

Town of Strathmore

Master Servicing Study Update 2012 Water and Sanitary

Prepared by:

AECOM

300 Atrium VII, 340 Midpark Way SE 403 270 9200 tel
Calgary, AB, Canada T2X 1P1 403 270 0399 fax
www.aecom.com

Project Number:

60230105

Date:

January, 2013

Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by AECOM Canada Ltd. ("Consultant") for the benefit of the client ("Client") in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations")
- represents Consultant's professional judgement in light of the Limitations and industry standards for the preparation of similar reports
- may be based on information provided to Consultant which has not been independently verified
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued
- must be read as a whole and sections thereof should not be read out of such context
- was prepared for the specific purposes described in the Report and the Agreement
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time

Consultant shall be entitled to rely upon the accuracy and completeness of information that was provided to it and has no obligation to update such information. Consultant accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared and, in the case of subsurface, environmental or geotechnical conditions, is not responsible for any variability in such conditions, geographically or over time.

Consultant agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but Consultant makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof.

The Report is to be treated as confidential and may not be used or relied upon by third parties, except:

- as agreed in writing by Consultant and Client
- as required by law
- for use by governmental reviewing agencies

Consultant accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information ("improper use of the Report"), except to the extent those parties have obtained the prior written consent of Consultant to use and rely upon the Report and the Information. Any damages arising from improper use of the Report or parts thereof shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.

January 10, 2013

Jesse Parker
Director of Engineering
Town of Strathmore
680 Westchester Road
Strathmore, Alberta T1P 1J1

Dear Jesse:

Project No: 60230105

Regarding: Master Servicing Study Update 2012 – Water and Sanitary

We are pleased to submit the final report of the Master Servicing Study Update 2012 based on your feedback received on the draft report submitted on April 26, 2012. We appreciate your timely co-operation in completing this report. Should you have any question or need clarification, please contact me at 403-270-9226.

Sincerely,
AECOM Canada Ltd.



Mohd Gazi, M.Eng., P.Eng., CPESC
Senior Civil/Municipal Engineer
Mohd.gazi@aecom.com

Encl.
cc: file

Distribution List

# of Hard Copies	PDF Required	Association / Company Name
3	Yes	Town of Strathmore

Revision Log

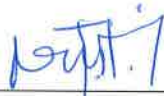
Revision #	Revised By	Date	Issue / Revision Description
Final	AECOM	January, 2013	Master Servicing Study Update 2012 – Water and Sanitary
Draft	AECOM	April, 2012	Master Servicing Study Update 2011

AECOM Signatures

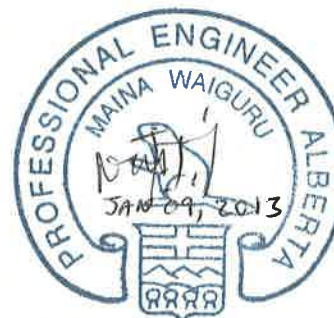
Report Prepared By:



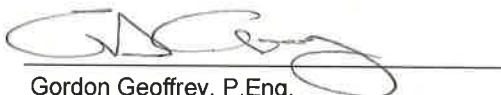
Mohd Gazi, M.Eng., P.Eng., CPESC
Senior Civil/Municipal Engineer

Maina Waiguru, MSc.Eng., M.Eng., P.Eng.
Water Modelling Engineer



Report Reviewed By:



Gordon Geoffrey, P.Eng.
Area Manager - Water,
Southern Alberta

PERMIT TO PRACTICE AECOM CANADA LTD.	
Signature	
Date	07 Jan 2013
PERMIT NUMBER: P 10450 The Association of Professional Engineers and Geoscientists of Alberta	

Table of Contents

Statement of Qualifications and Limitations

Letter of Transmittal

Distribution List

Executive Summary

1.0	Introduction	1
2.0	Study Area	2
3.0	Population Analysis and Projections.....	3
3.1	Population Projections.....	3
3.2	Population Density.....	5
3.3	Development Cells	5
4.0	Water Supply and Distribution	7
4.1	Introduction	7
4.2	Historical Water Usage and Design Criteria	7
4.3	East Calgary Regional Waterline (ECRW) and Existing Water Supply System	8
4.4	Treated Water Storage Capacity.....	9
4.4.1	Westmount Reservoir.....	10
4.4.2	Brentwood Reservoir including Upgrades to the Pump Station	11
4.4.3	Wildflower Reservoir and Pump Station.....	11
4.4.4	Future East Reservoir and Pump Station.....	12
4.5	Existing Water Distribution System	14
4.6	Water Supply and Distribution System Modelling	14
4.7	Water Supply and Distribution System Modeling Parameters	15
4.8	Fire Flow Analysis and Water Distribution System Upgrades.....	15
4.9	Water Supply and Distribution System Improvements	16
4.10	Water Supply and Distribution System Modeling	16
4.10.1	Year 2061	16
4.10.2	Year 2046	17
4.10.3	Modeling Results	19
5.0	Sanitary Sewerage System	20
5.1	Introduction	20
5.2	Design Criteria.....	20
5.2.1	Peaking Factor.....	21
5.3	Existing Sanitary Sewerage System Analysis.....	21
5.3.1	Central Trunk System	22
5.3.2	Eastern Trunk System.....	24
5.3.3	Headworks.....	25
5.4	Existing Sanitary Sewer System Upgrades	25
5.4.1	Centre Street/Spruce Business Park/South Centre Trunk	25
5.4.2	Rodeo Grounds.....	25
5.4.3	Strathmore Lakes Upgrade	26
5.4.4	Orchard Business Upgrade	26
5.4.5	Golf Course Upgrade	26

5.5	Proposed Sanitary Sewer System to Service the Annexation Area.....	26
5.5.1	North Trunk.....	26
5.5.2	East Trunk	26
5.5.3	West Trunk	27
5.5.4	South Trunk	27
5.6	Wastewater Treatment Plant Upgrade	27
5.6.1	Treatment Plant Staging.....	27
5.6.2	Raw Wastewater Flow and Loading Projections	28
5.7	Bow Tertiary Outfall (BTO).....	29
5.7.1	Design Flow	29

List of Tables

Table 3.1:	Population of the Town from 1976 to 2010	3
Table 3.2:	The Town's Population Projected from 2010 to 2061.....	4
Table 3.3:	Projected Population per Development Phase.....	6
Table 3.4:	Area of Development Cells	6
Table 3.5:	Population Forecast for the Development Cells.....	6
Table 4.1:	Historical Water Demand	7
Table 4.2:	Present and Projected Water Demands (m ³ /day)	8
Table 4.3:	Present Treated Water Storage Capacity	9
Table 4.4:	Future Treated Water Storage Planning	10
Table 4.5:	Future Pumping System Capacity Planning.....	13
Table 4.6:	Available Flow from the Existing Distribution and Fire Pumps.....	14
Table 4.7:	Recommended Minimum Fire Flows	15
Table 5.1:	Water Consumption Data.....	21
Table 5.4:	Design Flows and Loadings	28
Table 5.5:	Effluent Discharge Limits	28

List of Appendices

Appendix A1 – Original Strathmore Distribution System
Appendix A2 – Upgraded Strathmore Water Distribution System
Appendix A3 – 2061 Ultimate Peak Hour Demand Scenario (650 L/s)
Appendix A4 – 2061 Ultimate Maximum Day Demand Scenario (325 L/s)
Appendix A5 – 2061 Ultimate Maximum Day Demand plus Fire Flow Scenario (325 L/s + fire flow)
Appendix A6 – 2046 Peak Hour Demand Scenario (560 L/s)
Appendix A7 – 2046 Maximum Day Demand Scenario (280 L/s)
Appendix A8 – 2046 Maximum Day Demand plus Fire Flow Scenario (280 L/s + fire flow)

List of Figures

Figure 2.1	Service Area
Figure 3.1	Assumed Land Use
Figure 3.2	Staged Development Plan
Figure 4.1	Existing Water Supply System and Storage
Figure 4.2	Existing Water Distribution Pipeline Sizes
Figure 4.3	Recommended Upgrades to the Existing Water Main

- Figure 4.4 Future Water System Network Plan
Figure 5.1 Existing Sanitary East & Central Trunk Service Drainage Areas
Figure 5.2 Existing Sanitary Central Sub Trunk Drainage Areas
Figure 5.3 Proposed Sanitary Trunk Systems and Lift Station

References

1. *Town of Strathmore Master Servicing Study (MSS) – Annexation 2006*, UMA/AECOM, May, 2007
2. *Addendum to Town of Strathmore Master Servicing Study (MSS) – Annexation 2006*, UMA/AECOM, April, 2008
3. *Town of Strathmore Growth Study 2008*, Brown & Associates Planning Group, 2008
4. *Standards and Guidelines for Municipal Water, Waste Water and Stormwater Drainage Systems*, Alberta Environment, 2006
5. *Water Supply for Public Fire Protection*, Fire Underwriters Survey, 1999
6. *Water For Life, Alberta's Strategy for Sustainability*, Alberta Environment, 2003
7. *Summary of Design Basis for Brentwood Pump Station Upgrade*, Stantec, 2009
8. *Preliminary control philosophy for Wildflower Reservoir and Pump Station*, Associated Engineering, November 2011
9. *Bow Tertiary Outfall Pre-design Report*, UMA, April 2005
10. *1999 Infrastructure Analysis*, Urban Systems Feb 2000
11. *Master Servicing Plan*, Stanley Associates Engineering Ltd Dec 1986
12. *Treatment Plant Data, 2001 to 2005* EPCOR, 2006

Executive Summary

The Town of Strathmore's (the Town) annexation of approximately eighteen and half quarter-sections of land from Wheatland County as shown in **Figure 2.1** has significantly increased the land available for municipal development. The Town commissioned AECOM to update the *Town of Strathmore Master Servicing Study (MSS) – Annexation 2006* prepared by UMA/AECOM, May, 2007 and the addendum issued on April 15, 2008 to incorporate the annexed lands without compromising the reliability of the existing municipal services. The update has also included new water and wastewater infrastructure that were installed since the MSS – Annexation 2006. The scope of work is limited to modifying the existing MSS by utilizing the existing MSS as a basis and simply updating information as practical with new boundary and other limited information without altering the basis of the original MSS. This is not a new Master Servicing Study, but an update.

The update has incorporated the following:

- Addition of the lands in the annexation not included in the MSS – Annexation 2006
- Changes to the population growth rate based on Brown & Associates growth study (2008)
- Water conservation achieved through the Water For Life strategy
- Infrastructure changes that have occurred since the MSS was issued, including the East Calgary Regional Water (ECRW) pipeline, Wildflower Reservoir, Wastewater Treatment Plant (WWTP) upgrades, changes to the tertiary sewage outfall (BTO), Brentwood Upgrades, new distribution pipes, etc.

Population Projections

The projected population of the Town and growth sequence have been updated utilizing to-date census data and "Town of Strathmore Growth Study 2008", by Brown & Associates Planning Group. The annexation land based on a 7 percent growth rate to 2018, 5 percent from 2019 to 2027, 2.5 percent from 2028 to 2038 and 1 percent from 2039 to 2061, is found to support the Town's growth needs beyond 2061 or when the population is predicted to reach 53,372. The sequence of the growth is assumed as shown on **Figure 3.2**.

Water Supply and Distribution System

There were significant changes in Town's water supply, storage, pumping and distribution systems since 2006 based on the following:

- Changes to the population growth rate based on Brown & Associates growth study (2008).
- Changes in water consumption and water conservation achieved through the Alberta's 'Water for Life' strategy.
- Infrastructure changes, including the East Calgary Regional Water (ECRW) pipeline, Brentwood pump station and pipeline upgrades, Wildflower Reservoir, new transmission and distribution pipes, etc.

The Town provided the water demand records based on monthly average consumption data. There is a noticeable decline of the average litre per capita per day (L/c/d) consumption rate over the past three years and is more likely due to the Town's response to Alberta's 'Water for Life' conservation strategy. Therefore, an average per capita consumption of 375 L/c/d (actually occurred in 2008) which is the

maximum consumption in the last five years has replaced the MSS 2006's 415 L/c/d consumption and is used for projecting water demands for next 50 years from 2010. It is also assumed that the Town will achieve water conservation of 1% each year on average for the next 30 years starting from the year 2011 up to 2040. After 2040 an average consumption of 263 L/c/d is used up to 2061. It should be noted that the average per capita consumptions include residential and commercial/industrial demands.

The Town of Strathmore engaged partners in the City of Calgary and the Town of Chestermere to undertake the construction of the East Calgary Regional Waterline (ECRW) to supply water to meet the Towns of Strathmore and Chestermere's future water demands until the year 2031.

The regional water supply pipeline was designed to supply more than 561 L/s of water to nearly 100,000 people living in the area east of Calgary: Chestermere (190 L/s); Strathmore (201 L/s); the MD of Rocky View (85 L/s); and Wheatland County (85 L/s). The ultimate share of the Town of Strathmore is 201 L/s which will be sufficient to meet the demand of the projected 2022 population of approximately 26,000 based on water conservation and projected demand shown in Section 4.0. In addition, Wheatland County's share of 85 L/s is also available at Strathmore if Wheatland does not tie-in to the ECRW pipeline. The capacity of the ECRW can be increased by adding booster station in the future.

The following upgrades were also made in the Brentwood Pump Station in 2010 as noted in Stantec, 2009. These upgrades exceed the requirements in Alberta Environment, 2006 (AENV) and Fire Underwriters Survey, 1999 (FUS) for the 2012 population:

- A new 400 mm discharge piping header was installed into the pump gallery, connected with the outside 400 mm line via existing pipe stub.
- Existing pumps 1 and 2 were replaced with new 93 kW (125 HP) vertical inline pumps. Both pumps were equipped with variable frequency drive (VFD).
- Rewiring was done for one of the existing 22.4 kW (30 HP) VFDs to remain as pump 3.
- Existing diesel-powered fire pump (90 kW) is still in service.
- The distribution pumping capacity has been upgraded to a total of 420.5 L/s with all pumps in service and 285.5 L/s with the largest pump (fire pump) out of service which satisfied the Peak Hourly Demand (PHD) of 282 L/s for the year 2012.

The present treated water storage capacity of Town of Strathmore is 8,270 m³ and additional capacity is required immediately. However, the Wildflower Reservoir (11,500 m³) is scheduled to be built and added into the system by 2013 after which the total available storage will be 19,770 m³ which will be sufficient to serve the 2026 population of 30,815. The Town will have to commission the proposed east reservoir to meet the additional demand prior to when the population exceeds 30,815 projected to be in 2026. A detailed study will be required to size the east reservoir based on current demand and other requirements such as phasing out of Westmount and Brentwood reservoirs after completing their service life.

Further analysis consisted of modeling the existing system, the system at the end of the design of East Calgary Regional Pipeline in 2046 and at the ultimate build out population in 2061. After modeling these scenarios, it was observed that:

- Similar to the modeling scenarios used for the ultimate flows where eight demand nodes were used to simulate the Town's water supply and 26 demand nodes to represent the annexed areas, the results of these models did not differ significantly.

- Based on the modeling, there are indications that the proposed annexation areas including the existing Town can be serviced adequately with all demands and fire flows by constructing two new treated water storage reservoirs and by maintaining the existing Brentwood reservoir and Westmount reservoir in operation with improvements to the existing Brentwood distribution pump station as required to service the projected demands.
- The existing Westmount pump station has very little or no impact on the proposed distribution system due to its limited pumping capacity and would have to be upgraded significantly to adequately contribute to the distribution system. However, the existing storage capacity should be utilized in future by pumping water into the distribution system during low demand periods.
- The 400 mm and 300 mm loop around the Town should be a designated transmission main because pressures in this main exceed the recommended maximum of 56.30 m (80 psi) for direct connection to users. Pressure reducing valve (PRV) stations need to be installed on branch-offs from the transmission main to reduce the pressures in the distribution system. The transmission main should not have any house service connections connected to it other than where existing mains are used for the transmission main loop to reduce risk of a major failure. If there are service connections on the existing mains that are designated as transmission mains, then these service lines shall require individual PRVs. The distribution system is assumed to be connected to the transmission main by at least one 250 mm diameter pipe or larger per quarter section of land.

The study identified the following upgrades to the system to meet the current and ultimate projected population demands:

- Upsize several existing distribution pipes as show in **Figure 4.3**.
- Construction of two new reservoirs and associated distribution pump stations and associated piping and looping as shown in **Figure 4.4**.

The construction of the proposed improvements to service the Town and annexation areas should be staged as required to adequately address demands of the Town and of new development areas. The construction of the new east reservoir and pump station should coincide with the decommissioning of Westmount and Brentwood reservoirs and pump stations as shown in *Table 4.4*.

Sanitary Sewer System

The sanitary sewer system evaluation provided a plan for the future annexation areas incorporating the existing collection system. During MSS – Annexation 2006, several reports and actual data from EPCOR's records were reviewed to establish the design criteria and to evaluate the existing and proposed sanitary sewerage system requirements. For this update, recent development that occurred in last five years, planning documents and area structure plans with different servicing considerations were reviewed to update existing infrastructures and a high level evaluation of future infrastructure needs.

The Town's existing sanitary sewer collection system consists of central and eastern trunks. **Figure 5.1** shows the current area serviced by each trunk system and the general locations including trunk sizing.

The Town of Strathmore first completed the construction of existing treated wastewater effluent pipeline and outfall in 2006. This pipeline conveyed the treated wastewater effluent from the Wastewater Treatment Plant to a secondary channel of the Bow River 21 km from the Town.

However, Alberta Environment Approval 1190-02-00 required the Town to relocate the effluent discharge point from its previous location on the secondary channel to a new location on the main stem of the Bow River and the Town completed the relocation in 2011.

1.0 Introduction

The Town of Strathmore's (the Town) annexation of approximately eighteen and half quarter-sections of land from Wheatland County has significantly increased the land available for municipal development. In order to incorporate these annexed lands without compromising the reliability of the existing municipal services, an update of the *Town of Strathmore Master Servicing Study (MSS) – Annexation 2006* prepared by UMA/AECOM, May, 2007 and the addendum issued on April 15, 2008 was necessary. The scope of the update has been limited to modifying the existing MSS by utilizing the existing MSS as a basis and simply updating information as practical with new boundary and other limited information without altering the basis of the original MSS. This is not a new Master Servicing Study, but an update.

- The update has incorporated the following: Addition of the lands in the annexation not included in the MSS – Annexation 2006
- Changes to the population growth rate based on Brown & Associates growth study (2008)
- Water conservation achieved through the Water For Life strategy
- Infrastructure changes that have occurred since the MSS was issued, including the East Calgary Regional Water (ECRW) pipeline, Wildflower Reservoir (Associated Engineering, Pre-Design Report), BTO/WWTP upgrades, Brentwood Upgrades (EPCOR, Pre-Design Report), new distribution pipes, etc.

Figure 2.1 shows the annexation lands on the north, south, west, and east of the Town's boundaries.

This report also presents the changes occurred to the existing water and wastewater infrastructure since MSS – Annexation 2006 and hence updated information in the following systems only:

- Water Supply and Distribution System
- Sanitary Sewerage System

2.0 Study Area

The Town is located approximately 40 km east of the City of Calgary limits along Highway 1, the TransCanada Highway (TCH). The topography of the Town is generally flat with a maximum elevation difference of 27 m generally draining from north to southeast. The TCH bisects the Town from east to west. The main irrigation canal owned and maintained by the Western Irrigation District (WID) flows through the Town.

The study area includes the area within existing Town boundaries and approximately 18.5-quarter sections (1184 hectares) of annexation lands as shown in **Figure 2.1**.

ISS/REV: 0A

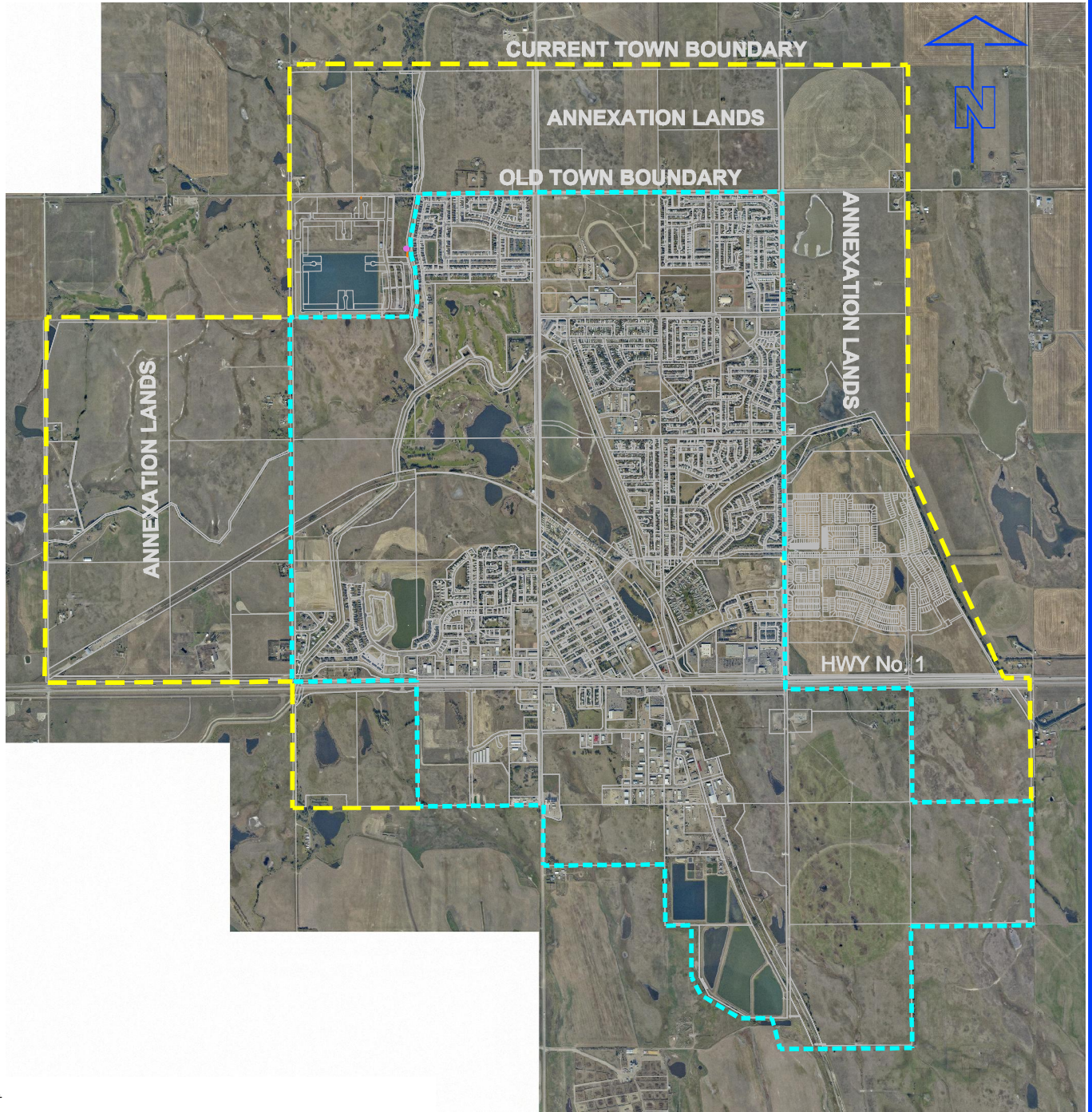
AECOM FILE NAME: 60230105-00-C-F003--R0X.dwg

Saved By: gjmp

PLOT: 12/11/26 11:34:37 AM

A SIZE 8.5" x 11" (215.9mm x 279.4mm)

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. All measurements must be obtained from stated dimensions. Do not scale this document.



Town of Strathmore
Master Servicing Study
Annexation 2011
Service Area

Figure - 2.1

3.0 Population Analysis and Projections

3.1 Population Projections

Table 3.1 shows the population statistics for the Town for the last 35 years.

Table 3.1: Population of the Town from 1976 to 2010

Year	Population	% Growth
1976	1,560	-
1981	2,990	9%
1986	3,540	1%
1990	3,746	5%
1991	4,185	10%
1992	4,408	5%
1993	4,603	4%
1994	4,880	6%
1995	5,088	4%
1996	5,273	4%
1997	5,471	4%
1998	6,045	9%
1999	6,794	11%
2000	7,165	5%
2001	7,455	4%
2002	8,022	7%
2003	8,640	8%
2004	9,115	5%
2005	9,662	6%
2006	10,336	7%
2007	11,102	7%
2008	11,335	2%
2009	11,838	4%
2010	12,139	3%

The projected population of the Town and growth sequence have been updated utilizing census data from Table 3.1 and information from Brown & Associates, 2008. The projected population is calculated based on a 7 percent growth rate to 2018, 5 percent from 2019 to 2027, 2.5 percent from 2027 to 2038 and 1 percent from 2039 to 2061 to an ultimate population of 53,372 by 2061.

Table 3.2: The Town's Population Projected from 2010 to 2061

Year	Total Population	Cumulative Population Growth	Population per growth period
2010	12,139	-	
2011	12,989	850	
2012	13,898	1,759	
2013	14,871	2,732	
2014	15,912	3,773	
2015	17,026	4,887	
2016	18,217	6,078	6,078 (0 to 5 years)
2017	19,493	7,354	
2018	20,857	8,718	
2019	21,900	9,761	
2020	22,995	10,856	
2021	24,145	12,006	
2022	25,352	13,213	
2023	26,619	14,480	
2024	27,950	15,811	
2025	29,348	17,209	
2026	30,815	18,676	12,598 (5 to 15 years)
2027	32,356	20,217	
2028	33,165	21,026	
2029	33,994	21,855	
2030	34,844	22,705	
2031	35,715	23,576	
2032	36,608	24,469	
2033	37,523	25,384	
2034	38,461	26,322	
2035	39,423	27,284	
2036	40,408	28,269	9,593 (15 to 25 years)
2037	41,419	29,280	
2038	42,454	30,315	
2039	42,879	30,740	
2040	43,307	31,168	
2041	43,740	31,601	
2042	44,178	32,039	
2043	44,620	32,481	
2044	45,066	32,927	
2045	45,5	33,378	
2046	45,972	33,833	5,563 (25 to 35 years)

Year	Total Population	Cumulative Population Growth	Population per growth period
2047	46,431	34,292	
2048	46,896	34,757	
2049	47,365	35,226	
2050	47,838	35,699	
2051	48,317	36,178	
2052	48,800	36,661	
2053	49,288	37,149	
2054	49,781	37,642	
2055	50,279	38,140	
2056	50,781	38,642	
2057	51,289	39,150	
2058	51,802	39,663	
2059	52,320	40,181	
2060	52,843	40,704	
2061	53,372	41,233	7,400 (35 to 50 years)

3.2 Population Density

For the purposes of this update, the population density criteria is based upon the offsite levies valuations utilising Brown & Associates, 2008 for the residential and industrial/commercial zone. The population density was based on 43 persons per gross hectare (17 persons/acre) for residential areas and 33 persons per gross hectare (13 persons/acre) for commercial/industrial zones.

As no new planning documents were available for the annexation lands, our assumption is not changed from that of UMA/AECOM 2006 and remains as all annexation lands are residential urban reserve, excluding the area between the frontage road and the TUC and an additional 30 percent of gross area for commercial/industrial zoning. The current and future assumed land use is shown in **Figure 3.1**.

3.3 Development Cells

Approximately 18.5-quarter sections outside the Town's boundaries are to be included as future development cells to be serviced by the Town's systems as opposed to 14-quarter sections that were included in MSS – Annexation 2006. **Figure 3.2** shows the proposed development cells and estimated periods for development of these cells. The time frames have been divided into the following five phases:

- 0 to 5 years
- 5 to 15 years
- 15 to 25 years
- 25 to 35 years
- 35 to 50+ years

ISS/REV: 0A

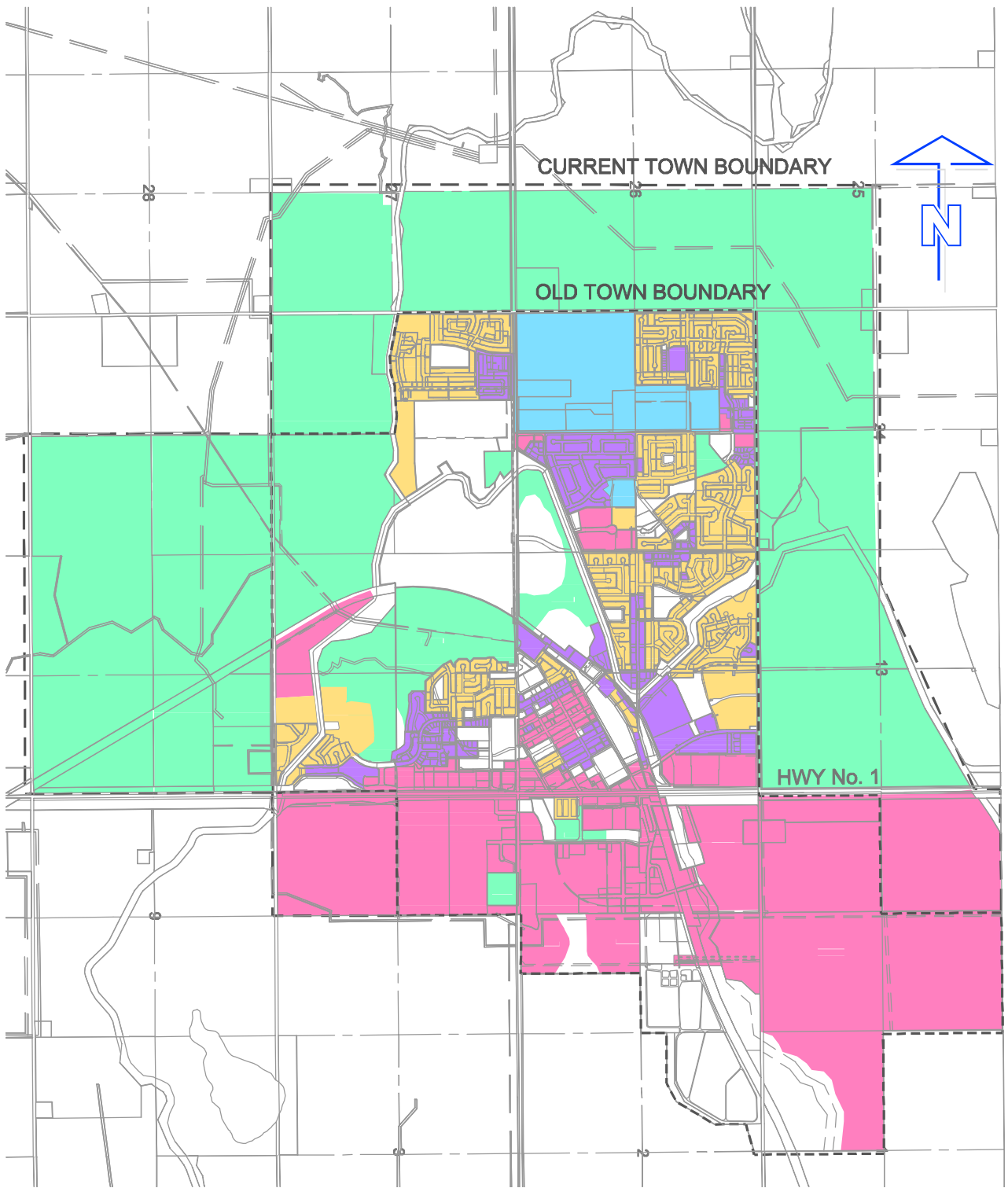
AECOM FILE NAME: 60230105-00-C-F016--RX.dwg

Saved By: girnp

PLOT: 12/11/08 10:00:32 AM

A SIZE 8.5" x 11" (215.9mm x 279.4mm)

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. All measurements must be obtained from stated dimensions. Do not scale this document.



LEGEND

- Single Family Residential
- Multifamily Residential
- Commercial/Industrial
- Schools
- Urban Reserve

Town of Strathmore
Master Servicing Study
Annexation 2011
Assumed Land Use



Figure - 3.1

The areas shown on **Figure 3.2** are updated from MSS – Annexation 2006 that are based on development occurred since 2006 and the development that are under planning phase. *Table 3.3* shows the projected population per development phase over 50 years period.

Table 3.3: Projected Population per Development Phase

Development Phase	Population
0 to 5 years	6,078
5 to 15 years	12,598
15 to 25 years	9,593
25 to 35 years	5,563
35 to 50 years	7,400
Total	41,233

Table 3.4 shows the areas of each phase to be annexed and the percentages of the commercial and residential split.

Table 3.4: Area of Development Cells

Development Phase	Residential Area	Industrial/Commercial Area	Residential Area (ha)	Commercial Area (ha)	Total Area (ha)
0 to 5 years	70%	30%	121	52	173
5 to 15 years	70%	30%	251	107	358
15 to 25 years	70%	30%	193	83	275
25 to 35 years	70%	30%	111	47	158
35 to 50+ years	70%	30%	504	216	720
Total					1,684

Table 3.5 shows the population forecast for the development cells based on the area multiplied by the residential and commercial population densities.

Table 3.5: Population Forecast for the Development Cells

Development Phase	Residential Population	Industrial/Commercial Population	Total Population
0 to 5 years	5,207	1,713	6,920
5 to 15 years	10,776	3,544	14,320
15 to 25 years	8,278	2,723	11,000
25 to 35 years	4,756	1,564	6,320
35 to 50+ years	21,672	7,128	28,800
Total	50,688	16,672	67,360

ISS/REV: 0A

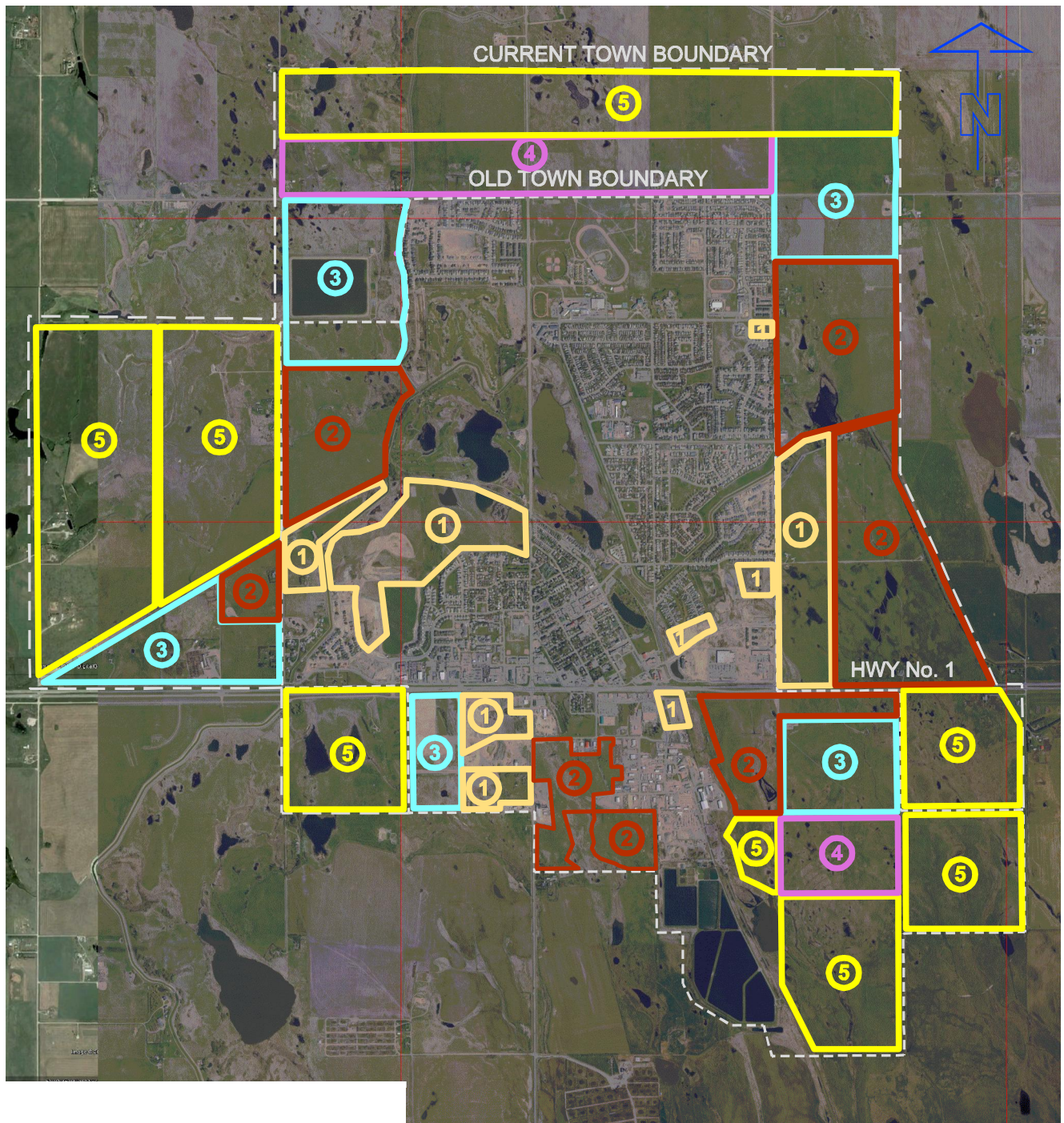
AECOM FILE NAME: 60230105-00-C-F005--R0X.dwg

Saved By: gjrnp

PLOT: 12/11/08 1:17:37 PM

A SIZE 8.5" x 11" (215.9mm x 279.4mm)

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.



LEGEND

- 1 0 TO 5 YEARS
- 2 5 TO 15 YEARS
- 3 15 TO 25 YEARS
- 4 25 TO 35 YEARS
- 5 35 TO 50 + YEARS

Town of Strathmore Master Servicing Study Annexation 2011 Staged Development Plan

Figure - 3.2

4.0 Water Supply and Distribution

4.1 Introduction

This study has updated the existing and proposed water supply and distribution requirements. The design criteria that were used in the MSS – Annexation 2006 are updated based on different design basis summaries. These were prepared by different consultants before installing and upgrading the infrastructures and before consideration of new water consumption data received from Town for the period of last six years since 2006.

There were also significant changes in Town's water supply, storage, pumping, transmission and distribution systems since 2006 based on the following:

- Changes to the population growth rate based on Brown & Associates, 2008.
- Changes in water consumption and water conservation achieved through the Alberta's 'Water for Life' strategy.
- Infrastructure changes that have occurred since 2006, including the East Calgary Regional Water (ECRW) pipeline, Brentwood pump station and pipeline upgrades, Wildflower Reservoir, new transmission and distribution pipes, etc.
- Water consumption data based on EPCOR's annual reports from 2005 to 2011.

4.2 Historical Water Usage and Design Criteria

Water demand records were based on monthly average flow data provided by the Town. *Table 4.1* summarizes the historical water demand.

Table 4.1: Historical Water Demand

Year	Population	Annual Demand m ³	Average Annual per Capita per Day Consumption L/c/d	Average Daily Demand m ³	Average Monthly Demand m ³	Peak Monthly Demand m ³	Peak Month Factor
2005	9,662	1,305,704	370	3,577	108,809	142,935	1.31
2006	10,336	1,619,866	429	4,438	134,989	171,256	1.27
2007	11,102	1,483,773	366	4,065	123,648	175,041	1.42
2008	11,335	1,555,299	375	4,249	129,608	174,520	1.35
2009	11,838	1,510,659	350	4,139	125,888	158,667	1.26
2010	12,139	1,450,443	327	3,974	120,870	168,586	1.39
2011	12,989 ¹	1,469,802	310	4,027	122,484	165,052	1.35
Average			361	4,067	123,757	165,151	1.34

¹Projected population data

The noticeable decline of the average per capita per day consumption over the past three years was more likely due to the Town's response to Alberta's 'Water for Life' conservation strategy. Therefore, an average per capita consumption of 375 L/c/d (occurred in 2008) which is the maximum consumption in last five years replaced the 415 L/c/d consumption used in MSS - 2006 and is used for projecting water demands. It should be noted that the average per capita consumptions include residential and commercial/industrial demands.

It is also assumed that the Town will achieve water conservation of 1% each year on average for next 30 years starting from the year 2011 up to 2040. From 2041 to 2061 an average consumption of 263 L/c/d has been assumed. While using the lower water consumption data, average consumption is to be utilised only for major infrastructure planning as such as reservoir, pump station, etc. and will have to be confirmed with future studies. *Table 4.2* shows present and projected water demands for the Town of Strathmore for the 50 year design period.

Peak daily demand data was unavailable from year 2006 so the peak day factor of 2.0 and peak hourly factor of 4.0 remained unchanged to establish peak day and peak hourly demands.

Table 4.2: Present and Projected Water Demands (m³/day)

Year	Population	Average per capita per day consumption	Average day demand	Peak day demand PDF 2.0	Peak hour demand PHF 4.0	Treated Water Storage Requirement ¹
		L/c/d	L/s	L/s	L/s	m ³
2010	12,139	375	53	105	211	9,104
2011	12,989	371	56	112	223	9,638
2016	18,217	353	74	149	298	12,861
2021	24,145	334	93	187	373	16,129
2026	30,815	315	112	225	449	19,413
2031	35,715	296	122	245	489	21,143
2036	40,408	278	130	260	520	22,467
2041	43,740	263	133	266	533	23,007
2046	45,972	263	140	280	560	24,181
2051	48,317	263	147	294	588	25,415
2056	50,781	263	155	309	618	26,711
2061	53,372	263	162	325	650	28,074

¹ *Treated water storage requirements have been assumed to be (2 x average per capita per day x population)/1000, which is greater than the AENV requirements.*

4.3 East Calgary Regional Waterline (ECRW) and Existing Water Supply System

The Town of Strathmore engaged partners in the City of Calgary and the Town of Chestermere to undertake the construction of the East Calgary Regional Waterline to supply water to meet the Towns of Strathmore and Chestermere's future water demands until the year 2031.

While the pipeline currently only services Strathmore and Chestermere, it is designed to accommodate the supply to other neighbouring regions when this becomes necessary or desired. Strathmore received provincial funding through the Water for Life strategy to design and construct the water line as announced on May 12th, 2007.

The regional water supply pipeline was designed as a gravity pressure main to supply more than 561 L/s of water to nearly 100,000 people living in the area east of Calgary: Chestermere (190 L/s); Strathmore (201 L/s); the MD of Rocky View (85 L/s); and Wheatland County (85 l/s). The ultimate share of Town of Strathmore is 201 L/s which will be sufficient to meet the demand of the 2022 population of approximately 26,000 based on water conservation and projected demand shown in *Table 4.2*. In addition, Wheatland County's share of 85 l/s is also available at Strathmore if Wheatland does not tie-in to ECRW pipeline. In addition, the capacity of ECRW can be increased by adding booster station in the future.

The pipeline is approximately 45 km in total length and ties into the City of Calgary feeder main system at the intersection of 50th Avenue and 52nd Street SE. The pipeline alignment travels east from this intersection generally following Township Road 240 until just before Strathmore where it veers northeast and enters Strathmore near Highway #1 at the west Town limit.

The City of Calgary section of the pipeline starts off as a 900mm diameter Concrete Coated Steel (CCS) and steel pipe. Between the City and Range Road 272, the pipeline tapers down to a 750mm diameter PVC pipe. The pipeline then reduces down to a 600mm diameter PVC pipe starting from Range Road 272 and ending at the first WID canal crossing near the CP Rail crossing. After this crossing, the pipeline reduces down to a 500mm diameter PVC pipe and continues at this diameter until Wildflower Reservoir which is the pipeline's final destination. The capacity of this pipeline can be increased in the future by addition of a pump station.

After the ECRW pipeline was completed in 2009, the Town of Strathmore decommissioned the raw water reservoir and old water treatment plant. **Figure 4.1** shows the existing water supply storage system connected to ECRW pipeline.

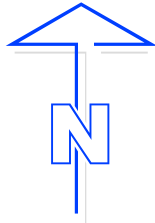
4.4 Treated Water Storage Capacity

Table 4.3 shows the current treated water storage capacity available to the Town. This information, combined with the information provided in *Table 4.2*, determines that an upgrade to increase the present treated water storage capacity of 8,270 m³ would be required immediately. However, the Wildflower Reservoir is scheduled to be built and added into the system by 2013 and the total available storage will be 19,770 m³ which will be sufficient to serve the 2026 population of 30,815.

Table 4.3: Present Treated Water Storage Capacity

Reservoir	Storage Capacity m ³
Brentwood Reservoir (usable storage)	6,000
Westmount Reservoir	2,270
Wildflower Reservoir (in 2013)	11,500
Total Treated Water Storage Available by 2013	19,770

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.



SCALE 1:15000



Based on current projections the Town will have to commission the east reservoir to meet the additional demand when the population exceeds 30,815 projected to occur by 2026. A detailed study will be required to size the east reservoir based on current demand and other requirements such as phasing out of Westmount and Brentwood reservoirs after completing their service life as shown in *Table 4.4*.

Table 4.4: Future Treated Water Storage Planning

Year	Brentwood Reservoir m ³	Westmount Reservoir m ³	Wildflower Reservoir m ³	Future East Reservoir m ³	Total Reservoir Capacity	Required Storage m ³	Balance Storage m ³	Comments
2010	6,000	2,270			8,270	9,104	-834	
2011	6,000	2,270			8,270	9,638	-1,368	
2016	6,000	2,270	11,500		19,770	12,861	6,909	New Wildflower Reservoir add in 2013
2021	6,000		11,500		17,500	16,129	1,371	Westmount Reservoir decommissioned & converted to truck fill station, etc.
2026	6,000		11,500	6,000	23,500	19,413	4,087	First cell of East Reservoir added
2031	6,000		11,500	6,000	23,500	21,143	2,357	Brentwood Reservoir decommissioned due to age (estimate only)
2036			11,500	12,000	23,500	22,467	1,033	Second cell of East Reservoir added
2041			11,500	12,000	23,500	23,007	493	
2046			11,500	18,000	29,500	24,181	5,319	Third cell of East Reservoir added
2051			11,500	18,000	29,500	25,415	4,085	
2056			11,500	18,000	29,500	26,447	3,053	
2061			11,500	18,000	29,500	28,074	1,426	

4.4.1 Westmount Reservoir

The Westmount Reservoir is currently fed from the distribution system through a bypass comprising of a pressure-reducing valve that allows water from the Westlake Road pressure zone to fill the reservoir.

Upgrades to the Westmount Reservoir will need to be undertaken to upgrade the pumping capacity in order to meet the hydraulic grade line requirement of 1028 m if it is to remain as part of distribution system. Additional study will need to be undertaken to confirm feasibility of any upgrade or modifications.

4.4.2 Brentwood Reservoir including Upgrades to the Pump Station

Brentwood Pump Station was upgraded in 2010 to meet the current demand of the water distribution system and provides the majority of the storage and system pressure until the Wildflower Reservoir is commissioned in 2013 and there is also need for future pump upgrades to the Brentwood Pump Station in or after 2012 as indicated in the design summary, Stantec 2009.

As part of the preparation of the Brentwood pump station design summary Stantec, 2009, the short and long term requirements of the Town's water servicing strategy was constituted as follows:

- The pipeline between the Wildflower and Brentwood Reservoirs would be used as a feeder main.
- The combination of Wildflower and Brentwood Reservoirs must provide storage capacity for a population numbering about 27,000 (Town population to 2022).
- Westmount Reservoir is assumed to be non-contributing to the Town's storage capacity requirement in 2022.
- A minimum requirement for 2 average days of water storage when the regional line is operational.
- In designing the pump upgrades, there must be one pressure zone maintained across the Town.
- There must be redundancy such that one reservoir (either Wildflower or Brentwood) can be taken off-line. The single remaining reservoir should have distribution capacity (pumping and pressure) to service the Town's population numbering about 27,000.
- The 2022 design capacity of Brentwood does not require standby capacity at the full (27,000 population) operation condition as this is not the normal system operation.

The following upgrades were made in the Brentwood Pump Station in 2010:

- A new 400 mm discharge piping header was installed into the pump gallery, connected with outside 400 mm line via existing pipe stub.
- Existing pumps 1 and 2 were replaced with new 93 kW (125 HP) vertical inline pumps. Both pumps were equipped with variable frequency drive (VFD).
- Rewiring was done for one of the existing 22.4 kW (30 HP) VFDs to remain as pump 3.
- Existing diesel-powered fire pump (90 kW) is still remaining in service.
- The distribution pumping capacity has been upgraded to a total of 420.5 L/s with all pumps in service and 285.5 L/s with the largest pump (fire pump) out of service which satisfied the Peak Hourly Demand (PHD) of 282 L/s for the year 2012.

The recommended upgrades to the Brentwood Reservoir and Pump Station were designed to meet the requirement of hydraulic grade line of 1028 m.

4.4.3 Wildflower Reservoir and Pump Station

The Wildflower reservoir and Pump Station was in the preliminary design phase when this MSS update was prepared. The reservoir capacity is designed to be 11,500 m³ with two storage cells and a pump well (1.07 ML well capacity) with 100 l/s inlet capacity for ECRW pipeline. The East Calgary Regional Water Line (ECRW) will be redirected into the new pump station. As indicated in MSS – Annexation 2006 a hydraulic grade line of 1028 m will be maintained at the discharge point with the provision to lower the pressure to 1026 m.

Wildflower Pump Station will initially be equipped with one 16 kW (30 L/s at 431 kPa) and three 44 kW (68 L/s at 431 kPa) pumps. Two of the pumps, including the smallest one, will be supported with variable frequency drive (VFD) units to allow more efficient operation over a wide range of flow demands with alternative to expand in the future.

4.4.4 Future East Reservoir and Pump Station

A future East Reservoir located near the intersection of East Lake Road and George Freeman Trail will be required to meet the storage demand for the Town estimated to be 2026 (30,815 people). In addition, to provide alternative storage for future growth, the East Reservoir will need to be expanded to replace the Westmount Reservoir and pump station and ultimately the Brentwood.

Table 4.5 shows the future pumping system capacity planning for Town of Strathmore.

Table 4.5: Future Pumping System Capacity Planning

Year	Peak Hourly Demand L/s	Max Day Demand plus Fire flows L/s	Brentwood Pump Station L/s	Westmount Pump Station L/s	Wildflower Pump Station L/s	Future Pump Station L/s	Total Pump Station Capacity* L/s	Required Pump Capacity L/s	Surplus Capacity L/s	Comments
2010	211	305	286	225			511	305	206	
2011	223	312	286	225			511	312	199	
2016	298	349	286	0	234		520	349	171	New Wildflower Reservoir (11,500m ³) add in 2013
2021	373	387	286		234		520	387	133	Westmount Reservoir (2,270m ³) decommissioned and converted to truck fill station, etc.
2026	449	425	286		234	161	681	449	232	First cell of East Reservoir added
2031	489	445	286		234	161	681	489	192	Brentwood Reservoir decommissioned due to age (estimate only)
2036	520	460			288	288	576	520	56	Second cell of East Reservoir added
2041	533	466			288	288	576	533	43	
2046	560	480			288	362	650	560	90	Third cell of East Reservoir added
2051	588	494			288	362	650	588	62	
2056	618	509			288	362	650	618	32	
2061	650	525			288	489	777	650	127	

 Governing Flows

* Assumes the large pump is out of service.

4.5 Existing Water Distribution System

Figure 4.2 shows the existing Town's distribution system consisting of two active pump stations that house both distribution and fire pumps and a distribution pipe network comprising distribution pipes ranging in dia. from 50mm to 400mm, pressure-reducing valves, and isolation valves. Wildflower pump station is shown as well which will be commissioned in 2013.

Table 4.6 shows the available flow from the existing distribution and fire pumps. This information was obtained from Stantec, 2009, Associated Engineering, 2011 and EPCOR's records.

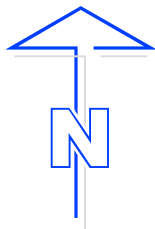
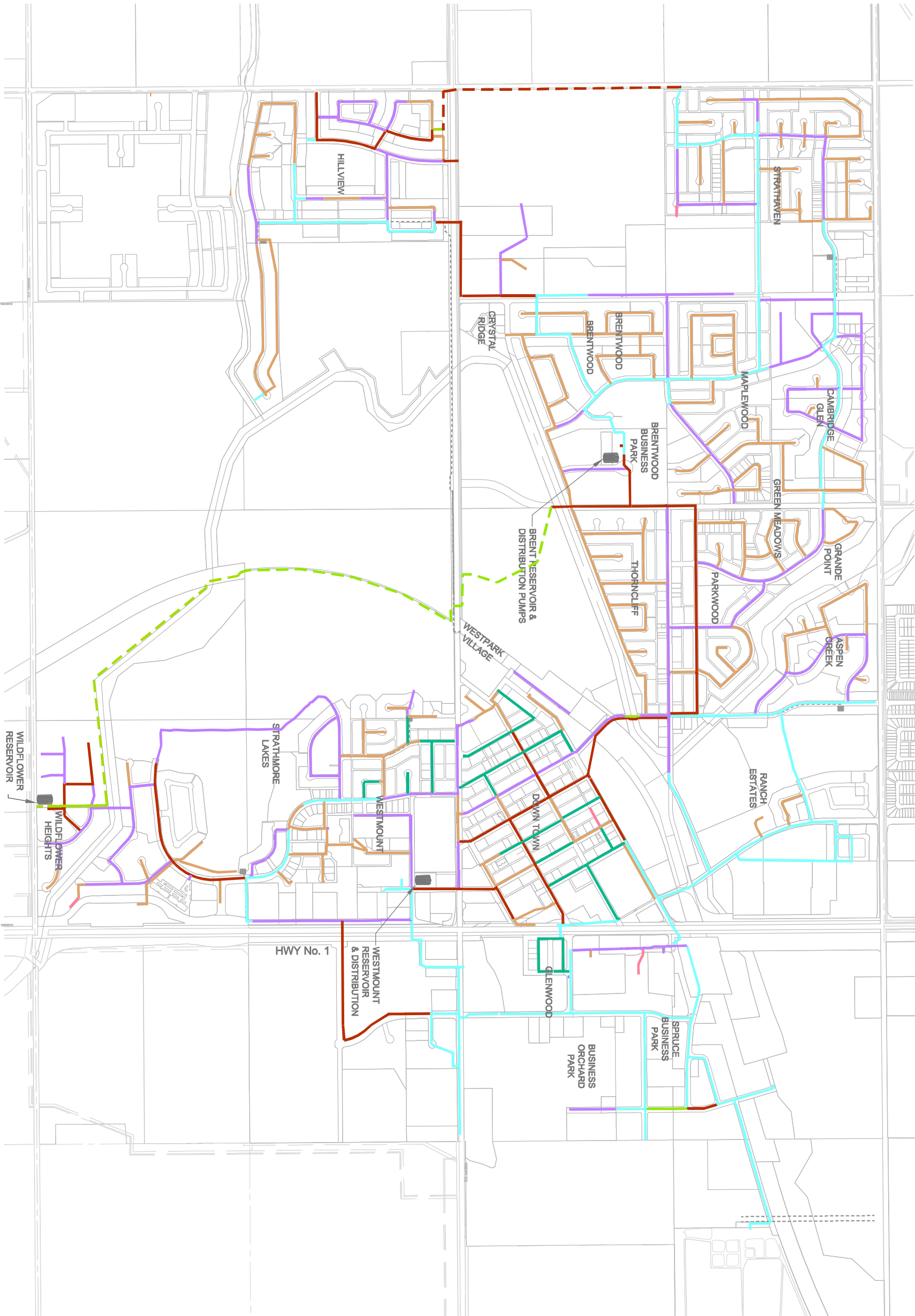
Table 4.6: Available Flow from the Existing Distribution and Fire Pumps

ID	Pump Operation	Pumping Capacity (L/s)
Brentwood Distribution	Pump B1	127.0
	Pump B1 and B2	254.0
	Pump B1, B2 and B3	285.5
	Fire Pump	135.0
	Pump B1, B2, B3 and Fire Pump	420.5
Westmount Distribution	Pump W1	46.6
	Pump W1 and W2	91.6
	Fire Pump	133.3
	Pump W1, W2 and Fire Pump	224.9
Wildflower Distribution (2013)	Pump WF1	30.0
	Pump WF1 and WF2	98.0
	Pump WF1, WF2 and WF3	166.0
	Pump WF1, WF2, WF3 and WF4	234.0
Combined Brentwood and Westmount Distribution with largest pumps out of service in each facility	Pump B1, B2, B3, W1 and W2	377.1

4.6 Water Supply and Distribution System Modelling

The main objective of modelling the water supply and distribution system was to assess the weaknesses of the present system and recommend upgrades to the system to enable the system to cater for the projected future population of Strathmore. We used WaterGEMS® version 8i (SELECT series 1) to model the Town's water supply and distribution system. Data used in these models was previously imported from EPCOR's SynerGEE® water model Version 3.23.

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.



- LEGEND:**
- 50mm
 - 100mm
 - 150mm
 - 200mm
 - 250mm
 - 300mm
 - 350mm
 - 400mm
 - 500mm
 - 300mm (Transmission)
 - 350mm (Transmission)
 - 500mm (Transmission)



SCALE 1:15000



Town of Stratmore
Master Servicing Study
Annexation 2011

Existing Water
Distribution Pipeline Sizes
Figure 4.2

4.7 Water Supply and Distribution System Modeling Parameters

The following modeling parameters were used:

- Projected demands as per *Table 4.2*.
- Treated water storage requirement shall be greater of Alberta Environment guidelines = (fire flow + emergency + equalization) or as per ECRW = (2.0 x average per capita per day demand for regional system).
- Projected demands meet peak hourly flows or maximum day demand plus fire flows during simulated fire events.
- Existing Westmount and Brentwood storage and pumping facilities were maintained with upgrading of distribution pumps to accommodate projected demands.
- Existing Westmount reservoir was replenished through the distribution system with no designated supply mains.
- New reservoirs were replenished from the East Calgary Region Water Pipeline at peak day demands.
- Required fire flow was 200 L/s for 3 hours.
- A Hazen-Williams friction factor of C=130 was used for all new pipes and EPCOR supplied C factor for existing pipe network.
- A residential pressure range for water supply was maintained between 28.2 m (40 psi) and 56.3 m (80 psi).
- Hydraulic grade of 1028 m was used for PRVs for any existing or proposed developments below 971.70m.

4.8 Fire Flow Analysis and Water Distribution System Upgrades

EPCOR had conducted a fire flow assessment of the distribution system and proposed upgrades to ensure recommended fire flows were achieved by the distribution system. We updated EPCOR's model by including new pipes due to recent developments and upgraded pipes. *Table 4.6* shows the minimum fire flow guidelines recommended by EPCOR.

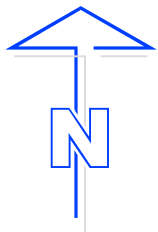
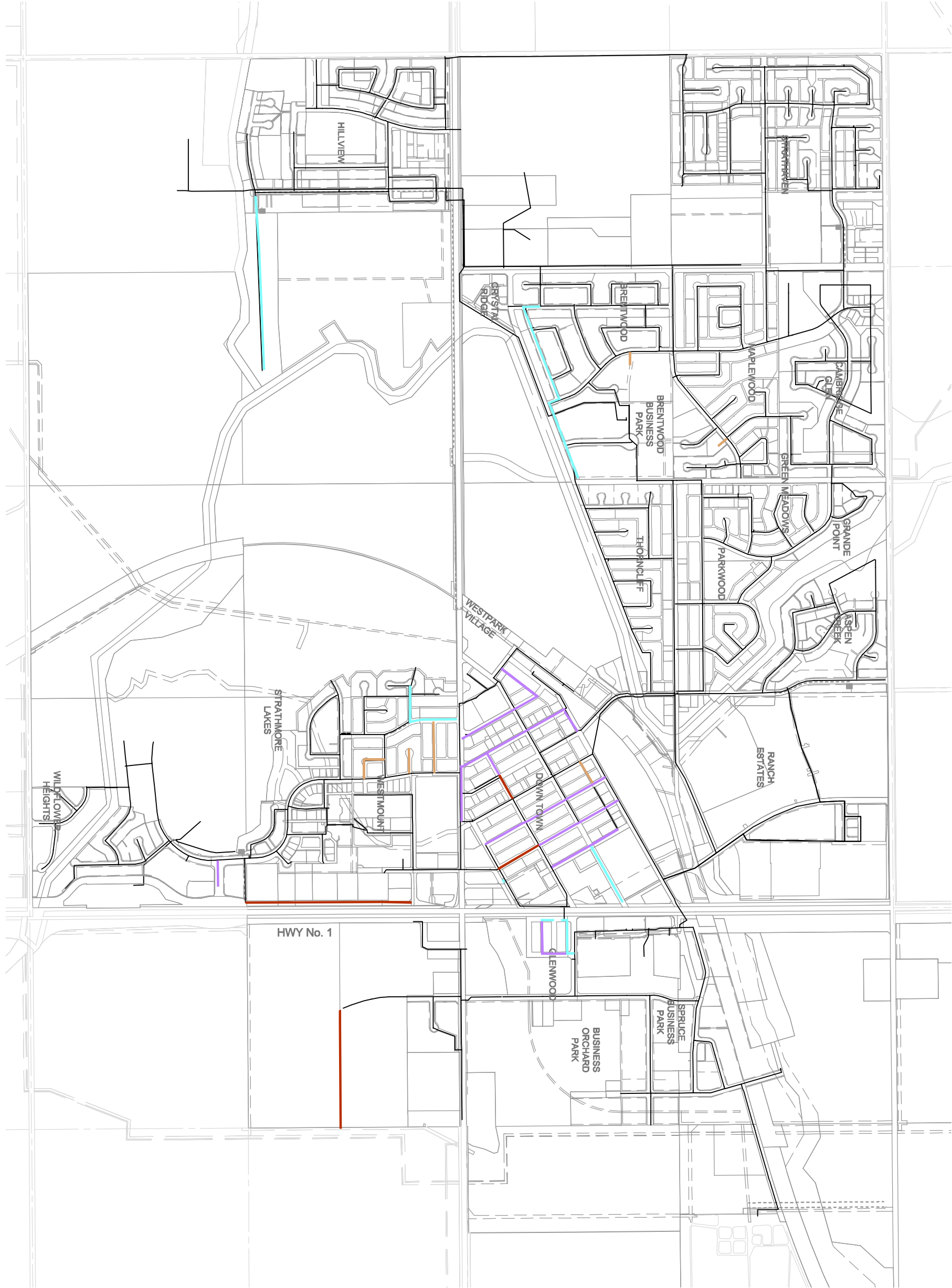
Table 4.7: Recommended Minimum Fire Flows

Land Use	Fire Flow
Single family residential	60 L/s
Multifamily residential	120 L/s
School	190 L/s
Commercial/industrial	200 L/s

Using WaterGEMS® version 8i (SELECT series 1), an analysis was conducted by simulating fires at all nodes in the distribution system to determine the maximum flow that could be obtained without going below the set residual pressure of 140 kPa (20 psi). Data used in this model was imported from EPCOR's SynerGEE® water model Version 3.23.

The results of this simulation are included in [Appendix A1](#). Upgrades recommended to improve the fire flows are shown in [Figure 4.3](#). [Appendix A2](#) shows the scenario after the proposed upgrades are included.

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.



LEGEND:

- 150mm WM UPGRADE
- 200mm WM UPGRADE
- 250mm WM UPGRADE
- 300mm WM UPGRADE



SCALE 1:15000



Town of Stratmore
Master Servicing Study
Annexation 2011

**Recommended Upgrades
To The Existing Water Main**

Figure 4.3

4.9 Water Supply and Distribution System Improvements

In order to fulfill the demand and fire flow requirements for the Town, we considered the ultimate annexation population of 53,372 people.

Through several iterations of the model, the following supply and distribution system improvements in the Town and annexation areas were developed as shown in **Figure 4.4**.

Assuming the upgrades recommended to improve the fire flows as shown in **Figure 4.3** are installed, the following outlines the improvements:

- Construction of the Wildflower reservoir and distribution pump station with a total capacity of 11,500 m³.
- Construction of the east reservoir and distribution pump station with a total capacity of 18,000 m³.
- Construction of a 300 mm and 400 mm water transmission main loop around the Town with no direct service tie-ins, with one connection per quarter section was assumed.
- Piping modifications to the existing Brentwood and Westmount reservoirs and pump stations to separate reservoir inlet and outlet piping.
- 300 mm water main loop connecting Westmount to Downtown and Brentwood.
- 300 mm water main loop connecting Slater Road to the proposed east boundary water transmission main.
- Various looping of existing mains to the proposed 300 and 400 mm transmission main.
- Portions of the existing 300 mm diameter water transmission main between the water treatment plant and Brentwood reservoir were abandoned.
- Future developments in the annexation area shall provide internal looping of their grid main network laid out according to the City of Calgary's Design Guidelines for Subdivision Servicing as shown on **Figure 4.4**.

4.10 Water Supply and Distribution System Modeling

4.10.1 Year 2061

This time horizon is when the Town's population at a growth rate of 7 percent up to 2018, 5 percent from 2019 to 2027, 2.5 percent from 2027 to 2038 and 1 percent from 2039 to 2061 to an ultimate population of 53,372 and all the land within the Town's boundaries including the annexed areas will be fully built out.

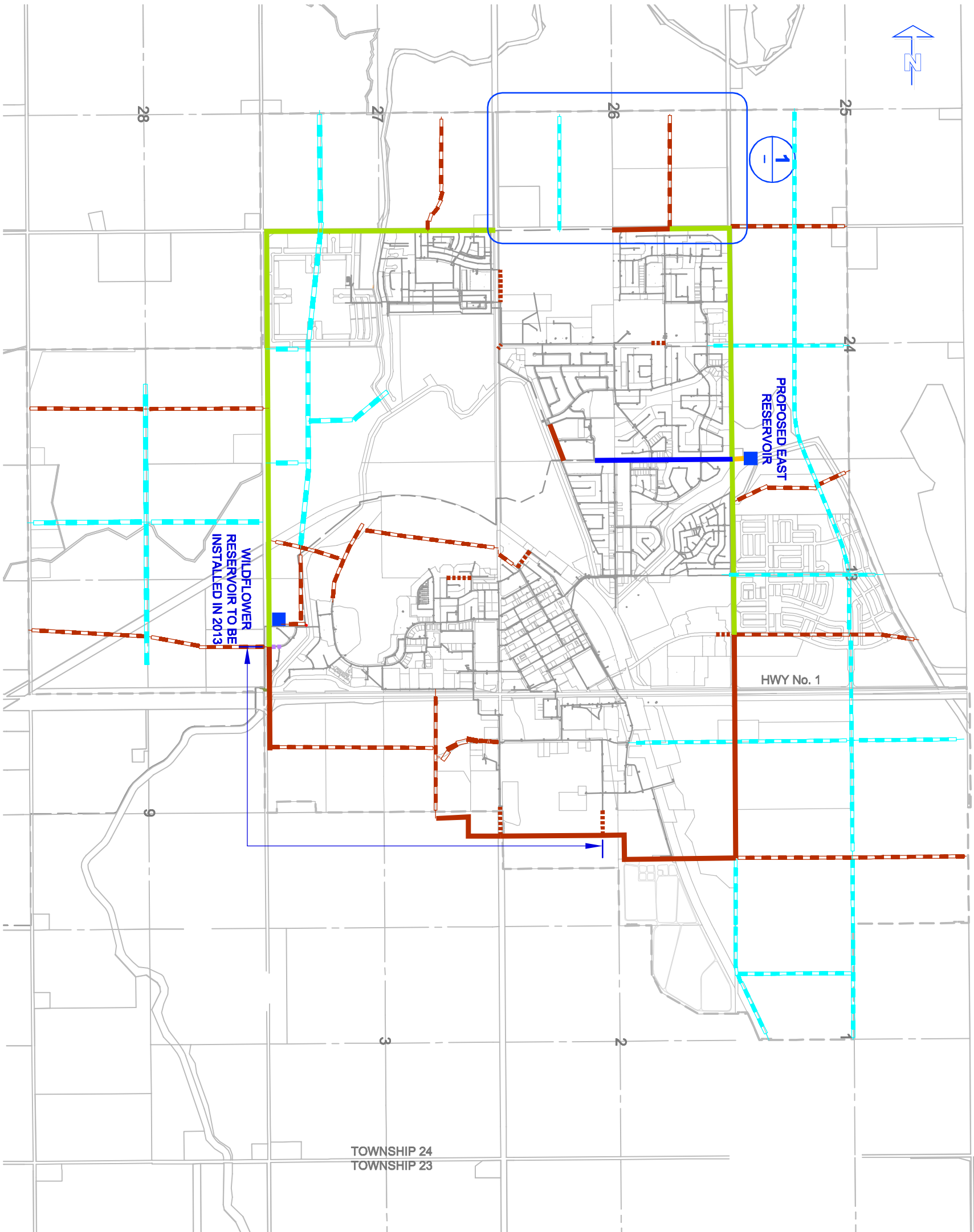
The following are the modeling scenarios:

4.10.1.1 2061 Ultimate peak hour demand scenario (650 L/s)

For the supply and distribution system to fulfill this water demand, the following are the system components and conditions that need to be met:

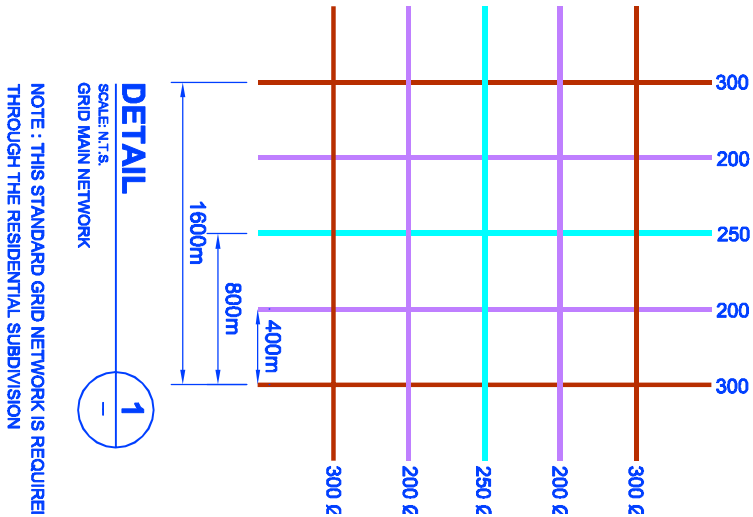
- Installation of new Wildflower and east reservoirs and pump stations.
- Discharge pressure at new Wildflower and east pump stations needs to be at hydraulic grade 1028 m to supply adequate pressures.

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.



LEGEND:

- 300 Ø WATERMAIN
- 300 Ø WATERMAIN TRANSMISSION
- 350 Ø WATERMAIN TRANSMISSION
- 400 Ø WATERMAIN TRANSMISSION
- 400 Ø EXISTING WATERMAIN TRANSMISSION
- 600 Ø WATERMAIN TRANSMISSION
- EXISTING TOWN BOUNDARY
- 250 Ø WATERMAIN (DEVELOPERS RESPONSIBILITY)
- 300 Ø WATERMAIN (DEVELOPERS RESPONSIBILITY)
- EXISTING WATERMAIN



Town of Stratmore
Master Servicing Study
Annexation 2011
Future Water System Network Plan

Figure 4.4

As a result of modeling, the following observations were made:

- Westmount pump station has no impact, as the existing pump capacities are too small and does not satisfy the hydraulic grade requirement. This may be used as water truck fill or emergency storage only.
- Pressures of 28.20m (40 psi) and 56.30m (80 psi) can be maintained throughout existing and proposed distribution system.

For further information, see [Appendix A3](#).

4.10.1.2 2061 Ultimate Maximum day demand scenario (325 L/s)

For the supply and distribution system to fulfill this water demand, the following are the system components and conditions that need to be met:

- Installation of new Wildflower and east reservoirs and pump stations
- Discharge pressure at new pump stations (excluding Westmount) needs to be at hydraulic grade 1028m to supply adequate pressures

As a result of modeling, the following observations were made:

- Westmount pump station has no impact, as the existing pump capacities are too small
- PRVs are required for low lying NW and SE Areas

For further information, see [Appendix A4](#).

4.10.1.3 2061 Ultimate Maximum day demand plus fire flow scenario (325 L/s + fire flow)

For the supply and distribution system to fulfill this water demand, the following are the system components and conditions that need to be met:

- Installation of new Wildflower and east reservoirs and pump stations.
- Discharge pressure at new Wildflower and east pump stations needs to be at hydraulic grade 1028 m to supply adequate pressures.

As a result of modeling, the following observations were made:

- Westmount pump station has no impact, as the existing pump capacities are too small.

For further information, see [Appendix A5](#).

4.10.2 Year 2046

This time horizon is when the proposed East Calgary Regional Water Pipeline pump station will be required to increase water supply to the Town. To model this time horizon with a population of 45,972, 26 demand points were used to represent the annexed area for modeling purposes.

The following scenarios assumed parts of the future northern and western annexed areas would not be fully built out by 2030.

4.10.2.1 2046 peak hour demand scenario (560 L/s)

For the supply and distribution system to fulfill this water demand, the following are the system components and conditions that need to be met:

- Installation of Stage 1 which comprises of the 6,000m³ east reservoir and also construction of the 11,500m³ Wildflower reservoirs including distribution pump station at both reservoirs.
- Discharge pressure at the new pump station needs to be increased to hydraulic grade 1028 m to supply adequate pressures.

As a result of modeling, the following observations were made:

- Westmount pump station has no impact as the existing pump capacities are too small.
- Pressures of 28.20 m (40psi) and 56.30 m (80 psi) can be maintained throughout the existing and proposed distribution system.

For further information, see [Appendix A6](#).

4.10.2.2 2046 Maximum day demand scenario (280 L/s)

For the supply and distribution system to fulfill this water demand, the following are the system components and conditions that need to be met:

- Installation of the new Wildflower and east reservoirs and pump stations.
- PRVs are required for low laying NW and SE areas.

As a result of modeling, the following observation was made:

- In the interim, the existing Brentwood pump station can be used to supplement the new Wildflower reservoir and pump station. However the Brentwood pump station should be upgraded in or after 2012 as indicated in the design summary, Stantec 2009.

For further information, see [Appendix A7](#).

4.10.2.3 2046 Maximum day demand plus fire flow scenario (280 L/s + fire flow)

For the supply and distribution system to fulfill this water demand, the following are the system components and conditions that need to be met:

- Installation of the new Wildflower reservoir and pump station plus Brentwood reservoir and pump station can be used to supply peak day demands.

As a result of modeling, the following observation was made:

- Westmount pump station has no impact, as the existing pump capacities are too small.
- Adequate pressures are achieved throughout the distribution system.

For further information, see [Appendix A8](#).

4.10.3 Modeling Results

- Similar to the modeling scenarios used for the ultimate flows, we also modeled scenarios in which eight demand nodes were used to simulate the Town's water supply and 26 demand nodes to represent the annexed areas. The results of these models did not differ significantly from the above models but served to reinforce the results of the above model scenarios.
- Based on the above modeling, indications are that the proposed annexation areas including the existing Town can be serviced adequately with all demands and fire flows by constructing two new treated water storage reservoirs and by maintaining the existing Brentwood reservoir until 2031 with improvements to the existing distribution pumps as required to service the projected demands.
- The existing Westmount pump station has very little or no impact on the proposed distribution system due to its limited pumping capacity and would have to be upgraded significantly to adequately contribute to the distribution system. Therefore, it is assumed that the Westmount reservoir will be decommissioned from the distribution system by 2021 and will be used as truck fill station and any other emergency supply purposes only.
- The 400 mm and 300 mm loop around the Town should be a designated transmission main because pressures in this main exceed the recommended maximum of 56.30 m (80 psi). Pressure reducing stations need to be installed on branch-offs from the transmission main to reduce the pressures in the distribution system. The transmission main should not have any house service connections connected to it other than where existing mains are used for the transmission main loop to reduce risk of a major failure. If there are service connections on the existing mains that are designated as transmission mains, then these service lines shall require individual PRVs. The distribution system is assumed to be connected to the transmission main by at least one 250 mm diameter pipe or larger per quarter section of land.
- The construction of the proposed improvements to service the Town and annexation areas should be staged as required to supply adequate demands to the existing Town and new development areas.

5.0 Sanitary Sewerage System

5.1 Introduction

To enable the evaluation of existing and proposed sanitary servicing requirements, the design criteria that was developed in MSS – Annexation 2006 is not changed although the Town is achieving water conservation since 2009. The same conservative design approach is utilized to size the proposed trunk mains to service the annexed areas and to recommend upgrades on the existing system. These upgrades were incorporated into the proposed annexation servicing network. An updated phased servicing plan is also developed that follows the construction sequence of the development cells.

The Waste Water Treatment Plant was upgraded in 2010 to increase the capacity to serve a population equivalent to 30,000 and to upgrade the treatment process to a conventional Biological Nutrient Removal (BNR) configuration. The upgrade also added sludge handling and dewatering facilities, an odour control system and operations building expansion. The per capita generation rates and peaking factors used in the process design were based on wastewater characterization provided by the Town for the years of 2006 and 2007.

The Town of Strathmore first completed the construction of the existing treated wastewater effluent pipeline and outfall in 2006. This pipeline conveyed the treated wastewater effluent from the Wastewater Treatment Plant to a secondary channel of the Bow River 21 km from the Town.

Alberta Environment Approval 1190-02-00, issued under the Environmental Protection and Enhancement Act, required the Town to relocate the effluent discharge point from its previous location on the secondary channel to a new location on the main stem of the Bow River. The Town completed the relocation in 2011.

5.2 Design Criteria

Historical per capita sewage flow rates used in different design reports and EPCOR treatment plant data were summarized in the MSS – Annexation 2006 as follows:

- Alberta Environment, 2006 gives a recommended design infiltration rate of 0.28 L/s/ha and 0.4 L/s per sag manhole for areas where there is no actual data.
- UMA, April 2005 gives a combined per capita flow rate of 400 L/c/d
- Urban Systems, Feb 2000 gives a flow rate of 300 L/c/day and infiltration rates of 312 L/mm dia/km/day and 45 L/mm dia/km/day
- Stanley Associates Engineering Ltd, Dec 1986 gives a flow rate of 385 L/c/day and an infiltration rate of 400,000 L/day
- EPCOR, 2006 gives a flow rate of 332 L/c/day and an infiltration rate of 100 L/c/day giving a combined flow rate of 432 L/c/day

In this report, the peak sewage flows from annexed areas are calculated based on a population density of 51 persons per gross hectare (21 persons/acre) which is different than that is used in Section 3.2 – Population Density to be consistent with the regional partnership. However, the per capita flow rate that was generated using water consumption data provided by the Town is not changed from **332 L/c/d** to maintain a conservative design although it is evident from *Table 5.1* that per capita sewage flow has decreased mainly since 2009 most likely due to the Town's response to Alberta's 'Water for Life' strategy. It was assumed that sewage generated was 80% of actual potable water flow measurements.

EPCOR's per capita flow is updated and summarized in *Tables 5.1*.

Table 5.1: Water Consumption Data

Year	Population	Water Consumption			
		Metered Water Consumption (m ³)	80% of Metered Water Consumption (m ³)	Per Capita Consumption (L/c/d)	Per Capita Sewage Flow Generated Based on 80% consumption (L/c/d)
2005	9,653	1,305,704	1,044,563	371	296
2006	10,336	1,619,866	1,295,893	429	343
2007	11,102	1,483,773	1,187,018	366	293
2008	11,335	1,555,299	1,244,239	376	301
2009	11,838	1,510,659	1,208,527	350	280
2010	12,139	1,450,443	1,160,354	327	262
2011	12,989	1,469,802	1,175,842	310	248

The inflow and infiltration rate of 100 L/c/d and 0.28 L/s/ha respectively are used for sizing the wastewater treatment facilities. However, in order to design collection system, *Alberta Environment's Standards and Guidelines* infiltration value of 0.28 L/s/ha plus 0.4 L/s per manhole in sag will be taken to calculate peak wet weather flow as there was insufficient collection system data available during this update.

5.2.1 Peaking Factor

The peaking factor was derived from Alberta Environment's 2006. The formula is as follows:

$$Q_{PDW} = \frac{G \times P \times P_f}{86.4}$$

Where

Q_{PDW} = peak dry weather design flow rate (L/s).
 G = per capita average daily design flow (L/d).
 P_f = peaking factor.
 P = population

The peaking factor (P_f) shall be the larger of 2.5 or [Harmon's Peaking Factor](#) where:

$$\text{Harmon's } PF = 1 + \frac{14}{4 + P^{1/2}}$$

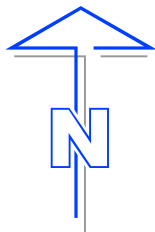
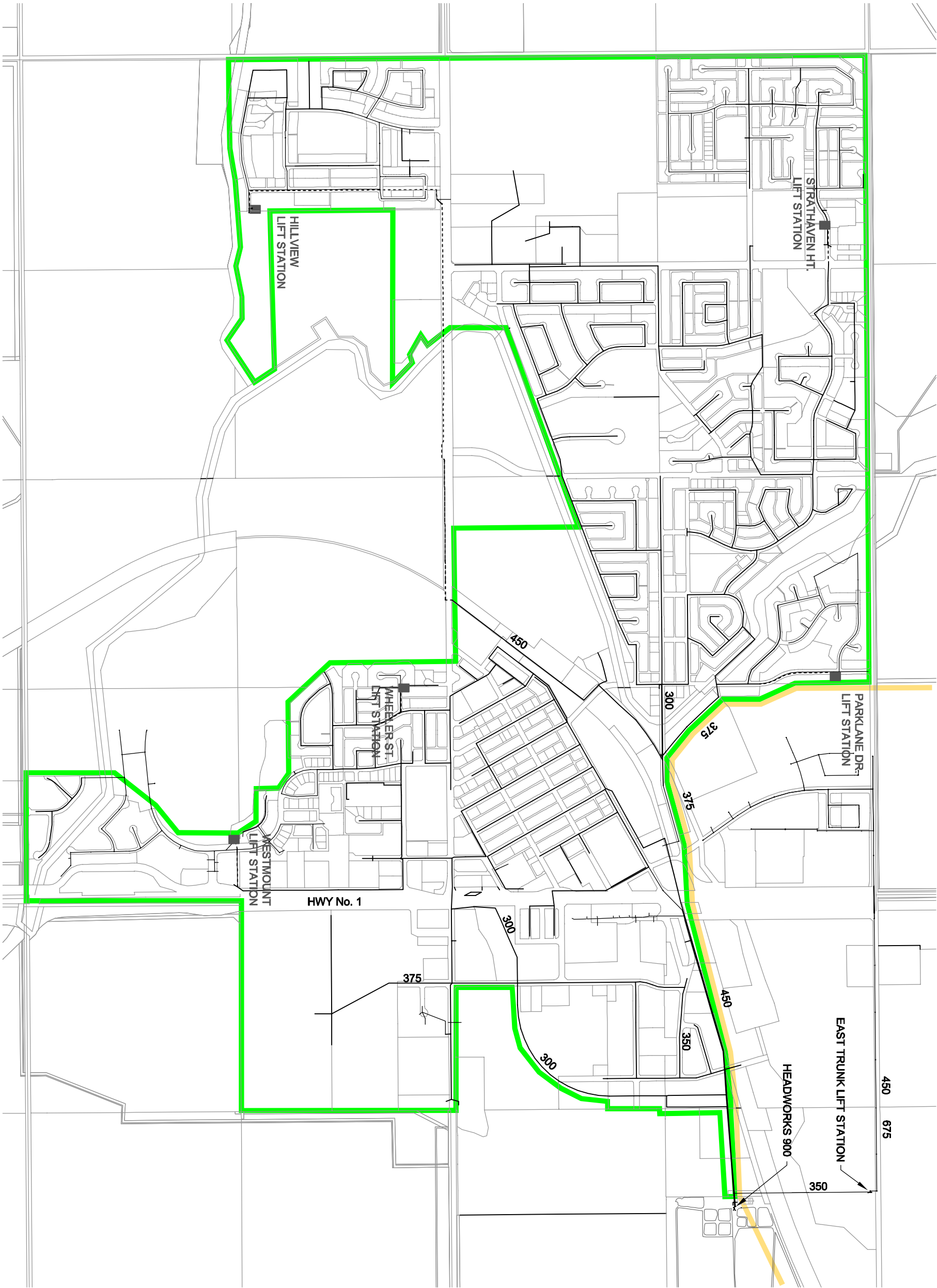
Where

P = design contributing population in thousands.

5.3 Existing Sanitary Sewerage System Analysis

The Town's existing sanitary sewer collection system consists of central and eastern trunks. The central trunk consists of several trunks ranging in size from 300 mm and 450 mm diameter gravity sewers. The central trunks service the entire Town excluding United's "The Ranch" development, which is serviced by the eastern trunk sewer. **Figure 5.1** shows the current area serviced by each trunk system and the general location including the trunk size.

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.



- LEGEND**
- EAST TRUNK SERVICE
 - CENTRAL TRUNK SERVICE
 - GRAVITY SEWER
 - FORCEMAIN



Town of Stratmore
Master Servicing Study
Annexation 2011

Existing Sanitary
East & Central Trunk Service Drainage Areas
Figure 5.1



5.3.1 Central Trunk System

The central trunk system has several service branches, which are shown on **Figure 5.2** and are described as follows:

5.3.1.1 *Parkwood Trunk*

This trunk consists of a 375 mm diameter sewer pipe and the Strathaven Heights lift station that serves Strathaven and Strathaven Heights. This trunk provides service to:

- Strathaven
- Strathaven Heights
- Maplewood
- Cambridge Glen
- Green Meadows
- Parkwood
- Aspen Creek
- Ranch Estates.

The peak design flow generated by the developments served by this trunk is 109 L/s while the average actual pipe capacity is between 80 - 108 L/s. This indicates the possibility of surcharging the trunk during peak hour flows when the maximum design infiltration flows are also present.

5.3.1.2 *Thorncliff Trunk*

This trunk consists of a 300 mm diameter sewer pipe. This trunk provides service to:

- Rodeo grounds
- Crystal Ridge
- Brentwood
- Brentwood Business Park
- Thorncliff.

The peak design flow generated by the developments served by this trunk is 53 L/s, while the average actual pipe capacity is between 43 - 145 L/s. This indicates a possibility of surcharging some sections of the trunk during peak hour flows when the maximum design infiltration flows are also present.

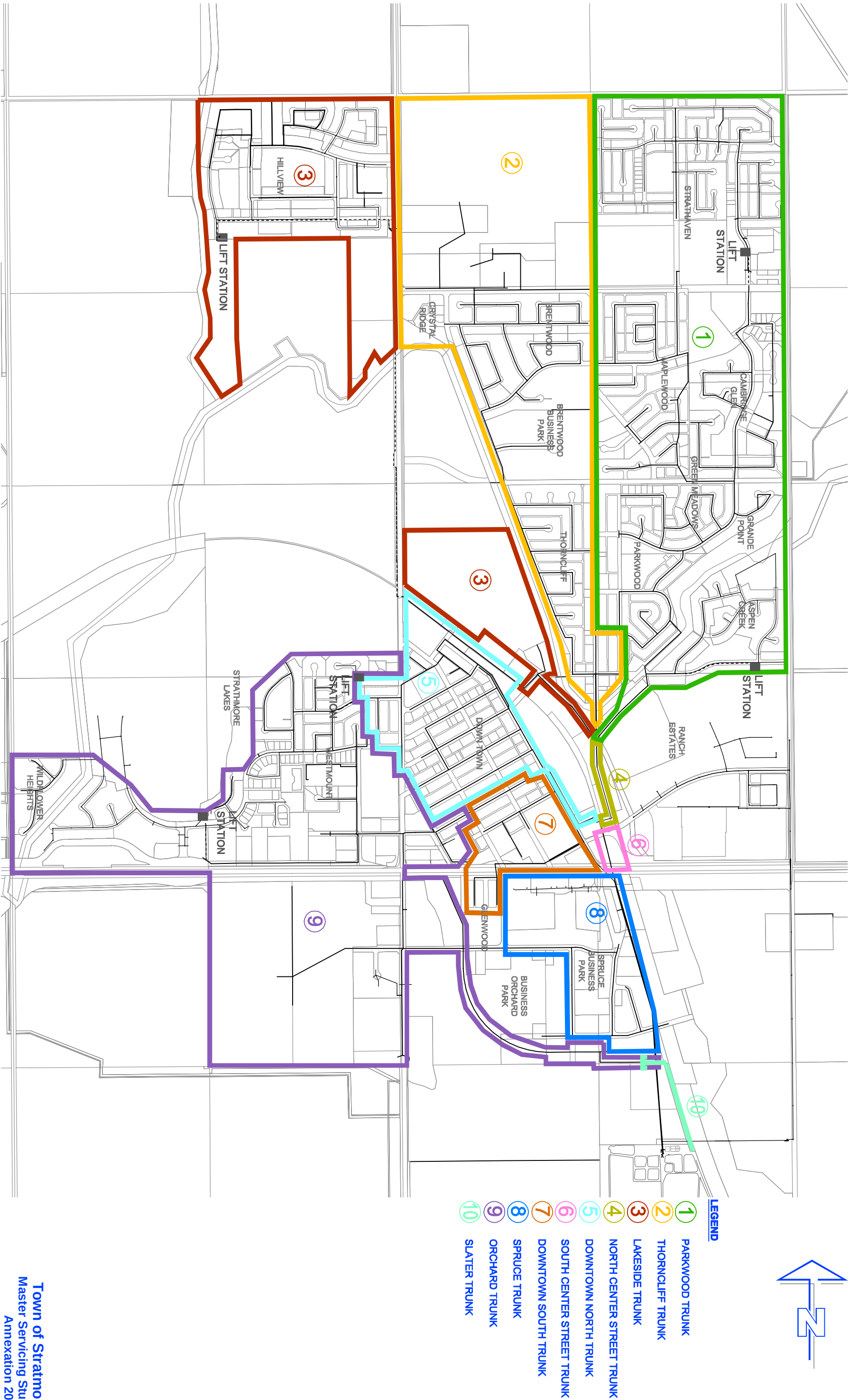
5.3.1.3 *Lakeside View Trunk*

This trunk consists of a 450 mm diameter sewer pipe and the Hillview lift station that serves Hillview. This trunk provides service to:

- Hillview
- Parklane Place.

The peak design flow generated by the developments served by this trunk is 36 L/s, while the average actual pipe capacity is between 85 - 194 L/s. This indicates that the trunk has sufficient capacity to serve these developments.

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.



5.3.1.4 North Center Street Trunk

This trunk consists of a 375 mm diameter sewer pipe. This trunk provides service to the following trunks:

- Parkwood Trunk
- Thorncliff Trunk
- Lakeside View Trunk.

The peak design flow generated by the developments served by this trunk is 183 L/s while the average actual pipe capacity is between 66 - 103 L/s. This indicates the possibility of surcharging the trunk during peak hour flows when the maximum design infiltration flows are also present.

5.3.1.5 Downtown North Trunk

This trunk provides service to the northern part of downtown and consists of a 250 diameter sewer pipe.

The peak design flow generated by the developments served by this trunk is 31 L/s while the average actual pipe capacity is between 30 - 48 L/s. This indicates the possibility of surcharging a minor section of the trunk during peak hour flows when the maximum design infiltration flows are also present.

5.3.1.6 South Center Street Trunk

This trunk consists of a 450 mm diameter sewer pipe. This trunk provides service to the following:

- North Center Street Trunk
- Downtown North Trunk

The peak design flow generated by the developments serviced by this trunk is 207 L/s while the average actual pipe capacity is between 96 L/s and 151 L/s. This indicates the possibility of surcharging the trunk during peak hour flows when the maximum design infiltration flows are also present.

5.3.1.7 Downtown South Trunk

This trunk provides service to the southern part of downtown and Glenwood and consists of a 200 diameter sewer pipe.

The peak design flow generated by the developments served by this trunk is 15 L/s while the average actual pipe capacity is between 62 - 105 L/s. This indicates that the trunk has sufficient capacity to serve the southern part of downtown.

5.3.1.8 Orchard Trunk

This trunk consists of a 300 mm diameter to 375 mm diameter sewer pipes. The Orchard Business Park area is also served by the following lift stations:

- Westmount lift station that serves Westlake Glen and part of Westmount Drive.
- Wheeler Street lift station that serves Westview, Wheeler and parts of Strathmore Lakes Way and Willow Drive.

Coupled with these lift stations, this trunk provides service to:

- Wildflower Heights.
- Westmount.
- Strathmore Lakes.
- Orchard Business Park.

The peak design flow generated by the developments served by this trunk is 64 L/s while the average actual pipe capacity is between 25 - 95 L/s. This indicates the possibility of surcharging sections of the trunk during peak hour flows when the maximum design infiltration flows are also present.

5.3.1.9 Spruce Business Park Trunk

This trunk consists of a west 350 mm and an east 450 mm diameter sewer pipe, which are interconnected at several locations. This trunk provides service to:

- South Central Trunk
- Downtown South Trunk
- Spruce Business Park Trunk.

This trunk provides service to Spruce Business Park and consists of a 350 diameter sewer pipe. The peak design flow generated by the developments served by this trunk is 27 L/s while the average actual pipe capacity is between 49 - 132 L/s. This indicates that the trunk has sufficient capacity to serve this development.

5.3.1.10 Slater Trunk

This trunk is 900 mm diameter main trunks that lead directly to the wastewater treatment plant. This trunk provides service to the following trunks:

- Orchard Business Park Trunk
- Spruce Business Park Trunk
- Downtown North Trunk
- Downtown South Trunk
- Future West and East Trunks.

The peak design flow generated by the developments served by this trunk is 304 L/s and the trunk has approximately 905 L/s capacity at 0.25% slope.

5.3.2 Eastern Trunk System

This trunk provides service to United's "The Ranch" development and consists of a 450 mm and 675 mm diameter sewer pipes. Sewage flows from north of the TCH along East boundary road to a lift station east of the wastewater treatment plant. The lift station is connected to the wastewater treatment plant by a 350 mm diameter force main.

The peak design flow generated by the developments served by this trunk is 47 L/s while the average actual pipe capacity is 202 L/s. This indicates that the trunk has sufficient capacity to serve this development.

5.3.3 Headworks

Both the south central and eastern trunks flow into the Waste Water Treatment Plant (WWTP). The headwork consist of a 400 m long 900 mm diameter sewer pipe from a collection box to a low lift pump station from where the sewage is pumped out to mechanical screens at the wastewater treatment plant.

A peak flow of 1,538 L/s will be going into the wastewater treatment plant while the capacity of the 900 mm trunk at 0.86% slope is 1,679 L/s which is sufficient to handle the full build-out of the annexation areas beyond the year 2061.

5.4 Existing Sanitary Sewer System Upgrades

5.4.1 Centre Street/Spruce Business Park/South Centre Trunk

The MSS – Annexation 2006 analysis showed that the central trunk sewer system surcharges during peak conditions in the following sub-trunks:

- Center Street Trunk
- Spruce Business Park Trunk
- South Central Trunk
- Orchard Trunk.

The Center Street, Spruce Business Park and South Central trunks were analysed together to assess the bottleneck while the Orchard Park trunk was analysed separately.

In MSS – Annexation 2006, the Centre Street, Spruce Business Park, and South Central trunks were modelled with the potential upgrades that would correct the current surcharging plus provide additional capacity for the undeveloped lands within the Town boundaries.

The model considered bypass flow from the Parkwood trunk and from the Central Trunk System to the East Trunk Sewer, which currently has spare capacity. This would be accomplished by installing 850 metres of 375 mm diameter gravity main running east from Parkland Drive, through the Ranch Development to East Boundary Road until it joins the 450 mm diameter East Trunk Sewer. The diversion would enable the equivalent of three quarter sections to be added to the Central Trunk Sewer system, which would account for all the undeveloped lands north of Highway 1, within the old Town boundary.

5.4.2 Rodeo Grounds

If the rodeo grounds are converted into residential property, then the flow generated from this proposed development can be channeled into the existing Central Trunk system, provide the Town sewage bypass and Thomas Place upgrades are constructed.

This will be accomplished by installing a 500 meter long 300 mm diameter gravity main running east from the manhole that receives the 150 mm diameter Strathaven force main along Brent Boulevard to the 600 mm diameter trunk main. This will divert flows from an equivalent of one quarter section.

Replacement of the 150 meter long 250 mm diameter Thomas Place sewer line located on the southern part of Thomas Drive with a 300 mm diameter line is required to keep the line in size with the two 300 mm diameter sewer lines following and preceding it. This will reduce the probability of surcharging during peak flow periods when the maximum design infiltration flows are present when the area served by this line becomes completely built out or developed.

5.4.3 Strathmore Lakes Upgrade

An extension of the 150 mm diameter Strathmore Lakes Estates force main east by approximately 650 metres along West Ridge Road and south by approximately 350 metres to the existing 375 mm diameter sewer located along Canal Garden Boulevard.

5.4.4 Orchard Business Upgrade

An upgrade to ease the Orchard Business Park bottleneck consists of diverting all the flow from the existing 300 mm and 375 mm diameter trunks by installing a 750 meter long 525 mm diameter gravity main running south until it joins the proposed 900 mm diameter gravity main. The installation of this main would replace the existing 300 mm trunk sewer, which is the oldest trunk in town.

5.4.5 Golf Course Upgrade

The installation of a 900 meter long 450 mm diameter sewer line shall enable the servicing of two quarter sections of land from the western side of the Town.

5.5 Proposed Sanitary Sewer System to Service the Annexation Area

Figure 5.3 shows the proposed sanitary sewer trunk system and lift stations. The trunk sizes shown are approximate and slopes are determined based on aerial topography. As the MSS is a high level study, further analysis will be required to size the force mains and trunk sewers.

Depending on the direction the Town of Strathmore would like to direct development, we have divided all the annexed area (18.5 quarter sections) plus some areas that are already within the Town boundary (approximately 7 quarter sections) into four main systems to efficiently service the 25.5 quarter sections of lands.

The description of the servicing has been split into the following areas.

5.5.1 North Trunk

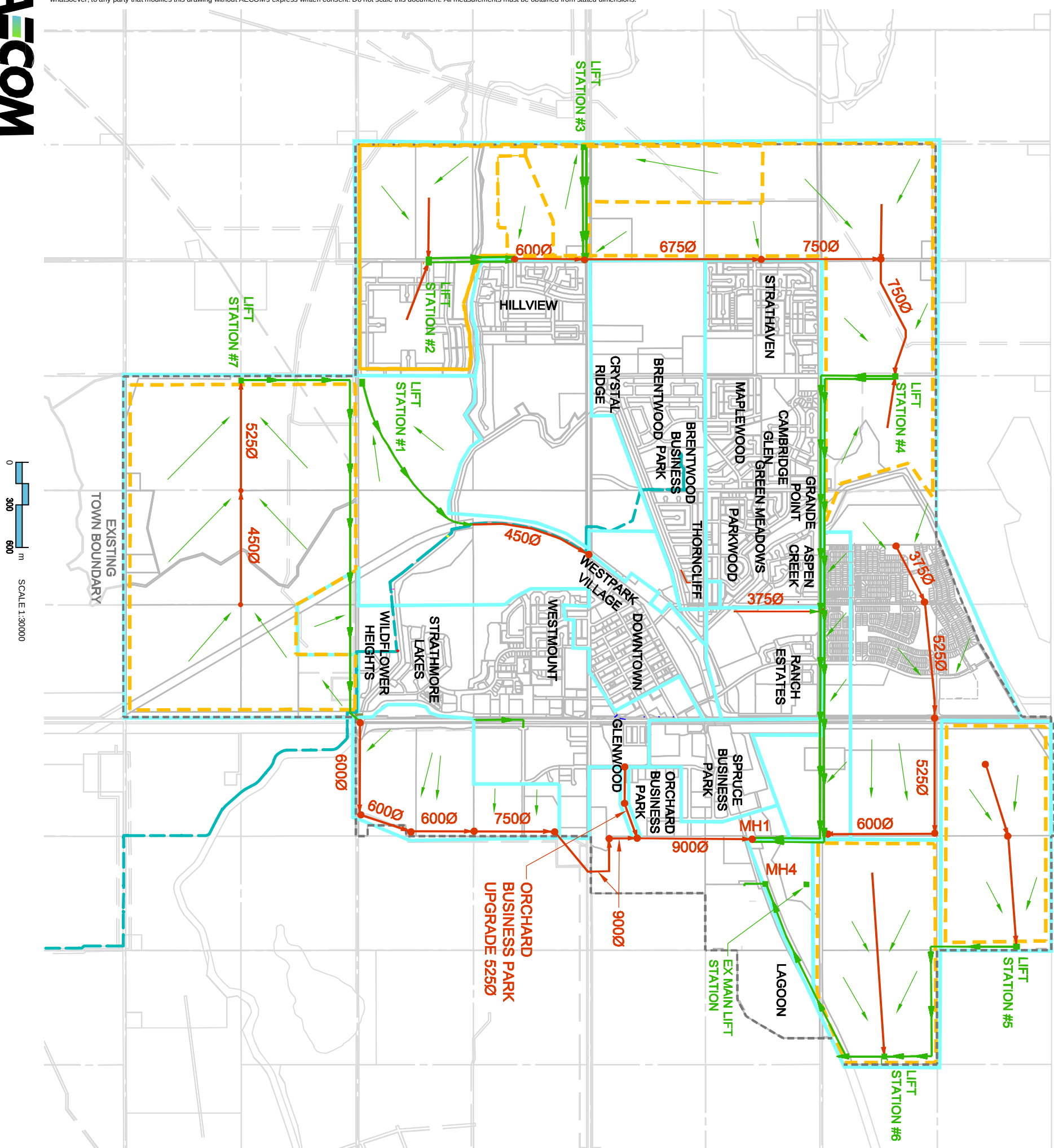
There are approximately 8 quarter sections in the north trunk system and will be served by three lift stations. Lift Station No. 2 with a capacity of 170 L/s drains approximately 2.5 quarter sections. Lift Station No. 3 with a capacity of 70 L/s drains a little over one quarter section. The rest of the quarter sections will drain by gravity into the trunk system.

The north trunk system consists of 600 mm, 675 mm and 750 mm diameter trunks with the flows running from the north of Hillview to the east and the immediate south into Lift Station No. 4. Lift Station No. 4 will pump ten quarter sections of equivalent sewage flow (482 L/s) to the manhole at Slater Way (MH1 in Figure 5.3) and then to the south to the WWTP through the 900 mm trunk. The 900 mm trunk has a capacity of 905 L/s at 0.25% slope.

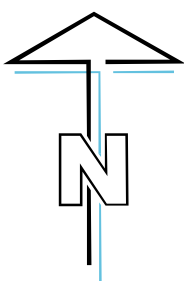
5.5.2 East Trunk

The East Trunk system drains approximately 7 quarter sections. There are approximately two quarter sections north of the Trans-Canada Highway and one south of the highway that will be served by a 525 mm trunk and then a 600 mm trunk to the west (total flow of 171 l/s) that connects to an existing manhole on an existing 675 mm trunk. This 675 mm trunk will require twinning with another 675 mm trunk to convey the flows to the Existing Main Lift station.

This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.



LEGEND



PROPOSED SANITARY SEWER

PROPOSED FORCEMAIN

TOWN BOUNDARY

TRUNK DRAINAGE BOUNDARY

LIFT STATION BOUNDARY

**Proposed Sanitary Trunk Systems
and Lift Station
Figure 5.3**

There are two quarter sections at the far southeast that will be served by Lift Station No. 5 (estimated flow 114 L/s). This force main shall pump sewage to the Lift Station No. 6.

To the immediate east of the Existing Main Lift station, there are two quarter sections that will be served by Lift Station No. 6. (Estimated flow of 211 L/s) and this lift station will pump sewage to a manhole at Slater Way near the WWTP (MH4 in Figure 5.3).

5.5.3 West Trunk

The West Trunk system conveys flow from almost six consecutive quarter sections located north of the Trans-Canada Highway on the west side of Town by gravity via 450 mm and 525 mm trunks to Lift Station No. 7. Lift Station No. 7 will pump a total of 296 L/s flow to the south via force main along Wildflower Road to a manhole just south of the Trans-Canada Highway at the southwest.

5.5.4 South Trunk

The South Trunk flows from the manhole just south of the Trans-Canada Highway at the southwest, where all the flows from the west annexed areas will be discharged, via a 600 mm gravity trunk to the furthest south and then will turn to east. The trunk will be increased to 750 mm after the flow from almost one additional quarter section is added. Due to the transition to a flat topography, the 750 mm trunk will need to be increased to 900 mm before the Orchard Trunk ties-in. As this sewer continues along the south of the Slater Road, the 525 mm Orchard Business Park upgrade connects to it and this extra flow coupled with the flow from the west annexation areas totalling a flow of 507 L/s to the manhole at Slater Way (MH1 in Figure 5.3) and then the 900 mm trunk turns south to the WWTP.

5.6 Wastewater Treatment Plant Upgrade

5.6.1 Treatment Plant Staging

The Town of Strathmore's sewage disposal facilities are located on the south east side of town and consist of a mechanical tertiary wastewater treatment plant. In addition to the mechanical plant, the Town has off specification storage cells and equalization storage cells. The equalization storage cells and the mechanical plant are tied directly to the effluent pump station (known as the Pink Palace) that, prior to construction of the BTO discharged effluent to the Town's irrigation lands. Subsequent to the construction of the BTO the effluent pump station pumps to either the irrigation system or down the BTO to the Bow River.

The design brief that was prepared by UMA Engineering Ltd. in April 2008 indicates that the upgrades to the Strathmore WWTP were to be designed to accommodate a service population of 30,000, or approximately three times the 2008 service population. Given the 2008 population of just over 10,000 and the design population of 30,000, an intermediate stage based on a service population of 20,000 was used to distribute the upgrades over a longer period of time.

5.6.2 Raw Wastewater Flow and Loading Projections

The raw wastewater design flows and loadings for the Strathmore WWTP are summarized in *Table 5.4*.

Table 5.4: Design Flows and Loadings

PARAMETER		Stage 1	Stage 2
FLOW			
Annual average day flow	ML/d	8.6	13.0
Average month flow	ML/d	8.3	12.4
Maximum month flow	ML/d	8.8	13.2
Maximum week flow	ML/d	9.3	14.0
Maximum day flow	ML/d	9.8	14.8
Peak flow to full treatment	ML/d	21.5	32.5
Peak flow to full treatment	L/s	249.0	376.2
BOD			
Maximum day load	kg/day	4,160	6,240
COD			
Maximum day load	kg/day	9,152	13,728
TSS			
Maximum day load	kg/day	5,980	8,970
TKN			
Maximum day load	kg/day	334	500
TP			
Maximum day load	kg/day	72	108

Effluent Discharge Limit

The effluent discharge limits for the Strathmore WWTP are summarized in *Table 5.5*.

Table 5.5: Effluent Discharge Limits

	STAGE 1	STAGE 2
cBOD ₅	< 20 mg/L	< 20 mg/L
Total Phosphorus	< 0.5 mg/L	< 0.5 mg/L
Total Suspended Solids (TSS)	< 20 mg/L	< 20 mg/L
Ammonia (NH ₃ -N)	< 10 mg/L (winter)	< 10 mg/L (winter)
	< 5 mg/L (summer)	< 5 mg/L (summer)
Fecal Coliforms (FC)	< 200 CFU per 100 mL	< 200 CFU per 100 mL
Total Coliforms (TC)	< 1000 CFU per 100 mL	< 1000 CFU per 100 mL

5.7 Bow Tertiary Outfall (BTO)

In 2006, the Town first completed the construction of the BTO (treated wastewater effluent pipeline) and outfall. This BTO conveyed the treated wastewater effluent from the Wastewater Treatment Plant to a secondary channel of the Bow River 21 km from the Town. The BTO outfall consisted of an energy dissipator in a manhole that then spilled by gravity over a rip rap spillway into a stilling pond, and then flowed by gravity down a rip rap channel to the secondary channel of the Bow River.

Alberta Environment Approval 1190-02-00 required the Town to relocate the effluent discharge point from its original location on the secondary channel to a new location on the main stem of the Bow River. The Town completed the relocation in 2011.

5.7.1 Design Flow

The design population for the effluent pipeline was projected from the year 2005 by utilizing the average historical growth rate of the Town up to next 25 years and this method estimated a population of approximately 32,500 in 2030.

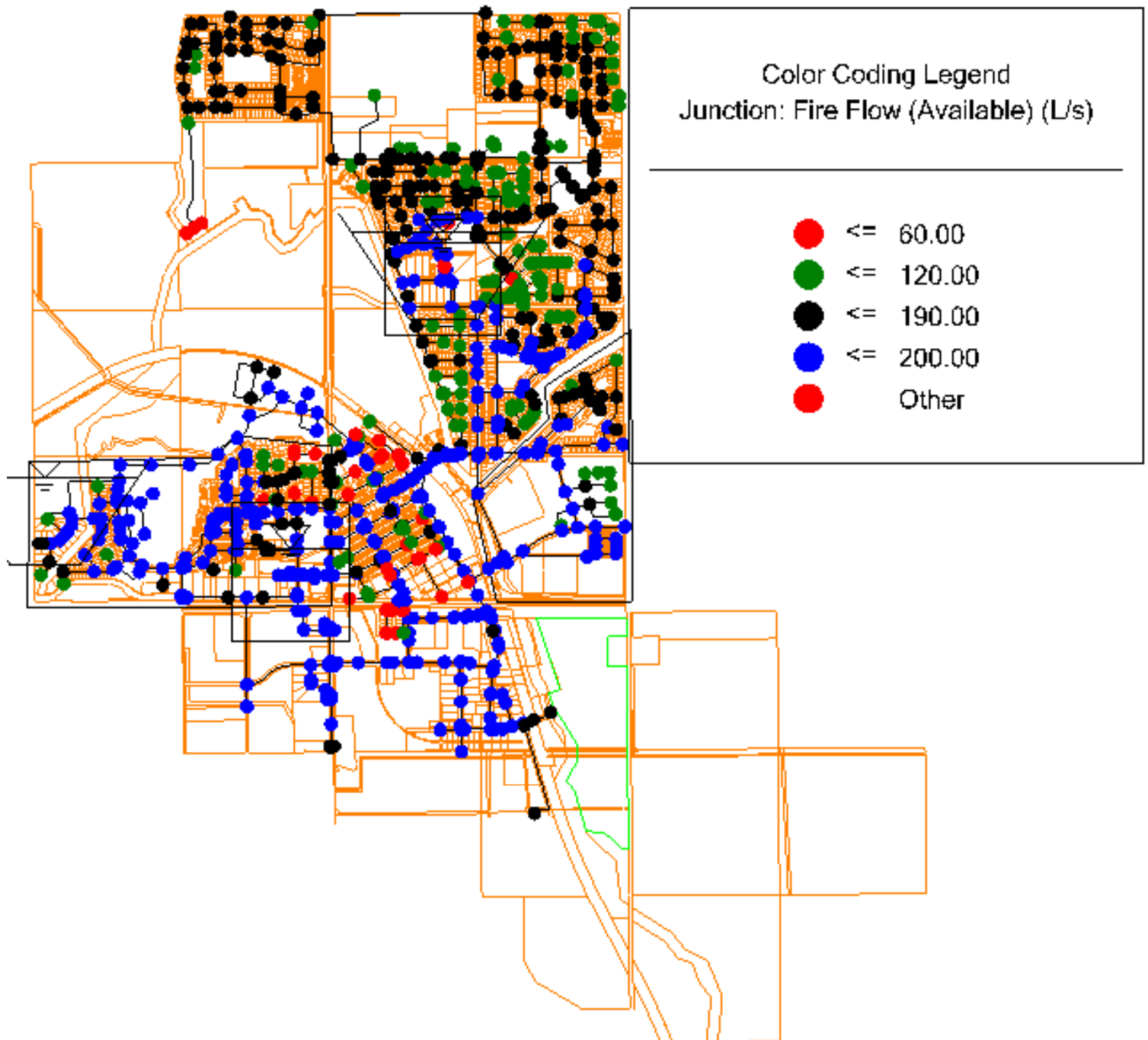
The effluent pipeline was designed for the following flow parameters:

- Design flow (pumped) of 247 L/s
- Design flow (gravity) of 100 L/s

Appendix A1

Original Strathmore Distribution
System

Appendix A1 - Original Strathmore Distribution System



Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
1	Zone-no fire flow	1	FALSE	120	0
7	Zone-no fire flow	1	FALSE	120	0
9	Zone-no fire flow	1	FALSE	120	0
15	Zone-no fire flow	1	FALSE	120	0
18	Zone-no fire flow	1	FALSE	120	0
19	Zone-no fire flow	1	FALSE	120	0
20	Zone-no fire flow	1	FALSE	120	0
21	Zone-1	2	TRUE	120	200
26	Zone-no fire flow	1	FALSE	120	0
27	Zone-no fire flow	1	FALSE	120	0
28	Zone-no fire flow	1	FALSE	120	0
29	Zone-no fire flow	1	FALSE	120	0
30	Zone-no fire flow	1	FALSE	120	0
31	Zone-1	3	FALSE	120	107.94
32	Zone-1	2	TRUE	120	200
33	Zone-1	2	TRUE	120	200
34	Zone-1	2	TRUE	120	200
35	Zone-1	2	TRUE	120	200
36	Zone-1	2	TRUE	120	200
37	Zone-1	3	TRUE	120	136.04
38	Zone-1	3	FALSE	120	9.74
39	Zone-1	3	FALSE	120	106.93
40	Zone-1	3	FALSE	120	109.79
41	Zone-1	2	TRUE	120	200
42	Zone-1	2	TRUE	120	200
43	Zone-1	2	TRUE	120	200
44	Zone-1	3	TRUE	120	200
45	Zone-1	4	TRUE	120	175.12
46	Zone-1	3	FALSE	120	97.72
47	Zone-1	2	TRUE	120	200
48	Zone-1	3	TRUE	120	122.9
49	Zone-1	3	FALSE	120	115.74
50	Zone-1	2	TRUE	120	200
51	Zone-1	2	TRUE	120	200
52	Zone-1	4	FALSE	120	101.36
53	Zone-1	4	FALSE	120	102.53
54	Zone-1	2	TRUE	120	200
55	Zone-1	3	TRUE	120	200
56	Zone-1	2	TRUE	120	200
57	Zone-1	2	TRUE	120	200
58	Zone-1	2	TRUE	120	200
59	Zone-1	4	TRUE	120	144.92
60	Zone-1	2	TRUE	120	200
61	Zone-1	4	TRUE	120	194.5
62	Zone-1	2	TRUE	120	200
63	Zone-1	2	TRUE	120	200
64	Zone-1	2	TRUE	120	200
65	Zone-1	2	TRUE	120	200
66	Zone-1	2	TRUE	120	200
67	Zone-1	2	TRUE	120	200
68	Zone-1	2	TRUE	120	200
69	Zone-1	2	TRUE	120	200

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
70	Zone-1	2	TRUE	120	200
71	Zone-1	3	TRUE	120	200
72	Zone-1	4	TRUE	120	197.83
73	Zone-1	3	FALSE	120	35.35
74	Zone-1	3	FALSE	120	34.71
75	Zone-1	3	FALSE	120	33.26
76	Zone-1	4	TRUE	120	179.46
77	Zone-1	3	FALSE	120	76.86
78	Zone-1	2	TRUE	120	200
79	Zone-1	3	FALSE	120	53.98
80	Zone-1	3	FALSE	120	74.99
81	Zone-1	3	TRUE	120	129.1
82	Zone-1	3	TRUE	120	136.5
83	Zone-1	3	FALSE	120	62.97
84	Zone-1	3	FALSE	120	41.83
85	Zone-1	2	TRUE	120	200
86	Zone-1	2	TRUE	120	200
87	Zone-1	4	TRUE	120	182.72
88	Zone-1	3	FALSE	120	39.86
89	Zone-1	3	FALSE	120	39.19
90	Zone-1	3	FALSE	120	110.13
91	Zone-1	4	TRUE	120	191
92	Zone-1	3	FALSE	120	56.56
93	Zone-1	2	TRUE	120	200
94	Zone-1	2	TRUE	120	200
95	Zone-1	2	TRUE	120	200
96	Zone-1	2	TRUE	120	200
97	Zone-1	2	TRUE	120	200
98	Zone-1	2	TRUE	120	200
99	Zone-1	3	TRUE	120	200
100	Zone-1	4	TRUE	120	181.54
101	Zone-1	3	FALSE	120	118.68
102	Zone-1	4	TRUE	120	170.53
103	Zone-1	4	TRUE	120	169.95
104	Zone-1	4	TRUE	120	169.3
105	Zone-1	4	TRUE	120	166.85
106	Zone-1	4	TRUE	120	159.97
107	Zone-1	2	TRUE	120	200
108	Zone-1	3	TRUE	120	200
109	Zone-1	2	TRUE	120	200
110	Zone-1	3	TRUE	120	200
111	Zone-1	3	TRUE	120	200
112	Zone-1	2	TRUE	120	200
113	Zone-1	3	TRUE	120	200
114	Zone-1	3	TRUE	120	200
115	Zone-1	2	TRUE	120	200
116	Zone-1	2	TRUE	120	200
117	Zone-1	2	TRUE	120	200
118	Zone-1	2	TRUE	120	200
119	Zone-1	2	TRUE	120	200
120	Zone-1	2	TRUE	120	200
121	Zone-1	2	TRUE	120	200

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
122	Zone-1	4	TRUE	120	173.74
123	Zone-1	4	TRUE	120	171.77
124	Zone-1	4	TRUE	120	171.3
125	Zone-1	4	TRUE	120	175.88
126	Zone-1	3	TRUE	120	200
127	Zone-1	4	TRUE	120	174.39
128	Zone-1	2	TRUE	120	200
129	Zone-1	4	TRUE	120	171.82
130	Zone-1	3	TRUE	120	200
131	Zone-1	3	TRUE	120	200
132	Zone-1	2	TRUE	120	200
133	Zone-1	2	TRUE	120	200
134	Zone-1	2	TRUE	120	200
135	Zone-1	2	TRUE	120	200
136	Zone-1	2	TRUE	120	200
137	Zone-1	2	TRUE	120	200
138	Zone-1	2	TRUE	120	200
139	Zone-1	3	TRUE	120	158.8
140	Zone-1	2	TRUE	120	200
141	Zone-1	2	TRUE	120	200
142	Zone-1	2	TRUE	120	200
143	Zone-1	2	TRUE	120	200
144	Zone-1	2	TRUE	120	200
145	Zone-1	2	TRUE	120	200
146	Zone-1	2	TRUE	120	200
147	Zone-1	2	TRUE	120	200
148	Zone-1	2	TRUE	120	200
149	Zone-1	2	TRUE	120	200
150	Zone-1	2	TRUE	120	200
151	Zone-1	2	TRUE	120	200
152	Zone-1	2	TRUE	120	200
153	Zone-1	3	FALSE	120	23.53
154	Zone-1	2	TRUE	120	200
155	Zone-1	2	TRUE	120	200
156	Zone-1	3	FALSE	120	110.31
157	Zone-1	3	FALSE	120	114.17
158	Zone-1	5	TRUE	120	138.37
159	Zone-1	16	FALSE	120	5.29
160	Zone-1	3	FALSE	120	5.29
161	Zone-1	3	FALSE	120	5.3
162	Zone-1	2	TRUE	120	200
163	Zone-1	5	TRUE	120	140.98
164	Zone-1	4	TRUE	120	162.75
165	Zone-1	4	TRUE	120	187
166	Zone-1	4	TRUE	120	169.08
167	Zone-1	3	FALSE	120	73.81
168	Zone-1	3	FALSE	120	50.64
169	Zone-1	4	TRUE	120	187.11
170	Zone-1	4	TRUE	120	193.27
171	Zone-1	5	FALSE	120	115.12
172	Zone-1	3	FALSE	120	98.76
173	Zone-1	2	TRUE	120	200

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
174	Zone-1	3	FALSE	120	92.83
175	Zone-1	2	TRUE	120	200
176	Zone-1	2	TRUE	120	200
177	Zone-1	2	TRUE	120	200
178	Zone-1	2	TRUE	120	200
179	Zone-1	2	TRUE	120	200
180	Zone-1	2	TRUE	120	200
181	Zone-1	2	TRUE	120	200
182	Zone-1	2	TRUE	120	200
183	Zone-1	2	TRUE	120	200
184	Zone-1	2	TRUE	120	200
185	Zone-1	2	TRUE	120	200
186	Zone-1	2	TRUE	120	200
187	Zone-1	2	TRUE	120	200
188	Zone-1	2	TRUE	120	200
189	Zone-1	2	TRUE	120	200
190	Zone-1	2	TRUE	120	200
191	Zone-1	2	TRUE	120	200
192	Zone-1	2	TRUE	120	200
193	Zone-1	2	TRUE	120	200
194	Zone-1	2	TRUE	120	200
195	Zone-1	2	TRUE	120	200
196	Zone-1	2	TRUE	120	200
197	Zone-1	2	TRUE	120	200
198	Zone-1	2	TRUE	120	200
199	Zone-1	2	TRUE	120	200
200	Zone-1	2	TRUE	120	200
201	Zone-1	3	TRUE	120	200
202	Zone-1	3	TRUE	120	200
203	Zone-1	3	TRUE	120	200
204	Zone-1	3	TRUE	120	200
205	Zone-1	2	TRUE	120	200
206	Zone-1	2	TRUE	120	200
207	Zone-1	2	TRUE	120	200
208	Zone-1	2	TRUE	120	200
209	Zone-1	2	TRUE	120	200
210	Zone-1	2	TRUE	120	200
211	Zone-1	2	TRUE	120	200
212	Zone-1	2	TRUE	120	200
213	Zone-1	4	TRUE	120	199.71
214	Zone-1	6	TRUE	120	197.77
215	Zone-1	4	TRUE	120	192.65
216	Zone-1	4	TRUE	120	177.21
217	Zone-1	2	TRUE	120	200
218	Zone-1	3	TRUE	120	144.45
219	Zone-1	3	TRUE	120	144.05
220	Zone-1	3	TRUE	120	147.28
221	Zone-1	19	FALSE	120	119.78
222	Zone-1	4	TRUE	120	154.82
223	Zone-1	3	TRUE	120	147.26
224	Zone-1	3	FALSE	120	107.36
225	Zone-1	3	FALSE	120	103.64

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
226	Zone-1	3	FALSE	120	99.11
227	Zone-1	3	FALSE	120	72.73
228	Zone-1	2	TRUE	120	200
229	Zone-1	3	FALSE	120	102.24
230	Zone-1	3	FALSE	120	98.68
231	Zone-1	3	FALSE	120	84.68
232	Zone-1	3	FALSE	120	83.05
233	Zone-1	3	FALSE	120	83.44
234	Zone-1	20	FALSE	120	107.36
235	Zone-1	3	TRUE	120	132.52
236	Zone-1	3	TRUE	120	129.86
237	Zone-1	3	TRUE	120	144.85
238	Zone-1	3	FALSE	120	109.48
239	Zone-1	6	TRUE	120	197.56
240	Zone-1	3	TRUE	120	121.98
241	Zone-1	3	FALSE	120	70.1
242	Zone-1	4	TRUE	120	149.45
243	Zone-1	3	FALSE	120	110
244	Zone-1	3	FALSE	120	98.34
245	Zone-1	2	TRUE	120	200
246	Zone-1	4	TRUE	120	175.85
247	Zone-1	3	TRUE	120	200
248	Zone-1	3	TRUE	120	200
249	Zone-1	2	TRUE	120	200
250	Zone-1	3	TRUE	120	191.82
251	Zone-1	4	TRUE	120	179.05
252	Zone-1	2	TRUE	120	200
253	Zone-1	2	TRUE	120	200
254	Zone-1	2	TRUE	120	200
255	Zone-1	2	TRUE	120	200
256	Zone-1	2	TRUE	120	200
257	Zone-1	2	TRUE	120	200
258	Zone-1	3	TRUE	120	200
259	Zone-1	3	TRUE	120	200
260	Zone-1	3	TRUE	120	200
261	Zone-1	3	TRUE	120	200
262	Zone-1	2	TRUE	120	200
263	Zone-1	2	TRUE	120	200
264	Zone-1	2	TRUE	120	200
265	Zone-1	2	TRUE	120	200
266	Zone-1	2	TRUE	120	200
267	Zone-1	2	TRUE	120	200
268	Zone-1	2	TRUE	120	200
269	Zone-1	2	TRUE	120	200
270	Zone-1	3	TRUE	120	157.08
271	Zone-1	3	TRUE	120	129.58
272	Zone-1	3	FALSE	120	117.31
273	Zone-1	2	TRUE	120	200
274	Zone-1	4	FALSE	120	74.12
275	Zone-1	4	FALSE	120	69.28
276	Zone-1	4	FALSE	120	63.1
277	Zone-1	3	FALSE	120	116.82

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
278	Zone-1	3	FALSE	120	118.01
279	Zone-1	2	TRUE	120	120
280	Zone-1	3	TRUE	120	127.74
281	Zone-1	4	TRUE	120	147.29
282	Zone-1	2	TRUE	120	200
283	Zone-1	2	TRUE	120	200
284	Zone-1	2	TRUE	120	200
285	Zone-1	3	TRUE	120	200
286	Zone-1	2	TRUE	120	200
287	Zone-1	2	TRUE	120	200
288	Zone-1	2	TRUE	120	200
289	Zone-1	2	TRUE	120	200
290	Zone-1	2	TRUE	120	200
291	Zone-1	2	TRUE	120	200
292	Zone-1	2	TRUE	120	200
293	Zone-1	2	TRUE	120	200
294	Zone-1	2	TRUE	120	200
295	Zone-1	2	TRUE	120	200
296	Zone-1	6	TRUE	120	188.27
297	Zone-1	3	TRUE	120	132.74
298	Zone-1	2	TRUE	120	200
299	Zone-1	2	TRUE	120	200
300	Zone-1	4	TRUE	120	175.98
301	Zone-1	5	TRUE	120	172.38
302	Zone-1	3	TRUE	120	200
303	Zone-1	3	TRUE	120	200
304	Zone-1	4	TRUE	120	171.76
305	Zone-1	2	TRUE	120	200
306	Zone-1	2	TRUE	120	200
307	Zone-1	2	TRUE	120	200
308	Zone-1	2	TRUE	120	200
309	Zone-1	3	TRUE	120	200
310	Zone-1	3	TRUE	120	133.37
311	Zone-1	3	FALSE	120	115.29
312	Zone-1	3	FALSE	120	113.69
313	Zone-1	3	FALSE	120	115.87
314	Zone-1	3	TRUE	120	129.85
315	Zone-1	3	TRUE	120	200
316	Zone-1	3	TRUE	120	200
317	Zone-1	2	TRUE	120	200
318	Zone-1	4	TRUE	120	196.63
319	Zone-1	4	TRUE	120	176.83
320	Zone-1	4	TRUE	120	140.83
321	Zone-1	3	TRUE	120	131.87
322	Zone-1	3	TRUE	120	131.09
323	Zone-1	3	TRUE	120	129.87
324	Zone-1	3	TRUE	120	130.26
325	Zone-1	4	TRUE	120	146.53
326	Zone-1	4	TRUE	120	197.78
327	Zone-1	4	TRUE	120	151.22
328	Zone-1	2	TRUE	120	200
329	Zone-1	4	TRUE	120	197.14

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
330	Zone-1	3	TRUE	120	200
331	Zone-1	4	TRUE	120	198.5
332	Zone-1	4	TRUE	120	139.25
333	Zone-1	4	TRUE	120	137.28
334	Zone-1	4	TRUE	120	137.42
335	Zone-1	4	TRUE	120	176.45
336	Zone-1	6	TRUE	120	192.08
337	Zone-1	6	TRUE	120	189.04
338	Zone-1	6	TRUE	120	196.53
339	Zone-1	2	TRUE	120	200
340	Zone-1	6	TRUE	120	196.76
341	Zone-1	3	TRUE	120	124.17
342	Zone-1	3	FALSE	120	118.34
343	Zone-1	3	FALSE	120	105.43
344	Zone-1	4	FALSE	120	82.63
345	Zone-1	3	FALSE	120	102.95
346	Zone-1	6	FALSE	120	96.6
347	Zone-1	4	FALSE	120	67.42
348	Zone-1	4	FALSE	120	61.43
349	Zone-1	4	FALSE	120	99.52
350	Zone-1	2	TRUE	120	200
351	Zone-1	4	FALSE	120	100.56
352	Zone-1	3	FALSE	120	116.61
353	Zone-1	3	FALSE	120	114.48
354	Zone-1	3	FALSE	120	6.33
355	Zone-1	3	FALSE	120	106.85
356	Zone-1	21	FALSE	120	102.42
357	Zone-1	4	FALSE	120	84.32
358	Zone-1	4	FALSE	120	83.75
359	Zone-1	4	FALSE	120	83.45
360	Zone-1	4	FALSE	120	83.03
361	Zone-1	3	TRUE	120	175.49
362	Zone-1	2	TRUE	120	200
363	Zone-1	4	FALSE	120	84.53
364	Zone-1	4	FALSE	120	99.29
365	Zone-1	4	FALSE	120	97.44
366	Zone-1	4	FALSE	120	98.02
367	Zone-1	4	FALSE	120	92.86
368	Zone-1	3	TRUE	120	121.33
369	Zone-1	3	FALSE	120	103.77
370	Zone-1	4	FALSE	120	96.91
371	Zone-1	3	TRUE	120	125.56
372	Zone-1	4	FALSE	120	70.65
373	Zone-1	3	TRUE	120	200
374	Zone-1	3	TRUE	120	126.73
375	Zone-1	3	FALSE	120	112.43
376	Zone-1	3	TRUE	120	127.66
377	Zone-1	5	TRUE	120	174.91
378	Zone-1	5	TRUE	120	174.1
379	Zone-1	5	TRUE	120	178.33
380	Zone-1	4	TRUE	120	163.68
381	Zone-1	3	FALSE	120	118.25

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
382	Zone-1	2	TRUE	120	120
383	Zone-1	5	TRUE	120	178.84
384	Zone-1	2	TRUE	120	200
385	Zone-1	5	TRUE	120	179.18
386	Zone-1	4	TRUE	120	179.92
387	Zone-1	4	TRUE	120	179.65
388	Zone-1	4	TRUE	120	132.85
389	Zone-1	3	FALSE	120	117.89
390	Zone-1	3	FALSE	120	105.52
391	Zone-1	4	FALSE	120	93.7
392	Zone-1	4	FALSE	120	88.79
393	Zone-1	4	FALSE	120	87.55
394	Zone-1	4	FALSE	120	88.19
395	Zone-1	2	TRUE	120	200
396	Zone-1	4	FALSE	120	99.2
397	Zone-1	4	FALSE	120	93.15
398	Zone-1	4	FALSE	120	90.31
399	Zone-1	4	FALSE	120	87.34
400	Zone-1	4	FALSE	120	88.24
401	Zone-1	4	FALSE	120	98.3
402	Zone-1	4	TRUE	120	185.49
403	Zone-1	6	TRUE	120	184.99
404	Zone-1	4	TRUE	120	182.06
405	Zone-1	6	TRUE	120	193.21
406	Zone-1	2	TRUE	120	200
407	Zone-1	4	TRUE	120	150.01
408	Zone-1	4	TRUE	120	138.59
409	Zone-1	4	TRUE	120	135.37
410	Zone-1	4	TRUE	120	134.18
411	Zone-1	4	TRUE	120	135.31
412	Zone-1	4	FALSE	120	102.59
413	Zone-1	2	TRUE	120	200
414	Zone-1	4	FALSE	120	102.26
415	Zone-1	3	FALSE	120	104.09
416	Zone-1	3	TRUE	120	127.06
417	Zone-1	4	TRUE	120	132.76
418	Zone-1	4	FALSE	120	89.02
419	Zone-1	4	TRUE	120	140.42
420	Zone-1	8	TRUE	120	171.31
421	Zone-1	7	TRUE	120	170.94
422	Zone-1	8	TRUE	120	170.94
423	Zone-1	7	TRUE	120	170.55
424	Zone-1	2	TRUE	120	200
425	Zone-1	6	TRUE	120	174.15
426	Zone-1	3	TRUE	120	128.99
427	Zone-1	4	TRUE	120	174.02
428	Zone-1	4	TRUE	120	146.89
429	Zone-1	4	TRUE	120	167.71
430	Zone-1	6	TRUE	120	181.1
431	Zone-1	7	TRUE	120	177.68
432	Zone-1	4	TRUE	120	157.41
433	Zone-1	4	TRUE	120	141.48

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
434	Zone-1	3	FALSE	120	119.7
435	Zone-1	2	TRUE	120	200
436	Zone-1	3	FALSE	120	114.39
437	Zone-1	3	FALSE	120	113.77
438	Zone-1	3	FALSE	120	118.28
439	Zone-1	3	TRUE	120	121.31
440	Zone-1	3	FALSE	120	105.38
441	Zone-1	4	TRUE	120	133.73
442	Zone-1	4	TRUE	120	139.61
443	Zone-1	4	TRUE	120	134.32
444	Zone-1	4	TRUE	120	165.6
445	Zone-1	6	TRUE	120	193.93
446	Zone-1	4	TRUE	120	193.17
447	Zone-1	5	TRUE	120	195.48
448	Zone-1	3	FALSE	120	11.47
449	Zone-1	5	TRUE	120	196.39
450	Zone-1	5	TRUE	120	196.68
451	Zone-1	3	TRUE	120	127.42
452	Zone-1	3	FALSE	120	114.49
453	Zone-1	3	FALSE	120	113.03
454	Zone-1	5	TRUE	120	197.67
455	Zone-1	5	TRUE	120	190.95
456	Zone-1	6	TRUE	120	183.74
457	Zone-1	4	TRUE	120	188.19
458	Zone-1	6	TRUE	120	182.02
459	Zone-1	3	TRUE	120	200
460	Zone-1	3	TRUE	120	200
461	Zone-1	3	TRUE	120	200
462	Zone-1	3	TRUE	120	200
463	Zone-1	2	TRUE	120	200
464	Zone-1	3	TRUE	120	169.79
465	Zone-1	4	TRUE	120	176.26
466	Zone-1	2	TRUE	120	200
467	Zone-1	2	TRUE	120	200
468	Zone-1	2	TRUE	120	200
469	Zone-1	2	TRUE	120	200
470	Zone-1	2	TRUE	120	200
471	Zone-1	4	TRUE	120	146.14
472	Zone-1	4	TRUE	120	157.31
473	Zone-1	4	TRUE	120	191.43
474	Zone-1	4	TRUE	120	198.23
475	Zone-1	3	TRUE	120	200
476	Zone-1	4	TRUE	120	141.84
477	Zone-1	4	TRUE	120	140.68
478	Zone-1	3	TRUE	120	124.88
479	Zone-1	2	TRUE	120	200
480	Zone-1	3	TRUE	120	121.07
481	Zone-1	3	TRUE	120	125.01
482	Zone-1	4	TRUE	120	141.37
483	Zone-1	4	TRUE	120	142.11
484	Zone-1	4	TRUE	120	148.93
485	Zone-1	6	TRUE	120	158.16

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
486	Zone-1	5	FALSE	120	116.17
487	Zone-1	2	TRUE	120	200
488	Zone-1	2	TRUE	120	200
489	Zone-1	2	TRUE	120	200
490	Zone-1	6	TRUE	120	181.85
491	Zone-1	4	TRUE	120	178.4
493	Zone-1	4	TRUE	120	168.6
494	Zone-1	4	TRUE	120	161.75
495	Zone-1	4	TRUE	120	162.75
496	Zone-1	6	TRUE	120	165.91
497	Zone-1	6	TRUE	120	165.91
498	Zone-1	6	TRUE	120	165.91
499	Zone-1	2	TRUE	120	200
500	Zone-1	6	TRUE	120	166.5
501	Zone-1	6	TRUE	120	176.33
502	Zone-1	6	TRUE	120	178.1
503	Zone-1	6	TRUE	120	175.44
504	Zone-1	6	TRUE	120	172.47
505	Zone-1	6	TRUE	120	172.08
506	Zone-1	6	TRUE	120	171.25
507	Zone-1	6	TRUE	120	170.67
508	Zone-1	6	TRUE	120	170.12
509	Zone-1	6	TRUE	120	169.98
510	Zone-1	2	TRUE	120	200
511	Zone-1	4	TRUE	120	134.62
512	Zone-1	3	FALSE	120	102.64
513	Zone-1	4	FALSE	120	100
514	Zone-1	4	FALSE	120	89.38
515	Zone-1	3	TRUE	120	125.97
516	Zone-1	3	TRUE	120	124.4
517	Zone-1	3	FALSE	120	103.59
518	Zone-1	3	TRUE	120	131.75
519	Zone-1	4	TRUE	120	132.89
520	Zone-1	3	FALSE	120	108.36
521	Zone-1	2	TRUE	120	200
522	Zone-1	4	TRUE	120	160.98
523	Zone-1	4	TRUE	120	161.25
524	Zone-1	4	TRUE	120	160.8
525	Zone-1	4	TRUE	120	159.59
526	Zone-1	4	TRUE	120	144.5
527	Zone-1	3	TRUE	120	123.58
528	Zone-1	3	FALSE	120	106.42
529	Zone-1	3	TRUE	120	120.26
530	Zone-1	3	FALSE	120	119.05
531	Zone-1	3	FALSE	120	110.8
532	Zone-1	2	TRUE	120	200
533	Zone-1	3	FALSE	120	108.3
534	Zone-1	3	FALSE	120	108.21
535	Zone-1	3	FALSE	120	110.66
536	Zone-1	3	FALSE	120	105.15
537	Zone-1	3	TRUE	120	128.68
538	Zone-1	4	TRUE	120	140.73

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
539	Zone-1	3	FALSE	120	107.9
540	Zone-1	6	TRUE	120	161.17
541	Zone-1	6	TRUE	120	159.99
542	Zone-1	4	TRUE	120	159.34
543	Zone-1	2	TRUE	120	200
544	Zone-1	2	TRUE	120	200
545	Zone-1	4	TRUE	120	156.17
546	Zone-1	3	TRUE	120	121.46
547	Zone-1	3	TRUE	120	121.02
548	Zone-1	4	TRUE	120	154.86
549	Zone-1	4	TRUE	120	145.56
550	Zone-1	3	FALSE	120	118.91
551	Zone-1	3	TRUE	120	123.07
552	Zone-1	2	TRUE	120	200
553	Zone-1	2	TRUE	120	200
554	Zone-1	4	TRUE	120	179.53
555	Zone-1	2	TRUE	120	200
556	Zone-1	4	TRUE	120	177.49
557	Zone-1	4	TRUE	120	178.97
558	Zone-1	4	TRUE	120	178.5
559	Zone-1	2	TRUE	120	200
560	Zone-1	2	TRUE	120	200
561	Zone-1	2	TRUE	120	200
562	Zone-1	3	FALSE	120	39.64
563	Zone-1	3	TRUE	120	200
564	Zone-1	3	TRUE	120	200
565	Zone-1	3	TRUE	120	200
566	Zone-1	2	TRUE	120	200
567	Zone-1	2	TRUE	120	200
568	Zone-1	2	TRUE	120	200
569	Zone-1	4	TRUE	120	199.56
570	Zone-1	5	TRUE	120	164.61
571	Zone-1	3	TRUE	120	200
572	Zone-1	2	TRUE	120	200
573	Zone-1	2	TRUE	120	200
574	Zone-1	2	TRUE	120	200
575	Zone-1	2	TRUE	120	200
576	Zone-1	3	TRUE	120	137.6
577	Zone-1	2	TRUE	120	200
578	Zone-1	2	TRUE	120	200
579	Zone-1	3	FALSE	120	50.12
580	Zone-1	3	FALSE	120	55.25
581	Zone-1	3	TRUE	120	142.2
582	Zone-1	3	FALSE	120	72.72
583	Zone-1	3	FALSE	120	62.49
584	Zone-1	2	TRUE	120	200
585	Zone-1	2	TRUE	120	200
586	Zone-1	2	TRUE	120	200
587	Zone-1	2	TRUE	120	200
588	Zone-1	2	TRUE	120	200
589	Zone-1	2	TRUE	120	200
590	Zone-1	3	FALSE	120	66.16

