WATER BASIS OF DESIGN REPORT
FOR
NATURAL RESULTS SURGERY CENTER & MEDICAL SPA

Scottsdale, Arizona

May 10th, 2023

FINAL Basis of Design Report

☐ APPROVED

☑ APPROVED AS NOTED

☐ REVISE AND RESUBMIT

CITY OF SCOTTSDALE

SCOTTSDALE WATER

9379 E San Salvador Dr.
Scottsdale, AZ 85258

Disclaimer: If approved; the approval is granted under the condition that the final construction documents submitted for city review will match the information herein. Any subsequent changes in the water or sewer design that materially impact design criteria or standards will require re-analysis, re-submittal, and approval of a revised basis of design report prior to the plan review submission.; this approval is not a guarantee of construction document acceptance.
For questions or clarifications contact the Water Resources Planning and Engineering Department at 480-312-5685.

07/22/2023

BY apritchard **DATE** 7/22/2023

PREPARED FOR
Kohan Architecture
490 Post Street, #1135
San Francisco, California 94102

DEVELOPER
Natural Results Plastic Surgery
7943 East Thompson Peak Parkway, #101
Scottsdale, Arizona 85255

SITE ADDRESS
20001 North Scottsdale Road
Scottsdale, Arizona 85255

61-DR-2014 #4

PREPARED BY
CYPRESS CIVIL
4450 north 12th street, #228
phoenix, arizona 85014
CYPRESS # 21.143

TABLE OF CONTENTS

INTRODUCTION: PROJECT DESCRIPTION AND LOCATION

The Project is known as 'Natural Results Surgery Center & Medical Spa' and is located at 20001 North Scottsdale Road in Scottsdale, Arizona. The project is also known as Lot 4, or Pad B, of One Scottsdale (herein referred to as the "Master Development"). A ~~Master~~ Water and Wastewater Study Basis of Design Report dated January 3rd, 2020, by Civil & Environmental Consultants, Inc. (hereafter referred to as the 'Master Report'), was obtained. Additionally, a Water Basis of Design Report for QuickTrup Store No. 0480 was prepared by Kimley-Horn and Associates in May 2022, which references and expands on the Master Report. Refer to Appendix A for Water BOD Report for QuickTrip Store No. 0480, which contains the original Master Report.

The proposed project consists of the development of a two-story medical office building to with the required paved parking, utility and drainage improvements, and amenity landscaping.

The utility provider for water facilities is the City of Scottsdale.

EXISTING CONDITIONS

Per available utility maps and as-built records, existing water mains are located in Scottsdale Road to the west of the project, within the existing Tract B supporting residential development to the east of the Master Development, and another main through the center of the Master Development. A 12" C900 water main is tapped within Scottsdale Road to the west of the project and supplies water service to existing residential development east of the Project via an existing 12" DIP water main.

The Master Development will be constructing new public water infrastructure to support the Project. At the time of this Project, a 4" fire service stub will be existing at the southeast corner of the developed pad site. A 2" domestic water service will be existing at the south side of the developed pad site. An existing hydrant will be in the parking field to provide required coverage for the new building.

FIRE FLOW REQUIREMENTS

The total building area after the expansion will be 17,000 square feet. The building is conservatively assumed to be type VB construction. Per the International Fire Code, Table B105.1, the new building requires a minimum fire flow of 3,500 GPM for a 3-hour duration. The new building will have automatic sprinklers installed resulting in an allowable 75% reduction in fire flow requirements, with a minimum required fire flow of 1,500 GPM. Required fire flow will be 1,500 GPM for a 2-hour duration.

Note: The approved water Master Plan for One Scottsdale was approved in 2016.

A recent fire flow test was completed on March 3, 2023, on the newly installed water main at the southeast of the site. 4,882 GPM is available within the water main at 20 PSI with a 10% factor of safety. Refer to Appendix C for Fire Flow Test Results.

PROPOSED CONDITIONS

The new building will have a footprint of 9,000 square feet, with a total square footage of 17,000 SF across the two floors. Conservatively, the total building use will be split evenly between office use and spa use (commercial/retail). The new building will connect to the existing 2" service line installed by the Master Development. Refer to Appendix B for Preliminary Utility Plan.

REQUIRED COMPUTATIONS

PROJECT (MODIFIED PAD B FROM ORIGINAL MODEL) PROPOSED WATER DEMAND:

Average Day Demand [PER CITY OF SCOTTSDALE DPSM 2018 – CH. 6]

(Commercial/Retail unit): 0.00111/SF x 10,560 SF = 11.72 GPM

(Office unit): 0.000834/SF x 6,440 SF = 5.37 GPM

Total: 16.28 GPM

Peak Hour Demand: 3.5 x 16.28 = 56.98 GPM

Maximum Day Demand + Fire Flow Demand: 2 x (16.28 GPM) + 1,500 GPM = 1,532.56 GPM

Per the City of Scottsdale Design Standards & Policies Manual, Section 6-1.416 –M, minimum meter size is 1-1/2". The 2" water service stubbed to the site will be sufficient to support the minimum meter requirement.

FUTURE OFFICE B (HALF OF OFFICE B FROM ORIGINAL MODEL) PROPOSED WATER DEMAND:

Average Day Demand [PER CITY OF SCOTTSDALE DPSM 2018 – CH. 6]

(Office unit): 0.000834/SF x 120,000 SF = 100.08 GPM

Peak Hour Demand: 3.5 x 100.08 = 350.28 GPM

Maximum Day Demand + Fire Flow Demand: 2 x (100.08 GPM) + 2,000 GPM = 2,200.16 GPM

QUICKTRIP (REPLACED HALF OF OFFICE B FROM ORIGINAL MODEL) EXISTING WATER DEMAND*:

**Per Kimley-Horn Report*

Average Day Demand [PER CITY OF SCOTTSDALE DPSM 2018 – CH. 6]

(Commercial/Retail unit): 0.00111/SF x 5,312 SF = 5.90 GPM

Peak Hour Demand: 3.5 x 5.90 = 20.63 GPM

Maximum Day Demand + Fire Flow Demand: 2 x (5.90 GPM) + 1,500 GPM = 1,511.79 GPM

The Master Report originally modeled a lower demand for the Pad B than the project shall have. Additionally, the original master model designated demands for the site to the south as Office Building B. The existing QuickTrip to the south was installed instead of half of the Office Building B. Thus, this Project has updated the water model to incorporate the existing Quick Trip demands, half of the assigned office building B demands for a future office building, and the increased demands for our Pad B nodes. The model was re-run with the newer fire flow test, and additional nodes were added for the QuickTrip location. Demands for the QuickTrip were added at Junctions 53 and 54, and demands for the existing Project Pad B (J-32) and for the future half of Office Building B (J-37) nodes were updated according to the calculations above. Four scenarios were run – Average Day Demand, Peak Hour Demand, Maximum Day Demand + Fire Flow, and the Initial Service Line Design Flow. The Project's domestic junction node in the Initial Service Line Design Flow scenario was raised 20' in elevation above the rest of the existing model to ensure that the model still provides sufficient pressure at the new building's highest floor. 63 PSI was provided in this scenario, which is more than sufficient. Refer to Appendix D for Updated Water Model Results that modified the original master model.

CONCLUSION

CYPRESS respectfully submits this report as the Water Design Report for the proposed Natural Results Surgery Center & Medical Spa Development. The proposed water system shall be designed in accordance with ADEQ, International Building Code, and the City of Scottsdale standards.

Because there are no approved BOD documents associated with the future office building to be located east of the QT, it is not a valid assumption that water demand is available from the future development.

Appendix A
Water BOD Report for QuickTrip Store No. 0480

FINAL Basis of Design Report

☑ APPROVED

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9379 E San Salvador Dr.
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For questions or clarifications contact the Water Resources Planning and Engineering Department at 480-312-5685.

BY scan DATE 6/28/2022

DEC 28 2022

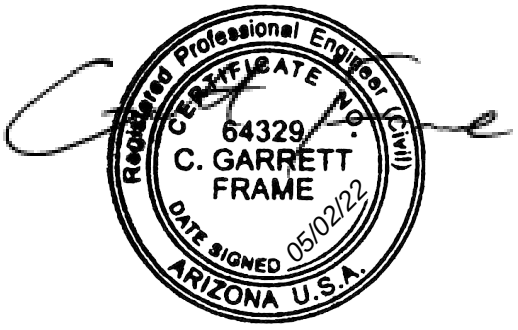
Water Basis of Design Report

QuikTrip Store No. 0480

NEC of N. Scottsdale Road and E. Legacy Boulevard

Prepared for:

QuikTrip Corporation
4705 South 129th East Ave
Tulsa, OK 74134



Prepared by:

Kimley-Horn & Associates, Inc.
7740 North 16th Street, Suite 300
Phoenix, AZ 85020

Kimley»Horn

291443018
May 2022

1-UP-2022
5/10/2022

QuikTrip Store No. 0480

WATER BASIS OF DESIGN REPORT

MAY 2022

Prepared By:

Kimley»Horn

1-UP-2022
5/10/2022

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Appendices

1-UP-2022
5/10/2022

1.0 INTRODUCTION

Kimley-Horn and Associates, Inc. has prepared this water basis of design report for the proposed QuikTrip Convenience Store (#0480) development at the northeast corner of Scottsdale Road and Legacy Boulevard in Scottsdale, Arizona. This report intends to demonstrate that the proposed project conforms to the City of Scottsdale design requirements.

The QuikTrip Development encompasses approximately 2.0 net acres and contains a 5,312 square feet of retail space. The project lies within a portion of the Northwest Quarter of Section 26, Township 4 North, Range 4 East of the Gila and Salt River Base and Meridian in Maricopa County, Arizona. The proposed development is a portion of the One Scottsdale Phase 1 Master Development (herein referred to as the "Master Development"). More specifically, the site is bounded on the west by Scottsdale Road, on the south by Legacy Boulevard, and on the north and east by the remaining portion of the Master Development. See **Appendix A** for the Vicinity Map.

2.0 DOMESTIC WATER ANALYSIS

2.1 INTENT AND SCOPE

The intent of this section is to evaluate the potable water infrastructure for the proposed development. As a result of this analysis, it will be determined if the potable water infrastructure is capable of satisfying the projected water demands for the proposed development in accordance with the City of Scottsdale Design Standards & Policies Manual (**Reference 1**), the 2018 International Fire Code (**Reference 2**) for fire prevention, and the One Scottsdale Phase 1 Master Plan (**Reference 3**).

2.2 DOMESTIC WATER SUPPLY

There is an existing 12-inch C900 water main located in Scottsdale Road along the west side of the project. There is also an existing 20-inch non-potable water main, and a 16-inch DIP water main located in Legacy Road along the south side of the project. Additionally, there is an existing 12-inch DIP water main in 73rd Street along the east side of the Master Development. Lastly, there is an existing 12-inch DIP water main that runs east-west and bisects the Master Development which is proposed to be removed.

The Master Development will be constructing new 8-inch DIP public water main with connections to the existing city water system in Scottsdale Road and 73rd Avenue. This water main will be stubbed at the north property line for the proposed QuikTrip parcel.

The QuikTrip site is proposed to continue the 8-inch DIP water main of the Master Development through the site and stub at the east property line of the QuikTrip parcel for future development. Additionally, a new domestic water service and a fire service will be constructed to serve the QuikTrip building.

Refer to **Appendix D** for the Utility Exhibit.

2.3 INTERNATIONAL FIRE CODE

According to the City of Scottsdale Fire Department, the 2018 International Fire Code (IFC) with City of Scottsdale Amendments is currently the governing code with respect to fire protection requirements. The IFC evaluates the building construction type, occupancy descriptions, and square footage to set minimum fire flow requirements with regards to a particular development.

The proposed building is approximately 5,312 square feet with a V-B construction type. Per Table B105.1(2) of **Reference 2**, the required fire flow is 2,000 gallons per minute. As a fire sprinkler system will be installed in the building, the actual required fire flow is 25% of the fire flow from table B105.1(2) or 1,500 gallons per minute, whichever is greater. Therefore, the minimum required fire flow is 1,500 gallons per minute. Fire Flow requirements are provided in **Appendix B** for reference.

A fire flow test was performed by Fire Protection Engineering Services on an existing fire hydrant east of the project, at the intersection of 73rd Street and Legacy Boulevard on April 15, 2022. The existing hydrant has an available flow of 9,707 gpm at 20 psi. See **Appendix C** for the fire flow test.

2.4 WATER DEMANDS

According to the guidelines provided in Figure 6-1.2 of **Reference 1**, the proposed development will add the following demands to the existing water system for Average Day Demand (ADD), Maximum Day Demand (MDD), and Peak Hour Demand (PHD):

Table 1: Water Flow Demand

Building	*Projected Land Use*	*Building Area (SF)*	*Water Demand Factors[1] (Avg Daily Consumption)*	*Avg. Total Day Demand (GPM)*	*Max Daily[2] Demand (GPM)*	*Peak Hour[3] Demand (GPM)*
QuikTrip Store #0480	Commercial/ Retail	5,312	0.00111 gpd/sf	5.90	11.79	20.63

[1] For commercial/retail land use, average day demand is 0.00111 gpm/sf.
[2] Maximum day demand defined as 2 times the average day demand.
[3] Peak hour demand defined as 3.5 times the average day demand

Per the City of Scottsdale DSPM, water demand calculations are shown below.

- $Average\ Daily\ Demand\ (ADD)$ = 0.00111 $\left(\frac{gpm}{sf}\right) * 5{,}312\ sf$ = $\mathbf{5.90\ gpm}$
- $Max\ Day\ Demand = ADD * Peak\ Factor$ = 5.90 $gpd * 2.0$ = $\mathbf{11.79\ gpm}$
- $Peak\ Hour\ Demand = ADD * Peak\ Factor$ = 5.54 $gpd * 3.5$ = $\mathbf{20.63\ gpm}$
- $Max\ Day\ Domestic\ Demand + Fire\ Flow$ = 11.08 gpm + 1,500 gpm = $\mathbf{1{,}511.79\ gpm}$

A water model of the Master Development was performed in the Water and Wastewater Study Basis of Design Report for One Scottsdale Performed by CEC Consultants, Inc. on October 29, 2019. According to the Site Plan located in Appendix A of the One Scottsdale report, the QuikTrip parcel is located in a portion of a future pad anticipated to be a 240,000 sf type V-B office building. According to the Domestic Water Demand table on page four (4) of the One Scottsdale BOD report, the Max Day demand for Future Office B is 400.32 gpm. The Fire Flow demand for Future Office B is 2,000 gpm according to the table on page 4 of the One Scottsdale Report. Therefore, the total Max Day + Fire Flow Demand is 2,400.32 gpm for Future Office B. This previously anticipated flow is greater than the proposed anticipated flow of 1,511.79 gpm for the QuikTrip site. See **Appendix E** for the Master Development Water BOD Report.

3.0 CONCLUSION

This development proposes to connect to the One Scottsdale Master Development water main. The projected flow according to the Master Development report was greater than the proposed flow for the QuikTrip parcel. Therefore, the master development water infrastructure is sufficient to service the site. Per the fire flow test conducted by Fire Protection Engineering Services on April 15, 2022, the available flow at 20 psi. is 9,707 gallons per minute. This flow appears sufficient to serve the domestic and fire flow demands of the proposed QuikTrip development.

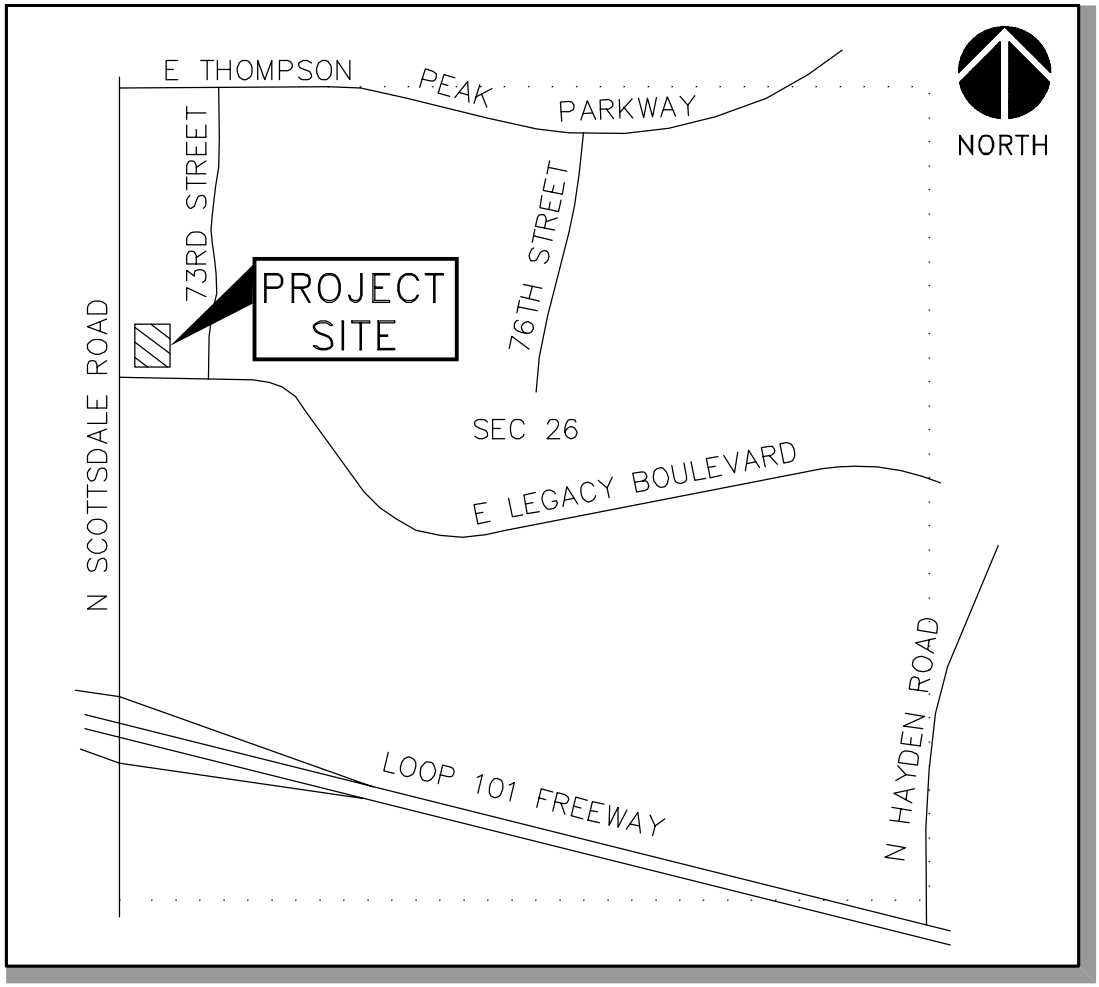
4.0 REFERENCES

1. City of Scottsdale, *Design Standards and Policies Manual.* 2018.

2. International Code Council, *2018 International Fire* Code. May 2018.

3. One Scottsdale Phase 1 Master Plan. March 2021.

Appendix A – Vicinity Map



SITE LOCATION MAP

SCOTTSDALE, AZ
N.T.S.

Kimley»Horn

1-UP-2022
5/10/2022

Appendix B – Fire Flow Requirements from 2018 IFC

APPENDIX B

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

User note:

About this appendix: *Appendix B provides a tool for the use of jurisdictions in establishing a policy for determining fire-flow requirements in accordance with Section 507.3. The determination of required fire flow is not an exact science, but having some level of information provides a consistent way of choosing the appropriate fire flow for buildings throughout a jurisdiction. The primary tool used in this appendix is a table that presents fire flow based on construction type and building area based on the correlation of the Insurance Services Office (ISO) method and the construction types used in the* International Building Code®.

SECTION B101
GENERAL

B101.1 Scope. The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

SECTION B102
DEFINITIONS

B102.1 Definitions. For the purpose of this appendix, certain terms are defined as follows:

FIRE FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

FIRE-FLOW CALCULATION AREA. The floor area, in square feet (m^2), used to determine the required fire flow.

SECTION B103
MODIFICATIONS

B103.1 Decreases. The *fire code official* is authorized to reduce the *fire-flow* requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full *fire-flow* requirements is impractical.

B103.2 Increases. The *fire code official* is authorized to increase the *fire-flow* requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall be not more than twice that required for the building under consideration.

B103.3 Areas without water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the *fire code official* is authorized to utilize NFPA 1142 or the *International Wildland-Urban Interface Code.*

SECTION B104
FIRE-FLOW CALCULATION AREA

B104.1 General. The *fire-flow calculation area* shall be the total floor area of all floor levels within the *exterior walls*, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

B104.2 Area separation. Portions of buildings that are separated by *fire walls* without openings, constructed in accordance with the *International Building Code,* are allowed to be considered as separate *fire-flow calculation areas.*

B104.3 Type IA and Type IB construction. The *fire-flow calculation area* of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception: *Fire-flow calculation area* for open parking garages shall be determined by the area of the largest floor.

SECTION B105
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum *fire-flow* and flow duration requirements for one- and two-family *dwellings*, Group R-3 and R-4 buildings and *townhouses* shall be as specified in Tables B105.1(1) and B105.1(2).

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum *fire-flow* and flow duration for buildings other than one- and two-family *dwellings*, Group R-3 and R-4 buildings and *townhouses* shall be as specified in Tables B105.2 and B105.1(2).

B105.3 Water supply for buildings equipped with an automatic sprinkler system. For buildings equipped with an *approved automatic sprinkler system*, the water supply shall be capable of providing the greater of:

1. The *automatic sprinkler system* demand, including hose stream allowance.
2. The required *fire flow*.

TABLE B105.1(1)
REQUIRED FIRE FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
0–3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0–3,600	Section 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*	500	$^1/_2$
3,601 and greater	Section 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*	$^1/_2$ value in Table B105.1(2)	1

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m.

TABLE B105.1(2)
REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute)[b]	FLOW DURATION (hours)
Type IA and IB[a]	Type IIA and IIIA[a]	Type IV and V-A[a]	Type IIB and IIIB[a]	Type V-B[a]		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.
a. Types of construction are based on the *International Building Code*.
b. Measured at 20 psi residual pressure.

TABLE B105.2
REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the *International Fire Code*	25% of the value in Table B105.1(2)[a]	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the *International Fire Code*	25% of the value in Table B105.1(2)[b]	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m.

a. The reduced fire flow shall be not less than 1,000 gallons per minute.

b. The reduced fire flow shall be not less than 1,500 gallons per minute.

