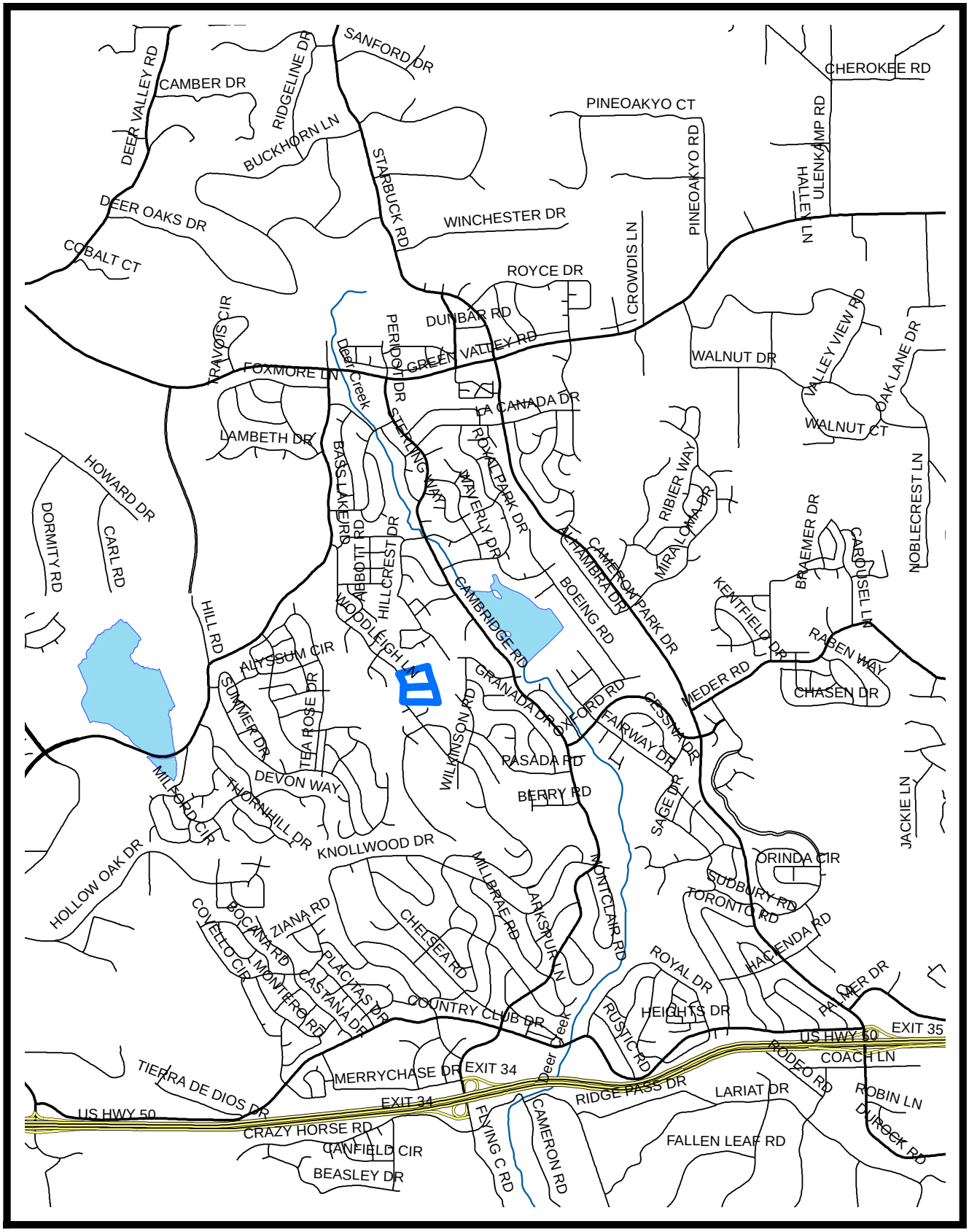

TM17-1532: Sierra Sunrise
Location Map
Exhibit A

Sierra Sunrise Project

0 0.3 0.6 1.2 Miles

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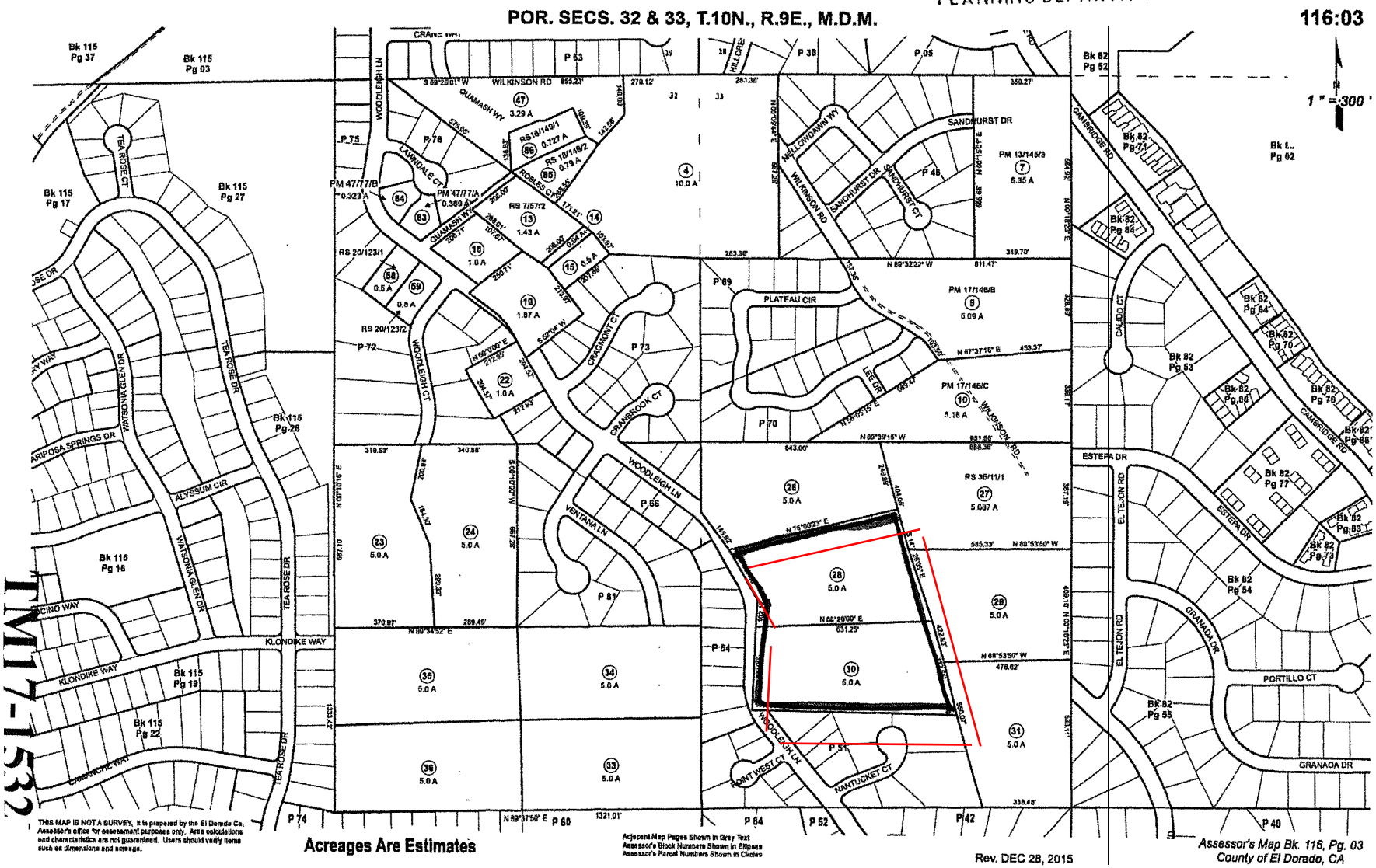
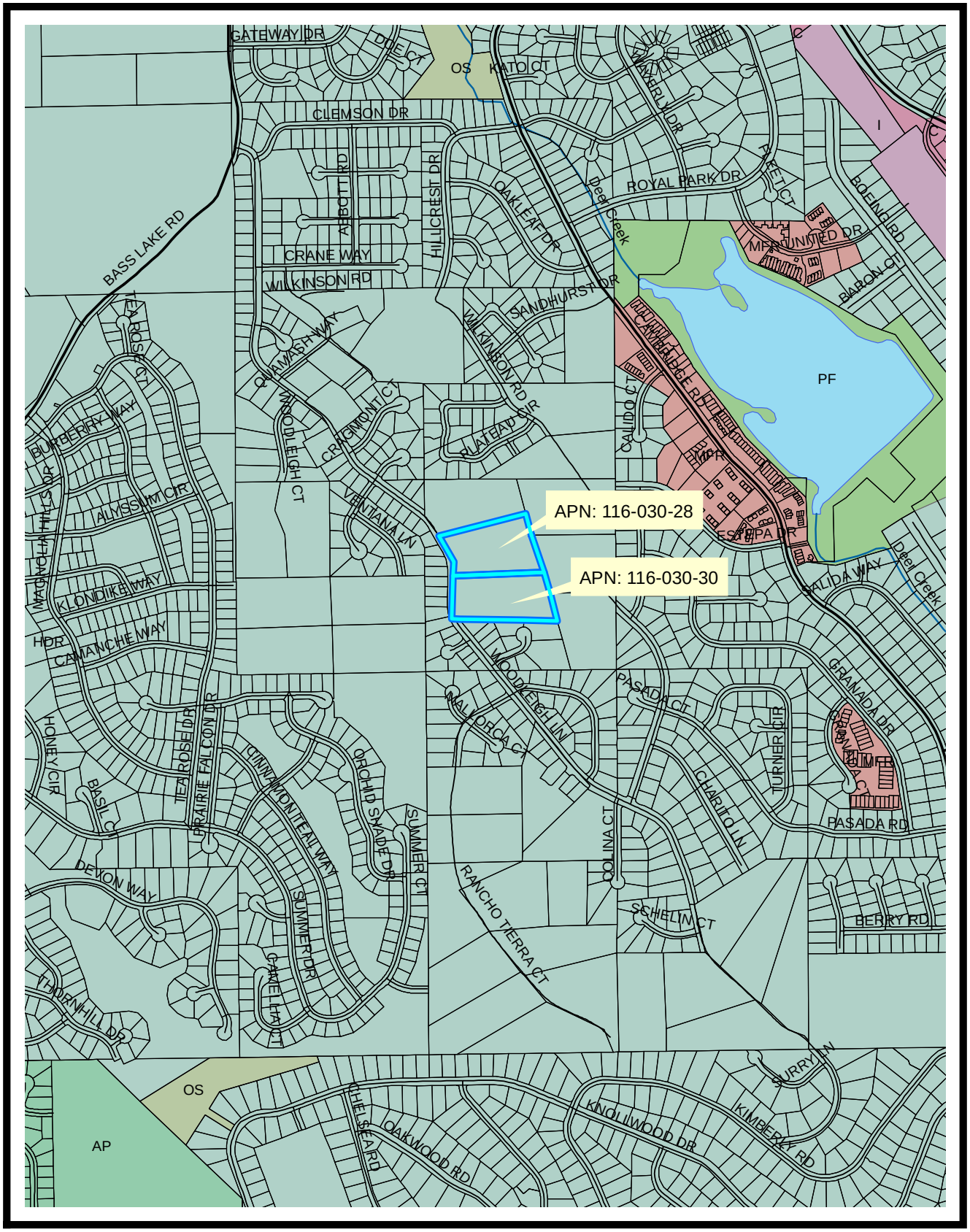
PLANNING DEPARTMENT



THIS MAP IS NOT A SURVEY. It is prepared by the El Dorado Co. Assessor's office for assessment purposes only. Area calculations and characteristics are not guaranteed. Users should verify items such as dimensions and acreage.

