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MASTER WATER PLAN

FOR

SUPERSTITION VISTAS

APACHE JUNCTION, ARIZONA

Prepared For:
DR Horton
20410 N 19th Avenue, Suite 100
Phoenix, AZ 85027

D·R·HORTON
America's Builder

&

Brookfield Properties
14646 N Kierland Boulevard, Suite 165
Scottsdale, AZ 85254

Brookfield
Residential

Prepared By:
HILGARTWILSON, LLC
2141 E. Highland Avenue, Suite 250
Phoenix, AZ 85016
Phone: (602) 490-0535

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO.
38783
NGUYEN
LAM
Date Signed 9.8.21
ARIZONA U.S.A.

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO.
49088
KELLEY M.
PAULIN
Date Signed 9-8-21
ARIZONA U.S.A.

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FOR
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1.0 EXECUTIVE SUMMARY

Superstition Vistas is a proposed 8,090-acre planned development (Site) located west of the Central Arizona Project (CAP) canal, east of Meridian Road, north of the Frye Road alignment (future SR-24 alignment) and south of Baseline Road in Pinal County, Arizona. It is comprised of eight (8) Development Units and will consist of various uses ranging from residential to industrial development. Of this overall assemblage, Development Units 1 & 2 (Auction Property, or "Property") is a proposed 2,783 acre master planned community located west of the Idaho Road alignment, east of Meridian Road, north of the Ray Road alignment, and south of the Elliot Road alignment. The Auction Property will consist of approximately 10,940 residential units. The Auction Property will also contain approximately 466 acres of non-residential use, comprised of commercial properties, neighborhood open space, and community open space.

The scope of this Master Water Plan will detail the water infrastructure needed to serve the Auction Property and will provide a regional framework for the anticipated infrastructure needed for the surrounding area around Development Units 1 & 2 totaling approximately 5,307 acres (Retained Property). The Retained Property is located within Pinal County and will be annexed into the City of Apache Junction.

Given the timing and scale of the development for the overall project, this Master Water Plan is organized into evaluations specific to the Auction Property and Site. Since the timing of the Auction Property is immediate, the level of analysis for the Auction Property is specific with corresponding recommendations for improvements. For the Retained Property, the evaluation is focused on establishing the primary water infrastructure network for future development. For both scenarios, water demands for Superstition Vistas have been estimated based on the proposed land uses established by the Client and design criteria as approved by the Apache Junction Water District (AJWD, or "District"). The scope of this plan also includes evaluation of water supply, transmission main facilities, treatment, storage, pumping and distribution facilities.

The intent of this Master Plan is to be used as the basis for final design as each Development Unit proceeds to development. The size and scale of both the Auction Property and Site are such that individual unit or parcel water reports are to be prepared to confirm the intensity and land use as the basis for final water demands, and substantiate the scope of water infrastructure needed. There may be instances where this Master Plan may need to be amended to update the various elements contained in this Plan. These amendments may range from updating the demand factors that reflect actual rates to revised locations of primary water infrastructure to corroborate with the most current District Water Master Plan at that respective time.

2.0 INTRODUCTION

2.1 Background and Project Location

Superstition Vistas is a proposed 8,090-acre planned development (Site) located west of the Central Arizona Project (CAP) canal, east of Meridian Road, north of the Frye Road alignment (future SR-24 alignment) and south of Baseline Road in Pinal County, Arizona. Superstition Vistas will be annexed into the City of Apache Junction. It is comprised of eight (8) Development Units (DU) and will consist of various uses ranging from residential to industrial development. Of this overall assemblage, Development Units 1 & 2 (Auction Property, or "Property") is a proposed 2,783 acre master planned community located west of the Idaho Road alignment, east of Meridian Road, north of the Ray Road alignment, and south of the Elliot Road alignment, in Sections 17, 18, 19, 20, and a portion of 30 of Township 1 South, Range 8 East of the Gila and Salt River Meridian.

The portion of Superstition Vistas outside Development Units 1 & 2 (Retained Property) totals approximately 5,307 acres and is currently located within Pinal County. The entire Site will be annexed into the City of Apache Junction, Arizona. The Retained Property includes Sections 7, 28, 29, and portions of Sections 6, 8, 16, 21, 27, 30, 31, 32, 33, and 34 of Township 1 South, Range 8 East of the Gila and Salt River Meridian.

Figure 1 in Appendix A provides a vicinity map for the Project.

2.2 General Description

Superstition Vistas Development Units 1 & 2 will consist of approximately 10,940 residential units, as well as approximately 466 acres of non-residential use, including commercial use, neighborhood open space, and community open space. Based on proposed land uses within the Auction Property and preliminary land uses within the Retained Property area, the Site is planned to have a total of approximately 27,370 single-family residential units at build-out, as well as 2,394 acres of non-residential use, comprised of commercial properties, neighborhood open space, community open space, schools, business parks, and industrial properties.

Development Units 1 & 2 are located within the Apache Junction Water District (AJWD) service area and are situated within a single pressure zone. The majority of the Retained Property is also within the same pressure zone within the AJWD service area. However, portions of DU 7 & 8 (within Sections 6 and 7 bounded by Meridian Road, Baseline Road, the Ironwood Road alignment, and the Elliot Road alignment) are within Arizona Water Company's service area.

2.3 Purpose of Report

The purpose of this Master Water Plan is to detail the water infrastructure needed to serve the Auction Property and provide a regional framework for the anticipated infrastructure needed for the remainder of the Site. This Master Plan identifies and evaluates the proposed water infrastructure and distribution system required to serve the Auction Property based on the current land use plan and the design criteria as approved by the AJWD. In addition, the water infrastructure needed to serve the

Retained Property is identified on a conceptual level. A Development Unit exhibit is provided in Figure 2 in Appendix A.

This Master Plan identifies the projected water demands for the Auction Property and Site for average day, maximum day, peak hour, and maximum day plus fire flow conditions. It also discusses the water supply, storage, booster pumping station, and treatment facilities required to serve both the Auction Property and the Retained Property, and presents results from hydraulic models of the proposed water infrastructure. The demand calculations presented in this Master Plan are based on the current land uses planned for the Auction Property and the preliminary conceptual land uses identified for the Retained Property. In addition, after connection of the 500th equivalent dwelling unit ("EDU") constructed, the District shall analyze the average flows for one year to determine the actual flows used per EDU, and shall use such actual flows (plus or minus 20%, depending on environmental conditions) to calculate future capacity and infrastructure required. The water analysis presented in this Master Plan is based on the City of Apache Junction *Engineering Design Guidelines and Policies* (City of Apache Junction) and general design criteria as agreed upon by the AJWD.

The intent of this Master Plan is to be used as the basis for final design as each Development Unit proceeds to development. The size and scale of both the Auction Property and Retained Property are such that individual unit or parcel water reports are to be prepared to confirm the intensity and land use as the basis for final water demands, and substantiate the scope of water infrastructure needed. There may be instances where this Master Plan needs to be amended to update the various elements contained in this Plan. These amendments may range from updating the demand factors that reflect actual rates to revised locations of primary water infrastructure to corroborate with the most current City General Plan and Water Master Plan at that respective time. At no point should the demands go below 360 gallons per day per EDU.

2.4 Existing Conditions

The Auction Property and Retained Property sites generally consist of undeveloped desert land that generally slopes toward the southwest at a rate of approximately 0.5%. The CAP canal borders the Retained Property to the east. In addition, there is existing residential development bordering the Project to the west and north. There are also multiple existing utility easements that intersect the Property and Retained Property areas. An existing drainage easement for the Powerline Channel extends from the CAP canal, just north of the northeast corner of Development Unit 2, to the southwest, crossing Meridian Road between Warner Road and Ray Road. In addition, an existing electrical transmission easement extends to the southeast near the southwest corner of Development Unit 1. A separate electrical transmission easement extends east-west through the Retained Property in Development Unit 7. See Figure 1 in Appendix A for the Vicinity Map and Figure 2 in Appendix A for the Development Unit Exhibit, which shows the easements crossing the Auction Property and Retained Property areas.

2.5 Previous Studies

In November 2019, Kimley-Horn & Associates, Inc. (KHA) prepared the *Infrastructure*

Assessment Study ASLD 8500. The KHA study identified preliminary design standards and preliminary concepts for extending water, wastewater, roadway, and drainage infrastructure to serve Superstition Vistas at buildout. Elements of this study served as the basis of this Plan, however, it should be noted that the demands identified in the KHA study are different from what is established in this Plan due to revised demand criteria and land use designations.

In addition to the KHA efforts, Carollo has been recently engaged by AJWD to develop the AJWD Master Plan for the area south of Baseline Road. The purpose of the AJWD Master Plan is to provide information to developers to help them understand the master plan for AJWD and how AJWD operates and plans. The first part of this work resulted in concepts for potential distribution and transmission main networks for a large portion of the AJWD service area, including the Auction Property and Retained Property areas, as well as other future development west of the CAP canal. This initial Carollo effort was reviewed by HILGARTWILSON and was used to help coordinate and corroborate HILGARTWILSON's efforts. Exhibits showing Carollo's conceptual distribution and transmission main networks are included in Appendix E of this Master Plan for reference.

This Master Plan provides an updated analysis for water infrastructure needed to serve the Superstition Vistas development with design/demand factors as approved by the AJWD.

3.0 DESIGN CRITERIA

3.1 Water System Design Criteria

The proposed water system infrastructure for the Auction Property and the regional framework for the infrastructure to serve the Retained Property have been prepared and evaluated consistent with the design criteria as approved by the AJWD. The criteria are summarized below in Table 1 and supplement the City's other design criteria as identified in the City's *Engineering Design Guidelines and Policies* (City of Apache Junction). In developing this Master Plan, HILGARTWILSON worked with AJWD staff to develop the criteria identified in Table 1, which is to be used for sizing of master-planned water infrastructure for the Property and Retained Property areas. In addition, the demand criteria will be used to help procure and establish both rights and physical water availability to the Auction Property and Retained Property. Since these latter elements (water rights and physical availability) are interrelated to AJWD's overall water portfolio, which is inclusive of, but not limited to, effluent recharge credits, implementation of reuse of effluent to offset demands, actual customer demands, it is expected that the scale and intensity of these demand factors may be reevaluated and amended from time to time during the development of both Projects.

A full summary of AJWD water system design criteria identified for the Superstition Vistas development is shown in Table B.6 in Appendix B. Table B.6 also notes relative design requirements of other municipalities and water providers for reference.

Table 1: Water System Design Criteria			
Land Use		Value	Unit
Average Day Demands			
	Single Family Low Density Residential (1-2 DU/ac)	592	gpd/DU
	Single Family Med Density Residential (2-10 DU/ac)	555	gpd/DU
	Single Family High Density Residential (10+ DU/ac)	370	gpd/DU
	Multi-Family Residential	315	gpd/DU
	Commercial	2,000	gpad
	Office / Business Park	2,000	gpad
	School	5,000	gpad
	Malls/Retail	0.5	gpd/sq. ft.
	Industrial	2,000	gpad
	Hotel/Motel	150	gpd/room
	Turf/Irrigation	4,400	gpad
	Xeriscape/Low Water Use Irrigation	1,000	gpad
Peaking Factors			
	Maximum Day Demand = 2.0 x Average Day Demand		
	Peak Hour Demand = 1.7 x Maximum Day Demand		
Fire Flow[2]			
	Residential	1,500	gpm for 2 hours
	Commercial	4,000	gpm for 4 hours
	Industrial	4,000	gpm for 4 hours
	School	4,000	gpm for 4 hours
	Office/Business	4,000	gpm for 4 hours
Minimum Pipe Sizes			
	Looped Water Main	8	inch
	Water Main in Collector Streets	12	inch
	Water Main in Arterial Streets	16	inch
System Hydraulics			
	Minimum Pressure - Average Day, Max Day, Peak Hour	50	psi
	Minimum Pressure - Maximum Day plus Fire Flow	20	psi
	Maximum Velocity (Peak Hour Demand)	5	fps
	Maximum Velocity (Max Day + Fire Flow)	10	fps
	Maximum Head Loss (Peak Hour)	10	ft/1,000 ft
	Hazen Williams 'C' Factor	120	

Notes:
1. Design criteria are based on factors agreed upon by the AJWD for the master planning of the Auction Property and Retained Property.
2. Fire flows shown are for planning purposes. All parcel phases will be required to meet the International Fire Code (IFC) 2015 Appendix B fire flow requirements.
3. A full summary of AJWD water system design criteria is provided in Table B.6 in Appendix B.

4.0 WATER DEMANDS

4.1 Land Use

Superstition Vistas Development Units 1 & 2 will consist of approximately 10,940 single-family residential units, as well as approximately 466 acres of non-residential use, comprised of commercial development, neighborhood open space, and community open space. Preliminary conceptual land uses have also been identified for the Retained Property area (Development Units 3-8). Table 2 below summarizes the current projected land uses that have been identified for master planning purposes. Table B.5 in Appendix B shows more detail for the land uses allocated for each Development Unit within Superstition Vistas, and the allocations that were used in developing this Master Plan. For reference, Figure 2 in Appendix A shows the anticipated boundaries for each of the Development Units.

Table 2: Land Use Summary

Dev. Unit	Gross Area (ac)	Neighborhood Open Space (ac)	Industrial (ac)	Commercial (ac)	School	Community Open Space (ac)	SFR (Med Density) (DU)
1	1,375	138	0	20	0	83	5,470
2	1,408	135	0	20	0	70	5,470
3	1,355	136	0	0	60	81	6,400
4	638	64	0	240	0	38	2,730
5	1,169	117	0	20	60	70	3,790
6	714	71	0	0	0	43	2,170
7	899	90	100	110	0	54	1,340
8	532	53	400	90	0	32	0
Total:	**8,090**	**803**	**500**	**500**	**120**	**406**	**27,370**

Notes:
1. Residential, Industrial, Commercial, and School land uses are derived from the latest density and intensity projections for Development Units 1-8. There are currently not any site plans for Sections 17, 18, and 20. Projections for Development Units 3-8 are assumed for master planning purposes.
2. Based on information from the Developer, DU 2 is anticipated to contain 135 acres of Neighborhood Open Space and 70 acres of Community Open Space.
3. For all Development Units (not including DU 2), 10% of gross area is assumed to be Neighborhood Open Space and 6% of gross area is assumed to be Community Open Space.
4. See Table B.5 (Overall Property Density Allocation) in Appendix B for detailed land use summary.

4.2 Water Demand Calculations

Anticipated water demands for the Auction Property and Retained Property have been calculated in accordance with the design criteria listed in Table 1. The projected water demands are summarized in Table 3 below and detailed water demand calculations are provided in Table B.1.1 in Appendix B. The Project area and the majority of the Retained Property area are within the AJWD service area, with exception of approximately 1,076 acres within Development Units 7 and 8 that are located within AZWC's service area. Table 3 includes a breakdown of water demands by water service provider. This table represents a conservative scenario that assumes that all irrigation demands for DUs 1-8 will be supplied by the proposed potable water system. These demands were utilized for infrastructure sizing to help establish this scenario.

Table 3: Water Demand Calculations Summary (Including Irrigation) – Superstition Vistas				
Development Unit	**Xeriscape / Turf Irrigation Demand (gpm)[5]**	**Average Day Demand (gpm)**	**Maximum Day Demand (gpm)**	**Peak Hour Demand (gpm)**
Apache Junction Water District Service Area				
1	419	2,555	4,691	7,681
2	386	2,522	4,658	7,648
Erie Lift Station	0	1.4	1.4	1.4
Subtotal – Dev. Units 1 & 2 (incl. Irrigation)	***805***	***5,078***	***9,350***	***15,331***
3	413	3,088	5,763	9,508
4	194	1,580	2,965	4,905
5	356	2,053	3,750	6,125
6	218	1,054	1,890	3,061
7 (334 acres)	102	402	702	1,123
8 (21 acres)	6	34	62	101
Subtotal - AJWD Service Area (incl. Irrigation)	***2,094***	***13,289***	***24,483***	***40,154***
Arizona Water Company Service Area				
7 (565 acres)	172	680	1,188	1,899
8 (511 acres)	156	808	1,461	2,375
Subtotal - AZWC Service Area (incl. Irrigation)	***328***	***1,489***	***2,649***	***4,274***
GRAND TOTAL (incl. Irrigation)	**2,422**	**14,778**	**27,132**	**44,428**

Notes:
1. Residential, Industrial, Commercial, and School demands are calculated using land uses derived from the latest density and intensity projections for Development Units 1-8.
2. The demands shown in Table 3 represent a conceptual demand for the future development.
3. Irrigation demands are not peaked, as these are anticipated to remain constant. Community Open Space is assumed to be 70% Turf and 30% Xeriscape. Neighborhood Open Space is assumed to be 40% Turf and 60% Xeriscape. See Table B.1.1 in Appendix B for detailed demand calculations.
4. A commercial demand for 1 acre of 2,000 gpd (1.4 gpm) will be needed to serve the proposed Erie Lift Station (ELS), located at the southeast corner of Meridian Road and Erie Street. This demand is not peaked.
5. Table 3 above assumes that all irrigation demands will be supplied by the potable water system. It is anticipated that a non-potable water system will offset irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road). Therefore, potable water demand shown in Table 3 may be reduced. See Table 4 for reduced water demands offset by the proposed non-potable water system in DUs 1, 2, 3, 5, and 6.

In contrast to the above table, Table 4 assumes that irrigation demands throughout the Site will be supplemented by the proposed non-potable water system. More specifically, irrigation demands in DUs 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road) are anticipated to be supplied by a separate proposed non-potable water system, as referenced in the *Master Non-Potable Water Plan for Superstition Vistas* (Wood, Patel & Associates, Inc., 2021). To illustrate how the non-potable water system could offset irrigation demands from the proposed potable water system, revised demands are provided in Table 4. Both demand scenarios are provided to

outline the potential minimum and maximum demands anticipated to be supplied by the proposed potable water system. This table shows demands for the development with the assumption that irrigation demands in DUs 2, 3, 5, 6, and a portion of 1 (north of Warner Road) are offset by a separate non-potable water system. Detailed calculations for this demand scenario are provided in Table B.1.2 in Appendix B.

Table 4: Water Demand Calculations Summary (Offset Irrigation) – Superstition Vistas

Development Unit	Xeriscape / Turf Irrigation Demand (gpm)[5]	Average Day Demand (gpm)	Maximum Day Demand (gpm)	Peak Hour Demand (gpm)
Apache Junction Water District Service Area				
1	246	2,382	4,518	7,509
2	0	2,136	4,272	7,262
Erie Lift Station	0	1.4	1.4	1.4
Subtotal – Dev. Units 1 & 2 (incl. Irrigation)	***246***	***4,520***	***8,792***	***14,773***
3	0	2,675	5,350	9,095
4	194	1,580	2,965	4,905
5	0	1,697	3,394	5,769
6	0	836	1,673	2,844
7 (334 acres)	102	402	702	1,123
8 (21 acres)	6	34	62	101
Subtotal - AJWD Service Area (incl. Irrigation)	***549***	***11,744***	***23,938***	***38,609***
Arizona Water Company Service Area				
7 (565 acres)	172	680	1,188	1,899
8 (511 acres)	156	808	1,461	2,375
Subtotal - AZWC Service Area (incl. Irrigation)	***328***	***1,489***	***2,649***	***4,274***
GRAND TOTAL (incl. Irrigation)	**877**	**13,233**	**25,587**	**42,883**

Notes:

1. Residential, Industrial, Commercial, and School demands are calculated using land uses derived from the latest density and intensity projections for Development Units 1-8.
2. The demands shown in Table 3 represent a conceptual demand for the future development.
3. Irrigation demands are not peaked, as these are anticipated to remain constant. Community Open Space is assumed to be 70% Turf and 30% Xeriscape. Neighborhood Open Space is assumed to be 40% Turf and 60% Xeriscape. See Table B.1.2 in Appendix B for detailed demand calculations.
4. A commercial demand for 1 acre of 2,000 gpd (1.4 gpm) will be needed to serve the proposed Erie Lift Station (ELS), located at the southeast corner of Meridian Road and Erie Street. This demand is not peaked.
5. This table assumes that irrigation demands in DU 4, 7, 8, and a portion of DU 1 (south of Warner Road) will be supplied by the potable water system. This table assumes that a non-potable water system will fully offset irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road). For calculation purposes, approximately 41% of DU 1's irrigation demand is assumed to be offset by the non-potable system.

5.0 WATER SYSTEM INFRASTRUCTURE

5.1 Existing Water System

The AJWD owns and operates an existing surface water treatment facility, the Superstition Area Water Plant (SAWP), which is located north of the CAP canal and west of Ironwood Road. The SAWP has a current surface water treatment capacity of 2.0 million gallons per day (MGD), with a planned build-out capacity of 10.0 MGD. The plant is currently operating at approximately 1.5 MGD. AJWD staff have indicated that 6.0 MGD of the plant's build-out capacity is allocated to the Auction Property and Retained Property, and that the remaining 2.0 MGD of treatment capacity is being reserved for future development within the City and may or may not be available for use by the Auction Property. Additional water demands beyond the 6.0 MGD currently reserved for the Auction Property and any portion of the remaining 2.0 MGD capacity that the City decides to allocate to the Project from the SAWP, will need to be sourced from a separate interim source and future distribution facility (herein referred to as Water Treatment Facility 2 and conceptually located along the CAP canal). The source of additional water supply may be from a future water treatment facility; direct potable reuse at the existing SAWP; and/or from groundwater wells on an interim basis. It is anticipated that the Water Treatment Facility 2 will be developed after the Auction Property as a part of the Retained Property. The AJWD currently has two wells, Well 5 and Well 6, which each have a capacity of 0.7 MGD, but per AJWD staff are currently reserved for back-up purposes. Well 5 is located near the intersection of 16th Avenue and Delaware Drive and Well 6 is located near Baseline Road and Winchester Road. These groundwater wells are used during annual CAP canal maintenance and for emergencies as they arise.

Figure 4 in Appendix A shows a conceptual layout and sizing for infrastructure needed to serve the Site at full buildout. As there is not currently any existing water infrastructure in place to serve the Auction Property or Retained Property areas, additional surface water treatment facilities and/or wells, along with transmission mains, storage facilities, booster pump stations, and distribution water mains will be required to extend water service to the development.

5.2 Proposed Water System Improvements

As noted previously, the purpose of this Master Water Plan is to detail the water infrastructure needed to serve the Auction Property and provide a regional framework for the anticipated infrastructure needed for the Retained Property. The proposed water system infrastructure for serving the Auction Property is shown in Figure 3 in Appendix A. The proposed water system has been designed to function as a stand-alone system for serving the Auction Property, as well as an integrated part of the build-out water system to serve both the Auction Property and Retained Property once the area is fully developed. The conceptual water system infrastructure that will be required to serve the Retained Property at full build-out is shown in Figure 4 in Appendix A. Based on existing topography across the Site, the entire portion of the development within the AJWD service area will be served by a single pressure zone.

As shown in Figure 3 in Appendix A, the proposed water system for serving the Project is comprised of 12-inch, 16-inch, and 24-inch water distribution mains located within the arterial streets, 12-inch mains within the collector streets, and

looped 8-inch mains within the local streets within the individual parcels.

Water supply for the first phases of the Auction Property will be provided by a proposed 30-inch transmission main that will convey treated water from the AJWD SAWP facility, located north of the CAP canal and west of Ironwood Road, south to a proposed water storage and booster pumping facility (referred to herein as Water Campus 1), which is conceptually located west of Ironwood Road, between Elliot Road and Warner Road. The SAWP has a current treatment capacity of 2.0 MGD and can adequately meet current demands in the system but will need to be expanded to serve the Auction Property. This expansion will consist of the addition of treatment trains and pumping capacity at the plant to increase the plant's current capacity, with each new treatment train sized to provide an additional 2.0 MGD of treatment capacity.

Once the treatment capacity that has been allocated to the Auction Property and Retained Property from the SAWP has been reached, another source of supply will need to be developed. If limited to the current allocation of 6.0 MGD from the SAWP and none of the excess 2.0 MGD capacity is made available for use by the Auction Property, an additional supply of approximately 7.46 MGD will be required to meet the projected maximum day demand of 13.46 MGD for Development Units 1 & 2. Initially, as an interim solution, groundwater wells will be developed to supply any remaining demands needed for the Auction Property. Groundwater wells will be used on an interim basis until a future second water treatment facility (Water Treatment Facility 2) is constructed. This second facility, anticipated to be located along Ray Road, just west of the CAP canal, will supplement the SAWP and Water Campus 1 for sourcing, storing, and conveying water to the Auction Property and Retained Property and will be developed when the property along Ray Road becomes available.

AJWD is currently independent of groundwater sources and has stated an ultimate goal of continuing to use renewable resources to serve future customers. Of AJWD's total current water rights portfolio, approximately one-third of their available rights are from a groundwater allocation. Given the scale of the overall Auction Property, the development of new groundwater production wells is anticipated to be needed as an interim condition source. The approach will allow an immediate path to augment current water production to enable development of the Auction Property and to utilize the current allocation of groundwater rights. In the long term, wells may be used as an emergency potable water source to recover groundwater recharge credits. The development of a well (or series of wells, as may be needed depending on actual production) will enable water system planning to continue to plan for and site a second surface water treatment plant, which is planned to be developed once the Retained Property is developed. Additional detail and discussion are provided in Section 6.0.

The anticipated location of a future second water treatment plant is along the Ray Road alignment, near the CAP canal. This alignment is a logical location, effectively bridging the Auction Property boundary to the southern development areas of the Retained Property along the proposed regional transportation corridor. It is anticipated that Water Treatment Facility 2 will provide for supply, storage, and pumping capacities that will benefit both the Auction Property and Retained Property. Proposed infrastructure and distribution mains are identified in Figures 3-6 in Appendix A.

To meet additional future demands within the southern areas of the Retained Property area as it builds out, a third water storage/distribution facility (Water Campus 3) will be constructed. Conceptually, Water Campus 3 will be located near the intersection of the Williams Field Road and Ironwood Road alignments. Final locations and sizing for Water Treatment Facility 2 and Water Campus 3 will be determined at the time of final design.

The following sections discuss the water supply, treatment, storage, and booster pumping requirements for serving the Auction Property and Retained Property at buildout. These improvements may be phased with the phasing of development within the community to ensure each phase has adequate water service without having to construct the entire water system at the time the first parcels are developed. Pipe sizes identified in this Master Plan have been determined using demand factors that have been agreed upon by the AJWD. These factors are used for sizing infrastructure on a master-planning level. As the Site is built out, water campus, treatment, transmission main sizing, and distribution main sizing may be refined based on actual water usage.

5.3 Water Supply - Wells

While water supply for Superstition Vistas will primarily be provided by treated CAP surface water, AJWD staff has indicated that the existing wells are to provide supply redundancy for the AJWD system. Furthermore, additional water supply may be needed beyond the reserved capacity at the SAWP facility to meet the demands of the Auction Property at buildout, which will be initially provided by groundwater wells if additional surface water treatment is unavailable. Wells may be used as an interim source until the construction of Water Treatment Facility 2 is completed with the Retained Property. In the long term, these interim wells are to be used during emergency scenarios or while the CAP canal undergoes maintenance, which results in dry-ups every 2 to 3 years. These dry-ups can typically range from at least one week to a month in duration. A hydrogeological analysis has not yet been completed for the Site to determine preferred well locations, flow rates, and water quality, but is proposed to identify potential well locations. Once a hydrogeologic study is completed, an anticipated well capacity can be determined. If one or more wells are constructed within the Auction Property, transmission mains will also be installed to convey water from the wells to Water Campus 1, where the raw water will be treated, stored, and pumped out to distribution. The specific treatment required for the groundwater will depend on the contaminant levels identified during groundwater sampling as the wells are developed. The final locations and number of future wells will be determined as the Auction Property is built-out. It is anticipated that a future well site will be proposed near a future irrigation lake in DU 2 to fill the lake during interim conditions.

As discussed in Section 5.2, additional water supply from groundwater wells may be required to meet the maximum day demands of the Auction Property at buildout until the future Water Treatment Facility 2 is developed. The Auction Property will require up to 7.46 MGD (5,183 gpm if pumping 24 hours per day) to meet the Auction Property's maximum day demand at buildout. If used, groundwater wells may be proposed at Water Campus 1, Water Treatment Facility 2, and potentially at the proposed lake site within Development Unit 2, as well as at other locations within the

Project as identified by a well siting study. Water from the wells would be routed to Water Campus 1 for treatment, storage, and pumping to distribution. The demand used to determine required well capacity assumes that all irrigation demands will be provided by the potable water system. Demand and required well capacity may be reduced if the non-potable water system offsets irrigation demands in DU 2, 3, 5, 6, and 1 (north of Warner Road).

5.4 Treatment & Transmission Main

The initial water supply for the Auction Property will be from the AJWD SAWP facility, located west of Ironwood Road on the north side of the CAP canal. The existing facility has a constructed capacity of 2.0 MGD, with potential to expand in 2.0 MGD increments up to a total capacity of 10.0 MGD at buildout. To meet demands as the Auction Property area develops, the SAWP facility will need to be expanded. Once the Retained Property develops, Water Treatment Facility 2 will be constructed along the CAP canal near Ray Road (for surface water supply and treatment)). If groundwater wells are used to supplement the surface water supply or to provide system redundancy, groundwater treatment will be needed. The type of treatment needed will depend on final water quality results as the wells are drilled and tested. It is anticipated that Water Campus 1 will contain groundwater treatment.

To provide the initial supply for the Auction Property, a 30-inch transmission main will be constructed along Ironwood Road and will convey treated surface water from the SAWP facility south to Water Campus 1 located along Ironwood Road between Elliot Road and Warner Road. This 30-inch transmission main is anticipated to convey 6.0 MGD at a velocity of 1.89 fps. The main is also sufficiently sized to convey 8.0 MGD if available from the SAWP facility, for a velocity of 2.52 fps. Transmission main calculations are provided in Table B.2 in Appendix B. The 30-inch transmission main within Ironwood Road will extend to the south to the intersection of Ray Road and Ironwood Road.

As the Retained Property develops, the capacity at Water Treatment Facility 2 will increase and ultimately, a future transmission main will be constructed to convey water to the proposed Water Campus 3 to serve the southern portion of the Retained Property at buildout. Based on preliminary sizing, it is anticipated that a 36-inch transmission main will be developed to convey a flow of approximately 15.36 MGD of treated water from Water Treatment Facility 2 to the intersection of Ray Road and Ironwood Road at build-out. Conceptually, this 36-inch transmission main will extend from Water Treatment Facility 2 west along Ray Road, then south as a 30-inch transmission main along Ironwood Road to the proposed Water Campus 3 site. The final alignment and sizing for this future transmission main will depend on the location of Water Campus 3 and other factors. In addition, demand calculations used to size this transmission main assume that irrigation demands for all DUs will be supplied by the proposed potable water system. Demand and transmission main sizing may be reduced if the non-potable water system offsets irrigation demands in DUs 2, 3, 5, 6, and a portion of 1. Preliminary sizing calculations for this future transmission main are included in Table B.2 in Appendix B and may be refined as the Retained Property area develops.

Rights-of-way are available for the offsite transmission main alignment along Ironwood Road. Additional rights-of-way may be required in areas so that all utilities

can fit. If additional easements or rights-of-way are required, they will need to be acquired from State Land for the offsite transmission mains and for Water Treatment Facility 2, should those facilities be located outside the Auction Property area. An easement will be required along Ironwood Road north of the Auction Property to allow for the installation of the 30-inch transmission main between the SAWP and the Project. Other required easements or rights-of-way may include those for future water campus locations and distribution/transmission main alignments.

The proposed distribution and transmission mains will be located in standard alignments throughout the overall Site. Where reasonable, water and sewer mains will be installed on opposite sides of the roadway, and will consider other wet and dry utilities. There may be instances where non-standard alignments may be needed to reflect development timing and sequencing. The exact locations and alignments of water and sewer infrastructure within each alignment will be determined during future reports.

5.5 Storage

The criteria agreed upon by the AJWD requires sufficient storage to be provided to meet 40 percent of the maximum day demand plus fire flow. Table 5 below summarizes the storage capacity needed to serve Superstition Vistas at various phases of development. It is anticipated that this total storage requirement for the Auction Property at build-out will be provided at Water Campus 1 (6.4 MG). Water Campus 1 will need to be sized to potentially contain all 6.4 MG of storage needed to serve the Auction Property. If the area of Retained Property for Water Treatment Facility 2 is acquired, then storage can be installed at Water Treatment Facility 2 to serve the Auction Property. However, Water Campus 1 will still be required to be sized for all 6.4 MG of storage.

At full build-out, the Auction Property and Retained Property will require a total of 17.0 MG of storage capacity for the portions of the community in the AJWD service area. Conceptual sizing to meet this build-out storage capacity is shown in Table B.3 in Appendix B and includes 6.4 MG of storage at Water Campus 1, 4.7 MG of storage at Water Treatment Facility 2, and 5.9 MG of storage at Water Campus 3. As each phase of the Site is developed, actual water usage should be monitored and the storage requirement be refined based on actual water usage to minimize the potential for oversized water facilities. These storage requirements assume that irrigation demands will be supplied by the proposed potable water system. It is anticipated that a non-potable water system will supply irrigation demands for DUs 2, 3, 5, 6, and a portion of 1. Therefore, storage requirements for the Auction Property may be reduced. Storage capacity calculations for Superstition Vistas are provided in Table B.3 in Appendix B and required storage at buildout is summarized in Table 5 below.

Table 5: Storage Capacity Summary		
Total Required Storage at Build-Out (gpm)		
Auction Property (Build-Out)	AJWD Service Area (Auction Property & Retained Property)	Entire Site[1]
6.4 MG	17.0 MG	18.6 MG
Notes: 1. Entire Site includes AJWD service area and current Arizona Water Company service area.		

5.6 Booster Pumps

The design criteria agreed upon by the AJWD indicate that sufficient booster pumping capacity shall be provided to meet the greater of the maximum day demand plus fire flow demand or the peak hour demand with the largest pump out of service. A booster pump station is proposed at Water Campus 1 to meet the Auction Property's booster pumping requirement of 15,331 gpm. Table 6 below shows the total pumping capacity required for the Auction Property at buildout, and for the Auction Property and Retained Property areas within AJWD's service area at buildout. Detailed pump capacity calculations are provided in Table B.4 in Appendix B. As the Project is built out, it is anticipated that the buildout pumping capacity requirement will be met by the combined capacities of pumps at Water Campus 1. At buildout of the Auction Property and Retained Property, the pumping capacity will be provided by a combination of pumping capacities at Water Campus 1, Water Treatment Facility 2, and Water Campus 3. These booster pumping requirements assume that irrigation demands will be supplied by the proposed potable water system. It is anticipated that a non-potable water system will supply irrigation demands for DUs 2, 3, 5, 6, and a portion of 1. Therefore, booster pumping requirements for the Auction Property may be reduced.

Table 6: Booster Pump Summary		
Required Pumping Capacity (gpm)		
Auction Property (Build-Out)[1]	AJWD Service Area (Auction Property & Retained Property)[1]	All of Site[1, 2]
15,331	40,154	44,428
Notes: 1. Peak hour demand is controlling scenario. 2. Total area includes AJWD service area and current Arizona Water Company service area within the Site.		

5.7 Water Improvements Phasing

It is anticipated that Auction Property and Retained Property will be developed in several phases, with the initial phase anticipated to be within Development Unit 1 & Development Unit 2. The water mains, wells, treatment, storage, and pumping facilities required to serve each phase will similarly be constructed in phases as required to serve each phase of development. For any given phase, the offsite water infrastructure required to serve that phase will be constructed at the same time the phase is developed. Furthermore, the water mains that are installed will be sized for build-out conditions and will meet the required fire flows for the area that is

developed.

The size and scale of the Auction Property and Retained Property are such that individual unit or parcel reports will be prepared as each unit or parcel is developed to confirm the intensity and land use as the basis for final water demands, and to substantiate the scope of water infrastructure needed for the given unit or parcel. Infrastructure sizing will be phased and expanded over time to meet the demands within the Site area as it develops. It is also anticipated that storage and pumping capacity at Water Campus 1 will be expanded in phases as the SAWP capacity increases. Phasing will similarly apply to storage, treatment, and pumping facilities.

Residential dwelling units within the Auction Property are anticipated to be developed in phases, with an estimated combined 2,350 homes to be constructed in Development Units 1 & 2 by the end of 2023. Table 7 below summarizes an anticipated development schedule for the Auction Property. Table 7 assumes that irrigation demands within the Auction Property are fully offset by a non-potable water system. Detailed development schedules for the Auction Parcel are also provided in Tables B.8.1 and B.8.2 in Appendix B. Table B.8.1 summarizes a development schedule with the assumption that irrigation demands are offset by the non-potable water system and Table B.8.2 summarizes a development schedule with the assumption that irrigation demands within the Auction Property are to be supplied by the potable water system.

Table 7: Auction Property Development Schedule

Year	Construction Activity	Source
2021	Begin grading / infrastructure improvements	SAWP
2022	Infrastructure construction / begin home construction	SAWP
2023	2,350 homes	SAWP (2.6 MGD Max Day)
2024	3,805 homes	SAWP (4.2 MGD Max Day)
2025	5,165 homes	SAWP (5.7 MGD Max Day)
2026	6,880 homes, 20.5 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (1.7 MGD Max Day)
2027	8,450 homes, 20.5 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (3.5 MGD Max Day)
2028	9.580 homes, 30 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (4.8 MGD Max Day)
2029	10,080 homes, 30 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (5.3 MGD Max Day)
2030	10,545 homes, 35 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (5.8 MGD Max Day)
2031	10,940 homes, 40 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (6.3 MGD Max Day)

Notes:
1. This table does not include irrigation demands for the Auction Property.
2. Construction Activity totals are cumulative.
3. Detailed calculations and development schedule assumptions are provided in Tables B.8.1 and B.8.2 in Appendix B.

5.8 Assured Water Supply & Water Rights

The AJWD ("Apache Junction Water Company", DWR 86-002025.0001) is included in the Arizona Department of Water Resources (ADWR) *List of Municipal Water Providers Designated as having an Assured or Adequate Water Supply as of February, 19, 2020*. The current designation of assured water supply from ADWR and a summary of water rights is included in Appendix D for reference. Although the AJWD is included on the current list of designated providers, additional water supply and water rights will be required to serve the Auction Property and Retained Property at build-out.

The AJWD 2019 paper water portfolio includes a variety of sources that equate to approximately 7,393 acre-ft/year. These sources and their associated volumes are summarized in Table 8 below and were provided by AJWD staff.

Table 8: AJWD 2019 Paper Water Portfolio Summary

AJWD Paper Water Rights	
Source	**Value (acre-ft/year)**
CAP	2,919
Gila River Indian Community (GRIC) Lease	1,000
Non-Indian Agriculture (NIA)	817
Groundwater	2,372
Long-Term Storage Credits (LTSC)	285
Total:	**7,393**

Per discussions with AJWD staff, the AJWD currently has 1,919 acre-ft/year of committed water and 2,893 acre-ft/year of water rights reserved for existing and future customers within the AJWD service area. Additionally, the AJWD has issued Commitment to Serve letters for three other individual communities within AJWD's service area, with a commitment of 350 acre-ft/year to serve 564 lots. As of mid-2020, the existing customers in the AJWD use 2,400 acre-ft/year. AJWD has indicated that they are currently working on acquiring additional water rights to meet the demands of the Auction Property and Retained Property. AJWD currently has enough paper water rights to get the Auction Property started, however, it is anticipated that additional water rights will be acquired in the future. Table 9 below summarizes the AJWD 2020 water use and the volume of water ordered for 2021.

Table 9: AJWD Water Use & Water Ordered

Source	2020 Water Use (acre-ft/year)	2021 Water Ordered (acre-ft/year)
SAWP	1,485	1,545
Mesa Water Interconnect	15	24
Groundwater Storage Facility (GSF)	900	1,000
Total:	**2,400**	**2,569**

The demand criteria utilized in this master plan incorporate components needed to account for potable water consumption for both domestic and fire protection needs and infrastructure sizing. While this is typical for municipal providers, it should be noted that the criteria utilized herein is more conservative than other more established municipal providers. An important distinction is that these demand criteria do not necessarily correlate to actual water rights needed to continue to support the District designation boundary. As the Site develops, actual demands should be monitored in concert with annual reporting requirements, and amended as needed. This should be done to appropriately size the needed infrastructure and establish additional water rights as needed for the District.

5.9 Wet Water Availability

The SAWP currently operates at approximately 1.5 MGD and has a current capacity of 2.0 MGD. The plant has a planned future buildout capacity of 10.0 MGD. Based on initial discussions with AJWD, a total of 6.0 MGD of the buildout capacity is allocated for the Auction Property and Retained Property, and an additional 2.0 MGD of capacity at buildout is available for general development in the City. Once the Auction Property's demands reach the allocated capacity at the SAWP (6.0 MGD plus any portion of the 2.0 MGD of excess capacity that the City allocates to the Auction Property in the future), additional wet water supply will need to be developed to meet the projected demands of the Auction Property and the Retained Property. However, it may be possible for additional water to be supplied by the SAWP, based on timing of development and availability. To minimize the volume of treated water needed to serve the Auction Property and Retained Property, the projected irrigation demands in DU 2, 3, 5, 6, and a portion of 1 may be served by reclaimed water from the Guadalupe Wastewater Treatment facility that is operated by the Superstition Mountains Community Facilities District No. 1 (SMCFD).

