate build-out was assumed at 2.25 D.U.s/acre. A total of 301.6 acres were

identified for potential residential growth and using population projections a total of 409 residential D.U.s were evenly distributed. The resulting density was 1.36 D.U.s/acre, which indicates build-out would take place after the year 2010, closer to 2014, using the City of Eagle's population projects.

The commercial development planning unit can vary upon end use. For planning purposes, a commercial development planning unit of 2.5 D.U.s/acre was used as ultimate build-out. For the 2010 Scenario, an additional 50 commercial D.U.s was estimated above the 2006 w/ Approved Developments Scenario. Six commercial development parcels containing 162.2 acres were identified in the 20-year development window excluded the St. Lukes Medical Center.

The model used a peak day demand of 4,241.44 gpm plus fire flow. System modifications are shown on figures included in Appendix H. Modifications to the model from the previous 2006 Scenario w/ Approved Developments are listed separately below.

- Upgrade Main Booster Pump Station Capacity – The model indicated modification to the booster pumps in the Main Booster Pump Station is required. With the addition of Well #7 and the proposed Well #8 discussed below, the Main Booster Pump Station capacity must be increased to distribute the flow through the water system. As the modeling results shown in the previous scenario, the water sources generate more flow than the booster pump station can convey to the upper system.
- Additional Water Source – Additional water supply was added to the middle pressure zone and designated as Well #8. This additional source may be obtained by improvements to existing water sources like Well #4, Well #3, and/or Well #7.
- Upgrade Well #2 Booster Pump Station – The model indicated that modification to the booster pumps in the Well #2 Booster Pump Station is required.

A summary of the modeling result is shown in the table below with all the wells in operation, then with Well #4 off, and then with Well #6 off.

2010 Modeling Results

Scenario	Minimum System Working Pressure (psi)	Minimum Fire Flow Within the Water System for Residential Junctions (gpm)	# of Residential Junctions Below Fire Flow Requirement (1,000 gpm)	# of Residential Junctions Below Suggested Insurance Minimum (1,500 gpm)	Minimum Fire Flow Within the Water System for Commercial Junctions (gpm)	# of Commercial Junctions Below Fire Flow Requirement (2,500 gpm)
All Improvements On	44	1501	0	0	3521	0
Well 4 Off	40	1501	0	0	2382	7
Well 6 Off	46	1084	0	10	3122	0

In comparing the 2006 w/ Approved Developments modeling results to the 2010 modeling results, a dramatic transformation can be seen. All residential junctions are above the 1500 gpm insurance reduction requirement. The commercial fire flow availability at the junctions identified below the 2500 gpm, when well #4 is off, is acceptable due to the type of structure and being equipped with fire sprinklers.

2026 Scenario

As previously stated, growth rates for projections were estimated using the City of Eagle's population predictions and applied to the EWC's water accounts. See the Water Accounts Summary Table located in the 2010 Scenario write-up.

A planning unit was assigned for both residential and commercial growth. The residential planning unit for ultimate build-out was assumed at 2.25 D.U.s/acre. A total of 301.6 acres were identified for potential grow with an ultimate build-out of 679 residential D.U.s. Using the growth projections, it is anticipated build-out would occur prior to 2026 and is estimated to occur in 2014.

For planning purposes, a commercial development planning unit of 2.5 D.U.s/acre was used as ultimate build-out. For the 2026 Scenario, an additional 172 commercial D.U.s were estimated above the 2006 w/ Approved Development scenario. Six commercial development parcels containing 162.2 acres were identified in the 20-year development window excluding the St. Lukes Medical Center. The 2026 density is therefore 1.06 D.U.s/acre. Build-out is estimated well beyond the 20-year projection.

The model used a peak day demand of 4,754.4 gpm plus fire flow. System modifications are shown on figures included in Appendix H. Modifications to the model from the previous 2010 Scenario are listed separately below.

- West Enchantment Street, West Cobblestone Way, and West Yellowstone Street Interconnect – The capacity of Well #6 is not optimized throughout the water system due to pressure restraints and headlosses within the system. The original idea was to interconnect Well #6 with the main trunk line in Floating Feather Road. Due to the prevention of EWC service to the Covenant Hills Subdivision, the original idea is no longer feasible leaving this the next preferred option. As development occurs, this interconnect should be constructed as part of the infrastructure.

A summary of the modeling result is shown in the table below with all the wells in operation, then with Well #4 off, and then with Well #6 off.

2026 Modeling Results

Scenario	Minimum System Working Pressure (psi)	Minimum Fire Flow Within the Water System for Residential Junctions (gpm)	# of Residential Junctions Below Fire Flow Requirement (1,000 gpm)	# of Residential Junctions Below Suggested Insurance Minimum (1,500 gpm)	Minimum Fire Flow Within the Water System for Commercial Junctions (gpm)	# of Commercial Junctions Below Fire Flow Requirement (2,500 gpm)
All Improvements On	44	1501	0	0	3520	0
Well 4 Off	40	1501	0	0	2429	7
Well 6 Off	44	1473	0	1, J-186	3302	0

The improvements made for the 2010 model run had a dramatic impact on the performance of the water system. The impact from the improvements can still be seen in 2026 scenario in which all the residential were above the local fire flow requirements. The commercial fire flow availability at the junctions identified below the 2500 gpm, when well #4 is off, is acceptable due to the type of structure and being equipped with fire sprinklers.

Recommendations

The model identified areas within the system that did not meet the suggested insurance minimum of 1,500 gpm available fire flow but did meet the 1,000 gpm International Fire Code requirements. The recommendations have been divided into planning and construction related projects. A list of planning recommendations is as follows:

- All new subdivisions, if possible, should be a looped system to ensure a minimum available fire flow of 1,500 gpm.
- Minimum 8" waterlines in residential areas and 12" waterlines in commercial areas.
- No booster pumps should be connected to the system unless they are owned and operated by EWC and any currently unauthorized pumps should be removed.
- Minimum service pressure for all future connections should not drop below 50 psi.
- As development occurs around existing subdivisions, it should be required, if possible, to connect to the existing subdivision and loop back into the water system. Multiple existing subdivisions are being serviced from one feed line limiting fire flow availability and a redundant water supply.

- All proposed developments should require a fee for a water model analysis prior to approval. It is suggested that developers are required to submit electronic copies of plans to be integrated into the water model for preliminary plat review.

The following list of recommended improvement projects and the construction priority has been developed to increase the service pressure, available fire flow, and water supply within the water system.

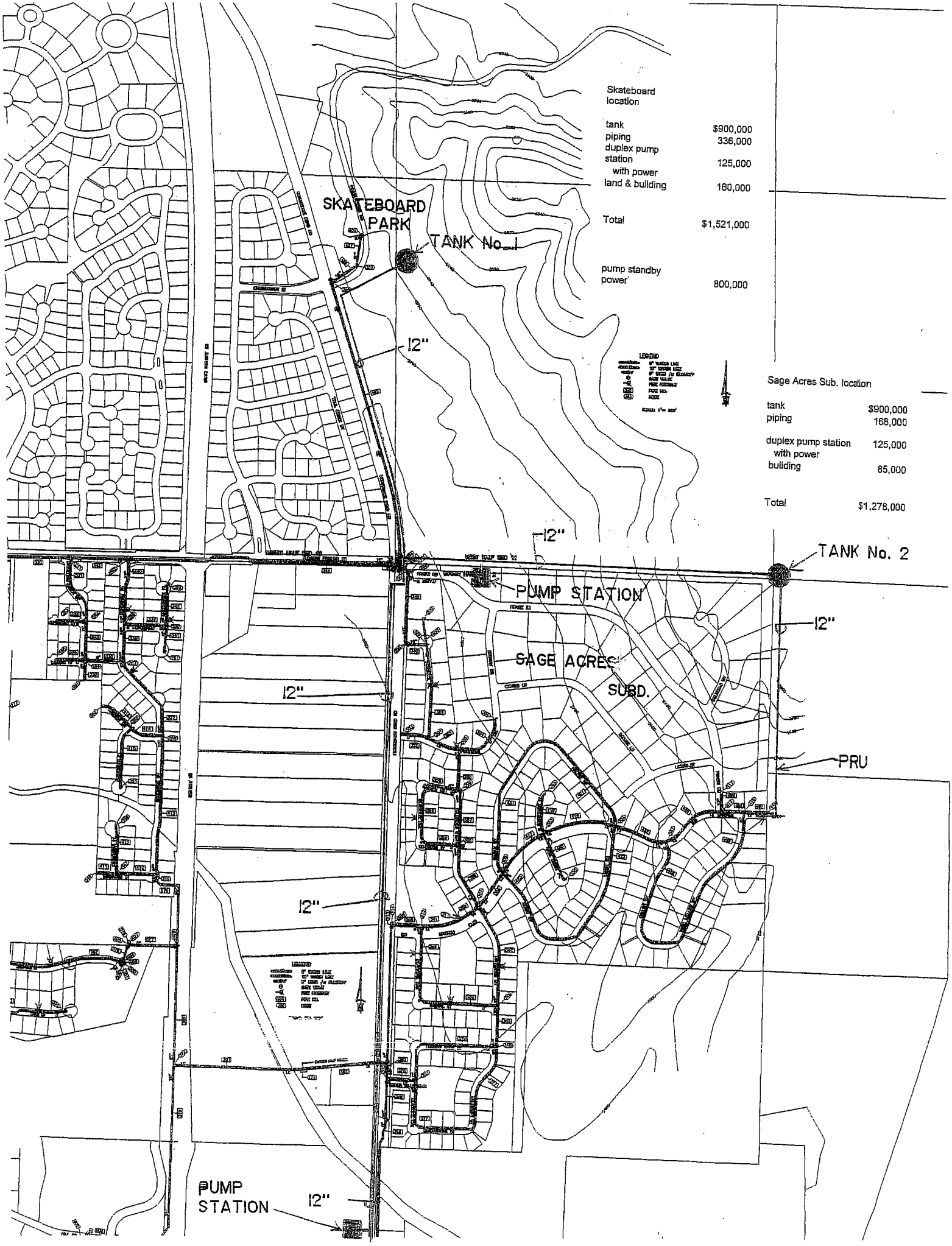
Date	Description	Cost Estimate
(2006)	New Water Source – Well #7 (Constructed and Online) Construct new water source and associated piping with emergency backup power supply.	$620,000
(2006)	Well #7 Interconnect (Constructed and Online) Construct new transmission piping from Well #7 to existing piping along Eagle Bypass.	$146,000
(2007-2008)	Upgrade Pump in the Main Booster Pump Station Evaluate the pump in the Main Booster Pump Station to determine if replacement is required.	$29,360
(2007)	Install PRSV on Floating Feather Road Replace existing throttling valve with a pressure reducing/sustaining valve station. In the water model, the upstream pressure setting was set at 72.5 psi and downstream pressure remained around 55 psi.	$25,000
(2008-2009)	Upgrade Pump in Booster Pump Station #2 Upgrade the pump in Booster Pump Station #2 to add additional head and determine if replacement is required.	$30,500
(2008 Contingent on Permitting)	New Water Source Drill and construct new water source or renovate existing water sources and equip water source with emergency backup power supply and SCAD/Telemetry. This item also includes associated piping ($35/ft at 1350 ft), PRSV ($50,000), and Land ($150,000).	$785,000
(2008-2009)	Emergency Backup Power	$160,000/site

Because the water system is feed with power from two separate electrical distribution feeds coming from opposite directions, it is likely that should power be lost it would only affect part of the water system. With this in mind, it is suggested that a mobile generator be considered. The Main Booster Pump Station and any future water sources should be equipped with a stationary emergency backup power system and a mobile emergency backup power system should be available for Well #4, and Well #6. Currently, Well #7 is equipped with emergency backup power.

(2009-2010) Install SCADA/Telemetry System ..... $23,000/site plus $25,000/master site
It is recommended that all wells and booster pump stations should be controlled through a SCADA/Telemetry System to increase reliability and efficiency of the water system.

(As Developed) West Enchantment Street, West Cobblestone Way, and West Yellowstone Street Interconnect ..... $30/ft @ 3,740 ft plus Bore & Jack $50,000, $162,200
Increase the capacity of fire flow near Well #6 when it is off line. It should be a requirement of the developer of residential parcel #2 to make the looped connection including the bore and jack under the canal. The cost should be split with the developer.

(Evaluated) Water Storage ..... $1,421,000 - $1,178,000
The concept of utilizing a tank for a supplemental source when one of the wells is out of service was studied from several angles. The recommended storage capacity of one million gallons was used for the study. To be effective the tank must supply water to the highest service connection with the required working pressure of 40 psi. This would require the minimum operating water level of the tank to be around elevation 2840 feet. This requires the tank to be outside the existing certificated area or to construct an elevated tank. There are few if any locations available for the construction of an elevated tank. Two locations outside the service area were evaluated for a tank location. See the attached drawing for a vicinity map. One of the areas is near the Skateboard Park and the other near the Northeast Corner of Sage Acres Subdivision both located on County property. To fill either of the tanks, a tank booster pump station would be required. The Skateboard Park location would require a pump station close enough to the source's of supply that a single pipe could be constructed for the fill pipe. Pressure reducing valves would need to be installed on other lines in



Skateboard location

tank	$900,000
piping	336,000
duplex pump station with power	125,000
land & building	160,000
Total	$1,521,000
pump standby power	800,000

Sage Acres Sub. location

tank	$900,000
piping	168,000
duplex pump station with power	125,000
building	85,000
Total	$1,278,000

three places. A location for the pump station could be a problem. An estimated cost for the tank is $900,000. Piping would be another $336,000 to $168,000 depending on location. The tank booster pump station would be equipped with duplex pumping and standby power for an estimated cost of $125,000. The building would probably cost another $60,000. (The cost for the Sage Acres location would be more than the Skateboard Park location.) The estimated total for the foregoing is $1,421,000. On the other hand, a new well and pump with backup power close to the existing 12" line is estimated less than $800,000. The additional source is the preferred alternative because of economics and additional benefits to the water system.

Capacity Evaluation

The capacity of the water system was evaluated for the 2006 Scenario w/ Approved Developments, 2010 Scenario, and the 2026 Scenario. Each of these evaluations is discussed separately below. It is recommended that all proposed improvements be thoroughly investigated through modeling prior to approval.

Current capacity of the existing 2006 Scenario w/ Approved Developments is limited due to the requirement of having one well out of service while meeting the maximum day flow plus fire flow. However, additional capacity is available pending on location of proposed connection and /or modifications to pumping capacity of existing sources. Currently, the pumping capacity of Well #4 and Well #6 is limited due to the 100 psi maximum pressure requirement. By reducing the pumping pressure in these wells, greater flow is available without maximizing the pressure or the available water. Well #2 Booster Pump Station is limited due to the pump curves not supplying enough pressure to over come the system working pressure. In addition to water supply, upgrading the Main Booster Pump Station to increase the distribution capabilities within the system will provide additional capacity. All of these options would provide time to investigate if another well source is needed, what the minimum pump capacity should be, and allow time to construct the source.

The 2010 Scenario, with the proposed improvements previously stated in the model write-up, has surplus capacity for an estimated additional 444 residential connections and 148 commercial connections.

The 2026 Scenario, with the proposed improvements previously stated in the model write-up, has surplus capacity for complete build-out for residential connections and the estimated 260 commercial connections.

Financial Plan

Included in Appendix J is a Financial Plan for the proposed improvements.

APPENDIX A

System Inventory

Appendix One

Eagle Water Company System Component Inventory

Water mains are made up of PVC, Asbestos Cement and Ductile Iron pipes

Pipe Size	Length	Valves
2"	872 feet	3
4"	5,099 feet	12
6"	42,856 feet	117
8"	160,533 feet	452
12"	74,694 feet	128
Total	284,054 feet or ~54 Miles	712
Fire Hydrants	327	
Cleanouts	102	

Appendix Two

Well/Pump Station and Booster Inventory

Well No. 1
Located East of Eagle Road and South of Ranch Road.
SW4, SW4, NW4, SEC9 T4N., R1E.,BM
Well is at a depth of 328 feet.
Berkeley pump Model8S4H-3
Citler-Hammer control Panel
Hammer and Honeywell Pressuretrol
Model 80 No. 9L15BCC008 Surge Capacitor
Static water level is at 38 feet.
560 G.P.M. Discharge at 62 Feet
No auxiliary Power

Well No. 2
Located on the South side of Ranch Drive and East of Cedar Street.
SE4, SW4, NW4, SEC9 T4N., R1E., BM
The well is at a depth of 192 Feet
One 90,000 Gallon concrete water reservoir on site.
25 HP U.S. Electric Booster Pump 2 Each
15 HP Pacific Booster Pump
20 HP Well Pump with General Electric control panel
Ruff water control system panel
Well Guard automatic Booster pump control panel
The static water level is at 50 feet
470 G.P.M. discharge at 133 Feet
Cat powered Auxiliary Power on this site

Well No. 3
Located West of Edgewood Lane on the North side of Eagle Hills golf course.
NW4,Se4, NE4 SEC 9 T4N., R1E., BM
The well is at a depth of 466 Feet
60 HP Burgess Pump
Delta DP3NF Pump Control
4000 Gal. steel water reservoir
Loval Model 4AG separator with controller
The static water level is at 68 Feet
600 G.P.M. discharge at 118 feet
Fine sand in this well and this well is not producing for the system.

Well No. 4
Located North of State Street and East of Edgewood Lane.
NE4, NW4, NW4, Sec15 T4N.,R1E., BM
The well is at a depth of 385 Feet
70 HP Fairbanks - Morse Pump
Rosco Moss type Vee Wire well screen
The static water level is at 2 Feet
3046 G.P.M. discharge at 145 Feet
No auxiliary power at this site

Well No. 6
Located South of State Street and East of Payette Way.
NW4, NW4, SW4, Sec8 T4N., R1E., BM
The well is at a depth of440 Feet
Layne pump Model HK16L7100/DF
250 HP electric type RUA03A013R144R-1
Balder adjustable speed drive
The static water level is at 5 Feet
2600 G.P.M. discharge at 320 Feet

Well No. 7
Located South of State Street and West of State Highway 55.
NE1/4, T4N, R1E, BM Eagle Idaho.
100' by 100' site with a 20' easement to State Street for access and water lines.
24" well with 16" casing with 50' of sand screen.
The well is at a depth of 400 Feet
This well will be connected to the system in the near future.

Booster Station between Settlers Canal and Horseshoe Bend Rd.
Paco Pump 60 HP VCT5000-AQUA Series AFD
1750 RPM 230/460 volt 3 Phase power
1400 G.P.M.

APPENDIX B

Well Logs

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name: Eagle Ranch Water Corp.

Address: P.O. Box 459, Eagle, Idaho 83616

Owner's Permit No.:

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☒ Municipal

☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

☐ Other (specify type)

4. METHOD DRILLED

Rotary ☐ Air ☐ Hydraulic ☒ Reverse rotary

able ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other

Thickness	Diameter		From	To
.312 inches	16 inches	+	2 feet	160 feet
.365 inches	10 inches		160 feet	208 feet
.365 inches	10 inches		228 feet	248 feet
.365 inches	10 inches		288 feet	308 feet

Was casing drive shoe used? ☐ Yes ☒ No

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation: inches by inches

Number		From	To
perforations		feet	feet
perforations		feet	feet
perforations		feet	feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name: Johnson

Type: 304 Model No.:

Diameter 10 Slot size 40 Set from 208 feet to 228 feet

Diameter 10 Slot size 40 Set from 288 feet to 308 feet

Gravel packed? ☒ Yes ☐ No ☐ Size of gravel: #8 Sand

Set from 75 feet to 328 feet

Surface seal depth 75' Material used in seal: ☒ Cement grout

☒ Puddling clay ☐ Well cuttings

Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing

☒ Overbore to seal depth

Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld

☐ Cemented between strata

Describe access port: To be determined

6. LOCATION OF WELL

Sketch map location must agree with written location.

N

W E

S

Subdivision Name

Lot No. Block No.

County Ada

¼ ¼ Sec. 9 T. 4N N/S R. 1E E/W

7. WATER LEVEL

Static water level 30 feet below land surface.

Flowing? ☐ Yes ☒ No G.P.M. flow

Artesian closed-in pressure psi

Controlled by: ☐ Valve ☐ Cap ☐ Plug

Temperature °F Quality

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
560	62'	

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material
28	0	5	Topsoil
	5	7	Clay
	7	17	Brn. Sand
	17	25	Gravel
	25	42	Sand, Gravel, River Rock
	42	45	Brn. Clay
	45	50	Brn. Sand
	50	58	Brn. Clay
	58	68	Brn. Sand
	68	85	Brn. Clay
	85	126	Brn. Sand w/some Gravel
	126	130	Brn. Clay
	130	136	Sand w/small Gravel
	136	143	Brn. Clay w/Sand Streaks
	143	148	Brn. Sand-C.se.
	148	170	Brn. Sand-Crse. w/small Gravel
	170	176	Brn. Sand-Med. to Crse.
	176	178	Brn. Clay
	178	192	Brn. Sand w/Clay Streaks
	192	205	Brn. Clay
	205	228	Brn. Sand-Crse. w/small Gravel
	228	235	Brn. Sand-Fine to Med.
	235	248	Brn. Clay
	248	296	Brn. Sand w/some Clay Streaks
	296	298	Blue Sand-Fine
	298	308	Blue Sand-Fine w/Clay Streaks
	308	328	Blue Clay w/some Sand Streaks

10. Work started 6-26-80 finished 6-21-

11. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards complied with at the time the rig was removed.

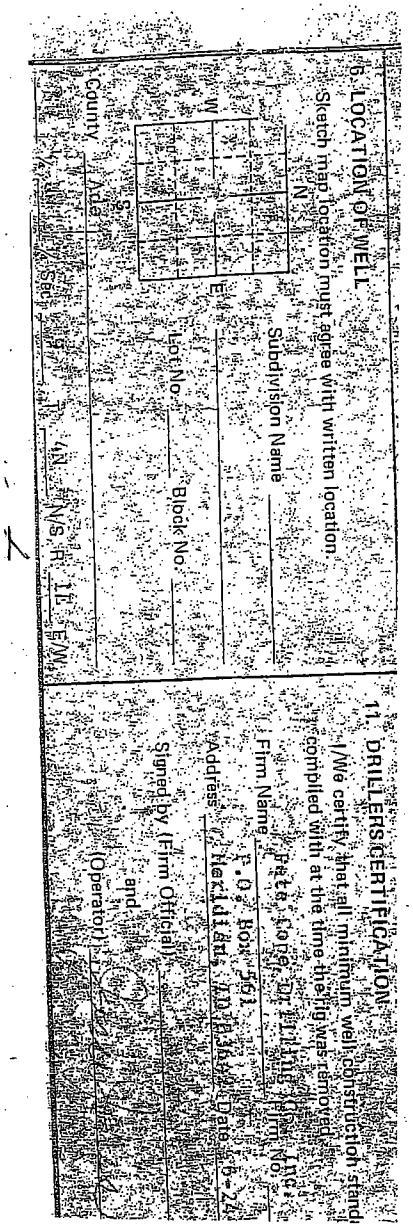
Firm Name: Pete Cone Drilling Co., Inc. Firm No.:

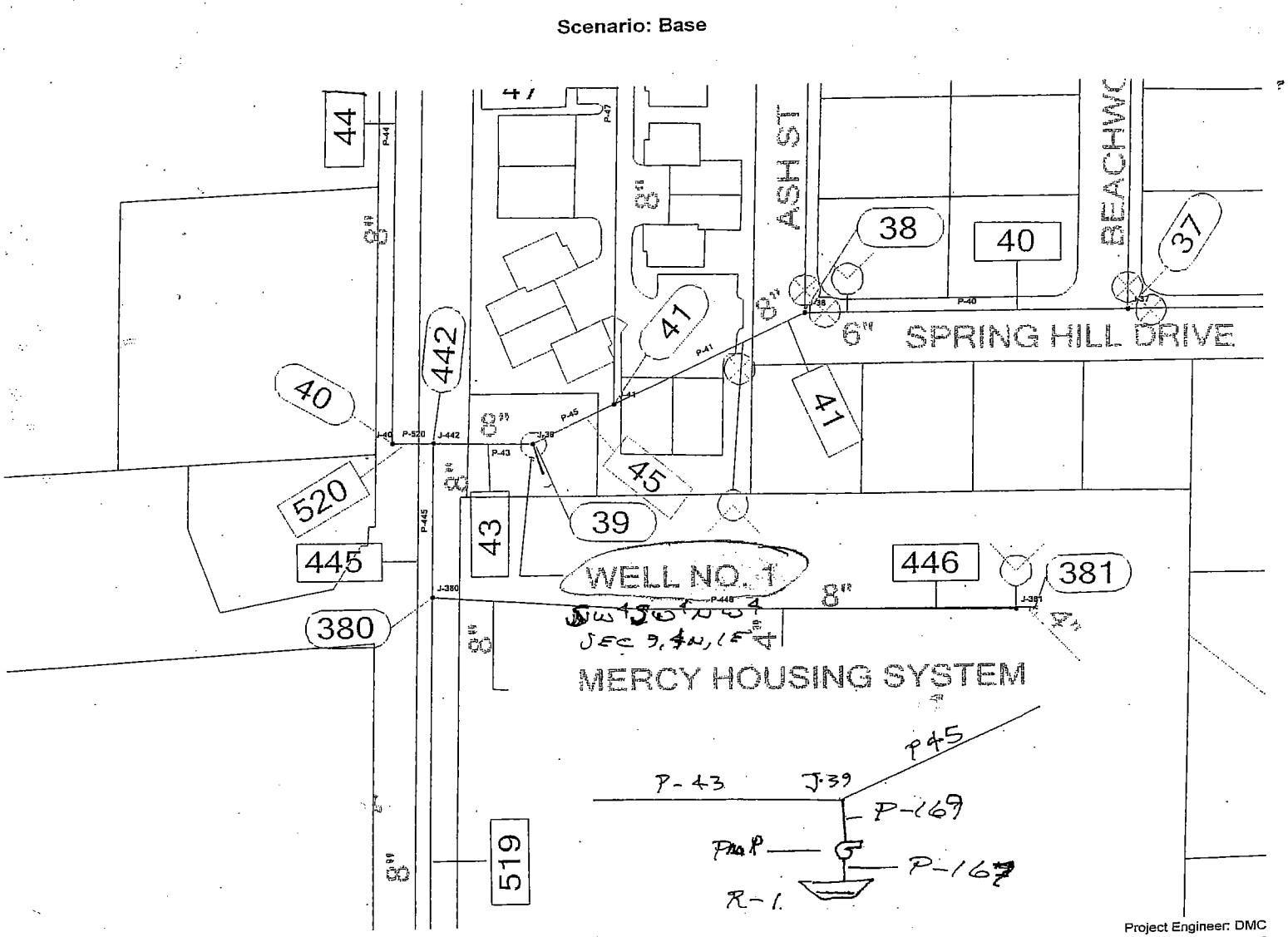
Address: P.O. Box 561 Meridian, ID 83642 Date: 6-28-

Signed by (Firm Official):

and

(Operator):





Title: INITIAL RUN
c:\...\initial run\initial run saved.wcd
11/14/05 12:48:11 PM

Project Engineer: DMC
WaterCAD v7.0 [07.00.049.00]

W/H #2

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

Rec 9-30-76 ... D

1. WELL OWNER

Name Robert De Shazo

Address Eagle Idaho

Owner's Permit No. ______

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

Sub division

4. METHOD DRILLED

☒ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 12 inches Total depth 230 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.0250 inches	12 inches	+ 1 feet	157 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation ______ inches by ______ inches

Number		From	To
	perforations	feet	feet
	perforations	feet	feet
	perforations	feet	feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Johnson screen

Type ______ Model No. ______

Diameter 8 Slot size 30 Set from 159 feet to 167 feet

Diameter ___ Slot size ___ Set from 183 feet to 193 feet

113 123

Gravel packed? ☒ Yes ☐ No Size of gravel 6 by 8 sand & dirt

Placed from 230 feet to 145 feet

Surface seal depth 50 Material used in seal ☐ Cement grout ☐ Puddling clay ☐ Well cuttings

Sealing procedure used ☐ Slurry pit ☐ Temporary surface casing ☐ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.

(63)

N / W / E (sketch grid)

Subdivision Name Eagle Ranch no 2

Lot No. 2 Block No. 3

County Ada

S½ ¼ NW ¼ Sec. 9, T. 4 N/S R. 1 E/W

7. WATER LEVEL

Static water level 39 feet below land surface

Flowing? ☐ Yes ☒ No G.P.M. flow ______

Temperature ___ °F. Quality ______

Artesian closed in pressure ______ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Other

325-350 GPM

Discharge G.P.M.	Draw Down	Hours Pumped
400 to 470	101	

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
12	0	22	dirt		
	22	54	gravel		
	54	143	muddy sand		
	143	170	sand	X	
	170	181	muddy sand		
	181	203	clean sand	X	
	203	230	sand		

screen and 8" liner pipe setting from 149 to 230

10.

Work started Nov 75 finished Jan 1976

11. DRILLERS CERTIFICATION

Firm Name Russel Cowe Firm No. 65

Address 1514 Longmont Date ______

Signed by (Firm Official) Russel Cowe

and

(Operator) Dave Naillon

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE COPY TO THE DEPARTMENT

December ... 50 ...

USE TYPEWRITER OR BALLPOINT PEN

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name: Amyx Construction

Address: Eagle Hills Sub., Eagle, Idaho

Owner's Permit No.:

2. NATURE OF WORK

☐ New well ☒ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☒ Other (specify type) sub division

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☐ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 12 inches. Total depth 466 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	12 inches	+ 1 feet	250 feet
.250 inches	10 inches	1 feet	466 feet
.250 inches	6 inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☒ Yes ☐ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation inches by inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☒ Yes ☐ No

Manufacturer's name Johnson

Type stainless steel Model No.

Diameter 6TS Slot size 25 Set from feet to feet

Diameter Slot size Set from feet to feet

Gravel packed? ☒ Yes ☐ No Size of gravel #16 sand

Placed from 377 feet to 466 feet

Surface seal depth Material used in seal: ☐ Cement grout

☐ Puddling clay ☒ Well cuttings

Sealing procedure used: ☐ Slurry pit ☐ Temporary surface casing

☒ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.

N / W / E / S

Subdivision Name Eagle Hills

Well #1 Eagle Hills Sub.

Lot No. Block No.

County Ada

SE ¼ NE ¼ Sec. 9 T. 4N N/S, R. 1E E/W

7. WATER LEVEL

Static water level 58 feet below land surface.

Flowing? ☐ Yes ☒ No G.P.M. flow

Temperature °F. Quality

Artesian closed-in pressure p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Drawdown	Hours Pumped
600	60	24

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
10	250	377	Gray sandy clay	x	
	377	381	Blue clay		x
	381	396	Blue sand, fine	x	
	396	406	Sandy clay gray	x	
	406	421	Fine sand gray	x	
	421	436	Sandy clay blue	x	
	436	446	Fine sand gray	x	
	446	456	Sandy clay blue	x	
	456	466	Gray sand, fine	x	
			SCREEN SETTING		
			6" TS stainless screen assb.		
			Screen Blank		
			381 to 396 377 to 381		
			406 421 396 406		
			436 446 421 436		
			456 466 446 456		

10.

Work started 5/5/77 finished 8/28/77

11. DRILLERS CERTIFICATION

Firm Name L.R. Hunsperger Well Dr. Firm No. 192

Address 6065 Oreana Dr. Date 8/28/78

Signed by (Firm Official) L.R. Hunsperger

and

(Operator)

Well #4 11-92

Form 238-7
1/92

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER
BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER
Name EAGLE WATER CO. INC.
Address P.O. BOX 445 EAGLE 83616
Drilling Permit No. 63-92-D-174
Water Right Permit No. 63-11798

2. NATURE OF WORK NEW WELL
☐ New well ☐ Deepened ☐ Replacement
☐ Well diameter increase ☐ Modification
☐ Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)

3. PROPOSED USE WATER UTILITY
☐ Domestic ☐ Irrigation ☐ Monitor
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☒ Other _____ (specify type)

4. METHOD DRILLED REVERSE ROTARY
☐ Rotary ☐ Air ☐ Auger ☐ Reverse rotary
☐ Cable ☐ Mud ☐ Other _____ (backhoe, hydraulic, etc.)

5. WELL CONSTRUCTION SEE ATTACHED
Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
_____ inches	_____ inches. +	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☐ Yes ☒ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun
Size of perforation? _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

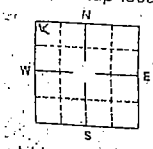
Well screen installed? ☒ Yes ☐ No
Manufacturer ROSCOE MOSS Type VEE WIRE
Top Packer or Headpipe _____
Bottom of Tailpipe _____

Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Gravel packed? ☒ Yes ☐ No ☐ Size of gravel 3/8
Placed from 385 feet to 180 feet

Surface seal depth 80 Material used in seal: ☐ Cement grout
☒ Bentonite ☐ Puddling clay ☐ _____
Sealing procedure used: ☐ Slurry pit
☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded
☐ Solvent Weld ☐ Cemented between strata

Describe access port 2" PIPE

6. LOCATION OF WELL
Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County ADA
Address of Well Site EDGEWOOD & HW 44 (give at least name of road)
NW ¼ NW ¼ Sec. 15, T. 4N N ☐ or S ☐, R. 1E E ☐ or W ☐

7. WATER LEVEL
Static water level 2 feet below land surface.
Flowing? ☐ Yes ☐ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe artesian or temperature zones below.

8. WELL TEST DATA
☐ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
3046	145	3

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
8 5/8	Ø	1	TOPSOIL		X
	1	35	SAND GRAVEL ROCK	X	
	35	47	FINE TO CRSE SAND	X	
	47	49	LITE BRN CLAY		X
	49	105	FINE TO CRSE SAND	X	
	105	109	BRN SANDY CLAY		X
	109	133	FINE TO CRSE SAND	X	
	133	137	BRN CLAY		X
	137	142	FINE TO CRSE SAND	X	
	142	180	BRN CLAY		X
	180	183	FINE SAND	X	
	183	187	BRN CLAY		X
	187	194	FINE TO MED SAND	X	
	194	197	BRN CLAY		X
	197	205	FINE TO MED SAND	X	
	205	219	BRN CLAY		X
	219	245	FINE SAND	X	
	245	251	BRN CLAY		X
	251	278	FINE TO MED SAND	X	
	278	289	BRN CLAY		X
	289	327	FINE TO CRSE SAND	X	
	327	330	BRN CLAY		X
	330	333	FINE TO CRSE SAND	X	
	333	335	BRN CLAY		X
	335	347	FINE TO MED SAND	X	
	347	355	FINE SAND W/ CLAY	X	
	355	365	FINE TO MED SAND	X	
	365	371	GREY CLAY		X
	371	385	BRN CLAY		X

10. Work started 10/19/92 finished 11/8/92

11. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name PETE COPE DRILLING Firm No. 213
Address 6505 W CHINDEN Date 11/13/92
Signed by Drilling Supervisor _____
and
(Operator) _____

#6 DRAWDOWN TESTED.

Form 238
1/98

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____1/4 ____1/4 ____1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 63 - 94 - W - 848 - 0
Other IDWR No. 63-12147

2. OWNER:
Name EAGLE WATER CO. INC
Address P.O.BOX 455
City EAGLE State ID Zip 83616

3. LOCATION OF WELL by legal description:
Sketch location must agree with written location.

Twp. 4 N North ☐ or South ☐
Rge. 1 E East ☐ or West ☐
Sec. 8 ____ 1/4 (10 acres) SW 1/4 (40 acres) SE 1/4 (160 acres)
Gov't Lot ____ County ADA
Lat: : : Long: : :
Address of Well Site APPROX 1400 W STATE
STREET City EAGLE
(Nearest Name of Road - Distance to Road or Landmark)
Subdivision ____ Blk. ____ Sub. Name ____

4. USE: MUNICIPAL
☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK check all that apply NEW WELL (Replacement etc.)
☐ New Well ☐ Modify ☐ Abandonment ☐ Other ____

6. DRILL METHOD REVERSE CIRCULATION
☐ Rotary ☐ Cable ☐ Mud Rotary ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE	336	340	5000#	POURED
BENTONITE	232	0	37500#	POURED
FILTER PACK	410	336	62400#	POURED

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) ____
Was drive shoe seal tested? ☐ Y ☐ N How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16"	+2	240	250	STEEL	☐	☐	☐	☐
10"	240	263	250	STEEL	☐	☐	☐	☐
10"	263	291	250	STEEL	☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
Perforations Method ____
Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
243	265	35	304	10"	S.STEEL	☐	☐
291	331	35	304	10"	S.STEEL	☐	☐
367	377	35	304	10"	S.STEEL	☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
ft. below ground Artesian pressure ____ lb.
Depth first water encountered ____ ft. Describe access port or

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. COLD Bottom hole temp. ____
Water Quality test or comments: GOOD, CLEAR
Depth first Water Encountered ____ ft.

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Wat Y
28"	0	15	SAND	
	15	46	RIVER ROCK & QUARTZ SAND	
	46	58	BROWN CLAY	
	58	61	COURSE SAND	
	61	67	BROWN CLAY	
	67	71	QUARTZ SAND	
	71	86	BROWN CLAY	
	86	98	COURSE SAND	
	98	105	BROWN CLAY	
	105	111	COURSE SAND	
	111	138	BROWN CLAY	
	138	139	COURSE SHARP SAND	
	139	145	BROWN CLAY	
	145	160	CRSE SAND & PEA GRAVEL	
	160	163	BROWN CLAY	
	163	165	CRSE SAND	
	165	175	BROWN CLAY	
	175	187	MED. BRN SND & PEA GRAVEL	
	187	194	BROWN CLAY	
	194	239	COURSE SAND & PEA GRAVEL	
	239	242	BROWN CLAY	
	242	245	CRSE SND, GRAVEL, CLAY LAYERED	
	245	270	CRSE BRN SND & SOME PEA GRAVEL	
	270	275	IRONISH COLORED CLAY	
	275	276	SHARP CRSE SAND	
	276	285	SAND, CLAY LAYERED	
	285	291	GREEN, GRAY, BRN CLAY MIXED	
	291	337	COURSE, BRN SAND	
	337	367	GREEN & BRN CLAY	
	367	377	CRSE QUARTZ SND	
	377	379	BRN CLAY	
	379	407	MED. TO CRSE SAND	
	407	410	BLUE MED. SAND	

Completed Depth 414 FEET (Measurab
Date: Started 4/19/96 Completed 5/1/96

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied w
the time the rig was removed.