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
591	Zone-1	2	TRUE	120	200
592	Zone-1	3	FALSE	120	53.78
593	Zone-1	2	TRUE	120	200
594	Zone-1	2	TRUE	120	200
595	Zone-1	2	TRUE	120	200
596	Zone-1	4	TRUE	120	171.47
597	Zone-1	2	TRUE	120	200
598	Zone-1	4	FALSE	120	100.53
599	Zone-1	3	FALSE	120	103.56
600	Zone-1	3	FALSE	120	105.09
601	Zone-1	4	TRUE	120	132.57
602	Zone-1	4	TRUE	120	158.94
603	Zone-1	4	TRUE	120	149.25
604	Zone-1	6	TRUE	120	166.35
605	Zone-1	2	TRUE	120	200
606	Zone-1	4	TRUE	120	160.48
607	Zone-1	2	TRUE	120	200
608	Zone-1	2	TRUE	120	200
609	Zone-1	4	TRUE	120	150.2
610	Zone-1	3	FALSE	120	103.86
611	Zone-1	8	FALSE	120	17.78
612	Zone-1	3	TRUE	120	138.93
613	Zone-1	3	FALSE	120	76.2
614	Zone-1	3	FALSE	120	116.94
615	Zone-1	4	FALSE	120	78.89
616	Zone-1	2	TRUE	120	200
617	Zone-1	7	TRUE	120	171.91
618	Zone-1	4	TRUE	120	168.12
619	Zone-1	4	FALSE	120	98.98
620	Zone-1	4	FALSE	120	97.22
621	Zone-1	4	TRUE	120	138.67
622	Zone-1	4	FALSE	120	91.19
623	Zone-1	5	FALSE	120	67.89
624	Zone-1	5	FALSE	120	75.06
625	Zone-1	4	FALSE	120	80.19
626	Zone-1	4	FALSE	120	84.8
627	Zone-1	2	TRUE	120	200
628	Zone-1	4	FALSE	120	87.87
629	Zone-1	4	FALSE	120	100.47
630	Zone-1	2	TRUE	120	200
631	Zone-1	2	TRUE	120	200
635	Zone-1	2	TRUE	120	200
644	Zone-1	2	TRUE	120	200
645	Zone-1	3	FALSE	120	110.97
646	Zone-1	2	TRUE	120	200
647	Zone-1	6	TRUE	120	170.54
648	Zone-1	4	TRUE	120	136.71
649	Zone-1	5	TRUE	120	127.14
650	Zone-1	3	FALSE	120	112.69
651	Zone-1	3	TRUE	120	122.57
652	Zone-1	3	TRUE	120	130.79
653	Zone-1	3	FALSE	120	103.76

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
654	Zone-1	6	TRUE	120	161.63
655	Zone-1	4	TRUE	120	139.34
656	Zone-1	3	FALSE	120	98.06
657	Zone-1	4	TRUE	120	155.28
658	Zone-1	6	TRUE	120	162.29
659	Zone-1	3	FALSE	120	104.76
660	Zone-1	8	TRUE	120	162.29
661	Zone-1	6	TRUE	120	147.33
662	Zone-1	7	TRUE	120	141.19
663	Zone-1	6	TRUE	120	135.33
664	Zone-1	6	TRUE	120	134.62
665	Zone-1	3	FALSE	120	37.44
666	Zone-1	7	TRUE	120	139.6
667	Zone-1	6	TRUE	120	185.57
668	Zone-1	6	TRUE	120	187
669	Zone-1	4	TRUE	120	166.24
670	Zone-1	4	TRUE	120	168.44
671	Zone-1	4	TRUE	120	173.27
672	Zone-1	3	FALSE	120	64.28
673	Zone-1	2	TRUE	120	200
674	Zone-1	3	FALSE	120	34.94
675	Zone-1	3	FALSE	120	12.9
676	Zone-1	3	FALSE	120	34.74
677	Zone-1	2	TRUE	120	200
678	Zone-1	4	FALSE	120	56.16
679	Zone-1	4	FALSE	120	55.98
680	Zone-1	2	TRUE	120	200
681	Zone-1	2	TRUE	120	200
682	Zone-1	2	TRUE	120	200
683	Zone-1	2	TRUE	120	200
684	Zone-1	2	TRUE	120	200
685	Zone-1	2	TRUE	120	200
686	Zone-1	3	TRUE	120	200
687	Zone-1	3	FALSE	120	52.84
688	Zone-1	3	FALSE	120	48.08
689	Zone-1	3	FALSE	120	62.03
690	Zone-1	3	FALSE	120	39
691	Zone-1	2	TRUE	120	200
692	Zone-1	3	FALSE	120	32.28
693	Zone-1	3	FALSE	120	32.25
694	Zone-1	3	FALSE	120	35.03
695	Zone-1	2	TRUE	120	200
696	Zone-1	2	TRUE	120	200
697	Zone-1	2	TRUE	120	200
698	Zone-1	2	TRUE	120	200
699	Zone-1	2	TRUE	120	200
700	Zone-1	2	TRUE	120	200
701	Zone-1	2	TRUE	120	200
702	Zone-1	6	TRUE	120	154.36
703	Zone-1	3	TRUE	120	122.83
704	Zone-1	6	TRUE	120	134.27
705	Zone-1	4	TRUE	120	133.2

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
706	Zone-1	4	TRUE	120	131.61
707	Zone-1	2	TRUE	120	200
708	Zone-1	2	TRUE	120	200
709	Zone-1	2	TRUE	120	200
710	Zone-1	2	TRUE	120	200
711	Zone-1	3	TRUE	120	140.34
712	Zone-1	6	TRUE	120	156.22
713	Zone-1	3	TRUE	120	146.39
714	Zone-1	6	TRUE	120	182.7
720	Zone-1	22	TRUE	120	186.6
721	Zone-1	6	TRUE	120	158.35
722	Zone-1	4	TRUE	120	151.63
723	Zone-1	4	FALSE	120	73.94
724	Zone-1	6	TRUE	120	151.32
725	Zone-1	4	FALSE	120	96.3
726	Zone-1	6	TRUE	120	146.89
727	Zone-1	6	TRUE	120	133.36
728	Zone-1	4	TRUE	120	133.28
729	Zone-1	2	TRUE	120	200
730	Zone-1	3	TRUE	120	200
731	Zone-1	4	TRUE	120	198.73
732	Zone-1	4	TRUE	120	165.76
733	Zone-1	4	TRUE	120	187.29
734	Zone-1	4	TRUE	120	184.91
735	Zone-1	4	TRUE	120	187.18
736	Zone-1	3	TRUE	120	124.69
737	Zone-1	4	TRUE	120	179.84
738	Zone-1	3	TRUE	120	142.51
739	Zone-1	2	TRUE	120	200
740	Zone-1	4	TRUE	120	198.24
741	Zone-1	2	TRUE	120	200
742	Zone-1	2	TRUE	120	200
743	Zone-1	3	FALSE	120	112.84
754	Zone-1	2	TRUE	120	200
755	Zone-1	2	TRUE	120	200
757	Zone-1	2	TRUE	120	200
758	Zone-1	2	TRUE	120	200
759	Zone-1	2	TRUE	120	200
762	Zone-1	2	TRUE	120	200
763	Zone-1	2	TRUE	120	200
768	Zone-1	2	TRUE	120	200
770	Zone-1	2	TRUE	120	200
771	Zone-1	2	TRUE	120	200
772	Zone-1	2	TRUE	120	200
777	Zone-1	2	TRUE	120	200
778	Zone-1	3	FALSE	120	117.82
779	Zone-1	2	TRUE	120	200
780	Zone-1	2	TRUE	120	200
781	Zone-1	2	TRUE	120	200
782	Zone-1	2	TRUE	120	200
783	Zone-1	2	TRUE	120	200
784	Zone-1	2	TRUE	120	200

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
785	Zone-1	2	TRUE	120	200
786	Zone-1	2	TRUE	120	200
787	Zone-1	2	TRUE	120	200
788	Zone-1	2	TRUE	120	200
789	Zone-1	2	TRUE	120	200
790	Zone-1	2	TRUE	120	200
791	Zone-1	2	TRUE	120	200
792	Zone-1	2	TRUE	120	200
793	Zone-1	2	TRUE	120	200
795	Zone-1	4	TRUE	120	198.28
796	Zone-1	3	TRUE	120	200
797	Zone-1	2	TRUE	120	200
798	Zone-1	6	TRUE	120	138.65
799	Zone-1	3	TRUE	120	129.07
800	Zone-1	21	FALSE	120	119.13
801	Zone-1	7	TRUE	120	139.07
802	Zone-1	7	TRUE	120	138.5
803	Zone-1	6	TRUE	120	139.57
804	Zone-1	7	TRUE	120	136.94
805	Zone-1	7	TRUE	120	137.84
806	Zone-1	3	TRUE	120	123.11
807	Zone-1	6	TRUE	120	138.77
808	Zone-1	7	TRUE	120	135.58
809	Zone-1	7	TRUE	120	137.13
810	Zone-1	4	TRUE	120	133.62
811	Zone-1	4	FALSE	120	90.23
812	Zone-1	3	TRUE	120	130.36
813	Zone-1	4	FALSE	120	93.71
814	Zone-1	6	TRUE	120	140.4
815	Zone-1	3	TRUE	120	128.54
816	Zone-1	3	TRUE	120	123.06
817	Zone-1	3	TRUE	120	121.56
818	Zone-1	3	TRUE	120	129.24
819	Zone-1	4	TRUE	120	134.16
820	Zone-1	3	TRUE	120	129.84
821	Zone-1	6	TRUE	120	137.18
822	Zone-1	4	TRUE	120	142.23
823	Zone-1	6	TRUE	120	138.52
824	Zone-1	3	TRUE	120	127.69
825	Zone-1	4	TRUE	120	136.89
826	Zone-1	9	TRUE	120	166.38
827	Zone-1	4	FALSE	120	87.8
828	Zone-1	6	TRUE	120	179.34
829	Zone-1	4	TRUE	120	177.61
830	Zone-1	3	TRUE	120	125.17
831	Zone-1	3	TRUE	120	136.58
832	Zone-1	3	TRUE	120	129.8
833	Zone-1	3	FALSE	120	108.66
834	Zone-1	2	TRUE	120	200
835	Zone-1	2	TRUE	120	200
836	Zone-1	2	TRUE	120	200
837	Zone-1	2	TRUE	120	200

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
838	Zone-1	2	TRUE	120	200
839	Zone-1	2	TRUE	120	200
840	Zone-1	3	TRUE	120	200
841	Zone-1	3	TRUE	120	200
842	Zone-1	4	FALSE	120	67.36
843	Zone-1	4	TRUE	120	134.36
844	Zone-1	4	TRUE	120	132.31
845	Zone-1	7	TRUE	120	144.06
846	Zone-1	3	TRUE	120	131.57
847	Zone-1	7	TRUE	120	135.14
848	Zone-1	3	FALSE	120	111.49
849	Zone-1	2	TRUE	120	200
850	Zone-1	2	TRUE	120	200
851	Zone-1	3	FALSE	120	100.3
852	Zone-1	2	TRUE	120	200
853	Zone-1	2	TRUE	120	200
854	Zone-1	3	FALSE	120	90.78
855	Zone-1	2	TRUE	120	200
856	Zone-1	2	TRUE	120	200
857	Zone-1	2	TRUE	120	200
858	Zone-1	3	FALSE	120	98.03
859	Zone-1	2	TRUE	120	200
860	Zone-1	2	TRUE	120	200
861	Zone-1	3	TRUE	120	131.54
862	Zone-1	2	TRUE	120	200
863	Zone-1	2	TRUE	120	200
864	Zone-1	2	TRUE	120	200
A	Zone-1	4	TRUE	120	176.69
B	Zone-1	6	TRUE	120	184.01
J-1	Zone-1	6	TRUE	120	170.82
J-2	Zone-1	4	TRUE	120	177.28
J-3	Zone-1	6	TRUE	120	183.93
J-4	Zone-1	4	TRUE	120	162.22
J-866	Zone-1	2	TRUE	120	200
J-867	Zone-1	2	TRUE	120	200
J-868	Zone-1	2	TRUE	120	200
J-869	Zone-1	2	TRUE	120	200
J-870	Zone-1	2	TRUE	120	200
J-871	Zone-1	2	TRUE	120	200
J-872	Zone-1	3	TRUE	120	200
J-873	Zone-1	2	TRUE	120	200
J-874	Zone-1	2	TRUE	120	200
J-875	Zone-1	2	TRUE	120	200
J-876	Zone-1	2	TRUE	120	200
J-877	Zone-1	4	FALSE	120	47.37
J-878	Zone-1	4	FALSE	120	45.9
J-879	Zone-1	4	FALSE	120	45.84
J-880	Zone-1	2	TRUE	120	200
J-881	Zone-1	3	TRUE	120	131.08
J-882	Zone-1	3	FALSE	120	93.15
J-883	Zone-1	3	FALSE	120	79
J-884	Zone-1	2	TRUE	120	200

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
J-885	Zone-1	3	TRUE	120	124.3
J-886	Zone-1	3	FALSE	120	105.83
J-887	Zone-1	3	FALSE	120	104.48
J-888	Zone-1	3	FALSE	120	105.67
J-889	Zone-1	3	FALSE	120	110.68
J-890	Zone-1	3	FALSE	120	106.98
J-891	Zone-1	2	TRUE	120	200
J-892	Zone-1	2	TRUE	120	200
J-893	Zone-1	2	TRUE	120	200
J-894	Zone-1	2	TRUE	120	200
J-899	Zone-1	4	TRUE	120	176.91
J-900	Zone-1	2	TRUE	120	200
J-904	Zone-1	2	TRUE	120	200
J-905	Zone-1	2	TRUE	120	200
J-906	Zone-1	2	TRUE	120	200
J-908	Zone-1	2	TRUE	120	200
J-919	Zone-1	3	TRUE	120	200
J-920	Zone-1	4	TRUE	120	177.83
J-921	Zone-1	4	TRUE	120	175.53
J-922	Zone-1	4	TRUE	120	182.64
J-923	Zone-1	2	TRUE	120	200
J-924	Zone-1	2	TRUE	120	200
J-925	Zone-1	3	TRUE	120	200
J-928	Zone-1	2	TRUE	120	200
J-931	Zone-1	2	TRUE	120	200

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
1	120	0	140	127.1
7	120	0	140	126.6
9	120	0	140	602.4
15	120	0	140	126.8
18	120	0	140	599.8
19	120	0	140	601.5
20	120	0	140	602.1
21	120	200	140	378.6
26	120	0	140	139.2
27	120	0	140	115.9
28	120	0	140	139.1
29	120	0	140	139.1
30	120	0	140	139.1
31	120.06	108	140	140
32	120	200	140	351.5
33	120	200	140	261.8
34	120	200	140	274.2
35	120	200	140	327.4
36	120.09	200.09	140	328.8
37	120.11	136.15	140	140.1
38	120.04	9.78	140	140
39	120	106.93	140	140
40	120.4	110.19	140	140
41	120.24	200.24	140	287.4
42	120	200	140	288.4
43	120	200	140	318.3
44	120.11	200.11	140	220.6
45	120	175.12	140	140
46	120.13	97.86	140	140.1
47	120	200	140	368.2
48	120	122.9	140	140
49	120	115.74	140	140
50	120.13	200.13	140	296.2
51	120	200	140	297.6
52	120.11	101.47	140	140
53	120	102.53	140	140
54	120	200	140	313.9
55	120	200	140	185.1
56	120	200	140	373.8
57	120	200	140	335.7
58	120	200	140	335.8
59	120	144.92	140	140
60	120.93	200.93	140	301.1
61	120	194.5	140	140
62	120.93	200.93	140	287.7
63	120	200	140	283.3
64	121.46	201.46	140	260.6
65	120.53	200.53	140	233.9
66	120	200	140	277.1
67	120	200	140	316.7
68	120	200	140	316.3
69	120.93	200.93	140	250.6

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
70	120.8	200.8	140	207.1
71	120	200	140	200.3
72	120	197.83	140	140
73	120	35.35	140	140.2
74	120.11	34.83	140	140.2
75	120	33.26	140	140.2
76	120	179.46	140	140
77	120	76.86	140	140.2
78	120.16	200.16	140	315.2
79	120.25	54.23	140	140.2
80	120	74.99	140	140.1
81	120.11	129.21	140	140
82	120	136.5	140	140
83	120.08	63.05	140	140.2
84	120.16	42	140	140.2
85	120.3	200.3	140	314.2
86	120	200	140	310.9
87	120	182.72	140	140
88	120	39.86	140	140.3
89	120.3	39.49	140	140.2
90	120	110.13	140	140
91	120.27	191.27	140	140
92	120	56.56	140	140.2
93	120	200	140	351
94	120	200	140	351.8
95	120	200	140	352.1
96	120	200	140	352
97	120	200	140	270.2
98	120	200	140	274.6
99	120.11	200.11	140	178.1
100	120.24	181.78	140	140
101	120.1	118.77	140	140
102	120.21	170.74	140	140
103	120	169.95	140	140
104	120	169.3	140	140
105	120	166.85	140	140
106	120	159.97	140	140
107	120	200	140	192.5
108	120	200	140	229.2
109	120.53	200.53	140	279.6
110	120	200	140	226.5
111	120	200	140	229.6
112	120	200	140	219
113	120	200	140	214.6
114	121.73	201.73	140	210.2
115	120	200	140	211.7
116	120	200	140	348.1
117	120	200	140	352.7
118	120	200	140	319.8
119	120	200	140	237.9
120	120	200	140	342.5
121	120.21	200.21	140	289.2

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
122	120.64	174.38	140	140
123	120	171.77	140	140
124	120	171.3	140	140
125	121.03	176.91	140	140
126	120	200	140	153.9
127	120	174.39	140	140
128	120	200	140	227.8
129	120.13	171.96	140	140
130	120	200	140	172.5
131	120.1	200.09	140	178.7
132	120	200	140	349
133	120	200	140	348.3
134	120	200	140	329.1
135	120	200	140	344.9
136	120	200	140	343
137	120	200	140	247.7
138	120	200	140	341.6
139	120.05	158.85	140	140
140	120	200	140	237.9
141	120	200	140	340.8
142	120.97	200.97	140	250.1
143	120	200	140	340.7
144	120	200	140	355.7
145	120	200	140	355.1
146	120.11	200.11	140	342.8
147	120	200	140	349.9
148	120.19	200.19	140	345.7
149	120	200	140	335.8
150	120	200	140	321.7
151	120	200	140	253.9
152	120	200	140	266.5
153	120.38	23.91	140	140.1
154	120	200	140	260
155	120	200	140	229.8
156	120.19	110.5	140	140
157	120	114.17	140	140
158	120	138.37	140	144.9
159	120.28	5.57	140	155.2
160	120.06	5.35	140	142.3
161	120.1	5.39	140	142
162	120.27	200.27	140	235.9
163	120.3	141.28	140	142.6
164	120	162.75	140	140
165	120.08	187.08	140	140
166	120.13	169.21	140	140
167	120	73.81	140	140.1
168	120.13	50.77	140	140.1
169	120.21	187.32	140	140
170	120	193.27	140	140
171	120.24	115.37	140	149.8
172	120.4	99.16	140	140
173	120	200	140	255.6

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
174	120.08	92.91	140	140.1
175	120	200	140	326.5
176	120.32	200.32	140	316.6
177	120.19	200.19	140	298
178	120.11	200.11	140	283.7
179	120.1	200.09	140	295.4
180	120.58	200.58	140	335.4
181	120	200	140	252
182	120.4	200.4	140	241.8
183	120	200	140	248.8
184	120	200	140	256.3
185	120.35	200.35	140	256.4
186	120	200	140	335.6
187	120	200	140	328.8
188	120	200	140	323.2
189	120	200	140	321.2
190	120	200	140	319.2
191	120	200	140	318.4
192	120	200	140	317.5
193	120	200	140	268.7
194	120	200	140	307.6
195	120	200	140	245.4
196	120	200	140	275.6
197	120	200	140	308.2
198	120	200	140	326.7
199	120.29	200.29	140	281.2
200	120	200	140	252.9
201	120	200	140	162.8
202	120	200	140	162.6
203	120	200	140	171.2
204	120	200	140	175.4
205	120	200	140	204.4
206	120	200	140	270.2
207	120	200	140	211.9
208	120	200	140	224.3
209	120.16	200.16	140	272.4
210	120.5	200.5	140	266.4
211	120	200	140	243.5
212	120.16	200.16	140	220.3
213	120.16	199.87	140	140
214	120	197.77	140	140.9
215	120	192.65	140	140
216	120.16	177.37	140	140
217	120	200	140	269.3
218	120.16	144.61	140	140.1
219	120	144.05	140	140.1
220	120.16	147.44	140	140.1
221	120	119.78	140	140.1
222	120.14	154.97	140	140
223	120.16	147.42	140	140.1
224	120.09	107.45	140	140
225	120	103.64	140	140

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
226	120.16	99.27	140	140
227	120.1	72.83	140	140.1
228	120	200	140	217.1
229	120.14	102.39	140	140
230	120	98.68	140	140.1
231	120.16	84.84	140	140.1
232	120	83.05	140	140.1
233	120.16	83.6	140	140.1
234	120.16	107.52	140	141.6
235	120.24	132.76	140	140
236	120	129.86	140	140
237	120	144.85	140	140.1
238	120.14	109.62	140	140
239	120	197.56	140	145.6
240	120.24	122.22	140	140
241	120.16	70.26	140	140.3
242	120.19	149.64	140	140
243	120.19	110.19	140	140
244	120.19	98.53	140	140.1
245	120	200	140	347.4
246	120	175.85	140	140
247	120	200	140	163.6
248	120.53	200.53	140	164.4
249	120	200	140	269
250	120.15	191.98	140	140.1
251	120	179.05	140	140
252	120.13	200.13	140	330.1
253	120	200	140	346.5
254	120	200	140	344.5
255	120	200	140	368.6
256	120.18	200.18	140	337.2
257	120	200	140	334.6
258	120.18	200.18	140	205.4
259	120.16	200.16	140	177.3
260	120.19	200.19	140	209.5
261	120.19	200.19	140	204.7
262	120	200	140	267.3
263	120.08	200.08	140	270.5
264	120	200	140	242.7
265	120.14	200.14	140	248.3
266	120	200	140	238.9
267	120	200	140	339
268	120.18	200.18	140	339.4
269	120	200	140	241.3
270	120	157.08	140	140
271	120.09	129.67	140	140.1
272	120.09	117.4	140	140
273	120	200	140	265.5
274	120.14	74.26	140	140
275	120	69.28	140	140
276	120.27	63.37	140	140
277	120	116.82	140	140

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
278	120	118.01	140	140
279	120.09	120.09	140	140.1
280	120	127.74	140	140
281	120.16	147.45	140	140
282	120	200	140	252
283	120.06	200.06	140	342.9
284	120	200	140	265.5
285	120.16	200.16	140	233
286	120.18	200.18	140	248.1
287	120	200	140	268
288	120	200	140	284.9
289	120	200	140	279.2
290	120.18	200.18	140	283.5
291	120	200	140	281.6
292	120.16	200.16	140	274.1
293	120	200	140	300.3
294	120	200	140	337.8
295	120	200	140	269.4
296	120	188.27	140	144.9
297	120.08	132.82	140	140.1
298	120.16	200.16	140	320.1
299	120	200	140	319.2
300	120.16	176.14	140	140
301	120.26	172.64	140	140
302	120.18	200.18	140	172.9
303	120	200	140	190.9
304	120.19	171.95	140	140
305	120	200	140	262.7
306	120	200	140	253
307	120	200	140	249.3
308	120.28	200.28	140	247.7
309	120	200	140	193.6
310	120	133.37	140	140.1
311	120.19	115.48	140	140
312	120	113.69	140	140
313	120.19	116.06	140	140
314	120	129.85	140	140.1
315	120	200	140	178.9
316	120	200	140	168.3
317	120	200	140	246.2
318	120	196.63	140	140
319	120.15	176.98	140	140
320	120	140.83	140	140
321	120	131.87	140	140.1
322	120.19	131.28	140	140.1
323	120	129.87	140	140.1
324	120	130.26	140	140.1
325	120.19	146.72	140	140
326	120	197.78	140	140
327	120	151.22	140	140
328	120	200	140	248.4
329	120.19	197.33	140	140

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
330	120	200	140	150
331	120	198.5	140	140
332	120.5	139.75	140	140
333	120	137.28	140	140
334	120.4	137.82	140	140
335	120	176.45	140	140
336	120.38	192.46	140	151.2
337	120.38	189.42	140	156.6
338	120	196.53	140	141.2
339	120	200	140	235.6
340	120.51	197.27	140	141.4
341	120.3	124.47	140	140
342	120.36	118.7	140	140
343	120.19	105.62	140	140.1
344	120.1	82.72	140	140
345	120	102.95	140	140.2
346	120.13	96.73	140	156.6
347	120.13	67.55	140	140
348	120	61.43	140	140
349	120	99.52	140	140
350	120.25	200.25	140	231.8
351	120.16	100.72	140	140
352	120.16	116.77	140	140
353	120	114.48	140	140
354	120	6.33	140	140.1
355	120	106.85	140	140.1
356	120	102.42	140	141.1
357	120.21	84.53	140	140
358	120	83.75	140	140
359	120	83.45	140	140
360	120.13	83.16	140	140
361	120	175.49	140	140
362	120	200	140	239.7
363	120	84.53	140	140
364	120.15	99.44	140	140
365	120	97.44	140	140
366	120	98.02	140	140
367	120	92.86	140	140
368	120.11	121.44	140	140
369	120	103.77	140	140.2
370	120.13	97.04	140	140
371	120	125.56	140	140
372	120.1	70.75	140	140
373	120.27	200.27	140	179.7
374	120.3	127.03	140	140
375	120	112.43	140	140
376	120	127.66	140	140
377	120	174.91	140	140
378	120	174.1	140	140
379	120	178.33	140	140
380	120.19	163.87	140	140
381	120	118.25	140	140

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
382	120.24	120.24	140	140.1
383	120.08	178.92	140	140
384	120	200	140	196.3
385	120.16	179.34	140	140
386	120.08	180	140	140.1
387	120.1	179.75	140	140.1
388	120.1	132.95	140	140
389	120	117.89	140	140
390	120.18	105.7	140	140.1
391	120	93.7	140	140
392	120.13	88.92	140	140
393	120	87.55	140	140
394	120.08	88.27	140	140
395	120	200	140	239.6
396	120.08	99.28	140	140
397	120	93.15	140	140
398	120.3	90.61	140	140
399	120	87.34	140	140
400	120.26	88.49	140	140
401	120.16	98.46	140	140
402	120.16	185.65	140	140.1
403	120	184.99	140	140.6
404	120	182.06	140	140.1
405	120	193.21	140	151
406	120.4	200.4	140	259.9
407	120.14	150.15	140	140
408	120	138.59	140	140
409	120	135.37	140	140
410	120	134.18	140	140
411	120.14	135.45	140	140
412	120	102.59	140	140
413	120	200	140	240.8
414	120	102.26	140	140
415	120	104.09	140	140.1
416	120	127.06	140	140
417	120	132.76	140	140
418	120	89.02	140	140
419	120	140.42	140	140
420	120	171.31	140	169
421	120	170.94	140	177.5
422	120	170.94	140	167.4
423	120	170.55	140	187.1
424	120	200	140	205.8
425	120.32	174.47	140	190
426	120	128.99	140	140.1
427	120	174.02	140	140.1
428	120.08	146.97	140	140
429	120	167.71	140	140
430	120.27	181.37	140	181.4
431	120.29	177.97	140	190.7
432	120.1	157.5	140	140
433	120.19	141.67	140	140

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
434	120.26	119.96	140	140
435	120	200	140	205.1
436	120	114.39	140	140
437	120.26	114.03	140	140
438	120	118.28	140	140
439	120	121.31	140	140
440	120.16	105.54	140	140.1
441	120.16	133.9	140	140
442	120	139.61	140	140
443	120.24	134.57	140	140
444	120	165.6	140	140
445	120.24	194.17	140	158.4
446	120	193.17	140	140
447	120	195.48	140	166.9
448	120	11.47	140	140.2
449	120	196.39	140	170.7
450	120.21	196.89	140	174.7
451	120	127.42	140	140
452	120.16	114.65	140	140
453	120	113.03	140	140
454	120.32	197.99	140	192.4
455	120	190.95	140	175.1
456	120.24	183.98	140	175.2
457	120.13	188.33	140	140
458	120	182.02	140	179.3
459	120	200	140	215.1
460	120.16	200.16	140	221.7
461	120	200	140	232
462	120.16	200.16	140	258.1
463	120	200	140	289.4
464	120	169.79	140	140
465	120	176.26	140	140
466	120	200	140	346.9
467	120	200	140	354.2
468	120	200	140	355.6
469	120	200	140	373.4
470	120.8	200.8	140	203.2
471	120	146.14	140	140
472	120.16	157.47	140	140
473	120	191.43	140	140.1
474	120.06	198.29	140	140.1
475	120	200	140	165.3
476	120	141.84	140	140
477	120.39	141.07	140	140
478	120.4	125.28	140	140
479	120	200	140	218.7
480	120	121.07	140	140
481	120.4	125.41	140	140
482	120	141.37	140	140
483	120	142.11	140	140
484	120.16	149.09	140	140
485	120	158.16	140	146.9

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
486	120	116.17	140	147.8
487	120	200	140	256.1
488	120	200	140	262.5
489	120.8	200.8	140	264.1
490	120.16	182.01	140	142
491	120	178.4	140	140.1
493	120.16	168.76	140	140.1
494	120	161.75	140	140
495	120.13	162.88	140	140
496	120	165.91	140	149.4
497	120	165.91	140	141.3
498	120	165.91	140	141.5
499	120	200	140	268
500	120	166.5	140	146
501	120	176.33	140	146.5
502	120	178.1	140	145.9
503	120.4	175.84	140	142.9
504	122.85	175.32	140	142.4
505	120.66	172.74	140	141.5
506	120.65	171.9	140	144.6
507	120	170.67	140	143.8
508	120	170.12	140	144.5
509	120	169.98	140	142.3
510	120	200	140	269.6
511	120.19	134.81	140	140
512	120.19	102.82	140	140.2
513	120	100	140	140
514	120.1	89.47	140	140
515	120.25	126.22	140	140
516	120.25	124.65	140	140
517	120.19	103.78	140	140.2
518	120	131.75	140	140.1
519	120.19	133.08	140	140
520	120.17	108.53	140	140.1
521	120.13	200.13	140	249.6
522	120	160.98	140	140
523	120.36	161.61	140	140
524	120.19	160.98	140	140
525	120.1	159.69	140	140
526	120	144.5	140	140
527	120	123.58	140	140
528	120.1	106.52	140	140.1
529	120	120.26	140	140
530	120.19	119.23	140	140
531	120.25	111.05	140	140.1
532	120.66	200.66	140	271.9
533	120.25	108.55	140	140.1
534	120	108.21	140	140.1
535	120.25	110.91	140	140.1
536	120	105.15	140	140.1
537	120.25	128.92	140	140.1
538	120	140.73	140	140

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
539	120.2	108.1	140	140.1
540	120.34	161.51	140	147.5
541	120.4	160.39	140	146.8
542	120	159.34	140	140
543	120	200	140	254
544	120	200	140	276.8
545	120	156.17	140	140
546	120.19	121.65	140	140
547	120.19	121.21	140	140
548	120.25	155.11	140	140
549	120	145.56	140	140
550	120.19	119.1	140	140
551	120.17	123.24	140	140
552	120	200	140	249.1
553	120	200	140	267.9
554	120	179.53	140	140
555	120	200	140	277.7
556	120	177.49	140	140
557	120	178.97	140	140
558	120	178.5	140	140
559	120	200	140	275.7
560	120.11	200.11	140	349.9
561	120	200	140	335.8
562	120.11	39.75	140	140.2
563	120	200	140	230
564	120	200	140	229.1
565	120	200	140	227.9
566	120	200	140	284.7
567	120	200	140	273.4
568	120	200	140	315.5
569	120	199.56	140	140
570	120	164.61	140	140
571	120.34	200.34	140	191.2
572	120	200	140	313.6
573	120.04	200.04	140	193
574	120	200	140	347.4
575	120	200	140	268
576	120	137.6	140	140
577	120	200	140	237.6
578	120.13	200.13	140	221.1
579	120	50.12	140	140.2
580	120.16	55.41	140	140.3
581	120	142.2	140	140.1
582	120.03	72.75	140	140.2
583	120.19	62.68	140	140.2
584	121.6	201.6	140	373.7
585	120.93	200.93	140	332.3
586	120	200	140	297.9
587	120	200	140	294.2
588	121.06	201.06	140	290.3
589	120.93	200.93	140	300.2
590	120	66.16	140	140.2

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
591	120	200	140	342.2
592	120.21	53.99	140	140.1
593	120	200	140	275.4
594	122	202	140	276.5
595	120	200	140	335.5
596	120.19	171.66	140	140
597	120	200	140	295.8
598	120	100.53	140	140
599	120	103.56	140	140.1
600	120	105.09	140	140.1
601	120	132.57	140	140
602	120	158.94	140	140
603	120	149.25	140	140
604	120	166.35	140	142.4
605	120	200	140	275.5
606	120.19	160.67	140	140
607	120	200	140	217.4
608	120.13	200.13	140	222.4
609	120.13	150.33	140	140
610	120.13	103.99	140	140
611	120	17.78	140	141.1
612	120	138.93	140	140.1
613	120.1	76.3	140	140.2
614	120.13	117.08	140	140
615	120	78.89	140	140
616	120	200	140	290.7
617	120	171.91	140	154.7
618	120	168.12	140	140
619	120	98.98	140	140
620	120	97.22	140	140
621	120	138.67	140	140
622	120	91.19	140	140
623	120.13	68.02	140	140
624	120	75.06	140	140
625	120.19	80.38	140	140
626	120	84.8	140	140
627	120	200	140	319.7
628	120	87.87	140	140
629	120.19	100.66	140	140
630	120	200	140	267.6
631	120	200	140	261.7
635	120	200	140	287.7
644	120	200	140	328.9
645	120.12	111.09	140	140
646	120	200	140	291.9
647	120	170.54	140	143.6
648	120.25	136.96	140	140
649	120	127.14	140	144.9
650	120.25	112.94	140	140
651	120.25	122.82	140	140
652	120.25	131.04	140	140.1
653	120.25	104.01	140	140.2

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
654	120.3	161.93	140	147.4
655	123.5	142.84	140	140
656	120	98.06	140	140.1
657	120.26	155.54	140	140
658	120.35	162.64	140	151.4
659	120	104.76	140	140.1
660	120	162.29	140	185.4
661	120	147.33	140	169.8
662	120.19	141.38	140	185.9
663	120.9	136.23	140	145
664	120.06	134.67	140	149.9
665	120.13	37.58	140	140.2
666	120	139.6	140	186.2
667	120.4	185.97	140	158.4
668	120.4	187.4	140	159.4
669	120.4	166.64	140	140
670	120.49	168.93	140	140
671	120	173.27	140	140
672	120	64.28	140	140.2
673	120.13	200.13	140	322
674	120	34.94	140	140.2
675	120	12.9	140	140
676	120	34.74	140	140.2
677	120.13	200.13	140	268.5
678	120	56.16	140	140
679	120	55.98	140	140
680	120	200	140	285.4
681	120	200	140	260.8
682	120.66	200.66	140	252
683	120	200	140	245.1
684	120	200	140	240.9
685	120	200	140	240.7
686	120	200	140	233.7
687	120	52.84	140	140.2
688	120	48.08	140	140.2
689	120.08	62.11	140	140.2
690	120	39	140	140.2
691	120.18	200.18	140	397.1
692	120.08	32.36	140	140.2
693	120.08	32.33	140	140.1
694	120	35.03	140	140.2
695	120	200	140	204.3
696	120	200	140	204.3
697	120	200	140	199
698	120	200	140	201.6
699	120	200	140	217.7
700	120	200	140	241.2
701	120	200	140	255.5
702	120.55	154.91	140	165.1
703	120.44	123.26	140	140
704	120	134.27	140	151.9
705	120.56	133.76	140	140

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
706	120	131.61	140	140
707	120.35	200.35	140	351.4
708	120	200	140	366.7
709	120	200	140	369.7
710	120	200	140	369
711	120	140.34	140	140
712	120.3	156.52	140	158.1
713	120	146.39	140	140.1
714	120	182.7	140	157.9
720	120.6	187.2	140	140.3
721	120.4	158.75	140	155.3
722	120.55	152.18	140	140
723	120.4	74.34	140	140
724	120.4	151.72	140	167.9
725	120.42	96.72	140	140
726	120	146.89	140	171.7
727	120	133.36	140	149.5
728	120	133.28	140	140
729	120	200	140	350
730	120	200	140	184.6
731	120.17	198.9	140	140
732	120	165.76	140	140
733	120	187.29	140	140
734	120	184.91	140	140
735	120	187.18	140	140
736	120	124.69	140	140
737	120	179.84	140	140
738	120	142.51	140	140.1
739	120	200	140	251.3
740	120	198.24	140	140
741	120.35	200.35	140	206
742	120	200	140	195
743	120.35	113.19	140	140
754	120	200	140	191.5
755	120	200	140	195.8
757	120	200	140	195.1
758	120	200	140	186.3
759	120	200	140	194.1
762	120	200	140	381.2
763	120	200	140	382.4
768	120	200	140	380.1
770	120	200	140	382.6
771	120	200	140	209.2
772	120	200	140	187.8
777	120	200	140	195
778	120	117.82	140	140
779	120	200	140	305.6
780	120.71	200.71	140	314.8
781	120	200	140	312.4
782	120	200	140	323.9
783	120	200	140	298.7
784	120.12	200.12	140	301.6

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
785	120.12	200.12	140	301.2
786	120.12	200.12	140	302.5
787	120.12	200.12	140	264
788	123	203	140	301.5
789	120.67	200.67	140	331.8
790	120	200	140	335.5
791	120	200	140	341.6
792	120	200	140	340.3
793	120	200	140	359.8
795	120.12	198.4	140	140
796	120.12	200.12	140	175.4
797	120	200	140	328.6
798	120	138.65	140	149.9
799	120	129.07	140	140.1
800	120	119.13	140	140.3
801	120	139.07	140	185.8
802	120.51	139.02	140	183.2
803	120	139.57	140	161.8
804	120.46	137.4	140	192.1
805	120	137.84	140	181.6
806	120	123.11	140	140
807	120	138.77	140	162.4
808	122.42	138	140	201.4
809	120	137.13	140	180.9
810	120.31	133.93	140	140
811	120.28	90.52	140	140
812	120	130.36	140	140.1
813	120.31	94.02	140	140
814	120	140.4	140	171.6
815	120	128.54	140	140.1
816	120.55	123.61	140	140
817	120.55	122.11	140	140
818	120	129.24	140	140.1
819	120.56	134.72	140	140
820	120	129.84	140	140.1
821	120	137.18	140	170.4
822	120.71	142.93	140	140
823	120	138.52	140	172
824	120.97	128.66	140	140
825	120	136.89	140	140
826	120	166.38	140	186.1
827	120	87.8	140	140
828	120.6	179.94	140	148.9
829	120.6	178.21	140	140
830	120	125.17	140	140
831	120	136.58	140	140
832	120	129.8	140	140
833	121	109.66	140	140
834	120	200	140	364.2
835	120.35	200.35	140	298.3
836	120	200	140	349.9
837	120	200	140	211.3

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
838	120	200	140	202.9
839	120	200	140	188.3
840	120	200	140	170.9
841	120	200	140	167.9
842	120.4	67.76	140	140
843	120	134.36	140	140
844	120	132.31	140	140
845	120.7	144.77	140	175.9
846	120.54	132.11	140	140.1
847	120.28	135.42	140	179.7
848	120.59	112.08	140	140.1
849	120	200	140	372.4
850	120.15	200.15	140	369.9
851	120.33	100.63	140	140
852	120.13	200.13	140	297.6
853	120	200	140	224.8
854	120	90.78	140	140
855	120	200	140	281.3
856	120	200	140	347.1
857	120.44	200.44	140	322
858	120.28	98.31	140	140
859	120.18	200.18	140	383.3
860	120	200	140	387.8
861	120.44	131.98	140	140
862	120.5	200.5	140	204.3
863	120.44	200.44	140	234.7
864	120.18	200.18	140	375.5
A	120	176.69	140	140.1
B	120	184.01	140	156.7
J-1	120	170.82	140	149.8
J-2	122.88	180.16	140	140
J-3	121.44	185.37	140	145.5
J-4	120	162.22	140	140
J-866	120	200	140	384.5
J-867	120.98	200.98	140	351.9
J-868	120	200	140	352.9
J-869	120	200	140	275.5
J-870	120	200	140	260.3
J-871	120	200	140	294
J-872	120	200	140	151.9
J-873	120	200	140	378.5
J-874	120	200	140	327.7
J-875	120	200	140	336.4
J-876	121.2	201.2	140	391.2
J-877	120.92	48.29	140	140
J-878	120	45.9	140	140
J-879	120	45.84	140	140
J-880	120	200	140	311.4
J-881	120	131.08	140	140
J-882	120	93.15	140	140
J-883	120	79	140	140.1
J-884	120	200	140	209.9

Label	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
J-885	120	124.3	140	140
J-886	120	105.83	140	140
J-887	120	104.48	140	140
J-888	120	105.67	140	140
J-889	120	110.68	140	140
J-890	120	106.98	140	140
J-891	120	200	140	266.6
J-892	120	200	140	236.7
J-893	120	200	140	238.5
J-894	126.8	206.8	140	433
J-899	120.6	177.51	140	140
J-900	120	200	140	371.6
J-904	120	200	140	315
J-905	120.4	200.4	140	319.3
J-906	120	200	140	268.2
J-908	120	200	140	230.6
J-919	120.2	200.2	140	158.3
J-920	120.6	178.43	140	140
J-921	120.73	176.26	140	140
J-922	120.3	182.94	140	140
J-923	120.1	200.1	140	328
J-924	120.6	200.6	140	257.8
J-925	120.7	200.7	140	190.8
J-928	120	200	140	266.8
J-931	120	200	140	328.9

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
1	140	115.9	27	(N/A)
7	140	115.9	27	(N/A)
9	140	115.9	27	(N/A)
15	140	115.9	27	(N/A)
18	140	115.9	27	(N/A)
19	140	115.9	27	(N/A)
20	140	115.9	27	(N/A)
21	140	193.9	772	(N/A)
26	140	115.9	27	(N/A)
27	140	126.6	7	(N/A)
28	140	115.9	27	(N/A)
29	140	115.9	27	(N/A)
30	140	115.9	27	(N/A)
31	140	194.1	772	(N/A)
32	140	194	772	(N/A)
33	140	193.7	772	(N/A)
34	140	193.7	772	(N/A)
35	140	193.7	758	(N/A)
36	140	193.7	758	(N/A)
37	140	143.9	38	(N/A)
38	140	194.2	772	(N/A)
39	140	186	580	(N/A)
40	140	194	772	(N/A)
41	140	192.8	758	(N/A)
42	140	192.9	758	(N/A)
43	140	193.8	772	(N/A)
44	140	189.3	758	(N/A)
45	140	190.4	758	(N/A)
46	140	194	772	(N/A)
47	140	193.6	758	(N/A)
48	140	194	772	(N/A)
49	140	164.7	40	(N/A)
50	140	193	758	(N/A)
51	140	193	758	(N/A)
52	140	194	772	(N/A)
53	140	194	772	(N/A)
54	140	193.8	772	(N/A)
55	140	190	758	(N/A)
56	140	193.6	758	(N/A)
57	140	193.5	758	(N/A)
58	140	193.5	758	(N/A)
59	140	193.9	772	(N/A)
60	140	193.1	758	(N/A)
61	140	193.4	758	(N/A)
62	140	192.8	758	(N/A)
63	140	192.8	758	(N/A)
64	140	193.7	758	(N/A)
65	140	193.8	772	(N/A)
66	140	193.7	758	(N/A)
67	140	193.6	758	(N/A)
68	140	193.6	758	(N/A)
69	140	193.5	758	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
70	140	193.6	758	(N/A)
71	140	193.6	758	(N/A)
72	140	193.7	758	(N/A)
73	140	140.2	75	(N/A)
74	140	140.2	75	(N/A)
75	140	168	74	(N/A)
76	140	193.8	772	(N/A)
77	140	194.1	772	(N/A)
78	140	193.7	758	(N/A)
79	140	194.1	772	(N/A)
80	140	194.1	772	(N/A)
81	140	158.5	80	(N/A)
82	140	161.3	83	(N/A)
83	140	194.1	772	(N/A)
84	140	194.2	772	(N/A)
85	140	193.7	758	(N/A)
86	140	193.8	758	(N/A)
87	140	193.7	772	(N/A)
88	140	194.2	772	(N/A)
89	140	194.2	772	(N/A)
90	140	194	772	(N/A)
91	140	140	92	(N/A)
92	140	194.1	772	(N/A)
93	140	193.8	772	(N/A)
94	140	193.8	772	(N/A)
95	140	193.8	772	(N/A)
96	140	193.8	772	(N/A)
97	140	193.8	772	(N/A)
98	140	193.6	772	(N/A)
99	140	181.1	101	(N/A)
100	140	177.6	102	(N/A)
101	140	194	772	(N/A)
102	140	144.3	103	(N/A)
103	140	145.5	104	(N/A)
104	140	148.1	103	(N/A)
105	140	150	106	(N/A)
106	140	163	609	(N/A)
107	140	193.8	772	(N/A)
108	140	189.2	758	(N/A)
109	140	193.6	772	(N/A)
110	140	189.2	758	(N/A)
111	140	189.1	758	(N/A)
112	140	188.9	758	(N/A)
113	140	188.9	758	(N/A)
114	140	188.9	758	(N/A)
115	140	188.8	758	(N/A)
116	140	193.5	758	(N/A)
117	140	193.5	772	(N/A)
118	140	193.5	772	(N/A)
119	140	193.6	772	(N/A)
120	140	193.5	758	(N/A)
121	140	193.6	772	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
122	140	162.7	123	(N/A)
123	140	152.6	124	(N/A)
124	140	154.7	123	(N/A)
125	140	193.8	772	(N/A)
126	140	193.6	772	(N/A)
127	140	193.8	772	(N/A)
128	140	193.7	772	(N/A)
129	140	193.8	772	(N/A)
130	140	181.8	131	(N/A)
131	140	180.4	130	(N/A)
132	140	193.8	772	(N/A)
133	140	193.8	772	(N/A)
134	140	193.8	772	(N/A)
135	140	193.8	772	(N/A)
136	140	193.8	772	(N/A)
137	140	193.8	772	(N/A)
138	140	193.8	772	(N/A)
139	140	140	31	(N/A)
140	140	193.7	772	(N/A)
141	140	193.8	772	(N/A)
142	140	193.8	772	(N/A)
143	140	193.8	772	(N/A)
144	140	193.8	772	(N/A)
145	140	193.8	772	(N/A)
146	140	193.8	772	(N/A)
147	140	193.8	772	(N/A)
148	140	193.8	772	(N/A)
149	140	193.8	772	(N/A)
150	140	193.8	772	(N/A)
151	140	193.7	772	(N/A)
152	140	193.8	772	(N/A)
153	140	194.2	772	(N/A)
154	140	193.8	772	(N/A)
155	140	193.8	772	(N/A)
156	140	194	772	(N/A)
157	140	194	772	(N/A)
158	140	140	161	(N/A)
159	140	144.4	161	(N/A)
160	140	143.9	161	(N/A)
161	140	153.6	160	(N/A)
162	140	193.7	772	(N/A)
163	140	140	161	(N/A)
164	140	157	161	(N/A)
165	140	147.9	164	(N/A)
166	140	164.6	167	(N/A)
167	140	194.1	772	(N/A)
168	140	194.1	772	(N/A)
169	140	185.5	172	(N/A)
170	140	140	172	(N/A)
171	140	140	172	(N/A)
172	140	194	772	(N/A)
173	140	193.7	772	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
174	140	194	772	(N/A)
175	140	193.8	772	(N/A)
176	140	193.8	772	(N/A)
177	140	193.8	772	(N/A)
178	140	193.8	772	(N/A)
179	140	193.8	772	(N/A)
180	140	193.8	772	(N/A)
181	140	193.8	772	(N/A)
182	140	193.8	772	(N/A)
183	140	193.8	772	(N/A)
184	140	193.7	772	(N/A)
185	140	193.8	772	(N/A)
186	140	193.8	772	(N/A)
187	140	193.8	772	(N/A)
188	140	193.8	772	(N/A)
189	140	193.8	772	(N/A)
190	140	193.8	772	(N/A)
191	140	193.8	772	(N/A)
192	140	193.8	772	(N/A)
193	140	193.8	772	(N/A)
194	140	193.8	772	(N/A)
195	140	193.7	772	(N/A)
196	140	193.8	772	(N/A)
197	140	193.8	772	(N/A)
198	140	193.8	772	(N/A)
199	140	193.8	772	(N/A)
200	140	193.7	758	(N/A)
201	140	167.7	778	(N/A)
202	140	162.6	612	(N/A)
203	140	183.2	204	(N/A)
204	140	181.3	203	(N/A)
205	140	193.8	772	(N/A)
206	140	193.7	772	(N/A)
207	140	193.8	772	(N/A)
208	140	193.8	772	(N/A)
209	140	193.8	772	(N/A)
210	140	193.8	772	(N/A)
211	140	193.8	772	(N/A)
212	140	193.8	772	(N/A)
213	140	141.6	218	(N/A)
214	140	140	218	(N/A)
215	140	154.9	218	(N/A)
216	140	157	218	(N/A)
217	140	193.7	772	(N/A)
218	140	172	219	(N/A)
219	140	172.5	218	(N/A)
220	140	140.1	221	(N/A)
221	140	194	772	(N/A)
222	140	162.1	220	(N/A)
223	140	193.9	772	(N/A)
224	140	164	225	(N/A)
225	140	187.1	224	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
226	140	140	227	(N/A)
227	140	194.1	772	(N/A)
228	140	193.7	772	(N/A)
229	140	143.8	230	(N/A)
230	140	150.8	231	(N/A)
231	140	183.4	232	(N/A)
232	140	157.6	233	(N/A)
233	140	153.5	232	(N/A)
234	140	140.2	233	(N/A)
235	140	155.7	236	(N/A)
236	140	171.6	235	(N/A)
237	140	183.8	238	(N/A)
238	140	194	772	(N/A)
239	140	140	251	(N/A)
240	140	140	241	(N/A)
241	140	194.1	772	(N/A)
242	140	176.1	243	(N/A)
243	140	194	772	(N/A)
244	140	140.1	613	(N/A)
245	140	193.9	772	(N/A)
246	140	193.9	772	(N/A)
247	140	193.9	772	(N/A)
248	140	193.9	772	(N/A)
249	140	193.9	772	(N/A)
250	140	140.1	31	(N/A)
251	140	140	558	(N/A)
252	140	193.9	772	(N/A)
253	140	193.9	772	(N/A)
254	140	193.9	772	(N/A)
255	140	193.9	772	(N/A)
256	140	193.9	772	(N/A)
257	140	193.9	772	(N/A)
258	140	193.9	772	(N/A)
259	140	193.9	772	(N/A)
260	140	193.9	772	(N/A)
261	140	193.8	772	(N/A)
262	140	193.7	772	(N/A)
263	140	193.8	772	(N/A)
264	140	193.8	772	(N/A)
265	140	193.8	772	(N/A)
266	140	193.8	772	(N/A)
267	140	193.8	772	(N/A)
268	140	193.8	772	(N/A)
269	140	193.8	772	(N/A)
270	140	191.5	271	(N/A)
271	140	194	772	(N/A)
272	140	142.9	275	(N/A)
273	140	193.7	772	(N/A)
274	140	140	275	(N/A)
275	140	141	276	(N/A)
276	140	194.1	772	(N/A)
277	140	163	272	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
278	140	179.6	279	(N/A)
279	140	166	278	(N/A)
280	140	177.3	279	(N/A)
281	140	176.5	280	(N/A)
282	140	193.8	772	(N/A)
283	140	193.8	772	(N/A)
284	140	193.7	772	(N/A)
285	140	193.8	772	(N/A)
286	140	193.9	772	(N/A)
287	140	193.9	772	(N/A)
288	140	193.9	772	(N/A)
289	140	193.9	772	(N/A)
290	140	193.9	772	(N/A)
291	140	193.9	772	(N/A)
292	140	193.9	772	(N/A)
293	140	193.9	772	(N/A)
294	140	193.9	772	(N/A)
295	140	193.7	772	(N/A)
296	140	140	297	(N/A)
297	140	194	772	(N/A)
298	140	193.9	772	(N/A)
299	140	193.9	772	(N/A)
300	140	186.8	301	(N/A)
301	140	193.9	772	(N/A)
302	140	178.5	569	(N/A)
303	140	193.9	772	(N/A)
304	140	160.8	314	(N/A)
305	140	193.9	772	(N/A)
306	140	193.7	772	(N/A)
307	140	193.9	772	(N/A)
308	140	193.9	772	(N/A)
309	140	193.9	772	(N/A)
310	140	190.2	311	(N/A)
311	140	194	772	(N/A)
312	140	192.4	313	(N/A)
313	140	178.8	312	(N/A)
314	140	194	772	(N/A)
315	140	187.8	316	(N/A)
316	140	168.9	318	(N/A)
317	140	193.7	772	(N/A)
318	140	142.7	319	(N/A)
319	140	157.8	320	(N/A)
320	140	174.3	321	(N/A)
321	140	148.5	322	(N/A)
322	140	153.3	321	(N/A)
323	140	168.5	324	(N/A)
324	140	166.3	323	(N/A)
325	140	194	772	(N/A)
326	140	140	327	(N/A)
327	140	194	772	(N/A)
328	140	193.7	772	(N/A)
329	140	144.5	327	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
330	140	177.1	825	(N/A)
331	140	142.3	825	(N/A)
332	140	163.1	333	(N/A)
333	140	173.5	332	(N/A)
334	140	180	333	(N/A)
335	140	171.7	334	(N/A)
336	140	140	825	(N/A)
337	140	140	825	(N/A)
338	140	140	825	(N/A)
339	140	193.7	772	(N/A)
340	140	140	825	(N/A)
341	140	148.5	342	(N/A)
342	140	172.1	344	(N/A)
343	140	140.1	344	(N/A)
344	140	194.1	772	(N/A)
345	140	165.5	598	(N/A)
346	140	140	348	(N/A)
347	140	140	348	(N/A)
348	140	193.3	347	(N/A)
349	140	148.5	348	(N/A)
350	140	193.7	772	(N/A)
351	140	162.9	349	(N/A)
352	140	140	353	(N/A)
353	140	143	355	(N/A)
354	140	194.2	772	(N/A)
355	140	145	623	(N/A)
356	140	140.1	623	(N/A)
357	140	146.5	358	(N/A)
358	140	145.1	359	(N/A)
359	140	148	358	(N/A)
360	140	160	359	(N/A)
361	140	140	464	(N/A)
362	140	193.7	772	(N/A)
363	140	169	360	(N/A)
364	140	140	367	(N/A)
365	140	151.1	364	(N/A)
366	140	140	367	(N/A)
367	140	171	366	(N/A)
368	140	143.9	370	(N/A)
369	140	140.2	370	(N/A)
370	140	178.1	369	(N/A)
371	140	143.1	368	(N/A)
372	140	194.1	772	(N/A)
373	140	193.7	772	(N/A)
374	140	140	375	(N/A)
375	140	194.1	772	(N/A)
376	140	140.6	374	(N/A)
377	140	150.6	378	(N/A)
378	140	151.6	379	(N/A)
379	140	140	378	(N/A)
380	140	183.9	381	(N/A)
381	140	169.6	382	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
382	140	160.2	381	(N/A)
383	140	151.9	385	(N/A)
384	140	193.7	772	(N/A)
385	140	147.1	383	(N/A)
386	140	142.5	387	(N/A)
387	140	143.9	386	(N/A)
388	140	147.8	389	(N/A)
389	140	153	390	(N/A)
390	140	142	391	(N/A)
391	140	154.4	392	(N/A)
392	140	160.1	393	(N/A)
393	140	169	394	(N/A)
394	140	164	393	(N/A)
395	140	193.7	772	(N/A)
396	140	156.5	394	(N/A)
397	140	155.9	398	(N/A)
398	140	178.2	397	(N/A)
399	140	169.2	400	(N/A)
400	140	161.8	399	(N/A)
401	140	190.1	400	(N/A)
402	140	140.8	383	(N/A)
403	140	140	383	(N/A)
404	140	141	378	(N/A)
405	140	140	728	(N/A)
406	140	193.7	772	(N/A)
407	140	173.4	409	(N/A)
408	140	143	410	(N/A)
409	140	140	410	(N/A)
410	140	144.7	409	(N/A)
411	140	140	412	(N/A)
412	140	145.4	599	(N/A)
413	140	193.7	772	(N/A)
414	140	150	415	(N/A)
415	140	140.1	414	(N/A)
416	140	140	412	(N/A)
417	140	140	416	(N/A)
418	140	194.1	772	(N/A)
419	140	152.2	621	(N/A)
420	140	140	705	(N/A)
421	140	140	705	(N/A)
422	140	140	705	(N/A)
423	140	140	705	(N/A)
424	140	193.7	772	(N/A)
425	140	140.1	705	(N/A)
426	140	194	772	(N/A)
427	140	144.3	705	(N/A)
428	140	194	772	(N/A)
429	140	147	432	(N/A)
430	140	140.1	705	(N/A)
431	140	140	705	(N/A)
432	140	153.5	433	(N/A)
433	140	142.7	434	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
434	140	156.9	436	(N/A)
435	140	193.7	772	(N/A)
436	140	183.9	437	(N/A)
437	140	181.9	438	(N/A)
438	140	160.1	437	(N/A)
439	140	140	440	(N/A)
440	140	194.1	772	(N/A)
441	140	142.3	440	(N/A)
442	140	190.2	601	(N/A)
443	140	194	772	(N/A)
444	140	177.7	443	(N/A)
445	140	140	728	(N/A)
446	140	140	830	(N/A)
447	140	140	728	(N/A)
448	140	194.2	772	(N/A)
449	140	140	705	(N/A)
450	140	140	705	(N/A)
451	140	171.8	452	(N/A)
452	140	194	772	(N/A)
453	140	194.1	772	(N/A)
454	140	140	705	(N/A)
455	140	140	705	(N/A)
456	140	140	705	(N/A)
457	140	140	830	(N/A)
458	140	140.1	705	(N/A)
459	140	157.4	705	(N/A)
460	140	163.3	705	(N/A)
461	140	179.1	705	(N/A)
462	140	193.9	772	(N/A)
463	140	193.9	772	(N/A)
464	140	159	361	(N/A)
465	140	140	831	(N/A)
466	140	193.9	772	(N/A)
467	140	193.9	772	(N/A)
468	140	193.9	772	(N/A)
469	140	193.9	772	(N/A)
470	140	193.7	772	(N/A)
471	140	194	772	(N/A)
472	140	194	772	(N/A)
473	140	176.2	472	(N/A)
474	140	168.3	473	(N/A)
475	140	166.5	705	(N/A)
476	140	152.5	477	(N/A)
477	140	153.4	478	(N/A)
478	140	175.1	480	(N/A)
479	140	193.7	772	(N/A)
480	140	193.2	481	(N/A)
481	140	173.6	480	(N/A)
482	140	148.3	483	(N/A)
483	140	144.6	482	(N/A)
484	140	162.1	483	(N/A)
485	140	140	659	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
486	140	140	659	(N/A)
487	140	193.7	772	(N/A)
488	140	193.7	772	(N/A)
489	140	193.7	772	(N/A)
490	140	140	494	(N/A)
491	140	141.3	A	(N/A)
493	140	146.2	494	(N/A)
494	140	158.6	495	(N/A)
495	140	156.3	494	(N/A)
496	140	140	495	(N/A)
497	140	140	495	(N/A)
498	140	140	495	(N/A)
499	140	193.7	772	(N/A)
500	140	140	495	(N/A)
501	140	140	825	(N/A)
502	140	140	825	(N/A)
503	140	140	825	(N/A)
504	140	140	825	(N/A)
505	140	140	825	(N/A)
506	140	140	825	(N/A)
507	140	140	825	(N/A)
508	140	140	825	(N/A)
509	140	140	825	(N/A)
510	140	193.7	772	(N/A)
511	140	140.7	513	(N/A)
512	140	140.2	513	(N/A)
513	140	141	514	(N/A)
514	140	194.1	772	(N/A)
515	140	167.1	517	(N/A)
516	140	140	517	(N/A)
517	140	194.1	772	(N/A)
518	140	140.1	520	(N/A)
519	140	142.6	520	(N/A)
520	140	194.1	772	(N/A)
521	140	193.7	772	(N/A)
522	140	141.5	524	(N/A)
523	140	155.2	606	(N/A)
524	140	142.4	522	(N/A)
525	140	140	528	(N/A)
526	140	140	528	(N/A)
527	140	140	528	(N/A)
528	140	194.1	772	(N/A)
529	140	142.5	530	(N/A)
530	140	150.1	529	(N/A)
531	140	168.6	533	(N/A)
532	140	193.7	772	(N/A)
533	140	154.7	534	(N/A)
534	140	155.3	533	(N/A)
535	140	140.1	536	(N/A)
536	140	169.1	535	(N/A)
537	140	169.8	536	(N/A)
538	140	140	842	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
539	140	140.1	842	(N/A)
540	140	140	825	(N/A)
541	140	140	825	(N/A)
542	140	147.8	547	(N/A)
543	140	194	772	(N/A)
544	140	193.7	772	(N/A)
545	140	140	547	(N/A)
546	140	194	772	(N/A)
547	140	194	772	(N/A)
548	140	140	550	(N/A)
549	140	140	550	(N/A)
550	140	194	772	(N/A)
551	140	194	772	(N/A)
552	140	193.7	772	(N/A)
553	140	193.7	772	(N/A)
554	140	140	558	(N/A)
555	140	193.7	772	(N/A)
556	140	146.1	558	(N/A)
557	140	141.7	556	(N/A)
558	140	141.7	251	(N/A)
559	140	193.7	772	(N/A)
560	140	193.7	758	(N/A)
561	140	193.5	758	(N/A)
562	140	140.2	75	(N/A)
563	140	189.2	758	(N/A)
564	140	189.2	758	(N/A)
565	140	189.2	758	(N/A)
566	140	193.7	772	(N/A)
567	140	193.8	772	(N/A)
568	140	193.8	772	(N/A)
569	140	185.9	302	(N/A)
570	140	193.9	772	(N/A)
571	140	193.9	772	(N/A)
572	140	193.9	772	(N/A)
573	140	192.9	31	(N/A)
574	140	194	772	(N/A)
575	140	193.7	772	(N/A)
576	140	193.9	772	(N/A)
577	140	193.7	772	(N/A)
578	140	193.7	772	(N/A)
579	140	194.1	772	(N/A)
580	140	194.1	772	(N/A)
581	140	193.6	758	(N/A)
582	140	194.1	772	(N/A)
583	140	194.1	772	(N/A)
584	140	193.6	758	(N/A)
585	140	193.5	758	(N/A)
586	140	193.1	758	(N/A)
587	140	193.7	772	(N/A)
588	140	193.7	758	(N/A)
589	140	193.6	758	(N/A)
590	140	194.1	772	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
591	140	193.5	772	(N/A)
592	140	194.1	772	(N/A)
593	140	193.8	772	(N/A)
594	140	193.8	772	(N/A)
595	140	193.8	772	(N/A)
596	140	146.4	341	(N/A)
597	140	193.7	772	(N/A)
598	140	157.1	348	(N/A)
599	140	140.1	412	(N/A)
600	140	140.1	599	(N/A)
601	140	167.9	441	(N/A)
602	140	149.4	603	(N/A)
603	140	160	419	(N/A)
604	140	140	825	(N/A)
605	140	193.7	772	(N/A)
606	140	148	522	(N/A)
607	140	193.8	772	(N/A)
608	140	193.7	772	(N/A)
609	140	140.7	82	(N/A)
610	140	140	611	(N/A)
611	140	194.2	772	(N/A)
612	140	193.9	772	(N/A)
613	140	194.1	772	(N/A)
614	140	140	615	(N/A)
615	140	194.1	772	(N/A)
616	140	193.8	772	(N/A)
617	140	140	705	(N/A)
618	140	140	620	(N/A)
619	140	194.1	772	(N/A)
620	140	194.1	772	(N/A)
621	140	140	622	(N/A)
622	140	194.1	772	(N/A)
623	140	194.1	772	(N/A)
624	140	140	623	(N/A)
625	140	140	623	(N/A)
626	140	140	623	(N/A)
627	140	193.8	772	(N/A)
628	140	140	623	(N/A)
629	140	140	623	(N/A)
630	140	193.7	772	(N/A)
631	140	193.7	772	(N/A)
635	140	193.8	772	(N/A)
644	140	193.8	772	(N/A)
645	140	194.1	772	(N/A)
646	140	193.8	772	(N/A)
647	140	140	825	(N/A)
648	140	153	650	(N/A)
649	140	140	650	(N/A)
650	140	194.1	772	(N/A)
651	140	194	772	(N/A)
652	140	145	653	(N/A)
653	140	194.1	772	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
654	140	140	825	(N/A)
655	140	194	772	(N/A)
656	140	141	665	(N/A)
657	140	145.4	655	(N/A)
658	140	140	825	(N/A)
659	140	194.1	772	(N/A)
660	140	140	705	(N/A)
661	140	140.1	705	(N/A)
662	140	140	705	(N/A)
663	140	140	705	(N/A)
664	140	140	705	(N/A)
665	140	194.2	772	(N/A)
666	140	140	705	(N/A)
667	140	140	825	(N/A)
668	140	140	825	(N/A)
669	140	167.9	670	(N/A)
670	140	155.7	669	(N/A)
671	140	140	778	(N/A)
672	140	161.7	579	(N/A)
673	140	193.8	772	(N/A)
674	140	146.1	675	(N/A)
675	140	194.2	772	(N/A)
676	140	172.8	674	(N/A)
677	140	192.7	758	(N/A)
678	140	143.9	679	(N/A)
679	140	141.8	678	(N/A)
680	140	194	772	(N/A)
681	140	192.7	758	(N/A)
682	140	192.7	758	(N/A)
683	140	192.7	758	(N/A)
684	140	192.7	758	(N/A)
685	140	192.7	758	(N/A)
686	140	192.7	758	(N/A)
687	140	156.8	688	(N/A)
688	140	194.1	772	(N/A)
689	140	159.7	690	(N/A)
690	140	187.4	692	(N/A)
691	140	194	772	(N/A)
692	140	194.2	772	(N/A)
693	140	194.2	772	(N/A)
694	140	170.8	693	(N/A)
695	140	193.7	772	(N/A)
696	140	193.7	772	(N/A)
697	140	193.7	772	(N/A)
698	140	193.7	772	(N/A)
699	140	193.7	772	(N/A)
700	140	193.7	772	(N/A)
701	140	193.7	772	(N/A)
702	140	140.1	825	(N/A)
703	140	160.3	848	(N/A)
704	140	140	705	(N/A)
705	140	140.9	728	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
706	140	142.3	817	(N/A)
707	140	193.8	772	(N/A)
708	140	193.8	772	(N/A)
709	140	193.8	772	(N/A)
710	140	193.8	772	(N/A)
711	140	194	772	(N/A)
712	140	140	825	(N/A)
713	140	193.9	772	(N/A)
714	140	140	825	(N/A)
720	140	140.1	825	(N/A)
721	140	140	825	(N/A)
722	140	161.8	825	(N/A)
723	140	194.1	772	(N/A)
724	140	140.1	825	(N/A)
725	140	194.1	772	(N/A)
726	140	140.1	825	(N/A)
727	140	140	728	(N/A)
728	140	140.6	705	(N/A)
729	140	193.8	772	(N/A)
730	140	184.6	740	(N/A)
731	140	140	737	(N/A)
732	140	145.5	738	(N/A)
733	140	152.9	732	(N/A)
734	140	140	736	(N/A)
735	140	154.7	833	(N/A)
736	140	194	772	(N/A)
737	140	193.8	772	(N/A)
738	140	149.4	832	(N/A)
739	140	193.7	772	(N/A)
740	140	189.3	730	(N/A)
741	140	193.8	772	(N/A)
742	140	193.1	743	(N/A)
743	140	194	772	(N/A)
754	140	191.1	772	(N/A)
755	140	191.9	758	(N/A)
757	140	193.9	772	(N/A)
758	140	193.9	772	(N/A)
759	140	191.9	758	(N/A)
762	140	193.4	772	(N/A)
763	140	193.4	772	(N/A)
768	140	193.4	772	(N/A)
770	140	193.4	772	(N/A)
771	140	188.7	758	(N/A)
772	140	191.5	754	(N/A)
777	140	193.9	772	(N/A)
778	140	194	772	(N/A)
779	140	193.8	772	(N/A)
780	140	193.8	772	(N/A)
781	140	193.8	772	(N/A)
782	140	193.8	772	(N/A)
783	140	193.8	772	(N/A)
784	140	193.8	772	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
785	140	193.8	772	(N/A)
786	140	193.8	772	(N/A)
787	140	193.8	772	(N/A)
788	140	193.8	772	(N/A)
789	140	193.8	772	(N/A)
790	140	193.8	772	(N/A)
791	140	193.8	772	(N/A)
792	140	193.8	772	(N/A)
793	140	193.8	772	(N/A)
795	140	193.8	772	(N/A)
796	140	193.8	772	(N/A)
797	140	193.8	772	(N/A)
798	140	140	705	(N/A)
799	140	140.1	811	(N/A)
800	140	140.1	J-877	(N/A)
801	140	140	705	(N/A)
802	140	140	705	(N/A)
803	140	140	705	(N/A)
804	140	140	705	(N/A)
805	140	140	705	(N/A)
806	140	187.2	705	(N/A)
807	140	140	705	(N/A)
808	140	140	705	(N/A)
809	140	140	705	(N/A)
810	140	151.4	813	(N/A)
811	140	194.1	772	(N/A)
812	140	140.1	813	(N/A)
813	140	194.1	772	(N/A)
814	140	140.1	705	(N/A)
815	140	144.6	818	(N/A)
816	140	162.3	817	(N/A)
817	140	168	816	(N/A)
818	140	141.3	815	(N/A)
819	140	140	820	(N/A)
820	140	155.6	819	(N/A)
821	140	140.1	705	(N/A)
822	140	153.7	705	(N/A)
823	140	140.1	705	(N/A)
824	140	175.6	705	(N/A)
825	140	194	772	(N/A)
826	140	140	705	(N/A)
827	140	194.1	772	(N/A)
828	140	140	825	(N/A)
829	140	157.1	825	(N/A)
830	140	193.9	772	(N/A)
831	140	193.9	772	(N/A)
832	140	193.9	772	(N/A)
833	140	194	772	(N/A)
834	140	193.8	772	(N/A)
835	140	193.8	772	(N/A)
836	140	193.8	772	(N/A)
837	140	193.7	772	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
838	140	193.7	772	(N/A)
839	140	193.7	772	(N/A)
840	140	174.6	841	(N/A)
841	140	175.4	840	(N/A)
842	140	194.1	772	(N/A)
843	140	150.4	705	(N/A)
844	140	157.5	705	(N/A)
845	140	140	705	(N/A)
846	140	162	705	(N/A)
847	140	140	705	(N/A)
848	140	194.1	772	(N/A)
849	140	193.9	772	(N/A)
850	140	193.9	772	(N/A)
851	140	194.1	772	(N/A)
852	140	193.9	772	(N/A)
853	140	193.9	772	(N/A)
854	140	194.1	772	(N/A)
855	140	194	772	(N/A)
856	140	194	772	(N/A)
857	140	193.9	772	(N/A)
858	140	194.1	772	(N/A)
859	140	193.9	772	(N/A)
860	140	193.9	772	(N/A)
861	140	140	854	(N/A)
862	140	193.9	772	(N/A)
863	140	193.9	772	(N/A)
864	140	193.9	772	(N/A)
A	140	147.5	491	(N/A)
B	140	140	825	(N/A)
J-1	140	140	J-4	(N/A)
J-2	140	143.8	J-4	(N/A)
J-3	140	140	825	(N/A)
J-4	140	176.7	J-1	(N/A)
J-866	140	193.9	772	(N/A)
J-867	140	193.9	772	(N/A)
J-868	140	193.9	772	(N/A)
J-869	140	193.9	772	(N/A)
J-870	140	193.9	772	(N/A)
J-871	140	193.9	772	(N/A)
J-872	140	193.9	772	(N/A)
J-873	140	193.9	772	(N/A)
J-874	140	193.9	772	(N/A)
J-875	140	193.9	772	(N/A)
J-876	140	193.9	772	(N/A)
J-877	140	140	J-878	(N/A)
J-878	140	160.9	J-879	(N/A)
J-879	140	161.7	J-878	(N/A)
J-880	140	193.8	772	(N/A)
J-881	140	140	J-882	(N/A)
J-882	140	194	772	(N/A)
J-883	140	194.1	772	(N/A)
J-884	140	193.8	772	(N/A)

Label	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)
J-885	140	140	J-889	(N/A)
J-886	140	167.5	J-887	(N/A)
J-887	140	175.1	J-888	(N/A)
J-888	140	165	J-887	(N/A)
J-889	140	157.2	J-888	(N/A)
J-890	140	194	772	(N/A)
J-891	140	193.7	772	(N/A)
J-892	140	193.7	772	(N/A)
J-893	140	193.7	772	(N/A)
J-894	140	194.1	772	(N/A)
J-899	140	165.7	825	(N/A)
J-900	140	193.9	772	(N/A)
J-904	140	193.8	772	(N/A)
J-905	140	193.8	772	(N/A)
J-906	140	193.9	772	(N/A)
J-908	140	193.9	772	(N/A)
J-919	140	147	J-921	(N/A)
J-920	140	155.4	J-921	(N/A)
J-921	140	165.8	J-920	(N/A)
J-922	140	152.8	J-921	(N/A)
J-923	140	193.8	772	(N/A)
J-924	140	193.8	772	(N/A)
J-925	140	193.8	772	(N/A)
J-928	140	193.8	772	(N/A)
J-931	140	193.8	772	(N/A)

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
1	115.9	27	TRUE
7	115.9	27	TRUE
9	115.9	27	TRUE
15	115.9	27	TRUE
18	115.9	27	TRUE
19	115.9	27	TRUE
20	115.9	27	TRUE
21	114.7	27	TRUE
26	115.9	27	TRUE
27	126.6	7	TRUE
28	115.9	27	TRUE
29	115.9	27	TRUE
30	115.9	27	TRUE
31	115.8	27	TRUE
32	115.7	27	TRUE
33	115.5	27	TRUE
34	115.5	27	TRUE
35	115.4	27	TRUE
36	115.4	27	TRUE
37	115.6	27	TRUE
38	115.8	27	TRUE
39	115.6	27	TRUE
40	115.6	27	TRUE
41	115.5	27	TRUE
42	115.5	27	TRUE
43	115.6	27	TRUE
44	115.7	27	TRUE
45	115.7	27	TRUE
46	115.7	27	TRUE
47	115.4	27	TRUE
48	115.6	27	TRUE
49	115.6	27	TRUE
50	115.5	27	TRUE
51	115.5	27	TRUE
52	115.8	27	TRUE
53	115.8	27	TRUE
54	115.6	27	TRUE
55	115.7	27	TRUE
56	115.4	27	TRUE
57	115.5	27	TRUE
58	115.5	27	TRUE
59	115.6	27	TRUE
60	115.5	27	TRUE
61	115.5	27	TRUE
62	115.5	27	TRUE
63	115.5	27	TRUE
64	115.4	27	TRUE
65	115.6	27	TRUE
66	115.4	27	TRUE
67	115.5	27	TRUE
68	115.5	27	TRUE
69	115.5	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
70	115.5	27	TRUE
71	115.5	27	TRUE
72	115.5	27	TRUE
73	115.8	27	TRUE
74	115.8	27	TRUE
75	115.8	27	TRUE
76	115.6	27	TRUE
77	115.7	27	TRUE
78	115.5	27	TRUE
79	115.8	27	TRUE
80	115.7	27	TRUE
81	115.6	27	TRUE
82	115.6	27	TRUE
83	115.8	27	TRUE
84	115.8	27	TRUE
85	115.5	27	TRUE
86	115.5	27	TRUE
87	115.6	27	TRUE
88	115.8	27	TRUE
89	115.8	27	TRUE
90	115.7	27	TRUE
91	115.5	27	TRUE
92	115.8	27	TRUE
93	115.5	27	TRUE
94	115.5	27	TRUE
95	115.5	27	TRUE
96	115.5	27	TRUE
97	115.5	27	TRUE
98	115.6	27	TRUE
99	115.5	27	TRUE
100	115.5	27	TRUE
101	115.6	27	TRUE
102	115.6	27	TRUE
103	115.6	27	TRUE
104	115.6	27	TRUE
105	115.6	27	TRUE
106	115.6	27	TRUE
107	115.5	27	TRUE
108	115.7	27	TRUE
109	115.6	27	TRUE
110	115.7	27	TRUE
111	115.7	27	TRUE
112	115.7	27	TRUE
113	115.7	27	TRUE
114	115.7	27	TRUE
115	115.7	27	TRUE
116	115.6	27	TRUE
117	115.6	27	TRUE
118	115.6	27	TRUE
119	115.6	27	TRUE
120	115.6	27	TRUE
121	115.6	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
122	115.6	27	TRUE
123	115.6	27	TRUE
124	115.6	27	TRUE
125	115.6	27	TRUE
126	115.6	27	TRUE
127	115.6	27	TRUE
128	115.6	27	TRUE
129	115.6	27	TRUE
130	115.6	27	TRUE
131	115.6	27	TRUE
132	115.6	27	TRUE
133	115.6	27	TRUE
134	115.6	27	TRUE
135	115.6	27	TRUE
136	115.6	27	TRUE
137	115.6	27	TRUE
138	115.6	27	TRUE
139	115.8	27	TRUE
140	115.5	27	TRUE
141	115.6	27	TRUE
142	115.6	27	TRUE
143	115.6	27	TRUE
144	115.6	27	TRUE
145	115.6	27	TRUE
146	115.6	27	TRUE
147	115.6	27	TRUE
148	115.6	27	TRUE
149	115.6	27	TRUE
150	115.6	27	TRUE
151	115.5	27	TRUE
152	115.6	27	TRUE
153	115.8	27	TRUE
154	115.5	27	TRUE
155	115.5	27	TRUE
156	115.7	27	TRUE
157	115.7	27	TRUE
158	115.7	27	TRUE
159	115.9	27	TRUE
160	115.9	27	TRUE
161	115.9	27	TRUE
162	115.5	27	TRUE
163	115.6	27	TRUE
164	115.6	27	TRUE
165	115.6	27	TRUE
166	115.6	27	TRUE
167	115.8	27	TRUE
168	115.8	27	TRUE
169	115.6	27	TRUE
170	115.6	27	TRUE
171	115.7	27	TRUE
172	115.7	27	TRUE
173	115.5	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
174	115.7	27	TRUE
175	115.6	27	TRUE
176	115.6	27	TRUE
177	115.6	27	TRUE
178	115.6	27	TRUE
179	115.6	27	TRUE
180	115.5	27	TRUE
181	115.6	27	TRUE
182	115.6	27	TRUE
183	115.6	27	TRUE
184	115.5	27	TRUE
185	115.6	27	TRUE
186	115.4	27	TRUE
187	115.3	27	TRUE
188	115.3	27	TRUE
189	115.3	27	TRUE
190	115.3	27	TRUE
191	115.3	27	TRUE
192	115.3	27	TRUE
193	115.4	27	TRUE
194	115.3	27	TRUE
195	115.5	27	TRUE
196	115.4	27	TRUE
197	115.3	27	TRUE
198	115.3	27	TRUE
199	115.3	27	TRUE
200	115.4	27	TRUE
201	115.4	27	TRUE
202	115.4	27	TRUE
203	115.4	27	TRUE
204	115.4	27	TRUE
205	115.4	27	TRUE
206	115.5	27	TRUE
207	115.4	27	TRUE
208	115.3	27	TRUE
209	115.4	27	TRUE
210	115.4	27	TRUE
211	115.4	27	TRUE
212	115.4	27	TRUE
213	115.4	27	TRUE
214	115.4	27	TRUE
215	115.4	27	TRUE
216	115.4	27	TRUE
217	115.5	27	TRUE
218	115.5	27	TRUE
219	115.5	27	TRUE
220	115.5	27	TRUE
221	115.6	27	TRUE
222	115.5	27	TRUE
223	115.5	27	TRUE
224	115.5	27	TRUE
225	115.5	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
226	115.5	27	TRUE
227	115.6	27	TRUE
228	115.5	27	TRUE
229	115.5	27	TRUE
230	115.5	27	TRUE
231	115.6	27	TRUE
232	115.6	27	TRUE
233	115.6	27	TRUE
234	115.5	27	TRUE
235	115.4	27	TRUE
236	115.4	27	TRUE
237	115.3	27	TRUE
238	115.4	27	TRUE
239	115.5	27	TRUE
240	115.4	27	TRUE
241	115.6	27	TRUE
242	115.2	27	TRUE
243	115.4	27	TRUE
244	115.5	27	TRUE
245	115	27	TRUE
246	115.1	27	TRUE
247	115	27	TRUE
248	115	27	TRUE
249	115	27	TRUE
250	115.8	27	TRUE
251	115.6	27	TRUE
252	115	27	TRUE
253	115	27	TRUE
254	115	27	TRUE
255	115	27	TRUE
256	115.1	27	TRUE
257	115.1	27	TRUE
258	115.1	27	TRUE
259	115.1	27	TRUE
260	115.1	27	TRUE
261	115.1	27	TRUE
262	115.5	27	TRUE
263	115.2	27	TRUE
264	115.2	27	TRUE
265	115.2	27	TRUE
266	115.2	27	TRUE
267	115.2	27	TRUE
268	115.2	27	TRUE
269	115.2	27	TRUE
270	115.3	27	TRUE
271	115.4	27	TRUE
272	115.4	27	TRUE
273	115.5	27	TRUE
274	115.6	27	TRUE
275	115.6	27	TRUE
276	115.6	27	TRUE
277	115.4	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
278	115.4	27	TRUE
279	115.4	27	TRUE
280	115.4	27	TRUE
281	115.3	27	TRUE
282	115.1	27	TRUE
283	115.2	27	TRUE
284	115.5	27	TRUE
285	115.1	27	TRUE
286	115.1	27	TRUE
287	115.1	27	TRUE
288	115.1	27	TRUE
289	115.1	27	TRUE
290	115.1	27	TRUE
291	115.1	27	TRUE
292	115.1	27	TRUE
293	115.1	27	TRUE
294	115.1	27	TRUE
295	115.5	27	TRUE
296	115.2	27	TRUE
297	115.3	27	TRUE
298	115.1	27	TRUE
299	115.1	27	TRUE
300	115.2	27	TRUE
301	115.2	27	TRUE
302	115.1	27	TRUE
303	115.1	27	TRUE
304	115.2	27	TRUE
305	115.1	27	TRUE
306	115.5	27	TRUE
307	115.1	27	TRUE
308	115.1	27	TRUE
309	115.1	27	TRUE
310	115.3	27	TRUE
311	115.4	27	TRUE
312	115.4	27	TRUE
313	115.4	27	TRUE
314	115.3	27	TRUE
315	115.1	27	TRUE
316	115	27	TRUE
317	115.5	27	TRUE
318	115.1	27	TRUE
319	115.1	27	TRUE
320	115.3	27	TRUE
321	115.3	27	TRUE
322	115.3	27	TRUE
323	115.3	27	TRUE
324	115.3	27	TRUE
325	115.2	27	TRUE
326	115	27	TRUE
327	115.2	27	TRUE
328	115.5	27	TRUE
329	115	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
330	115	27	TRUE
331	115	27	TRUE
332	115.2	27	TRUE
333	115.3	27	TRUE
334	115.2	27	TRUE
335	115.1	27	TRUE
336	115	27	TRUE
337	115.1	27	TRUE
338	115	27	TRUE
339	115.5	27	TRUE
340	115	27	TRUE
341	115.3	27	TRUE
342	115.3	27	TRUE
343	115.4	27	TRUE
344	115.5	27	TRUE
345	115.4	27	TRUE
346	115.4	27	TRUE
347	115.5	27	TRUE
348	115.6	27	TRUE
349	115.4	27	TRUE
350	115.5	27	TRUE
351	115.4	27	TRUE
352	115.3	27	TRUE
353	115.3	27	TRUE
354	115.8	27	TRUE
355	115.4	27	TRUE
356	115.4	27	TRUE
357	115.5	27	TRUE
358	115.5	27	TRUE
359	115.5	27	TRUE
360	115.5	27	TRUE
361	115.8	27	TRUE
362	115.5	27	TRUE
363	115.5	27	TRUE
364	115.4	27	TRUE
365	115.4	27	TRUE
366	115.4	27	TRUE
367	115.4	27	TRUE
368	115.3	27	TRUE
369	115.4	27	TRUE
370	115.4	27	TRUE
371	115.3	27	TRUE
372	115.5	27	TRUE
373	115.5	27	TRUE
374	115.3	27	TRUE
375	115.3	27	TRUE
376	115.3	27	TRUE
377	115.1	27	TRUE
378	115.1	27	TRUE
379	115.1	27	TRUE
380	115.1	27	TRUE
381	115.3	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
382	115.3	27	TRUE
383	115.1	27	TRUE
384	115.5	27	TRUE
385	115.1	27	TRUE
386	115.1	27	TRUE
387	115.1	27	TRUE
388	115.3	27	TRUE
389	115.3	27	TRUE
390	115.4	27	TRUE
391	115.4	27	TRUE
392	115.4	27	TRUE
393	115.4	27	TRUE
394	115.4	27	TRUE
395	115.5	27	TRUE
396	115.4	27	TRUE
397	115.4	27	TRUE
398	115.4	27	TRUE
399	115.4	27	TRUE
400	115.4	27	TRUE
401	115.4	27	TRUE
402	115.1	27	TRUE
403	115.1	27	TRUE
404	115.1	27	TRUE
405	115	27	TRUE
406	115.5	27	TRUE
407	115.2	27	TRUE
408	115.2	27	TRUE
409	115.2	27	TRUE
410	115.2	27	TRUE
411	115.2	27	TRUE
412	115.4	27	TRUE
413	115.5	27	TRUE
414	115.4	27	TRUE
415	115.4	27	TRUE
416	115.3	27	TRUE
417	115.2	27	TRUE
418	115.4	27	TRUE
419	115.2	27	TRUE
420	115.1	27	TRUE
421	115.1	27	TRUE
422	115.1	27	TRUE
423	115.1	27	TRUE
424	115.5	27	TRUE
425	115.1	27	TRUE
426	115.3	27	TRUE
427	115.1	27	TRUE
428	115.2	27	TRUE
429	115.1	27	TRUE
430	115.1	27	TRUE
431	115.1	27	TRUE
432	115.1	27	TRUE
433	115.2	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
434	115.3	27	TRUE
435	115.5	27	TRUE
436	115.3	27	TRUE
437	115.3	27	TRUE
438	115.3	27	TRUE
439	115.3	27	TRUE
440	115.4	27	TRUE
441	115.2	27	TRUE
442	115.2	27	TRUE
443	115.2	27	TRUE
444	115.1	27	TRUE
445	115	27	TRUE
446	115.5	27	TRUE
447	115	27	TRUE
448	115.8	27	TRUE
449	115	27	TRUE
450	115	27	TRUE
451	115.3	27	TRUE
452	115.3	27	TRUE
453	115.3	27	TRUE
454	115	27	TRUE
455	115	27	TRUE
456	115	27	TRUE
457	115.5	27	TRUE
458	115.1	27	TRUE
459	115	27	TRUE
460	115	27	TRUE
461	115	27	TRUE
462	115	27	TRUE
463	115	27	TRUE
464	115.8	27	TRUE
465	115.5	27	TRUE
466	115	27	TRUE
467	115	27	TRUE
468	114.9	27	TRUE
469	114.8	27	TRUE
470	115.5	27	TRUE
471	115.2	27	TRUE
472	115.1	27	TRUE
473	115	27	TRUE
474	115	27	TRUE
475	115	27	TRUE
476	115.2	27	TRUE
477	115.2	27	TRUE
478	115.3	27	TRUE
479	115.5	27	TRUE
480	115.3	27	TRUE
481	115.3	27	TRUE
482	115.2	27	TRUE
483	115.2	27	TRUE
484	115.2	27	TRUE
485	115.1	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
486	115.3	27	TRUE
487	115.5	27	TRUE
488	115.5	27	TRUE
489	115.5	27	TRUE
490	115.1	27	TRUE
491	115.1	27	TRUE
493	115.1	27	TRUE
494	115.1	27	TRUE
495	115.1	27	TRUE
496	115.1	27	TRUE
497	115.1	27	TRUE
498	115.1	27	TRUE
499	115.5	27	TRUE
500	115.1	27	TRUE
501	115.1	27	TRUE
502	115.1	27	TRUE
503	115.1	27	TRUE
504	115.1	27	TRUE
505	115.1	27	TRUE
506	115.1	27	TRUE
507	115.1	27	TRUE
508	115.1	27	TRUE
509	115.1	27	TRUE
510	115.5	27	TRUE
511	115.2	27	TRUE
512	115.4	27	TRUE
513	115.4	27	TRUE
514	115.4	27	TRUE
515	115.3	27	TRUE
516	115.3	27	TRUE
517	115.4	27	TRUE
518	115.3	27	TRUE
519	115.3	27	TRUE
520	115.4	27	TRUE
521	115.5	27	TRUE
522	115.1	27	TRUE
523	115.1	27	TRUE
524	115.1	27	TRUE
525	115.2	27	TRUE
526	115.2	27	TRUE
527	115.3	27	TRUE
528	115.4	27	TRUE
529	115.3	27	TRUE
530	115.3	27	TRUE
531	115.3	27	TRUE
532	115.5	27	TRUE
533	115.4	27	TRUE
534	115.4	27	TRUE
535	115.3	27	TRUE
536	115.4	27	TRUE
537	115.3	27	TRUE
538	115.2	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
539	115.4	27	TRUE
540	115.1	27	TRUE
541	115.1	27	TRUE
542	115.2	27	TRUE
543	115.8	27	TRUE
544	115.5	27	TRUE
545	115.2	27	TRUE
546	115.3	27	TRUE
547	115.3	27	TRUE
548	115.2	27	TRUE
549	115.2	27	TRUE
550	115.3	27	TRUE
551	115.3	27	TRUE
552	115.5	27	TRUE
553	115.5	27	TRUE
554	115.6	27	TRUE
555	115.5	27	TRUE
556	115.6	27	TRUE
557	115.6	27	TRUE
558	115.6	27	TRUE
559	115.5	27	TRUE
560	115.4	27	TRUE
561	115.5	27	TRUE
562	115.8	27	TRUE
563	115.7	27	TRUE
564	115.7	27	TRUE
565	115.7	27	TRUE
566	115.5	27	TRUE
567	115.4	27	TRUE
568	115.3	27	TRUE
569	115.1	27	TRUE
570	115.2	27	TRUE
571	115.1	27	TRUE
572	115	27	TRUE
573	115.8	27	TRUE
574	115.8	27	TRUE
575	115.5	27	TRUE
576	115.6	27	TRUE
577	115.5	27	TRUE
578	115.5	27	TRUE
579	115.8	27	TRUE
580	115.8	27	TRUE
581	115.7	27	TRUE
582	115.7	27	TRUE
583	115.7	27	TRUE
584	115.4	27	TRUE
585	115.5	27	TRUE
586	115.5	27	TRUE
587	115.5	27	TRUE
588	115.4	27	TRUE
589	115.5	27	TRUE
590	115.7	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
591	115.6	27	TRUE
592	115.8	27	TRUE
593	115.4	27	TRUE
594	115.4	27	TRUE
595	115.2	27	TRUE
596	115.1	27	TRUE
597	115.5	27	TRUE
598	115.4	27	TRUE
599	115.4	27	TRUE
600	115.4	27	TRUE
601	115.2	27	TRUE
602	115.1	27	TRUE
603	115.2	27	TRUE
604	115.1	27	TRUE
605	115.5	27	TRUE
606	115.1	27	TRUE
607	115.4	27	TRUE
608	115.6	27	TRUE
609	115.6	27	TRUE
610	115.7	27	TRUE
611	115.8	27	TRUE
612	115.5	27	TRUE
613	115.5	27	TRUE
614	115.3	27	TRUE
615	115.5	27	TRUE
616	115.4	27	TRUE
617	115.1	27	TRUE
618	115.1	27	TRUE
619	115.4	27	TRUE
620	115.4	27	TRUE
621	115.2	27	TRUE
622	115.4	27	TRUE
623	115.5	27	TRUE
624	115.5	27	TRUE
625	115.5	27	TRUE
626	115.5	27	TRUE
627	115.4	27	TRUE
628	115.4	27	TRUE
629	115.4	27	TRUE
630	115.5	27	TRUE
631	115.5	27	TRUE
635	115.4	27	TRUE
644	115.3	27	TRUE
645	115.8	27	TRUE
646	115.4	27	TRUE
647	115.1	27	TRUE
648	115.2	27	TRUE
649	115.3	27	TRUE
650	115.3	27	TRUE
651	115.3	27	TRUE
652	115.3	27	TRUE
653	115.4	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
654	115.1	27	TRUE
655	115.2	27	TRUE
656	115.7	27	TRUE
657	115.2	27	TRUE
658	115.1	27	TRUE
659	115.4	27	TRUE
660	115.1	27	TRUE
661	115.2	27	TRUE
662	115.2	27	TRUE
663	115.2	27	TRUE
664	115.2	27	TRUE
665	115.8	27	TRUE
666	115.2	27	TRUE
667	115.1	27	TRUE
668	115.1	27	TRUE
669	115.1	27	TRUE
670	115.1	27	TRUE
671	115.5	27	TRUE
672	115.7	27	TRUE
673	115.6	27	TRUE
674	115.8	27	TRUE
675	115.8	27	TRUE
676	115.8	27	TRUE
677	115.5	27	TRUE
678	115.8	27	TRUE
679	115.8	27	TRUE
680	115.8	27	TRUE
681	115.5	27	TRUE
682	115.5	27	TRUE
683	115.5	27	TRUE
684	115.5	27	TRUE
685	115.5	27	TRUE
686	115.5	27	TRUE
687	115.8	27	TRUE
688	115.8	27	TRUE
689	115.8	27	TRUE
690	115.8	27	TRUE
691	115.8	27	TRUE
692	115.8	27	TRUE
693	115.8	27	TRUE
694	115.8	27	TRUE
695	115.5	27	TRUE
696	115.5	27	TRUE
697	115.5	27	TRUE
698	115.5	27	TRUE
699	115.5	27	TRUE
700	115.5	27	TRUE
701	115.5	27	TRUE
702	115.2	27	TRUE
703	115.3	27	TRUE
704	115.2	27	TRUE
705	115.2	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
706	115.3	27	TRUE
707	115.6	27	TRUE
708	115.6	27	TRUE
709	115.6	27	TRUE
710	115.6	27	TRUE
711	115.7	27	TRUE
712	115.2	27	TRUE
713	115.7	27	TRUE
714	115.1	27	TRUE
720	115.1	27	TRUE
721	115.2	27	TRUE
722	115.2	27	TRUE
723	115.5	27	TRUE
724	115.2	27	TRUE
725	115.4	27	TRUE
726	115.2	27	TRUE
727	115.2	27	TRUE
728	115.2	27	TRUE
729	115.6	27	TRUE
730	115.4	27	TRUE
731	115.4	27	TRUE
732	115.5	27	TRUE
733	115.4	27	TRUE
734	115.4	27	TRUE
735	115.4	27	TRUE
736	115.6	27	TRUE
737	115.4	27	TRUE
738	115.5	27	TRUE
739	115.6	27	TRUE
740	115.4	27	TRUE
741	115.6	27	TRUE
742	115.6	27	TRUE
743	115.7	27	TRUE
754	115.9	27	TRUE
755	115.9	27	TRUE
757	115.9	27	TRUE
758	115.9	27	TRUE
759	115.9	27	TRUE
762	115.6	27	TRUE
763	115.6	27	TRUE
768	115.6	27	TRUE
770	115.6	27	TRUE
771	115.7	27	TRUE
772	115.9	27	TRUE
777	115.9	27	TRUE
778	115.6	27	TRUE
779	115.4	27	TRUE
780	115.4	27	TRUE
781	115.4	27	TRUE
782	115.4	27	TRUE
783	115.4	27	TRUE
784	115.4	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
785	115.4	27	TRUE
786	115.4	27	TRUE
787	115.4	27	TRUE
788	115.4	27	TRUE
789	115.4	27	TRUE
790	115.4	27	TRUE
791	115.4	27	TRUE
792	115.4	27	TRUE
793	115.4	27	TRUE
795	115.4	27	TRUE
796	115.4	27	TRUE
797	115.4	27	TRUE
798	115.2	27	TRUE
799	115.3	27	TRUE
800	115.3	27	TRUE
801	115.2	27	TRUE
802	115.2	27	TRUE
803	115.2	27	TRUE
804	115.2	27	TRUE
805	115.2	27	TRUE
806	115.3	27	TRUE
807	115.2	27	TRUE
808	115.2	27	TRUE
809	115.2	27	TRUE
810	115.2	27	TRUE
811	115.4	27	TRUE
812	115.3	27	TRUE
813	115.4	27	TRUE
814	115.2	27	TRUE
815	115.3	27	TRUE
816	115.3	27	TRUE
817	115.3	27	TRUE
818	115.3	27	TRUE
819	115.2	27	TRUE
820	115.3	27	TRUE
821	115.2	27	TRUE
822	115.2	27	TRUE
823	115.2	27	TRUE
824	115.3	27	TRUE
825	115.2	27	TRUE
826	115.1	27	TRUE
827	115.4	27	TRUE
828	115.1	27	TRUE
829	115.1	27	TRUE
830	115.6	27	TRUE
831	115.6	27	TRUE
832	115.6	27	TRUE
833	115.6	27	TRUE
834	115.6	27	TRUE
835	115.6	27	TRUE
836	115.6	27	TRUE
837	115.5	27	TRUE

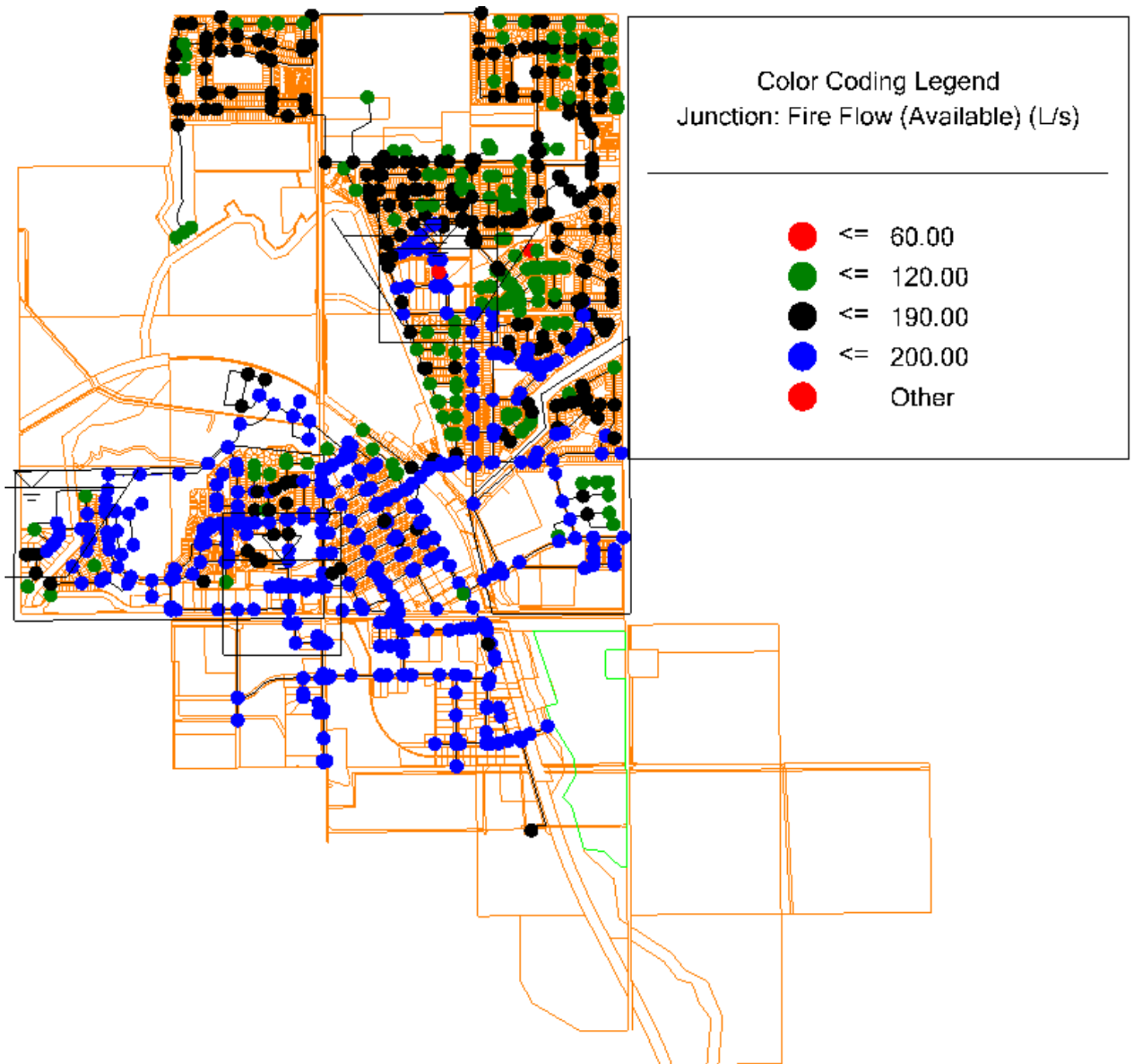
Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
838	115.5	27	TRUE
839	115.5	27	TRUE
840	115.5	27	TRUE
841	115.5	27	TRUE
842	115.5	27	TRUE
843	115.2	27	TRUE
844	115.2	27	TRUE
845	115.2	27	TRUE
846	115.3	27	TRUE
847	115.2	27	TRUE
848	115.3	27	TRUE
849	115.7	27	TRUE
850	115.6	27	TRUE
851	115.8	27	TRUE
852	115.7	27	TRUE
853	115.7	27	TRUE
854	115.8	27	TRUE
855	115.7	27	TRUE
856	115.7	27	TRUE
857	115.7	27	TRUE
858	115.8	27	TRUE
859	115.7	27	TRUE
860	115.7	27	TRUE
861	115.7	27	TRUE
862	115.7	27	TRUE
863	115.7	27	TRUE
864	115.7	27	TRUE
A	115.1	27	TRUE
B	115.1	27	TRUE
J-1	115.1	27	TRUE
J-2	115.1	27	TRUE
J-3	115.1	27	TRUE
J-4	115.1	27	TRUE
J-866	115.7	27	TRUE
J-867	115.7	27	TRUE
J-868	115.7	27	TRUE
J-869	115.7	27	TRUE
J-870	115.7	27	TRUE
J-871	115.7	27	TRUE
J-872	115.7	27	TRUE
J-873	115.7	27	TRUE
J-874	115.6	27	TRUE
J-875	115.6	27	TRUE
J-876	115.7	27	TRUE
J-877	115.6	27	TRUE
J-878	115.6	27	TRUE
J-879	115.6	27	TRUE
J-880	115.4	27	TRUE
J-881	115.6	27	TRUE
J-882	115.7	27	TRUE
J-883	115.7	27	TRUE
J-884	115.4	27	TRUE

Label	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-885	115.6	27	TRUE
J-886	115.6	27	TRUE
J-887	115.6	27	TRUE
J-888	115.6	27	TRUE
J-889	115.6	27	TRUE
J-890	115.6	27	TRUE
J-891	115.5	27	TRUE
J-892	115.5	27	TRUE
J-893	115.5	27	TRUE
J-894	115.8	27	TRUE
J-899	115.1	27	TRUE
J-900	115.7	27	TRUE
J-904	115.5	27	TRUE
J-905	115.5	27	TRUE
J-906	115.6	27	TRUE
J-908	115.6	27	TRUE
J-919	115.5	27	TRUE
J-920	115.5	27	TRUE
J-921	115.5	27	TRUE
J-922	115.5	27	TRUE
J-923	115.5	27	TRUE
J-924	115.5	27	TRUE
J-925	115.5	27	TRUE
J-928	115.6	27	TRUE
J-931	115.5	27	TRUE

Appendix A2

Upgraded Strathmore Water
Distribution System

Appendix A2 - Upgraded Strathmore Water Distribution System



Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
1	Zone-no fire flow	1	FALSE	60	0	60
7	Zone-no fire flow	1	FALSE	60	0	60
9	Zone-no fire flow	1	FALSE	60	0	60
15	Zone-no fire flow	1	FALSE	60	0	60
18	Zone-no fire flow	1	FALSE	60	0	60
19	Zone-no fire flow	1	FALSE	60	0	60
20	Zone-no fire flow	1	FALSE	60	0	60
21	Zone-1	3	TRUE	60	200	60
26	Zone-no fire flow	1	FALSE	60	0	60
27	Zone-no fire flow	1	FALSE	60	0	60
28	Zone-no fire flow	1	FALSE	60	0	60
29	Zone-no fire flow	1	FALSE	60	0	60
30	Zone-no fire flow	1	FALSE	60	0	60
31	Zone-1	3	TRUE	60	106.84	60.06
32	Zone-1	2	TRUE	60	200	60
33	Zone-1	3	TRUE	60	200	60
34	Zone-1	3	TRUE	60	200	60
35	Zone-1	3	TRUE	60	200	60
36	Zone-1	3	TRUE	60	200	60.09
37	Zone-1	3	TRUE	60	200	60.11
38	Zone-1	4	TRUE	60	127.65	60.04
39	Zone-1	4	TRUE	60	200	60
40	Zone-1	4	TRUE	60	156.62	60.4
41	Zone-1	3	TRUE	60	200	60.24
42	Zone-1	3	TRUE	60	200	60
43	Zone-1	2	TRUE	60	200	60
44	Zone-1	3	TRUE	60	200	60.11
45	Zone-1	4	TRUE	60	200	60
46	Zone-1	3	TRUE	60	200	60.13
47	Zone-1	3	TRUE	60	200	60
48	Zone-1	4	TRUE	60	200	60
49	Zone-1	5	TRUE	60	197.08	60
50	Zone-1	3	TRUE	60	200	60.13
51	Zone-1	3	TRUE	60	200	60
52	Zone-1	5	TRUE	60	168.77	60.11
53	Zone-1	4	TRUE	60	129.01	60
54	Zone-1	2	TRUE	60	200	60
55	Zone-1	3	TRUE	60	200	60
56	Zone-1	2	TRUE	60	200	60
57	Zone-1	3	TRUE	60	200	60
58	Zone-1	3	TRUE	60	200	60
59	Zone-1	4	TRUE	60	141.82	60
60	Zone-1	3	TRUE	60	200	60.93
61	Zone-1	3	TRUE	60	200	60
62	Zone-1	3	TRUE	60	200	60.93
63	Zone-1	3	TRUE	60	200	60
64	Zone-1	3	TRUE	60	200	61.46
65	Zone-1	2	TRUE	60	200	60.53
66	Zone-1	3	TRUE	60	200	60
67	Zone-1	3	TRUE	60	200	60
68	Zone-1	3	TRUE	60	200	60
69	Zone-1	3	TRUE	60	200	60.93

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
70	Zone-1	3	TRUE	60	200	60.8
71	Zone-1	3	TRUE	60	200	60
72	Zone-1	3	TRUE	60	200	60
73	Zone-1	4	TRUE	60	111.01	60
74	Zone-1	4	TRUE	60	95.69	60.11
75	Zone-1	3	TRUE	60	74.48	60
76	Zone-1	3	TRUE	60	200	60
77	Zone-1	3	TRUE	60	200	60
78	Zone-1	3	TRUE	60	200	60.16
79	Zone-1	4	TRUE	60	200	60.25
80	Zone-1	4	TRUE	60	147.6	60
81	Zone-1	3	TRUE	60	200	60.11
82	Zone-1	3	TRUE	60	200	60
83	Zone-1	3	TRUE	60	200	60.08
84	Zone-1	3	TRUE	60	200	60.16
85	Zone-1	3	TRUE	60	200	60.3
86	Zone-1	3	TRUE	60	200	60
87	Zone-1	3	TRUE	60	200	60
88	Zone-1	3	TRUE	60	200	60
89	Zone-1	3	TRUE	60	200	60.31
90	Zone-1	3	TRUE	60	200	60
91	Zone-1	3	TRUE	60	200	60.27
92	Zone-1	3	TRUE	60	200	60
93	Zone-1	2	TRUE	60	200	60
94	Zone-1	2	TRUE	60	200	60
95	Zone-1	2	TRUE	60	200	60
96	Zone-1	2	TRUE	60	200	60
97	Zone-1	3	TRUE	60	200	60
98	Zone-1	3	TRUE	60	200	60
99	Zone-1	3	TRUE	60	200	60.11
100	Zone-1	5	TRUE	60	194.73	60.24
101	Zone-1	4	TRUE	60	116.73	60.1
102	Zone-1	5	TRUE	60	194.39	60.21
103	Zone-1	5	TRUE	60	195.14	60
104	Zone-1	5	TRUE	60	196.29	60
105	Zone-1	3	TRUE	60	200	60
106	Zone-1	3	TRUE	60	200	60
107	Zone-1	3	TRUE	60	200	60
108	Zone-1	3	TRUE	60	200	60
109	Zone-1	3	TRUE	60	200	60.53
110	Zone-1	3	TRUE	60	200	60
111	Zone-1	3	TRUE	60	200	60
112	Zone-1	3	TRUE	60	200	60
113	Zone-1	3	TRUE	60	200	60
114	Zone-1	3	TRUE	60	200	61.73
115	Zone-1	3	TRUE	60	200	60
116	Zone-1	2	TRUE	60	200	60
117	Zone-1	2	TRUE	60	200	60
118	Zone-1	3	TRUE	60	200	60
119	Zone-1	3	TRUE	60	200	60
120	Zone-1	2	TRUE	60	200	60
121	Zone-1	3	TRUE	60	200	60.21

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
122	Zone-1	4	TRUE	60	169.78	60.64
123	Zone-1	4	TRUE	60	167.73	60
124	Zone-1	4	TRUE	60	167.22	60
125	Zone-1	4	TRUE	60	171.49	61.02
126	Zone-1	4	TRUE	60	200	60
127	Zone-1	4	TRUE	60	170.67	60
128	Zone-1	3	TRUE	60	200	60
129	Zone-1	4	TRUE	60	167.97	60.13
130	Zone-1	3	TRUE	60	200	60
131	Zone-1	3	TRUE	60	200	60.09
132	Zone-1	2	TRUE	60	200	60
133	Zone-1	2	TRUE	60	200	60
134	Zone-1	2	TRUE	60	200	60
135	Zone-1	2	TRUE	60	200	60
136	Zone-1	2	TRUE	60	200	60
137	Zone-1	3	TRUE	60	200	60
138	Zone-1	2	TRUE	60	200	60
139	Zone-1	4	TRUE	60	157.18	60.05
140	Zone-1	3	TRUE	60	200	60
141	Zone-1	2	TRUE	60	200	60
142	Zone-1	3	TRUE	60	200	60.97
143	Zone-1	2	TRUE	60	200	60
144	Zone-1	2	TRUE	60	200	60
145	Zone-1	2	TRUE	60	200	60
146	Zone-1	2	TRUE	60	200	60.11
147	Zone-1	2	TRUE	60	200	60
148	Zone-1	2	TRUE	60	200	60.19
149	Zone-1	3	TRUE	60	200	60
150	Zone-1	3	TRUE	60	200	60
151	Zone-1	3	TRUE	60	200	60
152	Zone-1	3	TRUE	60	200	60
153	Zone-1	4	TRUE	60	124.47	60.38
154	Zone-1	3	TRUE	60	200	60
155	Zone-1	3	TRUE	60	200	60
156	Zone-1	3	TRUE	60	200	60.19
157	Zone-1	4	TRUE	60	135.8	60
158	Zone-1	6	TRUE	60	148.41	60
159	Zone-1	6	TRUE	60	95	60.28
160	Zone-1	4	TRUE	60	91.56	60.06
161	Zone-1	3	TRUE	60	73.67	60.09
162	Zone-1	3	TRUE	60	200	60.27
163	Zone-1	4	TRUE	60	150.7	60.3
164	Zone-1	4	TRUE	60	169.61	60
165	Zone-1	5	TRUE	60	193.08	60.08
166	Zone-1	4	TRUE	60	172.31	60.13
167	Zone-1	3	TRUE	60	79.37	60
168	Zone-1	4	TRUE	60	157.52	60.13
169	Zone-1	5	TRUE	60	187.61	60.21
170	Zone-1	5	TRUE	60	192.49	60
171	Zone-1	6	TRUE	60	112.53	60.24
172	Zone-1	4	TRUE	60	96.35	60.4
173	Zone-1	3	TRUE	60	200	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
174	Zone-1	4	TRUE	60	90.59	60.08
175	Zone-1	3	TRUE	60	200	60
176	Zone-1	3	TRUE	60	200	60.32
177	Zone-1	3	TRUE	60	200	60.19
178	Zone-1	3	TRUE	60	200	60.11
179	Zone-1	3	TRUE	60	200	60.09
180	Zone-1	3	TRUE	60	200	60.58
181	Zone-1	3	TRUE	60	200	60
182	Zone-1	3	TRUE	60	200	60.4
183	Zone-1	3	TRUE	60	200	60
184	Zone-1	3	TRUE	60	200	60
185	Zone-1	3	TRUE	60	200	60.35
186	Zone-1	3	TRUE	60	200	60
187	Zone-1	3	TRUE	60	200	60
188	Zone-1	3	TRUE	60	200	60
189	Zone-1	3	TRUE	60	200	60
190	Zone-1	3	TRUE	60	200	60
191	Zone-1	3	TRUE	60	200	60
192	Zone-1	3	TRUE	60	200	60
193	Zone-1	3	TRUE	60	200	60
194	Zone-1	3	TRUE	60	200	60
195	Zone-1	3	TRUE	60	200	60
196	Zone-1	3	TRUE	60	200	60
197	Zone-1	3	TRUE	60	200	60
198	Zone-1	3	TRUE	60	200	60
199	Zone-1	3	TRUE	60	200	60.29
200	Zone-1	3	TRUE	60	200	60
201	Zone-1	3	TRUE	60	200	60
202	Zone-1	3	TRUE	60	200	60
203	Zone-1	3	TRUE	60	200	60
204	Zone-1	3	TRUE	60	200	60
205	Zone-1	3	TRUE	60	200	60
206	Zone-1	3	TRUE	60	200	60
207	Zone-1	3	TRUE	60	200	60
208	Zone-1	3	TRUE	60	200	60
209	Zone-1	3	TRUE	60	200	60.16
210	Zone-1	3	TRUE	60	200	60.5
211	Zone-1	3	TRUE	60	200	60
212	Zone-1	3	TRUE	60	200	60.16
213	Zone-1	5	TRUE	60	197.31	60.16
214	Zone-1	7	TRUE	60	195.22	60
215	Zone-1	5	TRUE	60	190.05	60
216	Zone-1	5	TRUE	60	174.25	60.16
217	Zone-1	3	TRUE	60	200	60
218	Zone-1	4	TRUE	60	141.05	60.16
219	Zone-1	4	TRUE	60	140.68	60
220	Zone-1	4	TRUE	60	143.94	60.16
221	Zone-1	4	TRUE	60	116.6	60
222	Zone-1	4	TRUE	60	151.47	60.14
223	Zone-1	4	TRUE	60	143.91	60.16
224	Zone-1	4	TRUE	60	104.74	60.09
225	Zone-1	4	TRUE	60	101.11	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
226	Zone-1	4	TRUE	60	96.75	60.16
227	Zone-1	11	TRUE	60	70.89	60.1
228	Zone-1	3	TRUE	60	200	60
229	Zone-1	4	TRUE	60	99.87	60.14
230	Zone-1	4	TRUE	60	96.39	60
231	Zone-1	3	TRUE	60	82.59	60.16
232	Zone-1	3	TRUE	60	81	60
233	Zone-1	3	TRUE	60	81.38	60.16
234	Zone-1	6	TRUE	60	104.8	60.16
235	Zone-1	4	TRUE	60	129.69	60.24
236	Zone-1	4	TRUE	60	127.07	60
237	Zone-1	4	TRUE	60	141.5	60
238	Zone-1	4	TRUE	60	106.88	60.14
239	Zone-1	3	TRUE	60	200	60
240	Zone-1	4	TRUE	60	119.32	60.24
241	Zone-1	3	TRUE	60	68.52	60.16
242	Zone-1	4	TRUE	60	146.33	60.19
243	Zone-1	4	TRUE	60	107.54	60.19
244	Zone-1	4	TRUE	60	95.99	60.19
245	Zone-1	3	TRUE	60	200	60
246	Zone-1	5	TRUE	60	172.18	60
247	Zone-1	4	TRUE	60	200	60
248	Zone-1	4	TRUE	60	200	60.53
249	Zone-1	3	TRUE	60	200	60
250	Zone-1	4	TRUE	60	189.8	60.15
251	Zone-1	5	TRUE	60	199.78	60
252	Zone-1	3	TRUE	60	200	60.13
253	Zone-1	3	TRUE	60	200	60
254	Zone-1	3	TRUE	60	200	60
255	Zone-1	3	TRUE	60	200	60
256	Zone-1	3	TRUE	60	200	60.18
257	Zone-1	3	TRUE	60	200	60
258	Zone-1	3	TRUE	60	200	60.18
259	Zone-1	3	TRUE	60	200	60.16
260	Zone-1	3	TRUE	60	200	60.19
261	Zone-1	3	TRUE	60	200	60.19
262	Zone-1	3	TRUE	60	200	60
263	Zone-1	3	TRUE	60	200	60.08
264	Zone-1	3	TRUE	60	200	60
265	Zone-1	3	TRUE	60	200	60.14
266	Zone-1	3	TRUE	60	200	60
267	Zone-1	3	TRUE	60	200	60
268	Zone-1	3	TRUE	60	200	60.18
269	Zone-1	3	TRUE	60	200	60
270	Zone-1	13	TRUE	60	153.5	60
271	Zone-1	4	TRUE	60	126.26	60.09
272	Zone-1	4	TRUE	60	114.26	60.09
273	Zone-1	3	TRUE	60	200	60
274	Zone-1	3	TRUE	60	72.21	60.14
275	Zone-1	3	TRUE	60	67.51	60
276	Zone-1	3	TRUE	60	61.51	60.27
277	Zone-1	4	TRUE	60	113.79	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
278	Zone-1	4	TRUE	60	114.99	60
279	Zone-1	4	TRUE	60	116.95	60.09
280	Zone-1	4	TRUE	60	124.54	60
281	Zone-1	5	TRUE	60	143.7	60.16
282	Zone-1	3	TRUE	60	200	60
283	Zone-1	3	TRUE	60	200	60.06
284	Zone-1	3	TRUE	60	200	60
285	Zone-1	3	TRUE	60	200	60.16
286	Zone-1	3	TRUE	60	200	60.18
287	Zone-1	3	TRUE	60	200	60
288	Zone-1	3	TRUE	60	200	60
289	Zone-1	3	TRUE	60	200	60
290	Zone-1	3	TRUE	60	200	60.18
291	Zone-1	3	TRUE	60	200	60
292	Zone-1	3	TRUE	60	200	60.16
293	Zone-1	3	TRUE	60	200	60
294	Zone-1	3	TRUE	60	200	60
295	Zone-1	3	TRUE	60	200	60
296	Zone-1	6	TRUE	60	184.57	60
297	Zone-1	4	TRUE	60	129.32	60.08
298	Zone-1	3	TRUE	60	200	60.16
299	Zone-1	3	TRUE	60	200	60
300	Zone-1	5	TRUE	60	172.05	60.16
301	Zone-1	6	TRUE	60	168.41	60.26
302	Zone-1	4	TRUE	60	200	60.18
303	Zone-1	3	TRUE	60	200	60
304	Zone-1	5	TRUE	60	167.78	60.19
305	Zone-1	3	TRUE	60	200	60
306	Zone-1	3	TRUE	60	200	60
307	Zone-1	3	TRUE	60	200	60
308	Zone-1	3	TRUE	60	200	60.28
309	Zone-1	3	TRUE	60	200	60
310	Zone-1	4	TRUE	60	130.07	60
311	Zone-1	4	TRUE	60	112.37	60.19
312	Zone-1	4	TRUE	60	110.81	60
313	Zone-1	4	TRUE	60	112.94	60.19
314	Zone-1	4	TRUE	60	126.51	60
315	Zone-1	4	TRUE	60	200	60
316	Zone-1	4	TRUE	60	200	60
317	Zone-1	3	TRUE	60	200	60
318	Zone-1	5	TRUE	60	192.38	60
319	Zone-1	5	TRUE	60	172.57	60.15
320	Zone-1	5	TRUE	60	137.29	60
321	Zone-1	4	TRUE	60	128.57	60
322	Zone-1	4	TRUE	60	127.81	60.19
323	Zone-1	4	TRUE	60	126.63	60
324	Zone-1	4	TRUE	60	127	60
325	Zone-1	5	TRUE	60	142.72	60.19
326	Zone-1	5	TRUE	60	192.89	60
327	Zone-1	5	TRUE	60	147.18	60
328	Zone-1	3	TRUE	60	200	60
329	Zone-1	5	TRUE	60	192.27	60.19

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
330	Zone-1	5	TRUE	60	199.04	60
331	Zone-1	7	TRUE	60	191.19	60
332	Zone-1	5	TRUE	60	135.59	60.5
333	Zone-1	5	TRUE	60	133.69	60
334	Zone-1	5	TRUE	60	133.8	60.4
335	Zone-1	5	TRUE	60	171.48	60
336	Zone-1	7	TRUE	60	183.51	60.38
337	Zone-1	7	TRUE	60	180.38	60.38
338	Zone-1	7	TRUE	60	188.15	60
339	Zone-1	3	TRUE	60	200	60
340	Zone-1	7	TRUE	60	188.42	60.51
341	Zone-1	4	TRUE	60	120.99	60.3
342	Zone-1	4	TRUE	60	115.35	60.36
343	Zone-1	4	TRUE	60	102.82	60.19
344	Zone-1	4	TRUE	60	80.65	60.09
345	Zone-1	4	TRUE	60	100.38	60
346	Zone-1	6	TRUE	60	94.06	60.13
347	Zone-1	3	TRUE	60	65.75	60.13
348	Zone-1	18	FALSE	60	59.9	60
349	Zone-1	4	TRUE	60	97.02	60
350	Zone-1	3	TRUE	60	200	60.25
351	Zone-1	4	TRUE	60	98.03	60.16
352	Zone-1	4	TRUE	60	113.47	60.16
353	Zone-1	4	TRUE	60	111.41	60
354	Zone-1	4	TRUE	60	106.98	60
355	Zone-1	4	TRUE	60	104.05	60
356	Zone-1	21	TRUE	60	99.77	60
357	Zone-1	4	TRUE	60	82.27	60.21
358	Zone-1	4	TRUE	60	81.73	60
359	Zone-1	4	TRUE	60	81.43	60
360	Zone-1	4	TRUE	60	81.03	60.13
361	Zone-1	4	TRUE	60	173.67	60
362	Zone-1	3	TRUE	60	200	60
363	Zone-1	4	TRUE	60	82.48	60
364	Zone-1	4	TRUE	60	96.72	60.15
365	Zone-1	4	TRUE	60	94.93	60
366	Zone-1	4	TRUE	60	95.49	60
367	Zone-1	4	TRUE	60	90.5	60
368	Zone-1	4	TRUE	60	118.02	60.11
369	Zone-1	4	TRUE	60	101.07	60
370	Zone-1	4	TRUE	60	94.38	60.13
371	Zone-1	5	TRUE	60	122.16	60
372	Zone-1	3	TRUE	60	68.91	60.1
373	Zone-1	3	TRUE	60	200	60.27
374	Zone-1	5	TRUE	60	123.3	60.3
375	Zone-1	4	TRUE	60	109.42	60
376	Zone-1	5	TRUE	60	124.21	60
377	Zone-1	5	TRUE	60	170.1	60
378	Zone-1	5	TRUE	60	169.33	60
379	Zone-1	5	TRUE	60	173.44	60
380	Zone-1	5	TRUE	60	159.23	60.19
381	Zone-1	4	TRUE	60	115.04	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
382	Zone-1	4	TRUE	60	116.75	60.24
383	Zone-1	5	TRUE	60	173.45	60.08
384	Zone-1	3	TRUE	60	200	60
385	Zone-1	5	TRUE	60	173.77	60.16
386	Zone-1	5	TRUE	60	174.5	60.08
387	Zone-1	5	TRUE	60	174.17	60.1
388	Zone-1	5	TRUE	60	129.06	60.1
389	Zone-1	4	TRUE	60	114.62	60
390	Zone-1	4	TRUE	60	102.69	60.18
391	Zone-1	4	TRUE	60	91.22	60
392	Zone-1	4	TRUE	60	86.48	60.13
393	Zone-1	4	TRUE	60	85.28	60
394	Zone-1	4	TRUE	60	85.9	60.08
395	Zone-1	3	TRUE	60	200	60
396	Zone-1	4	TRUE	60	96.56	60.08
397	Zone-1	4	TRUE	60	90.71	60
398	Zone-1	4	TRUE	60	87.96	60.31
399	Zone-1	4	TRUE	60	85.08	60
400	Zone-1	4	TRUE	60	85.95	60.26
401	Zone-1	4	TRUE	60	95.7	60.16
402	Zone-1	5	TRUE	60	180.4	60.16
403	Zone-1	7	TRUE	60	179.59	60
404	Zone-1	5	TRUE	60	177.15	60
405	Zone-1	7	TRUE	60	188.07	60
406	Zone-1	3	TRUE	60	200	60.4
407	Zone-1	5	TRUE	60	145.93	60.14
408	Zone-1	5	TRUE	60	134.83	60
409	Zone-1	5	TRUE	60	131.58	60
410	Zone-1	5	TRUE	60	130.43	60
411	Zone-1	5	TRUE	60	131.51	60.14
412	Zone-1	4	TRUE	60	99.8	60
413	Zone-1	3	TRUE	60	200	60
414	Zone-1	4	TRUE	60	99.49	60
415	Zone-1	4	TRUE	60	101.29	60
416	Zone-1	5	TRUE	60	123.54	60
417	Zone-1	5	TRUE	60	129.04	60
418	Zone-1	4	TRUE	60	86.71	60
419	Zone-1	5	TRUE	60	136.45	60
420	Zone-1	8	TRUE	60	163.46	60
421	Zone-1	9	TRUE	60	163.08	60
422	Zone-1	8	TRUE	60	163.08	60
423	Zone-1	9	TRUE	60	162.69	60
424	Zone-1	3	TRUE	60	200	60
425	Zone-1	9	TRUE	60	166.42	60.32
426	Zone-1	4	TRUE	60	125.34	60
427	Zone-1	7	TRUE	60	168.1	60
428	Zone-1	5	TRUE	60	142.8	60.08
429	Zone-1	5	TRUE	60	163	60
430	Zone-1	8	TRUE	60	173.68	60.27
431	Zone-1	9	TRUE	60	170.01	60.29
432	Zone-1	5	TRUE	60	153.11	60.1
433	Zone-1	5	TRUE	60	137.66	60.19

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
434	Zone-1	4	TRUE	60	116.52	60.26
435	Zone-1	3	TRUE	60	200	60
436	Zone-1	4	TRUE	60	111.37	60
437	Zone-1	4	TRUE	60	110.72	60.26
438	Zone-1	4	TRUE	60	115.06	60
439	Zone-1	4	TRUE	60	118	60
440	Zone-1	4	TRUE	60	102.57	60.16
441	Zone-1	5	TRUE	60	130.11	60.16
442	Zone-1	5	TRUE	60	135.87	60
443	Zone-1	5	TRUE	60	130.77	60.24
444	Zone-1	5	TRUE	60	161.29	60
445	Zone-1	7	TRUE	60	188.57	60.24
446	Zone-1	3	TRUE	60	200	60
447	Zone-1	6	TRUE	60	189.82	60
448	Zone-1	5	TRUE	60	157.5	60
449	Zone-1	6	TRUE	60	190.7	60
450	Zone-1	6	TRUE	60	190.98	60.21
451	Zone-1	4	TRUE	60	124.13	60
452	Zone-1	4	TRUE	60	111.5	60.16
453	Zone-1	4	TRUE	60	110.08	60
454	Zone-1	6	TRUE	60	191.87	60.32
455	Zone-1	7	TRUE	60	184.41	60
456	Zone-1	8	TRUE	60	176.46	60.24
457	Zone-1	3	TRUE	60	200	60.13
458	Zone-1	8	TRUE	60	174.65	60
459	Zone-1	3	TRUE	60	200	60
460	Zone-1	3	TRUE	60	200	60.16
461	Zone-1	3	TRUE	60	200	60
462	Zone-1	3	TRUE	60	200	60.16
463	Zone-1	3	TRUE	60	200	60
464	Zone-1	4	TRUE	60	168.04	60
465	Zone-1	3	TRUE	60	200	60
466	Zone-1	3	TRUE	60	200	60
467	Zone-1	3	TRUE	60	200	60
468	Zone-1	3	TRUE	60	200	60
469	Zone-1	3	TRUE	60	200	60
470	Zone-1	3	TRUE	60	200	60.8
471	Zone-1	5	TRUE	60	142.83	60
472	Zone-1	5	TRUE	60	153.69	60.16
473	Zone-1	5	TRUE	60	187.17	60
474	Zone-1	5	TRUE	60	194	60.06
475	Zone-1	4	TRUE	60	200	60
476	Zone-1	5	TRUE	60	138.38	60
477	Zone-1	5	TRUE	60	137.23	60.39
478	Zone-1	4	TRUE	60	121.77	60.4
479	Zone-1	3	TRUE	60	200	60
480	Zone-1	4	TRUE	60	118.07	60
481	Zone-1	4	TRUE	60	121.89	60.4
482	Zone-1	5	TRUE	60	137.73	60
483	Zone-1	5	TRUE	60	138.44	60
484	Zone-1	5	TRUE	60	145.01	60.16
485	Zone-1	7	TRUE	60	153.8	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
486	Zone-1	6	TRUE	60	113.14	60
487	Zone-1	3	TRUE	60	200	60
488	Zone-1	3	TRUE	60	200	60
489	Zone-1	3	TRUE	60	200	60.8
490	Zone-1	7	TRUE	60	175.44	60.16
491	Zone-1	5	TRUE	60	172.85	60
493	Zone-1	5	TRUE	60	162.92	60.16
494	Zone-1	5	TRUE	60	155.8	60
495	Zone-1	5	TRUE	60	156.42	60.13
496	Zone-1	7	TRUE	60	159.32	60
497	Zone-1	7	TRUE	60	159.32	60
498	Zone-1	7	TRUE	60	159.32	60
499	Zone-1	3	TRUE	60	200	60
500	Zone-1	7	TRUE	60	159.3	60
501	Zone-1	7	TRUE	60	167.08	60
502	Zone-1	7	TRUE	60	168.91	60
503	Zone-1	7	TRUE	60	166.14	60.4
504	Zone-1	7	TRUE	60	163.05	62.85
505	Zone-1	7	TRUE	60	162.65	60.66
506	Zone-1	7	TRUE	60	161.8	60.65
507	Zone-1	7	TRUE	60	161.21	60
508	Zone-1	7	TRUE	60	160.65	60
509	Zone-1	7	TRUE	60	160.5	60
510	Zone-1	3	TRUE	60	200	60
511	Zone-1	5	TRUE	60	130.35	60.19
512	Zone-1	4	TRUE	60	99.76	60.19
513	Zone-1	4	TRUE	60	97.2	60
514	Zone-1	4	TRUE	60	86.98	60.09
515	Zone-1	4	TRUE	60	122.03	60.25
516	Zone-1	4	TRUE	60	120.44	60.25
517	Zone-1	4	TRUE	60	100.57	60.19
518	Zone-1	5	TRUE	60	127.48	60
519	Zone-1	6	TRUE	60	128.53	60.19
520	Zone-1	4	TRUE	60	105.14	60.17
521	Zone-1	3	TRUE	60	200	60.13
522	Zone-1	5	TRUE	60	155.03	60
523	Zone-1	5	TRUE	60	155.49	60.36
524	Zone-1	5	TRUE	60	154.85	60.19
525	Zone-1	5	TRUE	60	153.56	60.09
526	Zone-1	5	TRUE	60	139.35	60
527	Zone-1	4	TRUE	60	119.54	60
528	Zone-1	4	TRUE	60	103.21	60.09
529	Zone-1	4	TRUE	60	116.26	60
530	Zone-1	4	TRUE	60	115.11	60.19
531	Zone-1	4	TRUE	60	107.23	60.25
532	Zone-1	3	TRUE	60	200	60.66
533	Zone-1	4	TRUE	60	104.82	60.25
534	Zone-1	4	TRUE	60	104.73	60
535	Zone-1	4	TRUE	60	106.97	60.25
536	Zone-1	4	TRUE	60	101.74	60
537	Zone-1	5	TRUE	60	123.93	60.25
538	Zone-1	5	TRUE	60	135.18	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
539	Zone-1	4	TRUE	60	104.28	60.2
540	Zone-1	7	TRUE	60	151.6	60.34
541	Zone-1	7	TRUE	60	150.32	60.4
542	Zone-1	5	TRUE	60	152.55	60
543	Zone-1	2	TRUE	60	200	60
544	Zone-1	3	TRUE	60	200	60
545	Zone-1	5	TRUE	60	149.76	60
546	Zone-1	4	TRUE	60	117.19	60.19
547	Zone-1	4	TRUE	60	116.78	60.19
548	Zone-1	5	TRUE	60	148.76	60.25
549	Zone-1	5	TRUE	60	140.05	60
550	Zone-1	4	TRUE	60	114.9	60.19
551	Zone-1	4	TRUE	60	118.84	60.17
552	Zone-1	3	TRUE	60	200	60
553	Zone-1	3	TRUE	60	200	60
554	Zone-1	4	TRUE	60	200	60
555	Zone-1	3	TRUE	60	200	60
556	Zone-1	5	TRUE	60	197.53	60
557	Zone-1	5	TRUE	60	199.67	60
558	Zone-1	5	TRUE	60	198.98	60
559	Zone-1	3	TRUE	60	200	60
560	Zone-1	3	TRUE	60	200	60.11
561	Zone-1	3	TRUE	60	200	60
562	Zone-1	4	TRUE	60	114.68	60.11
563	Zone-1	3	TRUE	60	200	60
564	Zone-1	3	TRUE	60	200	60
565	Zone-1	3	TRUE	60	200	60
566	Zone-1	3	TRUE	60	200	60
567	Zone-1	3	TRUE	60	200	60
568	Zone-1	3	TRUE	60	200	60
569	Zone-1	5	TRUE	60	195.88	60
570	Zone-1	5	TRUE	60	160.59	60
571	Zone-1	3	TRUE	60	200	60.34
572	Zone-1	3	TRUE	60	200	60
573	Zone-1	3	TRUE	60	200	60.04
574	Zone-1	2	TRUE	60	200	60
575	Zone-1	3	TRUE	60	200	60
576	Zone-1	4	TRUE	60	123.45	60
577	Zone-1	3	TRUE	60	200	60
578	Zone-1	3	TRUE	60	200	60.13
579	Zone-1	3	TRUE	60	200	60
580	Zone-1	5	TRUE	60	190.95	60.16
581	Zone-1	3	TRUE	60	200	60
582	Zone-1	3	TRUE	60	200	60.03
583	Zone-1	5	TRUE	60	190.49	60.19
584	Zone-1	2	TRUE	60	200	61.6
585	Zone-1	3	TRUE	60	200	60.93
586	Zone-1	3	TRUE	60	200	60
587	Zone-1	3	TRUE	60	200	60
588	Zone-1	3	TRUE	60	200	61.06
589	Zone-1	3	TRUE	60	200	60.93
590	Zone-1	3	TRUE	60	200	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
591	Zone-1	2	TRUE	60	200	60
592	Zone-1	3	TRUE	60	200	60.21
593	Zone-1	3	TRUE	60	200	60
594	Zone-1	3	TRUE	60	200	62
595	Zone-1	3	TRUE	60	200	60
596	Zone-1	5	TRUE	60	166.84	60.19
597	Zone-1	3	TRUE	60	200	60
598	Zone-1	4	TRUE	60	98.01	60
599	Zone-1	4	TRUE	60	100.77	60
600	Zone-1	4	TRUE	60	102.25	60
601	Zone-1	5	TRUE	60	128.99	60
602	Zone-1	5	TRUE	60	154.05	60
603	Zone-1	5	TRUE	60	144.85	60
604	Zone-1	7	TRUE	60	156.83	60
605	Zone-1	3	TRUE	60	200	60
606	Zone-1	5	TRUE	60	154.62	60.19
607	Zone-1	3	TRUE	60	200	60
608	Zone-1	3	TRUE	60	200	60.13
609	Zone-1	3	TRUE	60	200	60.13
610	Zone-1	3	TRUE	60	200	60.13
611	Zone-1	3	TRUE	60	200	60
612	Zone-1	4	TRUE	60	135.81	60
613	Zone-1	13	TRUE	60	74.32	60.09
614	Zone-1	4	TRUE	60	113.27	60.13
615	Zone-1	4	TRUE	60	76.76	60
616	Zone-1	3	TRUE	60	200	60
617	Zone-1	7	TRUE	60	164.08	60
618	Zone-1	5	TRUE	60	162.69	60
619	Zone-1	4	TRUE	60	96.26	60
620	Zone-1	4	TRUE	60	94.55	60
621	Zone-1	5	TRUE	60	134.8	60
622	Zone-1	4	TRUE	60	88.83	60
623	Zone-1	3	TRUE	60	66.24	60.13
624	Zone-1	3	TRUE	60	73.2	60
625	Zone-1	4	TRUE	60	78.21	60.19
626	Zone-1	4	TRUE	60	82.68	60
627	Zone-1	3	TRUE	60	200	60
628	Zone-1	4	TRUE	60	85.66	60
629	Zone-1	4	TRUE	60	97.87	60.19
630	Zone-1	3	TRUE	60	200	60
631	Zone-1	3	TRUE	60	200	60
635	Zone-1	3	TRUE	60	200	60
644	Zone-1	3	TRUE	60	200	60
645	Zone-1	3	TRUE	60	109.83	60.12
646	Zone-1	3	TRUE	60	200	60
647	Zone-1	7	TRUE	60	161.07	60
648	Zone-1	5	TRUE	60	132.19	60.25
649	Zone-1	6	TRUE	60	122.99	60
650	Zone-1	4	TRUE	60	109.22	60.25
651	Zone-1	4	TRUE	60	118.6	60.25
652	Zone-1	5	TRUE	60	126.16	60.25
653	Zone-1	4	TRUE	60	100.54	60.25

