

**PHILLIP ROAD SITE  
RECYCLED WATER MASTER PLAN**

**6382 PHILLIP ROAD  
ROSEVILLE, CALIFORNIA  
(PLANNING APPLICATION 24-1010)**

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### **Exhibit:**

- EXHIBIT 1**    PROJECT LOCATION MAP
- EXHIBIT 2**    MASTER PHASING PLAN
- EXHIBIT 3**    TENTATIVE MAP
- EXHIBIT 4**    RECYCLED WATER SITE PLAN

**Appendices:**

**APPENDIX A** TECHNICAL MEMORANDUM – ROSEVILLE INDUSTRIAL PARK RECYCLED WATER STUDY

**APPENDIX B** RECYCLED WATER PLAN – FUTURE ONSITE MODEL RESULTS

## I. INTRODUCTION

The Phillip Road Site (Proposed Project) Recycled Water Master Plan (Plan) has been prepared at the request of Panattoni Development Company, Inc. (PDC) to meet the City of Roseville's (City) utility demand planning requirements and in support of the Phillip Road Site environmental review process.

Proposed land uses, tributary areas, irrigation generation rates, and peaking factors are used to size the recycled water facilities for the Proposed Project.

The purposes of this Recycled Water Plan Master Plan are as follows:

- Estimate the expected recycled water system demand for the Proposed Project during Near-Term (Phases 1 and 2) and complete build out.
- Size recycled water system main pipelines for the Proposed Project.

### I.A. PROJECT VICINITY AND PHASING:

The Proposed Project is located in the northwest edge of the City of Roseville as shown on **Exhibit 1 – Project Location Plan**. Pleasant Grove Creek and the Pleasant Grove Bypass Channel dissect the Proposed Project.

The Proposed Project will advance in multiple phases. It is expected to be completed in 6 phases, see **Exhibit 2 – Master Phasing Plan**. The first 4 phases are intended to be single family residences, the fifth phase is higher density residential, and the final stage is a combination of commercial and light industrial.

The first and second phases will be located in the easterly half of the project site located south of the Pleasant Grove Bypass Channel. The first phase will include the northerly half of this area and include the main road through the center of the project site, stopping at the southerly boundary of the bypass channel. Phase 1 will construct a new 12" recycled water line along Blue Oaks Boulevard from Westbrook Boulevard to Street A. The recycled water line will then be constructed along Street A toward the southerly boundary of the bypass channel.

The third and fourth phases are located to the north of Pleasant Grove Bypass Channel. The third phase will include construction of a bridge crossing the channel with a recycled water line attached to the bridge to serve the park on the north side of the development.

The fifth phase will be high density residential, located along Blue Oaks Boulevard on the easterly half of the project site.

The final phase will include the commercial and light industrial buildings located on the westerly portion of the site, south of the Pleasant Grove Bypass Channel.

**I.B. PRE-DEVELOPMENT CONDITIONS:**

The Proposed Project site is an undeveloped agricultural parcel that was originally planted during the 1950's, maintained in rice production through the 1990's, and has been planted in irrigated crops until the present.

The Pleasant Grove Creek Bypass Channel was constructed south of Pleasant Grove Creek during the summer of 2019 to augment flood mitigation/control in this area.

A 10-foot to 15-foot escarpment runs in a southeasterly direction from the Phillip Road [Site](#) entrance of the property's southern portion of the site to its eastern boundary, demarcating an elevation change between the southern and norther portions of the southern portion of the site.

The portion of the property north of Pleasant Grove Creek is also currently active cultivation and irrigated with water from a long-established irrigation canal along the northern boundary.

**I.C. PROPOSED PROJECT AREA DEVELOPMENT OPPORTUNITIES & CONSTRAINTS:**

The Proposed Project is influenced by several factors, including the physical setting, land use, circulation considerations, and public policies. Two significant aspects that influence the development of the Proposed Project are described below and depicted on **Exhibit 3 – Tentative Map**.

➤ PLACER PARKWAY

The proposed Placer Parkway will bisect the northerly portion of the Proposed Project Area.

➤ PLEASANT GROVE CREEK AND PLEASANT GROVE CREEK BYPASS CHANNEL

The existing Pleasant Grove Creek and newly constructed Pleasant Grove Creek Bypass Channel divides the Proposed Project. A bridge will be needed in the future to access the area to the north when it is developed.

**II. RECYCLED WATER MASTER PLAN PROCESS**

The Recycled Water Master Plan is used to determine the demand and distribution pipelines for the Proposed Project. The typical methodology used in this Master Plan is based on the City of Roseville's Environmental Utilities Department. The current City of Roseville Design Standards edition is 2025.

The Project area is surrounded by three previous Specific Plans: 1) West Roseville Specific Plan (WRSP), 2) Creekview Specific Plan (CSP), and 3) Amoruso Ranch Specific Plan (ARSP). The criteria used for each of these specific plans is the same as that used to analyze the Proposed Project.

### III. PROJECT IRRIGATION DEMANDS

The projected irrigation demands are based on the criteria used in the above mentioned master plans. The criteria used the water usage as calculated in the Potable Water Master Plan and land uses shown per **Exhibit 3 – Tentative Map**.

#### III.A. BASE WATER DEMAND PROJECTIONS

The Potable Water Study is used to determine the demand and distribution pipelines for the Proposed Project. The methodology being used in this Master Plan is based on the City of Roseville’s Environmental Utilities Department. The current City of Roseville Design Standards (January 2025) were also utilized.

The Proposed Project will consist of Light Industrial (M1), Low Density Residential (LDR), High Density Residential (HDR), Open Space (OS) and Public/Quasi Public (P/QP) land uses. The Proposed Project land uses are shown on **Exhibit 3 – Tentative Map**.

The average day demand for land use is based on the methods used in the City of Roseville Design Standards (January 2025) as shown in **Table 1 – City of Roseville Demand Factors**.

**Table 1 – City of Roseville Demand Factors**

Land Use Category		Average Day Unit Water Demand Factors
Residential	LDR (<3.5 DU's/Ac)	<b>728 gpd/DU</b>
	LDR (3.5 to 5.0 DU's/Ac)	<b>600 gpd/DU</b>
	LMDR (>5.0 to 6.0 DU's/Ac)	<b>521 gpd/DU</b>
	LMDR (>6.0 to 8.0 DU's/Ac)	<b>430 gpd/DU</b>
	MDR (>8.0 to 12.0 DU's/Ac)	<b>323 gpd/DU</b>
	HDR (>12.0 to 16.0 DU's/Ac)	<b>288 gpd/DU</b>
	HDR (>16.0 DU's/Ac)	<b>177 gpd/DU</b>
Commercial/Other	Commercial/Retail	<b>2,598 gpd/ac</b>
	Business Professional	<b>2,598 gpd/ac</b>
	Light Industrial	<b>2,598 gpd/ac</b>
	Industrial	<b>2,562 gpd/ac</b>
	Railroad Yard	<b>109 gpd/ac</b>
	Elementary Schools	<b>3,454 gpd/ac</b>
	High Schools	<b>4,068 gpd/ac</b>
	Public (Fire Station, etc)	<b>1,780 gpd/ac</b>
	Park/Recreation	<b>2,988 gpd/ac</b>
	Open Space/Major ROW	-
	Vacant/Unassigned	-

\*Factors assume a 30% F.A.R. 50% F.A.R. for senior living.

The estimated potable water demand is based on land use. **Table 2 – Potable Water Demand** - shows the potable water demand.

Parcel LL-5, as shown in **Exhibit 3 – Tentative Map** is assumed to have a heavy water user tenant, 480,000 gpd peak flow added on the normal peak flow based on city flow demand as shown. The entire demand will be served by the recycled water system. The city has stated that the recycled water

system will have the availability and capacity to supply the proposed tenant with 480,000 gpd after the completion of offsite improvements as discussed in Section IV.B.

**Table 2 - Potable Water Demand**

Location on Site	Dwelling Units (DU)	Water Demand Area (ac)	Land Use	Average Day Unit Water Demand Factor <sup>(a)</sup>	Unit-Factor Units	Average Day Demand (gpd) <sup>(b)</sup>	Annual Demand (ac-ft/yr)	Recycled Water Demand (ac-ft/yr) <sup>(c)</sup>	Water Conservation Savings (ac-ft/yr) <sup>(d)</sup>	Peaking Factor <sup>(e)</sup>	Maximum Day Demand (gpd)	Peaking Factor <sup>(f)</sup>	Peak Flow (gpd) <sup>(g)</sup>	Design Flow (gpm)	Design Flow+2% (gpm)
LL 1	-	4.139	CC, Community Commercial	2,598	gpd/acre	10,753	12.0	4.5	2.65	2.0	21,506	1.7	36,561	25	26
LL 2	-	3.774	CC, Community Commercial	2,598	gpd/acre	9,805	11.0	4.1	2.41	2.0	19,610	1.7	33,336	23	24
LL 3	-	9.180	M1, Light Industrial	2,598	gpd/acre	23,850	26.7	10.0	5.87	2.0	47,699	1.7	81,089	56	57
LL 4	-	1.033	PQP, Public Quasi Public	1,780	gpd/acre	1,839	2.1	1.9	0.66	2.0	3,677	1.7	6,252	4	4
LL 5	-	8.173	M1, Light Industrial <sup>(h)</sup>	2,598	gpd/acre	21,233	23.8	546.6	5.23	2.0	42,467	1.7	72,194	50	51
LL 6	-	7.588	M1, Light Industrial	2,598	gpd/acre	19,714	22.1	8.2	4.85	2.0	39,427	1.7	67,026	47	47
LL 7	-	7.252	M1, Light Industrial	2,598	gpd/acre	18,841	21.1	7.9	4.64	2.0	37,681	1.7	64,058	44	45
LL 8	-	7.508	M1, Light Industrial	2,598	gpd/acre	19,506	21.9	8.2	4.80	2.0	39,012	1.7	66,320	46	47
LL 9	-	7.494	M1, Light Industrial	2,598	gpd/acre	19,469	21.8	8.1	4.79	2.0	38,939	1.7	66,196	46	47
LL 10	-	8.949	M1, Light Industrial	2,598	gpd/acre	23,250	26.0	9.7	5.72	2.0	46,499	1.7	79,048	55	56
LL 11	-	0.396	PQP, Public Quasi Public	1,780	gpd/acre	705	0.8	0.7	0.25	2.0	1,410	1.7	2,397	2	2
LL 12	162	25.598	LMDR (>6 to 8.0 DU's/AC), Low Density Residential	430	gpd/DU	69,660	78.0	0.0	16.46	2.0	139,320	1.7	236,844	164	168
LL 13	156	23.604	LMDR (>6 to 8.0 DU's/AC), Low Density Residential	430	gpd/DU	67,080	75.1	0.0	15.85	2.0	134,160	1.7	228,072	158	162
LL 14	-	3.010	PR, Park	2,988	gpd/acre	8,994	10.1	9.8	1.92	2.0	17,988	1.7	30,579	21	22
LL 15	135	5.859	HDR (>16 DU's/AC), High Density Residential	177	gpd/DU	23,895	26.8	8.5	3.75	2.0	47,790	1.7	81,243	56	58
LL 16	-	13.878	OS, Open Space	-	-	-	-	0.0	8.88	-	-	-	-	-	-
LL 17	105	24.257	LDR (>3.5 to 5.0 DU's/AC), Low Density Residential	600	gpd/DU	63,000	70.6	0.0	10.67	2.0	126,000	1.7	214,200	149	152
LL 18	-	1.904	PR, Park	2,988	gpd/acre	5,689	6.4	6.2	1.22	2.0	11,378	1.7	19,343	13	14
LL 19	106	20.714	LMDR (>5 to 6.0 DU's/AC), Low Density Residential	521	gpd/DU	55,226	61.9	0.0	10.77	2.0	110,452	1.7	187,768	130	133
LL 20	-	1.026	OS, Open Space	-	-	-	-	0.0	0.66	-	-	-	-	-	-
<b>Total</b>	<b>664</b>	<b>185.336</b>				<b>462,508</b>	<b>518.1</b>	<b>634.4</b>	<b>112.05</b>		<b>925,015</b>		<b>1,572,526</b>	<b>1,092</b>	<b>1,114</b>

(a) From Table of Section 8-6 of the City of Roseville Design Standards (January, 2025) (gpd/ac or gpd/du).  
 (b) Average Day Demand (gallons per day) = Water Demand Area x Average Day Demand Unit Flow Factor.  
 (c) Recycled Water Annual Demand from the Phillip Road [Site](#) Recycled Water Master Plan, Table 5.  
 (d) Water Conservation of Potable Water by Turf Reduction, Smart Controllers Recirculating Hot Water, Table 8, in the Water Conservation Plan  
 (e) Peaking factor from average day demand to maximum day demand per Section 8-7 of the City of Roseville Design Standards (January, 2025).  
 (f) Peaking factor from maximum day demand to peak hour demand per Section 8-7 of the City of Roseville Design Standards (January, 2025).  
 (g) Peak Hour Demand = Peaking Factor \* Maximum Day Demand.  
 (h) Assumes parcel LL-5 will contain a potential 40MW data center, adding approximately 480,000 gpd of peak demand flow to recycled water.

