



EL DORADO COUNTY PLANNING SERVICES

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PRE-APPLICATION AND CONCEPTUAL REVIEW PROCESS OCT 20 2023

EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

ASSESSOR'S PARCEL NUMBER(S) 102-210-008

PROJECT NAME/REQUEST (Describe proposed use and use separate sheet if necessary):

Planned Development (PD) project seeking entitlement for general plan amendment to LDR, creating +/-43 dwelling units through PD density bonus, and other RL-10-PD and OS-PD parcels with accessory agricultural uses.

IF SUBDIVISION/PARCEL MAP: Create _____ lots, ranging in size from _____ to _____ acre(s)/square feet

IF ZONE CHANGE: From RL-10 to RE-5-PD/RL-10-PD/ OS-PD

IF GENERAL PLAN AMENDMENT: From RR to LDR

APPLICANT/AGENT Xander Tertychny

Mailing Address 13123 E Emerald Coast Pkwy. Ste #B113 Inlet Beach, FL 32461
P.O. Box or Street City State ZIP

Phone 408.679.1410 FAX _____

PROPERTY OWNER Ciconia Village, LLC

Mailing Address 13123 E Emerald Coast Pkwy. Ste #B113 Inlet Beach, FL 32461
P.O. Box or Street City State ZIP

Phone 408.679.1410 FAX _____

LIST ADDITIONAL PROPERTY OWNERS ON SEPARATE SHEET IF APPLICABLE

ENGINEER/ARCHITECT CTA Engineering - Kevin Wipf

Mailing Address 3233 Monier Circle Rancho Cordova, CA 95742
P.O. Box or Street City State ZIP

Phone 916-638-0919 FAX _____

LOCATION: The property is located on the N side of Alexandrite Dr
N/E/W/S Street or Road

580 feet/miles N of the intersection with Green Valley Rd.
N/E/W/S Major Street or Road

in the Cameron Park area. PROPERTY SIZE 130.46 ac
Acre(s) / Square Feet

X [Signature] Date 10/20/2023
Signature of property owner or authorized agent

FOR OFFICE USE ONLY

Date 10/20/2023 Fee \$ 5490 Receipt # R49936 Rec'd by MAA2 Census _____

Zoning _____ Supervisor District _____ Sec _____ Twn _____ Rng _____

Pre-application completed by: _____ Date completed: _____

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PLANNING AND BUILDING DEPARTMENT

Ciconia Village: Pre-Application Questions

Planning

1. With the core aspect of the community being the farm with various agricultural uses, we want to make sure the OS(-PD) zone will allow the land to be used for grazing and animal keeping. The former is identified as a permitted use, but animal keeping is not mentioned.
2. Parcels FA01 and FC01 are proposed to retain the RL-10(-PD) designation in order to retain existing structures and build new proposed structures for accessory farming uses. The parcels are less than the required 10 acre min lot size, but we would like to see if the -PD designation will allow for this variation. As an alternate, these parcels could be part of the OS(-PD) area, but we would need to have certainty that the proposed uses would be allowed.
 - a. FA01 would host accessory farming structures for farmer residence, machine shop and vehicle storage, as well as a feed barn and animal clinic.
 - b. FC01 would retain the existing Clubhouse which would have a farm store selling farm products (Ranch marketing?), as well as office space for farm operations. An additional proposed +/- 10,000sf structure would be used for multi-purpose event space associate with the farm and community. The existing parking lot would be retained to provide parking for the facilities and events.

DOT/ Site Access/ Utilities

1. We are planning to have three points of access to the site – Existing access of Alexandrite Dr, new access of Starbuck Rd, and 2nd new access off Peridot Dr. (Emerald Meadows neighborhood). Ciconia Village will be a gated community.
 - a. What is the full scope of Traffic Study required for the proposed community? Does the number of access points impact the scope of the required traffic study?

Other

1. What is the full list of departments and AHJ which will need to have input and signoff on this project?
2. What reports and studies are required for CEQA review on this project?

PA23-0013

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EL DORADO COUNTY PLANNING SERVICES

SUBMITTAL INFORMATION

for

PRE-APPLICATION/CONCEPTUAL REVIEW

There are no minimum submittal requirements for the Pre-Application meeting. However, the following is a list of desirable information that should be available, to the extent practical, for staff to maximize the productivity of the Pre-Application meeting. **All plans and maps MUST be folded to 8 1/2" x 11"**. The items with an asterisk (*) below must be submitted for a Conceptual Review Workshop.

Choose at least one:

- I request a Pre-Application Meeting
- I request a Conceptual Review Workshop with the Planning Commission
- I request a Conceptual Review Workshop with the Board of Supervisors

Check
(v)

Applicant County

- | | | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1) Assessors Parcel Map noting the subject parcel.* |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2) A conceptual site plan or map plan, preferably showing the following:* |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a. Number of units or lots, approximate size of lots, and overall density (buildings, square footage, parking and if multi-family housing or town homes/condos). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | b. Access to the site from County or State road system. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | c. Existing Zoning and Land Use designation, and any proposed zoning or Land Use designation changes. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | d. Such items as existing/proposed open space, recreation areas, and trail systems. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | e. Identification of wetlands, reservoirs, creeks, slopes which are 30% or greater, key types of vegetation (trees, shrubs, grass), and any other significant natural features. The presence of these features can be approximated. |
| <input type="checkbox"/> | <input type="checkbox"/> | f. Any information on previous applications and parcel creation, existing code violations, nonconforming uses, etc. that would be helpful to staff. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3) Aerial photograph of the project area.* |
| <input type="checkbox"/> | <input type="checkbox"/> | 4) Any other information which helps to define the proposal, including preliminary grading, drainage, etc., which may help the review team understand and comment on the proposed project. |

Like all other programs, this service is intended to meet your needs in a timely and inexpensive manner. If after the review, you have comments and suggestions on the value of the service or how it can be improved, please let us know.

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COUNTY OF EL DORADO
CAMPAIGN CONTRIBUTION DISCLOSURE FORM

Application or Solicitation Number: _____

Application or Solicitation Title: _____

Was a campaign contribution, regardless of the dollar amount, made to any member of the El Dorado County Board of Supervisors or to any County Agency Officer on or after January 1, 2023, by the applicant, or, if applicable, any of the applicant's proposed subcontractors or the applicant's agent or lobbyist?

Yes _____ No x

If no, please sign and date below.

If yes, please provide the following information:

Applicant's Name: _____

Contributor or Contributor Firm's Name: _____

Contributor or Contributor Firm's Address: _____

Is the Contributor:

- The Applicant Yes _____ No _____
- Subcontractor Yes _____ No _____
- The Applicant's agent/ or lobbyist Yes _____ No _____

Note: Under California law as implemented by the Fair Political Practices Commission, campaign contributions made by the Applicant and the Applicant's agent/lobbyist who is representing the Applicant in this application or solicitation must be aggregated together to determine the total campaign contribution made by the Applicant.

Identify the Board of Supervisors Member(s) and County Agency Officer(s) to whom you, your subcontractors, and/or agent/lobbyist made campaign contributions on or after January 1, 2023, the name of the contributor, the dates of contribution(s) and dollar amount of the contribution. Each date must include the exact month, day, and year of the contribution.