SECTION B106
REFERENCED STANDARDS

ICC	IBC—18	International Building Code	B104.2
ICC	IWUIC—18	International Wildland-Urban Interface Code	B103.3
ICC	IRC—18	International Residential Code	Table B105.1(1)
NFPA	1142—17	Standard on Water Supplies for Suburban and Rural Fire Fighting	B103.3

Appendix C – Fire Flow Test

FIRE PROTECTION ENGINEERING SERVICES
4242 W. Topeka Dr. | Glendale, Arizona 85308
P: (623) 587-1844 | F: (623) 587-7992
E-mail: FPES@Cox.Net

HYDRANT FLOW TEST
SUMMARY REPORT

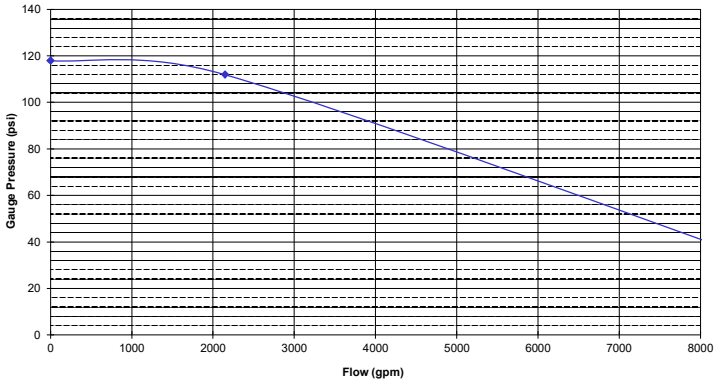
PROJECT LOCATION: NEC Scottsdale Rd & Legacy Blvd. - QT #480 - Pressure Hydrant Location: 7340 Legacy Blvd.

WITNESSED BY: Sonny Schreiner - Scottsdale Water Dept. **DATE:** 4/15/2022 **TIME:** 6:45AM

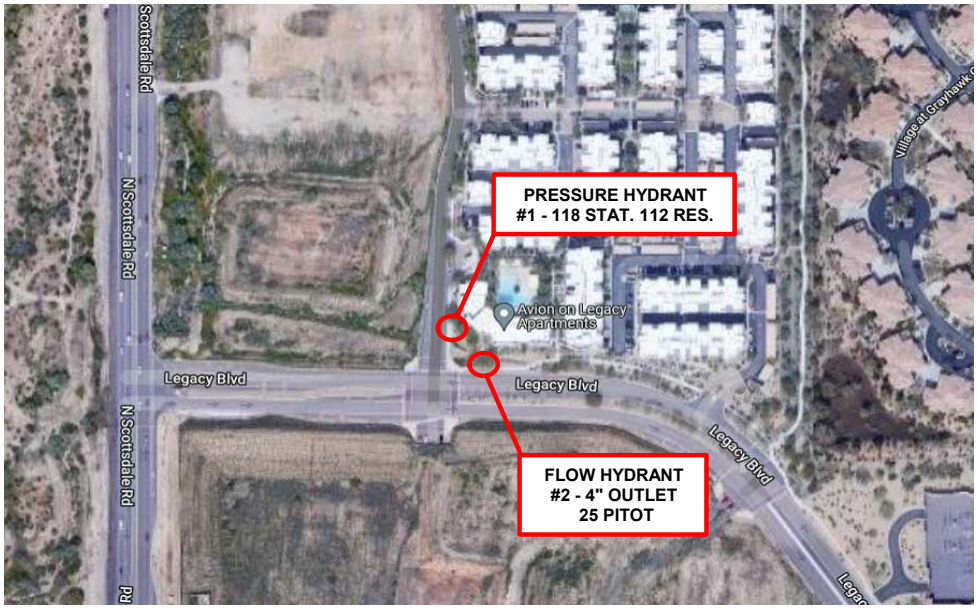
Observed Test Data

Hydrant Designation	Hydrant Number	Flow Opening	*Static Pressure	*Residual Pressure	Pitot Pressure	**Coefficient	Coefficient Steamer use .83	Flow (GPM)
Pressure; R	#1		118	112				
Flow, F1	#2	4			25	0.95	0.95	2148
Flow, F2	#3							0
							TOTAL:	2148

Note: If steamer connection was used for the flow test (without stream straightener), An additional Coeffcient must be used with a factor of .83. *Static and residual pressures must be adjusted for elevation change (+0.0 FT.) to site. **Use .95 Coefficient when stream straightener is utilized



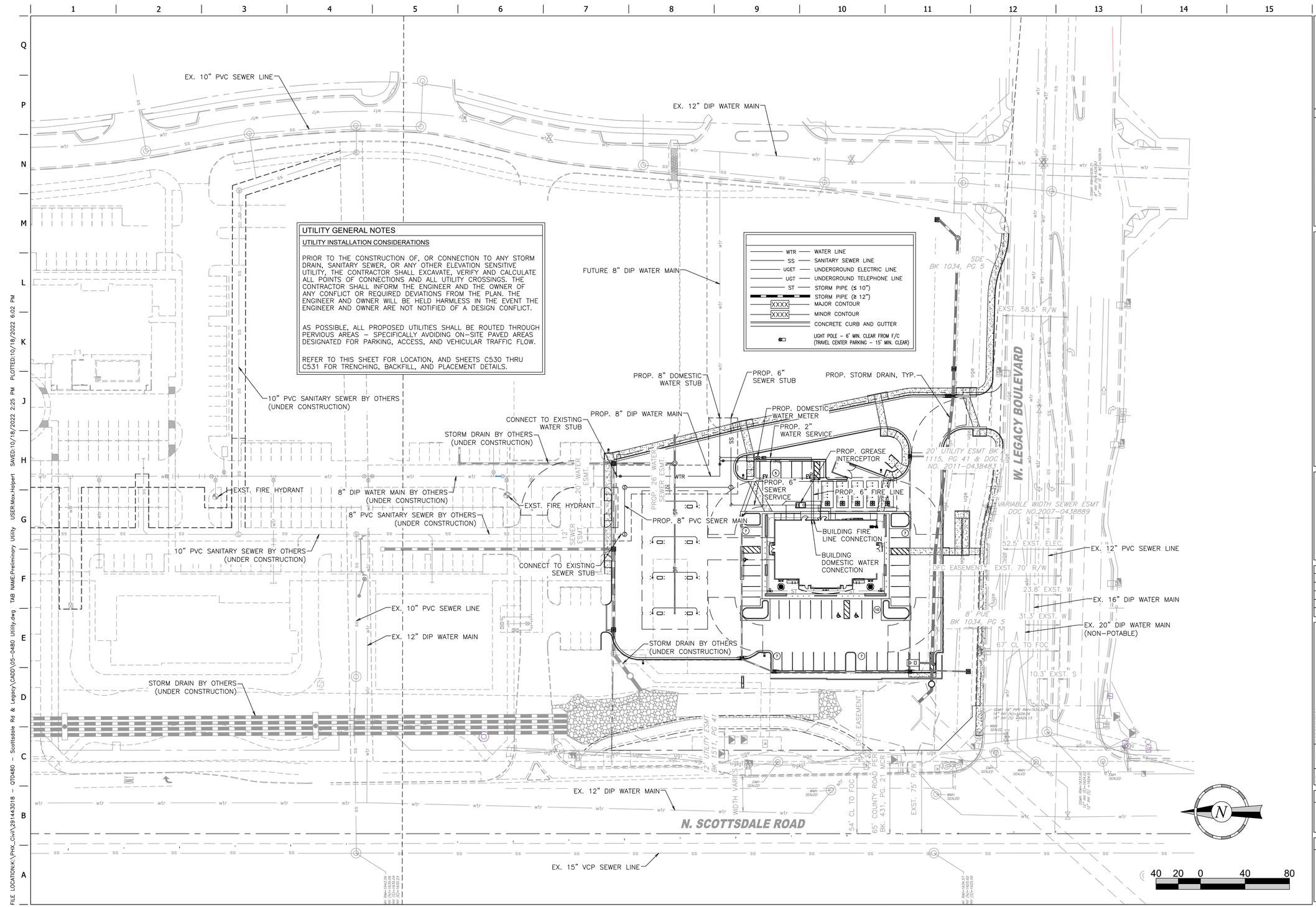
Available flow @ 20 PSI
9707 GPM



ACCEPTED BY: _____ DATE:_____

1-UP-2022
5/10/2022

Appendix D –Utility Exhibit



Registered Professional Engineer (Civil)
CERTIFICATE NO.
64329
C. GARRETT
FRAME
Date Signed 10/18/22
ARIZONA, USA
Expires 06/30/23

PROJECT NO.:291443018

Kimley»Horn
© 2020 KIMLEY–HORN AND ASSOCIATES, INC.
7740 NORTH 16TH STREET, SUITE 300
PHOENIX, ARIZONA 85020 (602) 944–5500

QuikTrip No. 0480

NEC SCOTTSDALE ROAD & LEGACY BOULEVARD
SCOTTSDALE, AZ

PROTOTYPE:	P-108 (11/01/21)
DIVISION:	
VERSION:	001
DESIGNED BY:	
DRAWN BY:	
REVIEWED BY:	

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 07/06/2022

SHEET TITLE:
UTILITY EXHIBIT

SHEET NUMBER:
UT1

FILE LOCATION:K:\PHX_Civil\291443018 – QT0480 – Scottsdale Rd & Legacy\CADD\05–0480 Utility.dwg TAB NAME:Preliminary Utility USER:Max.Halpert SAVED:10/18/2022 2:25 PM PLOTTED:10/18/2022 6:02 PM

Appendix E – Master Development Water and Wastewater Study Basis of Design Report

Water and Wastewater Study Basis of Design Report

For

One Scottsdale – Phase 1

Southeast Corner of Scottsdale Road and Thompson Peak Parkway
Scottsdale, Arizona

Prepared for

DMB
7600 E Doubletree Ranch Road, Suite 300
Scottsdale, AZ 85258

January 3, 2020

CEC PN # 180-168
61-DR-2015#2

Civil & Environmental Consultants, Inc.

Table of Contents

1.0 INTRODUCTION

The One Scottsdale project is a proposed 21.73 net acre commercial/retail project located southeast of the intersection of the Scottsdale Road and Thompson Peak Parkway in Scottsdale, Arizona. The site is further described as a portion of the NW1/4 of Section 26, Township 4 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. Refer to the Vicinity Map on the following page.

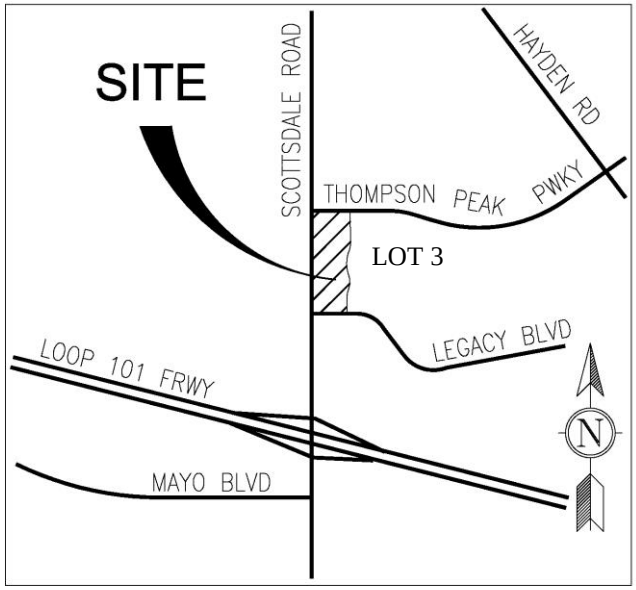
The site will consist of a hotel, Class A office buildings, underground and above ground parking structures, and retail pads. Phase 1 of the project will incorporate the hotel site with parking lot and drives. Refer to the Site Plan located in Appendix A at the back of this report. This report specifically addresses Phase 1 of the project. Future phases will have their own water and wastewater basis of design reports as the DR submittals come in for those particular phases.

This Basis of Design report will document existing and proposed water and wastewater utility conditions for the 21.73-acre commercial parcel for the overall build-out condition and also the Phase 1 condition. Refer to the Concept Utility Plans located in Appendix B & C at the back of this report.

This site is located east of Scottsdale Road south of Thompson Peak Parkway, west of 73rd Drive, and north of Legacy Boulevard. Water and sewer utilities exist within the adjacent street and parcels, and are further described in the following section.

The purpose of this report is to satisfy the City of Scottsdale Design Review Board requirement regarding the basis of water and wastewater design for the proposed One Scottsdale project and to document water and sewer calculations for review and approval by the Maricopa County Environmental Services Department.

Vicinity Map



VICINITY MAP
N.T.S.

2.0 WATER STUDY – BASIS OF DESIGN

Existing Improvements

Existing public water lines are located on all sides of the proposed development. An existing 12-inch D.I.P. public water line is located on the north side of Thompson Peak Parkway within the public right of way. An existing 12-inch D.I.P. public water line is located in Scottsdale Road. An existing 16" D.I.P. public water line is located in Legacy Boulevard. An existing 12" D.I.P. public water line is located in 73rd Drive in a public utility easement. An existing 12" D.I.P. public water line extends between Scottsdale Road and 73rd Drive at the south 1/3 of the site. This line is located within a public utility easement. There is an existing PRV located at the NWC of the intersection of Scottsdale Road and Legacy Boulevard (#130) and at the NWC of the intersection of Legacy Boulevard and 73rd (#364).

Refer to the Concept Utility Plans in Appendix B & C at the back of this report for exact locations.

Proposed Improvements and Demand – Overall (21.73 acres)

The water needs for the project will be served by connecting an 8-inch D.I.P. public water line loop to the existing 12-inch D.I.P. public water line stub in Scottsdale Road and will loop back to two separate 8-inch connections in Scottsdale Road and one connection to the existing public water line in 73rd Drive. This will provide an overall water line loop for the entire development and eliminate the need for the existing 12-inch D.I.P. public water line that runs between Scottsdale Road and 73rd Drive. Once final construction is complete of the proposed 8" D.I.P. public water line loop, the existing 12" D.I.P. line will be removed.

The proposed 8-inch D.I.P. public waterline for this project will be constructed within a 20-foot wide public waterline easement. Refer to the Concept Utility Plan for proposed water line loop locations, fire hydrant locations, proposed 6-inch D.I.P. and 8-inch D.I.P. fireline stubs, 2" and 3" domestic services, and one 2" landscape service within the project. Where public water and sewer lines run parallel to each other they will be within a 20-foot easement with 9-feet of horizontal separation.

Calculations for estimated average day, max day, and peak demands for the development are as follows:

DOMESTIC WATER DEMAND CALCULATIONS BUILDING/ PARCEL	SQUARE FOOTAGE	UNIT DEMAND (PER SQUARE FOOT)	TOTAL AVG. DAY DEMAND (GPM)	TOTAL MAX DAY DEMAND (GPM)	TOTAL PEAK DAY DEMAND (GPM)
FUTURE OFFICE A	180,000	0.000834	150.12	300.24	525.42
FUTURE PAD A	9,000	0.001110	9.99	19.98	34.97
SHOPS A	9,600	0.001110	10.66	21.31	37.30
HOTEL	123 ROOMS	0.63 PER ROOM	77.49	154.98	271.22
SHOPS B	10,700	0.001810	19.37	38.73	67.78
FUTURE PAD B	9,000	0.001110	9.99	19.98	34.97
FUTURE OFFICE B	240,000	0.000834	200.16	400.32	700.56
TOTAL	***458,300***		***477.77***	***955.55***	***1,672.21***
DEMANDS ARE BASED ON PROPOSED BUILDING SQUARE FOOTAGE, USE, AND CITY OF SCOTTSDALE DESIGN STANDARDS & POLICIES MANUAL FIGURE 6.1-2					

Proposed Improvements – Phase 1

The water needs for Phase 1 of the project will be served by connecting an 8-inch D.I.P. public water line loop to the existing 12-inch D.I.P. public water line in Scottsdale Road at the main drive entrance and will loop back to the existing 12-inch D.I.P. public water line Scottsdale Road at the future northern drive entrance. This will provide an overall water line loop for the entire development. An isolation gate valve will be added just north of the middle public water line connection on the existing public water line located in Scottsdale Road in order to provide second sourcing in accordance with COS DS&PM Sec. 6-1.416 and 7-1.409.

The proposed 8-inch D.I.P. public waterline, for this project, will be constructed within a 20-foot wide public waterline easement. Refer to the Concept Utility Plans located in Appendix B & C at the back of this report for proposed water line loop locations, fire hydrant locations, proposed fireline stubs, a 3" domestic service, and one 1.5" landscape service within the project. Where public water and sewer lines run parallel to each other they will be within a 20-foot easement with 9 feet of horizontal separation.

The existing 12" D.I.P. public line that runs through the site between Scottsdale Road and 73rd Drive will remain in place until the overall development is constructed.

3.0 FIRE FLOW STUDY – BASIS OF DESIGN

A worst-case fire flow requirement for this project assumes the largest building for calculation purposes (Future Office B). Below is a summary table documenting fire flows required for each building.

FIRE FLOW DEMAND BUILDING	SQUARE FOOTAGE	CONSTR. TYPE	GPM REQUIRED	SPRINKLER REDUCTION	GPM ADJUSTED
FUTURE OFFICE A	180,000	V-B	8000	75%	**2000**
FUTURE PAD A	9,000	V-B	2500	75%	**1500***
SHOPS A	9,600	V-B	2500	75%	**1500***
HOTEL	123 ROOMS	V-B	8000	75%	**2000**
SHOPS B	10,700	V-B	2500	75%	**1500***
FUTURE PAD B	9,000	V-B	2500	75%	**1500***
FUTURE OFFICE B	240,000	V-B	8000	75%	**2000**
SQUARE FOOTAGES ARE BASED ON GROSS BUILDING AREA GPM REQUIRED TAKEN FROM TABLE B105.1 OF THE INTERNATIONAL FIRE CODE					

Fire Flow Requirements = Max Day Demand + Sprinkler Flow + 2000 Gal/Min (Commercial – Assume Sprinkler Flow = 500 GPM)
= 400.32 + 500 +2000 = <u>2900.32 GPM</u>

A flow and pressure test was performed on October 9, 2019 by EJ Flow Testing Services. A copy of this flow test is provided in Appendix E at the back of this report. The flow test performed by EJ Flow Testing Services resulted in a static pressure of 72 psi, a Residual pressure of 52 psi with an available flow of 6,062 gpm at 20 psi. The flows test incorporated a safety factor of 27 psi based on the City of Scottsdale maximum static pressure requirements. The full build-out will have a total of (4) points of connection to the public water supply. Phase 1 will have a total of (2) points of connection to the public water supply. This in conjunction with a looped system will provide adequate fire flow requirements for the proposed development.

A water model was created to simulate the proposed <u>Overall</u> water system and also the <u>Phase 1</u> water system. The model was analyzed for (3) different scenarios: Average Day Demand, Peak Hour

Demand, and Maximum Day Demand + Fire Flow. The model was created using Bentley WaterCAD V8 XM. The assumptions made for the model were friction factors based on pipe material, and minor loss coefficients based on fittings and valves. Water model calculations and node exhibit is located in Appendix E at the back of this report. Below is a detailed list of assumptions for the water model.

Friction Factors:

Ductile Iron Pipe: Manning Coefficient of 0.012

Minor Losses K Values:

90 degree smooth bend D=2	0.22
45 degree bend mitered	0.20
Tee – Line Flow	0.35
Tee – Branch Flow	1.28

Overall - Average Day Demand Model Results

The total average day water demand of 477.77 gallons per minute was placed on J-3, J-8, J-18, J-20, J-32, J-200 and J-47 within the water model.

The water model was successful for the average day water demand for the full build out condition based on the following factors:

1. Minimum water pressures are not less than 30 psi at the highest finished floor elevation during average day conditions. The minimum pressure calculated was 52 psi.
2. Maximum water pressures are not in excess of 80 psi. The maximum pressure calculated was 71 psi.
3. The maximum velocity in the 8" onsite public water main was calculated to be 0.79 fps.

Overall - Peak Hour Demand Model Results

The total peak hour water demand of 1,672.21 gallons per minute was placed on J-3, J-8, J-18, J-20, J-32, J-200 and J-47 within the water model.

The water model was successful for the peak hour water demand for the full build out condition based on the following factors:

1. Minimum water pressures are not less than 30 psi at the highest finished floor elevation during peak hour conditions. The minimum pressure

calculated was 31 psi.
2. Maximum water pressures are not in excess of 80 psi. The maximum pressure calculated was 69 psi.
3. The maximum velocity in the 8" onsite public water main was calculated to be 2.87 fps.

Overall - Max Day Demand + Fire Flow Model Results

The total max day water demand of 955.55 gallons per minute was placed on J-3, J-8, J-18, J-20, J-32, J-200 and J-47 and fire flow demand of 1,500 gallons per minute was placed on H-4, and a fire flow demand of 500 gallons per minute was placed on H-3. The total modeled flow for this scenario is 2,955.55 gallons per minute. The largest building, Future Office B, was used in this simulation assuming the worst case fire flow requirement of 2,000 gpm based on IFC criteria with a 75% reduction and a highest finished floor at 36 feet above grade

The water model was successful for max day demand + fire flow for the full build out condition based on the following factors:

1. Minimum water pressures are not less than 30 psi at the highest finished floor elevation during maximum day + fire flow conditions. The minimum pressure calculated was 31 psi.
2. Maximum water pressures are not in excess of 80 psi. The maximum pressure calculated was 67 psi.
3. The maximum velocity in the 8" onsite public water main was calculated to be 8.43 fps.

Phase 1 - Average Day Demand Model Results

The total average day water demand of 77.49 gallons per minute was placed on J-8 within the water model.

The water model was successful for the average day water demand for the Phase 1 condition based on the following factors:

1. Minimum water pressures are not less than 30 psi during average day conditions. The minimum pressure calculated was 50 psi.
2. Maximum water pressures are not in excess of 80 psi. The maximum pressure calculated was 72 psi.
3. The maximum velocity in the 8" onsite public water main was calculated to be 0.25 fps.

Phase 1 - Peak Hour Demand Model Results

The total peak hour water demand of 271.22 gallons per minute was placed on J-8 within the water

model.

The water model was successful for the peak hour water demand for the Phase 1 condition based on the following factors:

1. Minimum water pressures are not less than 30 psi at the highest finished floor elevation during peak hour conditions. The minimum pressure calculated was 40 psi.
2. Maximum water pressures are not in excess of 80 psi. The maximum pressure calculated was 71 psi.
3. The maximum velocity in the 8" onsite public water main was calculated to be 0.87 fps.