6.0 ADDITIONAL GROUNDWATER SUPPLY

6.1 Groundwater Wells

As discussed earlier in this Master Plan, once the Auction Property's maximum day demand reaches the allocated supply available from the SAWP, additional water supply and treatment facilities will need to be developed. A future second surface water sourcing facility and water campus (Water Treatment Facility 2) are preliminarily planned along the Ray Road alignment near the CAP canal as a part of the Retained Area development. However, water supply may be provided in the interim by drilling and equipping one or more wells within the Auction Property area. Wells would be located as identified in a future well siting study and would convey water through transmission mains to Water Campus 1 for treatment, storage, and distribution. Treatment requirements for the groundwater will be determined once the wells are drilled and tested.

Assuming 6.0 MGD would be distributed by Water Campus 1, the wells would need to supply the Auction Property's remaining buildout maximum day demand of 7.46 MGD (5,183 gpm). Well capacity calculations to meet this demand are provided in Table B.7 in Appendix B. As shown, when pumping 24 hours per day, the wells would need a capacity of 5,183 gpm. When pumping 18 hours per day, the wells would need a

capacity of 6,911 gpm. As the area develops and actual demands are known, the required well capacity may be revisited and updated to better reflect the actual maximum day demand.

7.0 ONE WATER & SUSTAINABILITY GOALS

As the Auction Property and Retained Property areas develop, the One Water and/or other sustainability goals of the City, the AJWD, the SMCFD, and other Project stakeholders will be considered in an effort to effectively manage the available water resources for the community and surrounding areas. Opportunities to offset potable water use may include an integrated approach to water supply by using one or more sources such as potable water, non-potable reuse, potable reuse, wastewater, stormwater, and others. AJWD is currently under contract with a consultant to further develop One Water goals. Further discussions will be held with the Project stakeholders as the Auction Property and Retained Property areas develop to optimize water management considerations and solutions.

7.1 Direct & Indirect Potable Reuse

It is a goal of AJWD to implement direct and indirect potable water reuse (DPR & IPR) into its water system capabilities to conserve water and support One Water goals. As the Superstition Vistas development progresses, this system will be evaluated further to determine the feasibility of DPR & IPR capabilities.

8.0 HYDRAULIC MODEL AND RESULTS

8.1 Design Methodology

The proposed conceptual water system for Superstition Vistas was modeled using WaterCAD Connect Edition by Bentley Systems, Inc. Two models were prepared for this evaluation. The first represents the Auction Property at buildout (see Figure 3 in Appendix A). The second model represents the Site (i.e., both the Auction Property and Retained Property) at buildout (see Figure 4 in Appendix A). Both models include Water Campus 1. The model for the Site at buildout also includes Water Treatment Facility 2 and Water Campus 3 for improved distribution within the Retained Property area. The Arizona Water Company (AWC) service area in Sections 6 and 7 of the Retained Property are also modeled in the second model with a separate reservoir and distribution piping from that used for the AJWD service area. The model results for the AWC service area are included only for reference. Model scenarios utilized demands with the assumption that irrigation demands would be supplied by the potable water system, as shown in Table 3 and Table B.1.1 in Appendix B, to simulate conservative demand factors.

Each model includes five scenarios: average day, maximum day, peak hour, residual fire flow during maximum day conditions, and available fire flow during maximum day conditions. A residual fire flow analysis applies the applicable fire flow to each corresponding junction in the system to confirm the system's ability to meet the minimum pressure and maximum velocity requirements while providing the required

fire flow during maximum day conditions. The available fire flow analysis estimates the maximum flow available at each junction while maintaining the minimum allowable residual pressure throughout the proposed system during maximum day conditions.

8.2 Auction Property Model

The proposed conceptual water system layout for the Auction Property at buildout is shown in Figure 3 of Appendix A. The hydraulic model uses one reservoir, R-1, to represent Water Campus 1. The static head reservoir for R-1 is set to a hydraulic grade line (HGL) of 1,710-feet to provide the appropriate minimum pressure as required by the AJWD (50 psi) during peak hour conditions.

Junctions are distributed along arterial and collector streets throughout the Auction Property based on conceptual land use plans and the demands for Development Units 1 & 2 were distributed to provide an accurate representation of anticipated pressures and flows throughout the modeled system. Irrigation demands were distributed evenly among the 12-inch mains in the collectors. Residential and irrigation demands were also applied to junctions J-39, J-46, and J-53. A fire flow requirement of 4,000 gpm is applied to junctions within arterial streets. Generally, water mains within proposed arterial streets are at least 16 inches in diameter and water mains within collector streets are generally 12 inches in diameter. However, a 12-inch main is proposed along Meridian Road along the western Auction Property boundary since no development is planned to be served by AJWD west of Meridian Road. As shown in Figure 3, a few arterial streets will have 24-inch mains to keep velocities generally below 5 fps. If the non-potable water system offsets irrigation demands within the Auction Property, it is not anticipated that any 24-inch mains would be able to be reduced to 16-inch mains within the Auction Property. Internal local streets and some collectors will have 8-inch looped water mains. It is anticipated that additional 8-inch loops will be developed along the other local streets within the community as it develops. A 12-inch main extends to the south along Meridian Road from the southwest corner of the Auction Property to serve the proposed Erie Lift Station, located near the intersection of Erie Street and Meridian Road. A residential fire flow is applied to J-205 and J-ELS, since there is not anticipated to be any additional development served by this extended 12-inch main during the Auction Property's development.

Detailed hydraulic model results for the proposed water system for the Auction Property at buildout are provided in Appendix C. Table 10 below summarizes the results. As shown in Table 10, all pressures remain between 61.3 psi and 108.8 psi for the average day, maximum day, and peak hour scenarios. Velocities and head losses for all pipes generally remain below their respective maximum allowable limits (5 fps and 10 ft/1,000 ft, respectively). Two pipes have velocities that slightly exceed 5 fps during peak hour conditions. However, it is anticipated that actual demands for the system will be lower than those identified in Table B.1.1, resulting in lower velocities than are shown in the model. The fire flow analysis results show that the proposed system can adequately provide the required 1,500 gpm of fire flow to residential areas and 4,000 gpm of fire flow to commercial/industrial/school areas during maximum day conditions, while maintaining a residual pressure of at least 20 psi and a maximum velocity of less than 10 feet per second.

Table 10: Hydraulic Model Results Summary – Auction Property						
	Average Day		Maximum Day		Peak Hour	
	Value	Location	Value	Location	Value	Location
Minimum Pressure (psi)	66.3	J-15	64.7	J-15	61.3	J-15
Maximum Pressure (psi)	108.8	J-ELS	106.5	J-ELS	101.5	J-ELS
Maximum Velocity (fps)[2]	1.92	P-133	3.53	P-133	5.79	P-133
Maximum Headloss (ft/1,000 ft of pipe)	0.921	P-27	2.840	P-27	7.080	P-27
Residual Fire Flow Analysis (at Maximum Day)						
	Value	Location	Fire Flow Location and Flow			
Minimum Residual Pressure (psi)	58.4	J-15	J-15 @ 4,000 gpm			
Maximum Velocity (fps)	7.10	P-34	J-39 @ 1,500 gpm			
Available Fire Flow Analysis (at Maximum Day)						
	Value	Location				
Minimum Available Fire Flow – Residential (gpm)	2,207	J-39				
Minimum Available Fire Flow – Commercial/Industrial/School (gpm)	7,088	J-41				
Notes: 1. Full hydraulic model results can be seen in Appendix C. 2. Pipe velocity only exceeds 5 fps in two pipes during peak hour conditions. It is anticipated that actual demands will be lower and system velocities will not exceed 5 fps. 3. Any structure experiencing pressures greater than 80 psi shall have an individual PRV.						

8.3 Site Model

The proposed conceptual water system layout for the Site, including both the Auction Property and Retained Property areas, at buildout is shown in Figure 4 in Appendix A. The primary purpose of this model is to demonstrate that the infrastructure improvements proposed for the Auction Property can support the conceptual future infrastructure within the Retained Property area and to establish the primary water infrastructure network for future development in the Retained Property area. The model includes three static head reservoirs (R-1, R-2, and R-3) placed at the proposed water campus locations. These reservoirs represent Water Campus 1, Water Treatment Facility 2, and Water Campus 3, respectively. The water main alignments and sizing for the Auction Property area remain the same as shown in the Site model. In the Retained Property area, infrastructure is placed along arterial and collector streets to provide a conceptual representation of the future system at buildout.

A site plan has not yet been developed for the Retained Property area. Therefore, the demands identified for each individual Development Unit in the Retained Property area are split evenly among junctions within the given Development Unit. Commercial and industrial demands for the Retained Property are distributed along adjacent arterial streets for Development Units 3 through 8 and the static head reservoirs are set to an HGL of 1,710-feet. Flow control valves are set at reservoirs R-2 and R-3 to limit flows to the peak hour pumping capacities of Water Treatment Facility 2 and Water Campus 3; 10,410 gpm and 14,413 MGD, respectively. These flows are representative of the conceptual pumping capacities that will be at Water Treatment Facility 2 and Water Campus 3. A fourth reservoir is placed near the intersection of

Baseline Road and Meridian Road to simulate a separate water source for the AWC service area. This reservoir is set to an HGL of 1,720-feet to produce sufficient pressures for the AWC service area.

As shown in Table 11, all pressures throughout the modeled area remain between 57.4 psi and 110.5 psi for the average day, maximum day, and peak hour scenarios. Velocities and head losses for all pipes generally remain below their respective maximum allowable limits, with only one pipe having a velocity that slightly exceeds 5 fps during peak hour conditions. However, it is anticipated that actual demands for the system will be lower than those identified in Table B.1.1, resulting in lower velocities than are shown in the model. In addition, if the non-potable system offsets irrigation demands within the Retained Property, it is anticipated that some downsizing of certain 24-inch mains may be possible within the arterial streets of the Retained Property. The fire flow analysis results show that the proposed system can adequately provide the required 1,500 gpm of fire flow to residential areas and 4,000 gpm of fire flow to commercial/industrial areas during maximum day conditions, while maintaining a residual pressure of at least 20 psi and a maximum velocity of less than 10 feet per second.

Table 11: Hydraulic Model Results Summary– Site

	Average Day		Maximum Day		Peak Hour	
	Value	Location	Value	Location	Value	Location
Minimum Pressure (psi)	63.0	J-223	62.2	J-223	57.4	J-223
Maximum Pressure (psi)	110.5	J-204	109.4	J-204	103.5	J-204
Maximum Velocity (fps)	1.40	P-134	2.56	P-134	5.24	P-133
Maximum Headloss (ft/1,000 ft of pipe)	0.720	P-27	2.222	P-27	6.545	P-27
Residual Fire Flow Analysis (at Maximum Day)						
	Value		Location		Fire Flow Location and Flow	
Minimum Residual Pressure (psi)	40.0		J-232		J-232 @ 4,000 gpm	
Maximum Velocity (fps)	7.58		P-240		J-219 @ 4,000 gpm	
Available Fire Flow Analysis (at Maximum Day)						
			Value		Location	
Minimum Available Fire Flow – Residential (gpm)			2,145		J-39	
Minimum Available Fire Flow – Commercial/Industrial/School (gpm)			5,458		J-219	

Notes:
1. Model results summary in Table 11 does not include results from the Arizona Water Company service area.
2. Pipe velocity only exceeds 5 fps during peak hour conditions. It is anticipated that actual demands will be lower and actual system velocities will not exceed 5 fps.
3. Any structure experiencing pressures greater than 80 psi shall have an individual PRV.
4. Full hydraulic model results can be seen in Appendix C.

9.0 CONCLUSIONS

The proposed water system discussed in this Master Water Plan will adequately serve the Superstition Vistas development. This report has determined that:

- Based on the approved AJWD demand factors, preliminary land uses, the average

day, maximum day and peak hour demands for the Auction Property are 7,312,250 gpd (5,078 gpm), 13,463,950 gpd (9,350 gpm) and 22,076,330 gpd (15,331 gpm), respectively. These demand factors assume that all irrigation demands will be supplied by the potable water system. Anticipated potable water demands may be reduced if the proposed non-potable water system offsets irrigation demands within DU 2 and a portion of DU 1.

- Based on the approved AJWD demand factors, preliminary land uses, the average day, maximum day and peak hour demands for the portions of the Site (Auction Property and Retained Property) within the AJWD service area are 19,136,153 gpd (13,289 gpm), 35,255,193 gpd (24,483 gpm) and 57,821,849 gpd (40,154 gpm), respectively. These demand factors assume that all irrigation demands will be supplied by the potable water system. Anticipated potable water demands may be reduced if the proposed non-potable water system offsets irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1.
- The demands identified within this Water Master Plan are used primarily for infrastructure and facility sizing. These demands are not intended to outline the amount of legal water rights and/or resources that will need to be obtained as the Auction Property develops into the future. It is anticipated that actual system demands will be lower than those identified within this Water Master Plan and a separate water resources analysis should be completed to determine actual water rights to be acquired for the Auction Property as the Property develops.
- The hydraulic model shows the Auction Property can be adequately served by the proposed system of 8-inch to 24-inch looped water mains. In addition, model results show that the distribution system infrastructure proposed for the Auction Property integrates well into the future system development in the Retained Property at full buildout.
- Water for the Auction Property will initially be supplied by the AJWD SAWP through a 30-inch transmission main along Ironwood Road. A future second water treatment facility is proposed as part of the Retained Property development. In the interim, groundwater wells will be used to supply the remaining demands for the Auction Property until Water Treatment Facility 2 is active. A third water campus is proposed to meet the full buildout demands within the Retained Property area.
- Superstition Vistas Retained Property is situated within a single pressure zone of Apache Junction Water District's water system. Sections 6 and 7 within the Retained Property are within the AWC service area.
- The proposed water system for Superstition Vistas is anticipated to consist of transmission mains, treatment facilities, storage facilities, booster pumping facilities, and water distribution mains.
- The proposed system can provide the required fire flow (1,500 gpm for residential areas and 4,000 for commercial/industrial/school/office areas) during maximum day conditions while maintaining a residual pressure of at least 20 psi, as required by the AJWD.
- It is anticipated that procurement of additional paper and wet water supply will be needed as the Auction Property and Retained Property develop. Potential options for obtaining additional water may include groundwater, surface water, DPR and IPR, and others.

- Groundwater wells used to supply water for the Auction Property in the interim will be used as emergency and backup water sources in the long-term.
- The intent of this Master Plan was to establish the basis for future final design as each Development Unit proceeds to development. The size and scale of both the Auction Property and Retained Property are such that individual unit or parcel water reports are to be prepared to confirm the intensity and land use as the basis for final water demands, and substantiate the scope of water infrastructure needed.
- This Master Plan may need to be amended in the future to update the various elements contained in this Plan. These amendments may range from updating the demand factors that reflect actual rates to revised locations of primary water infrastructure to corroborate with the most current District Water Master Plan at that respective time.

10.0 REFERENCES

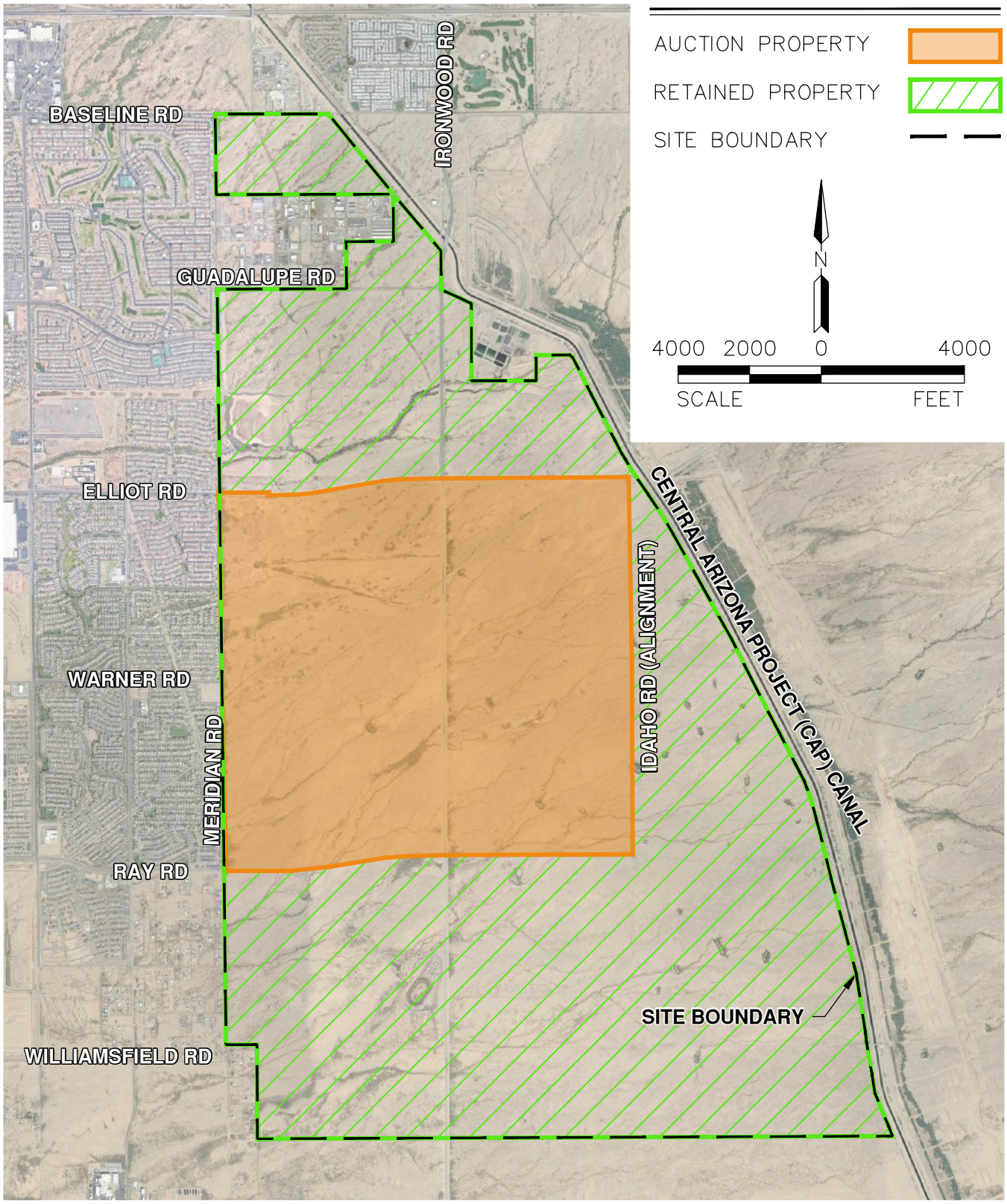
Arizona Department of Water Resources (2020). *List of Municipal Water Providers Designated as Having an Assured or Adequate Water Supply as of February 19, 2020.* February 2020, Phoenix, AZ.

Kimley-Horn & Associates, Inc. (2019). *Infrastructure Assessment Study ASLD 8500.* November 2019, Mesa, AZ.

Wood, Patel & Associates, Inc. (2021). *Master Non-Potable Water Plan for Superstition Vistas.* April 2021, Phoenix, AZ.

APPENDIX A
FIGURES

1. SUPERSTITION VISTAS VICINITY MAP
2. SUPERSTITION VISTAS DEVELOPMENT UNIT EXHIBIT
3. SUPERSTITION VISTAS WATER SYSTEM IMPROVEMENTS (AUCTION PROPERTY)
4. SUPERSTITION VISTAS WATER SYSTEM IMPROVEMENTS (SITE)



PROJ.NO.:	1635.02
DATE:	APR 2021
SCALE:	1" = 4,000'
DRAWN BY:	SL
CHECKED BY:	AT

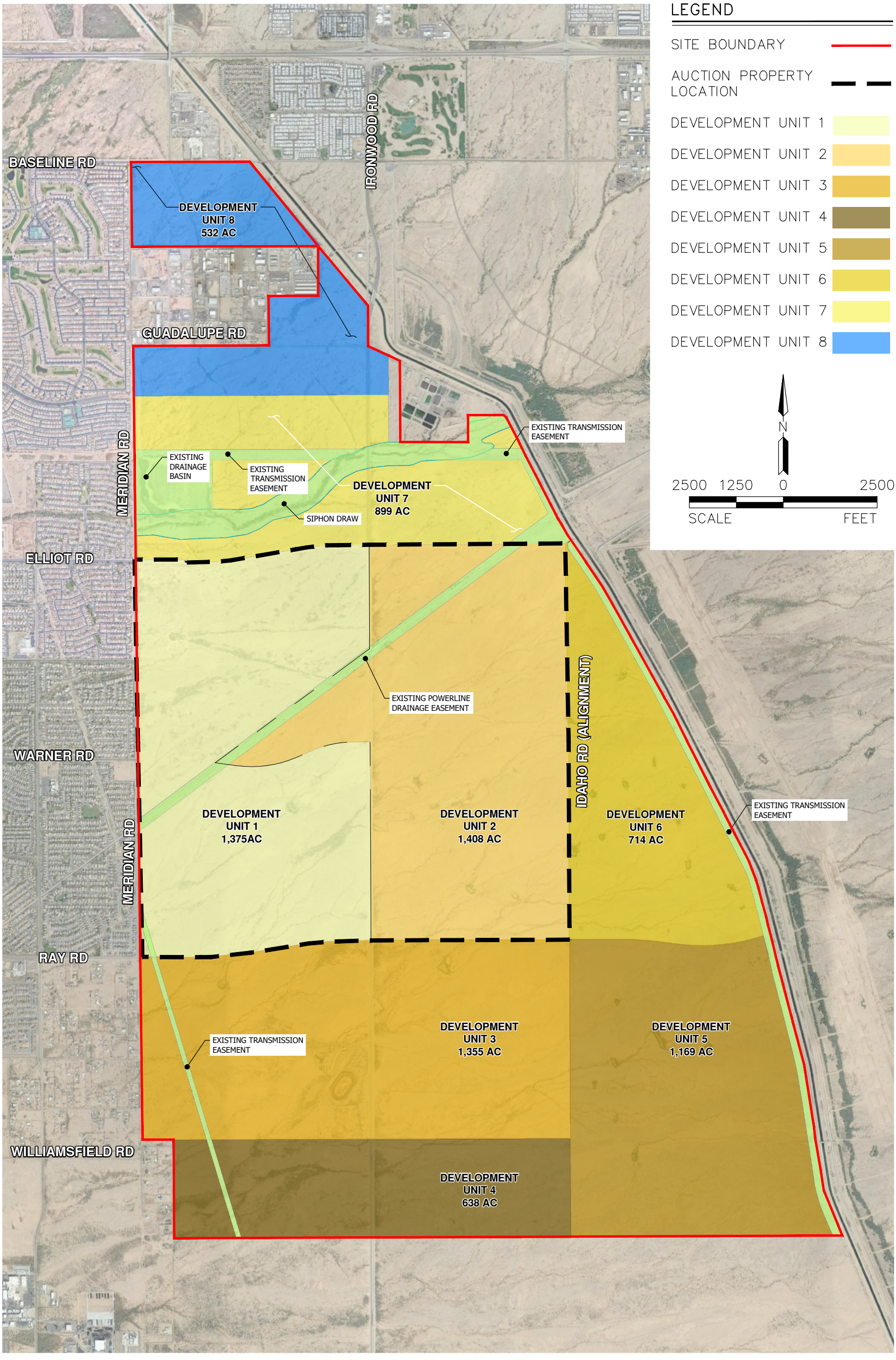
SUPERSTITION VISTAS

APACHE JUNCTION, ARIZONA

FIG 1: VICINITY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

U:\1600\1635\1635.02 DR Horton\REPORTS\DRAINAGE\Exhibit\1635 FIG 1 – Vicinity Map.dwg 4/15/2021 4:10 PM



LEGEND

- SITE BOUNDARY
- AUCTION PROPERTY LOCATION
- DEVELOPMENT UNIT 1
- DEVELOPMENT UNIT 2
- DEVELOPMENT UNIT 3
- DEVELOPMENT UNIT 4
- DEVELOPMENT UNIT 5
- DEVELOPMENT UNIT 6
- DEVELOPMENT UNIT 7
- DEVELOPMENT UNIT 8

N

2500 1250 0 2500

SCALE FEET

U:\1600\1635\1635.02 DR Horton\REPORTS\WATER\Exhibits\1635 FIG 2 - Development Unit Exhibit.dwg 4/15/2021 2:42 PM

PROJ. NO.:	1635
DATE:	APR 2021
SCALE:	1" = 2,500'
DRAWN BY:	SL
CHECKED BY:	MI

SUPERSTITION VISTAS

APACHE JUNCTION, ARIZONA

FIG 2: DEVELOPMENT UNIT EXHIBIT

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

BASELINE ROAD
IRONWOOD ROAD
IDAHO ROAD
TOMAHAWK ROAD
GUADELUPE ROAD
MERIDIAN ROAD
ELLIOT ROAD
WARNER ROAD
RAY ROAD
ERIE STREET
WILLIAMSFIELD ROAD

DEVELOPMENT UNIT 8
DEVELOPMENT UNIT 7
DEVELOPMENT UNIT 6
DEVELOPMENT UNIT 5
DEVELOPMENT UNIT 4
DEVELOPMENT UNIT 3

EXISTING SUPERSTITION AREA WATER PLANT

PROPOSED 30" TRANSMISSION MAIN

PROPOSED WATER CAMPUS 1

PROPOSED ERIE STREET LIFT STATION (ELS)

LEGEND

- AUCTION PROPERTY BOUNDARY
- SITE BOUNDARY
- AZ WATER COMPANY SERVICE AREA (WITHIN RETAINED PROPERTY)
- PROPOSED WATER MAIN
- PROPOSED TRANSMISSION MAIN
- JUNCTION
- RESERVOIR
- EXISTING SURFACE WATER TREATMENT FACILITY

PIPE DIAMETER (IN)

- = 8.0
- = 12.0
- = 16.0
- = 24.0

NOT FOR CONSTRUCTION
JULY 2021

N

1200 600 0 1200 2400
SCALE: 1" = 1200'

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HILGARTWILSON

PROJ NO.:	1635
DATE:	JUL 2021
SCALE:	1"=1,200'
DRAWN:	AP
DESIGNED:	HW
APPROVED:	KP

SHT. OF DWG. NO.

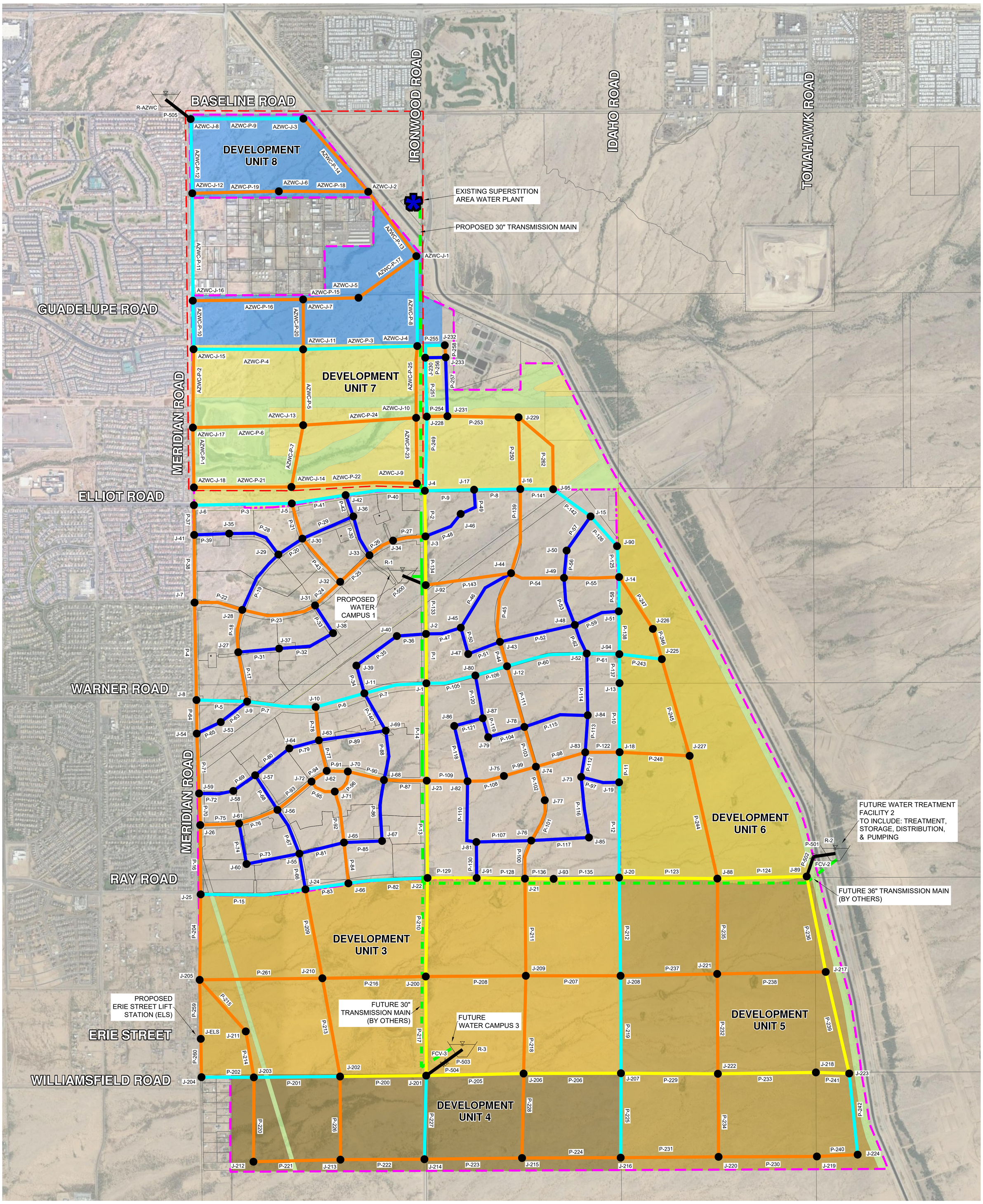
SUPERSTITION VISTAS

ELLIOT ROAD & MERIDIAN ROAD
PINAL COUNTY, ARIZONA

FIG 3: WATER SYSTEM IMPROVEMENTS – AUCTION PROPERTY

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436
www.hilgartwilson.com

REV.:



LEGEND

- AUCTION PROPERTY BOUNDARY
- SITE BOUNDARY
- AZ WATER COMPANY SERVICE AREA (WITHIN RETAINED PROPERTY)
- PROPOSED WATER MAIN
- PROPOSED TRANSMISSION MAIN
- FUTURE TRANSMISSION MAIN (BY OTHERS)
- JUNCTION
- RESERVOIR
- EXISTING SURFACE WATER TREATMENT FACILITY

PIPE DIAMETER (IN)

- = 8.0
- = 12.0
- = 16.0
- = 24.0

NOT FOR CONSTRUCTION
JULY 2021

N

1200 600 0 1200 2400

SCALE: 1" = 1200'

HILGARTWILSON

PROJ NO.:	1635
DATE:	JUL 2021
SCALE:	1"=1,200'
DRAWN:	AP
DESIGNED:	HW
APPROVED:	KP

SHT. OF DWG. NO.

SUPERSTITION VISTAS

ELLIOT ROAD & MERIDIAN ROAD
PINAL COUNTY, ARIZONA

FIG 4: WATER SYSTEM IMPROVEMENTS – SITE

REV.:

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ENGINEER | PLAN | SURVEY | MANAGE
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436
www.hilgartwilson.com

APPENDIX B
SUPERSTITION VISTAS WATER SYSTEM CALCULATIONS & TABLES

TABLE B.1.1: SUPERSTITION VISTAS WATER DEMAND CALCULATIONS
TABLE B.1.2: SUPERSTITION VISTAS WATER DEMAND CALCULATIONS (OFFSET IRRIGATION)
TABLE B.2: SUPERSTITION VISTAS TRANSMISSION MAIN SIZING CALCULATIONS
TABLE B.3: SUPERSTITION VISTAS STORAGE REQUIREMENT CALCULATIONS
TABLE B.4: SUPERSTITION VISTAS BOOSTER PUMP CALCULATIONS
TABLE B.5: SUPERSTITION VISTAS OVERALL PROPERTY DENSITY ALLOCATION
TABLE B.6: AJWD WATER SYSTEM DESIGN CRITERIA
TABLE B.7: WELL CAPACITY CALCULATIONS
TABLE B.8.1: AUCTION PROPERTY DEVELOPMENT SCHEDULE (NO IRRIGATION)
TABLE B.8.2: AUCTION PROPERTY DEVELOPMENT SCHEDULE (INCLUDING IRRIGATION)

Table B.1.1 - Water Demand Calculations

Superstition Vistas

Pinal County, Arizona

April 2021

Development Unit	Gross Area (ac)	Neighborhood Open Space (ac)	Commercial Area (ac)	Industrial Area (ac)	School (ac)	Community Open Space (ac)	SFR (Medium Density) (DU)	Xeriscape/Turf Demand[7]		Average Day Demand		Maximum Day Demand		Peak Hour Demand	
								(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)
Apache Junction Water District Service Area															
1	1,375	138	20	0	0	83	5,470	603,350	419	3,679,200	2,555	6,755,050	4,691	11,061,240	7,681
2	1,408	135	20	0	0	70	5,470	555,200	386	3,631,050	2,522	6,706,900	4,658	11,013,090	7,648
Erie Lift Station	-	-	-	-	-	-	-	-	-	2,000	1.4	2,000	1.4	2,000	1.4
Development Unit 1 & 2 Subtotal:	**2,783**	**273**	**40**	**0**	**0**	**153**	**10,940**	**1,158,550**	**805**	**7,312,250**	**5,078**	**13,463,950**	**9,350**	**22,076,330**	**15,331**
3	1,355	136	0	0	60	81	6,400	594,574	413	4,446,574	3,088	8,298,574	5,763	13,691,374	9,508
4	638	64	240	0	0	38	2,730	279,954	194	2,275,104	1,580	4,270,254	2,965	7,063,464	4,905
5	1,169	117	20	0	60	70	3,790	512,957	356	2,956,407	2,053	5,399,857	3,750	8,820,687	6,125
6	714	71	0	0	0	43	2,170	313,303	218	1,517,653	1,054	2,722,003	1,890	4,408,093	3,061
7 (334 acres)	334	33	41	37	0	20	498	146,559	102	578,949	402	1,011,339	702	1,616,685	1,123
8 (21 acres)	21	2	4	16	0	1	0	9,215	6	49,215	34	89,215	62	145,215	101
Retained Property (AJWD) Subtotal:	**4,231**	**423**	**305**	**53**	**120**	**254**	**15,588**	**1,856,563**	**1,289**	**11,823,903**	**8,211**	**21,791,243**	**15,133**	**35,745,519**	**24,823**
AJWD SERVICE AREA TOTAL:	***7,014***	***696***	***345***	***53***	***120***	***406***	***26,528***	***3,015,113***	***2,094***	***19,136,153***	***13,289***	***35,255,193***	***24,483***	***57,821,849***	***40,154***
Arizona Water Company Service Area															
7 (565 acres)	565	57	69	63	0	34	842	247,922	172	979,232	680	1,710,542	1,188	2,734,376	1,899
8 (511 acres)	511	51	86	384	0	31	0	224,227	156	1,164,227	808	2,104,227	1,461	3,420,227	2,375
AZWC SERVICE AREA TOTAL:	***1,076***	***108***	***155***	***447***	***0***	***65***	***842***	***472,149***	***328***	***2,143,459***	***1,489***	***3,814,769***	***2,649***	***6,154,603***	***4,274***
SITE GRAND TOTAL:	***8,090***	***803***	***500***	***500***	***120***	***471***	***27,370***	***3,487,262***	***2,422***	***21,279,612***	***14,778***	***39,069,962***	***27,132***	***63,976,452***	***44,428***

Notes:

Demand Factors (based on AJWD values):

Single-Family (Low Density, 1-2 DU/Acre):	592	gpd/DU
Single-Family (Medium Density, 2-10 DU/Acre):	555	gpd/DU
Single-Family (High Density, 10+ DU/Acre):	370	gpd/DU
Multi-Family Residential:	315.0	gpd/DU
School:	5,000	gpad
Commercial:	2,000	gpad
Industrial:	2,000	gpad
Malls/Retail:	0.5	gpd/sq. ft.
Office/Business:	2,000	gpad
Hotel/Motel:	150	gpd/room
Turf/Irrigation:	4,400	gpad
Xeriscape/Low Water Use Irrigation:	1,000	gpad

Peaking Factors:

Maximum Day	Average Day x	2.0
Peak Hour	Maximum Day x	1.7

Fire Flow:

Residential:	1,500	gpm
Commercial:	4,000	gpm
Industrial:	4,000	gpm

Notes:

1. DU 2 is anticipated contain 135 acres of Neighborhood Open Space and 70 acres of Community Open Space, according to the Developer.
2. For all Development Units (not including DU 2), 10% of gross area is assumed to be Neighborhood Open Space and 6% of gross area is assumed to be Community Open Space. Neighborhood & Community Open Space demands are not peaked as these demands are anticipated to remain constant.
3. Area for Community Open Space is assumed to be 70% Turf and 30% Xeriscape.
4. Neighborhood Open Space is assumed to be 40% Turf and 60% Xeriscape.
5. Unit demands are based on factors as agreed upon by Apache Junction Water District and are used for infrastructure sizing.
6. A commercial demand for 1 acre of 2,000 gpd (1.4 gpm) is assumed to be needed to serve the proposed Erie Lift Station (ELS), located at the southeast corner of Meridian Road and Erie Street. A peaking factor is not applied to this demand.
7. The demand table assumes that all irrigation demands will be supplied by the potable water system. It is anticipated that a non-potable water system will offset irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road). Therefore, potable water demand shown in the table above may be reduced.

Table B.1.2 - Water Demand Calculations (Offset Irrigation)

Superstition Vistas

Pinal County, Arizona

April 2021

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE

Development Unit	Gross Area (ac)	Neighborhood Open Space (ac)	Commercial Area (ac)	Industrial Area (ac)	School (ac)	Community Open Space (ac)	SFR (Medium Density) (DU)	Xeriscape/Turf Demand[7]		Average Day Demand		Maximum Day Demand		Peak Hour Demand	
								(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)
Apache Junction Water District Service Area															
1	1,375	138	20	0	0	83	5,470	354,912	246	3,430,762	2,382	6,506,612	4,518	10,812,802	7,509
2	1,408	135	20	0	0	70	5,470	0	0	3,075,850	2,136	6,151,700	4,272	10,457,890	7,262
Erie Lift Station	-	-	-	-	-	-	-	-	-	2,000	1.4	2,000	1.4	2,000	1.4
Development Unit 1 & 2 Subtotal:	**2,783**	**273**	**40**	**0**	**0**	**153**	**10,940**	**354,912**	**246**	**6,508,612**	**4,520**	**12,660,312**	**8,792**	**21,272,692**	**14,773**
3	1,355	136	0	0	60	81	6,400	0	0	3,852,000	2,675	7,704,000	5,350	13,096,800	9,095
4	638	64	240	0	0	38	2,730	279,954	194	2,275,104	1,580	4,270,254	2,965	7,063,464	4,905
5	1,169	117	20	0	60	70	3,790	0	0	2,443,450	1,697	4,886,900	3,394	8,307,730	5,769
6	714	71	0	0	0	43	2,170	0	0	1,204,350	836	2,408,700	1,673	4,094,790	2,844
7 (334 acres)	334	33	41	37	0	20	498	146,559	102	578,949	402	1,011,339	702	1,616,685	1,123
8 (21 acres)	21	2	4	16	0	1	0	9,215	6	49,215	34	89,215	62	145,215	101
Retained Property (AJWD) Subtotal:	**4,231**	**423**	**305**	**53**	**120**	**254**	**15,588**	**435,728**	**303**	**10,403,068**	**7,224**	**20,370,408**	**14,146**	**34,324,684**	**23,837**
AJWD SERVICE AREA TOTAL:	***7,014***	***696***	***345***	***53***	***120***	***406***	***26,528***	***790,640***	***549***	***16,911,680***	***11,744***	***33,030,720***	***22,938***	***55,597,376***	***38,609***
Arizona Water Company Service Area															
7 (565 acres)	565	57	69	63	0	34	842	247,922	172	979,232	680	1,710,542	1,188	2,734,376	1,899
8 (511 acres)	511	51	86	384	0	31	0	224,227	156	1,164,227	808	2,104,227	1,461	3,420,227	2,375
AZWC SERVICE AREA TOTAL:	***1,076***	***108***	***155***	***447***	***0***	***65***	***842***	***472,149***	***328***	***2,143,459***	***1,489***	***3,814,769***	***2,649***	***6,154,603***	***4,274***
SITE GRAND TOTAL:	***8,090***	***803***	***500***	***500***	***120***	***471***	***27,370***	***1,262,789***	***877***	***19,055,139***	***13,233***	***36,845,489***	***25,587***	***61,751,979***	***42,883***

Notes:

Demand Factors (based on AJWD values):

Single-Family (Low Density, 1-2 DU/Acre):	592	gpd/DU
Single-Family (Medium Density, 2-10 DU/Acre):	555	gpd/DU
Single-Family (High Density, 10+ DU/Acre):	370	gpd/DU
Multi-Family Residential:	315.0	gpd/DU
School:	5,000	gpad
Commercial:	2,000	gpad
Industrial:	2,000	gpad
Malls/Retail:	0.5	gpd/sq. ft.
Office/Business:	2,000	gpad
Hotel/Motel:	150	gpd/room
Turf/Irrigation:	4,400	gpad
Xeriscape/Low Water Use Irrigation:	1,000	gpad

Peaking Factors:

Maximum Day	Average Day x	2.0
Peak Hour	Maximum Day x	1.7

Fire Flow:

Residential:	1,500	gpm
Commercial:	4,000	gpm
Industrial:	4,000	gpm

Notes:

1. DU 2 is anticipated contain 135 acres of Neighborhood Open Space and 70 acres of Community Open Space, according to the Developer.
2. For all Development Units (not including DU 2), 10% of gross area is assumed to be Neighborhood Open Space and 6% of gross area is assumed to be Community Open Space. Neighborhood Open Space demands are not peaked as these demands are anticipated to remain constant.
3. Area for Community Open Space is assumed to be 70% Turf and 30% Xeriscape.
4. Neighborhood Open Space is assumed to be 40% Turf and 60% Xeriscape.
5. Unit demands are based on factors as agreed upon by Apache Junction Water District and are used for infrastructure sizing.
6. A commercial demand for 1 acre of 2,000 gpd (1.4 gpm) is assumed to be needed to serve the proposed Erie Lift Station (ELS), located at the southeast corner of Meridian Road and Erie Street. A peaking factor is not applied to this demand.
7. The demand table assumes that all irrigation demands in DU 4, 7, 8, and a portion of DU 1 (south of Warner Road) will be supplied by the potable water system. This table assumes that a non-potable water system will fully offset irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road). For calculation purposes, approximately 41% of DU 1's irrigation demand is assumed to be offset by the non-potable system.