Name of Board of Supervisors Member or County Agency Officer: _____

Name of Contributor: _____

Date(s) of Contribution(s): _____

Amount(s): _____

(Please add an additional sheet(s) to identify additional Board Members or County Agency Officer to whom you, your subconsultants, and/or agent/lobbyist made campaign contributions)

By signing below, I certify that the statements made herein are true and correct. I also agree to disclose to the County any future contributions made to Board Members or County Agency Officers by the applicant, or, if applicable, any of the applicant's proposed subcontractors or the applicant's agent or lobbyist after the date of signing this disclosure form, and within 12 months following the approval, renewal, or extension of the requested license, permit, or entitlement to use.

10/20/2023
Date

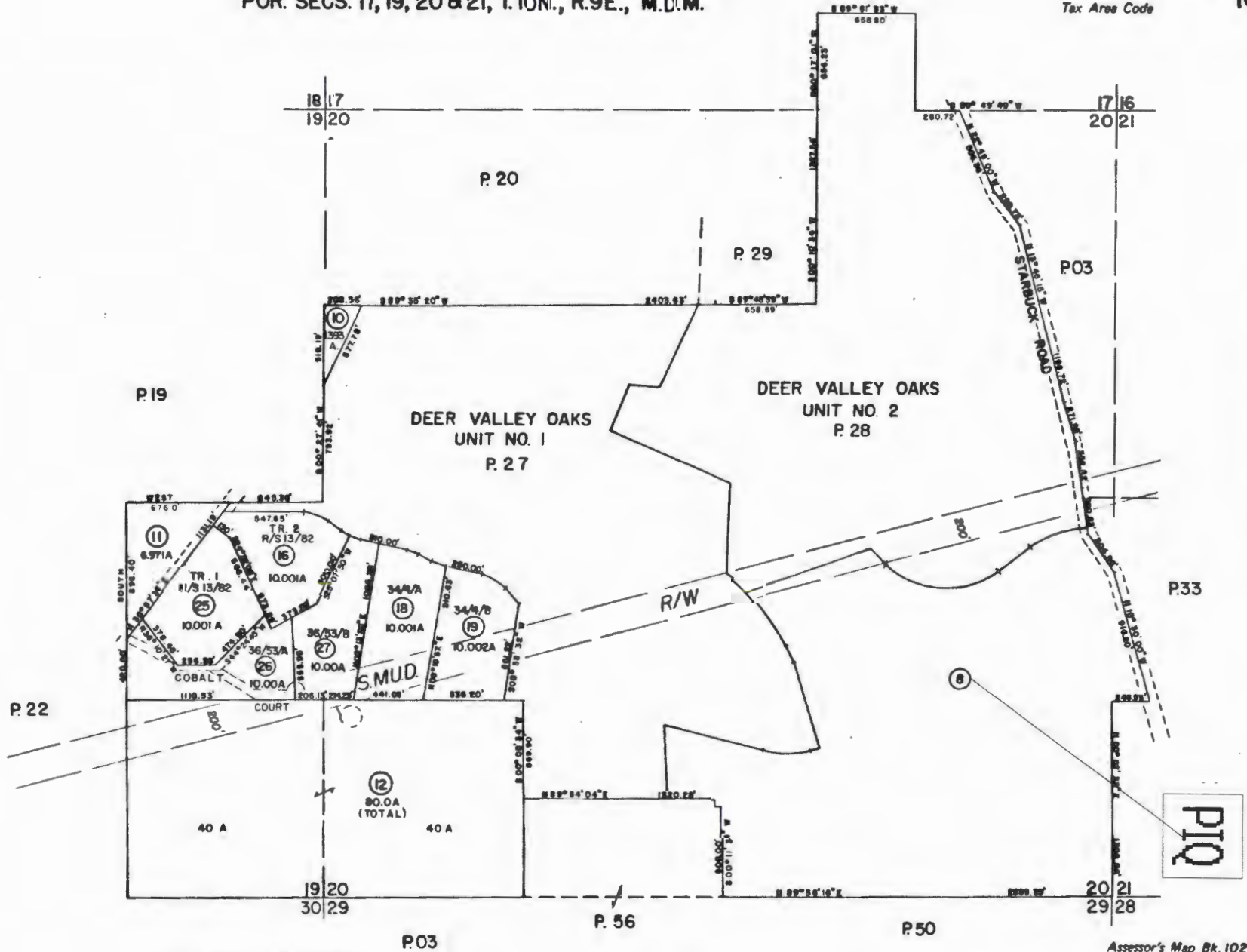

Signature of Applicant

Print Firm Name if applicable

Xander Tertychny
Print Name of Applicant

PA23-0013

Tax Area Code



This map/plan is being recorded as an aid in locating the herein described land in relation to adjoining streets, orders of boundaries and other land, and is not a survey of the land depicted. Except to the extent a policy of this jurisdiction is expressly modified by endorsement, any the conveying does not insure dimensions, distances, location of easements, acreage or other matters shown hereon.

PIQ

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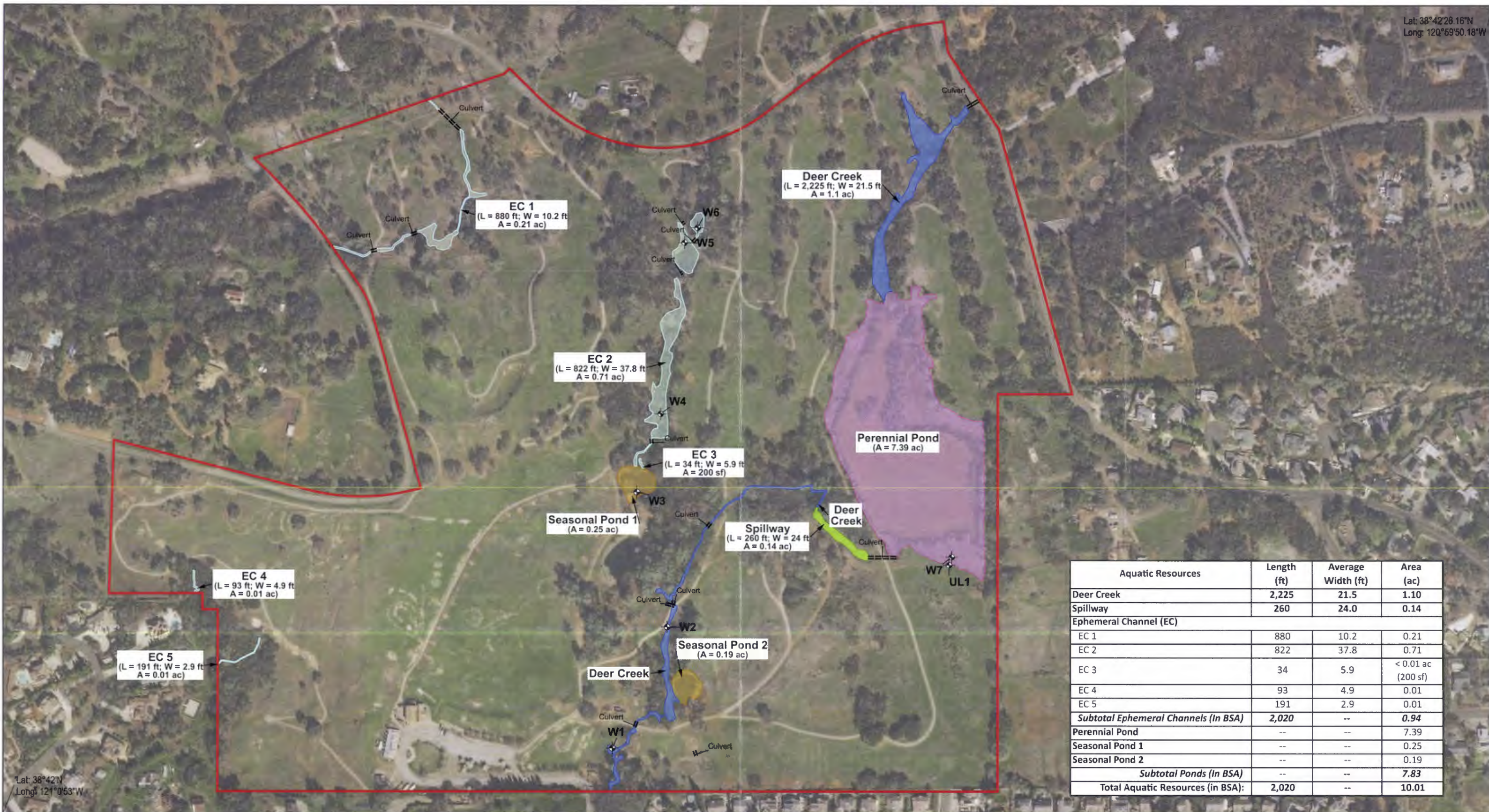
EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