Phase 1 - Max Day Demand + Fire Flow Model Results

The total max day water demand of 154.98 gallons per minute was placed on J-8 and a fire flow demand of 1,500 gallons per minute was placed on H-1, and a fire flow demand of 500 gallons per minute was placed on H-2. The total modeled flow for this scenario is 2,154.98 gallons per minute. The hotel was used in this simulation assuming the worst case fire flow requirement of 2,000 gpm based on IFC criteria with a 75% reduction and a highest finished floor at 48 feet above grade.

The water model was successful for max day demand + fire flow for the Phase 1 condition based on the following factors:

1. Minimum water pressures are not less than 30 psi at the highest finished floor elevation during maximum day + fire flow conditions. The minimum pressure calculated was 33 psi.
2. Maximum water pressures are not in excess of 80 psi. The maximum pressure calculated was 62 psi.
3. The maximum velocity in the 8" onsite public water main was calculated to be 7.64 fps.

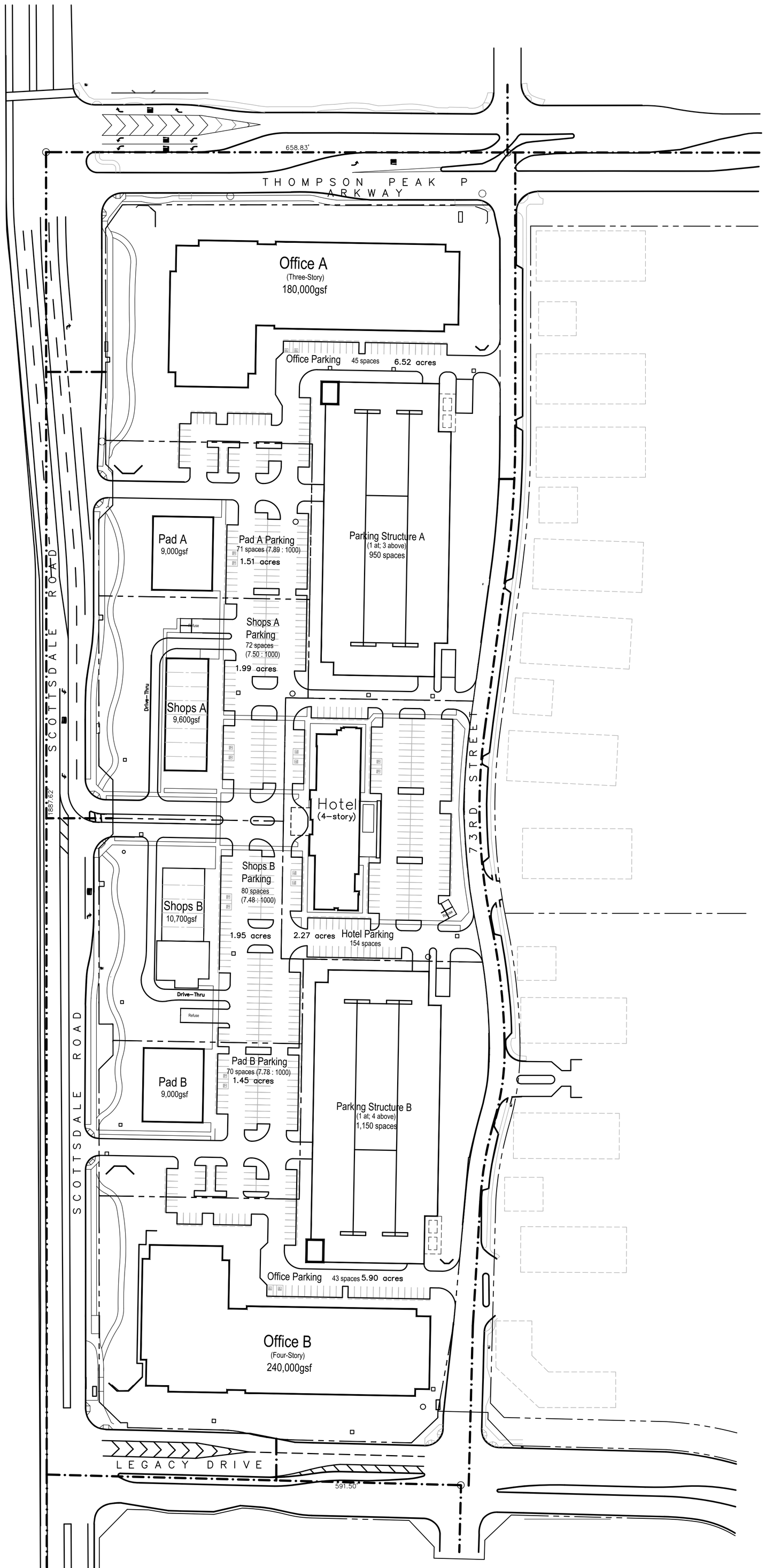
4.0 WASTEWATER STUDY – BASIS OF DESIGN

Existing Improvements

An existing 15-inch VCP sewer line and manholes are located in Scottsdale Road just west of the proposed development, a 12-inch VCP sewer line and manholes in Thompson Peak Parkway just north of the proposed development, an 8-inch and 10-inch PVC sewer line in 73rd Avenue just east of the

APPENDIX A

Site Plan



Master Site Plan

Total Office Area:	420,000gsf (401,000rsf)
Total Retail Area:	38,300gsf
Total Area:	538,300gsf
Hotel:	66,000gsf (123 keys)

0' 80' 160' 240' 320' NORTH

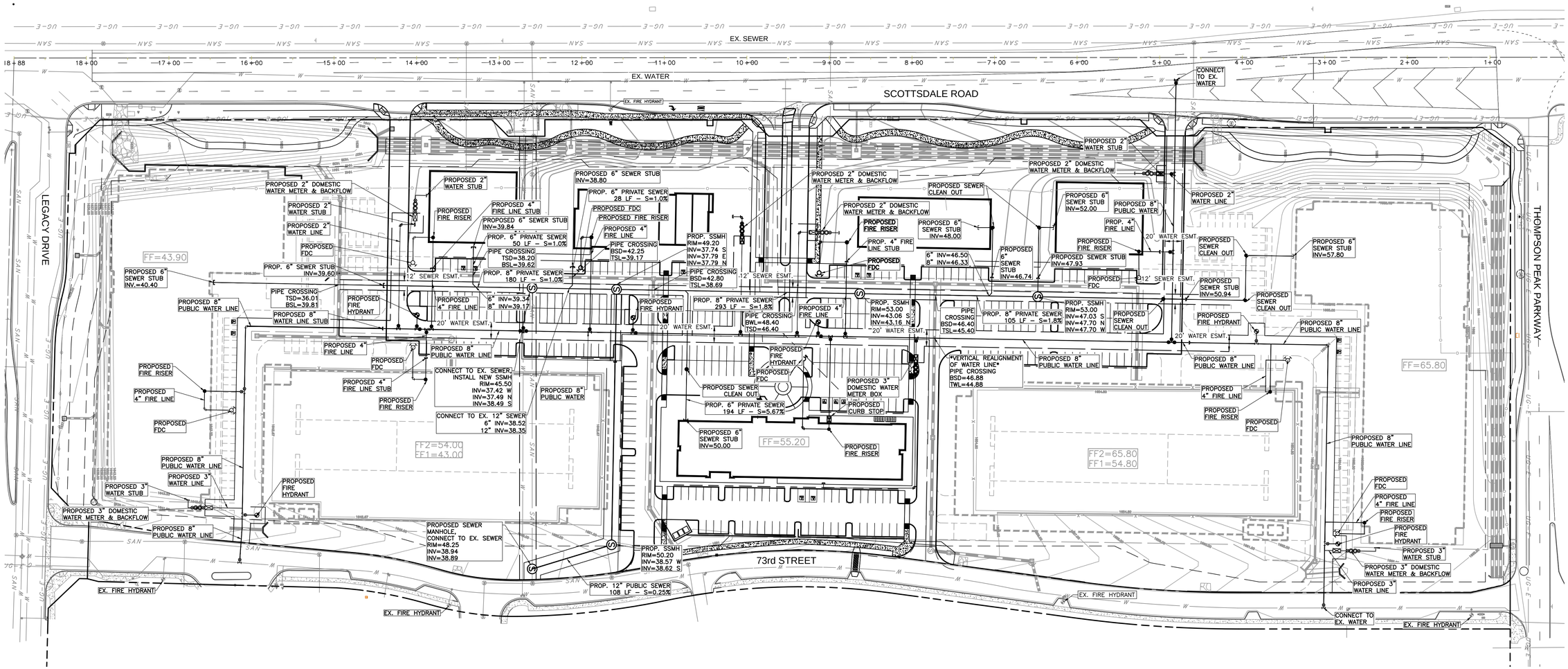
14164
5-30-19

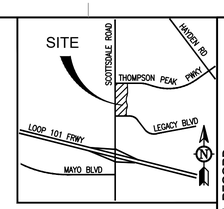
ONE SCOTTSDALE- Scottsdale, Arizona

DAVIS

APPENDIX B

Overall Concept Utility Plan





VICINITY MAP
N.T.S.

NORTH

SCALE IN FEET
0 60 120

Call at least two full working days before you begin excavation.
ARIZONA811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO.
23980
JEFFREY S. ERICKSON
Date Signed
ARIZONA, U.S.A.
Expires 09/30/20

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
11811 N. Tatum Blvd., Suite 3057 - Phoenix, AZ 85028
Ph: 602.760.2324 - 877.231.2324 - Fax: 602.760.2330
www.cecinc.com

ONE SCOTTSDALE
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

OVERALL CONCEPT UTILITY

DRAWN BY:	BB
CHECKED BY:	KE
DATE:	11/5/19
DWG SCALE:	1"=60'
PROJECT NO:	180-168
APPROVED BY:	JSE

DRAWING NO.: **CU01**

SHEET 1 OF 1

1-UP-2022
5/10/2022

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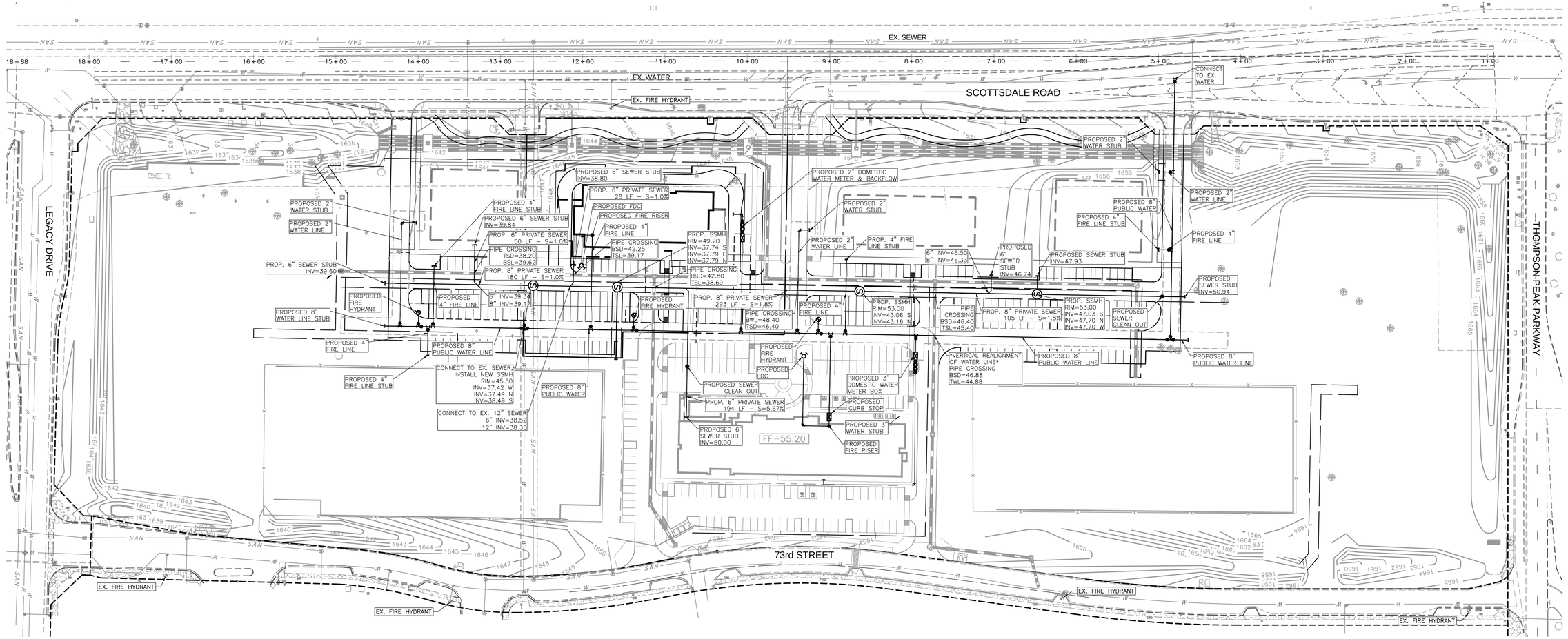
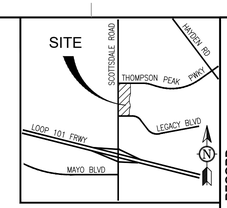
APPENDIX C

Phase 1 Concept Utility Plan





VICINITY MAP
N.T.S.

FLOOD ZONE

ALL BUILDINGS WILL BE STRUCTURALLY INDEPENDENT AND WILL BE FLOODPROOFED TO 2 FEET ABOVE THE HIGHEST ADJACENT NATURAL GRADE WITHIN THE REGULATORY FLOODPLAIN – ZONE AO, DEPTH=1 FOOT.

OWNER

DMB
7600 E DOUBLETREE RANCH RD, SUITE 300
SCOTTSDALE, AZ 85258
CONTACT: MIKE BURKE

ARCHITECT

DAVIS
74 E. RIO SALADO PARKWAY, STE. 200
TEMPE, AZ 85281
PH: 480-638-1100
CONTACT: MIKE DAVIS

ENGINEER

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
118111 N. TATUM BLVD., SUITE 3057
PHOENIX, ARIZONA 85028
PH: 602-760-2324
FX: 602-760-2330
CONTACT: KALEY BUETHE, PE

PROPOSED LEGEND

- DRAINAGE AREA BOUNDARY
- PAVEMENT ELEVATION — P=58.00
- ONSITE DRAINAGE ARROW
- OFFSITE DRAINAGE ARROW
- CURB OPENING
- DRAINAGE AREA LABEL — DA2
- GRADE BREAK — G.B.
- DRYWELL
- RETENTION BASIN

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

NORTH

SCALE IN FEET
0 60 120

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO.
23980
JEFFREY S. ERICKSON
Date Signed 11/08/19
ARIZONA, U.S.A.
Expires 09/30/20

REVISION RECORD

NO	DATE	DESCRIPTION

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Ph: 602.760.2324 - 877.231.2324 - Fax: 602.760.2330
www.cecinc.com

ONE SCOTTSDALE
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

CONCEPT UTILITY
PHASE 1

DATE:	NOVEMBER 2019
DRAWN BY:	BB
CHECKED BY:	KE
DWG SCALE:	1"=60'
PROJECT NO:	180-168
APPROVED BY:	JSE

DRAWING NO.:
CU01
SHEET 1 OF 1

1-UP-2022
5/10/2022

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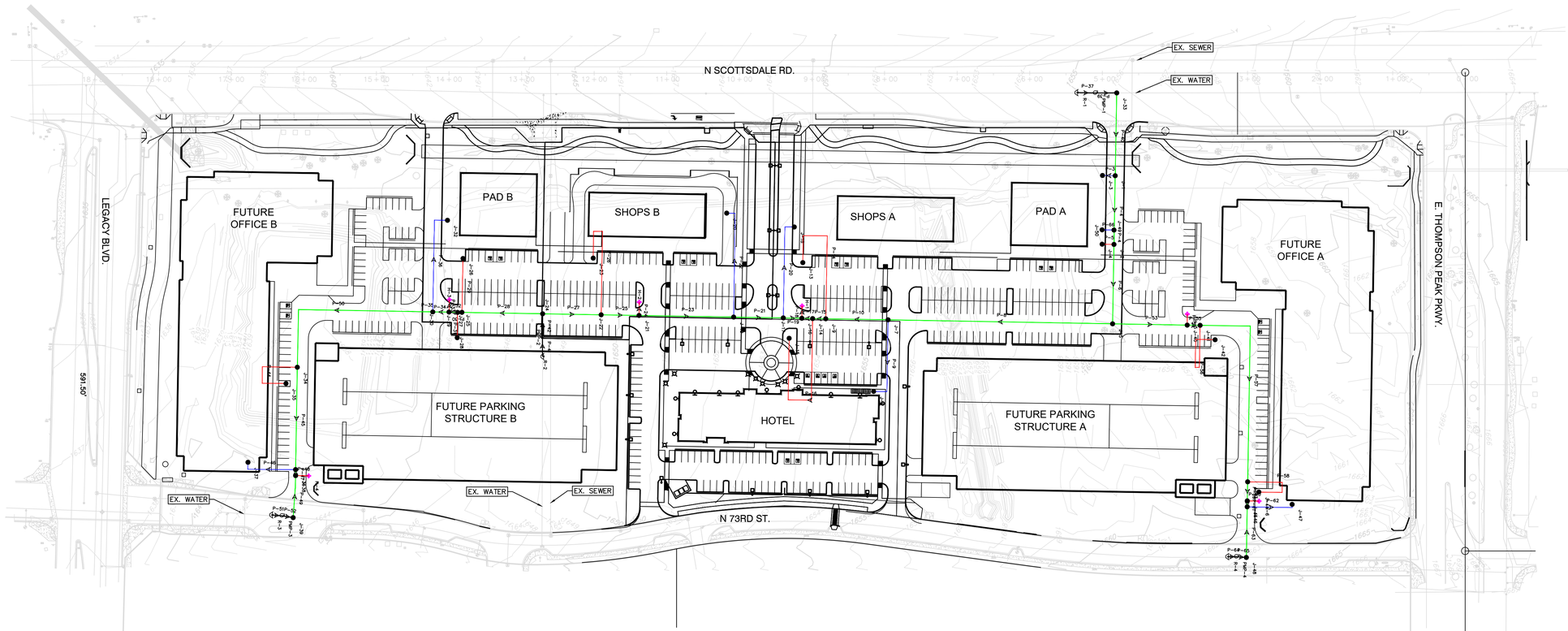
APPENDIX E

Water Model Calculations & Exhibit



NORTH

SCALE IN FEET

0 80 160

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO.
23980
JEFFREY S. ERICKSON
Date Signed 12/23/19
ARIZONA, U.S.A.
Expires 09/30/20

REVISION RECORD

NO	DATE	DESCRIPTION

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11811 N. Tatum Blvd., Suite 3057 - Phoenix, AZ 85028
Ph: 602.760.2324 - 877.231.2324 - Fax: 602.760.2330
www.cecinc.com

ONE SCOTTSDALE - PHASE 1
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

WATER EXHIBIT-OVERALL

DATE:	December 23, 2019
DRAWN BY:	BB
CHECKED BY:	KE
DWG SCALE:	
PROJECT NO.:	180-168
APPROVED BY:	JSE

DRAWING NO.:

EX-1

SHEET 1 OF 1

1-UP-2022
5/10/2022

Overall
Average Day Demand

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,164.87	71
H-2	Open	1,000.00	0	1,164.87	71
H-3	Open	1,000.00	0	1,164.85	71
H-4	Open	1,000.00	0	1,164.79	71
H-5	Open	1,000.00	0	1,164.91	71
H-6	Open	1,000.00	0	1,164.90	71

Overall
Average Day Demand FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,164.97	71
J-2	1,000.00	0	1,164.94	71
J-3	1,000.00	10	1,164.92	71
J-4	1,000.00	0	1,164.94	71
J-5	1,000.00	0	1,164.91	71
J-7	1,000.00	0	1,164.87	71
J-8	1,000.00	77	1,162.64	70
J-9	1,000.00	0	1,164.87	71
J-13	1,000.00	0	1,164.87	71
J-14	1,000.00	0	1,164.87	71
J-15	1,000.00	0	1,164.87	71
J-16	1,000.00	0	1,164.87	71
J-17	1,000.00	0	1,164.87	71
J-18	1,000.00	11	1,164.39	71
J-19	1,000.00	0	1,164.87	71
J-20	1,000.00	19	1,163.24	71
J-21	1,000.00	0	1,164.87	71
J-22	1,000.00	0	1,164.87	71
J-23	1,000.00	0	1,164.87	71
J-24	1,000.00	0	1,164.88	71
J-25	1,000.00	0	1,164.86	71
J-26	1,000.00	0	1,164.86	71
J-27	1,000.00	0	1,164.85	71
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J-48	1,000.00	0	1,164.92	71
J-49	1,000.00	0	1,164.95	71
J-50	1,000.00	0	1,164.95	71

Overall
Average Day Demand FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	10	1.02
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	105	0.67
309	J-5	J-7	8.0	Ductile Iron	130.0	73	0.47
117	J-7	J-8	3.0	Ductile Iron	130.0	77	3.52
86	J-7	J-9	8.0	Ductile Iron	130.0	-4	0.03
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	-4	0.03
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	-4	0.03
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	-4	0.03
138	J-17	J-18	2.0	Ductile Iron	130.0	11	1.09
68	J-17	J-19	8.0	Ductile Iron	130.0	-15	0.09
155	J-19	J-20	2.0	Ductile Iron	130.0	19	1.98
130	J-19	J-21	8.0	Ductile Iron	130.0	-34	0.22
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	-34	0.22
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-34	0.22
111	J-24	J-25	8.0	Ductile Iron	130.0	86	0.55
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	86	0.55
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	86	0.55
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	86	0.55
144	J-30	J-32	2.0	Ductile Iron	130.0	10	1.02
26	R-1	PMP-1	120.0	Ductile Iron	130.0	115	0.00
29	PMP-1	J-33	12.0	Ductile Iron	130.0	115	0.33
114	J-33	J-1	8.0	Ductile Iron	130.0	115	0.73
29	R-2	PMP-2	120.0	Ductile Iron	130.0	121	0.00
30	PMP-2	J-24	12.0	Ductile Iron	130.0	121	0.34
104	J-34	J-35	4.0	Ductile Iron	130.0	0	0.00
141	J-34	J-36	8.0	Ductile Iron	130.0	76	0.49
76	J-36	J-37	3.0	Ductile Iron	130.0	200	9.08
8	J-36	J-38	8.0	Ductile Iron	130.0	-124	0.79
18	J-38	H-4	6.0	Ductile Iron	130.0	0	0.00
58	J-38	J-39	8.0	Ductile Iron	130.0	-124	0.79
264	J-34	J-30	8.0	Ductile Iron	130.0	-76	0.49
15	R-3	PMP-3	120.0	Ductile Iron	130.0	124	0.00
15	PMP-3	J-39	12.0	Ductile Iron	130.0	124	0.35
103	J-5	J-40	8.0	Ductile Iron	130.0	32	0.20
15	J-40	H-5	6.0	Ductile Iron	130.0	0	0.00
18	J-40	J-41	8.0	Ductile Iron	130.0	32	0.20
129	J-41	J-42	4.0	Ductile Iron	130.0	0	0.00
284	J-41	J-43	8.0	Ductile Iron	130.0	32	0.20
94	J-43	J-44	4.0	Ductile Iron	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
26	J-43	J-45	8.0	Ductile Iron	130.0	32	0.20
16	J-45	H-6	6.0	Ductile Iron	130.0	0	0.00
8	J-45	J-46	8.0	Ductile Iron	130.0	32	0.20
66	J-46	J-47	3.0	Ductile Iron	130.0	150	6.81
70	J-46	J-48	8.0	Ductile Iron	130.0	-119	0.76
13	R-4	PMP-4	120.0	Ductile Iron	130.0	119	0.00
14	PMP-4	J-48	12.0	Ductile Iron	130.0	119	0.34
76	J-1	J-49	8.0	Ductile Iron	130.0	105	0.67
19	J-49	J-2	8.0	Ductile Iron	130.0	105	0.67
17	J-49	J-50	2.0	Ductile Iron	130.0	0	0.00