TM17-1532

Exhibit B

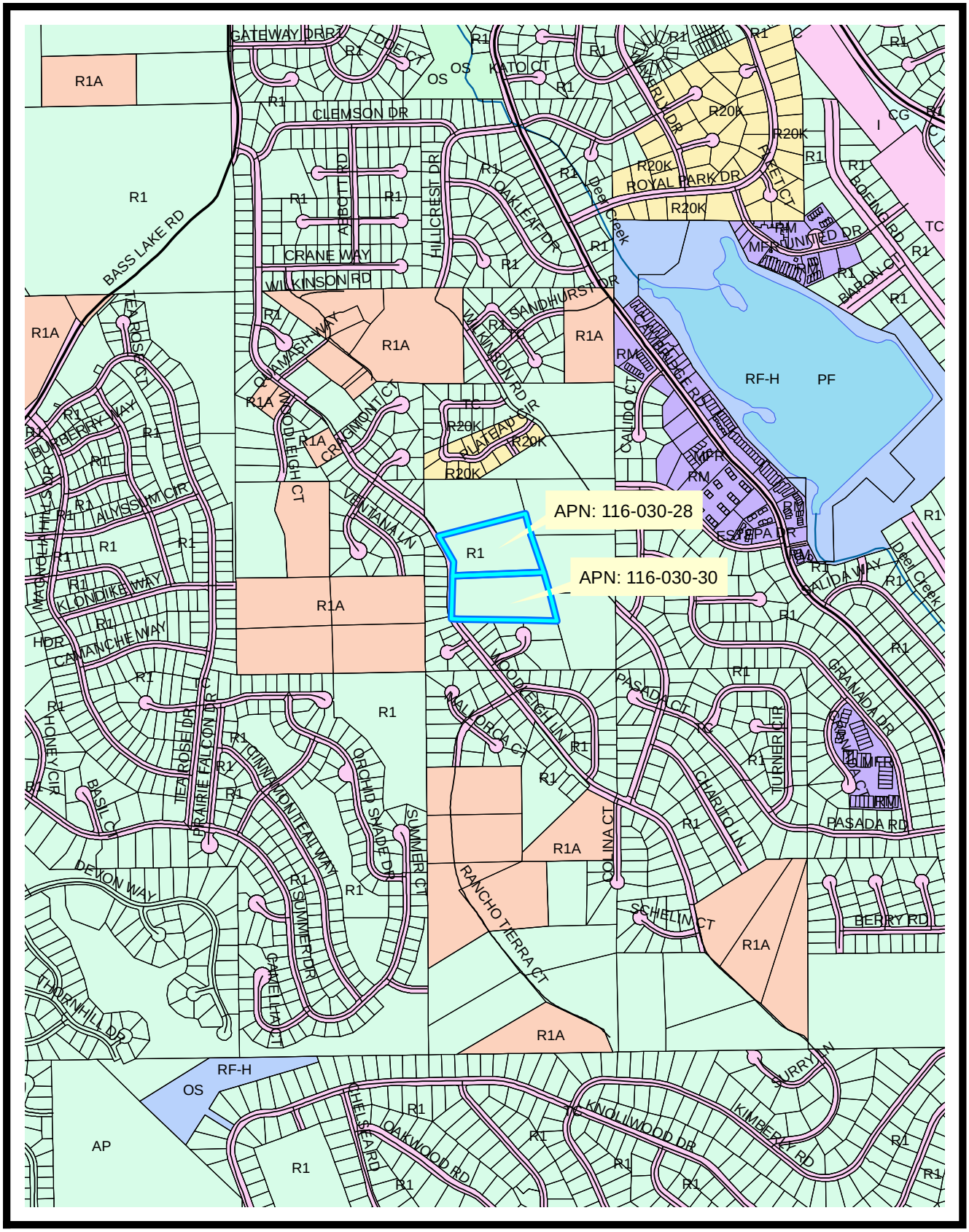


TM17-1532: Sierra Sunrise
General Plan Map
Exhibit C

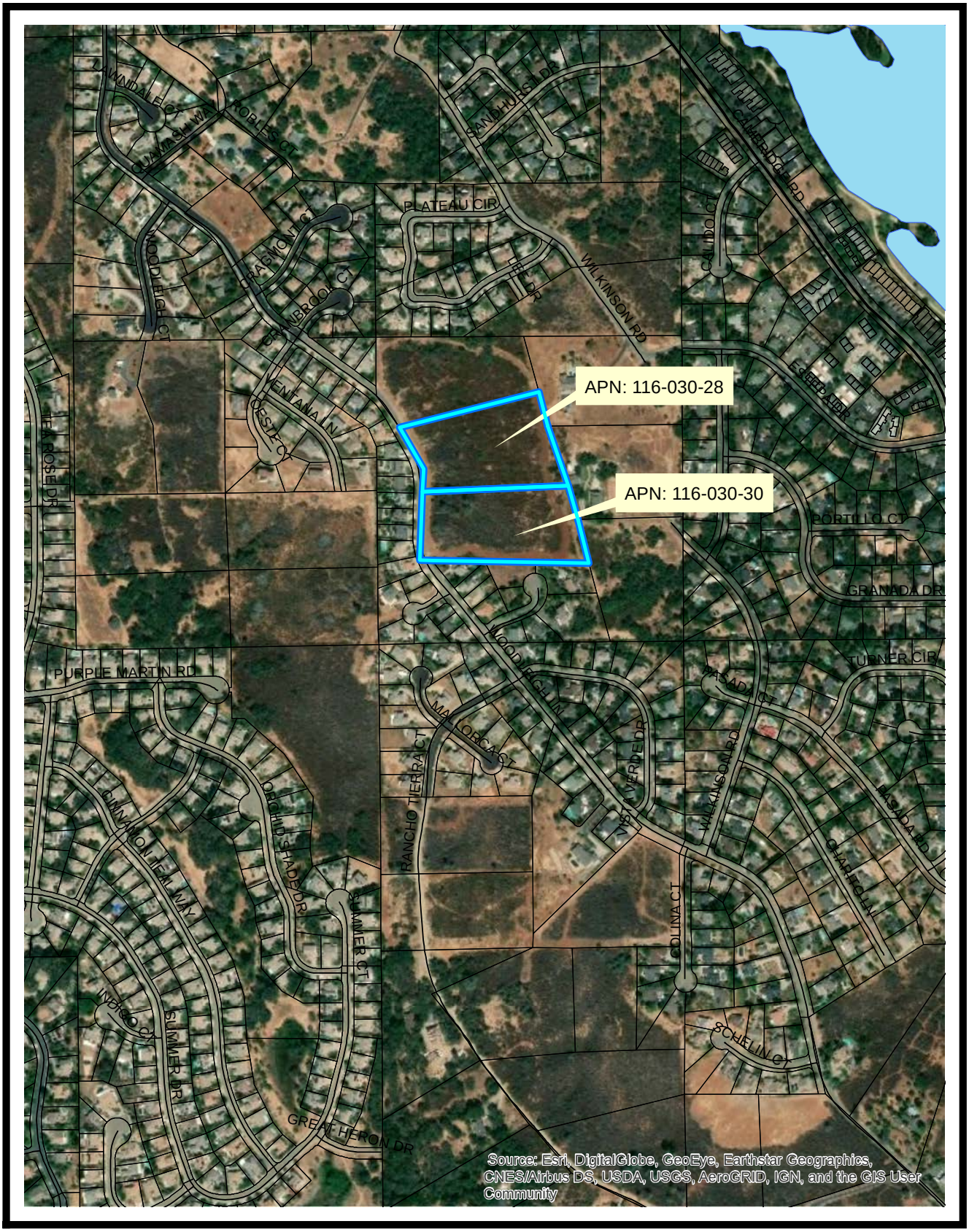
AP
C
HDR
I
MFR
OS
PF

0 0.1 0.2 0.4 Miles

N



TM17-1532: Sierra Sunrise
Zoning Map
Exhibit D



TM17-1532: Sierra Sunrise
Aerial Map
Exhibit E

0 0.05 0.1 0.2 Miles

N

2017 MAY 22 AM 9:30
RECEIVED
PLANNING DEPARTMENT

TENTATIVE MAP

SIERRA SUNRISE

COUNTY OF EL DORADO MAY, 2017 STATE OF CALIFORNIA

OWNERS OF RECORD

PACIFIC STATES DEVELOPMENT
991 GOVERNOR DRIVE, SUITE 106
EL DORADO HILLS, CA 95762

APPLICANT

PACIFIC STATES DEVELOPMENT
991 GOVERNOR DRIVE, SUITE 106
EL DORADO HILLS, CA 95762

ENGINEER

cta Engineering & Surveying
Civil Engineering ▪ Land Surveying ▪ Land Planning
3233 Monier Circle, Rancho Cordova, CA 95742
T (916) 638-0919 ▪ F (916) 638-2479 ▪ www.ctaes.net

MAP SCALE

1" = 60'

CONTOUR INTERVAL

CONTOUR INTERVAL = 2 FEET

SOURCE OF TOPOGRAPHY

AERIAL PHOTOGRAPHY

SECTION, TOWNSHIP and RANGE

SECTIONS 32, T. 10 N., R. 9 E. M.D.M.