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
654	Zone-1	7	TRUE	60	152.12	60.3
655	Zone-1	5	TRUE	60	133.74	63.5
656	Zone-1	3	TRUE	60	200	60
657	Zone-1	5	TRUE	60	148.62	60.27
658	Zone-1	7	TRUE	60	152.75	60.35
659	Zone-1	4	TRUE	60	102.08	60
660	Zone-1	8	TRUE	60	153.96	60
661	Zone-1	8	TRUE	60	138.4	60
662	Zone-1	8	TRUE	60	132.11	60.19
663	Zone-1	7	TRUE	60	126.23	60.9
664	Zone-1	7	TRUE	60	125.61	60.06
665	Zone-1	3	TRUE	60	76.24	60.13
666	Zone-1	8	TRUE	60	130.58	60
667	Zone-1	23	TRUE	60	176.79	60.4
668	Zone-1	7	TRUE	60	178.28	60.4
669	Zone-1	5	TRUE	60	161.23	60.4
670	Zone-1	5	TRUE	60	163.43	60.49
671	Zone-1	4	TRUE	60	170.42	60
672	Zone-1	3	TRUE	60	200	60
673	Zone-1	2	TRUE	60	200	60.13
674	Zone-1	3	TRUE	60	200	60
675	Zone-1	3	TRUE	60	200	60
676	Zone-1	3	TRUE	60	200	60
677	Zone-1	3	TRUE	60	200	60.13
678	Zone-1	3	TRUE	60	200	60
679	Zone-1	5	TRUE	60	198.38	60
680	Zone-1	2	TRUE	60	200	60
681	Zone-1	3	TRUE	60	200	60
682	Zone-1	3	TRUE	60	200	60.66
683	Zone-1	3	TRUE	60	200	60
684	Zone-1	3	TRUE	60	200	60
685	Zone-1	3	TRUE	60	200	60
686	Zone-1	3	TRUE	60	200	60
687	Zone-1	3	TRUE	60	200	60
688	Zone-1	3	TRUE	60	200	60
689	Zone-1	3	TRUE	60	200	60.08
690	Zone-1	3	TRUE	60	200	60
691	Zone-1	2	TRUE	60	200	60.18
692	Zone-1	3	TRUE	60	200	60.08
693	Zone-1	4	TRUE	60	200	60.08
694	Zone-1	3	TRUE	60	200	60
695	Zone-1	3	TRUE	60	200	60
696	Zone-1	3	TRUE	60	200	60
697	Zone-1	3	TRUE	60	200	60
698	Zone-1	3	TRUE	60	200	60
699	Zone-1	3	TRUE	60	200	60
700	Zone-1	3	TRUE	60	200	60
701	Zone-1	3	TRUE	60	200	60
702	Zone-1	7	TRUE	60	144.62	60.55
703	Zone-1	5	TRUE	60	115.49	60.44
704	Zone-1	7	TRUE	60	125.25	60
705	Zone-1	5	TRUE	60	124.24	60.56

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
706	Zone-1	5	TRUE	60	123.55	60
707	Zone-1	2	TRUE	60	200	60.35
708	Zone-1	2	TRUE	60	200	60
709	Zone-1	2	TRUE	60	200	60
710	Zone-1	2	TRUE	60	200	60
711	Zone-1	3	TRUE	60	200	60
712	Zone-1	7	TRUE	60	146.47	60.3
713	Zone-1	4	TRUE	60	142.85	60
714	Zone-1	8	TRUE	60	173.78	60
720	Zone-1	7	TRUE	60	177.89	60.6
721	Zone-1	7	TRUE	60	148.63	60.4
722	Zone-1	5	TRUE	60	145.26	60.55
723	Zone-1	3	TRUE	60	71.79	60.4
724	Zone-1	8	TRUE	60	141.55	60.4
725	Zone-1	4	TRUE	60	92.97	60.42
726	Zone-1	8	TRUE	60	137.12	60
727	Zone-1	7	TRUE	60	124.34	60
728	Zone-1	5	TRUE	60	124.28	60
729	Zone-1	2	TRUE	60	200	60
730	Zone-1	3	TRUE	60	200	60
731	Zone-1	5	TRUE	60	196.3	60.17
732	Zone-1	4	TRUE	60	162.49	60
733	Zone-1	5	TRUE	60	184.5	60
734	Zone-1	5	TRUE	60	182.07	60
735	Zone-1	5	TRUE	60	184.38	60
736	Zone-1	4	TRUE	60	121.44	60
737	Zone-1	5	TRUE	60	176.93	60
738	Zone-1	4	TRUE	60	139.17	60
739	Zone-1	3	TRUE	60	200	60
740	Zone-1	5	TRUE	60	195.81	60
741	Zone-1	3	TRUE	60	200	60.35
742	Zone-1	3	TRUE	60	200	60
743	Zone-1	4	TRUE	60	109.96	60.35
754	Zone-1	2	TRUE	60	200	60
755	Zone-1	2	TRUE	60	200	60
757	Zone-1	2	TRUE	60	200	60
758	Zone-1	2	TRUE	60	200	60
759	Zone-1	2	TRUE	60	200	60
762	Zone-1	2	TRUE	60	200	60
763	Zone-1	2	TRUE	60	200	60
768	Zone-1	2	TRUE	60	200	60
770	Zone-1	2	TRUE	60	200	60
771	Zone-1	3	TRUE	60	200	60
772	Zone-1	2	TRUE	60	200	60
777	Zone-1	2	TRUE	60	200	60
778	Zone-1	4	TRUE	60	114.99	60
779	Zone-1	3	TRUE	60	200	60
780	Zone-1	3	TRUE	60	200	60.71
781	Zone-1	3	TRUE	60	200	60
782	Zone-1	3	TRUE	60	200	60
783	Zone-1	3	TRUE	60	200	60
784	Zone-1	3	TRUE	60	200	60.12

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
785	Zone-1	3	TRUE	60	200	60.12
786	Zone-1	3	TRUE	60	200	60.12
787	Zone-1	3	TRUE	60	200	60.12
788	Zone-1	3	TRUE	60	200	63
789	Zone-1	3	TRUE	60	200	60.67
790	Zone-1	3	TRUE	60	200	60
791	Zone-1	3	TRUE	60	200	60
792	Zone-1	3	TRUE	60	200	60
793	Zone-1	3	TRUE	60	200	60
795	Zone-1	3	TRUE	60	200	60.12
796	Zone-1	3	TRUE	60	200	60.12
797	Zone-1	3	TRUE	60	200	60
798	Zone-1	7	TRUE	60	129.54	60
799	Zone-1	4	TRUE	60	123.1	60
800	Zone-1	5	TRUE	60	128.99	60
801	Zone-1	8	TRUE	60	129.98	60
802	Zone-1	8	TRUE	60	129.39	60.51
803	Zone-1	7	TRUE	60	130.51	60
804	Zone-1	8	TRUE	60	127.83	60.46
805	Zone-1	8	TRUE	60	128.73	60
806	Zone-1	4	TRUE	60	117.62	60
807	Zone-1	7	TRUE	60	129.65	60
808	Zone-1	8	TRUE	60	126.5	62.42
809	Zone-1	8	TRUE	60	128.03	60
810	Zone-1	5	TRUE	60	127.2	60.31
811	Zone-1	4	TRUE	60	87.14	60.28
812	Zone-1	5	TRUE	60	124.29	60
813	Zone-1	4	TRUE	60	90.4	60.31
814	Zone-1	8	TRUE	60	131.47	60
815	Zone-1	5	TRUE	60	120.91	60
816	Zone-1	4	TRUE	60	116.03	60.55
817	Zone-1	4	TRUE	60	114.7	60.55
818	Zone-1	5	TRUE	60	121.53	60
819	Zone-1	5	TRUE	60	125.9	60.56
820	Zone-1	5	TRUE	60	122.15	60
821	Zone-1	7	TRUE	60	128.07	60
822	Zone-1	5	TRUE	60	135.5	60.71
823	Zone-1	8	TRUE	60	129.44	60
824	Zone-1	4	TRUE	60	121.67	60.97
825	Zone-1	5	TRUE	60	127.36	60
826	Zone-1	8	TRUE	60	158.27	60
827	Zone-1	4	TRUE	60	85.45	60
828	Zone-1	7	TRUE	60	170.19	60.6
829	Zone-1	5	TRUE	60	172.16	60.6
830	Zone-1	4	TRUE	60	157.84	60
831	Zone-1	4	TRUE	60	199.13	60
832	Zone-1	4	TRUE	60	126.5	60
833	Zone-1	4	TRUE	60	105.61	61
834	Zone-1	2	TRUE	60	200	60
835	Zone-1	2	TRUE	60	200	60.35
836	Zone-1	2	TRUE	60	200	60
837	Zone-1	3	TRUE	60	200	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
838	Zone-1	3	TRUE	60	200	60
839	Zone-1	3	TRUE	60	200	60
840	Zone-1	3	TRUE	60	200	60
841	Zone-1	3	TRUE	60	200	60
842	Zone-1	3	TRUE	60	65.49	60.4
843	Zone-1	5	TRUE	60	127.82	60
844	Zone-1	5	TRUE	60	125.99	60
845	Zone-1	8	TRUE	60	134.96	60.7
846	Zone-1	5	TRUE	60	125.43	60.54
847	Zone-1	8	TRUE	60	126.08	60.28
848	Zone-1	4	TRUE	60	105.36	60.59
849	Zone-1	2	TRUE	60	200	60
850	Zone-1	2	TRUE	60	200	60.15
851	Zone-1	4	TRUE	60	98.46	60.33
852	Zone-1	2	TRUE	60	200	60.13
853	Zone-1	3	TRUE	60	200	60
854	Zone-1	3	TRUE	60	89.27	60
855	Zone-1	2	TRUE	60	200	60
856	Zone-1	2	TRUE	60	200	60
857	Zone-1	2	TRUE	60	200	60.44
858	Zone-1	3	TRUE	60	96.51	60.28
859	Zone-1	2	TRUE	60	200	60.18
860	Zone-1	2	TRUE	60	200	60
861	Zone-1	4	TRUE	60	129.16	60.44
862	Zone-1	3	TRUE	60	200	60.5
863	Zone-1	3	TRUE	60	200	60.44
864	Zone-1	2	TRUE	60	200	60.18
A	Zone-1	5	TRUE	60	171.17	60
B	Zone-1	7	TRUE	60	175.19	60
J-1	Zone-1	7	TRUE	60	165.5	60
J-2	Zone-1	5	TRUE	60	171.85	62.88
J-3	Zone-1	7	TRUE	60	175.21	61.44
J-4	Zone-1	5	TRUE	60	157.28	60
J-866	Zone-1	2	TRUE	60	200	60
J-867	Zone-1	2	TRUE	60	200	60.98
J-868	Zone-1	2	TRUE	60	200	60
J-869	Zone-1	2	TRUE	60	200	60
J-870	Zone-1	2	TRUE	60	200	60
J-871	Zone-1	2	TRUE	60	200	60
J-872	Zone-1	4	TRUE	60	200	60
J-873	Zone-1	2	TRUE	60	200	60
J-874	Zone-1	2	TRUE	60	200	60
J-875	Zone-1	2	TRUE	60	200	60
J-876	Zone-1	2	TRUE	60	200	61.2
J-877	Zone-1	4	TRUE	60	104.24	60.92
J-878	Zone-1	4	TRUE	60	90.81	60
J-879	Zone-1	4	TRUE	60	102.83	60
J-880	Zone-1	3	TRUE	60	200	60
J-881	Zone-1	4	TRUE	60	128.34	60
J-882	Zone-1	4	TRUE	60	90.83	60
J-883	Zone-1	3	TRUE	60	76.95	60
J-884	Zone-1	3	TRUE	60	200	60

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)
J-885	Zone-1	4	TRUE	60	121.65	60
J-886	Zone-1	4	TRUE	60	103.38	60
J-887	Zone-1	4	TRUE	60	102.05	60
J-888	Zone-1	4	TRUE	60	103.22	60
J-889	Zone-1	4	TRUE	60	108.17	60
J-890	Zone-1	4	TRUE	60	104.49	60
J-891	Zone-1	3	TRUE	60	200	60
J-892	Zone-1	3	TRUE	60	200	60
J-893	Zone-1	3	TRUE	60	200	60
J-894	Zone-1	2	TRUE	60	200	66.8
J-899	Zone-1	5	TRUE	60	171.73	60.6
J-900	Zone-1	2	TRUE	60	200	60
J-904	Zone-1	3	TRUE	60	200	60
J-905	Zone-1	3	TRUE	60	200	60.4
J-906	Zone-1	3	TRUE	60	200	60
J-908	Zone-1	3	TRUE	60	200	60
J-919	Zone-1	6	TRUE	60	198.99	60.2
J-920	Zone-1	4	TRUE	60	174.07	60.6
J-921	Zone-1	4	TRUE	60	171.74	60.73
J-922	Zone-1	5	TRUE	60	178.96	60.3
J-923	Zone-1	3	TRUE	60	200	60.1
J-924	Zone-1	3	TRUE	60	200	60.6
J-925	Zone-1	3	TRUE	60	200	60.7
J-928	Zone-1	3	TRUE	60	200	60
J-931	Zone-1	3	TRUE	60	200	60

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
1	0	140	127	140	115.8
7	0	140	126.4	140	115.8
9	0	140	594	140	115.8
15	0	140	126.7	140	115.8
18	0	140	591.3	140	115.8
19	0	140	593.1	140	115.8
20	0	140	593.8	140	115.8
21	200	140	365.7	140	194
26	0	140	139	140	115.8
27	0	140	115.8	140	126.4
28	0	140	138.9	140	115.8
29	0	140	138.9	140	115.8
30	0	140	139	140	115.8
31	106.9	140	140.1	140	194.2
32	200	140	343.8	140	194
33	200	140	271.7	140	193.7
34	200	140	283.3	140	193.7
35	200	140	336.5	140	193.8
36	200.09	140	337.7	140	193.8
37	200.11	140	203.3	140	193.8
38	127.69	140	140	140	194
39	200	140	143.7	140	175.3
40	157.02	140	140.1	140	193.9
41	200.24	140	305	140	193.8
42	200	140	305.4	140	193.8
43	200	140	327	140	193.8
44	200.11	140	278.8	140	192.8
45	200	140	156	140	192.9
46	200.13	140	261.5	140	192.9
47	200	140	362.5	140	193.8
48	200	140	151.7	140	193.8
49	197.08	140	140	140	162.2
50	200.13	140	308.6	140	193.8
51	200	140	309.2	140	193.8
52	168.88	140	140	140	193.9
53	129.01	140	140	140	194
54	200	140	324.6	140	193.8
55	200	140	207.3	140	193.1
56	200	140	367.5	140	193.8
57	200	140	331.3	140	193.8
58	200	140	331.2	140	193.8
59	141.82	140	140	140	193.9
60	200.93	140	306.9	140	193.8
61	200	140	274.4	140	193.8
62	200.93	140	296.3	140	193.8
63	200	140	293	140	193.8
64	201.46	140	258.8	140	193.8
65	200.53	140	318.2	140	193.7
66	200	140	273.6	140	193.8
67	200	140	312.4	140	193.8
68	200	140	312	140	193.8
69	200.93	140	303.7	140	193.8

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
70	200.8	140	275.8	140	193.8
71	200	140	280.5	140	193.8
72	200	140	280.3	140	193.8
73	111.01	140	140	140	140
74	95.8	140	140	140	140
75	74.48	140	140.1	140	194.1
76	200	140	297.4	140	193.7
77	200	140	241.8	140	193.8
78	200.16	140	311.8	140	193.8
79	200.25	140	151.5	140	193.8
80	147.6	140	140.1	140	193.9
81	200.11	140	278.4	140	193.8
82	200	140	247.7	140	193.8
83	200.08	140	246	140	193.8
84	200.16	140	261.6	140	193.8
85	200.3	140	311.5	140	193.8
86	200	140	306.1	140	193.8
87	200	140	290.8	140	193.7
88	200	140	247.3	140	193.8
89	200.3	140	257.8	140	193.8
90	200	140	173.9	140	193.8
91	200.27	140	215.5	140	193.8
92	200	140	180.6	140	193.8
93	200	140	346.2	140	193.8
94	200	140	346.8	140	193.8
95	200	140	347.1	140	193.8
96	200	140	347	140	193.8
97	200	140	268	140	193.8
98	200	140	304.4	140	193.7
99	200.11	140	189.4	140	192.3
100	194.98	140	140	140	193.8
101	116.82	140	140	140	194
102	194.6	140	140	140	148.2
103	195.14	140	140	140	145.6
104	196.29	140	140	140	146.8
105	200	140	217.3	140	193.8
106	200	140	211.5	140	193.8
107	200	140	292.2	140	193.8
108	200	140	270.2	140	192.4
109	200.53	140	304.6	140	193.7
110	200	140	272.9	140	192.5
111	200	140	268.3	140	192.2
112	200	140	249.1	140	191.5
113	200	140	244.7	140	191.5
114	201.73	140	240.3	140	191.5
115	200	140	235.6	140	191
116	200	140	352.8	140	193.6
117	200	140	357.1	140	193.5
118	200	140	324.1	140	193.5
119	200	140	258.9	140	193.7
120	200	140	346.2	140	193.6
121	200.21	140	283.8	140	193.6

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
122	170.42	140	140	140	161.4
123	167.73	140	140	140	151.9
124	167.22	140	140	140	154.2
125	172.52	140	140	140	193.8
126	200	140	144.7	140	193.7
127	170.67	140	140	140	193.8
128	200	140	247.9	140	193.7
129	168.1	140	140	140	193.8
130	200	140	160.5	140	169.7
131	200.09	140	166.7	140	168.5
132	200	140	336.4	140	193.8
133	200	140	335.6	140	193.8
134	200	140	316.3	140	193.8
135	200	140	332.1	140	193.8
136	200	140	330.2	140	193.8
137	200	140	234.9	140	193.8
138	200	140	328.8	140	193.8
139	157.23	140	140	140	140
140	200	140	257.2	140	193.7
141	200	140	328	140	193.8
142	200.97	140	237.3	140	193.8
143	200	140	327.9	140	193.8
144	200	140	342.9	140	193.8
145	200	140	342.3	140	193.8
146	200.11	140	329.9	140	193.8
147	200	140	337.3	140	193.8
148	200.19	140	334.8	140	193.8
149	200	140	329.4	140	193.8
150	200	140	319.9	140	193.8
151	200	140	274	140	193.7
152	200	140	292.5	140	193.8
153	124.85	140	140	140	194
154	200	140	291.2	140	193.8
155	200	140	294.3	140	193.8
156	200.19	140	152.7	140	193.8
157	135.8	140	140	140	193.9
158	148.41	140	142	140	140
159	95.28	140	150.8	140	140
160	91.62	140	140	140	160.7
161	73.77	140	140	140	194.1
162	200.27	140	256.1	140	193.7
163	151	140	140	140	142
164	169.61	140	140.1	140	169.1
165	193.16	140	140	140	152.5
166	172.44	140	140.1	140	182.7
167	79.37	140	140.1	140	194.1
168	157.65	140	140	140	193.9
169	187.82	140	140	140	182.2
170	192.49	140	140	140	140
171	112.77	140	149.8	140	140
172	96.75	140	140	140	194.1
173	200	140	276	140	193.7

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
174	90.67	140	140	140	194.1
175	200	140	311.7	140	193.8
176	200.32	140	301	140	193.8
177	200.19	140	283.2	140	193.8
178	200.11	140	268.4	140	193.8
179	200.09	140	280	140	193.8
180	200.58	140	320.4	140	193.8
181	200	140	236.5	140	193.8
182	200.4	140	226.4	140	193.8
183	200	140	233.4	140	193.8
184	200	140	276.8	140	193.7
185	200.35	140	240.9	140	193.8
186	200	140	328	140	193.8
187	200	140	321	140	193.8
188	200	140	315.3	140	193.8
189	200	140	313.1	140	193.8
190	200	140	311.1	140	193.8
191	200	140	310.2	140	193.8
192	200	140	309.3	140	193.8
193	200	140	261.2	140	193.8
194	200	140	299	140	193.8
195	200	140	266	140	193.7
196	200	140	268.6	140	193.8
197	200	140	299.5	140	193.8
198	200	140	317.7	140	193.8
199	200.29	140	273.6	140	193.8
200	200	140	250.6	140	193.8
201	200	140	156.1	140	161
202	200	140	155.3	140	155.3
203	200	140	163.6	140	175.4
204	200	140	167.6	140	173.7
205	200	140	196.3	140	193.8
206	200	140	295.4	140	193.7
207	200	140	203.7	140	193.8
208	200	140	216.1	140	193.8
209	200.16	140	265.4	140	193.8
210	200.5	140	259.5	140	193.8
211	200	140	236.5	140	193.8
212	200.16	140	213.3	140	193.8
213	197.48	140	140	140	141.3
214	195.22	140	141.1	140	140
215	190.05	140	140	140	154.2
216	174.41	140	140	140	156.1
217	200	140	294.8	140	193.7
218	141.21	140	140	140	170.6
219	140.68	140	140	140	171
220	144.1	140	140	140	140
221	116.6	140	140	140	194
222	151.61	140	140	140	161.3
223	144.07	140	140	140	193.9
224	104.82	140	140	140	163.2
225	101.11	140	140	140	184.6

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
226	96.91	140	140	140	140
227	70.99	140	140.5	140	194.1
228	200	140	243.7	140	193.7
229	100.02	140	140	140	143.7
230	96.39	140	140	140	149.8
231	82.75	140	140.1	140	181.6
232	81	140	140.1	140	156.8
233	81.54	140	140.1	140	152.9
234	104.96	140	142.1	140	140
235	129.93	140	140	140	155.1
236	127.07	140	140	140	170.3
237	141.5	140	140	140	182.6
238	107.02	140	140	140	194.1
239	200	140	204.6	140	193.7
240	119.56	140	140	140	140
241	68.68	140	140	140	194.2
242	146.52	140	140.1	140	174.5
243	107.73	140	140	140	194.1
244	96.18	140	140	140	140
245	200	140	335.5	140	193.9
246	172.18	140	140	140	194
247	200	140	151.8	140	193.9
248	200.53	140	152.6	140	193.9
249	200	140	257	140	193.9
250	189.95	140	140	140	140
251	199.78	140	140	140	140
252	200.13	140	318	140	193.9
253	200	140	334.3	140	193.9
254	200	140	332.4	140	193.9
255	200	140	356.5	140	193.9
256	200.18	140	326.4	140	193.9
257	200	140	323.9	140	193.9
258	200.18	140	194.5	140	193.9
259	200.16	140	166.5	140	193.9
260	200.19	140	198.9	140	193.9
261	200.19	140	194.2	140	193.9
262	200	140	291.5	140	193.7
263	200.08	140	260.3	140	193.9
264	200	140	232.4	140	193.8
265	200.14	140	238.7	140	193.8
266	200	140	229.5	140	193.8
267	200	140	329.5	140	193.8
268	200.18	140	330	140	193.8
269	200	140	231.8	140	193.8
270	153.5	140	140.1	140	190
271	126.35	140	140.1	140	194
272	114.35	140	140	140	142.9
273	200	140	289.1	140	193.7
274	72.35	140	140.1	140	140.1
275	67.51	140	140	140	141
276	61.78	140	140	140	194.2
277	113.79	140	140	140	161.8

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
278	114.99	140	140	140	177.9
279	117.04	140	140	140	164.7
280	124.54	140	140.1	140	175.3
281	143.87	140	140	140	174.7
282	200	140	241.9	140	193.9
283	200.06	140	333	140	193.9
284	200	140	285.2	140	193.7
285	200.16	140	222.8	140	193.9
286	200.18	140	237.5	140	193.9
287	200	140	257.3	140	193.9
288	200	140	274.2	140	193.9
289	200	140	268.6	140	193.9
290	200.18	140	272.9	140	193.9
291	200	140	271.1	140	193.9
292	200.16	140	263.7	140	193.9
293	200	140	290.1	140	193.9
294	200	140	327.6	140	193.9
295	200	140	285.2	140	193.7
296	184.57	140	144.9	140	140
297	129.4	140	140.1	140	194
298	200.16	140	309.8	140	193.9
299	200	140	308.7	140	193.9
300	172.21	140	140	140	184.9
301	168.67	140	140	140	193.9
302	200.18	140	162.3	140	167.9
303	200	140	180.3	140	193.9
304	167.97	140	140	140	159.7
305	200	140	251.8	140	193.9
306	200	140	264.9	140	193.7
307	200	140	238.2	140	193.9
308	200.28	140	236.6	140	193.9
309	200	140	181.7	140	183
310	130.07	140	140.1	140	187.5
311	112.56	140	140	140	194.1
312	110.81	140	140	140	190
313	113.13	140	140	140	177.1
314	126.51	140	140.1	140	194
315	200	140	166.6	140	175.5
316	200	140	155.8	140	156.4
317	200	140	257.2	140	193.7
318	192.38	140	140	140	142.5
319	172.72	140	140	140	156.8
320	137.29	140	140	140	172.7
321	128.57	140	140.1	140	148.1
322	128	140	140.1	140	152.7
323	126.63	140	140.1	140	167.2
324	127	140	140.1	140	165.1
325	142.91	140	140	140	194
326	192.89	140	140	140	140
327	147.18	140	140	140	194
328	200	140	259.2	140	193.7
329	192.46	140	140	140	144.2

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
330	199.04	140	140	140	162.3
331	191.19	140	146.6	140	140
332	136.09	140	140	140	162
333	133.69	140	140	140	171.9
334	134.2	140	140	140	178.1
335	171.48	140	140	140	169.3
336	183.89	140	159.9	140	140
337	180.76	140	164.9	140	140
338	188.15	140	150.4	140	140
339	200	140	248.2	140	193.7
340	188.94	140	150.5	140	140
341	121.29	140	140.1	140	148.2
342	115.71	140	140	140	170.7
343	103.01	140	140	140	140
344	80.75	140	140	140	194.2
345	100.38	140	140	140	164.2
346	94.19	140	156.6	140	140
347	65.88	140	140	140	140
348	59.9	140	140.2	140	191.1
349	97.02	140	140	140	147.3
350	200.25	140	247.7	140	193.7
351	98.19	140	140	140	161.8
352	113.63	140	140.1	140	140.1
353	111.41	140	140	140	143
354	106.98	140	140	140	170.5
355	104.05	140	140	140	144.9
356	99.77	140	141.1	140	140.1
357	82.48	140	140	140	146.2
358	81.73	140	140	140	144.9
359	81.43	140	140	140	147.6
360	81.16	140	140	140	159.1
361	173.67	140	140	140	140
362	200	140	261.6	140	193.7
363	82.48	140	140	140	167.7
364	96.88	140	140	140	140
365	94.93	140	140	140	150.5
366	95.49	140	140	140	140
367	90.5	140	140	140	169.6
368	118.14	140	140.1	140	144
369	101.07	140	140	140	140
370	94.52	140	140	140	176.3
371	122.16	140	140	140	142.9
372	69.01	140	140.1	140	194.2
373	200.27	140	201.6	140	193.7
374	123.6	140	140	140	140
375	109.42	140	140	140	194.1
376	124.21	140	140	140	140.5
377	170.1	140	140	140	150.1
378	169.33	140	140	140	151.1
379	173.44	140	140	140	140
380	159.42	140	140	140	181.7
381	115.04	140	140.1	140	168.1

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
382	116.99	140	140.1	140	159.2
383	173.53	140	140	140	151.4
384	200	140	218.2	140	193.7
385	173.93	140	140	140	146.7
386	174.58	140	140	140	142.2
387	174.27	140	140	140	143.7
388	129.16	140	140	140	147.5
389	114.62	140	140.1	140	152.5
390	102.86	140	140	140	141.8
391	91.22	140	140	140	153.7
392	86.61	140	140	140	159.1
393	85.28	140	140	140	167.6
394	85.98	140	140	140	162.9
395	200	140	261.7	140	193.7
396	96.64	140	140	140	155.6
397	90.71	140	140	140	155.1
398	88.26	140	140	140	176.4
399	85.08	140	140	140	167.9
400	86.2	140	140	140	160.8
401	95.86	140	140	140	187.6
402	180.56	140	140	140	140
403	179.59	140	141.3	140	140
404	177.15	140	140	140	140.9
405	188.07	140	151.4	140	140
406	200.4	140	278.9	140	193.7
407	146.08	140	140	140	171.5
408	134.83	140	140	140	142.3
409	131.58	140	140	140	140
410	130.43	140	140	140	144.4
411	131.66	140	140	140	140
412	99.8	140	140	140	145.2
413	200	140	276.4	140	193.7
414	99.49	140	140	140	149.6
415	101.29	140	140	140	140
416	123.54	140	140	140	140
417	129.04	140	140	140	140
418	86.71	140	140	140	194.1
419	136.45	140	140	140	151.6
420	163.46	140	173.1	140	140
421	163.08	140	181.1	140	140
422	163.08	140	171.9	140	140
423	162.69	140	190.1	140	140
424	200	140	269.9	140	193.7
425	166.74	140	193	140	140
426	125.34	140	140.1	140	194.1
427	168.1	140	142	140	140
428	142.88	140	140	140	194
429	163	140	140	140	146.8
430	173.95	140	184.5	140	140
431	170.3	140	193.9	140	140
432	153.2	140	140	140	152.7
433	137.85	140	140	140	142.5

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
434	116.77	140	140.1	140	156.1
435	200	140	268.7	140	193.7
436	111.37	140	140	140	181.5
437	110.98	140	140	140	179.7
438	115.06	140	140.1	140	159.3
439	118	140	140.1	140	140.1
440	102.73	140	140	140	194.1
441	130.27	140	140	140	142
442	135.87	140	140	140	187.8
443	131.01	140	140	140	194.1
444	161.29	140	140	140	175.8
445	188.81	140	159.2	140	140
446	200	140	233.2	140	193.7
447	189.82	140	168.3	140	140
448	157.5	140	140	140	194
449	190.7	140	171.9	140	140
450	191.19	140	175.9	140	140
451	124.13	140	140.1	140	170
452	111.66	140	140	140	194.1
453	110.08	140	140	140	194.1
454	192.19	140	193	140	140
455	184.41	140	177.6	140	140
456	176.7	140	178.6	140	140
457	200.13	140	228.3	140	193.7
458	174.65	140	182.5	140	140
459	200	140	203.6	140	145.6
460	200.16	140	210.2	140	151.6
461	200	140	220.4	140	167.3
462	200.16	140	246.4	140	193.9
463	200	140	277.6	140	193.9
464	168.04	140	140	140	158.6
465	200	140	202.2	140	193.7
466	200	140	334.8	140	193.9
467	200	140	341.9	140	193.9
468	200	140	343.3	140	193.9
469	200	140	360.6	140	194
470	200.8	140	259.6	140	193.7
471	142.83	140	140	140	194
472	153.85	140	140	140	194
473	187.17	140	140	140	174.9
474	194.07	140	140	140	167.2
475	200	140	153.8	140	154.6
476	138.38	140	140	140	151.9
477	137.63	140	140	140	152.5
478	122.18	140	140.1	140	173.5
479	200	140	262.9	140	193.7
480	118.07	140	140.1	140	190.8
481	122.29	140	140.1	140	172.2
482	137.73	140	140	140	147.9
483	138.44	140	140	140	144.4
484	145.17	140	140	140	161.2
485	153.8	140	146.9	140	140

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
486	113.14	140	147.8	140	140
487	200	140	271.6	140	193.7
488	200	140	276.3	140	193.7
489	200.8	140	278.1	140	193.7
490	175.6	140	144.1	140	140
491	172.85	140	140	140	141.1
493	163.08	140	140	140	144.5
494	155.8	140	140	140	156.7
495	156.55	140	140	140	155.8
496	159.32	140	150.1	140	140
497	159.32	140	142.6	140	140
498	159.32	140	142.8	140	140
499	200	140	279.1	140	193.7
500	159.3	140	148.5	140	140
501	167.08	140	154.8	140	140
502	168.91	140	154.1	140	140
503	166.54	140	151.6	140	140
504	165.9	140	152.4	140	140
505	163.31	140	151.5	140	140
506	162.45	140	154.9	140	140
507	161.21	140	154.1	140	140
508	160.65	140	155.2	140	140
509	160.5	140	153.2	140	140
510	200	140	280.4	140	193.7
511	130.54	140	140	140	140.7
512	99.95	140	140	140	140
513	97.2	140	140	140	141
514	87.08	140	140	140	194.1
515	122.28	140	140.1	140	165.2
516	120.69	140	140.1	140	140.1
517	100.76	140	140	140	194.1
518	127.48	140	140	140	140
519	128.72	140	140	140	142.5
520	105.31	140	140	140	194.1
521	200.13	140	260.1	140	193.7
522	155.03	140	140	140	141.4
523	155.85	140	140	140	148.9
524	155.04	140	140	140	142.2
525	153.66	140	140	140	140
526	139.35	140	140	140	140
527	119.54	140	140.1	140	140.1
528	103.3	140	140	140	194.1
529	116.26	140	140.1	140	142.4
530	115.3	140	140.1	140	149.6
531	107.48	140	140	140	166.7
532	200.66	140	282.5	140	193.7
533	105.07	140	140	140	153.7
534	104.73	140	140	140	154.3
535	107.21	140	140	140	140
536	101.74	140	140	140	167.3
537	124.17	140	140	140	168.1
538	135.18	140	140	140	140

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
539	104.48	140	140	140	140
540	151.94	140	154.8	140	140
541	150.72	140	154.3	140	140
542	152.55	140	140	140	140.1
543	200	140	247.7	140	194.1
544	200	140	286.6	140	193.7
545	149.76	140	140	140	140
546	117.38	140	140.1	140	194.1
547	116.97	140	140.1	140	194.1
548	149.01	140	140	140	140
549	140.05	140	140	140	140
550	115.09	140	140.1	140	194.1
551	119.01	140	140.1	140	194.1
552	200	140	269.6	140	193.7
553	200	140	294	140	193.7
554	200	140	141.2	140	141.2
555	200	140	287.3	140	193.7
556	197.53	140	140	140	147.4
557	199.67	140	140	140	142
558	198.98	140	140	140	142
559	200	140	282.4	140	193.7
560	200.11	140	351.9	140	193.8
561	200	140	331.2	140	193.8
562	114.8	140	140	140	140
563	200	140	271.1	140	192.3
564	200	140	271.5	140	192.4
565	200	140	272.1	140	192.4
566	200	140	293.6	140	193.7
567	200	140	266.3	140	193.8
568	200	140	307.6	140	193.8
569	195.88	140	140	140	184.4
570	160.59	140	140	140	194
571	200.34	140	179.2	140	183.8
572	200	140	301.7	140	193.9
573	200.04	140	186.6	140	186.6
574	200	140	341.1	140	194.1
575	200	140	292.5	140	193.7
576	123.45	140	140	140	194
577	200	140	258.4	140	193.7
578	200.13	140	273.2	140	193.7
579	200	140	237.5	140	193.8
580	191.12	140	140	140	193.8
581	200	140	293.5	140	193.7
582	200.03	140	277.1	140	193.8
583	190.68	140	140	140	183.3
584	201.6	140	367.3	140	193.8
585	200.93	140	329.2	140	193.8
586	200	140	303.4	140	193.8
587	200	140	302.3	140	193.7
588	201.06	140	285.8	140	193.8
589	200.93	140	303.1	140	193.8
590	200	140	237	140	193.8

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
591	200	140	346.5	140	193.5
592	200.21	140	189.5	140	193.8
593	200	140	268.1	140	193.8
594	202	140	269.4	140	193.8
595	200	140	326.1	140	193.8
596	167.03	140	140	140	145.9
597	200	140	303.8	140	193.7
598	98.01	140	140	140	155.6
599	100.77	140	140	140	140
600	102.25	140	140	140	140
601	128.99	140	140	140	166.5
602	154.05	140	140	140	149
603	144.85	140	140	140	159.2
604	156.83	140	151.7	140	140
605	200	140	280.1	140	193.8
606	154.81	140	140	140	147.3
607	200	140	213.5	140	193.8
608	200.13	140	304.7	140	193.7
609	200.13	140	251.5	140	193.8
610	200.13	140	248.7	140	193.8
611	200	140	188.3	140	193.8
612	135.81	140	140	140	194
613	74.41	140	140.3	140	194.2
614	113.4	140	140.1	140	140.1
615	76.76	140	140	140	194.2
616	200	140	288.9	140	193.8
617	164.08	140	159.8	140	140.1
618	162.69	140	140	140	140
619	96.26	140	140	140	194.1
620	94.55	140	140	140	194.1
621	134.8	140	140	140	140
622	88.83	140	140	140	194.1
623	66.38	140	140	140	194.2
624	73.2	140	140.2	140	140.2
625	78.4	140	140	140	140
626	82.68	140	140	140	140
627	200	140	316.2	140	193.8
628	85.66	140	140	140	140
629	98.06	140	140	140	140
630	200	140	282.6	140	193.7
631	200	140	274.2	140	193.7
635	200	140	293.3	140	193.8
644	200	140	321.2	140	193.8
645	109.95	140	140.1	140	194.2
646	200	140	308.7	140	193.8
647	161.07	140	154	140	140
648	132.44	140	140	140	151.8
649	122.99	140	144.9	140	140
650	109.47	140	140	140	194.1
651	118.85	140	140.1	140	194.1
652	126.41	140	140	140	144.9
653	100.79	140	140	140	194.1

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
654	152.42	140	154.8	140	140
655	137.24	140	140	140	186.8
656	200	140	195.5	140	193.8
657	148.89	140	140	140	144.9
658	153.1	140	158.9	140	140
659	102.08	140	140	140	194.1
660	153.96	140	188.9	140	140
661	138.4	140	173	140	140
662	132.3	140	188.6	140	140
663	127.13	140	146.7	140	140
664	125.67	140	150.7	140	140
665	76.37	140	140.1	140	194.1
666	130.58	140	190.6	140	140
667	177.19	140	166.6	140	140.1
668	178.68	140	167.6	140	140
669	161.63	140	140	140	166.6
670	163.93	140	140	140	154.5
671	170.42	140	140.1	140	140.1
672	200	140	227.2	140	193.8
673	200.13	140	308.9	140	193.8
674	200	140	290	140	193.8
675	200	140	162.2	140	193.8
676	200	140	291.8	140	193.8
677	200.13	140	290.1	140	193.8
678	200	140	192.9	140	193.8
679	198.38	140	140	140	193.8
680	200	140	279.1	140	194.1
681	200	140	283.5	140	193.8
682	200.66	140	278.6	140	193.8
683	200	140	275.5	140	193.8
684	200	140	271.3	140	193.8
685	200	140	273.6	140	193.8
686	200	140	270.4	140	193.8
687	200	140	172.1	140	174.4
688	200	140	173.5	140	174.3
689	200.08	140	208.4	140	193.7
690	200	140	172.4	140	180.4
691	200.18	140	390.8	140	194.1
692	200.08	140	149.2	140	180
693	200.08	140	147.6	140	168.5
694	200	140	160.8	140	166.1
695	200	140	219.7	140	193.7
696	200	140	219.2	140	193.7
697	200	140	213.3	140	193.7
698	200	140	215.6	140	193.7
699	200	140	230.3	140	193.7
700	200	140	252.2	140	193.7
701	200	140	265.7	140	193.7
702	145.17	140	171.1	140	140.1
703	115.93	140	140	140	157.7
704	125.25	140	152.5	140	140
705	124.8	140	140	140	140.7

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
706	123.55	140	140	140	142.1
707	200.35	140	340.4	140	193.8
708	200	140	358.3	140	193.8
709	200	140	360.8	140	193.8
710	200	140	359.8	140	193.8
711	200	140	214.2	140	193.8
712	146.77	140	165	140	140
713	142.85	140	140	140	193.9
714	173.78	140	165.5	140	140
720	178.49	140	150	140	140
721	149.03	140	162.6	140	140
722	145.81	140	140	140	152.6
723	72.19	140	140.1	140	194.2
724	141.95	140	173.3	140	140
725	93.39	140	140	140	194.1
726	137.12	140	176	140	140
727	124.34	140	149.5	140	140
728	124.28	140	140	140	140.6
729	200	140	338.1	140	193.8
730	200	140	177.6	140	177.6
731	196.47	140	140	140	140
732	162.49	140	140.1	140	145.3
733	184.5	140	140	140	152.5
734	182.07	140	140	140	140
735	184.38	140	140	140	154.3
736	121.44	140	140	140	194
737	176.93	140	140	140	193.9
738	139.17	140	140	140	148.9
739	200	140	237.7	140	193.7
740	195.81	140	140	140	188.2
741	200.35	140	192.5	140	193.7
742	200	140	181.6	140	179.7
743	110.31	140	140	140	194
754	200	140	191.6	140	191.1
755	200	140	196.4	140	193.6
757	200	140	195.3	140	193.9
758	200	140	187.4	140	193.9
759	200	140	194.6	140	193.6
762	200	140	385.4	140	193.5
763	200	140	386.6	140	193.5
768	200	140	384	140	193.4
770	200	140	386.8	140	193.5
771	200	140	231.9	140	190.9
772	200	140	187.8	140	191.6
777	200	140	195.1	140	193.9
778	114.99	140	140	140	194
779	200	140	298.7	140	193.8
780	200.71	140	308.1	140	193.8
781	200	140	305.8	140	193.8
782	200	140	317.5	140	193.8
783	200	140	292.6	140	193.8
784	200.12	140	295.8	140	193.8

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
785	200.12	140	294.7	140	193.8
786	200.12	140	298.1	140	193.8
787	200.12	140	278.6	140	193.8
788	203	140	296.6	140	193.8
789	200.67	140	325.4	140	193.8
790	200	140	329.3	140	193.8
791	200	140	335.4	140	193.8
792	200	140	334.5	140	193.8
793	200	140	354.4	140	193.8
795	200.12	140	266.2	140	193.8
796	200.12	140	277	140	193.8
797	200	140	324.1	140	193.8
798	129.54	140	158.7	140	140
799	123.1	140	140.1	140	140.1
800	128.99	140	140	140	140
801	129.98	140	190.4	140	140
802	129.91	140	188	140	140
803	130.51	140	165.2	140	140.1
804	128.3	140	195.7	140	140
805	128.73	140	186.6	140	140
806	117.62	140	140.1	140	176.6
807	129.65	140	169.7	140	140.1
808	128.92	140	203.5	140	140
809	128.03	140	185.9	140	140
810	127.51	140	140	140	145.3
811	87.42	140	140	140	194.1
812	124.29	140	140	140	140
813	90.71	140	140	140	194.1
814	131.47	140	174.3	140	140
815	120.91	140	140	140	144
816	116.58	140	140.1	140	160.1
817	115.25	140	140.1	140	165.3
818	121.53	140	140	140	141.1
819	126.46	140	140	140	140
820	122.15	140	140	140	153.9
821	128.07	140	176.6	140	140.1
822	136.21	140	140	140	147.7
823	129.44	140	177.8	140	140
824	122.64	140	140.1	140	166.5
825	127.36	140	140	140	194.1
826	158.27	140	189.4	140	140
827	85.45	140	140	140	194.2
828	170.79	140	157	140	140.1
829	172.76	140	140	140	148.7
830	157.84	140	140	140	193.9
831	199.13	140	140.1	140	193.7
832	126.5	140	140	140	194
833	106.61	140	140	140	194
834	200	140	354.8	140	193.8
835	200.35	140	287.7	140	193.8
836	200	140	337.3	140	193.8
837	200	140	238.1	140	193.7

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
838	200	140	229.7	140	193.7
839	200	140	215.4	140	193.7
840	200	140	198.1	140	193.7
841	200	140	195	140	193.7
842	65.89	140	140	140	194.2
843	127.82	140	140	140	141.9
844	125.99	140	140	140	148.6
845	135.66	140	179.5	140	140
846	125.96	140	140	140	152.7
847	126.36	140	181.6	140	140
848	105.95	140	140.1	140	194.1
849	200	140	362.5	140	193.9
850	200.15	140	360.3	140	193.8
851	98.8	140	140	140	194.1
852	200.13	140	287.9	140	193.9
853	200	140	215.1	140	193.9
854	89.27	140	140.1	140	194.1
855	200	140	272.5	140	194
856	200	140	338.6	140	194
857	200.44	140	312.5	140	194
858	96.8	140	140.1	140	194.2
859	200.18	140	373.1	140	193.9
860	200	140	377.3	140	193.9
861	129.6	140	140	140	140
862	200.5	140	194.8	140	193.9
863	200.44	140	225.6	140	193.9
864	200.18	140	365.4	140	193.9
A	171.17	140	140	140	147.1
B	175.19	140	164.3	140	140
J-1	165.5	140	149.8	140	140
J-2	174.73	140	140	140	143.1
J-3	176.65	140	153.8	140	140
J-4	157.28	140	140	140	175.1
J-866	200	140	374.4	140	193.9
J-867	200.98	140	341.7	140	193.9
J-868	200	140	342.8	140	193.9
J-869	200	140	265.3	140	193.9
J-870	200	140	250.2	140	193.9
J-871	200	140	283.9	140	193.9
J-872	200	140	141.7	140	193.9
J-873	200	140	368.4	140	193.9
J-874	200	140	318.2	140	193.9
J-875	200	140	327.1	140	193.8
J-876	201.2	140	380.2	140	193.9
J-877	105.16	140	140	140	140
J-878	90.81	140	140	140	194.1
J-879	102.83	140	140	140	148.1
J-880	200	140	304.9	140	193.8
J-881	128.34	140	140	140	140
J-882	90.83	140	140	140	194.1
J-883	76.95	140	140.1	140	194.1
J-884	200	140	203.8	140	193.8

Label	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)	Pressure (Zone Lower Limit) (kPa)	Pressure (Calculated Zone Lower Limit) (kPa)
J-885	121.65	140	140	140	140
J-886	103.38	140	140	140	166.4
J-887	102.05	140	140	140	173.6
J-888	103.22	140	140	140	163.9
J-889	108.17	140	140	140	156.5
J-890	104.49	140	140	140	194
J-891	200	140	298.3	140	193.7
J-892	200	140	286.4	140	193.7
J-893	200	140	288.2	140	193.7
J-894	206.8	140	427.2	140	194.1
J-899	172.33	140	140	140	156.9
J-900	200	140	360.4	140	193.9
J-904	200	140	303.7	140	193.8
J-905	200.4	140	309.7	140	193.8
J-906	200	140	255.9	140	193.9
J-908	200	140	217.3	140	193.9
J-919	199.19	140	151.3	140	140
J-920	174.67	140	140.1	140	154.8
J-921	172.47	140	140.1	140	164.9
J-922	179.26	140	140	140	152.1
J-923	200.1	140	319.4	140	193.8
J-924	200.6	140	249.7	140	193.8
J-925	200.7	140	182.2	140	193.8
J-928	200	140	252.6	140	193.8
J-931	200	140	321	140	193.8

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
1	27	(N/A)	115.8	27	TRUE
7	27	(N/A)	115.8	27	TRUE
9	27	(N/A)	115.8	27	TRUE
15	27	(N/A)	115.8	27	TRUE
18	27	(N/A)	115.8	27	TRUE
19	27	(N/A)	115.8	27	TRUE
20	27	(N/A)	115.8	27	TRUE
21	772	(N/A)	114.7	27	TRUE
26	27	(N/A)	115.8	27	TRUE
27	7	(N/A)	126.4	7	TRUE
28	27	(N/A)	115.8	27	TRUE
29	27	(N/A)	115.8	27	TRUE
30	27	(N/A)	115.8	27	TRUE
31	772	(N/A)	115.7	27	TRUE
32	772	(N/A)	115.7	27	TRUE
33	772	(N/A)	115.4	27	TRUE
34	772	(N/A)	115.4	27	TRUE
35	772	(N/A)	115.4	27	TRUE
36	772	(N/A)	115.4	27	TRUE
37	772	(N/A)	115.4	27	TRUE
38	772	(N/A)	115.6	27	TRUE
39	580	(N/A)	115.4	27	TRUE
40	772	(N/A)	115.5	27	TRUE
41	772	(N/A)	115.5	27	TRUE
42	772	(N/A)	115.5	27	TRUE
43	772	(N/A)	115.5	27	TRUE
44	758	(N/A)	115.5	27	TRUE
45	758	(N/A)	115.5	27	TRUE
46	758	(N/A)	115.5	27	TRUE
47	772	(N/A)	115.4	27	TRUE
48	772	(N/A)	115.4	27	TRUE
49	583	(N/A)	115.4	27	TRUE
50	772	(N/A)	115.5	27	TRUE
51	772	(N/A)	115.5	27	TRUE
52	772	(N/A)	115.5	27	TRUE
53	772	(N/A)	115.6	27	TRUE
54	772	(N/A)	115.5	27	TRUE
55	758	(N/A)	115.5	27	TRUE
56	772	(N/A)	115.4	27	TRUE
57	772	(N/A)	115.4	27	TRUE
58	772	(N/A)	115.4	27	TRUE
59	772	(N/A)	115.5	27	TRUE
60	772	(N/A)	115.4	27	TRUE
61	772	(N/A)	115.4	27	TRUE
62	772	(N/A)	115.5	27	TRUE
63	772	(N/A)	115.5	27	TRUE
64	772	(N/A)	115.4	27	TRUE
65	772	(N/A)	115.5	27	TRUE
66	772	(N/A)	115.4	27	TRUE
67	772	(N/A)	115.4	27	TRUE
68	772	(N/A)	115.4	27	TRUE
69	772	(N/A)	115.4	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
70	772	(N/A)	115.4	27	TRUE
71	772	(N/A)	115.4	27	TRUE
72	772	(N/A)	115.4	27	TRUE
73	75	(N/A)	115.6	27	TRUE
74	75	(N/A)	115.6	27	TRUE
75	772	(N/A)	115.7	27	TRUE
76	772	(N/A)	115.5	27	TRUE
77	772	(N/A)	115.4	27	TRUE
78	772	(N/A)	115.4	27	TRUE
79	772	(N/A)	115.4	27	TRUE
80	772	(N/A)	115.5	27	TRUE
81	772	(N/A)	115.4	27	TRUE
82	772	(N/A)	115.4	27	TRUE
83	772	(N/A)	115.4	27	TRUE
84	772	(N/A)	115.4	27	TRUE
85	772	(N/A)	115.4	27	TRUE
86	772	(N/A)	115.4	27	TRUE
87	772	(N/A)	115.5	27	TRUE
88	772	(N/A)	115.4	27	TRUE
89	772	(N/A)	115.4	27	TRUE
90	772	(N/A)	115.4	27	TRUE
91	772	(N/A)	115.4	27	TRUE
92	772	(N/A)	115.4	27	TRUE
93	772	(N/A)	115.4	27	TRUE
94	772	(N/A)	115.4	27	TRUE
95	772	(N/A)	115.4	27	TRUE
96	772	(N/A)	115.4	27	TRUE
97	772	(N/A)	115.4	27	TRUE
98	772	(N/A)	115.5	27	TRUE
99	101	(N/A)	115.4	27	TRUE
100	772	(N/A)	115.5	27	TRUE
101	772	(N/A)	115.6	27	TRUE
102	103	(N/A)	115.5	27	TRUE
103	102	(N/A)	115.5	27	TRUE
104	103	(N/A)	115.5	27	TRUE
105	772	(N/A)	115.4	27	TRUE
106	772	(N/A)	115.4	27	TRUE
107	772	(N/A)	115.4	27	TRUE
108	758	(N/A)	115.6	27	TRUE
109	772	(N/A)	115.5	27	TRUE
110	758	(N/A)	115.6	27	TRUE
111	758	(N/A)	115.6	27	TRUE
112	758	(N/A)	115.6	27	TRUE
113	758	(N/A)	115.6	27	TRUE
114	758	(N/A)	115.6	27	TRUE
115	758	(N/A)	115.6	27	TRUE
116	772	(N/A)	115.6	27	TRUE
117	772	(N/A)	115.6	27	TRUE
118	772	(N/A)	115.6	27	TRUE
119	772	(N/A)	115.5	27	TRUE
120	772	(N/A)	115.5	27	TRUE
121	772	(N/A)	115.5	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
122	123	(N/A)	115.6	27	TRUE
123	124	(N/A)	115.6	27	TRUE
124	123	(N/A)	115.6	27	TRUE
125	772	(N/A)	115.6	27	TRUE
126	772	(N/A)	115.5	27	TRUE
127	772	(N/A)	115.6	27	TRUE
128	772	(N/A)	115.5	27	TRUE
129	772	(N/A)	115.6	27	TRUE
130	131	(N/A)	115.5	27	TRUE
131	130	(N/A)	115.5	27	TRUE
132	772	(N/A)	115.5	27	TRUE
133	772	(N/A)	115.5	27	TRUE
134	772	(N/A)	115.5	27	TRUE
135	772	(N/A)	115.5	27	TRUE
136	772	(N/A)	115.5	27	TRUE
137	772	(N/A)	115.5	27	TRUE
138	772	(N/A)	115.5	27	TRUE
139	31	(N/A)	115.7	27	TRUE
140	772	(N/A)	115.5	27	TRUE
141	772	(N/A)	115.5	27	TRUE
142	772	(N/A)	115.5	27	TRUE
143	772	(N/A)	115.5	27	TRUE
144	772	(N/A)	115.5	27	TRUE
145	772	(N/A)	115.5	27	TRUE
146	772	(N/A)	115.5	27	TRUE
147	772	(N/A)	115.5	27	TRUE
148	772	(N/A)	115.5	27	TRUE
149	772	(N/A)	115.5	27	TRUE
150	772	(N/A)	115.5	27	TRUE
151	772	(N/A)	115.5	27	TRUE
152	772	(N/A)	115.5	27	TRUE
153	772	(N/A)	115.6	27	TRUE
154	772	(N/A)	115.5	27	TRUE
155	772	(N/A)	115.5	27	TRUE
156	772	(N/A)	115.5	27	TRUE
157	772	(N/A)	115.6	27	TRUE
158	161	(N/A)	115.6	27	TRUE
159	161	(N/A)	115.7	27	TRUE
160	161	(N/A)	115.7	27	TRUE
161	772	(N/A)	115.7	27	TRUE
162	772	(N/A)	115.5	27	TRUE
163	161	(N/A)	115.6	27	TRUE
164	163	(N/A)	115.5	27	TRUE
165	164	(N/A)	115.5	27	TRUE
166	167	(N/A)	115.5	27	TRUE
167	772	(N/A)	115.7	27	TRUE
168	772	(N/A)	115.6	27	TRUE
169	172	(N/A)	115.5	27	TRUE
170	172	(N/A)	115.5	27	TRUE
171	172	(N/A)	115.6	27	TRUE
172	772	(N/A)	115.7	27	TRUE
173	772	(N/A)	115.5	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
174	772	(N/A)	115.7	27	TRUE
175	772	(N/A)	115.5	27	TRUE
176	772	(N/A)	115.5	27	TRUE
177	772	(N/A)	115.5	27	TRUE
178	772	(N/A)	115.5	27	TRUE
179	772	(N/A)	115.5	27	TRUE
180	772	(N/A)	115.5	27	TRUE
181	772	(N/A)	115.5	27	TRUE
182	772	(N/A)	115.5	27	TRUE
183	772	(N/A)	115.5	27	TRUE
184	772	(N/A)	115.5	27	TRUE
185	772	(N/A)	115.5	27	TRUE
186	772	(N/A)	115.3	27	TRUE
187	772	(N/A)	115.3	27	TRUE
188	772	(N/A)	115.3	27	TRUE
189	772	(N/A)	115.3	27	TRUE
190	772	(N/A)	115.3	27	TRUE
191	772	(N/A)	115.3	27	TRUE
192	772	(N/A)	115.3	27	TRUE
193	772	(N/A)	115.3	27	TRUE
194	772	(N/A)	115.3	27	TRUE
195	772	(N/A)	115.5	27	TRUE
196	772	(N/A)	115.3	27	TRUE
197	772	(N/A)	115.3	27	TRUE
198	772	(N/A)	115.2	27	TRUE
199	772	(N/A)	115.3	27	TRUE
200	772	(N/A)	115.4	27	TRUE
201	671	(N/A)	115.4	27	TRUE
202	612	(N/A)	115.4	27	TRUE
203	204	(N/A)	115.3	27	TRUE
204	203	(N/A)	115.3	27	TRUE
205	772	(N/A)	115.3	27	TRUE
206	772	(N/A)	115.5	27	TRUE
207	772	(N/A)	115.3	27	TRUE
208	772	(N/A)	115.3	27	TRUE
209	772	(N/A)	115.3	27	TRUE
210	772	(N/A)	115.3	27	TRUE
211	772	(N/A)	115.3	27	TRUE
212	772	(N/A)	115.3	27	TRUE
213	218	(N/A)	115.3	27	TRUE
214	218	(N/A)	115.4	27	TRUE
215	218	(N/A)	115.4	27	TRUE
216	218	(N/A)	115.4	27	TRUE
217	772	(N/A)	115.5	27	TRUE
218	219	(N/A)	115.5	27	TRUE
219	218	(N/A)	115.5	27	TRUE
220	221	(N/A)	115.5	27	TRUE
221	772	(N/A)	115.5	27	TRUE
222	221	(N/A)	115.5	27	TRUE
223	772	(N/A)	115.4	27	TRUE
224	225	(N/A)	115.5	27	TRUE
225	224	(N/A)	115.5	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
226	227	(N/A)	115.5	27	TRUE
227	772	(N/A)	115.6	27	TRUE
228	772	(N/A)	115.5	27	TRUE
229	230	(N/A)	115.5	27	TRUE
230	231	(N/A)	115.5	27	TRUE
231	232	(N/A)	115.5	27	TRUE
232	233	(N/A)	115.5	27	TRUE
233	232	(N/A)	115.5	27	TRUE
234	233	(N/A)	115.4	27	TRUE
235	236	(N/A)	115.3	27	TRUE
236	235	(N/A)	115.3	27	TRUE
237	238	(N/A)	115.3	27	TRUE
238	772	(N/A)	115.4	27	TRUE
239	772	(N/A)	115.5	27	TRUE
240	241	(N/A)	115.3	27	TRUE
241	772	(N/A)	115.5	27	TRUE
242	243	(N/A)	115.2	27	TRUE
243	772	(N/A)	115.4	27	TRUE
244	613	(N/A)	115.4	27	TRUE
245	772	(N/A)	114.9	27	TRUE
246	772	(N/A)	115	27	TRUE
247	772	(N/A)	114.9	27	TRUE
248	772	(N/A)	114.9	27	TRUE
249	772	(N/A)	114.9	27	TRUE
250	31	(N/A)	115.7	27	TRUE
251	558	(N/A)	115.5	27	TRUE
252	772	(N/A)	114.9	27	TRUE
253	772	(N/A)	114.9	27	TRUE
254	772	(N/A)	114.9	27	TRUE
255	772	(N/A)	114.9	27	TRUE
256	772	(N/A)	115	27	TRUE
257	772	(N/A)	115	27	TRUE
258	772	(N/A)	115	27	TRUE
259	772	(N/A)	115.1	27	TRUE
260	772	(N/A)	115.1	27	TRUE
261	772	(N/A)	115.1	27	TRUE
262	772	(N/A)	115.5	27	TRUE
263	772	(N/A)	115.1	27	TRUE
264	772	(N/A)	115.2	27	TRUE
265	772	(N/A)	115.2	27	TRUE
266	772	(N/A)	115.2	27	TRUE
267	772	(N/A)	115.2	27	TRUE
268	772	(N/A)	115.2	27	TRUE
269	772	(N/A)	115.2	27	TRUE
270	271	(N/A)	115.3	27	TRUE
271	772	(N/A)	115.4	27	TRUE
272	275	(N/A)	115.4	27	TRUE
273	772	(N/A)	115.5	27	TRUE
274	275	(N/A)	115.5	27	TRUE
275	276	(N/A)	115.5	27	TRUE
276	772	(N/A)	115.6	27	TRUE
277	272	(N/A)	115.4	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
278	279	(N/A)	115.4	27	TRUE
279	278	(N/A)	115.4	27	TRUE
280	279	(N/A)	115.4	27	TRUE
281	280	(N/A)	115.3	27	TRUE
282	772	(N/A)	115.1	27	TRUE
283	772	(N/A)	115.2	27	TRUE
284	772	(N/A)	115.5	27	TRUE
285	772	(N/A)	115.1	27	TRUE
286	772	(N/A)	115.1	27	TRUE
287	772	(N/A)	115.1	27	TRUE
288	772	(N/A)	115.1	27	TRUE
289	772	(N/A)	115.1	27	TRUE
290	772	(N/A)	115.1	27	TRUE
291	772	(N/A)	115.1	27	TRUE
292	772	(N/A)	115.1	27	TRUE
293	772	(N/A)	115.1	27	TRUE
294	772	(N/A)	115.1	27	TRUE
295	772	(N/A)	115.5	27	TRUE
296	297	(N/A)	115.1	27	TRUE
297	772	(N/A)	115.3	27	TRUE
298	772	(N/A)	115.1	27	TRUE
299	772	(N/A)	115.1	27	TRUE
300	301	(N/A)	115.2	27	TRUE
301	772	(N/A)	115.2	27	TRUE
302	569	(N/A)	115.1	27	TRUE
303	772	(N/A)	115.1	27	TRUE
304	314	(N/A)	115.2	27	TRUE
305	772	(N/A)	115.1	27	TRUE
306	772	(N/A)	115.5	27	TRUE
307	772	(N/A)	115.1	27	TRUE
308	772	(N/A)	115.1	27	TRUE
309	571	(N/A)	115	27	TRUE
310	311	(N/A)	115.3	27	TRUE
311	772	(N/A)	115.3	27	TRUE
312	313	(N/A)	115.3	27	TRUE
313	312	(N/A)	115.3	27	TRUE
314	772	(N/A)	115.3	27	TRUE
315	316	(N/A)	115	27	TRUE
316	318	(N/A)	115	27	TRUE
317	772	(N/A)	115.5	27	TRUE
318	319	(N/A)	115	27	TRUE
319	320	(N/A)	115.1	27	TRUE
320	321	(N/A)	115.2	27	TRUE
321	322	(N/A)	115.2	27	TRUE
322	321	(N/A)	115.2	27	TRUE
323	324	(N/A)	115.2	27	TRUE
324	323	(N/A)	115.2	27	TRUE
325	772	(N/A)	115.2	27	TRUE
326	327	(N/A)	115	27	TRUE
327	772	(N/A)	115.2	27	TRUE
328	772	(N/A)	115.4	27	TRUE
329	327	(N/A)	115	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
330	825	(N/A)	115	27	TRUE
331	825	(N/A)	115	27	TRUE
332	333	(N/A)	115.2	27	TRUE
333	332	(N/A)	115.2	27	TRUE
334	333	(N/A)	115.2	27	TRUE
335	825	(N/A)	115.1	27	TRUE
336	825	(N/A)	115	27	TRUE
337	825	(N/A)	115	27	TRUE
338	825	(N/A)	115	27	TRUE
339	772	(N/A)	115.4	27	TRUE
340	825	(N/A)	115	27	TRUE
341	342	(N/A)	115.3	27	TRUE
342	344	(N/A)	115.3	27	TRUE
343	344	(N/A)	115.3	27	TRUE
344	772	(N/A)	115.4	27	TRUE
345	598	(N/A)	115.3	27	TRUE
346	348	(N/A)	115.4	27	TRUE
347	348	(N/A)	115.5	27	TRUE
348	347	(N/A)	115.5	27	TRUE
349	348	(N/A)	115.3	27	TRUE
350	772	(N/A)	115.4	27	TRUE
351	349	(N/A)	115.3	27	TRUE
352	353	(N/A)	115.3	27	TRUE
353	355	(N/A)	115.3	27	TRUE
354	353	(N/A)	115.3	27	TRUE
355	623	(N/A)	115.3	27	TRUE
356	623	(N/A)	115.3	27	TRUE
357	358	(N/A)	115.4	27	TRUE
358	359	(N/A)	115.4	27	TRUE
359	358	(N/A)	115.4	27	TRUE
360	359	(N/A)	115.4	27	TRUE
361	464	(N/A)	115.7	27	TRUE
362	772	(N/A)	115.4	27	TRUE
363	360	(N/A)	115.4	27	TRUE
364	366	(N/A)	115.3	27	TRUE
365	367	(N/A)	115.3	27	TRUE
366	367	(N/A)	115.3	27	TRUE
367	366	(N/A)	115.4	27	TRUE
368	370	(N/A)	115.3	27	TRUE
369	370	(N/A)	115.3	27	TRUE
370	369	(N/A)	115.4	27	TRUE
371	368	(N/A)	115.2	27	TRUE
372	772	(N/A)	115.5	27	TRUE
373	772	(N/A)	115.4	27	TRUE
374	375	(N/A)	115.2	27	TRUE
375	772	(N/A)	115.3	27	TRUE
376	374	(N/A)	115.2	27	TRUE
377	379	(N/A)	115.1	27	TRUE
378	379	(N/A)	115.1	27	TRUE
379	378	(N/A)	115	27	TRUE
380	381	(N/A)	115.1	27	TRUE
381	382	(N/A)	115.3	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
382	381	(N/A)	115.3	27	TRUE
383	385	(N/A)	115	27	TRUE
384	772	(N/A)	115.4	27	TRUE
385	383	(N/A)	115	27	TRUE
386	387	(N/A)	115	27	TRUE
387	386	(N/A)	115	27	TRUE
388	389	(N/A)	115.2	27	TRUE
389	390	(N/A)	115.3	27	TRUE
390	391	(N/A)	115.3	27	TRUE
391	392	(N/A)	115.4	27	TRUE
392	393	(N/A)	115.4	27	TRUE
393	394	(N/A)	115.4	27	TRUE
394	393	(N/A)	115.4	27	TRUE
395	772	(N/A)	115.4	27	TRUE
396	394	(N/A)	115.3	27	TRUE
397	398	(N/A)	115.4	27	TRUE
398	397	(N/A)	115.4	27	TRUE
399	400	(N/A)	115.4	27	TRUE
400	399	(N/A)	115.4	27	TRUE
401	400	(N/A)	115.3	27	TRUE
402	383	(N/A)	115	27	TRUE
403	383	(N/A)	115	27	TRUE
404	378	(N/A)	115	27	TRUE
405	728	(N/A)	115	27	TRUE
406	772	(N/A)	115.4	27	TRUE
407	410	(N/A)	115.1	27	TRUE
408	410	(N/A)	115.2	27	TRUE
409	410	(N/A)	115.2	27	TRUE
410	409	(N/A)	115.2	27	TRUE
411	412	(N/A)	115.2	27	TRUE
412	599	(N/A)	115.3	27	TRUE
413	772	(N/A)	115.4	27	TRUE
414	415	(N/A)	115.3	27	TRUE
415	414	(N/A)	115.3	27	TRUE
416	412	(N/A)	115.2	27	TRUE
417	416	(N/A)	115.2	27	TRUE
418	772	(N/A)	115.4	27	TRUE
419	621	(N/A)	115.2	27	TRUE
420	705	(N/A)	115.1	27	TRUE
421	705	(N/A)	115.1	27	TRUE
422	705	(N/A)	115.1	27	TRUE
423	705	(N/A)	115.1	27	TRUE
424	772	(N/A)	115.4	27	TRUE
425	705	(N/A)	115.1	27	TRUE
426	772	(N/A)	115.2	27	TRUE
427	705	(N/A)	115.1	27	TRUE
428	772	(N/A)	115.1	27	TRUE
429	432	(N/A)	115.1	27	TRUE
430	705	(N/A)	115	27	TRUE
431	705	(N/A)	115	27	TRUE
432	433	(N/A)	115.1	27	TRUE
433	434	(N/A)	115.2	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
434	436	(N/A)	115.3	27	TRUE
435	772	(N/A)	115.4	27	TRUE
436	437	(N/A)	115.3	27	TRUE
437	438	(N/A)	115.3	27	TRUE
438	437	(N/A)	115.3	27	TRUE
439	440	(N/A)	115.2	27	TRUE
440	772	(N/A)	115.3	27	TRUE
441	440	(N/A)	115.2	27	TRUE
442	601	(N/A)	115.2	27	TRUE
443	772	(N/A)	115.2	27	TRUE
444	443	(N/A)	115.1	27	TRUE
445	728	(N/A)	115	27	TRUE
446	772	(N/A)	115.4	27	TRUE
447	728	(N/A)	115	27	TRUE
448	772	(N/A)	115.1	27	TRUE
449	705	(N/A)	115	27	TRUE
450	705	(N/A)	115	27	TRUE
451	452	(N/A)	115.2	27	TRUE
452	772	(N/A)	115.3	27	TRUE
453	772	(N/A)	115.3	27	TRUE
454	705	(N/A)	115	27	TRUE
455	705	(N/A)	115	27	TRUE
456	705	(N/A)	115	27	TRUE
457	772	(N/A)	115.4	27	TRUE
458	705	(N/A)	115	27	TRUE
459	705	(N/A)	114.9	27	TRUE
460	705	(N/A)	114.9	27	TRUE
461	705	(N/A)	114.9	27	TRUE
462	772	(N/A)	114.9	27	TRUE
463	772	(N/A)	114.9	27	TRUE
464	361	(N/A)	115.7	27	TRUE
465	772	(N/A)	115.4	27	TRUE
466	772	(N/A)	114.9	27	TRUE
467	772	(N/A)	114.9	27	TRUE
468	772	(N/A)	114.9	27	TRUE
469	772	(N/A)	114.7	27	TRUE
470	772	(N/A)	115.4	27	TRUE
471	772	(N/A)	115.1	27	TRUE
472	772	(N/A)	115.1	27	TRUE
473	472	(N/A)	115	27	TRUE
474	473	(N/A)	115	27	TRUE
475	705	(N/A)	114.9	27	TRUE
476	477	(N/A)	115.2	27	TRUE
477	478	(N/A)	115.2	27	TRUE
478	480	(N/A)	115.2	27	TRUE
479	772	(N/A)	115.4	27	TRUE
480	481	(N/A)	115.2	27	TRUE
481	480	(N/A)	115.2	27	TRUE
482	483	(N/A)	115.2	27	TRUE
483	482	(N/A)	115.2	27	TRUE
484	483	(N/A)	115.1	27	TRUE
485	659	(N/A)	115.1	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
486	659	(N/A)	115.3	27	TRUE
487	772	(N/A)	115.4	27	TRUE
488	772	(N/A)	115.4	27	TRUE
489	772	(N/A)	115.4	27	TRUE
490	494	(N/A)	115	27	TRUE
491	A	(N/A)	115.1	27	TRUE
493	494	(N/A)	115.1	27	TRUE
494	495	(N/A)	115.1	27	TRUE
495	494	(N/A)	115.1	27	TRUE
496	495	(N/A)	115.1	27	TRUE
497	495	(N/A)	115.1	27	TRUE
498	495	(N/A)	115.1	27	TRUE
499	772	(N/A)	115.4	27	TRUE
500	825	(N/A)	115.1	27	TRUE
501	825	(N/A)	115.1	27	TRUE
502	825	(N/A)	115.1	27	TRUE
503	825	(N/A)	115.1	27	TRUE
504	825	(N/A)	115.1	27	TRUE
505	825	(N/A)	115.1	27	TRUE
506	825	(N/A)	115.1	27	TRUE
507	825	(N/A)	115.1	27	TRUE
508	825	(N/A)	115.1	27	TRUE
509	825	(N/A)	115.1	27	TRUE
510	772	(N/A)	115.4	27	TRUE
511	513	(N/A)	115.2	27	TRUE
512	513	(N/A)	115.3	27	TRUE
513	514	(N/A)	115.3	27	TRUE
514	772	(N/A)	115.4	27	TRUE
515	517	(N/A)	115.2	27	TRUE
516	517	(N/A)	115.2	27	TRUE
517	772	(N/A)	115.3	27	TRUE
518	520	(N/A)	115.2	27	TRUE
519	520	(N/A)	115.2	27	TRUE
520	772	(N/A)	115.3	27	TRUE
521	772	(N/A)	115.4	27	TRUE
522	524	(N/A)	115.1	27	TRUE
523	825	(N/A)	115.1	27	TRUE
524	522	(N/A)	115.1	27	TRUE
525	528	(N/A)	115.1	27	TRUE
526	528	(N/A)	115.2	27	TRUE
527	528	(N/A)	115.3	27	TRUE
528	772	(N/A)	115.3	27	TRUE
529	530	(N/A)	115.3	27	TRUE
530	529	(N/A)	115.3	27	TRUE
531	533	(N/A)	115.3	27	TRUE
532	772	(N/A)	115.4	27	TRUE
533	534	(N/A)	115.3	27	TRUE
534	533	(N/A)	115.3	27	TRUE
535	536	(N/A)	115.3	27	TRUE
536	535	(N/A)	115.3	27	TRUE
537	535	(N/A)	115.2	27	TRUE
538	842	(N/A)	115.2	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
539	842	(N/A)	115.3	27	TRUE
540	825	(N/A)	115.1	27	TRUE
541	825	(N/A)	115.1	27	TRUE
542	825	(N/A)	115.1	27	TRUE
543	772	(N/A)	115.7	27	TRUE
544	772	(N/A)	115.4	27	TRUE
545	547	(N/A)	115.1	27	TRUE
546	772	(N/A)	115.3	27	TRUE
547	772	(N/A)	115.3	27	TRUE
548	550	(N/A)	115.1	27	TRUE
549	550	(N/A)	115.2	27	TRUE
550	772	(N/A)	115.3	27	TRUE
551	772	(N/A)	115.3	27	TRUE
552	772	(N/A)	115.5	27	TRUE
553	772	(N/A)	115.5	27	TRUE
554	251	(N/A)	115.5	27	TRUE
555	772	(N/A)	115.4	27	TRUE
556	251	(N/A)	115.5	27	TRUE
557	251	(N/A)	115.5	27	TRUE
558	251	(N/A)	115.5	27	TRUE
559	772	(N/A)	115.4	27	TRUE
560	772	(N/A)	115.4	27	TRUE
561	772	(N/A)	115.4	27	TRUE
562	75	(N/A)	115.6	27	TRUE
563	758	(N/A)	115.6	27	TRUE
564	758	(N/A)	115.6	27	TRUE
565	758	(N/A)	115.6	27	TRUE
566	772	(N/A)	115.4	27	TRUE
567	772	(N/A)	115.3	27	TRUE
568	772	(N/A)	115.3	27	TRUE
569	302	(N/A)	115.1	27	TRUE
570	772	(N/A)	115.2	27	TRUE
571	309	(N/A)	115	27	TRUE
572	772	(N/A)	114.9	27	TRUE
573	31	(N/A)	115.7	27	TRUE
574	772	(N/A)	115.7	27	TRUE
575	772	(N/A)	115.5	27	TRUE
576	772	(N/A)	115.6	27	TRUE
577	772	(N/A)	115.4	27	TRUE
578	772	(N/A)	115.4	27	TRUE
579	772	(N/A)	115.5	27	TRUE
580	772	(N/A)	115.5	27	TRUE
581	758	(N/A)	115.5	27	TRUE
582	772	(N/A)	115.4	27	TRUE
583	49	(N/A)	115.5	27	TRUE
584	772	(N/A)	115.4	27	TRUE
585	772	(N/A)	115.4	27	TRUE
586	772	(N/A)	115.4	27	TRUE
587	772	(N/A)	115.4	27	TRUE
588	772	(N/A)	115.4	27	TRUE
589	772	(N/A)	115.4	27	TRUE
590	772	(N/A)	115.4	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
591	772	(N/A)	115.6	27	TRUE
592	772	(N/A)	115.5	27	TRUE
593	772	(N/A)	115.3	27	TRUE
594	772	(N/A)	115.3	27	TRUE
595	772	(N/A)	115.2	27	TRUE
596	341	(N/A)	115.1	27	TRUE
597	772	(N/A)	115.4	27	TRUE
598	348	(N/A)	115.3	27	TRUE
599	412	(N/A)	115.3	27	TRUE
600	415	(N/A)	115.3	27	TRUE
601	441	(N/A)	115.2	27	TRUE
602	603	(N/A)	115.1	27	TRUE
603	419	(N/A)	115.1	27	TRUE
604	825	(N/A)	115.1	27	TRUE
605	772	(N/A)	115.4	27	TRUE
606	522	(N/A)	115.1	27	TRUE
607	772	(N/A)	115.4	27	TRUE
608	772	(N/A)	115.5	27	TRUE
609	772	(N/A)	115.4	27	TRUE
610	772	(N/A)	115.5	27	TRUE
611	772	(N/A)	115.5	27	TRUE
612	772	(N/A)	115.5	27	TRUE
613	772	(N/A)	115.5	27	TRUE
614	615	(N/A)	115.3	27	TRUE
615	772	(N/A)	115.4	27	TRUE
616	772	(N/A)	115.4	27	TRUE
617	705	(N/A)	115.1	27	TRUE
618	620	(N/A)	115.1	27	TRUE
619	772	(N/A)	115.3	27	TRUE
620	772	(N/A)	115.3	27	TRUE
621	622	(N/A)	115.2	27	TRUE
622	772	(N/A)	115.4	27	TRUE
623	772	(N/A)	115.5	27	TRUE
624	623	(N/A)	115.4	27	TRUE
625	623	(N/A)	115.4	27	TRUE
626	623	(N/A)	115.4	27	TRUE
627	772	(N/A)	115.4	27	TRUE
628	623	(N/A)	115.4	27	TRUE
629	623	(N/A)	115.3	27	TRUE
630	772	(N/A)	115.5	27	TRUE
631	772	(N/A)	115.5	27	TRUE
635	772	(N/A)	115.4	27	TRUE
644	772	(N/A)	115.3	27	TRUE
645	772	(N/A)	115.7	27	TRUE
646	772	(N/A)	115.4	27	TRUE
647	825	(N/A)	115.1	27	TRUE
648	650	(N/A)	115.2	27	TRUE
649	650	(N/A)	115.2	27	TRUE
650	772	(N/A)	115.3	27	TRUE
651	772	(N/A)	115.3	27	TRUE
652	653	(N/A)	115.2	27	TRUE
653	772	(N/A)	115.3	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
654	825	(N/A)	115.1	27	TRUE
655	825	(N/A)	115.2	27	TRUE
656	772	(N/A)	115.4	27	TRUE
657	655	(N/A)	115.1	27	TRUE
658	825	(N/A)	115.1	27	TRUE
659	772	(N/A)	115.3	27	TRUE
660	705	(N/A)	115.1	27	TRUE
661	705	(N/A)	115.2	27	TRUE
662	705	(N/A)	115.2	27	TRUE
663	705	(N/A)	115.2	27	TRUE
664	705	(N/A)	115.2	27	TRUE
665	772	(N/A)	115.7	27	TRUE
666	705	(N/A)	115.2	27	TRUE
667	825	(N/A)	115	27	TRUE
668	825	(N/A)	115	27	TRUE
669	670	(N/A)	115.1	27	TRUE
670	669	(N/A)	115.1	27	TRUE
671	778	(N/A)	115.4	27	TRUE
672	772	(N/A)	115.5	27	TRUE
673	772	(N/A)	115.5	27	TRUE
674	772	(N/A)	115.5	27	TRUE
675	772	(N/A)	115.5	27	TRUE
676	772	(N/A)	115.5	27	TRUE
677	772	(N/A)	115.5	27	TRUE
678	772	(N/A)	115.5	27	TRUE
679	772	(N/A)	115.5	27	TRUE
680	772	(N/A)	115.7	27	TRUE
681	772	(N/A)	115.5	27	TRUE
682	772	(N/A)	115.5	27	TRUE
683	772	(N/A)	115.5	27	TRUE
684	772	(N/A)	115.5	27	TRUE
685	772	(N/A)	115.5	27	TRUE
686	772	(N/A)	115.5	27	TRUE
687	694	(N/A)	115.4	27	TRUE
688	687	(N/A)	115.4	27	TRUE
689	772	(N/A)	115.4	27	TRUE
690	692	(N/A)	115.4	27	TRUE
691	772	(N/A)	115.7	27	TRUE
692	693	(N/A)	115.4	27	TRUE
693	694	(N/A)	115.4	27	TRUE
694	693	(N/A)	115.4	27	TRUE
695	772	(N/A)	115.4	27	TRUE
696	772	(N/A)	115.4	27	TRUE
697	772	(N/A)	115.4	27	TRUE
698	772	(N/A)	115.4	27	TRUE
699	772	(N/A)	115.4	27	TRUE
700	772	(N/A)	115.4	27	TRUE
701	772	(N/A)	115.4	27	TRUE
702	825	(N/A)	115.2	27	TRUE
703	848	(N/A)	115.3	27	TRUE
704	705	(N/A)	115.2	27	TRUE
705	728	(N/A)	115.2	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
706	817	(N/A)	115.2	27	TRUE
707	772	(N/A)	115.5	27	TRUE
708	772	(N/A)	115.5	27	TRUE
709	772	(N/A)	115.6	27	TRUE
710	772	(N/A)	115.6	27	TRUE
711	772	(N/A)	115.6	27	TRUE
712	825	(N/A)	115.1	27	TRUE
713	772	(N/A)	115.6	27	TRUE
714	825	(N/A)	115.1	27	TRUE
720	825	(N/A)	115	27	TRUE
721	825	(N/A)	115.1	27	TRUE
722	825	(N/A)	115.2	27	TRUE
723	772	(N/A)	115.5	27	TRUE
724	825	(N/A)	115.2	27	TRUE
725	772	(N/A)	115.4	27	TRUE
726	825	(N/A)	115.2	27	TRUE
727	728	(N/A)	115.2	27	TRUE
728	705	(N/A)	115.2	27	TRUE
729	772	(N/A)	115.5	27	TRUE
730	740	(N/A)	115.3	27	TRUE
731	737	(N/A)	115.3	27	TRUE
732	738	(N/A)	115.4	27	TRUE
733	732	(N/A)	115.4	27	TRUE
734	736	(N/A)	115.4	27	TRUE
735	833	(N/A)	115.4	27	TRUE
736	772	(N/A)	115.5	27	TRUE
737	772	(N/A)	115.4	27	TRUE
738	832	(N/A)	115.5	27	TRUE
739	772	(N/A)	115.5	27	TRUE
740	730	(N/A)	115.3	27	TRUE
741	772	(N/A)	115.5	27	TRUE
742	743	(N/A)	115.5	27	TRUE
743	772	(N/A)	115.7	27	TRUE
754	772	(N/A)	115.8	27	TRUE
755	758	(N/A)	115.8	27	TRUE
757	772	(N/A)	115.8	27	TRUE
758	772	(N/A)	115.8	27	TRUE
759	758	(N/A)	115.8	27	TRUE
762	772	(N/A)	115.6	27	TRUE
763	772	(N/A)	115.6	27	TRUE
768	772	(N/A)	115.6	27	TRUE
770	772	(N/A)	115.6	27	TRUE
771	758	(N/A)	115.6	27	TRUE
772	754	(N/A)	115.8	27	TRUE
777	772	(N/A)	115.8	27	TRUE
778	772	(N/A)	115.6	27	TRUE
779	772	(N/A)	115.3	27	TRUE
780	772	(N/A)	115.3	27	TRUE
781	772	(N/A)	115.3	27	TRUE
782	772	(N/A)	115.3	27	TRUE
783	772	(N/A)	115.4	27	TRUE
784	772	(N/A)	115.4	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
785	772	(N/A)	115.4	27	TRUE
786	772	(N/A)	115.4	27	TRUE
787	772	(N/A)	115.4	27	TRUE
788	772	(N/A)	115.4	27	TRUE
789	772	(N/A)	115.4	27	TRUE
790	772	(N/A)	115.4	27	TRUE
791	772	(N/A)	115.4	27	TRUE
792	772	(N/A)	115.4	27	TRUE
793	772	(N/A)	115.4	27	TRUE
795	772	(N/A)	115.4	27	TRUE
796	772	(N/A)	115.4	27	TRUE
797	772	(N/A)	115.4	27	TRUE
798	705	(N/A)	115.2	27	TRUE
799	811	(N/A)	115.2	27	TRUE
800	J-877	(N/A)	115.2	27	TRUE
801	705	(N/A)	115.2	27	TRUE
802	705	(N/A)	115.2	27	TRUE
803	705	(N/A)	115.2	27	TRUE
804	705	(N/A)	115.2	27	TRUE
805	705	(N/A)	115.2	27	TRUE
806	705	(N/A)	115.2	27	TRUE
807	705	(N/A)	115.2	27	TRUE
808	705	(N/A)	115.2	27	TRUE
809	705	(N/A)	115.2	27	TRUE
810	705	(N/A)	115.2	27	TRUE
811	772	(N/A)	115.4	27	TRUE
812	813	(N/A)	115.2	27	TRUE
813	772	(N/A)	115.4	27	TRUE
814	705	(N/A)	115.2	27	TRUE
815	818	(N/A)	115.2	27	TRUE
816	817	(N/A)	115.3	27	TRUE
817	816	(N/A)	115.3	27	TRUE
818	815	(N/A)	115.2	27	TRUE
819	820	(N/A)	115.2	27	TRUE
820	819	(N/A)	115.2	27	TRUE
821	705	(N/A)	115.2	27	TRUE
822	705	(N/A)	115.2	27	TRUE
823	705	(N/A)	115.2	27	TRUE
824	705	(N/A)	115.2	27	TRUE
825	772	(N/A)	115.2	27	TRUE
826	705	(N/A)	115.1	27	TRUE
827	772	(N/A)	115.4	27	TRUE
828	825	(N/A)	115.1	27	TRUE
829	825	(N/A)	115.1	27	TRUE
830	772	(N/A)	115.5	27	TRUE
831	772	(N/A)	115.5	27	TRUE
832	772	(N/A)	115.5	27	TRUE
833	772	(N/A)	115.6	27	TRUE
834	772	(N/A)	115.5	27	TRUE
835	772	(N/A)	115.5	27	TRUE
836	772	(N/A)	115.5	27	TRUE
837	772	(N/A)	115.5	27	TRUE

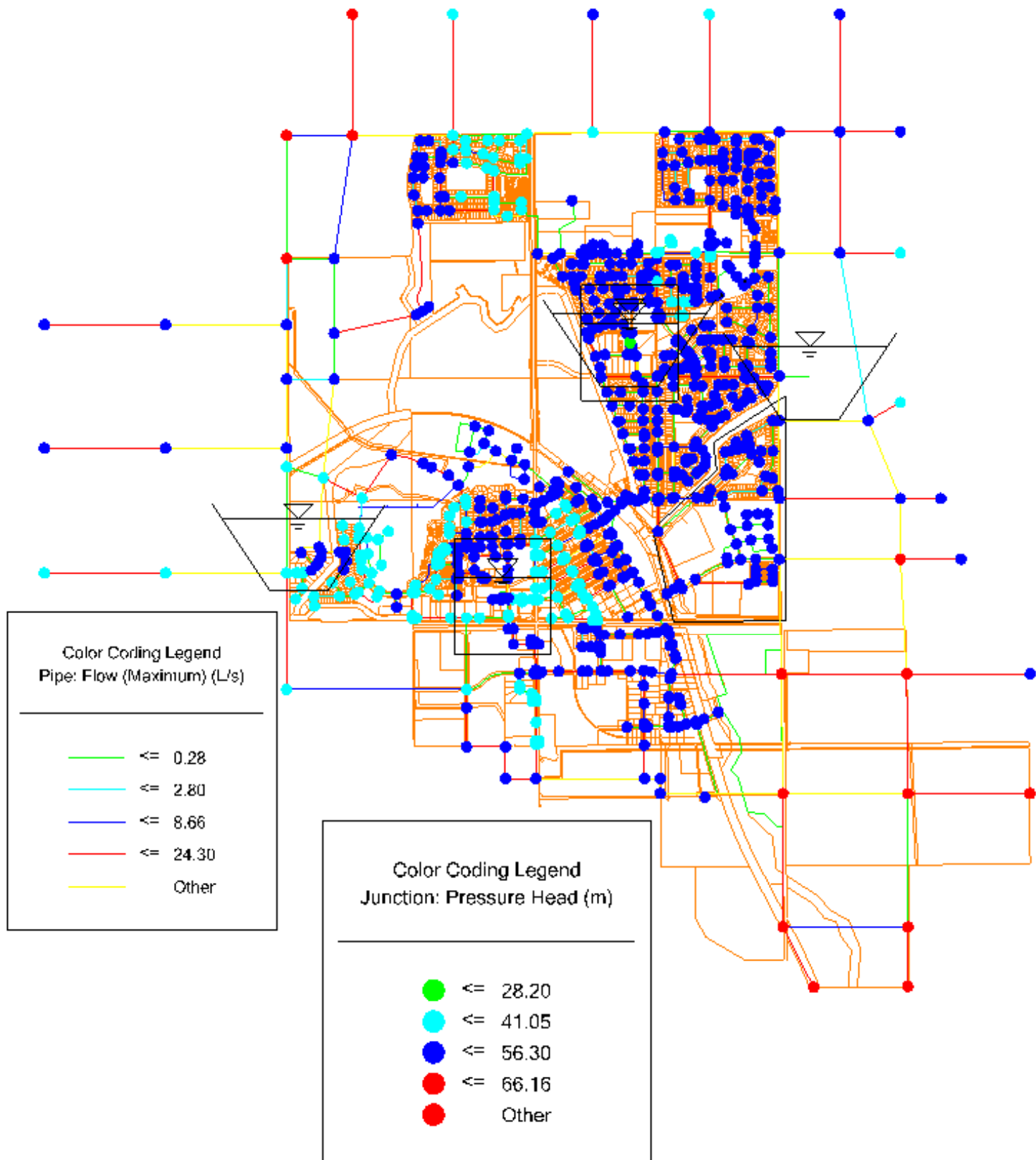
Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
838	772	(N/A)	115.5	27	TRUE
839	772	(N/A)	115.5	27	TRUE
840	772	(N/A)	115.5	27	TRUE
841	772	(N/A)	115.5	27	TRUE
842	772	(N/A)	115.5	27	TRUE
843	705	(N/A)	115.2	27	TRUE
844	705	(N/A)	115.2	27	TRUE
845	705	(N/A)	115.2	27	TRUE
846	705	(N/A)	115.2	27	TRUE
847	705	(N/A)	115.2	27	TRUE
848	772	(N/A)	115.3	27	TRUE
849	772	(N/A)	115.6	27	TRUE
850	772	(N/A)	115.6	27	TRUE
851	772	(N/A)	115.7	27	TRUE
852	772	(N/A)	115.6	27	TRUE
853	772	(N/A)	115.6	27	TRUE
854	772	(N/A)	115.7	27	TRUE
855	772	(N/A)	115.6	27	TRUE
856	772	(N/A)	115.6	27	TRUE
857	772	(N/A)	115.6	27	TRUE
858	772	(N/A)	115.7	27	TRUE
859	772	(N/A)	115.6	27	TRUE
860	772	(N/A)	115.6	27	TRUE
861	854	(N/A)	115.7	27	TRUE
862	772	(N/A)	115.6	27	TRUE
863	772	(N/A)	115.6	27	TRUE
864	772	(N/A)	115.6	27	TRUE
A	491	(N/A)	115.1	27	TRUE
B	825	(N/A)	115.1	27	TRUE
J-1	J-4	(N/A)	115.1	27	TRUE
J-2	J-4	(N/A)	115.1	27	TRUE
J-3	825	(N/A)	115.1	27	TRUE
J-4	J-1	(N/A)	115.1	27	TRUE
J-866	772	(N/A)	115.6	27	TRUE
J-867	772	(N/A)	115.6	27	TRUE
J-868	772	(N/A)	115.6	27	TRUE
J-869	772	(N/A)	115.6	27	TRUE
J-870	772	(N/A)	115.6	27	TRUE
J-871	772	(N/A)	115.6	27	TRUE
J-872	772	(N/A)	115.6	27	TRUE
J-873	772	(N/A)	115.6	27	TRUE
J-874	772	(N/A)	115.6	27	TRUE
J-875	772	(N/A)	115.6	27	TRUE
J-876	772	(N/A)	115.6	27	TRUE
J-877	J-879	(N/A)	115.3	27	TRUE
J-878	772	(N/A)	115.4	27	TRUE
J-879	J-878	(N/A)	115.3	27	TRUE
J-880	772	(N/A)	115.4	27	TRUE
J-881	J-882	(N/A)	115.5	27	TRUE
J-882	772	(N/A)	115.6	27	TRUE
J-883	772	(N/A)	115.6	27	TRUE
J-884	772	(N/A)	115.4	27	TRUE

Label	Junction w/ Minimum Pressure (Zone)	Pressure (System Lower Limit) (kPa)	Pressure (Calculated System Lower Limit) (kPa)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-885	J-889	(N/A)	115.5	27	TRUE
J-886	J-887	(N/A)	115.6	27	TRUE
J-887	J-888	(N/A)	115.6	27	TRUE
J-888	J-887	(N/A)	115.6	27	TRUE
J-889	J-888	(N/A)	115.6	27	TRUE
J-890	772	(N/A)	115.6	27	TRUE
J-891	772	(N/A)	115.5	27	TRUE
J-892	772	(N/A)	115.5	27	TRUE
J-893	772	(N/A)	115.5	27	TRUE
J-894	772	(N/A)	115.7	27	TRUE
J-899	825	(N/A)	115.1	27	TRUE
J-900	772	(N/A)	115.6	27	TRUE
J-904	772	(N/A)	115.5	27	TRUE
J-905	772	(N/A)	115.5	27	TRUE
J-906	772	(N/A)	115.6	27	TRUE
J-908	772	(N/A)	115.5	27	TRUE
J-919	J-921	(N/A)	115.5	27	TRUE
J-920	J-921	(N/A)	115.5	27	TRUE
J-921	J-920	(N/A)	115.5	27	TRUE
J-922	J-921	(N/A)	115.5	27	TRUE
J-923	772	(N/A)	115.5	27	TRUE
J-924	772	(N/A)	115.5	27	TRUE
J-925	772	(N/A)	115.5	27	TRUE
J-928	772	(N/A)	115.5	27	TRUE
J-931	772	(N/A)	115.5	27	TRUE

Appendix A3

2061 Ultimate Peak Hour
Demand Scenario (650 L/s)

Appendix A3 – 2061 Ultimate Peak Hour Demand Scenario (650 L/sec)



ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
103	860	979.78	Zone-1	0	1,019.96	393.3
104	126	977.1	Zone-1	0	1,020.20	421.8
105	628	979.5	Zone-1	0	1,021.94	415.4
107	220	974.5	Zone-1	0.16	1,019.37	439.2
108	528	976.9	Zone-1	0.1	1,021.10	432.6
109	79	978.3	Zone-1	0.25	1,017.66	385.2
110	166	976.3	Zone-1	0.13	1,018.70	415
111	J-1	977	Zone-1	0	1,021.68	437.3
112	145	977.3	Zone-1	0	1,019.08	408.9
113	464	979.78	Zone-1	0	1,019.16	385.4
114	380	980.9	Zone-1	0.19	1,022.03	402.6
115	849	979.44	Zone-1	0	1,019.85	395.4
116	172	977	Zone-1	0.4	1,018.73	408.4
117	809	977	Zone-1	0	1,019.27	413.7
118	120	977.8	Zone-1	0	1,020.78	420.7
119	546	978.6	Zone-1	0.19	1,021.02	415.1
120	257	979.1	Zone-1	0	1,024.47	444
121	358	978.5	Zone-1	0	1,021.94	425.2
122	295	974.5	Zone-1	0	1,018.45	430.1
124	72	976.8	Zone-1	0	1,017.69	400.2
125	69	977.4	Zone-1	0.93	1,017.59	393.4
126	405	980.7	Zone-1	0	1,022.06	404.8
127	560	971.3	Zone-1	0.11	1,017.68	453.9
128	478	978	Zone-1	0.4	1,022.76	438
129	227	975.1	Zone-1	0.1	1,021.34	452.6
130	100	976	Zone-1	0.24	1,017.83	409.4
131	491	979.2	Zone-1	0	1,021.74	416.3
132	187	974	Zone-1	0	1,019.04	440.8
133	616	972.45	Zone-1	0	1,018.43	450
134	121	977.3	Zone-1	0.21	1,020.39	421.8
135	280	975.4	Zone-1	0	1,021.64	452.6
136	364	979.5	Zone-1	0.15	1,021.94	415.4
137	155	976.4	Zone-1	0	1,018.10	408.1
138	411	981.5	Zone-1	0.14	1,021.64	392.9
139	604	978	Zone-1	0	1,021.24	423.2
140	699	974.69	Zone-1	0	1,018.23	426.1
141	709	978.5	Zone-1	0	1,019.57	401.9
142	691	979.78	Zone-1	0.18	1,022.74	420.5
143	657	978.5	Zone-1	0.26	1,020.95	415.4
144	340	976	Zone-1	0.51	1,021.73	447.5
145	176	977.7	Zone-1	0.32	1,018.85	402.7
146	844	977	Zone-1	0	1,019.27	413.7
147	99	975.3	Zone-1	0.11	1,017.82	416.1
148	662	979	Zone-1	0.19	1,019.72	398.5
149	789	967.8	Zone-1	0.67	1,019.25	503.5
150	796	966.8	Zone-1	0.12	1,019.38	514.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
151	599	981.5	Zone-1	0	1,021.64	392.9
152	254	979	Zone-1	0	1,026.73	467.1
153	159	974.9	Zone-1	0.29	1,018.54	427.1
154	62	976.3	Zone-1	0.93	1,016.88	397.1
155	59	975.7	Zone-1	0	1,017.53	409.4
156	497	978	Zone-1	0	1,021.38	424.6
157	134	978.5	Zone-1	0	1,019.24	398.7
158	476	977.5	Zone-1	0	1,022.95	444.8
159	76	978.58	Zone-1	0	1,019.29	398.5
160	669	977.5	Zone-1	0.4	1,021.67	432.3
161	830	965.9	Zone-1	0	1,018.09	510.8
162	382	981	Zone-1	0.24	1,021.96	400.9
163	465	966.9	Zone-1	0	1,018.09	501
164	711	978.5	Zone-1	0	1,019.57	401.9
165	678	976.8	Zone-1	0	1,016.39	387.5
166	572	979.5	Zone-1	0	1,026.39	458.9
167	779	968.3	Zone-1	0	1,019.38	499.9
168	505	977	Zone-1	0.66	1,021.41	434.6
169	264	978.3	Zone-1	0	1,021.66	424.3
170	7	979.4	Zone-no fire flow	0	992.24	125.7
171	665	972.4	Zone-1	0.13	1,016.65	433
172	550	978.2	Zone-1	0.19	1,021.06	419.5
173	355	980	Zone-1	0	1,021.94	410.5
174	704	983	Zone-1	0	1,019.26	354.9
175	726	978	Zone-1	0	1,020.66	417.5
176	359	978.5	Zone-1	0	1,021.94	425.2
177	311	977	Zone-1	0.19	1,022.01	440.5
178	304	977	Zone-1	0.19	1,022.11	441.5
179	194	976.5	Zone-1	0	1,020.03	426
180	32	979.78	Zone-1	0	1,021.70	410.2
181	259	978.2	Zone-1	0.16	1,023.44	442.7
182	852	979.29	Zone-1	0.13	1,019.87	397.2
183	555	970.2	Zone-1	0	1,018.17	469.5
184	283	976.7	Zone-1	0.06	1,021.80	441.4
185	701	972.33	Zone-1	0	1,018.23	449.2
186	689	976	Zone-1	0.08	1,018.23	413.3
187	89	973	Zone-1	0.31	1,017.74	437.9
188	363	978.5	Zone-1	0	1,021.94	425.2
189	650	977	Zone-1	0.25	1,021.23	432.9
190	39	974.4	Zone-1	0	1,017.02	417.1
191	501	978	Zone-1	0	1,021.59	426.7
192	138	978.5	Zone-1	0	1,019.18	398.1
193	675	973.8	Zone-1	0	1,016.43	417.2
194	221	974.5	Zone-1	0	1,019.37	439.2
195	707	978.5	Zone-1	0.35	1,019.38	400.1
196	564	976	Zone-1	0	1,013.02	362.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
197	771	977.8	Zone-1	0	1,008.67	302.1
198	735	974.5	Zone-1	0	1,019.38	439.2
199	379	980.9	Zone-1	0	1,022.04	402.6
200	262	977.11	Zone-1	0	1,018.71	407.1
201	154	976.3	Zone-1	0	1,018.37	411.7
202	42	976	Zone-1	0	1,016.42	395.6
203	249	978	Zone-1	0	1,026.67	476.4
204	29	978.1	Zone-no fire flow	0	992.21	138.1
205	404	980.9	Zone-1	0	1,022.04	402.7
206	52	975.8	Zone-1	0.11	1,015.34	387
207	49	974.3	Zone-1	0	1,017.03	418.2
208	346	978.3	Zone-1	0.13	1,021.83	426
209	333	975.5	Zone-1	0	1,021.71	452.3
210	273	977.11	Zone-1	0	1,018.69	407
211	473	977.4	Zone-1	0	1,023.61	452.3
212	186	973.5	Zone-1	0	1,018.78	443.1
214	57	975.7	Zone-1	0	1,017.52	409.3
215	565	976	Zone-1	0	1,013.15	363.6
216	851	979.29	Zone-1	0.33	1,019.87	397.1
217	824	978.35	Zone-1	0.97	1,019.38	401.6
218	146	977.3	Zone-1	0.11	1,019.09	409
219	442	980.7	Zone-1	0	1,022.16	405.8
220	285	975.2	Zone-1	0.16	1,021.87	456.8
221	373	969	Zone-1	0.27	1,018.09	480.4
222	376	980.4	Zone-1	0	1,021.97	406.9
223	66	974	Zone-1	0	1,017.76	428.3
224	486	978	Zone-1	0	1,022.15	432
225	530	977.4	Zone-1	0.19	1,021.06	427.3
226	213	973.8	Zone-1	0.16	1,019.38	446
227	391	980	Zone-1	0	1,021.84	409.5
228	845	979.72	Zone-1	0.7	1,019.97	394
229	664	983.1	Zone-1	0.06	1,019.26	353.9
230	313	977	Zone-1	0.19	1,022.05	440.9
231	850	979.29	Zone-1	0.15	1,019.77	396.2
232	839	977.99	Zone-1	0	1,018.71	398.5
233	778	973.5	Zone-1	0	1,018.62	441.6
234	149	976.3	Zone-1	0	1,018.83	416.2
235	679	976.4	Zone-1	0	1,016.39	391.4
236	365	979.5	Zone-1	0	1,021.94	415.4
237	140	977	Zone-1	0	1,018.96	410.7
239	46	976.2	Zone-1	0.13	1,014.18	371.7
240	71	976.8	Zone-1	0	1,017.68	400.1
241	315	975	Zone-1	0	1,021.92	459.2
242	533	977.8	Zone-1	0.25	1,021.01	422.9
243	517	977	Zone-1	0.19	1,021.25	433
244	255	977.5	Zone-1	0	1,026.56	480.1

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
245	41	976	Zone-1	0.24	1,016.40	395.4
246	274	975.5	Zone-1	0.14	1,021.43	449.5
247	537	978.97	Zone-1	0.25	1,020.95	410.9
248	822	980.52	Zone-1	0.71	1,020.21	388.5
249	504	977	Zone-1	2.85	1,021.43	434.8
250	361	979.78	Zone-1	0	1,019.94	393
251	211	972.9	Zone-1	0	1,019.38	454.9
252	164	976.3	Zone-1	0	1,018.63	414.3
253	713	978.5	Zone-1	0	1,019.38	400.1
254	450	979.4	Zone-1	0.21	1,022.49	421.7
255	136	978.5	Zone-1	0	1,019.20	398.3
256	139	979.78	Zone-1	0.05	1,020.44	397.9
257	462	979	Zone-1	0.16	1,025.05	450.7
258	147	977.6	Zone-1	0	1,018.98	404.9
259	736	974.5	Zone-1	0	1,019.38	439.2
260	445	980.2	Zone-1	0.24	1,022.16	410.7
261	243	976	Zone-1	0.19	1,024.22	471.9
262	823	977.28	Zone-1	0	1,019.36	411.9
263	125	977.5	Zone-1	1.02	1,019.65	412.5
264	272	975.8	Zone-1	0.09	1,021.43	446.6
265	204	974.5	Zone-1	0	1,018.96	435.2
266	696	976	Zone-1	0	1,018.23	413.3
267	544	970.1	Zone-1	0	1,018.16	470.3
268	862	979.42	Zone-1	0.5	1,020.41	401.1
269	455	979	Zone-1	0	1,022.48	425.5
270	531	977.6	Zone-1	0.25	1,021.03	425.1
271	618	980.2	Zone-1	0	1,021.60	405.1
272	589	977.8	Zone-1	0.93	1,017.60	389.5
273	173	976.2	Zone-1	0	1,018.87	417.6
274	400	980	Zone-1	0.26	1,021.90	410.1
275	534	977.8	Zone-1	0	1,021.00	422.8
276	293	977	Zone-1	0	1,022.45	444.8
277	740	973.8	Zone-1	0	1,019.38	446.1
278	595	976	Zone-1	0	1,021.04	440.8
279	235	975.2	Zone-1	0.24	1,023.17	469.5
280	611	976.2	Zone-1	0	1,016.18	391.3
281	820	983	Zone-1	0	1,019.13	353.6
282	674	974.4	Zone-1	0	1,016.43	411.3
283	432	979.2	Zone-1	0.1	1,022.06	419.5
284	575	977.01	Zone-1	0	1,018.75	408.5
285	569	977	Zone-1	0	1,022.29	443.3
286	702	978.1	Zone-1	0.55	1,020.83	418.2
287	291	975.8	Zone-1	0	1,022.26	454.7
288	671	973.5	Zone-1	0	1,018.62	441.6
289	45	975.9	Zone-1	0	1,014.19	374.8
290	192	975.1	Zone-1	0	1,019.52	434.8

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
291	728	984.5	Zone-1	0	1,019.26	340.2
292	279	975.6	Zone-1	0.09	1,021.57	449.9
293	585	975.7	Zone-1	0.93	1,017.45	408.6
294	621	980.5	Zone-1	0	1,021.63	402.5
295	388	980.4	Zone-1	0.1	1,021.84	405.6
296	19	978.1	Zone-no fire flow	0	1,033.03	537.6
297	326	976.3	Zone-1	0	1,021.76	444.9
298	424	966.9	Zone-1	0	1,018.09	501
299	788	966.4	Zone-1	3	1,019.34	518.2
300	399	980	Zone-1	0	1,021.89	410
301	658	978.5	Zone-1	0.35	1,021.05	416.5
302	162	976.2	Zone-1	0.27	1,018.88	417.7
303	484	978.1	Zone-1	0.16	1,022.29	432.4
304	522	976.6	Zone-1	0	1,021.18	436.3
305	553	977.11	Zone-1	0	1,018.74	407.4
306	101	975	Zone-1	0.1	1,017.82	419
307	246	976.1	Zone-1	0	1,026.38	492.1
308	629	979.5	Zone-1	0.19	1,021.94	415.4
309	612	974.5	Zone-1	0	1,018.80	433.5
310	398	979.9	Zone-1	0.31	1,021.86	410.7
311	278	975.6	Zone-1	0	1,021.53	449.5
312	409	981.5	Zone-1	0	1,021.64	392.9
313	233	976.5	Zone-1	0.16	1,022.24	447.7
314	183	978	Zone-1	0	1,018.82	399.5
315	436	980.2	Zone-1	0	1,022.09	409.9
316	838	977.99	Zone-1	0	1,018.70	398.5
317	814	979.88	Zone-1	0	1,019.67	389.4
318	581	976	Zone-1	0	1,016.04	391.8
319	649	976.5	Zone-1	0	1,021.23	437.8
320	47	971.7	Zone-1	0	1,017.71	450.2
321	269	976	Zone-1	0	1,021.19	442.3
322	724	978	Zone-1	0.4	1,020.76	418.5
323	597	970.5	Zone-1	0	1,018.23	467.1
324	342	977	Zone-1	0.36	1,021.75	438
325	185	978	Zone-1	0.35	1,018.83	399.6
326	366	979.5	Zone-1	0	1,021.94	415.4
327	840	977.99	Zone-1	0	1,018.72	398.6
328	549	978.2	Zone-1	0	1,021.06	419.5
329	487	967.12	Zone-1	0	1,018.09	498.8
330	193	976.5	Zone-1	0	1,019.40	419.9
331	56	971.7	Zone-1	0	1,017.71	450.3
332	587	970.4	Zone-1	0	1,018.22	468
333	360	978.5	Zone-1	0.13	1,021.94	425.2
334	386	980.7	Zone-1	0.08	1,021.85	402.7
335	265	977	Zone-1	0.14	1,020.87	429.4
336	113	977	Zone-1	0	1,010.70	329.8

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
337	460	978.4	Zone-1	0.16	1,023.60	442.4
338	576	970.3	Zone-1	0	1,018.20	468.7
339	184	976.2	Zone-1	0	1,018.86	417.5
340	78	977.6	Zone-1	0.16	1,017.68	392.2
341	739	977.5	Zone-1	0	1,019.35	409.6
342	559	972.49	Zone-1	0	1,018.25	447.8
344	394	980	Zone-1	0.08	1,021.85	409.5
345	B	977	Zone-1	0	1,021.65	437
346	469	979.3	Zone-1	0	1,031.29	508.8
347	785	966.7	Zone-1	0.12	1,019.38	515.5
348	579	972.5	Zone-1	0	1,016.57	431.3
349	33	972.01	Zone-1	0	1,018.23	452.3
350	684	976.72	Zone-1	0	1,016.35	387.9
351	28	978.1	Zone-no fire flow	0	992.21	138.1
352	217	977.11	Zone-1	0	1,018.73	407.4
353	864	979.55	Zone-1	0.18	1,019.89	394.8
354	43	978.5	Zone-1	0	1,019.42	400.5
355	526	976.9	Zone-1	0	1,021.10	432.6
356	215	973.8	Zone-1	0	1,019.38	446
357	36	971.6	Zone-1	0.09	1,017.68	450.9
358	384	967	Zone-1	0	1,018.04	499.5
359	61	977.2	Zone-1	0	1,017.46	394
360	387	980.7	Zone-1	0.1	1,021.84	402.6
361	251	979.2	Zone-1	0	1,018.63	385.9
362	433	979.8	Zone-1	0.19	1,022.08	413.8
363	150	976.3	Zone-1	0	1,018.73	415.3
364	182	978.5	Zone-1	0.4	1,018.81	394.5
365	673	977.5	Zone-1	0.13	1,019.24	408.5
366	833	974.5	Zone-1	1	1,019.37	439.2
367	498	978	Zone-1	0	1,021.38	424.6
368	324	975.3	Zone-1	0	1,021.81	455.2
369	784	967	Zone-1	0.12	1,019.38	512.7
370	174	976	Zone-1	0.08	1,018.73	418.2
371	722	977.87	Zone-1	0.55	1,020.92	421.3
372	815	983	Zone-1	0	1,019.22	354.5
373	620	980.2	Zone-1	0	1,021.60	405.1
374	48	974.3	Zone-1	0	1,017.43	422.1
375	787	966.8	Zone-1	0.12	1,019.37	514.5
376	520	976.7	Zone-1	0.17	1,021.21	435.6
377	600	981.5	Zone-1	0	1,021.64	392.9
379	111	976	Zone-1	0	1,012.51	357.3
380	762	974.9	Zone-1	0	1,023.17	472.4
381	63	976.3	Zone-1	0	1,016.86	396.9
382	791	969.7	Zone-1	0	1,019.11	483.5
383	624	979.5	Zone-1	0	1,021.94	415.4
384	350	970.15	Zone-1	0.25	1,018.11	469.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
385	863	979.61	Zone-1	0.44	1,020.72	402.3
386	842	978.97	Zone-1	0.4	1,020.95	410.8
387	345	978	Zone-1	0	1,021.79	428.5
388	92	972.9	Zone-1	0	1,017.80	439.4
389	98	978.7	Zone-1	0	1,019.57	400
390	143	978.5	Zone-1	0	1,019.15	397.8
391	104	976	Zone-1	0	1,017.84	409.5
392	563	976	Zone-1	0	1,012.93	361.4
393	367	979.5	Zone-1	0	1,021.94	415.4
394	65	978.5	Zone-1	0.53	1,019.40	400.3
395	485	978.1	Zone-1	0	1,022.15	431.1
396	519	976.7	Zone-1	0.19	1,021.21	435.6
397	444	980.2	Zone-1	0	1,022.16	410.7
398	197	976.5	Zone-1	0	1,020.08	426.5
399	548	978.2	Zone-1	0.25	1,021.06	419.5
400	A	979.2	Zone-1	0	1,021.73	416.3
401	525	976.9	Zone-1	0.1	1,021.10	432.6
402	430	978.9	Zone-1	0.27	1,022.08	422.6
403	610	976.2	Zone-1	0.13	1,016.18	391.3
404	163	975.8	Zone-1	0.3	1,018.55	418.4
405	708	978.5	Zone-1	0	1,019.47	400.9
406	518	976.7	Zone-1	0	1,021.21	435.6
407	667	976	Zone-1	0.4	1,021.66	446.9
408	68	977.8	Zone-1	0	1,017.62	389.7
409	652	978.5	Zone-1	0.25	1,021.07	416.6
410	489	967.6	Zone-1	0.8	1,018.10	494.2
411	167	976.3	Zone-1	0	1,018.73	415.2
412	203	974.5	Zone-1	0	1,018.92	434.7
413	412	981.5	Zone-1	0	1,021.64	392.9
414	27	980.6	Zone-no fire flow	0	992.39	115.4
415	300	978	Zone-1	0.16	1,022.80	438.5
416	84	977	Zone-1	0.16	1,017.76	398.9
417	732	974.5	Zone-1	0	1,019.37	439.2
418	686	976.72	Zone-1	0	1,016.34	387.7
419	511	975.97	Zone-1	0.19	1,021.32	443.8
420	861	979.29	Zone-1	0.44	1,020.13	399.7
422	135	978.5	Zone-1	0	1,019.22	398.5
423	583	974.3	Zone-1	0.19	1,016.99	417.8
424	438	981	Zone-1	0	1,022.09	402.2
425	457	966.9	Zone-1	0.13	1,018.09	501
426	574	979.78	Zone-1	0	1,022.34	416.5
427	468	979.2	Zone-1	0	1,027.25	470.2
428	112	977	Zone-1	0	1,010.70	329.8
429	347	980	Zone-1	0.13	1,021.83	409.4
430	461	978.8	Zone-1	0	1,024.16	443.9
431	332	975.5	Zone-1	0.5	1,021.72	452.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
432	818	983	Zone-1	0	1,019.22	354.5
433	605	972.48	Zone-1	0	1,018.28	448.2
434	475	978	Zone-1	0	1,023.61	446.3
435	703	984	Zone-1	0.44	1,019.26	345.1
436	439	981	Zone-1	0	1,022.10	402.2
437	503	978	Zone-1	0.4	1,021.54	426.2
438	93	973	Zone-1	0	1,017.81	438.6
439	687	976.7	Zone-1	0	1,018.22	406.3
440	181	978.7	Zone-1	0	1,018.80	392.4
441	357	978.5	Zone-1	0.21	1,021.94	425.2
442	730	973.8	Zone-1	0	1,019.38	446.1
443	571	975	Zone-1	0.34	1,021.95	459.5
444	377	980.9	Zone-1	0	1,022.04	402.6
445	336	976	Zone-1	0.38	1,021.70	447.2
446	297	977	Zone-1	0.08	1,022.34	443.8
447	179	978.7	Zone-1	0.1	1,018.78	392.3
448	812	977	Zone-1	0	1,019.27	413.7
449	348	980	Zone-1	0	1,021.83	409.4
450	734	974.5	Zone-1	0	1,019.38	439.2
451	128	978	Zone-1	0	1,019.26	403.8
452	592	976.4	Zone-1	0.21	1,018.09	408
453	521	971.8	Zone-1	0.13	1,018.13	453.5
454	431	978.3	Zone-1	0.29	1,021.95	427.2
455	407	981	Zone-1	0.14	1,021.88	400.1
456	543	979.78	Zone-1	0	1,021.57	409
457	826	979	Zone-1	0	1,021.41	415.1
458	648	976.5	Zone-1	0.25	1,021.28	438.2
459	780	967	Zone-1	0.71	1,019.38	512.6
460	856	979.78	Zone-1	0	1,021.08	404.1
461	449	979.6	Zone-1	0	1,022.46	419.4
462	425	978.6	Zone-1	0.32	1,021.78	422.6
463	299	979.6	Zone-1	0	1,023.62	430.8
464	205	975.2	Zone-1	0	1,019.22	430.8
465	281	975.4	Zone-1	0.16	1,021.73	453.4
466	222	974.5	Zone-1	0.14	1,019.37	439.2
467	558	979.2	Zone-1	0	1,018.63	385.9
468	410	981.5	Zone-1	0	1,021.64	392.9
469	40	974.3	Zone-1	0.4	1,017.03	418.2
470	401	980	Zone-1	0.16	1,021.93	410.4
471	596	976	Zone-1	0.19	1,021.73	447.6
472	858	979.78	Zone-1	0.28	1,020.56	399.1
473	302	977	Zone-1	0.18	1,022.31	443.4
474	212	973	Zone-1	0.16	1,019.38	453.9
475	318	975	Zone-1	0	1,021.88	458.8
476	453	980.5	Zone-1	0	1,022.28	408.9
477	723	978.11	Zone-1	0.4	1,020.87	418.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
478	786	966.5	Zone-1	0.12	1,019.37	517.4
479	482	978.2	Zone-1	0	1,022.47	433.2
480	847	979.36	Zone-1	0.28	1,019.24	390.4
481	156	976	Zone-1	0.19	1,018.06	411.7
482	90	972.9	Zone-1	0	1,017.76	439
483	434	980.1	Zone-1	0.26	1,022.08	410.9
484	133	978.5	Zone-1	0	1,019.24	398.7
485	532	970.05	Zone-1	0.67	1,018.12	470.5
486	529	977.4	Zone-1	0	1,021.06	427.3
487	198	975.3	Zone-1	0	1,020.48	442.2
488	800	977	Zone-1	0	1,019.25	413.5
489	236	975.2	Zone-1	0	1,023.17	469.5
490	309	975	Zone-1	0	1,021.95	459.5
492	422	979.3	Zone-1	0	1,021.59	413.9
493	329	976.3	Zone-1	0.19	1,021.77	445
494	714	977	Zone-1	0	1,021.65	436.9
495	216	973.8	Zone-1	0.16	1,019.38	446
496	738	974.5	Zone-1	0	1,019.37	439.2
497	341	977	Zone-1	0.3	1,021.75	437.9
498	688	976.7	Zone-1	0	1,018.22	406.3
499	337	976	Zone-1	0.38	1,021.68	447
500	452	980.5	Zone-1	0.16	1,022.35	409.6
501	381	981	Zone-1	0	1,021.97	400.9
502	289	975.5	Zone-1	0	1,022.17	456.7
503	514	975.8	Zone-1	0.1	1,021.32	445.5
504	806	977	Zone-1	0	1,019.27	413.7
505	570	977	Zone-1	0	1,022.20	442.3
506	290	975.8	Zone-1	0.18	1,022.25	454.6
508	396	979.8	Zone-1	0.08	1,021.85	411.5
509	477	977.5	Zone-1	0.39	1,022.86	444
510	782	967	Zone-1	0	1,019.38	512.6
511	754	974.9	Zone-1	0	994.77	194.5
512	103	976	Zone-1	0	1,017.84	409.5
513	306	974.5	Zone-1	0	1,018.25	428.2
514	617	979.8	Zone-1	0	1,021.59	409
515	816	983	Zone-1	0.55	1,019.22	354.5
516	308	975.5	Zone-1	0.29	1,022.07	455.8
517	131	976.8	Zone-1	0.1	1,019.15	414.5
518	795	968	Zone-1	0.12	1,019.38	502.8
519	510	969.77	Zone-1	0	1,018.12	473.2
520	169	977	Zone-1	0.21	1,018.72	408.3
521	694	976.7	Zone-1	0	1,018.22	406.3
522	523	976.3	Zone-1	0.36	1,021.25	439.9
523	87	978.64	Zone-1	0	1,019.35	398.4
524	226	975.1	Zone-1	0.16	1,021.34	452.6
525	242	976	Zone-1	0.19	1,024.51	474.8

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
526	819	983	Zone-1	0.57	1,019.19	354.2
527	266	977	Zone-1	0	1,020.71	427.8
528	480	978	Zone-1	0	1,022.66	437
529	524	976.6	Zone-1	0.19	1,021.18	436.3
530	458	978.9	Zone-1	0	1,022.12	423
531	660	979	Zone-1	0	1,021.22	413.2
532	200	973	Zone-1	0	1,017.88	439.2
533	207	975.3	Zone-1	0	1,019.26	430.3
534	260	978	Zone-1	0.19	1,023.08	441.2
535	757	974.9	Zone-1	0	995.03	197
536	440	981	Zone-1	0.16	1,022.10	402.2
537	158	975.8	Zone-1	0	1,018.54	418.3
538	286	975.1	Zone-1	0.18	1,022.05	459.5
539	165	976.3	Zone-1	0.08	1,018.68	414.8
540	354	980.3	Zone-1	0	1,021.94	407.6
541	602	980.2	Zone-1	0	1,021.60	405.2
542	759	974.9	Zone-1	0	995.54	202
543	512	975.9	Zone-1	0.19	1,021.32	444.5
544	234	975	Zone-1	0.16	1,022.41	464
545	515	976.3	Zone-1	0.25	1,021.27	440.1
546	582	971.3	Zone-1	0.03	1,017.64	453.6
547	813	977	Zone-1	0.31	1,019.27	413.7
548	772	974.9	Zone-1	0	994.71	193.9
549	672	972.5	Zone-1	0	1,016.60	431.6
550	566	970.3	Zone-1	0	1,018.20	468.7
552	118	977.8	Zone-1	0	1,022.58	438.2
553	459	978.4	Zone-1	0	1,023.43	440.7
554	328	972.5	Zone-1	0	1,018.14	446.7
555	586	977.2	Zone-1	0	1,016.93	388.9
556	294	977	Zone-1	0	1,022.51	445.4
557	655	978.5	Zone-1	3.5	1,020.92	415.2
558	383	981.9	Zone-1	0.08	1,021.92	391.7
559	362	968.5	Zone-1	0	1,018.09	485.3
560	238	977.5	Zone-1	0.14	1,023.44	449.6
561	685	976.72	Zone-1	0	1,016.35	387.8
562	371	980.4	Zone-1	0	1,021.97	406.8
563	479	967.6	Zone-1	0	1,018.09	494.2
564	349	978.4	Zone-1	0	1,021.85	425.2
565	573	979.78	Zone-1	0.04	1,021.07	404.1
566	646	972.5	Zone-1	0	1,017.77	443.1
567	584	971.7	Zone-1	1.6	1,017.69	450.1
568	413	966.9	Zone-1	0	1,018.09	501
569	67	977.8	Zone-1	0	1,017.61	389.6
570	18	978.1	Zone-no fire flow	0	1,032.79	535.3
571	542	978.9	Zone-1	0	1,020.99	412
572	733	974.5	Zone-1	0	1,019.38	439.2

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
573	385	981.2	Zone-1	0.16	1,021.88	398.1
574	117	977.8	Zone-1	0	1,022.58	438.2
575	502	978	Zone-1	0	1,021.62	426.9
576	374	980.4	Zone-1	0.3	1,021.97	406.9
577	115	977.8	Zone-1	0	1,009.10	306.3
578	415	981.5	Zone-1	0	1,021.64	392.9
579	151	976.2	Zone-1	0	1,018.88	417.7
580	26	978.1	Zone-no fire flow	0	992.22	138.2
581	287	975.1	Zone-1	0	1,022.08	459.8
582	51	976.3	Zone-1	0	1,016.67	395.1
583	683	976.72	Zone-1	0	1,016.35	387.9
584	245	976.1	Zone-1	0	1,026.46	492.9
585	261	978.1	Zone-1	0.19	1,022.56	435.1
586	763	974.9	Zone-1	0	1,023.15	472.2
587	132	978.5	Zone-1	0	1,019.26	398.9
588	692	976	Zone-1	0.08	1,018.22	413.2
589	82	976.7	Zone-1	0	1,017.80	402.3
590	343	977.4	Zone-1	0.19	1,021.78	434.3
591	225	975.3	Zone-1	0	1,020.62	443.5
592	J-4	978	Zone-1	0	1,021.68	427.5
593	395	968.5	Zone-1	0	1,018.09	485.3
594	161	976	Zone-1	0.1	1,018.54	416.4
595	593	975.3	Zone-1	0	1,019.40	431.6
596	630	974.5	Zone-1	0	1,018.42	429.8
597	741	977.5	Zone-1	0.35	1,019.35	409.6
598	737	974	Zone-1	0	1,019.38	444.1
599	141	978.5	Zone-1	0	1,019.16	397.9
600	631	974.5	Zone-1	0	1,018.27	428.4
601	828	977.71	Zone-1	0.6	1,021.63	429.9
602	499	969.52	Zone-1	0	1,018.11	475.6
603	437	980.7	Zone-1	0.26	1,022.09	405.1
604	116	977.8	Zone-1	0	1,020.81	420.9
605	224	975.3	Zone-1	0.09	1,020.40	441.4
606	509	976.08	Zone-1	0	1,021.32	442.8
607	668	976	Zone-1	0.4	1,021.66	446.9
608	827	979	Zone-1	0	1,021.41	415.1
609	427	978.6	Zone-1	0	1,021.80	422.8
610	622	980.5	Zone-1	0	1,021.63	402.5
611	256	979.1	Zone-1	0.18	1,024.62	445.5
612	805	977	Zone-1	0	1,019.31	414
613	481	978	Zone-1	0.4	1,022.56	436.1
614	370	980	Zone-1	0.13	1,021.96	410.6
615	644	974	Zone-1	0	1,019.01	440.5
617	284	976.01	Zone-1	0	1,018.59	416.7
618	88	976	Zone-1	0	1,017.74	408.5
619	659	978.8	Zone-1	0	1,022.15	424.2

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
620	494	981	Zone-1	0	1,021.64	397.7
621	695	976	Zone-1	0	1,018.23	413.3
622	676	974.4	Zone-1	0	1,016.43	411.3
623	321	975.3	Zone-1	0	1,021.83	455.4
624	799	977	Zone-1	0	1,019.27	413.7
625	188	974.5	Zone-1	0	1,019.24	437.9
626	38	971.5	Zone-1	0.04	1,017.39	449.1
627	317	973.24	Zone-1	0	1,018.18	439.8
628	53	976	Zone-1	0	1,015.08	382.5
629	372	980	Zone-1	0.1	1,021.97	410.7
630	330	975	Zone-1	0	1,021.86	458.6
631	608	978.6	Zone-1	0.13	1,019.24	397.8
632	320	975.3	Zone-1	0	1,021.85	455.6
633	846	977	Zone-1	0.54	1,019.27	413.7
634	86	977.4	Zone-1	0	1,017.77	395.1
635	250	979.78	Zone-1	0.15	1,020.44	397.9
636	282	975.2	Zone-1	0	1,021.83	456.4
637	180	975.26	Zone-1	0.58	1,018.74	425.5
638	802	977	Zone-1	0.51	1,019.36	414.6
639	742	977.8	Zone-1	0	1,019.35	406.6
640	54	978.5	Zone-1	0	1,019.41	400.4
641	801	977	Zone-1	0	1,019.38	414.8
642	70	976.8	Zone-1	0.8	1,017.66	399.9
643	73	973	Zone-1	0	1,017.68	437.3
644	835	978.5	Zone-1	0.35	1,019.41	400.4
645	177	977.8	Zone-1	0.19	1,018.80	401.3
646	428	979	Zone-1	0.08	1,021.98	420.6
647	463	979.2	Zone-1	0	1,025.87	456.7
648	817	983	Zone-1	0.55	1,019.23	354.6
649	606	976.5	Zone-1	0.19	1,021.20	437.5
650	426	978.5	Zone-1	0	1,021.78	423.6
651	102	976	Zone-1	0.21	1,017.84	409.5
652	271	975	Zone-1	0.09	1,021.33	453.4
653	263	978.3	Zone-1	0.08	1,021.82	425.9
654	191	975	Zone-1	0	1,019.49	435.4
655	808	977	Zone-1	2.42	1,019.23	413.3
656	267	976	Zone-1	0	1,021.14	441.7
657	303	976.5	Zone-1	0	1,022.28	448
658	55	976	Zone-1	0	1,014.82	379.9
659	94	973	Zone-1	0	1,017.81	438.5
660	725	978	Zone-1	0.42	1,020.76	418.5
661	148	977.2	Zone-1	0.19	1,018.95	408.6
662	305	975.3	Zone-1	0	1,022.09	457.9
663	153	976	Zone-1	0.38	1,018.41	415.1
664	419	980.5	Zone-1	0	1,021.62	402.5
665	681	976.76	Zone-1	0	1,016.37	387.7

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
666	447	979.6	Zone-1	0	1,022.36	418.5
667	507	976.5	Zone-1	0	1,021.35	438.9
668	666	977	Zone-1	0	1,019.47	415.7
669	37	971.9	Zone-1	0.11	1,017.39	445.2
670	539	978.97	Zone-1	0.2	1,020.95	410.8
671	603	980.3	Zone-1	0	1,021.61	404.3
672	706	983	Zone-1	0	1,019.24	354.7
673	836	978.5	Zone-1	0	1,019.28	399.1
674	109	978.7	Zone-1	0.53	1,019.74	401.6
675	448	979.6	Zone-1	0	1,022.36	418.5
676	831	966.9	Zone-1	0	1,018.09	501
677	781	967.5	Zone-1	0	1,019.38	507.7
678	721	978.37	Zone-1	0.4	1,020.91	416.4
679	106	976.5	Zone-1	0	1,017.85	404.7
680	456	979	Zone-1	0.24	1,022.19	422.7
681	615	978	Zone-1	0	1,021.36	424.3
682	157	975.8	Zone-1	0	1,018.32	416.1
683	322	975.3	Zone-1	0.19	1,021.83	455.4
684	171	976	Zone-1	0.24	1,018.73	418.2
685	402	981.1	Zone-1	0.16	1,021.98	400.1
686	418	981	Zone-1	0	1,021.48	396.2
687	720	976	Zone-1	0.6	1,021.66	446.9
688	344	977.4	Zone-1	0.1	1,021.78	434.3
689	500	978	Zone-1	0	1,021.36	424.3
690	127	977	Zone-1	0	1,019.91	419.9
691	195	976.2	Zone-1	0	1,018.86	417.5
692	693	976.7	Zone-1	0.08	1,018.22	406.3
693	557	979.2	Zone-1	0	1,018.63	385.9
695	58	975.7	Zone-1	0	1,017.53	409.4
696	729	978.5	Zone-1	0	1,019.34	399.7
697	552	976.2	Zone-1	0	1,018.86	417.5
698	114	977	Zone-1	1.73	1,010.70	329.8
699	389	980.2	Zone-1	0	1,021.84	407.5
700	75	973	Zone-1	0	1,017.68	437.3
701	516	977	Zone-1	0.25	1,021.25	433
702	408	980.6	Zone-1	0	1,021.69	402.1
703	406	966.9	Zone-1	0.4	1,018.09	501
704	853	979.29	Zone-1	0	1,020.13	399.7
705	231	976.5	Zone-1	0.16	1,022.14	446.6
706	625	979.5	Zone-1	0.19	1,021.94	415.4
707	653	978	Zone-1	0.25	1,021.07	421.5
708	312	977	Zone-1	0	1,022.03	440.8
709	228	977.88	Zone-1	0	1,018.71	399.6
710	580	974.4	Zone-1	0.16	1,016.91	416.1
711	567	972.9	Zone-1	0	1,019.38	454.9
712	467	979.2	Zone-1	0	1,026.90	466.8

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
713	335	976	Zone-1	0	1,021.70	447.2
714	351	978.5	Zone-1	0.16	1,021.86	424.4
715	369	980	Zone-1	0	1,021.96	410.6
716	540	978.99	Zone-1	0.34	1,020.98	410.9
717	258	978.5	Zone-1	0.18	1,024.09	446.2
718	626	979.5	Zone-1	0	1,021.94	415.4
719	859	979.78	Zone-1	0.18	1,019.96	393.3
720	85	977.4	Zone-1	0.3	1,017.74	394.8
721	334	975.7	Zone-1	0.4	1,021.71	450.3
722	536	978.5	Zone-1	0	1,020.98	415.7
723	9	978.1	Zone-no fire flow	0	1,033.18	539
724	483	978.2	Zone-1	0	1,022.44	433
725	338	976	Zone-1	0	1,021.73	447.5
726	378	980.9	Zone-1	0	1,022.04	402.6
727	201	974	Zone-1	0	1,018.62	436.7
728	829	976.67	Zone-1	0.6	1,021.65	440.2
729	446	966.9	Zone-1	0	1,018.09	501
730	81	977	Zone-1	0.11	1,017.82	399.5
731	513	975.9	Zone-1	0	1,021.32	444.5
732	21	979.57	Zone-1	0	1,032.70	520
733	474	977.6	Zone-1	0.06	1,023.61	450.3
734	619	979.8	Zone-1	0	1,021.59	409
735	397	979.8	Zone-1	0	1,021.86	411.6
736	247	976.1	Zone-1	0	1,026.29	491.2
737	561	975.7	Zone-1	0	1,017.53	409.4
738	232	976.5	Zone-1	0	1,022.22	447.5
739	239	978.63	Zone-1	0	1,018.68	392
740	466	979.1	Zone-1	0	1,026.80	466.8
741	545	978.6	Zone-1	0	1,021.02	415.1
742	645	979.78	Zone-1	0.12	1,021.57	409
743	743	978	Zone-1	0.35	1,019.35	404.6
744	731	974	Zone-1	0.17	1,019.38	444.1
745	20	978.1	Zone-no fire flow	0	1,033.13	538.6
746	792	970	Zone-1	0	1,018.99	479.5
747	798	977	Zone-1	0	1,019.28	413.8
748	110	976	Zone-1	0	1,013.30	365.1
749	91	972.9	Zone-1	0.27	1,017.80	439.4
750	15	979.4	Zone-no fire flow	0	992.28	126
751	609	976.7	Zone-1	0.13	1,017.81	402.4
752	339	971.45	Zone-1	0	1,018.13	456.8
753	142	978.3	Zone-1	0.97	1,019.16	399.9
754	495	981	Zone-1	0.13	1,021.47	396.1
755	403	981	Zone-1	0	1,021.97	401
756	577	968.76	Zone-1	0	1,018.09	482.8
757	160	974.9	Zone-1	0.06	1,018.54	427.1
758	594	973.5	Zone-1	2	1,019.38	449

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
759	83	976.7	Zone-1	0.08	1,017.80	402.2
760	834	978.5	Zone-1	0	1,019.44	400.7
761	292	976.5	Zone-1	0.16	1,022.34	448.7
762	727	983.5	Zone-1	0	1,019.26	350
763	472	977.4	Zone-1	0.16	1,024.05	456.6
764	451	979.8	Zone-1	0	1,022.41	417
765	420	979.5	Zone-1	0	1,021.59	411.9
766	783	968	Zone-1	0	1,019.41	503.2
767	241	975.6	Zone-1	0.16	1,023.86	472.3
768	804	977	Zone-1	0.46	1,019.27	413.7
769	152	976.3	Zone-1	0	1,018.41	412.2
770	214	973.8	Zone-1	0	1,019.38	446
771	454	978.9	Zone-1	0.32	1,022.68	428.4
772	471	977	Zone-1	0	1,024.56	465.5
773	301	978	Zone-1	0.26	1,022.66	437.1
774	240	975.6	Zone-1	0.24	1,023.86	472.3
775	768	974.9	Zone-1	0	1,023.91	479.7
776	277	975.8	Zone-1	0	1,021.46	446.9
777	96	973	Zone-1	0	1,017.81	438.5
778	623	979.5	Zone-1	0.13	1,021.94	415.4
779	253	979	Zone-1	0	1,026.76	467.4
780	470	967.41	Zone-1	0.8	1,018.09	496
781	435	966.9	Zone-1	0	1,018.09	501
782	202	974.5	Zone-1	0	1,018.80	433.5
783	821	977	Zone-1	0	1,019.27	413.7
784	206	977.11	Zone-1	0	1,018.73	407.4
785	248	976.5	Zone-1	0.53	1,026.40	488.3
786	647	976.5	Zone-1	0	1,021.34	438.8
787	705	984.5	Zone-1	0.56	1,019.26	340.2
788	710	979	Zone-1	0	1,019.68	398.1
789	841	977.99	Zone-1	0	1,018.72	398.6
790	80	977	Zone-1	0	1,017.70	398.3
791	854	979.29	Zone-1	0	1,020.13	399.7
792	417	981.5	Zone-1	0	1,021.64	392.9
793	107	977	Zone-1	0	1,017.83	399.6
794	556	979.2	Zone-1	0	1,018.63	385.9
795	288	975.1	Zone-1	0	1,022.10	460
796	393	980	Zone-1	0	1,021.85	409.5
797	591	977.8	Zone-1	0	1,022.58	438.2
798	661	980.6	Zone-1	0	1,020.25	388.1
799	97	974	Zone-1	0	1,017.81	428.8
800	1	979.41	Zone-no fire flow	0	992.33	126.4
801	811	977	Zone-1	0.28	1,019.27	413.7
802	421	979.3	Zone-1	0	1,021.59	413.9
803	508	976.08	Zone-1	0	1,021.32	442.8
804	209	972.9	Zone-1	0.16	1,019.38	454.9

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
805	331	976	Zone-1	0	1,021.74	447.7
806	J-3	977	Zone-1	1.44	1,021.65	437
807	307	975.5	Zone-1	0	1,022.07	455.8
808	443	980.5	Zone-1	0.24	1,022.16	407.8
809	680	979.78	Zone-1	0	1,021.83	411.5
810	506	976.5	Zone-1	0.65	1,021.37	439.2
811	356	979.4	Zone-1	0	1,021.94	416.4
812	848	984.23	Zone-1	0.59	1,019.26	342.9
813	77	977.6	Zone-1	0	1,017.68	392.2
814	663	983.1	Zone-1	0.9	1,019.30	354.3
815	797	972.44	Zone-1	0	1,018.56	451.4
816	755	974.9	Zone-1	0	995.54	202
817	64	973.1	Zone-1	1.46	1,017.84	437.9
819	578	966.9	Zone-1	0.13	1,018.09	501
820	50	976.3	Zone-1	0.13	1,016.63	394.7
821	105	976.4	Zone-1	0	1,017.86	405.8
822	613	977.5	Zone-1	0.1	1,023.76	452.7
823	562	973	Zone-1	0.11	1,017.68	437.3
824	189	974.7	Zone-1	0	1,019.36	437.1
825	857	979.78	Zone-1	0.44	1,020.56	399.1
826	31	979.78	Zone-1	0.06	1,020.44	397.9
827	122	977.8	Zone-1	0.64	1,019.93	412.3
828	129	976.3	Zone-1	0.13	1,019.64	424.1
829	30	978.1	Zone-no fire flow	0	992.21	138.1
830	210	972.8	Zone-1	0.5	1,019.38	455.8
831	837	977.99	Zone-1	0	1,018.70	398.5
832	325	976	Zone-1	0.19	1,021.78	448
833	496	978	Zone-1	0	1,021.38	424.6
834	538	978.97	Zone-1	0	1,020.95	410.8
835	390	980	Zone-1	0.18	1,021.84	409.5
836	614	978	Zone-1	0.13	1,021.36	424.3
837	677	976.8	Zone-1	0.13	1,016.39	387.5
838	551	978.2	Zone-1	0.17	1,021.06	419.5
839	810	977	Zone-1	0.31	1,019.27	413.7
840	803	980.51	Zone-1	0	1,019.58	382.4
841	777	974.9	Zone-1	0	994.86	195.3
842	119	978	Zone-1	0	1,019.35	404.7
843	793	968.3	Zone-1	0	1,018.86	494.8
844	252	979	Zone-1	0.13	1,026.74	467.3
845	488	967.57	Zone-1	0	1,018.10	494.5
846	807	977	Zone-1	0	1,019.32	414.2
847	298	979.2	Zone-1	0.16	1,023.20	430.7
848	353	980.3	Zone-1	0	1,021.94	407.6
849	199	976.5	Zone-1	0.29	1,019.41	420
850	175	977.6	Zone-1	0	1,018.91	404.3
851	375	980.4	Zone-1	0	1,021.97	406.9