NOTE - Assessor's Black Numbers Shown in Ellipse
Assessor's Parcel Numbers Shown in Circles

Assessor's Map Bk. 102 - Pg. 21
County of El Dorado, California

APR 26 2001

PA23-0013



Aquatic Resources	Length (ft)	Average Width (ft)	Area (ac)
Deer Creek	2,225	21.5	1.10
Spillway	260	24.0	0.14
Ephemeral Channel (EC)			
EC 1	880	10.2	0.21
EC 2	822	37.8	0.71
EC 3	34	5.9	< 0.01 ac (200 sf)
EC 4	93	4.9	0.01
EC 5	191	2.9	0.01
Subtotal Ephemeral Channels (in BSA)	2,020	--	0.94
Perennial Pond	--	--	7.39
Seasonal Pond 1	--	--	0.25
Seasonal Pond 2	--	--	0.19
Subtotal Ponds (in BSA)	--	--	7.83
Total Aquatic Resources (in BSA):	2,020	--	10.01

- Biological Study Area (130 ac)
- Deer Creek
- Ephemeral Channel (EC)
- Perennial Pond
- Seasonal Pond
- Spillway
- Culvert
- Data Points (W1 thru W7, UL1)

Figure 4.
Aquatic Resources Delineation Map

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Date	Submittal	Delineators	Agency/Company
21 Apr 22	Original	K. Derby	SWCA SAC

PA23-0013

El Dorado County, CA
 NAD 1983 StatePlane California II FIPS 0402 Feet
 38.7036°N 121.006°W

Aerial Photograph: 27 Feb. 2021
 WW02 Metro Maxar Imagery

Base Map: World Imagery (Hybrid)
 ESRI ArcGIS Pro Basemap layer,
 accessed June 2022
 Updated: 6/1/2022
 Project No. 69154
 Aprx: 69154_3000AlexandriteDrive
 Layout: 69154_3000Alexandrite_ARDR

0 150 300 Feet
 0 50 100 Meters

N

1:3,600

SWCA
 ENVIRONMENTAL CONSULTANTS



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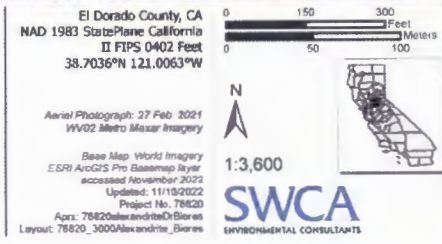
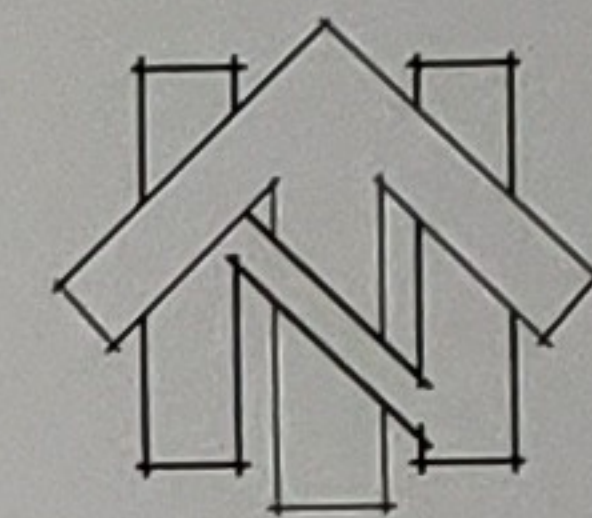


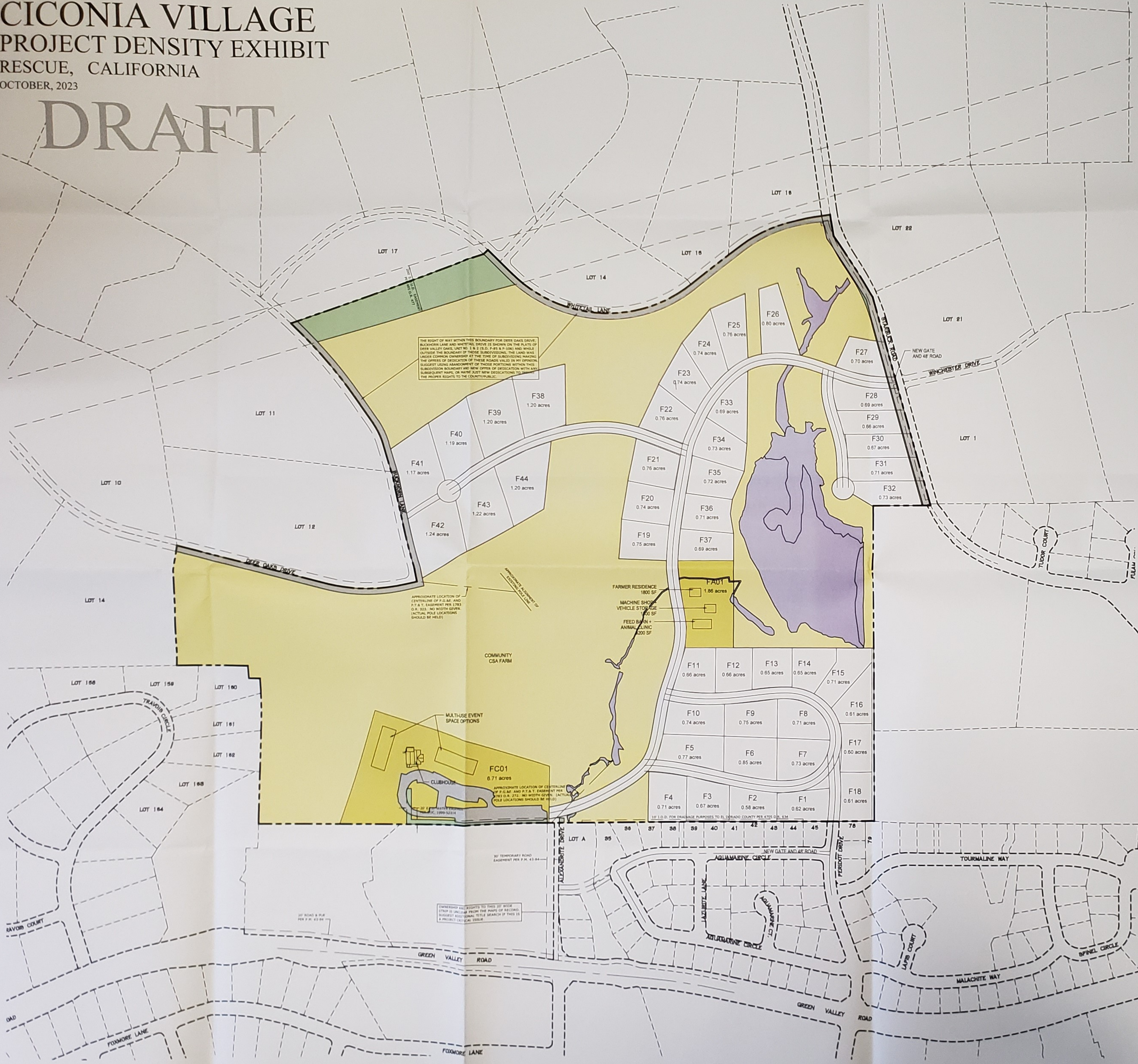
Figure 4. Natural Communities and Land Covers.