ASSESSOR'S PARCEL NUMBERS

116-030-028
116-030-030

PROPOSED ZONING

R1

PRESENT ZONING

R1

TOTAL AREA

10.00 ACRES

TOTAL NUMBER OF PARCELS

8 – RESIDENTIAL LOTS
1 – ROADWAY LOT
9 – LOTS TOTAL

MINIMUM LOT AREA

17,329 SQUARE FEET

WATER SUPPLY and SEWAGE DISPOSAL

EL DORADO IRRIGATION DISTRICT

PROPOSED STRUCTURAL FIRE PROTECTION

CAMERON PARK CSD (FIRE DEPARTMENT)

DATE OF PREPARATION

MAY, 2017

PHASING PLAN NOTICE

THE SUBDIVIDER MAY FILE MULTIPLE FINAL MAPS FOR THIS PROJECT. THE SUBDIVIDER SHALL NOT BE REQUIRED TO DEFINE THE NUMBER OR CONFIGURATION OF THE PROPOSED MULTIPLE FINAL MAPS. (PER THE SUBDIVISION MAP ACT, SECTION 66456.1)

ENGINEER'S CERTIFICATE

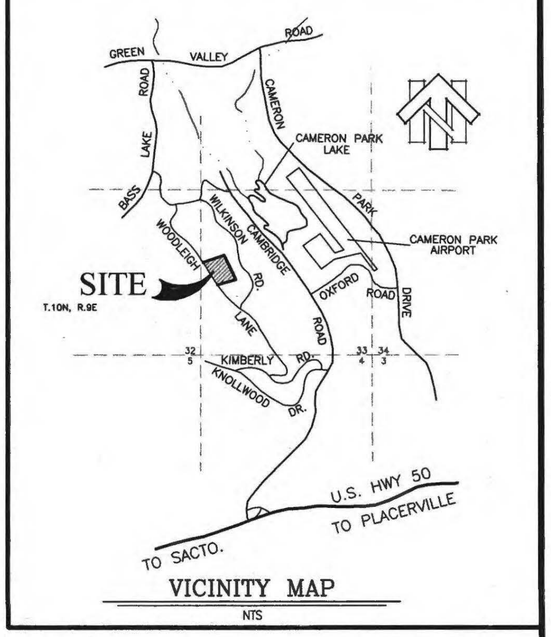
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE LAND DEVELOPMENT KNOWN AS SIERRA SUNRISE HAS BEEN DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS AND GUIDELINES ESTABLISHED BY THE COUNTY OF EL DORADO.

ENGINEER'S NAME R.C.E. 34520 DATE 5-16-17

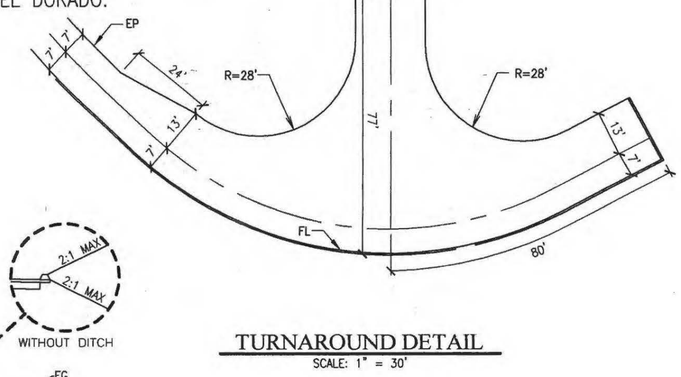
LEGEND

- SUBDIVISION BOUNDARY
- LOT LINE
- (E) EASEMENT
- PROPOSED EASEMENT
- (E) LOT LINES
- (E) RW
- (E) PIPE
- (E) FIRE HYDRANT
- TREES

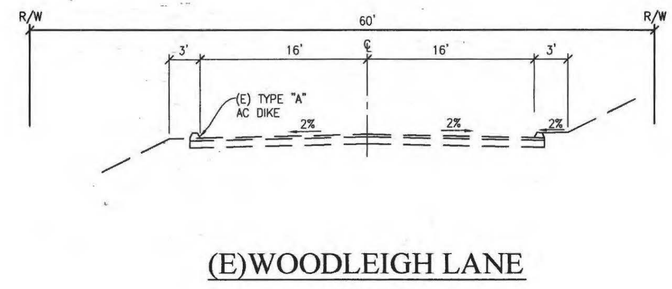
0 30' 60' 120'
SCALE: 1" = 60'



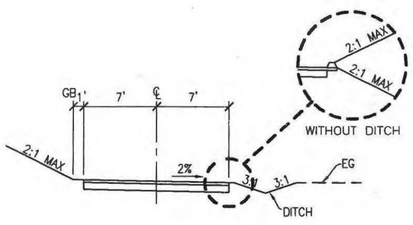
VICINITY MAP
NTS



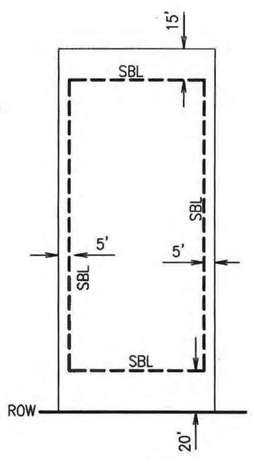
TURNAROUND DETAIL
SCALE: 1" = 30'



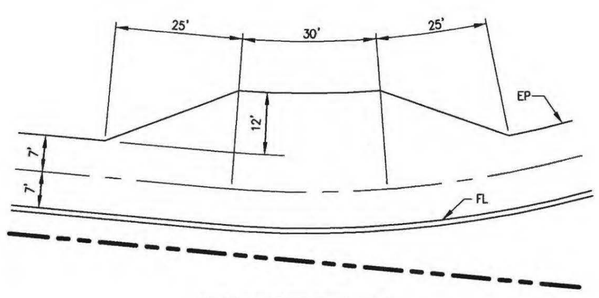
(E)WOODLEIGH LANE
SCALE: 1"=10'



DRIVEWAY
SCALE: 1"=10'



R1
BUILDING SETBACKS
SCALE: 1"=50'



TURNOUT DETAIL
SCALE: 1" = 20'

NOTE:
NO IMPROVEMENTS FOR THIS PROJECT NOT WITHSTANDING NECESSARY REPAIRS IN ACCORDANCE WITH EDC STANDARDS.

TM17-1532

PLANNING COMMISSION: _____

APPROVAL/DENIAL DATE: _____

Exhibit F

M:\16-047-001\PLANNING\TENTATIVE MAP\16-047-001-TM.dwg, 5/17/2017 3:51:00 PM, zdosu, 1:1

PRELIMINARY GRADING & DRAINAGE PLAN

SIERRA SUNRISE

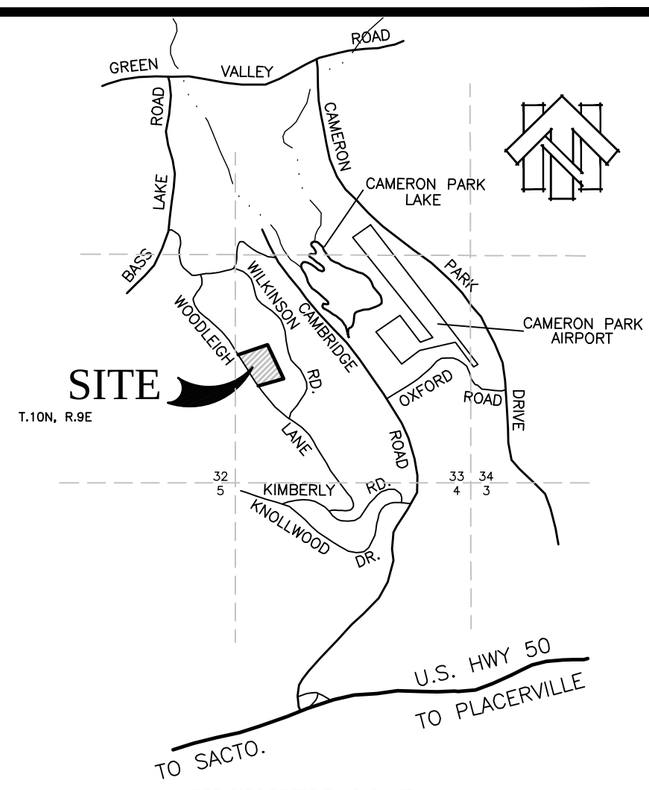
COUNTY OF EL DORADO MAY, 2018 STATE OF CALIFORNIA

LEGEND

1035	PROPOSED CONTOUR
1125	EXISTING CONTOUR
P=1022.0	PROPOSED PAD ELEVATION
RSP, SD, OUTFALL	PROPOSED DRAINAGE SYSTEM
2:1 UNLESS OTHERWISE NOTED, TOP, TOE	PROPOSED SLOPE BANK
	PROPOSED DITCH
	BUILDING PAD
	PROPOSED DAYLIGHT LINE
(B)	CLASS B LOT (REAR & FRONT DRAINING)

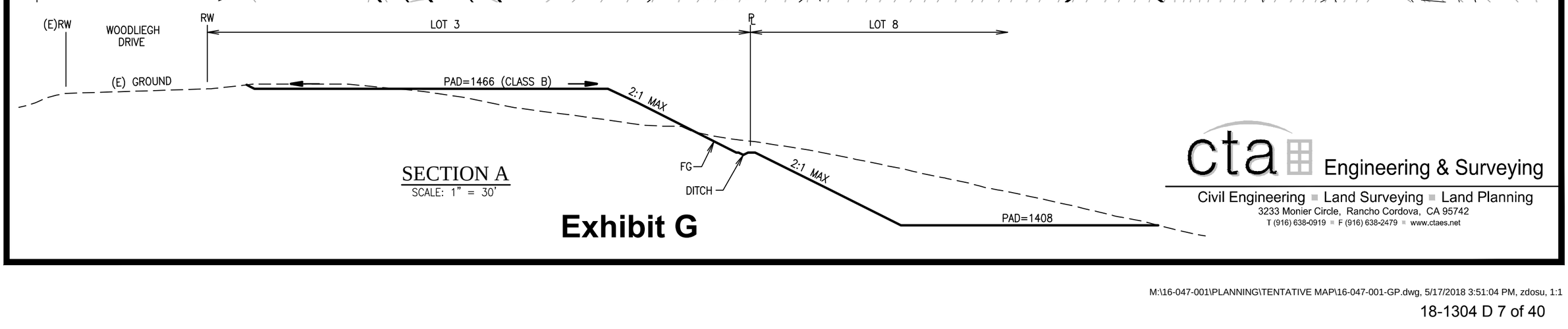
EARTHWORK

EXCAVATION: 24,800 CY ±
EMBANKMENT: 24,800 CY ±



VICINITY MAP
NTS

0 30' 60' 120'
SCALE: 1" = 60'



SECTION A
SCALE: 1" = 30'

Exhibit G

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El Dorado Irrigation District

Letter No.: EEO 2016-1275

October 14, 2016

VIA FIRST-CLASS MAIL

Bill Fisher
Pacific States Development
991 Governor Drive, Suite 103
El Dorado Hills, CA 95762

Subject: Facility Improvement Letter (FIL), Sierra Sunrise
Assessor's Parcel No. 116-030-28, 30 (Cameron Park)
EDC Project No: TM 88-1095R

Dear Mr. Fisher:

This letter is in response to your request dated August 31, 2016 and is valid for a period of three years. If facility improvement plans for your project are not 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 an 18-lot residential subdivision on 10 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, 2016, there were 12,537 equivalent dwelling units (EDUs) of water supply available in the Western/Eastern Water Supply Region. Your project as proposed on this date would require 16 EDUs of water supply.