Overall
Average Day Demand

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,165.01	115	164.01
PMP-2	1,001.00	On	1,001.00	1,164.88	121	163.88
PMP-3	1,001.00	On	1,001.00	1,164.81	124	163.81
PMP-4	1,001.00	On	1,001.00	1,164.92	119	163.92

Overall
Average Day Demand FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	115	1,001.00
R-2	1,001.00	121	1,001.00
R-3	1,001.00	124	1,001.00
R-4	1,001.00	119	1,001.00

Overall
Average Day Demand FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	10	1.02
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	105	0.67
309	J-5	J-7	8.0	Ductile Iron	130.0	73	0.47
117	J-7	J-8	3.0	Ductile Iron	130.0	77	3.52
86	J-7	J-9	8.0	Ductile Iron	130.0	-4	0.03
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	-4	0.03
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	-4	0.03
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	-4	0.03
138	J-17	J-18	2.0	Ductile Iron	130.0	11	1.09
68	J-17	J-19	8.0	Ductile Iron	130.0	-15	0.09
155	J-19	J-20	2.0	Ductile Iron	130.0	19	1.98
130	J-19	J-21	8.0	Ductile Iron	130.0	-34	0.22
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	-34	0.22
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-34	0.22
111	J-24	J-25	8.0	Ductile Iron	130.0	86	0.55
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	86	0.55
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	86	0.55
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	86	0.55
144	J-30	J-32	2.0	Ductile Iron	130.0	10	1.02
26	R-1	PMP-1	120.0	Ductile Iron	130.0	115	0.00
29	PMP-1	J-33	12.0	Ductile Iron	130.0	115	0.33
114	J-33	J-1	8.0	Ductile Iron	130.0	115	0.73
29	R-2	PMP-2	120.0	Ductile Iron	130.0	121	0.00
30	PMP-2	J-24	12.0	Ductile Iron	130.0	121	0.34
104	J-34	J-35	4.0	Ductile Iron	130.0	0	0.00
141	J-34	J-36	8.0	Ductile Iron	130.0	76	0.49
76	J-36	J-37	3.0	Ductile Iron	130.0	200	9.08
8	J-36	J-38	8.0	Ductile Iron	130.0	-124	0.79
18	J-38	H-4	6.0	Ductile Iron	130.0	0	0.00
58	J-38	J-39	8.0	Ductile Iron	130.0	-124	0.79
264	J-34	J-30	8.0	Ductile Iron	130.0	-76	0.49
15	R-3	PMP-3	120.0	Ductile Iron	130.0	124	0.00
15	PMP-3	J-39	12.0	Ductile Iron	130.0	124	0.35
103	J-5	J-40	8.0	Ductile Iron	130.0	32	0.20
15	J-40	H-5	6.0	Ductile Iron	130.0	0	0.00
18	J-40	J-41	8.0	Ductile Iron	130.0	32	0.20
129	J-41	J-42	4.0	Ductile Iron	130.0	0	0.00
284	J-41	J-43	8.0	Ductile Iron	130.0	32	0.20
94	J-43	J-44	4.0	Ductile Iron	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
26	J-43	J-45	8.0	Ductile Iron	130.0	32	0.20
16	J-45	H-6	6.0	Ductile Iron	130.0	0	0.00
8	J-45	J-46	8.0	Ductile Iron	130.0	32	0.20
66	J-46	J-47	3.0	Ductile Iron	130.0	150	6.81
70	J-46	J-48	8.0	Ductile Iron	130.0	-119	0.76
13	R-4	PMP-4	120.0	Ductile Iron	130.0	119	0.00
14	PMP-4	J-48	12.0	Ductile Iron	130.0	119	0.34
76	J-1	J-49	8.0	Ductile Iron	130.0	105	0.67
19	J-49	J-2	8.0	Ductile Iron	130.0	105	0.67
17	J-49	J-50	2.0	Ductile Iron	130.0	0	0.00

Overall
Average Day Demand FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,164.97	71
J-2	1,000.00	0	1,164.94	71
J-3	1,000.00	10	1,164.92	71
J-4	1,000.00	0	1,164.94	71
J-5	1,000.00	0	1,164.91	71
J-7	1,000.00	0	1,164.87	71
J-8	1,000.00	77	1,162.64	70
J-9	1,000.00	0	1,164.87	71
J-13	1,000.00	0	1,164.87	71
J-14	1,000.00	0	1,164.87	71
J-15	1,000.00	0	1,164.87	71
J-16	1,000.00	0	1,164.87	71
J-17	1,000.00	0	1,164.87	71
J-18	1,000.00	11	1,164.39	71
J-19	1,000.00	0	1,164.87	71
J-20	1,000.00	19	1,163.24	71
J-21	1,000.00	0	1,164.87	71
J-22	1,000.00	0	1,164.87	71
J-23	1,000.00	0	1,164.87	71
J-24	1,000.00	0	1,164.88	71
J-25	1,000.00	0	1,164.86	71
J-26	1,000.00	0	1,164.86	71
J-27	1,000.00	0	1,164.85	71
J-28	1,000.00	0	1,164.85	71
J-29	1,000.00	0	1,164.85	71
J-30	1,000.00	0	1,164.85	71
J-32	1,000.00	10	1,164.40	71
J-33	1,000.00	0	1,165.01	71
J-34	1,000.00	0	1,164.81	71
J-35	1,000.00	0	1,164.81	71
J-36	1,000.00	0	1,164.78	71
J-37	1,036.00	200	1,156.45	52
J-38	1,000.00	0	1,164.79	71
J-39	1,000.00	0	1,164.81	71
J-40	1,000.00	0	1,164.91	71
J-41	1,000.00	0	1,164.91	71
J-42	1,000.00	0	1,164.91	71
J-43	1,000.00	0	1,164.90	71
J-44	1,000.00	0	1,164.90	71
J-45	1,000.00	0	1,164.90	71
J-46	1,000.00	0	1,164.90	71
J-47	1,000.00	150	1,160.61	69
J-48	1,000.00	0	1,164.92	71
J-49	1,000.00	0	1,164.95	71
J-50	1,000.00	0	1,164.95	71

Overall
Average Day Demand

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,164.87	71
H-2	Open	1,000.00	0	1,164.87	71
H-3	Open	1,000.00	0	1,164.85	71
H-4	Open	1,000.00	0	1,164.79	71
H-5	Open	1,000.00	0	1,164.91	71
H-6	Open	1,000.00	0	1,164.90	71

Overall
Average Day Demand FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	115	1,001.00
R-2	1,001.00	121	1,001.00
R-3	1,001.00	124	1,001.00
R-4	1,001.00	119	1,001.00

Overall
Average Day Demand

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,165.01	115	164.01
PMP-2	1,001.00	On	1,001.00	1,164.88	121	163.88
PMP-3	1,001.00	On	1,001.00	1,164.81	124	163.81
PMP-4	1,001.00	On	1,001.00	1,164.92	119	163.92

Overall
Max Day + FF

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,154.83	67
J-2	1,000.00	0	1,154.33	67
J-3	1,000.00	0	1,154.83	67
J-4	1,000.00	0	1,154.33	67
J-5	1,000.00	0	1,153.79	67
J-7	1,000.00	0	1,150.63	65
J-8	1,000.00	155	1,142.58	62
J-9	1,000.00	0	1,150.06	65
J-13	1,000.00	0	1,150.06	65
J-14	1,000.00	0	1,149.94	65
J-15	1,000.00	0	1,149.94	65
J-16	1,000.00	0	1,149.84	65
J-17	1,000.00	0	1,149.68	65
J-18	1,000.00	21	1,147.94	64
J-19	1,000.00	0	1,149.26	65
J-20	1,000.00	39	1,143.39	62
J-21	1,000.00	0	1,148.56	64
J-22	1,000.00	0	1,148.28	64
J-23	1,000.00	0	1,148.28	64
J-24	1,000.00	0	1,147.84	64
J-25	1,000.00	0	1,144.44	62
J-26	1,000.00	0	1,144.44	62
J-27	1,000.00	0	1,144.26	62
J-28	1,000.00	0	1,144.26	62
J-29	1,000.00	0	1,143.90	62
J-30	1,000.00	0	1,143.61	62
J-32	1,000.00	20	1,142.00	61
J-33	1,000.00	0	1,155.43	67
J-34	1,000.00	0	1,140.41	61
J-35	1,000.00	0	1,140.41	61
J-36	1,000.00	0	1,138.71	60
J-37	1,036.00	400	1,108.63	31
J-38	1,000.00	0	1,138.68	60
J-39	1,000.00	0	1,139.94	61
J-40	1,000.00	0	1,153.93	67
J-41	1,000.00	0	1,153.95	67
J-42	1,000.00	0	1,153.95	67
J-43	1,000.00	0	1,154.31	67
J-44	1,000.00	0	1,154.31	67
J-45	1,000.00	0	1,154.35	67
J-46	1,000.00	0	1,154.36	67
J-47	1,000.00	300	1,138.87	60
J-48	1,000.00	0	1,154.76	67
J-49	1,000.00	0	1,154.42	67
J-50	1,000.00	20	1,154.24	67

Overall
Max Day + FF

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	0	0.00
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	493	3.14
309	J-5	J-7	8.0	Ductile Iron	130.0	732	4.67
117	J-7	J-8	3.0	Ductile Iron	130.0	155	7.03
86	J-7	J-9	8.0	Ductile Iron	130.0	577	3.68
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	577	3.68
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	577	3.68
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	577	3.68
138	J-17	J-18	2.0	Ductile Iron	130.0	21	2.18
68	J-17	J-19	8.0	Ductile Iron	130.0	555	3.54
155	J-19	J-20	2.0	Ductile Iron	130.0	39	3.96
130	J-19	J-21	8.0	Ductile Iron	130.0	516	3.30
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	516	3.30
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	516	3.30
111	J-24	J-25	8.0	Ductile Iron	130.0	1,321	8.43
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	1,321	8.43
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	1,321	8.43
17	J-29	H-3	6.0	Ductile Iron	130.0	500	5.67
22	J-29	J-30	8.0	Ductile Iron	130.0	821	5.24
144	J-30	J-32	2.0	Ductile Iron	130.0	20	2.04
26	R-1	PMP-1	120.0	Ductile Iron	130.0	513	0.01
29	PMP-1	J-33	12.0	Ductile Iron	130.0	513	1.45
114	J-33	J-1	8.0	Ductile Iron	130.0	513	3.27
29	R-2	PMP-2	120.0	Ductile Iron	130.0	804	0.02
30	PMP-2	J-24	12.0	Ductile Iron	130.0	804	2.28
104	J-34	J-35	4.0	Ductile Iron	130.0	0	0.00
141	J-34	J-36	8.0	Ductile Iron	130.0	801	5.11
76	J-36	J-37	3.0	Ductile Iron	130.0	400	18.17
8	J-36	J-38	8.0	Ductile Iron	130.0	401	2.56
18	J-38	H-4	6.0	Ductile Iron	130.0	1,500	17.02
58	J-38	J-39	8.0	Ductile Iron	130.0	-1,099	7.02
264	J-34	J-30	8.0	Ductile Iron	130.0	-801	5.11
15	R-3	PMP-3	120.0	Ductile Iron	130.0	1,099	0.03
15	PMP-3	J-39	12.0	Ductile Iron	130.0	1,099	3.12
103	J-5	J-40	8.0	Ductile Iron	130.0	-239	1.53
15	J-40	H-5	6.0	Ductile Iron	130.0	0	0.00
18	J-40	J-41	8.0	Ductile Iron	130.0	-239	1.53
129	J-41	J-42	4.0	Ductile Iron	130.0	0	0.00
284	J-41	J-43	8.0	Ductile Iron	130.0	-239	1.53
94	J-43	J-44	4.0	Ductile Iron	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
26	J-43	J-45	8.0	Ductile Iron	130.0	-239	1.53
16	J-45	H-6	6.0	Ductile Iron	130.0	0	0.00
8	J-45	J-46	8.0	Ductile Iron	130.0	-239	1.53
66	J-46	J-47	3.0	Ductile Iron	130.0	300	13.63
70	J-46	J-48	8.0	Ductile Iron	130.0	-539	3.44
13	R-4	PMP-4	120.0	Ductile Iron	130.0	539	0.02
14	PMP-4	J-48	12.0	Ductile Iron	130.0	539	1.53
76	J-1	J-49	8.0	Ductile Iron	130.0	513	3.27
19	J-49	J-2	8.0	Ductile Iron	130.0	493	3.14
17	J-49	J-50	2.0	Ductile Iron	130.0	20	2.04

Overall
Max Day + FF

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,149.84	65
H-2	Open	1,000.00	0	1,148.56	64
H-3	Open	1,000.00	500	1,143.55	62
H-4	Open	1,000.00	1,500	1,135.85	59
H-5	Open	1,000.00	0	1,153.93	67
H-6	Open	1,000.00	0	1,154.35	67

Overall
Max Day + FF

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	513	1,001.00
R-2	1,001.00	804	1,001.00
R-3	1,001.00	1,099	1,001.00
R-4	1,001.00	539	1,001.00

Overall
Max Day + FF

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,155.45	513	154.45
PMP-2	1,001.00	On	1,001.00	1,147.89	804	146.89
PMP-3	1,001.00	On	1,001.00	1,139.99	1,099	138.99
PMP-4	1,001.00	On	1,001.00	1,154.78	539	153.78

Overall
Max Day + FF

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,149.84	65
H-2	Open	1,000.00	0	1,148.56	64
H-3	Open	1,000.00	500	1,143.55	62
H-4	Open	1,000.00	1,500	1,135.85	59
H-5	Open	1,000.00	0	1,153.93	67
H-6	Open	1,000.00	0	1,154.35	67

Overall
Max Day + FF

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,154.83	67
J-2	1,000.00	0	1,154.33	67
J-3	1,000.00	0	1,154.83	67
J-4	1,000.00	0	1,154.33	67
J-5	1,000.00	0	1,153.79	67
J-7	1,000.00	0	1,150.63	65
J-8	1,000.00	155	1,142.58	62
J-9	1,000.00	0	1,150.06	65
J-13	1,000.00	0	1,150.06	65
J-14	1,000.00	0	1,149.94	65
J-15	1,000.00	0	1,149.94	65
J-16	1,000.00	0	1,149.84	65
J-17	1,000.00	0	1,149.68	65
J-18	1,000.00	21	1,147.94	64
J-19	1,000.00	0	1,149.26	65
J-20	1,000.00	39	1,143.39	62
J-21	1,000.00	0	1,148.56	64
J-22	1,000.00	0	1,148.28	64
J-23	1,000.00	0	1,148.28	64
J-24	1,000.00	0	1,147.84	64
J-25	1,000.00	0	1,144.44	62
J-26	1,000.00	0	1,144.44	62
J-27	1,000.00	0	1,144.26	62
J-28	1,000.00	0	1,144.26	62
J-29	1,000.00	0	1,143.90	62
J-30	1,000.00	0	1,143.61	62
J-32	1,000.00	20	1,142.00	61
J-33	1,000.00	0	1,155.43	67
J-34	1,000.00	0	1,140.41	61
J-35	1,000.00	0	1,140.41	61
J-36	1,000.00	0	1,138.71	60
J-37	1,036.00	400	1,108.63	31
J-38	1,000.00	0	1,138.68	60
J-39	1,000.00	0	1,139.94	61
J-40	1,000.00	0	1,153.93	67
J-41	1,000.00	0	1,153.95	67
J-42	1,000.00	0	1,153.95	67
J-43	1,000.00	0	1,154.31	67
J-44	1,000.00	0	1,154.31	67
J-45	1,000.00	0	1,154.35	67
J-46	1,000.00	0	1,154.36	67
J-47	1,000.00	300	1,138.87	60
J-48	1,000.00	0	1,154.76	67
J-49	1,000.00	0	1,154.42	67
J-50	1,000.00	20	1,154.24	67

Overall
Max Day + FF

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	0	0.00
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	493	3.14
309	J-5	J-7	8.0	Ductile Iron	130.0	732	4.67
117	J-7	J-8	3.0	Ductile Iron	130.0	155	7.03
86	J-7	J-9	8.0	Ductile Iron	130.0	577	3.68
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	577	3.68
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	577	3.68
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	577	3.68
138	J-17	J-18	2.0	Ductile Iron	130.0	21	2.18
68	J-17	J-19	8.0	Ductile Iron	130.0	555	3.54
155	J-19	J-20	2.0	Ductile Iron	130.0	39	3.96
130	J-19	J-21	8.0	Ductile Iron	130.0	516	3.30
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	516	3.30
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	516	3.30
111	J-24	J-25	8.0	Ductile Iron	130.0	1,321	8.43
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	1,321	8.43
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	1,321	8.43
17	J-29	H-3	6.0	Ductile Iron	130.0	500	5.67
22	J-29	J-30	8.0	Ductile Iron	130.0	821	5.24
144	J-30	J-32	2.0	Ductile Iron	130.0	20	2.04
26	R-1	PMP-1	120.0	Ductile Iron	130.0	513	0.01
29	PMP-1	J-33	12.0	Ductile Iron	130.0	513	1.45
114	J-33	J-1	8.0	Ductile Iron	130.0	513	3.27
29	R-2	PMP-2	120.0	Ductile Iron	130.0	804	0.02
30	PMP-2	J-24	12.0	Ductile Iron	130.0	804	2.28
104	J-34	J-35	4.0	Ductile Iron	130.0	0	0.00
141	J-34	J-36	8.0	Ductile Iron	130.0	801	5.11
76	J-36	J-37	3.0	Ductile Iron	130.0	400	18.17
8	J-36	J-38	8.0	Ductile Iron	130.0	401	2.56
18	J-38	H-4	6.0	Ductile Iron	130.0	1,500	17.02
58	J-38	J-39	8.0	Ductile Iron	130.0	-1,099	7.02
264	J-34	J-30	8.0	Ductile Iron	130.0	-801	5.11
15	R-3	PMP-3	120.0	Ductile Iron	130.0	1,099	0.03
15	PMP-3	J-39	12.0	Ductile Iron	130.0	1,099	3.12
103	J-5	J-40	8.0	Ductile Iron	130.0	-239	1.53
15	J-40	H-5	6.0	Ductile Iron	130.0	0	0.00
18	J-40	J-41	8.0	Ductile Iron	130.0	-239	1.53
129	J-41	J-42	4.0	Ductile Iron	130.0	0	0.00
284	J-41	J-43	8.0	Ductile Iron	130.0	-239	1.53
94	J-43	J-44	4.0	Ductile Iron	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
26	J-43	J-45	8.0	Ductile Iron	130.0	-239	1.53
16	J-45	H-6	6.0	Ductile Iron	130.0	0	0.00
8	J-45	J-46	8.0	Ductile Iron	130.0	-239	1.53
66	J-46	J-47	3.0	Ductile Iron	130.0	300	13.63
70	J-46	J-48	8.0	Ductile Iron	130.0	-539	3.44
13	R-4	PMP-4	120.0	Ductile Iron	130.0	539	0.02
14	PMP-4	J-48	12.0	Ductile Iron	130.0	539	1.53
76	J-1	J-49	8.0	Ductile Iron	130.0	513	3.27
19	J-49	J-2	8.0	Ductile Iron	130.0	493	3.14
17	J-49	J-50	2.0	Ductile Iron	130.0	20	2.04

Overall
Max Day + FF

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,155.45	513	154.45
PMP-2	1,001.00	On	1,001.00	1,147.89	804	146.89
PMP-3	1,001.00	On	1,001.00	1,139.99	1,099	138.99
PMP-4	1,001.00	On	1,001.00	1,154.78	539	153.78

Overall
Max Day + FF

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	513	1,001.00
R-2	1,001.00	804	1,001.00
R-3	1,001.00	1,099	1,001.00
R-4	1,001.00	539	1,001.00