Table B.2 - Transmission Main Sizing Calculations

Superstition Vistas

Pinal County, Arizona

July 2021

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE

AJWD SAWP Facility to Water Campus 1 (2 MGD)		
Diameter	30	in
Flowrate	1,389	gpd (2 MGD)
Velocity	0.63	fps
Headloss	0.062	ft/1,000 ft

AJWD SAWP Facility to Water Campus 1 (4 MGD)		
Diameter	30	in
Flowrate	2,778	gpm (4 MGD)
Velocity	1.26	fps
Headloss	0.225	ft/1000 ft

AJWD SAWP Facility to Water Campus 1 (6 MGD)		
Diameter	30	in
Flowrate	4,167	gpm (6 MGD)
Velocity	1.89	fps
Headloss	0.477	ft/1000 ft

Water Treatment Facility 2 to Ironwood Road & Ray Road (15.36 MGD)		
Diameter	36	in
Flowrate	10,669	gpm (15.36 MGD)
Velocity	3.36	fps
Headloss	1.119	ft/1000 ft

AJWD SAWP Facility to Water Campus 1 (8 MGD)		
Diameter	30	in
Flowrate	5,556	gpm (6 MGD)
Velocity	2.52	fps
Headloss	0.812	ft/1000 ft

Ironwood Road & Ray Road to Water Campus 3 (15.36 MGD)		
Diameter	30	in
Flowrate	10,669	gpm (15.36 MGD)
Velocity	4.84	fps
Headloss	2.718	ft/1000 ft

Note:

1) Conceptual transmission pipeline sizes are based on maintaining velocities below 5 fps and headloss below 10 feet per 1,000 feet
2) 30" transmission main sized to convey 2 MGD, 4 MGD, 6 MGD, and 8 MGD as pumping capacity increases at the existing AJWD CAP facility.
3) Water Treatment Facility 2 to Ironwood Road & Ray Road, to Water Campus 3 transmission mains sized to convey maximum day demand output from Water Campus 3 for Site Build-Out conditions.
4) Demand calculations used for sizing assume that irrigation demands for DUs 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road) will be supplied by the proposed potable water system. It is anticipated that a non-potable water system will offset irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1. Therefore, demand and transmission main size from Water Campus 2 to Water Campus 3 shown in table above may be reduced.

Table B.3 - Storage Requirement Calculations

Superstition Vistas

Pinal County, Arizona

July 2021

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE

Calculated By: AP

Checked By: MI

STORAGE CAPACITY

Storage Requirements[1]:

Storage shall be sized by using the following criteria:

1) 40% of Maximum Day demand + Fire Flow

	Phase(s):	Auction Property (Build-Out)	AJWD Service Area (Auction Property & Retained Property)	All of Site[6]
Requirement 1:				
	Maximum Day Demand (gallons):	13,463,950	35,255,193	39,069,962
	40% of Maximum Day Demand (gallons):	5,385,580	14,102,077	15,627,985
	Commercial/Industrial Fire Flow (4,000 gpm for 4 hrs, gallons)[2]:	960,000	2,880,000	2,880,000
	Total Storage (gallons):	***6,345,580***	***16,982,077***	***18,507,985***
Total Storage Required:	**Storage Required:**	**6,345,580**	**16,982,077**	**18,507,985**
	Storage to be Provided:	**6,400,000**	**17,000,000**	**18,600,000**

	Phase(s):	Auction Property (Build-Out)	AJWD Service Area (Auction Property & Retained Property)
Storage by Water Campus:	**Water Campus 1:**	**6,400,000**	**6,400,000**
	Water Treatment Facility 2:	**-**	**4,700,000**
	Water Campus 3:	**-**	**5,900,000**
	Total Storage:	**6,400,000**	**17,000,000**

Notes:

1) Storage requirements based on design criteria as agreed upon by the Apache Junction Water District.

2) A commercial/industrial fire flow storage of 960,000 MG will be required at all water campuses. It is anticipated that within the AJWD service area, Water Campus 1, Water Treatment Facility 2, and Water Campus 3 will contain a combined fire flow storage of 2,880,000 gal.

3) It is anticipated that the storage at proposed Water Campus 1 will meet the minimum storage required for all of Development Unit 1 & 2. Water Campus 1 will be required to space plan for at least 6.4 MG of available storage.

4) It is anticipated that the storage at proposed Water Campus 1, Water Treatment Facility 2, and Water Campus 3 will combine to meet the minimum storage required for all of AJWD's service area (Auction Property and Retained Property). The calculations shown above assume that Water Treatment Facility 2 will account for storage needed to serve the approximate areas of DU 5 & 6 and portions of DU 7 & 8 in AJWD's service area. Water Campus 3 will account for the storage needed to serve the approximate areas of DU 3 & 4.

5) Storage to be provided is rounded up to 100,000 gallons.

6) Total Site area includes AJWD service area and current Arizona Water Company service area.

7) Storage calculations shown in table above assume that all irrigation demands will be provided by the potable water system. It is anticipated that a non-potable water system will offset irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road). Therefore demand and required storage capacity shown in table above may be reduced.

Table B.4 - Booster Pump Calculations

Superstition Vistas

Pinal County, Arizona

July 2021

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE

Calculated By: AP

Checked By: MI

PUMPING CAPACITY

Booster Pump Requirements:

Shall meet or exceed the greater of:

Peak Hour Demand OR

Maximum Day Demand + Fire Flow

	Phase(s):	Auction Property (Build-Out)	AJWD Service Area (Auction Property & Retained Property)	All of Site[1]
Peak Hour Demand:				
Peak Hour Demand (gpm):		15,331	40,154	44,428
Firm Pumping Capacity (gpm):		15,331	40,154	44,428
Maximum Day Demand + Fire Flow:				
Maximum Day Demand (gpm):		9,350	24,483	27,132
Fire Flow (gpm):		4,000	4,000	4,000
Firm Pumping Capacity (gpm):		13,350	28,483	31,132
	Firm Pumping Capacity:	**15,331**	**40,154**	**44,428**

	Phase(s):	Auction Property (Build-Out)	AJWD Service Area (Auction Property & Retained Property)
Pumping Capacity by Water Campus:	**Water Campus 1:**	**15,331**	**15,331**
	Water Treatment Facility 2:	**-**	**10,410**
	Water Campus 3:	**-**	**14,413**
	Total Firm Pumping Capacity:	**15,331**	**40,154**

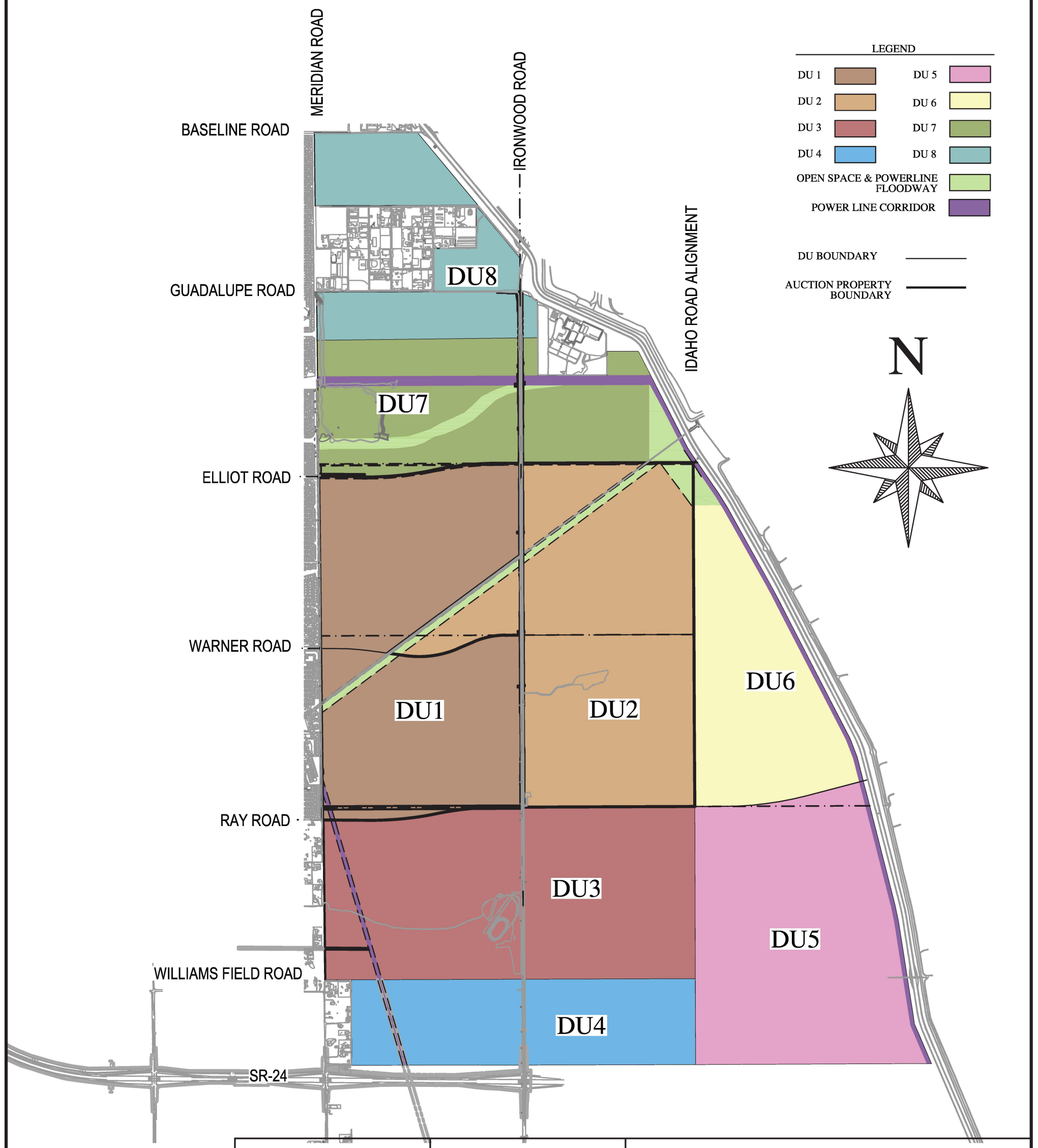
Notes:

1) Total Site area includes AJWD service area and current Arizona Water Company service area.

2) Booster pump calculations shown in table above assume that all irrigation demands will be provided by the potable water system. It is anticipated that a non-potable water system will offset irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road). Therefore demand and required booster pump capacity shown in table above may be reduced.

TABLE B.5: OVERALL PROPERTY DENSITY ALLOCATION

		Residential							Non-Residential												
Description	Gross Acreage	Acres (AC.)	Units (D.U.)	Density (D.U./AC.)	Maximum Density Transfer In (D.U.)	Units with Maximum Transfer In (D.U.)	Maxium Density Transfer Out (D.U.)	Units with Maximum Transfer Out (D.U.)	Floor Area (S.F.)	Maximum Floor Area Transfer In (S.F.)	Floor Area With Maximum Transfer In (S.F.)	Maximum Floor Area Transfer Out (S.F.)	Floor Area With Maximum Transfer Out (S.F.)	F.A.R.	Commercial/ Retail/Resturant/ Office (AC.)	Industrial (AC.)	Civic/ School (AC.)	Regional Open Space	Power Line Corridor Easement (AC.)	Powerline Floodway Channel (AC.)	Total Area Non-residential (AC.)
Development Unit 1	1375	1,335	**5,470**	**4.10**	1640	7,110	1640	3,830	221,700	66,500	288,200	66,500	155,200	0.25	20	-	-	-	3	17	40
Development Unit 2	1408	1,275	**5,470**	**4.29**	1640	7,110	1640	3,830	221,700	66,500	288,200	66,500	155,200	0.25	20	-	-	36	-	77	133
Development Unit 3	1355	1,280	**6,400**	**5.00**	1920	8,320	1920	4,480	-	-	-	-	-	-	-	-	60		15	-	75
Development Unit 4	638	390	**2,730**	**7.00**	820	3,550	820	1,910	2,733,600	790,100	3,523,700	790,100	1,943,500	0.26	240	-	-		8	-	248
Development Unit 5	1169	1,010	**3,790**	**3.75**	1140	4,930	1140	2,650	195,300	58,600	253,900	58,600	136,700	0.22	20	-	60	52	27	-	159
Development Unit 6	714	668	**2,170**	**3.25**	650	2,820	650	1,520	-	-	-	-	-	0.00	-	-		-	33	13	46
Development Unit 7	899	520	**1,340**	**2.58**	400	1,740	400	940	2,295,600	688,700	2,984,300	688,700	1,606,900	0.25	110	100	-	53	79	37	379
Development Unit 8	532	-	-	-	810	810	-	-	4,332,100	1,299,600	5,631,700	1,299,600	3,032,500	0.20	90	400	-	42	-	-	532
Total	8,090	6,478	**27,370**	**4.28**	9,020	36,390	8,210	19,160	10,000,000	2,970,000	12,970,000	2,970,000	7,030,000		500	500	120	183	165	144	1612



NOT FOR CONSTRUCTION OR RECORDING

WOOD PATEL

SUPERSTITION VISTAS

OVERALL PROPERTY DENSITY ALLOCATION

DATE	02-26-2021	SCALE	1" = 3000'	SHEET	1 OF 1
JOB NO.	205166	DESIGN	DM	DRAWN	LL

Z:\2020\205166\Dwg\Exhibits\Overall Property Density Allocation.dwg

Table B.6 - AJWD Water System Design Criteria

Superstition Vistas
Pinal County, Arizona
March 2021

Criterion Category	Units	Eastmark	Mesa[1]	Phoenix[2]	Gilbert[3]	Buckeye[4]	Queen Creek[5]	Apache Junction[6]	HILGARTWILSON / AJWD Recommended Population Value	HILGARTWILSON / AJWD Recommended Values
RESIDENTIAL WATER DEMANDS										
Single Family (Low Density, 1-2 DU/Acre)	gpd/DU	470-490	470-490	360	550-1,600 gpad	362	200 gpcpd (3.2 Persons/DU)[A]	440 gpcpd (maximum day demand)[B]	3.2 Persons/DU	**185 gpcpd (592 gpd/DU)**
Single Family (Medium Density, 2-10 DU/Acre)	gpd/DU	254-420	254-420	360	1,450-1,790 gpad	362	-	440 gpcpd (maximum day demand)[B]	3.0 Persons/DU	**185 gpcpd (555 gpd/DU)**
Single Family (High Density, 10+ DU/Acre)	gpd/DU	154-194	154-194	360	1,370-3,100 gpad	283	125 gpcpd (3.2 Persons/DU)[A]	440 gpcpd (maximum day demand)[B]	2.0 Persons/DU	**185 gpcpd (370 gpd/DU)**
Multi-Family Residential	gpd/DU	-	-	240	-	-	110 gpcpd (2.0 Persons/DU)	-	1.7 Persons/DU	**185 gpcpd (315 gpd/DU)**
NON-RESIDENTIAL WATER DEMANDS										
Commercial	Varies	80 gpd/person	0.2 gpd/sq. ft. (retail), 0.4 gpd/sq. ft. (high rise)	0.125 gpd/sq. ft.	1,010 gpad, 1,325 gpad (regional)	130 gppd (specific use), 2,009 gpad (master planning)	1,700 gpad	240 gpcpd	30 Persons/Acre	**2,000 gpad**
Office	Varies	80 gpd/person	0.4 gpd/sq. ft.	0.115 gpd/sq. ft.	-	-	-	-	30 Persons/Acre	**2,000 gpad**
Industrial	Varies	-	1,500 gpad	0.065 gpd/sq.ft.	690 gpad	240 gppd (specific use), 2,009 gpad (master planning)	-	130 gpcpd	20 Persons/Acre	**2,000 gpad**
School	Varies	40 gpd/person[C]	60 gpd/person	25 gal/student	920-1,460 gpad	75 gal/student (no lunch/shower), 125 gal/student (with lunch/shower), 5,000 gpad (master planning)	-	75 gal/student (no lunch/shower), 125 gal/student (with lunch/shower)	200 Students & Staff/Acre (Elementary School), 100 Students & Staff/Acre (Middle/High School)	**5,000 gpad**
Malls/Retail	Varies	80 gpd/person	0.2 gpd/sq. ft.	0.125 gpd/sq. ft.	-	0.5 gal/sq. ft.	-	1.5 gal/sq. ft.	30 Persons/Acre	**0.5 gpd/sq. ft.**
Turf/Landscaping/Open Space	gpad	4,400 gpad (turf), 800 gpad (low water use landscaping)	4,400 gpad	4,374 gpad (general landscaping), 1,339 gpad (public right-of-way)	0 gpad	4,325 gpad (turf), 1,786 gpad (developed open space)	-	-	-	**4,400 gpad (turf), 1,000 gpad (developed open space)**
Hotel/Motel	gpd/room	150 gpd/room	150 gpd/room	140 gal/room (no restaurant), 200 gal/room (restaurant)	-	200 gal/room	-	200 gal/room	2.5 Persons/room	**150 gpd/room**
Tech Industrial	-	-	-	-	-	-	-	-	-	-
HYDRAULIC MODEL CRITERIA										
PEAKING FACTORS										
Maximum Day	x Ave Day Demand	2.0	2.0	-	1.55	1.8	1.8	-	-	**2.0 x Average Day Demand**
Peak Hour	x Ave Day Demand	3.0	3.0	1.7	1.8-2.4 x Maximum Day Demand	3.0	3.0	1.7	-	**1.7 x Maximum Day Demand**
MODELED FIRE HYDRANT FLOW (MINIMUMS)										
Residential	gpm	1,500	1,500 (City of Mesa Fire Code)	1,000	1,000	1,500	-	-	-	**1,500**
Commercial	gpm	4,000	3,000 (City of Mesa Fire Code)	3,000	3,500	4,000	-	-	-	**4,000 (commercial), 4,000 (industrial)**
ON-SITE HYDRAULICS										
Minimum Residual Pressure (Peak Hour)	psi	40	40	50	40	50	40	60	-	**50**
Minimum Residual Pressure (Max Day + Fire Flow)	psi	20	20	25	20	20	20	-	-	**20**
Maximum Velocity (Peak Hour Demand)	fps	5	5	5	5 (maximum day), 7 (peak hour)	5	-	5	-	**5**
Maximum Velocity (Max Day + FF)	fps	10	10	10	10	10	-	-	-	**10**
Maximum Head Loss (Peak Hour)	ft/1,000 ft	10	-	6.06 (16-in pipe), 4.66 (20-in pipe)	-	6.17 (12-in pipe), 6.06 (16-in pipe)	-	10	-	**10**
Minimum Looped Pipe Diameter	in	8	8	6	8	8	8	8	-	**8**
Pipe Material	-	-	-	-	-	-	-	Class 350 DIP	-	**DIP**
Hazen-Williams 'C' Factor	-	120	130	120	-	110 (Ductile Iron), 130 (PVC)	-	-	-	**120**
Minimum Storage Requirement	-	-	-	-	-	-	-	-	-	**40% of maximum day demand plus fire flow**
Minimum Pumping Requirement	-	-	-	-	-	-	-	-	-	**Larger of the following: maximum day demand plus fire flow, or, peak hour demand**

Notes:

In developing the Master Water Plan for Superstition Vistas, HILGARTWILSON worked with AJWD to develop highlighted water criteria for the sizing of master-planned water infrastructure.

Sources:
1) *City of Mesa Engineering & Design Standards* (2019)
2) *City of Phoenix Design Standards Manual for Water and Wastewater Systems* (2017)
3) *Town of Gilbert Public Works & Engineering Standards* (2019)
4) *City of Buckeye Engineering Design Standards* (2020)
5) *Design and Construction Standards Manual for Water, Wastewater, and Irrigation Systems for Town of Queen Creek, Arizona* (2013)
6) *Apache Junction Engineering Design Guidelines and Policies*

Abbreviations:
gpd = gallons per day
gpm = gallons per minute
DU = dwelling unit
gpad = gallons per acre per day
gpcpd = gallons per capita per day
in = inch
FF = fire flow
ft = feet
fps = feet per second
sf = square feet

Footnotes:
A) Densities for high and low density single-family residential units are not provided in the *Design and Construction Standards Manual for Water, Wastewater, and Irrigation Systems for Town of Queen Creek, Arizona* (2013).

B) The population density for less than 5 DU/acre is 3.2 persons/DU, and 2.0 persons/DU for population densities of 5 DU/acre or more.

C) Population densities of 200 persons/acre and 100 persons/acre are assumed for elementary schools and middle schools, respectively.

Table B.7 - Well Capacity Calculations

Superstition Vistas

Pinal County, Arizona

July 2021

Calculated By: AP

Checked By: MI

WELL CAPACITY

Maximum Day Demand for Auction Property: **9,350 gpm**

13,463,950 gpd

Well Requirements:

Wells shall be sized to provide capacity for the following:

1) Maximum Day Demand and;

2) Redundancy to meet Maximum Day Demand with largest well out of service.

Requirement:

Phase(s):	**Auction Property**
Maximum Day Demand (gpm)	9,350
6 MGD Demand Supplied By SAWP (gpm)	4,167
Remaining Maximum Day Demand (gpm, not including 6 MGD from SAWP):	5,183
24 Hour Firm Well Capacity Required (gpm):	5,183
18 Hour Firm Well Capacity Required (gpm):	**6,911**

Notes:

1) Wells are anticipated to run for 18 hours a day and, therefore, must provide the equivalent of a 24-hour period.

2) Well capacity shown in table above only includes maximum day demand for Auction Property, assuming that 6 MGD is already supplied by SAWP.

3) Calculations for demand shown in table above assume that all irrigation demands will be provided by the potable water system. It is anticipated that a non-potable water system will offset irrigation demands within DU 2, 3, 5, 6, and a portion of DU 1 (north of Warner Road). Therefore demand and required well capacity shown in table above may be reduced.

Table B.8.1 - Auction Property Development Schedule (No Irrigation)

Superstition Vistas

Pinal County, Arizona

July 2021

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE

Year	Construction Activity	Source	Storage Requirement	Irrigated Areas (ac)[2]		Xeriscape/Turf Demand		Average Day Demand		Maximum Day Demand		Peak Hour Demand	
			MG	Neighborhood Open Space	Community Open Space	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)
2021	Begin grading / infrastructure improvements	SAWP	-	-	-	-	-	-	-	-	-	-	-
2022	Infrastructure construction / begin home construction	SAWP	-	-	-	-	-	-	-	-	-	-	-
2023	2,350 homes	SAWP (2.6 MGD Max Day)	1.2	59	33	0	0	1,304,250	905.7	2,608,500	1,811.5	4,434,450	3,079.5
2024	3,805 homes	SAWP (4.2 MGD Max Day)	1.9	95	53	0	0	2,111,775	1,466.5	4,223,550	2,933.0	7,180,035	4,986.1
2025	5,165 homes	SAWP (5.7 MGD Max Day)	2.5	129	72	0	0	2,866,575	1,990.7	5,733,150	3,981.4	9,746,355	6,768.3
2026	6,880 homes, 20.5 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (1.7 MGD Max Day)	4.0	171	96	0	0	3,859,400	2,680.1	7,718,800	5,360.3	13,121,960	9,112.5
2027	8,450 homes, 20.5 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (3.5 MGD Max Day)	4.7	210	118	0	0	4,730,750	3,285.2	9,461,500	6,570.5	16,084,550	11,169.8
2028	9,580 homes, 30 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (4.8 MGD Max Day)	5.3	239	134	0	0	5,376,900	3,734.0	10,753,800	7,467.9	18,281,460	12,695.5
2029	10,080 homes, 30 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (5.3 MGD Max Day)	5.5	251	141	0	0	5,654,400	3,926.7	11,308,800	7,853.3	19,224,960	13,350.7
2030	10,545 homes, 35 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (5.8 MGD Max Day)	5.7	263	147	0	0	5,922,475	4,112.8	11,844,950	8,225.7	20,136,415	13,983.6
2031	10,940 homes, 40 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (6.3 MGD Max Day)	5.9	273	153	0	0	6,151,700	4,272.0	12,303,400	8,544.0	20,915,780	14,524.8

Notes:

1) Unit demands are based on factors as agreed upon by Apache Junction Water District and are used for infrastructure sizing.
2) Neighborhood Open Space and Community Open Space scaled by number of residential units.
3) Neighborhood Open Space is assumed to be 40% Turf and 60% Xeriscape.
4) Community Open Space is assumed to be 70% Turf and 30% Xeriscape.
5) Average Day, Maximum Day, and Peak Hour demands shown in table above do not include irrigation demands.
6) Total demands listed in table above do not include 2,000 gpd demand for Erie Lift Station.
7) The table above assumes that irrigation demands within the Auction Property will be supplied by the non-potable water system.
8) The table above assumes that 6.0 MGD would be available for the Auction Property from the SAWP. Additional water supply from the SAWP may be available for the Auction Property.
9) Construction Activity totals are cumulative.

Demand Factors:

Single-Family (Medium Density) Residential:	555 gpd/DU
Commercial:	2,000 gpad
Turf/Irrigation:	4,400 gpad
Xeriscape/Low Water Use Irrigation:	1,000 gpad

Peaking Factors:

Maximum Day Demand:	2 x Average Day Demand
Peak Hour Demand:	1.7 x Maximum Day Demand

Abbreviations:

SAWP: Superstition Area Water Plant

Table B.8.2 - Auction Property Development Schedule (Including Irrigation)

Superstition Vistas

Pinal County, Arizona

July 2021

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE

Year	Construction Activity	Source	Storage Requirement	Irrigated Areas (ac)[2]		Xeriscape/Turf Demand		Average Day Demand		Maximum Day Demand		Peak Hour Demand	
			MG	Neighborhood Open Space	Community Open Space	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)
2021	Begin grading / infrastructure improvements	SAWP	-	-	-	-	-	-	-	-	-	-	-
2022	Infrastructure construction / begin home construction	SAWP	-	-	-	-	-	-	-	-	-	-	-
2023	2,350 homes	SAWP (2.9 MGD Max Day)	1.3	59	33	248,866	173	1,553,116	1,078.6	2,857,366	1,984.3	4,683,316	3,252.3
2024	3,805 homes	SAWP (4.6 MGD Max Day)	2.0	95	53	402,951	280	2,514,726	1,746.3	4,626,501	3,212.8	7,582,986	5,266.0
2025	5,165 homes	SAWP (6.0 MGD Max Day), Well(s) (0.3 MGD Max Day)	2.7	129	72	546,975	380	3,413,550	2,370.5	6,280,125	4,361.2	10,293,330	7,148.1
2026	6,880 homes, 20.5 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (2.4 MGD Max Day)	4.3	171	96	728,595	506	4,587,995	3,186.1	8,447,395	5,866.2	13,850,555	9,618.4
2027	8,450 homes, 20.5 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (4.4 MGD Max Day)	5.1	210	118	894,858	621	5,625,608	3,906.7	10,356,358	7,191.9	16,979,408	11,791.3
2028	9,580 homes, 30 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (5.8 MGD Max Day)	5.7	239	134	1,014,526	705	6,391,426	4,438.5	11,768,326	8,172.4	19,295,986	13,400.0
2029	10,080 homes, 30 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (6.4 MGD Max Day)	5.9	251	141	1,067,476	741	6,721,876	4,668.0	12,376,276	8,594.6	20,292,436	14,092.0
2030	10,545 homes, 35 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (7.0 MGD Max Day)	6.1	263	147	1,116,719	775	7,039,194	4,888.3	12,961,669	9,001.2	21,253,134	14,759.1
2031	10,940 homes, 40 AC commercial	SAWP (6.0 MGD Max Day), Well(s) (7.5 MGD Max Day)	6.4	273	153	1,158,550	805	7,310,250	5,076.6	13,461,950	9,348.6	22,074,330	15,329.4

Notes:

1) Unit demands are based on factors as agreed upon by Apache Junction Water District and are used for infrastructure sizing.
2) Neighborhood Open Space and Community Open Space scaled by number of residential units. This assumes that DU 1 and 2 are fully irrigated by the potable water system.
3) Neighborhood Open Space is assumed to be 40% Turf and 60% Xeriscape.
4) Community Open Space is assumed to be 70% Turf and 30% Xeriscape.
5) Average Day, Maximum Day, and Peak Hour demands shown in table above include irrigation demands. Irrigation demands are not peaked, as these are anticipated to remain constant.
6) Total demands listed in table above do not include 2,000 gpd demand for Erie Lift Station.
7) The table above assumes that irrigation demands within the Auction Property will be supplied by the potable water system.
8) The table above assumes that 6.0 MGD would be available for the Auction Property from the SAWP. Additional water supply from the SAWP may be available for the Auction Property.
9) Construction Activity totals are cumulative.

Demand Factors:

Single-Family (Medium Density) Residential:	555 gpd/DU
Commercial:	2,000 gpad
Turf/Irrigation:	4,400 gpad
Xeriscape/Low Water Use Irrigation:	1,000 gpad

Peaking Factors:

Maximum Day Demand:	2 x Average Day Demand
Peak Hour Demand:	1.7 x Maximum Day Demand

Abbreviations:

SAWP: Superstition Area Water Plant

APPENDIX C
SUPERSTITION VISTAS WATER HYDRAULIC MODELING RESULTS
(AUCTION PROPERTY AND SITE MODELS)

AVERAGE DAY DEMAND RESULTS
MAXIMUM DAY DEMAND RESULTS
PEAK HOUR DEMAND RESULTS
MAXIMUM DAY + FIRE FLOW RESULTS (AVAILABLE)
MAXIMUM DAY + FIRE FLOW RESULTS (RESIDUAL)

AUCTION PROPERTY
HYDRAULIC MODELING RESULTS

AUCTION PROPERTY
AVERAGE DAY DEMAND RESULTS

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,518.46	0	1,708.47	82.2
J-2	1,524.42	0	1,709.16	79.9
J-3	1,534.31	0	1,709.55	75.8
J-4	1,536.36	14	1,709.36	74.8
J-5	1,511.94	0	1,708.41	85.0
J-6	1,496.19	0	1,708.27	91.8
J-7	1,487.97	0	1,707.79	95.1
J-8	1,482.10	0	1,707.65	97.6
J-9	1,489.31	0	1,707.66	94.5
J-10	1,498.18	0	1,707.71	90.7
J-11	1,505.45	0	1,707.95	87.6
J-12	1,528.22	0	1,708.17	77.9
J-13	1,541.89	0	1,708.04	71.9
J-14	1,551.18	0	1,708.22	67.9
J-15	1,555.10	192	1,708.30	66.3
J-16	1,547.57	0	1,708.64	69.7
J-17	1,539.63	0	1,708.96	73.3
J-18	1,536.04	0	1,707.86	74.3
J-19	1,531.88	0	1,707.86	76.1
J-20	1,525.85	0	1,707.85	78.7
J-21	1,509.31	0	1,707.85	85.9
J-22	1,500.29	14	1,707.87	89.8
J-23	1,507.70	0	1,708.01	86.7
J-24	1,478.32	0	1,707.52	99.2
J-25	1,468.56	0	1,707.49	103.4
J-26	1,470.59	0	1,707.41	102.5
J-27	1,491.65	149	1,707.66	93.5
J-28	1,494.43	149	1,707.73	92.3
J-29	1,504.84	0	1,708.07	87.9
J-30	1,509.95	149	1,708.16	85.8
J-31	1,506.31	149	1,707.80	87.2
J-32	1,510.99	149	1,708.04	85.3
J-33	1,517.93	149	1,708.35	82.4
J-34	1,523.42	149	1,708.73	80.2
J-35	1,500.26	0	1,708.10	89.9
J-36	1,519.89	0	1,708.43	81.6
J-37	1,497.84	0	1,707.71	90.8
J-38	1,508.75	0	1,707.77	86.1
J-39	1,509.06	192	1,707.89	86.0
J-40	1,519.34	0	1,708.69	81.9
J-41	1,493.31	0	1,708.11	92.9
J-42	1,520.78	0	1,708.71	81.3
J-43	1,528.04	192	1,708.20	77.9
J-44	1,539.15	192	1,708.49	73.3
J-45	1,525.42	0	1,708.63	79.3
J-46	1,536.25	192	1,708.89	74.7
J-47	1,523.18	0	1,708.44	80.2
J-48	1,543.23	0	1,708.18	71.4
J-49	1,544.66	192	1,708.23	70.8

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-50	1,550.01	0	1,708.26	68.5
J-51	1,551.30	0	1,708.18	67.9
J-52	1,541.61	0	1,708.12	72.0
J-53	1,482.08	149	1,707.45	97.5
J-54	1,476.49	0	1,707.54	100.0
J-55	1,480.56	0	1,707.34	98.1
J-56	1,481.69	149	1,707.24	97.6
J-57	1,483.32	0	1,707.36	96.9
J-58	1,478.32	0	1,707.39	99.1
J-59	1,473.68	0	1,707.44	101.1
J-60	1,475.18	0	1,707.29	100.4
J-61	1,474.72	149	1,707.26	100.6
J-62	1,493.15	149	1,707.25	92.6
J-63	1,494.82	149	1,707.39	92.0
J-64	1,489.78	0	1,707.37	94.1
J-65	1,486.52	149	1,707.33	95.5
J-66	1,484.90	0	1,707.56	96.3
J-67	1,492.33	0	1,707.38	93.0
J-68	1,498.85	149	1,707.46	90.3
J-69	1,504.49	0	1,707.57	87.9
J-70	1,496.77	149	1,707.25	91.1
J-71	1,492.39	149	1,707.24	93.0
J-72	1,489.15	149	1,707.24	94.4
J-73	1,526.88	0	1,707.72	78.2
J-74	1,522.81	192	1,707.59	79.9
J-75	1,517.39	192	1,707.59	82.3
J-76	1,513.14	192	1,707.63	84.1
J-77	1,518.58	192	1,707.57	81.8
J-78	1,525.14	192	1,707.71	79.0
J-79	1,521.50	0	1,707.82	80.6
J-80	1,521.52	0	1,708.26	80.8
J-81	1,507.88	0	1,707.73	86.5
J-82	1,511.68	192	1,707.69	84.8
J-83	1,530.12	192	1,707.68	76.8
J-84	1,534.97	0	1,707.77	74.8
J-85	1,520.43	0	1,707.67	81.0
J-86	1,512.42	0	1,707.81	84.5
J-87	1,519.02	0	1,707.87	81.7
J-90	1,553.44	0	1,708.26	67.0
J-91	1,501.89	0	1,707.86	89.1
J-92	1,529.36	0	1,710.00	78.2
J-93	1,513.70	0	1,707.85	84.0
J-94	1,544.69	28	1,708.11	70.7
J-95	1,552.90	0	1,708.50	67.3
J-205	1,458.56	0	1,707.49	107.7
J-ELS	1,456.01	1	1,707.49	108.8

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	1,337	24.0	120	J-1	J-2	2,420	1.72	0.516
P-2	1,236	24.0	120	J-3	J-4	1,258	0.89	0.154
P-3	2,654	16.0	120	J-5	J-6	237	0.38	0.050
P-4	2,643	12.0	120	J-7	J-8	113	0.32	0.052
P-5	1,373	16.0	120	J-8	J-9	73	0.12	0.006
P-6	1,371	16.0	120	J-10	J-11	472	0.75	0.181
P-7	1,867	16.0	120	J-9	J-10	154	0.25	0.023
P-7	1,712	16.0	120	J-11	J-1	625	1.00	0.303
P-8	1,252	16.0	120	J-16	J-17	568	0.91	0.254
P-9	1,335	16.0	120	J-17	J-4	618	0.99	0.297
P-10	1,872	16.0	120	J-13	J-18	331	0.53	0.094
P-11	817	16.0	120	J-18	J-19	101	0.16	0.010
P-12	2,582	16.0	120	J-19	J-20	36	0.06	0.002
P-13	2,636	24.0	120	J-22	J-23	699	0.50	0.052
P-14	2,640	24.0	120	J-23	J-1	1,355	0.96	0.176
P-15	2,850	16.0	120	J-24	J-25	105	0.17	0.011
P-16	1,880	12.0	120	J-25	J-26	103	0.29	0.044
P-17	1,357	12.0	120	J-9	J-27	6	0.02	0.000
P-18	1,167	12.0	120	J-27	J-28	122	0.35	0.060
P-19	1,813	8.0	120	J-28	J-29	78	0.50	0.187
P-20	781	8.0	120	J-29	J-30	58	0.37	0.109
P-21	997	12.0	120	J-30	J-5	265	0.75	0.251
P-22	1,324	12.0	120	J-7	J-28	104	0.30	0.044
P-23	2,040	12.0	120	J-28	J-31	89	0.25	0.033
P-24	935	12.0	120	J-31	J-32	270	0.77	0.261
P-25	1,071	12.0	120	J-32	J-33	284	0.81	0.285
P-26	757	12.0	120	J-33	J-34	386	1.09	0.504
P-27	888	12.0	120	J-34	J-3	534	1.52	0.921
P-28	1,587	8.0	120	J-29	J-35	20	0.13	0.015
P-29	1,506	8.0	120	J-30	J-36	77	0.49	0.184
P-30	1,149	8.0	120	J-36	J-33	47	0.30	0.073
P-31	1,110	8.0	120	J-27	J-37	33	0.21	0.038
P-32	1,560	8.0	120	J-37	J-38	33	0.21	0.039
P-33	895	8.0	120	J-38	J-31	33	0.21	0.038
P-34	783	8.0	120	J-11	J-39	47	0.30	0.074
P-35	1,356	8.0	120	J-39	J-40	145	0.92	0.590
P-36	792	8.0	120	J-40	J-2	145	0.92	0.590
P-37	807	12.0	120	J-6	J-41	237	0.67	0.204
P-38	1,833	12.0	120	J-41	J-7	217	0.62	0.173
P-39	949	8.0	120	J-35	J-41	20	0.13	0.015
P-40	2,155	16.0	120	J-4	J-42	625	1.00	0.303
P-41	1,477	16.0	120	J-42	J-5	502	0.80	0.202
P-42	614	8.0	120	J-36	J-42	124	0.79	0.442
P-43	1,556	12.0	120	J-32	J-30	135	0.38	0.072
P-44	689	12.0	120	J-12	J-43	90	0.25	0.034
P-45	1,946	12.0	120	J-43	J-44	202	0.57	0.153
P-46	2,073	8.0	120	J-44	J-45	45	0.29	0.068
P-47	969	8.0	120	J-45	J-2	139	0.88	0.546

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-48	1,168	8.0	120	J-3	J-46	142	0.90	0.567
P-49	911	8.0	120	J-46	J-17	50	0.32	0.083
P-50	742	8.0	120	J-45	J-47	94	0.60	0.263
P-51	921	8.0	120	J-47	J-43	94	0.60	0.263
P-52	2,082	8.0	120	J-43	J-48	15	0.09	0.009
P-53	1,325	8.0	120	J-48	J-49	34	0.22	0.040
P-54	1,465	12.0	120	J-49	J-44	220	0.62	0.178
P-55	1,495	12.0	120	J-49	J-14	28	0.08	0.004
P-56	743	8.0	120	J-49	J-50	34	0.21	0.040
P-57	1,129	8.0	120	J-50	J-15	34	0.21	0.040
P-58	931	16.0	120	J-51	J-14	242	0.39	0.052
P-59	1,264	8.0	120	J-48	J-51	5	0.03	0.001
P-60	2,202	16.0	120	J-12	J-52	151	0.24	0.022
P-61	885	16.0	120	J-52	J-94	112	0.18	0.012
P-62	840	8.0	120	J-48	J-52	44	0.28	0.064
P-63	906	8.0	120	J-9	J-53	88	0.56	0.234
P-64	910	12.0	120	J-54	J-8	186	0.53	0.130
P-65	721	8.0	120	J-53	J-54	61	0.39	0.119
P-66	983	8.0	120	J-24	J-55	79	0.50	0.190
P-67	1,333	8.0	120	J-55	J-56	46	0.30	0.071
P-68	1,116	8.0	120	J-56	J-57	57	0.36	0.104
P-69	729	8.0	120	J-57	J-58	37	0.24	0.048
P-70	857	12.0	120	J-26	J-59	88	0.25	0.032
P-71	1,622	12.0	120	J-59	J-54	125	0.35	0.062
P-72	936	8.0	120	J-58	J-59	37	0.24	0.048
P-73	1,459	8.0	120	J-55	J-60	28	0.18	0.028
P-74	1,114	8.0	120	J-60	J-61	28	0.18	0.028
P-75	1,054	12.0	120	J-61	J-26	191	0.54	0.137
P-76	1,140	12.0	120	J-61	J-56	70	0.20	0.021
P-77	855	12.0	120	J-62	J-63	206	0.58	0.157
P-78	905	12.0	120	J-63	J-10	318	0.90	0.353
P-79	831	8.0	120	J-63	J-64	20	0.13	0.015
P-80	1,177	8.0	120	J-64	J-57	20	0.13	0.015
P-81	1,245	8.0	120	J-55	J-65	5	0.03	0.001
P-82	2,151	16.0	120	J-22	J-66	419	0.67	0.144
P-83	1,176	16.0	120	J-66	J-24	183	0.29	0.031
P-84	1,113	12.0	120	J-65	J-66	236	0.67	0.202
P-85	1,034	8.0	120	J-65	J-67	37	0.23	0.046
P-86	1,662	8.0	120	J-67	J-68	37	0.23	0.046
P-87	1,161	12.0	120	J-68	J-23	372	1.06	0.471
P-88	1,359	8.0	120	J-68	J-69	50	0.32	0.082
P-89	1,832	8.0	120	J-69	J-63	56	0.35	0.100
P-90	1,005	12.0	120	J-68	J-70	237	0.67	0.204
P-91	573	12.0	120	J-70	J-62	27	0.08	0.004
P-92	1,409	12.0	120	J-65	J-71	128	0.36	0.065
P-93	1,201	12.0	120	J-56	J-72	24	0.07	0.003
P-94	503	12.0	120	J-72	J-62	84	0.24	0.030
P-95	736	12.0	120	J-71	J-72	40	0.11	0.008