Firm Name PETE COPE DRILLING CO., INC. Firm No. ____
Firm Official Jerry Foster Date 5-8-
and

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Office Use Only
Inspected by _____
Twp____ Rge____ Sec ____
____1/4 ____1/4 ____1/4
Lat: : : Long: : :

DRILLING PERMIT NO. ____-____- __-_____-_____
Other IDWR No. _____

2. OWNER:
Name _____
Address _____
City _____ State____ Zip____

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp.____ North ☐ or South ☐
Rge.____ East ☐ or West ☐
Sec. ____ ____ 1/4 ____ 1/4 ____ 1/4
(10 acres, 40 acres, 160 acres)
Gov't Lot ____ County _____
Lat: : : Long: : :
Address of Well Site _____
City _____
(Give direction from nearest town • Distance to Road or Landmark)
Blk.____ Sub. Name _____

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☐ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
FILTER PACK	340	232	36400#	POURED

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
10"	331	367	.250	STEEL	☐	☐	☐	☐
10"	371	383	.250	STEEL	☐	☐	☐	☐
10"	403	41	.250	STEEL	☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
Perforations Method _____
Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
[illegible]	403	30	304	10"	S.STEEL	☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
____ft. below ground Artesian pressure ____lb.
Depth flow encountered _____ft. Describe access port or

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. _____ Bottom hole temp. _____
Water Quality test or comments: _____
_____ Depth first Water Encountered _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
	410	416	BLUE CLAY		
	416	422	BROWN CLAY		
	422	425	SANDY BRN CLAY		
	425	428	BRN CLAY		
	428	429	CRSE SAND		
	429	431	SANDY CLAY		
	431	433	BLUE-GREEN SAND		
	433	435	BLUE CLAY		
	435	440	BLUE CLAY		
	440		BLUE CLAY		

Completed Depth _____ (Measurable)
Date: Started _____ Completed _____

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name _____ Firm No. _____

Firm Official _____ Date _____
and
Supervisor or Operator _____ Date _____

Boise, Idaho - (208) 322-0611

#1

Form 238-7
6/02

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Well ID No.
Inspected by
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. WELL TAG NO. D 12610
DRILLING PERMIT NO. 63-99-W-1019-000
Water Right or Injection Well No. 63-12559

2. OWNER:
Name Eagle Water Co Inc
Address PO Box 455
City Eagle State ID Zip 83616

3. LOCATION OF WELL by legal description:
You must provide address or Lot, Blk, Sub. or Directions to well.
Twp. 4 North ☒ or South ☐
Rge. 1 East ☒ or West ☐
Sec. 15 N/E 1/4 (10 acres) N/E 1/4 (40 acres) S/W 1/4 (160 acres)
Gov't Lot 3 County Ada
Lat: : : Long: : :
Address of Well Site Hwy 55/ State St 1500# +-South (well #7) west of Hwy 55 City Eagle
(Give at least name of road - Distance to Road or Landmark)
Lt. ____ Blk. ____ Sub. Name ____

4. USE:
☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK check all that apply (Replacement etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other ____

6. DRILL METHOD:
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other reverse

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
bentonite chips	0	23	3000#	poured
bentonite grout	23	300	14 yd	pumped

Was drive shoe used? ☐Y ☐N Shoe Depth(s) ____
Was drive shoe seal tested? ☐Y ☐N How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16"	+4	325'	6" 375	steel	☒	☐	☒	☐
10"	260	331	365	steel	☐	☒	☒	☐
10"	366	376	365	steel	☐	☒	☒	☐

Length of Headpipe 62' Length of Tailpipe has swedge coupler 42' from top.
Packer ☒Y ☐N Type swedge packer 4'6" long 12" pipe with figure K

9. PERFORATIONS/SCREENS PACKER TYPE
Perforation Method ____
Screen Type & Method of Installation Johnson 304 V wire

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
331	366	30		10	stnls	☐	☒
376	401	30		10	stnls	☐	☒
						☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method
8-12 sand	269	403	4-2/3 yd	poured

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
41 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: ____

12. WELL TESTS:
☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
1353	154.3	160	
1345	160.5	160	

Water Temp. ____ Bottom hole temp. ____
Water Quality test or comments: ____
____ Depth first Water Encounter ____

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
24	0	6	sand & gravel	X	
	6	27	cemented sand & gravel	X	
	27	38	sand, gravel, boulders	X	
	38	115	brown clay		X
	115	140	sandy brown clay, clay	X	
	140	152	sand, fine to medium	X	
	152	167	clay		X
	167	180	sand, fine to medium	X	
	180	192	brown clay		X
	192	206	sand	X	
	206	230	blue clay		X
	230	232	brown sand, blue clay streaks	X	
24"	232	242	blue clay		X
to	250	280	brown sand	X	
326	280	331	brown claywith sand streaks	X	
15	331	366	fine brown sand	X	
	366	376	brown clay		X
	376	388	fine to medium sand	X	
	388	390	brown clay		X
	390	402	sand	X	
	402	403	brown clay		X
			cement grout 300-325 pumped		

Completed Depth 401' (Measurable)
Date: Started 11/27/05 Completed 3/5/06

14. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Stevens & Sons Firm No. 153
Principal Driller Ron Stevens Date 3/9/06
and
Driller or Operator II Nic Stevens Date 3/9/06
Operator I

APPENDIX C

Consumption Data

Typical Commercial Consumption/Demand Data

Typical Commercial Consumption/Demand Data

Nov 04

Customer Consumption

[redacted]

Name	MonthYear	Street Address	Consumption
Academy Investors C/O Chris Pears	12/2004	10445 W. Sultana Lane	610
Total Consumption:			**610**
Acorn Floors	12/2004	P.O. Box 127	2047
Total Consumption:			**2047**
Addie's Corner C/O Action Managem	12/2004	P.O. Box 1177	0
Total Consumption:			**0**
Albertson's #182	12/2004	250 Park Center Blvd.	7930
Total Consumption:			**7930**
Albertson's #182 Comm Area	12/2004	P.O. Box 20	0
Total Consumption:			**0**
Albertson's Express #182	12/2004	P.O. Box 20	417
Total Consumption:			**417**
Alderwood Village HOA	12/2004	P.O. Box 2193	0
Total Consumption:			**0**
All American Deli	12/2004	150 E. Riverside Dr.	300
Total Consumption:			**300**
All Pet Complex	12/2004	7660 N. Horseshoe Bend Rd.	4660
Total Consumption:			**4660**
Around The Town Prop. Mgmt.	12/2004	P.O. Box 191006	1188
Total Consumption:			**1188**
Asin Homes	12/2004	9601 W. State St., Ste. 203	1
Total Consumption:			**1**
Bagmaker	12/2004	1075 S. Ancona Ave. Ste. 100	99
Total Consumption:			**99**
Band, Jimmy & Marsha	12/2004	209 S. Eagle Rd.	15
Total Consumption:			**15**
Bardenay Restaurant	12/2004	P.O. Box 1558	23410

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**23410**
BB One Inc	12/2004	250 S. Beechwood Suite 120	4160
BB One Inc	12/2004	250 S. Beechwood Ste. 120	14870
Total Consumption:			**19030**
BB One Inc.	12/2004	250 S. Beechwood Ste. 120	1620
BB One Inc.	12/2004	250 S. Beechwood #120	4780
Total Consumption:			**6400**
Bento, Zen	12/2004	103 N. 10th	449
Total Consumption:			**449**
Berkshire HOA	12/2004	P.O. Box 1262	0
Total Consumption:			**0**
Big Horn Common Area	12/2004	P.O. Box 44869	0
Total Consumption:			**0**
Boise Pizza	12/2004	2162 Broadway Ave.	1147
Total Consumption:			**1147**
Brooks, James & Lonnie	12/2004	28 Riverview	613
Total Consumption:			**613**
Butler, Mark	12/2004	839 E. Winding Creek Dr. Ste 201	140
Total Consumption:			**140**
Centaur Creative Media Inc.	12/2004	449 S. Fitness Pl.	660
Total Consumption:			**660**
Chianis, John	12/2004	300 W. Sutter Dr.	285
Total Consumption:			**285**
Chicago Connection	12/2004	344 W. State	2737
Total Consumption:			**2737**
Choice One Community C/O Leanne	12/2004	104 E. Stonewater Ct.	0
Total Consumption:			**0**
City of Eagle	12/2004	P.O. Box 1620	706
Total Consumption:			**706**

Name	MonthYear	StreetAddress	Consumption
Club One Three 16	12/2004	172 W. State Unit F	55
Total Consumption:			**55**
Cohiba Condo Association	12/2004	9601 W. State, #203	570
Total Consumption:			**570**
Custom Mortgage	12/2004	460 S. Fitness Pl.	170
Total Consumption:			**170**
D.D. Dunlap Companies, Inc.	12/2004	16897 Algonquin St., Suite A	830
Total Consumption:			**830**
daVinci's of Eagle	12/2004	P.O. Box 654	2406
Total Consumption:			**2406**
Deeann's	12/2004	1336 E. State	677
Total Consumption:			**677**
Dotty's Co LLC	12/2004	P.O. Box 7067	480
Total Consumption:			**480**
Doug's Burger Den	12/2004	P.O. Box 605	10095
Total Consumption:			**10095**
Eagle Academy	12/2004	911 Meridian St	33930
Total Consumption:			**33930**
Eagle Counseling Center	12/2004	942 E. Columbary Ct.	67
Total Consumption:			**67**
Eagle Development - WLDC	12/2004	PO Box 1277	2000
Total Consumption:			**2000**
Eagle Family Medicine	12/2004	197 W. State St.	150
Total Consumption:			**150**
Eagle Fire Station	12/2004	966 E. Iron Eagle Dr.	1830
Total Consumption:			**1830**
Eagle Forum LLC	12/2004	P.O. Box 4067	2430
Total Consumption:			**2430**
Eagle Industrial CenterC/OThornton	12/2004	250 S. 5th 2nd Floor	16483

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**16483**
Eagle Library	12/2004	100 Stierman	460
Total Consumption:			**460**
Eagle Manor	12/2004	276 Cedar Ridge	8410
Total Consumption:			**8410**
Eagle Mini Storage	12/2004	P.O. Box 545	64
Total Consumption:			**64**
Eagle Pavilion C/O Pete Loya	12/2004	705 Chardie Rd.	0
Eagle Pavilion C/O Pete Loya	12/2004	705 Chardie Rd	3350
Total Consumption:			**3350**
Eagle Pediatrics, P.A.	12/2004	125 N. Stierman Wy Suite A	70
Total Consumption:			**70**
Eagle Physical Therapy	12/2004	457 S. Fitness	25
Total Consumption:			**25**
Eagle Plaza LLC	12/2004	705 Chardie Rd.	7920
Eagle Plaza LLC	12/2004	705 Chardie Rd	9230
Total Consumption:			**17150**
Eagle Post Office	12/2004	141 N. Palmetto	470
Total Consumption:			**470**
Eagle Professional Park	12/2004	151 Stierman	2323
Total Consumption:			**2323**
Eagle Rib Shack	12/2004	P.O. Box 1756	1575
Total Consumption:			**1575**
Eagle River LLC	12/2004	3101 N. Central, Ste. 1390	240
Eagle River LLC	12/2004	3101 N. Central Ave. Ste. 1390	860
Eagle River LLC	12/2004	3101 N. Central Ste 1390	2499
Total Consumption:			**3599**
Eagle River, LLC	12/2004	3101 N. Central Ave. Ste. 1390	21804
Total Consumption:			**21804**

Name	MonthYear	StreetAddress	Consumption
Eagle River, LLC-I	12/2004	3101 N. Central Ave. Ste. 1390	462
Total Consumption:			**462**
Eagle Senior Village	12/2004	542 N. Eagle Rd.	2420
Total Consumption:			**2420**
Eagle Sewer District	12/2004	44 N. Palmetto Ave.	60
Total Consumption:			**60**
Eagle United Methodist Church	12/2004	651 N. Eagle Rd.	1074
Total Consumption:			**1074**
Eagle Veterinary Hospital	12/2004	48 Palmetto	262
Total Consumption:			**262**
Eagle Village LLC	12/2004	877 W. Main Ste. 700	10
Total Consumption:			**10**
Eagle Village, LLC	12/2004	877 W. Main St., Suite 700	2900
Total Consumption:			**2900**
Eagle Water Co., Inc.	12/2004	P.O. Box 455	86
Total Consumption:			**86**
EagleWing C/O Complete Prop. Mg	12/2004	2090 S. Eagle Rd.	0
Total Consumption:			**0**
Edgewood Estates Comm Area #1C/	12/2004	P.O. Box 502	0
Total Consumption:			**0**
Edgewood Estates Comm Area #2 C	12/2004	P.O. Box 502	0
Total Consumption:			**0**
Edgewood Estates Comm Area #3 C	12/2004	P.O. Box 502	0
Total Consumption:			**0**
Edgewood Estates Comm Area #4 C	12/2004	P.O. Box 502	0
Total Consumption:			**0**
Elkridge Properties, LLC	12/2004	P.O. Box 298	62
Total Consumption:			**62**
Evan's Building Center	12/2004	P.O. Box 159	1160

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**1160**
Farm City Animal Supply	12/2004	P.O. Box C	38
Total Consumption:			**38**
Findlay, Chris	12/2004	145 Horizon Dr.	1215
Total Consumption:			**1215**
First American Title Co.	12/2004	200 S.W. Market St. Ste. 350	540
Total Consumption:			**540**
Four Square Church	12/2004	164 E. State St	7
Total Consumption:			**7**
Gayle's Loft of Books, LLC	12/2004	172 W. State Street Unit C	0
Total Consumption:			**0**
Gemsbok Condo Assoc.	12/2004	1121 E. State, Ste. 107	710
Total Consumption:			**710**
Gold Medallion	12/2004	P.O. Box 147	7555
Total Consumption:			**7555**
Golf Magic	12/2004	2250 E. State St	86
Total Consumption:			**86**
Goodrich, Katrina	12/2004	2283 N. Edgewood Rd.	32
Total Consumption:			**32**
Gothberg, Alei & Cal	12/2004	1275 E. State	711
Total Consumption:			**711**
Guho, Mark	12/2004	391 W. State St	0
Total Consumption:			**0**
Hallock, Jared	12/2004	63 S. 2nd St.	105
Total Consumption:			**105**
Heffner, Randy	12/2004	6025 Randolph Dr.	807
Total Consumption:			**807**
Hilton Garden Inn	12/2004	145 E. Riverside Dr.	10494
Hilton Garden Inn	12/2004	P.O. Box 1327	15260

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**25754**
Home Depot Sore #1809 Facility IQ	12/2004	P.O. Box 2440	1380
Total Consumption:			**1380**
Home Depot Store #1809 Facility IQ	12/2004	P.O. Box 2440	1149
Total Consumption:			**1149**
Idaho Banking Co.	12/2004	402 S. Eagle Rd.	330
Total Consumption:			**330**
Idaho Children's Academy	12/2004	148 N. 2nd St.	2455
Total Consumption:			**2455**
Idaho Veteran's Services ATTN: TAM	12/2004	10101 N. Horseshoe Bend Rd.	5250
Total Consumption:			**5250**
Jensen, Dennis	12/2004	5933 N. Cape Arago Pl.	1692
Total Consumption:			**1692**
Jensen, Dennis & Jeanie	12/2004	5933 N. Cape Arago Pl.	278
Total Consumption:			**278**
Jeremiah Properties	12/2004	P.O. Box 639	350
Total Consumption:			**350**
Jim McCauley	12/2004	1345 E. State St.	482
Total Consumption:			**482**
Johnson, Rodney D.	12/2004	280 S. Academy Ave., Suite 110	230
Total Consumption:			**230**
Judy Harmon	12/2004	P.O. Box 1033	561
Total Consumption:			**561**
Kerstein, Chester & JoAnn	12/2004	2100 S. Artesian Rd.	0
Total Consumption:			**0**
Kings	12/2004	300 W. State	368
Total Consumption:			**368**
Lakeside Veterinary	12/2004	P.O. Box 98	70

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**70**
Les Schwab	12/2004	1467 E. Iron Eagle Dr.	660
Total Consumption:			**660**
Lighthouse Dental	12/2004	1177 N. Eagle Rd.	2600
Total Consumption:			**2600**
Lively, Keith	12/2004	257 E. State St.	420
Total Consumption:			**420**
McDonald's	12/2004	2323 S. Vista Ave., Suite 103	4250
Total Consumption:			**4250**
Mefford, Clifford	12/2004	4511 N. Linda Vista	401
Total Consumption:			**401**
Meridian School District	12/2004	911 Meridian St.	1550
Meridian School District	12/2004	911 Meridian St..	3690
Total Consumption:			**5240**
Meridian School District No. 2	12/2004	911 Meridian St.	0
Total Consumption:			**0**
Merkle, James/Hutt, Donald	12/2004	150 Aikens Suite A	143
Total Consumption:			**143**
Millcourt	12/2004	125 N. Stierman Wy, Ste. A	0
Millcourt	12/2004	125 N. Stierman Wy Ste. A	1
Total Consumption:			**1**
Moriarty, Cheryl	12/2004	2625 E. Piccadilly	664
Total Consumption:			**664**
N.M. Enterprises Bldg #1	12/2004	391 W. State St. Suite G	4590
Total Consumption:			**4590**
N.M. Enterprises Bldg #2	12/2004	391 W. State St. Suite G	3360
Total Consumption:			**3360**
N.M. Enterprises Bldg #3	12/2004	391 W. State St. Suite G	1320
Total Consumption:			**1320**

Name	MonthYear	StreetAddress	Consumption
Namer, Robert & Stormy	12/2004	95 S. Cooksom Ave.	658
Total Consumption:			**658**
NCDB, LLC	12/2004	467 S. Rivershore Ln.	1860
Total Consumption:			**1860**
New Horizon Child Care	12/2004	16355 36th Ave. No. Suite 700	1170
Total Consumption:			**1170**
North Channel Chevron	12/2004	503 So. Eagle Road	11200
Total Consumption:			**11200**
North Channel Professional Condo A	12/2004	483 S. Rivershore	260
Total Consumption:			**260**
OM Corp.	12/2004	518 E. State St.	1685
Total Consumption:			**1685**
Our Secret Cottage	12/2004	172 W. State Unit G	17
Total Consumption:			**17**
Pacific Heights HOA	12/2004	PO Box 1573	0
Total Consumption:			**0**
Pearson, Chris	12/2004	7373 N. Dodgin Ave.	108
Total Consumption:			**108**
Peggy Zurcher	12/2004	P.O. Box 179	1453
Total Consumption:			**1453**
Peregrine Cove Apts. Bldg A	12/2004	663 E. State St Apt. 102	1940
Total Consumption:			**1940**
Peregrine Cove Apts. Bldg B & C	12/2004	663 E. State St. Apt. 102	3800
Total Consumption:			**3800**
Peregrine Cove Apts. Bldg D	12/2004	663 E. State St. Apt.102	3950
Total Consumption:			**3950**
Peregrine Cove Apts. Bldg E	12/2004	663 E. State St. Apt. 102	2940
Total Consumption:			**2940**
Peregrine Cove Apts. Bldg F & G	12/2004	663 E. State St. Apt. 102	5220

Name	Month Year	Street Address	Consumption
Total Consumption:			**5220**
Peregrine Cove Apts. Bldg H	12/2004	663 E. State St. Apt. 102	3010
Total Consumption:			**3010**
Peregrine Cove Apts. Bldg I	12/2004	663 E. State St. Apt. 102	3570
Total Consumption:			**3570**
Peregrine Cove Apts. Bldg J	12/2004	663 E. State St. Apt. 102	280
Total Consumption:			**280**
Peregrine Cove Apts. Bldg K	12/2004	663 E. State St. Apt. 102	1980
Total Consumption:			**1980**
Peregrine Cove Apts. Bldg L	12/2004	663 E. State St. Apt. 102	2130
Total Consumption:			**2130**
Petticoat Junction Owners Assoc. C/	12/2004	271 Schmeizer Ln.	751
Total Consumption:			**751**
Pinewick Services	12/2004	P.O. Box 669	695
Total Consumption:			**695**
Pioneer Federal Credit Union	12/2004	250 W. 3rd S.	117
Total Consumption:			**117**
Primary Health	12/2004	435 S. Eagle Rd.	1060
Total Consumption:			**1060**
Qwest - Idaho State Admin 300000	12/2004	P.O. Box 182575	213
Total Consumption:			**213**
Red Leaf Neighborhood Assoc.	12/2004	P.O. Box 2205	0
Total Consumption:			**0**
Rembrandt's Coffe House	12/2004	P.O. Box 639	2566
Total Consumption:			**2566**
Republic Storage of Idaho Comm Ar	12/2004	210 Murray	0
Total Consumption:			**0**
Republic Storage of Idaho Office	12/2004	210 Murray	514

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**514**
Research Source	12/2004	531 S. Fitness Pl.	0
Total Consumption:			**0**
Rick Markus	12/2004	5030 N. Lena	36830
Total Consumption:			**36830**
Riverside Management	12/2004	6128 Fairview Ave. Suite 2A	6350
Total Consumption:			**6350**
Roberts, Larry	12/2004	1315 N. McKinney	2310
Total Consumption:			**2310**
Rocky Mountain #22, LLC Attn: Lexic	12/2004	5744 N. Big Cedar	0
Total Consumption:			**0**
Rocky Mountain Fitness Center	12/2004	875 E. Plaza Dr., Ste 101	14180
Total Consumption:			**14180**
Rocky Mtn. #19, LLC	12/2004	5744 N. Big Cedar	0
Total Consumption:			**0**
Rocky Mtn. #20, LLC	12/2004	5744 N. Big Cedar	0
Total Consumption:			**0**
Rocky Mtn. Pizza Hut	12/2004	504 N. Phillipi	1459
Total Consumption:			**1459**
Roddy Evans Construction	12/2004	669 Spyglass	52
Total Consumption:			**52**
Rodgriguez, Armando	12/2004	3549 Mira Pacific Dr.	70
Total Consumption:			**70**
Roger Family Trust	12/2004	3905 Sandbar Ln.	130
Total Consumption:			**130**
Rolfe Development Co.	12/2004	P.O. Box 1183	862
Total Consumption:			**862**
Roth Homes	12/2004	P.O. Box 140677	0

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**0**
Roy Coon / Church of Christ Temple	12/2004	3995 County Line Rd.	267
Total Consumption:			**267**
Schaal Inc.	12/2004	316 E. Main	372
Total Consumption:			**372**
Second Avenue, Inc.	12/2004	222 E. State, Ste. A	60
Total Consumption:			**60**
Senior Citizen	12/2004	312 E. State St.	1540
Total Consumption:			**1540**
Seventh Day Adventist Church	12/2004	P.O. Box 186	1187
Total Consumption:			**1187**
Sherwin Williams Eagle L018246824	12/2004	P.O. Box 182344	80
Total Consumption:			**80**
SHIP LLC	12/2004	228 E. Plaza St. Ste. I	5940
Total Consumption:			**5940**
Sisters Villa	12/2004	540 N. Eagle Rd.	9660
Total Consumption:			**9660**
Smith's Chevron Station	12/2004	503 S. Eagle Rd.	1
Total Consumption:			**1**
Stanley Ray	12/2004	333 W. State St	199
Total Consumption:			**199**
Stinker Station #39	12/2004	P.O. Box 7627	7530
Total Consumption:			**7530**
Story, Chuck	12/2004	4565 W. Quail Ridge	211
Total Consumption:			**211**
Streamside Mortgage	12/2004	244 S. Academy	40
Total Consumption:			**40**
Studio C	12/2004	500 S. Fitness Pl.	190

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**190**
Subway	12/2004	1404 N. Main, Ste. #120	1128
Total Consumption:			**1128**
Tates Rents	12/2004	P.O. Box 7338	852
Total Consumption:			**852**
The Blue Moose/Marcy Anderson	12/2004	79 Aikens	664
Total Consumption:			**664**
The Land Group	12/2004	462 E. Shore Dr.	540
Total Consumption:			**540**
The Sellin Advisor Group	12/2004	1036 E. Iron Eagle Dr. Ste 100	280
Total Consumption:			**280**
Tibbs, Brian	12/2004	P.O. Box 984	2618
Total Consumption:			**2618**
Todd Stewart Salon	12/2004	172 W. State Unit A	325
Total Consumption:			**325**
Tri-City Meats	12/2004	1346 N. Hickory	0
Total Consumption:			**0**
Triangle Trailer Ct./Investors Prop. M	12/2004	PO Box 140358	17500
Total Consumption:			**17500**
U-DO-IT Car Wash	12/2004	1510 E. State St.	8570
Total Consumption:			**8570**
WA Mutual C/O ACIS	12/2004	P.O. Box 2440	180
Total Consumption:			**180**
Wagers Partnership LTD Properties	12/2004	4028 Del Monte Dr.	233
Total Consumption:			**233**
Washington Federal Savings #30	12/2004	455 Pike St.	140
Total Consumption:			**140**
Wells Fargo C/O FACILITY IQ - MS	12/2004	P.O. Box 2440	190

Name	MonthYear	StreetAddress	Consumption
Total Consumption:			**190**
Wendy's	12/2004	7609 W. Emerald	3030
Total Consumption:			**3030**
Western Development Attn:ANNA SI	12/2004	822 S. 10th Ave.	1170
Total Consumption:			**1170**
Westmark Credit Union/Accounting	12/2004	P.O. Box 2869	50
Total Consumption:			**50**
Westminster Homes, LLC	12/2004	128 S. Eagle Rd.	328
Total Consumption:			**328**
Wright Bros.	12/2004	P.O. Box 637	210
Total Consumption:			**210**
Wright, John	12/2004	2372 E. State	85
Total Consumption:			**85**
Zach Evans Construction	12/2004	507 S. Fitness Pl. Ste. 100	0
Total Consumption:			**0**
Zamzow's	12/2004	1201 Franklin Blvd.	2060
Total Consumption:			**2060**
Grand Total		471437	

COMMERCIAL ACCOUNT	Node	Nov-02 (cf/mo)	Dec-02 (cf/mo)	Jan-03 (cf/mo)	Jun-03 (cf/mo)	Jul-03 (cf/mo)	Aug-03 (cf/mo)
3JC Land Company	404	0	0	0	0	0	0
Academy Investors	135	0	0	0	3796	2783	3885
Acorn Floors	295	5673	0	4068	13763	11881	9837
Addies Corner	294	0	0	0	58580	30650	57710
Albertson's #182	544	22490	15620	15620	13730	10140	14650
Albertson's #182 Common	544	0	0	0	45930	40440	51710
Albertson's Express #182	375	729	269	379	821	598	754
Alderwood Village HOA	197	0	0	0	0	0	0
All American Deli	444	0	0	0	0	0	0
All Pet Complex	592	0	0	0	0	0	0
AMI/Rick's River Comm. #1	176	0	0	0	0	0	12845
AMI/Rick's River Comm. #2	173	0	0	0	2132	3687	798
AMI/Rick's River Comm. #3	168	0	0	0	4	6	0
Around the Town Prop Mngmnt	24	2444	2384	1519	15305	0	5675
Ashley Manor	159	0	0	0	0	0	0
Asin Homes	524	0	0	0	80700	46660	90270
Bagmaker	621	0	0	0	0	0	0
Band, Jimmy & Marsha	369	49	41	0	6892	6800	6754
Bardenay Restaurant	443	0	0	0	0	429	0
BB One, Inc. #1	386	25880	17270	15000	38940	23280	36020
BB One, Inc. #2	386	18590	9130	8000	8420	7700	9770
Bento, Zen	8	0	0	0	0	0	0
Berkshire HOA	281	0	0	0	60770	75230	31140
Big Horn Common Area	200	0	0	1	38650	26260	28170
BMD Properties LLC	592	0	0	0	0	0	0
Boise Pizza	20	0	0	0	0	0	0
Brooks, James & Lonnie	179	7785	0	808	6996	6937	894
Butler, Mark	9	226	375	0	185	39	152
Centaur Creative Media Inc.	395	8	1363	0	156	225	640
Chianis, John	381	323	269	309	1764	1788	2983
Chicago Connection	373	6929	0	3703	6999	2206	5697
Choice One Community	502	0	1	1	97760	53210	96040
City Hall	22	0	0	0	34678	32047	42707
City of Eagle	8	3405	482	0	358686	374176	566199
Clearwater Construction	9	0	0	0	110	670	0
Club One Three 16	157	0	0	0	0	0	0
Cohiba Condo Association	397	0	0	0	600	3670	140
Custom Mortgage	395	370	760	0	400	620	640
D.D. Dunlap Companies Inc.	394	1080	2050	0	1730	1340	1780
Dave Evans Construction	464	0	0	0	0	0	0
de Vinci's of Eagle	5	5494	3200	0	5384	4040	6508
Deeann's	223	1889	1290	0	1769	1265	1903
Dotty's Co. LLC	459	0	0	0	0	0	0
Doug's Burger Den	9	18013	10105	0	17585	12968	6077
E.S.I.	460	0	0	0	0	0	0
Eagle Academy	135	19880	32360	0	126780	107840	100610
Eagle Counseling Center	135	61	128	0	5296	3163	7031
Eagle Development	368	0	0	0	0	0	0
Eagle Development - WLDC	593	0	0	0	0	0	0
Eagle Family Medicine	1	190	100	220	11140	7480	11380

Great Sky #6 (Common)	250	0	0	0	12236	7843	9288
Great Sky #9 (Common)	345	0	0	0	4525	3083	4307
Great Sky #10 (Common)	345	0	0	0	4731	4240	7967
Guho, Mark	163	0	1	0	21980	18860	25750
Hallock, Jared	371	3237	1966	0	1580	1012	1435
Heffner, Randy	24	911	491	0	7908	0	3947
Hilton Garden Inn	367	4	0	30	967	1786	6767
Home Depot Store #1809-1	605	0	0	0	0	0	0
Home Depot Store #1809-2	607	0	0	0	0	0	0
Home Federal	397	0	0	0	0	0	0
Idaho Athletic Club	486	0	0	0	0	0	0
Idaho Banking Co.	375	1120	430	0	2420	1750	3190
Idaho Children's Academy	9	0	0	0	3043	2280	4982
Idaho Veteran's Services	660	0	0	0	0	0	0
Jackson's Food Store #57	4	0	0	0	0	0	0
Jayo Construction	505	0	0	0	0	0	0
Jensen, Dennis	543	4812	3251	0	28722	21963	22032
Jensen, Dennis & Jeanie	543	830	557	0	478	319	671
Jeremiah Properties	2	20	29	0	29135	2	0
Jim McCauley	271	449	890	0	446	425	734
Johnson, Rodney D.	135	280	1640	0	4570	3120	4360
Joint School District #2	60	9078	4425	5455	46101	0	60579
Judy Harmon	543	1522	1103	0	1500	534	929
Kerstein, Chester & JoAnn	395	0	0	0	0	0	0
Kings	158	837	0	397	8804	4539	7688
Lakeside Veterinary	157	255	0	138	291	232	173
Larbon, LLC	11	0	0	0	0	0	0
Les Schwab	404	770	1240	0	1110	960	1100
Lighthouse Dental	43	1260	950	1630	52510	32360	36610
Lively, Keith	9	0	0	0	0	0	0
Maracaibo Property	470	0	0	0	0	0	0
McDonald's	364	12470	10580	0	20120	21000	31060
Mefford, Clifford	140	934	535	0	668	0	401
Meridian School District	14	8640	3450	8920	47670	8240	11170
Meridian School District No.2	14	5	0	1	11619	34939	3677
Merkle, James/Hutt, Donald	366	199	239	0	1812	1353	3016
Millcourt	19	1680	0	0	5797	70	3294
Moffat & Moffat	131	0	0	0	0	0	0
Moriarty, Cheryl **	523	0	0	0	0	0	0
Mountain West Clinical Trial	468	0	0	0		0	0
N.M. Enterprises Bldg. #1	160	2430	2450	4960	3590	2640	4300
N.M. Enterprises Bldg. #2	163	3490	2850	4110	4240	2580	11380
N.M. Enterprises Bldg. #3	163	1360	950	3320	2640	850	1400
Namer, Robert & Stormy **	523	0	0	0	0	0	0
NCDB, LLC	384	1060	850	0	640	430	640
New Horizons Child Care	234	3920	0	2120	27270	19280	17640
North Channel Chevron	283	34490	24960	0	24120	15630	22440
North Channel Prof Condo	283	1000	700	0	700	520	700
OM Corp.	20	22340	6220	0	17601	0	12003
Our Secret Cottage	157	0	0	0	0	0	0
Pacific Heights HOA	400	0	0	0	45330	30060	46880
Pearson, Chris	224	0	0	0	0	0	0

Studio C	295	360	750	0	250	1090	140
Subway	8	14986	16840	0	6272	4402	6809
Tates Rents	5	1667	0	1038	2820	1720	3175
The Blue Moose	366	1789	1131	0	3211	3329	6372
The Land Group	453	0	0	0	0	0	0
The Sellin Advisor Group	402	280	520	0	900	310	400
Tibbs, Brian	366	2534	1267	0	2292	1597	2889
Todd Stewart Salon	157	0	0	0	0	0	6
Tri-City Meats	2	38500	29130	0	79830	70800	110020
Triangle Trailer Ct.	752	30150	0	20330	89060	46160	80260
U-DO-IT Car Wash	225	16040	12380	0	14680	11270	14250
WA Mutual	279	310	240	0	19510	14290	22500
Wagers Partnership LTD	4	1430	616	226	646	772	803
Washington Fed. Savings #30	219	100	0	130	29610	29730	34680
Wells Fargo	384	440	240	0	38250	26270	40620
Wendy's	449	0	0	0	0	0	0
Western Development	543	3620	2370	0	7500	1650	2750
Westmark Credit Union	476	0	0	0	0	0	0
Westminster Homes, LLC	364	746	515	0	525	485	644
Winding Creek BOA	549	0	0	0	0	0	0
Winding Creek HOA	549	0	0	0	0	0	0
Wright Brothers	219	0	0	0	550	220	8740
Wright, John	219	51	0	26	22	19	20
Zach Evans Construction	395	0	0	0	0	0	0
Zamzow's	378	4040	2150	0	58940	41930	67520
	gpm/Acct.						

2180	2280	1460	3420	1860	1950	1830	2360	1980	3770
0	0	0	16597	35448	29367	0	0	0	17944
2210	4960	4280	670	1730	1410	2430	6300	6280	2920
4880	4240	1120	10930	14850	12930	0	3960	2650	0
0	0	0	118810	86700	42940	0	0	0	0
990	1510	810	630	1020	3155	0	1365	790	770
12958	14813	8508	18754	20764	24808	16483	25061	22222	23460
21470	29090	32890	45450	55286	38914	460	700	740	38150
7430	13650	4850	33470	64870	59840	8410	12760	10120	41090
0	0	0	0	0	0	0	0	0	0
56	59	49	2229	320	272	64	105	105	208
4410	6810	5010	32090	45010	49280	3350	5910	5460	39800
0	1	0	80	120	100	70	120	100	0
408	357	338	399	293	393	25	18	268	205
12190	21770	12931	82860	62140	76570	17150	20690	17080	47720
380	470	510	23370	19220	21040	470	810	680	8770
2792	3853	3859	5409	4695	4221	2323	3516	2009	0
105	615	1136	3019	5197	3647	1575	1607	1385	5232
100	4026	180	260	320	760	3599	1420	1160	1150
36	190	10	10797	11144	14864	21804	17561	3893	18758
0	0	0	565	758	491	462	358	162	501
70	0	110	1800	1320	2000	2420	3170	2430	2830
60	80	90	4350	6250	5580	60	90	100	3250
0	0	0	0	0	0	0	0	0	0
1130	1830	1950	390	370	420	1074	650	1610	370
300	396	378	407	285	382	262	407	415	303
2640	3500	5260	0	90	210	10	0	0	0
0	0	0	37720	35170	31440	2900	3860	3950	0
531	75	31	1051	2524	1778	86	57	57	1174
0	0	0	25980	34770	22450	0	0	0	21360
0	0	0	17217	13478	17733	0	0	0	6589
0	0	0	11110	6930	7240	0	0	0	4960
0	0	0	19777	21596	0	0	0	0	21197
0	0	0	53920	46020	88430	0	0	0	45420
0	0	0	6631	7564	9954	0	0	0	4139
0	0	0	2844	2308	2692	0	0	0	2257
0	0	0	0	9780	2064	0	0	0	3668
0	161	96	64	87	75	62	84	85	128
360	430	530	10320	12480	22250	1160	70	350	0
0	0	0	0	0	0	38	0	0	4198
211	198	109	1483	1665	1644	1215	1895	1620	1746
740	810	690	11970	4730	10900	540	950	830	770
1470	1959	11	104	459	67	7	20	11	147
0	0	0	0	0	39	0	0	0	62
410	0	350	720	810	1000	710	1030	1070	970
0	0	0	0	0	0	0	0	0	1620
170	185	215	2336	1618	1717	7555	266	284	466
73	125	86	120	774	94	86	114	97	69
0	0	0	0	0	0	32	13	17	373
4886	5268	665	10395	15312	15862	711	1188	1242	5471
0	0	0	75200	92340	141640	0	0	0	61470
0	0	0	3878	4522	6201	0	0	0	2731

2964	3535	2588	11010	7023	7652	1453	1794	1656	4398
2320	2700	1670	1850	2440	2670	1940	2900	2520	2550
6500	7120	4070	3270	3430	5130	3800	5950	4730	3830
5940	7410	5020	5310	3980	6060	3950	6210	5570	3360
800	4950	3040	4450	3150	4440	2940	4420	3760	3570
7160	6860	3360	6920	6580	7010	5220	7220	6560	5260
3910	3300	2460	3000	2880	4100	3010	4460	4990	3460
5430	6220	4100	3940	3380	4290	3570	5180	4590	3600
4490	4020	2820	2380	2070	2410	280	5690	3260	2820
1930	2500	1600	2410	1840	2540	1980	3100	2630	2610
2300	2400	1730	250	1280	2540	2130	3910	3980	3420
0	0	0	0	841	1634	751	0	611	1
0	0	0	23110	23360	12360	0	0	0	14510
21	507	338	3656	1291	1294	695	721	767	209
105	147	167	9195	9794	11098	117	168	150	0
620	1140	780	1260	1710	7940	1060	650	2100	2700
268	895	174	855	447	676	213	329	308	3657
0	0	0	3287	4917	4319	0	1	1	2775
0	0	0	0	0	0	2566	6354	6638	0
0	0	0	1371	1482	1829	0	0	0	17307
463	517	346	731	692	1108	514	756	374	576
0	0	0	0	0	0	0	253	5979	217
0	0	0	28720	35770	44150	36830	60940	63870	42270
0	0	0	0	0	0	0	0	130	1800
0	0	0	118860	59880	110700	6350	0	1	34890
3210	5200	3200	6380	6711	6369	2310	3950	3340	4790
0	0	0	0	0	1	0	97	104	818
0	0	0	0	0	96	0	26	0	2674
0	0	0	0	0	0	0	0	1	990
18020	22370	15210	17510	13400	15890	14180	21730	0	23210
1112	9871	6234	7071	10136	10120	1459	6328	8100	7563
0	0	0	6233	4660	5754	52	87	85	2734
0	0	0	19560	31650	36920	70	10	280	0
120	300	240	660	1510	2600	130	200	170	2190
967	1137	1701	3829	5547	5992	862	1295	763	0
0	0	0	0		0	0	0	1	7320
0	0	0	0	0	0	0	0	0	8272
6	47	41	6283	6404	5375	267	403	346	5021
0	0	0	0	0	0	0	0	0	1890
519	788	698	5182	3207	6661	372	524	1027	1030
30	30	30	0	170	140	60	70	70	150
530	790	620	23030	39670	33350	15440	2210	800	10220
4146	4199	1085	947	881	1283	1187	1375	1594	587
90	10	70	3590	4840	6100	80	110	150	3120
5780	6830	4600	9640	9470	12020	5940	8940	6900	9800
1169	1860	1070	88700	100640	113980	9660	12870	10930	51690
18	9325	0	2	0	0	1	1	0	15
185	15	116	10853	6092	4488	199	282	270	1412
16539	24620	9040	19790	18760	39120	7530	12680	11290	19450
218	261	220	1090	984	1148	211	306	319	950
48	39	30	5459	5776	7380	40	39	110	1236
52	61	40	8915	9879	8393	0	42	45	0

Jul-05 (cf/mo)	Aug-05 (cf/mo)		Nov-02 (gpm)	Dec-02 (gpm)	Jan-03 (gpm)	Jun-03 (gpm)	Jul-03 (gpm)	Aug-03 (gpm)
300	0	0.0001703	0	0	0	0	0	0
8479	0	0.0001703	0	0	0	0.6465818	0.4740351	0.6617414
12827	11432	0.0001703	0.9662957	0	0.6929122	2.3442848	2.0237192	1.6755598
7579	13950	0.0001703	0	0	0	9.978072	5.2206881	9.8298828
26060	0	0.0001703	3.8307757	2.6605921	2.6605921	2.3386639	1.7271705	2.4953697
97960	0	0.0001703	0	0	0	7.8233671	6.8882423	8.8078884
1195	0	0.0001703	0.1241723	0.0458194	0.064556	0.1398429	0.1018588	0.1284306
119170	31130	0.0001703	0	0	0	0	0	0
18560	0	0.0001703	0	0	0	0	0	0
4780	5220	0.0001703	0	0	0	0	0	0
29662	26031	0.0001703	0	0	0	0	0	2.1879197
839	1158	0.0001703	0	0	0	0.3631487	0.6280156	0.1359253
1	0	0.0001703	0	0	0	0.0006813	0.001022	0
0	0	0.0001703	0.4162924	0.4060724	0.2587349	2.6069374	0	0.9666364
0.01	0.01	0.0001703	0	0	0	0	0	0
73580	56320	0.0001703	0	0	0	13.745825	7.9477098	15.375906
1270	1200	0.0001703	0	0	0	0	0	0
12386	0	0.0001703	0.0083463	0.0069836	0	1.1739309	1.1582603	1.150425
70260	0	0.0001703	0	0	0	0	0.0730726	0
71020	30000	0.0001703	4.4082025	2.9416405	2.554986	6.6327437	3.9653383	6.135373
12990	10000	0.0001703	3.1664793	1.5551348	1.3626592	1.4341988	1.3115595	1.6641475
4766	0	0.0001703	0	0	0	0	0	0
35070	26570	0.0001703	0	0	0	10.3511	12.814106	5.3041509
32210	31270	0.0001703	0	0	0.0001703	6.5833473	4.4729288	4.7982637
0	3400	0.0001703	0	0	0	0	0	0
15844	0	0.0001703	0	0	0	0	0	0
11011	16117	0.0001703	1.3260377	0	0.1376286	1.1916455	1.1815959	0.1522772
757	0	0.0001703	0.0384951	0.0638747	0	0.0315115	0.006643	0.0258905
724	0	0.0001703	0.0013627	0.2321631	0	0.0265719	0.0383248	0.1090127
4274	6267	0.0001703	0.0550174	0.0458194	0.0526327	0.3004664	0.3045543	0.5081015
2329	2405	0.0001703	1.1802332	0	0.6307409	1.1921565	0.3757533	0.9703837
44500	68610	0.0001703	0	0.0001703	0.0001703	16.651695	9.063387	16.358724
60799	0	0.0001703	0	0	0	5.906787	5.4586424	7.2743858
748864	274831	0.0001703	0.5799818	0.0821002	0	61.095847	63.734296	96.442035
0.1	0.1	0.0001703	0	0	0	0.0187366	0.1141227	0
44	49	0.0001703	0	0	0	0	0	0
2880	0	0.0001703	0	0	0	0.1021994	0.6251199	0.0238465
930	400	0.0001703	0.063023	0.1294526	0	0.068133	0.1056061	0.1090127
2940	0	0.0001703	0.183959	0.3491814	0	0.2946751	0.2282454	0.3031917
690	0	0.0001703	0	0	0	0	0	0
9718	0	0.0001703	0.9358062	0.5450637	0	0.9170696	0.6881429	1.1085233
2031	0	0.0001703	0.3217579	0.2197288	0	0.301318	0.2154705	0.3241426
1640	0	0.0001703	0	0	0	0	0	0
14629	0	0.0001703	3.0681975	1.7212089	0	2.9952953	2.2088706	1.03511
260	0	0.0001703	0	0	0	0	0	0
147700	0	0.0001703	3.3862081	5.5119565	0	21.594742	18.368646	17.137143
11215	0	0.0001703	0.0103903	0.0218025	0	0.9020804	0.5387614	1.1976071
0	560	0.0001703	0	0	0	0	0	0
418661	529964	0.0001703	0	0	0	0	0	0
14120	10600	0.0001703	0.0323632	0.0170332	0.0374731	1.8975029	1.2740864	1.9383827

14463	12424	0.0001703	0	0	0	2.0841872	1.335917	1.5820473
3328	3724	0.0001703	0	0	0	0.7707541	0.5251348	0.7336216
6691	7990	0.0001703	0	0	0	0.8058426	0.7222094	1.3570382
21850	23230	0.0001703	0	0.0001703	0	3.7439062	3.2124691	4.3860593
528	0	0.0001703	0.551366	0.3348735	0	0.2691252	0.1723764	0.244427
6694	0	0.0001703	0.1551728	0.0836332	0	1.3469886	0	0.672302
93590	0	0.0001703	0.0006813	0	0.00511	0.1647114	0.3042137	1.1526394
14010	12150	0.0001703	0	0	0	0	0	0
17473	15821	0.0001703	0	0	0	0	0	0
300	0	0.0001703	0	0	0	0	0	0
0.01	0.01	0.0001703	0	0	0	0	0	0
1780	0	0.0001703	0.1907723	0.0732429	0	0.4122044	0.2980817	0.5433604
4096	0	0.0001703	0	0	0	0.5183215	0.3883579	0.848596
2270	2910	0.0001703	0	0	0	0	0	0
10160	21270	0.0001703	0	0	0	0	0	0
40	0	0.0001703	0	0	0	0	0	0
23635	0	0.0001703	0.8196395	0.5537506	0	4.8922872	3.7410105	3.7527634
986	0	0.0001703	0.1413759	0.0948751	0	0.0814189	0.054336	0.114293
4	0	0.0001703	0.0034066	0.0049396	0	4.9626345	0.0003407	0
471	461	0.0001703	0.0764792	0.1515958	0	0.0759683	0.0723913	0.125024
5470	0	0.0001703	0.0476931	0.2793451	0	0.7784191	0.5314371	0.7426493
1390	0	0.0001703	1.5462775	0.7537209	0.9291632	7.852494	0	10.318566
1271	0	0.0001703	0.2592459	0.1878766	0	0.2554986	0.0909575	0.1582388
1	0	0.0001703	0	0	0	0	0	0
271	3102	0.0001703	0.1425682	0	0.067622	1.4996064	0.7731388	1.3095155
141	118	0.0001703	0.0434348	0	0.0235059	0.0495667	0.0395171	0.0294675
395	0	0.0001703	0	0	0	0	0	0
2170	0	0.0001703	0.1311559	0.2112122	0	0.189069	0.1635191	0.1873656
63670	53970	0.0001703	0.2146188	0.1618158	0.2776418	8.9441543	5.5119565	6.2358692
16110	0	0.0001703	0	0	0	0	0	0
90	0	0.0001703	0	0	0	0	0	0
32630	0	0.0001703	2.124045	1.8021168	0	3.4270879	3.5769804	5.2905243
535	0	0.0001703	0.1590905	0.0911278	0	0.113782	0	0.0683033
2230	0	0.0001703	1.4716719	0.5876468	1.519365	8.1197455	1.403539	1.9026129
18451	0	0.0001703	0.0008517	0	0.0001703	1.9790922	5.9512437	0.6263122
23195	0	0.0001703	0.0338961	0.0407094	0	0.3086423	0.2304597	0.5137225
4853	0	0.0001703	0.2861584	0	0	0.9874169	0.0119233	0.5610749
46732	0	0.0001703	0	0	0	0	0	0
5560	0	0.0001703	0	0	0	0	0	0
1140	0	0.0001703	0	0	0	0	0	0
15130	10760	0.0001703	0.4139077	0.4173144	0.8448487	0.6114933	0.4496775	0.7324293
4670	530	0.0001703	0.5944601	0.4854473	0.7000662	0.7222094	0.4394576	1.9383827
2910	1300	0.0001703	0.2316521	0.1618158	0.5655036	0.4496775	0.1447825	0.2384654
5753	4223	0.0001703	0	0	0	0	0	0
4490	0	0.0001703	0.1805523	0.1447825	0	0.1090127	0.0732429	0.1090127
46870	14780	0.0001703	0.667703	0	0.3611047	4.6449645	3.2840087	3.0046635
46220	0	0.0001703	5.8747645	4.2514967	0	4.1084175	2.6622954	3.8222591
760	0	0.0001703	0.1703324	0.1192327	0	0.1192327	0.0885728	0.1192327
26404	0	0.0001703	3.8052258	1.0594675	0	2.9980206	0	2.0444998
15	19	0.0001703	0	0	0	0	0	0
144130	0	0.0001703	0	0	0	7.7211677	5.1201919	7.9851829
2700	0	0.0001703	0	0	0	0	0	0