CICONIA VILLAGE
PROJECT DENSITY EXHIBIT
RESCUE, CALIFORNIA
OCTOBER, 2023

DRAFT



0 100' 200' 400'
SCALE: 1" = 200'



LEGEND

- PROJECT BOUNDARY AREA: 130.46 AC
GP AMENDMENT FROM RR TO LDR
- PERENNIAL WATERS: 8.64 AC TOTAL
(8.57 AC WITHIN OPEN SPACE)
- PUBLIC UTILITY IMPROVEMENTS
(PUEs & EID WLE)
- ROAD IMPROVEMENTS
- RE-5-PD ZONE
- RL-10-PD ZONE
- OS-PD ZONE: 74.14 AC
SEE NOTE

NOTE:
OS-PD AREA EXCLUDES PERENNIAL WATERS, PUBLIC UTILITY
IMPROVEMENTS, & ROAD IMPROVEMENTS

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BASE UNIT CALCULATION

PROJECT BOUNDARY AREA: 130.46 AC - 8.64 AC - 8.57 (RL-10-PD ZONE) x 0.2 (RE-5/LDR) = 22.65 UNITS
8.57 (RL-10-PD ZONE) x 0.1 = 0.85 UNITS

DENSITY BONUS CALCULATION

74.14 AC OPEN SPACE - 8.57 AC PERENNIAL WATERS x 1.5 x 0.2 (LDR) AC = 19.67 UNITS

TOTAL = 43 RESIDENTIAL UNITS

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AERIAL MAP CICONIA VILLAGE

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PLANNING AND BUILDING DEPARTMENT



COUNTY OF EL DORADO

OCTOBER, 2023

STATE OF CALIFORNIA

0 50' 100' 200'
SCALE: 1" = 100'



El Dorado Irrigation District Ciconia Village Development Wastewater Collection System Capacity Analysis

Date: May 26, 2023
Prepared by: Joe Ziemann, P.E. and Anthony Baltazar, P.E.

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Appendices

- Appendix A – Ciconia Village Facility Improvement Letter
- Appendix B – Existing GIS and Hydraulic Model vs. As-Built Data Comparison
- Appendix C – Hydraulic Model Results Profiles



1.0 Project Background

1.1 Ciconia Village Development

The proposed Ciconia Village Development is a 45-lot (47 EDU) residential subdivision on 140.26 acres located on Assessor’s Parcel No. 102-210-008 in Cameron Park which is served by the Deer Creek Sewer Collection System and Wastewater Treatment Plant. According to a Facility Improvement Letter (FIL) issued by EID on January 28, 2022 (included in **Attachment A**) the point of connection of the development to the sewer collection system would be an existing 8-inch gravity sewer at the southern end of the property at Alexandrite Drive. The FIL stated at the time that the existing sewer line does not have adequate capacity to serve the proposed project.

A project location map is shown in Figures 1.1 and 1.2.

It should be noted that the Ciconia Village Development is located on the same parcel as the “Pomerol Vineyard Estates” future development that was included in Water Work’s previous calibrated model run for Deer Creek which included 120 EDUs. Per the District, the Pomerol Vineyard Estates project is no longer moving forward and the Ciconia Village Development is taking its place, with significantly fewer EDUs.

1.2 Update to Hydraulic Model Geometry

EID transmitted to Water Works as-builts of the existing sewer line that extends from MH 082-2-087 at Alexandrite Drive all the way to MH 082-6-120 near Cambridge Road south of Cameron Park Lake. According to the as-built drawings, this stretch of sewer includes the following starting from upstream moving downstream:

- 1,023-LF of 8” sewer from MH 082-2-087 to MH 082-2-081
- 1,333-LF of 6” sewer from MH 082-2-081 to MH 082-2-058
- 4,396-LF of 10” sewer from MH 082-2-058 to MH 082-6-228
- 4,332-LF of 12” sewer from MH 082-6-228 to MH 082-6-120

These sewer lines had previously been included in Water Works’ updated hydraulic model of the Deer Creek Sewer Collection System, however review of the as-built drawings versus the pipe sizes and slopes in the District’s GIS and previous hydraulic modeling work revealed significant differences, particularly the 1,333-LF stretch of 6-inch pipe which was previously modeled as 8-inch. A comparison of the record drawing data and previous GIS / hydraulic model data is provided in **Appendix B**.