**III.B. IRRIGATION DEMAND PROJECTIONS**

The recycled water system will be used for the irrigation requirements of all the land uses, except low and medium density residential lots. Based on the criteria set forth by the previous master plans, irrigation is based on irrigated areas being planted in turf and irrigation amounts are based on evapotranspiration rates, rainfall and irrigation demand. **Table 3 – Typical Local Irrigation Demands** give a breakdown of monthly irrigation demand.

Table 3 – Typical Local Irrigation Demands				
Month	ET-Turf (inches)	Monthly Precipitation (inches)	Monthly Irrigation Demand (inches)	Monthly Irrigation Demand (feet)
January	0.88	3.57	0.0	0.00
February	1.36	3.24	0.0	0.00
March	2.48	2.45	0.6	0.04
April	3.76	1.52	3.3	0.27
May	4.96	0.71	5.7	0.48
June	6.16	0.24	8.0	0.67
July	6.8	0.02	9.2	0.77
August	5.84	0.04	8.0	0.67
September	4.48	0.24	5.8	0.48
October	2.96	0.97	2.8	0.24
November	1.28	1.68	0.0	0.00
Decemeber	0.8	3.63	0.0	0.00
Average	3.48	1.53	3.6	0.30
Total	41.76	18.31	43.4	3.62

Per Table 3, irrigation demand is assumed to be zero between November and February due to rainfall.

The irrigation water demand projections are based on an estimated surface area that will receive irrigation. The estimated areas are determined by applying a factor of irrigated surface area to each of the land use areas. The irrigated surface area factors are shown in **Table 4 – Irrigated Surface Area Factors**.

**Table 4 – Irrigated Surface Area Factors**

Land Use Category	Irrigated Surface Area Factor (% AC)
High Density Residential (HDR)	0.4
Commercial/Light Industrial	0.3
Public/Quasi Public	0.5
Park	0.9

The total irrigation demand is based on all irrigatable areas being turf with a typical sprinkler irrigation technique. This will produce a conservative estimate of irrigation demand. The Water Conservation Plan that accompanies this Master Plan will delve into different landscape materials and irrigation methods. **Table 5 - Recycled Water Demand** calculates the total water demand projection for the recycled water system.

**Table 5 - Recycled Water Demand**

Location on Site	Water Demand Area (ac)	Land Use	Irrigated Surface Area Factor (%)	Site Area Irrigated (ac) <sup>(b)</sup>	Annual Demand (ac-ft/yr) <sup>(c)</sup>	Average Day Demand (gpd)	Peaking Factor <sup>(d)</sup>	Peak Day Demand (gpd)	Peak Demand (gpm) <sup>(e)</sup>	Peaking Factor <sup>(f)</sup>	Data Center Demand (gpm) <sup>(g)</sup>	Operational Demand (gpm)	Operational Demand/Data Center + 2% (gpm)
LL 1	4.139	CC, Community Commercial	0.30	1.24	4.5	4,013	2.55	10,232	19	1.5	0	28	29
LL 2	3.774	CC, Community Commercial	0.30	1.13	4.1	3,659	2.55	9,330	17	1.5	0	26	26
LL 3	9.180	M1, Light Industrial	0.30	2.75	10.0	8,900	2.55	22,694	42	1.5	0	63	64
LL 4	1.033	PQP, Public Quasi Public	0.50	0.52	1.9	1,669	2.55	4,256	8	1.5	0	12	12
LL 5	8.173	M1, Light Industrial	0.30	2.45	546.6	487,923	2.55	20,205	37	1.5	333	56	391
LL 6	7.588	M1, Light Industrial	0.30	2.28	8.2	7,356	2.55	18,758	35	1.5	0	52	53
LL 7	7.252	M1, Light Industrial	0.30	2.18	7.9	7,030	2.55	17,928	33	1.5	0	50	51
LL 8	7.508	M1, Light Industrial	0.30	2.25	8.2	7,279	2.55	18,561	34	1.5	0	52	53
LL 9	7.494	M1, Light Industrial	0.30	2.25	8.1	7,265	2.55	18,526	34	1.5	0	51	52
LL 10	8.949	M1, Light Industrial	0.30	2.68	9.7	8,676	2.55	22,123	41	1.5	0	61	63
LL 11	0.396	PQP, Public Quasi Public	0.50	0.20	0.7	640	2.55	1,632	3	1.5	0	5	5
LL 12	25.598	LMDR (>6 to 8.0 DU's/AC), Low Density Residential	0.00										
LL 13	23.604	LMDR (>6 to 8.0 DU's/AC), Low Density Residential	0.00										
LL 14	3.010	PR, Park	0.90	2.71	9.8	8,754	2.55	22,323	41	1.5	0	62	63
LL 15	5.859	HDR (>16 DU's/AC), High Density Residential	0.40	2.34	8.5	7,573	2.55	19,312	36	1.5	0	54	55
LL 16	13.878	OS, Open Space	-										
LL 17	24.257	LDR (>3.5 to 5.0 DU's/AC), Low Density Residential	-					0	0			0	
LL 18	1.904	PR, Park	0.90	1.71	6.2	5,538	2.55	14,121	26	1.5	0	39	40
LL 19	20.714	LMDR (>5 to 6.0 DU's/AC), Low Density Residential	0.00										
LL 20	1.026	OS, Open Space	-										
<b>Total</b>	<b>185.336</b>			<b>26.70</b>	<b>634.4</b>	<b>566,274</b>		<b>219,999</b>	<b>407</b>		<b>333</b>	<b>611</b>	<b>957</b>

- (a) Irrigated Surface Area Factor per Table 4 of this Master Plan.
- (b) Site Area Irrigated = Water Demand Area \* Irrigated Surface Area Factor.
- (c) Annual Demand = Site Area Irrigated \* 3.62 ft (3.62 feet total irrigation demand per year, see Table 3 of this Master Plan)
- (d) Peaking factor = Maximum Monthly Irrigation Demand / Average Monthly Irrigation Demand
- (e) Peak Demand is the Peak Day Demand applied to 9 hours of the day.
- (f) Peak Factor to account for variations in irrigation systems.
- (g) Assumes LL-5 site will contain a potential 40MW Data Center, which adds approximately 480,000 gpd of peak flow (537.7 ac-ft/yr).

## IV. RECYCLED WATER SYSTEM INFRASTRUCTURE

### IV.A. SYSTEM DESCRIPTION:

The recycled water system is designed to serve the land uses as shown on **Exhibit 3 – Tentative Map**. The recycled water system, comprised of 10-inch, 8-inch and 6-inch pipes, have been designed to convey recycled water flows within the Proposed Project, **Exhibit 4 – Recycled Water Site Plan**.

The Proposed Project’s main transmission line connects to the proposed 12-inch pipe at the intersection of Blue Oaks Boulevard and Street A of the Proposed Project. The main line along Street A ranges from 10-inch pipe to 6-inch pipe. The 10-inch pipe will be installed to the service for Building D, then an 8-inch pipe to the service for Building E, and the rest of the main in Street A will be 6-inch pipe.

### IV.B. SYSTEM DESIGN CRITERIA:

The recycled water system will be operated and owned by the City of Roseville. The City is responsible for all maintenance and operations downstream including the water meters. Each individual property is responsible for all onsite maintenance and operations upstream of the water meter.

The City has established a set of design standards for the recycled water systems they will operate and maintain. Their goal is to maintain operations to all customers on a consistent basis. See **Table 6 – City Operational Criteria** for the City of Roseville Recycled Water Operational Criteria.

**TABLE 6**  
**City Operational Criteria**

Condition	Operation Value
Minimum Residual Pressure	50 psi
Maximum Residual Pressure	100 psi
Maximum Pipe Velocity	5.0 fps
Maximum Head Loss per 1,000 Feet of Pipe	5.0 ft

On September 25, 2025 the City completed the analysis of their recycled water system with updated supply and demands including the increased recycled water demands for the Phillip Road Site summarized in Section III of this report. In order to maintain the City’s Operational Criteria within Table 6, recycled water infrastructure will need to be constructed both before the Phillip Road Site is supplied and prior to City customers demand buildout. These improvements will require funding from

the developments. Phillip Road Site will need to pay for its fair share portion of the expansion of the recycled water system summarized in **Table 7 – Summary of Recycled Water Improvements** which are needed to support the Phillip Road Site recycle water demands.

**Table 7  
 Summary of Recycled Water Improvements**

Description	Timing Required	Constructed By
24-inch diameter pipeline located on Blue Oaks Boulevard between West Park Drive and Westbrook Boulevard	Prior to Phillip Road Site Supply	Phillip Road Site Developer
12-inch diameter pipeline located on Blue Oaks Boulevard between Westbrook Boulevard and the Phillip Road Site	Prior to Phillip Road Site Supply	Phillip Road Site Developer
24-inch diameter pipe parallel to the existing pipe between West Zone Pump Station and West Park Drive	Prior to Buildout of City Customers	City
30-inch diameter force main at Dry Creek Wastewater Treatment Plant (DCWWTP)	Prior to Buildout of City Customers	City
1 million gallon storage at DCWWTP	Prior to Buildout of City Customers	City
1 million gallon storage at West Zone Tank and Pump Station	Prior to Buildout of City Customers	City
Increase pumping capacity at the West Zone Tank and Pump Station	Prior to Buildout of City Customers	City

## V. RECYCLED WATER SUPPLY

The Proposed Project anticipates receiving a commitment for recycled water from the City for a minimum amount equal to sixty-nine percent (69%) of the average dry weather flow (ADWF) generated and conveyed by the Proposed Project to the Pleasant Grove Wastewater Treatment Plant. The Proposed Project (not including discharge from the Data Center) will generate an ADWF of 0.173 MGD and anticipates receiving a volume of recycled water 0.119 MGD from the City. See **Table 8 – Available Recycled Water Supply and Demand** for a summary of the recycled water supply.