1420	0	0.0001703	0.0613197	0.1277493	0	0.0425831	0.1856623	0.0238465
8771	0	0.0001703	2.5526013	2.8683976	0	1.0683248	0.7498032	1.1597933
1084	993	0.0001703	0.2839441	0	0.176805	0.4803374	0.2929717	0.5408054
6066	0	0.0001703	0.3047247	0.1926459	0	0.5469373	0.5670366	1.0853581
1370	0	0.0001703	0	0	0	0	0	0
890	0	0.0001703	0.0476931	0.0885728	0	0.1532992	0.052803	0.068133
4488	0	0.0001703	0.4316223	0.2158112	0	0.3904019	0.2720208	0.4920903
451	593	0.0001703	0	0	0	0	0	0.001022
23767	0	0.0001703	6.5577974	4.9617828	0	13.597635	12.059534	18.739971
2350	251650	0.0001703	5.1355219	0	3.4628577	15.169804	7.8625436	13.670878
28510	0	0.0001703	2.7321317	2.1087151	0	2.5004796	1.9196461	2.4272367
32670	0	0.0001703	0.052803	0.0408798	0	3.3231851	2.43405	3.832479
978	753	0.0001703	0.2435753	0.1049248	0.0384951	0.1100347	0.1314966	0.1367769
14160	20540	0.0001703	0.0170332	0	0.0221432	5.0435424	5.0639823	5.9071276
34390	0	0.0001703	0.0749463	0.0408798	0	6.5152143	4.4746321	6.9189021
9510	0	0.0001703	0	0	0	0	0	0
4310	0	0.0001703	0.6166033	0.4036878	0	1.277493	0.2810485	0.4684141
220	0	0.0001703	0	0	0	0	0	0
966	0	0.0001703	0.127068	0.0877212	0	0.0894245	0.0826112	0.1096941
114140	93150	0.0001703	0	0	0	0	0	0
0	11	0.0001703	0	0	0	0	0	0
370	380	0.0001703	0	0	0	0.0936828	0.0374731	1.4887052
78	85	0.0001703	0.008687	0	0.0044286	0.0037473	0.0032363	0.0034066
212	0	0.0001703	0	0	0	0	0	0
119830	0	0.0001703	0.6881429	0.3662147	0	10.039392	7.1420375	11.500844
			Customer	Customer	Customer	Customer	Customer	Customer
			Month Avg.	Month Avg.	Month Avg.	Month Avg.	Month Avg.	Month Avg.
			0.4842	0.3293	0.1372	2.4441	1.5746	2.4411
			Nov-02	Dec-02	Jan-03	Jun-03	Jul-03	Aug-03

0.3713246	0.3883579	0.2486853	0.5825368	0.3168183	0.3321482	0.3117	0.4020	0.3373
0	0	0	2.8270068	6.0379429	5.0021516	0.0000	0.0000	0.0000
0.3764346	0.8448487	0.7290227	0.1141227	0.2946751	0.2401687	0.4139	1.0731	1.0697
0.8312221	0.7222094	0.1907723	1.8617331	2.5294361	2.2023979	0.0000	0.6745	0.4514
0	0	0	20.237192	14.767819	7.3140733	0.0000	0.0000	0.0000
0.1686291	0.2572019	0.1379692	0.1073094	0.173739	0.5373987	0.0000	0.2325	0.1346
2.2071672	2.5231338	1.4491881	3.1944138	3.536782	4.2256062	2.8076	4.2687	3.7851
3.6570366	4.9549695	5.6022326	7.7416076	9.4169971	6.628315	0.0784	0.1192	0.1260
1.2655697	2.3250373	0.8261121	5.7010254	11.049463	10.192691	1.4325	2.1734	1.7238
0	0	0	0	0	0	0.0000	0.0000	0.0000
0.0095386	0.0100496	0.0083463	0.3796709	0.0545064	0.0463304	0.0109	0.0179	0.0179
0.7511659	1.1599636	0.8533653	5.4659667	7.6666613	8.3939807	0.5706	1.0067	0.9300
0	0.0001703	0	0.0136266	0.0204399	0.0170332	0.0119	0.0204	0.0170
0.0694956	0.0608087	0.0575724	0.0679626	0.0499074	0.0669406	0.0043	0.0031	0.0456
2.076352	3.7081363	2.2025683	14.113743	10.584455	13.042352	2.9212	3.5242	2.9093
0.0647263	0.0800562	0.0868695	3.9806682	3.2737887	3.5837937	0.0801	0.1380	0.1158
0.4755681	0.6562907	0.6573127	0.921328	0.7997106	0.7189731	0.3957	0.5989	0.3422
0.0178849	0.1047544	0.1934976	0.5142335	0.8852175	0.6212023	0.2683	0.2737	0.2359
0.0170332	0.6857582	0.0306598	0.0442864	0.0545064	0.1294526	0.6130	0.2419	0.1976
0.006132	0.0323632	0.0017033	1.8390789	1.8981843	2.5318208	3.7139	2.9912	0.6631
0	0	0	0.0962378	0.129112	0.0836332	0.0787	0.0610	0.0276
0.0119233	0	0.0187366	0.3065983	0.2248388	0.3406648	0.4122	0.5400	0.4139
0.0102199	0.0136266	0.0153299	0.7409459	1.0645775	0.9504548	0.0102	0.0153	0.0170
0	0	0	0	0	0	0.0000	0.0000	0.0000
0.1924756	0.3117083	0.3321482	0.0664296	0.063023	0.0715396	0.1829	0.1107	0.2742
0.0510997	0.0674516	0.0643856	0.0693253	0.0485447	0.065067	0.0446	0.0693	0.0707
0.4496775	0.5961634	0.8959484	0	0.0153299	0.0357698	0.0017	0.0000	0.0000
0	0	0	6.4249381	5.9905905	5.3552507	0.4940	0.6575	0.6728
0.0904465	0.0127749	0.0052803	0.1790194	0.429919	0.302851	0.0146	0.0097	0.0097
0	0	0	4.4252358	5.9224575	3.8239624	0.0000	0.0000	0.0000
0	0	0	2.9326129	2.2957401	3.0205044	0.0000	0.0000	0.0000
0	0	0	1.892393	1.1804035	1.2332066	0.0000	0.0000	0.0000
0	0	0	3.3686639	3.6784985	15.062494	0.0000	0.0000	0.0000
0	0	0	9.184323	7.838697	1.6954887	0.0000	0.0000	0.0000
0	0	0	1.1294741	1.2883943	1.6954887	0.0000	0.0000	0.0000
0	0	0	0.4844253	0.3931272	0.4585348	0.0000	0.0000	0.0000
0	0	0	0	1.6658509	0.3515661	0.0000	0.0000	0.0000
0	0.0274235	0.0163519	0.0109013	0.0148189	0.0127749	0.0106	0.0143	0.0145
0.0613197	0.0732429	0.0902762	1.7578304	2.1257484	3.7898959	0.1976	0.0119	0.0596
0	0	0	0	0	0	0.0065	0.0000	0.0000
0.0359401	0.0337258	0.0185662	0.2526029	0.2836034	0.2800265	0.2070	0.3228	0.2759
0.126046	0.1379692	0.1175294	2.0388788	0.8056723	1.8566232	0.0920	0.1618	0.1414
0.2503886	0.3336812	0.0018737	0.0177146	0.0781826	0.0114123	0.0012	0.0034	0.0019
0	0	0	0	0	0.006643	0.0000	0.0000	0.0000
0.0698363	0	0.0596163	0.1226393	0.1379692	0.1703324	0.1209	0.1754	0.1823
0	0	0	0	0	0	0.0000	0.0000	0.0000
0.0289565	0.0315115	0.0366215	0.3978965	0.2755978	0.2924607	1.2869	0.0453	0.0484
0.0124343	0.0212916	0.0146486	0.0204399	0.1318373	0.0160112	0.0146	0.0194	0.0165
0	0	0	0	0	0	0.0055	0.0022	0.0029
0.8322441	0.8973111	0.113271	1.7706053	2.6081297	2.7018125	0.1211	0.2024	0.2116
0	0	0	12.808996	15.728494	24.125881	0.0000	0.0000	0.0000
0	0	0	0.660549	0.7702431	1.0562312	0.0000	0.0000	0.0000

0.5048652	0.602125	0.4408203	1.8753597	1.1962444	1.3033835	0.2475	0.3056	0.2821
0.3951712	0.4598975	0.2844551	0.3151149	0.4156111	0.4547875	0.3304	0.4940	0.4292
1.1071606	1.2127667	0.6932529	0.5569869	0.5842401	0.8738052	0.6473	1.0135	0.8057
1.0117745	1.2621631	0.8550686	0.904465	0.677923	1.0322143	0.6728	1.0578	0.9488
0.1362659	0.8431454	0.5178105	0.7579792	0.5365471	0.7562759	0.5008	0.7529	0.6404
1.21958	1.1684803	0.5723169	1.1787002	1.1207872	1.1940301	0.8891	1.2298	1.1174
0.6659997	0.5620969	0.4190177	0.5109972	0.4905573	0.6983628	0.5127	0.7597	0.8500
0.9249049	1.0594675	0.6983628	0.6711097	0.5757235	0.730726	0.6081	0.8823	0.7818
0.7647925	0.6847362	0.4803374	0.4053911	0.3525881	0.4105011	0.0477	0.9692	0.5553
0.3287415	0.425831	0.2725318	0.4105011	0.3134116	0.4326443	0.3373	0.5280	0.4480
0.3917645	0.4087978	0.2946751	0.0425831	0.2180255	0.4326443	0.3628	0.6660	0.6779
0	0	0	0	0.1432495	0.2783231	0.1279	0.0000	0.1041
0	0	0	3.9363818	3.9789649	2.1053085	0.0000	0.0000	0.0000
0.003577	0.0863585	0.0575724	0.6227353	0.2198991	0.2204101	0.1184	0.1228	0.1306
0.0178849	0.0250389	0.0284455	1.5662064	1.6682355	1.890349	0.0199	0.0286	0.0255
0.1056061	0.1941789	0.1328593	0.2146188	0.2912684	1.3524393	0.1806	0.1107	0.3577
0.0456491	0.1524475	0.0296378	0.1456342	0.0761386	0.1151447	0.0363	0.0560	0.0525
0	0	0	0.5598826	0.8375244	0.7356656	0.0000	0.0002	0.0002
0	0	0	0	0	0	0.4371	1.0823	1.1307
0	0	0	0.2335257	0.2524326	0.311538	0.0000	0.0000	0.0000
0.0788639	0.0880619	0.058935	0.124513	0.11787	0.1887283	0.0876	0.1288	0.0637
0	0	0	0	0	0	0.0000	0.0431	1.0184
0	0	0	4.8919465	6.0927899	7.5201755	6.2733	10.3801	10.8791
0	0	0	0	0	0	0.0000	0.0000	0.0221
0	0	0	20.245709	10.199504	18.855797	1.0816	0.0000	0.0002
0.546767	0.8857285	0.5450637	1.0867207	1.1431007	1.0848471	0.3935	0.6728	0.5689
0	0	0	0	0	0.0001703	0.0000	0.0165	0.0177
0	0	0	0	0	0.0163519	0.0000	0.0044	0.0000
0	0	0	0	0	0	0.0000	0.0000	0.0002
3.0693898	3.8103358	2.5907558	2.9825203	2.2824542	2.7065818	2.4153	3.7013	0.0000
0.1894096	1.6813511	1.0618522	1.2044204	1.7264892	1.7237639	0.2485	1.0779	1.3797
0	0	0	1.0616818	0.793749	0.9800926	0.0089	0.0148	0.0145
0	0	0	3.3317017	5.3910205	6.2886722	0.0119	0.0017	0.0477
0.0204399	0.0510997	0.0408798	0.1124194	0.2572019	0.4428642	0.0221	0.0341	0.0290
0.1647114	0.1936679	0.2897354	0.6522028	0.9448338	1.0206317	0.1468	0.2206	0.1300
0	0	0	0	0	0	0.0000	0.0000	0.0002
0	0	0	0	0	0	0.0000	0.0000	0.0000
0.001022	0.0080056	0.0069836	1.0701985	1.0908087	0.9155367	0.0455	0.0686	0.0589
0	0	0	0	0	0	0.0000	0.0000	0.0000
0.0884025	0.1342219	0.118892	0.8826625	0.546256	1.1345841	0.0634	0.0893	0.1749
0.00511	0.00511	0.00511	0	0.0289565	0.0238465	0.0102	0.0119	0.0119
0.0902762	0.1345626	0.1056061	3.9227552	6.7570863	5.6805855	2.6299	0.3764	0.1363
0.7061981	0.7152257	0.1848107	0.1613048	0.1500628	0.2185365	0.2022	0.2342	0.2715
0.0153299	0.0017033	0.0119233	0.6114933	0.8244088	1.0390276	0.0136	0.0187	0.0255
0.9845213	1.1633703	0.783529	1.6420043	1.6130478	2.0473954	1.0118	1.5228	1.1753
0.1991186	0.3168183	0.1822557	15.108484	17.142253	19.414487	1.6454	2.1922	1.8617
0.003066	1.5883496	0	0.0003407	0	0	0.0002	0.0002	0.0000
0.0315115	0.002555	0.0197586	1.8486175	1.037665	0.7644518	0.0339	0.0480	0.0460
2.8171276	4.1935837	1.5398049	3.3708782	3.1954358	6.6634035	1.2826	2.1598	1.9231
0.0371325	0.0444568	0.0374731	0.1856623	0.1676071	0.1955416	0.0359	0.0521	0.0543
0.008176	0.006643	0.00511	0.9298446	0.9838399	1.2570531	0.0068	0.0066	0.0187
0.0088573	0.0103903	0.0068133	1.5185133	1.6827138	1.4295998	0	0.007154	0.007665

Jun-05 (gpm)	Jul-05 (gpm)	Aug-05 (gpm)	**Winter Avg. (gpm)**	**Summer Avg. (gpm)**	**Annual Avg. (gpm)**	**Summer/Annual Peaking Factor**
0.0221	0.0511	0.0000	0.0000	0.0081	**0.0041**	2.0000
0.5647	1.4442	0.0000	0.0740	0.6063	**0.3402**	1.7825
1.8043	2.1849	1.9472	0.5629	1.8294	**1.1961**	1.5294
2.2928	1.2909	2.3761	0.0000	4.9928	**2.4964**	2.0000
2.2314	4.4389	0.0000	2.0809	2.1473	**2.1141**	1.0157
6.1780	16.6858	0.0000	0.0000	7.4939	**3.7469**	2.0000
0.0903	0.2035	0.0000	0.0661	0.1047	**0.0854**	1.2264
20.4109	20.2985	5.3024	0.0000	8.0186	**4.0093**	2.0000
1.2332	3.1614	0.0000	0.0863	0.4883	**0.2873**	1.6996
0.6609	0.8142	0.8891	0.1785	0.5714	**0.3749**	1.5240
2.6669	5.0524	4.4339	0.0000	2.9184	**1.4592**	2.0000
0.0734	0.1429	0.1972	0.0000	0.2136	**0.1068**	2.0000
0.0002	0.0002	0.0000	0.0000	0.0002	**0.0001**	2.0000
0.0000	0.0000	0.0000	0.2870	0.6137	**0.4503**	1.3627
0.0000	0.0000	0.0000	0.0000	0.0000	**0.0000**	1.5000
4.9090	12.5331	9.5931	0.0003	10.3242	**5.1622**	1.9999
0.2265	0.2163	0.2044	0.0193	0.0719	**0.0456**	1.5771
0.4717	2.1097	0.0000	0.0043	0.9210	**0.4626**	1.9908
5.8697	11.9676	0.0000	2.3319	3.7005	**3.0162**	1.2269
6.6208	12.0970	5.1100	3.3192	5.9083	**4.6137**	1.2806
0.9658	2.2126	1.7033	1.8498	3.1451	**2.4975**	1.2593
0.4866	0.8118	0.0000	0.0370	0.4301	**0.2336**	1.8414
2.2177	5.9736	4.5257	0.0000	5.9607	**2.9803**	2.0000
3.1392	5.4864	5.3263	0.0000	4.6853	**2.3426**	2.0000
0.0000	0.0000	0.5791	0.0000	0.0643	**0.0322**	2.0000
0.0000	2.6987	0.0000	0.0455	0.3374	**0.1914**	1.7625
2.8144	1.8755	2.7452	0.2301	1.3558	**0.7930**	1.7098
0.0291	0.1289	0.0000	0.0262	0.0405	**0.0334**	1.2142
0.0494	0.1233	0.0000	0.1030	0.0440	**0.0735**	0.5988
0.1545	0.7280	1.0675	0.0519	0.8198	**0.4359**	1.8809
0.4791	0.3967	0.4096	0.5697	0.5940	**0.5818**	1.0209
4.6654	7.5798	11.6865	0.0000	9.6830	**4.8415**	2.0000
2.8614	10.3560	0.0000	0.0000	5.1600	**2.5800**	2.0000
63.5839	127.5558	46.8126	0.1503	64.5948	**32.3725**	1.9954
0.0000	0.0000	0.0000	0.0036	0.0161	**0.0098**	1.6346
0.0104	0.0075	0.0083	0.0041	0.0066	**0.0053**	1.2425
0.1482	0.4906	0.0000	0.0643	0.2048	**0.1346**	1.5218
0.0528	0.1584	0.0681	0.0515	0.0785	**0.0650**	1.2082
0.2521	0.5008	0.0000	0.1930	0.3957	**0.2944**	1.3443
0.0545	0.1175	0.0000	0.0021	0.0191	**0.0106**	1.8036
0.8450	1.6553	0.0000	0.5020	0.9235	**0.7128**	1.2957
0.1722	0.3459	0.0000	0.1609	0.2290	**0.1949**	1.1748
0.1482	0.2793	0.0000	0.1204	0.0748	**0.0976**	0.7662
1.1974	2.4918	0.0000	1.8616	1.6796	**1.7706**	0.9486
0.0000	0.0443	0.0000	0.0000	0.0051	**0.0025**	2.0000
12.6455	25.1581	0.0000	5.8725	15.2465	**10.5595**	1.4439
1.1104	1.9103	0.0000	0.0130	1.0292	**0.5211**	1.9750
0.0000	0.0000	0.0954	0.0000	4.4525	**2.2262**	2.0000
42.2777	71.3115	90.2700	0.0379	48.2080	**24.1229**	1.9984
1.8890	2.4051	1.8055	0.0286	2.0879	**1.0582**	1.9730

0.9045	2.4635	2.1162	0.0000	1.7060	**0.8530**	2.0000
0.5585	0.5669	0.6343	0.0000	0.8726	**0.4363**	2.0000
1.7263	1.1397	1.3610	0.0000	1.2466	**0.6233**	2.0000
2.5873	3.7218	3.9568	0.0000	4.1533	**2.0766**	2.0000
0.0664	0.0899	0.0000	0.1132	0.0947	**0.1040**	0.9112
0.0000	1.1402	0.0000	0.1108	0.5618	**0.3363**	1.6707
7.7844	15.9414	0.0000	3.5780	4.3248	**3.9514**	1.0945
1.8924	2.3864	2.0695	0.2702	2.0226	**1.1464**	1.7643
1.9919	2.9762	2.6948	0.1270	1.4852	**0.8061**	1.8425
0.0000	0.0511	0.0000	0.0000	0.0057	**0.0028**	2.0000
0.0000	0.0000	0.0000	0.0000	0.0000	**0.0000**	1.5000
0.0801	0.3032	0.0000	0.0674	0.3431	**0.2053**	1.6717
0.3308	0.6977	0.0000	0.2702	0.4419	**0.3560**	1.2411
0.3577	0.3867	0.4957	0.3064	0.2065	**0.2564**	0.8052
1.4342	1.7306	3.6230	0.0505	0.7542	**0.4024**	1.8745
0.0000	0.0068	0.0000	0.0000	0.0008	**0.0004**	2.0000
1.2228	4.0258	0.0000	0.4251	2.8067	**1.6159**	1.7369
0.0361	0.1679	0.0000	0.0718	0.0820	**0.0769**	1.0662
0.0002	0.0007	0.0000	0.0117	0.5525	**0.2821**	1.9587
0.0709	0.0802	0.0785	0.0830	0.0810	**0.0820**	0.9882
0.4752	0.9317	0.0000	0.0655	0.5447	**0.3051**	1.7854
0.0000	0.2368	0.0000	0.8056	2.4962	**1.6509**	1.5120
0.1318	0.2165	0.0000	0.1268	0.1355	**0.1312**	1.0334
0.0000	0.0002	0.0000	0.0000	0.0001	**0.0001**	2.0000
0.0969	0.0462	0.5284	0.0664	0.7607	**0.4136**	1.8394
0.0245	0.0240	0.0201	0.0240	0.0315	**0.0278**	1.1340
0.0000	0.0673	0.0000	0.0000	0.0075	**0.0037**	2.0000
0.4241	0.3696	0.0000	0.1296	0.2016	**0.1656**	1.2171
6.2870	10.8451	9.1928	0.3308	7.6087	**3.9698**	1.9167
0.9488	2.7441	0.0000	0.0426	0.7215	**0.3820**	1.8886
0.0000	0.0153	0.0000	0.0000	0.0017	**0.0009**	2.0000
1.9196	5.5579	0.0000	1.0025	3.3633	**2.1829**	1.5407
0.0000	0.0911	0.0000	0.0657	0.0557	**0.0607**	0.9171
0.3662	0.3798	0.0000	1.1337	2.5906	**1.8621**	1.3912
0.8489	3.1428	0.0000	0.0005	2.0828	**1.0416**	1.9995
0.1121	3.9509	0.0000	0.0283	0.7350	**0.3817**	1.9259
0.0000	0.8266	0.0000	0.0370	0.8532	**0.4451**	1.9169
0.0000	7.9600	0.0000	0.0000	0.8844	**0.4422**	2.0000
0.6238	0.9470	0.0000	0.0126	0.1745	**0.0936**	1.8657
0.0511	0.1942	0.0000	0.0000	0.0273	**0.0136**	2.0000
1.2145	2.5771	1.8328	0.6085	1.1174	**0.8629**	1.2949
0.7069	0.7955	0.0903	0.6107	0.7317	**0.6712**	1.0901
0.3185	0.4957	0.2214	0.2729	0.2924	**0.2827**	1.0345
0.6161	0.9799	0.7193	0.0125	0.2573	**0.1349**	1.9077
0.1925	0.7648	0.0000	0.2398	0.2279	**0.2338**	0.9745
2.3659	7.9835	2.5175	0.3632	3.6674	**2.0153**	1.8198
3.0064	7.8728	0.0000	2.8069	3.6003	**3.2036**	1.1238
0.0528	0.1295	0.0000	0.0778	0.0789	**0.0784**	1.0072
0.0000	4.4975	0.0000	0.8684	1.6830	**1.2757**	1.3193
0.0034	0.0026	0.0032	0.0012	0.0024	**0.0018**	1.3228
10.5896	24.5500	0.0000	0.0000	8.3079	**4.1539**	2.0000
0.3005	0.4599	0.0000	0.0523	0.2090	**0.1306**	1.5997

0.0698	0.2419	0.0000	0.0573	0.0748	**0.0661**	1.1318
0.7983	1.4940	0.0000	0.9430	0.8480	**0.8955**	0.9470
0.1978	0.1846	0.1691	0.1475	0.2761	**0.2118**	1.3035
0.4713	1.0332	0.0000	0.1509	0.6164	**0.3837**	1.6067
0.1124	0.2334	0.0000	0.0445	0.0519	**0.0482**	1.0766
0.2368	0.1516	0.0000	0.1226	0.1052	**0.1139**	0.9236
0.3853	0.7645	0.0000	0.4111	0.4757	**0.4434**	1.0728
0.0812	0.0768	0.1010	0.0366	0.0478	**0.0422**	1.1329
1.9767	4.0483	0.0000	2.1892	5.8459	**4.0175**	1.4551
17.3569	0.4003	42.8641	3.4218	13.2303	**8.3260**	1.5890
2.2365	4.8562	0.0000	1.6554	2.3970	**2.0262**	1.1830
3.0200	5.5648	0.0000	0.0291	3.1464	**1.5878**	1.9816
0.1395	0.1666	0.1283	0.0824	0.1308	**0.1066**	1.2267
5.0844	2.4119	3.4986	0.0212	4.5766	**2.2989**	1.9908
2.4528	5.8577	0.0000	0.0360	4.0022	**2.0191**	1.9822
0.9453	1.6199	0.0000	0.4319	0.5719	**0.5019**	1.1395
0.2981	0.7341	0.0000	0.3030	0.4410	**0.3720**	1.1854
0.0187	0.0375	0.0000	0.0040	0.0176	**0.0108**	1.6316
0.3362	0.1645	0.0000	0.0498	0.1301	**0.0899**	1.4466
12.2929	19.4417	15.8665	0.0000	5.2890	**2.6445**	2.0000
0.0051	0.0000	0.0019	0.0000	0.0008	**0.0004**	2.0000
0.0511	0.0630	0.0647	0.0329	0.2182	**0.1256**	1.7378
0.0143	0.0133	0.0145	0.0160	0.0080	**0.0120**	0.6656
0.3117	0.0361	0.0000	0.0053	0.0386	**0.0220**	1.7573
6.4505	20.4109	0.0000	0.4020	8.9211	**4.6615**	1.9138
			84.7841	541.7926	313.2883	
Customer	Customer	Customer	**System**	**System**	**System**	**Mean Summer**
Month Avg	Month Avg	Month Avg	**Winter Avg.**	**Summer Avg.**	**Annual Avg.**	**Peak Factor**
1.8990	3.8897	1.7827	**0.36703053**	**2.345422366**	**1.356226447**	**1.5529**
Jun-05	Jul-05	Aug-05	**Peak Factor**	**Peak Factor**		
			0.27062713	1.7293791		

0.6896
0.0000
1.4142
0.6547
0.0000
0.8586
0.8651
0.3132
0.3070
0.0000
0.1600
0.1752
0.9056
1.1113
0.4228
0.0580
0.6939
0.3095
1.5508
0.6470
0.4228
0.7286
0.0196
0.0000
1.3605
0.9178
1.9672
0.0569
0.0702
0.0000
0.0000
0.0000
0.0000
0.0000
0.0000
0.0000
0.0000
0.9331
0.0775
0.0047
0.8702
0.1495
0.9155
0.0000
0.8040
0.0000
0.9878
0.6582
0.1093
0.4035
0.0000
0.0000

0.5027
0.9802
1.0344
1.0935
0.9542
1.1011
1.0297
1.0293
1.0168
1.0131
0.9597
0.3071
0.0000
0.4390
0.0270
0.5405
0.5014
0.0001
0.7671
0.0000
0.7452
1.7944
0.7771
0.0906
0.0154
0.7246
0.3941
0.0186
0.0019
0.9636
0.7896
0.0167
0.0047
0.1224
0.4741
0.0001
0.0000
0.0592
0.0000
0.3413
0.5429
0.1440
1.2347
0.0428
0.7974
0.1355
1.9898
0.0358
0.7115
0.2795
0.0182
0.0400

ANNUAL AVERAGE CONSUMPTION

RESIDENTIAL

YEAR	D.U.	GAL/YR.	GAL/DAY	GAL/HOUR	Gal/Day/D.U.	GPM/D.U.	GPCD (3.5 C/D.U.)
2002	2364	546,877,491	1,498,294		634	0.4401	181
2003	2488	552,526,611	1,513,772		608	0.4225	174
2004	2596	535,888,545	1,464,176		564	0.3917	161
2005	2941	467,433,774	1,280,640		435	0.3024	124
Average	2,597	525,681,605	1,439,221	59,968 gph	560	**0.3892 GPM/D.U.**	160

COMMERCIAL

YEAR	Acct.	GAL/YR.	GAL/DAY	GAL/HOUR	Gal/Day/Acct.	GPM/Acct.
2002	235	110,673,667	303,216		1,290	0.8960
2003	257	122,808,133	336,461		1,309	0.9092
2004	292	155,608,728	425,160		1,456	1.0111
2005	231	156,693,660	429,298		1,858	1.2906
Average	253.75	136,446,047	373,534	15,564		1.0267
	TOTAL (R & C) GAL/DAY		1,812,754	75,532 gph		
	Annual avg. (R & C)		**1,258.8666 gpm**			

	Resid. (gpd)	Comm. (gpd)	ANNUAL TOTAL (gpd)	
2002	1,498,294	303,216	1,801,510	
2003	1,513,772	336,461	1,850,233	
2004	1,464,176	425,160	1,889,336	(= 1,312 gpm)
2005	1,280,640	429,298	1,709,938	

ANNUAL CONSUMPTION

RESIDENTIAL

YEAR	D.U.	C.F./YR.	GAL/YR.	GAL/DAY	Gal/Day/D.U.	GPM/D.U.	GPCD
2002	2364	73102191	546877491	1498294.5	633.7963179	0.440136332	181.084662
2003	2488	73857320	552526611	1513771.54	608.4290743	0.42252019	173.836878
2004	2596	71633277	535888545	1464176.35	564.0124627	0.391675321	161.146418
2005	2941	62482793	467433774	1280640.48	435.4438891	0.30239159	124.41254
					560.420436	0.389180858	160.120125
Average	2597.25			1439220.72	554.1325309	0.384814258	
						USE 0.3891 GPM/D.U.	

COMMERCIAL

YEAR	D.U.	C.F./YR.	GAL/YR.	GAL/DAY	Gal/Day/D.U.	GPM/D.U.
2002	235	14793967	110673667	303215.526	1290.278836	0.896026969
2003	257	16416005	122808133	336460.639	1309.185368	0.909156505
2004	292	20800525	155608728	425160.458	1456.028965	1.011131226
2005	231	20945550	156693660	429297.697	1858.43159	1.290577493
						1.026723048

COMMERCIAL and RESIDENTIAL

YEAR	GAL/DAY	GAL/DAY	TOTAL GPD
2002	303215	1498294	1801509
2003	336460	1513772	1850232
2004	425160	1464176	1889336
2005	429297	1280640	1709937
		SUM GPD	7251014
		AVG GPD	1812753.5
	AVG ANNUAL GPM		1258.8566

Typical Residential Consumption/Demand Data

RESIDENTIAL

		NOV cf/mo	DEC cf/mo	JAN cf/mo	Winter Avg. (gpm/d)	JUN cf/mo	JUL cf/mo	AUG cf/mo	Summer Avg. (gpm/d)
Year 2002-03		3402718	2152077	1375519		20334002	9128627	21406349	
	(gpm)	589.772695	373.006594	238.410455	400.396581	3524.37056	1582.21015	3710.23403	2938.938248
Year 2003-04		2397951	2549511	1923836		15400074	15662559	5218475	
	(gpm)	415.622459	441.891445	333.446951	396.986952	2669.20243	2714.69738	904.486961	2096.128921
Year 2004-05		6346441	2976919	2406578		8319948	25246178	8854027	
	(gpm)	1099.99054	515.971509	417.117725	677.693258	1442.04667	4375.76856	1534.61538	2450.8102
							Peak Day		
							141.153824		
3yr Monthly Avg. (gpm)		701.795231	443.623182	329.658377	491.692264	2545.20655	2890.89203	2049.77879	2495.292456

RESIDENTIAL -Summer

		JUN cf/mo	JUL cf/mo	AUG cf/mo	Summer Avg. (gpm/d)
Year 2003	cf/mo	20,334,002	9,128,627	21,406,349	
	(gpm)	3,524.37	1,582.21	3,710.23	2,938.94
Year 2004	cf/mo	15,400,074	15,662,559	5,218,475	
	(gpm)	2,669.20	2,714.70	904.49	2,096.13
Year 2005	cf/mo	8,319,948	25,246,178	8,854,027	
	(gpm)	1,442.05	**4,375.77**	1,534.62	2,450.81
			Peak Day		
			141.15		
3yr Monthly Avg.	(gpm)	2,545.21	2,890.89	2,049.78	2,495.29

ANNUAL CONSUMPTION

RESIDENTIAL

YEAR	D.U.	C.F./YR.	GAL/YR.	GAL/DAY	Gal/Day/D.U.	GPM/D.U.	GPCD
2002	2364	73102191	546877491	1498294.5	633.7963179	0.440136332	181.084662
2003	2488	73857320	552526611	1513771.54	608.4290743	0.42252019	173.836878
2004	2596	71633277	535888545	1464176.35	564.0124627	0.391675321	161.146418
2005	2941	62482793	467433774	1280640.48	435.4438891	0.30239159	124.41254
					560.420436	0.389180858	160.120125
Average	2597.25			1439220.72	554.1325309	0.384814258	
						USE 0.3891 GPM/D.U.	

COMMERCIAL

YEAR	D.U.	C.F./YR.	GAL/YR.	GAL/DAY	Gal/Day/D.U.	GPM/D.U.
2002	235	14793967	110673667	303215.526	1290.278836	0.896026969
2003	257	16416005	122808133	336460.639	1309.185368	0.909156505
2004	292	20800525	155608728	425160.458	1456.028965	1.011131226
2005	231	20945550	156693660	429297.697	1858.43159	1.290577493
						1.026723048

COMMERCIAL and RESIDENTIAL

YEAR	GAL/DAY	GAL/DAY	TOTAL GPD
2002	303215	1498294	1801509
2003	336460	1513772	1850232
2004	425160	1464176	1889336
2005	429297	1280640	1709937
		SUM GPD	7251014
		AVG GPD	1812753.5
	AVG ANNUAL GPM		1258.8566

ANNUAL AVERAGE CONSUMPTION

RESIDENTIAL

YEAR	D.U.	GAL/YR.	GAL/DAY	GAL/HOUR	Gal/Day/D.U.	GPM/D.U.	GPCD (3.5 C/D.U.)
2002	2364	546,877,491	1,498,294		634	0.4401	181
2003	2488	552,526,611	1,513,772		608	0.4225	174
2004	2596	535,888,545	1,464,176		564	0.3917	161
2005	2941	467,433,774	1,280,640		435	0.3024	124
Average	2,597	525,681,605	1,439,221	59,968 gph	560	**0.3892 GPM/D.U.**	160

COMMERCIAL

YEAR	Acct.	GAL/YR.	GAL/DAY	GAL/HOUR	Gal/Day/Acct.	GPM/Acct.
2002	235	110,673,667	303,216		1,290	0.8960
2003	257	122,808,133	336,461		1,309	0.9092
2004	292	155,608,728	425,160		1,456	1.0111
2005	231	156,693,660	429,298		1,858	1.2906
Average	253.75	136,446,047	373,534	15,564		1.0267
	TOTAL (R & C) GAL/DAY		1,812,754	75,532 gph		
	Annual avg. (R & C)		**1,258.8666 gpm**			

	Resid. (gpd)	Comm. (gpd)	ANNUAL TOTAL (gpd)	
2002	1,498,294	303,216	1,801,510	
2003	1,513,772	336,461	1,850,233	
2004	1,464,176	425,160	1,889,336	(= 1,312 gpm)
2005	1,280,640	429,298	1,709,938	

EAGLE WATER – Betty

Accts

R ~~20706~~ 2706 62,482,793 cf/yr 04-5

C 290 (112 common areas)

178 9,042,618

20,945,550 cf

→ 11,902,932 cf

→ 83,428,343 cf/yr

624,127,434 g/yr

1.7099 mgd

R = 74.89%

C + CA = 25.11% C = 10.84% of total

CA = 14.27% of total

(LS)

[C = 43.17%
CA = 56.83%
of comm.]

NORMALIZING R & LS

74.89 + 14.27 = 89.16

R = 7489 / 8916 = 84% & LS = 16%

2004 - 2005

ANNUAL AVG RESID CONSUMPTION.

YR. TOT. 62,482,793 c.f.

x 7.481 gal/cf.

365 d | 467,433,774 gal

2941 ~~2700~~ CUSTOMER du | 1,280,640 gpd

1440 min/d | 435.44 ~~473.~~ gpd/du

3.5 persons/du | 435.44 gpd → 124.4 gpcd

0.3287 gpm/du ANNUAL AVG.

0.30239

PEAK MONTH

JUNE 2005 : 0.9493 gpm/du.

PKMO. factor = PK. MO. / ANNUAL AVG

= 0.9493 / ~~0.3287~~ 0.30239 = 3.1393 ~~2.8885~~

Use ~~2.89~~ 3.0

Peak month.

CONSUMPTION REPORT - 2/8/2006 3:02:09 PM

START DATE: 01/01/2002
END DATE: 12/31/2002

TOTAL RESIDENTIAL	:	2364 Accounts	73,102,191
TOTAL COMMERCIAL	:	235	14,793,967
TOTAL	:		87,896,158

CONSUMPTION REPORT - 2/8/2006 3:02:23 PM

START DATE: 01/01/2003
END DATE: 12/31/2003

TOTAL RESIDENTIAL	:	2488 Accounts	73,857,320
TOTAL COMMERCIAL	:	257 "	16,416,005
TOTAL	:		90,273,325

CONSUMPTION REPORT - 2/8/2006 3:03:22 PM

START DATE: 01/01/2004
END DATE: 12/31/2004

TOTAL RESIDENTIAL	:	2596 Accounts	71,633,277
TOTAL COMMERCIAL	:	292 "	20,800,525
TOTAL	:		92,433,802

$\bar{X}$ = 90,235,075 cf = 674,794,392 gal.