Water Facilities
A 12-inch water line exists in Woodleigh Lane (see enclosed System Map). The Cameron Park Fire Department has determined that the minimum fire flow for single family dwellings less than 3,600 square feet is 1,000 GPM for a 2-hour duration while maintaining a 20-psi residual pressure, homes larger than 3,600 square feet will require 1,500 GPM. According to the

Exhibit H

TM17-1532

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 water line extension connecting to the 12-inch waterline located in Woodleigh Lane. The hydraulic grade line for the existing water distribution facilities is 1,575 feet above mean sea level at static conditions and 1,545 feet above mean sea level during fire flow (1,500 GPM) and maximum day demands. The hydraulic grade line for the existing facilities during a 1,000 GPM fire flow is 1,558 feet above mean sea level.

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

Sewer Facilities
There is a 6-inch sewer line located in Woodleigh Lane. This sewer line has adequate capacity at this time. There are several service stubs to the property along Woodleigh Lane. In order to receive service from this line, an extension of facilities of adequate size must be constructed. Your project as proposed on this date would require 16 EDUs of sewer service.

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 on site or off site. 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);
- 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:at

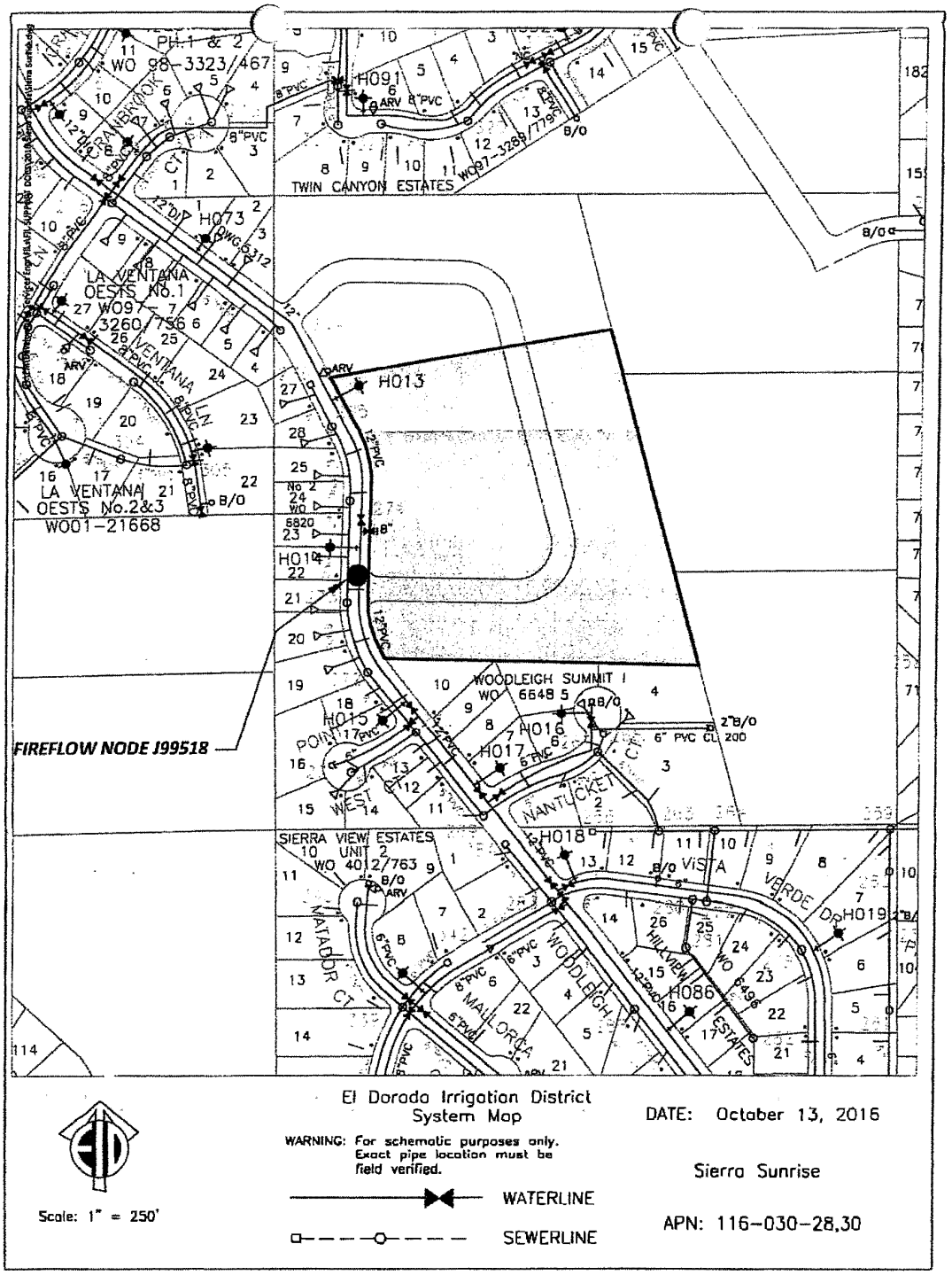
Enclosures: System Map

cc w/ System Map:

Michael Smith – Battalion Chief/ Fire Marshal
Cameron Park Fire Department
Via email – mike.smith@fire.ca.gov

Olga Sciorelli, PE
CTA Engineering & Surveying
3233 Monier Circle
Rancho Cordova, CA 95742

Roger Trout, Director
El Dorado County Development Services Department
Via email - roger.trout@edcgov.us


FIREFLOW NODE J99518
TWIN CANYON ESTATES
LA VENTANA OESTS No.1
LA VENTANA OESTS No.2&3
WOODLEIGH SUMMIT I
SIERRA VIEW ESTATES 10 UNIT 2
H013
H014
H015
H016
H017
H018
H019
H086
H091
El Dorado Irrigation District
System Map
DATE: October 13, 2016
WARNING: For schematic purposes only. Exact pipe location must be field verified.
WATERLINE
SEWERLINE
Sierra Sunrise
APN: 116-030-28,30
Scale: 1" = 250'

SIERRA SUNRISE

DRAINAGE REPORT

Prepared Under the Direction Of:

Prepared: May 2017

cta Engineering & Surveying

Civil Engineering ■ Land Surveying ■ Land Planning

Exhibit I

TABLE OF CONTENTS

INTRODUCTION

Sierra Sunrise encompasses approximately 10 acres near the western limit of the community of Cameron Park. The site is located south of Green Valley Road between Bass Lake Road and Cambridge Road, on the east side of Woodleigh Lane. At present the study area is vacant land overgrown with native brush and grass. Adjacent land use is single-family residential.

Site topography is defined by a north-south ridgeline that parallels Woodleigh Lane just within the project boundary. A small portion of the site fronting on Woodleigh Lane drains to the west, flowing onto the street as sheet runoff, thence southward in Woodleigh Lane to a rock-lined ditch alongside Nantucket Court. Ditch outflow enters a defined natural channel that originates beyond the southeast property corner and drains towards the east. The drainage system continues eastward through established residential area as a series of unmaintained channel segments and culvert crossings, and ultimately reaches Deer Creek less than 0.4 miles east.

The balance of the site slopes to the east at an average gradient of approximately 20%. Natural runoff crosses the project area as sheet flows and is dispersed along the eastern boundary, continuing as sheet runoff into the existing channel/culvert drainage network. Site runoff converges within the channel system approximately 0.2 miles east of the site at Point A, shown on the Regional Shed Map. The estimated drainage area at this point is approximately 77 acres.

Proposed Sierra Sunrise development will create 7 Class B single-family residential lots averaging 20,000 square feet in area, fronting on Woodleigh Lane. An eighth lot will be accessed from Woodleigh Lane via private driveway, as shown. Drainage improvements will consist of onsite ditches and a single run of storm drain piping.

Sierra Sunrise is subject to the requirements of the NPDES Phase II permit process administered by the State Water Resources Control Board. The project will include site design and hydro-modification measures, to the extent practicable, in compliance with these requirements. Details will be included with project improvement plans

PROCEDURES

The drainage analyses for Sierra Sunrise were carried out in conformance with guidelines and procedures of the *County of El Dorado Drainage Manual*, adopted March 14, 1995.

A. SHED AREAS – Shed areas used in drainage analyses are shown on the enclosed Shed Maps.

B. PRECIPITATION – Precipitation data for Sierra Sunrise are included in Appendix A. Mean annual precipitation for the project area is approximately 29 inches. Corresponding rainfall intensities for durations of 10 through 30 minutes were obtained from the *Drainage Manual.* The 24-hour precipitation totals for storms of 10- and 100-year recurrence intervals are 4.0" and 5.7", respectively.

TABLE 1 - DESIGN RAINFALL INTENSITIES

DURATION (min)	10 YEAR STORM INTENSITY (in/hr)	100 YEAR STORM INTENSITY (in/hr)
10	1.85	2.61
15	1.51	2.15
30	1.08	1.54

C. TIMES OF CONCENTRATION – Times of concentration are summarized in Table B-1 in Appendix B. Travel times were computed for pre- and post-project conditions utilizing Equations 2.4.7 and 2.4.8 from the *Drainage Manual*. A minimum 10-minute time of concentration was used.

D. SOILS REPORT – Excerpts from the Soil Resources Report covering the Sierra Sunrise watershed area are included in Appendix B.

E. RUNOFF COEFFICIENTS – A runoff curve number was assigned to each shed area based on visual apportionment land uses, underlain by soils in hydrologic soil group C, based on the following values from *Drainage Manual* Tables 2-2a & 2-2c.

Open space – grass cover 50-75% CN = 79
Open Space – brush-weed-grass mix, good condition CN = 65
Landscaping – approx. 75% coverage & native vegetation combo CN = 70
Pavement / impervious – CN=98

Runoff coefficients used in peak flow computations are derived from C vs CN relationships appended to the *Drainage Manual*.