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-96	718	12.0	120	J-71	J-70	61	0.17	0.016
P-97	1,047	8.0	120	J-19	J-73	65	0.41	0.133
P-98	1,393	12.0	120	J-83	J-74	128	0.36	0.066
P-99	903	12.0	120	J-74	J-75	29	0.08	0.004
P-100	1,063	12.0	120	J-21	J-76	238	0.67	0.205
P-101	1,185	12.0	120	J-76	J-77	116	0.33	0.054
P-102	939	12.0	120	J-77	J-74	76	0.22	0.025
P-103	1,124	12.0	120	J-74	J-78	169	0.48	0.109
P-104	1,019	8.0	120	J-78	J-79	56	0.36	0.103
P-105	1,354	16.0	120	J-1	J-80	440	0.70	0.158
P-106	894	16.0	120	J-80	J-12	335	0.53	0.096
P-107	1,486	8.0	120	J-76	J-81	43	0.27	0.062
P-108	1,004	12.0	120	J-75	J-82	163	0.46	0.102
P-109	1,106	12.0	120	J-82	J-23	284	0.80	0.285
P-110	1,868	8.0	120	J-81	J-82	22	0.14	0.019
P-111	1,711	12.0	120	J-78	J-12	274	0.78	0.267
P-112	675	8.0	120	J-73	J-83	38	0.24	0.049
P-113	1,008	8.0	120	J-83	J-84	52	0.33	0.089
P-114	1,673	8.0	120	J-84	J-52	83	0.53	0.209
P-115	1,776	8.0	120	J-78	J-84	31	0.19	0.033
P-116	1,656	8.0	120	J-73	J-85	27	0.17	0.026
P-117	1,568	8.0	120	J-85	J-76	27	0.17	0.026
P-118	1,542	8.0	120	J-82	J-86	49	0.31	0.078
P-119	532	8.0	120	J-79	J-87	56	0.36	0.103
P-120	1,177	8.0	120	J-87	J-80	105	0.67	0.325
P-121	801	8.0	120	J-86	J-87	49	0.31	0.078
P-122	931	12.0	120	J-83	J-18	230	0.65	0.194
P-125	839	16.0	120	J-14	J-90	214	0.34	0.042
P-126	1,077	16.0	120	J-90	J-15	214	0.34	0.042
P-128	1,309	24.0	120	J-21	J-91	201	0.14	0.005
P-129	1,332	24.0	120	J-91	J-22	267	0.19	0.009
P-130	974	8.0	120	J-81	J-91	65	0.42	0.136
P-133	1,322	24.0	120	J-2	J-92	2,703	1.92	0.634
P-134	1,322	24.0	120	J-92	J-3	1,934	1.37	0.341
P-135	1,774	24.0	120	J-20	J-93	36	0.03	0.000
P-136	778	24.0	120	J-93	J-21	36	0.03	0.000
P-137	786	16.0	120	J-13	J-94	331	0.53	0.094
P-138	1,159	16.0	120	J-94	J-51	247	0.39	0.054
P-139	2,314	12.0	120	J-44	J-16	128	0.36	0.066
P-140	1,166	8.0	120	J-11	J-69	105	0.67	0.328
P-141	890	16.0	120	J-95	J-16	440	0.70	0.158
P-142	1,256	16.0	120	J-15	J-95	440	0.70	0.158
P-143	2,336	12.0	120	J-44	J-92	441	1.25	0.645
P-204	2,317	12.0	120	J-205	J-25	1	0.00	0.000
P-259	1,600	12.0	120	J-ELS	J-205	1	0.00	0.000
P-500	679	48.0	120	R-1	J-92	5,078	0.90	0.071

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,710.00	5,078	1,710.00

AUCTION PROPERTY
MAXIMUM DAY DEMAND RESULTS

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,518.46	0	1,705.27	80.8
J-2	1,524.42	0	1,707.40	79.2
J-3	1,534.31	0	1,708.60	75.4
J-4	1,536.36	28	1,708.02	74.3
J-5	1,511.94	0	1,705.08	83.6
J-6	1,496.19	0	1,704.67	90.2
J-7	1,487.97	0	1,703.18	93.1
J-8	1,482.10	0	1,702.75	95.5
J-9	1,489.31	0	1,702.78	92.4
J-10	1,498.18	0	1,702.91	88.6
J-11	1,505.45	0	1,703.67	85.8
J-12	1,528.22	0	1,704.33	76.2
J-13	1,541.89	0	1,703.92	70.1
J-14	1,551.18	0	1,704.49	66.3
J-15	1,555.10	354	1,704.74	64.7
J-16	1,547.57	0	1,705.79	68.5
J-17	1,539.63	0	1,706.78	72.3
J-18	1,536.04	0	1,703.38	72.4
J-19	1,531.88	0	1,703.35	74.2
J-20	1,525.85	0	1,703.34	76.8
J-21	1,509.31	0	1,703.34	83.9
J-22	1,500.29	28	1,703.40	87.9
J-23	1,507.70	0	1,703.82	84.9
J-24	1,478.32	0	1,702.34	96.9
J-25	1,468.56	0	1,702.24	101.1
J-26	1,470.59	0	1,701.99	100.1
J-27	1,491.65	273	1,702.78	91.3
J-28	1,494.43	273	1,703.00	90.2
J-29	1,504.84	0	1,704.05	86.2
J-30	1,509.95	273	1,704.31	84.1
J-31	1,506.31	273	1,703.21	85.2
J-32	1,510.99	273	1,703.96	83.5
J-33	1,517.93	273	1,704.91	80.9
J-34	1,523.42	273	1,706.08	79.0
J-35	1,500.26	0	1,704.12	88.2
J-36	1,519.89	0	1,705.16	80.2
J-37	1,497.84	0	1,702.91	88.7
J-38	1,508.75	0	1,703.10	84.1
J-39	1,509.06	354	1,703.48	84.1
J-40	1,519.34	0	1,705.96	80.7
J-41	1,493.31	0	1,704.16	91.2
J-42	1,520.78	0	1,706.00	80.1
J-43	1,528.04	354	1,704.40	76.3
J-44	1,539.15	354	1,705.32	71.9
J-45	1,525.42	0	1,705.76	78.0
J-46	1,536.25	354	1,706.55	73.7
J-47	1,523.18	0	1,705.15	78.7
J-48	1,543.23	0	1,704.35	69.7
J-49	1,544.66	354	1,704.51	69.2

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-50	1,550.01	0	1,704.60	66.9
J-51	1,551.30	0	1,704.34	66.2
J-52	1,541.61	0	1,704.18	70.3
J-53	1,482.08	273	1,702.13	95.2
J-54	1,476.49	0	1,702.39	97.7
J-55	1,480.56	0	1,701.76	95.7
J-56	1,481.69	273	1,701.47	95.1
J-57	1,483.32	0	1,701.83	94.5
J-58	1,478.32	0	1,701.94	96.8
J-59	1,473.68	0	1,702.08	98.8
J-60	1,475.18	0	1,701.64	98.0
J-61	1,474.72	273	1,701.55	98.1
J-62	1,493.15	273	1,701.51	90.1
J-63	1,494.82	273	1,701.92	89.6
J-64	1,489.78	0	1,701.89	91.8
J-65	1,486.52	273	1,701.76	93.1
J-66	1,484.90	0	1,702.45	94.1
J-67	1,492.33	0	1,701.91	90.7
J-68	1,498.85	273	1,702.14	88.0
J-69	1,504.49	0	1,702.49	85.7
J-70	1,496.77	273	1,701.51	88.6
J-71	1,492.39	273	1,701.48	90.5
J-72	1,489.15	273	1,701.46	91.9
J-73	1,526.88	0	1,702.92	76.2
J-74	1,522.81	354	1,702.53	77.8
J-75	1,517.39	354	1,702.52	80.1
J-76	1,513.14	354	1,702.66	82.0
J-77	1,518.58	354	1,702.46	79.6
J-78	1,525.14	354	1,702.91	76.9
J-79	1,521.50	0	1,703.24	78.6
J-80	1,521.52	0	1,704.60	79.2
J-81	1,507.88	0	1,702.95	84.4
J-82	1,511.68	354	1,702.84	82.7
J-83	1,530.12	354	1,702.82	74.7
J-84	1,534.97	0	1,703.10	72.7
J-85	1,520.43	0	1,702.79	78.9
J-86	1,512.42	0	1,703.21	82.5
J-87	1,519.02	0	1,703.41	79.8
J-90	1,553.44	0	1,704.60	65.4
J-91	1,501.89	0	1,703.36	87.2
J-92	1,529.36	0	1,710.00	78.2
J-93	1,513.70	0	1,703.34	82.1
J-94	1,544.69	56	1,704.14	69.0
J-95	1,552.90	0	1,705.36	66.0
J-205	1,458.56	0	1,702.24	105.4
J-ELS	1,456.01	1	1,702.24	106.5

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	1,337	24.0	120	J-1	J-2	4,456	3.16	1.599
P-2	1,236	24.0	120	J-3	J-4	2,317	1.64	0.476
P-3	2,654	16.0	120	J-5	J-6	435	0.69	0.155
P-4	2,643	12.0	120	J-7	J-8	208	0.59	0.160
P-5	1,373	16.0	120	J-8	J-9	133	0.21	0.017
P-6	1,371	16.0	120	J-10	J-11	866	1.38	0.554
P-7	1,867	16.0	120	J-9	J-10	281	0.45	0.069
P-7	1,712	16.0	120	J-11	J-1	1,147	1.83	0.933
P-8	1,252	16.0	120	J-16	J-17	1,048	1.67	0.789
P-9	1,335	16.0	120	J-17	J-4	1,141	1.82	0.924
P-10	1,872	16.0	120	J-13	J-18	608	0.97	0.288
P-11	817	16.0	120	J-18	J-19	183	0.29	0.031
P-12	2,582	16.0	120	J-19	J-20	64	0.10	0.004
P-13	2,636	24.0	120	J-22	J-23	1,289	0.91	0.161
P-14	2,640	24.0	120	J-23	J-1	2,495	1.77	0.546
P-15	2,850	16.0	120	J-24	J-25	190	0.30	0.033
P-16	1,880	12.0	120	J-25	J-26	189	0.54	0.134
P-17	1,357	12.0	120	J-9	J-27	14	0.04	0.001
P-18	1,167	12.0	120	J-27	J-28	225	0.64	0.186
P-19	1,813	8.0	120	J-28	J-29	143	0.91	0.578
P-20	781	8.0	120	J-29	J-30	107	0.68	0.337
P-21	997	12.0	120	J-30	J-5	486	1.38	0.774
P-22	1,324	12.0	120	J-7	J-28	191	0.54	0.137
P-23	2,040	12.0	120	J-28	J-31	164	0.46	0.103
P-24	935	12.0	120	J-31	J-32	498	1.41	0.807
P-25	1,071	12.0	120	J-32	J-33	522	1.48	0.881
P-26	757	12.0	120	J-33	J-34	709	2.01	1.554
P-27	888	12.0	120	J-34	J-3	981	2.78	2.840
P-28	1,587	8.0	120	J-29	J-35	36	0.23	0.045
P-29	1,506	8.0	120	J-30	J-36	142	0.90	0.567
P-30	1,149	8.0	120	J-36	J-33	86	0.55	0.224
P-31	1,110	8.0	120	J-27	J-37	61	0.39	0.120
P-32	1,560	8.0	120	J-37	J-38	61	0.39	0.120
P-33	895	8.0	120	J-38	J-31	61	0.39	0.120
P-34	783	8.0	120	J-11	J-39	88	0.56	0.235
P-35	1,356	8.0	120	J-39	J-40	266	1.70	1.825
P-36	792	8.0	120	J-40	J-2	266	1.70	1.825
P-37	807	12.0	120	J-6	J-41	435	1.23	0.629
P-38	1,833	12.0	120	J-41	J-7	399	1.13	0.536
P-39	949	8.0	120	J-35	J-41	36	0.23	0.045
P-40	2,155	16.0	120	J-4	J-42	1,149	1.83	0.936
P-41	1,477	16.0	120	J-42	J-5	921	1.47	0.622
P-42	614	8.0	120	J-36	J-42	227	1.45	1.362
P-43	1,556	12.0	120	J-32	J-30	248	0.70	0.223
P-44	689	12.0	120	J-12	J-43	164	0.47	0.103
P-45	1,946	12.0	120	J-43	J-44	373	1.06	0.473
P-46	2,073	8.0	120	J-44	J-45	83	0.53	0.212
P-47	969	8.0	120	J-45	J-2	256	1.63	1.695

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-48	1,168	8.0	120	J-3	J-46	261	1.67	1.762
P-49	911	8.0	120	J-46	J-17	93	0.59	0.260
P-50	742	8.0	120	J-45	J-47	173	1.10	0.818
P-51	921	8.0	120	J-47	J-43	173	1.10	0.818
P-52	2,082	8.0	120	J-43	J-48	27	0.17	0.027
P-53	1,325	8.0	120	J-48	J-49	62	0.40	0.124
P-54	1,465	12.0	120	J-49	J-44	406	1.15	0.554
P-55	1,495	12.0	120	J-49	J-14	52	0.15	0.012
P-56	743	8.0	120	J-49	J-50	62	0.40	0.123
P-57	1,129	8.0	120	J-50	J-15	62	0.40	0.123
P-58	931	16.0	120	J-51	J-14	446	0.71	0.163
P-59	1,264	8.0	120	J-48	J-51	10	0.06	0.004
P-60	2,202	16.0	120	J-12	J-52	280	0.45	0.068
P-61	885	16.0	120	J-52	J-94	207	0.33	0.039
P-62	840	8.0	120	J-48	J-52	80	0.51	0.198
P-63	906	8.0	120	J-9	J-53	161	1.03	0.720
P-64	910	12.0	120	J-54	J-8	341	0.97	0.401
P-65	721	8.0	120	J-53	J-54	112	0.71	0.365
P-66	983	8.0	120	J-24	J-55	144	0.92	0.584
P-67	1,333	8.0	120	J-55	J-56	85	0.54	0.219
P-68	1,116	8.0	120	J-56	J-57	104	0.67	0.322
P-69	729	8.0	120	J-57	J-58	68	0.44	0.147
P-70	857	12.0	120	J-26	J-59	161	0.46	0.100
P-71	1,622	12.0	120	J-59	J-54	230	0.65	0.193
P-72	936	8.0	120	J-58	J-59	68	0.44	0.147
P-73	1,459	8.0	120	J-55	J-60	51	0.32	0.084
P-74	1,114	8.0	120	J-60	J-61	51	0.32	0.085
P-75	1,054	12.0	120	J-61	J-26	350	0.99	0.421
P-76	1,140	12.0	120	J-61	J-56	128	0.36	0.065
P-77	855	12.0	120	J-62	J-63	378	1.07	0.485
P-78	905	12.0	120	J-63	J-10	585	1.66	1.088
P-79	831	8.0	120	J-63	J-64	36	0.23	0.045
P-80	1,177	8.0	120	J-64	J-57	36	0.23	0.045
P-81	1,245	8.0	120	J-55	J-65	9	0.05	0.003
P-82	2,151	16.0	120	J-22	J-66	765	1.22	0.441
P-83	1,176	16.0	120	J-66	J-24	334	0.53	0.095
P-84	1,113	12.0	120	J-65	J-66	431	1.22	0.620
P-85	1,034	8.0	120	J-65	J-67	67	0.43	0.142
P-86	1,662	8.0	120	J-67	J-68	67	0.43	0.142
P-87	1,161	12.0	120	J-68	J-23	682	1.93	1.447
P-88	1,359	8.0	120	J-68	J-69	92	0.58	0.253
P-89	1,832	8.0	120	J-69	J-63	102	0.65	0.308
P-90	1,005	12.0	120	J-68	J-70	434	1.23	0.626
P-91	573	12.0	120	J-70	J-62	50	0.14	0.011
P-92	1,409	12.0	120	J-65	J-71	234	0.66	0.200
P-93	1,201	12.0	120	J-56	J-72	45	0.13	0.009
P-94	503	12.0	120	J-72	J-62	155	0.44	0.093
P-95	736	12.0	120	J-71	J-72	73	0.21	0.023

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-96	718	12.0	120	J-71	J-70	111	0.32	0.050
P-97	1,047	8.0	120	J-19	J-73	119	0.76	0.413
P-98	1,393	12.0	120	J-83	J-74	237	0.67	0.204
P-99	903	12.0	120	J-74	J-75	53	0.15	0.013
P-100	1,063	12.0	120	J-21	J-76	439	1.24	0.639
P-101	1,185	12.0	120	J-76	J-77	214	0.61	0.169
P-102	939	12.0	120	J-77	J-74	140	0.40	0.077
P-103	1,124	12.0	120	J-74	J-78	311	0.88	0.338
P-104	1,019	8.0	120	J-78	J-79	104	0.66	0.319
P-105	1,354	16.0	120	J-1	J-80	813	1.30	0.494
P-106	894	16.0	120	J-80	J-12	620	0.99	0.299
P-107	1,486	8.0	120	J-76	J-81	79	0.51	0.194
P-108	1,004	12.0	120	J-75	J-82	301	0.85	0.318
P-109	1,106	12.0	120	J-82	J-23	524	1.49	0.888
P-110	1,868	8.0	120	J-81	J-82	41	0.26	0.058
P-111	1,711	12.0	120	J-78	J-12	505	1.43	0.828
P-112	675	8.0	120	J-73	J-83	70	0.45	0.153
P-113	1,008	8.0	120	J-83	J-84	96	0.61	0.275
P-114	1,673	8.0	120	J-84	J-52	152	0.97	0.648
P-115	1,776	8.0	120	J-78	J-84	56	0.36	0.103
P-116	1,656	8.0	120	J-73	J-85	49	0.32	0.081
P-117	1,568	8.0	120	J-85	J-76	49	0.32	0.081
P-118	1,542	8.0	120	J-82	J-86	89	0.57	0.242
P-119	532	8.0	120	J-79	J-87	104	0.66	0.320
P-120	1,177	8.0	120	J-87	J-80	193	1.23	1.009
P-121	801	8.0	120	J-86	J-87	89	0.57	0.242
P-122	931	12.0	120	J-83	J-18	425	1.21	0.603
P-125	839	16.0	120	J-14	J-90	395	0.63	0.129
P-126	1,077	16.0	120	J-90	J-15	395	0.63	0.130
P-128	1,309	24.0	120	J-21	J-91	375	0.27	0.016
P-129	1,332	24.0	120	J-91	J-22	496	0.35	0.027
P-130	974	8.0	120	J-81	J-91	121	0.77	0.423
P-133	1,322	24.0	120	J-2	J-92	4,978	3.53	1.963
P-134	1,322	24.0	120	J-92	J-3	3,560	2.52	1.055
P-135	1,774	24.0	120	J-20	J-93	64	0.05	0.001
P-136	778	24.0	120	J-93	J-21	64	0.05	0.001
P-137	786	16.0	120	J-13	J-94	608	0.97	0.288
P-138	1,159	16.0	120	J-94	J-51	456	0.73	0.169
P-139	2,314	12.0	120	J-44	J-16	237	0.67	0.204
P-140	1,166	8.0	120	J-11	J-69	194	1.24	1.012
P-141	890	16.0	120	J-95	J-16	811	1.29	0.491
P-142	1,256	16.0	120	J-15	J-95	811	1.29	0.491
P-143	2,336	12.0	120	J-44	J-92	813	2.31	2.002
P-204	2,317	12.0	120	J-205	J-25	1	0.00	0.000
P-259	1,600	12.0	120	J-ELS	J-205	1	0.00	0.000
P-500	679	48.0	120	R-1	J-92	9,350	1.66	0.214

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,710.00	9,350	1,710.00

AUCTION PROPERTY
PEAK HOUR DEMAND RESULTS

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,518.46	0	1,698.17	77.8
J-2	1,524.42	0	1,703.51	77.5
J-3	1,534.31	0	1,706.51	74.5
J-4	1,536.36	47	1,705.04	73.0
J-5	1,511.94	0	1,697.72	80.4
J-6	1,496.19	0	1,696.69	86.7
J-7	1,487.97	0	1,692.98	88.7
J-8	1,482.10	0	1,691.92	90.8
J-9	1,489.31	0	1,691.98	87.7
J-10	1,498.18	0	1,692.30	84.0
J-11	1,505.45	0	1,694.19	81.7
J-12	1,528.22	0	1,695.82	72.5
J-13	1,541.89	0	1,694.79	66.2
J-14	1,551.18	0	1,696.23	62.8
J-15	1,555.10	581	1,696.85	61.3
J-16	1,547.57	0	1,699.48	65.7
J-17	1,539.63	0	1,701.95	70.2
J-18	1,536.04	0	1,693.45	68.1
J-19	1,531.88	0	1,693.39	69.9
J-20	1,525.85	0	1,693.36	72.5
J-21	1,509.31	0	1,693.36	79.6
J-22	1,500.29	47	1,693.50	83.6
J-23	1,507.70	0	1,694.57	80.8
J-24	1,478.32	0	1,690.87	92.0
J-25	1,468.56	0	1,690.64	96.1
J-26	1,470.59	0	1,690.01	94.9
J-27	1,491.65	446	1,691.98	86.7
J-28	1,494.43	446	1,692.52	85.7
J-29	1,504.84	0	1,695.14	82.3
J-30	1,509.95	446	1,695.80	80.4
J-31	1,506.31	446	1,693.05	80.8
J-32	1,510.99	446	1,694.93	79.6
J-33	1,517.93	446	1,697.29	77.6
J-34	1,523.42	446	1,700.22	76.5
J-35	1,500.26	0	1,695.32	84.4
J-36	1,519.89	0	1,697.93	77.0
J-37	1,497.84	0	1,692.31	84.1
J-38	1,508.75	0	1,692.78	79.6
J-39	1,509.06	581	1,693.72	79.9
J-40	1,519.34	0	1,699.91	78.1
J-41	1,493.31	0	1,695.43	87.4
J-42	1,520.78	0	1,700.01	77.5
J-43	1,528.04	581	1,696.00	72.7
J-44	1,539.15	581	1,698.30	68.9
J-45	1,525.42	0	1,699.40	75.3
J-46	1,536.25	581	1,701.36	71.4
J-47	1,523.18	0	1,697.88	75.6
J-48	1,543.23	0	1,695.86	66.0
J-49	1,544.66	581	1,696.27	65.6

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-50	1,550.01	0	1,696.50	63.4
J-51	1,551.30	0	1,695.85	62.5
J-52	1,541.61	0	1,695.45	66.6
J-53	1,482.08	446	1,690.35	90.1
J-54	1,476.49	0	1,691.01	92.8
J-55	1,480.56	0	1,689.44	90.4
J-56	1,481.69	446	1,688.72	89.6
J-57	1,483.32	0	1,689.61	89.3
J-58	1,478.32	0	1,689.88	91.5
J-59	1,473.68	0	1,690.22	93.7
J-60	1,475.18	0	1,689.14	92.6
J-61	1,474.72	446	1,688.90	92.7
J-62	1,493.15	446	1,688.81	84.7
J-63	1,494.82	446	1,689.84	84.4
J-64	1,489.78	0	1,689.75	86.5
J-65	1,486.52	446	1,689.43	87.8
J-66	1,484.90	0	1,691.15	89.2
J-67	1,492.33	0	1,689.80	85.4
J-68	1,498.85	446	1,690.39	82.9
J-69	1,504.49	0	1,691.25	80.8
J-70	1,496.77	446	1,688.82	83.1
J-71	1,492.39	446	1,688.73	84.9
J-72	1,489.15	446	1,688.69	86.3
J-73	1,526.88	0	1,692.31	71.6
J-74	1,522.81	581	1,691.33	72.9
J-75	1,517.39	581	1,691.31	75.2
J-76	1,513.14	581	1,691.65	77.2
J-77	1,518.58	581	1,691.15	74.7
J-78	1,525.14	581	1,692.28	72.3
J-79	1,521.50	0	1,693.10	74.2
J-80	1,521.52	0	1,696.49	75.7
J-81	1,507.88	0	1,692.38	79.8
J-82	1,511.68	581	1,692.11	78.1
J-83	1,530.12	581	1,692.05	70.1
J-84	1,534.97	0	1,692.74	68.3
J-85	1,520.43	0	1,691.97	74.2
J-86	1,512.42	0	1,693.04	78.1
J-87	1,519.02	0	1,693.52	75.5
J-90	1,553.44	0	1,696.50	61.9
J-91	1,501.89	0	1,693.41	82.9
J-92	1,529.36	0	1,710.00	78.2
J-93	1,513.70	0	1,693.36	77.7
J-94	1,544.69	94	1,695.36	65.2
J-95	1,552.90	0	1,698.39	62.9
J-205	1,458.56	0	1,690.64	100.4
J-ELS	1,456.01	1	1,690.64	101.5

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	1,337	24.0	120	J-1	J-2	7,306	5.18	3.995
P-2	1,236	24.0	120	J-3	J-4	3,800	2.69	1.191
P-3	2,654	16.0	120	J-5	J-6	713	1.14	0.387
P-4	2,643	12.0	120	J-7	J-8	341	0.97	0.400
P-5	1,373	16.0	120	J-8	J-9	219	0.35	0.043
P-6	1,371	16.0	120	J-10	J-11	1,416	2.26	1.379
P-7	1,867	16.0	120	J-9	J-10	458	0.73	0.171
P-7	1,712	16.0	120	J-11	J-1	1,878	3.00	2.326
P-8	1,252	16.0	120	J-16	J-17	1,719	2.74	1.975
P-9	1,335	16.0	120	J-17	J-4	1,872	2.99	2.311
P-10	1,872	16.0	120	J-13	J-18	995	1.59	0.717
P-11	817	16.0	120	J-18	J-19	297	0.47	0.077
P-12	2,582	16.0	120	J-19	J-20	101	0.16	0.010
P-13	2,636	24.0	120	J-22	J-23	2,116	1.50	0.403
P-14	2,640	24.0	120	J-23	J-1	4,092	2.90	1.365
P-15	2,850	16.0	120	J-24	J-25	310	0.49	0.083
P-16	1,880	12.0	120	J-25	J-26	308	0.88	0.333
P-17	1,357	12.0	120	J-9	J-27	24	0.07	0.003
P-18	1,167	12.0	120	J-27	J-28	369	1.05	0.465
P-19	1,813	8.0	120	J-28	J-29	234	1.50	1.443
P-20	781	8.0	120	J-29	J-30	175	1.12	0.842
P-21	997	12.0	120	J-30	J-5	796	2.26	1.929
P-22	1,324	12.0	120	J-7	J-28	313	0.89	0.342
P-23	2,040	12.0	120	J-28	J-31	269	0.76	0.257
P-24	935	12.0	120	J-31	J-32	816	2.31	2.015
P-25	1,071	12.0	120	J-32	J-33	855	2.43	2.199
P-26	757	12.0	120	J-33	J-34	1,161	3.29	3.877
P-27	888	12.0	120	J-34	J-3	1,607	4.56	7.080
P-28	1,587	8.0	120	J-29	J-35	59	0.38	0.113
P-29	1,506	8.0	120	J-30	J-36	232	1.48	1.414
P-30	1,149	8.0	120	J-36	J-33	140	0.89	0.556
P-31	1,110	8.0	120	J-27	J-37	101	0.64	0.299
P-32	1,560	8.0	120	J-37	J-38	101	0.64	0.299
P-33	895	8.0	120	J-38	J-31	101	0.64	0.299
P-34	783	8.0	120	J-11	J-39	145	0.92	0.592
P-35	1,356	8.0	120	J-39	J-40	436	2.78	4.556
P-36	792	8.0	120	J-40	J-2	436	2.78	4.556
P-37	807	12.0	120	J-6	J-41	713	2.02	1.570
P-38	1,833	12.0	120	J-41	J-7	654	1.85	1.337
P-39	949	8.0	120	J-35	J-41	59	0.38	0.113
P-40	2,155	16.0	120	J-4	J-42	1,881	3.00	2.333
P-41	1,477	16.0	120	J-42	J-5	1,509	2.41	1.552
P-42	614	8.0	120	J-36	J-42	372	2.37	3.393
P-43	1,556	12.0	120	J-32	J-30	407	1.15	0.556
P-44	689	12.0	120	J-12	J-43	268	0.76	0.257
P-45	1,946	12.0	120	J-43	J-44	611	1.73	1.182
P-46	2,073	8.0	120	J-44	J-45	137	0.87	0.531
P-47	969	8.0	120	J-45	J-2	420	2.68	4.242

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-48	1,168	8.0	120	J-3	J-46	428	2.73	4.410
P-49	911	8.0	120	J-46	J-17	153	0.97	0.651
P-50	742	8.0	120	J-45	J-47	283	1.81	2.045
P-51	921	8.0	120	J-47	J-43	283	1.81	2.045
P-52	2,082	8.0	120	J-43	J-48	45	0.29	0.068
P-53	1,325	8.0	120	J-48	J-49	102	0.65	0.310
P-54	1,465	12.0	120	J-49	J-44	666	1.89	1.385
P-55	1,495	12.0	120	J-49	J-14	84	0.24	0.030
P-56	743	8.0	120	J-49	J-50	102	0.65	0.307
P-57	1,129	8.0	120	J-50	J-15	102	0.65	0.307
P-58	931	16.0	120	J-51	J-14	732	1.17	0.406
P-59	1,264	8.0	120	J-48	J-51	16	0.10	0.010
P-60	2,202	16.0	120	J-12	J-52	460	0.73	0.172
P-61	885	16.0	120	J-52	J-94	342	0.55	0.099
P-62	840	8.0	120	J-48	J-52	131	0.84	0.493
P-63	906	8.0	120	J-9	J-53	264	1.68	1.795
P-64	910	12.0	120	J-54	J-8	559	1.59	1.002
P-65	721	8.0	120	J-53	J-54	183	1.17	0.908
P-66	983	8.0	120	J-24	J-55	235	1.50	1.453
P-67	1,333	8.0	120	J-55	J-56	139	0.88	0.544
P-68	1,116	8.0	120	J-56	J-57	171	1.09	0.804
P-69	729	8.0	120	J-57	J-58	112	0.71	0.366
P-70	857	12.0	120	J-26	J-59	265	0.75	0.251
P-71	1,622	12.0	120	J-59	J-54	377	1.07	0.482
P-72	936	8.0	120	J-58	J-59	112	0.71	0.366
P-73	1,459	8.0	120	J-55	J-60	83	0.53	0.210
P-74	1,114	8.0	120	J-60	J-61	83	0.53	0.210
P-75	1,054	12.0	120	J-61	J-26	573	1.63	1.050
P-76	1,140	12.0	120	J-61	J-56	210	0.60	0.163
P-77	855	12.0	120	J-62	J-63	619	1.76	1.210
P-78	905	12.0	120	J-63	J-10	958	2.72	2.714
P-79	831	8.0	120	J-63	J-64	59	0.38	0.112
P-80	1,177	8.0	120	J-64	J-57	59	0.38	0.113
P-81	1,245	8.0	120	J-55	J-65	14	0.09	0.008
P-82	2,151	16.0	120	J-22	J-66	1,251	2.00	1.096
P-83	1,176	16.0	120	J-66	J-24	545	0.87	0.235
P-84	1,113	12.0	120	J-65	J-66	706	2.00	1.541
P-85	1,034	8.0	120	J-65	J-67	110	0.70	0.354
P-86	1,662	8.0	120	J-67	J-68	110	0.70	0.354
P-87	1,161	12.0	120	J-68	J-23	1,116	3.16	3.600
P-88	1,359	8.0	120	J-68	J-69	150	0.96	0.632
P-89	1,832	8.0	120	J-69	J-63	167	1.06	0.768
P-90	1,005	12.0	120	J-68	J-70	710	2.01	1.557
P-91	573	12.0	120	J-70	J-62	81	0.23	0.028
P-92	1,409	12.0	120	J-65	J-71	383	1.09	0.498
P-93	1,201	12.0	120	J-56	J-72	73	0.21	0.023
P-94	503	12.0	120	J-72	J-62	254	0.72	0.232
P-95	736	12.0	120	J-71	J-72	119	0.34	0.057

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-96	718	12.0	120	J-71	J-70	182	0.52	0.126
P-97	1,047	8.0	120	J-19	J-73	196	1.25	1.035
P-98	1,393	12.0	120	J-83	J-74	389	1.10	0.511
P-99	903	12.0	120	J-74	J-75	87	0.25	0.032
P-100	1,063	12.0	120	J-21	J-76	721	2.04	1.602
P-101	1,185	12.0	120	J-76	J-77	351	1.00	0.423
P-102	939	12.0	120	J-77	J-74	230	0.65	0.193
P-103	1,124	12.0	120	J-74	J-78	509	1.45	0.843
P-104	1,019	8.0	120	J-78	J-79	170	1.09	0.800
P-105	1,354	16.0	120	J-1	J-80	1,336	2.13	1.238
P-106	894	16.0	120	J-80	J-12	1,019	1.63	0.749
P-107	1,486	8.0	120	J-76	J-81	130	0.83	0.487
P-108	1,004	12.0	120	J-75	J-82	494	1.40	0.796
P-109	1,106	12.0	120	J-82	J-23	860	2.44	2.225
P-110	1,868	8.0	120	J-81	J-82	68	0.43	0.146
P-111	1,711	12.0	120	J-78	J-12	828	2.35	2.071
P-112	675	8.0	120	J-73	J-83	115	0.73	0.385
P-113	1,008	8.0	120	J-83	J-84	157	1.00	0.687
P-114	1,673	8.0	120	J-84	J-52	249	1.59	1.618
P-115	1,776	8.0	120	J-78	J-84	92	0.59	0.257
P-116	1,656	8.0	120	J-73	J-85	81	0.52	0.202
P-117	1,568	8.0	120	J-85	J-76	81	0.52	0.202
P-118	1,542	8.0	120	J-82	J-86	147	0.94	0.605
P-119	532	8.0	120	J-79	J-87	170	1.09	0.800
P-120	1,177	8.0	120	J-87	J-80	317	2.02	2.524
P-121	801	8.0	120	J-86	J-87	147	0.94	0.605
P-122	931	12.0	120	J-83	J-18	698	1.98	1.509
P-125	839	16.0	120	J-14	J-90	648	1.03	0.324
P-126	1,077	16.0	120	J-90	J-15	648	1.03	0.324
P-128	1,309	24.0	120	J-21	J-91	619	0.44	0.041
P-129	1,332	24.0	120	J-91	J-22	818	0.58	0.069
P-130	974	8.0	120	J-81	J-91	199	1.27	1.061
P-133	1,322	24.0	120	J-2	J-92	8,162	5.79	4.904
P-134	1,322	24.0	120	J-92	J-3	5,836	4.14	2.635
P-135	1,774	24.0	120	J-20	J-93	101	0.07	0.001
P-136	778	24.0	120	J-93	J-21	101	0.07	0.001
P-137	786	16.0	120	J-13	J-94	995	1.59	0.717
P-138	1,159	16.0	120	J-94	J-51	748	1.19	0.423
P-139	2,314	12.0	120	J-44	J-16	389	1.10	0.511
P-140	1,166	8.0	120	J-11	J-69	317	2.02	2.522
P-141	890	16.0	120	J-95	J-16	1,330	2.12	1.228
P-142	1,256	16.0	120	J-15	J-95	1,330	2.12	1.228
P-143	2,336	12.0	120	J-44	J-92	1,333	3.78	5.006
P-204	2,317	12.0	120	J-205	J-25	1	0.00	0.000
P-259	1,600	12.0	120	J-ELS	J-205	1	0.00	0.000
P-500	679	48.0	120	R-1	J-92	15,331	2.72	0.547

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,710.00	15,331	1,710.00

AUCTION PROPERTY
MAXIMUM DAY + FIRE FLOW RESULTS (RESIDUAL)
MAXIMUM DAY + FIRE FLOW RESULTS (AVAILABLE)