**Table 8 - Available Recycled Water Supply and Demand**

Location	Sewer Location	Recycled Water Supply (ADWF) (MGD) <sup>(1)</sup>	Annual Recycled Water Supply (ac-ft/yr)	Adjusted Supply - 69% (ac-ft/yr)	Recycled Water Demand (ac-ft/yr)	RW Demand after Landscape area reduction (ac-ft/yr) <sup>(2)</sup>	RW Demand after Turf area reduction (ac-ft/yr) <sup>(3)</sup>	RW Demand after Smart Controllers (ac-ft/yr) <sup>(4)</sup>	Recycled Water Demand after Conservation (ac-ft/yr)	Difference (ac-ft/yr)
LL-1	Building A	0.0033	3.7	2.6	4.5	4.5	2.9	2.3	2.3	0.2
LL-2	Building B	0.0033	3.7	2.6	4.1	4.1	2.7	2.1	2.1	0.4
LL-3	Building C	0.0078	8.7	6.0	10.0	6.6	4.3	3.5	3.5	2.6
LL-4	Substation	0.0007	0.8	0.5	1.9	1.9	1.2	1.0	1.0	-0.4
LL-5	Building D	0.0069	7.7	5.3	8.9	5.9	3.8	3.1	3.1	2.3
LL-6	Building E	0.0064	7.2	4.9	8.2	5.5	3.6	2.9	2.9	2.1
LL-7	Building F	0.0062	6.9	4.8	7.9	5.3	3.4	2.7	2.7	2.1
LL-8	Building G	0.0064	7.2	4.9	8.2	5.4	3.5	2.8	2.8	2.1
LL-9	Building H	0.0064	7.2	4.9	8.1	5.4	3.5	2.8	2.8	2.1
LL-10	Building I	0.0076	8.5	5.9	9.7	6.5	4.2	3.4	3.4	2.5
LL-11	SS Lift Station	0.0003	0.3	0.2	0.7	0.7	0.5	0.4	0.4	-0.1
LL-12	Village 1	0.03	33.6	23.2						23.2
LL-13	Village 2	0.03	33.6	23.2						23.2
LL-14	Park				9.8	9.8	6.4	5.1	5.1	-5.1
LL-15	Res-Multi	0.0176	19.7	13.6	8.5	5.7	3.7	3.0	3.0	10.6
LL-16	Creek									
LL-17	Village 3	0.02	22.4	15.5						15.5
LL-18	Park North				6.2	6.2	4.0	3.2	3.2	-3.2
LL-19	Village 4	0.02	22.4	15.5	0.0					15.5
LL-20	Bike trail									
<b>Total</b>		<b>0.173</b>	<b>193.7</b>	<b>133.6</b>	<b>96.6</b>	<b>73.6</b>	<b>47.8</b>	<b>38.3</b>	<b>38.3</b>	<b>95.4</b>

(1) Recycled Water Supply is the wastewater created by the proposed uses per the Phillip Road Site Wastewater Master Plan.

(2) Irrigated surface area factor reduced from 30% to 20% for LI, and 40% to 27% for HDR.

(3) Turf area reduction by 50% in irrigated surface area, resulting in a 35% reduction in irrigation demand.

(4) Smart Controllers reduction irrigation amounts by an estimated 20%.

The recycled water supply shown in **Table 8 – Available Recycled Water Supply and Demand** was adjusted to show that only 69% of the original wastewater supply is available for the Recycled Water system.

The Proposed Project includes an option for a 40 MW data center. The data center will require a cooling system that utilizes recycled water. The cooling system produces a waste of 33% of the recycled water demand. The 33% waste is conveyed from the site by the sewer system and returned to the Recycled Water Supply. **Table 9 – Data Center Recycled Water Demand and Supply** shows the monthly water demand and waste that is returned to the Recycle Water Supply.

**TABLE 9  
 Data Center Recycled Water Demand and Supply**

Location	Cooling System Demand (MGD)	Monthly Recycled Water Demand (acre-feet/month)	Monthly Cooling System Waste (33% of Demand) (MGD)	Monthly Recycled Water Supply (acre-feet/month)
Data Center	0.480	44.8	0.160	14.8

A monthly comparison of recycled water supply and recycled water demand is shown in **Table 10 – Comparison of Recycled Water Demand & Recycled Water Supply**.

**TABLE 10**  
**Comparison of Recycled Water Demand & Recycled Water Supply**

Month	Recycle Water Demand (acre-feet)	Recycle Water Supply (acre-feet)	Surplus/Deficit Supply (acre-feet)	Supplemental Demand Required (Y/N)
January	0	11.1	+11.1	N
February	0	11.1	+11.1	N
March	1.1	11.1	+10.0	N
April	7.2	11.1	+3.9	N
May	12.8	11.1	-1.7	Y
June	17.9	11.1	-6.8	Y
July	20.6	11.1	-9.5	Y
August	17.9	11.1	-6.8	Y
September	12.8	11.1	-1.7	Y
October	6.4	11.1	+4.7	N
November	0	11.1	+11.1	N
December	0	11.1	+11.1	N
<b>Total</b>	<b>96.6</b>	<b>133.2</b>	<b>37.0</b>	

The proposed irrigation demand exceeds the proposed recycled water supplied by the wastewater systems of the development for five months. Therefore, water conservation measures are required to meet the recycled water demand. A Water Conservation Master plan looks into different opportunities to reduce water demand. The primary means of reducing water demand are reduction of turf and use of smart controllers. The reduction in turf will affect the residential land use areas (potable water) and the industrial land use areas (recycled water), while the irrigation controllers affect the parks, commercial and industrial land uses (recycled water). The City of Roseville assumes 30% of the industrial parcels will be landscaping, we are proposing to reduce that area to 20%. The irrigation demand the City of Roseville uses to estimate demand is based on turf, therefore we are also proposing that the landscaping for the industrial land uses will, at a maximum be 50% turf, resulting in a 35% reduction in irrigation demand (non-turf landscaping uses approximately 30% of the water as turf). The 20% reduction for the irrigation controllers will also be implemented. The results of the conservation are shown in **Table 11 – Comparison of Recycled Water Demand & Recycled Water Supply After Conservation.**

**TABLE 11**  
**Comparison of Recycled Water Demand & Recycled Water Supply After Conservation**

Month	Recycle Water Demand (acre-feet)	Recycle Water Demand after Conservation and Turf Reduction (acre-feet)	Recycle Water Supply (acre-feet)	Surplus/Deficit Supply (acre-feet)	Supplemental Demand Required (Y/N)
January	0	0	11.1	+11.1	N
February	0	0	11.1	+11.1	N
March	1.1	0.4	11.1	+10.7	N
April	7.2	2.9	11.1	+8.2	N
May	12.8	5.1	11.1	+6.0	N
June	17.9	7.1	11.1	+4.0	N
July	20.6	8.1	11.1	+3.0	N
August	17.9	7.1	11.1	+4.0	N
September	12.8	5.1	11.1	+6.0	N
October	6.4	2.5	11.1	+8.6	N
November	0	0	11.1	+11.1	N
December	0	0	11.1	+11.1	N
<b>Total</b>	<b>96.6</b>	<b>38.3</b>	<b>133.6</b>	<b>95.3</b>	

## VI. HYDRAULIC MODEL ANALYSIS

### VI.A. HYDRAULIC MODEL ANALYSIS CRITERIA:

The following procedure was used for the preliminary assumptions used for the modeling of the recycled water system proposed in the Proposed Project Recycled Water Master Plan:

- A Hazen Williams “C” factor of 130 was used for all pipes in the recycled water system.
- Steady state condition.
- Operation demand flows increased by 2% to account for system losses.
- Connection Pressure, 71 psi Near-Term and 62 psi Future scenarios per Woodard & Curran Technical Memorandum, dated December 8, 2021 (**Appendix A – Technical Memorandum – Roseville Industrial Park Recycled Water Study**).
- Minimum pressure of 50 psi at service connections.

- Velocity in pipes shall not exceed 5 fps.
- Minimum size is 6-inch pipe.
- Where pipe depth is unknown, assumed 4 feet depth to top of pipe.
- Project Datum (NAVD 88) = As-built Plans (NGVD 29) + (+/-) 2'
- Modeling was conducted using Bentley OpenFlows WaterCAD® 2024

#### VI.B. HYDRAULIC MODEL SCENARIOS:

The point of connection was modeled using a reservoir with a water surface height set above the assumed pipe elevation to create a constant pressure. The water surface height is the connection pressure supplied by Woodard & Curran (**Appendix A – Technical Memorandum – Roseville Industrial Park Recycled Water Study**). It is assumed that the existing system can supply the needed volume of water at the constant pressure.

The Woodard & Curran Memorandum determined two pressure conditions, one the near-term and future. The current Recycled Water system does not have the ability to supply the recycled water to the proposed project so only the future condition will be modeled.

- **Future:** For this scenario, Pleasant Grove Wastewater Treatment Plant (PGWWTP) has been upgraded to reflect future sewer flows from the developments in the area. Therefore, there would be no limits to available recycled water for the Phillip Road [Ssite](#) project.

#### VI.C. HYDRAULIC MODEL RESULTS:

The Future model node, pipe and network exhibits are shown in **Appendix B – Recycled Water Plan – Future Onsite Model Results**. Nodes were placed at the service points for each proposed building of the Proposed Project. The project slopes from south to north, therefore the lowest pressure occurs at the most southerly irrigation connection for the commercial/innovation parcels. The pressure calculated at this point of connection is 52-psi.

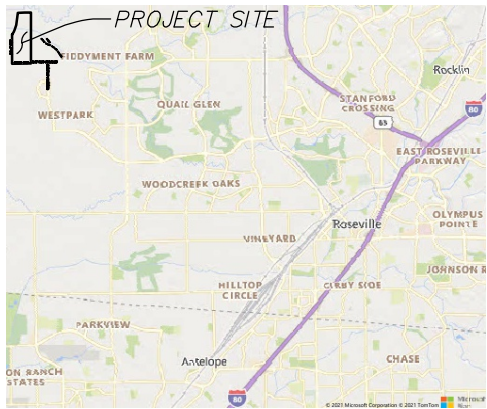
### VII. CONCLUSIONS

Based on the information contained within this Recycle Water Master Plan the following conclusions are noted:

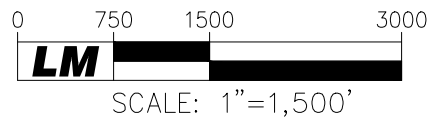
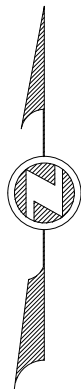
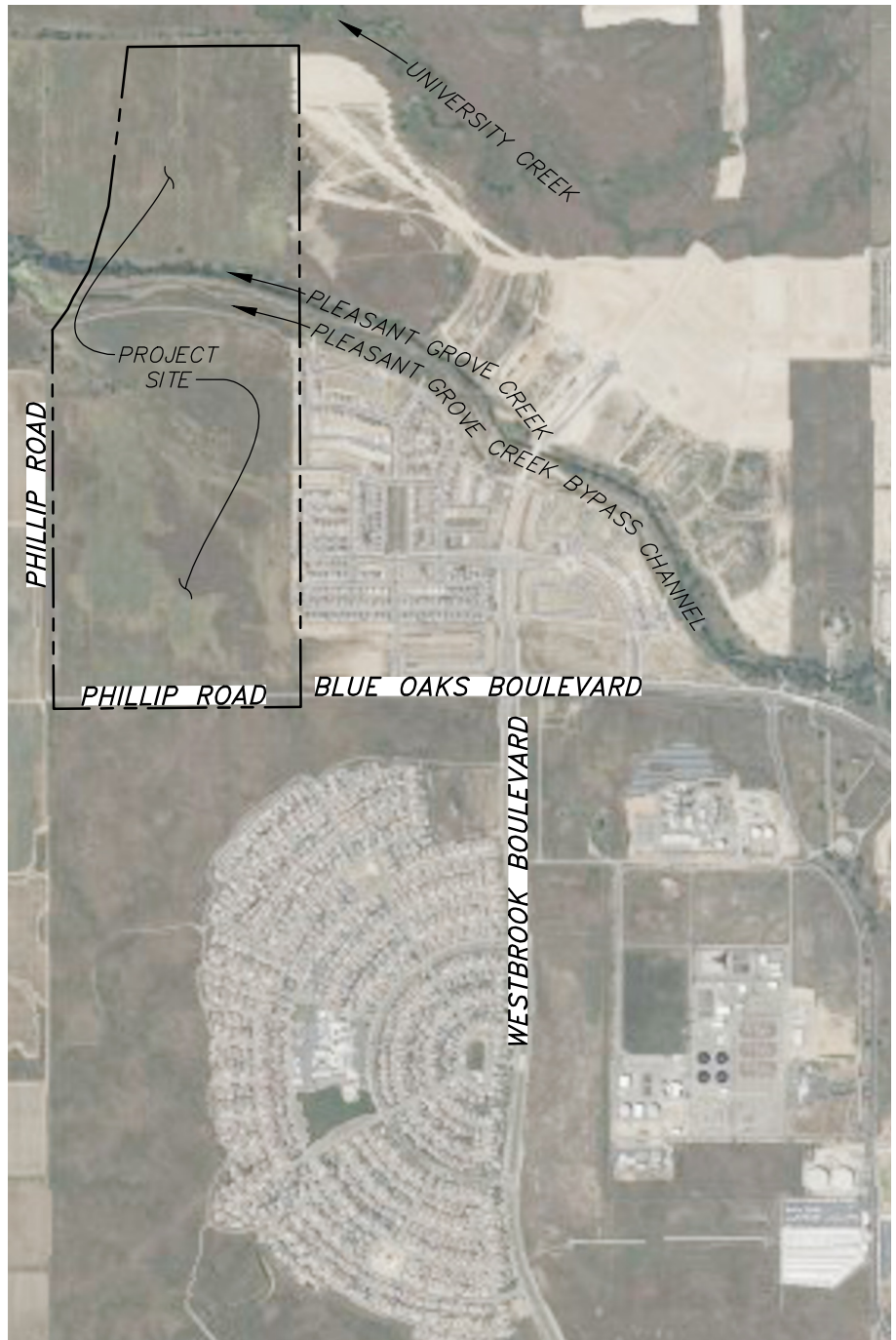
- The Future system meets the 50-psi pressure the points of connection (50 psi) for the connection at the sewer lift station.
- The maximum velocity within the network is 5 fps, located in the sections of pipes between the point of connection to the first service connection.
- As shown in Table 8, there are a four lots that do not produce enough waste to cover their recycled water demand. The lots include the parks, the electrical substation and sewer lift station. All these lots do not create much wastewater due to their proposed use. The shortage of recycled water for these four lots can be covered by the excess wastewater created by the residential portion of the project.