F. PEAK RUNOFF – Peak on-site runoff values for storms of 10- and 100-year return frequencies were computed utilizing the rational formula Q=CiA. In the equation, Q is flow in cfs, C is a non-dimensional runoff coefficient ≤ one; i is rainfall intensity in inches per hour associated with the design storm under consideration and the time of runoff concentration of the watershed, and; A is the catchment area, in acres. Input parameters used in the runoff computations are shown in Table C-1, Appendix C.

G. RUNOFF HYDROGRAPHS -The hydrograph method, utilizing the HEC-HMS computer program, was used to estimate pre- and post-project regional runoff at Point A in the offsite drainage system where the entire Sierra Sunrise site contributes. The location of Point A was approximated from topographic information. Flow computations are based on 24-hour precipitation totals temporally distributed as an SCS Type I storm, for 10- and 100-year recurrence intervals. Results are included in Appendix E, and summarized in Table 3.

RESULTS AND CONCLUSIONS

- Please refer to Pre- and Post-Development Shed Maps for shed locations. Runoff from on-site sheds, computed by the peak runoff method, is summarized in Table 2. Details are included in Appendix D. As shown, project development may increase site runoff by less than 1.5 cfs within any given shed during a 100-year event.

TABLE 2 - SITE RUNOFF SUMMARY

SCENARIO	10-YEAR (cfs)				100-YEAR (cfs)			
	Onsite Shed				Onsite Shed			
	A	B	A+B	C	A	B	A+B	C
Pre-Development	1.4	0.6		3.5	2.3	1.3		8.6
Post-Development	2.2	1	3.4	4.6	4.1	1.6	5.9	9.9

- A field reconnaissance of downstream drainage channels and culvert crossings indicates that existing facilities are capable of handling the increased runoff anticipated to result from development of Sierra Sunrise. A more thorough field survey will be performed at the improvement plan stage to validate the preliminary finding. If necessary, project design will include detention storage as a mitigation measure.

- Runoff from Sierra Sunrise converges within the existing channel system approximately 0.2 miles east of the site at Point A, shown on the Regional Shed Map. The estimated drainage area is approximately 77 acres. HEC-HMS was used to estimate regional runoff at Point A under pre- and post-development conditions on the Sierra Sunrise site. Results are summarized in Table 2. Detailed information is included in Appendix D. The effects of the proposed project were found to be minimal when considered within the context of the regional runoff model.

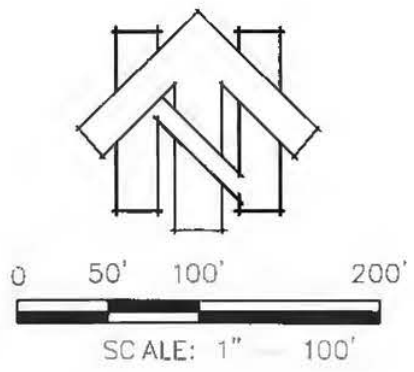
TABLE 3 – REGIONAL RUNOFF SUMMARY: FLOWS AT POINT A

SCENARIO	10-YEAR RUNOFF (cfs)	100-YEAR RUNOFFF (cfs)
Pre-Sierra Sunrise	57	109
Post-Sierra Sunrise	58	110

- Improvement plans for Sierra Sunrise will include site design and hydro-modification measures, to the extent practicable, in compliance with requirements of the NPDES Phase II permit process.

SIERRA SUNRISE
PRE-DEVELOPMENT SHED MAP
EL DORADO COUNTY, CALIFORNIA

SCALE: 1"=100' MAY, 2017



LEGEND:

PROJECT BOUNDARY

SHED BOUNDARY

A / 3.5 — SHED I.D. & AREA in ACRES

cta Engineering & Surveying
Civil Engineering • Land Surveying • Land Planning
3233 Monier Circle, Rancho Cordova, CA 95742
T (916) 638-0919 F (916) 638-3479 www.ctaeng.net

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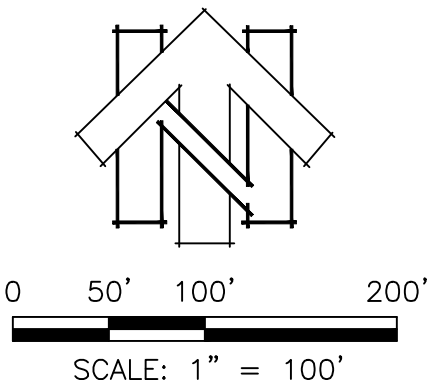
SIERRA SUNRISE

POST-DEVELOPMENT SHED MAP

EL DORADO COUNTY, CALIFORNIA

SCALE: 1"=100'

MAY 2017
Updated MAY 2018



LEGEND:

PROJECT BOUNDARY

SHED BOUNDARY

A / 3.5 — SHED I.D. & AREA in ACRES

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T (916) 638-0919 ■ F (916) 638-2479 ■ www.ctaes.net

SIERRA SUNRISE
REGIONAL SHED MAP
EL DORADO COUNTY, CALIFORNIA

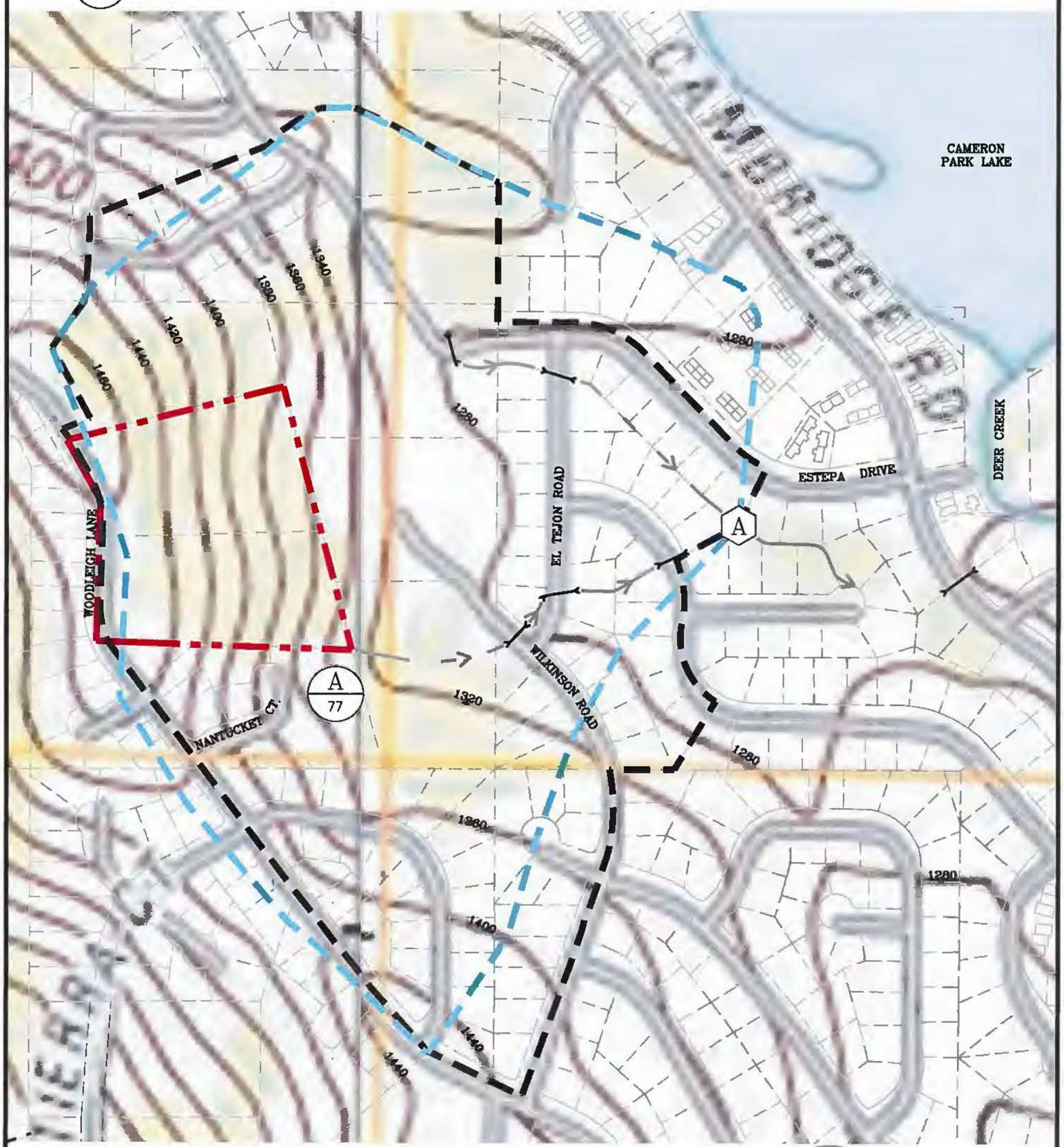
SCALE: 1"=300' MAY, 2017

LEGEND:

- PROJECT BOUNDARY
- APPROXIMATE SHED BOUNDARY
- APPROXIMATE SHED BOUNDARY (1949 USGS QUAD MAP)
- APPROXIMATE FLOW LINE
- APPROXIMATE CULVERT LOCATION
- KEY POINT
- SHED I.D. & AREA in ACRES

0 150' 300' 600'

SCALE: 1" = 300'