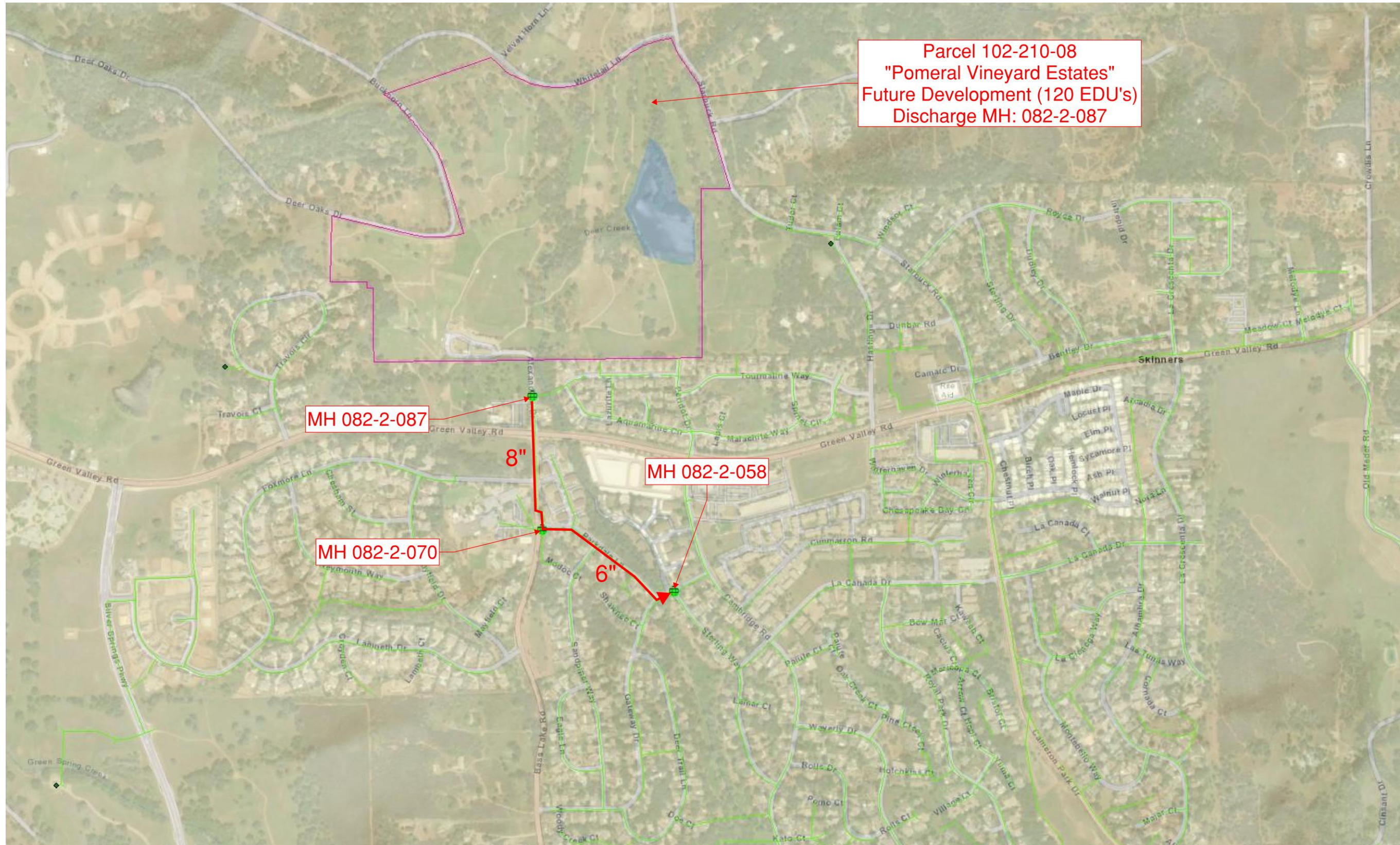


Figure 1.1 – Ciconia Village Sewer Map 1



Figure 1.2 – Ciconia Village Sewer Map 2

2.0 Hydraulic Model Results

Previous hydraulic modeling of this area of the Deer Creek sewer collection system did not show any hydraulic capacity deficiencies, however this was with the incorrect 8-inch pipe size for the stretch of 6-inch pipe along Parkdale Lane and included the Pomerol Vineyard Estates at 120 EDUs.

2.2 Ciconia Village Sewer Loading

The District requested that Water Works model the proposed Ciconia Village Development using EID standard sewer loading, which is 240 gallons per day per EDU, with a 4.0 peaking factor for Peak Wet Weather Flow. Therefore the PWWF value is 31 gallons per minute or 0.045 MGD.

2.3 Updated Existing Condition Model Results using Calibrated Loading Approach

Water Works' hydraulic model of the Deer Creek Sewer Collection system was updated and calibrated in 2021 and 2022 using actual sewer flow data captured by District flow meters during storm events. The approach to determine peak wet weather flow in the calibrated version of the model is to utilize actual dry weather flow per EDU, which is approximately 145 gpd/EDU, with infiltration and inflow that is calibrated to the 10-year 24-hour design storm to represent actual real-world PWWF conditions as closely as possible. The sewer basin in which the Ciconia Development is located has been calibrated with an "R" Value of 1.5%, which means that 1.5% of the rainfall during the design storm on the sewer basin makes its way to the sewer collection system as infiltration and inflow. This is actually the sewer basin in the Deer Creek system with the lowest "R" Value, or the least amount of I/I based on analysis of actual flow monitoring data collected during December 2021 at MH 082-6-212.

The hydraulic model was re-run under "existing conditions" with the updated sewer pipe sizes and slopes, with only currently developed EDUs and no future developments under the 10-year 24-hour design storm using Water Work's calibrated hydraulic modeling approach. The results are shown in Figure C-1, and show no surcharging or capacity deficiencies.

2.3 Future Development Model Results with EID Standard Loading for Ciconia Village

The hydraulic model result when adding the 0.045 MGD of PWWF generated by Ciconia Village to existing calibrated flows is shown in Figure C-2. The hydraulic profile looks essentially the same because the flow contributed by Ciconia Village is relatively insignificant compared to the total flow in the sewer main line, which was not under capacity under existing conditions.

Appendix A – Ciconia Village Facility Improvement Letter



Letter No.: DS0122-041

January 28, 2022

VIA EMAIL

Xander Tertychny
13123 E. Emerald Coast Parkway #B113
Inlet Beach, FL 32461
Email: xander@xandertertychny.com

Subject: Facility Improvement Letter (FIL) 3630FIL, Ciconia Village
Assessor's Parcel No. 102-210-008 (Rescue)

Dear Mr. Tertychny:

This letter is in response to your request January 5, 2022 and is valid for a period of three years. If a Facility Plan Report (FPR) for your project has not been submitted to El Dorado Irrigation District (EID or District) within three years of the date of this letter, a new Facility Improvement Letter will be required.

Design drawings for your project must be in conformance with the District's *Water, Sewer and Recycled Water Design and Construction Standards*.

This proposed project is a 45-lot residential subdivision on 140.26 acres. Water service, sewer service and fire hydrants are requested. The property is within the District boundary.

This letter is not a commitment to serve, but does address the location and approximate capacity of existing facilities that may be available to serve your project.

Water Supply

As of January 1, 2021, there were 21,913 equivalent dwelling units (EDUs) of water supply available in the Western/Eastern Water Supply Region. Your project as proposed on this date would require 53 EDUs of water supply.

Water Facilities

A 10-inch water line exists in Alexandrite Drive and a 10-inch water line stub is located in Peridot Drive (see enclosed System Map). The El Dorado Hills Fire Department has determined that the minimum fire flow for this project is 1,500 GPM for a 2-hour duration while maintaining a 20-psi residual pressure. According to the District's hydraulic model, the existing system can deliver the required fire flow. In order to provide this fire flow and receive service, you must

construct a looped water line extension connecting to both of the 10-inch water lines mentioned previously. The hydraulic grade line for the existing water distribution facilities is 1,485 feet above mean sea level at static conditions and 1,460 feet above mean sea level during fire flow and maximum day demands.

The flow predicted above was developed using a computer model and is not an actual field flow test.

Sewer Facilities

There is an 8-inch gravity sewer line abutting the southern property line in Peridot Drive. The trunk sewer line downstream of the proposed project does not have adequate capacity at this time to serve the proposed project. In order to receive service you would be required to upsize approximately 4,500 feet of 10-inch and 12-inch gravity sewer line. There are no alternative sewer points of connection near the project location that currently have capacity to serve this development. Significant system upgrades would be required to connect to any portion of the District's sewer facilities in this region. These improvements are not included in the District's current Capital Improvement Program. Your project as proposed on this date would require 47 EDUs of sewer service.