Sub Division Monthly Totals

November - 2002

MonthYear	*SDCode*	*Sub Division*	*Consumption*	*TotalBill*
~~12/2002~~	AC	Addie's Corner Sub.	939.00	$17.85
	BA	Bonita Hills	30,150.00	$402.59
	BE	Berkshire	16,727.00	$222.16
	BH	Big Horn	19,742.00	$204.31
	BO	Bosanka	20,191.00	$267.17
	BS	Brenson	153,242.00	$2,044.98
	CC	Clear Creek Crossing	880.00	$9.43
	CH	Chaumont	56,175.00	$777.19
	CM	Commercial	649,703.00	$6,043.04
	ED	Edgewood	130.00	$32.68
	EE	Edgewood Estates	181,027.00	$2,464.33
	EH	Eagle Hills	407,535.00	$4,818.43
	EK	Eagle Knoll/Sept. Sub.	42,929.00	$484.46
	EM	Empire Estates Sub.	39,888.00	$483.97
	EP	Eagle Point #1-6	277,982.00	$3,054.99
	ER	Eagle Ranch	472,687.00	$5,418.13
	ES	EchoHawk	61,704.00	$861.61
	EV	Eagle Village	219,592.00	$2,484.29
	EW	Eagle Wing	42,835.00	$929.08
	GS	Great Sky	128,488.00	$1,581.65
	KC	Kestrel Cove	26,856.00	$383.15
	LA	LaRue Acres	32,234.00	$445.02
	LL	LakeLand	3,962.00	$46.12
	MS	Merril Sub/Rocky Mtn. Bus.	3,920.00	$85.32
	NE	N. Eagle Road	2,588.00	$33.79
	PH	Pacific Heights/Homestead	2,773.00	$107.88
	PS	Eagle Point #7-9	266,590.00	$3,255.46
	RH	Red Leaf Heights/ Tuesday Sub	19,434.00	$413.02
	RM	Red Leaf Manor/Monday Sub.	9,842.00	$111.86
	RR	Rick River	38,661.00	$487.70
	SC	Spring Creek Sub.	13,004.00	$190.99
	SE	South Eagle Road	931.00	$16.34
	VE	Van Engelen	159,377.00	$2,003.64

Summary for 'MonthYear' = 12/2002 (33 detail records)

Sum	***3,402,718.00***	***$40,182.63***
Grand Total	*3,402,718.00*	*$40,182.63*

Sub Division Monthly Totals

December 2002

MonthYear	*SDCode*	*Sub Division*	*Consumption*	*TotalBill*
~~01/2003~~	AC	Addie's Corner Sub.	639.00	$16.51
	BA	Bonita Hills	25,764.00	$389.68
	BE	Berkshire	13,644.00	$214.54
	BH	Big Horn	16,935.00	$197.71
	BO	Bosanka	14,068.00	$248.30
	BS	Brenson	134,178.00	$1,928.76
	CC	Clear Creek Crossing	36.00	$16.34
	CH	Chaumont	55,065.00	$836.20
	CM	Commercial	452,665.00	$4,143.84
	ED	Edgewood	0.00	$8.17
	EE	Edgewood Estates	112,480.00	$1,348.41
	EH	Eagle Hills	212,334.00	$2,524.83
	EK	Eagle Knoll/Sept. Sub.	34,278.00	$455.67
	EM	Empire Estates Sub.	22,758.00	$249.15
	EP	Eagle Point #1-6	133,786.00	$1,513.99
	ER	Eagle Ranch	278,683.00	$2,841.02
	ES	EchoHawk	47,490.00	$859.56
	EV	Eagle Village	107,976.00	$1,300.88
	EW	Eagle Wing	1,210.00	$24.51
	GS	Great Sky	203,208.00	$2,786.29
	KC	Kestrel Cove	22,259.00	$371.34
	LA	LaRue Acres	29,557.00	$424.30
	LL	LakeLand	753.00	$16.34
	MS	Merril Sub/Rocky Mtn. Bus.	5,320.00	$165.10
	NE	N. Eagle Road	1,656.00	$32.68
	PD	Piccadilly Subdivision	1.00	$8.17
	PH	Pacific Heights/Homestead	6,573.00	$208.14
	PS	Eagle Point #7-9	147,330.00	$1,686.48
	RH	Red Leaf Heights/ Tuesday Sub	18,291.00	$460.44
	RM	Red Leaf Manor/Monday Sub.	8,851.00	$108.03
	RR	Rick River	31,211.00	$472.18
	SC	Spring Creek Sub.	12,507.00	$186.11
	SE	South Eagle Road	548.00	$8.17
	VE	Van Engelen	23.00	$8.17

Summary for 'MonthYear' = 01/2003 (34 detail records)

Sum	***2,152,077.00***	***$26,060.01***
Grand Total	*2,152,077.00*	*$26,060.01*

Sub Division Monthly Totals

Jan 2003

MonthYear	SDCode	Sub Division	Consumption	TotalBill
~~02/2003~~	AC	Addie's Corner Sub.	742.00	$16.98
	BA	Bonita Hills	36,595.00	$425.98
	BE	Berkshire	19,807.00	$233.46
	BH	Big Horn	21,404.00	$209.06
	BO	Bosanka	21,748.00	$271.51
	BS	Brenson	169,903.00	$2,056.07
	CC	Clear Creek Crossing	466.00	$24.51
	CH	Chaumont	55,972.00	$832.35
	CM	Commercial	145,548.00	$1,302.00
	ED	Edgewood	76.00	$16.34
	EE	Edgewood Estates	2,444.00	$35.96
	EH	Eagle Hills	172,803.00	$1,922.12
	EK	Eagle Knoll/Sept. Sub.	51,623.00	$519.39
	EP	Eagle Point #1-6	2,105.00	$20.42
	ER	Eagle Ranch	278,738.00	$2,880.77
	ES	EchoHawk	66,119.00	$913.47
	EV	Eagle Village	5,169.00	$93.48
	EW	Eagle Wing	28,473.00	$491.97
	GS	Great Sky	24,184.00	$266.03
	KC	Kestrel Cove	31,927.00	$382.16
	LA	LaRue Acres	32,668.00	$413.69
	LL	LakeLand	2,458.00	$35.38
	NE	N. Eagle Road	2,810.00	$34.55
	PD	Piccadilly Subdivision	1.00	$8.17
	PH	Pacific Heights/Homestead	1.00	$8.17
	RH	Red Leaf Heights/ Tuesday Sub	31,778.00	$492.77
	RM	Red Leaf Manor/Monday Sub.	10,062.00	$112.95
	RR	Rick River	46,135.00	$514.86
	SC	Spring Creek Sub.	16,023.00	$199.21
	VE	Van Engelen	97,737.00	$1,072.60

Summary for 'MonthYear' = 02/2003 (30 detail records)

Sum	***1,375,519.00***	***$15,806.38***
Grand Total	*1,375,519.00*	*$15,806.38*

Typical Irrigation Consumption/Demand Data

IRRIGATION

COMMERCIAL ACCOUNT	Node	Winter Avg. (gpm)	Summer Avg. (gpm)	Annual Avg. (gpm)	Peak Factor Summer/ Annual
3JC Land Company	404	0.0000	0.0081	0.0041	2.0000
Academy Investors	135	0.0740	0.6063	0.3402	1.7825
Acorn Floors	295	0.5629	1.8294	1.1961	1.5294
Addies Corner	294	0.0000	4.9928	2.4964	2.0000
Albertson's #182	544	2.0809	2.1473	2.1141	1.0157
Albertson's #182 Common ✓	544	0.0000	7.4939	3.7469	2.0000
Albertson's Express #182	375	0.0661	0.1047	0.0854	1.2264
Alderwood Village HOA ✓	197	0.0000	8.0186	4.0093	2.0000
All American Deli	444	0.0863	0.4883	0.2873	1.6996
All Pet Complex	592	0.1785	0.5714	0.3749	1.5240
AMI/Rick's River Comm. #1 ✓	176	0.0000	2.9184	1.4592	2.0000
AMI/Rick's River Comm. #2 ✓	173	0.0000	0.2136	0.1068	2.0000
AMI/Rick's River Comm. #3 ✓	168	0.0000	0.0002	0.0001	2.0000
Around the Town Prop Mngmnt	24	0.2870	0.6137	0.4503	1.3627
Ashley Manor	159	0.0000	0.0000	0.0000	1.5000
Asin Homes	524	0.0003	10.3242	5.1622	1.9999
Bagmaker	621	0.0193	0.0719	0.0456	1.5771
Band, Jimmy & Marsha	369	0.0043	0.9210	0.4626	1.9908
Bardenay Restaurant	~~445~~	2.3319	3.7005	3.0162	1.2269
BB One, Inc. #1	386	3.3192	5.9083	4.6137	1.2806
BB One, Inc. #2	386	1.8498	3.1451	2.4975	1.2593
Bento, Zen	8	0.0370	0.4301	0.2336	1.8414
Berkshire HOA ✓	281	0.0000	5.9607	2.9803	2.0000
Big Horn Common Area ✓	200	0.0000	4.6853	2.3426	2.0000
BMD Properties LLC	592	0.0000	0.0643	0.0322	2.0000
Boise Pizza	20	0.0455	0.3374	0.1914	1.7625
Brooks, James & Lonnie	179	0.2301	1.3558	0.7930	1.7098
Butler, Mark	9	0.0262	0.0405	0.0334	1.2142
Centaur Creative Media Inc.	395	0.1030	0.0440	0.0735	0.5988
Chianis, John	381	0.0519	0.8198	0.4359	1.8809
Chicago Connection	373	0.5697	0.5940	0.5818	1.0209
Choice One Community	502	0.0000	9.6830	4.8415	2.0000
City Hall	22	0.0000	5.1600	2.5800	2.0000
City of Eagle	8	0.1503	64.5948	32.3725	1.9954
Clearwater Construction	9	0.0036	0.0161	0.0098	1.6346
Club One Three 16	157	0.0041	0.0066	0.0053	1.2425
Cohiba Condo Association	397	0.0643	0.2048	0.1346	1.5218
Custom Mortgage	395	0.0515	0.0785	0.0650	1.2082
D.D. Dunlap Companies Inc.	394	0.1930	0.3957	0.2944	1.3443
Dave Evans Construction	464	0.0021	0.0191	0.0106	1.8036
de Vinci's of Eagle	5	0.5020	0.9235	0.7128	1.2957
Deeann's	223	0.1609	0.2290	0.1949	1.1748
Dotty's Co. LLC	459	0.1204	0.0748	0.0976	0.7662
Doug's Burger Den	9	1.8616	1.6796	1.7706	0.9486
E.S.I.	460	0.0000	0.0051	0.0025	2.0000
Eagle Academy	135	5.8725	15.2465	10.5595	1.4439
Eagle Counseling Center	135	0.0130	1.0292	0.5211	1.9750
Eagle Development ✓	368	0.0000	4.4525	2.2262	2.0000
Eagle Development - WLDC ✓	593	0.0379	48.2080	24.1229	1.9984
Eagle Family Medicine	1	0.0286	2.0879	1.0582	1.9730

Eagle Fire Station	385	0.2597	0.4936	0.3767	1.3104
Eagle Forum Comm. Area	372	0.0000	5.9180	2.9590	2.0000
Eagle Forum LLC	372	0.6158	0.2551	0.4355	0.5858
Eagle Hills Golf Course	96	0.9824	2.0188	1.5006	1.3453
Eagle Hills West #4 HOA	107	0.0000	10.5776	5.2888	2.0000
Eagle ID FM Group	200	0.1788	0.2376	0.2082	1.1414
Eagle Industrial Center	234	2.5562	3.3534	2.9548	1.1349
Eagle Library	19	1.6467	8.8703	5.2585	1.6868
Eagle Manor	170	1.5627	8.6164	5.0895	1.6930
Eagle Mansion Homes, LLC	558	0.0000	0.0430	0.0215	2.0000
Eagle Mini Storage	547	0.0083	0.0953	0.0518	1.8400
Eagle Pavilion	376	0.8453	8.8066	4.8259	1.8248
Eagle Pediatrics, P.A.	19	0.0108	0.0131	0.0119	1.0944
Eagle Physical Therapy	364	0.0582	0.0465	0.0524	0.8887
Eagle Plaza LLC	371	3.1714	11.8311	7.5013	1.5772
Eagle Post Office	22	0.0890	2.9776	1.5333	1.9420
Eagle Professional Park	131	0.5096	0.9591	0.7343	1.3061
Eagle Rib Shack	8	0.1274	0.6956	0.4115	1.6905
Eagle River, LLC	456	1.1434	0.3312	0.7373	0.4492
Eagle River, LLC (Common)	387	0.8248	1.7249	1.2749	1.3530
Eagle River, LLC-1	445	0.0186	0.0693	0.0440	1.5772
Eagle Senior Village	381	0.1552	0.2708	0.2130	1.2714
Eagle Sewer District	218	0.0136	1.3789	0.6963	1.9804
Eagle Tire Co.	589	0.0000	0.2074	0.1037	2.0000
Eagle United Methodist Church	440	0.2069	0.0973	0.1521	0.6395
Eagle Veterinary Hospital	441	0.0545	0.0643	0.0594	1.0822
Eagle Village LLC	441	0.3403	0.0057	0.1730	0.0328
Eagle Village LLC (Common)	441	0.2027	6.9270	3.5649	1.9431
Eagle Water Co.	157	0.0197	0.5412	0.2805	1.9298
EagleWing (prop management)	177	0.0000	4.5511	2.2756	2.0000
Echohawk #1 Common	293	0.0000	2.6249	1.3124	2.0000
Echohawk #2 Common	346	0.0000	1.4925	0.7462	2.0000
Edgewood Estates #1 Common	446	0.0000	5.4170	2.7085	2.0000
Edgewood Estates #2 Common	232	0.0000	9.1494	4.5747	2.0000
Edgewood Estates #3 Common	232	0.0000	1.1031	0.5515	2.0000
Edgewood Estates #4 Common	237	0.0000	0.4017	0.2009	2.0000
Edgewood Estates #5 Common	233	0.0000	0.6011	0.3006	2.0000
Elkridge Properties, LLC	376	0.0094	0.0107	0.0100	1.0669
Evan's Building Center	547	0.0907	2.2487	1.1697	1.9225
Farm City Animal Supply	238	0.0007	0.3060	0.1533	1.9953
Findlay, Chris	238	0.1430	0.1857	0.1644	1.1298
First American Title Co.	402	0.1308	1.6185	0.8747	1.8505
Four Square Church	8	0.0688	0.0815	0.0751	1.0845
Gayle's Loft of Books, LLC	157	0.0000	0.0041	0.0021	2.0000
Gemsbok Condo Assn.	390	0.0708	0.1053	0.0881	1.1960
Godzilla LLC	464	0.0000	0.3386	0.1693	2.0000
Gold Medallion	9	0.1733	0.1776	0.1755	1.0122
Golf Magic	295	0.0152	0.0309	0.0231	1.3418
Goodrich, Katrina	157	0.0012	0.0203	0.0107	1.8907
Gothberg, Alie & Cal	567	0.5467	2.1634	1.3550	1.5965
Great Sky #1 (Common)	240	0.0000	16.1657	8.0828	2.0000
Great Sky #4 (Common)	333	0.0000	0.7791	0.3896	2.0000

Great Sky #6 (Common)	250	0.0000	1.7060	0.8530	2.0000
Great Sky #9 (Common)	345	0.0000	0.8726	0.4363	2.0000
Great Sky #10 (Common)	345	0.0000	1.2466	0.6233	2.0000
Guho, Mark	163	0.0000	4.1533	2.0766	2.0000
Hallock, Jared	371	0.1132	0.0947	0.1040	0.9112
Heffner, Randy	24	0.1108	0.5618	0.3363	1.6707
Hilton Garden Inn	445	3.5780	4.3248	3.9514	1.0945
Home Depot Store #1809-1	605	0.2702	2.0226	1.1464	1.7643
Home Depot Store #1809-2	607	0.1270	1.4852	0.8061	1.8425
Home Federal	397	0.0000	0.0057	0.0028	2.0000
Idaho Athletic Club	486	0.0000	0.0000	0.0000	1.5000
Idaho Banking Co.	375	0.0674	0.3431	0.2053	1.6717
Idaho Children's Academy	9	0.2702	0.4419	0.3560	1.2411
Idaho Veteran's Services	660	0.3064	0.2065	0.2564	0.8052
Jackson's Food Store #57	4	0.0505	0.7542	0.4024	1.8745
Jayo Construction	505	0.0000	0.0008	0.0004	2.0000
Jensen, Dennis	543	0.4251	2.8067	1.6159	1.7369
Jensen, Dennis & Jeanie	543	0.0718	0.0820	0.0769	1.0662
Jeremiah Properties	2	0.0117	0.5525	0.2821	1.9587
Jim McCauley	271	0.0830	0.0810	0.0820	0.9882
Johnson, Rodney D.	135	0.0655	0.5447	0.3051	1.7854
Joint School District #2	60	0.8056	2.4962	1.6509	1.5120
Judy Harmon	543	0.1268	0.1355	0.1312	1.0334
Kerstein, Chester & JoAnn	395	0.0000	0.0001	0.0001	2.0000
Kings	158	0.0664	0.7607	0.4136	1.8394
Lakeside Veterinary	157	0.0240	0.0315	0.0278	1.1340
Larbon, LLC	11	0.0000	0.0075	0.0037	2.0000
Les Schwab	404	0.1296	0.2016	0.1656	1.2171
Lighthouse Dental	43	0.3308	7.6087	3.9698	1.9167
Lively, Keith	9	0.0426	0.7215	0.3820	1.8886
Maracaibo Property	470	0.0000	0.0017	0.0009	2.0000
McDonald's	364	1.0025	3.3633	2.1829	1.5407
Mefford, Clifford	140	0.0657	0.0557	0.0607	0.9171
Meridian School District	14	1.1337	2.5906	1.8621	1.3912
Meridian School District No.2	14	0.0005	2.0828	1.0416	1.9995
Merkle, James/Hutt, Donald	366	0.0283	0.7350	0.3817	1.9259
Millcourt	19	0.0370	0.8532	0.4451	1.9169
Moffat & Moffat	131	0.0000	0.8844	0.4422	2.0000
Moriarty, Cheryl **	523	0.0126	0.1745	0.0936	1.8657
Mountain West Clinical Trial	468	0.0000	0.0273	0.0136	2.0000
N.M. Enterprises Bldg. #1	160	0.6085	1.1174	0.8629	1.2949
N.M. Enterprises Bldg. #2	163	0.6107	0.7317	0.6712	1.0901
N.M. Enterprises Bldg. #3	163	0.2729	0.2924	0.2827	1.0345
Namer, Robert & Stormy **	523	0.0125	0.2573	0.1349	1.9077
NCDB, LLC	384	0.2398	0.2279	0.2338	0.9745
New Horizons Child Care	234	0.3632	3.6674	2.0153	1.8198
North Channel Chevron	283	2.8069	3.6003	3.2036	1.1238
North Channel Prof Condo	283	0.0778	0.0789	0.0784	1.0072
OM Corp.	20	0.8684	1.6830	1.2757	1.3193
Our Secret Cottage	157	0.0012	0.0024	0.0018	1.3228
Pacific Heights HOA	400	0.0000	8.3079	4.1539	2.0000
Pearson, Chris	224	0.0523	0.2090	0.1306	1.5997

Peggy Zurcher	1	0.4105	1.2228	0.8167	1.4973
Peregrine Cove Apts. Bldg A	219	0.4020	0.4183	0.4101	1.0198
Peregrine Cove Apts. Bldg B&C	219	0.9031	0.8431	0.8731	0.9656
Peregrine Cove Apts. Bldg D	219	0.9408	0.7799	0.8604	0.9065
Peregrine Cove Apts. Bldg E	219	0.6353	0.6963	0.6658	1.0458
Peregrine Cove Apts. Bldg F&G	219	1.1641	0.9503	1.0572	0.8989
Peregrine Cove Apts. Bldg H	219	0.6440	0.6070	0.6255	0.9703
Peregrine Cove Apts. Bldg I	219	0.7175	0.6766	0.6970	0.9707
Peregrine Cove Apts. Bldg J	219	0.5146	0.4976	0.5061	0.9832
Peregrine Cove Apts. Bldg K	219	0.4847	0.4722	0.4784	0.9869
Peregrine Cove Apts. Bldg L	219	0.4616	0.5004	0.4810	1.0403
Petticoat Junction-Owners Assn.	601	0.0258	0.1421	0.0839	1.6929
Pine Ridge HOA	362	0.0000	3.4210	1.7105	2.0000
Pinewick Services	158	0.0775	0.2756	0.1765	1.5610
Pioneer Federal Credit Union	20	0.0262	1.9101	0.9681	1.9730
Primary Health	378	0.1647	0.4446	0.3046	1.4595
Q-West-Id State Admin 300000	5	0.0891	0.2662	0.1777	1.4986
Red Leaf Neighborhood Assn.	411	0.0000	1.3324	0.6662	1.9999
Rembrandt's Coffee House	365	0.2944	0.4732	0.3838	1.2329
Republic Storage of Id.-common	252	0.0000	0.7976	0.3988	2.0000
Republic Storage of Id.-Office	256	0.0750	0.1264	0.1007	1.2548
Research Source	395	0.1179	0.0135	0.0657	0.2056
Rick Marcus	602	3.0592	4.8140	3.9366	1.2229
River's Edge Building LLC	469	0.0025	0.0519	0.0272	1.9094
Riverside Management	219	0.1202	15.4543	7.7872	1.9846
Roberts, Larry	239	0.7714	1.3579	1.0647	1.2754
Rocky Mountain #19	395	0.0038	0.0155	0.0097	1.6059
Rocky Mountain #20	395	0.0005	0.0524	0.0265	1.9814
Rocky Mountain #22	395	0.0000	0.0194	0.0097	1.9981
Rocky Mountain Fitness Center	392	2.9072	3.1265	3.0169	1.0364
Rocky Mountain Pizza Hut	376	0.9490	1.4548	1.2019	1.2104
Roddy Evans Construction	224	0.0042	0.5026	0.2534	1.9833
Rodgriguez, Armando	405	0.0068	2.9208	1.4638	1.9953
Roger Family Trust	373	0.0363	0.5572	0.2968	1.8776
Rolfe Development Co.	24	0.2768	0.8910	0.5839	1.5259
Ronald Van Auker	591	0.0000	0.2913	0.1456	1.9999
Roth Homes	192	0.0000	0.3835	0.1917	2.0000
Roy Coon/Church of Christ	238	0.0210	0.6889	0.3549	1.9408
Sage Construction	464	0.0000	0.0371	0.0185	2.0000
Schaal Inc.	7	0.1584	0.7699	0.4641	1.6587
Second Avenue Inc.	9	0.0072	0.0193	0.0132	1.4571
Senior Citizen	8	0.4417	5.6929	3.0673	1.8560
Seventh Day Adventist Church	177	0.4007	0.2483	0.3245	0.7653
Sherman Williams Eagle	219	0.0201	0.9170	0.4685	1.9572
SHIP LLC	543	1.1762	1.7741	1.4752	1.2026
Sisters Villa	380	0.7152	9.8388	5.2770	1.8645
Smith's Chevron Station	4	0.1769	0.0009	0.0889	0.0102
Stanley Ray	157	0.0300	1.6464	0.8382	1.9642
Stinker Station #39	601	1.5462	2.8001	2.1731	1.2885
Story, Chuck	368	0.0662	0.4075	0.2369	1.7205
Streamside Mortgage	224	0.0086	0.9354	0.4720	1.9818
Strittmatter, Doug	100	0.0223	1.0925	0.5574	1.9600

Studio C	295	0.0573	0.0748	0.0661	1.1318
Subway	8	0.9430	0.8480	0.8955	0.9470
Tates Rents	5	0.1475	0.2761	0.2118	1.3035
The Blue Moose	366	0.1509	0.6164	0.3837	1.6067
The Land Group	453	0.0445	0.0519	0.0482	1.0766
The Sellin Advisor Group	402	0.1226	0.1052	0.1139	0.9236
Tibbs, Brian	366	0.4111	0.4757	0.4434	1.0728
Todd Stewart Salon	157	0.0366	0.0478	0.0422	1.1329
Tri-City Meats	2	2.1892	5.8459	4.0175	1.4551
Triangle Trailer Ct.	752	3.4218	13.2303	8.3260	1.5890
U-DO-IT Car Wash	225	1.6554	2.3970	2.0262	1.1830
WA Mutual	279	0.0291	3.1464	1.5878	1.9816
Wagers Partnership LTD	4	0.0824	0.1308	0.1066	1.2267
Washington Fed. Savings #30	219	0.0212	4.5766	2.2989	1.9908
Wells Fargo	384	0.0360	4.0022	2.0191	1.9822
Wendy's	449	0.4319	0.5719	0.5019	1.1395
Western Development	543	0.3030	0.4410	0.3720	1.1854
Westmark Credit Union	476	0.0040	0.0176	0.0108	1.6316
Westminster Homes, LLC	364	0.0498	0.1301	0.0899	1.4466
Winding Creek BOA ✓	549	0.0000	5.2890	2.6445	2.0000
Winding Creek HOA ✓	549	0.0000	0.0008	0.0004	2.0000
Wright Brothers	219	0.0329	0.2182	0.1256	1.7378
Wright, John	219	0.0160	0.0080	0.0120	0.6656
Zach Evans Construction	395	0.0053	0.0386	0.0220	1.7573
Zamzow's	378	0.4020	8.9211	4.6615	1.9138
		System	System	System	Mean
		Winter Avg.	Summer Avg.	Annual Avg.	Peak Factor
		84.7841	541.7926	313.2883	1.5529

APPENDIX D

Fire Hydrant Testing

Hydrant Flow Result Sheet

City:	Eagle
Date:	8/16/2006
Time:	14:00 pm to 14:05 pm
Location:	Home Depot

Rating Rep.	
Results:	
Hydrant Flow:	2481
Flow @ 20 PSI:	3202
Pressure @ 1500 GPM:	84

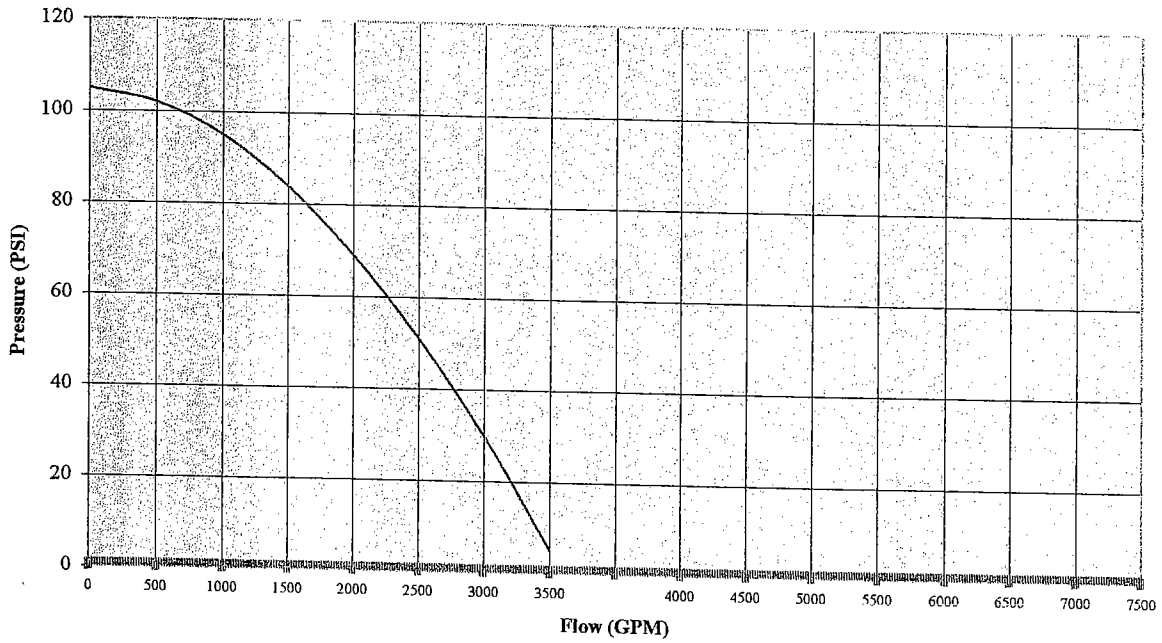
Witnesses: Andy C: Eagle Fire Dept. Norman R: Eagle Water Co.

Data Input:

Static	105 psi	Residual	52 psi
Pitot	30 psi	Diameter	4 1/2 inches
Co	0.75	Flowing	2481 gpm

Flowing @ 20 psi 3202 gpm

Water Supply Graph



Hydrant Flow Result Sheet

City:	Eagle
Date:	8/31/2006
Time:	14:30 pm to 14:35 pm
Location:	Lakeland - Whitby

Rating Rep.	
Results:	
Hydrant Flow:	1755
Flow @ 20 PSI:	3220
Pressure @ 1500 GPM:	81

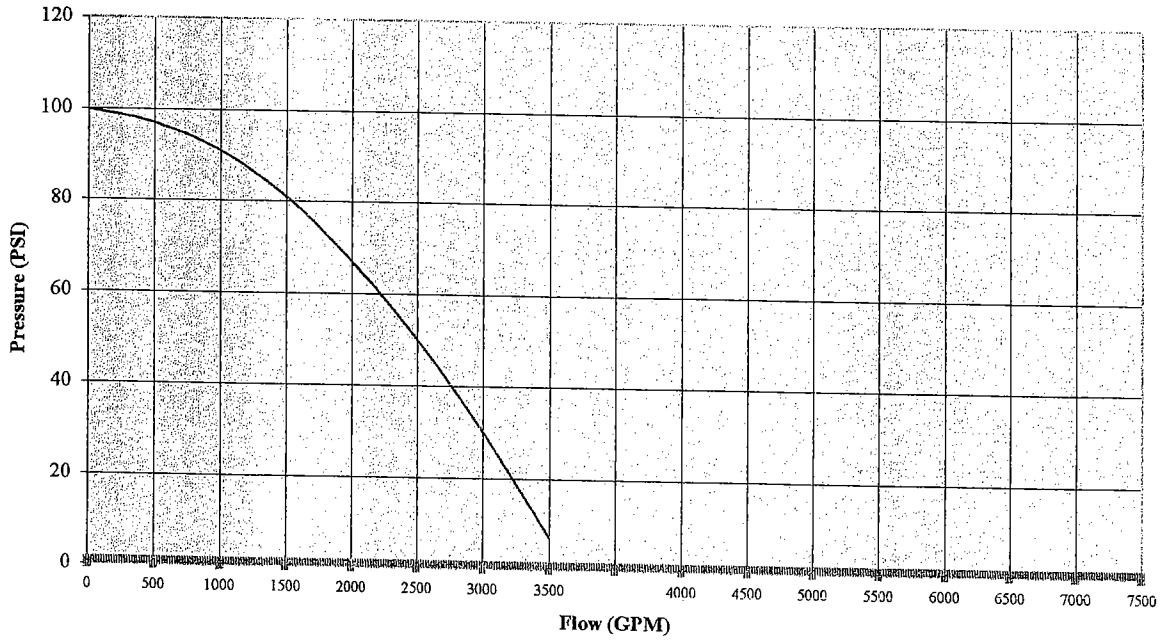
Witnesses: Andy C: Eagle Fire Dept. Norman R: Eagle Water Co.

Data Input:

Static	100 psi	Residual	74 psi
Pitot	15 psi	Diameter	4 1/2 inches
Co	0.75	Flowing	1755 gpm

Flowing @ 20 psi 3220 gpm

Water Supply Graph



Hydrant Flow Result Sheet

City:	Eagle
Date:	8/31/2006
Time:	15:16 pm to 15:24 pm
Location:	Edgewood & Clubhouse

Rating Rep.	
Results:	
Hydrant Flow:	1868
Flow @ 20 PSI:	2446
Pressure @ 1500 GPM:	53

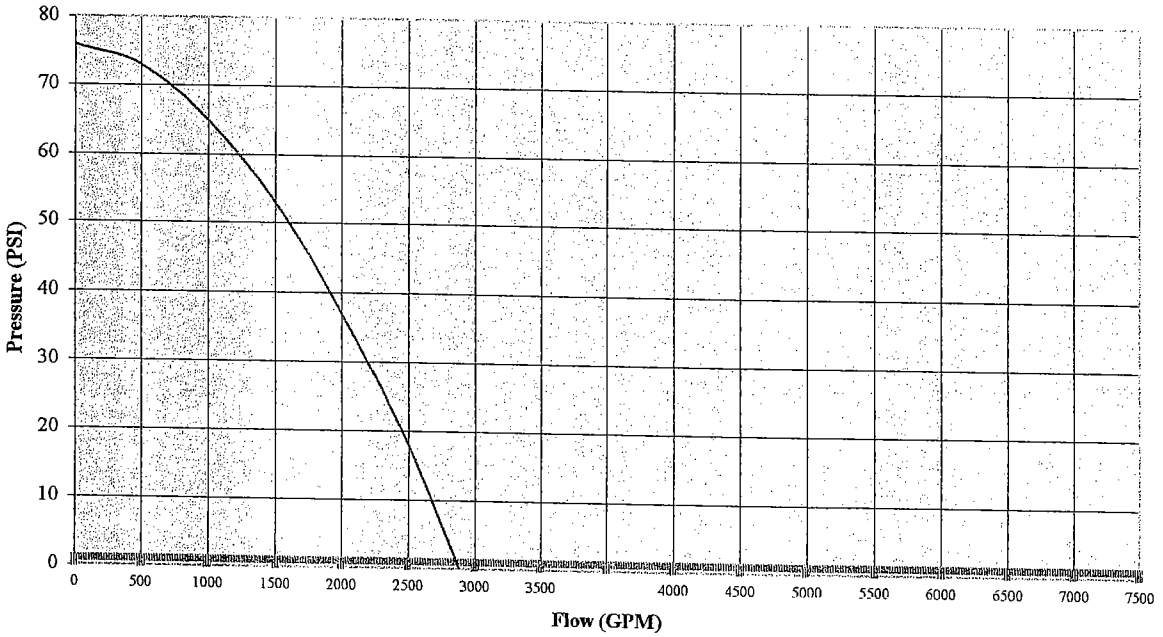
Witnesses: Andy C: Eagle Fire Dept. Norman R: Eagle Water Co.

Data Input:

Static	76 psi	Residual	42 psi
Pitot	17 psi	Diameter	4 1/2 inches
Co	0.75	Flowing	1868 gpm

Flowing @ 20 psi 2446 gpm

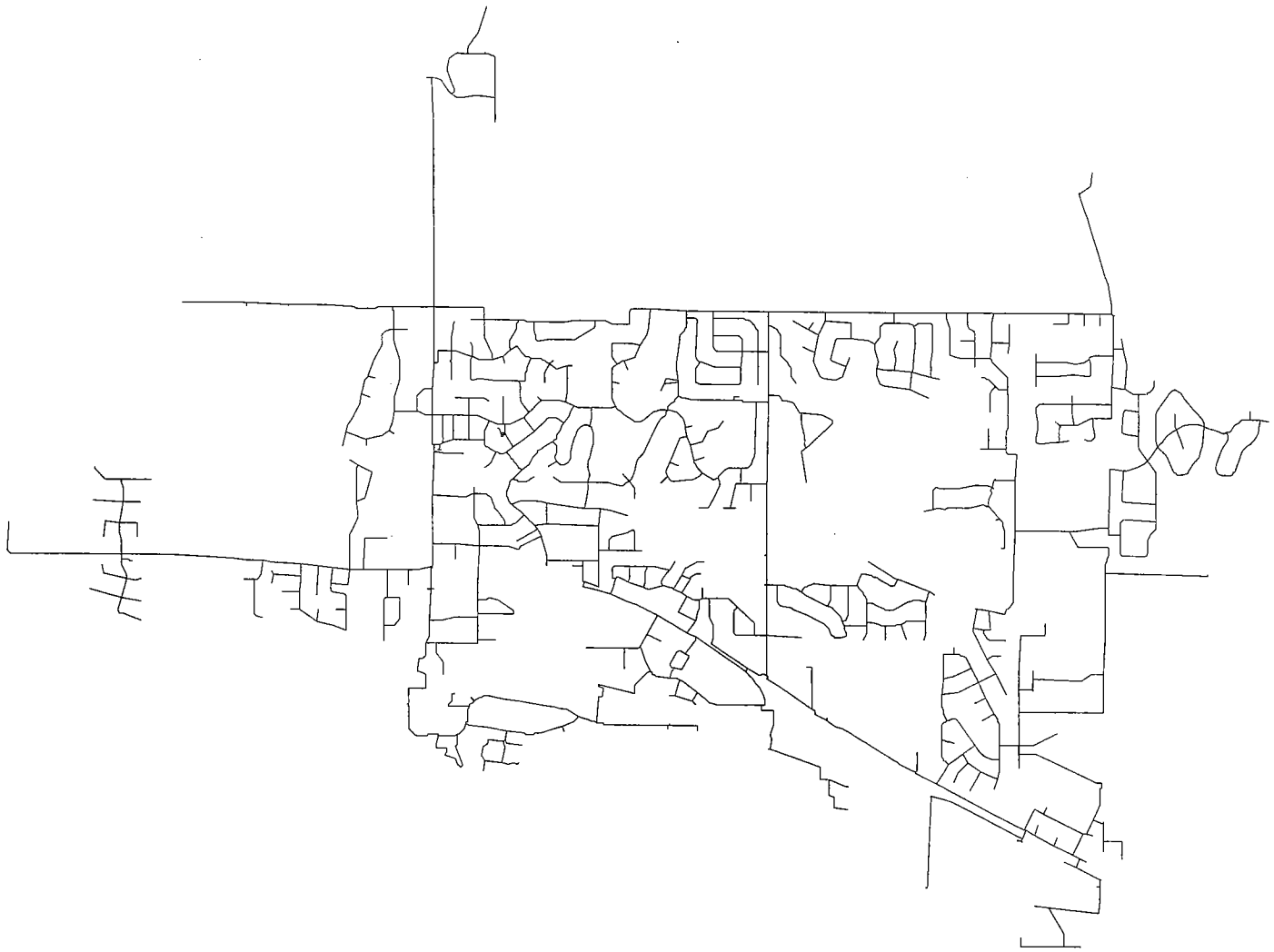
Water Supply Graph



APPENDIX E

2006 Scenario

Scenario: 2006



Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-1	false	4.27	0.00	N/A	N/A	N/A	N/A	N/A
J-2	false	9.78	0.00	N/A	N/A	N/A	N/A	N/A
J-3	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-4	true	1.36	1,500.00	1,501.36	76.54	J-587	20.00	2,958.44
J-5	true	2.51	1,500.00	1,502.51	75.50	J-587	20.00	2,890.82
J-6	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-7	false	1.06	0.00	N/A	N/A	N/A	N/A	N/A
J-8	true	94.63	1,500.00	1,594.63	76.21	J-587	20.00	2,849.36
J-9	false	5.48	0.00	N/A	N/A	N/A	N/A	N/A
J-10	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-11	true	0.01	1,500.00	1,500.01	75.27	J-587	20.00	2,833.22
J-12	true	9.74	1,500.00	1,509.74	75.97	J-587	20.00	2,844.52
J-13	true	15.05	1,500.00	1,515.05	75.16	J-587	20.00	2,848.15
J-14	true	4.43	1,500.00	1,504.43	76.95	J-587	47.40	4,999.43
J-15	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-16	false	10.63	0.00	N/A	N/A	N/A	N/A	N/A
J-17	true	6.20	1,500.00	1,506.20	76.91	J-587	20.00	2,822.78
J-18	true	1.77	1,500.00	1,501.77	76.78	J-587	20.00	2,820.77
J-19	false	8.59	0.00	N/A	N/A	N/A	N/A	N/A
J-20	true	5.54	1,500.00	1,505.54	73.89	J-587	20.00	2,815.50
J-21	true	0.00	1,500.00	1,500.00	74.73	J-587	20.00	2,804.80
J-22	true	7.22	1,500.00	1,507.22	75.53	J-587	20.00	2,807.24
J-23	false	11.51	0.00	N/A	N/A	N/A	N/A	N/A
J-24	true	5.44	1,500.00	1,505.44	76.10	J-587	20.00	2,800.30
J-25	true	0.00	1,500.00	1,500.00	74.21	J-587	20.00	2,803.83
J-26	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-27	false	8.86	0.00	N/A	N/A	N/A	N/A	N/A
J-28	true	14.17	1,500.00	1,514.17	74.64	J-587	20.00	2,807.23
J-29	true	12.40	1,500.00	1,512.40	76.56	J-587	20.00	2,815.76
J-30	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-31	false	4.16	0.00	N/A	N/A	N/A	N/A	N/A
J-32	true	11.51	1,500.00	1,511.51	63.95	J-587	20.00	2,817.56
J-33	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-34	true	3.54	1,500.00	1,503.54	56.18	J-587	20.00	2,818.49
J-35	false	10.63	0.00	N/A	N/A	N/A	N/A	N/A
J-36	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-37	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-38	true	3.54	1,500.00	1,503.54	57.43	J-587	20.01	2,817.40
J-39	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-40	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-41	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-42	true	0.00	1,500.00	1,500.00	63.61	J-587	46.97	4,999.29
J-43	true	9.03	1,500.00	1,509.03	67.07	J-587	44.41	4,999.33
J-44	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-45	true	2.66	1,500.00	1,502.66	60.35	J-587	20.01	2,817.76
J-46	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-47	true	4.43	1,500.00	1,504.43	45.91	J-587	20.00	2,130.27
J-48	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-49	false	7.97	0.00	N/A	N/A	N/A	N/A	N/A
J-50	false	7.97	0.00	N/A	N/A	N/A	N/A	N/A
J-51	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-52	true	8.86	1,500.00	1,508.86	20.82	J-587	42.28	1,513.41
J-53	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-54	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-55	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-56	true	6.20	1,500.00	1,506.20	55.24	J-587	20.01	2,784.38
J-57	true	19.48	1,500.00	1,519.48	53.53	J-587	20.00	2,759.19
J-58	false	6.19	0.00	N/A	N/A	N/A	N/A	N/A
J-59	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-60	true	2.56	1,500.00	1,502.56	41.40	J-587	31.87	2,134.78
J-61	true	9.74	1,500.00	1,509.74	56.29	J-587	20.01	2,754.65
J-62	false	9.77	0.00	N/A	N/A	N/A	N/A	N/A
J-63	true	9.77	1,500.00	1,509.77	60.04	J-587	20.00	2,814.05
J-64	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-65	true	12.40	1,500.00	1,512.40	55.29	J-587	20.89	2,741.48
J-66	true	14.17	1,500.00	1,514.17	44.26	J-587	20.01	2,160.93
J-67	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-68	true	26.57	1,500.00	1,526.57	55.72	J-587	20.00	2,744.53
J-69	true	21.25	1,500.00	1,521.25	62.58	J-587	20.01	2,764.27
J-70	false	7.97	0.00	N/A	N/A	N/A	N/A	N/A
J-71	true	17.71	1,500.00	1,517.71	39.85	J-72	20.00	1,939.81
J-72	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-73	false	8.86	0.00	N/A	N/A	N/A	N/A	N/A
J-74	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-75	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-76	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-77	true	3.54	1,500.00	1,503.54	48.11	J-587	20.00	2,637.80
J-78	false	4.43	1,500.00	N/A	N/A	N/A	N/A	N/A
J-79	false	9.74	0.00	N/A	N/A	N/A	N/A	N/A
J-80	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-81	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-83	true	10.63	1,500.00	1,510.63	46.90	J-587	21.23	2,601.29
J-84	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-85	false	1.77	0.00	N/A	N/A	N/A	N/A	N/A
J-86	true	11.50	1,500.00	1,511.50	44.17	J-587	20.00	2,405.49
J-87	false	7.96	0.00	N/A	N/A	N/A	N/A	N/A
J-88	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-89	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-90	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-91	true	7.08	1,500.00	1,507.08	43.69	J-587	22.03	2,293.39
J-92	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-93	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-94	true	3.55	1,500.00	1,503.55	31.55	J-917	20.00	1,711.14
J-95	false	13.29	0.00	N/A	N/A	N/A	N/A	N/A
J-96	false	3.37	0.00	N/A	N/A	N/A	N/A	N/A
J-97	false	2.67	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-98	false	2.64	0.00	N/A	N/A	N/A	N/A	N/A
J-99	false	3.55	0.00	N/A	N/A	N/A	N/A	N/A
J-100	true	4.17	1,500.00	1,504.17	26.59	J-101	20.03	1,624.48
J-101	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-102	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-103	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-104	true	0.00	1,500.00	1,500.00	42.83	J-917	20.51	2,156.28
J-105	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-106	false	9.74	0.00	N/A	N/A	N/A	N/A	N/A
J-107	false	10.31	0.00	N/A	N/A	N/A	N/A	N/A
J-108	true	7.08	1,500.00	1,507.08	43.86	J-587	20.86	2,278.64
J-109	false	4.44	0.00	N/A	N/A	N/A	N/A	N/A
J-110	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-111	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-112	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-113	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-114	true	5.31	1,500.00	1,505.31	44.18	J-587	22.00	2,375.31
J-115	true	4.43	1,500.00	1,504.43	66.43	J-587	20.01	2,759.72
J-116	true	5.31	1,500.00	1,505.31	45.36	J-587	20.00	2,447.26
J-117	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-118	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-119	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-120	true	7.08	1,500.00	1,507.08	45.52	J-587	20.00	2,328.93
J-121	true	7.08	1,500.00	1,507.08	44.00	J-587	20.00	2,247.54
J-122	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-123	true	12.40	1,500.00	1,512.40	31.96	J-125	20.65	1,812.64
J-124	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-125	false	14.17	1,500.00	1,514.17	17.85	J-126	21.08	1,459.56
J-126	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-127	true	0.00	1,500.00	1,500.00	56.57	J-587	20.00	2,878.69
J-128	true	1.76	1,500.00	1,501.76	34.78	J-917	20.02	1,894.46
J-131	false	2.68	0.00	N/A	N/A	N/A	N/A	N/A
J-132	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-133	false	12.40	0.00	N/A	N/A	N/A	N/A	N/A
J-134	false	10.63	0.00	N/A	N/A	N/A	N/A	N/A
J-135	false	26.68	0.00	N/A	N/A	N/A	N/A	N/A
J-136	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-137	false	1.77	0.00	N/A	N/A	N/A	N/A	N/A
J-138	false	10.63	1,500.00	N/A	N/A	N/A	N/A	N/A
J-139	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-140	true	0.14	1,500.00	1,500.14	62.82	J-587	26.21	2,495.08
J-141	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-142	true	7.08	1,500.00	1,507.08	67.95	J-587	20.15	2,787.99
J-143	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-144	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-145	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-146	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-147	false	6.21	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-148	true	9.64	1,500.00	1,509.64	44.17	J-587	20.00	2,359.11
J-149	true	26.58	1,500.00	1,526.58	42.75	J-587	22.88	2,274.23
J-150	false	8.86	1,500.00	N/A	N/A	N/A	N/A	N/A
J-151	true	11.51	1,500.00	1,511.51	45.28	J-587	20.00	2,339.86
J-152	true	12.41	1,500.00	1,512.41	44.56	J-587	20.00	2,333.31
J-153	true	4.43	1,500.00	1,504.43	44.88	J-587	20.00	2,331.04
J-154	true	12.40	1,500.00	1,512.40	66.82	J-587	22.16	2,839.88
J-155	true	15.05	1,500.00	1,515.05	66.27	J-587	20.13	2,696.43
J-156	true	0.00	1,500.00	1,500.00	62.32	J-587	30.73	2,467.23
J-157	false	2.75	0.00	N/A	N/A	N/A	N/A	N/A
J-158	true	22.84	1,500.00	1,522.84	60.33	J-587	36.48	2,436.09
J-159	true	18.60	1,500.00	1,518.60	56.43	J-587	20.00	2,228.47
J-160	true	1.02	1,500.00	1,501.02	76.47	J-587	20.00	3,834.87
J-161	true	12.40	1,500.00	1,512.40	51.66	J-587	20.22	2,121.25
J-162	false	0.89	0.00	N/A	N/A	N/A	N/A	N/A
J-163	true	6.42	1,500.00	1,506.42	76.77	J-587	22.08	3,834.93
J-164	true	14.17	1,500.00	1,514.17	74.61	J-587	20.00	3,374.53
J-165	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-166	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-167	true	6.09	1,500.00	1,506.09	75.15	J-587	20.00	3,329.47
J-168	true	1.25	1,500.00	1,501.25	76.05	J-587	20.00	3,426.91
J-169	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-170	false	5.93	0.00	N/A	N/A	N/A	N/A	N/A
J-171	false	8.86	0.00	N/A	N/A	N/A	N/A	N/A
J-172	true	6.20	1,500.00	1,506.20	78.13	J-587	20.00	3,817.47
J-173	false	2.03	0.00	N/A	N/A	N/A	N/A	N/A
J-174	true	1.77	1,500.00	1,501.77	66.36	J-587	31.38	2,660.49
J-175	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-176	false	4.28	0.00	N/A	N/A	N/A	N/A	N/A
J-177	false	14.27	0.00	N/A	N/A	N/A	N/A	N/A
J-178	false	9.74	0.00	N/A	N/A	N/A	N/A	N/A
J-179	false	24.84	0.00	N/A	N/A	N/A	N/A	N/A
J-180	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-181	false	7.07	0.00	N/A	N/A	N/A	N/A	N/A
J-182	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-183	false	9.73	0.00	N/A	N/A	N/A	N/A	N/A
J-184	true	3.54	1,500.00	1,503.54	99.14	J-360	20.00	3,533.16
J-185	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-186	true	7.08	1,500.00	1,507.08	62.07	J-360	48.02	1,501.00
J-187	true	0.00	1,500.00	1,500.00	96.76	J-360	42.03	3,093.63
J-188	false	9.73	0.00	N/A	N/A	N/A	N/A	N/A
J-189	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-190	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-191	true	3.54	1,500.00	1,503.54	95.12	J-360	20.00	4,701.38
J-192	false	2.02	0.00	N/A	N/A	N/A	N/A	N/A
J-193	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-194	true	4.43	1,500.00	1,504.43	93.88	J-360	20.00	4,545.67
J-195	false	22.15	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-196	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-197	true	20.61	1,500.00	1,520.61	85.89	J-360	20.00	4,406.93
J-198	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-199	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-200	false	4.27	0.00	N/A	N/A	N/A	N/A	N/A
J-201	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-202	false	2.67	0.00	N/A	N/A	N/A	N/A	N/A
J-203	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-204	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-205	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-206	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-207	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-208	false	1.77	0.00	N/A	N/A	N/A	N/A	N/A
J-209	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-210	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-211	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-212	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-213	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-214	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-215	false	10.63	0.00	N/A	N/A	N/A	N/A	N/A
J-216	true	7.97	1,500.00	1,507.97	68.55	J-587	20.00	2,803.83
J-217	false	5.32	0.00	N/A	N/A	N/A	N/A	N/A
J-218	true	1.58	1,500.00	1,501.58	74.29	J-587	20.00	2,805.42
J-219	false	22.64	0.00	N/A	N/A	N/A	N/A	N/A
J-220	true	0.00	1,500.00	1,500.00	71.15	J-587	20.01	2,799.32
J-221	true	0.00	1,500.00	1,500.00	67.62	J-587	20.00	2,793.89
J-222	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-223	false	0.44	0.00	N/A	N/A	N/A	N/A	N/A
J-224	true	1.65	1,500.00	1,501.65	66.98	J-587	20.00	2,789.49
J-225	true	4.61	1,500.00	1,504.61	67.44	J-587	20.00	2,780.40
J-226	true	8.86	1,500.00	1,508.86	58.41	J-587	27.29	2,397.72
J-227	true	15.94	1,500.00	1,515.94	59.74	J-587	20.00	2,448.40
J-228	false	11.51	0.00	N/A	N/A	N/A	N/A	N/A
J-229	true	7.08	1,500.00	1,507.08	53.53	J-587	20.00	2,237.21
J-230	true	9.74	1,500.00	1,509.74	52.51	J-587	20.00	2,206.17
J-231	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-232	true	15.07	1,500.00	1,515.07	54.90	J-587	20.00	2,244.81
J-233	true	7.00	1,500.00	1,507.00	54.69	J-587	20.00	2,224.45
J-234	false	11.60	0.00	N/A	N/A	N/A	N/A	N/A
J-235	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-236	false	12.41	0.00	N/A	N/A	N/A	N/A	N/A
J-237	false	0.59	0.00	N/A	N/A	N/A	N/A	N/A
J-238	true	0.83	1,500.00	1,500.83	82.52	J-982	20.01	2,952.33
J-239	false	2.42	0.00	N/A	N/A	N/A	N/A	N/A
J-240	false	23.69	0.00	N/A	N/A	N/A	N/A	N/A
J-241	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-242	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-243	true	6.20	1,500.00	1,506.20	79.07	J-982	20.01	2,807.94