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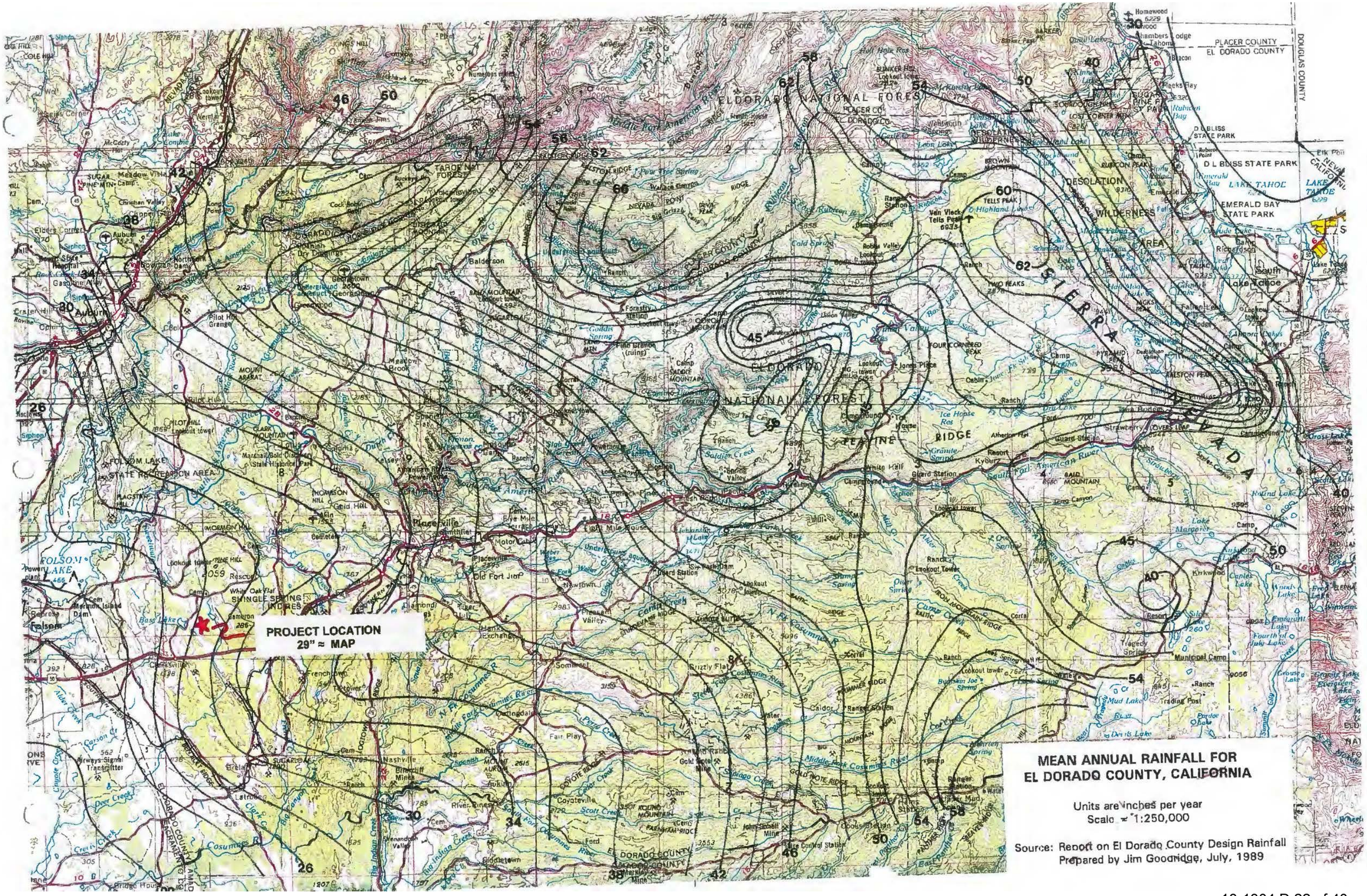
APPENDIX A

PRECIPITATION DATA


PROJECT LOCATION
29" ≈ MAP
MEAN ANNUAL RAINFALL FOR
EL DORADO COUNTY, CALIFORNIA
Units are inches per year
Scale = 1:250,000
Source: Report on El Dorado County Design Rainfall
Prepared by Jim Goodridge, July, 1989
EL DORADO NATIONAL FOREST
TAHOE NAT FOREST
PLACER COUNTY
EL DORADO COUNTY
DOUGLAS COUNTY
DESOLATION WILDERNESS
SIERRA NEVADA
LAKE TAHOE
D L BLISS STATE PARK
EMERALD BAY STATE PARK
FOLSOM LAKE STATE RECREATION AREA

El Dorado Design Rainfall

Rainfall Depth in Inches for Return Period = 10 years

Mean Annual Precipitation	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hrs	3 Hrs	6 Hrs	12 Hrs	24 Hrs
20	0.167	0.239	0.295	0.422	0.603	0.863	1.065	1.524	2.180	3.120
22	0.177	0.254	0.313	0.448	0.640	0.916	1.130	1.617	2.314	3.311
24	0.188	0.269	0.332	0.475	0.679	0.972	1.198	1.715	2.454	3.511
26	0.199	0.284	0.350	0.502	0.718	1.027	1.267	1.812	2.594	3.711
28	0.209	0.300	0.369	0.529	0.756	1.082	1.335	1.910	2.733	3.911
30	0.220	0.315	0.388	0.556	0.795	1.138	1.403	2.008	2.873	4.111
32	0.231	0.330	0.407	0.583	0.834	1.193	1.471	2.105	3.013	4.311
34	0.241	0.345	0.426	0.610	0.872	1.248	1.540	2.203	3.153	4.511
36	0.252	0.361	0.445	0.637	0.911	1.304	1.608	2.301	3.292	4.711
38	0.263	0.376	0.464	0.664	0.950	1.359	1.676	2.398	3.432	4.911
40	0.274	0.391	0.483	0.691	0.988	1.414	1.744	2.496	3.572	5.111
42	0.284	0.407	0.502	0.718	1.027	1.470	1.813	2.594	3.712	5.311
44	0.295	0.422	0.520	0.745	1.066	1.525	1.881	2.691	3.851	5.511
46	0.306	0.437	0.539	0.772	1.104	1.580	1.949	2.789	3.991	5.711
48	0.316	0.453	0.558	0.799	1.143	1.636	2.017	2.887	4.131	5.911
50	0.327	0.468	0.577	0.826	1.182	1.691	2.086	2.984	4.271	6.111
52	0.338	0.483	0.596	0.853	1.221	1.747	2.154	3.082	4.410	6.311
54	0.348	0.499	0.615	0.880	1.259	1.802	2.222	3.180	4.550	6.511
56	0.359	0.514	0.634	0.907	1.298	1.857	2.290	3.277	4.690	6.711
58	0.370	0.529	0.653	0.934	1.337	1.913	2.359	3.375	4.830	6.911
60	0.381	0.545	0.672	0.961	1.375	1.968	2.427	3.473	4.969	7.111
62	0.391	0.560	0.690	0.988	1.414	2.023	2.495	3.570	5.109	7.311
64	0.402	0.575	0.709	1.015	1.453	2.079	2.563	3.668	5.249	7.511
66	0.413	0.591	0.728	1.042	1.491	2.134	2.632	3.766	5.389	7.711
68	0.423	0.606	0.747	1.069	1.530	2.189	2.700	3.863	5.528	7.911
70	0.434	0.621	0.766	1.096	1.569	2.245	2.768	3.961	5.668	8.111
72	0.445	0.636	0.785	1.123	1.607	2.300	2.836	4.059	5.808	8.311
74	0.455	0.652	0.804	1.150	1.646	2.355	2.905	4.156	5.948	8.511
76	0.466	0.667	0.823	1.177	1.685	2.411	2.973	4.254	6.087	8.711
78	0.477	0.682	0.842	1.204	1.723	2.466	3.041	4.352	6.227	8.911
80	0.488	0.698	0.860	1.231	1.762	2.521	3.109	4.449	6.367	9.111
82	0.498	0.713	0.879	1.258	1.801	2.577	3.178	4.547	6.507	9.311
84	0.509	0.728	0.898	1.285	1.839	2.632	3.246	4.645	6.646	9.511
86	0.520	0.744	0.917	1.312	1.878	2.687	3.314	4.742	6.786	9.711
88	0.530	0.759	0.936	1.339	1.917	2.743	3.382	4.840	6.926	9.911
90	0.541	0.774	0.955	1.366	1.955	2.798	3.451	4.938	7.066	10.111

Source: Design Rainfall Tables for El Dorado County, prepared by Jim Goodridge, July 29, 1989

El Dorado Design Rainfall

Rainfall Depth in Inches for Return Period = 100 years

Mean Annual Precipitation	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hrs	3 Hrs	6 Hrs	12 Hrs	24 Hrs
20	0.237	0.339	0.418	0.598	0.855	1.224	1.509	2.160	3.091	4.423
22	0.251	0.359	0.443	0.634	0.908	1.299	1.602	2.292	3.280	4.694
24	0.266	0.381	0.470	0.673	0.963	1.377	1.699	2.431	3.478	4.977
26	0.282	0.403	0.497	0.711	1.017	1.456	1.795	2.569	3.676	5.261
28	0.297	0.425	0.524	0.749	1.072	1.534	1.892	2.708	3.874	5.544
30	0.312	0.446	0.550	0.788	1.127	1.613	1.989	2.846	4.073	5.828
32	0.327	0.468	0.577	0.826	1.182	1.691	2.086	2.984	4.271	6.111
34	0.342	0.490	0.604	0.864	1.237	1.770	2.182	3.123	4.469	6.395
36	0.357	0.511	0.631	0.903	1.291	1.848	2.279	3.261	4.667	6.678
38	0.373	0.533	0.657	0.941	1.346	1.927	2.376	3.400	4.865	6.962
40	0.388	0.555	0.684	0.979	1.401	2.005	2.473	3.538	5.063	7.245
42	0.403	0.577	0.711	1.017	1.456	2.083	2.569	3.677	5.261	7.529
44	0.418	0.598	0.738	1.056	1.511	2.162	2.666	3.815	5.459	7.812
46	0.433	0.620	0.765	1.094	1.566	2.240	2.763	3.954	5.657	8.096
48	0.448	0.642	0.791	1.132	1.620	2.319	2.860	4.092	5.856	8.379
50	0.464	0.663	0.818	1.171	1.675	2.397	2.956	4.230	6.054	8.663
52	0.479	0.685	0.845	1.209	1.730	2.476	3.053	4.369	6.252	8.946
54	0.494	0.707	0.872	1.247	1.785	2.554	3.150	4.507	6.450	9.230
56	0.509	0.729	0.898	1.286	1.840	2.633	3.247	4.646	6.648	9.513
58	0.524	0.750	0.925	1.324	1.895	2.711	3.343	4.784	6.846	9.797
60	0.539	0.772	0.952	1.362	1.949	2.790	3.440	4.923	7.044	10.080
62	0.555	0.794	0.979	1.401	2.004	2.868	3.537	5.061	7.242	10.364
64	0.570	0.815	1.006	1.439	2.059	2.946	3.634	5.200	7.440	10.647
66	0.585	0.837	1.032	1.477	2.114	3.025	3.730	5.338	7.639	10.931
68	0.600	0.859	1.059	1.516	2.169	3.103	3.827	5.476	7.837	11.214
70	0.615	0.881	1.086	1.544	2.223	3.182	3.924	5.615	8.035	11.498
72	0.630	0.902	1.113	1.592	2.278	3.260	4.021	5.753	8.233	11.781
74	0.646	0.924	1.139	1.630	2.333	3.339	4.117	5.892	8.431	12.064
76	0.661	0.946	1.166	1.669	2.388	3.417	4.214	6.030	8.629	12.348
78	0.676	0.967	1.193	1.707	2.443	3.496	4.311	6.169	8.827	12.631
80	0.691	0.989	1.220	1.745	2.498	3.574	4.408	6.307	9.025	12.915
82	0.706	1.011	1.246	1.784	2.552	3.652	4.504	6.446	9.223	13.198
84	0.722	1.032	1.273	1.822	2.607	3.731	4.601	6.584	9.421	13.482
86	0.737	1.054	1.300	1.860	2.662	3.809	4.698	6.722	9.620	13.765
88	0.752	1.076	1.327	1.899	2.717	3.888	4.795	6.861	9.818	14.049
90	0.767	1.098	1.354	1.937	2.772	3.966	4.891	6.999	10.016	14.332

Source: Design Rainfall Tables for El Dorado County, prepared by Jim Goodridge, July 29, 1989

APPENDIX B

EXCERPTS FROM SOIL RESOURCES REPORT

Custom Soil Resource Report
Soil Map

Map Scale: 1:7,470 if printed on A landscape (11" x 8.5") sheet.