Facility Plan Report

A Facility Plan Report (FPR) will be required for this project. The FPR shall address the expansion of the water and sewer facilities and the specific fire flow requirements for all phases of the project. A meeting to discuss the content of the report will be required. Please contact this office to arrange the meeting. A preliminary utility plan, prepared by your engineer, must be brought to the meeting.

Two copies of the FPR will be required along with a \$3,000.00 deposit. You will be billed for actual time spent in review and processing of your FPR. Please submit the FPR and fee to our Customer Service Department. Enclosed is the FPR description and transmittal form for your use. The items listed under content in the description and the completed transmittal form must be bound in each copy of the FPR.

Easement Requirements

Proposed water lines, sewer lines and related facilities must be located within an easement accessible by conventional maintenance vehicles. When the water lines or sewer lines are within streets, they shall be located within the paved section of the roadway. No structures will be permitted within the easements of any existing or proposed facilities. The District must have unobstructed access to these easements at all times, and generally does not allow water or sewer facilities along lot lines.

Easements for any new District facilities constructed by this project must be granted to the District prior to District approval of water and/or sewer improvement plans, whether onsite or offsite. In addition, due to either nonexistent or prescriptive easements for some older facilities, any existing onsite District facilities that will remain in place after the development of this property must also have an easement granted to the District.

Environmental

The County is the lead agency for environmental review of this project per Section 15051 of the California Environmental Quality Act Guidelines (CEQA). The County's environmental document should include a review of both offsite and onsite water and sewer facilities that may be constructed by this project. You may be requested to submit a copy of the County's environmental document to the District if your project involves significant off-site facilities. If the County's environmental document does not address all water and sewer facilities and they are not exempt from environmental review, a supplemental environmental document will be required. This document would be prepared by a consultant. It could require several months to prepare and you would be responsible for its cost.

Summary

Service to this proposed development is contingent upon the following:

- The availability of uncommitted water supplies at the time service is requested;
- Approval of the County's environmental document by the District (if requested);
- Approval of a Facility Plan Report by the District;
- Executed grant documents for all required easements;
- Approval of an extension of facilities application by the District;
- Approval of facility improvement plans by the District;
- Construction by the developer of all onsite and offsite proposed water and sewer facilities;
- Acceptance of these facilities by the District; and
- Payment of all District connection costs.

Services shall be provided in accordance with El Dorado Irrigation District Board Policies and Administrative Regulations, as amended from time-to-time. As they relate to conditions of and fees for extension of service, District Administrative Regulations will apply as of the date of a fully executed Extension of Facilities Agreement.

If you have any questions, please contact Marc Mackay at (530) 642-4135.

Sincerely,



Michael J. Brink, P.E.
Supervising Civil Engineer

MB/MM:kh

Enclosures: System Map
FPR Guidelines and transmittal

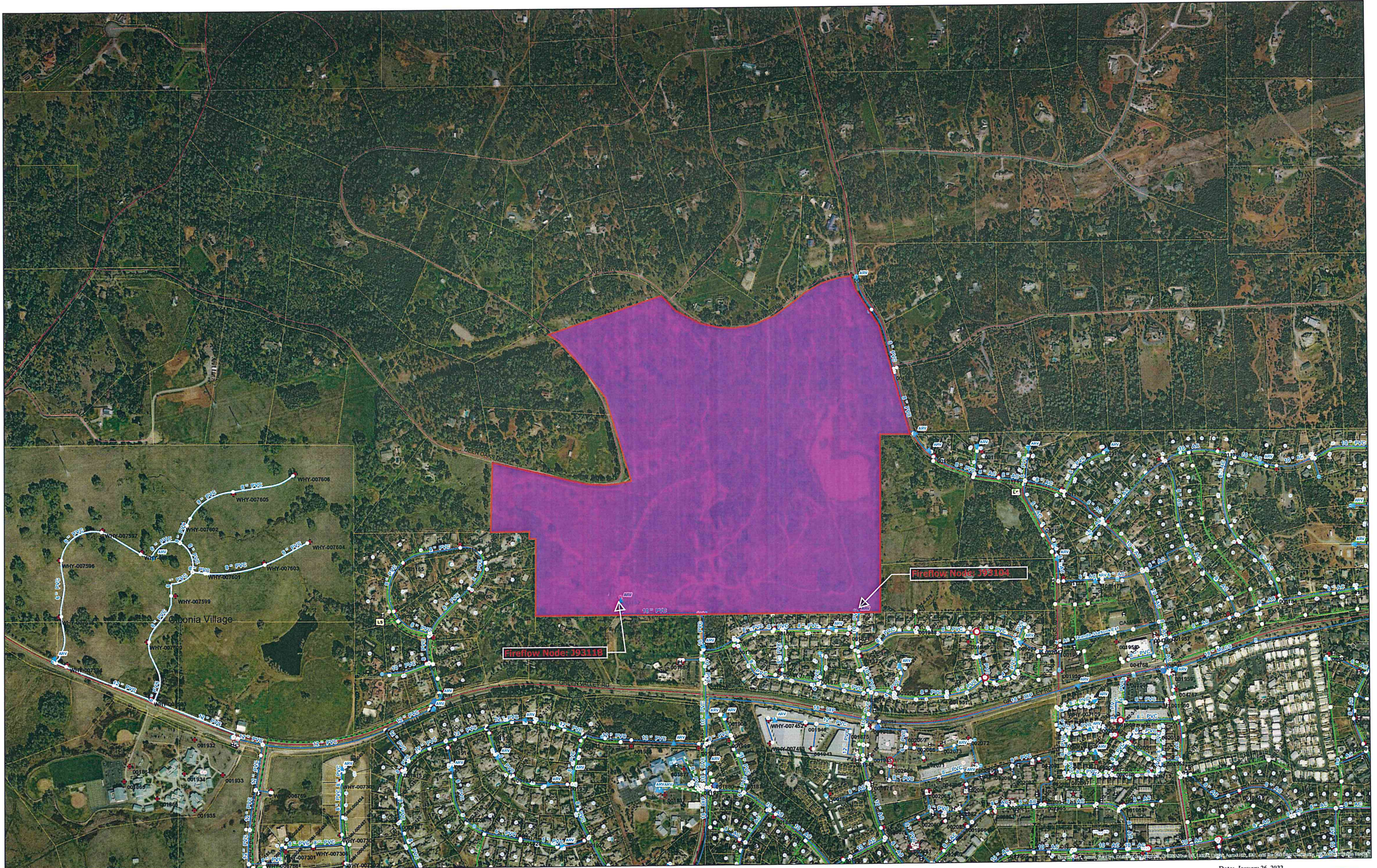
cc w/ System Map:

Gina Hamilton - Senior Planner
El Dorado County Development Services Department
Via email - gina.hamilton@edcgov.us

Ronald A. Phillips - Project Management Specialist
El Dorado Hills Fire Department
Via email - firemarshal@edhfire.com

Connie Peach
CTA Engineering & Surveying
Via email - cpeach@ctaes.net

Brian Allen, PE
CTA Engineering & Surveying
Via email - ballen@ctaes.net



Date: January 26, 2022

Project: Ciconia Village

APN: 102-210-008



Author: WSP | Approved for ArcGIS
 Published: January 26, 2022
 Disclaimer: This document is for informational purposes only. It does not constitute a contract. All work shall be checked and approved by the client.