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
852	441	980.6	Zone-1	0.16	1,022.10	406.2
853	670	977	Zone-1	0.49	1,021.67	437.2
854	697	976.35	Zone-1	0	1,018.23	409.9
855	547	978.6	Zone-1	0.19	1,021.02	415.1
856	429	979.3	Zone-1	0	1,022.06	418.5
857	168	976.5	Zone-1	0.13	1,018.83	414.2
858	588	976	Zone-1	1.07	1,017.68	408
859	74	973	Zone-1	0.11	1,017.68	437.3
860	230	975	Zone-1	0	1,022.04	460.4
861	493	980	Zone-1	0.16	1,021.69	408
862	700	973.13	Zone-1	0	1,018.23	441.4
863	218	975	Zone-1	0.16	1,019.38	434.3
864	137	978.5	Zone-1	0	1,019.20	398.3
865	535	978.5	Zone-1	0.25	1,020.98	415.7
866	124	977.8	Zone-1	0	1,019.83	411.3
867	276	975.4	Zone-1	0.27	1,021.43	450.5
868	855	979.72	Zone-1	0	1,020.91	403.1
869	60	977.2	Zone-1	0.93	1,016.94	389
871	601	980.65	Zone-1	0	1,022.12	405.8
872	275	975.5	Zone-1	0	1,021.43	449.5
873	314	977.5	Zone-1	0	1,022.09	436.4
874	229	975.1	Zone-1	0.14	1,022.03	459.3
875	316	975	Zone-1	0	1,021.88	458.8
876	310	976	Zone-1	0	1,021.98	450
877	95	973	Zone-1	0	1,017.80	438.5
879	490	979.2	Zone-1	0.16	1,021.74	416.4
880	758	975.96	Zone-1	0	996.16	197.7
881	554	979.2	Zone-1	0	1,018.63	385.9
882	843	977	Zone-1	0	1,019.27	413.7
883	219	974.8	Zone-1	0	1,019.38	436.2
884	352	980.3	Zone-1	0.16	1,021.94	407.6
885	527	976.9	Zone-1	0	1,021.10	432.6
886	598	978.1	Zone-1	0	1,021.81	427.8
887	170	977	Zone-1	0	1,018.73	408.4
888	196	973	Zone-1	0	1,019.27	452.8
889	108	976	Zone-1	0	1,012.94	361.5
890	651	977	Zone-1	0.25	1,021.17	432.3
891	327	976.3	Zone-1	0	1,021.76	444.9
892	607	973	Zone-1	0	1,018.06	441
893	698	976.08	Zone-1	0	1,018.23	412.5
894	237	978.7	Zone-1	0	1,023.22	435.7
895	190	974.9	Zone-1	0	1,019.39	435.4
896	635	972.46	Zone-1	0	1,018.08	446.5
897	130	976.8	Zone-1	0	1,019.16	414.6
898	656	972.5	Zone-1	0	1,016.65	432.1
899	541	979	Zone-1	0.4	1,020.95	410.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
900	35	971.6	Zone-1	0	1,017.68	451
901	416	981.5	Zone-1	0	1,021.64	392.9
902	770	974.9	Zone-1	0	1,023.11	471.8
903	682	976.74	Zone-1	0.67	1,016.36	387.8
904	590	977.6	Zone-1	0	1,017.67	392.2
905	654	978.8	Zone-1	0.3	1,021.03	413.3
906	627	972.43	Zone-1	0	1,018.50	450.9
907	270	976	Zone-1	0	1,021.25	442.8
908	712	978.33	Zone-1	0.3	1,020.87	416.3
909	319	975	Zone-1	0.15	1,021.88	458.8
910	178	978.7	Zone-1	0.11	1,018.79	392.3
911	268	976	Zone-1	0.18	1,021.18	442.2
912	123	977.8	Zone-1	0	1,019.86	411.7
913	296	976.5	Zone-1	0	1,022.34	448.7
914	208	975.4	Zone-1	0	1,019.33	429.9
915	144	977	Zone-1	0	1,019.12	412.2
916	392	980	Zone-1	0.13	1,021.84	409.5
917	414	981.5	Zone-1	0	1,021.64	392.9
918	690	976	Zone-1	0	1,018.22	413.2
919	825	982.64	Zone-1	0	1,019.27	358.5
920	368	980.4	Zone-1	0.11	1,021.96	406.7
921	223	975.4	Zone-1	0.16	1,019.62	432.8
922	244	977.5	Zone-1	0.19	1,023.76	452.7
923	790	969.5	Zone-1	0	1,019.14	485.8
924	34	971.42	Zone-1	0	1,018.23	458.1
925	568	974.5	Zone-1	0	1,019.24	437.9
926	323	975.3	Zone-1	0	1,021.82	455.3
927	44	975.9	Zone-1	0.11	1,014.11	373.9
928	423	979	Zone-1	0	1,021.59	416.8
929	832	974.5	Zone-1	0	1,019.37	439.2
1901	J-866	979.78	Zone-1	0	1,019.96	393.3
1904	J-867	979.78	Zone-1	0.98	1,019.94	393.1
1906	J-868	979.6	Zone-1	0	1,019.93	394.7
1908	J-869	979.4	Zone-1	0	1,019.93	396.7
1910	J-870	979.4	Zone-1	0	1,019.94	396.7
1912	J-871	979.78	Zone-1	0	1,019.94	393.1
1915	J-872	979.78	Zone-1	0	1,019.94	393.1
1917	J-873	979.6	Zone-1	0	1,019.92	394.6
1921	J-874	979.29	Zone-1	0	1,019.81	396.5
1924	J-875	979.29	Zone-1	0	1,019.70	395.5
1929	J-876	979.78	Zone-1	1.2	1,019.96	393.2
1933	J-877	977	Zone-1	0.92	1,019.06	411.6
1935	J-878	977	Zone-1	0	1,019.06	411.6
1937	J-879	977	Zone-1	0	1,019.04	411.5
1939	J-880	967.5	Zone-1	0	1,019.34	507.4
1943	J-881	968	Zone-1	0	1,019.38	502.8

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
1945	J-882	968	Zone-1	0	1,019.38	502.8
1947	J-883	968	Zone-1	0	1,019.38	502.8
1949	J-884	968	Zone-1	0	1,019.67	505.6
1952	J-885	967	Zone-1	0	1,019.38	512.6
1954	J-886	967	Zone-1	0	1,019.38	512.6
1956	J-887	967	Zone-1	0	1,019.38	512.6
1958	J-888	967	Zone-1	0	1,019.38	512.6
1960	J-889	967	Zone-1	0	1,019.38	512.6
1963	J-890	967.5	Zone-1	0	1,019.38	507.7
1996	J-891	976.5	Zone-1	0	1,018.77	413.7
1999	J-892	978	Zone-1	0	1,018.86	399.9
2002	J-893	976.5	Zone-1	0	1,018.82	414.2
2006	J-894	979.78	Zone-1	6.8	1,024.24	435.1
2017	J-899	976	Zone-1	0.6	1,021.67	447
2046	J-900	978.5	Zone-1	0	1,019.73	403.5
2055	J-904	974.48	Zone-1	0	1,018.14	427.3
2057	J-905	974.38	Zone-1	0.4	1,018.01	427
2059	J-906	978	Zone-1	0	1,019.29	404.1
2065	J-908	977.5	Zone-1	0	1,019.17	407.8
2096	J-919	974.87	Zone-1	0.2	1,018.01	422.2
2098	J-920	975.79	Zone-1	0.6	1,018.01	413.2
2100	J-921	976.03	Zone-1	0.73	1,018.01	410.9
2102	J-922	975.46	Zone-1	0.3	1,018.01	416.4
2106	J-923	973.84	Zone-1	0.1	1,017.95	431.7
2108	J-924	974.96	Zone-1	0.6	1,017.93	420.5
2111	J-925	973.45	Zone-1	0.7	1,017.95	435.6
2119	J-928	976.14	Zone-1	0	1,018.92	418.7
2133	J-931	974	Zone-1	0	1,017.92	429.9
2155	J-2	977	Zone-1	2.88	1,021.66	437.1
2183	J-935	979.5	<None>	17.03	1,018.46	381.3
2185	J-936	981	<None>	17.03	1,018.27	364.7
2187	J-937	980	<None>	0	1,019.16	383.3
2189	J-938	978	<None>	0	1,019.07	401.9
2191	J-939	971	<None>	17.03	1,017.37	453.8
2193	J-940	971	<None>	17.03	1,016.90	449.2
2195	J-941	979.78	<None>	0	1,020.04	394.1
2199	J-942	973	<None>	0	1,018.97	449.9
2201	J-943	968	<None>	0	1,018.89	498
2203	J-944	962	<None>	17.03	1,018.19	549.9
2205	J-945	966	<None>	17.03	1,018.00	508.9
2207	J-946	962	<None>	0	1,018.89	556.8
2209	J-947	959	<None>	0	1,018.90	586.2
2211	J-948	960	<None>	17.03	1,018.90	576.4
2214	J-949	959	<None>	17.03	1,018.43	581.6
2216	J-950	965	<None>	17.03	1,018.85	527.1
2219	J-951	971	<None>	17.03	1,018.89	468.7

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
2221	J-952	975	<None>	17.03	1,018.97	430.4
2226	J-953	980	<None>	17.03	1,018.94	381.1
2231	J-955	980.41	<None>	0	1,019.72	384.7
2234	J-956	975	<None>	17.03	1,019.26	433.2
2236	J-957	980	<None>	17.03	1,020.76	398.9
2238	J-958	979.03	<None>	0	1,020.94	410.2
2242	J-959	977	<None>	0	1,021.75	438
2244	J-960	977	<None>	0	1,021.11	431.7
2247	J-961	979	<None>	17.03	1,020.83	409.4
2249	J-962	977	<None>	0	1,020.93	429.9
2252	J-963	978	<None>	17.03	1,020.47	415.7
2254	J-964	976	<None>	0	1,021.11	441.4
2256	J-965	982	<None>	17.03	1,020.87	380.4
2262	J-966	975	<None>	0	1,023.58	475.4
2267	J-967	975	<None>	0	1,022.07	460.7
2269	J-968	969	<None>	0	1,020.56	504.6
2272	J-969	980	<None>	17.03	1,021.03	401.6
2274	J-970	978.68	<None>	0	1,021.09	415.1
2278	J-971	974	<None>	17.03	1,019.79	448.1
2282	J-973	964	<None>	0	1,019.95	547.5
2286	J-974	973	<None>	17.03	1,018.91	449.3
2288	J-975	962	<None>	17.03	1,019.01	557.9
2292	J-976	961	<None>	17.03	1,017.89	556.8
2294	J-977	958	<None>	17.03	1,017.31	580.4
2296	J-978	970	<None>	17.03	1,016.83	458.3
2299	J-979	983	<None>	17.03	1,018.88	351.2
2305	J-981	971	<None>	0	1,018.74	467.3
2306	J-982	971	<None>	0	1,018.66	466.5
2308	J-983	971	<None>	0	1,018.60	465.9
2310	J-984	964	<None>	0	1,017.86	527.1
2312	J-985	965	<None>	0	1,017.79	516.6
2314	J-986	958	<None>	17.03	1,017.19	579.2
2316	J-987	959	<None>	17.03	1,016.70	564.7
2318	J-988	951	<None>	17.03	1,016.51	641.1
2321	J-989	964	<None>	17.03	1,017.94	527.9
2325	J-990	969.62	<None>	0	1,018.54	478.8
2331	J-991	954	<None>	0	1,016.42	610.9
2333	J-992	953	<None>	0	1,016.39	620.4
2336	J-993	950	<None>	17.03	1,016.16	647.5
2338	J-994	950	<None>	17.03	1,016.16	647.5

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1930	P-1008	198.53	860	J-876	300	130	0	0.82	0.01	0	0
1582	226	86.92	126	127	200	66	0	12.4	0.39	0.003	86.87
1406	669	17.62	628	626	150	140	0	0.32	0.02	0	17.68
1538	320	46.06	220	222	150	140	0	0.04	0	0	46.02
1469	321	48.6	220	221	150	140	0	0	0	0	48.46
1450	177	104.46	79	80	200	60	0	-3.48	0.11	0	104.55
1068	271	99.38	166	165	150	140	0	2.8	0.16	0	99.36
1606	803	215.76	J-1	A	200	140	0	-6.5	0.21	0	145.08
1455	802	27.7	J-1	J-4	200	140	0	0	0	0	98.15
1277	243	58.63	145	147	250	140	0	33.53	0.68	0.002	58.52
1137	242	50.97	145	146	250	140	0	-10.43	0.21	0	50.9
2188	P-1110	699.98	464	J-937	400	130	0	-4.32	0.03	0	0
2184	P-1108	800	464	J-935	300	130	0	34.06	0.48	0.001	0
2300	P-1179	772.68	464	J-979	300	130	0	21.09	0.3	0	0
1697	527	137.39	380	381	150	91	0	2.78	0.16	0	137.46
1715	897	104.04	849	850	300	100	0	23.66	0.33	0.001	78.03
1055	847	37.28	809	804	250	100	0	0.57	0.01	0	36.58
1767	864	34.98	809	821	250	100	0	-0.35	0.01	0	33.83
1057	210	130.71	120	121	200	140	0	24.43	0.78	0.003	130.76
1521	449	91.67	257	299	300	89	0	83.68	1.18	0.009	91.74
1712	420	9.54	358	359	150	91	0	0	0	0	9.45
1630	41	35.14	295	630	250	140	0	23.08	0.47	0.001	35.05
1313	170	70.63	72	107	200	130	0	-18.23	0.58	0.002	70.71
1211	164	88.69	69	61	300	60	0	21.44	0.3	0.002	88.7
1735	165	98.56	69	79	200	60	0	-4.75	0.15	0.001	98.45
1426	166	133.58	69	70	200	140	0	-9.24	0.29	0	133.5
1864	523	92.65	405	402	250	95	0	15.92	0.32	0.001	92.66
1100	524	69.98	405	404	250	95	0	8.13	0.17	0	70.1
1523	522	135.73	405	407	200	95	0	10.65	0.34	0.001	135.64
1628	129	23.89	560	582	200	66	0	7.84	0.25	0.001	24.38
1607	140	81.9	560	47	300	66	0	-10.28	0.15	0	82.6
1863	493	87.03	478	480	150	140	0	6.89	0.39	0.001	87.17
1812	202	46.45	100	102	150	140	0	-3.03	0.17	0	49.07
1213	542	17.66	491	A	250	95	0	6.5	0.13	0	9.14
1853	955	15.48	187	644	300	130	0	53.25	0.75	0.002	15.54
1688	294	48.34	187	188	300	89	0	-53.25	0.75	0.004	48.46
1622	101	88.51	616	797	250	66	0	-14.35	0.29	0.002	88.39
1061	225	57.13	121	126	200	66	0	12.4	0.39	0.003	57
1072	221	148.59	121	122	150	140	0	11.82	0.67	0.003	148.74
1169	337	51.11	280	281	150	91	0	-5.44	0.31	0.002	51.21
1672	425	9.68	364	366	200	95	0	0	0	0	9.75
1511	427	14.19	364	365	200	95	0	0	0	0	14.33
1110	256	33.59	155	592	150	130	0	2.49	0.14	0	33.53
1112	257	97.63	155	107	200	140	0	23.51	0.75	0.003	97.54
1648	717	218.93	604	658	250	140	0	22.57	0.46	0.001	218.85
963	79	105.79	699	698	250	140	0	-0.13	0	0	106.07
1129	794	113.68	709	710	300	140	0	-38.89	0.55	0.001	95.1
1701	795	89.48	709	711	200	130	0	0	0	0	90.22
1555	11	119.67	691	32	200	140	0	43.76	1.39	0.009	119.79
1809	716	135.45	657	658	200	140	0	-12.05	0.38	0.001	135.33
1121	809	93.76	657	722	200	140	0	7.21	0.23	0	93.88
1841	394	12.75	340	338	250	140	0	10.2	0.21	0	12.8
1454	395	24.4	340	596	150	140	0	-1.8	0.1	0	24.38
982	278	112.17	176	185	200	140	0	5.52	0.18	0	112.17
1180	892	57.72	844	843	200	100	0	0.35	0.01	0	40.84
1748	201	55.83	99	100	150	140	0	-2.79	0.16	0	53.64
1101	200	97.4	99	101	150	140	0	0.1	0.01	0	97.54
1593	725	293.82	662	666	250	140	0	22.13	0.45	0.001	299.01
1186	723	49.93	662	814	200	140	0	13.65	0.43	0.001	54.56
1940	P-1014	243.08	789	J-880	250	130	0	-13.51	0.28	0	0
1515	823	108.78	789	790	250	140	0	24.39	0.5	0.001	102.11

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1587	831	41.4	796	787	250	130	0	4.66	0.09	0	37.49
1374	564	6.53	599	412	200	95	0	0	0	0	6.4
1314	480	133.57	254	255	300	89	0	28.67	0.41	0.001	133.5
1717	267	113.42	159	161	150	130	0	0.1	0.01	0	113.39
1794	268	20.13	159	160	150	130	0	0.06	0	0	20.12
1398	155	47.12	62	63	300	140	0	22.71	0.32	0	47.24
1847	490	8.73	476	477	150	91	0	13.65	0.77	0.009	8.84
1012	15	103.61	76	608	300	66	0	12.37	0.18	0	63.7
1123	728	94.22	669	670	200	140	0	-1.78	0.06	0	94.18
1195	533	91.91	382	383	150	91	0	2.54	0.14	0	92.05
1492	877	118.11	465	831	250	130	0	0	0	0	103.33
1327	114	42.29	678	679	200	140	0	0	0	0	42.37
1599	485	35.05	572	463	250	89	0	66.73	1.36	0.015	35.05
1125	813	154.99	779	780	250	140	0	0.09	0	0	162.15
1181	611	47.22	505	506	250	140	0	21.75	0.44	0.001	47.24
1040	440	28.88	264	263	200	89	0	-21.73	0.69	0.006	28.96
1355	703	1	7	26	300	140	0	206.76	2.93	0.021	0.91
1414	925	1.03	7	15	300	100	0	-206.76	2.93	0.04	0.91
1570	417	33.32	355	356	200	95	0	1	0.03	0	33.22
1341	789	70.73	704	706	200	140	0	6.39	0.2	0	75.59
1734	786	181.91	704	705	300	140	0	-3.8	0.05	0	168.86
1415	788	82.2	704	664	300	140	0	-2.79	0.04	0	78.64
2241	P-1142	296.01	726	J-958	300	130	0	-35.95	0.51	0.001	0
2232	P-1136	473.49	726	J-955	300	140	0	57.08	0.81	0.002	890.32
1220	421	28.16	359	360	150	91	0	0	0	0	28.04
1369	372	82.57	311	310	150	91	0	2.41	0.14	0	82.6
962	367	55.42	304	314	150	91	0	2.79	0.16	0	55.47
1530	322	11.1	194	197	300	89	0	-53.25	0.75	0.004	10.97
1046	904	38.24	32	856	200	100	0	43.76	1.39	0.016	21.03
1382	446	124.42	259	258	200	89	0	-21.05	0.67	0.005	124.36
1354	901	104.4	852	853	200	100	0	-15.84	0.5	0.002	106.07
1522	900	88.99	852	851	150	100	0	0.33	0.02	0	69.49
1553	68	73.59	555	566	250	140	0	-14.48	0.3	0	73.46
1564	340	163.12	283	268	300	95	0	54.97	0.78	0.004	163.07
1723	341	247.61	283	294	300	95	0	-47.24	0.67	0.003	247.5
1390	77	60.6	701	700	250	140	0	-0.13	0	0	60.66
1279	84	39.91	689	690	200	130	0	1.91	0.06	0	39.62
1805	88	125.14	689	688	250	130	0	4.79	0.1	0	126.19
967	190	167.72	89	90	200	130	0	-3.25	0.1	0	167.64
1831	423	100.59	363	364	150	91	0	-0.13	0.01	0	100.58
1516	120	79.69	39	40	150	60	0	-0.81	0.05	0	79.55
1222	122	29.23	39	580	200	60	0	11.71	0.37	0.004	29.26
2260	P-1154	159.22	501	J-959	250	130	0	-22.42	0.46	0.001	0
1371	607	28.74	501	502	200	95	0	-9.07	0.29	0.001	9.75
1481	608	45.87	501	503	250	140	0	25.66	0.52	0.001	35.05
1351	237	21.17	138	141	250	140	0	24.06	0.49	0.001	21.03
1680	792	102.24	707	834	250	140	0	-18.4	0.37	0.001	100.58
1774	797	78.03	707	713	150	140	0	0	0	0	70.71
1836	218	8.1	564	565	250	140	0	-106.42	2.17	0.015	8.23
1785	769	179.69	735	731	200	140	0	-0.69	0.02	0	175.26
1187	529	15.24	379	378	250	95	0	0	0	0	15.24
1171	530	16.67	379	377	250	95	0	5.16	0.11	0	16.76
998	526	7.11	379	380	150	91	0	2.97	0.17	0.001	7.01
1687	38	16.26	262	273	250	140	0	23.08	0.47	0.001	16.15
1815	255	80.3	154	155	200	140	0	26	0.83	0.003	80.16
1608	135	9.89	42	41	300	140	0	63.64	0.9	0.002	9.75
1096	477	37.77	249	252	200	89	0	-12.12	0.39	0.002	37.8
1105	681	0.97	29	30	300	150	0	-84.74	1.2	0.004	0.91
1887	P-978	1.48	29	BWD-3	304.8	130	0	46.35	0.64	0.001	1.52
994	525	24.99	404	379	250	95	0	8.13	0.17	0	24.99
1638	138	51.93	52	53	150	60	0	6.55	0.37	0.005	51.82

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1738	137	91.75	52	45	150	60	0	10.69	0.61	0.013	91.74
1097	132	19.4	49	583	200	60	0	9.25	0.29	0.002	19.51
1401	409	92.87	346	347	150	91	0	0.13	0.01	0	92.96
1253	411	27.92	346	349	150	91	0	-3.2	0.18	0.001	28.04
1547	397	56.59	333	334	150	140	0	1.95	0.11	0	56.69
1053	39	113.85	273	284	250	140	0	23.08	0.47	0.001	114
1859	501	51.44	473	474	200	91	0	2.06	0.07	0	51.51
1325	489	73.2	473	476	150	91	0	13.65	0.77	0.009	73.15
1244	698	57.54	186	644	300	89	0	-53.25	0.75	0.004	57.61
1251	148	22.03	57	585	300	140	0	76.14	1.08	0.003	21.95
1460	144	95.63	57	48	150	60	0	2.65	0.15	0.001	95.71
1264	219	10.17	565	110	250	140	0	-106.42	2.17	0.015	10.06
1598	867	217.02	824	803	150	100	0	-4.36	0.25	0.001	222.5
1546	514	50.98	442	443	150	91	0	0.18	0.01	0	50.9
1036	358	144.68	285	286	200	95	0	-10.13	0.32	0.001	144.78
1718	436	178.51	376	377	200	95	0	-5.16	0.16	0	178.61
1339	159	54.43	66	588	200	140	0	16.82	0.54	0.001	54.56
1365	720	134.05	486	659	200	140	0	0	0	0	134.11
1082	642	98.84	530	531	150	140	0	3.27	0.18	0	98.76
1643	314	15.09	213	214	200	140	0	0.94	0.03	0	15.24
1443	547	45	391	392	150	91	0	-0.35	0.02	0	45.11
1050	893	121.64	845	662	250	140	0	35.97	0.73	0.002	89.31
1728	370	39.47	313	312	150	91	0	2.6	0.15	0	39.32
1173	898	89.48	850	710	300	100	0	29.15	0.41	0.001	142.04
1922	P-1004	91.12	850	J-874	200	100	0	-5.64	0.18	0	107.9
996	888	87.96	839	840	250	100	0	-4.73	0.1	0	88.09
1865	249	77.06	149	150	250	140	0	28.1	0.57	0.001	77.11
1159	247	68.78	149	168	150	130	0	1.34	0.08	0	68.88
1271	20	117.84	140	151	250	140	0	20.1	0.41	0.001	117.96
1332	677	28.19	46	610	150	60	0	-27.19	1.54	0.071	34.44
1724	168	106.98	71	63	150	60	0	8.19	0.46	0.008	106.98
1500	169	6.03	71	72	200	130	0	-18.23	0.58	0.002	6.1
1413	377	40.4	315	316	200	140	0	12.08	0.38	0.001	40.54
1525	644	30.22	533	534	150	140	0	2.78	0.16	0	30.18
2141	P-1101	233.69	255	245	300	130	0	22.7	0.32	0	0
1624	124	99.57	41	677	300	140	0	6.17	0.09	0	99.67
1170	125	26.71	41	581	300	60	0	68.78	0.97	0.013	26.82
1517	331	23.85	274	275	150	91	0	0.27	0.02	0	23.77
1444	648	35.4	537	538	150	140	0	2.28	0.13	0	35.36
1266	865	49.06	822	661	200	100	0	-8.95	0.28	0.001	24.69
1013	610	21.45	504	505	250	140	0	22.41	0.46	0.001	21.34
1331	4	67.42	361	464	200	140	0	50.83	1.62	0.012	17.98
1176	312	26.9	211	212	200	140	0	1.26	0.04	0	26.82
1090	510	66.55	450	451	150	91	0	4.49	0.25	0.001	66.45
1616	515	17.31	450	449	250	140	0	35	0.71	0.002	17.37
1417	236	21.77	136	138	250	140	0	24.06	0.49	0.001	21.64
1059	235	16.49	136	137	150	140	0	0	0	0	16.46
1419	2	101.15	139	250	200	140	0	-0.11	0	0	100.89
1342	499	67.77	462	461	250	95	0	66.57	1.36	0.013	67.67
1212	244	49.5	147	175	200	140	0	16.07	0.51	0.001	49.38
1772	246	47.4	147	148	250	140	0	17.46	0.36	0.001	47.55
1466	521	53.12	445	405	250	140	0	34.7	0.71	0.002	53.04
1719	519	17.41	445	444	150	95	0	0.06	0	0	17.37
1508	866	110.1	823	824	200	100	0	-3.39	0.11	0	110.03
1817	755	124.79	125	739	150	140	0	10.16	0.57	0.002	114
1605	333	17.03	272	277	150	91	0	-5.35	0.3	0.002	17.07
1754	330	100.53	272	274	150	91	0	0.42	0.02	0	100.58
1424	290	56.63	204	205	200	89	0	-19.51	0.62	0.005	56.69
1968	P-1032	119.88	696	631	200	130	0	-6.91	0.22	0	0
1503	67	22.41	544	555	250	140	0	-14.48	0.3	0	22.56
1347	912	113.21	862	863	200	100	0	-16.78	0.53	0.003	123.75

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1106	508	107.05	455	456	250	95	0	28.38	0.58	0.003	106.98
1843	643	78.96	531	533	150	140	0	3.02	0.17	0	78.94
1518	664	58.03	618	620	150	91	0	0	0	0	57.91
1583	597	35.97	618	602	200	95	0	-3.13	0.1	0	35.97
1797	163	155.2	589	69	300	140	0	8.38	0.12	0	155.14
964	23	7.64	173	184	250	140	0	19.83	0.4	0.001	7.62
1446	556	115	400	401	150	91	0	-2.13	0.12	0	114.91
1846	645	123.04	534	535	150	140	0	2.78	0.16	0	123.14
1646	343	54.25	293	292	200	95	0	13.26	0.42	0.002	54.25
1136	324	24.31	595	267	300	89	0	-53.25	0.75	0.004	24.38
1172	463	13	235	236	150	85	0	-1.97	0.11	0	13.11
1056	468	108.9	235	240	150	85	0	-10.5	0.59	0.006	108.81
2230	P-1135	488.18	820	825	400	130	0	-39.22	0.31	0	0
2227	P-1133	800	820	J-953	300	130	0	17.03	0.24	0	0
2212	P-1123	662.09	820	J-948	400	130	0	44.57	0.35	0	0
1543	111	14.37	674	676	300	130	0	15.42	0.22	0	14.33
1126	110	242.27	674	675	250	130	0	0	0	0	242.32
1062	581	22	432	429	150	140	0	3.03	0.17	0	21.95
1536	27	21.91	575	206	250	140	0	19.83	0.4	0.001	21.95
1242	356	54.12	569	570	150	91	0	5.71	0.32	0.002	54.25
971	774	79.92	702	712	250	140	0	-15.84	0.32	0	86.87
1778	779	85.2	702	724	250	140	0	21.96	0.45	0.001	85.34
1828	349	13.11	291	290	200	140	0	13.02	0.41	0.001	13.11
1368	811	330.6	671	778	200	140	0	0	0	0	330.71
1722	655	6.86	45	44	150	60	0	10.69	0.61	0.013	7.01
1479	300	125.86	192	194	300	89	0	-53.25	0.75	0.004	125.88
1505	784	119.43	728	848	150	140	0	0.82	0.05	0	103.63
1545	336	45.25	279	280	150	91	0	-5.44	0.31	0.002	45.11
1656	149	152.31	585	60	300	140	0	75.21	1.06	0.003	152.4
1854	569	40.96	621	419	200	95	0	3.13	0.1	0	40.84
1690	666	56.22	621	622	150	91	0	0	0	0	56.08
1306	665	122.06	621	411	200	95	0	-3.13	0.1	0	121.92
990	544	24.56	388	389	150	91	0	-1.1	0.06	0	24.69
969	749	1	19	20	200	100	0	-122.02	3.88	0.109	0.91
1803	391	71.73	326	331	250	140	0	11.36	0.23	0	71.63
1626	387	16.12	326	327	150	91	0	0	0	0	16.15
1647	56	3.24	424	435	200	140	0	-2.78	0.09	0	3.35
1615	822	371.78	788	789	250	140	0	11.55	0.24	0	191.72
1678	555	34.65	399	400	150	91	0	-1.87	0.11	0	34.75
1240	718	130.6	658	654	250	140	0	10.17	0.21	0	130.45
1791	630	7.43	522	524	200	140	0	13.38	0.43	0.001	7.32
1745	626	29.12	522	606	200	140	0	-9.95	0.32	0.001	29.26
1997	P-1035	94.36	553	J-891	250	130	0	-12.46	0.25	0	0
1049	474	79.31	246	247	150	85	0	4.29	0.24	0.001	79.25
1743	668	56.34	629	628	150	140	0	0.32	0.02	0	56.39
959	667	11.64	629	364	200	95	0	0.28	0.01	0	11.58
1686	554	129.7	398	399	150	91	0	-1.87	0.11	0	129.84
1551	335	25.36	278	279	150	91	0	-5.35	0.3	0.002	25.3
1188	560	3.36	409	410	200	95	0	7.23	0.23	0.001	3.35
1459	568	3.62	409	411	200	95	0	3.28	0.1	0	3.66
1418	460	141	233	234	150	85	0	-4.24	0.24	0.001	141.12
1430	280	77.01	183	182	200	140	0	5.17	0.16	0	77.11
1037	574	61.74	436	434	150	140	0	1.23	0.07	0	61.87
1119	887	50.52	838	839	250	100	0	-4.73	0.1	0	50.6
954	854	179.87	814	822	150	100	0	-8.24	0.47	0.003	173.74
1429	853	38.08	814	803	200	140	0	21.89	0.7	0.002	38.4
1321	126	143.65	581	44	300	60	0	68.78	0.97	0.013	143.56
1771	711	86.93	649	651	150	140	0	5.15	0.29	0.001	86.87
1378	710	32.78	649	650	150	140	0	0.25	0.01	0	32.92
1267	141	14.43	47	56	300	66	0	-10.28	0.15	0	13.41
1179	327	42.97	269	270	150	91	0	-4.76	0.27	0.001	42.98

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1033	780	128.91	724	725	150	140	0	0.42	0.02	0	135.94
1286	781	137.88	724	726	250	140	0	21.14	0.43	0.001	124.36
1175	74	70.37	597	34	250	140	0	-0.13	0	0	70.41
968	98	11.15	597	559	250	66	0	-14.35	0.29	0.002	11.28
1073	403	145.1	342	343	150	140	0	-2.65	0.15	0	145.08
1409	279	37.76	185	183	200	140	0	5.17	0.16	0	37.8
1107	426	44.04	366	367	200	95	0	0	0	0	43.89
1594	889	22.67	840	841	250	100	0	-4.73	0.1	0	22.56
1322	636	44.04	549	550	150	140	0	0.19	0.01	0	43.89
1819	303	201.78	193	196	200	140	0	10.85	0.35	0.001	201.78
1569	143	152.29	56	186	300	66	0	-53.25	0.75	0.007	153.01
987	142	20.02	56	584	300	140	0	42.97	0.61	0.001	20.42
1093	71	15.07	587	597	250	140	0	-14.48	0.3	0	14.94
1256	422	59.9	360	363	150	91	0	-0.13	0.01	0	60.05
1021	537	13.89	386	387	250	95	0	15.68	0.32	0.001	14.02
1851	438	107.68	265	267	150	85	0	-6.3	0.36	0.002	107.59
1154	439	141.97	265	264	200	89	0	-21.73	0.69	0.006	142.04
1148	504	12.8	460	459	250	95	0	68.41	1.39	0.014	12.8
1004	26	171.16	184	575	250	140	0	19.83	0.4	0.001	171.3
1442	25	22.62	184	195	250	140	0	0	0	0	22.56
1510	24	14.94	184	552	250	140	0	0	0	0	14.94
1254	175	90.83	78	85	300	140	0	-31.65	0.45	0.001	90.83
1618	174	17.75	78	590	200	60	0	1.52	0.05	0	17.68
1762	756	73.64	739	673	150	140	0	8.15	0.46	0.002	67.36
1602	757	35.91	739	741	150	140	0	2.01	0.11	0	25.91
1589	99	23.72	559	605	250	66	0	-14.35	0.29	0.002	23.77
1231	805	107.58	B	667	250	140	0	-5.07	0.1	0	107.59
1007	800	22.24	B	J-3	200	140	0	-2.18	0.07	0	63.4
1862	819	41.35	785	786	250	140	0	10.13	0.21	0	29.87
1729	109	97.87	579	674	200	130	0	15.42	0.49	0.001	97.84
965	76	24.78	33	701	250	140	0	-0.13	0	0	24.69
1041	680	1.03	28	29	300	150	0	-38.39	0.54	0.001	0.91
1889	P-980	1.29	28	BWD-4	304.8	130	0	38.39	0.53	0.001	1.22
1024	29	7.88	217	553	250	140	0	-12.46	0.25	0	7.92
1234	914	57.15	864	849	300	100	0	23.66	0.33	0.001	66.45
1707	12	15.25	43	54	250	140	0	12.91	0.26	0	15.85
1636	633	34.09	526	527	150	140	0	0.1	0.01	0	34.14
1019	128	102.16	36	560	300	66	0	-2.33	0.03	0	101.5
1089	116	56.76	36	37	200	60	0	13.95	0.44	0.005	56.69
2324	P-1193	221.25	384	J-989	250	130	0	14.84	0.3	0	0
1054	539	93.52	387	490	250	95	0	16.59	0.34	0.001	93.57
1567	538	30.06	387	388	150	91	0	-1.01	0.06	0	30.18
977	36	23.16	251	558	250	140	0	0	0	0	4.27
1813	579	81.28	433	434	150	140	0	-0.97	0.05	0	81.38
1140	580	56.06	433	432	150	140	0	3.12	0.18	0	56.08
1204	252	92.45	150	152	200	140	0	26.38	0.84	0.003	92.35
1652	250	65.79	150	166	150	60	0	1.72	0.1	0	65.84
1377	281	66.18	182	181	200	140	0	4.77	0.15	0	64.92
1363	734	56.3	673	146	150	140	0	10.55	0.6	0.003	54.56
1196	733	113.46	673	134	200	140	0	-2.53	0.08	0	117.35
1051	880	200.39	833	735	150	100	0	-0.55	0.03	0	246.89
1788	385	71.25	324	325	150	91	0	2.71	0.15	0	71.32
1086	829	110.89	784	795	250	130	0	4.9	0.1	0	97.23
1305	818	38.67	784	785	250	140	0	10.25	0.21	0	77.11
1542	810	309.55	722	702	200	140	0	6.66	0.21	0	243.54
1807	857	8.65	815	818	200	100	0	3.66	0.12	0	18.29
1069	131	5.58	48	49	100	66	0	10.46	1.33	0.073	5.49
1825	565	99.9	600	416	200	95	0	0	0	0	99.97
1098	563	9.49	600	599	200	95	0	0	0	0	9.45
1698	215	15.71	111	563	250	140	0	-143.88	2.93	0.027	15.85
1139	741	1.5	762	763	200	140	0	51.98	1.65	0.012	1.52

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1020	156	110.2	63	55	200	66	0	30.9	0.98	0.018	110.34
1349	825	49.27	791	792	250	140	0	38.71	0.79	0.002	46.02
1512	672	73.15	624	623	150	140	0	0.13	0.01	0	73.15
1422	46	128.9	350	577	250	140	0	8.51	0.17	0	128.93
1764	913	66.08	863	855	200	100	0	-17.22	0.55	0.003	76.5
1557	407	35.69	345	598	150	91	0	-2.94	0.17	0.001	35.66
1241	17	77.35	98	119	250	66	0	20.1	0.41	0.003	77.42
1498	204	16.29	98	109	250	66	0	-40.38	0.82	0.01	16.15
1292	240	33.87	143	144	250	140	0	23.1	0.47	0.001	33.83
1566	261	5	104	103	200	60	0	3.24	0.1	0	4.88
1127	217	6.03	563	564	250	140	0	-106.42	2.17	0.015	6.1
1733	216	4.32	563	108	250	140	0	-37.46	0.76	0.002	4.27
1065	14	227.15	65	76	300	66	0	12.37	0.18	0	227.69
1335	588	41.52	485	484	150	140	0	-12.29	0.7	0.003	41.45
1584	589	65.55	485	486	150	140	0	0	0	0	65.53
1765	625	82.89	519	522	150	140	0	3.42	0.19	0	82.91
1464	520	72.72	444	443	150	95	0	0.06	0	0	72.85
1777	323	99.96	197	198	300	89	0	-53.25	0.75	0.004	99.97
1288	628	90.77	548	545	200	140	0	8.93	0.28	0	90.83
1514	629	82.03	548	525	200	140	0	-9.54	0.3	0.001	81.99
1308	635	9.95	548	549	150	140	0	0.19	0.01	0	10.06
1691	639	44.97	548	551	150	140	0	0.17	0.01	0	45.11
1080	632	16.39	525	526	150	140	0	0.1	0.01	0	16.46
1711	640	122.61	525	529	150	140	0	3.46	0.2	0	122.53
1372	584	29.92	430	458	250	140	0	-28.14	0.57	0.001	29.87
1742	585	127.03	430	431	250	140	0	24.41	0.5	0.001	127.1
1427	875	177.15	610	681	150	100	0	-4.8	0.27	0.001	172.21
1657	656	109.51	610	611	250	130	0	0	0	0	114.91
1575	270	61.02	163	164	150	140	0	-7.36	0.42	0.001	60.96
1708	796	150.95	708	43	250	140	0	12.91	0.26	0	163.98
1209	793	103.21	708	709	300	140	0	-38.89	0.55	0.001	95.1
1018	624	7.35	518	519	150	140	0	3.61	0.2	0	7.32
1412	623	54.4	518	520	150	140	0	0.17	0.01	0	54.25
1203	726	82.75	667	668	250	140	0	-5.47	0.11	0	82.6
1465	173	89.16	68	78	300	140	0	-30.97	0.44	0.001	89.31
975	713	66.98	652	653	150	140	0	0.25	0.01	0	97.54
1117	714	85.89	652	654	150	140	0	4.4	0.25	0.001	85.95
1470	64	118.48	489	499	250	140	0	-8.85	0.18	0	119.18
1513	62	9.27	489	488	250	140	0	4.34	0.09	0	8.53
1071	251	14.53	167	166	100	60	0	1.21	0.15	0.002	14.63
1472	289	9.72	203	204	200	89	0	-19.51	0.62	0.005	9.75
1079	352	138.6	300	298	150	140	0	-11.34	0.64	0.003	138.68
1493	187	114.28	84	83	200	130	0	-6.95	0.22	0	114.3
1574	765	53.71	732	733	150	140	0	-0.55	0.03	0	53.64
1066	772	48.34	732	738	150	140	0	0.45	0.03	0	48.46
2182	P-1107	161.11	686	610	250	130	0	22.53	0.46	0.001	0
1182	616	88.53	511	515	150	140	0	4.47	0.25	0.001	88.39
1174	617	80.29	511	512	250	130	0	0.28	0.01	0	80.16
1025	911	62.65	861	854	150	100	0	0	0	0	67.36
1752	234	19.07	135	136	250	140	0	24.06	0.49	0.001	19.2
1386	133	154.52	583	50	200	60	0	9.06	0.29	0.002	154.53
1504	572	59.97	438	437	150	140	0	1.48	0.08	0	60.05
1283	876	575.65	457	830	250	130	0	0	0	0	489.2
1561	10	34.69	574	691	200	140	0	-51.25	1.63	0.012	34.75
1141	483	7.05	468	467	300	89	0	206.76	2.93	0.05	7.01
1655	702	11.29	468	469	200	89	0	-206.76	6.58	0.359	11.28
1802	213	17.88	112	114	250	140	0	1.73	0.04	0	17.98
1142	214	67.59	112	111	250	140	0	-143.88	2.93	0.027	67.67
1281	212	9.03	112	113	250	140	0	0	0	0	9.14
991	410	36.82	347	348	150	91	0	0	0	0	36.88
1441	500	42.43	461	460	250	95	0	66.57	1.36	0.013	42.37

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1227	396	37.97	332	333	150	140	0	1.95	0.11	0	38.1
1198	861	84.37	818	819	200	100	0	5.28	0.17	0	60.35
1219	860	58.34	818	816	200	100	0	-1.63	0.05	0	50.29
1236	100	99.32	605	616	250	66	0	-14.35	0.29	0.002	99.36
1534	503	41	475	460	200	91	0	2	0.06	0	41.15
1191	785	119.04	703	704	200	140	0	-0.21	0.01	0	127.1
1375	571	20.94	439	438	150	140	0	1.48	0.08	0	21.03
1601	570	39.74	439	440	150	140	0	0.16	0.01	0	39.62
1144	575	47.56	439	441	150	140	0	-1.64	0.09	0	47.55
1572	609	109.57	503	504	250	140	0	25.26	0.51	0.001	138.99
2136	Align2	255.8	93	J-931	300	130	0	-23.15	0.33	0	0
1520	91	51.65	687	685	100	60	0	6.53	0.83	0.036	51.51
1411	90	53.88	687	694	250	130	0	-1.75	0.04	0	53.95
1011	282	93.48	181	179	200	140	0	4.77	0.15	0	89.61
1102	419	13.01	357	358	150	91	0	0	0	0	13.11
1208	763	101.96	730	731	200	140	0	0.86	0.03	0	84.73
1633	773	104.22	730	740	250	140	0	0	0	0	60.05
1239	376	39.6	571	315	200	140	0	12.08	0.38	0.001	39.62
1684	400	154.7	336	338	250	140	0	-10.2	0.21	0	154.84
1703	406	82.55	336	337	250	140	0	11.37	0.23	0	82.6
1709	285	100.9	179	180	200	140	0	9.03	0.29	0	67.06
1109	852	57.91	812	813	150	100	0	0.31	0.02	0	63.09
1855	851	75.45	812	799	200	100	0	-1.18	0.04	0	78.33
1032	768	79.06	734	735	200	140	0	-0.14	0	0	82.6
1131	770	72.61	734	736	150	140	0	0	0	0	47.55
1070	19	104.69	128	140	250	66	0	20.1	0.41	0.003	104.55
1837	263	169.54	592	156	150	130	0	2.28	0.13	0	169.47
1433	73	133.57	521	532	250	140	0	7.28	0.15	0	132.28
1658	586	80.87	431	425	250	140	0	36.41	0.74	0.002	80.77
1379	587	57.08	431	485	150	140	0	-12.29	0.7	0.003	57
1218	557	152.54	407	408	200	95	0	10.51	0.33	0.001	152.4
1533	7	128.81	543	645	150	140	0	0.12	0.01	0	126.49
1259	8	21.8	543	680	200	140	0	-51.25	1.63	0.012	21.95
1714	870	410.77	826	827	200	100	0	0	0	0	403.86
1834	869	150.49	826	660	300	140	0	45.62	0.65	0.001	165.81
1278	709	57.41	648	649	150	140	0	5.4	0.31	0.001	57.3
1953	P-1022	113.57	780	J-885	150	130	0	0	0	0	0
1044	814	102.49	780	781	250	140	0	-0.62	0.01	0	98.15
984	906	80.42	856	857	200	100	0	26.54	0.84	0.006	97.54
1133	516	46.57	449	447	250	140	0	35	0.71	0.002	46.63
1858	593	69.22	425	423	250	140	0	42.49	0.87	0.003	69.19
953	591	19.52	425	427	150	140	0	-6.4	0.36	0.001	19.51
2263	P-1156	699.83	299	J-966	350	130	0	11.67	0.12	0	0
1431	291	9.84	205	207	200	89	0	-19.51	0.62	0.005	9.75
1826	338	59.19	281	282	150	91	0	-5.6	0.32	0.002	59.13
1664	764	33.85	222	732	150	140	0	-0.1	0.01	0	33.83
1081	559	255.13	410	418	200	95	0	7.23	0.23	0.001	255.12
1038	121	16.73	40	49	150	60	0	-1.21	0.07	0	16.76
1404	401	121.42	596	341	150	140	0	-1.99	0.11	0	121.31
1399	355	6.41	302	569	150	91	0	5.71	0.32	0.002	6.4
1761	350	130.67	302	301	150	140	0	-10.92	0.62	0.003	130.76
1832	313	138.72	212	213	200	140	0	1.1	0.03	0	138.68
1640	379	21.3	318	319	150	140	0	3.05	0.17	0	21.34
1627	513	104.79	453	442	150	91	0	4.33	0.25	0.001	104.85
1301	821	66.64	786	788	250	140	0	14.55	0.3	0	102.11
1509	820	111.53	786	787	250	140	0	-4.54	0.09	0	97.23
1548	496	7.64	482	483	150	140	0	12.45	0.7	0.003	7.62
1619	895	136.08	847	664	300	100	0	-9.43	0.13	0	142.04
1084	264	48.93	156	157	150	60	0	-6.62	0.37	0.005	49.07
1210	191	4.38	90	91	100	60	0	-3.25	0.41	0.01	4.27
1296	233	24.29	133	135	250	140	0	24.06	0.49	0.001	21.34

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1017	232	30	133	134	200	140	0	2.53	0.08	0	19.51
1496	66	103.59	532	544	250	140	0	-14.48	0.3	0	103.63
2293	P-1175	726.57	532	J-976	250	130	0	12.24	0.25	0	0
1289	641	9.5	529	530	150	140	0	3.46	0.2	0	9.45
1022	307	138.79	198	595	300	89	0	-53.25	0.75	0.004	138.68
1934	P-1011	618.78	800	J-877	250	130	0	12.18	0.25	0	0
1773	464	153.76	236	237	150	85	0	-1.97	0.11	0	153.62
1462	375	6.97	309	571	200	140	0	12.42	0.4	0.001	7.01
1747	390	4.13	329	326	200	95	0	8.84	0.28	0.001	4.27
1207	799	63.48	714	B	250	140	0	-7.25	0.15	0	59.13
1710	806	92.41	714	829	200	140	0	-2.42	0.08	0	100.58
1034	317	116.71	216	218	150	140	0	0.36	0.02	0	116.74
1821	878	26.53	738	832	150	100	0	0.45	0.03	0	26.52
1749	402	37.78	341	342	150	140	0	-2.29	0.13	0	37.8
976	89	10.69	688	687	250	130	0	4.79	0.1	0	10.67
983	730	154.72	337	668	250	140	0	6.01	0.12	0	151.49
1808	512	63.16	452	453	150	91	0	4.33	0.25	0.001	63.09
1585	528	19.49	381	382	150	91	0	2.78	0.16	0	19.51
1484	362	40.19	289	288	200	140	0	17.88	0.57	0.002	40.23
1294	846	119.17	806	809	150	100	0	0.22	0.01	0	115.21
1822	848	38.66	806	810	150	100	0	-0.22	0.01	0	31.39
1095	368	45.21	570	304	150	91	0	5.71	0.32	0.002	45.11
1270	361	49.02	290	289	200	140	0	17.88	0.57	0.002	49.07
1094	347	48.13	290	303	150	140	0	-5.04	0.28	0.001	48.16
1202	551	83.25	396	394	150	91	0	0.56	0.03	0	83.21
1704	552	46.66	396	397	150	91	0	-1.57	0.09	0	46.63
1138	492	84.41	477	478	150	140	0	7.29	0.41	0.001	84.43
1416	491	201.93	477	482	150	91	0	5.96	0.34	0.002	202.08
978	816	97.38	782	783	250	140	0	-14.14	0.29	0	109.73
1897	P-988	3.51	754	772	254	130	0	104.03	2.05	0.016	3.66
1895	P-986	1.87	754	WST-2	254	130	0	51.85	1.02	0.004	1.83
1376	42	149.54	306	317	250	140	0	16.17	0.33	0	149.66
1507	663	58.28	617	619	150	91	0	0	0	0	58.22
1009	662	62.38	617	618	250	95	0	-3.13	0.06	0	62.48
1099	858	145.83	816	817	200	100	0	-2.18	0.07	0	168.55
1151	374	100.59	308	309	200	95	0	10.01	0.32	0.001	100.58
1393	363	93.31	308	304	150	91	0	-2.73	0.15	0	93.27
1560	230	60.41	131	148	200	66	0	12.17	0.39	0.003	60.35
1295	830	39.44	795	796	250	130	0	4.78	0.1	0	69.8
1293	675	17.3	510	532	250	140	0	-8.85	0.18	0	17.37
1194	926	13.67	169	170	150	100	0	-4.85	0.27	0.001	13.72
1143	16	190.12	87	98	300	66	0	-20.28	0.29	0.001	189.28
1487	454	71.95	226	227	150	85	0	0.1	0.01	0	71.93
1178	455	89.74	226	229	150	85	0	-11.61	0.66	0.008	89.61
1674	471	90.48	242	243	150	85	0	7.32	0.41	0.003	90.53
1165	472	108.09	242	245	150	85	0	-18.42	1.04	0.018	108.2
1269	863	93.65	819	820	300	100	0	22.38	0.32	0.001	57.3
1744	862	87.28	819	808	300	100	0	-17.66	0.25	0	85.34
1060	437	18.28	266	265	200	89	0	-27.88	0.89	0.009	18.29
1350	494	83.78	480	481	150	140	0	6.89	0.39	0.001	83.82
1471	631	79.13	524	525	200	140	0	13.19	0.42	0.001	79.25
1576	954	15.89	200	64	200	130	0	19.51	0.62	0.002	15.85
1725	286	39.09	200	607	200	89	0	-19.51	0.62	0.005	39.01
1637	292	14.06	207	208	200	89	0	-19.51	0.62	0.005	14.02
1713	444	93.84	260	237	150	85	0	-4.73	0.27	0.001	93.88
1793	445	69.56	260	259	200	89	0	-20.88	0.66	0.005	69.49
1333	739	1.03	757	777	200	140	0	232.67	7.41	0.193	0.91
1893	P-984	1.58	757	WST-1	254	130	0	51.98	1.03	0.004	1.52
1753	269	8.35	158	163	150	140	0	-7.06	0.4	0.001	8.23
1651	266	103	158	159	150	130	0	0.44	0.02	0	103.02
1452	359	27.16	286	287	200	95	0	-10.31	0.33	0.001	27.13

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1315	705	35.66	165	164	150	140	0	7.36	0.42	0.001	35.66
1323	272	63.21	165	169	150	140	0	-4.64	0.26	0.001	63.09
1494	598	57.73	602	603	200	95	0	-3.13	0.1	0	57.61
1501	618	9.81	512	513	250	130	0	0.1	0	0	10.36
1806	462	89.77	234	235	150	85	0	-12.24	0.69	0.008	89.92
1614	620	58.25	515	516	150	140	0	4.22	0.24	0	58.22
1285	130	147.07	582	48	200	66	0	7.81	0.25	0.001	147.22
1898	P-989	1.85	772	WST-FIRE	254	130	0	104.03	2.05	0.016	1.83
1699	108	18.85	672	579	200	130	0	15.42	0.49	0.001	18.9
1287	69	16.25	566	576	100	140	0	0	0	0	12.5
1440	70	70.38	566	587	250	140	0	-14.48	0.3	0	70.41
1384	505	54.2	459	454	250	95	0	68.41	1.39	0.014	54.25
1539	44	97.56	328	339	250	140	0	8.76	0.18	0	97.54
1229	72	53.06	328	521	250	140	0	7.41	0.15	0	52.73
1635	154	152.07	586	62	300	140	0	23.64	0.33	0	152.1
1317	353	154.01	294	298	300	95	0	-60.5	0.86	0.005	153.92
1030	342	28.66	294	293	200	95	0	13.26	0.42	0.002	28.65
1550	715	43.78	655	657	150	140	0	-4.58	0.26	0.001	43.89
1610	777	204.72	655	721	150	140	0	1.08	0.06	0	204.83
1122	535	44.27	383	385	250	95	0	15.92	0.32	0.001	44.2
997	49	120.6	362	384	250	140	0	14.84	0.3	0	120.7
1461	48	114.24	362	373	250	140	0	0.27	0.01	0	114.3
1554	50	20.27	362	395	350	130	0	-6.59	0.07	0	20.42
1352	466	110.69	238	244	150	85	0	-6.85	0.39	0.003	110.64
1629	92	14.7	685	686	250	140	0	22.53	0.46	0.001	14.63
1801	93	10.7	685	683	250	140	0	-15.99	0.33	0	10.67
1541	432	114.15	371	372	150	91	0	0.1	0.01	0	114
1291	433	9.04	371	374	200	95	0	-4.86	0.15	0	9.14
1571	61	64.72	479	489	250	130	0	-3.71	0.08	0	64.01
1064	412	28.21	349	351	150	91	0	-3.2	0.18	0.001	28.35
1162	6	42.7	573	543	200	140	0	-51.13	1.63	0.012	42.67
1318	105	9.16	646	656	100	60	0	12.65	1.61	0.123	9.14
1152	104	92.54	646	35	250	66	0	11.71	0.24	0.001	92.66
1074	145	151.61	584	57	300	140	0	41.38	0.59	0.001	151.49
1076	54	39.57	413	578	300	130	0	-2.65	0.04	0	39.62
1671	172	10.59	67	68	300	140	0	-30.97	0.44	0.001	10.67
1634	162	18.91	67	589	200	140	0	9.31	0.3	0	18.9
960	161	90.67	67	561	300	140	0	37.41	0.53	0.001	90.53
1890	P-981	1.89	18	BWD-4	304.8	130	0	-38.39	0.53	0.001	1.83
1760	748	1.08	18	19	200	100	0	-168.37	5.36	0.198	1.22
1185	944	0.97	18	21	250	100	0	206.76	4.21	0.097	0.91
1559	653	54.85	542	545	200	140	0	-8.55	0.27	0	54.86
1448	767	65.89	733	734	200	140	0	-0.14	0	0	60.35
1330	766	183.88	733	215	200	140	0	-0.41	0.01	0	183.79
1792	536	33.7	385	386	250	95	0	15.76	0.32	0.001	33.83
1260	744	10	117	770	250	140	0	-207.85	4.23	0.053	10.06
1108	207	22	117	591	250	140	0	0	0	0	21.95
1480	798	39.26	502	828	250	140	0	-9.07	0.18	0	39.32
1257	435	7.15	374	376	200	95	0	-5.16	0.16	0	7.01
1361	434	13.86	374	375	150	91	0	0	0	0	13.72
1265	211	61.31	115	112	250	140	0	-142.15	2.9	0.026	61.26
1048	939	2.4	115	771	250	100	0	284.65	5.8	0.176	2.44
1830	562	6.02	415	600	200	95	0	0	0	0	6.1
1736	21	37.07	151	162	250	140	0	0.27	0.01	0	37.19
1804	22	19.99	151	173	250	140	0	19.83	0.4	0.001	20.12
1883	P-958	1.52	26	BWD-FIRE	304.8	130	0	78.3	1.07	0.004	1.52
957	360	17.57	287	288	200	95	0	-10.31	0.33	0.001	17.68
1451	152	11.3	51	50	300	140	0	72.07	1.02	0.003	11.28
1387	95	41.87	683	682	300	140	0	-16	0.23	0	41.76
1578	94	8.91	683	684	250	140	0	0	0	0	8.84
1769	473	63.19	245	246	150	85	0	4.29	0.24	0.001	63.09

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1758	443	70.97	261	260	200	89	0	-25.42	0.81	0.007	71.02
1682	938	1.45	763	770	250	100	0	103.83	2.12	0.027	1.52
1005	231	16.84	132	133	250	140	0	26.6	0.54	0.001	16.46
1309	86	125.77	692	693	200	130	0	1.83	0.06	0	125.88
1540	405	15.16	343	345	150	91	0	-2.94	0.17	0.001	15.24
1114	404	50.28	343	344	150	91	0	0.1	0.01	0	50.29
1580	453	98.83	225	226	150	85	0	-11.35	0.64	0.007	98.76
1625	51	140.42	395	406	350	130	0	-6.59	0.07	0	140.51
1623	306	162.48	593	594	250	140	0	8.34	0.17	0	162.46
999	928	87.73	630	631	250	100	0	23.08	0.47	0.002	94.49
1679	759	12.38	741	742	150	140	0	1.66	0.09	0	20.73
1721	239	7.97	141	143	250	140	0	23.1	0.47	0.001	7.92
1307	238	15.99	141	142	150	140	0	0.97	0.05	0	15.85
1814	679	45.35	631	306	250	140	0	16.17	0.33	0	38.4
1336	871	98.2	828	714	250	140	0	-9.67	0.2	0	94.49
1232	65	15.26	499	510	250	140	0	-8.85	0.18	0	15.24
1392	573	113.55	437	436	150	140	0	1.23	0.07	0	113.69
1800	209	8.63	116	120	200	140	0	24.43	0.78	0.003	8.53
1662	956	32.3	116	115	150	130	0	142.51	8.06	0.362	32.31
1249	206	33.67	116	117	250	140	0	-207.85	4.23	0.053	33.53
1473	452	29.84	224	225	150	85	0	-11.35	0.64	0.007	29.87
1562	615	117.43	509	523	200	140	0	10.5	0.33	0.001	117.35
1739	727	203.66	668	669	200	140	0	-1.38	0.04	0	203.61
1298	592	171.41	427	428	150	140	0	-6.4	0.36	0.001	171.3
1358	450	136.18	256	255	300	89	0	-105.08	1.49	0.014	136.25
1088	448	16.12	256	257	300	89	0	83.68	1.18	0.009	16.15
1670	842	98.58	805	804	250	100	0	10.83	0.22	0	98.76
1768	495	87.38	481	482	150	140	0	6.49	0.37	0.001	87.48
1720	40	156.69	284	295	250	140	0	23.08	0.47	0.001	156.67
1153	189	24.46	88	89	200	130	0	-2.94	0.09	0	24.38
1078	600	34.1	494	495	150	91	0	9.77	0.55	0.005	8.53
1247	82	41.08	695	696	250	140	0	-6.91	0.14	0	39.32
1839	83	28.09	695	689	250	130	0	6.77	0.14	0	30.18
1348	112	157.77	676	677	300	130	0	15.42	0.22	0	157.89
981	382	6.66	321	322	150	91	0	2.9	0.16	0.001	6.71
1577	850	66.19	799	811	150	100	0	0.28	0.02	0	66.14
1047	295	16.85	188	568	300	89	0	0	0	0	16.76
1482	296	29.62	188	189	300	89	0	-53.25	0.75	0.004	29.57
1649	43	87.27	317	328	250	140	0	16.17	0.33	0	87.17
1581	139	51.65	53	55	150	60	0	6.55	0.37	0.005	51.51
1681	389	98.35	330	329	200	95	0	9.03	0.29	0.001	98.45
1827	673	87.59	608	87	300	66	0	-20.28	0.29	0.001	127.41
1168	381	37.24	320	321	150	91	0	2.9	0.16	0.001	37.19
1491	894	113.1	846	799	200	100	0	1.46	0.05	0	109.42
1535	194	93.48	86	95	300	140	0	-22.22	0.31	0	93.57
1597	3	43.13	250	361	200	140	0	50.83	1.62	0.012	43.28
1845	5	54.97	250	573	200	140	0	-51.09	1.63	0.012	54.25
1486	357	35.93	282	285	200	95	0	-9.97	0.32	0.001	35.97
1344	339	133.55	282	283	200	95	0	4.37	0.14	0	133.5
1596	840	28.32	802	823	250	100	0	-3.39	0.07	0	28.35
1026	841	126.73	802	805	250	100	0	10.83	0.22	0	126.8
1303	760	134.08	742	729	150	140	0	1.31	0.07	0	127.71
1439	761	110.35	742	743	150	140	0	0.35	0.02	0	92.05
1666	13	27.44	54	65	300	66	0	12.91	0.18	0.001	30.48
1304	838	89.36	801	802	250	100	0	7.95	0.16	0	89.31
992	837	89.95	801	807	250	100	0	14.19	0.29	0.001	89.92
1397	167	33.36	70	71	200	140	0	-10.04	0.32	0.001	33.22
1087	182	53.24	73	74	150	140	0	0.11	0.01	0	53.34
1360	884	229.72	835	836	200	100	0	7.24	0.23	0.001	188.37
1667	277	75.12	177	176	200	140	0	-10.23	0.33	0.001	74.98
1276	283	114.45	177	178	200	140	0	4.47	0.14	0	114.3

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1300	498	61.85	463	462	250	95	0	66.73	1.36	0.013	61.87
1420	859	94.54	817	706	200	100	0	-2.73	0.09	0	92.05
1130	627	81.41	606	523	200	140	0	-10.14	0.32	0.001	81.38
1856	590	62.81	426	425	150	140	0	0	0	0	62.79
1757	203	18.53	102	103	200	140	0	-3.24	0.1	0	18.59
1781	329	79.18	271	272	150	91	0	-4.84	0.27	0.001	79.25
1457	442	101.53	263	261	200	89	0	-25.23	0.8	0.007	101.5
1343	441	107.93	263	283	200	89	0	3.42	0.11	0	107.9
1428	299	8.76	191	192	300	89	0	-53.25	0.75	0.004	8.84
1860	845	90.12	808	847	300	100	0	-9.15	0.13	0	90.22
1463	325	8.66	267	268	300	89	0	-59.55	0.84	0.005	8.53
1045	348	38.81	303	302	150	140	0	-5.04	0.28	0.001	38.71
1621	197	16.27	94	93	300	140	0	-19.64	0.28	0	16.15
1235	923	45.4	148	149	250	100	0	29.44	0.6	0.003	45.42
1609	365	36.8	305	307	200	140	0	7.57	0.24	0	36.88
1600	97	68.57	681	677	300	140	0	-21.46	0.3	0	77.42
1395	517	23.09	447	448	150	130	0	0	0	0	23.16
1158	518	102.93	447	445	250	140	0	35	0.71	0.002	103.02
1770	706	7.84	507	647	250	140	0	21.1	0.43	0.001	7.92
1015	834	61.09	666	801	250	100	0	22.13	0.45	0.002	60.96
1029	117	115.46	37	39	200	60	0	10.9	0.35	0.003	115.52
1132	119	83.91	37	38	150	140	0	0.04	0	0	83.82
1818	118	98.21	37	672	100	60	0	2.9	0.37	0.008	98.15
1221	890	132.58	539	842	150	100	0	0.4	0.02	0	132.59
995	599	97.59	603	419	200	95	0	-3.13	0.1	0	97.54
1456	856	115.38	706	815	200	100	0	3.66	0.12	0	146.3
1669	883	13.74	836	132	250	140	0	26.6	0.54	0.001	18.29
1639	205	102.34	109	116	250	66	0	-40.92	0.83	0.01	102.41
1944	P-1017	96.6	781	J-881	150	130	0	0	0	0	0
1035	815	106.7	781	782	250	140	0	-0.62	0.01	0	115.82
1272	776	80.63	721	541	250	140	0	-15.87	0.32	0	80.77
1592	259	18.33	106	105	200	60	0	-5.47	0.17	0.001	18.29
1302	509	55.42	456	458	250	140	0	28.14	0.57	0.001	55.47
1823	265	44.05	157	158	150	60	0	-6.62	0.37	0.005	44.2
1199	383	21.65	322	323	150	91	0	2.71	0.15	0	21.64
1654	275	82.55	171	174	150	140	0	0.08	0	0	82.6
1437	274	50.37	171	172	150	140	0	0.4	0.02	0	50.29
1857	532	129.7	402	401	150	91	0	2.29	0.13	0	129.84
1425	531	8.42	402	403	250	95	0	13.47	0.27	0.001	8.53
2259	P-1153	95.73	418	495	250	130	0	7.23	0.15	0	0
2018	P-1043	195.42	720	J-899	200	140	0	-2.1	0.07	0	185.93
1811	807	76.73	720	668	200	140	0	-1.52	0.05	0	76.81
1474	659	31.93	500	614	150	91	0	0.13	0.01	0	32
1167	605	63.75	500	604	250	95	0	22.57	0.46	0.002	63.7
1164	227	79.28	127	129	200	66	0	12.4	0.39	0.003	79.25
956	87	29.84	693	694	200	130	0	1.75	0.06	0	29.87
1326	147	7.98	58	57	300	140	0	37.41	0.53	0.001	7.92
1120	791	76.65	729	707	250	140	0	-18.05	0.37	0.001	64.92
1586	758	95.06	729	836	250	140	0	19.36	0.39	0.001	85.04
1829	545	36.57	389	390	150	91	0	-1.1	0.06	0	36.58
1497	621	55.69	516	517	150	140	0	0.19	0.01	0	55.78
1676	622	85.93	516	518	150	140	0	3.78	0.21	0	85.95
970	558	36.35	408	409	200	95	0	10.51	0.33	0.001	36.27
1320	52	61.93	406	487	250	140	0	-4.34	0.09	0	61.87
1183	53	26.97	406	413	300	130	0	-2.65	0.04	0	26.82
1436	903	107.05	853	862	200	100	0	-16.28	0.52	0.003	89.31
1028	902	168.21	853	861	200	100	0	0.44	0.01	0	166.73
988	458	76	231	232	150	85	0	-4.08	0.23	0.001	75.9
1716	671	40.74	625	624	150	140	0	0.13	0.01	0	40.84
1467	371	59.19	312	311	150	91	0	2.6	0.15	0	59.13
1400	31	22.8	228	837	250	140	0	9.21	0.19	0	22.86

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1116	123	144.62	580	41	200	60	0	11.55	0.37	0.004	144.48
1838	309	7.79	567	209	250	140	0	2.87	0.06	0	7.92
2140	P-1100	219.69	467	255	400	130	0	99.11	0.79	0.002	0
1663	484	83.56	467	572	300	89	0	66.73	0.94	0.006	83.52
1705	399	18.4	335	336	150	140	0	1.55	0.09	0	18.29
1394	413	117.05	351	352	150	91	0	-3.36	0.19	0.001	117.04
1356	430	49.64	369	370	200	95	0	0.13	0	0	49.68
1527	651	61.3	540	541	250	140	0	16.27	0.33	0	61.26
1786	652	34.97	540	542	200	140	0	-8.55	0.27	0	35.05
1014	447	101.03	258	256	200	89	0	-21.22	0.68	0.005	100.89
1290	670	30.52	626	625	150	140	0	0.32	0.02	0	30.48
1918	P-1001	109.98	859	J-873	300	100	0	17.79	0.25	0	153.62
1902	P-992	17.34	859	J-866	300	100	0	7.85	0.11	0	85.95
1532	185	22.17	85	86	300	60	0	-22.22	0.31	0.002	22.25
1591	186	79.15	85	84	200	130	0	-6.79	0.22	0	79.25
1490	184	74.4	85	88	200	130	0	-2.94	0.09	0	74.37
1524	398	155.9	334	335	150	140	0	1.55	0.09	0	155.75
1161	497	45.2	483	484	150	140	0	12.45	0.7	0.003	45.11
1233	287	38.58	201	202	200	89	0	-19.51	0.62	0.005	38.71
980	731	90.94	201	671	200	140	0	0	0	0	90.83
1403	873	204.53	829	720	200	140	0	-3.02	0.1	0	204.52
989	674	21.64	446	457	300	130	0	0.13	0	0	14.02
993	59	55.97	446	465	250	130	0	0	0	0	55.17
1861	179	24.09	81	107	200	130	0	-5.28	0.17	0	24.08
1134	258	121.42	81	609	200	60	0	1.69	0.05	0	121.31
1694	619	51.84	513	514	150	140	0	0.1	0.01	0	51.82
1262	753	4.91	21	469	200	100	0	206.76	6.58	0.289	4.88
1255	502	40.11	474	475	200	91	0	2	0.06	0	40.23
1280	553	33.22	397	398	150	91	0	-1.57	0.09	0	33.22
1798	486	126.6	247	471	150	85	0	15.87	0.9	0.014	126.49
1328	475	62	247	248	200	89	0	-11.58	0.37	0.002	61.87
1157	146	15.91	561	59	150	60	0	0	0	0	15.85
1795	678	1.37	561	58	300	140	0	37.41	0.53	0.001	1.52
1205	459	20.47	232	233	150	85	0	-4.08	0.23	0.001	20.42
1840	32	144.64	239	554	250	140	0	13.94	0.28	0	120.4
1128	482	41.2	466	467	300	89	0	-40.92	0.58	0.002	41.15
1225	637	49.21	545	546	150	140	0	0.19	0.01	0	49.07
1274	638	50.1	545	547	150	140	0	0.19	0.01	0	49.99
1731	771	48.23	731	737	200	140	0	0	0	0	43.89
1886	P-967	1.69	20	BWD-2	304.8	130	0	-43.72	0.6	0.001	1.83
1787	750	0.87	20	9	200	100	0	-78.3	2.49	0.048	0.91
1528	826	57.56	792	793	250	140	0	38.71	0.79	0.002	54.86
1258	835	106.3	798	846	200	100	0	2	0.06	0	106.38
1489	836	84.47	798	800	250	130	0	12.18	0.25	0	84.43
1103	735	127.7	110	44	300	140	0	-106.42	1.51	0.006	127.71
1316	193	46.39	91	93	150	140	0	-3.52	0.2	0	46.33
1402	192	21.27	91	92	200	130	0	0	0	0	16.46
1702	922	1.01	15	1	300	85	0	-206.76	2.93	0.054	0.91
1381	736	22.89	609	82	200	130	0	7.03	0.22	0	22.86
1675	676	38.93	609	106	200	60	0	-5.47	0.17	0.001	39.01
1590	45	120.61	339	350	250	140	0	8.76	0.18	0	120.7
1677	606	296.18	495	501	200	95	0	-5.83	0.19	0	292.91
1075	601	46.88	495	496	250	95	0	22.7	0.46	0.002	72.24
1613	534	72.65	403	383	250	95	0	13.47	0.27	0.001	72.54
1556	47	23.82	577	362	250	140	0	8.51	0.17	0	23.77
1810	308	66.26	594	567	250	140	0	2.87	0.06	0	66.14
1435	188	18.08	83	82	200	130	0	-7.03	0.22	0	17.98
1573	882	50.75	834	835	200	100	0	7.59	0.24	0.001	42.06
1388	881	19.56	834	708	250	140	0	-25.99	0.53	0.001	25.6
1477	345	89.11	292	291	200	140	0	13.02	0.41	0.001	89
1083	344	29.07	292	296	150	140	0	0.08	0	0	28.96

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1215	783	43.51	727	728	400	140	0	5.18	0.04	0	43.59
1284	790	329.81	727	663	200	140	0	-4.35	0.14	0	227.69
1700	488	37.16	472	473	150	91	0	15.71	0.89	0.012	37.19
1261	511	56.13	451	452	150	91	0	4.49	0.25	0.001	56.08
1027	661	24.54	420	617	250	95	0	-3.13	0.06	0	24.69
1407	817	67.16	783	784	250	140	0	15.27	0.31	0	54.86
1950	P-1020	156.24	783	J-884	250	130	0	-29.41	0.6	0.002	0
1558	844	82.5	804	808	250	100	0	10.93	0.22	0	84.43
1661	253	86.34	152	153	150	130	0	0.38	0.02	0	86.26
1421	254	14.29	152	154	200	140	0	26	0.83	0.003	14.33
1111	316	22.19	214	216	150	140	0	0.52	0.03	0	22.25
1782	315	36.7	214	215	200	140	0	0.41	0.01	0	36.58
1001	506	75.48	454	450	250	140	0	39.71	0.81	0.002	75.59
1783	507	71.88	454	455	250	95	0	28.38	0.58	0.003	71.93
1620	487	42.33	471	472	150	91	0	15.87	0.9	0.012	42.37
1039	351	49.32	301	300	150	140	0	-11.18	0.63	0.003	49.38
1799	470	95.51	240	242	150	85	0	-10.91	0.62	0.007	95.4
1852	469	115.51	240	241	150	85	0	0.16	0.01	0	115.52
1816	334	41.37	277	278	150	91	0	-5.35	0.3	0.002	41.45
1031	196	4.43	96	94	300	140	0	-19.64	0.28	0	4.57
1445	198	20.44	96	97	150	140	0	-2.58	0.15	0	20.42
1756	479	21.95	253	254	300	89	0	28.67	0.41	0.001	21.95
1184	481	16.61	253	466	300	89	0	-40.92	0.58	0.002	16.46
1495	60	49.01	470	479	250	130	0	-3.71	0.08	0	49.07
1206	57	133.82	435	470	250	130	0	-2.91	0.06	0	133.81
1755	58	64.4	435	446	250	130	0	0.13	0	0	65.53
1380	657	23.4	202	612	150	85	0	0	0	0	23.47
1329	288	27.55	202	203	200	89	0	-19.51	0.62	0.005	27.43
1228	28	4.74	206	217	250	140	0	-12.46	0.25	0	4.88
1434	37	25.8	206	262	250	140	0	23.08	0.47	0.001	25.91
1549	30	162.81	206	228	250	140	0	9.21	0.19	0	162.76
1217	476	148.47	248	249	200	89	0	-12.12	0.39	0.002	148.44
1617	707	33.16	647	508	250	140	0	15.45	0.31	0	33.22
1223	708	79.43	647	648	150	140	0	5.65	0.32	0.001	79.55
1683	787	29.68	705	728	300	140	0	-4.36	0.06	0	39.93
1726	178	10.98	80	81	100	60	0	-3.48	0.44	0.011	10.97
1091	567	7.2	417	411	200	95	0	0	0	0	7.32
1475	364	45.03	288	305	200	140	0	7.57	0.24	0	45.11
1252	549	39.72	393	394	150	91	0	-0.48	0.03	0	39.62
1784	208	46.77	591	118	250	140	0	0	0	0	46.63
1529	722	133.21	661	845	250	140	0	36.67	0.75	0.002	103.02
1835	855	394.48	661	660	300	100	0	-45.62	0.65	0.002	319.13
974	199	30.65	97	99	150	140	0	-2.58	0.15	0	30.78
1226	949	1.08	1	27	300	85	0	-206.76	2.93	0.054	1.22
1531	596	28.03	421	420	250	140	0	-3.13	0.06	0	28.04
1668	595	28.03	421	422	250	140	0	0	0	0	28.04
1268	614	5.26	508	509	200	140	0	10.5	0.33	0.001	5.18
1000	613	89.8	508	511	250	130	0	4.95	0.1	0	89.92
1197	311	27.7	209	211	200	140	0	1.26	0.04	0	27.74
1042	310	95.79	209	210	250	140	0	1.45	0.03	0	53.34
1849	393	8.66	331	340	150	140	0	8.91	0.5	0.002	8.53
966	392	152.54	331	332	150	140	0	2.45	0.14	0	152.4
2156	P-1104	73.37	J-3	J-2	200	140	0	-3.62	0.12	0	77.72
1193	366	6.4	307	308	200	140	0	7.57	0.24	0	6.4
1544	9	43.35	680	574	200	140	0	-51.25	1.63	0.012	43.28
1396	612	34.78	506	507	250	140	0	21.1	0.43	0.001	34.75
1238	424	16.16	356	629	200	95	0	0.79	0.03	0	16.15
1324	418	110.33	356	357	150	91	0	0.21	0.01	0	110.34
1163	896	136.17	848	703	150	140	0	0.23	0.01	0	90.53
1115	171	11.27	77	78	200	60	0	1	0.03	0	11.28
979	180	152.56	77	562	200	60	0	-1	0.03	0	152.7

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1003	724	51.17	663	664	200	140	0	12.28	0.39	0.001	54.25
1008	832	62.81	797	627	250	140	0	24.36	0.5	0.001	62.79
1891	P-982	6	755	758	254	130	0	-284.65	5.62	0.1	6.1
955	754	1.25	755	759	200	140	0	0	0	0	1.22
1641	738	1.97	755	757	200	140	0	284.65	9.06	0.28	1.83
1006	157	99.24	64	562	100	60	0	1.23	0.16	0.002	99.36
1297	158	53.78	64	66	200	140	0	16.82	0.54	0.001	53.64
1692	55	51.67	578	424	300	130	0	-2.78	0.04	0	51.82
1632	134	87.75	50	42	300	140	0	63.64	0.9	0.002	87.78
1502	136	170.3	50	52	200	60	0	17.36	0.55	0.008	170.38
1002	262	97.74	105	156	150	130	0	-8.7	0.49	0.002	97.84
1612	260	57.4	105	104	200	60	0	3.24	0.1	0	57.3
1789	181	8.57	562	73	150	130	0	0.11	0.01	0	8.53
1410	297	7.63	189	190	300	89	0	-53.25	0.75	0.004	7.62
1312	907	96	857	858	150	100	0	0.28	0.02	0	96.62
1727	908	96.54	857	859	200	100	0	25.82	0.82	0.006	92.66
958	1	88.81	31	139	150	140	0	-0.06	0	0	85.04
1224	222	22.94	122	123	150	140	0	11.18	0.63	0.003	22.86
1067	228	142.98	129	130	200	66	0	12.27	0.39	0.003	142.95
972	704	1	30	26	300	140	0	-128.46	1.82	0.009	0.91
1885	P-966	1.29	30	BWD-2	304.8	130	0	43.72	0.6	0.001	1.22
1850	762	272.36	210	730	250	140	0	0.86	0.02	0	304.5
1776	812	74.57	210	779	250	140	0	0.09	0	0	64.31
1385	886	24.41	837	838	250	100	0	-4.73	0.1	0	24.38
1519	885	137.4	837	239	300	140	0	13.94	0.2	0	137.46
1190	386	40.91	325	326	150	91	0	2.52	0.14	0	40.84
1453	604	14.89	496	500	250	95	0	22.7	0.46	0.002	14.94
1147	602	11.44	496	497	250	95	0	0	0	0	11.58
1740	603	11.22	496	498	250	95	0	0	0	0	11.28
2239	P-1140	50.48	538	J-958	300	130	0	7.9	0.11	0	0
1189	649	64.33	538	539	150	140	0	0.6	0.03	0	64.31
1706	650	137.73	538	540	200	140	0	-6.21	0.2	0	137.77
1160	550	67.87	390	396	150	91	0	-0.93	0.05	0	67.97
1842	546	39.17	390	391	150	91	0	-0.35	0.02	0	39.32
1631	660	76.03	614	615	150	91	0	0	0	0	75.9
1732	113	14.75	677	678	150	130	0	0	0	0	14.63
1478	849	63.94	810	812	200	100	0	-0.88	0.03	0	64.92
1135	891	107.67	810	844	200	100	0	0.35	0.01	0	78.64
1150	839	170.62	803	663	200	140	0	17.53	0.56	0.002	160.32
1345	740	1	777	754	200	140	0	155.88	4.96	0.092	0.91
1485	18	33.93	119	128	250	66	0	20.1	0.41	0.003	33.83
1077	833	124.93	793	797	250	140	0	38.71	0.79	0.002	128.02
1779	478	6.27	252	253	200	89	0	-12.25	0.39	0.002	6.4
986	63	127.51	488	487	250	140	0	4.34	0.09	0	127.41
1319	843	59.42	807	798	250	100	0	14.19	0.29	0.001	59.44
1650	354	65.93	298	299	300	95	0	-72	1.02	0.006	65.84
1063	416	42.92	353	355	200	95	0	1	0.03	0	42.98
1405	305	94.05	199	593	250	140	0	8.34	0.17	0	94.18
1611	302	18.09	199	193	200	140	0	10.85	0.35	0.001	17.98
1246	304	147.98	199	266	200	89	0	-27.88	0.89	0.009	147.83
1104	245	44.1	175	176	200	140	0	16.07	0.51	0.001	44.2
1370	578	127.74	441	433	150	140	0	2.35	0.13	0	127.71
1367	576	36	441	601	150	140	0	-4.15	0.23	0	35.97
1216	729	176.74	670	337	200	140	0	-2.27	0.07	0	173.43
1273	81	79.76	697	695	250	140	0	-0.13	0	0	78.33
1338	583	63.89	429	430	150	140	0	-3.45	0.2	0	64.01
952	582	80.91	429	428	150	140	0	6.48	0.37	0.001	80.77
1146	248	62.46	168	167	100	60	0	1.21	0.15	0.002	62.48
1359	160	54.84	588	67	200	140	0	15.76	0.5	0.001	54.86
1568	183	133.08	74	75	150	140	0	0	0	0	133.2
1796	457	92.16	230	231	150	85	0	-3.92	0.22	0.001	92.05

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1820	543	132.5	493	494	250	91	0	9.77	0.2	0	132.59
1085	78	119.86	700	699	250	140	0	-0.13	0	0	119.79
1391	318	41.56	218	219	150	140	0	0.2	0.01	0	41.45
1383	646	16.44	535	536	150	140	0	0	0	0	16.46
1282	647	142.05	535	537	150	140	0	2.53	0.14	0	142.04
1299	224	64.28	124	125	150	140	0	11.18	0.63	0.003	63.7
1696	905	57.2	855	856	200	100	0	-17.22	0.55	0.003	19.2
1243	153	20.73	60	586	300	140	0	23.64	0.33	0	20.73
1337	150	11.28	60	61	150	60	0	-21.44	1.21	0.045	11.28
1192	151	89.58	60	51	300	140	0	72.07	1.02	0.003	89.61
1364	577	48	601	442	150	91	0	-4.15	0.23	0.001	47.85
985	332	38.98	275	276	150	91	0	0.27	0.02	0	39.01
1357	369	74.68	314	313	150	91	0	2.79	0.16	0	74.68
1023	456	12.76	229	230	150	85	0	-3.92	0.22	0.001	12.8
1552	461	103.23	229	234	150	85	0	-7.83	0.44	0.004	103.33
1145	388	22.96	316	330	200	95	0	9.03	0.29	0.001	22.86
1432	378	9.46	316	318	150	140	0	3.05	0.17	0	9.45
1848	373	71.66	310	309	150	91	0	2.41	0.14	0	71.63
1149	195	8.96	95	96	300	140	0	-22.22	0.31	0	8.84
1595	541	35.55	490	491	250	95	0	6.5	0.13	0	35.66
1563	540	127.85	490	493	250	91	0	9.93	0.2	0	127.71
1665	743	71.07	758	771	250	100	0	-284.65	5.8	0.176	71.02
2328	P-1196	226.43	554	J-990	250	130	0	13.94	0.28	0	0
1423	33	24.34	554	557	250	140	0	0	0	0	3.66
1389	34	30.24	554	556	250	140	0	0	0	0	16.15
1660	35	20.87	554	251	250	140	0	0	0	0	3.35
1966	P-1030	152.8	843	821	200	130	0	0.35	0.01	0	0
1237	319	44.46	219	220	150	140	0	0.2	0.01	0	44.5
1346	415	14.55	352	354	150	130	0	0	0	0	14.63
1263	414	9.75	352	353	200	95	0	1	0.03	0	9.75
1340	428	53.05	352	368	200	95	0	-4.52	0.14	0	53.04
1362	634	44.9	527	528	150	140	0	0.1	0.01	0	44.81
1334	408	42.76	598	346	150	91	0	-2.94	0.17	0.001	42.67
1499	276	92.54	170	177	150	140	0	-5.57	0.32	0.001	92.66
1673	273	92.17	170	171	150	140	0	0.72	0.04	0	92.05
1763	732	338.92	196	594	150	140	0	-3.47	0.2	0	338.94
1967	P-1031	379	196	791	250	130	0	14.31	0.29	0	0
1248	220	71.43	108	55	200	66	0	-37.46	1.19	0.026	71.32
1737	712	166.32	651	652	150	140	0	4.9	0.28	0.001	166.42
961	654	124.29	607	201	200	89	0	-19.51	0.62	0.005	124.36
1642	80	23.72	698	697	250	140	0	-0.13	0	0	20.42
1751	465	80.84	237	238	150	85	0	-6.7	0.38	0.003	80.77
1201	298	24.43	190	191	300	89	0	-53.25	0.75	0.004	24.38
1644	103	76.87	635	646	250	66	0	24.36	0.5	0.004	76.81
1695	229	3.07	130	131	200	66	0	12.27	0.39	0.003	3.05
1043	107	47.46	656	672	200	130	0	12.52	0.4	0.001	47.55
1010	106	245.28	656	665	150	130	0	0.13	0.01	0	245.36
1458	115	5.81	35	36	300	66	0	11.71	0.17	0	5.79
1685	566	18.05	416	417	200	95	0	0	0	0	17.98
1156	747	2.58	770	768	150	100	0	-104.03	5.89	0.329	2.44
1645	96	52.4	682	681	300	140	0	-16.66	0.24	0	43.28
1155	176	156.03	590	79	200	60	0	1.52	0.05	0	156.06
1780	719	132.65	654	540	250	140	0	14.27	0.29	0	132.59
1693	102	104.63	627	635	250	66	0	24.36	0.5	0.004	104.55
1468	328	61.75	270	271	150	91	0	-4.76	0.27	0.001	61.87
1689	775	91.6	712	721	250	140	0	-16.54	0.34	0	91.74
1759	778	146.23	712	723	150	100	0	0.4	0.02	0	146.3
1653	380	99.11	319	320	150	140	0	2.9	0.16	0	99.06
1230	284	37.63	178	179	200	140	0	4.35	0.14	0	30.78
1250	326	10.05	268	269	150	91	0	-4.76	0.27	0.001	10.06
1488	223	11.47	123	124	150	140	0	11.18	0.63	0.003	11.58

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1746	346	57.28	296	297	150	140	0	0.08	0	0	57.3
1579	293	90.33	208	199	200	89	0	-8.41	0.27	0.001	90.22
1844	301	45.48	208	223	150	89	0	-11.1	0.63	0.006	45.42
1565	241	43.12	144	145	250	140	0	23.1	0.47	0.001	42.98
1016	548	36.56	392	393	150	91	0	-0.48	0.03	0	36.58
1118	561	11.75	414	415	200	95	0	0	0	0	11.89
1775	85	54.65	690	692	200	130	0	1.91	0.06	0	54.86
1124	868	161.46	825	727	150	100	0	0.83	0.05	0	163.98
1766	431	37.2	368	371	200	95	0	-4.77	0.15	0	37.19
1408	429	93.45	368	369	200	95	0	0.13	0	0	93.57
1447	451	107.32	223	224	150	85	0	-11.26	0.64	0.007	107.29
1092	658	55.13	244	613	150	85	0	0.1	0.01	0	55.17
973	467	147.5	244	243	150	85	0	-7.13	0.4	0.003	147.52
1506	824	34.09	790	791	250	140	0	24.39	0.5	0.001	29.87
1476	75	44.99	34	33	250	140	0	-0.13	0	0	45.11
1604	384	18.29	323	324	150	91	0	2.71	0.15	0	18.29
1311	127	122.94	44	46	300	130	0	-27.06	0.38	0.001	124.36
1750	721	136.08	423	826	300	140	0	45.62	0.65	0.001	118.87
1603	594	27.33	423	421	250	140	0	-3.13	0.06	0	27.43
1833	879	197.77	832	833	150	100	0	0.45	0.03	0	197.82
1892	P-983	3.15	866	777	304.8	130	0	-76.8	1.05	0.004	3.05
1882	P-977	2.23	Brentwood	27	304.8	130	0	1,386.78	19.01	0.775	2.13
1884	P-959	1.64	BWD-FIRE	9	304.8	130	0	78.3	1.07	0.004	1.52
1888	P-979	1.53	BWD-3	19	304.8	130	0	46.35	0.64	0.001	1.52
1894	P-985	2.43	WST-1	762	254	130	0	51.98	1.03	0.004	2.44
1896	P-987	2.22	WST-2	763	254	130	0	51.85	1.02	0.004	2.13
1899	P-990	2.15	WST-FIRE	768	254	130	0	104.03	2.05	0.016	2.13
1903	P-993	49.97	J-866	860	300	100	0	0.82	0.01	0	85.95
1905	P-994	53.57	J-866	J-867	200	130	0	7.03	0.22	0	0
1907	P-995	108.02	J-867	J-868	200	130	0	4.16	0.13	0	0
1909	P-996	129.18	J-868	J-869	200	130	0	-1.9	0.06	0	0
1920	P-1003	51.94	J-868	J-873	200	130	0	6.05	0.19	0	0
1911	P-997	83.61	J-869	J-870	200	130	0	-1.9	0.06	0	0
1913	P-998	172.41	J-870	J-871	200	130	0	-1.9	0.06	0	0
1914	P-999	76.14	J-871	J-867	200	130	0	-1.9	0.06	0	0
1916	P-1000	86.79	J-871	J-872	200	130	0	0	0	0	0
1919	P-1002	37.91	J-873	864	300	100	0	23.84	0.34	0.001	153.62
1925	P-1006	167.15	J-874	J-875	200	130	0	9.74	0.31	0.001	0
1923	P-1005	25.77	J-874	852	200	100	0	-15.38	0.49	0.002	107.9
1932	P-1010	40.95	J-875	710	200	130	0	9.74	0.31	0.001	0
2047	P-1046	346.69	J-876	J-900	250	130	0	18.33	0.37	0.001	0
1936	P-1012	48.17	J-877	J-878	150	130	0	0	0	0	0
1938	P-1013	50.01	J-877	J-879	250	130	0	11.26	0.23	0	0
2220	P-1128	555.78	J-879	J-951	250	130	0	11.26	0.23	0	0
1941	P-1015	88.32	J-880	782	250	130	0	-13.51	0.28	0	0
1946	P-1018	118.82	J-881	J-882	150	130	0	0	0	0	0
1948	P-1019	210.16	J-881	J-883	150	130	0	0	0	0	0
2289	P-1172	800	J-884	J-975	300	130	0	33	0.47	0.001	0
2298	P-1178	761.34	J-884	J-976	300	130	0	57.9	0.82	0.002	0
1955	P-1023	139.73	J-885	J-886	150	130	0	0.01	0	0	0
1957	P-1024	70.73	J-886	J-887	150	130	0	0.01	0	0	0
1959	P-1025	62.88	J-887	J-888	150	130	0	0.01	0	0	0
1961	P-1026	73.79	J-888	J-889	150	130	0	0.01	0	0	0
1962	P-1027	69.84	J-889	J-885	150	130	0	0.01	0	0	0
1965	P-1029	160.38	J-890	781	150	130	0	0	0	0	0
1978	P-1033	2.83	R-1	27	300	130	0	-1,180.02	16.69	0.621	0
2000	P-1037	382.28	J-891	J-892	300	130	0	-17.19	0.24	0	0
1998	P-1036	79.93	J-891	841	152.4	130	0	4.73	0.26	0.001	0
2001	P-1038	477.2	J-892	608	300	130	0	-32.52	0.46	0.001	0
2003	P-1039	120.07	J-892	J-893	300	130	0	19.4	0.27	0	0
2320	P-1190	258.38	J-893	J-981	300	130	0	19.4	0.27	0	0

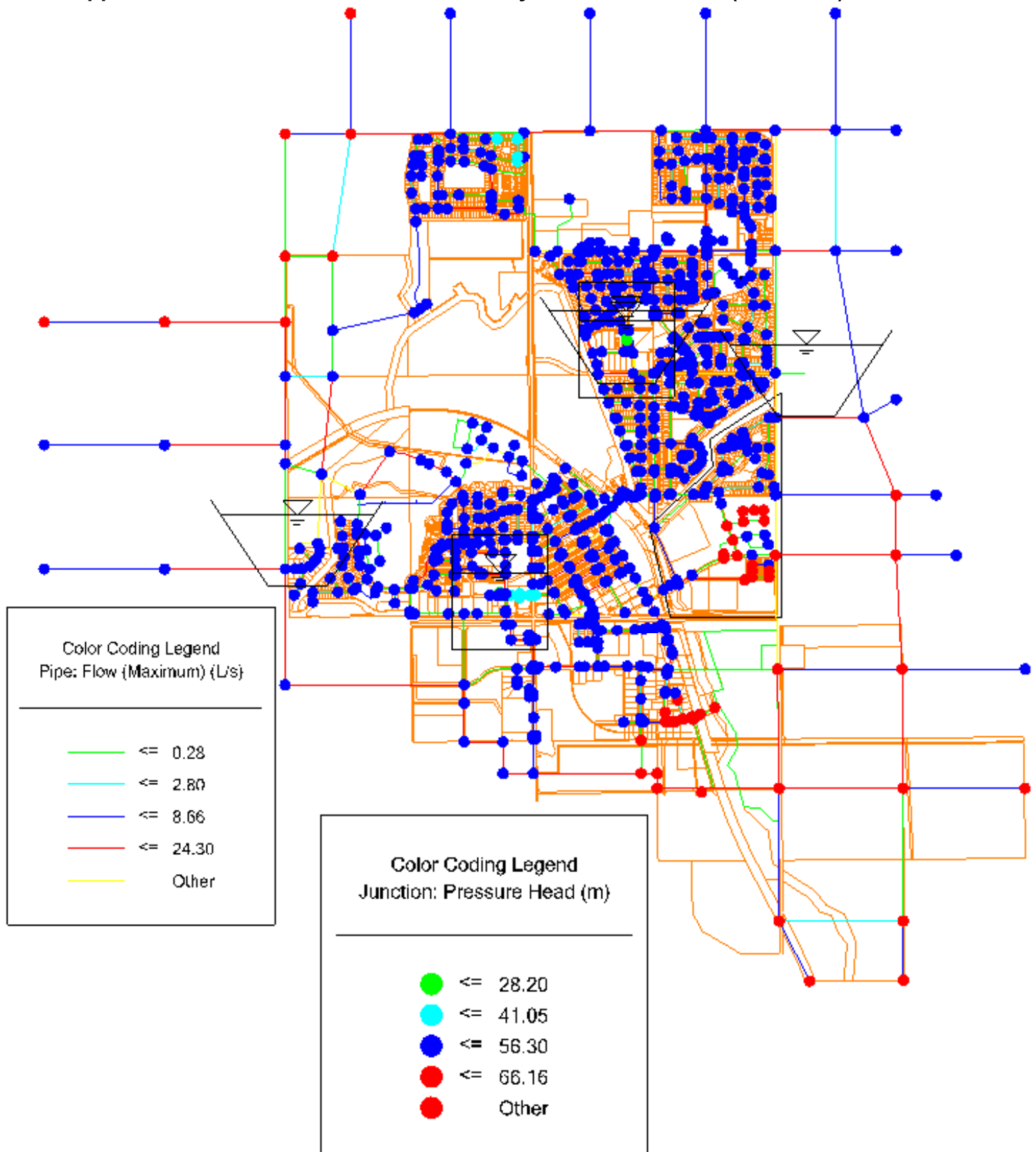
ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
2020	Prop 200 m	35.3	J-894	691	200	130	0	95.19	3.03	0.042	0
2196	P-1114	461.99	J-894	J-941	300	130	0	120.47	1.7	0.009	0
2019	P-1044	133.33	J-899	337	200	140	0	-2.7	0.09	0	185.93
2060	P-1053	216.31	J-900	J-906	200	130	0	18.33	0.58	0.002	0
2058	Algn1.2	227.72	J-904	J-905	300	130	0	26.78	0.38	0.001	0
2069	Algn1.1	148.31	J-904	180	200	130	0	-26.78	0.85	0.004	0
2107	P-1083	119.48	J-905	J-923	300	130	0	24.55	0.35	0	0
2097	P-1077	93.85	J-905	J-919	200	130	0	1.83	0.06	0	0
2066	P-1057	60.89	J-906	J-908	200	130	0	18.33	0.58	0.002	0
2120	P-1091	126.28	J-908	J-928	200	130	0	18.33	0.58	0.002	0
2099	P-1078	136.78	J-919	J-920	200	130	0	0.8	0.03	0	0
2101	P-1079	378.19	J-920	J-921	200	130	0	0.08	0	0	0
2103	P-1080	97.25	J-921	J-922	200	130	0	-0.53	0.02	0	0
2105	P-1082	175.47	J-921	J-920	200	130	0	-0.12	0	0	0
2104	P-1081	91.03	J-922	J-919	200	130	0	-0.83	0.03	0	0
2109	P-1084	210.15	J-923	J-924	200	130	0	3.76	0.12	0	0
2112	P-1086	85.56	J-923	J-925	200	130	0	0.7	0.02	0	0
2134	P-1097	97.39	J-924	J-931	200	130	0	3.16	0.1	0	0
2121	P-1092	91.83	J-928	180	200	130	0	18.33	0.58	0.002	0
2135	P-1098	91.69	J-931	J-923	300	130	0	-19.99	0.28	0	0
2157	P-1105	70.47	J-2	J-1	200	140	0	-6.5	0.21	0	77.72
2173	P-1106	133.07	Wildflower	J-894	300	130	0	222.46	3.15	0.028	0
2186	P-1109	800	J-935	J-936	300	130	0	17.03	0.24	0	0
2190	P-1111	123.91	J-937	J-938	400	130	0	67.84	0.54	0.001	0
2198	P-1116	251.17	J-937	J-941	300	130	0	-72.15	1.02	0.004	0
2192	P-1112	800	J-938	J-939	250	130	0	34.06	0.69	0.002	0
2200	P-1117	454.84	J-938	J-942	400	130	0	33.78	0.27	0	0
2194	P-1113	800	J-939	J-940	250	130	0	17.03	0.35	0.001	0
2197	P-1115	289.51	J-941	J-876	300	130	0	18.71	0.26	0	0
2225	P-1132	654.5	J-941	J-952	250	130	0	29.6	0.6	0.002	0
2202	P-1118	360.03	J-942	J-943	400	130	0	35.11	0.28	0	0
2204	P-1119	800	J-943	J-944	300	130	0	34.06	0.48	0.001	0
2208	P-1121	437.02	J-943	J-946	400	130	0	1.05	0.01	0	0
2206	P-1120	800	J-944	J-945	300	130	0	17.03	0.24	0	0
2210	P-1122	811.74	J-946	J-947	400	130	0	-5.81	0.05	0	0
2213	P-1124	434.84	J-948	J-947	400	130	0	5.81	0.05	0	0
2215	P-1125	800	J-948	J-949	250	130	0	17.03	0.35	0.001	0
2217	P-1126	820.67	J-948	J-950	250	130	0	4.7	0.1	0	0
2218	P-1127	314.12	J-950	J-946	250	130	0	-6.86	0.14	0	0
2224	P-1131	492.89	J-950	J-951	250	130	0	-5.47	0.11	0	0
2222	P-1129	304.16	J-951	J-952	250	130	0	-11.23	0.23	0	0
2223	P-1130	314.12	J-952	J-942	250	130	0	1.34	0.03	0	0
2233	P-1137	436.98	J-955	825	300	140	0	40.05	0.57	0.001	890.32
2235	P-1138	780.14	J-955	J-956	250	130	0	17.03	0.35	0.001	0
2240	P-1141	775.38	J-958	J-957	300	130	0	17.03	0.24	0	0
2245	P-1144	800.02	J-959	J-960	400	130	0	69.1	0.55	0.001	0
2261	P-1155	400	J-959	J-964	250	130	0	29.34	0.6	0.002	0
2264	P-1157	811.9	J-959	J-966	400	130	0	-120.87	0.96	0.002	0
2246	P-1145	462.31	J-960	J-958	400	130	0	45.08	0.36	0	0
2250	P-1147	400	J-960	J-962	300	130	0	24.02	0.34	0	0
2253	P-1149	775.38	J-962	J-963	250	130	0	17.03	0.35	0.001	0
2251	P-1148	400	J-962	J-961	300	130	0	17.03	0.24	0	0
2277	P-1165	1,123.03	J-964	J-970	250	130	0	2.27	0.05	0	0
2258	P-1152	800.02	J-964	J-962	250	130	0	10.04	0.2	0	0
2257	P-1151	400	J-964	J-965	250	130	0	17.03	0.35	0.001	0
2266	P-1158	203.62	J-966	R-3	400	130	0	-297.31	2.37	0.012	0
2268	P-1159	295.23	J-966	J-967	400	130	0	188.11	1.5	0.005	0
2275	P-1163	588.31	J-967	J-970	300	130	0	48.23	0.68	0.002	0
2270	P-1160	513.62	J-967	J-968	400	130	0	139.88	1.11	0.003	0
2271	P-1161	399.26	J-968	J-884	400	130	0	120.31	0.96	0.002	0
2283	P-1168	800	J-968	J-973	250	130	0	19.57	0.4	0.001	0

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
2276	P-1164	243.91	J-970	J-969	300	130	0	17.03	0.24	0	0
2285	P-1170	555.69	J-970	J-973	250	130	0	33.47	0.68	0.002	0
2284	P-1169	266.67	J-973	J-971	250	130	0	17.03	0.35	0.001	0
2291	P-1174	399.1	J-973	J-975	250	130	0	36.02	0.73	0.002	0
2290	P-1173	400	J-975	J-974	300	130	0	17.03	0.24	0	0
2304	P-1182	762.32	J-975	J-977	250	130	0	34.95	0.71	0.002	0
2295	P-1176	826.72	J-976	J-977	250	130	0	18.74	0.38	0.001	0
2329	P-1197	789.83	J-976	J-986	300	130	0	34.37	0.49	0.001	0
2330	P-1198	789.8	J-977	J-987	250	130	0	19.63	0.4	0.001	0
2297	P-1177	817.85	J-977	J-978	250	130	0	17.03	0.35	0.001	0
2303	P-1181	1,187.02	J-979	J-892	300	130	0	4.06	0.06	0	0
2307	P-1183	258.79	J-981	J-982	300	130	0	19.4	0.27	0	0
2309	P-1184	209.5	J-982	J-983	300	130	0	19.4	0.27	0	0
2326	P-1194	201.03	J-983	J-990	300	130	0	19.4	0.27	0	0
2313	P-1186	98.2	J-984	J-985	300	130	0	31.14	0.44	0.001	0
2315	P-1187	810.62	J-985	J-986	300	130	0	31.14	0.44	0.001	0
2332	P-1199	879.16	J-986	J-991	250	130	0	21.03	0.43	0.001	0
2317	P-1188	824.14	J-986	J-987	300	130	0	27.45	0.39	0.001	0
2319	P-1189	806.98	J-987	J-988	300	130	0	17.03	0.24	0	0
2323	P-1192	105.28	J-989	J-984	300	130	0	31.14	0.44	0.001	0
2327	P-1195	716.13	J-990	J-989	300	130	0	33.34	0.47	0.001	0
2334	P-1200	824.13	J-991	J-992	250	130	0	4	0.08	0	0
2339	P-1203	446.49	J-991	J-994	250	130	0	17.03	0.35	0.001	0
2335	P-1201	879.16	J-992	J-987	250	130	0	-13.03	0.27	0	0
2337	P-1202	392.18	J-992	J-993	250	130	0	17.03	0.35	0.001	0

Appendix A4

2061 Ultimate Maximum Day
Demand Scenario (325 L/s)

Appendix A4 – 2061 Ultimate Maximum Day Demand Scenario (325 L/sec)



ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
103	860	979.78	Zone-1	0.00	1,024.68	439.4
104	126	977.1	Zone-1	0.00	1,024.42	463.1
105	628	979.5	Zone-1	0.00	1,025.68	451.9
107	220	974.5	Zone-1	0.16	1,023.99	484.4
108	528	976.9	Zone-1	0.10	1,025.12	471.9
109	79	978.3	Zone-1	0.25	1,021.87	426.4
110	166	976.3	Zone-1	0.13	1,023.16	458.6
111	J-1	977	Zone-1	0.00	1,025.34	473.1
112	145	977.3	Zone-1	0.00	1,023.65	453.6
113	464	979.78	Zone-1	0.00	1,024.73	439.9
114	380	980.9	Zone-1	0.19	1,025.81	439.6
115	849	979.44	Zone-1	0.00	1,024.56	441.6
116	172	977	Zone-1	0.40	1,023.20	452.2
117	809	977	Zone-1	0.00	1,024.79	467.7
118	120	977.8	Zone-1	0.00	1,024.83	460.3
119	546	978.6	Zone-1	0.19	1,025.10	455.1
120	257	979.1	Zone-1	0.00	1,027.02	468.9
121	358	978.5	Zone-1	0.00	1,025.68	461.7
122	295	974.5	Zone-1	0.00	1,023.99	484.3
124	72	976.8	Zone-1	0.00	1,021.91	441.5
125	69	977.4	Zone-1	0.93	1,021.79	434.4
126	405	980.7	Zone-1	0.00	1,025.85	441.9
127	560	971.3	Zone-1	0.11	1,021.88	495
128	478	978	Zone-1	0.40	1,026.48	474.5
129	227	975.1	Zone-1	0.10	1,025.11	489.5
130	100	976	Zone-1	0.24	1,022.09	451
131	491	979.2	Zone-1	0.00	1,025.47	452.8
132	187	974	Zone-1	0.00	1,022.94	479
133	616	972.45	Zone-1	0.00	1,023.72	501.8
134	121	977.3	Zone-1	0.21	1,024.57	462.6
135	280	975.4	Zone-1	0.00	1,024.97	485.1
136	364	979.5	Zone-1	0.15	1,025.68	451.9
137	155	976.4	Zone-1	0.00	1,022.42	450.4
138	411	981.5	Zone-1	0.14	1,025.65	432.1
139	604	978	Zone-1	0.00	1,025.21	462
140	699	974.69	Zone-1	0.00	1,023.81	480.8
141	709	978.5	Zone-1	0.00	1,024.32	448.5
142	691	979.78	Zone-1	0.18	1,025.91	451.5
143	657	978.5	Zone-1	0.26	1,025.09	456
144	340	976	Zone-1	0.51	1,025.29	482.4
145	176	977.7	Zone-1	0.32	1,023.35	446.7
146	844	977	Zone-1	0.00	1,024.79	467.8
147	99	975.3	Zone-1	0.11	1,022.07	457.7
148	662	979	Zone-1	0.19	1,024.97	449.9
149	789	967.8	Zone-1	0.67	1,023.99	549.9
150	796	966.8	Zone-1	0.12	1,024.07	560.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
151	599	981.5	Zone-1	0.00	1,025.65	432.1
152	254	979	Zone-1	0.00	1,029.39	493.2
153	159	974.9	Zone-1	0.29	1,022.97	470.5
154	62	976.3	Zone-1	0.93	1,020.94	436.9
155	59	975.7	Zone-1	0.00	1,021.70	450.2
156	497	978	Zone-1	0.00	1,025.27	462.6
157	134	978.5	Zone-1	0.00	1,023.87	444
158	476	977.5	Zone-1	0.00	1,026.61	480.7
159	76	978.58	Zone-1	0.00	1,024.25	447
160	669	977.5	Zone-1	0.40	1,025.28	467.6
161	830	965.9	Zone-1	0.00	1,023.86	567.3
162	382	981	Zone-1	0.24	1,025.73	437.8
163	465	966.9	Zone-1	0.00	1,023.86	557.5
164	711	978.5	Zone-1	0.00	1,024.32	448.5
165	678	976.8	Zone-1	0.00	1,020.39	426.6
166	572	979.5	Zone-1	0.00	1,029.17	486.1
167	779	968.3	Zone-1	0.00	1,024.01	545.2
168	505	977	Zone-1	0.66	1,025.19	471.6
169	264	978.3	Zone-1	0.00	1,025.04	457.4
170	7	979.4	Zone-no fire flow	0	992.27	125.9
171	665	972.4	Zone-1	0.13	1,020.71	472.8
172	550	978.2	Zone-1	0.19	1,025.11	459.1
173	355	980	Zone-1	0.00	1,025.68	447.1
174	704	983	Zone-1	0.00	1,024.79	409
175	726	978	Zone-1	0.00	1,025.04	460.4
176	359	978.5	Zone-1	0.00	1,025.68	461.7
177	311	977	Zone-1	0.19	1,025.32	472.9
178	304	977	Zone-1	0.19	1,025.34	473.1
179	194	976.5	Zone-1	0.00	1,023.73	462.3
180	32	979.78	Zone-1	0.00	1,025.43	446.7
181	259	978.2	Zone-1	0.16	1,026.38	471.5
182	852	979.29	Zone-1	0.13	1,024.52	442.7
183	555	970.2	Zone-1	0.00	1,023.84	525
184	283	976.7	Zone-1	0.06	1,025.07	473.4
185	701	972.33	Zone-1	0.00	1,023.81	503.9
186	689	976	Zone-1	0.08	1,023.81	467.9
187	89	973	Zone-1	0.31	1,021.97	479.3
188	363	978.5	Zone-1	0.00	1,025.68	461.7
189	650	977	Zone-1	0.25	1,025.15	471.2
190	39	974.4	Zone-1	0.00	1,021.12	457.2
191	501	978	Zone-1	0.00	1,025.25	462.5
192	138	978.5	Zone-1	0.00	1,023.79	443.2
193	675	973.8	Zone-1	0.00	1,020.43	456.4
194	221	974.5	Zone-1	0.00	1,023.99	484.4
195	707	978.5	Zone-1	0.35	1,024.10	446.2
196	564	976	Zone-1	0.00	1,016.31	394.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
197	771	977.8	Zone-1	0.00	1,011.07	325.6
198	735	974.5	Zone-1	0.00	1,023.99	484.4
199	379	980.9	Zone-1	0.00	1,025.82	439.6
200	262	977.11	Zone-1	0.00	1,024.12	460.1
201	154	976.3	Zone-1	0.00	1,022.75	454.6
202	42	976	Zone-1	0.00	1,020.42	434.7
203	249	978	Zone-1	0.00	1,029.35	502.6
204	29	978.1	Zone-no fire flow	0	992.24	138.4
205	404	980.9	Zone-1	0.00	1,025.83	439.7
206	52	975.8	Zone-1	0.11	1,019.11	423.9
207	49	974.3	Zone-1	0.00	1,021.13	458.3
208	346	978.3	Zone-1	0.13	1,025.48	461.8
209	333	975.5	Zone-1	0.00	1,025.28	487.2
210	273	977.11	Zone-1	0.00	1,024.11	460
211	473	977.4	Zone-1	0.00	1,027.09	486.3
212	186	973.5	Zone-1	0.00	1,022.73	481.8
214	57	975.7	Zone-1	0.00	1,021.69	450.1
215	565	976	Zone-1	0.00	1,016.47	396
216	851	979.29	Zone-1	0.33	1,024.52	442.7
217	824	978.35	Zone-1	0.97	1,024.83	455
218	146	977.3	Zone-1	0.11	1,023.66	453.8
219	442	980.7	Zone-1	0.00	1,025.98	443.2
220	285	975.2	Zone-1	0.16	1,025.14	488.7
221	373	969	Zone-1	0.27	1,023.86	536.9
222	376	980.4	Zone-1	0.00	1,025.73	443.6
223	66	974	Zone-1	0.00	1,021.99	469.7
224	486	978	Zone-1	0.00	1,026.06	470.4
225	530	977.4	Zone-1	0.19	1,025.11	466.9
226	213	973.8	Zone-1	0.16	1,023.99	491.2
227	391	980	Zone-1	0.00	1,025.60	446.3
228	845	979.72	Zone-1	0.70	1,025.06	443.8
229	664	983.1	Zone-1	0.06	1,024.79	408
230	313	977	Zone-1	0.19	1,025.33	473
231	850	979.29	Zone-1	0.15	1,024.49	442.4
232	839	977.99	Zone-1	0.00	1,024.13	451.6
233	778	973.5	Zone-1	0.00	1,022.99	484.3
234	149	976.3	Zone-1	0.00	1,023.32	460.1
235	679	976.4	Zone-1	0.00	1,020.39	430.5
236	365	979.5	Zone-1	0.00	1,025.68	451.9
237	140	977	Zone-1	0.00	1,024.21	462
239	46	976.2	Zone-1	0.13	1,017.71	406.2
240	71	976.8	Zone-1	0.00	1,021.90	441.4
241	315	975	Zone-1	0.00	1,025.30	492.3
242	533	977.8	Zone-1	0.25	1,025.10	462.9
243	517	977	Zone-1	0.19	1,025.14	471.2
244	255	977.5	Zone-1	0.00	1,029.22	506.1

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
245	41	976	Zone-1	0.24	1,020.39	434.5
246	274	975.5	Zone-1	0.14	1,024.81	482.6
247	537	978.97	Zone-1	0.25	1,025.09	451.4
248	822	980.52	Zone-1	0.71	1,025.16	436.9
249	504	977	Zone-1	2.85	1,025.19	471.7
250	361	979.78	Zone-1	0.00	1,024.98	442.4
251	211	972.9	Zone-1	0.00	1,023.99	500
252	164	976.3	Zone-1	0.00	1,023.08	457.8
253	713	978.5	Zone-1	0.00	1,024.10	446.2
254	450	979.4	Zone-1	0.21	1,026.22	458.3
255	136	978.5	Zone-1	0.00	1,023.81	443.5
256	139	979.78	Zone-1	0.05	1,025.15	444
257	462	979	Zone-1	0.16	1,028.17	481.2
258	147	977.6	Zone-1	0.00	1,023.50	449.2
259	736	974.5	Zone-1	0.00	1,023.99	484.4
260	445	980.2	Zone-1	0.24	1,025.95	447.7
261	243	976	Zone-1	0.19	1,027.20	501.1
262	823	977.28	Zone-1	0.00	1,024.83	465.4
263	125	977.5	Zone-1	1.02	1,024.14	456.5
264	272	975.8	Zone-1	0.09	1,024.82	479.7
265	204	974.5	Zone-1	0.00	1,023.39	478.4
266	696	976	Zone-1	0.00	1,023.82	468
267	544	970.1	Zone-1	0.00	1,023.84	526
268	862	979.42	Zone-1	0.50	1,024.79	444
269	455	979	Zone-1	0.00	1,026.25	462.5
270	531	977.6	Zone-1	0.25	1,025.10	464.9
271	618	980.2	Zone-1	0.00	1,025.71	445.4
272	589	977.8	Zone-1	0.93	1,021.80	430.6
273	173	976.2	Zone-1	0.00	1,024.18	469.5
274	400	980	Zone-1	0.26	1,025.67	446.9
275	534	977.8	Zone-1	0.00	1,025.10	462.9
276	293	977	Zone-1	0.00	1,025.45	474.2
277	740	973.8	Zone-1	0.00	1,024.00	491.3
278	595	976	Zone-1	0.00	1,024.54	475
279	235	975.2	Zone-1	0.24	1,026.32	500.3
280	611	976.2	Zone-1	0.00	1,020.14	430
281	820	983	Zone-1	0.00	1,024.76	408.7
282	674	974.4	Zone-1	0.00	1,020.43	450.5
283	432	979.2	Zone-1	0.10	1,025.97	457.7
284	575	977.01	Zone-1	0.00	1,024.14	461.2
285	569	977	Zone-1	0.00	1,025.41	473.7
286	702	978.1	Zone-1	0.55	1,025.07	459.7
287	291	975.8	Zone-1	0.00	1,025.38	485.3
288	671	973.5	Zone-1	0.00	1,022.99	484.3
289	45	975.9	Zone-1	0.00	1,017.73	409.4
290	192	975.1	Zone-1	0.00	1,023.33	472

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
291	728	984.5	Zone-1	0.00	1,024.79	394.3
292	279	975.6	Zone-1	0.09	1,024.91	482.6
293	585	975.7	Zone-1	0.93	1,021.60	449.2
294	621	980.5	Zone-1	0.00	1,025.67	442.1
295	388	980.4	Zone-1	0.10	1,025.59	442.3
296	19	978.1	Zone-no fire flow	0.00	1,035.11	558
297	326	976.3	Zone-1	0.00	1,025.29	479.4
298	424	966.9	Zone-1	0.00	1,023.86	557.5
299	788	966.4	Zone-1	3.00	1,024.05	564.2
300	399	980	Zone-1	0.00	1,025.66	446.8
301	658	978.5	Zone-1	0.35	1,025.13	456.4
302	162	976.2	Zone-1	0.27	1,024.18	469.6
303	484	978.1	Zone-1	0.16	1,026.16	470.3
304	522	976.6	Zone-1	0.00	1,025.13	475
305	553	977.11	Zone-1	0.00	1,024.14	460.2
306	101	975	Zone-1	0.10	1,022.07	460.7
307	246	976.1	Zone-1	0.00	1,029.10	518.7
308	629	979.5	Zone-1	0.19	1,025.68	451.9
309	612	974.5	Zone-1	0.00	1,023.19	476.5
310	398	979.9	Zone-1	0.31	1,025.62	447.5
311	278	975.6	Zone-1	0.00	1,024.88	482.3
312	409	981.5	Zone-1	0.00	1,025.65	432.1
313	233	976.5	Zone-1	0.16	1,025.70	481.5
314	183	978	Zone-1	0.00	1,023.31	443.5
315	436	980.2	Zone-1	0.00	1,025.97	448
316	838	977.99	Zone-1	0.00	1,024.13	451.6
317	814	979.88	Zone-1	0.00	1,024.95	441
318	581	976	Zone-1	0.00	1,019.96	430.2
319	649	976.5	Zone-1	0.00	1,025.15	476.1
320	47	971.7	Zone-1	0.00	1,021.88	491.1
321	269	976	Zone-1	0.00	1,024.65	476.1
322	724	978	Zone-1	0.40	1,025.05	460.5
323	597	970.5	Zone-1	0.00	1,023.81	521.8
324	342	977	Zone-1	0.36	1,025.34	473.1
325	185	978	Zone-1	0.35	1,023.32	443.5
326	366	979.5	Zone-1	0.00	1,025.68	451.9
327	840	977.99	Zone-1	0.00	1,024.13	451.6
328	549	978.2	Zone-1	0.00	1,025.11	459.1
329	487	967.12	Zone-1	0.00	1,023.86	555.3
330	193	976.5	Zone-1	0.00	1,023.99	464.7
331	56	971.7	Zone-1	0.00	1,021.88	491.1
332	587	970.4	Zone-1	0.00	1,023.82	522.8
333	360	978.5	Zone-1	0.13	1,025.68	461.7
334	386	980.7	Zone-1	0.08	1,025.61	439.5
335	265	977	Zone-1	0.14	1,024.59	465.8
336	113	977	Zone-1	0.00	1,013.51	357.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
337	460	978.4	Zone-1	0.16	1,027.08	476.4
338	576	970.3	Zone-1	0.00	1,023.83	523.9
339	184	976.2	Zone-1	0.00	1,024.17	469.5
340	78	977.6	Zone-1	0.16	1,021.89	433.4
341	739	977.5	Zone-1	0.00	1,023.99	455
342	559	972.49	Zone-1	0.00	1,023.81	502.2
344	394	980	Zone-1	0.08	1,025.60	446.3
345	B	977	Zone-1	0.00	1,025.28	472.5
346	469	979.3	Zone-1	0.00	1,033.54	530.8
347	785	966.7	Zone-1	0.12	1,024.08	561.5
348	579	972.5	Zone-1	0.00	1,020.61	470.9
349	33	972.01	Zone-1	0.00	1,023.81	507
350	684	976.72	Zone-1	0.00	1,020.35	427
351	28	978.1	Zone-no fire flow	0	992.24	138.4
352	217	977.11	Zone-1	0.00	1,024.14	460.2
353	864	979.55	Zone-1	0.18	1,024.60	441
354	43	978.5	Zone-1	0.00	1,024.25	447.7
355	526	976.9	Zone-1	0.00	1,025.12	471.9
356	215	973.8	Zone-1	0.00	1,023.99	491.2
357	36	971.6	Zone-1	0.09	1,021.88	492.1
358	384	967	Zone-1	0.00	1,023.86	556.5
359	61	977.2	Zone-1	0.00	1,021.63	434.8
360	387	980.7	Zone-1	0.10	1,025.59	439.3
361	251	979.2	Zone-1	0.00	1,024.11	439.5
362	433	979.8	Zone-1	0.19	1,025.97	451.9
363	150	976.3	Zone-1	0.00	1,023.19	458.9
364	182	978.5	Zone-1	0.40	1,023.30	438.4
365	673	977.5	Zone-1	0.13	1,023.86	453.7
366	833	974.5	Zone-1	1.00	1,023.99	484.3
367	498	978	Zone-1	0.00	1,025.27	462.6
368	324	975.3	Zone-1	0.00	1,025.29	489.3
369	784	967	Zone-1	0.12	1,024.08	558.6
370	174	976	Zone-1	0.08	1,023.20	462
371	722	977.87	Zone-1	0.55	1,025.08	462.1
372	815	983	Zone-1	0.00	1,024.78	408.9
373	620	980.2	Zone-1	0.00	1,025.71	445.4
374	48	974.3	Zone-1	0.00	1,021.59	462.8
375	787	966.8	Zone-1	0.12	1,024.07	560.5
376	520	976.7	Zone-1	0.17	1,025.14	474.1
377	600	981.5	Zone-1	0.00	1,025.65	432.1
379	111	976	Zone-1	0.00	1,015.69	388.4
380	762	974.9	Zone-1	0.00	1,026.98	509.7
381	63	976.3	Zone-1	0.00	1,020.92	436.7
382	791	969.7	Zone-1	0.00	1,023.91	530.5
383	624	979.5	Zone-1	0.00	1,025.68	451.9
384	350	970.15	Zone-1	0.25	1,023.86	525.7

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
385	863	979.61	Zone-1	0.44	1,024.95	443.8
386	842	978.97	Zone-1	0.40	1,025.09	451.4
387	345	978	Zone-1	0.00	1,025.41	464
388	92	972.9	Zone-1	0.00	1,022.05	481
389	98	978.7	Zone-1	0.00	1,024.39	447.2
390	143	978.5	Zone-1	0.00	1,023.75	442.8
391	104	976	Zone-1	0.00	1,022.10	451.2
392	563	976	Zone-1	0.00	1,016.20	393.4
393	367	979.5	Zone-1	0.00	1,025.68	451.9
394	65	978.5	Zone-1	0.53	1,024.25	447.7
395	485	978.1	Zone-1	0.00	1,026.06	469.4
396	519	976.7	Zone-1	0.19	1,025.14	474
397	444	980.2	Zone-1	0.00	1,025.95	447.8
398	197	976.5	Zone-1	0.00	1,023.77	462.6
399	548	978.2	Zone-1	0.25	1,025.11	459.1
400	A	979.2	Zone-1	0.00	1,025.46	452.8
401	525	976.9	Zone-1	0.10	1,025.12	471.9
402	430	978.9	Zone-1	0.27	1,026.00	460.9
403	610	976.2	Zone-1	0.13	1,020.14	430
404	163	975.8	Zone-1	0.30	1,022.99	461.8
405	708	978.5	Zone-1	0.00	1,024.25	447.7
406	518	976.7	Zone-1	0.00	1,025.14	474.1
407	667	976	Zone-1	0.40	1,025.28	482.3
408	68	977.8	Zone-1	0.00	1,021.82	430.8
409	652	978.5	Zone-1	0.25	1,025.12	456.3
410	489	967.6	Zone-1	0.80	1,023.86	550.6
411	167	976.3	Zone-1	0.00	1,023.19	458.9
412	203	974.5	Zone-1	0.00	1,023.34	477.9
413	412	981.5	Zone-1	0.00	1,025.65	432.1
414	27	980.6	Zone-no fire flow	0	992.41	115.5
415	300	978	Zone-1	0.16	1,025.63	466.2
416	84	977	Zone-1	0.16	1,022.00	440.4
417	732	974.5	Zone-1	0.00	1,023.99	484.4
418	686	976.72	Zone-1	0.00	1,020.33	426.8
419	511	975.97	Zone-1	0.19	1,025.16	481.5
420	861	979.29	Zone-1	0.44	1,024.65	444
422	135	978.5	Zone-1	0.00	1,023.84	443.7
423	583	974.3	Zone-1	0.19	1,021.07	457.8
424	438	981	Zone-1	0.00	1,025.97	440.1
425	457	966.9	Zone-1	0.13	1,023.86	557.5
426	574	979.78	Zone-1	0.00	1,025.78	450.2
427	468	979.2	Zone-1	0.00	1,029.87	495.9
428	112	977	Zone-1	0.00	1,013.51	357.3
429	347	980	Zone-1	0.13	1,025.48	445.1
430	461	978.8	Zone-1	0.00	1,027.50	476.6
431	332	975.5	Zone-1	0.50	1,025.28	487.2

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
432	818	983	Zone-1	0.00	1,024.78	408.9
433	605	972.48	Zone-1	0.00	1,023.79	502.2
434	475	978	Zone-1	0.00	1,027.08	480.3
435	703	984	Zone-1	0.44	1,024.79	399.2
436	439	981	Zone-1	0.00	1,025.97	440.1
437	503	978	Zone-1	0.40	1,025.24	462.3
438	93	973	Zone-1	0.00	1,022.07	480.2
439	687	976.7	Zone-1	0.00	1,023.79	460.9
440	181	978.7	Zone-1	0.00	1,023.28	436.3
441	357	978.5	Zone-1	0.21	1,025.68	461.7
442	730	973.8	Zone-1	0.00	1,024.00	491.3
443	571	975	Zone-1	0.34	1,025.31	492.3
444	377	980.9	Zone-1	0.00	1,025.81	439.6
445	336	976	Zone-1	0.38	1,025.28	482.3
446	297	977	Zone-1	0.08	1,025.41	473.8
447	179	978.7	Zone-1	0.10	1,023.27	436.2
448	812	977	Zone-1	0.00	1,024.79	467.8
449	348	980	Zone-1	0.00	1,025.48	445.1
450	734	974.5	Zone-1	0.00	1,023.99	484.4
451	128	978	Zone-1	0.00	1,024.30	453.1
452	592	976.4	Zone-1	0.21	1,022.41	450.3
453	521	971.8	Zone-1	0.13	1,023.86	509.5
454	431	978.3	Zone-1	0.29	1,025.93	466.1
455	407	981	Zone-1	0.14	1,025.77	438.1
456	543	979.78	Zone-1	0.00	1,025.52	447.7
457	826	979	Zone-1	0.00	1,025.65	456.5
458	648	976.5	Zone-1	0.25	1,025.16	476.2
459	780	967	Zone-1	0.71	1,024.02	558.1
460	856	979.78	Zone-1	0.00	1,025.14	443.9
461	449	979.6	Zone-1	0.00	1,026.20	456
462	425	978.6	Zone-1	0.32	1,025.83	462.2
463	299	979.6	Zone-1	0.00	1,026.03	454.4
464	205	975.2	Zone-1	0.00	1,023.69	474.5
465	281	975.4	Zone-1	0.16	1,025.03	485.7
466	222	974.5	Zone-1	0.14	1,023.99	484.4
467	558	979.2	Zone-1	0.00	1,024.11	439.5
468	410	981.5	Zone-1	0.00	1,025.65	432.1
469	40	974.3	Zone-1	0.40	1,021.12	458.3
470	401	980	Zone-1	0.16	1,025.70	447.3
471	596	976	Zone-1	0.19	1,025.29	482.4
472	858	979.78	Zone-1	0.28	1,024.92	441.8
473	302	977	Zone-1	0.18	1,025.41	473.8
474	212	973	Zone-1	0.16	1,023.99	499.1
475	318	975	Zone-1	0.00	1,025.30	492.3
476	453	980.5	Zone-1	0.00	1,026.07	446
477	723	978.11	Zone-1	0.40	1,025.07	459.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
478	786	966.5	Zone-1	0.12	1,024.07	563.4
479	482	978.2	Zone-1	0.00	1,026.28	470.6
480	847	979.36	Zone-1	0.28	1,024.78	444.6
481	156	976	Zone-1	0.19	1,022.37	453.9
482	90	972.9	Zone-1	0.00	1,021.99	480.5
483	434	980.1	Zone-1	0.26	1,025.97	448.9
484	133	978.5	Zone-1	0.00	1,023.87	444.1
485	532	970.05	Zone-1	0.67	1,023.86	526.6
486	529	977.4	Zone-1	0.00	1,025.11	466.9
487	198	975.3	Zone-1	0.00	1,024.09	477.5
488	800	977	Zone-1	0.00	1,024.80	467.8
489	236	975.2	Zone-1	0.00	1,026.32	500.3
490	309	975	Zone-1	0.00	1,025.31	492.3
492	422	979.3	Zone-1	0.00	1,025.72	454.3
493	329	976.3	Zone-1	0.19	1,025.29	479.4
494	714	977	Zone-1	0.00	1,025.27	472.4
495	216	973.8	Zone-1	0.16	1,023.99	491.2
496	738	974.5	Zone-1	0.00	1,023.99	484.4
497	341	977	Zone-1	0.30	1,025.32	472.9
498	688	976.7	Zone-1	0.00	1,023.79	460.9
499	337	976	Zone-1	0.38	1,025.28	482.3
500	452	980.5	Zone-1	0.16	1,026.12	446.5
501	381	981	Zone-1	0.00	1,025.74	437.9
502	289	975.5	Zone-1	0.00	1,025.35	487.8
503	514	975.8	Zone-1	0.10	1,025.16	483.1
504	806	977	Zone-1	0.00	1,024.79	467.8
505	570	977	Zone-1	0.00	1,025.37	473.4
506	290	975.8	Zone-1	0.18	1,025.38	485.2
508	396	979.8	Zone-1	0.08	1,025.61	448.3
509	477	977.5	Zone-1	0.39	1,026.56	480.1
510	782	967	Zone-1	0.00	1,024.05	558.3
511	754	974.9	Zone-1	0	994.79	194.7
512	103	976	Zone-1	0.00	1,022.10	451.2
513	306	974.5	Zone-1	0.00	1,023.89	483.4
514	617	979.8	Zone-1	0.00	1,025.72	449.4
515	816	983	Zone-1	0.55	1,024.78	408.9
516	308	975.5	Zone-1	0.29	1,025.32	487.6
517	131	976.8	Zone-1	0.10	1,023.61	458.2
518	795	968	Zone-1	0.12	1,024.08	548.8
519	510	969.77	Zone-1	0.00	1,023.86	529.4
520	169	977	Zone-1	0.21	1,023.18	452
521	694	976.7	Zone-1	0.00	1,023.79	460.9
522	523	976.3	Zone-1	0.36	1,025.15	478.1
523	87	978.64	Zone-1	0.00	1,024.30	446.9
524	226	975.1	Zone-1	0.16	1,025.11	489.5
525	242	976	Zone-1	0.19	1,027.46	503.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
526	819	983	Zone-1	0.57	1,024.77	408.8
527	266	977	Zone-1	0.00	1,024.53	465.1
528	480	978	Zone-1	0.00	1,026.41	473.8
529	524	976.6	Zone-1	0.19	1,025.13	475
530	458	978.9	Zone-1	0.00	1,026.02	461.2
531	660	979	Zone-1	0.00	1,025.57	455.7
532	200	973	Zone-1	0.00	1,022.12	480.8
533	207	975.3	Zone-1	0.00	1,023.74	474
534	260	978	Zone-1	0.19	1,026.14	471.1
535	757	974.9	Zone-1	0	995.08	197.5
536	440	981	Zone-1	0.16	1,025.97	440.1
537	158	975.8	Zone-1	0.00	1,022.97	461.7
538	286	975.1	Zone-1	0.18	1,025.28	491.1
539	165	976.3	Zone-1	0.08	1,023.14	458.4
540	354	980.3	Zone-1	0.00	1,025.68	444.1
541	602	980.2	Zone-1	0.00	1,025.71	445.4
542	759	974.9	Zone-1	0	995.68	203.4
543	512	975.9	Zone-1	0.19	1,025.16	482.1
544	234	975	Zone-1	0.16	1,025.81	497.3
545	515	976.3	Zone-1	0.25	1,025.15	478.1
546	582	971.3	Zone-1	0.03	1,021.84	494.6
547	813	977	Zone-1	0.31	1,024.79	467.8
548	772	974.9	Zone-1	0	994.74	194.2
549	672	972.5	Zone-1	0.00	1,020.65	471.2
550	566	970.3	Zone-1	0.00	1,023.83	523.9
552	118	977.8	Zone-1	0.00	1,026.44	476.1
553	459	978.4	Zone-1	0.00	1,026.95	475.1
554	328	972.5	Zone-1	0.00	1,023.87	502.7
555	586	977.2	Zone-1	0.00	1,021.01	428.8
556	294	977	Zone-1	0.00	1,025.47	474.3
557	655	978.5	Zone-1	3.50	1,025.08	455.9
558	383	981.9	Zone-1	0.08	1,025.69	428.6
559	362	968.5	Zone-1	0.00	1,023.86	541.8
560	238	977.5	Zone-1	0.14	1,026.52	479.8
561	685	976.72	Zone-1	0.00	1,020.34	426.9
562	371	980.4	Zone-1	0.00	1,025.72	443.5
563	479	967.6	Zone-1	0.00	1,023.86	550.6
564	349	978.4	Zone-1	0.00	1,025.51	461.1
565	573	979.78	Zone-1	0.04	1,025.36	446.1
566	646	972.5	Zone-1	0.00	1,022.15	485.9
567	584	971.7	Zone-1	1.60	1,021.86	490.9
568	413	966.9	Zone-1	0.00	1,023.86	557.5
569	67	977.8	Zone-1	0.00	1,021.81	430.7
570	18	978.1	Zone-no fire flow	0.00	1,034.90	555.9
571	542	978.9	Zone-1	0.00	1,025.10	452.2
572	733	974.5	Zone-1	0.00	1,023.99	484.4

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
573	385	981.2	Zone-1	0.16	1,025.64	434.9
574	117	977.8	Zone-1	0.00	1,026.44	476.1
575	502	978	Zone-1	0.00	1,025.26	462.6
576	374	980.4	Zone-1	0.30	1,025.72	443.6
577	115	977.8	Zone-1	0.00	1,011.57	330.5
578	415	981.5	Zone-1	0.00	1,025.65	432.1
579	151	976.2	Zone-1	0.00	1,024.18	469.6
580	26	978.1	Zone-no fire flow	0	992.25	138.5
581	287	975.1	Zone-1	0.00	1,025.30	491.3
582	51	976.3	Zone-1	0.00	1,020.70	434.6
583	683	976.72	Zone-1	0.00	1,020.35	427
584	245	976.1	Zone-1	0.00	1,029.14	519.1
585	261	978.1	Zone-1	0.19	1,025.72	466
586	763	974.9	Zone-1	0.00	1,026.96	509.5
587	132	978.5	Zone-1	0.00	1,023.90	444.4
588	692	976	Zone-1	0.08	1,023.80	467.8
589	82	976.7	Zone-1	0.00	1,022.05	443.9
590	343	977.4	Zone-1	0.19	1,025.39	469.7
591	225	975.3	Zone-1	0.00	1,024.64	482.9
592	J-4	978	Zone-1	0.00	1,025.34	463.3
593	395	968.5	Zone-1	0.00	1,023.86	541.8
594	161	976	Zone-1	0.10	1,022.97	459.7
595	593	975.3	Zone-1	0.00	1,023.99	476.5
596	630	974.5	Zone-1	0.00	1,023.97	484.2
597	741	977.5	Zone-1	0.35	1,023.99	455
598	737	974	Zone-1	0.00	1,024.00	489.3
599	141	978.5	Zone-1	0.00	1,023.76	442.9
600	631	974.5	Zone-1	0.00	1,023.89	483.4
601	828	977.71	Zone-1	0.60	1,025.27	465.5
602	499	969.52	Zone-1	0.00	1,023.86	531.8
603	437	980.7	Zone-1	0.26	1,025.97	443.1
604	116	977.8	Zone-1	0.00	1,024.85	460.5
605	224	975.3	Zone-1	0.09	1,024.50	481.5
606	509	976.08	Zone-1	0.00	1,025.17	480.4
607	668	976	Zone-1	0.40	1,025.28	482.3
608	827	979	Zone-1	0.00	1,025.65	456.5
609	427	978.6	Zone-1	0.00	1,025.84	462.3
610	622	980.5	Zone-1	0.00	1,025.67	442.1
611	256	979.1	Zone-1	0.18	1,027.19	470.6
612	805	977	Zone-1	0.00	1,024.81	467.9
613	481	978	Zone-1	0.40	1,026.34	473.1
614	370	980	Zone-1	0.13	1,025.70	447.3
615	644	974	Zone-1	0.00	1,022.92	478.8
617	284	976.01	Zone-1	0.00	1,024.06	470.3
618	88	976	Zone-1	0.00	1,021.97	449.9
619	659	978.8	Zone-1	0.00	1,026.06	462.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
620	494	981	Zone-1	0.00	1,025.41	434.7
621	695	976	Zone-1	0.00	1,023.81	467.9
622	676	974.4	Zone-1	0.00	1,020.43	450.5
623	321	975.3	Zone-1	0.00	1,025.29	489.3
624	799	977	Zone-1	0.00	1,024.80	467.8
625	188	974.5	Zone-1	0.00	1,023.10	475.6
626	38	971.5	Zone-1	0.04	1,021.55	489.8
627	317	973.24	Zone-1	0.00	1,023.87	495.6
628	53	976	Zone-1	0.00	1,018.79	418.8
629	372	980	Zone-1	0.10	1,025.72	447.4
630	330	975	Zone-1	0.00	1,025.30	492.3
631	608	978.6	Zone-1	0.13	1,024.26	446.8
632	320	975.3	Zone-1	0.00	1,025.30	489.3
633	846	977	Zone-1	0.54	1,024.80	467.8
634	86	977.4	Zone-1	0.00	1,022.01	436.6
635	250	979.78	Zone-1	0.15	1,025.15	444
636	282	975.2	Zone-1	0.00	1,025.10	488.4
637	180	975.26	Zone-1	0.58	1,023.21	469.3
638	802	977	Zone-1	0.51	1,024.83	468.1
639	742	977.8	Zone-1	0.00	1,023.99	452.1
640	54	978.5	Zone-1	0.00	1,024.25	447.7
641	801	977	Zone-1	0.00	1,024.84	468.2
642	70	976.8	Zone-1	0.80	1,021.87	441.1
643	73	973	Zone-1	0.00	1,021.90	478.5
644	835	978.5	Zone-1	0.35	1,024.15	446.8
645	177	977.8	Zone-1	0.19	1,023.29	445.2
646	428	979	Zone-1	0.08	1,025.93	459.3
647	463	979.2	Zone-1	0.00	1,028.78	485.2
648	817	983	Zone-1	0.55	1,024.78	408.9
649	606	976.5	Zone-1	0.19	1,025.14	476
650	426	978.5	Zone-1	0.00	1,025.83	463.2
651	102	976	Zone-1	0.21	1,022.10	451.2
652	271	975	Zone-1	0.09	1,024.74	486.8
653	263	978.3	Zone-1	0.08	1,025.13	458.3
654	191	975	Zone-1	0.00	1,023.30	472.7
655	808	977	Zone-1	2.42	1,024.78	467.6
656	267	976	Zone-1	0.00	1,024.61	475.8
657	303	976.5	Zone-1	0.00	1,025.40	478.5
658	55	976	Zone-1	0.00	1,018.47	415.7
659	94	973	Zone-1	0.00	1,022.06	480.1
660	725	978	Zone-1	0.42	1,025.05	460.5
661	148	977.2	Zone-1	0.19	1,023.46	452.7
662	305	975.3	Zone-1	0.00	1,025.32	489.5
663	153	976	Zone-1	0.38	1,022.80	458.1
664	419	980.5	Zone-1	0.00	1,025.68	442.2
665	681	976.76	Zone-1	0.00	1,020.37	426.8