Meters: 0, 100, 200, 400, 600

Feet: 0, 350, 700, 1400, 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

Map Unit Legend

El Dorado Area, California (CA624)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LaB	Loamy alluvial land	54.5	19.0%
PrD	Placer diggings	1.6	0.6%
ReB	Rescue sandy loam, 2 to 9 percent slopes	16.0	5.6%
ReC	Rescue sandy loam, 9 to 15 percent slopes	0.6	0.2%
RfC	Rescue very stony sandy loam, 3 to 15 percent slopes	18.3	6.4%
RgE2	Rescue extremely stony sandy loam, 3 to 50 percent slopes, eroded	188.6	65.8%
Rk	Rescue clay, clayey variant	5.9	2.1%
W	Water	1.1	0.4%
Totals for Area of Interest		286.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Rating Polygons
  - A
  - A/D
  - B
  - B/D
  - C
  - C/D
  - D
  - Not rated or not available
- Soil Rating Lines
  - A
  - A/D
  - B
  - B/D
  - C
  - C/D
  - D
  - Not rated or not available
- Soil Rating Points
  - A
  - A/D
  - B
  - B/D
  - C
  - C/D
  - D
  - Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Dorado Area, California
Survey Area Data: Version 8, Sep 21, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 15, 2011—Apr 29, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

APPENDIX C

DRAINAGE SHED PARAMETERS

TABLE C-1
RUNOFF SHED PARAMETERS

SIERRA SUNRISE																
Shed	Area		CN	Sheet Flow (sh)[1/]					Shallow Concentrated Flow (sc)[2/]				Sum (T_c)	Lag	Comments
				n	L	P_2	s	Time (T_{SH})	S1	L1	V1	T1			
	(Ac)	(Mi^2)			(ft)	(in)	(ft/ft)	(min)	(ft/ft)	(ft)	(ft/s)	(min)	(min)	(min)	
Onsite Pre-Project															
A	0.9	0.001	79	0.10	100	2.72	0.04	5.8					10	na	SHEET FLOW TO WOODLEIGH LANE; open space @ 50-75% vegetative cover
B	0.9	0.001	72	0.35	150	2.72	0.03	23.7	0.200	600	7.2	1.4	25	na	open space w/ 1/2 @ 50-75% vegetative cover CN=79 & 1/2 @ brush, etc CN=65
C	8.1	0.013	65	0.35	300	2.72	0.15	22.5	0.200	300	7.2	0.7	23	na	
	9.9														
Onsite Post-Project															
A	1.7		77										10	na	7x2,500 sf impervious; balance @ CN=70
B	0.6		81										10	na	.4X98 + .6X70
A+B	2.3		78										10		
C	7.5	0.122	68	0.35	300	2.72	0.20	20.1	0.2	50	7.2	0.1	20	na	7x2,500 + 5,000 sf impervious; 8x2,500 sf l'scape CN=70; balance @ CN=65
	9.8														
Regional Shed															
RSpre	77	0.12	76.4	0.25	300	2.72	0.15	17.2	0.15	750	6.2	2.0	29.7	17.8	approx. 36 ac undev/ large res parcel, use CN=70; balance sf res 1/4-1/3 ac lots, use CN=62
									0.07	600	4.3	2.3			
									0.023	1200	2.4	8.2			
RSpost	77	0.12	76.7										29.7	17.8	project replaces 1 ac w/ imp. @ CN=98; approx. 35 ac @ CN=70; balance sf res 1/4-1/3 ac lots, use CN=62
1/			T_{sh} =	0.007 x (nL)^0.8			Eq 2.4.7								
				[(P_2)^0.5 x (S)^0.4]												
	Where,														
			n =	overland flow roughness											
			L =	length of overland flow surface											
			P_2 =	2-yr, 24 hr rainfall depth (use $P_{2.33}$)											
				(For MAP = 29"/yr, $P_{2.33}$=2.72")											
			S =	land slope (ft/ft)											
			T_{sc} =	L/V											
2/	Where,														
			V1 =	16.1345 S^0.5 (unpaved); = 20.3283 S^0.5 (paved)							Eq 2.4.8	Eq 2.4.9			

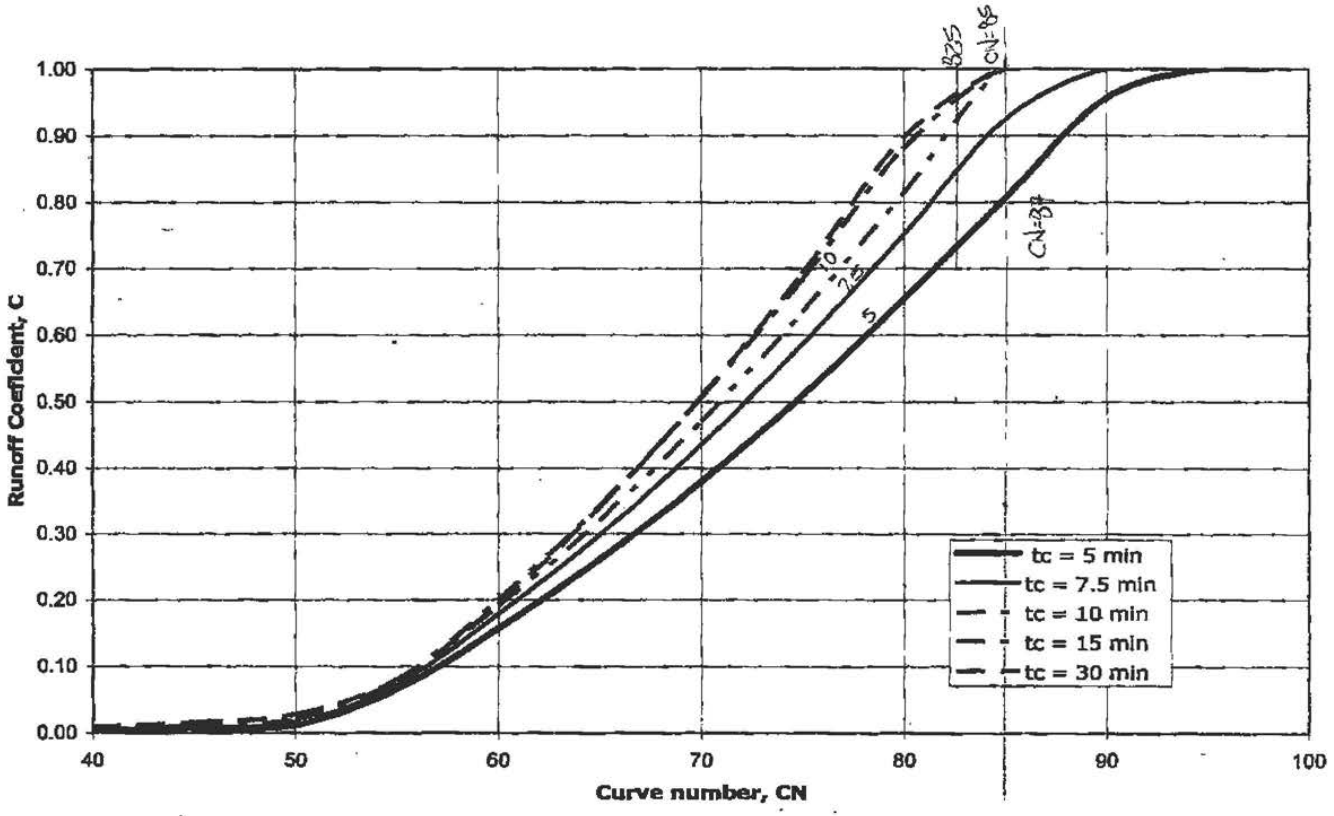


Figure 4. Runoff coefficients for 10-yr event below 1,640 ft (NRCS type 1 storm)

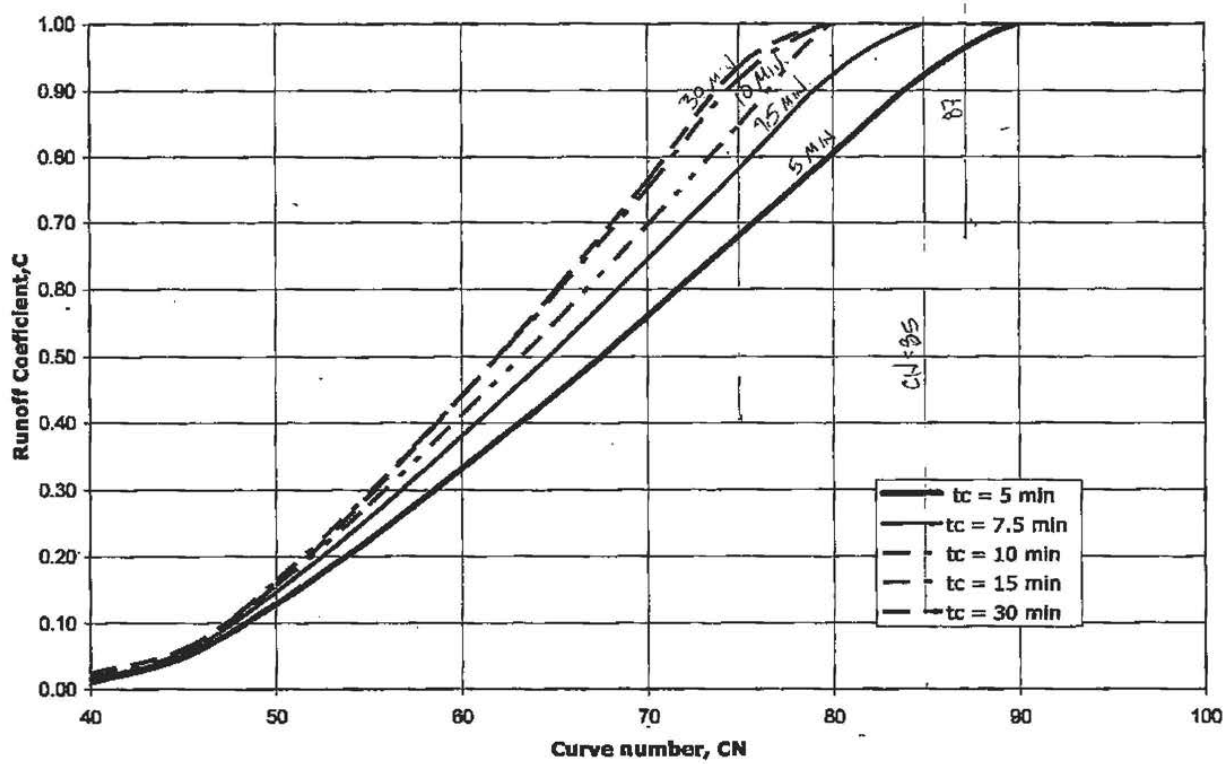


Figure 6. Runoff coefficients for 100-yr event below 1,640 ft (NRCS type 1 storm)