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-1	0	4,000	4,000	4,000	4,000	78.1	63.0	J-15	78.1	63.0	P-133	5.51	True
J-2	0	4,000	4,000	4,000	4,000	77.4	63.7	J-15	77.4	63.7	P-133	5.83	True
J-3	0	4,000	4,000	4,000	4,000	73.9	64.0	J-15	73.9	64.0	P-134	4.91	True
J-4	28	4,000	4,028	4,000	4,028	72.1	63.6	J-15	72.1	63.6	P-134	4.68	True
J-5	0	4,000	4,000	4,000	4,000	76.1	63.5	J-15	76.1	63.5	P-27	4.94	True
J-6	0	4,000	4,000	4,000	4,000	78.9	63.5	J-15	78.9	63.5	P-27	4.94	True
J-7	0	4,000	4,000	4,000	4,000	82.4	63.4	J-15	82.4	63.4	P-133	4.84	True
J-8	0	4,000	4,000	4,000	4,000	86.8	63.2	J-15	86.8	63.2	P-133	5.06	True
J-9	0	4,000	4,000	4,000	4,000	84.8	63.2	J-15	84.8	63.2	P-133	5.09	True
J-10	0	4,000	4,000	4,000	4,000	82.3	63.1	J-15	82.3	63.1	P-133	5.21	True
J-11	0	4,000	4,000	4,000	4,000	80.2	63.1	J-15	80.2	63.1	P-133	5.30	True
J-12	0	4,000	4,000	4,000	4,000	71.6	61.9	J-15	71.6	61.9	P-133	5.23	True
J-13	0	4,000	4,000	4,000	4,000	64.1	61.6	J-15	64.1	61.6	P-133	5.20	True
J-14	0	4,000	4,000	4,000	4,000	60.5	60.1	J-15	60.5	60.1	P-133	5.02	True
J-15	354	4,000	4,354	4,000	4,354	58.4	60.0	J-90	58.4	60.0	P-133	4.92	True
J-16	0	4,000	4,000	4,000	4,000	63.7	60.8	J-15	63.7	60.8	P-133	4.75	True
J-17	0	4,000	4,000	4,000	4,000	68.3	61.9	J-15	68.3	61.9	P-9	4.80	True
J-18	0	4,000	4,000	4,000	4,000	66.2	62.1	J-15	66.2	62.1	P-133	5.28	True
J-19	0	4,000	4,000	4,000	4,000	67.6	62.3	J-15	67.6	62.3	P-133	5.30	True
J-20	0	4,000	4,000	4,000	4,000	71.0	62.5	J-15	71.0	62.5	P-133	5.34	True
J-21	0	4,000	4,000	4,000	4,000	78.8	62.6	J-15	78.8	62.6	P-133	5.35	True
J-22	28	4,000	4,028	4,000	4,028	83.3	62.7	J-15	83.3	62.7	P-133	5.37	True
J-23	0	4,000	4,000	4,000	4,000	80.8	62.8	J-15	80.8	62.8	P-133	5.41	True
J-24	0	4,000	4,000	4,000	4,000	87.5	62.9	J-15	87.5	62.9	P-133	5.31	True
J-25	0	4,000	4,000	4,000	4,000	87.8	62.9	J-15	87.8	62.9	P-133	5.29	True
J-26	0	4,000	4,000	4,000	4,000	88.4	63.0	J-15	88.4	63.0	P-133	5.26	True
J-27	273	1,500	1,773	1,500	1,773	88.3	64.2	J-15	88.3	64.2	P-133	4.06	True
J-28	273	1,500	1,773	1,500	1,773	87.5	64.3	J-15	87.5	64.3	P-133	4.04	True
J-29	0	1,500	1,500	1,500	1,500	80.5	64.3	J-15	80.5	64.3	P-20	4.52	True
J-30	273	4,000	4,273	4,000	4,273	74.2	63.5	J-15	74.2	63.5	P-21	5.47	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-31	273	1,500	1,773	1,500	1,773	82.1	64.3	J-15	82.1	64.3	P-133	3.99	True
J-32	273	1,500	1,773	1,500	1,773	80.8	64.3	J-15	80.8	64.3	P-133	3.94	True
J-33	273	1,500	1,773	1,500	1,773	78.3	64.4	J-15	78.3	64.4	P-27	4.29	True
J-34	273	1,500	1,773	1,500	1,773	76.5	64.4	J-15	76.5	64.4	P-27	4.99	True
J-35	0	1,500	1,500	1,500	1,500	79.0	64.3	J-15	79.0	64.3	P-39	5.60	True
J-36	0	1,500	1,500	1,500	1,500	76.0	64.3	J-15	76.0	64.3	P-42	4.60	True
J-37	0	1,500	1,500	1,500	1,500	77.7	64.3	J-15	77.7	64.3	P-31	5.74	True
J-38	0	1,500	1,500	1,500	1,500	73.9	64.3	J-15	73.9	64.3	P-33	6.14	True
J-39	354	1,500	1,854	1,500	1,854	74.0	64.3	J-15	74.0	64.3	P-34	7.10	True
J-40	0	1,500	1,500	1,500	1,500	72.2	64.3	J-15	72.2	64.3	P-36	7.03	True
J-41	0	4,000	4,000	4,000	4,000	78.7	63.5	J-15	78.7	63.5	P-37	5.80	True
J-42	0	4,000	4,000	4,000	4,000	74.0	63.5	J-15	74.0	63.5	P-40	4.98	True
J-43	354	1,500	1,854	1,500	1,854	74.5	63.7	J-15	74.5	63.7	P-133	4.13	True
J-44	354	1,500	1,854	1,500	1,854	70.3	63.7	J-15	70.3	63.7	P-133	4.04	True
J-45	0	1,500	1,500	1,500	1,500	73.6	63.9	J-15	73.6	63.9	P-47	4.56	True
J-46	354	1,500	1,854	1,500	1,854	65.3	64.2	J-15	65.3	64.2	P-49	6.05	True
J-47	0	1,500	1,500	1,500	1,500	72.3	63.8	J-15	72.3	63.8	P-50	4.90	True
J-48	0	1,500	1,500	1,500	1,500	66.5	63.5	J-15	66.5	63.5	P-133	4.12	True
J-49	354	1,500	1,854	1,500	1,854	67.0	63.4	J-15	67.0	63.4	P-133	4.07	True
J-50	0	1,500	1,500	1,500	1,500	60.4	63.2	J-15	60.4	63.2	P-56	5.25	True
J-51	0	4,000	4,000	4,000	4,000	60.5	60.7	J-15	60.5	60.7	P-133	5.07	True
J-52	0	4,000	4,000	4,000	4,000	64.9	61.5	J-15	64.9	61.5	P-133	5.18	True
J-53	273	1,500	1,773	1,500	1,773	87.3	64.2	J-15	87.3	64.2	P-65	5.88	True
J-54	0	4,000	4,000	4,000	4,000	86.0	63.2	J-15	86.0	63.2	P-64	6.16	True
J-55	0	1,500	1,500	1,500	1,500	91.4	64.1	J-15	91.4	64.1	P-133	4.19	True
J-56	273	1,500	1,773	1,500	1,773	91.9	64.1	J-15	91.9	64.1	P-133	4.18	True
J-57	0	1,500	1,500	1,500	1,500	88.4	64.1	J-15	88.4	64.1	P-133	4.18	True
J-58	0	1,500	1,500	1,500	1,500	88.8	64.1	J-15	88.8	64.1	P-72	5.00	True
J-59	0	4,000	4,000	4,000	4,000	86.2	63.0	J-15	86.2	63.0	P-133	5.23	True
J-60	0	1,500	1,500	1,500	1,500	88.2	64.1	J-15	88.2	64.1	P-74	5.14	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-61	273	1,500	1,773	1,500	1,773	94.7	64.1	J-15	94.7	64.1	P-133	4.18	True
J-62	273	1,500	1,773	1,500	1,773	87.4	64.1	J-15	87.4	64.1	P-133	4.19	True
J-63	273	1,500	1,773	1,500	1,773	87.0	64.2	J-15	87.0	64.2	P-133	4.18	True
J-64	0	1,500	1,500	1,500	1,500	83.6	64.2	J-15	83.6	64.2	P-79	5.56	True
J-65	273	1,500	1,773	1,500	1,773	90.3	64.1	J-15	90.3	64.1	P-133	4.19	True
J-66	0	4,000	4,000	4,000	4,000	86.5	62.9	J-15	86.5	62.9	P-133	5.32	True
J-67	0	1,500	1,500	1,500	1,500	81.5	64.1	J-15	81.5	64.1	P-85	5.33	True
J-68	273	1,500	1,773	1,500	1,773	85.4	64.1	J-15	85.4	64.1	P-133	4.20	True
J-69	0	1,500	1,500	1,500	1,500	80.4	64.2	J-15	80.4	64.2	P-133	4.19	True
J-70	273	1,500	1,773	1,500	1,773	85.9	64.1	J-15	85.9	64.1	P-133	4.19	True
J-71	273	1,500	1,773	1,500	1,773	87.6	64.1	J-15	87.6	64.1	P-133	4.19	True
J-72	273	1,500	1,773	1,500	1,773	89.0	64.1	J-15	89.0	64.1	P-133	4.19	True
J-73	0	1,500	1,500	1,500	1,500	71.5	63.9	J-15	71.5	63.9	P-133	4.20	True
J-74	354	1,500	1,854	1,500	1,854	75.4	63.9	J-15	75.4	63.9	P-133	4.20	True
J-75	354	1,500	1,854	1,500	1,854	77.1	64.0	J-15	77.1	64.0	P-133	4.21	True
J-76	354	1,500	1,854	1,500	1,854	79.3	64.0	J-15	79.3	64.0	P-133	4.21	True
J-77	354	1,500	1,854	1,500	1,854	76.4	64.0	J-15	76.4	64.0	P-133	4.21	True
J-78	354	1,500	1,854	1,500	1,854	74.5	63.9	J-15	74.5	63.9	P-133	4.20	True
J-79	0	1,500	1,500	1,500	1,500	71.7	63.9	J-15	71.7	63.9	P-119	5.07	True
J-80	0	4,000	4,000	4,000	4,000	74.7	62.2	J-15	74.7	62.2	P-133	5.30	True
J-81	0	1,500	1,500	1,500	1,500	79.3	64.0	J-15	79.3	64.0	P-133	4.21	True
J-82	354	1,500	1,854	1,500	1,854	80.2	64.0	J-15	80.2	64.0	P-133	4.22	True
J-83	354	4,000	4,354	4,000	4,354	66.1	62.3	J-15	66.1	62.3	P-122	5.51	True
J-84	0	1,500	1,500	1,500	1,500	67.6	63.9	J-15	67.6	63.9	P-133	4.19	True
J-85	0	1,500	1,500	1,500	1,500	67.8	64.0	J-15	67.8	64.0	P-117	4.94	True
J-86	0	1,500	1,500	1,500	1,500	73.8	64.0	J-15	73.8	64.0	P-121	5.30	True
J-87	0	1,500	1,500	1,500	1,500	74.3	63.9	J-15	74.3	63.9	P-133	4.20	True
J-90	0	4,000	4,000	4,000	4,000	59.0	59.4	J-15	59.0	59.4	P-133	4.97	True
J-91	0	4,000	4,000	4,000	4,000	82.3	62.6	J-15	82.3	62.6	P-133	5.36	True
J-92	0	4,000	4,000	4,000	4,000	78.2	64.7	J-15	78.2	64.7	P-133	3.53	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-93	0	4,000	4,000	4,000	4,000	76.7	62.6	J-15	76.7	62.6	P-133	5.35	True
J-94	56	4,000	4,056	4,000	4,056	63.8	61.4	J-15	63.8	61.4	P-133	5.16	True
J-95	0	4,000	4,000	4,000	4,000	60.2	59.7	J-15	60.2	59.7	P-133	4.84	True
J-205	0	1,500	1,500	1,500	1,500	96.0	64.1	J-15	96.0	64.1	P-204	4.26	True
J-ELS	1	1,500	1,501	1,500	1,501	92.8	64.1	J-15	92.8	64.1	P-259	4.26	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-1	0	4,000	4,000	10,000	10,000	78.1	63.0	J-15	72.3	59.4	P-133	8.40	True
J-2	0	4,000	4,000	10,000	10,000	77.4	63.7	J-15	73.8	61.4	P-133	9.11	True
J-3	0	4,000	4,000	10,000	10,000	73.9	64.0	J-15	70.8	62.0	P-134	8.05	True
J-4	28	4,000	4,028	10,000	10,028	72.1	63.6	J-15	67.6	60.5	P-134	7.45	True
J-5	0	4,000	4,000	10,000	10,000	76.1	63.5	J-15	51.8	59.0	P-41	9.12	True
J-6	0	4,000	4,000	9,617	9,617	78.9	63.5	J-15	41.8	53.6	P-37	10.00	True
J-7	0	4,000	4,000	9,514	9,514	82.4	63.4	J-15	48.8	61.0	P-22	10.00	True
J-8	0	4,000	4,000	10,000	10,000	86.8	63.2	J-15	59.8	60.2	P-5	8.49	True
J-9	0	4,000	4,000	10,000	10,000	84.8	63.2	J-15	62.9	60.2	P-7	8.00	True
J-10	0	4,000	4,000	10,000	10,000	82.3	63.1	J-15	64.9	59.9	P-6	7.98	True
J-11	0	4,000	4,000	10,000	10,000	80.2	63.1	J-15	65.3	59.7	P-7	9.28	True
J-12	0	4,000	4,000	10,000	10,000	71.6	61.9	J-15	59.5	55.4	P-133	7.79	True
J-13	0	4,000	4,000	10,000	10,000	64.1	61.6	J-15	45.7	51.6	P-137	9.82	True
J-14	0	4,000	4,000	10,000	10,000	60.5	60.1	J-15	42.5	44.2	P-58	7.23	True
J-15	354	4,000	4,354	10,000	10,354	58.4	60.0	J-90	38.0	43.9	P-141	8.27	True
J-16	0	4,000	4,000	10,000	10,000	63.7	60.8	J-15	48.9	48.4	P-8	8.62	True
J-17	0	4,000	4,000	10,000	10,000	68.3	61.9	J-15	56.2	54.7	P-9	9.80	True
J-18	0	4,000	4,000	10,000	10,000	66.2	62.1	J-15	48.0	52.7	P-133	7.86	True
J-19	0	4,000	4,000	10,000	10,000	67.6	62.3	J-15	47.9	51.4	P-11	8.18	True
J-20	0	4,000	4,000	10,000	10,000	71.0	62.5	J-15	55.3	57.8	P-133	8.08	True
J-21	0	4,000	4,000	10,000	10,000	78.8	62.6	J-15	65.8	58.1	P-133	8.11	True
J-22	28	4,000	4,028	10,000	10,028	83.3	62.7	J-15	72.5	58.6	P-133	8.15	True
J-23	0	4,000	4,000	10,000	10,000	80.8	62.8	J-15	71.9	58.9	P-133	8.20	True
J-24	0	4,000	4,000	9,427	9,427	87.5	62.9	J-15	61.4	59.6	P-83	10.00	True
J-25	0	4,000	4,000	9,365	9,365	87.8	62.9	J-15	48.1	52.4	P-16	10.00	True
J-26	0	4,000	4,000	9,387	9,387	88.4	63.0	J-15	54.5	59.9	P-70	10.00	True
J-27	273	1,500	1,773	7,162	7,434	88.3	64.2	J-15	59.8	62.0	P-17	10.00	True
J-28	273	1,500	1,773	10,000	10,273	87.5	64.3	J-15	45.1	53.1	P-22	9.79	True
J-29	0	1,500	1,500	3,389	3,389	80.5	64.3	J-15	64.3	63.7	P-20	10.00	True
J-30	273	4,000	4,273	7,788	8,060	74.2	63.5	J-15	55.7	62.1	P-21	10.00	True

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-31	273	1,500	1,773	6,355	6,627	82.1	64.3	J-15	57.3	59.9	P-24	10.00	True
J-32	273	1,500	1,773	8,616	8,889	80.8	64.3	J-15	49.1	57.2	P-25	10.00	True
J-33	273	1,500	1,773	6,301	6,574	78.3	64.4	J-15	60.4	62.9	P-27	10.00	True
J-34	273	1,500	1,773	4,841	5,114	76.5	64.4	J-15	67.0	63.5	P-27	10.00	True
J-35	0	1,500	1,500	2,676	2,676	79.0	64.3	J-15	63.3	63.9	P-39	10.00	True
J-36	0	1,500	1,500	3,533	3,533	76.0	64.3	J-15	63.4	63.7	P-42	10.00	True
J-37	0	1,500	1,500	2,607	2,607	77.7	64.3	J-15	60.0	63.9	P-31	10.00	True
J-38	0	1,500	1,500	2,450	2,450	73.9	64.3	J-15	60.2	64.0	P-33	10.00	True
J-39	354	1,500	1,854	2,207	2,561	74.0	64.3	J-15	65.6	64.0	P-34	10.00	True
J-40	0	1,500	1,500	2,265	2,265	72.2	64.3	J-15	63.9	64.1	P-36	10.00	True
J-41	0	4,000	4,000	7,088	7,088	78.7	63.5	J-15	59.0	62.1	P-37	10.00	True
J-42	0	4,000	4,000	9,680	9,680	74.0	63.5	J-15	56.1	60.9	P-40	10.00	True
J-43	354	1,500	1,854	6,767	7,121	74.5	63.7	J-15	59.9	59.0	P-44	10.00	True
J-44	354	1,500	1,854	10,000	10,354	70.3	63.7	J-15	49.7	54.4	P-143	8.80	True
J-45	0	1,500	1,500	3,606	3,606	73.6	63.9	J-15	57.2	62.6	P-47	10.00	True
J-46	354	1,500	1,854	2,649	3,003	65.3	64.2	J-15	52.9	63.7	P-49	10.00	True
J-47	0	1,500	1,500	3,077	3,077	72.3	63.8	J-15	55.8	62.8	P-51	10.00	True
J-48	0	1,500	1,500	5,032	5,032	66.5	63.5	J-15	46.3	59.9	P-62	10.00	True
J-49	354	1,500	1,854	8,577	8,931	67.0	63.4	J-15	40.2	44.7	P-54	10.00	True
J-50	0	1,500	1,500	2,850	2,850	60.4	63.2	J-15	47.4	61.6	P-56	10.00	True
J-51	0	4,000	4,000	10,000	10,000	60.5	60.7	J-15	42.9	47.3	P-138	7.82	True
J-52	0	4,000	4,000	10,000	10,000	64.9	61.5	J-15	49.2	51.7	P-133	7.60	True
J-53	273	1,500	1,773	2,728	3,001	87.3	64.2	J-15	75.1	63.7	P-65	10.00	True
J-54	0	1,500	1,500	6,700	6,700	94.9	64.2	J-15	71.2	61.9	P-64	10.00	True
J-55	0	1,500	1,500	5,074	5,074	91.4	64.1	J-15	65.5	62.4	P-66	10.00	True
J-56	273	1,500	1,773	8,165	8,438	91.9	64.1	J-15	58.2	60.7	P-93	10.00	True
J-57	0	1,500	1,500	4,043	4,043	88.4	64.1	J-15	62.4	63.0	P-68	10.00	True
J-58	0	1,500	1,500	3,014	3,014	88.8	64.1	J-15	70.9	63.5	P-72	10.00	True
J-59	0	4,000	4,000	7,636	7,636	86.2	63.0	J-15	63.1	61.1	P-70	10.00	True
J-60	0	1,500	1,500	2,904	2,904	88.2	64.1	J-15	67.7	63.5	P-74	10.00	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-61	273	1,500	1,773	7,365	7,638	94.7	64.1	J-15	61.6	61.2	P-75	10.00	True
J-62	273	1,500	1,773	9,236	9,508	87.4	64.1	J-15	57.0	60.0	P-77	10.00	True
J-63	273	1,500	1,773	7,149	7,421	87.0	64.2	J-15	67.6	61.4	P-78	10.00	True
J-64	0	1,500	1,500	2,695	2,695	83.6	64.2	J-15	69.7	63.6	P-79	10.00	True
J-65	273	1,500	1,773	7,784	8,057	90.3	64.1	J-15	63.0	60.8	P-84	10.00	True
J-66	0	4,000	4,000	10,000	10,000	86.5	62.9	J-15	64.3	59.2	P-82	9.40	True
J-67	0	1,500	1,500	2,799	2,799	81.5	64.1	J-15	63.8	63.5	P-85	10.00	True
J-68	273	1,500	1,773	7,010	7,282	85.4	64.1	J-15	66.7	61.3	P-87	10.00	True
J-69	0	1,500	1,500	4,102	4,102	80.4	64.2	J-15	57.2	63.0	P-140	10.00	True
J-70	273	1,500	1,773	9,338	9,611	85.9	64.1	J-15	54.1	59.9	P-90	10.00	True
J-71	273	1,500	1,773	9,543	9,816	87.6	64.1	J-15	52.2	59.7	P-96	10.00	True
J-72	273	1,500	1,773	8,513	8,786	89.0	64.1	J-15	60.5	60.4	P-94	10.00	True
J-73	0	1,500	1,500	3,545	3,545	71.5	63.9	J-15	56.6	62.6	P-112	10.00	True
J-74	354	1,500	1,854	10,000	10,354	75.4	63.9	J-15	46.3	53.0	P-103	8.48	True
J-75	354	1,500	1,854	6,302	6,656	77.1	64.0	J-15	56.1	60.9	P-99	10.00	True
J-76	354	1,500	1,854	6,737	7,091	79.3	64.0	J-15	59.8	60.6	P-100	10.00	True
J-77	354	1,500	1,854	6,078	6,432	76.4	64.0	J-15	55.5	61.0	P-102	10.00	True
J-78	354	1,500	1,854	8,732	9,086	74.5	63.9	J-15	45.4	57.5	P-111	10.00	True
J-79	0	1,500	1,500	3,027	3,027	71.7	63.9	J-15	55.4	63.0	P-119	10.00	True
J-80	0	4,000	4,000	10,000	10,000	74.7	62.2	J-15	62.4	56.8	P-105	8.69	True
J-81	0	1,500	1,500	3,830	3,830	79.3	64.0	J-15	60.0	62.7	P-130	10.00	True
J-82	354	1,500	1,854	6,706	7,060	80.2	64.0	J-15	61.8	60.8	P-109	10.00	True
J-83	354	4,000	4,354	7,903	8,257	66.1	62.3	J-15	50.4	58.1	P-122	10.00	True
J-84	0	1,500	1,500	3,989	3,989	67.6	63.9	J-15	45.8	62.1	P-113	10.00	True
J-85	0	1,500	1,500	3,015	3,015	67.8	64.0	J-15	41.0	63.1	P-117	10.00	True
J-86	0	1,500	1,500	2,874	2,874	73.8	64.0	J-15	55.2	63.1	P-121	10.00	True
J-87	0	1,500	1,500	3,871	3,871	74.3	63.9	J-15	52.1	58.8	P-120	10.00	True
J-90	0	4,000	4,000	10,000	10,000	59.0	59.4	J-15	38.6	43.4	P-125	8.72	True
J-91	0	4,000	4,000	10,000	10,000	82.3	62.6	J-15	70.3	58.3	P-133	8.13	True
J-92	0	4,000	4,000	10,000	10,000	78.2	64.7	J-15	78.2	64.7	P-133	3.53	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-93	0	4,000	4,000	10,000	10,000	76.7	62.6	J-15	62.8	57.9	P-133	8.10	True
J-94	56	4,000	4,056	10,000	10,056	63.8	61.4	J-15	49.0	49.7	P-133	7.52	True
J-95	0	4,000	4,000	9,916	9,916	60.2	59.7	J-15	41.8	45.2	P-141	10.00	True
J-205	0	1,500	1,500	3,524	3,524	96.0	64.1	J-15	64.1	63.2	P-204	10.00	True
J-ELS	1	1,500	1,501	3,524	3,525	92.8	64.1	J-15	44.3	63.2	P-259	10.00	True

SITE
HYDRAULIC MODELING RESULTS

SITE
AVERAGE DAY DEMAND RESULTS

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
AZWC-J-1	1,565.65	96	1,717.17	65.6
AZWC-J-2	1,566.00	0	1,718.48	66.0
AZWC-J-3	1,562.39	96	1,719.53	68.0
AZWC-J-4	1,549.27	192	1,717.00	72.6
AZWC-J-5	1,549.29	14	1,717.15	72.6
AZWC-J-6	1,550.00	14	1,718.56	72.9
AZWC-J-7	1,540.00	14	1,717.14	76.6
AZWC-J-8	1,540.19	96	1,720.00	77.8
AZWC-J-9	1,532.76	74	1,716.86	79.7
AZWC-J-10	1,532.13	96	1,716.88	79.9
AZWC-J-11	1,530.66	192	1,717.00	80.6
AZWC-J-12	1,530.39	96	1,718.65	81.5
AZWC-J-13	1,516.54	55	1,716.89	86.7
AZWC-J-14	1,511.49	55	1,716.86	88.9
AZWC-J-15	1,510.00	192	1,717.09	89.6
AZWC-J-16	1,510.00	96	1,717.38	89.7
AZWC-J-17	1,498.95	55	1,716.90	94.3
AZWC-J-18	1,496.42	55	1,716.87	95.4
J-1	1,518.46	0	1,709.23	82.5
J-2	1,524.42	0	1,709.57	80.1
J-3	1,534.31	0	1,709.53	75.8
J-4	1,536.36	28	1,709.31	74.8
J-5	1,511.94	0	1,708.70	85.1
J-6	1,496.19	0	1,708.63	91.9
J-7	1,487.97	0	1,708.40	95.4
J-8	1,482.10	0	1,708.39	97.9
J-9	1,489.31	0	1,708.40	94.8
J-10	1,498.18	0	1,708.49	91.0
J-11	1,505.45	0	1,708.73	87.9
J-12	1,528.22	0	1,708.84	78.1
J-13	1,541.89	0	1,708.75	72.2
J-14	1,551.18	0	1,708.75	68.2
J-15	1,555.10	192	1,708.77	66.5
J-16	1,547.57	14	1,708.94	69.8
J-17	1,539.63	0	1,709.09	73.3
J-18	1,536.04	0	1,708.77	74.7
J-19	1,531.88	0	1,708.85	76.6
J-20	1,525.85	0	1,709.19	79.3
J-21	1,509.31	0	1,709.16	86.5
J-22	1,500.29	14	1,709.17	90.4
J-23	1,507.70	0	1,709.15	87.2
J-24	1,478.32	0	1,708.73	99.7
J-25	1,468.56	0	1,708.66	103.9
J-26	1,470.59	0	1,708.37	102.9
J-27	1,491.65	149	1,708.33	93.7
J-28	1,494.43	149	1,708.34	92.5
J-29	1,504.84	0	1,708.49	88.1
J-30	1,509.95	149	1,708.52	85.9

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-31	1,506.31	149	1,708.34	87.4
J-32	1,510.99	149	1,708.44	85.4
J-33	1,517.93	149	1,708.62	82.5
J-34	1,523.42	149	1,708.89	80.2
J-35	1,500.26	0	1,708.53	90.1
J-36	1,519.89	0	1,708.69	81.7
J-37	1,497.84	0	1,708.33	91.1
J-38	1,508.75	0	1,708.34	86.4
J-39	1,509.06	192	1,708.62	86.3
J-40	1,519.34	0	1,709.22	82.2
J-41	1,493.31	0	1,708.55	93.1
J-42	1,520.78	0	1,708.89	81.4
J-43	1,528.04	192	1,708.83	78.2
J-44	1,539.15	192	1,708.92	73.5
J-45	1,525.42	0	1,709.11	79.5
J-46	1,536.25	192	1,708.98	74.7
J-47	1,523.18	0	1,708.99	80.4
J-48	1,543.23	0	1,708.76	71.6
J-49	1,544.66	192	1,708.75	71.0
J-50	1,550.01	0	1,708.76	68.7
J-51	1,551.30	0	1,708.75	68.1
J-52	1,541.61	0	1,708.76	72.3
J-53	1,482.08	149	1,708.24	97.8
J-54	1,476.49	0	1,708.37	100.3
J-55	1,480.56	0	1,708.41	98.6
J-56	1,481.69	149	1,708.23	98.0
J-57	1,483.32	0	1,708.30	97.3
J-58	1,478.32	0	1,708.33	99.5
J-59	1,473.68	0	1,708.37	101.5
J-60	1,475.18	0	1,708.32	100.9
J-61	1,474.72	149	1,708.25	101.0
J-62	1,493.15	149	1,708.24	93.1
J-63	1,494.82	149	1,708.30	92.4
J-64	1,489.78	0	1,708.30	94.5
J-65	1,486.52	149	1,708.41	96.0
J-66	1,484.90	0	1,708.77	96.9
J-67	1,492.33	0	1,708.44	93.5
J-68	1,498.85	149	1,708.49	90.7
J-69	1,504.49	0	1,708.51	88.3
J-70	1,496.77	149	1,708.25	91.5
J-71	1,492.39	149	1,708.24	93.4
J-72	1,489.15	149	1,708.23	94.8
J-73	1,526.88	0	1,708.73	78.7
J-74	1,522.81	192	1,708.57	80.4
J-75	1,517.39	192	1,708.57	82.7
J-76	1,513.14	192	1,708.74	84.6
J-77	1,518.58	192	1,708.57	82.2
J-78	1,525.14	192	1,708.60	79.4

Active Scenario: Average Day - Site

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-79	1,521.50	0	1,708.71	81.0
J-80	1,521.52	0	1,708.97	81.1
J-81	1,507.88	0	1,708.87	87.0
J-82	1,511.68	192	1,708.73	85.3
J-83	1,530.12	192	1,708.63	77.2
J-84	1,534.97	0	1,708.65	75.1
J-85	1,520.43	0	1,708.73	81.5
J-86	1,512.42	0	1,708.75	84.9
J-87	1,519.02	0	1,708.76	82.1
J-88	1,543.79	211	1,709.44	71.7
J-89	1,561.51	211	1,710.00	64.2
J-90	1,553.44	0	1,708.76	67.2
J-91	1,501.89	0	1,709.16	89.7
J-92	1,529.36	0	1,710.00	78.2
J-93	1,513.70	0	1,709.17	84.6
J-94	1,544.69	28	1,708.75	71.0
J-95	1,552.90	0	1,708.89	67.5
J-200	1,496.00	309	1,709.37	92.3
J-201	1,488.00	489	1,710.00	96.0
J-202	1,470.66	489	1,709.47	103.3
J-203	1,458.00	489	1,708.73	108.5
J-204	1,453.24	0	1,708.72	110.5
J-205	1,458.56	0	1,708.68	108.2
J-206	1,496.31	489	1,709.32	92.2
J-207	1,517.23	496	1,709.09	83.0
J-208	1,519.99	316	1,709.09	81.8
J-209	1,504.30	309	1,709.12	88.6
J-210	1,475.66	309	1,708.81	100.9
J-211	1,463.36	309	1,708.56	106.1
J-212	1,454.56	125	1,708.82	110.0
J-213	1,466.18	125	1,709.25	105.2
J-214	1,480.99	125	1,709.56	98.9
J-215	1,494.36	125	1,709.24	93.0
J-216	1,510.97	180	1,709.01	85.7
J-217	1,559.60	253	1,709.43	64.8
J-218	1,554.84	253	1,709.08	66.7
J-219	1,549.95	253	1,708.67	68.7
J-220	1,529.45	253	1,708.77	77.6
J-221	1,536.00	253	1,709.11	74.9
J-222	1,536.00	260	1,709.07	74.9
J-223	1,563.53	260	1,709.10	63.0
J-224	1,560.58	253	1,708.79	64.1
J-225	1,550.03	211	1,708.69	68.6
J-226	1,551.62	211	1,708.66	67.9
J-227	1,546.70	211	1,708.75	70.1
J-228	1,534.99	113	1,709.02	75.3
J-229	1,550.60	73	1,708.92	68.5
J-230	1,544.78	113	1,708.98	71.0

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-231	1,539.83	73	1,708.98	73.2
J-232	1,550.00	34	1,708.98	68.8
J-233	1,547.13	0	1,708.98	70.0
J-ELS	1,456.01	1	1,708.70	109.3

Active Scenario: Average Day - Site

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
AZWC-P-1	1,622	12.0	120	AZWC-J-18	AZWC-J-17	70	0.20	0.022
AZWC-P-2	2,123	12.0	120	AZWC-J-17	AZWC-J-15	152	0.43	0.090
AZWC-P-3	3,095	16.0	120	AZWC-J-4	AZWC-J-11	34	0.05	0.001
AZWC-P-4	2,970	16.0	120	AZWC-J-11	AZWC-J-15	179	0.29	0.030
AZWC-P-5	2,054	12.0	120	AZWC-J-13	AZWC-J-11	116	0.33	0.054
AZWC-P-6	2,990	12.0	120	AZWC-J-17	AZWC-J-13	27	0.08	0.004
AZWC-P-7	1,705	12.0	120	AZWC-J-14	AZWC-J-13	60	0.17	0.016
AZWC-P-8	2,436	16.0	120	AZWC-J-4	AZWC-J-1	282	0.45	0.069
AZWC-P-9	3,055	16.0	120	AZWC-J-8	AZWC-J-3	434	0.69	0.155
AZWC-P-10	1,316	16.0	120	AZWC-J-15	AZWC-J-16	523	0.84	0.218
AZWC-P-11	2,912	16.0	120	AZWC-J-16	AZWC-J-12	762	1.22	0.438
AZWC-P-12	2,013	16.0	120	AZWC-J-12	AZWC-J-8	958	1.53	0.669
AZWC-P-13	2,178	12.0	120	AZWC-J-1	AZWC-J-2	425	1.21	0.603
AZWC-P-14	2,649	12.0	120	AZWC-J-2	AZWC-J-3	339	0.96	0.396
AZWC-P-15	1,502	12.0	120	AZWC-J-5	AZWC-J-7	33	0.09	0.005
AZWC-P-16	2,991	12.0	120	AZWC-J-16	AZWC-J-7	143	0.41	0.080
AZWC-P-17	1,931	12.0	120	AZWC-J-5	AZWC-J-1	47	0.13	0.010
AZWC-P-18	2,422	12.0	120	AZWC-J-6	AZWC-J-2	86	0.24	0.031
AZWC-P-19	2,346	12.0	120	AZWC-J-6	AZWC-J-12	100	0.28	0.042
AZWC-P-20	1,354	12.0	120	AZWC-J-11	AZWC-J-7	162	0.46	0.101
AZWC-P-21	2,644	12.0	120	AZWC-J-18	AZWC-J-14	15	0.04	0.001
AZWC-P-22	3,404	12.0	120	AZWC-J-14	AZWC-J-9	20	0.06	0.002
AZWC-P-23	1,779	12.0	120	AZWC-J-9	AZWC-J-10	54	0.15	0.013
AZWC-P-24	3,067	12.0	120	AZWC-J-10	AZWC-J-13	27	0.08	0.004
AZWC-P-25	1,946	12.0	120	AZWC-J-10	AZWC-J-4	123	0.35	0.061
P-1	1,337	24.0	120	J-1	J-2	1,639	1.16	0.251
P-2	1,236	24.0	120	J-3	J-4	1,378	0.98	0.182
P-3	2,654	16.0	120	J-5	J-6	165	0.26	0.026
P-4	2,643	12.0	120	J-7	J-8	29	0.08	0.004
P-5	1,373	16.0	120	J-8	J-9	49	0.08	0.003
P-6	1,371	16.0	120	J-10	J-11	468	0.75	0.177
P-7	1,867	16.0	120	J-9	J-10	232	0.37	0.049
P-7	1,712	16.0	120	J-11	J-1	614	0.98	0.294
P-8	1,252	16.0	120	J-16	J-17	379	0.60	0.120
P-9	1,335	16.0	120	J-17	J-4	442	0.71	0.160
P-10	1,872	16.0	120	J-13	J-18	92	0.15	0.009
P-11	817	16.0	120	J-18	J-19	341	0.54	0.098
P-12	2,582	16.0	120	J-19	J-20	401	0.64	0.133
P-13	2,636	24.0	120	J-22	J-23	215	0.15	0.006
P-14	2,640	24.0	120	J-23	J-1	529	0.38	0.031
P-15	2,850	16.0	120	J-24	J-25	163	0.26	0.025
P-16	1,880	12.0	120	J-25	J-26	202	0.57	0.152
P-17	1,357	12.0	120	J-9	J-27	110	0.31	0.049
P-18	1,167	12.0	120	J-27	J-28	32	0.09	0.005
P-19	1,813	8.0	120	J-28	J-29	52	0.33	0.088
P-20	781	8.0	120	J-29	J-30	28	0.18	0.028
P-21	997	12.0	120	J-30	J-5	224	0.64	0.184

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-22	1,324	12.0	120	J-7	J-28	113	0.32	0.051
P-23	2,040	12.0	120	J-28	J-31	16	0.05	0.001
P-24	935	12.0	120	J-31	J-32	172	0.49	0.113
P-25	1,071	12.0	120	J-32	J-33	213	0.60	0.168
P-26	757	12.0	120	J-33	J-34	319	0.91	0.355
P-27	888	12.0	120	J-34	J-3	468	1.33	0.720
P-28	1,587	8.0	120	J-29	J-35	24	0.15	0.021
P-29	1,506	8.0	120	J-30	J-36	60	0.39	0.117
P-30	1,149	8.0	120	J-36	J-33	43	0.27	0.061
P-31	1,110	8.0	120	J-27	J-37	7	0.05	0.002
P-32	1,560	8.0	120	J-37	J-38	7	0.05	0.002
P-33	895	8.0	120	J-38	J-31	7	0.05	0.002
P-34	783	8.0	120	J-11	J-39	68	0.43	0.146
P-35	1,356	8.0	120	J-39	J-40	124	0.79	0.443
P-36	792	8.0	120	J-40	J-2	124	0.79	0.443
P-37	807	12.0	120	J-6	J-41	165	0.47	0.105
P-38	1,833	12.0	120	J-41	J-7	142	0.40	0.079
P-39	949	8.0	120	J-35	J-41	24	0.15	0.021
P-40	2,155	16.0	120	J-4	J-42	492	0.79	0.195
P-41	1,477	16.0	120	J-42	J-5	389	0.62	0.126
P-42	614	8.0	120	J-36	J-42	103	0.66	0.314
P-43	1,556	12.0	120	J-32	J-30	108	0.31	0.047
P-44	689	12.0	120	J-12	J-43	43	0.12	0.008
P-45	1,946	12.0	120	J-43	J-44	105	0.30	0.045
P-46	2,073	8.0	120	J-44	J-45	54	0.34	0.094
P-47	969	8.0	120	J-45	J-2	128	0.82	0.469
P-48	1,168	8.0	120	J-3	J-46	129	0.82	0.475
P-49	911	8.0	120	J-46	J-17	63	0.40	0.128
P-50	742	8.0	120	J-45	J-47	74	0.47	0.171
P-51	921	8.0	120	J-47	J-43	74	0.47	0.171
P-52	2,082	8.0	120	J-43	J-48	30	0.19	0.032
P-53	1,325	8.0	120	J-48	J-49	16	0.10	0.010
P-54	1,465	12.0	120	J-49	J-44	173	0.49	0.114
P-55	1,495	12.0	120	J-49	J-14	15	0.04	0.001
P-56	743	8.0	120	J-49	J-50	18	0.11	0.012
P-57	1,129	8.0	120	J-50	J-15	18	0.11	0.012
P-58	931	16.0	120	J-51	J-14	14	0.02	0.000
P-59	1,264	8.0	120	J-48	J-51	17	0.11	0.012
P-60	2,202	16.0	120	J-12	J-52	188	0.30	0.033
P-61	885	16.0	120	J-52	J-94	139	0.22	0.019
P-62	840	8.0	120	J-48	J-52	3	0.02	0.000
P-63	906	8.0	120	J-9	J-53	74	0.47	0.169
P-64	910	12.0	120	J-54	J-8	78	0.22	0.026
P-65	721	8.0	120	J-53	J-54	75	0.48	0.175
P-66	983	8.0	120	J-24	J-55	105	0.67	0.324
P-67	1,333	8.0	120	J-55	J-56	65	0.41	0.134
P-68	1,116	8.0	120	J-56	J-57	42	0.26	0.058

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-69	729	8.0	120	J-57	J-58	35	0.22	0.042
P-70	857	12.0	120	J-26	J-59	31	0.09	0.005
P-71	1,622	12.0	120	J-59	J-54	3	0.01	0.000
P-72	936	8.0	120	J-58	J-59	35	0.22	0.042
P-73	1,459	8.0	120	J-55	J-60	43	0.27	0.061
P-74	1,114	8.0	120	J-60	J-61	43	0.27	0.061
P-75	1,054	12.0	120	J-61	J-26	171	0.48	0.112
P-76	1,140	12.0	120	J-61	J-56	65	0.18	0.019
P-77	855	12.0	120	J-62	J-63	139	0.39	0.076
P-78	905	12.0	120	J-63	J-10	236	0.67	0.202
P-79	831	8.0	120	J-63	J-64	7	0.04	0.002
P-80	1,177	8.0	120	J-64	J-57	7	0.04	0.002
P-81	1,245	8.0	120	J-55	J-65	3	0.02	0.000
P-82	2,151	16.0	120	J-22	J-66	480	0.77	0.186
P-83	1,176	16.0	120	J-66	J-24	179	0.29	0.030
P-84	1,113	12.0	120	J-65	J-66	301	0.85	0.318
P-85	1,034	8.0	120	J-65	J-67	28	0.18	0.028
P-86	1,662	8.0	120	J-67	J-68	28	0.18	0.028
P-87	1,161	12.0	120	J-68	J-23	413	1.17	0.571
P-88	1,359	8.0	120	J-68	J-69	20	0.13	0.015
P-89	1,832	8.0	120	J-69	J-63	59	0.38	0.112
P-90	1,005	12.0	120	J-68	J-70	256	0.73	0.236
P-91	573	12.0	120	J-70	J-62	69	0.20	0.021
P-92	1,409	12.0	120	J-65	J-71	177	0.50	0.119
P-93	1,201	12.0	120	J-56	J-72	23	0.06	0.003
P-94	503	12.0	120	J-72	J-62	59	0.17	0.016
P-95	736	12.0	120	J-71	J-72	67	0.19	0.020
P-96	718	12.0	120	J-71	J-70	39	0.11	0.007
P-97	1,047	8.0	120	J-19	J-73	60	0.38	0.117
P-98	1,393	12.0	120	J-83	J-74	99	0.28	0.040
P-99	903	12.0	120	J-74	J-75	13	0.04	0.001
P-100	1,063	12.0	120	J-21	J-76	340	0.96	0.398
P-101	1,185	12.0	120	J-76	J-77	192	0.55	0.139
P-102	939	12.0	120	J-77	J-74	0	0.00	0.000
P-103	1,124	12.0	120	J-74	J-78	80	0.23	0.027
P-104	1,019	8.0	120	J-78	J-79	56	0.36	0.102
P-105	1,354	16.0	120	J-1	J-80	495	0.79	0.197
P-106	894	16.0	120	J-80	J-12	421	0.67	0.145
P-107	1,486	8.0	120	J-76	J-81	52	0.33	0.090
P-108	1,004	12.0	120	J-75	J-82	205	0.58	0.157
P-109	1,106	12.0	120	J-82	J-23	331	0.94	0.379
P-110	1,868	8.0	120	J-81	J-82	48	0.30	0.075
P-111	1,711	12.0	120	J-78	J-12	190	0.54	0.136
P-112	675	8.0	120	J-73	J-83	68	0.44	0.147
P-113	1,008	8.0	120	J-83	J-84	21	0.13	0.016
P-114	1,673	8.0	120	J-84	J-52	46	0.29	0.071
P-115	1,776	8.0	120	J-78	J-84	25	0.16	0.024

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-116	1,656	8.0	120	J-73	J-85	8	0.05	0.003
P-117	1,568	8.0	120	J-85	J-76	8	0.05	0.003
P-118	1,542	8.0	120	J-82	J-86	19	0.12	0.013
P-119	532	8.0	120	J-79	J-87	56	0.36	0.102
P-120	1,177	8.0	120	J-87	J-80	75	0.48	0.173
P-121	801	8.0	120	J-86	J-87	19	0.12	0.013
P-122	931	12.0	120	J-83	J-18	201	0.57	0.151
P-123	2,664	24.0	120	J-20	J-88	946	0.67	0.091
P-124	2,422	24.0	120	J-88	J-89	1,574	1.12	0.233
P-125	839	16.0	120	J-14	J-90	115	0.18	0.013
P-126	1,077	16.0	120	J-90	J-15	115	0.18	0.013
P-128	1,309	24.0	120	J-21	J-91	64	0.05	0.001
P-129	1,332	24.0	120	J-91	J-22	164	0.12	0.003
P-130	974	8.0	120	J-81	J-91	100	0.64	0.298
P-133	1,322	24.0	120	J-2	J-92	1,891	1.34	0.327
P-134	1,322	24.0	120	J-92	J-3	1,974	1.40	0.354
P-135	1,774	24.0	120	J-20	J-93	336	0.24	0.013
P-136	778	24.0	120	J-93	J-21	336	0.24	0.013
P-137	786	16.0	120	J-13	J-94	92	0.15	0.009
P-138	1,159	16.0	120	J-94	J-51	31	0.05	0.001
P-139	2,314	12.0	120	J-44	J-16	48	0.14	0.011
P-140	1,166	8.0	120	J-11	J-69	79	0.50	0.190
P-141	890	16.0	120	J-95	J-16	268	0.43	0.063
P-142	1,256	16.0	120	J-15	J-95	324	0.52	0.090
P-143	2,336	12.0	120	J-44	J-92	369	1.05	0.463
P-200	2,335	24.0	120	J-201	J-202	1,550	1.10	0.226
P-201	2,336	16.0	120	J-202	J-203	641	1.02	0.318
P-202	1,418	16.0	120	J-203	J-204	64	0.10	0.004
P-204	2,317	12.0	120	J-205	J-25	39	0.11	0.007
P-205	2,640	24.0	120	J-201	J-206	1,657	1.18	0.256
P-206	2,639	24.0	120	J-206	J-207	934	0.66	0.088
P-207	2,567	12.0	120	J-208	J-209	49	0.14	0.011
P-208	2,713	12.0	120	J-209	J-200	157	0.44	0.095
P-209	2,452	12.0	120	J-210	J-24	88	0.25	0.033
P-210	2,672	24.0	120	J-22	J-200	873	0.62	0.078
P-211	2,633	12.0	120	J-209	J-21	61	0.17	0.016
P-212	2,662	16.0	120	J-208	J-20	208	0.33	0.040
P-213	2,706	12.0	120	J-202	J-210	261	0.74	0.244
P-214	1,265	12.0	120	J-203	J-211	186	0.53	0.131
P-215	1,876	12.0	120	J-211	J-205	122	0.35	0.060
P-216	2,801	12.0	120	J-200	J-210	235	0.67	0.201
P-217	2,687	24.0	120	J-200	J-201	1,573	1.12	0.232
P-218	2,651	12.0	120	J-206	J-209	141	0.40	0.078
P-219	2,641	16.0	120	J-207	J-208	16	0.03	0.000
P-220	2,285	12.0	120	J-203	J-212	99	0.28	0.040
P-221	2,358	12.0	120	J-212	J-213	223	0.63	0.183
P-222	2,276	12.0	120	J-213	J-214	189	0.54	0.135