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
666	447	979.6	Zone-1	0.00	1,026.12	455.3
667	507	976.5	Zone-1	0.00	1,025.17	476.3
668	666	977	Zone-1	0.00	1,024.87	468.5
669	37	971.9	Zone-1	0.11	1,021.55	485.9
670	539	978.97	Zone-1	0.20	1,025.09	451.4
671	603	980.3	Zone-1	0.00	1,025.70	444.3
672	706	983	Zone-1	0.00	1,024.78	408.9
673	836	978.5	Zone-1	0.00	1,023.93	444.6
674	109	978.7	Zone-1	0.53	1,024.45	447.8
675	448	979.6	Zone-1	0.00	1,026.12	455.3
676	831	966.9	Zone-1	0.00	1,023.86	557.5
677	781	967.5	Zone-1	0.00	1,024.04	553.3
678	721	978.37	Zone-1	0.40	1,025.08	457.2
679	106	976.5	Zone-1	0.00	1,022.11	446.3
680	456	979	Zone-1	0.24	1,026.07	460.7
681	615	978	Zone-1	0.00	1,025.26	462.5
682	157	975.8	Zone-1	0.00	1,022.69	458.9
683	322	975.3	Zone-1	0.19	1,025.29	489.3
684	171	976	Zone-1	0.24	1,023.20	462
685	402	981.1	Zone-1	0.16	1,025.75	437
686	418	981	Zone-1	0.00	1,025.33	433.8
687	720	976	Zone-1	0.60	1,025.28	482.2
688	344	977.4	Zone-1	0.10	1,025.39	469.7
689	500	978	Zone-1	0.00	1,025.26	462.5
690	127	977	Zone-1	0.00	1,024.19	461.9
691	195	976.2	Zone-1	0.00	1,024.17	469.5
692	693	976.7	Zone-1	0.08	1,023.80	460.9
693	557	979.2	Zone-1	0.00	1,024.11	439.5
695	58	975.7	Zone-1	0.00	1,021.70	450.2
696	729	978.5	Zone-1	0.00	1,024.01	445.4
697	552	976.2	Zone-1	0.00	1,024.17	469.5
698	114	977	Zone-1	1.73	1,013.51	357.3
699	389	980.2	Zone-1	0.00	1,025.60	444.3
700	75	973	Zone-1	0.00	1,021.90	478.5
701	516	977	Zone-1	0.25	1,025.14	471.2
702	408	980.6	Zone-1	0.00	1,025.67	441.1
703	406	966.9	Zone-1	0.40	1,023.86	557.5
704	853	979.29	Zone-1	0.00	1,024.65	444
705	231	976.5	Zone-1	0.16	1,025.63	480.8
706	625	979.5	Zone-1	0.19	1,025.68	451.9
707	653	978	Zone-1	0.25	1,025.12	461.2
708	312	977	Zone-1	0.00	1,025.32	472.9
709	228	977.88	Zone-1	0.00	1,024.13	452.6
710	580	974.4	Zone-1	0.16	1,020.99	456
711	567	972.9	Zone-1	0.00	1,023.99	500
712	467	979.2	Zone-1	0.00	1,029.56	492.8

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
713	335	976	Zone-1	0.00	1,025.28	482.3
714	351	978.5	Zone-1	0.16	1,025.54	460.4
715	369	980	Zone-1	0.00	1,025.70	447.3
716	540	978.99	Zone-1	0.34	1,025.10	451.3
717	258	978.5	Zone-1	0.18	1,026.82	472.9
718	626	979.5	Zone-1	0.00	1,025.68	451.9
719	859	979.78	Zone-1	0.18	1,024.68	439.4
720	85	977.4	Zone-1	0.30	1,021.97	436.2
721	334	975.7	Zone-1	0.40	1,025.28	485.2
722	536	978.5	Zone-1	0.00	1,025.10	456
723	9	978.1	Zone-no fire flow	0.00	1,035.24	559.2
724	483	978.2	Zone-1	0.00	1,026.26	470.4
725	338	976	Zone-1	0.00	1,025.29	482.4
726	378	980.9	Zone-1	0.00	1,025.82	439.6
727	201	974	Zone-1	0.00	1,022.99	479.4
728	829	976.67	Zone-1	0.60	1,025.27	475.7
729	446	966.9	Zone-1	0.00	1,023.86	557.5
730	81	977	Zone-1	0.11	1,022.08	441.2
731	513	975.9	Zone-1	0.00	1,025.16	482.1
732	21	979.57	Zone-1	0.00	1,034.82	540.7
733	474	977.6	Zone-1	0.06	1,027.08	484.3
734	619	979.8	Zone-1	0.00	1,025.72	449.4
735	397	979.8	Zone-1	0.00	1,025.62	448.4
736	247	976.1	Zone-1	0.00	1,029.04	518.1
737	561	975.7	Zone-1	0.00	1,021.70	450.2
738	232	976.5	Zone-1	0.00	1,025.69	481.4
739	239	978.63	Zone-1	0.00	1,024.12	445.2
740	466	979.1	Zone-1	0.00	1,029.46	492.9
741	545	978.6	Zone-1	0.00	1,025.10	455.1
742	645	979.78	Zone-1	0.12	1,025.52	447.7
743	743	978	Zone-1	0.35	1,023.99	450.1
744	731	974	Zone-1	0.17	1,024.00	489.3
745	20	978.1	Zone-no fire flow	0.00	1,035.20	558.9
746	792	970	Zone-1	0.00	1,023.85	527.1
747	798	977	Zone-1	0.00	1,024.80	467.8
748	110	976	Zone-1	0.00	1,016.65	397.9
749	91	972.9	Zone-1	0.27	1,022.05	481
750	15	979.4	Zone-no fire flow	0	992.3	126.3
751	609	976.7	Zone-1	0.13	1,022.06	444
752	339	971.45	Zone-1	0.00	1,023.87	513
753	142	978.3	Zone-1	0.97	1,023.76	444.9
754	495	981	Zone-1	0.13	1,025.31	433.6
755	403	981	Zone-1	0.00	1,025.75	437.9
756	577	968.76	Zone-1	0.00	1,023.86	539.3
757	160	974.9	Zone-1	0.06	1,022.97	470.5
758	594	973.5	Zone-1	2.00	1,023.99	494.1

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
759	83	976.7	Zone-1	0.08	1,022.05	443.8
760	834	978.5	Zone-1	0.00	1,024.21	447.3
761	292	976.5	Zone-1	0.16	1,025.41	478.7
762	727	983.5	Zone-1	0.00	1,024.79	404.1
763	472	977.4	Zone-1	0.16	1,027.41	489.4
764	451	979.8	Zone-1	0.00	1,026.17	453.8
765	420	979.5	Zone-1	0.00	1,025.72	452.3
766	783	968	Zone-1	0.00	1,024.10	549.1
767	241	975.6	Zone-1	0.16	1,026.91	502.1
768	804	977	Zone-1	0.46	1,024.79	467.7
769	152	976.3	Zone-1	0.00	1,022.81	455.1
770	214	973.8	Zone-1	0.00	1,023.99	491.2
771	454	978.9	Zone-1	0.32	1,026.38	464.7
772	471	977	Zone-1	0.00	1,027.78	497
773	301	978	Zone-1	0.26	1,025.57	465.6
774	240	975.6	Zone-1	0.24	1,026.91	502.1
775	768	974.9	Zone-1	0.00	1,027.62	516
776	277	975.8	Zone-1	0.00	1,024.84	479.9
777	96	973	Zone-1	0.00	1,022.06	480.1
778	623	979.5	Zone-1	0.13	1,025.68	451.9
779	253	979	Zone-1	0.00	1,029.42	493.5
780	470	967.41	Zone-1	0.80	1,023.86	552.5
781	435	966.9	Zone-1	0.00	1,023.86	557.5
782	202	974.5	Zone-1	0.00	1,023.19	476.5
783	821	977	Zone-1	0.00	1,024.79	467.7
784	206	977.11	Zone-1	0.00	1,024.13	460.2
785	248	976.5	Zone-1	0.53	1,029.13	515.1
786	647	976.5	Zone-1	0.00	1,025.17	476.3
787	705	984.5	Zone-1	0.56	1,024.79	394.3
788	710	979	Zone-1	0.00	1,024.41	444.4
789	841	977.99	Zone-1	0.00	1,024.14	451.6
790	80	977	Zone-1	0.00	1,021.92	439.7
791	854	979.29	Zone-1	0.00	1,024.65	444
792	417	981.5	Zone-1	0.00	1,025.65	432.1
793	107	977	Zone-1	0.00	1,022.08	441.2
794	556	979.2	Zone-1	0.00	1,024.11	439.5
795	288	975.1	Zone-1	0.00	1,025.32	491.5
796	393	980	Zone-1	0.00	1,025.60	446.3
797	591	977.8	Zone-1	0.00	1,026.44	476.1
798	661	980.6	Zone-1	0.00	1,025.18	436.3
799	97	974	Zone-1	0.00	1,022.06	470.4
800	1	979.41	Zone-no fire flow	0	992.35	126.6
801	811	977	Zone-1	0.28	1,024.80	467.8
802	421	979.3	Zone-1	0.00	1,025.72	454.3
803	508	976.08	Zone-1	0.00	1,025.17	480.4
804	209	972.9	Zone-1	0.16	1,023.99	500

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
805	331	976	Zone-1	0.00	1,025.29	482.4
806	J-3	977	Zone-1	1.44	1,025.28	472.5
807	307	975.5	Zone-1	0.00	1,025.32	487.6
808	443	980.5	Zone-1	0.24	1,025.97	445
809	680	979.78	Zone-1	0.00	1,025.61	448.5
810	506	976.5	Zone-1	0.65	1,025.18	476.4
811	356	979.4	Zone-1	0.00	1,025.68	452.9
812	848	984.23	Zone-1	0.59	1,024.79	397
813	77	977.6	Zone-1	0.00	1,021.89	433.5
814	663	983.1	Zone-1	0.90	1,024.80	408.1
815	797	972.44	Zone-1	0.00	1,023.66	501.3
816	755	974.9	Zone-1	0	995.68	203.4
817	64	973.1	Zone-1	1.46	1,022.08	479.4
819	578	966.9	Zone-1	0.13	1,023.86	557.5
820	50	976.3	Zone-1	0.13	1,020.66	434.2
821	105	976.4	Zone-1	0.00	1,022.13	447.5
822	613	977.5	Zone-1	0.10	1,026.80	482.5
823	562	973	Zone-1	0.11	1,021.90	478.5
824	189	974.7	Zone-1	0.00	1,023.20	474.6
825	857	979.78	Zone-1	0.44	1,024.92	441.8
826	31	979.78	Zone-1	0.06	1,025.15	444
827	122	977.8	Zone-1	0.64	1,024.30	455.1
828	129	976.3	Zone-1	0.13	1,023.99	466.7
829	30	978.1	Zone-no fire flow	0	992.24	138.4
830	210	972.8	Zone-1	0.50	1,024.00	501.1
831	837	977.99	Zone-1	0.00	1,024.13	451.6
832	325	976	Zone-1	0.19	1,025.29	482.4
833	496	978	Zone-1	0.00	1,025.27	462.6
834	538	978.97	Zone-1	0.00	1,025.09	451.4
835	390	980	Zone-1	0.18	1,025.60	446.3
836	614	978	Zone-1	0.13	1,025.26	462.5
837	677	976.8	Zone-1	0.13	1,020.39	426.6
838	551	978.2	Zone-1	0.17	1,025.11	459.1
839	810	977	Zone-1	0.31	1,024.79	467.8
840	803	980.51	Zone-1	0.00	1,024.91	434.6
841	777	974.9	Zone-1	0	994.87	195.4
842	119	978	Zone-1	0.00	1,024.33	453.4
843	793	968.3	Zone-1	0.00	1,023.79	543.1
844	252	979	Zone-1	0.13	1,029.41	493.4
845	488	967.57	Zone-1	0.00	1,023.86	550.9
846	807	977	Zone-1	0.00	1,024.82	468
847	298	979.2	Zone-1	0.16	1,025.82	456.3
848	353	980.3	Zone-1	0.00	1,025.68	444.1
849	199	976.5	Zone-1	0.29	1,023.99	464.8
850	175	977.6	Zone-1	0.00	1,023.42	448.4
851	375	980.4	Zone-1	0.00	1,025.72	443.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
852	441	980.6	Zone-1	0.16	1,025.97	444.1
853	670	977	Zone-1	0.49	1,025.28	472.5
854	697	976.35	Zone-1	0.00	1,023.81	464.5
855	547	978.6	Zone-1	0.19	1,025.10	455.1
856	429	979.3	Zone-1	0.00	1,025.97	456.8
857	168	976.5	Zone-1	0.13	1,023.31	458.1
858	588	976	Zone-1	1.07	1,021.89	449.1
859	74	973	Zone-1	0.11	1,021.90	478.5
860	230	975	Zone-1	0.00	1,025.57	494.9
861	493	980	Zone-1	0.16	1,025.45	444.8
862	700	973.13	Zone-1	0.00	1,023.81	496
863	218	975	Zone-1	0.16	1,023.99	479.5
864	137	978.5	Zone-1	0.00	1,023.81	443.5
865	535	978.5	Zone-1	0.25	1,025.10	456
866	124	977.8	Zone-1	0.00	1,024.25	454.6
867	276	975.4	Zone-1	0.27	1,024.81	483.6
868	855	979.72	Zone-1	0.00	1,025.05	443.6
869	60	977.2	Zone-1	0.93	1,021.02	428.9
871	601	980.65	Zone-1	0.00	1,025.98	443.6
872	275	975.5	Zone-1	0.00	1,024.81	482.6
873	314	977.5	Zone-1	0.00	1,025.33	468.1
874	229	975.1	Zone-1	0.14	1,025.56	493.9
875	316	975	Zone-1	0.00	1,025.30	492.3
876	310	976	Zone-1	0.00	1,025.31	482.6
877	95	973	Zone-1	0.00	1,022.05	480.1
879	490	979.2	Zone-1	0.16	1,025.48	453
880	758	975.96	Zone-1	0	996.4	200.1
881	554	979.2	Zone-1	0.00	1,024.11	439.5
882	843	977	Zone-1	0.00	1,024.79	467.8
883	219	974.8	Zone-1	0.00	1,023.99	481.4
884	352	980.3	Zone-1	0.16	1,025.68	444.1
885	527	976.9	Zone-1	0.00	1,025.12	471.9
886	598	978.1	Zone-1	0.00	1,025.44	463.3
887	170	977	Zone-1	0.00	1,023.20	452.2
888	196	973	Zone-1	0.00	1,023.95	498.7
889	108	976	Zone-1	0.00	1,016.21	393.6
890	651	977	Zone-1	0.25	1,025.14	471.1
891	327	976.3	Zone-1	0.00	1,025.29	479.4
892	607	973	Zone-1	0.00	1,022.33	482.8
893	698	976.08	Zone-1	0.00	1,023.81	467.2
894	237	978.7	Zone-1	0.00	1,026.33	466.1
895	190	974.9	Zone-1	0.00	1,023.22	472.9
896	635	972.46	Zone-1	0.00	1,022.74	492.1
897	130	976.8	Zone-1	0.00	1,023.62	458.2
898	656	972.5	Zone-1	0.00	1,020.71	471.8
899	541	979	Zone-1	0.40	1,025.09	451.1

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
900	35	971.6	Zone-1	0.00	1,021.89	492.2
901	416	981.5	Zone-1	0.00	1,025.65	432.1
902	770	974.9	Zone-1	0.00	1,026.92	509.1
903	682	976.74	Zone-1	0.67	1,020.36	426.9
904	590	977.6	Zone-1	0.00	1,021.89	433.4
905	654	978.8	Zone-1	0.30	1,025.12	453.3
906	627	972.43	Zone-1	0.00	1,023.54	500.2
907	270	976	Zone-1	0.00	1,024.69	476.5
908	712	978.33	Zone-1	0.30	1,025.07	457.5
909	319	975	Zone-1	0.15	1,025.30	492.3
910	178	978.7	Zone-1	0.11	1,023.27	436.2
911	268	976	Zone-1	0.18	1,024.64	476.1
912	123	977.8	Zone-1	0.00	1,024.26	454.7
913	296	976.5	Zone-1	0.00	1,025.41	478.7
914	208	975.4	Zone-1	0.00	1,023.81	473.8
915	144	977	Zone-1	0.00	1,023.70	457.1
916	392	980	Zone-1	0.13	1,025.60	446.3
917	414	981.5	Zone-1	0.00	1,025.65	432.1
918	690	976	Zone-1	0.00	1,023.81	467.9
919	825	982.64	Zone-1	0.00	1,024.79	412.5
920	368	980.4	Zone-1	0.11	1,025.70	443.4
921	223	975.4	Zone-1	0.16	1,024.00	475.6
922	244	977.5	Zone-1	0.19	1,026.80	482.5
923	790	969.5	Zone-1	0.00	1,023.93	532.7
924	34	971.42	Zone-1	0.00	1,023.81	512.8
925	568	974.5	Zone-1	0.00	1,023.10	475.6
926	323	975.3	Zone-1	0.00	1,025.29	489.3
927	44	975.9	Zone-1	0.11	1,017.62	408.3
928	423	979	Zone-1	0.00	1,025.72	457.2
929	832	974.5	Zone-1	0.00	1,023.99	484.4
1901	J-866	979.78	Zone-1	0.00	1,024.68	439.4
1904	J-867	979.78	Zone-1	0.98	1,024.66	439.2
1906	J-868	979.6	Zone-1	0.00	1,024.64	440.8
1908	J-869	979.4	Zone-1	0.00	1,024.65	442.8
1910	J-870	979.4	Zone-1	0.00	1,024.65	442.8
1912	J-871	979.78	Zone-1	0.00	1,024.65	439.2
1915	J-872	979.78	Zone-1	0.00	1,024.65	439.2
1917	J-873	979.6	Zone-1	0.00	1,024.63	440.7
1921	J-874	979.29	Zone-1	0.00	1,024.49	442.4
1924	J-875	979.29	Zone-1	0.00	1,024.43	441.7
1929	J-876	979.78	Zone-1	1.20	1,024.70	439.6
1933	J-877	977	Zone-1	0.92	1,024.74	467.3
1935	J-878	977	Zone-1	0.00	1,024.74	467.3
1937	J-879	977	Zone-1	0.00	1,024.74	467.2
1939	J-880	967.5	Zone-1	0.00	1,024.03	553.3
1943	J-881	968	Zone-1	0.00	1,024.04	548.4

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
1945	J-882	968	Zone-1	0.00	1,024.04	548.4
1947	J-883	968	Zone-1	0.00	1,024.04	548.4
1949	J-884	968	Zone-1	0.00	1,024.37	551.7
1952	J-885	967	Zone-1	0.00	1,024.02	558.1
1954	J-886	967	Zone-1	0.00	1,024.02	558.1
1956	J-887	967	Zone-1	0.00	1,024.02	558.1
1958	J-888	967	Zone-1	0.00	1,024.02	558.1
1960	J-889	967	Zone-1	0.00	1,024.02	558.1
1963	J-890	967.5	Zone-1	0.00	1,024.04	553.3
1996	J-891	976.5	Zone-1	0.00	1,024.16	466.4
1999	J-892	978	Zone-1	0.00	1,024.21	452.3
2002	J-893	976.5	Zone-1	0.00	1,024.20	466.8
2006	J-894	979.78	Zone-1	6.80	1,026.50	457.2
2017	J-899	976	Zone-1	0.60	1,025.28	482.3
2046	J-900	978.5	Zone-1	0.00	1,024.41	449.3
2055	J-904	974.48	Zone-1	0.00	1,022.47	469.7
2057	J-905	974.38	Zone-1	0.40	1,022.31	469.1
2059	J-906	978	Zone-1	0.00	1,023.89	449.1
2065	J-908	977.5	Zone-1	0.00	1,023.74	452.5
2096	J-919	974.87	Zone-1	0.20	1,022.31	464.3
2098	J-920	975.79	Zone-1	0.60	1,022.31	455.3
2100	J-921	976.03	Zone-1	0.73	1,022.31	453
2102	J-922	975.46	Zone-1	0.30	1,022.31	458.5
2106	J-923	973.84	Zone-1	0.10	1,022.24	473.7
2108	J-924	974.96	Zone-1	0.60	1,022.21	462.5
2111	J-925	973.45	Zone-1	0.70	1,022.24	477.6
2119	J-928	976.14	Zone-1	0.00	1,023.43	462.8
2133	J-931	974	Zone-1	0.00	1,022.20	471.8
2155	J-2	977	Zone-1	2.88	1,025.30	472.7
2183	J-935	979.5	<None>	6.55	1,024.61	441.5
2185	J-936	981	<None>	6.55	1,024.57	426.5
2187	J-937	980	<None>	0.00	1,024.73	437.8
2189	J-938	978	<None>	0.00	1,024.72	457.3
2191	J-939	971	<None>	6.55	1,024.43	522.9
2193	J-940	971	<None>	6.55	1,024.35	522.1
2195	J-941	979.78	<None>	0.00	1,024.90	441.6
2199	J-942	973	<None>	0.00	1,024.71	506.1
2201	J-943	968	<None>	0.00	1,024.70	554.9
2203	J-944	962	<None>	6.55	1,024.58	612.5
2205	J-945	966	<None>	6.55	1,024.55	573
2207	J-946	962	<None>	0.00	1,024.70	613.7
2209	J-947	959	<None>	0.00	1,024.71	643.1
2211	J-948	960	<None>	6.55	1,024.71	633.3
2214	J-949	959	<None>	6.55	1,024.63	642.3
2216	J-950	965	<None>	6.55	1,024.70	584.3
2219	J-951	971	<None>	6.55	1,024.70	525.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
2221	J-952	975	<None>	6.55	1,024.71	486.5
2226	J-953	980	<None>	6.55	1,024.73	437.7
2231	J-955	980.41	<None>	0.00	1,024.87	435.1
2234	J-956	975	<None>	6.55	1,024.79	487.3
2236	J-957	980	<None>	6.55	1,025.06	441
2238	J-958	979.03	<None>	0.00	1,025.09	450.8
2242	J-959	977	<None>	0.00	1,025.27	472.4
2244	J-960	977	<None>	0.00	1,025.13	471
2247	J-961	979	<None>	6.55	1,025.07	450.9
2249	J-962	977	<None>	0.00	1,025.09	470.6
2252	J-963	978	<None>	6.55	1,025.01	460.1
2254	J-964	976	<None>	0.00	1,025.09	480.5
2256	J-965	982	<None>	6.55	1,025.05	421.4
2262	J-966	975	<None>	0.00	1,025.63	495.6
2267	J-967	975	<None>	0.00	1,025.20	491.3
2269	J-968	969	<None>	0.00	1,024.70	545.1
2272	J-969	980	<None>	6.55	1,025.00	440.4
2274	J-970	978.68	<None>	0.00	1,025.01	453.4
2278	J-971	974	<None>	6.55	1,024.57	495
2282	J-973	964	<None>	0.00	1,024.60	593.1
2286	J-974	973	<None>	6.55	1,024.28	501.8
2288	J-975	962	<None>	6.55	1,024.29	609.7
2292	J-976	961	<None>	6.55	1,023.89	615.5
2294	J-977	958	<None>	6.55	1,023.84	644.4
2296	J-978	970	<None>	6.55	1,023.76	526.1
2299	J-979	983	<None>	6.55	1,024.44	405.6
2305	J-981	971	<None>	0.00	1,024.17	520.3
2306	J-982	971	<None>	0.00	1,024.13	520
2308	J-983	971	<None>	0.00	1,024.11	519.7
2310	J-984	964	<None>	0.00	1,023.86	585.8
2312	J-985	965	<None>	0.00	1,023.85	575.9
2314	J-986	958	<None>	6.55	1,023.77	643.6
2316	J-987	959	<None>	6.55	1,023.70	633.2
2318	J-988	951	<None>	6.55	1,023.67	711.2
2321	J-989	964	<None>	6.55	1,023.87	585.9
2325	J-990	969.62	<None>	0.00	1,024.08	533
2331	J-991	954	<None>	0.00	1,023.64	681.6
2333	J-992	953	<None>	0.00	1,023.64	691.3
2336	J-993	950	<None>	6.55	1,023.60	720.3
2338	J-994	950	<None>	6.55	1,023.60	720.3

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1930	P-1008	198.53	860	J-876	300	130	0	-8.9	0.13	0	0
1582	226	86.92	126	127	200	66	0	10.77	0.34	0.003	86.87
1406	669	17.62	628	626	150	140	0	0.32	0.02	0	17.68
1538	320	46.06	220	222	150	140	0	-0.02	0	0	46.02
1469	321	48.6	220	221	150	140	0	0	0	0	48.46
1450	177	104.46	79	80	200	60	0	-3.93	0.13	0	104.55
1068	271	99.38	166	165	150	140	0	2.99	0.17	0	99.36
1606	803	215.76	J-1	A	200	140	0	-9.93	0.32	0.001	145.08
1455	802	27.7	J-1	J-4	200	140	0	0	0	0	98.15
1277	243	58.63	145	147	250	140	0	40.23	0.82	0.003	58.52
1137	242	50.97	145	146	250	140	0	-12.38	0.25	0	50.9
2188	P-1110	699.98	464	J-937	400	130	0	-6.71	0.05	0	0
2184	P-1108	800	464	J-935	300	130	0	13.1	0.19	0	0
2300	P-1179	772.68	464	J-979	300	130	0	21.48	0.3	0	0
1697	527	137.39	380	381	150	91	0	2.93	0.17	0.001	137.46
1715	897	104.04	849	850	300	100	0	23.54	0.33	0.001	78.03
1055	847	37.28	809	804	250	100	0	0.43	0.01	0	36.58
1767	864	34.98	809	821	250	100	0	-0.26	0.01	0	33.83
1057	210	130.71	120	121	200	140	0	19.79	0.63	0.002	130.76
1521	449	91.67	257	299	300	89	0	90.25	1.28	0.011	91.74
1712	420	9.54	358	359	150	91	0	0	0	0	9.45
1630	41	35.14	295	630	250	140	0	16.3	0.33	0	35.05
1313	170	70.63	72	107	200	130	0	-20.41	0.65	0.002	70.71
1211	164	88.69	69	61	300	60	0	23.47	0.33	0.002	88.7
1735	165	98.56	69	79	200	60	0	-5.33	0.17	0.001	98.45
1426	166	133.58	69	70	200	140	0	-10.6	0.34	0.001	133.5
1864	523	92.65	405	402	250	95	0	17.13	0.35	0.001	92.66
1100	524	69.98	405	404	250	95	0	9.43	0.19	0	70.1
1523	522	135.73	405	407	200	95	0	7.17	0.23	0.001	135.64
1628	129	23.89	560	582	200	66	0	8.51	0.27	0.002	24.38
1607	140	81.9	560	47	300	66	0	-3.75	0.05	0	82.6
1863	493	87.03	478	480	150	140	0	5.66	0.32	0.001	87.17
1812	202	46.45	100	102	150	140	0	-3.39	0.19	0	49.07
1213	542	17.66	491	A	250	95	0	9.93	0.2	0	9.14
1853	955	15.48	187	644	300	130	0	47.13	0.67	0.002	15.54
1688	294	48.34	187	188	300	89	0	-47.13	0.67	0.003	48.46
1622	101	88.51	616	797	250	66	0	9.38	0.19	0.001	88.39
1061	225	57.13	121	126	200	66	0	10.77	0.34	0.003	57
1072	221	148.59	121	122	150	140	0	8.81	0.5	0.002	148.74
1169	337	51.11	280	281	150	91	0	-4.54	0.26	0.001	51.21
1672	425	9.68	364	366	200	95	0	0	0	0	9.75
1511	427	14.19	364	365	200	95	0	0	0	0	14.33
1110	256	33.59	155	592	150	130	0	2.73	0.15	0	33.53
1112	257	97.63	155	107	200	140	0	26.36	0.84	0.003	97.54
1648	717	218.93	604	658	250	140	0	14.24	0.29	0	218.85
963	79	105.79	699	698	250	140	0	-0.25	0.01	0	106.07
1129	794	113.68	709	710	300	140	0	-33.72	0.48	0.001	95.1
1701	795	89.48	709	711	200	130	0	0	0	0	90.22
1555	11	119.67	691	32	200	140	0	28.87	0.92	0.004	119.79
1809	716	135.45	657	658	200	140	0	-6.8	0.22	0	135.33
1121	809	93.76	657	722	200	140	0	3.46	0.11	0	93.88
1841	394	12.75	340	338	250	140	0	4.19	0.09	0	12.8
1454	395	24.4	340	596	150	140	0	-2.94	0.17	0	24.38
982	278	112.17	176	185	200	140	0	6.13	0.2	0	112.17
1180	892	57.72	844	843	200	100	0	0.26	0.01	0	40.84
1748	201	55.83	99	100	150	140	0	-3.15	0.18	0	53.64
1101	200	97.4	99	101	150	140	0	0.1	0.01	0	97.54
1593	725	293.82	662	666	250	140	0	13.15	0.27	0	299.01
1186	723	49.93	662	814	200	140	0	8.26	0.26	0	54.56
1940	P-1014	243.08	789	J-880	250	130	0	-9.28	0.19	0	0
1515	823	108.78	789	790	250	140	0	17.98	0.37	0.001	102.11
1587	831	41.4	796	787	250	130	0	3.97	0.08	0	37.49
1374	564	6.53	599	412	200	95	0	0	0	0	6.4

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1314	480	133.57	254	255	300	89	0	29.03	0.41	0.001	133.5
1717	267	113.42	159	161	150	130	0	0.1	0.01	0	113.39
1794	268	20.13	159	160	150	130	0	0.06	0	0	20.12
1398	155	47.12	62	63	300	140	0	25.08	0.35	0	47.24
1847	490	8.73	476	477	150	91	0	11.35	0.64	0.006	8.84
1012	15	103.61	76	608	300	66	0	-2.52	0.04	0	63.7
1123	728	94.22	669	670	200	140	0	-0.32	0.01	0	94.18
1195	533	91.91	382	383	150	91	0	2.69	0.15	0	92.05
1492	877	118.11	465	831	250	130	0	0	0	0	103.33
1327	114	42.29	678	679	200	140	0	0	0	0	42.37
1599	485	35.05	572	463	250	89	0	57.22	1.17	0.011	35.05
1125	813	154.99	779	780	250	140	0	-7.37	0.15	0	162.15
1181	611	47.22	505	506	250	140	0	10.88	0.22	0	47.24
1040	440	28.88	264	263	200	89	0	-15.97	0.51	0.003	28.96
1355	703	1	7	26	300	140	0	196.04	2.77	0.019	0.91
1414	925	1.03	7	15	300	100	0	-196.04	2.77	0.036	0.91
1570	417	33.32	355	356	200	95	0	1	0.03	0	33.22
1341	789	70.73	704	706	200	140	0	3.24	0.1	0	75.59
1734	786	181.91	704	705	300	140	0	-1.24	0.02	0	168.86
1415	788	82.2	704	664	300	140	0	-2.58	0.04	0	78.64
2241	P-1142	296.01	726	J-958	300	130	0	-14.87	0.21	0	0
2232	P-1136	473.49	726	J-955	300	140	0	22.6	0.32	0	890.32
1220	421	28.16	359	360	150	91	0	0	0	0	28.04
1369	372	82.57	311	310	150	91	0	0.91	0.05	0	82.6
962	367	55.42	304	314	150	91	0	1.29	0.07	0	55.47
1530	322	11.1	194	197	300	89	0	-47.13	0.67	0.003	10.97
1046	904	38.24	32	856	200	100	0	28.87	0.92	0.008	21.03
1382	446	124.42	259	258	200	89	0	-17.14	0.55	0.004	124.36
1354	901	104.4	852	853	200	100	0	-10.79	0.34	0.001	106.07
1522	900	88.99	852	851	150	100	0	0.33	0.02	0	69.49
1553	68	73.59	555	566	250	140	0	9.13	0.19	0	73.46
1564	340	163.12	283	268	300	95	0	44.98	0.64	0.003	163.07
1723	341	247.61	283	294	300	95	0	-34.59	0.49	0.002	247.5
1390	77	60.6	701	700	250	140	0	-0.25	0.01	0	60.66
1279	84	39.91	689	690	200	130	0	2.62	0.08	0	39.62
1805	88	125.14	689	688	250	130	0	6.64	0.14	0	126.19
967	190	167.72	89	90	200	130	0	-3.7	0.12	0	167.64
1831	423	100.59	363	364	150	91	0	-0.13	0.01	0	100.58
1516	120	79.69	39	40	150	60	0	-0.82	0.05	0	79.55
1222	122	29.23	39	580	200	60	0	12.71	0.4	0.004	29.26
2260	P-1154	159.22	501	J-959	250	130	0	-6.06	0.12	0	0
1371	607	28.74	501	502	200	95	0	-5.13	0.16	0	9.75
1481	608	45.87	501	503	250	140	0	14.79	0.3	0	35.05
1351	237	21.17	138	141	250	140	0	28.82	0.59	0.001	21.03
1680	792	102.24	707	834	250	140	0	-25.72	0.52	0.001	100.58
1774	797	78.03	707	713	150	140	0	0	0	0	70.71
1836	218	8.1	564	565	250	140	0	-117.92	2.4	0.018	8.23
1785	769	179.69	735	731	200	140	0	-1.31	0.04	0	175.26
1187	529	15.24	379	378	250	95	0	0	0	0	15.24
1171	530	16.67	379	377	250	95	0	6.3	0.13	0	16.76
998	526	7.11	379	380	150	91	0	3.13	0.18	0.001	7.01
1687	38	16.26	262	273	250	140	0	16.3	0.33	0	16.15
1815	255	80.3	154	155	200	140	0	29.09	0.93	0.004	80.16
1608	135	9.89	42	41	300	140	0	68.45	0.97	0.003	9.75
1096	477	37.77	249	252	200	89	0	-10.8	0.34	0.002	37.8
1105	681	0.97	29	30	300	150	0	-81.11	1.15	0.003	0.91
1887	P-978	1.48	29	BWD-3	304.8	130	0	44.7	0.61	0.001	1.52
994	525	24.99	404	379	250	95	0	9.43	0.19	0	24.99
1638	138	51.93	52	53	150	60	0	7.28	0.41	0.006	51.82
1738	137	91.75	52	45	150	60	0	11.8	0.67	0.015	91.74
1097	132	19.4	49	583	200	60	0	10.07	0.32	0.003	19.51
1401	409	92.87	346	347	150	91	0	0.13	0.01	0	92.96
1253	411	27.92	346	349	150	91	0	-4.34	0.25	0.001	28.04

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1547	397	56.59	333	334	150	140	0	0.59	0.03	0	56.69
1053	39	113.85	273	284	250	140	0	16.3	0.33	0	114
1859	501	51.44	473	474	200	91	0	1.9	0.06	0	51.51
1325	489	73.2	473	476	150	91	0	11.35	0.64	0.006	73.15
1244	698	57.54	186	644	300	89	0	-47.13	0.67	0.003	57.61
1251	148	22.03	57	585	300	140	0	82.31	1.16	0.004	21.95
1460	144	95.63	57	48	150	60	0	2.8	0.16	0.001	95.71
1264	219	10.17	565	110	250	140	0	-117.92	2.4	0.018	10.06
1598	867	217.02	824	803	150	100	0	-2.63	0.15	0	222.5
1546	514	50.98	442	443	150	91	0	2.16	0.12	0	50.9
1036	358	144.68	285	286	200	95	0	-9.08	0.29	0.001	144.78
1718	436	178.51	376	377	200	95	0	-6.3	0.2	0	178.61
1339	159	54.43	66	588	200	140	0	18.4	0.59	0.002	54.56
1365	720	134.05	486	659	200	140	0	0	0	0	134.11
1082	642	98.84	530	531	150	140	0	1.33	0.08	0	98.76
1643	314	15.09	213	214	200	140	0	0.31	0.01	0	15.24
1443	547	45	391	392	150	91	0	-0.4	0.02	0	45.11
1050	893	121.64	845	662	250	140	0	21.6	0.44	0.001	89.31
1728	370	39.47	313	312	150	91	0	1.1	0.06	0	39.32
1173	898	89.48	850	710	300	100	0	25.95	0.37	0.001	142.04
1922	P-1004	91.12	850	J-874	200	100	0	-2.56	0.08	0	107.9
996	888	87.96	839	840	250	100	0	-3.08	0.06	0	88.09
1865	249	77.06	149	150	250	140	0	31.26	0.64	0.002	77.11
1159	247	68.78	149	168	150	130	0	1.46	0.08	0	68.88
1271	20	117.84	140	151	250	140	0	10.69	0.22	0	117.96
1332	677	28.19	46	610	150	60	0	-30.18	1.71	0.086	34.44
1724	168	106.98	71	63	150	60	0	9.02	0.51	0.009	106.98
1500	169	6.03	71	72	200	130	0	-20.41	0.65	0.002	6.1
1413	377	40.4	315	316	200	140	0	3.57	0.11	0	40.54
1525	644	30.22	533	534	150	140	0	0.84	0.05	0	30.18
2141	P-1101	233.69	255	245	300	130	0	20.14	0.28	0	0
1624	124	99.57	41	677	300	140	0	4.58	0.06	0	99.67
1170	125	26.71	41	581	300	60	0	76.18	1.08	0.016	26.82
1517	331	23.85	274	275	150	91	0	0.27	0.02	0	23.77
1444	648	35.4	537	538	150	140	0	0.35	0.02	0	35.36
1266	865	49.06	822	661	200	100	0	-5.67	0.18	0	24.69
1013	610	21.45	504	505	250	140	0	11.54	0.24	0	21.34
1331	4	67.42	361	464	200	140	0	27.86	0.89	0.004	17.98
1176	312	26.9	211	212	200	140	0	0.64	0.02	0	26.82
1090	510	66.55	450	451	150	91	0	3.84	0.22	0.001	66.45
1616	515	17.31	450	449	250	140	0	32.05	0.65	0.002	17.37
1417	236	21.77	136	138	250	140	0	28.82	0.59	0.001	21.64
1059	235	16.49	136	137	150	140	0	0	0	0	16.46
1419	2	101.15	139	250	200	140	0	-0.11	0	0	100.89
1342	499	67.77	462	461	250	95	0	57.06	1.16	0.01	67.67
1212	244	49.5	147	175	200	140	0	17.87	0.57	0.002	49.38
1772	246	47.4	147	148	250	140	0	22.37	0.46	0.001	47.55
1466	521	53.12	445	405	250	140	0	33.72	0.69	0.002	53.04
1719	519	17.41	445	444	150	95	0	-1.92	0.11	0	17.37
1508	866	110.1	823	824	200	100	0	-1.66	0.05	0	110.03
1817	755	124.79	125	739	150	140	0	7.14	0.4	0.001	114
1605	333	17.03	272	277	150	91	0	-4.45	0.25	0.001	17.07
1754	330	100.53	272	274	150	91	0	0.42	0.02	0	100.58
1424	290	56.63	204	205	200	89	0	-21.18	0.67	0.005	56.69
1968	P-1032	119.88	696	631	200	130	0	-9.59	0.31	0.001	0
1503	67	22.41	544	555	250	140	0	9.13	0.19	0	22.56
1347	912	113.21	862	863	200	100	0	-11.73	0.37	0.001	123.75
1106	508	107.05	455	456	250	95	0	22.31	0.45	0.002	106.98
1843	643	78.96	531	533	150	140	0	1.09	0.06	0	78.94
1518	664	58.03	618	620	150	91	0	0	0	0	57.91
1583	597	35.97	618	602	200	95	0	3.52	0.11	0	35.97
1797	163	155.2	589	69	300	140	0	8.47	0.12	0	155.14
964	23	7.64	173	184	250	140	0	10.43	0.21	0	7.62

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1446	556	115	400	401	150	91	0	-2.28	0.13	0	114.91
1846	645	123.04	534	535	150	140	0	0.84	0.05	0	123.14
1646	343	54.25	293	292	200	95	0	7.51	0.24	0.001	54.25
1136	324	24.31	595	267	300	89	0	-47.13	0.67	0.003	24.38
1172	463	13	235	236	150	85	0	-0.52	0.03	0	13.11
1056	468	108.9	235	240	150	85	0	-9.58	0.54	0.005	108.81
2230	P-1135	488.18	820	825	400	130	0	-16.41	0.13	0	0
2227	P-1133	800	820	J-953	300	130	0	6.55	0.09	0	0
2212	P-1123	662.09	820	J-948	400	130	0	19.53	0.16	0	0
1543	111	14.37	674	676	300	130	0	17.44	0.25	0	14.33
1126	110	242.27	674	675	250	130	0	0	0	0	242.32
1062	581	22	432	429	150	140	0	0.4	0.02	0	21.95
1536	27	21.91	575	206	250	140	0	10.43	0.21	0	21.95
1242	356	54.12	569	570	150	91	0	3.3	0.19	0.001	54.25
971	774	79.92	702	712	250	140	0	-6.2	0.13	0	86.87
1778	779	85.2	702	724	250	140	0	8.56	0.17	0	85.34
1828	349	13.11	291	290	200	140	0	7.27	0.23	0	13.11
1368	811	330.6	671	778	200	140	0	0	0	0	330.71
1722	655	6.86	45	44	150	60	0	11.8	0.67	0.015	7.01
1479	300	125.86	192	194	300	89	0	-47.13	0.67	0.003	125.88
1505	784	119.43	728	848	150	140	0	0.45	0.03	0	103.63
1545	336	45.25	279	280	150	91	0	-4.54	0.26	0.001	45.11
1656	149	152.31	585	60	300	140	0	81.38	1.15	0.004	152.4
1854	569	40.96	621	419	200	95	0	-3.52	0.11	0	40.84
1690	666	56.22	621	622	150	91	0	0	0	0	56.08
1306	665	122.06	621	411	200	95	0	3.52	0.11	0	121.92
990	544	24.56	388	389	150	91	0	-1.25	0.07	0	24.69
969	749	1	19	20	200	100	0	-114.93	3.66	0.097	0.91
1803	391	71.73	326	331	250	140	0	2.85	0.06	0	71.63
1626	387	16.12	326	327	150	91	0	0	0	0	16.15
1647	56	3.24	424	435	200	140	0	1.58	0.05	0	3.35
1615	822	371.78	788	789	250	140	0	9.37	0.19	0	191.72
1678	555	34.65	399	400	150	91	0	-2.02	0.11	0	34.75
1240	718	130.6	658	654	250	140	0	7.08	0.14	0	130.45
1791	630	7.43	522	524	200	140	0	5.62	0.18	0	7.32
1745	626	29.12	522	606	200	140	0	-4.38	0.14	0	29.26
1997	P-1035	94.36	553	J-891	250	130	0	-9.92	0.2	0	0
1049	474	79.31	246	247	150	85	0	3.13	0.18	0.001	79.25
1743	668	56.34	629	628	150	140	0	0.32	0.02	0	56.39
959	667	11.64	629	364	200	95	0	0.28	0.01	0	11.58
1686	554	129.7	398	399	150	91	0	-2.02	0.11	0	129.84
1551	335	25.36	278	279	150	91	0	-4.45	0.25	0.001	25.3
1188	560	3.36	409	410	200	95	0	10.39	0.33	0.001	3.35
1459	568	3.62	409	411	200	95	0	-3.37	0.11	0	3.66
1418	460	141	233	234	150	85	0	-3.43	0.19	0.001	141.12
1430	280	77.01	183	182	200	140	0	5.78	0.18	0	77.11
1037	574	61.74	436	434	150	140	0	0.26	0.01	0	61.87
1119	887	50.52	838	839	250	100	0	-3.08	0.06	0	50.6
954	854	179.87	814	822	150	100	0	-4.96	0.28	0.001	173.74
1429	853	38.08	814	803	200	140	0	13.23	0.42	0.001	38.4
1321	126	143.65	581	44	300	60	0	76.18	1.08	0.016	143.56
1771	711	86.93	649	651	150	140	0	2.04	0.12	0	86.87
1378	710	32.78	649	650	150	140	0	0.25	0.01	0	32.92
1267	141	14.43	47	56	300	66	0	-3.75	0.05	0	13.41
1179	327	42.97	269	270	150	91	0	-3.86	0.22	0.001	42.98
1033	780	128.91	724	725	150	140	0	0.42	0.02	0	135.94
1286	781	137.88	724	726	250	140	0	7.74	0.16	0	124.36
1175	74	70.37	597	34	250	140	0	-0.25	0.01	0	70.41
968	98	11.15	597	559	250	66	0	9.38	0.19	0.001	11.28
1073	403	145.1	342	343	150	140	0	-3.79	0.21	0	145.08
1409	279	37.76	185	183	200	140	0	5.78	0.18	0	37.8
1107	426	44.04	366	367	200	95	0	0	0	0	43.89
1594	889	22.67	840	841	250	100	0	-3.08	0.06	0	22.56

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1322	636	44.04	549	550	150	140	0	0.19	0.01	0	43.89
1819	303	201.78	193	196	200	140	0	5.25	0.17	0	201.78
1569	143	152.29	56	186	300	66	0	-47.13	0.67	0.006	153.01
987	142	20.02	56	584	300	140	0	43.38	0.61	0.001	20.42
1093	71	15.07	587	597	250	140	0	9.13	0.19	0	14.94
1256	422	59.9	360	363	150	91	0	-0.13	0.01	0	60.05
1021	537	13.89	386	387	250	95	0	16.9	0.34	0.001	14.02
1851	438	107.68	265	267	150	85	0	-1.53	0.09	0	107.59
1154	439	141.97	265	264	200	89	0	-15.97	0.51	0.003	142.04
1148	504	12.8	460	459	250	95	0	58.73	1.2	0.01	12.8
1004	26	171.16	184	575	250	140	0	10.43	0.21	0	171.3
1442	25	22.62	184	195	250	140	0	0	0	0	22.56
1510	24	14.94	184	552	250	140	0	0	0	0	14.94
1254	175	90.83	78	85	300	140	0	-36.11	0.51	0.001	90.83
1618	174	17.75	78	590	200	60	0	1.65	0.05	0	17.68
1762	756	73.64	739	673	150	140	0	8.67	0.49	0.002	67.36
1602	757	35.91	739	741	150	140	0	-1.52	0.09	0	25.91
1589	99	23.72	559	605	250	66	0	9.38	0.19	0.001	23.77
1231	805	107.58	B	667	250	140	0	0.47	0.01	0	107.59
1007	800	22.24	B	J-3	200	140	0	-5.61	0.18	0	63.4
1862	819	41.35	785	786	250	140	0	8.64	0.18	0	29.87
1729	109	97.87	579	674	200	130	0	17.44	0.56	0.002	97.84
965	76	24.78	33	701	250	140	0	-0.25	0.01	0	24.69
1041	680	1.03	28	29	300	150	0	-36.41	0.52	0.001	0.91
1889	P-980	1.29	28	BWD-4	304.8	130	0	36.41	0.5	0.001	1.22
1024	29	7.88	217	553	250	140	0	-9.92	0.2	0	7.92
1234	914	57.15	864	849	300	100	0	23.54	0.33	0.001	66.45
1707	12	15.25	43	54	250	140	0	-1.98	0.04	0	15.85
1636	633	34.09	526	527	150	140	0	0.1	0.01	0	34.14
1019	128	102.16	36	560	300	66	0	4.86	0.07	0	101.5
1089	116	56.76	36	37	200	60	0	15.16	0.48	0.006	56.69
2324	P-1193	221.25	384	J-989	250	130	0	-2.05	0.04	0	0
1054	539	93.52	387	490	250	95	0	17.96	0.37	0.001	93.57
1567	538	30.06	387	388	150	91	0	-1.15	0.07	0	30.18
977	36	23.16	251	558	250	140	0	0	0	0	4.27
1813	579	81.28	433	434	150	140	0	-0.01	0	0	81.38
1140	580	56.06	433	432	150	140	0	0.49	0.03	0	56.08
1204	252	92.45	150	152	200	140	0	29.47	0.94	0.004	92.35
1652	250	65.79	150	166	150	60	0	1.79	0.1	0	65.84
1377	281	66.18	182	181	200	140	0	5.38	0.17	0	64.92
1363	734	56.3	673	146	150	140	0	12.49	0.71	0.003	54.56
1196	733	113.46	673	134	200	140	0	-3.96	0.13	0	117.35
1051	880	200.39	833	735	150	100	0	-0.58	0.03	0	246.89
1788	385	71.25	324	325	150	91	0	0.71	0.04	0	71.32
1086	829	110.89	784	795	250	130	0	4.21	0.09	0	97.23
1305	818	38.67	784	785	250	140	0	8.76	0.18	0	77.11
1542	810	309.55	722	702	200	140	0	2.91	0.09	0	243.54
1807	857	8.65	815	818	200	100	0	1.74	0.06	0	18.29
1069	131	5.58	48	49	100	66	0	11.28	1.44	0.084	5.49
1825	565	99.9	600	416	200	95	0	0	0	0	99.97
1098	563	9.49	600	599	200	95	0	0	0	0	9.45
1698	215	15.71	111	563	250	140	0	-159.3	3.25	0.032	15.85
1139	741	1.5	762	763	200	140	0	49.86	1.59	0.011	1.52
1020	156	110.2	63	55	200	66	0	34.1	1.09	0.022	110.34
1349	825	49.27	791	792	250	140	0	25.18	0.51	0.001	46.02
1512	672	73.15	624	623	150	140	0	0.13	0.01	0	73.15
1422	46	128.9	350	577	250	140	0	2.02	0.04	0	128.93
1764	913	66.08	863	855	200	100	0	-12.16	0.39	0.002	76.5
1557	407	35.69	345	598	150	91	0	-4.08	0.23	0.001	35.66
1241	17	77.35	98	119	250	66	0	10.69	0.22	0.001	77.42
1498	204	16.29	98	109	250	66	0	-23.4	0.48	0.004	16.15
1292	240	33.87	143	144	250	140	0	27.85	0.57	0.001	33.83
1566	261	5	104	103	200	60	0	3.6	0.11	0	4.88

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1127	217	6.03	563	564	250	140	0	-117.92	2.4	0.018	6.1
1733	216	4.32	563	108	250	140	0	-41.38	0.84	0.003	4.27
1065	14	227.15	65	76	300	66	0	-2.52	0.04	0	227.69
1335	588	41.52	485	484	150	140	0	-9.99	0.57	0.002	41.45
1584	589	65.55	485	486	150	140	0	0	0	0	65.53
1765	625	82.89	519	522	150	140	0	1.24	0.07	0	82.91
1464	520	72.72	444	443	150	95	0	-1.92	0.11	0	72.85
1777	323	99.96	197	198	300	89	0	-47.13	0.67	0.003	99.97
1288	628	90.77	548	545	200	140	0	3.11	0.1	0	90.83
1514	629	82.03	548	525	200	140	0	-3.72	0.12	0	81.99
1308	635	9.95	548	549	150	140	0	0.19	0.01	0	10.06
1691	639	44.97	548	551	150	140	0	0.17	0.01	0	45.11
1080	632	16.39	525	526	150	140	0	0.1	0.01	0	16.46
1711	640	122.61	525	529	150	140	0	1.52	0.09	0	122.53
1372	584	29.92	430	458	250	140	0	-22.07	0.45	0.001	29.87
1742	585	127.03	430	431	250	140	0	17.67	0.36	0.001	127.1
1427	875	177.15	610	681	150	100	0	-5.27	0.3	0.001	172.21
1657	656	109.51	610	611	250	130	0	0	0	0	114.91
1575	270	61.02	163	164	150	140	0	-8.19	0.46	0.002	60.96
1708	796	150.95	708	43	250	140	0	-1.98	0.04	0	163.98
1209	793	103.21	708	709	300	140	0	-33.72	0.48	0.001	95.1
1018	624	7.35	518	519	150	140	0	1.43	0.08	0	7.32
1412	623	54.4	518	520	150	140	0	0.17	0.01	0	54.25
1203	726	82.75	667	668	250	140	0	0.07	0	0	82.6
1465	173	89.16	68	78	300	140	0	-35.4	0.5	0.001	89.31
975	713	66.98	652	653	150	140	0	0.25	0.01	0	97.54
1117	714	85.89	652	654	150	140	0	1.29	0.07	0	85.95
1470	64	118.48	489	499	250	140	0	1.54	0.03	0	119.18
1513	62	9.27	489	488	250	140	0	-1.69	0.03	0	8.53
1071	251	14.53	167	166	100	60	0	1.33	0.17	0.002	14.63
1472	289	9.72	203	204	200	89	0	-21.18	0.67	0.005	9.75
1079	352	138.6	300	298	150	140	0	-7.53	0.43	0.001	138.68
1493	187	114.28	84	83	200	130	0	-7.87	0.25	0	114.3
1574	765	53.71	732	733	150	140	0	-0.59	0.03	0	53.64
1066	772	48.34	732	738	150	140	0	0.42	0.02	0	48.46
2182	P-1107	161.11	686	610	250	130	0	25.04	0.51	0.001	0
1182	616	88.53	511	515	150	140	0	2.29	0.13	0	88.39
1174	617	80.29	511	512	250	130	0	0.28	0.01	0	80.16
1025	911	62.65	861	854	150	100	0	0	0	0	67.36
1752	234	19.07	135	136	250	140	0	28.82	0.59	0.001	19.2
1386	133	154.52	583	50	200	60	0	9.87	0.31	0.003	154.53
1504	572	59.97	438	437	150	140	0	0.52	0.03	0	60.05
1283	876	575.65	457	830	250	130	0	0	0	0	489.2
1561	10	34.69	574	691	200	140	0	-28.29	0.9	0.004	34.75
1141	483	7.05	468	467	300	89	0	196.04	2.77	0.045	7.01
1655	702	11.29	468	469	200	89	0	-196.04	6.24	0.325	11.28
1802	213	17.88	112	114	250	140	0	1.73	0.04	0	17.98
1142	214	67.59	112	111	250	140	0	-159.3	3.25	0.032	67.67
1281	212	9.03	112	113	250	140	0	0	0	0	9.14
991	410	36.82	347	348	150	91	0	0	0	0	36.88
1441	500	42.43	461	460	250	95	0	57.06	1.16	0.01	42.37
1227	396	37.97	332	333	150	140	0	0.59	0.03	0	38.1
1198	861	84.37	818	819	200	100	0	2.14	0.07	0	60.35
1219	860	58.34	818	816	200	100	0	-0.4	0.01	0	50.29
1236	100	99.32	605	616	250	66	0	9.38	0.19	0.001	99.36
1534	503	41	475	460	200	91	0	1.83	0.06	0	41.15
1191	785	119.04	703	704	200	140	0	-0.58	0.02	0	127.1
1375	571	20.94	439	438	150	140	0	0.52	0.03	0	21.03
1601	570	39.74	439	440	150	140	0	0.16	0.01	0	39.62
1144	575	47.56	439	441	150	140	0	-0.68	0.04	0	47.55
1572	609	109.57	503	504	250	140	0	14.39	0.29	0	138.99
2136	Align2	255.8	93	J-931	300	130	0	-26.34	0.37	0.001	0
1520	91	51.65	687	685	100	60	0	9.1	1.16	0.067	51.51

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1411	90	53.88	687	694	250	130	0	-2.46	0.05	0	53.95
1011	282	93.48	181	179	200	140	0	5.38	0.17	0	89.61
1102	419	13.01	357	358	150	91	0	0	0	0	13.11
1208	763	101.96	730	731	200	140	0	1.48	0.05	0	84.73
1633	773	104.22	730	740	250	140	0	0	0	0	60.05
1239	376	39.6	571	315	200	140	0	3.57	0.11	0	39.62
1684	400	154.7	336	338	250	140	0	-4.19	0.09	0	154.84
1703	406	82.55	336	337	250	140	0	4	0.08	0	82.6
1709	285	100.9	179	180	200	140	0	10.19	0.32	0.001	67.06
1109	852	57.91	812	813	150	100	0	0.31	0.02	0	63.09
1855	851	75.45	812	799	200	100	0	-1.04	0.03	0	78.33
1032	768	79.06	734	735	200	140	0	-0.74	0.02	0	82.6
1131	770	72.61	734	736	150	140	0	0	0	0	47.55
1070	19	104.69	128	140	250	66	0	10.69	0.22	0.001	104.55
1837	263	169.54	592	156	150	130	0	2.52	0.14	0	169.47
1433	73	133.57	521	532	250	140	0	4.31	0.09	0	132.28
1658	586	80.87	431	425	250	140	0	27.37	0.56	0.001	80.77
1379	587	57.08	431	485	150	140	0	-9.99	0.57	0.002	57
1218	557	152.54	407	408	200	95	0	7.02	0.22	0.001	152.4
1533	7	128.81	543	645	150	140	0	0.12	0.01	0	126.49
1259	8	21.8	543	680	200	140	0	-28.29	0.9	0.004	21.95
1714	870	410.77	826	827	200	100	0	0	0	0	403.86
1834	869	150.49	826	660	300	140	0	27.97	0.4	0.001	165.81
1278	709	57.41	648	649	150	140	0	2.29	0.13	0	57.3
1953	P-1022	113.57	780	J-885	150	130	0	0	0	0	0
1044	814	102.49	780	781	250	140	0	-8.08	0.16	0	98.15
984	906	80.42	856	857	200	100	0	16.7	0.53	0.003	97.54
1133	516	46.57	449	447	250	140	0	32.05	0.65	0.002	46.63
1858	593	69.22	425	423	250	140	0	31.49	0.64	0.002	69.19
953	591	19.52	425	427	150	140	0	-4.45	0.25	0.001	19.51
2263	P-1156	699.83	299	J-966	350	130	0	40.47	0.42	0.001	0
1431	291	9.84	205	207	200	89	0	-21.18	0.67	0.005	9.75
1826	338	59.19	281	282	150	91	0	-4.7	0.27	0.001	59.13
1664	764	33.85	222	732	150	140	0	-0.17	0.01	0	33.83
1081	559	255.13	410	418	200	95	0	10.39	0.33	0.001	255.12
1038	121	16.73	40	49	150	60	0	-1.22	0.07	0	16.76
1404	401	121.42	596	341	150	140	0	-3.13	0.18	0	121.31
1399	355	6.41	302	569	150	91	0	3.3	0.19	0.001	6.4
1761	350	130.67	302	301	150	140	0	-7.11	0.4	0.001	130.76
1832	313	138.72	212	213	200	140	0	0.47	0.02	0	138.68
1640	379	21.3	318	319	150	140	0	1.05	0.06	0	21.34
1627	513	104.79	453	442	150	91	0	3.68	0.21	0.001	104.85
1301	821	66.64	786	788	250	140	0	12.37	0.25	0	102.11
1509	820	111.53	786	787	250	140	0	-3.85	0.08	0	97.23
1548	496	7.64	482	483	150	140	0	10.15	0.57	0.002	7.62
1619	895	136.08	847	664	300	100	0	-4.46	0.06	0	142.04
1084	264	48.93	156	157	150	60	0	-7.45	0.42	0.006	49.07
1210	191	4.38	90	91	100	60	0	-3.7	0.47	0.013	4.27
1296	233	24.29	133	135	250	140	0	28.82	0.59	0.001	21.34
1017	232	30	133	134	200	140	0	3.96	0.13	0	19.51
1496	66	103.59	532	544	250	140	0	9.13	0.19	0	103.63
2293	P-1175	726.57	532	J-976	250	130	0	-3.94	0.08	0	0
1289	641	9.5	529	530	150	140	0	1.52	0.09	0	9.45
1022	307	138.79	198	595	300	89	0	-47.13	0.67	0.003	138.68
1934	P-1011	618.78	800	J-877	250	130	0	6.05	0.12	0	0
1773	464	153.76	236	237	150	85	0	-0.52	0.03	0	153.62
1462	375	6.97	309	571	200	140	0	3.91	0.12	0	7.01
1747	390	4.13	329	326	200	95	0	2.33	0.07	0	4.27
1207	799	63.48	714	B	250	140	0	-5.14	0.1	0	59.13
1710	806	92.41	714	829	200	140	0	-0.6	0.02	0	100.58
1034	317	116.71	216	218	150	140	0	0.3	0.02	0	116.74
1821	878	26.53	738	832	150	100	0	0.42	0.02	0	26.52
1749	402	37.78	341	342	150	140	0	-3.43	0.19	0	37.8

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
976	89	10.69	688	687	250	130	0	6.64	0.14	0	10.67
983	730	154.72	337	668	250	140	0	1.64	0.03	0	151.49
1808	512	63.16	452	453	150	91	0	3.68	0.21	0.001	63.09
1585	528	19.49	381	382	150	91	0	2.93	0.17	0.001	19.51
1484	362	40.19	289	288	200	140	0	10.72	0.34	0.001	40.23
1294	846	119.17	806	809	150	100	0	0.17	0.01	0	115.21
1822	848	38.66	806	810	150	100	0	-0.17	0.01	0	31.39
1095	368	45.21	570	304	150	91	0	3.3	0.19	0.001	45.11
1270	361	49.02	290	289	200	140	0	10.72	0.34	0.001	49.07
1094	347	48.13	290	303	150	140	0	-3.64	0.21	0	48.16
1202	551	83.25	396	394	150	91	0	0.61	0.03	0	83.21
1704	552	46.66	396	397	150	91	0	-1.72	0.1	0	46.63
1138	492	84.41	477	478	150	140	0	6.06	0.34	0.001	84.43
1416	491	201.93	477	482	150	91	0	4.89	0.28	0.001	202.08
978	816	97.38	782	783	250	140	0	-17.36	0.35	0.001	109.73
1897	P-988	3.51	754	772	254	130	0	96.7	1.91	0.014	3.66
1895	P-986	1.87	754	WST-2	254	130	0	49.7	0.98	0.004	1.83
1376	42	149.54	306	317	250	140	0	6.71	0.14	0	149.66
1507	663	58.28	617	619	150	91	0	0	0	0	58.22
1009	662	62.38	617	618	250	95	0	3.52	0.07	0	62.48
1099	858	145.83	816	817	200	100	0	-0.95	0.03	0	168.55
1151	374	100.59	308	309	200	95	0	3	0.1	0	100.58
1393	363	93.31	308	304	150	91	0	-1.82	0.1	0	93.27
1560	230	60.41	131	148	200	66	0	10.54	0.34	0.003	60.35
1295	830	39.44	795	796	250	130	0	4.09	0.08	0	69.8
1293	675	17.3	510	532	250	140	0	1.54	0.03	0	17.37
1194	926	13.67	169	170	150	100	0	-5.49	0.31	0.001	13.72
1143	16	190.12	87	98	300	66	0	-12.7	0.18	0	189.28
1487	454	71.95	226	227	150	85	0	0.1	0.01	0	71.93
1178	455	89.74	226	229	150	85	0	-9.23	0.52	0.005	89.61
1674	471	90.48	242	243	150	85	0	6.83	0.39	0.003	90.53
1165	472	108.09	242	245	150	85	0	-17	0.96	0.016	108.2
1269	863	93.65	819	820	300	100	0	9.67	0.14	0	57.3
1744	862	87.28	819	808	300	100	0	-8.1	0.11	0	85.34
1060	437	18.28	266	265	200	89	0	-17.35	0.55	0.004	18.29
1350	494	83.78	480	481	150	140	0	5.66	0.32	0.001	83.82
1471	631	79.13	524	525	200	140	0	5.43	0.17	0	79.25
1576	954	15.89	200	64	200	130	0	21.18	0.67	0.003	15.85
1725	286	39.09	200	607	200	89	0	-21.18	0.67	0.005	39.01
1637	292	14.06	207	208	200	89	0	-21.18	0.67	0.005	14.02
1713	444	93.84	260	237	150	85	0	-5.69	0.32	0.002	93.88
1793	445	69.56	260	259	200	89	0	-16.98	0.54	0.004	69.49
1333	739	1.03	757	777	200	140	0	260.25	8.28	0.237	0.91
1893	P-984	1.58	757	WST-1	254	130	0	49.86	0.98	0.004	1.52
1753	269	8.35	158	163	150	140	0	-7.88	0.45	0.001	8.23
1651	266	103	158	159	150	130	0	0.44	0.02	0	103.02
1452	359	27.16	286	287	200	95	0	-9.26	0.29	0.001	27.13
1315	705	35.66	165	164	150	140	0	8.19	0.46	0.002	35.66
1323	272	63.21	165	169	150	140	0	-5.28	0.3	0.001	63.09
1494	598	57.73	602	603	200	95	0	3.52	0.11	0	57.61
1501	618	9.81	512	513	250	130	0	0.1	0	0	10.36
1806	462	89.77	234	235	150	85	0	-9.86	0.56	0.006	89.92
1614	620	58.25	515	516	150	140	0	2.04	0.12	0	58.22
1285	130	147.07	582	48	200	66	0	8.48	0.27	0.002	147.22
1898	P-989	1.85	772	WST-FIRE	254	130	0	96.7	1.91	0.014	1.83
1699	108	18.85	672	579	200	130	0	17.44	0.56	0.002	18.9
1287	69	16.25	566	576	100	140	0	0	0	0	12.5
1440	70	70.38	566	587	250	140	0	9.13	0.19	0	70.41
1384	505	54.2	459	454	250	95	0	58.73	1.2	0.01	54.25
1539	44	97.56	328	339	250	140	0	2.27	0.05	0	97.54
1229	72	53.06	328	521	250	140	0	4.45	0.09	0	52.73
1635	154	152.07	586	62	300	140	0	26.01	0.37	0	152.1
1317	353	154.01	294	298	300	95	0	-42.1	0.6	0.002	153.92

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1030	342	28.66	294	293	200	95	0	7.51	0.24	0.001	28.65
1550	715	43.78	655	657	150	140	0	-3.08	0.17	0	43.89
1610	777	204.72	655	721	150	140	0	-0.42	0.02	0	204.83
1122	535	44.27	383	385	250	95	0	17.14	0.35	0.001	44.2
997	49	120.6	362	384	250	140	0	-2.05	0.04	0	120.7
1461	48	114.24	362	373	250	140	0	0.27	0.01	0	114.3
1554	50	20.27	362	395	350	130	0	3.8	0.04	0	20.42
1352	466	110.69	238	244	150	85	0	-6.35	0.36	0.003	110.64
1629	92	14.7	685	686	250	140	0	25.04	0.51	0.001	14.63
1801	93	10.7	685	683	250	140	0	-15.95	0.32	0	10.67
1541	432	114.15	371	372	150	91	0	0.1	0.01	0	114
1291	433	9.04	371	374	200	95	0	-6	0.19	0	9.14
1571	61	64.72	479	489	250	130	0	0.65	0.01	0	64.01
1064	412	28.21	349	351	150	91	0	-4.34	0.25	0.001	28.35
1162	6	42.7	573	543	200	140	0	-28.17	0.9	0.004	42.67
1318	105	9.16	646	656	100	60	0	14.46	1.84	0.158	9.14
1152	104	92.54	646	35	250	66	0	20.11	0.41	0.003	92.66
1074	145	151.61	584	57	300	140	0	41.78	0.59	0.001	151.49
1076	54	39.57	413	578	300	130	0	1.71	0.02	0	39.62
1671	172	10.59	67	68	300	140	0	-35.4	0.5	0.001	10.67
1634	162	18.91	67	589	200	140	0	9.41	0.3	0.001	18.9
960	161	90.67	67	561	300	140	0	43.33	0.61	0.001	90.53
1890	P-981	1.89	18	BWD-4	304.8	130	0	-36.41	0.5	0.001	1.83
1760	748	1.08	18	19	200	100	0	-159.63	5.08	0.179	1.22
1185	944	0.97	18	21	250	100	0	196.04	3.99	0.088	0.91
1559	653	54.85	542	545	200	140	0	-2.73	0.09	0	54.86
1448	767	65.89	733	734	200	140	0	-0.74	0.02	0	60.35
1330	766	183.88	733	215	200	140	0	0.15	0	0	183.79
1792	536	33.7	385	386	250	95	0	16.98	0.35	0.001	33.83
1260	744	10	117	770	250	140	0	-196.25	4	0.047	10.06
1108	207	22	117	591	250	140	0	0	0	0	21.95
1480	798	39.26	502	828	250	140	0	-5.13	0.1	0	39.32
1257	435	7.15	374	376	200	95	0	-6.3	0.2	0	7.01
1361	434	13.86	374	375	150	91	0	0	0	0	13.72
1265	211	61.31	115	112	250	140	0	-157.57	3.21	0.032	61.26
1048	939	2.4	115	771	250	100	0	310.11	6.32	0.207	2.44
1830	562	6.02	415	600	200	95	0	0	0	0	6.1
1736	21	37.07	151	162	250	140	0	0.27	0.01	0	37.19
1804	22	19.99	151	173	250	140	0	10.43	0.21	0	20.12
1883	P-958	1.52	26	BWD-FIRE	304.8	130	0	72.91	1	0.003	1.52
957	360	17.57	287	288	200	95	0	-9.26	0.29	0.001	17.68
1451	152	11.3	51	50	300	140	0	77.91	1.1	0.004	11.28
1387	95	41.87	683	682	300	140	0	-15.95	0.23	0	41.76
1578	94	8.91	683	684	250	140	0	0	0	0	8.84
1769	473	63.19	245	246	150	85	0	3.13	0.18	0.001	63.09
1758	443	70.97	261	260	200	89	0	-22.48	0.72	0.006	71.02
1682	938	1.45	763	770	250	100	0	99.55	2.03	0.025	1.52
1005	231	16.84	132	133	250	140	0	32.78	0.67	0.002	16.46
1309	86	125.77	692	693	200	130	0	2.54	0.08	0	125.88
1540	405	15.16	343	345	150	91	0	-4.08	0.23	0.001	15.24
1114	404	50.28	343	344	150	91	0	0.1	0.01	0	50.29
1580	453	98.83	225	226	150	85	0	-8.98	0.51	0.005	98.76
1625	51	140.42	395	406	350	130	0	3.8	0.04	0	140.51
1623	306	162.48	593	594	250	140	0	-0.64	0.01	0	162.46
999	928	87.73	630	631	250	100	0	16.3	0.33	0.001	94.49
1679	759	12.38	741	742	150	140	0	-1.87	0.11	0	20.73
1721	239	7.97	141	143	250	140	0	27.85	0.57	0.001	7.92
1307	238	15.99	141	142	150	140	0	0.97	0.05	0	15.85
1814	679	45.35	631	306	250	140	0	6.71	0.14	0	38.4
1336	871	98.2	828	714	250	140	0	-5.73	0.12	0	94.49
1232	65	15.26	499	510	250	140	0	1.54	0.03	0	15.24
1392	573	113.55	437	436	150	140	0	0.26	0.01	0	113.69
1800	209	8.63	116	120	200	140	0	19.79	0.63	0.002	8.53

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1662	956	32.3	116	115	150	130	0	152.54	8.63	0.411	32.31
1249	206	33.67	116	117	250	140	0	-196.25	4	0.047	33.53
1473	452	29.84	224	225	150	85	0	-8.98	0.51	0.005	29.87
1562	615	117.43	509	523	200	140	0	4.93	0.16	0	117.35
1739	727	203.66	668	669	200	140	0	0.08	0	0	203.61
1298	592	171.41	427	428	150	140	0	-4.45	0.25	0.001	171.3
1358	450	136.18	256	255	300	89	0	-107.75	1.52	0.015	136.25
1088	448	16.12	256	257	300	89	0	90.25	1.28	0.011	16.15
1670	842	98.58	805	804	250	100	0	6.38	0.13	0	98.76
1768	495	87.38	481	482	150	140	0	5.26	0.3	0.001	87.48
1720	40	156.69	284	295	250	140	0	16.3	0.33	0	156.67
1153	189	24.46	88	89	200	130	0	-3.39	0.11	0	24.38
1078	600	34.1	494	495	150	91	0	7.71	0.44	0.003	8.53
1247	82	41.08	695	696	250	140	0	-9.59	0.2	0	39.32
1839	83	28.09	695	689	250	130	0	9.34	0.19	0	30.18
1348	112	157.77	676	677	300	130	0	17.44	0.25	0	157.89
981	382	6.66	321	322	150	91	0	0.9	0.05	0	6.71
1577	850	66.19	799	811	150	100	0	0.28	0.02	0	66.14
1047	295	16.85	188	568	300	89	0	0	0	0	16.76
1482	296	29.62	188	189	300	89	0	-47.13	0.67	0.003	29.57
1649	43	87.27	317	328	250	140	0	6.71	0.14	0	87.17
1581	139	51.65	53	55	150	60	0	7.28	0.41	0.006	51.51
1681	389	98.35	330	329	200	95	0	2.52	0.08	0	98.45
1827	673	87.59	608	87	300	66	0	-12.7	0.18	0	127.41
1168	381	37.24	320	321	150	91	0	0.9	0.05	0	37.19
1491	894	113.1	846	799	200	100	0	1.33	0.04	0	109.42
1535	194	93.48	86	95	300	140	0	-25.31	0.36	0	93.57
1597	3	43.13	250	361	200	140	0	27.86	0.89	0.004	43.28
1845	5	54.97	250	573	200	140	0	-28.13	0.9	0.004	54.25
1486	357	35.93	282	285	200	95	0	-8.92	0.28	0.001	35.97
1344	339	133.55	282	283	200	95	0	4.22	0.13	0	133.5
1596	840	28.32	802	823	250	100	0	-1.66	0.03	0	28.35
1026	841	126.73	802	805	250	100	0	6.38	0.13	0	126.8
1303	760	134.08	742	729	150	140	0	-2.22	0.13	0	127.71
1439	761	110.35	742	743	150	140	0	0.35	0.02	0	92.05
1666	13	27.44	54	65	300	66	0	-1.98	0.03	0	30.48
1304	838	89.36	801	802	250	100	0	5.23	0.11	0	89.31
992	837	89.95	801	807	250	100	0	7.91	0.16	0	89.92
1397	167	33.36	70	71	200	140	0	-11.4	0.36	0.001	33.22
1087	182	53.24	73	74	150	140	0	0.11	0.01	0	53.34
1360	884	229.72	835	836	200	100	0	9.63	0.31	0.001	188.37
1667	277	75.12	177	176	200	140	0	-11.41	0.36	0.001	74.98
1276	283	114.45	177	178	200	140	0	5.01	0.16	0	114.3
1300	498	61.85	463	462	250	95	0	57.22	1.17	0.01	61.87
1420	859	94.54	817	706	200	100	0	-1.5	0.05	0	92.05
1130	627	81.41	606	523	200	140	0	-4.57	0.15	0	81.38
1856	590	62.81	426	425	150	140	0	0	0	0	62.79
1757	203	18.53	102	103	200	140	0	-3.6	0.11	0	18.59
1781	329	79.18	271	272	150	91	0	-3.95	0.22	0.001	79.25
1457	442	101.53	263	261	200	89	0	-22.29	0.71	0.006	101.5
1343	441	107.93	263	283	200	89	0	6.24	0.2	0.001	107.9
1428	299	8.76	191	192	300	89	0	-47.13	0.67	0.003	8.84
1860	845	90.12	808	847	300	100	0	-4.18	0.06	0	90.22
1463	325	8.66	267	268	300	89	0	-48.66	0.69	0.003	8.53
1045	348	38.81	303	302	150	140	0	-3.64	0.21	0	38.71
1621	197	16.27	94	93	300	140	0	-22.37	0.32	0	16.15
1235	923	45.4	148	149	250	100	0	32.72	0.67	0.003	45.42
1609	365	36.8	305	307	200	140	0	1.47	0.05	0	36.88
1600	97	68.57	681	677	300	140	0	-21.88	0.31	0	77.42
1395	517	23.09	447	448	150	130	0	0	0	0	23.16
1158	518	102.93	447	445	250	140	0	32.05	0.65	0.002	103.02
1770	706	7.84	507	647	250	140	0	10.23	0.21	0	7.92
1015	834	61.09	666	801	250	100	0	13.15	0.27	0.001	60.96

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1029	117	115.46	37	39	200	60	0	11.89	0.38	0.004	115.52
1132	119	83.91	37	38	150	140	0	0.04	0	0	83.82
1818	118	98.21	37	672	100	60	0	3.12	0.4	0.009	98.15
1221	890	132.58	539	842	150	100	0	0.4	0.02	0	132.59
995	599	97.59	603	419	200	95	0	3.52	0.11	0	97.54
1456	856	115.38	706	815	200	100	0	1.74	0.06	0	146.3
1669	883	13.74	836	132	250	140	0	32.78	0.67	0.002	18.29
1639	205	102.34	109	116	250	66	0	-23.93	0.49	0.004	102.41
1944	P-1017	96.6	781	J-881	150	130	0	0	0	0	0
1035	815	106.7	781	782	250	140	0	-8.08	0.16	0	115.82
1272	776	80.63	721	541	250	140	0	-7.72	0.16	0	80.77
1592	259	18.33	106	105	200	60	0	-6.17	0.2	0.001	18.29
1302	509	55.42	456	458	250	140	0	22.07	0.45	0.001	55.47
1823	265	44.05	157	158	150	60	0	-7.45	0.42	0.006	44.2
1199	383	21.65	322	323	150	91	0	0.71	0.04	0	21.64
1654	275	82.55	171	174	150	140	0	0.08	0	0	82.6
1437	274	50.37	171	172	150	140	0	0.4	0.02	0	50.29
1857	532	129.7	402	401	150	91	0	2.44	0.14	0	129.84
1425	531	8.42	402	403	250	95	0	14.53	0.3	0.001	8.53
2259	P-1153	95.73	418	495	250	130	0	10.39	0.21	0	0
2018	P-1043	195.42	720	J-899	200	140	0	-0.56	0.02	0	185.93
1811	807	76.73	720	668	200	140	0	-1.23	0.04	0	76.81
1474	659	31.93	500	614	150	91	0	0.13	0.01	0	32
1167	605	63.75	500	604	250	95	0	14.24	0.29	0.001	63.7
1164	227	79.28	127	129	200	66	0	10.77	0.34	0.003	79.25
956	87	29.84	693	694	200	130	0	2.46	0.08	0	29.87
1326	147	7.98	58	57	300	140	0	43.33	0.61	0.001	7.92
1120	791	76.65	729	707	250	140	0	-25.37	0.52	0.001	64.92
1586	758	95.06	729	836	250	140	0	23.15	0.47	0.001	85.04
1829	545	36.57	389	390	150	91	0	-1.25	0.07	0	36.58
1497	621	55.69	516	517	150	140	0	0.19	0.01	0	55.78
1676	622	85.93	516	518	150	140	0	1.6	0.09	0	85.95
970	558	36.35	408	409	200	95	0	7.02	0.22	0.001	36.27
1320	52	61.93	406	487	250	140	0	1.69	0.03	0	61.87
1183	53	26.97	406	413	300	130	0	1.71	0.02	0	26.82
1436	903	107.05	853	862	200	100	0	-11.23	0.36	0.001	89.31
1028	902	168.21	853	861	200	100	0	0.44	0.01	0	166.73
988	458	76	231	232	150	85	0	-3.27	0.18	0.001	75.9
1716	671	40.74	625	624	150	140	0	0.13	0.01	0	40.84
1467	371	59.19	312	311	150	91	0	1.1	0.06	0	59.13
1400	31	22.8	228	837	250	140	0	4.04	0.08	0	22.86
1116	123	144.62	580	41	200	60	0	12.55	0.4	0.004	144.48
1838	309	7.79	567	209	250	140	0	-4.59	0.09	0	7.92
2140	P-1100	219.69	467	255	400	130	0	98.86	0.79	0.002	0
1663	484	83.56	467	572	300	89	0	57.22	0.81	0.005	83.52
1705	399	18.4	335	336	150	140	0	0.19	0.01	0	18.29
1394	413	117.05	351	352	150	91	0	-4.5	0.25	0.001	117.04
1356	430	49.64	369	370	200	95	0	0.13	0	0	49.68
1527	651	61.3	540	541	250	140	0	8.12	0.17	0	61.26
1786	652	34.97	540	542	200	140	0	-2.73	0.09	0	35.05
1014	447	101.03	258	256	200	89	0	-17.32	0.55	0.004	100.89
1290	670	30.52	626	625	150	140	0	0.32	0.02	0	30.48
1918	P-1001	109.98	859	J-873	300	100	0	17.61	0.25	0	153.62
1902	P-992	17.34	859	J-866	300	100	0	-1.8	0.03	0	85.95
1532	185	22.17	85	86	300	60	0	-25.31	0.36	0.002	22.25
1591	186	79.15	85	84	200	130	0	-7.71	0.25	0	79.25
1490	184	74.4	85	88	200	130	0	-3.39	0.11	0	74.37
1524	398	155.9	334	335	150	140	0	0.19	0.01	0	155.75
1161	497	45.2	483	484	150	140	0	10.15	0.57	0.002	45.11
1233	287	38.58	201	202	200	89	0	-21.18	0.67	0.005	38.71
980	731	90.94	201	671	200	140	0	0	0	0	90.83
1403	873	204.53	829	720	200	140	0	-1.2	0.04	0	204.52
989	674	21.64	446	457	300	130	0	0.13	0	0	14.02

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
993	59	55.97	446	465	250	130	0	0	0	0	55.17
1861	179	24.09	81	107	200	130	0	-5.95	0.19	0	24.08
1134	258	121.42	81	609	200	60	0	1.9	0.06	0	121.31
1694	619	51.84	513	514	150	140	0	0.1	0.01	0	51.82
1262	753	4.91	21	469	200	100	0	196.04	6.24	0.262	4.88
1255	502	40.11	474	475	200	91	0	1.83	0.06	0	40.23
1280	553	33.22	397	398	150	91	0	-1.72	0.1	0	33.22
1798	486	126.6	247	471	150	85	0	13.4	0.76	0.01	126.49
1328	475	62	247	248	200	89	0	-10.27	0.33	0.001	61.87
1157	146	15.91	561	59	150	60	0	0	0	0	15.85
1795	678	1.37	561	58	300	140	0	43.33	0.61	0.001	1.52
1205	459	20.47	232	233	150	85	0	-3.27	0.18	0.001	20.42
1840	32	144.64	239	554	250	140	0	7.11	0.14	0	120.4
1128	482	41.2	466	467	300	89	0	-39.96	0.57	0.002	41.15
1225	637	49.21	545	546	150	140	0	0.19	0.01	0	49.07
1274	638	50.1	545	547	150	140	0	0.19	0.01	0	49.99
1731	771	48.23	731	737	200	140	0	0	0	0	43.89
1886	P-967	1.69	20	BWD-2	304.8	130	0	-42.02	0.58	0.001	1.83
1787	750	0.87	20	9	200	100	0	-72.91	2.32	0.042	0.91
1528	826	57.56	792	793	250	140	0	25.18	0.51	0.001	54.86
1258	835	106.3	798	846	200	100	0	1.86	0.06	0	106.38
1489	836	84.47	798	800	250	130	0	6.05	0.12	0	84.43
1103	735	127.7	110	44	300	140	0	-117.92	1.67	0.008	127.71
1316	193	46.39	91	93	150	140	0	-3.97	0.22	0	46.33
1402	192	21.27	91	92	200	130	0	0	0	0	16.46
1702	922	1.01	15	1	300	85	0	-196.04	2.77	0.049	0.91
1381	736	22.89	609	82	200	130	0	7.95	0.25	0	22.86
1675	676	38.93	609	106	200	60	0	-6.17	0.2	0.001	39.01
1590	45	120.61	339	350	250	140	0	2.27	0.05	0	120.7
1677	606	296.18	495	501	200	95	0	3.6	0.11	0	292.91
1075	601	46.88	495	496	250	95	0	14.37	0.29	0.001	72.24
1613	534	72.65	403	383	250	95	0	14.53	0.3	0.001	72.54
1556	47	23.82	577	362	250	140	0	2.02	0.04	0	23.77
1810	308	66.26	594	567	250	140	0	-4.59	0.09	0	66.14
1435	188	18.08	83	82	200	130	0	-7.95	0.25	0	17.98
1573	882	50.75	834	835	200	100	0	9.98	0.32	0.001	42.06
1388	881	19.56	834	708	250	140	0	-35.7	0.73	0.002	25.6
1477	345	89.11	292	291	200	140	0	7.27	0.23	0	89
1083	344	29.07	292	296	150	140	0	0.08	0	0	28.96
1215	783	43.51	727	728	400	140	0	2.25	0.02	0	43.59
1284	790	329.81	727	663	200	140	0	-2.6	0.08	0	227.69
1700	488	37.16	472	473	150	91	0	13.24	0.75	0.009	37.19
1261	511	56.13	451	452	150	91	0	3.84	0.22	0.001	56.08
1027	661	24.54	420	617	250	95	0	3.52	0.07	0	24.69
1407	817	67.16	783	784	250	140	0	13.09	0.27	0	54.86
1950	P-1020	156.24	783	J-884	250	130	0	-30.46	0.62	0.002	0
1558	844	82.5	804	808	250	100	0	6.34	0.13	0	84.43
1661	253	86.34	152	153	150	130	0	0.38	0.02	0	86.26
1421	254	14.29	152	154	200	140	0	29.09	0.93	0.004	14.33
1111	316	22.19	214	216	150	140	0	0.46	0.03	0	22.25
1782	315	36.7	214	215	200	140	0	-0.15	0	0	36.58
1001	506	75.48	454	450	250	140	0	36.1	0.74	0.002	75.59
1783	507	71.88	454	455	250	95	0	22.31	0.45	0.002	71.93
1620	487	42.33	471	472	150	91	0	13.4	0.76	0.009	42.37
1039	351	49.32	301	300	150	140	0	-7.37	0.42	0.001	49.38
1799	470	95.51	240	242	150	85	0	-9.98	0.57	0.006	95.4
1852	469	115.51	240	241	150	85	0	0.16	0.01	0	115.52
1816	334	41.37	277	278	150	91	0	-4.45	0.25	0.001	41.45
1031	196	4.43	96	94	300	140	0	-22.37	0.32	0	4.57
1445	198	20.44	96	97	150	140	0	-2.94	0.17	0	20.42
1756	479	21.95	253	254	300	89	0	29.03	0.41	0.001	21.95
1184	481	16.61	253	466	300	89	0	-39.96	0.57	0.002	16.46
1495	60	49.01	470	479	250	130	0	0.65	0.01	0	49.07

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1206	57	133.82	435	470	250	130	0	1.45	0.03	0	133.81
1755	58	64.4	435	446	250	130	0	0.13	0	0	65.53
1380	657	23.4	202	612	150	85	0	0	0	0	23.47
1329	288	27.55	202	203	200	89	0	-21.18	0.67	0.005	27.43
1228	28	4.74	206	217	250	140	0	-9.92	0.2	0	4.88
1434	37	25.8	206	262	250	140	0	16.3	0.33	0	25.91
1549	30	162.81	206	228	250	140	0	4.04	0.08	0	162.76
1217	476	148.47	248	249	200	89	0	-10.8	0.34	0.002	148.44
1617	707	33.16	647	508	250	140	0	7.69	0.16	0	33.22
1223	708	79.43	647	648	150	140	0	2.54	0.14	0	79.55
1683	787	29.68	705	728	300	140	0	-1.8	0.03	0	39.93
1726	178	10.98	80	81	100	60	0	-3.93	0.5	0.014	10.97
1091	567	7.2	417	411	200	95	0	0	0	0	7.32
1475	364	45.03	288	305	200	140	0	1.47	0.05	0	45.11
1252	549	39.72	393	394	150	91	0	-0.53	0.03	0	39.62
1784	208	46.77	591	118	250	140	0	0	0	0	46.63
1529	722	133.21	661	845	250	140	0	22.3	0.45	0.001	103.02
1835	855	394.48	661	660	300	100	0	-27.97	0.4	0.001	319.13
974	199	30.65	97	99	150	140	0	-2.94	0.17	0	30.78
1226	949	1.08	1	27	300	85	0	-196.04	2.77	0.049	1.22
1531	596	28.03	421	420	250	140	0	3.52	0.07	0	28.04
1668	595	28.03	421	422	250	140	0	0	0	0	28.04
1268	614	5.26	508	509	200	140	0	4.93	0.16	0	5.18
1000	613	89.8	508	511	250	130	0	2.76	0.06	0	89.92
1197	311	27.7	209	211	200	140	0	0.64	0.02	0	27.74
1042	310	95.79	209	210	250	140	0	-5.39	0.11	0	53.34
1849	393	8.66	331	340	150	140	0	1.76	0.1	0	8.53
966	392	152.54	331	332	150	140	0	1.09	0.06	0	152.4
2156	P-1104	73.37	J-3	J-2	200	140	0	-7.05	0.22	0	77.72
1193	366	6.4	307	308	200	140	0	1.47	0.05	0	6.4
1544	9	43.35	680	574	200	140	0	-28.29	0.9	0.004	43.28
1396	612	34.78	506	507	250	140	0	10.23	0.21	0	34.75
1238	424	16.16	356	629	200	95	0	0.79	0.03	0	16.15
1324	418	110.33	356	357	150	91	0	0.21	0.01	0	110.34
1163	896	136.17	848	703	150	140	0	-0.14	0.01	0	90.53
1115	171	11.27	77	78	200	60	0	1.1	0.03	0	11.28
979	180	152.56	77	562	200	60	0	-1.1	0.03	0	152.7
1003	724	51.17	663	664	200	140	0	7.1	0.23	0	54.25
1008	832	62.81	797	627	250	140	0	34.56	0.7	0.002	62.79
1891	P-982	6	755	758	254	130	0	-310.11	6.12	0.118	6.1
955	754	1.25	755	759	200	140	0	0	0	0	1.22
1641	738	1.97	755	757	200	140	0	310.11	9.87	0.328	1.83
1006	157	99.24	64	562	100	60	0	1.32	0.17	0.002	99.36
1297	158	53.78	64	66	200	140	0	18.4	0.59	0.002	53.64
1692	55	51.67	578	424	300	130	0	1.58	0.02	0	51.82
1632	134	87.75	50	42	300	140	0	68.45	0.97	0.003	87.78
1502	136	170.3	50	52	200	60	0	19.2	0.61	0.009	170.38
1002	262	97.74	105	156	150	130	0	-9.77	0.55	0.003	97.84
1612	260	57.4	105	104	200	60	0	3.6	0.11	0	57.3
1789	181	8.57	562	73	150	130	0	0.11	0.01	0	8.53
1410	297	7.63	189	190	300	89	0	-47.13	0.67	0.003	7.62
1312	907	96	857	858	150	100	0	0.28	0.02	0	96.62
1727	908	96.54	857	859	200	100	0	15.99	0.51	0.003	92.66
958	1	88.81	31	139	150	140	0	-0.06	0	0	85.04
1224	222	22.94	122	123	150	140	0	8.17	0.46	0.002	22.86
1067	228	142.98	129	130	200	66	0	10.64	0.34	0.003	142.95
972	704	1	30	26	300	140	0	-123.14	1.74	0.008	0.91
1885	P-966	1.29	30	BWD-2	304.8	130	0	42.02	0.58	0.001	1.22
1850	762	272.36	210	730	250	140	0	1.49	0.03	0	304.5
1776	812	74.57	210	779	250	140	0	-7.37	0.15	0	64.31
1385	886	24.41	837	838	250	100	0	-3.08	0.06	0	24.38
1519	885	137.4	837	239	300	140	0	7.11	0.1	0	137.46
1190	386	40.91	325	326	150	91	0	0.52	0.03	0	40.84

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1453	604	14.89	496	500	250	95	0	14.37	0.29	0.001	14.94
1147	602	11.44	496	497	250	95	0	0	0	0	11.58
1740	603	11.22	496	498	250	95	0	0	0	0	11.28
2239	P-1140	50.48	538	J-958	300	130	0	2.09	0.03	0	0
1189	649	64.33	538	539	150	140	0	0.6	0.03	0	64.31
1706	650	137.73	538	540	200	140	0	-2.34	0.07	0	137.77
1160	550	67.87	390	396	150	91	0	-1.03	0.06	0	67.97
1842	546	39.17	390	391	150	91	0	-0.4	0.02	0	39.32
1631	660	76.03	614	615	150	91	0	0	0	0	75.9
1732	113	14.75	677	678	150	130	0	0	0	0	14.63
1478	849	63.94	810	812	200	100	0	-0.74	0.02	0	64.92
1135	891	107.67	810	844	200	100	0	0.26	0.01	0	78.64
1150	839	170.62	803	663	200	140	0	10.6	0.34	0.001	160.32
1345	740	1	777	754	200	140	0	146.39	4.66	0.082	0.91
1485	18	33.93	119	128	250	66	0	10.69	0.22	0.001	33.83
1077	833	124.93	793	797	250	140	0	25.18	0.51	0.001	128.02
1779	478	6.27	252	253	200	89	0	-10.94	0.35	0.002	6.4
986	63	127.51	488	487	250	140	0	-1.69	0.03	0	127.41
1319	843	59.42	807	798	250	100	0	7.91	0.16	0	59.44
1650	354	65.93	298	299	300	95	0	-49.79	0.7	0.003	65.84
1063	416	42.92	353	355	200	95	0	1	0.03	0	42.98
1405	305	94.05	199	593	250	140	0	-0.64	0.01	0	94.18
1611	302	18.09	199	193	200	140	0	5.25	0.17	0	17.98
1246	304	147.98	199	266	200	89	0	-17.35	0.55	0.004	147.83
1104	245	44.1	175	176	200	140	0	17.87	0.57	0.002	44.2
1370	578	127.74	441	433	150	140	0	0.68	0.04	0	127.71
1367	576	36	441	601	150	140	0	-1.52	0.09	0	35.97
1216	729	176.74	670	337	200	140	0	-0.81	0.03	0	173.43
1273	81	79.76	697	695	250	140	0	-0.25	0.01	0	78.33
1338	583	63.89	429	430	150	140	0	-4.13	0.23	0	64.01
952	582	80.91	429	428	150	140	0	4.53	0.26	0.001	80.77
1146	248	62.46	168	167	100	60	0	1.33	0.17	0.002	62.48
1359	160	54.84	588	67	200	140	0	17.33	0.55	0.002	54.86
1568	183	133.08	74	75	150	140	0	0	0	0	133.2
1796	457	92.16	230	231	150	85	0	-3.11	0.18	0.001	92.05
1820	543	132.5	493	494	250	91	0	7.71	0.16	0	132.59
1085	78	119.86	700	699	250	140	0	-0.25	0.01	0	119.79
1391	318	41.56	218	219	150	140	0	0.14	0.01	0	41.45
1383	646	16.44	535	536	150	140	0	0	0	0	16.46
1282	647	142.05	535	537	150	140	0	0.6	0.03	0	142.04
1299	224	64.28	124	125	150	140	0	8.17	0.46	0.002	63.7
1696	905	57.2	855	856	200	100	0	-12.16	0.39	0.002	19.2
1243	153	20.73	60	586	300	140	0	26.01	0.37	0	20.73
1337	150	11.28	60	61	150	60	0	-23.47	1.33	0.054	11.28
1192	151	89.58	60	51	300	140	0	77.91	1.1	0.004	89.61
1364	577	48	601	442	150	91	0	-1.52	0.09	0	47.85
985	332	38.98	275	276	150	91	0	0.27	0.02	0	39.01
1357	369	74.68	314	313	150	91	0	1.29	0.07	0	74.68
1023	456	12.76	229	230	150	85	0	-3.11	0.18	0.001	12.8
1552	461	103.23	229	234	150	85	0	-6.27	0.35	0.002	103.33
1145	388	22.96	316	330	200	95	0	2.52	0.08	0	22.86
1432	378	9.46	316	318	150	140	0	1.05	0.06	0	9.45
1848	373	71.66	310	309	150	91	0	0.91	0.05	0	71.63
1149	195	8.96	95	96	300	140	0	-25.31	0.36	0	8.84
1595	541	35.55	490	491	250	95	0	9.93	0.2	0	35.66
1563	540	127.85	490	493	250	91	0	7.87	0.16	0	127.71
1665	743	71.07	758	771	250	100	0	-310.11	6.32	0.207	71.02
2328	P-1196	226.43	554	J-990	250	130	0	7.11	0.14	0	0
1423	33	24.34	554	557	250	140	0	0	0	0	3.66
1389	34	30.24	554	556	250	140	0	0	0	0	16.15
1660	35	20.87	554	251	250	140	0	0	0	0	3.35
1966	P-1030	152.8	843	821	200	130	0	0.26	0.01	0	0
1237	319	44.46	219	220	150	140	0	0.14	0.01	0	44.5

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1346	415	14.55	352	354	150	130	0	0	0	0	14.63
1263	414	9.75	352	353	200	95	0	1	0.03	0	9.75
1340	428	53.05	352	368	200	95	0	-5.66	0.18	0	53.04
1362	634	44.9	527	528	150	140	0	0.1	0.01	0	44.81
1334	408	42.76	598	346	150	91	0	-4.08	0.23	0.001	42.67
1499	276	92.54	170	177	150	140	0	-6.21	0.35	0.001	92.66
1673	273	92.17	170	171	150	140	0	0.72	0.04	0	92.05
1763	732	338.92	196	594	150	140	0	-1.96	0.11	0	338.94
1967	P-1031	379	196	791	250	130	0	7.2	0.15	0	0
1248	220	71.43	108	55	200	66	0	-41.38	1.32	0.032	71.32
1737	712	166.32	651	652	150	140	0	1.79	0.1	0	166.42
961	654	124.29	607	201	200	89	0	-21.18	0.67	0.005	124.36
1642	80	23.72	698	697	250	140	0	-0.25	0.01	0	20.42
1751	465	80.84	237	238	150	85	0	-6.21	0.35	0.002	80.77
1201	298	24.43	190	191	300	89	0	-47.13	0.67	0.003	24.38
1644	103	76.87	635	646	250	66	0	34.56	0.7	0.008	76.81
1695	229	3.07	130	131	200	66	0	10.64	0.34	0.003	3.05
1043	107	47.46	656	672	200	130	0	14.32	0.46	0.001	47.55
1010	106	245.28	656	665	150	130	0	0.13	0.01	0	245.36
1458	115	5.81	35	36	300	66	0	20.11	0.28	0.001	5.79
1685	566	18.05	416	417	200	95	0	0	0	0	17.98
1156	747	2.58	770	768	150	100	0	-96.7	5.47	0.287	2.44
1645	96	52.4	682	681	300	140	0	-16.61	0.24	0	43.28
1155	176	156.03	590	79	200	60	0	1.65	0.05	0	156.06
1780	719	132.65	654	540	250	140	0	8.07	0.16	0	132.59
1693	102	104.63	627	635	250	66	0	34.56	0.7	0.008	104.55
1468	328	61.75	270	271	150	91	0	-3.86	0.22	0.001	61.87
1689	775	91.6	712	721	250	140	0	-6.9	0.14	0	91.74
1759	778	146.23	712	723	150	100	0	0.4	0.02	0	146.3
1653	380	99.11	319	320	150	140	0	0.9	0.05	0	99.06
1230	284	37.63	178	179	200	140	0	4.9	0.16	0	30.78
1250	326	10.05	268	269	150	91	0	-3.86	0.22	0.001	10.06
1488	223	11.47	123	124	150	140	0	8.17	0.46	0.002	11.58
1746	346	57.28	296	297	150	140	0	0.08	0	0	57.3
1579	293	90.33	208	199	200	89	0	-12.45	0.4	0.002	90.22
1844	301	45.48	208	223	150	89	0	-8.73	0.49	0.004	45.42
1565	241	43.12	144	145	250	140	0	27.85	0.57	0.001	42.98
1016	548	36.56	392	393	150	91	0	-0.53	0.03	0	36.58
1118	561	11.75	414	415	200	95	0	0	0	0	11.89
1775	85	54.65	690	692	200	130	0	2.62	0.08	0	54.86
1124	868	161.46	825	727	150	100	0	-0.36	0.02	0	163.98
1766	431	37.2	368	371	200	95	0	-5.91	0.19	0	37.19
1408	429	93.45	368	369	200	95	0	0.13	0	0	93.57
1447	451	107.32	223	224	150	85	0	-8.89	0.5	0.005	107.29
1092	658	55.13	244	613	150	85	0	0.1	0.01	0	55.17
973	467	147.5	244	243	150	85	0	-6.64	0.38	0.003	147.52
1506	824	34.09	790	791	250	140	0	17.98	0.37	0.001	29.87
1476	75	44.99	34	33	250	140	0	-0.25	0.01	0	45.11
1604	384	18.29	323	324	150	91	0	0.71	0.04	0	18.29
1311	127	122.94	44	46	300	130	0	-30.05	0.43	0.001	124.36
1750	721	136.08	423	826	300	140	0	27.97	0.4	0.001	118.87
1603	594	27.33	423	421	250	140	0	3.52	0.07	0	27.43
1833	879	197.77	832	833	150	100	0	0.42	0.02	0	197.82
1892	P-983	3.15	866	777	304.8	130	0	-113.86	1.56	0.008	3.05
1882	P-977	2.23	Brentwood	27	304.8	130	0	1,380.90	18.93	0.769	2.13
1884	P-959	1.64	BWD-FIRE	9	304.8	130	0	72.91	1	0.003	1.52
1888	P-979	1.53	BWD-3	19	304.8	130	0	44.7	0.61	0.001	1.52
1894	P-985	2.43	WST-1	762	254	130	0	49.86	0.98	0.004	2.44
1896	P-987	2.22	WST-2	763	254	130	0	49.7	0.98	0.004	2.13
1899	P-990	2.15	WST-FIRE	768	254	130	0	96.7	1.91	0.014	2.13
1903	P-993	49.97	J-866	860	300	100	0	-8.9	0.13	0	85.95
1905	P-994	53.57	J-866	J-867	200	130	0	7.1	0.23	0	0
1907	P-995	108.02	J-867	J-868	200	130	0	4.2	0.13	0	0

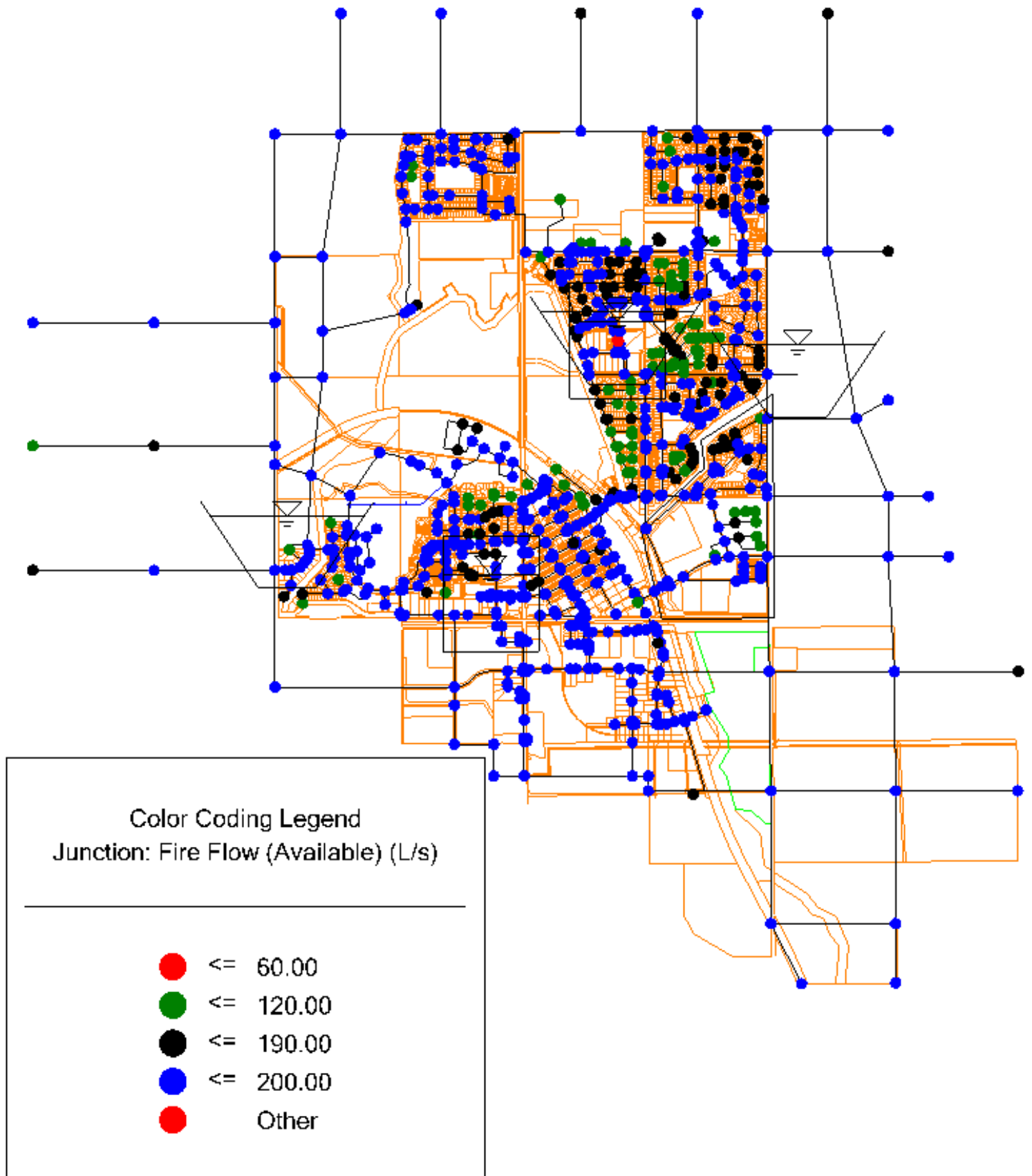
ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1909	P-996	129.18	J-868	J-869	200	130	0	-1.92	0.06	0	0
1920	P-1003	51.94	J-868	J-873	200	130	0	6.12	0.19	0	0
1911	P-997	83.61	J-869	J-870	200	130	0	-1.92	0.06	0	0
1913	P-998	172.41	J-870	J-871	200	130	0	-1.92	0.06	0	0
1914	P-999	76.14	J-871	J-867	200	130	0	-1.92	0.06	0	0
1916	P-1000	86.79	J-871	J-872	200	130	0	0	0	0	0
1919	P-1002	37.91	J-873	864	300	100	0	23.72	0.34	0.001	153.62
1925	P-1006	167.15	J-874	J-875	200	130	0	7.77	0.25	0	0
1923	P-1005	25.77	J-874	852	200	100	0	-10.33	0.33	0.001	107.9
1932	P-1010	40.95	J-875	710	200	130	0	7.77	0.25	0	0
2047	P-1046	346.69	J-876	J-900	250	130	0	20.36	0.41	0.001	0
1936	P-1012	48.17	J-877	J-878	150	130	0	0	0	0	0
1938	P-1013	50.01	J-877	J-879	250	130	0	5.13	0.1	0	0
2220	P-1128	555.78	J-879	J-951	250	130	0	5.13	0.1	0	0
1941	P-1015	88.32	J-880	782	250	130	0	-9.28	0.19	0	0
1946	P-1018	118.82	J-881	J-882	150	130	0	0	0	0	0
1948	P-1019	210.16	J-881	J-883	150	130	0	0	0	0	0
2289	P-1172	800	J-884	J-975	300	130	0	10.52	0.15	0	0
2298	P-1178	761.34	J-884	J-976	300	130	0	28.7	0.41	0.001	0
1955	P-1023	139.73	J-885	J-886	150	130	0	0.01	0	0	0
1957	P-1024	70.73	J-886	J-887	150	130	0	0.01	0	0	0
1959	P-1025	62.88	J-887	J-888	150	130	0	0.01	0	0	0
1961	P-1026	73.79	J-888	J-889	150	130	0	0.01	0	0	0
1962	P-1027	69.84	J-889	J-885	150	130	0	0.01	0	0	0
1965	P-1029	160.38	J-890	781	150	130	0	0	0	0	0
1978	P-1033	2.83	R-1	27	300	130	0	-1,184.86	16.76	0.626	0
2000	P-1037	382.28	J-891	J-892	300	130	0	-12.99	0.18	0	0
1998	P-1036	79.93	J-891	841	152.4	130	0	3.08	0.17	0	0
2001	P-1038	477.2	J-892	608	300	130	0	-10.05	0.14	0	0
2003	P-1039	120.07	J-892	J-893	300	130	0	11.99	0.17	0	0
2320	P-1190	258.38	J-893	J-981	300	130	0	11.99	0.17	0	0
2020	Prop 200 m	35.3	J-894	691	200	130	0	57.33	1.82	0.017	0
2196	P-1114	461.99	J-894	J-941	300	130	0	71.47	1.01	0.003	0
2019	P-1044	133.33	J-899	337	200	140	0	-1.16	0.04	0	185.93
2060	P-1053	216.31	J-900	J-906	200	130	0	20.36	0.65	0.002	0
2058	Algn1.2	227.72	J-904	J-905	300	130	0	29.97	0.42	0.001	0
2069	Algn1.1	148.31	J-904	180	200	130	0	-29.97	0.95	0.005	0
2107	P-1083	119.48	J-905	J-923	300	130	0	27.74	0.39	0.001	0
2097	P-1077	93.85	J-905	J-919	200	130	0	1.83	0.06	0	0
2066	P-1057	60.89	J-906	J-908	200	130	0	20.36	0.65	0.002	0
2120	P-1091	126.28	J-908	J-928	200	130	0	20.36	0.65	0.002	0
2099	P-1078	136.78	J-919	J-920	200	130	0	0.8	0.03	0	0
2101	P-1079	378.19	J-920	J-921	200	130	0	0.08	0	0	0
2103	P-1080	97.25	J-921	J-922	200	130	0	-0.53	0.02	0	0
2105	P-1082	175.47	J-921	J-920	200	130	0	-0.12	0	0	0
2104	P-1081	91.03	J-922	J-919	200	130	0	-0.83	0.03	0	0
2109	P-1084	210.15	J-923	J-924	200	130	0	4.25	0.14	0	0
2112	P-1086	85.56	J-923	J-925	200	130	0	0.7	0.02	0	0
2134	P-1097	97.39	J-924	J-931	200	130	0	3.65	0.12	0	0
2121	P-1092	91.83	J-928	180	200	130	0	20.36	0.65	0.002	0
2135	P-1098	91.69	J-931	J-923	300	130	0	-22.69	0.32	0	0
2157	P-1105	70.47	J-2	J-1	200	140	0	-9.93	0.32	0.001	77.72
2173	P-1106	133.07	Wildflower	J-894	300	130	0	135.6	1.92	0.011	0
2186	P-1109	800	J-935	J-936	300	130	0	6.55	0.09	0	0
2190	P-1111	123.91	J-937	J-938	400	130	0	22.73	0.18	0	0
2198	P-1116	251.17	J-937	J-941	300	130	0	-29.45	0.42	0.001	0
2192	P-1112	800	J-938	J-939	250	130	0	13.1	0.27	0	0
2200	P-1117	454.84	J-938	J-942	400	130	0	9.63	0.08	0	0
2194	P-1113	800	J-939	J-940	250	130	0	6.55	0.13	0	0
2197	P-1115	289.51	J-941	J-876	300	130	0	30.46	0.43	0.001	0
2225	P-1132	654.5	J-941	J-952	250	130	0	11.55	0.24	0	0
2202	P-1118	360.03	J-942	J-943	400	130	0	11.11	0.09	0	0
2204	P-1119	800	J-943	J-944	300	130	0	13.1	0.19	0	0

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
2208	P-1121	437.02	J-943	J-946	400	130	0	-1.99	0.02	0	0
2206	P-1120	800	J-944	J-945	300	130	0	6.55	0.09	0	0
2210	P-1122	811.74	J-946	J-947	400	130	0	-4.29	0.03	0	0
2213	P-1124	434.84	J-948	J-947	400	130	0	4.29	0.03	0	0
2215	P-1125	800	J-948	J-949	250	130	0	6.55	0.13	0	0
2217	P-1126	820.67	J-948	J-950	250	130	0	2.14	0.04	0	0
2218	P-1127	314.12	J-950	J-946	250	130	0	-2.3	0.05	0	0
2224	P-1131	492.89	J-950	J-951	250	130	0	-2.11	0.04	0	0
2222	P-1129	304.16	J-951	J-952	250	130	0	-3.53	0.07	0	0
2223	P-1130	314.12	J-952	J-942	250	130	0	1.47	0.03	0	0
2233	P-1137	436.98	J-955	825	300	140	0	16.05	0.23	0	890.32
2235	P-1138	780.14	J-955	J-956	250	130	0	6.55	0.13	0	0
2240	P-1141	775.38	J-958	J-957	300	130	0	6.55	0.09	0	0
2245	P-1144	800.02	J-959	J-960	400	130	0	30.34	0.24	0	0
2261	P-1155	400	J-959	J-964	250	130	0	14.41	0.29	0	0
2264	P-1157	811.9	J-959	J-966	400	130	0	-50.81	0.4	0	0
2246	P-1145	462.31	J-960	J-958	400	130	0	19.32	0.15	0	0
2250	P-1147	400	J-960	J-962	300	130	0	11.02	0.16	0	0
2253	P-1149	775.38	J-962	J-963	250	130	0	6.55	0.13	0	0
2251	P-1148	400.00	J-962	J-961	300	130	0	6.55	0.09	0	0
2277	P-1165	1,123.03	J-964	J-970	250	130	0	5.78	0.12	0	0
2258	P-1152	800.02	J-964	J-962	250	130	0	2.08	0.04	0	0
2257	P-1151	400	J-964	J-965	250	130	0	6.55	0.13	0	0
2266	P-1158	203.62	J-966	R-3	400	130	0	-107.06	0.85	0.002	0
2268	P-1159	295.23	J-966	J-967	400	130	0	96.71	0.77	0.001	0
2275	P-1163	588.31	J-967	J-970	300	130	0	19.87	0.28	0	0
2270	P-1160	513.62	J-967	J-968	400	130	0	76.85	0.61	0.001	0
2271	P-1161	399.26	J-968	J-884	400	130	0	69.68	0.55	0.001	0
2283	P-1168	800	J-968	J-973	250	130	0	7.17	0.15	0	0
2276	P-1164	243.91	J-970	J-969	300	130	0	6.55	0.09	0	0
2285	P-1170	555.69	J-970	J-973	250	130	0	19.1	0.39	0.001	0
2284	P-1169	266.67	J-973	J-971	250	130	0	6.55	0.13	0	0
2291	P-1174	399.1	J-973	J-975	250	130	0	19.72	0.4	0.001	0
2290	P-1173	400	J-975	J-974	300	130	0	6.55	0.09	0	0
2304	P-1182	762.32	J-975	J-977	250	130	0	17.13	0.35	0.001	0
2295	P-1176	826.72	J-976	J-977	250	130	0	4.89	0.1	0	0
2329	P-1197	789.83	J-976	J-986	300	130	0	13.33	0.19	0	0
2330	P-1198	789.8	J-977	J-987	250	130	0	8.92	0.18	0	0
2297	P-1177	817.85	J-977	J-978	250	130	0	6.55	0.13	0	0
2303	P-1181	1,187.02	J-979	J-892	300	130	0	14.93	0.21	0	0
2307	P-1183	258.79	J-981	J-982	300	130	0	11.99	0.17	0	0
2309	P-1184	209.5	J-982	J-983	300	130	0	11.99	0.17	0	0
2326	P-1194	201.03	J-983	J-990	300	130	0	11.99	0.17	0	0
2313	P-1186	98.2	J-984	J-985	300	130	0	10.5	0.15	0	0
2315	P-1187	810.62	J-985	J-986	300	130	0	10.5	0.15	0	0
2332	P-1199	879.16	J-986	J-991	250	130	0	7.82	0.16	0	0
2317	P-1188	824.14	J-986	J-987	300	130	0	9.46	0.13	0	0
2319	P-1189	806.98	J-987	J-988	300	130	0	6.55	0.09	0	0
2323	P-1192	105.28	J-989	J-984	300	130	0	10.5	0.15	0	0
2327	P-1195	716.13	J-990	J-989	300	130	0	19.11	0.27	0	0
2334	P-1200	824.13	J-991	J-992	250	130	0	1.27	0.03	0	0
2339	P-1203	446.49	J-991	J-994	250	130	0	6.55	0.13	0	0
2335	P-1201	879.16	J-992	J-987	250	130	0	-5.28	0.11	0	0
2337	P-1202	392.18	J-992	J-993	250	130	0	6.55	0.13	0	0

Appendix A5

2061 Ultimate Maximum Day
Demand plus Fire Flow Scenario
(325 L/s + fire flow)

Appendix A5 – 2061 Ultimate Maximum Day Demand plus Fire Flow (325 L/sec + fire flow)



Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
1	Zone-no fire flow	1	FALSE	60	0	60	0	140	126.6
7	Zone-no fire flow	1	FALSE	60	0	60	0	140	125.9
9	Zone-no fire flow	1	FALSE	60	0	60	0	140	559.2
15	Zone-no fire flow	1	FALSE	60	0	60	0	140	126.3
18	Zone-no fire flow	1	FALSE	60	0	60	0	140	555.9
19	Zone-no fire flow	1	FALSE	60	0	60	0	140	558
20	Zone-no fire flow	1	FALSE	60	0	60	0	140	558.9
21	Zone-1	2	TRUE	60	200	60	200	140	438.1
26	Zone-no fire flow	1	FALSE	60	0	60	0	140	138.5
27	Zone-no fire flow	1	FALSE	60	0	60	0	140	115.5
28	Zone-no fire flow	1	FALSE	60	0	60	0	140	138.4
29	Zone-no fire flow	1	FALSE	60	0	60	0	140	138.4
30	Zone-no fire flow	1	FALSE	60	0	60	0	140	138.4
31	Zone-1	3	TRUE	60	120.51	60.06	120.57	140	140.1
32	Zone-1	2	TRUE	60	200	60	200	140	339.1
33	Zone-1	2	TRUE	60	200	60	200	140	385.6
34	Zone-1	2	TRUE	60	200	60	200	140	397.5
35	Zone-1	2	TRUE	60	200	60	200	140	367.7
36	Zone-1	2	TRUE	60	200	60.09	200.09	140	368.7
37	Zone-1	3	TRUE	60	200	60.11	200.11	140	232.6
38	Zone-1	4	TRUE	60	130.32	60.04	130.36	140	140
39	Zone-1	3	TRUE	60	200	60	200	140	169.5
40	Zone-1	4	TRUE	60	161.7	60.4	162.1	140	140
41	Zone-1	2	TRUE	60	200	60.24	200.24	140	325
42	Zone-1	2	TRUE	60	200	60	200	140	325.6
43	Zone-1	2	TRUE	60	200	60	200	140	350
44	Zone-1	3	TRUE	60	200	60.11	200.11	140	288.2
45	Zone-1	3	TRUE	60	200	60	200	140	166.7
46	Zone-1	3	TRUE	60	200	60.13	200.13	140	271.5
47	Zone-1	2	TRUE	60	200	60	200	140	391.2
48	Zone-1	3	TRUE	60	200	60	200	140	179.2
49	Zone-1	3	TRUE	60	200	60	200	140	157.8
50	Zone-1	2	TRUE	60	200	60.13	200.13	140	329.9
51	Zone-1	2	TRUE	60	200	60	200	140	330.6
52	Zone-1	5	TRUE	60	173.19	60.11	173.3	140	140
53	Zone-1	4	TRUE	60	130.24	60	130.24	140	140
54	Zone-1	2	TRUE	60	200	60	200	140	348.5
55	Zone-1	3	TRUE	60	200	60	200	140	219.9
56	Zone-1	2	TRUE	60	200	60	200	140	396
57	Zone-1	2	TRUE	60	200	60	200	140	357.6
58	Zone-1	2	TRUE	60	200	60	200	140	357.6
59	Zone-1	4	TRUE	60	145.71	60	145.71	140	140
60	Zone-1	2	TRUE	60	200	60.93	200.93	140	329.8
61	Zone-1	2	TRUE	60	200	60	200	140	299.4
62	Zone-1	2	TRUE	60	200	60.93	200.93	140	316.5
63	Zone-1	3	TRUE	60	200	60	200	140	313
64	Zone-1	2	TRUE	60	200	61.46	201.46	140	296.7
65	Zone-1	2	TRUE	60	200	60.53	200.53	140	344.6
66	Zone-1	2	TRUE	60	200	60	200	140	308.6
67	Zone-1	2	TRUE	60	200	60	200	140	338.7
68	Zone-1	2	TRUE	60	200	60	200	140	338.2
69	Zone-1	2	TRUE	60	200	60.93	200.93	140	329.1
70	Zone-1	2	TRUE	60	200	60.8	200.8	140	300.1
71	Zone-1	2	TRUE	60	200	60	200	140	304.5
72	Zone-1	2	TRUE	60	200	60	200	140	304.3
73	Zone-1	4	TRUE	60	112.3	60	112.3	140	140
74	Zone-1	4	TRUE	60	96.2	60.11	96.31	140	140
75	Zone-1	3	TRUE	60	74.27	60	74.27	140	140
76	Zone-1	2	TRUE	60	200	60	200	140	344.9
77	Zone-1	3	TRUE	60	200	60	200	140	267.7
78	Zone-1	2	TRUE	60	200	60.16	200.16	140	337.4

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
79	Zone-1	3	TRUE	60	200	60.25	200.25	140	176.8
80	Zone-1	4	TRUE	60	151.85	60	151.85	140	140
81	Zone-1	2	TRUE	60	200	60.11	200.11	140	301.9
82	Zone-1	3	TRUE	60	200	60	200	140	272.1
83	Zone-1	3	TRUE	60	200	60.08	200.08	140	270.5
84	Zone-1	2	TRUE	60	200	60.16	200.16	140	286.2
85	Zone-1	2	TRUE	60	200	60.3	200.3	140	336.4
86	Zone-1	2	TRUE	60	200	60	200	140	330.5
87	Zone-1	2	TRUE	60	200	60	200	140	349.1
88	Zone-1	3	TRUE	60	200	60	200	140	272
89	Zone-1	2	TRUE	60	200	60.31	200.3	140	282.5
90	Zone-1	3	TRUE	60	200	60	200	140	198.6
91	Zone-1	3	TRUE	60	200	60.27	200.27	140	239.8
92	Zone-1	3	TRUE	60	200	60	200	140	204.9
93	Zone-1	2	TRUE	60	200	60	200	140	370.1
94	Zone-1	2	TRUE	60	200	60	200	140	370.8
95	Zone-1	2	TRUE	60	200	60	200	140	371.1
96	Zone-1	2	TRUE	60	200	60	200	140	371
97	Zone-1	2	TRUE	60	200	60	200	140	292
98	Zone-1	2	TRUE	60	200	60	200	140	353.4
99	Zone-1	3	TRUE	60	200	60.11	200.11	140	213.4
100	Zone-1	3	TRUE	60	200	60.24	200.24	140	150
101	Zone-1	4	TRUE	60	118.14	60.1	118.24	140	140
102	Zone-1	3	TRUE	60	200	60.21	200.21	140	149
103	Zone-1	3	TRUE	60	200	60	200	140	151
104	Zone-1	3	TRUE	60	200	60	200	140	154.2
105	Zone-1	3	TRUE	60	200	60	200	140	241.1
106	Zone-1	3	TRUE	60	200	60	200	140	235.3
107	Zone-1	2	TRUE	60	200	60	200	140	315.5
108	Zone-1	3	TRUE	60	200	60	200	140	277.3
109	Zone-1	2	TRUE	60	200	60.53	200.53	140	349.4
110	Zone-1	3	TRUE	60	200	60	200	140	280.7
111	Zone-1	3	TRUE	60	200	60	200	140	274.5
112	Zone-1	3	TRUE	60	200	60	200	140	252.5
113	Zone-1	3	TRUE	60	200	60	200	140	248.1
114	Zone-1	3	TRUE	60	200	61.73	201.73	140	243.7
115	Zone-1	3	TRUE	60	200	60	200	140	237.5
116	Zone-1	2	TRUE	60	200	60	200	140	374
117	Zone-1	2	TRUE	60	200	60	200	140	377.4
118	Zone-1	2	TRUE	60	200	60	200	140	344.4
119	Zone-1	2	TRUE	60	200	60	200	140	316.2
120	Zone-1	2	TRUE	60	200	60	200	140	367.4
121	Zone-1	2	TRUE	60	200	60.21	200.21	140	305.5
122	Zone-1	4	TRUE	60	174.9	60.64	175.54	140	140
123	Zone-1	4	TRUE	60	172.58	60	172.58	140	140
124	Zone-1	4	TRUE	60	171.98	60	171.98	140	140
125	Zone-1	4	TRUE	60	176.43	61.02	177.45	140	140
126	Zone-1	3	TRUE	60	200	60	200	140	166.8
127	Zone-1	4	TRUE	60	175.88	60	175.88	140	140
128	Zone-1	2	TRUE	60	200	60	200	140	308
129	Zone-1	4	TRUE	60	172.61	60.13	172.74	140	140
130	Zone-1	3	TRUE	60	200	60	200	140	180.7
131	Zone-1	3	TRUE	60	200	60.09	200.09	140	186.9
132	Zone-1	2	TRUE	60	200	60	200	140	353.6
133	Zone-1	2	TRUE	60	200	60	200	140	353
134	Zone-1	2	TRUE	60	200	60	200	140	333.8
135	Zone-1	2	TRUE	60	200	60	200	140	349.6
136	Zone-1	2	TRUE	60	200	60	200	140	347.8
137	Zone-1	3	TRUE	60	200	60	200	140	252.5
138	Zone-1	2	TRUE	60	200	60	200	140	346.5
139	Zone-1	3	TRUE	60	200	60.05	200.05	140	198.2

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
140	Zone-1	2	TRUE	60	200	60	200	140	326.9
141	Zone-1	2	TRUE	60	200	60	200	140	345.9
142	Zone-1	3	TRUE	60	200	60.97	200.97	140	255.2
143	Zone-1	2	TRUE	60	200	60	200	140	345.8
144	Zone-1	2	TRUE	60	200	60	200	140	361
145	Zone-1	2	TRUE	60	200	60	200	140	360.7
146	Zone-1	2	TRUE	60	200	60.11	200.11	140	348.2
147	Zone-1	2	TRUE	60	200	60	200	140	356.4
148	Zone-1	2	TRUE	60	200	60.19	200.19	140	354.1
149	Zone-1	2	TRUE	60	200	60	200	140	349
150	Zone-1	2	TRUE	60	200	60	200	140	339.8
151	Zone-1	2	TRUE	60	200	60	200	140	347.3
152	Zone-1	2	TRUE	60	200	60	200	140	313.2
153	Zone-1	4	TRUE	60	125.81	60.38	126.19	140	140
154	Zone-1	2	TRUE	60	200	60	200	140	312
155	Zone-1	2	TRUE	60	200	60	200	140	316.3
156	Zone-1	3	TRUE	60	200	60.19	200.19	140	175.1
157	Zone-1	4	TRUE	60	137.83	60	137.83	140	140
158	Zone-1	6	TRUE	60	151.19	60	151.19	140	142
159	Zone-1	6	TRUE	60	94.84	60.28	95.13	140	150.8
160	Zone-1	3	TRUE	60	91.29	60.06	91.35	140	140.1
161	Zone-1	3	TRUE	60	73.02	60.09	73.12	140	140
162	Zone-1	2	TRUE	60	200	60.27	200.27	140	329.4
163	Zone-1	4	TRUE	60	153.64	60.3	153.94	140	140
164	Zone-1	4	TRUE	60	174.24	60	174.24	140	140
165	Zone-1	4	TRUE	60	200	60.08	200.08	140	140.7
166	Zone-1	4	TRUE	60	177.19	60.13	177.32	140	140
167	Zone-1	3	TRUE	60	78.79	60	78.79	140	140
168	Zone-1	4	TRUE	60	160.92	60.13	161.05	140	140
169	Zone-1	4	TRUE	60	194.32	60.21	194.53	140	140
170	Zone-1	4	TRUE	60	199.79	60	199.79	140	140
171	Zone-1	6	TRUE	60	112.96	60.24	113.2	140	149.8
172	Zone-1	4	TRUE	60	96.14	60.4	96.54	140	140
173	Zone-1	2	TRUE	60	200	60	200	140	350
174	Zone-1	3	TRUE	60	90.2	60.08	90.28	140	140.1
175	Zone-1	2	TRUE	60	200	60	200	140	331.3
176	Zone-1	2	TRUE	60	200	60.32	200.32	140	320.4
177	Zone-1	2	TRUE	60	200	60.19	200.19	140	302.4
178	Zone-1	2	TRUE	60	200	60.11	200.11	140	287.3
179	Zone-1	2	TRUE	60	200	60.09	200.09	140	298.7
180	Zone-1	2	TRUE	60	200	60.58	200.58	140	339.1
181	Zone-1	3	TRUE	60	200	60	200	140	255.4
182	Zone-1	3	TRUE	60	200	60.4	200.4	140	245.4
183	Zone-1	3	TRUE	60	200	60	200	140	252.4
184	Zone-1	2	TRUE	60	200	60	200	140	351.1
185	Zone-1	3	TRUE	60	200	60.35	200.35	140	260
186	Zone-1	2	TRUE	60	200	60	200	140	363.9
187	Zone-1	2	TRUE	60	200	60	200	140	358.9
188	Zone-1	2	TRUE	60	200	60	200	140	354.8
189	Zone-1	2	TRUE	60	200	60	200	140	353.7
190	Zone-1	2	TRUE	60	200	60	200	140	352
191	Zone-1	2	TRUE	60	200	60	200	140	352
192	Zone-1	2	TRUE	60	200	60	200	140	351.4
193	Zone-1	2	TRUE	60	200	60	200	140	353.6
194	Zone-1	2	TRUE	60	200	60	200	140	346
195	Zone-1	2	TRUE	60	200	60	200	140	340.2
196	Zone-1	2	TRUE	60	200	60	200	140	371.4
197	Zone-1	2	TRUE	60	200	60	200	140	347
198	Zone-1	2	TRUE	60	200	60	200	140	369.7
199	Zone-1	2	TRUE	60	200	60.29	200.29	140	364.2
200	Zone-1	2	TRUE	60	200	60	200	140	289.5

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
201	Zone-1	3	TRUE	60	200	60	200	140	210.8
202	Zone-1	3	TRUE	60	200	60	200	140	213.1
203	Zone-1	3	TRUE	60	200	60	200	140	223.6
204	Zone-1	3	TRUE	60	200	60	200	140	228.4
205	Zone-1	3	TRUE	60	200	60	200	140	262.5
206	Zone-1	2	TRUE	60	200	60	200	140	379.6
207	Zone-1	2	TRUE	60	200	60	200	140	271.1
208	Zone-1	2	TRUE	60	200	60	200	140	285.3
209	Zone-1	2	TRUE	60	200	60.16	200.16	140	377.3
210	Zone-1	2	TRUE	60	200	60.5	200.5	140	376
211	Zone-1	2	TRUE	60	200	60	200	140	349
212	Zone-1	2	TRUE	60	200	60.16	200.16	140	326.1
213	Zone-1	2	TRUE	60	200	60.16	200.16	140	245.4
214	Zone-1	3	TRUE	60	200	60	200	140	240.3
215	Zone-1	3	TRUE	60	200	60	200	140	222.4
216	Zone-1	3	TRUE	60	200	60.16	200.16	140	162
217	Zone-1	2	TRUE	60	200	60	200	140	378.9
218	Zone-1	4	TRUE	60	159.48	60.16	159.64	140	140
219	Zone-1	4	TRUE	60	158.82	60	158.82	140	140
220	Zone-1	4	TRUE	60	163.19	60.16	163.35	140	140
221	Zone-1	4	TRUE	60	126.83	60	126.83	140	140
222	Zone-1	4	TRUE	60	173.92	60.14	174.07	140	140
223	Zone-1	3	TRUE	60	154.1	60.16	154.26	140	140
224	Zone-1	14	TRUE	60	107.74	60.09	107.83	140	140.1
225	Zone-1	3	TRUE	60	103.63	60	103.63	140	140
226	Zone-1	3	TRUE	60	98.58	60.16	98.74	140	140.2
227	Zone-1	3	TRUE	60	70.85	60.1	70.94	140	140
228	Zone-1	2	TRUE	60	200	60	200	140	356.1
229	Zone-1	4	TRUE	60	101.99	60.14	102.13	140	140
230	Zone-1	4	TRUE	60	98.13	60	98.13	140	140
231	Zone-1	3	TRUE	60	83.22	60.16	83.38	140	140
232	Zone-1	3	TRUE	60	81.53	60	81.53	140	140
233	Zone-1	3	TRUE	60	81.94	60.16	82.1	140	140
234	Zone-1	21	TRUE	60	107.69	60.16	107.85	140	141.4
235	Zone-1	4	TRUE	60	136.7	60.24	136.94	140	140
236	Zone-1	4	TRUE	60	133.63	60	133.63	140	140
237	Zone-1	4	TRUE	60	153.05	60	153.05	140	140
238	Zone-1	3	TRUE	60	111.08	60.14	111.23	140	140.1
239	Zone-1	2	TRUE	60	200	60	200	140	342.5
240	Zone-1	4	TRUE	60	124.85	60.24	125.09	140	140
241	Zone-1	3	TRUE	60	68.51	60.16	68.68	140	140
242	Zone-1	4	TRUE	60	158.29	60.19	158.48	140	140
243	Zone-1	3	TRUE	60	111.58	60.19	111.77	140	140.1
244	Zone-1	3	TRUE	60	98.65	60.19	98.84	140	140
245	Zone-1	2	TRUE	60	200	60	200	140	426.5
246	Zone-1	4	TRUE	60	196.74	60	196.74	140	140
247	Zone-1	3	TRUE	60	200	60	200	140	250.4
248	Zone-1	3	TRUE	60	200	60.53	200.53	140	249.6
249	Zone-1	2	TRUE	60	200	60	200	140	350.6
250	Zone-1	2	TRUE	60	200	60.15	200.15	140	342.7
251	Zone-1	2	TRUE	60	200	60	200	140	319.9
252	Zone-1	2	TRUE	60	200	60.13	200.13	140	410.2
253	Zone-1	2	TRUE	60	200	60	200	140	426.1
254	Zone-1	2	TRUE	60	200	60	200	140	424.1
255	Zone-1	2	TRUE	60	200	60	200	140	447.5
256	Zone-1	2	TRUE	60	200	60.18	200.18	140	421.7
257	Zone-1	2	TRUE	60	200	60	200	140	420.5
258	Zone-1	2	TRUE	60	200	60.18	200.18	140	284.7
259	Zone-1	2	TRUE	60	200	60.16	200.16	140	249.4
260	Zone-1	2	TRUE	60	200	60.19	200.19	140	277.5
261	Zone-1	2	TRUE	60	200	60.19	200.19	140	268.7

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
262	Zone-1	2	TRUE	60	200	60	200	140	374.5
263	Zone-1	2	TRUE	60	200	60.08	200.08	140	328.9
264	Zone-1	2	TRUE	60	200	60	200	140	301.1
265	Zone-1	2	TRUE	60	200	60.14	200.14	140	307.5
266	Zone-1	2	TRUE	60	200	60	200	140	299.5
267	Zone-1	2	TRUE	60	200	60	200	140	389.5
268	Zone-1	2	TRUE	60	200	60.18	200.18	140	390.4
269	Zone-1	2	TRUE	60	200	60	200	140	293.6
270	Zone-1	4	TRUE	60	165.01	60	165.01	140	140
271	Zone-1	4	TRUE	60	132.97	60.09	133.05	140	140
272	Zone-1	4	TRUE	60	119.55	60.09	119.64	140	140
273	Zone-1	2	TRUE	60	200	60	200	140	371.7
274	Zone-1	3	TRUE	60	72.65	60.14	72.79	140	140
275	Zone-1	3	TRUE	60	67.62	60	67.62	140	140
276	Zone-1	3	TRUE	60	61.28	60.27	61.55	140	140
277	Zone-1	4	TRUE	60	119.06	60	119.06	140	140
278	Zone-1	4	TRUE	60	120.52	60	120.52	140	140
279	Zone-1	4	TRUE	60	122.87	60.09	122.96	140	140
280	Zone-1	4	TRUE	60	131.89	60	131.89	140	140
281	Zone-1	4	TRUE	60	155.07	60.16	155.23	140	140
282	Zone-1	2	TRUE	60	200	60	200	140	317.3
283	Zone-1	2	TRUE	60	200	60.06	200.06	140	400.8
284	Zone-1	2	TRUE	60	200	60	200	140	368.1
285	Zone-1	2	TRUE	60	200	60.16	200.16	140	301.1
286	Zone-1	2	TRUE	60	200	60.18	200.18	140	328.5
287	Zone-1	2	TRUE	60	200	60	200	140	351.5
288	Zone-1	2	TRUE	60	200	60	200	140	370.8
289	Zone-1	2	TRUE	60	200	60	200	140	363.2
290	Zone-1	2	TRUE	60	200	60.18	200.18	140	365.5
291	Zone-1	2	TRUE	60	200	60	200	140	362.8
292	Zone-1	2	TRUE	60	200	60.16	200.16	140	350.5
293	Zone-1	2	TRUE	60	200	60	200	140	373.2
294	Zone-1	2	TRUE	60	200	60	200	140	411
295	Zone-1	2	TRUE	60	200	60	200	140	376.1
296	Zone-1	3	TRUE	60	200	60	200	140	182.7
297	Zone-1	4	TRUE	60	140.77	60.08	140.85	140	140
298	Zone-1	2	TRUE	60	200	60.16	200.16	140	407
299	Zone-1	2	TRUE	60	200	60	200	140	416.9
300	Zone-1	4	TRUE	60	199.35	60.16	199.51	140	140
301	Zone-1	4	TRUE	60	194.34	60.26	194.59	140	140
302	Zone-1	2	TRUE	60	200	60.18	200.18	140	257.6
303	Zone-1	2	TRUE	60	200	60	200	140	275
304	Zone-1	4	TRUE	60	196.19	60.19	196.38	140	140
305	Zone-1	2	TRUE	60	200	60	200	140	354.1
306	Zone-1	2	TRUE	60	200	60	200	140	381.1
307	Zone-1	2	TRUE	60	200	60	200	140	345.3
308	Zone-1	2	TRUE	60	200	60.28	200.28	140	344.5
309	Zone-1	2	TRUE	60	200	60	200	140	321.9
310	Zone-1	4	TRUE	60	146.34	60	146.34	140	140
311	Zone-1	3	TRUE	60	122.19	60.19	122.38	140	140.1
312	Zone-1	3	TRUE	60	119.86	60	119.86	140	140.1
313	Zone-1	3	TRUE	60	122.38	60.19	122.57	140	140.1
314	Zone-1	4	TRUE	60	139.89	60	139.89	140	140
315	Zone-1	2	TRUE	60	200	60	200	140	318.2
316	Zone-1	2	TRUE	60	200	60	200	140	317.8
317	Zone-1	2	TRUE	60	200	60	200	140	392.6
318	Zone-1	2	TRUE	60	200	60	200	140	281.8
319	Zone-1	2	TRUE	60	200	60.15	200.15	140	212.2
320	Zone-1	4	TRUE	60	166.29	60	166.29	140	140
321	Zone-1	4	TRUE	60	152.6	60	152.6	140	140
322	Zone-1	4	TRUE	60	151.44	60.19	151.63	140	140

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
323	Zone-1	4	TRUE	60	149.69	60	149.69	140	140
324	Zone-1	4	TRUE	60	150.4	60	150.4	140	140
325	Zone-1	4	TRUE	60	179.78	60.19	179.97	140	140
326	Zone-1	2	TRUE	60	200	60	200	140	329.5
327	Zone-1	4	TRUE	60	194.21	60	194.21	140	140
328	Zone-1	2	TRUE	60	200	60	200	140	407
329	Zone-1	2	TRUE	60	200	60.19	200.19	140	325.2
330	Zone-1	2	TRUE	60	200	60	200	140	308.8
331	Zone-1	2	TRUE	60	200	60	200	140	340.3
332	Zone-1	4	TRUE	60	175.1	60.5	175.6	140	140
333	Zone-1	4	TRUE	60	171.48	60	171.48	140	140
334	Zone-1	4	TRUE	60	172.22	60.4	172.62	140	140
335	Zone-1	2	TRUE	60	200	60	200	140	284.9
336	Zone-1	2	TRUE	60	200	60.38	200.38	140	358.5
337	Zone-1	2	TRUE	60	200	60.38	200.38	140	367.4
338	Zone-1	2	TRUE	60	200	60	200	140	346.8
339	Zone-1	2	TRUE	60	200	60	200	140	405.1
340	Zone-1	2	TRUE	60	200	60.51	200.51	140	346.6
341	Zone-1	4	TRUE	60	148.61	60.3	148.91	140	140
342	Zone-1	4	TRUE	60	138.8	60.36	139.16	140	140
343	Zone-1	4	TRUE	60	118.88	60.19	119.07	140	140
344	Zone-1	3	TRUE	60	87.29	60.09	87.38	140	140
345	Zone-1	4	TRUE	60	115.49	60	115.49	140	140
346	Zone-1	5	TRUE	60	107.07	60.13	107.2	140	156.6
347	Zone-1	3	TRUE	60	68.74	60.13	68.87	140	140
348	Zone-1	3	TRUE	60	61.73	60	61.73	140	140
349	Zone-1	4	TRUE	60	110.71	60	110.71	140	140
350	Zone-1	2	TRUE	60	200	60.25	200.25	140	414.9
351	Zone-1	4	TRUE	60	112.32	60.16	112.48	140	140
352	Zone-1	4	TRUE	60	139.48	60.16	139.65	140	140
353	Zone-1	4	TRUE	60	135.78	60	135.78	140	140
354	Zone-1	4	TRUE	60	128.04	60	128.04	140	140
355	Zone-1	4	TRUE	60	122.93	60	122.93	140	140
356	Zone-1	21	TRUE	60	115.71	60	115.71	140	141.2
357	Zone-1	3	TRUE	60	89.81	60.21	90.02	140	140
358	Zone-1	3	TRUE	60	89.07	60	89.07	140	140
359	Zone-1	3	TRUE	60	88.67	60	88.67	140	140
360	Zone-1	3	TRUE	60	88.13	60.13	88.26	140	140
361	Zone-1	2	TRUE	60	200	60	200	140	350.7
362	Zone-1	2	TRUE	60	200	60	200	140	444.7
363	Zone-1	3	TRUE	60	90.08	60	90.08	140	140
364	Zone-1	4	TRUE	60	111.01	60.15	111.16	140	140
365	Zone-1	3	TRUE	60	108.26	60	108.26	140	140.1
366	Zone-1	4	TRUE	60	109.13	60	109.13	140	140
367	Zone-1	3	TRUE	60	101.69	60	101.69	140	140.1
368	Zone-1	4	TRUE	60	148.05	60.11	148.16	140	140
369	Zone-1	4	TRUE	60	118.03	60	118.03	140	140
370	Zone-1	3	TRUE	60	107.64	60.13	107.78	140	140.1
371	Zone-1	4	TRUE	60	156.04	60	156.04	140	140
372	Zone-1	3	TRUE	60	72.68	60.1	72.78	140	140
373	Zone-1	2	TRUE	60	200	60.27	200.27	140	384.7
374	Zone-1	4	TRUE	60	158.31	60.3	158.61	140	140
375	Zone-1	4	TRUE	60	132.21	60	132.21	140	140
376	Zone-1	4	TRUE	60	160.16	60	160.16	140	140
377	Zone-1	2	TRUE	60	200	60	200	140	285.7
378	Zone-1	2	TRUE	60	200	60	200	140	282.7
379	Zone-1	2	TRUE	60	200	60	200	140	297.7
380	Zone-1	2	TRUE	60	200	60.19	200.19	140	240.4
381	Zone-1	4	TRUE	60	143	60	143	140	140
382	Zone-1	4	TRUE	60	146.36	60.24	146.6	140	140
383	Zone-1	2	TRUE	60	200	60.08	200.08	140	310.9