- The recycled water produced by the Proposed Project waste flows, as shown in the Wastewater Master Plan does not meet the requirement for the proposed Data Center therefore, alternative supply for Data Center recycled water demand will be needed.

# EXHIBITS

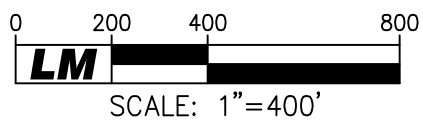
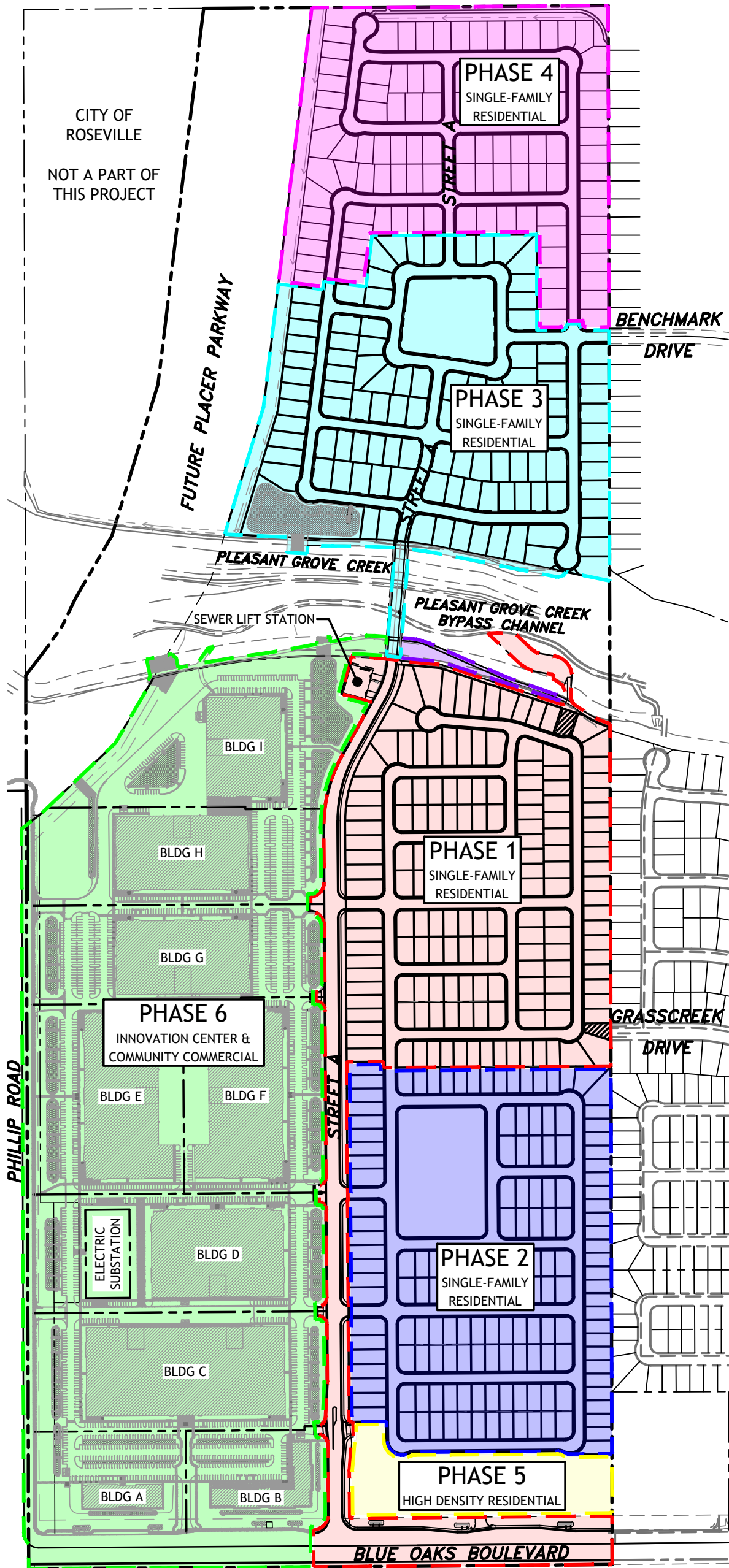


VICINITY



**EXHIBIT 1**  
**PROJECT LOCATION PLAN**  
 FOR  
**PHILLIP ROAD SITE**

CITY OF ROSEVILLE,  
 PLACER COUNTY, CALIFORNIA  
 SHEET 1 OF 1 SEPTEMBER 26, 2025



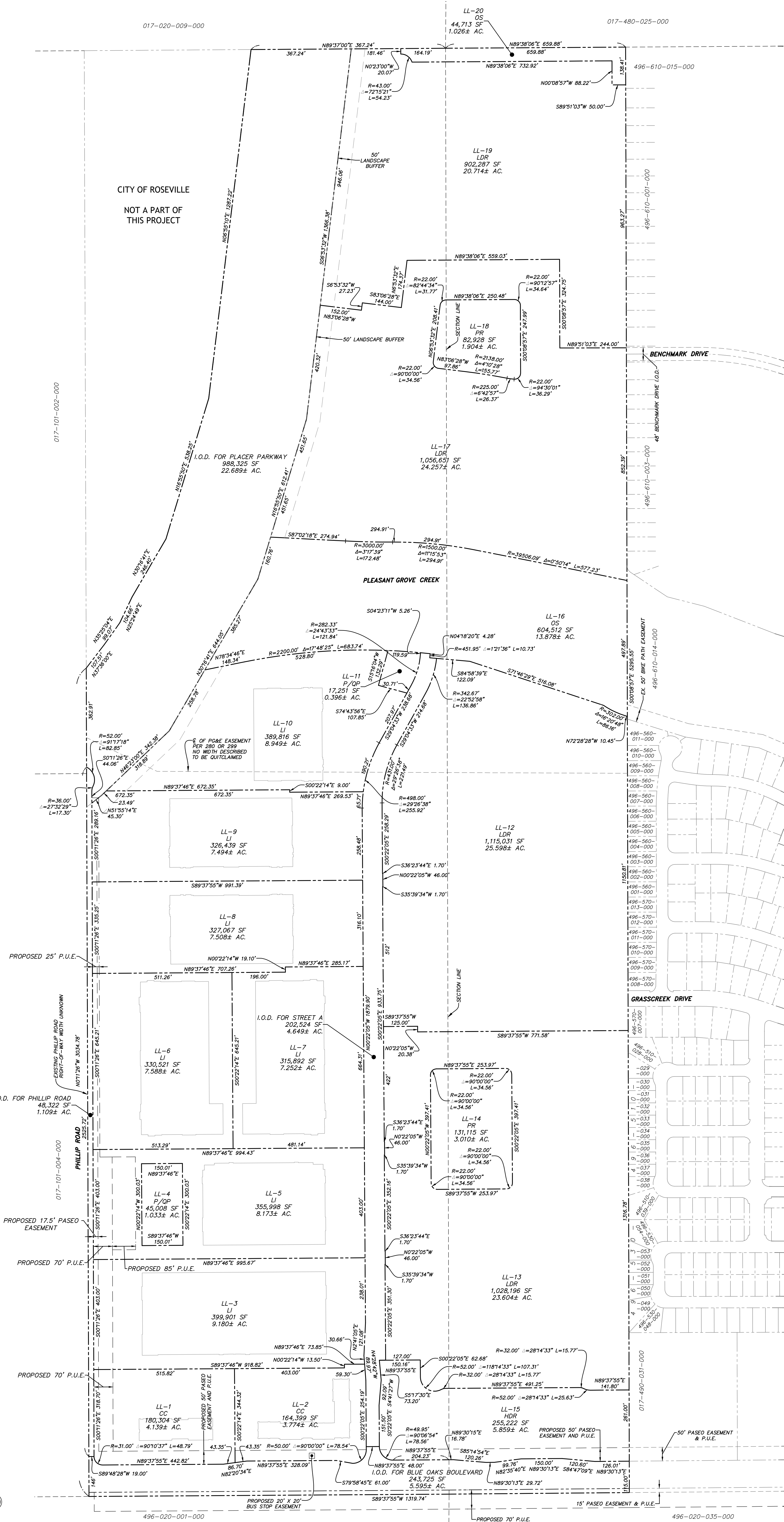
**EXHIBIT 2**  
**MASTER PHASING PLAN**  
 FOR  
**PHILLIP ROAD SITE**

LOCATED IN A PORTION OF THE WEST HALF OF THE WEST  
 HALF OF THE WEST HALF OF SECTION 14, AND A  
 PORTION OF THE EAST HALF OF THE EAST HALF OF THE  
 EAST HALF OF SECTION 15, TOWNSHIP 11 NORTH,  
 RANGE 5 EAST, MOUNT DIABLO MERIDIAN,  
 CITY OF ROSEVILLE, PLACER COUNTY, CALIFORNIA.  
 SHEET 1 OF 1

NOVEMBER 13, 2025

017-020-009-000

017-480-025-000



LOT	PROPOSED USE	GENERAL PLAN DESIGNATION	ZONING	GROSS ACRES±	DWELLING UNITS	DENSITY
LL-1	BUILDING A	CC	C-PD	4.139	-	-
LL-2	BUILDING B	CC	C-PD	3.774	-	-
LL-3	BUILDING C	LI	ITP-PD	9.180	-	-
LL-4	ROSEVILLE ELECTRIC SUBSTATION	P/OP	P/OP	1.033	-	-
LL-5	BUILDING D	LI	ITP-PD	8.173	-	-
LL-6	BUILDING E	LI	ITP-PD	7.588	-	-
LL-7	BUILDING F	LI	ITP-PD	7.252	-	-
LL-8	BUILDING G	LI	ITP-PD	7.508	-	-
LL-9	BUILDING H	LI	ITP-PD	7.494	-	-
LL-10	BUILDING I	LI	ITP-PD	8.949	-	-
LL-11	SANITARY SEWER LIFT STATION	P/OP	P/OP	0.396	-	-
LL-12	VILLAGE 1	LDR	RS/DS	25.598	162	6.33 DU/AC.
LL-13	VILLAGE 2	LDR	RS/DS	23.604	156	6.61 DU/AC.
LL-14	PARK (SOUTH)	PR	FR	3.010	-	-
LL-15	VILLAGE 5	HDR	R3	5.859	135	23.04 DU/AC.
LL-16	PLEASANT GROVE CREEK AND BYPASS CHANNEL	OS	OS	13.878	-	-
LL-17	VILLAGE 3	LDR	RS/DS	24.257	105	4.33 DU/AC.
LL-18	PARK (NORTH)	PR	FR	1.904	-	-
LL-19	VILLAGE 4	LDR	RS/DS	20.714	106	5.12 DU/AC.
LL-20	BIKE TRAIL	OS	OS	1.026	-	-
BLUE OAKS BOULEVARD				5.595	-	-
PHILLIP ROAD				1.109	-	-
STREET A				4.649	-	-
PLACER PARKWAY				22.689	-	-
<b>TOTAL</b>				<b>219.38</b>	<b>664</b>	

NOTE:  
SEE SHEET 4 FOR ADDITIONAL UTILITY EASEMENTS.