Overall
Peak Hour Demand

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	35	3.57
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	347	2.22
309	J-5	J-7	8.0	Ductile Iron	130.0	235	1.50
117	J-7	J-8	3.0	Ductile Iron	130.0	271	12.31
86	J-7	J-9	8.0	Ductile Iron	130.0	-36	0.23
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	-36	0.23
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	-36	0.23
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	-36	0.23
138	J-17	J-18	2.0	Ductile Iron	130.0	37	3.81
68	J-17	J-19	8.0	Ductile Iron	130.0	-74	0.47
155	J-19	J-20	2.0	Ductile Iron	130.0	68	6.92
130	J-19	J-21	8.0	Ductile Iron	130.0	-141	0.90
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	-141	0.90
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-141	0.90
111	J-24	J-25	8.0	Ductile Iron	130.0	286	1.82
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	286	1.82
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	286	1.82
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	286	1.82
144	J-30	J-32	2.0	Ductile Iron	130.0	35	3.57
26	R-1	PMP-1	120.0	Ductile Iron	130.0	382	0.01
29	PMP-1	J-33	12.0	Ductile Iron	130.0	382	1.08
114	J-33	J-1	8.0	Ductile Iron	130.0	382	2.44
29	R-2	PMP-2	120.0	Ductile Iron	130.0	427	0.01
30	PMP-2	J-24	12.0	Ductile Iron	130.0	427	1.21
104	J-34	J-35	4.0	Ductile Iron	130.0	0	0.00
141	J-34	J-36	8.0	Ductile Iron	130.0	251	1.60
76	J-36	J-37	3.0	Ductile Iron	130.0	701	31.80
8	J-36	J-38	8.0	Ductile Iron	130.0	-450	2.87
18	J-38	H-4	6.0	Ductile Iron	130.0	0	0.00
58	J-38	J-39	8.0	Ductile Iron	130.0	-450	2.87
264	J-34	J-30	8.0	Ductile Iron	130.0	-251	1.60
15	R-3	PMP-3	120.0	Ductile Iron	130.0	450	0.01
15	PMP-3	J-39	12.0	Ductile Iron	130.0	450	1.28
103	J-5	J-40	8.0	Ductile Iron	130.0	112	0.72
15	J-40	H-5	6.0	Ductile Iron	130.0	0	0.00
18	J-40	J-41	8.0	Ductile Iron	130.0	112	0.72
129	J-41	J-42	4.0	Ductile Iron	130.0	0	0.00
284	J-41	J-43	8.0	Ductile Iron	130.0	112	0.72
94	J-43	J-44	4.0	Ductile Iron	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
26	J-43	J-45	8.0	Ductile Iron	130.0	112	0.72
16	J-45	H-6	6.0	Ductile Iron	130.0	0	0.00
8	J-45	J-46	8.0	Ductile Iron	130.0	112	0.72
66	J-46	J-47	3.0	Ductile Iron	130.0	525	23.85
70	J-46	J-48	8.0	Ductile Iron	130.0	-413	2.64
13	R-4	PMP-4	120.0	Ductile Iron	130.0	413	0.01
14	PMP-4	J-48	12.0	Ductile Iron	130.0	413	1.17
76	J-1	J-49	8.0	Ductile Iron	130.0	347	2.22
19	J-49	J-2	8.0	Ductile Iron	130.0	347	2.22
17	J-49	J-50	2.0	Ductile Iron	130.0	0	0.00

Overall
Peak Hour Demand FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,158.35	69
J-2	1,000.00	0	1,158.11	68
J-3	1,000.00	35	1,157.80	68
J-4	1,000.00	0	1,158.11	68
J-5	1,000.00	0	1,157.83	68
J-7	1,000.00	0	1,157.44	68
J-8	1,000.00	271	1,134.74	58
J-9	1,000.00	0	1,157.44	68
J-13	1,000.00	0	1,157.44	68
J-14	1,000.00	0	1,157.44	68
J-15	1,000.00	0	1,157.44	68
J-16	1,000.00	0	1,157.44	68
J-17	1,000.00	0	1,157.45	68
J-18	1,000.00	37	1,152.54	66
J-19	1,000.00	0	1,157.46	68
J-20	1,000.00	68	1,140.91	61
J-21	1,000.00	0	1,157.52	68
J-22	1,000.00	0	1,157.54	68
J-23	1,000.00	0	1,157.54	68
J-24	1,000.00	0	1,157.58	68
J-25	1,000.00	0	1,157.38	68
J-26	1,000.00	0	1,157.38	68
J-27	1,000.00	0	1,157.37	68
J-28	1,000.00	0	1,157.37	68
J-29	1,000.00	0	1,157.35	68
J-30	1,000.00	0	1,157.31	68
J-32	1,000.00	35	1,152.78	66
J-33	1,000.00	0	1,158.70	69
J-34	1,000.00	0	1,156.94	68
J-35	1,000.00	0	1,156.94	68
J-36	1,000.00	0	1,156.74	68
J-37	1,000.00	701	1,071.94	31
J-38	1,000.00	0	1,156.78	68
J-39	1,000.00	0	1,157.02	68
J-40	1,000.00	0	1,157.79	68
J-41	1,000.00	0	1,157.79	68
J-42	1,000.00	0	1,157.79	68
J-43	1,000.00	0	1,157.70	68
J-44	1,000.00	0	1,157.70	68
J-45	1,000.00	0	1,157.69	68
J-46	1,000.00	0	1,157.69	68
J-47	1,000.00	525	1,114.03	49
J-48	1,000.00	0	1,157.93	68
J-49	1,000.00	0	1,158.16	68
J-50	1,000.00	0	1,158.16	68

Overall
Peak Hour Demand

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,157.44	68
H-2	Open	1,000.00	0	1,157.52	68
H-3	Open	1,000.00	0	1,157.35	68
H-4	Open	1,000.00	0	1,156.78	68
H-5	Open	1,000.00	0	1,157.79	68
H-6	Open	1,000.00	0	1,157.69	68

Overall
Peak Hour Demand

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	382	1,001.00
R-2	1,001.00	427	1,001.00
R-3	1,001.00	450	1,001.00
R-4	1,001.00	413	1,001.00

Overall
Peak Hour Demand

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,158.71	382	157.71
PMP-2	1,001.00	On	1,001.00	1,157.60	427	156.60
PMP-3	1,001.00	On	1,001.00	1,157.03	450	156.03
PMP-4	1,001.00	On	1,001.00	1,157.94	413	156.94

Overall
Peak Hour Demand

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,157.44	68
H-2	Open	1,000.00	0	1,157.52	68
H-3	Open	1,000.00	0	1,157.35	68
H-4	Open	1,000.00	0	1,156.78	68
H-5	Open	1,000.00	0	1,157.79	68
H-6	Open	1,000.00	0	1,157.69	68

Overall
Peak Hour Demand FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,158.35	69
J-2	1,000.00	0	1,158.11	68
J-3	1,000.00	35	1,157.80	68
J-4	1,000.00	0	1,158.11	68
J-5	1,000.00	0	1,157.83	68
J-7	1,000.00	0	1,157.44	68
J-8	1,000.00	271	1,134.74	58
J-9	1,000.00	0	1,157.44	68
J-13	1,000.00	0	1,157.44	68
J-14	1,000.00	0	1,157.44	68
J-15	1,000.00	0	1,157.44	68
J-16	1,000.00	0	1,157.44	68
J-17	1,000.00	0	1,157.45	68
J-18	1,000.00	37	1,152.54	66
J-19	1,000.00	0	1,157.46	68
J-20	1,000.00	68	1,140.91	61
J-21	1,000.00	0	1,157.52	68
J-22	1,000.00	0	1,157.54	68
J-23	1,000.00	0	1,157.54	68
J-24	1,000.00	0	1,157.58	68
J-25	1,000.00	0	1,157.38	68
J-26	1,000.00	0	1,157.38	68
J-27	1,000.00	0	1,157.37	68
J-28	1,000.00	0	1,157.37	68
J-29	1,000.00	0	1,157.35	68
J-30	1,000.00	0	1,157.31	68
J-32	1,000.00	35	1,152.78	66
J-33	1,000.00	0	1,158.70	69
J-34	1,000.00	0	1,156.94	68
J-35	1,000.00	0	1,156.94	68
J-36	1,000.00	0	1,156.74	68
J-37	1,000.00	701	1,071.94	31
J-38	1,000.00	0	1,156.78	68
J-39	1,000.00	0	1,157.02	68
J-40	1,000.00	0	1,157.79	68
J-41	1,000.00	0	1,157.79	68
J-42	1,000.00	0	1,157.79	68
J-43	1,000.00	0	1,157.70	68
J-44	1,000.00	0	1,157.70	68
J-45	1,000.00	0	1,157.69	68
J-46	1,000.00	0	1,157.69	68
J-47	1,000.00	525	1,114.03	49
J-48	1,000.00	0	1,157.93	68
J-49	1,000.00	0	1,158.16	68
J-50	1,000.00	0	1,158.16	68

Overall
Peak Hour Demand

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	35	3.57
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	347	2.22
309	J-5	J-7	8.0	Ductile Iron	130.0	235	1.50
117	J-7	J-8	3.0	Ductile Iron	130.0	271	12.31
86	J-7	J-9	8.0	Ductile Iron	130.0	-36	0.23
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	-36	0.23
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	-36	0.23
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	-36	0.23
138	J-17	J-18	2.0	Ductile Iron	130.0	37	3.81
68	J-17	J-19	8.0	Ductile Iron	130.0	-74	0.47
155	J-19	J-20	2.0	Ductile Iron	130.0	68	6.92
130	J-19	J-21	8.0	Ductile Iron	130.0	-141	0.90
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	-141	0.90
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-141	0.90
111	J-24	J-25	8.0	Ductile Iron	130.0	286	1.82
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	286	1.82
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	286	1.82
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	286	1.82
144	J-30	J-32	2.0	Ductile Iron	130.0	35	3.57
26	R-1	PMP-1	120.0	Ductile Iron	130.0	382	0.01
29	PMP-1	J-33	12.0	Ductile Iron	130.0	382	1.08
114	J-33	J-1	8.0	Ductile Iron	130.0	382	2.44
29	R-2	PMP-2	120.0	Ductile Iron	130.0	427	0.01
30	PMP-2	J-24	12.0	Ductile Iron	130.0	427	1.21
104	J-34	J-35	4.0	Ductile Iron	130.0	0	0.00
141	J-34	J-36	8.0	Ductile Iron	130.0	251	1.60
76	J-36	J-37	3.0	Ductile Iron	130.0	701	31.80
8	J-36	J-38	8.0	Ductile Iron	130.0	-450	2.87
18	J-38	H-4	6.0	Ductile Iron	130.0	0	0.00
58	J-38	J-39	8.0	Ductile Iron	130.0	-450	2.87
264	J-34	J-30	8.0	Ductile Iron	130.0	-251	1.60
15	R-3	PMP-3	120.0	Ductile Iron	130.0	450	0.01
15	PMP-3	J-39	12.0	Ductile Iron	130.0	450	1.28
103	J-5	J-40	8.0	Ductile Iron	130.0	112	0.72
15	J-40	H-5	6.0	Ductile Iron	130.0	0	0.00
18	J-40	J-41	8.0	Ductile Iron	130.0	112	0.72
129	J-41	J-42	4.0	Ductile Iron	130.0	0	0.00
284	J-41	J-43	8.0	Ductile Iron	130.0	112	0.72
94	J-43	J-44	4.0	Ductile Iron	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
26	J-43	J-45	8.0	Ductile Iron	130.0	112	0.72
16	J-45	H-6	6.0	Ductile Iron	130.0	0	0.00
8	J-45	J-46	8.0	Ductile Iron	130.0	112	0.72
66	J-46	J-47	3.0	Ductile Iron	130.0	525	23.85
70	J-46	J-48	8.0	Ductile Iron	130.0	-413	2.64
13	R-4	PMP-4	120.0	Ductile Iron	130.0	413	0.01
14	PMP-4	J-48	12.0	Ductile Iron	130.0	413	1.17
76	J-1	J-49	8.0	Ductile Iron	130.0	347	2.22
19	J-49	J-2	8.0	Ductile Iron	130.0	347	2.22
17	J-49	J-50	2.0	Ductile Iron	130.0	0	0.00

Overall
Peak Hour Demand

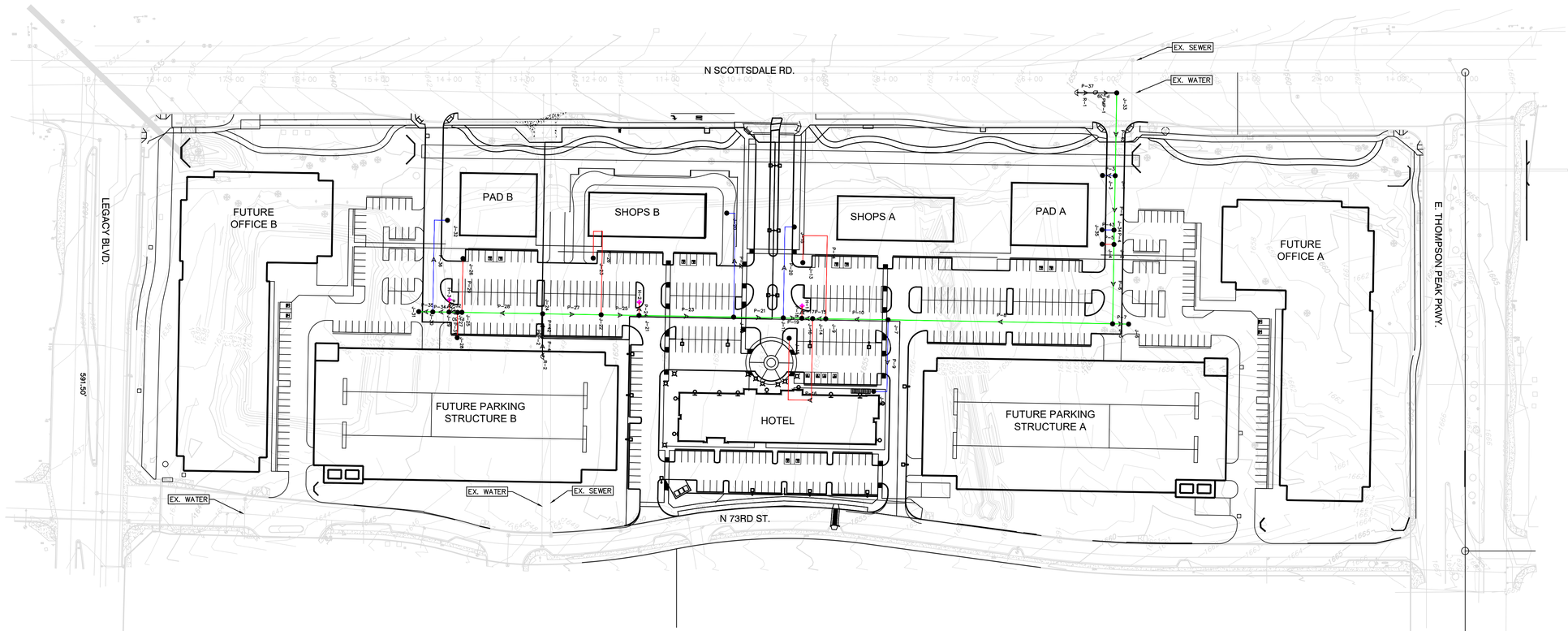
FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,158.71	382	157.71
PMP-2	1,001.00	On	1,001.00	1,157.60	427	156.60
PMP-3	1,001.00	On	1,001.00	1,157.03	450	156.03
PMP-4	1,001.00	On	1,001.00	1,157.94	413	156.94

Overall
Peak Hour Demand

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	382	1,001.00
R-2	1,001.00	427	1,001.00
R-3	1,001.00	450	1,001.00
R-4	1,001.00	413	1,001.00



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ONE SCOTTSDALE - PHASE 1
CIVIL IMPROVEMENT PLANS
SCOTTSDALE, AZ

WATER EXHIBIT-PHASE 1

DATE:	December 23, 2019
DRAWN BY:	BB
CHECKED BY:	KE
DWG SCALE:	
PROJECT NO.:	180-168
APPROVED BY:	JSE

DRAWING NO.:
EX-1
SHEET 1 OF 1

1-UP-2022
5/10/2022

Phase 1
Average Day Demand

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,166.60	72
H-2	Open	1,000.00	0	1,166.61	72
H-3	Open	1,000.00	0	1,166.61	72

Phase 1
Average Day Demand FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,166.61	72
J-2	1,000.00	0	1,166.61	72
J-3	1,000.00	0	1,166.61	72
J-4	1,000.00	0	1,166.61	72
J-5	1,000.00	0	1,166.60	72
J-6	1,000.00	0	1,166.60	72
J-7	1,000.00	0	1,166.59	72
J-8	1,048.00	77	1,164.36	50
J-9	1,000.00	0	1,166.59	72
J-13	1,000.00	0	1,166.59	72
J-14	1,000.00	0	1,166.59	72
J-15	1,000.00	0	1,166.59	72
J-16	1,000.00	0	1,166.60	72
J-17	1,000.00	0	1,166.60	72
J-18	1,000.00	0	1,166.60	72
J-19	1,000.00	0	1,166.60	72
J-20	1,000.00	0	1,166.60	72
J-21	1,000.00	0	1,166.61	72
J-22	1,000.00	0	1,166.61	72
J-23	1,000.00	0	1,166.61	72
J-24	1,000.00	0	1,166.61	72
J-25	1,000.00	0	1,166.61	72
J-26	1,000.00	0	1,166.61	72
J-27	1,000.00	0	1,166.61	72
J-28	1,000.00	0	1,166.61	72
J-29	1,000.00	0	1,166.61	72
J-30	1,000.00	0	1,166.61	72
J-31	1,000.00	0	1,166.61	72
J-32	1,000.00	0	1,166.61	72
J-33	1,000.00	0	1,166.62	72
J-34	1,000.00	0	1,166.61	72
J-35	1,000.00	0	1,166.61	72

Phase 1
Average Day Demand

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	0	0.00
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	39	0.25
22	J-5	J-6	8.0	Ductile Iron	130.0	0	0.00
309	J-5	J-7	8.0	Ductile Iron	130.0	39	0.25
117	J-7	J-8	3.0	Ductile Iron	130.0	77	3.52
86	J-7	J-9	8.0	Ductile Iron	130.0	-39	0.25
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	-39	0.25
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	-39	0.25
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	-39	0.25
138	J-17	J-18	2.0	Ductile Iron	130.0	0	0.00
68	J-17	J-19	8.0	Ductile Iron	130.0	-39	0.25
155	J-19	J-20	2.0	Ductile Iron	130.0	0	0.00
130	J-19	J-21	8.0	Ductile Iron	130.0	-39	0.25
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	-39	0.25
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-39	0.25
111	J-24	J-25	8.0	Ductile Iron	130.0	0	0.00
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	0	0.00
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	0	0.00
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	0	0.00
19	J-30	J-31	8.0	Ductile Iron	130.0	0	0.00
144	J-30	J-32	2.0	Ductile Iron	130.0	0	0.00
26	R-1	PMP-1	120.0	Ductile Iron	130.0	39	0.00
29	PMP-1	J-33	12.0	Ductile Iron	130.0	39	0.11
114	J-33	J-1	8.0	Ductile Iron	130.0	39	0.25
29	R-2	PMP-2	120.0	Ductile Iron	130.0	39	0.00
30	PMP-2	J-24	12.0	Ductile Iron	130.0	39	0.11
76	J-1	J-34	8.0	Ductile Iron	130.0	39	0.25
19	J-34	J-2	8.0	Ductile Iron	130.0	39	0.25
17	J-34	J-35	2.0	Ductile Iron	130.0	0	0.00

Phase 1
Average Day Demand

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,166.62	39	165.62
PMP-2	1,001.00	On	1,001.00	1,166.61	39	165.61

Phase 1
Average Day Demand FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	39	1,001.00
R-2	1,001.00	39	1,001.00

Phase 1
Average Day Demand

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	0	0.00
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	39	0.25
22	J-5	J-6	8.0	Ductile Iron	130.0	0	0.00
309	J-5	J-7	8.0	Ductile Iron	130.0	39	0.25
117	J-7	J-8	3.0	Ductile Iron	130.0	77	3.52
86	J-7	J-9	8.0	Ductile Iron	130.0	-39	0.25
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	-39	0.25
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	-39	0.25
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	-39	0.25
138	J-17	J-18	2.0	Ductile Iron	130.0	0	0.00
68	J-17	J-19	8.0	Ductile Iron	130.0	-39	0.25
155	J-19	J-20	2.0	Ductile Iron	130.0	0	0.00
130	J-19	J-21	8.0	Ductile Iron	130.0	-39	0.25
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	-39	0.25
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-39	0.25
111	J-24	J-25	8.0	Ductile Iron	130.0	0	0.00
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	0	0.00
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	0	0.00
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	0	0.00
19	J-30	J-31	8.0	Ductile Iron	130.0	0	0.00
144	J-30	J-32	2.0	Ductile Iron	130.0	0	0.00
26	R-1	PMP-1	120.0	Ductile Iron	130.0	39	0.00
29	PMP-1	J-33	12.0	Ductile Iron	130.0	39	0.11
114	J-33	J-1	8.0	Ductile Iron	130.0	39	0.25
29	R-2	PMP-2	120.0	Ductile Iron	130.0	39	0.00
30	PMP-2	J-24	12.0	Ductile Iron	130.0	39	0.11
76	J-1	J-34	8.0	Ductile Iron	130.0	39	0.25
19	J-34	J-2	8.0	Ductile Iron	130.0	39	0.25
17	J-34	J-35	2.0	Ductile Iron	130.0	0	0.00

Phase 1
Average Day Demand FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,166.61	72
J-2	1,000.00	0	1,166.61	72
J-3	1,000.00	0	1,166.61	72
J-4	1,000.00	0	1,166.61	72
J-5	1,000.00	0	1,166.60	72
J-6	1,000.00	0	1,166.60	72
J-7	1,000.00	0	1,166.59	72
J-8	1,048.00	77	1,164.36	50
J-9	1,000.00	0	1,166.59	72
J-13	1,000.00	0	1,166.59	72
J-14	1,000.00	0	1,166.59	72
J-15	1,000.00	0	1,166.59	72
J-16	1,000.00	0	1,166.60	72
J-17	1,000.00	0	1,166.60	72
J-18	1,000.00	0	1,166.60	72
J-19	1,000.00	0	1,166.60	72
J-20	1,000.00	0	1,166.60	72
J-21	1,000.00	0	1,166.61	72
J-22	1,000.00	0	1,166.61	72
J-23	1,000.00	0	1,166.61	72
J-24	1,000.00	0	1,166.61	72
J-25	1,000.00	0	1,166.61	72
J-26	1,000.00	0	1,166.61	72
J-27	1,000.00	0	1,166.61	72
J-28	1,000.00	0	1,166.61	72
J-29	1,000.00	0	1,166.61	72
J-30	1,000.00	0	1,166.61	72
J-31	1,000.00	0	1,166.61	72
J-32	1,000.00	0	1,166.61	72
J-33	1,000.00	0	1,166.62	72
J-34	1,000.00	0	1,166.61	72
J-35	1,000.00	0	1,166.61	72

Phase 1
Average Day Demand

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,166.60	72
H-2	Open	1,000.00	0	1,166.61	72
H-3	Open	1,000.00	0	1,166.61	72

Phase 1
Average Day Demand FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	39	1,001.00
R-2	1,001.00	39	1,001.00

Phase 1
Average Day Demand

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,166.62	39	165.62
PMP-2	1,001.00	On	1,001.00	1,166.61	39	165.61