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-223	2,646	12.0	120	J-214	J-215	178	0.51	0.120
P-224	2,674	12.0	120	J-215	J-216	147	0.42	0.084
P-225	2,288	16.0	120	J-216	J-207	188	0.30	0.033
P-226	2,254	12.0	120	J-213	J-202	159	0.45	0.097
P-227	2,266	16.0	120	J-214	J-201	492	0.78	0.195
P-228	2,289	12.0	120	J-206	J-215	93	0.27	0.036
P-229	2,627	24.0	120	J-222	J-207	233	0.17	0.007
P-230	2,665	12.0	120	J-219	J-220	92	0.26	0.035
P-231	2,652	12.0	120	J-220	J-216	155	0.44	0.093
P-232	2,707	12.0	120	J-221	J-222	56	0.16	0.014
P-233	2,657	24.0	120	J-218	J-222	161	0.11	0.003
P-234	2,252	12.0	120	J-220	J-222	190	0.54	0.135
P-235	2,583	12.0	120	J-221	J-88	183	0.52	0.126
P-236	2,638	24.0	120	J-89	J-217	1,510	1.07	0.216
P-237	2,620	12.0	120	J-208	J-221	42	0.12	0.008
P-238	2,942	12.0	120	J-221	J-217	169	0.48	0.109
P-239	2,825	24.0	120	J-217	J-223	1,088	0.77	0.118
P-240	1,107	12.0	120	J-224	J-219	162	0.46	0.101
P-241	903	24.0	120	J-223	J-218	414	0.29	0.020
P-242	2,212	16.0	120	J-223	J-224	415	0.66	0.142
P-243	1,160	16.0	120	J-225	J-94	234	0.37	0.049
P-244	3,411	12.0	120	J-88	J-227	235	0.67	0.201
P-245	2,726	12.0	120	J-227	J-225	72	0.20	0.022
P-246	855	12.0	120	J-225	J-226	95	0.27	0.038
P-247	1,678	12.0	120	J-226	J-14	116	0.33	0.054
P-248	1,900	12.0	120	J-18	J-227	47	0.13	0.010
P-249	2,011	16.0	120	J-4	J-228	415	0.66	0.142
P-250	1,945	12.0	120	J-16	J-229	49	0.14	0.011
P-251	1,597	16.0	120	J-228	J-230	157	0.25	0.024
P-253	1,930	12.0	120	J-229	J-231	81	0.23	0.028
P-254	558	12.0	120	J-231	J-228	144	0.41	0.082
P-255	842	16.0	120	J-230	J-232	37	0.06	0.002
P-256	552	8.0	120	J-230	J-233	7	0.05	0.003
P-257	1,595	8.0	120	J-233	J-231	10	0.06	0.004
P-258	330	12.0	120	J-232	J-233	2	0.01	0.000
P-259	1,600	12.0	120	J-ELS	J-205	63	0.18	0.017
P-260	1,038	12.0	120	J-204	J-ELS	64	0.18	0.018
P-261	3,327	12.0	120	J-210	J-205	99	0.28	0.041
P-262	2,378	12.0	120	J-95	J-229	57	0.16	0.014
P-500	679	48.0	120	R-1	J-92	4,234	0.75	0.048
P-501	600	48.0	120	R-2	FCV-2	3,295	0.58	0.024
P-502	566	48.0	120	FCV-2	J-89	3,295	0.58	0.049
P-503	604	48.0	120	R-3	FCV-3	5,760	1.02	0.098
P-504	604	48.0	120	FCV-3	J-201	5,760	1.02	0.073
P-505	861	48.0	120	R-AZWC	AZWC-J-8	1,489	0.26	0.012

FlexTable: FCV Table

Label	Elevation (ft)	Diameter (Valve) (in)	Flow Setting (Initial) (gpm)	Minor Loss Coefficient (Local)	Flow (gpm)	Hydraulic Grade (From) (ft)	Hydraulic Grade (To) (ft)	Headloss (ft)
FCV-2	1,561.51	48.0	10,410	0.0000000	3,295	1,710.00	1,710.00	0.00
FCV-3	1,488.00	48.0	14,413	0.0000000	5,760	1,710.00	1,710.00	0.00

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,710.00	4,234	1,710.00
R-2	1,710.00	3,295	1,710.00
R-3	1,710.00	5,760	1,710.00
R-AZWC	1,720.00	1,489	1,720.00

SITE
MAXIMUM DAY DEMAND RESULTS

Active Scenario: Max Day - Site

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
AZWC-J-1	1,565.65	177	1,711.85	63.3
AZWC-J-2	1,566.00	0	1,715.63	64.7
AZWC-J-3	1,562.39	177	1,718.62	67.6
AZWC-J-4	1,549.27	351	1,711.35	70.1
AZWC-J-5	1,549.29	14	1,711.80	70.3
AZWC-J-6	1,550.00	14	1,715.86	71.8
AZWC-J-7	1,540.00	14	1,711.78	74.3
AZWC-J-8	1,540.19	177	1,720.00	77.8
AZWC-J-9	1,532.76	130	1,710.97	77.1
AZWC-J-10	1,532.13	173	1,711.03	77.4
AZWC-J-11	1,530.66	351	1,711.37	78.2
AZWC-J-12	1,530.39	177	1,716.12	80.4
AZWC-J-13	1,516.54	91	1,711.07	84.2
AZWC-J-14	1,511.49	91	1,711.00	86.3
AZWC-J-15	1,510.00	351	1,711.62	87.2
AZWC-J-16	1,510.00	177	1,712.44	87.6
AZWC-J-17	1,498.95	91	1,711.10	91.8
AZWC-J-18	1,496.42	91	1,711.01	92.8
J-1	1,518.46	0	1,707.63	81.8
J-2	1,524.42	0	1,708.66	79.7
J-3	1,534.31	0	1,708.57	75.4
J-4	1,536.36	56	1,707.88	74.2
J-5	1,511.94	0	1,706.00	84.0
J-6	1,496.19	0	1,705.79	90.7
J-7	1,487.97	0	1,705.07	93.9
J-8	1,482.10	0	1,705.03	96.5
J-9	1,489.31	0	1,705.05	93.3
J-10	1,498.18	0	1,705.32	89.6
J-11	1,505.45	0	1,706.07	86.8
J-12	1,528.22	0	1,706.42	77.1
J-13	1,541.89	0	1,706.18	71.1
J-14	1,551.18	0	1,706.16	67.1
J-15	1,555.10	354	1,706.24	65.4
J-16	1,547.57	28	1,706.77	68.9
J-17	1,539.63	0	1,707.23	72.5
J-18	1,536.04	0	1,706.22	73.6
J-19	1,531.88	0	1,706.46	75.5
J-20	1,525.85	0	1,707.51	78.6
J-21	1,509.31	0	1,707.40	85.7
J-22	1,500.29	28	1,707.42	89.6
J-23	1,507.70	0	1,707.37	86.4
J-24	1,478.32	0	1,706.05	98.5
J-25	1,468.56	0	1,705.82	102.7
J-26	1,470.59	0	1,704.97	101.4
J-27	1,491.65	273	1,704.85	92.2
J-28	1,494.43	273	1,704.86	91.0
J-29	1,504.84	0	1,705.36	86.8
J-30	1,509.95	273	1,705.43	84.6

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-31	1,506.31	273	1,704.87	85.9
J-32	1,510.99	273	1,705.20	84.0
J-33	1,517.93	273	1,705.76	81.3
J-34	1,523.42	273	1,706.59	79.2
J-35	1,500.26	0	1,705.46	88.8
J-36	1,519.89	0	1,705.98	80.5
J-37	1,497.84	0	1,704.85	89.6
J-38	1,508.75	0	1,704.87	84.8
J-39	1,509.06	354	1,705.72	85.1
J-40	1,519.34	0	1,707.58	81.4
J-41	1,493.31	0	1,705.52	91.8
J-42	1,520.78	0	1,706.58	80.4
J-43	1,528.04	354	1,706.40	77.2
J-44	1,539.15	354	1,706.68	72.5
J-45	1,525.42	0	1,707.27	78.7
J-46	1,536.25	354	1,706.86	73.8
J-47	1,523.18	0	1,706.89	79.5
J-48	1,543.23	0	1,706.20	70.5
J-49	1,544.66	354	1,706.17	69.9
J-50	1,550.01	0	1,706.20	67.6
J-51	1,551.30	0	1,706.16	67.0
J-52	1,541.61	0	1,706.20	71.2
J-53	1,482.08	273	1,704.57	96.3
J-54	1,476.49	0	1,704.96	98.8
J-55	1,480.56	0	1,705.08	97.1
J-56	1,481.69	273	1,704.54	96.4
J-57	1,483.32	0	1,704.74	95.8
J-58	1,478.32	0	1,704.84	98.0
J-59	1,473.68	0	1,704.96	100.1
J-60	1,475.18	0	1,704.81	99.4
J-61	1,474.72	273	1,704.60	99.5
J-62	1,493.15	273	1,704.56	91.5
J-63	1,494.82	273	1,704.76	90.8
J-64	1,489.78	0	1,704.75	93.0
J-65	1,486.52	273	1,705.09	94.6
J-66	1,484.90	0	1,706.17	95.7
J-67	1,492.33	0	1,705.18	92.1
J-68	1,498.85	273	1,705.32	89.3
J-69	1,504.49	0	1,705.39	86.9
J-70	1,496.77	273	1,704.59	89.9
J-71	1,492.39	273	1,704.58	91.8
J-72	1,489.15	273	1,704.53	93.2
J-73	1,526.88	0	1,706.08	77.5
J-74	1,522.81	354	1,705.59	79.1
J-75	1,517.39	354	1,705.60	81.4
J-76	1,513.14	354	1,706.10	83.5
J-77	1,518.58	354	1,705.59	80.9
J-78	1,525.14	354	1,705.69	78.1

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-79	1,521.50	0	1,706.01	79.8
J-80	1,521.52	0	1,706.81	80.2
J-81	1,507.88	0	1,706.51	85.9
J-82	1,511.68	354	1,706.08	84.1
J-83	1,530.12	354	1,705.77	76.0
J-84	1,534.97	0	1,705.83	73.9
J-85	1,520.43	0	1,706.09	80.3
J-86	1,512.42	0	1,706.14	83.8
J-87	1,519.02	0	1,706.18	81.0
J-88	1,543.79	378	1,708.26	71.2
J-89	1,561.51	378	1,710.00	64.2
J-90	1,553.44	0	1,706.20	66.1
J-91	1,501.89	0	1,707.40	88.9
J-92	1,529.36	0	1,710.00	78.2
J-93	1,513.70	0	1,707.43	83.8
J-94	1,544.69	56	1,706.16	69.9
J-95	1,552.90	0	1,706.60	66.5
J-200	1,496.00	576	1,708.06	91.7
J-201	1,488.00	917	1,710.00	96.0
J-202	1,470.66	917	1,708.34	102.8
J-203	1,458.00	917	1,706.01	107.3
J-204	1,453.24	0	1,705.99	109.4
J-205	1,458.56	0	1,705.86	107.0
J-206	1,496.31	917	1,707.89	91.5
J-207	1,517.23	931	1,707.17	82.2
J-208	1,519.99	590	1,707.17	81.0
J-209	1,504.30	576	1,707.25	87.8
J-210	1,475.66	576	1,706.29	99.8
J-211	1,463.36	576	1,705.49	104.8
J-212	1,454.56	230	1,706.30	108.9
J-213	1,466.18	230	1,707.66	104.5
J-214	1,480.99	230	1,708.62	98.5
J-215	1,494.36	230	1,707.63	92.3
J-216	1,510.97	341	1,706.93	84.8
J-217	1,559.60	462	1,708.24	64.3
J-218	1,554.84	462	1,707.15	65.9
J-219	1,549.95	462	1,705.91	67.5
J-220	1,529.45	462	1,706.19	76.5
J-221	1,536.00	462	1,707.24	74.1
J-222	1,536.00	476	1,707.12	74.0
J-223	1,563.53	476	1,707.21	62.2
J-224	1,560.58	462	1,706.25	63.0
J-225	1,550.03	378	1,705.99	67.5
J-226	1,551.62	378	1,705.89	66.7
J-227	1,546.70	378	1,706.17	69.0
J-228	1,534.99	201	1,707.04	74.4
J-229	1,550.60	121	1,706.72	67.5
J-230	1,544.78	201	1,706.93	70.2

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-231	1,539.83	121	1,706.91	72.3
J-232	1,550.00	62	1,706.93	67.9
J-233	1,547.13	0	1,706.93	69.1
J-ELS	1,456.01	1	1,705.94	108.1

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
AZWC-P-1	1,622	12.0	120	AZWC-J-18	AZWC-J-17	120	0.34	0.058
AZWC-P-2	2,123	12.0	120	AZWC-J-17	AZWC-J-15	260	0.74	0.243
AZWC-P-3	3,095	16.0	120	AZWC-J-4	AZWC-J-11	60	0.10	0.004
AZWC-P-4	2,970	16.0	120	AZWC-J-11	AZWC-J-15	314	0.50	0.085
AZWC-P-5	2,054	12.0	120	AZWC-J-13	AZWC-J-11	196	0.56	0.144
AZWC-P-6	2,990	12.0	120	AZWC-J-17	AZWC-J-13	49	0.14	0.011
AZWC-P-7	1,705	12.0	120	AZWC-J-14	AZWC-J-13	102	0.29	0.043
AZWC-P-8	2,436	16.0	120	AZWC-J-4	AZWC-J-1	502	0.80	0.202
AZWC-P-9	3,055	16.0	120	AZWC-J-8	AZWC-J-3	774	1.24	0.451
AZWC-P-10	1,316	16.0	120	AZWC-J-15	AZWC-J-16	925	1.48	0.626
AZWC-P-11	2,912	16.0	120	AZWC-J-16	AZWC-J-12	1,350	2.15	1.262
AZWC-P-12	2,013	16.0	120	AZWC-J-12	AZWC-J-8	1,698	2.71	1.929
AZWC-P-13	2,178	12.0	120	AZWC-J-1	AZWC-J-2	753	2.14	1.737
AZWC-P-14	2,649	12.0	120	AZWC-J-2	AZWC-J-3	597	1.69	1.130
AZWC-P-15	1,502	12.0	120	AZWC-J-5	AZWC-J-7	59	0.17	0.016
AZWC-P-16	2,991	12.0	120	AZWC-J-16	AZWC-J-7	248	0.70	0.222
AZWC-P-17	1,931	12.0	120	AZWC-J-5	AZWC-J-1	74	0.21	0.023
AZWC-P-18	2,422	12.0	120	AZWC-J-6	AZWC-J-2	156	0.44	0.094
AZWC-P-19	2,346	12.0	120	AZWC-J-6	AZWC-J-12	170	0.48	0.111
AZWC-P-20	1,354	12.0	120	AZWC-J-11	AZWC-J-7	293	0.83	0.303
AZWC-P-21	2,644	12.0	120	AZWC-J-18	AZWC-J-14	29	0.08	0.004
AZWC-P-22	3,404	12.0	120	AZWC-J-14	AZWC-J-9	40	0.11	0.007
AZWC-P-23	1,779	12.0	120	AZWC-J-9	AZWC-J-10	90	0.26	0.034
AZWC-P-24	3,067	12.0	120	AZWC-J-10	AZWC-J-13	52	0.15	0.012
AZWC-P-25	1,946	12.0	120	AZWC-J-10	AZWC-J-4	211	0.60	0.165
P-1	1,337	24.0	120	J-1	J-2	3,015	2.14	0.776
P-2	1,236	24.0	120	J-3	J-4	2,516	1.78	0.555
P-3	2,654	16.0	120	J-5	J-6	305	0.49	0.080
P-4	2,643	12.0	120	J-7	J-8	57	0.16	0.014
P-5	1,373	16.0	120	J-8	J-9	91	0.15	0.009
P-6	1,371	16.0	120	J-10	J-11	859	1.37	0.547
P-7	1,867	16.0	120	J-9	J-10	426	0.68	0.149
P-7	1,712	16.0	120	J-11	J-1	1,130	1.80	0.907
P-8	1,252	16.0	120	J-16	J-17	691	1.10	0.365
P-9	1,335	16.0	120	J-17	J-4	809	1.29	0.489
P-10	1,872	16.0	120	J-13	J-18	162	0.26	0.025
P-11	817	16.0	120	J-18	J-19	618	0.99	0.297
P-12	2,582	16.0	120	J-19	J-20	730	1.16	0.404
P-13	2,636	24.0	120	J-22	J-23	386	0.27	0.017
P-14	2,640	24.0	120	J-23	J-1	981	0.70	0.097
P-15	2,850	16.0	120	J-24	J-25	305	0.49	0.080
P-16	1,880	12.0	120	J-25	J-26	366	1.04	0.456
P-17	1,357	12.0	120	J-9	J-27	199	0.56	0.147
P-18	1,167	12.0	120	J-27	J-28	60	0.17	0.016
P-19	1,813	8.0	120	J-28	J-29	96	0.61	0.275
P-20	781	8.0	120	J-29	J-30	52	0.33	0.090
P-21	997	12.0	120	J-30	J-5	412	1.17	0.569

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-22	1,324	12.0	120	J-7	J-28	205	0.58	0.157
P-23	2,040	12.0	120	J-28	J-31	31	0.09	0.005
P-24	935	12.0	120	J-31	J-32	318	0.90	0.353
P-25	1,071	12.0	120	J-32	J-33	393	1.11	0.521
P-26	757	12.0	120	J-33	J-34	587	1.67	1.096
P-27	888	12.0	120	J-34	J-3	860	2.44	2.222
P-28	1,587	8.0	120	J-29	J-35	43	0.28	0.063
P-29	1,506	8.0	120	J-30	J-36	111	0.71	0.363
P-30	1,149	8.0	120	J-36	J-33	78	0.50	0.189
P-31	1,110	8.0	120	J-27	J-37	14	0.09	0.008
P-32	1,560	8.0	120	J-37	J-38	14	0.09	0.008
P-33	895	8.0	120	J-38	J-31	14	0.09	0.008
P-34	783	8.0	120	J-11	J-39	126	0.80	0.456
P-35	1,356	8.0	120	J-39	J-40	228	1.46	1.372
P-36	792	8.0	120	J-40	J-2	228	1.46	1.372
P-37	807	12.0	120	J-6	J-41	305	0.87	0.327
P-38	1,833	12.0	120	J-41	J-7	262	0.74	0.246
P-39	949	8.0	120	J-35	J-41	43	0.28	0.063
P-40	2,155	16.0	120	J-4	J-42	907	1.45	0.604
P-41	1,477	16.0	120	J-42	J-5	717	1.14	0.391
P-42	614	8.0	120	J-36	J-42	190	1.21	0.974
P-43	1,556	12.0	120	J-32	J-30	198	0.56	0.147
P-44	689	12.0	120	J-12	J-43	76	0.21	0.025
P-45	1,946	12.0	120	J-43	J-44	196	0.56	0.144
P-46	2,073	8.0	120	J-44	J-45	98	0.62	0.286
P-47	969	8.0	120	J-45	J-2	234	1.49	1.434
P-48	1,168	8.0	120	J-3	J-46	236	1.51	1.461
P-49	911	8.0	120	J-46	J-17	118	0.75	0.404
P-50	742	8.0	120	J-45	J-47	136	0.87	0.525
P-51	921	8.0	120	J-47	J-43	136	0.87	0.525
P-52	2,082	8.0	120	J-43	J-48	54	0.34	0.095
P-53	1,325	8.0	120	J-48	J-49	28	0.18	0.028
P-54	1,465	12.0	120	J-49	J-44	318	0.90	0.352
P-55	1,495	12.0	120	J-49	J-14	27	0.08	0.003
P-56	743	8.0	120	J-49	J-50	35	0.22	0.040
P-57	1,129	8.0	120	J-50	J-15	35	0.22	0.040
P-58	931	16.0	120	J-51	J-14	33	0.05	0.001
P-59	1,264	8.0	120	J-48	J-51	31	0.20	0.034
P-60	2,202	16.0	120	J-12	J-52	339	0.54	0.097
P-61	885	16.0	120	J-52	J-94	248	0.40	0.055
P-62	840	8.0	120	J-48	J-52	4	0.03	0.001
P-63	906	8.0	120	J-9	J-53	136	0.87	0.524
P-64	910	12.0	120	J-54	J-8	148	0.42	0.085
P-65	721	8.0	120	J-53	J-54	137	0.87	0.534
P-66	983	8.0	120	J-24	J-55	191	1.22	0.984
P-67	1,333	8.0	120	J-55	J-56	119	0.76	0.409
P-68	1,116	8.0	120	J-56	J-57	76	0.49	0.181

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-69	729	8.0	120	J-57	J-58	63	0.40	0.128
P-70	857	12.0	120	J-26	J-59	52	0.15	0.012
P-71	1,622	12.0	120	J-59	J-54	11	0.03	0.001
P-72	936	8.0	120	J-58	J-59	63	0.40	0.127
P-73	1,459	8.0	120	J-55	J-60	78	0.50	0.187
P-74	1,114	8.0	120	J-60	J-61	78	0.50	0.187
P-75	1,054	12.0	120	J-61	J-26	313	0.89	0.343
P-76	1,140	12.0	120	J-61	J-56	118	0.34	0.056
P-77	855	12.0	120	J-62	J-63	256	0.73	0.236
P-78	905	12.0	120	J-63	J-10	434	1.23	0.626
P-79	831	8.0	120	J-63	J-64	13	0.08	0.007
P-80	1,177	8.0	120	J-64	J-57	13	0.08	0.007
P-81	1,245	8.0	120	J-55	J-65	6	0.04	0.001
P-82	2,151	16.0	120	J-22	J-66	888	1.42	0.581
P-83	1,176	16.0	120	J-66	J-24	338	0.54	0.097
P-84	1,113	12.0	120	J-65	J-66	550	1.56	0.970
P-85	1,034	8.0	120	J-65	J-67	52	0.33	0.088
P-86	1,662	8.0	120	J-67	J-68	52	0.33	0.088
P-87	1,161	12.0	120	J-68	J-23	759	2.15	1.763
P-88	1,359	8.0	120	J-68	J-69	36	0.23	0.046
P-89	1,832	8.0	120	J-69	J-63	108	0.69	0.344
P-90	1,005	12.0	120	J-68	J-70	471	1.34	0.728
P-91	573	12.0	120	J-70	J-62	126	0.36	0.063
P-92	1,409	12.0	120	J-65	J-71	323	0.92	0.363
P-93	1,201	12.0	120	J-56	J-72	41	0.12	0.008
P-94	503	12.0	120	J-72	J-62	109	0.31	0.049
P-95	736	12.0	120	J-71	J-72	123	0.35	0.061
P-96	718	12.0	120	J-71	J-70	72	0.21	0.023
P-97	1,047	8.0	120	J-19	J-73	112	0.72	0.369
P-98	1,393	12.0	120	J-83	J-74	185	0.53	0.129
P-99	903	12.0	120	J-74	J-75	22	0.06	0.002
P-100	1,063	12.0	120	J-21	J-76	623	1.77	1.223
P-101	1,185	12.0	120	J-76	J-77	352	1.00	0.426
P-102	939	12.0	120	J-77	J-74	2	0.00	0.000
P-103	1,124	12.0	120	J-74	J-78	149	0.42	0.086
P-104	1,019	8.0	120	J-78	J-79	103	0.66	0.314
P-105	1,354	16.0	120	J-1	J-80	904	1.44	0.601
P-106	894	16.0	120	J-80	J-12	766	1.22	0.442
P-107	1,486	8.0	120	J-76	J-81	96	0.61	0.277
P-108	1,004	12.0	120	J-75	J-82	376	1.07	0.480
P-109	1,106	12.0	120	J-82	J-23	608	1.72	1.169
P-110	1,868	8.0	120	J-81	J-82	87	0.56	0.231
P-111	1,711	12.0	120	J-78	J-12	352	1.00	0.425
P-112	675	8.0	120	J-73	J-83	125	0.80	0.450
P-113	1,008	8.0	120	J-83	J-84	38	0.25	0.051
P-114	1,673	8.0	120	J-84	J-52	86	0.55	0.226
P-115	1,776	8.0	120	J-78	J-84	48	0.30	0.076

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-116	1,656	8.0	120	J-73	J-85	13	0.08	0.006
P-117	1,568	8.0	120	J-85	J-76	13	0.08	0.006
P-118	1,542	8.0	120	J-82	J-86	35	0.22	0.043
P-119	532	8.0	120	J-79	J-87	103	0.66	0.314
P-120	1,177	8.0	120	J-87	J-80	138	0.88	0.540
P-121	801	8.0	120	J-86	J-87	35	0.22	0.043
P-122	931	12.0	120	J-83	J-18	376	1.07	0.480
P-123	2,664	24.0	120	J-20	J-88	1,748	1.24	0.282
P-124	2,422	24.0	120	J-88	J-89	2,892	2.05	0.718
P-125	839	16.0	120	J-14	J-90	214	0.34	0.042
P-126	1,077	16.0	120	J-90	J-15	214	0.34	0.041
P-128	1,309	24.0	120	J-21	J-91	114	0.08	0.002
P-129	1,332	24.0	120	J-91	J-22	298	0.21	0.011
P-130	974	8.0	120	J-81	J-91	183	1.17	0.915
P-133	1,322	24.0	120	J-2	J-92	3,477	2.47	1.010
P-134	1,322	24.0	120	J-92	J-3	3,611	2.56	1.083
P-135	1,774	24.0	120	J-20	J-93	626	0.44	0.042
P-136	778	24.0	120	J-93	J-21	626	0.44	0.042
P-137	786	16.0	120	J-13	J-94	162	0.26	0.025
P-138	1,159	16.0	120	J-94	J-51	64	0.10	0.004
P-139	2,314	12.0	120	J-44	J-16	95	0.27	0.038
P-140	1,166	8.0	120	J-11	J-69	144	0.92	0.589
P-141	890	16.0	120	J-95	J-16	490	0.78	0.193
P-142	1,256	16.0	120	J-15	J-95	603	0.96	0.284
P-143	2,336	12.0	120	J-44	J-92	675	1.91	1.420
P-200	2,335	24.0	120	J-201	J-202	2,878	2.04	0.712
P-201	2,336	16.0	120	J-202	J-203	1,188	1.90	0.996
P-202	1,418	16.0	120	J-203	J-204	111	0.18	0.012
P-204	2,317	12.0	120	J-205	J-25	61	0.17	0.016
P-205	2,640	24.0	120	J-201	J-206	3,063	2.17	0.798
P-206	2,639	24.0	120	J-206	J-207	1,715	1.22	0.273
P-207	2,567	12.0	120	J-208	J-209	89	0.25	0.033
P-208	2,713	12.0	120	J-209	J-200	290	0.82	0.296
P-209	2,452	12.0	120	J-210	J-24	157	0.45	0.095
P-210	2,672	24.0	120	J-22	J-200	1,599	1.13	0.240
P-211	2,633	12.0	120	J-209	J-21	118	0.33	0.056
P-212	2,662	16.0	120	J-208	J-20	392	0.63	0.128
P-213	2,706	12.0	120	J-202	J-210	481	1.36	0.757
P-214	1,265	12.0	120	J-203	J-211	344	0.98	0.408
P-215	1,876	12.0	120	J-211	J-205	232	0.66	0.197
P-216	2,801	12.0	120	J-200	J-210	436	1.24	0.632
P-217	2,687	24.0	120	J-200	J-201	2,901	2.06	0.722
P-218	2,651	12.0	120	J-206	J-209	259	0.73	0.240
P-219	2,641	16.0	120	J-207	J-208	27	0.04	0.001
P-220	2,285	12.0	120	J-203	J-212	184	0.52	0.128
P-221	2,358	12.0	120	J-212	J-213	414	1.17	0.574
P-222	2,276	12.0	120	J-213	J-214	351	1.00	0.424

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-223	2,646	12.0	120	J-214	J-215	328	0.93	0.374
P-224	2,674	12.0	120	J-215	J-216	271	0.77	0.262
P-225	2,288	16.0	120	J-216	J-207	351	0.56	0.104
P-226	2,254	12.0	120	J-213	J-202	292	0.83	0.302
P-227	2,266	16.0	120	J-214	J-201	910	1.45	0.608
P-228	2,289	12.0	120	J-206	J-215	172	0.49	0.113
P-229	2,627	24.0	120	J-222	J-207	406	0.29	0.019
P-230	2,665	12.0	120	J-219	J-220	166	0.47	0.105
P-231	2,652	12.0	120	J-220	J-216	281	0.80	0.280
P-232	2,707	12.0	120	J-221	J-222	105	0.30	0.045
P-233	2,657	24.0	120	J-218	J-222	312	0.22	0.012
P-234	2,252	12.0	120	J-220	J-222	347	0.98	0.413
P-235	2,583	12.0	120	J-221	J-88	338	0.96	0.394
P-236	2,638	24.0	120	J-89	J-217	2,780	1.97	0.667
P-237	2,620	12.0	120	J-208	J-221	82	0.23	0.029
P-238	2,942	12.0	120	J-221	J-217	311	0.88	0.339
P-239	2,825	24.0	120	J-217	J-223	2,007	1.42	0.365
P-240	1,107	12.0	120	J-224	J-219	296	0.84	0.308
P-241	903	24.0	120	J-223	J-218	774	0.55	0.062
P-242	2,212	16.0	120	J-223	J-224	758	1.21	0.433
P-243	1,160	16.0	120	J-225	J-94	419	0.67	0.144
P-244	3,411	12.0	120	J-88	J-227	429	1.22	0.612
P-245	2,726	12.0	120	J-227	J-225	130	0.37	0.067
P-246	855	12.0	120	J-225	J-226	170	0.48	0.111
P-247	1,678	12.0	120	J-226	J-14	208	0.59	0.160
P-248	1,900	12.0	120	J-18	J-227	79	0.22	0.027
P-249	2,011	16.0	120	J-4	J-228	743	1.19	0.418
P-250	1,945	12.0	120	J-16	J-229	77	0.22	0.025
P-251	1,597	16.0	120	J-228	J-230	282	0.45	0.069
P-253	1,930	12.0	120	J-229	J-231	157	0.45	0.096
P-254	558	12.0	120	J-231	J-228	260	0.74	0.243
P-255	842	16.0	120	J-230	J-232	67	0.11	0.005
P-256	552	8.0	120	J-230	J-233	14	0.09	0.008
P-257	1,595	8.0	120	J-233	J-231	19	0.12	0.013
P-258	330	12.0	120	J-232	J-233	5	0.01	0.000
P-259	1,600	12.0	120	J-ELS	J-205	109	0.31	0.049
P-260	1,038	12.0	120	J-204	J-ELS	111	0.31	0.050
P-261	3,327	12.0	120	J-210	J-205	184	0.52	0.127
P-262	2,378	12.0	120	J-95	J-229	113	0.32	0.052
P-500	679	48.0	120	R-1	J-92	7,763	1.38	0.143
P-501	600	48.0	120	R-2	FCV-2	6,050	1.07	0.098
P-502	566	48.0	120	FCV-2	J-89	6,050	1.07	0.098
P-503	604	48.0	120	R-3	FCV-3	10,669	1.89	0.269
P-504	604	48.0	120	FCV-3	J-201	10,669	1.89	0.293
P-505	861	48.0	120	R-AZWC	AZWC-J-8	2,649	0.47	0.024

FlexTable: FCV Table

Label	Elevation (ft)	Diameter (Valve) (in)	Flow Setting (Initial) (gpm)	Minor Loss Coefficient (Local)	Flow (gpm)	Hydraulic Grade (From) (ft)	Hydraulic Grade (To) (ft)	Headloss (ft)
FCV-2	1,561.51	48.0	10,410	0.0000000	6,050	1,710.00	1,710.00	0.00
FCV-3	1,488.00	48.0	14,413	0.0000000	10,669	1,710.00	1,710.00	0.00

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,710.00	7,763	1,710.00
R-2	1,710.00	6,050	1,710.00
R-3	1,710.00	10,669	1,710.00
R-AZWC	1,720.00	2,649	1,720.00

SITE
PEAK HOUR DEMAND RESULTS

Active Scenario: Peak Hour - Site

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
AZWC-J-1	1,565.65	292	1,700.32	58.3
AZWC-J-2	1,566.00	0	1,709.46	62.1
AZWC-J-3	1,562.39	292	1,716.66	66.7
AZWC-J-4	1,549.27	573	1,699.13	64.8
AZWC-J-5	1,549.29	14	1,700.23	65.3
AZWC-J-6	1,550.00	14	1,710.02	69.2
AZWC-J-7	1,540.00	14	1,700.17	69.3
AZWC-J-8	1,540.19	292	1,720.00	77.8
AZWC-J-9	1,532.76	207	1,698.24	71.6
AZWC-J-10	1,532.13	281	1,698.38	71.9
AZWC-J-11	1,530.66	573	1,699.16	72.9
AZWC-J-12	1,530.39	292	1,710.62	78.0
AZWC-J-13	1,516.54	142	1,698.48	78.7
AZWC-J-14	1,511.49	142	1,698.31	80.8
AZWC-J-15	1,510.00	573	1,699.76	82.1
AZWC-J-16	1,510.00	292	1,701.75	83.0
AZWC-J-17	1,498.95	142	1,698.56	86.4
AZWC-J-18	1,496.42	142	1,698.34	87.4
J-1	1,518.46	0	1,700.26	78.7
J-2	1,524.42	0	1,704.61	78.0
J-3	1,534.31	0	1,705.57	74.1
J-4	1,536.36	96	1,703.40	72.3
J-5	1,511.94	0	1,697.50	80.3
J-6	1,496.19	0	1,696.73	86.8
J-7	1,487.97	0	1,693.99	89.1
J-8	1,482.10	0	1,693.41	91.4
J-9	1,489.31	0	1,693.47	88.3
J-10	1,498.18	0	1,694.04	84.7
J-11	1,505.45	0	1,696.08	82.5
J-12	1,528.22	0	1,697.27	73.1
J-13	1,541.89	0	1,696.38	66.8
J-14	1,551.18	0	1,696.69	63.0
J-15	1,555.10	581	1,697.28	61.5
J-16	1,547.57	48	1,699.44	65.7
J-17	1,539.63	0	1,701.16	69.9
J-18	1,536.04	0	1,696.33	69.4
J-19	1,531.88	0	1,696.61	71.3
J-20	1,525.85	0	1,698.06	74.5
J-21	1,509.31	0	1,697.77	81.5
J-22	1,500.29	47	1,697.81	85.5
J-23	1,507.70	0	1,698.07	82.4
J-24	1,478.32	0	1,693.74	93.2
J-25	1,468.56	0	1,693.01	97.1
J-26	1,470.59	0	1,692.24	95.9
J-27	1,491.65	446	1,693.35	87.3
J-28	1,494.43	446	1,693.57	86.2
J-29	1,504.84	0	1,695.46	82.5
J-30	1,509.95	446	1,695.86	80.4

Active Scenario: Peak Hour - Site

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-31	1,506.31	446	1,693.81	81.1
J-32	1,510.99	446	1,695.17	79.7
J-33	1,517.93	446	1,697.12	77.5
J-34	1,523.42	446	1,699.75	76.3
J-35	1,500.26	0	1,695.65	84.5
J-36	1,519.89	0	1,697.63	76.9
J-37	1,497.84	0	1,693.49	84.7
J-38	1,508.75	0	1,693.69	80.0
J-39	1,509.06	581	1,695.51	80.7
J-40	1,519.34	0	1,701.25	78.7
J-41	1,493.31	0	1,695.77	87.6
J-42	1,520.78	0	1,699.34	77.3
J-43	1,528.04	581	1,697.29	73.2
J-44	1,539.15	581	1,698.82	69.1
J-45	1,525.42	0	1,700.33	75.7
J-46	1,536.25	581	1,700.53	71.1
J-47	1,523.18	0	1,698.97	76.1
J-48	1,543.23	0	1,696.73	66.4
J-49	1,544.66	581	1,696.80	65.8
J-50	1,550.01	0	1,696.99	63.6
J-51	1,551.30	0	1,696.58	62.9
J-52	1,541.61	0	1,696.60	67.1
J-53	1,482.08	446	1,692.01	90.8
J-54	1,476.49	0	1,692.76	93.6
J-55	1,480.56	0	1,692.14	91.5
J-56	1,481.69	446	1,691.18	90.6
J-57	1,483.32	0	1,691.87	90.2
J-58	1,478.32	0	1,692.07	92.5
J-59	1,473.68	0	1,692.34	94.6
J-60	1,475.18	0	1,691.67	93.7
J-61	1,474.72	446	1,691.31	93.7
J-62	1,493.15	446	1,691.27	85.7
J-63	1,494.82	446	1,692.05	85.3
J-64	1,489.78	0	1,691.98	87.5
J-65	1,486.52	446	1,692.15	89.0
J-66	1,484.90	0	1,694.26	90.6
J-67	1,492.33	0	1,692.53	86.6
J-68	1,498.85	446	1,693.15	84.1
J-69	1,504.49	0	1,693.63	81.8
J-70	1,496.77	446	1,691.32	84.2
J-71	1,492.39	446	1,691.24	86.0
J-72	1,489.15	446	1,691.17	87.4
J-73	1,526.88	0	1,695.45	72.9
J-74	1,522.81	581	1,694.36	74.2
J-75	1,517.39	581	1,694.36	76.6
J-76	1,513.14	581	1,695.26	78.8
J-77	1,518.58	581	1,694.33	76.0
J-78	1,525.14	581	1,694.83	73.4

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-79	1,521.50	0	1,695.62	75.3
J-80	1,521.52	0	1,698.21	76.4
J-81	1,507.88	0	1,696.09	81.4
J-82	1,511.68	581	1,695.33	79.5
J-83	1,530.12	581	1,694.97	71.3
J-84	1,534.97	0	1,695.21	69.3
J-85	1,520.43	0	1,695.35	75.7
J-86	1,512.42	0	1,695.79	79.3
J-87	1,519.02	0	1,696.03	76.6
J-88	1,543.79	612	1,700.05	67.6
J-89	1,561.51	612	1,704.55	61.9
J-90	1,553.44	0	1,696.95	62.1
J-91	1,501.89	0	1,697.78	84.8
J-92	1,529.36	0	1,710.00	78.2
J-93	1,513.70	0	1,697.86	79.7
J-94	1,544.69	94	1,696.40	65.6
J-95	1,552.90	0	1,698.76	63.1
J-200	1,496.00	951	1,698.12	87.4
J-201	1,488.00	1,517	1,700.44	91.9
J-202	1,470.66	1,517	1,696.99	97.9
J-203	1,458.00	1,517	1,692.45	101.4
J-204	1,453.24	0	1,692.47	103.5
J-205	1,458.56	0	1,692.59	101.3
J-206	1,496.31	1,517	1,696.83	86.8
J-207	1,517.23	1,540	1,695.83	77.3
J-208	1,519.99	974	1,696.12	76.2
J-209	1,504.30	951	1,696.31	83.1
J-210	1,475.66	951	1,693.77	94.4
J-211	1,463.36	951	1,691.38	98.7
J-212	1,454.56	377	1,692.87	103.1
J-213	1,466.18	377	1,695.55	99.2
J-214	1,480.99	377	1,697.66	93.7
J-215	1,494.36	377	1,696.12	87.3
J-216	1,510.97	566	1,695.07	79.7
J-217	1,559.60	754	1,699.39	60.5
J-218	1,554.84	754	1,696.02	61.1
J-219	1,549.95	754	1,692.86	61.8
J-220	1,529.45	754	1,693.45	71.0
J-221	1,536.00	754	1,696.50	69.4
J-222	1,536.00	777	1,695.82	69.1
J-223	1,563.53	777	1,696.25	57.4
J-224	1,560.58	754	1,693.79	57.6
J-225	1,550.03	612	1,695.97	63.1
J-226	1,551.62	612	1,695.82	62.4
J-227	1,546.70	612	1,696.17	64.7
J-228	1,534.99	324	1,700.92	71.8
J-229	1,550.60	189	1,699.40	64.4
J-230	1,544.78	324	1,700.62	67.4

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-231	1,539.83	189	1,700.42	69.5
J-232	1,550.00	101	1,700.60	65.2
J-233	1,547.13	0	1,700.60	66.4
J-ELS	1,456.01	1	1,692.51	102.3