Scale: NTS

Web Application for ArcGIS
 © Dirado Impression Design | Masser |

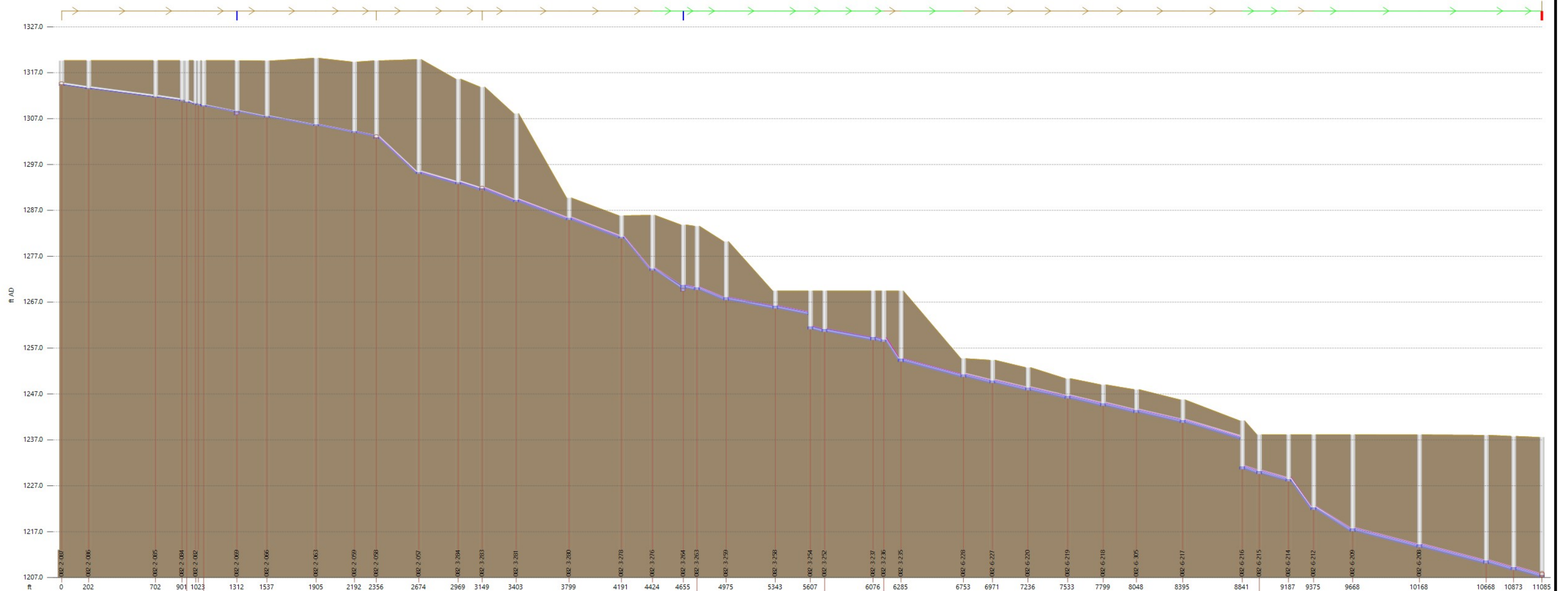
Appendix B – Existing GIS and Hydraulic Model vs. As-Built Data Comparison

Manhole ID's		Pipe Dia (inches)	Record Drawings		Model			Slope Delta (Record Drawing - Model)
Upstream MH	Downstream MH		Slope	Length [LF]	Slope	Length [LF]	Notes	
082-2-087	082-2-086	8	0.0035	202	0.00341	208.4	Inverts/diameters match	0.00009
082-2-086	082-2-085	8	0.0035	500	0.00377	464.8	Inverts/diameters match	-0.00027
082-2-085	082-2-084	8	0.0035	199	0.00453	152.2	Inverts/diameters match	-0.00103
082-2-084	082-2-083	8	0.0035	35	0.00339	35.4	Inverts/diameters match	0.00011
082-2-083	082-2-082	8	0.005302696	67.89	0.00852	66.9	Diameters match; Downstream invert should be changed from 1309.91 to 1310.12	-0.00322
082-2-082	082-2-081	8	0.010869565	19.32	0.05713	10.7	Diameters match; Downstream invert should be changed from 1309.51 to 1309.91	-0.04626
082-2-081	082-2-070	6	0.005	40	0.00148	54.2	Diameter should be changed from 8" to 6"; Upstream invert should be changed from 1309.51 to 1309.91; Downstream invert should be changed from 1309.43 to 1309.71	0.00352
082-2-070	082-2-069	6	0.005	249	0.00766	225.9	Diameter should be changed from 8" to 6"; Upstream invert should be changed from 1309.43 to 1309.63; Downstream invert should be changed from 1307.7 to 1308.39	-0.00266
082-2-069	082-2-066	6	0.005	225	0.00838	211.2	Diameter should be changed from 8" to 6"; Upstream invert should be changed from 1307.77 to 1308.39; Downstream invert should be changed from 1306.0 to 1307.26	-0.00338
082-2-066	082-2-063	6	0.005	368	0.00282	354.2	Diameter should be changed from 8" to 6"; Upstream invert should be changed from 1306.0 to 1307.26; Downstream invert should be changed from 1305.0 to 1305.42	0.00218
082-2-063	082-2-059	6	0.005	287	0.00371	269.2	Diameter should be changed from 8" to 6"; Upstream invert should be changed from 1305.0 to 1305.42; Downstream invert should be changed from 1304.0 to 1303.98	0.00129
082-2-059	082-2-058	6	0.005	164	0.00912	150.2	Diameter should be changed from 8" to 6"; Upstream invert should be changed from 1304.0 to 1303.88; Downstream invert should be changed from 1302.63 to 1303.06	-0.00412
082-2-058	082-2-057	10	0.024150943	318	0.02414	318.1	Inverts/diameters match	0.00001
082-2-057	082-3-284	10	0.0075	295	0.00732	256.9	Diameters match; Downstream invert should be changed from 1293.07 to 1292.74	0.00018
082-3-284	082-3-283	10	0.0075	180	0.0075	157.2	Diameters match; Downstream invert should be changed from 1291.56 to 1291.39	0.00000
082-3-283	082-3-281	10	0.01	254	0.01095	232	Inverts/diameters match	-0.00095
082-3-281	082-3-280	10	0.01	396	0.0102	388.3	Inverts/diameters match	-0.00020
082-3-280	082-3-278	10	0.01	392	0.01054	371.8	Inverts/diameters match	-0.00054
082-3-278	082-3-276	10	0.03	233	0.0277	240.4	Diameters match; Downstream invert should be changed from 1274.21 to 1273.88	0.00230
082-3-276	082-3-264	10	0.0165	231	0.01728	201.4	Diameters match; Downstream invert should be changed from 1270.4 to 1270.07	-0.00078
082-3-264	082-3-263	10	0.004	102	0.00548	74.8	Inverts/diameters match	-0.00148