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
384	Zone-1	2	TRUE	60	200	60	200	140	450.8
385	Zone-1	2	TRUE	60	200	60.16	200.16	140	314.1
386	Zone-1	2	TRUE	60	200	60.08	200.08	140	318.8
387	Zone-1	2	TRUE	60	200	60.1	200.1	140	319.3
388	Zone-1	4	TRUE	60	174.22	60.1	174.31	140	140
389	Zone-1	4	TRUE	60	143.47	60	143.47	140	140
390	Zone-1	4	TRUE	60	121.96	60.18	122.14	140	140
391	Zone-1	3	TRUE	60	103.87	60	103.87	140	140.1
392	Zone-1	3	TRUE	60	96.9	60.13	97.02	140	140
393	Zone-1	3	TRUE	60	95.17	60	95.17	140	140
394	Zone-1	3	TRUE	60	96.05	60.08	96.13	140	140
395	Zone-1	2	TRUE	60	200	60	200	140	444.2
396	Zone-1	3	TRUE	60	111.87	60.08	111.95	140	140.1
397	Zone-1	3	TRUE	60	102.9	60	102.9	140	140.1
398	Zone-1	3	TRUE	60	98.87	60.31	99.17	140	140
399	Zone-1	3	TRUE	60	94.67	60	94.67	140	140
400	Zone-1	3	TRUE	60	95.89	60.26	96.15	140	140
401	Zone-1	3	TRUE	60	110.28	60.16	110.44	140	140.1
402	Zone-1	2	TRUE	60	200	60.16	200.16	140	326.1
403	Zone-1	2	TRUE	60	200	60	200	140	325.5
404	Zone-1	2	TRUE	60	200	60	200	140	310.2
405	Zone-1	2	TRUE	60	200	60	200	140	354.6
406	Zone-1	2	TRUE	60	200	60.4	200.4	140	457
407	Zone-1	2	TRUE	60	200	60.14	200.14	140	225
408	Zone-1	2	TRUE	60	200	60	200	140	238.9
409	Zone-1	2	TRUE	60	200	60	200	140	254
410	Zone-1	2	TRUE	60	200	60	200	140	251.8
411	Zone-1	2	TRUE	60	200	60.14	200.14	140	250.5
412	Zone-1	4	TRUE	60	134.92	60	134.92	140	140
413	Zone-1	2	TRUE	60	200	60	200	140	453.7
414	Zone-1	4	TRUE	60	134.15	60	134.15	140	140
415	Zone-1	4	TRUE	60	138.62	60	138.62	140	140
416	Zone-1	3	TRUE	60	200	60	200	140	176.5
417	Zone-1	2	TRUE	60	200	60	200	140	229.1
418	Zone-1	2	TRUE	60	200	60	200	140	317.7
419	Zone-1	3	TRUE	60	200	60	200	140	191.7
420	Zone-1	2	TRUE	60	200	60	200	140	340.8
421	Zone-1	2	TRUE	60	200	60	200	140	350.1
422	Zone-1	2	TRUE	60	200	60	200	140	336.6
423	Zone-1	2	TRUE	60	200	60	200	140	360.5
424	Zone-1	2	TRUE	60	200	60	200	140	445.3
425	Zone-1	2	TRUE	60	200	60.32	200.32	140	364.8
426	Zone-1	4	TRUE	60	164.1	60	164.1	140	140
427	Zone-1	2	TRUE	60	200	60	200	140	295.4
428	Zone-1	3	TRUE	60	200	60.08	200.08	140	143.4
429	Zone-1	2	TRUE	60	200	60	200	140	257.1
430	Zone-1	2	TRUE	60	200	60.27	200.27	140	360.2
431	Zone-1	2	TRUE	60	200	60.29	200.29	140	366.9
432	Zone-1	3	TRUE	60	200	60.1	200.1	140	203.6
433	Zone-1	4	TRUE	60	187.59	60.19	187.78	140	140
434	Zone-1	15	TRUE	60	144.34	60.26	144.6	140	140.1
435	Zone-1	2	TRUE	60	200	60	200	140	443.9
436	Zone-1	15	TRUE	60	135.18	60	135.18	140	140.1
437	Zone-1	15	TRUE	60	134.53	60.26	134.79	140	140.1
438	Zone-1	3	TRUE	60	142.69	60	142.69	140	140
439	Zone-1	3	TRUE	60	148.18	60	148.18	140	140
440	Zone-1	3	TRUE	60	120.93	60.16	121.1	140	140
441	Zone-1	3	TRUE	60	171.83	60.16	171.99	140	140
442	Zone-1	4	TRUE	60	183.44	60	183.44	140	140
443	Zone-1	4	TRUE	60	171.7	60.24	171.94	140	140
444	Zone-1	2	TRUE	60	200	60	200	140	239.9

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
445	Zone-1	2	TRUE	60	200	60.24	200.24	140	360.5
446	Zone-1	2	TRUE	60	200	60	200	140	408.4
447	Zone-1	2	TRUE	60	200	60	200	140	367.5
448	Zone-1	3	TRUE	60	200	60	200	140	213.5
449	Zone-1	2	TRUE	60	200	60	200	140	370.7
450	Zone-1	2	TRUE	60	200	60.21	200.21	140	374.3
451	Zone-1	4	TRUE	60	156.16	60	156.16	140	140
452	Zone-1	3	TRUE	60	134.28	60.16	134.44	140	140.1
453	Zone-1	3	TRUE	60	131.98	60	131.98	140	140.1
454	Zone-1	2	TRUE	60	200	60.32	200.32	140	386.9
455	Zone-1	2	TRUE	60	200	60	200	140	363.3
456	Zone-1	2	TRUE	60	200	60.24	200.24	140	355.5
457	Zone-1	2	TRUE	60	200	60.13	200.13	140	403.4
458	Zone-1	2	TRUE	60	200	60	200	140	358.4
459	Zone-1	2	TRUE	60	200	60	200	140	392.7
460	Zone-1	2	TRUE	60	200	60.16	200.16	140	394.2
461	Zone-1	2	TRUE	60	200	60	200	140	388.3
462	Zone-1	2	TRUE	60	200	60.16	200.16	140	390.2
463	Zone-1	2	TRUE	60	200	60	200	140	400.3
464	Zone-1	2	TRUE	60	200	60	200	140	378.6
465	Zone-1	2	TRUE	60	200	60	200	140	377.4
466	Zone-1	2	TRUE	60	200	60	200	140	426.4
467	Zone-1	2	TRUE	60	200	60	200	140	433.1
468	Zone-1	2	TRUE	60	200	60	200	140	433.5
469	Zone-1	2	TRUE	60	200	60	200	140	438
470	Zone-1	2	TRUE	60	200	60.8	200.8	140	432.6
471	Zone-1	4	TRUE	60	165.49	60	165.49	140	140
472	Zone-1	4	TRUE	60	186.94	60.16	187.1	140	140
473	Zone-1	2	TRUE	60	200	60	200	140	272.5
474	Zone-1	2	TRUE	60	200	60.06	200.06	140	299.2
475	Zone-1	2	TRUE	60	200	60	200	140	334.6
476	Zone-1	4	TRUE	60	172.42	60	172.42	140	140
477	Zone-1	4	TRUE	60	170.94	60.39	171.34	140	140
478	Zone-1	4	TRUE	60	145.64	60.4	146.05	140	140
479	Zone-1	2	TRUE	60	200	60	200	140	435.2
480	Zone-1	4	TRUE	60	139.94	60	139.94	140	140
481	Zone-1	4	TRUE	60	146.52	60.4	146.92	140	140
482	Zone-1	4	TRUE	60	176.67	60	176.67	140	140
483	Zone-1	4	TRUE	60	178.4	60	178.4	140	140
484	Zone-1	4	TRUE	60	194.37	60.16	194.53	140	140
485	Zone-1	3	TRUE	60	200	60	200	140	200.3
486	Zone-1	5	TRUE	60	135.88	60	135.88	140	147.8
487	Zone-1	2	TRUE	60	200	60	200	140	446.1
488	Zone-1	2	TRUE	60	200	60	200	140	446.6
489	Zone-1	2	TRUE	60	200	60.8	200.8	140	447.8
490	Zone-1	2	TRUE	60	200	60.16	200.16	140	337.6
491	Zone-1	2	TRUE	60	200	60	200	140	326.8
493	Zone-1	2	TRUE	60	200	60.16	200.16	140	291.9
494	Zone-1	2	TRUE	60	200	60	200	140	265.4
495	Zone-1	2	TRUE	60	200	60.13	200.13	140	343.2
496	Zone-1	2	TRUE	60	200	60	200	140	365.8
497	Zone-1	2	TRUE	60	200	60	200	140	354.4
498	Zone-1	2	TRUE	60	200	60	200	140	354.7
499	Zone-1	2	TRUE	60	200	60	200	140	437.9
500	Zone-1	2	TRUE	60	200	60	200	140	364.6
501	Zone-1	2	TRUE	60	200	60	200	140	405.5
502	Zone-1	2	TRUE	60	200	60	200	140	379.1
503	Zone-1	2	TRUE	60	200	60.4	200.4	140	394
504	Zone-1	2	TRUE	60	200	62.85	202.85	140	383.9
505	Zone-1	2	TRUE	60	200	60.66	200.66	140	381.1
506	Zone-1	2	TRUE	60	200	60.65	200.65	140	380.8

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
507	Zone-1	2	TRUE	60	200	60	200	140	377.7
508	Zone-1	2	TRUE	60	200	60	200	140	375.7
509	Zone-1	2	TRUE	60	200	60	200	140	372.2
510	Zone-1	2	TRUE	60	200	60	200	140	438
511	Zone-1	2	TRUE	60	200	60.19	200.19	140	341.6
512	Zone-1	2	TRUE	60	200	60.19	200.19	140	297.9
513	Zone-1	2	TRUE	60	200	60	200	140	292.6
514	Zone-1	4	TRUE	60	164.15	60.09	164.25	140	140
515	Zone-1	3	TRUE	60	200	60.25	200.25	140	149.7
516	Zone-1	4	TRUE	60	189.42	60.25	189.67	140	140
517	Zone-1	4	TRUE	60	133.51	60.19	133.7	140	140
518	Zone-1	3	TRUE	60	200	60	200	140	147.3
519	Zone-1	3	TRUE	60	200	60.19	200.19	140	155.8
520	Zone-1	4	TRUE	60	139.46	60.17	139.63	140	140
521	Zone-1	2	TRUE	60	200	60.13	200.13	140	411.2
522	Zone-1	2	TRUE	60	200	60	200	140	338.4
523	Zone-1	2	TRUE	60	200	60.36	200.36	140	331.3
524	Zone-1	2	TRUE	60	200	60.19	200.19	140	338
525	Zone-1	2	TRUE	60	200	60.09	200.09	140	339.1
526	Zone-1	2	TRUE	60	200	60	200	140	243.7
527	Zone-1	4	TRUE	60	174.06	60	174.06	140	140
528	Zone-1	4	TRUE	60	134.05	60.09	134.15	140	140
529	Zone-1	4	TRUE	60	170.16	60	170.16	140	140
530	Zone-1	4	TRUE	60	167.08	60.19	167.27	140	140
531	Zone-1	4	TRUE	60	148.7	60.25	148.94	140	140
532	Zone-1	2	TRUE	60	200	60.66	200.66	140	438.8
533	Zone-1	4	TRUE	60	144.66	60.25	144.91	140	140
534	Zone-1	4	TRUE	60	145.1	60	145.1	140	140
535	Zone-1	4	TRUE	60	156.72	60.25	156.96	140	140
536	Zone-1	4	TRUE	60	142.16	60	142.16	140	140
537	Zone-1	2	TRUE	60	200	60.25	200.25	140	254.1
538	Zone-1	2	TRUE	60	200	60	200	140	393.5
539	Zone-1	4	TRUE	60	166.59	60.2	166.79	140	140
540	Zone-1	2	TRUE	60	200	60.34	200.34	140	384.7
541	Zone-1	2	TRUE	60	200	60.4	200.4	140	376
542	Zone-1	2	TRUE	60	200	60	200	140	360.9
543	Zone-1	2	TRUE	60	200	60	200	140	348.4
544	Zone-1	2	TRUE	60	200	60	200	140	425.7
545	Zone-1	2	TRUE	60	200	60	200	140	338.3
546	Zone-1	4	TRUE	60	174.77	60.19	174.96	140	140
547	Zone-1	4	TRUE	60	173.5	60.19	173.69	140	140
548	Zone-1	2	TRUE	60	200	60.25	200.25	140	323.4
549	Zone-1	2	TRUE	60	200	60	200	140	265.1
550	Zone-1	4	TRUE	60	165.5	60.19	165.69	140	140
551	Zone-1	4	TRUE	60	177	60.17	177.17	140	140
552	Zone-1	2	TRUE	60	200	60	200	140	343.9
553	Zone-1	2	TRUE	60	200	60	200	140	378
554	Zone-1	2	TRUE	60	200	60	200	140	329.9
555	Zone-1	2	TRUE	60	200	60	200	140	423.1
556	Zone-1	2	TRUE	60	200	60	200	140	315.3
557	Zone-1	2	TRUE	60	200	60	200	140	318.1
558	Zone-1	2	TRUE	60	200	60	200	140	308.8
559	Zone-1	2	TRUE	60	200	60	200	140	392.5
560	Zone-1	2	TRUE	60	200	60.11	200.11	140	381.9
561	Zone-1	2	TRUE	60	200	60	200	140	357.6
562	Zone-1	4	TRUE	60	116.19	60.11	116.3	140	140
563	Zone-1	3	TRUE	60	200	60	200	140	278.2
564	Zone-1	3	TRUE	60	200	60	200	140	278.8
565	Zone-1	3	TRUE	60	200	60	200	140	279.6
566	Zone-1	2	TRUE	60	200	60	200	140	419.4
567	Zone-1	2	TRUE	60	200	60	200	140	377.7

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
568	Zone-1	2	TRUE	60	200	60	200	140	347.1
569	Zone-1	2	TRUE	60	200	60	200	140	223.9
570	Zone-1	4	TRUE	60	184.64	60	184.64	140	140
571	Zone-1	2	TRUE	60	200	60.34	200.34	140	321.1
572	Zone-1	2	TRUE	60	200	60	200	140	410.6
573	Zone-1	2	TRUE	60	200	60.04	200.04	140	341.8
574	Zone-1	2	TRUE	60	200	60	200	140	373.5
575	Zone-1	2	TRUE	60	200	60	200	140	375
576	Zone-1	4	TRUE	60	134.64	60	134.64	140	140
577	Zone-1	2	TRUE	60	200	60	200	140	438.5
578	Zone-1	2	TRUE	60	200	60.13	200.13	140	449.6
579	Zone-1	3	TRUE	60	200	60	200	140	260.6
580	Zone-1	4	TRUE	60	200	60.16	200.16	140	140.4
581	Zone-1	3	TRUE	60	200	60	200	140	309.6
582	Zone-1	2	TRUE	60	200	60.03	200.03	140	306.1
583	Zone-1	5	TRUE	60	199.56	60.19	199.75	140	140
584	Zone-1	2	TRUE	60	200	61.6	201.6	140	395.6
585	Zone-1	2	TRUE	60	200	60.93	200.93	140	354.8
586	Zone-1	2	TRUE	60	200	60	200	140	326.1
587	Zone-1	2	TRUE	60	200	60	200	140	419.1
588	Zone-1	2	TRUE	60	200	61.06	201.06	140	317.1
589	Zone-1	2	TRUE	60	200	60.93	200.93	140	328.9
590	Zone-1	3	TRUE	60	200	60	200	140	262.5
591	Zone-1	2	TRUE	60	200	60	200	140	366.8
592	Zone-1	3	TRUE	60	200	60.21	200.21	140	211.6
593	Zone-1	2	TRUE	60	200	60	200	140	365.1
594	Zone-1	2	TRUE	60	200	62	202	140	376.3
595	Zone-1	2	TRUE	60	200	60	200	140	384.7
596	Zone-1	2	TRUE	60	200	60.19	200.19	140	251.2
597	Zone-1	2	TRUE	60	200	60	200	140	418.7
598	Zone-1	3	TRUE	60	111.95	60	111.95	140	140.1
599	Zone-1	4	TRUE	60	137.32	60	137.32	140	140
600	Zone-1	4	TRUE	60	141.08	60	141.08	140	140
601	Zone-1	3	TRUE	60	169.2	60	169.2	140	140
602	Zone-1	2	TRUE	60	200	60	200	140	257.8
603	Zone-1	3	TRUE	60	200	60	200	140	217.7
604	Zone-1	2	TRUE	60	200	60	200	140	364.1
605	Zone-1	2	TRUE	60	200	60	200	140	381.2
606	Zone-1	2	TRUE	60	200	60.19	200.19	140	333
607	Zone-1	2	TRUE	60	200	60	200	140	257
608	Zone-1	2	TRUE	60	200	60.13	200.13	140	366
609	Zone-1	2	TRUE	60	200	60.13	200.13	140	275.8
610	Zone-1	3	TRUE	60	200	60.13	200.13	140	267.4
611	Zone-1	3	TRUE	60	200	60	200	140	207.1
612	Zone-1	4	TRUE	60	143.55	60	143.55	140	140
613	Zone-1	3	TRUE	60	74.91	60.09	75.01	140	140
614	Zone-1	4	TRUE	60	155.22	60.13	155.35	140	140
615	Zone-1	3	TRUE	60	86.83	60	86.83	140	140
616	Zone-1	2	TRUE	60	200	60	200	140	369.3
617	Zone-1	2	TRUE	60	200	60	200	140	325.6
618	Zone-1	2	TRUE	60	200	60	200	140	294.4
619	Zone-1	14	TRUE	60	112.87	60	112.87	140	140.1
620	Zone-1	14	TRUE	60	110.5	60	110.5	140	140.1
621	Zone-1	3	TRUE	60	200	60	200	140	195.6
622	Zone-1	3	TRUE	60	105.36	60	105.36	140	140.1
623	Zone-1	3	TRUE	60	69.3	60.13	69.44	140	140
624	Zone-1	3	TRUE	60	78.08	60	78.08	140	140
625	Zone-1	3	TRUE	60	84.6	60.19	84.79	140	140
626	Zone-1	3	TRUE	60	90.65	60	90.65	140	140.1
627	Zone-1	2	TRUE	60	200	60	200	140	391.3
628	Zone-1	3	TRUE	60	94.78	60	94.78	140	140.1

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
629	Zone-1	4	TRUE	60	112.77	60.19	112.96	140	140
630	Zone-1	2	TRUE	60	200	60	200	140	376.2
631	Zone-1	2	TRUE	60	200	60	200	140	384.5
635	Zone-1	2	TRUE	60	200	60	200	140	348.5
644	Zone-1	2	TRUE	60	200	60	200	140	358.9
645	Zone-1	3	TRUE	60	114.12	60.12	114.24	140	140.1
646	Zone-1	2	TRUE	60	200	60	200	140	351.1
647	Zone-1	2	TRUE	60	200	60	200	140	377.1
648	Zone-1	3	TRUE	60	200	60.25	200.25	140	163.2
649	Zone-1	6	TRUE	60	181.48	60	181.48	140	144.9
650	Zone-1	4	TRUE	60	145.95	60.25	146.2	140	140
651	Zone-1	4	TRUE	60	169.88	60.25	170.13	140	140
652	Zone-1	4	TRUE	60	199.85	60.25	200.1	140	140
653	Zone-1	3	TRUE	60	129.5	60.25	129.75	140	140.1
654	Zone-1	2	TRUE	60	200	60.3	200.3	140	375.4
655	Zone-1	2	TRUE	60	200	63.5	203.5	140	230.1
656	Zone-1	3	TRUE	60	200	60	200	140	219.7
657	Zone-1	2	TRUE	60	200	60.27	200.26	140	332.2
658	Zone-1	2	TRUE	60	200	60.35	200.35	140	375.7
659	Zone-1	3	TRUE	60	117.95	60	117.95	140	140
660	Zone-1	2	TRUE	60	200	60	200	140	348.9
661	Zone-1	2	TRUE	60	200	60	200	140	325.5
662	Zone-1	2	TRUE	60	200	60.19	200.19	140	348
663	Zone-1	2	TRUE	60	200	60.9	200.9	140	299.4
664	Zone-1	2	TRUE	60	200	60.06	200.06	140	313.2
665	Zone-1	3	TRUE	60	76.1	60.13	76.24	140	140
666	Zone-1	2	TRUE	60	200	60	200	140	353.2
667	Zone-1	2	TRUE	60	200	60.4	200.4	140	375.5
668	Zone-1	2	TRUE	60	200	60.4	200.4	140	373.6
669	Zone-1	2	TRUE	60	200	60.4	200.4	140	268.2
670	Zone-1	2	TRUE	60	200	60.49	200.49	140	276
671	Zone-1	4	TRUE	60	184.02	60	184.02	140	140
672	Zone-1	3	TRUE	60	200	60	200	140	250.7
673	Zone-1	2	TRUE	60	200	60.13	200.13	140	326.8
674	Zone-1	2	TRUE	60	200	60	200	140	310.2
675	Zone-1	3	TRUE	60	200	60	200	140	182.4
676	Zone-1	2	TRUE	60	200	60	200	140	312
677	Zone-1	3	TRUE	60	200	60.13	200.13	140	309.6
678	Zone-1	3	TRUE	60	200	60	200	140	212.4
679	Zone-1	3	TRUE	60	200	60	200	140	155.9
680	Zone-1	2	TRUE	60	200	60	200	140	354.7
681	Zone-1	3	TRUE	60	200	60	200	140	303.4
682	Zone-1	3	TRUE	60	200	60.66	200.66	140	298.5
683	Zone-1	3	TRUE	60	200	60	200	140	295.4
684	Zone-1	3	TRUE	60	200	60	200	140	291.2
685	Zone-1	3	TRUE	60	200	60	200	140	293.6
686	Zone-1	3	TRUE	60	200	60	200	140	290.2
687	Zone-1	2	TRUE	60	200	60	200	140	280.9
688	Zone-1	2	TRUE	60	200	60	200	140	282.4
689	Zone-1	2	TRUE	60	200	60.08	200.08	140	319.5
690	Zone-1	2	TRUE	60	200	60	200	140	283.3
691	Zone-1	2	TRUE	60	200	60.18	200.18	140	396.4
692	Zone-1	2	TRUE	60	200	60.08	200.08	140	259.7
693	Zone-1	2	TRUE	60	200	60.08	200.08	140	257
694	Zone-1	2	TRUE	60	200	60	200	140	269.9
695	Zone-1	2	TRUE	60	200	60	200	140	331.9
696	Zone-1	2	TRUE	60	200	60	200	140	331.8
697	Zone-1	2	TRUE	60	200	60	200	140	326.1
698	Zone-1	2	TRUE	60	200	60	200	140	328.5
699	Zone-1	2	TRUE	60	200	60	200	140	343.6
700	Zone-1	2	TRUE	60	200	60	200	140	365.8

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
701	Zone-1	2	TRUE	60	200	60	200	140	379.6
702	Zone-1	2	TRUE	60	200	60.55	200.55	140	382.1
703	Zone-1	3	TRUE	60	200	60.44	200.44	140	198.1
704	Zone-1	2	TRUE	60	200	60	200	140	311.1
705	Zone-1	2	TRUE	60	200	60.56	200.56	140	285
706	Zone-1	2	TRUE	60	200	60	200	140	277.5
707	Zone-1	2	TRUE	60	200	60.35	200.35	140	355.9
708	Zone-1	2	TRUE	60	200	60	200	140	371.9
709	Zone-1	2	TRUE	60	200	60	200	140	370.8
710	Zone-1	2	TRUE	60	200	60	200	140	366.1
711	Zone-1	3	TRUE	60	200	60	200	140	224.1
712	Zone-1	2	TRUE	60	200	60.3	200.3	140	375.7
713	Zone-1	4	TRUE	60	144.22	60	144.22	140	140
714	Zone-1	2	TRUE	60	200	60	200	140	381.1
720	Zone-1	2	TRUE	60	200	60.6	200.6	140	353.3
721	Zone-1	2	TRUE	60	200	60.4	200.4	140	378.1
722	Zone-1	2	TRUE	60	200	60.55	200.55	140	309.3
723	Zone-1	3	TRUE	60	80.94	60.4	81.34	140	140
724	Zone-1	2	TRUE	60	200	60.4	200.4	140	384.2
725	Zone-1	3	TRUE	60	118.71	60.42	119.13	140	140.1
726	Zone-1	2	TRUE	60	200	60	200	140	399.8
727	Zone-1	2	TRUE	60	200	60	200	140	293.2
728	Zone-1	2	TRUE	60	200	60	200	140	284
729	Zone-1	2	TRUE	60	200	60	200	140	354.4
730	Zone-1	2	TRUE	60	200	60	200	140	292.5
731	Zone-1	2	TRUE	60	200	60.17	200.17	140	243.3
732	Zone-1	4	TRUE	60	190.3	60	190.3	140	140
733	Zone-1	3	TRUE	60	200	60	200	140	204.1
734	Zone-1	3	TRUE	60	200	60	200	140	195.2
735	Zone-1	3	TRUE	60	200	60	200	140	203.8
736	Zone-1	4	TRUE	60	132.96	60	132.96	140	140
737	Zone-1	3	TRUE	60	200	60	200	140	174.6
738	Zone-1	4	TRUE	60	156.57	60	156.57	140	140
739	Zone-1	2	TRUE	60	200	60	200	140	256.7
740	Zone-1	3	TRUE	60	200	60	200	140	242.4
741	Zone-1	3	TRUE	60	200	60.35	200.35	140	211.1
742	Zone-1	3	TRUE	60	200	60	200	140	200.1
743	Zone-1	4	TRUE	60	110.04	60.35	110.39	140	140
754	Zone-1	2	TRUE	60	200	60	200	140	191.5
755	Zone-1	2	TRUE	60	200	60	200	140	196.1
757	Zone-1	2	TRUE	60	200	60	200	140	195.2
758	Zone-1	2	TRUE	60	200	60	200	140	187
759	Zone-1	2	TRUE	60	200	60	200	140	194.4
762	Zone-1	2	TRUE	60	200	60	200	140	405.4
763	Zone-1	2	TRUE	60	200	60	200	140	406.5
768	Zone-1	2	TRUE	60	200	60	200	140	403.3
770	Zone-1	2	TRUE	60	200	60	200	140	406.8
771	Zone-1	3	TRUE	60	200	60	200	140	233.3
772	Zone-1	2	TRUE	60	200	60	200	140	187.6
777	Zone-1	2	TRUE	60	200	60	200	140	195.1
778	Zone-1	4	TRUE	60	119.19	60	119.19	140	140
779	Zone-1	2	TRUE	60	200	60	200	140	420.1
780	Zone-1	2	TRUE	60	200	60.71	200.71	140	440.7
781	Zone-1	2	TRUE	60	200	60	200	140	447.6
782	Zone-1	2	TRUE	60	200	60	200	140	472.1
783	Zone-1	2	TRUE	60	200	60	200	140	472
784	Zone-1	2	TRUE	60	200	60.12	200.12	140	465.2
785	Zone-1	2	TRUE	60	200	60.12	200.12	140	462.4
786	Zone-1	2	TRUE	60	200	60.12	200.12	140	463.5
787	Zone-1	2	TRUE	60	200	60.12	200.12	140	446.1
788	Zone-1	2	TRUE	60	200	63	203	140	456.8

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
789	Zone-1	2	TRUE	60	200	60.67	200.67	140	459.8
790	Zone-1	2	TRUE	60	200	60	200	140	441.8
791	Zone-1	2	TRUE	60	200	60	200	140	441.3
792	Zone-1	2	TRUE	60	200	60	200	140	433.3
793	Zone-1	2	TRUE	60	200	60	200	140	446
795	Zone-1	2	TRUE	60	200	60.12	200.12	140	434.4
796	Zone-1	2	TRUE	60	200	60.12	200.12	140	444.9
797	Zone-1	2	TRUE	60	200	60	200	140	403.6
798	Zone-1	2	TRUE	60	200	60	200	140	336.3
799	Zone-1	3	TRUE	60	200	60	200	140	195.5
800	Zone-1	2	TRUE	60	200	60	200	140	321.7
801	Zone-1	2	TRUE	60	200	60	200	140	360.7
802	Zone-1	2	TRUE	60	200	60.51	200.51	140	349.4
803	Zone-1	2	TRUE	60	200	60	200	140	318.4
804	Zone-1	2	TRUE	60	200	60.46	200.46	140	363.6
805	Zone-1	2	TRUE	60	200	60	200	140	344.4
806	Zone-1	4	TRUE	60	192.34	60	192.34	140	140
807	Zone-1	2	TRUE	60	200	60	200	140	341.6
808	Zone-1	2	TRUE	60	200	62.42	202.42	140	384.5
809	Zone-1	2	TRUE	60	200	60	200	140	342.1
810	Zone-1	2	TRUE	60	200	60.31	200.31	140	231.9
811	Zone-1	3	TRUE	60	108.61	60.28	108.9	140	140.1
812	Zone-1	3	TRUE	60	200	60	200	140	203.8
813	Zone-1	3	TRUE	60	114.91	60.31	115.22	140	140.1
814	Zone-1	2	TRUE	60	200	60	200	140	330.4
815	Zone-1	2	TRUE	60	200	60	200	140	259.3
816	Zone-1	2	TRUE	60	200	60.55	200.55	140	206.2
817	Zone-1	3	TRUE	60	200	60.55	200.55	140	188.3
818	Zone-1	2	TRUE	60	200	60	200	140	266.3
819	Zone-1	2	TRUE	60	200	60.56	200.56	140	330.8
820	Zone-1	2	TRUE	60	200	60	200	140	339.8
821	Zone-1	2	TRUE	60	200	60	200	140	321.3
822	Zone-1	2	TRUE	60	200	60.71	200.71	140	246.6
823	Zone-1	2	TRUE	60	200	60	200	140	329
824	Zone-1	3	TRUE	60	200	60.97	200.97	140	169.8
825	Zone-1	2	TRUE	60	200	60	200	140	340.1
826	Zone-1	2	TRUE	60	200	60	200	140	354.3
827	Zone-1	3	TRUE	60	96.36	60	96.36	140	140
828	Zone-1	2	TRUE	60	200	60.6	200.6	140	378.7
829	Zone-1	2	TRUE	60	200	60.6	200.6	140	331.7
830	Zone-1	4	TRUE	60	189	60	189	140	140
831	Zone-1	2	TRUE	60	200	60	200	140	312.2
832	Zone-1	4	TRUE	60	139.54	60	139.54	140	140
833	Zone-1	4	TRUE	60	113.36	61	114.36	140	140
834	Zone-1	2	TRUE	60	200	60	200	140	369
835	Zone-1	2	TRUE	60	200	60.35	200.35	140	302.7
836	Zone-1	2	TRUE	60	200	60	200	140	354.4
837	Zone-1	2	TRUE	60	200	60	200	140	355
838	Zone-1	2	TRUE	60	200	60	200	140	343.4
839	Zone-1	2	TRUE	60	200	60	200	140	324
840	Zone-1	2	TRUE	60	200	60	200	140	300.8
841	Zone-1	2	TRUE	60	200	60	200	140	296.5
842	Zone-1	3	TRUE	60	74.97	60.4	75.37	140	140
843	Zone-1	2	TRUE	60	200	60	200	140	235.3
844	Zone-1	2	TRUE	60	200	60	200	140	216.7
845	Zone-1	2	TRUE	60	200	60.7	200.7	140	332.2
846	Zone-1	2	TRUE	60	200	60.54	200.54	140	231.9
847	Zone-1	2	TRUE	60	200	60.28	200.28	140	352.3
848	Zone-1	4	TRUE	60	175.17	60.59	175.76	140	140
849	Zone-1	2	TRUE	60	200	60	200	140	360.9
850	Zone-1	2	TRUE	60	200	60.15	200.15	140	363

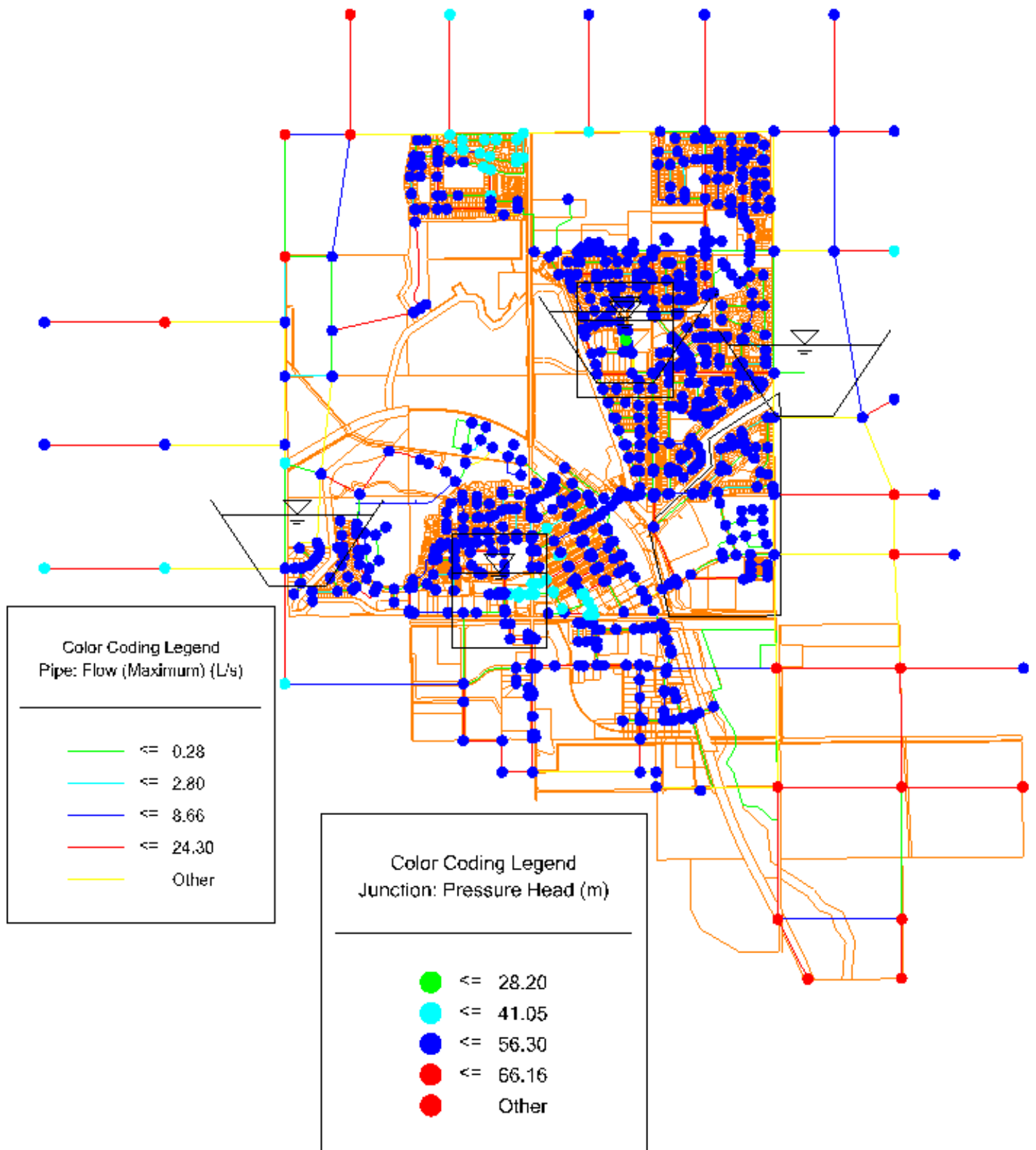
Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
851	Zone-1	3	TRUE	60	96.72	60.33	97.05	140	140.1
852	Zone-1	2	TRUE	60	200	60.13	200.13	140	288.6
853	Zone-1	3	TRUE	60	200	60	200	140	213.1
854	Zone-1	3	TRUE	60	87.35	60	87.35	140	140
855	Zone-1	2	TRUE	60	200	60	200	140	266.6
856	Zone-1	2	TRUE	60	200	60	200	140	332.6
857	Zone-1	2	TRUE	60	200	60.44	200.44	140	306.4
858	Zone-1	3	TRUE	60	94.06	60.28	94.34	140	140.1
859	Zone-1	2	TRUE	60	200	60.18	200.18	140	365.5
860	Zone-1	2	TRUE	60	200	60	200	140	366.8
861	Zone-1	4	TRUE	60	127.09	60.44	127.53	140	140
862	Zone-1	3	TRUE	60	200	60.5	200.5	140	191.1
863	Zone-1	3	TRUE	60	200	60.44	200.44	140	220.3
864	Zone-1	2	TRUE	60	200	60.18	200.18	140	361.7
A	Zone-1	2	TRUE	60	200	60	200	140	322.2
B	Zone-1	2	TRUE	60	200	60	200	140	377.7
J-1	Zone-1	2	TRUE	60	200	60	200	140	320.3
J-2	Zone-1	2	TRUE	60	200	62.88	202.88	140	334.4
J-3	Zone-1	2	TRUE	60	200	61.44	201.44	140	364.7
J-4	Zone-1	2	TRUE	60	200	60	200	140	270.9
J-866	Zone-1	2	TRUE	60	200	60	200	140	366.2
J-867	Zone-1	2	TRUE	60	200	60.98	200.98	140	334.3
J-868	Zone-1	2	TRUE	60	200	60	200	140	336
J-869	Zone-1	2	TRUE	60	200	60	200	140	258.3
J-870	Zone-1	2	TRUE	60	200	60	200	140	243
J-871	Zone-1	2	TRUE	60	200	60	200	140	276.6
J-872	Zone-1	4	TRUE	60	197.9	60	197.9	140	140
J-873	Zone-1	2	TRUE	60	200	60	200	140	363.2
J-874	Zone-1	2	TRUE	60	200	60	200	140	320
J-875	Zone-1	2	TRUE	60	200	60	200	140	331.6
J-876	Zone-1	2	TRUE	60	200	61.2	201.2	140	375.5
J-877	Zone-1	2	TRUE	60	200	60.92	200.92	140	285.7
J-878	Zone-1	4	TRUE	60	157.41	60	157.41	140	140
J-879	Zone-1	2	TRUE	60	200	60	200	140	287.6
J-880	Zone-1	2	TRUE	60	200	60	200	140	453.9
J-881	Zone-1	4	TRUE	60	142.49	60	142.49	140	140
J-882	Zone-1	3	TRUE	60	96.22	60	96.22	140	140.1
J-883	Zone-1	3	TRUE	60	80.46	60	80.46	140	140
J-884	Zone-1	2	TRUE	60	200	60	200	140	500.4
J-885	Zone-1	4	TRUE	60	132.56	60	132.56	140	140
J-886	Zone-1	3	TRUE	60	110.25	60	110.25	140	140.2
J-887	Zone-1	3	TRUE	60	108.69	60	108.69	140	140.2
J-888	Zone-1	3	TRUE	60	110.07	60	110.07	140	140.2
J-889	Zone-1	4	TRUE	60	115.99	60	115.99	140	140
J-890	Zone-1	4	TRUE	60	112.27	60	112.27	140	140
J-891	Zone-1	2	TRUE	60	200	60	200	140	382.3
J-892	Zone-1	2	TRUE	60	200	60	200	140	381.6
J-893	Zone-1	2	TRUE	60	200	60	200	140	383.5
J-894	Zone-1	2	TRUE	60	200	66.8	206.8	140	421
J-899	Zone-1	2	TRUE	60	200	60.6	200.6	140	310.8
J-900	Zone-1	2	TRUE	60	200	60	200	140	295.7
J-904	Zone-1	2	TRUE	60	200	60	200	140	324.6
J-905	Zone-1	2	TRUE	60	200	60.4	200.4	140	331.4
J-906	Zone-1	3	TRUE	60	200	60	200	140	242.1
J-908	Zone-1	3	TRUE	60	200	60	200	140	248.1
J-919	Zone-1	3	TRUE	60	200	60.2	200.2	140	170.4
J-920	Zone-1	4	TRUE	60	179.81	60.6	180.41	140	140
J-921	Zone-1	4	TRUE	60	177.27	60.73	178	140	140
J-922	Zone-1	4	TRUE	60	185.11	60.3	185.41	140	140
J-923	Zone-1	2	TRUE	60	200	60.1	200.1	140	341.6
J-924	Zone-1	2	TRUE	60	200	60.6	200.6	140	272.1

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
J-925	Zone-1	3	TRUE	60	200	60.7	200.7	140	204.4
J-928	Zone-1	2	TRUE	60	200	60	200	140	287.5
J-931	Zone-1	2	TRUE	60	200	60	200	140	343.5
J-935	<None>	3	TRUE	60	200	66.55	206.55	140	177
J-936	<None>	4	TRUE	60	152.12	66.55	158.67	140	140
J-937	<None>	2	TRUE	60	200	60	200	140	385.8
J-938	<None>	2	TRUE	60	200	60	200	140	402.9
J-939	<None>	22	TRUE	60	161.57	66.55	168.12	140	140.9
J-940	<None>	4	TRUE	60	113.17	66.55	119.72	140	140
J-941	<None>	2	TRUE	60	200	60	200	140	395.5
J-942	<None>	2	TRUE	60	200	60	200	140	447.2
J-943	<None>	2	TRUE	60	200	60	200	140	489.7
J-944	<None>	2	TRUE	60	200	66.55	206.55	140	344.1
J-945	<None>	4	TRUE	60	192.84	66.55	199.39	140	140
J-946	<None>	2	TRUE	60	200	60	200	140	545.8
J-947	<None>	2	TRUE	60	200	60	200	140	568.9
J-948	<None>	2	TRUE	60	200	66.55	206.55	140	561.4
J-949	<None>	4	TRUE	60	191.91	66.55	198.46	140	140
J-950	<None>	2	TRUE	60	200	66.55	206.55	140	485.7
J-951	<None>	2	TRUE	60	200	66.55	206.55	140	422.7
J-952	<None>	2	TRUE	60	200	66.55	206.55	140	403
J-953	<None>	3	TRUE	60	200	66.55	206.55	140	176.4
J-955	<None>	2	TRUE	60	200	60	200	140	357.1
J-956	<None>	4	TRUE	60	156.3	66.55	162.85	140	140
J-957	<None>	2	TRUE	60	200	66.55	206.55	140	201.9
J-958	<None>	2	TRUE	60	200	60	200	140	398.3
J-959	<None>	2	TRUE	60	200	60	200	140	435.6
J-960	<None>	2	TRUE	60	200	60	200	140	422.2
J-961	<None>	2	TRUE	60	200	66.55	206.55	140	258.9
J-962	<None>	2	TRUE	60	200	60	200	140	374.9
J-963	<None>	4	TRUE	60	146.92	66.55	153.47	140	140
J-964	<None>	2	TRUE	60	200	60	200	140	394.7
J-965	<None>	4	TRUE	60	185.89	66.55	192.44	140	140
J-966	<None>	2	TRUE	60	200	60	200	140	478.9
J-967	<None>	2	TRUE	60	200	60	200	140	457.9
J-968	<None>	2	TRUE	60	200	60	200	140	498.8
J-969	<None>	2	TRUE	60	200	66.55	206.55	140	311.7
J-970	<None>	2	TRUE	60	200	60	200	140	383.4
J-971	<None>	2	TRUE	60	200	66.55	206.55	140	250.9
J-973	<None>	2	TRUE	60	200	60	200	140	505
J-974	<None>	2	TRUE	60	200	66.55	206.55	140	316.7
J-975	<None>	2	TRUE	60	200	66.55	206.55	140	520.8
J-976	<None>	2	TRUE	60	200	66.55	206.55	140	529.9
J-977	<None>	2	TRUE	60	200	66.55	206.55	140	508.5
J-978	<None>	4	TRUE	60	152.82	66.55	159.37	140	140
J-979	<None>	2	TRUE	60	200	66.55	206.55	140	297.4
J-981	<None>	2	TRUE	60	200	60	200	140	421.4
J-982	<None>	2	TRUE	60	200	60	200	140	416.2
J-983	<None>	2	TRUE	60	200	60	200	140	418.6
J-984	<None>	2	TRUE	60	200	60	200	140	482.5
J-985	<None>	2	TRUE	60	200	60	200	140	466.8
J-986	<None>	2	TRUE	60	200	66.55	206.55	140	528.5
J-987	<None>	2	TRUE	60	200	66.55	206.55	140	473.2
J-988	<None>	2	TRUE	60	200	66.55	206.55	140	357
J-989	<None>	2	TRUE	60	200	66.55	206.55	140	490.3
J-990	<None>	2	TRUE	60	200	60	200	140	440.4
J-991	<None>	2	TRUE	60	200	60	200	140	368.1
J-992	<None>	2	TRUE	60	200	60	200	140	370.3
J-993	<None>	3	TRUE	60	200	66.55	206.55	140	169.9
J-994	<None>	3	TRUE	60	200	66.55	206.55	140	145.6

Appendix A6

2046 Peak Hour Demand
Scenario (560 L/s)

Appendix A6 – 2046 Peak Hour Demand Scenario (560 L/sec)



ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
103	860	979.78	Zone-1	0.00	1,021.41	407.4
104	126	977.1	Zone-1	0.00	1,021.49	434.4
105	628	979.5	Zone-1	0.00	1,023.13	427
107	220	974.5	Zone-1	0.16	1,020.83	453.4
108	528	976.9	Zone-1	0.10	1,022.39	445.2
109	79	978.3	Zone-1	0.25	1,018.96	398
110	166	976.3	Zone-1	0.13	1,020.07	428.4
111	J-1	977	Zone-1	0.00	1,022.86	448.8
112	145	977.3	Zone-1	0.00	1,020.48	422.6
113	464	979.78	Zone-1	0.00	1,020.88	402.3
114	380	980.9	Zone-1	0.19	1,023.23	414.3
115	849	979.44	Zone-1	0.00	1,021.29	409.6
116	172	977	Zone-1	0.40	1,020.10	421.8
117	809	977	Zone-1	0.00	1,020.99	430.5
118	120	977.8	Zone-1	0.00	1,022.02	432.7
119	546	978.6	Zone-1	0.19	1,022.33	428
120	257	979.1	Zone-1	0.00	1,025.27	451.8
121	358	978.5	Zone-1	0.00	1,023.13	436.8
122	295	974.5	Zone-1	0.00	1,020.20	447.2
124	72	976.8	Zone-1	0.00	1,019.00	413
125	69	977.4	Zone-1	0.93	1,018.89	406.1
126	405	980.7	Zone-1	0.00	1,023.26	416.6
127	560	971.3	Zone-1	0.11	1,018.98	466.7
128	478	978	Zone-1	0.40	1,023.93	449.5
129	227	975.1	Zone-1	0.10	1,022.52	464.1
130	100	976	Zone-1	0.24	1,019.15	422.3
131	491	979.2	Zone-1	0.00	1,022.93	428
132	187	974	Zone-1	0.00	1,020.25	452.7
133	616	972.45	Zone-1	0.00	1,020.06	466
134	121	977.3	Zone-1	0.21	1,021.67	434.2
135	280	975.4	Zone-1	0.00	1,022.68	462.7
136	364	979.5	Zone-1	0.15	1,023.13	427
137	155	976.4	Zone-1	0.00	1,019.43	421.1
138	411	981.5	Zone-1	0.14	1,022.91	405.3
139	604	978	Zone-1	0.00	1,022.52	435.8
140	699	974.69	Zone-1	0.00	1,019.99	443.3
141	709	978.5	Zone-1	0.00	1,021.02	416.1
142	691	979.78	Zone-1	0.18	1,023.71	430
143	657	978.5	Zone-1	0.26	1,022.28	428.5
144	340	976	Zone-1	0.51	1,022.87	458.7
145	176	977.7	Zone-1	0.32	1,020.23	416.2
146	844	977	Zone-1	0.00	1,020.99	430.5
147	99	975.3	Zone-1	0.11	1,019.13	429
148	662	979	Zone-1	0.19	1,021.36	414.6
149	789	967.8	Zone-1	0.67	1,020.73	518

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
150	796	966.8	Zone-1	0.12	1,020.85	529
151	599	981.5	Zone-1	0.00	1,022.91	405.3
152	254	979	Zone-1	0.00	1,027.56	475.3
153	159	974.9	Zone-1	0.29	1,019.91	440.5
154	62	976.3	Zone-1	0.93	1,018.13	409.4
155	59	975.7	Zone-1	0.00	1,018.82	422
156	497	978	Zone-1	0.00	1,022.64	436.9
157	134	978.5	Zone-1	0.00	1,020.66	412.6
158	476	977.5	Zone-1	0.00	1,024.10	456.1
159	76	978.58	Zone-1	0.00	1,020.84	413.6
160	669	977.5	Zone-1	0.40	1,022.83	443.6
161	830	965.9	Zone-1	0.00	1,019.92	528.7
162	382	981	Zone-1	0.24	1,023.16	412.6
163	465	966.9	Zone-1	0.00	1,019.92	518.9
164	711	978.5	Zone-1	0.00	1,021.02	416.1
165	678	976.8	Zone-1	0.00	1,017.63	399.6
166	572	979.5	Zone-1	0.00	1,027.26	467.4
167	779	968.3	Zone-1	0.00	1,020.83	514.1
168	505	977	Zone-1	0.66	1,022.63	446.6
169	264	978.3	Zone-1	0	1,022.71	434.7
170	7	979.4	Zone-no fire flow	0.00	992.25	125.8
171	665	972.4	Zone-1	0.13	1,017.90	445.3
172	550	978.2	Zone-1	0.19	1,022.36	432.2
173	355	980	Zone-1	0.00	1,023.13	422.1
174	704	983	Zone-1	0.00	1,020.99	371.8
175	726	978	Zone-1	0.00	1,022.06	431.2
176	359	978.5	Zone-1	0.00	1,023.13	436.8
177	311	977	Zone-1	0.19	1,023.06	450.8
178	304	977	Zone-1	0.19	1,023.13	451.5
179	194	976.5	Zone-1	0.00	1,021.18	437.3
180	32	979.78	Zone-1	0.00	1,022.84	421.4
181	259	978.2	Zone-1	0.16	1,024.36	451.7
182	852	979.29	Zone-1	0.13	1,021.29	411.1
183	555	970.2	Zone-1	0.00	1,019.96	487
184	283	976.7	Zone-1	0.06	1,022.82	451.4
185	701	972.33	Zone-1	0.00	1,019.98	466.4
186	689	976	Zone-1	0.08	1,019.98	430.4
187	89	973	Zone-1	0.31	1,019.05	450.7
188	363	978.5	Zone-1	0.00	1,023.13	436.8
189	650	977	Zone-1	0.25	1,022.49	445.2
190	39	974.4	Zone-1	0.00	1,018.29	429.5
191	501	978	Zone-1	0.00	1,022.78	438.2
192	138	978.5	Zone-1	0.00	1,020.59	411.9
193	675	973.8	Zone-1	0.00	1,017.67	429.4
194	221	974.5	Zone-1	0.00	1,020.83	453.4

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
195	707	978.5	Zone-1	0.35	1,020.82	414.2
196	564	976	Zone-1	0.00	1,014.04	372.3
197	771	977.8	Zone-1	0.00	1,009.41	309.3
198	735	974.5	Zone-1	0.00	1,020.83	453.4
199	379	980.9	Zone-1	0.00	1,023.24	414.3
200	262	977.11	Zone-1	0.00	1,020.42	423.9
201	154	976.3	Zone-1	0.00	1,019.72	424.9
202	42	976	Zone-1	0.00	1,017.66	407.7
203	249	978	Zone-1	0	1,027.51	484.6
204	29	978.1	Zone-no fire flow	0.00	992.22	138.2
205	404	980.9	Zone-1	0.00	1,023.24	414.4
206	52	975.8	Zone-1	0.11	1,016.51	398.4
207	49	974.3	Zone-1	0.00	1,018.30	430.6
208	346	978.3	Zone-1	0.13	1,023.00	437.4
209	333	975.5	Zone-1	0.00	1,022.86	463.5
210	273	977.11	Zone-1	0.00	1,020.41	423.8
211	473	977.4	Zone-1	0.00	1,024.71	463
212	186	973.5	Zone-1	0.00	1,020.01	455.2
214	57	975.7	Zone-1	0.00	1,018.81	421.9
215	565	976	Zone-1	0.00	1,014.18	373.6
216	851	979.29	Zone-1	0.33	1,021.29	411.1
217	824	978.35	Zone-1	0.97	1,021.08	418.2
218	146	977.3	Zone-1	0.11	1,020.49	422.7
219	442	980.7	Zone-1	0.00	1,023.37	417.6
220	285	975.2	Zone-1	0.16	1,022.90	466.8
221	373	969	Zone-1	0.27	1,019.92	498.3
222	376	980.4	Zone-1	0.00	1,023.17	418.6
223	66	974	Zone-1	0.00	1,019.07	441.1
224	486	978	Zone-1	0.00	1,023.38	444.1
225	530	977.4	Zone-1	0.19	1,022.36	440
226	213	973.8	Zone-1	0.16	1,020.83	460.3
227	391	980	Zone-1	0.00	1,023.04	421.3
228	845	979.72	Zone-1	0.70	1,021.56	409.6
229	664	983.1	Zone-1	0.06	1,020.99	370.8
230	313	977	Zone-1	0.19	1,023.09	451
231	850	979.29	Zone-1	0.15	1,021.21	410.4
232	839	977.99	Zone-1	0.00	1,020.42	415.3
233	778	973.5	Zone-1	0.00	1,019.98	454.9
234	149	976.3	Zone-1	0.00	1,020.21	429.7
235	679	976.4	Zone-1	0.00	1,017.63	403.5
236	365	979.5	Zone-1	0.00	1,023.13	427
237	140	977	Zone-1	0.00	1,020.62	426.9
239	46	976.2	Zone-1	0.13	1,015.27	382.4
240	71	976.8	Zone-1	0.00	1,018.98	412.8
241	315	975	Zone-1	0.00	1,022.99	469.7

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
242	533	977.8	Zone-1	0.25	1,022.33	435.8
243	517	977	Zone-1	0.19	1,022.50	445.3
244	255	977.5	Zone-1	0.00	1,027.39	488.3
245	41	976	Zone-1	0.24	1,017.64	407.5
246	274	975.5	Zone-1	0.14	1,022.49	459.9
247	537	978.97	Zone-1	0.25	1,022.29	423.9
248	822	980.52	Zone-1	0.71	1,021.76	403.6
249	504	977	Zone-1	2.85	1,022.64	446.7
250	361	979.78	Zone-1	0.00	1,021.50	408.3
251	211	972.9	Zone-1	0.00	1,020.83	469.1
252	164	976.3	Zone-1	0.00	1,020.00	427.7
253	713	978.5	Zone-1	0.00	1,020.82	414.2
254	450	979.4	Zone-1	0.21	1,023.67	433.3
255	136	978.5	Zone-1	0.00	1,020.61	412.2
256	139	979.78	Zone-1	0.05	1,021.89	412.1
257	462	979	Zone-1	0.16	1,026.03	460.3
258	147	977.6	Zone-1	0.00	1,020.36	418.5
259	736	974.5	Zone-1	0.00	1,020.83	453.4
260	445	980.2	Zone-1	0.24	1,023.36	422.4
261	243	976	Zone-1	0.19	1,025.15	481
262	823	977.28	Zone-1	0.00	1,021.07	428.6
263	125	977.5	Zone-1	1.02	1,021.02	425.9
264	272	975.8	Zone-1	0.09	1,022.49	456.9
265	204	974.5	Zone-1	0.00	1,020.35	448.7
266	696	976	Zone-1	0.00	1,019.99	430.5
267	544	970.1	Zone-1	0.00	1,019.96	487.9
268	862	979.42	Zone-1	0.50	1,021.75	414.2
269	455	979	Zone-1	0.00	1,023.67	437.2
270	531	977.6	Zone-1	0.25	1,022.34	437.9
271	618	980.2	Zone-1	0.00	1,022.90	417.9
272	589	977.8	Zone-1	0.93	1,018.90	402.3
273	173	976.2	Zone-1	0.00	1,020.54	434
274	400	980	Zone-1	0.26	1,023.10	421.8
275	534	977.8	Zone-1	0.00	1,022.32	435.7
276	293	977	Zone-1	0.00	1,023.39	454
277	740	973.8	Zone-1	0.00	1,020.83	460.3
278	595	976	Zone-1	0.00	1,022.13	451.4
279	235	975.2	Zone-1	0.24	1,024.16	479.1
280	611	976.2	Zone-1	0.00	1,017.40	403.3
281	820	983	Zone-1	0.00	1,020.89	370.8
282	674	974.4	Zone-1	0.00	1,017.67	423.5
283	432	979.2	Zone-1	0.10	1,023.30	431.6
284	575	977.01	Zone-1	0.00	1,020.45	425.2
285	569	977	Zone-1	0.00	1,023.27	452.9
286	702	978.1	Zone-1	0.55	1,022.19	431.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
287	291	975.8	Zone-1	0.00	1,023.24	464.3
288	671	973.5	Zone-1	0.00	1,019.98	454.9
289	45	975.9	Zone-1	0.00	1,015.29	385.5
290	192	975.1	Zone-1	0.00	1,020.71	446.3
291	728	984.5	Zone-1	0.00	1,020.99	357.1
292	279	975.6	Zone-1	0.09	1,022.61	460.1
293	585	975.7	Zone-1	0.93	1,018.73	421.2
294	621	980.5	Zone-1	0.00	1,022.91	415
295	388	980.4	Zone-1	0.10	1,023.04	417.3
296	19	978.1	Zone-no fire flow	0.00	1,033.69	544
297	326	976.3	Zone-1	0.00	1,022.89	456
298	424	966.9	Zone-1	0.00	1,019.92	518.9
299	788	966.4	Zone-1	3.00	1,020.82	532.6
300	399	980	Zone-1	0.00	1,023.09	421.7
301	658	978.5	Zone-1	0.35	1,022.37	429.3
302	162	976.2	Zone-1	0.27	1,020.55	434.1
303	484	978.1	Zone-1	0.16	1,023.51	444.4
304	522	976.6	Zone-1	0.00	1,022.46	448.8
305	553	977.11	Zone-1	0.00	1,020.44	424.1
306	101	975	Zone-1	0.10	1,019.13	431.9
307	246	976.1	Zone-1	0.00	1,027.23	500.4
308	629	979.5	Zone-1	0.19	1,023.13	427
309	612	974.5	Zone-1	0.00	1,020.17	447
310	398	979.9	Zone-1	0.31	1,023.06	422.4
311	278	975.6	Zone-1	0.00	1,022.58	459.8
312	409	981.5	Zone-1	0.00	1,022.91	405.3
313	233	976.5	Zone-1	0.16	1,023.33	458.3
314	183	978	Zone-1	0.00	1,020.20	413
315	436	980.2	Zone-1	0.00	1,023.31	421.9
316	838	977.99	Zone-1	0.00	1,020.42	415.3
317	814	979.88	Zone-1	0.00	1,021.32	405.5
318	581	976	Zone-1	0.00	1,017.25	403.7
319	649	976.5	Zone-1	0.00	1,022.49	450.1
320	47	971.7	Zone-1	0.00	1,019.00	462.9
321	269	976	Zone-1	0.00	1,022.27	452.8
322	724	978	Zone-1	0.40	1,022.14	432
323	597	970.5	Zone-1	0.00	1,019.98	484.3
324	342	977	Zone-1	0.36	1,022.90	449.2
325	185	978	Zone-1	0.35	1,020.21	413.1
326	366	979.5	Zone-1	0.00	1,023.13	427
327	840	977.99	Zone-1	0.00	1,020.43	415.4
328	549	978.2	Zone-1	0.00	1,022.36	432.2
329	487	967.12	Zone-1	0.00	1,019.92	516.8
330	193	976.5	Zone-1	0.00	1,020.84	433.9
331	56	971.7	Zone-1	0.00	1,019.00	462.9

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
332	587	970.4	Zone-1	0.00	1,019.98	485.3
333	360	978.5	Zone-1	0.13	1,023.13	436.8
334	386	980.7	Zone-1	0.08	1,023.05	414.5
335	265	977	Zone-1	0.14	1,022.04	440.8
336	113	977	Zone-1	0.00	1,011.57	338.3
337	460	978.4	Zone-1	0.16	1,024.70	453.1
338	576	970.3	Zone-1	0.00	1,019.97	486.1
339	184	976.2	Zone-1	0.00	1,020.54	433.9
340	78	977.6	Zone-1	0.16	1,018.98	405
341	739	977.5	Zone-1	0.00	1,020.77	423.5
342	559	972.49	Zone-1	0.00	1,019.99	464.9
344	394	980	Zone-1	0.08	1,023.05	421.3
345	B	977	Zone-1	0.00	1,022.82	448.5
346	469	979.3	Zone-1	0.00	1,032.00	515.7
347	785	966.7	Zone-1	0.12	1,020.85	530
348	579	972.5	Zone-1	0.00	1,017.82	443.6
349	33	972.01	Zone-1	0.00	1,019.98	469.5
350	684	976.72	Zone-1	0	1,017.59	400
351	28	978.1	Zone-no fire flow	0.00	992.22	138.2
352	217	977.11	Zone-1	0.00	1,020.44	424.1
353	864	979.55	Zone-1	0.18	1,021.33	409
354	43	978.5	Zone-1	0.00	1,020.90	415
355	526	976.9	Zone-1	0.00	1,022.39	445.2
356	215	973.8	Zone-1	0.00	1,020.83	460.3
357	36	971.6	Zone-1	0.09	1,018.98	463.7
358	384	967	Zone-1	0.00	1,019.89	517.7
359	61	977.2	Zone-1	0.00	1,018.75	406.6
360	387	980.7	Zone-1	0.10	1,023.04	414.3
361	251	979.2	Zone-1	0.00	1,020.37	402.9
362	433	979.8	Zone-1	0.19	1,023.31	425.8
363	150	976.3	Zone-1	0.00	1,020.10	428.7
364	182	978.5	Zone-1	0.40	1,020.19	408
365	673	977.5	Zone-1	0.13	1,020.65	422.3
366	833	974.5	Zone-1	1.00	1,020.83	453.4
367	498	978	Zone-1	0.00	1,022.64	436.9
368	324	975.3	Zone-1	0.00	1,022.92	466.1
369	784	967	Zone-1	0.12	1,020.86	527.1
370	174	976	Zone-1	0.08	1,020.10	431.6
371	722	977.87	Zone-1	0.55	1,022.26	434.4
372	815	983	Zone-1	0.00	1,020.96	371.5
373	620	980.2	Zone-1	0.00	1,022.90	417.9
374	48	974.3	Zone-1	0.00	1,018.72	434.7
375	787	966.8	Zone-1	0.12	1,020.85	529
376	520	976.7	Zone-1	0.17	1,022.48	448
377	600	981.5	Zone-1	0.00	1,022.91	405.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
379	111	976	Zone-1	0.00	1,013.49	366.9
380	762	974.9	Zone-1	0.00	1,024.33	483.8
381	63	976.3	Zone-1	0.00	1,018.12	409.3
382	791	969.7	Zone-1	0.00	1,020.60	498.1
383	624	979.5	Zone-1	0.00	1,023.13	427
384	350	970.15	Zone-1	0.25	1,019.93	487.2
385	863	979.61	Zone-1	0.44	1,022.01	415
386	842	978.97	Zone-1	0.40	1,022.28	423.9
387	345	978	Zone-1	0.00	1,022.95	439.9
388	92	972.9	Zone-1	0.00	1,019.11	452.3
389	98	978.7	Zone-1	0.00	1,021.07	414.7
390	143	978.5	Zone-1	0.00	1,020.56	411.6
391	104	976	Zone-1	0.00	1,019.16	422.4
392	563	976	Zone-1	0.00	1,013.94	371.3
393	367	979.5	Zone-1	0.00	1,023.13	427
394	65	978.5	Zone-1	0.53	1,020.89	414.9
395	485	978.1	Zone-1	0.00	1,023.38	443.2
396	519	976.7	Zone-1	0.19	1,022.47	448
397	444	980.2	Zone-1	0.00	1,023.36	422.4
398	197	976.5	Zone-1	0.00	1,021.22	437.7
399	548	978.2	Zone-1	0.25	1,022.36	432.2
400	A	979.2	Zone-1	0.00	1,022.93	428
401	525	976.9	Zone-1	0.10	1,022.39	445.2
402	430	978.9	Zone-1	0.27	1,023.32	434.7
403	610	976.2	Zone-1	0.13	1,017.40	403.3
404	163	975.8	Zone-1	0.30	1,019.92	431.8
405	708	978.5	Zone-1	0.00	1,020.92	415.2
406	518	976.7	Zone-1	0.00	1,022.48	448
407	667	976	Zone-1	0.40	1,022.83	458.3
408	68	977.8	Zone-1	0.00	1,018.92	402.4
409	652	978.5	Zone-1	0.25	1,022.38	429.4
410	489	967.6	Zone-1	0.80	1,019.93	512.1
411	167	976.3	Zone-1	0.00	1,020.10	428.6
412	203	974.5	Zone-1	0.00	1,020.30	448.2
413	412	981.5	Zone-1	0	1,022.91	405.3
414	27	980.6	Zone-no fire flow	0.00	992.4	115.5
415	300	978	Zone-1	0.16	1,023.69	447.2
416	84	977	Zone-1	0.16	1,019.07	411.7
417	732	974.5	Zone-1	0.00	1,020.83	453.4
418	686	976.72	Zone-1	0.00	1,017.57	399.8
419	511	975.97	Zone-1	0.19	1,022.56	455.9
420	861	979.29	Zone-1	0.44	1,021.51	413.2
422	135	978.5	Zone-1	0.00	1,020.63	412.4
423	583	974.3	Zone-1	0.19	1,018.25	430.2
424	438	981	Zone-1	0.00	1,023.32	414.2

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
425	457	966.9	Zone-1	0.13	1,019.92	518.9
426	574	979.78	Zone-1	0.00	1,023.39	426.8
427	468	979.2	Zone-1	0.00	1,028.07	478.3
428	112	977	Zone-1	0.00	1,011.57	338.3
429	347	980	Zone-1	0.13	1,023.00	420.8
430	461	978.8	Zone-1	0.00	1,025.21	454.2
431	332	975.5	Zone-1	0.50	1,022.86	463.5
432	818	983	Zone-1	0.00	1,020.96	371.5
433	605	972.48	Zone-1	0.00	1,020.01	465.1
434	475	978	Zone-1	0.00	1,024.70	457.1
435	703	984	Zone-1	0.44	1,020.99	362
436	439	981	Zone-1	0.00	1,023.32	414.2
437	503	978	Zone-1	0.40	1,022.74	437.8
438	93	973	Zone-1	0.00	1,019.13	451.4
439	687	976.7	Zone-1	0.00	1,019.97	423.5
440	181	978.7	Zone-1	0.00	1,020.18	405.9
441	357	978.5	Zone-1	0.21	1,023.13	436.8
442	730	973.8	Zone-1	0.00	1,020.83	460.3
443	571	975	Zone-1	0.34	1,023.01	469.9
444	377	980.9	Zone-1	0.00	1,023.23	414.3
445	336	976	Zone-1	0.38	1,022.85	458.5
446	297	977	Zone-1	0.08	1,023.31	453.2
447	179	978.7	Zone-1	0.10	1,020.16	405.8
448	812	977	Zone-1	0.00	1,020.99	430.5
449	348	980	Zone-1	0.00	1,023.00	420.8
450	734	974.5	Zone-1	0.00	1,020.83	453.4
451	128	978	Zone-1	0.00	1,020.84	419.3
452	592	976.4	Zone-1	0.21	1,019.42	421.1
453	521	971.8	Zone-1	0.13	1,019.95	471.2
454	431	978.3	Zone-1	0.29	1,023.21	439.5
455	407	981	Zone-1	0.14	1,023.11	412.2
456	543	979.78	Zone-1	0.00	1,022.79	420.9
457	826	979	Zone-1	0.00	1,022.75	428.2
458	648	976.5	Zone-1	0.25	1,022.52	450.4
459	780	967	Zone-1	0.71	1,020.84	526.9
460	856	979.78	Zone-1	0.00	1,022.32	416.3
461	449	979.6	Zone-1	0.00	1,023.64	431
462	425	978.6	Zone-1	0.32	1,023.06	435.1
463	299	979.6	Zone-1	0.00	1,024.37	438.2
464	205	975.2	Zone-1	0.00	1,020.62	444.5
465	281	975.4	Zone-1	0.16	1,022.76	463.5
466	222	974.5	Zone-1	0.14	1,020.83	453.4
467	558	979.2	Zone-1	0.00	1,020.37	402.9
468	410	981.5	Zone-1	0.00	1,022.91	405.3
469	40	974.3	Zone-1	0.40	1,018.30	430.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
470	401	980	Zone-1	0.16	1,023.13	422.1
471	596	976	Zone-1	0.19	1,022.88	458.8
472	858	979.78	Zone-1	0.28	1,021.89	412.2
473	302	977	Zone-1	0.18	1,023.28	453
474	212	973	Zone-1	0.16	1,020.83	468.1
475	318	975	Zone-1	0.00	1,022.97	469.5
476	453	980.5	Zone-1	0.00	1,023.47	420.6
477	723	978.11	Zone-1	0.40	1,022.22	431.7
478	786	966.5	Zone-1	0.12	1,020.84	531.9
479	482	978.2	Zone-1	0.00	1,023.67	445
480	847	979.36	Zone-1	0.28	1,020.97	407.3
481	156	976	Zone-1	0.19	1,019.39	424.7
482	90	972.9	Zone-1	0.00	1,019.07	451.8
483	434	980.1	Zone-1	0.26	1,023.31	422.9
484	133	978.5	Zone-1	0.00	1,020.66	412.6
485	532	970.05	Zone-1	0.67	1,019.94	488.3
486	529	977.4	Zone-1	0.00	1,022.37	440.1
487	198	975.3	Zone-1	0.00	1,021.60	453.2
488	800	977	Zone-1	0.00	1,020.98	430.4
489	236	975.2	Zone-1	0.00	1,024.16	479.2
490	309	975	Zone-1	0.00	1,023.02	469.9
492	422	979.3	Zone-1	0.00	1,022.89	426.7
493	329	976.3	Zone-1	0.19	1,022.90	456
494	714	977	Zone-1	0.00	1,022.82	448.4
495	216	973.8	Zone-1	0.16	1,020.83	460.3
496	738	974.5	Zone-1	0.00	1,020.83	453.4
497	341	977	Zone-1	0.30	1,022.89	449.2
498	688	976.7	Zone-1	0.00	1,019.97	423.5
499	337	976	Zone-1	0.38	1,022.84	458.4
500	452	980.5	Zone-1	0.16	1,023.54	421.2
501	381	981	Zone-1	0.00	1,023.17	412.7
502	289	975.5	Zone-1	0.00	1,023.17	466.5
503	514	975.8	Zone-1	0.10	1,022.56	457.6
504	806	977	Zone-1	0.00	1,020.99	430.5
505	570	977	Zone-1	0.00	1,023.20	452.1
506	290	975.8	Zone-1	0.18	1,023.23	464.2
508	396	979.8	Zone-1	0.08	1,023.05	423.3
509	477	977.5	Zone-1	0.39	1,024.03	455.4
510	782	967	Zone-1	0	1,020.84	526.9
511	754	974.9	Zone-1	0.00	994.78	194.5
512	103	976	Zone-1	0.00	1,019.16	422.4
513	306	974.5	Zone-1	0.00	1,020.03	445.6
514	617	979.8	Zone-1	0.00	1,022.89	421.8
515	816	983	Zone-1	0.55	1,020.96	371.5
516	308	975.5	Zone-1	0.29	1,023.10	465.8

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
517	131	976.8	Zone-1	0.10	1,020.52	427.9
518	795	968	Zone-1	0.12	1,020.85	517.3
519	510	969.77	Zone-1	0.00	1,019.94	491
520	169	977	Zone-1	0.21	1,020.09	421.7
521	694	976.7	Zone-1	0.00	1,019.97	423.5
522	523	976.3	Zone-1	0.36	1,022.50	452.2
523	87	978.64	Zone-1	0.00	1,020.90	413.5
524	226	975.1	Zone-1	0.16	1,022.52	464.1
525	242	976	Zone-1	0.19	1,025.43	483.8
526	819	983	Zone-1	0.57	1,020.94	371.3
527	266	977	Zone-1	0.00	1,021.91	439.5
528	480	978	Zone-1	0.00	1,023.84	448.6
529	524	976.6	Zone-1	0.19	1,022.45	448.7
530	458	978.9	Zone-1	0.00	1,023.35	435
531	660	979	Zone-1	0.00	1,022.59	426.6
532	200	973	Zone-1	0.00	1,019.20	452.1
533	207	975.3	Zone-1	0.00	1,020.67	444
534	260	978	Zone-1	0.19	1,024.04	450.6
535	757	974.9	Zone-1	0.00	995.05	197.2
536	440	981	Zone-1	0.16	1,023.32	414.2
537	158	975.8	Zone-1	0.00	1,019.91	431.7
538	286	975.1	Zone-1	0.18	1,023.06	469.4
539	165	976.3	Zone-1	0.08	1,020.05	428.2
540	354	980.3	Zone-1	0.00	1,023.13	419.2
541	602	980.2	Zone-1	0	1,022.90	417.9
542	759	974.9	Zone-1	0.00	995.59	202.5
543	512	975.9	Zone-1	0.19	1,022.56	456.6
544	234	975	Zone-1	0.16	1,023.48	474.4
545	515	976.3	Zone-1	0.25	1,022.52	452.4
546	582	971.3	Zone-1	0.03	1,018.94	466.3
547	813	977	Zone-1	0.31	1,020.99	430.5
548	772	974.9	Zone-1	0.00	994.72	194
549	672	972.5	Zone-1	0.00	1,017.85	443.9
550	566	970.3	Zone-1	0.00	1,019.97	486.1
552	118	977.8	Zone-1	0.00	1,023.76	449.8
553	459	978.4	Zone-1	0.00	1,024.54	451.5
554	328	972.5	Zone-1	0.00	1,019.95	464.4
555	586	977.2	Zone-1	0.00	1,018.20	401.2
556	294	977	Zone-1	0.00	1,023.44	454.5
557	655	978.5	Zone-1	3.50	1,022.26	428.3
558	383	981.9	Zone-1	0.08	1,023.12	403.4
559	362	968.5	Zone-1	0.00	1,019.92	503.2
560	238	977.5	Zone-1	0.14	1,024.40	459
561	685	976.72	Zone-1	0.00	1,017.59	400
562	371	980.4	Zone-1	0.00	1,023.16	418.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
563	479	967.6	Zone-1	0.00	1,019.92	512.1
564	349	978.4	Zone-1	0.00	1,023.02	436.7
565	573	979.78	Zone-1	0.04	1,022.39	417.1
566	646	972.5	Zone-1	0.00	1,019.12	456.3
567	584	971.7	Zone-1	1.60	1,018.98	462.7
568	413	966.9	Zone-1	0.00	1,019.92	518.9
569	67	977.8	Zone-1	0.00	1,018.91	402.3
570	18	978.1	Zone-no fire flow	0.00	1,033.45	541.7
571	542	978.9	Zone-1	0.00	1,022.32	424.9
572	733	974.5	Zone-1	0.00	1,020.83	453.4
573	385	981.2	Zone-1	0.16	1,023.08	409.9
574	117	977.8	Zone-1	0.00	1,023.76	449.8
575	502	978	Zone-1	0.00	1,022.80	438.4
576	374	980.4	Zone-1	0.30	1,023.16	418.5
577	115	977.8	Zone-1	0.00	1,009.86	313.8
578	415	981.5	Zone-1	0.00	1,022.91	405.3
579	151	976.2	Zone-1	0	1,020.55	434.1
580	26	978.1	Zone-no fire flow	0.00	992.23	138.3
581	287	975.1	Zone-1	0.00	1,023.09	469.7
582	51	976.3	Zone-1	0.00	1,017.92	407.3
583	683	976.72	Zone-1	0.00	1,017.59	400
584	245	976.1	Zone-1	0.00	1,027.30	501.1
585	261	978.1	Zone-1	0.19	1,023.54	444.8
586	763	974.9	Zone-1	0.00	1,024.31	483.6
587	132	978.5	Zone-1	0.00	1,020.68	412.8
588	692	976	Zone-1	0.08	1,019.98	430.4
589	82	976.7	Zone-1	0.00	1,019.12	415.1
590	343	977.4	Zone-1	0.19	1,022.94	445.7
591	225	975.3	Zone-1	0.00	1,021.88	455.9
592	J-4	978	Zone-1	0.00	1,022.86	439
593	395	968.5	Zone-1	0.00	1,019.92	503.2
594	161	976	Zone-1	0.10	1,019.91	429.7
595	593	975.3	Zone-1	0.00	1,020.84	445.7
596	630	974.5	Zone-1	0.00	1,020.17	447
597	741	977.5	Zone-1	0.35	1,020.77	423.5
598	737	974	Zone-1	0.00	1,020.83	458.3
599	141	978.5	Zone-1	0.00	1,020.57	411.7
600	631	974.5	Zone-1	0.00	1,020.04	445.7
601	828	977.71	Zone-1	0.60	1,022.80	441.4
602	499	969.52	Zone-1	0.00	1,019.94	493.4
603	437	980.7	Zone-1	0.26	1,023.31	417.1
604	116	977.8	Zone-1	0.00	1,022.04	433
605	224	975.3	Zone-1	0.09	1,021.69	454
606	509	976.08	Zone-1	0.00	1,022.56	454.9
607	668	976	Zone-1	0.40	1,022.83	458.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
608	827	979	Zone-1	0.00	1,022.75	428.2
609	427	978.6	Zone-1	0.00	1,023.08	435.3
610	622	980.5	Zone-1	0.00	1,022.91	415
611	256	979.1	Zone-1	0.18	1,025.42	453.4
612	805	977	Zone-1	0.00	1,021.02	430.9
613	481	978	Zone-1	0.40	1,023.75	447.8
614	370	980	Zone-1	0.13	1,023.15	422.3
615	644	974	Zone-1	0.00	1,020.23	452.4
617	284	976.01	Zone-1	0.00	1,020.32	433.7
618	88	976	Zone-1	0.00	1,019.05	421.3
619	659	978.8	Zone-1	0.00	1,023.38	436.3
620	494	981	Zone-1	0.00	1,022.85	409.6
621	695	976	Zone-1	0.00	1,019.99	430.5
622	676	974.4	Zone-1	0.00	1,017.67	423.5
623	321	975.3	Zone-1	0.00	1,022.94	466.2
624	799	977	Zone-1	0.00	1,020.99	430.6
625	188	974.5	Zone-1	0.00	1,020.44	449.6
626	38	971.5	Zone-1	0.04	1,018.68	461.7
627	317	973.24	Zone-1	0.00	1,019.98	457.5
628	53	976	Zone-1	0.00	1,016.23	393.7
629	372	980	Zone-1	0.10	1,023.16	422.4
630	330	975	Zone-1	0.00	1,022.96	469.4
631	608	978.6	Zone-1	0.13	1,020.81	413.1
632	320	975.3	Zone-1	0.00	1,022.95	466.4
633	846	977	Zone-1	0.54	1,021.00	430.6
634	86	977.4	Zone-1	0.00	1,019.08	408
635	250	979.78	Zone-1	0.15	1,021.89	412.1
636	282	975.2	Zone-1	0.00	1,022.86	466.4
637	180	975.26	Zone-1	0.58	1,020.11	439
638	802	977	Zone-1	0.51	1,021.07	431.3
639	742	977.8	Zone-1	0.00	1,020.77	420.5
640	54	978.5	Zone-1	0.00	1,020.90	414.9
641	801	977	Zone-1	0.00	1,021.08	431.4
642	70	976.8	Zone-1	0.80	1,018.96	412.6
643	73	973	Zone-1	0.00	1,018.99	450.1
644	835	978.5	Zone-1	0.35	1,020.86	414.6
645	177	977.8	Zone-1	0.19	1,020.18	414.8
646	428	979	Zone-1	0.08	1,023.22	432.8
647	463	979.2	Zone-1	0.00	1,026.78	465.7
648	817	983	Zone-1	0.55	1,020.97	371.6
649	606	976.5	Zone-1	0.19	1,022.47	449.9
650	426	978.5	Zone-1	0.00	1,023.06	436.1
651	102	976	Zone-1	0.21	1,019.16	422.4
652	271	975	Zone-1	0.09	1,022.39	463.8
653	263	978.3	Zone-1	0.08	1,022.85	436

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
654	191	975	Zone-1	0.00	1,020.67	447
655	808	977	Zone-1	2.42	1,020.96	430.3
656	267	976	Zone-1	0.00	1,022.22	452.4
657	303	976.5	Zone-1	0.00	1,023.26	457.6
658	55	976	Zone-1	0.00	1,015.95	391
659	94	973	Zone-1	0.00	1,019.12	451.4
660	725	978	Zone-1	0.42	1,022.14	432
661	148	977.2	Zone-1	0.19	1,020.34	422.2
662	305	975.3	Zone-1	0.00	1,023.10	467.9
663	153	976	Zone-1	0.38	1,019.77	428.3
664	419	980.5	Zone-1	0.00	1,022.90	415
665	681	976.76	Zone-1	0.00	1,017.61	399.8
666	447	979.6	Zone-1	0.00	1,023.55	430.2
667	507	976.5	Zone-1	0.00	1,022.58	451
668	666	977	Zone-1	0.00	1,021.16	432.2
669	37	971.9	Zone-1	0.11	1,018.68	457.8
670	539	978.97	Zone-1	0.20	1,022.28	423.9
671	603	980.3	Zone-1	0.00	1,022.90	416.9
672	706	983	Zone-1	0.00	1,020.97	371.6
673	836	978.5	Zone-1	0.00	1,020.70	413
674	109	978.7	Zone-1	0.53	1,021.20	416
675	448	979.6	Zone-1	0.00	1,023.55	430.2
676	831	966.9	Zone-1	0.00	1,019.92	518.9
677	781	967.5	Zone-1	0.00	1,020.84	522
678	721	978.37	Zone-1	0.40	1,022.25	429.5
679	106	976.5	Zone-1	0.00	1,019.16	417.5
680	456	979	Zone-1	0.24	1,023.42	434.7
681	615	978	Zone-1	0.00	1,022.62	436.7
682	157	975.8	Zone-1	0.00	1,019.66	429.3
683	322	975.3	Zone-1	0.19	1,022.94	466.2
684	171	976	Zone-1	0.24	1,020.10	431.6
685	402	981.1	Zone-1	0.16	1,023.18	411.8
686	418	981	Zone-1	0.00	1,022.72	408.3
687	720	976	Zone-1	0.60	1,022.83	458.3
688	344	977.4	Zone-1	0.10	1,022.94	445.7
689	500	978	Zone-1	0.00	1,022.62	436.7
690	127	977	Zone-1	0.00	1,021.22	432.7
691	195	976.2	Zone-1	0.00	1,020.54	433.9
692	693	976.7	Zone-1	0.08	1,019.97	423.5
693	557	979.2	Zone-1	0.00	1,020.37	402.9
695	58	975.7	Zone-1	0.00	1,018.82	422
696	729	978.5	Zone-1	0.00	1,020.77	413.7
697	552	976.2	Zone-1	0.00	1,020.54	433.9
698	114	977	Zone-1	1.73	1,011.57	338.3
699	389	980.2	Zone-1	0.00	1,023.04	419.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
700	75	973	Zone-1	0.00	1,018.99	450.1
701	516	977	Zone-1	0.25	1,022.50	445.3
702	408	980.6	Zone-1	0.00	1,022.95	414.5
703	406	966.9	Zone-1	0.40	1,019.92	518.9
704	853	979.29	Zone-1	0.00	1,021.51	413.2
705	231	976.5	Zone-1	0.16	1,023.23	457.4
706	625	979.5	Zone-1	0.19	1,023.13	427
707	653	978	Zone-1	0.25	1,022.38	434.3
708	312	977	Zone-1	0.00	1,023.07	450.9
709	228	977.88	Zone-1	0.00	1,020.42	416.4
710	580	974.4	Zone-1	0.16	1,018.18	428.4
711	567	972.9	Zone-1	0.00	1,020.83	469.1
712	467	979.2	Zone-1	0.00	1,027.73	475
713	335	976	Zone-1	0.00	1,022.85	458.5
714	351	978.5	Zone-1	0.16	1,023.04	435.9
715	369	980	Zone-1	0.00	1,023.15	422.3
716	540	978.99	Zone-1	0.34	1,022.31	423.9
717	258	978.5	Zone-1	0.18	1,024.94	454.5
718	626	979.5	Zone-1	0.00	1,023.13	427
719	859	979.78	Zone-1	0.18	1,021.41	407.4
720	85	977.4	Zone-1	0.30	1,019.04	407.6
721	334	975.7	Zone-1	0.40	1,022.86	461.5
722	536	978.5	Zone-1	0.00	1,022.31	428.7
723	9	978.1	Zone-no fire flow	0.00	1,033.82	545.4
724	483	978.2	Zone-1	0.00	1,023.65	444.8
725	338	976	Zone-1	0.00	1,022.87	458.7
726	378	980.9	Zone-1	0.00	1,023.24	414.3
727	201	974	Zone-1	0.00	1,019.98	450
728	829	976.67	Zone-1	0.60	1,022.82	451.7
729	446	966.9	Zone-1	0.00	1,019.92	518.9
730	81	977	Zone-1	0.11	1,019.14	412.4
731	513	975.9	Zone-1	0.00	1,022.56	456.6
732	21	979.57	Zone-1	0.00	1,033.37	526.5
733	474	977.6	Zone-1	0.06	1,024.70	461
734	619	979.8	Zone-1	0.00	1,022.89	421.8
735	397	979.8	Zone-1	0.00	1,023.06	423.3
736	247	976.1	Zone-1	0.00	1,027.15	499.6
737	561	975.7	Zone-1	0.00	1,018.82	422
738	232	976.5	Zone-1	0.00	1,023.31	458.1
739	239	978.63	Zone-1	0.00	1,020.40	408.8
740	466	979.1	Zone-1	0.00	1,027.63	475
741	545	978.6	Zone-1	0.00	1,022.33	428
742	645	979.78	Zone-1	0.12	1,022.79	420.9
743	743	978	Zone-1	0.35	1,020.77	418.6
744	731	974	Zone-1	0.17	1,020.83	458.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
745	20	978.1	Zone-no fire flow	0.00	1,033.78	545
746	792	970	Zone-1	0.00	1,020.50	494.2
747	798	977	Zone-1	0.00	1,021.00	430.6
748	110	976	Zone-1	0.00	1,014.34	375.2
749	91	972.9	Zone-1	0.27	1,019.11	452.3
750	15	979.4	Zone-no fire flow	0.00	992.29	126.1
751	609	976.7	Zone-1	0.13	1,019.13	415.2
752	339	971.45	Zone-1	0.00	1,019.94	474.6
753	142	978.3	Zone-1	0.97	1,020.57	413.7
754	495	981	Zone-1	0.13	1,022.71	408.2
755	403	981	Zone-1	0.00	1,023.17	412.7
756	577	968.76	Zone-1	0.00	1,019.92	500.7
757	160	974.9	Zone-1	0.06	1,019.91	440.5
758	594	973.5	Zone-1	2.00	1,020.83	463.2
759	83	976.7	Zone-1	0.08	1,019.11	415.1
760	834	978.5	Zone-1	0.00	1,020.90	414.9
761	292	976.5	Zone-1	0.16	1,023.31	458.1
762	727	983.5	Zone-1	0.00	1,020.99	366.9
763	472	977.4	Zone-1	0.16	1,025.11	466.9
764	451	979.8	Zone-1	0.00	1,023.60	428.6
765	420	979.5	Zone-1	0.00	1,022.89	424.7
766	783	968	Zone-1	0.00	1,020.89	517.6
767	241	975.6	Zone-1	0.16	1,024.81	481.7
768	804	977	Zone-1	0.46	1,020.99	430.5
769	152	976.3	Zone-1	0.00	1,019.77	425.4
770	214	973.8	Zone-1	0.00	1,020.83	460.3
771	454	978.9	Zone-1	0.32	1,023.85	439.9
772	471	977	Zone-1	0.00	1,025.57	475.4
773	301	978	Zone-1	0.26	1,023.57	446
774	240	975.6	Zone-1	0.24	1,024.81	481.7
775	768	974.9	Zone-1	0.00	1,025.04	490.7
776	277	975.8	Zone-1	0.00	1,022.52	457.2
777	96	973	Zone-1	0.00	1,019.12	451.4
778	623	979.5	Zone-1	0.13	1,023.13	427
779	253	979	Zone-1	0.00	1,027.59	475.5
780	470	967.41	Zone-1	0.80	1,019.92	513.9
781	435	966.9	Zone-1	0.00	1,019.92	518.9
782	202	974.5	Zone-1	0.00	1,020.17	447
783	821	977	Zone-1	0.00	1,020.99	430.5
784	206	977.11	Zone-1	0.00	1,020.44	424.1
785	248	976.5	Zone-1	0.53	1,027.25	496.7
786	647	976.5	Zone-1	0.00	1,022.57	450.9
787	705	984.5	Zone-1	0.56	1,020.99	357.1
788	710	979	Zone-1	0.00	1,021.12	412.3
789	841	977.99	Zone-1	0.00	1,020.43	415.4

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
790	80	977	Zone-1	0.00	1,019.01	411.1
791	854	979.29	Zone-1	0.00	1,021.51	413.2
792	417	981.5	Zone-1	0.00	1,022.91	405.3
793	107	977	Zone-1	0.00	1,019.14	412.5
794	556	979.2	Zone-1	0.00	1,020.37	402.9
795	288	975.1	Zone-1	0.00	1,023.11	469.9
796	393	980	Zone-1	0.00	1,023.05	421.3
797	591	977.8	Zone-1	0.00	1,023.76	449.8
798	661	980.6	Zone-1	0.00	1,021.80	403.2
799	97	974	Zone-1	0	1,019.13	441.6
800	1	979.41	Zone-no fire flow	0.00	992.33	126.5
801	811	977	Zone-1	0.28	1,020.99	430.6
802	421	979.3	Zone-1	0.00	1,022.89	426.7
803	508	976.08	Zone-1	0.00	1,022.56	454.9
804	209	972.9	Zone-1	0.16	1,020.83	469.1
805	331	976	Zone-1	0.00	1,022.88	458.8
806	J-3	977	Zone-1	1.44	1,022.82	448.5
807	307	975.5	Zone-1	0.00	1,023.10	465.8
808	443	980.5	Zone-1	0.24	1,023.36	419.5
809	680	979.78	Zone-1	0.00	1,022.99	422.9
810	506	976.5	Zone-1	0.65	1,022.60	451.2
811	356	979.4	Zone-1	0.00	1,023.13	428
812	848	984.23	Zone-1	0.59	1,020.99	359.8
813	77	977.6	Zone-1	0.00	1,018.98	405
814	663	983.1	Zone-1	0.90	1,021.02	371.1
815	797	972.44	Zone-1	0	1,020.12	466.6
816	755	974.9	Zone-1	0.00	995.59	202.5
817	64	973.1	Zone-1	1.46	1,019.16	450.8
819	578	966.9	Zone-1	0.13	1,019.92	518.9
820	50	976.3	Zone-1	0.13	1,017.88	407
821	105	976.4	Zone-1	0.00	1,019.18	418.7
822	613	977.5	Zone-1	0.10	1,024.71	462
823	562	973	Zone-1	0.11	1,018.99	450.1
824	189	974.7	Zone-1	0.00	1,020.55	448.7
825	857	979.78	Zone-1	0.44	1,021.89	412.2
826	31	979.78	Zone-1	0.06	1,021.89	412.1
827	122	977.8	Zone-1	0.64	1,021.26	425.4
828	129	976.3	Zone-1	0.13	1,020.97	437.2
829	30	978.1	Zone-no fire flow	0.00	992.22	138.2
830	210	972.8	Zone-1	0.50	1,020.83	470.1
831	837	977.99	Zone-1	0.00	1,020.42	415.3
832	325	976	Zone-1	0.19	1,022.90	459
833	496	978	Zone-1	0.00	1,022.64	436.9
834	538	978.97	Zone-1	0.00	1,022.28	423.9
835	390	980	Zone-1	0.18	1,023.04	421.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
836	614	978	Zone-1	0.13	1,022.62	436.7
837	677	976.8	Zone-1	0.13	1,017.63	399.6
838	551	978.2	Zone-1	0.17	1,022.36	432.2
839	810	977	Zone-1	0.31	1,020.99	430.5
840	803	980.51	Zone-1	0	1,021.24	398.7
841	777	974.9	Zone-1	0.00	994.86	195.3
842	119	978	Zone-1	0.00	1,020.91	420
843	793	968.3	Zone-1	0.00	1,020.38	509.7
844	252	979	Zone-1	0.13	1,027.58	475.4
845	488	967.57	Zone-1	0.00	1,019.93	512.4
846	807	977	Zone-1	0.00	1,021.03	431
847	298	979.2	Zone-1	0.16	1,024.03	438.7
848	353	980.3	Zone-1	0.00	1,023.13	419.2
849	199	976.5	Zone-1	0.29	1,020.85	434
850	175	977.6	Zone-1	0.00	1,020.29	417.8
851	375	980.4	Zone-1	0.00	1,023.16	418.5
852	441	980.6	Zone-1	0.16	1,023.32	418.1
853	670	977	Zone-1	0.49	1,022.83	448.5
854	697	976.35	Zone-1	0.00	1,019.99	427.1
855	547	978.6	Zone-1	0.19	1,022.33	428
856	429	979.3	Zone-1	0.00	1,023.30	430.6
857	168	976.5	Zone-1	0.13	1,020.20	427.7
858	588	976	Zone-1	1.07	1,018.99	420.7
859	74	973	Zone-1	0.11	1,018.99	450.1
860	230	975	Zone-1	0.00	1,023.15	471.2
861	493	980	Zone-1	0.16	1,022.90	419.8
862	700	973.13	Zone-1	0.00	1,019.98	458.6
863	218	975	Zone-1	0.16	1,020.83	448.5
864	137	978.5	Zone-1	0.00	1,020.61	412.2
865	535	978.5	Zone-1	0.25	1,022.31	428.7
866	124	977.8	Zone-1	0.00	1,021.18	424.5
867	276	975.4	Zone-1	0.27	1,022.49	460.8
868	855	979.72	Zone-1	0.00	1,022.18	415.5
869	60	977.2	Zone-1	0.93	1,018.21	401.3
871	601	980.65	Zone-1	0.00	1,023.33	417.7
872	275	975.5	Zone-1	0.00	1,022.49	459.9
873	314	977.5	Zone-1	0.00	1,023.11	446.4
874	229	975.1	Zone-1	0.14	1,023.14	470.1
875	316	975	Zone-1	0.00	1,022.97	469.5
876	310	976	Zone-1	0.00	1,023.04	460.3
877	95	973	Zone-1	0.00	1,019.12	451.4
879	490	979.2	Zone-1	0.16	1,022.94	428.1
880	758	975.96	Zone-1	0.00	996.23	198.4
881	554	979.2	Zone-1	0.00	1,020.37	402.9
882	843	977	Zone-1	0.00	1,020.99	430.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
883	219	974.8	Zone-1	0.00	1,020.83	450.5
884	352	980.3	Zone-1	0.16	1,023.13	419.2
885	527	976.9	Zone-1	0.00	1,022.39	445.2
886	598	978.1	Zone-1	0.00	1,022.97	439.1
887	170	977	Zone-1	0.00	1,020.11	421.9
888	196	973	Zone-1	0.00	1,020.73	467.1
889	108	976	Zone-1	0.00	1,013.95	371.4
890	651	977	Zone-1	0.25	1,022.45	444.8
891	327	976.3	Zone-1	0.00	1,022.89	456
892	607	973	Zone-1	0.00	1,019.39	454
893	698	976.08	Zone-1	0.00	1,019.99	429.7
894	237	978.7	Zone-1	0.00	1,024.19	445.2
895	190	974.9	Zone-1	0.00	1,020.58	447.1
896	635	972.46	Zone-1	0.00	1,019.51	460.5
897	130	976.8	Zone-1	0.00	1,020.53	428
898	656	972.5	Zone-1	0.00	1,017.90	444.4
899	541	979	Zone-1	0.40	1,022.28	423.6
900	35	971.6	Zone-1	0.00	1,018.99	463.8
901	416	981.5	Zone-1	0.00	1,022.91	405.3
902	770	974.9	Zone-1	0.00	1,024.27	483.2
903	682	976.74	Zone-1	0.67	1,017.60	399.9
904	590	977.6	Zone-1	0.00	1,018.98	405
905	654	978.8	Zone-1	0.30	1,022.35	426.2
906	627	972.43	Zone-1	0.00	1,020.04	465.9
907	270	976	Zone-1	0.00	1,022.32	453.3
908	712	978.33	Zone-1	0.30	1,022.22	429.5
909	319	975	Zone-1	0.15	1,022.97	469.4
910	178	978.7	Zone-1	0.11	1,020.17	405.8
911	268	976	Zone-1	0.18	1,022.26	452.7
912	123	977.8	Zone-1	0.00	1,021.21	424.8
913	296	976.5	Zone-1	0.00	1,023.31	458.1
914	208	975.4	Zone-1	0.00	1,020.74	443.7
915	144	977	Zone-1	0.00	1,020.52	426
916	392	980	Zone-1	0.13	1,023.04	421.3
917	414	981.5	Zone-1	0.00	1,022.91	405.3
918	690	976	Zone-1	0.00	1,019.98	430.4
919	825	982.64	Zone-1	0.00	1,021.00	375.4
920	368	980.4	Zone-1	0.11	1,023.15	418.4
921	223	975.4	Zone-1	0.16	1,021.00	446.2
922	244	977.5	Zone-1	0.19	1,024.71	462
923	790	969.5	Zone-1	0.00	1,020.63	500.4
924	34	971.42	Zone-1	0.00	1,019.98	475.3
925	568	974.5	Zone-1	0.00	1,020.44	449.6
926	323	975.3	Zone-1	0.00	1,022.93	466.2
927	44	975.9	Zone-1	0.11	1,015.19	384.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
928	423	979	Zone-1	0.00	1,022.89	429.6
929	832	974.5	Zone-1	0.00	1,020.83	453.4
1901	J-866	979.78	Zone-1	0.00	1,021.41	407.4
1904	J-867	979.78	Zone-1	0.98	1,021.39	407.2
1906	J-868	979.6	Zone-1	0.00	1,021.38	408.8
1908	J-869	979.4	Zone-1	0.00	1,021.38	410.8
1910	J-870	979.4	Zone-1	0.00	1,021.38	410.9
1912	J-871	979.78	Zone-1	0.00	1,021.39	407.2
1915	J-872	979.78	Zone-1	0.00	1,021.39	407.2
1917	J-873	979.6	Zone-1	0.00	1,021.36	408.7
1921	J-874	979.29	Zone-1	0.00	1,021.24	410.6
1924	J-875	979.29	Zone-1	0.00	1,021.15	409.6
1929	J-876	979.78	Zone-1	1.20	1,021.41	407.4
1933	J-877	977	Zone-1	0.92	1,020.82	428.9
1935	J-878	977	Zone-1	0.00	1,020.82	428.9
1937	J-879	977	Zone-1	0.00	1,020.81	428.8
1939	J-880	967.5	Zone-1	0.00	1,020.81	521.8
1943	J-881	968	Zone-1	0.00	1,020.84	517.1
1945	J-882	968	Zone-1	0.00	1,020.84	517.1
1947	J-883	968	Zone-1	0.00	1,020.84	517.1
1949	J-884	968	Zone-1	0.00	1,021.17	520.4
1952	J-885	967	Zone-1	0.00	1,020.84	526.9
1954	J-886	967	Zone-1	0.00	1,020.84	526.9
1956	J-887	967	Zone-1	0.00	1,020.84	526.9
1958	J-888	967	Zone-1	0.00	1,020.84	526.9
1960	J-889	967	Zone-1	0.00	1,020.84	526.9
1963	J-890	967.5	Zone-1	0.00	1,020.84	522
1996	J-891	976.5	Zone-1	0.00	1,020.47	430.4
1999	J-892	978	Zone-1	0.00	1,020.56	416.5
2002	J-893	976.5	Zone-1	0.00	1,020.53	430.9
2006	J-894	979.78	Zone-1	6.80	1,024.93	441.8
2017	J-899	976	Zone-1	0.60	1,022.83	458.3
2046	J-900	978.5	Zone-1	0.00	1,021.16	417.5
2055	J-904	974.48	Zone-1	0.00	1,019.47	440.4
2057	J-905	974.38	Zone-1	0.40	1,019.34	440
2059	J-906	978	Zone-1	0.00	1,020.70	417.9
2065	J-908	977.5	Zone-1	0.00	1,020.57	421.6
2096	J-919	974.87	Zone-1	0.20	1,019.34	435.2
2098	J-920	975.79	Zone-1	0.60	1,019.34	426.2
2100	J-921	976.03	Zone-1	0.73	1,019.34	423.9
2102	J-922	975.46	Zone-1	0.30	1,019.34	429.4
2106	J-923	973.84	Zone-1	0.10	1,019.28	444.7
2108	J-924	974.96	Zone-1	0.60	1,019.25	433.5
2111	J-925	973.45	Zone-1	0.70	1,019.28	448.5
2119	J-928	976.14	Zone-1	0.00	1,020.31	432.2

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
2133	J-931	974	Zone-1	0.00	1,019.25	442.8
2155	J-2	977	Zone-1	2.88	1,022.83	448.6
2183	J-935	979.5	<None>	14.13	1,020.39	400.2
2185	J-936	981	<None>	14.13	1,020.25	384.1
2187	J-937	980	<None>	0.00	1,020.89	400.1
2189	J-938	978	<None>	0.00	1,020.82	419.1
2191	J-939	971	<None>	14.13	1,019.62	475.8
2193	J-940	971	<None>	14.13	1,019.28	472.5
2195	J-941	979.78	<None>	0.00	1,021.52	408.5
2199	J-942	973	<None>	0.00	1,020.75	467.3
2201	J-943	968	<None>	0.00	1,020.69	515.7
2203	J-944	962	<None>	14.13	1,020.20	569.6
2205	J-945	966	<None>	14.13	1,020.06	529.1
2207	J-946	962	<None>	0.00	1,020.69	574.4
2209	J-947	959	<None>	0.00	1,020.70	603.9
2211	J-948	960	<None>	14.13	1,020.71	594.1
2214	J-949	959	<None>	14.13	1,020.37	600.6
2216	J-950	965	<None>	17.03	1,020.66	544.7
2219	J-951	971	<None>	14.13	1,020.69	486.3
2221	J-952	975	<None>	14.13	1,020.75	447.8
2226	J-953	980	<None>	14.13	1,020.75	398.8
2231	J-955	980.41	<None>	0.00	1,021.35	400.7
2234	J-956	975	<None>	14.13	1,021.02	450.4
2236	J-957	980	<None>	14.13	1,022.15	412.5
2238	J-958	979.03	<None>	0.00	1,022.28	423.3
2242	J-959	977	<None>	0.00	1,022.89	449.1
2244	J-960	977	<None>	0.00	1,022.41	444.4
2247	J-961	979	<None>	14.13	1,022.21	422.9
2249	J-962	977	<None>	0.00	1,022.28	443.2
2252	J-963	978	<None>	14.13	1,021.96	430.2
2254	J-964	976	<None>	0.00	1,022.40	454.1
2256	J-965	982	<None>	14.13	1,022.24	393.8
2262	J-966	975	<None>	0.00	1,024.27	482.2
2267	J-967	975	<None>	0.00	1,023.09	470.7
2269	J-968	969	<None>	0.00	1,021.89	517.6
2272	J-969	980	<None>	14.13	1,022.33	414.3
2274	J-970	978.68	<None>	0.00	1,022.38	427.7
2278	J-971	974	<None>	14.13	1,021.35	463.4
2282	J-973	964	<None>	0.00	1,021.46	562.4
2286	J-974	973	<None>	14.13	1,020.66	466.4
2288	J-975	962	<None>	14.13	1,020.73	574.7
2292	J-976	961	<None>	14.13	1,019.83	575.8
2294	J-977	958	<None>	14.13	1,019.45	601.4
2296	J-978	970	<None>	14.13	1,019.11	480.6
2299	J-979	983	<None>	14.13	1,020.61	368.1

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic Grade (m)	Pressure (kPa)
2305	J-981	971	<None>	0.00	1,020.46	484.1
2306	J-982	971	<None>	0.00	1,020.40	483.5
2308	J-983	971	<None>	0.00	1,020.35	483
2310	J-984	964	<None>	0.00	1,019.79	546
2312	J-985	965	<None>	0.00	1,019.74	535.7
2314	J-986	958	<None>	14.13	1,019.33	600.2
2316	J-987	959	<None>	14.13	1,019.00	587.2
2318	J-988	951	<None>	14.13	1,018.86	664.1
2321	J-989	964	<None>	14.13	1,019.84	546.5
2325	J-990	969.62	<None>	0.00	1,020.30	496
2331	J-991	954	<None>	0.00	1,018.79	634.1
2333	J-992	953	<None>	0.00	1,018.77	643.7
2336	J-993	950	<None>	14.13	1,018.61	671.5
2338	J-994	950	<None>	14.13	1,018.61	671.4

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1930	P-1008	198.53	860	J-876	300	130	0	-2.09	0.03	0	0
1582	226	86.92	126	127	200	66	0	11.88	0.38	0.003	86.87
1406	669	17.62	628	626	150	140	0	0.32	0.02	0	17.68
1538	320	46.06	220	222	150	140	0	0.02	0	0	46.02
1469	321	48.6	220	221	150	140	0	0	0	0	48.46
1450	177	104.46	79	80	200	60	0	-3.61	0.11	0	104.55
1068	271	99.38	166	165	150	140	0	2.85	0.16	0	99.36
1606	803	215.76	J-1	A	200	140	0	-7.48	0.24	0	145.08
1455	802	27.7	J-1	J-4	200	140	0	0	0	0	98.15
1277	243	58.63	145	147	250	140	0	35.47	0.72	0.002	58.52
1137	242	50.97	145	146	250	140	0	-11	0.22	0	50.9
2188	P-1110	699.98	464	J-937	400	130	0	-4.48	0.04	0	0
2184	P-1108	800	464	J-935	300	130	0	28.26	0.4	0.001	0
2300	P-1179	772.68	464	J-979	300	130	0	20.95	0.3	0	0
1697	527	137.39	380	381	150	91	0	2.77	0.16	0	137.46
1715	897	104.04	849	850	300	100	0	23.9	0.34	0.001	78.03
1055	847	37.28	809	804	250	100	0	0.4	0.01	0	36.58
1767	864	34.98	809	821	250	100	0	-0.24	0	0	33.83
1057	210	130.71	120	121	200	140	0	23.05	0.73	0.003	130.76
1521	449	91.67	257	299	300	89	0	85.68	1.21	0.01	91.74
1712	420	9.54	358	359	150	91	0	0	0	0	9.45
1630	41	35.14	295	630	250	140	0	21.29	0.43	0.001	35.05
1313	170	70.63	72	107	200	130	0	-18.86	0.6	0.002	70.71
1211	164	88.69	69	61	300	60	0	22.07	0.31	0.002	88.7
1735	165	98.56	69	79	200	60	0	-4.92	0.16	0.001	98.45
1426	166	133.58	69	70	200	140	0	-9.61	0.31	0.001	133.5
1864	523	92.65	405	402	250	95	0	16.01	0.33	0.001	92.66
1100	524	69.98	405	404	250	95	0	8.44	0.17	0	70.1
1523	522	135.73	405	407	200	95	0	9.73	0.31	0.001	135.64
1628	129	23.89	560	582	200	66	0	8.08	0.26	0.002	24.38
1607	140	81.9	560	47	300	66	0	-8.27	0.12	0	82.6
1863	493	87.03	478	480	150	140	0	6.52	0.37	0.001	87.17
1812	202	46.45	100	102	150	140	0	-3.13	0.18	0	49.07
1213	542	17.66	491	A	250	95	0	7.48	0.15	0	9.14
1853	955	15.48	187	644	300	130	0	51.47	0.73	0.002	15.54
1688	294	48.34	187	188	300	89	0	-51.47	0.73	0.004	48.46
1622	101	88.51	616	797	250	66	0	-8.67	0.18	0.001	88.39
1061	225	57.13	121	126	200	66	0	11.88	0.38	0.003	57
1072	221	148.59	121	122	150	140	0	10.96	0.62	0.003	148.74
1169	337	51.11	280	281	150	91	0	-5.2	0.29	0.002	51.21
1672	425	9.68	364	366	200	95	0	0	0	0	9.75
1511	427	14.19	364	365	200	95	0	0	0	0	14.33
1110	256	33.59	155	592	150	130	0	2.55	0.14	0	33.53
1112	257	97.63	155	107	200	140	0	24.32	0.77	0.003	97.54
1648	717	218.93	604	658	250	140	0	20.44	0.42	0.001	218.85
963	79	105.79	699	698	250	140	0	-0.44	0.01	0	106.07
1129	794	113.68	709	710	300	140	0	-37.75	0.53	0.001	95.1
1701	795	89.48	709	711	200	130	0	0	0	0	90.22
1555	11	119.67	691	32	200	140	0	39.71	1.26	0.007	119.79
1809	716	135.45	657	658	200	140	0	-10.79	0.34	0.001	135.33
1121	809	93.76	657	722	200	140	0	6.29	0.2	0	93.88
1841	394	12.75	340	338	250	140	0	8.44	0.17	0	12.8
1454	395	24.4	340	596	150	140	0	-2.12	0.12	0	24.38
982	278	112.17	176	185	200	140	0	5.69	0.18	0	112.17
1180	892	57.72	844	843	200	100	0	0.24	0.01	0	40.84
1748	201	55.83	99	100	150	140	0	-2.89	0.16	0	53.64
1101	200	97.4	99	101	150	140	0	0.1	0.01	0	97.54
1593	725	293.82	662	666	250	140	0	19.82	0.4	0.001	299.01
1186	723	49.93	662	814	200	140	0	12.21	0.39	0.001	54.56
1940	P-1014	243.08	789	J-880	250	130	0	-12.65	0.26	0	0
1515	823	108.78	789	790	250	140	0	23.32	0.48	0.001	102.11
1587	831	41.4	796	787	250	130	0	4.59	0.09	0	37.49
1374	564	6.53	599	412	200	95	0	0	0	0	6.4
1314	480	133.57	254	255	300	89	0	28.8	0.41	0.001	133.5
1717	267	113.42	159	161	150	130	0	0.1	0.01	0	113.39
1794	268	20.13	159	160	150	130	0	0.06	0	0	20.12
1398	155	47.12	62	63	300	140	0	23.48	0.33	0	47.24

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1847	490	8.73	476	477	150	91	0	12.95	0.73	0.008	8.84
1012	15	103.61	76	608	300	66	0	8.43	0.12	0	63.7
1123	728	94.22	669	670	200	140	0	-1.38	0.04	0	94.18
1195	533	91.91	382	383	150	91	0	2.53	0.14	0	92.05
1492	877	118.11	465	831	250	130	0	0	0	0	103.33
1327	114	42.29	678	679	200	140	0	0	0	0	42.37
1599	485	35.05	572	463	250	89	0	63.79	1.3	0.014	35.05
1125	813	154.99	779	780	250	140	0	-2.73	0.06	0	162.15
1181	611	47.22	505	506	250	140	0	19	0.39	0.001	47.24
1040	440	28.88	264	263	200	89	0	-20.02	0.64	0.005	28.96
1355	703	1	7	26	300	140	0	203.49	2.88	0.021	0.91
1414	925	1.03	7	15	300	100	0	-203.49	2.88	0.039	0.91
1570	417	33.32	355	356	200	95	0	1	0.03	0	33.22
1341	789	70.73	704	706	200	140	0	5.64	0.18	0	75.59
1734	786	181.91	704	705	300	140	0	-3.4	0.05	0	168.86
1415	788	82.2	704	664	300	140	0	-2.51	0.04	0	78.64
2241	P-1142	296.01	726	J-958	300	130	0	-31.24	0.44	0.001	0
2232	P-1136	473.49	726	J-955	300	140	0	49.22	0.7	0.002	890.32
1220	421	28.16	359	360	150	91	0	0	0	0	28.04
1369	372	82.57	311	310	150	91	0	1.96	0.11	0	82.6
962	367	55.42	304	314	150	91	0	2.34	0.13	0	55.47
1530	322	11.1	194	197	300	89	0	-51.47	0.73	0.004	10.97
1046	904	38.24	32	856	200	100	0	39.71	1.26	0.014	21.03
1382	446	124.42	259	258	200	89	0	-19.9	0.63	0.005	124.36
1354	901	104.4	852	853	200	100	0	-14.47	0.46	0.002	106.07
1522	900	88.99	852	851	150	100	0	0.33	0.02	0	69.49
1553	68	73.59	555	566	250	140	0	-9.11	0.19	0	73.46
1564	340	163.12	283	268	300	95	0	52.26	0.74	0.003	163.07
1723	341	247.61	283	294	300	95	0	-43.68	0.62	0.002	247.5
1390	77	60.6	701	700	250	140	0	-0.44	0.01	0	60.66
1279	84	39.91	689	690	200	130	0	2.16	0.07	0	39.62
1805	88	125.14	689	688	250	130	0	5.45	0.11	0	126.19
967	190	167.72	89	90	200	130	0	-3.37	0.11	0	167.64
1831	423	100.59	363	364	150	91	0	-0.13	0.01	0	100.58
1516	120	79.69	39	40	150	60	0	-0.81	0.05	0	79.55
1222	122	29.23	39	580	200	60	0	12.03	0.38	0.004	29.26
2260	P-1154	159.22	501	J-959	250	130	0	-19.1	0.39	0.001	0
1371	607	28.74	501	502	200	95	0	-7.9	0.25	0.001	9.75
1481	608	45.87	501	503	250	140	0	22.91	0.47	0.001	35.05
1351	237	21.17	138	141	250	140	0	25.44	0.52	0.001	21.03
1680	792	102.24	707	834	250	140	0	-20.51	0.42	0.001	100.58
1774	797	78.03	707	713	150	140	0	0	0	0	70.71
1836	218	8.1	564	565	250	140	0	-110.14	2.24	0.016	8.23
1785	769	179.69	735	731	200	140	0	-0.79	0.03	0	175.26
1187	529	15.24	379	378	250	95	0	0	0	0	15.24
1171	530	16.67	379	377	250	95	0	5.48	0.11	0	16.76
998	526	7.11	379	380	150	91	0	2.97	0.17	0.001	7.01
1687	38	16.26	262	273	250	140	0	21.29	0.43	0.001	16.15
1815	255	80.3	154	155	200	140	0	26.87	0.86	0.004	80.16
1608	135	9.89	42	41	300	140	0	65.14	0.92	0.003	9.75
1096	477	37.77	249	252	200	89	0	-11.7	0.37	0.002	37.8
1105	681	0.97	29	30	300	150	0	-83.64	1.18	0.003	0.91
1887	P-978	1.48	29	BWD-3	304.8	130	0	45.84	0.63	0.001	1.52
994	525	24.99	404	379	250	95	0	8.44	0.17	0	24.99
1638	138	51.93	52	53	150	60	0	6.79	0.38	0.005	51.82
1738	137	91.75	52	45	150	60	0	11.05	0.63	0.013	91.74
1097	132	19.4	49	583	200	60	0	9.52	0.3	0.002	19.51
1401	409	92.87	346	347	150	91	0	0.13	0.01	0	92.96
1253	411	27.92	346	349	150	91	0	-3.51	0.2	0.001	28.04
1547	397	56.59	333	334	150	140	0	1.56	0.09	0	56.69
1053	39	113.85	273	284	250	140	0	21.29	0.43	0.001	114
1859	501	51.44	473	474	200	91	0	2	0.06	0	51.51
1325	489	73.2	473	476	150	91	0	12.95	0.73	0.008	73.15
1244	698	57.54	186	644	300	89	0	-51.47	0.73	0.004	57.61
1251	148	22.03	57	585	300	140	0	78.1	1.1	0.004	21.95
1460	144	95.63	57	48	150	60	0	2.68	0.15	0.001	95.71
1264	219	10.17	565	110	250	140	0	-110.14	2.24	0.016	10.06

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1598	867	217.02	824	803	150	100	0	-3.92	0.22	0.001	222.5
1546	514	50.98	442	443	150	91	0	0.73	0.04	0	50.9
1036	358	144.68	285	286	200	95	0	-9.9	0.32	0.001	144.78
1718	436	178.51	376	377	200	95	0	-5.48	0.17	0	178.61
1339	159	54.43	66	588	200	140	0	17.42	0.55	0.002	54.56
1365	720	134.05	486	659	200	140	0	0	0	0	134.11
1082	642	98.84	530	531	150	140	0	2.76	0.16	0	98.76
1643	314	15.09	213	214	200	140	0	0.84	0.03	0	15.24
1443	547	45	391	392	150	91	0	-0.35	0.02	0	45.11
1050	893	121.64	845	662	250	140	0	32.22	0.66	0.002	89.31
1728	370	39.47	313	312	150	91	0	2.15	0.12	0	39.32
1173	898	89.48	850	710	300	100	0	28.54	0.4	0.001	142.04
1922	P-1004	91.12	850	J-874	200	100	0	-4.79	0.15	0	107.9
996	888	87.96	839	840	250	100	0	-4.21	0.09	0	88.09
1865	249	77.06	149	150	250	140	0	28.99	0.59	0.001	77.11
1159	247	68.78	149	168	150	130	0	1.37	0.08	0	68.88
1271	20	117.84	140	151	250	140	0	17.28	0.35	0.001	117.96
1332	677	28.19	46	610	150	60	0	-28.16	1.59	0.075	34.44
1724	168	106.98	71	63	150	60	0	8.45	0.48	0.008	106.98
1500	169	6.03	71	72	200	130	0	-18.86	0.6	0.002	6.1
1413	377	40.4	315	316	200	140	0	9.61	0.31	0.001	40.54
1525	644	30.22	533	534	150	140	0	2.27	0.13	0	30.18
2141	P-1101	233.69	255	245	300	130	0	21.93	0.31	0	0
1624	124	99.57	41	677	300	140	0	5.6	0.08	0	99.67
1170	125	26.71	41	581	300	60	0	71.17	1.01	0.014	26.82
1517	331	23.85	274	275	150	91	0	0.27	0.02	0	23.77
1444	648	35.4	537	538	150	140	0	1.78	0.1	0	35.36
1266	865	49.06	822	661	200	100	0	-8.09	0.26	0.001	24.69
1013	610	21.45	504	505	250	140	0	19.66	0.4	0.001	21.34
1331	4	67.42	361	464	200	140	0	44.73	1.42	0.009	17.98
1176	312	26.9	211	212	200	140	0	1.16	0.04	0	26.82
1090	510	66.55	450	451	150	91	0	4.33	0.25	0.001	66.45
1616	515	17.31	450	449	250	140	0	33.93	0.69	0.002	17.37
1417	236	21.77	136	138	250	140	0	25.44	0.52	0.001	21.64
1059	235	16.49	136	137	150	140	0	0	0	0	16.46
1419	2	101.15	139	250	200	140	0	-0.11	0	0	100.89
1342	499	67.77	462	461	250	95	0	63.63	1.3	0.012	67.67
1212	244	49.5	147	175	200	140	0	16.57	0.53	0.001	49.38
1772	246	47.4	147	148	250	140	0	18.9	0.39	0.001	47.55
1466	521	53.12	445	405	250	140	0	34.18	0.7	0.002	53.04
1719	519	17.41	445	444	150	95	0	-0.49	0.03	0	17.37
1508	866	110.1	823	824	200	100	0	-2.95	0.09	0	110.03
1817	755	124.79	125	739	150	140	0	9.29	0.53	0.002	114
1605	333	17.03	272	277	150	91	0	-5.1	0.29	0.001	17.07
1754	330	100.53	272	274	150	91	0	0.42	0.02	0	100.58
1424	290	56.63	204	205	200	89	0	-20.15	0.64	0.005	56.69
1968	P-1032	119.88	696	631	200	130	0	-8.13	0.26	0	0
1503	67	22.41	544	555	250	140	0	-9.11	0.19	0	22.56
1347	912	113.21	862	863	200	100	0	-15.41	0.49	0.002	123.75
1106	508	107.05	455	456	250	95	0	26.6	0.54	0.002	106.98
1843	643	78.96	531	533	150	140	0	2.52	0.14	0	78.94
1518	664	58.03	618	620	150	91	0	0	0	0	57.91
1583	597	35.97	618	602	200	95	0	-1.7	0.05	0	35.97
1797	163	155.2	589	69	300	140	0	8.47	0.12	0	155.14
964	23	7.64	173	184	250	140	0	17.02	0.35	0.001	7.62
1446	556	115	400	401	150	91	0	-2.14	0.12	0	114.91
1846	645	123.04	534	535	150	140	0	2.27	0.13	0	123.14
1646	343	54.25	293	292	200	95	0	11.64	0.37	0.002	54.25
1136	324	24.31	595	267	300	89	0	-51.47	0.73	0.004	24.38
1172	463	13	235	236	150	85	0	-1.56	0.09	0	13.11
1056	468	108.9	235	240	150	85	0	-10.22	0.58	0.006	108.81
2230	P-1135	488.18	820	825	400	130	0	-34.24	0.27	0	0
2227	P-1133	800	820	J-953	300	130	0	14.13	0.2	0	0
2212	P-1123	662.09	820	J-948	400	130	0	39.26	0.31	0	0
1543	111	14.37	674	676	300	130	0	16.04	0.23	0	14.33
1126	110	242.27	674	675	250	130	0	0	0	0	242.32
1062	581	22	432	429	150	140	0	2.32	0.13	0	21.95

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1536	27	21.91	575	206	250	140	0	17.02	0.35	0.001	21.95
1242	356	54.12	569	570	150	91	0	5.01	0.28	0.001	54.25
971	774	79.92	702	712	250	140	0	-13.62	0.28	0	86.87
1778	779	85.2	702	724	250	140	0	18.81	0.38	0.001	85.34
1828	349	13.11	291	290	200	140	0	11.4	0.36	0.001	13.11
1368	811	330.6	671	778	200	140	0	0	0	0	330.71
1722	655	6.86	45	44	150	60	0	11.05	0.63	0.013	7.01
1479	300	125.86	192	194	300	89	0	-51.47	0.73	0.004	125.88
1505	784	119.43	728	848	150	140	0	0.75	0.04	0	103.63
1545	336	45.25	279	280	150	91	0	-5.2	0.29	0.002	45.11
1656	149	152.31	585	60	300	140	0	77.17	1.09	0.003	152.4
1854	569	40.96	621	419	200	95	0	1.7	0.05	0	40.84
1690	666	56.22	621	622	150	91	0	0	0	0	56.08
1306	665	122.06	621	411	200	95	0	-1.7	0.05	0	121.92
990	544	24.56	388	389	150	91	0	-1.11	0.06	0	24.69
969	749	1	19	20	200	100	0	-119.85	3.81	0.105	0.91
1803	391	71.73	326	331	250	140	0	8.89	0.18	0	71.63
1626	387	16.12	326	327	150	91	0	0	0	0	16.15
1647	56	3.24	424	435	200	140	0	-1.8	0.06	0	3.35
1615	822	371.78	788	789	250	140	0	11.34	0.23	0	191.72
1678	555	34.65	399	400	150	91	0	-1.88	0.11	0	34.75
1240	718	130.6	658	654	250	140	0	9.3	0.19	0	130.45
1791	630	7.43	522	524	200	140	0	11.4	0.36	0.001	7.32
1745	626	29.12	522	606	200	140	0	-8.53	0.27	0	29.26
1997	P-1035	94.36	553	J-891	250	130	0	-11.82	0.24	0	0
1049	474	79.31	246	247	150	85	0	3.94	0.22	0.001	79.25
1743	668	56.34	629	628	150	140	0	0.32	0.02	0	56.39
959	667	11.64	629	364	200	95	0	0.28	0.01	0	11.58
1686	554	129.7	398	399	150	91	0	-1.88	0.11	0	129.84
1551	335	25.36	278	279	150	91	0	-5.1	0.29	0.001	25.3
1188	560	3.36	409	410	200	95	0	7.74	0.25	0.001	3.35
1459	568	3.62	409	411	200	95	0	1.84	0.06	0	3.66
1418	460	141	233	234	150	85	0	-4	0.23	0.001	141.12
1430	280	77.01	183	182	200	140	0	5.34	0.17	0	77.11
1037	574	61.74	436	434	150	140	0	0.97	0.05	0	61.87
1119	887	50.52	838	839	250	100	0	-4.21	0.09	0	50.6
954	854	179.87	814	822	150	100	0	-7.38	0.42	0.002	173.74
1429	853	38.08	814	803	200	140	0	19.59	0.62	0.002	38.4
1321	126	143.65	581	44	300	60	0	71.17	1.01	0.014	143.56
1771	711	86.93	649	651	150	140	0	4.37	0.25	0	86.87
1378	710	32.78	649	650	150	140	0	0.25	0.01	0	32.92
1267	141	14.43	47	56	300	66	0	-8.27	0.12	0	13.41
1179	327	42.97	269	270	150	91	0	-4.52	0.26	0.001	42.98
1033	780	128.91	724	725	150	140	0	0.42	0.02	0	135.94
1286	781	137.88	724	726	250	140	0	17.99	0.37	0.001	124.36
1175	74	70.37	597	34	250	140	0	-0.44	0.01	0	70.41
968	98	11.15	597	559	250	66	0	-8.67	0.18	0.001	11.28
1073	403	145.1	342	343	150	140	0	-2.97	0.17	0	145.08
1409	279	37.76	185	183	200	140	0	5.34	0.17	0	37.8
1107	426	44.04	366	367	200	95	0	0	0	0	43.89
1594	889	22.67	840	841	250	100	0	-4.21	0.09	0	22.56
1322	636	44.04	549	550	150	140	0	0.19	0.01	0	43.89
1819	303	201.78	193	196	200	140	0	9.61	0.31	0.001	201.78
1569	143	152.29	56	186	300	66	0	-51.47	0.73	0.007	153.01
987	142	20.02	56	584	300	140	0	43.2	0.61	0.001	20.42
1093	71	15.07	587	597	250	140	0	-9.11	0.19	0	14.94
1256	422	59.9	360	363	150	91	0	-0.13	0.01	0	60.05
1021	537	13.89	386	387	250	95	0	15.76	0.32	0.001	14.02
1851	438	107.68	265	267	150	85	0	-5.13	0.29	0.002	107.59
1154	439	141.97	265	264	200	89	0	-20.02	0.64	0.005	142.04
1148	504	12.8	460	459	250	95	0	65.4	1.33	0.013	12.8
1004	26	171.16	184	575	250	140	0	17.02	0.35	0.001	171.3
1442	25	22.62	184	195	250	140	0	0	0	0	22.56
1510	24	14.94	184	552	250	140	0	0	0	0	14.94
1254	175	90.83	78	85	300	140	0	-32.9	0.47	0.001	90.83
1618	174	17.75	78	590	200	60	0	1.56	0.05	0	17.68
1762	756	73.64	739	673	150	140	0	8.27	0.47	0.002	67.36

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1602	757	35.91	739	741	150	140	0	1.02	0.06	0	25.91
1589	99	23.72	559	605	250	66	0	-8.67	0.18	0.001	23.77
1231	805	107.58	B	667	250	140	0	-3.54	0.07	0	107.59
1007	800	22.24	B	J-3	200	140	0	-3.16	0.1	0	63.4
1862	819	41.35	785	786	250	140	0	9.98	0.2	0	29.87
1729	109	97.87	579	674	200	130	0	16.04	0.51	0.002	97.84
965	76	24.78	33	701	250	140	0	-0.44	0.01	0	24.69
1041	680	1.03	28	29	300	150	0	-37.8	0.53	0.001	0.91
1889	P-980	1.29	28	BWD-4	304.8	130	0	37.8	0.52	0.001	1.22
1024	29	7.88	217	553	250	140	0	-11.82	0.24	0	7.92
1234	914	57.15	864	849	300	100	0	23.9	0.34	0.001	66.45
1707	12	15.25	43	54	250	140	0	8.96	0.18	0	15.85
1636	633	34.09	526	527	150	140	0	0.1	0.01	0	34.14
1019	128	102.16	36	560	300	66	0	-0.08	0	0	101.5
1089	116	56.76	36	37	200	60	0	14.35	0.46	0.005	56.69
2324	P-1193	221.25	384	J-989	250	130	0	10.59	0.22	0	0
1054	539	93.52	387	490	250	95	0	16.68	0.34	0.001	93.57
1567	538	30.06	387	388	150	91	0	-1.02	0.06	0	30.18
977	36	23.16	251	558	250	140	0	0	0	0	4.27
1813	579	81.28	433	434	150	140	0	-0.71	0.04	0	81.38
1140	580	56.06	433	432	150	140	0	2.41	0.14	0	56.08
1204	252	92.45	150	152	200	140	0	27.25	0.87	0.004	92.35
1652	250	65.79	150	166	150	60	0	1.73	0.1	0	65.84
1377	281	66.18	182	181	200	140	0	4.94	0.16	0	64.92
1363	734	56.3	673	146	150	140	0	11.11	0.63	0.003	54.56
1196	733	113.46	673	134	200	140	0	-2.97	0.09	0	117.35
1051	880	200.39	833	735	150	100	0	-0.55	0.03	0	246.89
1788	385	71.25	324	325	150	91	0	2.13	0.12	0	71.32
1086	829	110.89	784	795	250	130	0	4.83	0.1	0	97.23
1305	818	38.67	784	785	250	140	0	10.1	0.21	0	77.11
1542	810	309.55	722	702	200	140	0	5.74	0.18	0	243.54
1807	857	8.65	815	818	200	100	0	3.2	0.1	0	18.29
1069	131	5.58	48	49	100	66	0	10.73	1.37	0.076	5.49
1825	565	99.9	600	416	200	95	0	0	0	0	99.97
1098	563	9.49	600	599	200	95	0	0	0	0	9.45
1698	215	15.71	111	563	250	140	0	-148.85	3.03	0.028	15.85
1139	741	1.5	762	763	200	140	0	51.35	1.63	0.012	1.52
1020	156	110.2	63	55	200	66	0	31.93	1.02	0.02	110.34
1349	825	49.27	791	792	250	140	0	36.23	0.74	0.002	46.02
1512	672	73.15	624	623	150	140	0	0.13	0.01	0	73.15
1422	46	128.9	350	577	250	140	0	6.55	0.13	0	128.93
1764	913	66.08	863	855	200	100	0	-15.84	0.5	0.002	76.5
1557	407	35.69	345	598	150	91	0	-3.25	0.18	0.001	35.66
1241	17	77.35	98	119	250	66	0	17.28	0.35	0.002	77.42
1498	204	16.29	98	109	250	66	0	-35.26	0.72	0.008	16.15
1292	240	33.87	143	144	250	140	0	24.47	0.5	0.001	33.83
1566	261	5	104	103	200	60	0	3.34	0.11	0	4.88
1127	217	6.03	563	564	250	140	0	-110.14	2.24	0.016	6.1
1733	216	4.32	563	108	250	140	0	-38.72	0.79	0.002	4.27
1065	14	227.15	65	76	300	66	0	8.43	0.12	0	227.69
1335	588	41.52	485	484	150	140	0	-11.6	0.66	0.003	41.45
1584	589	65.55	485	486	150	140	0	0	0	0	65.53
1765	625	82.89	519	522	150	140	0	2.87	0.16	0	82.91
1464	520	72.72	444	443	150	95	0	-0.49	0.03	0	72.85
1777	323	99.96	197	198	300	89	0	-51.47	0.73	0.004	99.97
1288	628	90.77	548	545	200	140	0	7.47	0.24	0	90.83
1514	629	82.03	548	525	200	140	0	-8.08	0.26	0	81.99
1308	635	9.95	548	549	150	140	0	0.19	0.01	0	10.06
1691	639	44.97	548	551	150	140	0	0.17	0.01	0	45.11
1080	632	16.39	525	526	150	140	0	0.1	0.01	0	16.46
1711	640	122.61	525	529	150	140	0	2.95	0.17	0	122.53
1372	584	29.92	430	458	250	140	0	-26.36	0.54	0.001	29.87
1742	585	127.03	430	431	250	140	0	22.47	0.46	0.001	127.1
1427	875	177.15	610	681	150	100	0	-4.95	0.28	0.001	172.21
1657	656	109.51	610	611	250	130	0	0	0	0	114.91
1575	270	61.02	163	164	150	140	0	-7.59	0.43	0.001	60.96
1708	796	150.95	708	43	250	140	0	8.96	0.18	0	163.98

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1209	793	103.21	708	709	300	140	0	-37.75	0.53	0.001	95.1
1018	624	7.35	518	519	150	140	0	3.06	0.17	0	7.32
1412	623	54.4	518	520	150	140	0	0.17	0.01	0	54.25
1203	726	82.75	667	668	250	140	0	-3.94	0.08	0	82.6
1465	173	89.16	68	78	300	140	0	-32.22	0.46	0.001	89.31
975	713	66.98	652	653	150	140	0	0.25	0.01	0	97.54
1117	714	85.89	652	654	150	140	0	3.62	0.2	0	85.95
1470	64	118.48	489	499	250	140	0	-6.56	0.13	0	119.18
1513	62	9.27	489	488	250	140	0	3.03	0.06	0	8.53
1071	251	14.53	167	166	100	60	0	1.24	0.16	0.002	14.63
1472	289	9.72	203	204	200	89	0	-20.15	0.64	0.005	9.75
1079	352	138.6	300	298	150	140	0	-10.26	0.58	0.002	138.68
1493	187	114.28	84	83	200	130	0	-7.2	0.23	0	114.3
1574	765	53.71	732	733	150	140	0	-0.57	0.03	0	53.64
1066	772	48.34	732	738	150	140	0	0.45	0.03	0	48.46
2182	P-1107	161.11	686	610	250	130	0	23.35	0.48	0.001	0
1182	616	88.53	511	515	150	140	0	3.92	0.22	0	88.39
1174	617	80.29	511	512	250	130	0	0.28	0.01	0	80.16
1025	911	62.65	861	854	150	100	0	0	0	0	67.36
1752	234	19.07	135	136	250	140	0	25.44	0.52	0.001	19.2
1386	133	154.52	583	50	200	60	0	9.33	0.3	0.002	154.53
1504	572	59.97	438	437	150	140	0	1.23	0.07	0	60.05
1283	876	575.65	457	830	250	130	0	0	0	0	489.2
1561	10	34.69	574	691	200	140	0	-45.15	1.44	0.009	34.75
1141	483	7.05	468	467	300	89	0	203.49	2.88	0.048	7.01
1655	702	11.29	468	469	200	89	0	-203.49	6.48	0.348	11.28
1802	213	17.88	112	114	250	140	0	1.73	0.04	0	17.98
1142	214	67.59	112	111	250	140	0	-148.85	3.03	0.028	67.67
1281	212	9.03	112	113	250	140	0	0	0	0	9.14
991	410	36.82	347	348	150	91	0	0	0	0	36.88
1441	500	42.43	461	460	250	95	0	63.63	1.3	0.012	42.37
1227	396	37.97	332	333	150	140	0	1.56	0.09	0	38.1
1198	861	84.37	818	819	200	100	0	4.53	0.14	0	60.35
1219	860	58.34	818	816	200	100	0	-1.34	0.04	0	50.29
1236	100	99.32	605	616	250	66	0	-8.67	0.18	0.001	99.36
1534	503	41	475	460	200	91	0	1.93	0.06	0	41.15
1191	785	119.04	703	704	200	140	0	-0.27	0.01	0	127.1
1375	571	20.94	439	438	150	140	0	1.23	0.07	0	21.03
1601	570	39.74	439	440	150	140	0	0.16	0.01	0	39.62
1144	575	47.56	439	441	150	140	0	-1.39	0.08	0	47.55
1572	609	109.57	503	504	250	140	0	22.51	0.46	0.001	138.99
2136	Align2	255.8	93	J-931	300	130	0	-24.06	0.34	0	0
1520	91	51.65	687	685	100	60	0	7.45	0.95	0.046	51.51
1411	90	53.88	687	694	250	130	0	-2	0.04	0	53.95
1011	282	93.48	181	179	200	140	0	4.94	0.16	0	89.61
1102	419	13.01	357	358	150	91	0	0	0	0	13.11
1208	763	101.96	730	731	200	140	0	0.96	0.03	0	84.73
1633	773	104.22	730	740	250	140	0	0	0	0	60.05
1239	376	39.6	571	315	200	140	0	9.61	0.31	0.001	39.62
1684	400	154.7	336	338	250	140	0	-8.44	0.17	0	154.84
1703	406	82.55	336	337	250	140	0	9.21	0.19	0	82.6
1709	285	100.9	179	180	200	140	0	9.34	0.3	0.001	67.06
1109	852	57.91	812	813	150	100	0	0.31	0.02	0	63.09
1855	851	75.45	812	799	200	100	0	-1.01	0.03	0	78.33
1032	768	79.06	734	735	200	140	0	-0.23	0.01	0	82.6
1131	770	72.61	734	736	150	140	0	0	0	0	47.55
1070	19	104.69	128	140	250	66	0	17.28	0.35	0.002	104.55
1837	263	169.54	592	156	150	130	0	2.34	0.13	0	169.47
1433	73	133.57	521	532	250	140	0	6.22	0.13	0	132.28
1658	586	80.87	431	425	250	140	0	33.78	0.69	0.002	80.77
1379	587	57.08	431	485	150	140	0	-11.6	0.66	0.003	57
1218	557	152.54	407	408	200	95	0	9.58	0.31	0.001	152.4
1533	7	128.81	543	645	150	140	0	0.12	0.01	0	126.49
1259	8	21.8	543	680	200	140	0	-45.15	1.44	0.009	21.95
1714	870	410.77	826	827	200	100	0	0	0	0	403.86
1834	869	150.49	826	660	300	140	0	41.01	0.58	0.001	165.81
1278	709	57.41	648	649	150	140	0	4.62	0.26	0.001	57.3