Active Scenario: Peak Hour - Site

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
AZWC-P-1	1,622	12.0	120	AZWC-J-18	AZWC-J-17	190	0.54	0.136
AZWC-P-2	2,123	12.0	120	AZWC-J-17	AZWC-J-15	412	1.17	0.568
AZWC-P-3	3,095	16.0	120	AZWC-J-4	AZWC-J-11	98	0.16	0.010
AZWC-P-4	2,970	16.0	120	AZWC-J-11	AZWC-J-15	502	0.80	0.202
AZWC-P-5	2,054	12.0	120	AZWC-J-13	AZWC-J-11	309	0.88	0.334
AZWC-P-6	2,990	12.0	120	AZWC-J-17	AZWC-J-13	80	0.23	0.027
AZWC-P-7	1,705	12.0	120	AZWC-J-14	AZWC-J-13	160	0.45	0.099
AZWC-P-8	2,436	16.0	120	AZWC-J-4	AZWC-J-1	810	1.29	0.490
AZWC-P-9	3,055	16.0	120	AZWC-J-8	AZWC-J-3	1,250	1.99	1.094
AZWC-P-10	1,316	16.0	120	AZWC-J-15	AZWC-J-16	1,487	2.37	1.509
AZWC-P-11	2,912	16.0	120	AZWC-J-16	AZWC-J-12	2,173	3.47	3.048
AZWC-P-12	2,013	16.0	120	AZWC-J-12	AZWC-J-8	2,733	4.36	4.659
AZWC-P-13	2,178	12.0	120	AZWC-J-1	AZWC-J-2	1,212	3.44	4.195
AZWC-P-14	2,649	12.0	120	AZWC-J-2	AZWC-J-3	958	2.72	2.716
AZWC-P-15	1,502	12.0	120	AZWC-J-5	AZWC-J-7	96	0.27	0.038
AZWC-P-16	2,991	12.0	120	AZWC-J-16	AZWC-J-7	395	1.12	0.527
AZWC-P-17	1,931	12.0	120	AZWC-J-5	AZWC-J-1	110	0.31	0.049
AZWC-P-18	2,422	12.0	120	AZWC-J-6	AZWC-J-2	254	0.72	0.231
AZWC-P-19	2,346	12.0	120	AZWC-J-6	AZWC-J-12	268	0.76	0.256
AZWC-P-20	1,354	12.0	120	AZWC-J-11	AZWC-J-7	477	1.35	0.746
AZWC-P-21	2,644	12.0	120	AZWC-J-18	AZWC-J-14	48	0.14	0.011
AZWC-P-22	3,404	12.0	120	AZWC-J-14	AZWC-J-9	67	0.19	0.020
AZWC-P-23	1,779	12.0	120	AZWC-J-9	AZWC-J-10	140	0.40	0.077
AZWC-P-24	3,067	12.0	120	AZWC-J-10	AZWC-J-13	87	0.25	0.032
AZWC-P-25	1,946	12.0	120	AZWC-J-10	AZWC-J-4	335	0.95	0.387
P-1	1,337	24.0	120	J-1	J-2	6,539	4.64	3.253
P-2	1,236	24.0	120	J-3	J-4	4,680	3.32	1.751
P-3	2,654	16.0	120	J-5	J-6	612	0.98	0.291
P-4	2,643	12.0	120	J-7	J-8	247	0.70	0.220
P-5	1,373	16.0	120	J-8	J-9	220	0.35	0.044
P-6	1,371	16.0	120	J-10	J-11	1,477	2.36	1.492
P-7	1,867	16.0	120	J-9	J-10	624	1.00	0.302
P-7	1,712	16.0	120	J-11	J-1	1,927	3.07	2.439
P-8	1,252	16.0	120	J-16	J-17	1,416	2.26	1.379
P-9	1,335	16.0	120	J-17	J-4	1,574	2.51	1.677
P-10	1,872	16.0	120	J-13	J-18	167	0.27	0.026
P-11	817	16.0	120	J-18	J-19	668	1.07	0.343
P-12	2,582	16.0	120	J-19	J-20	871	1.39	0.561
P-13	2,636	24.0	120	J-22	J-23	992	0.70	0.099
P-14	2,640	24.0	120	J-23	J-1	3,123	2.22	0.828
P-15	2,850	16.0	120	J-24	J-25	570	0.91	0.256
P-16	1,880	12.0	120	J-25	J-26	346	0.98	0.412
P-17	1,357	12.0	120	J-9	J-27	154	0.44	0.092
P-18	1,167	12.0	120	J-27	J-28	228	0.65	0.191
P-19	1,813	8.0	120	J-28	J-29	197	1.26	1.042
P-20	781	8.0	120	J-29	J-30	135	0.86	0.516
P-21	997	12.0	120	J-30	J-5	730	2.07	1.643

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-22	1,324	12.0	120	J-7	J-28	303	0.86	0.321
P-23	2,040	12.0	120	J-28	J-31	175	0.50	0.117
P-24	935	12.0	120	J-31	J-32	685	1.94	1.460
P-25	1,071	12.0	120	J-32	J-33	772	2.19	1.821
P-26	757	12.0	120	J-33	J-34	1,094	3.10	3.474
P-27	888	12.0	120	J-34	J-3	1,541	4.37	6.545
P-28	1,587	8.0	120	J-29	J-35	62	0.40	0.123
P-29	1,506	8.0	120	J-30	J-36	210	1.34	1.177
P-30	1,149	8.0	120	J-36	J-33	124	0.79	0.444
P-31	1,110	8.0	120	J-27	J-37	64	0.41	0.129
P-32	1,560	8.0	120	J-37	J-38	64	0.41	0.129
P-33	895	8.0	120	J-38	J-31	64	0.41	0.129
P-34	783	8.0	120	J-11	J-39	162	1.03	0.727
P-35	1,356	8.0	120	J-39	J-40	419	2.68	4.233
P-36	792	8.0	120	J-40	J-2	419	2.68	4.233
P-37	807	12.0	120	J-6	J-41	612	1.73	1.183
P-38	1,833	12.0	120	J-41	J-7	549	1.56	0.970
P-39	949	8.0	120	J-35	J-41	62	0.40	0.123
P-40	2,155	16.0	120	J-4	J-42	1,676	2.67	1.884
P-41	1,477	16.0	120	J-42	J-5	1,342	2.14	1.248
P-42	614	8.0	120	J-36	J-42	334	2.13	2.781
P-43	1,556	12.0	120	J-32	J-30	360	1.02	0.442
P-44	689	12.0	120	J-12	J-43	82	0.23	0.029
P-45	1,946	12.0	120	J-43	J-44	491	1.39	0.787
P-46	2,073	8.0	120	J-44	J-45	162	1.03	0.729
P-47	969	8.0	120	J-45	J-2	429	2.74	4.411
P-48	1,168	8.0	120	J-3	J-46	423	2.70	4.310
P-49	911	8.0	120	J-46	J-17	158	1.01	0.693
P-50	742	8.0	120	J-45	J-47	267	1.70	1.830
P-51	921	8.0	120	J-47	J-43	267	1.70	1.830
P-52	2,082	8.0	120	J-43	J-48	94	0.60	0.267
P-53	1,325	8.0	120	J-48	J-49	39	0.25	0.051
P-54	1,465	12.0	120	J-49	J-44	664	1.88	1.378
P-55	1,495	12.0	120	J-49	J-14	137	0.39	0.073
P-56	743	8.0	120	J-49	J-50	92	0.59	0.255
P-57	1,129	8.0	120	J-50	J-15	92	0.59	0.255
P-58	931	16.0	120	J-51	J-14	373	0.60	0.117
P-59	1,264	8.0	120	J-48	J-51	61	0.39	0.119
P-60	2,202	16.0	120	J-12	J-52	627	1.00	0.305
P-61	885	16.0	120	J-52	J-94	525	0.84	0.219
P-62	840	8.0	120	J-48	J-52	72	0.46	0.161
P-63	906	8.0	120	J-9	J-53	249	1.59	1.619
P-64	910	12.0	120	J-54	J-8	467	1.33	0.718
P-65	721	8.0	120	J-53	J-54	197	1.26	1.044
P-66	983	8.0	120	J-24	J-55	250	1.60	1.629
P-67	1,333	8.0	120	J-55	J-56	161	1.03	0.723
P-68	1,116	8.0	120	J-56	J-57	149	0.95	0.622

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-69	729	8.0	120	J-57	J-58	96	0.62	0.279
P-70	857	12.0	120	J-26	J-59	174	0.49	0.115
P-71	1,622	12.0	120	J-59	J-54	270	0.77	0.261
P-72	936	8.0	120	J-58	J-59	96	0.62	0.279
P-73	1,459	8.0	120	J-55	J-60	104	0.66	0.321
P-74	1,114	8.0	120	J-60	J-61	104	0.66	0.321
P-75	1,054	12.0	120	J-61	J-26	520	1.48	0.876
P-76	1,140	12.0	120	J-61	J-56	178	0.50	0.120
P-77	855	12.0	120	J-62	J-63	532	1.51	0.914
P-78	905	12.0	120	J-63	J-10	853	2.42	2.192
P-79	831	8.0	120	J-63	J-64	52	0.33	0.090
P-80	1,177	8.0	120	J-64	J-57	52	0.33	0.090
P-81	1,245	8.0	120	J-55	J-65	15	0.10	0.009
P-82	2,151	16.0	120	J-22	J-66	1,559	2.49	1.648
P-83	1,176	16.0	120	J-66	J-24	769	1.23	0.445
P-84	1,113	12.0	120	J-65	J-66	790	2.24	1.900
P-85	1,034	8.0	120	J-65	J-67	112	0.72	0.369
P-86	1,662	8.0	120	J-67	J-68	112	0.72	0.369
P-87	1,161	12.0	120	J-68	J-23	1,219	3.46	4.242
P-88	1,359	8.0	120	J-68	J-69	110	0.70	0.355
P-89	1,832	8.0	120	J-69	J-63	177	1.13	0.861
P-90	1,005	12.0	120	J-68	J-70	770	2.19	1.814
P-91	573	12.0	120	J-70	J-62	153	0.44	0.091
P-92	1,409	12.0	120	J-65	J-71	441	1.25	0.644
P-93	1,201	12.0	120	J-56	J-72	42	0.12	0.008
P-94	503	12.0	120	J-72	J-62	239	0.68	0.208
P-95	736	12.0	120	J-71	J-72	165	0.47	0.105
P-96	718	12.0	120	J-71	J-70	171	0.48	0.111
P-97	1,047	8.0	120	J-19	J-73	203	1.30	1.108
P-98	1,393	12.0	120	J-83	J-74	356	1.01	0.435
P-99	903	12.0	120	J-74	J-75	32	0.09	0.005
P-100	1,063	12.0	120	J-21	J-76	888	2.52	2.360
P-101	1,185	12.0	120	J-76	J-77	490	1.39	0.784
P-102	939	12.0	120	J-77	J-74	91	0.26	0.035
P-103	1,124	12.0	120	J-74	J-78	348	0.99	0.415
P-104	1,019	8.0	120	J-78	J-79	168	1.07	0.775
P-105	1,354	16.0	120	J-1	J-80	1,489	2.38	1.513
P-106	894	16.0	120	J-80	J-12	1,221	1.95	1.048
P-107	1,486	8.0	120	J-76	J-81	140	0.90	0.559
P-108	1,004	12.0	120	J-75	J-82	549	1.56	0.969
P-109	1,106	12.0	120	J-82	J-23	912	2.59	2.478
P-110	1,868	8.0	120	J-81	J-82	118	0.75	0.406
P-111	1,711	12.0	120	J-78	J-12	677	1.92	1.427
P-112	675	8.0	120	J-73	J-83	161	1.03	0.719
P-113	1,008	8.0	120	J-83	J-84	90	0.57	0.243
P-114	1,673	8.0	120	J-84	J-52	174	1.11	0.828
P-115	1,776	8.0	120	J-78	J-84	84	0.54	0.216

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-116	1,656	8.0	120	J-73	J-85	42	0.27	0.061
P-117	1,568	8.0	120	J-85	J-76	42	0.27	0.061
P-118	1,542	8.0	120	J-82	J-86	100	0.64	0.299
P-119	532	8.0	120	J-79	J-87	168	1.07	0.775
P-120	1,177	8.0	120	J-87	J-80	268	1.71	1.847
P-121	801	8.0	120	J-86	J-87	100	0.64	0.299
P-122	931	12.0	120	J-83	J-18	687	1.95	1.466
P-123	2,664	24.0	120	J-20	J-88	2,954	2.10	0.747
P-124	2,422	24.0	120	J-88	J-89	4,829	3.42	1.856
P-125	839	16.0	120	J-14	J-90	629	1.00	0.306
P-126	1,077	16.0	120	J-90	J-15	629	1.00	0.306
P-128	1,309	24.0	120	J-21	J-91	215	0.15	0.006
P-129	1,332	24.0	120	J-91	J-22	473	0.34	0.025
P-130	974	8.0	120	J-81	J-91	259	1.65	1.731
P-133	1,322	24.0	120	J-2	J-92	7,387	5.24	4.077
P-134	1,322	24.0	120	J-92	J-3	6,644	4.71	3.350
P-135	1,774	24.0	120	J-20	J-93	1,079	0.77	0.116
P-136	778	24.0	120	J-93	J-21	1,079	0.77	0.116
P-137	786	16.0	120	J-13	J-94	167	0.27	0.026
P-138	1,159	16.0	120	J-94	J-51	434	0.69	0.154
P-139	2,314	12.0	120	J-44	J-16	273	0.78	0.266
P-140	1,166	8.0	120	J-11	J-69	287	1.83	2.103
P-141	890	16.0	120	J-95	J-16	1,027	1.64	0.761
P-142	1,256	16.0	120	J-15	J-95	1,302	2.08	1.180
P-143	2,336	12.0	120	J-44	J-92	1,301	3.69	4.783
P-200	2,335	24.0	120	J-201	J-202	4,273	3.03	1.479
P-201	2,336	16.0	120	J-202	J-203	1,703	2.72	1.942
P-202	1,418	16.0	120	J-203	J-204	103	0.16	0.011
P-204	2,317	12.0	120	J-205	J-25	224	0.64	0.184
P-205	2,640	24.0	120	J-201	J-206	4,096	2.91	1.368
P-206	2,639	24.0	120	J-206	J-207	2,050	1.45	0.380
P-207	2,567	12.0	120	J-208	J-209	136	0.39	0.073
P-208	2,713	12.0	120	J-209	J-200	449	1.27	0.668
P-209	2,452	12.0	120	J-210	J-24	51	0.15	0.012
P-210	2,672	24.0	120	J-22	J-200	1,087	0.77	0.117
P-211	2,633	12.0	120	J-209	J-21	406	1.15	0.553
P-212	2,662	16.0	120	J-208	J-20	1,004	1.60	0.729
P-213	2,706	12.0	120	J-202	J-210	614	1.74	1.189
P-214	1,265	12.0	120	J-203	J-211	511	1.45	0.848
P-215	1,876	12.0	120	J-211	J-205	440	1.25	0.642
P-216	2,801	12.0	120	J-200	J-210	709	2.01	1.553
P-217	2,687	24.0	120	J-200	J-201	3,196	2.27	0.864
P-218	2,651	12.0	120	J-206	J-209	232	0.66	0.197
P-219	2,641	16.0	120	J-207	J-208	362	0.58	0.110
P-220	2,285	12.0	120	J-203	J-212	222	0.63	0.180
P-221	2,358	12.0	120	J-212	J-213	599	1.70	1.137
P-222	2,276	12.0	120	J-213	J-214	537	1.52	0.928

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Start Node	Stop Node	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-223	2,646	12.0	120	J-214	J-215	417	1.18	0.582
P-224	2,674	12.0	120	J-215	J-216	337	0.96	0.392
P-225	2,288	16.0	120	J-216	J-207	657	1.05	0.332
P-226	2,254	12.0	120	J-213	J-202	439	1.25	0.641
P-227	2,266	16.0	120	J-214	J-201	1,331	2.12	1.229
P-228	2,289	12.0	120	J-206	J-215	297	0.84	0.311
P-229	2,627	24.0	120	J-222	J-207	215	0.15	0.006
P-230	2,665	12.0	120	J-219	J-220	247	0.70	0.221
P-231	2,652	12.0	120	J-220	J-216	428	1.21	0.610
P-232	2,707	12.0	120	J-221	J-222	266	0.75	0.253
P-233	2,657	24.0	120	J-218	J-222	870	0.62	0.078
P-234	2,252	12.0	120	J-220	J-222	573	1.63	1.049
P-235	2,583	12.0	120	J-221	J-88	664	1.88	1.375
P-236	2,638	24.0	120	J-89	J-217	4,969	3.52	1.956
P-237	2,620	12.0	120	J-208	J-221	197	0.56	0.144
P-238	2,942	12.0	120	J-221	J-217	553	1.57	0.981
P-239	2,825	24.0	120	J-217	J-223	3,662	2.60	1.112
P-240	1,107	12.0	120	J-224	J-219	507	1.44	0.834
P-241	903	24.0	120	J-223	J-218	1,624	1.15	0.247
P-242	2,212	16.0	120	J-223	J-224	1,260	2.01	1.111
P-243	1,160	16.0	120	J-225	J-94	697	1.11	0.371
P-244	3,411	12.0	120	J-88	J-227	599	1.70	1.138
P-245	2,726	12.0	120	J-227	J-225	135	0.38	0.072
P-246	855	12.0	120	J-225	J-226	220	0.62	0.178
P-247	1,678	12.0	120	J-226	J-14	392	1.11	0.519
P-248	1,900	12.0	120	J-18	J-227	148	0.42	0.086
P-249	2,011	16.0	120	J-4	J-228	1,334	2.13	1.235
P-250	1,945	12.0	120	J-16	J-229	67	0.19	0.020
P-251	1,597	16.0	120	J-228	J-230	485	0.77	0.189
P-253	1,930	12.0	120	J-229	J-231	396	1.12	0.529
P-254	558	12.0	120	J-231	J-228	525	1.49	0.893
P-255	842	16.0	120	J-230	J-232	132	0.21	0.017
P-256	552	8.0	120	J-230	J-233	28	0.18	0.029
P-257	1,595	8.0	120	J-233	J-231	59	0.38	0.113
P-258	330	12.0	120	J-232	J-233	31	0.09	0.005
P-259	1,600	12.0	120	J-ELS	J-205	104	0.30	0.045
P-260	1,038	12.0	120	J-204	J-ELS	103	0.29	0.043
P-261	3,327	12.0	120	J-210	J-205	320	0.91	0.356
P-262	2,378	12.0	120	J-95	J-229	275	0.78	0.268
P-500	679	48.0	120	R-1	J-92	15,331	2.72	0.547
P-501	600	48.0	120	R-2	FCV-2	10,410	1.85	0.269
P-502	566	48.0	120	FCV-2	J-89	10,410	1.85	0.269
P-503	604	48.0	120	R-3	FCV-3	14,413	2.56	0.488
P-504	604	48.0	120	FCV-3	J-201	14,413	2.56	0.488
P-505	861	48.0	120	R-AZWC	AZWC-J-8	4,274	0.76	0.049

FlexTable: FCV Table

Label	Elevation (ft)	Diameter (Valve) (in)	Flow Setting (Initial) (gpm)	Minor Loss Coefficient (Local)	Flow (gpm)	Hydraulic Grade (From) (ft)	Hydraulic Grade (To) (ft)	Headloss (ft)
FCV-2	1,561.51	48.0	10,410	0.0000000	10,410	1,710.00	1,704.55	5.45
FCV-3	1,488.00	48.0	14,413	0.0000000	14,413	1,710.00	1,700.45	9.55

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,710.00	15,331	1,710.00
R-2	1,710.00	10,410	1,710.00
R-3	1,710.00	14,413	1,710.00
R-AZWC	1,720.00	4,274	1,720.00

SITE
MAXIMUM DAY + FIRE FLOW RESULTS (RESIDUAL)
MAXIMUM DAY + FIRE FLOW RESULTS (AVAILABLE)

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
AZWC-J-1	177	4,000	4,177	4,000	4,177	39.9	47.9	AZWC-J-4	39.9	47.9	AZWC-P-12	7.23	True
AZWC-J-2	0	4,000	4,000	4,000	4,000	48.3	49.5	AZWC-J-1	48.3	49.5	AZWC-P-12	6.63	True
AZWC-J-3	177	4,000	4,177	4,000	4,177	58.2	58.0	AZWC-J-2	58.2	58.0	AZWC-P-9	5.67	True
AZWC-J-4	351	4,000	4,351	4,000	4,351	45.5	41.7	AZWC-J-1	45.5	41.7	AZWC-P-12	7.28	True
AZWC-J-5	14	4,000	4,014	4,000	4,014	40.0	41.4	AZWC-J-1	40.0	41.4	AZWC-P-12	7.28	True
AZWC-J-6	14	4,000	4,014	4,000	4,014	50.3	52.3	AZWC-J-2	50.3	52.3	AZWC-P-12	7.06	True
AZWC-J-7	14	4,000	4,014	4,000	4,014	48.7	42.4	AZWC-J-1	48.7	42.4	AZWC-P-12	7.31	True
AZWC-J-8	177	4,000	4,177	4,000	4,177	77.8	62.2	J-223	77.8	62.2	AZWC-P-12	2.71	True
AZWC-J-9	130	4,000	4,130	4,000	4,130	35.7	42.7	AZWC-J-1	35.7	42.7	AZWC-P-12	7.31	True
AZWC-J-10	173	4,000	4,173	4,000	4,173	44.9	42.5	AZWC-J-1	44.9	42.5	AZWC-P-12	7.31	True
AZWC-J-11	351	4,000	4,351	4,000	4,351	54.6	42.5	AZWC-J-1	54.6	42.5	AZWC-P-12	7.31	True
AZWC-J-12	177	4,000	4,177	4,000	4,177	70.6	54.3	AZWC-J-1	70.6	54.3	AZWC-P-12	7.64	True
AZWC-J-13	91	4,000	4,091	4,000	4,091	54.6	42.7	AZWC-J-1	54.6	42.7	AZWC-P-12	7.32	True
AZWC-J-14	91	4,000	4,091	4,000	4,091	51.2	42.8	AZWC-J-1	51.2	42.8	AZWC-P-12	7.32	True
AZWC-J-15	351	4,000	4,351	4,000	4,351	64.8	43.7	AZWC-J-1	64.8	43.7	AZWC-P-12	7.35	True
AZWC-J-16	177	4,000	4,177	4,000	4,177	67.6	45.2	AZWC-J-1	67.6	45.2	AZWC-P-12	7.39	True
AZWC-J-17	91	4,000	4,091	4,000	4,091	59.9	43.1	AZWC-J-1	59.9	43.1	AZWC-P-12	7.33	True
AZWC-J-18	91	4,000	4,091	4,000	4,091	53.4	42.9	AZWC-J-1	53.4	42.9	AZWC-P-12	7.32	True
J-1	0	4,000	4,000	4,000	4,000	80.7	62.0	J-223	80.7	62.0	P-133	3.60	True
J-2	0	4,000	4,000	4,000	4,000	78.7	62.0	J-223	78.7	62.0	P-133	4.20	True
J-3	0	4,000	4,000	4,000	4,000	74.1	62.1	J-223	74.1	62.1	P-134	4.68	True
J-4	56	4,000	4,056	4,000	4,056	72.5	62.1	J-223	72.5	62.1	P-134	4.32	True
J-5	0	4,000	4,000	4,000	4,000	77.1	62.1	J-223	77.1	62.1	P-27	4.57	True
J-6	0	4,000	4,000	4,000	4,000	80.1	62.1	J-223	80.1	62.1	P-27	4.61	True
J-7	0	4,000	4,000	4,000	4,000	84.1	62.0	J-223	84.1	62.0	P-27	4.31	True
J-8	0	4,000	4,000	4,000	4,000	89.3	62.0	J-223	89.3	62.0	P-27	3.80	True
J-9	0	4,000	4,000	4,000	4,000	87.4	62.0	J-223	87.4	62.0	P-27	3.76	True
J-10	0	4,000	4,000	4,000	4,000	85.2	62.0	J-223	85.2	62.0	P-7	3.84	True
J-11	0	4,000	4,000	4,000	4,000	83.0	62.0	J-223	83.0	62.0	P-7	4.52	True
J-12	0	4,000	4,000	4,000	4,000	74.3	62.0	J-223	74.3	62.0	P-105	3.35	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-13	0	4,000	4,000	4,000	4,000	67.1	62.0	J-223	67.1	62.0	P-137	3.58	True
J-14	0	4,000	4,000	4,000	4,000	63.1	62.0	J-223	63.1	62.0	P-134	3.31	True
J-15	354	4,000	4,354	4,000	4,354	60.7	62.0	J-223	60.7	62.0	P-142	3.68	True
J-16	28	4,000	4,028	4,000	4,028	65.5	62.0	J-223	65.5	62.0	P-134	3.71	True
J-17	0	4,000	4,000	4,000	4,000	69.3	62.1	J-223	69.3	62.1	P-9	3.99	True
J-18	0	4,000	4,000	4,000	4,000	70.4	61.9	J-223	70.4	61.9	P-133	3.08	True
J-19	0	4,000	4,000	4,000	4,000	72.1	61.9	J-223	72.1	61.9	P-12	3.36	True
J-20	0	4,000	4,000	4,000	4,000	77.5	61.8	J-223	77.5	61.8	P-133	2.96	True
J-21	0	4,000	4,000	4,000	4,000	84.5	61.8	J-223	84.5	61.8	P-133	3.05	True
J-22	28	4,000	4,028	4,000	4,028	88.6	61.9	J-223	88.6	61.9	P-133	3.14	True
J-23	0	4,000	4,000	4,000	4,000	85.0	62.0	J-223	85.0	62.0	P-133	3.35	True
J-24	0	4,000	4,000	4,000	4,000	94.4	62.0	J-223	94.4	62.0	P-82	3.52	True
J-25	0	4,000	4,000	4,000	4,000	96.6	62.0	J-223	96.6	62.0	P-87	3.33	True
J-26	0	4,000	4,000	4,000	4,000	93.3	62.0	J-223	93.3	62.0	P-16	4.50	True
J-27	273	1,500	1,773	1,500	1,773	89.5	62.1	J-223	89.5	62.1	P-27	3.09	True
J-28	273	1,500	1,773	1,500	1,773	88.7	62.1	J-223	88.7	62.1	P-27	3.16	True
J-29	0	1,500	1,500	1,500	1,500	81.4	62.1	J-223	81.4	62.1	P-20	4.42	True
J-30	273	4,000	4,273	4,000	4,273	75.3	62.1	J-223	75.3	62.1	P-21	5.46	True
J-31	273	1,500	1,773	1,500	1,773	83.0	62.1	J-223	83.0	62.1	P-27	3.35	True
J-32	273	1,500	1,773	1,500	1,773	81.7	62.1	J-223	81.7	62.1	P-27	3.51	True
J-33	273	1,500	1,773	1,500	1,773	79.0	62.1	J-223	79.0	62.1	P-27	3.93	True
J-34	273	1,500	1,773	1,500	1,773	77.1	62.1	J-223	77.1	62.1	P-27	4.51	True
J-35	0	1,500	1,500	1,500	1,500	79.9	62.1	J-223	79.9	62.1	P-39	5.62	True
J-36	0	1,500	1,500	1,500	1,500	76.6	62.1	J-223	76.6	62.1	P-42	4.48	True
J-37	0	1,500	1,500	1,500	1,500	78.9	62.1	J-223	78.9	62.1	P-31	5.76	True
J-38	0	1,500	1,500	1,500	1,500	74.9	62.1	J-223	74.9	62.1	P-33	6.10	True
J-39	354	1,500	1,854	1,500	1,854	75.3	62.1	J-223	75.3	62.1	P-34	7.22	True
J-40	0	1,500	1,500	1,500	1,500	73.3	62.1	J-223	73.3	62.1	P-36	6.91	True
J-41	0	4,000	4,000	4,000	4,000	80.0	62.0	J-223	80.0	62.0	P-37	5.64	True
J-42	0	4,000	4,000	4,000	4,000	74.8	62.1	J-223	74.8	62.1	P-40	4.67	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-43	354	1,500	1,854	1,500	1,854	75.8	62.1	J-223	75.8	62.1	P-134	2.79	True
J-44	354	1,500	1,854	1,500	1,854	71.4	62.1	J-223	71.4	62.1	P-134	2.83	True
J-45	0	1,500	1,500	1,500	1,500	74.6	62.1	J-223	74.6	62.1	P-47	4.45	True
J-46	354	1,500	1,854	1,500	1,854	65.5	62.1	J-223	65.5	62.1	P-49	6.14	True
J-47	0	1,500	1,500	1,500	1,500	73.4	62.1	J-223	73.4	62.1	P-50	4.81	True
J-48	0	1,500	1,500	1,500	1,500	67.8	62.1	J-223	67.8	62.1	P-62	2.99	True
J-49	354	1,500	1,854	1,500	1,854	68.2	62.1	J-223	68.2	62.1	P-134	2.84	True
J-50	0	1,500	1,500	1,500	1,500	61.6	62.1	J-223	61.6	62.1	P-56	5.24	True
J-51	0	4,000	4,000	4,000	4,000	62.9	62.0	J-223	62.9	62.0	P-134	3.26	True
J-52	0	4,000	4,000	4,000	4,000	67.6	62.0	J-223	67.6	62.0	P-134	3.18	True
J-53	273	1,500	1,773	1,500	1,773	88.9	62.1	J-223	88.9	62.1	P-65	5.93	True
J-54	0	4,000	4,000	4,000	4,000	89.0	62.0	J-223	89.0	62.0	P-64	5.85	True
J-55	0	1,500	1,500	1,500	1,500	93.9	62.1	J-223	93.9	62.1	P-66	3.46	True
J-56	273	1,500	1,773	1,500	1,773	94.2	62.1	J-223	94.2	62.1	P-87	2.95	True
J-57	0	1,500	1,500	1,500	1,500	90.5	62.1	J-223	90.5	62.1	P-68	3.66	True
J-58	0	1,500	1,500	1,500	1,500	91.0	62.1	J-223	91.0	62.1	P-72	5.00	True
J-59	0	4,000	4,000	4,000	4,000	90.3	62.0	J-223	90.3	62.0	P-70	5.63	True
J-60	0	1,500	1,500	1,500	1,500	90.6	62.1	J-223	90.6	62.1	P-74	5.11	True
J-61	273	1,500	1,773	1,500	1,773	97.0	62.1	J-223	97.0	62.1	P-87	2.87	True
J-62	273	1,500	1,773	1,500	1,773	89.6	62.1	J-223	89.6	62.1	P-87	3.09	True
J-63	273	1,500	1,773	1,500	1,773	89.0	62.1	J-223	89.0	62.1	P-87	2.99	True
J-64	0	1,500	1,500	1,500	1,500	85.6	62.1	J-223	85.6	62.1	P-79	5.54	True
J-65	273	1,500	1,773	1,500	1,773	92.7	62.1	J-223	92.7	62.1	P-84	3.01	True
J-66	0	4,000	4,000	4,000	4,000	92.1	62.0	J-223	92.1	62.0	P-82	3.91	True
J-67	0	1,500	1,500	1,500	1,500	83.8	62.1	J-223	83.8	62.1	P-85	5.35	True
J-68	273	1,500	1,773	1,500	1,773	87.6	62.1	J-223	87.6	62.1	P-87	3.61	True
J-69	0	1,500	1,500	1,500	1,500	82.3	62.1	J-223	82.3	62.1	P-140	3.79	True
J-70	273	1,500	1,773	1,500	1,773	88.0	62.1	J-223	88.0	62.1	P-87	3.16	True
J-71	273	1,500	1,773	1,500	1,773	89.8	62.1	J-223	89.8	62.1	P-87	3.10	True
J-72	273	1,500	1,773	1,500	1,773	91.2	62.1	J-223	91.2	62.1	P-87	3.08	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-73	0	1,500	1,500	1,500	1,500	73.7	62.1	J-223	73.7	62.1	P-112	4.08	True
J-74	354	1,500	1,854	1,500	1,854	77.6	62.1	J-223	77.6	62.1	P-133	2.73	True
J-75	354	1,500	1,854	1,500	1,854	79.3	62.1	J-223	79.3	62.1	P-109	2.92	True
J-76	354	1,500	1,854	1,500	1,854	81.8	62.1	J-223	81.8	62.1	P-100	3.46	True
J-77	354	1,500	1,854	1,500	1,854	78.7	62.1	J-223	78.7	62.1	P-100	2.92	True
J-78	354	1,500	1,854	1,500	1,854	76.4	62.1	J-223	76.4	62.1	P-134	2.73	True
J-79	0	1,500	1,500	1,500	1,500	73.6	62.1	J-223	73.6	62.1	P-119	5.03	True
J-80	0	4,000	4,000	4,000	4,000	77.4	62.0	J-223	77.4	62.0	P-105	4.05	True
J-81	0	1,500	1,500	1,500	1,500	81.9	62.1	J-223	81.9	62.1	P-130	4.23	True
J-82	354	1,500	1,854	1,500	1,854	82.4	62.1	J-223	82.4	62.1	P-109	3.39	True
J-83	354	4,000	4,354	4,000	4,354	70.0	61.9	J-223	70.0	61.9	P-122	5.56	True
J-84	0	1,500	1,500	1,500	1,500	69.5	62.1	J-223	69.5	62.1	P-113	3.73	True
J-85	0	1,500	1,500	1,500	1,500	70.1	62.1	J-223	70.1	62.1	P-117	4.97	True
J-86	0	1,500	1,500	1,500	1,500	75.7	62.1	J-223	75.7	62.1	P-121	5.23	True
J-87	0	1,500	1,500	1,500	1,500	76.2	62.1	J-223	76.2	62.1	P-120	3.98	True
J-88	378	4,000	4,378	4,000	4,378	70.2	61.8	J-223	70.2	61.8	P-124	3.24	True
J-89	378	4,000	4,378	4,000	4,378	64.2	62.2	J-223	64.2	62.2	AZWC-P-12	2.71	True
J-90	0	4,000	4,000	4,000	4,000	61.5	61.7	J-15	61.5	61.7	P-125	3.55	True
J-91	0	4,000	4,000	4,000	4,000	87.7	61.9	J-223	87.7	61.9	P-133	3.09	True
J-92	0	4,000	4,000	4,000	4,000	78.2	62.2	J-223	78.2	62.2	AZWC-P-12	2.71	True
J-93	0	4,000	4,000	4,000	4,000	82.6	61.8	J-223	82.6	61.8	P-133	3.02	True
J-94	56	4,000	4,056	4,000	4,056	66.6	62.0	J-223	66.6	62.0	P-134	3.20	True
J-95	0	4,000	4,000	4,000	4,000	62.5	62.0	J-223	62.5	62.0	P-134	3.61	True
J-200	576	4,000	4,576	4,000	4,576	90.8	61.9	J-223	90.8	61.9	P-217	3.14	True
J-201	917	4,000	4,917	4,000	4,917	95.9	62.1	J-223	95.9	62.1	AZWC-P-12	2.71	True
J-202	917	4,000	4,917	4,000	4,917	101.0	62.1	J-223	101.0	62.1	P-200	4.02	True
J-203	917	4,000	4,917	4,000	4,917	101.2	62.1	J-223	101.2	62.1	P-201	4.89	True
J-204	0	4,000	4,000	4,000	4,000	100.6	62.1	J-223	100.6	62.1	P-201	4.70	True
J-205	0	4,000	4,000	4,000	4,000	99.8	62.0	J-223	99.8	62.0	P-201	3.94	True
J-206	917	4,000	4,917	4,000	4,917	90.3	61.4	J-223	90.3	61.4	P-205	3.48	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-207	931	4,000	4,931	4,000	4,931	80.6	60.9	J-223	80.6	60.9	P-205	3.15	True
J-208	590	4,000	4,590	4,000	4,590	78.3	61.4	J-223	78.3	61.4	P-205	2.87	True
J-209	576	4,000	4,576	4,000	4,576	83.0	61.7	J-223	83.0	61.7	P-208	3.33	True
J-210	576	4,000	4,576	4,000	4,576	94.1	62.0	J-223	94.1	62.0	P-213	3.78	True
J-211	576	4,000	4,576	4,000	4,576	90.9	62.0	J-223	90.9	62.0	P-214	7.19	True
J-212	230	1,500	1,730	1,500	1,730	105.7	62.1	J-223	105.7	62.1	AZWC-P-12	2.71	True
J-213	230	1,500	1,730	1,500	1,730	102.5	62.1	J-223	102.5	62.1	AZWC-P-12	2.71	True
J-214	230	1,500	1,730	1,500	1,730	97.4	62.1	J-223	97.4	62.1	AZWC-P-12	2.71	True
J-215	230	1,500	1,730	1,500	1,730	90.7	61.9	J-223	90.7	61.9	AZWC-P-12	2.71	True
J-216	341	4,000	4,341	4,000	4,341	79.5	61.0	J-223	79.5	61.0	P-225	4.07	True
J-217	462	4,000	4,462	4,000	4,462	62.8	61.0	J-223	62.8	61.0	P-236	3.56	True
J-218	462	4,000	4,462	4,000	4,462	63.8	60.2	J-223	63.8	60.2	P-236	3.12	True
J-219	462	4,000	4,462	4,000	4,462	52.1	56.1	J-224	52.1	56.1	P-240	7.51	True
J-220	462	4,000	4,462	4,000	4,462	66.5	59.5	J-224	66.5	59.5	P-234	5.22	True
J-221	462	4,000	4,462	4,000	4,462	69.2	61.2	J-223	69.2	61.2	P-235	3.50	True
J-222	476	4,000	4,476	4,000	4,476	72.1	60.6	J-223	72.1	60.6	P-205	3.03	True
J-223	476	4,000	4,476	4,000	4,476	60.1	61.1	J-224	60.1	61.1	P-236	3.17	True
J-224	462	4,000	4,462	4,000	4,462	53.8	59.2	J-219	53.8	59.2	P-242	5.91	True
J-225	378	1,500	1,878	1,500	1,878	66.1	62.1	J-223	66.1	62.1	P-134	2.80	True
J-226	378	1,500	1,878	1,500	1,878	64.4	62.1	J-223	64.4	62.1	P-246	2.94	True
J-227	378	1,500	1,878	1,500	1,878	67.2	62.1	J-223	67.2	62.1	P-134	2.76	True
J-228	201	4,000	4,201	4,000	4,201	67.3	60.8	J-232	67.3	60.8	P-249	5.37	True
J-229	121	4,000	4,121	4,000	4,121	59.8	62.0	J-223	59.8	62.0	P-250	4.24	True
J-230	201	4,000	4,201	4,000	4,201	57.6	55.4	J-232	57.6	55.4	P-251	5.85	True
J-231	121	1,500	1,621	1,500	1,621	70.3	62.1	J-223	70.3	62.1	P-134	3.12	True
J-232	62	4,000	4,062	4,000	4,062	53.7	55.4	J-233	53.7	55.4	P-251	5.74	True
J-233	0	1,500	1,500	1,500	1,500	66.0	62.1	J-223	66.0	62.1	P-134	3.15	True
J-ELS	1	4,000	4,001	4,000	4,001	96.1	62.0	J-223	96.1	62.0	P-260	5.97	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
AZWC-J-1	177	4,000	4,177	6,061	6,238	39.9	47.9	AZWC-J-4	20.0	29.6	AZWC-P-12	9.54	True
AZWC-J-2	0	4,000	4,000	7,475	7,475	48.3	49.5	AZWC-J-1	21.6	29.8	AZWC-P-12	10.00	True
AZWC-J-3	177	4,000	4,177	7,936	8,113	58.2	58.0	AZWC-J-2	39.5	48.5	AZWC-P-9	10.00	True
AZWC-J-4	351	4,000	4,351	6,378	6,729	45.5	41.7	AZWC-J-1	20.8	20.6	AZWC-P-12	10.00	True
AZWC-J-5	14	4,000	4,014	5,530	5,544	40.0	41.4	AZWC-J-1	20.0	28.6	AZWC-P-12	9.03	True
AZWC-J-6	14	4,000	4,014	6,487	6,501	50.3	52.3	AZWC-J-2	24.3	40.6	AZWC-P-19	10.00	True
AZWC-J-7	14	4,000	4,014	6,340	6,354	48.7	42.4	AZWC-J-1	22.6	22.7	AZWC-P-12	10.00	True
AZWC-J-8	177	4,000	4,177	10,000	10,177	77.8	62.2	J-223	77.8	62.2	AZWC-P-12	2.71	True
AZWC-J-9	130	4,000	4,130	4,899	5,029	35.7	42.7	AZWC-J-1	20.0	35.8	AZWC-P-23	8.35	True
AZWC-J-10	173	4,000	4,173	5,790	5,963	44.9	42.5	AZWC-J-1	20.0	22.9	AZWC-P-12	9.37	True
AZWC-J-11	351	4,000	4,351	6,340	6,690	54.6	42.5	AZWC-J-1	31.8	22.8	AZWC-P-12	10.00	True
AZWC-J-12	177	4,000	4,177	5,919	6,096	70.6	54.3	AZWC-J-1	63.2	47.5	AZWC-P-12	10.00	True
AZWC-J-13	91	4,000	4,091	6,329	6,420	54.6	42.7	AZWC-J-1	24.6	22.3	AZWC-P-12	10.00	True
AZWC-J-14	91	4,000	4,091	6,009	6,100	51.2	42.8	AZWC-J-1	20.0	20.4	AZWC-P-12	9.63	True
AZWC-J-15	351	4,000	4,351	6,286	6,637	64.8	43.7	AZWC-J-1	43.7	25.9	AZWC-P-12	10.00	True
AZWC-J-16	177	4,000	4,177	6,236	6,413	67.6	45.2	AZWC-J-1	49.6	28.9	AZWC-P-12	10.00	True
AZWC-J-17	91	4,000	4,091	6,315	6,406	59.9	43.1	AZWC-J-1	27.2	24.2	AZWC-P-12	10.00	True
AZWC-J-18	91	4,000	4,091	5,879	5,970	53.4	42.9	AZWC-J-1	20.0	27.3	AZWC-P-1	9.76	True
J-1	0	4,000	4,000	10,000	10,000	80.7	62.0	J-223	78.4	61.7	P-133	5.28	True
J-2	0	4,000	4,000	10,000	10,000	78.7	62.0	J-223	77.0	61.8	P-133	6.35	True
J-3	0	4,000	4,000	10,000	10,000	74.1	62.1	J-223	71.4	62.0	P-134	7.58	True
J-4	56	4,000	4,056	10,000	10,056	72.5	62.1	J-223	68.4	62.0	P-134	6.98	True
J-5	0	4,000	4,000	10,000	10,000	77.1	62.1	J-223	53.9	61.3	P-41	8.97	True
J-6	0	4,000	4,000	9,506	9,506	80.1	62.1	J-223	45.0	56.8	P-37	10.00	True
J-7	0	4,000	4,000	9,545	9,545	84.1	62.0	J-223	52.0	61.9	P-22	10.00	True
J-8	0	4,000	4,000	10,000	10,000	89.3	62.0	J-223	65.5	61.8	P-5	8.49	True
J-9	0	4,000	4,000	10,000	10,000	87.4	62.0	J-223	68.6	61.8	P-7	8.29	True
J-10	0	4,000	4,000	10,000	10,000	85.2	62.0	J-223	71.5	61.8	P-6	7.87	True
J-11	0	4,000	4,000	10,000	10,000	83.0	62.0	J-223	71.6	61.8	P-7	9.15	True
J-12	0	4,000	4,000	10,000	10,000	74.3	62.0	J-223	65.7	60.7	P-106	6.84	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-13	0	4,000	4,000	10,000	10,000	67.1	62.0	J-223	54.1	56.8	P-137	9.24	True
J-14	0	4,000	4,000	10,000	10,000	63.1	62.0	J-223	50.8	52.0	P-58	6.11	True
J-15	354	4,000	4,354	10,000	10,354	60.7	62.0	J-223	45.2	51.2	P-142	8.24	True
J-16	28	4,000	4,028	10,000	10,028	65.5	62.0	J-223	54.7	54.5	P-8	6.91	True
J-17	0	4,000	4,000	10,000	10,000	69.3	62.1	J-223	58.6	58.8	P-9	8.82	True
J-18	0	4,000	4,000	10,000	10,000	70.4	61.9	J-223	60.4	59.6	P-11	6.18	True
J-19	0	4,000	4,000	10,000	10,000	72.1	61.9	J-223	60.7	60.8	P-11	7.56	True
J-20	0	4,000	4,000	10,000	10,000	77.5	61.8	J-223	74.9	61.3	P-124	4.04	True
J-21	0	4,000	4,000	10,000	10,000	84.5	61.8	J-223	81.5	61.4	P-133	3.93	True
J-22	28	4,000	4,028	10,000	10,028	88.6	61.9	J-223	86.1	61.4	P-133	4.22	True
J-23	0	4,000	4,000	10,000	10,000	85.0	62.0	J-223	82.1	61.7	P-133	4.66	True
J-24	0	4,000	4,000	10,000	10,000	94.4	62.0	J-223	80.8	61.4	P-83	7.60	True
J-25	0	4,000	4,000	10,000	10,000	96.6	62.0	J-223	74.8	61.3	P-15	7.60	True
J-26	0	4,000	4,000	9,698	9,698	93.3	62.0	J-223	66.2	61.7	P-16	10.00	True
J-27	273	1,500	1,773	6,987	7,260	89.5	62.1	J-223	64.1	61.9	P-17	10.00	True
J-28	273	1,500	1,773	10,000	10,273	88.7	62.1	J-223	48.5	56.3	P-22	9.83	True
J-29	0	1,500	1,500	3,411	3,411	81.4	62.1	J-223	65.2	62.1	P-20	10.00	True
J-30	273	4,000	4,273	7,800	8,073	75.3	62.1	J-223	57.5	61.9	P-21	10.00	True
J-31	273	1,500	1,773	6,471	6,744	83.0	62.1	J-223	58.2	61.2	P-24	10.00	True
J-32	273	1,500	1,773	8,790	9,063	81.7	62.1	J-223	49.9	58.6	P-25	10.00	True
J-33	273	1,500	1,773	6,462	6,735	79.0	62.1	J-223	60.7	62.0	P-27	10.00	True
J-34	273	1,500	1,773	4,977	5,249	77.1	62.1	J-223	67.2	62.1	P-27	10.00	True
J-35	0	1,500	1,500	2,675	2,675	79.9	62.1	J-223	64.3	62.1	P-39	10.00	True
J-36	0	1,500	1,500	3,545	3,545	76.6	62.1	J-223	64.2	62.1	P-42	10.00	True
J-37	0	1,500	1,500	2,600	2,600	78.9	62.1	J-223	61.5	62.1	P-31	10.00	True
J-38	0	1,500	1,500	2,460	2,460	74.9	62.1	J-223	61.3	62.1	P-33	10.00	True
J-39	354	1,500	1,854	2,182	2,536	75.3	62.1	J-223	67.5	62.1	P-34	10.00	True
J-40	0	1,500	1,500	2,289	2,289	73.3	62.1	J-223	64.8	62.1	P-36	10.00	True
J-41	0	4,000	4,000	7,189	7,189	80.0	62.0	J-223	60.2	62.0	P-37	10.00	True
J-42	0	4,000	4,000	9,906	9,906	74.8	62.1	J-223	57.0	61.9	P-40	10.00	True