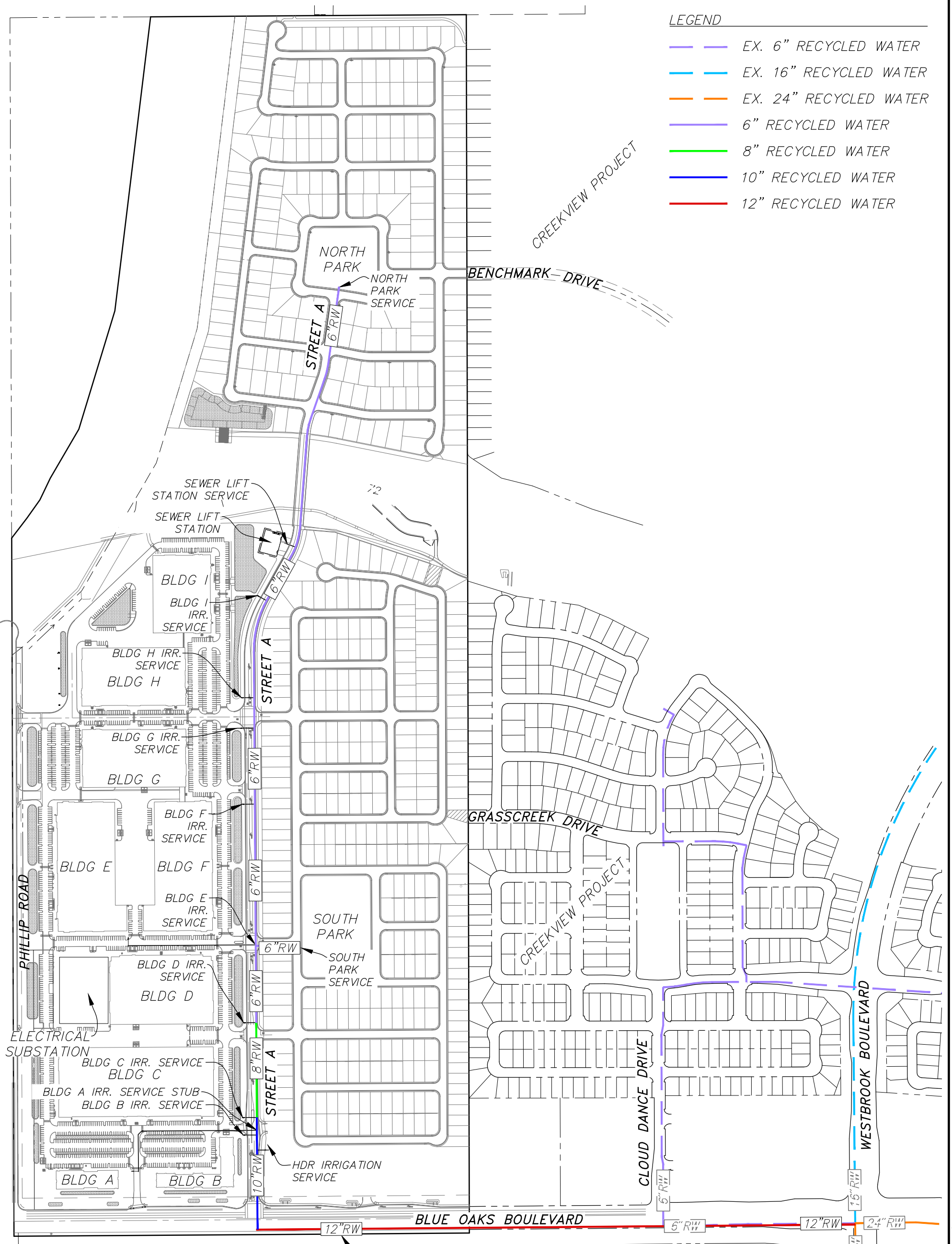


**LARGE LOT SUBDIVISION  
EXHIBIT 3  
TENTATIVE MAP  
FOR  
PHILLIP ROAD SITE**  
LOCATED IN A PORTION OF THE WEST HALF OF THE WEST  
HALF OF THE WEST HALF OF SECTION 14, AND A  
PORTION OF THE EAST HALF OF THE EAST HALF OF THE  
EAST HALF OF SECTION 15, TOWNSHIP 11 NORTH, RANGE  
5 EAST, MOUNT DIABLO MERIDIAN,  
CITY OF ROSEVILLE, PLACER COUNTY, CALIFORNIA.

**LM LAUGENOUR AND MEIKLE**  
CIVIL ENGINEERING - LAND SURVEYING - PLANNING  
608 COURT STREET, WOODLAND, CALIFORNIA 95698 - PHONE: (530) 662-1755  
P.O. BOX 828, WOODLAND, CALIFORNIA 95776 - FAX: (530) 662-4662

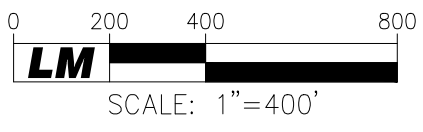
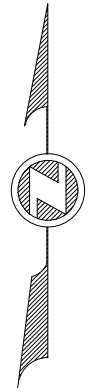
LEGEND

- EX. 6" RECYCLED WATER
- EX. 16" RECYCLED WATER
- EX. 24" RECYCLED WATER
- 6" RECYCLED WATER
- 8" RECYCLED WATER
- 10" RECYCLED WATER
- 12" RECYCLED WATER



LOCATION/ALIGNMENT OF FUTURE 12" RECYCLED WATER MAIN FOR ILLUSTRATION PURPOSES ONLY. CITY TO PROVIDE DIRECTION ON ALIGNMENT AND CONNECTION TO CITY RECYCLED WATER SYSTEM.

MODEL FOR THIS PROJECT ASSUMES THE 12" RECYCLED WATER CONNECTION TO CITY SYSTEM.



**EXHIBIT 4**

**RECYCLED WATER SITE PLAN**  
FOR  
**PHILLIP ROAD SITE**

CITY OF ROSEVILLE, PLACER COUNTY,  
CALIFORNIA  
SHEET 1 OF 1 NOVEMBER 13, 2025

**LM LAUGENOUR AND MEIKLE**  
CIVIL ENGINEERING · LAND SURVEYING · PLANNING  
608 COURT STREET, WOODLAND, CALIFORNIA 95695 · PHONE: (530) 662-1755  
P.O. BOX 828, WOODLAND, CALIFORNIA 95776 · FAX: (530) 662-4602

X:\Land Projects\4042-60-4\dwg\4042-60-4\_EXH\_Recycled Water Plan - Project.dwg

# **APPENDIX A**

## **TECHNICAL MEMORANDUM – ROSEVILLE INDUSTRIAL PARK RECYCLED WATER STUDY**

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# TECHNICAL MEMORANDUM

TO: Abbie Wertheim, Panattoni Development Company  
PREPARED BY: Chris van Lienden, PE  
REVIEWED BY: Dave Richardson, PE  
DATE: January 27, 2022  
RE: Roseville Industrial Park Recycled Water Study

---

## 1. BACKGROUND

Woodard & Curran was asked to analyze the impacts of the proposed Roseville Industrial Park development on the City of Roseville's recycled water system. The location of the proposed site is shown in Figure 1. The proposed development includes 9 non-residential areas on the parcel located at 6382 Phillip Rd (234 acres), and would receive recycled water from the City of Roseville's recycled water distribution system through a 24-inch and 6-inch pipeline on Westbrook Boulevard.

The purpose of this TM is to evaluate and document whether the City's recycled water model predicts that the City's recycled water system will have capacity to serve the proposed development.

## 2. MODEL ASSUMPTIONS

The City of Roseville's recycled water system will require upgrades to serve anticipated future customers. These upgrades are discussed in the City of Roseville's Recycled Water Systems Evaluation Report<sup>1</sup> (2016 RW Systems Evaluation) and include additional tanks at the West Roseville Pump Station site, as well as other upgrades. After the Systems Evaluation was completed, the model of the existing system was updated to reflect new piping, and recalibrated based on flow, pressure, and tank level data conducted in 2020 and described in the City's 2020 Recycled Water System Model Development Report<sup>2</sup> (2020 Model Development Report). The updated model has been used for this evaluation, and has been revised to incorporate existing available supply limitations at the Dry Creek and Pleasant Grove Wastewater Treatment Plants (DCWWTP and PGWWTP).

Two demand scenarios have been considered:

- **Near-Term:** Demands in the model reflect existing demands as described in the 2020 Model Development Report plus near term customers added to reflect current max day demands in the main pressure zone (8 mgd max day demand), as well as Sierra Vista demands.
- **Future:** Additional demands added to reflect future Creekview (1.25 mgd) and Amoruso (0.94 mgd) max day demands. For these scenarios, PGWWTP supply has been increased by 2.19 mgd to reflect future sewer flows from those developments.

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<sup>1</sup> RMC Water & Environment, July 2016, Recycled Water Systems Evaluation

<sup>2</sup> Brown and Caldwell, August 2020, Recycled Water System Model Development Report

To reflect anticipated improvements to serve these additional demands, the model also includes 2 additional tanks and pumping upgrades at the West Roseville Pump Station site (including a parallel 350 linear foot, 24-inch discharge line to Westpark Drive), and a piping extension on Blue Oaks Blvd (approximately 1900 linear feet of 24-inch piping). For modeling purposes, pumping upgrades have been assumed to be sufficient to maintain 75 psi at the discharge from the West Roseville Pump Station. The pumping upgrades would include 1 additional pump under the Near-Term condition, and multiple additional pumps under the Future demand condition.

Projected demands for the Roseville Industrial Park have been added to both demand scenarios based on the peak demand as summarized in Appendix A (280 gpm).

The modeled facilities and the location of the proposed connection of the new development are presented in Figure 1.