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1953	P-1022	113.57	780	J-885	150	130	0	0	0	0	0
1044	814	102.49	780	781	250	140	0	-3.44	0.07	0	98.15
984	906	80.42	856	857	200	100	0	23.87	0.76	0.005	97.54
1133	516	46.57	449	447	250	140	0	33.93	0.69	0.002	46.63
1858	593	69.22	425	423	250	140	0	39.31	0.8	0.002	69.19
953	591	19.52	425	427	150	140	0	-5.85	0.33	0.001	19.51
2263	P-1156	699.83	299	J-966	350	130	0	19.94	0.21	0	0
1431	291	9.84	205	207	200	89	0	-20.15	0.64	0.005	9.75
1826	338	59.19	281	282	150	91	0	-5.36	0.3	0.002	59.13
1664	764	33.85	222	732	150	140	0	-0.12	0.01	0	33.83
1081	559	255.13	410	418	200	95	0	7.74	0.25	0.001	255.12
1038	121	16.73	40	49	150	60	0	-1.21	0.07	0	16.76
1404	401	121.42	596	341	150	140	0	-2.31	0.13	0	121.31
1399	355	6.41	302	569	150	91	0	5.01	0.28	0.001	6.4
1761	350	130.67	302	301	150	140	0	-9.84	0.56	0.002	130.76
1832	313	138.72	212	213	200	140	0	1	0.03	0	138.68
1640	379	21.3	318	319	150	140	0	2.47	0.14	0	21.34
1627	513	104.79	453	442	150	91	0	4.17	0.24	0.001	104.85
1301	821	66.64	786	788	250	140	0	14.34	0.29	0	102.11
1509	820	111.53	786	787	250	140	0	-4.47	0.09	0	97.23
1548	496	7.64	482	483	150	140	0	11.76	0.67	0.003	7.62
1619	895	136.08	847	664	300	100	0	-8.34	0.12	0	142.04
1084	264	48.93	156	157	150	60	0	-6.85	0.39	0.005	49.07
1210	191	4.38	90	91	100	60	0	-3.37	0.43	0.011	4.27
1296	233	24.29	133	135	250	140	0	25.44	0.52	0.001	21.34
1017	232	30	133	134	200	140	0	2.97	0.09	0	19.51
1496	66	103.59	532	544	250	140	0	-9.11	0.19	0	103.63
2293	P-1175	726.57	532	J-976	250	130	0	8.11	0.17	0	0
1289	641	9.5	529	530	150	140	0	2.95	0.17	0	9.45
1022	307	138.79	198	595	300	89	0	-51.47	0.73	0.004	138.68
1934	P-1011	618.78	800	J-877	250	130	0	10.82	0.22	0	0
1773	464	153.76	236	237	150	85	0	-1.56	0.09	0	153.62
1462	375	6.97	309	571	200	140	0	9.95	0.32	0.001	7.01
1747	390	4.13	329	326	200	95	0	6.95	0.22	0.001	4.27
1207	799	63.48	714	B	250	140	0	-6.69	0.14	0	59.13
1710	806	92.41	714	829	200	140	0	-1.8	0.06	0	100.58
1034	317	116.71	216	218	150	140	0	0.35	0.02	0	116.74
1821	878	26.53	738	832	150	100	0	0.45	0.03	0	26.52
1749	402	37.78	341	342	150	140	0	-2.61	0.15	0	37.8
976	89	10.69	688	687	250	130	0	5.45	0.11	0	10.67
983	730	154.72	337	668	250	140	0	4.73	0.1	0	151.49
1808	512	63.16	452	453	150	91	0	4.17	0.24	0.001	63.09
1585	528	19.49	381	382	150	91	0	2.77	0.16	0	19.51
1484	362	40.19	289	288	200	140	0	15.88	0.51	0.001	40.23
1294	846	119.17	806	809	150	100	0	0.15	0.01	0	115.21
1822	848	38.66	806	810	150	100	0	-0.15	0.01	0	31.39
1095	368	45.21	570	304	150	91	0	5.01	0.28	0.001	45.11
1270	361	49.02	290	289	200	140	0	15.88	0.51	0.001	49.07
1094	347	48.13	290	303	150	140	0	-4.66	0.26	0.001	48.16
1202	551	83.25	396	394	150	91	0	0.56	0.03	0	83.21
1704	552	46.66	396	397	150	91	0	-1.58	0.09	0	46.63
1138	492	84.41	477	478	150	140	0	6.92	0.39	0.001	84.43
1416	491	201.93	477	482	150	91	0	5.64	0.32	0.002	202.08
978	816	97.38	782	783	250	140	0	-16.1	0.33	0	109.73
1897	P-988	3.51	754	772	254	130	0	101.85	2.01	0.015	3.66
1895	P-986	1.87	754	WST-2	254	130	0	51.21	1.01	0.004	1.83
1376	42	149.54	306	317	250	140	0	13.16	0.27	0	149.66
1507	663	58.28	617	619	150	91	0	0	0	0	58.22
1009	662	62.38	617	618	250	95	0	-1.7	0.03	0	62.48
1099	858	145.83	816	817	200	100	0	-1.89	0.06	0	168.55
1151	374	100.59	308	309	200	95	0	7.99	0.25	0.001	100.58
1393	363	93.31	308	304	150	91	0	-2.48	0.14	0	93.27
1560	230	60.41	131	148	200	66	0	11.65	0.37	0.003	60.35
1295	830	39.44	795	796	250	130	0	4.71	0.1	0	69.8
1293	675	17.3	510	532	250	140	0	-6.56	0.13	0	17.37
1194	926	13.67	169	170	150	100	0	-5.03	0.28	0.001	13.72
1143	16	190.12	87	98	300	66	0	-17.98	0.25	0.001	189.28

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1487	454	71.95	226	227	150	85	0	0.1	0.01	0	71.93
1178	455	89.74	226	229	150	85	0	-10.91	0.62	0.007	89.61
1674	471	90.48	242	243	150	85	0	7.18	0.41	0.003	90.53
1165	472	108.09	242	245	150	85	0	-17.99	1.02	0.017	108.2
1269	863	93.65	819	820	300	100	0	19.16	0.27	0	57.3
1744	862	87.28	819	808	300	100	0	-15.19	0.21	0	85.34
1060	437	18.28	266	265	200	89	0	-25	0.8	0.007	18.29
1350	494	83.78	480	481	150	140	0	6.52	0.37	0.001	83.82
1471	631	79.13	524	525	200	140	0	11.22	0.36	0.001	79.25
1576	954	15.89	200	64	200	130	0	20.15	0.64	0.002	15.85
1725	286	39.09	200	607	200	89	0	-20.15	0.64	0.005	39.01
1637	292	14.06	207	208	200	89	0	-20.15	0.64	0.005	14.02
1713	444	93.84	260	237	150	85	0	-5	0.28	0.002	93.88
1793	445	69.56	260	259	200	89	0	-19.74	0.63	0.005	69.49
1333	739	1.03	757	777	200	140	0	241.34	7.68	0.206	0.91
1893	P-984	1.58	757	WST-1	254	130	0	51.35	1.01	0.004	1.52
1753	269	8.35	158	163	150	140	0	-7.29	0.41	0.001	8.23
1651	266	103	158	159	150	130	0	0.44	0.02	0	103.02
1452	359	27.16	286	287	200	95	0	-10.08	0.32	0.001	27.13
1315	705	35.66	165	164	150	140	0	7.59	0.43	0.001	35.66
1323	272	63.21	165	169	150	140	0	-4.82	0.27	0.001	63.09
1494	598	57.73	602	603	200	95	0	-1.7	0.05	0	57.61
1501	618	9.81	512	513	250	130	0	0.1	0	0	10.36
1806	462	89.77	234	235	150	85	0	-11.53	0.65	0.008	89.92
1614	620	58.25	515	516	150	140	0	3.67	0.21	0	58.22
1285	130	147.07	582	48	200	66	0	8.05	0.26	0.002	147.22
1898	P-989	1.85	772	WST-FIRE	254	130	0	101.85	2.01	0.015	1.83
1699	108	18.85	672	579	200	130	0	16.04	0.51	0.002	18.9
1287	69	16.25	566	576	100	140	0	0	0	0	12.5
1440	70	70.38	566	587	250	140	0	-9.11	0.19	0	70.41
1384	505	54.2	459	454	250	95	0	65.4	1.33	0.013	54.25
1539	44	97.56	328	339	250	140	0	6.8	0.14	0	97.54
1229	72	53.06	328	521	250	140	0	6.35	0.13	0	52.73
1635	154	152.07	586	62	300	140	0	24.42	0.35	0	152.1
1317	353	154.01	294	298	300	95	0	-55.32	0.78	0.004	153.92
1030	342	28.66	294	293	200	95	0	11.64	0.37	0.002	28.65
1550	715	43.78	655	657	150	140	0	-4.23	0.24	0	43.89
1610	777	204.72	655	721	150	140	0	0.73	0.04	0	204.83
1122	535	44.27	383	385	250	95	0	16	0.33	0.001	44.2
997	49	120.6	362	384	250	140	0	10.59	0.22	0	120.7
1461	48	114.24	362	373	250	140	0	0.27	0.01	0	114.3
1554	50	20.27	362	395	350	130	0	-4.3	0.04	0	20.42
1352	466	110.69	238	244	150	85	0	-6.7	0.38	0.003	110.64
1629	92	14.7	685	686	250	140	0	23.35	0.48	0.001	14.63
1801	93	10.7	685	683	250	140	0	-15.89	0.32	0	10.67
1541	432	114.15	371	372	150	91	0	0.1	0.01	0	114
1291	433	9.04	371	374	200	95	0	-5.18	0.16	0	9.14
1571	61	64.72	479	489	250	130	0	-2.73	0.06	0	64.01
1064	412	28.21	349	351	150	91	0	-3.51	0.2	0.001	28.35
1162	6	42.7	573	543	200	140	0	-45.03	1.43	0.009	42.67
1318	105	9.16	646	656	100	60	0	13.2	1.68	0.133	9.14
1152	104	92.54	646	35	250	66	0	14.35	0.29	0.002	92.66
1074	145	151.61	584	57	300	140	0	41.6	0.59	0.001	151.49
1076	54	39.57	413	578	300	130	0	-1.67	0.02	0	39.62
1671	172	10.59	67	68	300	140	0	-32.22	0.46	0.001	10.67
1634	162	18.91	67	589	200	140	0	9.4	0.3	0.001	18.9
960	161	90.67	67	561	300	140	0	39.17	0.55	0.001	90.53
1890	P-981	1.89	18	BWD-4	304.8	130	0	-37.8	0.52	0.001	1.83
1760	748	1.08	18	19	200	100	0	-165.69	5.27	0.192	1.22
1185	944	0.97	18	21	250	100	0	203.49	4.15	0.095	0.91
1559	653	54.85	542	545	200	140	0	-7.09	0.23	0	54.86
1448	767	65.89	733	734	200	140	0	-0.23	0.01	0	60.35
1330	766	183.88	733	215	200	140	0	-0.34	0.01	0	183.79
1792	536	33.7	385	386	250	95	0	15.84	0.32	0.001	33.83
1260	744	10	117	770	250	140	0	-204.41	4.16	0.051	10.06
1108	207	22	117	591	250	140	0	0	0	0	21.95
1480	798	39.26	502	828	250	140	0	-7.9	0.16	0	39.32

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1257	435	7.15	374	376	200	95	0	-5.48	0.17	0	7.01
1361	434	13.86	374	375	150	91	0	0	0	0	13.72
1265	211	61.31	115	112	250	140	0	-147.12	3	0.028	61.26
1048	939	2.4	115	771	250	100	0	292.7	5.96	0.186	2.44
1830	562	6.02	415	600	200	95	0	0	0	0	6.1
1736	21	37.07	151	162	250	140	0	0.27	0.01	0	37.19
1804	22	19.99	151	173	250	140	0	17.02	0.35	0.001	20.12
1883	P-958	1.52	26	BWD-FIRE	304.8	130	0	76.65	1.05	0.004	1.52
957	360	17.57	287	288	200	95	0	-10.08	0.32	0.001	17.68
1451	152	11.3	51	50	300	140	0	73.89	1.05	0.003	11.28
1387	95	41.87	683	682	300	140	0	-15.89	0.22	0	41.76
1578	94	8.91	683	684	250	140	0	0	0	0	8.84
1769	473	63.19	245	246	150	85	0	3.94	0.22	0.001	63.09
1758	443	70.97	261	260	200	89	0	-24.55	0.78	0.007	71.02
1682	938	1.45	763	770	250	100	0	102.57	2.09	0.027	1.52
1005	231	16.84	132	133	250	140	0	28.41	0.58	0.001	16.46
1309	86	125.77	692	693	200	130	0	2.08	0.07	0	125.88
1540	405	15.16	343	345	150	91	0	-3.25	0.18	0.001	15.24
1114	404	50.28	343	344	150	91	0	0.1	0.01	0	50.29
1580	453	98.83	225	226	150	85	0	-10.65	0.6	0.007	98.76
1625	51	140.42	395	406	350	130	0	-4.3	0.04	0	140.51
1623	306	162.48	593	594	250	140	0	5.35	0.11	0	162.46
999	928	87.73	630	631	250	100	0	21.29	0.43	0.001	94.49
1679	759	12.38	741	742	150	140	0	0.67	0.04	0	20.73
1721	239	7.97	141	143	250	140	0	24.47	0.5	0.001	7.92
1307	238	15.99	141	142	150	140	0	0.97	0.05	0	15.85
1814	679	45.35	631	306	250	140	0	13.16	0.27	0	38.4
1336	871	98.2	828	714	250	140	0	-8.5	0.17	0	94.49
1232	65	15.26	499	510	250	140	0	-6.56	0.13	0	15.24
1392	573	113.55	437	436	150	140	0	0.97	0.05	0	113.69
1800	209	8.63	116	120	200	140	0	23.05	0.73	0.003	8.53
1662	956	32.3	116	115	150	130	0	145.57	8.24	0.377	32.31
1249	206	33.67	116	117	250	140	0	-204.41	4.16	0.051	33.53
1473	452	29.84	224	225	150	85	0	-10.65	0.6	0.007	29.87
1562	615	117.43	509	523	200	140	0	9.08	0.29	0	117.35
1739	727	203.66	668	669	200	140	0	-0.98	0.03	0	203.61
1298	592	171.41	427	428	150	140	0	-5.85	0.33	0.001	171.3
1358	450	136.18	256	255	300	89	0	-105.94	1.5	0.014	136.25
1088	448	16.12	256	257	300	89	0	85.68	1.21	0.01	16.15
1670	842	98.58	805	804	250	100	0	9.61	0.2	0	98.76
1768	495	87.38	481	482	150	140	0	6.12	0.35	0.001	87.48
1720	40	156.69	284	295	250	140	0	21.29	0.43	0.001	156.67
1153	189	24.46	88	89	200	130	0	-3.07	0.1	0	24.38
1078	600	34.1	494	495	150	91	0	8.88	0.5	0.004	8.53
1247	82	41.08	695	696	250	140	0	-8.13	0.17	0	39.32
1839	83	28.09	695	689	250	130	0	7.69	0.16	0	30.18
1348	112	157.77	676	677	300	130	0	16.04	0.23	0	157.89
981	382	6.66	321	322	150	91	0	2.32	0.13	0	6.71
1577	850	66.19	799	811	150	100	0	0.28	0.02	0	66.14
1047	295	16.85	188	568	300	89	0	0	0	0	16.76
1482	296	29.62	188	189	300	89	0	-51.47	0.73	0.004	29.57
1649	43	87.27	317	328	250	140	0	13.16	0.27	0	87.17
1581	139	51.65	53	55	150	60	0	6.79	0.38	0.005	51.51
1681	389	98.35	330	329	200	95	0	7.14	0.23	0.001	98.45
1827	673	87.59	608	87	300	66	0	-17.98	0.25	0.001	127.41
1168	381	37.24	320	321	150	91	0	2.32	0.13	0	37.19
1491	894	113.1	846	799	200	100	0	1.29	0.04	0	109.42
1535	194	93.48	86	95	300	140	0	-23.09	0.33	0	93.57
1597	3	43.13	250	361	200	140	0	44.73	1.42	0.009	43.28
1845	5	54.97	250	573	200	140	0	-44.99	1.43	0.009	54.25
1486	357	35.93	282	285	200	95	0	-9.74	0.31	0.001	35.97
1344	339	133.55	282	283	200	95	0	4.38	0.14	0	133.5
1596	840	28.32	802	823	250	100	0	-2.95	0.06	0	28.35
1026	841	126.73	802	805	250	100	0	9.61	0.2	0	126.8
1303	760	134.08	742	729	150	140	0	0.32	0.02	0	127.71
1439	761	110.35	742	743	150	140	0	0.35	0.02	0	92.05
1666	13	27.44	54	65	300	66	0	8.96	0.13	0	30.48

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1304	838	89.36	801	802	250	100	0	7.17	0.15	0	89.31
992	837	89.95	801	807	250	100	0	12.65	0.26	0.001	89.92
1397	167	33.36	70	71	200	140	0	-10.41	0.33	0.001	33.22
1087	182	53.24	73	74	150	140	0	0.11	0.01	0	53.34
1360	884	229.72	835	836	200	100	0	7.93	0.25	0.001	188.37
1667	277	75.12	177	176	200	140	0	-10.55	0.34	0.001	74.98
1276	283	114.45	177	178	200	140	0	4.61	0.15	0	114.3
1300	498	61.85	463	462	250	95	0	63.79	1.3	0.012	61.87
1420	859	94.54	817	706	200	100	0	-2.44	0.08	0	92.05
1130	627	81.41	606	523	200	140	0	-8.72	0.28	0	81.38
1856	590	62.81	426	425	150	140	0	0	0	0	62.79
1757	203	18.53	102	103	200	140	0	-3.34	0.11	0	18.59
1781	329	79.18	271	272	150	91	0	-4.6	0.26	0.001	79.25
1457	442	101.53	263	261	200	89	0	-24.36	0.78	0.007	101.5
1343	441	107.93	263	283	200	89	0	4.26	0.14	0	107.9
1428	299	8.76	191	192	300	89	0	-51.47	0.73	0.004	8.84
1860	845	90.12	808	847	300	100	0	-8.06	0.11	0	90.22
1463	325	8.66	267	268	300	89	0	-56.6	0.8	0.005	8.53
1045	348	38.81	303	302	150	140	0	-4.66	0.26	0.001	38.71
1621	197	16.27	94	93	300	140	0	-20.41	0.29	0	16.15
1235	923	45.4	148	149	250	100	0	30.36	0.62	0.003	45.42
1609	365	36.8	305	307	200	140	0	5.8	0.18	0	36.88
1600	97	68.57	681	677	300	140	0	-21.51	0.3	0	77.42
1395	517	23.09	447	448	150	130	0	0	0	0	23.16
1158	518	102.93	447	445	250	140	0	33.93	0.69	0.002	103.02
1770	706	7.84	507	647	250	140	0	18.35	0.37	0.001	7.92
1015	834	61.09	666	801	250	100	0	19.82	0.4	0.001	60.96
1029	117	115.46	37	39	200	60	0	11.22	0.36	0.003	115.52
1132	119	83.91	37	38	150	140	0	0.04	0	0	83.82
1818	118	98.21	37	672	100	60	0	2.97	0.38	0.008	98.15
1221	890	132.58	539	842	150	100	0	0.4	0.02	0	132.59
995	599	97.59	603	419	200	95	0	-1.7	0.05	0	97.54
1456	856	115.38	706	815	200	100	0	3.2	0.1	0	146.3
1669	883	13.74	836	132	250	140	0	28.41	0.58	0.001	18.29
1639	205	102.34	109	116	250	66	0	-35.8	0.73	0.008	102.41
1944	P-1017	96.6	781	J-881	150	130	0	0	0	0	0
1035	815	106.7	781	782	250	140	0	-3.44	0.07	0	115.82
1272	776	80.63	721	541	250	140	0	-13.98	0.28	0	80.77
1592	259	18.33	106	105	200	60	0	-5.67	0.18	0.001	18.29
1302	509	55.42	456	458	250	140	0	26.36	0.54	0.001	55.47
1823	265	44.05	157	158	150	60	0	-6.85	0.39	0.005	44.2
1199	383	21.65	322	323	150	91	0	2.13	0.12	0	21.64
1654	275	82.55	171	174	150	140	0	0.08	0	0	82.6
1437	274	50.37	171	172	150	140	0	0.4	0.02	0	50.29
1857	532	129.7	402	401	150	91	0	2.3	0.13	0	129.84
1425	531	8.42	402	403	250	95	0	13.55	0.28	0.001	8.53
2259	P-1153	95.73	418	495	250	130	0	7.74	0.16	0	0
2018	P-1043	195.42	720	J-899	200	140	0	-1.63	0.05	0	185.93
1811	807	76.73	720	668	200	140	0	-1.38	0.04	0	76.81
1474	659	31.93	500	614	150	91	0	0.13	0.01	0	32
1167	605	63.75	500	604	250	95	0	20.44	0.42	0.001	63.7
1164	227	79.28	127	129	200	66	0	11.88	0.38	0.003	79.25
956	87	29.84	693	694	200	130	0	2	0.06	0	29.87
1326	147	7.98	58	57	300	140	0	39.17	0.55	0.001	7.92
1120	791	76.65	729	707	250	140	0	-20.16	0.41	0.001	64.92
1586	758	95.06	729	836	250	140	0	20.48	0.42	0.001	85.04
1829	545	36.57	389	390	150	91	0	-1.11	0.06	0	36.58
1497	621	55.69	516	517	150	140	0	0.19	0.01	0	55.78
1676	622	85.93	516	518	150	140	0	3.23	0.18	0	85.95
970	558	36.35	408	409	200	95	0	9.58	0.31	0.001	36.27
1320	52	61.93	406	487	250	140	0	-3.03	0.06	0	61.87
1183	53	26.97	406	413	300	130	0	-1.67	0.02	0	26.82
1436	903	107.05	853	862	200	100	0	-14.91	0.47	0.002	89.31
1028	902	168.21	853	861	200	100	0	0.44	0.01	0	166.73
988	458	76	231	232	150	85	0	-3.84	0.22	0.001	75.9
1716	671	40.74	625	624	150	140	0	0.13	0.01	0	40.84
1467	371	59.19	312	311	150	91	0	2.15	0.12	0	59.13

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1400	31	22.8	228	837	250	140	0	7.55	0.15	0	22.86
1116	123	144.62	580	41	200	60	0	11.87	0.38	0.004	144.48
1838	309	7.79	567	209	250	140	0	0.05	0	0	7.92
2140	P-1100	219.69	467	255	400	130	0	99.07	0.79	0.002	0
1663	484	83.56	467	572	300	89	0	63.79	0.9	0.006	83.52
1705	399	18.4	335	336	150	140	0	1.16	0.07	0	18.29
1394	413	117.05	351	352	150	91	0	-3.67	0.21	0.001	117.04
1356	430	49.64	369	370	200	95	0	0.13	0	0	49.68
1527	651	61.3	540	541	250	140	0	14.38	0.29	0	61.26
1786	652	34.97	540	542	200	140	0	-7.09	0.23	0	35.05
1014	447	101.03	258	256	200	89	0	-20.08	0.64	0.005	100.89
1290	670	30.52	626	625	150	140	0	0.32	0.02	0	30.48
1918	P-1001	109.98	859	J-873	300	100	0	17.91	0.25	0	153.62
1902	P-992	17.34	859	J-866	300	100	0	5.06	0.07	0	85.95
1532	185	22.17	85	86	300	60	0	-23.09	0.33	0.002	22.25
1591	186	79.15	85	84	200	130	0	-7.04	0.22	0	79.25
1490	184	74.4	85	88	200	130	0	-3.07	0.1	0	74.37
1524	398	155.9	334	335	150	140	0	1.16	0.07	0	155.75
1161	497	45.2	483	484	150	140	0	11.76	0.67	0.003	45.11
1233	287	38.58	201	202	200	89	0	-20.15	0.64	0.005	38.71
980	731	90.94	201	671	200	140	0	0	0	0	90.83
1403	873	204.53	829	720	200	140	0	-2.4	0.08	0	204.52
989	674	21.64	446	457	300	130	0	0.13	0	0	14.02
993	59	55.97	446	465	250	130	0	0	0	0	55.17
1861	179	24.09	81	107	200	130	0	-5.46	0.17	0	24.08
1134	258	121.42	81	609	200	60	0	1.74	0.06	0	121.31
1694	619	51.84	513	514	150	140	0	0.1	0.01	0	51.82
1262	753	4.91	21	469	200	100	0	203.49	6.48	0.281	4.88
1255	502	40.11	474	475	200	91	0	1.93	0.06	0	40.23
1280	553	33.22	397	398	150	91	0	-1.58	0.09	0	33.22
1798	486	126.6	247	471	150	85	0	15.11	0.86	0.012	126.49
1328	475	62	247	248	200	89	0	-11.17	0.36	0.002	61.87
1157	146	15.91	561	59	150	60	0	0	0	0	15.85
1795	678	1.37	561	58	300	140	0	39.17	0.55	0.001	1.52
1205	459	20.47	232	233	150	85	0	-3.84	0.22	0.001	20.42
1840	32	144.64	239	554	250	140	0	11.76	0.24	0	120.4
1128	482	41.2	466	467	300	89	0	-40.63	0.57	0.002	41.15
1225	637	49.21	545	546	150	140	0	0.19	0.01	0	49.07
1274	638	50.1	545	547	150	140	0	0.19	0.01	0	49.99
1731	771	48.23	731	737	200	140	0	0	0	0	43.89
1886	P-967	1.69	20	BWD-2	304.8	130	0	-43.2	0.59	0.001	1.83
1787	750	0.87	20	9	200	100	0	-76.65	2.44	0.046	0.91
1528	826	57.56	792	793	250	140	0	36.23	0.74	0.002	54.86
1258	835	106.3	798	846	200	100	0	1.83	0.06	0	106.38
1489	836	84.47	798	800	250	130	0	10.82	0.22	0	84.43
1103	735	127.7	110	44	300	140	0	-110.14	1.56	0.007	127.71
1316	193	46.39	91	93	150	140	0	-3.64	0.21	0	46.33
1402	192	21.27	91	92	200	130	0	0	0	0	16.46
1702	922	1.01	15	1	300	85	0	-203.49	2.88	0.053	0.91
1381	736	22.89	609	82	200	130	0	7.28	0.23	0	22.86
1675	676	38.93	609	106	200	60	0	-5.67	0.18	0.001	39.01
1590	45	120.61	339	350	250	140	0	6.8	0.14	0	120.7
1677	606	296.18	495	501	200	95	0	-4.09	0.13	0	292.91
1075	601	46.88	495	496	250	95	0	20.57	0.42	0.001	72.24
1613	534	72.65	403	383	250	95	0	13.55	0.28	0.001	72.54
1556	47	23.82	577	362	250	140	0	6.55	0.13	0	23.77
1810	308	66.26	594	567	250	140	0	0.05	0	0	66.14
1435	188	18.08	83	82	200	130	0	-7.28	0.23	0	17.98
1573	882	50.75	834	835	200	100	0	8.28	0.26	0.001	42.06
1388	881	19.56	834	708	250	140	0	-28.79	0.59	0.001	25.6
1477	345	89.11	292	291	200	140	0	11.4	0.36	0.001	89
1083	344	29.07	292	296	150	140	0	0.08	0	0	28.96
1215	783	43.51	727	728	400	140	0	4.71	0.04	0	43.59
1284	790	329.81	727	663	200	140	0	-3.86	0.12	0	227.69
1700	488	37.16	472	473	150	91	0	14.95	0.85	0.011	37.19
1261	511	56.13	451	452	150	91	0	4.33	0.25	0.001	56.08
1027	661	24.54	420	617	250	95	0	-1.7	0.03	0	24.69

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1407	817	67.16	783	784	250	140	0	15.06	0.31	0	54.86
1950	P-1020	156.24	783	J-884	250	130	0	-31.15	0.63	0.002	0
1558	844	82.5	804	808	250	100	0	9.55	0.19	0	84.43
1661	253	86.34	152	153	150	130	0	0.38	0.02	0	86.26
1421	254	14.29	152	154	200	140	0	26.87	0.86	0.004	14.33
1111	316	22.19	214	216	150	140	0	0.51	0.03	0	22.25
1782	315	36.7	214	215	200	140	0	0.34	0.01	0	36.58
1001	506	75.48	454	450	250	140	0	38.48	0.78	0.002	75.59
1783	507	71.88	454	455	250	95	0	26.6	0.54	0.002	71.93
1620	487	42.33	471	472	150	91	0	15.11	0.86	0.011	42.37
1039	351	49.32	301	300	150	140	0	-10.1	0.57	0.002	49.38
1799	470	95.51	240	242	150	85	0	-10.62	0.6	0.006	95.4
1852	469	115.51	240	241	150	85	0	0.16	0.01	0	115.52
1816	334	41.37	277	278	150	91	0	-5.1	0.29	0.001	41.45
1031	196	4.43	96	94	300	140	0	-20.41	0.29	0	4.57
1445	198	20.44	96	97	150	140	0	-2.68	0.15	0	20.42
1756	479	21.95	253	254	300	89	0	28.8	0.41	0.001	21.95
1184	481	16.61	253	466	300	89	0	-40.63	0.57	0.002	16.46
1495	60	49.01	470	479	250	130	0	-2.73	0.06	0	49.07
1206	57	133.82	435	470	250	130	0	-1.94	0.04	0	133.81
1755	58	64.4	435	446	250	130	0	0.13	0	0	65.53
1380	657	23.4	202	612	150	85	0	0	0	0	23.47
1329	288	27.55	202	203	200	89	0	-20.15	0.64	0.005	27.43
1228	28	4.74	206	217	250	140	0	-11.82	0.24	0	4.88
1434	37	25.8	206	262	250	140	0	21.29	0.43	0.001	25.91
1549	30	162.81	206	228	250	140	0	7.55	0.15	0	162.76
1217	476	148.47	248	249	200	89	0	-11.7	0.37	0.002	148.44
1617	707	33.16	647	508	250	140	0	13.48	0.27	0	33.22
1223	708	79.43	647	648	150	140	0	4.87	0.28	0.001	79.55
1683	787	29.68	705	728	300	140	0	-3.96	0.06	0	39.93
1726	178	10.98	80	81	100	60	0	-3.61	0.46	0.012	10.97
1091	567	7.2	417	411	200	95	0	0	0	0	7.32
1475	364	45.03	288	305	200	140	0	5.8	0.18	0	45.11
1252	549	39.72	393	394	150	91	0	-0.48	0.03	0	39.62
1784	208	46.77	591	118	250	140	0	0	0	0	46.63
1529	722	133.21	661	845	250	140	0	32.92	0.67	0.002	103.02
1835	855	394.48	661	660	300	100	0	-41.01	0.58	0.002	319.13
974	199	30.65	97	99	150	140	0	-2.68	0.15	0	30.78
1226	949	1.08	1	27	300	85	0	-203.49	2.88	0.053	1.22
1531	596	28.03	421	420	250	140	0	-1.7	0.03	0	28.04
1668	595	28.03	421	422	250	140	0	0	0	0	28.04
1268	614	5.26	508	509	200	140	0	9.08	0.29	0	5.18
1000	613	89.8	508	511	250	130	0	4.39	0.09	0	89.92
1197	311	27.7	209	211	200	140	0	1.16	0.04	0	27.74
1042	310	95.79	209	210	250	140	0	-1.28	0.03	0	53.34
1849	393	8.66	331	340	150	140	0	6.83	0.39	0.001	8.53
966	392	152.54	331	332	150	140	0	2.06	0.12	0	152.4
2156	P-1104	73.37	J-3	J-2	200	140	0	-4.6	0.15	0	77.72
1193	366	6.4	307	308	200	140	0	5.8	0.18	0	6.4
1544	9	43.35	680	574	200	140	0	-45.15	1.44	0.009	43.28
1396	612	34.78	506	507	250	140	0	18.35	0.37	0.001	34.75
1238	424	16.16	356	629	200	95	0	0.79	0.03	0	16.15
1324	418	110.33	356	357	150	91	0	0.21	0.01	0	110.34
1163	896	136.17	848	703	150	140	0	0.16	0.01	0	90.53
1115	171	11.27	77	78	200	60	0	1.05	0.03	0	11.28
979	180	152.56	77	562	200	60	0	-1.05	0.03	0	152.7
1003	724	51.17	663	664	200	140	0	10.91	0.35	0.001	54.25
1008	832	62.81	797	627	250	140	0	27.56	0.56	0.001	62.79
1891	P-982	6	755	758	254	130	0	-292.7	5.78	0.106	6.1
955	754	1.25	755	759	200	140	0	0	0	0	1.22
1641	738	1.97	755	757	200	140	0	292.7	9.32	0.295	1.83
1006	157	99.24	64	562	100	60	0	1.27	0.16	0.002	99.36
1297	158	53.78	64	66	200	140	0	17.42	0.55	0.002	53.64
1692	55	51.67	578	424	300	130	0	-1.8	0.03	0	51.82
1632	134	87.75	50	42	300	140	0	65.14	0.92	0.003	87.78
1502	136	170.3	50	52	200	60	0	17.95	0.57	0.008	170.38
1002	262	97.74	105	156	150	130	0	-9.01	0.51	0.002	97.84

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1612	260	57.4	105	104	200	60	0	3.34	0.11	0	57.3
1789	181	8.57	562	73	150	130	0	0.11	0.01	0	8.53
1410	297	7.63	189	190	300	89	0	-51.47	0.73	0.004	7.62
1312	907	96	857	858	150	100	0	0.28	0.02	0	96.62
1727	908	96.54	857	859	200	100	0	23.15	0.74	0.005	92.66
958	1	88.81	31	139	150	140	0	-0.06	0	0	85.04
1224	222	22.94	122	123	150	140	0	10.32	0.58	0.002	22.86
1067	228	142.98	129	130	200	66	0	11.75	0.37	0.003	142.95
972	704	1	30	26	300	140	0	-126.84	1.79	0.009	0.91
1885	P-966	1.29	30	BWD-2	304.8	130	0	43.2	0.59	0.001	1.22
1850	762	272.36	210	730	250	140	0	0.96	0.02	0	304.5
1776	812	74.57	210	779	250	140	0	-2.73	0.06	0	64.31
1385	886	24.41	837	838	250	100	0	-4.21	0.09	0	24.38
1519	885	137.4	837	239	300	140	0	11.76	0.17	0	137.46
1190	386	40.91	325	326	150	91	0	1.94	0.11	0	40.84
1453	604	14.89	496	500	250	95	0	20.57	0.42	0.001	14.94
1147	602	11.44	496	497	250	95	0	0	0	0	11.58
1740	603	11.22	496	498	250	95	0	0	0	0	11.28
2239	P-1140	50.48	538	J-958	300	130	0	6.16	0.09	0	0
1189	649	64.33	538	539	150	140	0	0.6	0.03	0	64.31
1706	650	137.73	538	540	200	140	0	-4.98	0.16	0	137.77
1160	550	67.87	390	396	150	91	0	-0.94	0.05	0	67.97
1842	546	39.17	390	391	150	91	0	-0.35	0.02	0	39.32
1631	660	76.03	614	615	150	91	0	0	0	0	75.9
1732	113	14.75	677	678	150	130	0	0	0	0	14.63
1478	849	63.94	810	812	200	100	0	-0.71	0.02	0	64.92
1135	891	107.67	810	844	200	100	0	0.24	0.01	0	78.64
1150	839	170.62	803	663	200	140	0	15.67	0.5	0.001	160.32
1345	740	1	777	754	200	140	0	153.06	4.87	0.089	0.91
1485	18	33.93	119	128	250	66	0	17.28	0.35	0.002	33.83
1077	833	124.93	793	797	250	140	0	36.23	0.74	0.002	128.02
1779	478	6.27	252	253	200	89	0	-11.84	0.38	0.002	6.4
986	63	127.51	488	487	250	140	0	3.03	0.06	0	127.41
1319	843	59.42	807	798	250	100	0	12.65	0.26	0.001	59.44
1650	354	65.93	298	299	300	95	0	-65.74	0.93	0.005	65.84
1063	416	42.92	353	355	200	95	0	1	0.03	0	42.98
1405	305	94.05	199	593	250	140	0	5.35	0.11	0	94.18
1611	302	18.09	199	193	200	140	0	9.61	0.31	0.001	17.98
1246	304	147.98	199	266	200	89	0	-25	0.8	0.007	147.83
1104	245	44.1	175	176	200	140	0	16.57	0.53	0.001	44.2
1370	578	127.74	441	433	150	140	0	1.89	0.11	0	127.71
1367	576	36	441	601	150	140	0	-3.44	0.19	0	35.97
1216	729	176.74	670	337	200	140	0	-1.87	0.06	0	173.43
1273	81	79.76	697	695	250	140	0	-0.44	0.01	0	78.33
1338	583	63.89	429	430	150	140	0	-3.62	0.2	0	64.01
952	582	80.91	429	428	150	140	0	5.93	0.34	0.001	80.77
1146	248	62.46	168	167	100	60	0	1.24	0.16	0.002	62.48
1359	160	54.84	588	67	200	140	0	16.35	0.52	0.001	54.86
1568	183	133.08	74	75	150	140	0	0	0	0	133.2
1796	457	92.16	230	231	150	85	0	-3.68	0.21	0.001	92.05
1820	543	132.5	493	494	250	91	0	8.88	0.18	0	132.59
1085	78	119.86	700	699	250	140	0	-0.44	0.01	0	119.79
1391	318	41.56	218	219	150	140	0	0.19	0.01	0	41.45
1383	646	16.44	535	536	150	140	0	0	0	0	16.46
1282	647	142.05	535	537	150	140	0	2.02	0.11	0	142.04
1299	224	64.28	124	125	150	140	0	10.32	0.58	0.002	63.7
1696	905	57.2	855	856	200	100	0	-15.84	0.5	0.002	19.2
1243	153	20.73	60	586	300	140	0	24.42	0.35	0	20.73
1337	150	11.28	60	61	150	60	0	-22.07	1.25	0.048	11.28
1192	151	89.58	60	51	300	140	0	73.89	1.05	0.003	89.61
1364	577	48	601	442	150	91	0	-3.44	0.19	0.001	47.85
985	332	38.98	275	276	150	91	0	0.27	0.02	0	39.01
1357	369	74.68	314	313	150	91	0	2.34	0.13	0	74.68
1023	456	12.76	229	230	150	85	0	-3.68	0.21	0.001	12.8
1552	461	103.23	229	234	150	85	0	-7.37	0.42	0.003	103.33
1145	388	22.96	316	330	200	95	0	7.14	0.23	0.001	22.86
1432	378	9.46	316	318	150	140	0	2.47	0.14	0	9.45

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1848	373	71.66	310	309	150	91	0	1.96	0.11	0	71.63
1149	195	8.96	95	96	300	140	0	-23.09	0.33	0	8.84
1595	541	35.55	490	491	250	95	0	7.48	0.15	0	35.66
1563	540	127.85	490	493	250	91	0	9.04	0.18	0	127.71
1665	743	71.07	758	771	250	100	0	-292.7	5.96	0.186	71.02
2328	P-1196	226.43	554	J-990	250	130	0	11.76	0.24	0	0
1423	33	24.34	554	557	250	140	0	0	0	0	3.66
1389	34	30.24	554	556	250	140	0	0	0	0	16.15
1660	35	20.87	554	251	250	140	0	0	0	0	3.35
1966	P-1030	152.8	843	821	200	130	0	0.24	0.01	0	0
1237	319	44.46	219	220	150	140	0	0.19	0.01	0	44.5
1346	415	14.55	352	354	150	130	0	0	0	0	14.63
1263	414	9.75	352	353	200	95	0	1	0.03	0	9.75
1340	428	53.05	352	368	200	95	0	-4.84	0.15	0	53.04
1362	634	44.9	527	528	150	140	0	0.1	0.01	0	44.81
1334	408	42.76	598	346	150	91	0	-3.25	0.18	0.001	42.67
1499	276	92.54	170	177	150	140	0	-5.75	0.33	0.001	92.66
1673	273	92.17	170	171	150	140	0	0.72	0.04	0	92.05
1763	732	338.92	196	594	150	140	0	-3.3	0.19	0	338.94
1967	P-1031	379	196	791	250	130	0	12.91	0.26	0	0
1248	220	71.43	108	55	200	66	0	-38.72	1.23	0.028	71.32
1737	712	166.32	651	652	150	140	0	4.12	0.23	0	166.42
961	654	124.29	607	201	200	89	0	-20.15	0.64	0.005	124.36
1642	80	23.72	698	697	250	140	0	-0.44	0.01	0	20.42
1751	465	80.84	237	238	150	85	0	-6.56	0.37	0.003	80.77
1201	298	24.43	190	191	300	89	0	-51.47	0.73	0.004	24.38
1644	103	76.87	635	646	250	66	0	27.56	0.56	0.005	76.81
1695	229	3.07	130	131	200	66	0	11.75	0.37	0.003	3.05
1043	107	47.46	656	672	200	130	0	13.07	0.42	0.001	47.55
1010	106	245.28	656	665	150	130	0	0.13	0.01	0	245.36
1458	115	5.81	35	36	300	66	0	14.35	0.2	0.001	5.79
1685	566	18.05	416	417	200	95	0	0	0	0	17.98
1156	747	2.58	770	768	150	100	0	-101.85	5.76	0.316	2.44
1645	96	52.4	682	681	300	140	0	-16.56	0.23	0	43.28
1155	176	156.03	590	79	200	60	0	1.56	0.05	0	156.06
1780	719	132.65	654	540	250	140	0	12.62	0.26	0	132.59
1693	102	104.63	627	635	250	66	0	27.56	0.56	0.005	104.55
1468	328	61.75	270	271	150	91	0	-4.52	0.26	0.001	61.87
1689	775	91.6	712	721	250	140	0	-14.32	0.29	0	91.74
1759	778	146.23	712	723	150	100	0	0.4	0.02	0	146.3
1653	380	99.11	319	320	150	140	0	2.32	0.13	0	99.06
1230	284	37.63	178	179	200	140	0	4.5	0.14	0	30.78
1250	326	10.05	268	269	150	91	0	-4.52	0.26	0.001	10.06
1488	223	11.47	123	124	150	140	0	10.32	0.58	0.002	11.58
1746	346	57.28	296	297	150	140	0	0.08	0	0	57.3
1579	293	90.33	208	199	200	89	0	-9.75	0.31	0.001	90.22
1844	301	45.48	208	223	150	89	0	-10.4	0.59	0.006	45.42
1565	241	43.12	144	145	250	140	0	24.47	0.5	0.001	42.98
1016	548	36.56	392	393	150	91	0	-0.48	0.03	0	36.58
1118	561	11.75	414	415	200	95	0	0	0	0	11.89
1775	85	54.65	690	692	200	130	0	2.16	0.07	0	54.86
1124	868	161.46	825	727	150	100	0	0.86	0.05	0	163.98
1766	431	37.2	368	371	200	95	0	-5.08	0.16	0	37.19
1408	429	93.45	368	369	200	95	0	0.13	0	0	93.57
1447	451	107.32	223	224	150	85	0	-10.56	0.6	0.006	107.29
1092	658	55.13	244	613	150	85	0	0.1	0.01	0	55.17
973	467	147.5	244	243	150	85	0	-6.99	0.4	0.003	147.52
1506	824	34.09	790	791	250	140	0	23.32	0.48	0.001	29.87
1476	75	44.99	34	33	250	140	0	-0.44	0.01	0	45.11
1604	384	18.29	323	324	150	91	0	2.13	0.12	0	18.29
1311	127	122.94	44	46	300	130	0	-28.03	0.4	0.001	124.36
1750	721	136.08	423	826	300	140	0	41.01	0.58	0.001	118.87
1603	594	27.33	423	421	250	140	0	-1.7	0.03	0	27.43
1833	879	197.77	832	833	150	100	0	0.45	0.03	0	197.82
1892	P-983	3.15	866	777	304.8	130	0	-88.28	1.21	0.005	3.05
1882	P-977	2.23	Brentwood	27	304.8	130	0	1,384.99	18.98	0.773	2.13
1884	P-959	1.64	BWD-FIRE	9	304.8	130	0	76.65	1.05	0.004	1.52

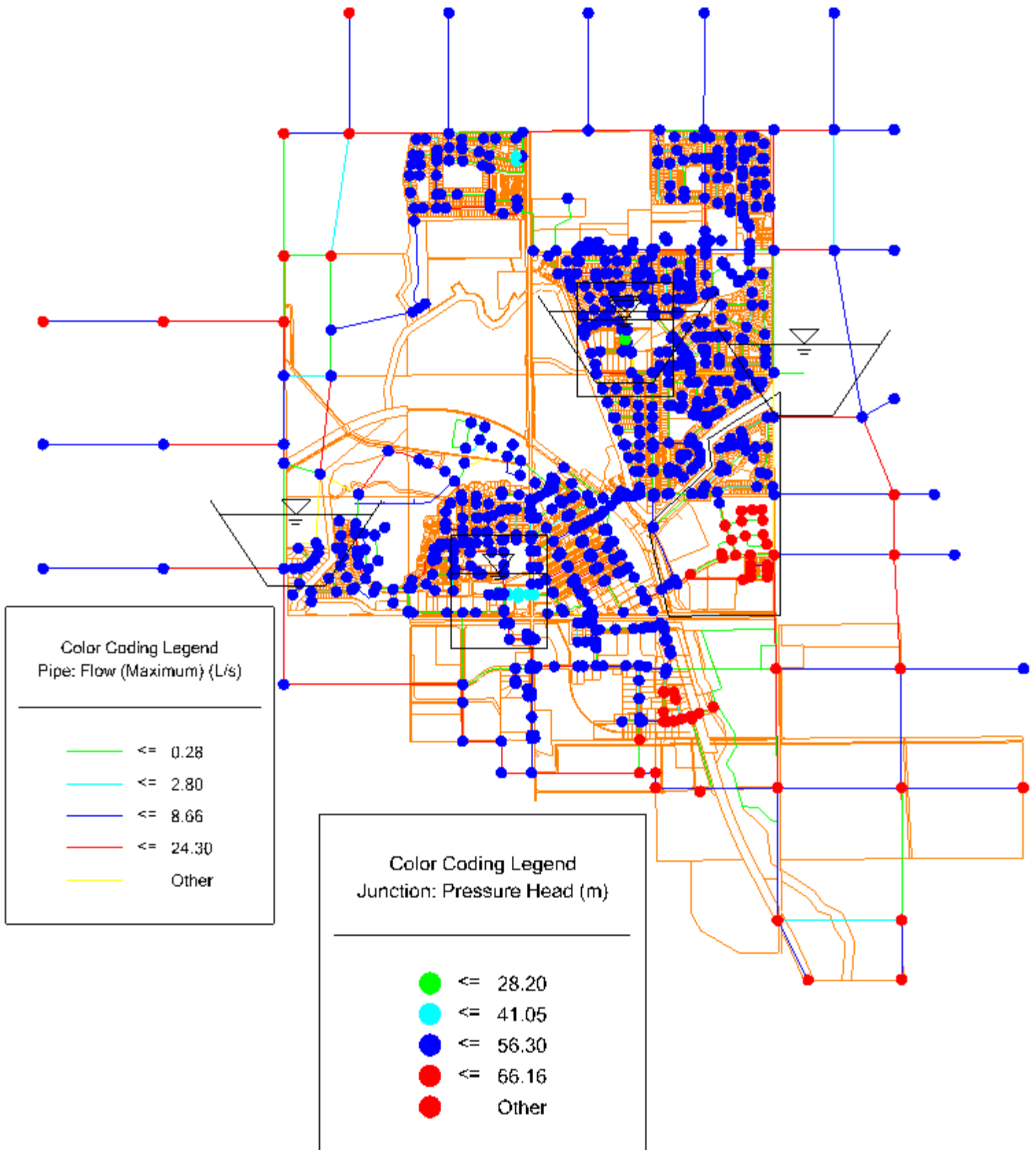
ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1888	P-979	1.53	BWD-3	19	304.8	130	0	45.84	0.63	0.001	1.52
1894	P-985	2.43	WST-1	762	254	130	0	51.35	1.01	0.004	2.44
1896	P-987	2.22	WST-2	763	254	130	0	51.21	1.01	0.004	2.13
1899	P-990	2.15	WST-FIRE	768	254	130	0	101.85	2.01	0.015	2.13
1903	P-993	49.97	J-866	860	300	100	0	-2.09	0.03	0	85.95
1905	P-994	53.57	J-866	J-867	200	130	0	7.15	0.23	0	0
1907	P-995	108.02	J-867	J-868	200	130	0	4.24	0.13	0	0
1909	P-996	129.18	J-868	J-869	200	130	0	-1.93	0.06	0	0
1920	P-1003	51.94	J-868	J-873	200	130	0	6.17	0.2	0	0
1911	P-997	83.61	J-869	J-870	200	130	0	-1.93	0.06	0	0
1913	P-998	172.41	J-870	J-871	200	130	0	-1.93	0.06	0	0
1914	P-999	76.14	J-871	J-867	200	130	0	-1.93	0.06	0	0
1916	P-1000	86.79	J-871	J-872	200	130	0	0	0	0	0
1919	P-1002	37.91	J-873	864	300	100	0	24.08	0.34	0.001	153.62
1925	P-1006	167.15	J-874	J-875	200	130	0	9.22	0.29	0.001	0
1923	P-1005	25.77	J-874	852	200	100	0	-14.01	0.45	0.002	107.9
1932	P-1010	40.95	J-875	710	200	130	0	9.22	0.29	0.001	0
2047	P-1046	346.69	J-876	J-900	250	130	0	18.92	0.39	0.001	0
1936	P-1012	48.17	J-877	J-878	150	130	0	0	0	0	0
1938	P-1013	50.01	J-877	J-879	250	130	0	9.9	0.2	0	0
2220	P-1128	555.78	J-879	J-951	250	130	0	9.9	0.2	0	0
1941	P-1015	88.32	J-880	782	250	130	0	-12.65	0.26	0	0
1946	P-1018	118.82	J-881	J-882	150	130	0	0	0	0	0
1948	P-1019	210.16	J-881	J-883	150	130	0	0	0	0	0
2289	P-1172	800	J-884	J-975	300	130	0	26.62	0.38	0.001	0
2298	P-1178	761.34	J-884	J-976	300	130	0	49.66	0.7	0.002	0
1955	P-1023	139.73	J-885	J-886	150	130	0	0.01	0	0	0
1957	P-1024	70.73	J-886	J-887	150	130	0	0.01	0	0	0
1959	P-1025	62.88	J-887	J-888	150	130	0	0.01	0	0	0
1961	P-1026	73.79	J-888	J-889	150	130	0	0.01	0	0	0
1962	P-1027	69.84	J-889	J-885	150	130	0	0.01	0	0	0
1965	P-1029	160.38	J-890	781	150	130	0	0	0	0	0
1978	P-1033	2.83	R-1	27	300	130	0	-1,181.50	16.71	0.622	0
2000	P-1037	382.28	J-891	J-892	300	130	0	-16.04	0.23	0	0
1998	P-1036	79.93	J-891	841	152.4	130	0	4.21	0.23	0	0
2001	P-1038	477.2	J-892	608	300	130	0	-26.28	0.37	0.001	0
2003	P-1039	120.07	J-892	J-893	300	130	0	17.07	0.24	0	0
2320	P-1190	258.38	J-893	J-981	300	130	0	17.07	0.24	0	0
2020	Prop 200 m	35.3	J-894	691	200	130	0	85.04	2.71	0.034	0
2196	P-1114	461.99	J-894	J-941	300	130	0	107.61	1.52	0.007	0
2019	P-1044	133.33	J-899	337	200	140	0	-2.23	0.07	0	185.93
2060	P-1053	216.31	J-900	J-906	200	130	0	18.92	0.6	0.002	0
2058	Algn1.2	227.72	J-904	J-905	300	130	0	27.69	0.39	0.001	0
2069	Algn1.1	148.31	J-904	180	200	130	0	-27.69	0.88	0.004	0
2107	P-1083	119.48	J-905	J-923	300	130	0	25.46	0.36	0.001	0
2097	P-1077	93.85	J-905	J-919	200	130	0	1.83	0.06	0	0
2066	P-1057	60.89	J-906	J-908	200	130	0	18.92	0.6	0.002	0
2120	P-1091	126.28	J-908	J-928	200	130	0	18.92	0.6	0.002	0
2099	P-1078	136.78	J-919	J-920	200	130	0	0.8	0.03	0	0
2101	P-1079	378.19	J-920	J-921	200	130	0	0.08	0	0	0
2103	P-1080	97.25	J-921	J-922	200	130	0	-0.53	0.02	0	0
2105	P-1082	175.47	J-921	J-920	200	130	0	-0.12	0	0	0
2104	P-1081	91.03	J-922	J-919	200	130	0	-0.83	0.03	0	0
2109	P-1084	210.15	J-923	J-924	200	130	0	3.9	0.12	0	0
2112	P-1086	85.56	J-923	J-925	200	130	0	0.7	0.02	0	0
2134	P-1097	97.39	J-924	J-931	200	130	0	3.3	0.11	0	0
2121	P-1092	91.83	J-928	180	200	130	0	18.92	0.6	0.002	0
2135	P-1098	91.69	J-931	J-923	300	130	0	-20.76	0.29	0	0
2157	P-1105	70.47	J-2	J-1	200	140	0	-7.48	0.24	0	77.72
2173	P-1106	133.07	Wildflower	J-894	300	130	0	199.45	2.82	0.023	0
2186	P-1109	800	J-935	J-936	300	130	0	14.13	0.2	0	0
2190	P-1111	123.91	J-937	J-938	400	130	0	56.12	0.45	0.001	0
2198	P-1116	251.17	J-937	J-941	300	130	0	-60.6	0.86	0.003	0
2192	P-1112	800	J-938	J-939	250	130	0	28.26	0.58	0.002	0
2200	P-1117	454.84	J-938	J-942	400	130	0	27.86	0.22	0	0
2194	P-1113	800	J-939	J-940	250	130	0	14.13	0.29	0	0
2197	P-1115	289.51	J-941	J-876	300	130	0	22.21	0.31	0	0

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen- Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
2225	P-1132	654.5	J-941	J-952	250	130	0	24.79	0.5	0.001	0
2202	P-1118	360.03	J-942	J-943	400	130	0	29.01	0.23	0	0
2204	P-1119	800	J-943	J-944	300	130	0	28.26	0.4	0.001	0
2208	P-1121	437.02	J-943	J-946	400	130	0	0.75	0.01	0	0
2206	P-1120	800	J-944	J-945	300	130	0	14.13	0.2	0	0
2210	P-1122	811.74	J-946	J-947	400	130	0	-6.19	0.05	0	0
2213	P-1124	434.84	J-948	J-947	400	130	0	6.19	0.05	0	0
2215	P-1125	800	J-948	J-949	250	130	0	14.13	0.29	0	0
2217	P-1126	820.67	J-948	J-950	250	130	0	4.81	0.1	0	0
2218	P-1127	314.12	J-950	J-946	250	130	0	-6.94	0.14	0	0
2224	P-1131	492.89	J-950	J-951	250	130	0	-5.28	0.11	0	0
2222	P-1129	304.16	J-951	J-952	250	130	0	-9.51	0.19	0	0
2223	P-1130	314.12	J-952	J-942	250	130	0	1.15	0.02	0	0
2233	P-1137	436.98	J-955	825	300	140	0	35.09	0.5	0.001	890.32
2235	P-1138	780.14	J-955	J-956	250	130	0	14.13	0.29	0	0
2240	P-1141	775.38	J-958	J-957	300	130	0	14.13	0.2	0	0
2245	P-1144	800.02	J-959	J-960	400	130	0	59.27	0.47	0.001	0
2261	P-1155	400	J-959	J-964	250	130	0	25.31	0.52	0.001	0
2264	P-1157	811.9	J-959	J-966	400	130	0	-103.67	0.83	0.002	0
2246	P-1145	462.31	J-960	J-958	400	130	0	39.2	0.31	0	0
2250	P-1147	400	J-960	J-962	300	130	0	20.06	0.28	0	0
2253	P-1149	775.38	J-962	J-963	250	130	0	14.13	0.29	0	0
2251	P-1148	400.00	J-962	J-961	300	130	0	14.13	0.2	0	0
2277	P-1165	1,123.03	J-964	J-970	250	130	0	2.98	0.06	0	0
2258	P-1152	800.02	J-964	J-962	250	130	0	8.2	0.17	0	0
2257	P-1151	400	J-964	J-965	250	130	0	14.13	0.29	0	0
2266	P-1158	203.62	J-966	R-3	400	130	0	-248.07	1.97	0.009	0
2268	P-1159	295.23	J-966	J-967	400	130	0	164.34	1.31	0.004	0
2275	P-1163	588.31	J-967	J-970	300	130	0	40.77	0.58	0.001	0
2270	P-1160	513.62	J-967	J-968	400	130	0	123.57	0.98	0.002	0
2271	P-1161	399.26	J-968	J-884	400	130	0	107.44	0.85	0.002	0
2283	P-1168	800	J-968	J-973	250	130	0	16.13	0.33	0.001	0
2276	P-1164	243.91	J-970	J-969	300	130	0	14.13	0.2	0	0
2285	P-1170	555.69	J-970	J-973	250	130	0	29.62	0.6	0.002	0
2284	P-1169	266.67	J-973	J-971	250	130	0	14.13	0.29	0	0
2291	P-1174	399.1	J-973	J-975	250	130	0	31.62	0.64	0.002	0
2290	P-1173	400	J-975	J-974	300	130	0	14.13	0.2	0	0
2304	P-1182	762.32	J-975	J-977	250	130	0	29.99	0.61	0.002	0
2295	P-1176	826.72	J-976	J-977	250	130	0	14.99	0.31	0	0
2329	P-1197	789.83	J-976	J-986	300	130	0	28.64	0.41	0.001	0
2330	P-1198	789.80	J-977	J-987	250	130	0	16.72	0.34	0.001	0
2297	P-1177	817.85	J-977	J-978	250	130	0	14.13	0.29	0	0
2303	P-1181	1,187.02	J-979	J-892	300	130	0	6.82	0.1	0	0
2307	P-1183	258.79	J-981	J-982	300	130	0	17.07	0.24	0	0
2309	P-1184	209.5	J-982	J-983	300	130	0	17.07	0.24	0	0
2326	P-1194	201.03	J-983	J-990	300	130	0	17.07	0.24	0	0
2313	P-1186	98.2	J-984	J-985	300	130	0	25.29	0.36	0.001	0
2315	P-1187	810.62	J-985	J-986	300	130	0	25.29	0.36	0.001	0
2332	P-1199	879.16	J-986	J-991	250	130	0	17.37	0.35	0.001	0
2317	P-1188	824.14	J-986	J-987	300	130	0	22.44	0.32	0	0
2319	P-1189	806.98	J-987	J-988	300	130	0	14.13	0.2	0	0
2323	P-1192	105.28	J-989	J-984	300	130	0	25.29	0.36	0.001	0
2327	P-1195	716.13	J-990	J-989	300	130	0	28.83	0.41	0.001	0
2334	P-1200	824.13	J-991	J-992	250	130	0	3.24	0.07	0	0
2339	P-1203	446.49	J-991	J-994	250	130	0	14.13	0.29	0	0
2335	P-1201	879.16	J-992	J-987	250	130	0	-10.89	0.22	0	0
2337	P-1202	392.18	J-992	J-993	250	130	0	14.13	0.29	0	0

Appendix A7

2046 Maximum Day Demand
Scenario (280 L/s)

Appendix A7 – 2046 Peak Day Demand Scenario (280 L/sec)



ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
103	860	979.78	Zone-1	0.00	1,025.15	444
104	126	977.1	Zone-1	0.00	1,024.85	467.3
105	628	979.5	Zone-1	0.00	1,026.02	455.3
107	220	974.5	Zone-1	0.16	1,024.42	488.6
108	528	976.9	Zone-1	0.10	1,025.47	475.4
109	79	978.3	Zone-1	0.25	1,022.28	430.4
110	166	976.3	Zone-1	0.13	1,023.60	462.9
111	J-1	977	Zone-1	0.00	1,025.66	476.3
112	145	977.3	Zone-1	0.00	1,024.10	458
113	464	979.78	Zone-1	0.00	1,025.27	445.2
114	380	980.9	Zone-1	0.19	1,026.16	443
115	849	979.44	Zone-1	0.00	1,025.03	446.1
116	172	977	Zone-1	0.40	1,023.64	456.5
117	809	977	Zone-1	0.00	1,025.31	472.8
118	120	977.8	Zone-1	0.00	1,025.25	464.4
119	546	978.6	Zone-1	0.19	1,025.47	458.7
120	257	979.1	Zone-1	0.00	1,027.25	471.3
121	358	978.5	Zone-1	0.00	1,026.02	465.1
122	295	974.5	Zone-1	0.00	1,024.53	489.7
124	72	976.8	Zone-1	0.00	1,022.32	445.5
125	69	977.4	Zone-1	0.93	1,022.19	438.4
126	405	980.7	Zone-1	0.00	1,026.20	445.3
127	560	971.3	Zone-1	0.11	1,022.27	498.9
128	478	978	Zone-1	0.40	1,026.83	477.9
129	227	975.1	Zone-1	0.10	1,025.46	492.9
130	100	976	Zone-1	0.24	1,022.50	455
131	491	979.2	Zone-1	0.00	1,025.80	456.1
132	187	974	Zone-1	0.00	1,023.31	482.6
133	616	972.45	Zone-1	0.00	1,024.22	506.7
134	121	977.3	Zone-1	0.21	1,025.00	466.8
135	280	975.4	Zone-1	0.00	1,025.28	488.1
136	364	979.5	Zone-1	0.15	1,026.02	455.3
137	155	976.4	Zone-1	0.00	1,022.84	454.5
138	411	981.5	Zone-1	0.14	1,026.02	435.7
139	604	978	Zone-1	0.00	1,025.56	465.5
140	699	974.69	Zone-1	0.00	1,024.36	486.1
141	709	978.5	Zone-1	0.00	1,024.80	453.1
142	691	979.78	Zone-1	0.18	1,026.23	454.6
143	657	978.5	Zone-1	0.26	1,025.46	459.6
144	340	976	Zone-1	0.51	1,025.60	485.4
145	176	977.7	Zone-1	0.32	1,023.79	451.1
146	844	977	Zone-1	0.00	1,025.31	472.8
147	99	975.3	Zone-1	0.11	1,022.48	461.7
148	662	979	Zone-1	0.19	1,025.46	454.7
149	789	967.8	Zone-1	0.67	1,024.43	554.2
150	796	966.8	Zone-1	0.12	1,024.52	564.9

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
151	599	981.5	Zone-1	0.00	1,026.02	435.7
152	254	979	Zone-1	0.00	1,029.64	495.6
153	159	974.9	Zone-1	0.29	1,023.41	474.7
154	62	976.3	Zone-1	0.93	1,021.33	440.7
155	59	975.7	Zone-1	0.00	1,022.10	454.1
156	497	978	Zone-1	0.00	1,025.62	466
157	134	978.5	Zone-1	0.00	1,024.33	448.6
158	476	977.5	Zone-1	0.00	1,026.96	484
159	76	978.58	Zone-1	0.00	1,024.75	451.9
160	669	977.5	Zone-1	0.40	1,025.59	470.6
161	830	965.9	Zone-1	0.00	1,024.43	572.8
162	382	981	Zone-1	0.24	1,026.08	441.1
163	465	966.9	Zone-1	0.00	1,024.43	563
164	711	978.5	Zone-1	0.00	1,024.80	453.1
165	678	976.8	Zone-1	0.00	1,020.77	430.4
166	572	979.5	Zone-1	0.00	1,029.43	488.7
167	779	968.3	Zone-1	0.00	1,024.44	549.4
168	505	977	Zone-1	0.66	1,025.52	474.8
169	264	978.3	Zone-1	0	1,025.35	460.5
170	7	979.4	Zone-no fire flow	0.00	992.27	126
171	665	972.4	Zone-1	0.13	1,021.10	476.6
172	550	978.2	Zone-1	0.19	1,025.47	462.6
173	355	980	Zone-1	0.00	1,026.02	450.4
174	704	983	Zone-1	0.00	1,025.31	414
175	726	978	Zone-1	0.00	1,025.43	464.2
176	359	978.5	Zone-1	0.00	1,026.02	465.1
177	311	977	Zone-1	0.19	1,025.61	475.8
178	304	977	Zone-1	0.19	1,025.63	476
179	194	976.5	Zone-1	0.00	1,024.08	465.7
180	32	979.78	Zone-1	0.00	1,025.80	450.4
181	259	978.2	Zone-1	0.16	1,026.65	474.2
182	852	979.29	Zone-1	0.13	1,024.99	447.3
183	555	970.2	Zone-1	0.00	1,024.40	530.4
184	283	976.7	Zone-1	0.06	1,025.37	476.4
185	701	972.33	Zone-1	0.00	1,024.36	509.2
186	689	976	Zone-1	0.08	1,024.36	473.3
187	89	973	Zone-1	0.31	1,022.38	483.3
188	363	978.5	Zone-1	0.00	1,026.02	465.1
189	650	977	Zone-1	0.25	1,025.49	474.6
190	39	974.4	Zone-1	0.00	1,021.51	461
191	501	978	Zone-1	0.00	1,025.57	465.5
192	138	978.5	Zone-1	0.00	1,024.24	447.7
193	675	973.8	Zone-1	0.00	1,020.82	460.2
194	221	974.5	Zone-1	0.00	1,024.42	488.6
195	707	978.5	Zone-1	0.35	1,024.57	450.9
196	564	976	Zone-1	0.00	1,016.63	397.7

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (m)	Pressure (kPa)
197	771	977.8	Zone-1	0.00	1,011.30	327.9
198	735	974.5	Zone-1	0.00	1,024.42	488.6
199	379	980.9	Zone-1	0.00	1,026.17	443
200	262	977.11	Zone-1	0.00	1,024.65	465.3
201	154	976.3	Zone-1	0.00	1,023.17	458.8
202	42	976	Zone-1	0.00	1,020.80	438.5
203	249	978	Zone-1	0	1,029.60	505
204	29	978.1	Zone-no fire flow	0.00	992.24	138.4
205	404	980.9	Zone-1	0.00	1,026.17	443.1
206	52	975.8	Zone-1	0.11	1,019.47	427.4
207	49	974.3	Zone-1	0.00	1,021.52	462.1
208	346	978.3	Zone-1	0.13	1,025.81	465
209	333	975.5	Zone-1	0.00	1,025.59	490.2
210	273	977.11	Zone-1	0.00	1,024.65	465.2
211	473	977.4	Zone-1	0.00	1,027.41	489.5
212	186	973.5	Zone-1	0.00	1,023.11	485.5
214	57	975.7	Zone-1	0.00	1,022.09	454
215	565	976	Zone-1	0.00	1,016.79	399.2
216	851	979.29	Zone-1	0.33	1,024.99	447.3
217	824	978.35	Zone-1	0.97	1,025.35	460
218	146	977.3	Zone-1	0.11	1,024.12	458.2
219	442	980.7	Zone-1	0.00	1,026.34	446.7
220	285	975.2	Zone-1	0.16	1,025.44	491.7
221	373	969	Zone-1	0.27	1,024.43	542.5
222	376	980.4	Zone-1	0.00	1,026.07	447
223	66	974	Zone-1	0.00	1,022.39	473.6
224	486	978	Zone-1	0.00	1,026.43	474
225	530	977.4	Zone-1	0.19	1,025.47	470.4
226	213	973.8	Zone-1	0.16	1,024.42	495.4
227	391	980	Zone-1	0.00	1,025.94	449.6
228	845	979.72	Zone-1	0.70	1,025.55	448.5
229	664	983.1	Zone-1	0.06	1,025.31	413.1
230	313	977	Zone-1	0.19	1,025.62	475.9
231	850	979.29	Zone-1	0.15	1,024.96	447
232	839	977.99	Zone-1	0.00	1,024.66	456.8
233	778	973.5	Zone-1	0.00	1,023.40	488.3
234	149	976.3	Zone-1	0.00	1,023.76	464.5
235	679	976.4	Zone-1	0.00	1,020.77	434.3
236	365	979.5	Zone-1	0.00	1,026.02	455.3
237	140	977	Zone-1	0.00	1,024.72	467.1
239	46	976.2	Zone-1	0.13	1,018.05	409.6
240	71	976.8	Zone-1	0.00	1,022.30	445.3
241	315	975	Zone-1	0.00	1,025.61	495.3
242	533	977.8	Zone-1	0.25	1,025.46	466.5
243	517	977	Zone-1	0.19	1,025.49	474.6
244	255	977.5	Zone-1	0.00	1,029.47	508.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
245	41	976	Zone-1	0.24	1,020.78	438.2
246	274	975.5	Zone-1	0.14	1,025.13	485.7
247	537	978.97	Zone-1	0.25	1,025.46	455
248	822	980.52	Zone-1	0.71	1,025.63	441.5
249	504	977	Zone-1	2.85	1,025.52	474.9
250	361	979.78	Zone-1	0.00	1,025.47	447.2
251	211	972.9	Zone-1	0.00	1,024.42	504.2
252	164	976.3	Zone-1	0.00	1,023.52	462.1
253	713	978.5	Zone-1	0.00	1,024.57	450.9
254	450	979.4	Zone-1	0.21	1,026.57	461.7
255	136	978.5	Zone-1	0.00	1,024.27	448
256	139	979.78	Zone-1	0.05	1,025.60	448.5
257	462	979	Zone-1	0.16	1,028.46	484
258	147	977.6	Zone-1	0.00	1,023.95	453.6
259	736	974.5	Zone-1	0.00	1,024.42	488.6
260	445	980.2	Zone-1	0.24	1,026.30	451.2
261	243	976	Zone-1	0.19	1,027.48	503.8
262	823	977.28	Zone-1	0.00	1,025.34	470.4
263	125	977.5	Zone-1	1.02	1,024.60	460.9
264	272	975.8	Zone-1	0.09	1,025.13	482.8
265	204	974.5	Zone-1	0.00	1,023.80	482.5
266	696	976	Zone-1	0.00	1,024.37	473.4
267	544	970.1	Zone-1	0.00	1,024.40	531.5
268	862	979.42	Zone-1	0.50	1,025.23	448.3
269	455	979	Zone-1	0.00	1,026.61	465.9
270	531	977.6	Zone-1	0.25	1,025.46	468.4
271	618	980.2	Zone-1	0.00	1,026.10	449.2
272	589	977.8	Zone-1	0.93	1,022.20	434.5
273	173	976.2	Zone-1	0.00	1,024.70	474.7
274	400	980	Zone-1	0.26	1,026.01	450.3
275	534	977.8	Zone-1	0.00	1,025.46	466.5
276	293	977	Zone-1	0.00	1,025.72	476.9
277	740	973.8	Zone-1	0.00	1,024.43	495.5
278	595	976	Zone-1	0.00	1,024.87	478.2
279	235	975.2	Zone-1	0.24	1,026.62	503.2
280	611	976.2	Zone-1	0.00	1,020.51	433.7
281	820	983	Zone-1	0.00	1,025.29	413.8
282	674	974.4	Zone-1	0.00	1,020.82	454.3
283	432	979.2	Zone-1	0.10	1,026.34	461.3
284	575	977.01	Zone-1	0.00	1,024.67	466.4
285	569	977	Zone-1	0.00	1,025.69	476.5
286	702	978.1	Zone-1	0.55	1,025.45	463.4
287	291	975.8	Zone-1	0.00	1,025.67	488.1
288	671	973.5	Zone-1	0.00	1,023.40	488.3
289	45	975.9	Zone-1	0.00	1,018.07	412.7
290	192	975.1	Zone-1	0.00	1,023.69	475.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
291	728	984.5	Zone-1	0.00	1,025.31	399.4
292	279	975.6	Zone-1	0.09	1,025.22	485.7
293	585	975.7	Zone-1	0.93	1,022.00	453.1
294	621	980.5	Zone-1	0.00	1,026.05	445.8
295	388	980.4	Zone-1	0.10	1,025.93	445.6
296	19	978.1	Zone-no fire flow	0.00	1,035.31	559.9
297	326	976.3	Zone-1	0.00	1,025.60	482.5
298	424	966.9	Zone-1	0.00	1,024.43	563
299	788	966.4	Zone-1	3.00	1,024.49	568.5
300	399	980	Zone-1	0.00	1,026.00	450.2
301	658	978.5	Zone-1	0.35	1,025.49	459.9
302	162	976.2	Zone-1	0.27	1,024.70	474.7
303	484	978.1	Zone-1	0.16	1,026.52	473.9
304	522	976.6	Zone-1	0.00	1,025.48	478.4
305	553	977.11	Zone-1	0.00	1,024.67	465.4
306	101	975	Zone-1	0.10	1,022.48	464.7
307	246	976.1	Zone-1	0.00	1,029.35	521.2
308	629	979.5	Zone-1	0.19	1,026.02	455.3
309	612	974.5	Zone-1	0.00	1,023.60	480.6
310	398	979.9	Zone-1	0.31	1,025.96	450.8
311	278	975.6	Zone-1	0.00	1,025.20	485.4
312	409	981.5	Zone-1	0.00	1,026.02	435.7
313	233	976.5	Zone-1	0.16	1,026.02	484.7
314	183	978	Zone-1	0.00	1,023.75	447.8
315	436	980.2	Zone-1	0.00	1,026.34	451.5
316	838	977.99	Zone-1	0.00	1,024.66	456.8
317	814	979.88	Zone-1	0.00	1,025.44	445.9
318	581	976	Zone-1	0.00	1,020.33	433.9
319	649	976.5	Zone-1	0.00	1,025.49	479.5
320	47	971.7	Zone-1	0.00	1,022.28	495
321	269	976	Zone-1	0.00	1,024.98	479.3
322	724	978	Zone-1	0.40	1,025.44	464.3
323	597	970.5	Zone-1	0.00	1,024.36	527.1
324	342	977	Zone-1	0.36	1,025.65	476.1
325	185	978	Zone-1	0.35	1,023.76	447.9
326	366	979.5	Zone-1	0.00	1,026.02	455.3
327	840	977.99	Zone-1	0.00	1,024.67	456.8
328	549	978.2	Zone-1	0.00	1,025.47	462.6
329	487	967.12	Zone-1	0.00	1,024.43	560.9
330	193	976.5	Zone-1	0.00	1,024.41	468.9
331	56	971.7	Zone-1	0.00	1,022.28	495
332	587	970.4	Zone-1	0.00	1,024.36	528.1
333	360	978.5	Zone-1	0.13	1,026.02	465.1
334	386	980.7	Zone-1	0.08	1,025.95	442.8
335	265	977	Zone-1	0.14	1,024.94	469.2
336	113	977	Zone-1	0.00	1,013.78	360

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
337	460	978.4	Zone-1	0.16	1,027.40	479.6
338	576	970.3	Zone-1	0.00	1,024.38	529.3
339	184	976.2	Zone-1	0.00	1,024.70	474.6
340	78	977.6	Zone-1	0.16	1,022.29	437.4
341	739	977.5	Zone-1	0.00	1,024.45	459.5
342	559	972.49	Zone-1	0.00	1,024.35	507.5
344	394	980	Zone-1	0.08	1,025.94	449.7
345	B	977	Zone-1	0.00	1,025.59	475.5
346	469	979.3	Zone-1	0.00	1,033.75	532.9
347	785	966.7	Zone-1	0.12	1,024.52	565.8
348	579	972.5	Zone-1	0.00	1,021.00	474.7
349	33	972.01	Zone-1	0.00	1,024.36	512.4
350	684	976.72	Zone-1	0	1,020.73	430.7
351	28	978.1	Zone-no fire flow	0.00	992.24	138.4
352	217	977.11	Zone-1	0.00	1,024.67	465.4
353	864	979.55	Zone-1	0.18	1,025.07	445.5
354	43	978.5	Zone-1	0.00	1,024.73	452.5
355	526	976.9	Zone-1	0.00	1,025.47	475.4
356	215	973.8	Zone-1	0.00	1,024.42	495.4
357	36	971.6	Zone-1	0.09	1,022.28	496
358	384	967	Zone-1	0.00	1,024.44	562.1
359	61	977.2	Zone-1	0.00	1,022.03	438.7
360	387	980.7	Zone-1	0.10	1,025.93	442.7
361	251	979.2	Zone-1	0.00	1,024.64	444.8
362	433	979.8	Zone-1	0.19	1,026.34	455.5
363	150	976.3	Zone-1	0.00	1,023.63	463.2
364	182	978.5	Zone-1	0.40	1,023.74	442.7
365	673	977.5	Zone-1	0.13	1,024.32	458.2
366	833	974.5	Zone-1	1.00	1,024.42	488.5
367	498	978	Zone-1	0.00	1,025.62	466
368	324	975.3	Zone-1	0.00	1,025.60	492.3
369	784	967	Zone-1	0.12	1,024.52	563
370	174	976	Zone-1	0.08	1,023.64	466.3
371	722	977.87	Zone-1	0.55	1,025.46	465.7
372	815	983	Zone-1	0.00	1,025.30	414
373	620	980.2	Zone-1	0.00	1,026.10	449.2
374	48	974.3	Zone-1	0.00	1,021.98	466.7
375	787	966.8	Zone-1	0.12	1,024.51	564.8
376	520	976.7	Zone-1	0.17	1,025.48	477.5
377	600	981.5	Zone-1	0.00	1,026.02	435.7
379	111	976	Zone-1	0.00	1,016.00	391.5
380	762	974.9	Zone-1	0.00	1,027.37	513.5
381	63	976.3	Zone-1	0.00	1,021.31	440.5
382	791	969.7	Zone-1	0.00	1,024.35	534.9
383	624	979.5	Zone-1	0.00	1,026.02	455.3
384	350	970.15	Zone-1	0.25	1,024.43	531.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
385	863	979.61	Zone-1	0.44	1,025.37	447.9
386	842	978.97	Zone-1	0.40	1,025.46	455
387	345	978	Zone-1	0.00	1,025.73	467.1
388	92	972.9	Zone-1	0.00	1,022.46	485
389	98	978.7	Zone-1	0.00	1,024.88	451.9
390	143	978.5	Zone-1	0.00	1,024.20	447.3
391	104	976	Zone-1	0.00	1,022.51	455.2
392	563	976	Zone-1	0.00	1,016.52	396.5
393	367	979.5	Zone-1	0.00	1,026.02	455.3
394	65	978.5	Zone-1	0.53	1,024.74	452.5
395	485	978.1	Zone-1	0.00	1,026.43	473
396	519	976.7	Zone-1	0.19	1,025.48	477.4
397	444	980.2	Zone-1	0.00	1,026.30	451.2
398	197	976.5	Zone-1	0.00	1,024.12	466
399	548	978.2	Zone-1	0.25	1,025.47	462.6
400	A	979.2	Zone-1	0.00	1,025.80	456
401	525	976.9	Zone-1	0.10	1,025.47	475.4
402	430	978.9	Zone-1	0.27	1,026.37	464.6
403	610	976.2	Zone-1	0.13	1,020.51	433.7
404	163	975.8	Zone-1	0.30	1,023.42	466
405	708	978.5	Zone-1	0.00	1,024.73	452.4
406	518	976.7	Zone-1	0.00	1,025.48	477.5
407	667	976	Zone-1	0.40	1,025.59	485.3
408	68	977.8	Zone-1	0.00	1,022.22	434.7
409	652	978.5	Zone-1	0.25	1,025.48	459.8
410	489	967.6	Zone-1	0.80	1,024.43	556.2
411	167	976.3	Zone-1	0.00	1,023.63	463.2
412	203	974.5	Zone-1	0.00	1,023.75	482
413	412	981.5	Zone-1	0	1,026.02	435.7
414	27	980.6	Zone-no fire flow	0.00	992.41	115.6
415	300	978	Zone-1	0.16	1,025.90	468.7
416	84	977	Zone-1	0.16	1,022.41	444.4
417	732	974.5	Zone-1	0.00	1,024.42	488.6
418	686	976.72	Zone-1	0.00	1,020.71	430.5
419	511	975.97	Zone-1	0.19	1,025.50	484.8
420	861	979.29	Zone-1	0.44	1,025.10	448.4
422	135	978.5	Zone-1	0.00	1,024.30	448.3
423	583	974.3	Zone-1	0.19	1,021.47	461.6
424	438	981	Zone-1	0.00	1,026.34	443.7
425	457	966.9	Zone-1	0.13	1,024.43	563
426	574	979.78	Zone-1	0.00	1,026.12	453.5
427	468	979.2	Zone-1	0.00	1,030.12	498.3
428	112	977	Zone-1	0.00	1,013.78	360
429	347	980	Zone-1	0.13	1,025.81	448.3
430	461	978.8	Zone-1	0.00	1,027.81	479.6
431	332	975.5	Zone-1	0.50	1,025.59	490.2

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
432	818	983	Zone-1	0.00	1,025.30	414
433	605	972.48	Zone-1	0.00	1,024.33	507.4
434	475	978	Zone-1	0.00	1,027.41	483.5
435	703	984	Zone-1	0.44	1,025.31	404.2
436	439	981	Zone-1	0.00	1,026.34	443.7
437	503	978	Zone-1	0.40	1,025.55	465.4
438	93	973	Zone-1	0.00	1,022.47	484.2
439	687	976.7	Zone-1	0.00	1,024.34	466.3
440	181	978.7	Zone-1	0.00	1,023.73	440.7
441	357	978.5	Zone-1	0.21	1,026.02	465.1
442	730	973.8	Zone-1	0.00	1,024.43	495.5
443	571	975	Zone-1	0.34	1,025.61	495.3
444	377	980.9	Zone-1	0.00	1,026.16	443
445	336	976	Zone-1	0.38	1,025.59	485.3
446	297	977	Zone-1	0.08	1,025.69	476.6
447	179	978.7	Zone-1	0.10	1,023.71	440.5
448	812	977	Zone-1	0.00	1,025.31	472.8
449	348	980	Zone-1	0.00	1,025.81	448.3
450	734	974.5	Zone-1	0.00	1,024.42	488.6
451	128	978	Zone-1	0.00	1,024.80	458
452	592	976.4	Zone-1	0.21	1,022.83	454.4
453	521	971.8	Zone-1	0.13	1,024.43	515.1
454	431	978.3	Zone-1	0.29	1,026.30	469.8
455	407	981	Zone-1	0.14	1,026.12	441.6
456	543	979.78	Zone-1	0.00	1,025.91	451.5
457	826	979	Zone-1	0.00	1,026.05	460.5
458	648	976.5	Zone-1	0.25	1,025.50	479.5
459	780	967	Zone-1	0.71	1,024.46	562.3
460	856	979.78	Zone-1	0.00	1,025.54	447.9
461	449	979.6	Zone-1	0.00	1,026.54	459.4
462	425	978.6	Zone-1	0.32	1,026.21	466
463	299	979.6	Zone-1	0.00	1,026.25	456.6
464	205	975.2	Zone-1	0.00	1,024.10	478.6
465	281	975.4	Zone-1	0.16	1,025.33	488.7
466	222	974.5	Zone-1	0.14	1,024.42	488.6
467	558	979.2	Zone-1	0.00	1,024.64	444.8
468	410	981.5	Zone-1	0.00	1,026.01	435.6
469	40	974.3	Zone-1	0.40	1,021.52	462.1
470	401	980	Zone-1	0.16	1,026.05	450.7
471	596	976	Zone-1	0.19	1,025.60	485.4
472	858	979.78	Zone-1	0.28	1,025.35	446
473	302	977	Zone-1	0.18	1,025.69	476.6
474	212	973	Zone-1	0.16	1,024.42	503.3
475	318	975	Zone-1	0.00	1,025.60	495.2
476	453	980.5	Zone-1	0.00	1,026.42	449.4
477	723	978.11	Zone-1	0.40	1,025.45	463.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
478	786	966.5	Zone-1	0.12	1,024.51	567.7
479	482	978.2	Zone-1	0.00	1,026.64	474.1
480	847	979.36	Zone-1	0.28	1,025.30	449.7
481	156	976	Zone-1	0.19	1,022.79	458
482	90	972.9	Zone-1	0.00	1,022.40	484.4
483	434	980.1	Zone-1	0.26	1,026.34	452.5
484	133	978.5	Zone-1	0.00	1,024.34	448.6
485	532	970.05	Zone-1	0.67	1,024.43	532.2
486	529	977.4	Zone-1	0.00	1,025.47	470.4
487	198	975.3	Zone-1	0.00	1,024.43	480.8
488	800	977	Zone-1	0.00	1,025.32	472.9
489	236	975.2	Zone-1	0.00	1,026.62	503.2
490	309	975	Zone-1	0.00	1,025.61	495.3
492	422	979.3	Zone-1	0.00	1,026.11	458.1
493	329	976.3	Zone-1	0.19	1,025.60	482.5
494	714	977	Zone-1	0.00	1,025.58	475.5
495	216	973.8	Zone-1	0.16	1,024.42	495.4
496	738	974.5	Zone-1	0.00	1,024.42	488.6
497	341	977	Zone-1	0.30	1,025.64	476
498	688	976.7	Zone-1	0.00	1,024.34	466.3
499	337	976	Zone-1	0.38	1,025.59	485.3
500	452	980.5	Zone-1	0.16	1,026.47	449.9
501	381	981	Zone-1	0.00	1,026.09	441.2
502	289	975.5	Zone-1	0.00	1,025.64	490.7
503	514	975.8	Zone-1	0.10	1,025.50	486.4
504	806	977	Zone-1	0.00	1,025.31	472.8
505	570	977	Zone-1	0.00	1,025.66	476.2
506	290	975.8	Zone-1	0.18	1,025.67	488
508	396	979.8	Zone-1	0.08	1,025.95	451.6
509	477	977.5	Zone-1	0.39	1,026.90	483.5
510	782	967	Zone-1	0	1,024.49	562.6
511	754	974.9	Zone-1	0.00	994.79	194.7
512	103	976	Zone-1	0.00	1,022.51	455.2
513	306	974.5	Zone-1	0.00	1,024.45	488.8
514	617	979.8	Zone-1	0.00	1,026.11	453.2
515	816	983	Zone-1	0.55	1,025.30	414
516	308	975.5	Zone-1	0.29	1,025.62	490.5
517	131	976.8	Zone-1	0.10	1,024.06	462.5
518	795	968	Zone-1	0.12	1,024.52	553.1
519	510	969.77	Zone-1	0.00	1,024.43	534.9
520	169	977	Zone-1	0.21	1,023.62	456.3
521	694	976.7	Zone-1	0.00	1,024.34	466.3
522	523	976.3	Zone-1	0.36	1,025.49	481.4
523	87	978.64	Zone-1	0.00	1,024.80	451.7
524	226	975.1	Zone-1	0.16	1,025.46	492.9
525	242	976	Zone-1	0.19	1,027.74	506.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
526	819	983	Zone-1	0.57	1,025.29	413.9
527	266	977	Zone-1	0.00	1,024.88	468.6
528	480	978	Zone-1	0.00	1,026.76	477.2
529	524	976.6	Zone-1	0.19	1,025.48	478.4
530	458	978.9	Zone-1	0.00	1,026.39	464.8
531	660	979	Zone-1	0.00	1,025.98	459.8
532	200	973	Zone-1	0.00	1,022.53	484.7
533	207	975.3	Zone-1	0.00	1,024.15	478.1
534	260	978	Zone-1	0.19	1,026.42	473.9
535	757	974.9	Zone-1	0.00	995.09	197.6
536	440	981	Zone-1	0.16	1,026.34	443.7
537	158	975.8	Zone-1	0.00	1,023.41	465.9
538	286	975.1	Zone-1	0.18	1,025.57	494
539	165	976.3	Zone-1	0.08	1,023.58	462.7
540	354	980.3	Zone-1	0.00	1,026.02	447.5
541	602	980.2	Zone-1	0	1,026.09	449.1
542	759	974.9	Zone-1	0.00	995.7	203.6
543	512	975.9	Zone-1	0.19	1,025.50	485.5
544	234	975	Zone-1	0.16	1,026.13	500.4
545	515	976.3	Zone-1	0.25	1,025.49	481.4
546	582	971.3	Zone-1	0.03	1,022.23	498.5
547	813	977	Zone-1	0.31	1,025.31	472.8
548	772	974.9	Zone-1	0.00	994.75	194.2
549	672	972.5	Zone-1	0.00	1,021.03	475
550	566	970.3	Zone-1	0.00	1,024.38	529.3
552	118	977.8	Zone-1	0.00	1,026.84	480
553	459	978.4	Zone-1	0.00	1,027.27	478.3
554	328	972.5	Zone-1	0.00	1,024.43	508.3
555	586	977.2	Zone-1	0.00	1,021.40	432.6
556	294	977	Zone-1	0.00	1,025.74	477
557	655	978.5	Zone-1	3.50	1,025.45	459.5
558	383	981.9	Zone-1	0.08	1,026.03	431.9
559	362	968.5	Zone-1	0.00	1,024.43	547.4
560	238	977.5	Zone-1	0.14	1,026.81	482.6
561	685	976.72	Zone-1	0.00	1,020.73	430.7
562	371	980.4	Zone-1	0.00	1,026.06	446.9
563	479	967.6	Zone-1	0.00	1,024.43	556.2
564	349	978.4	Zone-1	0.00	1,025.84	464.3
565	573	979.78	Zone-1	0.04	1,025.78	450.2
566	646	972.5	Zone-1	0.00	1,022.57	490
567	584	971.7	Zone-1	1.60	1,022.25	494.8
568	413	966.9	Zone-1	0.00	1,024.43	563.1
569	67	977.8	Zone-1	0.00	1,022.21	434.6
570	18	978.1	Zone-no fire flow	0.00	1,035.09	557.8
571	542	978.9	Zone-1	0.00	1,025.47	455.7
572	733	974.5	Zone-1	0.00	1,024.42	488.6

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
573	385	981.2	Zone-1	0.16	1,025.98	438.3
574	117	977.8	Zone-1	0.00	1,026.84	480
575	502	978	Zone-1	0.00	1,025.58	465.6
576	374	980.4	Zone-1	0.30	1,026.07	446.9
577	115	977.8	Zone-1	0.00	1,011.82	332.9
578	415	981.5	Zone-1	0.00	1,026.02	435.7
579	151	976.2	Zone-1	0	1,024.70	474.7
580	26	978.1	Zone-no fire flow	0.00	992.25	138.5
581	287	975.1	Zone-1	0.00	1,025.60	494.2
582	51	976.3	Zone-1	0.00	1,021.09	438.3
583	683	976.72	Zone-1	0.00	1,020.73	430.7
584	245	976.1	Zone-1	0.00	1,029.39	521.5
585	261	978.1	Zone-1	0.19	1,026.01	468.9
586	763	974.9	Zone-1	0.00	1,027.35	513.3
587	132	978.5	Zone-1	0.00	1,024.37	448.9
588	692	976	Zone-1	0.08	1,024.35	473.2
589	82	976.7	Zone-1	0.00	1,022.46	447.9
590	343	977.4	Zone-1	0.19	1,025.71	472.8
591	225	975.3	Zone-1	0.00	1,025.02	486.6
592	J-4	978	Zone-1	0.00	1,025.66	466.5
593	395	968.5	Zone-1	0.00	1,024.43	547.4
594	161	976	Zone-1	0.10	1,023.41	464
595	593	975.3	Zone-1	0.00	1,024.42	480.7
596	630	974.5	Zone-1	0.00	1,024.52	489.5
597	741	977.5	Zone-1	0.35	1,024.45	459.5
598	737	974	Zone-1	0.00	1,024.43	493.5
599	141	978.5	Zone-1	0.00	1,024.21	447.4
600	631	974.5	Zone-1	0.00	1,024.45	488.9
601	828	977.71	Zone-1	0.60	1,025.58	468.5
602	499	969.52	Zone-1	0.00	1,024.43	537.4
603	437	980.7	Zone-1	0.26	1,026.34	446.6
604	116	977.8	Zone-1	0.00	1,025.27	464.6
605	224	975.3	Zone-1	0.09	1,024.88	485.3
606	509	976.08	Zone-1	0.00	1,025.50	483.7
607	668	976	Zone-1	0.40	1,025.59	485.3
608	827	979	Zone-1	0.00	1,026.05	460.5
609	427	978.6	Zone-1	0.00	1,026.22	466.1
610	622	980.5	Zone-1	0.00	1,026.05	445.8
611	256	979.1	Zone-1	0.18	1,027.43	473
612	805	977	Zone-1	0.00	1,025.33	473
613	481	978	Zone-1	0.40	1,026.70	476.6
614	370	980	Zone-1	0.13	1,026.04	450.6
615	644	974	Zone-1	0.00	1,023.29	482.4
617	284	976.01	Zone-1	0.00	1,024.60	475.5
618	88	976	Zone-1	0.00	1,022.38	453.9
619	659	978.8	Zone-1	0.00	1,026.43	466.1

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
620	494	981	Zone-1	0.00	1,025.75	438
621	695	976	Zone-1	0.00	1,024.36	473.3
622	676	974.4	Zone-1	0.00	1,020.81	454.2
623	321	975.3	Zone-1	0.00	1,025.60	492.3
624	799	977	Zone-1	0.00	1,025.32	472.9
625	188	974.5	Zone-1	0.00	1,023.47	479.2
626	38	971.5	Zone-1	0.04	1,021.95	493.7
627	317	973.24	Zone-1	0.00	1,024.44	501.1
628	53	976	Zone-1	0.00	1,019.15	422.3
629	372	980	Zone-1	0.10	1,026.06	450.8
630	330	975	Zone-1	0.00	1,025.60	495.2
631	608	978.6	Zone-1	0.13	1,024.76	451.8
632	320	975.3	Zone-1	0.00	1,025.60	492.3
633	846	977	Zone-1	0.54	1,025.32	472.9
634	86	977.4	Zone-1	0.00	1,022.42	440.6
635	250	979.78	Zone-1	0.15	1,025.60	448.5
636	282	975.2	Zone-1	0.00	1,025.40	491.3
637	180	975.26	Zone-1	0.58	1,023.65	473.6
638	802	977	Zone-1	0.51	1,025.34	473.1
639	742	977.8	Zone-1	0.00	1,024.46	456.6
640	54	978.5	Zone-1	0.00	1,024.73	452.5
641	801	977	Zone-1	0.00	1,025.35	473.2
642	70	976.8	Zone-1	0.80	1,022.28	445.1
643	73	973	Zone-1	0.00	1,022.30	482.5
644	835	978.5	Zone-1	0.35	1,024.63	451.5
645	177	977.8	Zone-1	0.19	1,023.73	449.5
646	428	979	Zone-1	0.08	1,026.30	462.9
647	463	979.2	Zone-1	0.00	1,029.05	487.9
648	817	983	Zone-1	0.55	1,025.30	414
649	606	976.5	Zone-1	0.19	1,025.48	479.4
650	426	978.5	Zone-1	0.00	1,026.21	467
651	102	976	Zone-1	0.21	1,022.51	455.2
652	271	975	Zone-1	0.09	1,025.07	490
653	263	978.3	Zone-1	0.08	1,025.44	461.3
654	191	975	Zone-1	0.00	1,023.66	476.2
655	808	977	Zone-1	2.42	1,025.30	472.7
656	267	976	Zone-1	0.00	1,024.94	479
657	303	976.5	Zone-1	0.00	1,025.68	481.3
658	55	976	Zone-1	0.00	1,018.83	419.1
659	94	973	Zone-1	0.00	1,022.47	484.1
660	725	978	Zone-1	0.42	1,025.44	464.3
661	148	977.2	Zone-1	0.19	1,023.91	457.1
662	305	975.3	Zone-1	0.00	1,025.62	492.4
663	153	976	Zone-1	0.38	1,023.23	462.3
664	419	980.5	Zone-1	0.00	1,026.06	445.9
665	681	976.76	Zone-1	0.00	1,020.75	430.5

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
666	447	979.6	Zone-1	0.00	1,026.47	458.7
667	507	976.5	Zone-1	0.00	1,025.51	479.6
668	666	977	Zone-1	0.00	1,025.38	473.5
669	37	971.9	Zone-1	0.11	1,021.95	489.8
670	539	978.97	Zone-1	0.20	1,025.46	455
671	603	980.3	Zone-1	0.00	1,026.08	448
672	706	983	Zone-1	0.00	1,025.30	414
673	836	978.5	Zone-1	0.00	1,024.39	449.1
674	109	978.7	Zone-1	0.53	1,024.93	452.4
675	448	979.6	Zone-1	0.00	1,026.47	458.7
676	831	966.9	Zone-1	0.00	1,024.43	563
677	781	967.5	Zone-1	0.00	1,024.47	557.6
678	721	978.37	Zone-1	0.40	1,025.45	460.8
679	106	976.5	Zone-1	0.00	1,022.52	450.4
680	456	979	Zone-1	0.24	1,026.43	464.2
681	615	978	Zone-1	0.00	1,025.61	465.9
682	157	975.8	Zone-1	0.00	1,023.12	463.1
683	322	975.3	Zone-1	0.19	1,025.60	492.3
684	171	976	Zone-1	0.24	1,023.64	466.3
685	402	981.1	Zone-1	0.16	1,026.10	440.4
686	418	981	Zone-1	0.00	1,025.67	437.2
687	720	976	Zone-1	0.60	1,025.59	485.3
688	344	977.4	Zone-1	0.10	1,025.71	472.8
689	500	978	Zone-1	0.00	1,025.61	465.9
690	127	977	Zone-1	0.00	1,024.63	466.1
691	195	976.2	Zone-1	0.00	1,024.70	474.6
692	693	976.7	Zone-1	0.08	1,024.34	466.3
693	557	979.2	Zone-1	0.00	1,024.64	444.8
695	58	975.7	Zone-1	0.00	1,022.10	454.1
696	729	978.5	Zone-1	0.00	1,024.48	450
697	552	976.2	Zone-1	0.00	1,024.70	474.6
698	114	977	Zone-1	1.73	1,013.78	360
699	389	980.2	Zone-1	0.00	1,025.94	447.6
700	75	973	Zone-1	0.00	1,022.30	482.5
701	516	977	Zone-1	0.25	1,025.49	474.6
702	408	980.6	Zone-1	0.00	1,026.04	444.7
703	406	966.9	Zone-1	0.40	1,024.43	563.1
704	853	979.29	Zone-1	0.00	1,025.10	448.4
705	231	976.5	Zone-1	0.16	1,025.96	484
706	625	979.5	Zone-1	0.19	1,026.02	455.3
707	653	978	Zone-1	0.25	1,025.48	464.7
708	312	977	Zone-1	0.00	1,025.62	475.8
709	228	977.88	Zone-1	0.00	1,024.66	457.8
710	580	974.4	Zone-1	0.16	1,021.38	459.8
711	567	972.9	Zone-1	0.00	1,024.42	504.2
712	467	979.2	Zone-1	0.00	1,029.81	495.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (m)	Pressure (kPa)
713	335	976	Zone-1	0.00	1,025.59	485.3
714	351	978.5	Zone-1	0.16	1,025.88	463.7
715	369	980	Zone-1	0.00	1,026.04	450.6
716	540	978.99	Zone-1	0.34	1,025.47	454.9
717	258	978.5	Zone-1	0.18	1,027.08	475.4
718	626	979.5	Zone-1	0.00	1,026.02	455.3
719	859	979.78	Zone-1	0.18	1,025.14	443.9
720	85	977.4	Zone-1	0.30	1,022.37	440.1
721	334	975.7	Zone-1	0.40	1,025.59	488.3
722	536	978.5	Zone-1	0.00	1,025.46	459.6
723	9	978.1	Zone-no fire flow	0.00	1,035.43	561.1
724	483	978.2	Zone-1	0.00	1,026.62	473.9
725	338	976	Zone-1	0.00	1,025.60	485.4
726	378	980.9	Zone-1	0.00	1,026.17	443
727	201	974	Zone-1	0.00	1,023.40	483.5
728	829	976.67	Zone-1	0.60	1,025.59	478.7
729	446	966.9	Zone-1	0.00	1,024.43	563
730	81	977	Zone-1	0.11	1,022.49	445.2
731	513	975.9	Zone-1	0.00	1,025.50	485.5
732	21	979.57	Zone-1	0.00	1,035.01	542.7
733	474	977.6	Zone-1	0.06	1,027.41	487.5
734	619	979.8	Zone-1	0.00	1,026.11	453.2
735	397	979.8	Zone-1	0.00	1,025.96	451.7
736	247	976.1	Zone-1	0.00	1,029.30	520.7
737	561	975.7	Zone-1	0.00	1,022.10	454.1
738	232	976.5	Zone-1	0.00	1,026.01	484.5
739	239	978.63	Zone-1	0.00	1,024.66	450.5
740	466	979.1	Zone-1	0.00	1,029.71	495.3
741	545	978.6	Zone-1	0.00	1,025.47	458.7
742	645	979.78	Zone-1	0.12	1,025.91	451.5
743	743	978	Zone-1	0.35	1,024.46	454.7
744	731	974	Zone-1	0.17	1,024.43	493.5
745	20	978.1	Zone-no fire flow	0.00	1,035.40	560.8
746	792	970	Zone-1	0.00	1,024.31	531.5
747	798	977	Zone-1	0.00	1,025.32	472.9
748	110	976	Zone-1	0.00	1,016.98	401
749	91	972.9	Zone-1	0.27	1,022.46	485
750	15	979.4	Zone-no fire flow	0.00	992.3	126.3
751	609	976.7	Zone-1	0.13	1,022.47	448
752	339	971.45	Zone-1	0.00	1,024.43	518.5
753	142	978.3	Zone-1	0.97	1,024.21	449.4
754	495	981	Zone-1	0.13	1,025.65	437
755	403	981	Zone-1	0.00	1,026.09	441.3
756	577	968.76	Zone-1	0.00	1,024.43	544.9
757	160	974.9	Zone-1	0.06	1,023.41	474.7
758	594	973.5	Zone-1	2.00	1,024.42	498.3

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
759	83	976.7	Zone-1	0.08	1,022.45	447.8
760	834	978.5	Zone-1	0.00	1,024.69	452
761	292	976.5	Zone-1	0.16	1,025.69	481.4
762	727	983.5	Zone-1	0.00	1,025.31	409.1
763	472	977.4	Zone-1	0.16	1,027.72	492.5
764	451	979.8	Zone-1	0.00	1,026.52	457.2
765	420	979.5	Zone-1	0.00	1,026.11	456.1
766	783	968	Zone-1	0.00	1,024.54	553.4
767	241	975.6	Zone-1	0.16	1,027.19	504.9
768	804	977	Zone-1	0.46	1,025.31	472.8
769	152	976.3	Zone-1	0.00	1,023.23	459.3
770	214	973.8	Zone-1	0.00	1,024.42	495.4
771	454	978.9	Zone-1	0.32	1,026.73	468.1
772	471	977	Zone-1	0.00	1,028.08	499.9
773	301	978	Zone-1	0.26	1,025.84	468.2
774	240	975.6	Zone-1	0.24	1,027.19	504.9
775	768	974.9	Zone-1	0.00	1,028.00	519.7
776	277	975.8	Zone-1	0.00	1,025.15	483
777	96	973	Zone-1	0.00	1,022.47	484.1
778	623	979.5	Zone-1	0.13	1,026.02	455.3
779	253	979	Zone-1	0.00	1,029.67	495.9
780	470	967.41	Zone-1	0.80	1,024.43	558
781	435	966.9	Zone-1	0.00	1,024.43	563
782	202	974.5	Zone-1	0.00	1,023.60	480.6
783	821	977	Zone-1	0.00	1,025.31	472.8
784	206	977.11	Zone-1	0.00	1,024.67	465.4
785	248	976.5	Zone-1	0.53	1,029.38	517.6
786	647	976.5	Zone-1	0.00	1,025.51	479.6
787	705	984.5	Zone-1	0.56	1,025.31	399.4
788	710	979	Zone-1	0.00	1,024.88	449
789	841	977.99	Zone-1	0.00	1,024.67	456.9
790	80	977	Zone-1	0.00	1,022.33	443.6
791	854	979.29	Zone-1	0.00	1,025.10	448.4
792	417	981.5	Zone-1	0.00	1,026.02	435.7
793	107	977	Zone-1	0.00	1,022.49	445.3
794	556	979.2	Zone-1	0.00	1,024.64	444.8
795	288	975.1	Zone-1	0.00	1,025.62	494.4
796	393	980	Zone-1	0.00	1,025.94	449.6
797	591	977.8	Zone-1	0.00	1,026.84	480
798	661	980.6	Zone-1	0.00	1,025.64	440.8
799	97	974	Zone-1	0	1,022.47	474.4
800	1	979.41	Zone-no fire flow	0.00	992.35	126.6
801	811	977	Zone-1	0.28	1,025.31	472.9
802	421	979.3	Zone-1	0.00	1,026.11	458.1
803	508	976.08	Zone-1	0.00	1,025.50	483.7
804	209	972.9	Zone-1	0.16	1,024.42	504.2

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (m)	Pressure (kPa)
805	331	976	Zone-1	0.00	1,025.60	485.4
806	J-3	977	Zone-1	1.44	1,025.59	475.6
807	307	975.5	Zone-1	0.00	1,025.62	490.5
808	443	980.5	Zone-1	0.24	1,026.32	448.5
809	680	979.78	Zone-1	0.00	1,025.98	452.1
810	506	976.5	Zone-1	0.65	1,025.51	479.7
811	356	979.4	Zone-1	0.00	1,026.02	456.3
812	848	984.23	Zone-1	0.59	1,025.31	402
813	77	977.6	Zone-1	0.00	1,022.29	437.4
814	663	983.1	Zone-1	0.90	1,025.32	413.2
815	797	972.44	Zone-1	0	1,024.13	505.9
816	755	974.9	Zone-1	0.00	995.7	203.6
817	64	973.1	Zone-1	1.46	1,022.49	483.4
819	578	966.9	Zone-1	0.13	1,024.43	563.1
820	50	976.3	Zone-1	0.13	1,021.05	438
821	105	976.4	Zone-1	0.00	1,022.54	451.6
822	613	977.5	Zone-1	0.10	1,027.08	485.3
823	562	973	Zone-1	0.11	1,022.30	482.5
824	189	974.7	Zone-1	0.00	1,023.56	478.2
825	857	979.78	Zone-1	0.44	1,025.35	446
826	31	979.78	Zone-1	0.06	1,025.60	448.5
827	122	977.8	Zone-1	0.64	1,024.74	459.4
828	129	976.3	Zone-1	0.13	1,024.42	471
829	30	978.1	Zone-no fire flow	0.00	992.25	138.4
830	210	972.8	Zone-1	0.50	1,024.43	505.3
831	837	977.99	Zone-1	0.00	1,024.66	456.8
832	325	976	Zone-1	0.19	1,025.60	485.4
833	496	978	Zone-1	0.00	1,025.62	466
834	538	978.97	Zone-1	0.00	1,025.46	455
835	390	980	Zone-1	0.18	1,025.94	449.6
836	614	978	Zone-1	0.13	1,025.61	465.9
837	677	976.8	Zone-1	0.13	1,020.77	430.4
838	551	978.2	Zone-1	0.17	1,025.47	462.6
839	810	977	Zone-1	0.31	1,025.31	472.8
840	803	980.51	Zone-1	0	1,025.41	439.5
841	777	974.9	Zone-1	0.00	994.87	195.4
842	119	978	Zone-1	0.00	1,024.82	458.3
843	793	968.3	Zone-1	0.00	1,024.25	547.6
844	252	979	Zone-1	0.13	1,029.66	495.8
845	488	967.57	Zone-1	0.00	1,024.43	556.5
846	807	977	Zone-1	0.00	1,025.34	473
847	298	979.2	Zone-1	0.16	1,026.07	458.7
848	353	980.3	Zone-1	0.00	1,026.02	447.5
849	199	976.5	Zone-1	0.29	1,024.42	469
850	175	977.6	Zone-1	0.00	1,023.86	452.8
851	375	980.4	Zone-1	0.00	1,026.07	446.9

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
852	441	980.6	Zone-1	0.16	1,026.34	447.6
853	670	977	Zone-1	0.49	1,025.59	475.5
854	697	976.35	Zone-1	0.00	1,024.36	469.9
855	547	978.6	Zone-1	0.19	1,025.47	458.7
856	429	979.3	Zone-1	0.00	1,026.34	460.3
857	168	976.5	Zone-1	0.13	1,023.75	462.5
858	588	976	Zone-1	1.07	1,022.30	453.1
859	74	973	Zone-1	0.11	1,022.30	482.5
860	230	975	Zone-1	0.00	1,025.90	498.1
861	493	980	Zone-1	0.16	1,025.79	448.1
862	700	973.13	Zone-1	0.00	1,024.36	501.4
863	218	975	Zone-1	0.16	1,024.42	483.7
864	137	978.5	Zone-1	0.00	1,024.27	448
865	535	978.5	Zone-1	0.25	1,025.46	459.6
866	124	977.8	Zone-1	0.00	1,024.69	458.9
867	276	975.4	Zone-1	0.27	1,025.13	486.7
868	855	979.72	Zone-1	0.00	1,025.46	447.7
869	60	977.2	Zone-1	0.93	1,021.41	432.7
871	601	980.65	Zone-1	0.00	1,026.34	447.2
872	275	975.5	Zone-1	0.00	1,025.13	485.7
873	314	977.5	Zone-1	0.00	1,025.63	471
874	229	975.1	Zone-1	0.14	1,025.89	497.1
875	316	975	Zone-1	0.00	1,025.60	495.2
876	310	976	Zone-1	0.00	1,025.61	485.5
877	95	973	Zone-1	0.00	1,022.46	484.1
879	490	979.2	Zone-1	0.16	1,025.82	456.3
880	758	975.96	Zone-1	0.00	996.43	200.3
881	554	979.2	Zone-1	0.00	1,024.64	444.8
882	843	977	Zone-1	0.00	1,025.31	472.8
883	219	974.8	Zone-1	0.00	1,024.42	485.6
884	352	980.3	Zone-1	0.16	1,026.02	447.5
885	527	976.9	Zone-1	0.00	1,025.47	475.4
886	598	978.1	Zone-1	0.00	1,025.76	466.5
887	170	977	Zone-1	0.00	1,023.64	456.5
888	196	973	Zone-1	0.00	1,024.39	502.9
889	108	976	Zone-1	0.00	1,016.53	396.7
890	651	977	Zone-1	0.25	1,025.49	474.5
891	327	976.3	Zone-1	0.00	1,025.60	482.5
892	607	973	Zone-1	0.00	1,022.74	486.8
893	698	976.08	Zone-1	0.00	1,024.36	472.5
894	237	978.7	Zone-1	0.00	1,026.62	469
895	190	974.9	Zone-1	0.00	1,023.58	476.5
896	635	972.46	Zone-1	0.00	1,023.18	496.4
897	130	976.8	Zone-1	0.00	1,024.06	462.6
898	656	972.5	Zone-1	0.00	1,021.10	475.6
899	541	979	Zone-1	0.40	1,025.46	454.7

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (m)	Pressure (kPa)
900	35	971.6	Zone-1	0.00	1,022.29	496.1
901	416	981.5	Zone-1	0.00	1,026.02	435.7
902	770	974.9	Zone-1	0.00	1,027.31	513
903	682	976.74	Zone-1	0.67	1,020.74	430.6
904	590	977.6	Zone-1	0.00	1,022.29	437.4
905	654	978.8	Zone-1	0.30	1,025.48	456.8
906	627	972.43	Zone-1	0.00	1,024.01	504.8
907	270	976	Zone-1	0.00	1,025.01	479.7
908	712	978.33	Zone-1	0.30	1,025.45	461.1
909	319	975	Zone-1	0.15	1,025.60	495.2
910	178	978.7	Zone-1	0.11	1,023.71	440.6
911	268	976	Zone-1	0.18	1,024.97	479.3
912	123	977.8	Zone-1	0.00	1,024.71	459.1
913	296	976.5	Zone-1	0.00	1,025.69	481.4
914	208	975.4	Zone-1	0.00	1,024.23	477.9
915	144	977	Zone-1	0.00	1,024.16	461.5
916	392	980	Zone-1	0.13	1,025.94	449.6
917	414	981.5	Zone-1	0.00	1,026.02	435.7
918	690	976	Zone-1	0.00	1,024.35	473.2
919	825	982.64	Zone-1	0.00	1,025.30	417.6
920	368	980.4	Zone-1	0.11	1,026.04	446.7
921	223	975.4	Zone-1	0.16	1,024.41	479.6
922	244	977.5	Zone-1	0.19	1,027.08	485.3
923	790	969.5	Zone-1	0.00	1,024.37	537
924	34	971.42	Zone-1	0.00	1,024.36	518.1
925	568	974.5	Zone-1	0.00	1,023.47	479.2
926	323	975.3	Zone-1	0.00	1,025.60	492.3
927	44	975.9	Zone-1	0.11	1,017.96	411.7
928	423	979	Zone-1	0.00	1,026.11	461.1
929	832	974.5	Zone-1	0.00	1,024.42	488.6
1901	J-866	979.78	Zone-1	0.00	1,025.14	443.9
1904	J-867	979.78	Zone-1	0.98	1,025.12	443.8
1906	J-868	979.6	Zone-1	0.00	1,025.11	445.4
1908	J-869	979.4	Zone-1	0.00	1,025.11	447.4
1910	J-870	979.4	Zone-1	0.00	1,025.12	447.4
1912	J-871	979.78	Zone-1	0.00	1,025.12	443.7
1915	J-872	979.78	Zone-1	0.00	1,025.12	443.7
1917	J-873	979.6	Zone-1	0.00	1,025.10	445.3
1921	J-874	979.29	Zone-1	0.00	1,024.96	447
1924	J-875	979.29	Zone-1	0.00	1,024.90	446.4
1929	J-876	979.78	Zone-1	1.20	1,025.17	444.2
1933	J-877	977	Zone-1	0.92	1,025.28	472.5
1935	J-878	977	Zone-1	0.00	1,025.28	472.5
1937	J-879	977	Zone-1	0.00	1,025.28	472.5
1939	J-880	967.5	Zone-1	0.00	1,024.47	557.6
1943	J-881	968	Zone-1	0.00	1,024.47	552.7

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
1945	J-882	968	Zone-1	0.00	1,024.47	552.7
1947	J-883	968	Zone-1	0.00	1,024.47	552.7
1949	J-884	968	Zone-1	0.00	1,024.82	556.1
1952	J-885	967	Zone-1	0.00	1,024.46	562.3
1954	J-886	967	Zone-1	0.00	1,024.46	562.3
1956	J-887	967	Zone-1	0.00	1,024.46	562.3
1958	J-888	967	Zone-1	0.00	1,024.46	562.3
1960	J-889	967	Zone-1	0.00	1,024.46	562.3
1963	J-890	967.5	Zone-1	0.00	1,024.47	557.6
1996	J-891	976.5	Zone-1	0.00	1,024.69	471.6
1999	J-892	978	Zone-1	0.00	1,024.74	457.4
2002	J-893	976.5	Zone-1	0.00	1,024.72	472
2006	J-894	979.78	Zone-1	6.80	1,026.72	459.4
2017	J-899	976	Zone-1	0.60	1,025.59	485.3
2046	J-900	978.5	Zone-1	0.00	1,024.88	453.9
2055	J-904	974.48	Zone-1	0.00	1,022.89	473.8
2057	J-905	974.38	Zone-1	0.40	1,022.73	473.2
2059	J-906	978	Zone-1	0.00	1,024.34	453.5
2065	J-908	977.5	Zone-1	0.00	1,024.19	456.9
2096	J-919	974.87	Zone-1	0.20	1,022.73	468.4
2098	J-920	975.79	Zone-1	0.60	1,022.73	459.4
2100	J-921	976.03	Zone-1	0.73	1,022.73	457.1
2102	J-922	975.46	Zone-1	0.30	1,022.73	462.6
2106	J-923	973.84	Zone-1	0.10	1,022.66	477.7
2108	J-924	974.96	Zone-1	0.60	1,022.63	466.5
2111	J-925	973.45	Zone-1	0.70	1,022.66	481.6
2119	J-928	976.14	Zone-1	0.00	1,023.88	467.2
2133	J-931	974	Zone-1	0.00	1,022.62	475.8
2155	J-2	977	Zone-1	2.88	1,025.62	475.8
2183	J-935	979.5	<None>	5.10	1,025.19	447.2
2185	J-936	981	<None>	5.10	1,025.17	432.3
2187	J-937	980	<None>	0.00	1,025.27	443.1
2189	J-938	978	<None>	0.00	1,025.26	462.6
2191	J-939	971	<None>	5.10	1,025.08	529.3
2193	J-940	971	<None>	5.10	1,025.03	528.8
2195	J-941	979.78	<None>	0.00	1,025.39	446.3
2199	J-942	973	<None>	0.00	1,025.26	511.4
2201	J-943	968	<None>	0.00	1,025.25	560.3
2203	J-944	962	<None>	5.10	1,025.18	618.3
2205	J-945	966	<None>	5.10	1,025.16	578.9
2207	J-946	962	<None>	0.00	1,025.25	619
2209	J-947	959	<None>	0.00	1,025.25	648.4
2211	J-948	960	<None>	5.10	1,025.25	638.6
2214	J-949	959	<None>	5.10	1,025.20	647.9
2216	J-950	965	<None>	5.10	1,025.25	589.6
2219	J-951	971	<None>	5.10	1,025.25	531

ID	Label	Elevation (m)	Zone	Demand (L/s)	Hydraulic (	Pressure (kPa)
2221	J-952	975	<None>	5.10	1,025.26	491.9
2226	J-953	980	<None>	5.10	1,025.26	443
2231	J-955	980.41	<None>	0.00	1,025.34	439.7
2234	J-956	975	<None>	5.10	1,025.29	492.2
2236	J-957	980	<None>	5.10	1,025.44	444.7
2238	J-958	979.03	<None>	0.00	1,025.46	454.4
2242	J-959	977	<None>	0.00	1,025.57	475.4
2244	J-960	977	<None>	0.00	1,025.48	474.5
2247	J-961	979	<None>	5.10	1,025.44	454.5
2249	J-962	977	<None>	0.00	1,025.45	474.1
2252	J-963	978	<None>	5.10	1,025.40	463.9
2254	J-964	976	<None>	0.00	1,025.45	483.9
2256	J-965	982	<None>	5.10	1,025.42	425
2262	J-966	975	<None>	0.00	1,025.80	497.1
2267	J-967	975	<None>	0.00	1,025.47	493.9
2269	J-968	969	<None>	0.00	1,025.08	548.8
2272	J-969	980	<None>	5.10	1,025.34	443.7
2274	J-970	978.68	<None>	0.00	1,025.34	456.7
2278	J-971	974	<None>	5.10	1,025.00	499.1
2282	J-973	964	<None>	0.00	1,025.02	597.2
2286	J-974	973	<None>	5.10	1,024.77	506.6
2288	J-975	962	<None>	5.10	1,024.78	614.4
2292	J-976	961	<None>	5.10	1,024.47	621.2
2294	J-977	958	<None>	5.10	1,024.45	650.3
2296	J-978	970	<None>	5.10	1,024.40	532.4
2299	J-979	983	<None>	5.10	1,024.99	410.9
2305	J-981	971	<None>	0.00	1,024.70	525.5
2306	J-982	971	<None>	0.00	1,024.67	525.2
2308	J-983	971	<None>	0.00	1,024.65	525
2310	J-984	964	<None>	0.00	1,024.44	591.5
2312	J-985	965	<None>	0.00	1,024.44	581.7
2314	J-986	958	<None>	5.10	1,024.39	649.8
2316	J-987	959	<None>	5.10	1,024.35	639.6
2318	J-988	951	<None>	5.10	1,024.33	717.7
2321	J-989	964	<None>	5.10	1,024.45	591.6
2325	J-990	969.62	<None>	0.00	1,024.62	538.3
2331	J-991	954	<None>	0.00	1,024.32	688.2
2333	J-992	953	<None>	0.00	1,024.32	698
2336	J-993	950	<None>	5.10	1,024.29	727.1
2338	J-994	950	<None>	5.1	1,024.29	727.1

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1930	P-1008	198.53	860	J-876	300	130	0	-9.84	0.14	0	0
1582	226	86.92	126	127	200	66	0	10.67	0.34	0.003	86.87
1406	669	17.62	628	626	150	140	0	0.32	0.02	0	17.68
1538	320	46.06	220	222	150	140	0	-0.04	0	0	46.02
1469	321	48.6	220	221	150	140	0	0	0	0	48.46
1450	177	104.46	79	80	200	60	0	-4	0.13	0	104.55
1068	271	99.38	166	165	150	140	0	3.02	0.17	0	99.36
1606	803	215.76	J-1	A	200	140	0	-10.49	0.33	0.001	145.08
1455	802	27.7	J-1	J-4	200	140	0	0	0	0	98.15
1277	243	58.63	145	147	250	140	0	41.03	0.84	0.003	58.52
1137	242	50.97	145	146	250	140	0	-12.61	0.26	0	50.9
2188	P-1110	699.98	464	J-937	400	130	0	-6.35	0.05	0	0
2184	P-1108	800	464	J-935	300	130	0	10.2	0.14	0	0
2300	P-1179	772.68	464	J-979	300	130	0	21	0.3	0	0
1697	527	137.39	380	381	150	91	0	2.98	0.17	0.001	137.46
1715	897	104.04	849	850	300	100	0	23.27	0.33	0.001	78.03
1055	847	37.28	809	804	250	100	0	0.53	0.01	0	36.58
1767	864	34.98	809	821	250	100	0	-0.32	0.01	0	33.83
1057	210	130.71	120	121	200	140	0	19.42	0.62	0.002	130.76
1521	449	91.67	257	299	300	89	0	90.96	1.29	0.011	91.74
1712	420	9.54	358	359	150	91	0	0	0	0	9.45
1630	41	35.14	295	630	250	140	0	15.32	0.31	0	35.05
1313	170	70.63	72	107	200	130	0	-20.69	0.66	0.003	70.71
1211	164	88.69	69	61	300	60	0	23.67	0.33	0.002	88.7
1735	165	98.56	69	79	200	60	0	-5.4	0.17	0.001	98.45
1426	166	133.58	69	70	200	140	0	-10.79	0.34	0.001	133.5
1864	523	92.65	405	402	250	95	0	17.44	0.36	0.001	92.66
1100	524	69.98	405	404	250	95	0	9.65	0.2	0	70.1
1523	522	135.73	405	407	200	95	0	6.83	0.22	0.001	135.64
1628	129	23.89	560	582	200	66	0	8.54	0.27	0.002	24.38
1607	140	81.9	560	47	300	66	0	-3.28	0.05	0	82.6
1863	493	87.03	478	480	150	140	0	5.52	0.31	0.001	87.17
1812	202	46.45	100	102	150	140	0	-3.44	0.19	0	49.07
1213	542	17.66	491	A	250	95	0	10.49	0.21	0	9.14
1853	955	15.48	187	644	300	130	0	46.5	0.66	0.002	15.54
1688	294	48.34	187	188	300	89	0	-46.5	0.66	0.003	48.46
1622	101	88.51	616	797	250	66	0	11.61	0.24	0.001	88.39
1061	225	57.13	121	126	200	66	0	10.67	0.34	0.003	57
1072	221	148.59	121	122	150	140	0	8.54	0.48	0.002	148.74
1169	337	51.11	280	281	150	91	0	-4.42	0.25	0.001	51.21
1672	425	9.68	364	366	200	95	0	0	0	0	9.75
1511	427	14.19	364	365	200	95	0	0	0	0	14.33
1110	256	33.59	155	592	150	130	0	2.76	0.16	0	33.53
1112	257	97.63	155	107	200	140	0	26.74	0.85	0.004	97.54
1648	717	218.93	604	658	250	140	0	13.37	0.27	0	218.85
963	79	105.79	699	698	250	140	0	-0.57	0.01	0	106.07
1129	794	113.68	709	710	300	140	0	-32.81	0.46	0.001	95.1
1701	795	89.48	709	711	200	130	0	0	0	0	90.22
1555	11	119.67	691	32	200	140	0	27.01	0.86	0.004	119.79
1809	716	135.45	657	658	200	140	0	-6.05	0.19	0	135.33
1121	809	93.76	657	722	200	140	0	2.84	0.09	0	93.88
1841	394	12.75	340	338	250	140	0	3.65	0.07	0	12.8
1454	395	24.4	340	596	150	140	0	-3.11	0.18	0	24.38
982	278	112.17	176	185	200	140	0	6.22	0.2	0	112.17
1180	892	57.72	844	843	200	100	0	0.32	0.01	0	40.84
1748	201	55.83	99	100	150	140	0	-3.2	0.18	0	53.64
1101	200	97.4	99	101	150	140	0	0.1	0.01	0	97.54
1593	725	293.82	662	666	250	140	0	12.04	0.25	0	299.01
1186	723	49.93	662	814	200	140	0	7.66	0.24	0	54.56
1940	P-1014	243.08	789	J-880	250	130	0	-8.92	0.18	0	0
1515	823	108.78	789	790	250	140	0	17.49	0.36	0.001	102.11
1587	831	41.4	796	787	250	130	0	3.93	0.08	0	37.49
1374	564	6.53	599	412	200	95	0	0	0	0	6.4
1314	480	133.57	254	255	300	89	0	29.07	0.41	0.001	133.5
1717	267	113.42	159	161	150	130	0	0.1	0.01	0	113.39
1794	268	20.13	159	160	150	130	0	0.06	0	0	20.12
1398	155	47.12	62	63	300	140	0	25.28	0.36	0	47.24
1847	490	8.73	476	477	150	91	0	11.09	0.63	0.006	8.84
1012	15	103.61	76	608	300	66	0	-4.49	0.06	0	63.7
1123	728	94.22	669	670	200	140	0	-0.18	0.01	0	94.18
1195	533	91.91	382	383	150	91	0	2.74	0.16	0	92.05
1492	877	118.11	465	831	250	130	0	0	0	0	103.33
1327	114	42.29	678	679	200	140	0	0	0	0	42.37
1599	485	35.05	572	463	250	89	0	56.26	1.15	0.011	35.05
1125	813	154.99	779	780	250	140	0	-8.05	0.16	0	162.15
1181	611	47.22	505	506	250	140	0	8.78	0.18	0	47.24

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1040	440	28.88	264	263	200	89	0	-15.41	0.49	0.003	28.96
1355	703	1	7	26	300	140	0	194.99	2.76	0.019	0.91
1414	925	1.03	7	15	300	100	0	-194.99	2.76	0.036	0.91
1570	417	33.32	355	356	200	95	0	1	0.03	0	33.22
1341	789	70.73	704	706	200	140	0	2.81	0.09	0	75.59
1734	786	181.91	704	705	300	140	0	-0.69	0.01	0	168.86
1415	788	82.2	704	664	300	140	0	-2.74	0.04	0	78.64
2241	P-1142	296.01	726	J-958	300	130	0	-10.73	0.15	0	0
2232	P-1136	473.49	726	J-955	300	140	0	16.08	0.23	0	890.32
1220	421	28.16	359	360	150	91	0	0	0	0	28.04
1369	372	82.57	311	310	150	91	0	0.78	0.04	0	82.6
962	367	55.42	304	314	150	91	0	1.16	0.07	0	55.47
1530	322	11.1	194	197	300	89	0	-46.5	0.66	0.003	10.97
1046	904	38.24	32	856	200	100	0	27.01	0.86	0.007	21.03
1382	446	124.42	259	258	200	89	0	-16.74	0.53	0.003	124.36
1354	901	104.4	852	853	200	100	0	-10.16	0.32	0.001	106.07
1522	900	88.99	852	851	150	100	0	0.33	0.02	0	69.49
1553	68	73.59	555	566	250	140	0	11.04	0.23	0	73.46
1564	340	163.12	283	268	300	95	0	43.68	0.62	0.002	163.07
1723	341	247.61	283	294	300	95	0	-33.1	0.47	0.001	247.5
1390	77	60.6	701	700	250	140	0	-0.57	0.01	0	60.66
1279	84	39.91	689	690	200	130	0	2.69	0.09	0	39.62
1805	88	125.14	689	688	250	130	0	6.8	0.14	0	126.19
967	190	167.72	89	90	200	130	0	-3.76	0.12	0	167.64
1831	423	100.59	363	364	150	91	0	-0.13	0.01	0	100.58
1516	120	79.69	39	40	150	60	0	-0.82	0.05	0	79.55
1222	122	29.23	39	580	200	60	0	12.78	0.41	0.004	29.26
2260	P-1154	159.22	501	J-959	250	130	0	-3.05	0.06	0	0
1371	607	28.74	501	502	200	95	0	-5.02	0.16	0	9.75
1481	608	45.87	501	503	250	140	0	12.69	0.26	0	35.05
1351	237	21.17	138	141	250	140	0	29.39	0.6	0.001	21.03
1680	792	102.24	707	834	250	140	0	-26.51	0.54	0.001	100.58
1774	797	78.03	707	713	150	140	0	0	0	0	70.71
1836	218	8.1	564	565	250	140	0	-118.92	2.42	0.019	8.23
1785	769	179.69	735	731	200	140	0	-1.42	0.05	0	175.26
1187	529	15.24	379	378	250	95	0	0	0	0	15.24
1171	530	16.67	379	377	250	95	0	6.47	0.13	0	16.76
998	526	7.11	379	380	150	91	0	3.18	0.18	0.001	7.01
1687	38	16.26	262	273	250	140	0	15.32	0.31	0	16.15
1815	255	80.3	154	155	200	140	0	29.5	0.94	0.004	80.16
1608	135	9.89	42	41	300	140	0	68.89	0.97	0.003	9.75
1096	477	37.77	249	252	200	89	0	-10.68	0.34	0.001	37.8
1105	681	0.97	29	30	300	150	0	-80.75	1.14	0.003	0.91
1887	P-978	1.48	29	BWD-3	304.8	130	0	44.54	0.61	0.001	1.52
994	525	24.99	404	379	250	95	0	9.65	0.2	0	24.99
1638	138	51.93	52	53	150	60	0	7.34	0.42	0.006	51.82
1738	137	91.75	52	45	150	60	0	11.9	0.67	0.015	91.74
1097	132	19.4	49	583	200	60	0	10.13	0.32	0.003	19.51
1401	409	92.87	346	347	150	91	0	0.13	0.01	0	92.96
1253	411	27.92	346	349	150	91	0	-4.5	0.25	0.001	28.04
1547	397	56.59	333	334	150	140	0	0.45	0.03	0	56.69
1053	39	113.85	273	284	250	140	0	15.32	0.31	0	114
1859	501	51.44	473	474	200	91	0	1.9	0.06	0	51.51
1325	489	73.2	473	476	150	91	0	11.09	0.63	0.006	73.15
1244	698	57.54	186	644	300	89	0	-46.5	0.66	0.003	57.61
1251	148	22.03	57	585	300	140	0	82.84	1.17	0.004	21.95
1460	144	95.63	57	48	150	60	0	2.84	0.16	0.001	95.71
1264	219	10.17	565	110	250	140	0	-118.92	2.42	0.019	10.06
1598	867	217.02	824	803	150	100	0	-2.41	0.14	0	222.5
1546	514	50.98	442	443	150	91	0	2.47	0.14	0	50.9
1036	358	144.68	285	286	200	95	0	-8.88	0.28	0.001	144.78
1718	436	178.51	376	377	200	95	0	-6.47	0.21	0.001	178.61
1339	159	54.43	66	588	200	140	0	18.49	0.59	0.002	54.56
1365	720	134.05	486	659	200	140	0	0	0	0	134.11
1082	642	98.84	530	531	150	140	0	1	0.06	0	98.76
1643	314	15.09	213	214	200	140	0	0.21	0.01	0	15.24
1443	547	45	391	392	150	91	0	-0.41	0.02	0	45.11
1050	893	121.64	845	662	250	140	0	19.89	0.41	0.001	89.31
1728	370	39.47	313	312	150	91	0	0.97	0.05	0	39.32
1173	898	89.48	850	710	300	100	0	25.31	0.36	0.001	142.04
1922	P-1004	91.12	850	J-874	200	100	0	-2.2	0.07	0	107.9
996	888	87.96	839	840	250	100	0	-2.83	0.06	0	88.09
1865	249	77.06	149	150	250	140	0	31.68	0.65	0.002	77.11
1159	247	68.78	149	168	150	130	0	1.48	0.08	0	68.88
1271	20	117.84	140	151	250	140	0	9.62	0.2	0	117.96
1332	677	28.19	46	610	150	60	0	-30.44	1.72	0.087	34.44

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1724	168	106.98	71	63	150	60	0	9.1	0.52	0.009	106.98
1500	169	6.03	71	72	200	130	0	-20.69	0.66	0.003	6.1
1413	377	40.4	315	316	200	140	0	2.73	0.09	0	40.54
1525	644	30.22	533	534	150	140	0	0.51	0.03	0	30.18
2141	P-1101	233.69	255	245	300	130	0	19.88	0.28	0	0
1624	124	99.57	41	677	300	140	0	4.44	0.06	0	99.67
1170	125	26.71	41	581	300	60	0	76.83	1.09	0.017	26.82
1517	331	23.85	274	275	150	91	0	0.27	0.02	0	23.77
1444	648	35.4	537	538	150	140	0	0.02	0	0	35.36
1266	865	49.06	822	661	200	100	0	-5.28	0.17	0	24.69
1013	610	21.45	504	505	250	140	0	9.44	0.19	0	21.34
1331	4	67.42	361	464	200	140	0	24.85	0.79	0.003	17.98
1176	312	26.9	211	212	200	140	0	0.53	0.02	0	26.82
1090	510	66.55	450	451	150	91	0	3.73	0.21	0.001	66.45
1616	515	17.31	450	449	250	140	0	31.93	0.65	0.002	17.37
1417	236	21.77	136	138	250	140	0	29.39	0.6	0.001	21.64
1059	235	16.49	136	137	150	140	0	0	0	0	16.46
1419	2	101.15	139	250	200	140	0	-0.11	0	0	100.89
1342	499	67.77	462	461	250	95	0	56.1	1.14	0.01	67.67
1212	244	49.5	147	175	200	140	0	18.13	0.58	0.002	49.38
1772	246	47.4	147	148	250	140	0	22.9	0.47	0.001	47.55
1466	521	53.12	445	405	250	140	0	33.93	0.69	0.002	53.04
1719	519	17.41	445	444	150	95	0	-2.23	0.13	0	17.37
1508	866	110.1	823	824	200	100	0	-1.44	0.05	0	110.03
1817	755	124.79	125	739	150	140	0	6.88	0.39	0.001	114
1605	333	17.03	272	277	150	91	0	-4.33	0.24	0.001	17.07
1754	330	100.53	272	274	150	91	0	0.42	0.02	0	100.58
1424	290	56.63	204	205	200	89	0	-21.27	0.68	0.005	56.69
1968	P-1032	119.88	696	631	200	130	0	-10.14	0.32	0.001	0
1503	67	22.41	544	555	250	140	0	11.04	0.23	0	22.56
1347	912	113.21	862	863	200	100	0	-11.09	0.35	0.001	123.75
1106	508	107.05	455	456	250	95	0	21.58	0.44	0.002	106.98
1843	643	78.96	531	533	150	140	0	0.76	0.04	0	78.94
1518	664	58.03	618	620	150	91	0	0	0	0	57.91
1583	597	35.97	618	602	200	95	0	4.21	0.13	0	35.97
1797	163	155.2	589	69	300	140	0	8.41	0.12	0	155.14
964	23	7.64	173	184	250	140	0	9.36	0.19	0	7.62
1446	556	115	400	401	150	91	0	-2.32	0.13	0	114.91
1846	645	123.04	534	535	150	140	0	0.51	0.03	0	123.14
1646	343	54.25	293	292	200	95	0	6.88	0.22	0.001	54.25
1136	324	24.31	595	267	300	89	0	-46.5	0.66	0.003	24.38
1172	463	13	235	236	150	85	0	-0.36	0.02	0	13.11
1056	468	108.9	235	240	150	85	0	-9.5	0.54	0.005	108.81
2230	P-1135	488.18	820	825	400	130	0	-11.75	0.09	0	0
2227	P-1133	800	820	J-953	300	130	0	5.1	0.07	0	0
2212	P-1123	662.09	820	J-948	400	130	0	14.78	0.12	0	0
1543	111	14.37	674	676	300	130	0	17.6	0.25	0	14.33
1126	110	242.27	674	675	250	130	0	0	0	0	242.32
1062	581	22	432	429	150	140	0	-0.03	0	0	21.95
1536	27	21.91	575	206	250	140	0	9.36	0.19	0	21.95
1242	356	54.12	569	570	150	91	0	3.06	0.17	0.001	54.25
971	774	79.92	702	712	250	140	0	-4.43	0.09	0	86.87
1778	779	85.2	702	724	250	140	0	6.18	0.13	0	85.34
1828	349	13.11	291	290	200	140	0	6.64	0.21	0	13.11
1368	811	330.6	671	778	200	140	0	0	0	0	330.71
1722	655	6.86	45	44	150	60	0	11.9	0.67	0.015	7.01
1479	300	125.86	192	194	300	89	0	-46.5	0.66	0.003	125.88
1505	784	119.43	728	848	150	140	0	0.41	0.02	0	103.63
1545	336	45.25	279	280	150	91	0	-4.42	0.25	0.001	45.11
1656	149	152.31	585	60	300	140	0	81.91	1.16	0.004	152.4
1854	569	40.96	621	419	200	95	0	-4.21	0.13	0	40.84
1690	666	56.22	621	622	150	91	0	0	0	0	56.08
1306	665	122.06	621	411	200	95	0	4.21	0.13	0	121.92
990	544	24.56	388	389	150	91	0	-1.29	0.07	0	24.69
969	749	1	19	20	200	100	0	-114.24	3.64	0.096	0.91
1803	391	71.73	326	331	250	140	0	2	0.04	0	71.63
1626	387	16.12	326	327	150	91	0	0	0	0	16.15
1647	56	3.24	424	435	200	140	0	2	0.06	0	3.35
1615	822	371.78	788	789	250	140	0	9.24	0.19	0	191.72
1678	555	34.65	399	400	150	91	0	-2.06	0.12	0	34.75
1240	718	130.6	658	654	250	140	0	6.97	0.14	0	130.45
1791	630	7.43	522	524	200	140	0	4.16	0.13	0	7.32
1745	626	29.12	522	606	200	140	0	-3.34	0.11	0	29.26
1997	P-1035	94.36	553	J-891	250	130	0	-9.34	0.19	0	0
1049	474	79.31	246	247	150	85	0	3.01	0.17	0.001	79.25
1743	668	56.34	629	628	150	140	0	0.32	0.02	0	56.39