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-244	true	10.63	1,500.00	1,510.63	80.09	J-982	20.01	2,786.48
J-245	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-246	true	8.86	1,500.00	1,508.86	80.32	J-982	20.01	2,805.15
J-247	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-248	true	7.97	1,500.00	1,507.97	79.21	J-982	20.01	2,788.19
J-249	true	5.31	1,500.00	1,505.31	78.09	J-982	20.01	2,802.75
J-250	false	2.92	0.00	N/A	N/A	N/A	N/A	N/A
J-251	true	7.08	1,500.00	1,507.08	77.24	J-982	20.01	2,744.40
J-252	false	1.17	0.00	N/A	N/A	N/A	N/A	N/A
J-253	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-254	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-255	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-256	false	0.23	0.00	N/A	N/A	N/A	N/A	N/A
J-257	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-258	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-259	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-260	true	2.66	1,500.00	1,502.66	37.30	J-587	20.43	2,066.81
J-261	false	1.77	0.00	N/A	N/A	N/A	N/A	N/A
J-262	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-263	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-264	true	8.86	1,500.00	1,508.86	36.23	J-587	20.44	2,004.92
J-265	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-266	true	15.05	1,500.00	1,515.05	34.57	J-267	20.00	1,926.90
J-267	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-268	true	13.28	1,500.00	1,513.28	39.67	J-587	20.00	2,085.66
J-269	true	7.97	1,500.00	1,507.97	39.37	J-587	20.00	2,081.39
J-270	true	10.63	1,500.00	1,510.63	38.97	J-587	20.00	2,023.35
J-271	true	2.24	1,500.00	1,502.24	36.98	J-587	20.00	1,964.11
J-272	false	7.98	0.00	N/A	N/A	N/A	N/A	N/A
J-273	true	7.97	1,500.00	1,507.97	35.65	J-587	20.01	1,974.02
J-274	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-275	true	9.74	1,500.00	1,509.74	36.69	J-587	20.00	2,022.38
J-276	true	13.28	1,500.00	1,513.28	34.72	J-587	20.01	1,947.49
J-277	false	12.41	0.00	N/A	N/A	N/A	N/A	N/A
J-278	true	17.71	1,500.00	1,517.71	34.68	J-587	22.46	1,992.50
J-279	false	4.06	0.00	N/A	N/A	N/A	N/A	N/A
J-280	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-281	false	5.69	0.00	N/A	N/A	N/A	N/A	N/A
J-282	false	10.63	0.00	N/A	N/A	N/A	N/A	N/A
J-283	true	3.86	1,500.00	1,503.86	39.76	J-360	20.00	1,743.47
J-284	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-285	true	0.00	1,500.00	1,500.00	42.39	J-360	20.00	1,743.46
J-286	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-287	true	9.74	1,500.00	1,509.74	58.21	J-360	20.00	1,743.46
J-288	true	14.17	1,500.00	1,514.17	57.52	J-360	20.00	1,743.46
J-289	true	6.20	1,500.00	1,506.20	56.40	J-360	20.00	1,743.47
J-290	true	4.43	1,500.00	1,504.43	50.26	J-360	20.02	1,743.06
J-291	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-292	false	7.97	0.00	N/A	N/A	N/A	N/A	N/A
J-293	false	5.00	0.00	N/A	N/A	N/A	N/A	N/A
J-294	false	7.31	0.00	N/A	N/A	N/A	N/A	N/A
J-295	true	2.92	1,500.00	1,502.92	85.50	J-360	20.01	3,199.27
J-296	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-297	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-298	true	0.00	1,500.00	1,500.00	55.01	J-360	20.00	1,780.41
J-299	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-300	false	0.89	0.00	N/A	N/A	N/A	N/A	N/A
J-301	false	8.86	0.00	N/A	N/A	N/A	N/A	N/A
J-302	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-303	true	0.00	1,500.00	1,500.00	56.16	J-360	20.03	1,812.72
J-304	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-305	true	13.28	1,500.00	1,513.28	63.71	J-587	26.21	1,739.50
J-306	true	14.17	1,500.00	1,514.17	65.44	J-587	20.00	1,846.82
J-307	true	9.74	1,500.00	1,509.74	67.37	J-587	20.03	1,848.12
J-308	true	9.74	1,500.00	1,509.74	64.08	J-587	20.03	1,833.13
J-309	true	15.05	1,500.00	1,515.05	69.94	J-587	20.00	1,866.65
J-310	true	23.02	1,500.00	1,523.02	68.92	J-587	20.00	1,878.61
J-311	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-312	false	250.11	0.00	N/A	N/A	N/A	N/A	N/A
J-313	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-314	true	0.00	1,500.00	1,500.00	54.37	J-360	20.00	1,784.85
J-315	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-316	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-317	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-318	true	13.28	1,500.00	1,513.28	65.98	J-587	20.00	2,767.66
J-319	false	12.41	0.00	N/A	N/A	N/A	N/A	N/A
J-320	false	10.63	0.00	N/A	N/A	N/A	N/A	N/A
J-321	true	16.83	1,500.00	1,516.83	75.65	J-587	20.00	1,904.32
J-322	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-323	true	7.97	1,500.00	1,507.97	73.54	J-981	20.02	2,536.70
J-325	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-326	true	0.00	1,500.00	1,500.00	82.00	J-982	20.01	2,815.92
J-327	false	7.97	0.00	N/A	N/A	N/A	N/A	N/A
J-328	true	4.43	1,500.00	1,504.43	52.56	J-982	38.37	2,046.11
J-329	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-330	true	6.10	1,500.00	1,506.10	74.44	J-982	20.00	2,808.92
J-331	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-332	false	9.74	0.00	N/A	N/A	N/A	N/A	N/A
J-333	false	0.93	0.00	N/A	N/A	N/A	N/A	N/A
J-334	true	9.74	1,500.00	1,509.74	74.32	J-982	20.02	2,727.01
J-335	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-336	true	7.08	1,500.00	1,507.08	76.23	J-982	20.02	2,725.82
J-337	true	7.08	1,500.00	1,507.08	77.47	J-982	20.01	2,717.87
J-338	true	5.31	1,500.00	1,505.31	77.31	J-982	20.01	2,730.22
J-339	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-340	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-341	true	6.20	1,500.00	1,506.20	76.57	J-982	20.00	2,679.46
J-342	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-343	true	6.20	1,500.00	1,506.20	76.35	J-981	20.02	2,642.45
J-344	true	8.86	1,500.00	1,508.86	73.65	J-981	20.02	2,571.14
J-345	false	11.08	0.00	N/A	N/A	N/A	N/A	N/A
J-346	true	5.85	1,500.00	1,505.85	57.32	J-360	20.00	1,743.46
J-347	true	4.43	1,500.00	1,504.43	53.36	J-360	20.02	1,743.05
J-348	false	12.41	0.00	N/A	N/A	N/A	N/A	N/A
J-349	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-350	true	7.08	1,500.00	1,507.08	53.31	J-360	20.00	1,743.46
J-351	false	7.97	1,500.00	N/A	N/A	N/A	N/A	N/A
J-352	false	12.41	1,500.00	N/A	N/A	N/A	N/A	N/A
J-353	true	3.54	1,500.00	1,503.54	59.20	J-417	41.01	1,501.00
J-354	true	11.52	1,500.00	1,511.52	52.30	J-417	20.03	1,813.07
J-355	false	6.20	1,500.00	N/A	N/A	N/A	N/A	N/A
J-356	false	5.31	1,500.00	N/A	N/A	N/A	N/A	N/A
J-357	true	10.63	1,500.00	1,510.63	49.30	J-417	20.03	1,795.83
J-358	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-359	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-360	true	0.00	1,500.00	1,500.00	26.01	J-359	27.43	1,617.70
J-361	true	0.00	1,500.00	1,500.00	97.20	J-360	25.73	5,000.00
J-364	false	5.29	1,500.00	N/A	N/A	N/A	N/A	N/A
J-365	false	0.87	1,500.00	N/A	N/A	N/A	N/A	N/A
J-366	false	2.75	1,500.00	N/A	N/A	N/A	N/A	N/A
J-367	false	8.98	1,500.00	N/A	N/A	N/A	N/A	N/A
J-368	false	6.52	1,500.00	N/A	N/A	N/A	N/A	N/A
J-369	false	1.05	1,500.00	N/A	N/A	N/A	N/A	N/A
J-370	true	0.00	1,500.00	1,500.00	66.80	J-982	24.72	2,740.88
J-371	false	17.30	1,500.00	N/A	N/A	N/A	N/A	N/A
J-372	true	8.67	1,500.00	1,508.67	74.33	J-587	20.00	2,852.30
J-373	false	2.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-374	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-375	false	0.66	1,500.00	N/A	N/A	N/A	N/A	N/A
J-376	false	13.73	1,500.00	N/A	N/A	N/A	N/A	N/A
J-377	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-378	false	11.19	1,500.00	N/A	N/A	N/A	N/A	N/A
J-379	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-380	false	12.01	1,500.00	N/A	N/A	N/A	N/A	N/A
J-381	true	1.48	1,500.00	1,501.48	53.57	J-587	25.61	2,535.78
J-382	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-383	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-384	true	5.13	1,500.00	1,505.13	76.23	J-587	20.00	2,837.20
J-385	true	0.86	1,500.00	1,500.86	71.39	J-587	20.01	2,800.33
J-386	true	16.18	1,500.00	1,516.18	73.35	J-587	20.00	2,832.01
J-387	false	1.58	1,500.00	N/A	N/A	N/A	N/A	N/A
J-388	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-389	true	0.00	1,500.00	1,500.00	73.51	J-587	20.00	2,802.48
J-390	false	0.20	1,500.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-391	true	0.00	1,500.00	1,500.00	47.88	J-587	35.14	1,969.94
J-392	true	7.07	1,500.00	1,507.07	72.34	J-587	20.01	2,802.16
J-393	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-394	true	0.00	1,500.00	1,500.00	72.57	J-587	20.00	2,803.49
J-395	true	0.97	1,500.00	1,500.97	72.10	J-587	20.00	2,805.98
J-396	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-397	false	0.31	1,500.00	N/A	N/A	N/A	N/A	N/A
J-398	true	0.00	1,500.00	1,500.00	74.56	J-587	20.00	2,801.57
J-399	true	16.83	1,500.00	1,516.83	72.81	J-587	20.01	2,798.95
J-400	true	12.23	1,500.00	1,512.23	71.47	J-587	20.01	2,798.21
J-401	true	0.00	1,500.00	1,500.00	70.78	J-587	20.01	2,796.81
J-402	true	2.25	1,500.00	1,502.25	72.48	J-587	20.01	2,799.72
J-403	true	0.00	1,500.00	1,500.00	72.86	J-587	20.00	2,800.55
J-404	true	0.39	1,500.00	1,500.39	68.97	J-587	20.01	2,798.64
J-405	false	3.33	1,500.00	N/A	N/A	N/A	N/A	N/A
J-406	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-407	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-408	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-409	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-410	false	9.74	1,500.00	N/A	N/A	N/A	N/A	N/A
J-411	true	6.97	1,500.00	1,506.97	49.31	J-587	20.00	2,684.95
J-412	true	11.51	1,500.00	1,511.51	57.57	J-587	20.00	2,710.97
J-413	true	4.43	1,500.00	1,504.43	59.24	J-587	20.00	2,723.14
J-414	true	3.54	1,500.00	1,503.54	41.64	J-417	20.03	1,781.18
J-415	true	7.97	1,500.00	1,507.97	40.56	J-417	20.04	1,781.65
J-416	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-417	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-418	true	9.74	1,500.00	1,509.74	55.13	J-587	20.00	2,160.30
J-419	true	7.08	1,500.00	1,507.08	54.92	J-587	20.00	2,158.00
J-420	false	11.51	1,500.00	N/A	N/A	N/A	N/A	N/A
J-421	true	6.20	1,500.00	1,506.20	45.98	J-587	20.00	2,038.52
J-422	true	0.00	1,500.00	1,500.00	46.93	J-587	20.43	2,068.48
J-423	false	4.43	1,500.00	N/A	N/A	N/A	N/A	N/A
J-424	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-425	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-426	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-427	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-428	false	0.52	1,500.00	N/A	N/A	N/A	N/A	N/A
J-429	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-430	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-431	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-432	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-433	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-434	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-435	false	1.77	1,500.00	N/A	N/A	N/A	N/A	N/A
J-436	true	3.54	1,500.00	1,503.54	46.56	J-982	20.00	1,940.57
J-437	true	1.77	1,500.00	1,501.77	43.02	J-982	24.87	1,862.94
J-438	false	1.77	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-439	true	1.77	1,500.00	1,501.77	20.50	J-440	34.18	1,505.32
J-440	true	0.74	1,500.00	1,500.74	29.77	J-439	25.38	1,625.68
J-441	false	10.15	0.00	N/A	N/A	N/A	N/A	N/A
J-442	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-443	true	6.87	2,500.00	2,506.87	47.24	J-587	20.01	2,829.92
J-444	true	0.65	1,500.00	1,500.65	74.08	J-587	20.00	2,828.95
J-445	false	0.10	0.00	N/A	N/A	N/A	N/A	N/A
J-446	true	7.94	1,500.00	1,507.94	73.59	J-587	20.00	2,827.30
J-447	true	0.00	1,500.00	1,500.00	73.00	J-587	20.00	2,825.74
J-448	true	0.00	1,500.00	1,500.00	69.24	J-587	20.00	2,825.71
J-449	true	1.14	1,500.00	1,501.14	68.06	J-587	20.00	2,825.74
J-450	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-451	true	0.00	2,500.00	2,500.00	49.14	J-587	20.00	2,823.96
J-452	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-453	true	0.11	1,500.00	1,500.11	72.57	J-587	20.00	2,823.20
J-454	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-455	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-456	true	1.68	1,500.00	1,501.68	71.99	J-587	20.00	2,820.94
J-457	true	0.00	1,500.00	1,500.00	71.89	J-587	20.00	2,818.91
J-458	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-459	true	0.22	1,500.00	1,500.22	68.86	J-587	20.00	2,823.69
J-460	true	0.01	2,500.00	2,500.01	40.07	J-587	20.00	2,823.84
J-461	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-462	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-463	true	0.00	1,500.00	1,500.00	61.80	J-587	26.44	2,497.24
J-464	true	0.50	1,500.00	1,500.50	63.45	J-587	21.33	2,591.52
J-465	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-466	true	0.00	1,500.00	1,500.00	65.61	J-587	20.00	2,729.92
J-467	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-468	true	0.03	1,500.00	1,500.03	58.40	J-587	29.19	2,346.09
J-469	true	0.06	2,500.00	2,500.06	23.51	J-470	20.02	2,567.15
J-470	true	0.01	1,500.00	1,500.01	59.87	J-587	27.57	2,414.59
J-471	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-472	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-473	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-474	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-475	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-476	true	0.02	1,500.00	1,500.02	64.46	J-587	24.90	2,579.97
J-477	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-478	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-479	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-480	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-481	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-482	true	0.00	1,500.00	1,500.00	73.17	J-587	20.01	2,816.24
J-483	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-484	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-485	true	0.00	1,500.00	1,500.00	71.37	J-587	20.00	2,816.39
J-486	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-487	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-488	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-489	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-490	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-491	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-492	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-493	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-494	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-495	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-496	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-497	false	33.67	0.00	N/A	N/A	N/A	N/A	N/A
J-498	false	11.51	0.00	N/A	N/A	N/A	N/A	N/A
J-499	true	0.00	1,500.00	1,500.00	55.70	J-360	20.00	1,743.47
J-500	true	8.86	1,500.00	1,508.86	57.04	J-360	20.00	1,743.46
J-501	true	10.51	1,500.00	1,510.51	57.90	J-360	20.00	1,743.47
J-502	true	14.18	1,500.00	1,514.18	55.74	J-360	20.02	1,743.06
J-503	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-504	true	0.00	1,500.00	1,500.00	64.56	J-587	46.24	4,999.30
J-505	false	0.01	0.00	N/A	N/A	N/A	N/A	N/A
J-506	true	0.00	1,500.00	1,500.00	65.97	J-587	45.43	4,999.32
J-507	false	6.21	0.00	N/A	N/A	N/A	N/A	N/A
J-508	true	10.63	1,500.00	1,510.63	60.63	J-587	20.01	2,755.06
J-509	false	6.20	0.00	N/A	N/A	N/A	N/A	N/A
J-510	true	7.08	1,500.00	1,507.08	51.26	J-587	27.11	2,403.64
J-511	true	11.51	1,500.00	1,511.51	60.32	J-587	20.00	2,753.85
J-512	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-513	false	7.09	0.00	N/A	N/A	N/A	N/A	N/A
J-514	true	5.31	1,500.00	1,505.31	57.53	J-587	20.01	2,746.38
J-515	true	7.08	1,500.00	1,507.08	61.67	J-587	20.00	2,737.95
J-516	false	3.53	0.00	N/A	N/A	N/A	N/A	N/A
J-517	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-518	true	2.66	1,500.00	1,502.66	56.56	J-587	20.01	2,745.63
J-519	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-520	true	5.31	1,500.00	1,505.31	56.29	J-587	20.01	2,744.28
J-521	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-522	true	6.20	1,500.00	1,506.20	71.96	J-981	20.02	2,561.43
J-523	true	2.05	1,500.00	1,502.05	62.78	J-981	20.03	2,561.10
J-524	false	15.12	0.00	N/A	N/A	N/A	N/A	N/A
J-525	true	2.66	1,500.00	1,502.66	54.10	J-587	20.00	2,163.68
J-527	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-528	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-529	false	11.50	0.00	N/A	N/A	N/A	N/A	N/A
J-530	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-531	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-532	true	7.08	1,500.00	1,507.08	62.83	J-587	20.00	2,769.93
J-533	false	1.77	0.00	N/A	N/A	N/A	N/A	N/A
J-534	true	7.08	1,500.00	1,507.08	60.60	J-587	20.22	2,632.66
J-535	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-536	true	4.43	1,500.00	1,504.43	62.38	J-587	20.65	2,727.76
J-537	false	14.18	0.00	N/A	N/A	N/A	N/A	N/A
J-538	true	2.66	1,500.00	1,502.66	63.78	J-587	20.00	2,771.41
J-539	false	2.66	0.00	N/A	N/A	N/A	N/A	N/A
J-540	true	5.31	1,500.00	1,505.31	65.91	J-587	20.00	2,771.86
J-541	false	1.77	0.00	N/A	N/A	N/A	N/A	N/A
J-542	true	12.40	1,500.00	1,512.40	68.21	J-587	20.00	2,772.79
J-543	true	5.73	1,500.00	1,505.73	75.45	J-587	20.00	2,856.64
J-544	true	8.46	1,500.00	1,508.46	75.20	J-587	20.00	2,856.93
J-546	true	7.08	1,500.00	1,507.08	72.17	J-587	20.01	2,856.60
J-547	true	2.78	1,500.00	1,502.78	72.02	J-587	20.00	2,800.18
J-548	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-549	true	7.33	1,500.00	1,507.33	69.48	J-587	20.00	2,797.81
J-550	true	0.00	1,500.00	1,500.00	69.28	J-587	20.00	2,797.42
J-551	true	0.00	1,500.00	1,500.00	69.48	J-587	20.00	2,796.86
J-552	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-553	true	22.14	1,500.00	1,522.14	70.12	J-587	20.00	2,797.78
J-554	true	17.71	1,500.00	1,517.71	69.93	J-587	20.00	2,797.50
J-555	true	9.74	1,500.00	1,509.74	68.69	J-587	20.00	2,797.32
J-556	false	7.97	0.00	N/A	N/A	N/A	N/A	N/A
J-557	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-558	false	6.26	0.00	N/A	N/A	N/A	N/A	N/A
J-559	true	14.17	1,500.00	1,514.17	68.74	J-587	20.00	2,795.57
J-560	false	7.08	0.00	N/A	N/A	N/A	N/A	N/A
J-561	true	7.08	1,500.00	1,507.08	70.77	J-587	20.01	2,795.23
J-562	true	0.00	1,500.00	1,500.00	70.95	J-587	20.01	2,794.38
J-563	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-564	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-565	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-566	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-567	true	3.08	1,500.00	1,503.08	72.48	J-587	20.00	2,796.98
J-568	false	14.18	0.00	N/A	N/A	N/A	N/A	N/A
J-569	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-570	false	14.18	0.00	N/A	N/A	N/A	N/A	N/A
J-571	true	20.37	1,500.00	1,520.37	50.73	J-360	20.00	1,781.29
J-572	true	11.51	1,500.00	1,511.51	52.81	J-360	20.00	1,781.29
J-573	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-574	true	8.86	1,500.00	1,508.86	52.17	J-360	20.00	1,781.30
J-575	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-576	true	11.51	1,500.00	1,511.51	56.26	J-360	20.00	1,784.85
J-577	true	15.05	1,500.00	1,515.05	57.78	J-360	20.00	1,784.85
J-578	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-579	true	13.28	1,500.00	1,513.28	57.55	J-360	20.05	1,784.16
J-580	false	4.43	0.00	N/A	N/A	N/A	N/A	N/A
J-581	false	0.89	0.00	N/A	N/A	N/A	N/A	N/A
J-582	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A
J-583	true	3.54	1,500.00	1,503.54	58.05	J-360	20.00	1,784.85
J-584	false	3.54	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-585	true	0.00	1,500.00	1,500.00	51.95	J-360	20.00	1,784.85
J-586	false	5.31	0.00	N/A	N/A	N/A	N/A	N/A
J-587	true	7.08	1,500.00	1,507.08	33.35	J-278	25.55	2,006.32
J-588	true	0.00	1,500.00	1,500.00	75.54	J-982	20.01	2,894.61
J-589	false	0.24	0.00	N/A	N/A	N/A	N/A	N/A
J-590	true	0.00	1,500.00	1,500.00	68.19	J-982	24.80	2,744.89
J-591	false	0.33	0.00	N/A	N/A	N/A	N/A	N/A
J-592	true	0.50	1,500.00	1,500.50	65.15	J-982	28.60	2,643.99
J-593	false	70.54	0.00	N/A	N/A	N/A	N/A	N/A
J-594	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-595	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-596	true	0.00	1,500.00	1,500.00	76.77	J-982	20.01	2,849.61
J-597	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-598	true	0.00	1,500.00	1,500.00	76.83	J-982	20.01	2,840.04
J-599	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-600	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-601	false	5.13	0.00	N/A	N/A	N/A	N/A	N/A
J-602	true	8.96	1,500.00	1,508.96	66.39	J-982	24.52	2,717.44
J-603	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-604	true	0.00	1,500.00	1,500.00	59.53	J-982	32.66	2,414.15
J-605	true	2.61	1,500.00	1,502.61	76.32	J-982	20.01	2,820.23
J-606	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-607	true	1.83	1,500.00	1,501.83	78.55	J-982	20.01	2,776.91
J-608	true	0.00	1,500.00	1,500.00	73.65	J-982	20.02	2,776.84
J-609	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-610	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-611	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-612	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-613	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-614	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-615	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-616	false	9.80	0.00	N/A	N/A	N/A	N/A	N/A
J-617	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-618	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-619	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-620	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-621	true	0.10	1,500.00	1,500.10	62.86	J-587	20.00	2,726.28
J-622	true	0.00	1,500.00	1,500.00	61.58	J-587	20.03	2,650.28
J-623	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-624	true	0.00	1,500.00	1,500.00	61.75	J-587	21.88	2,682.41
J-628	false	19.61	0.00	N/A	N/A	N/A	N/A	N/A
J-636	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-637	true	12.40	1,500.00	1,512.40	76.17	J-360	20.02	3,519.31
J-638	false	14.18	0.00	N/A	N/A	N/A	N/A	N/A
J-639	true	23.92	1,500.00	1,523.92	64.94	J-360	43.72	2,530.55
J-640	false	15.95	0.00	N/A	N/A	N/A	N/A	N/A
J-650	false	20.37	0.00	N/A	N/A	N/A	N/A	N/A
J-651	false	11.51	0.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Fire Flow Report

Label	Satisfies Fire Flow Constraints?	Base Flow (gpm)	Needed Fire Flow (gpm)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Calculated Minimum Zone Pressure (psi)	Available Fire Flow (gpm)
J-653	false	15.05	0.00	N/A	N/A	N/A	N/A	N/A
J-654	false	19.48	0.00	N/A	N/A	N/A	N/A	N/A
J-655	false	16.83	0.00	N/A	N/A	N/A	N/A	N/A
J-656	false	21.56	0.00	N/A	N/A	N/A	N/A	N/A
J-657	false	15.05	0.00	N/A	N/A	N/A	N/A	N/A
J-658	false	0.27	0.00	N/A	N/A	N/A	N/A	N/A
J-659	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-660	false	0.57	0.00	N/A	N/A	N/A	N/A	N/A
J-661	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-750	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-751	false	4.43	1,500.00	N/A	N/A	N/A	N/A	N/A
J-752	false	18.94	1,500.00	N/A	N/A	N/A	N/A	N/A
J-753	true	0.00	1,500.00	1,500.00	61.82	J-132	20.01	2,086.37
J-754	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-813	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-814	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-822	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-823	true	0.00	1,500.00	1,500.00	24.87	J-138	23.96	1,501.00
J-824	true	0.00	1,500.00	1,500.00	21.07	J-150	21.45	1,501.00
J-825	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-826	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-827	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-834	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-842	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-844	false	0.62	1,500.00	N/A	N/A	N/A	N/A	N/A
J-845	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-846	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-847	false	1.86	1,500.00	N/A	N/A	N/A	N/A	N/A
J-848	false	1.25	1,500.00	N/A	N/A	N/A	N/A	N/A
J-849	false	1.25	1,500.00	N/A	N/A	N/A	N/A	N/A
J-851	true	0.00	1,500.00	1,500.00	73.51	J-982	43.52	1,501.00
J-852	true	0.00	1,500.00	1,500.00	73.03	J-982	43.52	1,501.00
J-853	false	0.00	0.00	N/A	N/A	N/A	N/A	N/A
J-901	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-906	false	3.88	1,500.00	N/A	N/A	N/A	N/A	N/A
J-917	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-981	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A
J-982	false	0.00	1,500.00	N/A	N/A	N/A	N/A	N/A

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1	2,558.30	Zone	Demand	4.27	COMMERCIAL	4.27	2,765.15	89.50
J-2	2,558.00	Zone	Demand	9.78	COMMERCIAL	9.78	2,764.26	89.24
J-3	2,556.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,764.26	89.89
J-4	2,557.50	Zone	Demand	1.36	COMMERCIAL	1.36	2,763.42	89.09
J-5	2,559.00	Zone	Demand	2.51	COMMERCIAL	2.51	2,763.24	88.36
J-6	2,558.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.03	88.71
J-7	2,557.00	Zone	Demand	1.06	COMMERCIAL	1.06	2,763.03	89.14
J-8	2,557.00	Zone	Demand	94.63	IRRIGATION	94.63	2,762.84	89.06
J-9	2,555.00	Zone	Demand	5.48	COMMERCIAL	5.48	2,762.78	89.89
J-10	2,550.50	Zone	Demand	0.00	Composite	0.00	2,762.68	91.80
J-11	2,554.50	Zone	Demand	0.01	COMMERCIAL	0.01	2,762.79	90.12
J-12	2,556.70	Zone	Demand	9.74	RESIDENTIAL	9.74	2,762.86	89.20
J-13	2,557.00	Zone	Demand	15.05	RESIDENTIAL	15.05	2,762.96	89.11
J-14	2,555.70	Zone	Demand	4.43	Composite	4.43	2,763.24	89.79
J-15	2,558.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,762.96	88.67
J-16	2,552.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,762.85	91.22
J-17	2,555.30	Zone	Demand	6.20	RESIDENTIAL	6.20	2,762.82	89.79
J-18	2,554.70	Zone	Demand	1.77	RESIDENTIAL	1.77	2,762.78	90.03
J-19	2,552.00	Zone	Demand	8.59	Composite	8.59	2,762.66	91.14
J-20	2,553.00	Zone	Demand	5.54	COMMERCIAL	5.54	2,762.66	90.71
J-21	2,554.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.50	89.99
J-22	2,553.50	Zone	Demand	7.22	Composite	7.22	2,762.56	90.45
J-23	2,557.00	Zone	Demand	11.51	RESIDENTIAL	11.51	2,762.77	89.03
J-24	2,553.00	Zone	Demand	5.44	Composite	5.44	2,762.68	90.72
J-25	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.58	89.38
J-26	2,554.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,762.73	90.31
J-27	2,555.50	Zone	Demand	8.86	RESIDENTIAL	8.86	2,762.78	89.68
J-28	2,558.00	Zone	Demand	14.17	RESIDENTIAL	14.17	2,762.79	88.60
J-29	2,556.00	Zone	Demand	12.40	RESIDENTIAL	12.40	2,762.83	89.49
J-30	2,579.50	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.00	79.39
J-31	2,581.50	Zone	Demand	4.16	RESIDENTIAL	4.16	2,762.99	78.52
J-32	2,585.50	Zone	Demand	11.51	RESIDENTIAL	11.51	2,763.04	76.81
J-33	2,595.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.14	72.75
J-34	2,596.50	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.19	72.12
J-35	2,597.50	Zone	Demand	10.63	RESIDENTIAL	10.63	2,763.18	71.68
J-36	2,604.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.31	68.71
J-37	2,601.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,763.44	70.28
J-38	2,603.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.63	69.50
J-39	2,591.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.80	74.76
J-40	2,592.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.66	74.27
J-41	2,591.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.70	74.72
J-42	2,590.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.52	75.07
J-43	2,581.00	Zone	Demand	9.03	COMMERCIAL	9.03	2,763.45	78.94
J-44	2,590.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.55	75.09
J-45	2,594.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.54	73.35
J-46	2,602.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.43	69.85
J-47	2,596.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.43	72.44
J-48	2,593.50	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.43	73.52
J-49	2,601.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,763.42	70.27
J-50	2,603.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,763.31	69.36
J-51	2,606.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.24	68.03
J-52	2,609.00	Zone	Demand	8.86	RESIDENTIAL	8.86	2,763.23	66.73

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-53	2,605.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.23	68.46
J-54	2,604.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.23	68.89
J-55	2,607.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.21	67.37
J-56	2,608.50	Zone	Demand	6.20	RESIDENTIAL	6.20	2,763.21	66.94
J-57	2,610.50	Zone	Demand	19.48	RESIDENTIAL	19.48	2,763.29	66.11
J-58	2,606.00	Zone	Demand	6.19	RESIDENTIAL	6.19	2,763.18	68.00
J-59	2,618.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.28	62.64
J-60	2,615.00	Zone	Demand	2.56	Composite	2.56	2,763.27	64.15
J-61	2,604.50	Zone	Demand	9.74	RESIDENTIAL	9.74	2,763.16	68.64
J-62	2,600.00	Zone	Demand	9.77	RESIDENTIAL	9.77	2,763.14	70.58
J-63	2,597.50	Zone	Demand	9.77	RESIDENTIAL	9.77	2,763.20	71.69
J-64	2,595.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.20	72.56
J-65	2,595.50	Zone	Demand	12.40	RESIDENTIAL	12.40	2,763.06	72.50
J-66	2,604.00	Zone	Demand	14.17	RESIDENTIAL	14.17	2,763.05	68.81
J-67	2,604.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.05	68.60
J-68	2,603.00	Zone	Demand	26.57	RESIDENTIAL	26.57	2,763.05	69.25
J-69	2,585.00	Zone	Demand	21.25	RESIDENTIAL	21.25	2,762.85	76.95
J-70	2,587.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,762.85	76.08
J-71	2,600.00	Zone	Demand	17.71	RESIDENTIAL	17.71	2,762.89	70.47
J-72	2,602.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,762.89	69.39
J-73	2,589.50	Zone	Demand	8.86	RESIDENTIAL	8.86	2,762.86	75.01
J-74	2,617.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.25	63.27
J-75	2,606.50	Zone	Demand	6.20	RESIDENTIAL	6.20	2,763.22	67.81
J-76	2,611.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,763.15	65.83
J-77	2,617.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.28	63.29
J-78	2,618.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.18	62.81
J-79	2,616.50	Zone	Demand	9.74	RESIDENTIAL	9.74	2,763.35	63.54
J-80	2,613.50	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.37	64.84
J-81	2,607.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.25	67.39
J-83	2,619.50	Zone	Demand	10.63	RESIDENTIAL	10.63	2,763.42	62.27
J-84	2,624.50	Zone	Demand	6.20	RESIDENTIAL	6.20	2,763.62	60.19
J-85	2,626.00	Zone	Demand	1.77	RESIDENTIAL	1.77	2,764.71	60.01
J-86	2,623.50	Zone	Demand	11.50	RESIDENTIAL	11.50	2,764.71	61.09
J-87	2,618.00	Zone	Demand	7.96	RESIDENTIAL	7.96	2,763.83	63.09
J-88	2,618.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.80	63.08
J-89	2,618.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.80	63.08
J-90	2,618.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,763.80	63.08
J-91	2,616.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.68	63.68
J-92	2,619.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.05	62.32
J-93	2,619.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.08	62.12
J-94	2,618.00	Zone	Demand	3.55	RESIDENTIAL	3.55	2,763.07	62.76
J-95	2,619.50	Zone	Demand	13.29	RESIDENTIAL	13.29	2,763.06	62.11
J-96	2,621.50	Zone	Demand	3.37	Composite	3.37	2,763.97	61.64
J-97	2,615.00	Zone	Demand	2.67	RESIDENTIAL	2.67	2,763.06	64.06
J-98	2,612.50	Zone	Demand	2.64	RESIDENTIAL	2.64	2,763.06	65.14
J-99	2,611.00	Zone	Demand	3.55	RESIDENTIAL	3.55	2,763.06	65.79
J-100	2,609.50	Zone	Demand	4.17	Composite	4.17	2,763.06	66.44
J-101	2,610.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.06	66.22
J-102	2,615.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.06	64.06
J-103	2,615.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.06	64.06
J-104	2,607.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.06	67.30
J-105	2,603.50	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.06	69.03

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-106	2,593.50	Zone	Demand	9.74	RESIDENTIAL	9.74	2,763.00	73.33
J-107	2,612.50	Zone	Demand	10.31	Composite	10.31	2,763.06	65.14
J-108	2,612.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.06	65.14
J-109	2,610.00	Zone	Demand	4.44	RESIDENTIAL	4.44	2,763.06	66.22
J-110	2,610.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.06	66.22
J-111	2,610.50	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.06	66.00
J-112	2,614.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.06	64.49
J-113	2,611.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.06	65.57
J-114	2,617.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.07	63.20
J-115	2,564.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,762.23	85.76
J-116	2,620.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,764.04	62.32
J-117	2,621.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,764.00	61.87
J-118	2,579.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,790.69	91.59
J-119	2,623.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,765.57	61.47
J-120	2,624.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,765.51	61.01
J-121	2,627.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,767.13	60.41
J-122	2,618.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,764.19	63.03
J-123	2,624.50	Zone	Demand	12.40	RESIDENTIAL	12.40	2,764.17	60.43
J-124	2,588.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,775.38	81.07
J-125	2,623.00	Zone	Demand	14.17	RESIDENTIAL	14.17	2,764.16	61.08
J-126	2,620.50	Zone	Demand	2.66	RESIDENTIAL	2.66	2,764.16	62.16
J-127	2,605.80	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.23	68.11
J-128	2,619.00	Zone	Demand	1.76	RESIDENTIAL	1.76	2,763.11	62.35
J-131	2,553.00	Zone	Demand	2.68	COMMERCIAL	2.68	2,762.77	90.76
J-132	2,624.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.97	60.34
J-133	2,564.00	Zone	Demand	12.40	RESIDENTIAL	12.40	2,762.23	85.76
J-134	2,558.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,762.23	88.36
J-135	2,557.50	Zone	Demand	26.68	COMMERCIAL	26.68	2,762.25	88.58
J-136	2,626.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,765.53	60.15
J-137	2,553.50	Zone	Demand	1.77	RESIDENTIAL	1.77	2,762.77	90.54
J-138	2,638.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,767.12	55.87
J-139	2,554.50	Zone	Demand	3.54	RESIDENTIAL	3.54	2,762.77	90.11
J-140	2,554.50	Zone	Demand	0.14	COMMERCIAL	0.14	2,762.55	90.01
J-141	2,554.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.55	90.23
J-142	2,554.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,762.73	90.31
J-143	2,610.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,763.20	66.28
J-144	2,611.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.17	65.84
J-145	2,566.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.45	84.99
J-146	2,563.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.22	86.19
J-147	2,615.00	Zone	Demand	6.21	RESIDENTIAL	6.21	2,762.72	63.91
J-148	2,623.00	Zone	Demand	9.64	RESIDENTIAL	9.64	2,765.34	61.58
J-149	2,621.00	Zone	Demand	26.58	RESIDENTIAL	26.58	2,764.92	62.27
J-150	2,620.00	Zone	Demand	8.86	RESIDENTIAL	8.86	2,765.50	62.95
J-151	2,624.50	Zone	Demand	11.51	RESIDENTIAL	11.51	2,765.45	60.98
J-152	2,625.00	Zone	Demand	12.41	RESIDENTIAL	12.41	2,765.48	60.78
J-153	2,626.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,765.51	60.36
J-154	2,561.50	Zone	Demand	12.40	RESIDENTIAL	12.40	2,765.14	88.11
J-155	2,556.50	Zone	Demand	15.05	RESIDENTIAL	15.05	2,765.14	90.27
J-156	2,556.20	Zone	Demand	0.00	RESIDENTIAL	0.00	2,765.14	90.40
J-157	2,559.50	Zone	Demand	2.75	COMMERCIAL	2.75	2,766.21	89.43
J-158	2,562.00	Zone	Demand	22.84	Composite	22.84	2,766.20	88.35
J-159	2,561.00	Zone	Demand	18.60	RESIDENTIAL	18.60	2,766.86	89.06