Phase 1
Max Day + FF

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	0	0.00
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	958	6.11
22	J-5	J-6	8.0	Ductile Iron	130.0	0	0.00
309	J-5	J-7	8.0	Ductile Iron	130.0	958	6.11
117	J-7	J-8	3.0	Ductile Iron	130.0	155	7.03
86	J-7	J-9	8.0	Ductile Iron	130.0	803	5.12
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	803	5.12
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	803	5.12
17	J-16	H-1	6.0	Ductile Iron	130.0	1,500	17.02
26	J-16	J-17	8.0	Ductile Iron	130.0	-697	4.45
138	J-17	J-18	2.0	Ductile Iron	130.0	0	0.00
68	J-17	J-19	8.0	Ductile Iron	130.0	-697	4.45
155	J-19	J-20	2.0	Ductile Iron	130.0	0	0.00
130	J-19	J-21	8.0	Ductile Iron	130.0	-697	4.45
18	J-21	H-2	6.0	Ductile Iron	130.0	500	5.67
52	J-21	J-22	8.0	Ductile Iron	130.0	-1,197	7.64
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-1,197	7.64
111	J-24	J-25	8.0	Ductile Iron	130.0	0	0.00
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	0	0.00
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	0	0.00
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	0	0.00
19	J-30	J-31	8.0	Ductile Iron	130.0	0	0.00
144	J-30	J-32	2.0	Ductile Iron	130.0	0	0.00
26	R-1	PMP-1	120.0	Ductile Iron	130.0	958	0.03
29	PMP-1	J-33	12.0	Ductile Iron	130.0	958	2.72
114	J-33	J-1	8.0	Ductile Iron	130.0	958	6.11
29	R-2	PMP-2	120.0	Ductile Iron	130.0	1,197	0.03
30	PMP-2	J-24	12.0	Ductile Iron	130.0	1,197	3.40
76	J-1	J-34	8.0	Ductile Iron	130.0	958	6.11
19	J-34	J-2	8.0	Ductile Iron	130.0	958	6.11
17	J-34	J-35	2.0	Ductile Iron	130.0	0	0.00

Phase 1
Max Day + FF

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,141.82	61
J-2	1,000.00	0	1,140.23	61
J-3	1,000.00	0	1,141.82	61
J-4	1,000.00	0	1,140.23	61
J-5	1,000.00	0	1,138.38	60
J-6	1,000.00	0	1,138.38	60
J-7	1,000.00	0	1,133.17	58
J-8	1,048.00	155	1,125.11	33
J-9	1,000.00	0	1,132.12	57
J-13	1,000.00	0	1,132.12	57
J-14	1,000.00	0	1,131.90	57
J-15	1,000.00	0	1,131.90	57
J-16	1,000.00	0	1,131.72	57
J-17	1,000.00	0	1,131.96	57
J-18	1,000.00	0	1,131.96	57
J-19	1,000.00	0	1,132.60	57
J-20	1,000.00	0	1,132.60	57
J-21	1,000.00	0	1,133.82	58
J-22	1,000.00	0	1,135.15	58
J-23	1,000.00	0	1,135.15	58
J-24	1,000.00	0	1,137.21	59
J-25	1,000.00	0	1,137.21	59
J-26	1,000.00	0	1,137.21	59
J-27	1,000.00	0	1,137.21	59
J-28	1,000.00	0	1,137.21	59
J-29	1,000.00	0	1,137.21	59
J-30	1,000.00	0	1,137.21	59
J-31	1,000.00	0	1,137.21	59
J-32	1,000.00	0	1,137.21	59
J-33	1,000.00	0	1,143.74	62
J-34	1,000.00	0	1,140.54	61
J-35	1,000.00	0	1,140.54	61

Phase 1

Max Day + FF

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	1,500	1,129.05	56
H-2	Open	1,000.00	500	1,133.44	58
H-3	Open	1,000.00	0	1,137.21	59

Phase 1
Max Day + FF

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	958	1,001.00
R-2	1,001.00	1,197	1,001.00

Phase 1
Max Day + FF

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,143.81	958	142.81
PMP-2	1,001.00	On	1,001.00	1,137.32	1,197	136.32

Phase 1

Max Day + FF

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	1,500	1,129.05	56
H-2	Open	1,000.00	500	1,133.44	58
H-3	Open	1,000.00	0	1,137.21	59

Phase 1
Max Day + FF

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,141.82	61
J-2	1,000.00	0	1,140.23	61
J-3	1,000.00	0	1,141.82	61
J-4	1,000.00	0	1,140.23	61
J-5	1,000.00	0	1,138.38	60
J-6	1,000.00	0	1,138.38	60
J-7	1,000.00	0	1,133.17	58
J-8	1,048.00	155	1,125.11	33
J-9	1,000.00	0	1,132.12	57
J-13	1,000.00	0	1,132.12	57
J-14	1,000.00	0	1,131.90	57
J-15	1,000.00	0	1,131.90	57
J-16	1,000.00	0	1,131.72	57
J-17	1,000.00	0	1,131.96	57
J-18	1,000.00	0	1,131.96	57
J-19	1,000.00	0	1,132.60	57
J-20	1,000.00	0	1,132.60	57
J-21	1,000.00	0	1,133.82	58
J-22	1,000.00	0	1,135.15	58
J-23	1,000.00	0	1,135.15	58
J-24	1,000.00	0	1,137.21	59
J-25	1,000.00	0	1,137.21	59
J-26	1,000.00	0	1,137.21	59
J-27	1,000.00	0	1,137.21	59
J-28	1,000.00	0	1,137.21	59
J-29	1,000.00	0	1,137.21	59
J-30	1,000.00	0	1,137.21	59
J-31	1,000.00	0	1,137.21	59
J-32	1,000.00	0	1,137.21	59
J-33	1,000.00	0	1,143.74	62
J-34	1,000.00	0	1,140.54	61
J-35	1,000.00	0	1,140.54	61

Phase 1
Max Day + FF

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	0	0.00
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	958	6.11
22	J-5	J-6	8.0	Ductile Iron	130.0	0	0.00
309	J-5	J-7	8.0	Ductile Iron	130.0	958	6.11
117	J-7	J-8	3.0	Ductile Iron	130.0	155	7.03
86	J-7	J-9	8.0	Ductile Iron	130.0	803	5.12
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	803	5.12
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	803	5.12
17	J-16	H-1	6.0	Ductile Iron	130.0	1,500	17.02
26	J-16	J-17	8.0	Ductile Iron	130.0	-697	4.45
138	J-17	J-18	2.0	Ductile Iron	130.0	0	0.00
68	J-17	J-19	8.0	Ductile Iron	130.0	-697	4.45
155	J-19	J-20	2.0	Ductile Iron	130.0	0	0.00
130	J-19	J-21	8.0	Ductile Iron	130.0	-697	4.45
18	J-21	H-2	6.0	Ductile Iron	130.0	500	5.67
52	J-21	J-22	8.0	Ductile Iron	130.0	-1,197	7.64
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-1,197	7.64
111	J-24	J-25	8.0	Ductile Iron	130.0	0	0.00
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	0	0.00
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	0	0.00
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	0	0.00
19	J-30	J-31	8.0	Ductile Iron	130.0	0	0.00
144	J-30	J-32	2.0	Ductile Iron	130.0	0	0.00
26	R-1	PMP-1	120.0	Ductile Iron	130.0	958	0.03
29	PMP-1	J-33	12.0	Ductile Iron	130.0	958	2.72
114	J-33	J-1	8.0	Ductile Iron	130.0	958	6.11
29	R-2	PMP-2	120.0	Ductile Iron	130.0	1,197	0.03
30	PMP-2	J-24	12.0	Ductile Iron	130.0	1,197	3.40
76	J-1	J-34	8.0	Ductile Iron	130.0	958	6.11
19	J-34	J-2	8.0	Ductile Iron	130.0	958	6.11
17	J-34	J-35	2.0	Ductile Iron	130.0	0	0.00

Phase 1
Max Day + FF

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,143.81	958	142.81
PMP-2	1,001.00	On	1,001.00	1,137.32	1,197	136.32

Phase 1
Max Day + FF

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	958	1,001.00
R-2	1,001.00	1,197	1,001.00

Phase 1
Peak Hour Demand

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	0	0.00
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	134	0.86
22	J-5	J-6	8.0	Ductile Iron	130.0	0	0.00
309	J-5	J-7	8.0	Ductile Iron	130.0	134	0.86
117	J-7	J-8	3.0	Ductile Iron	130.0	271	12.31
86	J-7	J-9	8.0	Ductile Iron	130.0	-137	0.87
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	-137	0.87
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	-137	0.87
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	-137	0.87
138	J-17	J-18	2.0	Ductile Iron	130.0	0	0.00
68	J-17	J-19	8.0	Ductile Iron	130.0	-137	0.87
155	J-19	J-20	2.0	Ductile Iron	130.0	0	0.00
130	J-19	J-21	8.0	Ductile Iron	130.0	-137	0.87
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	-137	0.87
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-137	0.87
111	J-24	J-25	8.0	Ductile Iron	130.0	0	0.00
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	0	0.00
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	0	0.00
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	0	0.00
19	J-30	J-31	8.0	Ductile Iron	130.0	0	0.00
144	J-30	J-32	2.0	Ductile Iron	130.0	0	0.00
26	R-1	PMP-1	120.0	Ductile Iron	130.0	134	0.00
29	PMP-1	J-33	12.0	Ductile Iron	130.0	134	0.38
114	J-33	J-1	8.0	Ductile Iron	130.0	134	0.86
29	R-2	PMP-2	120.0	Ductile Iron	130.0	137	0.00
30	PMP-2	J-24	12.0	Ductile Iron	130.0	137	0.39
76	J-1	J-34	8.0	Ductile Iron	130.0	134	0.86
19	J-34	J-2	8.0	Ductile Iron	130.0	134	0.86
17	J-34	J-35	2.0	Ductile Iron	130.0	0	0.00

Phase 1
Peak Hour Demand FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,164.52	71
J-2	1,000.00	0	1,164.48	71
J-3	1,000.00	0	1,164.52	71
J-4	1,000.00	0	1,164.48	71
J-5	1,000.00	0	1,164.43	71
J-6	1,000.00	0	1,164.43	71
J-7	1,000.00	0	1,164.30	71
J-8	1,048.00	271	1,141.60	40
J-9	1,000.00	0	1,164.34	71
J-13	1,000.00	0	1,164.34	71
J-14	1,000.00	0	1,164.34	71
J-15	1,000.00	0	1,164.34	71
J-16	1,000.00	0	1,164.35	71
J-17	1,000.00	0	1,164.36	71
J-18	1,000.00	0	1,164.36	71
J-19	1,000.00	0	1,164.39	71
J-20	1,000.00	0	1,164.39	71
J-21	1,000.00	0	1,164.45	71
J-22	1,000.00	0	1,164.48	71
J-23	1,000.00	0	1,164.48	71
J-24	1,000.00	0	1,164.51	71
J-25	1,000.00	0	1,164.51	71
J-26	1,000.00	0	1,164.51	71
J-27	1,000.00	0	1,164.51	71
J-28	1,000.00	0	1,164.51	71
J-29	1,000.00	0	1,164.51	71
J-30	1,000.00	0	1,164.51	71
J-31	1,000.00	0	1,164.51	71
J-32	1,000.00	0	1,164.51	71
J-33	1,000.00	0	1,164.57	71
J-34	1,000.00	0	1,164.49	71
J-35	1,000.00	0	1,164.49	71

Phase 1
Peak Hour Demand FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,164.35	71
H-2	Open	1,000.00	0	1,164.45	71
H-3	Open	1,000.00	0	1,164.51	71

Phase 1
Peak Hour Demand

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	134	1,001.00
R-2	1,001.00	137	1,001.00

Phase 1
Peak Hour Demand

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,164.58	134	163.58
PMP-2	1,001.00	On	1,001.00	1,164.52	137	163.52

Phase 1
Peak Hour Demand FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,164.35	71
H-2	Open	1,000.00	0	1,164.45	71
H-3	Open	1,000.00	0	1,164.51	71

Phase 1
Peak Hour Demand FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,164.52	71
J-2	1,000.00	0	1,164.48	71
J-3	1,000.00	0	1,164.52	71
J-4	1,000.00	0	1,164.48	71
J-5	1,000.00	0	1,164.43	71
J-6	1,000.00	0	1,164.43	71
J-7	1,000.00	0	1,164.30	71
J-8	1,048.00	271	1,141.60	40
J-9	1,000.00	0	1,164.34	71
J-13	1,000.00	0	1,164.34	71
J-14	1,000.00	0	1,164.34	71
J-15	1,000.00	0	1,164.34	71
J-16	1,000.00	0	1,164.35	71
J-17	1,000.00	0	1,164.36	71
J-18	1,000.00	0	1,164.36	71
J-19	1,000.00	0	1,164.39	71
J-20	1,000.00	0	1,164.39	71
J-21	1,000.00	0	1,164.45	71
J-22	1,000.00	0	1,164.48	71
J-23	1,000.00	0	1,164.48	71
J-24	1,000.00	0	1,164.51	71
J-25	1,000.00	0	1,164.51	71
J-26	1,000.00	0	1,164.51	71
J-27	1,000.00	0	1,164.51	71
J-28	1,000.00	0	1,164.51	71
J-29	1,000.00	0	1,164.51	71
J-30	1,000.00	0	1,164.51	71
J-31	1,000.00	0	1,164.51	71
J-32	1,000.00	0	1,164.51	71
J-33	1,000.00	0	1,164.57	71
J-34	1,000.00	0	1,164.49	71
J-35	1,000.00	0	1,164.49	71

Phase 1
Peak Hour Demand

FlexTable: Pipe Table

Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	J-1	J-3	2.0	Ductile Iron	130.0	0	0.00
16	J-2	J-4	4.0	Ductile Iron	130.0	0	0.00
109	J-2	J-5	8.0	Ductile Iron	130.0	134	0.86
22	J-5	J-6	8.0	Ductile Iron	130.0	0	0.00
309	J-5	J-7	8.0	Ductile Iron	130.0	134	0.86
117	J-7	J-8	3.0	Ductile Iron	130.0	271	12.31
86	J-7	J-9	8.0	Ductile Iron	130.0	-137	0.87
185	J-9	J-13	6.0	Ductile Iron	130.0	0	0.00
18	J-9	J-14	8.0	Ductile Iron	130.0	-137	0.87
229	J-14	J-15	4.0	Ductile Iron	130.0	0	0.00
15	J-14	J-16	8.0	Ductile Iron	130.0	-137	0.87
17	J-16	H-1	6.0	Ductile Iron	130.0	0	0.00
26	J-16	J-17	8.0	Ductile Iron	130.0	-137	0.87
138	J-17	J-18	2.0	Ductile Iron	130.0	0	0.00
68	J-17	J-19	8.0	Ductile Iron	130.0	-137	0.87
155	J-19	J-20	2.0	Ductile Iron	130.0	0	0.00
130	J-19	J-21	8.0	Ductile Iron	130.0	-137	0.87
18	J-21	H-2	6.0	Ductile Iron	130.0	0	0.00
52	J-21	J-22	8.0	Ductile Iron	130.0	-137	0.87
164	J-22	J-23	4.0	Ductile Iron	130.0	0	0.00
81	J-22	J-24	8.0	Ductile Iron	130.0	-137	0.87
111	J-24	J-25	8.0	Ductile Iron	130.0	0	0.00
74	J-25	J-26	4.0	Ductile Iron	130.0	0	0.00
6	J-25	J-27	8.0	Ductile Iron	130.0	0	0.00
35	J-27	J-28	4.0	Ductile Iron	130.0	0	0.00
12	J-27	J-29	8.0	Ductile Iron	130.0	0	0.00
17	J-29	H-3	6.0	Ductile Iron	130.0	0	0.00
22	J-29	J-30	8.0	Ductile Iron	130.0	0	0.00
19	J-30	J-31	8.0	Ductile Iron	130.0	0	0.00
144	J-30	J-32	2.0	Ductile Iron	130.0	0	0.00
26	R-1	PMP-1	120.0	Ductile Iron	130.0	134	0.00
29	PMP-1	J-33	12.0	Ductile Iron	130.0	134	0.38
114	J-33	J-1	8.0	Ductile Iron	130.0	134	0.86
29	R-2	PMP-2	120.0	Ductile Iron	130.0	137	0.00
30	PMP-2	J-24	12.0	Ductile Iron	130.0	137	0.39
76	J-1	J-34	8.0	Ductile Iron	130.0	134	0.86
19	J-34	J-2	8.0	Ductile Iron	130.0	134	0.86
17	J-34	J-35	2.0	Ductile Iron	130.0	0	0.00

Phase 1
Peak Hour Demand

FlexTable: Pump Table

Label	Elevation (ft)	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	1,001.00	On	1,001.00	1,164.58	134	163.58
PMP-2	1,001.00	On	1,001.00	1,164.52	137	163.52

Phase 1
Peak Hour Demand

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,001.00	134	1,001.00
R-2	1,001.00	137	1,001.00

Flow Test Summary

Project Name:	EJFT 19237
Project Address:	20201 N Scottsdale Rd, Scottsdale, AZ 85255
Date of Flow Test:	2019-10-09
Time of Flow Test:	7:00 AM
Data Reliable Until:	2020-04-09
Conducted By:	Cesar Reyna & Austin Gourley (EJ Flow Tests) 602.999.7637
Witnessed By:	Sonny Schreiner (City of Scottsdale) 602.819.7718
City Forces Contacted:	City of Scottsdale (602.819.7718)
Permit Number:	C59886

Note Scottsdale requires a max static pressure of 72 psi for safety factor.

Raw Flow Test Data

Static Pressure:	99.0 PSI
Residual Pressure:	79.0 PSI
Flowing GPM:	3,619
GPM @ 20 PSI:	7,598

Data with a 27 PSI Safety Factor

Static Pressure:	72.0 PSI
Residual Pressure:	52.0 PSI
Flowing GPM:	3,619
GPM @ 20 PSI:	6,062

Hydrant F_1

Pitot Pressure (1):	50	PSI
Coefficient of Discharge (1):	0.9	
Hydrant Orifice Diameter (1):	2.5	inches
Pitot Pressure (2):	50	PSI
Coefficient of Discharge (2):	0.9	
Hydrant Orifice Diameter (2):	2.5	inches

Hydrant F_2

Pitot Pressure (1):	55	PSI
Coefficient of Discharge (1):	0.9	
Hydrant Orifice Diameter (1):	2.5	inches

Static-Residual Hydrant

Flow Hydrant

Distance Between F_1 and R
1265 ft (measured linearly)

Static-Residual Elevation
1665 ft (above sea level)

Flow Hydrant (F_1) Elevation
1647 ft (above sea level)

Elevation & distance values are approximate

1-UP-2022
5/10/2022

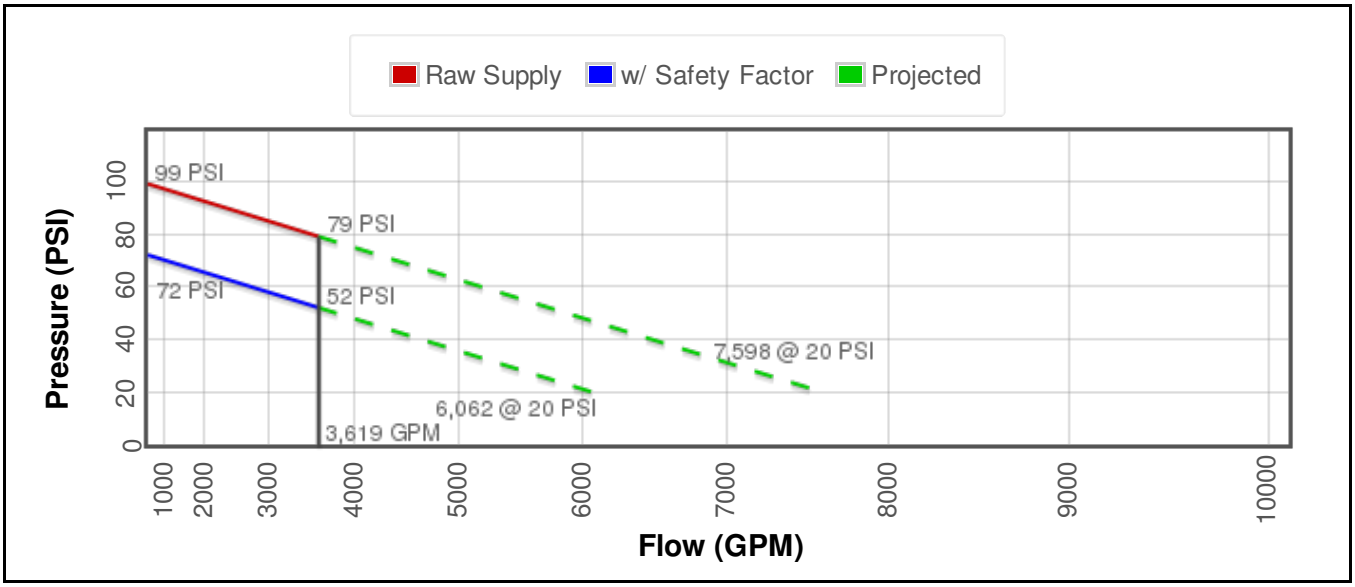
Flow Test Summary

Static-Residual Hydrant

Flow Hydrant (only hydrant F1 shown for clarity)

Approximate Project Site

Water Supply Curve $N^{1.85}$ Graph



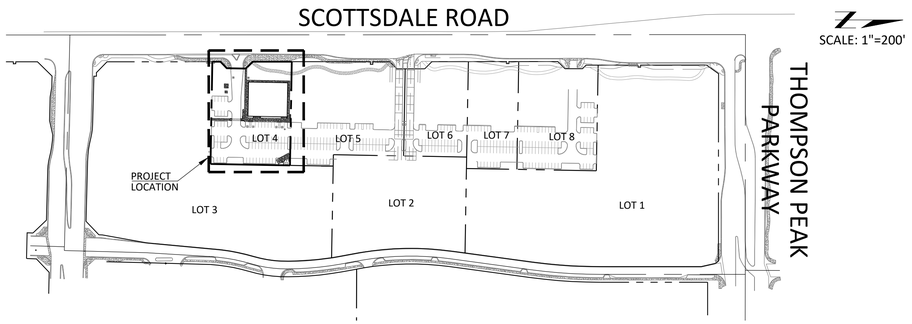
1-UP-2022
5/10/2022

Appendix B
Utility Plan

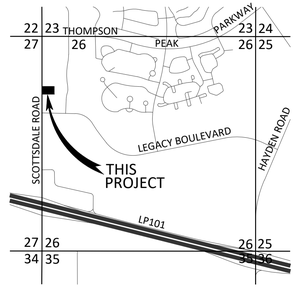
PRELIMINARY IMPROVEMENT PLAN for
NATURAL RESULT SURGERY CENTER & MEDICAL SPA

SEC THOMPSON PEAK PARKWAY AND SCOTTSDALE ROAD PHOENIX, ARIZONA

A PORTION NORTHEAST QUARTER OF SECTION 19, TOWNSHIP 20 NORTH, RANGE 21 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA



PROJECT OVERVIEW



IN THE NW 1/4 OF THE SW 1/4 OF SECTION 26,
T. 4 N., R. 4 E., G.&S.R.M.,
CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA

LOCATION MAP NORTH

3" = 1 MILE

PROJECT INFORMATION

PROJECT DESCRIPTION:
THE PROJECT CONSISTS OF THE CONSTRUCTION OF A TWO-STORY MEDICAL BUILDING ON AN EXISTING PAD SITE WITHIN THE ONE SCOTTSDALE MASTER DEVELOPMENT.