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J-43	354	1,500	1,854	6,572	6,926	75.8	62.1	J-223	64.0	61.9	P-44	10.00	True
J-44	354	1,500	1,854	10,000	10,354	71.4	62.1	J-223	53.4	58.9	P-143	8.06	True
J-45	0	1,500	1,500	3,640	3,640	74.6	62.1	J-223	58.4	62.0	P-47	10.00	True
J-46	354	1,500	1,854	2,625	2,979	65.5	62.1	J-223	53.6	62.1	P-49	10.00	True
J-47	0	1,500	1,500	3,058	3,058	73.4	62.1	J-223	57.6	62.0	P-51	10.00	True
J-48	0	1,500	1,500	4,999	4,999	67.8	62.1	J-223	49.4	61.9	P-62	10.00	True
J-49	354	1,500	1,854	8,844	9,198	68.2	62.1	J-223	43.4	48.5	P-54	10.00	True
J-50	0	1,500	1,500	2,852	2,852	61.6	62.1	J-223	49.1	62.0	P-56	10.00	True
J-51	0	4,000	4,000	10,000	10,000	62.9	62.0	J-223	49.7	54.3	P-138	7.63	True
J-52	0	4,000	4,000	10,000	10,000	67.6	62.0	J-223	56.4	57.4	P-61	7.51	True
J-53	273	1,500	1,773	2,716	2,989	88.9	62.1	J-223	77.4	62.1	P-65	10.00	True
J-54	0	1,500	1,500	6,935	6,935	96.6	62.1	J-223	74.6	61.9	P-64	10.00	True
J-55	0	1,500	1,500	4,911	4,911	93.9	62.1	J-223	73.4	62.0	P-66	10.00	True
J-56	273	1,500	1,773	8,395	8,667	94.2	62.1	J-223	66.1	61.8	P-93	10.00	True
J-57	0	1,500	1,500	4,027	4,027	90.5	62.1	J-223	66.7	62.0	P-68	10.00	True
J-58	0	1,500	1,500	3,015	3,015	91.0	62.1	J-223	74.2	62.0	P-72	10.00	True
J-59	0	4,000	4,000	7,149	7,149	90.3	62.0	J-223	74.3	61.9	P-70	10.00	True
J-60	0	1,500	1,500	2,912	2,912	90.6	62.1	J-223	71.2	62.0	P-74	10.00	True
J-61	273	1,500	1,773	7,245	7,517	97.0	62.1	J-223	71.4	61.9	P-75	10.00	True
J-62	273	1,500	1,773	9,754	10,027	89.6	62.1	J-223	63.7	61.8	P-77	10.00	True
J-63	273	1,500	1,773	7,534	7,807	89.0	62.1	J-223	71.8	61.9	P-78	10.00	True
J-64	0	1,500	1,500	2,702	2,702	85.6	62.1	J-223	72.4	62.0	P-79	10.00	True
J-65	273	1,500	1,773	7,353	7,626	92.7	62.1	J-223	74.8	61.8	P-84	10.00	True
J-66	0	4,000	4,000	10,000	10,000	92.1	62.0	J-223	80.6	61.4	P-82	8.02	True
J-67	0	1,500	1,500	2,790	2,790	83.8	62.1	J-223	67.2	62.0	P-85	10.00	True
J-68	273	1,500	1,773	6,987	7,259	87.6	62.1	J-223	73.4	61.8	P-87	10.00	True
J-69	0	1,500	1,500	4,150	4,150	82.3	62.1	J-223	60.0	62.0	P-140	10.00	True
J-70	273	1,500	1,773	9,365	9,638	88.0	62.1	J-223	63.4	61.8	P-90	10.00	True
J-71	273	1,500	1,773	9,811	10,083	89.8	62.1	J-223	61.0	61.7	P-96	10.00	True
J-72	273	1,500	1,773	8,756	9,028	91.2	62.1	J-223	68.1	61.8	P-94	10.00	True

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-73	0	1,500	1,500	3,562	3,562	73.7	62.1	J-223	60.3	61.9	P-112	10.00	True
J-74	354	1,500	1,854	10,000	10,354	77.6	62.1	J-223	55.8	61.6	P-98	8.15	True
J-75	354	1,500	1,854	6,344	6,698	79.3	62.1	J-223	61.8	61.8	P-99	10.00	True
J-76	354	1,500	1,854	6,453	6,807	81.8	62.1	J-223	68.6	61.7	P-100	10.00	True
J-77	354	1,500	1,854	6,224	6,578	78.7	62.1	J-223	61.0	61.8	P-102	10.00	True
J-78	354	1,500	1,854	8,598	8,952	76.4	62.1	J-223	53.0	61.7	P-103	10.00	True
J-79	0	1,500	1,500	3,035	3,035	73.6	62.1	J-223	58.0	62.0	P-119	10.00	True
J-80	0	4,000	4,000	10,000	10,000	77.4	62.0	J-223	68.6	61.7	P-105	8.65	True
J-81	0	1,500	1,500	3,781	3,781	81.9	62.1	J-223	65.0	61.9	P-130	10.00	True
J-82	354	1,500	1,854	6,622	6,976	82.4	62.1	J-223	68.6	61.8	P-109	10.00	True
J-83	354	4,000	4,354	7,744	8,098	70.0	61.9	J-223	58.7	61.7	P-122	10.00	True
J-84	0	1,500	1,500	3,961	3,961	69.5	62.1	J-223	49.4	61.9	P-113	10.00	True
J-85	0	1,500	1,500	3,006	3,006	70.1	62.1	J-223	44.7	62.0	P-117	10.00	True
J-86	0	1,500	1,500	2,890	2,890	75.7	62.1	J-223	57.7	62.0	P-121	10.00	True
J-87	0	1,500	1,500	3,915	3,915	76.2	62.1	J-223	54.7	61.6	P-120	10.00	True
J-88	378	4,000	4,378	10,000	10,378	70.2	61.8	J-223	67.5	60.9	P-124	4.76	True
J-89	378	4,000	4,378	10,000	10,378	64.2	62.2	J-223	60.7	59.7	P-205	3.42	True
J-90	0	4,000	4,000	10,000	10,000	61.5	61.7	J-15	46.1	50.5	P-125	9.03	True
J-91	0	4,000	4,000	10,000	10,000	87.7	61.9	J-223	84.7	61.4	P-133	4.07	True
J-92	0	4,000	4,000	10,000	10,000	78.2	62.2	J-223	78.2	62.2	P-500	3.15	True
J-93	0	4,000	4,000	10,000	10,000	82.6	61.8	J-223	79.5	61.4	P-133	3.86	True
J-94	56	4,000	4,056	10,000	10,056	66.6	62.0	J-223	57.1	55.1	P-61	5.51	True
J-95	0	4,000	4,000	10,000	10,000	62.5	62.0	J-223	49.3	52.3	P-141	8.20	True
J-200	576	4,000	4,576	10,000	10,576	90.8	61.9	J-223	87.5	61.0	P-217	4.42	True
J-201	917	4,000	4,917	10,000	10,917	95.9	62.1	J-223	92.6	60.4	P-133	3.78	True
J-202	917	4,000	4,917	10,000	10,917	101.0	62.1	J-223	94.0	60.5	P-200	6.71	True
J-203	917	4,000	4,917	10,000	10,917	101.2	62.1	J-223	80.3	60.7	P-201	9.79	True
J-204	0	4,000	4,000	8,668	8,668	100.6	62.1	J-223	76.7	61.1	P-202	10.00	True
J-205	0	1,500	1,500	10,000	10,000	105.2	62.1	J-223	73.2	60.9	P-204	8.77	True
J-206	917	4,000	4,917	10,000	10,917	90.3	61.4	J-223	86.0	58.9	P-205	5.12	True

Fire Flow Node FlexTable: Fire Flow Report

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)	Satisfies Fire Flow Constraints?
J-207	931	4,000	4,931	10,000	10,931	80.6	60.9	J-223	75.7	57.6	P-205	4.51	True
J-208	590	4,000	4,590	10,000	10,590	78.3	61.4	J-223	69.4	59.7	P-212	6.08	True
J-209	576	4,000	4,576	10,000	10,576	83.0	61.7	J-223	65.1	60.4	P-211	7.57	True
J-210	576	4,000	4,576	10,000	10,576	94.1	62.0	J-223	72.8	61.0	P-216	8.18	True
J-211	576	4,000	4,576	5,790	6,366	90.9	62.0	J-223	79.4	61.9	P-214	10.00	True
J-212	230	1,500	1,730	6,647	6,877	105.7	62.1	J-223	70.5	61.5	P-220	10.00	True
J-213	230	1,500	1,730	8,830	9,060	102.5	62.1	J-223	70.3	60.8	P-226	10.00	True
J-214	230	1,500	1,730	10,000	10,230	97.4	62.1	J-223	76.6	60.1	P-227	9.53	True
J-215	230	1,500	1,730	9,431	9,661	90.7	61.9	J-223	58.8	59.4	P-228	10.00	True
J-216	341	4,000	4,341	10,000	10,341	79.5	61.0	J-223	60.3	56.8	P-225	9.46	True
J-217	462	4,000	4,462	10,000	10,462	62.8	61.0	J-223	57.5	56.2	P-236	5.61	True
J-218	462	4,000	4,462	10,000	10,462	63.8	60.2	J-223	57.0	54.1	P-236	4.83	True
J-219	462	4,000	4,462	5,481	5,942	52.1	56.1	J-224	42.0	51.9	P-240	10.00	True
J-220	462	4,000	4,462	8,362	8,824	66.5	59.5	J-224	43.3	49.4	P-234	10.00	True
J-221	462	4,000	4,462	10,000	10,462	69.2	61.2	J-223	50.7	58.6	P-235	7.91	True
J-222	476	4,000	4,476	10,000	10,476	72.1	60.6	J-223	66.1	55.9	P-236	4.53	True
J-223	476	4,000	4,476	10,000	10,476	60.1	61.1	J-224	53.5	54.7	P-236	4.94	True
J-224	462	4,000	4,462	7,427	7,889	53.8	59.2	J-219	38.5	46.5	P-242	10.00	True
J-225	378	1,500	1,878	9,625	10,003	66.1	62.1	J-223	46.4	48.7	P-243	10.00	True
J-226	378	1,500	1,878	5,865	6,243	64.4	62.1	J-223	48.2	60.1	P-246	10.00	True
J-227	378	1,500	1,878	8,787	9,165	67.2	62.1	J-223	38.2	59.6	P-248	10.00	True
J-228	201	4,000	4,201	8,041	8,243	67.3	60.8	J-232	52.1	45.6	P-249	10.00	True
J-229	121	4,000	4,121	9,663	9,785	59.8	62.0	J-223	32.6	56.9	P-250	10.00	True
J-230	201	4,000	4,201	7,027	7,229	57.6	55.4	J-232	37.7	35.6	P-251	10.00	True
J-231	121	1,500	1,621	6,508	6,629	70.3	62.1	J-223	51.8	54.2	P-254	10.00	True
J-232	62	4,000	4,062	7,173	7,235	53.7	55.4	J-233	29.3	32.1	P-251	10.00	True
J-233	0	1,500	1,500	5,823	5,823	66.0	62.1	J-223	39.4	42.5	P-258	10.00	True
J-ELS	1	1,500	1,501	6,722	6,723	105.6	62.1	J-223	78.6	61.7	P-260	10.00	True

APPENDIX D
DESIGNATION OF ASSURED WATER SUPPLY

JANICE K. BREWER
Governor

HERBERT R. GUENTHER
Director

ARIZONA DEPARTMENT OF WATER RESOURCES

3550 North Central Avenue, Second Floor
PHOENIX, ARIZONA 85012-2105
(602) 771-8500

September 29, 2010

Via Certified Mail
7004 2510 0000 8660 1031

Water Utilities Community Facility District
George Hoffman
District Manager
PO Box 4768
Apache Junction, AZ 85278-4768

Re: Designation of Assured Water Supply (DWR No. 86-002025.0001)
Water Utilities Community Facility District

Dear Mr. Hoffman:

I am pleased to inform you that the Arizona Department of Water Resources has approved the Modification of the Water Utilities Community Facilities District's ("WUCFD") Designation of Assured Water Supply. We have enclosed the formal Decision and Order. The Decision and Order includes an itemization of the WUCFD's responsibilities in maintaining the Designation.

WUCFD's status as a designated water provider demonstrates that the WUCFD is taking a long-term perspective in managing water resources. The WUCFD's commitment to sound water management represents a major contribution to the State's water management goal of achieving safe-yield in the Phoenix Active Management Area.

If you have any questions regarding these documents, please contact Scott Miller at (602) 771-8604.

Sincerely,

Sandra Fabritz Whitney
Assistant Director

cc: Via electronic mail:
Frank Blanco, WUCFD
Robin King, Arizona Department of Real Estate
J. Scott Miller, Manager, Groundwater Permitting and Wells

DEPARTMENT OF WATER RESOURCES

BEFORE THE DIRECTOR

IN THE MATTER OF THE APPLICATION OF APACHE JUNCTION WATER UTILITIES COMMUNITY FACILITIES DISTRICT FOR A DESIGNATION AS HAVING AN ASSURED WATER SUPPLY	)	**AWS No. 2010-014**
	)	**DECISION AND ORDER**
	)	**No. 86-002025.0001**

I. INTRODUCTION

On September 29, 2008 the Department of Water Resources ("Department") received an application from Apache Junction Water Utilities Community Facilities District ("WUCFD") requesting that the Department modify WUCFD's designation of assured water supply pursuant to A.R.S. § 45-576 *et seq.* and A.A.C. R12-15-701 *et seq.* On July 15, 2010 and July 22, 2010, the Department gave public notice of the application pursuant to A.R.S. § 45-578. One objection to the application was filed with the Department.

After receiving WUCFD's application to modify its designation of assured water supply, the Department reviewed relevant information regarding the modification request, including: 1) hydrologic information and other information on file with the Department for the proposed groundwater supply, 2) information regarding WUCFD's consistency with the management plan and the management goal of the Phoenix Active Management Area ("Phoenix AMA"); 3) information regarding WUCFD's financial capability to construct the necessary delivery system, treatment works and storage facilities; and 4) the issues raised by the objection to the application. Based on that information, the Department makes the following Findings of Fact, Conclusions of Law and Order of Designation and Conditions of Designation:

II. FINDINGS OF FACT

A. General

1. WUCFD is a community facilities district established under A.R.S. § 48-701 *et.seq.*
2. WUCFD has the legal authority to deliver water to its customers located within its service area.
3. WUCFD currently serves water through its municipal distribution system to its customers.
4. On February 1, 2005 WUCFD was designated as having an assured water supply in Decision and Order AWS 2005-003, No. 26-400989.0000.

B. Water Demands

5. WUCFD's current demand as of calendar year 2008 is 1,843.29 acre-feet per year ("current demand").
6. WUCFD's committed demand as of calendar year 2008 is 43.04 acre-feet per year ("committed demand").
7. WUCFD's projected demand in 2025 is 1,675.71 acre-feet per year ("2025 projected demand"). The 2025 projected demand does not include the current demand or the committed demand, but does include the demand at build-out of plats reasonably projected to be approved through calendar year 2025.
8. WUCFD's annual estimated water demand in 2025, which is the sum of its current demand, committed demand, and 2025 projected demand, is 3,562.04 acre-feet per year ("2025 annual estimated water demand").

C. Physical Availability of Groundwater and Stored Water Recovered Outside the Area of Impact

9. WUCFD has demonstrated that after withdrawing 276,900 acre-feet, or an average of 2,769 acre-feet per year over 100 years, of groundwater and stored water recovered outside the area of impact (*see* Finding of Fact No. 28), the depth-to-static water level within WUCFD's service area is not expected to exceed 1,000 feet below land surface. For purposes of this Decision and Order, that volume includes the following:

a. 39,126.18 acre-feet, or an average of 391.26 acre-feet per year over 100 years, of future and existing long-term storage credits to be recovered outside the area of impact. See Finding of Fact No. 28.

b. 584 acre-feet, or an average of 5.84 acre-feet per year over 100 years, of groundwater that WUCFD may use to supplement its CAP water supplies, pursuant to A.A.C. R12-15-717(D)(2). See Finding of Fact No. 30.

c. 237,190 acre-feet, or an average of 2,371.9 acre-feet per year over 100 years, of groundwater to meet annual demands. See Finding of Fact No. 20.

D. Groundwater

10. WUCFD has demonstrated that it has wells of sufficient capacity to withdraw at least 2,899.75 acre-feet per year of groundwater for 100 years.

11. WUCFD has the right to withdraw and deliver groundwater to its customers pursuant to service area right No. 56-002025.

12. As of the date of this Decision and Order, WUCFD's current groundwater allowance is 463.02 acre-feet, or an average of 4.63 acre-feet per year over 100 years, pursuant to A.A.C. R12-15-724(A)(2).

13. Pursuant to A.A.C. R12-15-724(A)(4), the Director shall add a volume for incidental recharge to WUCFD's groundwater allowance for each calendar year, based upon its total water use from any source in the previous calendar year.

14. Based on its reported water use within its service area for calendar year 2008, WUCFD's incidental recharge volume for calendar year 2009 is 80.54 acre-feet.

15. If WUCFD delivers 3,383 acre-feet per year of water for use within its service area in calendar year 2024, its incidental recharge volume for calendar year 2025 will be 135.32 acre-feet ("2025 incidental recharge volume").

16. The sum of WUCFD's current groundwater allowance and 2025 incidental recharge volume is 139.95 acre-feet per year. This volume of groundwater will be consistent with the management goal each year for 100 years.

17. WUCFD is a member service area of the Central Arizona Groundwater Replenishment District (CAGRD). The Member Service Area Agreement between WUCFD and the CAGRD (Agreement) does not limit the volume of excess groundwater, as defined in the

Agreement.

18. The Director has made a determination, which has not expired, that the most recent CAGRD Plan of Operation is consistent with the management goal of the Phoenix AMA.

19. As of the date of this decision and order, the CAGRD is in compliance with its groundwater replenishment obligation for the Phoenix AMA.

20. WUCFD has demonstrated that an average of 2,371.9 acre-feet per year of groundwater to meet annual demands will be physically, continuously and legally available for 100 years and consistent with the management goal of the Phoenix AMA.

21. In addition to the groundwater supplies described in Finding of Fact No. 20, WUCFD has demonstrated that 584 acre-feet, or an average of 5.84 acre-feet per year over 100 years, of groundwater will be physically, continuously and legally available to supplement its CAP water supplies, pursuant to A.A.C. R12-15-717(D)(2). See Finding of Fact No. 30.

E. Storage and Recovery

22. WUCFD holds Water Storage Permit No. 73-545695.7000, which allows storage of a maximum volume of 20,000 acre-feet per year of CAP water at the RWCD Groundwater Savings Facility.

23. WUCFD holds Recovery Well Permit No. 74-576703.0001, which allow recovery of a total of 2,899.75 acre-feet per year outside the area of impact of storage.

F. Long-Term Storage Credits

24. As of December 31, 2008, WUCFD holds 24,286.18 acre-feet of long-term storage credits.

25. On January 17, 2006, WUCFD and the Superstition Mountains Community Facilities District ("SMCFD") entered into an intergovernmental agreement ("IGA") for the sale and purchase of long term storage credits to be earned by SMCFD at Underground Storage Facility No. 71-584469.0000.

26. The term of the agreement expires on December 31, 2015.

27. Pursuant to the IGA, WUCFD may purchase 14,840 acre-feet of long-term storage credits during the term of the IGA.

28. WUCFD has demonstrated that up to 39,126.18 acre-feet, or an average of 391.26 of long-term storage credits to be recovered outside the area of impact will be physically, continuously and legally available for 100 years, for purposes of this Decision and Order.

G. CAP Water: Physical, Continuous and Legal Availability

i. WUCFD M&I CAP Water Allocation

29. WUCFD holds a long-term, non-declining municipal and industrial ("M&I") subcontract for CAP water with the Central Arizona Water Conservation District for 2,919 acre-feet per year.

ii. Continuous Availability of CAP Water

30. The volume of groundwater and stored water to be recovered outside the area of impact of storage described in Finding of Fact No. 9 includes 584 acre-feet, or an average of 5.84 acre-feet per year over 100 years, of groundwater that WUCFD may use to supplement its CAP water supplies, pursuant to A.A.C. R12-15-717(D)(2).

iii. Treatment Facilities

31. Pursuant to an agreement between WUCFD and the City of Mesa ("Mesa") dated March 17, 2006, WUCFD has treatment capacity to treat up to a total of 2,919 acre-feet per year of CAP water at Mesa's Brown Road CAP Water Treatment Plant until March 17, 2016.

32. According to WUCFD's 5 year (2010 – 2014) Water System Capital Improvements Plan, a Water Treatment Plant with a treatment capacity of approximately 1,232 acre feet per year will be built to treat WUCFD's CAP allocation.

iv. Summary

33. The total volume of CAP Water is 2,919 which includes WUCFD's CAP M&I allocation. WUCFD has demonstrated that 1,232 acre-feet per year of CAP water to be treated and delivered without storage is physically, continuously and legally available for 100 years.

H. Consistency with the Management Plan

34. WUCFD is currently regulated as a large municipal provider under the Municipal Conservation Program in the Third Management Plan for the Phoenix AMA ("Management Plan"). As of the date the application was filed, WUCFD has not been found to be out of compliance with the Management Plan.

I. Water Quality

35. WUCFD is regulated by the Arizona Department of Environmental Quality as a public water system pursuant to A.R.S. § 49-351, *et seq*.

J. Financial Capability

36. WUCFD's five-year capital improvement plan provides for the creation of a water treatment facility to treat 1,232 acre-feet per year of CAP water

37. WUCFD has constructed the remaining delivery system and storage facilities necessary to satisfy its 2025 annual estimated water demand.

III. CONCLUSIONS OF LAW

Having reviewed the Findings of Fact, the Department makes the following Conclusions of Law:

1. For purposes of this Decision and Order, WUCFD has demonstrated that 2,371.9 acre-feet per year of groundwater, 391.26 acre-feet per year of long-term storage credits to be recovered outside the area of impact, and 1,232 acre-feet per year of CAP water to be treated and delivered without storage, will be physically, continuously and legally available for at least 100 years and will be consistent with the management goal. A.A.C. R12-15-716, R12-15-717, R12-15-718, R12-15-722. The sum of these volumes, 3,995.16 acre-feet per year, exceeds the 2025 annual estimated water demand of 3,562.04 acre-feet per year. *See* Attachment A to this Decision and Order.

2. WUCFD has also demonstrated that 584 acre-feet, or an average of 5.84 acre-feet per year over 100 years, of groundwater will be physically, continuously and legally available to supplement its CAP water supplies. A.A.C. R12-15-717(D)(2). See

Attachment A to this Decision and Order.

3. For purposes of A.A.C. R12-15-716(B)(3)(c)(ii), the volume of WUCFD's 2025 annual estimated water demand that will be met with groundwater and stored water recovered outside the area of impact is 276,900 acre-feet, or an average of 2,769 acre-feet per year over 100 years. See Attachment A to this Decision and Order.
4. In accordance with A.A.C. R12-15-722, WUCFD has demonstrated that its projected use of groundwater is consistent with the management goal of the Phoenix AMA.
5. The water supply served by WUCFD will be of adequate quality pursuant to A.A.C. R12-15-719.
6. In accordance with A.A.C. R12-15-721, WUCFD meets the standard established for determining consistency with the Management Plan for the Phoenix AMA.
7. WUCFD has satisfied the financial capability criteria prescribed in A.A.C. R12-15-720.
8. WUCFD has satisfied all the requirements for a designation of an assured water supply.

IV. ORDER OF DESIGNATION AND CONDITIONS OF DESIGNATION

Having reviewed the Findings of Fact and Conclusions of Law, the Department hereby issues this Decision and Order designating WUCFD as having an assured water supply, subject to the following conditions:

1. The Director's determination that an assured water supply exists for WUCFD is based on its analysis of the water supplies pledged by WUCFD. Nothing in this Decision and Order limits or reduces WUCFD's legal authority to use any water supply in any year.
2. The Director reserves the right under A.A.C. R12-15-711(C) to periodically review and modify the designation for good cause as conditions warrant.
3. Pursuant to A.A.C. R12-15-711(F), the Director may, at any time revoke this designation if the findings of fact or the conclusions of law upon which the designation is based change or are invalid, or if an assured water supply no longer exists.
4. WUCFD shall submit an application to modify this decision and order designating WUCFD as having an assured water supply to increase the term of the designation when the sum of WUCFD current demand, committed demand and two years of

projected demand exceeds 3,562.04 acre-feet per year, or by December 31, 2023, whichever is earlier.

5. Pursuant to A.A.C. R12-15-719, WUCFD shall satisfy any state water quality requirements established for its proposed use after the date of this designation.

6. WUCFD shall annually provide to the Department the following information for the previous calendar year in the manner prescribed in A.A.C. R12-15-711(A):

   a. An estimate of the demand of platted, undeveloped lots located in WUCFD's service area.

   b. An estimate of the projected demand at build-out for customers with which WUCFD has entered into a notice of intent to serve agreement in the preceding calendar year.

   c. A report regarding WUCFD's compliance with water quality requirements.

   d. The depth-to-static water level of all wells from which WUCFD withdrew water during the previous calendar year.

   e. Any other information requested by the Director to determine whether WUCFD continues to meet all the requirements necessary to maintain this designation of assured water supply.

IT IS HEREBY ORDERED THAT WUCFD BE DESIGNATED AS HAVING AN ASSURED WATER SUPPLY UNTIL DECEMBER 31, 2025.

DATED this 29th day of September, 2010.

Herbert R. Guenther
Director
Arizona Department of Water Resources

A copy of the foregoing
Decision and Order mailed
by certified mail this 29th day
of SEPTEMBER, 2010, to:

WUCFD
George Hoffman
District Manager
PO Box 4768
Apache Junction, AZ 85278-4768

Certified Mail No.:
7004 2516 0000 8660 1031

Sent by: MICHELLE MORENO

A copy of the foregoing sent by
electronic mail this 29th day
of SEPTEMBER, 2010, to:

WUCFD
Frank Blanco
PO Box 4768
Apache Junction, AZ 85278-4768

Cliff Neal
CAGRD
23636 N 7th St
Phoenix, AZ 85024

Robin King
Arizona Department of Real Estate
2910 N. 44th Street
WUCFD, AZ 85018

J. Scott Miller
ADWR
3550 North Central Avenue
WUCFD, AZ 85012

Decision and Order No. 86-002025.0001 (WUCFD Designation as Having an Assured Water Supply): Attachment A

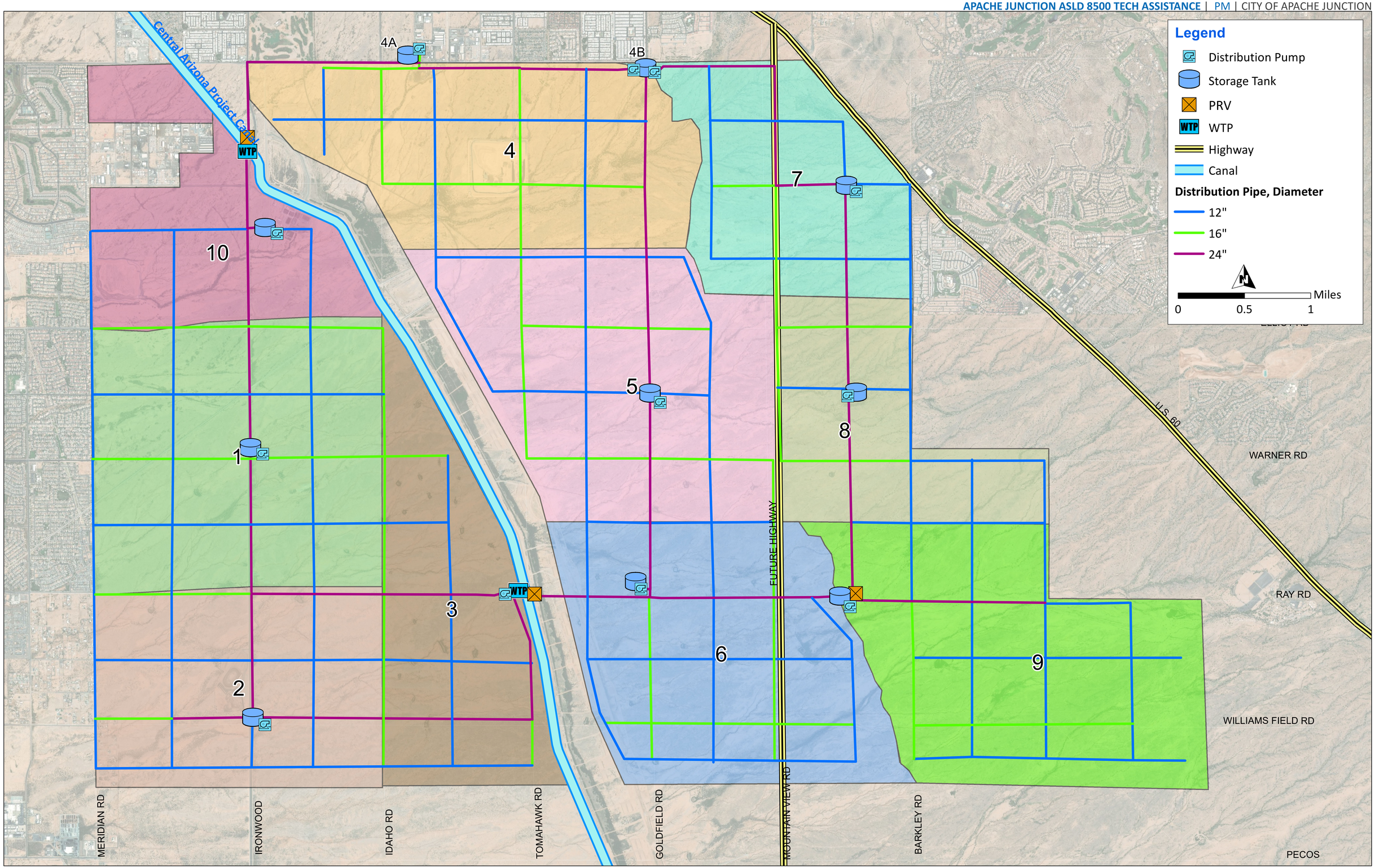
Source	Approved (af/yr)	Capacity	Legal Authority	Comments
Total Groundwater to Meet Annual Demands	**2,371.9**	Physical availability of groundwater and stored water recovered outside the area of impact (AOI) = 2,769 af/yr Groundwater Well Capacity = 2,899.75 af/yr	Service Area Right No. 56-002520.0000 Groundwater allowance: A.A.C. R12-15-724(A)(2): 2009 Groundwater Allowance 4.63 af/yr Incidental Recharge: A.A.C. R12-15-724(A)(4): 2019 water use times IR factor of 4.00% (3,383 x 0.04 = 135.32) Total Groundwater Allowance for 2020: 139.95 af/yr	Total Groundwater to meet annual demands include: 2,769 physically available • minus 391.26 af/yr of long-term storage credits to be recovered outside the area of impact ("AOI") • minus 5.84 af/yr of groundwater to supplement CAP water supplies =2,371.9 af/yr.
Total Existing Long Term Storage Credits	**391.26**	Recovery Well Permit No: 74-576703.0001 Recovery Well Capacity =2,899.75 af/yr Recharge Storage Permit Capacity = 20,000 af/yr Physical availability of groundwater + stored water recovered outside AOI = 2,769 af/yr	Long Term Storage Account No: 70- 441152 Water Storage Permit No: 73-545695.7000	2008 balance of 39,126.18 af divided by 100 years.

Decision and Order No. 86-002025.0001 (WUCFD Designation as Having an Assured Water Supply): Attachment A

Source	Approved (af/yr)	Capacity	Legal Authority	Comments
Total CAP water – M&I subcontract	**1,232**	Treatment capacity pursuant to CIP = 1,232 af/yr	M&I Subcontract No: 07-XX-30-W0494	M&I Subcontract is 2,919 af/yr
Total 2025 Supplies	**3,995.16**			
Total 2025 Demand	**3,562.04**			

* Note: Abbreviations are consistent with those identified in Decision and Order No. 86-002025.0001

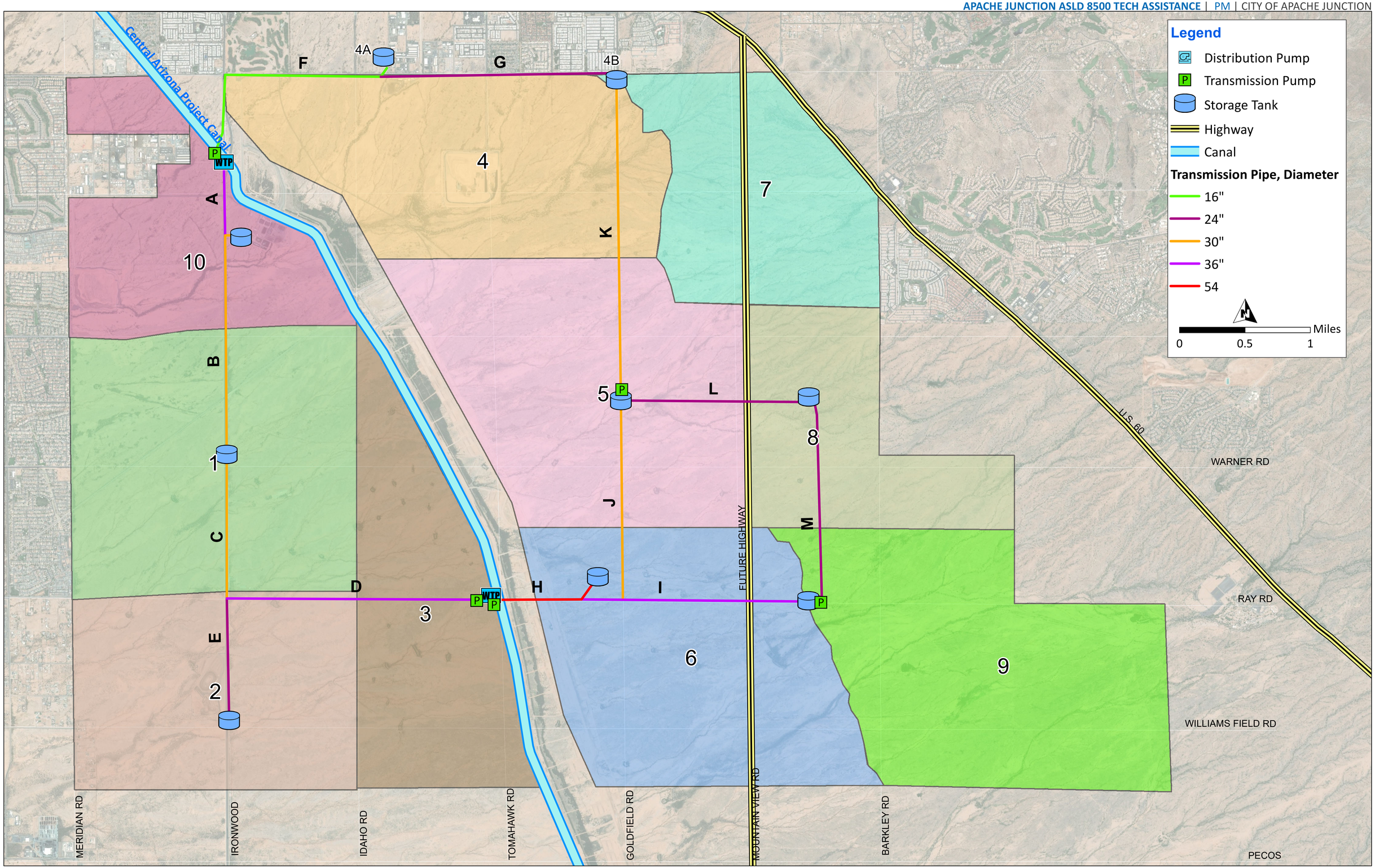
APPENDIX E
CAROLLO WATER STUDY – DISTRIBUTION & TRANSMISSION MAIN EXHIBITS



carollo

Revised: February 25, 2021
File Path: M:\Client\Apache Junction\GIS\mxd\Deliverables\TM 2\Fig3_DistributionPipes.mxd

Figure 3 State Lands Area Water Distribution System



carollo

Revised: February 01, 2021
File Path: M:\Clients\Apache Junction\GIS\mxd\Deliverables\TM 1\Fig2_TransmissionPipes.mxd

Figure 2 State Lands Area Water Treatment and Transmission System