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-160	2,560.00	Zone	Demand	1.02	Composite	1.02	2,766.92	89.52
J-161	2,565.00	Zone	Demand	12.40	RESIDENTIAL	12.40	2,766.85	87.33
J-162	2,559.50	Zone	Demand	0.89	RESIDENTIAL	0.89	2,767.32	89.92
J-163	2,558.50	Zone	Demand	6.42	Composite	6.42	2,767.30	90.34
J-164	2,556.50	Zone	Demand	14.17	RESIDENTIAL	14.17	2,767.52	91.30
J-165	2,557.50	Zone	Demand	3.54	RESIDENTIAL	3.54	2,767.52	90.87
J-166	2,555.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,767.89	92.11
J-167	2,554.00	Zone	Demand	6.09	RESIDENTIAL	6.09	2,767.89	92.54
J-168	2,553.50	Zone	Demand	1.25	Composite	1.25	2,768.05	92.83
J-169	2,553.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,768.05	92.83
J-170	2,554.50	Zone	Demand	5.93	Composite	5.93	2,768.21	92.46
J-171	2,556.50	Zone	Demand	8.86	Composite	8.86	2,768.21	91.59
J-172	2,555.50	Zone	Demand	6.20	RESIDENTIAL	6.20	2,768.39	92.11
J-173	2,556.50	Zone	Demand	2.03	Composite	2.03	2,768.39	91.67
J-174	2,557.00	Zone	Demand	1.77	RESIDENTIAL	1.77	2,768.39	91.46
J-175	2,557.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,768.39	91.46
J-176	2,559.00	Zone	Demand	4.28	IRRIGATION	4.28	2,768.51	90.65
J-177	2,559.50	Zone	Demand	14.27	Composite	14.27	2,767.82	90.13
J-178	2,557.00	Zone	Demand	9.74	RESIDENTIAL	9.74	2,767.82	91.21
J-179	2,559.50	Zone	Demand	24.84	Composite	24.84	2,775.30	93.37
J-180	2,553.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,777.05	96.72
J-181	2,549.00	Zone	Demand	7.07	RESIDENTIAL	7.07	2,777.15	98.71
J-182	2,550.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,777.14	98.27
J-183	2,548.00	Zone	Demand	9.73	RESIDENTIAL	9.73	2,777.15	99.14
J-184	2,548.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,777.14	99.14
J-185	2,549.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,777.12	98.70
J-186	2,547.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,777.14	99.57
J-187	2,546.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,777.14	99.79
J-188	2,551.00	Zone	Demand	9.73	RESIDENTIAL	9.73	2,777.04	97.80
J-189	2,553.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,777.04	96.93
J-190	2,553.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,777.04	96.93
J-191	2,552.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,777.04	97.36
J-192	2,552.50	Zone	Demand	2.02	Composite	2.02	2,777.04	97.15
J-193	2,551.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,777.04	97.58
J-194	2,553.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,777.04	96.93
J-195	2,555.00	Zone	Demand	22.15	Composite	22.15	2,777.03	96.06
J-196	2,556.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,777.04	95.63
J-197	2,551.50	Zone	Demand	20.61	Composite	20.61	2,771.98	95.39
J-198	2,553.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,777.05	96.72
J-199	2,549.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,777.05	98.45
J-200	2,616.50	Zone	Demand	4.27	Composite	4.27	2,763.43	63.57
J-201	2,617.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.43	63.35
J-202	2,601.00	Zone	Demand	2.67	RESIDENTIAL	2.67	2,763.42	70.27
J-203	2,600.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.42	70.70
J-204	2,603.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.42	69.40
J-205	2,603.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.42	69.19
J-206	2,603.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.42	69.40
J-207	2,603.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.42	69.19
J-208	2,599.00	Zone	Demand	1.77	RESIDENTIAL	1.77	2,763.42	71.14
J-209	2,577.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.45	80.67
J-210	2,597.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.45	72.01
J-211	2,597.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.45	71.80

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-212	2,591.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.45	74.39
J-213	2,592.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.45	74.18
J-214	2,587.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.45	76.34
J-215	2,552.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,762.58	91.11
J-216	2,553.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,762.57	90.67
J-217	2,553.50	Zone	Demand	5.32	RESIDENTIAL	5.32	2,762.57	90.46
J-218	2,554.00	Zone	Demand	1.58	COMMERCIAL	1.58	2,762.52	90.22
J-219	2,554.50	Zone	Demand	22.64	IRRIGATION	22.64	2,762.47	89.98
J-220	2,557.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.32	88.83
J-221	2,563.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.27	86.21
J-222	2,564.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.27	85.56
J-223	2,564.50	Zone	Demand	0.44	COMMERCIAL	0.44	2,762.26	85.56
J-224	2,561.50	Zone	Demand	1.65	RESIDENTIAL	1.65	2,762.25	86.86
J-225	2,562.50	Zone	Demand	4.61	COMMERCIAL	4.61	2,762.25	86.42
J-226	2,561.00	Zone	Demand	8.86	RESIDENTIAL	8.86	2,762.23	87.06
J-227	2,565.00	Zone	Demand	15.94	RESIDENTIAL	15.94	2,762.14	85.29
J-228	2,566.00	Zone	Demand	11.51	RESIDENTIAL	11.51	2,762.08	84.83
J-229	2,568.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,762.06	83.96
J-230	2,569.00	Zone	Demand	9.74	RESIDENTIAL	9.74	2,762.05	83.52
J-231	2,558.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.05	88.07
J-232	2,565.00	Zone	Demand	15.07	Composite	15.07	2,762.06	85.26
J-233	2,565.00	Zone	Demand	7.00	Composite	7.00	2,762.06	85.26
J-234	2,565.00	Zone	Demand	11.60	COMMERCIAL	11.60	2,796.00	99.94
J-235	2,603.00	Zone	Demand	0.00	Fixed	0.00	2,763.42	69.40
J-236	2,613.00	Zone	Demand	12.41	RESIDENTIAL	12.41	2,763.41	65.08
J-237	2,565.50	Zone	Demand	0.59	IRRIGATION	0.59	2,795.19	99.37
J-238	2,568.50	Zone	Demand	0.83	Composite	0.83	2,790.67	96.12
J-239	2,569.00	Zone	Demand	2.42	RESIDENTIAL	2.42	2,790.67	95.90
J-240	2,569.50	Zone	Demand	23.69	IRRIGATION	23.69	2,789.61	95.23
J-241	2,583.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,790.32	89.70
J-242	2,570.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,788.14	94.38
J-243	2,568.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,787.31	94.88
J-244	2,566.50	Zone	Demand	10.63	RESIDENTIAL	10.63	2,786.67	95.26
J-245	2,564.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,787.31	96.62
J-246	2,569.00	Zone	Demand	8.86	RESIDENTIAL	8.86	2,787.10	94.36
J-247	2,572.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,779.05	89.58
J-248	2,571.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,786.66	93.31
J-249	2,570.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,786.89	93.84
J-250	2,571.00	Zone	Demand	2.92	Composite	2.92	2,786.33	93.16
J-251	2,573.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,785.29	91.85
J-252	2,570.00	Zone	Demand	1.17	IRRIGATION	1.17	2,786.35	93.60
J-253	2,571.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,786.35	92.95
J-254	2,573.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,785.94	91.91
J-255	2,573.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,785.93	91.91
J-256	2,577.00	Zone	Demand	0.23	COMMERCIAL	0.23	2,785.34	90.14
J-257	2,628.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,768.10	60.61
J-258	2,639.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,769.62	56.51
J-259	2,638.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,769.70	56.98
J-260	2,635.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,769.70	58.28
J-261	2,633.00	Zone	Demand	1.77	RESIDENTIAL	1.77	2,769.70	59.14
J-262	2,634.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,769.70	58.71
J-263	2,625.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,769.70	62.61

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-264	2,634.00	Zone	Demand	8.86	RESIDENTIAL	8.86	2,769.72	58.72
J-265	2,633.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,769.72	59.15
J-266	2,635.00	Zone	Demand	15.05	RESIDENTIAL	15.05	2,769.80	58.32
J-267	2,636.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,769.80	57.89
J-268	2,632.00	Zone	Demand	13.28	RESIDENTIAL	13.28	2,769.92	59.67
J-269	2,633.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,770.29	59.40
J-270	2,630.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,770.33	60.71
J-271	2,632.50	Zone	Demand	2.24	Composite	2.24	2,770.34	59.64
J-272	2,638.00	Zone	Demand	7.98	RESIDENTIAL	7.98	2,770.33	57.26
J-273	2,634.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,770.35	58.99
J-274	2,634.50	Zone	Demand	6.20	RESIDENTIAL	6.20	2,770.34	58.77
J-275	2,635.00	Zone	Demand	9.74	RESIDENTIAL	9.74	2,770.36	58.56
J-276	2,635.70	Zone	Demand	13.28	RESIDENTIAL	13.28	2,770.37	58.26
J-277	2,636.00	Zone	Demand	12.41	RESIDENTIAL	12.41	2,770.37	58.13
J-278	2,641.00	Zone	Demand	17.71	RESIDENTIAL	17.71	2,770.46	56.01
J-279	2,638.00	Zone	Demand	4.06	Composite	4.06	2,770.60	57.37
J-280	2,639.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,770.90	57.07
J-281	2,653.00	Zone	Demand	5.69	Composite	5.69	2,820.58	72.50
J-282	2,644.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,820.78	76.48
J-283	2,640.00	Zone	Demand	3.86	Composite	3.86	2,820.78	78.21
J-284	2,638.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,820.91	79.14
J-285	2,636.00	Zone	Demand	0.00	Fixed	0.00	2,820.91	80.00
J-286	2,635.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,820.91	80.44
J-287	2,639.00	Zone	Demand	9.74	RESIDENTIAL	9.74	2,821.07	78.77
J-288	2,637.00	Zone	Demand	14.17	RESIDENTIAL	14.17	2,821.01	79.61
J-289	2,644.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,821.15	76.64
J-290	2,647.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,821.14	75.34
J-291	2,643.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,821.14	77.07
J-292	2,654.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,821.14	72.32
J-293	2,654.00	Zone	Demand	5.00	Composite	5.00	2,821.31	72.39
J-294	2,667.00	Zone	Demand	7.31	IRRIGATION	7.31	2,827.99	69.65
J-295	2,565.50	Zone	Demand	2.92	COMMERCIAL	2.92	2,795.19	99.37
J-296	2,667.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,828.15	69.72
J-297	2,667.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,828.15	69.72
J-298	2,665.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,830.09	71.21
J-299	2,670.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,830.38	69.39
J-300	2,670.00	Zone	Demand	0.89	RESIDENTIAL	0.89	2,830.38	69.39
J-301	2,664.00	Zone	Demand	8.86	RESIDENTIAL	8.86	2,831.49	72.46
J-302	2,664.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,830.40	71.78
J-303	2,667.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,832.47	71.59
J-304	2,670.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,832.47	70.29
J-305	2,667.00	Zone	Demand	13.28	RESIDENTIAL	13.28	2,833.68	72.12
J-306	2,665.00	Zone	Demand	14.17	RESIDENTIAL	14.17	2,834.84	73.48
J-307	2,664.00	Zone	Demand	9.74	RESIDENTIAL	9.74	2,836.85	74.78
J-308	2,670.00	Zone	Demand	9.74	RESIDENTIAL	9.74	2,836.84	72.18
J-309	2,660.00	Zone	Demand	15.05	RESIDENTIAL	15.05	2,838.53	77.24
J-310	2,662.50	Zone	Demand	23.02	RESIDENTIAL	23.02	2,839.58	76.61
J-311	2,665.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,830.13	71.23
J-312	2,655.00	Zone	Demand	250.11	Composite	250.11	2,837.14	78.80
J-313	2,652.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,838.20	80.56
J-314	2,660.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,830.39	73.50
J-315	2,645.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,842.37	85.39

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-316	2,643.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,773.73	56.56
J-317	2,631.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.58	57.36
J-318	2,577.50	Zone	Demand	13.28	RESIDENTIAL	13.28	2,763.44	80.45
J-319	2,566.00	Zone	Demand	12.41	Composite	12.41	2,762.45	84.99
J-320	2,563.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,762.22	86.19
J-321	2,647.50	Zone	Demand	16.83	RESIDENTIAL	16.83	2,841.56	83.96
J-322	2,592.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,772.50	78.09
J-323	2,572.50	Zone	Demand	7.97	RESIDENTIAL	7.97	2,778.61	89.17
J-325	2,645.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,842.80	85.36
J-326	2,565.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,787.48	96.04
J-327	2,565.50	Zone	Demand	7.97	RESIDENTIAL	7.97	2,787.33	95.98
J-328	2,565.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,787.33	96.19
J-329	2,565.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,787.10	95.88
J-330	2,565.00	Zone	Demand	6.10	RESIDENTIAL	6.10	2,787.10	96.09
J-331	2,566.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,786.89	95.57
J-332	2,568.50	Zone	Demand	9.74	RESIDENTIAL	9.74	2,784.89	93.62
J-333	2,569.50	Zone	Demand	0.93	Composite	0.93	2,784.62	93.07
J-334	2,571.50	Zone	Demand	9.74	RESIDENTIAL	9.74	2,784.51	92.16
J-335	2,572.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,784.51	91.94
J-336	2,571.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,784.44	92.35
J-337	2,571.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,784.21	92.25
J-338	2,572.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,784.74	92.04
J-339	2,573.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,784.74	91.61
J-340	2,572.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,785.29	92.28
J-341	2,571.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,782.93	91.69
J-342	2,572.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,782.93	91.26
J-343	2,570.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,781.90	91.68
J-344	2,573.50	Zone	Demand	8.86	RESIDENTIAL	8.86	2,779.76	89.24
J-345	2,572.00	Zone	Demand	11.08	Composite	11.08	2,779.05	89.58
J-346	2,632.00	Zone	Demand	5.85	Composite	5.85	2,820.96	81.75
J-347	2,630.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,820.96	82.40
J-348	2,630.00	Zone	Demand	12.41	RESIDENTIAL	12.41	2,820.95	82.62
J-349	2,633.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,820.96	81.32
J-350	2,638.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,821.01	79.18
J-351	2,640.00	Zone	Demand	7.97	RESIDENTIAL	7.97	2,821.01	78.31
J-352	2,640.50	Zone	Demand	12.41	RESIDENTIAL	12.41	2,821.01	78.10
J-353	2,680.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,836.83	67.85
J-354	2,695.00	Zone	Demand	11.52	RESIDENTIAL	11.52	2,836.83	61.36
J-355	2,682.50	Zone	Demand	6.20	RESIDENTIAL	6.20	2,836.83	66.77
J-356	2,678.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,836.83	68.50
J-357	2,700.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,836.82	59.20
J-358	2,699.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,827.99	55.81
J-359	2,701.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,827.99	54.94
J-360	2,717.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,827.99	48.02
J-361	2,552.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,777.17	97.20
J-364	2,554.00	Zone	Demand	5.29	COMMERCIAL	5.29	2,763.14	90.48
J-365	2,554.00	Zone	Demand	0.87	COMMERCIAL	0.87	2,763.14	90.48
J-366	2,554.00	Zone	Demand	2.75	COMMERCIAL	2.75	2,763.14	90.48
J-367	2,550.00	Zone	Demand	8.98	COMMERCIAL	8.98	2,762.47	91.92
J-368	2,580.00	Zone	Demand	6.52	IRRIGATION	6.52	2,789.82	90.78
J-369	2,550.50	Zone	Demand	1.05	COMMERCIAL	1.05	2,762.79	91.85
J-370	2,578.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.82	91.43

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-371	2,554.00	Zone	Demand	17.30	COMMERCIAL	17.30	2,762.73	90.31
J-372	2,555.50	Zone	Demand	8.67	IRRIGATION	8.67	2,762.68	89.64
J-373	2,556.00	Zone	Demand	2.00	COMMERCIAL	2.00	2,762.68	89.42
J-374	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.68	89.42
J-375	2,550.00	Zone	Demand	0.66	COMMERCIAL	0.66	2,762.67	92.01
J-376	2,549.50	Zone	Demand	13.73	COMMERCIAL	13.73	2,762.67	92.23
J-377	2,549.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.67	92.23
J-378	2,550.00	Zone	Demand	11.19	COMMERCIAL	11.19	2,762.66	92.01
J-379	2,549.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.64	92.21
J-380	2,589.00	Zone	Demand	12.01	COMMERCIAL	12.01	2,763.60	75.54
J-381	2,593.50	Zone	Demand	1.48	COMMERCIAL	1.48	2,763.60	73.59
J-382	2,547.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.57	93.05
J-383	2,548.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.55	92.61
J-384	2,548.50	Zone	Demand	5.13	COMMERCIAL	5.13	2,762.55	92.61
J-385	2,557.00	Zone	Demand	0.86	COMMERCIAL	0.86	2,762.31	88.83
J-386	2,556.00	Zone	Demand	16.18	COMMERCIAL	16.18	2,762.49	89.34
J-387	2,556.00	Zone	Demand	1.58	Composite	1.58	2,762.48	89.33
J-388	2,559.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.30	87.96
J-389	2,554.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.31	90.13
J-390	2,553.50	Zone	Demand	0.20	COMMERCIAL	0.20	2,762.31	90.34
J-391	2,555.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.31	89.69
J-392	2,554.00	Zone	Demand	7.07	COMMERCIAL	7.07	2,762.31	90.13
J-393	2,552.50	Zone	Demand	0.00	Composite	0.00	2,762.31	90.77
J-394	2,557.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.31	88.83
J-395	2,558.00	Zone	Demand	0.97	COMMERCIAL	0.97	2,762.32	88.40
J-396	2,560.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.35	87.55
J-397	2,560.00	Zone	Demand	0.31	Composite	0.31	2,762.35	87.55
J-398	2,552.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.30	90.99
J-399	2,554.00	Zone	Demand	16.83	RESIDENTIAL	16.83	2,762.29	90.12
J-400	2,556.50	Zone	Demand	12.23	Composite	12.23	2,762.28	89.03
J-401	2,559.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.28	87.73
J-402	2,555.50	Zone	Demand	2.25	COMMERCIAL	2.25	2,762.30	89.47
J-403	2,555.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.30	89.69
J-404	2,562.50	Zone	Demand	0.39	COMMERCIAL	0.39	2,762.29	86.44
J-405	2,567.00	Zone	Demand	3.33	COMMERCIAL	3.33	2,762.29	84.49
J-406	2,553.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.30	90.34
J-407	2,563.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.29	86.22
J-408	2,565.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.25	85.34
J-409	2,558.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.31	88.39
J-410	2,627.50	Zone	Demand	9.74	RESIDENTIAL	9.74	2,763.56	58.87
J-411	2,621.00	Zone	Demand	6.97	Composite	6.97	2,763.52	61.66
J-412	2,602.50	Zone	Demand	11.51	RESIDENTIAL	11.51	2,763.47	69.64
J-413	2,599.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.45	71.15
J-414	2,716.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,836.82	52.27
J-415	2,718.00	Zone	Demand	7.97	Composite	7.97	2,836.82	51.41
J-416	2,810.00	Zone - 1	Demand	0.00	RESIDENTIAL	0.00	2,836.82	11.60
J-417	2,722.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,836.82	49.68
J-418	2,559.50	Zone	Demand	9.74	RESIDENTIAL	9.74	2,762.04	87.63
J-419	2,560.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,762.04	87.20
J-420	2,573.50	Zone	Demand	11.51	RESIDENTIAL	11.51	2,762.04	81.57
J-421	2,574.50	Zone	Demand	6.20	Composite	6.20	2,762.04	81.14
J-422	2,573.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.04	81.79

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-423	2,565.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,762.04	85.03
J-424	2,566.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.04	84.82
J-425	2,578.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,790.69	92.02
J-426	2,578.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,790.69	92.02
J-427	2,579.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.57	90.89
J-428	2,579.50	Zone	Demand	0.52	COMMERCIAL	0.52	2,789.50	90.86
J-429	2,576.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.50	92.37
J-430	2,576.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.50	92.37
J-431	2,576.50	Zone	Demand	0.00	COMMERCIAL	0.00	2,789.50	92.16
J-432	2,576.50	Zone	Demand	0.00	COMMERCIAL	0.00	2,789.50	92.16
J-433	2,572.50	Zone	Demand	0.00	COMMERCIAL	0.00	2,789.50	93.89
J-434	2,572.50	Zone	Demand	0.00	Composite	0.00	2,789.50	93.89
J-435	2,578.50	Zone	Demand	1.77	RESIDENTIAL	1.77	2,789.50	91.29
J-436	2,579.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,789.50	91.07
J-437	2,578.50	Zone	Demand	1.77	RESIDENTIAL	1.77	2,789.50	91.29
J-438	2,579.50	Zone	Demand	1.77	RESIDENTIAL	1.77	2,789.49	90.85
J-439	2,580.50	Zone	Demand	1.77	RESIDENTIAL	1.77	2,789.49	90.42
J-440	2,580.00	Zone	Demand	0.74	Composite	0.74	2,789.49	90.64
J-441	2,554.00	Zone	Demand	10.15	IRRIGATION	10.15	2,762.56	90.23
J-442	2,592.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.67	74.06
J-443	2,556.00	Zone	Demand	6.87	RESIDENTIAL	6.87	2,762.48	89.33
J-444	2,554.00	Zone	Demand	0.65	COMMERCIAL	0.65	2,762.46	90.19
J-445	2,554.00	Zone	Demand	0.10	IRRIGATION	0.10	2,762.47	90.19
J-446	2,555.00	Zone	Demand	7.94	IRRIGATION	7.94	2,762.45	89.76
J-447	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.45	89.32
J-448	2,555.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.45	89.75
J-449	2,554.50	Zone	Demand	1.14	COMMERCIAL	1.14	2,762.45	89.97
J-450	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.44	89.32
J-451	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.43	89.31
J-452	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.43	89.31
J-453	2,556.50	Zone	Demand	0.11	COMMERCIAL	0.11	2,762.42	89.09
J-454	2,557.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.42	88.87
J-455	2,557.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.41	88.87
J-456	2,558.00	Zone	Demand	1.68	IRRIGATION	1.68	2,762.41	88.44
J-457	2,558.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.40	88.22
J-458	2,558.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.41	88.44
J-459	2,557.00	Zone	Demand	0.22	COMMERCIAL	0.22	2,762.42	88.88
J-460	2,556.50	Zone	Demand	0.01	COMMERCIAL	0.01	2,762.43	89.10
J-461	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.44	89.32
J-462	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.43	89.31
J-463	2,557.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.43	88.88
J-464	2,557.00	Zone	Demand	0.50	IRRIGATION	0.50	2,762.43	88.88
J-465	2,556.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.44	89.32
J-466	2,557.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.43	88.66
J-467	2,558.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.43	88.23
J-468	2,558.00	Zone	Demand	0.03	COMMERCIAL	0.03	2,762.43	88.45
J-469	2,557.50	Zone	Demand	0.06	COMMERCIAL	0.06	2,762.43	88.66
J-470	2,558.00	Zone	Demand	0.01	COMMERCIAL	0.01	2,762.43	88.45
J-471	2,554.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.30	89.90
J-472	2,554.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.30	89.90
J-473	2,555.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.30	89.47
J-474	2,559.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.41	87.79

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-475	2,558.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.40	88.43
J-476	2,553.00	Zone	Demand	0.02	COMMERCIAL	0.02	2,762.45	90.62
J-477	2,553.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.59
J-478	2,555.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.30	89.47
J-479	2,553.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.37
J-480	2,553.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.37
J-481	2,555.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	89.51
J-482	2,552.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.81
J-483	2,554.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.16
J-484	2,554.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.16
J-485	2,554.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.16
J-486	2,554.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.16
J-487	2,552.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.81
J-488	2,552.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.38	90.81
J-489	2,561.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,762.05	86.98
J-490	2,565.50	Zone	Demand	3.54	RESIDENTIAL	3.54	2,762.04	85.03
J-491	2,565.50	Zone	Demand	4.43	RESIDENTIAL	4.43	2,762.04	85.03
J-492	2,569.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,762.04	83.52
J-493	2,570.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,762.04	83.09
J-494	2,575.50	Zone	Demand	6.20	RESIDENTIAL	6.20	2,762.04	80.71
J-495	2,639.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,820.94	78.50
J-496	2,628.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,820.93	83.25
J-497	2,628.50	Zone	Demand	33.67	RESIDENTIAL	33.67	2,820.93	83.25
J-498	2,628.00	Zone	Demand	11.51	RESIDENTIAL	11.51	2,820.92	83.47
J-499	2,628.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,820.92	83.47
J-500	2,625.50	Zone	Demand	8.86	RESIDENTIAL	8.86	2,820.92	84.55
J-501	2,613.50	Zone	Demand	10.51	RESIDENTIAL	10.51	2,820.92	89.74
J-502	2,612.50	Zone	Demand	14.18	IRRIGATION	14.18	2,820.92	90.17
J-503	2,616.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,820.92	88.44
J-504	2,587.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.49	76.14
J-505	2,587.50	Zone	Demand	0.01	COMMERCIAL	0.01	2,763.49	76.14
J-506	2,584.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.46	77.65
J-507	2,618.00	Zone	Demand	6.21	RESIDENTIAL	6.21	2,763.28	62.86
J-508	2,592.00	Zone	Demand	10.63	RESIDENTIAL	10.63	2,763.40	74.16
J-509	2,588.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,763.40	75.89
J-510	2,594.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.40	73.29
J-511	2,594.50	Zone	Demand	11.51	RESIDENTIAL	11.51	2,763.38	73.06
J-512	2,595.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.38	72.85
J-513	2,612.00	Zone	Demand	7.09	RESIDENTIAL	7.09	2,763.31	65.46
J-514	2,601.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.39	70.04
J-515	2,593.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.45	73.53
J-516	2,612.00	Zone	Demand	3.53	RESIDENTIAL	3.53	2,763.28	65.45
J-517	2,589.00	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.45	75.47
J-518	2,603.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.38	69.39
J-519	2,604.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.38	68.96
J-520	2,604.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.38	68.74
J-521	2,616.50	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.28	63.51
J-522	2,575.00	Zone	Demand	6.20	RESIDENTIAL	6.20	2,779.42	88.44
J-523	2,578.00	Zone	Demand	2.05	Composite	2.05	2,779.42	87.15
J-524	2,574.00	Zone	Demand	15.12	IRRIGATION	15.12	2,779.18	88.77
J-525	2,559.50	Zone	Demand	2.66	RESIDENTIAL	2.66	2,762.05	87.63
J-527	2,572.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.04	82.22

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-528	2,590.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.49	75.06
J-529	2,546.00	Zone	Demand	11.50	RESIDENTIAL	11.50	2,777.10	99.99
J-530	2,552.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,777.05	97.37
J-531	2,579.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,763.44	79.80
J-532	2,572.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.44	82.61
J-533	2,572.00	Zone	Demand	1.77	RESIDENTIAL	1.77	2,763.44	82.83
J-534	2,572.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,763.43	82.61
J-535	2,572.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.43	82.82
J-536	2,571.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,763.43	83.26
J-537	2,569.50	Zone	Demand	14.18	RESIDENTIAL	14.18	2,763.43	83.91
J-538	2,571.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.44	83.26
J-539	2,572.00	Zone	Demand	2.66	RESIDENTIAL	2.66	2,763.44	82.83
J-540	2,571.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,763.45	83.05
J-541	2,572.50	Zone	Demand	1.77	RESIDENTIAL	1.77	2,763.45	82.61
J-542	2,572.50	Zone	Demand	12.40	RESIDENTIAL	12.40	2,763.46	82.62
J-543	2,553.00	Zone	Demand	5.73	Composite	5.73	2,762.74	90.75
J-544	2,554.00	Zone	Demand	8.46	Composite	8.46	2,762.73	90.31
J-546	2,555.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,762.74	89.88
J-547	2,558.00	Zone	Demand	2.78	COMMERCIAL	2.78	2,762.33	88.40
J-548	2,559.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.28	87.95
J-549	2,559.50	Zone	Demand	7.33	IRRIGATION	7.33	2,762.27	87.73
J-550	2,559.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.26	87.72
J-551	2,559.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.26	87.72
J-552	2,559.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.25	87.72
J-553	2,557.50	Zone	Demand	22.14	RESIDENTIAL	22.14	2,762.26	88.59
J-554	2,557.50	Zone	Demand	17.71	RESIDENTIAL	17.71	2,762.26	88.59
J-555	2,558.50	Zone	Demand	9.74	RESIDENTIAL	9.74	2,762.26	88.16
J-556	2,559.00	Zone	Demand	7.97	Composite	7.97	2,762.26	87.94
J-557	2,560.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.25	87.50
J-558	2,561.50	Zone	Demand	6.26	Composite	6.26	2,762.25	86.86
J-559	2,559.00	Zone	Demand	14.17	RESIDENTIAL	14.17	2,762.25	87.94
J-560	2,558.50	Zone	Demand	7.08	Composite	7.08	2,762.25	88.15
J-561	2,557.50	Zone	Demand	7.08	RESIDENTIAL	7.08	2,762.25	88.59
J-562	2,558.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.25	88.37
J-563	2,557.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.25	88.59
J-564	2,557.50	Zone	Demand	3.54	RESIDENTIAL	3.54	2,762.25	88.59
J-565	2,560.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,762.25	87.50
J-566	2,558.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.26	88.16
J-567	2,556.00	Zone	Demand	3.08	COMMERCIAL	3.08	2,762.28	89.25
J-568	2,615.50	Zone	Demand	14.18	RESIDENTIAL	14.18	2,820.92	88.88
J-569	2,595.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,820.92	97.75
J-570	2,597.50	Zone	Demand	14.18	RESIDENTIAL	14.18	2,820.92	96.66
J-571	2,659.00	Zone	Demand	20.37	RESIDENTIAL	20.37	2,830.12	74.03
J-572	2,643.00	Zone	Demand	11.51	RESIDENTIAL	11.51	2,830.11	80.95
J-573	2,643.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,830.11	80.74
J-574	2,644.00	Zone	Demand	8.86	RESIDENTIAL	8.86	2,830.11	80.52
J-575	2,643.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,830.11	80.74
J-576	2,661.00	Zone	Demand	11.51	RESIDENTIAL	11.51	2,830.39	73.29
J-577	2,649.00	Zone	Demand	15.05	RESIDENTIAL	15.05	2,830.38	78.48
J-578	2,649.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,830.38	78.48
J-579	2,642.00	Zone	Demand	13.28	RESIDENTIAL	13.28	2,830.38	81.50
J-580	2,645.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,830.38	80.20

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-581	2,643.50	Zone	Demand	0.89	RESIDENTIAL	0.89	2,830.38	80.85
J-582	2,643.50	Zone	Demand	3.54	RESIDENTIAL	3.54	2,830.38	80.85
J-583	2,648.00	Zone	Demand	3.54	RESIDENTIAL	3.54	2,830.38	78.91
J-584	2,654.50	Zone	Demand	3.54	RESIDENTIAL	3.54	2,830.38	76.10
J-585	2,652.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,830.38	77.18
J-586	2,650.50	Zone	Demand	5.31	RESIDENTIAL	5.31	2,830.38	77.83
J-587	2,652.00	Zone	Demand	7.08	RESIDENTIAL	7.08	2,772.79	52.26
J-588	2,583.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.95	89.54
J-589	2,576.50	Zone	Demand	0.24	COMMERCIAL	0.24	2,789.64	92.22
J-590	2,574.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.64	93.08
J-591	2,579.50	Zone	Demand	0.33	COMMERCIAL	0.33	2,790.18	91.15
J-592	2,578.00	Zone	Demand	0.50	Composite	0.50	2,790.18	91.80
J-593	2,579.50	Zone	Demand	70.54	IRRIGATION	70.54	2,789.50	90.86
J-594	2,578.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.50	91.29
J-595	2,578.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.23	91.39
J-596	2,578.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.16	91.36
J-597	2,578.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,789.16	91.14
J-598	2,577.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,788.85	91.44
J-599	2,576.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,788.85	92.09
J-600	2,576.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,788.85	92.09
J-601	2,577.00	Zone	Demand	5.13	COMMERCIAL	5.13	2,788.85	91.66
J-602	2,577.50	Zone	Demand	8.96	COMMERCIAL	8.96	2,788.85	91.44
J-603	2,575.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,788.85	92.31
J-604	2,577.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,788.85	91.66
J-605	2,578.00	Zone	Demand	2.61	COMMERCIAL	2.61	2,788.16	90.93
J-606	2,578.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,788.16	90.93
J-607	2,572.00	Zone	Demand	1.83	COMMERCIAL	1.83	2,786.50	92.80
J-608	2,575.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,786.50	91.29
J-609	2,575.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,786.50	91.29
J-610	2,577.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,785.77	90.33
J-611	2,577.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,785.77	90.11
J-612	2,577.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,785.66	90.06
J-613	2,577.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,785.66	90.06
J-614	2,577.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,785.59	90.03
J-615	2,578.00	Zone	Demand	0.00	COMMERCIAL	0.00	2,785.59	89.81
J-616	2,580.00	Zone	Demand	9.80	COMMERCIAL	9.80	2,785.06	88.72
J-617	2,562.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.29	86.66
J-618	2,562.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.29	86.66
J-619	2,562.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.29	86.66
J-620	2,566.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.29	84.71
J-621	2,566.00	Zone	Demand	0.10	COMMERCIAL	0.10	2,762.29	84.93
J-622	2,566.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.29	84.71
J-623	2,567.50	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.29	84.28
J-624	2,567.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,762.29	84.49
J-628	2,569.00	Zone	Demand	19.61	COMMERCIAL	19.61	2,795.00	97.78
J-636	2,578.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,790.69	92.02
J-637	2,558.50	Zone	Demand	12.40	RESIDENTIAL	12.40	2,771.96	92.35
J-638	2,559.00	Zone	Demand	14.18	RESIDENTIAL	14.18	2,771.96	92.14
J-639	2,556.00	Zone	Demand	23.92	Composite	23.92	2,771.95	93.43
J-640	2,564.50	Zone	Demand	15.95	RESIDENTIAL	15.95	2,766.85	87.55
J-650	2,610.00	Zone	Demand	20.37	RESIDENTIAL	20.37	2,763.48	66.40
J-651	2,553.50	Zone	Demand	11.51	RESIDENTIAL	11.51	2,762.57	90.46

Scenario: 2006
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Zone	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-653	2,627.00	Zone	Demand	15.05	RESIDENTIAL	15.05	2,765.50	59.92
J-654	2,682.00	Zone	Demand	19.48	RESIDENTIAL	19.48	2,836.83	66.99
J-655	2,680.00	Zone	Demand	16.83	RESIDENTIAL	16.83	2,836.83	67.85
J-656	2,693.00	Zone	Demand	21.56	RESIDENTIAL	21.56	2,836.82	62.22
J-657	2,563.00	Zone	Demand	15.05	RESIDENTIAL	15.05	2,762.09	86.14
J-658	2,598.00	Zone	Demand	0.27	RESIDENTIAL	0.27	2,763.43	71.58
J-659	2,638.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,775.69	59.57
J-660	2,640.00	Zone	Demand	0.57	COMMERCIAL	0.57	2,775.69	58.70
J-661	2,641.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,775.69	58.27
J-750	2,652.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,838.20	80.56
J-751	2,571.00	Zone	Demand	4.43	RESIDENTIAL	4.43	2,781.90	91.25
J-752	2,567.00	Zone	Demand	18.94	COMMERCIAL	18.94	2,792.84	97.71
J-753	2,569.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.97	84.35
J-754	2,569.00	Zone	Demand	0.00	RESIDENTIAL	0.00	2,763.97	84.35
J-813	2,565.00	Zone	Demand	0.00	Fixed	0.00	2,762.06	85.26
J-814	2,560.50	Zone	Demand	0.00	Fixed	0.00	2,762.05	87.20
J-822	2,615.00	Zone	Demand	0.00	Fixed	0.00	2,763.27	64.15
J-823	2,636.00	Zone	Demand	0.00	Fixed	0.00	2,767.13	56.73
J-824	2,621.00	Zone	Demand	0.00	Fixed	0.00	2,765.51	62.52
J-825	2,609.00	Zone	Demand	0.00	Fixed	0.00	2,781.54	74.65
J-826	2,579.00	Zone	Demand	0.00	Fixed	0.00	2,789.50	91.07
J-827	2,579.00	Zone	Demand	0.00	Fixed	0.00	2,789.50	91.07
J-834	2,585.00	Zone	Demand	0.00	Fixed	0.00	2,789.50	88.48
J-842	2,552.50	Zone	Demand	0.00	Fixed	0.00	2,771.05	94.56
J-844	2,663.30	Zone	Demand	0.62	RESIDENTIAL	0.62	2,825.57	70.21
J-845	2,664.70	Zone	Demand	0.00	Fixed	0.00	2,826.48	70.00
J-846	2,665.90	Zone	Demand	0.00	Fixed	0.00	2,827.31	69.84
J-847	2,661.70	Zone	Demand	1.86	RESIDENTIAL	1.86	2,825.57	70.90
J-848	2,664.70	Zone	Demand	1.25	RESIDENTIAL	1.25	2,826.48	70.00
J-849	2,665.90	Zone	Demand	1.25	RESIDENTIAL	1.25	2,827.31	69.84
J-851	2,574.00	Zone	Demand	0.00	Fixed	0.00	2,785.77	91.62
J-852	2,574.00	Zone	Demand	0.00	Fixed	0.00	2,785.77	91.62
J-853	2,575.00	Zone	Demand	0.00	Fixed	0.00	2,785.77	91.19
J-901	2,591.00	Zone	Demand	0.00	Fixed	0.00	2,764.07	74.88
J-906	2,553.50	Zone	Demand	3.88	COMMERCIAL	3.88	2,777.29	96.82
J-917	2,625.00	Zone	Demand	0.00	Fixed	0.00	2,763.06	59.73
J-981	2,640.00	Zone	Demand	0.00	Fixed	0.00	2,769.19	55.89
J-982	2,644.50	Zone	Demand	0.00	Fixed	0.00	2,773.65	55.88

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-1	370.00	8.0	PVC	Open		356.63	2.28	2,765.15	2,764.26	2.42	0.90
P-2	266.00	6.0	PVC	Open		0.00	0.00	2,764.26	2,764.26	0.00	0.00
P-3	365.00	8.0	PVC	Open		346.85	2.21	2,764.26	2,763.42	2.30	0.84
P-4	357.00	8.0	PVC	Open		153.83	0.98	2,763.42	2,763.24	0.50	0.18
P-5	369.00	8.0	PVC	Open		162.69	1.04	2,763.24	2,763.03	0.56	0.20
P-6	223.00	6.0	PVC	Open		1.06	0.01	2,763.03	2,763.03	0.00	0.00
P-7	358.00	8.0	PVC	Open		161.64	1.03	2,763.03	2,762.84	0.55	0.20
P-8	530.00	8.0	PVC	Open		69.28	0.44	2,762.84	2,762.78	0.12	0.06
P-9	320.00	8.0	PVC	Open		0.00	0.00	2,762.68	2,762.68	0.00	0.00
P-10	680.00	8.0	PVC	Open		50.16	0.32	2,762.84	2,762.79	0.07	0.04
P-11	314.00	8.0	PVC	Open		52.43	0.33	2,762.86	2,762.84	0.07	0.02
P-12	520.00	8.0	PVC	Open		89.61	0.57	2,762.96	2,762.86	0.19	0.10
P-13	660.00	8.0	PVC	Open		142.36	0.91	2,763.24	2,762.96	0.43	0.29
P-14	130.00	6.0	PVC	Open		2.66	0.03	2,762.96	2,762.96	0.00	0.00
P-15	770.00	6.0	PVC	Open		35.04	0.40	2,762.96	2,762.85	0.14	0.11
P-16	446.00	8.0	PVC	Open		27.44	0.18	2,762.86	2,762.85	0.02	0.01
P-17	380.00	8.0	PVC	Open		51.86	0.33	2,762.85	2,762.82	0.07	0.03
P-18	270.00	8.0	PVC	Open		82.41	0.53	2,762.82	2,762.78	0.16	0.04
P-19	440.00	8.0	PVC	Open		102.10	0.65	2,762.77	2,762.66	0.24	0.10
P-20	83.00	8.0	PVC	Open		5.54	0.04	2,762.66	2,762.66	0.00	0.00
P-21	72.00	8.0	PVC	Open		80.41	0.51	2,762.56	2,762.55	0.15	0.01
P-22	572.00	8.0	PVC	Open		87.97	0.56	2,762.66	2,762.56	0.18	0.10
P-23	195.00	6.0	PVC	Open		-20.69	0.23	2,762.77	2,762.78	0.05	0.01
P-24	826.00	6.0	PVC	Open		30.22	0.34	2,762.77	2,762.68	0.11	0.09
P-25	368.00	8.0	PVC	Open		109.89	0.70	2,762.68	2,762.58	0.27	0.10
P-26	282.00	8.0	PVC	Open		85.11	0.54	2,762.73	2,762.68	0.17	0.05
P-27	228.00	8.0	PVC	Open		99.28	0.63	2,762.78	2,762.73	0.22	0.05
P-28	603.00	8.0	PVC	Open		-20.42	0.13	2,762.78	2,762.79	0.01	0.01
P-29	340.00	6.0	PVC	Open		21.05	0.24	2,762.79	2,762.77	0.06	0.02
P-30	560.00	8.0	PVC	Open		55.63	0.36	2,762.83	2,762.79	0.08	0.04
P-31	249.00	8.0	PVC	Open		36.75	0.23	2,762.83	2,762.82	0.04	0.01
P-32	660.00	8.0	PVC	Open		104.79	0.67	2,763.00	2,762.83	0.25	0.16
P-33	400.00	6.0	PVC	Open		4.16	0.05	2,763.00	2,762.99	0.00	0.00
P-34	171.00	8.0	PVC	Open		111.60	0.71	2,763.04	2,763.00	0.28	0.05
P-35	375.00	8.0	PVC	Open		107.88	0.69	2,763.14	2,763.04	0.26	0.10
P-36	180.00	6.0	PVC	Open		49.59	0.56	2,763.19	2,763.14	0.26	0.05
P-37	318.00	6.0	PVC	Open		10.63	0.12	2,763.19	2,763.18	0.02	0.01
P-38	310.00	6.0	PVC	Open		63.76	0.72	2,763.31	2,763.19	0.41	0.13
P-39	238.00	6.0	PVC	Open		74.65	0.85	2,763.44	2,763.31	0.55	0.13
P-40	250.00	6.0	Asbesto:	Open		93.59	1.06	2,763.63	2,763.44	0.73	0.18
P-41	164.00	8.0	PVC	Open		144.45	0.92	2,763.70	2,763.63	0.45	0.07
P-42	64.00	8.0	PVC	Open		59.95	0.38	2,762.78	2,762.77	0.09	0.01
P-43	80.00	8.0	PVC	Open		288.51	1.84	2,763.80	2,763.67	1.62	0.13
P-44	479.00	8.0	PVC	Open		116.86	0.75	2,763.66	2,763.52	0.30	0.14
P-45	70.00	8.0	PVC	Open		270.40	1.73	2,763.80	2,763.70	1.44	0.10
P-46	61.00	8.0	PVC	Open		143.34	0.91	2,762.50	2,762.47	0.44	0.03
P-47	451.00	8.0	PVC	Open		122.41	0.78	2,763.70	2,763.55	0.33	0.15
P-48	172.00	8.0	PVC	Open		94.68	0.60	2,763.55	2,763.52	0.21	0.04
P-49	149.00	6.0	PVC	Open		24.18	0.27	2,763.55	2,763.54	0.07	0.01
P-50	390.00	6.0	Asbesto:	Open		47.32	0.54	2,763.63	2,763.54	0.22	0.09
P-51	250.00	6.0	Asbesto:	Open		68.85	0.78	2,763.54	2,763.43	0.42	0.11