### **3. MODEL RESULTS & CONCLUSIONS**

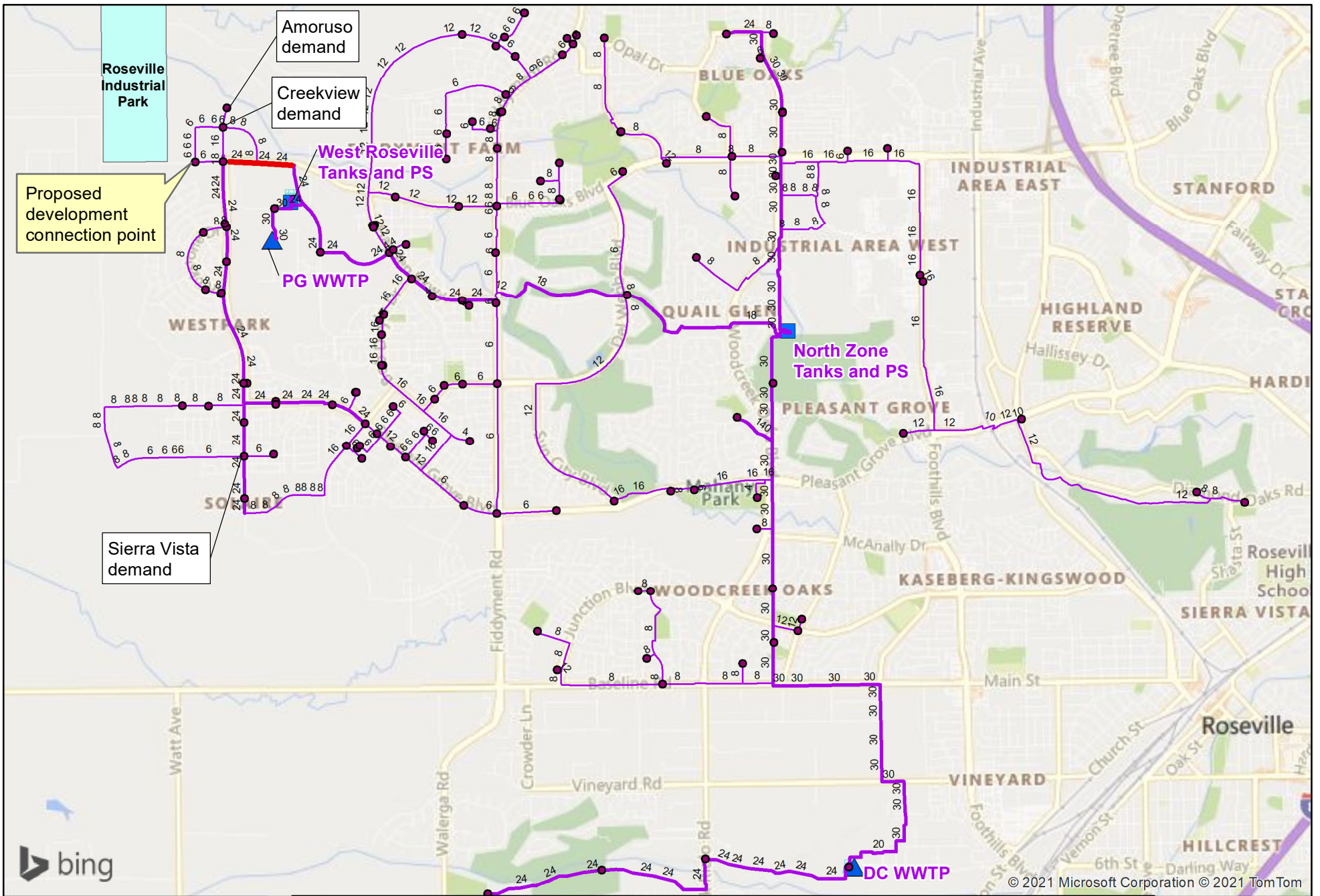
The Roseville Industrial Park demands were applied to the existing 6-inch recycled water main at the corner of Cloud Dance Drive and Blue Oaks Boulevard (the “proposed development connection point” on Figure 1). Based on modeling of the proposed maximum demand, velocities in the 6-inch main would be approximately 3.8 fps, which does not exceed the City’s criteria (see Figure 2).

The model predicts that a connection at this location would see a minimum pressure of 71 psi under peak hour demand conditions for the Near-Term scenario, and 62 psi for the Future scenario. Pipeline velocities do not exceed the City’s criteria under Near-Term or Future demand conditions with the proposed development. Model results under the Future demand condition are presented in Figure 2. Further studies should be performed prior to connecting significant demand for the Creekview and Amoruso UGAs to confirm the anticipated demands and available pressures.







It should be noted that the proposed Roseville Industrial Park demands would increase the pumping capacity upgrades required at the West Roseville Pump Station. Specifically, in the Near-Term demand scenario, pumping capacity would need to increase from 7,830 gpm to a firm capacity of about 13,000 gpm with Sierra Vista, or 13,280 gpm for Sierra Vista plus the proposed Roseville Industrial Park. Further studies are needed to determine whether that additional pumping requirement for the Roseville Industrial Park would trigger the need for additional pumps.

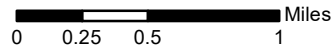
Overall, prior to connection of the proposed Roseville Industrial Park and the expanded Sierra Vista demands, it is recommended that the City add approximately 1900 linear feet of 24-inch piping on Blue Oaks Boulevard, add two (2) additional storage tanks (currently sized at 2.2 million gallons and 2.4 million gallons), and increase pumping capacity as indicated above. The Roseville Industrial Park demand would contribute to the need for the additional storage tanks and piping but would not increase the planned sizing of the storage or piping facilities.

The proposed development would also contribute to the need for additional pumping capacity at Pleasant Grove WWTP, system-wide storage capacity, and other upgrades as discussed in the 2016 RW Systems Evaluation under buildout conditions. As the demand projections and development timing associated with several of the Urban Growth Areas may have changed since the 2016 RW Systems Evaluation, an update of that report may be needed to describe future system facility requirements.



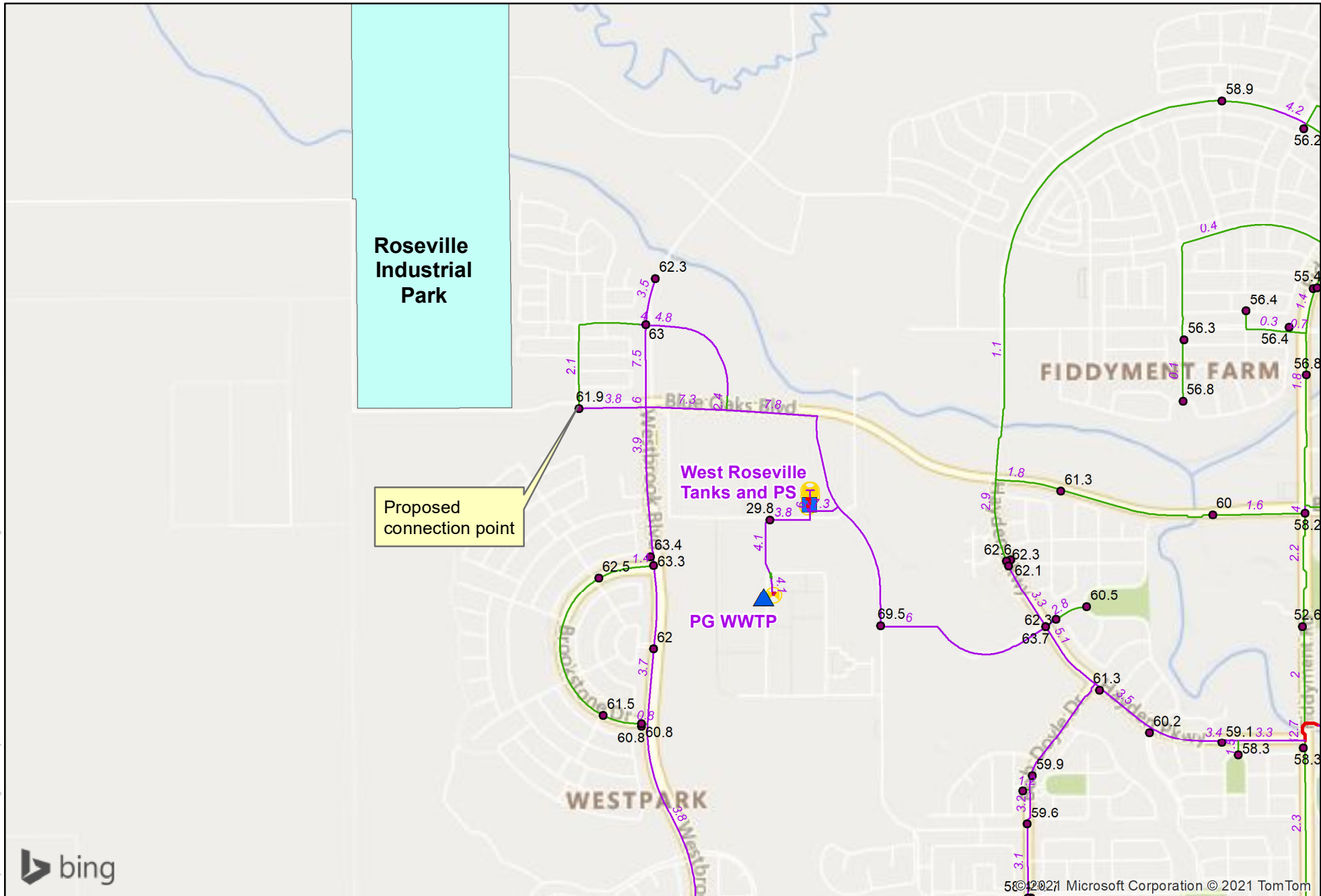
**Figure 1**  
**Project Location**  
 Roseville Industrial Park  
 Recycled Water Study

Legend	
	Future pipe added to model
	Pipe < 18 inches
	Pipe > 18 inches
	Modeled Demand
	Tank & PS
	WWTP



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**Figure 2**  
**Model Results - Future Demands**  
 Roseville Industrial Park  
 Recycled Water Study

Legend	
<span style="color: green;">—</span>	< 3 fps
<span style="color: purple;">—</span>	3 - 8 fps
<span style="color: red;">—</span>	> 8 fps
●	Pressure (psi)
●	Modeled Demand
■	Tank & PS
▲	WWTP

© 2021 Microsoft Corporation © 2021 TomTom

0 0.1 0.2 0.4 Miles

N

Project #: 0012092.00 Map Created: December 2021

**APPENDIX A – PROPOSED ROSEVILLE INDUSTRIAL LAND USE PLAN, SITE PLAN,  
AND RECYCLED WATER DEMAND**

**From:** eric@vistaparks.com <eric@vistaparks.com>  
**Sent:** Monday, December 6, 2021 11:08 AM  
**To:** 'Abbie Wertheim' <AWertheim@panattoni.com>; Paymon Fardanesh <pay@lmce.net>  
**Subject:** RE: [EXTERNAL] Roseville Meeting

Abbie,

Attached are 2 irrigation worksheets (1 for the north site and 1 for the south site). These are called WELO Worksheets. They are required on all landscape plans in Roseville.

The city will not approve landscape plans that exceed the Maximum Allowed Water Use (Yellow cells in each file). So, the total volume of irrigation water allowed by the city for these sites is the sum of the numbers in the yellow cells (both sites combined). Total allowed water use is 21,374,794 gallons per year, for the north and south combined. The maximum water use is based on the total irrigated landscape area, which is shown in the orange cells.

My design method typically uses only about 35% of the maximum allowed. I use a design method that uses the least amount of water (point specific drip emitters for plants, and deep well bubblers for trees), compared to other methods of delivering water to plants and trees.

A reliable peak demand number is **280 GPM**. This will happen if every building irrigates at the same time of day and on the same day. It represents 1 irrigation valve running for every building at the same time. I cap my volume through an irrigation valve at approximately 20 GPM. 14 buildings running a maxed out irrigation valve at the same time is 280 GPM.

This should make sense to the city.