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
959	667	11.64	629	364	200	95	0	0.28	0.01	0	11.58
1686	554	129.7	398	399	150	91	0	-2.06	0.12	0	129.84
1551	335	25.36	278	279	150	91	0	-4.33	0.24	0.001	25.3
1188	560	3.36	409	410	200	95	0	10.75	0.34	0.001	3.35
1459	568	3.62	409	411	200	95	0	-4.06	0.13	0	3.66
1418	460	141	233	234	150	85	0	-3.34	0.19	0.001	141.12
1430	280	77.01	183	182	200	140	0	5.87	0.19	0	77.11
1037	574	61.74	436	434	150	140	0	0.1	0.01	0	61.87
1119	887	50.52	838	839	250	100	0	-2.83	0.06	0	50.6
954	854	179.87	814	822	150	100	0	-4.58	0.26	0.001	173.74
1429	853	38.08	814	803	200	140	0	12.23	0.39	0.001	38.4
1321	126	143.65	581	44	300	60	0	76.83	1.09	0.017	143.56
1771	711	86.93	649	651	150	140	0	1.4	0.08	0	86.87
1378	710	32.78	649	650	150	140	0	0.25	0.01	0	32.92
1267	141	14.43	47	56	300	66	0	-3.28	0.05	0	13.41
1179	327	42.97	269	270	150	91	0	-3.74	0.21	0.001	42.98
1033	780	128.91	724	725	150	140	0	0.42	0.02	0	135.94
1286	781	137.88	724	726	250	140	0	5.36	0.11	0	124.36
1175	74	70.37	597	34	250	140	0	-0.57	0.01	0	70.41
968	98	11.15	597	559	250	66	0	11.61	0.24	0.001	11.28
1073	403	145.1	342	343	150	140	0	-3.96	0.22	0	145.08
1409	279	37.76	185	183	200	140	0	5.87	0.19	0	37.8
1107	426	44.04	366	367	200	95	0	0	0	0	43.89
1594	889	22.67	840	841	250	100	0	-2.83	0.06	0	22.56
1322	636	44.04	549	550	150	140	0	0.19	0.01	0	43.89
1819	303	201.78	193	196	200	140	0	4.48	0.14	0	201.78
1569	143	152.29	56	186	300	66	0	-46.5	0.66	0.005	153.01
987	142	20.02	56	584	300	140	0	43.21	0.61	0.001	20.42
1093	71	15.07	587	597	250	140	0	11.04	0.23	0	14.94
1256	422	59.9	360	363	150	91	0	-0.13	0.01	0	60.05
1021	537	13.89	386	387	250	95	0	17.23	0.35	0.001	14.02
1851	438	107.68	265	267	150	85	0	-0.74	0.04	0	107.59
1154	439	141.97	265	264	200	89	0	-15.41	0.49	0.003	142.04
1148	504	12.8	460	459	250	95	0	57.77	1.18	0.01	12.8
1004	26	171.16	184	575	250	140	0	9.36	0.19	0	171.3
1442	25	22.62	184	195	250	140	0	0	0	0	22.56
1510	24	14.94	184	552	250	140	0	0	0	0	14.94
1254	175	90.83	78	85	300	140	0	-36.7	0.52	0.001	90.83
1618	174	17.75	78	590	200	60	0	1.65	0.05	0	17.68
1762	756	73.64	739	673	150	140	0	8.7	0.49	0.002	67.36
1602	757	35.91	739	741	150	140	0	-1.82	0.1	0	25.91
1589	99	23.72	559	605	250	66	0	11.61	0.24	0.001	23.77
1231	805	107.58	B	667	250	140	0	1.05	0.02	0	107.59
1007	800	22.24	B	J-3	200	140	0	-6.17	0.2	0	63.4
1862	819	41.35	785	786	250	140	0	8.55	0.17	0	29.87
1729	109	97.87	579	674	200	130	0	17.6	0.56	0.002	97.84
965	76	24.78	33	701	250	140	0	-0.57	0.01	0	24.69
1041	680	1.03	28	29	300	150	0	-36.21	0.51	0.001	0.91
1889	P-980	1.29	28	BWD-4	304.8	130	0	36.21	0.5	0.001	1.22
1024	29	7.88	217	553	250	140	0	-9.34	0.19	0	7.92
1234	914	57.15	864	849	300	100	0	23.27	0.33	0.001	66.45
1707	12	15.25	43	54	250	140	0	-3.96	0.08	0	15.85
1636	633	34.09	526	527	150	140	0	0.1	0.01	0	34.14
1019	128	102.16	36	560	300	66	0	5.37	0.08	0	101.5
1089	116	56.76	36	37	200	60	0	15.25	0.49	0.006	56.69
2324	P-1193	221.25	384	J-989	250	130	0	-4.39	0.09	0	0
1054	539	93.52	387	490	250	95	0	18.32	0.37	0.001	93.57
1567	538	30.06	387	388	150	91	0	-1.19	0.07	0	30.18
977	36	23.16	251	558	250	140	0	0	0	0	4.27
1813	579	81.28	433	434	150	140	0	0.16	0.01	0	81.38
1140	580	56.06	433	432	150	140	0	0.07	0	0	56.08
1204	252	92.45	150	152	200	140	0	29.88	0.95	0.004	92.35
1652	250	65.79	150	166	150	60	0	1.8	0.1	0	65.84
1377	281	66.18	182	181	200	140	0	5.47	0.17	0	64.92
1363	734	56.3	673	146	150	140	0	12.72	0.72	0.004	54.56
1196	733	113.46	673	134	200	140	0	-4.16	0.13	0	117.35
1051	880	200.39	833	735	150	100	0	-0.58	0.03	0	246.89
1788	385	71.25	324	325	150	91	0	0.5	0.03	0	71.32
1086	829	110.89	784	795	250	130	0	4.17	0.08	0	97.23
1305	818	38.67	784	785	250	140	0	8.67	0.18	0	77.11
1542	810	309.55	722	702	200	140	0	2.29	0.07	0	243.54
1807	857	8.65	815	818	200	100	0	1.48	0.05	0	18.29
1069	131	5.58	48	49	100	66	0	11.35	1.44	0.085	5.49
1825	565	99.9	600	416	200	95	0	0	0	0	99.97
1098	563	9.49	600	599	200	95	0	0	0	0	9.45
1698	215	15.71	111	563	250	140	0	-160.64	3.27	0.033	15.85

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1139	741	1.5	762	763	200	140	0	49.63	1.58	0.011	1.52
1020	156	110.2	63	55	200	66	0	34.38	1.09	0.022	110.34
1349	825	49.27	791	792	250	140	0	23.68	0.48	0.001	46.02
1512	672	73.15	624	623	150	140	0	0.13	0.01	0	73.15
1422	46	128.9	350	577	250	140	0	0.66	0.01	0	128.93
1764	913	66.08	863	855	200	100	0	-11.53	0.37	0.001	76.5
1557	407	35.69	345	598	150	91	0	-4.25	0.24	0.001	35.66
1241	17	77.35	98	119	250	66	0	9.62	0.2	0.001	77.42
1498	204	16.29	98	109	250	66	0	-21.43	0.44	0.003	16.15
1292	240	33.87	143	144	250	140	0	28.42	0.58	0.001	33.83
1566	261	5	104	103	200	60	0	3.65	0.12	0	4.88
1127	217	6.03	563	564	250	140	0	-118.92	2.42	0.019	6.1
1733	216	4.32	563	108	250	140	0	-41.72	0.85	0.003	4.27
1065	14	227.15	65	76	300	66	0	-4.49	0.06	0	227.69
1335	588	41.52	485	484	150	140	0	-9.74	0.55	0.002	41.45
1584	589	65.55	485	486	150	140	0	0	0	0	65.53
1765	625	82.89	519	522	150	140	0	0.82	0.05	0	82.91
1464	520	72.72	444	443	150	95	0	-2.23	0.13	0	72.85
1777	323	99.96	197	198	300	89	0	-46.5	0.66	0.003	99.97
1288	628	90.77	548	545	200	140	0	1.99	0.06	0	90.83
1514	629	82.03	548	525	200	140	0	-2.6	0.08	0	81.99
1308	635	9.95	548	549	150	140	0	0.19	0.01	0	10.06
1691	639	44.97	548	551	150	140	0	0.17	0.01	0	45.11
1080	632	16.39	525	526	150	140	0	0.1	0.01	0	16.46
1711	640	122.61	525	529	150	140	0	1.19	0.07	0	122.53
1372	584	29.92	430	458	250	140	0	-21.34	0.43	0.001	29.87
1742	585	127.03	430	431	250	140	0	16.79	0.34	0	127.1
1427	875	177.15	610	681	150	100	0	-5.31	0.3	0.001	172.21
1657	656	109.51	610	611	250	130	0	0	0	0	114.91
1575	270	61.02	163	164	150	140	0	-8.29	0.47	0.002	60.96
1708	796	150.95	708	43	250	140	0	-3.96	0.08	0	163.98
1209	793	103.21	708	709	300	140	0	-32.81	0.46	0.001	95.1
1018	624	7.35	518	519	150	140	0	1.01	0.06	0	7.32
1412	623	54.4	518	520	150	140	0	0.17	0.01	0	54.25
1203	726	82.75	667	668	250	140	0	0.65	0.01	0	82.6
1465	173	89.16	68	78	300	140	0	-35.98	0.51	0.001	89.31
975	713	66.98	652	653	150	140	0	0.25	0.01	0	97.54
1117	714	85.89	652	654	150	140	0	0.65	0.04	0	85.95
1470	64	118.48	489	499	250	140	0	2.52	0.05	0	119.18
1513	62	9.27	489	488	250	140	0	-2.25	0.05	0	8.53
1071	251	14.53	167	166	100	60	0	1.35	0.17	0.002	14.63
1472	289	9.72	203	204	200	89	0	-21.27	0.68	0.005	9.75
1079	352	138.6	300	298	150	140	0	-7.11	0.4	0.001	138.68
1493	187	114.28	84	83	200	130	0	-8	0.25	0	114.3
1574	765	53.71	732	733	150	140	0	-0.6	0.03	0	53.64
1066	772	48.34	732	738	150	140	0	0.42	0.02	0	48.46
2182	P-1107	161.11	686	610	250	130	0	25.26	0.51	0.001	0
1182	616	88.53	511	515	150	140	0	1.87	0.11	0	88.39
1174	617	80.29	511	512	250	130	0	0.28	0.01	0	80.16
1025	911	62.65	861	854	150	100	0	0	0	0	67.36
1752	234	19.07	135	136	250	140	0	29.39	0.6	0.001	19.2
1386	133	154.52	583	50	200	60	0	9.93	0.32	0.003	154.53
1504	572	59.97	438	437	150	140	0	0.35	0.02	0	60.05
1283	876	575.65	457	830	250	130	0	0	0	0	489.2
1561	10	34.69	574	691	200	140	0	-25.27	0.8	0.003	34.75
1141	483	7.05	468	467	300	89	0	194.99	2.76	0.045	7.01
1655	702	11.29	468	469	200	89	0	-194.99	6.21	0.322	11.28
1802	213	17.88	112	114	250	140	0	1.73	0.04	0	17.98
1142	214	67.59	112	111	250	140	0	-160.64	3.27	0.033	67.67
1281	212	9.03	112	113	250	140	0	0	0	0	9.14
991	410	36.82	347	348	150	91	0	0	0	0	36.88
1441	500	42.43	461	460	250	95	0	56.1	1.14	0.01	42.37
1227	396	37.97	332	333	150	140	0	0.45	0.03	0	38.1
1198	861	84.37	818	819	200	100	0	1.71	0.05	0	60.35
1219	860	58.34	818	816	200	100	0	-0.23	0.01	0	50.29
1236	100	99.32	605	616	250	66	0	11.61	0.24	0.001	99.36
1534	503	41	475	460	200	91	0	1.84	0.06	0	41.15
1191	785	119.04	703	704	200	140	0	-0.62	0.02	0	127.1
1375	571	20.94	439	438	150	140	0	0.35	0.02	0	21.03
1601	570	39.74	439	440	150	140	0	0.16	0.01	0	39.62
1144	575	47.56	439	441	150	140	0	-0.52	0.03	0	47.55
1572	609	109.57	503	504	250	140	0	12.29	0.25	0	138.99
2136	Align2	255.8	93	J-931	300	130	0	-26.74	0.38	0.001	0
1520	91	51.65	687	685	100	60	0	9.33	1.19	0.07	51.51
1411	90	53.88	687	694	250	130	0	-2.53	0.05	0	53.95
1011	282	93.48	181	179	200	140	0	5.47	0.17	0	89.61

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1102	419	13.01	357	358	150	91	0	0	0	0	13.11
1208	763	101.96	730	731	200	140	0	1.59	0.05	0	84.73
1633	773	104.22	730	740	250	140	0	0	0	0	60.05
1239	376	39.6	571	315	200	140	0	2.73	0.09	0	39.62
1684	400	154.7	336	338	250	140	0	-3.65	0.07	0	154.84
1703	406	82.55	336	337	250	140	0	3.32	0.07	0	82.6
1709	285	100.9	179	180	200	140	0	10.37	0.33	0.001	67.06
1109	852	57.91	812	813	150	100	0	0.31	0.02	0	63.09
1855	851	75.45	812	799	200	100	0	-1.14	0.04	0	78.33
1032	768	79.06	734	735	200	140	0	-0.83	0.03	0	82.6
1131	770	72.61	734	736	150	140	0	0	0	0	47.55
1070	19	104.69	128	140	250	66	0	9.62	0.2	0.001	104.55
1837	263	169.54	592	156	150	130	0	2.55	0.14	0	169.47
1433	73	133.57	521	532	250	140	0	4.13	0.08	0	132.28
1658	586	80.87	431	425	250	140	0	26.23	0.53	0.001	80.77
1379	587	57.08	431	485	150	140	0	-9.74	0.55	0.002	57
1218	557	152.54	407	408	200	95	0	6.69	0.21	0.001	152.4
1533	7	128.81	543	645	150	140	0	0.12	0.01	0	126.49
1259	8	21.8	543	680	200	140	0	-25.27	0.8	0.003	21.95
1714	870	410.77	826	827	200	100	0	0	0	0	403.86
1834	869	150.49	826	660	300	140	0	25.87	0.37	0	165.81
1278	709	57.41	648	649	150	140	0	1.65	0.09	0	57.3
1953	P-1022	113.57	780	J-885	150	130	0	0	0	0	0
1044	814	102.49	780	781	250	140	0	-8.76	0.18	0	98.15
984	906	80.42	856	857	200	100	0	15.48	0.49	0.002	97.54
1133	516	46.57	449	447	250	140	0	31.93	0.65	0.002	46.63
1858	593	69.22	425	423	250	140	0	30.08	0.61	0.001	69.19
953	591	19.52	425	427	150	140	0	-4.17	0.24	0	19.51
2263	P-1156	699.83	299	J-966	350	130	0	43.7	0.45	0.001	0
1431	291	9.84	205	207	200	89	0	-21.27	0.68	0.005	9.75
1826	338	59.19	281	282	150	91	0	-4.58	0.26	0.001	59.13
1664	764	33.85	222	732	150	140	0	-0.18	0.01	0	33.83
1081	559	255.13	410	418	200	95	0	10.75	0.34	0.001	255.12
1038	121	16.73	40	49	150	60	0	-1.22	0.07	0	16.76
1404	401	121.42	596	341	150	140	0	-3.3	0.19	0	121.31
1399	355	6.41	302	569	150	91	0	3.06	0.17	0.001	6.4
1761	350	130.67	302	301	150	140	0	-6.69	0.38	0.001	130.76
1832	313	138.72	212	213	200	140	0	0.37	0.01	0	138.68
1640	379	21.3	318	319	150	140	0	0.85	0.05	0	21.34
1627	513	104.79	453	442	150	91	0	3.57	0.2	0.001	104.85
1301	821	66.64	786	788	250	140	0	12.24	0.25	0	102.11
1509	820	111.53	786	787	250	140	0	-3.81	0.08	0	97.23
1548	496	7.64	482	483	150	140	0	9.9	0.56	0.002	7.62
1619	895	136.08	847	664	300	100	0	-3.71	0.05	0	142.04
1084	264	48.93	156	157	150	60	0	-7.56	0.43	0.007	49.07
1210	191	4.38	90	91	100	60	0	-3.76	0.48	0.013	4.27
1296	233	24.29	133	135	250	140	0	29.39	0.6	0.001	21.34
1017	232	30	133	134	200	140	0	4.16	0.13	0	19.51
1496	66	103.59	532	544	250	140	0	11.04	0.23	0	103.63
2293	P-1175	726.57	532	J-976	250	130	0	-5.06	0.1	0	0
1289	641	9.5	529	530	150	140	0	1.19	0.07	0	9.45
1022	307	138.79	198	595	300	89	0	-46.5	0.66	0.003	138.68
1934	P-1011	618.78	800	J-877	250	130	0	5.08	0.1	0	0
1773	464	153.76	236	237	150	85	0	-0.36	0.02	0	153.62
1462	375	6.97	309	571	200	140	0	3.07	0.1	0	7.01
1747	390	4.13	329	326	200	95	0	1.69	0.05	0	4.27
1207	799	63.48	714	B	250	140	0	-5.11	0.1	0	59.13
1710	806	92.41	714	829	200	140	0	-0.5	0.02	0	100.58
1034	317	116.71	216	218	150	140	0	0.29	0.02	0	116.74
1821	878	26.53	738	832	150	100	0	0.42	0.02	0	26.52
1749	402	37.78	341	342	150	140	0	-3.6	0.2	0	37.8
976	89	10.69	688	687	250	130	0	6.8	0.14	0	10.67
983	730	154.72	337	668	250	140	0	1.22	0.02	0	151.49
1808	512	63.16	452	453	150	91	0	3.57	0.2	0.001	63.09
1585	528	19.49	381	382	150	91	0	2.98	0.17	0.001	19.51
1484	362	40.19	289	288	200	140	0	9.92	0.32	0.001	40.23
1294	846	119.17	806	809	150	100	0	0.2	0.01	0	115.21
1822	848	38.66	806	810	150	100	0	-0.2	0.01	0	31.39
1095	368	45.21	570	304	150	91	0	3.06	0.17	0.001	45.11
1270	361	49.02	290	289	200	140	0	9.92	0.32	0.001	49.07
1094	347	48.13	290	303	150	140	0	-3.46	0.2	0	48.16
1202	551	83.25	396	394	150	91	0	0.62	0.04	0	83.21
1704	552	46.66	396	397	150	91	0	-1.76	0.1	0	46.63
1138	492	84.41	477	478	150	140	0	5.92	0.34	0.001	84.43
1416	491	201.93	477	482	150	91	0	4.78	0.27	0.001	202.08
978	816	97.38	782	783	250	140	0	-17.68	0.36	0.001	109.73

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1897	P-988	3.51	754	772	254	130	0	95.91	1.89	0.013	3.66
1895	P-986	1.87	754	WST-2	254	130	0	49.46	0.98	0.004	1.83
1376	42	149.54	306	317	250	140	0	5.18	0.11	0	149.66
1507	663	58.28	617	619	150	91	0	0	0	0	58.22
1009	662	62.38	617	618	250	95	0	4.21	0.09	0	62.48
1099	858	145.83	816	817	200	100	0	-0.78	0.02	0	168.55
1151	374	100.59	308	309	200	95	0	2.29	0.07	0	100.58
1393	363	93.31	308	304	150	91	0	-1.71	0.1	0	93.27
1560	230	60.41	131	148	200	66	0	10.44	0.33	0.002	60.35
1295	830	39.44	795	796	250	130	0	4.05	0.08	0	69.8
1293	675	17.3	510	532	250	140	0	2.52	0.05	0	17.37
1194	926	13.67	169	170	150	100	0	-5.56	0.31	0.001	13.72
1143	16	190.12	87	98	300	66	0	-11.81	0.17	0	189.28
1487	454	71.95	226	227	150	85	0	0.1	0.01	0	71.93
1178	455	89.74	226	229	150	85	0	-8.98	0.51	0.005	89.61
1674	471	90.48	242	243	150	85	0	6.78	0.38	0.003	90.53
1165	472	108.09	242	245	150	85	0	-16.87	0.95	0.015	108.2
1269	863	93.65	819	820	300	100	0	8.14	0.12	0	57.3
1744	862	87.28	819	808	300	100	0	-6.99	0.1	0	85.34
1060	437	18.28	266	265	200	89	0	-16.01	0.51	0.003	18.29
1350	494	83.78	480	481	150	140	0	5.52	0.31	0.001	83.82
1471	631	79.13	524	525	200	140	0	3.98	0.13	0	79.25
1576	954	15.89	200	64	200	130	0	21.27	0.68	0.003	15.85
1725	286	39.09	200	607	200	89	0	-21.27	0.68	0.005	39.01
1637	292	14.06	207	208	200	89	0	-21.27	0.68	0.005	14.02
1713	444	93.84	260	237	150	85	0	-5.8	0.33	0.002	93.88
1793	445	69.56	260	259	200	89	0	-16.57	0.53	0.003	69.49
1333	739	1.03	757	777	200	140	0	262.89	8.37	0.242	0.91
1893	P-984	1.58	757	WST-1	254	130	0	49.63	0.98	0.004	1.52
1753	269	8.35	158	163	150	140	0	-7.99	0.45	0.002	8.23
1651	266	103	158	159	150	130	0	0.44	0.02	0	103.02
1452	359	27.16	286	287	200	95	0	-9.06	0.29	0.001	27.13
1315	705	35.66	165	164	150	140	0	8.29	0.47	0.002	35.66
1323	272	63.21	165	169	150	140	0	-5.36	0.3	0.001	63.09
1494	598	57.73	602	603	200	95	0	4.21	0.13	0	57.61
1501	618	9.81	512	513	250	130	0	0.1	0	0	10.36
1806	462	89.77	234	235	150	85	0	-9.61	0.54	0.005	89.92
1614	620	58.25	515	516	150	140	0	1.62	0.09	0	58.22
1285	130	147.07	582	48	200	66	0	8.51	0.27	0.002	147.22
1898	P-989	1.85	772	WST-FIRE	254	130	0	95.91	1.89	0.013	1.83
1699	108	18.85	672	579	200	130	0	17.6	0.56	0.002	18.9
1287	69	16.25	566	576	100	140	0	0	0	0	12.5
1440	70	70.38	566	587	250	140	0	11.04	0.23	0	70.41
1384	505	54.2	459	454	250	95	0	57.77	1.18	0.01	54.25
1539	44	97.56	328	339	250	140	0	0.91	0.02	0	97.54
1229	72	53.06	328	521	250	140	0	4.27	0.09	0	52.73
1635	154	152.07	586	62	300	140	0	26.21	0.37	0	152.1
1317	353	154.01	294	298	300	95	0	-39.98	0.57	0.002	153.92
1030	342	28.66	294	293	200	95	0	6.88	0.22	0.001	28.65
1550	715	43.78	655	657	150	140	0	-2.94	0.17	0	43.89
1610	777	204.72	655	721	150	140	0	-0.56	0.03	0	204.83
1122	535	44.27	383	385	250	95	0	17.47	0.36	0.001	44.2
997	49	120.6	362	384	250	140	0	-4.39	0.09	0	120.7
1461	48	114.24	362	373	250	140	0	0.27	0.01	0	114.3
1554	50	20.27	362	395	350	130	0	4.78	0.05	0	20.42
1352	466	110.69	238	244	150	85	0	-6.3	0.36	0.002	110.64
1629	92	14.7	685	686	250	140	0	25.26	0.51	0.001	14.63
1801	93	10.7	685	683	250	140	0	-15.93	0.32	0	10.67
1541	432	114.15	371	372	150	91	0	0.1	0.01	0	114
1291	433	9.04	371	374	200	95	0	-6.17	0.2	0	9.14
1571	61	64.72	479	489	250	130	0	1.07	0.02	0	64.01
1064	412	28.21	349	351	150	91	0	-4.5	0.25	0.001	28.35
1162	6	42.7	573	543	200	140	0	-25.15	0.8	0.003	42.67
1318	105	9.16	646	656	100	60	0	14.6	1.86	0.161	9.14
1152	104	92.54	646	35	250	66	0	20.7	0.42	0.003	92.66
1074	145	151.61	584	57	300	140	0	41.62	0.59	0.001	151.49
1076	54	39.57	413	578	300	130	0	2.14	0.03	0	39.62
1671	172	10.59	67	68	300	140	0	-35.98	0.51	0.001	10.67
1634	162	18.91	67	589	200	140	0	9.34	0.3	0.001	18.9
960	161	90.67	67	561	300	140	0	44.06	0.62	0.001	90.53
1890	P-981	1.89	18	BWD-4	304.8	130	0	-36.21	0.5	0.001	1.83
1760	748	1.08	18	19	200	100	0	-158.78	5.05	0.177	1.22
1185	944	0.97	18	21	250	100	0	194.99	3.97	0.087	0.91
1559	653	54.85	542	545	200	140	0	-1.61	0.05	0	54.86
1448	767	65.89	733	734	200	140	0	-0.83	0.03	0	60.35
1330	766	183.88	733	215	200	140	0	0.24	0.01	0	183.79

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1792	536	33.7	385	386	250	95	0	17.31	0.35	0.001	33.83
1260	744	10	117	770	250	140	0	-195	3.97	0.047	10.06
1108	207	22	117	591	250	140	0	0	0	0	21.95
1480	798	39.26	502	828	250	140	0	-5.02	0.1	0	39.32
1257	435	7.15	374	376	200	95	0	-6.47	0.21	0.001	7.01
1361	434	13.86	374	375	150	91	0	0	0	0	13.72
1265	211	61.31	115	112	250	140	0	-158.91	3.24	0.032	61.26
1048	939	2.4	115	771	250	100	0	312.52	6.37	0.21	2.44
1830	562	6.02	415	600	200	95	0	0	0	0	6.1
1736	21	37.07	151	162	250	140	0	0.27	0.01	0	37.19
1804	22	19.99	151	173	250	140	0	9.36	0.19	0	20.12
1883	P-958	1.52	26	BWD-FIRE	304.8	130	0	72.38	0.99	0.003	1.52
957	360	17.57	287	288	200	95	0	-9.06	0.29	0.001	17.68
1451	152	11.3	51	50	300	140	0	78.44	1.11	0.004	11.28
1387	95	41.87	683	682	300	140	0	-15.93	0.23	0	41.76
1578	94	8.91	683	684	250	140	0	0	0	0	8.84
1769	473	63.19	245	246	150	85	0	3.01	0.17	0.001	63.09
1758	443	70.97	261	260	200	89	0	-22.18	0.71	0.006	71.02
1682	938	1.45	763	770	250	100	0	99.09	2.02	0.025	1.52
1005	231	16.84	132	133	250	140	0	33.55	0.68	0.002	16.46
1309	86	125.77	692	693	200	130	0	2.61	0.08	0	125.88
1540	405	15.16	343	345	150	91	0	-4.25	0.24	0.001	15.24
1114	404	50.28	343	344	150	91	0	0.1	0.01	0	50.29
1580	453	98.83	225	226	150	85	0	-8.73	0.49	0.005	98.76
1625	51	140.42	395	406	350	130	0	4.78	0.05	0	140.51
1623	306	162.48	593	594	250	140	0	-1.56	0.03	0	162.46
999	928	87.73	630	631	250	100	0	15.32	0.31	0.001	94.49
1679	759	12.38	741	742	150	140	0	-2.17	0.12	0	20.73
1721	239	7.97	141	143	250	140	0	28.42	0.58	0.001	7.92
1307	238	15.99	141	142	150	140	0	0.97	0.05	0	15.85
1814	679	45.35	631	306	250	140	0	5.18	0.11	0	38.4
1336	871	98.2	828	714	250	140	0	-5.62	0.11	0	94.49
1232	65	15.26	499	510	250	140	0	2.52	0.05	0	15.24
1392	573	113.55	437	436	150	140	0	0.1	0.01	0	113.69
1800	209	8.63	116	120	200	140	0	19.42	0.62	0.002	8.53
1662	956	32.3	116	115	150	130	0	153.61	8.69	0.416	32.31
1249	206	33.67	116	117	250	140	0	-195	3.97	0.047	33.53
1473	452	29.84	224	225	150	85	0	-8.73	0.49	0.005	29.87
1562	615	117.43	509	523	200	140	0	3.89	0.12	0	117.35
1739	727	203.66	668	669	200	140	0	0.22	0.01	0	203.61
1298	592	171.41	427	428	150	140	0	-4.17	0.24	0	171.3
1358	450	136.18	256	255	300	89	0	-108.05	1.53	0.015	136.25
1088	448	16.12	256	257	300	89	0	90.96	1.29	0.011	16.15
1670	842	98.58	805	804	250	100	0	5.92	0.12	0	98.76
1768	495	87.38	481	482	150	140	0	5.12	0.29	0.001	87.48
1720	40	156.69	284	295	250	140	0	15.32	0.31	0	156.67
1153	189	24.46	88	89	200	130	0	-3.45	0.11	0	24.38
1078	600	34.1	494	495	150	91	0	7.51	0.43	0.003	8.53
1247	82	41.08	695	696	250	140	0	-10.14	0.21	0	39.32
1839	83	28.09	695	689	250	130	0	9.57	0.19	0	30.18
1348	112	157.77	676	677	300	130	0	17.6	0.25	0	157.89
981	382	6.66	321	322	150	91	0	0.69	0.04	0	6.71
1577	850	66.19	799	811	150	100	0	0.28	0.02	0	66.14
1047	295	16.85	188	568	300	89	0	0	0	0	16.76
1482	296	29.62	188	189	300	89	0	-46.5	0.66	0.003	29.57
1649	43	87.27	317	328	250	140	0	5.18	0.11	0	87.17
1581	139	51.65	53	55	150	60	0	7.34	0.42	0.006	51.51
1681	389	98.35	330	329	200	95	0	1.88	0.06	0	98.45
1827	673	87.59	608	87	300	66	0	-11.81	0.17	0	127.41
1168	381	37.24	320	321	150	91	0	0.69	0.04	0	37.19
1491	894	113.1	846	799	200	100	0	1.42	0.05	0	109.42
1535	194	93.48	86	95	300	140	0	-25.71	0.36	0	93.57
1597	3	43.13	250	361	200	140	0	24.85	0.79	0.003	43.28
1845	5	54.97	250	573	200	140	0	-25.11	0.8	0.003	54.25
1486	357	35.93	282	285	200	95	0	-8.72	0.28	0.001	35.97
1344	339	133.55	282	283	200	95	0	4.14	0.13	0	133.5
1596	840	28.32	802	823	250	100	0	-1.44	0.03	0	28.35
1026	841	126.73	802	805	250	100	0	5.92	0.12	0	126.8
1303	760	134.08	742	729	150	140	0	-2.52	0.14	0	127.71
1439	761	110.35	742	743	150	140	0	0.35	0.02	0	92.05
1666	13	27.44	54	65	300	66	0	-3.96	0.06	0	30.48
1304	838	89.36	801	802	250	100	0	5	0.1	0	89.31
992	837	89.95	801	807	250	100	0	7.04	0.14	0	89.92
1397	167	33.36	70	71	200	140	0	-11.59	0.37	0.001	33.22
1087	182	53.24	73	74	150	140	0	0.11	0.01	0	53.34
1360	884	229.72	835	836	200	100	0	9.91	0.32	0.001	188.37

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1667	277	75.12	177	176	200	140	0	-11.58	0.37	0.001	74.98
1276	283	114.45	177	178	200	140	0	5.11	0.16	0	114.3
1300	498	61.85	463	462	250	95	0	56.26	1.15	0.01	61.87
1420	859	94.54	817	706	200	100	0	-1.33	0.04	0	92.05
1130	627	81.41	606	523	200	140	0	-3.53	0.11	0	81.38
1856	590	62.81	426	425	150	140	0	0	0	0	62.79
1757	203	18.53	102	103	200	140	0	-3.65	0.12	0	18.59
1781	329	79.18	271	272	150	91	0	-3.82	0.22	0.001	79.25
1457	442	101.53	263	261	200	89	0	-21.99	0.7	0.006	101.5
1343	441	107.93	263	283	200	89	0	6.5	0.21	0.001	107.9
1428	299	8.76	191	192	300	89	0	-46.5	0.66	0.003	8.84
1860	845	90.12	808	847	300	100	0	-3.43	0.05	0	90.22
1463	325	8.66	267	268	300	89	0	-47.24	0.67	0.003	8.53
1045	348	38.81	303	302	150	140	0	-3.46	0.2	0	38.71
1621	197	16.27	94	93	300	140	0	-22.71	0.32	0	16.15
1235	923	45.4	148	149	250	100	0	33.15	0.68	0.003	45.42
1609	365	36.8	305	307	200	140	0	0.86	0.03	0	36.88
1600	97	68.57	681	677	300	140	0	-21.91	0.31	0	77.42
1395	517	23.09	447	448	150	130	0	0	0	0	23.16
1158	518	102.93	447	445	250	140	0	31.93	0.65	0.002	103.02
1770	706	7.84	507	647	250	140	0	8.13	0.17	0	7.92
1015	834	61.09	666	801	250	100	0	12.04	0.25	0.001	60.96
1029	117	115.46	37	39	200	60	0	11.96	0.38	0.004	115.52
1132	119	83.91	37	38	150	140	0	0.04	0	0	83.82
1818	118	98.21	37	672	100	60	0	3.13	0.4	0.009	98.15
1221	890	132.58	539	842	150	100	0	0.4	0.02	0	132.59
995	599	97.59	603	419	200	95	0	4.21	0.13	0	97.54
1456	856	115.38	706	815	200	100	0	1.48	0.05	0	146.3
1669	883	13.74	836	132	250	140	0	33.55	0.68	0.002	18.29
1639	205	102.34	109	116	250	66	0	-21.97	0.45	0.003	102.41
1944	P-1017	96.6	781	J-881	150	130	0	0	0	0	0
1035	815	106.7	781	782	250	140	0	-8.76	0.18	0	115.82
1272	776	80.63	721	541	250	140	0	-6.09	0.12	0	80.77
1592	259	18.33	106	105	200	60	0	-6.26	0.2	0.001	18.29
1302	509	55.42	456	458	250	140	0	21.34	0.43	0.001	55.47
1823	265	44.05	157	158	150	60	0	-7.56	0.43	0.007	44.2
1199	383	21.65	322	323	150	91	0	0.5	0.03	0	21.64
1654	275	82.55	171	174	150	140	0	0.08	0	0	82.6
1437	274	50.37	171	172	150	140	0	0.4	0.02	0	50.29
1857	532	129.7	402	401	150	91	0	2.48	0.14	0	129.84
1425	531	8.42	402	403	250	95	0	14.8	0.3	0.001	8.53
2259	P-1153	95.73	418	495	250	130	0	10.75	0.22	0	0
2018	P-1043	195.42	720	J-899	200	140	0	-0.45	0.01	0	185.93
1811	807	76.73	720	668	200	140	0	-1.25	0.04	0	76.81
1474	659	31.93	500	614	150	91	0	0.13	0.01	0	32
1167	605	63.75	500	604	250	95	0	13.37	0.27	0.001	63.7
1164	227	79.28	127	129	200	66	0	10.67	0.34	0.003	79.25
956	87	29.84	693	694	200	130	0	2.53	0.08	0	29.87
1326	147	7.98	58	57	300	140	0	44.06	0.62	0.001	7.92
1120	791	76.65	729	707	250	140	0	-26.16	0.53	0.001	64.92
1586	758	95.06	729	836	250	140	0	23.64	0.48	0.001	85.04
1829	545	36.57	389	390	150	91	0	-1.29	0.07	0	36.58
1497	621	55.69	516	517	150	140	0	0.19	0.01	0	55.78
1676	622	85.93	516	518	150	140	0	1.18	0.07	0	85.95
970	558	36.35	408	409	200	95	0	6.69	0.21	0.001	36.27
1320	52	61.93	406	487	250	140	0	2.25	0.05	0	61.87
1183	53	26.97	406	413	300	130	0	2.14	0.03	0	26.82
1436	903	107.05	853	862	200	100	0	-10.59	0.34	0.001	89.31
1028	902	168.21	853	861	200	100	0	0.44	0.01	0	166.73
988	458	76	231	232	150	85	0	-3.18	0.18	0.001	75.9
1716	671	40.74	625	624	150	140	0	0.13	0.01	0	40.84
1467	371	59.19	312	311	150	91	0	0.97	0.05	0	59.13
1400	31	22.8	228	837	250	140	0	3.38	0.07	0	22.86
1116	123	144.62	580	41	200	60	0	12.62	0.4	0.004	144.48
1838	309	7.79	567	209	250	140	0	-5.27	0.11	0	7.92
2140	P-1100	219.69	467	255	400	130	0	98.86	0.79	0.002	0
1663	484	83.56	467	572	300	89	0	56.26	0.8	0.004	83.52
1705	399	18.4	335	336	150	140	0	0.05	0	0	18.29
1394	413	117.05	351	352	150	91	0	-4.67	0.26	0.001	117.04
1356	430	49.64	369	370	200	95	0	0.13	0	0	49.68
1527	651	61.3	540	541	250	140	0	6.49	0.13	0	61.26
1786	652	34.97	540	542	200	140	0	-1.61	0.05	0	35.05
1014	447	101.03	258	256	200	89	0	-16.91	0.54	0.003	100.89
1290	670	30.52	626	625	150	140	0	0.32	0.02	0	30.48
1918	P-1001	109.98	859	J-873	300	100	0	17.4	0.25	0	153.62
1902	P-992	17.34	859	J-866	300	100	0	-2.81	0.04	0	85.95

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1532	185	22.17	85	86	300	60	0	-25.71	0.36	0.002	22.25
1591	186	79.15	85	84	200	130	0	-7.84	0.25	0	79.25
1490	184	74.4	85	88	200	130	0	-3.45	0.11	0	74.37
1524	398	155.9	334	335	150	140	0	0.05	0	0	155.75
1161	497	45.2	483	484	150	140	0	9.9	0.56	0.002	45.11
1233	287	38.58	201	202	200	89	0	-21.27	0.68	0.005	38.71
980	731	90.94	201	671	200	140	0	0	0	0	90.83
1403	873	204.53	829	720	200	140	0	-1.1	0.04	0	204.52
989	674	21.64	446	457	300	130	0	0.13	0	0	14.02
993	59	55.97	446	465	250	130	0	0	0	0	55.17
1861	179	24.09	81	107	200	130	0	-6.05	0.19	0	24.08
1134	258	121.42	81	609	200	60	0	1.94	0.06	0	121.31
1694	619	51.84	513	514	150	140	0	0.1	0.01	0	51.82
1262	753	4.91	21	469	200	100	0	194.99	6.21	0.259	4.88
1255	502	40.11	474	475	200	91	0	1.84	0.06	0	40.23
1280	553	33.22	397	398	150	91	0	-1.76	0.1	0	33.22
1798	486	126.6	247	471	150	85	0	13.15	0.74	0.01	126.49
1328	475	62	247	248	200	89	0	-10.14	0.32	0.001	61.87
1157	146	15.91	561	59	150	60	0	0	0	0	15.85
1795	678	1.37	561	58	300	140	0	44.06	0.62	0.001	1.52
1205	459	20.47	232	233	150	85	0	-3.18	0.18	0.001	20.42
1840	32	144.64	239	554	250	140	0	6.21	0.13	0	120.4
1128	482	41.2	466	467	300	89	0	-39.88	0.56	0.002	41.15
1225	637	49.21	545	546	150	140	0	0.19	0.01	0	49.07
1274	638	50.1	545	547	150	140	0	0.19	0.01	0	49.99
1731	771	48.23	731	737	200	140	0	0	0	0	43.89
1886	P-967	1.69	20	BWD-2	304.8	130	0	-41.86	0.57	0.001	1.83
1787	750	0.87	20	9	200	100	0	-72.38	2.3	0.041	0.91
1528	826	57.56	792	793	250	140	0	23.68	0.48	0.001	54.86
1258	835	106.3	798	846	200	100	0	1.96	0.06	0	106.38
1489	836	84.47	798	800	250	130	0	5.08	0.1	0	84.43
1103	735	127.7	110	44	300	140	0	-118.92	1.68	0.008	127.71
1316	193	46.39	91	93	150	140	0	-4.03	0.23	0	46.33
1402	192	21.27	91	92	200	130	0	0	0	0	16.46
1702	922	1.01	15	1	300	85	0	-194.99	2.76	0.049	0.91
1381	736	22.89	609	82	200	130	0	8.08	0.26	0	22.86
1675	676	38.93	609	106	200	60	0	-6.26	0.2	0.001	39.01
1590	45	120.61	339	350	250	140	0	0.91	0.02	0	120.7
1677	606	296.18	495	501	200	95	0	4.62	0.15	0	292.91
1075	601	46.88	495	496	250	95	0	13.51	0.28	0.001	72.24
1613	534	72.65	403	383	250	95	0	14.8	0.3	0.001	72.54
1556	47	23.82	577	362	250	140	0	0.66	0.01	0	23.77
1810	308	66.26	594	567	250	140	0	-5.27	0.11	0	66.14
1435	188	18.08	83	82	200	130	0	-8.08	0.26	0	17.98
1573	882	50.75	834	835	200	100	0	10.26	0.33	0.001	42.06
1388	881	19.56	834	708	250	140	0	-36.77	0.75	0.002	25.6
1477	345	89.11	292	291	200	140	0	6.64	0.21	0	89
1083	344	29.07	292	296	150	140	0	0.08	0	0	28.96
1215	783	43.51	727	728	400	140	0	1.66	0.01	0	43.59
1284	790	329.81	727	663	200	140	0	-2.42	0.08	0	227.69
1700	488	37.16	472	473	150	91	0	12.99	0.74	0.008	37.19
1261	511	56.13	451	452	150	91	0	3.73	0.21	0.001	56.08
1027	661	24.54	420	617	250	95	0	4.21	0.09	0	24.69
1407	817	67.16	783	784	250	140	0	12.96	0.26	0	54.86
1950	P-1020	156.24	783	J-884	250	130	0	-30.64	0.62	0.002	0
1558	844	82.5	804	808	250	100	0	5.99	0.12	0	84.43
1661	253	86.34	152	153	150	130	0	0.38	0.02	0	86.26
1421	254	14.29	152	154	200	140	0	29.5	0.94	0.004	14.33
1111	316	22.19	214	216	150	140	0	0.45	0.03	0	22.25
1782	315	36.7	214	215	200	140	0	-0.24	0.01	0	36.58
1001	506	75.48	454	450	250	140	0	35.87	0.73	0.002	75.59
1783	507	71.88	454	455	250	95	0	21.58	0.44	0.002	71.93
1620	487	42.33	471	472	150	91	0	13.15	0.74	0.009	42.37
1039	351	49.32	301	300	150	140	0	-6.95	0.39	0.001	49.38
1799	470	95.51	240	242	150	85	0	-9.9	0.56	0.006	95.4
1852	469	115.51	240	241	150	85	0	0.16	0.01	0	115.52
1816	334	41.37	277	278	150	91	0	-4.33	0.24	0.001	41.45
1031	196	4.43	96	94	300	140	0	-22.71	0.32	0	4.57
1445	198	20.44	96	97	150	140	0	-2.99	0.17	0	20.42
1756	479	21.95	253	254	300	89	0	29.07	0.41	0.001	21.95
1184	481	16.61	253	466	300	89	0	-39.88	0.56	0.002	16.46
1495	60	49.01	470	479	250	130	0	1.07	0.02	0	49.07
1206	57	133.82	435	470	250	130	0	1.87	0.04	0	133.81
1755	58	64.4	435	446	250	130	0	0.13	0	0	65.53
1380	657	23.4	202	612	150	85	0	0	0	0	23.47
1329	288	27.55	202	203	200	89	0	-21.27	0.68	0.005	27.43

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1228	28	4.74	206	217	250	140	0	-9.34	0.19	0	4.88
1434	37	25.8	206	262	250	140	0	15.32	0.31	0	25.91
1549	30	162.81	206	228	250	140	0	3.38	0.07	0	162.76
1217	476	148.47	248	249	200	89	0	-10.68	0.34	0.001	148.44
1617	707	33.16	647	508	250	140	0	6.24	0.13	0	33.22
1223	708	79.43	647	648	150	140	0	1.9	0.11	0	79.55
1683	787	29.68	705	728	300	140	0	-1.25	0.02	0	39.93
1726	178	10.98	80	81	100	60	0	-4	0.51	0.015	10.97
1091	567	7.2	417	411	200	95	0	0	0	0	7.32
1475	364	45.03	288	305	200	140	0	0.86	0.03	0	45.11
1252	549	39.72	393	394	150	91	0	-0.54	0.03	0	39.62
1784	208	46.77	591	118	250	140	0	0	0	0	46.63
1529	722	133.21	661	845	250	140	0	20.59	0.42	0.001	103.02
1835	855	394.48	661	660	300	100	0	-25.87	0.37	0.001	319.13
974	199	30.65	97	99	150	140	0	-2.99	0.17	0	30.78
1226	949	1.08	1	27	300	85	0	-194.99	2.76	0.049	1.22
1531	596	28.03	421	420	250	140	0	4.21	0.09	0	28.04
1668	595	28.03	421	422	250	140	0	0	0	0	28.04
1268	614	5.26	508	509	200	140	0	3.89	0.12	0	5.18
1000	613	89.8	508	511	250	130	0	2.34	0.05	0	89.92
1197	311	27.7	209	211	200	140	0	0.53	0.02	0	27.74
1042	310	95.79	209	210	250	140	0	-5.96	0.12	0	53.34
1849	393	8.66	331	340	150	140	0	1.05	0.06	0	8.53
966	392	152.54	331	332	150	140	0	0.95	0.05	0	152.4
2156	P-1104	73.37	J-3	J-2	200	140	0	-7.61	0.24	0	77.72
1193	366	6.4	307	308	200	140	0	0.86	0.03	0	6.4
1544	9	43.35	680	574	200	140	0	-25.27	0.8	0.003	43.28
1396	612	34.78	506	507	250	140	0	8.13	0.17	0	34.75
1238	424	16.16	356	629	200	95	0	0.79	0.03	0	16.15
1324	418	110.33	356	357	150	91	0	0.21	0.01	0	110.34
1163	896	136.17	848	703	150	140	0	-0.18	0.01	0	90.53
1115	171	11.27	77	78	200	60	0	1.1	0.03	0	11.28
979	180	152.56	77	562	200	60	0	-1.1	0.03	0	152.7
1003	724	51.17	663	664	200	140	0	6.51	0.21	0	54.25
1008	832	62.81	797	627	250	140	0	35.3	0.72	0.002	62.79
1891	P-982	6	755	758	254	130	0	-312.52	6.17	0.119	6.1
955	754	1.25	755	759	200	140	0	0	0	0	1.22
1641	738	1.97	755	757	200	140	0	312.52	9.95	0.333	1.83
1006	157	99.24	64	562	100	60	0	1.32	0.17	0.002	99.36
1297	158	53.78	64	66	200	140	0	18.49	0.59	0.002	53.64
1692	55	51.67	578	424	300	130	0	2	0.03	0	51.82
1632	134	87.75	50	42	300	140	0	68.89	0.97	0.003	87.78
1502	136	170.3	50	52	200	60	0	19.35	0.62	0.009	170.38
1002	262	97.74	105	156	150	130	0	-9.92	0.56	0.003	97.84
1612	260	57.4	105	104	200	60	0	3.65	0.12	0	57.3
1789	181	8.57	562	73	150	130	0	0.11	0.01	0	8.53
1410	297	7.63	189	190	300	89	0	-46.5	0.66	0.003	7.62
1312	907	96	857	858	150	100	0	0.28	0.02	0	96.62
1727	908	96.54	857	859	200	100	0	14.76	0.47	0.002	92.66
958	1	88.81	31	139	150	140	0	-0.06	0	0	85.04
1224	222	22.94	122	123	150	140	0	7.9	0.45	0.001	22.86
1067	228	142.98	129	130	200	66	0	10.54	0.34	0.003	142.95
972	704	1	30	26	300	140	0	-122.61	1.73	0.008	0.91
1885	P-966	1.29	30	BWD-2	304.8	130	0	41.86	0.57	0.001	1.22
1850	762	272.36	210	730	250	140	0	1.59	0.03	0	304.5
1776	812	74.57	210	779	250	140	0	-8.05	0.16	0	64.31
1385	886	24.41	837	838	250	100	0	-2.83	0.06	0	24.38
1519	885	137.4	837	239	300	140	0	6.21	0.09	0	137.46
1190	386	40.91	325	326	150	91	0	0.31	0.02	0	40.84
1453	604	14.89	496	500	250	95	0	13.51	0.28	0.001	14.94
1147	602	11.44	496	497	250	95	0	0	0	0	11.58
1740	603	11.22	496	498	250	95	0	0	0	0	11.28
2239	P-1140	50.48	538	J-958	300	130	0	1.51	0.02	0	0
1189	649	64.33	538	539	150	140	0	0.6	0.03	0	64.31
1706	650	137.73	538	540	200	140	0	-2.1	0.07	0	137.77
1160	550	67.87	390	396	150	91	0	-1.05	0.06	0	67.97
1842	546	39.17	390	391	150	91	0	-0.41	0.02	0	39.32
1631	660	76.03	614	615	150	91	0	0	0	0	75.9
1732	113	14.75	677	678	150	130	0	0	0	0	14.63
1478	849	63.94	810	812	200	100	0	-0.83	0.03	0	64.92
1135	891	107.67	810	844	200	100	0	0.32	0.01	0	78.64
1150	839	170.62	803	663	200	140	0	9.83	0.31	0.001	160.32
1345	740	1	777	754	200	140	0	145.37	4.63	0.081	0.91
1485	18	33.93	119	128	250	66	0	9.62	0.2	0.001	33.83
1077	833	124.93	793	797	250	140	0	23.68	0.48	0.001	128.02
1779	478	6.27	252	253	200	89	0	-10.81	0.34	0.002	6.4

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
986	63	127.51	488	487	250	140	0	-2.25	0.05	0	127.41
1319	843	59.42	807	798	250	100	0	7.04	0.14	0	59.44
1650	354	65.93	298	299	300	95	0	-47.26	0.67	0.003	65.84
1063	416	42.92	353	355	200	95	0	1	0.03	0	42.98
1405	305	94.05	199	593	250	140	0	-1.56	0.03	0	94.18
1611	302	18.09	199	193	200	140	0	4.48	0.14	0	17.98
1246	304	147.98	199	266	200	89	0	-16.01	0.51	0.003	147.83
1104	245	44.1	175	176	200	140	0	18.13	0.58	0.002	44.2
1370	578	127.74	441	433	150	140	0	0.42	0.02	0	127.71
1367	576	36	441	601	150	140	0	-1.1	0.06	0	35.97
1216	729	176.74	670	337	200	140	0	-0.67	0.02	0	173.43
1273	81	79.76	697	695	250	140	0	-0.57	0.01	0	78.33
1338	583	63.89	429	430	150	140	0	-4.28	0.24	0	64.01
952	582	80.91	429	428	150	140	0	4.25	0.24	0	80.77
1146	248	62.46	168	167	100	60	0	1.35	0.17	0.002	62.48
1359	160	54.84	588	67	200	140	0	17.42	0.55	0.002	54.86
1568	183	133.08	74	75	150	140	0	0	0	0	133.2
1796	457	92.16	230	231	150	85	0	-3.02	0.17	0.001	92.05
1820	543	132.5	493	494	250	91	0	7.51	0.15	0	132.59
1085	78	119.86	700	699	250	140	0	-0.57	0.01	0	119.79
1391	318	41.56	218	219	150	140	0	0.13	0.01	0	41.45
1383	646	16.44	535	536	150	140	0	0	0	0	16.46
1282	647	142.05	535	537	150	140	0	0.26	0.01	0	142.04
1299	224	64.28	124	125	150	140	0	7.9	0.45	0.001	63.7
1696	905	57.2	855	856	200	100	0	-11.53	0.37	0.001	19.2
1243	153	20.73	60	586	300	140	0	26.21	0.37	0	20.73
1337	150	11.28	60	61	150	60	0	-23.67	1.34	0.055	11.28
1192	151	89.58	60	51	300	140	0	78.44	1.11	0.004	89.61
1364	577	48	601	442	150	91	0	-1.1	0.06	0	47.85
985	332	38.98	275	276	150	91	0	0.27	0.02	0	39.01
1357	369	74.68	314	313	150	91	0	1.16	0.07	0	74.68
1023	456	12.76	229	230	150	85	0	-3.02	0.17	0.001	12.8
1552	461	103.23	229	234	150	85	0	-6.11	0.35	0.002	103.33
1145	388	22.96	316	330	200	95	0	1.88	0.06	0	22.86
1432	378	9.46	316	318	150	140	0	0.85	0.05	0	9.45
1848	373	71.66	310	309	150	91	0	0.78	0.04	0	71.63
1149	195	8.96	95	96	300	140	0	-25.71	0.36	0	8.84
1595	541	35.55	490	491	250	95	0	10.49	0.21	0	35.66
1563	540	127.85	490	493	250	91	0	7.67	0.16	0	127.71
1665	743	71.07	758	771	250	100	0	-312.52	6.37	0.21	71.02
2328	P-1196	226.43	554	J-990	250	130	0	6.21	0.13	0	0
1423	33	24.34	554	557	250	140	0	0	0	0	3.66
1389	34	30.24	554	556	250	140	0	0	0	0	16.15
1660	35	20.87	554	251	250	140	0	0	0	0	3.35
1966	P-1030	152.8	843	821	200	130	0	0.32	0.01	0	0
1237	319	44.46	219	220	150	140	0	0.13	0.01	0	44.5
1346	415	14.55	352	354	150	130	0	0	0	0	14.63
1263	414	9.75	352	353	200	95	0	1	0.03	0	9.75
1340	428	53.05	352	368	200	95	0	-5.83	0.19	0	53.04
1362	634	44.9	527	528	150	140	0	0.1	0.01	0	44.81
1334	408	42.76	598	346	150	91	0	-4.25	0.24	0.001	42.67
1499	276	92.54	170	177	150	140	0	-6.29	0.36	0.001	92.66
1673	273	92.17	170	171	150	140	0	0.72	0.04	0	92.05
1763	732	338.92	196	594	150	140	0	-1.71	0.1	0	338.94
1967	P-1031	379	196	791	250	130	0	6.19	0.13	0	0
1248	220	71.43	108	55	200	66	0	-41.72	1.33	0.032	71.32
1737	712	166.32	651	652	150	140	0	1.15	0.06	0	166.42
961	654	124.29	607	201	200	89	0	-21.27	0.68	0.005	124.36
1642	80	23.72	698	697	250	140	0	-0.57	0.01	0	20.42
1751	465	80.84	237	238	150	85	0	-6.16	0.35	0.002	80.77
1201	298	24.43	190	191	300	89	0	-46.5	0.66	0.003	24.38
1644	103	76.87	635	646	250	66	0	35.3	0.72	0.008	76.81
1695	229	3.07	130	131	200	66	0	10.54	0.34	0.003	3.05
1043	107	47.46	656	672	200	130	0	14.47	0.46	0.001	47.55
1010	106	245.28	656	665	150	130	0	0.13	0.01	0	245.36
1458	115	5.81	35	36	300	66	0	20.7	0.29	0.001	5.79
1685	566	18.05	416	417	200	95	0	0	0	0	17.98
1156	747	2.58	770	768	150	100	0	-95.91	5.43	0.283	2.44
1645	96	52.4	682	681	300	140	0	-16.6	0.23	0	43.28
1155	176	156.03	590	79	200	60	0	1.65	0.05	0	156.06
1780	719	132.65	654	540	250	140	0	7.32	0.15	0	132.59
1693	102	104.63	627	635	250	66	0	35.3	0.72	0.008	104.55
1468	328	61.75	270	271	150	91	0	-3.74	0.21	0.001	61.87
1689	775	91.6	712	721	250	140	0	-5.13	0.1	0	91.74
1759	778	146.23	712	723	150	100	0	0.4	0.02	0	146.3
1653	380	99.11	319	320	150	140	0	0.69	0.04	0	99.06

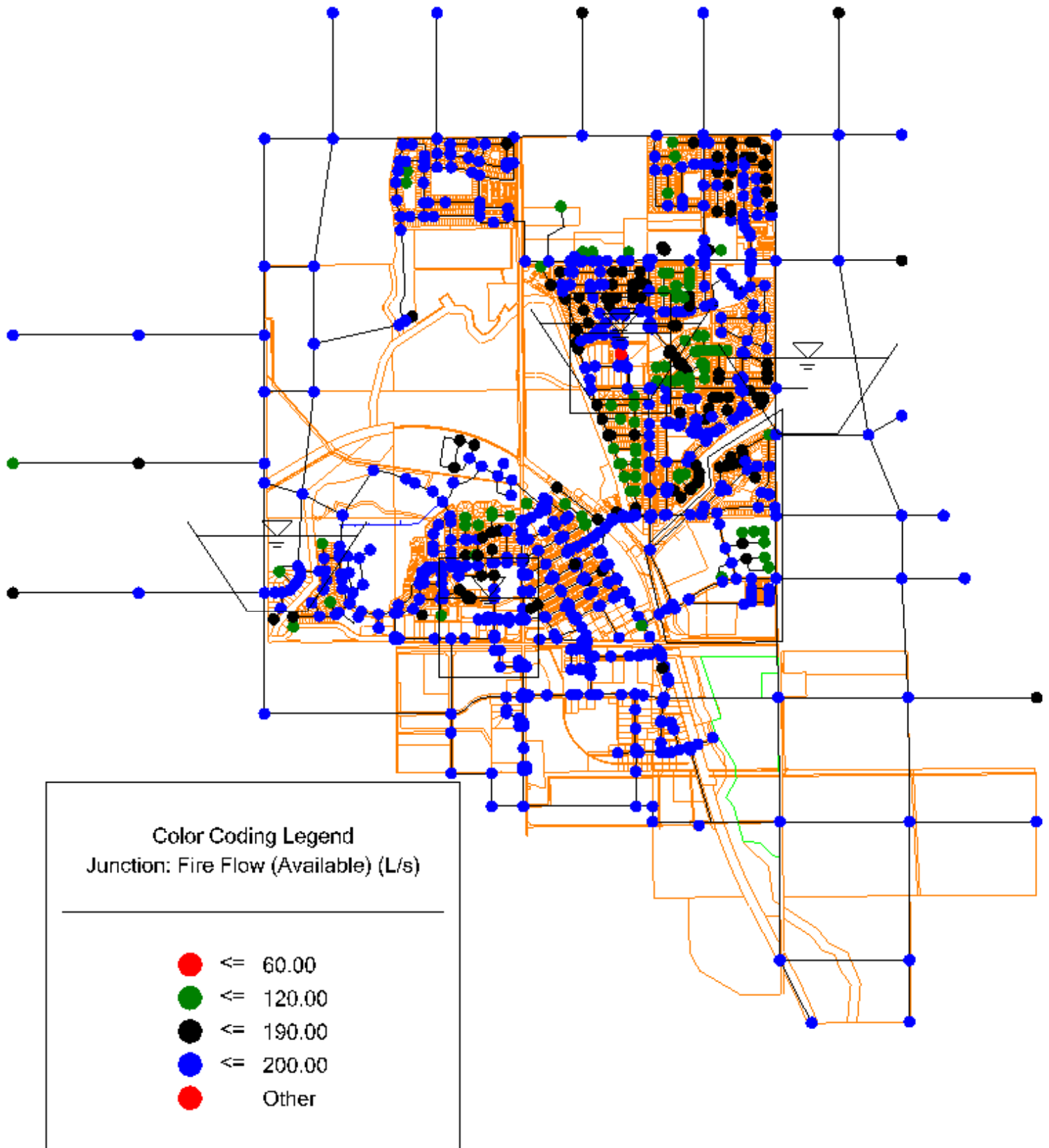
ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
1230	284	37.63	178	179	200	140	0	4.99	0.16	0	30.78
1250	326	10.05	268	269	150	91	0	-3.74	0.21	0.001	10.06
1488	223	11.47	123	124	150	140	0	7.9	0.45	0.001	11.58
1746	346	57.28	296	297	150	140	0	0.08	0	0	57.3
1579	293	90.33	208	199	200	89	0	-12.79	0.41	0.002	90.22
1844	301	45.48	208	223	150	89	0	-8.48	0.48	0.004	45.42
1565	241	43.12	144	145	250	140	0	28.42	0.58	0.001	42.98
1016	548	36.56	392	393	150	91	0	-0.54	0.03	0	36.58
1118	561	11.75	414	415	200	95	0	0	0	0	11.89
1775	85	54.65	690	692	200	130	0	2.69	0.09	0	54.86
1124	868	161.46	825	727	150	100	0	-0.76	0.04	0	163.98
1766	431	37.2	368	371	200	95	0	-6.08	0.19	0	37.19
1408	429	93.45	368	369	200	95	0	0.13	0	0	93.57
1447	451	107.32	223	224	150	85	0	-8.64	0.49	0.004	107.29
1092	658	55.13	244	613	150	85	0	0.1	0.01	0	55.17
973	467	147.5	244	243	150	85	0	-6.59	0.37	0.003	147.52
1506	824	34.09	790	791	250	140	0	17.49	0.36	0.001	29.87
1476	75	44.99	34	33	250	140	0	-0.57	0.01	0	45.11
1604	384	18.29	323	324	150	91	0	0.5	0.03	0	18.29
1311	127	122.94	44	46	300	130	0	-30.31	0.43	0.001	124.36
1750	721	136.08	423	826	300	140	0	25.87	0.37	0	118.87
1603	594	27.33	423	421	250	140	0	4.21	0.09	0	27.43
1833	879	197.77	832	833	150	100	0	0.42	0.02	0	197.82
1892	P-983	3.15	866	777	304.8	130	0	-117.52	1.61	0.008	3.05
1882	P-977	2.23	Brentwood	27	304.8	130	0	1,380.32	18.92	0.768	2.13
1884	P-959	1.64	BWD-FIRE	9	304.8	130	0	72.38	0.99	0.003	1.52
1888	P-979	1.53	BWD-3	19	304.8	130	0	44.54	0.61	0.001	1.52
1894	P-985	2.43	WST-1	762	254	130	0	49.63	0.98	0.004	2.44
1896	P-987	2.22	WST-2	763	254	130	0	49.46	0.98	0.004	2.13
1899	P-990	2.15	WST-FIRE	768	254	130	0	95.91	1.89	0.013	2.13
1903	P-993	49.97	J-866	860	300	100	0	-9.84	0.14	0	85.95
1905	P-994	53.57	J-866	J-867	200	130	0	7.03	0.22	0	0
1907	P-995	108.02	J-867	J-868	200	130	0	4.15	0.13	0	0
1909	P-996	129.18	J-868	J-869	200	130	0	-1.9	0.06	0	0
1920	P-1003	51.94	J-868	J-873	200	130	0	6.05	0.19	0	0
1911	P-997	83.61	J-869	J-870	200	130	0	-1.9	0.06	0	0
1913	P-998	172.41	J-870	J-871	200	130	0	-1.9	0.06	0	0
1914	P-999	76.14	J-871	J-867	200	130	0	-1.9	0.06	0	0
1916	P-1000	86.79	J-871	J-872	200	130	0	0	0	0	0
1919	P-1002	37.91	J-873	864	300	100	0	23.45	0.33	0.001	153.62
1925	P-1006	167.15	J-874	J-875	200	130	0	7.5	0.24	0	0
1923	P-1005	25.77	J-874	852	200	100	0	-9.7	0.31	0.001	107.9
1932	P-1010	40.95	J-875	710	200	130	0	7.5	0.24	0	0
2047	P-1046	346.69	J-876	J-900	250	130	0	20.59	0.42	0.001	0
1936	P-1012	48.17	J-877	J-878	150	130	0	0	0	0	0
1938	P-1013	50.01	J-877	J-879	250	130	0	4.16	0.08	0	0
2220	P-1128	555.78	J-879	J-951	250	130	0	4.16	0.08	0	0
1941	P-1015	88.32	J-880	782	250	130	0	-8.92	0.18	0	0
1946	P-1018	118.82	J-881	J-882	150	130	0	0	0	0	0
1948	P-1019	210.16	J-881	J-883	150	130	0	0	0	0	0
2289	P-1172	800	J-884	J-975	300	130	0	7.25	0.1	0	0
2298	P-1178	761.34	J-884	J-976	300	130	0	23.87	0.34	0	0
1955	P-1023	139.73	J-885	J-886	150	130	0	0.01	0	0	0
1957	P-1024	70.73	J-886	J-887	150	130	0	0.01	0	0	0
1959	P-1025	62.88	J-887	J-888	150	130	0	0.01	0	0	0
1961	P-1026	73.79	J-888	J-889	150	130	0	0.01	0	0	0
1962	P-1027	69.84	J-889	J-885	150	130	0	0.01	0	0	0
1965	P-1029	160.38	J-890	781	150	130	0	0	0	0	0
1978	P-1033	2.83	R-1	27	300	130	0	-1,185.33	16.77	0.626	0
2000	P-1037	382.28	J-891	J-892	300	130	0	-12.17	0.17	0	0
1998	P-1036	79.93	J-891	841	152.4	130	0	2.83	0.16	0	0
2001	P-1038	477.2	J-892	608	300	130	0	-7.19	0.1	0	0
2003	P-1039	120.07	J-892	J-893	300	130	0	10.92	0.15	0	0
2320	P-1190	258.38	J-893	J-981	300	130	0	10.92	0.15	0	0
2020	Prop 200 n	35.3	J-894	691	200	130	0	52.47	1.67	0.014	0
2196	P-1114	461.99	J-894	J-941	300	130	0	64.94	0.92	0.003	0
2019	P-1044	133.33	J-899	337	200	140	0	-1.05	0.03	0	185.93
2060	P-1053	216.31	J-900	J-906	200	130	0	20.59	0.66	0.002	0
2058	Algn1.2	227.72	J-904	J-905	300	130	0	30.37	0.43	0.001	0
2069	Algn1.1	148.31	J-904	180	200	130	0	-30.37	0.97	0.005	0
2107	P-1083	119.48	J-905	J-923	300	130	0	28.14	0.4	0.001	0
2097	P-1077	93.85	J-905	J-919	200	130	0	1.83	0.06	0	0
2066	P-1057	60.89	J-906	J-908	200	130	0	20.59	0.66	0.002	0
2120	P-1091	126.28	J-908	J-928	200	130	0	20.59	0.66	0.002	0
2099	P-1078	136.78	J-919	J-920	200	130	0	0.8	0.03	0	0
2101	P-1079	378.19	J-920	J-921	200	130	0	0.08	0	0	0

ID	Label	Length (Scaled) (m)	Start Node	Stop Node	Diameter (mm)	Hazen-Williams C	Minor Loss Coefficient (Local)	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/m)	Length (User Defined) (m)
2103	P-1080	97.25	J-921	J-922	200	130	0	-0.53	0.02	0	0
2105	P-1082	175.47	J-921	J-920	200	130	0	-0.12	0	0	0
2104	P-1081	91.03	J-922	J-919	200	130	0	-0.83	0.03	0	0
2109	P-1084	210.15	J-923	J-924	200	130	0	4.31	0.14	0	0
2112	P-1086	85.56	J-923	J-925	200	130	0	0.7	0.02	0	0
2134	P-1097	97.39	J-924	J-931	200	130	0	3.71	0.12	0	0
2121	P-1092	91.83	J-928	180	200	130	0	20.59	0.66	0.002	0
2135	P-1098	91.69	J-931	J-923	300	130	0	-23.04	0.33	0	0
2157	P-1105	70.47	J-2	J-1	200	140	0	-10.49	0.33	0.001	77.72
2173	P-1106	133.07	Wildflower	J-894	300	130	0	124.21	1.76	0.01	0
2186	P-1109	800	J-935	J-936	300	130	0	5.1	0.07	0	0
2190	P-1111	123.91	J-937	J-938	400	130	0	17.63	0.14	0	0
2198	P-1116	251.17	J-937	J-941	300	130	0	-23.98	0.34	0	0
2192	P-1112	800	J-938	J-939	250	130	0	10.2	0.21	0	0
2200	P-1117	454.84	J-938	J-942	400	130	0	7.43	0.06	0	0
2194	P-1113	800	J-939	J-940	250	130	0	5.1	0.1	0	0
2197	P-1115	289.51	J-941	J-876	300	130	0	31.63	0.45	0.001	0
2225	P-1132	654.5	J-941	J-952	250	130	0	9.33	0.19	0	0
2202	P-1118	360.03	J-942	J-943	400	130	0	8.89	0.07	0	0
2204	P-1119	800	J-943	J-944	300	130	0	10.2	0.14	0	0
2208	P-1121	437.02	J-943	J-946	400	130	0	-1.31	0.01	0	0
2206	P-1120	800	J-944	J-945	300	130	0	5.1	0.07	0	0
2210	P-1122	811.74	J-946	J-947	400	130	0	-3.03	0.02	0	0
2213	P-1124	434.84	J-948	J-947	400	130	0	3.03	0.02	0	0
2215	P-1125	800	J-948	J-949	250	130	0	5.1	0.1	0	0
2217	P-1126	820.67	J-948	J-950	250	130	0	1.55	0.03	0	0
2218	P-1127	314.12	J-950	J-946	250	130	0	-1.72	0.04	0	0
2224	P-1131	492.89	J-950	J-951	250	130	0	-1.83	0.04	0	0
2222	P-1129	304.16	J-951	J-952	250	130	0	-2.77	0.06	0	0
2223	P-1130	314.12	J-952	J-942	250	130	0	1.46	0.03	0	0
2233	P-1137	436.98	J-955	825	300	140	0	10.98	0.16	0	890.32
2235	P-1138	780.14	J-955	J-956	250	130	0	5.1	0.1	0	0
2240	P-1141	775.38	J-958	J-957	300	130	0	5.1	0.07	0	0
2245	P-1144	800.02	J-959	J-960	400	130	0	23.96	0.19	0	0
2261	P-1155	400	J-959	J-964	250	130	0	11.98	0.24	0	0
2264	P-1157	811.9	J-959	J-966	400	130	0	-39	0.31	0	0
2246	P-1145	462.31	J-960	J-958	400	130	0	14.31	0.11	0	0
2250	P-1147	400.00	J-960	J-962	300	130	0	9.65	0.14	0	0
2253	P-1149	775.38	J-962	J-963	250	130	0	5.1	0.1	0	0
2251	P-1148	400.00	J-962	J-961	300	130	0	5.1	0.07	0	0
2277	P-1165	1,123.03	J-964	J-970	250	130	0	6.33	0.13	0	0
2258	P-1152	800.02	J-964	J-962	250	130	0	0.55	0.01	0	0
2257	P-1151	400	J-964	J-965	250	130	0	5.1	0.1	0	0
2266	P-1158	203.62	J-966	R-3	400	130	0	-78.22	0.62	0.001	0
2268	P-1159	295.23	J-966	J-967	400	130	0	82.93	0.66	0.001	0
2275	P-1163	588.31	J-967	J-970	300	130	0	15.71	0.22	0	0
2270	P-1160	513.62	J-967	J-968	400	130	0	67.22	0.53	0.001	0
2271	P-1161	399.26	J-968	J-884	400	130	0	61.76	0.49	0.001	0
2283	P-1168	800	J-968	J-973	250	130	0	5.45	0.11	0	0
2276	P-1164	243.91	J-970	J-969	300	130	0	5.1	0.07	0	0
2285	P-1170	555.69	J-970	J-973	250	130	0	16.94	0.35	0.001	0
2284	P-1169	266.67	J-973	J-971	250	130	0	5.1	0.1	0	0
2291	P-1174	399.1	J-973	J-975	250	130	0	17.29	0.35	0.001	0
2290	P-1173	400	J-975	J-974	300	130	0	5.1	0.07	0	0
2304	P-1182	762.32	J-975	J-977	250	130	0	14.34	0.29	0	0
2295	P-1176	826.72	J-976	J-977	250	130	0	3.16	0.06	0	0
2329	P-1197	789.83	J-976	J-986	300	130	0	10.56	0.15	0	0
2330	P-1198	789.80	J-977	J-987	250	130	0	7.3	0.15	0	0
2297	P-1177	817.85	J-977	J-978	250	130	0	5.1	0.1	0	0
2303	P-1181	1,187.02	J-979	J-892	300	130	0	15.9	0.23	0	0
2307	P-1183	258.79	J-981	J-982	300	130	0	10.92	0.15	0	0
2309	P-1184	209.5	J-982	J-983	300	130	0	10.92	0.15	0	0
2326	P-1194	201.03	J-983	J-990	300	130	0	10.92	0.15	0	0
2313	P-1186	98.2	J-984	J-985	300	130	0	7.65	0.11	0	0
2315	P-1187	810.62	J-985	J-986	300	130	0	7.65	0.11	0	0
2332	P-1199	879.16	J-986	J-991	250	130	0	6.02	0.12	0	0
2317	P-1188	824.14	J-986	J-987	300	130	0	7.08	0.1	0	0
2319	P-1189	806.98	J-987	J-988	300	130	0	5.1	0.07	0	0
2323	P-1192	105.28	J-989	J-984	300	130	0	7.65	0.11	0	0
2327	P-1195	716.13	J-990	J-989	300	130	0	17.13	0.24	0	0
2334	P-1200	824.13	J-991	J-992	250	130	0	0.92	0.02	0	0
2339	P-1203	446.49	J-991	J-994	250	130	0	5.1	0.1	0	0
2335	P-1201	879.16	J-992	J-987	250	130	0	-4.18	0.09	0	0
2337	P-1202	392.18	J-992	J-993	250	130	0	5.1	0.1	0	0

Appendix A8

2046 Maximum Day Demand
plus Fire Flow Scenario
(280 L/s + fire flow)

Appendix A8 – 2046 Peak Day Demand Scenario (280 L/sec + Fire Flow)



Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
1	Zone-no fire flow	1	FALSE	60	0	60	0	140	126.6
7	Zone-no fire flow	1	FALSE	60	0	60	0	140	126
9	Zone-no fire flow	1	FALSE	60	0	60	0	140	561.1
15	Zone-no fire flow	1	FALSE	60	0	60	0	140	126.3
18	Zone-no fire flow	1	FALSE	60	0	60	0	140	557.8
19	Zone-no fire flow	1	FALSE	60	0	60	0	140	559.9
20	Zone-no fire flow	1	FALSE	60	0	60	0	140	560.8
21	Zone-1	2	TRUE	60	200	60	200	140	442.1
26	Zone-no fire flow	1	FALSE	60	0	60	0	140	138.5
27	Zone-no fire flow	1	FALSE	60	0	60	0	140	115.6
28	Zone-no fire flow	1	FALSE	60	0	60	0	140	138.4
29	Zone-no fire flow	1	FALSE	60	0	60	0	140	138.4
30	Zone-no fire flow	1	FALSE	60	0	60	0	140	138.4
31	Zone-1	3	TRUE	60	121.88	60.06	121.94	140	140.1
32	Zone-1	2	TRUE	60	200	60	200	140	345.5
33	Zone-1	2	TRUE	60	200	60	200	140	393.6
34	Zone-1	2	TRUE	60	200	60	200	140	405.5
35	Zone-1	2	TRUE	60	200	60	200	140	372.6
36	Zone-1	2	TRUE	60	200	60.09	200.09	140	373.6
37	Zone-1	3	TRUE	60	200	60.11	200.11	140	237.4
38	Zone-1	4	TRUE	60	131.31	60.04	131.36	140	140
39	Zone-1	3	TRUE	60	200	60	200	140	174.2
40	Zone-1	4	TRUE	60	163.09	60.4	163.49	140	140
41	Zone-1	2	TRUE	60	200	60.24	200.24	140	329.3
42	Zone-1	2	TRUE	60	200	60	200	140	329.9
43	Zone-1	2	TRUE	60	200	60	200	140	356.4
44	Zone-1	3	TRUE	60	200	60.11	200.11	140	291.6
45	Zone-1	3	TRUE	60	200	60	200	140	170.2
46	Zone-1	3	TRUE	60	200	60.13	200.13	140	274.9
47	Zone-1	2	TRUE	60	200	60	200	140	396
48	Zone-1	3	TRUE	60	200	60	200	140	184.1
49	Zone-1	3	TRUE	60	200	60	200	140	162.5
50	Zone-1	2	TRUE	60	200	60.13	200.13	140	334.3
51	Zone-1	2	TRUE	60	200	60	200	140	335.1
52	Zone-1	5	TRUE	60	174.72	60.11	174.83	140	140
53	Zone-1	4	TRUE	60	131.33	60	131.33	140	140
54	Zone-1	2	TRUE	60	200	60	200	140	354.9
55	Zone-1	3	TRUE	60	200	60	200	140	223.7
56	Zone-1	2	TRUE	60	200	60	200	140	400.9
57	Zone-1	2	TRUE	60	200	60	200	140	362.4
58	Zone-1	2	TRUE	60	200	60	200	140	362.4
59	Zone-1	4	TRUE	60	147.01	60	147.01	140	140
60	Zone-1	2	TRUE	60	200	60.93	200.93	140	334.3
61	Zone-1	2	TRUE	60	200	60	200	140	304.3
62	Zone-1	2	TRUE	60	200	60.93	200.93	140	320.8
63	Zone-1	2	TRUE	60	200	60	200	140	317.3
64	Zone-1	2	TRUE	60	200	61.46	201.46	140	301.8
65	Zone-1	2	TRUE	60	200	60.53	200.53	140	351.1
66	Zone-1	2	TRUE	60	200	60	200	140	313.7
67	Zone-1	2	TRUE	60	200	60	200	140	343.7
68	Zone-1	2	TRUE	60	200	60	200	140	343.1
69	Zone-1	2	TRUE	60	200	60.93	200.93	140	334
70	Zone-1	2	TRUE	60	200	60.8	200.8	140	305.1
71	Zone-1	2	TRUE	60	200	60	200	140	309.5
72	Zone-1	2	TRUE	60	200	60	200	140	309.4
73	Zone-1	4	TRUE	60	113.18	60	113.18	140	140
74	Zone-1	4	TRUE	60	96.94	60.11	97.05	140	140
75	Zone-1	3	TRUE	60	74.81	60	74.81	140	140
76	Zone-1	2	TRUE	60	200	60	200	140	351.8
77	Zone-1	2	TRUE	60	200	60	200	140	272.7
78	Zone-1	2	TRUE	60	200	60.16	200.16	140	342.4

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
79	Zone-1	3	TRUE	60	200	60.25	200.25	140	181.7
80	Zone-1	4	TRUE	60	153.29	60	153.29	140	140
81	Zone-1	2	TRUE	60	200	60.11	200.11	140	307
82	Zone-1	2	TRUE	60	200	60	200	140	277.2
83	Zone-1	2	TRUE	60	200	60.08	200.08	140	275.6
84	Zone-1	2	TRUE	60	200	60.16	200.16	140	291.2
85	Zone-1	2	TRUE	60	200	60.3	200.3	140	341.4
86	Zone-1	2	TRUE	60	200	60	200	140	335.5
87	Zone-1	2	TRUE	60	200	60	200	140	356.2
88	Zone-1	2	TRUE	60	200	60	200	140	277.1
89	Zone-1	2	TRUE	60	200	60.31	200.3	140	287.5
90	Zone-1	3	TRUE	60	200	60	200	140	203.7
91	Zone-1	3	TRUE	60	200	60.27	200.27	140	244.9
92	Zone-1	3	TRUE	60	200	60	200	140	210
93	Zone-1	2	TRUE	60	200	60	200	140	375.2
94	Zone-1	2	TRUE	60	200	60	200	140	375.9
95	Zone-1	2	TRUE	60	200	60	200	140	376.2
96	Zone-1	2	TRUE	60	200	60	200	140	376.1
97	Zone-1	2	TRUE	60	200	60	200	140	297.1
98	Zone-1	2	TRUE	60	200	60	200	140	360.2
99	Zone-1	3	TRUE	60	200	60.11	200.11	140	218.5
100	Zone-1	3	TRUE	60	200	60.24	200.24	140	155.1
101	Zone-1	4	TRUE	60	119.15	60.1	119.25	140	140
102	Zone-1	3	TRUE	60	200	60.21	200.21	140	154.1
103	Zone-1	3	TRUE	60	200	60	200	140	156.1
104	Zone-1	3	TRUE	60	200	60	200	140	159.3
105	Zone-1	3	TRUE	60	200	60	200	140	246.2
106	Zone-1	3	TRUE	60	200	60	200	140	240.5
107	Zone-1	2	TRUE	60	200	60	200	140	320.6
108	Zone-1	3	TRUE	60	200	60	200	140	280.4
109	Zone-1	2	TRUE	60	200	60.53	200.53	140	355.9
110	Zone-1	3	TRUE	60	200	60	200	140	283.9
111	Zone-1	3	TRUE	60	200	60	200	140	277.4
112	Zone-1	3	TRUE	60	200	60	200	140	255.1
113	Zone-1	3	TRUE	60	200	60	200	140	250.7
114	Zone-1	3	TRUE	60	200	61.73	201.73	140	246.3
115	Zone-1	3	TRUE	60	200	60	200	140	239.8
116	Zone-1	2	TRUE	60	200	60	200	140	378.8
117	Zone-1	2	TRUE	60	200	60	200	140	382.1
118	Zone-1	2	TRUE	60	200	60	200	140	349.2
119	Zone-1	2	TRUE	60	200	60	200	140	323.4
120	Zone-1	2	TRUE	60	200	60	200	140	372.2
121	Zone-1	2	TRUE	60	200	60.21	200.21	140	310.8
122	Zone-1	4	TRUE	60	176.75	60.64	177.39	140	140
123	Zone-1	4	TRUE	60	174.42	60	174.42	140	140
124	Zone-1	4	TRUE	60	173.82	60	173.82	140	140
125	Zone-1	4	TRUE	60	178.33	61.02	179.36	140	140
126	Zone-1	3	TRUE	60	200	60	200	140	172.3
127	Zone-1	4	TRUE	60	177.67	60	177.67	140	140
128	Zone-1	2	TRUE	60	200	60	200	140	315.3
129	Zone-1	4	TRUE	60	174.37	60.13	174.5	140	140
130	Zone-1	3	TRUE	60	200	60	200	140	186.6
131	Zone-1	3	TRUE	60	200	60.09	200.09	140	192.8
132	Zone-1	2	TRUE	60	200	60	200	140	359.6
133	Zone-1	2	TRUE	60	200	60	200	140	359
134	Zone-1	2	TRUE	60	200	60	200	140	339.8
135	Zone-1	2	TRUE	60	200	60	200	140	355.6
136	Zone-1	2	TRUE	60	200	60	200	140	353.8
137	Zone-1	3	TRUE	60	200	60	200	140	258.5
138	Zone-1	2	TRUE	60	200	60	200	140	352.5
139	Zone-1	2	TRUE	60	200	60.05	200.05	140	205.2

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
140	Zone-1	2	TRUE	60	200	60	200	140	334.5
141	Zone-1	2	TRUE	60	200	60	200	140	351.8
142	Zone-1	3	TRUE	60	200	60.97	200.97	140	261.1
143	Zone-1	2	TRUE	60	200	60	200	140	351.7
144	Zone-1	2	TRUE	60	200	60	200	140	366.9
145	Zone-1	2	TRUE	60	200	60	200	140	366.6
146	Zone-1	2	TRUE	60	200	60.11	200.11	140	354.1
147	Zone-1	2	TRUE	60	200	60	200	140	362.1
148	Zone-1	2	TRUE	60	200	60.19	200.19	140	359.8
149	Zone-1	2	TRUE	60	200	60	200	140	354.6
150	Zone-1	2	TRUE	60	200	60	200	140	345.4
151	Zone-1	2	TRUE	60	200	60	200	140	355.1
152	Zone-1	2	TRUE	60	200	60	200	140	318.7
153	Zone-1	4	TRUE	60	126.96	60.38	127.34	140	140
154	Zone-1	2	TRUE	60	200	60	200	140	317.5
155	Zone-1	2	TRUE	60	200	60	200	140	321.6
156	Zone-1	3	TRUE	60	200	60.19	200.19	140	180.4
157	Zone-1	4	TRUE	60	139.11	60	139.11	140	140
158	Zone-1	6	TRUE	60	152.65	60	152.65	140	142
159	Zone-1	6	TRUE	60	95.68	60.28	95.96	140	150.8
160	Zone-1	3	TRUE	60	92.06	60.06	92.12	140	140.1
161	Zone-1	3	TRUE	60	73.64	60.09	73.74	140	140
162	Zone-1	2	TRUE	60	200	60.27	200.27	140	337.1
163	Zone-1	4	TRUE	60	155.11	60.3	155.41	140	140
164	Zone-1	4	TRUE	60	175.99	60	175.99	140	140
165	Zone-1	3	TRUE	60	200	60.08	200.08	140	146.2
166	Zone-1	4	TRUE	60	178.98	60.13	179.11	140	140
167	Zone-1	3	TRUE	60	79.47	60	79.47	140	140
168	Zone-1	4	TRUE	60	162.52	60.13	162.65	140	140
169	Zone-1	4	TRUE	60	196.37	60.21	196.58	140	140
170	Zone-1	4	TRUE	60	200	60	200	140	145
171	Zone-1	6	TRUE	60	114.03	60.24	114.27	140	149.8
172	Zone-1	4	TRUE	60	97.03	60.4	97.43	140	140
173	Zone-1	2	TRUE	60	200	60	200	140	357.8
174	Zone-1	3	TRUE	60	91	60.08	91.08	140	140.1
175	Zone-1	2	TRUE	60	200	60	200	140	337
176	Zone-1	2	TRUE	60	200	60.32	200.32	140	326
177	Zone-1	2	TRUE	60	200	60.19	200.19	140	308
178	Zone-1	2	TRUE	60	200	60.11	200.11	140	292.9
179	Zone-1	2	TRUE	60	200	60.09	200.09	140	304.4
180	Zone-1	2	TRUE	60	200	60.58	200.58	140	344.8
181	Zone-1	3	TRUE	60	200	60	200	140	261.1
182	Zone-1	3	TRUE	60	200	60.4	200.4	140	251
183	Zone-1	3	TRUE	60	200	60	200	140	258.1
184	Zone-1	2	TRUE	60	200	60	200	140	358.9
185	Zone-1	3	TRUE	60	200	60.35	200.35	140	265.6
186	Zone-1	2	TRUE	60	200	60	200	140	368.6
187	Zone-1	2	TRUE	60	200	60	200	140	363.7
188	Zone-1	2	TRUE	60	200	60	200	140	359.6
189	Zone-1	2	TRUE	60	200	60	200	140	358.4
190	Zone-1	2	TRUE	60	200	60	200	140	356.7
191	Zone-1	2	TRUE	60	200	60	200	140	356.7
192	Zone-1	2	TRUE	60	200	60	200	140	356.1
193	Zone-1	2	TRUE	60	200	60	200	140	359.4
194	Zone-1	2	TRUE	60	200	60	200	140	350.8
195	Zone-1	2	TRUE	60	200	60	200	140	348
196	Zone-1	2	TRUE	60	200	60	200	140	377.3
197	Zone-1	2	TRUE	60	200	60	200	140	351.8
198	Zone-1	2	TRUE	60	200	60	200	140	374.5
199	Zone-1	2	TRUE	60	200	60.29	200.29	140	370
200	Zone-1	2	TRUE	60	200	60	200	140	294.7

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
201	Zone-1	3	TRUE	60	200	60	200	140	216.2
202	Zone-1	3	TRUE	60	200	60	200	140	218.5
203	Zone-1	3	TRUE	60	200	60	200	140	229
204	Zone-1	3	TRUE	60	200	60	200	140	233.8
205	Zone-1	2	TRUE	60	200	60	200	140	268
206	Zone-1	2	TRUE	60	200	60	200	140	387.6
207	Zone-1	2	TRUE	60	200	60	200	140	276.6
208	Zone-1	2	TRUE	60	200	60	200	140	290.8
209	Zone-1	2	TRUE	60	200	60.16	200.16	140	383.3
210	Zone-1	2	TRUE	60	200	60.5	200.5	140	382
211	Zone-1	2	TRUE	60	200	60	200	140	355
212	Zone-1	2	TRUE	60	200	60.16	200.16	140	332.1
213	Zone-1	2	TRUE	60	200	60.16	200.16	140	251.5
214	Zone-1	2	TRUE	60	200	60	200	140	246.3
215	Zone-1	3	TRUE	60	200	60	200	140	228.5
216	Zone-1	3	TRUE	60	200	60.16	200.16	140	168.1
217	Zone-1	2	TRUE	60	200	60	200	140	387
218	Zone-1	4	TRUE	60	161.04	60.16	161.2	140	140
219	Zone-1	4	TRUE	60	160.37	60	160.37	140	140
220	Zone-1	4	TRUE	60	164.77	60.16	164.93	140	140
221	Zone-1	4	TRUE	60	127.98	60	127.98	140	140
222	Zone-1	4	TRUE	60	175.64	60.14	175.78	140	140
223	Zone-1	3	TRUE	60	155.4	60.16	155.56	140	140
224	Zone-1	14	TRUE	60	108.52	60.09	108.6	140	140.1
225	Zone-1	3	TRUE	60	104.36	60	104.36	140	140
226	Zone-1	3	TRUE	60	99.23	60.16	99.4	140	140.2
227	Zone-1	3	TRUE	60	71.29	60.1	71.39	140	140
228	Zone-1	2	TRUE	60	200	60	200	140	364.2
229	Zone-1	4	TRUE	60	102.64	60.14	102.79	140	140
230	Zone-1	4	TRUE	60	98.75	60	98.75	140	140
231	Zone-1	3	TRUE	60	83.75	60.16	83.92	140	140
232	Zone-1	3	TRUE	60	82.05	60	82.05	140	140
233	Zone-1	3	TRUE	60	82.47	60.16	82.63	140	140
234	Zone-1	21	TRUE	60	108.4	60.16	108.56	140	141.2
235	Zone-1	4	TRUE	60	137.57	60.24	137.81	140	140
236	Zone-1	4	TRUE	60	134.47	60	134.47	140	140
237	Zone-1	4	TRUE	60	154.16	60	154.16	140	140
238	Zone-1	3	TRUE	60	111.76	60.14	111.91	140	140.1
239	Zone-1	2	TRUE	60	200	60	200	140	350.7
240	Zone-1	4	TRUE	60	125.6	60.24	125.84	140	140
241	Zone-1	3	TRUE	60	68.9	60.16	69.06	140	140
242	Zone-1	4	TRUE	60	159.31	60.19	159.5	140	140
243	Zone-1	3	TRUE	60	112.22	60.19	112.41	140	140.1
244	Zone-1	3	TRUE	60	99.24	60.19	99.43	140	140
245	Zone-1	2	TRUE	60	200	60	200	140	430.9
246	Zone-1	4	TRUE	60	198.15	60	198.15	140	140
247	Zone-1	3	TRUE	60	200	60	200	140	255.1
248	Zone-1	3	TRUE	60	200	60.53	200.53	140	254.3
249	Zone-1	2	TRUE	60	200	60	200	140	355.2
250	Zone-1	2	TRUE	60	200	60.15	200.15	140	349.7
251	Zone-1	2	TRUE	60	200	60	200	140	328.2
252	Zone-1	2	TRUE	60	200	60.13	200.13	140	414.7
253	Zone-1	2	TRUE	60	200	60	200	140	430.6
254	Zone-1	2	TRUE	60	200	60	200	140	428.6
255	Zone-1	2	TRUE	60	200	60	200	140	452
256	Zone-1	2	TRUE	60	200	60.18	200.18	140	426.1
257	Zone-1	2	TRUE	60	200	60	200	140	424.9
258	Zone-1	2	TRUE	60	200	60.18	200.18	140	289.1
259	Zone-1	2	TRUE	60	200	60.16	200.16	140	253.9
260	Zone-1	2	TRUE	60	200	60.19	200.19	140	282.1
261	Zone-1	2	TRUE	60	200	60.19	200.19	140	273.3

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
262	Zone-1	2	TRUE	60	200	60	200	140	382.6
263	Zone-1	2	TRUE	60	200	60.08	200.08	140	333.6
264	Zone-1	2	TRUE	60	200	60	200	140	305.9
265	Zone-1	2	TRUE	60	200	60.14	200.14	140	312.5
266	Zone-1	2	TRUE	60	200	60	200	140	304.6
267	Zone-1	2	TRUE	60	200	60	200	140	394.3
268	Zone-1	2	TRUE	60	200	60.18	200.18	140	395.2
269	Zone-1	2	TRUE	60	200	60	200	140	298.4
270	Zone-1	4	TRUE	60	166.36	60	166.36	140	140
271	Zone-1	4	TRUE	60	133.9	60.09	133.98	140	140
272	Zone-1	4	TRUE	60	120.36	60.09	120.45	140	140
273	Zone-1	2	TRUE	60	200	60	200	140	379.7
274	Zone-1	3	TRUE	60	73.1	60.14	73.24	140	140
275	Zone-1	3	TRUE	60	68.04	60	68.04	140	140
276	Zone-1	3	TRUE	60	61.64	60.27	61.91	140	140
277	Zone-1	4	TRUE	60	119.86	60	119.86	140	140
278	Zone-1	4	TRUE	60	121.32	60	121.32	140	140
279	Zone-1	4	TRUE	60	123.7	60.09	123.79	140	140
280	Zone-1	4	TRUE	60	132.79	60	132.79	140	140
281	Zone-1	4	TRUE	60	156.18	60.16	156.34	140	140
282	Zone-1	2	TRUE	60	200	60	200	140	322
283	Zone-1	2	TRUE	60	200	60.06	200.06	140	405.7
284	Zone-1	2	TRUE	60	200	60	200	140	376.1
285	Zone-1	2	TRUE	60	200	60.16	200.16	140	305.8
286	Zone-1	2	TRUE	60	200	60.18	200.18	140	333.3
287	Zone-1	2	TRUE	60	200	60	200	140	356.3
288	Zone-1	2	TRUE	60	200	60	200	140	375.6
289	Zone-1	2	TRUE	60	200	60	200	140	368
290	Zone-1	2	TRUE	60	200	60.18	200.18	140	370.3
291	Zone-1	2	TRUE	60	200	60	200	140	367.5
292	Zone-1	2	TRUE	60	200	60.16	200.16	140	355.3
293	Zone-1	2	TRUE	60	200	60	200	140	377.9
294	Zone-1	2	TRUE	60	200	60	200	140	415.6
295	Zone-1	2	TRUE	60	200	60	200	140	384.1
296	Zone-1	3	TRUE	60	200	60	200	140	187.4
297	Zone-1	4	TRUE	60	141.76	60.08	141.84	140	140
298	Zone-1	2	TRUE	60	200	60.16	200.16	140	411.5
299	Zone-1	2	TRUE	60	200	60	200	140	421.3
300	Zone-1	3	TRUE	60	200	60.16	200.16	140	142.6
301	Zone-1	4	TRUE	60	195.85	60.26	196.1	140	140
302	Zone-1	2	TRUE	60	200	60.18	200.18	140	262.3
303	Zone-1	2	TRUE	60	200	60	200	140	279.8
304	Zone-1	4	TRUE	60	197.79	60.19	197.98	140	140
305	Zone-1	2	TRUE	60	200	60	200	140	359
306	Zone-1	2	TRUE	60	200	60	200	140	389.4
307	Zone-1	2	TRUE	60	200	60	200	140	350.2
308	Zone-1	2	TRUE	60	200	60.28	200.28	140	349.4
309	Zone-1	2	TRUE	60	200	60	200	140	327
310	Zone-1	4	TRUE	60	147.42	60	147.42	140	140
311	Zone-1	3	TRUE	60	123.04	60.19	123.23	140	140.1
312	Zone-1	3	TRUE	60	120.68	60	120.68	140	140.1
313	Zone-1	3	TRUE	60	123.23	60.19	123.42	140	140.1
314	Zone-1	4	TRUE	60	140.92	60	140.92	140	140
315	Zone-1	2	TRUE	60	200	60	200	140	323.4
316	Zone-1	2	TRUE	60	200	60	200	140	323
317	Zone-1	2	TRUE	60	200	60	200	140	401
318	Zone-1	2	TRUE	60	200	60	200	140	287.1
319	Zone-1	2	TRUE	60	200	60.15	200.15	140	217.5
320	Zone-1	4	TRUE	60	167.62	60	167.62	140	140
321	Zone-1	4	TRUE	60	153.79	60	153.79	140	140
322	Zone-1	4	TRUE	60	152.61	60.19	152.8	140	140

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
323	Zone-1	4	TRUE	60	150.85	60	150.85	140	140
324	Zone-1	4	TRUE	60	151.57	60	151.57	140	140
325	Zone-1	4	TRUE	60	181.31	60.19	181.5	140	140
326	Zone-1	2	TRUE	60	200	60	200	140	335
327	Zone-1	4	TRUE	60	195.94	60	195.94	140	140
328	Zone-1	2	TRUE	60	200	60	200	140	415.5
329	Zone-1	2	TRUE	60	200	60.19	200.19	140	330.6
330	Zone-1	2	TRUE	60	200	60	200	140	314.1
331	Zone-1	2	TRUE	60	200	60	200	140	345.8
332	Zone-1	4	TRUE	60	176.6	60.5	177.1	140	140
333	Zone-1	4	TRUE	60	172.94	60	172.94	140	140
334	Zone-1	4	TRUE	60	173.7	60.4	174.1	140	140
335	Zone-1	2	TRUE	60	200	60	200	140	290.4
336	Zone-1	2	TRUE	60	200	60.38	200.38	140	364.1
337	Zone-1	2	TRUE	60	200	60.38	200.38	140	373
338	Zone-1	2	TRUE	60	200	60	200	140	352.4
339	Zone-1	2	TRUE	60	200	60	200	140	413.6
340	Zone-1	2	TRUE	60	200	60.51	200.51	140	352.2
341	Zone-1	4	TRUE	60	149.92	60.3	150.22	140	140
342	Zone-1	4	TRUE	60	140.01	60.36	140.37	140	140
343	Zone-1	3	TRUE	60	119.87	60.19	120.06	140	140.1
344	Zone-1	3	TRUE	60	87.98	60.09	88.07	140	140
345	Zone-1	3	TRUE	60	116.47	60	116.47	140	140.1
346	Zone-1	5	TRUE	60	108.05	60.13	108.18	140	156.6
347	Zone-1	3	TRUE	60	69.3	60.13	69.43	140	140
348	Zone-1	3	TRUE	60	62.22	60	62.22	140	140
349	Zone-1	3	TRUE	60	111.66	60	111.66	140	140.1
350	Zone-1	2	TRUE	60	200	60.25	200.25	140	423.5
351	Zone-1	3	TRUE	60	113.29	60.16	113.46	140	140.1
352	Zone-1	4	TRUE	60	140.94	60.16	141.1	140	140
353	Zone-1	4	TRUE	60	137.17	60	137.17	140	140
354	Zone-1	4	TRUE	60	129.33	60	129.33	140	140
355	Zone-1	4	TRUE	60	124.13	60	124.13	140	140
356	Zone-1	22	TRUE	60	116.83	60	116.83	140	141.1
357	Zone-1	3	TRUE	60	90.57	60.21	90.78	140	140
358	Zone-1	3	TRUE	60	89.82	60	89.82	140	140
359	Zone-1	3	TRUE	60	89.42	60	89.42	140	140
360	Zone-1	3	TRUE	60	88.87	60.13	89	140	140
361	Zone-1	2	TRUE	60	200	60	200	140	358.2
362	Zone-1	2	TRUE	60	200	60	200	140	453.2
363	Zone-1	3	TRUE	60	90.85	60	90.85	140	140
364	Zone-1	3	TRUE	60	112.02	60.15	112.17	140	140.1
365	Zone-1	3	TRUE	60	109.27	60	109.27	140	140.1
366	Zone-1	3	TRUE	60	110.12	60	110.12	140	140.1
367	Zone-1	3	TRUE	60	102.61	60	102.61	140	140.1
368	Zone-1	4	TRUE	60	149.65	60.11	149.76	140	140
369	Zone-1	4	TRUE	60	119.17	60	119.17	140	140
370	Zone-1	3	TRUE	60	108.66	60.13	108.79	140	140.1
371	Zone-1	4	TRUE	60	157.75	60	157.75	140	140
372	Zone-1	3	TRUE	60	73.29	60.1	73.39	140	140
373	Zone-1	2	TRUE	60	200	60.27	200.27	140	393.2
374	Zone-1	4	TRUE	60	160.05	60.3	160.35	140	140
375	Zone-1	4	TRUE	60	133.57	60	133.57	140	140
376	Zone-1	4	TRUE	60	161.92	60	161.92	140	140
377	Zone-1	2	TRUE	60	200	60	200	140	291.7
378	Zone-1	2	TRUE	60	200	60	200	140	288.8
379	Zone-1	2	TRUE	60	200	60	200	140	303.8
380	Zone-1	2	TRUE	60	200	60.19	200.19	140	246.5
381	Zone-1	4	TRUE	60	144.56	60	144.56	140	140
382	Zone-1	4	TRUE	60	147.97	60.24	148.21	140	140
383	Zone-1	2	TRUE	60	200	60.08	200.08	140	317.1

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
384	Zone-1	2	TRUE	60	200	60	200	140	460
385	Zone-1	2	TRUE	60	200	60.16	200.16	140	320.3
386	Zone-1	2	TRUE	60	200	60.08	200.08	140	325
387	Zone-1	2	TRUE	60	200	60.1	200.1	140	325.5
388	Zone-1	4	TRUE	60	176.18	60.1	176.28	140	140
389	Zone-1	4	TRUE	60	145	60	145	140	140
390	Zone-1	4	TRUE	60	123.17	60.18	123.34	140	140
391	Zone-1	3	TRUE	60	104.85	60	104.85	140	140.1
392	Zone-1	3	TRUE	60	97.79	60.13	97.92	140	140
393	Zone-1	3	TRUE	60	96.04	60	96.04	140	140
394	Zone-1	3	TRUE	60	96.93	60.08	97.01	140	140
395	Zone-1	2	TRUE	60	200	60	200	140	452.7
396	Zone-1	3	TRUE	60	112.94	60.08	113.02	140	140.1
397	Zone-1	3	TRUE	60	103.86	60	103.86	140	140.1
398	Zone-1	3	TRUE	60	99.78	60.31	100.09	140	140
399	Zone-1	3	TRUE	60	95.54	60	95.54	140	140
400	Zone-1	3	TRUE	60	96.77	60.26	97.03	140	140
401	Zone-1	3	TRUE	60	111.33	60.16	111.5	140	140.1
402	Zone-1	2	TRUE	60	200	60.16	200.16	140	332.3
403	Zone-1	2	TRUE	60	200	60	200	140	331.7
404	Zone-1	2	TRUE	60	200	60	200	140	316.3
405	Zone-1	2	TRUE	60	200	60	200	140	360.6
406	Zone-1	2	TRUE	60	200	60.4	200.4	140	465.5
407	Zone-1	2	TRUE	60	200	60.14	200.14	140	231.1
408	Zone-1	2	TRUE	60	200	60	200	140	245.2
409	Zone-1	2	TRUE	60	200	60	200	140	260.2
410	Zone-1	2	TRUE	60	200	60	200	140	258.1
411	Zone-1	2	TRUE	60	200	60.14	200.14	140	256.8
412	Zone-1	4	TRUE	60	136.41	60	136.41	140	140
413	Zone-1	2	TRUE	60	200	60	200	140	462.2
414	Zone-1	4	TRUE	60	135.63	60	135.63	140	140
415	Zone-1	4	TRUE	60	140.15	60	140.15	140	140
416	Zone-1	3	TRUE	60	200	60	200	140	182.8
417	Zone-1	2	TRUE	60	200	60	200	140	235.4
418	Zone-1	2	TRUE	60	200	60	200	140	324.1
419	Zone-1	3	TRUE	60	200	60	200	140	197.9
420	Zone-1	2	TRUE	60	200	60	200	140	347.3
421	Zone-1	2	TRUE	60	200	60	200	140	356.5
422	Zone-1	2	TRUE	60	200	60	200	140	343
423	Zone-1	2	TRUE	60	200	60	200	140	366.9
424	Zone-1	2	TRUE	60	200	60	200	140	453.8
425	Zone-1	2	TRUE	60	200	60.32	200.32	140	371.1
426	Zone-1	4	TRUE	60	165.81	60	165.81	140	140
427	Zone-1	2	TRUE	60	200	60	200	140	301.7
428	Zone-1	3	TRUE	60	200	60.08	200.08	140	149.5
429	Zone-1	2	TRUE	60	200	60	200	140	263.2
430	Zone-1	2	TRUE	60	200	60.27	200.27	140	366.3
431	Zone-1	2	TRUE	60	200	60.29	200.29	140	373
432	Zone-1	3	TRUE	60	200	60.1	200.1	140	209.7
433	Zone-1	3	TRUE	60	189.58	60.19	189.77	140	140
434	Zone-1	15	TRUE	60	145.84	60.26	146.1	140	140
435	Zone-1	2	TRUE	60	200	60	200	140	452.3
436	Zone-1	15	TRUE	60	136.58	60	136.58	140	140.1
437	Zone-1	15	TRUE	60	135.94	60.26	136.2	140	140
438	Zone-1	15	TRUE	60	144.17	60	144.17	140	140.1
439	Zone-1	15	TRUE	60	149.72	60	149.72	140	140.1
440	Zone-1	14	TRUE	60	122.15	60.16	122.31	140	140.1
441	Zone-1	16	TRUE	60	173.66	60.16	173.82	140	140
442	Zone-1	16	TRUE	60	185.37	60	185.37	140	140.1
443	Zone-1	15	TRUE	60	173.45	60.24	173.7	140	140.2
444	Zone-1	2	TRUE	60	200	60	200	140	245.8

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
445	Zone-1	2	TRUE	60	200	60.24	200.24	140	366.5
446	Zone-1	2	TRUE	60	200	60	200	140	416.8
447	Zone-1	2	TRUE	60	200	60	200	140	373.3
448	Zone-1	2	TRUE	60	200	60	200	140	219.4
449	Zone-1	2	TRUE	60	200	60	200	140	376.5
450	Zone-1	2	TRUE	60	200	60.21	200.21	140	380.1
451	Zone-1	15	TRUE	60	157.7	60	157.7	140	140.1
452	Zone-1	15	TRUE	60	135.65	60.16	135.81	140	140.1
453	Zone-1	14	TRUE	60	133.29	60	133.29	140	140.2
454	Zone-1	2	TRUE	60	200	60.32	200.32	140	392.6
455	Zone-1	2	TRUE	60	200	60	200	140	369
456	Zone-1	2	TRUE	60	200	60.24	200.24	140	361.5
457	Zone-1	2	TRUE	60	200	60.13	200.13	140	411.9
458	Zone-1	2	TRUE	60	200	60	200	140	364.5
459	Zone-1	2	TRUE	60	200	60	200	140	398.2
460	Zone-1	2	TRUE	60	200	60.16	200.16	140	399.6
461	Zone-1	2	TRUE	60	200	60	200	140	393.5
462	Zone-1	2	TRUE	60	200	60.16	200.16	140	395.1
463	Zone-1	2	TRUE	60	200	60	200	140	405.1
464	Zone-1	2	TRUE	60	200	60	200	140	387
465	Zone-1	2	TRUE	60	200	60	200	140	385.9
466	Zone-1	2	TRUE	60	200	60	200	140	431
467	Zone-1	2	TRUE	60	200	60	200	140	437.7
468	Zone-1	2	TRUE	60	200	60	200	140	438
469	Zone-1	2	TRUE	60	200	60	200	140	442.1
470	Zone-1	2	TRUE	60	200	60.8	200.8	140	441
471	Zone-1	4	TRUE	60	166.74	60	166.74	140	140
472	Zone-1	4	TRUE	60	188.46	60.16	188.62	140	140
473	Zone-1	2	TRUE	60	200	60	200	140	277.8
474	Zone-1	2	TRUE	60	200	60.06	200.06	140	304.6
475	Zone-1	2	TRUE	60	200	60	200	140	339.9
476	Zone-1	4	TRUE	60	173.95	60	173.95	140	140
477	Zone-1	4	TRUE	60	172.46	60.39	172.85	140	140
478	Zone-1	3	TRUE	60	146.92	60.4	147.32	140	140.1
479	Zone-1	2	TRUE	60	200	60	200	140	443.6
480	Zone-1	3	TRUE	60	141.16	60	141.16	140	140.1
481	Zone-1	3	TRUE	60	147.81	60.4	148.22	140	140.1
482	Zone-1	4	TRUE	60	178.33	60	178.33	140	140
483	Zone-1	4	TRUE	60	180.08	60	180.08	140	140
484	Zone-1	4	TRUE	60	196.26	60.16	196.42	140	140
485	Zone-1	3	TRUE	60	200	60	200	140	206.2
486	Zone-1	5	TRUE	60	137.17	60	137.17	140	147.8
487	Zone-1	2	TRUE	60	200	60	200	140	454.6
488	Zone-1	2	TRUE	60	200	60	200	140	455.1
489	Zone-1	2	TRUE	60	200	60.8	200.8	140	456.3
490	Zone-1	2	TRUE	60	200	60.16	200.16	140	343.9
491	Zone-1	2	TRUE	60	200	60	200	140	333.1
493	Zone-1	2	TRUE	60	200	60.16	200.16	140	298.2
494	Zone-1	2	TRUE	60	200	60	200	140	271.8
495	Zone-1	2	TRUE	60	200	60.13	200.13	140	349.5
496	Zone-1	2	TRUE	60	200	60	200	140	372.2
497	Zone-1	2	TRUE	60	200	60	200	140	360.8
498	Zone-1	2	TRUE	60	200	60	200	140	361.1
499	Zone-1	2	TRUE	60	200	60	200	140	446.4
500	Zone-1	2	TRUE	60	200	60	200	140	371
501	Zone-1	2	TRUE	60	200	60	200	140	411.6
502	Zone-1	2	TRUE	60	200	60	200	140	385
503	Zone-1	2	TRUE	60	200	60.4	200.4	140	400
504	Zone-1	2	TRUE	60	200	62.85	202.85	140	390
505	Zone-1	2	TRUE	60	200	60.66	200.66	140	387.2
506	Zone-1	2	TRUE	60	200	60.65	200.65	140	386.9

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
507	Zone-1	2	TRUE	60	200	60	200	140	383.9
508	Zone-1	2	TRUE	60	200	60	200	140	381.9
509	Zone-1	2	TRUE	60	200	60	200	140	378.4
510	Zone-1	2	TRUE	60	200	60	200	140	446.5
511	Zone-1	2	TRUE	60	200	60.19	200.19	140	347.8
512	Zone-1	2	TRUE	60	200	60.19	200.19	140	304.2
513	Zone-1	2	TRUE	60	200	60	200	140	298.8
514	Zone-1	4	TRUE	60	165.7	60.09	165.8	140	140
515	Zone-1	3	TRUE	60	200	60.25	200.25	140	155.9
516	Zone-1	4	TRUE	60	191.39	60.25	191.64	140	140
517	Zone-1	3	TRUE	60	134.72	60.19	134.91	140	140.1
518	Zone-1	3	TRUE	60	200	60	200	140	153.5
519	Zone-1	3	TRUE	60	200	60.19	200.19	140	162.1
520	Zone-1	4	TRUE	60	140.77	60.17	140.94	140	140
521	Zone-1	2	TRUE	60	200	60.13	200.13	140	419.7
522	Zone-1	2	TRUE	60	200	60	200	140	344.8
523	Zone-1	2	TRUE	60	200	60.36	200.36	140	337.6
524	Zone-1	2	TRUE	60	200	60.19	200.19	140	344.3
525	Zone-1	2	TRUE	60	200	60.09	200.09	140	345.5
526	Zone-1	2	TRUE	60	200	60	200	140	250.1
527	Zone-1	4	TRUE	60	175.85	60	175.85	140	140
528	Zone-1	3	TRUE	60	135.3	60.09	135.4	140	140.1
529	Zone-1	4	TRUE	60	171.96	60	171.96	140	140
530	Zone-1	4	TRUE	60	168.84	60.19	169.03	140	140
531	Zone-1	4	TRUE	60	150.23	60.25	150.48	140	140
532	Zone-1	2	TRUE	60	200	60.66	200.66	140	447.4
533	Zone-1	4	TRUE	60	146.16	60.25	146.41	140	140
534	Zone-1	4	TRUE	60	146.6	60	146.6	140	140
535	Zone-1	4	TRUE	60	158.42	60.25	158.67	140	140
536	Zone-1	4	TRUE	60	143.66	60	143.66	140	140
537	Zone-1	2	TRUE	60	200	60.25	200.25	140	260.9
538	Zone-1	2	TRUE	60	200	60	200	140	400.4
539	Zone-1	4	TRUE	60	168.51	60.2	168.71	140	140
540	Zone-1	2	TRUE	60	200	60.34	200.34	140	391.3
541	Zone-1	2	TRUE	60	200	60.4	200.4	140	382.7
542	Zone-1	2	TRUE	60	200	60	200	140	367.5
543	Zone-1	2	TRUE	60	200	60	200	140	355
544	Zone-1	2	TRUE	60	200	60	200	140	434
545	Zone-1	2	TRUE	60	200	60	200	140	344.8
546	Zone-1	4	TRUE	60	176.7	60.19	176.89	140	140
547	Zone-1	4	TRUE	60	175.41	60.19	175.6	140	140
548	Zone-1	2	TRUE	60	200	60.25	200.25	140	329.9
549	Zone-1	2	TRUE	60	200	60	200	140	271.5
550	Zone-1	4	TRUE	60	167.26	60.19	167.45	140	140
551	Zone-1	4	TRUE	60	178.92	60.17	179.1	140	140
552	Zone-1	2	TRUE	60	200	60	200	140	351.7
553	Zone-1	2	TRUE	60	200	60	200	140	386
554	Zone-1	2	TRUE	60	200	60	200	140	338.2
555	Zone-1	2	TRUE	60	200	60	200	140	431.4
556	Zone-1	2	TRUE	60	200	60	200	140	323.7
557	Zone-1	2	TRUE	60	200	60	200	140	326.5
558	Zone-1	2	TRUE	60	200	60	200	140	317.1
559	Zone-1	2	TRUE	60	200	60	200	140	400.2
560	Zone-1	2	TRUE	60	200	60.11	200.11	140	386.8
561	Zone-1	2	TRUE	60	200	60	200	140	362.4
562	Zone-1	4	TRUE	60	117.11	60.11	117.22	140	140
563	Zone-1	3	TRUE	60	200	60	200	140	281.3
564	Zone-1	3	TRUE	60	200	60	200	140	281.9
565	Zone-1	3	TRUE	60	200	60	200	140	282.8
566	Zone-1	2	TRUE	60	200	60	200	140	427.5
567	Zone-1	2	TRUE	60	200	60	200	140	383.7

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
568	Zone-1	2	TRUE	60	200	60	200	140	351.9
569	Zone-1	2	TRUE	60	200	60	200	140	228.6
570	Zone-1	4	TRUE	60	186.08	60	186.08	140	140
571	Zone-1	2	TRUE	60	200	60.34	200.34	140	326.2
572	Zone-1	2	TRUE	60	200	60	200	140	415.3
573	Zone-1	2	TRUE	60	200	60.04	200.04	140	348.5
574	Zone-1	2	TRUE	60	200	60	200	140	379.4
575	Zone-1	2	TRUE	60	200	60	200	140	383
576	Zone-1	4	TRUE	60	136.09	60	136.09	140	140
577	Zone-1	2	TRUE	60	200	60	200	140	447
578	Zone-1	2	TRUE	60	200	60.13	200.13	140	458.1
579	Zone-1	3	TRUE	60	200	60	200	140	265.1
580	Zone-1	4	TRUE	60	200	60.16	200.16	140	145
581	Zone-1	3	TRUE	60	200	60	200	140	313.5
582	Zone-1	2	TRUE	60	200	60.03	200.03	140	311
583	Zone-1	4	TRUE	60	200	60.19	200.19	140	143.5
584	Zone-1	2	TRUE	60	200	61.6	201.6	140	400.4
585	Zone-1	2	TRUE	60	200	60.93	200.93	140	359.6
586	Zone-1	2	TRUE	60	200	60	200	140	330.7
587	Zone-1	2	TRUE	60	200	60	200	140	427
588	Zone-1	2	TRUE	60	200	61.06	201.06	140	322.1
589	Zone-1	2	TRUE	60	200	60.93	200.93	140	333.9
590	Zone-1	3	TRUE	60	200	60	200	140	267.5
591	Zone-1	2	TRUE	60	200	60	200	140	371.6
592	Zone-1	3	TRUE	60	200	60.21	200.21	140	216.9
593	Zone-1	2	TRUE	60	200	60	200	140	371
594	Zone-1	2	TRUE	60	200	62	202	140	382.3
595	Zone-1	2	TRUE	60	200	60	200	140	389.5
596	Zone-1	2	TRUE	60	200	60.19	200.19	140	256.8
597	Zone-1	2	TRUE	60	200	60	200	140	426.6
598	Zone-1	3	TRUE	60	112.93	60	112.93	140	140.1
599	Zone-1	4	TRUE	60	138.83	60	138.83	140	140
600	Zone-1	4	TRUE	60	142.64	60	142.64	140	140
601	Zone-1	4	TRUE	60	171	60	171	140	140
602	Zone-1	2	TRUE	60	200	60	200	140	264.1
603	Zone-1	2	TRUE	60	200	60	200	140	224
604	Zone-1	2	TRUE	60	200	60	200	140	370.5
605	Zone-1	2	TRUE	60	200	60	200	140	388.4
606	Zone-1	2	TRUE	60	200	60.19	200.19	140	339.3
607	Zone-1	2	TRUE	60	200	60	200	140	262.1
608	Zone-1	2	TRUE	60	200	60.13	200.13	140	373.3
609	Zone-1	2	TRUE	60	200	60.13	200.13	140	280.9
610	Zone-1	3	TRUE	60	200	60.13	200.13	140	271.7
611	Zone-1	3	TRUE	60	200	60	200	140	211.3
612	Zone-1	4	TRUE	60	144.78	60	144.78	140	140
613	Zone-1	3	TRUE	60	75.36	60.09	75.45	140	140
614	Zone-1	4	TRUE	60	156.78	60.13	156.91	140	140
615	Zone-1	3	TRUE	60	87.59	60	87.59	140	140
616	Zone-1	2	TRUE	60	200	60	200	140	376.3
617	Zone-1	2	TRUE	60	200	60	200	140	332
618	Zone-1	2	TRUE	60	200	60	200	140	300.7
619	Zone-1	3	TRUE	60	114.05	60	114.05	140	140
620	Zone-1	3	TRUE	60	111.66	60	111.66	140	140
621	Zone-1	3	TRUE	60	200	60	200	140	201.8
622	Zone-1	3	TRUE	60	106.44	60	106.44	140	140
623	Zone-1	3	TRUE	60	69.87	60.13	70.01	140	140
624	Zone-1	3	TRUE	60	78.73	60	78.73	140	140
625	Zone-1	3	TRUE	60	85.33	60.19	85.52	140	140
626	Zone-1	3	TRUE	60	91.45	60	91.45	140	140
627	Zone-1	2	TRUE	60	200	60	200	140	397.5
628	Zone-1	3	TRUE	60	95.63	60	95.63	140	140.1

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
629	Zone-1	4	TRUE	60	113.83	60.19	114.02	140	140
630	Zone-1	2	TRUE	60	200	60	200	140	384.3
631	Zone-1	2	TRUE	60	200	60	200	140	392.8
635	Zone-1	2	TRUE	60	200	60	200	140	354.1
644	Zone-1	2	TRUE	60	200	60	200	140	363.6
645	Zone-1	3	TRUE	60	115.26	60.12	115.38	140	140.1
646	Zone-1	2	TRUE	60	200	60	200	140	356.4
647	Zone-1	2	TRUE	60	200	60	200	140	383.3
648	Zone-1	3	TRUE	60	200	60.25	200.25	140	169.5
649	Zone-1	6	TRUE	60	183.35	60	183.35	140	144.9
650	Zone-1	4	TRUE	60	147.35	60.25	147.6	140	140
651	Zone-1	4	TRUE	60	171.61	60.25	171.86	140	140
652	Zone-1	3	TRUE	60	200	60.25	200.25	140	146
653	Zone-1	3	TRUE	60	130.78	60.25	131.03	140	140.1
654	Zone-1	2	TRUE	60	200	60.3	200.3	140	382
655	Zone-1	2	TRUE	60	200	63.5	203.5	140	236.8
656	Zone-1	3	TRUE	60	200	60	200	140	224.3
657	Zone-1	2	TRUE	60	200	60.27	200.26	140	338.8
658	Zone-1	2	TRUE	60	200	60.35	200.35	140	382.2
659	Zone-1	3	TRUE	60	119.06	60	119.06	140	140
660	Zone-1	2	TRUE	60	200	60	200	140	355.6
661	Zone-1	2	TRUE	60	200	60	200	140	333
662	Zone-1	2	TRUE	60	200	60.19	200.19	140	356
663	Zone-1	2	TRUE	60	200	60.9	200.9	140	308
664	Zone-1	2	TRUE	60	200	60.06	200.06	140	321.9
665	Zone-1	3	TRUE	60	76.65	60.13	76.78	140	140
666	Zone-1	2	TRUE	60	200	60	200	140	361.6
667	Zone-1	2	TRUE	60	200	60.4	200.4	140	381.2
668	Zone-1	2	TRUE	60	200	60.4	200.4	140	379.3
669	Zone-1	2	TRUE	60	200	60.4	200.4	140	273.9
670	Zone-1	2	TRUE	60	200	60.49	200.49	140	281.7
671	Zone-1	4	TRUE	60	185.63	60	185.63	140	140
672	Zone-1	3	TRUE	60	200	60	200	140	255.2
673	Zone-1	2	TRUE	60	200	60.13	200.13	140	332.8
674	Zone-1	2	TRUE	60	200	60	200	140	314.5
675	Zone-1	3	TRUE	60	200	60	200	140	186.7
676	Zone-1	2	TRUE	60	200	60	200	140	316.3
677	Zone-1	2	TRUE	60	200	60.13	200.13	140	313.8
678	Zone-1	3	TRUE	60	200	60	200	140	216.6
679	Zone-1	3	TRUE	60	200	60	200	140	160
680	Zone-1	2	TRUE	60	200	60	200	140	361.2
681	Zone-1	3	TRUE	60	200	60	200	140	307.7
682	Zone-1	3	TRUE	60	200	60.66	200.66	140	302.9
683	Zone-1	3	TRUE	60	200	60	200	140	299.8
684	Zone-1	3	TRUE	60	200	60	200	140	295.5
685	Zone-1	3	TRUE	60	200	60	200	140	297.9
686	Zone-1	3	TRUE	60	200	60	200	140	294.5
687	Zone-1	2	TRUE	60	200	60	200	140	288.9
688	Zone-1	2	TRUE	60	200	60	200	140	290.5
689	Zone-1	2	TRUE	60	200	60.08	200.08	140	327.6
690	Zone-1	2	TRUE	60	200	60	200	140	291.4
691	Zone-1	2	TRUE	60	200	60.18	200.18	140	401.8
692	Zone-1	2	TRUE	60	200	60.08	200.08	140	267.8
693	Zone-1	2	TRUE	60	200	60.08	200.08	140	265.1
694	Zone-1	2	TRUE	60	200	60	200	140	278
695	Zone-1	2	TRUE	60	200	60	200	140	340
696	Zone-1	2	TRUE	60	200	60	200	140	340
697	Zone-1	2	TRUE	60	200	60	200	140	334.2
698	Zone-1	2	TRUE	60	200	60	200	140	336.6
699	Zone-1	2	TRUE	60	200	60	200	140	351.7
700	Zone-1	2	TRUE	60	200	60	200	140	373.9

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
701	Zone-1	2	TRUE	60	200	60	200	140	387.6
702	Zone-1	2	TRUE	60	200	60.55	200.55	140	388.9
703	Zone-1	2	TRUE	60	200	60.44	200.44	140	206.8
704	Zone-1	2	TRUE	60	200	60	200	140	319.8
705	Zone-1	2	TRUE	60	200	60.56	200.56	140	293.7
706	Zone-1	2	TRUE	60	200	60	200	140	286.3
707	Zone-1	2	TRUE	60	200	60.35	200.35	140	362
708	Zone-1	2	TRUE	60	200	60	200	140	378.1
709	Zone-1	2	TRUE	60	200	60	200	140	377
710	Zone-1	2	TRUE	60	200	60	200	140	372.3
711	Zone-1	3	TRUE	60	200	60	200	140	230.3
712	Zone-1	2	TRUE	60	200	60.3	200.3	140	382.5
713	Zone-1	4	TRUE	60	145.77	60	145.77	140	140
714	Zone-1	2	TRUE	60	200	60	200	140	387
720	Zone-1	2	TRUE	60	200	60.6	200.6	140	359
721	Zone-1	2	TRUE	60	200	60.4	200.4	140	384.8
722	Zone-1	2	TRUE	60	200	60.55	200.55	140	315.9
723	Zone-1	3	TRUE	60	81.7	60.4	82.1	140	140
724	Zone-1	2	TRUE	60	200	60.4	200.4	140	391.1
725	Zone-1	3	TRUE	60	119.93	60.42	120.35	140	140
726	Zone-1	2	TRUE	60	200	60	200	140	406.9
727	Zone-1	2	TRUE	60	200	60	200	140	302
728	Zone-1	2	TRUE	60	200	60	200	140	292.8
729	Zone-1	2	TRUE	60	200	60	200	140	360.4
730	Zone-1	2	TRUE	60	200	60	200	140	298.6
731	Zone-1	2	TRUE	60	200	60.17	200.17	140	249.3
732	Zone-1	4	TRUE	60	192.22	60	192.22	140	140
733	Zone-1	3	TRUE	60	200	60	200	140	210.1
734	Zone-1	3	TRUE	60	200	60	200	140	201.3
735	Zone-1	3	TRUE	60	200	60	200	140	209.9
736	Zone-1	4	TRUE	60	134.19	60	134.19	140	140
737	Zone-1	3	TRUE	60	200	60	200	140	180.7
738	Zone-1	4	TRUE	60	158.07	60	158.07	140	140
739	Zone-1	2	TRUE	60	200	60	200	140	262.7
740	Zone-1	2	TRUE	60	200	60	200	140	248.4
741	Zone-1	3	TRUE	60	200	60.35	200.35	140	217.1
742	Zone-1	3	TRUE	60	200	60	200	140	206
743	Zone-1	4	TRUE	60	111.14	60.35	111.49	140	140
754	Zone-1	2	TRUE	60	200	60	200	140	191.5
755	Zone-1	2	TRUE	60	200	60	200	140	196.2
757	Zone-1	2	TRUE	60	200	60	200	140	195.2
758	Zone-1	2	TRUE	60	200	60	200	140	187.1
759	Zone-1	2	TRUE	60	200	60	200	140	194.5
762	Zone-1	2	TRUE	60	200	60	200	140	410.2
763	Zone-1	2	TRUE	60	200	60	200	140	411.3
768	Zone-1	2	TRUE	60	200	60	200	140	408
770	Zone-1	2	TRUE	60	200	60	200	140	411.6
771	Zone-1	3	TRUE	60	200	60	200	140	235.5
772	Zone-1	2	TRUE	60	200	60	200	140	187.7
777	Zone-1	2	TRUE	60	200	60	200	140	195.1
778	Zone-1	4	TRUE	60	120.14	60	120.14	140	140
779	Zone-1	2	TRUE	60	200	60	200	140	426.2
780	Zone-1	2	TRUE	60	200	60.71	200.71	140	446.9
781	Zone-1	2	TRUE	60	200	60	200	140	453.8
782	Zone-1	2	TRUE	60	200	60	200	140	478.5
783	Zone-1	2	TRUE	60	200	60	200	140	478.6
784	Zone-1	2	TRUE	60	200	60.12	200.12	140	471.7
785	Zone-1	2	TRUE	60	200	60.12	200.12	140	468.8
786	Zone-1	2	TRUE	60	200	60.12	200.12	140	469.9
787	Zone-1	2	TRUE	60	200	60.12	200.12	140	452.5
788	Zone-1	2	TRUE	60	200	63	203	140	463.2

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
789	Zone-1	2	TRUE	60	200	60.67	200.67	140	466.1
790	Zone-1	2	TRUE	60	200	60	200	140	448
791	Zone-1	2	TRUE	60	200	60	200	140	447.5
792	Zone-1	2	TRUE	60	200	60	200	140	439.5
793	Zone-1	2	TRUE	60	200	60	200	140	452.2
795	Zone-1	2	TRUE	60	200	60.12	200.12	140	440.9
796	Zone-1	2	TRUE	60	200	60.12	200.12	140	451.4
797	Zone-1	2	TRUE	60	200	60	200	140	409.9
798	Zone-1	2	TRUE	60	200	60	200	140	345.1
799	Zone-1	2	TRUE	60	200	60	200	140	204.3
800	Zone-1	2	TRUE	60	200	60	200	140	330.5
801	Zone-1	2	TRUE	60	200	60	200	140	369.3
802	Zone-1	2	TRUE	60	200	60.51	200.51	140	357.9
803	Zone-1	2	TRUE	60	200	60	200	140	326.7
804	Zone-1	2	TRUE	60	200	60.46	200.46	140	372.2
805	Zone-1	2	TRUE	60	200	60	200	140	353.1
806	Zone-1	4	TRUE	60	195.18	60	195.18	140	140
807	Zone-1	2	TRUE	60	200	60	200	140	350.3
808	Zone-1	2	TRUE	60	200	62.42	202.42	140	393.3
809	Zone-1	2	TRUE	60	200	60	200	140	350.8
810	Zone-1	2	TRUE	60	200	60.31	200.31	140	240.6
811	Zone-1	3	TRUE	60	109.94	60.28	110.22	140	140.1
812	Zone-1	2	TRUE	60	200	60	200	140	212.5
813	Zone-1	3	TRUE	60	116.33	60.31	116.64	140	140.1
814	Zone-1	2	TRUE	60	200	60	200	140	338.6
815	Zone-1	2	TRUE	60	200	60	200	140	268.2
816	Zone-1	2	TRUE	60	200	60.55	200.55	140	215
817	Zone-1	2	TRUE	60	200	60.55	200.55	140	197.2
818	Zone-1	2	TRUE	60	200	60	200	140	275.1
819	Zone-1	2	TRUE	60	200	60.56	200.56	140	339.7
820	Zone-1	2	TRUE	60	200	60	200	140	349
821	Zone-1	2	TRUE	60	200	60	200	140	329.9
822	Zone-1	2	TRUE	60	200	60.71	200.71	140	254.3
823	Zone-1	2	TRUE	60	200	60	200	140	337.5
824	Zone-1	3	TRUE	60	200	60.97	200.97	140	178.2
825	Zone-1	2	TRUE	60	200	60	200	140	349
826	Zone-1	2	TRUE	60	200	60	200	140	360.9
827	Zone-1	3	TRUE	60	97.31	60	97.31	140	140
828	Zone-1	2	TRUE	60	200	60.6	200.6	140	384.6
829	Zone-1	2	TRUE	60	200	60.6	200.6	140	337.5
830	Zone-1	4	TRUE	60	191.15	60	191.15	140	140
831	Zone-1	2	TRUE	60	200	60	200	140	320.6
832	Zone-1	4	TRUE	60	140.84	60	140.84	140	140
833	Zone-1	4	TRUE	60	114.37	61	115.37	140	140
834	Zone-1	2	TRUE	60	200	60	200	140	375.2
835	Zone-1	2	TRUE	60	200	60.35	200.35	140	308.8
836	Zone-1	2	TRUE	60	200	60	200	140	360.4
837	Zone-1	2	TRUE	60	200	60	200	140	363.1
838	Zone-1	2	TRUE	60	200	60	200	140	351.5
839	Zone-1	2	TRUE	60	200	60	200	140	332.1
840	Zone-1	2	TRUE	60	200	60	200	140	308.9
841	Zone-1	2	TRUE	60	200	60	200	140	304.6
842	Zone-1	3	TRUE	60	75.68	60.4	76.08	140	140
843	Zone-1	2	TRUE	60	200	60	200	140	244
844	Zone-1	2	TRUE	60	200	60	200	140	225.3
845	Zone-1	2	TRUE	60	200	60.7	200.7	140	340
846	Zone-1	2	TRUE	60	200	60.54	200.54	140	240.6
847	Zone-1	2	TRUE	60	200	60.28	200.28	140	361.1
848	Zone-1	4	TRUE	60	178.42	60.59	179.01	140	140
849	Zone-1	2	TRUE	60	200	60	200	140	367.3
850	Zone-1	2	TRUE	60	200	60.15	200.15	140	369.3

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
851	Zone-1	3	TRUE	60	97.69	60.33	98.02	140	140.1
852	Zone-1	2	TRUE	60	200	60.13	200.13	140	294.8
853	Zone-1	3	TRUE	60	200	60	200	140	219.2
854	Zone-1	3	TRUE	60	88.2	60	88.2	140	140
855	Zone-1	2	TRUE	60	200	60	200	140	272.6
856	Zone-1	2	TRUE	60	200	60	200	140	338.5
857	Zone-1	2	TRUE	60	200	60.44	200.44	140	312.4
858	Zone-1	3	TRUE	60	95.01	60.28	95.29	140	140.1
859	Zone-1	2	TRUE	60	200	60.18	200.18	140	371.9
860	Zone-1	2	TRUE	60	200	60	200	140	373.2
861	Zone-1	4	TRUE	60	128.44	60.44	128.87	140	140
862	Zone-1	3	TRUE	60	200	60.5	200.5	140	197.1
863	Zone-1	2	TRUE	60	200	60.44	200.44	140	226.3
864	Zone-1	2	TRUE	60	200	60.18	200.18	140	368
A	Zone-1	2	TRUE	60	200	60	200	140	328.5
B	Zone-1	2	TRUE	60	200	60	200	140	383.5
J-1	Zone-1	2	TRUE	60	200	60	200	140	326.3
J-2	Zone-1	2	TRUE	60	200	62.88	202.88	140	340.4
J-3	Zone-1	2	TRUE	60	200	61.44	201.44	140	370.5
J-4	Zone-1	2	TRUE	60	200	60	200	140	277
J-866	Zone-1	2	TRUE	60	200	60	200	140	372.6
J-867	Zone-1	2	TRUE	60	200	60.98	200.98	140	340.7
J-868	Zone-1	2	TRUE	60	200	60	200	140	342.4
J-869	Zone-1	2	TRUE	60	200	60	200	140	264.6
J-870	Zone-1	2	TRUE	60	200	60	200	140	249.4
J-871	Zone-1	2	TRUE	60	200	60	200	140	283
J-872	Zone-1	4	TRUE	60	200	60	200	140	140.9
J-873	Zone-1	2	TRUE	60	200	60	200	140	369.5
J-874	Zone-1	2	TRUE	60	200	60	200	140	326.2
J-875	Zone-1	2	TRUE	60	200	60	200	140	337.9
J-876	Zone-1	2	TRUE	60	200	61.2	201.2	140	382.1
J-877	Zone-1	2	TRUE	60	200	60.92	200.92	140	294.9
J-878	Zone-1	4	TRUE	60	159.69	60	159.69	140	140
J-879	Zone-1	2	TRUE	60	200	60	200	140	296.8
J-880	Zone-1	2	TRUE	60	200	60	200	140	460.3
J-881	Zone-1	4	TRUE	60	143.64	60	143.64	140	140
J-882	Zone-1	3	TRUE	60	96.94	60	96.94	140	140.1
J-883	Zone-1	3	TRUE	60	81.04	60	81.04	140	140
J-884	Zone-1	2	TRUE	60	200	60	200	140	508.1
J-885	Zone-1	4	TRUE	60	133.58	60	133.58	140	140
J-886	Zone-1	3	TRUE	60	111.07	60	111.07	140	140.2
J-887	Zone-1	3	TRUE	60	109.49	60	109.49	140	140.2
J-888	Zone-1	3	TRUE	60	110.89	60	110.89	140	140.2
J-889	Zone-1	4	TRUE	60	116.86	60	116.86	140	140
J-890	Zone-1	3	TRUE	60	113.09	60	113.09	140	140.2
J-891	Zone-1	2	TRUE	60	200	60	200	140	390.3
J-892	Zone-1	2	TRUE	60	200	60	200	140	389.5
J-893	Zone-1	2	TRUE	60	200	60	200	140	391.5
J-894	Zone-1	2	TRUE	60	200	66.8	206.8	140	425.7
J-899	Zone-1	2	TRUE	60	200	60.6	200.6	140	316.5
J-900	Zone-1	2	TRUE	60	200	60	200	140	302.1
J-904	Zone-1	2	TRUE	60	200	60	200	140	330
J-905	Zone-1	2	TRUE	60	200	60.4	200.4	140	336.7
J-906	Zone-1	3	TRUE	60	200	60	200	140	248.3
J-908	Zone-1	3	TRUE	60	200	60	200	140	254.2
J-919	Zone-1	3	TRUE	60	200	60.2	200.2	140	175.7
J-920	Zone-1	4	TRUE	60	181.57	60.6	182.17	140	140
J-921	Zone-1	4	TRUE	60	179.02	60.73	179.75	140	140
J-922	Zone-1	4	TRUE	60	186.92	60.3	187.22	140	140
J-923	Zone-1	2	TRUE	60	200	60.1	200.1	140	346.9
J-924	Zone-1	2	TRUE	60	200	60.6	200.6	140	277.4

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)	Flow (Total Needed) (L/s)	Flow (Total Available) (L/s)	Pressure (Residual Lower Limit) (kPa)	Pressure (Calculated Residual) (kPa)
J-925	Zone-1	3	TRUE	60	200	60.7	200.7	140	209.7
J-928	Zone-1	2	TRUE	60	200	60	200	140	293.3
J-931	Zone-1	2	TRUE	60	200	60	200	140	348.7
J-935	<None>	3	TRUE	60	200	65.1	205.1	140	190.6
J-936	<None>	4	TRUE	60	156.5	65.1	161.6	140	140
J-937	<None>	2	TRUE	60	200	60	200	140	394.2
J-938	<None>	2	TRUE	60	200	60	200	140	411.5
J-939	<None>	22	TRUE	60	166.34	65.1	171.44	140	140.6
J-940	<None>	4	TRUE	60	116.54	65.1	121.64	140	140
J-941	<None>	2	TRUE	60	200	60	200	140	402.7
J-942	<None>	2	TRUE	60	200	60	200	140	456.2
J-943	<None>	2	TRUE	60	200	60	200	140	499
J-944	<None>	2	TRUE	60	200	65.1	205.1	140	358.6
J-945	<None>	4	TRUE	60	197.19	65.1	202.29	140	140
J-946	<None>	2	TRUE	60	200	60	200	140	555.2
J-947	<None>	2	TRUE	60	200	60	200	140	578.4
J-948	<None>	2	TRUE	60	200	65.1	205.1	140	571
J-949	<None>	4	TRUE	60	195.28	65.1	200.38	140	140
J-950	<None>	2	TRUE	60	200	65.1	205.1	140	495.6
J-951	<None>	2	TRUE	60	200	65.1	205.1	140	432.4
J-952	<None>	2	TRUE	60	200	65.1	205.1	140	412.2
J-953	<None>	2	TRUE	60	200	65.1	205.1	140	188.1
J-955	<None>	2	TRUE	60	200	60	200	140	365.4
J-956	<None>	4	TRUE	60	159.53	65.1	164.63	140	140
J-957	<None>	2	TRUE	60	200	65.1	205.1	140	211.2
J-958	<None>	2	TRUE	60	200	60	200	140	405.1
J-959	<None>	2	TRUE	60	200	60	200	140	441.5
J-960	<None>	2	TRUE	60	200	60	200	140	428.9
J-961	<None>	2	TRUE	60	200	65.1	205.1	140	268.1
J-962	<None>	2	TRUE	60	200	60	200	140	382.8
J-963	<None>	3	TRUE	60	149.95	65.1	155.05	140	140.1
J-964	<None>	2	TRUE	60	200	60	200	140	401.7
J-965	<None>	4	TRUE	60	189.59	65.1	194.69	140	140
J-966	<None>	2	TRUE	60	200	60	200	140	482.5
J-967	<None>	2	TRUE	60	200	60	200	140	463.4
J-968	<None>	2	TRUE	60	200	60	200	140	506
J-969	<None>	2	TRUE	60	200	65.1	205.1	140	319.2
J-970	<None>	2	TRUE	60	200	60	200	140	390.2
J-971	<None>	2	TRUE	60	200	65.1	205.1	140	261
J-973	<None>	2	TRUE	60	200	60	200	140	513.1
J-974	<None>	2	TRUE	60	200	65.1	205.1	140	327.3
J-975	<None>	2	TRUE	60	200	65.1	205.1	140	530
J-976	<None>	2	TRUE	60	200	65.1	205.1	140	540.3
J-977	<None>	2	TRUE	60	200	65.1	205.1	140	520.9
J-978	<None>	4	TRUE	60	156.53	65.1	161.63	140	140
J-979	<None>	2	TRUE	60	200	65.1	205.1	140	306.2
J-981	<None>	2	TRUE	60	200	60	200	140	429.6
J-982	<None>	2	TRUE	60	200	60	200	140	424.6
J-983	<None>	2	TRUE	60	200	60	200	140	427.2
J-984	<None>	2	TRUE	60	200	60	200	140	492.8
J-985	<None>	2	TRUE	60	200	60	200	140	477.4
J-986	<None>	2	TRUE	60	200	65.1	205.1	140	541.1
J-987	<None>	2	TRUE	60	200	65.1	205.1	140	487.6
J-988	<None>	2	TRUE	60	200	65.1	205.1	140	373.9
J-989	<None>	2	TRUE	60	200	65.1	205.1	140	500.4
J-990	<None>	2	TRUE	60	200	60	200	140	449.1
J-991	<None>	2	TRUE	60	200	60	200	140	384.8
J-992	<None>	2	TRUE	60	200	60	200	140	387.5
J-993	<None>	3	TRUE	60	200	65.1	205.1	140	190
J-994	<None>	3	TRUE	60	200	65.1	205.1	140	165.8