ADDRESS:
20001 NORTH SCOTTSDALE ROAD
SCOTTSDALE, ARIZONA 85255

APN: 215-05-010 (OVERALL DEVELOPMENT PARCEL)

ZONING: PRC, PCD

PAD B AREA: 63,280 SF (1.45 AC)
DISTURBED AREA: 20,550 SF (0.47 AC)

SURVEY NOTES

1. THE SURVEY FOR THIS PROJECT WAS PERFORMED BY:
   SURVEY INNOVATION GROUP, INC.
   7301 EAST EVANS ROAD
   SCOTTSDALE, ARIZONA 85260
   PH: 623-869-0223
   CONTACT: JASON SEGNERI, R.L.S.
2. THE BASIS OF BEARINGS FOR THIS PROJECT IS THE NORTH LINE OF THE NORTHWEST QUARTER OF SEC 26 AS SHOWN IN BOOK 1115, PAGE 41 MARICOPA COUNTY RECORDS. SAID LINE BEARING S 89°57'38" E.
3. THE BASIS OF ELEVATION FOR THIS PROJECT IS THE MARICOPA COUNTY 4-INCH MC ENG DEPT BRASS CAP IN HAND HOLE AT THE INTERSECTION OF SCOTTSDALE ROAD AND THOMPSON PEAK PARKWAY, CITY OF SCOTTSDALE GPS POINT #8660, AN ELEVATION OF 1662.725' (NAVD 88).

BENCHMARK

THE BENCHMARK USED FOR THIS PLAN IS THE MARICOPA COUNTY 4-INCH MC ENG DEPT BRASS CAP IN HAND HOLE AT THE INTERSECTION OF SCOTTSDALE ROAD AND THOMPSON PEAK PARKWAY, CITY OF SCOTTSDALE GPS POINT #8660, AN ELEVATION OF 1662.725' (NAVD 88).

LEGAL DESCRIPTION

LOT 4 OF THE ONE SCOTTSDALE FINAL PLAT, BEING REPLAT OF LOT 3, OF THE REPLAT PARCEL 1 OF ONE SCOTTSDALE, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1115, PAGE 41.

DRAINAGE STATEMENT

-SITE IS IN A SPECIAL FLOOD HAZARD AREA - NO
-OFFSITE FLOWS AFFECT THIS SITE - NO
-PER THE MASTER DRAINAGE REPORT (FINAL DRAINAGE REPORT FOR ONE SCOTTSDALE, CEC, JANUARY 21, 2021), THE ONE SCOTTSDALE DEVELOPMENT IS ONLY REQUIRED TO PROVIDE FIRST FLUSH STORMWATER TREATMENT. THIS TREATMENT IS PROVIDED FOR THE DEVELOPMENT VIA VORTEX STORMWATER QUALITY STRUCTURES BY THE OVERALL ONE SCOTTSDALE DEVELOPMENT AND THIS PROJECT IS NOT REQUIRED TO PROVIDE ANY ADDITIONAL STORMWATER INFRASTRUCTURE.
-EXTREME STORM OUTFALLS THE SITE AT THE SOUTH DRIVEWAY AT THE ELEVATION OF 1641.65.

FLOODPLAIN INFORMATION

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP PANEL NUMBER 04013C1760, DATED NOVEMBER 04, 2015 THE PARCEL IS LOCATED IN THE ZONE X AREA, WHICH IS DEFINED AS AREAS OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.

LEGEND

PROJECT RIGHT-OF-WAY	NEW SEWER CLEANOUT
EXISTING RIGHT-OF-WAY	NEW WATER METER
PROJECT PROPERTY LINE	NEW BACKFLOW PREVENTER
EXISTING PROPERTY LINE	NEW FIRE CONNECTION
ROADWAY CENTERLINE	SURVEY MONUMENT AS NOTED
EXISTING EASEMENT	SPOT ELEV. (EXIST. GRADE)
EXISTING CONTOUR	SPOT ELEV. (PER SEPARATE PLAN)
NEW CONTOUR	SPOT ELEV. (NEW GRADE)
EXISTING CONCRETE	ROW RIGHT-OF-WAY
NEW ASPHALT	B/C BACK OF CURB
NEW CONCRETE	R RADIUS
NEW WALL	P PAVEMENT (ASPHALT)
EXISTING CURB	C CONCRETE
EXISTING PAINT STRIPE	G GUTTER
NEW CURB	TC TOP OF CURB
NEW PAINT STRIPE	FG FINISHED GRADE
NEW RAILING	GB GRADE BREAK
EXISTING STORM DRAIN PIPE	FFE FINISHED FLOOR ELEVATION
EXISTING SEWER LINE	
EXISTING WATER LINE	
NEW SEWER LINE	
NEW WATER LINE	
NEW FIRE SERVICE	
EXISTING SEWER MANHOLE	
EXISTING SEWER CLEANOUT	
EXISTING SEWER STUB	
EXISTING WATER STUB	
EXISTING WATER VALVE	
EXISTING FIRE HYDRANT	
EXISTING AIR RELEASE VALVE	

OWNER/DEVELOPER

NATURAL RESULTS PLASTIC SURGERY
7930 EAST THOMPSON PEAK PARKWAY, #101
SCOTTSDALE, ARIZONA 85255
PH: 480-418-5300
ATTN: DR. CARLOS MATA

CIVIL ENGINEER

CYPRESS CIVIL DEVELOPMENT
4450 NORTH 12TH STREET, #228
PHOENIX, ARIZONA 85014
PH: 623-282-2498
ATTN: JEFF HUNT, PE

ARCHITECT

KOHAN ARCHITECTURE
490 POST STREET, #1135
SAN FRANCISCO, CALIFORNIA 94102
PH: 415-348-0008
ATTN: MARZI EMAMI GHOREISHI, AIA

UTILITIES

WATER:	CITY OF SCOTTSDALE
SEWER:	CITY OF SCOTTSDALE
ELECTRIC:	APS
GAS:	SOUTHWEST GAS
TELEPHONE:	CENTURYLINK
CABLE:	COX COMMUNICATIONS

SHEET INDEX

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

THESE PLANS ARE PRELIMINARY AND ARE NOT FOR CONSTRUCTION OR RECORDING

CYPRESS CIVIL
4450 north 12th street
suite 228
phoenix, arizona 85014
p: 623.282.2498
e: jphunt@cypresscivil.com

NO.	DATE	REVISION

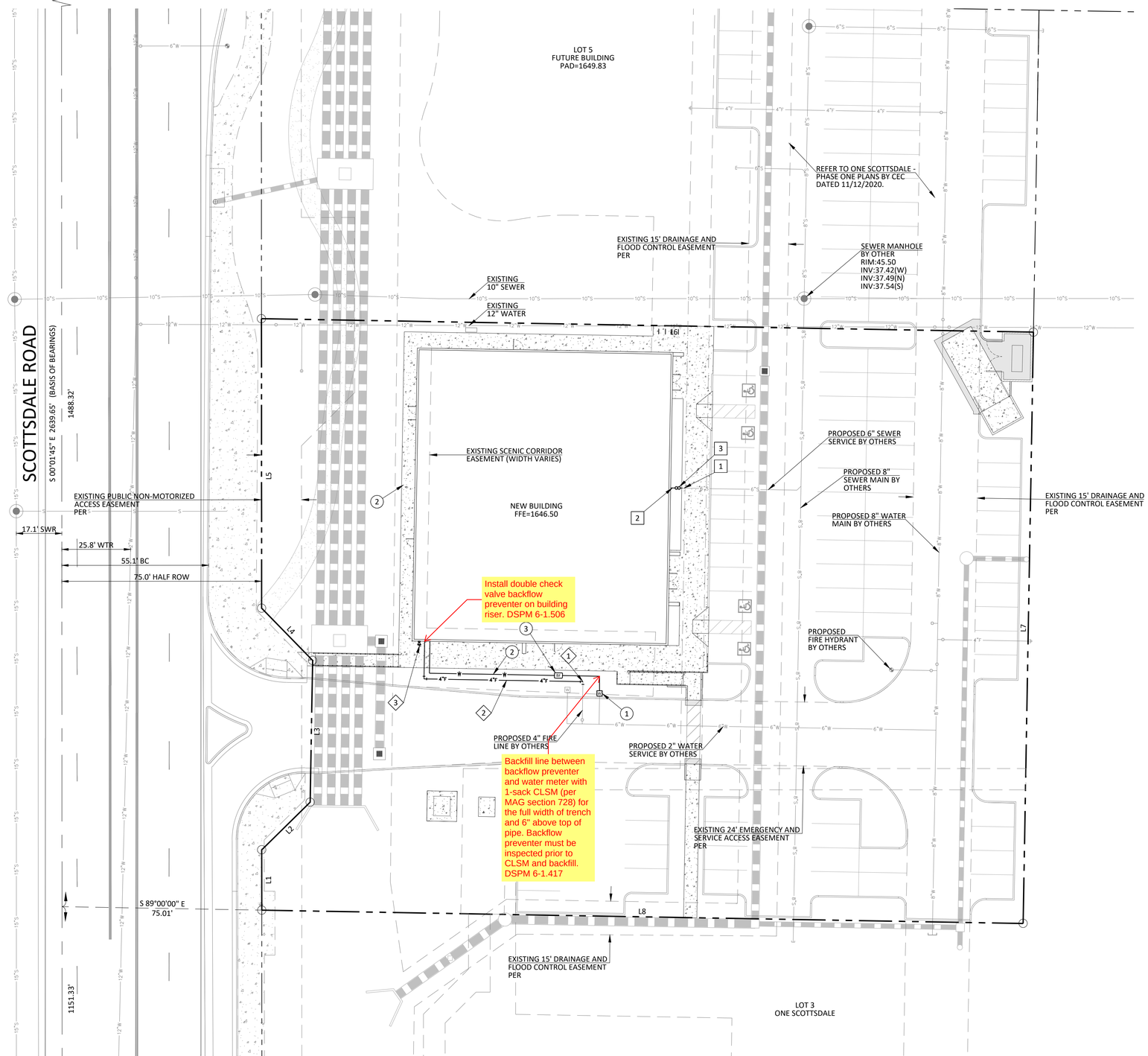
PRELIMINARY IMPROVEMENT PLAN for
NATURAL RESULT SURGERY CENTER & MEDICAL SPA
SEC THOMPSON PEAK PKWY AND SCOTTSDALE RD SCOTTSDALE, ARIZONA

cover

Registered Professional Engineer (Civil) CERTIFICATE NO. 53640 JEFFREY P. HUNT 09-27-2022 ARIZONA, U.S.A.

DRAWN:	PT
DESIGNED:	DS
CHECKED:	JH
DATE:	09-27-2022
JOB NO:	20.143

SHEET NUMBER



Service lines shall be Type K copper tubing per DSPM 6-1.416.

Pipe material?

SCALE: 1"=20'

0' 10' 20' 40'

Specify reduced pressure principle (RP) backflow preventer per SRC Sec 49-62 (medical facility).

PRIVATE WATER KEYNOTES

1. PROPOSED 2" SERVICE BY OTHERS. INSTALL NEW 2" METER FOR DOMESTIC WATER SERVICE.
2. NEW 2" DOMESTIC WATER LINE.
3. NEW 2" DOMESTIC BACKFLOW PREVENTER.

PRIVATE FIRE LINE KEYNOTES

1. PROPOSED 4" FIRE STUB BY OTHERS. CONNECT TO FOR FIRE SERVICE.
2. NEW 4" DIP FIRE LINE.
3. NEW BUILDING MOUNTED FDC.

PRIVATE SEWER KEYNOTES

1. PROPOSED 6" SEWER SERVICE STUB BY OTHERS. CONNECT TO FOR SEWER SERVICE.
2. NEW 6" PVC SDR-35 SEWER LINE. 2% MINIMUM SLOPE.
3. NEW TWO-WAY SEWER CLEAN OUT.

LINE TABLE		
LINE	BEARINGS	LENGTH
L1	N 00°01'45" W	22.65'
L2	N 45°28'06" E	25.49'
L3	N 01°00'00" E	53.21'
L4	N 44°18'03" W	27.42'
L5	N 00°01'45" W	108.68'
L6	S 89°02'10" E	289.98'
L7	S 00°56'37" W	222.00'
L8	N 89°02'10" W	286.21'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

THESE PLANS ARE PRELIMINARY AND ARE NOT FOR CONSTRUCTION OR RECORDING

CYPRESS CIVIL
4450 north 12th street
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phoenix, arizona 85014
p: 623.282.2498
e: jphunt@cypresscivil.com

REVISION | DATE | NO.

PRELIMINARY IMPROVEMENT PLAN for NATURAL RESULT SURGERY CENTER & MEDICAL SPA

SEC THOMPSON PEAK PKWY AND SCOTTSDALE RD SCOTTSDALE, ARIZONA

onsite utility plan

Registered Professional Engineer (Civil) CERTIFICATE NO. 53640 JEFFREY P. HUNT 09-27-2022 ARIZONA, U.S.A.

DRAWN:	PT
DESIGNED:	DS
CHECKED:	JH
DATE:	09-27-2022
JOB NO:	20.143

SHEET NUMBER

Appendix C
Fire Flow Test Results

Arizona Flow Testing LLC

HYDRANT FLOW TEST REPORT

Project Name:	Not Provided
Project Address:	19641 North Scottsdale Road, Scottsdale, Arizona 85255
Client Project No.:	Not Provided
Arizona Flow Testing Project No.:	23175
Flow Test Permit No.:	C71535
Date and time flow test conducted:	March 3, 2023 at 9:00 AM
Data is current and reliable until:	September 3, 2023
Conducted by:	Floyd Vaughan – Arizona Flow Testing, LLC (480-250-8154)
Witnessed by:	Vince Cusumano – City of Scottsdale-Inspector (602-828-0847)

Raw Test Data

Static Pressure: **120.0 PSI**
(Measured in pounds per square inch)

Residual Pressure: **100.0 PSI**
(Measured in pounds per square inch)

Pitot Pressure: **46.0 PSI**
(Measured in pounds per square inch)

Diffuser Orifice Diameter: One 4-Inch Pollard Diffuser
(Measured in inches)

Coefficient of Diffuser: 0.9

Flowing GPM**:** **2,914 GPM**
(Measured in gallons per minute)

GPM @ 20 PSI: **6,950 GPM**

Data with 48 PSI Safety Factor

Static Pressure: **72.0 PSI**
(Measured in pounds per square inch)

Scottsdale requires a maximum Static Pressure of 72 PSI for AFES Design.

Residual Pressure: **52.0 PSI**
(Measured in pounds per square inch)

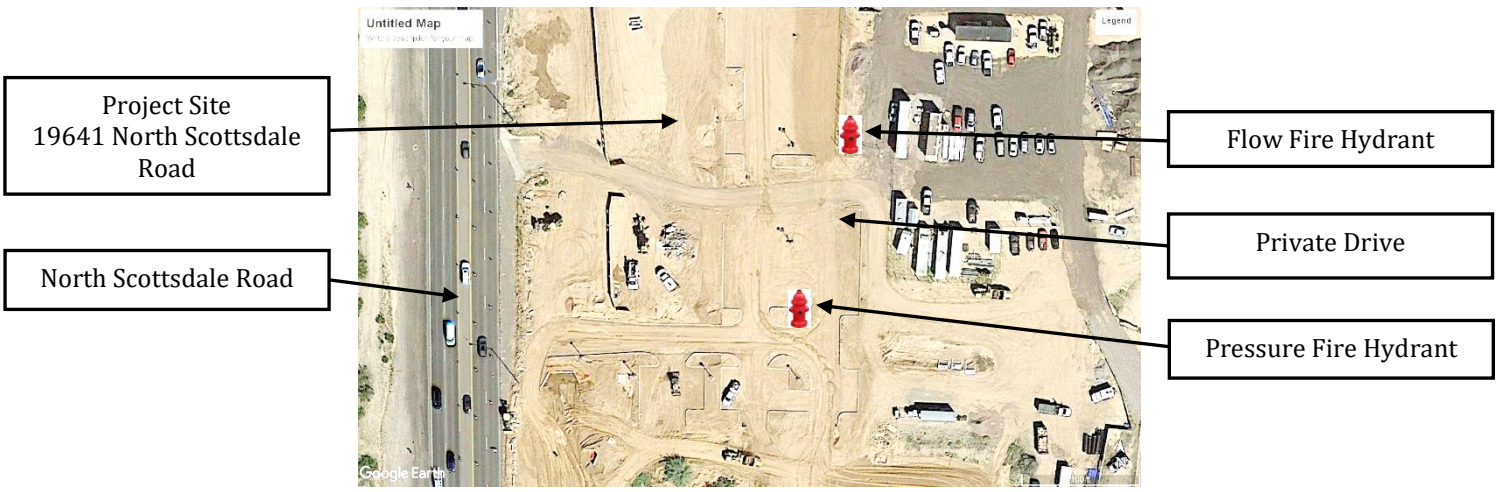
Distance between hydrants: Approx. 170 Feet

Main size: Not Provided

Flowing GPM: **2,914 GPM**

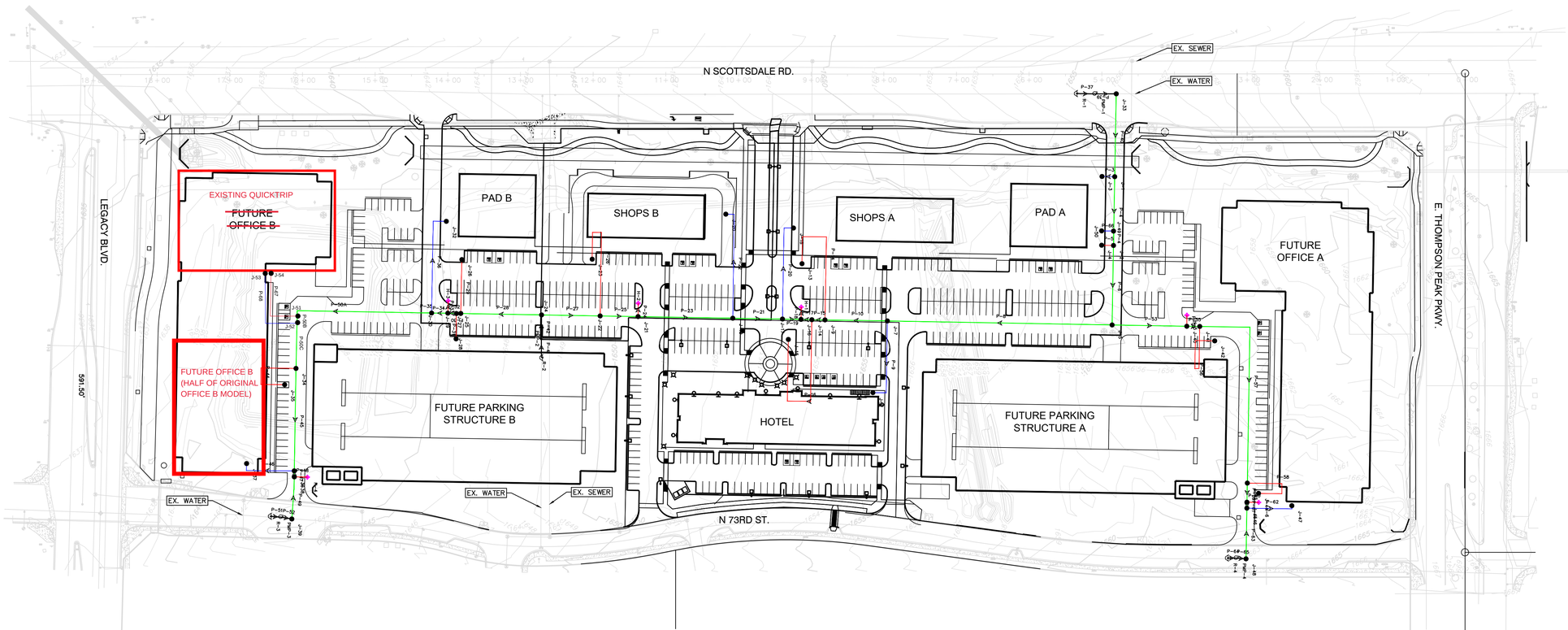
GPM @ 20 PSI**:** **4,882 GPM**

Flow Test Location **North**



Appendix D
Updated Water Model Results

AMENDED WATER MODEL LAYOUT



NORTH

1) Average Day Demand Results

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,166.14	72
H-2	Open	1,000.00	0	1,166.29	72
H-3	Open	1,000.00	0	1,166.34	72
H-4	Open	1,000.00	0	1,166.22	72
H-5	Open	1,000.00	0	1,166.02	72
H-6	Open	1,000.00	0	1,165.99	72