Thanks,  
Eric Dearing  
Vista Parks Landscaping Inc.  
8264 Barryman Court  
Sacramento, CA 95829  
P 916-681-2227 f 916-681-2228 c 916-417-9283  
eric@vistaparks.com




Roseville Industrial Park North Worksheet

Reference Evapotranspiration (Eto) 52.2

Regular Landscape Areas There are no special landscape areas. Trees count as 25 sq'

Hydrozone#	Plant Factor	Irrigation Method	Irrigation Efficiency	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	306,605	76,651	2,480,741
2	0.4	Drip	0.81	0.49	76,651	37,559	1,215,559
3	0.2	Bubbler	0.81	0.25	7,750	1,938	62,705
4	0.4	Bubbler	0.81	0.49	1,650	809	26,166
Total					392,656		3,785,172

Maximum Allowed Water Allowance (MAWA)	5,718,563
Estimated Total Water Use (ETWU)	3,785,172
Average ETAF	0.27
Allowed ETAF	0.45

-  Total Landscape Area
-  Total Gallons Per Year Allowed Per The Model Water Efficient Landscape Ordinance
-  Total Gallons Per Year Projected Per The Projected Irrigation Design Usage

Roseville Industrial Park Worksheet  
 Reference Evapotranspiration (Eto)

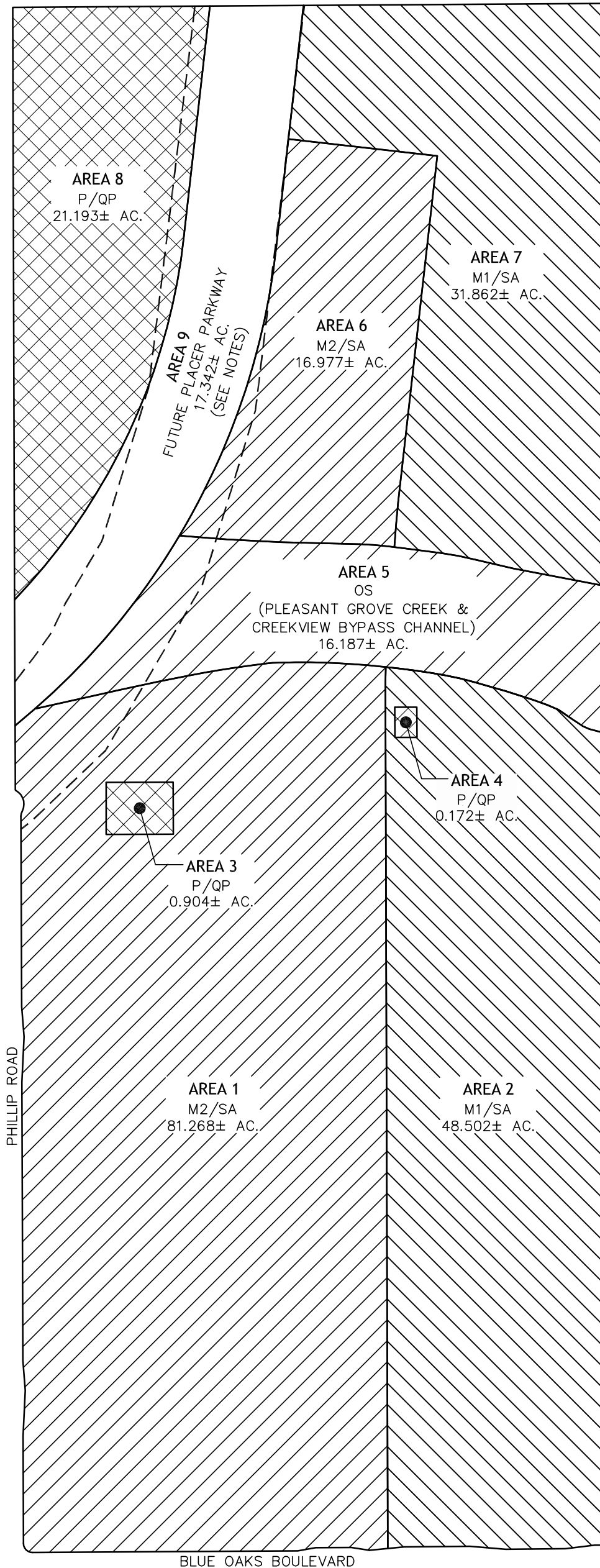
52.2

Regular Landscape Areas      There are no special landscape areas.      Trees count as 25 sq'

Hydrozone#	Plant Factor	Irrigation Method	Irrigation Efficiency	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	848,078	212,020	6,861,799
2	0.4	Drip	0.81	0.49	207,507	101,678	3,290,721
3	0.2	Bubbler	0.81	0.25	12,700	3,175	102,756
4	0.4	Bubbler	0.81	0.49	6,725	3,295	106,647
Total					1,075,010		10,361,923

Maximum Allowed Water Allowance (MAWA)	15,656,231
Estimated Total Water Use (ETWU)	10,361,923
Average ETAF	0.27
Allowed ETAF	0.45

- Total Landscape Area
- Total Gallons Per Year Allowed Per The Model Water Efficient Landscape Ordinance
- Total Gallons Per Year Projected Per The Projected Irrigation Design Usage



PHILLIP ROAD

BLUE OAKS BOULEVARD

AREA 9  
17.342± AC.  
FUTURE PLACER PARKWAY  
(SEE NOTES)

AREA 8  
P/QP  
21.193± AC.

AREA 7  
M1/SA  
31.862± AC.

AREA 6  
M2/SA  
16.977± AC.

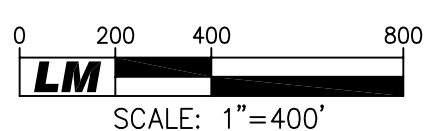
AREA 5  
OS  
(PLEASANT GROVE CREEK &  
CREEKVIEW BYPASS CHANNEL)  
16.187± AC.

AREA 4  
P/QP  
0.172± AC.

AREA 3  
P/QP  
0.904± AC.

AREA 1  
M2/SA  
81.268± AC.

AREA 2  
M1/SA  
48.502± AC.

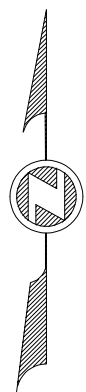
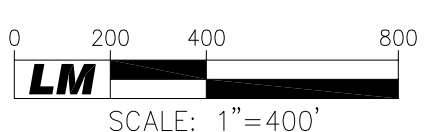
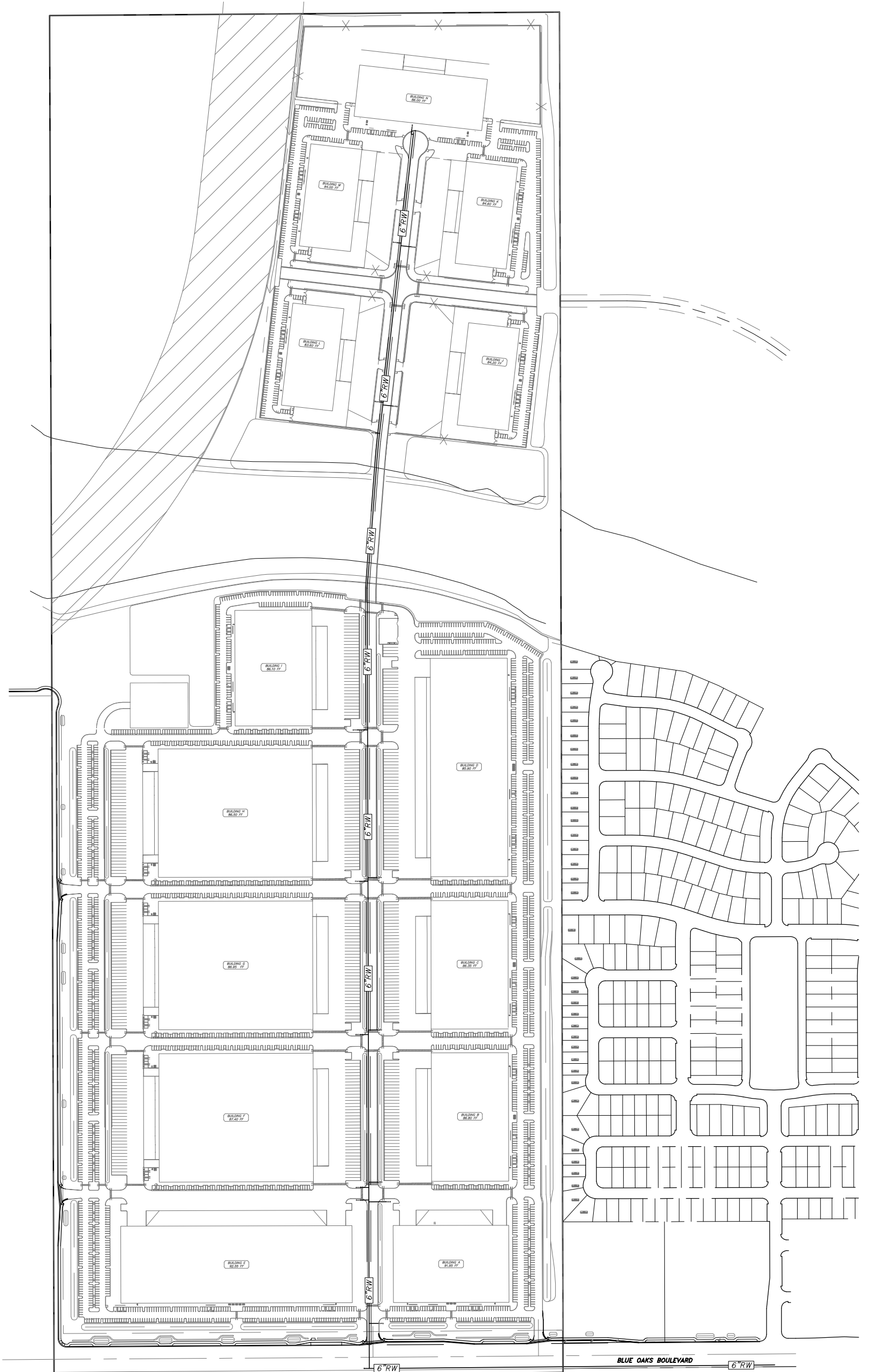


NOTES:

1. EXISTING PLACER PARKWAY AREA DENOTED BY DASHED LINE. (-----)
2. REVISED PLACER PARKWAY AREA (BY AKT) USED FOR CALCULATING HIGHEST POSSIBLE UTILITY DEMANDS.

**LAND USE PLAN**  
FOR  
**ROSEVILLE INDUSTRIAL PARK**

CITY OF ROSEVILLE, PLACER COUNTY,  
CALIFORNIA  
SHEET 1 OF 1      OCTOBER 28, 2021



**RECYCLED WATER EXHIBIT**  
 FOR  
**ROSEVILLE INDUSTRIAL PARK**

CITY OF ROSEVILLE, PLACER COUNTY,  
 CALIFORNIA  
 SHEET 1 OF 1      NOVEMBER 16, 2021

**LM LAUGENOUR AND MEIKLE**  
 CIVIL ENGINEERING · LAND SURVEYING · PLANNING  
 608 COURT STREET, WOODLAND, CALIFORNIA 95695 · PHONE: (530) 662-1755  
 P.O. BOX 828, WOODLAND, CALIFORNIA 95776 · FAX: (530) 662-4602