Manhole ID's		Pipe Dia (inches)	Record Drawings		Model			
082-3-263	082-3-259	10	0.0205	218.2	0.01046	214.1	Diameters match; Large invert discrepancy at MH 082-3-263 between Drawings 2736 (i.e. 1269.66)& 4521 (i.e. 1271.87); Upstream invert to remain 1269.66 (per Drawing 2736) to maintain consistency with upstream portions of alignment; Downstream invert should be changed from 1267.42 to 1267.40	0.01004
082-3-259	082-3-258	10	0.005	367.8	0.01011	364.9	Diameters match; Upstream invert should be changed from 1267.42 to 1267.40; Downstream invert should be changed from 1263.73 to 1265.56	-0.00511
082-3-258	082-3-254	10	0.005	263.45	0.0103	248.7	Diameters match; Upstream invert should be changed from 1263.73 to 1265.56; Downstream invert should be changed from 1261.17 to 1264.25	-0.00530
082-3-254	082-3-252	10	0.005345588	106.63	0.00673	84.8	Inverts/diameters match	-0.00138
082-3-252	082-3-237	10	0.004958678	363	0.00507	355.1	Inverts/diameters match	-0.00011
082-3-237	082-3-236	10	0.00425	80	0.00521	65.2	Inverts/diameters match	-0.00096
082-3-236	082-3-235	10	0.032248062	129	0.02899	143.5	Inverts/diameters match; However, Sheet 10 of Drawing 2036 appears to contain a stationing/slope error in the profile for this pipe segment (i.e. missing MH 082-3-236); the slope in column C of this excel file was calculated using the correct inverts/lengths from Drawing 2036 and will be replicated in the model.	0.00326
082-3-235	082-6-228	10	No associated record drawing (used upstream and downstream inverts from adjacent record drawings)		0.00586	467.2	Diameter to remain 10"; Inverts to be taken from Drawing 2036's manhole 082-3-235 (i.e. 1254.0) and Drawing 1854's manhole 082-6-228 (i.e. 1250.66).	0.00129
082-6-228	082-6-227	12	0.006	218	0.00911	198.6	Diameter should be changed from 10" to 12"; Upstream invert changed from 1251.16 to 1250.66	-0.00311
082-6-227	082-6-220	12	0.006	265	0.00673	236.4	Diameter should be changed from 10" to 12"; Inverts match	-0.00073
082-6-220	082-6-219	12	0.006	276.3	0.00806	297.8	Significant discrepancies between plan and profile found in Drawing 1854 for this pipe segment and the next 3 downstream pipe segments. However, the common slope of 0.006 for all 4 pipe segments (which total ~1159 LF) as stated in the record drawing can be maintained by making the stated changes for each pipe segments' inverts: For length of 297.8 LF, downstream invert should be changed from 1245.36 to 1245.973	-0.00206
082-6-219	082-6-218	12	0.006	N/A	0.00568	239.3	Diameter matches; Change length from 239.3 to 266.1; Change upstream invert from 1245.36 to 1245.973; Change downstream invert from 1244.00 to 1244.376	0.00032

Manhole ID's		Pipe Dia (inches)	Record Drawings		Model			
082-6-218	082-6-305	12	0.006	N/A	0.00469	221.9	Diameter matches; Change length from 221.9 to 248.9; Change upstream invert from 1244.00 to 1244.376; Change downstream invert from 1242.96 to 1242.883	0.00131
082-6-305	082-6-217	12	0.006	N/A	0.00621	346.2	Diameter matches; Change upstream invert from 1242.96 to 1242.883; Downstream invert matches Drawing 1854 invert (i.e. 1240.81)	-0.00021
082-6-217	082-6-216	12	0.008	446	0.00833	428.5	Inverts/diameters match	-0.00033
082-6-216	082-6-215	12	0.007	128	0.00853	105.5	Inverts/diameters match	-0.00153
082-6-215	082-6-214	12	0.007	218	0.00755	202.6	Inverts/diameters match	-0.00055
082-6-214	082-6-212	12	0.033	188	0.03019	192.1	Diameter matches; Change upstream invert from 1228.04 to 1227.94; Change downstream invert from 1222.24 to 1221.74	0.00281
082-6-212	082-6-209	12	0.016	293	0.01494	280.5	Diameter matches; Change downstream invert from 1217.55 to 1217.05	0.00106
082-6-209	082-6-208	12	0.007	500	0.00769	455	Inverts/diameters match	-0.00069
082-6-208	082-6-207	12	0.007	500	0.00709	493.3	Inverts/diameters match	-0.00009
082-6-207	082-6-205	12	0.007	205	0.00464	202.7	Diameter matches; Change downstream invert from 1209.11 to 1208.61	0.00236
082-6-205	082-6-120	12	0.007	212	0.00571	201.5	Diameter matches; Change downstream invert from 1207.46 to 1207.13	0.00129

Appendix C – Hydraulic Model Results Profiles



Link	-	082-2-086.1	-	-	-	082-2-066.1	-	-	082-2-058.1	082-2-057.1	-	-	082-3-281.1	082-3-280.1	-	-	082-3-259.1	-	082-3-252.1	-	-	082-3-235.1	-	-	082-6-220.1	-	-	082-6-305.1	082-6-217.1	-	-	082-6-212.1	082-6-209.1	082-6-208.1	-	-		
width (in)	8.0	8.0	8.0	6.0	6.0	6.0	6.0	6.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
ds inv (ft AD)	-	1311.690	-	1308.390	1307.260	1305.420	1303.980	-	1294.950	1292.740	-	1288.850	1284.890	1280.970	1273.880	1270.070	-	1265.560	1264.250	1258.700	-	-	1250.660	-	-	1247.760	1245.973	1244.376	1242.883	1240.810	1237.140	-	-	1217.050	1213.550	1210.050	-	-
grad (%)	0.351	0.350	0.347	0.498	0.502	0.500	0.502	0.500	2.415	0.749	0.750	1.000	1.000	3.000	1.649	0.497	1.036	0.500	0.497	0.496	-	-	0.715	0.601	0.600	0.600	0.600	0.600	0.599	0.800	0.52	0.702	3.298	1.601	0.700	0.702	0.698	
surc	0.19	0.20	0.20	0.35	0.39	0.48	0.48	0.50	0.34	0.34	0.40	0.40	0.40	0.40	0.66	0.65	0.65	0.64	0.64	0.69	-	0.44	0.63	0.49	0.49	0.50	0.50	0.50	0.50	0.46	0.52	0.52	0.43	0.54	0.54	0.54	0.55	0.54
DS flow (MGD)	0.0274	0.0294	0.0294	0.0579	0.0592	0.0731	0.1075	-	0.2833	0.2881	0.2930	0.4438	0.4487	0.4571	0.4746	0.5770	0.7071	0.7211	0.7366	0.7529	-	-	0.8328	0.8371	0.8390	0.8508	0.8565	0.8616	0.8690	0.8740	-	1.0251	1.0308	1.0348	1.0561	1.0684	1.0758	1.0812
DS velocity (ft/s)	1.091	1.134	1.134	1.442	1.293	1.233	2.094	2.172	2.655	2.673	2.239	3.334	3.373	3.451	3.558	2.325	2.928	2.967	3.504	2.903	-	-	3.666	3.375	3.355	3.390	3.401	3.406	3.471	3.837	-	3.838	4.992	3.746	3.771	3.796	3.766	3.831
Node ground (ft AD)	-	1319.654	1319.652	-	-	1319.566	1320.154	-	-	1319.871	-	-	1308.091	1289.703	1285.835	-	-	1280.202	1269.423	-	-	1269.423	1254.695	-	1252.760	1250.360	-	1247.960	1245.710	1241.140	-	-	-	1238.124	1238.106	1238.001	-	-