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-52	390.00	6.0	Asbesto:	Open		12.74	0.14	2,763.44	2,763.43	0.02	0.01
P-53	261.00	6.0	Asbesto:	Open		15.94	0.18	2,763.43	2,763.43	0.03	0.01
P-54	211.00	6.0	Asbesto:	Open		3.54	0.04	2,763.43	2,763.43	0.00	0.00
P-55	330.00	6.0	Asbesto:	Open		7.97	0.09	2,763.43	2,763.42	0.01	0.00
P-56	352.00	6.0	PVC	Open		58.56	0.66	2,763.43	2,763.31	0.35	0.12
P-57	330.00	6.0	PVC	Open		-6.46	0.07	2,763.31	2,763.31	0.01	0.00
P-58	220.00	6.0	PVC	Open		-57.05	0.65	2,763.24	2,763.31	0.33	0.07
P-59	444.00	6.0	PVC	Open		8.86	0.10	2,763.24	2,763.23	0.01	0.01
P-60	31.00	6.0	PVC	Open		-43.77	0.50	2,763.23	2,763.24	0.20	0.01
P-61	83.00	6.0	PVC	Open		-21.11	0.24	2,763.23	2,763.23	0.06	0.00
P-63	87.00	6.0	Ductile I	Open		435.36	4.94	2,612.55	2,611.00	17.79	1.55
P-64	15.00	6.0	PVC	Open		-21.11	0.24	2,763.23	2,763.23	0.07	0.00
P-65	251.00	8.0	PVC	Open		67.48	0.43	2,763.23	2,763.20	0.11	0.03
P-66	334.00	6.0	PVC	Open		22.66	0.26	2,763.23	2,763.21	0.06	0.02
P-67	129.00	8.0	PVC	Open		-21.87	0.14	2,763.21	2,763.21	0.02	0.00
P-68	556.00	8.0	PVC	Open		77.76	0.50	2,763.29	2,763.21	0.14	0.08
P-69	387.00	8.0	PVC	Open		40.83	0.26	2,763.20	2,763.18	0.05	0.02
P-71	131.00	8.0	PVC	Open		39.74	0.25	2,763.28	2,763.28	0.04	0.01
P-72	150.00	8.0	PVC	Open		71.82	0.46	2,763.18	2,763.16	0.12	0.02
P-73	326.00	6.0	PVC	Open		24.39	0.28	2,763.16	2,763.14	0.07	0.02
P-74	570.00	6.0	PVC	Open		30.67	0.35	2,763.20	2,763.14	0.11	0.06
P-75	280.00	8.0	PVC	Open		40.11	0.26	2,763.21	2,763.20	0.04	0.01
P-76	402.00	8.0	PVC	Open		0.33	0.00	2,763.20	2,763.20	0.00	0.00
P-77	150.00	6.0	PVC	Open		61.83	0.70	2,763.20	2,763.14	0.39	0.06
P-78	700.00	6.0	PVC	Open		15.23	0.17	2,763.06	2,763.04	0.03	0.02
P-79	325.00	6.0	PVC	Open		45.30	0.51	2,763.14	2,763.06	0.22	0.07
P-80	360.00	6.0	PVC	Open		17.67	0.20	2,763.06	2,763.05	0.04	0.01
P-81	158.00	4.0	PVC	Open		4.43	0.11	2,763.05	2,763.05	0.02	0.00
P-82	985.00	6.0	PVC	Open		0.93	0.01	2,763.05	2,763.05	0.00	0.00
P-83	930.00	8.0	PVC	Open		96.25	0.61	2,763.05	2,762.85	0.21	0.20
P-84	550.00	6.0	PVC	Open		7.97	0.09	2,762.85	2,762.85	0.01	0.01
P-85	410.00	8.0	PVC	Open		87.71	0.56	2,762.85	2,762.78	0.18	0.07
P-86	660.00	6.0	PVC	Open		20.68	0.23	2,762.89	2,762.85	0.05	0.04
P-87	130.00	4.0	PVC	Open		4.43	0.11	2,762.89	2,762.89	0.02	0.00
P-88	314.00	4.0	PVC	Open		8.86	0.23	2,762.89	2,762.86	0.09	0.03
P-89	1,283.00	6.0	PVC	Open		51.68	0.59	2,763.25	2,762.89	0.28	0.36
P-90	910.00	6.0	PVC	Open		14.08	0.16	2,763.25	2,763.22	0.03	0.02
P-91	383.00	8.0	PVC	Open		92.26	0.59	2,763.22	2,763.15	0.20	0.07
P-92	300.00	8.0	PVC	Open		37.68	0.24	2,763.16	2,763.15	0.04	0.01
P-93	292.00	8.0	PVC	Open		123.75	0.79	2,763.15	2,763.05	0.33	0.10
P-94	372.00	8.0	PVC	Open		84.38	0.54	2,763.28	2,763.22	0.17	0.06
P-95	150.00	2.0	PVC	Open		4.43	0.45	2,763.28	2,763.18	0.72	0.11
P-96	340.00	8.0	PVC	Open		92.35	0.59	2,763.35	2,763.28	0.20	0.07
P-97	125.00	8.0	PVC	Open		74.52	0.48	2,763.37	2,763.35	0.13	0.02
P-98	158.00	2.0	PVC	Open		4.43	0.45	2,763.37	2,763.25	0.72	0.11
P-99	360.00	8.0	PVC	Open		81.60	0.52	2,763.42	2,763.37	0.16	0.06
P-100	809.00	6.0	PVC	Open		27.58	0.31	2,763.42	2,763.35	0.09	0.07
P-101	95.00	4.0	PVC	Open		2.66	0.07	2,763.28	2,763.28	0.01	0.00
P-102	620.00	8.0	PVC	Open		119.80	0.76	2,763.62	2,763.42	0.32	0.20
P-103	150.00	6.0	PVC	Open		-1.23	0.01	2,764.71	2,764.71	0.00	0.00
P-104	980.00	6.0	PVC	Open		97.63	1.11	2,764.71	2,763.83	0.90	0.88

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-105	280.00	4.0	PVC	Open		10.07	0.26	2,763.83	2,763.80	0.11	0.03
P-106	50.00	6.0	PVC	Open		79.59	0.90	2,763.83	2,763.80	0.62	0.03
P-107	233.00	4.0	PVC	Open		1.22	0.03	2,763.80	2,763.80	0.00	0.00
P-108	110.00	4.0	PVC	Open		6.20	0.16	2,763.80	2,763.80	0.05	0.01
P-109	207.00	6.0	PVC	Open		78.15	0.89	2,763.80	2,763.68	0.59	0.12
P-110	300.00	6.0	PVC	Open		125.84	1.43	2,763.68	2,763.25	1.44	0.43
P-111	470.00	6.0	PVC	Open		53.00	0.60	2,763.25	2,763.11	0.29	0.14
P-112	120.00	2.0	PVC	Open		3.54	0.36	2,763.11	2,763.05	0.48	0.06
P-113	124.00	6.0	PVC	Open		47.69	0.54	2,763.11	2,763.08	0.24	0.03
P-114	145.00	6.0	PVC	Open		27.69	0.31	2,763.08	2,763.07	0.09	0.01
P-115	430.00	6.0	PVC	Open		13.29	0.15	2,763.07	2,763.06	0.02	0.01
P-116	316.00	8.0	PVC	Open		0.00	0.00	2,763.06	2,763.06	0.00	0.00
P-117	250.00	6.0	PVC	Open		-10.84	0.12	2,763.06	2,763.07	0.02	0.00
P-118	190.00	4.0	PVC	Open		2.64	0.07	2,763.06	2,763.06	0.01	0.00
P-119	240.00	6.0	PVC	Open		-5.53	0.06	2,763.06	2,763.06	0.00	0.00
P-120	621.00	6.0	PVC	Open		0.10	0.00	2,763.06	2,763.06	0.00	0.00
P-121	100.00	4.0	PVC	Open		3.54	0.09	2,763.06	2,763.06	0.01	0.00
P-122	280.00	6.0	PVC	Open		-7.61	0.09	2,763.06	2,763.06	0.01	0.00
P-123	140.00	6.0	PVC	Open		3.54	0.04	2,763.06	2,763.06	0.00	0.00
P-124	530.00	6.0	PVC	Open		14.69	0.17	2,763.08	2,763.06	0.03	0.02
P-125	270.00	6.0	PVC	Open		-1.88	0.02	2,763.06	2,763.06	0.00	0.00
P-126	78.00	6.0	PVC	Open		12.40	0.14	2,763.06	2,763.06	0.02	0.00
P-127	610.00	4.0	PVC	Open		9.74	0.25	2,763.06	2,763.00	0.10	0.06
P-128	430.00	8.0	PVC	Open		10.52	0.07	2,763.06	2,763.06	0.00	0.00
P-129	250.00	8.0	PVC	Open		-9.74	0.06	2,763.06	2,763.06	0.00	0.00
P-130	480.00	6.0	PVC	Open		9.75	0.11	2,763.06	2,763.06	0.01	0.01
P-131	100.00	6.0	PVC	Open		2.66	0.03	2,763.06	2,763.06	0.00	0.00
P-132	80.00	6.0	PVC	Open		2.66	0.03	2,763.06	2,763.06	0.00	0.00
P-133	165.00	8.0	PVC	Open		7.09	0.05	2,763.06	2,763.06	0.00	0.00
P-134	270.00	6.0	PVC	Open		5.31	0.06	2,763.06	2,763.06	0.00	0.00
P-135	243.00	8.0	PVC	Open		19.49	0.12	2,763.07	2,763.06	0.01	0.00
P-136	600.00	8.0	PVC	Open		166.26	1.06	2,763.07	2,762.72	0.58	0.35
P-137	1,300.00	8.0	PVC	Open		191.06	1.22	2,764.04	2,763.07	0.75	0.97
P-138	194.00	8.0	PVC	Open		88.72	0.57	2,764.04	2,764.00	0.18	0.04
P-139	1,200.00	4.0	PVC	Open		30.57	0.78	2,764.00	2,763.06	0.78	0.94
P-140	400.00	8.0	PVC	Open		58.15	0.37	2,764.00	2,763.97	0.08	0.03
P-141	67.00	8.0	PVC	Open		0.00	0.00	2,763.97	2,763.97	0.00	0.00
P-142	940.00	6.0	PVC	Open		54.77	0.62	2,763.97	2,763.68	0.31	0.29
P-143	95.00	8.0	PVC	Open		285.09	1.82	2,764.19	2,764.04	1.59	0.15
P-144	700.00	8.0	PVC	Open		319.63	2.04	2,765.57	2,764.19	1.97	1.38
P-145	260.00	8.0	PVC	Open		101.31	0.65	2,765.51	2,765.45	0.23	0.06
P-146	420.00	8.0	PVC	Open		447.06	2.85	2,767.13	2,765.57	3.73	1.57
P-147	656.00	8.0	PVC	Open		29.22	0.19	2,764.19	2,764.17	0.02	0.02
P-148	548.00	6.0	PVC	Open		9.98	0.11	2,764.17	2,764.16	0.02	0.01
P-149	1,112.00	6.0	PVC	Open		6.84	0.08	2,764.17	2,764.16	0.01	0.01
P-150	867.00	12.0	PVC	Open		1,302.52	3.69	2,778.61	2,775.38	3.72	3.23
P-151	601.00	6.0	PVC	Open		2.66	0.03	2,764.16	2,764.16	0.00	0.00
P-152	570.00	8.0	PVC	Open		314.67	2.01	2,764.71	2,763.62	1.91	1.09
P-154	5.00	6.0	Ductile I	Open		46.37	0.53	2,611.00	2,611.00	0.24	0.00
P-155	5.00	6.0	Ductile I	Open		-0.00	0.00	2,611.00	2,611.00	0.00	0.00
P-156	5.00	6.0	Ductile I	Open		-0.00	0.00	2,611.00	2,611.00	0.00	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-157	20.00	6.0	Ductile Ir	Open		46.37	0.53	2,763.23	2,763.23	0.26	0.01
P-158	15.00	6.0	Ductile Ir	Open		-0.00	0.00	2,763.23	2,763.23	0.00	0.00
P-159	10.00	6.0	Ductile Ir	Open		-0.00	0.00	2,763.23	2,763.23	0.00	0.00
P-160	170.00	8.0	PVC	Open		5.72	0.04	2,762.23	2,762.23	0.00	0.00
P-161	575.00	8.0	PVC	Open		-5.36	0.03	2,762.23	2,762.23	0.00	0.00
P-162	797.00	6.0	PVC	Open		-1.32	0.01	2,762.23	2,762.23	0.00	0.00
P-163	505.00	6.0	PVC	Open		-17.31	0.20	2,762.23	2,762.25	0.04	0.02
P-164	420.00	8.0	PVC	Open		317.67	2.03	2,765.53	2,764.71	1.94	0.82
P-165	150.00	8.0	PVC	Open		76.03	0.49	2,765.53	2,765.51	0.14	0.02
P-166	507.00	8.0	PVC	Open		160.05	1.02	2,762.72	2,762.45	0.54	0.27
P-167	1.00	96.0	PVC	Open		558.91	0.02	2,534.00	2,534.00	0.00	0.00
P-169	48.00	8.0	PVC	Open		558.91	3.57	2,764.07	2,763.80	5.72	0.27
P-170	364.00	4.0	PVC	Open		3.54	0.09	2,762.77	2,762.77	0.01	0.00
P-171	880.00	8.0	PVC	Open		393.70	2.51	2,768.10	2,765.53	2.92	2.57
P-172	340.00	8.0	PVC	Open		80.27	0.51	2,762.55	2,762.50	0.15	0.05
P-173	160.00	6.0	PVC	Open		0.14	0.00	2,762.55	2,762.55	0.00	0.00
P-174	460.00	8.0	PVC	Open		7.08	0.05	2,762.73	2,762.73	0.00	0.00
P-175	260.00	8.0	PVC	Open		49.69	0.32	2,763.21	2,763.20	0.06	0.02
P-176	80.00	2.0	PVC	Open		2.66	0.27	2,763.20	2,763.17	0.29	0.02
P-177	170.00	8.0	PVC	Open		35.43	0.23	2,762.58	2,762.58	0.04	0.01
P-178	420.00	6.0	PVC	Open		3.46	0.04	2,762.57	2,762.57	0.00	0.00
P-179	393.00	8.0	PVC	Open		16.75	0.11	2,762.58	2,762.57	0.01	0.00
P-180	120.00	8.0	PVC	Open		5.32	0.03	2,762.57	2,762.57	0.00	0.00
P-181	394.00	8.0	PVC	Open		64.66	0.41	2,762.56	2,762.52	0.10	0.04
P-182	225.00	8.0	PVC	Open		63.07	0.40	2,762.52	2,762.50	0.10	0.02
P-183	442.00	8.0	PVC	Open		120.71	0.77	2,762.47	2,762.33	0.32	0.14
P-185	258.00	8.0	PVC	Open		144.12	0.92	2,765.45	2,765.34	0.44	0.11
P-186	1,300.00	6.0	PVC	Open		55.98	0.64	2,765.34	2,764.92	0.32	0.42
P-187	700.00	6.0	PVC	Open		78.49	0.89	2,765.34	2,764.92	0.60	0.42
P-188	800.00	8.0	PVC	Open		107.90	0.69	2,764.92	2,764.71	0.26	0.21
P-189	158.00	8.0	PVC	Open		127.43	0.81	2,765.57	2,765.51	0.35	0.06
P-190	700.00	8.0	PVC	Open		37.29	0.24	2,765.48	2,765.45	0.04	0.03
P-191	260.00	8.0	PVC	Open		66.73	0.43	2,765.51	2,765.48	0.11	0.03
P-192	700.00	6.0	PVC	Open		17.02	0.19	2,765.48	2,765.45	0.04	0.03
P-193	698.00	6.0	PVC	Open		-4.88	0.06	2,765.50	2,765.51	0.00	0.00
P-194	448.00	8.0	PVC	Open		27.45	0.18	2,765.15	2,765.14	0.02	0.01
P-195	480.00	8.0	PVC	Open		8.17	0.05	2,765.14	2,765.14	0.00	0.00
P-196	800.00	8.0	PVC	Open		6.88	0.04	2,765.14	2,765.14	0.00	0.00
P-197	242.00	8.0	PVC	Open		0.00	0.00	2,765.14	2,765.14	0.00	0.00
P-198	371.00	8.0	PVC	Open		388.35	2.48	2,766.21	2,765.15	2.85	1.06
P-199	846.00	8.0	PVC	Open		22.84	0.15	2,766.21	2,766.20	0.02	0.01
P-200	1,095.00	8.0	PVC	Open		46.94	0.30	2,766.92	2,766.86	0.06	0.06
P-201	221.00	8.0	PVC	Open		413.95	2.64	2,766.92	2,766.21	3.22	0.71
P-202	273.00	8.0	PVC	Open		274.58	1.75	2,767.32	2,766.92	1.48	0.40
P-203	523.00	8.0	PVC	Open		187.33	1.20	2,767.30	2,766.92	0.72	0.38
P-204	573.00	8.0	PVC	Open		15.53	0.10	2,766.86	2,766.85	0.01	0.00
P-205	257.00	8.0	PVC	Open		64.00	0.41	2,767.32	2,767.30	0.10	0.03
P-206	616.00	8.0	PVC	Open		129.76	0.83	2,767.52	2,767.30	0.37	0.23
P-207	173.00	6.0	PVC	Open		3.54	0.04	2,767.52	2,767.52	0.00	0.00
P-208	796.00	8.0	PVC	Open		147.47	0.94	2,767.89	2,767.52	0.46	0.37
P-209	188.00	6.0	PVC	Open		4.43	0.05	2,767.89	2,767.89	0.00	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-210	310.00	8.0	PVC	Open		157.99	1.01	2,768.05	2,767.89	0.53	0.16
P-211	158.00	6.0	PVC	Open		4.43	0.05	2,768.05	2,768.05	0.00	0.00
P-212	275.00	8.0	PVC	Open		163.66	1.04	2,768.21	2,768.05	0.56	0.15
P-213	272.00	6.0	PVC	Open		8.86	0.10	2,768.21	2,768.21	0.01	0.00
P-214	270.00	8.0	PVC	Open		178.45	1.14	2,768.39	2,768.21	0.66	0.18
P-215	438.00	8.0	PVC	Open		7.35	0.05	2,768.39	2,768.39	0.00	0.00
P-216	49.00	6.0	PVC	Open		1.77	0.02	2,768.39	2,768.39	0.00	0.00
P-217	129.00	6.0	PVC	Open		3.54	0.04	2,768.39	2,768.39	0.00	0.00
P-218	168.00	8.0	PVC	Open		192.00	1.23	2,768.51	2,768.39	0.76	0.13
P-219	462.00	8.0	PVC	Open		9.74	0.06	2,767.82	2,767.82	0.00	0.00
P-220	225.00	8.0	PVC	Open		339.46	2.17	2,767.82	2,767.32	2.21	0.50
P-221	276.00	8.0	PVC	Open		363.47	2.32	2,768.51	2,767.82	2.51	0.69
P-223	460.00	8.0	PVC	Open		630.84	4.03	2,775.30	2,771.98	7.22	3.32
P-224	1,737.00	12.0	PVC	Open		655.69	1.86	2,777.05	2,775.30	1.00	1.74
P-225	309.00	8.0	PVC	Open		52.22	0.33	2,777.17	2,777.15	0.07	0.02
P-226	502.00	8.0	PVC	Open		9.73	0.06	2,777.15	2,777.15	0.00	0.00
P-227	237.00	4.0	PVC	Open		6.20	0.16	2,777.15	2,777.14	0.05	0.01
P-228	299.00	8.0	PVC	Open		29.21	0.19	2,777.15	2,777.14	0.02	0.01
P-229	498.00	6.0	PVC	Open		7.08	0.08	2,777.14	2,777.14	0.01	0.00
P-230	317.00	4.0	PVC	Open		7.08	0.18	2,777.14	2,777.12	0.06	0.02
P-231	327.00	8.0	PVC	Open		11.50	0.07	2,777.14	2,777.14	0.01	0.00
P-232	487.00	12.0	PVC	Open		61.35	0.17	2,777.05	2,777.04	0.01	0.01
P-233	464.00	6.0	PVC	Open		5.31	0.06	2,777.04	2,777.04	0.00	0.00
P-234	494.00	6.0	PVC	Open		5.31	0.06	2,777.04	2,777.04	0.00	0.00
P-235	332.00	12.0	PVC	Open		40.99	0.12	2,777.04	2,777.04	0.01	0.00
P-236	458.00	8.0	PVC	Open		4.43	0.03	2,777.04	2,777.04	0.00	0.00
P-237	298.00	6.0	PVC	Open		2.02	0.02	2,777.04	2,777.04	0.00	0.00
P-238	363.00	12.0	PVC	Open		31.01	0.09	2,777.04	2,777.04	0.00	0.00
P-239	465.00	8.0	PVC	Open		22.15	0.14	2,777.04	2,777.03	0.02	0.01
P-240	513.00	12.0	PVC	Open		4.43	0.01	2,777.04	2,777.04	0.00	0.00
P-241	654.00	8.0	PVC	Open		19.38	0.12	2,762.48	2,762.47	0.01	0.01
P-242	880.00	12.0	PVC	Open		73.94	0.21	2,763.46	2,763.45	0.02	0.02
P-243	980.00	12.0	PVC	Open		-15.72	0.04	2,763.45	2,763.45	0.00	0.00
P-244	759.00	12.0	PVC	Open		32.64	0.09	2,763.43	2,763.43	0.00	0.00
P-245	100.00	12.0	PVC	Open		0.00	0.00	2,763.43	2,763.43	0.00	0.00
P-246	430.00	8.0	PVC	Open		28.36	0.18	2,763.43	2,763.42	0.02	0.01
P-247	712.00	8.0	PVC	Open		12.48	0.08	2,763.42	2,763.42	0.01	0.00
P-248	760.00	8.0	PVC	Open		13.22	0.08	2,763.42	2,763.42	0.01	0.00
P-249	50.00	8.0	PVC	Open		0.00	0.00	2,763.42	2,763.42	0.00	0.00
P-250	263.00	8.0	PVC	Open		2.73	0.02	2,763.42	2,763.42	0.00	0.00
P-251	50.00	8.0	PVC	Open		0.00	0.00	2,763.42	2,763.42	0.00	0.00
P-252	800.00	8.0	PVC	Open		7.16	0.05	2,763.42	2,763.42	0.00	0.00
P-253	655.00	12.0	PVC	Open		16.29	0.05	2,763.45	2,763.45	0.00	0.00
P-254	370.00	8.0	PVC	Open		16.28	0.10	2,763.45	2,763.44	0.01	0.00
P-255	1,670.00	12.0	PVC	Open		0.00	0.00	2,763.45	2,763.45	0.00	0.00
P-256	40.00	8.0	PVC	Open		0.00	0.00	2,763.45	2,763.45	0.00	0.00
P-257	650.00	12.0	PVC	Open		0.00	0.00	2,763.45	2,763.45	0.00	0.00
P-258	40.00	8.0	PVC	Open		0.00	0.00	2,763.45	2,763.45	0.00	0.00
P-259	1,020.00	12.0	PVC	Open		0.00	0.00	2,763.45	2,763.45	0.00	0.00
P-260	480.00	8.0	PVC	Open		147.64	0.94	2,762.45	2,762.22	0.46	0.22
P-261	167.00	8.0	PVC	Open		150.48	0.96	2,762.22	2,762.14	0.48	0.08

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-262	395.00	8.0	PVC	Open		83.34	0.53	2,762.14	2,762.08	0.16	0.06
P-263	527.00	8.0	PVC	Open		35.01	0.22	2,762.08	2,762.06	0.03	0.02
P-264	477.00	8.0	PVC	Open		36.82	0.23	2,762.08	2,762.06	0.04	0.02
P-265	341.00	8.0	PVC	Open		3.65	0.02	2,762.06	2,762.06	0.00	0.00
P-266	261.00	8.0	PVC	Open		31.57	0.20	2,762.06	2,762.05	0.03	0.01
P-267	136.00	8.0	PVC	Open		35.06	0.22	2,762.05	2,762.05	0.03	0.00
P-268	604.00	8.0	PVC	Open		13.23	0.08	2,762.06	2,762.05	0.01	0.00
P-269	355.00	8.0	PVC	Open		18.09	0.12	2,762.06	2,762.06	0.01	0.00
P-270	776.00	8.0	PVC	Open		51.21	0.33	2,762.14	2,762.09	0.07	0.05
P-271	810.00	8.0	PVC	Open		13.47	0.09	2,762.23	2,762.22	0.01	0.01
P-272	547.00	8.0	PVC	Open		8.86	0.06	2,762.23	2,762.23	0.00	0.00
P-273	618.00	8.0	PVC	Open		32.47	0.21	2,762.25	2,762.23	0.03	0.02
P-274	332.00	8.0	PVC	Open		37.08	0.24	2,762.26	2,762.25	0.04	0.01
P-275	700.00	8.0	PVC	Open		15.67	0.10	2,762.26	2,762.25	0.01	0.01
P-276	83.00	8.0	PVC	Open		53.20	0.34	2,762.27	2,762.26	0.07	0.01
P-277	419.00	8.0	PVC	Open		17.73	0.11	2,762.27	2,762.27	0.01	0.00
P-278	620.00	12.0	PVC	Open		0.00	0.00	2,762.25	2,762.25	0.00	0.00
P-280	813.00	8.0	PVC	Open		12.41	0.08	2,763.42	2,763.41	0.01	0.00
P-281	287.00	12.0	PVC	Open		1,130.78	3.21	2,796.00	2,795.19	2.83	0.81
P-282	797.00	12.0	PVC	Open		1,108.33	3.14	2,792.84	2,790.67	2.73	2.17
P-283	320.00	8.0	PVC	Open		2.42	0.02	2,790.67	2,790.67	0.00	0.00
P-284	388.00	12.0	PVC	Open		1,105.08	3.13	2,790.67	2,789.61	2.71	1.05
P-285	1,528.00	12.0	PVC	Open		291.51	0.83	2,789.95	2,789.61	0.22	0.34
P-286	358.00	12.0	PVC	Open		1,372.90	3.89	2,789.61	2,788.14	4.12	1.47
P-287	419.00	8.0	PVC	Open		320.70	2.05	2,788.14	2,787.31	1.98	0.83
P-288	341.00	8.0	PVC	Open		310.96	1.98	2,787.31	2,786.67	1.87	0.64
P-289	193.00	8.0	PVC	Open		3.54	0.02	2,787.31	2,787.31	0.00	0.00
P-290	267.00	12.0	PVC	Open		1,047.77	2.97	2,788.14	2,787.48	2.45	0.65
P-291	640.00	8.0	PVC	Open		178.90	1.14	2,787.10	2,786.67	0.66	0.42
P-292	460.00	12.0	PVC	Open		637.16	1.81	2,787.10	2,786.66	0.95	0.44
P-293	302.00	8.0	PVC	Open		191.96	1.23	2,786.89	2,786.66	0.76	0.23
P-294	213.00	12.0	PVC	Open		821.15	2.33	2,786.66	2,786.33	1.54	0.33
P-295	511.00	12.0	PVC	Open		949.89	2.69	2,786.33	2,785.29	2.03	1.04
P-296	305.00	12.0	PVC	Open		131.65	0.37	2,786.35	2,786.33	0.05	0.02
P-297	650.00	8.0	PVC	Open		0.00	0.00	2,786.35	2,786.35	0.00	0.00
P-298	516.00	12.0	PVC	Open		580.30	1.65	2,786.35	2,785.94	0.80	0.41
P-299	19.00	12.0	PVC	Open		435.34	1.23	2,785.94	2,785.93	0.46	0.01
P-300	1,334.00	8.0	PVC	Open		144.96	0.93	2,785.94	2,785.34	0.45	0.60
P-301	241.00	8.0	PVC	Open		464.77	2.97	2,768.10	2,767.13	4.01	0.97
P-302	911.00	12.0	PVC	Open		858.47	2.44	2,769.62	2,768.10	1.67	1.52
P-303	156.00	8.0	PVC	Open		147.95	0.94	2,769.70	2,769.62	0.47	0.07
P-304	239.00	8.0	PVC	Open		30.42	0.19	2,769.70	2,769.70	0.03	0.01
P-305	176.00	8.0	PVC	Open		10.63	0.07	2,769.70	2,769.70	0.00	0.00
P-306	140.00	6.0	PVC	Open		4.43	0.05	2,769.70	2,769.70	0.00	0.00
P-307	283.00	8.0	PVC	Open		4.43	0.03	2,769.70	2,769.70	0.00	0.00
P-308	265.00	8.0	PVC	Open		43.71	0.28	2,769.72	2,769.70	0.05	0.01
P-309	205.00	6.0	PVC	Open		5.31	0.06	2,769.72	2,769.72	0.00	0.00
P-310	977.00	8.0	PVC	Open		57.87	0.37	2,769.80	2,769.72	0.08	0.08
P-311	142.00	6.0	PVC	Open		4.43	0.05	2,769.80	2,769.80	0.00	0.00
P-312	850.00	8.0	PVC	Open		77.36	0.49	2,769.92	2,769.80	0.14	0.12
P-313	666.00	8.0	PVC	Open		123.72	0.79	2,769.92	2,769.70	0.33	0.22

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-314	402.00	8.0	PVC	Open		214.36	1.37	2,770.29	2,769.92	0.93	0.37
P-315	547.00	8.0	PVC	Open		162.83	1.04	2,770.60	2,770.29	0.56	0.30
P-316	401.00	8.0	PVC	Open		59.50	0.38	2,770.33	2,770.29	0.09	0.04
P-317	742.00	8.0	PVC	Open		29.00	0.19	2,770.35	2,770.33	0.02	0.02
P-318	343.00	6.0	PVC	Open		6.20	0.07	2,770.35	2,770.34	0.01	0.00
P-319	273.00	8.0	PVC	Open		43.17	0.28	2,770.36	2,770.35	0.05	0.01
P-320	288.00	8.0	PVC	Open		51.35	0.33	2,770.36	2,770.34	0.07	0.02
P-321	290.00	8.0	PVC	Open		30.05	0.19	2,770.37	2,770.36	0.03	0.01
P-322	133.00	8.0	PVC	Open		12.41	0.08	2,770.37	2,770.37	0.01	0.00
P-323	270.00	8.0	PVC	Open		41.13	0.26	2,770.34	2,770.33	0.05	0.01
P-324	472.00	6.0	PVC	Open		7.98	0.09	2,770.34	2,770.33	0.01	0.00
P-325	298.00	8.0	PVC	Open		147.66	0.94	2,770.60	2,770.46	0.46	0.14
P-326	747.00	8.0	PVC	Open		74.21	0.47	2,770.46	2,770.36	0.13	0.10
P-327	1,154.00	8.0	PVC	Open		55.73	0.36	2,770.46	2,770.37	0.08	0.09
P-328	160.00	8.0	PVC	Open		314.55	2.01	2,770.90	2,770.60	1.91	0.31
P-329	1,094.00	12.0	PVC	Open		710.52	2.02	2,770.90	2,769.62	1.17	1.28
P-330	804.00	12.0	PVC	Open		1,025.07	2.91	2,772.79	2,770.90	2.35	1.89
P-331	474.00	8.0	PVC	Open		141.96	0.91	2,820.78	2,820.58	0.43	0.20
P-332	221.00	6.0	PVC	Open		3.86	0.04	2,820.78	2,820.78	0.00	0.00
P-333	260.00	8.0	PVC	Open		156.45	1.00	2,820.91	2,820.78	0.52	0.13
P-334	213.00	6.0	PVC	Open		0.00	0.00	2,820.91	2,820.91	0.00	0.00
P-335	138.00	8.0	PVC	Open		3.54	0.02	2,820.91	2,820.91	0.00	0.00
P-336	267.00	8.0	PVC	Open		164.42	1.05	2,821.07	2,820.91	0.57	0.15
P-337	592.00	12.0	PVC	Open		178.49	0.51	2,821.07	2,821.01	0.09	0.05
P-338	260.00	12.0	PVC	Open		352.65	1.00	2,821.15	2,821.07	0.31	0.08
P-339	281.00	8.0	PVC	Open		16.83	0.11	2,821.15	2,821.14	0.01	0.00
P-340	449.00	12.0	PVC	Open		375.67	1.07	2,821.31	2,821.15	0.35	0.16
P-341	174.00	6.0	PVC	Open		4.43	0.05	2,821.14	2,821.14	0.00	0.00
P-342	286.00	8.0	PVC	Open		7.97	0.05	2,821.14	2,821.14	0.00	0.00
P-343	402.00	12.0	PVC	Open		895.86	2.54	2,821.31	2,820.58	1.82	0.73
P-344	1,192.00	12.0	PVC	Open		1,276.53	3.62	2,825.57	2,821.31	3.58	4.27
P-345	504.00	12.0	PVC	Open		463.55	1.32	2,830.40	2,830.13	0.52	0.26
P-346	261.00	12.0	PVC	Open		61.10	0.17	2,830.40	2,830.39	0.01	0.00
P-347	228.00	8.0	PVC	Open		24.55	0.16	2,830.39	2,830.39	0.02	0.00
P-348	532.00	12.0	PVC	Open		1,288.82	3.66	2,830.09	2,828.15	3.65	1.94
P-349	172.00	12.0	PVC	Open		866.01	2.46	2,830.38	2,830.09	1.70	0.29
P-350	180.00	8.0	PVC	Open		0.89	0.01	2,830.38	2,830.38	0.00	0.00
P-351	641.00	12.0	PVC	Open		873.09	2.48	2,831.49	2,830.38	1.73	1.11
P-352	215.00	8.0	PVC	Open		524.66	3.35	2,831.49	2,830.40	5.06	1.09
P-353	228.00	12.0	PVC	Open		1,406.60	3.99	2,832.47	2,831.49	4.32	0.98
P-354	388.00	8.0	PVC	Open		7.08	0.05	2,832.47	2,832.47	0.00	0.00
P-355	278.00	12.0	PVC	Open		1,413.69	4.01	2,833.68	2,832.47	4.36	1.21
P-356	862.00	8.0	PVC	Open		260.74	1.66	2,834.84	2,833.68	1.34	1.16
P-357	384.00	12.0	PVC	Open		1,166.23	3.31	2,834.84	2,833.68	3.01	1.16
P-358	445.00	12.0	PVC	Open		1,441.14	4.09	2,836.85	2,834.84	4.52	2.01
P-359	285.00	12.0	PVC	Open		116.31	0.33	2,836.85	2,836.84	0.04	0.01
P-360	433.00	12.0	PVC	Open		530.35	1.50	2,837.14	2,836.85	0.67	0.29
P-361	110.00	12.0	PVC	Open		422.82	1.20	2,830.13	2,830.09	0.44	0.05
P-362	701.00	12.0	PVC	Open		1,036.84	2.94	2,838.53	2,836.85	2.40	1.68
P-363	278.00	12.0	PVC	Open		1,313.37	3.73	2,839.58	2,838.53	3.78	1.05
P-364	1,033.00	8.0	PVC	Open		261.48	1.67	2,838.53	2,837.14	1.35	1.39