X:\Land Projects\4042-60-2\dwg\4042-60-2\_EXH\_Recycled Water Plan - Project.dwg

# **APPENDIX B**

## **RECYCLED WATER PLAN – FUTURE ONSITE MODEL RESULTS**

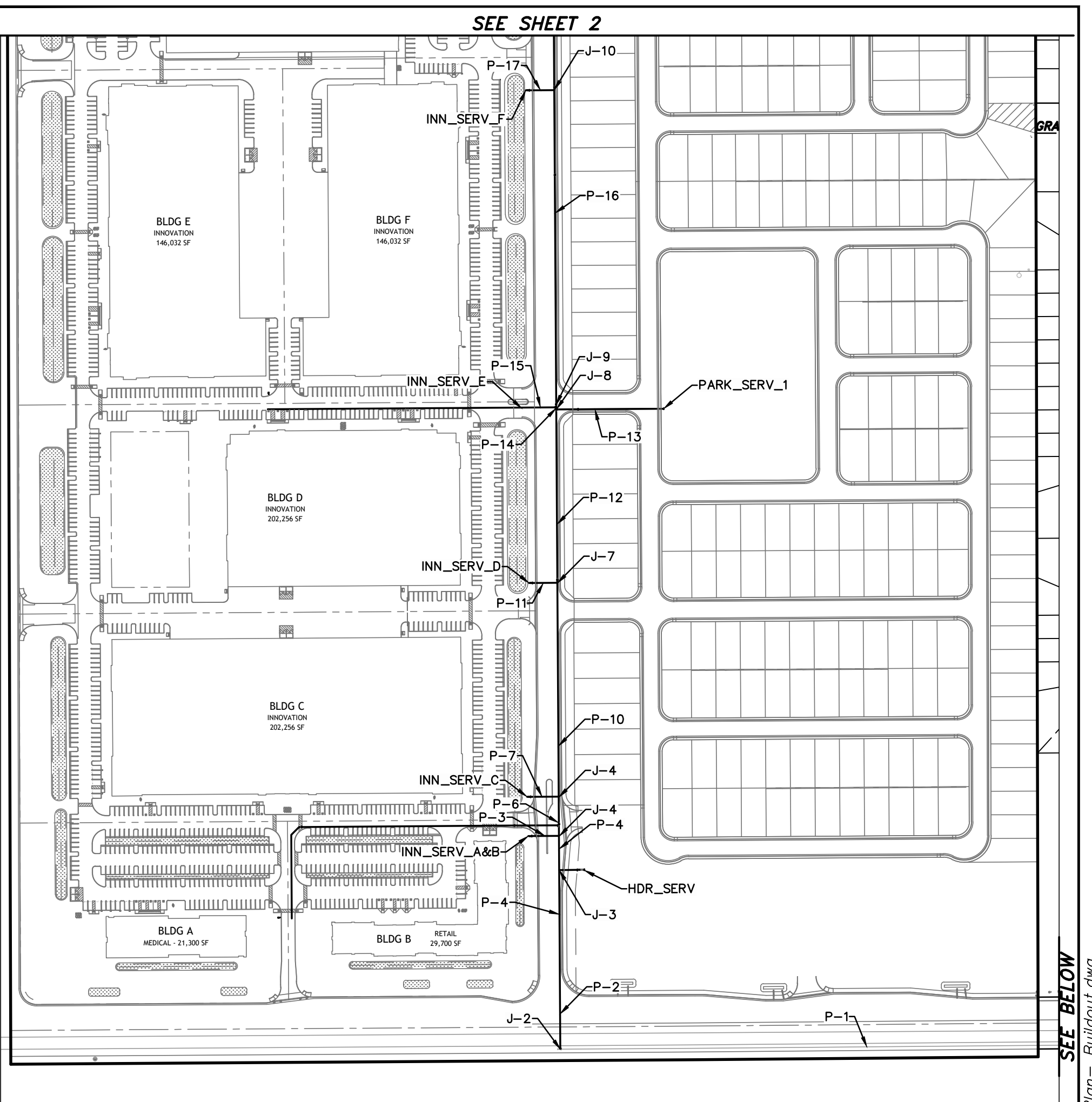
### FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
INN_SERV_A & B	88.00	55	208.15	52
INN_SERV_C	82.00	64	207.82	54
INN_SERV_D	79.00	391	202.32	53
INN_SERV_E	78.00	53	198.61	52
INN_SERV_F & SUBSTATION	78.00	63	194.43	50
INN_SERV_G	77.00	53	193.04	50
INN_SERV_H	78.00	52	192.71	50
INN_SERV_HDR	82.00	55	208.87	55
INN_SERV_I	77.00	63	192.19	50
INN_SERV_SLS	77.00	5	192.15	50
J-1	71.70	0	214.92	62
J-2	84.00	0	210.84	55
J-3	86.00	0	208.89	53
J-4	82.00	0	208.17	55
J-5	82.00	0	207.83	54
J-7	81.00	0	203.04	53
J-8	79.00	0	198.67	52
J-9	79.00	0	198.63	52
J-10	77.00	0	194.45	51
J-11	77.00	0	193.06	50
J-12	77.00	0	192.73	50
J-13	77.00	0	192.21	50
J-14	77.00	0	192.15	50
PARK_SERV_1	79.50	63	198.58	52
PARK_SERV_2	75.50	40	191.93	50

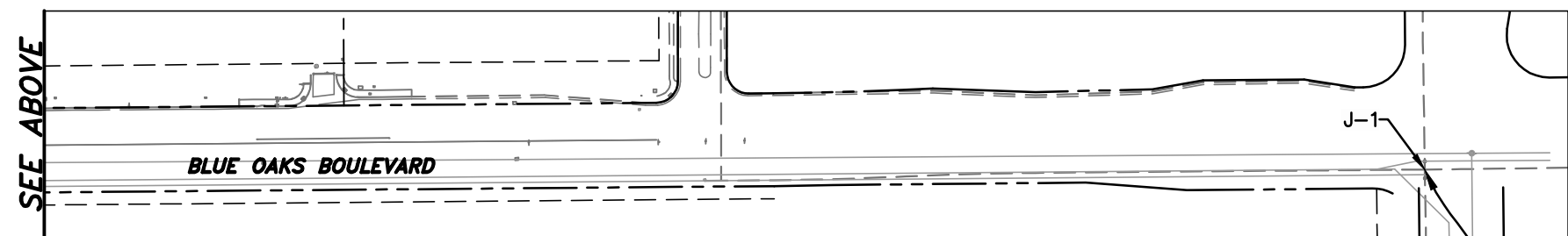
### FlexTable: Pipe Table

Label	Diameter (in)	Start Node	Stop Node	Flow (gpm)	Velocity (ft/s)	Length (User Defined) (ft)	Headloss (ft)	Material	Hazen-Williams C
P-1	12.0	J-1	J-2	957	2.71	1,745	4.08	PVC	130.0
P-2	10.0	J-2	J-3	957	3.91	344	1.95	PVC	130.0
P-3	6.0	J-4	INN_SER V_A & B	55	0.62	52	0.02	PVC	130.0
P-4	10.0	J-3	J-4	902	3.68	141	0.72	PVC	130.0
P-5	6.0	J-3	INN_SER V_HDR	55	0.62	46	0.02	PVC	130.0
P-6	10.0	J-4	J-5	847	3.46	76	0.34	PVC	130.0
P-7	10.0	J-5	INN_SER V_C	64	0.26	55	0.00	PVC	130.0
P-10	8.0	J-5	J-7	783	5.00	412	4.78	PVC	130.0
P-11	6.0	J-7	INN_SER V_D	391	4.44	55	0.72	PVC	130.0
P-12	6.0	J-7	J-8	392	4.45	334	4.37	PVC	130.0
P-13	6.0	J-8	PARK_SE RV_1	63	0.71	207	0.09	PVC	130.0
P-14	6.0	J-8	J-9	329	3.73	4	0.04	PVC	130.0
P-15	6.0	J-9	INN_SER V_E	53	0.60	54	0.02	PVC	130.0
P-16	6.0	J-9	J-10	276	3.13	611	4.18	PVC	130.0
P-17	6.0	J-10	INN_SER V_F & SUBSTAT ION	63	0.71	55	0.02	PVC	130.0
P-18	6.0	J-10	J-11	213	2.42	330	1.40	PVC	130.0
P-19	6.0	J-11	INN_SER V_G	53	0.60	55	0.02	PVC	130.0
P-20	6.0	J-11	J-12	160	1.82	132	0.33	PVC	130.0
P-21	6.0	J-12	INN_SER V_H	52	0.59	55	0.02	PVC	130.0
P-22	6.0	J-12	J-13	108	1.23	431	0.52	PVC	130.0
P-23	6.0	J-13	INN_SER V_I	63	0.71	55	0.02	PVC	130.0
P-24	6.0	J-13	J-14	45	0.51	265	0.06	PVC	130.0
P-25	6.0	J-14	INN_SER V_SLS	5	0.06	55	0.00	PVC	130.0
P-28	6.0	J-14	PARK_SE RV_2	40	0.45	1,152	0.22	PVC	130.0
POCP-1	24.0	POCR-1	J-1	957	0.68	32	0.00	PVC	130.0

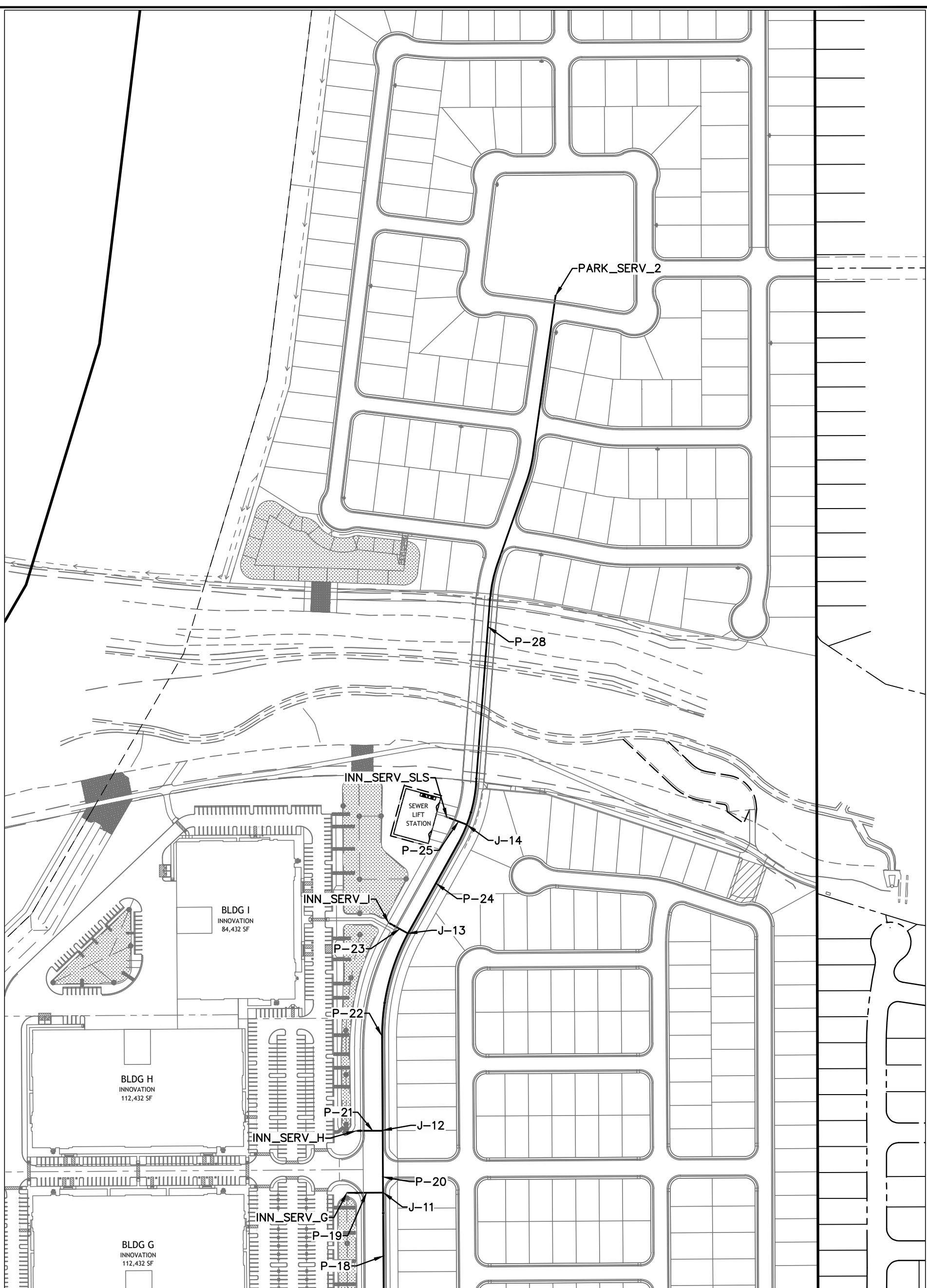
SEE SHEET 2



SEE BELOW



POINT OF CONNECTION IS LOCATED AT THE INTERSECTION OF BLUE OAK AND WESTBROOK BOULEVARD. NODE J-1, PIPE POCP-1 AND RESERVOIR POCR-1 MAKE UP THE CONNECTION AT THE INTERSECTION.



SEE SHEET 1



**RECYCLED WATER EXHIBIT**  
 FOR  
**PHILLIP ROAD SITE**