APPENDIX D

PEAK RUNOFF COMPUTATIONS

TABLE D-1
PEAK FLOW COMPUTATIONS

SIERRA SUNRISE												
SHED	PRE-PROJECT						POST-PROJECT					
	A (ac)	CN	Tc (min)	C	i (in/hr)	Q (cfs)	A (ac)	CN	Tc (min)	C	i (in/hr)	Q (cfs)
10-YEAR												
A	0.9	79	10	0.87	1.85	***1.4***	1.7	77	10	0.7	1.85	***2.2***
B	0.9	72	25	0.55	1.22	***0.6***	0.6	81	10	0.88	1.85	***1.0***
A+B	na						2.3	78	10	0.81	1.85	***3.4***
C	8.1	65	23	0.34	1.28	***3.5***	7.5	68	20	0.45	1.37	***4.6***
100-YEAR												
A	0.9	79	10	1	2.61	***2.3***	1.7	77	10	0.92	2.61	***4.1***
B	0.9	72	25	0.84	1.74	***1.3***	0.6	81	10	1	2.61	***1.6***
A+B	na						2.3	78	10	0.98	2.61	***5.9***
C	8.1	65	23	0.58	1.82	***8.6***	7.5	68	20	0.68	1.95	***9.9***

APPENDIX E

RUNOFF HYDROGRAPH COMPUTATIONS

Project: SIERRA SUNRISE Simulation Run: 10 YEAR

Start of Run: 31Dec2017, 00:00
End of Run: 01Jan2018, 01:00
Compute Time: 15May2017, 10:54:45

Basin Model: SIERRA SUNRISE
Meteorologic Model: 10 YEAR
Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
PRE	0.12	56.86	31Dec2017, 10:10	1.77
POST	0.12	57.81	31Dec2017, 10:10	1.79

Project: SIERRA SUNRISE Simulation Run: 100 YEAR

Start of Run: 31Dec2017, 00:00 Basin Model: SIERRA SUNRISE
End of Run: 01Jan2018, 01:00 Meteorologic Model: 100 YEAR
Compute Time: 15May2017, 10:54:45 Control Specifications:Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
PRE	0.12	108.54	31Dec2017, 10:10	3.16
POST	0.12	109.74	31Dec2017, 10:10	3.19

Table—Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — El Dorado Area, California (CA624)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
LaB	Loamy alluvial land		54.5	19.0%
PrD	Placer diggings		1.6	0.6%
ReB	Rescue sandy loam, 2 to 9 percent slopes	C	16.0	5.6%
ReC	Rescue sandy loam, 9 to 15 percent slopes	C	0.6	0.2%
RfC	Rescue very stony sandy loam, 3 to 15 percent slopes	C	18.3	6.4%
RgE2	Rescue extremely stony sandy loam, 3 to 50 percent slopes, eroded	C	188.6	65.8%
Rk	Rescue clay, clayey variant	C/D	5.9	2.1%
W	Water		1.1	0.4%
Totals for Area of Interest			**286.5**	**100.0%**

Rating Options—Hydrologic Soil Group

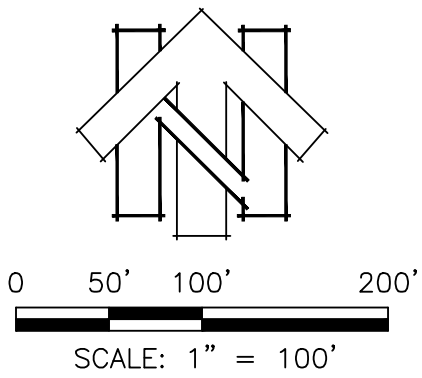
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

SIERRA SUNRISE
POST-DEVELOPMENT SHED MAP
EL DORADO COUNTY, CALIFORNIA

SCALE: 1"=100' MAY, 2018



LEGEND:

PROJECT BOUNDARY

SHED BOUNDARY

A / 3.5 — SHED I.D. & AREA in ACRES

cta Engineering & Surveying
Civil Engineering ■ Land Surveying ■ Land Planning
3233 Monier Circle, Rancho Cordova, CA 95742
T (916) 638-0919 ■ F (916) 638-2479 ■ www.ctaes.net

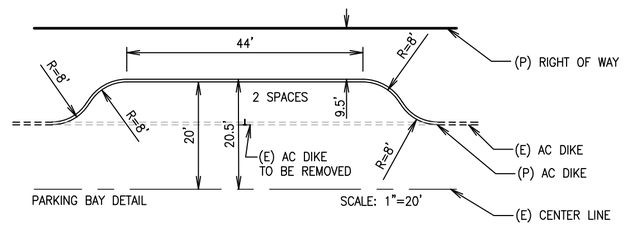
M:\16-047-001\PLANNING\EXHIBITS\DRAINAGE\16-047-001-POST-SHED-MAP.dwg, 5/17/2018 3:40:14 PM, zdosu, 1:1

Exhibit J

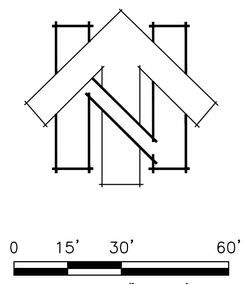
SIERRA SUNRISE
(P) DRIVEWAY EXHIBIT & OPTIONAL ON-STREET PARKING
EL DORADO COUNTY, CALIFORNIA

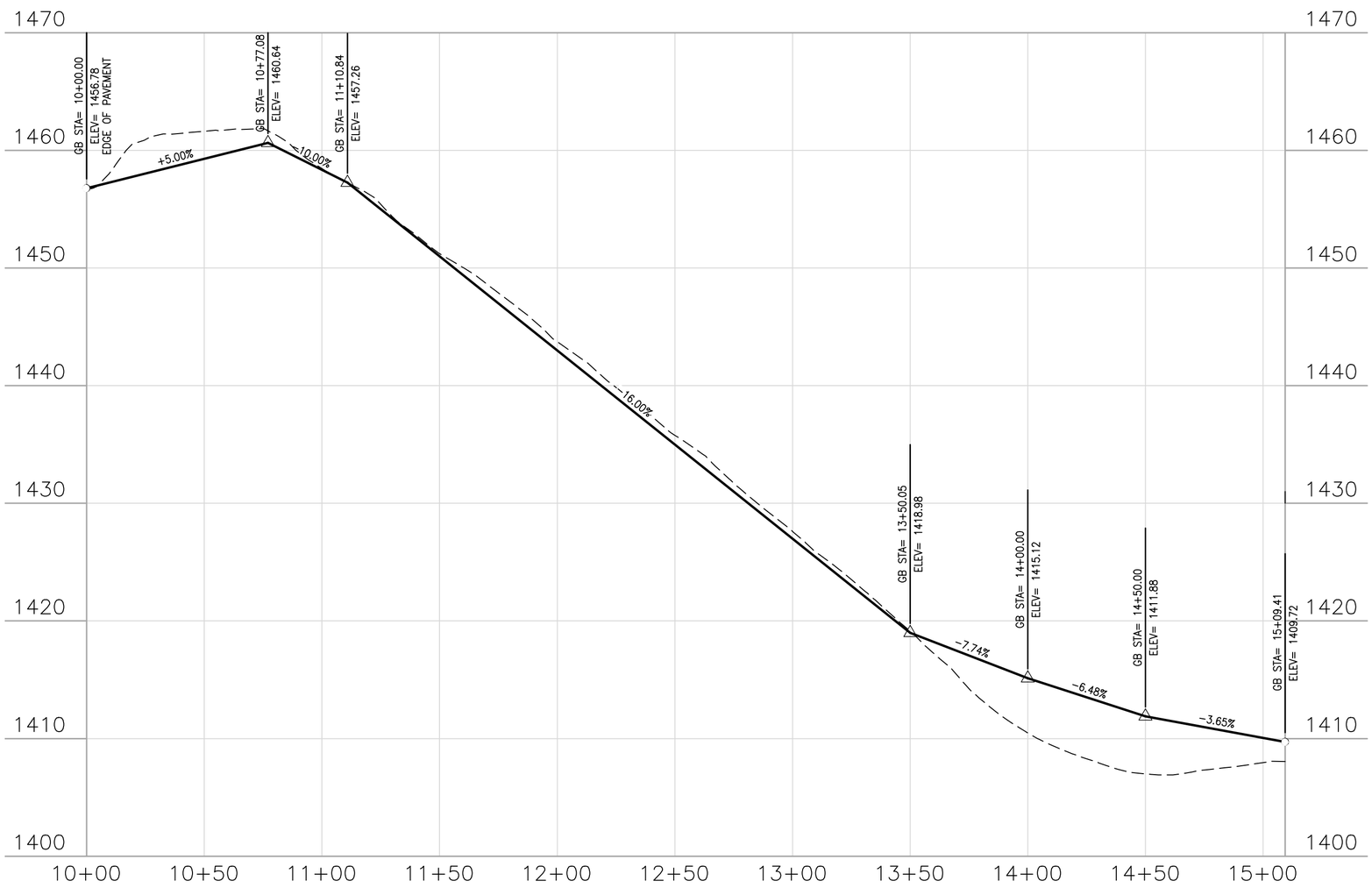
AUGUST, 2017

SCALE: AS NOTED



PLAN VIEW
SCALE: 1" = 20'





(P) DRIVEWAY PROFILE

cta Engineering & Surveying
Civil Engineering ■ Land Surveying ■ Land Planning
3233 Monier Circle, Rancho Cordova, CA 95742
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Exhibit K