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-365	213.00	8.0	PVC	Open		518.99	3.31	2,838.20	2,837.14	4.96	1.06
P-366	15.00	8.0	PVC	Open		0.00	0.00	2,838.20	2,838.20	0.00	0.00
P-367	928.00	8.0	PVC	Open		518.99	3.31	2,842.80	2,838.20	4.96	4.60
P-370	40.00	8.0	PVC	Open		12.41	0.08	2,762.45	2,762.45	0.01	0.00
P-371	40.00	8.0	PVC	Open		10.63	0.07	2,762.22	2,762.22	0.01	0.00
P-372	360.00	12.0	PVC	Open		188.67	0.54	2,763.62	2,763.58	0.10	0.04
P-373	479.00	8.0	PVC	Open		31.62	0.20	2,762.32	2,762.30	0.03	0.01
P-374	102.00	12.0	PVC	Open		717.03	2.03	2,777.17	2,777.05	1.19	0.12
P-375	90.00	12.0	PVC	Open		769.25	2.18	2,777.29	2,777.17	1.36	0.12
P-376	789.00	12.0	PVC	Open		1,059.99	3.01	2,841.56	2,839.58	2.50	1.98
P-377	1,321.00	8.0	PVC	Open		276.41	1.76	2,841.56	2,839.58	1.50	1.98
P-378	203.00	12.0	PVC	Open		1,353.22	3.84	2,842.37	2,841.56	4.00	0.81
P-379	775.00	12.0	PVC	Open		1,302.52	3.69	2,775.38	2,772.50	3.72	2.88
P-380	558.00	12.0	PVC	Open		0.00	0.00	2,820.94	2,820.94	0.00	0.00
P-381	890.00	12.0	PVC	Open		1,302.52	3.69	2,772.50	2,769.19	3.72	3.31
P-383	107.00	12.0	PVC	Open		1,353.22	3.84	2,842.80	2,842.37	4.00	0.43
P-384	154.00	8.0	PVC	Open		222.85	1.42	2,787.48	2,787.33	1.00	0.15
P-385	378.00	6.0	PVC	Open		4.43	0.05	2,787.33	2,787.33	0.00	0.00
P-386	257.00	8.0	PVC	Open		210.45	1.34	2,787.33	2,787.10	0.90	0.23
P-387	333.00	8.0	PVC	Open		6.10	0.04	2,787.10	2,787.10	0.00	0.00
P-388	270.00	8.0	PVC	Open		197.27	1.26	2,787.10	2,786.89	0.79	0.21
P-389	185.00	8.0	PVC	Open		0.00	0.00	2,786.89	2,786.89	0.00	0.00
P-390	419.00	8.0	PVC	Open		479.23	3.06	2,786.67	2,784.89	4.26	1.78
P-391	250.00	8.0	PVC	Open		230.97	1.47	2,784.89	2,784.62	1.07	0.27
P-392	535.00	8.0	PVC	Open		97.00	0.62	2,784.62	2,784.51	0.21	0.11
P-393	113.00	8.0	PVC	Open		0.00	0.00	2,784.51	2,784.51	0.00	0.00
P-394	377.00	8.0	PVC	Open		87.26	0.56	2,784.51	2,784.44	0.18	0.07
P-395	474.00	8.0	PVC	Open		133.04	0.85	2,784.62	2,784.44	0.38	0.18
P-396	250.00	8.0	PVC	Open		213.21	1.36	2,784.44	2,784.21	0.92	0.23
P-397	598.00	8.0	PVC	Open		238.52	1.52	2,784.89	2,784.21	1.13	0.68
P-398	270.00	12.0	PVC	Open		930.40	2.64	2,784.74	2,784.21	1.95	0.53
P-399	202.00	8.0	PVC	Open		3.54	0.02	2,784.74	2,784.74	0.00	0.00
P-400	280.00	12.0	PVC	Open		939.26	2.66	2,785.29	2,784.74	1.99	0.56
P-401	233.00	8.0	PVC	Open		3.54	0.02	2,785.29	2,785.29	0.00	0.00
P-402	310.00	12.0	PVC	Open		1,375.05	3.90	2,784.21	2,782.93	4.13	1.28
P-403	377.00	8.0	PVC	Open		4.43	0.03	2,782.93	2,782.93	0.00	0.00
P-404	252.00	12.0	PVC	Open		1,364.42	3.87	2,782.93	2,781.90	4.07	1.03
P-405	213.00	8.0	PVC	Open		4.43	0.03	2,781.90	2,781.90	0.00	0.00
P-406	535.00	12.0	PVC	Open		1,353.80	3.84	2,781.90	2,779.76	4.01	2.14
P-407	160.00	8.0	PVC	Open		332.26	2.12	2,779.76	2,779.42	2.12	0.34
P-408	308.00	12.0	PVC	Open		1,012.68	2.87	2,779.76	2,779.05	2.29	0.71
P-409	9.00	8.0	PVC	Open		0.00	0.00	2,779.05	2,779.05	0.00	0.00
P-410	265.00	8.0	PVC	Open		23.92	0.15	2,820.96	2,820.96	0.02	0.00
P-411	136.00	8.0	PVC	Open		12.41	0.08	2,820.96	2,820.95	0.01	0.00
P-412	330.00	8.0	PVC	Open		7.08	0.05	2,820.96	2,820.96	0.00	0.00
P-413	942.00	12.0	PVC	Open		136.86	0.39	2,821.01	2,820.96	0.06	0.05
P-414	216.00	8.0	PVC	Open		27.46	0.18	2,821.01	2,821.01	0.02	0.00
P-415	433.00	8.0	PVC	Open		7.97	0.05	2,821.01	2,821.01	0.00	0.00
P-416	265.00	8.0	PVC	Open		12.41	0.08	2,821.01	2,821.01	0.01	0.00
P-417	392.00	12.0	PVC	Open		66.82	0.19	2,836.84	2,836.83	0.02	0.01
P-418	493.00	12.0	PVC	Open		51.77	0.15	2,836.83	2,836.83	0.01	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-419	263.00	6.0	PVC	Open		6.20	0.07	2,836.83	2,836.83	0.01	0.00
P-420	336.00	6.0	PVC	Open		5.31	0.06	2,836.83	2,836.83	0.00	0.00
P-421	907.00	8.0	PVC	Open		19.20	0.12	2,836.84	2,836.83	0.01	0.01
P-422	377.00	12.0	PVC	Open		43.69	0.12	2,836.83	2,836.82	0.01	0.00
P-423	770.00	8.0	PVC	Open		20.55	0.13	2,836.84	2,836.83	0.01	0.01
P-424	20.00	12.0	PVC	Open		0.00	0.00	2,828.15	2,828.15	0.00	0.00
P-425	1,980.00	12.0	PVC	Open		0.00	0.00	2,827.99	2,827.99	0.00	0.00
P-426	209.00	12.0	PVC	Open		0.00	0.00	2,827.99	2,827.99	0.00	0.00
P-427	207.00	12.0	PVC	Open		0.00	0.00	2,827.99	2,827.99	0.00	0.00
P-428	251.00	12.0	PVC	Open		824.92	2.34	2,787.48	2,787.10	1.55	0.39
P-429	281.00	4.0	PVC	Open		11.50	0.29	2,777.14	2,777.10	0.14	0.04
P-430	370.00	8.0	PVC	Open		191.66	1.22	2,763.42	2,763.14	0.75	0.28
P-431	54.00	6.0	PVC	Open		0.87	0.01	2,763.14	2,763.14	0.00	0.00
P-432	55.00	6.0	PVC	Open		2.75	0.03	2,763.14	2,763.14	0.00	0.00
P-433	506.00	8.0	PVC	Open		182.75	1.17	2,763.14	2,762.79	0.69	0.35
P-434	155.00	12.0	PVC	Open		55.43	0.16	2,762.67	2,762.66	0.01	0.00
P-435	467.00	8.0	PVC	Open		10.39	0.07	2,762.47	2,762.47	0.00	0.00
P-436	360.00	8.0	PVC	Open		126.42	0.81	2,762.79	2,762.66	0.35	0.13
P-437	760.00	8.0	PVC	Open		55.27	0.35	2,762.79	2,762.73	0.08	0.06
P-438	348.00	8.0	PVC	Open		80.49	0.51	2,762.73	2,762.68	0.15	0.05
P-439	51.00	12.0	PVC	Open		71.81	0.20	2,762.68	2,762.68	0.02	0.00
P-440	18.00	12.0	PVC	Open		0.00	0.00	2,762.68	2,762.68	0.00	0.00
P-441	642.00	12.0	PVC	Open		69.81	0.20	2,762.68	2,762.67	0.02	0.01
P-442	350.00	12.0	PVC	Open		13.73	0.04	2,762.67	2,762.67	0.00	0.00
P-443	336.00	12.0	PVC	Open		170.65	0.48	2,762.66	2,762.64	0.08	0.03
P-444	829.00	12.0	PVC	Open		170.65	0.48	2,762.64	2,762.57	0.08	0.07
P-445	120.00	8.0	PVC	Open		171.64	1.10	2,763.67	2,763.60	0.61	0.07
P-446	470.00	8.0	PVC	Open		1.48	0.01	2,763.60	2,763.60	0.00	0.00
P-447	265.00	12.0	PVC	Open		170.65	0.48	2,762.57	2,762.55	0.08	0.02
P-448	337.00	8.0	PVC	Open		14.01	0.09	2,762.31	2,762.30	0.01	0.00
P-449	39.00	8.0	PVC	Open		5.13	0.03	2,762.55	2,762.55	0.00	0.00
P-450	705.00	12.0	PVC	Open		165.53	0.47	2,762.55	2,762.49	0.08	0.06
P-451	197.00	12.0	PVC	Open		149.35	0.42	2,762.49	2,762.48	0.06	0.01
P-452	250.00	12.0	PVC	Open		0.00	0.00	2,762.67	2,762.67	0.00	0.00
P-453	546.00	8.0	PVC	Open		17.73	0.11	2,762.28	2,762.27	0.01	0.01
P-454	526.00	8.0	PVC	Open		45.63	0.29	2,762.30	2,762.28	0.06	0.03
P-455	730.00	8.0	PVC	Open		14.02	0.09	2,762.25	2,762.25	0.01	0.01
P-456	236.00	8.0	PVC	Open		14.87	0.09	2,762.31	2,762.31	0.01	0.00
P-457	235.00	12.0	PVC	Open		7.27	0.02	2,762.31	2,762.31	0.00	0.00
P-458	311.00	12.0	PVC	Open		7.07	0.02	2,762.31	2,762.31	0.00	0.00
P-459	314.00	12.0	PVC	Open		0.00	0.00	2,762.31	2,762.31	0.00	0.00
P-460	331.00	6.0	PVC	Open		0.00	0.00	2,762.31	2,762.31	0.00	0.00
P-461	399.00	12.0	PVC	Open		22.14	0.06	2,762.31	2,762.31	0.00	0.00
P-462	322.00	12.0	PVC	Open		118.14	0.34	2,762.32	2,762.31	0.04	0.01
P-463	711.00	12.0	PVC	Open		119.11	0.34	2,762.35	2,762.32	0.04	0.03
P-464	355.00	12.0	PVC	Open		96.00	0.27	2,762.31	2,762.30	0.03	0.01
P-465	158.00	8.0	PVC	Open		54.46	0.35	2,762.30	2,762.29	0.08	0.01
P-466	432.00	8.0	PVC	Open		-19.33	0.12	2,762.28	2,762.29	0.01	0.01
P-467	475.00	8.0	PVC	Open		-18.30	0.12	2,762.28	2,762.29	0.01	0.01
P-468	316.00	8.0	PVC	Open		25.41	0.16	2,762.28	2,762.28	0.02	0.01
P-469	347.00	12.0	PVC	Open		33.35	0.09	2,762.30	2,762.30	0.00	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-470	178.00	12.0	PVC	Open		41.54	0.12	2,762.30	2,762.30	0.01	0.00
P-471	660.00	12.0	PVC	Open		39.29	0.11	2,762.30	2,762.29	0.01	0.00
P-472	224.00	12.0	PVC	Open		38.91	0.11	2,762.29	2,762.29	0.01	0.00
P-473	296.00	12.0	PVC	Open		0.11	0.00	2,762.29	2,762.29	0.00	0.00
P-474	153.00	12.0	PVC	Open		41.54	0.12	2,762.30	2,762.30	0.01	0.00
P-476	304.00	8.0	PVC	Open		0.00	0.00	2,762.25	2,762.25	0.00	0.00
P-477	692.00	8.0	PVC	Open		35.47	0.23	2,762.29	2,762.27	0.04	0.02
P-478	13.00	8.0	PVC	Open		0.31	0.00	2,762.35	2,762.35	0.00	0.00
P-479	84.00	8.0	PVC	Open		-29.96	0.19	2,762.25	2,762.25	0.03	0.00
P-480	200.00	12.0	PVC	Open		188.67	0.54	2,763.58	2,763.56	0.10	0.02
P-481	550.00	12.0	PVC	Open		178.93	0.51	2,763.56	2,763.52	0.09	0.05
P-482	703.00	8.0	PVC	Open		43.63	0.28	2,763.52	2,763.48	0.05	0.04
P-483	960.00	12.0	PVC	Open		128.34	0.36	2,763.52	2,763.47	0.05	0.05
P-484	265.00	12.0	PVC	Open		140.08	0.40	2,763.47	2,763.45	0.06	0.02
P-485	447.00	12.0	PVC	Open		21.46	0.06	2,836.82	2,836.82	0.00	0.00
P-486	160.00	12.0	PVC	Open		17.92	0.05	2,836.82	2,836.82	0.00	0.00
P-487	159.00	12.0	PVC	Open		0.00	0.00	2,836.82	2,836.82	0.00	0.00
P-488	981.00	8.0	PVC	Open		11.60	0.07	2,836.82	2,836.82	0.00	0.00
P-489	135.00	12.0	PVC	Open		0.00	0.00	2,836.82	2,836.82	0.00	0.00
P-490	338.00	8.0	PVC	Open		18.61	0.12	2,762.05	2,762.04	0.01	0.00
P-491	317.00	8.0	PVC	Open		2.43	0.02	2,762.04	2,762.04	0.00	0.00
P-492	1,010.00	8.0	PVC	Open		11.30	0.07	2,762.04	2,762.04	0.00	0.00
P-493	314.00	8.0	PVC	Open		9.16	0.06	2,762.04	2,762.04	0.00	0.00
P-494	159.00	8.0	PVC	Open		9.37	0.06	2,762.04	2,762.04	0.00	0.00
P-495	527.00	8.0	PVC	Open		9.37	0.06	2,762.04	2,762.04	0.00	0.00
P-496	134.00	12.0	PVC	Open		1,113.20	3.16	2,790.69	2,790.32	2.75	0.37
P-498	1.00	96.0	PVC	Open		773.13	0.03	2,493.50	2,493.50	0.00	0.00
P-499	356.00	12.0	PVC	Open		652.65	1.85	2,790.18	2,789.82	0.99	0.35
P-500	259.00	12.0	PVC	Open		646.13	1.83	2,789.82	2,789.57	0.98	0.25
P-501	152.00	12.0	PVC	Open		-11.89	0.03	2,789.50	2,789.50	0.00	0.00
P-503	30.00	8.0	PVC	Open		0.00	0.00	2,789.50	2,789.50	0.00	0.00
P-504	120.00	8.0	PVC	Open		-11.37	0.07	2,789.50	2,789.50	0.00	0.00
P-505	30.00	8.0	PVC	Open		0.00	0.00	2,789.50	2,789.50	0.00	0.00
P-507	27.00	8.0	PVC	Open		0.00	0.00	2,789.50	2,789.50	0.00	0.00
P-508	197.00	8.0	PVC	Open		-11.37	0.07	2,789.50	2,789.50	0.00	0.00
P-509	785.00	8.0	PVC	Open		-9.60	0.06	2,789.50	2,789.50	0.00	0.00
P-510	222.00	8.0	PVC	Open		1.77	0.01	2,789.50	2,789.50	0.00	0.00
P-511	683.00	8.0	PVC	Open		-4.29	0.03	2,789.49	2,789.50	0.00	0.00
P-512	819.00	8.0	PVC	Open		1.77	0.01	2,789.49	2,789.49	0.00	0.00
P-513	283.00	8.0	PVC	Open		-0.74	0.00	2,789.49	2,789.49	0.00	0.00
P-514	136.00	6.0	PVC	Open		0.00	0.00	2,789.82	2,789.82	0.00	0.00
P-515	560.00	6.0	PVC	Open		0.00	0.00	2,762.04	2,762.04	0.00	0.00
P-516	34.00	8.0	PVC	Open		0.00	0.00	2,763.97	2,763.97	0.00	0.00
P-517	0.25	96.0	Steel	Open		1,142.39	0.05	2,419.00	2,419.00	0.00	0.00
P-518	250.00	8.0	PVC	Open		-0.35	0.00	2,762.56	2,762.56	0.00	0.00
P-519	673.00	8.0	PVC	Open		158.16	1.01	2,763.60	2,763.24	0.53	0.35
P-520	32.00	8.0	PVC	Open		116.86	0.75	2,763.67	2,763.66	0.31	0.01
P-521	769.00	8.0	PVC	Open		-11.37	0.07	2,763.24	2,763.24	0.00	0.00
P-522	105.00	8.0	PVC	Open		26.25	0.17	2,762.48	2,762.48	0.02	0.00
P-523	305.00	12.0	PVC	Open		121.52	0.34	2,762.48	2,762.46	0.04	0.01
P-524	94.00	6.0	PVC	Open		10.29	0.12	2,762.47	2,762.46	0.02	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-525	232.00	12.0	PVC	Open		131.16	0.37	2,762.46	2,762.45	0.05	0.01
P-526	294.00	12.0	PVC	Open		90.88	0.26	2,762.45	2,762.45	0.03	0.01
P-527	248.00	8.0	PVC	Open		1.17	0.01	2,762.45	2,762.45	0.00	0.00
P-528	83.00	8.0	PVC	Open		1.17	0.01	2,762.45	2,762.45	0.00	0.00
P-529	115.00	12.0	PVC	Open		89.72	0.25	2,762.45	2,762.44	0.03	0.00
P-530	384.00	12.0	PVC	Open		89.72	0.25	2,762.44	2,762.43	0.03	0.01
P-531	153.00	12.0	PVC	Open		89.72	0.25	2,762.43	2,762.43	0.03	0.00
P-532	216.00	12.0	PVC	Open		89.72	0.25	2,762.43	2,762.42	0.03	0.01
P-533	169.00	12.0	PVC	Open		89.61	0.25	2,762.42	2,762.42	0.03	0.00
P-534	163.00	12.0	PVC	Open		89.61	0.25	2,762.42	2,762.41	0.03	0.00
P-535	222.00	12.0	PVC	Open		89.61	0.25	2,762.41	2,762.41	0.03	0.01
P-536	395.00	12.0	PVC	Open		87.93	0.25	2,762.41	2,762.40	0.03	0.01
P-537	322.00	8.0	PVC	Open		31.50	0.20	2,762.41	2,762.40	0.03	0.01
P-538	574.00	8.0	PVC	Open		31.50	0.20	2,762.42	2,762.41	0.03	0.02
P-539	315.00	8.0	PVC	Open		31.73	0.20	2,762.43	2,762.42	0.03	0.01
P-540	306.00	8.0	PVC	Open		32.34	0.21	2,762.44	2,762.43	0.03	0.01
P-541	359.00	8.0	PVC	Open		32.34	0.21	2,762.45	2,762.44	0.03	0.01
P-542	145.00	8.0	PVC	Open		0.60	0.00	2,762.43	2,762.43	0.00	0.00
P-543	289.00	8.0	PVC	Open		0.00	0.00	2,762.43	2,762.43	0.00	0.00
P-544	387.00	8.0	PVC	Open		0.38	0.00	2,762.43	2,762.43	0.00	0.00
P-545	57.00	12.0	PVC	Open		0.00	0.00	2,762.44	2,762.44	0.00	0.00
P-546	50.00	8.0	PVC	Open		0.60	0.00	2,762.43	2,762.43	0.00	0.00
P-547	329.00	8.0	PVC	Open		0.22	0.00	2,762.43	2,762.43	0.00	0.00
P-548	284.00	8.0	PVC	Open		0.03	0.00	2,762.43	2,762.43	0.00	0.00
P-549	284.00	8.0	PVC	Open		0.19	0.00	2,762.43	2,762.43	0.00	0.00
P-550	210.00	8.0	PVC	Open		0.11	0.00	2,762.43	2,762.43	0.00	0.00
P-551	171.00	8.0	PVC	Open		0.01	0.00	2,762.43	2,762.43	0.00	0.00
P-552	269.00	8.0	PVC	Open		-8.19	0.05	2,762.30	2,762.30	0.00	0.00
P-553	161.00	8.0	PVC	Open		-8.19	0.05	2,762.30	2,762.30	0.00	0.00
P-554	90.00	8.0	PVC	Open		0.00	0.00	2,762.41	2,762.41	0.00	0.00
P-555	63.00	12.0	PVC	Open		119.43	0.34	2,762.40	2,762.40	0.04	0.00
P-556	252.00	8.0	PVC	Open		0.02	0.00	2,762.45	2,762.45	0.00	0.00
P-557	256.00	12.0	PVC	Open		119.43	0.34	2,762.40	2,762.38	0.04	0.01
P-558	702.00	12.0	PVC	Open		119.43	0.34	2,762.38	2,762.35	0.04	0.03
P-559	110.00	12.0	PVC	Open		0.01	0.00	2,762.38	2,762.38	0.00	0.00
P-560	275.00	8.0	PVC	Open		-8.19	0.05	2,762.30	2,762.30	0.00	0.00
P-561	436.00	12.0	PVC	Open		0.01	0.00	2,762.38	2,762.38	0.00	0.00
P-562	79.00	8.0	PVC	Open		0.00	0.00	2,762.30	2,762.30	0.00	0.00
P-563	442.00	12.0	PVC	Open		0.01	0.00	2,762.38	2,762.38	0.00	0.00
P-564	68.00	8.0	PVC	Open		0.00	0.00	2,762.38	2,762.38	0.00	0.00
P-565	42.00	12.0	PVC	Open		0.01	0.00	2,762.38	2,762.38	0.00	0.00
P-566	86.00	8.0	PVC	Open		0.00	0.00	2,762.30	2,762.30	0.00	0.00
P-567	433.00	12.0	PVC	Open		0.00	0.00	2,762.38	2,762.38	0.00	0.00
P-568	64.00	12.0	PVC	Open		0.00	0.00	2,762.38	2,762.38	0.00	0.00
P-569	222.00	8.0	PVC	Open		3.54	0.02	2,762.05	2,762.05	0.00	0.00
P-570	307.00	8.0	PVC	Open		20.95	0.13	2,762.04	2,762.04	0.01	0.00
P-571	220.00	8.0	PVC	Open		4.43	0.03	2,762.04	2,762.04	0.00	0.00
P-572	247.00	8.0	PVC	Open		12.98	0.08	2,762.04	2,762.04	0.01	0.00
P-573	254.00	6.0	PVC	Open		5.31	0.06	2,762.04	2,762.04	0.00	0.00
P-574	400.00	8.0	PVC	Open		3.24	0.02	2,762.04	2,762.04	0.00	0.00
P-575	287.00	8.0	PVC	Open		6.20	0.04	2,762.04	2,762.04	0.00	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-576	606.00	12.0	PVC	Open		107.09	0.30	2,820.96	2,820.94	0.04	0.02
P-577	326.00	12.0	PVC	Open		107.09	0.30	2,820.94	2,820.93	0.04	0.01
P-578	16.00	8.0	PVC	Open		33.67	0.21	2,820.93	2,820.93	0.03	0.00
P-579	125.00	12.0	PVC	Open		73.42	0.21	2,820.93	2,820.92	0.02	0.00
P-580	48.00	8.0	PVC	Open		0.00	0.00	2,820.92	2,820.92	0.00	0.00
P-581	307.00	12.0	PVC	Open		49.09	0.14	2,820.92	2,820.92	0.01	0.00
P-582	1,252.00	8.0	PVC	Open		12.82	0.08	2,820.92	2,820.92	0.01	0.01
P-583	906.00	8.0	PVC	Open		11.87	0.08	2,820.92	2,820.92	0.01	0.00
P-584	151.00	8.0	PVC	Open		14.18	0.09	2,820.92	2,820.92	0.01	0.00
P-585	259.00	12.0	PVC	Open		28.36	0.08	2,820.92	2,820.92	0.00	0.00
P-586	471.00	12.0	PVC	Open		14.18	0.04	2,820.92	2,820.92	0.00	0.00
P-588	320.00	8.0	PVC	Open		52.14	0.33	2,763.31	2,763.28	0.07	0.02
P-589	481.00	8.0	PVC	Open		75.05	0.48	2,763.46	2,763.40	0.13	0.06
P-590	480.00	8.0	PVC	Open		6.20	0.04	2,763.40	2,763.40	0.00	0.00
P-591	500.00	8.0	PVC	Open		7.08	0.05	2,763.40	2,763.40	0.00	0.00
P-592	334.00	8.0	PVC	Open		51.14	0.33	2,763.40	2,763.38	0.07	0.02
P-593	250.00	6.0	PVC	Open		5.31	0.06	2,763.38	2,763.38	0.00	0.00
P-594	832.00	8.0	PVC	Open		64.15	0.41	2,763.38	2,763.29	0.10	0.08
P-595	350.00	8.0	PVC	Open		29.83	0.19	2,763.39	2,763.38	0.03	0.01
P-596	325.00	8.0	PVC	Open		6.21	0.04	2,763.28	2,763.28	0.00	0.00
P-597	223.00	8.0	PVC	Open		5.31	0.03	2,763.45	2,763.45	0.00	0.00
P-598	460.00	8.0	PVC	Open		33.09	0.21	2,763.31	2,763.29	0.03	0.01
P-599	540.00	12.0	PVC	Open		57.43	0.16	2,763.45	2,763.45	0.01	0.01
P-600	660.00	8.0	PVC	Open		60.75	0.39	2,763.45	2,763.39	0.09	0.06
P-601	160.00	8.0	PVC	Open		-25.61	0.16	2,763.38	2,763.39	0.02	0.00
P-602	120.00	6.0	PVC	Open		3.54	0.04	2,763.38	2,763.38	0.00	0.00
P-603	200.00	8.0	PVC	Open		-19.41	0.12	2,763.38	2,763.38	0.01	0.00
P-604	375.00	8.0	PVC	Open		92.32	0.59	2,763.38	2,763.31	0.20	0.07
P-605	500.00	8.0	PVC	Open		78.22	0.50	2,763.45	2,763.38	0.15	0.07
P-606	466.00	8.0	PVC	Open		2.05	0.01	2,779.42	2,779.42	0.00	0.00
P-607	121.00	8.0	PVC	Open		324.02	2.07	2,779.42	2,779.18	2.02	0.24
P-608	308.00	8.0	PVC	Open		308.89	1.97	2,779.18	2,778.61	1.85	0.57
P-609	198.00	12.0	PVC	Open		1,001.60	2.84	2,779.05	2,778.61	2.25	0.44
P-610	199.00	8.0	PVC	Open		16.46	0.11	2,762.05	2,762.05	0.01	0.00
P-611	673.00	8.0	PVC	Open		13.80	0.09	2,762.05	2,762.04	0.01	0.00
P-612	91.00	8.0	PVC	Open		0.00	0.00	2,762.04	2,762.04	0.00	0.00
P-613	354.00	8.0	PVC	Open		62.54	0.40	2,763.49	2,763.46	0.10	0.03
P-614	739.00	12.0	PVC	Open		0.00	0.00	2,777.05	2,777.05	0.00	0.00
P-615	878.00	12.0	PVC	Open		0.00	0.00	2,777.05	2,777.05	0.00	0.00
P-616	642.00	12.0	PVC	Open		0.00	0.00	2,777.05	2,777.05	0.00	0.00
P-617	35.00	8.0	PVC	Open		2.92	0.02	2,795.19	2,795.19	0.00	0.00
P-618	246.00	8.0	PVC	Open		0.00	0.00	2,762.31	2,762.31	0.00	0.00
P-619	179.00	8.0	PVC	Open		74.46	0.48	2,762.58	2,762.56	0.13	0.02
P-620	215.00	6.0	PVC	Open		3.54	0.04	2,763.44	2,763.44	0.00	0.00
P-621	780.00	8.0	PVC	Open		16.61	0.11	2,763.44	2,763.44	0.01	0.01
P-622	123.00	6.0	PVC	Open		1.77	0.02	2,763.44	2,763.44	0.00	0.00
P-623	286.00	6.0	PVC	Open		7.75	0.09	2,763.44	2,763.43	0.01	0.00
P-624	160.00	6.0	PVC	Open		2.66	0.03	2,763.43	2,763.43	0.00	0.00
P-625	660.00	8.0	PVC	Open		-1.99	0.01	2,763.43	2,763.43	0.00	0.00
P-626	225.00	8.0	PVC	Open		14.18	0.09	2,763.43	2,763.43	0.01	0.00
P-627	357.00	8.0	PVC	Open		20.59	0.13	2,763.44	2,763.43	0.01	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-628	114.00	6.0	PVC	Open		2.66	0.03	2,763.44	2,763.44	0.00	0.00
P-629	395.00	8.0	PVC	Open		25.91	0.17	2,763.45	2,763.44	0.02	0.01
P-630	97.00	6.0	PVC	Open		1.77	0.02	2,763.45	2,763.45	0.00	0.00
P-631	305.00	8.0	PVC	Open		32.99	0.21	2,763.46	2,763.45	0.03	0.01
P-632	1,280.00	8.0	PVC	Open		-17.15	0.11	2,763.44	2,763.46	0.01	0.01
P-633	380.00	8.0	PVC	Open		1.77	0.01	2,763.42	2,763.42	0.00	0.00
P-634	316.00	8.0	PVC	Open		63.79	0.41	2,762.78	2,762.74	0.10	0.03
P-635	230.00	8.0	PVC	Open		39.86	0.25	2,762.74	2,762.73	0.04	0.01
P-636	60.00	8.0	PVC	Open		42.52	0.27	2,762.73	2,762.73	0.05	0.00
P-637	602.00	8.0	PVC	Open		11.12	0.07	2,762.74	2,762.73	0.00	0.00
P-638	650.00	8.0	PVC	Open		18.20	0.12	2,762.74	2,762.74	0.01	0.01
P-639	346.00	8.0	PVC	Open		31.62	0.20	2,762.33	2,762.32	0.03	0.01
P-640	269.00	8.0	PVC	Open		86.31	0.55	2,762.33	2,762.28	0.17	0.05
P-641	215.00	8.0	PVC	Open		51.89	0.33	2,762.28	2,762.27	0.07	0.01
P-642	245.00	8.0	PVC	Open		30.29	0.19	2,762.27	2,762.26	0.03	0.01
P-643	325.00	8.0	PVC	Open		21.39	0.14	2,762.26	2,762.26	0.02	0.00
P-644	190.00	8.0	PVC	Open		21.42	0.14	2,762.26	2,762.25	0.01	0.00
P-645	503.00	8.0	PVC	Open		34.42	0.22	2,762.28	2,762.26	0.03	0.02
P-646	268.00	8.0	PVC	Open		26.55	0.17	2,762.26	2,762.26	0.02	0.01
P-647	349.00	8.0	PVC	Open		17.74	0.11	2,762.26	2,762.26	0.01	0.00
P-648	172.00	8.0	PVC	Open		7.97	0.05	2,762.26	2,762.26	0.00	0.00
P-649	299.00	8.0	PVC	Open		-0.03	0.00	2,762.26	2,762.26	0.00	0.00
P-650	355.00	8.0	PVC	Open		8.91	0.06	2,762.26	2,762.26	0.00	0.00
P-651	265.00	8.0	PVC	Open		14.27	0.09	2,762.27	2,762.26	0.01	0.00
P-652	260.00	8.0	PVC	Open		13.78	0.09	2,762.25	2,762.25	0.01	0.00
P-653	432.00	8.0	PVC	Open		6.26	0.04	2,762.25	2,762.25	0.00	0.00
P-654	153.00	8.0	PVC	Open		7.52	0.05	2,762.25	2,762.25	0.00	0.00
P-655	154.00	8.0	PVC	Open		-7.63	0.05	2,762.25	2,762.25	0.00	0.00
P-656	96.00	8.0	PVC	Open		13.18	0.08	2,762.25	2,762.25	0.01	0.00
P-657	191.00	8.0	PVC	Open		-8.17	0.05	2,762.25	2,762.25	0.00	0.00
P-658	46.00	8.0	PVC	Open		-37.05	0.24	2,762.25	2,762.25	0.04	0.00
P-659	352.00	8.0	PVC	Open		28.88	0.18	2,762.26	2,762.25	0.02	0.01
P-660	566.00	8.0	PVC	Open		21.35	0.14	2,762.26	2,762.25	0.01	0.01
P-661	219.00	8.0	PVC	Open		50.23	0.32	2,762.28	2,762.26	0.06	0.01
P-662	175.00	8.0	PVC	Open		3.54	0.02	2,762.25	2,762.25	0.00	0.00
P-663	197.00	8.0	PVC	Open		7.08	0.05	2,762.25	2,762.25	0.00	0.00
P-664	259.00	8.0	PVC	Open		13.73	0.09	2,762.25	2,762.25	0.01	0.00
P-665	637.00	8.0	PVC	Open		25.04	0.16	2,830.39	2,830.38	0.02	0.01
P-666	120.00	8.0	PVC	Open		0.00	0.00	2,830.38	2,830.38	0.00	0.00
P-667	1,504.00	8.0	PVC	Open		7.67	0.05	2,830.38	2,830.38	0.00	0.00
P-668	167.00	6.0	PVC	Open		4.43	0.05	2,830.38	2,830.38	0.00	0.00
P-669	251.00	8.0	PVC	Open		10.04	0.06	2,830.38	2,830.38	0.00	0.00
P-670	104.00	6.0	PVC	Open		3.54	0.04	2,830.38	2,830.38	0.00	0.00
P-671	231.00	8.0	PVC	Open		14.47	0.09	2,830.38	2,830.38	0.01	0.00
P-672	341.00	8.0	PVC	Open		2.32	0.01	2,830.38	2,830.38	0.00	0.00
P-673	337.00	8.0	PVC	Open		15.69	0.10	2,830.38	2,830.38	0.01	0.00
P-674	285.00	8.0	PVC	Open		5.31	0.03	2,830.38	2,830.38	0.00	0.00
P-675	199.00	6.0	PVC	Open		5.31	0.06	2,830.38	2,830.38	0.00	0.00
P-676	283.00	8.0	PVC	Open		24.55	0.16	2,830.39	2,830.38	0.02	0.01
P-677	397.00	8.0	PVC	Open		40.74	0.26	2,830.13	2,830.12	0.04	0.02
P-678	865.00	8.0	PVC	Open		10.98	0.07	2,830.12	2,830.11	0.00	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-679	123.00	8.0	PVC	Open		0.00	0.00	2,830.11	2,830.11	0.00	0.00
P-680	231.00	8.0	PVC	Open		0.53	0.00	2,830.11	2,830.11	0.00	0.00
P-681	142.00	8.0	PVC	Open		0.00	0.00	2,830.11	2,830.11	0.00	0.00
P-682	1,166.00	8.0	PVC	Open		9.39	0.06	2,830.12	2,830.11	0.00	0.00
P-683	818.00	8.0	PVC	Open		0.00	0.00	2,820.91	2,820.91	0.00	0.00
P-684	325.00	12.0	PVC	Open		1,032.16	2.93	2,773.56	2,772.79	2.38	0.77
P-685	51.00	8.0	PVC	Open		14.18	0.09	2,820.92	2,820.92	0.01	0.00
P-686	53.00	8.0	PVC	Open		14.18	0.09	2,820.92	2,820.92	0.01	0.00
P-687	22.00	6.0	PVC	Open		459.72	5.22	2,790.32	2,789.95	16.99	0.37
P-688	146.00	12.0	PVC	Open		653.48	1.85	2,790.32	2,790.18	1.00	0.15
P-689	70.00	12.0	PVC	Open		646.13	1.83	2,789.57	2,789.50	0.98	0.07
P-691	524.00	8.0	PVC	Open		168.21	1.07	2,789.95	2,789.64	0.59	0.31
P-692	113.00	6.0	PVC	Open		0.00	0.00	2,789.64	2,789.64	0.00	0.00
P-693	166.00	6.0	PVC	Open		0.50	0.01	2,790.18	2,790.18	0.00	0.00
P-694	689.00	8.0	PVC	Open		167.97	1.07	2,789.64	2,789.23	0.59	0.41
P-695	356.00	12.0	PVC	Open		563.69	1.60	2,789.50	2,789.23	0.75	0.27
P-696	63.00	12.0	PVC	Open		731.66	2.08	2,789.23	2,789.16	1.24	0.08
P-697	126.00	6.0	PVC	Open		0.00	0.00	2,789.16	2,789.16	0.00	0.00
P-698	248.00	12.0	PVC	Open		731.66	2.08	2,789.16	2,788.85	1.23	0.31
P-699	173.00	8.0	PVC	Open		14.09	0.09	2,788.85	2,788.85	0.01	0.00
P-700	11.00	8.0	PVC	Open		0.00	0.00	2,788.85	2,788.85	0.00	0.00
P-701	280.00	8.0	PVC	Open		14.09	0.09	2,788.85	2,788.85	0.01	0.00
P-702	156.00	8.0	PVC	Open		8.96	0.06	2,788.85	2,788.85	0.00	0.00
P-703	299.00	8.0	PVC	Open		0.00	0.00	2,788.85	2,788.85	0.00	0.00
P-704	279.00	8.0	PVC	Open		0.00	0.00	2,788.85	2,788.85	0.00	0.00
P-705	582.00	12.0	PVC	Open		717.57	2.04	2,788.85	2,788.16	1.19	0.69
P-706	10.00	6.0	PVC	Open		0.00	0.00	2,788.16	2,788.16	0.00	0.00
P-707	1,401.00	12.0	PVC	Open		714.96	2.03	2,788.16	2,786.50	1.18	1.66
P-708	201.00	8.0	PVC	Open		0.00	0.00	2,786.50	2,786.50	0.00	0.00
P-709	14.00	8.0	PVC	Open		0.00	0.00	2,786.50	2,786.50	0.00	0.00
P-710	132.00	12.0	PVC	Open		713.12	2.02	2,786.50	2,786.35	1.18	0.16
P-711	335.00	12.0	PVC	Open		435.34	1.23	2,785.93	2,785.77	0.46	0.16
P-712	323.00	12.0	PVC	Open		0.00	0.00	2,785.77	2,785.77	0.00	0.00
P-713	228.00	12.0	PVC	Open		435.34	1.23	2,785.77	2,785.66	0.46	0.11
P-714	8.00	12.0	PVC	Open		0.00	0.00	2,785.66	2,785.66	0.00	0.00
P-715	163.00	12.0	PVC	Open		435.34	1.23	2,785.66	2,785.59	0.46	0.08
P-716	160.00	8.0	PVC	Open		0.00	0.00	2,785.59	2,785.59	0.00	0.00
P-718	620.00	8.0	PVC	Open		144.73	0.92	2,785.34	2,785.06	0.45	0.28
P-719	471.00	12.0	PVC	Open		0.11	0.00	2,762.29	2,762.29	0.00	0.00
P-720	153.00	12.0	PVC	Open		0.11	0.00	2,762.29	2,762.29	0.00	0.00
P-721	14.00	12.0	PVC	Open		0.00	0.00	2,762.29	2,762.29	0.00	0.00
P-722	1,051.00	12.0	PVC	Open		0.11	0.00	2,762.29	2,762.29	0.00	0.00
P-723	141.00	12.0	PVC	Open		0.11	0.00	2,762.29	2,762.29	0.00	0.00
P-724	320.00	12.0	PVC	Open		0.00	0.00	2,762.29	2,762.29	0.00	0.00
P-725	502.00	12.0	PVC	Open		0.00	0.00	2,762.29	2,762.29	0.00	0.00
P-726	214.00	12.0	PVC	Open		0.00	0.00	2,762.29	2,762.29	0.00	0.00
P-727	372.00	8.0	PVC	Open		50.49	0.32	2,771.98	2,771.96	0.07	0.02
P-728	156.00	8.0	PVC	Open		14.18	0.09	2,771.96	2,771.96	0.01	0.00
P-729	708.00	8.0	PVC	Open		23.92	0.15	2,771.96	2,771.95	0.02	0.01
P-730	797.00	8.0	PVC	Open		12.82	0.08	2,766.86	2,766.85	0.01	0.00
P-731	160.00	8.0	PVC	Open		-15.95	0.10	2,766.85	2,766.85	0.01	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-732	48.00	12.0	PVC	Open		0.00	0.00	2,790.69	2,790.69	0.00	0.00
P-733	425.00	8.0	PVC	Open		50.14	0.32	2,762.79	2,762.77	0.07	0.03
P-735	62.00	12.0	PVC	Open		0.01	0.00	2,762.38	2,762.38	0.00	0.00
P-736	65.00	12.0	PVC	Open		0.01	0.00	2,762.38	2,762.38	0.00	0.00
P-737	33.00	8.0	PVC	Open		0.00	0.00	2,762.38	2,762.38	0.00	0.00
P-738	136.00	8.0	PVC	Open		7.68	0.05	2,762.28	2,762.28	0.00	0.00
P-739	392.00	12.0	PVC	Open		150.12	0.43	2,763.52	2,763.49	0.07	0.03
P-740	14.00	8.0	PVC	Open		1.12	0.01	2,763.49	2,763.49	0.00	0.00
P-741	414.00	12.0	PVC	Open		149.00	0.42	2,763.49	2,763.46	0.06	0.03
P-742	275.00	8.0	PVC	Open		61.43	0.39	2,763.52	2,763.49	0.09	0.03
P-743	120.00	8.0	PVC	Open		54.64	0.35	2,762.77	2,762.77	0.08	0.01
P-744	43.00	12.0	PVC	Open		1,288.82	3.66	2,828.15	2,827.99	3.65	0.16
P-747	1,566.00	12.0	PVC	Open		1,113.21	3.16	2,795.00	2,790.69	2.75	4.31
P-749	50.00	96.0	PVC	Open		1,132.82	0.05	2,422.00	2,422.00	0.00	0.00
P-751	37.00	8.0	PVC	Open		0.00	0.00	2,790.69	2,790.69	0.00	0.00
P-752	42.00	8.0	PVC	Open		0.00	0.00	2,790.69	2,790.69	0.00	0.00
P-753	697.00	8.0	PVC	Open		23.26	0.15	2,763.48	2,763.47	0.02	0.01
P-754	420.00	6.0	PVC	Open		8.05	0.09	2,762.58	2,762.57	0.01	0.00
P-755	452.00	6.0	PVC	Open		10.18	0.12	2,765.51	2,765.50	0.02	0.01
P-756	895.00	8.0	PVC	Open		0.28	0.00	2,836.83	2,836.83	0.00	0.00
P-757	777.00	8.0	PVC	Open		3.73	0.02	2,836.83	2,836.83	0.00	0.00
P-758	967.00	8.0	PVC	Open		9.95	0.06	2,836.82	2,836.82	0.00	0.00
P-759	920.00	8.0	PVC	Open		36.15	0.23	2,762.09	2,762.06	0.04	0.03
P-760	2,830.00	12.0	PVC	Open		32.91	0.09	2,763.45	2,763.43	0.00	0.01
P-762	30.00	8.0	PVC	Open		0.00	0.00	2,775.69	2,775.69	0.00	0.00
P-763	833.00	12.0	PVC	Open		1,127.27	3.20	2,795.19	2,792.84	2.82	2.35
P-764	330.00	8.0	PVC	Open		569.70	3.64	2,775.69	2,773.73	5.93	1.96
P-765	140.00	6.0	Steel	Open		435.36	4.94	2,543.00	2,541.14	13.29	1.86
P-766	2.00	12.0	PVC	Open		1,032.13	2.93	2,820.58	2,820.57	2.32	0.00
P-767	356.00	8.0	PVC	Open		570.26	3.64	2,777.80	2,775.69	5.94	2.12
P-768	239.00	12.0	PVC	Open		0.00	0.00	2,772.50	2,772.50	0.00	0.00
P-769	2.00	12.0	PVC	Open		0.00	0.00	2,796.00	2,796.00	0.00	0.00
P-844	254.00	12.0	PVC	Open		1,279.02	3.63	2,826.48	2,825.57	3.59	0.91
P-845	230.00	12.0	PVC	Open		1,280.26	3.63	2,827.31	2,826.48	3.60	0.83
P-846	188.00	12.0	PVC	Open		1,281.51	3.64	2,827.99	2,827.31	3.60	0.68
P-847	383.00	8.0	PVC	Open		1.86	0.01	2,825.57	2,825.57	0.00	0.00
P-848	176.00	8.0	PVC	Open		1.25	0.01	2,826.48	2,826.48	0.00	0.00
P-849	168.00	8.0	PVC	Open		1.25	0.01	2,827.31	2,827.31	0.00	0.00
P-900	587.00	12.0	PVC	Open		1,872.21	5.31	2,847.20	2,842.80	7.50	4.41
P-901	2.00	8.0	Steel	Open		558.91	3.57	2,764.08	2,764.07	5.00	0.01
P-904	143.00	12.0	PVC	Open		1,142.39	3.24	2,796.41	2,796.00	2.89	0.41
P-906	60.00	12.0	PVC	Open		773.13	2.19	2,777.37	2,777.29	1.37	0.08
P-907	1,798.00	8.0	PVC	Open		1,132.82	7.23	2,835.44	2,795.00	22.49	40.44
P-950	171.00	8.0	PVC	Open		9.67	0.06	2,763.42	2,763.42	0.00	0.00
P-954	48.00	8.0	PVC	Open		0.00	0.00	2,763.97	2,763.97	0.00	0.00
P-958	76.00	8.0	PVC	Open		2.14	0.01	2,762.06	2,762.06	0.00	0.00
P-959	345.00	8.0	PVC	Open		34.01	0.22	2,762.06	2,762.05	0.03	0.01
P-960	37.00	8.0	PVC	Open		30.47	0.19	2,762.05	2,762.04	0.03	0.00
P-964	1,139.00	12.0	PVC	Open		435.34	1.23	2,785.59	2,785.06	0.46	0.53
P-965	21.00	12.0	PVC	Open		0.00	0.00	2,789.61	2,789.61	0.00	0.00
P-968	1,673.00	8.0	PVC	Open		0.57	0.00	2,775.69	2,775.69	0.00	0.00

Scenario: 2006
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Dia (in)	Material	Control Status	Hazen-Williams C	Discharge (gpm)	Velocity (ft/s)	Upstream Structure Hydraulic Grade (ft)	Downstream Structure Hydraulic Grade (ft)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)
P-971	601.00	6.0	PVC	Open		37.18	0.42	2,763.27	2,763.18	0.15	0.09
P-972	79.00	6.0	PVC	Open		2.56	0.03	2,763.27	2,763.27	0.00	0.00
P-973	180.00	8.0	PVC	Open		39.74	0.25	2,763.28	2,763.27	0.04	0.01
P-974	904.00	8.0	PVC	Open		10.63	0.07	2,767.13	2,767.13	0.00	0.00
P-975	179.00	6.0	PVC	Open		10.63	0.12	2,767.13	2,767.12	0.02	0.00
P-976	344.00	6.0	PVC	Open		8.86	0.10	2,765.51	2,765.51	0.01	0.00
P-977	178.00	6.0	PVC	Open		8.86	0.10	2,765.51	2,765.50	0.01	0.00
P-978	629.00	8.0	PVC	Open		570.26	3.64	2,781.54	2,777.80	5.94	3.74
P-979	592.00	8.0	PVC	Open		570.26	3.64	2,785.06	2,781.54	5.94	3.52
P-980	752.00	8.0	PVC	Open		569.70	3.64	2,773.65	2,769.19	5.93	4.46
P-981	7.00	8.0	PVC	Open		1,872.21	11.95	2,769.19	2,768.77	60.20	0.42
P-982	100.00	12.0	PVC	Open		569.70	1.62	2,773.73	2,773.65	0.77	0.08
P-984	126.00	12.0	PVC	Open		-11.90	0.03	2,789.50	2,789.50	0.00	0.00
P-985	103.00	6.0	PVC	Open		0.00	0.00	2,789.50	2,789.50	0.00	0.00
P-986	207.00	8.0	PVC	Open		0.52	0.00	2,789.50	2,789.50	0.00	0.00
P-987	32.00	8.0	PVC	Open		0.00	0.00	2,772.79	2,772.79	0.00	0.00
P-988	415.00	8.0	PVC	Open		-11.37	0.07	2,789.50	2,789.50	0.00	0.00
P-997	147.00	8.0	PVC	Open		-11.37	0.07	2,789.50	2,789.50	0.00	0.00
P-998	54.00	8.0	PVC	Open		-11.37	0.07	2,789.50	2,789.50	0.00	0.00
P-1014	443.00	8.0	PVC	Open		559.74	3.57	2,771.05	2,768.51	5.74	2.54
P-1015	162.00	8.0	PVC	Open		559.74	3.57	2,771.98	2,771.05	5.74	0.93
P-1029	716.00	12.0	PVC	Open		0.00	0.00	2,785.77	2,785.77	0.00	0.00
P-1030	229.00	12.0	PVC	Open		0.00	0.00	2,785.77	2,785.77	0.00	0.00
P-1031	211.00	12.0	PVC	Open		0.00	0.00	2,785.77	2,785.77	0.00	0.00
P-1032	536.00	8.0	PVC	Open		-1.11	0.01	2,763.49	2,763.49	0.00	0.00

Scenario: 2006
Fire Flow Analysis
Pump Report

Label	Discharge (gpm)	Control Status	Elevation (ft)	Intake Pump Grade (ft)	Pump Head (ft)	Discharge Pump Grade (ft)	Calculated Water Power (Hp)
PMP-1	558.91	On	2,534.00	2,534.00	230.08	2,764.08	32.47
PMP-2	435.36	On	2,543.00	2,541.14	71.41	2,612.55	7.85
PMP-2.1	46.37	On	2,610.00	2,611.00	152.23	2,763.23	1.78
PMP-2.2	0.00	Pump cannot deliver he	2,610.00	2,611.00	0.00	2,763.23	0.00
PMP-2.3	0.00	Pump cannot deliver he	2,610.00	2,611.00	0.00	2,763.23	0.00
PMP-4	1,142.39	On	2,399.00	2,419.00	377.41	2,796.41	108.85
PMP-6	773.13	On	2,473.50	2,493.50	283.87	2,777.37	55.41
PMP-7	1,132.82	On	2,372.00	2,422.00	413.44	2,835.44	118.25
PMP-Boost	1,872.21	Fixed Speed Override	2,640.00	2,768.77	78.44	2,847.20	37.08

Scenario: 2006
Fire Flow Analysis
Tank Report

Label	Base Elevation (ft)	Minimum Elevation (ft)	Initial HGL (ft)	Maximum Elevation (ft)	Inactive Volume (gal)	Tank Diameter (ft)	Inflow (gpm)	Current Status	Calculated Hydraulic Grade (ft)	Calculated Percent Full (%)
T-1	2,610.00	2,610.50	2,611.00	2,618.00	0.00	N/A	388.99	Filling	2,611.00	6.7

Scenario: 2006
Fire Flow Analysis
Valve Report

Label	Elevation (ft)	Diameter (in)	Control Status	Discharge (gpm)	From HGL (ft)	To HGL (ft)	Headloss (ft)	Calculated Pressure Setting (psi)
FCV-2-Hwy 55	2,602.00	12.0	Closed	0.00	2,820.94	2,772.50	0.00	
FCV-5 Southhampton	2,652.00	8.0	Closed	0.00	2,772.79	2,820.91	0.00	
FCV-6 GREAT SKY Wy	2,569.50	12.0	Inactive	-0.00	2,789.61	2,789.61	0.00	
TCV-3-Horse Shoe Bend	2,620.00	8.0	Throttling	570.26	2,777.80	2,777.80	0.00	
PSV-1 Floating Feather	2,653.00	12.0	Throttling	1,032.16	2,820.57	2,773.56	47.01	72.50
TCV-4-State at Well 4	2,565.00	12.0	Closed	0.00	2,762.25	2,796.00	0.00	