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-2	1,000.00	0	1,166.03	72
J-3	1,000.00	10	1,165.98	72
J-4	1,000.00	0	1,166.03	72
J-5	1,000.00	0	1,166.03	72
J-7	1,000.00	0	1,166.07	72
J-8	1,000.00	77	1,163.84	71
J-9	1,000.00	0	1,166.12	72
J-13	1,000.00	0	1,166.12	72
J-14	1,000.00	0	1,166.13	72
J-15	1,000.00	0	1,166.13	72
J-16	1,000.00	0	1,166.14	72
J-17	1,000.00	0	1,166.15	72
J-18	1,000.00	11	1,165.67	72
J-19	1,000.00	0	1,166.19	72
J-20	1,000.00	19	1,164.57	71
J-21	1,000.00	0	1,166.29	72
J-22	1,000.00	0	1,166.33	72
J-23	1,000.00	0	1,166.33	72
J-24	1,000.00	0	1,166.39	72
J-25	1,000.00	0	1,166.34	72
J-26	1,000.00	0	1,166.34	72
J-27	1,000.00	0	1,166.34	72
J-28	1,000.00	0	1,166.34	72
J-29	1,000.00	0	1,166.34	72
J-30	1,000.00	0	1,166.33	72
J-32	1,000.00	16	1,165.23	71
J-33	1,000.00	0	1,166.03	72
J-34	1,000.00	0	1,166.26	72
J-35	1,000.00	0	1,166.26	72
J-36	1,000.00	0	1,166.22	72
J-37	1,000.00	100	1,163.91	71
J-38	1,000.00	0	1,166.22	72
J-39	1,000.00	0	1,166.22	72
J-40	1,000.00	0	1,166.02	72
J-41	1,000.00	0	1,166.02	72
J-42	1,000.00	0	1,166.02	72
J-43	1,000.00	0	1,165.99	72
J-44	1,000.00	0	1,165.99	72
J-45	1,000.00	0	1,165.99	72
J-46	1,000.00	0	1,165.99	72
J-47	1,000.00	150	1,161.70	70
J-48	1,000.00	0	1,166.00	72
J-49	1,000.00	0	1,166.03	72
J-50	1,000.00	0	1,166.03	72
J-51	1,000.00	0	1,166.27	72
J-52	1,000.00	0	1,166.27	72
J-53	1,000.00	6	1,166.27	72
J-54	1,000.00	0	1,166.27	72
`	1,000.00	0	1,166.03	72

FlexTable: Pipe Table

Length (Scaled) (ft)	Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	P-3	`	J-3	2.0	130.0	10	1.02
76	P-4(1)	`	J-49	8.0	130.0	-10	0.06
19	P-4(2)	J-49	J-2	8.0	130.0	-10	0.06
16	P-5	J-2	J-4	4.0	130.0	0	0.00
109	P-6	J-2	J-5	8.0	130.0	-10	0.06
309	P-8	J-5	J-7	8.0	130.0	-70	0.44
117	P-9	J-7	J-8	3.0	130.0	77	3.52
86	P-10	J-7	J-9	8.0	130.0	-147	0.94
185	P-14	J-9	J-13	6.0	130.0	0	0.00
18	P-15	J-9	J-14	8.0	130.0	-147	0.94
229	P-16	J-14	J-15	4.0	130.0	0	0.00
15	P-17	J-14	J-16	8.0	130.0	-147	0.94
17	P-18	J-16	H-1	6.0	130.0	0	0.00
26	P-19	J-16	J-17	8.0	130.0	-147	0.94
138	P-20	J-17	J-18	2.0	130.0	11	1.09
68	P-21	J-17	J-19	8.0	130.0	-158	1.01
155	P-22	J-19	J-20	2.0	130.0	19	1.98
130	P-23	J-19	J-21	8.0	130.0	-177	1.13
18	P-24	J-21	H-2	6.0	130.0	0	0.00
52	P-25	J-21	J-22	8.0	130.0	-177	1.13
164	P-26	J-22	J-23	4.0	130.0	0	0.00
81	P-27	J-22	J-24	8.0	130.0	-177	1.13
111	P-28	J-24	J-25	8.0	130.0	122	0.78
74	P-29	J-25	J-26	4.0	130.0	0	0.00
6	P-30	J-25	J-27	8.0	130.0	122	0.78
35	P-31	J-27	J-28	4.0	130.0	0	0.00
12	P-32	J-27	J-29	8.0	130.0	122	0.78
17	P-33	J-29	H-3	6.0	130.0	0	0.00
22	P-34	J-29	J-30	8.0	130.0	122	0.78
144	P-36	J-30	J-32	2.0	130.0	16	1.66
26	P-37	R-1	PMP-1	120.0	130.0	0	0.00
29	P-39	PMP-1	J-33	12.0	130.0	0	0.00
114	P-40	J-33	`	8.0	130.0	0	0.00
29	P-41	R-2	PMP-2	120.0	130.0	300	0.01
30	P-42	PMP-2	J-24	12.0	130.0	300	0.85
104	P-44	J-34	J-35	4.0	130.0	0	0.00
141	P-45	J-34	J-36	8.0	130.0	100	0.64
76	P-46	J-36	J-37	3.0	130.0	100	4.54
8	P-47	J-36	J-38	8.0	130.0	0	0.00
18	P-48	J-38	H-4	6.0	130.0	0	0.00
58	P-49	J-38	J-39	8.0	130.0	0	0.00
194	P-50A	J-51	J-30	8.0	130.0	-106	0.68
8	P-50B	J-52	J-51	8.0	130.0	-106	0.68
63	P-50C	J-34	J-52	8.0	130.0	-100	0.64
15	P-51	R-3	PMP-3	120.0	130.0	0	0.00
15	P-52	PMP-3	J-39	12.0	130.0	0	0.00
103	P-53	J-5	J-40	8.0	130.0	60	0.38
15	P-54	J-40	H-5	6.0	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
18	P-55	J-40	J-41	8.0	130.0	60	0.38
129	P-56	J-41	J-42	4.0	130.0	0	0.00
284	P-57	J-41	J-43	8.0	130.0	60	0.38
94	P-58	J-43	J-44	4.0	130.0	0	0.00
26	P-59	J-43	J-45	8.0	130.0	60	0.38
16	P-60	J-45	H-6	6.0	130.0	0	0.00
8	P-61	J-45	J-46	8.0	130.0	60	0.38
66	P-62	J-46	J-47	3.0	130.0	150	6.81
70	P-63	J-46	J-48	8.0	130.0	-90	0.58
13	P-64	R-4	PMP-4	120.0	130.0	90	0.00
14	P-65	PMP-4	J-48	12.0	130.0	90	0.26
17	P-66	J-49	J-50	2.0	130.0	0	0.00
53	P-67	J-51	J-54	6.0	130.0	0	0.00
67	P-68	J-52	J-53	6.0	130.0	6	0.07

2) Peak Hour Demand Results

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,162.77	70
H-2	Open	1,000.00	0	1,163.15	71
H-3	Open	1,000.00	0	1,162.94	70
H-4	Open	1,000.00	0	1,161.73	70
H-5	Open	1,000.00	0	1,162.73	70
H-6	Open	1,000.00	0	1,162.82	70

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-2	1,000.00	0	1,162.69	70
J-3	1,000.00	35	1,162.14	70
J-4	1,000.00	0	1,162.69	70
J-5	1,000.00	0	1,162.70	70
J-7	1,000.00	0	1,162.66	70
J-8	1,000.00	271	1,139.96	61
J-9	1,000.00	0	1,162.74	70
J-13	1,000.00	0	1,162.74	70
J-14	1,000.00	0	1,162.76	70
J-15	1,000.00	0	1,162.76	70
J-16	1,000.00	0	1,162.77	70
J-17	1,000.00	0	1,162.80	70
J-18	1,000.00	37	1,157.89	68
J-19	1,000.00	0	1,162.88	70
J-20	1,000.00	68	1,146.34	63
J-21	1,000.00	0	1,163.15	71
J-22	1,000.00	0	1,163.26	71
J-23	1,000.00	0	1,163.26	71
J-24	1,000.00	0	1,163.43	71
J-25	1,000.00	0	1,163.01	71
J-26	1,000.00	0	1,163.01	71
J-27	1,000.00	0	1,162.98	71
J-28	1,000.00	0	1,162.98	71
J-29	1,000.00	0	1,162.94	70
J-30	1,000.00	0	1,162.85	70
J-32	1,000.00	56	1,151.90	66
J-33	1,000.00	0	1,162.69	70
J-34	1,000.00	0	1,162.10	70
J-35	1,000.00	0	1,162.10	70
J-36	1,000.00	0	1,161.73	70
J-37	1,000.00	350	1,138.24	60
J-38	1,000.00	0	1,161.73	70
J-39	1,000.00	0	1,161.73	70
J-40	1,000.00	0	1,162.73	70
J-41	1,000.00	0	1,162.73	70
J-42	1,000.00	0	1,162.73	70
J-43	1,000.00	0	1,162.81	70
J-44	1,000.00	0	1,162.81	70
J-45	1,000.00	0	1,162.82	70
J-46	1,000.00	0	1,162.82	70
J-47	1,000.00	525	1,119.16	52
J-48	1,000.00	0	1,163.36	71
J-49	1,000.00	0	1,162.69	70
J-50	1,000.00	0	1,162.69	70
J-51	1,000.00	0	1,162.29	70
J-52	1,000.00	0	1,162.27	70
J-53	1,000.00	21	1,162.26	70
J-54	1,000.00	0	1,162.29	70
`	1,000.00	0	1,162.69	70

FlexTable: Pipe Table

Length (Scaled) (ft)	Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	P-3	`	J-3	2.0	130.0	35	3.57
76	P-4(1)	`	J-49	8.0	130.0	-35	0.22
19	P-4(2)	J-49	J-2	8.0	130.0	-35	0.22
16	P-5	J-2	J-4	4.0	130.0	0	0.00
109	P-6	J-2	J-5	8.0	130.0	-35	0.22
309	P-8	J-5	J-7	8.0	130.0	69	0.44
117	P-9	J-7	J-8	3.0	130.0	271	12.31
86	P-10	J-7	J-9	8.0	130.0	-203	1.29
185	P-14	J-9	J-13	6.0	130.0	0	0.00
18	P-15	J-9	J-14	8.0	130.0	-203	1.29
229	P-16	J-14	J-15	4.0	130.0	0	0.00
15	P-17	J-14	J-16	8.0	130.0	-203	1.29
17	P-18	J-16	H-1	6.0	130.0	0	0.00
26	P-19	J-16	J-17	8.0	130.0	-203	1.29
138	P-20	J-17	J-18	2.0	130.0	37	3.81
68	P-21	J-17	J-19	8.0	130.0	-240	1.53
155	P-22	J-19	J-20	2.0	130.0	68	6.92
130	P-23	J-19	J-21	8.0	130.0	-308	1.96
18	P-24	J-21	H-2	6.0	130.0	0	0.00
52	P-25	J-21	J-22	8.0	130.0	-308	1.96
164	P-26	J-22	J-23	4.0	130.0	0	0.00
81	P-27	J-22	J-24	8.0	130.0	-308	1.96
111	P-28	J-24	J-25	8.0	130.0	427	2.73
74	P-29	J-25	J-26	4.0	130.0	0	0.00
6	P-30	J-25	J-27	8.0	130.0	427	2.73
35	P-31	J-27	J-28	4.0	130.0	0	0.00
12	P-32	J-27	J-29	8.0	130.0	427	2.73
17	P-33	J-29	H-3	6.0	130.0	0	0.00
22	P-34	J-29	J-30	8.0	130.0	427	2.73
144	P-36	J-30	J-32	2.0	130.0	56	5.75
26	P-37	R-1	PMP-1	120.0	130.0	0	0.00
29	P-39	PMP-1	J-33	12.0	130.0	0	0.00
114	P-40	J-33	`	8.0	130.0	0	0.00
29	P-41	R-2	PMP-2	120.0	130.0	735	0.02
30	P-42	PMP-2	J-24	12.0	130.0	735	2.08
104	P-44	J-34	J-35	4.0	130.0	0	0.00
141	P-45	J-34	J-36	8.0	130.0	350	2.24
76	P-46	J-36	J-37	3.0	130.0	350	15.90
8	P-47	J-36	J-38	8.0	130.0	0	0.00
18	P-48	J-38	H-4	6.0	130.0	0	0.00
58	P-49	J-38	J-39	8.0	130.0	0	0.00
194	P-50A	J-51	J-30	8.0	130.0	-371	2.37
8	P-50B	J-52	J-51	8.0	130.0	-371	2.37
63	P-50C	J-34	J-52	8.0	130.0	-350	2.24
15	P-51	R-3	PMP-3	120.0	130.0	0	0.00
15	P-52	PMP-3	J-39	12.0	130.0	0	0.00
103	P-53	J-5	J-40	8.0	130.0	-104	0.66
15	P-54	J-40	H-5	6.0	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
18	P-55	J-40	J-41	8.0	130.0	-104	0.66
129	P-56	J-41	J-42	4.0	130.0	0	0.00
284	P-57	J-41	J-43	8.0	130.0	-104	0.66
94	P-58	J-43	J-44	4.0	130.0	0	0.00
26	P-59	J-43	J-45	8.0	130.0	-104	0.66
16	P-60	J-45	H-6	6.0	130.0	0	0.00
8	P-61	J-45	J-46	8.0	130.0	-104	0.66
66	P-62	J-46	J-47	3.0	130.0	525	23.85
70	P-63	J-46	J-48	8.0	130.0	-629	4.01
13	P-64	R-4	PMP-4	120.0	130.0	629	0.02
14	P-65	PMP-4	J-48	12.0	130.0	629	1.78
17	P-66	J-49	J-50	2.0	130.0	0	0.00
53	P-67	J-51	J-54	6.0	130.0	0	0.00
67	P-68	J-52	J-53	6.0	130.0	21	0.23

3) Max Day + Fire Flow Demand Results

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-2	1,000.00	0	1,165.14	71
J-3	1,000.00	0	1,165.14	71
J-4	1,000.00	0	1,165.14	71
J-5	1,000.00	0	1,165.14	71
J-7	1,000.00	0	1,165.14	71
J-8	1,000.00	155	1,157.09	68
J-9	1,000.00	0	1,165.19	71
J-13	1,000.00	0	1,165.19	71
J-14	1,000.00	0	1,165.20	71
J-15	1,000.00	0	1,165.20	71
J-16	1,000.00	0	1,165.21	71
J-17	1,000.00	0	1,165.22	71
J-18	1,000.00	21	1,163.48	71
J-19	1,000.00	0	1,165.27	72
J-20	1,000.00	39	1,159.40	69
J-21	1,000.00	0	1,165.41	72
J-22	1,000.00	0	1,165.46	72
J-23	1,000.00	0	1,165.46	72
J-24	1,000.00	0	1,165.55	72
J-25	1,000.00	0	1,165.40	72
J-26	1,000.00	0	1,165.40	72
J-27	1,000.00	0	1,165.39	72
J-28	1,000.00	0	1,165.39	72
J-29	1,000.00	0	1,165.38	72
J-30	1,000.00	0	1,165.35	72
J-32	1,000.00	33	1,161.37	70
J-33	1,000.00	0	1,165.14	71
J-34	1,000.00	0	1,165.08	71
J-35	1,000.00	0	1,165.08	71
J-36	1,000.00	0	1,164.95	71
J-37	1,000.00	200	1,156.62	68
J-38	1,000.00	0	1,164.95	71
J-39	1,000.00	0	1,164.95	71
J-40	1,000.00	0	1,165.14	71
J-41	1,000.00	0	1,165.14	71
J-42	1,000.00	0	1,165.14	71
J-43	1,000.00	0	1,165.14	71
J-44	1,000.00	0	1,165.14	71
J-45	1,000.00	0	1,165.14	71
J-46	1,000.00	0	1,165.14	71
J-47	1,000.00	300	1,149.66	65
J-48	1,000.00	0	1,165.30	72
J-49	1,000.00	0	1,165.14	71
J-50	1,000.00	20	1,164.95	71
J-51	1,000.00	0	1,165.15	71
J-52	1,000.00	0	1,165.14	71
J-53	1,000.00	12	1,165.14	71
J-54	1,000.00	0	1,165.15	71
`	1,000.00	0	1,165.14	71

FlexTable: Pipe Table

Length (Scaled) (ft)	Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
17	P-3	`	J-3	2.0	130.0	0	0.00
76	P-4(1)	`	J-49	8.0	130.0	0	0.00
19	P-4(2)	J-49	J-2	8.0	130.0	-20	0.13
16	P-5	J-2	J-4	4.0	130.0	0	0.00
109	P-6	J-2	J-5	8.0	130.0	-20	0.13
309	P-8	J-5	J-7	8.0	130.0	0	0.00
117	P-9	J-7	J-8	3.0	130.0	155	7.03
86	P-10	J-7	J-9	8.0	130.0	-155	0.99
185	P-14	J-9	J-13	6.0	130.0	0	0.00
18	P-15	J-9	J-14	8.0	130.0	-155	0.99
229	P-16	J-14	J-15	4.0	130.0	0	0.00
15	P-17	J-14	J-16	8.0	130.0	-155	0.99
17	P-18	J-16	H-1	6.0	130.0	0	0.00
26	P-19	J-16	J-17	8.0	130.0	-155	0.99
138	P-20	J-17	J-18	2.0	130.0	21	2.18
68	P-21	J-17	J-19	8.0	130.0	-176	1.12
155	P-22	J-19	J-20	2.0	130.0	39	3.96
130	P-23	J-19	J-21	8.0	130.0	-215	1.37
18	P-24	J-21	H-2	6.0	130.0	0	0.00
52	P-25	J-21	J-22	8.0	130.0	-215	1.37
164	P-26	J-22	J-23	4.0	130.0	0	0.00
81	P-27	J-22	J-24	8.0	130.0	-215	1.37
111	P-28	J-24	J-25	8.0	130.0	245	1.56
74	P-29	J-25	J-26	4.0	130.0	0	0.00
6	P-30	J-25	J-27	8.0	130.0	245	1.56
35	P-31	J-27	J-28	4.0	130.0	0	0.00
12	P-32	J-27	J-29	8.0	130.0	245	1.56
17	P-33	J-29	H-3	6.0	130.0	0	0.00
22	P-34	J-29	J-30	8.0	130.0	245	1.56
144	P-36	J-30	J-32	2.0	130.0	33	3.33
26	P-37	R-1	PMP-1	120.0	130.0	0	0.00
29	P-39	PMP-1	J-33	12.0	130.0	0	0.00
114	P-40	J-33	`	8.0	130.0	0	0.00
29	P-41	R-2	PMP-2	120.0	130.0	459	0.01
30	P-42	PMP-2	J-24	12.0	130.0	459	1.30
104	P-44	J-34	J-35	4.0	130.0	0	0.00
141	P-45	J-34	J-36	8.0	130.0	200	1.28
76	P-46	J-36	J-37	3.0	130.0	200	9.08
8	P-47	J-36	J-38	8.0	130.0	0	0.00
18	P-48	J-38	H-4	6.0	130.0	0	0.00
58	P-49	J-38	J-39	8.0	130.0	0	0.00
194	P-50A	J-51	J-30	8.0	130.0	-212	1.35
8	P-50B	J-52	J-51	8.0	130.0	-212	1.35
63	P-50C	J-34	J-52	8.0	130.0	-200	1.28
15	P-51	R-3	PMP-3	120.0	130.0	0	0.00
15	P-52	PMP-3	J-39	12.0	130.0	0	0.00
103	P-53	J-5	J-40	8.0	130.0	-20	0.13
15	P-54	J-40	H-5	6.0	130.0	0	0.00

FlexTable: Pipe Table

Length (Scaled) (ft)	Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
18	P-55	J-40	J-41	8.0	130.0	-20	0.13
129	P-56	J-41	J-42	4.0	130.0	0	0.00
284	P-57	J-41	J-43	8.0	130.0	-20	0.13
94	P-58	J-43	J-44	4.0	130.0	0	0.00
26	P-59	J-43	J-45	8.0	130.0	-20	0.13
16	P-60	J-45	H-6	6.0	130.0	0	0.00
8	P-61	J-45	J-46	8.0	130.0	-20	0.13
66	P-62	J-46	J-47	3.0	130.0	300	13.63
70	P-63	J-46	J-48	8.0	130.0	-321	2.05
13	P-64	R-4	PMP-4	120.0	130.0	321	0.01
14	P-65	PMP-4	J-48	12.0	130.0	321	0.91
17	P-66	J-49	J-50	2.0	130.0	20	2.04
53	P-67	J-51	J-54	6.0	130.0	0	0.00
67	P-68	J-52	J-53	6.0	130.0	12	0.13

FlexTable: Hydrant Table

Label	Hydrant Status	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
H-1	Open	1,000.00	0	1,165.21	71
H-2	Open	1,000.00	0	1,165.41	72
H-3	Open	1,000.00	0	1,165.38	72
H-4	Open	1,000.00	0	1,164.95	71
H-5	Open	1,000.00	0	1,165.14	71
H-6	Open	1,000.00	0	1,165.14	71

4) Initial Service Line Design Flow Results

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,000.00	0	1,166.03	72
J-2	1,000.00	0	1,166.03	72
J-3	1,000.00	10	1,165.98	72
J-4	1,000.00	0	1,166.03	72
J-5	1,000.00	0	1,166.03	72
J-7	1,000.00	0	1,166.07	72
J-8	1,000.00	77	1,163.84	71
J-9	1,000.00	0	1,166.12	72
J-13	1,000.00	0	1,166.12	72
J-14	1,000.00	0	1,166.13	72
J-15	1,000.00	0	1,166.13	72
J-16	1,000.00	0	1,166.14	72
J-17	1,000.00	0	1,166.15	72
J-18	1,000.00	11	1,165.67	72
J-19	1,000.00	0	1,166.19	72
J-20	1,000.00	19	1,164.57	71
J-21	1,000.00	0	1,166.29	72
J-22	1,000.00	0	1,166.33	72
J-23	1,000.00	0	1,166.33	72
J-24	1,000.00	0	1,166.39	72
J-25	1,000.00	0	1,166.34	72
J-26	1,000.00	0	1,166.34	72
J-27	1,000.00	0	1,166.34	72
J-28	1,000.00	0	1,166.34	72
J-29	1,000.00	0	1,166.34	72
J-30	1,000.00	0	1,166.33	72
J-32	1,020.00	16	1,165.23	63
J-33	1,000.00	0	1,166.03	72
J-34	1,000.00	0	1,166.26	72
J-35	1,000.00	0	1,166.26	72
J-36	1,000.00	0	1,166.22	72
J-37	1,000.00	100	1,163.91	71
J-38	1,000.00	0	1,166.22	72
J-39	1,000.00	0	1,166.22	72
J-40	1,000.00	0	1,166.02	72
J-41	1,000.00	0	1,166.02	72
J-42	1,000.00	0	1,166.02	72
J-43	1,000.00	0	1,165.99	72
J-44	1,000.00	0	1,165.99	72
J-45	1,000.00	0	1,165.99	72
J-46	1,000.00	0	1,165.99	72
J-47	1,000.00	150	1,161.70	70
J-48	1,000.00	0	1,166.00	72
J-49	1,000.00	0	1,166.03	72
J-50	1,000.00	0	1,166.03	72
J-51	1,000.00	0	1,166.27	72
J-52	1,000.00	0	1,166.27	72
J-53	1,000.00	6	1,166.27	72
J-54	1,000.00	0	1,166.27	72